



August 4, 1993

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Ms. Carrie Blackman Castro Valley Autohaus 20697 Park Way Castro Valley, CA 94546

Subject:

Second Quarter 1993 Groundwater Monitoring Report

Castro Valley Autohaus

20697 Park Way, Castro Valley, California

(Project No. 919289)

Dear Ms. Blackman:

This report presents the results of groundwater monitoring activities conducted by Aqua Terra Technologies, Inc. (ATT), during the second quarter 1993, at the subject property. A site location map is presented on Plate 1 (Attachment A). Included herein is a discussion of groundwater level measurement and groundwater sample collection activities, analytical results, and planned activities.

Aqua Terra Technologies Consulting Engineers & Scientists

2950 Buskirk Avenue Suite 120 Walnut Creek, CA 94596-2079 FAX 934-0418 510 934-4884

#### PROJECT HISTORY

#### Underground Storage Tank (UST) Removal

The following summary represents ATT's understanding of the project history; this is based on a review of the ATT Castro Valley Autohaus (CVA) project file, and conversations with individuals who were present during tank removal [Mr. Jim Craig of CVA, and Mr. Scott Seery of the Alameda County Health Care Services Agency (ACHCSA)]. Two 1,000 gallon waste oil underground storage tanks (USTs) were reportedly removed from the subject property in November 1989. The removal of the tanks was performed in accordance with the ACHCSA September 25, 1989 letter to Castro Valley Autohaus.

On February 13, 1991 a groundwater monitoring well was installed by D&D Management Consultants, Inc. south of the former tank location, and within ten feet of the UST excavation boundaries. Monitoring well installation and concurrent soil sample collection and analysis were performed in accordance with the ACHCSA letter of December 14, 1990. The groundwater monitoring well was developed on May 17, 1991.

The soils removed during tank excavation activities were stockpiled in the asphalt parking area at the facility, and covered with plastic sheeting. On October 18, 1991, the stockpiled soils were transported to Vasco Road Sanitary Landfill in Livermore, California for disposal. The landfill disposal receipts for these soils are included in Attachment B.

Ms. Carrie Blackman Castro Valley Autohaus August 3, 1993 Page 2

#### GROUNDWATER MONITORING SUMMARY

#### **Groundwater Elevation Monitoring**

On June 9, 1993, ATT measured the site groundwater level in monitoring well MW1 (depicted on Plate 2, Attachment A). The groundwater elevation was measured at 7.35 feet below the top of well casing. Groundwater level measurements are summarized in Table 1 (Attachment C).

#### **Groundwater Sample Collection**

One June 9, 1993, ATT personnel collected one groundwater sample from the site monitoring well. The groundwater sample was collected and handled in accordance with the sampling protocol presented in Attachment D. The sample was transported with chain-of-custody documentation to a California Department of Health Services (DHS) accredited laboratory.

#### **Groundwater Sample Analyses**

The sample was analyzed for volatile organic compounds (VOCs) in accordance with U.S. Environmental Protection Agency (EPA) Method 624. Groundwater sample collection and analysis was performed in accordance with the requirements contained in the ACHCSA August 12, 1991 letter (included as Attachment E).

Concentrations of VOCs in the June 9, 1993 groundwater sample were not detected at or above the method detection limit. Groundwater sample analytical data are summarized in Table 2 (Attachment C). Copies of the signed laboratory analytical reports and chain-of-custody documentation are presented in Attachment F.

#### **CONCLUSIONS**

Following the onset of the 1992/1993 rainy season, ATT collected the June 9, 1993 groundwater sample to determine if an impact to groundwater had occurred following an increase in groundwater levels. Concentrations of VOCs were not detected at or above the method detection limit of 0.5 micrograms per liter (ug/L) in the June 9, 1993 groundwater sample.

Ms. Carrie Blackman Castro Valley Autohaus August 3, 1993 Page 3

#### RECOMMENDATIONS

In accordance with the ACHCSA August 12, 1991 letter (Attachment E) ATT recommends the following:

- O During the Third Quarter, 1993, ATT will survey the site groundwater monitoring well to an established benchmark to the accuracy of 0.01 feet, and will convert the values to elevations above mean sea level (msl).
- o Groundwater level measurements will be collected from the site monitoring well on a quarterly basis, for the duration of this project.
- o Groundwater samples will be collected from the site monitoring well on a quarterly basis. Groundwater samples will be analyzed for VOCs using EPA Method No. 624.
  - Groundwater samples will be collected, and analyzed, for four consecutive quarters to fully determine if an impact to groundwater has occurred. If concentrations of VOCs are not detected at or above the analytical method detection limit during the consecutive sampling events, ATT will apply for case closure.
- o Summary reports will be submitted to the ACHCSA and the RWQCB on a quarterly basis, for the duration of this project. The reports will be submitted by the first day of the second month of each subsequent quarter (i.e., November 1, 1993; February 1, 1994; May 1, 1994; and August 1, 1994).

The quarterly summary reports will include details and results of work performed during the designated quarter, the status of groundwater contamination characterization, an interpretation of analytical results, and recommendations for additional investigative work or remediation, if warranted.

Castro Valley Autohaus (CVA) is currently applying for UST remediation funds through the State Water Resources Control Board's (SWRCB) Petroleum Underground Storage Tank Cleanup Fund (the Fund). To be eligible for funds, CVA must be in compliance with regulatory agency

Ms. Carrie Blackman Castro Valley Autohaus August 3, 1993 Page 4

remediation directives. During the Third Quarter, 1993, CVA expects to be in compliance with directives issued in the ACHCSA August 12, 1993 letter. On behalf of CVA, ATT requests that ACHCSA files be updated to reflect compliance.

Limitations and uncertainty to this report are in Attachment G.

Please contact us if you have any questions or comments regarding this report.

Sincerely,

AQUA TERRA TECHNOLOGIES, INC.

Kimberly S. Lagomarsino

Staff Scientist

Terrance E. Carter Environmental Engineer

Markey May

Mark R. Lafferty, R.G. Senior Hydrogeologist Project Manager

California Registered Geologist #4701

(Expires 6/30/94)

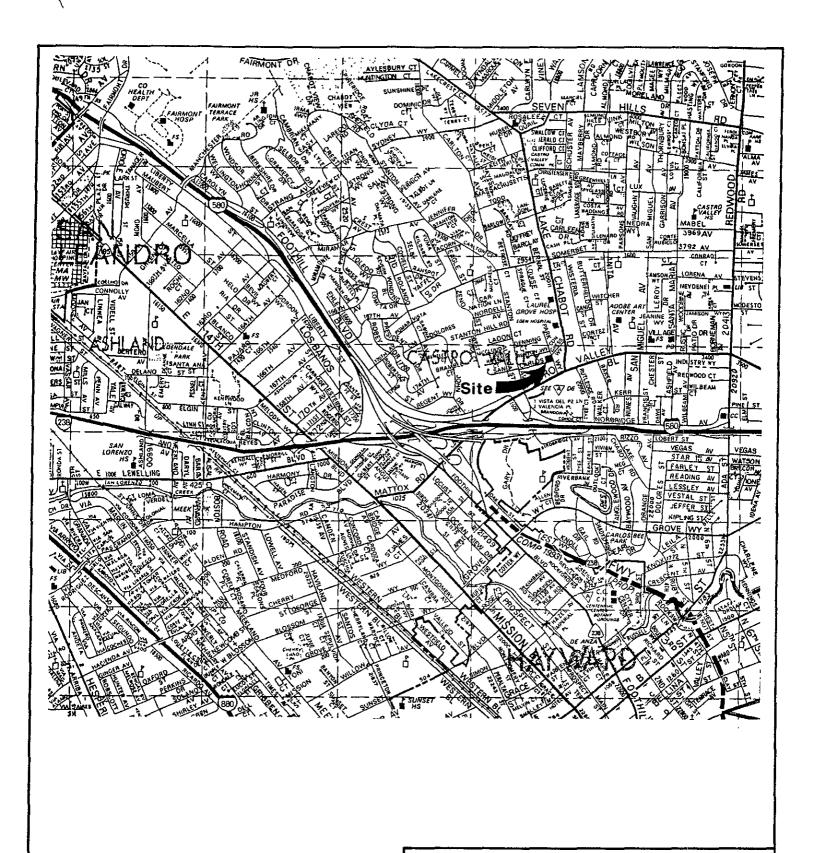
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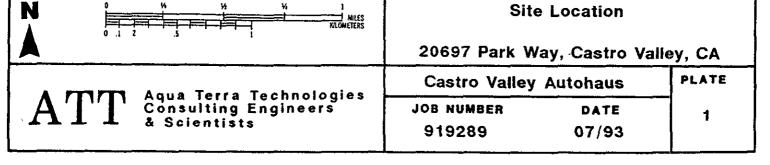
Attachments

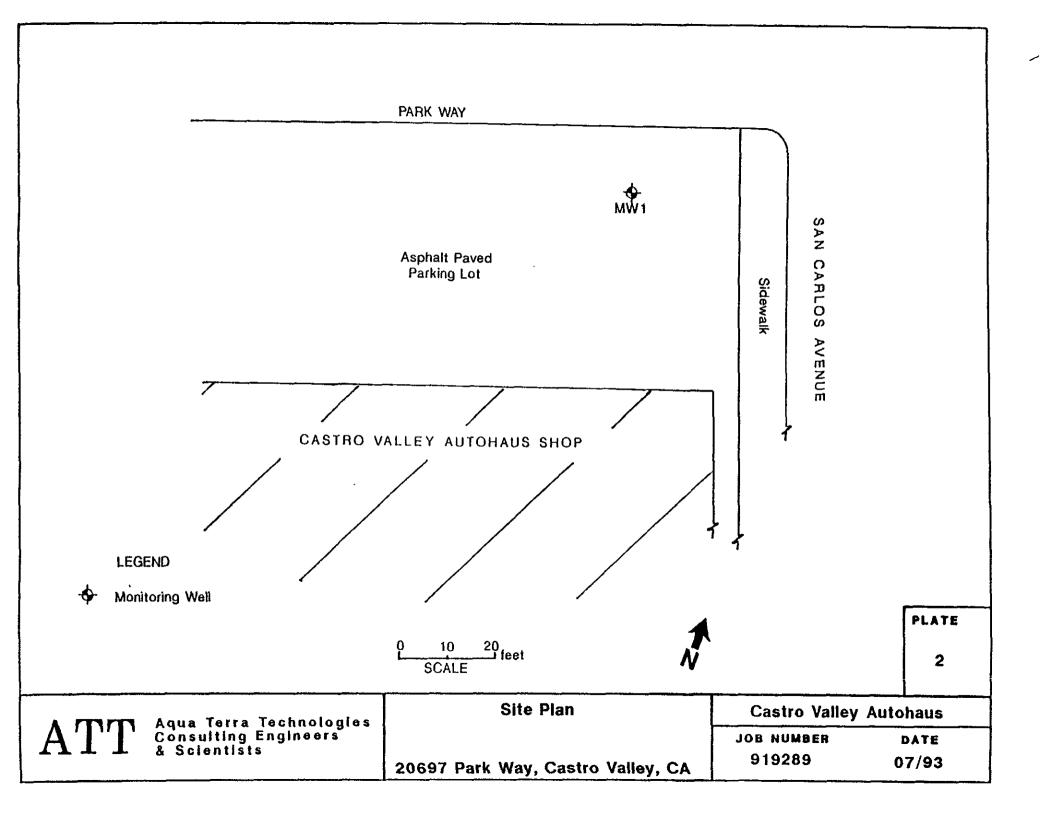
cc: Scott Seery, ACHCSA Lester Feldman, RWQCB

#### ATTACHMENT A

**Plates** 







# ATTACHMENT B Landfill Disposal Receipts

## PERRY'S FAX NUMBER (510) 581-1648

### PERRY'S CREATIVE PRINTING

FAX COVER SHEET

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IF TRANSMISSION IS INCOMPLETE. PLEASE CALL THE NUMBER LISTED BELOW.



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FAX NO. 5105811648

P. 03

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All children must remain in vehicles. Absolutely no salvaging allowed.

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#### ATTACHMENT C

Tables

Table 1

Groundwater Elevation Data Summary
Castro Valley Autohaus, Castro Valley, California

Well No.	Date Measured	Groundwater Level <sup>a</sup>		
MW1	08/21/91	8.11		
	06/09/93	7.35		

a. Groundwater level is measured in feet below top of well casing.

Table 2

Groundwater Sample Chemical Data Summary
Castro Valley Autohaus, Castro Valley, California

Well No. MW1	Date Sampled	VOCs Detected	VOC Concentration
	05/23/91	1,1-DCA <sup>a</sup>	1.3 μg/L <sup>b</sup>
	08/21/91	W770	$<2.0^{\circ}\mu\mathrm{g/L^{d}}$
	06/09/93	****	<0.5° μg/L <sup>d</sup>

- a. 1,1-DCA = 1,1 Dichloroethane
- b. Sample collected by IT Corporation, Martinez, California and analyzed by IT Analytical Services of San Jose, CA. In addition, 33  $\mu$ g/L acetone was detected in the same groundwater sample.
- c. VOCs not detected at or above the method detection limit.
- d.  $\mu$ g/L = micrograms per liter, equal to parts per billion.

#### ATTACHMENT D

Soil & Groundwater Sample Collection & Handling Protocol



## SOIL & GROUNDWATER SAMPLE COLLECTION & HANDLING PROTOCOL

#### INTRODUCTION & PURPOSE

Because reliable and representative test results must be generated from soil and groundwater samples, it is essential to establish a sampling procedure which assures that all samples are:

- O Collected by approved and repeatable methods
- O Representative of the materials(s) at the desired location and depth
- O Uncontaminated by container and sampling equipment

The following sampling protocol was designed to be a guide to the sampling and handling procedures for soil and groundwater samples. Based on conditions which may be encountered in the field, some modifications to this protocol may be required to fit the needs of an individual site.

#### SAMPLING PROCEDURES

#### **Groundwater Sampling**

Prior to collecting groundwater samples, monitoring wells were purged by bailing until pH, conductivity, and temperature levels stabilize. A minimum of four well casing volumes was purged from each well. Wells were purged and groundwater samples were obtained using a teflon bailer, or disposable polyethelene bailer, and nylon rope. New nylon rope is used for each well.

The appropriate number of sample containers and type were used for each sample collected, in accordance with the analytical laboratory requirements and EPA protocol. The bottles were filled using the bailer. All sample bottles were pre-cleaned by the supplier according to EPA protocols.

To prevent cross contamination of groundwater samples by the sampling equipment, all reusable equipment used in sampling was washed with a trisodium phosphate solution (TSP), triple rinsed with purified water, and allowed to air dry prior to each use. A sample of the purified water was retained for analysis as part of sample quality assurance.

#### Soil Sampling

After the soil sampler was driven to the desired depth and the samples were retrieved, each end of the tube containing the soil sample retained for laboratory analysis was sealed with teflon sheeting, covered with plastic end caps, and sealed with PVC tape. All sample containers (tubes) were steamed cleaned (or washed with TSP, as above) and air dried prior to use. The soil sample recovered in the tube just above the sample retained for chemical analysis was examined in the field for visual and olfactory indications of chemical contamination and used for lithologic description.

S&GSAMP.RPT 1



The Unified Soil Classification System (USCS) was used to log and describe the soil by the onsite geologist. These logs also include details of the sampling process such as depth, apparent odors, discoloration, and any other factors which may be required to evaluate the presence of contamination at the site.

#### POST SAMPLING PROCEDURES

One field/travel blank consisting of one sample bottle filled with purified water accompanied soil and groundwater sample containers at all times, including during transport to and from the site. Purified water field/travel blanks were analyzed according to the appropriate EPA Methods corresponding to the soil/groundwater sample analyses.

Sample containers were labeled with sample number, project number, date, and the initials of the person collecting the sample. A separate sample collection record was maintained for each groundwater sample collected.

Soil and groundwater samples collected were analyzed by an analytical laboratory certified by the California Department of Health Services (DHS). Quality assurance documentation accompanied all analytical reports generated by the laboratory.

The samples were placed in a cooler with dry ice (for soil samples) or bagged ice (for water samples) immediately following collection, and remained in the cooler until refrigerated at the analytical laboratory. The samples were delivered to the laboratory direct by courier or overnight freight within 48 hours of time of collection. Appropriate chain of custody forms were used for all samples.

S&GSAMP.RPT

# ATTACHMENT E ACHCSA August 12, 1993 Letter

DAVID J. KEARS, Agency Director



August 12, 1991

Mr. Robert Blackman Castro Valley Autohaus 20697 Park Way Castro Valley, CA 94546 DEPARTMENT OF ENVIRONMENTAL HEALTH Hazardous Materials Program 80 Swan Way, Rm. 200 Oakland, CA 94621 (415)

RE: PRELIMINARY SITE ASSESSMENT

AGENCY

Dear Mr. Blackman:

This Department is in receipt and has completed review of the May 22, 1991 D & D Management Consultants, Inc. (D & D) summary documenting the installation of one (1) monitoring well and soil sample analysis, and the June 20, 1991 International Technology Corporation (IT) water sampling and analysis report, as submitted under Castro Valley Autohaus cover dated July 1, 1991.

The two water samples analyzed, one collected near the top of the water column in the completed well, the other near the bottom, both identify the presence of the compound 1,1-dichloroethane in similar concentrations (1.3 and 1.2 ug/l [ppb]); a soil sample collected at 5 feet below grade during boring advancement identified the presence of acetone at a concentration of 0.033 mg/kg (ppm). Neither total lead nor organic lead appear to be of concern.

At this time, you are required to adhere to the following sampling and reporting schedule:

1) The well is to be surveyed vertically and horizontally to an established benchmark to the accuracy of 0.01 foot, and values converted to elevations above mean sea level (MSL). [Note: this requirement has been discussed previously in correspondence from this Department dated August 6, 1990, and is a mandatory requirement of the RWQCB; neither of the the referenced D & D and IT reports indicate that the well has been surveyed.]

Water level measurements are to be collected <u>quarterly</u> for the life of this project;

2) Water samples are to be collected <u>quarterly</u>, and are to be analyzed for the presence of chlorinated <u>compounds</u> (EPA Method 601 or 624) and <u>volatile organics</u> (EPA Method 624 or 602). It is recommended that analysis method 624 be used to meet this requirement as total analysis costs will be reduced;

Mr. Robert Blackman

RE: Castro Valley Autohaus, 20697 Park Way

August 12, 1991

Page 2 of 3

3) Summary reports are to be submitted to this Department and the RWQCB <u>quarterly</u> for the duration of this project until eligible for final "sign-off" by the RWQCB. Such reports are due the first day of the second month of each subsequent quarter (i.e., November 1, February 1, May 1, and August 1). Hence, the next report is due for submittal November 1, 1991 and shall document sampling/monitoring activities occurring at your site during the 3rd quarter of 1991 (July-Sept.).

The referenced quarterly reports are to include, among other elements, the following information where appropriate:

- Details and results of all work performed during the designated period of time: records of field observations and data, water level data, chain-of-custody forms, laboratory results for all samples collected and analyzed, tabulations of free product thicknesses and dissolved fractions, etc.
- o Status of ground water contamination characterization
- o Interpretation of results: water level contour maps showing gradients, free and dissolved product plume definition maps for each target component, geologic cross sections, etc.
- o Recommendations or plans for additional investigative work or remediation

Please be advised that all future reports <u>must</u> be submitted under seal of a California-registered professional (i.e., RG, CEG, or RCE), in accordance with the California Business and Professions Code. All work performed at your site is to be under the direction of this appropriately registered individual; however, the actual work may be performed by a subordinate employee, but such work must be reviewed and the final product signed by the registered person.

Finally, this Department has been assured in the past that the stockpiled soil was to be sampled and analyzed concurrent with the installation and sampling of the monitoring well, and that the disposal/treatment of said soil was to follow once the level of contamination was known. No report documenting this sampling has been received by this office. Further, as of last month, this soil was still stockpiled on-site. Please bear in mind that this soil has been stockpiled on your site since November 1989.

Mr. Robert Blackman RE: Castro Valley Autohaus August 12, 1991 Page 3 of 3

Section 66471, Title 22, California Code of Regulations (CCR), requires that producers of waste determine whether such waste is hazardous by California standards. You are presently in violation of the cited section. Further, should the material prove to be a hazardous waste, you are also in violation of 22CCR Section 66508 for storage of such waste for over 90 days.

As a result of these facts, you are directed to sample and analyze this stockpiled soil for the range of known possible contaminants (i.e., chlorinated and volatile organic compounds) following appropriate protocol, and submit a report to this Department within 30 days, or by September 12, 1991. This report is to include potential disposal and/or treatment options, as appropriate.

Please call me at 415/271-4320 should you have any questions.

Sincerely

Scott O. Seery, CHMM

Hazardous Materials Specialist

cc: Rafat A. Shahid, Assistant Agency Director, Environmental Health Edgar Howell, Chief, Hazardous Materials Division Gil Jensen, Alameda County District Attorney's Office Lester Feldman, RWQCB Howard Hatayama, DHS Bob Bohman, Castro Valley Fire Department Louis Richardson

Jim Craig files

#### ATTACHMENT F -

Laboratory Analytical Results Chain of Custody Documentaiton



## PRIORITY ENVIRONMENTAL LABS

June 11, 1993

Precision Environmental

Analytical

laboratory # 9306025

AQUA TERRA TECHNOLOGIES, INC.

Attn: Terry Carter

Project number: 919289

Sample I.D.: MW 1

Date Sampled: Jun 09, 1993

Date Submitted: Jun 10, 1993

Date Analyzed: Jun 10, 1993 Method of Analysis: EPA 624

Detection limit: 0.5 ug/L

COMPOUND NAME	ND NAME CONCENTRATION ( ug/L )				
Acetone	N.D.				
Chloromethane	N.D.	900 400 400 400 au			
Vinyl Chloride	N.D.	82.4			
Bromomethane	N.D.				
Chloroethane	N.D.				
Trichlorofluoromethane	N.D.				
1,1-Dichloroethene	N.D.	93.1			
Methylene Chloride	N.D.				
Trans-1,2-Dichloroethene	N.D.	95.7			
1,1-Dichloroethane	N.D.				
Chloroform	N.D.	81.6			
1,1,1-Trichloroethane	N.D.				
Carbon Tetrachloride	N.D.	900 460 460 date date			
1,2-Dichloroethane	N.D.				
Trichloroethene	N.D.	100.9			
1,2-Dichloropropane	N.D.				
Bromodichloromethane	N.D.				
2-Chloroethylvinylether	N.D.				
Trans-1,3-Dichloropropene	N.D.				
Cis-1,3-Dichloropropene	N.D.	~~~			
1,1,2-Trichloroethane	N.D.				
Tetrachloroethene	N.D.	95.4			
Benzene	N.D.	83.5			
Dibromochloromethane	N.D.				
Toluene	N.D.				
Chlorobenzene	N.D.	92.1			
Ethylbenzene	N.D.	94.9			
Bromoform	N.D.				
1,1,2,2-Tetrachloroethane	N.D.				
Dichlorodifluoromethane	N.D.				
Freon 113	N.D.	107.3			
M & P-Xylenes	N.D.				
O-Xylene	N.D.				
1,3-Dichlorobenzene	N.D.				
1,4-Dichlorobenzene	N.D.				
1,2-Dichlorobenzene	N.D.				

David Duong Laboratory Director

1764 Houret Court Milpitas, CA. 95035 Tel: 408-946-9636

Fax: 408-946-9663

PEL # 9306025

INV # 23680

Aqua Terra Technologies, Inc. 2950 Buskirk Avenue, Ste. 120 Walnut Creek, CA 94598 CHAI Tel. (510) 934-4884 Fax. (510) 934-0418

### CHAIN OF SAMPLE CUSTOUT RECORD (original document, please return)

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# ATTACHMENT G Limitations and Uncertainty

#### LIMITATIONS AND UNCERTAINTY

This report was prepared in general accordance with the accepted standard of practice which exists in northern California at the time the investigation was conducted and within the scope of services outlined in our proposal. It should be recognized that the definition and evaluation of surface and subsurface environmental conditions is a difficult and inexact science. Judgements leading to conclusions is a difficult and inexact science. Judgements leading to conclusions and recommendations generally are made with an incomplete knowledge of the conditions present. It is possible that variations in the soil and/or groundwater conditions could exist beyond the points explored for this investigation. Also changes in groundwater conditions could occur sometime in the future due to variations in tides, rainfall, temperature, local or regional water use or other factors. If the client wishes to reduce the uncertainty beyond the level associated with this study, ATT should be notified for additional consultation.

The discussion and recommendations presented in this report are based on: 1) information and data provided by third party consultants, 2) the exploratory test borings drilled at the site, 3) the observations of field personnel, 4) the results of laboratory analysis by a California Department of Health Services (DHS) accredited laboratory, and 5) interpretations of federal, state, and local regulations and/or ordinances.

Chemical analytical data included in this report have been obtained from state certified laboratories. The analytical methods employed by the laboratories were in accordance with procedures suggested by the U.S. Environmental Protection Agency and the State of California. ATT is not responsible for laboratory errors in procedures or reporting.

ATT has conducted this investigation in a manner consistent with the level of care and skill ordinarily exercised by members of the environmental consulting profession currently practicing under similar conditions in northern California. ATT has prepared this report for the client's (and assigned parties) exclusive use for this particular project. No other warranties, expressed or implied, as to the professional advice provided are made.