

EXHIBIT "C"

May 12, 1993

93P-208K

LF 2968

Mr. Doug Humphrey
Director of Engineering
Oro Loma Sanitation District
2600 Grant Avenue
San Lorenzo, California 94580

Subject: Proposal for Engineering Services, Removal of One Underground Fuel Tank and Preliminary Soil and Ground-Water Assessment, Oro Loma Sanitation District Water Pollution Control Plant, 2600 Grant Avenue, San Lorenzo, California, Fuel Station Closure Project Number 45-64-12

Dear Mr. Humphrey:

Levine•Fricke is pleased to submit the enclosed proposal for removal of one underground fuel tank and preliminary soil and ground-water assessment at the Oro Loma Sanitation District Water Pollution Control Plant in San Lorenzo, California.

As you requested, this proposal includes Levine•Fricke's scope of work for engineering services (Option One) and a turnkey underground storage tank (UST) removal option (Option Two). Associated cost estimates are presented for both options. If Levine•Fricke is selected for this work and requested to subcontract the UST removal work, we will retain Trumpp Bros. General Contractors of San Jose, a union contractor.

Among the advantages of selecting Levine•Fricke for this project are the following:

- Levine•Fricke is a full-service firm with extensive experience in UST removals, associated soil and ground-water remediation, addressing geotechnical concerns associated with soil excavation, and design of cost-effective treatment systems.
- Levine•Fricke has an excellent reputation with local regulatory agencies, with nearly 10 years of experience in environmental consulting in the San Francisco Bay Area.

- Levine•Fricke has a solution-oriented approach to problem solving, which involves helping clients to integrate their concerns, ideas, and resources into proposed solutions.
- Levine•Fricke and Trumpp Bros. have worked together on numerous UST and soil excavation projects.

We have a very strong technical group in our Emeryville office comprising hydrogeologists, hydrologists, toxicologists, soil scientists, and civil, geotechnical, and chemical engineers. In addition, many of our people have worked for various regulatory agencies and, therefore, can anticipate and deal effectively with regulatory agency requests and concerns. All of Levine•Fricke's work on this project will be based in our Emeryville office.

Based on the cost estimate for this project, we recommend completing the project using the turnkey approach (Option Two), because the physical work costs are relatively small compared to the engineering bid service costs.

We appreciate this opportunity to be of service to you, and look forward to working with you. Please do not hesitate to call John Sturman or either of the undersigned if you have any questions or need additional information.

Sincerely,

Michael Stoll
Project Engineer

Mark D. Knox, P.E.
Chief Engineer

Enclosures

cc: Michael Riddiford, Oro Loma

May 12, 1993

93P-208K

**PROPOSAL FOR ENGINEERING SERVICES
REMOVAL OF ONE UNDERGROUND FUEL TANK AND
PRELIMINARY SOIL AND GROUND-WATER ASSESSMENT
ORO LOMA SANITATION DISTRICT
WATER POLLUTION CONTROL PLANT
2600 GRANT AVENUE
SAN LORENZO, CALIFORNIA
FUEL STATION CLOSURE PROJECT NUMBER 45-64-12**

INTRODUCTION

This proposal presents the scope of work and estimated budget to provide engineering services for the removal of one underground fuel storage tank (UST) and associated piping, and preliminary soil and ground-water assessment at the Oro Loma Sanitation District ("Oro Loma") Water Pollution Control Plant located at 2600 Grant Avenue in San Lorenzo, California ("the Site"). Levine•Fricke has prepared this proposal in accordance with Oro Loma's Request for Proposal (RFP) dated April 20, 1993. This proposal has two options in accordance with the RFP and discussion with Oro Loma staff: Option One is for engineering consulting services only, and Option Two is for turnkey UST removal services.

BACKGROUND

Based on information provided to us by Oro Loma, there is one 1,000-gallon-capacity UST to be removed from the Site. The tank reportedly measures 3.5 feet in diameter by 12 feet in length, and was surrounded with sand backfill during installation. The tank bottom is situated at a minimum depth of about 5.25 feet beneath the reinforced concrete pad with at least 0.5 foot of sand beneath the bottom of the tank. The UST was previously used to store gasoline.

Underground product piping connects the UST to a fuel dispenser about 6.5 feet away from the tank. Fuel, air, and water piping is to be removed to the face of the building behind the station and then capped; all vent piping is to be removed. The dispenser and all piping are to be legally disposed of.

The side of the UST is located about 13 feet from the existing structure. Based on the distance between the UST and the building and the anticipated depth of the bottom of the tank, we do not think that excavation support will be necessary during tank removal. However, if it is necessary to excavate gasoline-affected soil between the tank and the building, it is likely that the excavation wall closest to the building will require support (shoring or sheeting) to prevent loss of foundation support from soils and resultant structural damage to the building. It should be noted that the piping to be removed from this area is located at a shallow depth beneath the concrete pad, and piping removal should not affect the structural integrity of the building. However, if the piping has leaked and a significant amount of a petroleum-affected soil is encountered, excavation support may be required.

Before UST removal activities begin, a Preliminary Site Assessment (PSA) for soil and ground-water conditions in the vicinity of the UST will be performed. Soil-quality data obtained during the PSA will enable Levine•Fricke to determine if significant product leakage has occurred and if excavation support will be required.

The scope of work and estimated budget assume that no product leaks or spills will be encountered during removal of the UST and associated piping. If it appears that more significant leaks or spills have occurred, or if petroleum hydrocarbon-affected soil or ground water are encountered below the UST or piping, Levine•Fricke will recommend conducting additional work, which can be covered under subsequent work orders at Oro Loma's request. No costs for soil disposal are included in this proposal. Analytical laboratory costs are included in this proposal.

PROPOSED SCOPE OF WORK

Levine•Fricke's proposed scope of work for Option One (engineering consulting services only) will comprise Tasks 1 through 14. Option Two (turnkey UST removal) includes Tasks 1 through 6 and 9 through 15. The PSA activities comprise Tasks 1 through 6; the UST removal comprises Tasks 7 through 14. To ensure that data obtained during the PSA are addressed by the UST removal work plan, the PSA will be completed before the UST removal activities begin.

Preliminary Site Assessment Activities

- Task 1: Preparation of a Site Health and Safety Plan
- Task 2: Preparation of a PSA Work Plan
- Task 3: Performance of PSA
- Task 4: Laboratory Analysis of Soil and Ground-Water Samples Collected During PSA
- Task 5: PSA Data Evaluation and Letter Preparation
- Task 6: PSA Project Management

UST Removal Activities

- Task 7: Development of Bid Documents and Specifications for UST Removal
- Task 8: UST Removal Contractor Selection Assistance
- Task 9: Permit Verification
- Task 10: Observation of UST Removal, Collection of Samples, and Construction Monitoring
- Task 11: Compaction Testing
- Task 12: Laboratory Analysis of Soil and/or Ground-Water Samples Collected During UST Removal
- Task 13: UST Removal Data Evaluation and Report Preparation
- Task 14: Project Management
- Task 15: Turnkey Construction Services

These tasks are described in detail below.

Preliminary Site Assessment Activities

Task 1: Preparation of a Site Health and Safety Plan

As required by the Occupational Safety and Health Administration (OSHA) 29 CFR 1910.120, Hazardous Waste Operations and Emergency Responses, Levine•Fricke will prepare a Site Health and Safety Plan (HSP) for the proposed PSA and UST removal activities. The HSP will cover safe working procedures, personal protective equipment, and emergency procedures. Workers will be required to read and sign the HSP, and work in accordance with it. Three copies of the HSP will be sent to the Alameda County Health Care Services Agency (ACHCSA).

Task 2: Preparation of a PSA Work Plan

Levine•Fricke will prepare a work plan to perform a PSA near the UST. The work plan will document Levine•Fricke's approach to obtaining pertinent soil and ground-water quality data in the tank area before removal of the UST. The PSA will include an integrated soil and ground-water investigation strategy based on installation of soil borings, laboratory analysis of selected soil and ground-water samples, and preparation of a letter report documenting our findings and presenting our recommendations. We have assumed that one copy of the PSA work plan will be prepared with no response to the regulatory agency.

Task 3: Performance of PSA

Before field activities begin, Levine•Fricke will obtain the required permits to conduct a PSA of the area surrounding the UST. Levine•Fricke will subcontract the soil boring work to a licensed drilling company. Levine•Fricke will mark the proposed locations of six soil borings with white paint. A Levine•Fricke underground utility locator will then evaluate if underground utilities or obstructions are present at the proposed soil boring locations. Oro Loma staff should also review the utility locator's determination to verify if any utilities exist that are not identified by the utility locator. If obstructions or utilities are detected, Levine•Fricke will select alternate boring locations nearby. A truck-mounted hollow-stem auger drill rig will be used to drill six soil borings near the UST. Where applicable, an enlarged cutout of the asphalt surface will be removed to prevent asphalt chips from getting into the soil sample. Levine•Fricke will collect soil samples from selected intervals at each of the borings. The Levine•Fricke field engineer will screen the soil samples using visual and olfactory observations as well as the use of a field photoionization detector. To obtain representative water-quality data, ground-water samples will be collected using the drill rig equipped with hydropunch sampling equipment. This technology provides representative ground-water samples typically accepted by regulatory agencies without the installation of permanent monitoring wells, as opposed to grab ground-water samples collected from soil borings which are not typically acceptable to regulatory agencies.

Task 4: Laboratory Analysis of Soil and Ground-Water Samples Collected During PSA

Soil and ground-water samples collected during the PSA will be submitted to a state-certified analytical laboratory for analysis. Soil and ground-water samples will be analyzed for total petroleum hydrocarbons as gasoline (TPHg) using modified EPA Method 8015, and for the fuel constituents benzene, toluene, ethylbenzene, and total xylenes (BTEX) using EPA Method 8020. Samples will be analyzed on a normal seven-working-day turnaround by the analytical laboratory.

Task 5: PSA Data Evaluation and Letter Preparation

Following the completion of the PSA field activities, a brief letter report will be prepared documenting the PSA activities, presenting the laboratory results, and including our conclusions and recommendations. This report will be submitted to Oro Loma. If requested by Oro Loma, copies of the report will be sent to the ACHCSA. The site data gained during the PSA will be instrumental in developing a cost-effective UST removal approach.

Task 6: PSA Project Management

This task includes coordinating field work with the drilling subcontractor, updating Oro Loma on a regular basis about the status of the work, contacting regulatory agencies as necessary, scheduling laboratory work, and conducting budget review. The estimated budget does not include costs for a site meeting.

Mr. Michael Stoll, Project Engineer, will be the overall project manager for the project and will be the primary contact for Oro Loma, the drilling subcontractor, and the regulatory agencies. He will also complete the PSA field work activities. Mr. John Sturman, P.E., R.G., Senior Geotechnical Engineer, will be project director and will participate in project strategy decisions and meetings with Oro Loma and review all project documents generated by Levine•Fricke. Mr. Mark D. Knox, P.E., Chief Engineer, will review the technical and compliance aspects of the project.

UST Removal Activities

Task 7: Development of Bid Documents and Specifications for UST Removal

Levine•Fricke will prepare bid packages (documents and specifications) to be sent to qualified contractors for the UST removal. The bid packages will identify the contractor's scope of work. After Oro Loma has reviewed a draft copy of the bid package and review comments have been incorporated, the bid package will be finalized and sent to qualified contractors.

Task 8: UST Removal Contractor Selection Assistance

Levine•Fricke will assist Oro Loma in selecting a qualified contractor and awarding the contract. For cost estimation purposes, we have included one meeting with Oro Loma to review the bids and select the contractor.

Task 9: Permit Verification

Before field activities begin, Levine•Fricke will verify that the proper permits and notifications have been obtained by the contractor, verify that the UST area has been cleared for underground utilities, and participate in a pre-construction meeting with representatives of Oro Loma and the contractor.

Task 10: Observation of UST Removal, Collection of Samples, and Construction Monitoring

During field activities, a Levine•Fricke field engineer will observe exposure and excavation of the UST and piping, keep daily field reports of field activities, perform breathing-zone air quality monitoring, log visitors to the site during field work, provide ongoing project communication, identify potential project concerns, and provide recommendations to address such concerns. Levine•Fricke will verify that the contractors are working in compliance with the HSP. Additionally, the Levine•Fricke field engineer will discuss relevant aspects of the project with representatives of the regulatory agencies who visit the Site during field activities.

The contractor will be responsible for making the flammable vapors in the UST inert and verifying that combustion hazards associated with removal and transport of the UST have been reduced to an acceptable level. Although the contractor will be responsible for checking combustible gases with its meter, the Levine•Fricke field engineer will confirm the contractor's

measurements. Levine•Fricke's combustible gas (LEL) meter will be used to check the concentrations of combustible gases in the UST according to San Lorenzo Fire Department regulations before removal. Additionally, oxygen concentrations inside the UST will be measured before removal to check that levels are below combustion hazard levels.

Levine•Fricke personnel will collect soil samples (and ground-water samples if water is present in the UST excavation) using methods described in the California Water Resources Control Board (CWRCB) Leaking Underground Fuel Tank (LUFT) Field Manual (1989). Minimum sampling guidelines set by the California Regional Water Quality Control Board (RWQCB) in the Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites will be followed. If ground water is not encountered, Levine•Fricke personnel will collect soil samples below the UST and appurtenant piping; if ground water is encountered at the base of the tank excavation, Levine•Fricke personnel will collect one water sample in addition to excavation sidewall soil samples as required. It is possible that the ACHCSA may require fewer or more soil samples than set forth in the RWQCB guidelines. If this is the case, Levine•Fricke will discuss adjusting the budget for sampling with Oro Loma.

To comply with minimum sampling guidelines, one soil or ground-water sample will be collected from beneath the dispenser island. Levine•Fricke will seal and label soil and ground-water samples, place them in a chilled ice chest, and follow standard chain-of-custody procedures.

The Levine•Fricke field engineer will record photoionization detector (PID) measurements of excavated soil to identify where soils may be affected by volatile hydrocarbons. If it appears that soils excavated from the area immediately surrounding the UST or associated piping are affected by fuel, Levine•Fricke will notify Oro Loma and direct the contractor to cover such soils with plastic sheeting.

For cost estimating purposes, we have assumed that the field work associated with this task will be completed within 1.5 working days, and all soils removed from the excavation do not contain petroleum hydrocarbons and can be used as backfill. Additional time required as a result of unexpected conditions encountered in the field or slow progress on the part of the contractor will incur additional field engineer time and associated costs, which will be considered out of scope.

Task 11: Compaction Testing

A Levine•Fricke engineer will observe excavation backfilling and perform density testing of backfilled soils to confirm that the soil compaction and paving are performed in accordance with the project documents.

We have assumed that maximum density and optimum moisture content data will be provided by the contractor for the import fill soil. A Levine•Fricke field engineer will perform soil density testing of backfilled soils using a nuclear soil density gauge. We have assumed that backfilling can be completed in one half day.

Task 12: Laboratory Analysis of Soil and/or Ground-Water Samples

Since we expect to encounter ground water in the excavation, making sidewall sampling unnecessary, we do not expect the ACHCSA to require the collection of excavation sidewall samples. Therefore, for the purpose of this proposal we have assumed that two soil samples (one from beneath the dispenser and one from the excavated UST backfill) and one ground-water sample (from the tank excavation) will be analyzed. However, the ACHCSA may require more samples depending on conditions encountered in the field. Any additional samples would be considered out of scope.

Soil and ground-water samples selected for analysis will be analyzed for TPHg using modified EPA Method 8015 and for BTEX using EPA Method 8020. Additionally, since the gasoline tank may have previously contained leaded gasoline, one of the soil or ground-water samples collected from beneath the gasoline tank will be analyzed for organic lead using the California Department of Health Services (DHS) method.

The soil or ground-water sample collected beneath the fuel dispenser island will be analyzed for TPHg using modified EPA Method 8015 and for BTEX using EPA Method 8020.

One soil sample will be collected from the stockpiled soil excavated from around the UST to determine its potential use as backfill soil. The soil sample will be analyzed for TPHg using modified EPA Method 8015 and for BTEX using EPA Method 8020.

The samples will be analyzed by a state-certified analytical laboratory. To minimize the time the excavation is left open, all the samples will be analyzed on a rush basis (i.e., with a 24-hour turnaround).

Task 13: UST Removal Data Evaluation and Report Preparation

Following completion of the field work, a report will be prepared to document the UST and associated piping removal activities. The report will describe the field activities, present soil and ground-water sampling results and conclusions, and include figures and tables summarizing the laboratory results.

After Oro Loma has reviewed a draft copy of this report and review comments have been incorporated, the report will be finalized and submitted to the appropriate regulatory agencies.

Task 14: Project Management

This task includes coordinating field work with the general contractor, updating Oro Loma on a regular basis of the status of the work, contacting regulatory agencies as necessary, scheduling laboratory work, and reviewing contractor and laboratory invoices. Additionally, Levine•Fricke will work with the appropriate regulatory agencies to arrive at the appropriate verification sampling requirements and to notify them of the schedule for the tank removal activities.

Mr. Michael Stoll, Project Engineer, will be the overall project manager for this project and will be the primary contact for Oro Loma, the contractor, and the regulatory agencies. Ms. Shellie Fletcher, Staff Engineer, will assist Mr. Stoll with the field tasks. Mr. John Sturman, P.E., R.G., Senior Geotechnical Engineer, will be project director and will participate in project strategy decisions and meetings with Oro Loma and review all project documents generated by Levine•Fricke. Mr. Mark D. Knox, P.E., Chief Engineer, will review the technical and compliance aspects of the project.

Task 15: Turnkey Construction Services

If Oro Loma requests turnkey services, Levine•Fricke will retain Trumpp Bros., Inc. ("Trumpp"), a general engineering and hazardous waste contractor, to provide construction services. Our preliminary estimate of the

contractor's scope of work will need to be revised with Oro Loma's input depending on the results of the PSA.

Our preliminary estimate of Trumpp's services includes removing and disposing of the overlying asphalt and concrete section, including the dispenser island; removing and disposing of the gas pump; draining product piping; making combustible vapors in the UST inert; dewatering the excavation; removing and disposing of the UST and associated piping; removing and disposing of the fuel dispenser; stockpiling soil excavated to remove the UST; purchasing clean import gravel and soil to be approved by Levine•Fricke, providing Levine•Fricke with compaction curves, and backfilling the excavation; and repaving the asphalt concrete to match the existing surrounding pavement surface. Before excavation begins, Trumpp will notify Underground Service Alert, retain an underground utility locator to screen the excavation area for underground utilities, complete the Alameda County "Underground Tank Closure Plan," obtain all necessary permits, and notify the Bay Area Air Quality Management District. Trumpp will also install a temporary safety fence around the perimeter of the excavation.

The excavated UST and associated piping will be transported by a licensed hazardous waste hauler to H&H Shipping Services' San Francisco facility or to Erickson's Richmond facility, where the UST will be triple rinsed and rendered unusable. The UST and associated piping will then be transported to Levin Metal in Richmond, California, or Schnitzer Steel in Oakland, California, where they will be scrapped.

We have assumed that water removed from the excavation will be pumped directly into the Oro Loma facility.

Excavated soils above the top of the UST and piping, except obviously affected soils, will be separated from soils excavated below the UST and piping to avoid affecting "clean" overburden soils with petroleum hydrocarbon-affected soils.

As soon as analytical laboratory results are available and Levine•Fricke or the regulatory agency permits the excavation to be backfilled, Trumpp will backfill the excavation from depth to the ground-water elevation (if encountered) with open-graded gravel. A non-woven geotextile fabric will be placed over the gravel to stabilize the fill by separating it from the gravel. The excavation will then be backfilled from the ground-water elevation to 10 inches below ground surface (bgs) with existing backfill material that is

confirmed to be unaffected by fuel, and clean imported fill. From 10 inches bgs to 2.5 inches bgs, the excavation will be backfilled with Class II aggregate base. The backfill will be compacted to at least 90 percent relative compaction below a depth of 2 feet bgs and to at least 95 percent relative compaction from 2 feet bgs to 2.5 inches bgs. The excavation will be repaved to match the existing surrounding pavement surface (an estimated 2.5 inches of asphalt concrete).

This estimate assumes that any hold down slabs located beneath the UST or deadman logs encountered during removal of the UST are to remain in place. If these items are encountered, cost estimates for their removal, if desired by Oro Loma, can be discussed at that time.

Depending on the results of PSA, shoring or sheet piling may be required; however, costs for shoring or sheeting are not included in the estimate.

SCHEDULE

Levine•Fricke can begin work on this project within one week of authorization from Oro Loma. We expect that the PSA field activities can be completed within three weeks of authorization. We expect the PSA letter report to be completed within two weeks after the completion of the PSA field work or about five weeks after receiving authorization.

If Option One is selected, we expect that we can begin UST removal activities at the Site within eight weeks after receiving authorization. If Option Two is selected, we expect that Trumpp can begin UST removal activities at the Site within six weeks after receiving authorization.

We expect that the UST removal activities can be completed within one week, barring unexpected conditions. Levine•Fricke will send a draft report to Oro Loma two to three weeks after the field portion of the project is finished or within 12 weeks (Option One) or 10 weeks (Option Two) after receiving authorization to proceed. After Levine•Fricke has incorporated Oro Loma's review comments, the UST closure report will be finalized and submitted to the regulatory agencies. If desired by Oro Loma, Levine•Fricke may be able to complete this project on an accelerated time schedule.

ESTIMATED BUDGET

Levine•Fricke will work on this project on a time-and-materials basis. Our estimate of these costs is based on the level of effort deemed necessary. A 15 percent subcontract administration fee will be added to subcontractor charges to cover insurance and handling costs, if Oro Loma elects to have Levine•Fricke subcontract the construction services. Levine•Fricke will not implement any changes to the scope of work without discussing them with Oro Loma beforehand; nor will Levine•Fricke exceed the estimated total budget without prior approval from Oro Loma.

Task 1: Preparation of a Site Health and Safety Plan

Levine•Fricke Personnel:

Health and Safety Director 1 hr @ \$89/hr	\$89
Project 2 hrs @ \$101/hr	202

Reimbursables:

Photocopying, Postage	<u>75</u>
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Task Total	\$366
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Task 2: Preparation of a PSA Work Plan

Levine•Fricke Personnel:

Project 3 hrs @ \$101/hr	303
Senior 1 hrs @ \$129/hr	129
Principal 0.75 hr @ \$160/hr	120
Editor 1 hr @ \$65/hr	65
Illustrator 1.5 hrs @ \$65/hr	98
Reproduction 0.5 hrs @ \$42/hr	21

Reimbursables:

Photocopying, Postage	<u>50</u>
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Task Total	786
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Task 3: Performance of PSA

Levine•Fricke Personnel:

Project 8 hrs @ \$101/hr 808

Reimbursables:

Vehicle 95

Field PID Rental 122

Sampling Equipment 75

Drilling Subcontractor 1,500

Utility Locator 300

Subcontract Administration (15%) 270

Task Total 3,170

Task 4: Laboratory Analysis of Soil and Ground-Water Samples Collected During PSA

TPHg/BTEX 12 samples @ \$50/sample 600

Subcontract Administration (15 %) 90

Task Total 690

Note: We have budgeted for the maximum number of samples we expect to collect in the field (six soil and six water samples). Samples will be analyzed on a standard seven-working-day turnaround. If desired by Oro Loma, samples can be analyzed on a 24-hour, 48-hour, or 72-hour turnaround; however, there will be an additional 100%, 75%, or 50% laboratory surcharge, respectively.

Task 5: PSA Data Evaluation and Letter Preparation

Levine•Fricke Personnel:

Project 4 hrs @ \$101/hr 404

Senior 2 hrs @ \$129/hr 258

Principal 0.75 hr @ \$160/hr 120

Editor 2 hrs @ \$65/hr 130

DID NOT PERFORM

Task 5, cont.

Illustrator 0.75 hr @ \$65/hr	49
Reproduction 0.5 hr @ \$42/hr	21

Reimbursables:

Photocopying, Postage	<u>60</u>
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Task Total	1,042
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Task 6: PSA Project Management

Levine•Fricke Personnel:

Project 3 hrs @ \$101/hr	303
Senior 1.5 hrs @ \$129/hr	<u>194</u>

Task Total	497
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Task 7: Development of Bid Documents and Specifications for UST Removal

Levine•Fricke Personnel:

Project 6 hrs @ \$101/hr	606
Senior 3 hrs @ \$129/hr	387
Principal 0.75 hr @ \$160/hr	120
Editor 2 hrs @ \$65/hr	130

Reimbursables:

Photocopying, Postage, Telephone	<u>100</u>
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Task Total	1,343
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Did not perform

Task 8: UST Removal Contractor Selection Assistance

Levine•Fricke Personnel:

Project 3 hrs @ \$101/hr	303
Senior 1 hr @ \$129/hr	129

Reimbursables:

Mileage	<u>20</u>
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Task Total	710
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Task 9: Permit Verification

Levine•Fricke Personnel:

Project 2 hrs @ \$101/hr	<u>202</u>
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Task Total	202
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Task 10: Observation of UST Removal, Collection of Samples, and Construction Monitoring

Levine•Fricke Personnel:

Staff 12 hrs @ \$76/hr	912
Project 3 hrs @ \$101/hr	303

Reimbursables:

Vehicle	143
Field PID and LEL Rental	250
Sampling Equipment	<u>40</u>

Task Total	1,648
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Note: Based on 1.5 field days.

Task 11: Compaction Testing

Levine•Fricke Personnel:

Staff 6 hrs @ \$76/hr	456
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Task 11, cont.

Reimbursables:

Vehicle Mileage	45
Nuclear Gauge Rental	<u>50</u>

Task Total 601

Note: Based on one half field day.

Task 12: Laboratory Analysis of Soil and/or Ground-Water Samples Collected During UST Removal

TPHg/BTEX 3 samples at \$100/sample	300
Organic Lead	105
Subcontract Administration (15%)	<u>61</u>

Task Total 466

Note: Samples will be analyzed on a 24-hour turnaround.

Task 13: UST Removal Data Evaluation and Report Preparation

Levine•Fricke Personnel:

Project 8 hrs @ \$101/hr	808
Senior 3 hrs @ \$129/hr	387
Principal 1.5 hrs @ \$160/hr	240
Editor 3 hrs @ \$65/hr	195
Illustrator 1.5 hrs @ \$60/hr	90
Reproduction 0.75 hr @ \$42/hr	32

Reimbursables:

Photocopying, Postage	<u>100</u>
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Task Total 1,852

Task 14: Project Management

Levine•Fricke Personnel:

Project 8 hrs @ \$101/hr	808
Senior 2 hrs @ \$129/hr	<u>258</u>

Task Total 1,066

Task 15: Turnkey Construction Services

Trumpp Bros. General Contractors (tank removal and associated activities)	7,600
Subcontract Administration (15 %)	<u>1,140</u>

Task Total 8,740

Option One: Levine•Fricke Engineering Services
Includes Tasks 1 through 14

ESTIMATED PROJECT TOTAL \$14,439

Option Two: Turnkey UST Removal
Includes Tasks 1 through 6 and 9 through 15

ESTIMATED PROJECT TOTAL \$21,126

PROJECT ABSTRACTS

Project: Underground Tank Location, Removal, and Soil Excavation, City of San Francisco

Levine•Fricke performed a site inspection to locate a 10,000-gallon capacity diesel tank at the site. The location of the tank was previously unknown. The project team used geophysical techniques and existing piping to locate the tank and associated piping, which were found situated beneath a water tank under the sidewalk and street. Levine•Fricke directed the removal of the tank and associated fuel-affected soils. The tank and soil removal included relocation of underground and overhead power utilities, excavation shoring, barricading one lane of traffic, and replacement of the sidewalk. Levine•Fricke and our contractor worked with staff from the San Francisco Environmental Health Services Toxic Control Management Program, the San Francisco Department of Public Works, and PG&E. The tank and soil removal operation was successfully completed within only a two-week construction period. A comprehensive report was prepared describing the locating and removal activities.

Holliday Development, Inc.
77 Federal Street, 2nd Floor
San Francisco, California 94107

Mr. Richard Holliday
(415) 896-6100

Additional abstracts and references can be provided upon request.

Project: Underground Storage Tank Program, Manufacturing Company, San Francisco Bay Area, California

Levine•Fricke removed six underground tanks from the site, two of which were leaking. Subsequent excavations and soil borings indicated that leaking stored chemicals had migrated to significant depths below the tanks. The project team used a soil-gas survey to define the horizontal extent of

chemical migration and further soil borings to define the vertical extent. Levine•Fricke developed a feasibility plan for alternative remedial programs.

Hewlett Packard
P.O. Box 50161
Palo Alto, California 94303

Mr. Chuck Doerr
(415) 857-4816

**Project: Underground Storage Tank Replacement, Silicon Valley,
 California**

Levine•Fricke developed a tank replacement program at the client's automotive service center. A Work Plan was drawn up for a Scope of Services which included removing two existing underground fuel storage tanks, installing new fuel storage tanks, removing and installing piping for the fuel storage system, removing a waste oil tank, installing a new waste oil tank, removing and installing the waste oil piping, installing a conduit, wiring, and leak monitoring system, and installing new fuel dispensers. The replacement fuel tanks, waste oil tank, and piping were all doubled-walled.

Levine•Fricke prepared plans and specifications for completion of the work by a licensed contractor, and submitted these documents to the City for building, electrical, structural, and fire department review and permit approval. During the construction period, representatives of Levine•Fricke were on site to observe work activities, collect soil samples beneath tanks and piping, and observe pipe and tank leaks.

Hewlett Packard
P.O. Box 50161
Palo Alto, California 94303

Mr. Chuck Doerr
(415) 857-4816

**Project: Underground Storage Tank Removal Program at Five City Sites,
San Francisco, California**

Levine•Fricke supervised the removal of eleven USTs from five sites in an industrial/commercial zone of a large city which had been scheduled for future residential development. In each case, soils surrounding the tanks were sampled and analyzed for the presence of petroleum hydrocarbons. Petroleum-affected soils were removed from the excavations, aerated at a nearby site, and then disposed at a Class III landfill.

Catellus Development Corporation
201 Mission Street
San Francisco, California 94105

Mr. Ric Notini, Environmental Director
(415) 974-4617

**Project: Underground Storage Tank Leak Response, Ground-Water
Cleanup, Repair, and Retrofit, San Francisco Bay Area**

Levine•Fricke responded to a diesel tank leak, initially discovered when an underground storage tank failed to top off during filling.

The project team performed a tank and piping tightness test to identify the location of the leak, then directed a contractor to install a well casing in the permeable tank backfill material and install a product recovery system to capture fuel that had been lost. Levine•Fricke then implemented a limited soil and ground-water quality investigation to assess the extent of fuel-affected soil and ground water and the local ground-water flow gradient. Over 1,150 gallons of fuel (believed to be over 95 percent of the fuel lost) was recovered from the extraction well and monitoring wells installed at the site. Due to the effectiveness of Levine•Fricke's response, ground water approximately 30 feet away from the tank was not significantly impacted.

Levine•Fricke obtained approval from the local implementing agency of the State of California's Underground Storage Tank Program to repair the tank in place, saving the client considerable costs associated with removing and replacing the tank. Levine•Fricke also prepared plans and specifications for retrofitting the tank to meet current compliance standards. These included installing the following: a tank manway riser and manhole to provide surface

access to the tank manway, an overfill protection fill port, and an automatic tank gaging system.

Kaiser Foundation Health Plan, Inc.
1950 Franklin Street, 1st Floor
Oakland, California 94612

Mr. John Eckmann
(510) 987-4050

LIST OF LEVINE•FRICKE - TRUMPP UST SITES

The following is a partial list of sites where Levine•Fricke and Trumpp have teamed together to remove USTs. Trumpp can provide a list of additional sites if requested.

Project: A

Excavation and disposal of USTs at a client's 11 different Northern California locations. Petroleum-affected soils were encountered in some of the locations.

Project: B

Excavation and disposal of three USTs from a site in Oakland, California. The project involved installation of sheet piling to support a building and street, excavation of gasoline-affected soils, and on-site aeration of the soils.

Project: C

Excavation and disposal of three USTs from a site in Emeryville, California. Sample results indicated that minimal leakage into the ground water had occurred.

Project: D

Excavation and disposal of three USTs from a site in San Jose, California. The project involved the excavation and aeration of gasoline-affected soils.