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ROBERT GILS
ASSOCIATES, INC.

ENVIRONMENTAL
CONSULTANTS
HAZARD
ASSESSMENTS

CERTIFIED
INDUSTRIAL
HYGIENISTS

Tank Closure Report
4701 San Leandro Street
Oakland, California



December 23, 1991
 FC 100806



Lauren Meyer
 6050 Hollis Street
 Emeryville, CA 94608

Re: San Leandro Street Project
 4701 San Leandro Street
 Oakland, California

Dear Ms. Meyer:

This letter-report documents the activities performed at the referenced site by RGA (see Section 1, Figure 1). The scope of the activities was to excavate the south end of the former 20,000 gallon fuel tank pit, which appeared to contain high levels of hydrocarbon compounds, and to collect soil samples after the excavation.

SUBSEQUENT EXCAVATION AND SAMPLING

On December 11, 1991, RGA personnel supervised the excavation of the south end of the tank pit by VCI, of San Leandro, California. With a backhoe, the discolored south end areas of the pit were excavated to clean native soil. Following safe collection procedures, two soil samples (SE-1 and SE-2) were collected with a backhoe, and put into brass sleeves. Grab samples SP-1, SP-2, SP-3, and SP-4, were also collected from the four soil piles (see Section 1 for detailed sampling locations). The sleeves were capped with aluminum foil, Teflon caps, sealed with duct tape, and placed on ice. The samples were transported to state-certified Carter Analytical Laboratories, Inc., of Campbell, California. Following county directives, the samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline and diesel, purgeable aromatics (BTEX), oil and grease, chlorinated hydrocarbons, semi volatiles, and ICAP metals.

LABORATORY ANALYSES AND RESULTS

Two tank pit and four composite soil pile samples were analyzed by Carter Analytical Laboratory. Laboratory results indicated that the soil pile samples SP-1, SP-2, SP-3, and SP-4 were above the detection limits for ICAP metals, and Oil & Grease. Samples SP-1, SP-2, and Sp-4 were above detection limits for TPH-d. Sample SP-3 was below detection limits for TPH-d. All the soil pile samples were below detection limits for BTEX and Chlorinated Hydrocarbons.

Laboratory results for the tank pit samples SE-1 and SE-2 indicated that the samples were below detection limits for TPH-g and TPH-d, BTEX, chlorinated hydrocarbons, oil & grease, and semi volatiles. The samples were above the detection limits for metals, but were below the TTLC Regulatory Levels. See Section 2 for detailed laboratory results.

ENVIRONMENTAL
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 HYGIENISTS

1260 45TH STREET
 EMERYVILLE, CA
 94608-2907
 510.547.7771
 FAX 510.547.1983

LOS ANGELES
 213.930.1197

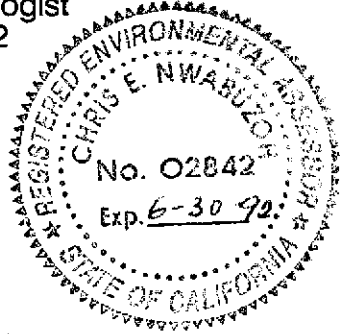
RECOMMENDATION

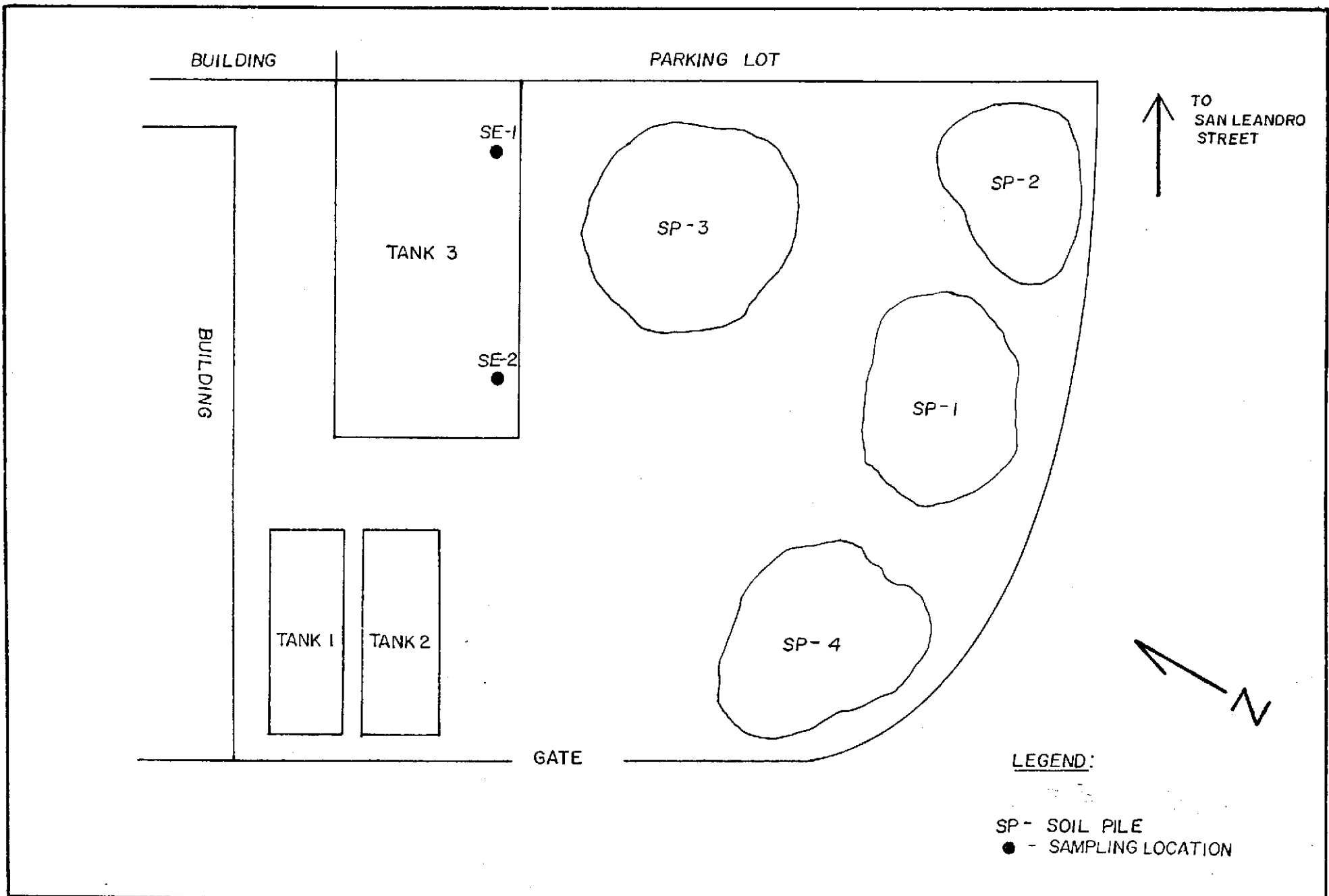
Based on the field observations, results of laboratory analyses of the tank pit soil samples, and LUFT action levels, no further action is recommended at this site. Arrangements are in progress for the soil pile disposal at a licensed TSDF.

Sincerely,



Chris Nwabuzoh
Project Geologist
REA #02842





LEGEND:
 SP - SOIL PILE
 ● - SAMPLING LOCATION

RGA Environmental Consultants	Job Number: 100697, FIGURE 2	SITE PLAN: 4701 SAN LEANDRO ST. OAKLAND, CA
Emeryville, CA	SCALE: 1" = 17' - 0"	SAMPLING LOCATIONS

ENVIRONMENTAL ANALYSIS REPORT

CARTER ANALYTICAL LABORATORY, INC.

590 DIVISION STREET • CAMPBELL, CA 95008 • (408) 364-3030 • FAX (408) 866-0319

ANALYSIS REPORT
FOR

RGA Environmental Consulting
1260 45th Street
Emeryville, CA 94608

CONTACT: Chris Nwabuzoh

Revised 01-10-91
DATE: 12-31-91

CHAIN OF CUSTODY ID NO: FC-100806

ORDER NO: 12027A-TD P.O. NO: FC-100806

SITE DESCRIPTION: 4701 San Leandro St.
Oakland, CA

SAMPLE DESCRIPTION:

Soil
Sampled: 12-11-91
Received: 12-13-91
Analyzed: 12-18-91
Number of Samples: 2

REQUESTED ANALYSIS:

Methods: EPA 6010, Total Petroleum Hydrocarbons
as Gasoline (TPH-G), as Diesel (TPH-D) and Benzene,
Toluene, Ethyl Benzene, and Xylenes (BTEX), EPA 8010,
and Standard Method 5520 C&D, EPA 8270

The analyses reported are considered accurate. Should you wish further support for the reported data, submit your requirements in writing within 10 days. It is Carter Analytical Labs intent to give you complete satisfaction. Please reference the order number when communicating with us. The invoice is due and payable within 30 days from invoice date.

Hazardous Materials Certification No: 304 • Drinking Water Certification No: 953
from the
State of California • Department of Health Services

CARTER ANALYTICAL LABORATORY, INC.

590 DIVISION STREET • CAMPBELL, CA 95008 • (408) 364-3030 • FAX (408) 866-0319

<u>Sample</u>	<u>Customer Label</u>	<u>Description</u>
L1	SE-1	soil
L2	SE-2	soil

EPA method 6010 Analysis

<u>Metal</u>	<u>L1</u> <u>(mg/Kg)</u>	<u>L2</u> <u>(mg/Kg)</u>	<u>Detection</u> <u>Limit</u> <u>(mg/Kg)</u>
Cadmium	1.39	1.44	0.003
Chromium	41.9	53.3	0.003
Lead	61.9	23.1	0.044
Nickel	77.9	110.0	0.011
Zinc	35.4	45.2	0.009

<u>Sample</u>	<u>Customer Label</u>	<u>Description</u>
L1	SE-1	soil
L2	SE-2	soil

Hydrocarbons and BTEX Analysis of Soil

<u>Sample Number</u>	<u>TPH-G (mg/Kg)</u>	<u>TPH-D (mg/Kg)</u>	<u>Benzene (mg/Kg)</u>	<u>Toluene (mg/Kg)</u>	<u>Ethyl Benzene (mg/Kg)</u>	<u>Xylenes (mg/Kg)</u>
L1	LDL	LDL	LDL	LDL	LDL	LDL
L2	LDL	LDL	LDL	LDL	LDL	LDL
DL:	1.0	1.0	0.005	0.005	0.005	0.005
AR (%):	111.9	97.0	---	104.	---	---

LDL indicates results were less than detection limit.
 DL = Detection Limit
 AR = Average Recovery

<u>Sample</u>	<u>Customer Label</u>	<u>Description</u>
L1	SE-1	soil
L2	SE-2	soil

EPA Method 8010 Analysis

<u>Compound</u>	<u>L1 (ug/Kg)</u>	<u>L2 (ug/Kg)</u>	<u>Detection Limit (ug/Kg)</u>
Benzyl chloride	LDL	LDL	1.
Bis(2-chloroethoxy)methane	LDL	LDL	1.
Bromobenzene	LDL	LDL	1.
Bromodichloromethane	LDL	LDL	0.10
Bromoform	LDL	LDL	0.20
Bromomethane	LDL	LDL	1.0
Carbon tetrachloride	LDL	LDL	0.12
Chlorobenzene	LDL	LDL	0.25
Chloroethane	LDL	LDL	0.52
2-Chloroethylvinyl ether	LDL	LDL	0.13
Chloroform	LDL	LDL	0.05
1-Chlorohexane	LDL	LDL	1.
Chloromethane	LDL	LDL	0.08
Chloromethyl methyl ether	LDL	LDL	1.
Chlorotoluene	LDL	LDL	1.
Dibromochloroethane	LDL	LDL	0.09
Dibromomethane	LDL	LDL	1.
1,2-Dichlorobenzene	LDL	LDL	0.15
1,3-Dichlorobenzene	LDL	LDL	0.32
1,4-Dichlorobenzene	LDL	LDL	0.24
Dichlorodifluoromethane	LDL	LDL	1.
1,1-Dichloroethane	LDL	LDL	0.07
1,2-Dichloroethane	LDL	LDL	0.03
1,1-Dichloroethylene	LDL	LDL	0.13
trans-1,2-Dichloroethylene	LDL	LDL	0.10
Dichloromethane	LDL	LDL	1.
1,2-Dichloropropane	LDL	LDL	0.04
trans-1,3-Dichloropropylene	LDL	LDL	0.34
1,1,1,2-Tetrachloroethane	LDL	LDL	1.
1,1,2,2-Tetrachloroethane	LDL	LDL	0.03
Tetrachloroethylene	LDL	LDL	0.03
1,1,1-Trichloroethane	LDL	LDL	0.03
1,1,2-Trichloroethane	LDL	LDL	0.02
Trichloroethylene	LDL	LDL	0.12
Trichlorofluoromethane	LDL	LDL	1.
Trichloropropane	LDL	LDL	1.
Vinyl chloride	LDL	LDL	0.18

Percent Average recovery for Chloroform: 92.3

LDL indicates results were less than detection limit.

<u>Sample</u>	<u>Customer Label</u>	<u>Description</u>
L1	SE-1	soil
L2	SE-2	soil

Standard Method 5520 C&D

<u>Sample</u>	<u>Concentration</u> <u>(mg/Kg)</u>	<u>Detection</u> <u>Limit</u> <u>(mg/Kg)</u>
L1	LDL	10.
L2	LDL	10.

<u>Sample</u>	<u>Customer Label</u>	<u>Description</u>
L1	SE-1	soil
L2	SE-2	soil

EPA Method 8270

<u>Compound</u>	<u>L1</u> <u>(mg/Kg)</u>	<u>L2</u> <u>(mg/Kg)</u>	<u>Detection</u> <u>Limit</u> <u>(mg/Kg)</u>
Acenaphthene	LDL	LDL	1.0
Acenaphthylene	LDL	LDL	1.0
Anthracene	LDL	LDL	1.0
Benzo(a)anthracene	LDL	LDL	1.0
Benzo(b)fluoranthene	LDL	LDL	1.0
Benzo(k)fluoranthene	LDL	LDL	1.0
Benzo(g,h,i)perylene	LDL	LDL	1.0
Benzo(a)pyrene	LDL	LDL	1.0
bis(2-Chloroethoxy)methane	LDL	LDL	1.0
bis(2-Chloroethyl)ether	LDL	LDL	1.0
bis(2-Chloroisopropyl)ether	LDL	LDL	1.0
bis(2-Ethylhexyl)phthalate	LDL	LDL	1.0
4-Bromophenyl phenylether	LDL	LDL	1.0
Butyl benzyl phthalate	LDL	LDL	1.0
4-Chloro-3-methylphenol	LDL	LDL	1.0
2-Chloronaphthalene	LDL	LDL	1.0
4-Chlorophenyl phenylether	LDL	LDL	1.0
Chrysene	LDL	LDL	1.0
Dibenzo(a,h)anthracene	LDL	LDL	1.0
1,2-Dichlorobenzene	LDL	LDL	1.0
1,3-Dichlorobenzene	LDL	LDL	1.0
1,4-Dichlorobenzene	LDL	LDL	1.0
3,3'-Dichlorobenzidine	LDL	LDL	1.0
2,4-Dichlorophenol	LDL	LDL	1.0
2,4-Dimethylphenol	LDL	LDL	1.0
Di-n-butyl phthalate	LDL	LDL	1.0
Diethyl phthalate	LDL	LDL	1.0
Dimethyl phthalate	LDL	LDL	1.0
Di-n-octyl phthalate	LDL	LDL	1.0
4,6-Dinitro-2-methylphenol	LDL	LDL	1.0
2,4-Dinitrophenol	LDL	LDL	1.0
Fluoranthene	LDL	LDL	1.0
Fluorene	LDL	LDL	1.0
Hexachlorobenzene	LDL	LDL	1.0
Hexachlorobutadiene	LDL	LDL	1.0
Hexachlorocyclopentadiene	LDL	LDL	1.0
Hexachloroethane	LDL	LDL	1.0

<u>Sample</u>	<u>Customer Label</u>	<u>Description</u>
L1	SE-1	soil
L2	SE-2	soil

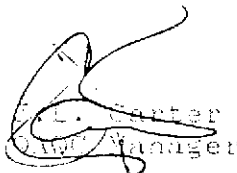
EPA Method 8270 - cont

<u>Compound</u>	<u>L1 (mg/Kg)</u>	<u>L2 (mg/Kg)</u>	<u>Detection Limit (mg/Kg)</u>
Indeno(1,2,3-cd)pyrene	LDL	LDL	1.0
Isophorone	LDL	LDL	1.0
Naphthalene	LDL	LDL	1.0
Nitrobenzene	LDL	LDL	1.0
2-Nitrophenol	LDL	LDL	1.0
4-Nitrophenol	LDL	LDL	1.0
2,4-Dinitrotoluene	LDL	LDL	1.0
2,6-Dinitrotoluene	LDL	LDL	1.0
N-Nitroso-diphenyl amine	LDL	LDL	1.0
N-Nitroso-di-n-propyl amine	LDL	LDL	1.0
Pentachlorophenol	LDL	LDL	1.0
Phenol	LDL	LDL	1.0
Phenanthrene	LDL	LDL	1.0
Pyrene	LDL	LDL	1.0
1,2,4-Trichlorobenzene	LDL	LDL	1.0
2,4,6-Trichlorophenol	LDL	LDL	1.0

LDL indicates results were less than detection limit.

 CARTER ANALYTICAL LABORATORY

M. Carter For AER
 Dr. A. Edward Robinson
 Laboratory Manager



M. Carter
 Laboratory Manager

FROM:

COMPANY R G A

ADDRESS 1260 45th

CITY Emeryville STATE CA ZIP 94606

Page 1 of 1

Ref. No. 12027-41-42

TO:
Carter Analytical Laboratory, Inc.
(408) 866-1100 • (408) 866-0319 (FAX)
364-3030

Chain of Custody

PROJECT NO.	SITE NAME & ADDRESS	DATE SAMPLE TAKEN	ANALYSIS								REMARKS
			TDHMA	TDHMA	BTEX "8139"	DEG	CL	HE	SVOC	VOC	
PC-107806	4701 San Leandro St. Oakland, CA										
LI SE-1		12-11	✓	✓	✓	✓	✓	✓	✓	✓	
LI SE-2		12-11	✓	✓	✓	✓	✓	✓	✓	✓	
		12-11									

Relinquished By: (Signature): <i>Chris V. ...</i>	Date: 12-13-91	Received By: (Signature): <i>Deborah Richmond</i>	Date: 12/13/91	Remarks: Samples rec'd cold / good conditions
Relinquished By: (Signature): <i>Deborah Richmond</i>	Date: 12/16/91	Received By: (Signature): <i>Frank</i>	Date: 12/16/91	Remarks:
Relinquished By: (Signature): <i>Frank</i>	Date: 12/31/91	Received By: (Signature): <i>Deborah Richmond</i>	Date: 12/31/91	Remarks:
Relinquished By: (Signature):	Date:	Received By: (Signature):	Date:	Remarks:

P. 03
OCT-23-91 WED 09:28 CARTER LABS