August 28, 2002
Letter 271.L2
RGA Job# DAC7942

**VIA FAX & MAIL**

Mr. Amir Gholami
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA

R0509

RE: MEETING SUMMARY
RGA Job # DAC7942
Downtown Toyota
4145 Broadway
Oakland, California

Dear Mr. Gholami:

This letter is written to summarize our discussion during our meeting at your office on August 22, 2002 concerning the subject site.

Historically, one 500-gallon underground waste oil tank was removed from the site on February 7, 1992. Burlington Environmental, Inc. (Burlington) of Emeryville, California supervised the tank removal. The tank was located inside the building. One soil sample was collected from beneath the tank at a depth of 8 feet below the ground surface. Petroleum hydrocarbons were detected beneath the tank at the time of removal as follows: 130 ppm Total Petroleum Hydrocarbons (TPH) quantified as Stoddard Solvent, 900 ppm total extractable hydrocarbons as motor oil (TEHm), 630 ppm total oil and grease, 0.042 ppm ethylbenzene, 0.23 ppm total xylenes, 20 ppm lead, 27 ppm nickel, and 81 ppm zinc. The ethylbenzene and total xylenes were detected in an analysis for chlorinated hydrocarbons using EPA Method 8240, and no other compounds were detected with this analysis.

Additional soil excavation and sampling were performed on April 15, 1992. One additional soil sample was collected at a depth of 9 feet below the ground surface. The soil sample results did not show any compounds detected at concentrations exceeding the method detection limits for all analytes.

Groundwater was reported in the excavation at a depth of 10 feet below the ground surface. The results for one groundwater sample collected from the pit were as follows: 5,600 ppb TEHm, 180 ppb TPH as gasoline (TPHg), 0.87 ppb benzene, 0.55 ppb ethylbenzene, and 4.2 ppb total xylenes. TPH as Diesel (TPHd) and toluene were not detected. Documentation of the tank removal, additional soil excavation, and sample results is summarized in a report by Burlington dated May 21, 1992.

On February 2, 1994 a total of 13 boreholes were drilled, and 11 of the boreholes were sampled by Burlington. A total of 8 soil samples were collected (5 were analyzed, 4 of the samples were at depths of 4 to 5 feet, one of the samples was at a depth of 9 to 10 feet below the ground surface) and 9 groundwater samples were collected (8 were analyzed). Separate phase

hydrocarbons were not present in any of the water samples. All of the samples were analyzed at a laboratory named Western Environmental Science and Technology (WEST) in Davis, California.

The results of the soil sample analysis showed that TEHd, TEHm, Total Recoverable Petroleum Hydrocarbons (TRPH), TPHg, and benzene, toluene, ethylbenzene and total xylenes (BTEX) were not detected with the exception of two soil samples from the same borehole (borehole PS04, sample PS04-04 collected at a depth of 4 to 5 feet and sample PS04-09 collected at a depth of 9 to 10 feet below the ground surface). Sample PS04-04 showed 32 ppm TPHg, 0.0065 ppm toluene, 0.015 ppm ethylbenzene, and 0.14 ppm xylenes. Sample PS04-09 showed 11 ppm TPHg, 0.0074 ppm toluene, and 0.0096 ppm total xylenes. Review of the laboratory reports shows that the results for both samples are identified with the following statement for the TPHg results, "Product is not typical gasoline."

The results of the water sample analysis showed that TPHg was detected in 6 of the samples at concentrations ranging from 65 to 16,000 ppb. Review of the laboratory reports shows that the results for all but one of the samples are identified with the following statement for the TPHg results, "Product is not typical gasoline." The one sample where the laboratory did not identify the result as not typical gasoline was at a concentration of 65 ppb. Various concentrations of BTEX were detected in all of the samples. However, benzene was detected in only one sample at a concentration greater than 1 ppb, and when detected, BTEX concentrations were less than 5 ppb with the exception of samples PS07 and PS08.

TEHd and TEHm were detected in five groundwater samples. TEHd concentrations ranged from 91 to 50,000 ppb, and TEHm concentrations ranged from 110 to 36,000 ppm. The laboratory reported that the chromatograms for these samples did not resemble the laboratory diesel or motor oil standards. The laboratory stated that the chromatograms show the petroleum hydrocarbons are not a typical diesel product and resemble a synthetic motor oil. TRPH was detected in only two of the water samples, at concentrations of 2,900 and 520,000 ppb.

On October 25, 1999 Geo-Logic of Crockett, California drilled four boreholes designated as B1 through B4 at the subject site. The boreholes were drilled after discussions with the Alameda County Department of Environmental Health (ACDEH) and ACDEH approval of work plans to further define the extent of petroleum hydrocarbons in soil and groundwater in the vicinity of the former waste oil tank. During work plan preparation, review of files for several nearby sites verified a southwesterly groundwater flow direction at the site, consistent with topographic slope and regional flow towards San Francisco Bay. Documentation of groundwater flow direction was provided in a Geol-Logic work plan.

Subsurface conditions encountered in the boreholes consisted predominantly of clayey silt and clayey silt with gravel. Groundwater was initially encountered in three of the boreholes at depths ranging from 9.5 to 13.8 feet below the ground surface. In one borehole (B3), groundwater was not initially encountered while drilling. Groundwater subsequently rose in the boreholes to depths ranging from 8.7 to 2.5 feet below the ground surface. A total of one soil and one groundwater grab sample were collected from each borehole. The soil samples were collected at depths ranging from 7 to 12.5 feet below the ground surface.

All of the soil and groundwater samples were analyzed for TPHg, TPHd, TPHmo, and BTEX and MTBE using EPA Method 8020 at McCampbell Analytical, Inc. (McCampbell) in Pacheco, California. (Please note that the analytical methods used by McCampbell are the equivalent to those used by WEST, but the terms used to identify the sample results are slightly different. For example, WEST classifies results as TEHd and McCampbell identifies the same types of results as TPHd).

The results of the soil samples showed that TPHg, TPHd, TPHmo, BTEX and MTBE were not detected in any of the samples with the exception of the sample from borehole B2 at a depth of 9 feet, where TPHg, TPHd and TPHmo were detected at concentrations of 58, 33 and 48 ppm, respectively, and toluene and ethylbenzene were detected at concentrations of 0.081 and 0.012 ppm, respectively. Review of the laboratory report shows that the TPHg results are identified as strongly aged gasoline or diesel range compounds. Similarly, the laboratory report shows that the TPHd results are oil range compounds and a medium boiling point pattern that does not match diesel (Stoddard Solvent).

The results of the groundwater samples showed that TPHd was detected in all of the water samples at concentrations ranging from 130 to 8600 ppb, and TPHmo was detected in all of the water samples at concentrations ranging from 340 to 11,000 ppb. TPHg was detected in boreholes B2 and B3 at concentrations of 5200 and 110 ppb, respectively. BTEX and MTBE were not detected with the exception of 7.8 ppb MTBE in B1, 9.6 ppb of xylenes in B2, 0.76 ppb toluene in B3, and 0.60 ppb toluene in B4. Review of the laboratory reports shows that the TPHg results are identified as strongly aged gasoline or diesel range compounds and heavier gasoline range compounds (aged gasoline?). Similarly, the TPHd results are identified as oil range compounds, diesel range compounds with no recognizable pattern, and medium boiling point pattern that does not match diesel (Stoddard Solvent).

Documentation of the soil and groundwater investigations is presented in the following reports:

- Preliminary Site Assessment Report prepared by Burlington Environmental, Inc. dated March 11, 1994.
- Further Assessment of Groundwater prepared by Geo-Logic dated November 4, 1999.

Based upon review of the above reports and sample results, a total of six site plans showing concentrations of TPHg, TEHd and TEHm with contours for both soil and groundwater were prepared. Copies of the site plans with contours were presented to Mr. Gholami at the meeting and are also attached with this letter. During discussions with Mr. Gholami in May, 2002 regarding the contours and site conditions, the following scope of work was identified.

- Submittal of a work plan.
- Pursuant to that work plan, installation of one groundwater monitoring well approximately ten feet down gradient from the former waste oil tank and sampling of the well on a quarterly basis for one year.
- Drilling of a total of two soil borings at locations shown on the contour maps to verify that the extent of groundwater contamination from the tank has been defined.

- Analysis of soil and groundwater samples as follows.
  - Two soil samples and one groundwater grab sample from each borehole are to be analyzed for TPH Multi-Range (TPHg, TEHd and TEHm), and for BTEX and MTBE using EPA Method 8260.
  - Two soil samples from the borehole for the well and each of the four quarterly water samples from the well are to be analyzed for TPH Multi Range and for BTEX and MTBE by EPA Method 8260. If the initial sample results do not show detectable halogenated hydrocarbons, subsequent quarterly sample analyses will be by EPA Method 8020.
- Submittal of reports documenting the investigation results.

During our August 22, 2002 meeting, Mr. Gholami requested that the following additional tasks be performed.

- Perform a sensitive receptor survey.
- Perform a preferential pathway survey.
- Obtain a written opinion from a State-accredited laboratory regarding the identification of TPHg and TEHd sample results as not being TPHg and TEHd for samples collected during previous subsurface investigations at the site.

In the event that the soil borings indicate that the extent of petroleum hydrocarbons has not been adequately defined in groundwater, additional soil borings will be required until the extent of petroleum hydrocarbons has been satisfactorily defined.

During a conversation with Mr. Paul King of RGA Environmental, Inc. on August 28, 2002, Mr. Gholami identified the following additional steps to be satisfactorily completed prior to submittal of a request to the ACDEH for case closure, in addition to the items listed above. Please note that Mr. Gholami emphasized that based upon site-specific conditions, additional evaluation could be required in addition to satisfactory completion of the items listed in this letter prior to considering the site for case closure, and that satisfactory completion of these items does not guarantee site closure.

- Complete soil and water contaminant plume delineation,
- Source removal, as necessary,
- Documentation of a stable or decreasing plume,
- No current or future public health threat,
- No current or future ecological threat,
- No current or future water resource threat,
- Possible preparation of a Risk Management Plan.

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

Very Truly Yours,

RGA Environmental, Inc.

Karin Schroeter
Project Manager

Paul H. King
California Registered Geologist #5901
Expires 12/31/03

Attachment: Site Plan showing TPHg in Soil and Isoconcentration Contours
Site Plan showing TEHd in Soil and Isoconcentration Contours
Site Plan showing TEHm in Soil and Isoconcentration Contours
Site Plan showing TPHg in Groundwater and Isoconcentration Contours
Site Plan showing TEHd in Groundwater and Isoconcentration Contours
Site Plan showing TEHm in Groundwater and Isoconcentration Contours

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