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CONVERSE ENVIRONMENTAL WEST 5 43-4200

October 31, 1989
88-44-380-01-259

Mr. L. Seto
Alameda County Health Care Services Agency
Department of Public Health
80 Swan Way, Room 200
Oakland, California 94621

Subject: SOIL SAMPLING REPORT
2724 Castro Valley Blvd.
Castro Valley, California

Dear Mr. Seto:

The purpose of this letter is to present the results of the most recent soil sampling at the site and to request approval to backfill the current excavation that exists in the vicinity of the pump islands. We do not anticipate excavating any more soil in connection with the tank removal operation.

SUMMARY - Shell requests approval to backfill the open excavation. (Please refer to Drawing 2) All of the samples taken in the excavation sidewalls and the clay floor confirm that near surface contamination has been excavated. (Please refer to Drawing 3 and Table 1). Shell will submit a formal Work Plan for the site before the end of November.

PREVIOUS ACTIVITY - In February, Shell Oil removed four underground storage tanks from the eastern side of the above site. Between March and July 1989, the resulting excavation was enlarged as soil was removed in an attempt to reduce residual contamination values to acceptable limits. In July, Shell requested and received your offices approval to backfill the eastern excavation. Subsequently, work commenced on excavating near surface contamination from the pump island area in the middle of the site.

CURRENT SITUATION - Soils have been excavated in the vicinity of the old pump islands. Pillars of supporting soil have been left around some of the canopy columns. Periodic sampling was performed to assess the progress towards clean up levels. The latest round of samples has confirmed that sidewall and excavation

floor (clay) residual contaminant values are well below county requirements. Table 1 lists the samples and their analytical results. Drawing 2 shows the excavation relative to the whole site. Drawing 3 shows the sample locations.

SITE GEOLOGY - Drawing 4 shows a vertical profile of soils existing at the site. Note the dense clay layer located generally between 5 and 11.5 feet below ground level. This clay separates the near surface soils from a gravelly sand which appears to be continuous beneath the site. Previous sampling rounds have encountered motor vehicle fuel (MVF) contaminants only in the near surface soils and the gravelly sand.

ASSUMPTIONS AND RATIONALE - An initial sampling round in the vicinity of the former pump dispensers and fuel supply lines disclosed localized MVF contamination in the near surface soils. It was assumed that contamination of near surface soils occurred via pump dispenser/fuel supply line leaks or surface spills. It was also assumed that surface contamination would not migrate through the dense clay into the gravelly sand. Knowing that the lower gravelly sand was already contaminated on the eastern side of the site (less than 50 feet away) there was a high probability that it was also contaminated beneath the pump island area.
Deep excavation of soils including this gravelly sand down to groundwater was not practical around the pump islands since it would have placed the canopy columns in structural jeopardy. Therefore it was decided to excavate only the near surface soils down to and into the clay. A full investigation of the extent of contamination of the gravelly sand will be conducted as part of the forthcoming workplan.
Sample 23 shown on Drawing 3 was taken through the clay into the gravelly sand and confirms the contamination suspected. Although it exceeds the 100 ppm maximum value (Tph-g) allowable, this soil location can not be remediated by excavation but will be addressed as part of the future overall site remediation effort.

PLANS - Shell will prepare and submit a Work Plan to address the investigation for onsite and offsite contamination of both soils and groundwater from former tank content contamination. A program of soil and groundwater characterization will be proposed. On and offsite soil borings will define the extent of residual soil contamination at all depths to groundwater. On and possibly offsite monitor wells will investigate ground water contamination. This investigation will proceed in a phased approach until the extent of contamination originating at the station is determined. Remediation alternatives beyond excavation will be considered as part of the Work Plan.

Yours very truly,

CONVERSE ENVIRONMENTAL CONSULTANTS CALIFORNIA

R. Mansfield

Robert K. Mansfield
Project Manager
California Registered Geologist # 4529

ANALYTICAL RESULTS

NOTE: Samples taken in soil that was later removed are not included in this table or shown on the drawing. A historical summary of all soil samples is being prepared and will be presented in the workplan.

TABLE 1 EXCAVATION SOIL SAMPLES - ANALYTICAL RESULTS

All results in ppm

Location and depth	TPH-g	B	T	E	X
S 1 @ 7	<10	<.025	<.025	<.075	<.075
S 2 @ 7	13	<.025	<.025	<.075	<.075
S 3 @ 8	12	0.096	0.180	0.098	0.560
S 4 @ 3	<10	<.025	<.025	<.075	<.075
S 5 @ 10.5	41	0.820	5.000	2.100	12.00 (1)
S 6 @ 7	<10	0.029	0.071	<.075	0.170
S 7 @ 3	<10	<.025	<.025	<.075	<.075
S 8 @ 3	<10	<.025	<.025	<.075	<.075
S 9 @ 6	<10	<.025	<.025	<.075	<.075
S 10 @ 3	<10	<.025	<.025	<.075	<.075
S 11 @ 7.5	<10	<.025	<.025	<.075	<.075
S 12 @ 4	<10	<.025	<.025	<.075	<.075
S 13 @ 8	<10	<.025	<.025	0.280	0.240
S 14 @ 3	<10	<.025	<.025	<.075	<.075
S 15 @ 3	<10	<.025	<.025	<.075	<.075
S 17 @ 4	<10	<.025	<.025	<.075	<.075
S 18 @ 4	<10	<.025	<.025	<.075	<.075
S 21 @ 7	<1	<.0025	<.0025	<.0025	<.0025
S 23 @ 12	350	0.95	4.7	3.1	13.0 (2)

(1) - Results may reflect proximity to gravelly sand.
(2) - Results due to sample being taken in gravelly sand.

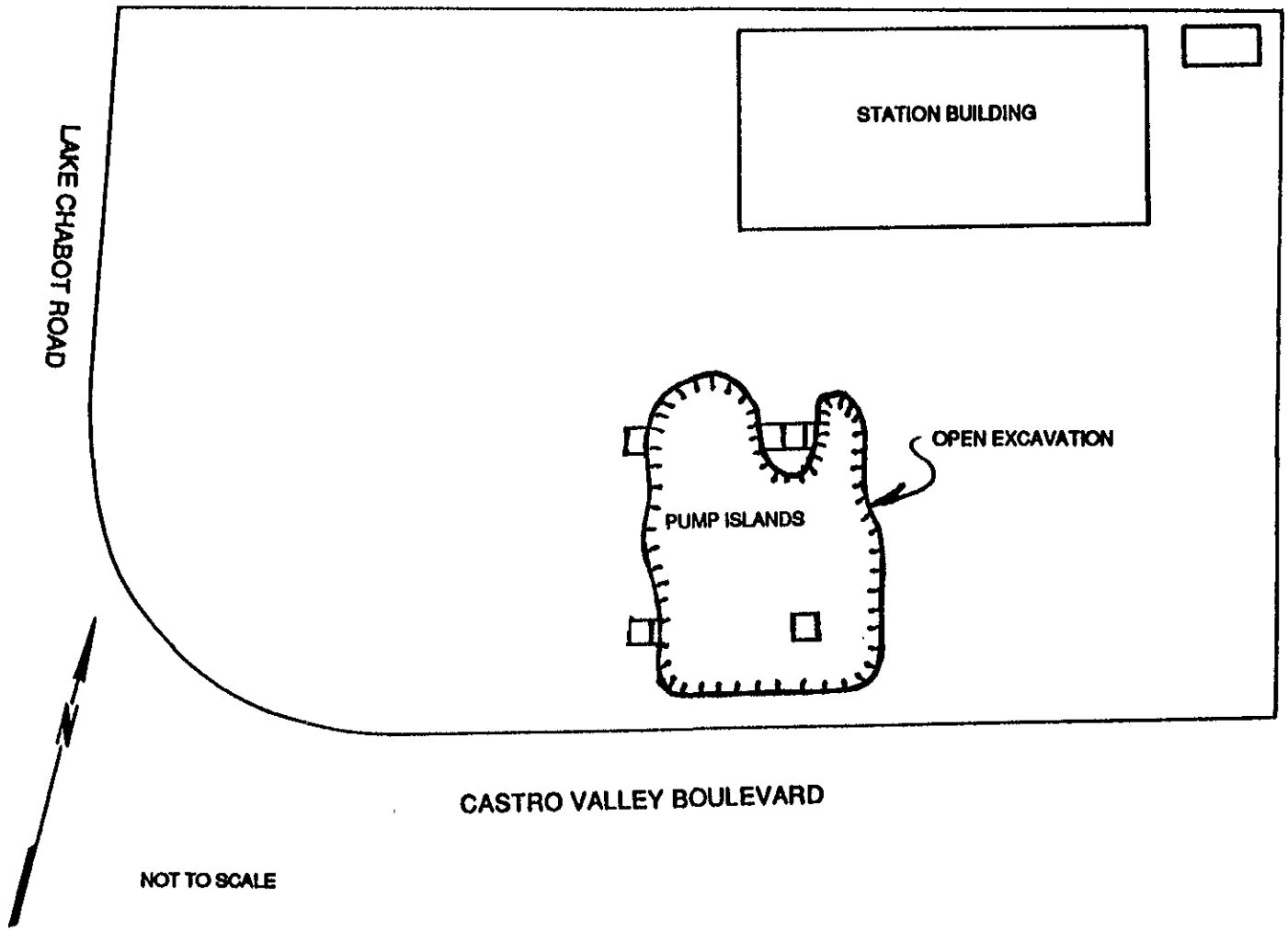
SOURCE: Thomas Brothers Maps, 1989.

SITE LOCATION MAP

SHELL OIL COMPANY
2724 Castro Valley Boulevard
Castro Valley, California

Converse Environmental
Consultants California

Scale: AS SHOWN	Project No.: 88-44-380-01
Prepared by: CRB	Date: 7/20/89
Checked by: RKM	Drawing No.: 1
Approved by: DWC	

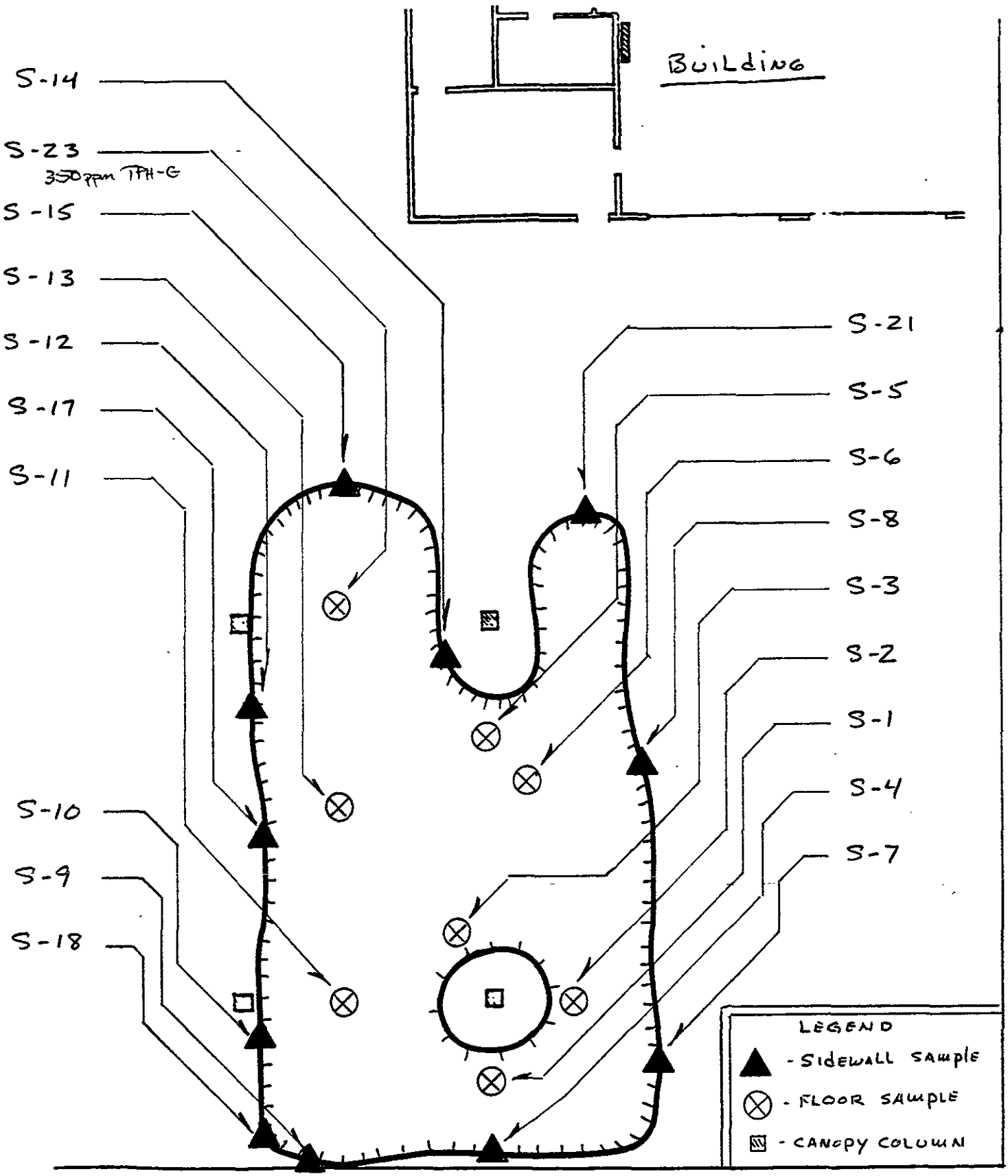


PLOT PLAN

SHELL OIL COMPANY
2724 Castro Valley Boulevard
Castro Valley, California

Converse Environmental Consultants California

Scale	NOT TO SCALE
Date	7/20/89
Prepared By	CRB
Checked By	RKM
Approved By	DWC
Project No	88-44-380-01
Drawing No	2



SAMPLE LOCATIONS

Scale: 1" = 12'	Project No.: 88-44-380-01
Prepared by:	Date: 10-31-1989
Checked by:	Drawing No.: 3
Approved by: RKM	

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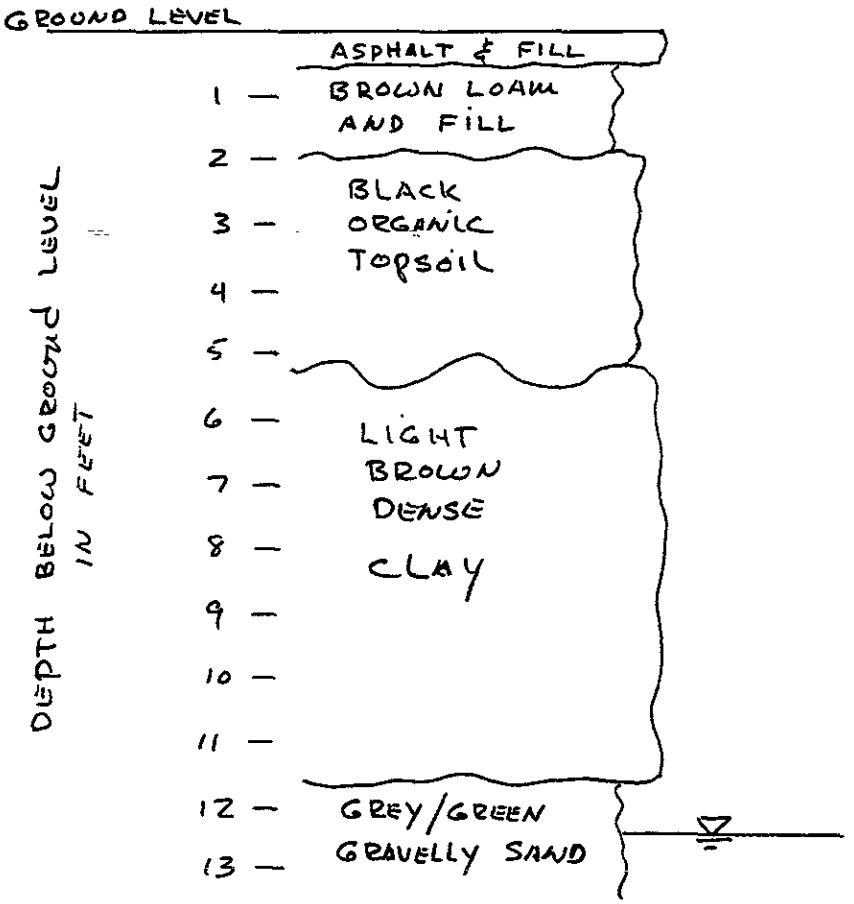

SOIL PROFILE

Converse Environmental Consultants California

Scale: AS SHOWN	Project No.: 88.44.380.01
Prepared by:	Date: 10.31.89
Checked by:	Drawing No.: 4
Approved by: RKH	