



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105

N00296\_004239  
MOFFETT FIELD  
SSIC NO. 5090.3.A

March 12, 2001

Ms. Andrea Muckerman  
BRAC Environmental Coordinator  
Southwest Division  
Naval Facilities Engineering Command  
BRAC Operations Office  
1230 Columbia Street, Suite 1100  
San Diego, CA 92101-8517

Dear Ms. Muckerman:

The U.S. EPA has reviewed the groundwater monitoring *Draft May 2000 Quarterly Report, Moffett Federal Airfield, California*, dated January 8, 2001. EPA's 11/21/00 comments on the November 1999 and February 2000 Quarterly Reports of August 2, 2000, apply to this Quarterly Report, but are not repeated, since the Navy intends to address them in the forthcoming annual monitoring report. The attached additional comments apply to the May 2000 Quarterly Report, specifically.

Please contact me at (415) 744-1685, if you have any questions regarding this evaluation. We appreciate the opportunity to review this report.

Sincerely,

A handwritten signature in cursive script that reads "Roberta Blank".

Roberta Blank  
Remedial Project Manager

Attachment (3 pages)

cc: Dennis Mishek, RWQCB  
Sandy Olliges, NASA  
James Boarer, MEW  
Kevin Woodhouse, City of Mountain View  
James McClure, RAB

**EPA Review of the  
Draft May 2000 Quarterly Report  
January 8, 2001**

**GENERAL COMMENT**

The Report states that the rationale for selecting monitoring wells sampled during May 2000, is detailed in the 1997 Quality Assurance Project Plan (QAPP) for Long-Term Groundwater Monitoring at Moffett. However, wells to be sampled and analytical methods for the May Quarterly Report were specified in a letter from TtEMI to the Navy dated May 3, 2000, which amended the QAPP. Also, the monitoring frequencies discussed in the QAPP do not reflect the current monitoring schedule. It is unclear what the current monitoring program is based on. EPA requests that future amendments and proposals for well sampling activities be sent to us for review, a procedure which was outlined in the 1997 QAPP (Page 38).

**SPECIFIC COMMENTS**

1. **Section 1.0, Page 1:** The Report states that “The objective of the quarterly groundwater monitoring program is to obtain groundwater level and water quality data on a regular basis to establish a baseline of chemical data for new wells.” According to the 1997 QAPP, wells for which groundwater analytical data are available from more than four sampling events are not considered new wells. If some of the wells have been sampled for more than four quarters, please add that another objective of the monitoring program is to provide additional long-term monitoring data for wells that already have an established baseline record, which may be used for hydrogeologic and contaminant plume studies, remedial designs or remedial action monitoring, and FS, as stated on Page 30 of the QAPP.
2. **Section 5.4, Page 20, Table 11, and Appendix A:** The Report states and Table 11 shows that 600 ug/l of TCE were detected in the sample collected from well UST85-MW02. In addition, Table 11 shows that this TCE concentration was qualified “D” which, according to Table 7, means “all compounds identified in this analysis were identified at a secondary dilution factor.” However, the laboratory data sheets contained in Appendix A show that the TCE concentration measured in this sample was 660 ug/l, and that this concentration was qualified “E” which means that the compound was detected at a concentration that exceeded the calibration range of the gas chromatograph/mass spectrometer (GC/MS). Please resolve this discrepancy.
3. **Table 2:** The table shows that in April 2000, the WATS was operating 80.8% of the time, had a total system flow of 2,843,300 gallons, a cumulative flow of 38,049,870 gallons, and an average flow rate of 70.0 gpm. For May 2000, the table shows that the WATS was operating 97.2% of the time and had an average flow rate of 72.5 gpm while the total flow and the cumulative flow stayed the same as in April 2000 (i.e., 2,843,300 gallons and 38,049,870 gallons, respectively). It is unclear why the numbers for total flow and cumulative flow are the same for both months while the average flow rate and the

operating percentage are different. It appears that the table was not updated in May 2000 to show the adjusted total system flow and cumulative flow numbers (this applies to each of the extraction wells). Please explain this or revise Table 2 to show the correct numbers for total flow and cumulative flow for the total system and each well in May 2000.

In addition, it is unclear how the operating percentage for well EA1-1 in April 2000 was 80.8% with a total flow of 5,287 gallons when the operating percentage for this well in June 2000 was 91.6% with a total flow of only 1,783 gallons. Please clarify how the operating percentages, total flow numbers and average flow rates are calculated for the system as a whole and for each extraction well.

4. **Table 4:** The table shows that the pH at well UST85-MW02 was 10.5. This pH value is very high for groundwater and compared to pH values measured at all other wells. In addition, the Groundwater Sampling Data Sheet for UST85-MW02 contained in Appendix D of the February 2000 Quarterly Report (dated August 2, 2000) shows that pH values for this well ranged between 7.16 and 7.17. Please provide possible explanations for the unusually high pH value measured at well UST85-MW02.
5. **Table 6:** The table lists that the percent fulfillment for the following samples was zero: 1) the Benzene, Toluene, Ethyl Benzene, Xylene (BTEX) / Methyl Tertiary Butyl Ether (MTBE) field duplicate, 2) the BTEX/MTBE source water blank, 3) the Volatile Organic Compound (VOC) equipment blank, 4) the Total Petroleum Hydrocarbon-purgeable (TPH-p) field duplicate, 5) the TPH-p source water blank, and 6) the TPH-extractable source water blank. It is unclear why these samples were not collected as part of the May 2000 sampling effort.
6. **Table 9:** The table shows that no duplicate samples were collected for the VOC, TPH-p, and the BTEX/MTBE analyses. Therefore, the Relative Percent Difference (RPD) for these analyses could not be calculated. However, the last two columns of the table imply that the percentage of RPDs could be calculated for these analyses and were zero for: 1) RPDs less than or equal to 25 percent, and 2) RPDs greater than 25 percent. Since no duplicate samples were collected for these analyses, the correct entry in the last two columns of Table 9 should be "Not Applicable" instead of "0."
7. **Table 11:** The TCE concentration detected at well UST85-MW02 exceeded the action level; this should be indicated by marking the concentration with an asterisk. It appears that the action levels listed for 1,1-DCE, TCE, 1,1,1-TCA, and VC are the Maximum Contaminant Levels for Drinking Water (MCLs). Although, the Middlefield Ellis Whisman (MEW) Record of Decision (ROD), adopted by the Navy for the Moffett Federal Airfield Site, did not list action levels for cis-1,2-DCE, 1,1-DCA, and PCE, the MCLs for these compounds should be listed in the table for comparison.
8. **Appendix C:** Appendix E in the February 2000 Quarterly Report listed wells FP5-3, W3-24, W5-35, W6-4, W6-5, and WU5-24 to be re-surveyed. Appendix C in the May 2000 Report indicates that wells W3-19, FP5-3, W5-35, W6-4, and W6-5 will be re-

surveyed. Wells W3-24 and WU5-24 which were recommended for re-surveying in the February 2000 Report, were not carried over into the May 2000 Report. It is unclear why well W7-14 is not recommended for resurveying. In both the November 1999 Report and the May 2000 Report, this well was not used for contouring. A complete list of wells to be re-surveyed and a time line for the surveying activities should be provided.

9. Well WU4-1 has not been used in either the November 1999, February 2000, or the May 2000 contour maps. The May 2000 Report states that this well was not used because of the influence from extraction well REG-2A. However, the potentiometric surface elevation for well WU4-1 has consistently been higher than the adjacent wells and REG-2A. According to the depth to water measured at well WU4-1, it does not appear to fall within the capture zone of REG-2A. Therefore, it is unclear why the potentiometric surface elevations measured at WU4-1 are influenced by REG-2A. Please clarify why WU4-1 is not recommended for re-surveying.