SENT 04-27-06

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

April 26, 2006

Mr. Denis Brown
Shell Oil Products US
20945 S. Wilmington Ave.
Carson, CA 90810-1039

Subject: Fuel Leak Case No. RO0000363, Shell#13-5784, 3790 Hopyard Road, Pleasanton, CA

Dear Mr. Brown:

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above-referenced site and the document entitled, "Remediation System Shutdown Request," dated April 3, 2006, prepared on Shell's behalf by Delta Environmental Consultants, Inc. The report summarizes the performance of the groundwater extraction system and assesses the distribution of MTBE and TBA in groundwater. Based on the low concentrations of fuel hydrocarbons detected in on-site monitoring and extraction wells, the report concludes that hydraulic control of MTBE migration is no longer needed. The report also concludes that the off-site MTBE and TBA plumes are stable or shrinking. A trial shutdown of the groundwater extraction system is requested by Delta on behalf of Shell. ACEH concurs with the trial shutdown of the groundwater extraction system. Please maintain all operating and discharge permits as active until permanent shutdown of the groundwater extraction system is requested and approved. An evaluation of plume migration and the need to re-start the groundwater extraction system is to be included in each quarterly monitoring report requested below.

ACEH requests that you perform the proposed work and send us the reports described below.

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Jerry Wickham), according to the following schedule:

- **August 15, 2006** – Quarterly Monitoring Report for the Second Quarter 2006
- **November 15, 2006** – Quarterly Monitoring Report for the Third Quarter 2006
- **February 15, 2007** – Quarterly Monitoring Report for the Fourth Quarter 2006

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

Effective **January 31, 2006**, the Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program ftp site are provided on the attached "Electronic Report Upload (ftp) Instructions." Please do not submit reports as attachments to electronic mail.

Submission of reports to the Alameda County ftp site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) Geotracker website. Submission of reports to the Geotracker website does not fulfill the requirement to submit documents to the Alameda County ftp site. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitor wells, and other data to the Geotracker database over the Internet. Beginning July 1, 2005, electronic submittal of a complete copy of all necessary reports was required in Geotracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.swrcb.ca.gov/ust/cleanup/electronic_reporting).

In order to facilitate electronic correspondence, we request that you provide up to date electronic mail addresses for all responsible and interested parties. Please provide current electronic mail addresses and notify us of future changes to electronic mail addresses by sending an electronic mail message to me at jerry.wickham@acgov.org.

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

If you have any questions, please call me at (510) 567-6791.

Sincerely,

Jerry Wickham
Hazardous Materials Specialist

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: R. Lee Dooley
Delta Environmental Consultants, Inc.
175 Bernal Road
San Jose, CA 95119

Matt Katen, QIC 80201
Zone 7 Water Agency
100 North Canyons Parkway
Livermore, CA 94551

Danielle Stefani
Livermore-Pleasanton Fire Department
3560 Nevada Street
Pleasanton, CA 94566

Donna Drogos, ACEH
Jerry Wickham, ACEH
File

SENT
12-8-05

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

December 8, 2005

Mr. Denis Brown
Shell Oil Products US
20945 S. Wilmington Ave.
Carson, CA 90810-1039

Subject: Fuel Leak Case No. RO0000363, Shell#13-5784, 3790 Hopyard Road, Pleasanton, CA

Dear Mr. Brown:

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above-referenced site and the document entitled, "Well Installation Report," dated November 21, 2005, prepared on Shell's behalf by Delta Environmental Consultants, Inc. The Report presents the results of one deep cone penetrometer testing (CPT) boring and the installation of additional on-site and off-site monitoring wells. The Report discusses vertical hydraulic gradient, types of soils encountered, the extent of dissolved fuel oxygenates, and recommendations for future actions.

ACEH requests that you address the following technical comments, perform the proposed work, and send us the reports described below.

TECHNICAL COMMENTS

1. **Well S-13.** Due to the site constraints for well installation, installation of a replacement well for the proposed S-13 well will not be required. Data from the S-9 well cluster and well S-14 will be used to monitor the concentrations of MTBE and TBA in groundwater within this downgradient area.

2. **Addition of Wells to Quarterly Monitoring.** ACEH concurs with the recommendation to include wells S-5B, S-5C, S-9B, and S-9C in the quarterly monitoring program. Please include the results in the quarterly monitoring reports requested below.

3. **Wells S-14 and S-15.** ACEH concurs with the recommendation to sample wells S-14 and S-15 (if well contains water) on a semi-annual basis. Please include the semi-annual results in the monitoring report requested below.

4. **Recommendations.** Following review of groundwater monitoring data from two additional quarters of sampling, please present recommendations regarding the groundwater extraction and treatment system and fuel oxygenate concentrations in the deep zones. Please present these recommendations in the quarterly monitoring reports requested below.

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Jerry Wickham), according to the following schedule:

- **February 15, 2006** – Quarterly Monitoring Report for the Fourth Quarter 2005
- **May 15, 2006** – Quarterly Monitoring Report for the First Quarter 2006
- **August 15, 2006** – Quarterly Monitoring Report for the Second Quarter 2006

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) now request submission of reports in electronic form. The electronic copy is intended to replace the need for a paper copy and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) Geotracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the Geotracker database over the Internet. Beginning July 1, 2005, electronic submittal of a complete copy of all reports is required in Geotracker (in PDF format). Please visit the State Water Resources Control Board for more information on these requirements (http://www.swrcb.ca.gov/ust/cleanup/electronic_reporting).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or

certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

If you have any questions, please call me at (510) 567-6791.

Sincerely,

Jerry Wickham
Hazardous Materials Specialist

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: R. Lee Dooley
Delta Environmental Consultants, Inc.
175 Bernal Road
San Jose, CA 95119

Colleen Winey, QIC 80201
Zone 7 Water Agency
100 North Canyons Parkway
Livermore, CA 94551

Danielle Stefani
Livermore-Pleasanton Fire Department
3560 Nevada Street
Pleasanton, CA 94566

Donna Drogos, ACEH
Jerry Wickham, ACEH
File

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

SENT
7-28-05

ENVIRONMENTAL HEALTH SERVICES
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July 28, 2005

Mr. Denis Brown
Shell Oil Products US
20945 S. Wilmington Ave.
Carson, CA 90810-1039

Subject: Fuel Leak Case No. RO0000363, Shell#13-5784, 3790 Hopyard Road, Pleasanton, CA – Work Plan Approval

Dear Mr. Brown:

Alameda County Environmental Health (ACEH) staff has reviewed the case file and the documents entitled, "Agency Response and Revised Work Plan," dated June 24, 2005 and "Quarterly Groundwater Monitoring Report – Second Quarter 2005," dated July 15, 2005 for the Shell service station at 3790 Hopyard Road, Pleasanton. Both documents were prepared on behalf of Shell by Delta Environmental Consultants, Inc. The Work Plan presents responses to technical comments provided by ACEH in correspondence dated April 26, 2005. The Work Plan proposes additional CPT borings, a well cluster in the area of existing well S-5, a well cluster in the area of existing well S-9, installation of three monitoring wells along the Arroyo Mocho Canal, development and sampling of all new wells, and surveying of the wells. The Quarterly Monitoring Report – Second Quarter 2005 presents results from groundwater monitoring conducted on April 24, 2005 and provides results from operation of the groundwater extraction (GWE) system at the site.

We concur with the scope of work proposed in the Work Plan. We request that you address the following technical comments, perform the proposed work, and send us the reports described below. Please provide 72-hour advance notification to ACEH prior to initiating field sampling activities.

TECHNICAL COMMENTS

1. **Proposed Sampling Locations.** We concur with the CPT, boring, and well locations as proposed in the Work Plan.

2. **GWE System Operation and TBA Concentrations in System Influent.** The Work Plan requests discontinuing GWE on a trial basis. Because the GWE system provides hydraulic control to limit the migration of MTBE in groundwater and continues to remove TPH and oxygenates, ACEH does not concur with discontinuing groundwater extraction at this time. Discontinuing GWE may be considered following completion of site characterization and evaluation of the need for continued hydraulic control of MTBE plume migration. Therefore, please continue operation of the GWE system and analyze the system influent for TBA. These results are to be presented in the Quarterly Monitoring Reports requested below.

3. **Well Screen Intervals.** Based on the responses provided, modifications of existing wells are not required at this time.

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Mr. Jerry Wickham), according to the following schedule:

- **November 15, 2005** - Quarterly Monitoring Report for the Third Quarter 2005
- **November 22, 2005** – Soil and Groundwater Investigation Report
- **February 15, 2006** - Quarterly Monitoring Report for the Fourth Quarter 2005

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

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UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

If you have any questions, please call me at (510) 567-6791.

Sincerely,

Jerry Wickham, P.G.
Hazardous Materials Specialist

cc: R. Lee Dooley
Delta Environmental Consultants, Inc.
175 Bernal Road
San Jose, CA 95119

Colleen Winey, QIC 80201
Zone 7 Water Agency
100 North Canyons Parkway
Livermore, CA 94551

Danielle Stefani
Livermore-Pleasanton Fire Department
3560 Nevada Street
Pleasanton, CA 94566

Donna Drogos, ACEH
Jerry Wickham, ACEH
File

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

Sent 4-27-05

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
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(510) 567-6700
FAX (510) 337-9335

April 26, 2005

Denis L. Brown
Sr. Environmental Engineer
Shell Oil Products US
20945 S. Wilmington Ave.
Carson, CA 90810

Subject: Fuel Leak Case No. RO0000363, Shell Service Station #13-5784, 3790 Hopyard Rd., Pleasanton, California – Response to Reports

Dear Mr. Brown:

Alameda County Environmental Health (ACEH) has reviewed the recent reports and the case file for the above-referenced site. Recent reports for the site include:

- Your December 8, 2004 letter;
- *Fourth Quarter 2004 Groundwater Monitoring Report,* dated January 14, 2005, prepared by Cambria Environmental Technology, Inc.;
- *Subsurface Investigation Report,* dated February 8, 2005, prepared by Cambria Environmental Technology, Inc.;
- *CPT Soil and Groundwater Investigation Report,* dated March 24, 2005, prepared by Delta Environmental Consultants, Inc.; and
- *Quarterly Groundwater Monitoring Report – First Quarter 2005,* dated April 15, 2005, prepared by Delta.

As described in the above-listed reports, Delta advanced 8 CPT soil boring pairs to 80 ft bgs and one CPT soil boring pair to 35 ft bgs at and downgradient of the site to evaluate the site lithology and to collect groundwater samples for TPHg, BTEX, MTBE and TBA analysis. Cambria advanced 15 onsite soil borings to help constrain the locations of source area contamination. Completion of the multi-level investigation and submittal of the referenced reports represents significant improvement in site characterization. In response to the recent findings, Delta recommends drilling and sampling of one soil boring to 120 ft and installation of two well clusters (or multi-level monitoring wells). We concur with Delta's recommendations in the March 24, 2005, report. Please submit a workplan for soil and groundwater investigation following the schedule below. In addition, we request that your workplan address the following technical comments.

TECHNICAL COMMENTS

On April 25, 2005, Shell, Delta and ACEH discussed investigation and remediation needs at the site. This letter memorializes key aspects of the telephone conversation. Completion of the groundwater sampling recommended by Delta in the March 24, 2005, report and protection of deeper groundwater is the highest priority; however, additional evaluation of shallow groundwater is also required. MTBE at 340 ug/L was detected in downgradient well S-9 during the most recent monitoring event on January 6, 2005. ACEH is concerned by the distance

MTBE has traveled from the site and by the apparent rate of travel through what Delta has characterized as an extensive clay layer.

1. Downgradient Groundwater Investigation

MTBE concentrations increase with distance downgradient of your site. MTBE has been detected in wells S-9 (230 ft from the site) and in well S-12 (350 ft from the site). Both well S-9 and well S-12 are screened within the shallow clay zone identified by Delta. The downgradient increase in dissolved MTBE concentrations is anticipated because Shell has performed groundwater extraction onsite to reduce groundwater concentrations. However, further delineation of the lateral extent of groundwater contamination appears necessary. As discussed on April 25, 2005, grab groundwater sampling and installation of at least one additional monitoring well across the Arroyo Mocho Canal and on the west side of Hopyard Road is recommended. Please submit a sampling and analysis plan which addresses this concern in the workplan requested below.

2. Biodegradation of MTBE and TBA

In Shell's December 8, 2004, letter to ACEH, you state that the increase in TBA concentrations is sufficient evidence that biological degradation of MTBE is occurring. ACEH agrees that MTBE in the source area appears to be degrading to TBA. Due to the presence of TPHg and BTEX in the source area, source area geochemical conditions may be different from downgradient conditions where TPHg and BTEX have not been detected.

In downgradient well S-9, MTBE concentrations have ranged from 210 ug/L to 340 ug/L since March 2003. No TBA has ever been detected in this well; however, 11 ug/L TBA was detected in CPT-10 between 20 and 38 ft bgs. MTBE has been detected in well S-12, but no TBA has ever been detected in this well. Please evaluate TBA concentration trends downgradient of the site and propose any necessary sampling or analysis to verify that MTBE is degrading downgradient of the source area.

Shell's November 3, 2004, presentation to the LARWQCB states that under methanogenic conditions TBA appears recalcitrant. Since onsite TBA concentrations remain high (6,500 ug/L TBA was detected in well S-4 on January 6, 2005) and because Shell would like to discontinue active remediation at the site, confirmation that TBA is biodegrading is necessary. Please present an analysis of TBA concentrations and propose any necessary tasks to confirm TBA degradation in the workplan requested below.

3. TBA Concentrations in System Influent

Please analyze groundwater extraction system influent for TBA during future routine sampling events. The results will be used to assess the efficacy of the remediation system. Please report your results in the future quarterly reports.

4. Well Screening Intervals

A number of monitoring wells at this site have long well screens. The sand pack interval for certain wells is over 30 ft. ACEH has the following concerns regarding long-screened wells:

- Longer well screens could potentially intercept two water bearing horizons, leading to potential cross-contamination or a diluted groundwater sample,

- Long-screened wells, even when screened within a hydraulically distinct unit, may experience vertical gradients and consequently produce faulty potentiometric surface data and/or faulty concentration data; and
- Long-screened wells produce composite samples that may not be representative of the zone that poses a potential threat to receptors (i.e. for the indoor air pathway, water table surface concentrations are of greater concern than submerged zone concentrations, and for well impacts the zone exhibiting highest velocity may be of primary concern).

These concerns are based on the County staff's experience and have been detailed in a number of academic and professional studies, including Elci et al, 2001; Elci, 2003; Robbins, 1997; and McIlvride & Rector, 1988.

Please evaluate well screening intervals for all wells at this site. If necessary to address ACEH's concerns listed above, please propose appropriate well modifications or replacements in the workplan requested below. In all future quarterly reports, please include well screening intervals in your summary groundwater data table.

REPORT REQUEST

Please submit your *Soil and Water Investigation Workplan* which addresses the comments above, by **June 26, 2005**. ACEH makes this request pursuant to California Health & Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2778 outline the responsibilities of a responsible party for an unauthorized release from an UST system, and require your compliance with this request.

Please call me at (510) 567-6719 or contact me via email at robert.schultz@acgov.org with any questions regarding this case.

Sincerely,

Robert W. Schultz, P.G.
Hazardous Materials Specialist

Cc: Lee Dooley, Delta Environmental Consultants, Inc., 175 Bernal Road, Ste. 200, San Jose, CA 95476
Matt Katen, Zone 7 Water District, QIC 90201
Donna Drogos, ACEH
File

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

Sent 12-20-04

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
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(510) 567-6700
FAX (510) 337-9335

December 20, 2004

Harold N. Sweet
C. Antionette Sweet Blankenship
P.O. Box 4174
Modesto, CA 95352

Subject: Property Access by the Parties Responsible for the Investigation and Cleanup of Petroleum Hydrocarbon and Fuel Oxygenate Pollution at Fuel Leak Case No. RO0000363, Shell Service Station #13-5784, 3790 Hopyard Rd., Pleasanton, California

Dear Property Owner:

Alameda County Environmental Health (ACEH) is overseeing the investigation and cleanup of gasoline, including the gasoline compounds Methyl tert-Butyl Ether (MTBE) and benzene, released from fuel underground storage tanks at the subject site. We are uncertain as to how far the contamination from those tanks has moved.

ACEH is requiring Shell Oil Products US to investigate and clean up contaminated soil and groundwater at the site to prevent the gasoline, MTBE, and benzene contamination from spreading to other properties or to drinking water sources, and to reduce the potential threat to human health and the environment. To properly determine the extent of that contamination in groundwater, Shell must perform additional off-site investigation. Therefore, we need your help in allowing access to your property by Shell to properly define the extent of contamination.

If you have any questions, please contact Karen Petryna of Shell Oil Products US at (559) 645-9306. Thank you for your cooperation.

Sincerely,

Robert W. Schultz, R.G.
Hazardous Materials Specialist

cc: Karen Petryna, Sr. Environmental Engineer, Shell Oil Products US, 20945 S. Wilmington Ave., Carson, CA 90810
D. Drogos, R. Schultz

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

EWT 12-9-04

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

December 9, 2004

Cranbrook Realty Investment Fund LP
Attn. Jim Davenport
4701 Sisk Rd., Ste. 101
Modesto, CA 95356

Subject: Property Access by the Parties Responsible for the Investigation and Cleanup of Petroleum Hydrocarbon and Fuel Oxygenate Pollution at Fuel Leak Case No. RO0000363, Shell Service Station #13-5784, 3790 Hopyard Rd., Pleasanton, California

Dear Property Owner:

Alameda County Environmental Health (ACEH) is overseeing the investigation and cleanup of gasoline, including the gasoline compounds Methyl tert-Butyl Ether (MTBE) and benzene, released from fuel underground storage tanks at the subject site. We are uncertain as to how far the contamination from those tanks has moved.

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Sincerely,

Robert W. Schultz, R.G.
Hazardous Materials Specialist

cc: Karen Petryna, Sr. Environmental Engineer, Shell Oil Products US, 20945 S. Wilmington Ave., Carson, CA 90810
D. Drogos, R. Schultz

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

SENT 11-17-04

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
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(510) 567-6700
FAX (510) 337-9335

November 13, 2004

Karen Petryna
Shell Oil Products US
20945 S. Wilmington Ave.
Carson, CA 90810

Subject: Fuel Leak Case No. RO0000363, Shell Service Station #13-5784, 3790 Hopyard Rd., Pleasanton, California –Technical Report Late Letter

Dear Ms. Petryna:

Alameda County Environmental Health (ACEH) requested an interim soil and water investigation report by October 13, 2004. The interim report was initially requested in a letter dated February 27, 2003. Your September 30, 2004 extension request and subsequent email correspondence request indefinite extension of the deadline for submittal of this report, and propose submittal of a partial report by December 7, 2004. No rationale supporting the delay has been provided. We reiterate our request for completion of all work outlined in ACEH's February 27, 2003; May, 5, 2004; and August 13, 2004 directives.

Your interim soil and water report is currently 30 days late, and your fuel leak site is not in compliance with ACEH directives. We request that you submit your report as soon as possible. ACEH makes this request pursuant to California Health & Safety Code Section 25296.10. 23 CCR sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to a reportable unauthorized release from a petroleum UST system, and require your compliance with this request.

If it appears as though significant delays are occurring or reports are not submitted as requested we will consider referring your case to the County District Attorney or other appropriate agency, for enforcement. California Health and Safety Code, Section 25299.76 authorizes ACEH enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

Please note that further delays in investigation, late reports, or enforcement actions may result in your becoming ineligible to receive cost reimbursement from the State's Underground Storage Tank Cleanup Fund.

Please call me at (510) 567-6719 or contact me via email at robert.schultz@acgov.org with any questions regarding this case.

Sincerely,

Robert W. Schultz, R.G.
Hazardous Materials Specialist

cc: Matt Derby, Cambria Environmental Technology, Inc., 5900 Hollis St., Ste. A, Emeryville, CA 94608
Matt Katen, Zone 7 Water District, QIC 80201
Betty Graham, RWQCB-SFBR, 1515 Clay St., Ste. 1400, Oakland, CA 94612
Dave Charter, SWRCB-USTCF, P.O. Box 944212, Sacramento, CA 94244
Donna Drogos, ACEH
Robert W. Schultz, ACEH

ALAMEDA COUNTY
HEALTH CARE SERVICES
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DAVID J. KEARS, Agency Director

SENT 11-5-04

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(510) 567-6700
FAX (510) 337-9335

November 5, 2004

The Church in Pleasanton
c/o T.C. Sun
3730 Hopyard Road
Pleasanton, CA 94588

Subject: Property Access by the Parties Responsible for the Investigation and Cleanup of Petroleum Hydrocarbon and Fuel Oxygenate Pollution at Fuel Leak Case No. RO0000363, Shell Service Station #13-5784, 3790 Hopyard Rd., Pleasanton, California

Dear Property Owner:

Alameda County Environmental Health (ACEH) is overseeing the investigation and cleanup of gasoline, including the gasoline compounds Methyl tert-Butyl Ether (MTBE) and benzene, released from fuel underground storage tanks at the subject site. We are uncertain as to how far the contamination from those tanks has moved.

ACEH is requiring Shell Oil Products US to investigate and clean up contaminated soil and groundwater at the site to prevent the gasoline, MTBE, and benzene contamination from spreading to other properties or to drinking water sources, and to reduce the potential threat to human health and the environment. To properly determine the extent of that contamination in groundwater, Shell must perform additional off-site investigation. Therefore, we need your help in allowing access to your property by Shell to properly define the extent of contamination.

If you have any questions, please contact Karen Petryna of Shell Oil Products US at (559) 645-9306. Thank you for your cooperation.

Sincerely,

Robert W. Schultz, R.G.
Hazardous Materials Specialist

cc: Karen Petryna, Sr. Environmental Engineer, Shell Oil Products US, 20945 S. Wilmington Ave., Carson, CA 90810
D. Drogos, R. Schultz

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

November 5, 2004

Ms. Marie Schweickert
3834 Inverness Way
Livermore, CA 94551

Dear Ms. Schweickert:

Subject: Fuel Leak Investigation, Case No. RO0002595, 515 S. Livermore Avenue, Livermore, CA

Thank you for submitting the "Work Plan Addendum," dated November 3, 2004, prepared by Gettler–Ryan Inc. We generally concur with the proposed work and schedule. Please submit a soil and groundwater investigation report documenting the results of your work by **January 28, 2005**.

If you have any questions, please call me at (510) 777-2149.

Sincerely,

Roseanna E. Garcia – La Grille
Hazardous Materials Technician

cc: Mr. Robert A. Lauritzen, Gettler–Ryan Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568
D. Drogos, R. Garcia – La Grille

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

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ENVIRONMENTAL HEALTH SERVICES
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August 13, 2004

Karen Petryna
Sr. Environmental Engineer
Shell Oil Products US
20945 S. Wilmington Ave.
Carson, CA 90810

Subject: Fuel Leak Case No. RO0000363, Shell Service Station #13-5784, 3790 Hopyard Rd., Pleasanton, California

Dear Ms. Petryna:

Alameda County Environmental Health (ACEH) has reviewed your June 30, 2004 *Agency Response, Revised SCM & Modified Work Plan* prepared by Cambria Environmental Technology, Inc. for the above-referenced site. We concur with your modified workplan provided the following conditions are met:

1. All samples be analyzed for TPHg, BTEX, and fuel oxygenates/additives (MTBE, TAME, ETBE, DIPE, TBA, ethanol, EDB and1,2-DCA);
2. Groundwater samples be analyzed for bioparameters, including DO, ORP, sulfate, nitrate, and dissolved methane; and
3. All onsite borings be advanced to at least first-encountered groundwater (approximately 20 to 25 ft bgs) and a depth discrete groundwater sample analyzed from each onsite boring.

Please implement the proposed investigation and submit the requested report following the schedule below. In addition, we request that you address the following technical comments in your report.

TECHNICAL COMMENTS

1. Mass Flux Approach

Your April 30, 2003 *Subsurface Investigation Work Plan* prepared by Cambria included a discussion of mass balance approach. Cambria's arguments showed lack of understanding of the mass flux approach requested by ACEH in our February 27, 2003 letter. Please see the attached June 2002 ChevronTexaco technical bulletin "Mass Flux Estimates to Assist Decision-Making," for a summary of mass flux estimation using sampling transects.

ACEH's May 5, 2004 letter requested six borings within the southern-most transect with no more than 40 to 45 ft between borings. The objectives of the transects are to:

- Provide sufficient lithologic data perpendicular to the plume axis so that preferential flow paths may be identified, and
- Characterize contaminant concentrations with sufficient detail to accurately bracket contaminant mass flux from the site.

Cambria's planned CPT boring locations are spaced 85 to 95 ft apart. This spacing interval will not provide sufficient confidence that the investigation has met the objectives specified above.

2. Impact to Arroyo Mocho Canal

The Groundwater Contour Map in Cambria's June 28, 2004 monitoring report shows the water surface elevation within the Arroyo Mocho Canal as 302.79 ft above msl. The groundwater elevations in nearby wells S-12, S-9 and S-11 are respectively 305.91, 307.83 and 309.00 ft above msl. Cambria's groundwater contour map shows the groundwater gradient to be toward the canal. Based on this data, Shell's release may be migrating from the site and into the Arroyo Mocho Canal. The hydraulic connectivity between the Arroyo Mocho Canal and groundwater in the site vicinity needs to be understood. MTBE-contaminated groundwater was first detected in well S-12 on May 9, 2003. The laboratory detection limit was reduced from 5.0 ug/L to 1.0 ug/L for that monitoring event, so earlier impacts to the Arroyo Mocho Canal may have occurred undetected. Quantification of mass flux of the contaminants of concern from the site appears needed to assess the potential for impact to drinking water resources via the canal.

3. Downgradient Impact

The April 7, 2004 detection of 380 ug/L MTBE appears to be the highest ever detected in monitoring well S-7 (the September 17, 2001 result is suspect). MTBE concentrations in well S-9 are also near the historical maximum concentration for this well. Additional downgradient investigation and evaluation of the potential impact to water supply wells is necessary. Quantification of mass flux of the contaminants of concern from the site appears needed to perform this evaluation.

4. Groundwater Remediation

Your June 28, 2004 *Groundwater Monitoring Report – Second Quarter 2004* stated that groundwater extraction (GWE) will be performed from monitoring wells S-7 and S-9 and that the results will be reported in the third quarter monitoring report. ACEH requests that the results of the batch GWE from the existing downgradient long-screened wells also be included in the report requested below. We request that your report consider the lithologic and groundwater concentration data obtained from borings CPT-8 and CPT-9 in evaluating the efficacy of continued downgradient GWE.

REPORT REQUEST

Please submit your *Interim Soil and Groundwater Investigation Report,* including a workplan for the installation of new monitoring wells, which addresses the comments above, by **October 13, 2004**. Pursuant to Section 25297 of the California Health and Safety Code, ACEH requests this report utilizing the Regional Water Quality Control Board's authority defined under Section 13267 of the California Water Code.

Please call me at (510) 567-6719 with any questions regarding this case.

Sincerely,

Robert W. Schultz, R.G.
Hazardous Materials Specialist

Attachment: ChevronTexaco technical bulletin, "Mass Flux Estimates to Assist Decision-Making," June 2002.

Cc: Ana Friel, Cambria Environmental Technology, Inc., P.O. Box 259, Sonoma, CA 95476
Matt Katen, Zone 7 Water District, QIC 80201 (w/o attachment)
Donna Drogos, ACEH (w/o attachment)
Robert W. Schultz, ACEH (w/o attachment)

ALAMEDA COUNTY
HEALTH CARE SERVICES
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RO0000363

May 5, 2004

Ms. Karen Petryna
Shell Oil Products Company US
P.O. Box 7869
Burbank, CA 91510-7869

RE: SWI and SCM for Shell Station, 3790 Hopyard Road, Pleasanton, CA

Dear Ms. Petryna:

This letter follows a review of the fuel leak case file for the above referenced site, up to and including the April 12, 2004 Cambria Environmental Technology, Inc. (Cambria) first quarter 2004 groundwater monitoring report, and, in particular, the April 30, 2003 Cambria subsurface investigation work plan (i.e., Soil and Water Investigation [SWI] work plan) with incorporated Site Conceptual Model (SCM).

This letter presents a request to revise the SCM and SWI work plan scope, submit additional technical information, and augment routine quarterly sampling and monitoring tasks and subsequent reports to reflect additional data collection and reporting requirements. These requests are in accordance with provisions of the California Code of Regulations (CCR), Title 23, Division 3, Chapter 16, Article 11, "Corrective Action Requirements"; State Water Resources Control Board Resolution 9249, "Policies and Procedure for Investigation, Cleanup and Abatement of Discharges Under Water Code Section 13304"; and the Regional Water Quality Control Board (Regional Board) Water Quality Control Plan for the basin.

The following technical comments address investigation and related performance objectives that shall be considered as part of the required SWI and SCM. **We request that you prepare and submit an SWI work plan addendum by June 5, 2004, and augment future sampling and monitoring activities and reports, that address the following technical issues.**

TECHNICAL COMMENTS

1. Site Conceptual Model

   Oxygenate occurrence, genesis and distribution

   - Concentrations of MtBE in sampled wells appear, overall, on a trend of decline since Fall 2003. However, detectable concentrations of MtBE began appearing in off-site wells S-11 and S-12 in May 2003, approximately 8 months after the installation of these wells. Well S-12 is located on the service road on the north bank of Arroyo Mocho, approximately 400' from the site's current tank complex.

TBA was also identified in at least one monitoring well (S-2) as far back as September 2001, the first time TBA was sought in a select few wells in the network. TBA was also discovered at markedly high concentrations in off-site well S-6. TBA was first sought in S-6 during September 2001 and was found to be below a detection limit of 50 ug/l at that time. The next time TBA was sought was 15 months later, during December 2002, at which time the TBA concentration in S-6 jumped to 10,000 ug/l. In May 2003 the TBA concentration rose to 12,000 ug/l; in July 2003, 8400 ug/l; in October 2003, 10,000 ug/l; and in January 2004, 7600 ug/l. More recently, TBA was detected in on-site well SR-2 during January 2004 at a concentration of 17,000 ug/l.

The SCM does not discuss the presence or significance of TBA discovered in both on- and off-site wells in terms of either its genesis or the hydrogeology and preferential pathways, whether geogenic or otherwise, that may have contributed to its distribution in directions that, in some cases, appear inconsistent with published groundwater flow. In particular, off-site well S-6 is located outside the "Downgradient Flow Zone" diagram presented in Figure 2 of the referenced April 30, 2003 Cambria SWI work plan, yet the concentrations of TBA identified in this off-site well are comparable to the highest historic concentrations detected in other wells located on site, and have appeared at those concentrations in a very short period of time.

The SCM must be revised to reflect exploration of this issue.

Arroyo Mocho

- Text appearing on page 6 of the cited April 30, 2003 Cambria work plan, under an SCM heading, indicates the Arroyo Mocho is considered a "losing" stream based calculated ground water elevations derived from measurements of project monitoring wells and canal base elevations provided by Zone 7 Water Agency. However, the SCM presented as Item 4.6 of Appendix B of that document indicates the arroyo is a "gaining" canal. In both instances, these interpretations, whether considered a gaining or losing stream, are used as a means to argue that the arroyo will not be impacted by releases from the site.

  This apparent conflict in interpretation must be resolved and the SCM revised accordingly.

2. Contaminant Plume Definition – Soil and Groundwater Investigation

The purpose of contaminant plume definition is to determine the *three-dimensional* extent of contamination in soil and groundwater, including a determination of 3-D extent of impacts in the source area(s) and released contaminant mass, and a demarcation of potential geogenic and anthropomorphic flow pathways. As you know, both MtBE and TBA are present in wells located both on- and off-site. As recently as May 2003, TBA was reported at concentrations of 18,000 ug/l in on-site well S-4 and 12,000 ug/l in off-site well S-6. MtBE has been detected since May 2003 in well S-12, installed during September 2002. The most recent data from the January 2004 sampling event indicate TBA concentrations at 9800 ug/l in S-4 and 7600 ug/l in S-6. Note that nearly all wells completed in the shallow water-bearing formation have screen intervals of between 20 and 30-feet in length. Such long

screens do not lend confidence in the sampling data; hence, ambient TBA and MtBE concentrations may actually be higher than what is being reported.

The referenced Cambria SWI work plan proposes a phased approach to investigate soil and groundwater conditions. In general, the work proposed would involve the advancement of 10 paired CPT borings to 1) Determine lithologies, and 2) Facilitate targeted soil and groundwater sampling from specific depths and lithologies identified during the completion of the initial CPT borings. This work would then be followed by the installation of well clusters with screen depths and intervals based on preliminary CPT work.

We request that the proposed SWI scope and approach be modified, and a work plan addendum submitted, as follows.

CPT Transects:

- The Cambria SWI work plan proposes the completion of 10 paired CPT borings, seven of which are proposed along two distinct transects trending roughly east-west. Four (4) CPT pairs are currently proposed along the transect generally defined by wells S-8, S-7, and S-11. Three (3) additional CPT pairs are proposed on the station property. One CPT pair is proposed near the current tank complex, and two other CPT pairs are proposed adjacent or relevant to well S-9. Cambria proposes to advance all CPT pairs to 40' below grade (bg), except for the two CPT pairs located adjacent to well S-9, each proposed for completion depths of 75' bg.

  We request that six (6) additional CPT pairs be completed along the southern-most transect, for a total of ten (10) CPT pairs, and that each pair be on centers of ~ 40 - 45'. Hence, five (5) CPT pairs would be completed on the west side, four (4) on the east side, and one near the center median of Hopyard Road. Three (3) of these additional CPT pairs would be completed beyond the CPT pair proposed adjacent to well S-11, continuing along the same trend into the parking lot of the office complex located on the east side of Hopyard Road. We also request that one (1) additional CPT point be completed further west of the CPT point proposed adjacent to well S-8 along the same trend as others in that transect.

- All CPT pairs are to be advanced to a minimum of 120' bg.

- The proposed northern-most transect may be omitted from the scope of work at this time.

Source investigation

- The Cambria work plan currently proposes a single CPT pair near the southern end of the current tank complex. No plans to assess the former tank complex, current and former product/vapor/vent piping, nor current and former dispenser areas and associated drive slabs have been proposed.

  We request that all potential source areas, as noted above, be investigated. We request that you submit a proposal in your SWI addendum to accommodate this request. We suggest, as a cost saving measure, that you consider use of direct-push/direct-read tools (e.g., laser induced

fluorescence, membrane interface probe, etc.) to measure relative hydrocarbon concentrations with depth in both soil and groundwater, in addition to determining lithologies, followed by judicious sampling of soil and ground water in targeted areas. You may also consider, however, use of CPT pairs for the source area investigation, as are proposed elsewhere for this project.

Regional maps

- Large format (e.g., 2 x 3') regional maps of the site and surrounding area are to be provided at a scale suitable for clearly showing salient features of the site and adjoining properties, such as buildings and other structures, streams, streets, bridges, sidewalks, municipal well fields, and all wells (production, test, irrigation, and monitoring wells, whether active, destroyed, or abandoned). A base map with the surface features noted, above, along with layer maps illustrating regional groundwater gradients and capture zones associated with production wells of the Hopyard well field shall be presented, at a minimum.

  Please submit these large format maps with the SWI work plan addendum. Zone 7 Water Agency may already have 1:1200 scale base maps of the area that you might use to begin the development of your maps.

3. Routine sampling reports

Oxygenate reporting

- All routine sampling events shall include analysis and reporting of the full suite of potential fuel oxygenates. Review of recent sampling data reveals that analysis for several oxygenates, including EtOH, has not been performed for nearly 3 years in some cases (i.e., EtOH). Only MtBE and TBA have been sought on a regular basis.

  Testing shall resume and the results reported for all Oxygenates (MtBE, DIPE, ETBE, TAME, TBA, EtOH) beginning with the 2nd quarter 2004 sampling event.

Tabulation of reported data

- Tabulated analytical data presented in routine quarterly reports does not present all sampling data collected historically. Tabulated sampling data only goes as far back as March 1991.

  Tabulation of all historic (and current) sampling data shall be incorporated into routine quarterly reports beginning with the 2nd quarter 2004 report.

Isoconcentration maps

- Please present isoconcentration maps in all routine quarterly monitoring reports for the following target compounds: Benzene, TPH-g, and all detected Oxygenates.

4. Additional issues

   Some of the historic soil analytical data presented in Table 1 of the cited April 30, 2003 Cambria document are in error. For example, the tabulated collection dates for soil samples collected during the advancement of well borings S-11 and S-12 are erroneously indicated as occurring during August 1998. We understand that wells S-11 and S-12 were actually drilled during September 2002.

   Please review and verify these data and submit a revised table with submission of the requested SWI work plan addendum.

TECHINCAL REPORT REQUEST

Please submit technical reports according to, or otherwise comply with, the following schedule:

June 5, 2004 – Work plan addendum for Soil and Water Investigation

July 15, 2004 – Quarterly Report for the Second Quarter 2004

October 15, 2004 – Quarterly Report for the Third Quarter 2004

January 15, 2005 – Quarterly Report for the Fourth Quarter 2004

These reports and work plans are being requested pursuant to the Regional Board's authority under Section 13267(b) of the California Water Code. **Each technical report shall include conclusions and recommendations for the next phases of work required at the site should more appear necessary to refine the SCM.** We request that all required work be performed in a prompt and timely manner, as suggested by the noted schedule, above. Revisions to this schedule shall be requested in writing with appropriate justification for anticipated delays.

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that all work plans and technical reports containing professional geologic or engineering evaluations and/or judgments be completed under the direction of an appropriately-registered or certified professional. This registered or certified professional shall sign and wet stamp all such reports and work plans.

All reports and work plans are to be submitted under cover, signed under penalty of perjury, by the Responsible Party(ies) who have taken a lead role in compliance with corrective action directives.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the Alameda County District Attorney, for possible enforcement follow up. Enforcement follow up may include administrative action or monetary penalties of up to $10,000 per day for each day of violation of the California Health and Safety Code, Division 20, Chapter 6.76.

If you have any questions, I can be reached at (510) 567-6783.

Sincerely,

Scott O. Seery, R.G., CHMM
Hazardous Materials Specialist

c: Betty Graham, RWQCB
Dave Charter, SWRCB UST Fund
Matt Katen, Zone 7 Water Agency
Danielle Stefani, Livermore-Pleasanton Fire Department
Matthew W. Derby, Cambria Env. Technology, Inc., 5900 Hollis St. Emeryville, CA 94608
D.Drogos

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RO0000363

February 27, 2003

Ms. Karen Petryna
Shell Oil Products Company US
P.O. Box 7869
Burbank, CA 91510-7869

RE: SWI, SCM and CAP for Shell Station, 3790 Hopyard Road, Pleasanton, CA

Dear Ms. Petryna:

This letter follows a review of the fuel leak case file for the above referenced site, and our 13 February 2003 meeting with representatives of Zone 7 Water Agency and your consultant, Cambria Environmental Technology, Inc. (Cambria). As we discussed, this office is concerned with the presence of the gasoline oxygenate Methyl tert-Butyl Ether (MtBE) at the site, the site's location above the primary, producing drinking water basin in Pleasanton, and its proximity to active municipal drinking water wells. This letter presents a request to complete a Soil and Water Investigation (SWI), Site Conceptual Model (SCM), and prepare a Corrective Action Plan (CAP) for the subject site in accordance with California Code of Regulations (CCR), Title 23, Division 3, Chapter 16, Article 11, "Corrective Action Requirements"; State Water Resources Control Board Resolution 9249, "Policies and Procedure for Investigation, Cleanup and Abatement of Discharges Under Water Code Section 13304"; and the Regional Water Quality Control Board (Regional Board) Water Quality Control Plan for the basin.

The following technical comments address investigation and related performance objectives that shall be considered as part of the required SWI, SCM and CAP. **We request that you prepare and submit a work plan for the SWI by April 14, 2003, that addresses each of the following comments.**

TECHNICAL COMMENTS

1. Preferential Pathway Study

   A utility conduit study was previously prepared for the site, the results of which were published in a Cambria report entitled *Sensitive Receptor Survey Report*, dated April 9, 2002. This report provided professional interpretation of the data and a set of annotated maps showing certain utility locations and reported depths. We have since received updated maps that show the utilities in locations that are in significant conflict with their depiction in the referenced Cambria report. A professional interpretation of these new data has not been rendered, and the updated maps remain incomplete in their level of detail. We request that these new data be confirmed for accuracy, the maps accurately completed, and a professional interpretation presented.

   You may present the requested professional interpretation and final utility conduit map(s) in the pending SWI workplan.

In addition, a long-abandoned ~172-foot deep irrigation well has been the subject of a records review and survey effort by Cambria since early last year. Its exact location, however, is still in question. Cambria's survey work potentially places this well behind the current station building, yet other data shared at the recent meeting places this well (or another) beneath a commercial building on another property some 300-feet to the SSE (3730 Hopyard Rd.). As you know, an abandoned irrigation well with unknown perforation intervals in proximity to a fuel release site could pose a risk to deeper aquifers. It is unknown as of this writing whether this abandoned irrigation well will be discovered during planned excavation work at the site. This issue needs to be resolved quickly and the well properly destroyed, if at all possible.

Please refer to the document entitled *"Strategies for Characterizing Subsurface Releases of Gasoline Containing MtBE"*, American Petroleum Institute Publication No. 4699, dated February 2000. Section 3.3.2.4 of this document discusses how one may map hydraulic heads in shallow aquifers to note areas of groundwater flow convergence that may correspond to an abandoned well acting as a flow conduit between aquifers.

Please present your final plan of action to address the irrigation well issue in the pending SWI workplan.

2. Site Conceptual Model

Starting with a critical review of the updated conduit study and data from previous investigations and tank operational records for this site, you are to develop the initial three-dimensional SCM of site conditions. A SCM is a set of working hypotheses pertaining to all aspects of the contaminant release, including site geology, hydrogeology, release history, residual and dissolved contamination, attenuation mechanisms, pathways to nearby receptors, and likely impacts to receptors. The SCM is used to identify data gaps that are subsequently filled as the investigation proceeds. As the data gaps are filled, the working hypotheses are modified, and the overall SCM is refined and strengthened. Subsurface investigations continue until the SCM no longer changes as new data are collected. At this point the SCM is considered "validated". The validated SCM forms the foundation for developing the most cost-effective final Corrective Action Plan (CAP).

We have identified, based on review of existing data, what we see as key data gaps and have described in this letter several tasks we believe will provide useful new data in pursuit of refinement to the initial SCM.

Your attention is directed to the cited API Publication No. 4699 as a resource for development of the SCM. Your attention is also directed to the State Water Resources Control Board (SWRCB) *"Guidelines for Investigation and Cleanup of MTBE and Other Ether-Based Oxygenates, Final Draft"*, dated March 27, 2000, as well as the June 2002 ChevronTexaco Energy Research and Technology Company technical bulletin entitled *"Mass Flux Estimates to Assist Decision-Making"* to help in development and strategies for refinement of the SCM, among other related tasks. I can provide copies of any of these documents if you need them.

You are requested to use this initial SCM to help you determine the appropriate configuration for samplings points in the pending SWI phase of work at this site. Please discuss in the SWI workplan your analysis and interpretation of the results of the conduit study and SCM, and explain your rationale for the configuration of proposed sampling points.

3. Contaminant Plume Definition – Soil and Groundwater

The purpose of contaminant plume definition is to determine the *three-dimensional* extent of contamination in soil and groundwater, including a determination of 3-D extent of impacts in the source area(s) and released contaminant mass, and a demarcation of potential geogenic and anthropomorphic flow pathways. As you know, up to 100,000 parts per billion (ppb) MtBE was detected in tank excavation well T-2 as recently as June 2002. MtBE has also been detected at concentrations as high as 11,000 ppb and 8300 ppb in off-site wells S-6 and S-7, respectively. MtBE has also been detected consistently in off-site well S-9.

Note that nearly all wells completed in the shallow water-bearing formation have screen intervals of between 20 and 30-feet. Such long screens do not lend confidence in the sampling data for a variety of reasons, and do not assist in determining the depth-discrete concentration gradients necessary to appropriately evaluate the distribution of MtBE at this site. Therefore, monitoring at multiple depths is required at and downgradient of your site.

Recent cone penetrometer (CPT) work revealed the presence of interbeds of silty clay / clayey silt in materials encountered in CPT-2 at depths that appear consistent with initial and stabilized groundwater noted in adjacent well S-12. Sediments logged as "clay" are found both above and below these two silty intervals. Clearly, these silty layers are not what one would expect to be "classic" water bearing sediments, but may reflect the relative permeability differentials that contribute to fluid movement through the formation in this localized environment. These silty layers were not identified in CPT-1, as it was logged as penetrating clay to ~53' below grade (bg), with a single interbed of "organic soil" between ~13 and 16' bg. However, logs of various other historic wells did identify occasional coarser-grained (silt, sand, gravel) horizons and stringers in an otherwise fine-grained suite of sediments. A few lenses of "peat" were also identified locally.

Based on reviewed boring logs, encountered sedimentary sequences appear somewhat inconsistent from one boring location to another. Because of these characteristics, further assessment is necessary to better understand site geology and hydrogeology. We therefore request a three-dimensional MtBE investigation of both the source area(s) and as transect(s) oriented normal to the trend of apparent groundwater flow. The vertical distribution of impacts is to be determined. Mass-balance calculations are to be completed for the source area(s). Vertical groundwater gradients are also to be determined. The SWI workplan should present your plan to accomplish these tasks.

Conventional investigation techniques and monitoring well networks currently used at fuel leak sites, including this one, are generally insufficient to adequately characterize MtBE impacts. It is recommended that your investigation initially incorporate expedited site assessment techniques and borings. The borings are to be continuously cored and logged, with close attention paid to changes in lithologies that might facilitate solute transport (e.g., silty/sandy stringers in otherwise fine grained sediments). The methodology employed should minimize the potential for cross-contamination.

Soil samples should be collected for laboratory analysis at 5 foot intervals, areas of obvious contamination, the soil/groundwater interface, and at each lithologic change noted during boring advancement, at a minimum. Water samples are to be collected at discrete depths to total depth explored. Detailed cross-sections, fence diagrams, structural contours and isopachs, and rose diagrams for groundwater flow (incorporating all historic data), should be subsequently incorporated into the interim *and* final SWI reports, as appropriate. Cross-sections should be scaled to clearly illustrate subsurface lithologies, including the locations of stringers and other zones of relatively-higher permeability, particularly in those areas where such zones may be intercepted by buried utilities.

Final well locations and screen depths will be substantially based on the results of the SWI and refined SCM. The monitoring of multiple discrete water-bearing zones with short screened intervals is anticipated. Generally, these screened intervals should not be greater than 2' in length. We will expect that the Interim SWI Report will propose the locations of such wells, the anticipated well screen depths, their configurations (e.g., well cluster or multi-level), and the reasoning behind the location and configuration of each.

Discuss your proposal for performing this work outlined, above, in the SWI work plan. The updated results of the conduit study, and the initial SCM, are to be presented and discussed in the SWI work plan to justify your proposed scope of work.

Expedited site assessment tools and methods are a scientifically valid and cost-effective approach to fully define the three-dimensional extent of the plume. Technical protocol for expedited site assessments are provide in the US EPA *"Expedited Site Assessment Tools for Underground Storage Tank Sites: A guide for Regulators"* (EPA 510-B-97-001), dated March 1997.

4. Corrective Action Plan

The purpose of the CAP is to use the information obtained during investigation activities to propose cost-effective **final cleanup objectives and remedial alternatives for both soil and groundwater impacts, including those caused by MtBE and other fuel oxygenates,** that will adequately protect human health and safety, the environment, eliminate nuisance conditions, and protect water resources.

A final CAP for the soil and groundwater impacts caused by an unauthorized release at the site will be requested upon completion of the SWI in accordance with the schedule specified below. The CAP shall address at least two technically and economically feasible methods to restore and protect beneficial uses of water and to meet the cleanup objectives for each contaminant established in the CAP. The CAP must propose verification monitoring to confirm completion of corrective actions and evaluate CAP implementation effectiveness.

TECHINCAL REPORT REQUEST

Please submit technical reports according to, or otherwise comply with, the following schedule:

April 14, 2003 – Work plan for Soil and Water Investigation

60 Days from SWI Work Plan Approval – Interim Soil and Water Investigation Report (which contains the results of the initial SWI assessment work, and a proposal for the installation of new monitoring wells)

90 Days from Completion of Soil and Water Investigation – Soil and Water Investigation Completion Report (which incorporates all data generated during completion of SWI, including the installation of the new monitoring wells)

90 Days after Submittal of Soil and Water Investigation Completion Report - Corrective Action Plan

April 15, 2003 – Quarterly Report for the First Quarter 2003

July 15, 2003 – Quarterly Report for the Second Quarter 2003

October 15, 2003 – Quarterly Report for the Third Quarter 2003

January 15, 2004 – Quarterly Report for the Forth Quarter 2004

These reports and work plans are being requested pursuant to the Regional Board's authority under Section 13267(b) of the California Water Code. **Each technical report shall include conclusions and recommendations for the next phases of work required at the site should more appear necessary to refine the SCM.** We request that all required work be performed in a prompt and timely manner, as suggested by the noted schedule, above. Revisions to this schedule shall be requested in writing with appropriate justification for anticipated delays.

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that all work plans and technical reports containing professional geologic or engineering evaluations and/or judgments be completed under the direction of an appropriately-registered or certified professional. This registered or certified professional shall sign and wet stamp all such reports and work plans.

All reports and work plans are to be submitted under cover, signed under penalty of perjury, by the Responsible Party(ies) who have taken a lead role in compliance with corrective action directives.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the Alameda County District Attorney, for possible enforcement follow up. Enforcement follow up may include administrative action or monetary penalties of up to $10,000 per day for each day of violation of the California Health and Safety Code, Division 20, Chapter 6.76.

If you have any questions, I can be reached at (510) 567-6783.

Sincerely,

Scott O. Seery, CHMM
Hazardous Materials Specialist

c: Betty Graham, RWQCB
Dave Charter, SWRCB UST Fund
Matt Katen, Zone 7 Water Agency
Danielle Stefani, Livermore-Pleasanton Fire Department
Jacqueline Jones, Cambria Env. Technology, Inc., 1144 – 65th St., Ste. B, Oakland, CA 94608

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

0-23-OR

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

October 22, 2002

RO 363

Ms. Karen Petryna
Shell Oil Products US
P.O. Box 7869
Burbank, CA 91510-7869

RE: Shell Station, 3790 Hopyard Road, Pleasanton - Request for Total Fuel Oxygenate Analyses

Dear Ms. Petryna:

The case file for the referenced site was recently reviewed, up to and including the September 2002 Cambria Environmental Technology second quarter 2002 monitoring report. This review was primarily conducted to identify the current suite of target compounds sought in water samples collected from the various wells within the network. Our review revealed that a number of potential fuel oxygenates may not have been sought historically from samples collected from these wells.

Please direct your consultant to analyze all samples collected during the next scheduled sampling event for the presence of total fuel oxygenates (MtBE, TAME, EtBE, DIPE, and TBA) and lead scavengers (EDB and 1,2-DCA / EDC) using EPA Method 8260. Such expanded analyses may be required to continue depending upon what is found.

In addition, you are reminded that all reports for this case, *as well as all other Shell Oil Products US cases,* are to be submitted under Shell Oil Products US cover that is signed, under penalty of perjury, by the official Shell Oil Products US project representative.

Please contact me at (510) 567-6783 should you have any questions.

Sincerely,

Scott O. Seery, CHMM
Hazardous Materials Specialist

cc: Chuck Headlee, RWQCB
Danielle Stefani, Livermore-Pleasanton Fire Department
Jacquelyn Jones, Cambria Env. Technology, Inc., 1144-65th St., Ste. B, Oakland, CA 94608

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

10-16-02

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

October 15, 2002

RO 363

Ms. Danielle Stefani
Livermore-Pleasanton Fire Department
4550 East Avenue
Livermore, CA 94550

RE: Shell Station, 3790 Hopyard Road, Pleasanton

Dear Ms. Stefani:

This letter is sent in follow-up to review of the recent sampling report for the subject Shell site. Recent laboratory data for ground water samples show a marked increase in methyl tert butyl ether (MtBE) concentrations when compared to previous sampling events.

MtBE was identified during the September 2001 sampling event at concentrations of up to 29,000 ug/l in underground storage tank (UST) backfill well T-2 using EPA Method 8260. In June 2002, the concentration of MtBE in samples collected from this well increased to 100,000 ug/l. This marks the highest MtBE concentration observed at this site to date.

These data appear to demonstrate that releases from the UST system continue to occur at this site. This information is being brought to your attention as a courtesy in order to assist the city in its role to ensure UST compliance by the operator.

Equilon Enterprises LLC dba Shell Oil Products has been employing periodic mobile remediation measures. A plan to construct an interim remediation system has already been approved by this office. Additional off-site wells have recently been installed, with one or more additional wells planned once the results of cone penetrometer testing are reviewed and deeper aquifer lithologies determined.

Please call me at (510) 567-6783 should you have any questions or need my assistance.

Sincerely,

Scott O. Seery, CHMM
Hazardous Materials Specialist

cc: Chuck Headlee, RWQCB
Matt Katen, Zone 7 Water Agency
Steve Cusenza, Pleasanton Public Works Agency
Karen Petryna, Shell Oil Products US, P.O. Box 7869, Burbank, CA 91510-7869

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

9-9-02

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

September 9, 2002

RO 363

Ms. Karen Petryna
Shell Oil Products US
P.O. Box 7869
Burbank, CA 91510-7869

RE: Shell Station, 3790 Hopyard Road, Pleasanton – Interim Remediation Work Plan

Dear Ms. Petryna:

This letter is sent following our review of the August 28, 2002, *Interim Remediation Work Plan*, submitted by Cambria Environmental Technology, Inc. (Cambria). The referenced Cambria work plan proposes pumping shallow groundwater from existing extraction wells SR-1, SR-2, and SR-3, and tank backfill well T-3. Extracted water will be routed through subgrade piping to a storage tank located in a treatment compound to be constructed behind the station building. Extracted water will eventually be pumped from the storage tank and through a series of carbon vessels prior to being discharged to the sanitary sewer under permit from the local sanitary district.

This interim remediation plan is accepted as submitted.

Please provide this office with copies of the final extraction system / treatment compound engineering drawings, reduced in size to standard 11x17" format.

Please call me at (510) 567-6783 should you have any questions.

Sincerely,

Scott O. Seery, CHMM
Hazardous Materials Specialist

c: Chuck Headlee, RWQCB
Matt Katen, Zone 7 Water Agency
Steve Cusenza, Pleasanton Public Works Agency
Danielle Stefani, Livermore-Pleasanton Fire Department
Jacquelyn Jones, Cambria Env. Technology, Inc.
1144 – 65th St., Ste. B, Oakland, CA 94608

SENT 9-15-2000

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

R0363

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

September 14, 2000

STID 1673

Ms. Karen Petryna
Equiva Services LLC
P.O. Box 6249
Carson, CA 90749-6249

RE: Shell Station, 3790 Hopyard Road, Pleasanton

Dear Ms. Petryna:

This letter is sent in follow-up to review of the recent annual sampling report for the subject Shell site. Laboratory data for ground water samples show a marked increase in methyl tert butyl ether (MtBE) concentrations, among other fuel components, when compared to previous sampling events.

MtBE was identified during the June 2000 sampling event at concentrations of up to 13,500 ug/l in well S-2 (confirmed at 9850 ug/l using EPA Method 8260), and up to 12,200 ug/l in well S-4. During the previous sampling event (June 1999), MtBE concentrations were identified at 147 and 1780 ug/l, respectively. This marks the second time since 1997 that MtBE spikes have been identified in well S-4. This is the first time such spikes have been identified in well S-2. Other wells associated with this investigation (e.g., S-6) have also shown increases in MtBE since June 1999.

These data appear to demonstrate that a subsequent release of gasoline from the underground storage tank (UST) system has occurred at this site. Consequently, Equiva is required at this time to reinstate quarterly sampling and monitoring at this site. This revised schedule is to be implemented during the 4th quarter 2000 and continued until notified otherwise.

Please be advised that the Livermore-Pleasanton Fire Department (L-PFD), the local UST permitting agency, has been advised of this development. The L-PFD may require that some additional steps be taken by Equiva to further evaluate the current operation of the USTs in compliance with your permit.

Please call me at (510) 567-6783 should you have any questions.

Sincerely,

Scott O. Seery, CHMM
Hazardous Materials Specialist

c: Tom Peacock, ACDEH
Chuck Headlee, RWQCB
Matt Katen, Zone 7 Water Agency
Steve Cusenza, Pleasanton Public Works Agency
Stephen Bork, Cambria Environmental Technology, Inc.
1144 - 65th St., Ste. B, Oakland, CA 94608

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

SENT 9-14-2000

R0363

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

September 13, 2000

STID 1673

Ms. Danielle Stefani
Livermore-Pleasanton Fire Department
4550 East Avenue
Livermore, CA 94550

RE: Shell Station, 3790 Hopyard Road, Pleasanton

Dear Ms. Stefani:

This letter is sent in follow-up to review of the recent annual sampling report for the subject Shell site. Laboratory data for ground water samples show a marked increase in methyl tert butyl ether (MtBE) concentrations when compared to previous sampling events.

MtBE was identified during the June 2000 sampling event at concentrations of up to 13,500 ug/l in well S-2 (confirmed at 9850 ug/l using EPA Method 8260), and up to 12,200 ug/l in well S-4. During the previous sampling event (June 1999), MtBE concentrations were identified at 147 and 1780 ug/l, respectively. This marks the second time since 1997 that MtBE spikes have been identified in well S-4. This is the first time such spikes have been identified in well S-2.

These data appear to demonstrate that a subsequent release from the underground storage tank (UST) system has occurred at this site. This is being brought to your attention as a courtesy in order to assist the city in its role to ensure UST compliance and operator adherence to requirements of the UST permit. At this time, Equiva will be required to reinstate quarterly sampling and monitoring at this site.

Please call me at (510) 567-6783 should you have any questions or need my assistance.

Sincerely,

Scott O. Seery, CHMM
Hazardous Materials Specialist

c: Tom Peacock, ACDEH
Chuck Headlee, RWQCB
Matt Katen, Zone 7 Water Agency
Steve Cusenza, Pleasanton Public Works Agency
Karen Petryna, Equiva Services LLC, P.O. Box 6249, Carson, CA 90749-6249

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

October 8, 1999

ENVIRONMENTAL HEALTH SERVICES
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
(510) 337-9335 (FAX)

Ms. Danielle Stefani
Livermore-Pleasanton Fire Department
4550 East Avenue
Livermore, CA 94550

RE: MtBE-impacted sites in Pleasanton

Dear Ms. Stefani:

This letter is sent in response to your 19 August 1999 request for additional information regarding Pleasanton sites that are impacted by the gasoline additive methyl tert-butyl ether, or MtBE.

Following is a brief summary for each of the petroleum release cases currently overseen by this agency where MtBE has been identified. This supplemental information adheres to the format requested in your August letter, and augments the information presented previously by this office on 22 July 1999.

UNOCAL Station, 4191 First Street (R0361)

1. *Status*

   This investigation is still in progress. Additional off-site well installed 10/06/99. Additional well and boring installation on adjoining commercial property to the northeast is pending. Site access issues for off-site wells/borings have slowed progress.

2. *On-site/Off-site*

   Plume extends off-site

3. *Farthest extent of contamination*

   Horizontal extent: >120 feet
   Vertical extent: > 80 feet

4. *Approximate level of threat based on information available to date:*

   Appears to be isolated from municipal drinking water well fields based on significant geographic separation. However, Zone 7 officials interpret the depth of the impacted zone at this site as being consistent with water elevation in the main groundwater (GW) basin. This area appears to be in a recharge zone for the main GW basin.

Steve's Exxon, 2991 Hopyard Road (#0362)

1. *Status*

Plume extent appears to be identified. Post-remediation monitoring in progress. Certain on-site vapor extraction wells to be destroyed, as they appear to have served as conduits for migration of shallow "perched" contamination to a slightly deeper on-site water-bearing zone. On-going joint meetings with Zone 7, City of Pleasanton Public Works, Regional Water Quality Control Board (RWQCB), Exxon, and this office to determine best locations and depths for clusters of off-site "sentinel" wells, intended to provide early warning of potential impacts to primary water-bearing zone of nearby municipal well field.

2. *On-site/Off-site*

Plume appears confined significantly on-site. Periodic low-level MtBE detection in deeper and off-site wells has raised specter of concern, however. Current vertical plume monitoring program appears to have served its purpose but now may not be adequate to assure timely data acquisition, leading to future sentinel well installation.

3. *Farthest extent of contamination*

Horizontal extent: ~100 feet (periodic)
Vertical extent: ~90 feet ?

4. *Approximate level of threat based on information available to date:*

Close to drinking water source

Shell Station, 3790 Hopyard Road (#0363)

1. *Status*

On-going monitoring following yearly (2nd quarter) schedule

2. *On-site/Off-site*

Plume extends off-site

3. *Farthest extent of contamination*

Horizontal: ~180 feet
Vertical: ~ 18 feet

4. *Approximate level of threat based on information available to date:*

   Appears isolated from drinking water source due to both geology and distance

Shell Station, 5251 Hopyard Road (RO194)

1. *Status*

   On-going monitoring following yearly (2nd quarter) schedule

2. *On-site/Off-site*

   Plume appears to be constrained to the site

3. *Farthest extent of contamination*

   Horizontal: NA
   Vertical: ~ 12 feet

4. *Approximate level of threat based on information available to date:*

   Isolated from drinking water source due to both geology and distance

Chevron Station, 5280 Hopyard Road (RO439)

1. *Status*

   On-going monitoring following quarterly schedule

2. *On-site/Off-site*

   Plume appears to be substantially constrained to the site

3. *Farthest extent of contamination*

   Horizontal: NA
   Vertical: ~ 11 feet

4. *Approximate level of threat based on information available to date:*

   Isolated from drinking water source due to both geology and distance

(Former) Exxon Station, 349 Main Street (RO506)

1. *Status*

   Pending case closure

2. *On-site/Off-site*

   On-site

3. *Farthest extent of contamination*

   Horizontal: NA
   Vertical: ~26 feet

4. *Approximate level of threat based on information available to date:*

   Isolated from drinking water source due to both geology and distance

(Former) Mobil Station, 1024 Main Street (RO2429)

1. *Status*

   On-going soil and GW remediation and monitoring

2. *On-site/Off-site*

   Plume substantially on-site

3. *Farthest extent of contamination*

   Horizontal: NA
   Vertical: ~44 feet

4. *Approximate level of threat based on information available to date:*

   Appears isolated from drinking water source due to both geology and distance

Can-Am Plumbing, 151 Wyoming Street (RO2425)

1. *Status*

   Preliminary site assessment pending – workplan requested

2. *On-site/Off-site*

   Unknown at this time

3. *Farthest extent of contamination*

   Unknown at this time

4. *Approximate level of threat based on information available to date:*

   Expected to be isolated from drinking water source due to both geology and distance

I trust this supplemental report provides the additional information you were seeking. Please contact me at (510) 567-6783 should you need further assistance.

Sincerely,

Scott O. Seery, CHMM
Hazardous Materials Specialist

cc: Ariu Levi, Chief, Environmental Protection
Thomas Peacock, ACDEH LOP
Chuck Headlee, RWQCB
Matt Katen, Zone 7
Steve Cusenza, City of Pleasanton, P.O. Box 520, Pleasanton, CA 94566-0802

RO362, 363
194, 1151, 439,
506, 2427,
RO361, 360

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
(510) 337-9335 (FAX)

July 22, 1999

Ms. Danielle Stefani
Livermore-Pleasanton Fire Department
4550 East Avenue
Livermore, CA 94550

RE: MtBE-impacted sites in Pleasanton

Dear Ms. Stefani:

This letter is sent in response to your recent request for an update on sites located in Pleasanton that are impacted by the gasoline additive methyl-tert butyl ether, or MtBE.

Following is a brief summary for each of the active fuel tank cases currently overseen by this agency. Please note that not all retail service station or other underground storage tank (UST) sites in Pleasanton are listed. Data for closed or otherwise inactive cases are not presented in this summary, nor are data for cases not yet managed by this office. Both the highest *historic* MtBE concentrations (and date) as well as the highest concentrations in the last 12 months are given where these data are available.

Unocal Station, 4191 First Street

This site was historically used for warehousing, but was developed into a retail fueling station in ~1976. Several gasoline releases were documented in the 1980's. Several phases of investigation have been completed, beginning in the late 1980's and continuing up to the present. More work is currently pending. An 8 well network is established both on- and off-site, with more wells planned.

Highest MtBE: 6200 micrograms per liter, or ug/l (6/98)
12 month high: 4800 ug/l

Shell Station, 4226 1st Street

Although a preliminary assessment of the original UST complex was completed in 1985 prior to tank replacement, the results were somewhat inconclusive due to limited project scope. Two additional phases of work occurred in 1990, the results of which, again, were somewhat inconclusive. MtBE was not sought during these prior investigations. A recent phase of assessment was performed in April 1999, and included the installation of a permanent monitoring well. The final report of this recent work is pending; however, preliminary data indicate that, although underlying groundwater has been impacted, MtBE was not identified.

Highest MtBE: <250 ug/l (4/99)
12 month high: as above

Henry Moller & Sons Meat Packing Plant, 5710 Foothill Road

A small gasoline UST was removed in 1990. Six monitoring wells were eventually installed and monitored over several years due to a release from this tank. Although underlying groundwater was impacted to some extent by gasoline compounds, MtBE was not detected (ND) above laboratory reporting limits. Potential impact to Gold Creek was also evaluated and dismissed. The site is currently under review for case closure.

Highest MtBE: ND
12 month high: "

Steve's Exxon, 2991 Hopyard Road

This site, located on the corner of Hopyard Road and Valley Avenue, appears to be the most critical release site in Pleasanton due to its close proximity to both the City's and Zone 7's well fields. There is a current network of 11 wells located both on- and off-site, including two wells (MW-5D, MW-8) which monitor deeper water bearing zones of the underlying aquifer. The data appear to demonstrate that impacts are substantially constrained to the site. Exxon operated a soil-vapor extraction (SVE) system at the site up to the early 1990s, and reinstated its use in early 1998 but with limited success so far due to water infiltration into the vapor extraction wells. A request for an additional well and modification to the SVE system has been made.

Highest MtBE: 4950 ug/l (3/99)
12 month high: same

Shell Station, 3790 Hopyard Road (RO# 363)

An apparent release was discovered during routine monitoring of the USTs in 1987. These tanks were removed in 1988 and new tanks installed elsewhere on the site. Several phases of investigation followed with the eventual construction of 10 shallow monitoring wells, located both on- and off-site, and 3 recovery wells, installed at a time when active remediation was being considered. Nine of the monitoring wells are now sampled and monitored yearly.

Highest MtBE: 6900 ug/l (6/97)
12 month high: 1780 ug/l

Shell Station, 5251 Hopyard Road

A release was first discovered at this site in 1987 during installation of one shallow groundwater and 3 vadose zone wells intended to provide indirect monitoring of the UST system. Four additional shallow on-site wells were installed in 1989, followed by 3 more in 1990 installed in off-site locations. The fuel release appears to be substantially constrained to the site. All wells are currently monitored on a yearly schedule.

Highest MtBE: 3200 ug/l (5/97)
12 month high: 374 ug/l

Chevron Station, 5280 Hopyard Road

It has been reported that the original USTs were replaced in 1981. A gasoline release was identified during routine tank monitoring in 1989 and lead to the eventual installation of 3 shallow monitoring wells. In ~1991 the station was reconfigured and new tanks were installed in another location at the site. The three original wells were destroyed in the process and replaced. Three additional off-site wells were installed in 1997 for a total of 6 active wells.

Highest MtBE: 680 ug/l (6/96)
12 month high: 290 ug/l

(Former) Exxon Station, 349 Main Street

A release was discovered during the 1989 replacement of the original USTs at this former service station site. These replacement tanks were subsequently removed in 1993, and the site and later redeveloped. Several phases of environmental investigation followed the 1989 tank replacement, resulting in the eventual installation of 8 monitoring wells, on both on- and off-site locations, and 3 SVE wells. No active remediation occurred. Only two wells survive to this day. The site is currently being considered for closure.

Highest MtBE: 11 ug/l (6/96)
12 month high: ND

(Former) Mobil Station, 1024 Main Street

A release from the USTs was discovered during 1989 tank removals. Since that time several phases of investigation have been performed, with the eventual installation of 12 monitoring wells located both on- and off-site, and 3 groundwater and 4 SVE wells. SVE and groundwater treatment systems have operated nearly continuously at the site since 1995, with the cumulative removal of over 4000 gallons of product from the unsaturated soils and 3.9 million gallons of groundwater treatment system throughput. Although MtBE was "tentatively" identified (EPA Method 8020) in samples collected in the past from wells at the site, its presence was either not confirmed using more definitive laboratory methodologies (EPA Method 8260), or the actual concentrations were insignificant.

Highest MtBE: 1000 ug/l (Method 8020); ND (Method 8260) (8/97)
12 month high: 25 ug/l (Method 8260)

Can-Am Plumbing, 151 Wyoming Street

Although not yet a "case" overseen by this office, preliminary data collected during the June 1999 tank removals indicate up to 100,000 ug/l MtBE in shallow water within the tank pit. It is unknown if the sampled water represents true groundwater or an isolated "perched" zone. Awaiting final report and a determination of next appropriate steps in confirmation of this apparent release.

Highest MtBE:	100,000 ug/l (6/99)
12 month high:	as above

I trust this report provides the information you were seeking. Please contact me at (510) 567-6783 should you need further assistance.

Sincerely,

Scott O. Seery, CHMM
Hazardous Materials Specialist

cc: Thomas Peacock, ACDEH LOP
Chuck Headlee, RWQCB
Craig Mayfield, Zone 7
Steve Cusenza, City of Pleasanton, P.O. Box 520, Pleasanton, CA 94566-0802

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

R0502

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

May 7, 1999

STID 1672

Ms. Marla Guensler
Exxon Company, U.S.A.
Marketing Department
P.O. Box 4032
Clayton, CA 94524-2032

RE: Exxon Service Station #7-3399, 2991 Hopyard Road, Pleasanton

LANDOWNER NOTIFICATION AND PARTICIPATION REQUIREMENTS

Dear Ms. Guensler:

This letter is to inform you of new legislative requirements pertaining to cleanup and closure of sites where an unauthorized release of hazardous substance, including petroleum, has occurred from an underground storage tank (UST). Section 25297.15(a) of Ch. 6.7 of the Health & Safety Code requires the primary or active responsible party to notify all current record owners of fee title to the site of: 1) a site cleanup proposal, 2) a site closure proposal, 3) a local agency intention to make a determination that no further action is required, and 4) a local agency intention to issue a closure letter. Section 25297.15(b) requires the local agency to take all reasonable steps to accommodate responsible landowners' participation in the cleanup or site closure process and to consider their input and recommendations.

For purposes of implementing these sections, you have been identified as the primary or active responsible party. Please provide to this agency, within twenty (20) calendar days of receipt of this notice, a complete mailing list of all current record owners of fee title to the site. You may use the enclosed "list of landowners" form (sample letter 2) as a template to comply with this requirement. If the list of current record owners of fee title to the site changes, you must notify the local agency of the change within 20 calendar days from when you are notified of the change.

If you are the sole landowner, please indicate that on the landowner list form. The following notice requirements do not apply to responsible parties who are the sole landowner for the site.

In accordance with Section 25297.15(a) of Ch. 6.7 of the Health & Safety Code, you must certify to the local agency that all current record owners of fee title to the site have been informed of the proposed action before the local agency may do any of the following:

1) consider a cleanup proposal (corrective action plan)

2) consider a site closure proposal

3) make a determination that no further action is required

4) issue a closure letter

You may use the enclosed "notice of proposed action" form (sample letter 3) as a template to comply with this requirement. Before approving a cleanup proposal or site closure proposal, determining that no further action is required, or issuing a closure letter, the local agency will take all reasonable steps necessary to accommodate responsible landowner participation in the cleanup and site closure process and will consider all input and recommendations from any responsible landowner.

Please call me at (510) 567-6783 should you have any questions about the content of this letter.

Sincerely,

Scott O. Seery, CHMM
Hazardous Materials Specialist

Attachments

cc: Chuck Headlee, RWQCB
Danielle Stefani, Livermore-Pleasanton Fire Department

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

R0363

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

May 5, 1999

STID 1673

Ms. Karen Petryna
Equiva Services LLC
Science & Engineering, West Coast
P.O. Box 6249
Carson, CA 90749-6249

RE: Shell Service Station, 3790 Hopyard Road, Pleasanton

LANDOWNER NOTIFICATION AND PARTICIPATION REQUIREMENTS

Dear Ms. Petryna:

This letter is to inform you of new legislative requirements pertaining to cleanup and closure of sites where an unauthorized release of hazardous substance, including petroleum, has occurred from an underground storage tank (UST). Section 25297.15(a) of Ch. 6.7 of the Health & Safety Code requires the primary or active responsible party to notify all current record owners of fee title to the site of: 1) a site cleanup proposal, 2) a site closure proposal, 3) a local agency intention to make a determination that no further action is required, and 4) a local agency intention to issue a closure letter. Section 25297.15(b) requires the local agency to take all reasonable steps to accommodate responsible landowners' participation in the cleanup or site closure process and to consider their input and recommendations.

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1) consider a cleanup proposal (corrective action plan)

2) consider a site closure proposal

3) make a determination that no further action is required

4) issue a closure letter

You may use the enclosed "notice of proposed action" form (sample letter 3) as a template to comply with this requirement. Before approving a cleanup proposal or site closure proposal, determining that no further action is required, or issuing a closure letter, the local agency will take all reasonable steps necessary to accommodate responsible landowner participation in the cleanup and site closure process and will consider all input and recommendations from any responsible landowner.

Please call me at (510) 567-6783 should you have any questions about the content of this letter.

Sincerely,

Scott O. Seery, CHMM
Hazardous Materials Specialist

Attachments

cc: Chuck Headlee, RWQCB
Danielle Stefani, Livermore-Pleasanton Fire Department

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

20363

Alameda County CC4580
Environmental Protection Division
1131 Harbor Bay Parkway, Room 250
Alameda CA 94502-6577

July 31, 1996

STID 1673

Mr. Jeff Granberry
Shell Oil Products Company
P.O. Box 4023
Concord, CA 94524

RE: SHELL SERVICE STATION, 3790 HOPYARD ROAD, PLEASANTON

Dear Mr. Granberry:

This letter is in follow-up to our meeting July 26, 1996. You may recall that we discussed historic ground water (GW) analytical results generated since 1991.

In particular, tabulated sampling data report a significant reduction in fuel compound concentrations in water sampled from well S-5 between March 1991 and February 1993, including a two order-of-magnitude drop in benzene, among other target compounds, in a ~2 month period (December 1992 to February 1993). None of the pre-December 1993 ground water elevation data have been incorporated into data tables presented in those reports presented since, making attempts to interpret possible correlations between chemical concentrations and GW fluctuations difficult. Understanding GW hydrology will assist in evaluating possible exposure risks to nearby receptors (e.g., 7-11 employees, etc.) on the adjoining, downgradient site.

As was agreed, please present an evaluation and interpretation of historic GW data and hydrology. Although current data would suggest exposure risk is minimal to nearby potential receptors, please expand your evaluation to include a discussion regarding this topic as well. This additional task should evaluate the current well coverage and its ability to provide the information necessary to make such a risk determination.

Please submit the requested evaluation before the end of 1996.

You may reach me at 510/567-6783 should you have any questions.

Sincerely,

Scott O. Seery, CHMM
Senior Hazardous Materials Specialist

cc: Mee Ling Tung, Agency Director
Gil Jensen, Alameda County District Attorney's Office
Kevin Graves, RWQCB
William Halvorsen, Pleasanton Fire Department

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Director

R0363

Telephone Number: (415)

January 30, 1990

Ms. Michelle T. Stowers
Staff Geologist
Converse Environmental West
55 Hawthorne St., Suite 500
San Francisco, CA 94105-3906

Dear Ms. Stowers:

As requested in your letter dated January 5, 1990 pertaining to three sites in Pleasanton (3790, 3825, and 3875 Hopyard Rd.), the Hazardous Materials Division has reviewed its hazardous waste generator, Proposition 65, and site mitigation files. Only one of the sites above, a Shell service station at 3790 Hopyard Rd., is in our files; there is no information concerning either of the other two addresses. This file review yielded the following information.

✓ Hacienda Shell, 3790 Hopyard Rd.

This facility was last inspected on October 30, 1987. One minor violation of Title 22 was noted, regarding inadequate record keeping. The files also contain information on an unauthorized release from the underground tank system, as early as 1985 or 1986; a Shell Oil Corp. quarterly report to the Regional Water Quality Control Board, dated 9/88, is enclosed. Our file contains no other information on this facility.

This letter contains information limited to files in this office, and does not reflect information that may be available from other agencies or parties, such as the City of Pleasanton or the Regional Water Quality Control Board. You will be billed for provision of this service; enclosed is a copy of the invoice sent to our Billing Department.

If you have any questions concerning this letter, please contact the undersigned at (415) 271-4320.

Sincerely,

Gilbert M. Wistar

Gil Wistar
Hazardous Materials Specialist

cc: Rafat A. Shahid, Asst. Agency Director, Environmental Health