Harding Lawson Associates

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Comments on
***Final Wash Rack Area Investigation Field Work Plan*, and**
Response to Comments, Final Wash Rack Area Investigation ...
Moffett Federal Airfield, July 3, 1995

Dear Ms. Adams and Messrs. Gill and Chao:

On behalf of Schlumberger Technology Corporation, representing private parties in the Middlefield-Ellis-Whisman (MEW) Study Area, I have reviewed the documents identified above. This letter contains comments resulting from that review.

Comment 1: The transmittal letter for the main report, *Final Wash Rack Area Investigation Field Work Plan, Moffett Federal Airfield*, PRC Environmental Management, Inc., July 3, 1995 (Work Plan), indicates that the results of the investigation will be used to evaluate the need and responsibility for an A1-aquifer zone groundwater extraction well in the area of the former wash rack. However, the work plan indicates that the first draft report describing the investigation will not be released by the Navy until March 1996. Thus, it will not be feasible to resolve questions about the need for and proper design of the well of interest (TBD-1A) until at least late spring 1996. If the results of the investigation prove to be inconclusive or insufficient, then resolution of issues concerning TBD-1A may take even longer. This is at least 6 months past the currently predicted date for completion of the U.S. Environmental Protection Agency's (EPA) review of the design of the regional and source control remedial systems on the west side of Moffett Federal Airfield (Moffett Field).

Comment 2: An additional problem with the availability of data from the proposed investigation is indicated by the Navy's statement (in the document *Response to Comments on Draft Wash Rack Area Investigation, Field Work Plan*, July 3, 1995 [the Response to Comments]) that preliminary data from direct-push groundwater sampling will be shared with regulatory agencies before decisions about soil boring and well placement are made. Although concerned private parties have as much technical need for timely access to the data as the regulatory agencies, there is no indication that such data will be provided to private parties at the same time. The Work Plan should commit the Navy to provide timely releases of data to all concerned parties, not just regulatory agencies.

Comment 3: The Work Plan and the Navy's response to Elizabeth Adams' comment on the necessity for soil samples (Work Plan pp. Response to Comments, pp. 1-2) are ambiguous about the Navy's commitment to perform adequate soil and groundwater sampling and well installation. The Work Plan and Response to Comments may be interpreted as stating that soil samples will only be collected from monitoring well borings. The Work Plan should clearly indicate that the number and location of soil samples and the number and location of monitoring wells will be determined independently. It is technically unacceptable to limit soil sampling locations to locations where wells are installed, or to move wells from preferred locations for groundwater sampling in order to accommodate requirements for soil sampling because of a decision to collect soil samples only from well locations.

In the past, the Navy has followed the technically unsound practice of basing source identifications on soil sample data from monitoring well borings whose locations were selected for purposes of groundwater definition, but which were poorly placed to assess soil concentrations near potential sources. This practice, followed in Expanded Site 9, should not be continued in the Wash Rack investigation.

Comment 4: It is technically inappropriate for the Navy to attempt to predetermine an arbitrary groundwater concentration criterion for determining the existence of sources. The "one order of magnitude" criterion proposed on Page 2 of the Response to Comments should be eliminated. Instead, the actual field data should be evaluated in light of the adequacy of monitoring, the location of the potential source with respect to other sources and in the overall regional plume, and other available, relevant information in order to establish whether a source meriting source control and cleanup actions exists.

Consider, for example, a continuing source of trichloroethene (TCE) such as a mass of contaminated soil or a free-product pool trapped in a low spot in a leaking buried pipe. If such a source caused a continuing increase in groundwater TCE concentration from 0.025 to 0.125 milligrams per liter near the edge of the regional plume far from other sources, it would merit cleanup or control, even though it would not pass the Navy's proposed arbitrary criterion for source identification. Failure to address such a source in an area like the Wash Rack Area could prevent a relatively large area of groundwater from ever approaching cleanup goals, while source control could allow cleanup goals to be achieved over a wide area.

Comment 5: The Response to Comments, page 3, implies that the nature and extent of contamination on the west side of Moffett Field was adequately described in the March 1993 report *West-side Groundwater Site Characterization Report, Naval Air Station Moffett Field, California* (International Technology Corporation). As described in numerous previous reports by Harding Lawson Associates (HLA) and others (eg. the March 2, 1995, HLA report *Summary of Site 0 Potential Sources, Moffett Federal Airfield, MEW Study Area, Mountain View, California)*, the Navy's previous characterization of the west side of Moffett Field is incomplete and inaccurate. Specifically, if an adequate characterization of the nature and extent of contamination at and near the Wash Rack had been completed, the investigation proposed in the Work Plan would be unnecessary. The Work Plan or some other Navy document should contain an unequivocal Navy commitment to fully investigate Navy potential sources, and the complete nature and extent of contamination resulting from those sources, both near the Wash Rack and elsewhere on Moffett Field where relevant available information indicates Navy potential sources.

Comment 6: Section 3.2 of the Work Plan misrepresents the nature and extent of groundwater contamination associated with private parties south of Highway 101 and with the Navy and NASA. As additional information become available, it becomes increasingly clear that much if not all of the groundwater contamination in the northern part of the west side of Moffett Field is associated with Navy and/or NASA sources, not with chemicals originating south of Highway 101. During earlier stages of the investigation of Moffett Field, the extent of Navy and NASA responsibility for groundwater contamination on the west side of Moffett Field has been obscured by the inadequacies of the Navy's site characterization investigations.

Furthermore, Section 3.2 of the Work Plan misrepresents the cleanup obligations established by the Record of Decision (ROD) for groundwater on the west side of Moffett Field. Contrary to the implication of Section 3.2, both the Navy and private parties have substantial obligations under the ROD. The Navy's obligations reflect the Navy's well established role as a major contributor to the so-called regional plume on the west side of Moffett Field.

If you have any questions about this material, please call me.

Yours very truly,

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