PACIFIC
ENVIRONMENTAL
GROUP, INC.

Date January 6, 1993
Project 305-94.01

To: Mr. Paul Hayes
Shell Oil Company
P.O. Box 5278
Concord, California 94520

We have enclosed:

Copies	Description
1	Revised fourth quarter 1992 monitoring report for the Former Shell Service Station at 2724 Castro Valley Boulevard in Castro Valley, California.

For your:
- X Use
- ____ Approval
- ____ Review
- ____ Information

Comments: Mr. Hayes, enclosed is the referenced report which is being reissued due to an incorrect Carbon Copy list. If you have any comments or questions, please call. Thank you.

Michael Hurd

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cc: Mr. Lawrence Seto, Alameda County Department of Environmental Health
Mr. Rich Hiett, Regional Water Quality Control Board
Dr. Mohsen Mehran, Owner Consultant
Mr. Richard Finn, Larson and Burnham
Mr. Matthew Righetti, Righetti Law Firm
Mr. Richard A. Schoenberger, Esq., Walkup, Shelby, Bastian, Melodia, Kelly, Echeverria and Link
Mr. David Swope, Shell Oil Company
Mr. Larry Turner, Shell Oil Company

January 23, 199

ALAMEDA COUNTY - SHELL OIL COMPANY
STATION SUMMARY

SUBJECT LOCATION: 2724 CASTRO VALLEY BLVD.
CASTRO VALLEY, CA.

INSPECTOR: LARRY SETO

THE STATION ON-SITE SURVEY WAS CONDUCTED BY LISA FOSTER, ENVIRONMENTAL ANALYST, AND KEN LOTTINGER, TERRITORY MANAGER, ON
THE FINDINGS ARE AS FOLLOWS:

HMMP, BUSINESS PLAN, EMERGENCY RESPONSE PLAN- THIS SITE IS UNDER CONSTRUCTION TO REPLACE THE UNDERGROUND TANKS.

TRAINING LOGS-

INVENTORY RECORDS-

QUARTERLY INVENTORY REPORTING-

TANK PERMITS-

TANK AND LEAK DETECTOR TESTS-

HAZARDOUS WASTE GENERATION/MANIFESTS-

ALAMEDA COUNTY - SHELL OIL COMPANY

REMEDIATION STATUS SUMMARY

JANUARY 23, 1990

2724 Castro Valley Boulevard
Castro Valley, California

Brief History

3/1988: Woodward-Clyde conducted a preliminary site assessment by drilling and sampling three soil borings at the site: two at older (former) tanks and one at the proposed future location of tanks. Negligible detectable hydrocarbons were reported (0.1 ppm benzene in one sample; others non detectable at detection limit of 5 ppm total petroleum hydrocarbon (TPH) as gasoline).

3/1989: Shell Oil Company sent a soil report to ACHCSA for two excavations: one at the former tanks and one at the desired locations of the future tanks, including analytical data; Shell Oil Company requested approval to proceed with tank installation.

ACHCSA directed that no new tanks would be installed or excavations backfilled until Shell, the Owner and ACHCSA agree.

3/1989: Shell requested permission to proceed with tank installation because sampling showed essentially "clean" sidewall soils.

Shell proposed to over-excavate the former tank excavation and certain piping trenches to remove soil contamination.

Shell committed to a soil/ground water investigation according to LUFT guidelines.

5/1989: Shell transferred this case to Converse. Work was suspended pending resolution of certain legal issues.

7/1989: Converse tested and sampled the excavation sidewalls (6/1989) and reported preliminary and final results to Shell and the ACHCSA (7/1989).

7/1989: Because the excavation extended to physical limits (buildings, pavements, utility lines and property boundaries), Shell requested permission to backfill the excavation from the ACHCSA. This was to allow progress on construction efforts and removal of contaminated soil from the pump island areas.

JM001901

Shell also committed to preparing work plan to address investigating and remediating offsite soil and ground water in the vicinity of the property, as needed.

7/1989: The ACHCSA requested additional information to complete the above report (7/1989), which was provided by letter.

8/1989: Under contract to Converse, Paradiso Construction trenched and sampled at the pump islands.

9/1989: Converse reported soil analytical results of sidewall sampling (8/1989) to Paradiso Construction and Shell. Converse alerted Paradiso to the possibility of buried old tanks under the sidewalk adjacent to the site.

9/1989: Converse submitted to the RWQCB and the ACHCSA a Quarterly Report summarizing activities undertaken and completed in Q3/89.

10/1989: Converse and Paradiso excavated contaminated soil and fill from pump island area, and placed it onsite pending offsite disposal. Spoil soil was disposed the following week, after analytical profiling.

Floor and sidewall samples contained $\leq$41 ppm TPH-g and negligible BTEX, as reported to Shell.

11/1989: Converse prepared a site work plan, and submitted same to the RWQCB and the ACHCSA.

12/1989, 1/1990: Converse submitted a letter and subsequent report on Q4/89 activities to the RWQCB and ACHCSA. The report contained a summary of analytical results and discussed activities intended for completion of closure on soil issues, and initiation of ground water investigation.

1/1990: Converse submitted a revised work plan for the site (attached), which: requested 1) permission to proceed with backfilling remaining excavations and 2) expressed intention to immediately begin ground water investigation and offsite soil investigation.

Work Completed in Last 90 Days

- Soil excavation was completed laterally, to the property boundary on the south, to the earlier excavation on the east, and to probable limits of contamination on the west and north. Sidewall soil samples contained $\leq$41 ppm TPH-g.

- A site work plan was prepared and submitted to the RWQCB and ACHCSA.

This plan outlined activities needed to achieve site closure for soil contamination (onsite and offsite) and ground water.

- No ground water sampling or quarterly monitoring was conducted because no wells exist onsite. The only environmental ground water analysis for this property came from a sample from the excavation.

Work Planned, Next 90 Days

- Collect verification sample from excavation sidewall; expand excavation laterally short distances as appropriate.

- Backfill the existing excavation, pending approval of the RWQCB, the ACHCSA and the owner.

- Install four onsite ground water monitoring wells at the corners of the property (scheduled for January 17, 1990) per the work plan specifications.

- Develop and sample ground water from the above wells; analyze some for TPH-g and BTEX.

- Monitor water quality and ground water elevation monthly for three months, and then once quarterly thereafter (unless otherwise appropriate).

- Prepare a quarterly report of activities for submittal to the RWQCB and the ACHCSA on or before March 31, 1990.

- Review the project with the ACHCSA quarterly.

Technical Report Submittal Dates

- March 31, 1989	Progress Report - Soil Sampling
- July 11, 1989	Progress Report - Soil Sampling & Excavation
- July 27, 1989	Progress Report - Reply to ACHCSA
- September 29, 1989	Letter Summary of Progress, Q3/89
- October 11, 1989	Progress Report - Soil Sampling & Excavation
- November 30, 1989	Work Plan
- January 12, 1990	Progress Report - Q4/89 Activities

"Calwater" Summary Report Submittal Dates

- January 12, 1990

Summary of Work Completed by Converse Environmental West (May 1989 to January 1990) (From the Revised Work Plan, 1/16/90)

Underground Storage Tank Removal

- Converse Environmental West did not perform the underground storage

tank removal. Work performed by Converse Environmental West at the site has consisted of post tank removal excavation and environmental soil sampling.

Summary of Soil Borings

- No soil borings have been drilled by Converse Environmental West.

Summary of Ground Water Monitoring Well Installations

- No ground water monitoring wells have been installed by Converse Environmental West.

Summary of Excavation Work and Soil Sampling

- The existing excavation was widened in four stages to reach soils where the residual contamination concentrations (if any) were acceptable to Alameda County. After each excavation stage, soil samples were collected from the exposed fresh soils. The excavation had been deepened to ground water (approximately 12.5 feet BGS as measured at the southeast corner of the excavation) and this depth was considered as the limiting excavation depth.

- Stage 1 began on June 12, 1989, after the excavation had been open and exposed for over a month. The excavation faces were scraped away to reveal fresh soils and 8 samples were collected along the sidewalls. Widening was confined to the north by the station building and limited to the east by a shallow telephone trench. Sidewall samples were collected and analyzed for TPH-g and BTEX. The resulting sample analyses revealed higher than allowable concentrations in the northeast corner of the excavation and along the center of the south wall. However, further excavation north and east was essentially impossible because of the presence of the building and the offsite road.

- Stage 2 continued the excavation in a southerly direction, towards Castro Valley Boulevard. Periodic field screening of soils using an OVM suggested that contamination was still present and excavation was continued south until limited by the sidewalk. The excavation was squared along the southern wall and samples were collected along the sidewalls of the newest portion. Sample analyses revealed that residual MVF contamination in the soils along the south wall were within commonly cited County allowable limits.

- A report of the sample analyses to date titled "Interim Sampling Report and Recommendations" was sent to the Alameda County Health Agency along with a request allowing the excavation could be continued westward towards the center of the site.

- Stage 3 consisted of excavating soil in the center of the site, around the former pump islands. Contamination in the gravelly sand

was considered possible but remediation by excavation was not considered feasible. Therefore, Converse Environmental West planned to limit the depth of excavation to the clay, but extend excavation onsite laterally as far as necessary. Remediation of the gravelly sand was planned to be accomplished by alternate methods.

- Surface paving was broken up and buried piping was removed. Backhoe trenches were dug at the ends of and between the pump islands. Eight shallow samples (SS-1 through SS-7) were taken from the trenches to assess the lateral limits of near-surface contamination. The analytical results from these samples defined the probable lateral limits of near surface contamination, and excavation commenced within a digging outline. The canopy pillars were supported during excavation by pouring a slurry footing around one pillar and leaving enough soil around the other pillars to achieve structural stability. Excavation was performed laterally to the digging limits and downward into the clay. Samples S-1 through S-19 were taken as work progressed. As analytical results were received, it became clear that the clay was free of contamination and probably acted as an effective barrier to downward contaminant migration. All samples were within County residual contaminant concentration limits with the exception of S-16 and S-19.

- Stage 4 consisted of two tasks. First, the excavation was laterally expanded until "clean" soil was exposed in the sidewall. Samples SW-20 and SW-21 were taken for confirmation. The high concentrations at sample S-16 were suspected to be a result of digging too deep and breaching into the underlying gravelly sand. Samples SW-22 and SW-23 were collected at the same location as S-16 but slightly deeper and examined. They were gravelly sand. The consequent analyses confirmed this suspicion.

- All soil samples were collected and handled in the field according to standard sample handling protocols. They were transferred to a California State certified analytical laboratory under proper chain of custody and preservation. See Appendix F. In the tables and attachments, some sample numbers are identical, however, they can be distinguished by date of collection. Those samples collected in the stockpiles to aid in disposal are noted with an asterisk. Analytical results are summarized in Table 1. The first suite of samples taken SW-1 through SW-7, also had analyses run for oil, grease and diesel fuel, but the results were not significant and are not summarized here.

Ground Water Analysis and Results

- One ground water sample was collected from presumed ground water in the excavation pit (7/6/89). This sample was analyzed for TPH-g and BTEX, but no detectable concentration was present.

TABLE 1. SOIL ANALYSES

NOTE:

All results in mg/Kg(ppm)

* - Indicates sample collected in surface stockpile for disposal analysis

Loc/depth	DATE COLLECTED	TPH-g	B	E	T	X
SW-1 @ 13'	6/12/89	810	2.700	5.000	15.00	31.00
SW-2 @ 13'		160	0.470	1.400	4.600	10.00
SW-3 @ 13'		400	1.300	2.600	6.800	17.00
SW-4 @ 15'		<10	<.025	<.075	<.025	<.075
SW-5 @ 13'		2300	29.00	32.00	160.0	200.0
SW-6 @ 11.5'		14	0.055	0.110	0.090	0.460
SW-6A @ 4'		<10	0.029	<.075	0.120	<.075
SW-7 @ 5.5'		<10	0.061	0.190	0.140	<.075
SW-8 @ 12'	7/5/89	<10	<.025	<.075	<.025	<.075
SW-9 @ 12'		11	<.025	0.060	0.660	1.400
SW-10 @ 12'		18	1.000	0.570	2.900	1.700
SW-11 @ 12'		71	2.600	2.500	7.000	5.400
EX PIT (H2O)	7/6/89	<0.05	<.0005	<.0015	<.0005	<.0015
SS-1 @ 4'	8/30/89	<10	<.025	<.075	<.025	<.075
SS-2 @ 4.5'		130	0.330	2.900	1.300	14.00
SS-3 @ 5'		<10	0.180	<.075	<.025	<.075
SS-3-2 @ 5'		<10	<.025	<.075	<.025	<.075
SS-4 @ 4'		17	0.100	0.240	<.025	1.100
SS-5 @ 5'		630	0.028	0.810	0.240	7.600
SS-6 @ 5'		1300	0.061	3.300	<.025	8.100
SS-7 @ 5.5'		3300	3.600	51.00	4.200	140.0
1 @ 7'	10/2/89	<10	<.025	<.075	<.025	<.075
2 @ 7'		13	<.025	<.075	<.025	<.075
3 @ 8'		12	0.096	0.098	0.180	0.560
4 @ 3'	10/3/89	<10	<.025	<.075	<.025	<.075
S-1 *		28	<.025	0.012	0.038	0.660
S-2 *		14	<.025	<.075	<.025	0.190
S-3 *		11	<.025	<.075	<.025	0.230
S-4 *		81	<.025	0.200	<.025	0.510
S-5 *		<10	<.025	<.075	<.025	<.075
S-6 *	10/4/89	<10	<.025	<.075	<.025	<.075
S-7 *		<10	<.025	<.075	<.025	<.075

TABLE 1 (cont'd). SOIL ANALYSES

NOTE:

All results in mg/Kg(ppm)
* - Indicates sample collected in surface stockpile for disposal analysis

Loc/depth	DATE COLLECTED	TPH-g	B	E	T	X
5 @ 10.5'	10/4/89	41	0.082	2.100	5.000	12.00
6 @ 7'		<10	0.029	<.075	0.071	0.170
7 @ 3'		<10	<.025	<.075	<.025	<.075
8 @ 3'		<10	<.025	<.075	<.025	<.075
9 @ 6'		<10	<.025	<.075	<.025	<.075
10 @ 3'		<10	<.025	<.075	<.025	<.075
11 @ 7.5'		<10	<.025	<.075	<.025	<.075
12 @ 4'		<10	<.025	<.075	<.025	<.075
13 @ 8'		<10	<.025	0.280	<.025	0.240
14 @ 3'		<10	<.025	<.075	<.025	<.075
15 @ 3'	10/11/89	<10	<.025	<.075	<.025	<.075
16 @ 9'		240	0.150	1.800	1.500	11.00
17 @ 4'		<10	<.025	<.075	<.025	<.075
18 @ 4'		<10	<.025	<.075	<.025	<.075
19 @ 3'		470	<.025	1.000	<.025	10.00
SW-20 @ 6'	10/26/89	1.9	<.0025	<.0025	0.0064	0.0078
SW-21 @ 7'		<1	<.0025	<.0025	<.0025	<.0025
SW-22 @ 12'		200	0.5200	1.5000	1.8000	5.3000
SW-23 @ 12'		350	0.9500	3.1000	4.7000	13.000
SP 10:26 *		1.8	4.500	20.00	40.00	120.00