Environmental Consultants

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SCS ENGINEERS

April 6, 1990
File No. 0389079.00

Verl Rothlisberger
Verl's Construction
753 Peralta Avenue
San Leandro, California 94577

90 APR 13 AM 11:33

Subject: Soil and Water Sample Analysis
Underground Storage Tank Removal
ANR Trucking, 2225 7th Street
Oakland, California

Dear Mr. Rothlisberger:

On March 16, 1990, Don McClenagan, Field Geologist representing SCS Engineers, attended the removal of an underground storage tank (UST) at the request of and under contract to, Verl's Construction, the contractor performing the tank removal. The UST was excavated and removed from the property of ANR Trucking at 2225 7th Street in Oakland, California (see Vicinity Map, Plate 1).

Field Methods

After the tank was removed from the excavation pit, water in the bottom of the excavation indicated that groundwater depth was about one foot above the level of where the bottom of the tank had been. Soil samples were retrieved from the backfill material just above the water level near the east end of the excavation using a backhoe. Two soil samples, one each from two separate backhoe loads, were taken in clean brass tubes. The ends of the tubes were sealed with aluminum foil, plastic end caps, and tape. The samples were labeled, placed in a cooler with ice, and shipped to a state-certified laboratory under chain-of-custody documentation. No sample was taken from the west end of the pit as the contractor considered that the extraction of a sample from the west end of the pit could endanger both the backhoe operator and the structural stability of one of the buildings on the site. The inspector from the Alameda County Department of Health, Dennis Byrne, concurred with the contractor's opinion and allowed both of the samples required for the tank removal to be taken from the east end of the pit.

A sample was retrieved from the water in the excavation using a clean plastic bailer. The water sample obtained in this manner was poured into three VOA vials and sealed. The jar was labeled, placed in a cooler with ice, and shipped to a State-certified laboratory under chain-of-custody documentation.

Chemical Methods

The soil samples, labeled S1 and S2, were analyzed using EPA Methods 8015 for diesel and 8020 for the BTEX group, benzene, toluene, ethylbenzene, and xylene. The soil sample location is indicated on Plate 2. The water sample, labeled W, was analyzed using EPA Methods 8015 Diesel and 602 for BTEX.

Subsurface Conditions

The removed tank was located in the midst of a tank cluster, that is, a large area containing several underground storage tanks placed close together. Underground tanks were located on both sides of the removed tank. No native soil was encountered during the excavation as it was deemed unnecessary and undesirable to dig below the groundwater level. The only soil encountered was the sand used as backfill material during the installation of the USTs.

Summary

Both the soil samples and water sample showed contamination. Copies of the laboratory results and chain-of-custody documents are included as attachments to this report. The results of the lab reports are summarized in Table 1.

Recommendations

The water sample taken from the excavation detected contamination of diesel and compounds of the BTEX group. The subject site is in Region 2 which is regulated by the San Francisco Regional Water Quality Control Board (RWQCB). The Regional Board has published a guide for the initial evaluation and investigation of underground tanks; the guide is commonly referred to as the Tri-Regional Recommendations. According to this publication, if the presence of groundwater is noted in the pit dug during the removal of an underground tank, then that water must be sampled and analyzed; furthermore, if petroleum hydrocarbons are detected in the water sample, then a soil/groundwater investigation is required (Page 8 of the May 18, 1989 revision of the Tri-Regional Recommendations). Both of the above conditions apply to the subject site, and a soil/groundwater investigation is required. The investigation will probably consist of the installation of one or more monitoring wells and soil borings followed by periodic monitoring of the groundwater well(s).

The same publication states on page 11 that, as part of the soil/groundwater investigation, a groundwater monitoring well shall be installed within 10 feet of the tank (or former location of the tank in this case) in a verified downgradient direction.

The subject site is less than a mile from the open waters of the San Francisco Bay; hence, the groundwater gradient may be influenced by, to a greater or lesser degree, the tidal action of bay waters. For this reason, SCS Engineers recommends that a monitoring well be installed down through the backfilled area which formerly held the removed underground tank; however, the local lead agency (in this case, Alameda County Health represented by Dennis Byrne), should be consulted as to the acceptability of the proposed well location with regard to fulfilling the "within 10 feet" requirement. Two soil borings should be drilled concurrently with the monitoring well for two reasons: to further define the limits of the contamination in the soil (vadose zone), and to provide three points (in conjunction with the groundwater monitoring well) for determining the groundwater gradient and direction.

Should a proposal from SCS Engineers for the performance of any or all of the recommended tasks be desired, SCS would be pleased to provide such. If you have any questions, please call either of the undersigned at (415) 829-0661.

Yours truly,

J. Don McClenagan
Staff Geologist
SCS Engineers

John P. Cummings, PhD., R.E.A., R.E.P.
Office Director
SCS Engineers

JDM/JPC/egh

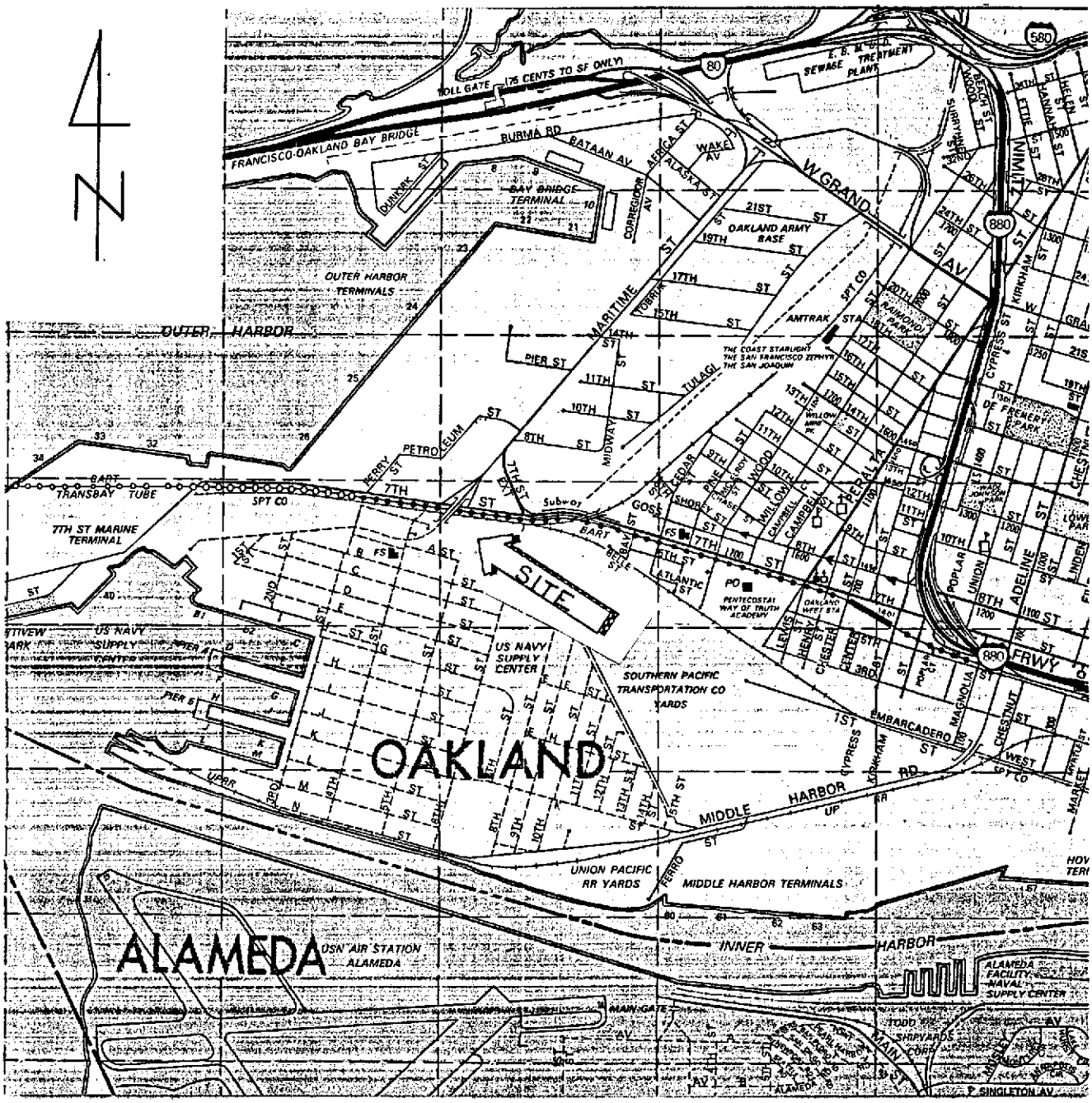
Attachments

cc: Burt McCutchan, Nesco

TABLE 1

Sample I.D.	Analysis	Compound	Results in parts per million
S1 (soil)	8015	diesel	5100
	8020	benzene	ND
		toluene	1.37
		ethylbenzene	1.22
		xylenes	2.83
	LUFT	organic lead	ND
S2 (soil)	8015	diesel	2900
	8020	benzene	ND
		toluene	0.392
		ethylbenzene	0.616
		xylenes	1.83
	LUFT	organic lead	ND
W (water)	8015	diesel	1300
	602	benzene	3.18
		toluene	1.06
		ethylbenzene	0.269
		xylenes	1.13

ND = not detected



MAP SOURCE: THOMAS GUIDE, 1989

SCALE IN MILES

0 ½ 1

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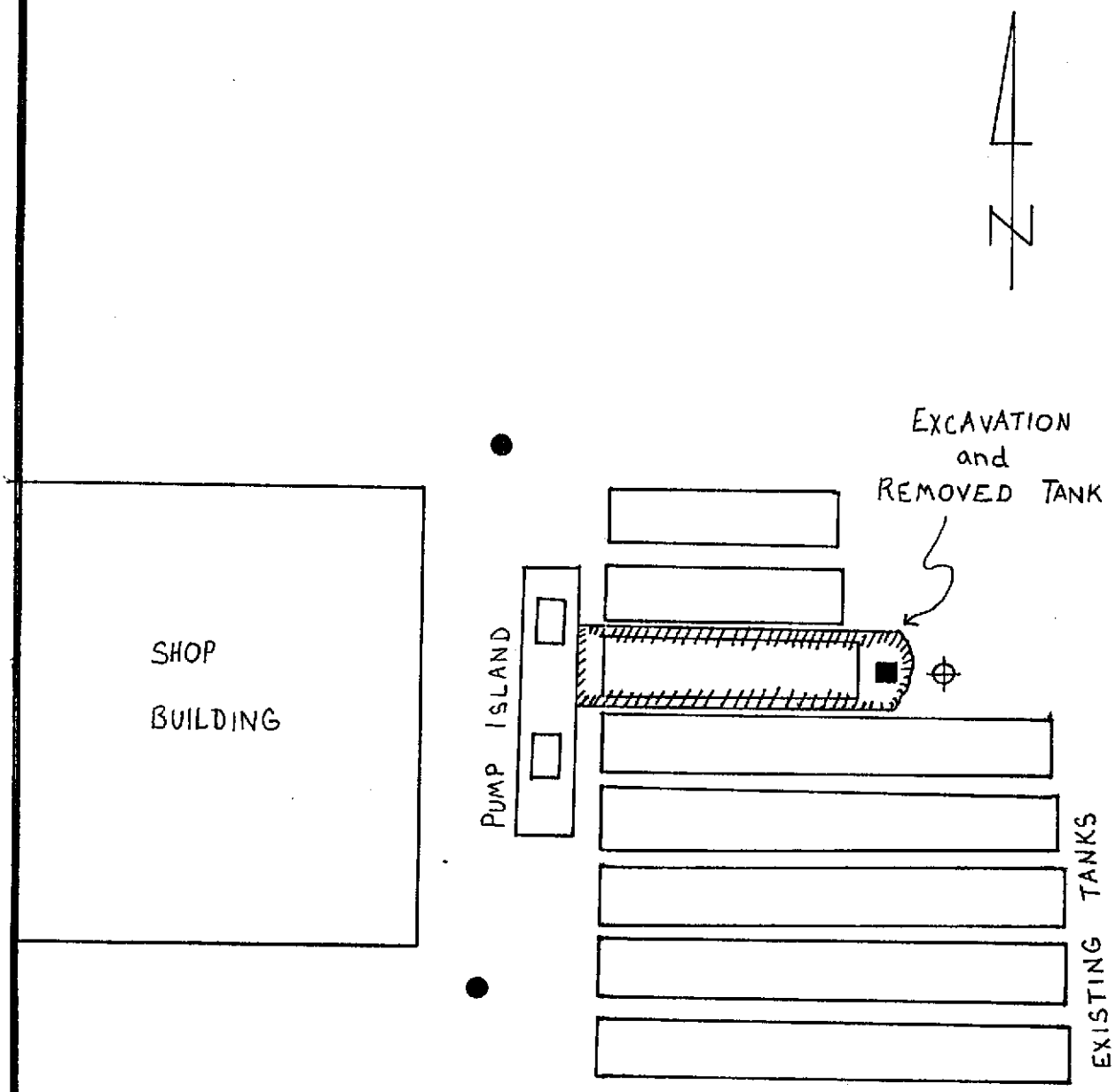
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.

6761-D SIERRA COURT
DUBLIN, CA 94568

VICINITY MAP, ANR TRUCKING
2225 7th Street
OAKLAND, CALIFORNIA

Project No. 0389079.00 Date: 4-5-90

Plate
1



● PROPOSED SOIL BORING

⊕ PROPOSED MONITORING WELL

■ SOIL SAMPLES, S1 & S2 LOCATION

NOT TO SCALE

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
6761-D SIERRA COURT
DUBLIN, CA 94568

SITE PLAN, ANR TRUCKING
2225 7th Street
OAKLAND, CALIFORNIA

Project No. 0389079.00 Date: 4-5-90

Plate
2

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CHAIN OF CUSTODY RECORD

SCS ANALYTICAL LABORATORY
2860 WALNUT AVENUE
LONG BEACH, CALIFORNIA 90806
(213) 595-9324
Fax (213) 595-6709

PERSONNEL

Name (signature) Don McClenagan
Name (print) Don McClenagan
Company ~~SCS~~ SCS Engineers
Address 6761 Sierra Court, Suite D
City, State, Zip Dublin, CA 94568
Telephone (415) 829-0661

SITE INFORMATION

Job Name
Job Number 03890XX
Sample Location ~~2005~~ 7th st. Oakland
P.O. Number

Relinquished by (Signature)	Received by (Signature)	Date	Time
Don McClenagan 3-16			
Relinquished by (Signature)	Received by (Signature)	Date	Time

Analysis laboratory should complete "sample cond. upon receipt" section below, sign, and return copy to Shipper

Sample Number	Sample Type	No. of Cont.	Site Identification	Date Sampled	Analysis Requested	Sample Cond. Upon Receipt
S1	soil	1	7th Oakland	3/16/90	~~8015G~~ 8015 Diesel	
S2	soil	1		3/16/90	~~8015G~~ 9	
W	water	3			8020	

24 hr Turnaround on Soil

Regular Turnaround on Water

Remarks: PLEASE return coolers and ice —

SCS ANALYTICAL LABORATORY
2860 WALNUT AVENUE
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MEMO

To: John Cummings

From: Curtis B. Jenkins

March 19, 1990

Job No.: 0389079

LABORATORY REPORT

Samples: Two (2) soil samples from Verl's - 7th Street, Oakland, CA received 3/17/90, analyzed 3/19/90. (SUPER RUSH)

Sample ID	EPA 8015-D ---mg/kg---
S1	5,100 (D)
S2	2,900 (D)
Detection Limit	10

EPA 8020 - see attached sheets.

David Mikesell
Chemist

Curtis B. Jenkins
Vice President, Analytical Srv.

verl8.rep

SCS ANALYTICAL LABORATORY
2860 WALNUT AVENUE
LONG BEACH, CALIFORNIA 90806
(213) 595-9324
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Sample I.D.: S1
Date Received: 3/16/90
Date Analyzed: 3/19/90
Matrix: Soil
Project #: 389079
File #: Verl8.rep

Compound	Result	D.L.
	-------ug/kg (ppb)-------	
Benzene	ND	500
Chlorobenzene	ND	500
Ethylbenzene	1,220	500
Toluene	1,370	500
Xylenes	2,830	500
1,2-Dichlorobenzene	ND	500
1,3-Dichlorobenzene	ND	500
1,4-Dichlorobenzene	ND	500

D.L. = Detection Limit
ND = Not Detected

SCS ANALYTICAL LABORATORY
2860 WALNUT AVENUE
LONG BEACH, CALIFORNIA 90806
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Sample I.D.: S2
Date Received: 3/16/90
Date Analyzed: 3/19/90
Matrix: Soil
Project #: 389079
File #: Ver18.rep

Compound	Result	D.L.
	-------ug/kg (ppb)-------	
Benzene	ND	200
Chlorobenzene	ND	200
Ethylbenzene	616	200
Toluene	392	200
Xylenes	1,830	200
1,2-Dichlorobenzene	ND	200
1,3-Dichlorobenzene	ND	200
1,4-Dichlorobenzene	ND	200

D.L. = Detection Limit
ND = Not Detected

SCS ANALYTICAL LABORATORY
2860 WALNUT AVENUE
LONG BEACH, CALIFORNIA 90806
(213) 595-9324
FAX (213) 595-6709

MEMO

To: John Cummings

From: Curtis B. Jenkins

March 30, 1990

Job No.: 0389079

LABORATORY REPORT

Samples: Three (3) water samples from Verl's Oakland, CA received 3/16/90, analyzed 3/24/90.

Sample ID	EPA 8015-D ---mg/L---
W	1,300 (D)
Detection Limit	10

D - Diesel

Sample ID	Organic Lead (LUFT) ---mg/kg---
S1	ND
S2	ND
Detection Limit	.5

EPA 602 - see attached sheets

David Mikesell
Chemist

Curtis B. Jenkins
Vice President, Analytical Srv.

verl11.rep

SCS
ANALYTICAL
LABORATORY

2860 WALNUT AVENUE
LONG BEACH, CALIFORNIA 90806
(213) 595-9324
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Sample I.D.: W
Date Received: 3/16/90
Date Analyzed: 3/24/90
Matrix: Water
Project #: 389079
File #: ver111.rep

Compound	Result ----ug/L (ppb)----	D.L.
Benzene	3,180	0.7
Chlorobenzene	ND	1
Ethylbenzene	269	1
Toluene	1,060	1
Xylenes	1,130	1
1,2-Dichlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1

D.L. = Detection Limit
ND = Not Detected