

90 NOV 28 AM 11:45

no lab results

November 27, 1990
SCI 609.001

Mr. Dennis Byrne
Hazardous Materials Specialist
Alameda County Health Care Services Agency
80 Swan Way, Room 200
Oakland, CA 94621

Progress Report
Underground Storage Tank Closure
4055 ~~2250~~ Hubbard Street
Oakland, California

Dear Mr. Byrne:

Two underground storage tanks and a dispenser island were removed from the referenced address on July 17, 1990. While the fuel island was configured for two dispensers, only one dispenser was present during removal. The dispenser was connected to a 4,000 gallon diesel tank. At the location for the second dispenser, all that was visible was capped pipes. During excavation activities, a second tank was detected. The dispenser fuel lines were not connected to the second tank, although, they are believed to be associated with it. The second tank had a capacity of 1,000 gallons and is believed to have also contained diesel or gasoline.

Subsurface Consultants, Inc. (SCI) obtained soil and groundwater samples from the resulting excavation and transmitted the samples to Curtis and Tompkins, Ltd., for gasoline, diesel, total oil and grease and BTXE analyses. Since the excavation was within the city right-of-way, the excavation was temporarily backfilled with the excavated soil until test results were received and a plan of remedial action formalized. *

Our study to date indicates that the extent of soil contamination has been determined in the previous tank areas. However, additional excavation is required in the dispenser area. Analytical results are summarized in Tables 1 and 2 and sample locations are shown on the attached Site Plan.

The upper 2 to 3 feet of soil overlaying the tank area appeared to be oil stained. The stained soil appears to represent a localized problem. To evaluate remediation alternatives, one composited

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sample of the oil stained soil and soil removed from around the tanks was analyzed for constituents commonly found in oily materials. The testing program included gasoline, diesel, total oil and grease, BTXE, semi volatile organics including PCBs and PNAs, and heavy metals. Analytical test results are summarized in Table 3.

Bay Area Tank and Marine has been selected to bioremediate the soil on-site. Once bioremediation is successful in reducing contaminant levels, the soil will be disposed of at a Class III landfill. A tank closure report will be prepared following the completion of bioremediation which will record all site activities. The report will include a Site Plan, analytical test reports, chain-of-custody documents, description of field activities and a bioremediation report.

We will keep you informed of our progress at the site. If you have any questions or comments regarding the work performed to date, please call.

Yours very truly,

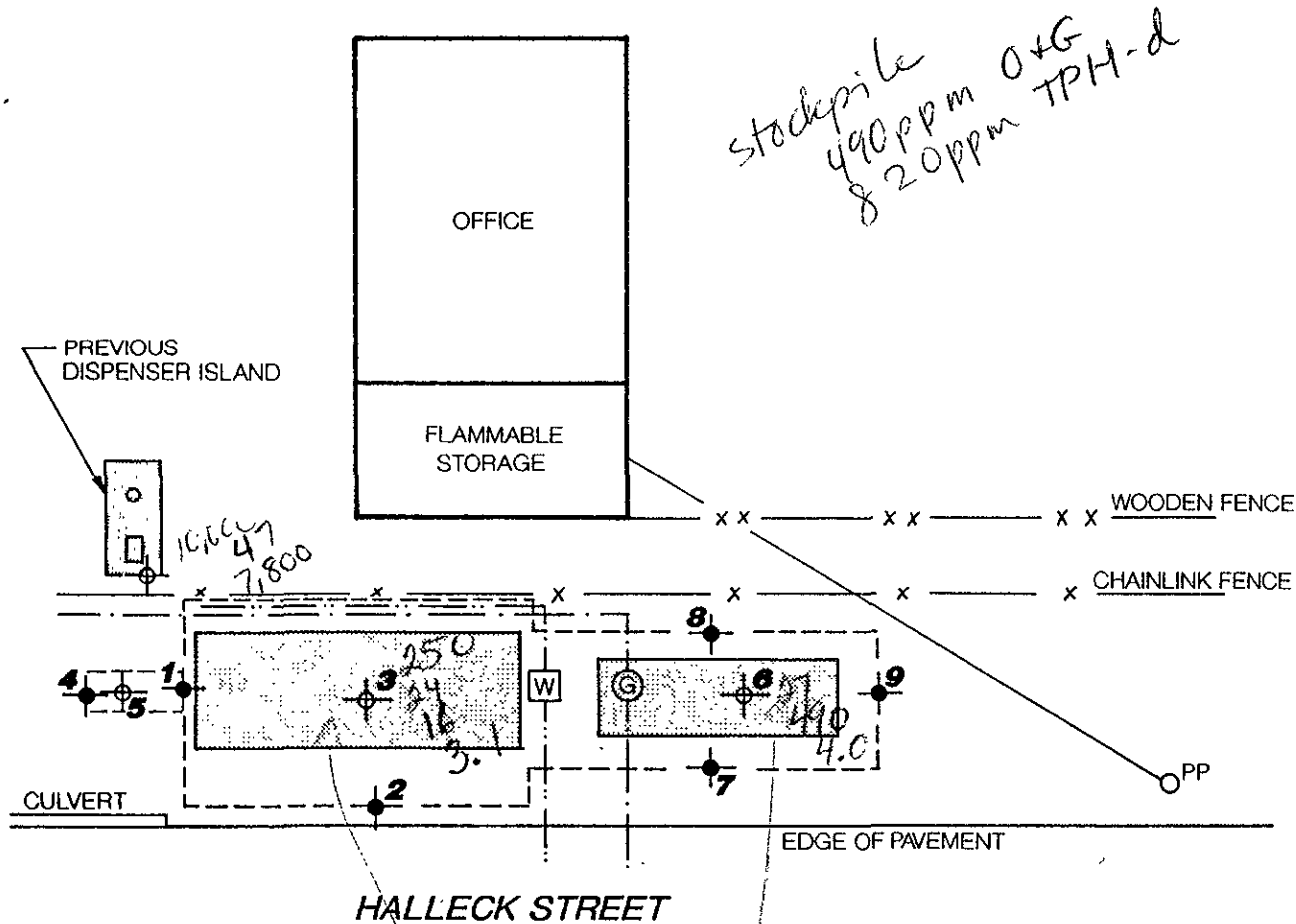
Subsurface Consultants, Inc.


Jeriann N. Alexander
Civil Engineer 40469 (expires 3/31/91)

JNA:RWR:ddh

Attachments: Site Plan
Tables 1, 2, 3

cc: Mr. William Robison
Buttner Properties



- SIDEWALL SAMPLE
- BOTTOM SAMPLE
- PREVIOUS TANK
- LIMIT OF EXCAVATION
- WATER VALVE
- GAS VALVE
- GAS LINE
- WATER LINE

4,000 gal
here!

1,500-gal
unknown
(change gal!)

TPH-d (ppm)
benzene (ppb)
O+G (ppm)

TPH-d (mg/L)
benzene (mg/L)

APPROXIMATE SCALE (feet)



SITE PLAN

Subsurface Consultants

4055 HUBBARD STREET - OAKLAND, CA

JOB NUMBER
609.001

DATE
8/20/90

APPROVED

PLATE

1

pit water was also sampled

Table 1. HYDROCARBON AND BTXE CONCENTRATION IN SOIL

Tank	Sample Designation	TEH ¹ mg/kg ⁴	TOG ² mg/kg	Benzene ³ ug/kg ⁵	Toluene ³ ug/kg	Xylene ³ ug/kg	Ethyl-benzene ³ ug/kg
1	1 @ 5'	ND ⁶	ND	ND	ND	ND	ND
	2 @ 5'	ND	ND	ND	ND	23	ND
	3 @ 10'	24	ND	16	34	34	14
	4 @ 3'	ND	ND	ND	ND	ND	ND
	5 @ 5'	ND	ND	ND	7.0	14	ND
2	6 @ 10'	27	ND	ND	ND	ND	ND
	7 @ 5'	ND	ND	ND	ND	ND	ND
	8 @ 5'	ND	ND	ND	ND	ND	ND
	9 @ 5'	ND	ND	ND	ND	ND	ND
	Dispenser ⁷	10,000	7,800	47	150	220	60

1 TEH = Total Extractable Hydrocarbons, as determined by modified EPA Method 8015 after sonication extraction (EPA 3550), included quantification of gasoline

2 TOG = Total Oil and Grease, as determined by SMWW 17:5520F after gravimetric freon extraction (EPA 3550)

3 As determined by EPA 8020 after purge and trap extraction (EPA 5030)

4 mg/kg = milligrams per kilogram

5 ug/kg = microgram per kilogram

6 ND = None detected, chemicals not present at concentrations above detection limit

7 Sample taken 6 inches below dispenser piping at pump island

Table 2. HYDROCARBON AND BTXE CONCENTRATIONS IN WATER

<u>Sample Designation</u>	<u>TEH¹ mg/kg⁴</u>	<u>TOG² mg/kg</u>	<u>Benzene³ ug/kg⁵</u>	<u>Toluene³ ug/kg</u>	<u>Xylene³ ug/kg</u>	<u>Ethyl- benzene³ ug/kg</u>
Water in Tank 1 Excavation	250	ND ⁶	3.1	ND	ND	ND
Water in Tank 2 Excavation	490	ND	4.0	ND	ND	ND

¹ TEH = Total Extractable Hydrocarbons, as determined by modified EPA Method 8015 after sonication extraction (EPA 3550), included quantification for gasoline

² TOG = Total Oil and Grease, as determined by SMWW503 after gravimetric freon extraction (EPA 3550)

³ As determined by EPA 8020 after purge and trap extraction (EPA 5030)

⁴ mg/kg = milligrams per liter

⁵ ug/kg = microgram per liter

⁶ ND = None detected, chemicals not present at concentrations above detection limit

Table 3. CHEMICAL CONCENTRATION IN EXCAVATED SOIL COMPOSITE¹

<u>Chemical/Chemical Analysis/Metal</u>	<u>Concentration PPM²</u>
TOG ³	490
TEH ⁴	820
Benzene	ND ⁵
Toluene	ND
Xylene	0.040
Ethylbenzene	ND
EPA Method 8240 Chemicals	ND
EPA Method 8270 Chemicals	
2 - Methyl-naphthalene	1.4
Phenanthrene	0.59
Other EPA 8270 Chemicals	ND
Chlorinated Pesticides	ND
Polychlorinated Biphenyls	ND
Total Metals	
Arsenic	6.2
Barium	95
Cadmium	3.8
Chromium	40
Copper	130
Lead	67
Nickel	37
Vanadium	26
Zinc	200
Other Metals	ND

¹ Composite includes samples SP1, SP3, SP5 and SP7

² ppm = parts per million

³ TOG = Total Oil and Grease, as determined by SMWW 17:5520F after gravimetric freon extraction EPA 3550

⁴ TEH = Total Extractable Hydrocarbons as determined by modified EPA Method 8015 after sonication extraction (EPA 3550)

⁵ ND = None detected, chemicals not present at concentrations above detection limits