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

February 24, 2006

Mr. Balaji Angle
B&C Gas Mini Mart
2008 1ST Street
Livermore, CA 94550

Mr. John Rutherford
Desert Petroleum
PO Box 1601
Oxnard, CA 93032

Dear Messrs. Angle and Rutherford:

Subject: Fuel Leak Case No. RO0000278, Desert Petroleum, 2008 1ST Street, Livermore, CA

Alameda County Environmental Health (ACEH) staff has reviewed the "Revised Workplan for Corrective Action," dated February 3, 2006, prepared by Golder Associates (Golder). We generally concur with the work proposed in the workplan. We request that you address the following technical comments, perform the proposed work, and send us the reports requested below.

TECHNICAL COMMENTS

1. **Natural Attenuation of Contaminant Plumes** – Your consultant hypothesizes that decreasing concentrations of MTBE throughout the plume are due to natural attenuation. Golder appears to base their hypothesis for MTBE degradation on measurements of chemical indicators for natural attenuation and the shrinking dimensions of the BTEX plume. Please note that apparent attenuation could be due to other mechanisms such as source depletion or migration of the plume out of the groundwater monitoring network in addition to biodegradation. Declining concentrations could be due to biodegradation however there is disagreement in the literature as to the ability to convincingly demonstrate biological removal of MTBE. Biodegradation would need to be demonstrated by several lines of evidence such as measurement of by-products, consumption of electron acceptors, isotope analyses, and concentration versus distance plots using appropriately located and constructed monitoring wells. Research in California has indicated the presence of active microbial populations in lab tests of samples from contaminated sites however; other contaminated sites have not exhibited any native aerobic MTBE degrading capability. Also, many MTBE sites may not be aerobic or aerobic in limited areas which would eliminate or limit any potential natural aerobic biodegradation. ACEH maintains there is sufficient evidence at this site to suggest that the MTBE plume may have detached from the source and looks forward to working with your consultant to address this issue.

2. **Off-Site LNAPL** – ACEH's July 5, 2005, letter included the following technical comment:

   c. **Off-Site LNAPL** As discussed in SCM Rev. 1.1, LNAPL has been detected in the subsurface as far away as 900 from your site (i.e., in DP borings and in Well MS-MW1 at the Mill Springs Apartment complex. The issue of the source, extent, and

significance of the LNAPL (1) as an ongoing source of groundwater contamination and (2) as a potential source of vapors that could pose risks to above-ground receptors has not been adequately addressed. As we discussed in our meetings with your consultants, this is a key data gap in the current SCM for your site. The occurrence, source, mobility, longevity, and risk posed by the LNAPL needs to be evaluated. In particular, please assess whether the LNAPL detected offsite is LNAPL that has migrated from your site or LNAPL that may exist from prior activities at neighboring properties. Please present a concise workplan describing the scope of your evaluation for our approval in SCM Revision 2.0 requested below.

This data gap is not addressed in your work plan. We request that you do address this issue during your next phase of work. Please submit your plan to address this data gap by **March 10, 2006**. Please note this plan can be developed concurrent with implementing the next phase of fieldwork at this site.

3. **Vapor Pathway** – We request that a vapor sample also be collected from CMT-4 Z1.

4. **Groundwater Monitoring Data** – Please continue to e-mail data tables from Quarterly Reports for this site to ACEH (donna.drogos@acgov.org) at the time the reports are submitted to our agency. ACEH did not receive cumulative electronic data from the Fourth Quarter 2005 monitoring event and requests that this data be electronically transmitted to us by March 3, 2006.

TECHNICAL REPORT REQUEST

Please submit technical reports to ACEH (Attention: Ms. Donna L. Drogos), according to the schedule below and as established for the project under the Polanco Act.

- **March 3, 2006** – Electronic data tables for the Fourth Quarter 2005 groundwater monitoring event
- **March 10, 2006** – Workplan for off-site LNAPL assessment
- **April 25, 2006** – SCM Revision 2.0, with results of field work
- **April 30, 2006** - Quarterly Report for the First Quarter 2006
- **July 30, 2006** - Quarterly Report for the Second Quarter 2006
- **October 30, 2006** - Quarterly Report for the Third Quarter 2006

These reports are being requested 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. **Each report shall include conclusions and recommendations for the next phases of work required at the site.** We request that all required work be performed in a prompt and timely manner. We have proposed a schedule for the submittal of the Soil and Water Investigation Report and the CAP. Revisions to the proposed schedule shall be requested in writing with appropriate justification for anticipated delays.

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 donna.drogos@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) 567-6721.

Sincerely,

Donna L. Drogos, P.E.
LOP Program Manager

Enclosure

cc:	Mr. Bill Fowler (w/Enc) Golder Associates 2580 Wyandotte Street, Suite G Mountain View, CA 94043	Mr. Chuck Headlee (PDF) Regional Water Quality Control Board San Francisco Bay Region 1515 Clay Street, Suite 1400 Oakland, CA 94612	Ms. Colleen Winey (PDF) Zone 7 Water Agency 100 North Canyons Parkway Livermore, CA 94551
	Ms. Danielle Stefani (PDF) Livermore – Pleasanton Fire Department 3560 Nevada Street Pleasanton, CA 94566	Mr. Sunil Ramdass State Water Resources Control Board UST Cleanup Fund P.O. Box 944212 Sacramento, CA 94244-2120	Ms. Chris Davidson (PDF) City of Livermore 1052 S. Livermore Avenue Livermore, CA 94550
	Mr. John Freeman, Jr. California Water Service Company 195 South N Street Livermore, CA 94550-4350	Michael Velluva Esq (PDF) Alborg, Velluva & Epstein LLP 200 Pringle Avenue, Suite 410 Walnut Creek, California 94596	Leah Goldberg Esq (PDF) Meyers Nave 555 12th Street, Suite 1500 Oakland, CA 94607
	D. Drogos (w/Enc), files (w/Enc)		

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

ENVIRONMENTAL HEALTH SERVICES
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July 5, 2005

Mr. Balaji Angle
B&C Gas Mini Mart
2008 1ST Street
Livermore, CA 94550

Mr. John Rutherford
Desert Petroleum
PO Box 1601
Oxnard, CA 93032

Dear Messrs. Angle and Rutherford:

Subject: Fuel Leak Case No. RO0000278, Desert Petroleum, 2008 1ST Street, Livermore, CA

Alameda County Environmental Health (ACEH) staff has reviewed the SCM Rev. 1.1 and the Quarterly Reports, including the most recent one dated May 2005, submitted for the subject site, all prepared by Conor Pacific. We would like to thank you for submitting your site conceptual model (SCM) in the format of ACEH's Electronic SCM (e-SCM). Your consultant did an excellent job of compiling and reporting the results of their field work in the e-SCM. We appreciate Mr. Angle's and Conor's willingness to work in collaboration with ACEH to address this site using the e-SCM.

We have reviewed the SCM Rev. 1.1 in detail and have met with Conor to discuss and interpret the data obtained at this site. We request that you address the following technical comments, perform the proposed work, and send us the reports requested below.

TECHNICAL COMMENTS

Data from the transect installation indicates that the dissolved MTBE plume is located in a shallow aquifer overlying lower permeability strata. The lower permeability strata, in turn, overlie a coarse-grained sand and gravel aquifer that is pumped by water supply wells, including CWS-8 located less than ½-mile downgradient of your site. A review of breakthrough curve data (i.e., plots of time versus concentration data for samples collected from monitoring wells) plotted over the plume distance suggests that the MTBE plume may have detached from the source; with a MTBE plume flowing downgradient from your site at an approximate average velocity of 0.8 feet/day.

Analysis of the breakthrough curves suggests that the dissolved MTBE plume may have already flowed past the sampling transect installed in 2003 and may now be in the vicinity of CWS-8. Your consultant has hypothesized that contamination of CWS-8 with MTBE is unlikely because that well pumps from a deeper aquifer and that the deeper aquifer is protected from shallow contamination by the aquitard that separates the two aquifers. We concur with this part of your SCM but feel that continued monitoring of the multi-level transect, especially ports completed in the deeper aquifer is necessary to ensure that CWS-8 is not at risk. Continued monitoring of data from CWS-8 is needed as well as completing an assessment of potential risks to downgradient water supply sources and resources, as described in more detail below.

Additionally, the City of Livermore is planning on redeveloping downtown Livermore and has adopted a Downtown Specific Plan (http://www.ci.livermore.ca.us) that outlines the scope of the revitalization efforts. Much of downtown, including the immediate vicinity of your site, has been rezoned to include both commercial and residential uses. Several residential projects are proposed near your site. This has created a new driver to complete the assessment and cleanup of the contamination associated with your site. Moreover, the cleanup strategy and scope needs to consider land use consistent with the planned redevelopment.

1. **Regional Groundwater Pumping** – We request that you continue monitoring pumping data, flow data, contaminant concentration data, etc., from CWS-8 and update your SCM to include this information on a quarterly basis for at least the next year as a precautionary measure. In addition to evaluating current pumping rates, please update the SCM to include CWS-8 data since the August 2003 CMT transect installation. Please submit as detailed of records as are available (i.e., daily pumping rates) and also summarize the data as necessary (e.g., monthly) to facilitate comparison with water level data for the site. Please present the results of your work as a revision to the e-SCM (i.e., Revision 2.0) and the Quarterly Monitoring Reports as requested below.

2. **Preferential Pathway Study –**

   a. **Detailed Well Survey** - In SCM Rev. 1.1 your consultant has identified one of 17 abandoned wells as a potential vertical conduit. However, supporting documentation for why this well is considered a potential conduit and other wells are not (i.e., location, construction, description, etc.) is not clear. We request that you provide further information to support your detailed well survey. Please include well completion logs and tables summarizing well information (e.g., date installed, diameter, depth, screen interval, decommissioning details, etc) for all known supply wells (whether active, inactive, decommissioned, or abandoned) and the rationale to support the vertical conduit analysis in your updated SCM. Additionally, our January 22, 2003 letter requested a 1-mile radius well survey. The well survey in SCM Rev. 1.1 was completed to a ½-mile radius. Please increase your radius an additional ½-mile in the downgradient direction, to evaluate all wells within 1-mile downgradient of the subject site. Include your results in SCM Rev. 2.0.

   b. **Utility Survey** - The SCM Rev. 1.1 identifies data gaps regarding potential deep horizontal utility locations and we request that you complete your evaluation of this pathway. Specifically, please evaluate whether or not past and/or present utility lines may be responsible for conveying LNAPL from your site to the Mill Springs Apartment area where LNAPL has been detected (e.g., in Well MS-MW1). Include your results in SCM Rev. 2.0.

3. **Evaluation of Potential Risks Posed by Off-Site Dissolved Contaminants -**

   a. **Off-Site MTBE Plume.** In SCM Rev. 1.1, a detached plume of MTBE from your site is thought to be currently in the vicinity of Well CWS-8. While this plume does not appear to pose a threat to Well CWS-8 for the reasons described above, an evaluation of the potential risk of the detached plume to other downgradient supply wells needs to be performed. We therefore request that you specifically assess the likelihood of downgradient water wells potentially being impacted by the shallow plume of MTBE that is presumed to have detached from your site and continues to flow downgradient of the sampling transect installed by your consultant in 2003. Moreover, your evaluation should

consider whether the plume could pose a risk to supply wells that could potentially be installed in the path of the off-site plume *in the future*. We expect that this evaluation will require that your consultant (1) estimate the trajectory and attenuation of the detached plume and (2) confer with local planners and water managers to assess the planned utilization of groundwater downgradient of the current location of the detached plume. Note that this evaluation is critical for us to determine the level of work that may be necessary to protect water resources in the area. If, for example, your consultant's analysis cannot show that downgradient water supplies are not at risk, it may be necessary for you to track and extract your detached MTBE plume. We recognize that this could be a very expensive undertaking which is why the risk evaluation performed by your consultant should be as accurate as possible. Please present the results of your assessment in SCM Revision 2.0 requested below.

b. Off-Site Petroleum Hydrocarbon Plume. As described in SCM Rev. 1.1, high concentrations of dissolved BTEX and other petroleum hydrocarbons have been detected as far as 1,300 feet downgradient from your site. The fact that these compounds have not been detected in the sentry transect of multi-level wells installed by your consultant in 2003 may show that dissolved BTEX biodegrades in the aquifer before reaching the transect. Please evaluate this hypothesis and present the scope, results, and conclusions of your evaluation in SCM Revision 2.0 requested below.

As discussed above, the City of Livermore is planning to redevelop portions of downtown Livermore. These plans include areas that overlie subsurface contaminants that have been released from your site. Therefore, please evaluate whether dissolved BTEX or other petroleum hydrocarbons may present an unacceptable risk of exposure via any pathway, including vapor migration, to receptors. Please be sure to consider the redevelopment plans in your evaluation. Please present the scope and findings of your evaluation in SCM Revision 2.0 requested below.

c. Off-Site LNAPL – As discussed in SCM Rev. 1.1, LNAPL has been detected in the subsurface as far away as 900 from your site (i.e., in DP borings and in Well MS-MW1 at the Mill Springs Apartment complex. The issue of the source, extent, and significance of the LNAPL (1) as an ongoing source of groundwater contamination and (2) as a potential source of vapors that could pose risks to above-ground receptors has not been adequately addressed. As we discussed in our meetings with your consultants, this is a key data gap in the current SCM for your site. The occurrence, source, mobility, longevity, and risk posed by the LNAPL needs to be evaluated. In particular, please assess whether the LNAPL detected offsite is LNAPL that has migrated from your site or LNAPL that may exist from prior activities at neighboring properties. Please present a concise workplan describing the scope of your evaluation for our approval in SCM Revision 2.0 requested below.

3. Additional Downgradient Monitoring Wells – We do not concur with your proposal to install two additional monitoring wells downgradient of the transect. This is because the purpose of these additional wells has not been described in the SCM (i.e., what specific hypotheses would those wells test?). Please re-evaluate your proposal for additional monitoring wells considering the results after performing your detailed well survey (Technical Comment 2a) and evaluation of the risks posed by the offsite MTBE and BTEX plumes (Technical Comments 3a and 3b) and report your results in the SCM Revision 2.0 requested below.

4. Groundwater Monitoring Schedule – We concur with your groundwater monitoring schedule proposed in the "First Quarter 2005" report with the following modifications. We request that you collect and analyze groundwater samples from the following wells on a quarterly basis for the next 3 quarters: all ports of the CMT wells, 8K2, and MS-MW1. Include updated groundwater monitoring tables in the SCM Revision 2.0 requested below. Report your groundwater monitoring results in the Quarterly Reports requested below. Please continue to submit data tables from Quarterly Reports for this site by e-mail to ACEH (donna.drogos@acgov.org) at the time the reports are submitted to our agency.

ACEH's January 22, 2003 letter requested specific modifications to your groundwater monitoring data tables to facilitate review and interpretation of the data by our agency. Some of the requested modifications were performed, however most were not. Please revise your data reporting format to meet the requirements of our January 22, 2003 letter, the text of which is included below for your reference:

> **"b) Groundwater Monitoring Data Tables**
>
> The cumulative groundwater data tables in technical reports submitted for your site appear to be incomplete. Examples include but are not limited to: early sampling data for MW-1 is missing, analytical results for some monitoring events in 1995 are missing, dates for sampling and gauging do not corroborate and in some instances are weeks off, analytical data appears to be missing for several monitoring events, some events have gauging data but no analytical results or analytical results are included but gauging data is not, the current quarterly monitoring report does not include cumulative monitoring data, some monitoring wells are not sampled and no explanation of why sampling was not performed is given, etc.
>
> Quarterly Reports submitted for this site are required to include cumulative data tables containing all analytical results, groundwater measurements, groundwater elevations, free product thickness, presence of sheen, explanation for not sampling well(s), etc., from all previous and current groundwater monitoring events for all wells monitored in relation to this site. We request that your gauging and analytical data tables be combined into one table to facilitate presentation of this data and identify missing data, and that dates are tabulated in a month/day/year format. Additionally, please include depth discrete groundwater monitoring data in your tables. Please update your cumulative groundwater data tables to include this information and include in all future Quarterly Reports submitted for this site."

5. Deep Contamination in CMT-4 – Data from installation of CMT-4 indicates subsurface geologic conditions similar to those encountered in the borings for the transect of multilevel wells installed 1,600-feet downgradient from the release site in March 2003. As described in the SCM, a shallow aquifer overlies lower permeability strata which in turn overlies a coarse-grained sand and gravel aquifer pumped by water supply wells in the area. The hypothesis in your SCM is that the deeper aquifer is protected from shallow contamination by the aquitard that separates the two aquifers. However, petroleum hydrocarbon contamination in CMT-4 has been consistently detected in the ports below the aquitard. Please evaluate the data from CMT-4 and provide an explanation for the detections of deeper contamination and evaluate whether contaminants detected in the deeper aquifer presents a potential threat to downgradient supply wells. We recommend that your data analysis also include plots of head vs. depth over time for this well. Please report your results in the SCM Revision 2.0 requested below.

6. Source Area Sampling of Vapor Pathway – We concur with your proposal to investigate the vapor pathway in the source area of the subject site and on the property immediately downgradient. We request that you re-evaluate the sampling locations proposed in SCM Rev. 1.1 as it appears additional sampling points are needed to evaluate the vapor pathway. We recommend that you also collect vapor samples from CMT-4 Z1. Additionally, please note it appears that residential use is being proposed by the City of Livermore for the Groth Bros. site, immediately downgradient of the subject site. Include your proposal for this work in the SCM Revision 2.0 requested below.

7. Definition of Lateral Extent of Source Area – We concur with your proposal to investigate the extent of NAPL immediately downgradient of your site. Please provide a more detailed map (larger scale, with data of soil concentrations with depth) of your sampling locations. We recommend that you consider additional sampling location(s) in the vicinity of H-2 to H-3. Include your proposal for this work in the SCM Revision 2.0 requested below.

Additionally, the City of Livermore is scheduled to perform street and utility upgrade activities at First and L Streets this summer. We encourage you to coordinate your field activities with theirs in the event they uncover potential source areas and/or utilities that would provide data for your site.

8. Interim Remediation – We previously approved a workplan, dated March 27, 2003, for interim remediation at this site, however, it does not appear that any of the work proposed in that plan was implemented. Remediation of soil and groundwater contamination at the subject site is required. Please provide an update on your progress on implementing the interim remediation workplan and/or your recommended adjusted plan based upon the results of your SCM Rev. 1.1. Include your proposal and schedule in the Revised Interim Remediation Plan requested below.

9. Corrective Action Plan – The purpose of the CAP is to use the information obtained during investigation activities to propose cost-effective final cleanup objectives for the entire contaminant plume and remedial alternatives for soil and groundwater that will adequately protect human health and safety, the environment, eliminate nuisance conditions, and protect water resources. We require that you prepare a CAP for the final cleanup of contamination (MTBE, petroleum products, and associated blending compounds and additives) in soil and groundwater caused by an unauthorized release at your site. The CAP shall detail at least three 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 sampling and monitoring to confirm completion of corrective actions and evaluate CAP implementation effectiveness. Please submit your CAP by the date below.

TECHNICAL REPORT REQUEST

Please submit technical reports to ACEH (Attention: Ms. Donna L. Drogos), according to the following schedule:

- **July 30, 2005** - Quarterly Report for the Second Quarter 2005
- **August 1, 2005** – Revised Interim Remediation Plan
- **August 23, 2005** - SCM Revision 2.0, with proposal(s) for additional work

- **90 Days from Approval of SCM Revision 2.0** – SCM Revision 3.0, with results of additional field work
- **120 Days from Approval of SCM Revision 2.0** – Corrective Action Plan
- **October 30, 2005** - Quarterly Report for the Third Quarter 2005
- **January 30, 2006** - Quarterly Report for the Fourth Quarter 2005
- **April 30, 2006** - Quarterly Report for the First Quarter 2006

These reports are being requested 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. **Each report shall include conclusions and recommendations for the next phases of work required at the site.** We request that all required work be performed in a prompt and timely manner. We have proposed a schedule for the submittal of the Soil and Water Investigation Report and the CAP. Revisions to the proposed schedule shall be requested in writing with appropriate justification for anticipated delays.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH now requests submission of reports in electronic form. The electronic copy is intended to replace the need for a paper copy and is expected to be relied upon 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 separate from and in 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, parties responsible 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 this office 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

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.

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 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, Section 25299.76.

If you have any questions, please call me at (510) 567-6721.

Sincerely,

Donna L. Drogos, P.E.
LOP Program Manager

Enclosure

cc: Mr. Bill Fowler (w/Enc)
Golder Associates
2580 Wyandotte Street, Suite G
Mountain View, CA 94043

Mr. John Wolfendin
Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

Ms. Colleen Winey
Zone 7 Water Agency
100 North Canyons Parkway
Livermore, CA 94551

Ms. Danielle Stefani
Livermore – Pleasanton Fire Department
3560 Nevada Street
Pleasanton, CA 94566

Mr. Sunil Ramdass
State Water Resources Control Board
UST Cleanup Fund
P.O. Box 944212
Sacramento, CA 94244-2120

Mr. Murray Einarson
Einarson & Associates
2271 Old Middlefield Way
Mountain View, CA 94043

Mr. John Freeman, Jr.
California Water Service Company
195 South N Street
Livermore, CA 94550-4350

D. Drogos (w/Enc), files (w/Enc)

Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)
Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) now request submission of reports in electronic form. This e-government initiative is aimed at making our programs more effective and efficient. The electronic copy is intended to replace the need for a paper copy and is expected to be relied upon for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- Entire report including cover letter must be submitted as **a single portable document format (PDF) with no password protection.** (If you cannot submit in PDF format, please check with us to see if we can accommodate your report format).
- It is **preferable** that reports be converted to PDF format from their original format, (E.g., Microsoft Word) rather than scanned.
- Signature pages and perjury statements **should** be included and **must** have either original or electronic signature. Alternatively, the paper copy of the signature page and perjury statement can be mailed separately.
- **Do not password protect the document.** Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted.** If you cannot comply with this you may continue to submit paper documents.
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:
  RO#_Report Name_Year-Month-Date
  (e.g., RO#5555_WorkPlan_2005-06-14)

Additional Recommendations

- A separate copy of the tables in the document should be submitted by e-mail to your Caseworker in **Excel** format. These are for use by assigned Caseworker only.

Submission Instructions

1. Obtain User Name and Password:
   - Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
     a) Send an e-mail to dehloptoxic@acgov.org
        or
     b) Send a fax on company letterhead to (510) 337-9335, to the attention of Alicia Lam-Finneke.
   - In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses,** and the **Case Numbers (RO# available in Geotracker) you will be posting for.**
   - Note: Both the User Name and Password are Case Sensitive.

2. Upload Files to the ftp Site
   a) Using Internet Explorer (IE4+) or equivalent browser, go to ftp://alcoftp1.acgov.org
   b) Click on File, then on Login As.
   c) Enter your User Name and Password.
      Note: Both are Case Sensitive.
   d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
   e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.

3. Send E-mail Notifications to the Environmental Cleanup Oversight Programs
   a) Send email to dehloptoxic@acgov.org notify us that you have placed a report on our ftp site.
   b) Copy your Caseworker on the e-mail
      - Your Caseworker's e-mail address is the entire first name then a period and entire last name at acgov.org
        (e.g., firstname.lastname@acgov.org)
   c) The subject line of the e-mail must start with the RO# followed by **Report Upload.**
      (e.g., Subject: RO1234 Report Upload)

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 4, 2003

Mr. Balaji Angle
B&C Gas Mini Mart
2008 1ST Street
Livermore, CA 94550

Mr. John Rutherford
Desert Petroleum
PO Box 1601
Oxnard, CA 93032

Dear Messrs. Angle and Rutherford:

Subject: Fuel Leak Case No. RO0000278, Desert Petroleum, 2008 1ST Street, Livermore, CA

Alameda County Environmental Health (ACEH) staff has reviewed the technical reports entitled "Work Plan for Additional Site Characterization and Downgradient Investigation," dated March 5, 2003 and the "Work Plan for Interim Remediation," dated March 28, 2003, both prepared by Conor Pacific (Conor). Although we generally concur with the work proposed, we anticipate that additional work will be needed to address all the concerns in our letter of January 22, 2003. We request that you address the following technical comments, perform the proposed work, and send us the reports requested below.

TECHNICAL COMMENTS

1. **Task 1 – Pre-Field Access Negotiations, Scheduling, and Permitting** – We generally concur with the proposed work.

2. **Task 2 – Source Area Data Compilation** – Our review of existing data indicates that soil contamination associated with this site may be extensive and lateral and vertical definition of pollution in soil is needed. We note that the current proposal does not include this scope of work. We will at this time, concur with compiling source area data to identify data gaps in the Site Conceptual Model (SCM). However, we specifically request that the next phase of work include delineation of soil contamination based upon your SCM.

3. **Task 3 – Evaluation of Preferred Pathways** – We generally concur with the proposed work.

4. **Task 4 - Development of Regional and Site Conceptual Model** - We generally concur with the proposed work.

5. **Task 5 - Geophysical Evaluation and Sampling of Site Well MW-1** – We generally concur with the proposed work. Although your work plan notes that "...(additional wells may be surveyed as time permits)..." we strongly encourage you to perform velocity profiling and depth discrete sampling in other on-site monitoring wells as appropriate rather than limiting to this work to one monitoring well.

6. **Task 6 - Drilling and Installation of Multi-level Wells** - We generally concur with locations proposed in the work plan. However, regarding access difficulties in siting monitoring wells on the Bank of America property please be aware that this agency has had conversations with Phil Sasso, Esq., a representative of the legal department of the Bank of America. Mr. Sasso stated to this agency that Bank of America would cooperate with site access for installation of soil borings and/or monitoring wells on the bank property.

We request that your multi-level wells be constructed with a minimum of two monitoring ports below the aquitard, one within the aquitard, and three or four ports above the aquitard. Please note that you may need to install your wells to depths greater than 120' bgs to appropriately monitor conditions below the aquitard, define the vertical extent of pollution, and/or based upon geologic conditions encountered. We strongly recommend that you perform depth discrete groundwater sampling during monitoring well installation to ensure that your permanent monitoring wells define the extent of contamination. Your monitoring wells should be designed to fully define the vertical extent of contamination rather than terminate at a predetermined depth. We request that groundwater samples be collected and analyzed within each zone of permeable materials (coarser grained).

For the source zone monitoring well we recommend that soil samples be collected and analyzed at 5' intervals at a minimum, lithology changes within the fluctuations in groundwater depths at your site, i.e., within the historical smear zone, the soil/groundwater interface, areas of obvious contamination, and at each unit of lithology change. The purpose of sample retrieval from, and analysis of, fine-grained materials in contact with coarse-grained strata is to determine whether significant contaminant mass is stored within fine-grained sediments. MTBE that has diffused into fine-grained materials may pose a long-term continuing source of groundwater contamination and may affect future corrective action options. Also, we recommend collection and laboratory testing of selected soil samples for engineering properties.

7. **Task 7 – Groundwater Sampling and Analysis** - We generally concur with the proposed work. In your review of chromatograms of previously and newly analyzed NAPL samples we request that you have the laboratories identify all peaks in the fuel fingerprint analysis and quantify the concentration and mole fraction of MTBE present during these sampling events.

8. **Task 8 – Evaluation of Contaminant Mass Flux** - Although your approach to estimate the capture zone of CWS#8 by using accepted practices and procedures would appear to be appropriate for a homogeneous aquifer please recognize that a numeric model will likely be needed to define a realistic capture zone of the well.

9. **Task 9 – Reporting of Field Work and Analytical Results** - We generally concur with the proposed work however, we request that you consider alternative options for reporting results from this work and upcoming phases of work. Alternative reporting could include data summary submittals, electronic submittals, etc., with the goal being cost savings without comprising reporting quality. We anticipate further discussing reporting options and possibilities with your consultant in the near future.

10. **Groundwater Monitoring Data Tables** – Please include updated and corrected cumulative groundwater data tables as requested in Technical Comment 8b in our January 22, 2003, letter in all future quarterly monitoring reports submitted for this site.

11. **Interim Remediation Work Plan** – We generally concur with the proposed work. Regarding the hydraulic evaluation of extraction wells we recommend that water levels be monitored in all nearby wells during the 24-hour constant-discharge pumping test. No information as to the duration of the pneumatic test was given in the work plan. We recommend that the duration of this test be on the order of 2 hours minimum. Additionally, we recommend that the vapor samples be collected at the beginning, the middle, and the end of the test. We recommend that you also met the permit requirements of the Air Resources Board for your work.

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Donna L. Drogos), according to the following schedule:

July 18, 2003 – Soil and Water Investigation Report with recommendations for additional work

July 18, 2003 – Interim Remediation Startup Report

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 Fourth Quarter 2003

These reports are being requested pursuant to the Regional Board's authority under Section 13267 of the California Water Code. **Each report shall include conclusions and recommendations for the next phases of work required at the site.** We request that all required work be performed in a prompt and timely manner. Revisions to the schedule above shall be requested in writing with appropriate justification for anticipated delays.

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 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 6.75.

If you have any questions, please call me at (510) 567-6721.

Sincerely,

Donna L. Drogos, P.E.
LOP Program Manager

cc: Mr. Bill Fowler
Conor Pacific
2580 Wyandotte Street, Suite G
Mountain View, CA 94043

Ms. Betty Graham
Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

Ms. Danielle Stefani
Livermore – Pleasanton Fire Department
3560 Nevada Street
Pleasanton, CA 94566

Mr. Sunil Ramdass
State Water Resources Control Board
Underground Storage Tank Cleanup Fund
P.O. Box 944212
Sacramento, CA 94244-2120

Mr. Matt Katen
Zone 7 Water Agency
5997 Parkside Drive
Pleasanton, CA 94588-5217

Mr. John Freeman, Jr.
California Water Service Company
195 South N Street
Livermore, CA 94550-4350

Mr. Murray Einarson
Einarson & Associates
2271 Old Middlefield Way
Mountain View, CA 94043

D. Drogos

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

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February 26, 2003 ~~278~~
Fuel Leak Case No. RO~~2798~~

IDENTICAL LETTER SENT TO ATTACHED LIST OF ADDRESSES

Dear Property Owner:

Subject: Property Access by the Parties Responsible for the Investigation and Cleanup of Petroleum Hydrocarbon and Fuel Oxygenate Pollution at Fuel Leak Case No. RO278, Desert Petroleum/B&C Gas Mini Mart, 2008 1ST Street, Livermore, CA

The Alameda County Environmental Health (ACEH) is overseeing the investigation and cleanup of gasoline and the gasoline constituents 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.

The ACEH is requiring B&C Gas Mini Mart and Desert Petroleum 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 reduce the potential threat to human health and the environment. To properly determine the extent of that contamination in groundwater, B&C Gas Mini Mart and Desert Petroleum must perform additional off-site investigation. Therefore, we need your help in allowing access to your property by B&C Gas Mini Mart and Desert Petroleum to properly define the extent of contamination.

If you have any questions, please contact Mr. Balaji Angle at B&C Gas Mini Mart at 510-654-3461 or Mr. John Rutherford at Desert Petroleum at 805-644-6784. Thank you for your cooperation.

Sincerely,

Donna L. Drogos, P.E.
LOP Program Manager

cc:

Mr. Balaji Angle (w/Distribution List)
B&C Gas Mini Mart
2008 1ST Street
Livermore, CA 94550

Mr. Bill Fowler (w/Distribution List)
Conor Pacific
2580 Wyandotte Street, Suite G
Mountain View, CA 94043

Ms. Betty Graham
Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

Mr. Matt Katen (w/Distribution List)
Zone 7 Water Agency
5997 Parkside Drive
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Mr. Murray Einarson (w/Distribution List)
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D. Drogos (w/Distribution List)

Mr. John Rutherford (w/Distribution List)
Desert Petroleum
PO Box 1601
Oxnard, CA 93032

Ms. Danielle Stefani (w/Distribution List)
Livermore-Pleasanton Fire Department
3560 Nevada Street
Pleasanton, CA 94566

Mr. Dave Charter
State Water Resources Control Board
Underground Storage Tank Cleanup Fund
P.O. Box 944212
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John Freeman, Jr. (w/Distribution List)
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ALAMEDA COUNTY
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January 22, 2003

Mr. Balaji Angle
B&C Gas Mini Mart
2008 1ST Street
Livermore, CA 94550

Mr. John Rutherford
Desert Petroleum
PO Box 1601
Oxnard, CA 93032

Dear Messrs. Angle and Rutherford:

Subject: Fuel Leak Case No. RO278, Desert Petroleum/BP Oil, 2008 1ST Street, Livermore, CA

Alameda County Environmental Health (ACEH) staff has recently reviewed the fuel leak case file for the subject site, including the most recent technical reports entitled "Third Quarter 2002 Groundwater Monitoring Results," dated December 5, 2002, and the "Revised Work Plan Addendum for Additional Downgradient Investigation," dated April 12, 2001, both prepared by Conor Pacific (Conor). We are very concerned with the high levels of petroleum hydrocarbons, including benzene and the gasoline oxygenate Methyl tert-Butyl Ether (MTBE), at and downgradient from your site, the proximity of the site to water supply wells, and the site's location within a groundwater basin used for drinking water. This letter presents a request for three-dimensional characterization and monitoring and implementation of interim cleanup of soil and groundwater contamination (MTBE, petroleum products, and associated blending compounds and additives) from the unauthorized releases from your site.

TECHNICAL COMMENTS

A substantial release of petroleum products, currently undefined and unmitigated, appears to have originated from your site. Up to 290,000 ppb TPHG, 67,000 ppb MTBE, and 18,000 ppb Benzene have been detected during your groundwater monitoring. Free phase product is present in monitoring wells both on and off your site. Environmental investigations performed by your consultants to date have identified an MTBE plume extending horizontally over 1,500 feet from your site, a Benzene plume extending over 1,400 feet from your site, a TPH-Gasoline plume extending over 1,200 feet from your site, migration of NAPL over 900 feet from your site; with the distal ends of all your contamination plumes undefined. Additionally, depth discrete groundwater sampling has detected a stratified MTBE plume to depths of at least 61 feet bgs, the maximum depth explored at your site. The lateral and vertical extent of your groundwater contaminant plumes remain undefined.

MTBE and other petroleum products have been detected in soil to depths of at least 60 feet bgs, the maximum depth explored at your site. A review of groundwater elevations

at your site indicates an unmitigated, predominately submerged source zone more than 50 feet thick may exist at your site. This situation has the potential for creating an unusually thick dissolved plume. Soil analysis has not been performed during any of your recent environmental investigations, leaving the vertical and horizontal extent of your source zone contamination undefined.

Additionally, your site overlies an aquifer used for drinking water and an active water supply well less than 1/2-mile away is immediately downgradient of your contaminant plumes. Your site is classified as a highest risk MTBE site.

Moreover, recent detections of chlorinated solvents in deep wells near your site suggest that the deep aquifer is more vulnerable than you had indicated in your earlier reports. Reports submitted by Conor indicated the potential for interconnectivity between the upper and lower water bearing zones. However, Conor suggested that the presence of an aquitard identified in the Livermore Arcade Study would likely prevent the MTBE plume from migrating to the lower aquifer. This conclusion relied on the absence of solvent detections in deep wells in the vicinity of the Livermore Arcade sites. Unfortunately, solvents have recently been detected in the Livermore Arcade area wells indicating that the separation between the upper and lower groundwater zones is discontinuous and/or leaky and thus cannot be relied upon to provide an adequate barrier to prevent downward migration of shallow contaminants, including your dissolved plumes.

We are currently performing a detailed review of all contamination sites in the area. Based upon this review, additional work will be required at your site. In the interim, the tasks listed below are required at your site.

Note, 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. Work at your site is required to be designed, interpreted, and overseen by the appropriately registered professional.

1) Supplemental Site Characterization and Monitoring

a) Downgradient

We note that the April 12, 2001, work plan approved by our office has not been implemented. We request that you expedite the installation of the proposed wells paralleling the railroad tracks, and install two additional wells paralleling the railroad tracks on the bowling alley property rather than installing a well between the bank and the bowling alley.

Conor's off-site investigation work identified strong stratification of the dissolved contaminants in the shallow aquifer. Analytical results from the traditional water table wells installed at this site indicate significant dilution of contamination and are therefore

not appropriate for monitoring your stratified plume. Therefore, monitoring at multiple depths is required at and downgradient from your site. You are directed to install monitoring devices, such as well clusters, multi-level wells, etc., that monitor a minimum of five groundwater zones at each of the locations identified above. To evaluate whether the aquitard is discontinuous and/or leaky, we recommend that each of your monitoring points include an interval screened within the aquitard to evaluate whether the contaminant plumes are moving through the aquitard. Additionally, we recommend that your wells be screened in both the upper and lower water aquifers. Generally, these screened intervals should not be greater than 2 feet in length.

Groundwater monitoring (hydraulic heads and chemical sampling) in all five zones is required for your site. Please note that once the location of your plume is identified and established, future monitoring may not be required within all zones in your monitoring network. Your consultant's site conceptual model (see below) will assist in determining an appropriate monitoring program (i.e., monitoring points and sampling frequency).

Please be aware that additional characterization may be required based upon results of this phase of work and our ongoing review of regional information.

Please refer to the document entitled "Strategies for Characterizing Subsurface Releases of Gasoline Containing MTBE, American Petroleum Institute Publication No. 4699, dated February 2000, when proposing wells to monitor multiple groundwater zones. Additionally, expedited site assessment tools and methods are a scientifically valid and cost-effective approach to define the three-dimensional extent of the plume. Technical protocol for expedited site assessments are provided in the U.S. Environmental Protection Agency's (EPA) "Expedited Site Assessment Tools for Underground Storage Tank Sites: A Guide for Regulators" (EPA 510-B-97-001), dated March 1997.

Please submit a Work Plan Addendum showing the location of the additional monitoring wells, describing your proposal for monitoring in multiple groundwater zones, and the screen intervals for your monitoring network by the date specified below. Report the results of your fieldwork in the Soil and Water Investigation (SWI) Report requested below.

Please note, we request that you immediately pursue any off-site access agreements that you may need to complete your investigation activities in accordance with the schedule shown below. ACEH will send the access request letter (see Attachment 1) to owners of the neighboring properties where you propose to perform investigation activities. Please provide us with the name and address of the appropriate contacts for your off-site monitoring well locations by **February 14, 2003**.

b) Source Area

Work performed at your site has identified the likelihood of a large submerged source zone, the nature and extent of which is undefined. Additionally, Conor's 1997 investigations inferred the presence of a regional aquitard but did not demonstrate that it was present beneath the Desert Petroleum site. Therefore, additional contaminant source area characterization is needed at your site.

We request that you perform a geologic investigation at and near your site installing exploratory borings to determine (1) the vertical extent of pollution in your source area, and (2) identify site geology and confirm stratigraphy that is uncertain from the 1997 investigation. It is especially important to demonstrate whether the aquitard is present at your site, describe its elevation and nature i.e., vertical extent and lithology of aquitard; paying particular attention to sedimentary structure that demonstrates if the aquitard is of alluvial or lacustine origin.

Please position your borings to characterize the source and collect and analyze soil samples to define the lateral and vertical extent of the source area. Contaminant source characterization includes determining the nature and extent of NAPL (liquid phase), petroleum saturated soils (residual phase), hydrocarbons dissolved in groundwater (aqueous phase), and high concentrations of soil vapor (vapor phase) that will continue to generate dissolved phase contaminant plumes. We recommend that you follow the procedures in the API Publication No. 4699 referenced above regarding identifying whether residual NAPL is present and to what depth.

We request that you continuously core your borings and retain the cores for future review. Conor's previous investigation reports mentioned that continuous coring of borings had not been possible due to limitations of the drilling method selected. Please select an alternative drilling method, e.g., sonic or rotary methods, that allows better recovery of gravels and can case the hole as drilling proceeds downward.

If free product is not detected in your borings we request that they be converted to a monitoring point capable of monitoring multiple groundwater zones as required for the off-site wells requested above.

Work from this investigation will likely identify additional data gaps that need to be filled to refine the site conceptual model requested below. Include your proposal for this work in the Work Plan Addendum requested below. Report the results of your fieldwork in the SWI Report requested below.

2) Evaluation of Potential Impacts to Water Supply Wells

Please perform an analysis to determine if your plume is within the capture zone of any water supply wells in the area. In performing your analysis consider the regional stratigraphy, water supply well construction and pumping rate over time, groundwater

recharge, etc. Please refer to the following documents during your analysis: US Environmental Protection Agency, "State Methods for Delineating Source Water Protection Areas for Surface Water Supplied Sources of Drinking Water," EPA 816-R-97-008, August 1997; US Environmental Protection Agency, "State Source Water Assessment and Protection Programs Guidance," Final Guidance, Office of Water, EPA 816-R-97-009, August 1997; and California Department of Health Services, Drinking Water Source Assessment and Protection (DWSAP) Program Document, January 1999.

We request that you make a preliminary estimate of the mass discharge of contaminants of concern emanating from your site. Mass discharge estimates can, in some cases, be used to predict potential impacts of dissolved contaminants to water supply wells. We recommend that you refer to the following document during your calculations: ChevronTexaco, "Mass Flux Estimates to Assist Decision-Making, Technical Bulletin," June 2002, included as Attachment 4. We recognize that this estimate may need to be refined in the future as additional data are collected.

Report the results of your work in the SWI Report requested below.

3) Interim Remediation

This section requests that you initiate interim remediation at your site. Please note that additional remediation of the distal end of your plume(s) may be required in the future based upon the results of additional investigation work at and near your site.

a) Near-Source Plume Control

The purpose of migration control is to prevent continued creation of a dissolved contaminant plume. Due to the high levels of petroleum hydrocarbons and oxygenates detected at your site, the large volume of groundwater contaminated by your site, and the presence of a water supply well immediately downgradient of your plumes, **we request that you immediately implement migration control**. We recommend pump and treat to control migration of BTEX and MTBE contamination. Please outline your proposal for migration control in Interim Remediation Work Plan requested below. Please document migration control progress in the Quarterly Reports requested below.

b) Source Removal

The purpose of interim source removal is to immediately remove the ongoing source that is continuing to add mass to the plume and immediately begin removal of contaminant mass in the source area. Interim cleanup is necessary to prevent dissolved phase BTEX and MTBE pollution from impacting or continuing to impact drinking water supply aquifers, reduce the ultimate impact of the unauthorized release on the resource, limit continued migration and growth of the BTEX and MTBE plumes, and reduce overall cleanup costs. We request that you initiate interim source cleanup activities at your site. Please outline your proposal for source removal in the Interim Remediation Work Plan

requested below. Please document source removal progress in the Quarterly Reports requested below.

4) Preferential Pathway Study

A review of data from both on and offsite monitoring wells and sampling points indicates migration of NAPL over 900 feet from the source area at your site. This is an extremely long NAPL plume not typically encountered at corner gas station sites and may be due to migration along some sort of preferred pathway. Work to date has not evaluated the mechanism for NAPL and dissolved phase plume migration at this site.

We request that you perform a preferential pathway study that details the potential migration pathways and potential conduits (wells, utilities, pipelines, etc.) for horizontal and vertical migration that may be present in the vicinity of the site. The purpose of the preferential pathway study is to locate potential migration pathways and conduits and determine the probability of the NAPL and/or plume encountering preferential pathways and conduits that could spread contamination. Of particular concern is the identification of abandoned wells and improperly-destroyed wells that can act as vertical conduits to deeper water bearing zones, pumping wells in the vicinity of your site, and manmade conduits for shallow migration.

Discuss your analysis and interpretation of the results of the preferential pathway study (including the detailed well survey and utility survey requested below) and report your results in the SWI Report requested below. Include an evaluation of the probability of the dissolved phase and NAPL plumes for all constituents of concern encountering preferential pathways and conduits that could spread the contamination, particularly in the vertical direction to deeper drinking water aquifers. The results of your study shall contain all information required by 23 CCR, Section 2654(b).

a) Utility Survey

An evaluation of all utility lines and trenches (including sewers, storm drains, pipelines, trench backfill, etc.) within and near the site and plume area(s) is required as part of your study. Submittal of map(s) and cross-sections showing the location and depth of all utility lines and trenches within and near the site and plume area(s) is required as part of your study.

Additionally, environmental reports for the area make references to former pipelines reportedly to have existed and/or currently exist in the vicinity of the Mill Springs Park Apartment Complex that is located within the current NAPL plume. Please include an evaluation of these pipelines as part of your study.

b) Well Survey

The preferential pathway study shall include a **detailed well survey** of all wells (monitoring and production wells: active, inactive, standby, destroyed (sealed with concrete), abandoned (improperly destroyed); and dewatering, drainage, and cathodic protection wells) within a 1-mile radius of the subject site. As part of your detailed well survey, please perform a background study of the historical land uses of the site and properties in the vicinity of the site. Use the results of your background study to determine the existence of unrecorded/unknown (abandoned) wells, which can act as pathways for migration of contamination at and/or from your site. Please review historical maps such as Sanborn maps, aerial photos, etc., when performing the background study. Submittal of map(s) showing the location of all wells identified in your study, and the use of tables to report the data collected as part of your survey are required. Include appropriate photographic prints, in stereo pairs, of historic aerial photos used as part of your study. We also request that you list by date all aerial photographs available for the site from the aerial survey company or library you use during your study. Please refer to the Regional Board's guidance for identification, location, and evaluation of potential deep well conduits (see Attachment 2) when conducting your preferential pathway study.

5) Project Approach and Investigation Reporting

We anticipate that characterization and remediation work in addition to what is requested in this letter will be necessary at and downgradient from your site. Considerable cost savings can be realized if your consultant focuses on developing and refining a viable Site Conceptual Model (SCM) for the project. 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 magnitude of potential 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 said to be "validated." The validated SCM then forms the foundation for developing the most cost-effective corrective action plan to protect existing and potential receptors.

When performed properly, the process of developing, refining and ultimately validating the SCM effectively guides the scope of the entire site investigation. We have identified, based on our review of existing data, some initial key data gaps in this letter and have described several tasks that we believe will provide important new data to refine the SCM. **We request that your consultant incorporate the results of the new work requested in this letter into their SCM, identify new and/or remaining data gaps, and propose supplemental tasks for future investigations.** There may need to be additional phases of investigations, each building on the results of the prior work, to

validate the SCM. Characterizing the site in this way will improve the efficiency of the work and limit its overall cost.

The SCM approach is endorsed by both industry and the regulatory community. Technical guidance for developing SCMs is presented in Strategies for Characterizing Subsurface Releases of Gasoline Containing MTBE, American Petroleum Institute Publication No. 4699, dated February 2000; "Expedited Site Assessment Tools for Underground Storage Tank Sites: A Guide for Regulators" (EPA 510-B-97-001), prepared by the U.S. Environmental Protection Agency (EPA), dated March 1997; and "Guidelines for Investigation and Cleanup of MTBE and Other Ether-Based Oxygenates, Appendix C," prepared by the State Water Resources Control Board, dated March 27, 2000.

The SCM for this project is to incorporate, but not be limited to, the following:

- A concise narrative discussion of the regional geologic and hydrogeologic setting. Include a list of technical references you reviewed, and copies (photocopies are sufficient) of regional geologic maps, groundwater contours, cross-sections, etc.

- A concise discussion of the on-site and off-site geology, hydrogeology, release history, source zone, plume development and migration, attenuation mechanisms, preferential pathways, and potential threat to downgradient and above-ground receptors. Be sure to include the vapor pathway in your analysis. Maximize the use of large-scale graphics (e.g., maps, cross-sections, contour maps, etc.) and conceptual diagrams to illustrate key points. Include a structural contour map (top of unit) and isopach map for the aquitard that is presumed to separate your release from the deeper aquifer.

- Identification and listing of specific data gaps that require further investigation during subsequent phases of work.

- Proposed activities to investigate and fill data gaps identified above.

- The SCM shall include an analysis of the hydraulic flow system at and downgradient from the site. Include rose diagrams for groundwater gradients. The rose diagram shall be plotted on groundwater contour maps and updated in all future reports submitted for your site. Include an analysis of vertical hydraulic gradients. Note that these likely change due to seasonal precipitation and pumping. To evaluate the potential interconnection between shallow and deep aquifers, include hydrographs of hydraulic head in the shallow aquifer versus pumping rates from nearby water supply wells.

- Temporal changes in the plume location and concentrations are also a key element of the SCM. In addition to providing a measure of the magnitude of the problem, these data are often useful to confirm details of the flow system inferred from the hydraulic

head measurements. Include plots of the contaminant plumes on your maps, cross-sections, and diagrams.

- Several other contaminant release sites exist in the vicinity of your site. Hydrogeologic and contaminant data from those sites may prove helpful in testing certain hypotheses for your SCM. Include a summary of work and technical findings from nearby release sites, in particular the solvent release sites near CWS Supply Well #8. Incorporate the findings from nearby site investigations into your SCM.

Please update your site maps to include the locations of the March 1995 hydropunch samples (H-1 to H-3) along South L Street. We request that site maps included in future reports for the site show the locations of all current and former USTs, dispenser islands, and all existing and destroyed wells. Also, please send us a separate copy of Drawings 1, 2, and 3 (oversize plots) from Conor's November 1999 report, updated with H-1 to H-3, and a new larger scale site map of the source zone and vicinity. Include the locations of all past site borings, grab water samples, and monitoring points on the large-scale site map.

Cross-sections submitted for this site do not depict the construction of MS(MW-1). Please provide a well construction log for monitoring well MS(MW-1) and include its construction on your graphics. Report this information and the information discussed above in the SWI Report requested below.

6) NAPL Analysis

Reported free phase gasoline has been detected in both on and off-site wells in the vicinity of your site. Results from fuel fingerprint analyses have been reported by both Conor (November 1997) and by Earth Tech (October 1995). However, neither analysis quantified MTBE in the samples. Please determine if MTBE is present in historical fuel fingerprint analyses. Using chromatographs from the previously-analyzed samples described in both reports, have the laboratories identify all peaks in the fuel fingerprint analysis and quantify, if possible, the concentration and mole fraction of MTBE present during previous sampling events.

Free phase product is currently present in monitoring wells on and off your site. We request that you return to the site this month and collect new NAPL samples from onsite monitoring wells, off-site monitoring well (MS)MW-1, and any other wells having NAPL present for a fuel fingerprint analysis. Please request that the laboratory identify all peaks in the analysis and quantify the concentration and mole fraction of MTBE present, and perform a product comparison between NAPL present in on- and off-site wells.

Report your findings for this work in the SWI Report requested below.

7) Velocity Profiling/Depth Discrete Sampling & Destroy Long Screen Monitoring Well(s)

On-site monitoring well MW-1 is located within the source zone and screened from 27 to 77 feet bgs. This long screen well could potentially act as a conduit for the deeper migration of dissolved contaminants beneath your site. We recommend that you destroy this monitoring well and propose destruction of additional monitoring wells as appropriate.

Prior to destruction we request that you profile ambient groundwater flow in the well (using a heat-pulse flowmeter or similar tool), and perform depth discrete groundwater sampling and analysis. Analyze the groundwater samples for the analytes requested in Technical Comment 8 below. Perform this same testing and analysis in other conventional monitoring wells in the source area, as needed, to determine if existing on-site monitoring wells may be conveying shallow contaminants to greater depths via ambient flow within the wells. Report the results of your work in the SWI Report requested below.

8) Reporting Requirements

a) Quarterly Groundwater Monitoring

We request that you monitor the groundwater contaminant plumes on a quarterly basis. Monitoring of all wells associated with your site and well (MS)MW-1 on a quarterly basis is required. We anticipate that additional wells monitoring multiple depths will be required to further define the threat of the plumes to downgradient receptors.

We request that you analyze groundwater samples from all monitoring wells for TPHG, and by EPA Method 8260 for BTEX, MTBE, TAME, ETBE, DIPE, TBA, EtOH, EDB, and EDC. Include cumulative analytical data tables for these compounds (columns for both EPA Method 8020/21 and 8260 results) in your Quarterly Reports with ND results reported as a less than (<) the detection limit value. We request that you review the results of your analysis after 4 quarters of monitoring and if any of the above compounds are detected at your site and are judged to be of concern (pose a risk to human health, the environment, or water resources), provide recommendations for incorporating these compounds into your regular monitoring schedule.

Please note, some laboratories may set detection limits for oxygenates that are higher than regulatory reporting limits, particularly for TBA. Additionally, sample preservations techniques have been reported to hydrolyze ethers (e.g., formation of TBA from MTBE hydrolysis) during some laboratory analysis procedures. Please work with your laboratory to meet the regulatory reporting standards for California and determine appropriate sample preservation techniques. Please refer to the New England Interstate

Water Pollution Control Commission's "Analytical Methods for Fuel Oxygenates," dated October 2002, included as Attachment 3.

Discuss the results of your plume monitoring in the Quarterly Reports requested below. Please compile your monitoring data on cross-sections, include groundwater contours, and rose diagrams for groundwater gradient. We request that Quarterly Reports contain a discussion of the results of your plume monitoring, in particular whether the results are consistent with the SCM. Be sure to point out any anomalies in the data, and include recommended activities to investigate and resolve those data anomalies.

b) Groundwater Monitoring Data Tables

The cumulative groundwater data tables in technical reports submitted for your site appear to be incomplete. Examples include but are not limited to: early sampling data for MW-1 is missing, analytical results for some monitoring events in 1995 are missing, dates for sampling and gauging do not corroborate and in some instances are weeks off, analytical data appears to be missing for several monitoring events, some events have gauging data but no analytical results or analytical results are included but gauging data is not, the current quarterly monitoring report does not include cumulative monitoring data, some monitoring wells are not sampled and no explanation of why sampling was not performed is given, etc.

Quarterly Reports submitted for this site are required to include cumulative data tables containing all analytical results, groundwater measurements, groundwater elevations, free product thickness, presence of sheen, explanation for not sampling well(s), etc., from all previous and current groundwater monitoring events for all wells monitored in relation to this site. We request that your gauging and analytical data tables be combined into one table to facilitate presentation of this data and identify missing data, and that dates are tabulated in a month/day/year format. Additionally, please include depth discrete groundwater monitoring data in your tables. Please update your cumulative groundwater data tables to include this information and include in all future Quarterly Reports submitted for this site.

Additionally, we request that data tables from Quarterly Reports for this site be e-mailed to ACEH (ddrogos@co.alameda.ca.us) at the time the reports are submitted to our agency.

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Donna L. Drogos), according to the following schedule:

January 30, 2003 - Quarterly Report for the Fourth Quarter 2002

February 14, 2003 - Work Plan Addendum

February 14, 2003 – List of off-site property owners for access request

90 days after Work Plan Addendum Approval– Soil and Water Investigation Report

February 28, 2003 – Interim Remediation Work Plan

90 days after Interim Remediation Work Plan Approval – Interim Remediation Startup Report

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 Fourth Quarter 2003

These reports are being requested pursuant to the Regional Board's authority under Section 13267 of the California Water Code. **Each report shall include conclusions and recommendations for the next phases of work required at the site.** We request that all required work be performed in a prompt and timely manner. Revisions to the schedule above shall be requested in writing with appropriate justification for anticipated delays.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please be aware that you may be eligible for reimbursement of the costs of investigation from the California Underground Storage Tank Cleanup Fund (Fund). In some cases, a deductible amount may apply. If you believe you meet the eligibility requirements, I strongly encourage you to call the Fund for an application.

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 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 6.75.

If you have any questions, please call me at (510) 567-6721.

Sincerely,

Donna L. Drogos, P.E.
LOP Program Manager

Enclosures
cc:

Mr. Kris Johnson (w/enc)
Conor Pacific
2580 Wyandotte Street, Suite G
Mountain View, CA 94043

Ms. Betty Graham
Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

Mr. Matt Katen
Zone 7 Water Agency
5997 Parkside Drive
Pleasanton, CA 94588-5217

Mr. Murray Einarson
Einarson & Associates
2271 Old Middlefield Way
Mountain View, CA 94043

D. Drogos (w/orig enc), files (w/enc)

Ms. Danielle Stefani
Livermore – Pleasantion Fire
Department
3560 Nevada Street
Pleasanton, CA 94566

Mr. Dave Charter
State Water Resources Control Board
Underground Storage Tank Cleanup
Fund
P.O. Box 944212
Sacramento, CA 94244-2120

John Freeman, Jr.
California Water Service Company
195 South N Street
Livermore, CA 94550-4350

DISTRIBUTION LIST

List of Property Owners to be Notified of Soil and Groundwater Investigation at Case No. RO278, Desert Petroleum/B&C Gas Mini Mart, 2008 1ST Street, Livermore, CA

Mr. John A. Clark
Bank of America
Legal Department
555 South Flower Street
Los Angeles, CA 90071

Mr. Dennis Fanucchi
Granada Bowl
1620 Railroad Avenue
Livermore, CA 94550

Mr. Dan McIntyre
City of Livermore
Engineering Division
Community Development Dept.
1052 South Livermore Avenue
Livermore, CA 94550

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

12-9-02

R0278

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

December 16, 2002

Mr. John Graham
California Water Services
2222 Whitman Ave
Chico, CA 95928

Subject: Historic Groundwater Data for Wells CSW #3 and CSW #8 in Livermore, CA

Dear Mr. Graham:

This office, Alameda County Environmental Health, provides regulatory oversight for leaking underground storage tanks and other contaminants that can impact groundwater quality in the Livermore Basin. Contaminant plumes have been identified near wells CWS #3 and #8. I would like to historic water data (for past 5 years or so) for these wells. In particular, I would like to see:

- pump rates (GPM)
- pump frequency (months when wells are pumped)
- groundwater analytical results (especially for VOCs, MTBE, TPH, and other contaminants of concern)
- depth to water

Thanks in advance for any information you can provide. Please send data to: Ms. Donna Drogos (supervisor), Alameda County Environmental Health, 1131 Harbor Bay Parkway, Alameda, CA 94502. If you have any questions, you may reach Ms Drogos at (510) 567-6721 or me at (510) 567-6762.

Sincerely,

eva chu
Hazardous Materials Specialist

c: Donna Drogos

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

01-05-01

P0278

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

StID 1689

January 5, 2001

Mr. Balaji Angle
Angle Enterprises
5131 Shattuck Avenue
Oakland, CA 94609

RE: Workplan Approval for B&C Gas Mini Mart, 2008 1st Street, Livermore, CA

Dear Mr. Angle:

I have completed review of Conor Pacific's January 2001 *Workplan Addendum for Additional Downgradient Investigation* prepared for the above referenced site. The proposal to install two additional downgradient wells to delineate the extent of the MTBE/ BTEX plume is acceptable. It is my understanding that Conor Pacific may encounter difficulties in gaining access to the properties where the wells are proposed. This Agency will assist with obtaining access, if necessary. If Conor Pacific encounters difficulties, they may also consider re-locating the wells. If new locations are proposed, they should still be down-gradient of wells MW-8 and MW-13 and closer in, rather than further away.

The workplan addendum should be implemented as soon as possible. Please provide at least 72 hours advance notice of field activities. If you have any questions, I can be reached at (510) 567-6762.

eva chu
Hazardous Materials Specialist

c: Mark Smolley
Conor Pacific
2580 Wyandotte Street, Suite G
Mountain View, CA 94043

desert32

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

SENT 9-12-2000

R0278

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

StID 1689

September 11, 2000

Mr. Balagi Angle
B & C Gas Mini Mart
35584 Conovan Lane
Fremont, CA 94536

RE: Additional Groundwater Monitoring Wells at 2008 1st Street, Livermore, CA

Dear Mr. Angle:

I have completed review of Conor Pacific/EFW's (Connor Pacific) August 2000 *Second Quarter 2000 Groundwater Monitoring Results* report prepared for the above referenced site. Groundwater monitoring was conducted in June 2000. Groundwater analytical results from the eight wells sampled were consistent with previous monitoring results. Connor Pacific recommended that additional monitoring wells be installed in the upper water-bearing zone north of Wells MW-5, MW-7, MW-8, and MW-13.

This office concurs with Connor Pacific's recommendation. A minimal of two groundwater monitoring wells should be installed to better delineate the lateral extent of the plume toward the north-northwest. Please provide an addendum to Einarson, Fowler & Watson' s September 1998 *Workplan for Additional Downgradient Investigation* where the proposed north-northwesterly wells were not installed due to access constraints and negotiation difficulties. An addendum to the workplan is due within 60 days of the date of this letter, or **by November 13, 2000.**

If you have any questions, I can be reached at (510) 567-6762.

eva chu
Hazardous Materials Specialist

c: Katrin Schliewen, Connor Pacific, 2650 East Bayshore Road, Palo Alto, CA 94303

desert31

Sent 11-17-99, Included Pnq CCs

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

P0278

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway
Alameda, CA 94502-6577
(510) 567-6700
(510) 337-9432

StID 1689

November 16, 1999

Mr. Balagi Angle
B & C Gas Mini Mart
35584 Conovan Lane
Fremont, CA 94536

RE: Continued Groundwater Monitoring at 2008 1st Street, Livermore, CA

Dear Mr. Angle:

I have completed review of Conor Pacific/EFW's November 1999 report titled *Report of Downgradient Investigation* prepared for the above referenced site. That report summarized activities completed in June/July 1999 to delineate the vertical and lateral extent of the MTBE plume in the two uppermost water-bearing zones. Seven shallow groundwater monitoring wells and two deep monitoring wells were installed downgradient of the site. Analytical results of groundwater samples collected from the newly-installed wells identified maximum MTBE and benzene concentrations at 332ppb and 42.8ppb, respectively, in Well MW-13.

Based on the results of this latest investigation, Conor Pacific/EFW recommended the following actions to monitor the plume:

- Monitor groundwater elevations in all wells quarterly. Determine if groundwater extraction of the municipal well CWS #8 effects groundwater elevations in the shallow/deep well pairs (MW-11/D-1 and MW-12/D2).
- Annual monitoring of Wells MW-1, MW-3, MW-4, MW-6 and MW-9. Quarterly monitoring of wells MW-2, MW-5, and the newly-installed shallow and deep wells (MW-7, MW-8, MW-10 through MW-13, D-1 and D-2).

The above-recommended monitoring schedule is acceptable to this office and should be implemented as soon as possible. After additional groundwater quality data have been collected from the new wells, the installation of additional groundwater monitoring wells may be required north of Wells MW-8, MW-10 and MW-13.

Finally, free product removal, to the extent possible, should be conducted at Well MSP MW-01, located at Mill Springs Park Apartments. This well should also be sampled on a quarterly basis when free product is no longer present.

If you have any questions, I can be reached at (510) 567-6762.

eva chu
Hazardous Materials Specialist

c: Kris Johnson
Connor Pacific/EFW
2650 East Bayshore Road
Palo Alto, CA 94303

Matt Katen
Alameda County Zone 7
QIC Code 80201

desert30

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

R0278

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

StID 1689

August 17, 1999

Mr. Scott Haggerty
Board of Supervisors
1221 Oak Street, Suite 536
Oakland, CA 94612

RE: MTBE-Impacted Site in Livermore, CA

Dear Mr. Haggerty:

This letter is in response to your request for information regarding the MTBE plume in Livermore, CA. The one major MTBE plume of concern in Livermore is from the gasoline service station located at 2008 1st Street (source). The service station is located on the northeast corner of 1st and L Streets. When gasoline was released to the subsurface (on or before 1988, March 1995, September 1995), it migrated vertically to groundwater and is now transported in the dissolved phase. It is believed there is a small amount of residual gasoline constituents in soil located above the groundwater table. The groundwater contaminant plume has migrated across P Street in a northwesterly direction. The estimated length of the plume is approximately 1,200 feet (see attached site plans).

The fuel leak and ongoing sources have been stopped with the removal of the former underground storage tanks and installation of new double-walled tanks, upgraded dispensers and product pipelines (July 1996). Several phases of subsurface investigations have been conducted to delineate the extent of the plume.

Listed below are some site specific data which may be of interest:

- Most of the gasoline constituents are now in the dissolved phase (that is, it is in groundwater);
- MTBE has moved in groundwater from the site, across Groth Brothers, to the Mill Springs Park Apartment (MSP), and across Railroad Avenue (approximately 1,200 feet from the original source);
- Maximum MTBE concentration detected was 67,000 parts per billion (ppb) at MSP (approximately 600 feet from the source) in August 1995;
- Most current groundwater data identified up to 2,160 ppb MTBE in groundwater monitoring well MW-7, approximately 600' from the source;
- Depth to groundwater at the vicinity has ranged from 17 to 70 feet below ground surface (bgs);

- MTBE has impacted the upper aquifer. The upper aquifer is separated from the lower aquifer by a low-permeability clay unit found at depths of approximately 75 to 100 feet bgs;
- It appears that the lower aquifer (found at depths ranging from 110 to 145 feet bgs) has not been impacted by the MTBE plume;
- The California Water Service Company (CWS) operates two municipal water-supply wells downgradient from the site (CWS#3 is 2,800 feet west-southwest of the site and CWS#8 is 2,300 feet west of the site). According to CWS staff, the municipal wells are sampled at least annually for MTBE. MTBE has not been detected to date;
- Well CWS #3 is screened from 280 to 412 feet bgs. And well CWS #8 is screened from 122 to 263 feet bgs;
- Recent field activities (June 1999) included the installation of additional permanent groundwater monitoring wells. Some of the wells are within the contaminant plume and some are perimeter wells to delineate the plume edge to the north and south. Guard wells were also installed between the edge of the plume and the water supply wells. The guard wells will provide an early warning for the possible future impact to the water supply wells. Two deep wells were also installed to monitor and act as guard wells for the lower aquifer. A final report of this recent work is pending.

Currently there are thirteen shallow and two deep groundwater monitoring wells installed to monitor the plume. The plume appears to be moving more northerly beyond Railroad Avenue. Concentrations of benzene and MTBE have decreased significantly since 1995. This may be due in combination to dilution, dispersion, advection, adsorbtion, and natural attenuation. Additional monitoring wells will be required to delineate the leading edge of the plume in the northerly direction. Active remediation or cleanup has not been proposed for the site.

Also enclosed is information that was prepared for MTBE-impacted sites in Pleasanton. If I can be of further assistance, I can be reached at (510) 567-6762.

eva chu
Hazardous Materials Specialist

enclosures

c: Tom Peacock, LOP Manager (w/o)
Dick Pantages, Chief of Environmental Protection (w/o)

desert29

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

RO# 278

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

StID 1689

January 6, 1999

Mr. Balagi Angle
B & C Gas Mini Mart
35584 Conovan Lane
Fremont, CA 94536

RE: Free Product Removal at 2008 1st Street, Livermore, CA

Dear Mr. Angle:

I have completed review of Einarson, Fowler & Watson's *Fourth Quarter 1998 Groundwater Monitoring Results* report prepared for the above referenced site. Groundwater was sampled in November 1998. Up to 0.22 feet thick free product was reported in well MW-5. Well MW-6 was blocked at approximately 28.4'bgs and could not be sampled.

At this time you need to take interim remedial actions to removed free product from well MW-6. Section 2655 of Article 5, Title 23 of the California Code of Regulations requires that the owner or operator conduct free product removal in a manner that will minimize the spread of contamination into previously uncontaminated zones. Free product removal reports must be prepared in compliance with said section and be submitted within 45 days upon completion of interim remediation (see attachment).

In addition, well MW-6 must be made accessible for sampling.

Lastly, I am attempting to contact Mill Springs Park Apartment to facilitate an access agreement so that the approved workplan (Einarson, Fowler & Watson's September 8, 1998 "Workplan for Additional Downgradient Investigation) can be implemented.

If you have any questions, I can be reached at (510) 567-6762.

eva chu
Hazardous Materials Specialist

attachment

c: Kris Johnson, EFW, 2650 E. Bayshore Rd, Palo Alto, CA 94303
desert28

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

RO#278

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

StID 1689

October 5, 1998

Mr. Balagi Angle
B & C Gas Mini Mart
35584 Conovan Lane
Fremont, CA 94536

Mr. John Rutherford
Desert Petroleum
P.O.Box 1601
Oxnard, CA 93032

RE: Workplan Approval for 2008 1st Street, Livermore, CA

Dear Messrs. Angle and Rutherford:

I have completed review of Einarson, Fowler & Watson's September 8, 1998 "Workplan for Additional Downgradient Investigation" prepared for the above referenced site. The proposal to install two groundwater monitoring wells in the main part of the plume, four perimeter monitoring wells, three guard wells, and two deep wells downgradient of the plume is acceptable.

Field work should commence once you receive pre-approval from the UST Clean Up Fund. If you have any questions, I can be reached at (510) 567-6762.

eva chu
Hazardous Materials Specialist

c: Cheryl Gordon, UST Clean Up Fund
Kris Johnson, EFW, 2650 East Bayshore Road, Palo Alto, CA 94303

desert27

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

R0278

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

StID 1689

June 25, 1998

Mr. Balagi Angle
B & C Gas Mini Mart
35584 Conovan Lane
Fremont, CA 94536

Mr. John Rutherford
Desert Petroleum
P.O.Box 1601
Oxnard, CA 93032

RE: QMR for 2008 1st Street, Livermore, CA

Dear Messrs. Angle and Rutherford:

This office has not received a quarterly monitoring report (QMR) of groundwater sampling for the above referenced address since February 1997. Be advised, that Title 23 of the California Code of Regulations (23CCR), Section 2652(d), requires the owner or operator of an UST facility to submit reports every three months, or at a more frequent interval as specified by the local agency or regional water board, until investigation and cleanup are complete. In addition, the California Health and Safety Code (CHSC), Section 25298, states that underground storage tank closure is incomplete until the responsible party characterizes and remediates the contamination resulting from product discharge.

At this time, you are directed to reinstate a quarterly schedule of well sampling and monitoring. Technical summary reports documenting each well sampling and monitoring episode are also due quarterly. This schedule shall continue until further notice. Groundwater samples should be analyzed for TPHg, BTEX, and MTBE. If MTBE is detected, it should be confirmed using EPA Method 8260.

If you have any questions, I can be reached at (510) 567-6762.

eva chu
Hazardous Materials Specialist

c: Danielle Stefani, Livermore-Pleasanton Fire Department

desert26

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

RO#278

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

StID 1689

December 15, 1997

Mr. Balagi Angle
B & C Gas Mini Mart
35584 Conovan Lane
Fremont, CA 94536

RE: December 10, 1997 Meeting Concerning 2008 1st Street, Livermore, CA

Dear Mr. Angle:

On December 10, 1997 you met with representatives from the RWQCB, Einarson, Fowler & Watson (EFW), and this Agency to discuss the results and recommendations resulting from the recent subsurface investigation performed by EFW and detailed in their November 7, 1997 Report of Downgradient Investigation for the above referenced site. The purpose of this phase of the investigation was to further evaluate the extent of the MTBE/Benzene plume and its potential for future migration and impact to nearby municipal water supply wells.

As we discussed, it appears that the recent investigation may not have fully delineated the MTBE plume nor its core. However, the data appear sufficient to assist in identifying locations for permanent shallow and deep groundwater monitoring wells to better characterize the plume. In order to protect the municipal water supply, it was agreed that the vertical distribution of MTBE in both the upper and (possibly) the lower aquifers should also be evaluated.

Using data collected to date, possible locations for permanent, shallow and deep (nested or clustered) groundwater monitoring wells were proposed at the meeting. Pending your reimbursement from the UST Cleanup Fund, it is anticipated that a workplan, as discussed above, would be prepared and submitted some time in February 1998.

If you have any questions regarding the content of this letter or this case, I can be reached at (510) 567-6762.

eva chu
Hazardous Materials Specialist

c: Kris Johnson, EFW, 2560 E Bayshore Rd, Palo Alto, CA 94303
Kevin Graves, RWQCB
David Lunn, Zone 7 (QIC Code 80201)
Tom Fitzgerald, CWS, 195 South N Street, Livermore, CA 94550
John Rutherford, DP Inc, P.O. Box 1601, Oxnard, CA 93032
Cheryl Gordon, SWRCB-UST Cleanup Fund
Danielle Stefani, Livermore-Pleasanton Fire Department

desert25

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

RO#278

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

StID 1689

April 23, 1997

Mr. Balagi Angle
B & C Gas Mini-Mart
35584 Conovan Lane
Fremont, CA 94536

RE: Workplan Approval for 2008 1st Street, Livermore, CA

Dear Mr. Angle:

I have completed review of Geomatrix's April 1997 Work Plan for Phase I Investigation for the above referenced site. The proposal to: 1) delineate the vertical and lateral extent of BTEX/MTBE in groundwater, 2) evaluate the potential for future migration of contaminants in groundwater, 3) assess other sources of hydrocarbon contamination, and 4) evaluate potential risk to human health due to chemicals in soil or groundwater, is acceptable.

Data collected from this phase of investigation should be used to determine if the MTBE/BTEX plume will have the potential to impact downgradient municipal water wells. If there is a threat to the water supply, a corrective action plan will be required to evaluate alternatives for plume control and/or additional source removal.

Because of the apparent extent and severity of the plume, field activities should commence as soon as possible, that is, **within 30 days of the date of this letter.**

If you have any questions, I can be reached at (510) 567-6762.

eva chu
Hazardous Materials Specialist

c: Gary Foote, Geomatrix, 100 Pine St, 10th Floor, San Francisco, CA 94111
David Lunn, Zone 7
Kevin Graves, RWQCB

desert23

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

R0278

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

StID 1689

January 24, 1997

Mr. Balagi Angle
B & C Gas Mini-Mart
35584 Conovan Lane
Fremont, CA 94536

RE: Approval of Scope of Services for 2008 1st Street, Livermore, CA

Dear Mr. Angle:

I have completed review of Geomatrix's Scope of Services and Cost Estimate for Environmental Services for the above referenced site. The three tasks proposed: 1) Evaluation of Available Data; 2) Preparation of a Work Plan; and 3) Coordination of Meeting with ACHCSA and SWRCB UST Cleanup Fund is acceptable. Investigations to delineate the vertical and lateral extent of the contaminant plume, as well as the aquifer conditions, have been delayed over a year. Therefore, the Work Plan should be submitted to this office as soon as possible, and **no later than February 14, 1997.**

If you have any questions, I can be reached at (510) 567-6762.

eva chu
Hazardous Materials Specialist

desert22

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

R0278

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

StID 1689

January 3, 1997

Mr. Balagi Angle
B & C Gas Mini-Mart
35584 Conovan Lane
Fremont, CA 94536

RE: Location of Well MW-1 at 2008 1st Street, Livermore, CA

Dear Mr. Angle:

I received a letter from Mr. Bailey Neff stating that groundwater monitoring well MW-1, which was accidentaly paved over, could not be located. And that no drilling log of that well was available. Enclosed are information from our site files, including a well log of the former well GX-136, now renamed MW-1, and well survey information which should enable Mr. Neff to locate the well.

Well MW-1 should be uncovered and repaired, if necessary, so that groundwater from the well can be properly sampled. If your consultant decides this is a redundant well, it may be appropriately decommissioned. Well destruction permits may be obtained from Alameda County Flood Control and Water Conservation, Zone 7. They can be reached at (510) 484-2600.

If you have any questions, I can be reached at (510) 567-6762.

eva chu
Hazardous Materials Specialist

enclosures

c: D. Bailey Neff
American Construction
567 Exchange Court
Livermore, CA 94550

desert21

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

R0278

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

StID 1689

September 10, 1996

Mr. John Rutherford
Desert Petroleum
P.O. Box 1601
Oxnard, CA 93032

Mr. Balagi Angle
B & C Gas Mini-Mart
35584 Conovan Lane
Fremont, CA 94536

RE: Workplan for 2008 1st Street, Livermore, CA

Dear Messrs. Rutherford and Angle:

This letter is to remind you that a workplan to delineate the extent of the contaminant plume as a result of fuel releases from the above referenced site is due to this office by **October 27, 1996**. An aquifer test, which was to have been performed by January 19, 1996 but was delayed due to tank replacement activities at the site, must also be completed by October 27, 1996.

This office has not received a quarterly monitoring report of groundwater sampling since February 1996. We presume, therefore, that the May 1996 sampling event has not occurred. At this time, you are directed to reinstate a quarterly schedule of well sampling and monitoring. Technical summary reports documenting each well sampling and monitoring episode are also due quarterly. This schedule shall continue until further notice.

You are aware that the fuel release from this site is significant and has the potential to impact municipal wells located approximately 2,300 feet downgradient from the above referenced site. It has been demonstrated that the plume has already migrated at least 1,000 feet downgradient, where 3,000 ppb benzene was identified from a "hydropunch" sample (HP-8). Therefore, with the San Francisco Regional Water Quality Control Board consultation and concurrence, it is deemed mandatory that field activities commence immediately to fully characterize the plume and to develop a Remedial Action Plan for the site.

According to Section 25299.37 of the California Health and Safety Code, the owner, operator, or other responsible party shall prepare a workplan and take corrective action in response to an unauthorized release as required by the local agency, the board, or a regional board. Be advised that failure to comply with

this section of the Code may result in civil action for which Section 25299.76 specifies civil penalties of up to $10,000, for each day of violation, upon conviction. Also, failure to furnish technical reports regarding documented or potential groundwater contamination violates Section 13267(b) of the California Water Code. The Regional Water Quality Control Board (RWQCB) can impose civil penalties of up to $1,000 per day that such a violation continues.

Please be advised that this is a formal request for technical reports pursuant to Title 23, CCR, Section 2722(c). Any extensions of the stated deadlines, or modifications of the required tasks, must be confirmed in writing by this agency. Also, failure to comply may result in the withdrawal of your eligibility for reimbursement from the UST Cleanup Fund.

If you have any questions, I can be reached at (510) 567-6762.

eva chu
Hazardous Materials Specialist

c: Gil Jensen, Alameda County District Attorney's Office
Danielle Stefani, Livermore Fire Department
Cheryl Gordon, SWRCB Cleanup Fund
Kevin Graves, SF-RWQCB
Rick Pilat, RSI, P.O. Box 1601 Oxnard, CA 93032
Lou Carpiac, 1050 S. Kimball Rd, Ventura, CA 93004
Gordon Coleman, Acting Chief, ACDEH - files

desert20

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

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

September 4, 1996

Balaji Angle
Tank Owner/Operator
35584 Conovan Lane
Fremont, CA 94536

Subject: Five-year operating permit for three underground storage tanks located at B & C Gas Mini Mart, 2008 First Street, Livermore, CA 94550

Dear Ms. Angle:

The newly installed system at the subject location includes two 12,000 gallon double wall steel/fiberglass tanks. One of the tanks is split into compartments of 5,000 and 7,000 gallons. So even though there are three tanks permitted only two annular space probes are used.

Tank leak detection is performed continuously using a Veeder-Root TLS 350 with associated probes and sensors. The pressurized piping is double wall fiberglass utilizing sumps on the tanks to act as the containment for the piping.

All components of the fuel delivery system are continuously monitored for leaks. The electronic monitor is configured to shut down the appropriate turbine(s) if the monitor is in alarm as a result of a product detection. The turbine(s) will also shut down if power to the monitor is disconnected. The dispensers will shut-off the flow of fuel if liquid is detected in the dispenser spill pans.

Compliance with the following conditions is a requirement of the permit to operate:

1. Perform leak detection using the sensors and monitoring system as described above.

2. Maintain written records of all alarm conditions and their resolution.

3. Perform annual operational tests on the electronic monitoring equipment by qualified technicians. Maintain records of **all** maintenance performed on the tank system.

4. Maintain certification of financial responsibility with documentation on-site.

5. Complete employee training and document such training at least annually.

6. Report unauthorized releases to this office within 24 hours of detection. Provide written reports within 5 working days of the notification.

7. All changes in monitoring equipment must be pre-approved by this office prior to implementation.

8. Report changes in facility operator or tank owner on Form A within 30 days of the change.

9. Fees related to the operation of the tanks are to be paid in a timely manner to this Department.

10. Maintain a copy of the five year operating permit and operating conditions on-site.

This permit expires on August 30, 2001. If you have any questions regarding the operation of this tank system please contact me at (510) 567-6781.

Sincerely,

Robert Weston
Senior Hazardous Materials Specialist

enclosures

c: Bill Raynolds, East Team Manager, ACDEH
Eva Chu, LOP, ACDEH
files

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

20278

ALAMEDA COUNTY CC4580
ENVIRONMENTAL HEALTH SERVICES
1131 HARBOR BAY PKWY., #250
ALAMEDA, CA 94502-6577
(510) 567-67-- FAX (510)337-9335

StID 1689

July 26, 1996

Mr. John Rutherford
Desert Petroleum
P.O. Box 1601
Oxnard, CA 93032

Mr. Balagi Angle
B & C Gas Mini-Mart
35584 Conovan Lane
Fremont, CA 94536

Re: Quarterly Monitoring at 2008 1st Street, Livermore, CA

Dear Messrs. Rutherford and Angle:

Currently the above referenced facility is undergoing underground storage tank, product piping, and fuel dispenser replacement. Quarterly monitoring/sampling of onsite and offsite groundwater monitorings wells should resume upon completion of construction. The sampling of groundwater monitoring well MW-1, at Mill Springs Park Apartment, should be included in all future sampling events until further notice. During the next sampling event, analysis for chlorinated hydrocarbons should be included for groundwater collected from onsite well MW-6.

Be advised that the extent of the contaminant plume from the referenced site has not been fully delineated. This phase of the investigation must also resume upon completion of construction. A workplan for the work intended is due within 90 days of the date of this letter, or by **October 27, 1996.** Data collected from this and prior investigations should be used to develop a Corrective Action Plan (CAP) to identify and evaluate all feasible alternatives for cleanup of soil and groundwater, both on- and off-site, caused by the unauthorized release of petroleum products.

Please be advised that this is a formal request for technical reports pursuant to Title 23, CCR, Section 2722(c). Any extensions of the stated deadlines, or modifications of the required tasks, must be confirmed in writing by this agency.

If you have any questions, I can be reached at (510) 567-6762.

eva chu
Hazardous Materials Specialist

c: files (desert19)

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

RO#278

RAFAT A. SHAHID, DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
1131 Harbor Bay Parkway
Alameda, CA 94502-6577
(510) 567-6700

StID 1689

February 5, 1996

Mr. Lou Carpiac, Counsel for Desert Petroleum
Ferguson, Case, Orr, Paterson & Cunningham
1050 South Kimball Road
Ventura, CA 93004

RE: 2008 First Street, Livermore, CA 94550

Dear Mr. Carpiac:

I have completed review of your letter of February 1, 1996. Your letter requests that Desert Petroleum (Desert) be relieved of their responsiblity for the 1994 and 1995 fuel releases at the above referenced site.

It is not disputed that a significant fuel release occurred after Desert sold the property to Mr. Balagi Angle. The recent releases (1994, 1995) have co-mingled with the "old" release, which occurred when Desert owned the property. This office, however, does not concur that Desert contributed only "low level contamination" to soil and groundwater at this site. Be reminded that Desert failed to fully characterize the extent and severity of the contaminant plume prior to the sale of the property to Mr. Angle.

Laboratory analytical results show that monitoring well MW-1, the nearest down gradient well from the tank complex, exhibited up to 1,300 ppb benzene in August 2, 1990. Since the property was sold to Mr. Angle, benzene concentrations have ranged from 66 to 900 ppb. At the same time, monitoring well MW-2 (further down gradient from the tank complex) which was installed in June 1994, revealed free product and at least two orders of magnitude higher levels of benzene. Similar levels of benzene were also detected in monitoring wells MW-3, MW-5, and MW-6. It appears that the lower levels of benzene detected in well MW-1 is not representative of groundwater quality beneath this site.

Desert's contaminant plume cannot be distinguished from Angle's plume. This Agency cannot allocate percentage of responsiblity or liability for site assessment/remediation. Therefore, Desert Petroleum and Mr. Balagi Angle are required to continue with site characterization and remediation, as deemed necessary.

Pre-approval from the Cleanup Fund for all approved workplans should be obtained prior to the start of field work. Pre-approval will alleviate concerns that the UST Cleanup Fund will not reimburse for remediation work requested by this Agency.

If you have any questions, I can be reached at (510) 567-6762.

Sincerely,

eva chu
Hazardous Materials Specialist

(pw)

cc: John Rutherford, P.O. Box 1601, Oxnard, CA 93032
Balagi Angle, 2008 1st Street, Livermore, CA 94550
files

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

RO#278
ARNOLD PERKINS, DIRECTOR
RAFAT A. SHAHID, DEPUTY DIRECTOR

Alameda County CC4580
Environmental Health Services
1131 Harbor Bay Pkwy., #250
Alameda CA 94502-6577
(510)567-6700 FAX (510)337-9335

StID 1689

January 12, 1996

Mr. John Rutherford
Desert Petroleum
P.O. Box 1601
Oxnard, CA 93032

Mr. Balagi Angle
B & C Gas Mini-Mart
35584 Conovan Lane
Fremont, CA 94536

RE: RAP for 2008 1st Street, Livermore 94550

Dear Messrs. Rutherford and Angle:

I have completed review of Remediation Service, Int'l's December 1995 Soil and Groundwater Investigation Report for the above referenced site. Two monitoring wells and four exploratory borings were advanced to groundwater. "Grab" groundwater samples analyzed confirmed the contaminant plume has migrated offsite at least 350' downgradient from the onsite tank complex. This report did not include cross-sections of the subsurface. Please provide these diagrams.

On December 18, 1995 I approved the workplan to perform a one-day step draw-down, and a three-day constant rate pump test of the aquifer. Field work is to begin by January 19, 1996. Information gathered from this phase of the investigation should be used to develop a Remedial Action Plan (RAP) to identify and evaluate all feasible alternatives for cleanup of soil and groundwater, both on- and off-site, caused by the unauthorized release of petroleum products.

The referenced RAP is due in this office within 60 days of the date of this letter. Include a time schedule for the completion of each aspect of the remediation process, as well as a proposal for the determination of the lateral extent of groundwater contamination offsite. The temporarily closed, damaged underground storage tank should be removed as soon as possible.

Recent findings and recommendations in the Lawrence Livermore National Laboratory (LLNL) "Recommendations to Improve the Cleanup Process for California's Leaking Underground Fuel Tanks" (October 16, 1995) report which allow passive bioremediation as the primary remediation tool cannot be considered at this time. Until source removal is complete and plume stability has been demonstrated, this option will not be considered.

I look forward to working with you this new year. If you have any questions, I can be reached at (510) 567-6762.

Sincerely,

eva chu
Hazardous Materials Specialist

cc: Rick Pilat, RSI, P.O. Box 1601, Oxnard, CA 93032
Kevin Graves, SF-RWQCB
files

bc

desert17

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

RO#278

ARNOLD PERKINS, DIRECTOR
RAFAT A. SHAHID, DEPUTY DIRECTOR

StID 1689

January 12, 1996

Alameda County CC4580
Environmental Health Services
1131 Harbor Bay Pkwy., #250
Alameda CA 94502-6577
(510)567-6700 FAX (510)337-9335

Mr. John Rutherford
Desert Petroleum
P.O. Box 1601
Oxnard, CA 93032

Mr. Balagi Angle
B & C Gas Mini-Mart
35584 Conovan Lane
Fremont, CA 94536

RE: RAP for 2008 1st Street, Livermore 94550

Dear Messrs. Rutherford and Angle:

I have completed review of Remediation Service, Int'l's December 1995 Soil and Groundwater Investigation Report for the above referenced site. Two monitoring wells and four exploratory borings were advanced to groundwater. "Grab" groundwater samples analyzed confirmed the contaminant plume has migrated offsite at least 350' downgradient from the onsite tank complex. This report did not include cross-sections of the subsurface. Please provide these diagrams.

On December 18, 1995 I approved the workplan to perform a one-day step draw-down, and a three-day constant rate pump test of the aquifer. Field work is to begin by January 19, 1996. Information gathered from this phase of the investigation should be used to develop a Remedial Action Plan (RAP) to identify and evaluate all feasible alternatives for cleanup of soil and groundwater, both on- and off-site, caused by the unauthorized release of petroleum products.

The referenced RAP is due in this office within 60 days of the date of this letter. Include a time schedule for the completion of each aspect of the remediation process, as well as a proposal for the determination of the lateral extent of groundwater contamination offsite. The temporarily closed, damaged underground storage tank should be removed as soon as possible.

Recent findings and recommendations in the Lawrence Livermore National Laboratory (LLNL) "Recommendations to Improve the Cleanup Process for California's Leaking Underground Fuel Tanks" (October 16, 1995) report which allow passive bioremediation as the primary remediation tool cannot be considered at this time. Until source removal is complete and plume stability has been demonstrated, this option will not be considered.

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

R0278

RAFAT A. SHAHID, DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
1131 Harbor Bay Parkway
Alameda, CA 94502-6577
(510) 729-6777

StID 1689

December 18, 1995

Mr. John Rutherford
Desert Petroleum
P.O. Box 1601
Oxnard, CA 93032

Mr. Balagi Angle
2008 1st Street
Livermore, CA 94550

RE: Workplan Approval for Aquifer Test at 2008 1st Street, Livermore 94550

Dear Messrs. Rutherford and Angle:

I have completed review of Western Geo-Engineerr' Workplan to Perform Aquifer Test at the above referenced site. The proposal to perform a one-day step draw-down, and a three-day constant rate pump test is acceptable. Field work should commence within 30 days of the date of this letter, or **by January 19, 1996.** A report of the pump test results is also due within 60 days upon completion of field work.

If you have any questions, I can be reached at (510) 567-6762.

eva chu
Hazardous Materials Specialist

cc: files

desert16

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

RAFAT A. SHAHID, DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
1131 Harbor Bay Parkway
Alameda, CA 94502-6577
(510) 567-6777

R02926 V R0278

StID 4618

October 17, 1995

Mr. James Hardy
Wingfield Venture Fund
125 North Park Avenue
Hinsdale, IL 60521

RE: Mill Springs Park Apartments (MSP), 1809 Railroad Avenue, Livermore 94550

Dear Mr. Hardy:

I have completed review of Earth Tech's October 1995 Final LNAPL Assessment and Groundwater Characterization Evaluation Report and Amendment No. 1 to that report for the above referenced site. Recent investigations at MSP and adjacent upgradient sites have demonstrated that the recent detection of LNAPL and dissolved gasoline constituents in groundwater beneath the MSP site is not related to the prior detection and remediation of soil containing No. 6 fuel oil at the MSP site. It also showed that the MSP site has been impacted by the migration of gasoline contaminated groundwater from an off-site source.

As stated in my letter of April 18, 1995, this office and the SF-RWQCB will not alter the case closure granted on December 24, 1993. The present and future owners of MSP will not be held responsible of any future costs associated with the investigation, characterization, or remediation of the gasoline plume from off-site. However, the owner of MSP should remain cooperative, where practical, with investigations which may be required of the responsible parties of that plume. Therefore, at this time, the monitoring well (MW-1) onsite should not be closed. When it has been determined that the monitoring well does not provide data needed for subsequent investigations, it may then be decommissioned.

If you have any questions, I can be reached at (510) 567-6762.

eva chu
Hazardous Materials Specialist

cc: Mark Milani, Earth Tech, 2030 Addison St, Suite 500, Berkeley, CA 94704
files (millspr.4)

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

RAFAT A. SHAHID, DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
1131 Harbor Bay Parkway
Alameda, CA 94502-6577
(510) 567-6777

20278

September 21, 1995

Mr. Balaji Angile
B&C Minimart
2008 First Street
Livermore, CA 94550

Subject: Acknowledgement of Underground Storage Tank Unauthorized Release (ULR) and receipt of Forms A&B for temporary closure of Plus tank

Dear Mr. Angile:

This Department is in receipt of the ULR and forms A&B related to the August 25, 1995 discovery of a release of gasoline from a breach in the fiberglass Plus tank. Enclosed please find your copies of the forms submitted.

Within 60 days of this letter please provide this Department with a closure plan for the failed tank. The tank is currently empty and inert. However, the release of a hazardous substance into the environment will require corrective action on your part to investigate the extent of possible contamination. Please contact eva chu in this office for further guidance on the investigative phase of that work.

If you have any questions on this matter please contact me or eva chu at the letterhead telephone number.

Sincerely,

Robert Weston
Sr. Hazardous Materials Specialist

enclosures

c: Bill Raynolds, East Area Manager, ACDEH
eva chu, Hazardous Materials Specialist, LOP

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

RAFAT A. SHAHID, DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
1131 Harbor Bay Parkway
Alameda, CA 94502-6577
(510) 567-6777

2027

StID 1689

September 15, 1995

Mr. John Rutherford
Desert Petroleum
P.O. Box 1601
Oxnard, CA 93032

Mr. Balagi Angle
2008 1st Street
Livermore, CA 94550

RE: Well Replacement, Aquifer Pump Test at 2008 1st St, Livermore

Dear Messrs. Rutherford and Angle:

In a recent visit to the above referenced site, separate phase product was noted in well MW-2. Groundwater elevation is currently above the screened interval of the well. At this time, well MW-2 should be reconstructed to reflect current groundwater elevation, and to maximize free product recovery. In addition, well MW-1 may be decommissioned as it is a redundant well and does not appear to provide data which is representative of site conditions.

Also, an aquifer pump test should be performed to determine groundwater flow rate. The dissolved plume may have migrated 800' offsite. Please provide an addendum to the approved June 1995 Soil and Groundwater Investigation Workplan. Field work should commence as soon as permits are obtained.

If you have any questions, I can be reached at (510) 567-6762.

eva chu
Hazardous Materials Specialist

cc: files

desert13

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

RAFAT A. SHAHID, DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
1131 Harbor Bay Parkway
Alameda, CA 94502-6577
(510) 567-6777

STID 1689
20278

September 15, 1995

Mr. James Hardy
P.O. Box 368
Hinsdale, IL 60522-0368

Mr. Balagi Angle
2008 1st Street
Livermore, CA 94550

Mr. John Rutherford
P.O. Box 1601
Oxnard, CA 93032

Mr. Dick Groth
59 South L Street
Livermore, CA 94550

RE: Meeting on October 2, 1995, at 10:00 AM

Dear Messrs. Hardy, Angle, Rutherford, and Groth:

A serious groundwater pollution problem has been identified at the BP Station located at 2008 1st Street in Livermore as a result of fuel release(s) from the underground storage tanks. In addition, elevated gasoline contamination has recently been discovered in groundwater sampled from temporary well points at the Mill Springs Park Apartment (MSP) complex at 1809 Railroad Avenue. The connection, if any, between the groundwater pollution identified at MSP and the release at the BP station is currently unknown.

Your attendance is requested at a meeting to discuss the status of the on-going soil and groundwater investigation and cleanup at the BP station. Future investigation scope, corrective action, and current data gaps will be discussed. So that we may discuss this project in the presence of all available technical information, please bring copies of <u>any</u> reports or other data you may have which describe past or current environmental investigations associated with your properties.

This meeting is slated for **October 2, 1995 at 10:00 AM,** and will be held at the Alameda County Environmental Health Department offices, 1131 Harbor Bay Parkway, Suite 250, Alameda.

Please call me at (510) 567-6762 if you have any questions.

eva chu
Hazardous Materials Specialist

cc: Mark Milani, Earth Tech
Rick Pilat, RSI
John Kaiser, RWQCB
Kevin Graves, RWQCB
Gil Jensen, Alameda Co. District Attorney's Office
files (desert14)

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

RAFAT A. SHAHID, Assistant Agency Director

R0278

ALAMEDA COUNTY-ENV. HEALTH DEPT.
ENVIRONMENTAL PROTECTION DIV.
1131 HARBOR BAY PKWY., #250
ALAMEDA CA 94502-6577
(510)567-6700

StID 1689

June 23, 1995

Mr. John Rutherford
Desert Petroleum
P.O. Box 1601
Oxnard, CA 93032

Mr. Balagi Angle
2008 1st Street
Livermore, CA 94550

RE: Postponement of Pre-Enforcement Review Panel for 2008 1st Street, Livermore

Dear Messrs. Rutherford and Angle:

I have completed review of Remediation Services, Int'l's Revised June 1995 Soil and Groundwater Investigation Workplan for the above referenced site. The proposal to advance additional hydropunches further north on L Street, and west on First Street to delineate the extent of groundwater contamination is acceptable. Should the limits of the impacted groundwater not been reached, further stepout borings will be advanced on Railroad Avenue and/or First Street. Data collected from this phase of the investigation will determine best locations for permanent monitoring wells.

Field work should commence within 30 days of the date of this letter, or **by July 25, 1995.** Please notify me at least 72 hours prior to the start of field activities. I may also be of assistance in expediting the procurement of appropriate encroachment permits.

Having approved the above referenced workplan for additional investigation, I have also postponed the Pre-Enforcement Review Panel hearing scheduled for July 5, 1995 until further notice.

If you have any questions, I can be reached at (510) 567-6762.

eva chu
Hazardous Materials Specialist

cc: Lou Carpiac, 1050 S. Kimball Rd, Ventura, CA 93004
Rick Pilat, RSI, 2060 Knoll Dr, #200, Ventura, CA 93003
files (desert 12)

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

RAFAT A. SHAHID, Assistant Agency Director

R0278

ALAMEDA COUNTY-ENV. HEALTH DEPT.
ENVIRONMENTAL PROTECTION DIV.
1131 HARBOR BAY PKWY., #250
ALAMEDA CA 94502-6577
(510)567-6700

StID 1689

June 14, 1995

Mr. John Rutherford
Desert Petroleum
P.O. Box 1601
Oxnard, CA 93032

RE: Workplan to Delineate Extent of Plume at 2008 1st Street, Livermore

Dear Mr. Rutherford:

On June 13, 1995 I met with Mr. Rick Pilat and received RSI's June 9, 1995 Soil and Groundwater Investigation Workplan for the above referenced site. This plan proposes to advance three soil borings along South L Street, and three soil borings along First Street. Grab groundwater samples collected and analyzed would help further delineate the contaminant plume. However, as discussed with Mr. Pilat, I need to have additional borings advanced at the end of South M Street and along Railroad Ave, to further define the downgradient edge of the plume. I am suggesting these locations because you do not wish to advance borings at the Oldsmobile site at this time. Also, one of the borings proposed along the west side of South L Street should be moved to the east side of L Street.

This work plan is acceptable once an amended site plan showing the additional boring locations recommended is received. The amended site plan is due within 7 days of the date of this letter, **or by June 22, 1995.**

If you have any questions, I can be reached at (510) 567-6762.

eva chu
Hazardous Materials Specialist

cc: Rick Pilat, RSI, 2060 Knoll Dr, #200, Ventura, CA 93003
Balagi Angle, 2008 1st Street, Livermore 94550
files

desert10

R0278

Alameda County Health Care Services Agency
Department of Environmental Health
Division of Environmental Protection

In Re The Property Known As :	)	**Proof of Service of**
	)	**Notice of**
2008 1st Street	)	**Pre-Enforcement**
Livermore, CA 94550	)	**Review Panel**

I **Eva Chu**, do hereby certify that I served **Balagi Angle** with a copy of the attached **Notice of Pre-Enforcement Review Panel** to be held on **July 5, 1995 at 1:00 pm** by certified mailer # Z 196 176 843 .

Dated: **6/1/95**

(signature)

desert10.1

R0278

Alameda County Health Care Services Agency
Department of Environmental Health
Division of Environmental Protection

In Re The Property Known As :

2008 1st Street
Livermore, CA 94550

) **Proof of Service of Notice of Pre-Enforcement Review Panel**

I **Eva Chu**, do hereby certify that I served **John Rutherford** with a copy of the attached **Notice of Pre-Enforcement Review Panel** to be held on **July 5, 1995 at 1:00 pm** by certified mailer # Z 196 176 844.

Dated: **6/1/95**

(signature)

desert10

R0278

Alameda County Health Care Services Agency
Department of Environmental Health
Division of Environmental Protection

In Re The Property Known As :	)	**Notice of**
	)	**Pre-Enforcement**
2008 1st Street	)	**Review Panel**
Livermore, CA 94550	)	

Notice is hereby given that upon the motion of the Alameda County Environmental Protection Division and the San Francisco Bay Regional Water Quality Control Board, a **Pre-Enforcement Review Panel** will convene on **Wednesday, July 5, 1995 at 1:00 pm** in the offices of the Alameda County Hazardous Materials Division located at 1131 Harbor Bay Parkway, Room 106, Alameda CA 94502. This **Pre-Enforcement Review Panel** will convene for the purpose of determining responsible parties as well as appropriate closure, site assessment, clean-up and mitigation of contamination at the above location.

The Alameda County Environmental Protection Division, and the San Francisco Bay Regional Water Quality Control Board have named and served notice of this **Pre-Enforcement Review Panel** on the following persons or entities as having proposed responsibility for closure, site assessment, clean-up and mitigation of contamination at the above location, and by this notice all parties named herein are informed of the right to appear and show cause, if any they have, for the exclusion or inclusion of any of the parties served herein from said responsibility or obligations:

1. **John Rutherford**
   Desert Petroleum
   2060 Knoll Dr, Suite 200
   Ventura, CA 93003

2. **Balagi Angle**
   2008 1st Street
   Livermore, CA 94550

Dated: 6-1-95

eva chu
Hazardous Materials Specialist

cc: Gil Jensen
Kevin Graves
files - ec

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

RAFAT A. SHAHID, Assistant Agency Director

R0278

ALAMEDA COUNTY-ENV. HEALTH DEPT.
ENVIRONMENTAL PROTECTION DIV.
1131 HARBOR BAY PKWY., #250
ALAMEDA CA 94502-6577
(510)567-6700

StID 1689

May 1, 1995

Mr. John Rutherford
Desert Petroleum
P.O. Box 1601
Oxnard, CA 93032

RE: Plume Delineation at 2008 1st Street, Livermore 94550

Dear Mr. Rutherford:

I have completed review of Remediation Service, Int'l's March 1995 Soil and Groundwater Inverstigation Report and Quarterly Report for the above referenced site. In March 1995 five boreholes were drilled to first encountered groundwater, at a depth of 31 to 35'. Borings HP1, HP2, and HP3, advanced west, northwest of the site, detected free product in the augers. Groundwater samples were not collected as it was not considered to be cost effective since the boundaries of the contaminant plume had clearly not been reached.

Recent data gathered from a downgradient site, 1809 Railroad Ave, Livermore, indicated free product in the form of gasoline was detected in their monitoring well. This contamination appears to be from an offsite source. The former Desert Petroleum site is upgradient from this apartment complex.

At this time, you are required to fully delineate the extent of the groundwater plume resulting from the release of petroluem hydrocarbons from your site. A workplan for this phase of the investigation is due to this office by **May 22, 1995.** Field work should be expedited to fully characterized the extent and severity of the plume and its potential impact to the residents at the apartment complex.

If you have any questions, I can be reached at (510) 567-6762.

eva chu
Hazardous Materials Specialist

cc: Rick Pilat, RSI, 2060 Knoll Dr, #200, Ventura, CA 93003
Balagi Angle, 2008 1st St, Livermore 94550
files

desert9

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

RAFAT A. SHAHID, Assistant Agency Director

DEPARTMENT OF ENVIRONMENTAL HEALTH
Hazardous Materials Division

Alameda County CC4580
Dept. of Environmental Health
Environmental Protection Division
1131 Harbor Bay Pkwy., #250
Alameda CA 94502-6577

R0278

StID 1689

October 24, 1994

Mr. John Rutherford
Desert Petroleum
P.O. Box 1601
Oxnard, CA 93032

RE: Workplan Approval for 2008 1st Street, Livermore 94550

Dear Mr. Rutherford:

I have completed review of RSI's September 1994 Soil and Ground Water Investigation Workplan for the above referenced site. The plan proposes to advance six soil borings and collect soil and groundwater grab samples to delineate the extent of soil and groundwater contamination at the site. The workplan is acceptable and field work should commence within 45 days of the date of this letter, or by **December 19, 1994.** Please notify this office at least 72 hours prior to the start of field activities.

If proposed boring H-1 is "hot", it may be necessary to advance another boring further north. The proposed borings locations may be moved, pending field observations and conditions. Please be advised that permanent wells will be required at the edge of the plume at a later date.

If you have any questions, I can be reached at (510) 567-6762.

eva chu
Hazardous Materials Specialist

cc: Richard Pilat, RSI, 2060 Knoll Dr, #200, Ventura, CA 93003
files

desert8

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

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
80 Swan Way, Rm 200
Oakland, CA 94621
(510) 271-4530

R0278

StID 1689

October 4, 1994

Mr. John Rutherford
Desert Petroleum
P.O. Box 1601
Oxnard, CA 93032

RE: Free Product Removal at 2008 1st St, Livermore 94550

Dear Mr. Rutherford:

I have completed review of Remediation Services' September 1994 Quarterly Monitoring Report for the above referenced site. It appears all wells onsite exhibit elevated levels of petroleum hydrocarbons. In fact, well MW-2 detected free product.

At this time, interim measures should be taken to abate the potential effects of an unauthorized release of petroleum hydrocarbons with free product in groundwater. Please be advised, pursuant to Section 2655 of Article 5, Title 23 of the California Code of Regulations, the owner or operator shall conduct free product removal in a manner that will minimize the spread of contamination into previously uncontaminated zones. Free product removal reports must be prepared in compliance with said section and be submitted within 45 days upon completion of interim remediation.

A workplan for offsite investigation is currently due. Be sure this proposal includes evaluating the contaminant plume both up- and down-gradient from the tank pit/dispenser islands.

Please be advised that this is a formal request for technical reports pursuant to Title 23, CCR, Section 2722(c). Any extensions of the stated deadlines, or modifications of the required tasks, must be confirmed in writing by this agency.

Should you have any questions about the content of this letter, please contact me at (510) 567-6762.

eva chu
Hazardous Materials Specialist

cc: Richard Pilat, RSI, 2060 Knoll Dr, #200, Ventura, CA 93003
files (desert7)

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

R0278

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
80 Swan Way, Rm 200
Oakland, CA 94621
(510) 271-4530

StID 1689

July 29, 1994

Mr. John Rutherford
Desert Petroleum
P.O. Box 1601
Oxnard, CA 93032

RE: QMR and Additional Investigations at 2008 First Street, Livermore 94550

Dear Mr. Rutherford:

I have completed review of Remediation Service, Int'l's July 1994 Soil and Groundwater Investigation Report for the above referenced site. This report documents the installation and sampling of three monitoring wells onsite.

At this time, a quarterly monitoring schedule should be established for the site. In addition to the analyses for TPH-G, BTEX, and soluble lead, monitoring well MW-2 should also be analyzed for VOCs and TOG. The next sampling event should be in September 1994. A report summarizing each sampling event is due 60 days after field work.

It also appears an off site investigation is warranted to delineate the extent of groundwater contamination resulting from the unauthorized fuel release from the former underground storage tanks. A workplan proposal for this phase of the investigation is due to this office by **October 3, 1994.**

If you have any questions, I can be reached at (510) 567-6700.

eva chu
Hazardous Materials Specialist

cc: Michael Mulhern, RSI, 2060 Knoll Dr, Suite 200, Ventura, CA 93003
files (desert6)

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

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
80 Swan Way, Rm 200
Oakland, CA 94621
(510) 271-4530

R0278

StID 1689

May 13, 1994

Mr. John Rutherford
Desert Petroleum
P.O. Box 1601
Oxnard, CA 93032

Subject: Additional Investigation at 2008 First St, Livermore

Dear Mr. Rutherford:

I have completed review of Western Geo-Engineers' April 1994 Waste Oil UST and Hydraulic Hoist Removal, Overexcavation Sample Report for the above referenced site. This report summarizes field activties and laboratory results of soil samples collected at the time of the waste oil and hydraulic hoist removal. It appears that contaminated soil has been removed to the extent possible from the waste oil pit. No further excavation is anticipated at this area. Elevated levels of petroleum hydrocarbons as hydraulic oil left in soil beneath the east hoist has not been removed. It is not known at this time if the contaminated soil left in place will or have impacted groundwater.

In January 1994 I approved RSI's Soil and Groundwater Investigation Workplan to install additional monitoring wells at this site. I also requested that a well be installed in the northwest corner of the property. To date, this work has not been initiated. Field work for this phase of the investigation must commence by **June 30, 1994.** Quarterly sampling of the existing well should also be in affect.

Please be advised that this is a formal request for technical reports pursuant to Title 23, CCR, Section 2722(c). Any extensions of the stated deadlines, or modifications of the required tasks, must be confirmed in writing by this agency. Failure to comply may result in the referral of this case to the District Attorney Office to consider for enforcement action.

If you have any questions, I can be reached at (510) 271-4530.

eva chu
Hazardous Materials Specialist

cc: files (desert5)

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

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
80 Swan Way, Rm 200
Oakland, CA 94621
(510) 271-4530

R0278

(4)

April 11, 1994

Gary Grimm, Board Legal Counsel
California Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster St., Suite 500
Oakland, CA 94612

Re: Desert Petroleum Sites in Alameda County

Dear Gary Grimm:

This letter is written pursuant to your memorandum dated March 23, 1994 concerning the Chapter 11, Petition in Bankruptcy, of Desert Petroleum. The following sites are overseen by this agency:

(R0276)	2844 Mountain Blvd. Oakland, CA 94602 (STID# 851)	Waste oil tank being removed and investigation is being undertaken
(R0429)	4035 Park Blvd. Oakland, CA 94602 (STID# 1248)	Investigation is being undertaken and plan is being put together to remove the tanks.
(R0278)	2008 1st St. Livermore, CA 94550 (STID# 1689)	Monitoring well proposal has been submitted
(R0799)	15201 Washington Ave. San Leandro, CA 94578 (STID# 1176)	A recent Dec. 93 monitoring report has been submitted, for last 3 quarters.

Your request was for 5 types of information. Name and location is above. Brief status is above. Brief description of necessary investigation is as follows. The two sites with tanks in the ground must have the tanks removed. Upon removal the sites must be investigated for contamination. The contamination, if found, must be delineated and a plan to remediate the site formulated. All sites must monitor contamination levels and remediate soil and/or groundwater until the sites are clean.

This office does not keep track of the cost of any of these activities. The Underground Storage Tank Clean-up Fund is better suited to this task. It is not known where any of these sites

are on any LUST list. I hope this information helps you with your work.

If you have any questions please call this office.

Sincerely,

Thomas F. Peacock, Supervising HMS
Hazardous Material Division

cc: Edgar Howell, Chief - files
Mike Harper, SWRCB
Larry Blazer, Alameda County District Attorney's Office
Lester Feldman, RWQCB
William R. Attwater, Chief Counsel, SWRCB, 901 P St., Sacramento, CA 95814

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

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
80 Swan Way, Rm 200
Oakland, CA 94621
(510) 271-4530

R0278

StID 1689

January 13, 1994

Mr. Rick Pilat
RSI
2060 Knoll Dr., Suite 200
Ventura, CA 93003

Subject: Workplan Approval for Desert Petroleum Station #795, 2008 First St., Livermore, CA 94550

Dear Mr. Pilat:

I have completed review of RSI's January 1994 Soil and Ground Water Investigation Workplan for the above referenced site. RSI proposes to install two groundwater monitoring wells in the up-gradient direction from the underground storage tank (UST) pit. These wells will help to determine groundwater flow direction and to verify if an off-site source is contributing to the groundwater contamination on-site resulting from the release caused by the existing USTs.

In addition, a monitoring well should also be installed in the northwest corner of the property. This well will help to delineate the extent of water contamination, as confirmed by groundwater samples collected from monitoring well MW-1 since August 1990. Groundwater flow direction near this site has generally been in the northwesterly direction.

The cited workplan is acceptable and field activities should commence within 45 days of the date of this letter. Please confirm that a monitoring well will be install in the northwest corner during this phase of the investigation. And please notify this office at least 72 hours prior to the start of field work.

If you have any questions, please call me at (510) 271-4530.

eva chu
Hazardous Materials Specialist

cc: John Rutherford, Desert Petroleum, P.O.Box 1601, Oxnard, CA 93032
files

desert4

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

R0278

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
80 Swan Way, Rm 200
Oakland, CA 94621
(510) 271-4530

StID 1689

October 28, 1993

Mr. John Rutherford
Desert Petroleum, Inc.
P.O.Box 1601
Oxnard, CA 93032

Subject: SWI for 2008 First St., Livermore, CA 94550

Dear Mr. Rutherford:

I have completed review of Remediation Service, Int'l's October 1993 Quarterly Monitoring Report for the above referenced site. The one monitoring well on site continues to show elevated levels of petroleum hydrocarbons. Please continue with the quarterly sampling schedule.

To date, this office has not received a workplan for a soil and groundwater investigation (SWI) to delineate the extent of soil and groundwater contamination at this site. Therefore, this letter constitutes a **Final Notice** that you are in violation of specifice laws and that the technical report is due.

Failure to furnish technical reports regarding documented or potential groundwater contamination violates Section 13267(b) of the California Water Code. The Regional Water Quality Control Board (RWQCB) can impose civil penalties of up to $1,000 per day that such a violation continues.

Failure to submit the SWI within 45 days of the date of this letter will result in referral of this case to the RWQCB or Alameda County District Attorney to consider for enforcement action.

If you have any question, please contact me at (510) 271-4530.

Sincerely,

eva chu
Hazardous Materials Specialist

cc: Gil Jensen, Alameda County District Attorney's Office
Lou Carpiac, 2050 S. Kimbal Rd., Ventura, CA 93004
files

desert3

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

R0278

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
80 Swan Way, Rm 200
Oakland, CA 94621
(510) 271-4530

July 28, 1993

Steven R. Ritchie
Executive Officer
California Regional Water Quality Control Board
2101 Webster Street, Suite 500
Oakland, CA 94612

Re: Referral of Desert Petroleum sites to Regional Board

Dear Mr. Ritchie:

Several Local Oversight Program sites within Alameda County are owned by Desert Petroleum, Inc. These include:

(R0276) 2844 Mountain Boulevard
Oakland, CA 94602
(Site ID No. 851)

(R0429) 4035 Park Boulevard
Oakland, CA 94602
(Site ID No. 1248)

(R0278) 2008 1st Street
Livermore, CA 94550
(Site ID No. 1689)

(R0799) 15201 Washington Avenue
San Leandro, CA 94578
(Site ID No. 1176)

We have been informed by Desert Petroleum that the corporation is currently in Chapter 11 bankruptcy, and that therefore they cannot release funds to conduct investigations of known releases or the appropriate followup remediation at these sites. A copy of this filing is attached.

Larry Blazer of our District Attorney's Office has checked into the bankruptcy and learned that it is pending in Los Angeles (Case number LA 92-14240-RR; a copy of the notice of filing is attached). He has also learned that a number of other counties are having trouble with Desert Petroleum sites (including Orange, Ventura and Santa Barbara). Mr. Blazer has checked with Mark

Urban, a Deputy Attorney General with the Natural Resources Division in Sacramento. Urban told him that if his Division gets a referral of these cases from the Water Board, the AG can appear in the bankruptcy proceeding, file the appropriate claims and coordinate a comprehensive statewide approach to the problem. Although Urban himself may not get the case, he has substantial experience in dealing with multi-county (or multi-state) underground storage tank problems in bankruptcy. (He worked on the recent Circle-K settlement, as well as Thrifty Oil).

In recent discussions with both Gary Grimm and Lester Feldman, they have agreed that this strategy, given the scope of the problem, would be worth a try.

Therefore, please accept this letter as a formal referral of these LOP sites back to the Regional Board.

If you have any questions, please call me or Larry Blazer (569-9281).

Very truly yours,

Thomas F. Peacock
Supervising Hazardous Materials Specialist

cc: Sandra Malos, State Water Resources Control Board
Lester Feldman, Regional Water Quality Control Board
Gary Grimm, Regional Water Quality Control Board
Larry Blazer, Alameda County District Attorney's Office
Edgar B. Howell - Chief, Files
Attachments

SITE: 2008 1st St. Livermore, CA

R0278

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

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
80 Swan Way, Rm 200
Oakland, CA 94621
(510) 271-4530

StID 1689

July 15, 1993

Mr. John Rutherford
Desert Petroleum
P.O.Box 1601
Oxnard, CA 93032

SECOND NOTICE OF VIOLATION

Dear Mr. Rutherford:

On May 7, 1993 the Alameda County Department of Environmental Health, Hazardous Materials Division, sent you a letter requesting a soil and water investigation workplan to delineate the extent and severity of contamination beneath the site at 2008 First St., Livermore. As of the date of this letter, however, we have not received the requested workplan. Therefore, this letter constitutes a **Second Notice** that you are in violation of specific laws and that the technical report is due.

Failure to furnish technical reports regarding documented or potential groundwater contamination violates Section 13267(b) of the California Water Code. The Regional Water Quality Control Board (RWQCB) can impose civil penalties of up to $1,000 per day that such a violation continues.

You are required to submit the technical reports for the site to this office **within 30 days** from the date of this letter. **Failure to respond will result in referral of this case to the RWQCB or Alameda County District Attorney to consider for enforcement action. Modification of required tasks or extensions of stated deadlines must be confirmed in writing by either this agency or the RWQCB.**

If you have any questions, I may be reached at (510) 271-4530.

Sincerely,

eva chu
Hazardous Materials Specialist

cc: Gil Jensen, Alameda County District Attorney's Office
Lou Carpiac, 2050 South Kimbal Rd., Ventura, CA 93004
Sumadhu Arigala, RWQCB
files

desert2

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

RAFAT A. SHAHID, Assistant Agency Director

DEPARTMENT OF ENVIRONMENTAL HEALTH
Hazardous Materials Division
80 Swan Way, Rm. 200
Oakland, CA 94621
(510) 271-4320

R0278

June 4, 1993

Mr. John Rutherford
Director of Environmental Affairs
Desert Petroleum Inc.
P.O. Box 1601
Oxnard, CA 93032

Re: FIVE YEAR UNDERGROUND STORAGE TANK OPERATING PERMIT LOCATE AT 2008 FIRST STREET, LIVERMORE, CALIFORNIA.

Dear John:

Enclosed is your five year permit to operate a total of three underground petroleum storage tanks (UST's) at the above referenced facility. These UST's are single-walled steel with single-walled steel pressure piping. There is also an empty waste oil tank located on-site which is not in compliance. That UST must be removed or placed back into service. To operate under a valid permit, you are required to comply with conditions in Title 23 of the California Code of Regulations (CCR).

Consult the revised Title 23, CCR for additional requirements. To obtain a copy of the regulations, you may contact the State Water Resources Control Board at (916) 657-0917.

Please feel free to contact me with any questions at (510) 271-4320.

Sincerely,

Jeff Shapiro
Hazardous Materials Specialist

c: Files

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

R0278

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
80 Swan Way, Rm 200
Oakland, CA 94621
(510) 271-4530

StID 1689

May 7, 1993

Mr. John Rutherford
Desert Petroleum, Inc.
P.O.Box 1601
Oxnard, CA 93032

Subject: SWI for 2008 First St., Livermore, CA 94550

Dear Mr. Rutherford:

This office has completed review of the file for the above referenced site. To summarize the investigation to date, an initial site assessment began in March 1988 when four vapor wells were advanced adjacent to the underground storage tanks (USTs). Results indicated petroleum products in soil. In September 1988, two additional soil borings were advanced and one monitoring well installed. Still, the extent of soil and ground water contamination was not delineated, though it confirmed soil and ground water to be impacted by the unauthorized release of petroleum products at the site.

A work plan for further site assessment, prepared by RSI, dated August 15, 1990, was approved by this office in October 1990, but the plan was never implemented, pending the removal of the USTs. The latest field activity conducted at the site was a ground water sampling episode performed in October 1991. Ground water analysis exhibited up to 2,200 ppb TPH-G and 430 ppb benzene.

At this time, additional investigation is required to delineate the extent and severity of soil and ground water contamination at the site. Such an investigation shall be in the form of a **Soil and Water Investigation**, or SWI. The information gathered by the SWI will be used to determine an appropriate course of action to remediate the site, if deemed necessary. The SWI must be conducted in accordance with the RWQCB Staff Recommendations for the Initial Evaluation and Investigation of Underground Tanks, and Article 11 of Title 23, California Code of Regulations. The major elements of such an investigation are summarized in the attached Appendix A.

The SWI proposal is due **within 45 days** of the date of this letter. Once the proposal is approved, field work should commence within 60 days. A report must be submitted within 45 days after the completion of this phase of work at the site. Subsequent reports are to be submitted quarterly until this site qualifies for RWQCB "sign off." All reports and proposals must be submitted under seal of a California Registered Geologist, Certified Engineering Geologist, or Registered Civil Engineer.

Please be advised that this is a formal request for technical reports pursuant to Title 23, CCR, Section 2722(c). Any extensions of the stated deadlines, or modifications of the required tasks, must be confirmed in writing by either this agency or the RWQCB. Copies of all proposals and reports must also be sent to Mr. Sumadhu Arigala of the RWQCB.

Should you have any questions about the content of this letter, please contact me at (510) 271-4530.

Sincerely,

Eva Chu
Hazardous Materials Specialist

enclosure

cc: Sumadhu Arigala, RWQCB
Gil Jensen, Alameda County District Attorney's Office
Danielle Stefani, Livermore Fire Department
Lou Carpiac, 2050 South Kimbal Rd., Ventura, CA 93004
files

desert1

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

R0278 (2008 1st St.)

DEPARTMENT OF ENVIRONMENTAL HEALTH
Hazardous Materials Program
80 Swan Way, Rm. 200
Oakland, CA 94621
(415)

May 24, 1991

Mr. John Rutherford
Desert Petroleum, Inc.
P.O. Box 1601
Oxnard, CA 93032

Re: **Underground tank removals at 277 N. L St. and 2008 First St., Livermore**

Dear Mr. Rutherford:

During a routine hazardous waste and underground tank inspection last month at the Quality Tune-Up Shop at 277 N. L St. in Livermore, the site operator indicated that the underground tanks were to remain in service. According to the operator, the City of Livermore would not permit the tanks to be removed from this location due to zoning or other considerations. Therefore, this office has cancelled the closure plan for this site, which was submitted and approved in January 1991. I have instructed our accounting department to refund the balance of the account to Desert Petroleum.

Also in January 1991, we approved a closure plan for the tanks at 2008 First St. Since this approval, we have heard no word from the contractor regarding this job. Please let us know within 10 days what the status of this tank removal is; note that an approved closure plan is good for only six months.

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

Sincerely,

Gilbert M. Wistar

Gil Wistar
Hazardous Materials Specialist

cc: Danielle Stefani, Livermore F.D.
Rafat A. Shahid, Asst. Agency Director, Environmental Health
files

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

R0278

DEPARTMENT OF ENVIRONMENTAL HEALTH
Hazardous Materials Program
80 Swan Way, Rm. 200
Oakland, CA 94621
(415)

October 19, 1990

Mr John Rutherford
Desert Petroleum
2060 Knoll Dr.
Ventura, CA 93003

RE: Work plan for Desert Petroleum station #795, 2008 First St., Livermore

Dear Mr. Rutherford:

The Alameda County Department of Environmental Health, Hazardous Materials Division has reviewed the work plan submitted by RSI for further subsurface investigation at the above site. The work plan is acceptable. Please make sure to send copies of all project-related documents to us and to Lester Feldman at the Regional Water Quality Control Board in Oakland.

The $300 deposit submitted in November 1988 for this project has been exhausted; please submit an additional deposit of $300, made out to Alameda County, to cover our ongoing oversight of the project. (Please include the site address with your remittance.) This office draws upon deposited funds at an hourly rate when working on specific projects.

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

Sincerely,

Gilbert M. Wistar

Gil Wistar
Hazardous Materials Specialist

cc: Wendy Wittl, RSI (P.O. Box 1601, Oxnard, CA 93032)
Lester Feldman, RWQCB
Rafat A. Shahid, Asst. Agency Director, Environmental Health
files

EBA

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

R0278

DEPARTMENT OF ENVIRONMENTAL HEALTH
Hazardous Materials Program
80 Swan Way, Rm. 200
Oakland, CA 94621
(415)

June 20, 1990

Mr. John Rutherford
Director, Environmental Affairs
Desert Petroleum, Inc.
P.O. Box 1601
Oxnard, CA 93032

Re: Subsurface investigation at 2008 First St., Livermore

Dear Mr. Rutherford:

The Alameda County Department of Environmental Health, Hazardous Materials Division, has recently reviewed the file on the above site in Livermore. Apparently, in 1988, On-Site Technologies, a consulting firm based in Campbell, CA, performed a site investigation at 2008 First St., which included the installation of one groundwater monitoring well and several soil borings in the vicinity of the underground tanks. Although analytical results showed "ND" in the groundwater from the well, soil samples were contaminated with gasoline at levels up to 1,600 ppm. Because of this soil contamination, On-Site Technologies recommended the installation of another monitoring well, in a report dated November 1988. However, since this report, nothing regarding the investigation has been submitted to this office.

The California Department of Health Services regards levels of 1,000 ppm gasoline or above in soil to be a hazardous waste, and therefore the soil underneath the site at 2008 First St. may require remediation. In addition, the gasoline in this soil in 1988 may have migrated down to the water table by now. Because of the unanswered questions at this site, including the original source of the contamination, more work will have to be done to provide additional data. This includes the installation of other soil borings and monitoring wells.

This office is acting as the lead agency overseeing environmental investigations and cleanups made necessary by underground tank releases. The San Francisco Bay Regional Water Quality Control Board (RWQCB) is currently unable to manage the large number of fuel leak cases within Alameda County, and has therefore delegated this authority to our office. Nonetheless, Desert Petroleum must keep the Water Board apprised of all actions taken to characterize and, if appropriate, remediate contamination at this site, because the Board retains the ultimate responsibility for ensuring protection of waters of the state.

Please submit a work plan to this office within 30 days, i.e., no later than **July 20, 1990.** This plan must address the points raised in this letter regarding the need for further subsurface data at the site, both for unsaturated zone and possible groundwater contamination. Desert Petroleum is required to sample and obtain water levels from all on-site wells on a quarterly basis.

Please submit a deposit of $300, made out to Alameda County, to cover our costs for report review and remedial oversight of your case.

This letter constitutes a formal request for technical reports (according to Sec. 13267 of the California Water Code, as well as Sec. 25299.36 of the California Health and Safety Code). As mentioned earlier, copies of all documentation sent here should also be sent to the RWQCB in Oakland (attn: Lester Feldman).

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

Sincerely,

Gilbert M. Wistar

Gil Wistar
Hazardous Materials Specialist

cc: Randy Griffith, Livermore Fire Dept.
Lester Feldman, RWQCB
Rafat A. Shahid, Asst. Agency Director, Environmental Health
files

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

R0278

DEPARTMENT OF ENVIRONMENTAL HEALTH
Hazardous Materials Program
80 Swan Way, Rm. 200
Oakland, CA 94621
(415)

9 August 1989

Bob Perez
Bob Perez Adjusters, Incorporated
636 South Second Avenue
Suite 6
Covina, CA 91723

Subject: File Search Request for 2008 Ist Street, Livermore.

Dear Mr. Perez:

As per your written request dated 10 April 1989, a search was conducted of our files concerning the site listed above. A copy of all the documentation contained in this file bearing relevance to the detection of soil/groundwater contamination is enclosed for your review.

These documents are limited to information available to this department and does not reflect information which may be accessible from other agencies or businesses involved with this property.

You will be billed for the provision of this service.

Please direct all further correspondence or questions which you may have to Dennis Byrne, Hazardous Materials Specialist, at (415) 271-4320.

Sincerely.

Edgar Howell

for Rafat A. Shahid, Chief,
Hazardous Materials Division

RAS:DB

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

Department of Envir[illegible]ental Health
Hazardous Materials Program
80 Swan Way, Rm. 200
Oakland, CA 94621

R0278 (5)

[illegible]
(415) 271-4320

December 19, 1988

Ms. Ann McDonald, Senior Staff Scientist
Woodward-Clyde Consultants
Oakland City Center
500 - 12th St., Suite 100
Oakland, CA 94607-4014

Dear Ms. McDonald:

In response to your request of Dec. 8, 1988 for a record search of our files for an Environmental Site Assessment on the city block located on the North side of Railroad Ave. between North "L" and North "N" Streets in Livermore, CA. 94550, the following information is given.

	1826 through 1954 Railroad Ave. Liv.	No Records
(R0394)	187 North "L" St.	Permit for one Underground Tank No record of contamination
	149 through 153 North "L" Street	No Records
	2008 1st St. Liv.	Site investigation in progress
(R0278)	2324 2nd St. Liv.	Three Underground tanks No record of contamination
	200 to 375 feet West of "N" Street at the Railroad	No Record
	2418 Railroad Ave. Liv.	No Record
	1430 First St. Liv.	No Record
(R0684)	2388 Second St. Liv.	No Record
	2324 Second St. Liv.	No Record
	183 N. Livermore Ave. Liv.	No Record

222 Church St. Liv.	No Record
(R0769) 318 S. Livermore Ave. Liv.	Four underground Tanks
(R02525)	No record of contamination

If you have any questions, please call Edgar Howell, Program Administrator at, (415) 271-4320.

Sincerely,

Rafat A. Shahid

Rafat Shahid, Chief
Hazardous Materials Program

RAS:mnc

cc: Edgar Howell
Files

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

R0278

DEPARTMENT OF ENVIRONMENTAL HEALTH
470 - 27th Street, Third Floor
Oakland, California 94612
(415) 271-4320

May 20, 1988

Desert Petroleum Inc.
P.O. Box 1601
Oxnard, CA 93032
Attn: J. D. Rutherford

SUBJECT: UNDERGROUND STORAGE TANK UNAUTHORIZED RELEASE (LEAK)/ CONTAMINATION SITE REPORT AT 2008 - 1ST ST., LIVERMORE

Dear Mr. Rutherford:

On April 1, 1988, our office received a contaminated soils report prepared by Geonomics, Inc. for the subject site.

The California Administrative Code, Title 23, requires all unauthorized releases to be reported. Section 2652(b) requires within five (5) working days of detecting the release, the operator or permittee shall submit to the local agency (Alameda County Hazardous Materials Division) a full written report to include all of the following information which is known at the time of filing the report:

1. List of type and quantity of hazardous substances released.
2. The results of all investigations completed at that time to determine the extent of soil or groundwater or surface water contamination due to the release.
3. Method of clean-up implemented to date, proposed clean-up actions, and approximate cost of actions taken to date.
4. Method and location of disposal of the released hazardous substance and any contaminated soils or groundwater or surface water (indicate whether a hazardous waste manifest(s) is utilized).

5. Proposed method of repair or replacement of the primary and secondary containers.
6. Facility operator's name and telephone number.

Until clean-up is complete, the operator or permittee shall submit reports to the County and the Regional Water Quality Control Board (RWQCB) every three (3) months or at a more frequent interval if specified by either agency. The reports shall include the information requested in 2, 3 and 4 of the above. The report requested above shall be prepared in accordance with the San Francisco Regional Water Quality Control Board's "Guidelines for Addressing Fuel Leaks," September 1985. The initial investigation report shall be submitted within 30 days and shall include a site safety plan.

Soils contaminated at hazardous waste concentrations shall be transported by a licensed hazardous hauler and disposed of or treated at a California Department of Health Services approved facility. Soils contaminated below hazardous waste concentrations may be managed as non-hazardous but are subject to waste discharge requirements of the Regional Board.

Enclosed is an "Underground Storage Tank Unauthorized Release (Leak)/Contamination Site Report" which should be completed and returned within 5 working days. Should you have any questions regarding this letter, please contact Lizabeth Rose, Hazardous Materials Specialist at 271-4320.

Sincerely,

R.A. Shahid

Rafat A. Shahid, Chief
Hazardous Materials Division

RAS:mam

cc: RWQCB
Livermore Fire Department

Enclosure