Chevron

Chevron U.S.A. Products Company
6001 Bollinger Canyon Rd., Bldg. L
P.O. Box 5004
San Ramon, CA 94583-0804

Site Assessment & Remediation Group
Phone (510) 842-9500

May 9, 1995

Ms. Jennifer Eberle
Alameda County Health Care Services
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: **Former Signal Service Station #S0800**
800 Center Street, Oakland, CA

Dear Ms. Eberle:

As requested, I am forwarding a copy of the analytical report prepared by Curtis & Tompkins, Ltd. which contains data found in the Preliminary Hydrocarbon Contamination Assessment report dated October 13, 1989, prepared by Subsurface Consultants.

This report does not contain the lab results of the TTLC and STLC analyses that were performed on the sump waste. I am currently working with the City of Oakland and their consultant to locate this data.

If you have any questions or comments, please feel free to contact me at (510) 842-8134.

Sincerely,
CHEVRON U.S.A. PRODUCTS COMPANY

Mark A. Miller
Site Assessment and Remediation Engineer

Enclosure

cc: Ms. B.C. Owen

Ms. Terrell A. Sadler (w/o enclosure)
618 Brooklyn Avenue
Oakland, CA 94606

Mr. James C. Scott (w/o enclosure)
Aurora Company
580 Grand Avenue, Suite K
Oakland, CA 94610

File: S0800WP1

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (415) 486-0900

DATE RECEIVED: 08/30/89
DATE REPORTED: 09/14/89

LAB NUMBER: 18154

CLIENT: SUBSURFACE CONSULTANTS

REPORT ON: 2 WATER SAMPLES
1 OIL SAMPLE
10 SOIL SAMPLES

JOB #: 272.012
LOCATION: CENTER STREET

RESULTS: SEE ATTACHED

M.E. Printer
QA/QC Officer

Jon Wong for CB
Laboratory Director

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (415) 486-0900

DATE RECEIVED: 08/30/89
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PAGE 1 OF 14

Rec'd 5-4-95
Mailed to Clevenger 5-4

LAB NUMBER: 18154

CLIENT: SUBSURFACE CONSULTANTS

REPORT ON: 2 WATER SAMPLES
1 OIL SAMPLE
10 SOIL SAMPLES

JOB #: 272.012
LOCATION: CENTER STREET

RESULTS: SEE ATTACHED

M.E. Printer
QA/QC Officer

Jon Wray for CBB
Laboratory Director

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 18154-14
CLIENT: SUBSURFACE CONSULTANTS
PROJECT #: 272.012
LOCATION: CENTER STREET
SAMPLE ID: SUMP PIT

DATE RECEIVED: 08/30/89
DATE ANALYZED: 09/05/89
DATE REPORTED: 09/14/89

Metals in Soils & Wastes
Digestion Method: EPA 3050

ANALYSIS	RESULT	UNITS	DETECTION LIMIT	METHOD
Cadmium	2.2	mg/Kg	0.5	EPA 6010
Chromium	10	mg/Kg	0.5	EPA 6010
Lead	1,400	mg/Kg	2.5	EPA 7420
Zinc	180	mg/Kg	0.5	EPA 6010

Hazardous Waste

No STLC or TTLC

No Test Completed Not needed.

QA/QC:

	RPD, %	RECOVERY, %
Cadmium	<1	92
Chromium	<1	94
Lead	3	100
Zinc	3	90

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 18154
CLIENT: SUBSURFACE CONSULTANTS
JOB NUMBER: 272.012
JOB LOCATION: CENTER STREET

DATE RECEIVED: 08/30/89
DATE ANALYZED: 09/11/89
DATE REPORTED: 09/13/89

Total Volatile Hydrocarbons (TVH) by EPA 8015
Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 602/8020
Extraction by EPA 5030 Purge and Trap

LAB ID	CLIENT ID	TVH AS GASOLINE (mg/Kg)	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
18154-4	BORING 1 @ 10	2,100	50	220	46	240
18154-5	BORING 1 @ 15	2,400	32	200	60	290
18154-6	BORING 2 @ 7	4,100	50	450	130	540
18154-7	BORING 2 @ 11.5	31,000	500	2,800	760	3,700
18154-8	BORING 3 @ 10.5	100	ND(1)	2	2	7
18154-9	BORING 3 @ 12.5	950	ND(5)	44	32	130
18154-11	BORING 4 @ 7.5	5,400	57	250	140	610
18154-12	BORING 4 @ 10.5	5,800	92	360	1,100	670

ND = None Detected; Limit of detection is indicated in parentheses.

QA/QC SUMMARY

%RPD	<1
%RECOVERY	96

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 18154
CLIENT: SUBSURFACE CONSULTANTS
JOB #: 272.012
LOCATION: CENTER STREET

DATE RECEIVED: 08/30/89
DATE ANALYZED: 09/11/89
DATE REPORTED: 09/13/89

Total Volatile Hydrocarbons as Gasoline in Aqueous Solutions
EPA 8015 (Modified)
Extraction Method: EPA 5030 (Purge & Trap)

LAB ID	CLIENT ID	TVH AS GASOLINE (mg/L)
18154-2	BORING #3	43

QA/QC SUMMARY

Duplicate: Relative % Difference	3
Spike: % Recovery	89

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 18154
CLIENT: SUBSURFACE CONSULTANTS
PROJECT #: 272.012
LOCATION: CENTER STREET

DATE RECEIVED: 08/30/89
DATE ANALYZED: 09/06/89
DATE REPORTED: 09/13/89

Extractable Petroleum Hydrocarbons in Aqueous Solutions
EPA 8015 (Modified)
Extraction Method: EPA 3510

LAB ID	CLIENT ID	KEROSENE (mg/L)	DIESEL (mg/L)	OTHER (mg/L)
18154-1	BORING #1	ND(10)	ND(10)	ND(10)
18154-2	BORING #3	ND(0.5)	ND(0.5)	ND(0.5)

ND = Not Detected; Limit of detection in parentheses.

QA/QC SUMMARY

RPD, %	8
Spike: % Recovery	100

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 18154
CLIENT: SUBSURFACE CONSULTANTS
JOB #: 272.012
LOCATION: CENTER STREET

DATE RECEIVED: 08/30/89
DATE ANALYZED: 09/07/89
DATE REPORTED: 09/13/89

Extractable Petroleum Hydrocarbons in Soils & Wastes
EPA 8015 (Modified)
Extraction Method: EPA 3550 Diesel

LAB ID	CLIENT ID	GASOLINE (mg/Kg)	KEROSENE (mg/Kg)	DIESEL (mg/Kg)	OTHER (mg/Kg)
18154-4	BORING 1 @ 10	6,800	ND(100)	ND(100)	ND(100)
18154-6	BORING 2 @ 7	14,000	ND(100)	ND(100)	ND(100)
18154-8	BORING 3 @ 10.5	ND(10)	ND(10)	ND(10)	ND(10)
18154-9	BORING 3 @ 12.5	220	ND(10)	ND(10)	ND(10)
18154-10	BORING 3 @ 3.5	ND(10)	ND(10)	ND(10)	ND(10)
18154-11	BORING 4 @ 7.5	5,100	ND(100)	ND(100)	ND(100)

ND = Not Detected; Limit of detection in parentheses.

QA/QC SUMMARY

Duplicate: Relative % Difference	11
Spike: % Recovery	95

Curtis & Tompkins, Ltd.

LAB NUMBER: 18154
CLIENT: SUBSURFACE CONSULTANTS
PROJECT # : 272.012
LOCATION: CENTER STREET

DATE RECEIVED: 08/30/89
DATE ANALYZED: 09/13/89
DATE REPORTED: 09/14/89

ANALYSIS: OIL AND GREASE
METHOD: SMWW 503E

LAB ID	SAMPLE ID	RESULT	UNITS	DETECTION LIMIT
18154-10	BORING 3 @ 3.5	ND	mg/Kg	50
18154-13	BORING HA @ 3.7	16,000	mg/Kg	50

ND = NONE DETECTED.

QA/QC SUMMARY

RPD, %	5
RECOVERY, %	82

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 18154
CLIENT: SUBSURFACE CONSULTANTS
JOB NUMBER: 272.012
JOB LOCATION: CENTER STREET

DATE RECEIVED: 08/30/89
DATE ANALYZED: 09/11/89
DATE REPORTED: 09/13/89

Total Volatile Hydrocarbons (TVH) by EPA 8015
Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 602/8020
Extraction by EPA 5030 Purge and Trap

LAB ID	CLIENT ID	TVH AS GASOLINE (mg/L)	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
18154-1	BORING #1	2,600	13	41	22	140

QA/QC SUMMARY

%RPD	3
%RECOVERY	89

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 18154-2
CLIENT: SUBSURFACE CONSULTANTS
JOB #: 272.012 - CENTER STREET
SAMPLE ID: BORING #3

DATE RECEIVED: 08/30/89
DATE ANALYZED: 09/12/89
DATE REPORTED: 09/14/89

EPA METHOD 624: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Detection Limit ug/L
chloromethane	ND	20
bromomethane	ND	20
vinyl chloride	ND	20
chloroethane	ND	20
methylene chloride	ND	10
trichlorofluoromethane	ND	10
1,1-dichloroethene	ND	10
1,1-dichloroethane	ND	10
trans-1,2-dichloroethene	ND	10
chloroform	ND	10
1,2-dichloroethane	ND	10
1,1,1-trichloroethane	ND	10
carbon tetrachloride	ND	10
bromodichloromethane	ND	10
1,2-dichloropropane	ND	10
cis-1,3-dichloropropene	ND	10
trichloroethylene	ND	10
dibromochloromethane	ND	10
1,1,2-trichloroethane	ND	10
benzene	340	10
trans-1,3-dichloropropene	ND	10
2-chloroethylvinyl ether	ND	20
bromoform	ND	10
1,1,2,2-tetrachloroethane	ND	10
tetrachloroethylene	ND	10
toluene	4,200	10
chlorobenzene	ND	10
ethyl benzene	1,100	10

Non-Priority Hazardous Pollutant Substances List Compounds

acetone	ND	20
carbon disulfide	ND	10
2-butanone	ND	20
vinyl acetate	ND	20
2-hexanone	ND	20
4-methyl-2-pentanone	ND	20
styrene	ND	10
total xylenes	2,500	10

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	114 %
Toluene-d8	101 %
Bromofluorobenzene	106 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 18154-14
CLIENT: SUBSURFACE CONSULTANTS
JOB #: 272.012 - CENTER STREET
SAMPLE ID: SUMP PIT

DATE RECEIVED: 08/30/89
DATE ANALYZED: 09/13/89
DATE REPORTED: 09/14/89

EPA METHOD 8240: VOLATILE ORGANICS IN SOILS & WASTES

COMPOUND	Result ug/kg	Detection Limit ug/kg
chloromethane	ND	1000
bromomethane	ND	1000
vinyl chloride	ND	1000
chloroethane	ND	1000
methylene chloride	ND	500
trichlorofluoromethane	ND	500
1,1-dichloroethene	ND	500
1,1-dichloroethane	ND	500
trans-1,2-dichloroethene	ND	500
chloroform	ND	500
1,2-dichloroethane	ND	500
1,1,1-trichloroethane	ND	500
carbon tetrachloride	ND	500
bromodichloromethane	ND	500
1,2-dichloropropane	ND	500
cis-1,3-dichloropropene	ND	500
trichloroethylene	ND	500
dibromochloromethane	ND	500
1,1,2-trichloroethane	ND	500
benzene	ND	500
trans-1,3-dichloropropene	ND	500
2-chloroethylvinyl ether	ND	1000
bromoform	ND	500
1,1,2,2-tetrachloroethane	ND	500
tetrachloroethylene	ND	500
toluene	ND	500
chlorobenzene	ND	500
ethyl benzene	ND	500

Non-Priority Hazardous Pollutant Substances List Compounds

acetone	ND	1000
carbon disulfide	ND	500
2-butanone	ND	1000
vinyl acetate	ND	1000
2-hexanone	ND	1000
4-methyl-2-pentanone	ND	1000
styrene	ND	500
total xylenes	ND	500

QA/QC SUMMARY: SURROGATE RECOVERIES	
1,2-Dichloroethane-d4	99 %
Toluene-d8	99 %
Bromofluorobenzene	98 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 18154-14
CLIENT: SUBSURFACE CONSULTANTS
JOB #: 272.012
SAMPLE ID: SUMP PIT

DATE RECEIVED: 08/30/89
DATE EXTRACTED: 09/05/89
DATE ANALYZED: 09/08/89
DATE REPORTED: 09/14/89

EPA METHOD 8270: BASE/NEUTRAL AND ACID EXTRACTABLES IN SOILS & WASTES
EXTRACTION METHOD: EPA 3580 - WASTE DILUTION

	RESULT mg/kg	LOD mg/kg
ACID COMPOUNDS		
Phenol	ND	10
2-Chlorophenol	ND	10
2-Nitrophenol	ND	50
2,4-Dimethylphenol	ND	10
2,4-Dichlorophenol	ND	10
4-Chloro-3-methylphenol	ND	20
2,4,6-Trichlorophenol	ND	10
2,4-Dinitrophenol	ND	50
4-Nitrophenol	ND	50
2-Methyl-4,6-dinitrophenol	ND	50
Pentachlorophenol	ND	50
BASE/NEUTRAL COMPOUNDS		
N-Nitrosodimethylamine	ND	10
Bis(2-chloroethyl)ether	ND	10
1,3-Dichlorobenzene	ND	10
1,4-Dichlorobenzene	ND	10
1,2-Dichlorobenzene	ND	10
Bis(2-chloroisopropyl)ether	ND	10
N-nitrosodi-n-propylamine	ND	10
Hexachloroethane	ND	10
Nitrobenzene	ND	10
Isophorone	ND	10
Bis(2-chloroethoxy)methane	ND	10
1,2,4-Trichlorobenzene	ND	10
Naphthalene	ND	10
Hexachlorobutadiene	ND	10
Hexachlorocyclopentadiene	ND	10
2-Chloronaphthalene	ND	10
Dimethyl phthalate	ND	10
Acenaphthylene	ND	10
2,6-Dinitrotoluene	ND	10
Acenaphthene	ND	10
2,4-Dinitrotoluene	ND	10
Fluorene	ND	10
Diethyl phthalate	ND	10
4-Chlorophenylphenyl ether	ND	10
N-Nitrosodiphenylamine	ND	10
1,2-Diphenylhydrazine	ND	10
4-Bromophenylphenyl ether	ND	10

LABORATORY NUMBER: 18154-14
SAMPLE ID: SUMP PIT

BASE/NEUTRAL COMPOUNDS	RESULT mg/kg	LOD mg/kg
Azobenzene	ND	10
Hexachlorobenzene	ND	10
Phenanthrene	ND	10
Anthracene	ND	10
Dibutylphthalate	ND	10
Fluoranthene	ND	10
Benzidine	ND	10
Pyrene	32	10
Butylbenzylphthalate	21	10
Benzo (a) anthracene	ND	10
3,3'-Dichlorobenzidine	ND	50
Chrysene	ND	10
Bis (2-ethylhexyl)phthalate	ND	10
Di-n-octyl phthalate	ND	10
Benzo (b) fluoranthene	ND	10
Benzo (k) fluoranthene	ND	10
Benzo (a) pyrene	ND	10
Indeno (1,2,3-cd) pyrene	ND	20
Dibenzo (a,h) anthracene	ND	20
Benzo (ghi) perylene	ND	20
HSL COMPOUNDS		
Aniline	ND	10
Benzoic Acid	ND	50
2-Methylphenol	ND	10
4-Methylphenol	ND	10
2,4,5-Trichlorophenol	ND	50
Aniline	ND	10
Benzyl Alcohol	ND	10
4-Chloroaniline	ND	10
2-Methylnaphthalene	ND	10
2-Nitroaniline	ND	10
3-Nitroaniline	ND	10
Dibenzofuran	ND	10
4-Nitroaniline	ND	10

LABORATORY NUMBER: 18154-14
SAMPLE ID: SUMP PIT

COMPOUND	RESULT mg/kg	LOD mg/kg
CHLORINATED PESTICIDES		
alpha-BHC	ND	10
beta-BHC	ND	10
gamma-BHC	ND	10
delta-BHA	ND	10
Heptachlor	ND	10
Aldrin	ND	10
Heptachlor Epoxide	ND	10
Endosulfan I	ND	10
pp-DDE	ND	10
Dieldrin	ND	10
Endrin	ND	10
Endosulfan II	ND	10
pp-DDD	ND	10
Endrin Ketone	ND	10
Endosulfan Sulfate	ND	10
pp-DDT	ND	10
Chlordane	ND	50
Toxaphene	ND	50
Methoxychlor	ND	50
PCB 1016	ND	50
PCB 1221	ND	50
PCB 1232	ND	50
PCB 1242	ND	50
PCB 1248	ND	50
PCB 1254	ND	50
PCB 1260	ND	50

ND = None Detected, Limit of Detection (LOD) appears in far right column

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 18154-10
CLIENT: SUBSURFACE CONSULTANTS
PROJECT #: 272.012
LOCATION: CENTER STREET
SAMPLE ID: BORING 3 @ 3.5

DATE RECEIVED: 08/30/89
DATE ANALYZED: 09/05/89
DATE REPORTED: 09/14/89

Metals in Soils & Wastes
Digestion Method: EPA 3050

ANALYSIS	RESULT	UNITS	DETECTION LIMIT	METHOD
Cadmium	0.7	mg/Kg	0.5	EPA 6010
Chromium	18	mg/Kg	0.5	EPA 6010
Lead	18	mg/Kg	2.5	EPA 7420
Zinc	19	mg/Kg	0.5	EPA 6010

QA/QC:

	RPD, %	RECOVERY, %
Cadmium	<1	92
Chromium	<1	94
Lead	3	100
Zinc	3	90

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 18154-14
CLIENT: SUBSURFACE CONSULTANTS
PROJECT #: 272.012
LOCATION: CENTER STREET
SAMPLE ID: SUMP PIT

DATE RECEIVED: 08/30/89
DATE ANALYZED: 09/05/89
DATE REPORTED: 09/14/89

Metals in Soils & Wastes
Digestion Method: EPA 3050

ANALYSIS	RESULT	UNITS	DETECTION LIMIT	METHOD
Cadmium	2.2	mg/Kg	0.5	EPA 6010
Chromium	10	mg/Kg	0.5	EPA 6010
Lead	1,400	mg/Kg	2.5	EPA 7420
Zinc	180	mg/Kg	0.5	EPA 6010

QA/QC:

	RPD, %	RECOVERY, %
Cadmium	<1	92
Chromium	<1	94
Lead	3	100
Zinc	3	90

Consultants 18134

& ANALYTICAL TEST REQUEST

: Center Street

mber: 272.012

roject Contact at SCI: Bill Rudolph / Jeri Alexander

ampled By: John Wolfe

Analytical Laboratory: Curtis + Tompkins

Analytical Turnaround: 2 weeks

	Sample ID	Sample Type[1]	Container Type[2]	Sampling Date	Hold	Analysis	Analytical Method
1	boring #1	W	2V, 2P, 4G	8/18/89		TVH TEH +BTXE	
2	boring #3	W	2V, 2P, 3G	8/18/89		TVH TEH VOC 7 1	
3	boring #4	W	2V, 2P, 3G	8/18/89	X		
4	bor. #1 @ 10'	S	T	8/18/89		TVH TEH +BTXE	
5	bor. #1 @ 15'	S	T	8/18/89		TVH [illegible] +BTXE	
6	bor. #2 @ 7'	S	T	8/18/89		TVH TEH +BTXE	
7	bor. #2 @ 11½'	S	T	8/18/89		TVH [illegible] +BTXE	
8	bor. #3 @ 10½'	S	T	8/18/89		TVH TEH +BTXE	
9	bor. #3 @ 12½'	S	T	8/18/89		TVH TEH +BTXE	
10	bor. #3 @ 3½'	S	T	8/18/89		OilG TEH Pb, Cd, Cr, Zn	

* * * * * *

Released by: R. William Rudolph Date: 8/30/89

Released by Courier: _____ Date: _____

Received by Laboratory: _____ Date: 8/30/89 16:05

Relinquished by Laboratory: _____ Date: _____

Received by: _____ Date: _____

[1] Sample Type: W = water, S = soil, O = other (specify)
[2] Container Type: V = VOA, P = plastic, G = glass, T = brass tube, O = other (specify)

Notes to Laboratory:
-Notify SCI if there are any anomalous peaks on GC or other scans
-Questions/clarifications...contact SCI at (415) 268-0461

rface Consultants 18154

CHAIN OF CUSTODY RECORD & ANALYTICAL TEST REQUEST

Name: Center Street

Number: 272.012

Project Contact at SCI: Bill Rudolph

Sampled By: John Wolfe

Analytical Laboratory: Curtis + Tompkins

Analytical Turnaround: 2 weeks

	Sample ID	Sample Type[1]	Container Type[2]	Sampling Date	Hold	Analysis	Analytical Method
11	bor. #4 @ 7½'	S	T	8/18/89		TVH TEH[5] + BTXE	
12	bor. #4 @ 10½'	S	T	8/18/89		TVH + BTXE	
13	bor. HA @ 3'8"	S	T	8/18/89		O&G[6]	
14	sump pit	O, oil waste	2G	8/18/89		VOC[8]	8240
						Semivolatiles with PCB	8270 + PCB
						Pb, Cd, Cr, Zn	

Released by: Bill Rudolph Date: 8/30/89

Released by Courier: _____ Date: _____

Received by Laboratory: _____ Date: 8/30/89 16:05

Relinquished by Laboratory: _____ Date: _____

Received by: _____ Date: _____

[1] Sample Type: W = water, S = soil, O = other (specify)
[2] Container Type: V = VOA, P = plastic, G = glass, T = brass tube, O = other (specify)

Notes to Laboratory:
-Notify SCI if there are any anomalous peaks on GC or other scans
-Questions/clarifications...contact SCI at (415) 268-0461