



California Department of Transportation, District 4

Office of Environmental Engineering

Telecopier (FAX) No: (510) 286-5728

Date: 5-5-00

Time: _____

To: Name: DON HUANG
Agency: ALAMEDA COUNTY
Attention: _____
Telephone: _____

From: Name: TENZESA TRINH
Telephone: 510 286-5701

Number of pages being sent (including this page): 09

Message:

DON,
I would question the well screening
length. 10 feet of screening seems
excessive. Please review the workplan
and let me know your comments.
Thanks.

GEOCON

G E O T E C H N I C A L A N D E N V I R O N M E N T A L C O N S U L T A N T S



Project No. S8225-06-103
May 5, 2000

Ms. Teresa Trinh
California Department of Transportation-District 4
Post Office Box 23660
Oakland, California 94623-0660

Subject: FORMER THOMAS A. SHORT CO. PROPERTY
 3430 WOOD STREET
 OAKLAND, CALIFORNIA
 CALTRANS CONTRACT NO. 43A0012
 TASK ORDER NO. 04-190270-RM
 SITE INVESTIGATION WORKPLAN

Dear Ms. Trinh:

In accordance with Caltrans Contract No. 43A0012 and Task Order (TO) No. 04-190270-RM, Geocon Consultants, Inc. is submitting this Workplan for a site investigation to be conducted at the subject site. The site consists of the former Thomas A. Short Co. (TASCO) property located at 3430 Wood Street in Oakland, California. The approximate site location is depicted on the attached Vicinity Map, Figure 1. This Workplan describes the scope of work requested by Caltrans and outlines the procedures and methods to be employed by Geocon to complete the project.

BACKGROUND

It is understood that the former TASCO facility manufactured and repaired marine valves and associated parts for approximately 36 years. Caltrans purchased the property in 1994, and subsequently demolished the building improvements as part of the Interstate 880 (I-880) realignment project. One 4,000-gallon gasoline underground storage tank (UST) and one 1,000-gallon diesel UST were previously located at the TASCO facility. The approximate former UST locations are depicted on the Site Plan, Figure 2.

In June 1992, four borings (B1, B2, H1 and W1) were performed around the perimeter of the USTs (see Figure 2). W1 was converted into a 2-inch diameter groundwater monitoring well. The depth to groundwater in well W1 was measured at 12.7 feet below the ground surface (bgs) on July 1, 1992. Soil samples obtained from the borings contained elevated concentrations of total petroleum hydrocarbons as gasoline (TPHg) and diesel (TPHd), and benzene, toluene, ethyl benzene and total xylenes (BTEX). Groundwater samples collected from H1 (hydropunch) and W1 contained TPHg concentrations of 16 and 1.3 milligrams per liter (mg/l), respectively.

The onsite USTs were removed from the TASCO facility in January 1993. Approximately 175 cubic yards of petroleum hydrocarbon impacted soil was over excavated after the tanks were removed. Groundwater was encountered at a depth of approximately 10 feet bgs within the UST excavation. The results of confirmation soil samples indicated residual concentrations of petroleum hydrocarbons and lead. Groundwater samples obtained from well W1 in February and October 1993, subsequent to the UST removal activities, contained TPHg concentrations of 4.6 and 3.7 mg/l, respectively.

In November 1996, Geocon installed three groundwater monitoring wells (MW1 through MW3) around the former UST excavation (see Figure 2). The 2-inch diameter wells were installed to depths ranging from 11.5 to 13 feet bgs. Soil samples obtained from the well borings were analyzed for volatile organic compounds (VOCs), TPHg, TPHd, total recoverable petroleum hydrocarbons (TRPH) and 17 CCR metals.

VOCs including methylene chloride (typical laboratory extractant) and carbon disulfide were detected at relatively low concentrations of less than 50 µg/l. Sample MW3-10 contained benzene, toluene and total xylene concentrations of 314, 1,220 and 1,180 micrograms per kilogram (µg/kg), respectively. TPHg was detected in soil samples MW2-5 and MW3-10 at concentrations of 6.0 and 43 mg/kg, respectively. TPHd and TRPH were detected in the majority of the soil samples at concentrations ranging from 1.4 to 1,500 mg/kg. With the exception of 542 mg/kg lead reported for sample MW2-5, elevated metal concentrations were not reported.

It is understood that since wells MW1, MW2 and MW3 were installed, that they have not been sampled or surveyed. It is further understood that since the construction of bridge piers at the TASC0 site for the I-880 realignment structure, the onsite wells have not been able to be located.

Copies of site plans indicating boring, well and soil sample locations, boring/well logs and the historical soil and groundwater analytical data generated for the UST assessment activities at the TASC0 site are attached.

PURPOSE AND PROJECT SCOPE

The purpose of the subject TO is to provide additional information regarding the extent of soil and groundwater impacts near the former fuel UST excavation at the TASC0 site, and to evaluate the site for potential regulatory low risk closure status.

Outlined below is a summary of the scope of services to be performed by Geocon under TO No. 04-190270-RM.

Pre-field Activities

- A pre-work site meeting was conducted on March 31, 2000. The pre-work meeting was attended by the Caltrans' contract manager, Ms. Teresa Trinh and Geocon's contract manager, Mr. John Juhrend to review the subject TO and locate and inspect the work areas. Geocon unsuccessfully attempted to locate the existing monitoring wells using a metal detector at the pre-work site meeting. The Project Schedule, Pre-Work Site Visit Checklist and Notice to Proceed were subsequently discussed and signed by the Caltrans and Geocon contract managers.
- A Health and Safety Plan is being prepared concurrently with this workplan for the proposed field activities. The health and safety plan provides guidelines on the use of personal protective equipment and the health and safety procedures to be implemented during the proposed field activities.
- Well permits will be obtained from the Zone 7 Water Agency to perform the well installation/abandonment activities.
- Contact the local public utilities via Underground Service Alert, to attempt to delineate subsurface public utilities and conduits in proximity to the proposed boring/well locations. The proposed boring/well locations will be marked with white paint for subsequent Underground

Service Alert utility clearance. In addition, Geocon will review as-built utility plans provided by Caltrans and retain the services of a Caltrans-approved pipe and cable locator prior to initiating the field exploration activities.

- Retain the services of V&W Drilling, Inc., and Advanced Technology Laboratories (ATL), Caltrans approved and California licensed subcontractors to perform the monitoring well installation and soil and groundwater analytical testing services, respectively.

Field Activities

- An attempt to locate existing onsite monitoring wells W1, MW1, MW2 and MW3 will be made using a backhoe. An assessment of the condition of the existing well casings will be performed to evaluate whether the wells can be rehabilitated or require proper abandonment.
- Advance three soil borings to a maximum depth of 15 feet bgs using hollow-stem auger techniques at the approximate locations depicted on Figure 2. The actual well locations may vary depending on whether wells MW1, MW2 and MW3 are rehabilitated or abandoned.
- Soil samples will be collected from each boring at approximate 5-foot intervals or at significant changes in lithology, within zones of apparent soil impacts based on field observations (odor, discoloration, and/or organic vapor analyzer readings), and at the approximate groundwater interface. The soil samples will be collected using a 2-inch diameter by 18-inch long splitspoon sampler equipped with three 6-inch long stainless steel sample tubes. The sampler will be driven commencing at each sample depth, 18-inches into the underlying soil by a 140-lb hammer dropping 30-inches. The number of blows required to advance the sampler each six-inch increment will be noted and recorded on the field-boring log. Upon retrieval of the sampler, the least disturbed sample tube will be capped, labeled, chilled, and transported to ATL utilizing standard chain-of-custody procedures.
- Each soil boring will be logged in the field utilizing the Unified Soil Classification System. Office and field supervision for the drilling and logging operations will be provided by a California registered civil engineer.
- The soil samples will be field screened with a photoionization detector (PID) to assess possible qualitative indicators of volatile organic compounds and PID headspace readings will be noted on the boring logs.
- Provide quality assurance/quality control (QA/QC) procedures during the field activities. These procedures include decontaminating the sampling equipment prior to, and following each use. Decontamination will consist of washing the equipment in an Alconox® solution, followed by a fresh water rinse, and subsequent distilled or purified water rinse. Auger flights and drilling rods used during the advancement of the borings will be steam cleaned prior to use on each subsequent boring. The soil cuttings and decontamination fluids from drilling operations will be retained in 55-gallon drums stored at the site pending the results of the laboratory analyses and subsequent disposal following regulatory protocol.
- Groundwater monitoring wells (MW4, MW5 and MW6) will be constructed using 2-inch diameter schedule 40 polyvinyl chloride (PVC) casing. The lower portion of each well will be constructed using 10 feet of 0.020-inch slotted screen PVC casing. A filter pack consisting of Lonestar No. 3 or equivalent silica sand will be placed around the well screen from the total depth of the boring, to approximately two feet above the top of the screen. An approximate two-

foot thick seal consisting of hydrated bentonite pellets will be placed above the filter pack. Above the seal, a bentonite/cement grout will be placed to grade level. The well casings will be completed approximately two and one half feet above the ground surface and secured in 6-inch diameter "stovepipe" monuments. A typical monitoring well construction diagram is presented on Figure 3. The top of casing elevations of the new wells will be surveyed using a Caltrans provided benchmark elevation.

- Each monitoring well will be developed to remove sediment that may have infiltrated the wells during construction. The well development will be performed using a combination of bailing, swabbing with a surge block, and pumping with a portable electric submersible pump. Measurements of pH, conductivity, temperature, and turbidity will be periodically recorded during the development activities and noted on a field log. Development will continue until turbidity measurements are less than 5 ntu or 5 casing volumes have been removed from the well, whichever is sooner.
- Following development, groundwater samples will be collected from the wells with a disposable bailer. The collected water will be decanted into appropriate sampling containers supplied by the analytical laboratory. Each sample will be labeled, chilled, and transported to ATL utilizing standard chain-of-custody procedures. The development and purge water will be retained in 55-gallon drums stored at the site pending the results of the laboratory analyses and subsequent disposal following regulatory protocol.

Laboratory Analyses

Selected soil and groundwater samples will be submitted under ten working day turn-around-time for the following laboratory tests.

- TPHg, TPHd and total petroleum hydrocarbons as motor oil (TPHmo) following EPA Test Method 8015 Modified.
- BTEX following EPA Test Method 8020.
- VOCs and fuel oxygenate compounds following EPA Test Method 8260.
- Total lead following EPA Test Method 6010.
- QA/QC will be performed for each method of analysis with specificity for each analyte listed in the test method's QA/QC. QA/QC will include the following:
 - One method blank for every ten samples, batch of samples or type of matrix, whichever is more frequent.
 - One sample analyzed in duplicate for every ten samples, batch of samples or type of matrix, whichever is more frequent.
 - One spiked sample for every ten samples, batch of samples or type of matrix, whichever is more frequent, with spike made at ten times the detection limit or at the analyte level.
 - One travel blank submitted with each batch of groundwater samples.

Report Preparation

Following receipt of the laboratory analyses, a site investigation report will be prepared summarizing the field activities and the results of the analytical data. The summary report will include the following:

- Scope of services performed
- Site background
- Results of field activities including laboratory results
- Conclusions and Recommendations
- Vicinity Map, Site Plan and Site Photographs
- Tabulated soil and groundwater analytical data
- Boring/well logs
- Laboratory reports and chain of custody documentation

One draft copy of the site investigation will be submitted to Caltrans for review and comment. Following receipt and incorporation of Caltrans comments, five copies of the final site investigation report will be submitted.

PROJECT SCHEDULE


The proposed project schedule prepared by Geocon includes the following:


Task Description	Completion/Delivery Date
Alameda County Workplan Approval	May 23, 2000
Field Work	May 26, 2000
Draft Report to Caltrans	June 14, 2000
Final Report to Caltrans	July 21, 2000

If you have any questions concerning the contents of this Workplan, or if we may be of further service, please contact the undersigned at your convenience.

Sincerely,

GEOCON CONSULTANTS, INC.

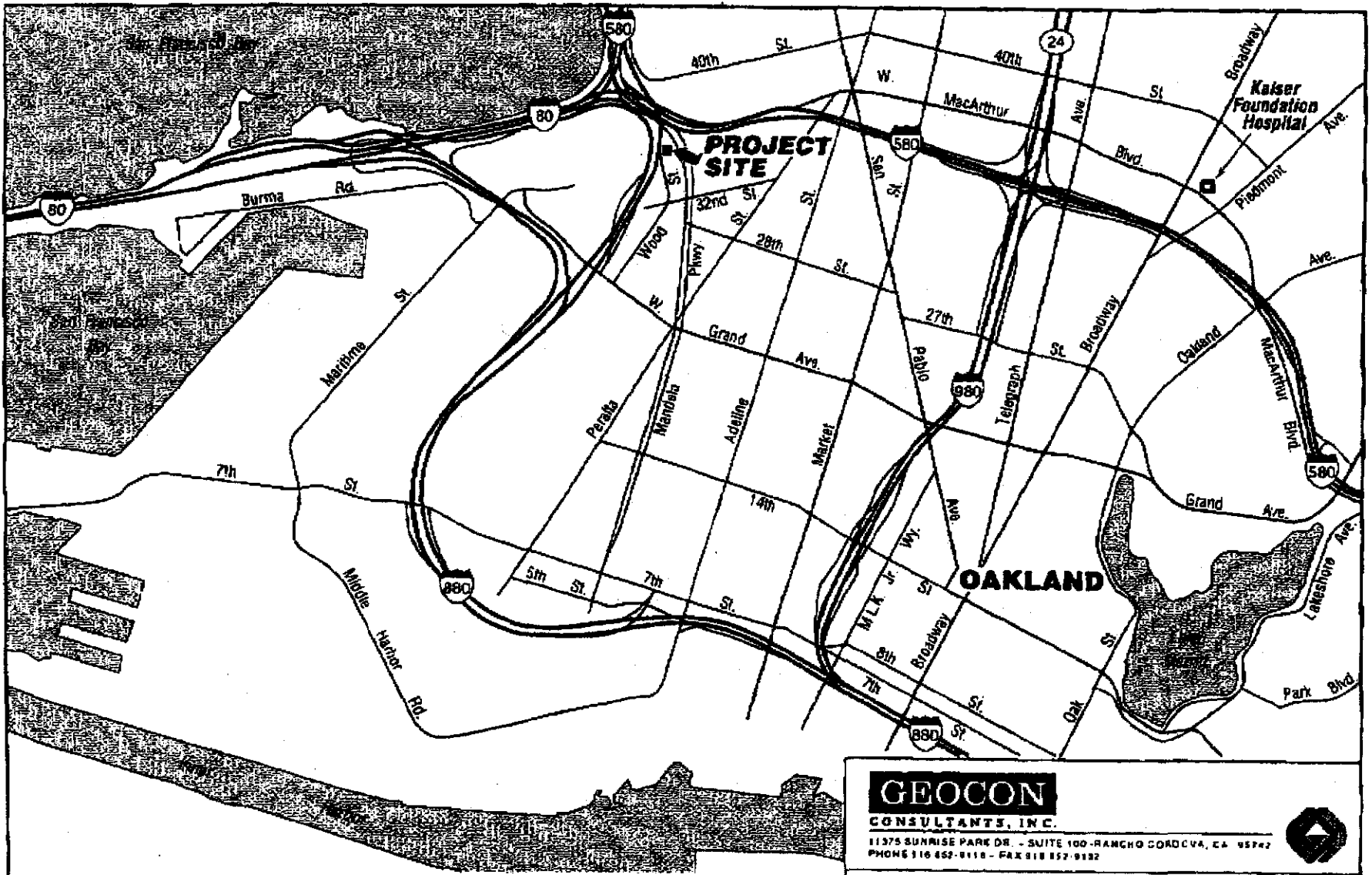

 John L. Jurena, PE, CEG
 Project Manager



 Ross J. White
 Senior Staff Geologist

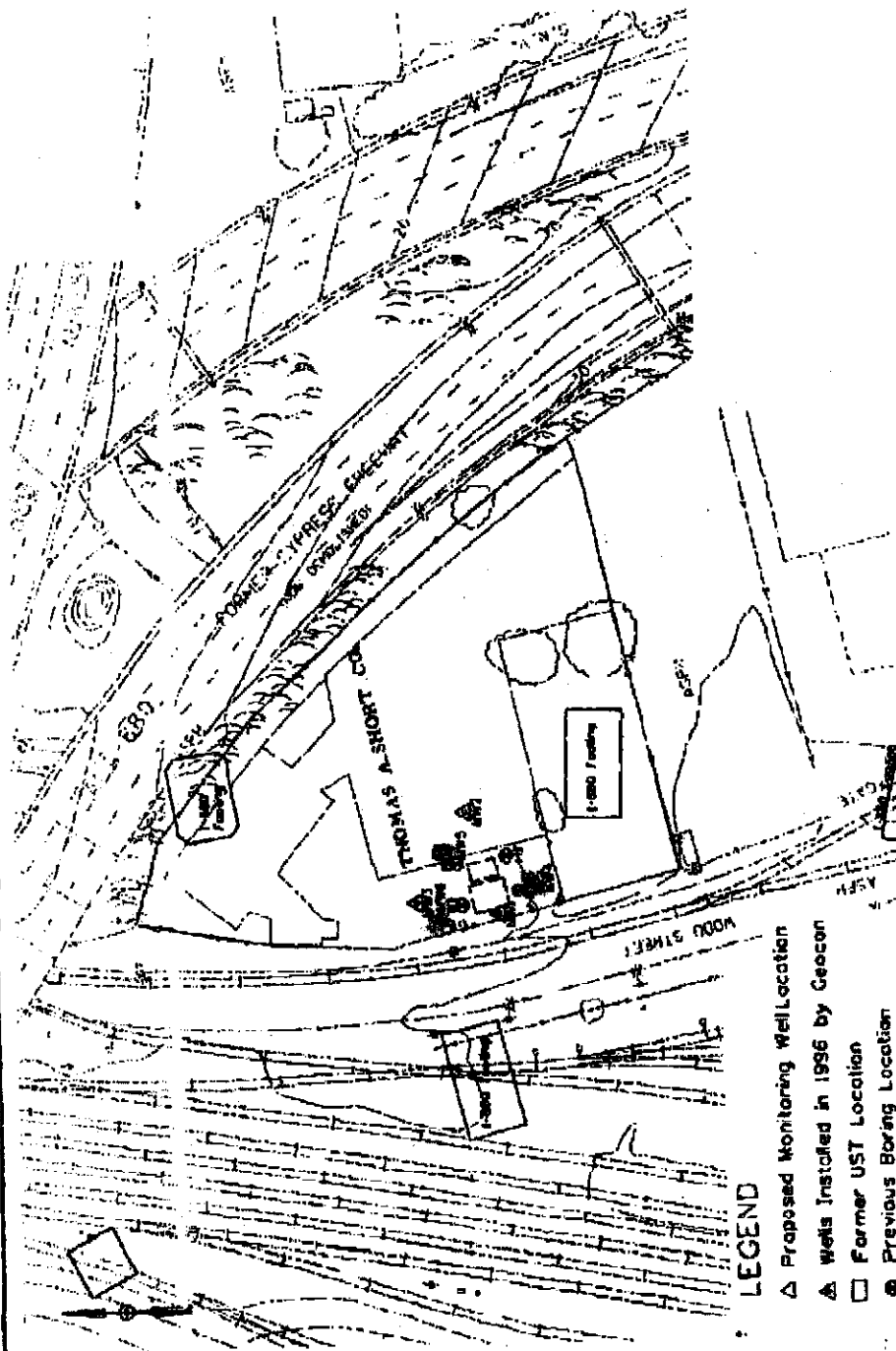
JEJ:RJV:sd

(4) Addressee

- Attachments:
- Figure 1, Vicinity Map
 - Figure 2, Site Plan
 - Figure 3, Monitoring Well Diagram
 - Historical Soil and Groundwater Data



GEOCON CONSULTANTS, INC. 11375 SUNRISE PARK DR. - SUITE 100 - RANCHO CORDOVA, CA 95742 PHONE 916 852-9118 - FAX 916 852-9132		
Former Thomas A. Short Company Property 3430 Wood Street Oakland, California		
GEOCON Proj. No. S8225-06-103		VICINITY MAP May 2000 Figure 1
Task Order No. 04-292351-ED		



LEGEND

- △ Proposed Monitoring Well Location
- ▲ Wells Installed in 1996 by Geocon
- Former UST Location
- Previous Boring Location

0 7.5 15m
Scale 1:750

GEOCON CONSULTANTS, INC. <small>11700 SHARPLEY DRIVE SUITE 100 SAN FRANCISCO, CALIFORNIA 94134 PHONE (415) 884-2411 FAX (415) 884-2418</small>	Former Thomas A. Morris Company Property
	3430 Wood Street Oakland, California GEOCON Proj. No. 99225-05-102 Task Order No. 99-292351-ED
SITE PLAN	
	May 2000
	Figure 2

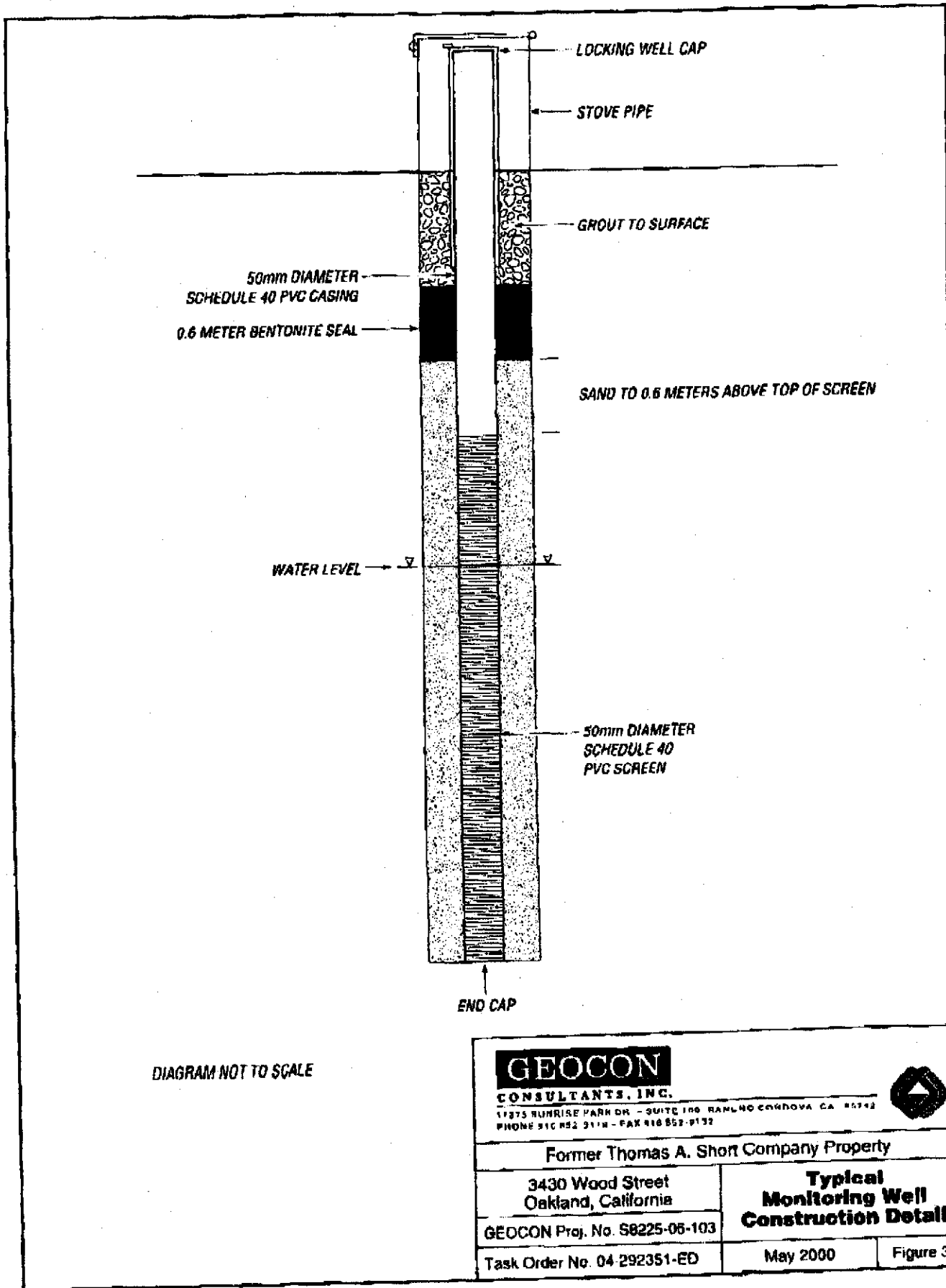




DIAGRAM NOT TO SCALE

 GEOCON CONSULTANTS, INC. <small>11375 SUNRISE PARK DR - SUITE 100 RANCHO CONCHOVA CA 94742 PHONE 916 852 9118 - FAX 916 852 9132</small>		
Former Thomas A. Short Company Property		
3430 Wood Street Oakland, California		Typical Monitoring Well Construction Detail
GEOCON Proj. No. S8225-06-103		
Task Order No. 04-292351-ED		May 2000
		Figure 3