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May 8, 2009

Mr. Steven Plunkett  
Alameda County Department of Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502

RECEIVED

12:56 pm, May 12, 2009

Alameda County  
Environmental Health

SUBJECT: SUBSURFACE INVESTIGATION REPORT CERTIFICATION  
Fuel Leak Case RO 337  
California Linen Supply Company  
989 41<sup>st</sup> Street, Oakland, CA 94608

Dear Mr. Plunkett:

You will find enclosed one copy of the following document prepared by RGA Environmental:

- Subsurface Investigation Report (Geophysical Profiles 1-3, Borings B67-B88, Soil Gas Samples SG6-SG22, Post-Excavation Pit Confirmation Samples (6), and Test Pit Samples TP1-TP4) dated May 8, 2009 (document 0304.R16).

I declare, under penalty of perjury, that the information and/or recommendations contained in the above-mentioned report for the subject site is true and correct to the best of my knowledge.

Please direct all future correspondence to:

California Linen Supply Co., Inc.  
c/o Donald J. Miller, President  
2104 Magnolia Way  
Walnut Creek, CA 94595

Should you have any questions, please do not hesitate to call me at (925) 938-2491.

Cordially,  
California Linen Supply Co.

  
Donald J. Miller  
President

cc: LeRoy Griffin, Oakland Fire Department, Office of Emergency Services, 250 Frank Ogawa Plaza, Suite 3341, Oakland, CA 94612

0304.L96

May 8, 2009  
Report 0304.R16  
RGA Job # CLR20915



Mr. Donald Miller  
California Linen Rental Company  
2104 Magnolia Way  
Walnut Creek, CA 94595-1619

SUBJECT: SUBSURFACE INVESTIGATION REPORT  
(GEOPHYSICAL PROFILES 1-3, BORINGS B67- B88, SOIL GAS SAMPLES  
SG6-SG22, POST-EXCAVATION PIT CONFIRMATION SAMPLES (6), AND  
TEST PIT SAMPLES TP1-TP4)  
Fuel Leak Case RO0000337  
California Linen Rental Company  
989 41<sup>st</sup> Street  
Oakland, CA

Dear Mr. Miller:

RGA Environmental, Inc. (RGA) is pleased to present this report documenting additional subsurface investigation to evaluate the extent of petroleum hydrocarbons in soil and groundwater at the subject site. A total of three geophysical transects were surveyed using soil conductivity methods; a total of 19 vertical soil borings (B67 through B85) were drilled for collection of soil or groundwater samples; a total of 3 horizontal soil borings (B86 through B88) were drilled for collection of soil samples; and a total of 17 soil gas samples (SG6 through SG22) were collected; a total of 6 post-excavation confirmation samples were collected from Pits 1 and 2; and a total of 4 soil samples were collected from Test Pits (TP1 through TP4). Field activities were performed from March 23 through 30, 2009 for the geophysical transects, the vertical borings, the soil gas samples, and the post-excavation pit confirmation samples, and on April 1, 2009 for collection of the soil samples from horizontal borings B86 through B88 and from the test pits. These field activities were performed in accordance with the scope of work set forth in RGA's Subsurface Investigation Work Plan dated March 13, 2009 (document 0304.W6) with the exception of the horizontal borings which were drilled to augment the proposed soil gas samples, and Test Pit sample collection which was performed to augment the results of the post-excavation pit confirmation sample results. Several additional soil gas and soil samples from boreholes were collected to augment the work plan work scope based on field conditions encountered during sample collection.

A Site Location Map (Figure 1) and a Site Vicinity Map showing the borehole and soil gas collection locations (Figure 2) are attached with this report. A Site Plan Detail (Figure 3) and a Site Vicinity Map (Figure 4) also show the sample collection locations for the eastern and western portions of the facility, respectively. All work was performed under the direct supervision of a professional geologist.

## BACKGROUND

A detailed discussion of historical land use and investigations at the site is provided in RGA's Subsurface Investigation Work Plan dated March 13, 2009 (document 0304.W6), including summary tables of historic investigation sample results.

## FIELD ACTIVITIES

Prior to drilling, drilling permits were obtained from the Alameda County Public Works Agency, and excavation permits were obtained from the City of Oakland for work in the public right-of-way, respectively. In addition, the drilling locations were marked with white paint, Underground Service Alert (USA) was notified for underground utility location, and a health and safety plan was prepared.

### Geophysical Resistivity Profiles

Prior to drilling for sample collection, a total of three geophysical resistivity profiles, designated as Profile 1 through Profile 3, were surveyed by JR Associates (JRA) of San Jose, California. A copy of the geophysical Investigation report provided by JRA is attached with this report as Appendix A. The locations of the profiles are shown in Figure 2 of Appendix A and in Figure 5 of this report.

### Vertical Soil Borings

On March 26 through March 30, 2009, following review of the JRA geophysical resistivity profile results, RGA personnel oversaw the drilling of vertical boreholes B67 through B85. Vertical boreholes B67, B68, B70, and B85 were hand augered using a 3.5-inch outside diameter stainless steel hand auger. The remaining boreholes were drilled by Vironex, Inc. of Pacheco, California using GeoProbe direct push technology. All of the boreholes were drilled to a depth of 11.0 feet, with the exception of boreholes B69, B70, and B85 which were drilled or hand augered to depths of 10.0, 9.0 and 9.5 feet, respectively, and boreholes B67 and B68 which were hand augered to total depths of 3.0 feet below the bottom of Pit 1. The bottom of Pit 1 was approximately 6 feet below the adjacent floor surface inside the building, and approximately 2 feet below the ground surface outside the building.

The borehole locations are shown on Figure 2. Borings B67, B68, and B70 were located in Pits 1 and 2 in the southwest corner of the building, and B69 was located on the loading dock adjacent to soil gas location SG12. Boreholes B71, B72, and B73 were located on the north side of 40<sup>th</sup> Street to the east of Linden Street. Boreholes B74, B75, B76, B84, B77, and B78 were located sequentially from south to north in the parking lane along the east side of Linden Street to the north of 40<sup>th</sup> Street, and boreholes B79 through B83 were located sequentially south to north in the parking lane on the west side of Linden Street. Borehole B85 was located in the sewer trench on the south side of 40<sup>th</sup> Street at the intersection of 40<sup>th</sup> Street and Linden Street.

Based on review of the geophysical profiles, boreholes were located where coarse-grained materials were observed at a depth of approximately 10 feet in an effort to evaluate any water that may have accumulated in these coarse-grained intervals (B76 and B81), and similarly for

clay-rich zones where water might have accumulated on top of the clay at a depth of approximately 10 feet (B72, B73, B75, B77 and B78). Borehole B84 was drilled to further evaluate the extent of water that was encountered at a depth of approximately 7.5 feet in boreholes B77 and B78. On the day after the boreholes on the east side of Linden Street were drilled, a second set of boreholes was drilled to a depth of 12 feet at locations B74, B75 and B76 because groundwater had not been detected in the boreholes at these locations. After staying open for a second day, water was still not encountered in this second set of boreholes. The geophysical resistivity profiles are shown in Figure 6 with the boreholes drilled during this investigation superimposed on the profiles.

Soil from the boreholes was logged in the field in accordance with standard geologic field techniques and the Unified Soil Classification System, and was evaluated with a photoionization detector (PID) using a 10.6 eV bulb and calibrated using a 100 parts per million (ppm) isobutylene standard. Odors and PID values were recorded on the boring logs. Copies of the boring logs are attached with this report as Appendix B. Soil samples were retained from the boreholes at depths summarized in Table 2.

Petroleum hydrocarbon odors were detected in four of the boreholes. In boreholes B76, B77, and B78, strong odors were detected between the depths of 8.5 and 10.0 feet, 7.5 and 11.0 feet, and 7.5 and 10.0 feet, respectively (each of boreholes was drilled to 11.0 ft.). In all three boreholes, strong odors were accompanied by blue-green soil discoloration, which was confined to the same intervals as the odors. The maximum PID organic vapor concentrations detected in these soil intervals were 14, 521, and 42 ppm in B76, B77, and B78, respectively. In borehole B84, strong odors were detected between the depths of 6.0 and 11.0 feet, also corresponding to blue-green soil discoloration confined to this interval. PID readings did not exceed 2 ppm in this depth range.

No odors were detected in any of the boreholes other than the four discussed above, nor were any organic vapors detected by the PID. In two boreholes, B71 and B85, soil discoloration was encountered without accompanying odor or elevated PID reading. This soil discoloration was observed at depths of 8.5 feet and between the depths of 10.0 and 11.0 feet in B71, and between the depths of 8.5 and 9.0 feet in B85.

Soil samples were collected from the boreholes drilled using GeoProbe technology by continuously coring the boreholes using a 5-foot long 2.0-inch outside diameter macrocore barrel sampler lined with transparent PVC tubes. Following removal of the liner from the sampler, the liner was evaluated for the amount of sample recovery in the liner, and a 6-inch long section of the liner was then cut at the depth corresponding to the desired sample collection depth. One soil sample was also collected from a hand augered borehole (B85), using a stainless steel sampler lined with a 2-inch diameter, 6-inch long stainless steel tube driven by a slide hammer. Following collection of the 6-inch sample in either the liner section (Geoprobe sampling) or stainless steel tube (hand auger sampling), the ends of the sample were evaluated with the PID, and then sequentially covered with aluminum foil and plastic endcaps. The sample was then labeled and placed into a cooler with ice pending delivery to the laboratory. Chain of custody procedures were observed for all sample handling.

Groundwater was encountered during drilling or augering in 8 of the 19 vertical boreholes. One groundwater sample was collected from each of these boreholes, with the exception of borehole B69 which was drilled at a location where additional groundwater quality characterization is not required. Water was collected from onsite hand augered boreholes B67, B68, and B70 using new polypropylene disposable bailers, and from off site Geoprobe boreholes B71, B73, B77, and B78 through temporary 1-in. diameter slotted PVC casing placed in the boreholes. In boreholes B77 and B78, in which strong hydrocarbon odors and elevated PID readings were detected in the soil, a strong odor and sheen were observed in the water samples collected from these boreholes as well. No sheen or odor were observed in any of the other five water samples collected.

The water samples collected from the borings were transferred to 40-milliliter glass VOA vials and 1-liter amber glass bottles, as appropriate, which were sealed with Teflon-lined screw caps. The VOA vials were overturned and tapped to ensure that no air bubbles were present.

The VOA vials and bottles were labeled and then transferred to a cooler with ice, until they were transported to McCampbell Analytical, Inc. in Pittsburg, California. McCampbell Analytical, Inc. is a State-Certified hazardous waste testing laboratory. Chain of custody documentation accompanied the samples to the laboratory.

All drilling and sampling equipment was either previously unused clean material, or was cleaned with an Alconox solution followed by a clean water rinse prior to use in each borehole. Soil and water generated during drilling was stored in drums at the site pending characterization and disposal.

On March 25, 2009 the depth to groundwater was measured in the wells at the site to the nearest 0.01 foot using an electric water level indicator. The measurements are summarized in Table 4.

#### Post-Excavation Pit Confirmation Samples

As discussed in RGA's Subsurface Investigation Work Plan dated March 13, 2009 (document 0304.W6), the ground surface elevation outside the building on the west side of the building is approximately 4 feet lower than the adjacent floor surface inside the building (see Figure 7). All of the soil on the south side of Pits 1 and 2 and on the west side of Pit 1 was removed from the pit perimeters inside the building so that the building wall interior and perimeter footing were exposed. Additionally, soil at the east end of Pit 2 was also removed to the eastern edge of the room where Pits 1 and 2 are located (the room adjacent to Linden Street). Both of Pits 1 and 2 were deepened during the removal of residual soil from the pit perimeters. Excavated soil was stockpiled at the site pending characterization and disposal.

On March 27, 2009 RGA personnel collected post-excavation confirmation soil samples from the perimeter of Pits 1 and 2. A total of three samples were collected from each pit. Sample Pit 1f was collected from the bottom of Pit 1 on the west side of the pit adjacent to the exposed perimeter footing at a depth of 6 feet below the top of the building floor slab, and samples Pit 1g and Pit 1h were collected from the north wall of the pit in and below the brown gravelly fill material at depths of 2 and 4 feet below the top of the floor slab, respectively. Similarly, sample Pit 2e was collected from the bottom of Pit 2 on the east side of the pit adjacent to the eastern pit wall at a depth of 3.5 feet below the top of the building floor slab, and samples Pit 2f and Pit 2g

were collected from the north wall of the pit in the brown gravelly fill material at a depth of 1 foot below the top of the floor slab, and from beneath the brown gravelly fill material at a depth of 3 feet below the top of the floor slab. The sample collection locations are shown in Figure 8.

The samples were collected by scraping away approximately 1 to 2 inches of material at each sampling location and pushing a 2-inch diameter 6-inch long stainless steel tube directly into the soil. The ends of the sample were then sequentially covered with aluminum foil and plastic endcaps. The sample was then labeled and placed into a cooler with ice pending delivery to the laboratory. Chain of custody procedures were observed for all sample handling.

### Test Pit Soil Samples

As discussed in RGA's Subsurface Investigation Work Plan dated March 13, 2009 (document 0304.W6) the construction style and materials of the room adjacent to Linden Street is distinctly different from other portions of the building located to the east. The room adjacent to Linden Street appears to have been constructed by excavating the trench for the perimeter footing and placing the excavated soil near the east side of the room. The remaining volume necessary to fill the room so that the floor elevation would be the same as the adjacent room to the east appears to have been filled with brown gravelly fill material. The fill material appears to range in thickness from approximately 3 feet at the southern and western sides of the room adjacent to the perimeter wall to less than 1 foot on the east side of the room.

A total of seven Test Pits designated as TP1 through TP7 were excavated to visually evaluate the presence and thickness of the brown gravelly fill in the vicinity of Pits 1 and 2. The locations of the Test Pits are shown in Figure 9. Additional evaluation to the west of Test Pits 1 and 2 was not possible because of the presence of a large pile of demolition debris. Brown gravelly fill encountered in Test Pits 1 through 3 was not visually observed in Test Pits 4 through 7.

To further characterize the nature of the fill materials beneath the concrete floor slab, on April 1, 2009 one soil sample was collected from the test pit sidewall at a depth of 1 foot and one soil sample was collected from the bottom of the test pit at a depth of approximately 2 feet in each of Test Pits 1 through 4. The samples were collected by using a hand auger to remove approximately 1 to 3 inches of material from the sampling location, and then using a stainless steel sampler lined with a 2-inch diameter, 6-inch long stainless steel tube driven by a slide hammer to collect the sample. Following collection of the 6-inch sample in stainless steel sampler, the stainless steel tube was removed from the sampler, and the ends of the sample were then sequentially covered with aluminum foil and plastic endcaps. The sample was then labeled and placed into a cooler with ice pending delivery to the laboratory. Chain of custody procedures were observed for all sample handling. The hand auger and sampling equipment were decontaminated with an Alconox solution followed by a clean water rinse prior to use for each sample.

### Soil Gas Sample Collection

On March 24 through March 26, 2009 a total of 17 soil gas samples designated as SG6 through SG22 were collected at locations as shown on Figure 2. In addition, a total of 3 duplicate samples were collected, and one trip blank was kept with the sample containers. Proposed soil gas samples

SG4, SG5 and SG6 were not collected in the bottom of Pit 4 as originally proposed because water was present in the bottom of the pit at a depth of approximately 5.5 feet below the top of the adjacent concrete floor slab. Soil gas sample SG6 was collected to the north of Pit 4 as shown on Figure 2 at a distance of approximately 5 feet horizontally from the north wall of Pit 4. Although efforts were made to collect a soil gas sample using a slant boring at location SG4, the pit wall spalled off into the pit, and horizontal borings B86 through B88 were hand augered into the pit sidewall for soil sample collection as discussed below in the Horizontal Boring section of the report. All of the samples were collected in accordance with general procedures set forth in the Department of Toxic Substances Control (DTSC) January 13, 2003 Advisory - Active Soil Gas Investigations.

All of the soil gas samples were collected using temporary soil gas sampling wells. The temporary wells were constructed by driving a hollow 1-inch diameter Geoprobe rod with an expendable tip to a depth of 4, 5 or 7 feet, dislodging the expendable tip, and then inserting a 0.250-inch outside diameter (0.187-inch inside diameter) Teflon tube to the bottom of the hollow rod. At locations SG19 and SG22, the Geoprobe rod was driven to a depth of 4 feet because these locations were in Pit 2, and the bottom of Pit 2 was located approximately 3 feet below the top of the adjacent concrete floor slab. At locations SG6 through SG12 and location SG21 the Geoprobe rod was driven to a depth of 5 feet because all but SG6 were located in or adjacent to the courtyard located outside the building adjacent to the intersection of Linden Street and 41<sup>st</sup> Street, and SG6 was located adjacent to Pit 4 where the measured depth to water in the pit was approximately 5.5 feet. At locations SG13 through SG18 and location SG20 the Geoprobe rod was driven to a depth of 7 feet because all of these locations were inside the building where the top of the concrete floor slab was approximately 4 feet higher than the ground surface outside the building. Boreholes B67 and B68 which were hand augered in Pit 1 encountered groundwater at a depth of approximately 8 feet below the top of the adjacent concrete floor slab. Because the final construction grade elevation for future development of the site is unknown, the soil gas sample collection depths were placed approximately 1 to 5 feet below the property perimeter grade elevation.

A 7-foot length of Teflon tubing was used for locations where the Geoprobe rod had been driven to a depth of 4 or 5 feet, and a 9-foot length of Teflon tubing was used for locations where the Geoprobe rod had been driven to a depth of 7 feet. Prior to inserting the Teflon tubing the lowermost 6 inches of the Teflon tube was perforated at several locations by notching the sides of the tube with a clean razor blade. A #2/16 Lonestar sack sand was added to the annular space between the hollow rod and the Teflon tube as the hollow rod was withdrawn from the ground until the lowermost 8 inches of the hole was filled with sand. Granular bentonite (with grains the size of kitty litter) was placed in the annular space above the sand to the ground surface. The bentonite was hydrated and the 6-liter Suma purge canister and 1-liter Suma sample canister were then connected to the Teflon tubing using the configuration shown in Figure 10. At the time that the sampling manifold was assembled, the vacuum for the sample canister was checked with a vacuum gauge and recorded. The temporary well was then undisturbed for a minimum of 30 minutes prior to purging for sample collection to allow soil gas equilibration.

Following the equilibration period and prior to purging the soil gas from the temporary soil gas sampling well, a 10 minute leak check of the sampling manifold was performed by closing the valve located between the filter and the pressure gauge, opening the purge canister valve, and

recording the manifold system vacuum (see Figure 10). Following successful verification of the manifold leak check, the purge volume was calculated. No purge testing for purge volume determination was done because no mobile laboratory was at the site. A default of three purge volumes was extracted prior to sample collection. The purge time was calculated using a nominal flow rate provided by the flow controller of 200 milliliters per minute. Purge volume calculations are provided in Appendix C of this report.

Following completion of purging three purge volumes, the valve to the purge canister was closed, a tracer gas (2-Propanol) was placed in a dish adjacent to the purge canister, and a clear Rubbermaid bin was placed over the top of the temporary well, the sampling manifold, and the 1-liter sample canister. The vapor concentration of the 2-Propanol was monitored with a PID until 2-Propanol vapor concentrations appeared to have equilibrated. The Rubbermaid bin was then temporarily and partially lifted long enough to open the sample canister valve and the bin was then be replaced over the sampling equipment and the 2-Propanol vapor concentrations were then monitored again with the PID. Once the vacuum for the sample canister valve decreased to 5 inches of mercury, the Rubbermaid lid was removed and the sample canister valve closed.

A total of three duplicate soil gas samples were collected into one-liter Summa canisters using procedures described above immediately after the collection of the corresponding original sample. The void space and tubing was not purged of three purge volumes prior to collection of the duplicate samples. Following soil gas sample collection, a PID was connected to the Teflon tubing to obtain a preliminary field value for the sample collection location. The soil gas samples were then stored in a box and promptly shipped to the laboratory for extraction and analysis. Soil gas sampling was not performed during or following a precipitation event. Measurements of vacuums, purging and equilibration time intervals, and PID readings were recorded on Soil Gas Sampling Data Sheets that are provided in Appendix C of this report.

All drilling rods and associated drilling fittings were cleaned with an Alconox solution wash followed by a clean water rinse. New Teflon tubing was used at each sample collection location. Clean, unused vacuum gages and stainless steel sampling manifolds were used at each sample collection location. Following soil gas sample collection the Teflon tubing was pulled from each temporary soil gas sampling well and a 1-inch diameter solid steel rod was driven through the bentonite and sand to the total depth of the temporary soil gas sampling well. The solid steel rod was then removed, and the borehole was filled with neat cement.

#### Horizontal Boreholes

As discussed above, based on the presence of water in the bottom of Pit 4 it was not possible to collect soil gas samples from the bottom of the pit. Additionally, efforts to collect soil gas samples from a slant boring from the south wall of the pit were unsuccessful. To evaluate the horizontal extent of petroleum hydrocarbons along the south side of Pit 4 in the vicinity of proposed soil gas sample collection locations SG4 and SG5, on April 1, 2009 three soil borings were hand augered horizontally into the pit wall using a 3.5-inch diameter stainless steel hand auger at a depth of approximately 3.5 feet below the top of the concrete floor slab.



Each borehole was hand augered horizontally approximately 3 feet into the pit sidewall. The pit sidewall was located approximately two feet from the south wall of the building. The end of each borehole was located approximately under the perimeter footing for the building. The subsurface materials encountered in the boreholes consisted of black silty clay. Strong petroleum hydrocarbon odors were encountered in each of the boreholes, with odor decreasing in the borehole as the borehole progressed away from the pit sidewall. A slight petroleum hydrocarbon odor was encountered in each of the boreholes at a horizontal distance of approximately 3 feet from the pit sidewall. No PID readings were recorded for any of the soil from any of the boreholes. No staining or discoloration was encountered in any of the soil from any of the boreholes. Soil encountered in each of the boreholes was recorded in accordance with procedures described above for the vertical boreholes. Copies of the boring logs are attached with this report in Appendix B.

One soil sample was collected from each of the three horizontal boreholes using a stainless steel sampler lined with a stainless steel tube driven by a slide hammer using procedures described above for the collection of the Test Pit samples. The soil samples from boreholes B86, B87 and B88 were incorrectly labeled as samples B81, B82 and B83.

#### GEOLOGY AND HYDROGEOLOGY

Based on review of regional geologic maps from U. S. Geological Survey 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 at the interface of underlying materials consisting of Late Pleistocene alluvium (Qpa) and Medium-Grained Alluvium (Qham). Late Pleistocene alluvium is described as weakly consolidated, slightly weathered, poorly sorted, irregularly interbedded clay, silt, sand, and gravel. Medium-Grained Alluvium is described as unconsolidated, moderately sorted, permeable fine sand, silt, and clayey silt with a few thin beds of coarse sand.

The surface cover materials encountered in boreholes B67 through B85 in most cases consisted of concrete or asphalt underlain by base rock to depths of 0.5 to 1.5 feet. At locations B67, B68 and B70 (hand augered inside the building in Pits 1 and 2) and B71 through B73 (drilled in the landscaping on the north side of 40<sup>th</sup> Street to the east of Linden Street), no surface cover was present. The subsurface materials encountered in the boreholes drilled for this investigation were consistent with previously encountered materials, and consisted predominantly of silt, clay, silty clay, and clayey silt. Coarse-grained or water-bearing materials were encountered in the boreholes as described below:

- Borehole B67: gravelly sand was encountered between the depths of 0.6 and 3.0 feet below the ground surface (bgs) resulting in accumulation of groundwater in the borehole (B67 was hand augered in Pit 1, with the bottom of Pit 1 located approximately 6 feet below the top of the adjacent building concrete floor slab),
- Borehole B68: sandy gravel was encountered between the depths of 1.0 and 3.0 feet bgs resulting in accumulation of groundwater in the borehole (B68 was hand augered in Pit 1, with the bottom of Pit 1 located approximately 6 feet below the top of the adjacent building concrete floor slab),

- Borehole B69: gravelly clayey sand was encountered between the depths of 7.5 and 10.0 feet bgs resulting in accumulation of groundwater in the borehole,
- Borehole B70: gravelly silty clay was encountered between the depths of 8.0 and 9.0 feet bgs resulting in accumulation of groundwater in the borehole,
- Borehole B71: sandy gravel was encountered between the depths of 7.0 and 8.5 feet, and clayey gravel was encountered between the depths of 10.0 and 11.0 feet bgs resulting in accumulation of groundwater in the borehole,
- Borehole B73: gravelly clay was encountered between the depths of 10.0 and 10.5 feet bgs resulting in accumulation of groundwater in the borehole,
- Borehole B74: gravelly clayey sand was encountered between the depths of 3.0 and 5.0 feet, and clayey gravel was encountered between the depths of 7.0 and 8.0 feet bgs and groundwater was not encountered in the borehole,
- Borehole B75: gravelly clay was encountered between the depths of 4.0 and 5.0 feet bgs and groundwater was not encountered in the borehole,
- Boreholes B76, B77, and B78: gravelly clayey sand was encountered in each of the boreholes between the depths of 3.0 and 10.0 feet bgs resulting in accumulation of groundwater in boreholes B77 and B78, however no groundwater was encountered in borehole B76,
- Borehole B84: silty gravel was encountered between the depths of 4.0 and 6.0 feet, silty sand was encountered between the depths of 6.0 and 8.5 feet, and clayey sandy gravel was encountered between the depths of 8.5 and 11.0 ft. bgs, however groundwater did not accumulate in the borehole.

Coarse-grained or water-bearing materials were not encountered in boreholes B72, B74, B79 through B83, or B85 through B88. A more detailed discussion of the site geology is provided in RGA's Subsurface Investigation and Well Installation Report (Borings B18 Through B27, B29 Through B48, And Wells E1, E2, E3, E6, E7, I1 and I2) dated April 24, 2007 (document 0304.R5) and RGA's Well Installation Report (E4, E8 and E9) dated May 14, 2007 (document 0304.R9).

Groundwater was encountered during drilling or augering in 8 of the 19 vertical boreholes. Groundwater did not enter boreholes B72, B74 through B76, and B79 through B85. Groundwater was encountered during hand augering of boreholes B67, B68 and B70 at depths of 2.2, 2.2, and 8.0 feet, respectively, and was subsequently measured after groundwater sampling at depths of 2.2, 2.2 and 8.8 feet, respectively. Boreholes B67 and B68 were hand augered in the bottom of Pit 1, where the bottom of the pit was approximately 6 feet lower than the top of the adjacent building floor concrete slab, and borehole B70 was hand augered in the bottom of Pit 2, where the bottom of the pit was approximately 3 feet lower than the top of the adjacent building floor concrete slab. Groundwater was encountered while drilling the GeoProbe borings B69, B71, B73, B77 and B78 at depths of 9.5, 8.0, 10.0, 7.5 and 7.5 feet, respectively, and was subsequently measured only in boreholes B71, B73, B77 and B78 at depths of 7.7, 3.5, 4.4 and 4.5 feet, respectively. On the day after the boreholes on the east side of Linden Street were drilled (B74 through B78), a second set of boreholes was drilled to a depth of 11 feet at locations B74, B75 and B76 because groundwater had not been detected in the boreholes at these locations. After staying open for a second day, water was still not encountered in this second set of boreholes.

The surface elevation at the site is between 40 and 60 feet above Mean Sea Level. Review of Figure 1 shows that the topography in the site vicinity gently slopes to the west, and that San Francisco Bay is located approximately one mile west of the site. Based on the surface topography, the regional groundwater flow direction is assumed to be westerly to southwesterly.

Review of an August 11, 2004 Quarterly Groundwater Monitoring Report prepared by Aqua Science Engineers, Inc. for the Kozel property located at 1001 42<sup>nd</sup> Street in Oakland (located across Linden Street and immediately to the northwest of the subject site) shows that the June 2004 groundwater flow direction was calculated to be to the southwest, based on water level information from 10 groundwater monitoring wells located at and near the Kozel property.

## LABORATORY RESULTS

All of the soil and groundwater samples were analyzed at McCampbell Analytical, Inc. The vertical borehole soil samples, groundwater samples, and horizontal borehole soil samples collected from excavation Pit 4 were analyzed for total petroleum hydrocarbons as gasoline (TPH-G), Methyl-tert butyl ether (MTBE; only for soil collected from boreholes B86 through B88 in the south wall of Pit 4) and for benzene, toluene, ethylbenzene, and total xylenes (MBTEX) using EPA Method 5030B in conjunction with EPA methods 8021B and modified EPA Method 8015B. The soil samples collected from excavation Pits 1 and 2, and the soil samples collected from Test Pits TP1 through TP4, were analyzed for total arsenic (As) and total lead (Pb) by EPA Method 3050B in conjunction with EPA Method 6020A. The soil gas samples were analyzed at Air Toxics, Limited of Folsom, California. All of the soil gas samples were analyzed for TPH-G using EPA Method TO- 3 and for BTEX, Naphthalene, and the compound used as a leak detector (2-Propanol) by EPA Method TO-15.

The soil sample results are summarized in Table 1 (Table 1A for vertical borehole samples, Table 1B for horizontal borehole samples, Table 1C for post-excavation confirmation samples from Pits 1 and 2, and Table 1D for Test Pit samples), the borehole groundwater sample results are summarized in Table 2, and the soil gas sample results are summarized in Table 3. Copies of the laboratory analytical reports and chain of custody documentation are attached with this report as Appendix D.

## DISCUSSION AND RECOMMENDATIONS

### Geophysical Survey and Vertical Borehole Results

The resistivity profiles identified the presence of clay materials and coarse-grained materials, and boreholes B71 through B84 were drilled to evaluate the presence of shallow groundwater in the vicinity of both the clay and coarse-grained zones (see Figure 6). Groundwater was encountered in boreholes B71 and B73 on the north side of 41<sup>st</sup> Street, and in boreholes B77 and B78 where shallow groundwater had previously been encountered at boreholes B5 and B6. Groundwater was not encountered in any of the other boreholes that were drilled along the geophysical transects on 41<sup>st</sup> Street and Linden Street. Soil samples were collected at depths ranging from 9.5 to 10.5 feet from boreholes where groundwater did not enter the borehole. Borehole B84 was drilled in the vicinity of B77 to evaluate the horizontal extent of groundwater encountered in borehole B77.

Soil and groundwater organic compound concentrations detected in the boreholes were compared to Environmental Screening Levels (ESLs) which were developed and last revised in May 2008 by the San Francisco Bay Region- Regional Water Quality Control Board (SF-RWQCB).

Review of the laboratory analytical results for all soil samples analyzed for TPH-G, MTBE, and BTEX show that the only detection above ESL values was TPH-G in soil sample B86 (located in the sidewall of Pit 4), which was detected at a concentration of 120 milligrams per kilogram (mg/kg). This concentration exceeds the residential and commercial/ industrial land use ESL for TPH-G of 83 mg/kg. Ten of the sixteen soil samples analyzed for organic compounds had no detectable concentrations of TPH-G and MBTEX, and the remaining six soil samples had detections of TPH-G, ethylbenzene, and xylenes below their respective ESLs. Benzene, toluene, and MTBE were not detected in any of the soil samples.

Review of the borehole groundwater analytical results shows that the only groundwater samples where ESL values were exceeded were in boreholes B77 and B78 (located near historic boreholes B5 and B6 in Linden Street). No analytes were detected in the groundwater samples collected from boreholes B71 and B73 on the north side of 40<sup>th</sup> Street with the exception of 1.5 ug/L xylenes. Similarly, no analytes were detected in the groundwater samples collected from boreholes B67, B68 and B70 in Pits 1 and 2 inside the building with the exception of 61 ug/L TPH-G and 1.2 ug/L total xylenes at location B70. TPH-G and benzene concentrations in groundwater for the boreholes associated with the current investigation are shown in Figures 11 and 12, respectively.

Review of geophysical profile 2 shows that the shallow water encountered in the vicinity of historic borings B5 and B6 and current investigation borings B77 and B78 appears to be perched on a clayey zone. The absence of shallow groundwater in borehole B84 and boreholes to the south of B84 located on Linden Street indicates that the extent of the perched shallow groundwater is limited in extent. The absence of evidence of petroleum hydrocarbons at shallow depths in boring B3 located to the north of B77 and B78, and in the boreholes located on the west side of Linden Street (B9, B31, B83, B32, B82, B10, B81) and the absence of petroleum hydrocarbons in groundwater samples collected from boreholes B67 and B68 to the northeast and boreholes B71 and B73 to the southeast indicates that the extent of the water and associated petroleum hydrocarbons on the perched zone is limited in extent. Additionally, the petroleum hydrocarbons encountered in shallow groundwater do not appear to extend onto the subject property based on the absence of petroleum hydrocarbons in the groundwater samples collected from boreholes B67 and B68. Although the text and Figure 5 of the JRA geophysical investigation report suggests that the shallow clay zone encountered in the vicinity of boreholes B5, B6, B77 and B78 may trend to the southeast, the only evidence of petroleum hydrocarbons to the southeast of B5, B6, B77 and B78 is blue-green soil discoloration in boreholes B71 and B72 at depths of 10.0 to 11.0 feet bgs and at 10.5 feet bgs, respectively, and 1.5 ug/L total xylenes in the groundwater sample from B71.

Review of historic water quality data from well E9 located adjacent to borehole B6 shows that the petroleum hydrocarbons detected in shallow groundwater that is perched on the clay zone in the vicinity of boreholes B5, B6, B77 and B78 does not extend vertically below the clay zone.

Review of the soil sample results from borehole B69 also shows that petroleum hydrocarbons previously detected in slant borehole I2 prior to site remediation were not detected. No other areas of residual petroleum hydrocarbons in soil were identified in RGA's Subsurface Investigation Work Plan dated March 13, 2009 (document 0304.W6).

The absence of petroleum hydrocarbons in shallow soil in the boreholes on the west side of Linden Street indicates that the sewer trench in Linden Street (the bottom of the sewer pipe is approximately 10 feet bgs, see Figure 6) is an effective barrier to the westward movement of petroleum hydrocarbons detected in shallow groundwater at B5, B6, B77 and B78. The absence of evidence of petroleum hydrocarbons in the borehole drilled in the sewer trench on the south side of 40<sup>th</sup> Street other than bluish green soil staining between the depths of 8.5 and 9.0 feet in the 9.5 foot deep borehole, and the absence of detectable petroleum hydrocarbons in the soil sample collected from the borehole at a depth of 8.5 feet indicates that detectable concentrations of petroleum hydrocarbons have not migrated as far as the south side of 40<sup>th</sup> Street in the sewer trench.

Based on the vertical borehole soil and groundwater sample results, the extent of shallow groundwater and associated petroleum hydrocarbons has been defined in Linden Street. In addition, potential downgradient preferential migration of petroleum hydrocarbons in the sanitary sewer trench located in Linden Street has been demonstrated to not extend beyond the south side of 40<sup>th</sup> Street. RGA recommends that no further investigation be performed in Linden Street to evaluate the extent of petroleum hydrocarbons in shallow groundwater or soil.

#### Soil Gas and Horizontal Borehole Results

A total of 17 soil gas samples, 3 field duplicates for SG8, SG18, and SG20, and 1 trip blank were submitted to the laboratory for analysis. The sample results are summarized in Table 3. Review of the soil gas sample results shows that with the exception of location SG19, the only analytes detected at concentrations exceeding residential ESL values were TPH-G and benzene. Review of the tracer gas results shows that the tracer gas was not detected at concentrations of concern with the exception of SG22, suggesting that the TPH-G concentration reported by the laboratory could be higher because of atmospheric dilution of the sample.

TPH-G was detected at concentrations exceeding the residential land use ESL for TPH-G in 11 of the 17 samples, and at concentrations above the commercial/industrial land use ESL for TPH-G in 8 of the 17 soil gas samples. The detected TPH-G concentrations exceeding both the residential and commercial/industrial ESLs ranged from 12,000 to 15,000,000 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ). Benzene was detected or reported as not detected with detection limits at concentrations above the residential land use benzene ESL in 5 of the 17 samples, and in 3 of the 17 samples for the commercial/industrial ESL for benzene. The only other compounds detected at concentrations exceeding ESL values were toluene, ethyl benzene, m,p-xylene, and o-xylene in soil gas sample SG19 at concentrations of 1,400,000, 140,000, 470,000, 140,000, respectively. These concentrations exceed both the residential and commercial/industrial land use ESLs for the respective compound.

The TPH-G soil gas concentrations are shown on Figures 13 and 14, and the benzene soil gas concentrations are shown on Figures 15 and 16. Based on the sample results, RGA recommends

that additional soil gas samples be collected at locations shown on the figures. In addition, RGA recommends that groundwater samples be collected at locations shown on the figures to augment the results for the proposed soil gas samples for delineation of the extent of subsurface petroleum hydrocarbons.

#### Pit Excavation and Test Pit Results

Review of the analytical results for the post-excavation confirmation soil samples collected from Pits 1 & 2 (see Figure 8 and Table 1C), and the soil samples collected from Test Pits TP1 through TP4 (see Figure 9 and Table 1D) shows that lead concentrations exceeded the residential land use ESL for lead in samples TP2-2.0 and TP-4.0 at concentrations of 460 and 290 mg/kg. Both of these concentrations are below the commercial/industrial land use ESL for lead of 750 mg/kg. The remaining twelve soil samples had lead concentrations below the residential land use ESL of 200 mg/kg for lead, with sample concentrations ranging from 4.6 to 180 mg/kg.

All fourteen soil samples from the excavation and test pits had detected concentrations of arsenic above the residential and commercial/industrial land use ESLs of 0.39 and 1.6 mg/kg, respectively, with the detected concentrations of arsenic ranging from 5.5 to 48 mg/kg. The highest concentrations of arsenic were detected in samples Pit 1g and Pit 2f in the fill material in the north wall of Pits 1 and 2 at concentrations of 30 and 48 mg/kg, respectively. The other Pit post-excavation samples were collected from beneath the fill material and the arsenic concentrations for these samples were all less than 10 mg/kg (see Table 1C).

Similarly, the highest Test Pit sample arsenic concentrations were detected in the fill material in Test Pits TP1 through TP3 (located in the room adjacent to Linden Street where the brown gravelly fill was observed) at a depth of 1.0 feet at concentrations greater than 10 mg/kg. The arsenic concentrations in the samples collected beneath the gravelly fill material at a depth of 2.0 feet in Test Pits TP1 and TP3 were below 10 mg/kg, and the arsenic concentrations in both of the samples collected from Test Pit TP4 (located outside of the room adjacent to Linden Street where the brown gravelly fill was not observed) were below 10 mg/kg. In Test Pit 2 at a depth of 2.0 feet the arsenic concentration was 13, but the lead concentration was also elevated compared with all but one of the other post-excavation confirmation and Test Pit samples. The cause for the elevated lead and arsenic concentrations in materials below the brown gravelly fill at this location is unknown, and additional vertical exploration is required at this location to define the vertical extent of these compounds at this location.

As discussed in RGA's March 13, 2009 Response To Comments In Letter Dated January 30, 2009 (document 0304.L86), the CalEPA Department of Toxic Substances Control (DTSC) has issued an advisory that identifies the 95% confidence limit of the 99<sup>th</sup> percentile of the arsenic data set (excluding outliers) used for the advisory as a 12 mg/kg arsenic background concentration for soil in Southern California. Additionally, the DTSC is in the process of releasing a State-wide advisory in June 2009 that also provides a 12 mg/kg arsenic background concentration for both northern and southern California. Based on the existing advisory and the pending advisory, arsenic concentrations in the brown gravelly fill located in the room adjacent to Linden Street exceed 12 mg/kg, and with the exception of the Test Pit 2 soil sample collected from beneath the brown gravelly fill, the arsenic concentrations in soil samples collected from beneath the brown gravelly fill are less than 12 mg/kg.

RGA recommends that additional soil samples be collected in the vicinity of Test Pit TP4 at a depth of approximately 2 feet to evaluate the horizontal extent of lead concentrations exceeding the residential ESL, and that an additional sample be collected at Test Pit 2 to define the vertical extent of arsenic concentrations exceeding 12 mg/kg and lead concentrations exceeding the residential ESL value.

### DISTRIBUTION

A copy of this report will be uploaded to the ACDEH website, in accordance with ACDEH requirements. In addition, a copy of this report will be uploaded to the GeoTracker database.

### LIMITATIONS

This report was prepared solely for the use of California Linen Rental Company. 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.

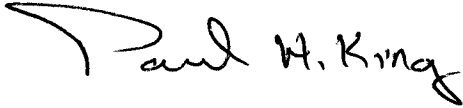
This report has been prepared in accordance with generally accepted practices using standards of care and diligence normally practiced by recognized consulting firms performing services of a similar nature. RGA is not responsible for the accuracy or completeness of information provided by other individuals 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.

May 8, 2009  
Report 0304.R16

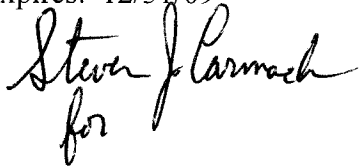
Should you have any questions or comments, please do not hesitate to contact us at (510) 547-7771.

Sincerely,

RGA Environmental, Inc.



Paul H. King  
Professional Geologist #5901  
Expires: 12/31/09



for  
Karin Schroeter  
Project Manager





Attachments:

Table 1A - Summary of Vertical Borehole Soil Laboratory Analytical Results (Organic Compounds)  
Table 1B - Summary of Horizontal Borehole Soil Laboratory Analytical Results (Organic Compounds)  
Table 1C - Summary of Pit Excavation Confirmation Soil Laboratory Analytical Results (Metals)  
Table 1D - Summary of Test Pit Soil Laboratory Analytical Results (Metals)  
Table 2 - Summary of Borehole Groundwater Analytical Results  
Table 3 - Summary of Soil Gas Sample Analytical Results

Figure 1 - Site Location Map  
Figure 2 - Site Vicinity Map Showing Sample Collection Locations  
Figure 3 - Site Plan Detail Showing Borehole and Soil Gas Sample Locations in the Eastern Portion of the Site  
Figure 4 - Site Plan Detail Showing Borehole and Soil Gas Sample Locations in the Western Portion of the Site  
Figure 5 - Dipole Resistivity Investigation Profile Locations  
Figure 6 - Resistivity Profiles with Geologic Cross Sections A-A' and B-B'  
Figure 7 - Building Wall and Floor Slab Cross Section on West Side of Building  
Figure 8 - Site Plan Detail Showing Post-Excavation Pit Confirmation Sample Locations in Pits 1 and 2  
Figure 9 - Site Plan Detail Showing Test Pits  
Figure 10 - Typical Soil Gas Sample Collection Manifold  
Figure 11 - Site Plan Detail Showing TPH-G in Groundwater in the Western Portion of the Site  
Figure 12 - Site Plan Detail Showing Benzene in Groundwater in the Western Portion of the Site  
Figure 13 - Site Plan Detail Showing TPH-G in Soil Gas in the Eastern Portion of the Site  
Figure 14 - Site Plan Detail Showing TPH-G in Soil Gas in the Western Portion of the Site  
Figure 15 - Site Plan Detail Showing Benzene in Soil Gas in the Eastern Portion of the Site  
Figure 16 - Site Plan Detail Showing Benzene in Soil Gas in the Western Portion of the Site

Appendix A - Geophysical Survey  
Appendix B - Boring Logs  
Appendix C - Soil Gas Purge Volume Calculations and Soil Gas Sampling Data Sheets  
Appendix D - Laboratory Analytical Reports and Chain of Custody Documentation

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# **TABLES**

Table 1A. Summary of Vertical Borehole Soil Laboratory Analytical Results (Organic Compounds)								
California Linen Rentals - 989 41st Street, Oakland, California								
Sample ID	Sample Date	Sample Depth (Feet)	TPH-G	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes
B69-4.5	3/26/2009	4.5	ND<1.0	NA	ND<0.005	ND<0.005	ND<0.005	ND<0.005
B69-9.5	3/26/2009	9.5	3.4, a	NA	ND<0.005	ND<0.005	ND<0.005	0.020
B72-10.5	3/27/2009	10.5	ND<1.0	NA	ND<0.005	ND<0.005	ND<0.005	ND<0.005
B74-10.5	3/27/2009	10.5	ND<1.0	NA	ND<0.005	ND<0.005	ND<0.005	ND<0.005
B75-10.5	3/27/2009	10.0	ND<1.0	NA	ND<0.005	ND<0.005	ND<0.005	ND<0.005
B76-9.5	3/27/2009	9.5	2.7, b	NA	ND<0.005	ND<0.005	ND<0.005	0.073
B79-10.5	3/30/2009	10.5	ND<1.0	NA	ND<0.005	ND<0.005	ND<0.005	ND<0.005
B80-10.5	3/30/2009	10.5	ND<1.0	NA	ND<0.005	ND<0.005	ND<0.005	ND<0.005
B81-10.5	3/30/2009	10.5	ND<1.0	NA	ND<0.005	ND<0.005	ND<0.005	ND<0.005
B82-10.5	3/30/2009	10.5	ND<1.0	NA	ND<0.005	ND<0.005	ND<0.005	ND<0.005
B83-10.5	3/30/2009	10.5	ND<1.0	NA	ND<0.005	ND<0.005	ND<0.005	ND<0.005
B84-9.5	3/30/2009	9.5	7.6, c	NA	ND<0.005	ND<0.005	ND<0.005	0.052
B85-8.5	3/30/2009	8.5	ND<1.0	NA	ND<0.005	ND<0.005	ND<0.005	ND<0.005
	<i>ESL<sup>1</sup></i>		83		0.044	2.9	2.3	2.3
	<i>ESL<sup>2</sup></i>		83		0.044	2.9	3.3	2.3

**Abbreviations and Notes:**  
 TPH-G = Total Petroleum Hydrocarbons as Gasoline.  
 MTBE = Methyl-tert butyl ether.  
 NA = Not Analyzed.  
 ND = Not Detected.  
 a = Laboratory Analytical Note: strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram.  
 b = Laboratory Analytical Note: heavier gasoline range compounds are significant (aged gasoline?).  
 c = Laboratory Analytical Note: no recognizable pattern.  
 ESL<sup>1</sup>= Environmental Screening Level, by San Francisco Bay – Regional Water Quality Control Board (SF-RWQCB), updated May 2008, from Table A– Shallow Soils, Groundwater is a current or potential source of drinking water, Residential Land Use. Note: 83 mg/kg is also the commercial/industrial land use ESL for TPH-G.  
 ESL<sup>2</sup>= Environmental Screening Level, by San Francisco Bay – Regional Water Quality Control Board (SF-RWQCB), updated May 2008, from Table C– Deep Soils, Groundwater is a current or potential source of drinking water, Residential Land Use. Note: 83 mg/kg is also the commercial/industrial land use ESL for TPH-G.  
**Values in bold exceed the respective ESL<sup>1</sup>.**  
Underlined values exceed the respective ESL<sup>2</sup>.  
 Results in milligrams per kilogram (mg/Kg) unless otherwise indicated.

Table 1B. Summary of Horizontal Borehole Soil Laboratory Analytical Results (Organic Compounds)								
California Linen Rentals - 989 41st Street, Oakland, California								
Sample ID	Sample Date	Sample Depth (Feet)	TPH-G	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes
B86*	4/1/2009	3.0	<b>120, a</b>	ND<1.0	ND<0.10	ND<0.10	ND<0.10	ND<0.10
B87*	4/1/2009	3.4	16, a	ND<0.05	ND<0.005	ND<0.005	0.012	ND<0.005
B88*	4/1/2009	3.7	78, a,c	ND<0.05	ND<0.005	ND<0.005	0.11	0.088
	<i>ESL<sup>1</sup></i>		<i>83</i>		<i>0.044</i>	<i>2.9</i>	<i>2.3</i>	<i>2.3</i>
	<i>ESL<sup>2</sup></i>		<i>83</i>		<i>0.044</i>	<i>2.9</i>	<i>3.3</i>	<i>2.3</i>

**Abbreviations and Notes:**  
 TPH-G = Total Petroleum Hydrocarbons as Gasoline.  
 MTBE = Methyl-tert butyl ether.  
 ND = Not Detected.  
 \* = B86, B87, and B88 were identified on the chain of custody and laboratory report as B81, B82, and B83, respectively, collected on April 1, 2009.  
 a = Laboratory Analytical Note: strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram.  
 c = Laboratory Analytical Note: no recognizable pattern.  
 ESL<sup>1</sup> = Environmental Screening Level, by San Francisco Bay – Regional Water Quality Control Board (SF-RWQCB), updated May 2008, from Table A– Shallow Soils, Groundwater is a current or potential source of drinking water, Residential Land Use. Note: 83 mg/kg is also the commercial/industrial land use ESL for TPH-G.  
 ESL<sup>2</sup> = Environmental Screening Level, by San Francisco Bay – Regional Water Quality Control Board (SF-RWQCB), updated May 2008, from Table C– Deep Soils, Groundwater is a current or potential source of drinking water, Residential Land Use. Note: 83 mg/kg is also the commercial/industrial land use ESL for TPH-G.  
**Values in bold exceed the respective ESL<sup>1</sup>.**  
Underlined values exceed the respective ESL<sup>2</sup>.  
 Results in milligrams per kilogram (mg/Kg) unless otherwise indicated.

<b>Table 1C. Summary of Pit Excavation Confirmation Soil Laboratory Analytical Results (Metals)</b>				
<b>California Linen Rentals - 989 41st Street, Oakland, California</b>				
Sample ID	Sample Date	Sample Depth (Feet)	Lead	Arsenic
Pit 1 f	3/27/2009	6.0	6.9	<u>5.5</u>
Pit 1 g	3/27/2009	2.0	85	<b>30</b>
Pit 1 h	3/27/2009	4.0	42	<b>6.8</b>
Pit 2 e	3/27/2009	3.5	100	<u>5.6</u>
Pit 2 f	3/27/2009	1.0	140	<b>48</b>
Pit 2 g	3/27/2009	3.0	180	<u>7.1</u>
	<i>ESL<sup>1</sup></i>		200	0.39
	<i>ESL<sup>2</sup></i>		750	1.6

**Abbreviations and Notes:**  
 TPH-G = Total Petroleum Hydrocarbons as Gasoline.  
 ND = Not Detected.  
 ESL<sup>1</sup>= Environmental Screening Level, by San Francisco Bay – Regional Water Quality Control Board (SF-RWQCB), updated May 2008, from Table A– Shallow Soils, Groundwater is a current or potential source of drinking water, Residential Land Use.  
 ESL<sup>2</sup>= Environmental Screening Level, by San Francisco Bay – Regional Water Quality Control Board (SF-RWQCB), updated May 2008, from Table A– Shallow Soils, Groundwater is a current or potential source of drinking water, Commercial/Industrial Land Use.  
**Values in bold exceed the respective ESL<sup>1</sup>.**  
Underlined values exceed the respective ESL<sup>2</sup>.  
 Results in milligrams per kilogram (mg/Kg) unless otherwise indicated.

Table 1D. Summary of Test Pit Soil Laboratory Analytical Results (Metals)				
California Linen Rentals - 989 41st Street, Oakland, California				
Sample ID	Sample Date	Sample Depth (Feet)	Lead	Arsenic
TP1-1.0	4/1/2009	1.0	64	<u>15</u>
TP1-2.0	4/1/2009	2.0	34	<u>5.8</u>
TP2-1.0	4/1/2009	1.0	90	<u>12</u>
TP2-2.0	4/1/2009	2.0	<b>460</b>	<u>13</u>
TP3-1.0	4/1/2009	1.0	88	<u>19</u>
TP3-2.0	4/1/2009	2.0	47	<u>7.8</u>
TP4-1.0	4/1/2009	1.0	4.6	<u>5.7</u>
TP4-2.0	4/1/2009	2.0	<b>290</b>	<u>8.7</u>
	<i>ESL<sup>1</sup></i>		200	0.39
	<i>ESL<sup>2</sup></i>		750	1.6

**Abbreviations and Notes:**  
 TPH-G = Total Petroleum Hydrocarbons as Gasoline.  
 ND = Not Detected.  
 ESL<sup>1</sup> = Environmental Screening Level, by San Francisco Bay – Regional Water Quality Control Board (SF-RWQCB), updated May 2008, from Table A– Shallow Soils, Groundwater is a current or potential source of drinking water, Residential Land Use.  
 ESL<sup>2</sup> = Environmental Screening Level, by San Francisco Bay – Regional Water Quality Control Board (SF-RWQCB), updated May 2008, from Table A– Shallow Soils, Groundwater is a current or potential source of drinking water, Commercial/Industrial Land Use.  
**Values in bold exceed the respective ESL<sup>1</sup>.**  
Underlined values exceed the respective ESL<sup>2</sup>.  
 Results in milligrams per kilogram (mg/Kg) unless otherwise indicated.

<b>Table 2. Summary of Borehole Groundwater Laboratory Analytical Results</b>						
<b>California Linen Rentals - 989 41st Street, Oakland, California</b>						
Sample ID	Sample Date	TPH-G	Benzene	Toluene	Ethylbenzene	Xylenes
B67-W	3/26/2009	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
B68-W	3/26/2009	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
B70-W	3/27/2009	61, a	ND<0.5	ND<0.5	ND<0.5	1.2
B71-W	3/27/2009	ND<50	ND<0.5	ND<0.5	ND<0.5	1.5
B73-W	3/27/2009	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
B77-W	3/27/2009	<b>21,000, b</b>	<b>21</b>	ND<10	<b>140</b>	<b>4,100</b>
B78-W	3/27/2009	<b>26,000, c</b>	<b>40</b>	24	<b>290</b>	<b>1,600</b>
<i>ESL<sup>1</sup></i>		<i>100</i>	<i>1.0</i>	<i>40</i>	<i>30</i>	<i>20</i>
<i>ESL<sup>2</sup></i>		<i>None</i>	<i>540</i>	<i>380,000</i>	<i>170,000</i>	<i>160,000</i>
<p><b>Abbreviations and Notes:</b>                      TPH-G = Total Petroleum Hydrocarbons as Gasoline.                      ND = Not Detected.                      a = Laboratory analytical note: strongly aged gasoline or diesel range compounds are significant in the TPH-G chromatogram.                      b = Laboratory analytical note: heavier gasoline range compounds are significant (aged gasoline?)                      c = Laboratory analytical note: lighter than water immiscible sheen/ product is present.                      ESL<sup>1</sup> = Environmental Screening Level, by San Francisco Bay – Regional Water Quality Control Board (SF-RWQCB), updated May 2008, from Table A – Shallow Soils, groundwater is a current or potential source of drinking water.                      ESL<sup>2</sup> = Environmental Screening Level, by San Francisco Bay – Regional Water Quality Control Board (SF-RWQCB), updated May 2008, from Table E-1 – Groundwater Screening Levels for Evaluation of Potential Vapor Intrusion Concerns, Residential land use.                      Values in bold exceed ESL<sup>1</sup>                      Values underlined exceed ESL<sup>2</sup>                      Results in micrograms per Liter (µg/L) unless otherwise indicated.</p>						

Table 3. Summary of Soil Gas Laboratory Analytical Results					
California Linen Rentals - 989 41st Street, Oakland, California					
Sample ID	Sample Date	Compound	Concentration	ESL <sup>1</sup>	ESL <sup>2</sup>
SG6	3/26/2009	TPH-G	<b>42,000</b>	10,000	29,000
		Benzene	24	84	280
		Toluene	25	63,000	180,000
		Ethylbenzene	ND<4.8	980	3,300
		m,p-Xylene	17	21,000 (Combined)	58,000 (Combined)
		o-Xylene	6.8		
		Naphthalene	ND<23	72	240
		2-Propanol	1,500, a	None	None
SG6 Lab Duplicate		TPH-G	<b>44,000</b>	10,000	29,000
		Benzene	NA	84	280
		Toluene	NA	63,000	180,000
		Ethylbenzene	NA	980	3,300
		m,p-Xylene	NA	21,000 (Combined)	58,000 (Combined)
		o-Xylene	NA		
		Naphthalene	NA	72	240
		2-Propanol	NA	None	None
SG7	3/24/2009	TPH-G	4,800	10,000	29,000
		Benzene	4.2	84	280
		Toluene	6.5	63,000	180,000
		Ethylbenzene	ND<5.0	980	3,300
		m,p-Xylene	ND<5.0	21,000 (Combined)	58,000 (Combined)
		o-Xylene	ND<5.0		
		Naphthalene	ND<24	72	240
		2-Propanol	ND<11	None	None
SG8	3/24/2009	TPH-G	<b>23,000</b>	10,000	29,000
		Benzene	16	84	280
		Toluene	1,600	63,000	180,000
		Ethylbenzene	140	980	3,300
		m,p-Xylene	510	21,000 (Combined)	58,000 (Combined)
		o-Xylene	150		
		Naphthalene	ND<24	72	240
		2-Propanol	ND<11	None	None
SG8-DUP	3/24/2009	TPH-G	<b>14,000</b>	10,000	29,000
		Benzene	16	84	280
		Toluene	790	63,000	180,000
		Ethylbenzene	68	980	3,300
		m,p-Xylene	280	21,000 (Combined)	58,000 (Combined)
		o-Xylene	92		
		Naphthalene	ND<24	72	240
		2-Propanol	ND<11	None	None
SG9	3/24/2009	TPH-G	<b>12,000</b>	10,000	29,000
		Benzene	15	84	280
		Toluene	140	63,000	180,000
		Ethylbenzene	20	980	3,300
		m,p-Xylene	84	21,000 (Combined)	58,000 (Combined)
		o-Xylene	39		
		Naphthalene	ND<24	72	240
		2-Propanol	ND<11	None	None
SG10	3/24/2009	TPH-G	6,200	10,000	29,000
		Benzene	29	84	280
		Toluene	84	63,000	180,000
		Ethylbenzene	12	980	3,300
		m,p-Xylene	49	21,000 (Combined)	58,000 (Combined)
		o-Xylene	16		
		Naphthalene	ND<23	72	240
		2-Propanol	ND<11	None	None

**Abbreviations and Notes:**  
TPH-G = Total Petroleum Hydrocarbons as Gasoline.  
NA = Not Analyzed.  
ND = Not Detected.  
a = Laboratory analytical note: exceeds instrument calibration range.  
ESL<sup>1</sup> = Environmental Screening Level, by San Francisco Bay – Regional Water Quality Control Board (SF-RWQCB), updated May 2008, from Table E – Soil Gas (Vapor Intrusion Concerns) Residential Land use.  
ESL<sup>2</sup> = Environmental Screening Level, by San Francisco Bay – Regional Water Quality Control Board (SF-RWQCB), updated May 2008, from Table E – Soil Gas (Vapor Intrusion Concerns) Commercial/ Industrial Land use.  
**Values in bold exceed the respective ESL<sup>1</sup>.**  
Underlined values exceed the respective ESL<sup>2</sup>.  
Results in micrograms per cubic meter (µg/m<sup>3</sup>) unless otherwise indicated.



Table 3. Summary of Soil Gas Laboratory Analytical Results					
California Linen Rentals - 989 41st Street, Oakland, California					
Sample ID	Sample Date	Compound	Concentration	ESL <sup>1</sup>	ESL <sup>2</sup>
SG11	3/24/2009	TPH-G	<b>270,000</b>	10,000	29,000
		Benzene	<b>330</b>	84	280
		Toluene	530	63,000	180,000
		Ethylbenzene	120	980	3,300
		m,p-Xylene	330	21,000 (Combined)	58,000 (Combined)
		o-Xylene	100		
		Naphthalene	ND<190	72	240
		2-Propanol	ND<88	None	None
SG12	3/24/2009	TPH-G	<b>39,000</b>	10,000	29,000
		Benzene	60	84	280
		Toluene	44	63,000	180,000
		Ethylbenzene	5.7	980	3,300
		m,p-Xylene	23	21,000 (Combined)	58,000 (Combined)
		o-Xylene	6.6		
		Naphthalene	ND<23	72	240
		2-Propanol	ND<11	None	None
SG13	3/25/2009	TPH-G	<b>250,000</b>	10,000	29,000
		Benzene	<b>1,000</b>	84	280
		Toluene	1,100	63,000	180,000
		Ethylbenzene	150	980	3,300
		m,p-Xylene	530	21,000 (Combined)	58,000 (Combined)
		o-Xylene	230		
		Naphthalene	ND<320	72	240
		2-Propanol	ND<150	None	None
SG13 Lab Duplicate		TPH-G	NA	10,000	29,000
		Benzene	<b>1,100</b>	84	280
		Toluene	1,300	63,000	180,000
		Ethylbenzene	160	980	3,300
		m,p-Xylene	590	21,000 (Combined)	58,000 (Combined)
		o-Xylene	260		
		Naphthalene	ND<64	72	240
		2-Propanol	ND<30	None	None
SG14	3/25/2009	TPH-G	<b>44,000</b>	10,000	29,000
		Benzene	56	84	280
		Toluene	440	63,000	180,000
		Ethylbenzene	68	980	3,300
		m,p-Xylene	270	21,000 (Combined)	58,000 (Combined)
		o-Xylene	73		
		Naphthalene	ND<22	72	240
		2-Propanol	ND<10	None	None
SG15	3/25/2009	TPH-G	6,500	10,000	29,000
		Benzene	17	84	280
		Toluene	100	63,000	180,000
		Ethylbenzene	15	980	3,300
		m,p-Xylene	52	21,000 (Combined)	58,000 (Combined)
		o-Xylene	16		
		Naphthalene	ND<25	72	240
		2-Propanol	ND<12	None	None
SG16	3/25/2009	TPH-G	<b>18,000</b>	10,000	29,000
		Benzene	45	84	280
		Toluene	180	63,000	180,000
		Ethylbenzene	34	980	3,300
		m,p-Xylene	140	21,000 (Combined)	58,000 (Combined)
		o-Xylene	46		
		Naphthalene	ND<25	72	240
		2-Propanol	18	None	None

**Abbreviations and Notes:**  
 TPH-G = Total Petroleum Hydrocarbons as Gasoline.  
 NA = Not Analyzed.  
 ND = Not Detected.  
 a = Laboratory analytical note: exceeds instrument calibration range.  
 ESL<sup>1</sup> = Environmental Screening Level, by San Francisco Bay – Regional Water Quality Control Board (SF-RWQCB), updated May 2008, from Table E – Soil Gas (Vapor Intrusion Concerns) Residential Land use.  
 ESL<sup>2</sup> = Environmental Screening Level, by San Francisco Bay – Regional Water Quality Control Board (SF-RWQCB), updated May 2008, from Table E – Soil Gas (Vapor Intrusion Concerns) Commercial/ Industrial Land use.  
**Values in bold exceed the respective ESL<sup>1</sup>.**  
Underlined values exceed the respective ESL<sup>2</sup>.  
 Results in micrograms per cubic meter (µg/m<sup>3</sup>) unless otherwise indicated.

Table 3. Summary of Soil Gas Laboratory Analytical Results					
California Linen Rentals - 989 41st Street, Oakland, California					
Sample ID	Sample Date	Compound	Concentration	ESL <sup>1</sup>	ESL <sup>2</sup>
SG17	3/25/2009	TPH-G	2,000	10,000	29,000
		Benzene	ND<3.8	84	280
		Toluene	31	63,000	180,000
		Ethylbenzene	ND<5.2	980	3,300
		m,p-Xylene	14	21,000 (Combined)	58,000 (Combined)
		o-Xylene	5.8		
		Naphthalene	ND<25	72	240
		2-Propanol	ND<12	None	None
SG18	3/25/2009	TPH-G	<b>260,000</b>	10,000	29,000
		Benzene	<b>160</b>	84	280
		Toluene	1,000	63,000	180,000
		Ethylbenzene	150	980	3,300
		m,p-Xylene	460	21,000 (Combined)	58,000 (Combined)
		o-Xylene	170		
		Naphthalene	ND<48	72	240
		2-Propanol	ND<22	None	None
SG18-DUP	3/25/2009	TPH-G	<b>170,000</b>	10,000	29,000
		Benzene	<b>150</b>	84	280
		Toluene	550	63,000	180,000
		Ethylbenzene	110	980	3,300
		m,p-Xylene	340	21,000 (Combined)	58,000 (Combined)
		o-Xylene	140		
		Naphthalene	28	72	240
		2-Propanol	ND<11	None	None
SG18-DUP Lab Duplicate		TPH-G	NA	10,000	29,000
		Benzene	<b>150</b>	84	280
		Toluene	560	63,000	180,000
		Ethylbenzene	110	980	3,300
		m,p-Xylene	340	21,000 (Combined)	58,000 (Combined)
		o-Xylene	130		
		Naphthalene	ND<32	72	240
		2-Propanol	ND<15	None	None
SG19	3/26/2009	TPH-G	<b>15,000,000</b>	10,000	29,000
		Benzene	ND< <b>1,900</b>	84	280
		Toluene	<b>1,400,000</b>	63,000	180,000
		Ethylbenzene	<b>140,000</b>	980	3,300
		m,p-Xylene	<b>470,000</b>	21,000 (Combined)	58,000 (Combined)
		o-Xylene	<b>140,000</b>		
		Naphthalene	ND< <b>13,000</b>	72	240
		2-Propanol	ND<5,900	None	None
SG20	3/26/2009	TPH-G	5,200	10,000	29,000
		Benzene	26	84	280
		Toluene	320	63,000	180,000
		Ethylbenzene	37	980	3,300
		m,p-Xylene	140	21,000 (Combined)	58,000 (Combined)
		o-Xylene	34		
		Naphthalene	ND<25	72	240
		2-Propanol	21	None	None
SG20-DUP	3/26/2009	TPH-G	4,700	10,000	29,000
		Benzene	23	84	280
		Toluene	460	63,000	180,000
		Ethylbenzene	57	980	3,300
		m,p-Xylene	220	21,000 (Combined)	58,000 (Combined)
		o-Xylene	59		
		Naphthalene	ND<24	72	240
		2-Propanol	ND<11	None	None

**Abbreviations and Notes:**  
 TPH-G = Total Petroleum Hydrocarbons as Gasoline.  
 NA = Not Analyzed.  
 ND = Not Detected.  
 a = Laboratory analytical note: exceeds instrument calibration range.  
 ESL<sup>1</sup> = Environmental Screening Level, by San Francisco Bay – Regional Water Quality Control Board (SF-RWQCB), updated May 2008, from Table E – Soil Gas (Vapor Intrusion Concerns) Residential Land use.  
 ESL<sup>2</sup> = Environmental Screening Level, by San Francisco Bay – Regional Water Quality Control Board (SF-RWQCB), updated May 2008, from Table E – Soil Gas (Vapor Intrusion Concerns) Commercial/ Industrial Land use.  
**Values in bold exceed the respective ESL<sup>1</sup>.**  
Underlined values exceed the respective ESL<sup>2</sup>.  
 Results in micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) unless otherwise indicated.

Table 3. Summary of Soil Gas Laboratory Analytical Results					
California Linen Rentals - 989 41st Street, Oakland, California					
Sample ID	Sample Date	Compound	Concentration	ESL <sup>1</sup>	ESL <sup>2</sup>
SG21	3/26/2009	TPH-G	5,800	10,000	29,000
		Benzene	14	84	280
		Toluene	400	63,000	180,000
		Ethylbenzene	59	980	3,300
		m,p-Xylene	240	21,000 (Combined)	58,000 (Combined)
		o-Xylene	73		
		Naphthalene	ND<26	72	240
		2-Propanol	28	None	None
SG22	3/27/2009	TPH-G	<u>510,000</u>	10,000	29,000
		Benzene	ND<150	84	280
		Toluene	600	63,000	180,000
		Ethylbenzene	ND<210	980	3,300
		m,p-Xylene	ND<210	21,000 (Combined)	58,000 (Combined)
		o-Xylene	ND<210		
		Naphthalene	ND< <del>1000</del>	72	240
		2-Propanol	230,000, a	None	None
SG22 Lab Duplicate		TPH-G	<u>500,000</u>	10,000	29,000
		Benzene	NA	84	280
		Toluene	NA	63,000	180,000
		Ethylbenzene	NA	980	3,300
		m,p-Xylene	NA	21,000 (Combined)	58,000 (Combined)
		o-Xylene	NA		
		Naphthalene	NA	72	240
		2-Propanol	NA	None	None
Trip Blank	3/27/2009	TPH-G	ND<100	10,000	29,000
		Benzene	ND<1.6	84	280
		Toluene	ND<1.9	63,000	180,000
		Ethylbenzene	ND<2.2	980	3,300
		m,p-Xylene	ND<2.2	21,000 (Combined)	58,000 (Combined)
		o-Xylene	ND<2.2		
		Naphthalene	ND<10	72	240
		2-Propanol	ND<4.9	None	None

**Abbreviations and Notes:**  
 TPH-G = Total Petroleum Hydrocarbons as Gasoline.  
 NA = Not Analyzed.  
 ND = Not Detected.  
 a = Laboratory analytical note: exceeds instrument calibration range.  
 ESL<sup>1</sup> = Environmental Screening Level, by San Francisco Bay – Regional Water Quality Control Board (SF-RWQCB), updated May 2008, from Table E – Soil Gas (Vapor Intrusion Concerns) Residential Land use.  
 ESL<sup>2</sup> = Environmental Screening Level, by San Francisco Bay – Regional Water Quality Control Board (SF-RWQCB), updated May 2008, from Table E – Soil Gas (Vapor Intrusion Concerns) Commercial/ Industrial Land use.  
**Values in bold exceed the respective ESL<sup>1</sup>.**  
Underlined values exceed the respective ESL<sup>2</sup>.  
 Results in micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) unless otherwise indicated.

Table 4  
Summary of Historical Depth to Groundwater in Wells

Well No	Date	Top of Casing Elevation (ft) ***	Depth To Water (ft)	Water Table Elevation (ft)
E1	3/25/2009	57.82	8.19	49.63
	7/28/2008		9.42	48.40
	4/3/2008		9.03	48.79
	1/9/2008		7.57	50.25
	10/5/2007		10.01	47.81
	7/31/2007		10.50	47.32
	3/28/2007		9.17	48.65
	11/1/2006		24.15 *	33.67
E2	3/25/2009	56.90	6.95	49.95
	7/28/2008		8.90	48.00
	4/3/2008		7.85	49.05
	1/9/2008		5.96	50.94
	10/5/2007		9.54	47.36
	7/31/2007		17.00	39.90
	3/29/2007		8.18	48.72
	11/1/2006		24.55*	32.35
E3	3/25/2009	57.77	7.80	49.97
	7/28/2008		10.21	47.56
	4/3/2008		9.07	48.70
	1/9/2008		6.74	51.03
	10/5/2007		10.76	47.01
	7/31/2007		16.70	41.07
	3/29/2007		9.24	48.53
	11/1/2006		24.35*	33.42
E4	3/25/2009	54.40	4.70	49.70
	7/28/2008		7.38	47.02
	4/3/2008		5.97	48.43
	1/9/2008		14.81	39.59
	10/5/2007		8.29	46.11
	7/31/2007		19.80*	34.60
	4/6/2007		9.30	45.10
	4/3/2007		5.80**	48.60
E6	3/25/2009	56.54	6.65	49.89
	7/28/2008		9.09	47.45
	4/3/2008		7.87	48.67
	1/9/2008		5.58	50.96
	10/5/2007		9.77	46.77
	7/31/2007		19.78*	36.76
	3/29/2007		7.97	48.57
	11/1/2006		17.10*	39.44
E7	3/25/2009	57.89	7.64	50.25
	7/28/2008		could not	get pvc cap off
	4/3/2008		8.99	48.90
	1/9/2008		6.64	51.25
	10/5/2007		10.31	47.58
	7/31/2007		22.80*	35.09
	3/28/2007		8.78	49.11
	10/31/2006		9.49	48.40
E8	3/25/2009	53.62	5.15	48.47
	7/28/2008		7.34	46.28
	4/3/2008		6.11	47.51
	1/9/2008		3.71	49.91
	10/5/2007		7.77	45.85
	7/31/2007		21.82	31.80
	4/6/2007		8.13	45.49
	4/3/2007		7.18**	46.44
E9	3/25/2009	53.48	5.65	47.83
	7/28/2008		8.07	45.41
	4/3/2008		6.61	46.87
	1/9/2008		4.29	49.19
	10/5/2007		8.58	44.90
	7/31/2007		22.20	31.28
	4/6/2007		10.25	43.23
	4/3/2007		8.23**	45.25
I1	3/25/2009	57.63	not measured	not measured
	7/28/2008		9.45	48.18
	4/3/2008		8.82	48.81
	1/9/2008		6.87	50.76
	10/5/2007		9.96	47.67
	7/31/2007		11.80	45.83
	10/31/2006		20.33	37.30

**NOTES:**

\* = Well being pumped/extracted prior to monitoring.

\*\* = Prior to well development.

\*\*\* = Wells surveyed on July 16 and 21, 2008.

Wells E4 and E8 were constructed in slant borings. Associated water table elevations are corrected for slant.

Table 4 (Cont.)  
Summary of Historical Depth to Groundwater Data

Well No	Date	Top Of Casing Elevation (ft) <sup>***</sup>	Depth To Water (ft)	Water Table Elevation (ft)
MW1	3/25/2009	56.63	6.70	49.93
	7/28/2008		8.80	47.83
	4/3/2008		7.89	48.74
	1/9/2008		5.66	50.97
	10/5/2007		9.40	47.23
	7/31/2007		19.50*	37.13
	10/31/2006		22.12*	34.51
	4/2/2003		7.00	49.63
MW2	3/25/2009	56.79	8.85	47.94
	7/28/2008		9.05	47.74
	4/3/2008		8.93	47.86
	1/9/2008		7.72	49.07
	10/5/2007		9.59	47.20
	7/31/2007		9.20	47.59
	10/31/2006		8.80	47.99
	4/2/2003		9.09	47.70
MW4	3/25/2009	57.89	7.86	50.03
	7/28/2008		10.43	47.46
	4/3/2008		9.15	48.74
	1/9/2008		7.24	50.65
	10/5/2007		11.33	46.56
	2/28/2007		18.96	38.93
MW5	3/25/2009	57.89	7.78	50.11
	7/28/2008		8.32	49.57
	4/3/2008		8.20	49.69
	1/9/2008		7.60	50.29
	10/5/2007		8.74	49.15
	2/28/2007		7.95	49.94
MW6	3/25/2009	59.15	8.19	50.96
	7/28/2008		9.75	49.40
	4/3/2008		9.33	49.82
	1/9/2008		6.91	52.24
	10/5/2007		10.21	48.94
	2/28/2007		7.40	51.75
MW7	3/25/2009	57.36	6.67	50.69
	7/28/2008		9.19	48.17
	4/3/2008		8.32	49.04
	1/9/2008		5.62	51.74
	11/21/2007		8.89	48.47

NOTES:

\* = Well being pumped/extracted prior to monitoring.

\*\* = Prior to well development.

\*\*\* = Wells surveyed on July 16 and 21, 2008.

# **FIGURES**

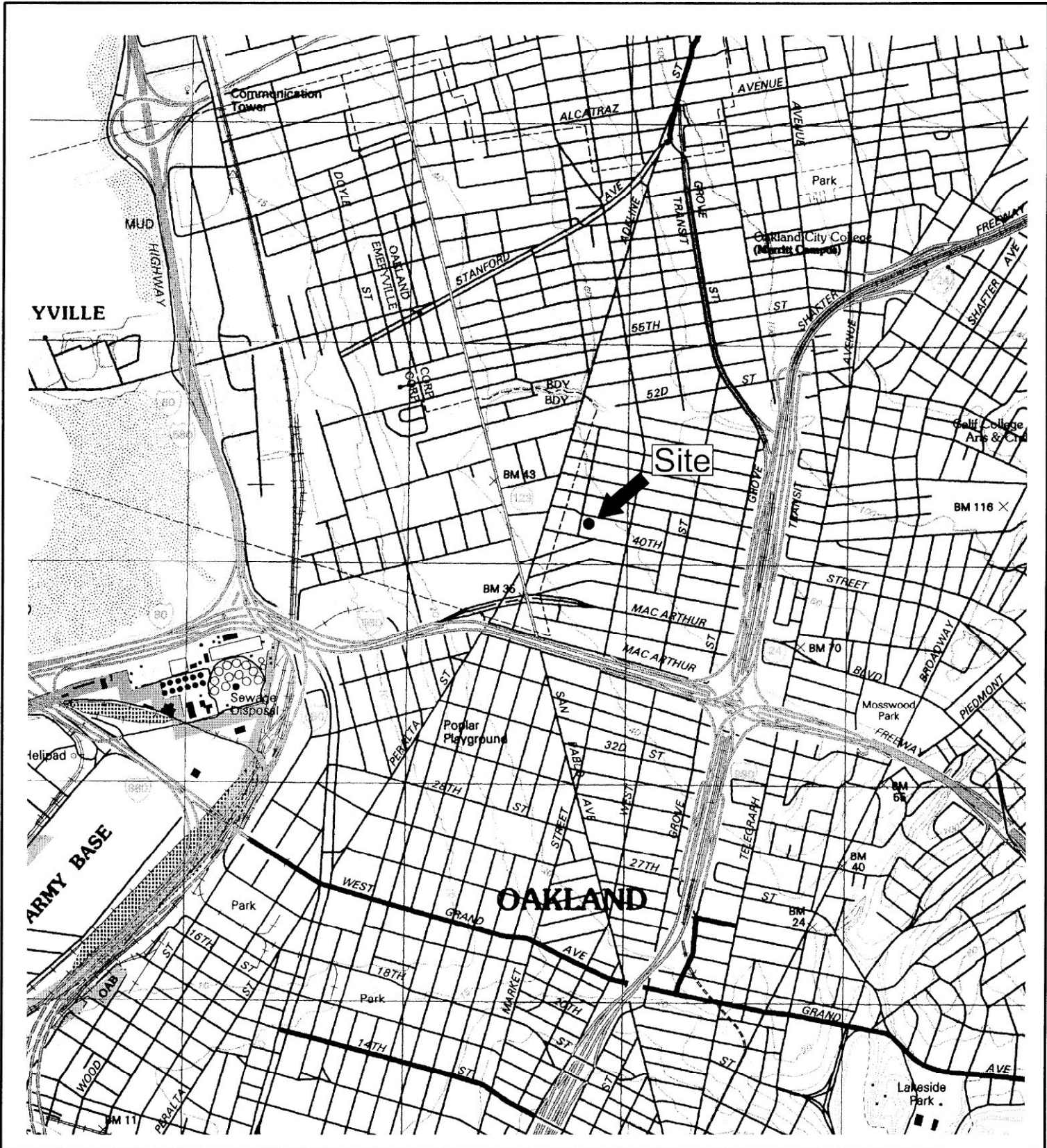
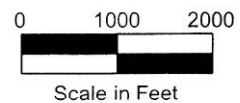


Figure 1  
 Site Location Map  
 California Linen Rental Company  
 989 41st Street  
 Oakland, California



Base Map From:  
 US Geological Survey  
 Oakland West, California  
 7.5 Minute Quadrangle  
 Photorevised 1996

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



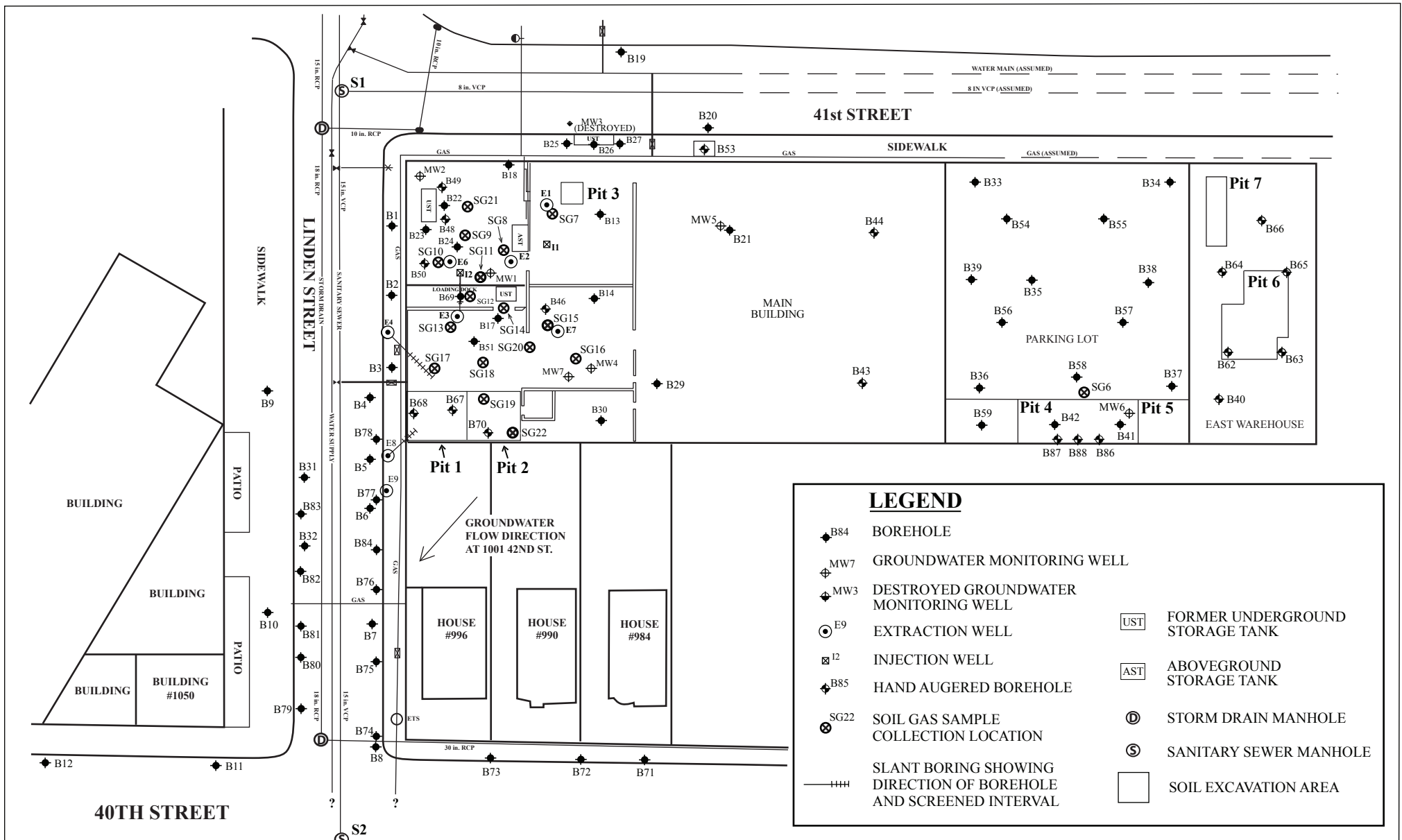
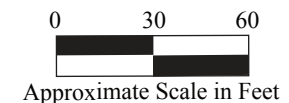


Figure 2  
 Site Vicinity Map Showing Sample Collection Locations  
 California Linen Rental Company  
 989 41st Street  
 Oakland, California

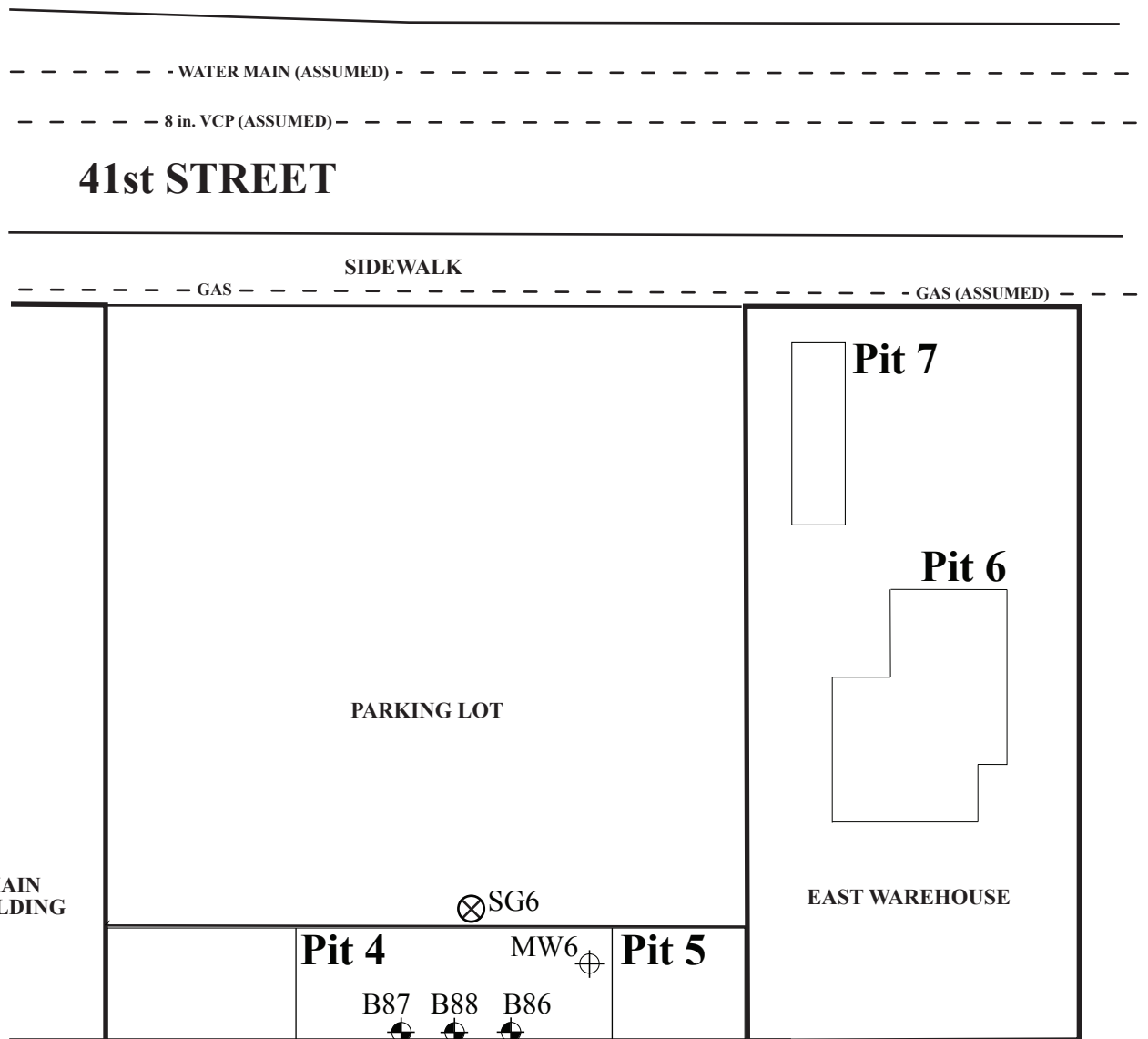


Base Map From:  
 California Utility Survey  
 Utility Sketch Plan  
 Feb. 14, 2005

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







**LEGEND**

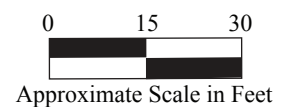
- ⊕<sup>MW6</sup> GROUNDWATER MONITORING WELL
  - ⊕<sup>B88</sup> BOREHOLE HAND AUGERED HORIZONTALLY INTO PIT WALL AT 3.5 FOOT DEPTH
  - ⊗<sup>SG6</sup> SOIL GAS SAMPLE COLLECTION LOCATION
  - SOIL EXCAVATION
- Pit 7**

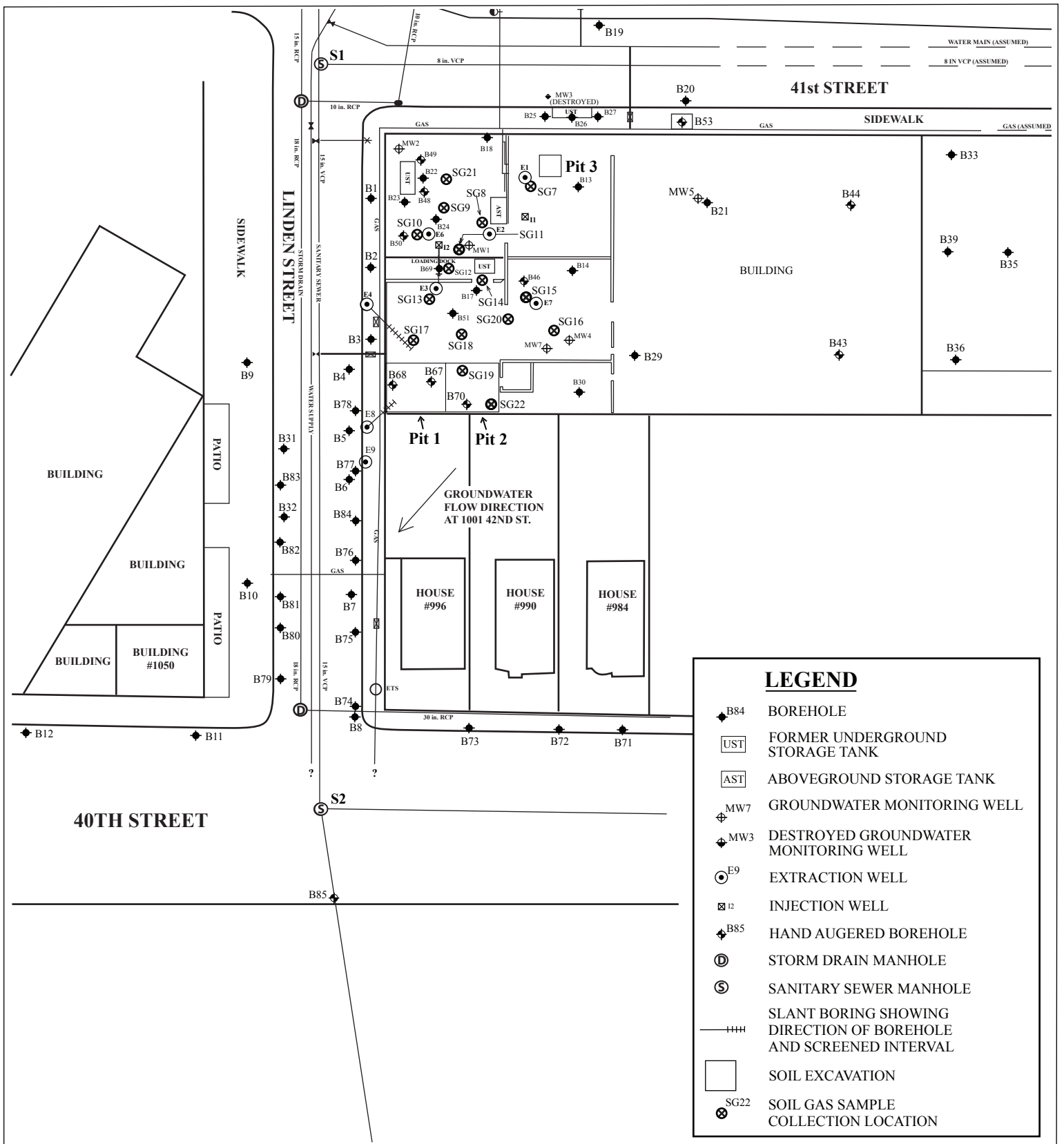
**Figure 3**  
 Site Plan Detail Showing Borehole and Soil Gas Sample Locations  
 in the Eastern Portion of the Site  
 California Linen Rental Company  
 989 41st Street  
 Oakland, California



Base Map From:  
 California Utility Survey  
 Utility Sketch Plan  
 Feb. 14, 2005

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 Emeryville, CA 94608





Base Map From:  
 California Utility Survey  
 Utility Sketch Plan  
 Feb. 14, 2005

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 1466 66th Street  
 Emeryville, CA 94608

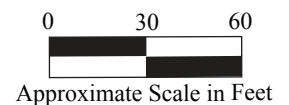




Figure 5  
 Dipole Resistivity Investigation Profile Locations  
 California Linen Rental Company  
 989 41st Street  
 Oakland, California

EXPLANATION:

●●●●● RESISTIVITY ARRAY

Drawing From  
 JR Associates, 3/27/09

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

0 25 50  
  
 Approximate Scale in Feet

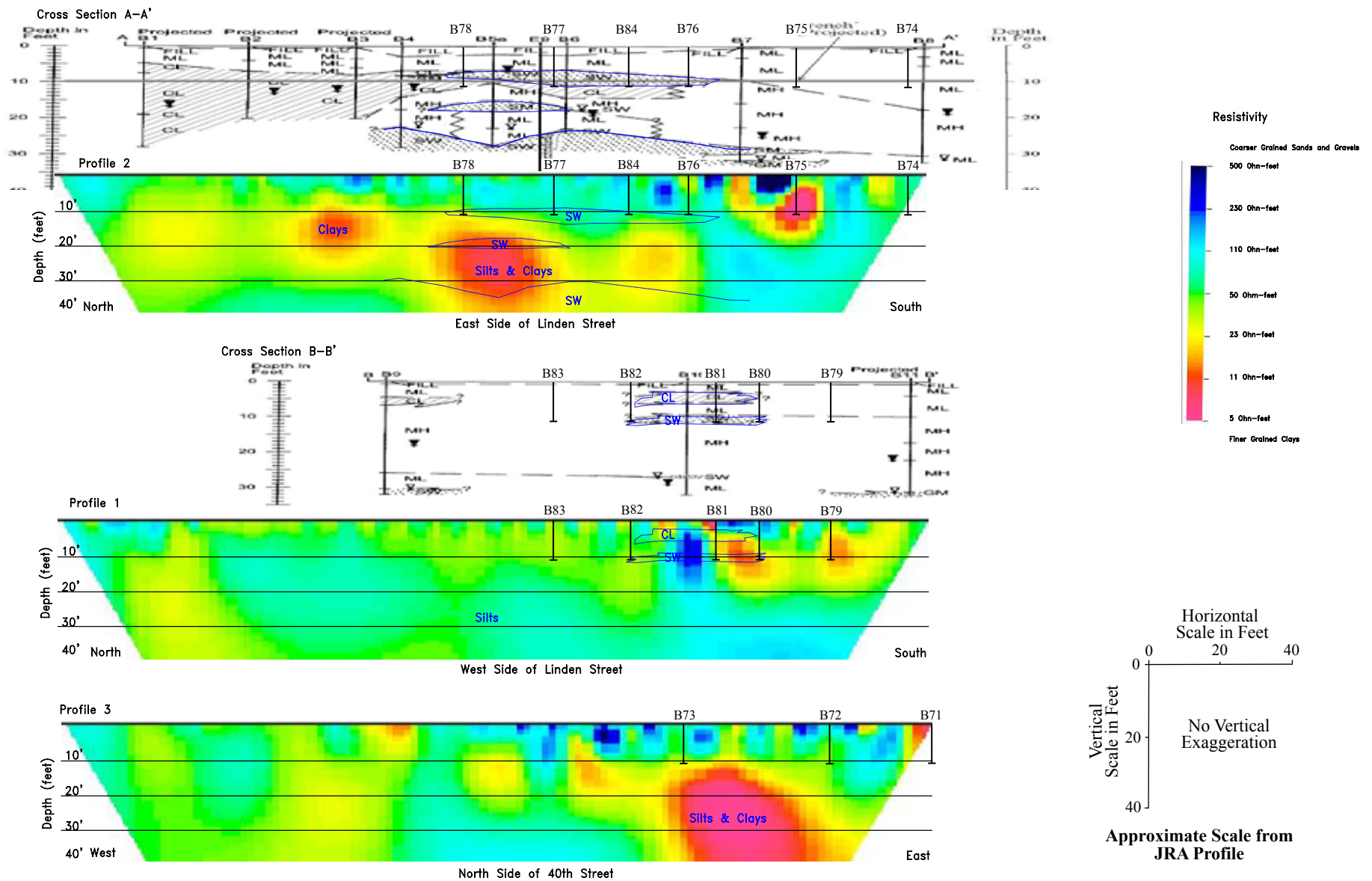


Figure 6  
 Resistivity Profiles with Geologic Cross Sections A-A' and B-B'  
 California Linen Rental Company  
 989 41st Street  
 Oakland, California

Resistivity Profile From  
 JR Associates, 3/27/09

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

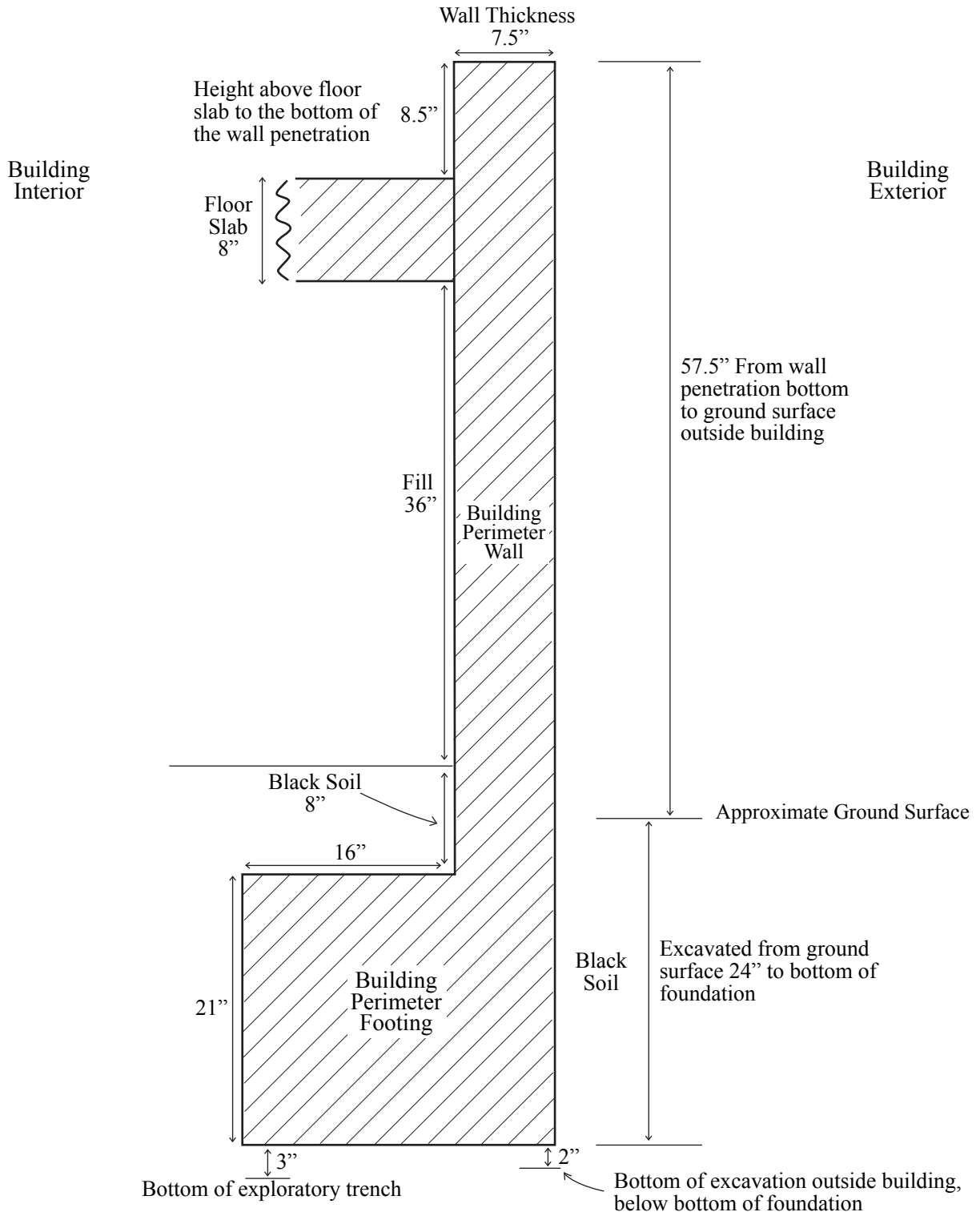
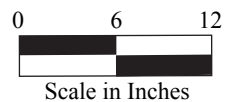


Figure 7  
 Building Wall and Floor Slab Cross Section on West Side of Building  
 California Linen Rental Company  
 989 41st Street  
 Oakland, California



Map Constructed  
 Using Steel Tape

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



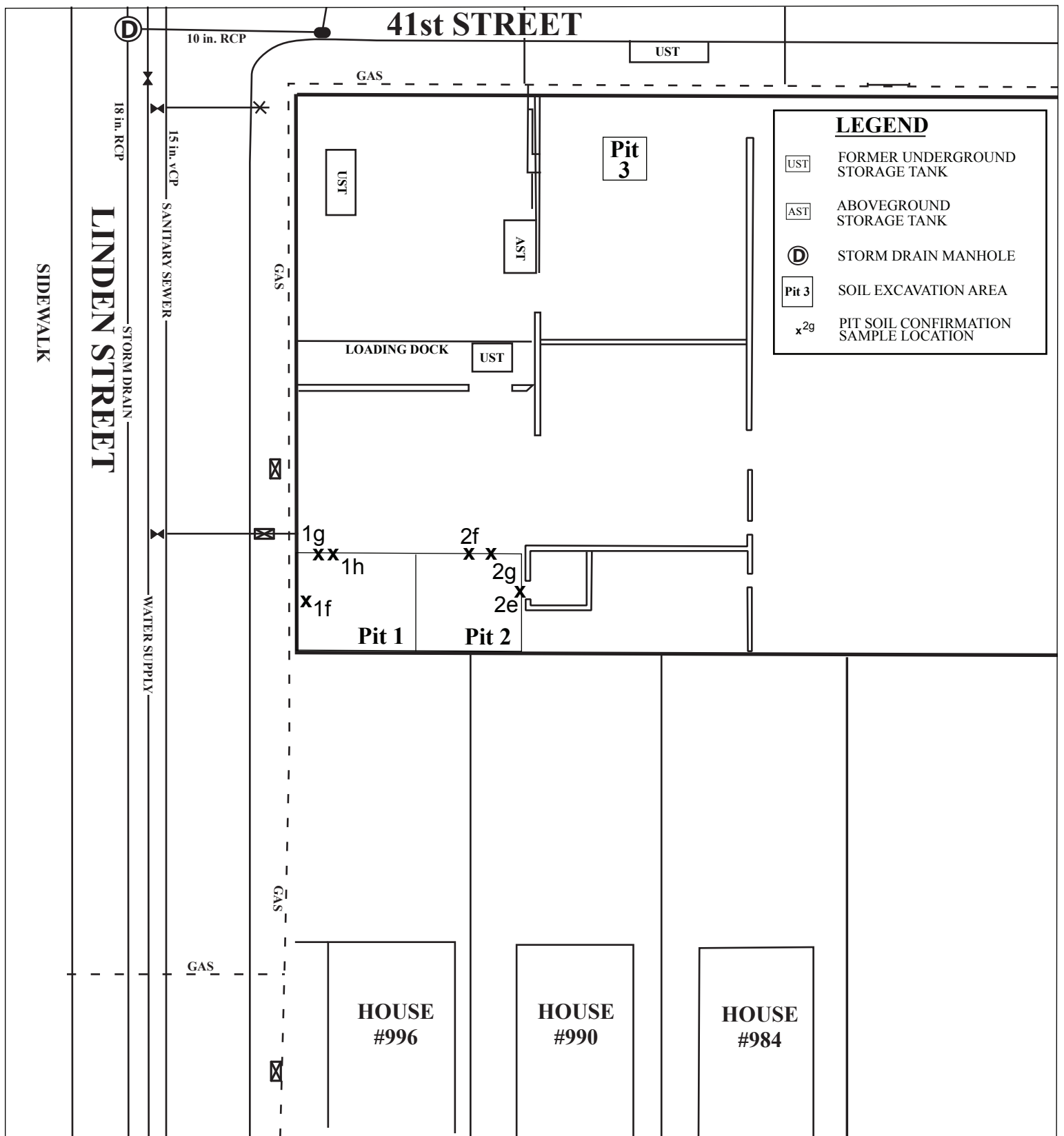
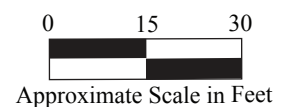


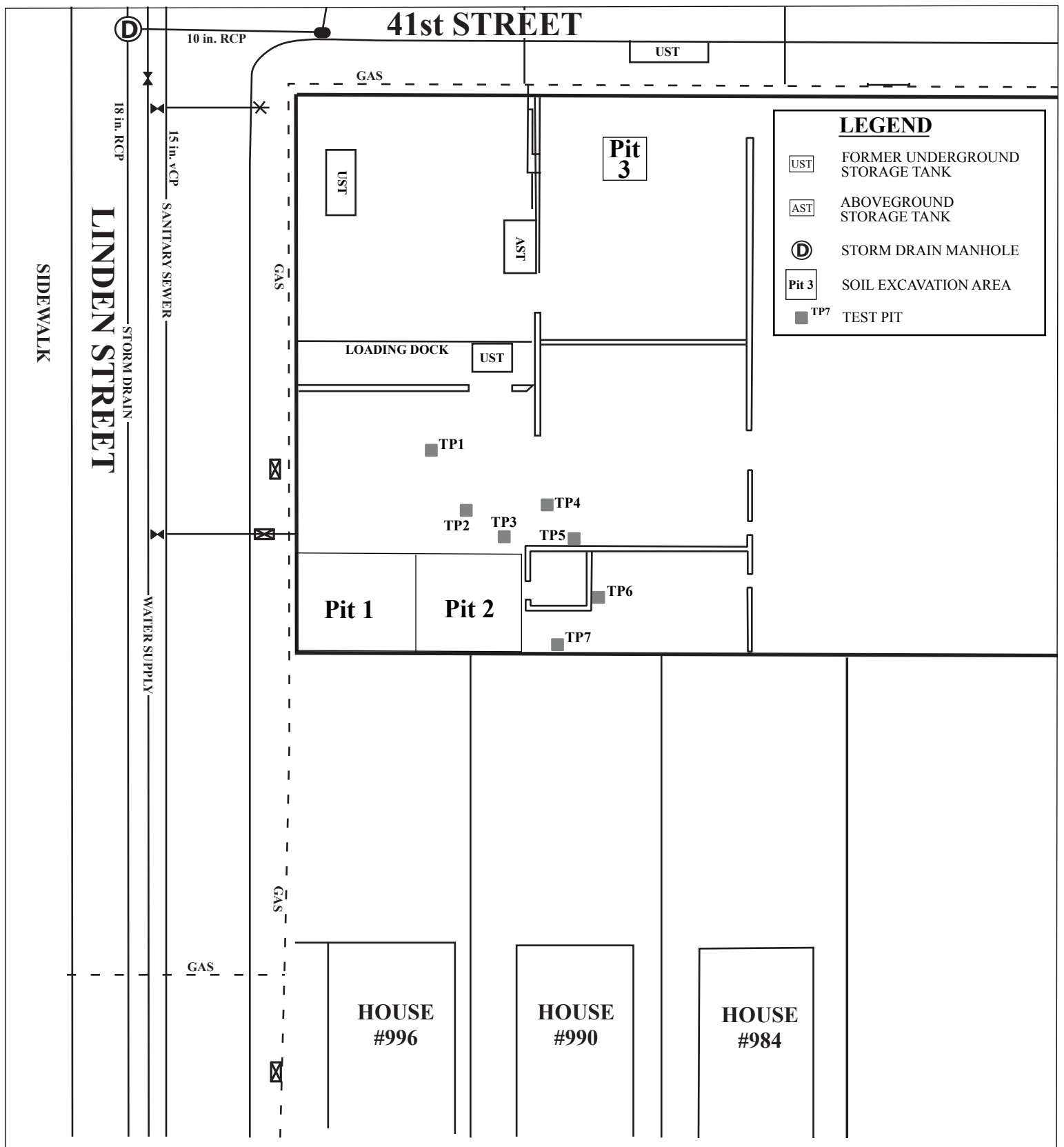
Figure 8  
 Site Plan Detail Showing Post-Excavation Pit Confirmation  
 Sample Locations in Pits 1 and 2  
 California Linen Rental Company  
 989 41st Street  
 Oakland, California



Base Map From:  
 California Utility Survey  
 Utility Sketch Plan  
 Feb. 14, 2005

RGA Environmental, Inc.  
 1466 66th Street  
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**LEGEND**






-  FORMER UNDERGROUND STORAGE TANK
-  ABOVEGROUND STORAGE TANK
-  STORM DRAIN MANHOLE
-  SOIL EXCAVATION AREA
-  TEST PIT

Figure 9  
 Site Plan Detail Showing Test Pits  
 California Linen Rental Company  
 989 41st Street  
 Oakland, California



Base Map From:  
 California Utility Survey  
 Utility Sketch Plan  
 Feb. 14, 2005

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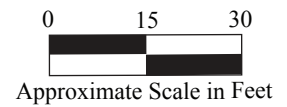




Figure 10  
Typical Soil Gas Sample Collection Manifold  
California Linen Rental Company  
989 41st Street  
Oakland, California

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



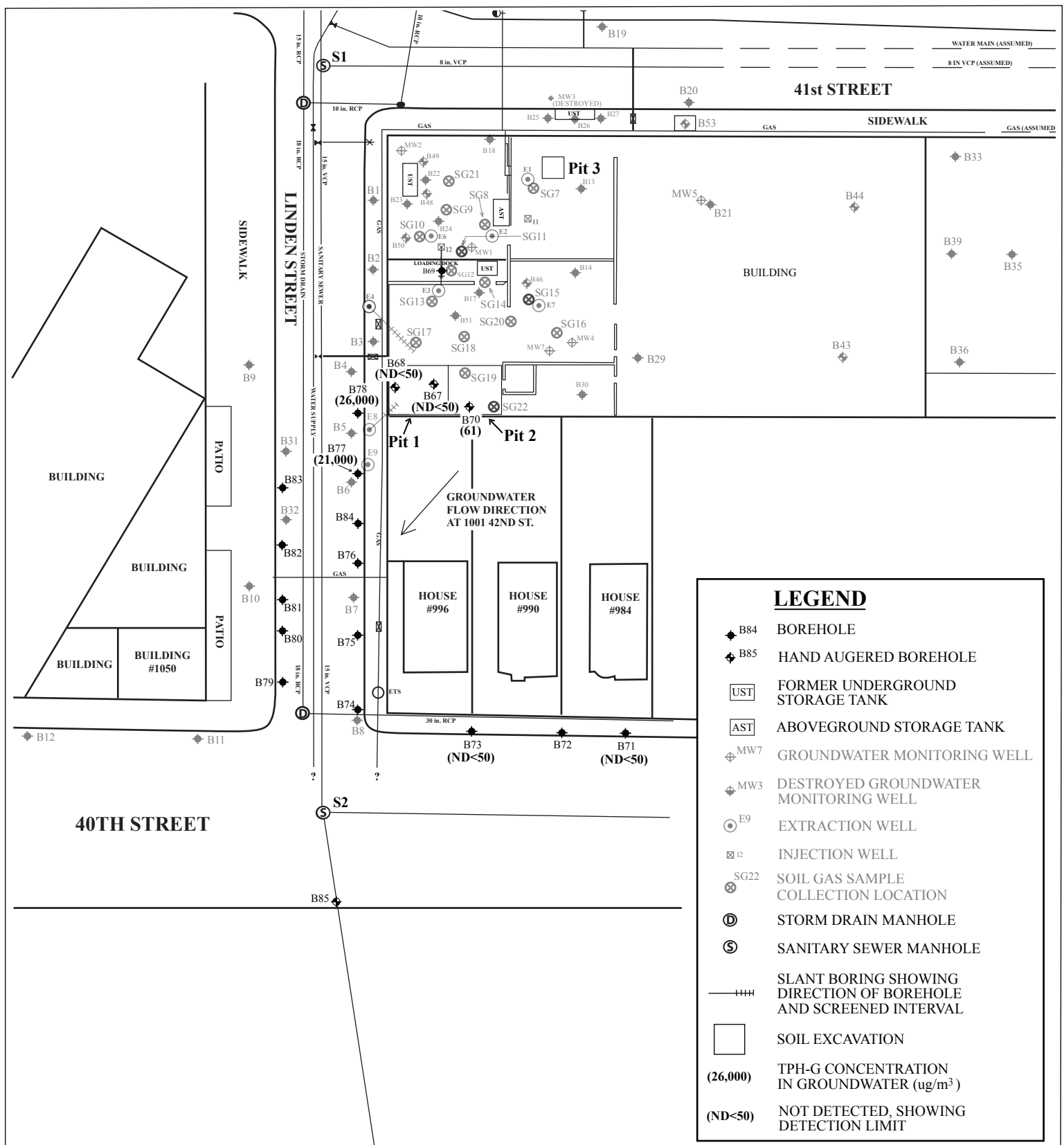
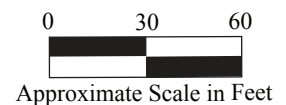


Figure 11  
 Site Plan Detail Showing TPH-G in Groundwater  
 in the Western Portion of the Site  
 California Linen Rental Company  
 989 41st Street  
 Oakland, California



Base Map From:  
 California Utility Survey  
 Utility Sketch Plan  
 Feb. 14, 2005

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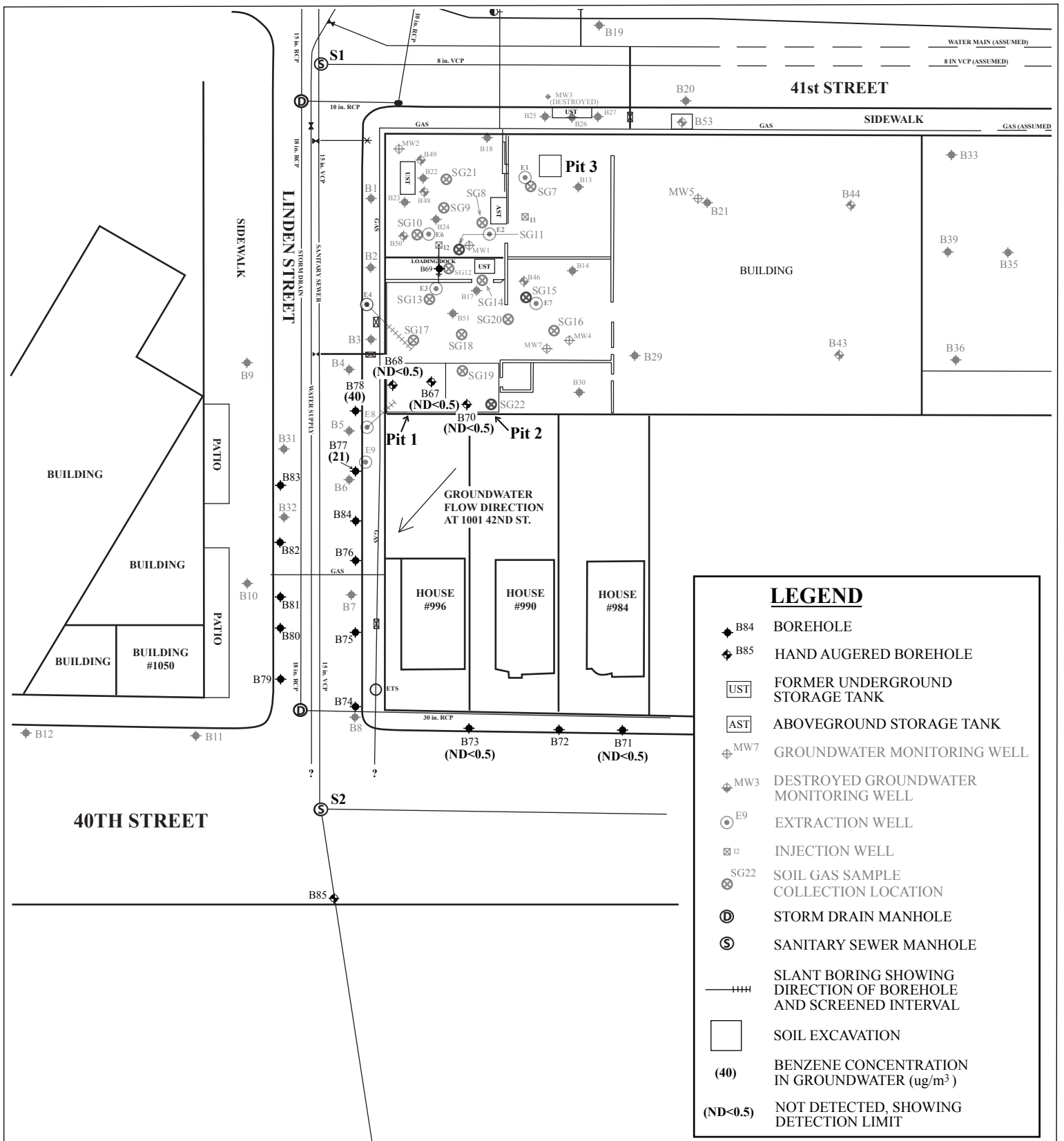
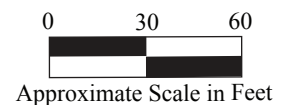


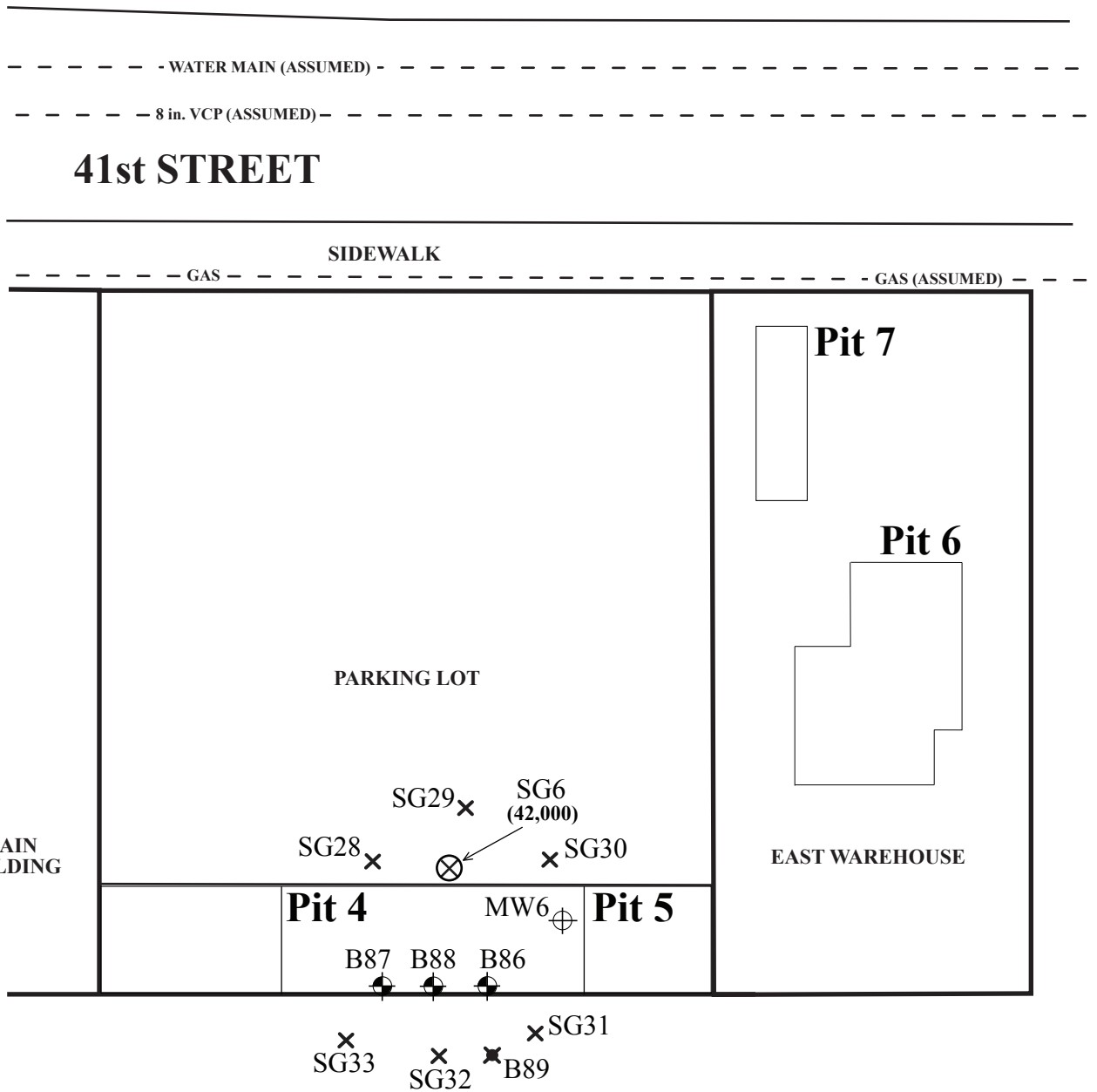
Figure 12  
 Site Plan Detail Showing Benzene in Groundwater  
 in the Western Portion of the Site  
 California Linen Rental Company  
 989 41st Street  
 Oakland, California









Base Map From:  
 California Utility Survey  
 Utility Sketch Plan  
 Feb. 14, 2005

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





**LEGEND**

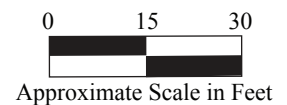
-  MW6 GROUNDWATER MONITORING WELL
-  B88 BOREHOLE HAND AUGERED HORIZONTALLY INTO PIT WALL AT 3.5 FOOT DEPTH
-  SG6 SOIL GAS SAMPLE COLLECTION LOCATION
-  SOIL EXCAVATION
-  SG33 PROPOSED SOIL GAS SAMPLE COLLECTION LOCATION
-  B89 PROPOSED GROUNDWATER SAMPLE COLLECTION LOCATION
- (42,000)** TPH-G CONCENTRATION IN SOIL GAS (ug/m<sup>3</sup>)

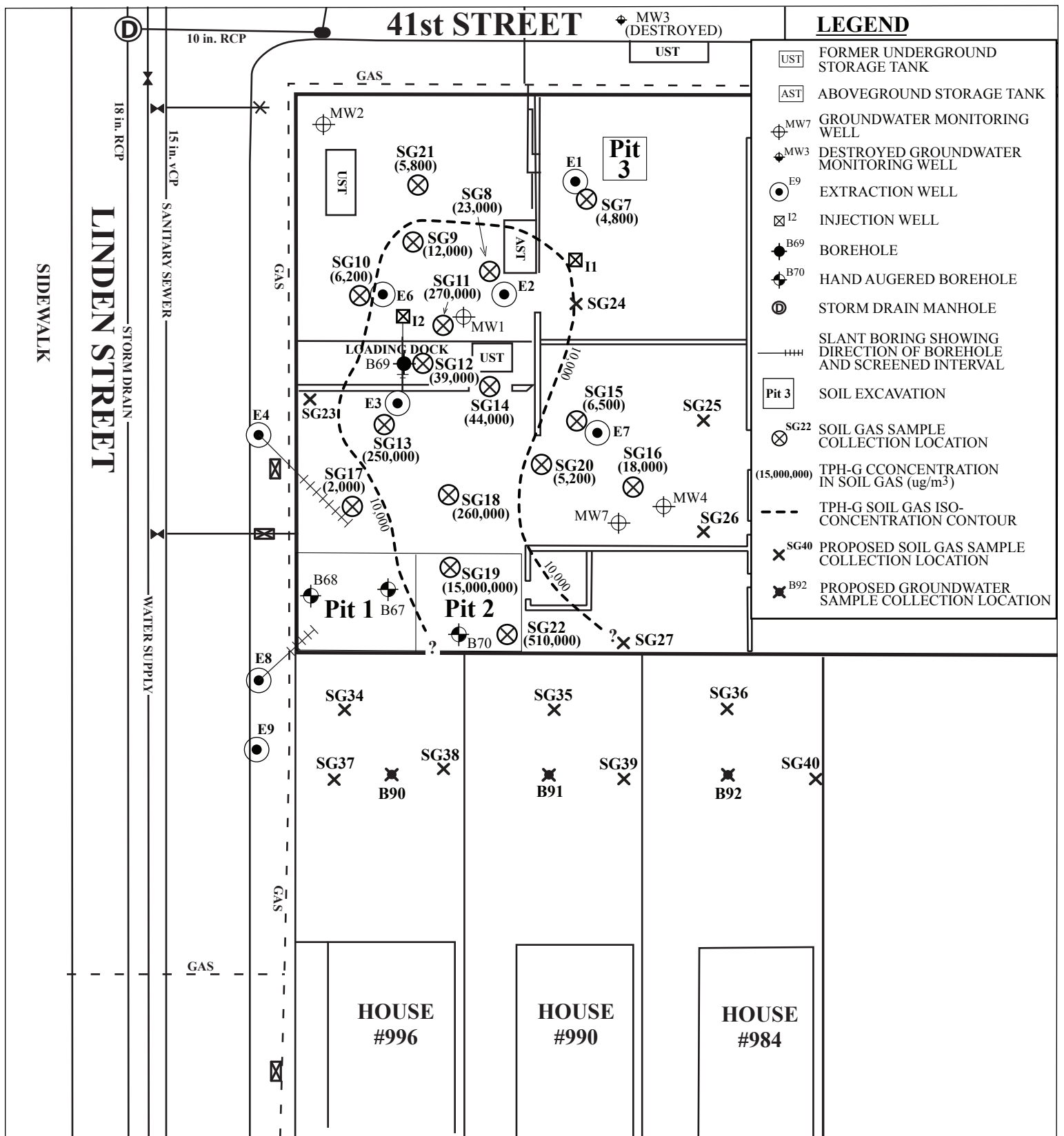
**Figure 13**  
 Site Plan Detail Showing TPH-G in Soil Gas  
 in the Eastern Portion of the Site  
 California Linen Rental Company  
 989 41st Street  
 Oakland, California



Base Map From:  
 California Utility Survey  
 Utility Sketch Plan  
 Feb. 14, 2005

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





**LEGEND**

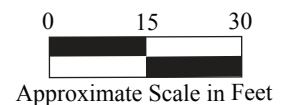
- UST FORMER UNDERGROUND STORAGE TANK
- AST ABOVEGROUND STORAGE TANK
- MW7 GROUNDWATER MONITORING WELL
- MW3 DESTROYED GROUNDWATER MONITORING WELL
- E9 EXTRACTION WELL
- I2 INJECTION WELL
- B69 BOREHOLE
- B70 HAND AUGERED BOREHOLE
- D STORM DRAIN MANHOLE
- SLANT BORING SHOWING DIRECTION OF BOREHOLE AND SCREENED INTERVAL
- Pit 3 SOIL EXCAVATION
- SG22 SOIL GAS SAMPLE COLLECTION LOCATION
- (15,000,000) TPH-G CONCENTRATION IN SOIL GAS (ug/m<sup>3</sup>)
- TPH-G SOIL GAS ISO-CONCENTRATION CONTOUR
- SG40 PROPOSED SOIL GAS SAMPLE COLLECTION LOCATION
- B92 PROPOSED GROUNDWATER SAMPLE COLLECTION LOCATION

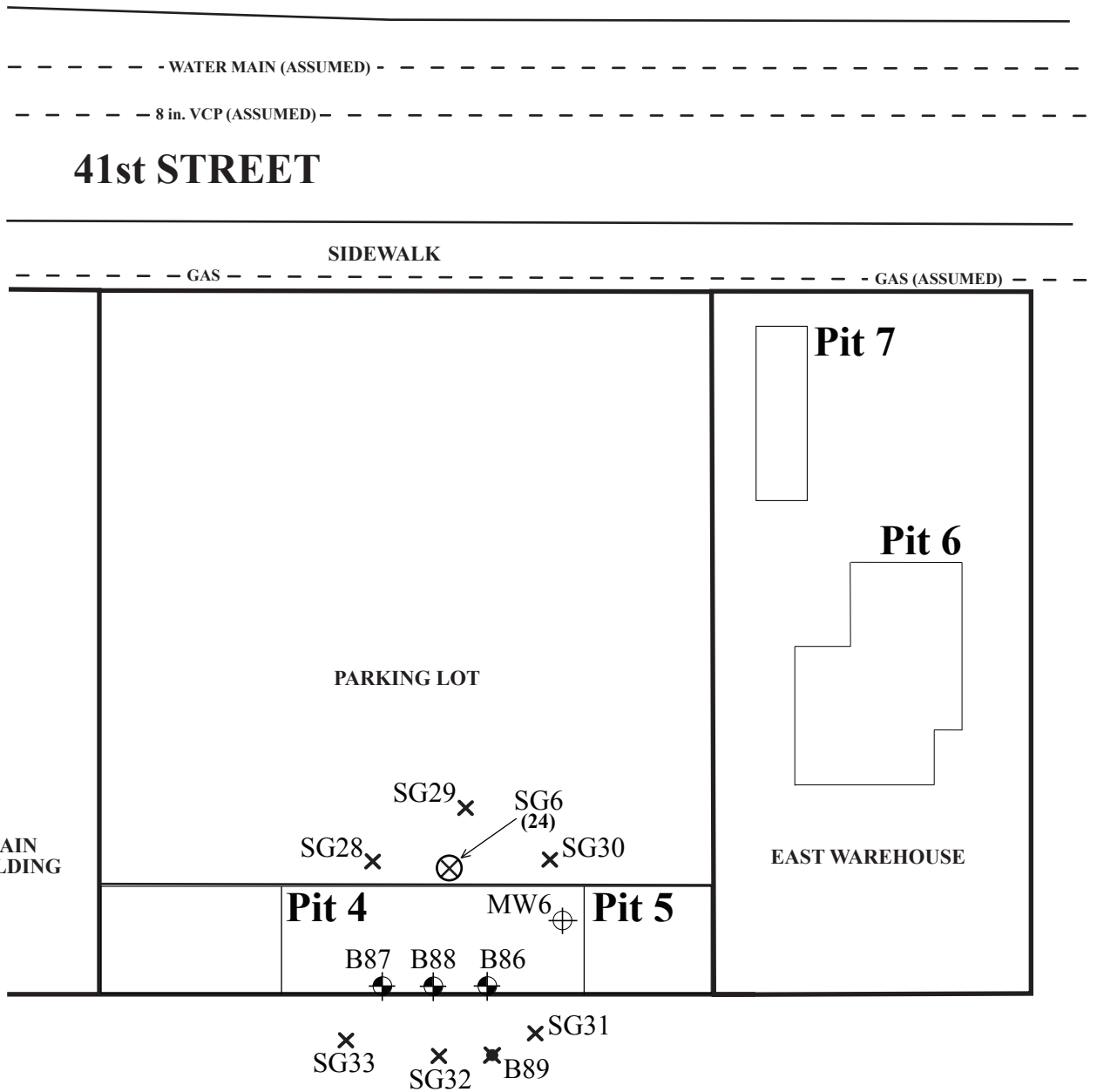
Figure 14  
 Site Plan Detail Showing TPH-G in Soil Gas  
 in the Western Portion of the Site  
 California Linen Rental Company  
 989 41st Street  
 Oakland, California









Base Map From:  
 California Utility Survey  
 Utility Sketch Plan  
 Feb. 14, 2005

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





**LEGEND**

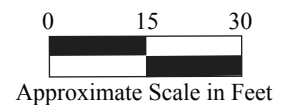
-  MW6 GROUNDWATER MONITORING WELL
-  B88 BOREHOLE HAND AUGERED HORIZONTALLY INTO PIT WALL AT 3.5 FOOT DEPTH
-  SG6 SOIL GAS SAMPLE COLLECTION LOCATION
-  Pit 7 SOIL EXCAVATION
-  SG33 PROPOSED SOIL GAS SAMPLE COLLECTION LOCATION
-  B89 PROPOSED GROUNDWATER SAMPLE COLLECTION LOCATION
- (24) BENZENE CONCENTRATION IN SOIL GAS (ug/m<sup>3</sup>)

**Figure 15**  
 Site Plan Detail Showing Benzene in Soil Gas  
 in the Eastern Portion of the Site  
 California Linen Rental Company  
 989 41st Street  
 Oakland, California



Base Map From:  
 California Utility Survey  
 Utility Sketch Plan  
 Feb. 14, 2005

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



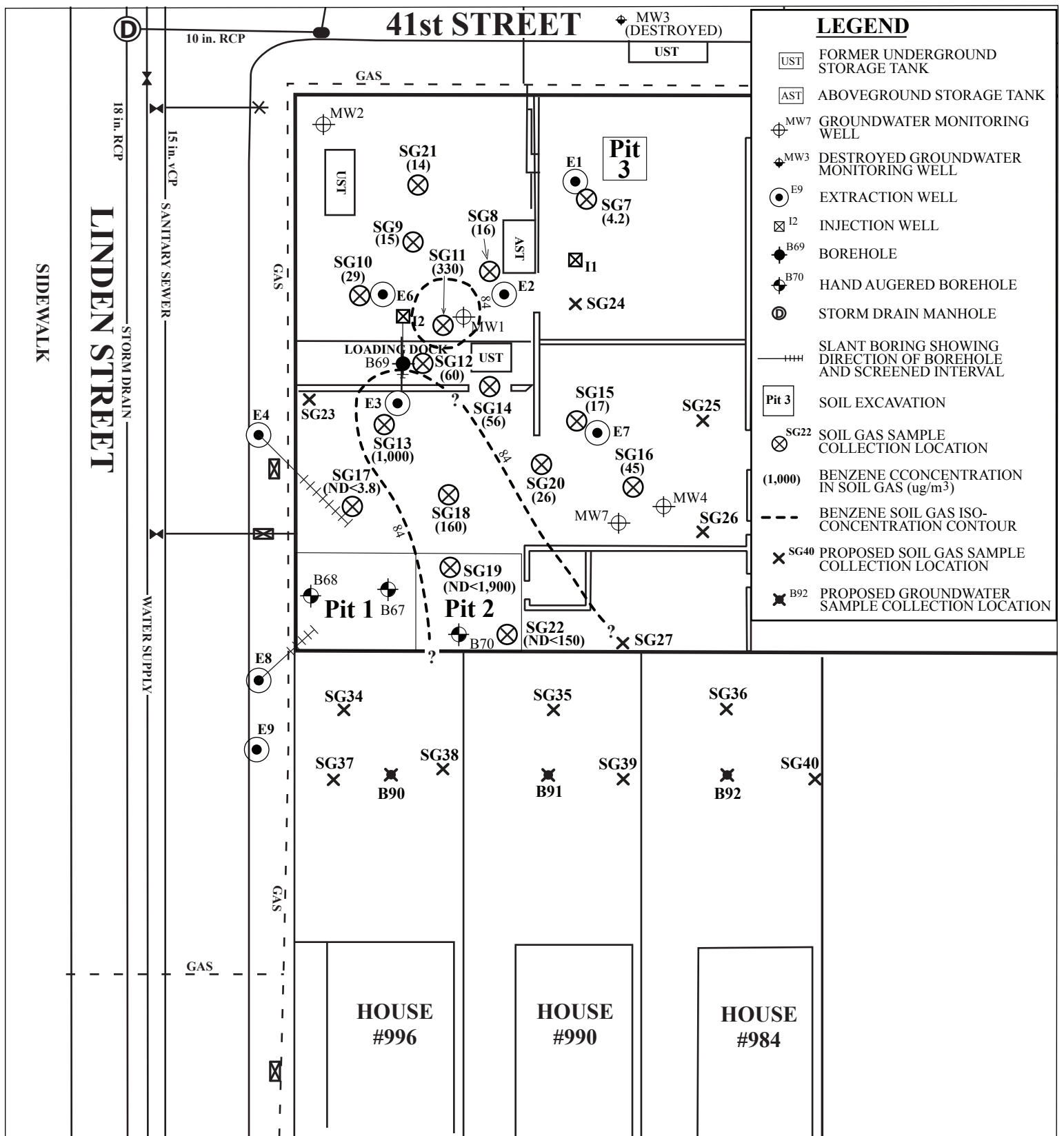
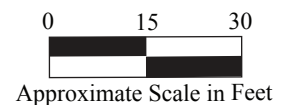


Figure 16  
 Site Plan Detail Showing Benzene in Soil Gas  
 in the Western Portion of the Site  
 California Linen Rental Company  
 989 41st Street  
 Oakland, California



Base Map From:  
 California Utility Survey  
 Utility Sketch Plan  
 Feb. 14, 2005

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



**APPENDIX A**  
**Geophysical Survey Data**

Engineering Geophysics  
1886 Emory Street  
San Jose, CA 95126  
(408) 293-7390

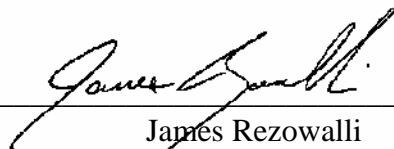
GEOPHYSICAL INVESTIGATION ALONG LINDEN AND 40TH STREETS  
989 41st STREET  
OAKLAND, CALIFORNIA

March 31, 2009

for

RGA Environmental, Incorporated  
55 Santa Clara Avenue, Suite 240  
Oakland, CA 94610

by

  
\_\_\_\_\_  
James Rezowalli  
California Registered Geophysicist, GP-921



## TABLE OF CONTENTS

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LIST OF ILLUSTRATIONS .....	iii
I INTRODUCTION .....	1
A. Site Conditions .....	1
II METHODOLOGY .....	2
A. Instrumentation.....	2
B. Field Procedures .....	3
C. Resistivity Inversion .....	3
III RESULTS .....	4
A. Resistivity Profiles .....	4
B. Limitations .....	5
IV DRAWINGS	

## LIST OF ILLUSTRATIONS

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Drawing 1 Vicinity Map

Drawing 2 Site Map

Drawing 3 Dipole-Dipole Array

Drawing 4 Resistivity Profiles Vs Geologic Cross Sections

Drawing 5 Trend in Silts and Clay Zone

## I INTRODUCTION

This report presents the results of a dipole-dipole resistivity geophysical investigation performed near 989 41st Street in Oakland, California (Drawing 1). The investigation was performed for RGA Environmental by J R Associates. The purpose of the investigation was to look for geophysical evidence of buried coarse grained channels and to help determine the geology under Linden and 41st Streets. James Rezowalli, Principal Geophysicist, Brian Rezowalli and Ericka Alecia, Technicians, of J R Associates performed the field work in March 2009.

### A. Site Conditions

The area of interest was along the sidewalks on both sides of Linden Street between 40th and 41st Streets and along the sidewalks on the north side of 40th Street near the intersection with Linden Street (Drawing 2). RGA Environmental is investigating former underground storage tanks that were formerly buried at 989 41st Street. Part of the background information RGA provided us included an extensive environmental site characterization performed at the nearby Oak Walk Development. The Oak Walk data suggested that ground water flow is generally to the southwest and there are near surface coarse grained paleo streambeds in the area that may affect contaminate migration. Soil borings drilled along the east side of Linden Street and adjacent to 989 41st Street found two near surface sand deposits with strong petroleum odors and elevated concentrations of TPH-G. The purpose of our geophysical investigation was to help determine the geology beneath Linden and 40th Streets and look for geophysical evidence of the sand channels that could be pathways for contaminate migration.

## II METHODOLOGY

We performed a geophysical method called dipole-dipole resistivity profiling. Resistivity is a measurement of the soil's ability to conduct electricity. Resistivity profiling measures vertical and lateral changes in resistivity within the ground. Different soil types have different electrical resistivities. At the two extremes are gravels that have high electrical resistivity values and organic clays that have very low electrical resistivities. A resistivity profile can be thought of as a profile of the clay content of the soil. The lower the resistivity, the greater the clay content. Zones of high resistivity are indications of soils with little clay such as sand and gravel deposits and are indications of permeable stream channels. Along with clay content, a soil's resistivity is dependent on the saturation and the conductivity of the pore fluid. In this case we are assuming the conductivity of the pore fluid is constant throughout the site.

### A. Instrumentation

The resistivity equipment consisted of a Sorensen DCR 600-3B DC power supply, a Fluke 45 digital multimeter, and a Keithley KPCI-3116 data acquisition system. The DC power supply was used to inject current into the ground. The amount of current, typically around 0.5 amps, was measured with the multimeter. The electrical potential field developed by the injected current was measured with the Keithley data acquisition system. The potential field typically ranged from 1 to 500 millivolts. This type of resistivity measurement is sometimes referred to as a four-point method.

## B. Field Procedures

Resistivity data were collected along three 250-foot profiles, one on the east side of Linden Street, one on the west side of Linden Street, and one along the north side of 40th Street (Drawing 2). The electrodes were planted a few inches into the soil at 10-foot intervals. A measurement began by injecting current between the first and second electrodes of the line (Drawing 3). The potential field was simultaneously measured between the next eight consecutive electrodes. This process was repeated several times while alternating the current direction between readings. The current and potential readings were averaged and noted along with the current and potential electrode locations. For the next readings the current was injected into the second and third, then between the third and fourth, and so on until the end of the line was reached. The process was then repeated with the electrodes spaced 20 feet apart. The depth of investigation was approximately 40 feet below the surface of the street.

## C. Resistivity Inversion

The averaged current and potential readings along with the location of the current and potential electrodes for each reading were entered into a dipole-dipole resistivity inversion program. The program allows us to inspect the raw data for erroneous readings and invert the raw data into a profile showing changes in resistivity with depth. To do the inversion the program creates an initial two-dimensional model of the true electrical resistivity of the soil beneath the line based on the observed data. Next, the program predicts what the field data would look like based on the model. The program then adjusts the model iteratively until the predicted data closely matches the observed data.

### III RESULTS

#### A. Resistivity Profiles

The results of the dipole-dipole resistivity profile are shown in Drawings 4 and 5. Drawing 4 illustrates resistivity Profiles 1, 2, and 3 that were collected on the west and east side of Linden Street and along 40th Street respectively. In general, the blue and green areas in the profiles indicate sands to silts and the yellow and pink areas indicate silts to clays. Along with the profiles are geologic cross sections provided by RGA Environmental. Cross Section B-B' paralleled Profile 1 and Cross Section A-A' paralleled Profile 2. The location of the sand beds (SW) found in the geologic cross section was copied onto the profiles to help compare the resistivity values to the known geology. In the middle of Profile 2 there was a conductive zone (shown in yellow and pink) indicative of silts and clay soils that was not found beneath Profile 1. The geologic cross section A-A' indicated sand layers with strong petroleum odors and elevated TPH-G just above the silt and clay zone.

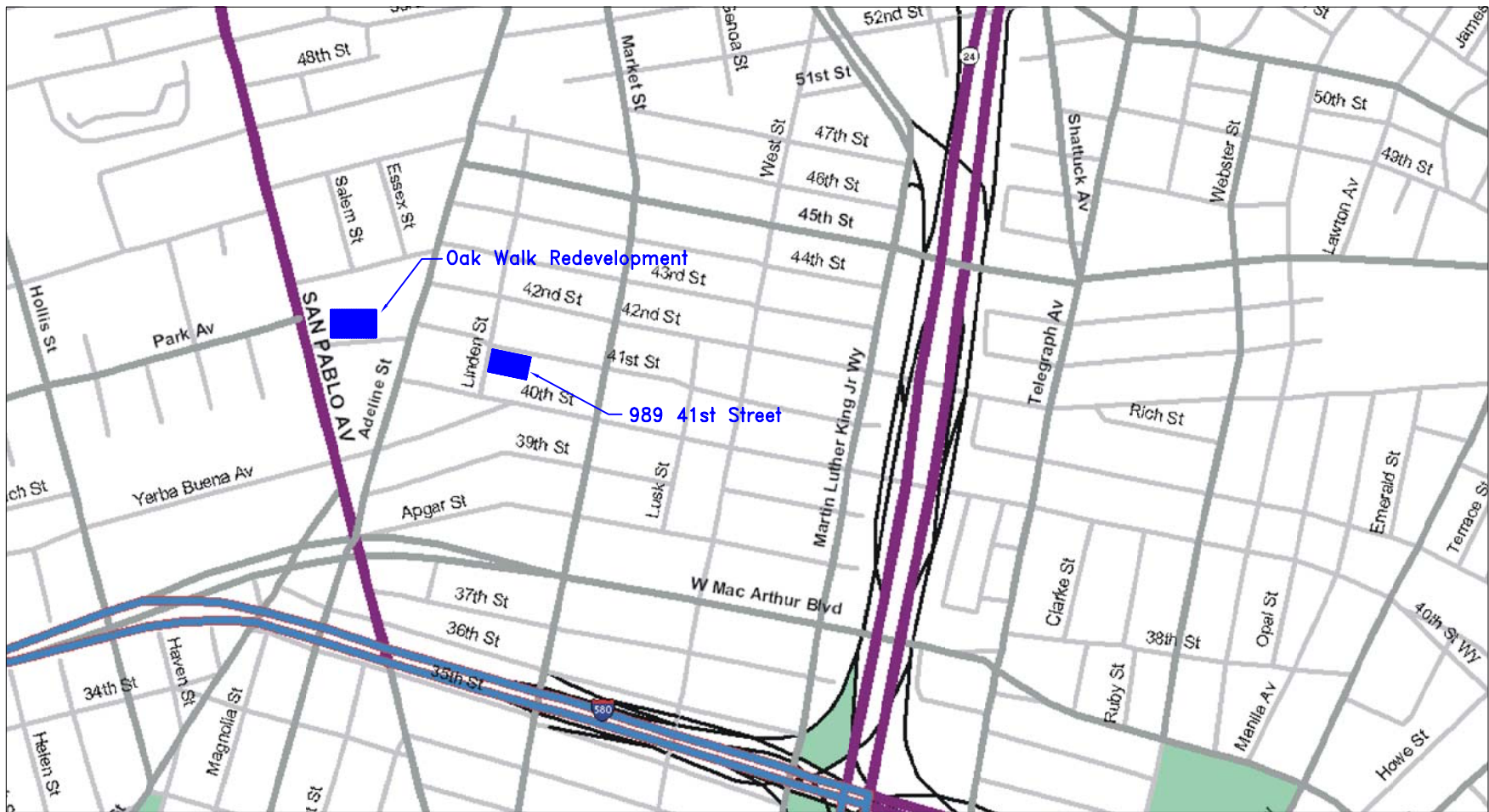
Drawing 5 shows the three resistivity profiles superimposed on an air photo. The electrically conductive silts and clay zone found beneath Profile 2 appears to also be under the east end of Profile 3. There appears to be an approximately South 10° East trend to the zone. This suggests there may be a south and slightly east trend to the bedding in the area and would be a reason why the electrically conductive silts and clay zone was not found on the west side of Linden Street. The resistivity data suggest that contaminants may be migrating along bedding that trends in a southerly and slightly east direction. Sampling would be needed to confirm this.

## B. Limitations

Many factors contribute to soil resistivity. Each soil type, sand, silt, or clay has a range of resistivity associated with it and there is overlap between the ranges. Trends in the resistivity data should be correlated to other data regarding the site's geology, hydrology, and history before conclusions are made.


## **IV DRAWINGS**





<b>Vicinity Map</b> Dipole Resistivity Investigation 989 41st Street Oakland, California		
SCALE: No Scale		DRAWN BY: J.J.R.
DATE: 3-27-09	JOB NUMBER: 111-261-09	REVISED:
<b>J R Associates</b> Civil and Environmental Geophysics 1886 Emory Street, San Jose, CA (408) 293-7390		
		DRAWING NUMBER: <b>1</b>

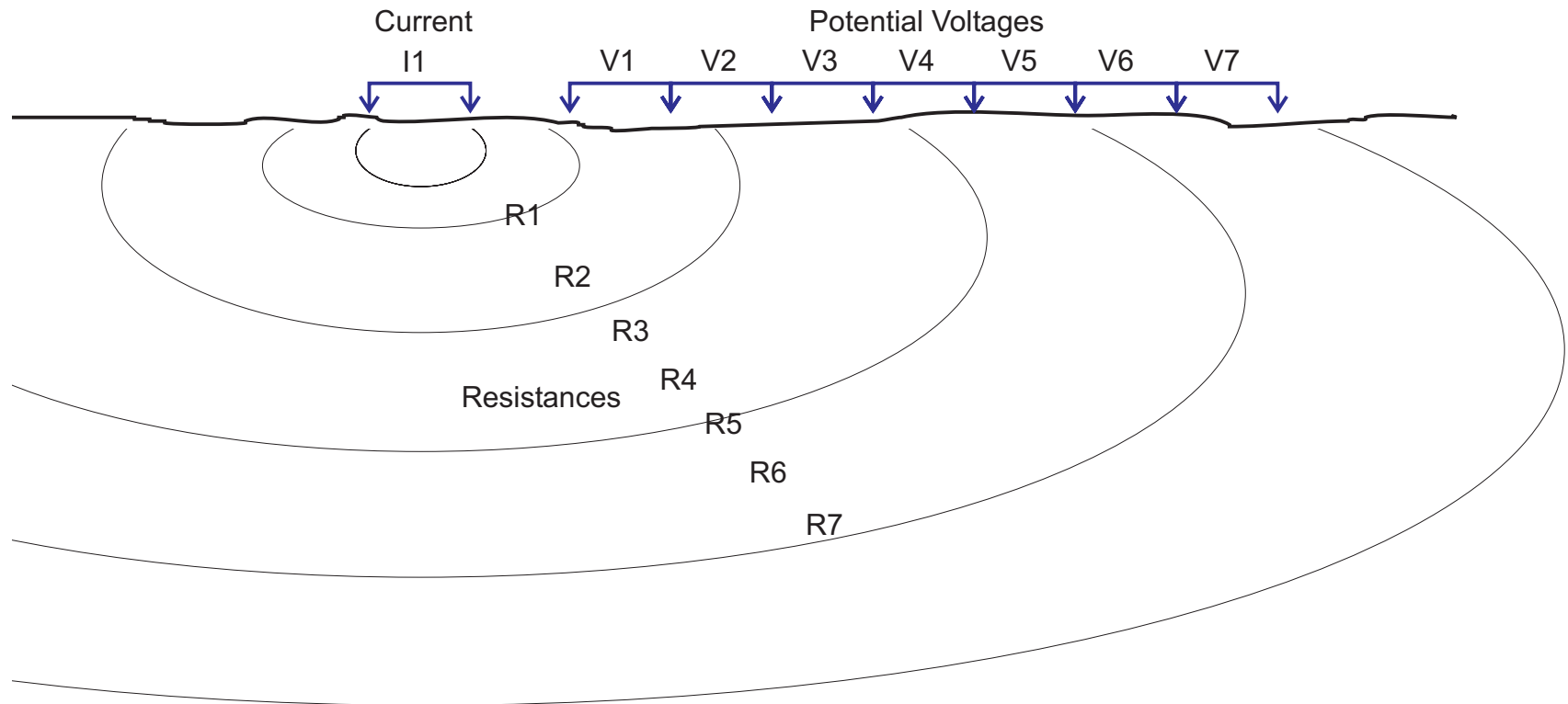


EXPLANATION:  


RESISTIVITY ARRAY

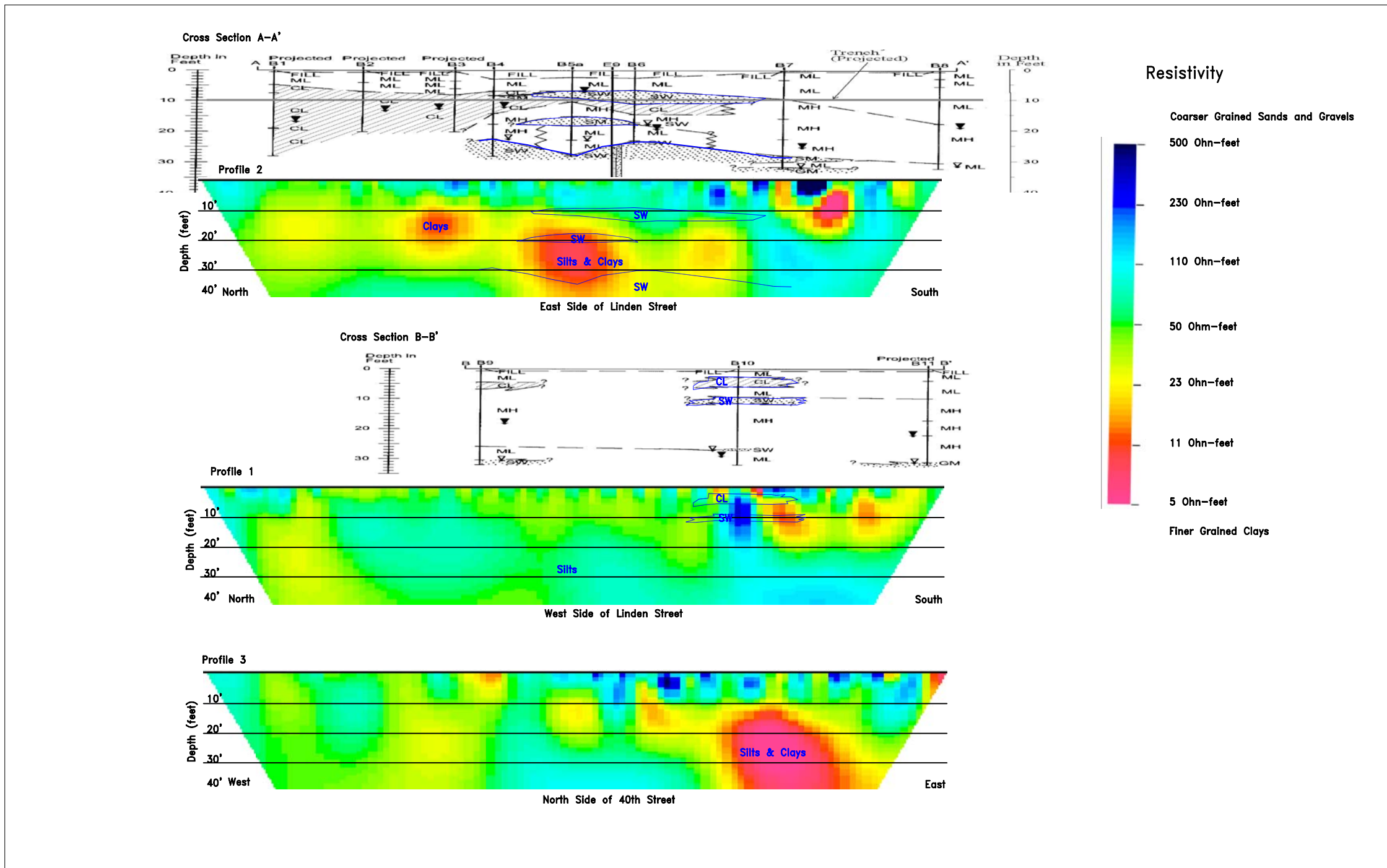
<p><b>Site Map</b> Dipole Resistivity Investigation          989 41st Street          Oakland, California</p>		
SCALE: 1" = 60'		DRAWN BY: J.J.R.
DATE: 3-27-09	JOB NUMBER: 111-261-09	REVISED:
<p><b>J R Associates</b> Civil and Environmental Geophysics          1886 Emory Street, San Jose, CA (408) 293-7390</p>		
		DRAWING NUMBER: <b>2</b>

## Dipole-Dipole Array



Material	Resistivity (Ohm-ft)
Fresh Bedrock:	> 1000
Weathered Bedrock:	100 to 1000
Coarse Grained:	100 to 1000
Finer Grained:	25 to 250
Clays:	<25

<b>Dipole-Dipole Array</b> Dipole Resistivity Investigation 989 41st Street Oakland, California		
SCALE:	No Scale	DRAWN BY:    J.J.R.
DATE:	3-27-2009	JOB NUMBER:                      111-261-09    REVISED:
<b>J R ASSOCIATES</b> Civil and Environmental Geophysics 1886 Emory Street, San Jose, CA (408) 293-7390		
		DRAWING NUMBER: <b>3</b>



Note: Geologic cross sections were provided by RGA Environmental

**Resistivity Profiles Vs Geologic Cross Sections**

989 41st Street  
Oakland, California

SCALE: 1" = 40'

DRAWN BY: J.J.R.

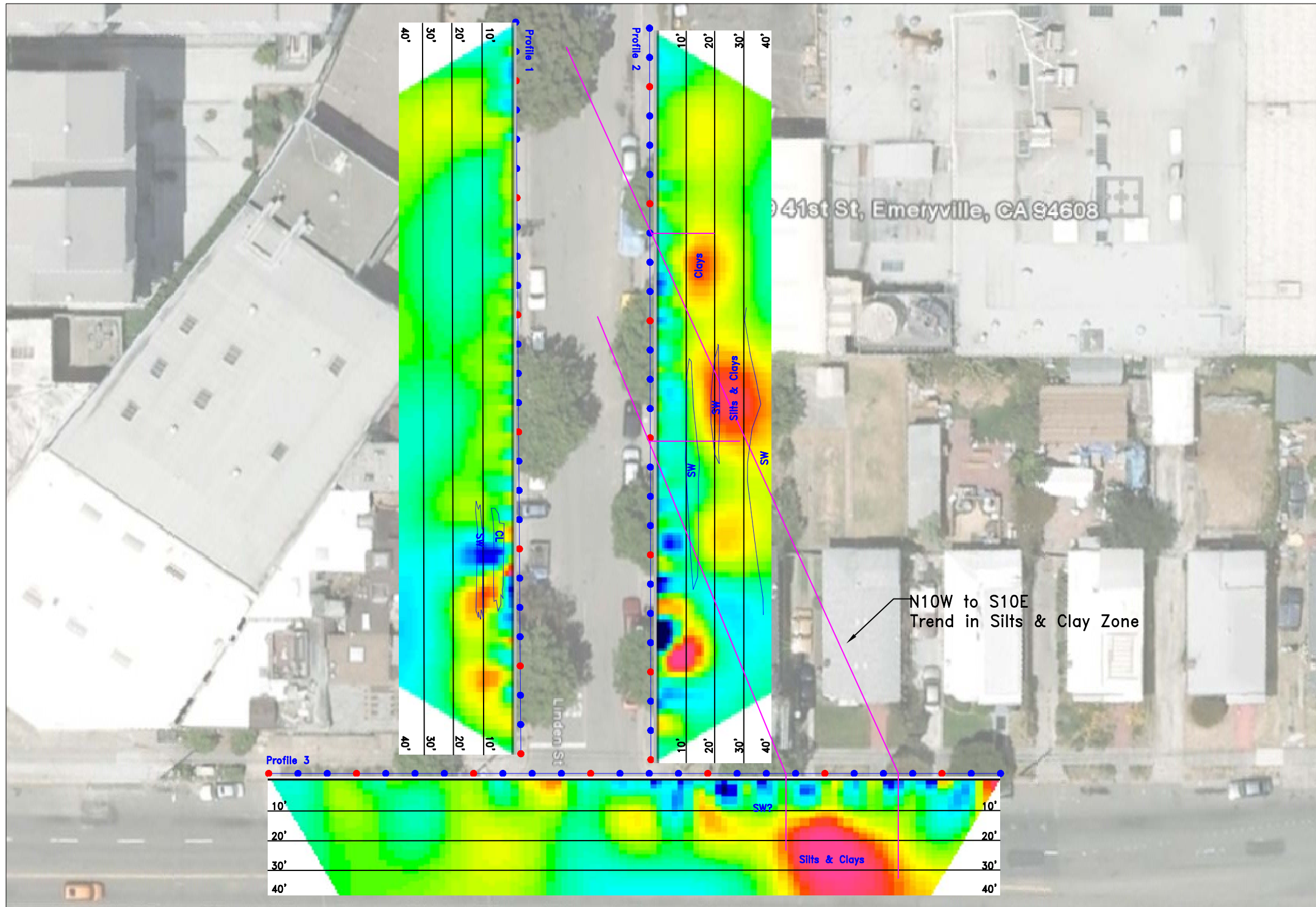
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JOB NUMBER: 111-261-09

REVISED:

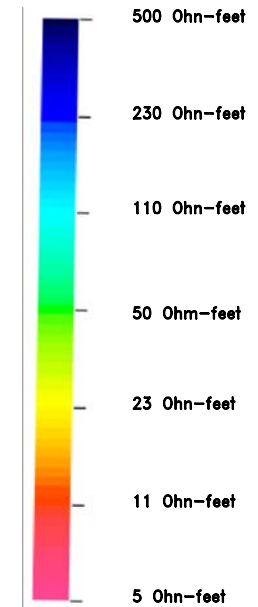
**J R Associates** Civil and Environmental Geophysics  
1886 Emory Street, San Jose, CA (408) 293-7390

DRAWING NUMBER: 4



**Resistivity**

Coarser Grained Sands and Gravels



Finer Grained Clays

**Trend in Silts & Clay Zone** Dipole Resistivity Investigation  
989 41st Street  
Oakland, California

SCALE: 1" = 40'

DRAWN BY: J.J.R.

DATE: 3-27-09

JOB NUMBER: 111-261-09

REVISED:

**J R Associates** Civil and Environmental Geophysics  
1886 Emory Street, San Jose, CA (408) 293-7390

DRAWING NUMBER:

**5**

# **APPENDIX B**

## **Boring Logs**

# RG ENVIRONMENTAL, INC.

BORING NO.: B67		PROJECT NO.: 0304		PROJECT NAME: California Linen, 989 41st Street, Oakland			
BORING LOCATION: Near east wall of Pit 1. Bottom of Pit 1 is 6 ft. below adjacent floor.			ELEVATION AND DATUM:				
DRILLING AGENCY: Vironex, Inc.		DRILLER: Justin		DATE & TIME STARTED:		DATE & TIME FINISHED:	
DRILLING EQUIPMENT: Hand Auger				3/26/09 1045		3/26/09 1055	
COMPLETION DEPTH: 3.0 Feet		BEDROCK DEPTH: None encountered		LOGGED BY:		CHECKED BY:	
FIRST WATER DEPTH: 2.2 Feet		NO. OF SAMPLES: 1 Water		MLD			
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
	0.0 to 0.6 ft. Black clay (CL); stiff, moist, with trace angular gravel to 0.25-in. diameter. No Petroleum Hydrocarbon (PHC) odor.	CL	No Well Constructed		0	Borehole hand augered using a 3.5-in. O.D. hand auger	
	0.6 to 3.0 ft. Reddish brown gravelly sand (SP); loose, moist, with angular gravel to 0.5-in. diameter. No PHC odor. Saturated at 2.2 ft.	SP ▽▼			0		First water encountered at 2.2 ft. during augering.
5						Borehole terminated at 3.0 ft. on 3/26/09.	
10						Sample B67-W collected using a new polypropylene disposable bailer at 1110 on 3/26/09; no odor or sheen on sample. Water subsequently measured at 2.2 ft. at 1115.	
15						Borehole grouted 3/26/09 with neat cement grout. John Shouldice of Alameda County Public Works Agency on site to observe grouting.	
20							
25							
30							

# RG ENVIRONMENTAL, INC.

BORING NO.: B68		PROJECT NO.: 0304		PROJECT NAME: California Linen, 989 41st Street, Oakland			
BORING LOCATION: Near west wall of Pit 1. Bottom of Pit 1 is 6 ft. below adjacent floor.			ELEVATION AND DATUM:				
DRILLING AGENCY: Vironex, Inc.		DRILLER: Justin		DATE & TIME STARTED:		DATE & TIME FINISHED:	
DRILLING EQUIPMENT: Hand Auger				3/26/09 1120		3/26/09 1035	
COMPLETION DEPTH: 3.0 Feet		BEDROCK DEPTH: None encountered		LOGGED BY:		CHECKED BY:	
FIRST WATER DEPTH: 2.2 Feet		NO. OF SAMPLES: 1 Water		MLD			
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
	0.0 to 1.0 ft. Black clay (CL); stiff, moist, with trace angular gravel to 0.25-in. diameter. No Petroleum Hydrocarbon (PHC) odor.	CL	No Well Constructed		0	Borehole hand augered using a 3.5-in. O.D. hand auger	
	1.0 to 3.0 ft. Reddish brown sandy gravel (GP); moist, with angular gravel to 0.5-in. diameter. No PHC odor. Saturated at 2.2 ft.	GP			0	First water encountered at 2.2 ft. during augering.	
5						Borehole terminated at 3.0 ft. on 3/26/09.	
10						Sample B68-W collected using a new polypropylene disposable bailer at 1140 on 3/26/09; no odor or sheen on sample. Water subsequently measured at 2.3 ft. at 1210.	
15						Borehole grouted 3/26/09 with neat cement grout. John Shouldice of Alameda County Public Works Agency on site to observe grouting.	
20							
25							
30							



# RG ENVIRONMENTAL, INC.

BORING NO.: B69		PROJECT NO.: 0304		PROJECT NAME: California Linen, 989 41st Street, Oakland			
BORING LOCATION: On loading dock, 4 ft. west of SG12				ELEVATION AND DATUM:			
DRILLING AGENCY: Vironex, Inc.		DRILLER: Justin		DATE & TIME STARTED:		DATE & TIME FINISHED:	
DRILLING EQUIPMENT: Geoprobe 6600				3/26/09 1212		3/26/09 1300	
COMPLETION DEPTH: 10.0 Feet		BEDROCK DEPTH: None encountered		LOGGED BY:		CHECKED BY:	
FIRST WATER DEPTH: 9.5 Feet		NO. OF SAMPLES: 2 Soil		MLD			
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
	0.0 to 1.5 ft. Concrete (0.3 ft.) and gray sandy gravel (FILL); dry. No Petroleum Hydrocarbon (PHC) odor.	FILL	No Well Constructed		0	Borehole continuously cored using a 5-foot long 2.0-inch O.D. Geoprobe Macrocore barrel sampler. The sampler was lined with 4.8-foot-long 1.5-inch O.D. transparent PVC tubes.  0 to 5 ft. 4.2 ft. recovery  5 to 10 ft. 4.6 ft. recovery  First water encountered during drilling at 9.5 ft.	
5	1.5 to 6.0 ft. Black silty clay (CL); medium stiff, moist, with minor angular gravel to 0.25-in. diameter. No PHC odor.	CL	B69-4.5		0		
	6.0 to 7.5 ft. Olive-gray gravelly clay (CL); medium stiff, moist, with angular gravel to 0.5-in. diameter, and orange mottling. No PHC odor.	CL			0		
10	7.5 to 10.0 ft. Reddish brown gravelly clayey sand (SC); medium dense, moist, with angular gravel to 0.5-in. diameter. No PHC odor. Wet at 9.5 ft.	SC		B69-9.5			
15						Borehole terminated at 10.0 ft. on 3/26/09. No water sample collected.  Borehole grouted on 3/26/09 with neat cement grout. John Shouldice of Alameda County Public Works Agency on site to observe grouting.	
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# RG ENVIRONMENTAL, INC.

BORING NO.: B70		PROJECT NO.: 0304		PROJECT NAME: California Linen, 989 41st Street, Oakland			
BORING LOCATION:		In Pit 2, 10 ft. west of SG22. Bottom of Pit 2 is 3 ft. below adjacent floor.		ELEVATION AND DATUM:			
DRILLING AGENCY:		Vironex, Inc.		DRILLER:		Justin	
DRILLING EQUIPMENT:		Hand Auger		DATE & TIME STARTED:		DATE & TIME FINISHED:	
				3/27/09 0900		3/27/09 1050	
COMPLETION DEPTH:		9.0 Feet		BEDROCK DEPTH:		None encountered	
FIRST WATER DEPTH:		8.0 Feet		NO. OF SAMPLES:		1 Water	
				LOGGED BY:		CHECKED BY:	
				MLD			
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
5	0.0 to 6.0 ft. Black clay (CL); medium stiff, moist, with roots. No Petroleum Hydrocarbon (PHC) odor.	CL	No Well Constructed		0	Borehole hand augered using a 3.5-in. O.D. hand auger	
	3.5 to 6.0 ft. Color change to olive-green, with black and orange mottling						
	6.0 to 8.0 ft. Orange-brown clayey silt (ML); medium stiff, moist. No PHC odor.	ML					
	Wet at 8.0 ft.	▽					
10	8.0 to 9.0 ft. Orange-brown gravelly silty clay (CL); soft, saturated, with angular gravel to 0.25-in. diameter. No PHC odor.	CL	▼		0	First water encountered during augering at 8.0 ft.	
						Borehole terminated at 9.0 ft. on 3/27/09.	
15						Water level measured at 8.4 ft. at 1055. Sample B70-W collected using a new polypropylene disposable bailer at 1110 on 3/27/09; no odor or sheen on sample. Water subsequently measured at 8.8 ft. at 1115.	
20						Borehole grouted on 3/27/09 using a tremie pipe with neat cement grout.	
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# RG ENVIRONMENTAL, INC.

BORING NO.: B71		PROJECT NO.: 0304		PROJECT NAME: California Linen, 989 41st Street, Oakland			
BORING LOCATION: In planter adjacent to sidewalk, north side of 40th St., 120 ft. east of Linden St.						ELEVATION AND DATUM:	
DRILLING AGENCY: Vironex, Inc.			DRILLER: Justin		DATE & TIME STARTED:	DATE & TIME FINISHED:	
DRILLING EQUIPMENT: Geoprobe 6600					3/27/09 1230	3/27/09 1330	
COMPLETION DEPTH: 11.0 Feet			BEDROCK DEPTH: None encountered		LOGGED BY:	CHECKED BY:	
FIRST WATER DEPTH: 8.0 Feet			NO. OF SAMPLES: 1 Soil, 1 Water		MLD		
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
5	0.0 to 1.5 ft. Brown clayey gravelly sand (FILL); loose, dry, with angular gravel to 0.5-in. diameter. No Petroleum Hydrocarbon (PHC) odor.	FILL	No Well Constructed		0	Borehole continuously cored using a 5-foot long 2.0-inch O.D. Geoprobe Macrocore barrel sampler. The sampler was lined with 4.8-foot-long 1.5-inch O.D. transparent PVC tubes.	
	1.5 to 7.0 ft. Brown silty clay (CL); medium stiff, moist, with roots. No PHC odor.	CL					
	7.0 to 8.5 ft. Brown sandy gravel (GW); moist. No PHC odor. 8.5 ft. With bluish green discoloration.	GW					
	8.5 to 10.0 ft. Brown silty clay (CL); medium stiff, wet, with minor angular gravel to 0.25-in. diameter. No PHC odor.	CL					
10	10.0 to 11.0 ft. Bluish green clayey gravel (GC); saturated, with angular gravel to 0.75-in. diameter. No PHC odor.	GC	B71-10.5		0	First water encountered during drilling at 8.0 ft.	
15						Borehole terminated at 11.0 ft. on 3/27/09. Temporary 1-in. diam. slotted PVC casing placed in borehole. Water level measured at 7.9 ft. at 1520. Sample B71-W collected at 1525; no odor or sheen on sample. Water subsequently measured at 7.7 ft. at 1705.	
20						Borehole grouted on 3/27/09 using a tremie pipe and neat cement grout.	
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# RG ENVIRONMENTAL, INC.

BORING NO.: B72		PROJECT NO.: 0304		PROJECT NAME: California Linen, 989 41st Street, Oakland			
BORING LOCATION: 27 ft. west of B71			ELEVATION AND DATUM:				
DRILLING AGENCY: Vironex, Inc.		DRILLER: Justin		DATE & TIME STARTED:	DATE & TIME FINISHED:		
DRILLING EQUIPMENT: Geoprobe 6600				3/27/09 1145	3/27/09 1215		
COMPLETION DEPTH: 11.0 Feet		BEDROCK DEPTH: None encountered		LOGGED BY:	CHECKED BY:		
FIRST WATER DEPTH: Not Encountered		NO. OF SAMPLES: 1 Soil		MLD			
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
5	0.0 to 1.5 ft. Brown clayey gravelly sand (FILL); loose, dry, with gravel to 0.5-in. diameter. No Petroleum Hydrocarbon (PHC) odor.	FILL	No Well Constructed		0	Borehole continuously cored using a 5-foot long 2.0-inch O.D. Geoprobe Macrocore barrel sampler. The sampler was lined with 4.8-foot-long 1.5-inch O.D. transparent PVC tubes.	
	1.5 to 5.0 ft. Olive-brown silty clay (CL); medium stiff, moist, with roots, and some gravel to 0.25-in. diameter. No PHC odor.	CL					
	5.0 to 7.0 ft. Reddish brown clayey silt (ML); medium stiff, moist, with some angular gravel to 0.5-in. diameter. No PHC odor.	ML					
	7.0 to 11.0 ft. Reddish brown silty clay (CL); medium stiff, moist. No PHC odor.	CL					
10	With angular gravel to 0.5-in. diameter from 10 to 11 ft.. Bluish green discoloration at 10.5 ft..	X	B72-10.5		0	Water not encountered during drilling.	
15						Borehole terminated at 11.0 ft. on 3/27/09. Temporary 1-in. diam. slotted PVC casing placed in borehole. Borehole dry at 1540, no water sample collected.	
20						Borehole grouted on 3/27/09 using a tremie pipe and neat cement grout.	
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# RG ENVIRONMENTAL, INC.

BORING NO.: B73		PROJECT NO.: 0304		PROJECT NAME: California Linen, 989 41st Street, Oakland			
BORING LOCATION: 43 ft. west of B72			ELEVATION AND DATUM:				
DRILLING AGENCY: Vironex, Inc.		DRILLER: Justin		DATE & TIME STARTED:	DATE & TIME FINISHED:		
DRILLING EQUIPMENT: Geoprobe 6600				3/27/09 1250	3/27/09 1400		
COMPLETION DEPTH: 11.0 Feet		BEDROCK DEPTH: None encountered		LOGGED BY:	CHECKED BY:		
FIRST WATER DEPTH: 10.0 Feet		NO. OF SAMPLES: 1 Soil, 1 Water		MLD			
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
5	0.0 to 1.5 ft. Brown clayey gravelly sand (FILL); loose, dry, with angular gravel to 0.25-in. diameter. No Petroleum Hydrocarbon (PHC) odor.	FILL	No Well Constructed		0	Borehole continuously cored using a 5-foot long 2.0-inch O.D. Geoprobe Macrocore barrel sampler. The sampler was lined with 4.8-foot-long 1.5-inch O.D. transparent PVC tubes.	
	1.5 to 10.0 ft. Reddish brown silty clay (CL); medium stiff, moist, with trace angular gravel to 0.25-in. diameter. No PHC odor.	▼			0		
10		CL			0	0 to 5 ft. 3.0 ft. recovery	
	10.0 to 10.5 ft. Olive-brown gravelly clay (CL); medium stiff, moist, with trace angular gravel to 0.25-in. diameter. No PHC odor.	▼			0	5 to 10 ft. 4.6 ft. recovery	
	10.5 to 11.0 ft. Orange brown clayey silt (ML); medium stiff, moist. No PHC odor.	▼			0	10 to 11 ft. 1.0 ft. recovery	
		ML	B73-10.5			Water encountered during drilling at 10.0 ft.	
15						Borehole terminated at 11.0 ft. on 3/27/09. Temporary 1-in. diam. slotted PVC casing placed in borehole. Water level measured at 4.5 ft. at 1528. Water sample B73-W collected at 1530; no odor or sheen on sample. Water subsequently measured at 3.5 ft. at 1700.	
20						Borehole grouted on 3/27/09 using a tremie pipe and neat cement grout.	
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# RG ENVIRONMENTAL, INC.

BORING NO.: B74		PROJECT NO.: 0304		PROJECT NAME: California Linen, 989 41st Street, Oakland			
BORING LOCATION: East side of Linden St. parking lane, ~10 ft. north of 40th St.			ELEVATION AND DATUM:				
DRILLING AGENCY: Vironex, Inc.		DRILLER: Justin		DATE & TIME STARTED:	DATE & TIME FINISHED:		
DRILLING EQUIPMENT: Geoprobe 6600				3/27/09 1345	3/27/09 1500		
COMPLETION DEPTH: 11.0 Feet		BEDROCK DEPTH: None encountered		LOGGED BY:	CHECKED BY:		
FIRST WATER DEPTH: Not Encountered		NO. OF SAMPLES: 1 Soil		MLD			
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
	0.0 to 1.0 ft. Asphalt (0.3 ft.) and base rock.	FILL	No Well Constructed			Borehole continuously cored using a 5-foot long 2.0-inch O.D. Geoprobe Macrocore barrel sampler. The sampler was lined with 4.8-foot-long 1.5-inch O.D. transparent PVC tubes.	
	1.0 to 3.0 ft. Black clay (CL); stiff, moist, with trace angular gravel to 0.25-in. diameter. No Petroleum Hydrocarbon (PHC) odor.	CL		0			
	3.0 to 5.0 ft. Reddish brown gravelly clayey sand (SC); medium dense, moist, with angular gravel to 0.25-in. diameter. No PHC odor.	SC		0	0 to 5 ft. 4.3 ft. recovery		
5	5.0 to 7.0 ft. Brown silt (ML); medium stiff, moist. No PHC odor.	ML		0	5 to 10 ft. 4.6 ft. recovery		
	6.0 to 7.0 ft. With some angular gravel to 0.25-in. diameter.						
	7.0 to 8.0 ft. Brown clayey gravel (GC); moist, with angular gravel to 0.5-in. diameter. No PHC odor.	GC		0			
10	8.0 to 11.0 ft. Brown silty clay (CL); medium stiff, moist. No PHC odor.	CL	0	10 to 11 ft. 1.0 ft. recovery	Water not encountered during drilling.		
		X	B74-10.5			Borehole terminated at 11.0 ft. on 3/27/09. Temporary 1-in. diam. slotted PVC casing placed in borehole. Borehole dry at 1544. Borehole grouted on 3/27/09 using a tremie pipe and neat cement grout.	
15						On 3/30/09, at a location approximately 2 ft. south of the 11.0 ft. deep borehole, an additional borehole was advanced to 12.0 ft. to collect water sample B74-W. Water was not encountered during drilling. Temporary 1-in. diam. slotted PVC casing placed in borehole. Borehole dry at 1618. Borehole grouted on 3/30/09 using a tremie pipe and neat cement grout.	
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# RG ENVIRONMENTAL, INC.

BORING NO.: B75		PROJECT NO.: 0304		PROJECT NAME: California Linen, 989 41st Street, Oakland			
BORING LOCATION: 37 feet north of B74, east side of Linden Street				ELEVATION AND DATUM:			
DRILLING AGENCY: Vironex, Inc.		DRILLER: Justin		DATE & TIME STARTED:		DATE & TIME FINISHED:	
DRILLING EQUIPMENT: Geoprobe 6600				3/27/09 1410		3/27/09 1620	
COMPLETION DEPTH: 11.0 Feet		BEDROCK DEPTH: None encountered		LOGGED BY:		CHECKED BY:	
FIRST WATER DEPTH: Not Encountered		NO. OF SAMPLES: 1 Soil		MLD			
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
5	0.0 to 1.0 ft. Asphalt (0.3 ft.) and base rock. No Petroleum Hydrocarbon (PHC) odor.	FILL	No Well Constructed		0	Borehole continuously cored using a 5-foot long 2.0-inch O.D. Geoprobe Macrocore barrel sampler. The sampler was lined with 4.8-foot-long 1.5-inch O.D. transparent PVC tubes.	
	1.0 to 4.0 ft. Black silty clay (CL); stiff, moist, with trace angular gravel to 0.25-in. diameter. No PHC odor.	CL		0			
	4.0 to 5.0 ft. Grayish brown clayey gravel (GC); moist, with angular gravel to 0.5-in. diameter, and orange mottling. No PHC odor.	GC		0	0 to 5 ft. 4.4 ft. recovery		
	5.0 to 10.0 ft. Orange-brown silt (ML); medium stiff, moist, with some angular gravel to 0.25-in. diameter. No PHC odor.	ML		0	5 to 10 ft. 4.6 ft. recovery		
10	10.0 to 11.0 ft. Dark brown clay (CL); medium stiff, moist. No PHC odor.	<input checked="" type="checkbox"/> CL	B75-10.5		0	10 to 11 ft. 1.0 ft. recovery	Water not encountered during drilling.
15						Borehole terminated at 11.0 ft. on 3/27/09. Temporary 1-in. diam. slotted PVC casing placed in borehole. Borehole dry at 1545. Borehole grouted on 3/27/09 using a tremie pipe and neat cement grout.	
20						On 3/30/09, at a location approximately 2 ft. north of the 11.0 ft. deep borehole, an additional borehole was advanced to 12.0 ft. to collect water sample B75-W. Water was not encountered during drilling. Temporary 1-in. diam. slotted PVC casing placed in borehole. Borehole dry at 1617. Borehole grouted on 3/30/09 using a tremie pipe and neat cement grout.	
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# RG ENVIRONMENTAL, INC.

BORING NO.: B76		PROJECT NO.: 0304		PROJECT NAME: California Linen, 989 41st Street, Oakland			
BORING LOCATION: 33 feet north of B75			ELEVATION AND DATUM:				
DRILLING AGENCY: Vironex, Inc.		DRILLER: Justin		DATE & TIME STARTED:	DATE & TIME FINISHED:		
DRILLING EQUIPMENT: Geoprobe 6600				3/27/09 1420	3/27/09 1530		
COMPLETION DEPTH: 11.0 Feet		BEDROCK DEPTH: None encountered		LOGGED BY:	CHECKED BY:		
FIRST WATER DEPTH: Not Encountered		NO. OF SAMPLES: 1 Soil		MLD			
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
5	0.0 to 0.5 ft. Asphalt (0.3 ft.) and base rock. No Petroleum Hydrocarbon (PHC) odor.	FILL	No Well Constructed		0	Borehole continuously cored using a 5-foot long 2.0-inch O.D. Geoprobe Macrocore barrel sampler. The sampler was lined with 4.8-foot-long 1.5-inch O.D. transparent PVC tubes.	
	0.5 to 3.0 ft. Black clay (CL); stiff, moist, with trace angular gravel to 0.25-in. diameter. No PHC odor.	CL			0		
	3.0 to 10.0 ft. Gravelly clayey sand (SC); medium dense, moist, with angular gravel to 0.5-in. diameter. No PHC odor.	SC			0		0 to 5 ft. 4.6 ft. recovery
	8.5 to 10.0 ft. Bluish green staining, strong PHC odor.	SC			14		5 to 10 ft. 4.4 ft. recovery
10	10.0 to 11.0 ft. Dark brown gravelly clay (CL); medium stiff, moist, with angular gravel to 0.5-in. diameter, and orange mottling. No PHC odor.	CL	B76-9.5		0	10 to 11 ft. 1.0 ft. recovery Water not encountered during drilling.	
15						Borehole terminated at 11.0 ft. on 3/27/09. Temporary 1-in. diam. slotted PVC casing placed in borehole. Borehole dry at 1547. Borehole grouted on 3/27/09 using a tremie pipe and neat cement grout.	
20						On 3/30/09, at a location approximately 2 ft. north of the 11.0 ft. deep borehole, an additional borehole was advanced to 12.0 ft. to collect water sample B76-W. Water was not encountered during drilling. Temporary 1-in. diam. slotted PVC casing placed in borehole. Borehole dry at 1616. Borehole grouted on 3/30/09 using a tremie pipe and neat cement grout.	
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# RG ENVIRONMENTAL, INC.

BORING NO.: B77		PROJECT NO.: 0304		PROJECT NAME: California Linen, 989 41st Street, Oakland			
BORING LOCATION: 22 feet north of B84.			ELEVATION AND DATUM:				
DRILLING AGENCY: Vironex, Inc.		DRILLER: Justin		DATE & TIME STARTED:	DATE & TIME FINISHED:		
DRILLING EQUIPMENT: Geoprobe 6600				3/27/09 1430	3/27/09 1545		
COMPLETION DEPTH: 11.0 Feet		BEDROCK DEPTH: None encountered		LOGGED BY:	CHECKED BY:		
FIRST WATER DEPTH: 7.5 Feet		NO. OF SAMPLES: 1 Water, 1 Soil		MLD			
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
5	0.0 to 0.5 ft. Asphalt (0.3 ft.) and base rock. No Petroleum Hydrocarbon (PHC) odor.	FILL	No Well Constructed		0	Borehole continuously cored using a 5-foot long 2.0-inch O.D. Geoprobe Macrocore barrel sampler. The sampler was lined with 4.8-foot-long 1.5-inch O.D. transparent PVC tubes.	
	0.5 to 3.0 ft. Black clay (CL); stiff, moist, with roots and trace angular gravel to 0.25-in. diameter. No PHC odor.	CL			0		
	3.0 to 10.0 ft. Brown gravelly clayey sand (SC); loose, moist, with angular gravel to 0.5-in. diameter. No PHC odor.	▼ SC			0		0 to 5 ft. 4.6 ft. recovery
	7.5 to 10.0 ft. Wet, with bluish green staining, and strong PHC odor.	▼			0		5 to 10 ft. 3.4 ft. recovery
10	10.0 to 11.0 ft. Bluish green gravelly clay (CL); soft, wet, with angular gravel to 0.5-in. diameter. Strong PHC odor.	✕ CL	B77-9.5	521 14		10 to 11 ft. 1.0 ft. recovery Water encountered during drilling at 7.5 ft.	
15						Borehole terminated at 11.0 ft. on 3/27/09. Temporary 1-in. diam. slotted PVC casing placed in borehole. Water level measured at 4.4 ft. at 1547. Water sample B77-W collected at 1600; strong odor and sheen on sample. Water level subsequently measured at 4.4 ft. at 1617.	
20						Borehole grouted on 3/30/09 using a tremie pipe and neat cement grout.	
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# RG ENVIRONMENTAL, INC.

BORING NO.: B78		PROJECT NO.: 0304		PROJECT NAME: California Linen, 989 41st Street, Oakland			
BORING LOCATION: 27 feet north of B77.			ELEVATION AND DATUM:				
DRILLING AGENCY: Vironex, Inc.		DRILLER: Justin		DATE & TIME STARTED:	DATE & TIME FINISHED:		
DRILLING EQUIPMENT: Geoprobe 6600				3/27/09 1445	3/27/09 1600		
COMPLETION DEPTH: 11.0 Feet		BEDROCK DEPTH: None encountered		LOGGED BY:	CHECKED BY:		
FIRST WATER DEPTH: 7.5 Feet		NO. OF SAMPLES: 1 Water, 1 Soil		MLD			
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
5	0.0 to 0.5 ft. Asphalt (0.3 ft.) and base rock. No Petroleum Hydrocarbon (PHC) odor.	FILL	No Well Constructed		0	Borehole continuously cored using a 5-foot long 2.0-inch O.D. Geoprobe Macrocore barrel sampler. The sampler was lined with 4.8-foot-long 1.5-inch O.D. transparent PVC tubes.	
	0.5 to 3.0 ft. Black clay (CL); stiff, moist, with roots and trace angular gravel to 0.25-in. diameter. No PHC odor.	CL			0		
	3.0 to 10.0 ft. Brown gravelly clayey sand (SC); loose, moist, with angular gravel to 0.5-in. diameter. No PHC odor.	▼ SC			0		0 to 5 ft. 4.2 ft. recovery
	7.5 to 10.0 ft. Wet, with bluish green staining, and strong PHC odor.	▼			0 42		5 to 10 ft. 4.6 ft. recovery
10	10.0 to 11.0 ft. Olive-green gravelly clay (CL); medium stiff, moist, with angular gravel to 0.5-in. diameter. No PHC odor.	✕ CL	B77-9.5	12	0	10 to 11 ft. 1.0 ft. recovery Water encountered during drilling at 7.5 ft.	
15						Borehole terminated at 11.0 ft. on 3/27/09. Temporary 1-in. diam. slotted PVC casing placed in borehole. Water level measured at 4.5 ft. at 1603. Water sample B78-W collected at 1610; strong odor and sheen on sample. Water level subsequently measured at 4.5 ft. at 1615.	
20						Borehole grouted on 3/27/09 using a tremie pipe and neat cement grout.	
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# RG ENVIRONMENTAL, INC.

BORING NO.: B79		PROJECT NO.: 0304		PROJECT NAME: California Linen, 989 41st Street, Oakland			
BORING LOCATION: West side of Linden St., 25 feet north of 40th St.			ELEVATION AND DATUM:				
DRILLING AGENCY: Vironex, Inc.		DRILLER: Justin		DATE & TIME STARTED:		DATE & TIME FINISHED:	
DRILLING EQUIPMENT: Geoprobe 6600				3/30/09 1830		3/30/09 1615	
COMPLETION DEPTH: 11.0 Feet		BEDROCK DEPTH: None encountered		LOGGED BY:		CHECKED BY:	
FIRST WATER DEPTH: Not encountered		NO. OF SAMPLES: 1 Soil		MLD			
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
	0.0 to 0.5 ft. Asphalt (0.3 ft.) and base rock. No Petroleum Hydrocarbon (PHC) odor.	FILL	No Well Constructed		0	Borehole continuously cored using a 5-foot long 2.0-inch O.D. Geoprobe Macrocore barrel sampler. The sampler was lined with 4.8-foot-long 1.5-inch O.D. transparent PVC tubes.	
	0.5 to 4.0 ft. Black clay (CL); medium stiff, moist, with roots and trace angular gravel to 0.25-in. diameter. No PHC odor.	CL		0			
	3.5 ft. Color change to olive-brown.			0	0 to 5 ft. 4.6 ft. recovery		
5	4.0 to 9.0 ft. Olive-brown clayey silt (ML); medium stiff, moist, with orange and black mottling. No PHC odor.	ML		0	5 to 10 ft. 4.6 ft. recovery		
	5.0 to 7.5 ft. With some angular gravel to 0.5-in. diameter.			0			
10	9.0 to 11.0 ft. Olive-brown silty clay (CL); medium stiff, moist. No PHC odor.	CL	0	10 to 11 ft. 1.0 ft. recovery	Borehole terminated at 11.0 ft. on 3/30/09. Temporary 1-in. diam. slotted PVC casing placed in borehole. Borehole dry at 1619.  Borehole grouted on 3/30/09 using a tremie pipe and neat cement grout.		
		x	B79-10.5				
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# RG ENVIRONMENTAL, INC.

BORING NO.: B80		PROJECT NO.: 0304		PROJECT NAME: California Linen, 989 41st Street, Oakland			
BORING LOCATION: 25 feet north of B79.			ELEVATION AND DATUM:				
DRILLING AGENCY: Vironex, Inc.		DRILLER: Justin		DATE & TIME STARTED:	DATE & TIME FINISHED:		
DRILLING EQUIPMENT: Geoprobe 6600				3/30/09 0920	3/30/09 1610		
COMPLETION DEPTH: 11.0 Feet		BEDROCK DEPTH: None encountered		LOGGED BY:	CHECKED BY:		
FIRST WATER DEPTH: Not encountered		NO. OF SAMPLES: 1 Soil		MLD			
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
5	0.0 to 0.5 ft. Asphalt (0.3 ft.) and base rock. No Petroleum Hydrocarbon (PHC) odor.	FILL	No Well Constructed		0	Borehole continuously cored using a 5-foot long 2.0-inch O.D. Geoprobe Macrocore barrel sampler. The sampler was lined with 4.8-foot-long 1.5-inch O.D. transparent PVC tubes.	
	0.5 to 6.0 ft. Black clay (CL); medium stiff, moist, with roots and trace angular gravel to 0.25-in. diameter. No PHC odor.	CL		0			
	4.0 ft. Color change to olive-green.			0	0 to 5 ft. 4.6 ft. recovery		
10	6.0 to 9.5 ft. Orange-brown clayey silt (ML); medium stiff, moist, with orange mottling, and some angular gravel to 0.25-in. No PHC odor.	ML		0	0	5 to 10 ft. 4.6 ft. recovery	
	9.5 to 11.0 ft. Brown silty clay (CL); medium stiff, moist. No PHC odor.	CL	B80-10.5		0	10 to 11 ft. 1.0 ft. recovery Water not encountered during drilling.	
15						Borehole terminated at 11.0 ft. on 3/30/09. Temporary 1-in. diam. slotted PVC casing placed in borehole. Borehole dry at 1620.  Borehole grouted on 3/30/09 using a tremie pipe and neat cement grout.	
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# RG ENVIRONMENTAL, INC.

BORING NO.: B81		PROJECT NO.: 0304		PROJECT NAME: California Linen, 989 41st Street, Oakland			
BORING LOCATION: 12 feet north of B80.			ELEVATION AND DATUM:				
DRILLING AGENCY: Vironex, Inc.		DRILLER: Justin		DATE & TIME STARTED:	DATE & TIME FINISHED:		
DRILLING EQUIPMENT: Geoprobe 6600				3/30/09 0940	3/30/09 1615		
COMPLETION DEPTH: 11.0 Feet		BEDROCK DEPTH: None encountered		LOGGED BY:		CHECKED BY:	
FIRST WATER DEPTH: Not encountered		NO. OF SAMPLES: 1 Soil		MLD			
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
5	0.0 to 0.5 ft. Asphalt (0.3 ft.) and base rock. No Petroleum Hydrocarbon (PHC) odor.	FILL	No Well Constructed		0	Borehole continuously cored using a 5-foot long 2.0-inch O.D. Geoprobe Macrocore barrel sampler. The sampler was lined with 4.8-foot-long 1.5-inch O.D. transparent PVC tubes.  0 to 5 ft. 4.5 ft. recovery  5 to 10 ft. 4.6 ft. recovery  10 to 11 ft. 1.0 ft. recovery  Water not encountered during drilling.	
	0.5 to 5.5 ft. Black clay (CL); stiff, moist, with roots and trace angular gravel to 0.25-in. diameter. No PHC odor.	CL		0			
	2.0 ft. Color change to olive-brown, with orange mottling.			0			
	5.5 to 9.0 ft. Orange-brown clayey silt (ML); medium stiff, moist, with angular gravel to 0.25-in. No PHC odor.	ML		0			
10	9.0 to 11.0 ft. Brown silty clay (CL); stiff, moist. No PHC odor.	CL	B81-10.5		0		
15						Borehole terminated at 11.0 ft. on 3/30/09. Temporary 1-in. diam. slotted PVC casing placed in borehole. Borehole dry at 1621.  Borehole grouted on 3/30/09 using a tremie pipe and neat cement grout.	
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# RG ENVIRONMENTAL, INC.

BORING NO.: B82		PROJECT NO.: 0304		PROJECT NAME: California Linen, 989 41st Street, Oakland			
BORING LOCATION: 25 feet north of B81.			ELEVATION AND DATUM:				
DRILLING AGENCY: Vironex, Inc.		DRILLER: Justin		DATE & TIME STARTED:	DATE & TIME FINISHED:		
DRILLING EQUIPMENT: Geoprobe 6600				3/30/09 1000	3/30/09 1620		
COMPLETION DEPTH: 11.0 Feet		BEDROCK DEPTH: None encountered		LOGGED BY:	CHECKED BY:		
FIRST WATER DEPTH: Not encountered		NO. OF SAMPLES: 1 Soil		MLD			
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
5	0.0 to 0.5 ft. Asphalt (0.3 ft.) and base rock. No Petroleum Hydrocarbon (PHC) odor.	FILL	No Well Constructed		0	Borehole continuously cored using a 5-foot long 2.0-inch O.D. Geoprobe Macrocore barrel sampler. The sampler was lined with 4.8-foot-long 1.5-inch O.D. transparent PVC tubes.  0 to 5 ft. 4.3 ft. recovery	
	0.5 to 5.0 ft. Black clay (CL); stiff, moist, with roots and some angular gravel to 0.25-in. diameter. No PHC odor.	CL			0		
	3.0 ft. Color change to olive-green.				0		
	5.0 to 9.0 ft. Orange-brown clayey silt (ML); medium stiff, moist, with orange mottling. No PHC odor.	ML			0		
10	7.5 to 8.5 ft. With abundant angular gravel to 0.25-in. diameter.	ML	B82-10.5		0	5 to 10 ft. 4.8 ft. recovery	
	9.0 to 11.0 ft. Olive-brown silty clay (CL); stiff, moist, with root holes. No PHC odor.	CL			0	10 to 11 ft. 1.0 ft. recovery	
15						Borehole terminated at 11.0 ft. on 3/30/09. Temporary 1-in. diam. slotted PVC casing placed in borehole. Borehole dry at 1622.	
						Borehole grouted on 3/30/09 using a tremie pipe and neat cement grout.	
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BORING NO.: B83		PROJECT NO.: 0304		PROJECT NAME: California Linen, 989 41st Street, Oakland			
BORING LOCATION: 25 feet north of B82.			ELEVATION AND DATUM:				
DRILLING AGENCY: Vironex, Inc.		DRILLER: Justin		DATE & TIME STARTED:	DATE & TIME FINISHED:		
DRILLING EQUIPMENT: Geoprobe 6600				3/30/09 1020	3/30/09 1620		
COMPLETION DEPTH: 11.0 Feet		BEDROCK DEPTH: None encountered		LOGGED BY:	CHECKED BY:		
FIRST WATER DEPTH: Not encountered		NO. OF SAMPLES: 1 Soil		MLD			
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
5	0.0 to 0.5 ft. Asphalt (0.3 ft.) and base rock. No Petroleum Hydrocarbon (PHC) odor.	FILL	No Well Constructed		0	Borehole continuously cored using a 5-foot long 2.0-inch O.D. Geoprobe Macrocore barrel sampler. The sampler was lined with 4.8-foot-long 1.5-inch O.D. transparent PVC tubes.  0 to 5 ft. 4.2 ft. recovery  5 to 10 ft. 4.8 ft. recovery  10 to 11 ft. 1.0 ft. recovery  Water not encountered during drilling.	
	0.5 to 5.0 ft. Black clay (CL); stiff, moist, with minor angular gravel to 0.25-in. diameter. No PHC odor.	CL		0			
	3.0 ft. Color change to olive-green.			0			
	5.0 to 10.0 ft. Orange-brown clayey silt (ML); medium stiff, moist. No PHC odor.	ML		0			
10	9.0 to 9.5 ft. With abundant angular gravel to 0.25-in. diameter.				0		
	10.0 to 11.0 ft. Brown silty clay (CL); stiff, moist, with root holes and gray discoloration. No PHC odor.	x CL	B83-10.5				
15						Borehole terminated at 11.0 ft. on 3/30/09. Temporary 1-in. diam. slotted PVC casing placed in borehole. Borehole dry at 1623.  Borehole grouted on 3/30/09 using a tremie pipe and neat cement grout.	
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# RG ENVIRONMENTAL, INC.

BORING NO.: B84		PROJECT NO.: 0304		PROJECT NAME: California Linen, 989 41st Street, Oakland					
BORING LOCATION: 18 feet north of B76.		ELEVATION AND DATUM:							
DRILLING AGENCY: Vironex, Inc.		DRILLER: Justin		DATE & TIME STARTED:		DATE & TIME FINISHED:			
DRILLING EQUIPMENT: Geoprobe 6600				3/30/09 1115		3/30/09 1600			
COMPLETION DEPTH: 11.0 Feet		BEDROCK DEPTH: None encountered		LOGGED BY:		CHECKED BY:			
FIRST WATER DEPTH: Not encountered		NO. OF SAMPLES: 1 Soil		MLD					
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS			
	0.0 to 0.5 ft. Asphalt (0.3 ft.) and base rock. No Petroleum Hydrocarbon (PHC) odor.	FILL	No Well Constructed		0	Borehole continuously cored using a 5-foot long 2.0-inch O.D. Geoprobe Macrocore barrel sampler. The sampler was lined with 4.8-foot-long 1.5-inch O.D. transparent PVC tubes.			
	0.5 to 4.0 ft. Black clay (CL); stiff, moist, with angular gravel to 0.25-in. diameter. No PHC odor.	CL			0				
	2.5 ft. Color change to olive-green.								
5	4.0 to 6.0 ft. Orange-brown silty gravel (GM); moist, with orange mottling, and gravel to 0.75-in. diameter No PHC odor.	GM			0			0 to 5 ft. 4.6 ft. recovery	
	6.0 to 8.5 ft. Bluish green silty sand (SM); medium dense, moist, with roots, and gravel to 0.5-in. diameter Strong PHC odor.	SM			0			5 to 10 ft. 4.8 ft. recovery	
10	8.5 to 11.0 ft. Brown clayey sandy gravel (GW); moist, with bluish green staining. Strong PHC odor.	<input checked="" type="checkbox"/> GW	B84-9.5		2	10 to 11 ft. 1.0 ft. recovery			
					0	Water not encountered during drilling.			
15						Borehole terminated at 11.0 ft. on 3/30/09. Temporary 1-in. diam. slotted PVC casing placed in borehole. Borehole dry at 1615.			
20						Borehole grouted on 3/30/09 using a tremie pipe and neat cement grout.			
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# RG ENVIRONMENTAL, INC.

BORING NO.: B85		PROJECT NO.: 0304		PROJECT NAME: California Linen, 989 41st Street, Oakland			
BORING LOCATION: South side of 40th St., across from Linden St.				ELEVATION AND DATUM:			
DRILLING AGENCY: Vironex, Inc.		DRILLER: Justin		DATE & TIME STARTED:		DATE & TIME FINISHED:	
DRILLING EQUIPMENT: Hand Auger				3/30/09 1615		3/30/09 1628	
COMPLETION DEPTH: 9.5 Feet		BEDROCK DEPTH: None encountered		LOGGED BY:		CHECKED BY:	
FIRST WATER DEPTH: Not encountered		NO. OF SAMPLES: 1 Soil		MLD			
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
5	0.0 to 0.5 ft. Asphalt (0.3 ft.) and base rock. No Petroleum Hydrocarbon (PHC) odor.	FILL	No Well Constructed		0	Borehole hand augered using a 3.5-in. O.D. hand auger	
	0.5 to 3.0 ft. Black clay (CL); stiff, moist, with roots. No PHC odor.	CL			0		
	3.0 to 9.5 ft. Olive-brown silty clay (CL); soft, moist, with roots, and trace angular gravel to 0.25-in. diameter. No PHC odor.	CL			0		
	8.5 to 9.0 ft. Bluish green staining, no PHC odor.	x	B85-8.5		0		
10						Borehole terminated at 9.5 ft. on 3/30/09. Temporary 1-in. diam. slotted PVC casing placed in borehole. Borehole dry at 1630.	
15						Borehole grouted on 3/30/09 using a tremie pipe and neat cement grout.	
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# RG ENVIRONMENTAL, INC.

BORING NO.: B86 (HORIZONTAL)		PROJECT NO.: 0304		PROJECT NAME: California Linen, 989 41st Street, Oakland		
BORING LOCATION: South wall of Pit 4 at a depth of 3.5 ft. below top of adjacent concrete floor slab				ELEVATION AND DATUM:		
DRILLING AGENCY: Vironex, Inc.		DRILLER: Paul		DATE & TIME STARTED:	DATE & TIME FINISHED:	
DRILLING EQUIPMENT: Hand Auger				4/1/09	4/1/09	
COMPLETION DEPTH: 3.5 Feet		BEDROCK DEPTH: None encountered		LOGGED BY:	CHECKED BY:	
FIRST WATER DEPTH: None		NO. OF SAMPLES: 1 Soil		PHK		
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
	0.0 to 3.0 ft. Black silty clay (CL); stiff, moist, with trace angular gravel to 0.25-in. diameter. Strong Petroleum Hydrocarbon (PHC) odor.	CL	No Well Constructed			Borehole hand augered horizontally into the south wall of Pit 4 using a 3.5-in. O.D. hand auger.
	Slight PHC odor 3.0 ft. from south wall of Pit 4.	x	B86			
5						Borehole terminated at 3.5 ft. from south wall of Pit 4 on 4/1/09.
10						Soil sample B86 was collected from the bottom of the borehole (3.0 to 3.5 ft. from south wall of Pit 4) on 4/1/09 using a stainless steel sampler lined with a 2-in. diameter 6-in. long stainless steel tube driven by a slide hammer.
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# RG ENVIRONMENTAL, INC.

BORING NO.: B87 (HORIZONTAL)		PROJECT NO.: 0304		PROJECT NAME: California Linen, 989 41st Street, Oakland		
BORING LOCATION: South wall of Pit 4 at a depth of 3.5 ft. below top of adjacent concrete floor slab				ELEVATION AND DATUM:		
DRILLING AGENCY: Vironex, Inc.		DRILLER: Paul		DATE & TIME STARTED:	DATE & TIME FINISHED:	
DRILLING EQUIPMENT: Hand Auger				4/1/09	4/1/09	
COMPLETION DEPTH: 3.5 Feet		BEDROCK DEPTH: None encountered		LOGGED BY:	CHECKED BY:	
FIRST WATER DEPTH: None		NO. OF SAMPLES: 1 Soil		PHK		
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
	0.0 to 3.0 ft. Black silty clay (CL); stiff, moist, with trace angular gravel to 0.25-in. diameter. Strong Petroleum Hydrocarbon (PHC) odor.	CL	No Well Constructed			Borehole hand augered horizontally into the south wall of Pit 4 using a 3.5-in. O.D. hand auger.
	Slight PHC odor 3.0 ft. from south wall of Pit 4.	x	B87			
5						Borehole terminated at 3.5 ft. from south wall of Pit 4 on 4/1/09.
10						Soil sample B87 was collected from the bottom of the borehole (3.0 to 3.5 ft. from south wall of Pit 4) on 4/1/09 using a stainless steel sampler lined with a 2-in. diameter 6-in. long stainless steel tube driven by a slide hammer.
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# RG ENVIRONMENTAL, INC.

BORING NO.: B88 (HORIZONTAL)		PROJECT NO.: 0304		PROJECT NAME: California Linen, 989 41st Street, Oakland		
BORING LOCATION: South wall of Pit 4 at a depth of 3.5 ft. below top of adjacent concrete floor slab				ELEVATION AND DATUM:		
DRILLING AGENCY: Vironex, Inc.		DRILLER: Paul		DATE & TIME STARTED:	DATE & TIME FINISHED:	
DRILLING EQUIPMENT: Hand Auger				4/1/09	4/1/09	
COMPLETION DEPTH: 3.5 Feet		BEDROCK DEPTH: None encountered		LOGGED BY:	CHECKED BY:	
FIRST WATER DEPTH: None		NO. OF SAMPLES: 1 Soil		PHK		
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
	0.0 to 3.0 ft. Black silty clay (CL); stiff, moist, with trace angular gravel to 0.25-in. diameter. Strong Petroleum Hydrocarbon (PHC) odor.	CL	No Well Constructed			Borehole hand augered horizontally into the south wall of Pit 4 using a 3.5-in. O.D. hand auger.
	Slight PHC odor 3.0 ft. from south wall of Pit 4.	x	B88			
5						Borehole terminated at 3.5 ft. from south wall of Pit 4 on 4/1/09.
10						Soil sample B88 was collected from the bottom of the borehole (3.0 to 3.5 ft. from south wall of Pit 4) on 4/1/09 using a stainless steel sampler lined with a 2-in. diameter 6-in. long stainless steel tube driven by a slide hammer.
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## **APPENDIX C**

### **Soil Gas Purge Volume Calculations and Soil Gas Sampling Data Sheets**

Soil Gas Purge Volume Calculations

One purge volume is calculated as the volume of the tubing interior plus the volume of the sand interval of the borehole.

The tubing interior volume is calculated as follows.

$V_{\text{tubing}} = \pi \times (r \times r) \times h$ , where  $\pi = 3.14$ ,  $r = 0.187 \text{ in./2}$ , and  $h = 7 \text{ ft}$ .

$V_{\text{tubing}} = 3.14 \times (0.0935 \times 0.0935) \times (7 \text{ ft.} \times 12 \text{ in./ft.}) = 2.31 \text{ cubic inches}$ .

The sand interval volume is calculated as follows.

$V_{\text{sand interval}} = \pi \times (r \times r) \times h \times \text{porosity}$ , where  $\pi = 3.14$ ,  $r = 1.0 \text{ in./2}$ ,  $h = 8 \text{ in.}$ , and  $\text{porosity} = 0.35$ .

$V_{\text{sand interval}} = 3.14 \times (0.5 \times 0.5) \times 8 \text{ in.} \times 0.35 = 2.20 \text{ cubic inches}$ .

The total volume for one purge volume is  $V_{\text{tubing}} + V_{\text{sand interval}}$ , where

$V_{\text{total}} = 2.31 \text{ cubic inches} + 2.20 \text{ cubic inches} = 4.51 \text{ cubic inches}$ .

To convert to cubic centimeters,

$V_{\text{total}} = 4.51 \text{ cubic inches} \times 16.39 \text{ cubic centimeters/cubic inches} = 73.9 \text{ cubic centimeters}$ .

The total volume to be purged is 3 purge volumes.

$V_{\text{purge total}} = 73.9 \text{ cubic centimeters} \times 3 = 222 \text{ cubic centimeters}$ .

The flow controller has a nominal flow rate of 200 cubic centimeters per minute.

The purge time is calculated as follows.

$T_{\text{purge}} = 222 \text{ cubic centimeters} / 200 \text{ cubic centimeters per minute} = 1.11 \text{ minutes}$ .

Converting the purge time to seconds,  $1.11 \text{ minutes} \times 60 \text{ seconds/minute} = 67 \text{ seconds}$ .

Soil Gas Purge Volume Calculations

One purge volume is calculated as the volume of the tubing interior plus the volume of the sand interval of the borehole.

The tubing interior volume is calculated as follows.

$V_{\text{tubing}} = \pi \times (r \times r) \times h$ , where  $\pi = 3.14$ ,  $r = 0.187 \text{ in./2}$ , and  $h = 9 \text{ ft}$ .

$V_{\text{tubing}} = 3.14 \times (0.0935 \times 0.0935) \times (9 \text{ ft.} \times 12 \text{ in./ft.}) = 2.96 \text{ cubic inches}$ .

The sand interval volume is calculated as follows.

$V_{\text{sand interval}} = \pi \times (r \times r) \times h \times \text{porosity}$ , where  $\pi = 3.14$ ,  $r = 1.0 \text{ in./2}$ ,  $h = 8 \text{ in.}$ , and  $\text{porosity} = 0.35$ .

$V_{\text{sand interval}} = 3.14 \times (0.5 \times 0.5) \times 8 \text{ in.} \times 0.35 = 2.20 \text{ cubic inches}$ .

The total volume for one purge volume is  $V_{\text{tubing}} + V_{\text{sand interval}}$ , where

$V_{\text{total}} = 2.96 \text{ cubic inches} + 2.20 \text{ cubic inches} = 5.16 \text{ cubic inches}$ .

To convert to cubic centimeters,

$V_{\text{total}} = 5.16 \text{ cubic inches} \times 16.39 \text{ cubic centimeters/cubic inches} = 84.57 \text{ cubic centimeters}$ .

The total volume to be purged is 3 purge volumes.

$V_{\text{purge total}} = 84.57 \text{ cubic centimeters} \times 3 = 254 \text{ cubic centimeters}$ .

The flow controller has a nominal flow rate of 200 cubic centimeters per minute.

The purge time is calculated as follows.

$T_{\text{purge}} = 254 \text{ cubic centimeters} / 200 \text{ cubic centimeters per minute} = 1.27 \text{ minutes}$ .

Converting the purge time to seconds,  $1.27 \text{ minutes} \times 60 \text{ seconds/minute} = 76 \text{ seconds}$ .





SOIL GAS SAMPLING DATA SHEET

CALIFORNIA LINEN

Address 989 41st Street, OAKLAND  
 Job # 0308  
 Date 3/25/09  
 P&D Sampler MLP  
 Drilling Company Virex

Probe Method (check one)  
 PRT  
 Temp Well

Soil Gas Location Designation	Probe Depth (Ft.)	Time Probe Installed	Canister #	Sample Canister Initial Vacuum Check (In. Hg) and time	Start leak check vacuum (In. Hg) and time	End leak check vacuum (In. Hg) and time	ADDITIONAL leak check vacuum (In. Hg) and time	Start PURGE time	End PURGE time	Start of tracer gas equilibration time	Time and conc. (ppm) of tracer gas equilibration	Begin sample collection vacuum (In. Hg) and time	End sample collection vacuum (In. Hg) and time	NOTES
SG 13	7	1015	36391	vac -30 time 1215	vac -22.5 time 1225	vac -22.5 time 1235	vac	76 sec time 124400	time 124516	time 124530	conc. 36 time 124800	vac -29 time 124830	vac -5 time 125617	1302:30
SG 14	7	0900	36408	vac -30 time 1120	vac -26 time 1130	vac -26 time 1140	vac	time 115100	time 115216	time 1153	conc. 46 time 1155	vac -20 time 115600	vac -5 time 120600	1407:20
SG 15	7	1115	2204	vac -30 time 1353	vac -22 time 1305	vac -22 time 1315	vac	time 133500	time 133616	time 1337	conc. 41 time 1340	vac -28.5 time 134015	vac -5 time 1346:52	13:58:10
SG 16	7	1200	2088	vac -29.5 time 1315	vac -24.5 time 1323	vac -24.5 time 1333	vac	time 134800	time 134916	time 1350	conc. 39 time 1353	vac -28 time 135400	vac -5 time 140120	
SG 17	7	1020	12355	vac -30 time 1226	vac -22.5 time 1234	vac -22.5 time 1243	vac	time 130800	time 130916	time 130930	conc. 42 time 131230	vac -28 time 131300	vac -5 time 132043	13:29:10
SG 18	7	0945	12361	vac -29.5 time 1140	vac -24 time 1145	vac -24 time 1155	vac	time 120100	time 120216	time 120315	conc. 38 time 120600	vac -29 time 121025	vac -5 time 121910	
SG 18 DLP			36471	vac -30 time 1145	vac	vac	vac	time	time	time	conc. 42 time 122000	vac -29 time 122630	vac -5 time 122920	12:35:18
SG				vac	vac	vac	vac	time	time	time	conc.	vac	vac	
SG				vac	vac	vac	vac	time	time	time	conc.	vac	vac	
SG				vac	vac	vac	vac	time	time	time	conc.	vac	vac	
SG				vac	vac	vac	vac	time	time	time	conc.	vac	vac	
SG				vac	vac	vac	vac	time	time	time	conc.	vac	vac	

7 PPM

0 PPM

0 PPM

0 PPM

14 PPM

SOIL GAS SAMPLING DATA SHEET														
Address <b>989 4131 ST. DANALD CALIFORNIA LINEN</b>														
Job # <b>0304</b> Probe Method (check one)														
Date <b>3/26/09</b> <input type="checkbox"/> PRT														
P&D Sampler <b>MUD</b> <input checked="" type="checkbox"/> Temp Well														
Drilling Company <b>VIREX</b>														
Soil Gas Location Designation	Probe Depth (Ft.)	Time Probe Installed	Canister #	Sample Canister Initial Vacuum Check (In. Hg) and time	Start leak check vacuum (In. Hg) and time	End leak check vacuum (In. Hg) and time	ADDITIONAL leak check vacuum (In. Hg) and time	Start PURGE time	End PURGE time	Start of tracer gas equilibration time	Time and conc. (ppm) of tracer gas equilibration	Begin sample collection vacuum (In. Hg) and time	End sample collection vacuum (In. Hg) and time	NOTES
SG 19	4	1015	35659	vac -29.5 time 1405	vac -22 time 1414	vac time 1424	vac time	time 142800	time 142907	time 1437	conc 49 time 14381	vac -28 time 143436	vac -5 time 144005	4 FEET STARTING 3 FT BELOW TOP OF SLAB. 14:45:10
SG 20	7	1115	36416	vac -29.5 time 1410	vac -22.5 time 1421	vac time 1431	vac time	time 144800	time 144916	time 1450	conc 70 time 1455	vac -29 time 145630	vac -5 time 150340	
SG 20 DUP	7	1	34667	vac -30 time 1413	vac time	vac time	vac time	time	time	time	conc time	vac -29 time 150416	vac -5 time 151130	15:15:33
SG 21	5	1250	2117	vac -30 time 1458	vac -22 time 1503	vac -22 time 1513	vac time	time 150700	time 150807	time 1512	conc 57 time 1515	vac -30 time 151726	vac -5 time 152710	15:33:05
SG 6	5	1400	1733	vac -30 time 1545	vac -25 time 1546	vac -25 time 1556	vac time	time 160700	time 160807	time 1609	conc 82 time 16205	vac -30 time 162225	vac -5 time 163230	16:37:34
SG				vac time	vac time	vac time	vac time	time	time	time	conc time	vac time	vac time	
SG				vac time	vac time	vac time	vac time	time	time	time	conc time	vac time	vac time	
SG				vac time	vac time	vac time	vac time	time	time	time	conc time	vac time	vac time	
SG				vac time	vac time	vac time	vac time	time	time	time	conc time	vac time	vac time	
SG				vac time	vac time	vac time	vac time	time	time	time	conc time	vac time	vac time	
SG				vac time	vac time	vac time	vac time	time	time	time	conc time	vac time	vac time	
SG				vac time	vac time	vac time	vac time	time	time	time	conc time	vac time	vac time	

3 FT  
850 PPM

0 PPM

0 PPM

7 PPM

SOIL GAS SAMPLING DATA SHEET **CALIFORNIA LINE**

Address **885 414 OAKLAND**  
 Job # **3/27/09**  
 Date **3/27/09**  
 P&D Sampler **MLB**  
 Drilling Company **ULTRADUX**

Probe Method (check one)  
 PRT  
 Temp Well

Soil Gas Location Designation	Probe Depth (Ft)	Time Probe Installed	Canister #	Sample Canister Initial Vacuum Check (In. Hg) and time	Start leak check vacuum (In. Hg) and time	End leak check vacuum (In. Hg) and time	ADDITIONAL leak check vacuum (In. Hg) and time	Start PURGE time	End PURGE time	Start of tracer gas equilibration time	Time and conc. (ppm) of tracer gas equilibration	Begin sample collection vacuum (In. Hg) and time	End sample collection vacuum (In. Hg) and time	NOTES
SG-22	4	0845	2084	vac -26 time 1015	vac -26 time 1025	vac	vac	time 102700	time 102807	time 1029	conc. 42 time 1033	vac -28 time 103315	vac -5 time 104035	104100
SG				vac time	vac time	vac time	vac time	time	time	time	conc. time	vac time	vac time	
SG				vac time	vac time	vac time	vac time	time	time	time	conc. time	vac time	vac time	
SG				vac time	vac time	vac time	vac time	time	time	time	conc. time	vac time	vac time	
SG				vac time	vac time	vac time	vac time	time	time	time	conc. time	vac time	vac time	
SG				vac time	vac time	vac time	vac time	time	time	time	conc. time	vac time	vac time	
SG				vac time	vac time	vac time	vac time	time	time	time	conc. time	vac time	vac time	
SG				vac time	vac time	vac time	vac time	time	time	time	conc. time	vac time	vac time	
SG				vac time	vac time	vac time	vac time	time	time	time	conc. time	vac time	vac time	
SG				vac time	vac time	vac time	vac time	time	time	time	conc. time	vac time	vac time	
SG				vac time	vac time	vac time	vac time	time	time	time	conc. time	vac time	vac time	

0 ppm

# **APPENDIX D**

## **Laboratory Analytical Reports and Chain of Custody Documentation**

- **McC Campbell Work Order # 0903695 Borehole Soil B69 (TPH-G & BTEX)**
- **McC Campbell Work Order # 0903784 Borehole Soil B71 through B85 (TPH-G & BTEX)**
- **McC Campbell Work Order # 0904072 Borehole Soil B86 through B88 (TPH-G & BTEX)  
(Identified in the lab reports as samples B81 through B83, respectively, collected on 4/1/09)**
- **McC Campbell Work Order # 0903708 Excavation Pits 1 & 2 Confirmation Soil (Pb & As)**
- **McC Campbell Work Order # 0904080 Test Pits TP1 through TP4 Soil (Pb & As)**
- **McC Campbell Work Order # 0903696 Borehole Groundwater B67 & B68 (TPH-G & BTEX)**
- **McC Campbell Work Order # 0903760 Borehole Groundwater B70 (TPH-G & BTEX)**
- **McC Campbell Work Order # 0903763 Borehole Groundwater B71,B73,B77, & B78 (TPH-G & BTEX)**
- **Air Toxics Work Order # 0903810A\_d Soil Gas SG6 through SG8, SG10, SG12, SG14 through SG18-DUP, SG20 through SG21, & Trip Blank (BTEX)**
- **Air Toxics Work Order # 0903810B\_d Soil Gas SG9, SG11, SG13, SG18, SG19, & SG22 (BTEX)**
- **Air Toxics Work Order # 0903810C\_d SG6 through SG18-DUP (TPH-G)**
- **Air Toxics Work Order # 0903810D\_d Soil Gas SG19 through SG22 & Trip Blank (TPH-G)**



**McC Campbell Analytical, Inc.**

"When Quality Counts"

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

RGA Environmental 1466 66th Street Emeryville, CA 94608	Client Project ID: #CLR20915/0304; California Linen	Date Sampled: 03/26/09
		Date Received: 03/27/09
	Client Contact: Paul King	Date Reported: 04/02/09
	Client P.O.:	Date Completed: 04/02/09

**WorkOrder: 0903695**

April 02, 2009

Dear Paul:

Enclosed within are:

- 1) The results of the **2** analyzed samples from your project: **#CLR20915/0304; California Linen,**
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice 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 or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius  
Laboratory Manager  
McC Campbell Analytical, Inc.

5.4

**CHAIN OF CUSTODY RECORD**

09036915

PROJECT NUMBER: CLR 20915 0304		PROJECT NAME: CALIFORNIA LINEN 989 41 <sup>st</sup> St, OAKLAND			NUMBER OF CONTAINERS	ANALYSIS(ES): TPH-G and BTEX by 8021 B	PRESERVATIVE	REMARKS
SAMPLED BY: (PRINTED AND SIGNATURE) MICHAEL DESCHENES <i>Michael Deschenes</i>								
SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION				
B69-4.5	3/26/09	12:30	SOIL		1	X	ICE	Normal Turn Around
B69-9.5	3/26/09	12:40	SOIL		1	X	"	" " " "
ICE 1° 54° GOOD CONDITION <input checked="" type="checkbox"/> APPROPRIATE CONTAINERS <input checked="" type="checkbox"/> HEAD SPACE ABSENT <input checked="" type="checkbox"/> PRESERVED IN LAB <input checked="" type="checkbox"/> DECHLORINATED IN LAB <input type="checkbox"/> VOAS   O & G   METALS   OTHER <input type="checkbox"/> PRESERVATION <input checked="" type="checkbox"/>								
RELINQUISHED BY: (SIGNATURE) <i>Michael Deschenes</i>	DATE 3/27/09	TIME 3:00	RECEIVED BY: (SIGNATURE) <i>[Signature]</i>		TOTAL NO. OF SAMPLES (THIS SHIPMENT) 2	LABORATORY: MC CAMPBELL ANALYTICAL		
RELINQUISHED BY: (SIGNATURE) <i>[Signature]</i>	DATE 3/27/09	TIME 4:15	RECEIVED BY: (SIGNATURE) <i>M-e Vall</i>		TOTAL NO. OF CONTAINERS (THIS SHIPMENT) 2	LABORATORY CONTACT: ANGELA RYDELINS	LABORATORY PHONE NUMBER: (877) 252-9262	
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)		SAMPLE ANALYSIS REQUEST SHEET ATTACHED: ( ) YES (X) NO			
Results and billing to: RC&A Environmental, Inc. lab@pdenviro.com Paul.King@RC&AENV.COM			REMARKS:					

RC&A

**McC Campbell Analytical, Inc.**



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

**CHAIN-OF-CUSTODY RECORD**

**WorkOrder: 0903695**

**ClientCode: RGAE**

WriteOn     EDF     Excel     Fax     Email     HardCopy     ThirdParty     J-flag

<b>Report to:</b>		<b>Bill to:</b>	<b>Requested TAT: 5 days</b>
Paul King	Email: paul.king@rgaenv.com; pdking0000@a	Lisa Devito	
RGA Environmental	cc:	RGA Environmental	<i>Date Received: 03/27/2009</i>
1466 66th Street	PO:	1466 66th Street	<i>Date Printed: 03/27/2009</i>
Emeryville, CA 94608	ProjectNo: #CLR20915/0304; California Linen	Emeryville, CA 94608	
(510) 658-6916    FAX (510) 834-0152		lisa.devito@rgaenv.com	

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
0903695-001	B69-4.5	Soil	3/26/2009 12:30	<input type="checkbox"/>	A												
0903695-002	B69-9.5	Soil	3/26/2009 12:40	<input type="checkbox"/>	A												

**Test Legend:**

1	G-MBTX_S	2		3		4		5	
6		7		8		9		10	
11		12							

**Prepared by: Melissa Valles**

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
 Hazardous samples will be returned to client or disposed of at client expense.



**Sample Receipt Checklist**

Client Name: **RGA Environmental**

Date and Time Received: **3/27/09 8:23:07 PM**

Project Name: **#CLR20915/0304; California Linen**

Checklist completed and reviewed by: **Melissa Valles**

WorkOrder N°: **0903695** Matrix Soil

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: 5.4°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
- Samples Received on Ice? Yes  No

(Ice Type: WET ICE )

\* NOTE: If the "No" box is checked, see comments below.

-----

Client contacted:

Date contacted:

Contacted by:

Comments:





# McC Campbell Analytical, Inc.

"When Quality Counts"

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

RGA Environmental  1466 66th Street  Emeryville, CA 94608	Client Project ID: #CLR20915/0304; California Linen	Date Sampled: 03/26/09
	Client Contact: Paul King	Date Received: 03/27/09
	Client P.O.:	Date Extracted: 03/27/09
		Date Analyzed 04/01/09

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

Extraction method SW5030B

Analytical methods SW8021B/8015Bm

Work Order: 0903695

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	B69-4.5	S	ND	---	ND	ND	ND	ND	1	76
002A	B69-9.5	S	3.4,d7	---	ND	ND	ND	0.020	1	86

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	ug/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	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 w/surrogate peak; low surrogate recovery due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

d7) strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram



**QC SUMMARY REPORT FOR SW8021B/8015Bm**

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 42313

WorkOrder 0903695

Analyte	EPA Method SW8021B/8015Bm		Extraction SW5030B						Spiked Sample ID: 0903673-007A			
	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) <sup>£</sup>	ND	0.60	107	92.3	15.0	112	107	5.12	70 - 130	20	70 - 130	20
MTBE	ND	0.10	81	84.4	4.11	101	109	6.97	70 - 130	20	70 - 130	20
Benzene	ND	0.10	117	113	3.45	105	108	2.99	70 - 130	20	70 - 130	20
Toluene	ND	0.10	108	104	3.37	93.3	97.2	4.05	70 - 130	20	70 - 130	20
Ethylbenzene	ND	0.10	121	116	3.77	103	107	3.26	70 - 130	20	70 - 130	20
Xylenes	ND	0.30	114	109	4.02	98.7	103	4.30	70 - 130	20	70 - 130	20
%SS:	99	0.10	105	100	4.54	87	92	5.33	70 - 130	20	70 - 130	20

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

BATCH 42313 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0903695-001A	03/26/09 12:30 PM	03/27/09	04/01/09 6:56 PM	0903695-002A	03/26/09 12:40 PM	03/27/09	04/01/09 3:15 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 enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or 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.



**McC Campbell Analytical, Inc.**

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

RGA Environmental  1466 66th Street  Emeryville, CA 94608	Client Project ID: #20915/0304; California Linen	Date Sampled: 03/27/09-03/30/09
	Client Contact: Paul King	Date Received: 03/31/09
	Client P.O.:	Date Reported: 04/06/09
		Date Completed: 04/06/09

**WorkOrder: 0903784**

April 06, 2009

Dear Paul:

Enclosed within are:

- 1) The results of the **11** analyzed samples from your project: **#20915/0304; California Linen,**
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice 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 or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius  
Laboratory Manager  
McC Campbell Analytical, Inc.



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

0903784

# CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

PROJECT NUMBER: CLR 20915/0304 <del>102001</del>		PROJECT NAME: CALIFORNIA LIVED 989 41 <sup>ST</sup> ST, OAKLAND			NUMBER OF CONTAINERS	ANALYSIS(ES): TPH-G AND BTEX BY 80AL G	PRESERVATIVE	REMARKS	
SAMPLED BY: (PRINTED AND SIGNATURE) MICHAEL DESCHENES <i>Michael Deschenes</i>									
SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION					
B71-10.5	3/27/09	12:40	SOIL		1	X	ICE	<del>Normal Turn Around</del> HOLD	
B72-10.5	3/27/09	11:55	"		1	X	"	Normal Turn Around	
B73-10.5	3/27/09	13:00	"		1	X	"	HOLD	
B74-10.5	3/27/09	14:00	"		1	X	"	Normal Turn Around	
B75-10.5	3/27/09	14:15	"		1	X	"	" " "	
B76-9.5	3/27/09	14:25	"		1	X	"	" " "	
B77-9.5	3/27/09	14:35	"		1	X	"	HOLD	
B78-9.5	3/27/09	16:50	"		1	X	"	HOLD	
B79-10.5	3/30/09	0915	"		1	X	"	Normal Turn Around	
B80-10.5	3/30/09	0930	"		1	X	"	" " "	
B81-10.5	3/30/09	0950	"		1	X	"	" " "	
B82-10.5	3/30/09	1010	"		1	X	"	" " "	
B83-10.5	3/30/09	1030	"		1	X	"	" " "	
B84-9.5	3/30/09	1125	"		1	X	"	" " "	
B85-8.5	3/30/09	1620	"		1	X	"	" " "	
RELINQUISHED BY: (SIGNATURE) <i>Michael Deschenes</i>		DATE	TIME	RECEIVED BY: (SIGNATURE) <i>[Signature]</i>		TOTAL NO. OF SAMPLES (THIS SHIPMENT)	LABORATORY:		
		3/31/09	1:35			15	McCAMPBELL ANALYTICAL		
RELINQUISHED BY: (SIGNATURE) <i>[Signature]</i>		DATE	TIME	RECEIVED BY: (SIGNATURE) <i>[Signature]</i>		TOTAL NO. OF CONTAINERS (THIS SHIPMENT)	LABORATORY CONTACT:	LABORATORY PHONE NUMBER:	
		3/31/09	1:00			15	ANGELA RYDELINS	(877) 252-9262	
RELINQUISHED BY: (SIGNATURE)		DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)		SAMPLE ANALYSIS REQUEST SHEET ATTACHED: ( ) YES (X) NO			
Results and billing to: RGA Environmental, Inc. paul.king@rgaenv.com				REMARKS:		ICE 1 <sup>st</sup> 2X GOOD CONDITION _____ APPROPRIATE CONTAINERS _____ HEAD SPACE ABSENT _____ PRESERVED IN LAB _____ DECLORINATED IN LAB _____ PRESERVATION VOAS TOSS METALS OTHER			

# McC Campbell Analytical, Inc.



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

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 0903784

ClientCode: RGAE

WriteOn   
  EDF   
  Excel   
  Fax   
 Email   
 HardCopy   
 ThirdParty   
 J-flag

Report to: Paul King RGA Environmental 1466 66th Street Emeryville, CA 94608 (510) 658-6916    FAX (510) 834-0152	Email: paul.king@rgaenv.com; pdking0000@a cc: PO: ProjectNo: #20915/0304; California Linen	Bill to: Lisa Devito RGA Environmental 1466 66th Street Emeryville, CA 94608 lisa.devito@rgaenv.com	Requested TAT: <b>5 days</b>  Date Received: <b>03/31/2009</b> Date Printed: <b>03/31/2009</b>
--	---	--	---

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
0903784-002	B72-10.5	Soil	3/27/2009 11:55	<input type="checkbox"/>	A												
0903784-004	B74-10.5	Soil	3/27/2009 14:00	<input type="checkbox"/>	A												
0903784-005	B75-10.5	Soil	3/27/2009 14:15	<input type="checkbox"/>	A												
0903784-006	B76-9.5	Soil	3/27/2009 14:25	<input type="checkbox"/>	A												
0903784-009	B79-10.5	Soil	3/30/2009 9:15	<input type="checkbox"/>	A												
0903784-010	B80-10.5	Soil	3/30/2009 9:30	<input type="checkbox"/>	A												
0903784-011	B81-10.5	Soil	3/30/2009 9:50	<input type="checkbox"/>	A												
0903784-012	B82-10.5	Soil	3/30/2009 10:10	<input type="checkbox"/>	A												
0903784-013	B83-10.5	Soil	3/30/2009 10:30	<input type="checkbox"/>	A												
0903784-014	B84-9.5	Soil	3/30/2009 11:25	<input type="checkbox"/>	A												
0903784-015	B85-8.5	Soil	3/30/2009 16:20	<input type="checkbox"/>	A												

**Test Legend:**

1	G-MBTX S	2		3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Ana Venegas

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
Hazardous samples will be returned to client or disposed of at client expense.



### Sample Receipt Checklist

Client Name: **RGA Environmental**

Date and Time Received: **3/31/2009 7:45:35 PM**

Project Name: **#20915/0304; California Linen**

Checklist completed and reviewed by: **Ana Venegas**

WorkOrder N°: **0903784** Matrix Soil

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: 2.4°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
- Samples Received on Ice? Yes  No

(Ice Type: WET ICE )

\* NOTE: If the "No" box is checked, see comments below.

-----

Client contacted:

Date contacted:

Contacted by:

Comments:



# McC Campbell Analytical, Inc.

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

RGA Environmental  1466 66th Street  Emeryville, CA 94608	Client Project ID: #20915/0304; California Linen	Date Sampled: 03/27/09-03/30/09
	Client Contact: Paul King	Date Received: 03/31/09
	Client P.O.:	Date Analyzed 04/02/09-04/05/09

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

Extraction method SW5030B

Analytical methods SW8021B/8015Bm

Work Order: 0903784

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
002A	B72-10.5	S	ND	---	ND	ND	ND	ND	1	95
004A	B74-10.5	S	ND	---	ND	ND	ND	ND	1	91
005A	B75-10.5	S	ND	---	ND	ND	ND	ND	1	89
006A	B76-9.5	S	2.7,d2	---	ND	ND	ND	0.073	1	90
009A	B79-10.5	S	ND	---	ND	ND	ND	ND	1	89
010A	B80-10.5	S	ND	---	ND	ND	ND	ND	1	84
011A	B81-10.5	S	ND	---	ND	ND	ND	ND	1	95
012A	B82-10.5	S	ND	---	ND	ND	ND	ND	1	90
013A	B83-10.5	S	ND	---	ND	ND	ND	ND	1	85
014A	B84-9.5	S	7.6,d9	---	ND	ND	ND	0.052	1	95
015A	B85-8.5	S	ND	---	ND	ND	ND	ND	1	86

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	ug/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	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 w/surrogate peak; low surrogate recovery due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

- d2) heavier gasoline range compounds are significant (aged gasoline?)
- d9) no recognizable pattern



**QC SUMMARY REPORT FOR SW8021B/8015Bm**

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 42313

WorkOrder 0903784

EPA Method SW8021B/8015Bm		Extraction SW5030B							Spiked Sample ID: 0903673-007A			
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) <sup>£</sup>	ND	0.60	107	92.3	15.0	112	107	5.12	70 - 130	20	70 - 130	20
MTBE	ND	0.10	81	84.4	4.11	101	109	6.97	70 - 130	20	70 - 130	20
Benzene	ND	0.10	117	113	3.45	105	108	2.99	70 - 130	20	70 - 130	20
Toluene	ND	0.10	108	104	3.37	93.3	97.2	4.05	70 - 130	20	70 - 130	20
Ethylbenzene	ND	0.10	121	116	3.77	103	107	3.26	70 - 130	20	70 - 130	20
Xylenes	ND	0.30	114	109	4.02	98.7	103	4.30	70 - 130	20	70 - 130	20
%SS:	99	0.10	105	100	4.54	87	92	5.33	70 - 130	20	70 - 130	20

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

BATCH 42313 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0903784-002A	03/27/09 11:55 AM	03/31/09	04/02/09 2:59 AM	0903784-004A	03/27/09 2:00 PM	03/31/09	04/02/09 6:54 AM
0903784-005A	03/27/09 2:15 PM	03/31/09	04/02/09 3:29 AM	0903784-006A	03/27/09 2:25 PM	03/31/09	04/02/09 4:27 AM
0903784-009A	03/30/09 9:15 AM	03/31/09	04/02/09 7:53 AM	0903784-010A	03/30/09 9:30 AM	03/31/09	04/04/09 11:40 PM
0903784-011A	03/30/09 9:50 AM	03/31/09	04/02/09 5:56 AM	0903784-012A	03/30/09 10:10 AM	03/31/09	04/02/09 3:58 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 enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or 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 SW8021B/8015Bm**

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 42340

WorkOrder 0903784

EPA Method SW8021B/8015Bm		Extraction SW5030B							Spiked Sample ID: 0903716-001A			
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) <sup>£</sup>	ND	0.60	102	99.7	1.94	105	104	1.20	70 - 130	20	70 - 130	20
MTBE	ND	0.10	114	105	8.88	107	105	1.81	70 - 130	20	70 - 130	20
Benzene	ND	0.10	106	97.7	8.01	103	102	0.930	70 - 130	20	70 - 130	20
Toluene	ND	0.10	117	108	8.01	116	115	0.889	70 - 130	20	70 - 130	20
Ethylbenzene	ND	0.10	116	107	8.13	113	113	0	70 - 130	20	70 - 130	20
Xylenes	ND	0.30	126	117	7.23	125	125	0	70 - 130	20	70 - 130	20
%SS:	98	0.10	104	97	6.87	99	98	1.24	70 - 130	20	70 - 130	20

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

BATCH 42340 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0903784-013A	03/30/09 10:30 AM	03/31/09	04/05/09 12:13 AM	0903784-014A	03/30/09 11:25 AM	03/31/09	04/05/09 1:51 AM
0903784-015A	03/30/09 4:20 PM	03/31/09	04/02/09 12:31 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 enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or 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.



**McC Campbell Analytical, Inc.**

"When Quality Counts"

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

RGA Environmental 1466 66th Street Emeryville, CA 94608	Client Project ID: CLR 21047/0304	Date Sampled: 04/01/09
		Date Received: 04/02/09
	Client Contact: Paul King	Date Reported: 04/08/09
	Client P.O.:	Date Completed: 04/08/09

**WorkOrder: 0904072**

April 08, 2009

Dear Paul:

Enclosed within are:

- 1) The results of the **3** analyzed samples from your project: **CLR 21047/0304**,
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice 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 or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius  
Laboratory Manager  
McC Campbell Analytical, Inc.



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

0904072

CHAIN OF CUSTODY RECORD

PROJECT NUMBER: CLR 21047/0304				PROJECT NAME: California Lines Rentals Oakland				NUMBER OF CONTAINERS	ANALYSIS(ES): TPH-G/MISTEX	PRESERVATIVE	REMARKS
SAMPLED BY: (PRINTED AND SIGNATURE) Paul King <i>Paul H. King</i>											
SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION							
B81	4/1/09	1740	Soil					1	X	ICE	Normal Turn Around
B82	↓	1755	↓					1	X	↓	" " "
B83	↓	1815	↓					1	X	↓	" " "
								APPROPRIATE CONTAINERS PRESERVED IN LAB HEAD SPACE ABSENT DECHLORINATED IN LAB VOAS O & G METALS OTHER			
RELINQUISHED BY: (SIGNATURE) <i>Paul H. King</i>		DATE 4/2/09	TIME 207	RECEIVED BY: (SIGNATURE) <i>Barry</i>		TOTAL NO. OF SAMPLES (THIS SHIPMENT) 3		LABORATORY: McCampbell Analytical			
RELINQUISHED BY: (SIGNATURE) <i>Barry</i>		DATE 4/2/09	TIME 530	RECEIVED BY: (SIGNATURE) <i>Angela Rydelius</i>		LABORATORY CONTACT: Angela Rydelius		LABORATORY PHONE NUMBER: (877)252-9262			
RELINQUISHED BY: (SIGNATURE)		DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)		SAMPLE ANALYSIS REQUEST SHEET ATTACHED: ( ) YES (X) NO					
Results and billing to: RGA Environmental, Inc. paul.king@rgaenv.com				2 invoice also to lisa.devito@rgaenv.com		REMARKS:		ICE/IT: <i>3A</i> GOOD CONDITION <input checked="" type="checkbox"/> APPROPRIATE CONTAINERS <input checked="" type="checkbox"/> HEAD SPACE ABSENT <input checked="" type="checkbox"/> PRESERVED IN LAB <input checked="" type="checkbox"/> DECHLORINATED IN LAB <input checked="" type="checkbox"/> VOAS O & G METALS OTHER			

**McC Campbell Analytical, Inc.**



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

**CHAIN-OF-CUSTODY RECORD**

**WorkOrder: 0904072**

**ClientCode: RGAE**

WriteOn   
  EDF   
  Excel   
  Fax   
 Email   
 HardCopy   
 ThirdParty   
 J-flag

<b>Report to:</b>	Paul King RGA Environmental 1466 66th Street Emeryville, CA 94608 (510) 658-6916    FAX (510) 834-0152	<b>Email:</b> paul.king@rgaenv.com; pdking0000@a	<b>Bill to:</b> Lisa Devito RGA Environmental 1466 66th Street Emeryville, CA 94608 lisa.devito@rgaenv.com	<b>Requested TAT:</b> 5 days
		cc: RGA Environmental		<b>Date Received:</b> 04/02/2009
		PO: 1466 66th Street		<b>Date Printed:</b> 04/02/2009
		ProjectNo: CLR 21047/0304		

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
0904072-001	B 81	Soil	4/1/2009 17:40	<input type="checkbox"/>	A												
0904072-002	B 82	Soil	4/1/2009 17:55	<input type="checkbox"/>	A												
0904072-003	B 83	Soil	4/1/2009 18:15	<input type="checkbox"/>	A												

**Test Legend:**

1	G-MBTX_S	2		3		4		5	
6		7		8		9		10	
11		12							

**Prepared by: Ana Venegas**

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
 Hazardous samples will be returned to client or disposed of at client expense.



### Sample Receipt Checklist

Client Name: **RGA Environmental**

Date and Time Received: **4/2/2009 7:41:37 PM**

Project Name: **CLR 21047/0304**

Checklist completed and reviewed by: **Ana Venegas**

WorkOrder N°: **0904072** Matrix Soil

Carrier: Benjamin Yslas (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: 3.4°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
- Samples Received on Ice? Yes  No

(Ice Type: WET ICE )

\* NOTE: If the "No" box is checked, see comments below.

-----

Client contacted:

Date contacted:

Contacted by:

Comments:



# McC Campbell Analytical, Inc.

"When Quality Counts"

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

RGA Environmental  1466 66th Street  Emeryville, CA 94608	Client Project ID: CLR 21047/0304	Date Sampled: 04/01/09
		Date Received: 04/02/09
	Client Contact: Paul King	Date Extracted: 04/02/09
	Client P.O.:	Date Analyzed 04/04/09

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

Extraction method SW5030B

Analytical methods SW8021B/8015Bm

Work Order: 0904072

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	B 81	S	120,d7	ND<1.0	ND<0.10	ND<0.10	ND<0.10	ND<0.10	20	83
002A	B 82	S	16,d7	ND	ND	ND	0.012	ND	1	81
003A	B 83	S	78,d7,d9	ND	ND	ND	0.11	0.088	1	113

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	ug/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	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 w/surrogate peak; low surrogate recovery due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

d7) strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram  
 d9) no recognizable pattern



**QC SUMMARY REPORT FOR SW8021B/8015Bm**

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 42446

WorkOrder: 0904072

EPA Method SW8021B/8015Bm		Extraction SW5030B							Spiked Sample ID: 0904063-012A			
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) <sup>£</sup>	ND	0.60	102	106	3.70	103	103	0	70 - 130	20	70 - 130	20
MTBE	ND	0.10	105	100	4.87	87.9	87.6	0.357	70 - 130	20	70 - 130	20
Benzene	ND	0.10	94.4	93.7	0.798	94.4	92.9	1.54	70 - 130	20	70 - 130	20
Toluene	ND	0.10	104	104	0	108	106	2.01	70 - 130	20	70 - 130	20
Ethylbenzene	ND	0.10	103	102	1.37	107	104	2.41	70 - 130	20	70 - 130	20
Xylenes	ND	0.30	115	115	0	117	115	1.34	70 - 130	20	70 - 130	20
%SS:	90	0.10	79	80	0.725	94	91	2.96	70 - 130	20	70 - 130	20

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

BATCH 42446 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0904072-001A	04/01/09 5:40 PM	04/02/09	04/04/09 1:50 AM	0904072-002A	04/01/09 5:55 PM	04/02/09	04/04/09 2:23 AM
0904072-003A	04/01/09 6:15 PM	04/02/09	04/04/09 2:56 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 enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or 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.



**McC Campbell Analytical, Inc.**

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

RGA Environmental 1466 66th Street Emeryville, CA 94608	Client Project ID: #CLR21047/0304; California Linen, Oakland	Date Sampled: 03/27/09
	Client Contact: Paul King	Date Received: 03/30/09
	Client P.O.:	Date Reported: 03/31/09
		Date Completed: 03/31/09

**WorkOrder: 0903708**

March 31, 2009

Dear Paul:

Enclosed within are:

- 1) The results of the **6** analyzed samples from your project: **#CLR21047/0304; California Linen,**
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice 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 or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius  
Laboratory Manager  
McC Campbell Analytical, Inc.





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

# CHAIN OF CUSTODY RECORD

**RUSH** 0903708  
 PAGE 1 OF 1

PROJECT NUMBER:		PROJECT NAME:			NUMBER OF CONTAINERS	ANALYSIS(ES): Total Pb, As	PRESERVATIVE	REMARKS
CLR 21047/0304		California Linen, Oakland						
SAMPLED BY: (PRINTED AND SIGNATURE)					NUMBER OF CONTAINERS	ANALYSIS(ES): Total Pb, As	PRESERVATIVE	REMARKS
Paul M. King Paul M. King								
SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION	NUMBER OF CONTAINERS	ANALYSIS(ES): Total Pb, As	PRESERVATIVE	REMARKS
Pit 1 f	3/27/09		Soil	Pit bottom on west end	1	X	ICE	48 Hour RUSH
Pit 1 g	"		"	Pit sidewall at 2 ft depth	1	X	"	" " "
Pit 1 h	"		"	" " " 4 ft depth	1	X	"	" " "
Pit 2 e	"		"	Pit bottom on east end	1	X	"	" " "
Pit 2 f	"		"	Pit sidewall at 1 ft depth	1	X	"	" " "
Pit 2 g	"		"	" " " 3 ft "	1	X	"	" " "
ICE 1° 6.2° GOOD CONDITION <input checked="" type="checkbox"/> HEAD SPACE ABSENT <input checked="" type="checkbox"/> DECHLORINATED IN LAB <input type="checkbox"/> PRESERVATION VOAS <input type="checkbox"/> U&G <input type="checkbox"/> METALS <input type="checkbox"/> OTHER <input type="checkbox"/> APPROPRIATE <input checked="" type="checkbox"/> CONTAINERS PRESERVED IN LAB								
RELINQUISHED BY: (SIGNATURE)		DATE	TIME	RECEIVED BY: (SIGNATURE)		TOTAL NO. OF SAMPLES (THIS SHIPMENT)	LABORATORY:	
Paul M. King		3/20/09	10:00	Me Vall		6	McCampbell Analytical	
RELINQUISHED BY: (SIGNATURE)		DATE	TIME	RECEIVED BY: (SIGNATURE)		TOTAL NO. OF CONTAINERS (THIS SHIPMENT)	LABORATORY CONTACT:	LABORATORY PHONE NUMBER:
<del>Paul M. King</del>		3/30/09	10:45	<del>Me Vall</del>		6	Angela Rydelius	(877) 252-9262
RELINQUISHED BY: (SIGNATURE)		DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)		SAMPLE ANALYSIS REQUEST SHEET ATTACHED: ( ) YES (X) NO		
Results and billing to: RGA Environmental, Inc. paul.king@rgaenv.com				REMARKS:				

**McC Campbell Analytical, Inc.**



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

**CHAIN-OF-CUSTODY RECORD**

**WorkOrder: 0903708**

**ClientCode: RGAE**

WriteOn     EDF     Excel     Fax     Email     HardCopy     ThirdParty     J-flag

**Report to:**

Paul King  
 RGA Environmental  
 1466 66th Street  
 Emeryville, CA 94608  
 (510) 658-6916    FAX (510) 834-0152

Email: paul.king@rgaenv.com; pdking0000@a  
 cc:  
 PO:  
 ProjectNo: #CLR21047/0304; California Linen,  
 Oakland

**Bill to:**

Lisa Devito  
 RGA Environmental  
 1466 66th Street  
 Emeryville, CA 94608  
 lisa.devito@rgaenv.com

**Requested TAT: 2 days**

**Date Received: 03/30/2009**

**Date Printed: 03/30/2009**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
0903708-001	Pit 1 f	Soil	3/27/2009	<input type="checkbox"/>	A												
0903708-002	Pit 1 g	Soil	3/27/2009	<input type="checkbox"/>	A												
0903708-003	Pit 1 h	Soil	3/27/2009	<input type="checkbox"/>	A												
0903708-004	Pit 2 e	Soil	3/27/2009	<input type="checkbox"/>	A												
0903708-005	Pit 2 f	Soil	3/27/2009	<input type="checkbox"/>	A												
0903708-006	Pit 2 g	Soil	3/27/2009	<input type="checkbox"/>	A												

**Test Legend:**

1	PBASMS_S	2		3		4		5	
6		7		8		9		10	
11		12							

**Prepared by: Melissa Valles**

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
 Hazardous samples will be returned to client or disposed of at client expense.



### Sample Receipt Checklist

Client Name: **RGA Environmental** Date and Time Received: **3/30/09 11:19:11 AM**  
 Project Name: **#CLR21047/0304; California Linen, Oakland** Checklist completed and reviewed by: **Melissa Valles**  
 WorkOrder N°: **0903708** Matrix Soil 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: 6.2°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   
 Samples Received on Ice? Yes  No   
 (Ice Type: WET ICE )

\* NOTE: If the "No" box is checked, see comments below.

-----

Client contacted: Date contacted: Contacted by:

Comments:



# McC Campbell Analytical, Inc.

"When Quality Counts"

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

RGA Environmental  1466 66th Street  Emeryville, CA 94608	Client Project ID: #CLR21047/0304; California Linen, Oakland	Date Sampled: 03/27/09
	Client Contact: Paul King	Date Received: 03/30/09
	Client P.O.:	Date Extracted: 03/30/09
		Date Analyzed: 03/31/09

### Arsenic and Lead\*

Extraction method SW3050B

Analytical methods 6020A

Work Order: 0903708

Lab ID	Client ID	Matrix	Extraction Type	Arsenic	Lead	DF	% SS
001A	Pit 1 f	S	TOTAL	5.5	6.9	1	106
002A	Pit 1 g	S	TOTAL	30	85	1	105
003A	Pit 1 h	S	TOTAL	6.8	42	1	107
004A	Pit 2 e	S	TOTAL	5.6	100	1	106
005A	Pit 2 f	S	TOTAL	48	140	1	107
006A	Pit 2 g	S	TOTAL	7.1	180	1	109

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TOTAL	NA	NA	NA
	S	TOTAL	0.5	0.5	mg/Kg

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

\*\*Soil final results are based on 17% water content relative to Soil initial.

# means surrogate diluted out of range; ND means not detected above the reporting limit; N/A means not applicable to this sample or instrument.

TOTAL = acid digestion.  
WET = Waste Extraction Test (STLC).  
DI WET = Waste Extraction Test using de-ionized water.



### QC SUMMARY REPORT FOR 6020A

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder 0903708

EPA Method 6020A		Extraction SW3050B					BatchID: 42332			Spiked Sample ID 0903707-001A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	Spiked	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	mg/Kg	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Arsenic	7.2	50	104	103	0.187	10	105	105	0	75 - 125	20	75 - 125	20
Lead	180	50	NR	NR	NR	10	105	106	0.0948	75 - 125	20	75 - 125	20
%SS:	106	250	117	116	1.55	250	113	108	4.12	70 - 130	20	70 - 130	20

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

#### BATCH 42332 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0903708-001A	03/27/09	03/30/09	03/31/09 1:00 PM	0903708-002A	03/27/09	03/30/09	03/31/09 1:08 PM
0903708-003A	03/27/09	03/30/09	03/31/09 1:16 PM	0903708-004A	03/27/09	03/30/09	03/31/09 1:24 PM
0903708-005A	03/27/09	03/30/09	03/31/09 1:32 PM	0903708-005A	03/27/09	03/30/09	03/31/09 2:29 PM
0903708-006A	03/27/09	03/30/09	03/31/09 2:05 PM	0903708-006A	03/27/09	03/30/09	03/31/09 2:37 PM

MMS = 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 applicable to this method.

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.

**McC Campbell Analytical, Inc.**

"When Quality Counts"

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

RGA Environmental 1466 66th Street Emeryville, CA 94608	Client Project ID: CLR 21047/0304	Date Sampled: 04/01/09
		Date Received: 04/02/09
	Client Contact: Paul King	Date Reported: 04/09/09
	Client P.O.:	Date Completed: 04/09/09

**WorkOrder: 0904080**

April 09, 2009

Dear Paul:

Enclosed within are:

- 1) The results of the **8** analyzed samples from your project: **CLR 21047/0304**,
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice 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 or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius  
Laboratory Manager  
McC Campbell Analytical, Inc.



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

0904080

CHAIN OF CUSTODY RECORD

PROJECT NUMBER: CLR 21047 / 0304				PROJECT NAME: California Linen Rentals Oakland				NUMBER OF CONTAINERS	ANALYSIS(ES): Total As, Pb	PRESERVATIVE	REMARKS
SAMPLED BY: (PRINTED AND SIGNATURE) Paul King				Paul H. King							
SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION							
TP1-1.0	4/1/09		SOIL			1	X	ICE	Normal Turn Around		
TP1-2.0						1	X		" " "		
TP2-1.0						1	X		" " "		
TP2-2.0						1	X		" " "		
TP3-1.0						1	X		" " "		
TP3-2.0						1	X		" " "		
TP4-1.0						1	X		" " "		
TP4-2.0						1	X		" " "		
RELINQUISHED BY: (SIGNATURE) Paul King				DATE	TIME	RECEIVED BY: (SIGNATURE) Ben [Signature]		TOTAL NO. OF SAMPLES (THIS SHIPMENT)	8	LABORATORY:	
RELINQUISHED BY: (SIGNATURE) Ben [Signature]				DATE	TIME	RECEIVED BY: (SIGNATURE) Anita [Signature]		TOTAL NO. OF CONTAINERS (THIS SHIPMENT)	8	LABORATORY CONTACT:	
RELINQUISHED BY: (SIGNATURE)				DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)		LABORATORY PHONE NUMBER: (877) 252-9262			
RESULTS AND BILLING TO: RGA Environmental, Inc. paul.king@rgaenv.com				* invoice also to lisa.devito@rgaenv.com		REMARKS: 2.2		SAMPLE ANALYSIS REQUEST SHEET ATTACHED: ( ) YES (X) NO			

PRESERVATION VOAS | O & G | METALS | OTHER

# McC Campbell Analytical, Inc.



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

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 0904080

ClientCode: RGAE

WriteOn   
  EDF   
  Excel   
  Fax   
 Email   
 HardCopy   
 ThirdParty   
 J-flag

Report to: Paul King RGA Environmental 1466 66th Street Emeryville, CA 94608 (510) 658-6916    FAX (510) 834-0152	Email: paul.king@rgaenv.com; pdking0000@a cc: PO: ProjectNo: CLR 21047/0304	Bill to: Lisa Devito RGA Environmental 1466 66th Street Emeryville, CA 94608 lisa.devito@rgaenv.com	Requested TAT: <b>5 days</b>  Date Received: <b>04/02/2009</b> Date Printed: <b>04/02/2009</b>
--	--	--	---

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
0904080-001	TP1-1.0	Soil	4/1/2009	<input type="checkbox"/>	A												
0904080-002	TP1-2.0	Soil	4/1/2009	<input type="checkbox"/>	A												
0904080-003	TP2-1.0	Soil	4/1/2009	<input type="checkbox"/>	A												
0904080-004	TP2-2.0	Soil	4/1/2009	<input type="checkbox"/>	A												
0904080-005	TP3-1.0	Soil	4/1/2009	<input type="checkbox"/>	A												
0904080-006	TP3-2.0	Soil	4/1/2009	<input type="checkbox"/>	A												
0904080-007	TP4-1.0	Soil	4/1/2009	<input type="checkbox"/>	A												
0904080-008	TP4-2.0	Soil	4/1/2009	<input type="checkbox"/>	A												

**Test Legend:**

1	METALSMS_S	2		3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Ana Venegas

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
Hazardous samples will be returned to client or disposed of at client expense.





**Sample Receipt Checklist**

Client Name: **RGA Environmental**

Date and Time Received: **4/2/2009 7:51:31 PM**

Project Name: **CLR 21047/0304**

Checklist completed and reviewed by: **Ana Venegas**

WorkOrder N°: **0904080** Matrix Soil

Carrier: Benjamin Yslas (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: 2.2°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
- Samples Received on Ice? Yes  No

(Ice Type: WET ICE )

\* NOTE: If the "No" box is checked, see comments below.

-----

Client contacted:

Date contacted:

Contacted by:

Comments:



# McC Campbell Analytical, Inc.

"When Quality Counts"

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

RGA Environmental  1466 66th Street  Emeryville, CA 94608	Client Project ID: CLR 21047/0304	Date Sampled: 04/01/09
		Date Received: 04/02/09
	Client Contact: Paul King	Date Extracted: 04/02/09
	Client P.O.:	Date Analyzed: 04/07/09-04/08/09

### Metals\*

Extraction method SW3050B

Analytical methods 6020A

Work Order: 0904080

Lab ID	Client ID	Matrix	Extraction Type	Arsenic	Lead	DF	% SS
001A	TP1-1.0	S	TOTAL	15	64	1	110
002A	TP1-2.0	S	TOTAL	5.8	34	1	112
003A	TP2-1.0	S	TOTAL	12	90	1	109
004A	TP2-2.0	S	TOTAL	13	460	1	108
005A	TP3-1.0	S	TOTAL	19	88	1	122
006A	TP3-2.0	S	TOTAL	7.8	47	1	117
007A	TP4-1.0	S	TOTAL	5.7	4.6	1	109
008A	TP4-2.0	S	TOTAL	8.7	290	1	110

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TOTAL	NA	NA	NA
	S	TOTAL	0.5	0.5	mg/kg

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

# means surrogate diluted out of range; ND means not detected above the reporting limit; N/A means not applicable to this sample or instrument.

TOTAL = acid digestion; WET = Waste Extraction Test (STLC); DI WET = Waste Extraction Test using de-ionized water.



### QC SUMMARY REPORT FOR 6020A

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder 0904080

EPA Method 6020A			Extraction SW3050B				BatchID: 42455			Spiked Sample ID 0904077-003A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	Spiked	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	mg/Kg	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Arsenic	9.0	50	117	114	2.10	10	88.7	87.3	1.61	75 - 125	20	75 - 125	20
Lead	20	50	114	109	3.55	10	88.7	87.3	1.61	75 - 125	20	75 - 125	20
%SS:	115	250	118	111	5.96	250	101	94	6.79	70 - 130	20	70 - 130	20

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

#### BATCH 42455 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0904080-001A	04/01/09	04/02/09	04/07/09 11:53 PM	0904080-002A	04/01/09	04/02/09	04/07/09 11:01 PM
0904080-003A	04/01/09	04/02/09	04/07/09 11:10 PM	0904080-004A	04/01/09	04/02/09	04/07/09 11:18 PM
0904080-004A	04/01/09	04/02/09	04/08/09 6:36 AM	0904080-005A	04/01/09	04/02/09	04/07/09 11:27 PM
0904080-005A	04/01/09	04/02/09	04/08/09 6:53 AM	0904080-006A	04/01/09	04/02/09	04/07/09 11:35 PM
0904080-007A	04/01/09	04/02/09	04/07/09 11:52 PM	0904080-008A	04/01/09	04/02/09	04/07/09 11:52 PM
0904080-008A	04/01/09	04/02/09	04/08/09 7:10 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 applicable to this method.

NR = matrix interference and/or 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.



**McC Campbell Analytical, Inc.**

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

RGA Environmental 1466 66th Street Emeryville, CA 94608	Client Project ID: #CLR20915/0304; California Linen	Date Sampled: 03/26/09
		Date Received: 03/27/09
	Client Contact: Paul King	Date Reported: 04/02/09
	Client P.O.:	Date Completed: 04/02/09

**WorkOrder: 0903696**

April 02, 2009

Dear Paul:

Enclosed within are:

- 1) The results of the **2** analyzed samples from your project: **#CLR20915/0304; California Linen,**
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice 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 or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius  
Laboratory Manager  
McC Campbell Analytical, Inc.

PROJECT NUMBER: CLR20915 0304			PROJECT NAME: CALIFORNIA LINEN 989 41 <sup>st</sup> ST., OAKLAND			NUMBER OF CONTAINERS	ANALYSIS(ES): TPH-6 and BTEX by 8021B	PRESERVATIVE	REMARKS
SAMPLED BY: (PRINTED AND SIGNATURE) Michael Deschenes <i>Michael Deschenes</i>									
SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION					
B30 B67-W	3/26/09	11:00	WATER			7	X	ICE	Normal Turn Around
HP B68-W	3/26/09	11:40	"			7	X	"	" " " "
ICE / °C <u>2.8</u>		GOOD CONDITION <input checked="" type="checkbox"/>		APPROPRIATE <input checked="" type="checkbox"/>					
		HEAD SPACE ABSENT <input checked="" type="checkbox"/>		CONTAINERS <input checked="" type="checkbox"/>					
		DECHLORINATED IN LAB <input type="checkbox"/>		PRESERVED IN LAB <input type="checkbox"/>					
		PRESERVATION <input type="checkbox"/>		METALS <input type="checkbox"/>		OTHER <input type="checkbox"/>			
RELINQUISHED BY: (SIGNATURE) <i>Michael Deschenes</i>		DATE 3/27/09	TIME 3:06	RECEIVED BY: (SIGNATURE) <i>[Signature]</i>		TOTAL NO. OF SAMPLES (THIS SHIPMENT) 2	LABORATORY: McCAMPBELL ANALYTICAL		
RELINQUISHED BY: (SIGNATURE) <i>[Signature]</i>		DATE 3/27/09	TIME 4:15	RECEIVED BY: (SIGNATURE) <i>Jeff Vull</i>		TOTAL NO. OF CONTAINERS (THIS SHIPMENT) 14	LABORATORY CONTACT: ANGELA RYDELINS LABORATORY PHONE NUMBER: (877) 252-9262		
RELINQUISHED BY: (SIGNATURE)		DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)		SAMPLE ANALYSIS REQUEST SHEET ATTACHED: ( ) YES (X) NO			
Results and billing to: RGA Environmental, Inc. Paul.King@RGAENV.COM				REMARKS:					

**McC Campbell Analytical, Inc.**



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

**CHAIN-OF-CUSTODY RECORD**

**WorkOrder: 0903696**

**ClientCode: RGAE**

WriteOn     EDF     Excel     Fax     Email     HardCopy     ThirdParty     J-flag

**Report to:**  
 Paul King  
 RGA Environmental  
 1466 66th Street  
 Emeryville, CA 94608  
 (510) 658-6916    FAX (510) 834-0152

**Email:** paul.king@rgaenv.com; pdking0000@a

**cc:**

**PO:**

**ProjectNo:** #CLR20915/0304; California Linen

**Bill to:**  
 Lisa Devito  
 RGA Environmental  
 1466 66th Street  
 Emeryville, CA 94608  
 lisa.devito@rgaenv.com

**Requested TAT: 5 days**

**Date Received: 03/27/2009**

**Date Printed: 03/27/2009**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
0903696-001	B67-W	Water	3/26/2009 11:00	<input type="checkbox"/>	A												
0903696-002	B68-W	Water	3/26/2009 11:40	<input type="checkbox"/>	A												

**Test Legend:**

1	G-MBTX_W	2		3		4		5	
6		7		8		9		10	
11		12							

**Prepared by: Melissa Valles**

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
 Hazardous samples will be returned to client or disposed of at client expense.



### Sample Receipt Checklist

Client Name: **RGA Environmental**

Date and Time Received: **3/27/09 8:24:57 PM**

Project Name: **#CLR20915/0304; California Linen**

Checklist completed and reviewed by: **Melissa Valles**

WorkOrder N°: **0903696** Matrix 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: 2.8°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
- Samples Received on Ice? Yes  No

(Ice Type: WET ICE )

\* NOTE: If the "No" box is checked, see comments below.

-----

Client contacted:

Date contacted:

Contacted by:

Comments:



# McC Campbell Analytical, Inc.

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 Web: www.mcccampbell.com E-mail: main@mcccampbell.com  
 Telephone: 877-252-9262 Fax: 925-252-9269

RGA Environmental  1466 66th Street  Emeryville, CA 94608	Client Project ID: #CLR20915/0304; California Linen	Date Sampled: 03/26/09
	Client Contact: Paul King	Date Received: 03/27/09
	Client P.O.:	Date Extracted: 04/01/09
		Date Analyzed 04/01/09

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

Extraction method SW5030B Analytical methods SW8021B/8015Bm Work Order: 0903696

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	B67-W	W	ND,b1	---	ND	ND	ND	ND	1	92
002A	B68-W	W	ND,b1	---	ND	ND	ND	ND	1	112

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	μg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	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 McC Campbell Analytical is not responsible for their interpretation:

b1) aqueous sample that contains greater than ~1 vol. % sediment





**QC SUMMARY REPORT FOR SW8021B/8015Bm**

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 42329

WorkOrder 0903696

Analyte	EPA Method SW8021B/8015Bm		Extraction SW5030B						Spiked Sample ID: 0903693-003A			
	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) <sup>£</sup>	ND	60	108	97.8	9.96	104	108	3.09	70 - 130	20	70 - 130	20
MTBE	ND	10	107	103	4.15	96.6	92.6	4.19	70 - 130	20	70 - 130	20
Benzene	ND	10	98.4	98.5	0.0780	88.7	93.1	4.90	70 - 130	20	70 - 130	20
Toluene	ND	10	109	110	1.00	91.8	95.3	3.83	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	110	109	0.818	92.9	96.9	4.23	70 - 130	20	70 - 130	20
Xylenes	ND	30	119	122	2.53	107	111	3.80	70 - 130	20	70 - 130	20
%SS:	93	10	87	91	3.89	98	101	3.06	70 - 130	20	70 - 130	20

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

BATCH 42329 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0903696-001A	03/26/09 11:00 AM	04/01/09	04/01/09 9:58 AM	0903696-002A	03/26/09 11:40 AM	04/01/09	04/01/09 9:25 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 enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or 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, or inconsistency in sample containers.



**McC Campbell Analytical, Inc.**

"When Quality Counts"

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

RGA Environmental 1466 66th Street Emeryville, CA 94608	Client Project ID: CLR 20915/0304; California Linen, 989 41st St	Date Sampled: 03/27/09
	Client Contact: Paul King	Date Received: 03/31/09
	Client P.O.:	Date Reported: 04/06/09
		Date Completed: 04/06/09

**WorkOrder: 0903760**

April 06, 2009

Dear Paul:

Enclosed within are:

- 1) The results of the **1** analyzed sample from your project: **CLR 20915/0304; California Linen,**
- 2) A QC report for the above sample,
- 3) A copy of the chain of custody, and
- 4) An invoice 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 or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius  
Laboratory Manager  
McC Campbell Analytical, Inc.



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

0903760

# CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

PROJECT NUMBER: <del>12304</del> <u>CLR 20945</u> / <u>0304</u>		PROJECT NAME: <u>CALIFORNIA LINEN</u> <u>989 41<sup>st</sup> STREET, OAKLAND</u>			NUMBER OF CONTAINERS	ANALYSIS(ES): <u>TPH-G AND BTEX BY 821.B</u>	PRESERVATIVE	REMARKS
SAMPLED BY: (PRINTED AND SIGNATURE) <u>Michael Deschenes</u>								
SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION				
<u>x29</u> B70-W	<u>3/27/09</u>	<u>11:10</u>	<u>WATER</u>		<u>7</u>	<u>X</u>	<u>ICE</u>	<u>NORMAL TURN AROUND</u>
RELINQUISHED BY: (SIGNATURE) <u>Michael Deschenes</u>	DATE <u>3/30/09</u>	TIME <u>135</u>	RECEIVED BY: (SIGNATURE) <u>[Signature]</u>	TOTAL NO. OF SAMPLES (THIS SHIPMENT) <u>1</u>	LABORATORY: <u>Mc CAMP BELL ANALYTICAL</u>			
RELINQUISHED BY: (SIGNATURE) <u>[Signature]</u>	DATE <u>3/31/09</u>	TIME <u>300</u>	RECEIVED BY: (SIGNATURE) <u>[Signature]</u>	TOTAL NO. OF CONTAINERS (THIS SHIPMENT) <u>7</u>	LABORATORY CONTACT: <u>ANGELA RYDELINS</u>			
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)	LABORATORY PHONE NUMBER: <u>(877) 252-9262</u>				
Results and billing to: RGA Environmental, Inc. paul.king@rgaenv.com			REMARKS:	SAMPLE ANALYSIS REQUEST SHEET ATTACHED: ( ) YES (X) NO				
GOOD CONDITION <input checked="" type="checkbox"/>			ICE: <u>4.8</u>	APPROPRIATE <input checked="" type="checkbox"/>				
HEAD SPACE ABSENT <input type="checkbox"/>			DECHLORINATED IN LAB <input type="checkbox"/>	CONTAINERS PRESERVED IN LAB <input type="checkbox"/>				
VOAS (O & G) <input type="checkbox"/>			METALS <input type="checkbox"/>					
OTHER <input type="checkbox"/>			PRESERVATION <input type="checkbox"/>					

**McC Campbell Analytical, Inc.**



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

**CHAIN-OF-CUSTODY RECORD**

**WorkOrder: 0903760**

**ClientCode: RGAE**

WriteOn     EDF     Excel     Fax     Email     HardCopy     ThirdParty     J-flag

<b>Report to:</b>		<b>Bill to:</b>	<b>Requested TAT: 5 days</b>
Paul King	Email: paul.king@rgaenv.com; pdking0000@a	Lisa Devito	
RGA Environmental	cc:	RGA Environmental	<b>Date Received: 03/31/2009</b>
1466 66th Street	PO:	1466 66th Street	<b>Date Printed: 03/31/2009</b>
Emeryville, CA 94608	ProjectNo: CLR 20915/0304; California Linen, 989	Emeryville, CA 94608	
(510) 658-6916    FAX (510) 834-0152	41st St	lisa.devito@rgaenv.com	

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)													
					1	2	3	4	5	6	7	8	9	10	11	12		
0903760-001	B70-W	Water	3/27/2009 11:10	<input type="checkbox"/>	A													

**Test Legend:**

1	G-MBTEX_W	2		3		4		5	
6		7		8		9		10	
11		12							

**Prepared by: Ana Venegas**

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
 Hazardous samples will be returned to client or disposed of at client expense.



**Sample Receipt Checklist**

Client Name: **RGA Environmental** Date and Time Received: **3/31/2009 3:30:56 PM**  
Project Name: **CLR 20915/0304; California Linen, 989 41st St** Checklist completed and reviewed by: **Ana Venegas**  
WorkOrder N°: **0903760** Matrix 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: 4.8°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   
Samples Received on Ice? Yes  No   
(Ice Type: WET ICE )

\* NOTE: If the "No" box is checked, see comments below.

-----

Client contacted: Date contacted: Contacted by:

Comments:



# McC Campbell Analytical, Inc.

"When Quality Counts"

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

RGA Environmental  1466 66th Street  Emeryville, CA 94608	Client Project ID: CLR 20915/0304; California Linen, 989 41st St	Date Sampled: 03/27/09
	Client Contact: Paul King	Date Received: 03/31/09
	Client P.O.:	Date Extracted: 04/02/09
		Date Analyzed 04/02/09

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

Extraction method SW5030B

Analytical methods SW8021B/8015Bm

Work Order: 0903760

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	B70-W	W	61,d7,b1	---	ND	ND	ND	1.2	1	100

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	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	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 McC Campbell Analytical is not responsible for their interpretation:

b1) aqueous sample that contains greater than ~1 vol. % sediment  
d7) strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram



**QC SUMMARY REPORT FOR SW8021B/8015Bm**

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 42362

WorkOrder: 0903760

EPA Method SW8021B/8015Bm		Extraction SW5030B							Spiked Sample ID: 0903761-001A			
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) <sup>f</sup>	ND	60	90.4	86.8	4.14	97.9	109	10.8	70 - 130	20	70 - 130	20
MTBE	ND	10	87.2	80.8	7.57	92.9	96.8	4.18	70 - 130	20	70 - 130	20
Benzene	ND	10	94.8	94.8	0	95.4	94.7	0.716	70 - 130	20	70 - 130	20
Toluene	ND	10	96.3	95.6	0.774	94.4	93.9	0.556	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	97	94	3.12	98.1	98.7	0.592	70 - 130	20	70 - 130	20
Xylenes	ND	30	108	108	0	109	110	1.10	70 - 130	20	70 - 130	20
%SS:	104	10	103	102	1.19	94	90	4.03	70 - 130	20	70 - 130	20

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

BATCH 42362 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0903760-001A	03/27/09 11:10 AM	04/02/09	04/02/09 5:04 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 = matrix interference and/or 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, or inconsistency in sample containers.



**McC Campbell Analytical, Inc.**

"When Quality Counts"

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

RGA Environmental  1466 66th Street  Emeryville, CA 94608	Client Project ID: #CLR20915/0304; California Linen	Date Sampled: 03/27/09
	Client Contact: Paul King	Date Received: 03/31/09
	Client P.O.:	Date Reported: 04/06/09
		Date Completed: 04/06/09

**WorkOrder: 0903763**

April 06, 2009

Dear Paul:

Enclosed within are:

- 1) The results of the **4** analyzed samples from your project: **#CLR20915/0304; California Linen,**
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice 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 or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius  
Laboratory Manager  
McC Campbell Analytical, Inc.





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

0903763

# CHAIN OF CUSTODY RECORD

PROJECT NUMBER: ~~XXXX~~ CLR 20915  
 PROJECT NAME: CALIFORNIA LIVEN  
 989 41<sup>ST</sup> STREET, OAKLAND  
 0304

SAMPLED BY: (PRINTED AND SIGNATURE)  
 Michael Deschenes *Michael Deschenes*

SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION	NUMBER OF CONTAINERS	ANALYSIS(ES):				PRESERVATIVE	REMARKS
						TPH-6	AND	BTEX	BY 802LB		
B71-W	3/27/09	1525	WATER		7	X				ICE	NORMAL TURN AROUND
B73-W	3/27/09	1530	"		7	X				"	" " "
B77-W	3/27/09	1600	"		7	X				"	" " "
B78-W	3/27/09	16:10	"		7	X				"	" " "
					ICE / t° 4.0° GOOD CONDITION <input checked="" type="checkbox"/> APPROPRIATE <input checked="" type="checkbox"/> HEAD SPACE ABSENT <input checked="" type="checkbox"/> CONTAINERS <input checked="" type="checkbox"/> DECHLORINATED IN LAB <input type="checkbox"/> PRESERVED IN LAB <input type="checkbox"/> VOAG (O & G) METALS OTHER <input type="checkbox"/>						

+15  
+30  
+20  
+15

RELINQUISHED BY: (SIGNATURE) <i>Michael Deschenes</i>	DATE 3/31/09	TIME 135	RECEIVED BY: (SIGNATURE) <i>[Signature]</i>	TOTAL NO. OF SAMPLES (THIS SHIPMENT) 4	LABORATORY: Mc CAMPBELL ANALYTICAL
RELINQUISHED BY: (SIGNATURE) <i>[Signature]</i>	DATE 3/31	TIME 306	RECEIVED BY: (SIGNATURE) <i>Mc Vall</i>	TOTAL NO. OF CONTAINERS (THIS SHIPMENT) 28	LABORATORY CONTACT: ANGELA RYDELINS
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)	LABORATORY PHONE NUMBER: (877) 252-9262	
				SAMPLE ANALYSIS REQUEST SHEET ATTACHED: ( ) YES (Y) NO	

Results and billing to:  
 RGA Environmental, Inc.  
 paul.king@rgaenv.com

REMARKS:

**McC Campbell Analytical, Inc.**



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

**CHAIN-OF-CUSTODY RECORD**

**WorkOrder: 0903763**

**ClientCode: RGAE**

WriteOn     EDF     Excel     Fax     Email     HardCopy     ThirdParty     J-flag

Report to: Paul King  
 RGA Environmental  
 1466 66th Street  
 Emeryville, CA 94608  
 (510) 658-6916    FAX (510) 834-0152

Email: paul.king@rgaenv.com; pdking0000@a

ProjectNo: #CLR20915/0304; California Linen

Bill to: Lisa Devito  
 RGA Environmental  
 1466 66th Street  
 Emeryville, CA 94608  
 lisa.devito@rgaenv.com

Requested TAT: **5 days**

*Date Received: 03/31/2009*  
*Date Printed: 03/31/2009*

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
0903763-001	B71-W	Water	3/27/2009 15:25	<input type="checkbox"/>	A												
0903763-002	B73-W	Water	3/27/2009 15:30	<input type="checkbox"/>	A												
0903763-003	B77-W	Water	3/27/2009 16:00	<input type="checkbox"/>	A												
0903763-004	B-78-W	Water	3/27/2009 16:10	<input type="checkbox"/>	A												

**Test Legend:**

1	G-MBTEX_W	2		3		4		5	
6		7		8		9		10	
11		12							

**Prepared by: Melissa Valles**

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
 Hazardous samples will be returned to client or disposed of at client expense.



### Sample Receipt Checklist

Client Name: **RGA Environmental**

Date and Time Received: **3/31/09 4:03:58 PM**

Project Name: **#CLR20915/0304; California Linen**

Checklist completed and reviewed by: **Melissa Valles**

WorkOrder N°: **0903763** Matrix 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: 4.8°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
  - Samples Received on Ice? Yes  No
- (Ice Type: WET ICE )

\* NOTE: If the "No" box is checked, see comments below.

-----

Client contacted:

Date contacted:

Contacted by:

Comments:



# McC Campbell Analytical, Inc.

"When Quality Counts"

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

RGA Environmental  1466 66th Street  Emeryville, CA 94608	Client Project ID: #CLR20915/0304; California Linen	Date Sampled: 03/27/09
	Client Contact: Paul King	Date Received: 03/31/09
	Client P.O.:	Date Analyzed 04/02/09
		Date Extracted: 04/02/09

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

Extraction method SW5030B

Analytical methods SW8021B/8015Bm

Work Order: 0903763

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	B71-W	W	ND,b1	---	ND	ND	ND	1.5	1	109
002A	B73-W	W	ND,b1	---	ND	ND	ND	ND	1	105
003A	B77-W	W	21,000,d2,b1	---	21	ND<10	140	4100	20	109
004A	B78-W	W	26,000,d1,b6,b1	---	40	24	290	1600	20	113

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	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	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 McC Campbell Analytical is not responsible for their interpretation:

b1) aqueous sample that contains greater than ~1 vol. % sediment  
b6) lighter than water immiscible sheen/product is present  
d1) weakly modified or unmodified gasoline is significant  
d2) heavier gasoline range compounds are significant (aged gasoline?)



### QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 42362

WorkOrder: 0903763

Analyte	EPA Method SW8021B/8015Bm		Extraction SW5030B						Spiked Sample ID: 0903761-001A			
	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) <sup>£</sup>	ND	60	90.4	86.8	4.14	97.9	109	10.8	70 - 130	20	70 - 130	20
MTBE	ND	10	87.2	80.8	7.57	92.9	96.8	4.18	70 - 130	20	70 - 130	20
Benzene	ND	10	94.8	94.8	0	95.4	94.7	0.716	70 - 130	20	70 - 130	20
Toluene	ND	10	96.3	95.6	0.774	94.4	93.9	0.556	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	97	94	3.12	98.1	98.7	0.592	70 - 130	20	70 - 130	20
Xylenes	ND	30	108	108	0	109	110	1.10	70 - 130	20	70 - 130	20
%SS:	104	10	103	102	1.19	94	90	4.03	70 - 130	20	70 - 130	20

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

#### BATCH 42362 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0903763-001A	03/27/09 3:25 PM	04/02/09	04/02/09 5:52 AM	0903763-002A	03/27/09 3:30 PM	04/02/09	04/02/09 11:04 PM
0903763-003A	03/27/09 4:00 PM	04/02/09	04/02/09 7:05 PM	0903763-004A	03/27/09 4:10 PM	04/02/09	04/02/09 9:23 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 = matrix interference and/or 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, or inconsistency in sample containers.



AN ENVIRONMENTAL ANALYTICAL LABORATORY

---

4/12/2009

Mr. Paul King  
P & D Environmental  
55 Santa Clara  
Suite 240  
Oakland CA 94610

Project Name: California Linen 989 41st st., Oakland  
Project #: CLR20915/0304  
Workorder #: 0903810A

Dear Mr. Paul King

The following report includes the data for the above referenced project for sample(s) received on 3/31/2009 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kyle Vagadori at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

A handwritten signature in black ink that reads 'Kyle Vagadori'.

Kyle Vagadori  
Project Manager



AN ENVIRONMENTAL ANALYTICAL LABORATORY

## WORK ORDER #: 0903810A

### Work Order Summary

**CLIENT:** Mr. Paul King  
P & D Environmental  
55 Santa Clara  
Suite 240  
Oakland, CA 94610

**PHONE:** 510-658-6916

**FAX:** 510-834-0772

**DATE RECEIVED:** 03/31/2009

**DATE COMPLETED:** 04/10/2009

**BILL TO:** Mr. Paul King  
P & D Environmental  
55 Santa Clara  
Suite 240  
Oakland, CA 94610

**P.O. #**

**PROJECT #** CLR20915/0304 California Linen 989 41st  
st., Oakland

**CONTACT:** Kyle Vagadori

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	SG-6	Modified TO-15	2.5 "Hg	15 psi
02A	SG-7	Modified TO-15	4.0 "Hg	15 psi
03A	SG-8	Modified TO-15	4.0 "Hg	15 psi
04A	SG-8 DUP	Modified TO-15	4.0 "Hg	15 psi
06A	SG-10	Modified TO-15	3.0 "Hg	15 psi
08A	SG-12	Modified TO-15	3.0 "Hg	15 psi
10A	SG-14	Modified TO-15	1.5 "Hg	15 psi
11A	SG-15	Modified TO-15	4.5 "Hg	15 psi
12A	SG-16	Modified TO-15	4.5 "Hg	15 psi
13A	SG-17	Modified TO-15	4.5 "Hg	15 psi
15A	SG-18-DUP	Modified TO-15	3.5 "Hg	15 psi
15AA	SG-18-DUP Lab Duplicate	Modified TO-15	3.5 "Hg	15 psi
17A	SG-20	Modified TO-15	4.5 "Hg	15 psi
18A	SG-20 DUP	Modified TO-15	4.0 "Hg	15 psi
19A	SG-21	Modified TO-15	5.5 "Hg	15 psi
21A	Trip Blank	Modified TO-15	27.5 "Hg	15 psi
22A	Lab Blank	Modified TO-15	NA	NA

Continued on next page




AN ENVIRONMENTAL ANALYTICAL LABORATORY

**WORK ORDER #: 0903810A**

Work Order Summary

<b>CLIENT:</b>	Mr. Paul King P & D Environmental 55 Santa Clara Suite 240 Oakland, CA 94610	<b>BILL TO:</b>	Mr. Paul King P & D Environmental 55 Santa Clara Suite 240 Oakland, CA 94610
<b>PHONE:</b>	510-658-6916	<b>P.O. #</b>	
<b>FAX:</b>	510-834-0772	<b>PROJECT #</b>	CLR20915/0304 California Linen 989 41st
<b>DATE RECEIVED:</b>	03/31/2009	<b>CONTACT:</b>	st., Oakland Kyle Vagadori
<b>DATE COMPLETED:</b>	04/10/2009		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
23A	CCV	Modified TO-15	NA	NA
24A	LCS	Modified TO-15	NA	NA

CERTIFIED BY: 

DATE: 04/12/09

Laboratory Director

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004  
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,  
Accreditation number: E87680, Effective date: 07/01/08, Expiration date: 06/30/09

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630  
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020



**LABORATORY NARRATIVE**  
**Modified TO-15**  
**P & D Environmental**  
**Workorder# 0903810A**

Fifteen 1 Liter Summa Canister samples were received on March 31, 2009. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 0.2 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

<i>Requirement</i>	<i>TO-15</i>	<i>ATL Modifications</i>
Daily CCV	<= 30% Difference	<= 30% Difference; Compounds exceeding this criterion and associated data are flagged and narrated.
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

**Receiving Notes**

There were no receiving discrepancies.

**Analytical Notes**

There were no analytical discrepancies.

**Definition of Data Qualifying Flags**

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction no performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

- U - Compound analyzed for but not detected above the reporting limit.
- UJ- Non-detected compound associated with low bias in the CCV
- N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

- a-File was requantified
- b-File was quantified by a second column and detector
- r1-File was requantified for the purpose of reissue



AN ENVIRONMENTAL ANALYTICAL LABORATORY

## Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SG-6

Lab ID#: 0903810A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	4.4	600 E	11	1500 E
Benzene	1.1	7.4	3.5	24
Toluene	1.1	6.6	4.1	25
m,p-Xylene	1.1	3.9	4.8	17
o-Xylene	1.1	1.6	4.8	6.8

Client Sample ID: SG-7

Lab ID#: 0903810A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.2	1.3	3.7	4.2
Toluene	1.2	1.7	4.4	6.5

Client Sample ID: SG-8

Lab ID#: 0903810A-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.2	5.1	3.7	16
Toluene	1.2	420	4.4	1600
Ethyl Benzene	1.2	31	5.0	140
m,p-Xylene	1.2	120	5.0	510
o-Xylene	1.2	36	5.0	150

Client Sample ID: SG-8 DUP

Lab ID#: 0903810A-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.2	4.9	3.7	16
Toluene	1.2	210	4.4	790
Ethyl Benzene	1.2	16	5.0	68
m,p-Xylene	1.2	65	5.0	280
o-Xylene	1.2	21	5.0	92



AN ENVIRONMENTAL ANALYTICAL LABORATORY

## Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SG-10

Lab ID#: 0903810A-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.1	9.2	3.6	29
Toluene	1.1	22	4.2	84
Ethyl Benzene	1.1	2.9	4.9	12
m,p-Xylene	1.1	11	4.9	49
o-Xylene	1.1	3.6	4.9	16

Client Sample ID: SG-12

Lab ID#: 0903810A-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.1	19	3.6	60
Toluene	1.1	12	4.2	44
Ethyl Benzene	1.1	1.3	4.9	5.7
m,p-Xylene	1.1	5.3	4.9	23
o-Xylene	1.1	1.5	4.9	6.6

Client Sample ID: SG-14

Lab ID#: 0903810A-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.1	17	3.4	56
Toluene	1.1	120	4.0	440
Ethyl Benzene	1.1	16	4.6	68
m,p-Xylene	1.1	63	4.6	270
o-Xylene	1.1	17	4.6	73

Client Sample ID: SG-15

Lab ID#: 0903810A-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.2	5.2	3.8	17
Toluene	1.2	27	4.5	100
Ethyl Benzene	1.2	3.5	5.2	15
m,p-Xylene	1.2	12	5.2	52
o-Xylene	1.2	3.7	5.2	16



AN ENVIRONMENTAL ANALYTICAL LABORATORY

## Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SG-16

Lab ID#: 0903810A-12A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	4.8	7.5	12	18
Benzene	1.2	14	3.8	45
Toluene	1.2	47	4.5	180
Ethyl Benzene	1.2	7.9	5.2	34
m,p-Xylene	1.2	33	5.2	140
o-Xylene	1.2	10	5.2	46

Client Sample ID: SG-17

Lab ID#: 0903810A-13A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Toluene	1.2	8.3	4.5	31
m,p-Xylene	1.2	3.3	5.2	14
o-Xylene	1.2	1.3	5.2	5.8

Client Sample ID: SG-18-DUP

Lab ID#: 0903810A-15A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.1	47	3.6	150
Toluene	1.1	140	4.3	550
Ethyl Benzene	1.1	25	5.0	110
m,p-Xylene	1.1	78	5.0	340
o-Xylene	1.1	31	5.0	140
Naphthalene	4.6	5.4	24	28

Client Sample ID: SG-18-DUP Lab Duplicate

Lab ID#: 0903810A-15AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.5	48	4.9	150
Toluene	1.5	150	5.7	560
Ethyl Benzene	1.5	26	6.6	110
m,p-Xylene	1.5	79	6.6	340
o-Xylene	1.5	30	6.6	130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

## Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SG-20

Lab ID#: 0903810A-17A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	4.8	8.7	12	21
Benzene	1.2	8.1	3.8	26
Toluene	1.2	86	4.5	320
Ethyl Benzene	1.2	8.6	5.2	37
m,p-Xylene	1.2	31	5.2	140
o-Xylene	1.2	7.8	5.2	34

Client Sample ID: SG-20 DUP

Lab ID#: 0903810A-18A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.2	7.3	3.7	23
Toluene	1.2	120	4.4	460
Ethyl Benzene	1.2	13	5.0	57
m,p-Xylene	1.2	51	5.0	220
o-Xylene	1.2	14	5.0	59

Client Sample ID: SG-21

Lab ID#: 0903810A-19A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	4.9	11	12	28
Benzene	1.2	4.4	3.9	14
Toluene	1.2	100	4.6	400
Ethyl Benzene	1.2	14	5.4	59
m,p-Xylene	1.2	56	5.4	240
o-Xylene	1.2	17	5.4	73

Client Sample ID: Trip Blank

Lab ID#: 0903810A-21A

No Detections Were Found.



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG-6

Lab ID#: 0903810A-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	y040718	Date of Collection:	3/26/09 4:32:00 PM
Dil. Factor:	2.20	Date of Analysis:	4/7/09 10:42 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	4.4	600 E	11	1500 E
Benzene	1.1	7.4	3.5	24
Toluene	1.1	6.6	4.1	25
Ethyl Benzene	1.1	Not Detected	4.8	Not Detected
m,p-Xylene	1.1	3.9	4.8	17
o-Xylene	1.1	1.6	4.8	6.8
Naphthalene	4.4	Not Detected	23	Not Detected

E = Exceeds instrument calibration range.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	109	70-130
4-Bromofluorobenzene	101	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG-7

Lab ID#: 0903810A-02A

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>y040709</b>	<b>Date of Collection:</b> 3/24/09 3:17:00 PM
<b>Dil. Factor:</b>	<b>2.33</b>	<b>Date of Analysis:</b> 4/7/09 04:21 PM

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
2-Propanol	4.7	Not Detected	11	Not Detected
Benzene	1.2	1.3	3.7	4.2
Toluene	1.2	1.7	4.4	6.5
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
m,p-Xylene	1.2	Not Detected	5.0	Not Detected
o-Xylene	1.2	Not Detected	5.0	Not Detected
Naphthalene	4.7	Not Detected	24	Not Detected

**Container Type: 1 Liter Summa Canister**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	106	70-130
4-Bromofluorobenzene	98	70-130





AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG-8

Lab ID#: 0903810A-03A

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>y040710</b>	<b>Date of Collection:</b> 3/24/09 11:29:00 AM
<b>Dil. Factor:</b>	<b>2.33</b>	<b>Date of Analysis:</b> 4/7/09 05:20 PM

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
2-Propanol	4.7	Not Detected	11	Not Detected
Benzene	1.2	5.1	3.7	16
Toluene	1.2	420	4.4	1600
Ethyl Benzene	1.2	31	5.0	140
m,p-Xylene	1.2	120	5.0	510
o-Xylene	1.2	36	5.0	150
Naphthalene	4.7	Not Detected	24	Not Detected

**Container Type: 1 Liter Summa Canister**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	109	70-130
4-Bromofluorobenzene	99	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG-8 DUP

Lab ID#: 0903810A-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	y040711	Date of Collection: 3/24/09 11:37:00 AM
Dil. Factor:	2.33	Date of Analysis: 4/7/09 05:55 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	4.7	Not Detected	11	Not Detected
Benzene	1.2	4.9	3.7	16
Toluene	1.2	210	4.4	790
Ethyl Benzene	1.2	16	5.0	68
m,p-Xylene	1.2	65	5.0	280
o-Xylene	1.2	21	5.0	92
Naphthalene	4.7	Not Detected	24	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	107	70-130
4-Bromofluorobenzene	98	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG-10

Lab ID#: 0903810A-06A

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>y040712</b>	<b>Date of Collection:</b> 3/24/09 1:49:00 PM
<b>Dil. Factor:</b>	<b>2.24</b>	<b>Date of Analysis:</b> 4/7/09 06:48 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	4.5	Not Detected	11	Not Detected
Benzene	1.1	9.2	3.6	29
Toluene	1.1	22	4.2	84
Ethyl Benzene	1.1	2.9	4.9	12
m,p-Xylene	1.1	11	4.9	49
o-Xylene	1.1	3.6	4.9	16
Naphthalene	4.5	Not Detected	23	Not Detected

**Container Type: 1 Liter Summa Canister**

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	106	70-130
4-Bromofluorobenzene	99	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG-12

Lab ID#: 0903810A-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	y040719	Date of Collection:	3/24/09 2:53:00 PM
Dil. Factor:	2.24	Date of Analysis:	4/7/09 11:18 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	4.5	Not Detected	11	Not Detected
Benzene	1.1	19	3.6	60
Toluene	1.1	12	4.2	44
Ethyl Benzene	1.1	1.3	4.9	5.7
m,p-Xylene	1.1	5.3	4.9	23
o-Xylene	1.1	1.5	4.9	6.6
Naphthalene	4.5	Not Detected	23	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130
1,2-Dichloroethane-d4	109	70-130
4-Bromofluorobenzene	99	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG-14

Lab ID#: 0903810A-10A

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>y040714</b>	<b>Date of Collection:</b> 3/25/09 12:06:00 PM
<b>Dil. Factor:</b>	<b>2.13</b>	<b>Date of Analysis:</b> 4/7/09 07:57 PM

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
2-Propanol	4.3	Not Detected	10	Not Detected
Benzene	1.1	17	3.4	56
Toluene	1.1	120	4.0	440
Ethyl Benzene	1.1	16	4.6	68
m,p-Xylene	1.1	63	4.6	270
o-Xylene	1.1	17	4.6	73
Naphthalene	4.3	Not Detected	22	Not Detected

**Container Type: 1 Liter Summa Canister**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	108	70-130
4-Bromofluorobenzene	96	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG-15

Lab ID#: 0903810A-11A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	y040715	Date of Collection: 3/25/09 1:46:00 PM
Dil. Factor:	2.38	Date of Analysis: 4/7/09 08:48 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	4.8	Not Detected	12	Not Detected
Benzene	1.2	5.2	3.8	17
Toluene	1.2	27	4.5	100
Ethyl Benzene	1.2	3.5	5.2	15
m,p-Xylene	1.2	12	5.2	52
o-Xylene	1.2	3.7	5.2	16
Naphthalene	4.8	Not Detected	25	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	106	70-130
4-Bromofluorobenzene	99	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG-16

Lab ID#: 0903810A-12A

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>y040716</b>	<b>Date of Collection:</b> 3/25/09 2:01:00 PM
<b>Dil. Factor:</b>	<b>2.38</b>	<b>Date of Analysis:</b> 4/7/09 09:32 PM

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
2-Propanol	4.8	7.5	12	18
Benzene	1.2	14	3.8	45
Toluene	1.2	47	4.5	180
Ethyl Benzene	1.2	7.9	5.2	34
m,p-Xylene	1.2	33	5.2	140
o-Xylene	1.2	10	5.2	46
Naphthalene	4.8	Not Detected	25	Not Detected

**Container Type: 1 Liter Summa Canister**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	108	70-130
4-Bromofluorobenzene	96	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG-17

Lab ID#: 0903810A-13A

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>y040717</b>	<b>Date of Collection:</b> 3/25/09 1:20:00 PM
<b>Dil. Factor:</b>	<b>2.38</b>	<b>Date of Analysis:</b> 4/7/09 10:07 PM

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
2-Propanol	4.8	Not Detected	12	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
Toluene	1.2	8.3	4.5	31
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	3.3	5.2	14
o-Xylene	1.2	1.3	5.2	5.8
Naphthalene	4.8	Not Detected	25	Not Detected

**Container Type: 1 Liter Summa Canister**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	107	70-130
4-Bromofluorobenzene	97	70-130





AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG-18-DUP

Lab ID#: 0903810A-15A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	y040721	Date of Collection:	3/25/09 12:29:00 PM
Dil. Factor:	2.29	Date of Analysis:	4/8/09 01:10 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	4.6	Not Detected	11	Not Detected
Benzene	1.1	47	3.6	150
Toluene	1.1	140	4.3	550
Ethyl Benzene	1.1	25	5.0	110
m,p-Xylene	1.1	78	5.0	340
o-Xylene	1.1	31	5.0	140
Naphthalene	4.6	5.4	24	28

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	106	70-130
4-Bromofluorobenzene	96	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: SG-18-DUP Lab Duplicate**

**Lab ID#: 0903810A-15AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>y040720</b>	<b>Date of Collection: 3/25/09 12:29:00 PM</b>
<b>Dil. Factor:</b>	<b>3.05</b>	<b>Date of Analysis: 4/8/09 12:24 AM</b>

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
2-Propanol	6.1	Not Detected	15	Not Detected
Benzene	1.5	48	4.9	150
Toluene	1.5	150	5.7	560
Ethyl Benzene	1.5	26	6.6	110
m,p-Xylene	1.5	79	6.6	340
o-Xylene	1.5	30	6.6	130
Naphthalene	6.1	Not Detected	32	Not Detected

**Container Type: 1 Liter Summa Canister**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	106	70-130
1,2-Dichloroethane-d4	107	70-130
4-Bromofluorobenzene	96	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG-20

Lab ID#: 0903810A-17A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	y040722	Date of Collection:	3/26/09 3:03:00 PM
Dil. Factor:	2.38	Date of Analysis:	4/8/09 01:57 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	4.8	8.7	12	21
Benzene	1.2	8.1	3.8	26
Toluene	1.2	86	4.5	320
Ethyl Benzene	1.2	8.6	5.2	37
m,p-Xylene	1.2	31	5.2	140
o-Xylene	1.2	7.8	5.2	34
Naphthalene	4.8	Not Detected	25	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	115	70-130
4-Bromofluorobenzene	96	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG-20 DUP

Lab ID#: 0903810A-18A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	y040723	Date of Collection:	3/26/09 3:11:00 PM
Dil. Factor:	2.33	Date of Analysis:	4/8/09 02:38 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	4.7	Not Detected	11	Not Detected
Benzene	1.2	7.3	3.7	23
Toluene	1.2	120	4.4	460
Ethyl Benzene	1.2	13	5.0	57
m,p-Xylene	1.2	51	5.0	220
o-Xylene	1.2	14	5.0	59
Naphthalene	4.7	Not Detected	24	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	106	70-130
4-Bromofluorobenzene	96	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG-21

Lab ID#: 0903810A-19A

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>y040724</b>	<b>Date of Collection:</b> 3/26/09 3:27:00 PM
<b>Dil. Factor:</b>	<b>2.47</b>	<b>Date of Analysis:</b> 4/8/09 03:19 AM

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
2-Propanol	4.9	11	12	28
Benzene	1.2	4.4	3.9	14
Toluene	1.2	100	4.6	400
Ethyl Benzene	1.2	14	5.4	59
m,p-Xylene	1.2	56	5.4	240
o-Xylene	1.2	17	5.4	73
Naphthalene	4.9	Not Detected	26	Not Detected

**Container Type: 1 Liter Summa Canister**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	106	70-130
4-Bromofluorobenzene	95	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Trip Blank

Lab ID#: 0903810A-21A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	y040725	Date of Collection:	3/27/09 1/1/1990
Dil. Factor:	1.00	Date of Analysis:	4/8/09 04:01 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	2.0	Not Detected	4.9	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Naphthalene	2.0	Not Detected	10	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	105	70-130
4-Bromofluorobenzene	96	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0903810A-22A

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>y040704</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 4/7/09 10:28 AM</b>

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
2-Propanol	2.0	Not Detected	4.9	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Naphthalene	2.0	Not Detected	10	Not Detected

Container Type: NA - Not Applicable

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	108	70-130
4-Bromofluorobenzene	97	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0903810A-23A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	y040702	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/7/09 08:59 AM

Compound	%Recovery
2-Propanol	105
Benzene	109
Toluene	109
Ethyl Benzene	109
m,p-Xylene	111
o-Xylene	109
Naphthalene	106

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	98	70-130





AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0903810A-24A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	y040703	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/7/09 09:35 AM

Compound	%Recovery
2-Propanol	96
Benzene	104
Toluene	107
Ethyl Benzene	100
m,p-Xylene	102
o-Xylene	101
Naphthalene	99

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	99	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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4/7/2009

Mr. Paul King  
P & D Environmental  
55 Santa Clara  
Suite 240  
Oakland CA 94610

Project Name: California Linen 989 41st st., Oakland  
Project #: CLR20915/0304  
Workorder #: 0903810B

Dear Mr. Paul King

The following report includes the data for the above referenced project for sample(s) received on 3/31/2009 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for you air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kyle Vagadori at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

A handwritten signature in black ink that reads 'Kyle Vagadori'.

Kyle Vagadori  
Project Manager

**180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630**  
**(916) 985-1000 .FAX (916) 985-1020**  
**Hours 8:00 A.M to 6:00 P.M. Pacific**




AN ENVIRONMENTAL ANALYTICAL LABORATORY

**WORK ORDER #: 0903810B**

Work Order Summary

<b>CLIENT:</b>	Mr. Paul King P & D Environmental 55 Santa Clara Suite 240 Oakland, CA 94610	<b>BILL TO:</b>	Mr. Paul King P & D Environmental 55 Santa Clara Suite 240 Oakland, CA 94610
<b>PHONE:</b>	510-658-6916	<b>P.O. #</b>	
<b>FAX:</b>	510-834-0772	<b>PROJECT #</b>	CLR20915/0304 California Linen 989 41st
<b>DATE RECEIVED:</b>	03/31/2009	<b>CONTACT:</b>	st., Oakland Kyle Vagadori
<b>DATE COMPLETED:</b>	04/07/2009		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
05A	SG-9	Modified TO-15	4.5 "Hg	15 psi
07A	SG-11	Modified TO-15	3.0 "Hg	15 psi
09A	SG-13	Modified TO-15	3.5 "Hg	15 psi
09AA	SG-13 Lab Duplicate	Modified TO-15	3.5 "Hg	15 psi
14A	SG-18	Modified TO-15	3.5 "Hg	15 psi
16A	SG-19	Modified TO-15	5.0 "Hg	15 psi
20A	SG-22	Modified TO-15	5.0 "Hg	15 psi
21A	Lab Blank	Modified TO-15	NA	NA
21B	Lab Blank	Modified TO-15	NA	NA
22A	CCV	Modified TO-15	NA	NA
22B	CCV	Modified TO-15	NA	NA
23A	LCS	Modified TO-15	NA	NA
23B	LCS	Modified TO-15	NA	NA

CERTIFIED BY: 

DATE: 04/07/09

Laboratory Director

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004  
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,  
Accreditation number: E87680, Effective date: 07/01/08, Expiration date: 06/30/09

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630  
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE**  
**Modified TO-15**  
**P & D Environmental**  
**Workorder# 0903810B**

Six 1 Liter Summa Canister samples were received on March 31, 2009. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 0.2 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

<i>Requirement</i>	<i>TO-15</i>	<i>ATL Modifications</i>
Daily CCV	<= 30% Difference	<= 30% Difference; Compounds exceeding this criterion and associated data are flagged and narrated.
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

**Receiving Notes**

There were no receiving discrepancies.

**Analytical Notes**

The reported LCS for each daily batch may be derived from more than one analytical file.

Dilution was performed on sample SG-19 due to the presence of high level non-target species.

The recoveries of internal standards 1,4-Difluorobenzene and Chlorobenzene-d5 in samples SG-13 and SG-18 were outside control limits due to the presence of high level of matrix interference. Dilution of the samples was required to meet method acceptance limits. Results of the diluted analyses are provided. The laboratory duplicate for sample SG-13 has been reported at a lesser dilution with the internal standards exceeding control limits.

### **Definition of Data Qualifying Flags**

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction no performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue



AN ENVIRONMENTAL ANALYTICAL LABORATORY

## Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SG-9

Lab ID#: 0903810B-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.2	4.6	3.8	15
Toluene	1.2	36	4.5	140
Ethyl Benzene	1.2	4.6	5.2	20
m,p-Xylene	1.2	19	5.2	84
o-Xylene	1.2	9.0	5.2	39

Client Sample ID: SG-11

Lab ID#: 0903810B-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	9.0	100	28	330
Toluene	9.0	140	34	530
Ethyl Benzene	9.0	27	39	120
m,p-Xylene	9.0	75	39	330
o-Xylene	9.0	23	39	100

Client Sample ID: SG-13

Lab ID#: 0903810B-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	15	330	49	1000
Toluene	15	300	57	1100
Ethyl Benzene	15	34	66	150
m,p-Xylene	15	120	66	530
o-Xylene	15	54	66	230

Client Sample ID: SG-13 Lab Duplicate

Lab ID#: 0903810B-09AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	3.0	360	9.8	1100
Toluene	3.0	340	12	1300
Ethyl Benzene	3.0	37	13	160
m,p-Xylene	3.0	140	13	590
o-Xylene	3.0	60	13	260



AN ENVIRONMENTAL ANALYTICAL LABORATORY

## Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SG-18

Lab ID#: 0903810B-14A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	2.3	51	7.3	160
Toluene	2.3	260	8.6	1000
Ethyl Benzene	2.3	34	9.9	150
m,p-Xylene	2.3	100	9.9	460
o-Xylene	2.3	38	9.9	170

Client Sample ID: SG-19

Lab ID#: 0903810B-16A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Toluene	600	380000	2300	1400000
Ethyl Benzene	600	32000	2600	140000
m,p-Xylene	600	110000	2600	470000
o-Xylene	600	31000	2600	140000

Client Sample ID: SG-22

Lab ID#: 0903810B-20A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	190	94000 E	480	230000 E
Toluene	48	160	180	600



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG-9

Lab ID#: 0903810B-05A

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>y040609</b>	<b>Date of Collection:</b> 3/24/09 2:21:00 PM
<b>Dil. Factor:</b>	<b>2.38</b>	<b>Date of Analysis:</b> 4/6/09 03:22 PM

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
2-Propanol	4.8	Not Detected	12	Not Detected
Benzene	1.2	4.6	3.8	15
Toluene	1.2	36	4.5	140
Ethyl Benzene	1.2	4.6	5.2	20
m,p-Xylene	1.2	19	5.2	84
o-Xylene	1.2	9.0	5.2	39
Naphthalene	4.8	Not Detected	25	Not Detected

**Container Type: 1 Liter Summa Canister**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	106	70-130
4-Bromofluorobenzene	98	70-130





AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG-11

Lab ID#: 0903810B-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	y040611	Date of Collection:	3/24/09 12:11:00 PM
Dil. Factor:	17.9	Date of Analysis:	4/6/09 04:44 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	36	Not Detected	88	Not Detected
Benzene	9.0	100	28	330
Toluene	9.0	140	34	530
Ethyl Benzene	9.0	27	39	120
m,p-Xylene	9.0	75	39	330
o-Xylene	9.0	23	39	100
Naphthalene	36	Not Detected	190	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	105	70-130
4-Bromofluorobenzene	95	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG-13

Lab ID#: 0903810B-09A

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>y040619</b>	<b>Date of Collection:</b> 3/25/09 12:56:00 PM
<b>Dil. Factor:</b>	<b>30.5</b>	<b>Date of Analysis:</b> 4/7/09 12:20 AM

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
2-Propanol	61	Not Detected	150	Not Detected
Benzene	15	330	49	1000
Toluene	15	300	57	1100
Ethyl Benzene	15	34	66	150
m,p-Xylene	15	120	66	530
o-Xylene	15	54	66	230
Naphthalene	61	Not Detected	320	Not Detected

**Container Type: 1 Liter Summa Canister**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	94	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: SG-13 Lab Duplicate**

**Lab ID#: 0903810B-09AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>y040629</b>	<b>Date of Collection: 3/25/09 12:56:00 PM</b>
<b>Dil. Factor:</b>	<b>6.11</b>	<b>Date of Analysis: 4/7/09 07:37 AM</b>

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
2-Propanol	12	Not Detected	30	Not Detected
Benzene	3.0	360	9.8	1100
Toluene	3.0	340	12	1300
Ethyl Benzene	3.0	37	13	160
m,p-Xylene	3.0	140	13	590
o-Xylene	3.0	60	13	260
Naphthalene	12	Not Detected	64	Not Detected

**Container Type: 1 Liter Summa Canister**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	119	70-130
4-Bromofluorobenzene	92	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG-18

Lab ID#: 0903810B-14A

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>y040628</b>	<b>Date of Collection:</b> 3/25/09 12:19:00 PM
<b>Dil. Factor:</b>	<b>4.58</b>	<b>Date of Analysis:</b> 4/7/09 06:57 AM

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
2-Propanol	9.2	Not Detected	22	Not Detected
Benzene	2.3	51	7.3	160
Toluene	2.3	260	8.6	1000
Ethyl Benzene	2.3	34	9.9	150
m,p-Xylene	2.3	100	9.9	460
o-Xylene	2.3	38	9.9	170
Naphthalene	9.2	Not Detected	48	Not Detected

**Container Type: 1 Liter Summa Canister**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	122	70-130
4-Bromofluorobenzene	95	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG-19

Lab ID#: 0903810B-16A

**MODIFIED EPA METHOD TO-15 GC/MS**

<b>File Name:</b>	<b>w040615</b>	<b>Date of Collection:</b> 3/26/09 2:40:00 PM
<b>Dil. Factor:</b>	<b>121</b>	<b>Date of Analysis:</b> 4/7/09 09:29 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	2400	Not Detected	5900	Not Detected
Benzene	600	Not Detected	1900	Not Detected
Toluene	600	380000	2300	1400000
Ethyl Benzene	600	32000	2600	140000
m,p-Xylene	600	110000	2600	470000
o-Xylene	600	31000	2600	140000
Naphthalene	2400	Not Detected	13000	Not Detected

**Container Type: 1 Liter Summa Canister**

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	92	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG-22

Lab ID#: 0903810B-20A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	y040624	Date of Collection:	3/27/09 1/1/1990
Dil. Factor:	96.8	Date of Analysis:	4/7/09 04:03 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	190	94000 E	480	230000 E
Benzene	48	Not Detected	150	Not Detected
Toluene	48	160	180	600
Ethyl Benzene	48	Not Detected	210	Not Detected
m,p-Xylene	48	Not Detected	210	Not Detected
o-Xylene	48	Not Detected	210	Not Detected
Naphthalene	190	Not Detected	1000	Not Detected

E = Exceeds instrument calibration range.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	98	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0903810B-21A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	y040607	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/6/09 01:28 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	2.0	Not Detected	4.9	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Naphthalene	2.0	Not Detected	10	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	107	70-130
4-Bromofluorobenzene	100	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0903810B-21B

**MODIFIED EPA METHOD TO-15 GC/MS**

<b>File Name:</b>	<b>w040607</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 4/6/09 06:38 PM</b>

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
2-Propanol	20	Not Detected	49	Not Detected
Benzene	5.0	Not Detected	16	Not Detected
Toluene	5.0	Not Detected	19	Not Detected
Ethyl Benzene	5.0	Not Detected	22	Not Detected
m,p-Xylene	5.0	Not Detected	22	Not Detected
o-Xylene	5.0	Not Detected	22	Not Detected
Naphthalene	20	Not Detected	100	Not Detected

Container Type: NA - Not Applicable

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	90	70-130





AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0903810B-22A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	y040602	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/6/09 08:33 AM

Compound	%Recovery
2-Propanol	108
Benzene	112
Toluene	110
Ethyl Benzene	107
m,p-Xylene	110
o-Xylene	107
Naphthalene	111

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	100	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0903810B-22B

**MODIFIED EPA METHOD TO-15 GC/MS**

<b>File Name:</b>	<b>w040602</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 4/6/09 04:03 PM</b>

<b>Compound</b>	<b>%Recovery</b>
2-Propanol	80
Benzene	89
Toluene	87
Ethyl Benzene	80
m,p-Xylene	81
o-Xylene	80
Naphthalene	82

**Container Type: NA - Not Applicable**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	94	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0903810B-23A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	y040603	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/6/09 09:10 AM

Compound	%Recovery
2-Propanol	102
Benzene	107
Toluene	110
Ethyl Benzene	99
m,p-Xylene	101
o-Xylene	101
Naphthalene	108

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	101	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0903810B-23B

**MODIFIED EPA METHOD TO-15 GC/MS**

<b>File Name:</b>	<b>w040605</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 4/6/09 05:29 PM</b>

<b>Compound</b>	<b>%Recovery</b>
2-Propanol	93
Benzene	98
Toluene	98
Ethyl Benzene	92
m,p-Xylene	92
o-Xylene	91
Naphthalene	100

**Container Type: NA - Not Applicable**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	94	70-130



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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4/6/2009

Mr. Paul King  
P & D Environmental  
55 Santa Clara  
Suite 240  
Oakland CA 94610

Project Name: California Linen 989 41st st., Oakland  
Project #: CLR20915/0304  
Workorder #: 0903810C

Dear Mr. Paul King

The following report includes the data for the above referenced project for sample(s) received on 3/31/2009 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-3 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kyle Vagadori at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

A handwritten signature in black ink that reads 'Kyle Vagadori'.

Kyle Vagadori  
Project Manager



AN ENVIRONMENTAL ANALYTICAL LABORATORY

**WORK ORDER #: 0903810C**

Work Order Summary

**CLIENT:** Mr. Paul King  
P & D Environmental  
55 Santa Clara  
Suite 240  
Oakland, CA 94610

**BILL TO:** Mr. Paul King  
P & D Environmental  
55 Santa Clara  
Suite 240  
Oakland, CA 94610

**PHONE:** 510-658-6916

**P.O. #**

**FAX:** 510-834-0772

**PROJECT #** CLR20915/0304 California Linen 989 41st

**DATE RECEIVED:** 03/31/2009

**CONTACT:** st.,Oakland  
Kyle Vagadori

**DATE COMPLETED:** 04/05/2009

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	SG-6	Modified TO-3	2.5 "Hg	15 psi
01AA	SG-6 Lab Duplicate	Modified TO-3	2.5 "Hg	15 psi
02A	SG-7	Modified TO-3	4.0 "Hg	15 psi
03A	SG-8	Modified TO-3	4.0 "Hg	15 psi
04A	SG-8 DUP	Modified TO-3	4.0 "Hg	15 psi
05A	SG-9	Modified TO-3	4.5 "Hg	15 psi
06A	SG-10	Modified TO-3	3.0 "Hg	15 psi
07A	SG-11	Modified TO-3	3.0 "Hg	15 psi
08A	SG-12	Modified TO-3	3.0 "Hg	15 psi
09A	SG-13	Modified TO-3	3.5 "Hg	15 psi
10A	SG-14	Modified TO-3	1.5 "Hg	15 psi
11A	SG-15	Modified TO-3	4.5 "Hg	15 psi
12A	SG-16	Modified TO-3	4.5 "Hg	15 psi
13A	SG-17	Modified TO-3	4.5 "Hg	15 psi
14A	SG-18	Modified TO-3	3.5 "Hg	15 psi
15A	SG-18-DUP	Modified TO-3	3.5 "Hg	15 psi
16A	Lab Blank	Modified TO-3	NA	NA

Continued on next page




AN ENVIRONMENTAL ANALYTICAL LABORATORY

**WORK ORDER #: 0903810C**

Work Order Summary

<b>CLIENT:</b>	Mr. Paul King P & D Environmental 55 Santa Clara Suite 240 Oakland, CA 94610	<b>BILL TO:</b>	Mr. Paul King P & D Environmental 55 Santa Clara Suite 240 Oakland, CA 94610
<b>PHONE:</b>	510-658-6916	<b>P.O. #</b>	
<b>FAX:</b>	510-834-0772	<b>PROJECT #</b>	CLR20915/0304 California Linen 989 41st
<b>DATE RECEIVED:</b>	03/31/2009	<b>CONTACT:</b>	st., Oakland Kyle Vagadori
<b>DATE COMPLETED:</b>	04/05/2009		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
17A	LCS	Modified TO-3	NA	NA

CERTIFIED BY:   
Laboratory Director

DATE: 04/06/09

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004  
 NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719  
 Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,  
 Accreditation number: E87680, Effective date: 07/01/08, Expiration date: 06/30/09  
 Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards  
 This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.  
 180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630  
 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE**  
**Modified TO-3**  
**P & D Environmental**  
**Workorder# 0903810C**

Fifteen 1 Liter Summa Canister samples were received on March 31, 2009. The laboratory performed analysis for volatile organic compounds in air via modified EPA Method TO-3 using gas chromatography with flame ionization detection. The method involves concentrating up to 200 mL of sample. The concentrated aliquot is then dry purged to remove water vapor prior to entering the chromatographic system. The TPH (Gasoline Range) results are calculated using the response factor of Gasoline. A molecular weight of 100 is used to convert the TPH (Gasoline Range) ppmv result to ug/L.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

<i>Requirement</i>	<i>TO-3</i>	<i>ATL Modifications</i>
Daily Calibration Standard Frequency	Prior to sample analysis and every 4 - 6 hrs	Prior to sample analysis and after the analytical batch <=/= 20 samples
Initial Calibration Calculation	4-point calibration using a linear regression model	5-point calibration using average Response Factor
Initial Calibration Frequency	Weekly	When daily calibration standard recovery is outside 75 - 125 %, or upon significant changes to procedure or instrumentation
Moisture Control	Nafion system	Sorbent system
Minimum Detection Limit (MDL)	Calculated using the equation $DL = A + 3.3S$ , where A is intercept of calibration line and S is the standard deviation of at least 3 reps of low level standard	40 CFR Pt. 136 App. B
Preparation of Standards	Levels achieved through dilution of gas mixture	Levels achieved through loading various volumes of the gas mixture

**Receiving Notes**

There were no receiving discrepancies.

**Analytical Notes**

The recovery of surrogate Fluorobenzene in samples SG-11, SG-13, SG-18, and SG-18-DUP was outside control limits due to high level hydrocarbon matrix interference. Data is reported as qualified.

**Definition of Data Qualifying Flags**

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

B - Compound present in laboratory blank greater than reporting limit.



- J - Estimated value.
- E - Exceeds instrument calibration range.
- S - Saturated peak.
- Q - Exceeds quality control limits.
- U - Compound analyzed for but not detected above the detection limit.
- M - Reported value may be biased due to apparent matrix interferences.

File extensions may have been used on the data analysis sheets and indicates as follows:

- a-File was requantified
- b-File was quantified by a second column and detector
- r1-File was requantified for the purpose of reissue



AN ENVIRONMENTAL ANALYTICAL LABORATORY

## Summary of Detected Compounds MODIFIED EPA METHOD TO-3 GC/FID

Client Sample ID: SG-6

Lab ID#: 0903810C-01A

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.055	0.22	10	42

Client Sample ID: SG-6 Lab Duplicate

Lab ID#: 0903810C-01AA

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.055	0.22	11	44

Client Sample ID: SG-7

Lab ID#: 0903810C-02A

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.058	0.24	1.2	4.8

Client Sample ID: SG-8

Lab ID#: 0903810C-03A

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.058	0.24	5.7	23

Client Sample ID: SG-8 DUP

Lab ID#: 0903810C-04A

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.058	0.24	3.4	14

Client Sample ID: SG-9

Lab ID#: 0903810C-05A

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.060	0.24	2.8	12



AN ENVIRONMENTAL ANALYTICAL LABORATORY

## Summary of Detected Compounds MODIFIED EPA METHOD TO-3 GC/FID

Client Sample ID: SG-10

Lab ID#: 0903810C-06A

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.056	0.23	1.5	6.2

Client Sample ID: SG-11

Lab ID#: 0903810C-07A

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.075	0.30	66	270

Client Sample ID: SG-12

Lab ID#: 0903810C-08A

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.056	0.23	9.6	39

Client Sample ID: SG-13

Lab ID#: 0903810C-09A

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.076	0.31	62	250

Client Sample ID: SG-14

Lab ID#: 0903810C-10A

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.053	0.22	11	44

Client Sample ID: SG-15

Lab ID#: 0903810C-11A

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.060	0.24	1.6	6.5



AN ENVIRONMENTAL ANALYTICAL LABORATORY

## Summary of Detected Compounds MODIFIED EPA METHOD TO-3 GC/FID

Client Sample ID: SG-16

Lab ID#: 0903810C-12A

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.060	0.24	4.3	18

Client Sample ID: SG-17

Lab ID#: 0903810C-13A

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.060	0.24	0.48	2.0

Client Sample ID: SG-18

Lab ID#: 0903810C-14A

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.076	0.31	63	260

Client Sample ID: SG-18-DUP

Lab ID#: 0903810C-15A

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.076	0.31	42	170



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG-6

Lab ID#: 0903810C-01A

**MODIFIED EPA METHOD TO-3 GC/FID**

<b>File Name:</b>	<b>d040307</b>	<b>Date of Collection:</b> 3/26/09 4:32:00 PM
<b>Dil. Factor:</b>	<b>2.20</b>	<b>Date of Analysis:</b> 4/3/09 09:20 AM

<b>Compound</b>	<b>Rpt. Limit (ppmv)</b>	<b>Rpt. Limit (ug/L)</b>	<b>Amount (ppmv)</b>	<b>Amount (ug/L)</b>
TPH (Gasoline Range)	0.055	0.22	10	42

Container Type: 1 Liter Summa Canister

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Fluorobenzene (FID)	104	75-150



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG-6 Lab Duplicate

Lab ID#: 0903810C-01AA

MODIFIED EPA METHOD TO-3 GC/FID

File Name:	d040308	Date of Collection:	3/26/09 4:32:00 PM
Dil. Factor:	2.20	Date of Analysis:	4/3/09 10:06 AM

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.055	0.22	11	44

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	102	75-150



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG-7

Lab ID#: 0903810C-02A

**MODIFIED EPA METHOD TO-3 GC/FID**

File Name:	d040309	Date of Collection:	3/24/09 3:17:00 PM
Dil. Factor:	2.33	Date of Analysis:	4/3/09 10:39 AM

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.058	0.24	1.2	4.8

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	106	75-150



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG-8

Lab ID#: 0903810C-03A

**MODIFIED EPA METHOD TO-3 GC/FID**

<b>File Name:</b>	<b>d040310</b>	<b>Date of Collection:</b> 3/24/09 11:29:00 AM
<b>Dil. Factor:</b>	<b>2.33</b>	<b>Date of Analysis:</b> 4/3/09 11:12 AM

<b>Compound</b>	<b>Rpt. Limit (ppmv)</b>	<b>Rpt. Limit (ug/L)</b>	<b>Amount (ppmv)</b>	<b>Amount (ug/L)</b>
TPH (Gasoline Range)	0.058	0.24	5.7	23

**Container Type: 1 Liter Summa Canister**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Fluorobenzene (FID)	105	75-150





AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG-8 DUP

Lab ID#: 0903810C-04A

**MODIFIED EPA METHOD TO-3 GC/FID**

<b>File Name:</b>	<b>d040311</b>	<b>Date of Collection:</b> 3/24/09 11:37:00 AM
<b>Dil. Factor:</b>	<b>2.33</b>	<b>Date of Analysis:</b> 4/3/09 11:52 AM

<b>Compound</b>	<b>Rpt. Limit (ppmv)</b>	<b>Rpt. Limit (ug/L)</b>	<b>Amount (ppmv)</b>	<b>Amount (ug/L)</b>
TPH (Gasoline Range)	0.058	0.24	3.4	14

Container Type: 1 Liter Summa Canister

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Fluorobenzene (FID)	103	75-150



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG-9

Lab ID#: 0903810C-05A

**MODIFIED EPA METHOD TO-3 GC/FID**

<b>File Name:</b>	<b>d040312</b>	<b>Date of Collection:</b> 3/24/09 2:21:00 PM
<b>Dil. Factor:</b>	<b>2.38</b>	<b>Date of Analysis:</b> 4/3/09 12:25 PM

<b>Compound</b>	<b>Rpt. Limit (ppmv)</b>	<b>Rpt. Limit (ug/L)</b>	<b>Amount (ppmv)</b>	<b>Amount (ug/L)</b>
TPH (Gasoline Range)	0.060	0.24	2.8	12

Container Type: 1 Liter Summa Canister

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Fluorobenzene (FID)	102	75-150



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG-10

Lab ID#: 0903810C-06A

**MODIFIED EPA METHOD TO-3 GC/FID**

File Name:	d040313	Date of Collection:	3/24/09 1:49:00 PM
Dil. Factor:	2.24	Date of Analysis:	4/3/09 12:58 PM

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.056	0.23	1.5	6.2

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	105	75-150



AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: SG-11**

**Lab ID#: 0903810C-07A**

**MODIFIED EPA METHOD TO-3 GC/FID**

<b>File Name:</b>	<b>d040314</b>	<b>Date of Collection:</b>	<b>3/24/09 12:11:00 PM</b>	
<b>Dil. Factor:</b>	<b>2.99</b>	<b>Date of Analysis:</b>	<b>4/3/09 01:31 PM</b>	

<b>Compound</b>	<b>Rpt. Limit (ppmv)</b>	<b>Rpt. Limit (ug/L)</b>	<b>Amount (ppmv)</b>	<b>Amount (ug/L)</b>
TPH (Gasoline Range)	0.075	0.30	66	270

Q = Exceeds Quality Control limits, possibly due to matrix effects.

**Container Type: 1 Liter Summa Canister**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Fluorobenzene (FID)	176 Q	75-150



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG-12

Lab ID#: 0903810C-08A

**MODIFIED EPA METHOD TO-3 GC/FID**

File Name:	d040315	Date of Collection:	3/24/09 2:53:00 PM
Dil. Factor:	2.24	Date of Analysis:	4/3/09 02:05 PM

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.056	0.23	9.6	39

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	127	75-150



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG-13

Lab ID#: 0903810C-09A

**MODIFIED EPA METHOD TO-3 GC/FID**

<b>File Name:</b>	<b>d040318</b>	<b>Date of Collection:</b> 3/25/09 12:56:00 PM
<b>Dil. Factor:</b>	<b>3.05</b>	<b>Date of Analysis:</b> 4/3/09 03:54 PM

<b>Compound</b>	<b>Rpt. Limit (ppmv)</b>	<b>Rpt. Limit (ug/L)</b>	<b>Amount (ppmv)</b>	<b>Amount (ug/L)</b>
TPH (Gasoline Range)	0.076	0.31	62	250

Q = Exceeds Quality Control limits, due to matrix effects. Matrix effects confirmed by re-analysis.

**Container Type: 1 Liter Summa Canister**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Fluorobenzene (FID)	212 Q	75-150



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG-14

Lab ID#: 0903810C-10A

**MODIFIED EPA METHOD TO-3 GC/FID**

<b>File Name:</b>	<b>d040317</b>	<b>Date of Collection:</b> 3/25/09 12:06:00 PM
<b>Dil. Factor:</b>	<b>2.13</b>	<b>Date of Analysis:</b> 4/3/09 03:21 PM

<b>Compound</b>	<b>Rpt. Limit (ppmv)</b>	<b>Rpt. Limit (ug/L)</b>	<b>Amount (ppmv)</b>	<b>Amount (ug/L)</b>
TPH (Gasoline Range)	0.053	0.22	11	44

Container Type: 1 Liter Summa Canister

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Fluorobenzene (FID)	144	75-150



AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: SG-15**

**Lab ID#: 0903810C-11A**

**MODIFIED EPA METHOD TO-3 GC/FID**

<b>File Name:</b>	<b>d040319</b>	<b>Date of Collection:</b> 3/25/09 1:46:00 PM
<b>Dil. Factor:</b>	<b>2.38</b>	<b>Date of Analysis:</b> 4/3/09 04:32 PM

<b>Compound</b>	<b>Rpt. Limit (ppmv)</b>	<b>Rpt. Limit (ug/L)</b>	<b>Amount (ppmv)</b>	<b>Amount (ug/L)</b>
TPH (Gasoline Range)	0.060	0.24	1.6	6.5

**Container Type: 1 Liter Summa Canister**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Fluorobenzene (FID)	105	75-150





AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG-16

Lab ID#: 0903810C-12A

**MODIFIED EPA METHOD TO-3 GC/FID**

File Name:	d040320	Date of Collection:	3/25/09 2:01:00 PM
Dil. Factor:	2.38	Date of Analysis:	4/3/09 05:05 PM

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.060	0.24	4.3	18

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	108	75-150



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG-17

Lab ID#: 0903810C-13A

**MODIFIED EPA METHOD TO-3 GC/FID**

File Name:	d040321	Date of Collection:	3/25/09 1:20:00 PM
Dil. Factor:	2.38	Date of Analysis:	4/3/09 05:38 PM

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.060	0.24	0.48	2.0

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	106	75-150



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG-18

Lab ID#: 0903810C-14A

**MODIFIED EPA METHOD TO-3 GC/FID**

File Name:	d040322	Date of Collection:	3/25/09 12:19:00 PM
Dil. Factor:	3.05	Date of Analysis:	4/3/09 06:26 PM

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.076	0.31	63	260

Q = Exceeds Quality Control limits, possibly due to matrix effects.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	221 Q	75-150



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG-18-DUP

Lab ID#: 0903810C-15A

**MODIFIED EPA METHOD TO-3 GC/FID**

<b>File Name:</b>	<b>d040323</b>	<b>Date of Collection:</b> 3/25/09 12:29:00 PM
<b>Dil. Factor:</b>	<b>3.05</b>	<b>Date of Analysis:</b> 4/3/09 07:07 PM

<b>Compound</b>	<b>Rpt. Limit (ppmv)</b>	<b>Rpt. Limit (ug/L)</b>	<b>Amount (ppmv)</b>	<b>Amount (ug/L)</b>
TPH (Gasoline Range)	0.076	0.31	42	170

Q = Exceeds Quality Control limits, possibly due to matrix effects.

**Container Type: 1 Liter Summa Canister**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Fluorobenzene (FID)	180 Q	75-150



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0903810C-16A

**MODIFIED EPA METHOD TO-3 GC/FID**

<b>File Name:</b>	<b>d040303</b>	<b>Date of Collection:</b> NA
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis:</b> 4/2/09 11:06 PM

<b>Compound</b>	<b>Rpt. Limit (ppmv)</b>	<b>Rpt. Limit (ug/L)</b>	<b>Amount (ppmv)</b>	<b>Amount (ug/L)</b>
TPH (Gasoline Range)	0.025	0.10	Not Detected	Not Detected

Container Type: NA - Not Applicable

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Fluorobenzene (FID)	103	75-150



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0903810C-17A

**MODIFIED EPA METHOD TO-3 GC/FID**

<b>File Name:</b>	<b>d040324</b>	<b>Date of Collection:</b> NA
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis:</b> 4/3/09 07:48 PM

<b>Compound</b>	<b>%Recovery</b>
TPH (Gasoline Range)	116

Container Type: NA - Not Applicable

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Fluorobenzene (FID)	99	75-150



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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4/6/2009

Mr. Paul King  
P & D Environmental  
55 Santa Clara  
Suite 240  
Oakland CA 94610

Project Name: California Linen 989 41st st., Oakland  
Project #: CLR20915/0304  
Workorder #: 0903810D

Dear Mr. Paul King

The following report includes the data for the above referenced project for sample(s) received on 3/31/2009 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-3 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kyle Vagadori at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

A handwritten signature in black ink that reads 'Kyle Vagadori'.

Kyle Vagadori  
Project Manager

**180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630**  
**(916) 985-1000 .FAX (916) 985-1020**  
**Hours 8:00 A.M to 6:00 P.M. Pacific**



AN ENVIRONMENTAL ANALYTICAL LABORATORY

**WORK ORDER #: 0903810D**

Work Order Summary

<b>CLIENT:</b>	Mr. Paul King P & D Environmental 55 Santa Clara Suite 240 Oakland, CA 94610	<b>BILL TO:</b>	Mr. Paul King P & D Environmental 55 Santa Clara Suite 240 Oakland, CA 94610
<b>PHONE:</b>	510-658-6916	<b>P.O. #</b>	
<b>FAX:</b>	510-834-0772	<b>PROJECT #</b>	CLR20915/0304 California Linen 989 41st
<b>DATE RECEIVED:</b>	03/31/2009	<b>CONTACT:</b>	st...Oakland Kyle Vagadori
<b>DATE COMPLETED:</b>	04/06/2009		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
16A	SG-19	Modified TO-3	5.0 "Hg	15 psi
17A	SG-20	Modified TO-3	4.5 "Hg	15 psi
18A	SG-20 DUP	Modified TO-3	4.0 "Hg	15 psi
19A	SG-21	Modified TO-3	5.5 "Hg	15 psi
20A	SG-22	Modified TO-3	5.0 "Hg	15 psi
20AA	SG-22 Lab Duplicate	Modified TO-3	5.0 "Hg	15 psi
21A	Trip Blank	Modified TO-3	27.5 "Hg	15 psi
22A	Lab Blank	Modified TO-3	NA	NA
23A	LCS	Modified TO-3	NA	NA

CERTIFIED BY: 

DATE: 04/06/09

Laboratory Director

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004  
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,  
Accreditation number: E87680, Effective date: 07/01/08, Expiration date: 06/30/09

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630  
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020



**LABORATORY NARRATIVE**  
**Modified TO-3**  
**P & D Environmental**  
**Workorder# 0903810D**

Six 1 Liter Summa Canister samples were received on March 31, 2009. The laboratory performed analysis for volatile organic compounds in air via modified EPA Method TO-3 using gas chromatography with flame ionization detection. The method involves concentrating up to 200 mL of sample. The concentrated aliquot is then dry purged to remove water vapor prior to entering the chromatographic system. The TPH (Gasoline Range) results are calculated using the response factor of Gasoline. A molecular weight of 100 is used to convert the TPH (Gasoline Range) ppmv result to ug/L.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

<i>Requirement</i>	<i>TO-3</i>	<i>ATL Modifications</i>
Daily Calibration Standard Frequency	Prior to sample analysis and every 4 - 6 hrs	Prior to sample analysis and after the analytical batch <=/= 20 samples
Initial Calibration Calculation	4-point calibration using a linear regression model	5-point calibration using average Response Factor
Initial Calibration Frequency	Weekly	When daily calibration standard recovery is outside 75 - 125 %, or upon significant changes to procedure or instrumentation
Moisture Control	Nafion system	Sorbent system
Minimum Detection Limit (MDL)	Calculated using the equation $DL = A + 3.3S$ , where A is intercept of calibration line and S is the standard deviation of at least 3 reps of low level standard	40 CFR Pt. 136 App. B
Preparation of Standards	Levels achieved through dilution of gas mixture	Levels achieved through loading various volumes of the gas mixture

**Receiving Notes**

There were no receiving discrepancies.

**Analytical Notes**

The hydrocarbon profile present in sample SG-19 did not resemble that of commercial gasoline. Results were calculated using the response factor derived from the current gasoline linear calibration.

Gasoline range hydrocarbons reported in sample SG-22 were quantified by a response factor derived from a commercial Gasoline standard. A single peak in the associated sample elutes in the TPH gasoline Range between C5 to C6 range and contributes to the TPH Gasoline results.

### **Definition of Data Qualifying Flags**

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

B - Compound present in laboratory blank greater than reporting limit.

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the detection limit.

M - Reported value may be biased due to apparent matrix interferences.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue



AN ENVIRONMENTAL ANALYTICAL LABORATORY

## Summary of Detected Compounds MODIFIED EPA METHOD TO-3 GC/FID

Client Sample ID: SG-19

Lab ID#: 0903810D-16A

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	12	49	3600	15000

Client Sample ID: SG-20

Lab ID#: 0903810D-17A

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.060	0.24	1.3	5.2

Client Sample ID: SG-20 DUP

Lab ID#: 0903810D-18A

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.058	0.24	1.1	4.7

Client Sample ID: SG-21

Lab ID#: 0903810D-19A

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.062	0.25	1.4	5.8

Client Sample ID: SG-22

Lab ID#: 0903810D-20A

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.24	0.99	120	510

Client Sample ID: SG-22 Lab Duplicate

Lab ID#: 0903810D-20AA

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.24	0.99	120	500



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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**Summary of Detected Compounds  
MODIFIED EPA METHOD TO-3 GC/FID**

**Client Sample ID: Trip Blank**

**Lab ID#: 0903810D-21A**

No Detections Were Found.



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG-19

Lab ID#: 0903810D-16A

**MODIFIED EPA METHOD TO-3 GC/FID**

<b>File Name:</b>	<b>d040405</b>	<b>Date of Collection:</b> 3/26/09 2:40:00 PM
<b>Dil. Factor:</b>	<b>484</b>	<b>Date of Analysis:</b> 4/4/09 10:11 AM

<b>Compound</b>	<b>Rpt. Limit (ppmv)</b>	<b>Rpt. Limit (ug/L)</b>	<b>Amount (ppmv)</b>	<b>Amount (ug/L)</b>
TPH (Gasoline Range)	12	49	3600	15000

Container Type: 1 Liter Summa Canister

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Fluorobenzene (FID)	111	75-150



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG-20

Lab ID#: 0903810D-17A

**MODIFIED EPA METHOD TO-3 GC/FID**

File Name:	d040406	Date of Collection:	3/26/09 3:03:00 PM
Dil. Factor:	2.38	Date of Analysis:	4/4/09 10:46 AM

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.060	0.24	1.3	5.2

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	105	75-150



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG-20 DUP

Lab ID#: 0903810D-18A

**MODIFIED EPA METHOD TO-3 GC/FID**

File Name:	d040407	Date of Collection:	3/26/09 3:11:00 PM
Dil. Factor:	2.33	Date of Analysis:	4/4/09 11:19 AM

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.058	0.24	1.1	4.7

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	106	75-150



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG-21

Lab ID#: 0903810D-19A

**MODIFIED EPA METHOD TO-3 GC/FID**

File Name:	d040408	Date of Collection:	3/26/09 3:27:00 PM
Dil. Factor:	2.47	Date of Analysis:	4/4/09 11:56 AM

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.062	0.25	1.4	5.8

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	105	75-150





AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG-22

Lab ID#: 0903810D-20A

**MODIFIED EPA METHOD TO-3 GC/FID**

File Name:	d040410	Date of Collection:	3/27/09 1/1/1990
Dil. Factor:	9.68	Date of Analysis:	4/4/09 01:59 PM

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.24	0.99	120	510

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	103	75-150



AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: SG-22 Lab Duplicate**

**Lab ID#: 0903810D-20AA**

**MODIFIED EPA METHOD TO-3 GC/FID**

<b>File Name:</b>	<b>d040411</b>	<b>Date of Collection: 3/27/09 1/1/1990</b>
<b>Dil. Factor:</b>	<b>9.68</b>	<b>Date of Analysis: 4/4/09 02:32 PM</b>

<b>Compound</b>	<b>Rpt. Limit (ppmv)</b>	<b>Rpt. Limit (ug/L)</b>	<b>Amount (ppmv)</b>	<b>Amount (ug/L)</b>
TPH (Gasoline Range)	0.24	0.99	120	500

**Container Type: 1 Liter Summa Canister**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Fluorobenzene (FID)	102	75-150



AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: Trip Blank**

**Lab ID#: 0903810D-21A**

**MODIFIED EPA METHOD TO-3 GC/FID**

<b>File Name:</b>	<b>d040404</b>	<b>Date of Collection:</b> 3/27/09 1/1/1990
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis:</b> 4/4/09 09:26 AM

<b>Compound</b>	<b>Rpt. Limit (ppmv)</b>	<b>Rpt. Limit (ug/L)</b>	<b>Amount (ppmv)</b>	<b>Amount (ug/L)</b>
TPH (Gasoline Range)	0.025	0.10	Not Detected	Not Detected

**Container Type: 1 Liter Summa Canister**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Fluorobenzene (FID)	106	75-150



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0903810D-22A

**MODIFIED EPA METHOD TO-3 GC/FID**

<b>File Name:</b>	<b>d040403</b>	<b>Date of Collection:</b> NA
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis:</b> 4/3/09 10:53 PM

<b>Compound</b>	<b>Rpt. Limit (ppmv)</b>	<b>Rpt. Limit (ug/L)</b>	<b>Amount (ppmv)</b>	<b>Amount (ug/L)</b>
TPH (Gasoline Range)	0.025	0.10	Not Detected	Not Detected

Container Type: NA - Not Applicable

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Fluorobenzene (FID)	104	75-150



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0903810D-23A

**MODIFIED EPA METHOD TO-3 GC/FID**

File Name:	d040413	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/4/09 03:58 PM

Compound	%Recovery
TPH (Gasoline Range)	119

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	105	75-150