WEISS ASSOCIATES
Consulting in Geology & Geohydrology
2938 McClure Street, Oakland, CA 94609
415-465-1100

10/23/89

October 13, 1989

Ms. Wendy Howell
Shell Oil Company
P.O. Box 4848
Anaheim, CA 92803

Re: Shell Service Station
WIC #204-685-207
1285 Bancroft Avenue
San Leandro, California
WA Job #81-423-02

Dear Ms. Howell:

This letter is submitted to document the November 1986 removal of a former waste oil tank at the subject station and how it complies with the tank closure requirements of the California Regional Water Quality Control Board-San Francisco Bay Region (WQCB) and California Administrative Code Title 23 Waters, Chapter 3, Subchapter 16, Article 7.

Summarized below are previous and current data, including the site background, a site history, discussion of site and regional hydrogeologic conditions, descriptions of past and current tank closure requirements, and recommendations for achieving closure of the former waste oil tank excavation.

BACKGROUND

The subject station is located in the city of San Leandro, on the northwestern corner of the intersection of Bancroft Avenue and Estudillo Avenue, and about 600 ft south of San Leandro Creek. The operating station retails gasoline from three 10,000 gallon fiberglass storage tanks located in the southwestern portion of the site adjacent to Bancroft Avenue. Waste oil is stored in a 550 gallon fiberglass tank buried immediately south of the station building, adjacent to Estudillo Avenue. A site map showing the location of the former and current waste oil tanks is presented as Attachment A.

SITE HISTORY SUMMARY

Shell Oil Company records indicate that a steel 550-gallon waste oil tank was removed from the site in November 1986 by Petroleum Engineering, of Santa Rosa, California, and was replaced with a 550-gallon fiberglass tank. The steel tank was apparently installed in 1969.

Following the waste oil tank removal, Blaine Tech Services of San Jose, California observed and documented the tank condition and collected soil samples from directly beneath the former tank location, at depths of 8.75 ft and 9 ft. After additional soil excavation from the bottom of the tank pit, Blaine Tech collected a soil sample from 9.5 ft depth. The three native soil samples from beneath the tank were submitted to Soil and Water Laboratories of Boulder Creek, California (S&W). S&W analyzed the soil samples for Total Oil and Grease (TOG). The S&W analytic methods and results are presented in Table 1.

TOG was detected at 83 parts per million (ppm), 583 ppm and 89.3 ppm in soil samples collected from 8.75 ft, 9.0 ft and 9.5 ft below grade, respectively.

According to Blaine Tech field notes and San Leandro Fire Department records, no ground water was encountered in the excavation and the steel tank had visible holes when it was removed. Documentation reviewed by Weiss Associates does not describe the disposal of the backfill material excavated from the tank pit. Blaine Tech field notes and sampling report are presented as Attachment B. S&W analytic reports are included in the Blaine Tech report.

SITE HYDROGEOLOGIC CONDITIONS

To estimate the stratigraphy, ground water flow direction and the approximate ground water depth in the site vicinity WA:

- Observed neighboring sites and reviewed local and state agency files to determine whether any water wells were nearby, and
- Researched local and regional hydrogeologic data.

TABLE 1. Analytic Results for Soil, Shell Service Station WIC #204-685-207, 1285 Bancroft Avenue, San Leandro, California

Sample ID	Sample Depth (ft)	Date Sampled	Sampled By	Sample Type	Analytic Lab	Analytic Method	TOG (ppm)
Soil #1	8.75	11/7/86	BT	Excavation Floor	S&W	3550/503E	83
Soil #2	9.0	11/7/86	BT	Excavation Floor	S&W	3550/503E	583
Soil #3	9.5	11/11/86	BT	Excavation Floor	S&W	3550/503E	89.3

Abbreviations:

TOG = Total Oil and Grease
ppm = parts per million
BT = Blaine Tech Services, San Jose, California
S&W = Soil and Water Laboratories, Boulder Creek, California

Analytic Methods:

503E = American Public Health Association Standard Method 503E, Gravimetric Quantitation
3550 = EPA Method 3550, Sonification Extraction

Results of this work indicate:

- No water wells or soil borings are on the Shell site or the adjacent properties.
- Review of Alameda County Flood Control and Water Conservation District (Zone 7) driller's report files indicate 48 wells within one-half mile of the subject site.
- Zone 7 driller's report files indicate the lithology and depth-to-water in 5 wells within one-half mile. The ground water depth in three monitoring wells located about 2,500 ft northwest of the subject site ranged from 36 to 38 ft in June 1988. The depth to ground water in two monitoring wells located about 3,000 ft northwest of the site at the intersection of Bancroft and Dowling Boulevards, was between 15 and 16 ft in September, 1987. The available boring logs for these

wells indicate that the site vicinity is underlain primarily by clay and silt, to a depth of at least 35 ft.

- Based on water level data obtained from Zone 7,[1] the California Department of Water Resources (DWR), and the WQCB, in the vicinity of the subject station unconfined ground water in the upper water-bearing zone flows westward and occurs at a depth of about 15 ft below ground surface. This flow direction is consistent with the deeper regional westward ground water flow direction. San Leandro Creek, south of the site, also flows westward into San Francisco Bay.

- The 1988 Zone 7 report cited above indicates that the site is in the East Bay Plain Area, a broad region underlain by Quaternary alluvial deposits, consisting predominantly of low permeability silt and clay. Since the site also lies close to a perennial stream the subsurface materials in the site vicinity most likely include some moderate to high permeability sand and gravel lenses or stream channels.

CLOSURE REQUIREMENTS

A 1985 San Francisco Bay Region WQCB tank removal and fuel leak guidance document[2] requires documentation of the integrity of the tank and tank piping, the condition of the tank excavation, collection of soil samples beneath the tank, and analysis of the samples for hydrocarbons. This document requires monitoring well installation only if greater than 100 ppm hydrocarbons are detected in the soil samples, but does not specifically address waste oil tank removals.

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[1] Alameda County Flood Control and Water Conservation District, 1988, Geohydrology and Groundwater - Quality Overview, East Bay Plain Area, Alameda County, California, 205(J) Report, 83 pp. and 6 appendices.

[2] Eisenberg, D.M., A.W. Olivieri, et al., September 1985, Guidelines for Addressing Fuel Leaks, California Regional Water Quality Control Board - San Francisco Bay Region; 24 pp and 3 appendices.

According to a June 2, 1988 (revised May 1989) Northern California WQCB guidance document,[3] if less than 100 ppm hydrocarbons are detected in the native soil, no hydrocarbons are detected at or below the seasonal high ground water level, low permeability soil underlies the tank and no hydrocarbons are in ground water beneath the tank, the tank excavation can generally be closed with no further investigation.

The 1988 WQCB guidance document requires specific EPA-approved chemical analyses of soil and/or ground water samples collected during tank removal. For waste oil tanks, required analyses include gasoline and diesel-range hydrocarbons as well as chlorinated hydrocarbons, benzene, ethylbenzene, toluene and xylenes (BETX), oil and grease, selected metals and, in come cases, semi-volatile organics including polychlorinated biphenols (PCBs).

SITE STATUS WITH RESPECT TO CLOSURE REQUIREMENTS

The results of the previous work at the site and WA's hydrogeologic research indicate:

- 583 ppm total oil and grease were detected in soil from 9.0 ft below grade, just beneath the former tank location. However, a sample collected at 9.5 ft depth after additional excavation contained only 89.3 ppm TOG.

- Holes were noted in the tank when it was removed.

- Ground water was not encountered in the tank excavation.

- The ground water depth in this part of the East Bay Plain Area was about 15 ft below ground surface in September 1987. This is about 5 ft below the soil sample collected beneath the excavation which contained less than 100 ppm TOG.

- Although specific information regarding the composition of the subsurface materials at the Shell site is not available, regional subsurface materials consist

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[3] North Coast, San Francisco Bay and Central Valley Regional Water Quality Control Boards, June 2, 1988, (Revised, May 1989) Regional Board Staff Recommendations for Initial Evaluation and Investigation of Underground Tanks, 18 pp.

predominantly of fine-grained low-permeability clay and silt, interbedded with occasional moderate to high permeability sand and gravel lenses.

RECOMMENDATIONS

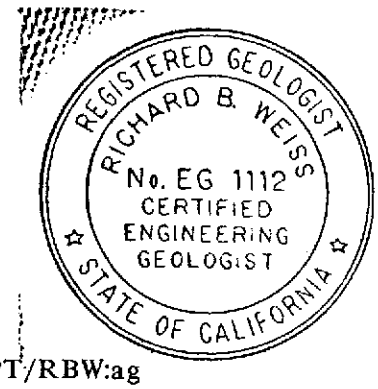
Based on these site characteristics, and on the analytic results for soil samples collected following additional soil excavation in the tank pit, WA the 1986 tank removal met tank closure requirements in effect at the time. Therefore, we recommend that Shell Oil apply for closure of the former waste oil tank excavation by submitting this report to the following agencies:

San Leandro Fire Department
901 East 14th Street
San Leandro, California 94577
Attn: Mr. Guy Pelham

Alameda County Department of Environmental Health
Hazardous Materials Program
80 Swan Way, Room 200
Oakland, California 94621
Attn: Mr. Edgar Howell

San Francisco Bay Area Regional Water Quality Control Board
1111 Jackson Street
Oakland, California 94607
Attn: Mr. Lester Feldman

We are pleased to provide hydrogeologic consulting services to Shell Oil and trust this submittal meets your needs. Please call if you have any questions or comments.



Sincerely,
Weiss Associates,

Joseph P. Theisen by KCS

Joseph P. Theisen
Project Geologist

Richard B. Weiss

Richard B. Weiss
Principal Hydrogeologist

JPT/RBW:ag

F:\ALL\SHELL\423L1OC9.WP

Encl.: Attachment A - Site Map
Attachment B - Blaine Tech Services Field Notes and Sampling Report

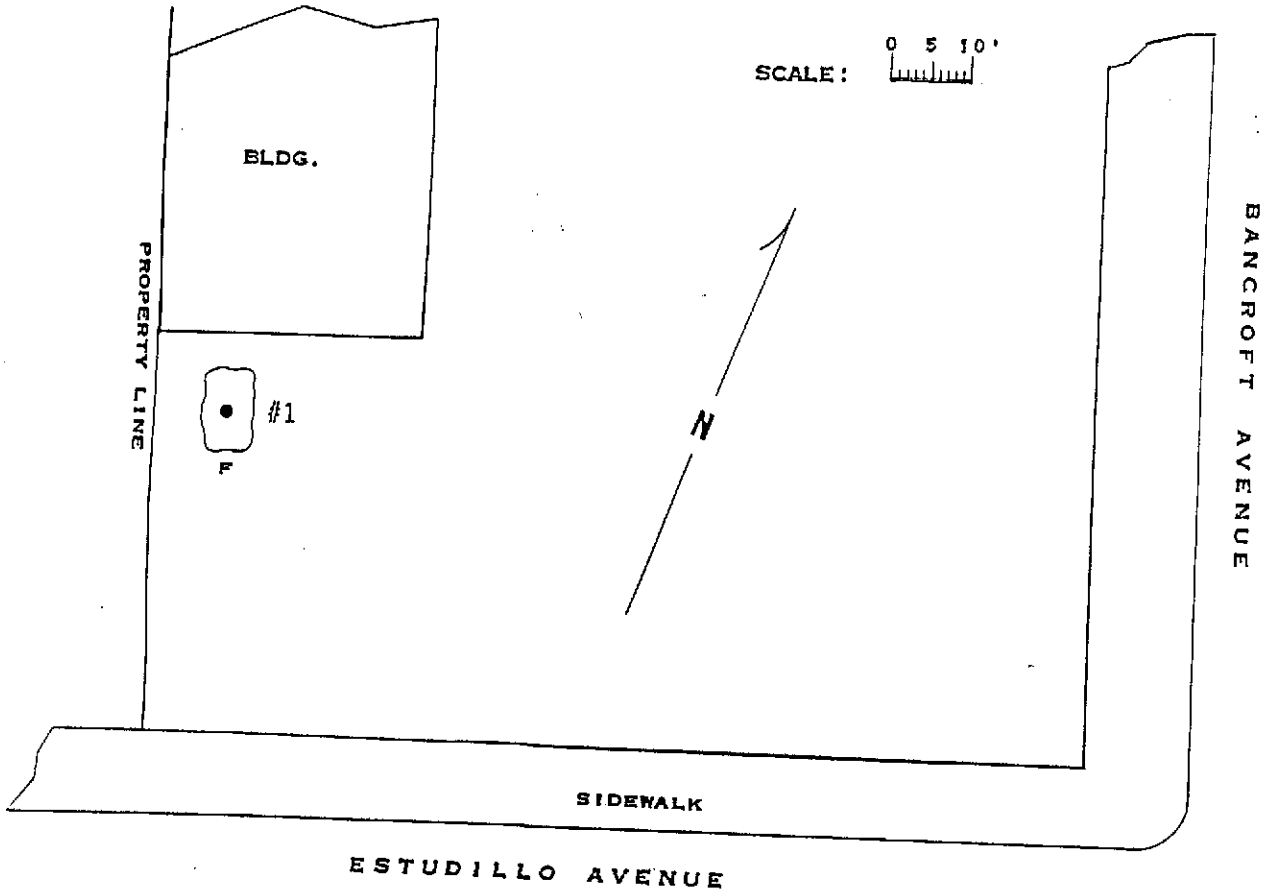
ATTACHMENT A

SITE MAP

(*from* Blaine Tech Services Sampling Report,
Shell Service Station, 1285 Bancroft Avenue,
San Leandro, California,
November 11, 1986, 3 pp. and 2 attachments)

BLAINE
TECH SERVICES

SAMPLING REPORT 86315MI 11-11-86 SHELL OIL, 1285 BANCROFT AVENUE, SAN LE



MAP REF: THOMAS BROS.
ALAMEDA COUNTY
P. 25 C-5

LEGEND: F = FILL END

#1 SOIL FROM 9,5'
ANALYSIS FOR WASTE OIL
AT SOIL AND WATER LABORATORY
S & W LAB NO. 316B6-1

SAMPLING PERFORMED BY
HELEN MAWHINNEY

DIAGRAM PREPARED BY
TAMMIE STALLINGS

Tammie Stallings

ATTACHMENT B

BLAINE TECH SERVICES FIELD NOTES AND SAMPLING REPORT

BLAINE
TECH SERVICES INC.

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

June 28, 1989

Shell Oil Company
P.O. Box 4848
511 North Brookhurst Street
Anaheim, CA 92803

Attn: Peter J. Pugnale
Area Engineer--Environmental
Western Distribution Area

SITE:
Shell Service Station
1285 Bancroft
San Leandro, California

PROJECT:
Archival search for previously unpublished notes made during waste oil tank removal related sampling:

November 7, 1986 86311-F-5
November 11, 1986 86315-M-1
December 8, 1986 86342-F-8

DOCUMENT PACKAGE 86342-F-8.ADD

Blaine Tech Services Inc. is an independent third party that performs tank removal sampling, groundwater monitoring well sampling and grab sampling services throughout central and northern California. The scope of services is intentionally limited to those that provide objective information. Unlike consulting/remediation vendors who have a complete battery of related investigation, evaluation, and remediation services which they hope to use, Blaine Tech Services, Inc. is only in the business of supplying high quality sampling and documentation. In order to preserve the objectivity necessary for the proper and impartial performance of this work and avoid implicit conflicts of interest, Blaine Tech Services, Inc. does not participate in the interpretation of analytical results or engage in the marketing of remediation systems of any kind.

TABLE OF CONTENTS

LIMITATIONS

This information was compiled in response to your request for any additional and potentially useful unpublished notes made by our personnel during the waste oil tank removal project. In order to give an unfragmented presentation, we have assembled a package of *all* the applicable information. The previously unpublished notations are presented along with any existing photographs of the work in progress, followed by a complete reproduction of the original Sampling Report, the chain of custody, and the certified analytical laboratory reports.

Please bear in mind that the present search of our files is a separate scope of work from the original tank removal sampling which was completed with the issuance of our Sampling Reports 86311-F-5, 86315-M-1, and 86342-F-8. It is prudent to remember that this new work carries with it the usual dangers that are inherent in all archival research. In particular, there are two distinct problems that will impede attempts to make substantive use of the informal notes which have been drawn from our files.

First, the unpublished information was considered, at the time of its collection, to be ancillary to the core information issued in the formal Sampling Report. After so much time has elapsed it would be difficult to justify elevating those casual contemporaneous notations to a more authoritive status.

Second, the information contained in those casual notes was not collected in a formal and systematic fashion that would allow all parties to have a high degree of confidence that the notes accurately represent *all* the conditions at the site which may now (after several years) be deemed important. In this regard, the primary skepticism that must be applied to the information is not that it is, necessarily, inaccurate but that it *is*, necessarily, incomplete.

These limitations suggest that the previously unpublished notations will mainly be of use in corroborating information available from other sources (such as the already issued reports), and will probably not alter the ranking of the site established by laboratory results and accepted regulatory criteria. These constraints should be taken into account when requesting archival searches and, especially, when evaluating the utility of the unpublished information in relationship to the cost of obtaining it.

BACKGROUND

Blaine Tech Services, Inc. was contacted to perform the collection of samples at this site, and to transport the samples to a state licensed laboratory. The brief report that was subsequently issued followed the standard short form format being used by our firm at that time. Though sparse by contemporary standards, this abbreviated report format had been developed at the request of the RWQCB and was used as a model by several San Francisco Bay area regulatory agencies.

Hired primarily to perform sampling (rather than documenting the entire sequence of events involved in the tank removal process), our personnel directed their documentation efforts mainly to establishing and recording the location from which the sample material was collected. Other data was collected as it was available and as our personnel had time to record it. QC work was directed to verifying the correctness of information in the written reports and did not address the casual notes and comments entered into the file by our field personnel.

ADDITIONAL NOTES ON SAMPLING EVENT 86311-F-5

Waste oil tank removal sampling November 7, 1986

The Shell engineer overseeing work at this site was Mr. Stan Roller. However, much of the actual work at the site was organized and coordinated by the contractors performing the work. Mr. Ron Ridley of Petroleum Engineering made many of the arrangements.

Blaine Tech Services, Inc. personnel were called to the site to take samples following the removal of the waste oil tank on November 7, 1986.

The local regulatory agency was the San Leandro Fire Department, represented by Mr. Joe Ferreira.

Notations not summarized in our report include the following:

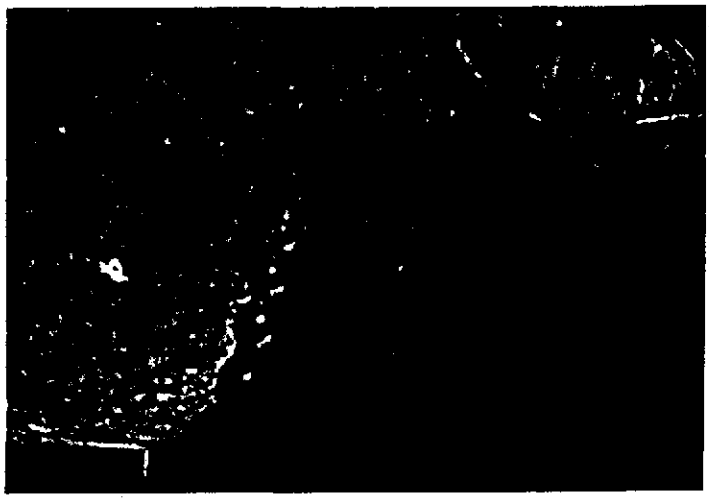
> As shown in the accompanying photographs, the tank was uncovered, cut open and cleaned in place prior to removal.
>
> **The tank was observed to be in poor condition and had holes.**
>
> Mr. Ferreira was present at the site during the removal and specified the locations at which samples would be taken. These samples were taken at the locations depicted on page two of Sampling Report 86311-F-5.

A series of six (6) original color prints were present in the job folder. These prints show the tank partially uncovered and cut open for cleaning. Two of the prints are closeups which may have been intended to show holes in the tank, but show only surface details.

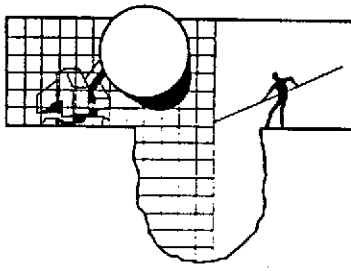
Black and white photocopy reproductions of these photographs are presented on the following pages of this Document Package. Please note that the original negatives were not contained in the job folder. In accordance with the filing conventions in use at the time the original work was performed, the photographic negatives were stored in a separate file. If there is a significant need for full color reproductions of the photographs, we can provide color photocopies of the original prints, color photoreproductions of the original prints, or new color prints from the original negatives.

The other remaining papers contained in the job folder are the notes, forms and original diagrams that support the information presented in Sampling Report 86311-F-5. The full text of the Sampling Report, along with the chain of custody records, and certified analytical reports are reproduced in their entirety immediately following the job photographs.

PHOTOGRAPHS (6 COLOR PRINTS)



PHOTOGRAPHS (6 COLOR PRINTS)



BLAINE
TECH SERVICES INC.

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

November 21, 1986

Shell Oil Company
P.O. Box 7004
Lafayette, CA 94549

Attention: Stan Roller

Re: Field sampling at 1285 Bancroft
San Leandro, CA
on
November 7, 1986

SAMPLING REPORT

Field sampling was undertaken in accordance with State and local enforcement agency standards and requirements for objective analytical information on the levels of residual contaminants found outside the primary containment structure. This project concerned the following:

Underground storage tank removal

Reason for removal -- replacement with double containment tanks

Type -- one approximately 550 gallon waste oil

Age -- unspecified

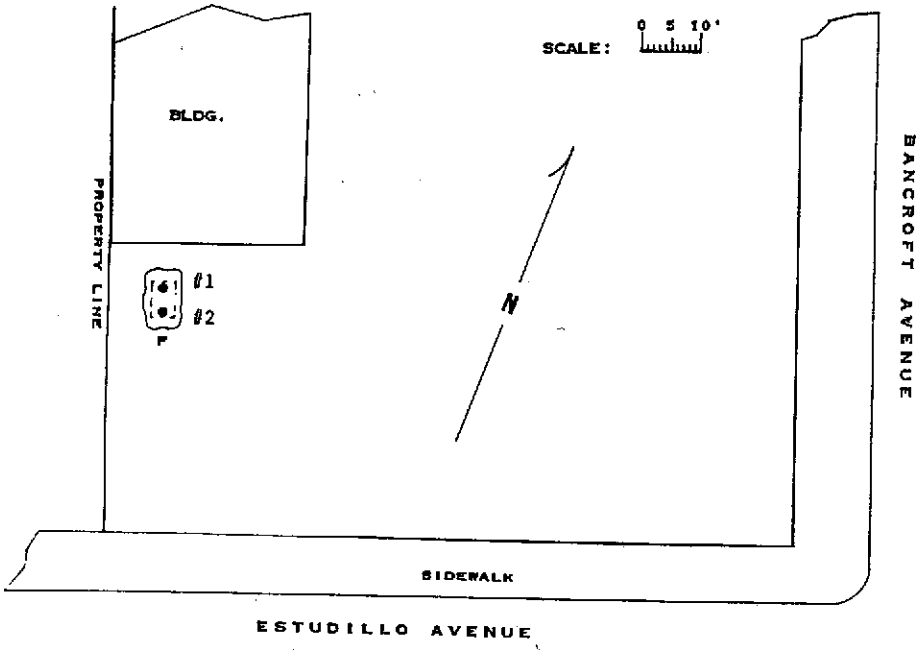
Sampling was performed in accordance with approved methodology at the locations shown on the accompanying site diagram. Additional information is presented on the diagram including our field sampling designations and the lab identification numbers which reference the analytical results which will be found in the separate laboratory report. Sample material was collected in special containers appropriate to the type of analysis intended. Sample containers were sealed, chilled, and transported to the laboratory with standard chain of custody records maintained at each transmittal. This sampling report, the chain of custody, and the analytical report comprise the formal documentation of the sampling conducted during this phase of work at the site.

86311FS 11-7-86 Shell Oil, 1285 Bancroft, San Leandro, page 1

ORIGINAL SAMPLING REPORT 86311-F-5 page 2 diagram

BLAINE TECH SERVICES

SAMPLING REPORT 86311F5 11-7-86 SHELL OIL, 1285 BANCROFT AVENUE, SAN LEANDRO, CA



MAP REF: THOMAS BROS. ALAMEDA COUNTY P, 25 C-5

LEGEND: F = FILL END

#1 SOIL FROM 8'9"
ANALYSIS FOR WASTE OIL
AT SOIL AND WATER LABORATORY
S & W LAB NO. 311B6-7

#2 SOIL FROM 9'
ANALYSIS FOR WASTE OIL
S & W LAB NO. 311B6-8

SAMPLING PERFORMED BY FRANK A. CLINE

DIAGRAM PREPARED BY TAMMIE STALLINGS

PAGE 2

Reportage

Submission to the Regional Water Quality Control Board and the local regulatory/enforcemnt agency should include copies of the sampling report, the chain of custody, and the laboratory report. 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
1111 Jackson Street
Room 6040
Oakland, CA 94607
ATTN: Peter Johnson

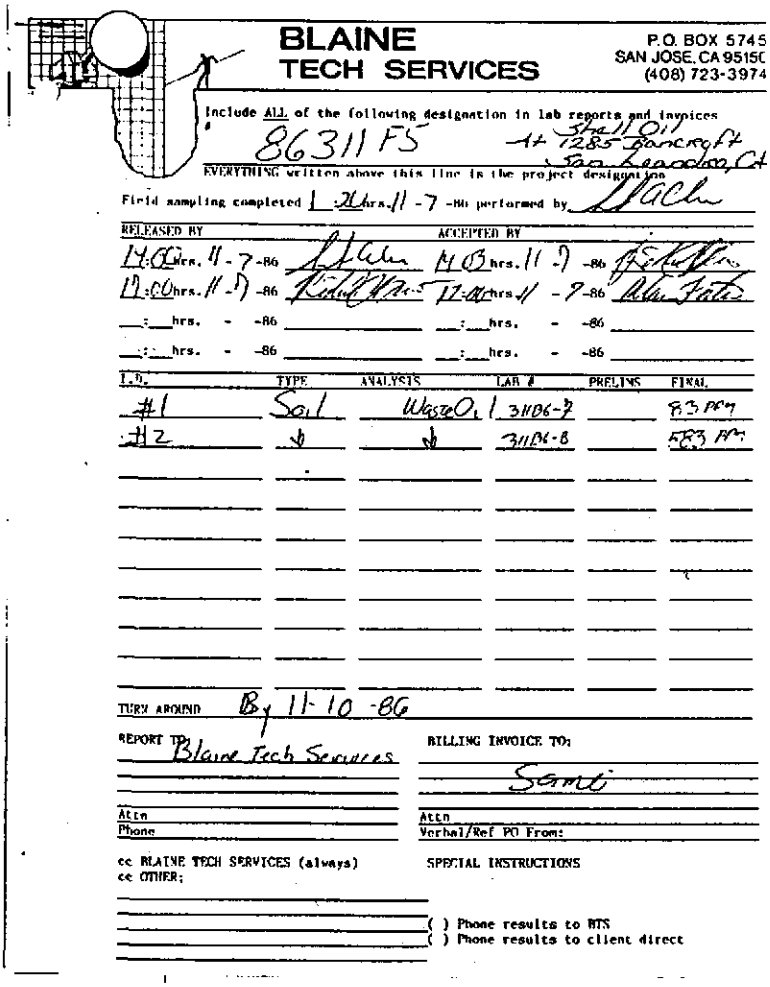
San Leandro Fire Department
835 East 14th St.
San Leandro, Ca 94577
ATTN: Joe Ferreira

If I can be of any further assistance, please call.

Richard C. Blaine

RCB/tls

ORIGINAL SAMPLING REPORT 86311-F-5 chain of custody



BLAINE TECH SERVICES

P.O. BOX 5745
SAN JOSE, CA 95150
(408) 723-3974

Include ALL of the following designation in lab reports and invoices

86311 F5 — 1+ Shell Oil 7285 Bancroft San Leandro, CA

EVERYTHING written above this line is the project designation

Field sampling completed 1 :30 hrs. 11-7-86 performed by JAC

RELEASED BY		ACCEPTED BY	
14:00 hrs. 11-7-86	JAC	14:03 hrs. 11-7-86	JF Kelly
17:00 hrs. 11-7-86	Richard Ward	17:00 hrs. 11-7-86	Alan Yates
:__ hrs. - 86		:__ hrs. - 86	
:__ hrs. - 86		:__ hrs. - 86	

I.D.	TYPE	ANALYSIS	LAB #	PRELIMS	FINAL
#1	Soil	Waste Oil	31106-7		8.3 PPM
#2	"	"	31106-8		5.3 PPM

TURN AROUND By 11-10-86

REPORT TO: Blaine Tech Services

BILLING INVOICE TO: Same

Attn
Phone

Attn
Verbal/Ref PO From:

cc BLAINE TECH SERVICES (always)
cc OTHER:

SPECIAL INSTRUCTIONS

( ) Phone results to BTS
( ) Phone results to client direct

ORIGINAL SAMPLING REPORT 86311-F-5 lab report 1 of 1

S&W
SOIL AND WATER LABORATORY
Soil Fertility—Plant Tissue
Pollution and Residue Control
Drinking Water

14072 W. Park Avenue
Boulder Creek, CA 95006

(408) 338-3053

Laboratory Report

Client	Report Date
Blaine Tech Services P. O. Box 5745 San Jose, CA. 95150	11/10/86
Sample Site	**Date Received**
Shell Oil 1285 Bancroft San Leandro, CA. 86311F5 #1, #2	11/7/86
Analysis Requested	**Procedure** / **Date Analyzed**
Soil/Waste Oil	EPA 3550 / 11/7/86

S&W Ref. #	Client Ref. #	Matrix/Analysis	Concentration (ppm)	Detection Limit (ppm)
311B6-7		Soil/Waste Oil	83	20 ppm
311B6-8		Soil/Waste Oil	583	20 ppm

Analyst Signature R. H. Ramon

ADDITIONAL NOTES ON SAMPLING EVENT 86315-M-1

Deeper sampling following additional excavation

Our personnel were asked to return to the site on November 11, 1986 to collect samples following some additional cleanup excavation being conducted by the contractor.

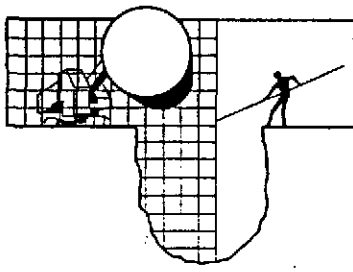
Notations not summarized in our report include the following:

The backhoe work was conducted according to arrangements made through Petroleum Engineering.

Our personnel noted that the pit was not enlarged and that the sides of the pit appeared to be clean. A sample (#1) was obtained from the center of the pit at a depth of 9.5' below grade.

No photographic prints or negatives were found in the job folder.

The remaining papers contained in the job folder are the notes, forms and original diagrams that support the information presented in Sampling Report 86315-M-1. The full text of the Sampling Report, along with the chain of custody records, and certified analytical reports are reproduced in their entirety on the pages which follow.



BLAINE
TECH SERVICES INC.

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

November 21, 1986

Shell Oil Company
P.O. Box 7004
Lafayette, CA 94549

Attention: Stan Roller

Re: Field sampling at 1285 Bancroft
San Leandro, CA
on
November 11, 1986

SAMPLING REPORT

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Underground storage tank removal

Reason for removal -- replacement with double containments

Type -- one approximately 550 gallon waste oil

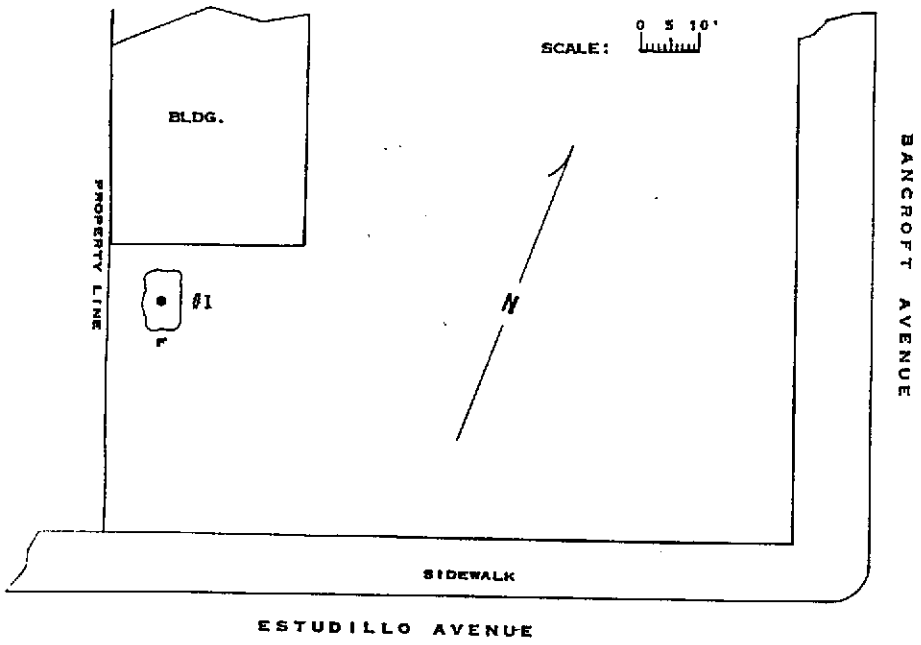
Age -- unspecified

Sampling was performed in accordance with approved methodology at the location shown on the accompanying site diagram. Additional information is presented on the diagram including our field sampling designation and the lab identification number which reference the analytical results which will be found in the separate laboratory report. Sample material was collected in a special container appropriate to the type of analysis intended. The sample container was sealed, chilled, and transported to the laboratory with standard chain of custody records maintained at each transmittal. This sampling report, the chain of custody, and the analytical report comprise the formal documentation of the sampling conducted during this phase of work at the site.

ORIGINAL SAMPLING REPORT 86315-M-1 page 2 diagram

BLAINE
TECH SERVICES

SAMPLING REPORT 86315M1 11-11-86 SHELL OIL, 1285 BANCROFT AVENUE, SAN LEANDRO, CA



MAP REF: THOMAS BROS. ALAMEDA COUNTY P. 25 C-5

LEGEND: F = FILL END

#1 SOIL FROM 9.5'
ANALYSIS FOR WASTE OIL
AT SOIL AND WATER LABORATORY
S & W LAB NO. 316B6-1

SAMPLING PERFORMED BY HELEN MAWHINNEY

DIAGRAM PREPARED BY TAMMIE STALLINGS

PAGE 2

Reportage

Submission to the Regional Water Quality Control Board and the local regulatory/enforcemnt agency should include copies of the sampling report, the chain of custody, and the laboratory report. 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:

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1111 Jackson Street
Room 6040
Oakland, CA 94607
ATTN: Peter Johnson

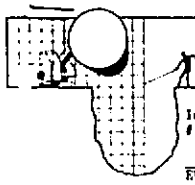
San Leandro Fire Department
835 East 14th St.
San Leandro, Ca 94577
ATTN: Joe Ferreira

If I can be of any further assistance, please call.

Richard C. Blaine

RCB/tls

ORIGINAL SAMPLING REPORT 86315-M-1 chain of custody



BLAINE TECH SERVICES

P.O. BOX 5745
SAN JOSE, CA 95150
(408) 723-3974

Include ALL of the following designation in lab reports and invoices

86315 M1

SHELL
1285 Bancroft
San Leandro

EVERYTHING written above this line is the project designation

Field sampling completed 10 :45 hrs. 11 -11 -86 performed by Libby Mackaway

RELEASED BY		ACCEPTED BY	
15:45 hrs. 11 -11 -86	Libby Mackaway	To Blaine Tech Services 17:30 hrs. 11 -11 -86	
10:00 hrs. 11 -12 -86		10:00 hrs. 11 -12 -86	
: hrs. - -86		: hrs. 11 -20 -86	
: hrs. - -86		: hrs. - -86	

I.D.	TYPE	ANALYSIS	LAB #	PRELIMS	FINAL
#1	Soil	Waste Oil			

TURN AROUND 11-12-86 24 hours if possible

REPORT TO: Blaine Tech Services

Attn
Phone

BILLING INVOICE TO: Blaine Tech Services

Attn
Verbal/Ref PO From:

cc BLAINE TECH SERVICES (always)
cc OTHER:

SPECIAL INSTRUCTIONS

( ) Phone results to BTS
( ) Phone results to client direct

ORIGINAL SAMPLING REPORT 86315-M-1 lab report 1 of 1

S&W
SOIL AND WATER LABORATORY
Soil Fertility—Plant Tissue
Pollution and Residue Control
Drinking Water

14072 W. Park Avenue
Boulder Creek, CA 95006

(408) 338-3053

Laboratory Report

Client	Report Date
Blaine Tech Services P. O. Box 5745 San Jose, CA. 95150	11/17/86
Sample Site	**Date Received**
Shell Oil 1285 Bancroft San Leandro, CA. 86315M1	11/12/86

Analysis Requested	Procedure	Date Analyzed
Soil/Waste Oil	EPA 3550	11/12/86

S&W Ref. #	Client Ref. #	Matrix/Analysis	Concentration (ppm)	Detection Limit (ppm)
316B6-1	#1	Soil/Waste Oil	89.3	20 ppm

Analyst Signature R. N. Lamon

ADDITIONAL NOTES ON SAMPLING EVENT 86342-F-8

Stockpile sampling

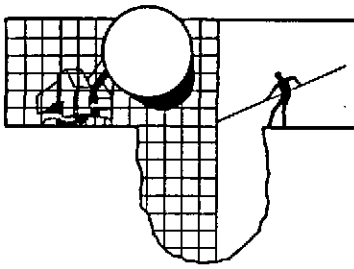
Our personnel were asked to return to the site on December 8, 1986 to obtain samples of the soil stockpiled beside the open tank pit.

Notations not summarized in our report include the following:

> Our personnel measured the stockpile and calculated the volume at approximately 27 cubic yards of material. Dimensions of the stockpile were recorded as 20.0' long by 15.0' wide by 5.0' high.
>
> Soil was collected in two brass sample containers labeled #1-A and #1-B. It was not specifically noted whether or not each brass tube was filled with soil from a single location or with soil from two different locations at that end of the stockpile. It was noted, however, that the sample material was collected from a depth of twelve inches (12") to eighteen inches (18") below the surface of the stockpile.

No photographic prints or negatives were found in the job folder.

The remaining papers contained in the job folder are the notes, forms and original diagrams that support the information presented in Sampling Report 86342-F-8. The full text of the Sampling Report, along with the chain of custody records, and certified analytical reports are reproduced on the next pages of this document.



BLAINE
TECH SERVICES INC.

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

December 31, 1986

Shell Oil Company
P.O. Box 7004
Lafayette, CA 94549

Attention: Stan Roller

Re: Field sampling at 1285 Bancroft
San Leandro, CA
on
December 8, 1986

SAMPLING REPORT

Field sampling was undertaken in accordance with State and local enforcement agency standards and requirements for objective analytical information on the levels of residual contaminants found outside the primary containment structure. This project concerned the following:

Underground storage tank removal

Reason for removal -- replacement with double containments

Type -- one approximately 550 gallon waste oil

Age -- unspecified

Sampling was performed in accordance with approved methodology at the location shown on the accompanying site diagram. Additional information is presented on the diagram including our field sampling designation and the lab identification number which reference the analytical results which will be found in the separate laboratory report. Sample material was collected in a special container appropriate to the type of analysis intended. The sample container was sealed, chilled, and transported to the laboratory with standard chain of custody records maintained at each transmittal. This sampling report, the chain of custody, and the analytical report comprise the formal documentation of the sampling conducted during this phase of work at the site.

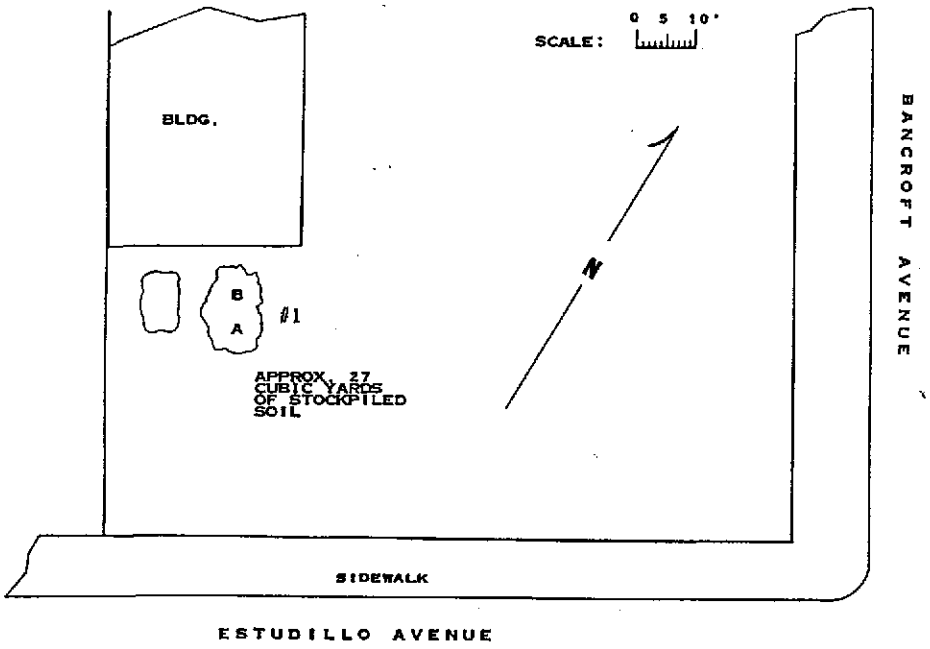
86342F8 12-8-86 Shell Oil, 1285 Bancroft, San Leandro page 1

ORIGINAL SAMPLING REPORT 86342-F-8 page 2 diagram

BLAINE TECH SERVICES

SAMPLING REPORT 86342F8 12-8-86 SHELL OIL, 1285 BANCROFT, SAN LEANDRO, CA

MAP REF: THOMAS BROS., ALAMEDA COUNTY P. 25 C-5



#1 STOCKPILE SOIL COMPOSITE FROM SAMPLE POINTS A-B AT 12-18" BELOW SURFACE ANALYSIS FOR FLASHPOINT, ORGANIC LEAD, STLC AND TTLC AT SEQUOIA ANALYTICAL LABORATORY SEQUOIA LAB NO. 6120432

SAMPLING PERFORMED BY FRANK A. CLINE

DIAGRAM PREPARED BY TAMMIE STALLINGS

PAGE 2

Reportage

Submission to the Regional Water Quality Control Board and the local regulatory/enforcemnt agency should include copies of the sampling report, the chain of custody, and the laboratory report. 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
1111 Jackson Street
Room 6040
Oakland, CA 94607
ATTN: Peter Johnson

City of San Leandro Fire Department
835 East 14th Street
San Leandro, CA 94577
ATTN: Inspector Joe Ferreira

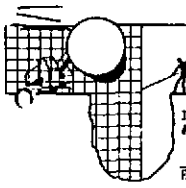
If I can be of any further assistance, please call.

Richard C. Blaine

cc Petroleum Engineering

RCB/tss

ORIGINAL SAMPLING REPORT 86342-F-8 chain of custody



BLAINE
TECH SERVICES

P.O. BOX 5745
SAN JOSE, CA 95150
(408) 723-3974

Include ALL of the following designation in lab reports and invoices

86342 F8 — Shell Oil #1 7285 Bancroft San Leandro, CA

EVERYTHING written above this line is the project designation

Field sampling completed 13:45 hrs. 12-8-86 performed by [illegible]

RELEASED BY		ACCEPTED BY	
14:30 hrs. 12-8-86	[illegible]	14:45 hrs. 12-9-86	[illegible]
: hrs. - -86		: hrs. - -86	
: hrs. - -86		: hrs. - -86	
: hrs. - -86		: hrs. - -86	

I.D.	TYPE	ANALYSIS	LAB #	PRELIMS	FINAL
#1A&B	Soil	Tex/Trend Oil and Grease Lead Extractable Lead Flashpoint			

TURN AROUND 48 Hr Rush

REPORT TO: Blaine Tech Services

Attn
Phone

BILLING INVOICE TO: Same

Attn
Verbal/Ref PO From:

cc BLAINE TECH SERVICES (always)
cc OTHER:

SPECIAL INSTRUCTIONS

( ) Phone results to BTS
( ) Phone results to client direct

SEQUOIA Analytical Laboratory
2549 Middlefield Road
Redwood City, CA 94063 • (415) 364-9222

Blaine Tech Services
P.O. Box 5745
San Jose, CA 95150
Attn: Richard Blaine

Date Sampled: 12/08/86
Date Received: 12/08/86
Date Reported: 12/12/86

Sample Number
6120432

Sample Description
BTS #86342F8, Soil Composite of #1A & #1B - Shell Oil at 1285 Bancroft in San Leandro

ANALYSIS

Flashpoint, °C	> 110

	STLC mg/L	TTLC mg/kg-wet wt.
Lead	0.080	14
Organic Lead	--	< 0.05

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director

sls

We hope that the foregoing documents will be of use in your work at this site.

Please call if we can be of any further assistance.

Richard C. Blaine

RCB/dmp

Shell Oil Company

P.O. Box 4848
511 N. Brookhurst Street
Anaheim, California 92803

October 17, 1989

Mr. Lawrence Seto
Alameda County Department of Environmental Health
Hazardous Materials Program
80 Swan Way, Room 200
Oakland, California 94621

Re: Shell Oil Service Station
Waste Oil Tank Closures

Dear Mr. Seto:

Enclosed are our consultants' reports documenting waste oil tank closures at the following Shell Oil Company service stations:

1784 150th Street, San Leandro, CA

1285 Bancroft Avenue, San Leandro, CA

2160 Otis Drive, Alameda, CA

1601 Webster Street, Alameda, CA

The reports present previous and current data, the site background and history, site and regional hydrogeologic conditions, and other tank closure activities for waste oil tanks removed from the sites since 1986.

Based on the analytic results, conditions of the removed tanks and tank excavations, the site and regional hydrogeologic conditions and tank closure guidelines existing at the time of removal, Shell Oil requests approval for formal closure of the former excavations.

If you have any questions or would like to meet to discuss these sites, please call me at (714) 520-3713.

Sincerely Yours,

Wendy Howell

Wendy Howell
Consultant, Environmental

WH/wa
cc (w/ Attachments):

Mr. Lester Feldman, California Regional Water Quality Control Board - San Francisco Bay Region, 1111 Jackson Street, Oakland, California 94607

8/31/89

Shell Oil Company

P.O. Box 4848
511 N. Brookhurst Street
Anaheim, California 92803

August 28, 1989

Mr. Lawrence Seto, Hazardous Materials Specialist
Department of Environmental Health
Division of Hazardous Materials
80 Swan Way, Room 200
Oakland, CA 94621

Subject: Shell Oil Company
Waste Oil Tank Project, Quarterly Report

Dear Mr. Lawrence:

Enclosed is a copy of the quarterly report prepared by Weiss Associates for Shell Oil Company. This report discusses the waste oil tank project at the following Shell site:

1285 Bancroft Avenue, San Leandro - WIC # 204-6852-07.

If you have any questions concerning this subject, please give me a call at (714) 520-3713.

Sincerely,

Wendy B. Howell

Wendy B. Howell
Consultant - Environmental
Western Distribution Area

Attachments - Quarterly Reports

cc - Waste Oil File
Carl Grimmer - WO Attachments
Joseph Theisen - Weiss Asso. - WO Attachments

wo-cl-6h

WEISS ASSOCIATES Consulting in Geology & Geohydrology
2938 McClure Street, Oakland, CA 94609 415-465-1100

July 27, 1989

Peter J. Pugnale
Shell Oil Company
P.O. Box 4848
Anaheim, CA 92803

Re: Shell Service Station
WIC #204-685-207
1285 Bancroft Avenue
San Leandro, California
WA Job #81-423-01

Dear Mr. Pugnale:

The current site status and past underground tank closure activities are summarized below for the Shell Service Station at 1285 Bancroft Avenue in San Leandro, California. For sites with documented releases, California Administrative Code Title 23 Waters, Chapter 3, Subchapter 16, Article 5, Section 2652.d requires quarterly reporting of:

- The results of all previous site subsurface investigations pertaining to the release,
- The status of site remediation, and
- The disposal of any hazardous materials resulting from the release.

This letter is submitted to satisfy these quarterly reporting requirements for the former waste oil tank. Included below are:

- Descriptions of the site setting and background,
- A summary of previous site activities, including tabulated chemical analytic results,
- Descriptions of activities performed during the second quarter 1989 (April 1 through June 30, 1989), and
- Proposed future work.

EXECUTIVE SUMMARY

A 550-gallon waste oil tank was removed from the subject property in November 1986. The tank removal and subsequent soil sampling was conducted in accordance with tank closure regulations existing at the time. The tank was approximately seventeen years old and was in apparently poor condition at the time of its removal. Analytic results for a soil sample collected from the tank excavation following the tank removal indicated a maximum at 583 parts per million (ppm) Total Oil and Grease (TOG) in a sample from 9.0 ft depth.

BACKGROUND

The subject station is located on the northwestern corner of the intersection of Bancroft Avenue and Estudillo Avenue in San Leandro, California. The operating station retails gasoline from three 10,000-gallon fiberglass storage tanks located in the southwestern portion of the site adjacent to Bancroft Avenue. The former waste oil tank was buried immediately south of the station building. A site map showing the location of the former waste oil tank is presented as Attachment A.

The site is located about one half mile west of the East Bay Hills, and about 600 ft south of San Leandro Creek, which flows westward towards the San Francisco Bay. Since the site lies close to a perennial stream and it is on a relatively flat alluvial plain, the ground water depth at the site is probably less than 20 ft, and the subsurface materials in the site vicinity should consist predominantly of fine-grained low-permeability clays and silts interbedded with occasional moderate to high permeability sand and gravel lenses or stream channels.

PREVIOUS SITE ACTIVITIES

Shell Oil Company records indicate that a steel 550-gallon waste oil tank was removed from the site in November 1986 by Petroleum Engineering, of Santa Rosa, California, and was replaced with a new 550-gallon fiberglass tank. The removed steel tank was apparently installed in 1969.

According to Blaine Tech Services of San Jose, California, and the San Leandro Fire Department tank removal records, no ground water was encountered in the excavation and the removed steel tank had visible holes when it was removed. Documentation of the disposal of the material excavated during the tank removal and soil sampling, and whether native soil was removed from the excavation following the tank removal is not available at this time.

Following the tank removal, Blaine Tech collected native soil samples from beneath the former tank location and submitted the samples to Soil and Water Laboratories (S&W) of Boulder Creek, California. S&W analyzed the soil samples for Oil and Grease by American Public Health Association (APHA) Standard Method 503E, solvent extraction/gravimetric quantitation. The S&W analytic results are presented in Table 1.

SECOND QUARTER 1989 ACTIVITIES

Work performed by WA during the reporting period April 1, 1989 to July 1, 1989 included:

- Reviewing Shell Oil, tank removal contractor and regulatory agency project files, and
- Determining local and state tank closure requirements.

FUTURE WORK

Shell Oil has retained WA to:

- Evaluate the current project status with respect to the tank closure requirements, and to
- Recommend additional work that may be required to achieve tank closure.

TABLE 1. Analytic Results for Soil, Shell Service Station WIC #204-685-207, 1285 Bancroft Avenue, San Leandro, California

Sample ID	Sample Depth (ft)	Date Sampled	Sampled By	Sample Type	Analytic Lab	Analytic Method	TOG (ppm)
Soil #1	8.75	11/7/86	BT	Excavation Floor	S&W	503	83
Soil #2	9.0	11/7/86	BT	Excavation Floor	S&W	503E	583

Abbreviations:

TOG = Total Oil and Grease
ppm = parts per million
BT = Blaine Tech Services, San Jose, California
S&W = Soil and Water Laboratories, Boulder Creek, California

Analytic Methods:

503E = American Public Health Association Standard Method 503E, Solvent Extraction/Gravimetric Quantitation

We are pleased to provide hydrogeologic consulting services to Shell Oil and trust this submittal meets your needs. Please call if you have any questions or comments.

Sincerely,
Weiss Associates

Joseph P. Theisen
Project Geologist

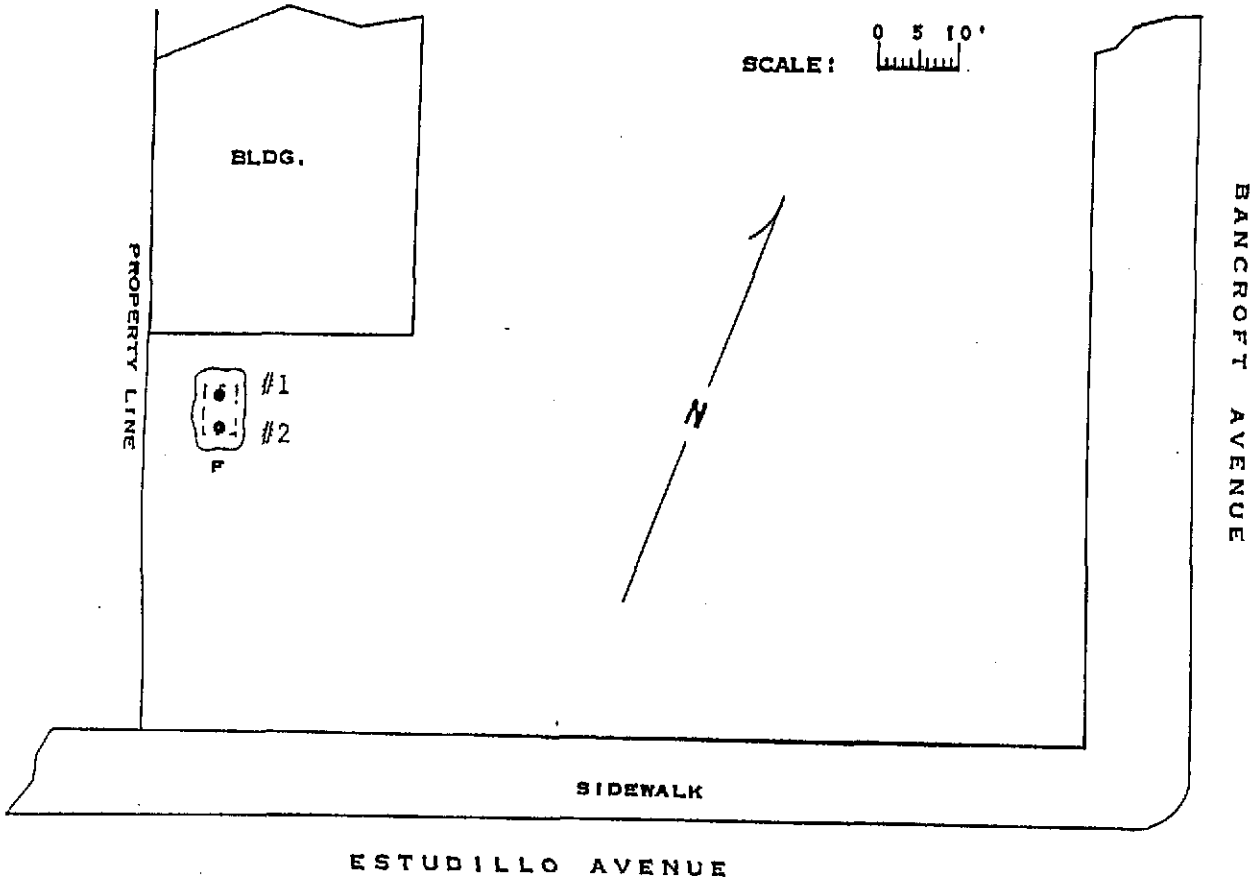
Richard B. Weiss
Principal Hydrogeologist

RBW/JPT:ag

F:\ALL\SHELL\423L1JY9.WP

Encl.: Attachment A - Site Map

SAMPLING REPORT 86311F5 11-7-86 SHELL OIL, 1285 BANCROFT AVENUE, SAN LEANDRO, CA



MAP REF: THOMAS BROS.
ALAMEDA COUNTY
P, 25 C.5

LEGEND: F = FILL END

#1 SOIL FROM 8'9"
ANALYSIS FOR WASTE OIL
AT SOIL AND WATER LABORATORY
S & W LAB NO. 311B6.7

#2 SOIL FROM 9'
ANALYSIS FOR WASTE OIL
S & W LAB NO. 311B6.8

SAMPLING PERFORMED BY
FRANK A. CLINE

DIAGRAM PREPARED BY
TAMMIE STALLINGS

Tammie Stallings