

ALAMEDA COUNTY
HEALTH CARE SERVICES



AGENCY
DAVID J. KEARS, Agency Director

RO# 1175

RAFAT A. SHAHID, DIRECTOR

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

StID 3760

April 19, 1996

Mr. Ken Ross
City of Livermore
3589 Pacific Avenue
Livermore, CA 94550

RE: Well Decommission at 1800 Friesman, Livermore, CA 94550

Dear Mr. Ross:

This office and the San Francisco RWQCB have reviewed the case closure summary for the above referenced site and concur that no further action related to the underground tank release is required at this time. Before a remedial action completion letter is sent, the onsite monitoring wells (MW-2 and MW-4) should be decommissioned, if they will no longer be monitored. Please notify this office upon completion of well destruction so a closure letter can be issued.

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.

Sincerely,

eva chu
Hazardous Materials Specialist

c: files

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY

DAVID J. KEARS, Agency Director



R01175

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 3760

November 5, 1992

Mr. Rod Freitag
Remediation Services, Inc.
1181 Quarry Lane, Building 350
Pleasanton, CA 94566

RE: 1800 FREISMAN ROAD, LIVERMORE - CONFIRMATORY SOIL SAMPLE
ANALYSES

Dear Mr. Freitag:

This office has completed review of sample and standard gas chromatograms provided by NET Pacific, Inc. documenting the analysis of soil sample #7229-31593. This sample was collected at the time of underground storage tank closure in July 1989. Review of these data were supplemented with a professional interpretation of the sample chromatogram, as compared to known standards, by Mr. Jim Hoch, head organic chemist of NET Pacific. Additionally, BSK Analytical Laboratories chromatograms and gas chromatograph (GC) temperature programs for water sample Ch911118-3, collected in March 1991 during the subsequent ground water investigation, were also evaluated.

Following our review of the referenced data, it is the opinion of this office that confirmatory samples collected following treatment of the approximate 5,000 cubic yards of stockpiled soil at the referenced site should be analyzed for TPH as gasoline. The GC program, however, should be extended such that possible peaks up to the C15 range will be identified.

Thank you for your patience. Please call me when sampling field work is slated to begin, or should you have any questions.

Sincerely,


Scott O. Seery, CHMM
Senior Hazardous Materials Specialist

cc: Rafat A. Shahid, Assistant Agency Director
Eddy So, RWQCB
Rod Reese, Kern Environmental
Malcolm Mooney, City of Livermore
Ed Howell - files

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



R01175

RAFAT A. SHAHID, Assistant Agency Director

October 21, 1992

STID 3760

Mr. Rod Freitag
Remediation Services, Inc.
1181 Quarry Lane, Building 350
Pleasanton, CA 94566

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

RE: 1800 FREISMAN ROAD, LIVERMORE - SOIL REMEDIATION PROJECT

Dear Mr. Freitag:

This letter is in response to a telephone call I shared yesterday with Mr. Eddy So of the RWQCB. Mr. So and I discussed the Remediation Services, Inc. (RSI) request to modify the standard RWQCB sampling protocol which calls for one discrete sample for each 20 cubic yards of "treated" soils planned for reintroduction to a site. Both the RWQCB and this office recognize the severe financial burden such a sampling rate would place on the City of Livermore when one considers that 5,000 cubic yards of treated soil require sampling. However, the RWQCB must also be assured that relevant data has been collected which supports the argument that previously-contaminated soil has been adequately treated to minimize the potential future risk to ground water resources in the area.

As I indicated during our phone conversation, following are the RWQCB's requested sampling and analyses criteria, and a request for supplemental information regarding previous sample analyses:

- 1) The treated soil stockpile should be spread to a uniform thickness of no more than 2 feet. The soil should then be divided into cells of approximately 25 cubic yards each. A discrete sample shall be collected from each of the approximate 200 cells. Samples should be collected from a depth of 1/2 the thickness of the spread soil stockpile. One lab composite for each two discrete samples, a total of approximately 100 two-into-one composites, shall be analyzed for target compounds.
- 2) Compositated samples exhibiting 10 ppm or less of TPH, and 5 ppb or less of benzene, ethylbenzene, toluene, or xylene (BTEX), are suitable for reintroduction to the site.
- 3) Please provide copies of the gas chromatograms depicting the TPH (gas and diesel) analyses of: 1) BSK Analytical Laboratories water sample number Ch911118-3, collected from well MW-3 on March 6, 1991; and, 2) NET Pacific, Inc. soil sample Log Number 7229, sample -31593, collected June 26, 1989 during initial tank removal activities.

Mr. Rod Freitag
RE: 1800 Freisman Road, Livermore
October 21, 1992
Page 2 of 2

The referenced chromatograms are being requested to supplement that information already received from Mr. Jeff Creager of BSK Analytical Services, provided to explain those chromatograms in past analyses displaying peaks within the diesel range, but which do not appear to fit the typical diesel fingerprint.

Upon review of the requested chromatograms, a decision will be made regarding whether the confirmatory samples will require analyses for TPH as both diesel and gasoline, or just TPH as gasoline as proposed, and appropriate sample numbers for each.

Your patience is sincerely appreciated during what is likely an unanticipated delay in the initiation of sampling at this site. I expect to provide a quick response to the TPH issue once the requested information is received.

Please be reminded that once the site is restored to grade, replacements for destroyed wells MW-1 and -3 will need to be proposed. Such well proposals should include a map showing well locations, construction details, and the criteria used to determine the suitability for their proposed locations.

Again, thank you for your patience. Please call me at 510/271-4530 should you have any questions.

Sincerely,


Scott O. Seery, CHMM
Senior Hazardous Materials Specialist

cc: Rafat A. Shahid, Assistant Agency Director, Env. Health
Eddy So, RWQCB
Rod Reese, Kern Environmental
Malcolm Mooney, City of Livermore
Ed Howell - files

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY

DAVID J. KEARS, Agency Director



RO1175

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

STID 3760

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

September 28, 1992

Mr. Rod Freitag
Remediation Services, Inc.
1181 Quarry lane, Building 350
Pleasanton, CA 94566

RE: 1800 FREISMAN ROAD, LIVERMORE - SOIL REMEDIATION PROJECT

Dear Mr. Freitag:

This letter follows my review of the September 21, 1992 Remediation Services, Inc. (RSI) letter proposal for sampling soil previously excavated at the referenced site. As we discussed today telephone, this proposal should be modified to reflect the following points:

- 1) According to present RWQCB requirements, soil samples to determine the effectiveness of remediation measures prior to reintroduction of treated material into a site, are to be collected at the rate of one discrete sample for every 20 cubic yards.

The RWQCB has determined that appropriate detection limits for both total petroleum hydrocarbons as diesel (TPH-D) and gasoline (TPH-G) are now 1.0 part per million (ppm). Considering the RWQCB requirements noted above dictate that soil must have nondetectable concentrations of contaminants before reintroduction, the proposed sampling plan should reflect this point.

The RWQCB may consider a proponent's proposal to modify these standards on a site-specific basis.

- 2) An October 1989 BSK & Associates report documents that both diesel and gasoline were historically stored in the underground storage tanks prior to their removal. Since the investigation began at this site in 1990, ground water has been shown to be impacted by both diesel and gasoline constituents. Therefore, excavated soil should be analyzed for both gasoline and diesel constituents, instead of only those associated with gasoline.

You are encouraged to contact Mr. Eddy So of the RWQCB regarding a site-specific consideration of the points presented in this letter.

Mr. Rod Freitag
RE: 1800 Freisman Road, Livermore
September 28, 1992
Page 2 of 2

Unless we are advised otherwise from the RWQCB, this office will expect that the points presented herein will be incorporated into the sampling and analyses work associated with this phase of work at this site. Please feel free to contact me at 510/271-4530 should you have any questions or comments.

Sincerely,



Scott O. Seery, CHMM
Senior Hazardous Materials Specialist

cc: Rafat A. Shahid, Assistant Agency Director
Eddy So, RWQCB
Rod Reese, Kern Environmental
Malcolm Mooney, City of Livermore
Ed Howell - files

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



R01175

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

January 27, 1992

City of Livermore
Construction Field Office
1250 Kitty Hawk Road
Livermore, CA 94550
ATTN: Mr. Malcolm Mooney

Subject: Soils Mitigation Workplan, 1800 Freisman, Road,
Livermore, CA

Dear Mr. Mooney:

This office has received and reviewed a workplan dated January 16, 1992, submitted by Kern Environmental Service (KES), your consultant. Thank you for your attention to this matter. Upon review of the document, this office concurs with the workplan as contemplated. Please commence work on the site as soon as possible.

This office should be given forty-eight (48) hours notice prior to your work start-up date.

If you have any questions feel free to contact this office. The number is (510) 271-4320.

Sincerely,

Brian Oliva

Brian P. Oliva, REHS
Hazardous Materials Specialist

Ravi
cc: Eddie So, SFERNQCB
Rod Freitag, 1181 Quarry Lane Bldg. 350, Pleasanton, CA 94566

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



SITE: 1800 Friesman,
Livermore, CA

R0175

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

20 November 1991

Malcolm T. Mooney
Special Projects Coordinator
Engineering Division
City of Livermore
1250 Kitty Hawk Road
Livermore, CA 94550

Subject: Underground Storage Tank Closure Project at the
Livermore Airport.

Dear Mr. Mooney:

This letter is a follow up to telephone conversations with yourself and representatives of Balch Petroleum and Aqua Terra Technologies. The actions taken to date will be described and recommended follow up measures will be discussed.

During the removal of product delivery piping, soil contamination of up to 1,000 parts per million was measured in samples collected from the trench. Subsequent to this discovery, areas of soil contamination within the piping trench were excavated and verification samples were collected to confirm the adequacy of the soil removal process. Excavated soils were stockpiled and composite samples were collected to further characterize the soil for disposal purposes. No hydrocarbon contamination was detected by the stockpile composite samples. Based on this result, the City expressed an interest in using the soil on-site.

The analytical data reported appears to present a logical discrepancy. The contaminant in question, Aviation Fuel, is not likely to evaporate so readily and leave no measurable residue of contamination following a short period of aeration. It appears that more soil was excavated from the piping trench than was required and that the subsequent composite sampling succeeded in assessing only the clean areas of the soil pile.

Before this agency can endorse the City's plan to reuse the excavated soil on-site, further characterization of this pile will be required. The contaminated soil initially detected will have to be accounted for. This can be best accomplished by removing the clean overlying areas of the pile and obtaining composite samples from the deeper central regions of the pile, where the highly contaminated soils are likely to be found. The contamination observed during the initial trench sampling

Malcolm T. Mooney
City of Livermore
1250 Kitty Hawk Road
Livermore, CA 94550
Re. Livermore Airport
20 November 1991
Page 2 of 3

presented a noticeable odor of hydrocarbons. This characteristic will aid in choosing the proper region of the pile to sample.

Reuse of the excavated soils on-site without an adequate accounting for the contamination removed will lead to the presumption that the contaminated soil was distributed throughout the airport property. Such a situation would complicate the subsequent ground water investigation process by necessitating the inclusion of the entire airport property in the plan.

Guidelines established by the San Francisco Bay Regional Water Quality Control Board define the extent of investigation required when soil contamination is detected. Specifically, ground water monitoring wells must be installed to gauge whether ground water quality has been impacted. These wells must be located within ten feet of an area of discovered contamination. A minimum of three wells must be installed so the ground water gradient can be defined. Generally, two years of quarterly monitoring data is required before the site can be considered for closure. The physical excavation of contaminated soil does not negate the need for a subsequent ground water investigation, however, removing any source of residual contamination may reduce the duration of the subsequent ground water investigation.

Please be advised that the following documentation will have to be submitted to this office prior to the closure of this project:

- 1) A copy of all analytical data of soil samples collected.
- 2) A copy of the hazardous waste manifests for the tanks removed.
- 3) An accounting for the contaminated soil removed from the product piping trench.
- 4) A proposal for conducting a ground water investigation of the site.

Malcolm T. Mooney
City of Livermore
1250 Kitty Hawk Road
Livermore, CA 94550
Re. Livermore Airport
20 November 1991
Page 3 of 3

If you have any questions concerning this matter, please feel free to contact me at (510) 271-4320.

Sincerely,


Dennis G. Byrne
Senior Hazardous Materials Specialist

cc: Eddy So, SFBRWQCB
Rafat Shahid, Assistant Director, Alameda County Department
of Environmental Health.
Colleen Rice, Balch Petroleum
Bruce Berman, Aqua Terra Technologies

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



R01175

January 31, 1991

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

Mr. Dan Belson, P.E.
Livermore Public Works Dept.
Engineering Div.
3589 Pacific Ave.
Livermore, CA 94550

Re: 1800 Freisman Rd. unauthorized release site

Dear Mr. Belson:

We have received two quarterly reports for groundwater monitoring at the above site. Both reports indicate a shallow groundwater flow direction towards the west, so that, as BSK states, there are no wells downgradient of the former tank site. Water from well MW-1, which is cross-gradient from the area of release, shows consistent hydrocarbon contamination.

Because the downgradient extent of the gasoline/diesel plume has not been defined, we are requiring that the City of Livermore take action to correct this situation. The apparent shift in flow direction, together with the relatively steep hydraulic gradient in this area, suggest that the plume may have migrated off-site.

With regard to soil contamination, we have not established a deadline for its remediation; however, in light of the fact that the soil continues to contribute hydrocarbons to groundwater, we would suggest that it be removed as soon as possible. In any case, it will eventually have to be removed.

Please submit a work plan for additional subsurface investigation to this office by **March 15, 1991**. In the meantime, quarterly monitoring of the existing monitoring wells should continue. Also please send an additional deposit for our ongoing oversight of the case, in the amount of \$425. Previous funds on deposit for this site have been exhausted.

This letter constitutes a formal request for technical reports according to Sec. 13267 of the California Water Code. This letter also constitutes a formal request for site mitigation documents according to Sec. 25299.37 of the California Health and Safety Code. Copies of all documentation sent here should also be sent to the Regional Water Quality Control Board in Oakland (attn: Lester Feldman).

Mr. Dan Belson
January 31, 1991
Page 2 of 2

If you have any questions about this letter, please contact me at
271-4320.

Sincerely,

Gilbert M. Wistar

Gil Wistar
Hazardous Materials Specialist

cc: Alex Eskandari, BSK & Associates (5729-F Sonoma Dr., Pleasanton,
CA 94566)
Lester Feldman, RWQCB
Rafat A. Shahid, Asst. Agency Director, Environmental Health
files

M

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEABS, Agency Director



R01175

Certified mailer #: P 062 128 064

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

August 24, 1989

Mr. Malcolm Mooney
City of Livermore
909-B Clubhouse Dr.
Livermore, CA 94550

Re: Unauthorized release from 250-gallon underground storage tank,
1800 Friesman, Livermore

Dear Mr. Mooney:

The Alameda County Department of Environmental Health, Hazardous Materials Division, has reviewed the Polymatrix Associates report on soil sample results from the above site. The report indicates that soil beneath the smaller of the two tanks removed contained greater than 100 ppm hydrocarbons, a level that the Regional Water Quality Control Board (RWQCB) believes is indicative of a large release. Title 23 of the California Code of Regulations requires all such unauthorized releases from underground tanks to be reported. An unauthorized release report has been filed with this office and the RWQCB, as required; in addition, you must initiate further investigation and/or cleanup activities at this site.

First, a preliminary assessment should be conducted to determine the extent of soil and groundwater contamination that has resulted from the leaking tank. The information gathered by this investigation will be used to assess the need for additional actions at the site. The preliminary assessment should be designed to provide all of the information in the format shown in the attachment at the end of this letter. This format is based on RWQCB guidelines. You should be prepared to install one monitoring well, if you can verify the direction of groundwater flow in the immediate vicinity of the site, and three wells, if you cannot.

Until cleanup is complete, you will need to submit reports to this office and to the RWQCB every three months (or at a more frequent interval, if specified at any time by either agency). These reports should include information pertaining to further investigative results; the methods and costs of cleanup actions implemented to date; and the method and location of disposal of any contaminated material.

Mr. Malcolm Mooney
August 24, 1989
Page 2 of 2

Soils contaminated at hazardous waste concentrations should be transported by a licensed hazardous waste hauler and disposed of or treated at a facility approved by the California Department of Health Services. This means that existing stockpiled soils, as well as additional soil that may be excavated, should be sampled and analyzed to determine contaminant levels. Soils contaminated below the hazardous waste threshold may be managed as nonhazardous, but are still subject to the RWQCB's waste discharge requirements.

Your work plan should be submitted to this office by **September 25, 1989**. Copies of the work plan should also be sent to the RWQCB (attention: Lester Feldman). You may implement remedial actions before approval of the work plan, but final concurrence by this office will depend on the extent to which the work done meets the requirements described in this letter.

If you have any questions about this letter or about remediation requirements established by the RWQCB, please contact Gil Wistar, Hazardous Materials Specialist, at 271-4320.

Sincerely,



for Rafat A. Shahid, Chief
Hazardous Materials Division

RAS:GW:gw

enclosure

cc: Randy Griffith, Livermore F.D. (w/o enclosure)
Howard Hatayama, DOHS (w/o enclosure)
Lester Feldman, San Francisco Bay RWQCB (w/o enclosure)
Gil Jensen, District Attorney, Alameda County Consumer and
Environmental Protection Agency (w/o enclosure)
files

WORK PLAN REQUIREMENTS FOR AN INITIAL SUBSURFACE INVESTIGATION

This outline should be followed by professional engineering or geologic consultants in preparing work plans to be submitted to the RWQCB and local agencies. Work plans must be signed by a California-registered engineer or geologist.

This outline should be referred to in context with the "Regional Board Staff Recommendations for Initial Evaluation and Investigation of Underground Tanks" (June 2, 1988).

PROPOSAL FORMAT**I. Introduction**

- A. State the scope of work.
- B. Provide information on site location, background, and history
 1. Describe the type of business and associated activities that take place at the site, including the number and capacity of operating tanks.
 2. Describe previous businesses at the site.
 3. Provide other tank information:
 - number of underground tanks, their uses, and construction material;
 - filing status and copy of unauthorized release form, if not previously submitted;
 - previous tank testing results and dates, including discussion of inventory reconciliation methods and results for the last three years.
 4. Other spill, leak, and accident history at the site, including any previously removed tanks.

II. Site Description

- A. Describe the hydrogeologic setting of the site vicinity
- B. Prepare a vicinity map (including wells located on-site or on adjoining lots, as well as any nearby streams)
- C. Prepare a site map
- D. Summarize known soil contamination and results of excavation
 1. Provide results in tabular form and show location of all soil samples (and water samples, if appropriate).

Sample dates, the identity of the sampler, and signed laboratory data sheets need to be included, if not already in possession of the County.

2. Describe any unusual problems encountered.
3. Describe methods for storing and disposing of all contaminated soil.

III. Plan for Determining Extent of Soil Contamination

- A. Describe method for determining the extent of contamination within the excavation
- B. Describe sampling methods and procedures to be used
 1. If a soil gas survey is planned, then:
 - identify number of boreholes, locations, sampling depths, etc.;
 - identify subcontractors, if any;
 - identify analytical methods;
 - provide a quality assurance plan for field testing.
 2. If soil borings are to be used to determine the extent of soil contamination, then:
 - identify number, location (mapped), and depth of the proposed borings;
 - describe the soil classification system, soil sampling method, and rationale;
 - describe the drilling method for the borings, including decontamination procedures;
 - explain how borings will be abandoned.
- C. Describe how clean and contaminated soil will be differentiated, and describe how excavated soil will be stored and disposed of. If on-site soil aeration is to be used, then describe:
 1. The volume and rate of aeration/turning;
 2. The method of containment and cover;
 3. Wet-weather contingency plans;
 4. Results of consultation with the Bay Area Air Quality Management District.

Other on-site treatments (such as bioremediation) require permits issued by the RWQCB. Off-site storage or treatment also requires RWQCB permits.

- D. Describe security measures planned for the excavated hole and contaminated soil

IV. Plan for Characterizing Groundwater Contamination

Construction and placement of wells should adhere to the requirements of the "Regional Board Staff Recommendations for Initial Evaluation and Investigation of Underground Tanks."

- A. Explain the proposed locations of monitoring wells (including construction diagrams), and prepare a map to scale
- B. Describe the method of monitoring well construction and associated decontamination procedures
1. Expected depth and diameter of monitoring wells.
 2. Date of expected drilling.
 3. Locations of soil borings and sample collection method.
 4. Casing type, diameter, screen interval, and pack and slot sizing technique.
 5. Depth and type of seal.
 6. Development method and criteria for determining adequate development.
 7. Plans for disposal of cuttings and development water.
 8. Surveying plans for wells (requirements include surveying to established benchmark to 0.01 foot).
- C. Groundwater sampling plans
1. Water level measurement procedure.
 2. Well purging procedures and disposal protocol.
 3. Sample collection and analysis procedures.
 4. Quality assurance plan.
 5. Chain-of-custody procedures.

V. Prepare a Site Safety Plan