BLAINE
TECH SERVICES INC.

1370 TULLY RD., SUITE 505
SAN JOSE, CA 95122
(408) 995-5535

91 AUG -2 AM 10:09

June 4, 1991

20224

R.L. Stevens
P.O. Box 361
San Leandro, CA 94577

SITE:
Beck Roofing
21123 Meekland Avenue
Hayward, California

PROJECT:
Tank Removal

SAMPLED ON:
May 20, 1991

TANK REMOVAL SAMPLING REPORT 910520-C-1

Blaine Tech Services, Inc. performs specialized environmental sampling and documentation as an independent third party. In order to avoid compromising the objectivity necessary for the proper and disinterested performance of this work, Blaine Tech Services, Inc. does not participate in the interpretation of analytical results or become involved with the marketing or installation of remedial systems. The interpretation of results should be performed by representatives of interested regulatory agencies and/or those professionals who are engaged as paid consultants in the business of providing opinions and proposals for further investigation or clean-up activities.

This report describes the initial environmental sampling and documentation performed by our firm on this project. In addition to the text of the Sampling Report, supporting documents are provided as attachments. These include the chain of custody and the certified analytical laboratory report. All of these documents should be kept together and preserved as a file of interrelated records which, together, comprise the documentation of the work performed at the site.

26

Scope of Requested Services

In accordance with your request, field personnel would be dispatched to the site to collect samples following the removal of an underground gasoline storage tank. We would arrange for the requested analyses of the samples, and maintain adequate documentation resulting in the issuance of a formal Sampling Report. The collection of environmental samples was to be performed in accordance with the requirements of the Regional Water Quality Control Board and the specific directions of the Local Implementing Agency (LIA) inspector present at the site at the time of removal.

Execution of the Tank Removal Sampling

Personnel were dispatched from our office and arrived at Beck Roofing on Monday, May 20, 1991.

The subject site is located within the overall jurisdiction of the Regional Water Quality Control Board -- San Francisco Bay Region. Initial inspection and evaluation of sites in this area is customarily conducted by the local implementing agency (LIA): the Alameda County Health Department. The local implementing agency was represented by Ms. Pamela J. Evans, who was present to observe the tank removal and sampling.

Mr. James Ferdinand of the Hayward Fire Department was also present to observe the tank removal.

R.L. Stevens was represented by Mr. Leroy Edwards.

In accordance with the local regulations and the field judgment of the LIA representative, a detailed inspection of the tank was conducted following its removal from the open excavation. The tank was visually inspected and likely failure points were probed with small pointed metal examination tools. The inspection found two small holes in the bottom of the tank at each end.

TANK I.D.	SIZE IN GALLONS	TANK CONTENT	MATERIAL OF CONSTRUCTION	INSPECTION FOUND
A	1,000	GASOLINE	STEEL	TWO HOLES

Standard RWQCB interface samples were taken of the native soil at points corresponding to both ends of the tank. A sample of stockpiled soil generated during the excavation and removal of the tank was also obtained. The sampling was performed in accordance with the direction of the LIA representative, Ms. Evans. In the paragraphs that follow, the samples are described in the order in which they were collected:

Sample #1 was a standard interface sample taken at the fill pipe end of the tank at a depth of eight feet (8.0') below grade.

Sample #2 was a standard interface sample taken at the end opposite the fill pipe of the tank at a depth of seven and a half feet (7.5') below grade.

Sample #3A-D was a four part composite sample taken from the stockpiled soil. The stockpile was located on the southeast side of the shed and was estimated to contain approximately 14 cubic yards of soil. As described in the Sampling Methodology section of the report, the sample consisted of four individual brass sample liners (#3-A, #3-B, #3-C, and #3-D) which were collected from different faces of the stockpile.

The location of individual sampling points is shown on the diagram on page four. Additional information on the exact method of sample collection will be found in the **Sampling Methodology** section of this report.

After completion of the field work, the sample containers were delivered to Sequoia Analytical Laboratory in Redwood City, California. Sequoia Analytical Laboratory is a California Department of Health Services certified Hazardous Materials Testing Laboratory and is listed as DOHS HMTL #1210.

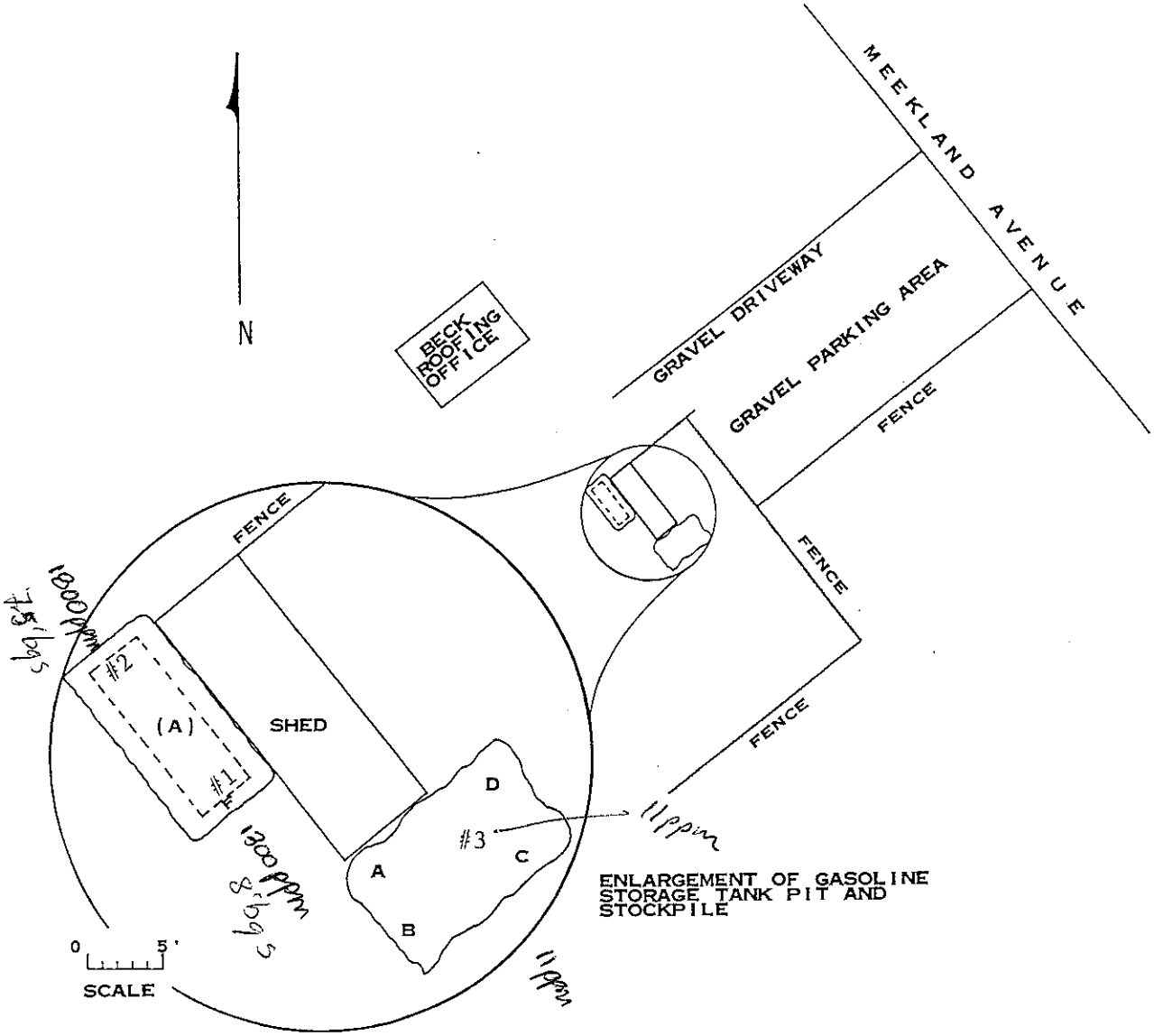
It was requested that the analytical procedures used for these analyses be those specified by the Regional Water Quality Control Board -- San Francisco Bay Region. The methods are defined in attachments to the San Francisco RWQCB (Region 2) publication, Guidelines For Addressing Fuel Leaks and in documents issued to clarify the Board's interpretation of the California LUFT Manual.

SAMPLING METHODOLOGIES USED ON THIS PROJECT

Standard RWQCB Interface Samples: Samples taken immediately following a tank removal are required to conform to criteria established by the Regional Water Quality Control Boards. Interpretation of these criteria is usually entrusted to the discretion of the local implementing agency inspector, but are widely known and conformance with these criteria is expected even when no regulatory agency personnel are present to direct the procedures. Accordingly, "Standard Interface samples" are those which have been taken in accordance with the standard protocol for obtaining interface samples. These samples fall into the category of samples which are known to be of primary concern to the interested regulatory agencies for determining if additional action will be required at a site and the methodology has been closely defined in state and RWQCB publications, supplements, and presentations. These specify both the acceptable depth and lateral situation of sample collection points. In accordance with these specifications, sample collection is executed as close as possible to the center line (longitudinal axis) of the tank and on a vertical axis with the fill pipe. A corresponding location is also found at the opposite end of the tank whenever standard interface samples are being collected.

Briefly, the method consists of digging up native soil from directly below the fill pipe and the corresponding opposite end of the tank and obtaining a sample from the backfill/native soil interface or a short distance below the interface. A short distance has been defined by Region 2 Board engineers as not greater than twenty-four inches below the backfill/native soil interface and is generally taken to be one foot below the backfill/native soil interface.

SAMPLING REPORT 910520-C-1, 5-20-91, BECK ROOFING, 21123 MEEKLAND AVE, HAYWARD, CA



ENLARGEMENT OF GASOLINE STORAGE TANK PIT AND STOCKPILE

SCALE: 0 60'

MAP REF: THOMAS BROS. ALAMEDA COUNTY P.58 B-5

LEGEND: F = FILL PIPE END

#1 SOIL SAMPLE FROM 8.0' ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS (TPH) AS GASOLINE, BENZENE, TOLUENE, XYLENES AND ETHYLBENZENE (BTXE) AND TOTAL ORGANIC LEAD AT SEQUOIA ANALYTICAL LABORATORY. SEQUOIA LAB NO. 105-2697

#2 SOIL SAMPLE FROM 7.5' ANALYSIS FOR TPH AS GASOLINE, BTXE AND TOTAL ORGANIC LEAD. SEQUOIA LAB NO. 105-2698

#3A-D STOCKPILE SOIL COMPOSITE AT SAMPLE POINTS A-D ANALYSIS FOR TPH AS GASOLINE, BTXE AND TOTAL ORGANIC LEAD. SEQUOIA LAB NO. 105-2699

SAMPLING PERFORMED BY GLEN BENETT

DIAGRAM PREPARED BY LI PAN

1,000-gallon gas UST

This soil is brought up in the backhoe bucket. A shovel or trowel is used to cut away surface soil and backfill material which may have been included in the bucket, and the sample is taken by pushing or driving a brass sample liner into the newly exposed soil from the designated depth and location. Additional clarifications by Region 2 Board engineers have indicated that when there is an obvious difference in the relative contamination of soil brought up from the interface depth, then it is the relatively more contaminated soil that should be selected for inclusion in the sample.

Stockpile Survey (Modified BAAQMD Protocol): This sampling follows a survey pattern, but uses a modified BAAQMD protocol for sampling stockpiles of material that have been newly removed from a tank pit excavation. This protocol calls for a discrete sample container to be collected for every 12.5 cubic yards of material. The survey includes opposite sides of the stockpile. Strict observance of the BAAQMD protocol (for purposes of evaluating the levels of fuel vapor likely to be discharged from a stockpile) calls for inclusion of the surface material in the brass liner which is driven into the pile at a right angle (to the angle of repose) until the liner is full. Unless specifically asked to follow the BAAQMD protocol, our personnel routinely modify the procedure to exclude the surface soil and collect soil from a depth of eight to eighteen inches. While this prejudices the sample in the direction of yielding higher results than would a strict BAAQMD sample, it is more representative of the levels of fuel hydrocarbons present in the soil and is not likely to mislead the client or contractor into offhauling or backfilling with soil stockpiles that are relatively clean at the surface, but unacceptably contaminated through the remainder of their volume.

Sample Containers

Our firm uses new sample containers of the type specified by either EPA or the RWQCB for the collection of samples at sites where underground storage tanks are involved. Water samples are contained in 40 ml volatile organic analysis vials (VOAs) when analysis for gasoline and similar light volatile compounds is intended. These containers are prepared according to EPA SW 846 and will contain a small amount of preservative when the analysis is for TPH as gasoline or EPA 602. Vials intended for EPA 601 analysis and EPA 624 GCMS procedures are not preserved. Closure is accomplished with an open headed (syringe accessible) plastic screw cap brought down on top of a Teflon faced septum which is used to seal the sample without headspace.

Water samples intended for semivolatile and nonvolatile analysis such as total oil and grease (TOG) and diesel (TPH-HBF) are collected and transported in properly prepared new glass liter bottles. Dark amber glass is used in the manufacture of these bottles to reduce any adverse effect on the sample by sunlight. Antimicrobial preservative may be added to the sample liquid if a prolonged holding time is expected prior to analysis. Closure is accomplished with a heavy plastic screw cap.

Soil samples for volatile, semivolatile and nonvolatile analyses are all collected in properly prepared new brass liners which are 2 inches in diameter by 4 inches in length. Closure is accomplished with press fit plastic end caps which are fitted to the open ends of brass tube liners after a sheet of aluminum foil is wrapped over the exposed sample material. No preservative other than cold storage is used on samples captured in sample containers of this type.

Sample Handling Procedures

Solid sample material is captured by advancing the liner into the soil. This may be done by pushing the liner into soft soils or by containing the liner in a drive shoe which can be advanced and then retracted by means of a slide hammer. The open ends of the sample liner are covered with aluminum foil and plastic end caps. The brass liner is then labeled with the appropriate identification numbers which specify the sampling activity designation number, sample collection area, depth etc. that apply to that particular sample. The sample liner is then placed in an ice chest which contains pre-frozen blocks of an inert ice substitute such as Blue Ice or Super Ice.

Water samples are collected in any of several appropriate devices such as bailers, Coliwasas, Middleburg sampling pumps, etc., which are described in detail only as warranted by their employment at a given site. Sample liquid is decanted into new sample containers in a manner which reduces the loss of volatile constituents and follows the applicable EPA procedures for handling volatile organic and semi-volatile compounds. Only two variations from the EPA methods are generally employed. First, preservative is added to the sample container prior to addition of the sample liquid. This method was pioneered by Stoner Laboratories in 1982 and subsequently adopted by laboratories and environmental consulting firms as a practical means of reducing the time that a liquid is allowed to aerate prior to closure of the sampling container. Second, because tests have shown that the preservative readily mixes with sample liquid, glass stirring rods are not used to agitate the sample/preservative mixture.

Sample Designations

All sample containers are identified with both a sampling event number and a discrete sample identification number. Please note that the sampling event number is the number that appears on our chain of custody. It is roughly equivalent to a job number, but applies only to work done on a particular day of the year rather than spanning several days as jobs and projects often do. This is followed by the sample I.D. number which is usually a simple number such as #1, #2, #3.

Chain of Custody

Samples are continuously maintained in either a chilled ice chest, refrigerator, or freezer from the time of collection until acceptance by the State certified Hazardous Materials Testing Laboratory selected to perform the analytical procedures. If the samples are taken charge of by a different party (such as another person from our office, a courier, etc.) prior to being delivered to the laboratory, appropriate release and acceptance records are made on the chain of custody (time, date, and signature of person releasing the samples followed by the time, date and signature of the person accepting custody of the samples).

Laboratory Identification Numbers

Following receipt of the samples and completion of the Chain of Custody form, the laboratory then assigns their own identification numbers to the samples. Different laboratories use different numbering systems and, according to their own internal conventions, may or may not assign sequential numbers to samples which are placed on temporary "hold", pending the results of other analyses. Laboratory identification numbers (if assigned and available) are included on the DIAGRAM page, and will be found on the certified analytical report by the analytical laboratory.

Certified Analytical Report

The certified analytical report generated by the laboratory is the official document in which they issue their findings. The certified analytical report is included as an attachment at the close of this report.

General Advisory on Positive Results

Blaine Tech Services, Inc. provides sampling and documentation. The proper technical execution of this work demands a high level of dedication to the principle that data gathering should be performed by impartial individuals who are also disinterested in the outcome of the analytical procedures. To function as a disinterested and independent third party Blaine Tech Services, Inc. makes it a policy to not become involved in either the interpretation of results or the sale of any consulting services or remediation packages. There are an ample number of firms who can provide consulting services and make proposal on whatever level of work they feel should be undertaken.

Even though we do not engage in the interpretation of analytical results, the making of recommendations, or the issuance of proposals on how best to remediate environmental conditions, we have been asked by the engineering staff of the Regional Water Quality Control Board to include in our reports an advisory section outlining the general type of additional actions which may be required when contamination is found. This advisory is not intended to characterize conditions at this particular site or replace the services of a consulting firm specializing in the investigation, characterization and remediation of such conditions as may exist. Rather, it is intended to advise you that such additional actions may be required even though some time may elapse before you are contacted by one of the interested regulatory agencies.

In Region 2 (which is regulated by the San Francisco Regional Water Quality Control Board), the thresholds are readily defined in the Board's publication, Guidelines For Addressing Fuel Leaks. According to this document, soil which has less than 100 parts per million total petroleum fuel hydrocarbon (TPH) contamination does not generally require immediate additional action. Board engineers emphasize that this does not mean that some action might not be required in the future. Still, the site is assigned a low priority unless it is situated in an area of high hydrogeologic concern.

The detection of more than 100 ppm TPH in the native soil beneath a tank is generally considered grounds for requiring an additional investigation in the form of soil borings and installation of at least one groundwater monitoring well followed by periodic monitoring.

The detection of 1000 ppm TPH is usually viewed by the Board as an unacceptable level of fuel saturation which will mandate excavation of the effected ground down to the furthest practicable reach of conventional excavating machinery followed by soil borings and installation of groundwater monitoring wells.

Other regions use different standards for determining when a groundwater investigation will be required. For example benzene is often used in lieu of TPH. Even very low levels of benzene are often seen as grounds for requiring a subsurface investigation. This criteria may be relaxed or stiffened depending on the location of the site in relation to different groundwater systems, the depth to water, type of soil, and the concentrations of benzene involved.

The above standards apply only to fuels. When samples taken in connection with a waste oil tank or a solvent tank are found to contain even small amounts of any of the EPA priority pollutants (such as TCE, PCE, DCE etc. which are detected by EPA methods 8010, 8020, and 8240) more stringent standards are often applied. In these cases, soil borings and monitoring well installation may be required if there is any detectable amount of any of the EPA priority pollutant compounds.

When contaminants are found to have reached the water underlying a site, the Board customarily requires that additional work be undertaken in order to define the extent of the contamination.

Reportage

Submission to the Regional Water Quality Control Board and the local implementing agency should include copies of the sampling report, the chain of custody, and the certified analytical report issued by the Hazardous Materials Testing Laboratory. The property owner should attach a cover letter and submit all documents together in a package.

The following addresses have been listed here for your convenience:

Water Quality Control Board
San Francisco Bay Region
2101 Webster Street
5th Floor
Oakland, CA 94612
ATTN: Lester Feldman

Alameda County Health
Hazardous Materials Management
80 Swan Way, Room 200
Oakland, CA 94621
ATTN: Pamela J. Evans

Please call if we can be of any further assistance.

Richard C. Blaine

RCB/jmb

attachments: chain of custody
analytical report

BLAINE TECH SERVICES INC.

1370 TULLY ROAD., SUITE 505
SAN JOSE, CA 95122
(408) 995 5535

CHAIN OF CUSTODY BTS 910520-1

CLIENT R.L. STEVENS

SITE BECK ROOFING
21123 MEEKLAND
HAYWARD, CA.

LAB SEQUOIA DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

☐ EPA ☐ RWQCB REGION ____
☐ LIA
☒ OTHER ALAMEDA CO. HEALTH AGENCY

SPECIAL INSTRUCTIONS

SAMPLE I.D.	MATRIX (S = SOIL, W = H2O)	CONTAINERS: TOTAL	CONTAINERS	C = COMPOSITE ALL CONTAINERS	CONDUCT ANALYSIS TO DETECT: TPH GAS / BTXE	CONDUCT ANALYSIS TO DETECT: TOTAL ORGANIC Pb	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
#1	S	1	BRASS		X	X				
#2	S	1	BRASS		X	X				
#3A-D	S	4	BRASS	C	X	X				

SAMPLING COMPLETED DATE 5.20.91 TIME 1245
SAMPLING PERFORMED BY

RESULTS NEEDED NO LATER THAN ROUTINE

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
	5.20.91	1350			
				5/20/91	1350

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Blaine Tech Services	Client Project ID:	910520-C-1, R.L. Stevens	Sampled:	May 20, 1991
1370 Tully Rd., Suite 505	Matrix Descript:	Soil	Received:	May 20, 1991
San Jose, CA 95122	Analysis Method:	EPA 5030/8015/8020	Analyzed:	May 28, 1991
Attention: Richard Blaine	First Sample #:	105-2697	Reported:	Jun 3, 1991

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
105-2697	#1	1,300	6.4	77	28	230
105-2698	#2	1,800	5.8	75	33	210
105-2699	#3 A-D	11	N.D.	N.D.	N.D.	N.D.
Detection Limits:		**1.0**	**0.0050**	**0.0050**	**0.0050**	**0.0050**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Elizabeth W. Hackl
Project Manager

1052697.BLA <1>

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Blaine Tech Services
1370 Tully Rd., Suite 505
San Jose, CA 95122
Attention: Richard Blaine

Client Project ID: 910520-C-1, R.L. Stevens

QC Sample Group: 1052697-2699

Reported: Jun 3, 1991

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	G. Meyer	G. Meyer	G. Meyer	G. Meyer
Reporting Units:	ng	ng	ng	ng
Date Analyzed:	May 28, 1991	May 28, 1991	May 28, 1991	May 28, 1991
QC Sample #:	GBLK 052491	GBLK 052491	GBLK 052491	GBLK 052491
Instrument I.D.:	GCHP-7	GCHP-7	GCHP-7	GCHP-7
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	100	100	100	300
Conc. Matrix Spike:	110	110	110	320
Matrix Spike % Recovery:	110	110	110	110
Conc. Matrix Spike Dup.:	110	110	110	330
Matrix Spike Duplicate % Recovery:	110	110	110	110
Relative % Difference:	0.0	0.0	0.0	0.0

SEQUOIA ANALYTICAL

Elizabeth W. Hackl
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

1052697.BLA <2>

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Blaine Tech Services	Client Project ID:	910520-C-1, R.L. Stevens	Sampled:	May 20, 1991
1370 Tully Rd., Suite 505	Sample Descript:	Soil	Received:	May 20, 1991
San Jose, CA 95122	Analysis Method:	California LUFT Manual, 12/87		
Attention: Richard Blaine	First Sample #:	105-2697	Analyzed:	May 29, 1991
			Reported:	Jun 3, 1991

ORGANIC LEAD

Sample Number	Sample Description	Sample Results mg/kg (ppm)
105-2697	#1	0.22
105-2698	#2	0.66
105-2699	#3 A-D	N.D.

Detection Limits:	**0.050**

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Elizabeth W. Hackl
Project Manager

1052697.BLA <3>

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Blaine Tech Services
1370 Tully Rd., Suite 505
San Jose, CA 95122
Attention: Richard Blaine

Client Project ID: 910520-C-1, R.L. Stevens

QC Sample Group: 1052697-2699

Reported: Jun 3, 1991

QUALITY CONTROL DATA REPORT

ANALYTE
Organic Lead

Method:	LUFT
Analyst:	V. Patel
Reporting Units:	mg/kg
Date Analyzed:	May 29, 1991
QC Sample #:	105-3048

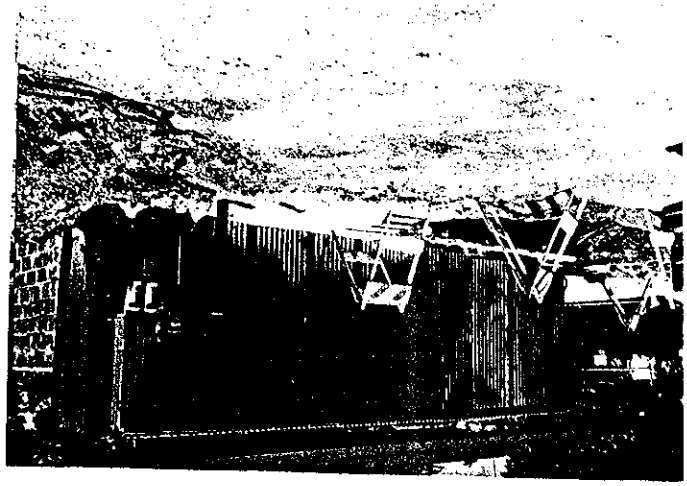
Sample Conc.:	N.D.
Spike Conc. Added:	0.50
Conc. Matrix Spike:	0.54
Matrix Spike % Recovery:	110
Conc. Matrix Spike Dup.:	0.54
Matrix Spike Duplicate % Recovery:	110
Relative % Difference:	0.0

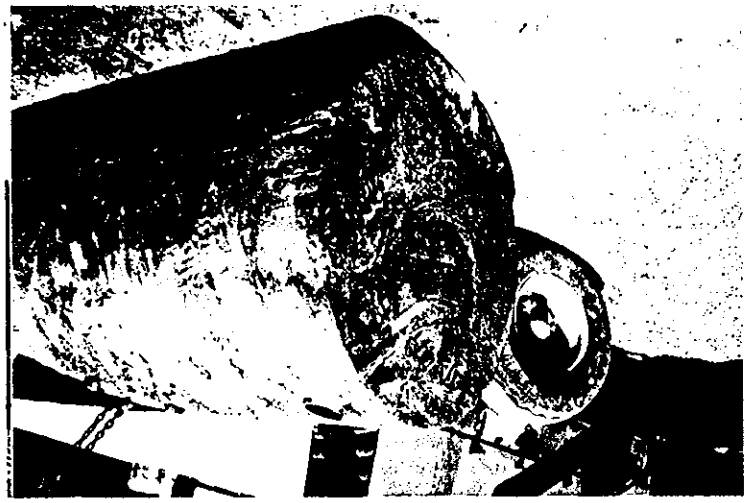
SEQUOIA ANALYTICAL

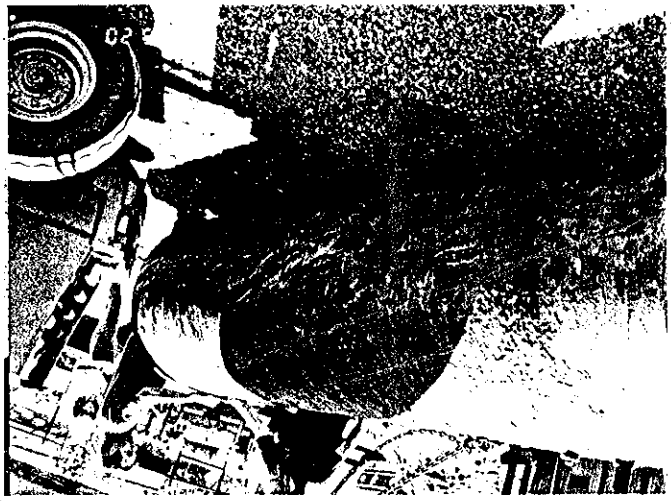
Elizabeth W. Hackl
Project Manager

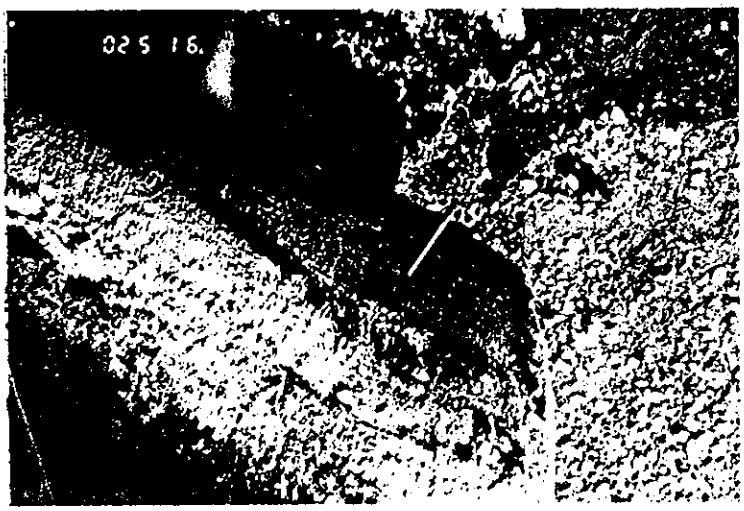
% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

1052697.BLA <4>








02 S 16.