VORELCO

Vorelco, Inc
888 West Big Beaver
P.O. Box 7050
Troy, MI 48007-7050
Tel (313) 362-7272

September 24, 1990

Mr. Paul M. Smith
Hazardous Materials Specialist
Alameda County Health Care Services
Department of Environmental Health
Hazardous Materials Program
80 Swan Way, Rm. 200
Oakland, CA 94621

Re: Broadway Volkswagen
Oakland, Ca

Dear Mr. Smith:

In reference to your letter of July 25, 1990, I have compiled the information that you have requested. I have contacted Ms. Susan Wickham of Environmental Science & engineering, Inc.(formerly Hunter Gregg) relative to your concerns with the groundwater flow, and have enclosed a copy of her response.

Relative to the tank data requested I have enclosed a copy of the tank closure report from Engineering-Science, Inc. dated January 1989.

I have also enclosed, per your request, a check in the amount of $500 to replenish our deposit.

If you have any additional questions, or feel that additional information is required please contact the undersigned at (313)362-7296.

Sincerely,

Tom Moffatt

Tom Moffatt
Construction Engineer

ENGINEERING-SCIENCE, INC.

600 BANCROFT WAY
BERKELEY, CA 94710
Tel: (415) 548-7970 Fax: (415) 548-7635

3 February 1989
Ref: NC050.05

Mr. Paul Hegwood
Vorelco, Inc.
P.O. Box 7050
Troy, MI 48007-7050

Subject: Removal of Four Underground Storage Tanks at Broadway Volkswagen, Oakland, California

Dear Mr. Hegwood:

This report details the 15 and 23 August 1988 removal of four underground storage tanks located at Broadway Volkswagen, 2470 Broadway, Oakland, California (Vorelco property #4826).

Engineering-Science is pleased to provide technical assistance to Vorelco, Inc. If you have any questions regarding this submittal, please call.

Very truly yours,

Richard S. Makdisi, R.G.
Project Manager

RSM/dae/117-17.R1

cc: Mr. William Hischke, Vorelco
Mr. Mike Yang, Vorelco
Mr. Thomas Peacock, Alameda Co. Health Dept.

REMOVAL OF UNDERGROUND STORAGE TANKS

AT

BROADWAY VOLKSWAGEN
OAKLAND, CALIFORNIA

Prepared for

VORELCO, INC.
Troy, Michigan

February 1989

Prepared by

ENGINEERING-SCIENCE, INC.
600 Bancroft Way
Berkeley, California 94710

REMOVAL OF UNDERGROUND STORAGE TANKS AT BROADWAY VOLKSWAGEN OAKLAND, CALIFORNIA

PREPARED FOR

VORELCO, INC.,
TROY, MICHIGAN

PREPARED BY

ENGINEERING-SCIENCE
DESIGN • RESEARCH • PLANNING
600 BANCROFT WAY, BERKELEY, CALIFORNIA 94710 • 415/548-7970
OFFICES IN PRINCIPAL CITIES

JANUARY 1989

ENGINEERING-SCIENCE

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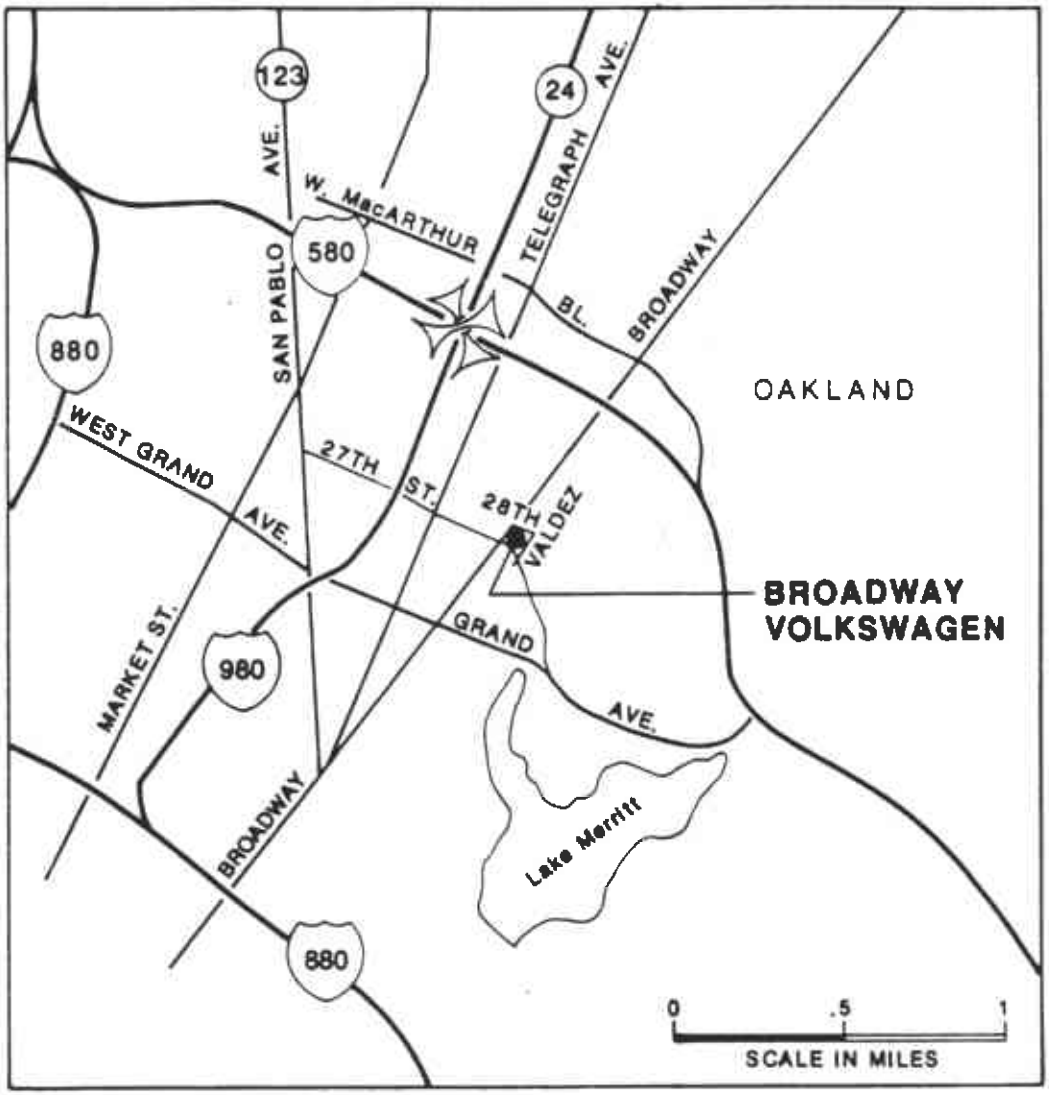
REMOVAL OF UNDERGROUND STORAGE TANKS
AT
BROADWAY VOLKSWAGEN
OAKLAND, CALIFORNIA

INTRODUCTION

This report details the removal of four underground storage tanks (USTs) and the subsequent soil sampling and excavation at Broadway Volkswagen, 2470 Broadway, Oakland, California (Vorelco property #4826). These tanks, which were removed on 15 August and 23 August 1988, by SEMCO, Inc., consisted of a 1,000-gallon waste oil tank (Tank A), a 300-gallon waste oil tank (Tank B), a 550-gallon unleaded gasoline tank (Tank C), and a 1,500-gallon unknown tank, (Tank D). Engineering-Science, Inc. (ES) was on site to observe the tank removals and collect soil samples. Mr. Thomas Peacock of the Alameda County Health Department and Ms. Christine Myers of the Oakland Fire Department were also on site during the tank removals and the soil sampling those days. The site location is shown on Figure 1, and the tank locations are on Figure 2. Photographs of the work are contained in Appendix A. Appendix B contains the laboratory report and Chain-of-Custody records, and the shipping manifests are in Appendix C.

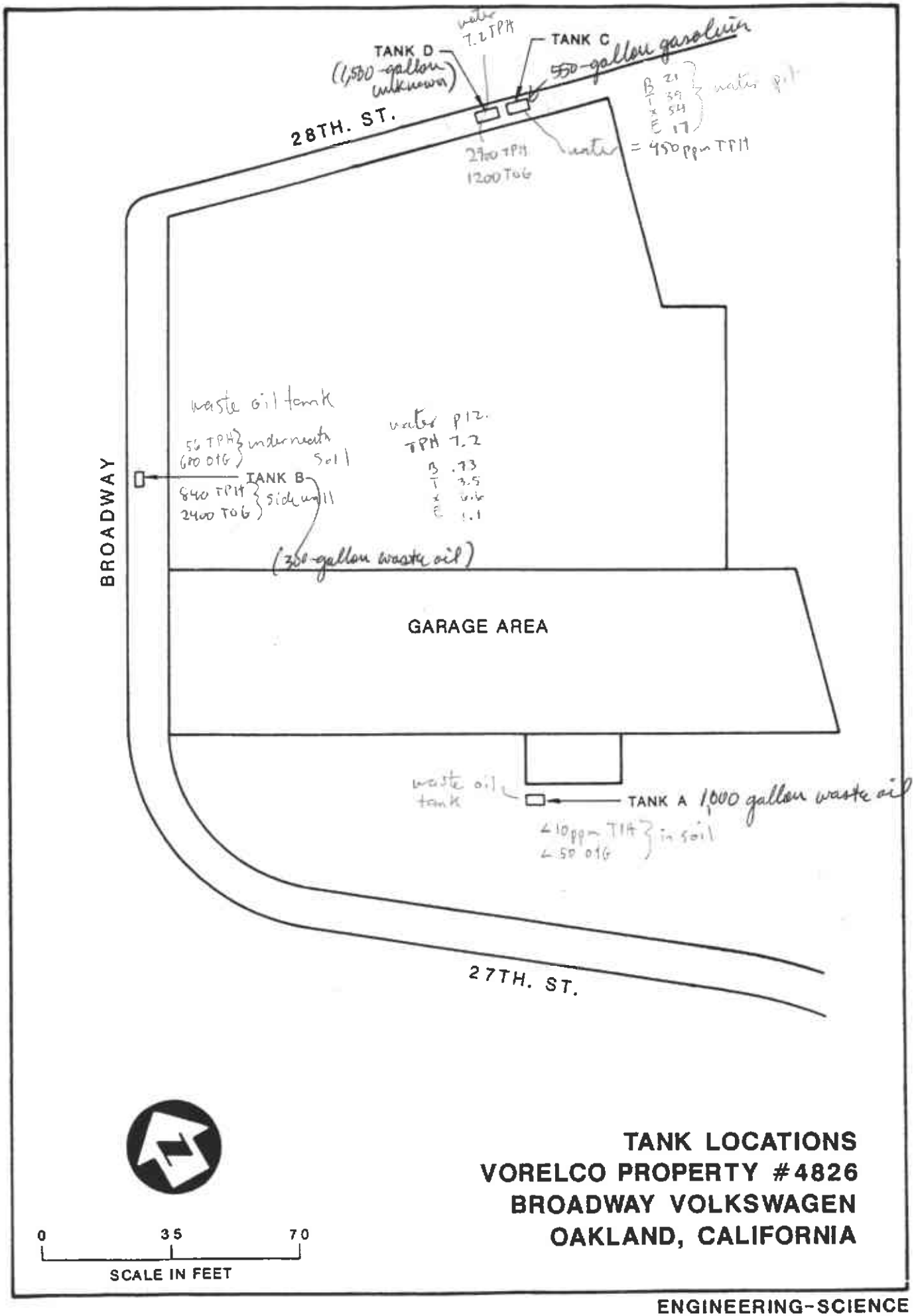
TANK REMOVAL

Tanks A, B, and C were removed on 15 August 1988. Tank D, located next to Tank C, had been discovered during the course of this work and was uncovered on 22 August and removed on 23 August 1988. All contaminated soil removed from the excavations was stockpiled on sheets of visqueen in the back lot of the dealership and covered.



LOCATION MAP
BROADWAY VOLKSWAGEN
OAKLAND, CALIFORNIA

FIGURE 2



TANK LOCATIONS
VORELCO PROPERTY #4826
BROADWAY VOLKSWAGEN
OAKLAND, CALIFORNIA

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Tank A

Before removal, Tank A was steam cleaned and triple rinsed, after which dry ice (CO_2) was added to displace any combustible vapors which might be left. Product and rinsate was taken to Demenno Kerdoon by Allied Petroleum in Compton, California. Once the lower explosive limit (LEL) was below 20 percent, the tank was removed. The bottom of the tank was 6 feet below grade. The tank appeared intact with no holes or signs of leakage in the excavation. Figure 3 shows the excavation and the position of the tank. Photos are contained in Appendix A.

Tank B

Tank B was pumped and cleaned as above (Tank A) except that a large hole had to be cut in the top of the tank in order to remove a deposit of oily sludge that had collected in the bottom. Before removal, numerous corrosion holes were noted in the top of the tank and the associated waste oil drain from the building. Once the LEL was checked and found to be acceptable, the tank was removed from the excavation. Larger holes were noted in the sides of the tank, with a few approximately 2 inches in diameter. The bottom of the tank appeared intact. A moderate hydrogen sulfide odor was observed during the removal. The bottom of the tank was 7 feet below grade. The tank and excavation are shown on Figure 4.

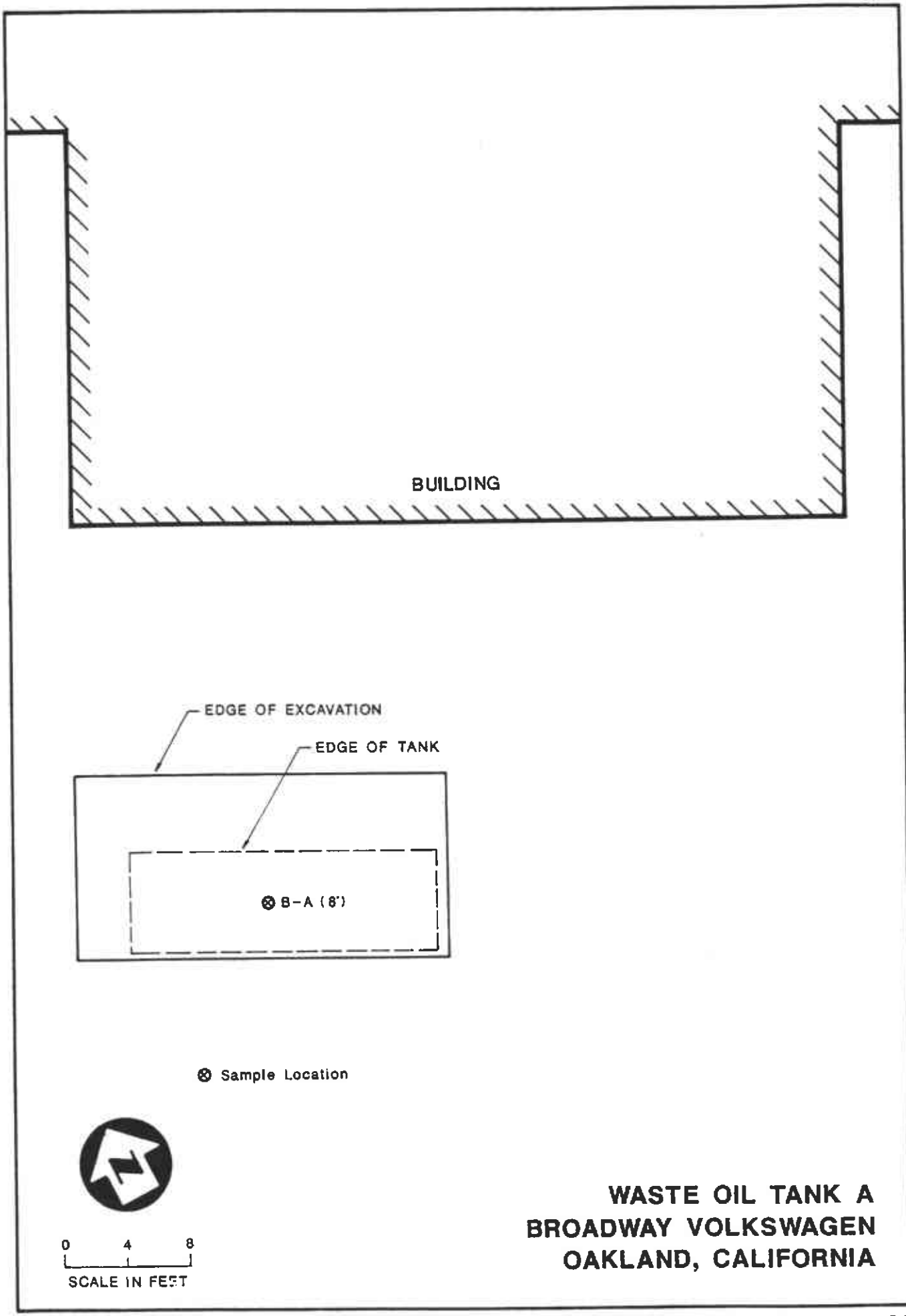
Tank C

After being cleaned, rinsed, and iced, the LEL was checked and Tank C was removed. Many pinholes were noted along the sides and ends of the tank. A small amount of rinsate began to leak from the east end of the tank while it was being raised from the excavation, so absorbant was added and that end was elevated. The bottom of this tank was approximately 7 feet 4 inches below grade. The tank and excavation are shown on Figure 5.

Tank D

After being uncovered, Tank D was found to be a 1,500-gallon steel tank. After being cleaned, rinsed, and iced, the LEL was checked and the

FIGURE 3



WASTE OIL TANK A
BROADWAY VOLKSWAGEN
OAKLAND, CALIFORNIA

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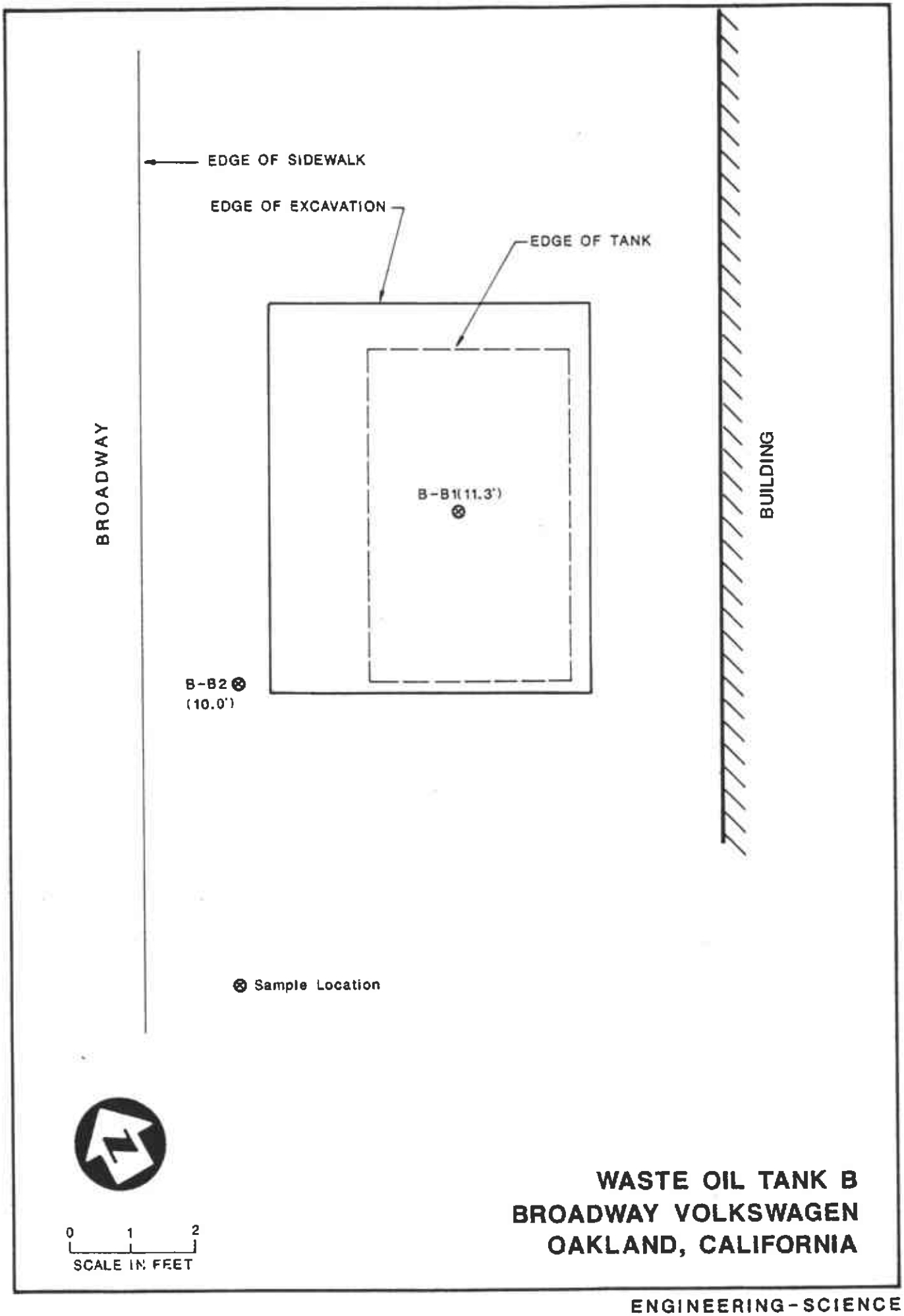
FIGURE 4



WASTE OIL TANK B
BROADWAY VOLKSWAGEN
OAKLAND, CALIFORNIA

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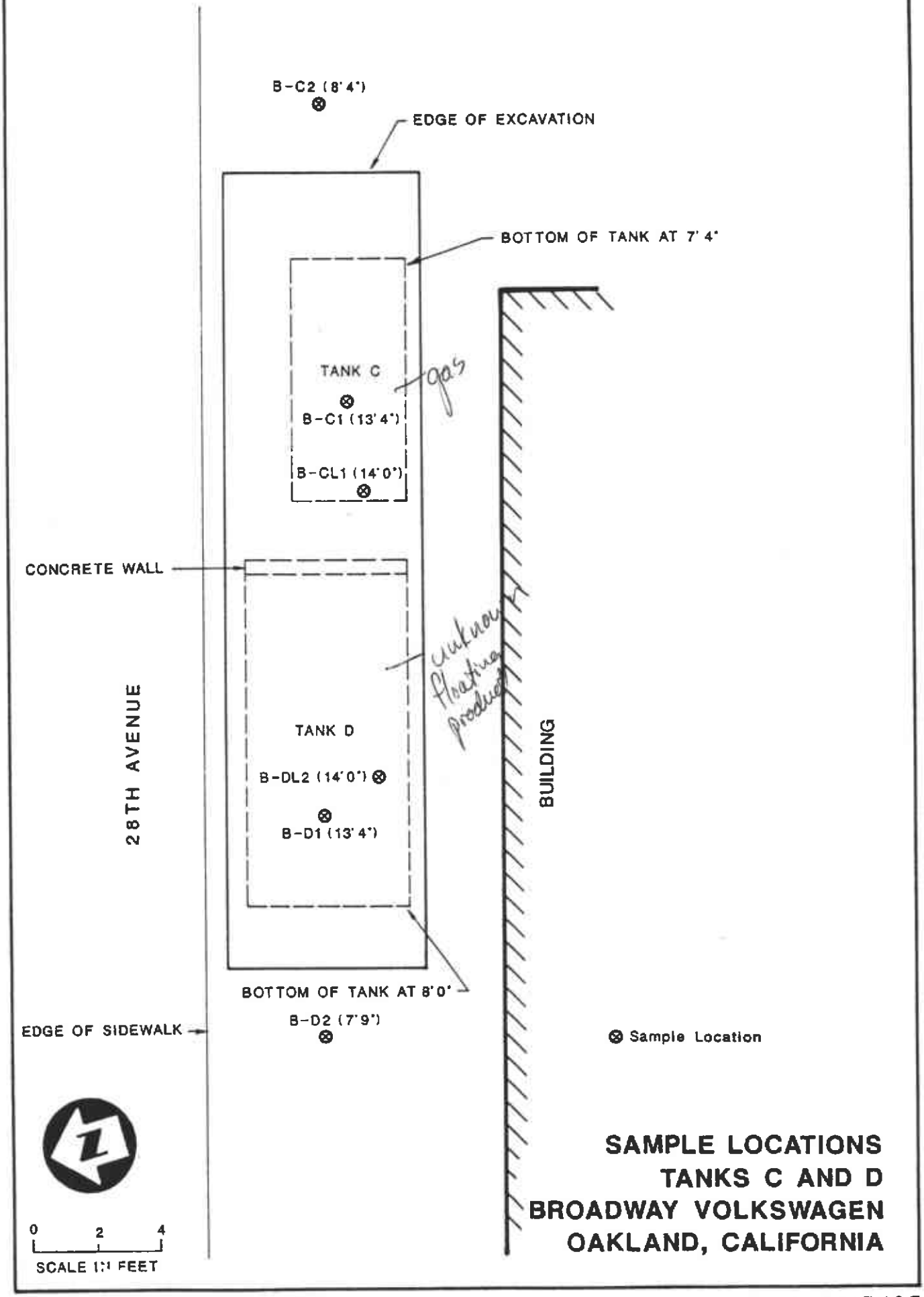
FIGURE 5



SAMPLE LOCATIONS
TANKS C AND D
BROADWAY VOLKSWAGEN
OAKLAND, CALIFORNIA

ENGINEERING-SCIENCE

tank was removed. The bottom looked intact, but there were numerous small holes along the top and sides. One small hole was noted on the west end near the bottom. The bottom of this tank was approximately [redacted] feet below grade.

SAMPLING PROTOCOL

Soil samples for analysis were collected by pounding a 2-inch diameter by 6-inch long brass tube into material brought up in a backhoe bucket. After withdrawing the tubes, they were capped with aluminum foil and non-reactive plastic caps, sealed with tape, labeled, and placed in a refrigerated ice chest for delivery to the laboratory the same day.

Soil vapors were also sampled for the purpose of field screening using a Photovac Tip 1 photoionization device (PID). This device was calibrated to the ambient atmosphere and provided a reading of total ionizable vapors relative to the background. These readings, while they cannot be used for a definitive indication of soil contamination, are useful for locating "hot spots" in need of more precise analysis. PID samples were placed in zip-lock plastic bags and allowed to warm in the sun so that any hydrocarbons present could volatilize before vapor readings were taken.

One soil sample, B-A, was collected under the center of Tank A from a depth of 8 feet below grade (see Figure 3). Two samples (B-B1 and B-B2) collected from the Tank B excavation, one below the oil drain pipe end of the tank, and the other from the southwest sidewall. These soil samples were collected from the depths of 11 feet 6 inches and 10 feet, respectively (Figure 4).

Two soil samples (B-C1 and B-C2) and one groundwater sample (B-CL1) were collected from the Tank C excavation (Figure 5). B-C1 was collected under the center of the tank at a depth of 13 feet 4 inches. B-C2 was collected at a depth of approximately 8 feet 4 inches from a 2-foot undercut in the east wall of the excavation.

During the excavation, groundwater was encountered at a depth of 14 feet. This water had a petroleum sheen, but no odor was noted. Sample

B-CL1 was collected by lowering a VOA vial into the excavation on a string, then transferring the liquid to another vial for delivery to the laboratory.

Two soil samples and one groundwater sample were also collected from the Tank D excavation (B-D1, B-D2, and B-DL2). B-D1 was collected from a depth of 13 feet 4 inches underneath the western half of the tank. Sample B-D2 was another sidewall sample, collected from a 2-foot undercut into the western wall of the excavation, at a depth of 7 feet 9 inches (Figure 5). The water sample B-DL2 was collected in the same manner as B-CL1. The groundwater in this excavation had a layer of floating product (<1/4 inch) and a strong gasoline odor.

After sampling, all excavations were backfilled with peagravel and paved over.

ANALYTICAL RESULTS

Soil samples from the two waste oil tanks (Tanks A and B) and the unknown tank (Tank D) were analyzed for total petroleum hydrocarbons (TPH) by EPA Method 8015 (modified), oil and grease (O&G) by EPA Method 503E, and volatile organic compounds (VOCs) including benzene, toluene, xylene, and ethylbenzene (BTX&E) by EPA Method 8240. The 8240 analyses for Tanks A and B were performed by Engineering-Science Laboratory Services, 600 Bancroft Way, Berkeley, California, California certified for this method. All other analyses were performed by Brown & Caldwell Laboratories in Emeryville, California, also California certified. The soil samples from the unleaded gasoline tank, Tank C, were analyzed for TPH by Method 8015 (modified) and for BTX&E by EPA Method 8020. These analyses were performed by Brown and Caldwell as were the water samples B-CL1 and B-DL2 which were analyzed for TPH by Method 8015 and BTX&E by EPA Method 602. A summary of the analytical results is presented in Table 1 and the complete laboratory reports and Chain-of-Custody records are in Appendix B. PID readings taken during the sampling at various depths are shown on Table 2.

10,000 = 1%

840 = .08%

TABLE 1

ANALYTICAL RESULTS
BROADWAY VOLKSWAGEN
OAKLAND, CALIFORNIA
15 and 23 August 1988

Sample ID (Soil Samples)	Tank	Depth (ft)	Total Petroleum Hydrocarbons (mg/kg) (ppm)	Oil and Grease (mg/kg) (ppm)	Benzene (mg/kg) (ppm)	Toluene (mg/kg) (ppm)	Total Xylenes (mg/kg) (ppm)	Ethyl-benzene (mg/kg) (ppm)	Volatile Organic Compound (ug/kg) (ppb)
B-A	A	8'	<10	<50	ND[a]	ND	ND	ND	ND
B-B1	B	11'-4"	56	680	ND	ND	ND	ND	ND
B-B2	B	10'	840	2,400	ND	ND	ND	ND	ND
B-C1	C	13'-4"	<10	NA[b]	1.3	0.9	0.3	<0.3	NA
B-C2	C	8'-4"	<10	NA	<0.3	<0.3	<0.3	<0.3	NA
B-D1	D	12'-4"	2,900	1,200	1.4	6.6	46	12	ND
B-D2	D	7-'9"	<10	<50	2.2	26	78	14	ND
Detection Limit		--	10	50	0.3	0.3	0.3	0.3	C
Action Limit		--	100[d]	100[d]	NL[e]	NL	NL	NL	--

(Water Samples)	1		(mg/l) (ppm)		(mg/l) (ppm)[e]	(mg/l) (ppm)[e]	(mg/l) (ppm)[e]	(mg/l) (ppm)[f]	
B-CL1	C	14	460	NA	21	39	54	17	NA
B-DL2	D	14	7.8	NA	0.73	3.5	6.6	1.1	NA
Detection Limit		--	1	--	0.05	0.05	0.05	0.05	--
Action Limit		--	g	g	NL	NL	NL	NL	--

[a]None Detected (below detection limit)
[b]Not Analyzed
[c]Detection Limit Varies by Compound
[d]California Regional Water Quality Control Board
[e]Not Listed
[f]By EPA Method 602 (all other 602 compounds were below the detection limit)
[g]Evaluated on a site by site basis

TABLE 2

PHOTOIONIZATION DEVICE (PID) READINGS

BROADWAY VOLKSWAGEN
OAKLAND, CALIFORNIA
15 and 23 August 1988

TANK A		TANK B		TANK C		TANK D	
Depth (ft)	Reading[a]	Depth (ft)	Reading[b]	Depth (ft)	Reading	Depth (ft)	Reading
--	--	10	150-300	8	1400-1800	6	330
		11	250-280	13.5	660-670	8.5	900-1260
				14	1200	11-12.5	650-1040
						13.5	60-70

[a]Tank A Readings Not Made
[b]No Units (a relative number)

Analyses for the Tank B samples show evidence of contamination. The sample collected under this waste oil tank (B-B1) showed 56 parts per million (ppm) TPH identified as oil plus low boiling point hydrocarbons, and 680 ppm oil and grease. BTX&E and volatile organic compounds (VOCs) were all below the detection limit in sample B-B1. The sidewall sample (B-B2) had 840 ppm TPH and 2,400 ppm oil and grease. The BTX&E and VOCs were also below the detection limits for sample B-B2. PID readings taken at these sample locations (Table 2) show moderately elevated levels, ranging from 150 - 300.

The bottom sample from the Tank C excavation (B-C1) showed no TPH and only minor amounts of benzene, toluene and xylene (1.3, 0.9, and 0.3 ppm respectively), and the sidewall sample (B-C2) contained no detectable contaminants. However, the groundwater grab sample (B-CL1) contained 450 ppm TPH identified as gasoline, and the BTX&E levels were 21, 39, 54, and 17 ppm respectively. PID readings of soil vapor (Table 2) at different depths in this excavation show elevated levels are present from 8 feet (1,400 to 1,800) down to the groundwater surface (1,200 at 14 feet).

Soil sample B-D1, collected from the bottom of the Tank D excavation (Figure 5) shows elevated concentrations of TPH (2,900 ppm) and oil and grease (1,200 ppm). BTX&E levels were also elevated, with concentrations of 1.4 ppm, 6.6 ppm, 46 ppm, and 12 ppm, respectively. The sidewall sample B-D2 contained no detectable levels of TPH or oil and grease, however, BTX&E were detected at concentrations of 2.2 ppm, 26 ppm, 70 ppm, and 14 ppm, respectively. Although there was floating product on the groundwater in the Tank B excavation, groundwater grab sample B-DL2 showed relatively low concentrations of TPH and BTX&E. TPH was detected at 7.2 ppm and the concentrations of BTX&E were 0.73 ppm, 3.5 ppm, 6.6 ppm, and 1.1 ppm, respectively. PID readings ranged from 900 to 1,260 at a depth of 8.5 feet down to 60 to 70 at a depth of 13.5 feet.

The California Department of Health Services (DOHS) stipulates that soil contaminated with petroleum hydrocarbons above 1,000 ppm be considered hazardous and must be removed or treated. Levels above 100 ppm are of concern to the California Regional Water Quality Control Board

(RWQCB) due to the potential for groundwater contamination. In most cases soil having higher concentrations (>100 ppm) must be remediated and a groundwater monitoring program instituted. While BTX&E do not have specific action levels, the presence of these compounds in the soil or groundwater is an indication of a problem.

CONCLUSIONS

- Based on a visual inspection of Tank A and the surrounding soil, and on the analytical results for soil sample B-A, it appears that no leakage has occurred from Tank A.

- Soil contaminated with potentially significant concentrations of TPH and oil and grease was not excavated from the Tank B excavation site. The vertical and lateral extent of te contamination has not been completed delineated.

- Although the soil surrounding Tank C shows relatively low concentrations of BTX&E, the groundwater in the Tank C excavation contains significant concentrations of BTX&E and TPH. The lateral extent of this groundwater contamination is unknown.

- Soil samples collected from the Tank D excavation site contain significant levels of BTX&E and concentrations of TPH and oil and grease which exceed the DOHS action level (1,000 ppm). BTX&E concentrations in groundwater from the Tank D excavation show lower concentrations than was detected in the soil, but may still be of concern. The vertical and lateral extent of contamination in the soil and groundwater at the Tank D excavation site has not been completely delineated.

RECOMMENDATIONS

- Further investigation and possibly excavation should be carried out at the Tank B site to help define the vertical and lateral extent of the TPH and oil and grease contamination.

- As required by the RWQCB, groundwater monitoring well should be installed immediately downgradient to the Tank B site and sampled periodically to determine whether any groundwater contamination has occurred.

- The Tank D excavation should be further investigated to help define the vertical and lateral extent of the contamination left in the ground.

- A groundwater monitoring well should be installed immediately downgradient to the Tanks C and D excavations and sampled periodically to help determine the extent of groundwater contamination at this location, as required by the RWQCB.

ES ENGINEERING-SCIENCE, INC.

BERKELEY CALIFORNIA 94710
(415) 548-7971

Client VORELCO, INC. Job No. NC 050 Sheet 1 of 9

Subject PHOTOGRAPHS BROADWAY VOLKSWAGEN By Date

Rev.

TANK A
BEING REMOVED

TANK A
EXCAVATION

ES ENGINEERING-SCIENCE, INC.

600 BANCROFT WAY
BERKELEY, CALIFORNIA 94710
(415) 548-7970

Client VORELCO, INC. Job No. NC 050 Sheet 3 of 9

Subject PHOTOGRAPHS BROADWAY VOLKSWAGEN By Date

Rev.

TANK B
CORRODED FILL PIPE

TANK B
BEING REMOVED

ES ENGINEERING-SCIENCE, INC.

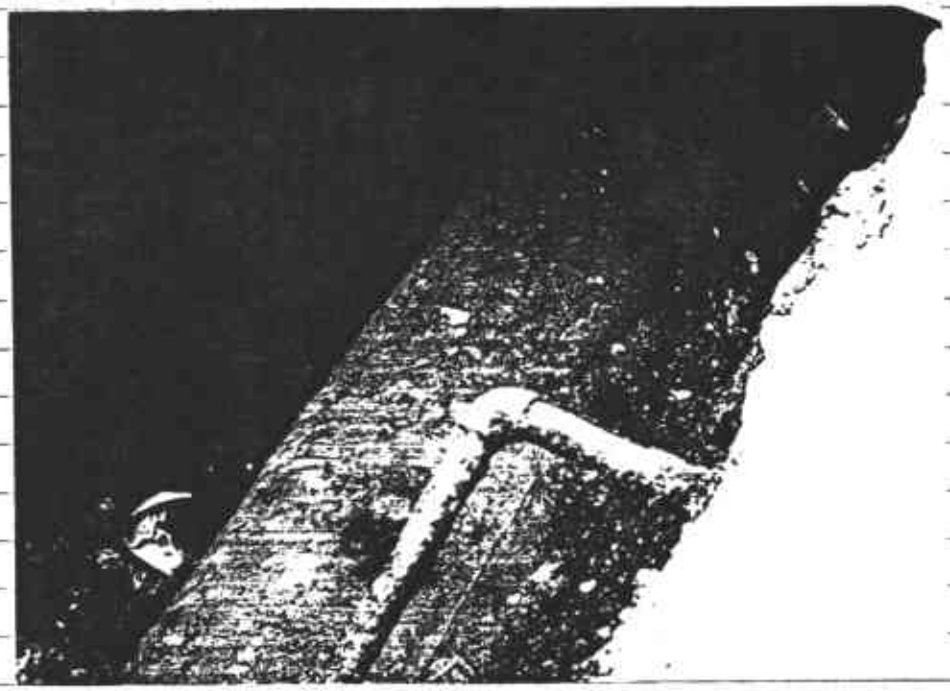
600 BANCROFT WAY
BERKELEY, CALIFORNIA 94710
(415) 548-7970

Client VORELCO, INC. Job No. NC 050 Sheet 4 of 9

Subject PHOTOGRAPHS BROADWAY VOLKSWAGEN By Date

Rev.

TANK C
BEING REMOVED



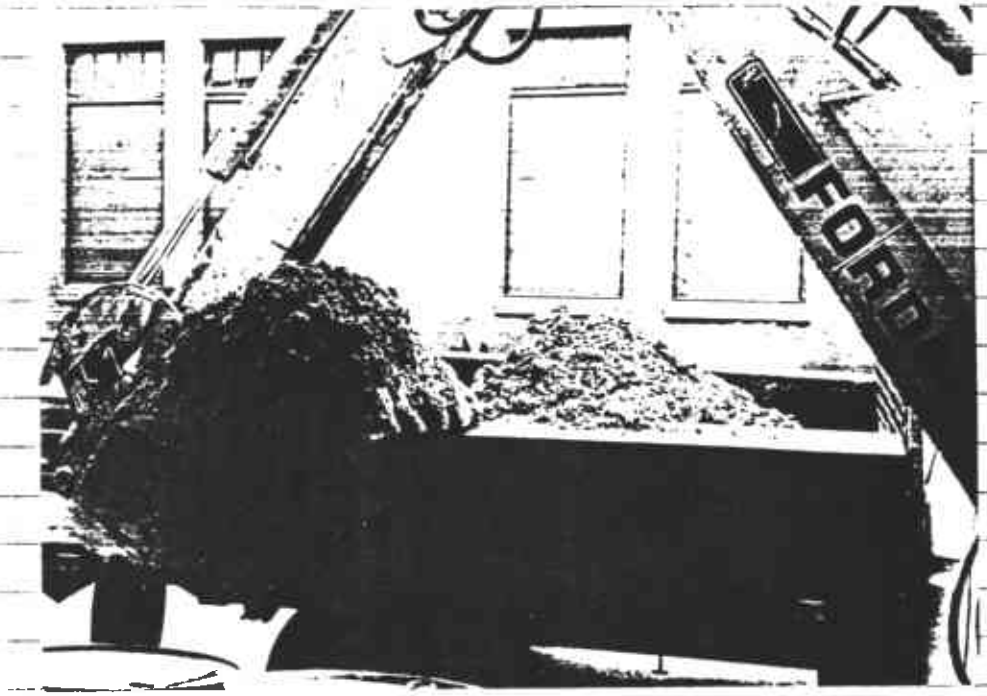
TANK C
BEFORE REMOVAL

ES ENGINEERING-SCIENCE, INC.
500 BANCROFT WAY
BERKELEY, CALIFORNIA 94710
(415) 548-7970

Client VORELCO, INC. Job No. NC 050 Sheet 5 of 9

Subject PHOTOGRAPHS BROADWAY VOLKSWAGEN By Date

Rev.



CONTAMINATED SOIL FROM TANK C EXCAVATION

ES ENGINEERING-SCIENCE, INC.
600 BANCROFT WAY
BERKELEY, CALIFORNIA 94710
(415) 548-7970

Client VORELCO, INC. Job No. NC 050 Sheet 6 of 9

Subject PHOTOGRAPHS BROADWAY VOLKSWAGEN By Date

Rev.

TANK D
BREAKING SIDEWALK

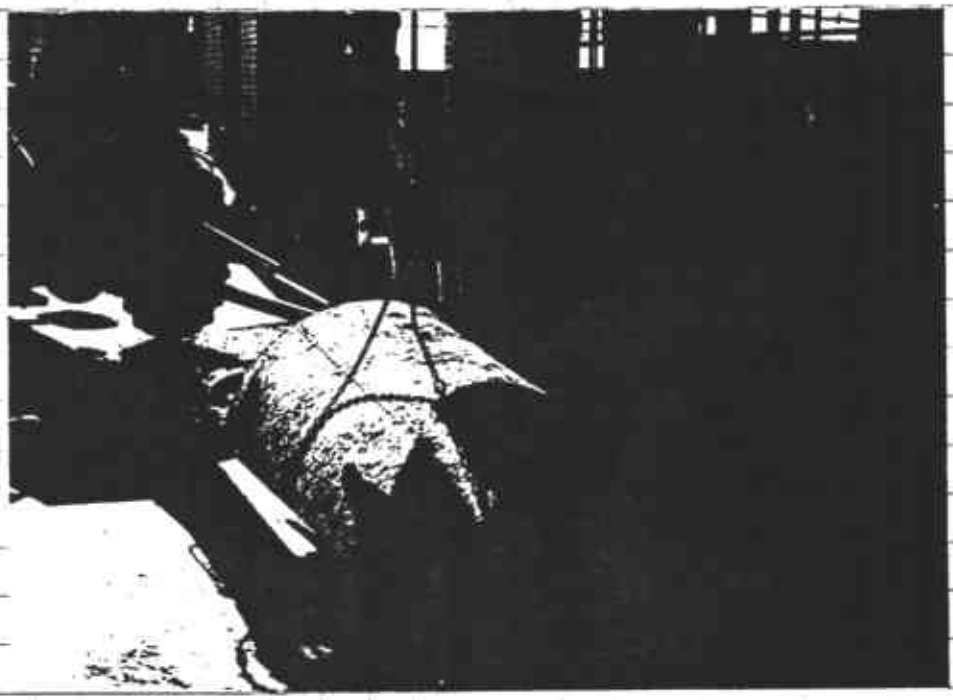
TANK D
BEFORE REMOVAL

ES ENGINEERING-SCIENCE, INC.
600 BANCROFT WAY
BERKELEY CALIFORNIA 94710
(415) 548-7970

Client VORELCO, INC. Job No. NC 050 Sheet 7 of 9

Subject PHOTOGRAPHS BROADWAY VOLKSWAGEN By Date

Rev.



TANK D BEING REMOVED

HOLES IN TANK D

ES ENGINEERING-SCIENCE, INC.
600 BANCROFT WAY
BERKELEY, CALIFORNIA 94710
(415) 548-7970

Client VORELCO, INC. Job No. NC 050 Sheet 8 of 9

Subject PHOTOGRAPHS BROADWAY VOLKSWAGEN By Date

Rev.

GROUNDWATER WITH FLOATING PRODUCT
IN TANK D EXCAVATION

ES ENGINEERING-SCIENCE, INC.
600 SANCROFT WAY
BERKELEY, CALIFORNIA 94710
(415) 548-7970

Client: VORELCO, INC. Job No. NC 050 Sheet 9 of 9

Subject PHOTOGRAPHS BROADWAY VOLKSWAGEN By Date

Rev.

CONTAMINATED SOIL STOCKPILED BEHIND BUILDING

APPENDIX B

ANALYTICAL RESULTS
AND
CHAIN-OF-CUSTODY RECORDS

ENGINEERING-SCIENCE, INC.

CHAIN OF CUSTODY RECORD

Brown + Caldwell

CLIENT:	PROJECT MANAGER:	PROJ. NO.:
ENGINEERING-SCIENCE, INC. BERKELEY	Rick Makdisi	NC050.05

PROJECT NAME / LOCATION: Vorelco / Broadway Volkswagen

SAMPLER(S): (SIGNATURE) E.N. Storrs E. N. Storrs

SAMPLE ID	DATE	TIME	MATRIX	SAMPLE LOCATION	NO. OF CONTAINERS	8015 (mod.)	O&G (503E)					TURNAROUND TIME	REMARKS
B-A	8/11/88	12:20	soil	waste oil tank A	1	✓	✓					24 hr.	
B-B1	"	17:20	soil	waste oil tank B	1	✓	✓					"	
B-B2	"	17:45	soil	waste oil tank B-sidewall	1	✓	✓					"	

ANALYSES REQUIRED

PRESERVED

TO BE COMPOSITED BY LAB

RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)

RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE/TIME	REMARKS
E. N. Storrs	8/15/88 19:30	Donna Williams	8/15/88 19:35	

DISTRIBUTION: ORIGINAL ACCOMPANIES SHIPMENT; COPY TO COORDINATOR FIELD FILES

BROWN AND CALDWELL LABORATORIES
1255 POWELL STREET EMERYVILLE, CA 94608 • (415) 428-2300

ANALYTICAL REPORT

LOG NO: E88-08-369

Received: 15 AUG 88
Reported: 22 AUG 88

Mr. Eric Storrs
Engineering Science
600 Bancroft Way
Berkeley, California 94710

Project: NC050.05

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, SOIL SAMPLES	DATE SAMPLED
08-369-1	B-A	11 AUG 88
08-369-2	B-B1	11 AUG 88
08-369-3	B-B2	11 AUG 88

PARAMETER	08-369-1	08-369-2	08-369-3
Hydrocarbons by IR, mg/kg	<50	680	2400
Total Fuel Hydrocarbons			
Date Analyzed	08.15.88	08.15.88	08.15.88
Fuel Characterization	---	OIL	OIL+LOW BO
Total Fuel Hydrocarbons, mg/kg	<10	56	840

L D Lessley

Sim D. Lessley, Ph.D., Laboratory Director

ES Labs

ENGINEERING - SCIENCE, INC.
CHAIN OF CUSTODY RECORD

855

PAGE 1 OF 1

CLIENT:	PROJECT MANAGER:	PROJ. NO.:
ENGINEERING-SCIENCE, INC. BERKELEY	Rick Makdisi	NC050.05

PROJECT NAME / LOCATION: Vorelco / Broadway Volkswagen

SAMPLER(S): (SIGNATURE) E.N. Storrs

SAMPLE ID	DATE	TIME	MATRIX	SAMPLE LOCATION	NO. OF CONTAINERS	ANALYSES REQUIRED: EPA 8240							TURNAROUND TIME	REMARKS
B-A	8/15/88	12:20	Soil	waste oil tank A	1	✓							24 hr.	881880
B-B1	"	17:20	"	waste oil tank B	1	✓							"	881881
B-B2	"	17:45	"	waste oil tank B- sidewall	1	✓							"	881882

PRESERVED

TO BE COMPOSITED BY LAB

RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)

RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE/TIME	REMARKS
E.N. Storrs	8/15/88 19:25	[illegible]	8/15 17:25	

DISTRIBUTION: ORIGINAL ACCOMPANIES SHIPMENT; COPY TO COORDINATOR FIELD FILES

ENGINEERING SCIENCE
Priority Pollutant Analysis
Volatile Organics - Method 8240
Matrix: Soil

Date Received: August 16, 1988
Date Reported: August 16, 1988

Work Order : 855
Job No. : NC050.05

For: VORELCO/BROADWAY VOLKSWAGEN
Address: BROADWAY,
OAKLAND,CA

ATTN: E.N.STORRS

Lab Number:	88081880	88081881
Sample No.:	B-A; WASTE OIL TANK A	B-B1; WASTE OIL TANK B
Date Sampled:	8-15-88	8-15-88
Time Sampled:	12:20	17:20
Date Analyzed:	8-16-88	8-16-88
Percent Moisture:	.....	.....

Compound	Detection Limit ug/kg	Analytical Results (wet weight) ug/kg	ug/kg
Chloromethane	10	ND	ND
Bromomethane	10	ND	ND
Vinyl Chloride	10	ND	ND
Chloroethane	10	ND	ND
Dichloromethane	5	ND	ND
Trichlorofluoromethane	10	ND	ND
1,1-Dichloroethene	5	ND	ND
1,1-Dichloroethane	5	ND	ND
trans-1,2-Dichloroethene	5	ND	ND
Chloroform	5	ND	ND
1,2-Dichloroethane	5	ND	ND
1,1,1-Trichloroethane	5	ND	ND
Carbon Tetrachloride	5	ND	ND
Bromodichloromethane	5	ND	ND
1,2-Dichloropropane	5	ND	ND
trans-1,3-Dichloropropene	5	ND	ND
Trichloroethene	5	ND	ND
Benzene	5	ND	ND
Dibromochloromethane	5	ND	ND
1,1,2-Trichloroethane	5	ND	ND
cis-1,3-Dichloropropene	5	ND	ND
2-Chloroethyl vinyl ether	10	ND	ND
Bromoform	5	ND	ND
1,1,2,2-Tetrachloroethane	5	ND	ND
Tetrachloroethene	5	ND	ND
Toluene	5	ND	ND
Chlorobenzene	5	ND	ND
Ethylbenzene	5	ND	ND
Styrene	5	ND	ND
Total Xylenes	5	ND	ND

ENGINEERING SCIENCE
Priority Pollutant Analysis
Volatile Organics - Method 8240
Matrix: Soil

Date Received: August 16, 1988
Date Reported: August 16, 1988

Work Order: 855
Job No.: NC050.05

For: VORELCO/BROADWAY VOLKSWAGEN
Address: BROADWAY,
OAKLAND,CA

ATTN: E.N.STORRS

Lab Number:	88081880	88081881
Sample No.:	B-A; WASTE OIL TANK A	B-B1; WASTE OIL TANK B
Date Sampled:	8-15-88	8-15-88
Time Sampled:	12:20	17:20
Date Analyzed:	8-16-88	8-16-88
Percent Moisture:	.....	.....

Compound	Detection Limits ug/kg	Analytical Results (wet weight) ug/kg	ug/kg
Acetone	100	ND	ND
Acrolein	10	ND	ND
Acrylonitrile	10	ND	ND
2-Butanone (MEK)	100	ND	ND
Carbon Disulfide	10	ND	ND
Dibromomethane	10	ND	ND
1,4-Dichloro-2-butene	10	ND	ND
Dichlorodifluoromethane	10	ND	ND
Ethyl methacrylate	10	ND	ND
2-Hexanone	50	ND	ND
Iodomethane	10	ND	ND
4-Methyl-2-pentanone	50	ND	ND
1,2,3-Trichloropropane	10	ND	ND
Vinyl acetate	50	ND	ND

Ellen Mills
Analyst

Laboratory Supervisor

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Volatile Organics - Method 8240
Matrix: Soil

Date Received: August 16, 1988
Date Reported: August 16, 1988

Work Order : 855
Job Number : NC050.05

For: VORELCO/BROADWAY VOLKSWAGEN
Address: BROADWAY,
OAKLAND,CA

ATTN: E.N.STORRS

Lab Number: 88081882
Sample No.: B-B2; WASTE OIL TANK B -SIDEWALL
Date Sampled: 8-15-88
Time Sampled: 17:45
Date Analyzed: 8-16-88
Percent Moisture: .....

Compound	Detection Limit ug/kg	Analytical Results (wet weight) ug/kg
Chloromethane	10	ND
Bromomethane	10	ND
Vinyl Chloride	10	ND
Chloroethane	10	ND
Dichloromethane	5	ND
Trichlorofluoromethane	10	ND
1,1-Dichloroethene	5	ND
1,1-Dichloroethane	5	ND
trans-1,2-Dichloroethene	5	ND
Chloroform	5	ND
1,2-Dichloroethane	5	ND
1,1,1-Trichloroethane	5	ND
Carbon Tetrachloride	5	ND
Bromodichloromethane	5	ND
1,2-Dichloropropane	5	ND
trans-1,3-Dichloropropene	5	ND
Trichloroethene	5	ND
Benzene	5	ND
Dibromochloromethane	5	ND
1,1,2-Trichloroethane	5	ND
cis-1,3-Dichloropropene	5	ND
2-Chloroethyl vinyl ether	10	ND
Bromoform	5	ND
1,1,2,2-Tetrachloroethane	5	ND
Tetrachloroethene	5	ND
Toluene	5	ND
Chlorobenzene	5	ND
Ethylbenzene	5	ND
Styrene	5	ND
Total Xylenes	5	ND

B = Compound was found in the blank.

ENGINEERING SCIENCE
Priority Pollutant Analysis
Volatile Organics - Method 8240
Matrix: Soil

Date Received: August 16, 1988
Date Reported: August 16, 1988

Work Order : 855
Job Number : NC050.05

For: VORELCO/BROADWAY VOLKSWAGEN
Address: BROADWAY,
OAKLAND,CA

ATTN: E.N.STORRS

Lab Number:	88081882
Sample No.:	B-B2; WASTE OIL TANK B -SIDEWALL
Date Sampled:	8-15-88
Time Sampled:	17:45
Date Analyzed:	8-16-88
Percent Moisture:	.....

Compound	Detection Limits ug/kg	Analytical Results (wet weight) ug/kg
Acetone	100	ND
Acrolein	10	ND
Acrylonitrile	10	ND
2-Butanone (MEK)	100	ND
Carbon Disulfide	10	ND
Dibromomethane	10	ND
1,4-Dichloro-2-butene	10	ND
Dichlorodifluoromethane	10	ND
Ethyl methacrylate	10	ND
2-Hexanone	50	ND
Iodomethane	10	ND
4-Methyl-2-pentanone	50	ND
1,2,3-Trichloropropane	10	ND
Vinyl acetate	50	ND

Ellen Mills
Analyst

Laboratory Supervisor

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

B = Compound was found in the blank.

ENGINEERING-SCIENCE, INC.

CHAIN OF CUSTODY RECORD

Lab: Brown + Caldwell

CLIENT:	PROJECT MANAGER:	PROJ. NO.:
ENGINEERING-SCIENCE, INC. BERKELEY	R. Makdisi	NC050.05

PROJECT NAME / LOCATION: Vorelco / Broadway Volkswagen

SAMPLER(S): (SIGNATURE) E.N. Storrs, M. [illegible], Jon Hoffman

SAMPLE ID	DATE	TIME	MATRIX	SAMPLE LOCATION	NO. OF CONTAINERS	EPA 8015 (mod.)	EPA 503 E	EPA 8240	EPA 8015(mod.)+BTX	PRESERVED	TO BE COMPOSITED BY LAB	TURNAROUND TIME	REMARKS
B-D1	8/23/88	12:35	soil	Tank D	1	✓	✓	✓					24-48 hrs	
B-D2	"	13:45	soil	"	1	✓	✓	✓					"	
B-DL2	"	14:10	water	"	1	✓	✓	✓					"	
B-C1	"	16:30	soil	Tank C	1				✓				"	
B-C2	"	17:15	soil	"	1				✓				"	
B-CL1	"	17:00	water	"	1				✓				"	

ANALYSES REQUIRED

RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE) M. [illegible]	DATE/TIME 8/23/88 17:50	RECEIVED FOR LABORATORY BY: (SIGNATURE) [illegible]	DATE/TIME 8/23 17:51	REMARKS Log # 8808571 (1-6)	

DISTRIBUTION: ORIGINAL ACCOMPANIES SHIPMENT; COPY TO COORDINATOR FIELD FILES

BROWN AND CALDWELL LABORATORIES

1255 POWELL STREET EMERYVILLE, CA 94608 • (415) 428-2300

September 8, 1988

Mr. Eric Storrs
Engineering Science
600 Bancroft Way
Berkeley, California 94710

Dear Mr. Storrs:

As per our telephone conversation, this is the letter explaining the delayed order number E8808571.

Brown and Caldwell Laboratories could not meet the requested 48 hour turnaround time for order number E8808571, due August 25, because of a breakdown of the gas chromatograph dedicated to running modified EPA method 8015 (Total Fuel Hydrocarbons). The breakdown occurred late Wednesday, August 24, and at first we believed it was a simple repair. Brown and Caldwell could not make the turnaround time, and informed you that we could probably complete it by Friday, August 26. After a number of attempts, however, the problem with the gas chromatograph turned out to be more difficult than originally believed. We informed you that the analysis could not be completed as promised. A second gas chromatograph was reconfigured for total fuel hydrocarbons by Tuesday, August 30, and Brown and Caldwell completed and reported the analysis by Tuesday afternoon, August 30.

We are in the process of purchasing a second gas chromatograph to handle the increasing volume of total fuel hydrocarbon analysis. This should greatly reduce instrument down time, and prevent future delays of this type.

Please let me know if more information is required. We are very sorry for the inconvenience this has caused you.

Very truly yours,

BROWN AND CALDWELL LABORATORIES

Barbara Bowman

Barbara Bowman
Client Services Representative

cc: H. Ficklin, Client Services Manager, Brown and Caldwell

BROWN AND CALDWELL LABORATORIES
1255 POWELL STREET, EMERYVILLE, CA 94608 • (415) 428-2300

ANALYTICAL REPORT

LOG NO: E88-08-571

Received: 23 AUG 88
Reported: 02 SEP 88

Mr. Eric Storrs
Engineering Science
600 Bancroft Way
Berkeley, California 94710

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, SOIL SAMPLES	DATE SAMPLED
08-571-1	B-D1	23 AUG 88
08-571-2	B-D2	23 AUG 88
08-571-4	B-C1	23 AUG 88
08-571-5	B-C2	23 AUG 88

PARAMETER	08-571-1	08-571-2	08-571-4	08-571-5
Hydrocarbons by IR, mg/kg	1200	<50	---	---
BTX by PID (EPA-8020)				
Benzene, mg/kg	---	---	1.3	<0.3
Ethylbenzene, mg/kg	---	---	<0.3	<0.3
Toluene, mg/kg	---	---	0.9	<0.3
Total Xylene Isomers, mg/kg	---	---	0.3	<0.3
Total Fuel Hydrocarbons				
Date Analyzed	08.28.88	08.28.88	08.28.88	08.28.88
Fuel Characterization, mg/kg	GAS	---	---	---
Total Fuel Hydrocarbons, mg/kg	2900	<10	<10	<10

BROWN AND CALDWELL LABORATORIES
1255 POWELL STREET EMERYVILLE, CA 94608 • (415) 428-2300

ANALYTICAL REPORT

LOG NO: E88-08-571

Received: 23 AUG 88
Reported: 02 SEP 88

Mr. Eric Storrs
Engineering Science
600 Bancroft Way
Berkeley, California 94710

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, SOIL SAMPLES	DATE SAMPLED
08-571-1	B-D1	23 AUG 88
08-571-2	B-D2	23 AUG 88
08-571-4	B-C1	23 AUG 88
08-571-5	B-C2	23 AUG 88

PARAMETER	08-571-1	08-571-2	08-571-4	08-571-5
Purgeable Priority Pollutants				
Extraction	08.24.88	08.24.88	---	---
1,1,1-Trichloroethane, mg/kg	<0.2	<0.2	---	---
1,1,2,2-Tetrachloroethane, mg/kg	<0.2	<0.2	---	---
1,1,2-Trichloroethane, mg/kg	<0.2	<0.2	---	---
1,1-Dichloroethane, mg/kg	<0.2	<0.2	---	---
1,1-Dichloroethylene, mg/kg	<0.2	<0.2	---	---
1,2-Dichloroethane, mg/kg	<0.2	<0.2	---	---
1,2-Dichloropropane, mg/kg	<0.2	<0.2	---	---
1,3-Dichloropropene, mg/kg	<0.2	<0.2	---	---
2-Chloroethylvinylether, mg/kg	<0.2	<0.2	---	---
Acrolein, mg/kg	<2	<2	---	---
Acrylonitrile, mg/kg	<2	<2	---	---
Bromodichloromethane, mg/kg	<0.2	<0.2	---	---
Bromomethane, mg/kg	<0.2	<0.2	---	---
Benzene, mg/kg	1.4	2.2	---	---
Chlorobenzene, mg/kg	<0.2	<0.2	---	---
Carbon Tetrachloride, mg/kg	<0.2	<0.2	---	---
Chloroethane, mg/kg	<0.2	<0.2	---	---
Bromoform, mg/kg	<0.2	<0.2	---	---
Chloroform, mg/kg	<0.2	<0.2	---	---
Chloromethane, mg/kg	<0.2	<0.2	---	---
Dibromochloromethane, mg/kg	<0.2	<0.2	---	---
Ethylbenzene, mg/kg	12	14	---	---

BROWN AND CALDWELL LABORATORIES
1256 POWELL STREET EMERYVILLE, CA 94608 • (415) 428-2300

ANALYTICAL REPORT

LOG NO: E88-08-571

Received: 23 AUG 88
Reported: 02 SEP 88

Mr. Eric Storrs
Engineering Science
600 Bancroft Way
Berkeley, California 94710

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, SOIL SAMPLES	DATE SAMPLED
08-571-1	B-D1	23 AUG 88
08-571-2	B-D2	23 AUG 88
08-571-4	B-C1	23 AUG 88
08-571-5	B-C2	23 AUG 88

PARAMETER	08-571-1	08-571-2	08-571-4	08-571-5
Methylene chloride, mg/kg	<0.2	<0.2	---	---
Tetrachloroethylene, mg/kg	<0.2	<0.2	---	---
Trichloroethylene, mg/kg	<0.2	<0.2	---	---
Trichlorofluoromethane, mg/kg	<0.2	<0.2	---	---
Toluene, mg/kg	6.6	26	---	---
Vinyl chloride, mg/kg	<0.2	<0.2	---	---
trans-1,2-Dichloroethylene, mg/kg	<0.2	<0.2	---	---
trans-1,3-Dichloropropene, mg/kg	<0.2	<0.2	---	---
Semi-Quantified Results **				
C5-C11 Hydrocarbons, mg/kg	2000	1000	---	---
Total Xylene Isomers, mg/kg	46	78	---	---

** Quantification based upon comparison of total ion count of the compound with that of the nearest internal standard.

BROWN AND CALDWELL LABORATORIES
1255 POWELL STREET EMERYVILLE, CA 94608 • (415) 428-2300

ANALYTICAL REPORT

LOG NO: E88-08-571

Received: 23 AUG 88
Reported: 02 SEP 88

Mr. Eric Storrs
Engineering Science
600 Bancroft Way
Berkeley, California 94710

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
08-571-3	B-DL2	23 AUG 88
08-571-6	B-CL1	23 AUG 88

PARAMETER	08-571-3	08-571-6
Total Fuel Hydrocarbons (det. limit 1 mg/L)		
Date Analyzed	08.30.88	08.28.88
Fuel Characterization, mg/L	GAS	GAS
Total Fuel Hydrocarbons, mg/L	7.2	450
EPA Method 602		
Date Extracted	08.25.88	08.29.88
1,2-Dichlorobenzene, ug/L	<50	<50
1,3-Dichlorobenzene, ug/L	<50	<50
1,4-Dichlorobenzene, ug/L	<50	<50
Benzene, ug/L	730	21000
Chlorobenzene, ug/L	<50	<50
Ethylbenzene, ug/L	1100	17000
Toluene, ug/L	3500	39000
Total Xylene Isomers, ug/L	6600	54000

Sim D. Lessley, Ph.D., Laboratory Director

Please print or type. (Form designed for use on elite (12-pitch typewriter).

Toxic Substances Control Di
Sacramento, Calif

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CA0950675125 | Manifest Document No.:

2. Page 1 of | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: Allied Petroleum PoBox 193 Hilmar CA 95324

4. Generator's Phone: 209 576-8500

A. State Manifest Document Number: 87955506

B. State Generator's ID: CA0918067512S

5. Transporter 1 Company Name: Allied Petroleum | 6. US EPA ID Number: CA0918067512S

C. State Transporter's ID: 20373

7. Transporter 2 Company Name: W-H Truck Lines | 8. US EPA ID Number: CAD040370645

D. Transporter's Phone: (209) 576-85

E. State Transporter's ID:

F. Transporter's Phone: (213) 427-3105

9. Designated Facility Name and Site Address: DeMenno Kerdoon 2000 Alameda Compton CA 90222 | 10. US EPA ID Number: CAT080013352

G. State Facility's ID: CAT080013352

H. Facility's Phone: (213) 537-7100

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	L Waste No.
a. Waste oil Combustible Liquid NOS NA 1270	1	TT		G	State 224 / EPA/Other
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above: About 15% Water

K. Handling Codes for Wastes Listed Above: a. | b. | c. | d.

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
Colin Kelley	Colin Kelley	01	15	87

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Colin Kelley	Colin Kelley	01	15	87

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR

TRANSPORTER

FACILITY

IN CASE OF AN EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA CALL 1-800-852-7550

DHS 8022 A (1/87)
EPA 8700—22
(Rev. 9-86) Previous editions are obsolete.

White: TSDF SENDS THIS COPY TO DOHS WITHIN 30 DAYS
To: P.O. Box 3000, Sacramento, CA 95812

INSTRUCTIONS ON THE BACK

State of California—Health and Welfare Agency
Form Approved OMB No. 2050—0039 (Expires 9-30-88)
Please print or type. (Form designed for use on elite (12-pitch typewriter).

Department of Health Services
Toxic Substances Control Division
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAD 9 8 0 1 1 4 7 0	Manifest Document No.	2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: Broadway Volkswagen, 2??? Broadway Oakland

4. Generator's Phone ( )

A. State Manifest Document Number: 87???196

B. State Generator's ID

5. Transporter 1 Company Name: [illegible]

6. US EPA ID Number: [illegible] 2

C. State Transporter's ID: [illegible]

D. Transporter's Phone: [illegible]

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address: Evergreen Oil Inc, 6880 Smith Ave, Newark CA 94560

10. US EPA ID Number: CAD 9 8 0 8 7 4 1 8

G. State Facility's ID

H. Facility's Phone: 415-791-2603

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste Liq NOS ORM-E, Waste Oil and Rinsate NA 9189	1	TT	1445	G	State 241; EPA/Other [illegible]
b.					State; EPA/Other
c.					State; EPA/Other
d.					State; EPA/Other

J. Additional Descriptions for Materials Listed Above

Gloves and goggles

50% waste oil - 50% Rinsate + Water

K. Handling Codes for Wastes Listed Above

a. b. c. d.

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month Day Year
John [illegible]	[signature]	[illegible]

GENERATOR

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year
	[signature]	

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year

TRANSPORTER

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month Day Year

FACILITY

DHS 8022 A (1/87)
EPA 8700—22
(Rev. 9-88) Previous editions are obsolete.

YELLOW: GENERATOR RETAINS

INSTRUCTIONS ON THE BACK

IN CASE OF AN EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA CALL 1-800-852-7550

Please print or type. (Form designed for use on elite (12-pitch typewriter).

4272

Toxic Substances Control Div
Sacramento, Calif

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAD982011470
Manifest Document No.
2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
Broadway Volkswagen
2740 Broadway
Oakland Ca. 94612

A. State Manifest Document Number 87505229

B. State Generator's ID

4. Generator's Phone 415 548-7970

5. Transporter 1 Company Name: Erickson Trucking Inc
6. US EPA ID Number: CAD009[illegible]

C. State Transporter's ID 901485
D. Transporter's Phone 415 [illegible]

7. Transporter 2 Company Name
8. US EPA ID Number

E. State Transporter's ID 235139
F. Transporter's Phone

9. Designated Facility Name and Site Address
Erickson Inc
255 Parr Blvd.
Richmond, Ca. 94801

10. US EPA ID Number: CAD009466392

G. State Facility's ID

H. Facility's Phone 415-235-1393

RECEIVED 6 1988 Engineering-Science

	11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.	Waste Empty Storage Tanks California Regulated Waste Only	001	TP	00800	P	State 512; EPA/Other None
b.	Waste Empty Storage Tanks California Regulated Waste Only	001	TP	00400	P	State; EPA/Other
c.	Waste Empty Storage Tanks California Regulated Waste Only	001	TP	00800	P	State; EPA/Other
d.						State; EPA/Other

J. Additional Descriptions for Materials Listed Above
Empty Waste O.I tank #1023 dryiced w/ 30# dry ice. Empty W.O. Tank #1024 dry Iced w/30 lbs dry Ice. Empty Unl. Gas 30# dry ice

K. Handling Codes for Wastes Listed Above
a. 01
b. 01
c. 01
d.

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: X John Northington
Signature: X [signature]
Month Day Year: 08 15 88

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: WAYNE L. BEATTIE
Signature: Wayne L. Beattie
Month Day Year: 08 15 88

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name
Signature
Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: SHANNAN LOWRY
Signature: Shannan Lowry
Month Day Year: 08 15 88

DHS 8022 A (1/87)
EPA 8700—22
(Rev. 9-86) Previous editions are obsolete.

White: TSDF SENDS THIS COPY TO DOHS WITHIN 30 DAYS
To: P.O. Box 3000, Sacramento, CA 95812

INSTRUCTIONS ON THE BACK

IN CASE OF AN EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA CALL 1-800-852-7550

1023
Semco
4272

CERTIFICATE

Certified Services Company
255 Parr Boulevard
Richmond, California 94801

Day or Night Telephone
(415) 235-1393 Brooks/Keegan

For: Erickson Inc Tank No.(s.) 1023 Location: Richmond Date: 8-24-88 Time: 1432

Test Method: Visual / Gastech 1314 SMPN Last Product: waste oil

This is to certify that I have personally determined that the tank(s) in the following list are in accordance with the American Petroleum Institute and have found the condition of each to be in accordance with its assigned designation. This certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

Tank(s)	Condition
1000 gal. tank	Safe for Fire — Oxy 20.9%
	LEL <1%

Remarks:

In the event of any physical or atmospheric changes affecting the gas-free condition of the above tanks, or if in any doubt immediately stop all hot work and contact the undersigned. This permit is valid for 24 hours if no physical or atmospheric changes occur.

Standard Safety Designation:

Safe for Men: Means that in the compartment or space so designated (a) The oxygen content of the atmosphere is at least 19.5 percent by volume; and that (b) Toxic materials in the atmosphere are within permissable concentrations; and (c) In the judgment of the Inspector, the residues are not capable of producing toxic materials under existing atmospheric conditions while maintained as directed on the Inspector's certificate.

Safe for Fire: Means that in the compartment so designated (a) The concentration of flammable materials in the atmosphere is below 10 per cent of the lower explosive limit; and that (b) In the judgment of the Inspector, the residues are not capable of producing a higher concentration than permitted under existing atmospheric conditions in the presence of fire and while maintained as directed on the Inspector's certificate, and further, (c) All adjacent spaces have either been cleaned sufficiently to prevent the spread of fire, are satisfactorily inerted, or in the case of fuel tanks, have been treated as deemed necessary by the Inspector.

The undersigned representative acknowledges receipt of this certificate and understands the conditions and limitations under which it was issued.

Representative Title

Shannon Lowry
Inspector

1025
4272
Semco

CERTIFICATE

Certified Services Company
255 Parr Boulevard
Richmond, California 94801

Day or Night
Telephone
(415) 235-1393

For: Erickson Inc. Tank No.(s) 1025 Location: Richmond Date: 8-26-88 Time: 0749

Test Method: Visual / Gastech 1314 SMPN Last Product: unleaded Gasoline

This is to certify that I have personally determined that the tank(s) in the following list are in accordance with the American Petroleum Institute and have found the condition of each to be in accordance with its assigned designation. This certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

Tank(s)	Condition
1-550 gal. tank	Safe for Fire
	Oxy 20.9 %
	LEL <1 %

Remarks:

In the event of any physical or atmospheric changes affecting the gas-free condition of the above tanks, or if in any doubt immediately stop all hot work and contact the undersigned. This permit is valid for 24 hours if no physical or atmospheric changes occur.

Standard Safety Designation:

Safe for Men: Means that in the compartment or space so designated (a) The oxygen content of the atmosphere is at least 19.5 percent by volume; and that (b) Toxic materials in the atmosphere are within permissable concentrations; and (c) In the judgment of the Inspector, the residues are not capable of producing toxic materials under existing atmospheric conditions while maintained as directed on the Inspector's certificate.

Safe for Fire: Means that in the compartment so designated (a) The concentration of flammable materials in the atmosphere is below 10 per cent of the lower explosive limit; and that (b) In the judgment of the Inspector, the residues are not capable of producing a higher concentration than permitted under existing atmospheric conditions in the presence of fire and while maintained as directed on the Inspector's certificate, and further, (c) All adjacent spaces have either been cleaned sufficiently to prevent the spread of fire, are satisfactorily inerted, or in the case of fuel tanks, have been treated as deemed necessary by the Inspector.

The undersigned representative acknowledges receipt of this certificate and understands the conditions and limitations under which it was issued.

Sibandon
Representative

Title