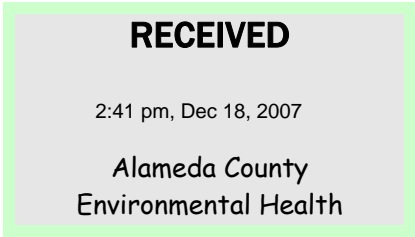




December 14, 2007
Project No.: 015-01-031

Manwel and Samira Shuwayhat
54 Wolfe Canyon Road
Kentfield, California 94904



Subject: Revised Work Plan for Further Site Characterization for Fuel Leak Case No. RO0000324, Livermore Gas and Mini-Mart, 160 Holmes Street, Livermore, California

Dear Mr. and Mrs. Shuwayhat:

On your behalf, Allterra Environmental, Inc. (Allterra) has prepared this Revised Work Plan for Further Site Characterization to propose investigative drilling activities to be completed at 160 Holmes Street in Livermore, California (Site). This revised work plan was prepared to address technical comments regarding Allterra's October 12, 2007 Work Plan for Additional Site Investigation provided by Alameda County Environmental Health (ACEH) in their November 9, 2007 letter.

The following is a discussion intended to address ACEH's Technical Comments presented in their attached November 9, 2007 letter (Appendix A).

ACEH Technical Comment 1: Groundwater Sample Collection in Direct Push Borings

Groundwater samples collected from direct push borings will be performed using screen points, a groundwater profiler, or temporary well casing and screen that allows collection of a depth-discrete groundwater sample.

ACEH Technical Comment 2: Proposed Well Clusters

ACEH concurs with the proposed locations of well clusters MW-8 and MW-9. ACEH also requested additional rationale for installing the proposed MW-10 well cluster.

Rationale for MW-10 Well Cluster: The existing monitoring well network at the Site does not have a monitoring point in the cross-gradient direction to the north. Currently, boring DB-5, installed in 2005, is the only data point available for providing cross-gradient characterization of the hydrocarbon plume. Additionally, the groundwater sample collected from DB-5 was limited to the A-Zone only. If a well cluster were to be installed adjacent to previous boring DB-5, the Site's monitoring well network would have improved groundwater gradient data and continuous evaluation of groundwater quality north of the Site.

However, Allterra recommends that a MW-10 well cluster not be installed at this time. Installation of a MW-10 well cluster should be revisited at a later date after the current investigation is complete and an evaluation of groundwater conditions has been performed.

ACEH Technical Comment 3: Depths for B- and C-Zone Well Screens

The screened interval for B- and C-Zone will be installed within coarse-grained layers. The well screen for the C-Zone well will be installed above the fine-grained aquitard suspected to occur between 50 and 70 feet bgs. As described in the October 12, 2007 work plan, the deepest boring will be installed first to locate the depth of the aquitard and select the screen interval for the B- and C-Zone wells.

ACEH Technical Comment 4: Depths for A-Zone Well Screens

Using depth to groundwater data collected at the Site since 2000, A-Zone wells have had an average water column of 7.96 feet. Based on the average height of water column in A-Zone wells, the proposed screen interval of 15 to 30 feet bgs is appropriate.

Existing and proposed A-Zone wells are expected to be dry due to current water levels being the lowest in at least five years. Predicting when the water table will return to normal is difficult due to the variety of factors affecting groundwater recharge in the area (drought conditions, Sacramento Delta issues, Zone 7 Water Agency's groundwater recharge program, etc.). However, water levels are expected to eventually return to normal. Therefore, Allterra proposes to install the A-Zone wells during the proposed drilling work scope. Furthermore, installing A-Zone wells during this phase of investigation is more cost effective than re-mobilizing for an additional drilling phase at a later date.

ACEH Technical Comment 5: Soil Sampling in Monitoring Well Borings

Soil samples from monitoring well borings will be submitted for laboratory analyses from intervals with visual staining, odor, or elevated PID readings.

ACEH Technical Comment 6: Proposed Soil and Groundwater Analyses

EPA Method 8260 will be used to test each soil and groundwater sample for fuel oxygenates. Please note that this will increase lab fees by 200% (from \$51.75 per sample to \$155.25).

ACEH Technical Comment 7: Well Survey

Allterra staff completed a field inspection in order to determine the status of the "Unknown" well (3S/2E17C25) located northeast of the MW-5 well cluster. During the field inspection, two wells were found in the suspected location of the "Unknown" well (Figure 1). Both wells had a diameter of eight inches, were constructed with schedule 40 PVC, and appeared to have been decommissioned sometime in the past (both wells were backfilled with what appeared to be grout to a depth of approximately one foot bgs).

ACEH Technical Comment 8: MTBE Detection Downgradient from Site

Allterra reviewed AEI Consultants August 29, 2003 *Phase II Subsurface Investigation Report* which presents results for site investigation work completed at 1304 First Street, located down-gradient of the Site. Based on the review, Allterra recommends completing the current investigation phase (Geoprobe borings and well clusters), evaluating investigative results, and determining the need for additional investigation beyond the Site's monitoring well network.

ACEH Technical Comment 9: Interim Groundwater Extraction and Groundwater Monitoring

ACEH concurs with Allterra's recommendation to discontinue interim groundwater extraction at the Site. The Site's quarterly groundwater monitoring program will continue.

ACEH Technical Comment 10: Well MW-6

During third quarter 2007 groundwater monitoring, well MW-6 was obstructed by a parked car. There is no need to repair well MW-6.


Limitations

The data, information, interpretation, and recommendations contained in this revised work plan are presented solely as preliminary to the existing environmental conditions at 160 Holmes Street. Site conditions can change over time; therefore, data, information, interpretation, and recommendations presented in this work plan are only applicable to the timeframe of this study. The conclusions and professional opinions presented herein were developed by Allterra in accordance with environmental principles and practices generally accepted at this time and location, no warranties are expressed or implied.

If you have any questions, please call Allterra at (831) 425-2608.

Sincerely,
Allterra Environmental, Inc.


James Allen, R.E.A.II
Project Manager


Mike Killoran, P.G. 6670
Senior Geologist

Attachments:

Figure 1, Site and Proposed Off-Site Well Location Plan
Figure 2, Proposed On-Site Geoprobe Boring Locations

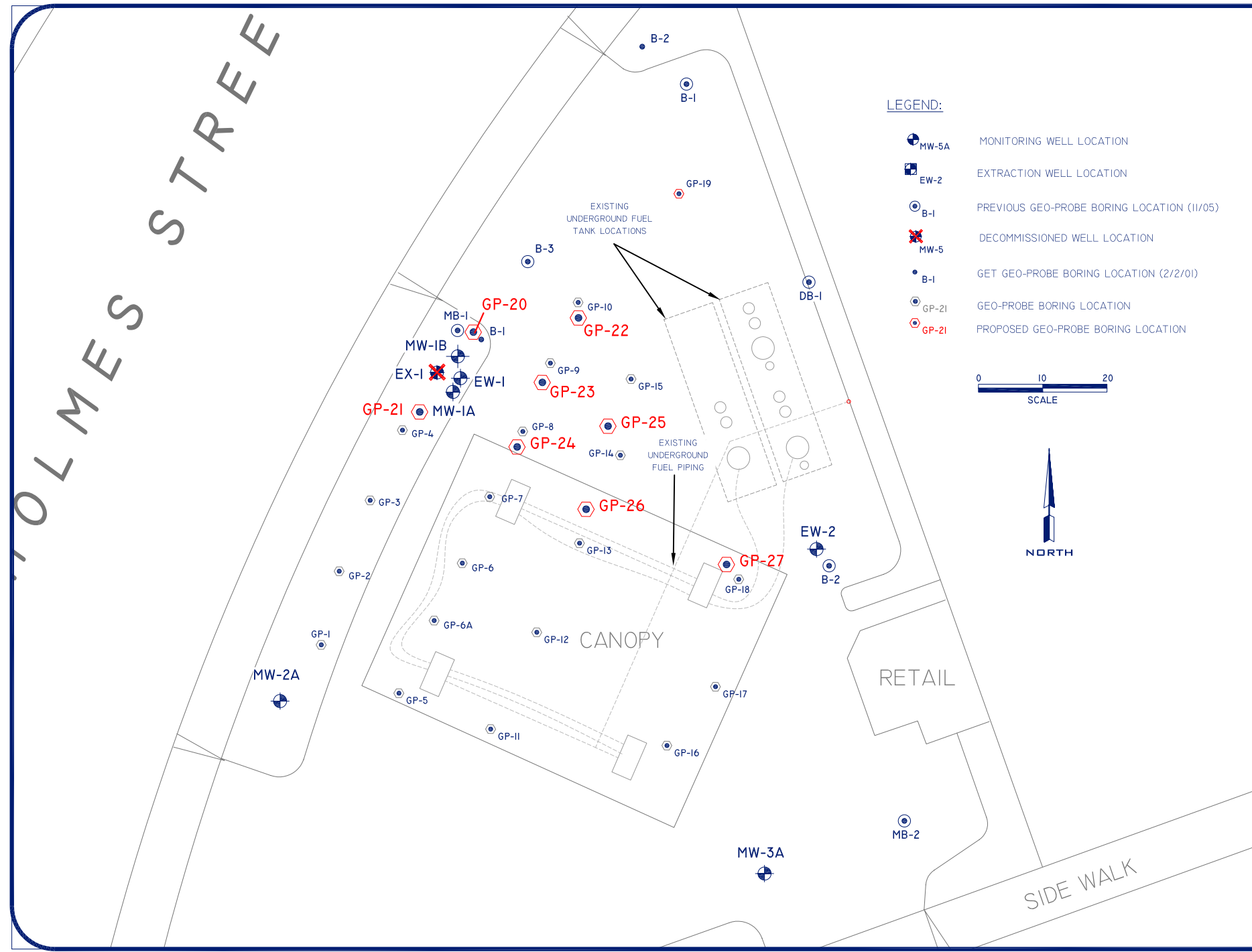
APPENDIX A: ACEH's November 9, 2007 letter

cc: Mr. Jerry Wickham, ACEH
Geotracker



FIGURES 1-2

USER RE/DATE FNAME



General Notes

STAMP

160 HOLMES STREET
SOIL AND GROUNDWATER INVESTIGATION
AND REMEDIATION PROJECT



No.	Revision/Issue	Date
0	DRAFT/REVIEW	1/22

Firm Name and Address
ALLTERRA ENVIRONMENTAL, INC.
 849 ALMAR AVE., SUITE C, No. 281
 SANTA CRUZ, CALIFORNIA
 831-425-2608 FAX 831-425-2609
 WWW.ALLTERRAENV.COM

Sheet Name and Address
BORING LOCATION PLAN
 160 HOLMES STREET
 LIVERMORE, CALIFORNIA

Project	015-01-031	Sheet	FIGURE 2
Date	12-14-07		
Drawn	SEE DRAWING		

APPENDIX A
ACEH's November 9, 2007 Letter



November 9, 2007

Manwel and Samira Shuwayhat
54 Wolfe Canyon Road
Kentfield, CA 94904

Subject: Fuel Leak Case No. RO0000324 and Geotracker Global ID T0600102287, Livermore Gas and Mini-mart, 160 Holmes Street, Livermore, CA 94553

Dear Mr. and Ms. Shuwayhat:

Alameda County Environmental Health (ACEH) staff has reviewed the fuel leak case file for the above-referenced site including the recently submitted documents entitled, "Work Plan for Additional Site Investigation for Fuel Leak Case No. RO0000324," dated October 12, 2007 and "First Quarter 2007 Groundwater Monitoring Report and Interim Remedial Progress Report for Fuel Leak Case No. RO0000324," dated March 7, 2007, and "Third Quarter 2007 Groundwater Monitoring Report and Interim Remedial Progress Report for Fuel Leak Case No. RO0000324," dated October 15, 2007. Both reports were prepared by Allterra Environmental, Inc. The Work Plan proposes advancing eight direct push borings for soil and groundwater sampling and installing three monitoring well clusters to delineate the extent of contamination at the site. Based on our review of the Work Plan, we have several technical comments on the proposed scope of work. In order to address the technical comments below, we request that you prepare a revised Work Plan **by December 19, 2007**.

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

TECHNICAL COMMENTS

1. **Groundwater Sample Collection in Direct Push Borings.** The Work Plan proposes collection of grab groundwater samples from an open borehole for the direct push borings. We do not concur with the collection of grab groundwater samples from an open borehole. Please collect groundwater samples from the direct push borings using screen points or a groundwater profiler that allows collection of a depth-discrete groundwater sample. The proposed use of a temporary well casing and screen is also acceptable. Please revise the proposed method for grab groundwater sampling accordingly in the revised Work Plan requested below.
2. **Proposed Well Clusters.** We concur with the proposed locations of well clusters MW-8 and MW-9. We do not concur with the proposal to install well cluster MW-10 adjacent to the location of previous boring DB-5. A grab groundwater sample collected from boring DB-5 on November 10, 2001 did not contain detectable concentrations of TPHg, BTEX, or fuel oxygenates. Therefore, the purpose of proposed well cluster MW-10 is not clear. Please

delete well cluster MW-10 or provide additional rationale regarding the need for well cluster MW-10.

3. **Depths for B and C Zone Well Screens.** The proposed approximate depths of the B and C zone well screens are generally acceptable; however, the depths of the well screens must also be based upon the encountered soil types. Well screens for the B and C zone wells must be installed within coarse-grained layers. Please expand the discussion of selecting the intervals for well screens in the revised Work Plan requested below. The well screen for the C zone well is to be installed above the fine-grained aquitard. We assume that the deepest boring will be advanced first to find the depth of the top of the aquitard and select the screen intervals for the B and C zone wells. The C zone boring is to be advanced until the fine-grained aquitard is encountered at a depth below an estimated 60 to 80 feet bgs. The C zone well screen is to be installed within a coarse-grained zone above the aquitard. The Work Plan currently proposes that the C zone well will be installed, "Once a distinct clay layer is encountered." Please revise the Work Plan to indicate that the well screen will be installed within a coarse-grained layer above the fine-grained aquitard. After the fine-grained aquitard is encountered and the well screen interval selected, please describe how the well borehole will be backfilled below the screen interval. Please include these revisions in the revised Work Plan requested below.
4. **Depths for A Zone Well Screens.** Please review historical depths to groundwater and groundwater elevations in the A zone wells. Specifically, please review the average height of the water column in the A zone wells during previous sampling events to evaluate the proposed depths for the A zone well screens. Please discuss your review and recommendations for the depths of the A zone wells in the revised Work Plan requested below.
5. **Soil Sampling in Monitoring Well Borings.** The Work Plan currently proposes that no soil samples will be collected less than 32 feet bgs because nearby borings were logged to a depth of 32 feet bgs. We were not able to find boring logs for Geo Environmental Technology (GET) boring B-3 (adjacent to proposed well cluster MW-9) or GET boring B-5 and Allterra boring HP-1 (adjacent to well cluster MW-8). In the revised Work Plan requested below, please review the boring logs for the adjacent borings. No analyses are proposed for soil samples from the monitoring well borings. We request that you submit soil samples from the monitoring well borings for laboratory analyses from intervals with visual staining, odor, or elevated PID readings.
6. **Proposed Soil and Groundwater Analyses.** The proposed use of EPA Method 8021b for MTBE analysis is not acceptable. EPA Method 8021 cannot be considered a reliable analytical method for fuel oxygenates because it is susceptible to both false positive and false negatives. EPA Method 8260 must be used for analysis of fuel oxygenates. In addition to analysis for MTBE, analysis for TBA is also required for soil and groundwater samples. Please revise the proposed analytical methods in the revised Work Plan accordingly.
7. **Well Survey.** The Well Location Map provided in the Draft Corrective Action Plan dated June 12, 2007 shows an "Unknown" well (3S/2E 17C25) located northeast of well cluster MW-5. Please conduct file reviews, inquiries with the property owner, and a field inspection

to verify the status and construction of this well. Please provide this information in the revised Work Plan requested below.

8. **MTBE Detection Downgradient from Site.** We are attaching a copy of a sampling report (AESI Consultants August 29, 2003) for a site located downgradient from your site at 1304 First Street. MTBE was detected at a concentration of 1,400 micrograms per liter in a groundwater sample collected from boring SB-8 at 1304 First Street on August 15, 2003. The conclusions of the August 29, 2003 report indicate that the detection of MTBE in groundwater at this location likely originated from the MTBE plume that extends from your site. Groundwater sampling data from the current network of monitoring wells indicates that the MTBE plume from your site does not extend downgradient as far as 1304 First Street. Please review the attached report and propose additional investigation that may be necessary to evaluate whether the plume of MTBE may extend beyond the monitoring well network at your site.
9. **Interim Groundwater Extraction and Groundwater Monitoring.** Based on diminishing contaminant mass removal, additional interim groundwater extraction is not to be continued. Groundwater monitoring is to be continued on a quarterly basis. Please present the results from quarterly groundwater monitoring in the reports requested below.
10. **Well MW-6.** Well MW-6 is described as "Obstructed," in the groundwater sampling field logs in the "Third Quarter 2007 Groundwater Monitoring Report and Interim Remedial Progress Report." No other comments or proposed actions regarding MW-6 appear in the monitoring report. In the revised Work Plan requested below, please describe the type of obstruction in MW-6 and present plans for repair, rehabilitation, or decommissioning of monitoring well MW-6.

TECHNICAL REPORT REQUEST

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

- **December 19, 2007** – Revised Work Plan for Further Site Characterization
- **45 days following end of each quarter** - Quarterly Monitoring and Interim Remediation Reports

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request. ACEH notes the discussion of UST Cleanup Fund cost pre-approval in your December 23, 2005 correspondence.

ELECTRONIC SUBMITTAL OF REPORTS

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).

PERJURY STATEMENT

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

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

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

UNDERGROUND STORAGE TANK CLEANUP FUND

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

AGENCY OVERSIGHT

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

If you have any questions, please call me at (510) 567-6791 or send me an electronic mail message at jerry.wickham@acgov.org.

Sincerely,



Jerry Wickham, California PG 3766, CEG 1177, and CHG 297
Hazardous Materials Specialist

Attachment: Phase II Subsurface Investigation Report dated August 29, 2003, 1304 First Street, Livermore

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Cheryl Dizon, QIC 80201
Zone 7 Water Agency
100 North Canyons Parkway
Livermore, CA 94551

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

Sunil Ramdass
UST Cleanup Fund
P.O. Box 944212
Sacramento, CA 94244-2120

James Allen
Allterra Environmental, Inc.
849 Almar Avenue, Suite C, No. 281
Santa Cruz, CA 95060

Donna Drogos, ACEH
Jerry Wickham, ACEH
File