



Environmental
Science &
Engineering, Inc.

92 JAN 31 10:30

January 27, 1992

Project No. 6-91-5165

Mr. Paul Smith
Alameda County
Department of Environmental Health
Hazardous Materials Program
80 Swan Way, Room 200
Oakland, CA 94621

SUBJECT: Vorelco Property #4826, Broadway Volkswagen, located at 2740 Broadway Avenue, Alameda County, Oakland, California 94612

Dear Mr. Smith,

Please find attached the analytical results for soil samples and a ground-water sample collected in August, 1988 during an underground storage tank (UST) removal project at the subject facility. All of the abovementioned samples were collected from what is referred to as the Tank C/D area located on the 28th Street boundary of the subject property (Figure 1 - Sample Locations).

You will note that the volatile organic compounds (VOC's) detected using analytical method EPA 8240 on both the soil and water samples collected during the excavation were restricted to benzene, toluene, ethylbenzene, and total xylenes (BTEX). Other VOC's known to occur in solvents and degreasers, such as dichloroethene (DCE) and trichloroethylene (TCE), were not detected in any samples collected at that time. Being that soil samples collected during later investigative activities both at and around the former Tank C/D excavation did not contain detectable amounts of DCE and TCE (ESE Report of Quarterly Activities, July 1991) and water samples regularly collected from widely-spaced ground-water monitoring wells located along the 28th Street property boundary did contain approximately equivalent detectable concentrations of DCE and TCE (ESE Report of Quarterly Activities, July 1991; ESE Report of Quarterly Activities, November 1991) it is apparent that the Tank C/D location is not acting as a point source for the solvent compounds. Potential sources are believed to include ground-water transport from offsite locations, sewer main transport from offsite locations, and/or buried sewer pipes sourcing from buildings at the investigation area.

*eyes - will
if did
identify
VOCs. And
offsite
VOCs are
lower in
conc. than
on site.*

Mr. Smith
January 27, 1992
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Our client, Vorelco Inc., is willing to continue the site investigative, monitoring, and abatement activities for the unauthorized release of gasoline at the former Tank C/D location as requested by your office. However, our client feels that sufficient data has been generated which indicates that the former Tank C/D excavation did not source the DCE and TCE detected in ground-water samples and, therefore, should not be required to remediate the ground-water impacted specifically with these solvent compounds.

Vorelco Inc. requests that a meeting be scheduled as soon as possible in order to discuss the above issue. It is expected that this proposed meeting would be attended by Tom Moffatt representing Vorelco Inc., professional consultants Susan Wickham and Bart Miller of Environmental Science & Engineering Inc. (ESE) representing Vorelco Inc., and yourself representing Alameda County.

This letter will be followed by a telephone call in the near future to arrange a mutually convenient date for the proposed meeting. Until then, should you have any questions or comments, please feel free to contact Bart Miller at (510) 685-4053.

Sincerely,

ENVIRONMENTAL SCIENCE & ENGINEERING, INC.



Bart S. Miller
Senior Staff Geologist



Susan S. Wickham, RG 3856
Senior Geologist

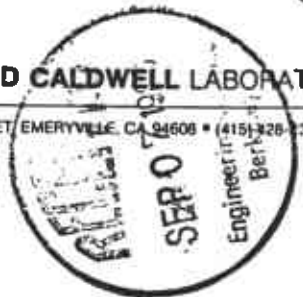
Attachments: (1) Analytical Results
(2) Figure 1 - Sample Locations

cc. Tom Moffatt - Vorelco (with attachments)



BROWN AND CALDWELL LABORATORIES

1255 POWELL STREET, EMERYVILLE, CA 94608 • (415) 228-2300



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

Page 1

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	



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8-571-1	B-D1	23 AUG 88			
8-571-2	B-D2	23 AUG 88			
8-571-4	B-C1	23 AUG 88			
8-571-5	B-C2	23 AUG 88			
PARAMETER		08-571-1	08-571-2	08-571-4	08-571-5
Surgeable 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	---	---



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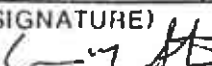
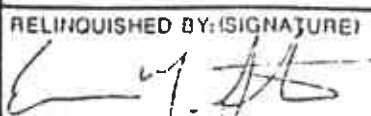
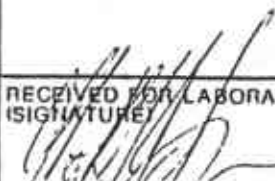
LOG NO	SAMPLE DESCRIPTION, SOIL SAMPLES	DATE SAMPLED
08-571-1	B-D1	23 AUG 88
08-571-2	B-D2	23 AUG 88
08-571-4	B-C1	23 AUG 88
08-571-5	B-C2	23 AUG 88

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.

Lab: Brown + Caldwell

CHAIN OF CUSTODY RECORD

CLIENT: ENGINEERING-SCIENCE, INC. BERKELEY		PROJECT MANAGER: R. Makdisi		PROJ. NO.: NC050.05		NO. OF CONTAINERS	ANALYSES REQUIRED				PRESERVED	TO BE COMPOSITED BY LAB	TURNAROUND TIME	REMARKS
PROJECT NAME / LOCATION: Vorelco / Broadway Volkswagen							EPA 8015 (met)	EPA 503E	EPA 8240	EPA 8015 (met) + BTX				
SAMPLER(S): (SIGNATURE) E.N. Storrs  , Jon Hoffman														
SAMPLE ID	DATE	TIME	MATRIX	SAMPLE LOCATION										
B-D1	8/23/88	12:35	soil	Tank D		1	✓	✓	✓				24- 8 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				✓			"	
RELINQUISHED BY: (SIGNATURE)		DATE/TIME		RECEIVED BY: (SIGNATURE)		RELINQUISHED BY: (SIGNATURE)		DATE/TIME		RECEIVED BY: (SIGNATURE)				
RELINQUISHED BY: (SIGNATURE) 		8/23/88 17:50		RECEIVED FOR LABORATORY BY: (SIGNATURE) 		DATE/TIME 8/23/88 17:51		REMARKS Log # 8808571 (1-6)						

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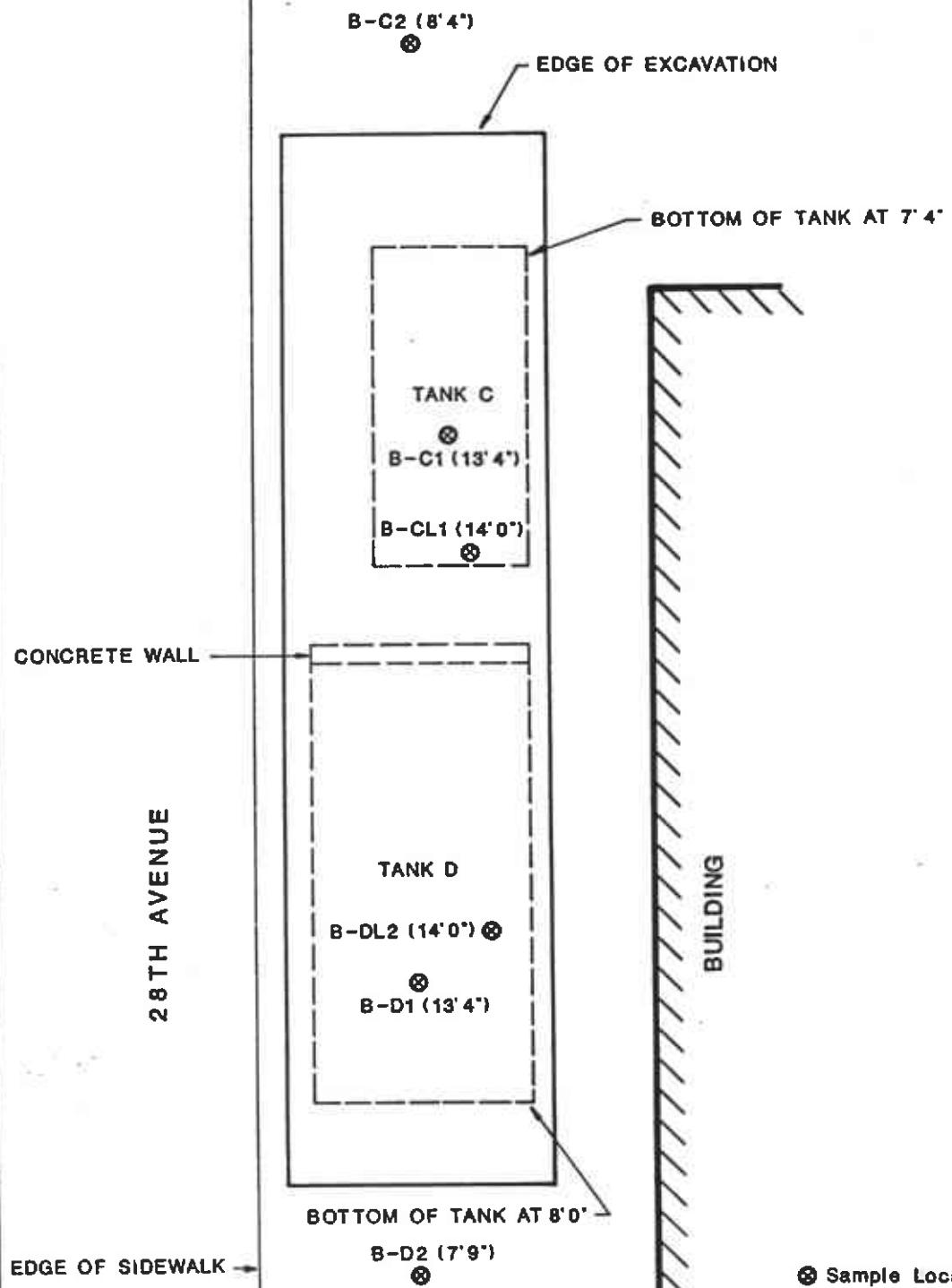
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REPORT OF ANALYTICAL RESULTS

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



⊗ Sample Location

**SAMPLE LOCATIONS
TANKS C AND D
BROADWAY VOLKSWAGEN
OAKLAND, CALIFORNIA**

