CONVERSE ENVIRONMENTAL WEST

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May 31, 1990
88-44-380-60-657

Mr. Larry Seto
Alameda County Health Care Services Agency
Department of Environmental Hazardous Material
80 Swan Way, Room 200
Oakland, California 94621

Subject: Site Restoration Plan and Schedule for future work
2724 Castro Valley Boulevard
Castro Valley, California

Dear Mr. Seto:

This letter is a request by Shell Oil Company (Shell) to proceed with excavation, backfilling and site restoration at 2724 Castro Valley Boulevard, to return the site to useable condition with negligible residual soil contamination. Background information, a summary of current site conditions, and planned future onsite and offsite activities are discussed in this letter.

BACKGROUND

Over the past four years Shell and its environmental consultants Blaine Technical Services, Woodward-Clyde Consultants, Crosby and Overton, and Converse Environmental West (CEW) have investigated the extent of soil contamination associated with underground storage tanks and product lines at the former Shell gasoline station at the subject address. First environmental activities were initiated in November, 1986, when Shell replaced the waste oil tank and discovered minor soil contamination in tank backfill. In March, 1989, Shell removed the underground gasoline storage tanks and discovered subjacent soil contamination.

Shell expanded the size of the initial excavation in three subsequent stages. The excavation was expanded first around the former tanks, then to the south, towards Castro Valley Boulevard. Finally the excavation was expanded to the west, under the former pump islands (Drawing 1). Part of the excavation was backfilled and restored to grade in July 1989 (Drawing 1), upon demonstration through verification samples that the sidewall soils lacked detectable levels petroleum hydrocarbons.

Approximately 1200 cubic yards of soil were removed in these excavations. This soil was piled temporarily onsite and partly covered with plastic to control passive aeration. The soil was disposed of at a Class II waste disposal site, near Buttonwillow, California on June 23 - June 30, 1989, July 6 - July 13, 1989 and October 10 - 12, 1989. Crosby and Overton, a licensed waste transporter, handed the soil under proper manifests (Exhibit A). No soil spoils remain onsite.

A summary of the sampling and analytical history of the site is provided in the attached exhibits. Table 1 presents a chronological summary for the site, including the references to the stages of excavation which were conducted. Table 2 provides a summary of the soil analytical results from sidewall samples and verification samples taken from the various stages of the excavations.

CEW has provided periodic progress reports on activities on this site since CEW began consulting for Shell in May 1989. These reports have been presented on the following dates: July 11, 1989, July 27, 1989, September 29, 1989, October 11, 1989, October 31, 1989, November 30, 1989, and two reports on January 16, 1990.

CURRENT SITE CONDITIONS

The present site conditions are summarized in Drawing 1. This diagram shows the extent of the currently open soil excavation, as well as the locations ~~and analytical results~~ of all soil samples that have been taken from this excavation.

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The last round of soil samples, taken from sidewalls at the maximum extent of the excavation, verify that the lateral extent of soil contamination has been defined and removed completely by excavation. Only a small amount of residual contamination remains onsite, at the northeast corner of the stage 1 excavation (backfilled). This residual contamination is not currently accessible by excavation equipment because the former gas station building and an existing waste oil tank are in the way. This area will be investigated with additional borings, as describe below.

As demonstrated by hydrogeologic information presented in the CEW letter to you dated January 16, 1990, the vertical extent of soil contamination is defined as the water table at approximately 10 to 12 feet below grade.

Verification sampling of the excavation indicates removal of known soil contamination essentially to this water table, establishing complete removal of the vertical extent of unsaturated soil contamination. As discussed by CEW (January, 1990), soil contamination at -12' (Table 3) is essentially in the saturated zone, and will be subject to groundwater remediation.

PLANNED ONSITE ACTIVITIES

1. Backfill Existing Excavation

Program I of the Revised Project Work Plan dated January 16, 1990 is complete, and Shell is prepared to proceed with Program II of that Work Plan: Site Restoration. This letter is a notification that Shell Oil Company intends to proceed with backfilling the excavation and restoring the site to grade at the earliest opportunity. In former correspondence from Alameda County Health Care Services Agency to Mr. Matthew Righetti, Esq., dated March 21, 1989, Shell has been directed that backfill of this excavation will require approval from both the Alameda County Health Care Services Agency and the current property owner, Mr. Righetti. Because there is no regulatory or other known reason to delay site restoration, Shell requested your permission to proceed as quickly as possible, in a letter dated May 8, 1990.

Shell intends to proceed with this backfilling operation, using properly sized and compacted backfill, within the next thirty days. This backfilling will restore the site to grade, thus eliminating the hazard posed by the existing open excavation. This action is consistent with the desires of Mr. Larry Seto of ACHCSA, who gave permission that the excavation be backfilled for safety reasons, in a letter dated May 2, 1990.

2. Removal of Residual Onsite Soil Contamination

Based upon soil sample data from MW-2, and sidewall verification samples from the former tank excavation, some soil contamination remains in the northeast corner of the site, near the existing waste oil tank. The limits of the soil contamination are uncertain, but it is possible that contamination extends under the building, behind the waste oil tank and under the utility trench on the eastern boundary of the site.

To characterize and remove the remaining contaminated soil to the maximum extent possible, Shell will proceed with the following activities in this area:

Task 1 Drill and Sample Soil Borings

Two soil borings will be drilled to the water table at a maximum depth of 12 feet, at locations shown on Drawing 1. Soil samples will be taken at approximate depths of 5 and 8 feet, in accordance with CEW standard protocols. The samples will be analyzed for all waste oil constituents, including metals.

Task 2 Lateral Extend of Soil Contamination

Based on data obtained from the samples, CEW will estimate the lateral extent and depth of soil contamination remaining on the property, which will be removed during the next stage of excavation.

Task 3 Removal Soil and Relocate Existing Waste Oil Tank

The existing waste oil tank will be removed and relocated and onsite contaminated soil near the waste oil tank will be removed to the maximum reasonable extent possible. No lateral excavations will be made below the building or the utility trench. The excavation will extend vertically to the water table at a depth of approximately 12 feet.

The soil removed in the excavations will be treated on-site or disposed in a Class I or II landfill.

Task 4 Verification Sampling

Verification samples will be taken at 20 foot intervals along the excavation sidewalls at depths of 4 and 8 feet below grade, as schematically shown on Drawing 1. The samples will be analyzed by a mobile laboratory for all waste oil constituents and metals using a GC-MS.

Task 5 Backfilling and Recompaction

Upon receiving permission from the ACHCSA, Shell will backfill the excavation with non-expansive soil, compacted to a minimum relative density of 90 percent (using ASTM D-1557-70). After the excavation is backfilled, the area may be utilized in anyway desired, including the re-installation of the waste oil tank

INVESTIGATION OF OFFSITE SUBSURFACE CONDITIONS

The lateral extent of offsite soil contamination north and east of the property boundaries has not yet been established. With this letter, Shell proposes to proceed with soil and groundwater investigations to define the extent of contamination on the property to the east, Castro Valley Florist, 2728 Castro Valley Boulevard. Further subsurface investigations will probably be required in the future to define the extent of contamination in the adjacent property to the north, Scandia Auto Body, 20736 Lake Chabot Boulevard.

CEW will contact the owner of Castro Valley Florist and obtain a right-of-entry to conduct the necessary subsurface investigations in 5 tasks, described below.

Task 1 Exploratory Soil Borings

Approximately three soil borings will be drilled in the florist parking lot, at the approximate locations shown in Drawing 2, subject to the permission of the owner. The soil borings will be drilled using a hand-auger, a portable drill rig or normal truck mounted equipment to the water table or to a maximum depth of 12 feet. Samples will be collected at depths of 5 and 9 feet and analyzed for all waste oil constituents including metals.

Task 2 Groundwater Monitoring Wells

Three groundwater monitoring wells will be drilled in the parking lot at the approximate locations shown on Drawing 2 subject to permission by the owner. The well locations will be cleared with the florist to ensure that the drilling and monitoring will have a minimum effect on the daily operations of the business.

The three wells will be installed according to CEW standard protocols and will be developed and sampled according to those same protocols. The wells will be constructed with 4-inch diameter, PVC Schedule 40 casing. Screen size will be either .010 or .020 inch. Boring logs and well construction diagrams will be supplied in the appropriate quarterly report.

Task 3 Collect and Analyzed Groundwater Samples

The wells will be fully developed by surge-purge methods, with at least eight casing volumes of water removed and contained in tightly covered 55-gallon drums onsite. Following development, groundwater samples will be collected quarterly or as recovery permits for period of one year. Water from the well shall be analyzed for TPH as gasoline, diesel and waste oil, BTEX, and lead.

The field data, as-built well construction diagrams, boring logs, analytical results, and the results of initial sampling will be compiled and presented in an appropriate quarter report of activities for the site.

If groundwater sampling of the monitor wells indicates that the groundwater is contaminated and that a contaminant plume is incompletely assessed, additional groundwater monitoring wells will be installed onsite or offsite in an iterative manner until plume limits are defined.

Task 4 Survey Wellhead Elevation

Following groundwater well construction, wellheads will be surveyed and a detailed site plan showing wellhead elevations will be prepared. The depth to groundwater will be measured in each well to establish the groundwater gradient. This will allow precise measurements of the groundwater elevation and flow gradient across the site.

Task 5 Reporting

The results of the soil and water sampling will be compiled onto maps and presented to regulators in the first quarterly report after completion of well construction and groundwater sampling.

FINAL REMARKS

Once the excavation is properly backfilled, compacted and repaved, the site will be restored to useable conditions, and will no longer retain soil liabilities above the water table. The site may then be developed and used for any purpose which meets the City zoning requirements. Future site use will not be restricted or impaired by the ongoing subsurface groundwater investigations which Shell will conduct in order to attain final site closure.

Shell recognizes the need to continue to investigate groundwater quality at this site as part of closure requirements. The progress of this groundwater investigation onsite and offsite will be reported to you on a quarterly basis, in accordance with Regional Water Quality Control Board guidelines.

Thank your for your prompt attention to this matter.

Very truly yours,

Converse Environmental West

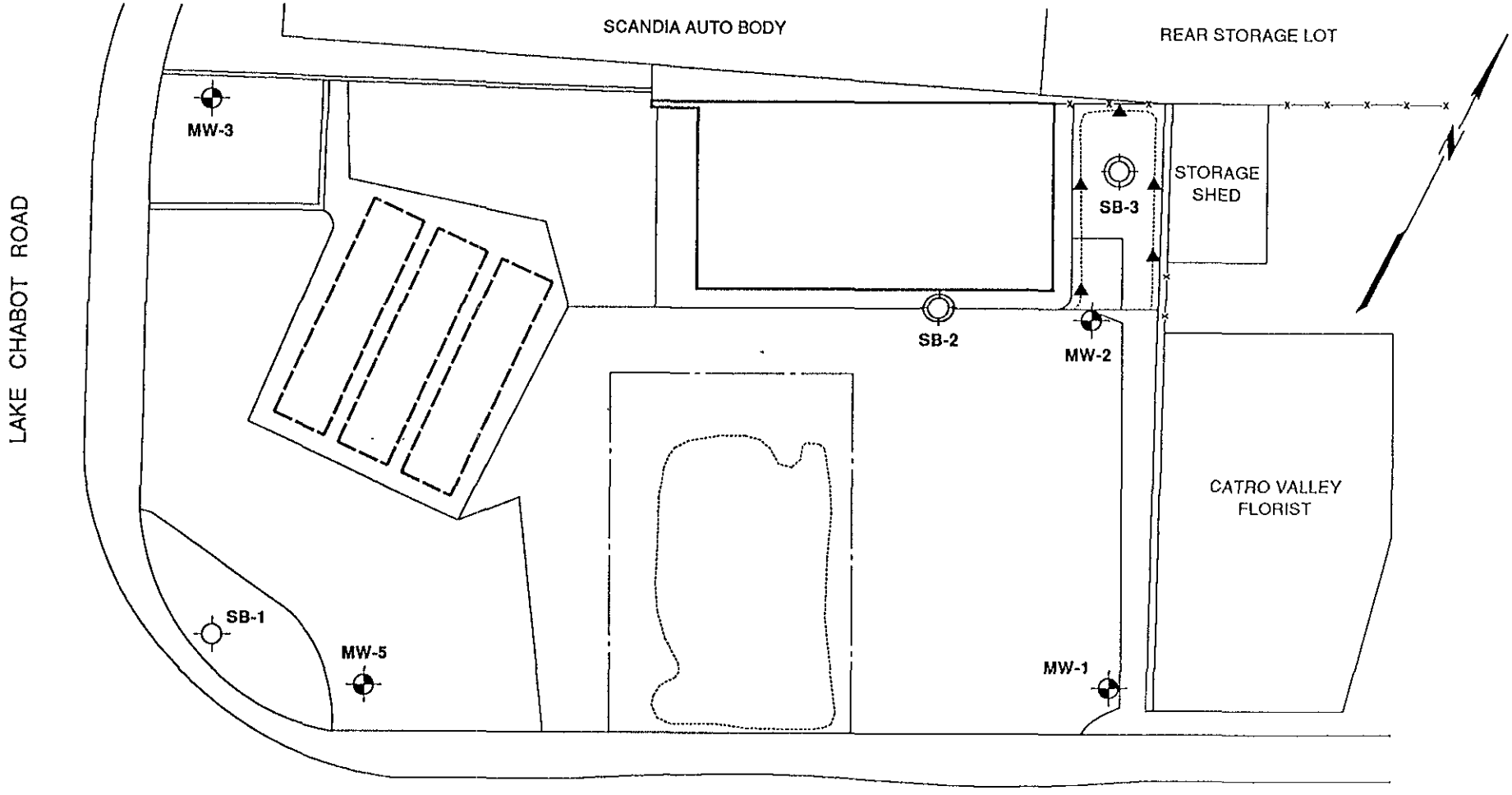
Michael C. Carey
Project Geologist

Charles R. Comstock, CEG #1010
Technical Director

MCC:arm

Attachments: Drawings (2)

cc: Ms. Diane Lundquist - Shell Oil Company (w/ att.)
Mr. Ray Newsome - Shell Oil Company (w/ att.)



LEGEND

MW-1 GROUNDWATER MONITORING WELL

SB-1 SOIL BORING

SB-2 PROPOSED SOIL BORING

SCHEMATIC LIMITS OF EXCAVATION

▲ VERIFICATION SAMPLE

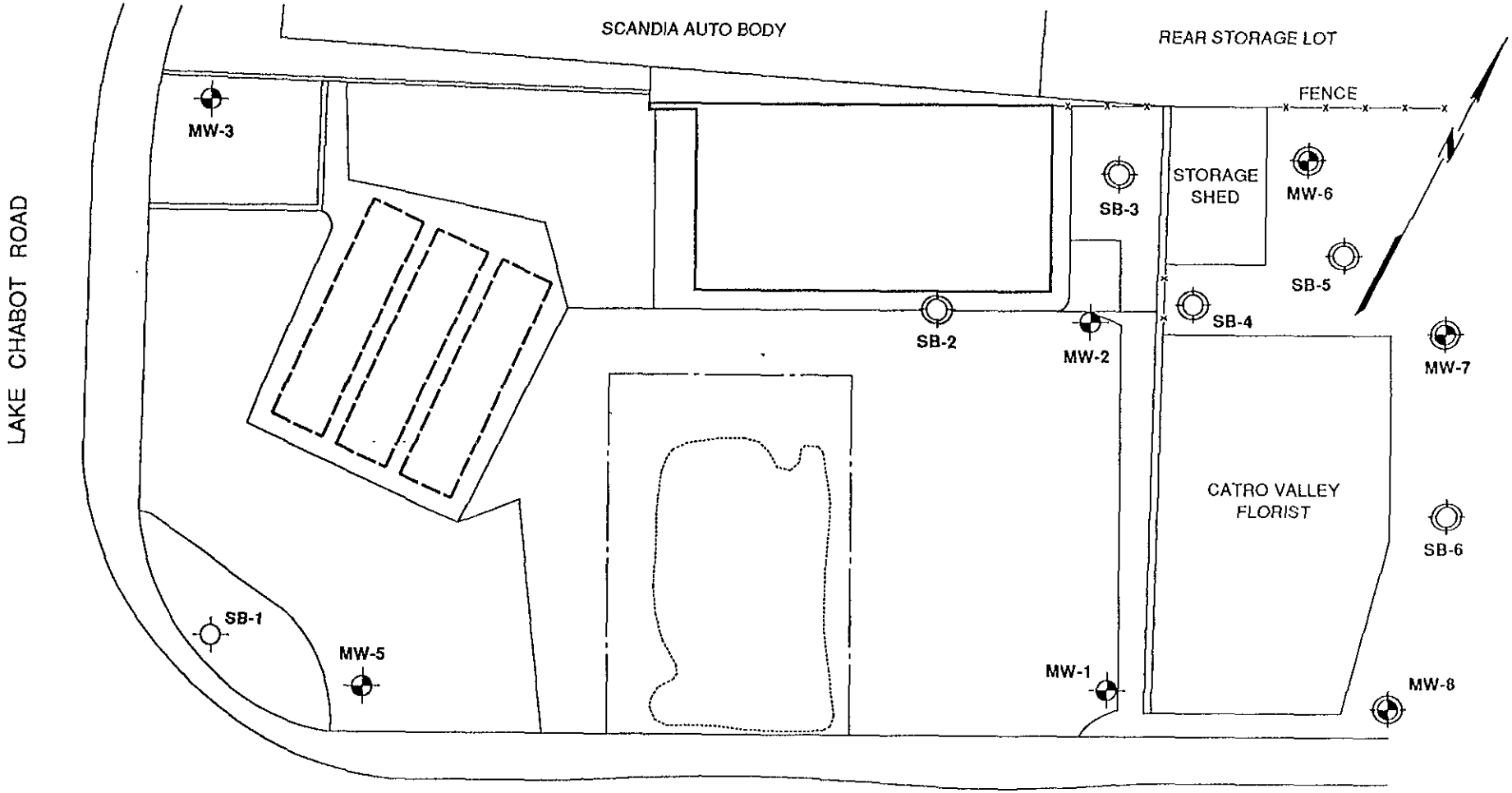
Base Map: Surveyed with electronic distance meter by CEW, 1990.

PROPOSED SOIL BORINGS AND EXCAVATION

SHELL OIL COMPANY
2724 Castro Valley Boulervard
Castro Valley, California

Converse Environmental West

Scale: AS SHOWN	Project No: 88-44-380-01
Prepared by: LQL	Date: 5/31/90
Checked by: MCC	Drawing No. 1
Approved by: DWC	



LEGEND

- MW-1 — GROUNDWATER MONITORING WELL
- SB-1 — SOIL BORING
- MW-6 — PROPOSED 6' WATER MONITORING WELL
- SB-2 — PROPOSED SOIL BORING

Base Map: Surveyed with electronic distance meter by CEW, 1990.

PROPOSED OFFSITE INVESTIGATION

SHELL OIL COMPANY
2724 Castro Valley Boulevard
Castro Valley, California

Converse Environmental West

Scale: AS SHOWN	Project No.: 88-44-380-01
Prepared by: LQL	Date: 5/31/90
Checked by: MCC	Drawing No: 2
Approved by: DWC	