

DEPARTMENT OF TOXIC SUBSTANCES CONTROLREGION 2
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January 13, 1994

Commander
Western Division
Naval Facilities Engineering Command
Attn: Mr. Stephen Chao, Project Manager
900 Commodore Drive, Bldg. 101
San Bruno, California 94066-2402

Dear Mr. Chao:

**DRAFT ADDITIONAL INVESTIGATION OF INFERRED SOURCES TECHNICAL
MEMORANDUM, NAVAL AIR STATION MOFFETT FIELD**

The Department of Toxic Substances Control (DTSC) has reviewed the subject document and forwarding the following comments for your consideration.

GENERAL COMMENTS

1. The objective of the inferred sources investigation was to evaluate whether activities at any of 54 buildings on the western side of NAS Moffett Field have caused contamination to the shallow aquifer. At the end of the report, it was concluded that neither Transportation Yard Area nor Site 8 were considered as TCE sources. However, as indicated in the Specific Comments, the data gaps and incomplete interpretations made the investigation results inconclusive. Therefore, the DTSC cannot concur with the conclusion. Further investigation and recompilation of the existing information will be needed.
2. Numerous analytical results from previous investigations were included in this report to draw the cross sections (Figure 4 and 5) or to determine the contamination sources. It was noted that original lithologic logs, soil or groundwater analytical data were not associated with these results. In order to compare or combine with newly derived results and to support any conclusions made, more detail information should be provided by the Navy.

SPECIFIC COMMENTS

1. Page 2, 4th Paragraph

Please clarify the sentence "a very small percentage of contamination is attributable to unidentified Navy sources, if they exist." If the source(s) is not identified yet, then how to determine the percentage of contamination from the unknown sources?

2. Page 3, 1st Paragraph

It was stated that the Navy will not be responsible for continuously evaluating the alleged existence of additional sources when the data do not indicate their presence. In fact, if the data do not indicate the presence of additional sources then it may imply no additional sources exist; or it could be the result of data gaps or other reasons. Therefore, the Navy needs to provide sufficient evidence to prove there is no data gap and the investigation has been conducted appropriately.

3. Page 10, 11, Table 1

Building 44 and 503 should not be listed as no further action sites. In page 8, it was mentioned that Building 503 will be studied under CTO-0235 and Building 44 will be evaluated by horizontal conduit studies (page A-4).

4. Page 12, Table 1

In column 7, the groundwater sampling results were used to summarize the impacts by any potential sources to downgradient groundwater wells. It was noted that many wells selected are either far away, more than 500 feet, from the investigated area or not located downgradient. Therefore, even no impacts were found in those wells yet it is still questionable whether the data can represent the true situation of potential sites or not.

5. Page 33, Figure 3

Please clarify the relationship between the 100ppb TCE contour lines and the regional TCE plume boundary. More contour lines with different concentrations will be needed in determining if any potential sources in the Transportation yard area.

6. Page 34 and 35, Figure 4 and 5

In Figure 4 and 5, soils were classified as 1) sand and gravel; 2) silt and clay. The DTSC suggests adding a third unit that includes Silty Sand, Clayey Sand, Sandy Silt, and Clayey Silt into these cross-sections to describe the underground lithology in the investigated area.

7. Page 34, Figure 4

Please explain the drastic lithology changes between the neighboring wells W60-1 and W60-2.

8. Page 35, Figure 5

According to Figure 3, the Hydropunch test hole HSI-5 and groundwater monitoring well WSI-2 were drilled at the same location. Please explain the different stratigraphy shown at the east and west side of the same bore hole from the depths of 17 to 20 feet.

9. Page 35, Figure 5

The total depth of HSI-2 is 65.3 feet below land surface and should be indicated in Figure 5. Additionally, based on CPT data in Appendix B, a sand or sandy gravel unit should be identified in cross section B-B' at 35 feet below land surface.

10. Page 39

It was mentioned in Section 5.2 that the TCE concentration observed from well WSI-4 may be affected by the high concentration observed from NASA well 11M04A. However, the information given in this section is too brief to reach any conclusion. For example, no TCE or other detected VOCs concentrations from monitoring wells were shown in Figure 6; the relationship between groundwater flow direction and the spatial distribution of VOCs concentration was not discussed; the locations of seven Hydropunch samples were not marked; the source of high concentration TCE from well 11M04A should be also included.

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11. Page 40, Figure 6

The groundwater flow direction shown here is about N45°E which is different from the groundwater flow shown in Plate 1, and Figure 3. Please clarify the variation of groundwater flow directions at different investigation areas.

If you have any questions, please call me at (510) 540-3830.

Sincerely,



C. Joseph Chou
Engineering Geologist
Site Mitigation Branch

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