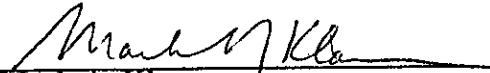



**PROPOSAL FOR INITIAL  
SUBSURFACE INVESTIGATION  
AMERICAN CITY TRUCK STOP  
6310 HOUSTON COURT  
DUBLIN, CALIFORNIA**

Prepared by

Kleinfelder, Inc.  
June 7, 1989

  
Mark A. Klaver  
Project Manager



  
R. Jeffrey Dunn, Ph.D., G.E.  
Assistant Regional Manager

**Proposal for Initial  
Subsurface Investigation, American City Truck Stop  
6310 Houston Court, Dublin, California.**

This proposal has been developed for Winning Action Investments Inc., to perform initial subsurface investigation at the subject site located off Dougherty Road at 6310 Houston Court in Dublin, California (Plate 1). The proposed work is developed from review of the May 16, 1989 letter issued by the Alameda County Department of Environmental Health (ACDEH) which states particular site investigation requirements, and analytical data provided by your contractor ( H.G. Winter Company) who sampled the soils during the waste oil and diesel tank removal operations. The following proposal content and general format is presented in a manner consistent with the requirements of the ACDEH.

#### BACKGROUND INFORMATION

Based on information provided by you we understand that one 500 gallon waste oil tank and three diesel tanks (2-12,000 gallon, 1-8,000 gallon) were removed from the site on March 31, 1989. One 12,000 gallon diesel tank was left in-place within the diesel tank cluster area for continued use. Reportedly, this remaining tank has been refinished internally with "Glass Armor" coating and approved by the Dublin Fire Department. This tank will be used in the operations of the current business known as the American City Truck Stop which services truck transport vehicles. The property is generally flat-lying and paved with both asphalt and concrete cover with one building used to service trucks. Plate 2 shows the general site configuration.

Based on previous reports and our observations, soils beneath the site are comprised of a approximately 3 feet of relatively coarse sand and gravel fill with some silt which is underlain by a thin zone of silty sand to a depth of 4 to 5 feet below ground surface. Below 5 feet, a moderate to highly plastic dark brown silty clay exists to the bottom of the visible soil profile in the exposed excavation. This soil profile is similar to that described in previous reports completed at the site in 1984 by Balbi & Chang Consultants.

Historic information provided to us which described work efforts to assess the impact of a small surface oil spill that occurred in early 1984 in the vicinity of the pump islands,

indicates that this contaminated soil had been cleaned up. Based upon review of letters of record, the excavation of some shallow surface soils and the findings of three 8 foot deep boreholes/wells sampled at that time by IT Corporation and Balbi & Chang apparently satisfied Mr. Ted Gerow of the Alameda County Division of Environmental Health, the Dublin City Planner, and Mr. Bruce Wolfe with the California Regional Water Quality Control Board (S.F. Region). These shallow wells have since been paved over during later construction activity at the site.

The excavation pit of the waste oil tank is located under an overhanging roof immediately adjacent to the building located onsite as shown on Plate 2. Plate 2 also shows the location of the diesel tank area relative to the existing building. The waste oil tank pit is relatively small, approximately 4' X 4' X 4' deep, whereas the excavation pit created by removal of the two southern-most diesel tanks (Tanks #1 and #2) is larger and approximately 30' X 20' X 10' deep. As shown on Plate 2, the northern-most diesel tank ( Tank #4) excavation, which was immediately backfilled, was approximately 30' X 10' X 10' deep. After completion of the soil and ground water sampling around Tank #4, the onsite contractor, H.G. Winter Co. judged that the open excavation created by the removal of Tank #4 posed a threat to the structural integrity of the remaining in-place tank (Tank #3). Prior to backfilling, H.G. Winter Company placed two slotted PVC casings vertically into this excavation for possible future access for water sampling from within the 10 foot deep pit. The casing tops extend approximately ten feet above ground surface at the present time. The locations of these casings are shown on Plate 2.

Soil samples from the sidewalls of the tank excavations and water samples collected from depressions formed beneath each of the excavated tanks, were obtained by personnel from H.G. Winter Company on March 31, 1989. Other than a sketch of general sample locations and the laboratory report of sample analysis by TAL Laboratories, no other information was provided regarding the sampling activity or field protocols utilized. The analytical results of analysis for total purgeable and extractable hydrocarbons, purgeable aromatic hydrocarbons (BTXE) and total oil and grease, indicates relatively minor soil impact although apparently more significant ground water impact has occurred due to diesel fuel. The results of the tank closure sampling data shown on Plate 3 originated from laboratory reports provided to us by Winning Action Investments. We understand the laboratory report of this sampling activity has already been presented to the ACDEH.

Except for the area around soil sample point No. 8 (see attached laboratory report) no diesel hydrocarbons were detected in soil samples. Oil and grease concentrations ranged from non-detected to 24 ppm with one soil sample (No. 8) at 240 ppm. Analysis of water samples collected from the three excavation pits indicated concentrations of diesel hydrocarbons of 8.5 ppm, 95 ppm, 380 ppm (under diesel tanks), and 9.7 ppm (under waste oil tank).

The water level observed in the open diesel tank area excavation was approximately 8 to 9 feet below ground surface on May 31, 1989, whereas the depth to water in the <sup>waste</sup>water oil tank excavation was only three feet. It is possible that a leaking water main located at the southwest corner of the building, which was recently repaired, accounts for perched water at shallow depth in the waste oil pit.

During site reconnaissance, visibly oil stained soils were observed in the near surface soils above the perched water in the waste oil tank pit. These soils will be excavated and then sampled to assess future disposal or treatment requirements and extent of the soil impact in this area. Prior to excavation, it is suggested that Winning Action obtain a vacuum truck to remove and appropriately dispose of the pumped waters. ①

While no information was provided regarding the historic documentation of inventory reconciliation testing or tank monitoring methods employed, Kleinfelder was informed by Winning Action Investments that an unauthorized leak report was currently being prepared as of May 31, 1989. This information and the inventory reconciliation data should be attached by Winning Action to this proposal to meet ACDEH submittal requirements.

Soils excavated during the tank removal activity are stockpiled onsite and have not yet been sampled for possible hydrocarbon content. Two soil stockpiles around the tank excavation area have not been covered; however, during the preliminary site reconnaissance on May 31, 1989, no odors were noticed in the area. Several piles of import fill are also present at the site around the tank for future backfilling purposes. The two soil piles which appear to be excavated material from around the tanks are roughly of 50 cubic yards and 250 cubic yards. The locations of these piles are shown on Plate 2.

## SCOPE OF WORK

To meet the objectives of the letter issued by the ACDEH, and based upon review of the data provided, the following scope of work has been developed:

1. Preparation of a site health and safety plan for Kleinfelder personnel,
2. Observation of residual contaminated soil excavation in the waste oil tank which will be performed by others and verification sampling after completion of excavation,
3. Sampling of onsite stockpiled soils which were excavated from around excavated underground storage tanks,
4. Observation of borehole drilling and well construction work performed by the client's selected drilling contractor and collection of soil samples during drilling using sampling equipment provided by the selected drilling contractor,
5. Performance of a well elevation survey to be used in ground water gradient elevation,
6. Development, purging, and sampling of the three newly completed monitoring wells,
7. Analysis of soil and water samples collected during the project for diesel hydrocarbons and total oil and grease using approved test methods,
8. Evaluation of the data obtained during work performance,
9. Preparation of a final report.

### WATER PUMPING AND SOIL EXCAVATION (Waste Oil Tank Pit)

Based on field observations residual oily soils remain in the exposed waste oil tank pit and should be removed. In addition, accumulated water from within this pit should be pumped by a licensed waste hauler and properly disposed. It is suggested that this work be performed on the same day with water removal to precede soil excavation. Pumping and excavation work should be conducted by your contractor and is not included in our scope of work.

Kleinfelder will be present to observe the excavation work by the selected contractor and collect soil samples after removal of the visually stained soils. With the assistance of the contractor's backhoe operator, we will obtain four soil samples for one composite analysis from the excavation pit. These soil samples will be contained in standard brass sample tubes, capped with teflon lined lids, labelled, and immediately placed in refrigerated

storage for transport to the analytical laboratory. The laboratory will composite these samples on an equal weight basis into one sample for analysis.

Excavated soils should be properly handled by transporting them to the area of the existing stockpiled soils excavated during tank removal work and covered with plastic sheeting.

#### STOCKPILED SOIL SAMPLING

Five soil samples will be collected from the two existing soil stockpiles which were generated during removal of the underground storage tanks. These samples will be composited on an equal weight basis by the laboratory into two sample sets prior to analysis. These soils will be similarly handled as described in the preceding section. Results of these analyses will be used to assess the need for possible special handling of the soils. Kleinfelder will provide recommendations for alternative disposal options in the final report prepared for this project.

It is strongly recommended that the selected contractor provide plastic sheeting to cover all potentially contaminated stockpiled soils at the site until data indicates otherwise. This protocol is consistent with the San Francisco Bay Air Quality Management District and ACDEH requirements.

#### WELL PERMITTING AND DRILLING OPERATIONS

We understand that Winning Action Investments intends to contract directly with a drilling contractor of its choice. To ensure efficient use of time in the field during drilling it is strongly recommended that the selected contractor be knowledgeable on proper monitoring well construction requirements of the California Regional Water Quality Control Board as described in their June 2, 1988 publication "...Recommendations for Initial Evaluation and Investigation of Underground Tanks". Kleinfelder personnel will be present to monitor the drilling, soil sampling and well construction activities.

### Well Permits/Site Preparation-

The selected contractor must possess a C57 driller's license to perform the work. Prior to work activity, the drilling contractor must obtain the necessary permits to complete the soil borings and monitoring wells proposed herein and coordinate the ACDEH well seal inspections required at the time of well completion. In addition, the contractor must review available site plans and contact Underground Service Alert (USA) to assure that the proposed drilling locations will not damage underground utilities. Permitting and utility clearance should be completed several days prior to actual drilling work. Kleinfelder will not designate specific drilling locations and thus will bear no responsibility for damage to underground utilities. Following permit approval and utility clearance, the pavement covering the proposed drilling locations should be cut two foot square by the contractor and removed to allow access to the underlying soils for drilling. The two foot square surface cut will allow proper well head finishing at surface grade upon completion of well construction. Kleinfelder should be notified by the contractor at least three days prior to the planned drilling date to ensure staff availability on the planned days. When the drilling dates are established, the contractor should notify the ACDEH.

### Soil Borings and Well Construction-

The drilling contractor must utilize a CME 45, 55,75, Mobile B-61, Acker ADII, or equivalent mobile drilling rig equipped with 8" O.D. continuous flight hollow stem augers to complete the soil boring and well construction work. The contractor must also prepare a location at the site to steam clean the augers between borings to reduce the risk of cross-contamination between borings.

The borings for soil sampling purposes only will be drilled to depths of approximately 8 feet. Soil borings to be completed as monitoring wells will be drilled to depths of approximately 20 feet. Monitoring wells will be constructed of 2" diameter Schedule 40 PVC threaded casing. No glue or solvents will be used during well construction. Each well casing will consist of a screened interval of factory slotted pipe with 0.020-inch size slots. The screened interval will extend from the bottom of the boring to approximately 5 feet below ground surface. The well will be completed to ground surface with a blank section of Schedule 40 PVC. Bottom threaded caps and top slip caps will be placed on the ends of the PVC casing.

The well casing will be placed through the hollow stem auger during well construction. To prevent borehole collapse during well completion, a sand pack of #2/12 Lonestar washed sand will be placed in the borehole annulus surrounding the screened interval of the well up to a depth approximately 1 foot above the top of the screened casing interval. A two foot bentonite seal will be placed above the sand pack using 1/4" Volclay (Bentonite) tablets. After wetting of the bentonite seal, the remainder of the borehole annulus will be grouted with a neat portland cement mixed with 5% bentonite powder up to just below surface grade.

The top of the well head must be finished at surface grade by the drilling contractor within a traffic rated locking well cover. The surface apron around the well head should be finished with concrete to match the existing pavement surface. The well cover elevation should be approximately 1/2" higher than the surrounding pavement and the concrete apron finished with a shallow slope from the well cover ring to the edge of the apron. The surface finish of the existing backfill wells placed by H.G. Winter Company should also be capped and similarly completed at grade.

Soil borings not completed as monitoring wells should be grouted up to surface grade using a neat portland cement with 5% bentonite powder. Grouting will be performed by the selected drilling contractor. The drilling contractor will be responsible for providing all well construction and grout materials to complete the drilling phase of work.

Prior to arrival at the site, and between each soil boring, the drilling contractor must use a steam cleaner in a designated location at the site to clean the augers between drilling locations to reduce the risk of cross-contamination between borings during this project. If strong hydrocarbon odors are noted in the residual soil cuttings on the augers between borings, the contractor should be prepared to contain the steam cleaning waters in 55 gallon DOT approved drums to prevent surface discharge.

Soil cuttings generated during the drilling activity must be transported to the areas of the existing soil stockpiles which were generated during excavation of the tanks and covered with plastic sheeting. It is recommended that either one of the two stockpiles identified on Plate 2 be used for this purpose and that both of these stockpiles be entirely covered with plastic sheeting. This work will be performed by the selected drilling contractor.



### Soil Sampling-

Soil samples will be collected at intervals selected by Kleinfelder personnel present during the drilling activity. In the unsaturated zone above the water table, these samples will be obtained by driving a 2" I.D. modified California sampler lined with brass sample tubes through the sampling interval using a downhole pneumatic hammer or cathead operated free fall hammer. Blow counts will be recorded by Kleinfelder through the 18-inch sample interval. Upon retrieval the soils will be logged using USCS soil description method with any visual signs of contamination noted. One of the brass tubes collected from the sample interval immediately above the shallow ground water table will be retained for subsequent chemical analysis. This sample will be capped with teflon lined lids, labelled, and immediately placed in refrigerated storage for preservation prior to submittal to the analytical laboratory. Additional samples may be retained for possible analysis pending approval by the client.

Below the water table in borings which will be subsequently completed as monitoring wells, samples will be similarly obtained using a standard split spoon soil sampler. Both the modified California sampler and the split spoon sampler must be provided by the drilling contractor.

### Monitoring Well Survey-

Following completion of well installation, a professional well survey will be performed by a licensed land surveyor. This work will tie in the top of the well casings (not the well covers), to an established benchmark for subsequent use in the evaluation of ground water flow potential.

### Monitoring Well Development, Purging, and Sampling-

Prior to well development, water levels will be recorded in all of the newly completed wells and the two piezometers located in the backfilled excavation of Tank #4, using a conductivity based water level indicator. During this activity, a bailer will be used to check for the presence of floating fuel product in the wells. Any well with accumulated floating product will not be sampled. Each of the three new wells will be developed by a Kleinfelder sampling technician using a suction pump and a surge block to remove suspended sediment and settle the sand filter pack.

Following development, each new well will be purged using a suction pump to remove at least four well volumes of water or until well water evacuation. Purge waters will be monitored for pH, temperature, salinity, and electrical conductivity to ensure that representative formation waters have recharged the well prior to sampling. Purge waters will be contained in 55 gallon drums labelled by well number. These drums will remain onsite under care of the site operators until results of the water sample analysis are received. Pending the analytical results, Kleinfelder will recommend disposal options to the client for these waters within the final report. Disposal of the water is the responsibility of the client.

After purging, ground water samples will be collected using a teflon bailer which will be cleaned between uses with TSP detergent and double rinsed with distilled water. Ground water in wells which were evacuated during purging activities will be allowed to recharge to within 80% of the original well water level prior to sampling. This protocol is consistent with EPA sampling guidelines. Water samples collected will be decanted into duplicate 1 liter glass bottles, labelled, and immediately placed in refrigerated storage for transport to the analytical laboratory under chain-of-custody.

#### Chemical Analysis of Ground Water and Soil Samples-

All soil and ground water samples collected for analysis will be transported to Med-Tox Associates Inc., laboratory in Pleasant Hill under sampler's chain-of-custody control. Med-Tox is a state-certified analytical laboratory.

Soil and ground water samples will be analyzed for total petroleum hydrocarbons as diesel fuel using EPA Test Method 8015 and for total oil and grease using Standard Method 503D/E. The soil samples obtained from the waste oil tank pit after removal of the stained soils will be composited into one sample and similarly analyzed to assess the effectiveness of excavation in removing contaminated materials.

All samples submitted to the laboratory will be analyzed on a standard three week turnaround basis. More rapid turnaround can be obtained at a higher cost per sample.

### Ground Water Gradient Evaluation-

Based on the measured ground water table elevation and the survey data on well head elevations, a ground water gradient analysis will be completed to evaluate the ground water flow potential beneath the site. This work will provide information on the relative placement of monitoring wells in relation to the suspected fuel source areas and hence, their effectiveness in monitoring ground waters potentially impacted by fuels.

### Report Preparation-

Following completion of the above scope of work, a report will be prepared summarizing the field activities and analytical results. A ground water gradient map, the soil boring logs, and analytical data will be presented in graphic form to be used as appropriate to presenting the findings of the investigation.

### Schedule-

Based on the stipulated timeline of the ACDEH in their letter of May 16, 1989, which requires work completion by July 21, 1989, there is currently only 6 weeks remaining to perform the scope of work.

Pending authorization of the attached environmental services agreement, Kleinfelder could initiate the field soil sampling activity of the waste oil tank soil removal and the stockpiled soil sample collection as soon as the contractor mobilized a backhoe and operator to the site.

Also, pending approval of the well application forms and contracting of the drilling contractor by Winning Action Investments, Kleinfelder could be prepared to mobilize to the site to monitor the soil boring activity and well construction work. Immediately following the drilling work, the well level survey and well development and sampling work could be performed.

The samples collected will be submitted to the analytical laboratory and analyzed on a standard three week turnaround basis. Results of the sample analysis will be evaluated and a report prepared within two weeks of receiving the analytical results. Faster turnaround on sample analysis can be obtained at higher cost (100 % surcharge for two day analysis;

50% surcharge for 1 week analysis). The project budget estimate is based on sample analysis on the standard three week turnaround rate.

This schedule is approximately 7 weeks in total duration assuming that the signed environmental service agreement forms are returned to Kleinfelder within 5 days of receipt of this proposal, or by Monday June 12, 1989. The completion of this schedule is based on appropriate drill rig availability and completion of the drilling and well construction activity by Friday June 23. It is anticipated that it will take two long days to complete the drilling work.

### Project Budget Estimate -

Based on the work elements to be performed by Kleinfelder, the following budget estimate has been developed:

• Project Coordination and Management	\$ 712
Project Manager 8 hours	316
Staff Geologist 4 hours	
• Health and Safety Plan	
Staff Geologist 1 hour	\$ 79
Industrial Hygienist 0.5 hours	53
• Soil Sampling (Without soil excavation, stockpile sampling)	
Staff Geologist 5 hours	\$ 395
Equipment/Travel	108
• Drilling Supervision (Assumes 2 days drilling)	
Staff Geologist 20 hours	\$ 1,580
Equipment/Travel	400
• Chemical Analyses (standard 3 week turnaround)	
Sample Delivery	
Staff Geologist 1 hour @ \$79	\$ 79
Borehole Soil Samples	
(6) Soils for diesel and oil and grease	\$ 1,470
@ \$245/sample	
Stockpile Soil Samples	
(2) Composite soils for diesel and oil and grease	\$ 500

Without Tank Pit Soil Samples		
(1) Composite soil for diesel and oil and grease @ 250/sample		\$ 250
Well water samples		
(3) Waters for diesel and oil and grease @ 230/sample		\$ 690
• Staff Geologist 1 hour @ \$79		\$ 79
3 hours @ \$162/hour		486
• Well Development and Sampling		
Technician 20 hours \$50		\$ 1,000
Equipment/Travel		500
• Data Evaluation		
Project Manager 6 hours		\$ 534
Staff Geologist 8 hours		632
• Report Preparation		
Senior Engineer 2 hours		\$ 230
Project Manager 8 hours		712
Staff Geologist 12 hours		948
Draftsman 8 hours		400
Technical Typist 5 hours		225
Administrative Assistant 3 hours		135
	TOTAL	\$ 12,513

This budget is presented on a time and materials basis not to exceed the amount presented without prior authorization by the client. Time and cost for such items as field supervision during drilling are dependent upon the performance of subcontractors who are not under our control. If the allotted time is exceeded due to length of time beyond that estimated in the budget, costs will be incurred at the staff rate shown in the attached 1989 Kleinfelder Environmental Services Fee Schedule.

#### LIMITATIONS

Services performed by Kleinfelder under our contract will be conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions. No other representation, expressed or implied, and no warranty or guarantee is included or intended in this proposal or in any report, opinion, document, or otherwise.

The Client should recognize that special risks occur whenever engineering or related disciplines are applied to identify subsurface conditions. Even a comprehensive sampling and testing program implemented by experienced personnel with the appropriate equipment under the direction of a trained professional who functions in accordance with a professional standard of care may fail to detect certain conditions because they are hidden and, therefore, cannot be considered in development of a site exploration program. The passage of time must also be considered, and the Client should recognize that due to natural occurrences or direct or indirect human intervention at a site or distant from it, actual conditions may change quickly. It should be recognized that nothing can be done to eliminate these risks altogether, but certain techniques can be applied by Kleinfelder to help reduce them to that level deemed tolerable by the Client. In any event, the scope of services provided by Kleinfelder must be that which the Client agrees to or selects in light of personal risk preferences and other considerations.

#### Authorization-

Kleinfelder will initiate the scope of work pending receipt of both of the attached environmental service agreement forms signed by you. One of these forms will be returned to you following signature by the Regional Environmental Manager.

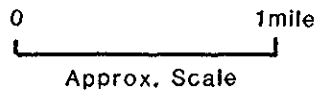
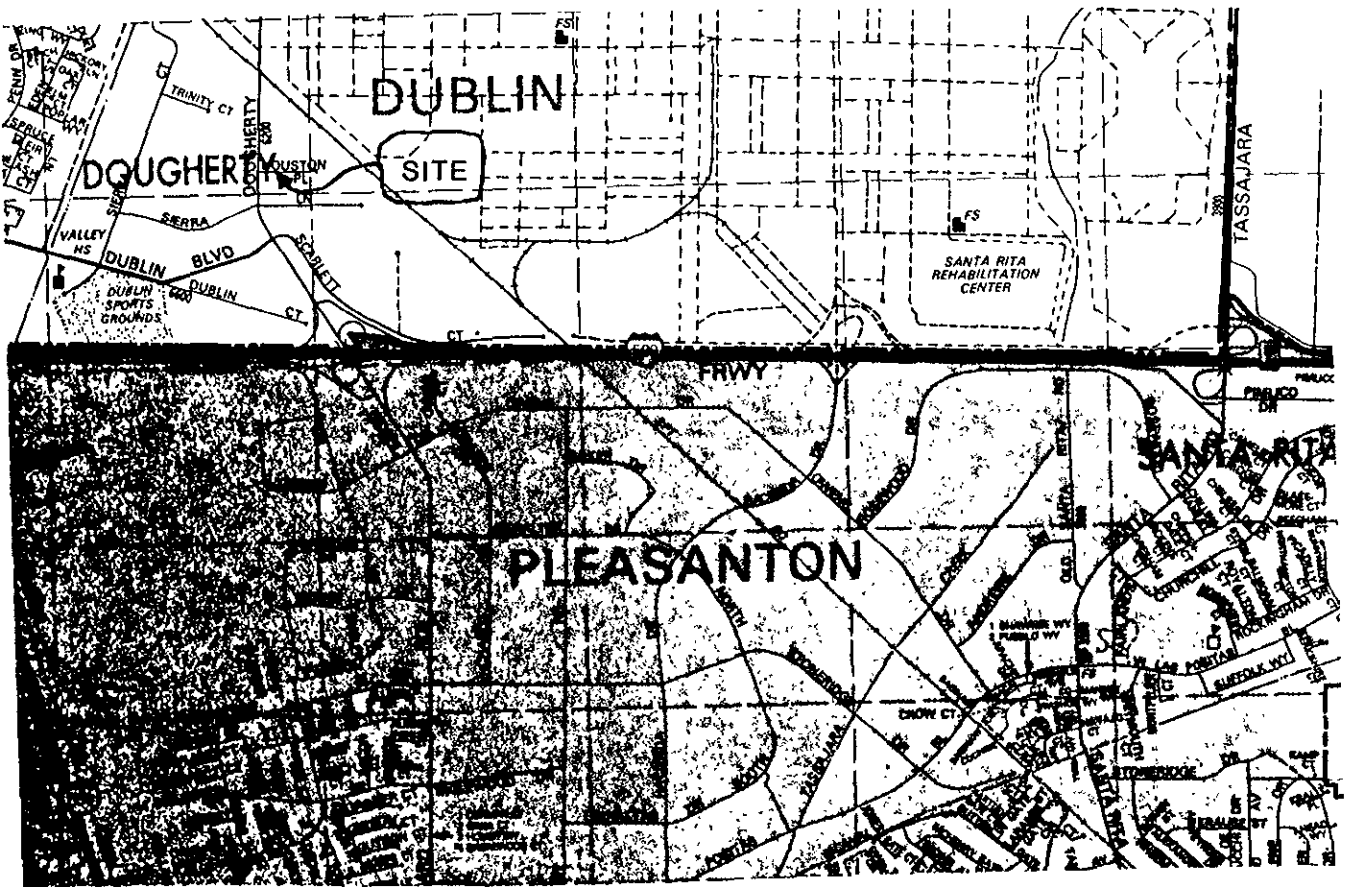
Budget (see attached sheet)

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**KI** KLEINFELDER

SITE LOCATION MAP  
AMERICAN CITY TRUCK STOP  
DUBLIN, CA

PLATE

1

PROJECT NO. 10YP9137



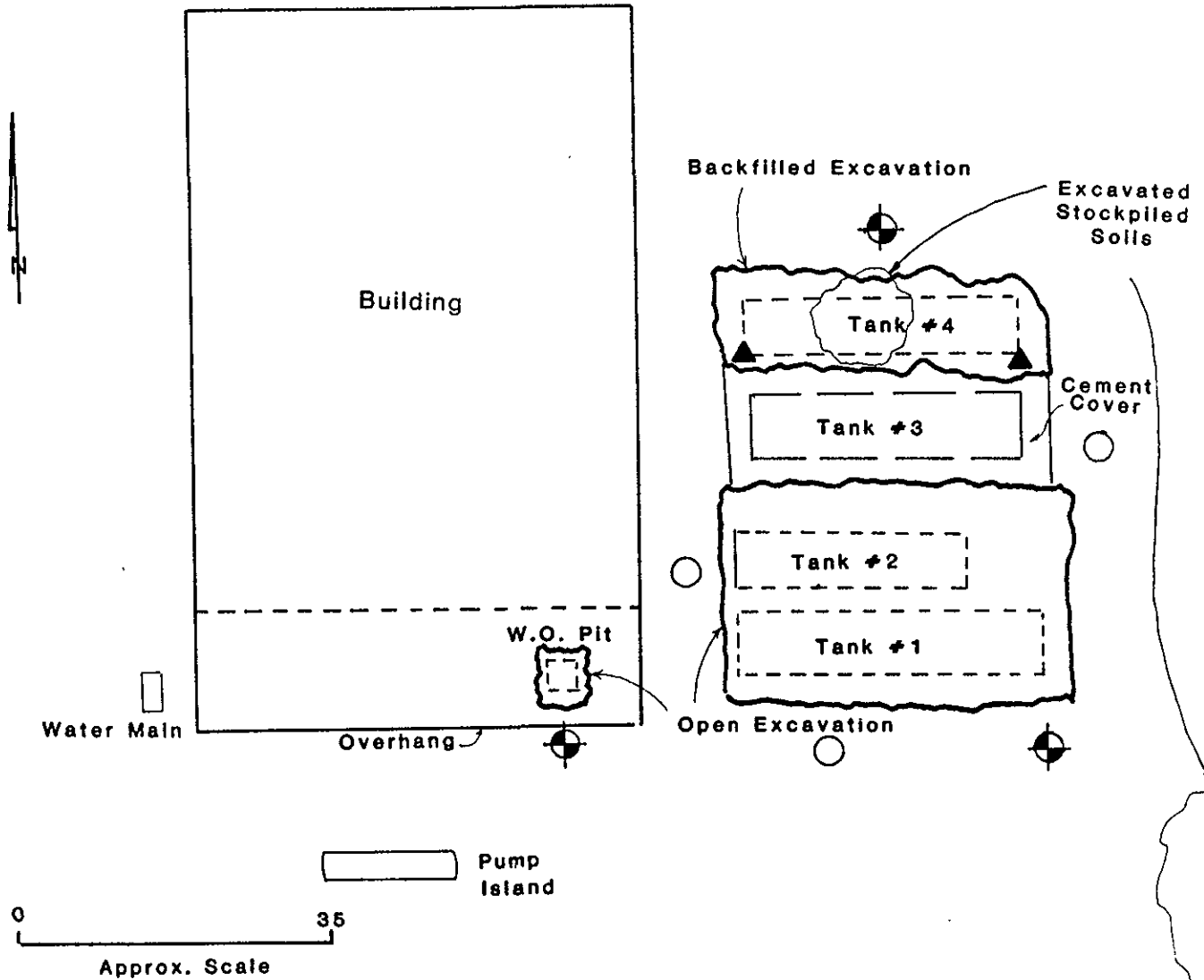
LEGEND

▲ Existing Piezometer Location

○ Proposed Well Location

⊕ Proposed Boring Location

HOUSTON PLACE



**LEGEND**

▲ Existing Piezometer Location

○ Proposed Well Location

⊕ Proposed Boring Location

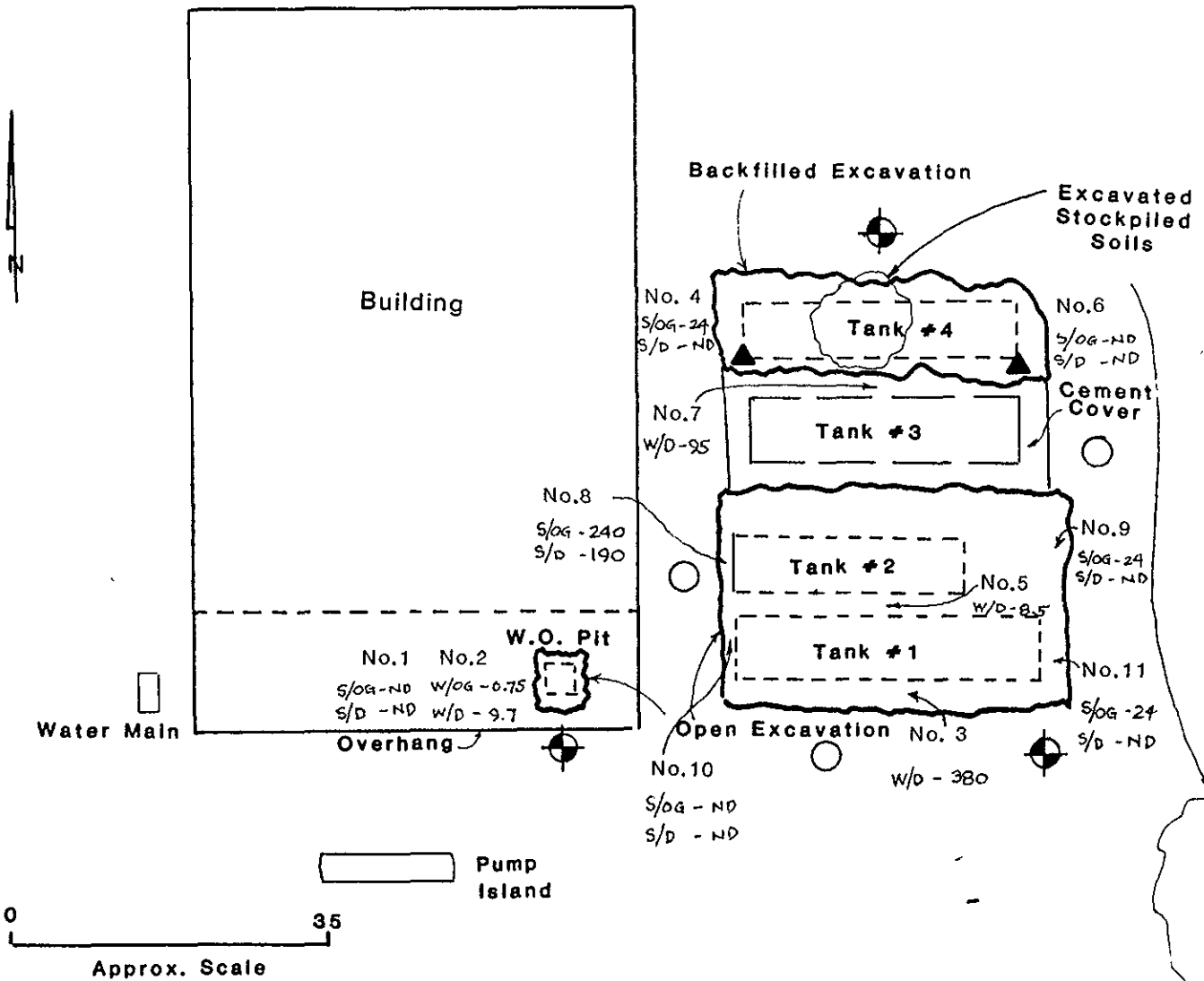
D - Diesel (ppm)

OG - Oil & Grease (ppm)

W - Water

S - Soil

**HOUSTON PLACE**



**KLEINFELDER**

TANK CLOSURE SAMPLES ANALYSES  
 AMERICAN CITY TRUCK STOP  
 DUBLIN, CA

PLATE

**3**

PROJECT NO. 10YP9137