San Francisco Regional Office

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ENVIRONMENTAL PROTECTION

Clayton GROUP SERVICES

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6070

February 21, 2000

Mark Owens
State of California
State Water Resources Control Board
Division of Clean Water Programs
Underground Storage Tank Cleanup Fund
P.O. Box 944212
Sacramento, California 94244-2120

Clayton Project No.70-97066.00

Subject: Request for Pre-Approval of Costs to Implement Workplan
Claim Number 014129
630 29th Avenue
Oakland, California

Dear Mr. Owens:

Clayton Group Services, Inc. (Clayton) has been approved by Alameda County Health Care Services Agency (ACHCS) to perform additional investigations at 630 29th Avenue in Oakland, California. Included as attachments to this letter are the following:

- Cost Pre-Approval Request form,
- April 1 and Jun 21, 1999 correspondence from (ACHCS),
- May 17, 1999 Workplan (Clayton),
- August 2, 1999 Workplan Revisions and Schedule (Clayton),
- Cost sheet to implement the Workplan, and
- Bids from various drilling contractors to perform subcontracted services.

Clayton prepared a scope of work (Workplan) for additional investigations dated May 17, 1999 pursuant to the requests in the ACHCS's letter dated April 1, 1999. ACHCS conditionally approved the Workplan in a letter dated June 21, 1999. The Workplan was modified to respond to ACHCS comments in a letter dated August 2, 1999. In summary, the approved Workplan consists of the following:

- construct three additional 2-inch groundwater monitor wells to help define the lateral extent of the groundwater contamination plume, ✓ 5/23/00
- perform quarterly groundwater monitoring commencing upon the completion of the planned groundwater monitoring wells (assume three consecutive quarters of monitoring), ?
- collect one round of groundwater samples for groundwater quality/bio-remediation parameter analyses, and ?
- prepare a feasibility study. ?

The purpose of the investigation is to define the lateral extent of petroleum hydrocarbon impacts and groundwater quality in the shallow groundwater. Sufficient data will also be collected for preparation of a feasibility study to determine the necessary remedial activities to obtain closure.

Part of the work is to obtain the Temporary Encroachment and Excavation permits from the City of Oakland, which has proven to be a time consuming process. Clayton has been pursuing the permits since August 1999. Initially, Clayton relied on the property owners to perform certain portions of the task related to their indemnification, insurance, and grant deed requirements. After several months and numerous failed attempts to coordinate the efforts through the property owners, Clayton ultimately prepared all the necessary permit documents. Clayton obtained copies of the deed and interfaced with the property owners and their insurance companies to ensure the proper indemnification and insurance provisions were incorporated by the property owners into the necessary permit documents. The permit was submitted in December 1999 to the City of Oakland and upon permit approval, Clayton has arranged to provide a Notary of the Public to travel to the residences or place of business of each of the three property owners to obtain the final required signatures.

Clayton has previously received Pre-Approval of Costs from David Hallstrom (see letter dated January 13, 1999 to Donna Proffitt of Bank of America). Due to the amount of previous work completed, involvement of multiple parties, regulatory involvement, and the various permits required, the use of competitively bid consultants to complete this phase of work was not cost effective. Furthermore, it is believed that a second consultant would impede the progress of the work and require the consultant to develop a relationship with the other parties as well as gain the confidence of those other parties. Moreover, the investigation Workplan prepared by Clayton has already been approved by ACHCS.

Clayton has competitively bid all subcontractor work associated with the previous investigation as required by the Underground Storage Tank Cleanup Fund. Clayton labor for this project is performed at our salary and overhead cost. All subcontractor costs have an 8 percent markup for administrative costs. As previously requested, we have adjusted the Project Director rate from $130/hour to $120/hour. We have competitively bid the drilling subcontractor work associated with the investigation. The subcontracted work for the utility locator, well surveyor, and concrete coring each are less than $500 each and were not competitively bid. However, similar subcontracted work to that described above was performed on previous investigations at this subject site where Clayton did obtain three competitively bids; thus, Clayton will subcontract these small items to the low bidding contractors from those previous investigations. Clayton reviewed the cost sheets from three analytical laboratories located near our office and the project site (Sequoia, Chromalab, and McCambell). Clayton chose McCambell as the laboratory for this project based on the lowest analytical costs and proven performance on previous Clayton jobs. A detail of the costs is presented in an attachment. The total estimated cost to implement the Workplan is $17,570.

If you have any questions, please do not hesitate to call me at (925) 426-2600. We will be moving forward with the implementation of the Workplan shortly. Your assistance in this matter is greatly appreciated.

Sincerely,

Jon A. Rosso, P.E.
Director
Environmental Services

JAR/mwh

Attachments

cc: Rita Repko, Clayton
Marlin Zechman, ECS
Barney Chan, ACHCS

CALIFORNIA UNDERGROUND STORAGE TANK CLEANUP FUND
COST PRE-APPROVAL REQUEST
(Complete form, enclose required items, sign, date & return)

TO: Mark Owens Fax: (916) 227-4530

I. CLAIM INFORMATION
A. CLAIM NO. 014129 B. CLAIMANT _____

C. CLAIM STATUS (complete appropriate section)
i) LOC ISSUED FOR $ N/A
ii) ON PRIORITY LIST? ☒ YES ☐ NO IF YES, PRIORITY CLASS ☐ A ☐ B ☐ C ☒ D
iii) NOT YET APPLIED TO THE FUND, EXPECTED APPLICATION DATE: _____
D. CONTACT PERSON: Jon Rosso, Clayton Group PHONE: 925-426-2600
ADDRESS: 6920 Koll Center Parkway #216 FAX: 925-426-0106
Pleasanton, California 94566

II. TYPE OF REQUEST (check appropriate boxes)

☒ PRE-APPROVAL $ 17,570.00 AMOUNT REQUESTED

☒ **3-BID REVIEW** $ 17,570.00 **PREFERRED BID (if applicable)**

THE FOLLOWING DOCUMENTS ARE REQUIRED FOR THE SPECIFIED REQUEST. ALL DOCUMENTS REQUESTED MUST BE SUBMITTED OR THE REQUEST(S) WILL BE RETURNED UNPROCESSED.

A. REQUEST FOR PRE-APPROVAL OF PROPOSED COSTS-The following items are required before review and determination will be made by Fund Staff.
1. __A complete signed copy of the proposed Investigation Workplan or Corrective Action Plan (CAP) (as defined and required by Article 11, Chapter 16, California Underground Storage Tank Regulations). Corrective Action Plans must include the required feasibility study and chosen cost effective alternative.
2. __A signed copy of the oversight agency approval letter for the Workplan/CAP.
3. __A complete copy of the Request for Bids, including all attachments. A list of all firms requested to bid must be included.
4. __Complete copies of all bids and other correspondence submitted in response to the Request for Bids.
5. __A time schedule, if not part of bid documents, anticipated for project initiation and duration.
6. __A detailed project budget, which includes breakdowns of staff/task/hour with associated estimated totals.

B. THREE-BID REVIEW/EVALUATION/DETERMINATION - Fund staff will assist any claimant requesting an evaluation of bids upon request. The following information must be submitted - 1,2,3 AND 4 as described in Item: A above.

III. CERTIFICATION
I certify under penalty of perjury that all information submitted with this request is complete and accurate and in accordance with all applicable laws and regulations. ***Must be signed by claimant or person designated on the Authorized Representative Designation form***

Signature Jon A. Rosso Printed Name 2/21/00 Date

IV. Authorization for the Fund to give out your name and phone number to other claimants in your region as a reference for consultants and contractors. ☒ **YES** ☐ **NO**

Signature 2/21/00 Date

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

209 892 00 79

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

April 1, 1999
StID # 6070

Mr. Jon Rosso
Clayton Environmental Consultants
1252 Quarry Lane
P.O. Box 9019
Pleasanton, CA 94566

Re: Request for Supplemental Work Plan for 630 29th Ave., Oakland CA 94601

Dear Mr. Rosso:

This letter serves to summarize the items discussed in our March 30, 1999 meeting at the County offices. In this meeting, we discussed the results of Clayton's **March 1999 Limited Groundwater Investigation Report** and potential further investigation which should be done at the site to further characterize the fuel release, determine potential human health risk and initiate remediation.

As pointed out in the referenced report, the following observations can be made regarding this site:

- Shallow groundwater at the site has been significantly impacted with gasoline and BTEX. Contamination has migrated within the warehouse and the limits of the plume have not been defined.
- The fairly impermeable soil type may have prevented large-scale migration and it is apparent that natural attenuation has not occurred to any significant degree.
- An adjacent sanitary sewer pipeline has affected the flow of groundwater and may be a conduit for preferential migration. Although the calculated groundwater gradient is northerly, there must also be a westerly component to account for the migration of contamination within the warehouse.
- The limited access to the warehouse area limits the type of remediation which can be performed inside the building.
- The elevated benzene concentration in groundwater samples poses a potential risk to indoor occupants.

With these items in mind, our office requests the submittal of a supplemental work plan for this site. This work plan should include, at a minimum, the following elements:

- Prior air sampling was performed at this site. Please submit a copy of this report to our office. Because a Tier 1 RBCA would fail due to the high levels of benzene in groundwater, if this investigation is deemed inadequate, additional soil vapor sampling may be required.
- A monitoring program must be implemented to establish concentration trends. Our office recommends quarterly monitoring until a trend is established. The monitoring program should include in addition to chemical analysis, the analysis of bio-remediation parameters including dissolved oxygen, oxidation-reduction potential, nitrate, sulfate and ferrous iron.

- The extent of groundwater contamination must be determined. It is believed that this can be done by the installation of two additional monitoring wells. Please include your recommendation for further characterizing of groundwater.
- A feasibility study should be provided to examine viable remediation approaches. Please describe and justify the recommended approach(s).

Please submit your supplemental work plan to our office within 45 days or by May 17, 1999.

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files
Ms. D. Proffitt, B of A Environmental Services, 4000 MacArthur Blvd., Suite 100, Newport Beach, CA 92660-2516

Spwp630-29th

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

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

June 21, 1999
StID # 6070

Mr. Jon Rosso
Clayton Environmental Consultants
1252 Quarry Lane
P.O. Box 9019
Pleasanton, CA 94566

Re: Workplan for Additional Investigation, Groundwater Monitoring and Feasibility Study For 630 29th Ave., Oakland CA 94601

Dear Mr. Rosso:

Our office has received and reviewed the May 1999 work plan referenced above provided by Clayton. This work plan responds to my prior April 30, 1999 letter requesting this additional investigation. The additional investigation proposes the installation of two additional monitoring wells, to the northwest and southwest of the former underground tank. A modified monitoring program and a feasibility study are also proposed.

Based on our conversation today, our office has the following additional comments and requirements:

- To define the extent of the contaminant plume in the northerly direction, a minimum of one additional groundwater sample should be near the north side of 7th St. Either a temporary or permanent well should be installed to determine both groundwater quality and elevation.
- In regards to the proposed monitoring program, please also include the monitoring of monitoring well MW-2 in the quarterly monitoring program. This well is necessary to determine concentrations in the westerly direction from the source.
- Please add the halogenated volatile organics to the list of analytes tested in the proposed wells. This is based upon the original detection of ethylene dichloride in groundwater samples.
- The proposed bio-remediation parameters also proposed for testing should be collected from these wells and the results interpreted to see if there is consistency in what these indicator parameters would predict. Should you propose a remediation approach based upon natural bio-remediation, these parameters should be tested on a regular basis.
- The feasibility study will be provided after this additional work to incorporate as much information as possible.
- Our office has also received and reviewed the **March 1998 Air Sampling for Benzene** report submitted. Based on these results, it appears that at that time, no risk to benzene was found.

Please inform our office of what additional off-site investigation is proposed and whether you have any questions regarding the above comments. You may contact me at (510) 567-6765.

Sincerely,

Barney M Chan

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files
Ms. D. Proffitt, B of A Environmental Services, 4000 MacArthur Blvd., Suite 100, Newport Beach, CA 92660-2516

Swpap630-29th

San Francisco Regional Office

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Clayton
ENVIRONMENTAL
CONSULTANTS

August 2, 1999
Project: 70-97066.00

FILE COPY

Barney M. Chan
Hazardous Materials Specialist
Alameda County Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Subject: Workplan Revisions and Schedule of Subsurface Investigation
630 29th Avenue
Oakland, California

Dear Mr. Chan:

Pursuant to your June 21, 1999 letter regarding the Clayton May 1999 "Workplan for Additional Investigation, Groundwater Monitoring and a Feasibility Study," Clayton will be implementing the additional requirements as follows:

- One additional groundwater monitoring well will be constructed on the north side of 7th Street.
- Monitoring well MW-2 will be added to the groundwater monitoring and sampling program.
- The halogenated volatile organics analysis (EPA Method 8010) will be added to the analytical suite for the groundwater monitoring well sampling program.
- A sampling program for groundwater quality/bio-remediation parameters will be discussed with Alameda County Health Care Services after the first quarter results have been reviewed.

The following is an update of the schedule for the workplan referenced above. Clayton Environmental Consultants, a division of Clayton Group Services, Inc., (Clayton) is in the process of submitting the documents for the City of Oakland encroachment and excavation permits, and the Alameda County boring permit. The encroachment permit is required for installation of the monitor wells in 29th Avenue and 7th Street. The various documents for the encroachment permit should be submitted to the City by the end of the first week of August. The excavation permit can only be submitted after the encroachment permit has been assigned.

According to the City of Oakland, the encroachment permit will take about four to six weeks to process. Following the receipt of the encroachment permit, the excavation

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permit can be submitted and will processed that same day. The total permitting time is estimated to take between six and eights weeks. Therefore, the necessary permits should be available sometime between September 10 and September 24, 1999.

Once the groundwater monitoring wells have been installed, the remainder of the workplan will be implemented.

In the meantime, we will keep you informed of our progress. If you have any questions, please call me at (925) 426-2600.

Sincerely yours,

Jon A. Rosso, P. E.
Director,
Environmental Risk Management and Remediation
Clayton Environmental Consultants, a division of Clayton Group Services, Inc.
San Francisco Regional Office

Cc: Donna Proffitt, Bank of America Environmental Services
Rita Repko, Clayton Group Services
Marlin Zechman, ECS
Michael Alders, ABI Industries

San Francisco Regional Office

1252 Quarry Lane
P.O. Box 9019
Pleasanton, CA 94566
(925) 426-2600
Fax (925) 426-0106

Clayton
ENVIRONMENTAL
CONSULTANTS

May 17, 1999

Mr. Barney Chan
Hazardous Materials Specialists
Alameda County Health Care Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Clayton Project No.70-97066.00.000

Subject: Workplan for Additional Investigation, Groundwater Monitoring, and Feasibility Study for 630 29th Avenue in Oakland, California

Dear Mr. Chan:

Clayton has prepared the requested Workplan for 630 29th Avenue in Oakland, California pursuant to your request in the April 1, 1999 Alameda County Health Care Services letter. The Workplan and a copy of Clayton's March 1998 indoor air monitoring report are included as attachments to this letter.

If you have any comments or questions regarding the attached documents, please contact me at (925) 426-2676. We would like to move forward with the workplan as soon as possible. We look forward to hearing from you regarding the approval of the Workplan.

Sincerely,

Jon A. Rosso, P.E.
Manager
Environmental Risk Management and
Remediation
San Francisco Regional Office

JAR/mwh

cc: Ms. Donna Proffitt

San Francisco Regional Office

1252 Quarry Lane
P.O. Box 9019
Pleasanton, CA 94566
(925) 426-2600
Fax (925) 426-0106

Clayton
ENVIRONMENTAL
CONSULTANTS

Workplan for Additional Investigation, Groundwater Monitoring and a Feasibility Study at Former Lemoine Sausage Facility Oakland, California For

Clayton Project No. 70-97066.00

May 1999

CONTENTS

1. INTRODUCTION

Clayton Environmental Consultants, a division of Clayton Group Services, Inc., has prepared this Workplan pursuant to the request of Alameda County Health Care Services in the letter dated April 1, 1999. The Workplan has been prepared for the former Lemoine Sausage Facility located at 630 29th Avenue in Oakland, California (Figure 1).

This Workplan outlines a scope of work for additional groundwater investigations to delineate the extent of groundwater impacts, quarterly groundwater monitoring, and the preparation of a feasibility study.

1.1. SITE HISTORY

A fueling dispenser and one 1,000-gallon gasoline UST were formerly located east of the facility building. The UST was located beneath the sidewalk adjacent to 7th Street and supplied the dispenser located in a "cubby hole" near the building's roll-up door. The UST and associated piping were removed on November 21, 1996 and confirmation soil samples were collected. The UST removal and results of confirmation sampling are described in the "Underground Storage Tank Closure Report", dated September 24, 1997.

Two subsequent limited subsurface investigations were performed in August/September 1997 and, documented in Clayton's "Limited Subsurface Investigation, Former Lemoine Sausage Facility, 630 29th Avenue, Oakland, California" dated April 1998 and in Clayton's "Limited Groundwater Investigation, Former Lemoine Sausage Facility, 630 29th Avenue, Oakland, California" dated March 1999. The analytical results of the 1997 and 1999 limited subsurface investigation are summarized in Table 1 for soil samples and Table 2 for limited groundwater samples.

2. SCOPE OF WORK

Pursuant to the request of Alameda County Health Care Services, Clayton will perform the following scope of work:

- Additional groundwater investigation to define the extent of impacts to groundwater,
- Quarterly groundwater monitoring and sampling; and
- Prepare a feasibility study

2.1. ADDITIONAL GROUNDWATER INVESTIGATION

The groundwater gradient has been demonstrated to flow to the north-northeast toward an East Bay Municipal Utility District main sewer pipeline trench. Based on the onsite groundwater elevations, the trench inverts elevation, and the regional groundwater flow direction, Clayton assumes that the plume does not extend north of the pipeline trench. The plume does however extend south and west of the former source area and this extent has not been defined.

To define the southerly and westerly extent of the groundwater plume, Clayton will install two additional groundwater monitoring wells. One well will be located in the southwest portion of the facility warehouse and the second well will be located in 29th Avenue south of 7th Street as shown in Figure 2.

2.1.1. Drilling Procedures and Monitoring Well Construction

An encroachment and excavation permit will be obtained from the City of Oakland for the placement of the proposed well in 29th Avenue. A limited access drill rig equipped with 8-inch diameter hollow stem augers will be used to drill boreholes for monitoring well installation. A California modified split spoon sampler lined with three 2-inch diameter, 6-inch long brass sleeves will be used to collect soil samples from boreholes. While drilling each borehole, one 18-inch soil sample drive will be advanced every five-foot interval to collect soil samples for either soil classification or screening purposes. Soil cores will be logged for lithological content by the Unified Soil Classification System (USCS), color using a Munsell color chart, relative moisture content, competency, blow counts, and other observable distinguishing characteristics (for example, rootlets or odor). A PID will be used to field screen soil for the presence of volatile organic compounds. Field observations and monitoring well construction details will be entered onto exploratory boring log sheets.

All hollow stem auger drill stems and downhole sampling equipment will be either steam cleaned or washed in a solution of non-phosphate detergent and double rinsed with tap water after each use. The soil cuttings and decontamination water will be containerized in separate USDOT approved 55-gallon drums. The drums will be sealed, labeled with content information and generation date, and stored onsite pending future disposal.

2-inch diameter wells will be installed for this phase of work. The groundwater monitoring wells will be constructed within the eight-inch diameter boreholes. The well screen, constructed with two-inch diameter schedule 40 PVC casing perforated with 0.020-inch slots and fitted with a PVC end cap, will be placed in each borehole. The monitoring well screen casing will be set from ten feet below first encountered water to ten feet above first encountered groundwater. The well screen casing will be flush threaded to the necessary length of two-inch diameter schedule 40 PVC blank pipe to complete the well casing to surface.

The well screen filter pack will be constructed by pouring Lonestar number 3 graded sand from the bottom of the borehole annular space to two feet above the top of the well screen casing. A two-foot interval of 3/8-inch bentonite pellets will be placed in the annular space above the top of the sand filter pack. The bentonite will be hydrated and allowed to swell. The remaining annular space to approximately one-foot below ground surface will be filled with a neat cement grout containing approximately five- percent bentonite powder. A traffic rated Christy box will be placed around the top of each well casing and secured in place with concrete. A lockable expanding well cap will be used to secure each well head.

2.1.2. Groundwater Monitoring Well Development

The annular space grout seal surrounding each monitoring well will be allowed to set for three days prior to well development. Well development will be performed to remove sediment that has accumulated in the well casing and filter pack sand during well construction, and also to help stabilize the filter pack sand and aquifer material surrounding the well screen intake area.

The depths to groundwater and total length of the monitoring well casing will be measured to determine the quantity of water within each well casing. A two-inch surge block will be used to agitate water and well construction materials prior to and during well development. A submersible pump will be used to purge groundwater and sediment from well casings. Well development will be continued until water quality parameters (pH, temperature, electrical conductivity, and turbidity) have stabilized. Groundwater parameters will be recorded onto field well development data sheet. A minimum of 10 well casing volumes of water will be purged from each monitoring well during development. Purge water will be stored onsite in sealed, labeled, USDOT approved 55-gallon drums pending future disposal.

2.1.3. Groundwater Monitoring Well Survey

A State of California Licensed Land Surveyor will be contracted to survey the location and elevation of each monitoring well. The survey will include the top of well casing elevation (north face) and top of Christy box rim elevation; the elevation data will be surveyed to 0.01-foot accuracy. The northing and easting co-ordinates will be surveyed to 0.1-foot accuracy and referenced to a recognized survey monument.

2.2. QUARTERLY GROUNDWATER MONITORING AND SAMPLING

The five existing and two proposed wells will be monitored for depth to water and four wells (MW-1, MW-3 and the two proposed wells) will be sampled on a quarterly basis. Prior to groundwater sampling, the depth to groundwater within each monitoring well will be measured with a water level indicator. Using the well survey co-ordinate and elevation data along with the depth to water measurement from each monitoring well, the groundwater elevation and flow direction beneath the subject property will be determined.

Approximately four well casing volumes of water will be purged from each monitoring well prior to sampling. A submersible pump will be used to purge ground water from each monitoring well. Water quality parameters (pH, electrical conductivity, temperature and visual turbidity) will be recorded onto field sampling data sheets prior to purging and after removing each well casing volume of water. Upon purging sufficient water from the monitoring wells, groundwater for laboratory analysis will be retrieved using a disposable bailer and transferred into laboratory supplied sample containers. Sample containers will be sealed, labeled with identifying information, logged onto the chain-of custody, and temporarily stored in a chilled ice-chest while awaiting transportation to the laboratory. Groundwater purged from monitoring wells during development and

sampling will be stored onsite in sealed, labeled, USDOT approved 55-gallon drums pending future disposal.

2.2.1. Laboratory Analyses of Groundwater Samples

Groundwater samples will be submitted for laboratory analyses to the State of California certified McCampbell Analytical Laboratories in Pacheco, California. The samples will be analyzed by one or more of the following United States Environmental Protection Agency (USEPA) approved analytical methods:

- USEPA Method 8015M for Total Petroleum Hydrocarbons as Gasoline (TPHG)
- USEPA Method 8020 for Aromatic Hydrocarbons (Benzene, Toluene, Ethylbenzene, and total Xylenes [BTEX]),

In addition, during the first quarter event groundwater samples will be collected for groundwater quality/bio-remediation parameters as dissolved oxygen, oxidation-reduction potential, nitrate, sulfate and ferrous iron. Upon receipt of the first quarter water quality data, Clayton will discuss with Alameda County Health Care Services whether future water quality analyses are necessary.

2.2.2. Report Preparation

A quarterly groundwater monitoring report will be generated for each quarterly sampling event. The first quarterly report will document the installation of the two additional groundwater monitoring wells and present data that will discuss whether the plume has been defined or not. Four consecutive quarters of monitoring and sampling will be performed, and at the end of that period, the need for additional groundwater monitoring will be re-evaluated.

2.3. FEASIBILITY STUDY

Once the additional groundwater investigation and first quarter of groundwater monitoring is complete, Clayton will prepare a feasibility study. The feasibility study will present several remediation approaches, including no action, and evaluate the feasibility of each alternative based on cost effectiveness, implementability, and practicability.

3. PROJECT MANAGEMENT

Upon written authorization of this workplan, Clayton will implement the scope of work beginning with an encroachment permit acquisition from the City of Oakland in order to implement the plume definition task (additional groundwater monitoring well installation). Once the additional groundwater monitoring wells have been installed and developed, Clayton will perform the first quarterly monitoring event. Upon receipt of the first quarterly monitoring data, the first quarterly monitoring report will be prepared and completed. The feasibility study will be prepared upon the completion of the first quarter

report. After the first quarter report and feasibility study have been reviewed by Alameda County, Clayton will request a meeting with Alameda County to discuss the chosen remedial alternative in the feasibility study.

Table 1

Summary of Historical Soil Analytical Data
Former Lemoine Sausage Facility
Oakland, California

Sample Location	Sample Depth (feet)	Date Sampled	TPHG	MTBE	Benzene	Ethyl benzene	Toluene	Total Xylenes
B-1	2.5	8/29/97	<0.3	NA	<0.005	<0.005	<0.005	<0.005
B-1	5.5	8/29/97	30	NA	<0.03	<0.03	<0.03	<0.04
B-2	2.5	8/29/97	<0.3	NA	<0.005	<0.005	<0.005	<0.005
B-2	6	8/29/97	660	NA	<0.5	6	<0.5	10
B-3	2.5	8/29/97	27	NA	<0.1	<0.3	<0.1	<0.1
B-3	5	8/29/97	170	NA	<.01	<0.1	<0.1	<0.1
B-4	2.5	8/29/97	<0.3	NA	<0.005	<0.005	<0.005	<0.005
B-4	6	8/29/97	25	NA	<0.1	<0.1	<0.2	<0.1
B-4	9.5	8/29/97	0.3	NA	<0.005	<0.005	<0.005	0.008
B-5	2.5	9/2/97	1.6	NA	0.009	0.012	0.005	0.045
B-5	6	9/2/97	<0.3	NA	<0.005	<0.005	<0.005	0.005

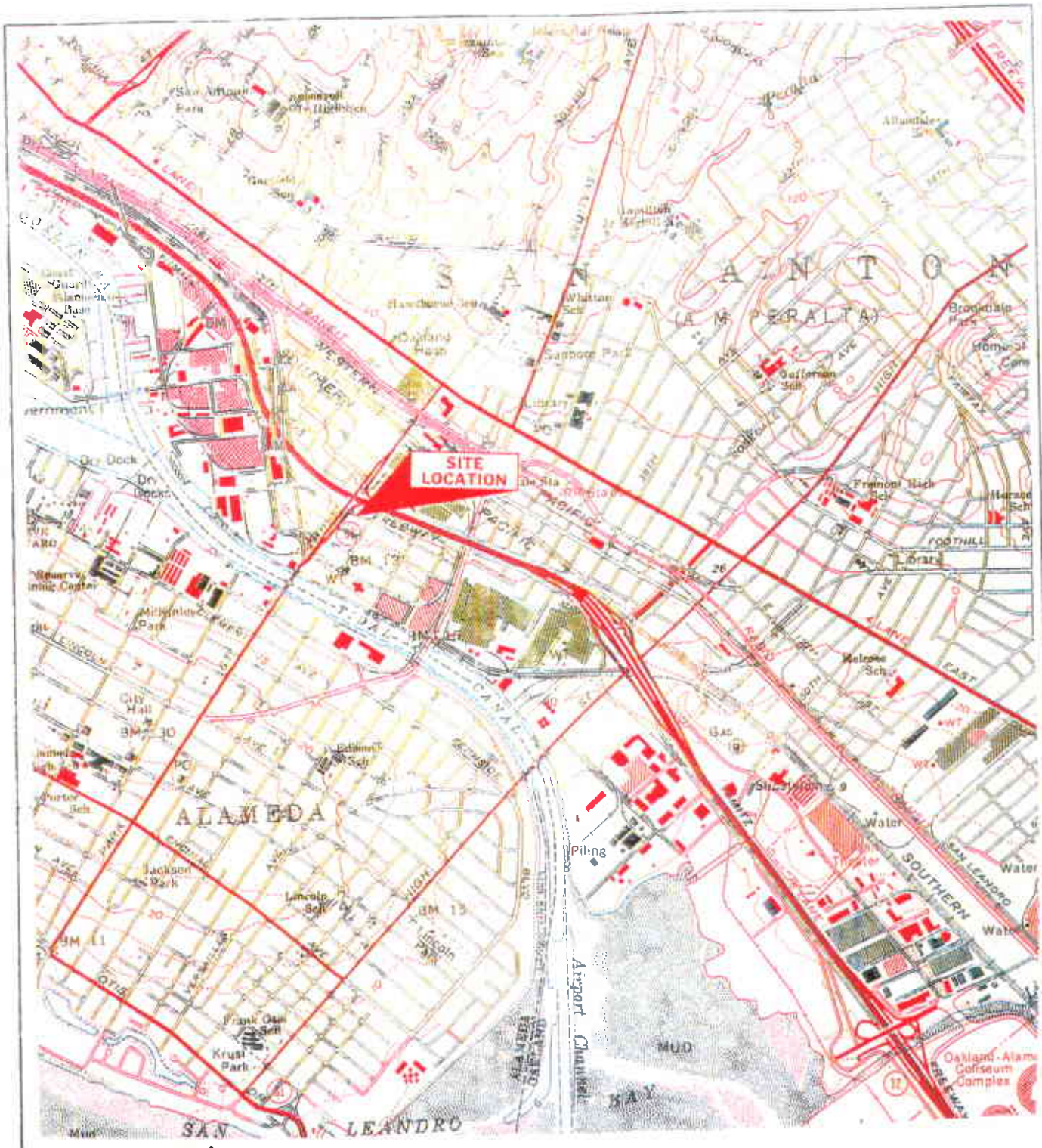
Notes:
1. All results in milligrams per kilogram (mg/kg)
2. NA = Not Analyzed

Table 2

Summary of Groundwater and Grab Groundwater Analytical Data
Former Lemoine Sausage Facility
Oakland, California

Sample Location	Date Sampled	TPHG	MTBE	Benzene	Ethyl benzene	Toluene	Total Xylenes	1,2-DCA
B-1	8/29/97	34,000	NA	430	2,400	54	4,649	NA
B-2	9/3/99	5,100	NA	2,800	43	120	140	NA
B-3	9/10/97	51,000	<5	14,000	290	5,900	7,100	410
B-4	9/3/97	100	NA	<0.4	<0.3	<0.3	<0.4	NA
B-5	9/10/97	78,000	<5	16,000	1,100	22,000	6,000	910
B-7	2/8/99	63,000	NA	5,900	2,700	4,100	9,600	160
B-8	2/8/99	140	NA	5.4	2.6	3.2	4.6	2.9
B-9	1/28/99	51,000	NA	240	640	5,600	3,150	<0.3
B-10	1/28/99	210	NA	1.4	1.9	16.0	100.8	<0.3
MW-1	2/8/99	48,000	NA	3,900	970	6,300	4,300	<30
MW-2	2/8/99	41,000	NA	11,000	650	4,900	1,720	60
MW-3	2/8/99	35,000	NA	1,200	1,400	3,400	4,900	<30
MW-4	2/8/99	15,000	NA	670	780	90	940	<30
MW-5	2/8/99	4,900	NA	780	230	440	370	<0.3

Notes:
All results in micrograms per liter (u/L)
NA = Not Analyzed
1,2-DCA = 1,2-dichloroethane
TPHG = Totoal Petroleum Hydrocarbons as Gasoline
MTBE = methyl tert-butyl ether



Source: U.S.G.S. OAKLAND EAST, CALIF., 7.5 Minute Quadrangle, 1959, (photorevised 1980)

SITE LOCATION

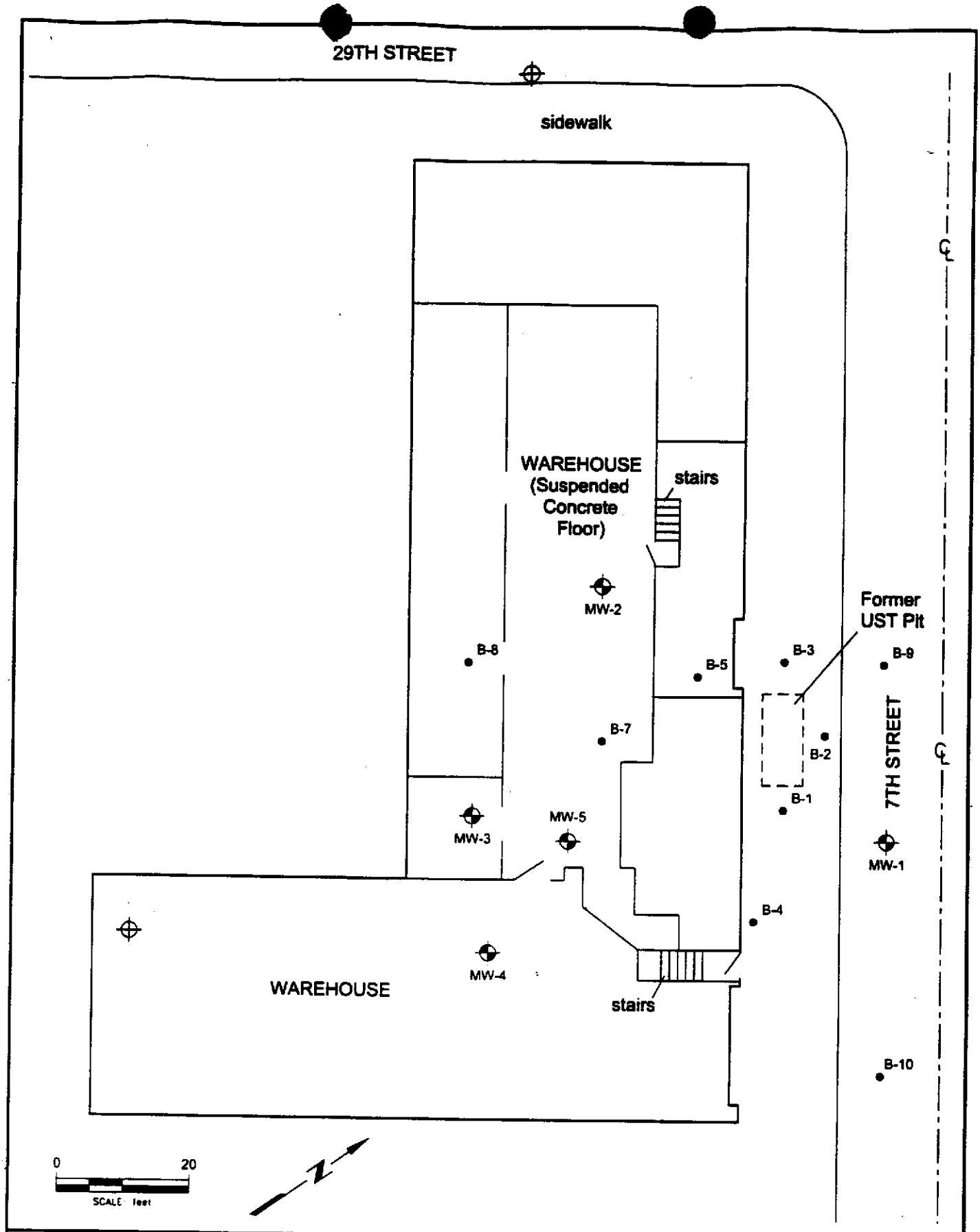
FORMER LEMOINE SAUSAGE FACTORY
630 29th AVENUE
OAKLAND, CALIFORNIA

Clayton Project No. 70-97066.00.002

Figure 1

03/20/98
LSF-0398.CDR

Clayton ENVIRONMENTAL CONSULTANTS



LEGEND

MW-1 Monitoring Well Location

B-1 Soil Boring/Temporary Monitoring Well Location

Proposed Monitoring Well Location

PROPSED MONITORING WELL LOCATION MAP

FORMER LEMOINE SAUSAGE FACTORY
630 29TH AVENUE
OAKLAND, CALIFORNIA
Clayton Project No. 70-97066.00

Figure
2
05/10/99
WELLMAP.DWG

Clayton
ENVIRONMENTAL
CONSULTANTS

COST ESTIMATE FOR
FORMER LEMOINE SAUSAGE FACTORY
630 29TH AVENUE
OAKLAND, CALIFORNIA

TASK 1 - Additional Groundwater Investigation

- Perform underground utility clearance
- Install three 2-inch groundwater monitoring wells
- Develop three groundwater monitoring wells
- Survey top of casing three groundwater monitoring wells
- Obtain encroachment permit and excavation permit from the City of Oakland
- Schedule subcontractors
- Obtain well installation permit

Consultant Fees

Description	Unit	Unit Rate	Cost
Obtain Permits/Scheduling			
Project Geologist	4	$67.00	$268.00
Staff Geologist	10	$60.00	$600.00
Secretary	3	$40.00	$120.00
Truck	1	$100.00	$100.00
Consultant Fee Subtotal			$1,088.00
Well Installation			
Project Geologist	1	$67.00	$67.00
Staff Geologist	10	$60.00	$600.00
Truck	1	$100.00	$100.00
equipment	1	$100.00	$100.00
Consultant Fee Subtotal			$867.00
Well Development/Survey (assume that survey/development performed same day)			
Staff Geologist	10	$60.00	$600.00
Truck	1	$100.00	$100.00
Equipment	1	$150.00	$150.00
Consultant Fee Subtotal			$850.00
Consultant Fee Subtotal Task 1			**$2,805.00**

TASK 1 CONTINUED

Reimbursable Expenses

Description	Unit	Unit Rate	Cost
Encroachment and Excavation Permit	1	775	$775.00
Reimbursable Expenses Subtotal (8% markup)			**$837.00**

Subcontractor Costs

Description	Unit	Unit Rate	Cost
Well Drillers	3	784	$2,352.00
Utility Locator	1	360	$360.00
Concrete Corer	1	300	$300.00
Well Surveyor	1	400	$400.00
Subcontractor Fee Subtotal (8% markup)			**$3,684.96**

TASK 1: TOTAL **$7,326.96**

TASK 2 - Quarterly Groundwater Monitoring

- Perform 3 quarters of groundwater monitoring and sampling for year 2000
- Laboratory analysis - 8015 M, 8020, and 8010 for 6 wells each quarter
- One time analysis for: dissolved oxygen (DO), oxidation/reduction potential (ReDox) nitrate, sulfate, and ferrous iron. DO and ReDox will be performed with instruments in the field
- Report preparation

Consultant Fees

	Description	Unit	Unit Rate	Cost
Field Work				
	Staff Geologist	10	$60.00	$600.00
	Truck	1	$100.00	$100.00
	Equipment	1	$150.00	$150.00
	Field Work Labor Subtotal per Quarter			$850.00
Initial Report Preparation				
	Senior Geologist	2	$120.00	$240.00
	Project Geologist	10	$67.00	$670.00
	Secretary	2	$40.00	$80.00
	Graphics	4	$40.00	$160.00
	Reproduction	1	$100.00	$100.00
	Initial report costs			$1,250.00
Report Preparation				
	Senior Geologist	0.5	$120.00	$60.00
	Project Geologist	6	$67.00	$402.00
	Secretary	2	$40.00	$80.00
	Graphics	2	$40.00	$80.00
	Reproduction	1	$100.00	$100.00
	Report Costs per Quarter			$722.00

TASK 2 CONTINUED

Analytical Fees

	Description	Unit	Unit Rate	Cost
Quarterly Analyses				
	TPH-G/BTEX	6	$50.00	$300.00
	8010	6	$70.00	$420.00
	Laboratory Analysis subtotal per quarter w/8%			$777.60
One Time Analyses				
	Nitrate	6	$20.00	$120.00
	Sulfate	6	$20.00	$120.00
	Iron	6	$25.00	$150.00
	Laboratory Analysis Subtotal - one time analyses w/8%			$429.00
	Total per Quarter Costs			**$2,349.60**
	Total One Time Costs			**$1,679.00**
	TOTAL TASK 2: Three quarters			**$6,378.20**

TASK 3 - Feasibilty Study

- Prepare a Feasibility Study

Consultant Fees

Description	Unit	Unit Rate	Cost
Senior Geologist	4	$120.00	$480.00
Project Geologist	16	$67.00	$1,072.00
Secretary	2	$40.00	$80.00
Graphics	2	$40.00	$80.00
Reproduction	1	$100.00	$100.00
TOTAL TASK 3			**$1,812.00**

TASK 4 - Project Management

- Project Management
- Meeting Preparation
- Meeting with Regulatory Agency

Consultant Fees

Description	Unit	Unit Rate	Cost
Senior Geologist	8	$120.00	$960.00
Project Geologist	10	$67.00	$670.00
TOTAL TASK 4			**$1,630.00**

COST SUMMARY

TASK 1 - Additional Groundwater Investigation	**$7,326.96**
TASK 2 - Quarterly Groundwater Monitoring	**$6,378.20**
TASK 3 - Feasibilty Study	**$1,812.00**
TASK 4 - Project Management	**$1,630.00**
TOTAL PROJECT COST	**$17,147.16**

GREGG

GREGG DRILLING & TESTING, INC.

SPECIALIZING IN ENVIRONMENTAL, GEOTECHNICAL AND IN SITU TESTING

Transmittal Form

FAX # 925-426-0106

# of pages including cover page: 3

DATE: 02/10/2000

TO: MATT HANKO

FROM: Christopher Pruner

COMMENTS:

X Mail

X Fax

___ Federal Express

SOUTHERN CALIFORNIA: 2726 WALNUT AVENUE • SIGNAL HILL, CA 90806 • (562) 427-6899 • FAX (562) 427-3314
NORTHERN CALIFORNIA: 950 HOWE ROAD • MARTINEZ, CA 94553 • (925) 313-5800 • FAX (925) 313-0302

GREGG

GREGG DRILLING & TESTING, INC.

SPECIALIZING IN ENVIRONMENTAL, GEOTECHNICAL AND IN-SITU TESTING

February 10, 2000

CLAYTON ENVIRONMENTAL
Mr. Matt Hanko
1252 Quarry Lane
Pleasanton, CA 94566

SUBJECT: **COST ESTIMATE FOR DRILLING, SAMPLING AND WELL INSTALLATION AT THE PROJECT LOCATED IN OAKLAND, CALIFORNIA**

Dear Mr. Hanko:

Pursuant to our conversation you will find the enclosed cost estimate for the project located in Oakland, California. A copy of this proposal is being faxed to you with a hard copy to follow in the mail today.

Gregg Drilling & Testing, Inc. looks forward to assisting you on this project. We will be pleased to discuss the details of this work and to provide any further information you may require.

Thank you for providing us the opportunity to submit a bid on this proposed work. Please feel free to contact me at (925) 313-5800 with any questions you may have.

Sincerely,
GREGG DRILLING & TESTING, INC.

Christopher Pruner
Operations Manager

CWP/cmc

COST ESTIMATE

Mobilization/Demobilization	
1 day @ $200.00/day	$200.00
Drill, sample and install three, two-inch monitoring wells to a depth of 20 feet using the "Rhino" limited access rig (soil sampling every five feet and all material included).	
3 wells @ $740.00/well	$2,200.00
Concrete coring (up to six-inches thick)	
* 1 core @ $225.00	$225.00
Drums for soil cuttings	
4 drums @ $45.00/drum	$180.00
TOTAL	**$2,805.00**

Assumptions:
Level D
Asphalt surface
Site accessible for equipment
Water available on site

The preceding costs represent our best estimate for the tasks as we understand them. The cost estimate does not reflect additional charges which would be incurred for standby time or adverse drilling conditions. The client will be responsible for obtaining necessary permits and for the clearance of underground utilities.

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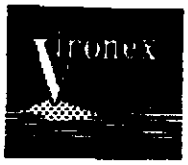

Environmental
Field Services

Thursday, February 10, 2000

Matt Hanco
Clayton Environmental Consultants
6920 Koll Center Parkway
Suite 216
Pleasanton, CA 94566

Fax Transmittal: **925-426-0106**
Proposal Number: **SF00210 - 1108**
Project Reference: **Oakland**

Dear Matt:

We appreciate the opportunity to submit a proposal for your site investigation needs.

Vironex® provides subsurface sample collection and analysis services. Using direct-push technology vehicles, field portable gas chromatographs and XRF's, certified mobile laboratories, and a certified fixed laboratory, we are able to provide more information in less time at a lower cost than traditional techniques.

Following is a proposal for work to be performed by Vironex. If you agree to the terms described in this proposal letter, please forward a purchase order to Vironex, Inc., 23762 Foley Street, Suite 7, Hayward, CA 94545. To expedite scheduling you can fax your purchase order to 510-266-0963. The terms of this proposal will supplement the terms of any subcontractor or other agreement you may require to be executed.

Should you have any questions or if I can be of assistance in any way, please do not hesitate to contact me at 510-266-0966.

Sincerely,
Vironex, Inc.

John McAssey
Northern California Regional Manager

Proposal Number: SF00210 =1108

Site Location: Oakland, CA

Estimated Completion: One (1) day

Project Scope: Install 2" PVC monitoring wells at 3 locations, to a depth of 20 feet bgs, collecting soil cores from each location. Vironex will use 3.25" I.D. auger to install each monitoring well point.

Description		Price
Sampling Services - includes a Geoprobe *Advance 6600* subsurface sampling system with a 40-hour OSHA trained operator, and all necessary sampling tools and accessories.		$1,800.00
Additional Sampling Technician	$350	$350.00
Well Materials - includes all necessary supplies to complete and sample three (3) wells to 20 feet bgs.	$17.00 per foot (60 feet estimated)	$1,020.00
Mobilization	lump sum	$75.00
Weekend/Overnight Fee	$250 per day	$0.00
Per Diem	$100 per day	$00.00
Equipment Rental		
PID and Calibration Acc.	$100 per day	$0.00
Steam Cleaner	$100 per day	$100.00
GS 1000 Grout Pump	$200 per day	$0.00
Sample Analysis		$0.00
SAMPLING TOTAL		$3,345.00

Terms and Conditions

Vironex® provides OSHA 40-hour trained operators with our equipment. We supply all of the tools, consumable items and decon gear necessary for the job. The customer is responsible for reimbursing Vironex for consumables and breakage in the field due to site conditions.

Pending credit approval, full payment is due within thirty (30) days of the invoice date. We will apply a 1.5% finance charge to all overdue payments.

It is the sole responsibility of the consultant to determine that the sampling area is free from utilities and other potential dangers. Vironex will only collect samples in areas designated by the consultant after confirmation by the consultant that the area is free from utilities and other potential dangers.

Vironex is not a hazardous materials or waste handler. The consultant is responsible for the handling and disposal of any hazardous materials or waste generated by Vironex on site.

Vironex provides certified analysis as well as field screening analysis. Due to Vironex' data quality objectives, the field analyses are to be construed as useful for field screening purposes only.

If applicable, the following information must be provided to Vironex prior to performance of work: Health and safety plan, evidence of utility clearance, list of hazardous substances known to be present on the site and results of air sampling performed at the site. Any updates made to this information, prior to or during performance of work, must be supplied to Vironex.

The nature of the work being performed requires that equipment be decontaminated prior to departure from the site. The time taken for the process is included in the working time of our operators. Operators will work with consultants to maximize the number of samples collected each day but must leave sufficient time before departure for decontamination.

If you require a subcontractor agreement to be executed, please include all of the information above in the agreement when describing the scope of work, or reference this proposal as a term of the agreement.

EXPLORATION GEOSERVICES, INCORPORATED Lic# 484288
1535 Industrial Avenue
San Jose, CA 95112-2715

Tel#	Fax#
(408) 280-6822	(408) 356-8315

Date: 02-10-00

TO : MATT HANKO
FIRM: CLAYTON ENVIRONMENTAL CONSULTANTS, INC.
TEL : (925) 426-2600
FAX : (925) 426-0106

FROM: Bruce McCall
PRESIDENT

JOB

MONITORING-WELL CONSTRUCTION

OAKLAND, CALIFORNIA

ORDER

3MW2"=20' (1 WITH LIMITED-ACCESS RIG); DRUM WASTES

ESTIMATE

TIME & MATERIALS/NOT TO EXCEED $2,350 (ON SITE ~7 HR)

REPLY/COMMENTS