

90 AUG 23 PM 2:47

August 17, 1990

Project No. 90-347

Mr. Matthew Righetti
RIGHETTI LAW FIRM
Signature Center, Suite 220
4900 Hopyard Road
Pleasanton, California 94588

Review Comments
Site Restoration Plan and Schedule for Future Work
2724 Castro Valley Boulevard
Castro Valley, California

Dear Mr. Righetti:

Pursuant to your request, Geosystem Consultants, Inc. (Geosystem) is pleased to present our review comments on the May 31, 1990 document entitled "Site Restoration Plan and Schedule for Future Work" prepared by Converse Environmental West (CEW) for the subject site. Geosystem's general and specific comments are presented below.

GENERAL COMMENTS

The "Site Restoration Plan and Schedule for Future Work," hereafter referred to as the Site Restoration Plan, addresses most issues of current concern. For clarity, these issues are classified as follows:

- o Site restoration.
- o Delineation of petroleum hydrocarbons in soil.
- o Soil remediation.
- o Ground water investigation.
- o Ground water remediation.

Site Restoration

Based on the discussions at the July 19, 1990 meeting with Alameda County Health Care Services Agency (ACHCSA) personnel, it is my understanding that the excavation has been backfilled temporarily for public safety reasons. As details of site restoration activities are not available, no additional comments can be made at this time.

Delineation of Petroleum Hydrocarbons in Soil

Further characterization of potential soil contamination in the northeast corner of the site and in an off-site area to the east

90 AUG -2 PM11:30

Transmittal

Date 7/31/90



Project 2724 Castro Valley Boulevard
88-44-380-20

To Alameda County Health
Care Services Agency
Department of Hazardous Materials
80 Swan Way, Room 200
Oakland, CA 94621

Attention
Mr. Larry Seto

We are sending you the following

- Enclosed
- Separately
- Regular Mail
- Special Delivery
- Air Mail
- Express Mail
- Carrier
-

Quantity	Description
1	Complete copy of a CEW letter dated May 31, 1990, regarding a site restoration plan at 2724 Castro Valley Boulevard.

Remarks
Attachments were accidentally omitted in the original mailing of this letter. Please do not hesitate to call me or Robin Breuer if you have any questions.

Copies to

Ms. Diane Lundquist - Shell Oil Company
Mr. Ray Newsome - Shell Oil Company

Sent by
Christie J. Densen
Christie J. Densen
Environmental Scientist

of the site, as suggested by CEW, seems appropriate. Based on the data available to Geosystem, however, it appears that additional characterization is needed in an area to the south of the site and adjacent off-site areas parallel to Castro Valley Boulevard. More specifically, the available data have been "posted" on the site plan (Figure 1) and show the presence of up to 71 mg/kg total petroleum hydrocarbons (TPH) as gasoline (g) along the southern perimeter of the excavation in the former tank farm area. Additional delineation in other areas adjacent to the excavation are needed if the 1 mg/kg concentration is selected as a cleanup goal for TPH(g). Based on the discussions of the July 19, 1990 meeting and the precedence expressed by the California Regional Water Quality Control Board personnel, the 1 mg/kg cleanup goal for TPH(g) seems appropriate.

The soil sampling results associated with the excavation at the location of the new tank farm are not available for review.

Soil Remediation

The results of the additional soil quality investigation will be used to assess the extent of remediation efforts and the need for further investigation, if any. Therefore, the extent of efforts associated with such activities is not known at this time.

Ground Water Investigation

Monitoring Wells MW-6, MW-7, and MW-8, proposed by CEW, are believed to be appropriate to characterize the ground water flow regime and quality in areas to the east and north of Castro Valley Florist. As the distance between Wells MW-1 and MW-5 is about 110 feet and ground water flow direction is to the south, it is appropriate to install a monitoring well between these two wells to detect any contaminant migration in that direction.

According to CEW (Reference: Report of Activities, Quarter 2, 1990, Shell Oil Company Facility, 2724 Castro Valley Road, Castro Valley, California, June 29, 1990), Monitoring Well MW-2 has shown the presence of benzene at concentrations of 360 ug/l (on February 9, 1990) and 500 ug/l (on April 20, 1990). Because of concern over potential migration of benzene and the possible need for ground water remediation, it is appropriate to characterize the hydraulic properties of the aquifer. Detailed plans for such characterization are not available for review.

The presence of benzene in the uppermost aquifer raises concern over the potential downward migration toward deeper water-bearing

zones. More stratigraphic information is needed to evaluate the necessity for characterization of the deeper aquifers.

Ground Water Remediation

Subsequent to characterizing ground water quality and the hydrologic regime of the aquifer, remedial action will be needed to contain and remediate the impacted zone of the aquifer.

SPECIFIC COMMENTS

Page 1, Paragraph 1, Line 2

It is my understanding that temporary "backfilling" has been completed. Therefore, the emphasis of this review will be placed on other future work.

Page 1, Paragraph 1, Line 3

The expression "negligible residual soil contamination" assumes a prescribed target cleanup level which has not been established. Therefore, no additional comments can be made at this time.

Page 1, Last Line

Has there been any soil remediation near the waste oil tank? Please confirm and if so, forward results.

Page 2, Last Line

The analytical results of soil samples are not shown in Drawing 1. *True*
No comments can be provided unless the drawing is completed.

Page 3, Paragraph 1

The locations of soil samples are not shown in Drawings 1 and 2; therefore, it is not possible to evaluate the information.

In addition to the area in the proximity of the waste oil tank, it appears that the areal and vertical extent of contamination to the south of the site is not delineated, as shown in Figure 1. Thus, additional investigation in this area seems appropriate.

Page 3, Last Paragraph

Since the excavation is temporarily backfilled and no other site restoration details are available, no comment is warranted.

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Mr. Matthew Righetti
Page 4

Page 4, Task 1

In addition to the specified samples, it may be appropriate to collect additional soil samples based on the discretion of field personnel. References have been made to CEW's protocols. Such protocols are not available for review and thus no comments can be made.

Page 5, Task 4

For quality assurance/quality control purposes, it would be appropriate to analyze 10 to 20 percent of the total samples in a certified laboratory. If possible, a detection limit of 1 mg/kg for TPH(g) is desired.

Page 7, Paragraph 2, Line 2

The "liability" issue is separate from the proposed investigative and remediation work. Since cleanup levels have not been established for the site and considering that a TPH(g) cleanup level of 1 mg/kg may be applicable, any conclusions regarding "liability with respect to soil" seem premature.

SCHEDULE

Adding a detailed schedule to the Site Restoration Plan would help in monitoring the project activities.

Respectfully submitted,

GEOSYSTEM CONSULTANTS, INC.

Mohsen Mehran

Mohsen Mehran, Ph.D.
Principal

MM:sh

90347-003
 B-10-9b DWG. NO.
 S-20-7c FILENAME
 BETX
 SHS
 08/02/90
 DRAWN BY
 CHECKED BY
 APPROVED BY

S-12 TPH (g) - <10 B - <0.025 T - <0.025 E - <0.075 X - <0.075	S-15 TPH (g) - <10 B - <0.025 T - <0.025 E - <0.075 X - <0.075	S-14 TPH (g) - <10 B - <0.025 T - <0.025 E - <0.075 X - <0.075	S-21 TPH (g) - <1 B - <0.025 T - <0.025 E - <0.075 X - <0.075	S-8 TPH (g) - <10 B - <0.025 T - <0.025 E - <0.075 X - <0.075	SW-6 TPH (g) - 14 TPH (d) - <10 B - 0.055 T - 0.09 E - 0.11 X - 0.46	SW-2 TPH (g) - 160 TPH (d) - 35 B - 0.47 T - 4.6 E - 1.4 X - 10	SW-1 TPH (g) - 810 TPH (d) - <10 B - 2.7 T - 15 E - 5.0 X - 31
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SW-3 TPH (g) - 400 TPH (d) - 110 B - 1.3 T - 6.8 E - 2.6 X - 17
--

SW-8 TPH (g) - <10 B - <0.025 T - <0.025 E - <0.075 X - <0.075
--

SW-9 TPH (g) - 11 B - <0.025 T - 0.6 E - 0.66 X - 1.4

S-17 TPH (g) - <10 B - <0.025 T - <0.025 E - <0.075 X - <0.075
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S-10 TPH (g) - <10 B - <0.025 T - <0.025 E - <0.075 X - <0.075
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S-18 TPH (g) - <10 B - <0.025 T - <0.025 E - <0.075 X - <0.075
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S-9 TPH (g) - <10 B - <0.025 T - <0.025 E - <0.075 X - <0.075

S-4 TPH (g) - <10 B - <0.025 T - <0.025 E - <0.075 X - <0.075

S-7 TPH (g) - <10 B - <0.025 T - <0.025 E - <0.075 X - <0.075

SW-7 TPH (g) - <10 TPH (d) - <10 B - 0.061 T - 0.14 E - 0.19 X - <0.075
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SW-11 TPH (g) - 71 B - 2.6 T - 2.5 E - 7.0 X - 5.4
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SW-10 TPH (g) - 18 B - 1.0 T - 0.57 E - 2.9 X - 1.7



LEGEND

- ⊕ MONITORING WELL LOCATION
- SIDEWALL SOIL SAMPLE LOCATION
- TPH (g) TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
- TPH (d) TOTAL PETROLEUM HYDROCARBONS AS DIESEL
- B BENZENE
- T TOLUENE
- E ETHYL BENZENE
- X TOTAL XYLENES

REFERENCE:
 CONVERSE ENVIRONMENTAL WEST,
 (MARCH 8, 1990; JANUARY 16, 1990;
 NOVEMBER 30, 1989; OCTOBER 31,
 1989)

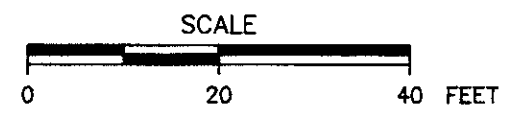


FIGURE 1

TPH AND BTEX CONCENTRATIONS
 IN EXCAVATION SIDEWALL SAMPLES

SHELL OIL COMPANY FACILITY
 2724 CASTRO VALLEY ROAD
 CASTRO VALLEY, CALIFORNIA

GEOSYSTEM

