May 25, 2006
Report 0387.R1

Ms. Kaki Coleman
Brandywine Realty Trust
2101 Webster Street, Suite 1680
Oakland, CA 94612

SUBJECT: UNDERGROUND STORAGE TANK REMOVAL REPORT
2100-2150 Franklin Street
Oakland, CA

Dear Ms. Coleman:

RGA Environmental, Inc. (RGA) is pleased to present this report documenting the removal of one 1,300-gallon capacity underground storage tank (UST) from the subject site. Based on the type of petroleum hydrocarbons detected in and beneath the UST, the UST formerly contained fuel oil. UST removal activities occurred on May 23, 2006. A Site Location Map (Figure 1), a Site Plan (Figure 2) showing the location of the UST at the site, and a Site Plan Detail showing sample collection locations are attached with this report.

Prior to beginning field activities, a permit was obtained from the Oakland Fire Department, and a health and safety plan was prepared.

All sample collection was performed under the supervision of an appropriately registered professional. This report is prepared in accordance with guidelines set forth in the document "Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites" dated August 10, 1990 and "Appendix A - Workplan for Initial Subsurface Investigation" dated August 20, 1991.

## BACKGROUND

The site is presently being excavated for construction of a high-rise office building. During excavation at the site, the UST was discovered on May 12, 2006 at a depth of approximately 8 feet below the ground surface. Inspection of the UST showed that the UST had been previously filled with concrete, as evidenced by concrete in the UST fill port. The UST fill port had been cut off at the top of the UST. The UST was measured to be approximately four feet four inches in diameter and approximately 12 feet in length.

## FIELD ACTIVITIES

At the time of UST removal, the site had been excavated to a depth of approximately 10 feet below grade. Field activities consisted of excavation to finish uncovering the UST, inerting a void space in the north end of the UST, demolition of the UST to remove concrete from the UST interior, removal of the UST and associated concrete from the UST pit, collection of soil samples from the bottom of the UST pit and the soil stockpile, and hand augering in the bottom of the UST pit to collect one groundwater grab sample. Field activities were performed on May 23,

personnel and Inspector Jesse Kupers of the Oakland Fire Department were at the site to observe UST excavation, inerting of the UST void space, demolition and removal of the UST from the UST pit, and collection of soil and groundwater samples. Details of these activities are provided below.

UST Excavation And Removal

On May 23, 2006 the 1,300-gallon capacity UST was uncovered by IMX, Inc. of Oakland, California. Holes were present at the north end of the UST measuring approximately ¼ - inch in diameter. One hole in the north end of the UST measured approximately 1-inch in diameter. Probing of the 1-inch diameter hole revealed the presence of a void in the north end of the UST. An oxygen and LEL meter showed that the void space atmosphere had no measurable LEL value. As a precautionary measure, a hose was inserted into the 1-inch diameter hole, and the void space atmosphere was inerted using nitrogen gas. Prior to demolition of the UST, the oxygen content of the UST atmosphere was reported to be less than 10 percent, and no detectable LEL value was present in the UST. Inspector Jesse Kupers of the Oakland Fire Department was on site at the time of UST demolition to observe UST inerting and demolition activities and the condition of the UST.

Following excavation to uncover and mechanical demolition, the UST was visually inspected for evidence of holes, cracks, or corrosion. The UST was observed to be constructed of single wall bare steel with riveted seams. The UST exterior was observed to have considerable rust with several holes on the top and north end of the UST measuring approximately ¼-inch in diameter, and numerous holes in the bottom measuring up to several inches in diameter. After removal of the UST, black oil staining of soil and oily water were observed in the UST pit at the location corresponding to the bottom of the UST. The water was present in a one to two-inch thick layer of silty sand fill material that was located directly beneath the UST. Beneath the fill material, a gray-blue clay layer was encountered.

The UST was placed on a sheet of visqueen and covered with visqueen pending transportation by Ecology Control, Inc. (ECI) to their facility in Richmond, California for destruction. ECI is a State-Certified Hazardous Waste Hauler. The ECI Richmond facility is a State-Certified UST Transportation Storage and Disposal Facility. The UST will transported with a Uniform Hazardous Waste Manifest. Copies of the manifest and certificate of UST destruction will be provided under separate cover as an addendum to this report.

Excavated soil and concrete from the UST interior was placed on visqueen and covered with visqueen pending characterization and proper disposal. Copies of manifests documenting disposal of the soil will be provided under separate cover as an addendum to this report.

Sample Collection

On May 23, 2006 after the UST had been removed from the UST pit, the fill material containing water and clay located immediately beneath the UST was removed from the pit to a depth of approximately one foot below the bottom of the UST. Soil samples designated as T1-0.0 and T1-2.0 were then collected from the bottom of the north end of the UST pit at depths corresponding to the first 6-inches of materials encountered, and beginning at a depth of 2.0 feet below the freshly exposed UST pit bottom. Similarly, soil samples designated as T2-0.0 and T2-2.0 were collected from the south end of the UST pit. Although petroleum hydrocarbon odors were noted in the

samples collected at the UST pit bottom (samples T1-0.0 and T2-0.0), no petroleum hydrocarbon odors were noted in the samples collected two feet below the bottom of the UST pit (samples T1-2.0 and T2-2.0). The materials encountered around and beneath the UST consisted of clayey silt and silt. Discolored soil (gray-blue silt and sandy silt) was observed in materials beneath the UST during soil sample collection to the total depth explored of approximately 2.5 feet below the bottom of the UST pit.

The UST was located between the depths of approximately 8 and 12 feet below the ground surface, and the soil sample collection depths corresponded to approximately 13 and 15 feet below the ground surface. Mr. Jesse Kupers of the Oakland Fire Department was onsite at the time of sample collection to observe sample collection locations and procedures. The sample collection locations are shown in Figure 3**.**

Soil excavated from around and beneath the UST was placed on a sheet of visqueen and covered with visqueen at the end of the day. One soil stockpile sample, designated as COMP BB, was collected on May 23, 2006. The soil stockpile sample consisted of four discrete soil samples collected from different locations in the soil stockpile associated with the UST pit. The samples were subsequently composited at the laboratory.

All UST pit soil samples and the soil stockpile samples were collected into 6-inch long, 2-inch diameter stainless steel tubes as follows. For UST pit soil samples T1-0.0 and T2-0.0, stainless steel tubes were driven vertically into the soil using a sledgehammer, and then excavated using a shovel. For UST pit samples T1-2.0 and T2-2.0, holes were excavated using an excavator bucket to a depth of two feet below the former tank pit bottom. Stainless steel tubes were driven vertically into the soil at the bottom of the excavated holes using a sledgehammer, and then excavated using a shovel. For the soil stockpile sample, the tubes were pushed directly into soil at four different locations in the soil stockpile after excavating approximately one foot into the stockpile at each sample collection location.

After a tube had been filled with soil so that no headspace was present, the ends of the tube were sequentially covered with aluminum foil and plastic endcaps. Each tube was subsequently labeled and stored in a cooler with ice pending delivery to McCampbell Analytical, Inc. (McCampbell) in Pacheco, California. McCampbell is a State-Accredited Hazardous Waste Testing Laboratory. Chain of custody procedures were observed for all sample handling.

A stainless steel 3.5-inch outside diameter hand auger was used to auger to a depth of approximately 6 feet below the bottom of the UST pit at location B1, and to a depth approximately equivalent to 4 feet below the bottom of the UST pit at a location outside the UST pit at location B2. Groundwater was encountered in each borehole at a depth equivalent to approximately 4 feet below the bottom of the UST pit. In both boreholes the groundwater level rose in the borehole after groundwater was initially encountered.

In borehole B1, silt and sandy silt were encountered to a depth of approximately 4 feet below the bottom of the UST pit. Beneath the silt and sandy silt a sand layer measuring approximately one foot in thickness and consisting of either fine-grained sand or medium-grained sand was encountered, beneath which brown clayey silt with orange mottling was encountered to the total depth explored of approximately 6 feet below the bottom of the UST pit. Although strong

petroleum hydrocarbon odors were detected in the sand layer and a sheen was observed on the water in borehole B1, no petroleum odors were detected in the brown silty clay located beneath the sand layer.

In borehole B2, brown sandy silt was encountered to a depth of approximately 2 feet below the bottom of the UST pit, below which blue-gray sand was encountered to the total depth explored of approximately 4 feet below the bottom of the UST pit. No petroleum odors were detected in the soil or groundwater in borehole B2.

A groundwater sample was collected from borehole B1 using a clean Teflon bailer and polyethylene rope. The water sample was poured from the Teflon bailer into 1-liter amber glass bottles and 40-milliliter Volatile Organic Analysis (VOA) glass bottles that were capped with Teflon-lined screw-on caps. The VOAs were overturned and tapped to ensure that no air bubbles were present. The sample bottles were labeled and stored in a cooler with ice pending delivery to the laboratory. Chain of custody procedures were observed for all sample handling.

## GEOLOGY AND HYDROGEOLOGY

Based on review of regional geologic maps from U.S. Geological Survey (USGS) Professional Paper 943, "Flatland Deposits - Their Geology and Engineering Properties and Their Importance to Comprehensive Planning," by E.J. Helley and K.R. Lajoie, 1979 the subject site is underlain by Late Pleistocene alluvium (Qpa). The alluvium is described as typically consisting of weakly consolidated slightly weathered poorly sorted irregularly interbedded clay, silt, sand and gravel.

The subject site is located on a relatively flat block in downtown Oakland. According to the USGS topographic map, the topography slopes to the southwest from the site, and then slopes eastward towards Lake Merritt. The closest distance to Lake Merritt from the site is approximately 1100 feet to the east. The subsurface materials encountered in the UST pit walls consisted of gray sandy silt and clay. Beneath the UST, a clay layer was encountered to a depth of approximately one foot. The clay layer was underlain by silt and sandy silt to a depth of approximately 5 feet below the bottom of the UST, beneath which a sand layer measuring approximately one foot in thickness and consisting of either fine-grained sand or medium-grained sand was encountered, beneath which brown clayey silt with orange mottling was encountered to the total depth explored of approximately 7 feet below the bottom of the UST pit.

## LABORATORY ANALYSIS

The soil and groundwater samples collected from beneath the UST and the soil stockpile sample were analyzed for Total Petroleum Hydrocarbons MultiRange (gasoline, diesel and motor oil) using Modified EPA Method 3550C in conjunction with EPA Method 8015C; and for MTBE, benzene, toluene, ethylbenzene, and xylenes (MBTEX) by EPA Method 8021C in conjunction with modified EPA Method 8015C.

The laboratory analytical results of the tank pit bottom samples show that TPH-G was detected at concentrations of 300, 9.7, 10 and 6.9 mg/kg in samples T1-0.0, T2-0.0, T1-2.0 and T2-2.0, respectively. TPH-D was detected at concentrations of 7300, 170, 990 and 780 mg/kg in samples T1-0.0, T2-0.0, T1-2.0 and T2-2.0, respectively. TPH-MO was detected at concentrations of

5700, 150, 880 and 690 mg/kg in samples T1-0.0, T2-0.0, T1-2.0 and T2-2.0, respectively. None of the other analytes were detected. The laboratory report notes that the TPH-G results for samples T1-0.0, T2-0.0, T1-2.0 and T2-2.0 consist of strongly aged gasoline or diesel compounds, and that the TPH-D results are characterized as fuel oil. Laboratory results for the tank pit bottom samples are summarized in Table 1.

The laboratory analytical results of the groundwater grab sample show that none of the target analytes were detected, except for TPH-G, TPH-D and TPH-MO at concentrations of 54, 64,000 and 57,000 µg/L, respectively. The laboratory report notes that the TPH-G result consists of strongly aged gasoline or diesel range compounds. The laboratory report also notes that the TPH-D result consists of both diesel- and oil-range hydrocarbons with no recognizable pattern. Laboratory results for the groundwater sample are summarized in Table 2.

The laboratory analytical results for the soil stockpile sample COMP BB show that none of the target analytes were detected, except for TPH-G, TPH-D and TPH-MO at concentrations of 5.1, 900 and 1100 mg/kg, respectively. The laboratory report notes that the TPH-G result consists of strongly aged gasoline or diesel range compounds. Laboratory results for the soil stockpile sample are summarized in Table 3.

## DISCUSSION AND RECOMMENDATIONS

The results of the soil and groundwater samples collected from beneath the UST show that both soil and groundwater have been impacted by petroleum hydrocarbons. Review of the soil and groundwater sample results in Tables 1 and 2 shows that no MBTEX compounds were detected. Comparison of the sample results with San Francisco Bay Regional Water Quality Control Board (RWQCB) Environmental Screening Level (ESL) values for commercial land use (updated February 2005, Table A – Shallow Soils, Groundwater is a current or potential source of drinking water) shows that petroleum hydrocarbons in both soil and groundwater beneath the UST exceed their respective ESL values. Based on the relatively shallow depth to water beneath the UST pit, RGA anticipates that the extent of impacted soil is limited to the area immediately beneath the former UST.

RGA recommends that a soil and groundwater investigation be performed to investigate the horizontal and vertical extent of petroleum in both soil and groundwater in the vicinity of the UST pit.

## DISTRIBUTION

A copy of this report should be sent to Mr. Jesse Kupers at the Oakland Fire Department. The report should be accompanied by a transmittal letter signed by a representative of the property owner.

## LIMITATIONS

This report was prepared solely for the use of Brandywine Realty Trust. The content and conclusions provided by RGA in this assessment are based on information collected during our investigation, which may include, but not be limited to, visual site inspections; interviews with the

site owner, regulatory agencies and other pertinent individuals; review of available public documents; subsurface exploration and our professional judgment based on said information at the time of preparation of this document. Any subsurface sample results and observations presented herein are considered to be representative of the area of investigation; however, geological conditions may vary between borings and may not necessarily apply to the general site as a whole. If future subsurface or other conditions are revealed which vary from these findings, the newly revealed conditions must be evaluated and may invalidate the findings of this report.

This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information contained herein is brought to the attention of the appropriate regulatory agencies, where required by law. Additionally, it is the sole responsibility of the owner to properly dispose of any hazardous materials or hazardous wastes left onsite, in accordance with existing laws and regulations.

This report has been prepared in accordance with generally accepted practices using standards of care and diligence normally practiced by recognized consulting firms performing services of a similar nature. RGA is not responsible for the accuracy or completeness of information provided by other individuals or entities which is used in this report. This report presents our professional judgment based upon data and findings identified in this report and interpretation of such data based upon our experience and background, and no warranty, either express or implied, is made. The conclusions presented are based upon the current regulatory climate and may require revision if future regulatory changes occur.

Should you have any questions, please do not hesitate to contact us at (510) 658-4363.

Sincerely,

RGA Environmental, Inc.

Kenneth Pilgrim
Project Manager

Paul H. King
Professional Geologist #5901
Expires: 12/31/07

Attachments:
Table 1 Summary of UST Pit Soil Sample Laboratory Analytical Results
Table 2 Summary of Groundwater Sample Laboratory Analytical Results
Table 3 Summary of Soil Stockpile Sample Laboratory Analytical Results
Site Vicinity Map (Figure 1)
Site Plan (Figure 2)
Site Plan Detail (Figure 3)
Laboratory Analytical Reports
Chain of Custody Documentation

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# TABLES

TABLE 1
SUMMARY OF LABORATORY ANALYTICAL RESULTS
UST PIT SOIL SAMPLES
(Samples Collected on May 23, 2006)

| Sample No. | TPH-G | TPH-D | TPH-MO | MTBE | Benzene | Toluene | Ethyl-benzene | Total Xylenes |
|---|---|---|---|---|---|---|---|---|
| T1-0.0 | 300,a | 7300,b | 5700 | ND<5.0 | ND<0.50 | ND<0.50 | ND<0.50 | ND<0.50 |
| T1-2.0 | 10,a | 990,b | 880 | ND<0.05 | ND<0.005 | ND<0.005 | ND<0.005 | ND<0.005 |
| T2-0.0 | 9.7,a | 170,b | 150 | ND<0.05 | ND<0.005 | ND<0.005 | ND<0.005 | ND<0.005 |
| T2-2.0 | 6.9,a | 780,b | 690 | ND<0.05 | ND<0.005 | ND<0.005 | ND<0.005 | ND<0.005 |
| $ESL_1$ | 100 | 100 | 1000 | 0.023 | 0.044 | 2.9 | 3.3 | 2.3 |

Notes:
TPH-G = Total Petroleum Hydrocarbons as Gasoline
TPH-D = Total Petroleum Hydrocarbons as Diesel.
TPH-MO = Total Petroleum Hydrocarbons as Motor Oil
ND = Not detected.
a = Laboratory report note: strongly aged gasoline or diesel range compounds are significant.
b = Laboratory report note: fuel oil.
$ESL_1$ = Environmental Screening Level, developed by San Francisco Bay – Regional Water Quality Control Board (SF-RWQCB) updated February 2005, from Table A – Shallow Soils, Groundwater is a current or potential source of drinking water (commercial land use).
Results are in milligrams per kilogram (mg/kg), unless otherwise noted.

TABLE 2
SUMMARY OF LABORATORY ANALYTICAL RESULTS
GROUNDWATER SAMPLE
(Sample Collected on May 23, 2006)

| Sample No. | TPH-G | TPH-D | TPH-MO | MTBE | Benzene | Toluene | Ethyl-benzene | Total Xylenes |
|---|---|---|---|---|---|---|---|---|
| B1-Water | 54 | 64,000 | 57,000 | ND<0.05 | ND<0.005 | ND<0.005 | ND<0.005 | ND<0.005 |
| $ESL_1$ | 100 | 100 | 100 | 5.0 | 1.0 | 40 | 30 | 20 |

Notes:
TPH-G = Total Petroleum Hydrocarbons as Gasoline
TPH-D = Total Petroleum Hydrocarbons as Diesel.
TPH-MO = Total Petroleum Hydrocarbons as Motor Oil
ND = Not detected.
a = Laboratory report note: results reported as strongly aged gasoline and diesel range compounds.
$ESL_1$ = Environmental Screening Level, developed by San Francisco Bay – Regional Water Quality Control Board (SF-RWQCB) updated February 2005, from Table A – Shallow Soils, Groundwater is a current or potential source of drinking water.
Results are in micrograms per Liter (ug/L), unless otherwise noted.

TABLE 3
SUMMARY OF LABORATORY ANALYTICAL RESULTS
SOIL STOCKPILE
(Sample Collected on May 23, 2006)

| Sample No. | TPH-G | TPH-D | TPH-MO | MTBE | Benzene | Toluene | Ethyl-benzene | Total Xylenes |
|---|---|---|---|---|---|---|---|---|
| COMP BB | 5.1,a | 900 | 1100 | ND<0.05 | ND<0.005 | ND<0.005 | ND<0.005 | ND<0.005 |

Notes:
TPH-G = Total Petroleum Hydrocarbons as Gasoline
TPH-D = Total Petroleum Hydrocarbons as Diesel.
TPH-MO = Total Petroleum Hydrocarbons as Motor Oil
ND = Not detected.
a = Laboratory report note: strongly aged gasoline or diesel range compounds are significant.
Results are in milligrams per kilogram (mg/kg), unless otherwise noted.

# FIGURES

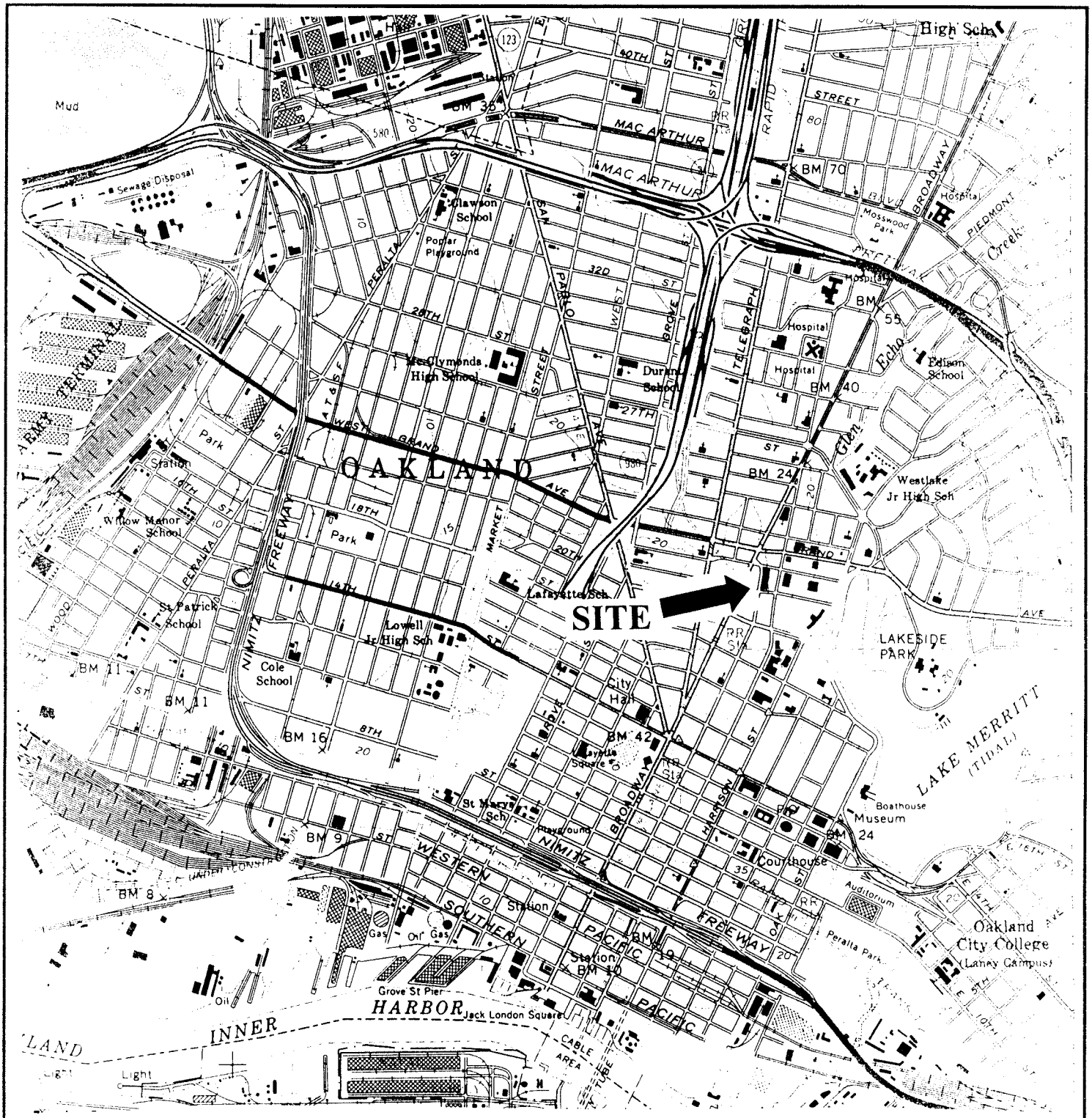


**FIGURE 1**
**Site Vicinity Map**
2100 Franklin Street
Oakland, California

N

Base Map From:
United States Geological Survey
Oakland West, Calif. Quadrangle Map
Photorevised 1980

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

0 1000 2000
Scale In Feet

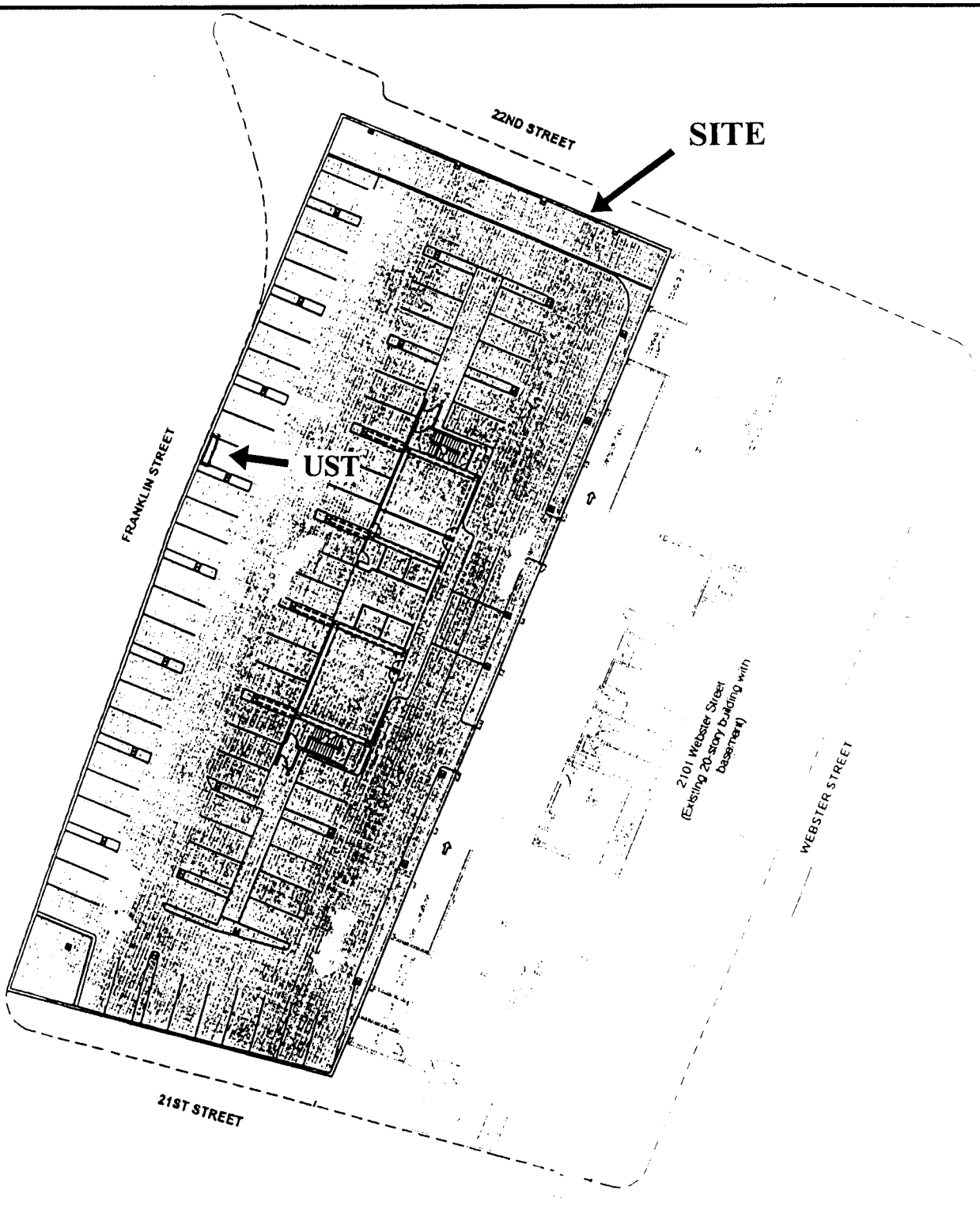


**FIGURE 2**
**Site Plan**
2100 Franklin Street
Oakland, California

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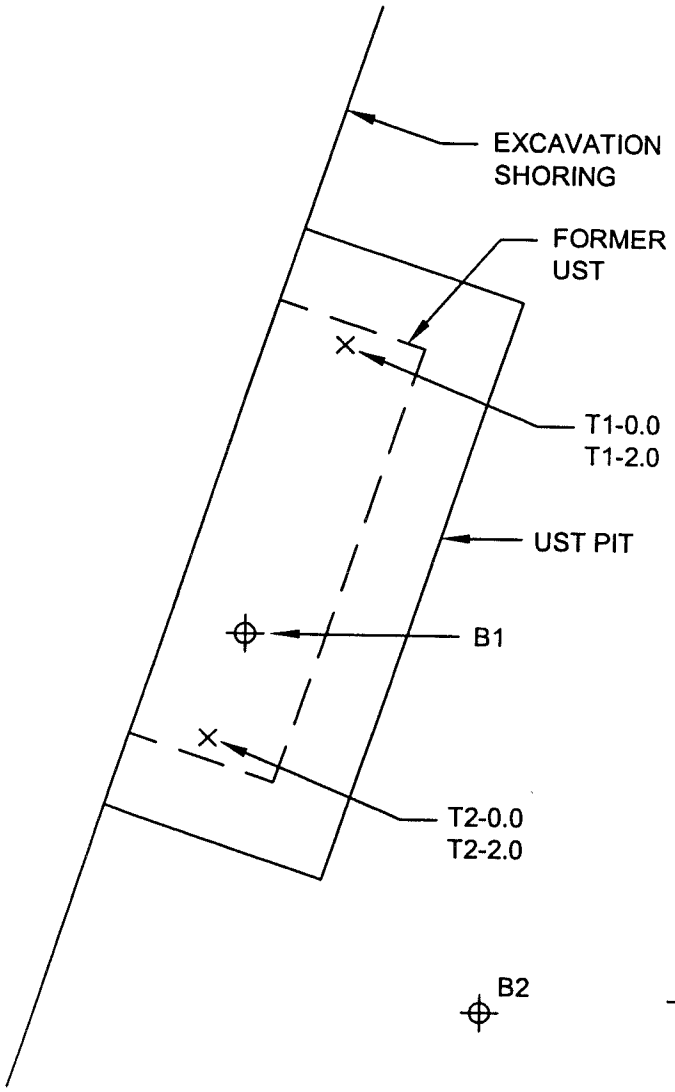
Base Map From:

| Date 08/05/05 | Project No. 4149.01 | Figure 2 |
|---|---|---|

Treadwell&Rollo

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

0 30 feet
Approximate scale




LEGEND

× SOIL SAMPLE COLLECTION LOCATION

⊕ BOREHOLE LOCATION

**FIGURE 3**
**Site Plan Detail**
2100 Franklin Street
Oakland, California

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Base Map From:
RGA Environmental, Inc.
5/23/06

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

0 2.5 5
Scale In Feet

# LABORATORY REPORTS AND CHAIN OF CUSTODY DOCUMENTATION

**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<br>1466 66th Street<br>Emeryville, CA 94608 | Client Project ID: #BRT13945; 2100 Franklin St. | Date Sampled: 05/23/06 |
| | | Date Received: 05/23/06 |
| | Client Contact: Eric Olson | Date Extracted: 05/23/06 |
| | Client P.O.: | Date Analyzed: 05/23/06-05/24/06 |

**Diesel (C10-23) and Oil (C18+) Range Extractable Hydrocarbons as Diesel and Motor Oil***

Extraction method: SW3550C Analytical methods: SW8015C Work Order: 0605496

| Lab ID | Client ID | Matrix | TPH(d) | TPH(mo) | DF | % SS |
|---|---|---|---|---|---|---|
| 0605496-001A | T1-0.0 | S | 7300,m | 5700 | 100 | 105 |
| 0605496-002A | T2-0.0 | S | 170,m | 150 | 2 | 108 |
| 0605496-003A | T1-2.0 | S | 990,m | 880 | 20 | 104 |
| 0605496-004A | T2-2.0 | S | 780,m | 690 | 20 | 105 |

| | | | | | |
|---|---|---|---|---|---|
| Reporting Limit for DF =1; ND means not detected at or above the reporting limit | W | NA | NA | ug/L |
| | S | 1.0 | 5.0 | 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 McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel (asphalt?); 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/jet fuel; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

**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<br>1466 66th Street<br>Emeryville, CA 94608 | Client Project ID: #BRT13945; 2100 Franklin St. | Date Sampled: 05/23/06 |
| | | Date Received: 05/23/06 |
| | Client Contact: Eric Olson | Date Extracted: 05/23/06 |
| | Client P.O.: | Date Analyzed: 05/23/06-05/24/06 |

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0605496

| Lab ID | Client ID | Matrix | TPH(g) | MTBE | Benzene | Toluene | Ethylbenzene | Xylenes | DF | % SS |
|---|---|---|---|---|---|---|---|---|---|---|
| 001A | T1-0.0 | S | 300,g | ND<5.0 | ND<0.50 | ND<0.50 | ND<0.50 | ND<0.50 | 100 | 89 |
| 002A | T2-0.0 | S | 9.7,g | ND | ND | ND | ND | ND | 1 | 81 |
| 003A | T1-2.0 | S | 10,g | ND | ND | ND | ND | ND | 1 | 107 |
| 004A | T2-2.0 | S | 6.9,g | ND | ND | ND | ND | ND | 1 | 98 |
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|---|---|---|---|---|---|---|---|---|---|
| Reporting Limit for DF =1; ND means not detected at or above the reporting limit | W | NA | NA | NA | NA | NA | NA | 1 | ug/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 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) value derived using a client specified carbon range; o) results are reported on a dry weight basis.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

**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: Soil QC Matrix: Soil WorkOrder: 0605496

| EPA Method: SW8015C | Extraction: SW3550C | BatchID: 21858 | Spiked Sample ID: 0605496-004A |
|---|---|---|---|

| 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 | LCS / LCSD |
| TPH(d) | 780 | 20 | NR | NR | NR | 91.2 | 89.9 | 1.42 | 70 - 130 | 70 - 130 |
| %SS: | 105 | 50 | 104 | 109 | 4.11 | 100 | 99 | 0.854 | 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 21858 SUMMARY

| Sample ID | Date Sampled | Date Extracted | Date Analyzed | Sample ID | Date Sampled | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|---|---|
| 0605496-001A | 5/23/06 | 5/23/06 | 5/23/06 11:12 PM | 0605496-002A | 5/23/06 | 5/23/06 | 5/24/06 1:28 AM |
| 0605496-003A | 5/23/06 | 5/23/06 | 5/24/06 3:44 AM | 0605496-004A | 5/23/06 | 5/23/06 | 5/24/06 7:12 AM |

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

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

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

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

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

DHS Certification No. 1644

QA/QC Officer

**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: Soil QC Matrix: Soil WorkOrder: 0605496

| EPA Method: SW8021B/8015Cm | Extraction: SW5030B | BatchID: 21820 | Spiked Sample ID: 0605478-002A |
|---|---|---|---|

| 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 | LCS / LCSD |
| TPH(btex)£ | ND | 0.60 | 97.9 | 103 | 4.94 | 107 | 104 | 2.91 | 70 - 130 | 70 - 130 |
| MTBE | ND | 0.10 | 108 | 102 | 6.03 | 111 | 96.8 | 13.3 | 70 - 130 | 70 - 130 |
| Benzene | ND | 0.10 | 99 | 95.5 | 3.52 | 97 | 88.7 | 8.91 | 70 - 130 | 70 - 130 |
| Toluene | ND | 0.10 | 97.7 | 95.4 | 2.42 | 97 | 89.8 | 7.65 | 70 - 130 | 70 - 130 |
| Ethylbenzene | ND | 0.10 | 96.3 | 96.2 | 0.154 | 98 | 92 | 6.35 | 70 - 130 | 70 - 130 |
| Xylenes | ND | 0.30 | 89.3 | 94 | 5.09 | 95 | 90 | 5.41 | 70 - 130 | 70 - 130 |
| %SS: | 92 | 0.10 | 106 | 103 | 3.63 | 103 | 97.4 | 5.21 | 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 21820 SUMMARY

| Sample ID | Date Sampled | Date Extracted | Date Analyzed | Sample ID | Date Sampled | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|---|---|
| 0605496-001A | 5/23/06 | 5/23/06 | 5/23/06 11:40 PM | 0605496-002A | 5/23/06 | 5/23/06 | 5/24/06 7:53 AM |
| 0605496-003A | 5/23/06 | 5/23/06 | 5/24/06 1:24 PM | 0605496-004A | 5/23/06 | 5/23/06 | 5/24/06 1:57 PM |

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

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

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

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

# cluttered chromatogram; sample peak coelutes with surrogate peak.

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

NR = 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

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

# CHAIN-OF-CUSTODY RECORD



**WorkOrder: 0605496** **ClientID: RGAE** **EDF: NO**

**Report to:**
Eric Olson
RGA Environmental
1466 66th Street
Emeryville, CA 94608
TEL: (510) 547-7771
FAX: (510) 547-1983
ProjectNo: #BRT13945; 2100 Franklin St.
PO:

**Bill to:**
Accounts Payable
RGA Environmental
1466 66th Street
Emeryville, CA 94608

**Requested TAT:** 1 day
***Date Received:*** **05/23/2006**
***Date Printed:*** **05/23/2006**

| Sample ID | ClientSampID | Matrix | Collection Date | Hold | Requested Tests (See legend below) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 0605496-001 | T1-0.0 | Soil | 5/23/06 | ☐ | A | A | | | | | | | | | | |
| 0605496-002 | T2-0.0 | Soil | 5/23/06 | ☐ | A | A | | | | | | | | | | |
| 0605496-003 | T1-2.0 | Soil | 5/23/06 | ☐ | A | A | | | | | | | | | | |
| 0605496-004 | T2-2.0 | Soil | 5/23/06 | ☐ | A | A | | | | | | | | | | |

Test Legend:

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1 | G-MBTEX_S | 2 | TPH(DMO)_S | 3 | | 4 | | 5 | |
| 6 | | 7 | | 8 | | 9 | | 10 | |
| 11 | | 12 | | | | | | | |

**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.

RGA Environmental, Inc.
1466 - 66th St
Emeryville, CA 94608
510-658-4363
510-834-0152 fax
paul.king@rgaenv.com

pgal 060054496

# CHAIN OF CUSTODY RECORD

**RUSH**

PAGE 1 OF 1

PROJECT NUMBER: BRT13945

PROJECT NAME: 2100 Franklin St.

SAMPLED BY: (PRINTED AND SIGNATURE) Eric Olsen

| SAMPLE NUMBER | DATE | TIME | TYPE | SAMPLE LOCATION | NUMBER OF CONTAINERS | ANALYSIS(ES): TPH-Mult. ranges | MBTEX by 8021B | PRESERVATIVE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| T1-0.0 | 5-23-06 | | SOIL | UST Pit | 1 | X | X | ICE | 24 Hour RUSH |
| T2-0.0 | " | | " | " " | 1 | X | X | " | " " " |
| T1-2.0 | " | | " | " " | 1 | X | X | " | " " " |
| T2-2.0 | " | | " | " " | 1 | X | X | " | " " " |

ICE/T ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS ✓
PRESERVED IN LAB

| PRESERVATION | VOAS | O&G | METALS | OTHER |
|---|---|---|---|---|
| | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RECEIVED BY: (SIGNATURE) | TOTAL NO. OF SAMPLES (THIS SHIPMENT) 4 | LABORATORY: McCampbell Analytical |
| | 5-23-06 | 9:13 | | TOTAL NO. OF CONTAINERS (THIS SHIPMENT) 4 | |
| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RECEIVED BY: (SIGNATURE) | LABORATORY CONTACT: Angela Rydelius | LABORATORY PHONE NUMBER: (925) 798-1620 |
| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RECEIVED FOR LABORATORY BY: (SIGNATURE) | SAMPLE ANALYSIS REQUEST SHEET ATTACHED: ( )YES (✓)NO | |
| | | | REMARKS: | | |

**McCampbell Analytical, Inc.**

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Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

| | | |
|---|---|---|
| RGA Environmental<br>1466 66th Street<br>Emeryville, CA 94608 | Client Project ID: #BRT13945; 2100 Franklin | Date Sampled: 05/23/06 |
| | | Date Received: 05/23/06 |
| | Client Contact: Eric Olson | Date Extracted: 05/23/06 |
| | Client P.O.: | Date Analyzed: 05/23/06 |

**Diesel (C10-23) and Oil (C18+) Range Extractable Hydrocarbons as Diesel and Motor Oil***

Extraction method: SW3510C Analytical methods: SW8015C Work Order: 0605499

| Lab ID | Client ID | Matrix | TPH(d) | TPH(mo) | DF | % SS |
|---|---|---|---|---|---|---|
| 0605499-001B | B1-Water | W | 64,000,b,g,h | 57,000 | 10 | 102 |

| | | | | | |
|---|---|---|---|---|---|
| Reporting Limit for DF =1; ND means not detected at or above the reporting limit | W | 50 | 250 | µg/L |
| | S | NA | NA | 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 McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirits; p) see Case Narrative.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

**McCampbell Analytical, Inc.**

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Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

| | | |
|---|---|---|
| RGA Environmental | Client Project ID: #BRT13945; 2100 Franklin | Date Sampled: 05/23/06 |
| 1466 66th Street | | Date Received: 05/23/06 |
| Emeryville, CA 94608 | Client Contact: Eric Olson | Date Extracted: 05/24/06 |
| | Client P.O.: | Date Analyzed: 05/24/06 |

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0605499

| Lab ID | Client ID | Matrix | TPH(g) | MTBE | Benzene | Toluene | Ethylbenzene | Xylenes | DF | % SS |
|---|---|---|---|---|---|---|---|---|---|---|
| 001A | B1-Water | W | 54,g,h | ND | ND | ND | ND | ND | 1 | 108 |
| | | | | | | | | | | |
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|---|---|---|---|---|---|---|---|---|---|
| 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

**McCampbell Analytical, Inc.**

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
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Website: www.mccampbell.com E-mail: main@mccampbell.com

# QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0605499

| EPA Method: SW8015C | Extraction: SW3510C | BatchID: 21846 | 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 | 97.9 | 102 | 3.87 | N/A | 70 - 130 |
| %SS: | N/A | 2500 | N/A | N/A | N/A | 96 | 99 | 3.62 | 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 21846 SUMMARY

| Sample ID | Date Sampled | Date Extracted | Date Analyzed | Sample ID | Date Sampled | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|---|---|
| 0605499-001B | 5/23/06 | 5/23/06 | 5/23/06 8:55 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

SW QA/QC Officer

**McCampbell Analytical, Inc.**

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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: 0605499

**EPA Method: SW8021B/8015Cm** **Extraction: SW5030B** **BatchID: 21856** **Spiked Sample ID: 0605501-001G**

| 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 | 105 | 103 | 2.21 | 102 | 103 | 1.36 | 70 - 130 | 70 - 130 |
| MTBE | ND | 10 | 104 | 104 | 0 | 111 | 106 | 4.67 | 70 - 130 | 70 - 130 |
| Benzene | ND | 10 | 107 | 102 | 5.10 | 111 | 106 | 4.09 | 70 - 130 | 70 - 130 |
| Toluene | ND | 10 | 101 | 95 | 5.99 | 104 | 101 | 3.02 | 70 - 130 | 70 - 130 |
| Ethylbenzene | ND | 10 | 108 | 102 | 5.79 | 110 | 107 | 2.99 | 70 - 130 | 70 - 130 |
| Xylenes | ND | 30 | 100 | 95.3 | 4.78 | 100 | 99.7 | 0.334 | 70 - 130 | 70 - 130 |
| %SS: | 106 | 10 | 103 | 103 | 0 | 107 | 104 | 2.92 | 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 21856 SUMMARY

| Sample ID | Date Sampled | Date Extracted | Date Analyzed | Sample ID | Date Sampled | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|---|---|
| 0605499-001A | 5/23/06 | 5/24/06 | 5/24/06 11:55 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

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

# CHAIN-OF-CUSTODY RECORD



**WorkOrder: 0605499** **ClientID: RGAE** **EDF: NO**

**Report to:**
Eric Olson
RGA Environmental
1466 66th Street
Emeryville, CA 94608

TEL: (510) 547-7771
FAX: (510) 547-1983
ProjectNo: #BRT13945; 2100 Franklin
PO:

**Bill to:**
Accounts Payable
RGA Environmental
1466 66th Street
Emeryville, CA 94608

Requested TAT: 1 day

*Date Received:* 05/23/2006
*Date Printed:* 05/23/2006

| Sample ID | ClientSampID | Matrix | Collection Date | Hold | Requested Tests (See legend below) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 0605499-001 | B1-Water | Water | 5/23/06 | ☐ | A | B | | | | | | | | | | |

Test Legend:

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1 | G-MBTEX_W | 2 | TPH(DMO)_W | 3 | | 4 | | 5 | |
| 6 | | 7 | | 8 | | 9 | | 10 | |
| 11 | | 12 | | | | | | | |

**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.

RGA Environmental, Inc.
1466 - 66th St
Emeryville, CA 94608
510-658-4363
510-834-0152 fax
paul.king@rgaenv.com

Page 0605499

# CHAIN OF CUSTODY RECORD

**RUSH**

PAGE 1 OF 1

| PROJECT NUMBER: | PROJECT NAME: |
|---|---|
| BRT 13945 | 2100 Franklin St. |

SAMPLED BY: (PRINTED AND SIGNATURE)
Eric Olsen

| SAMPLE NUMBER | DATE | TIME | TYPE | SAMPLE LOCATION | NUMBER OF CONTAINERS | ANALYSIS(ES): TPH-Mult. Sat. & MBTEX by 8021B | | | | | | PRESERVATIVE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1220 BI-water | 5-23-06 | | Water | Borehole in UST Pit | 7 | X | X | | | | | ICE | 24 Hour Rush |

ICE/T ✓
GOOD CONDITION ✓ APPROPRIATE ✓
HEAD SPACE ABSENT ___ CONTAINERS ✓
DECHLORINATED IN LAB ___ PRESERVED IN LAB ___
PRESERVATION: VOAS ✓ | O&G | METALS | OTHER

| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RECEIVED BY: (SIGNATURE) |
|---|---|---|---|
| E Olsen | 5-23-06 | 5:43 | MR Vall |
| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | 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: VOAs preserved w/ HCl

**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<br>1466 66th Street<br>Emeryville, CA 94608 | Client Project ID: #BRT13945; 2100 Franklin St. | Date Sampled: 05/23/06 |
| | | Date Received: 05/23/06 |
| | Client Contact: Eric Olson | Date Extracted: 05/23/06 |
| | Client P.O.: | Date Analyzed: 05/24/06 |

**Diesel (C10-23) and Oil (C18+) Range Extractable Hydrocarbons as Diesel and Motor Oil***

Extraction method: SW3550C Analytical methods: SW8015C Work Order: 0605497

| Lab ID | Client ID | Matrix | TPH(d) | TPH(mo) | DF | % SS |
|---|---|---|---|---|---|---|
| 0605497-001A | COMP BB | S | 900,g,b | 1100 | 50 | 92 |

| | | | | | |
|---|---|---|---|---|---|
| Reporting Limit for DF =1; ND means not detected at or above the reporting limit | W | NA | NA | ug/L |
| | S | 1.0 | 5.0 | 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 McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel (asphalt?); 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/jet fuel; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

**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: #BRT13945; 2100 Franklin St. | Date Sampled: 05/23/06 |
| 1466 66th Street | | Date Received: 05/23/06 |
| Emeryville, CA 94608 | Client Contact: Eric Olson | Date Extracted: 05/23/06 |
| | Client P.O.: | Date Analyzed: 05/24/06 |

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0605497

| Lab ID | Client ID | Matrix | TPH(g) | MTBE | Benzene | Toluene | Ethylbenzene | Xylenes | DF | % SS |
|---|---|---|---|---|---|---|---|---|---|---|
| 001A | COMP BB | S | 5.1,g | ND | ND | ND | ND | ND | 1 | 102 |
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| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Reporting Limit for DF =1; ND means not detected at or above the reporting limit | W | NA | NA | NA | NA | NA | NA | 1 | ug/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 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) value derived using a client specified carbon range; o) results are reported on a dry weight basis.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

**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: Soil QC Matrix: Soil WorkOrder: 0605497

| EPA Method: SW8015C | Extraction: SW3550C | BatchID: 21858 | Spiked Sample ID: 0605496-004A |
|---|---|---|---|

| 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 | LCS / LCSD |
| TPH(d) | 780 | 20 | NR | NR | NR | 91.2 | 89.9 | 1.42 | 70 - 130 | 70 - 130 |
| %SS: | 105 | 50 | 104 | 109 | 4.11 | 100 | 99 | 0.854 | 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 21858 SUMMARY

| Sample ID | Date Sampled | Date Extracted | Date Analyzed | Sample ID | Date Sampled | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|---|---|
| 0605497-001A | 5/23/06 | 5/23/06 | 5/24/06 9:32 AM | | | | |

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

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

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

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

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

DHS Certification No. 1644

QA/QC Officer

**McCampbell Analytical, Inc.**

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Website: www.mccampbell.com E-mail: main@mccampbell.com

# QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Soil QC Matrix: Soil WorkOrder: 0605497

**EPA Method: SW8021B/8015Cm** **Extraction: SW5030B** **BatchID: 21820** **Spiked Sample ID: 0605478-002A**

| 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 | LCS / LCSD |
| TPH(btex)£ | ND | 0.60 | 97.9 | 103 | 4.94 | 107 | 104 | 2.91 | 70 - 130 | 70 - 130 |
| MTBE | ND | 0.10 | 108 | 102 | 6.03 | 111 | 96.8 | 13.3 | 70 - 130 | 70 - 130 |
| Benzene | ND | 0.10 | 99 | 95.5 | 3.52 | 97 | 88.7 | 8.91 | 70 - 130 | 70 - 130 |
| Toluene | ND | 0.10 | 97.7 | 95.4 | 2.42 | 97 | 89.8 | 7.65 | 70 - 130 | 70 - 130 |
| Ethylbenzene | ND | 0.10 | 96.3 | 96.2 | 0.154 | 98 | 92 | 6.35 | 70 - 130 | 70 - 130 |
| Xylenes | ND | 0.30 | 89.3 | 94 | 5.09 | 95 | 90 | 5.41 | 70 - 130 | 70 - 130 |
| %SS: | 92 | 0.10 | 106 | 103 | 3.63 | 103 | 97.4 | 5.21 | 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 21820 SUMMARY

| Sample ID | Date Sampled | Date Extracted | Date Analyzed | Sample ID | Date Sampled | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|---|---|
| 0605497-001A | 5/23/06 | 5/23/06 | 5/24/06 12:18 PM | | | | |

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

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

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

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

# cluttered chromatogram; sample peak coelutes with surrogate peak.

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

NR = 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

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

# CHAIN-OF-CUSTODY RECORD



**WorkOrder: 0605497** **ClientID: RGAE** **EDF: NO**

**Report to:**
Eric Olson
RGA Environmental
1466 66th Street
Emeryville, CA 94608
TEL: (510) 547-7771
FAX: (510) 547-1983
ProjectNo: #BRT13945; 2100 Franklin St.
PO:

**Bill to:**
Accounts Payable
RGA Environmental
1466 66th Street
Emeryville, CA 94608

Requested TAT: 2 days
*Date Received:* 05/23/2006
*Date Printed:* 05/23/2006

| Sample ID | ClientSampID | Matrix | Collection Date | Hold | Requested Tests (See legend below) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 0605497-001 | COMP BB | Soil | 5/23/06 | ☐ | A | A | | | | | | | | | | |

**Test Legend:**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1 | G-MBTEX_S | 2 | TPH(DMO)_S | 3 | | 4 | | 5 | |
| 6 | | 7 | | 8 | | 9 | | 10 | |
| 11 | | 12 | | | | | | | |

**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.

RGA Environmental, Inc.
1466 - 66th St
Emeryville, CA 94608
510-658-4363
510-834-0152 fax
paul.king@rgaenv.com

pg&e 0005497

# CHAIN OF CUSTODY RECORD

**RUSH**

PAGE 1 OF 1

| PROJECT NUMBER: | PROJECT NAME: |
|---|---|
| BRT13945 | 2100 Franklin St. |

SAMPLED BY: (PRINTED AND SIGNATURE)
Eric Olson

| SAMPLE NUMBER | DATE | TIME | TYPE | SAMPLE LOCATION | NUMBER OF CONTAINERS | ANALYSIS(ES): TPH-Mult ext MBTEX by 8021 | PRESERVATIVE | REMARKS |
|---|---|---|---|---|---|---|---|---|
| COMP BB | 5-23-06 | | Soil | Soil Stockpile | 4 | X X | ICE | 24 Hour Rush |

ICE/t ✓
GOOD CONDITION ✓ APPROPRIATE CONTAINERS ✓
HEAD SPACE ABSENT
DECHLORINATED IN LAB PRESERVED IN LAB
PRESERVATION — VOAS | O&G | METALS | OTHER

| | | | | | |
|---|---|---|---|---|---|
| RELINQUISHED BY: (SIGNATURE) E Olson | DATE 5-23-06 | TIME 5:45 | RECEIVED BY: (SIGNATURE) | TOTAL NO. OF SAMPLES (THIS SHIPMENT) 1 | LABORATORY: McCampbell Analytical |
| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RECEIVED BY: (SIGNATURE) | TOTAL NO. OF CONTAINERS (THIS SHIPMENT) 4 | LABORATORY CONTACT: Angela Rydelius |
| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RECEIVED FOR LABORATORY BY: (SIGNATURE) | SAMPLE ANALYSIS REQUEST SHEET ATTACHED: ( )YES (X)NO | LABORATORY PHONE NUMBER: (925) 798-1620 |

REMARKS: Please Composite prior to Analysis