



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105
SFD 8-3

N00236.002488
ALAMEDA POINT
SSIC NO. 5090.3

September 13, 2005

Mr. Thomas Macchiarella, Code 06CA.TM
Department of the Navy, Southwest Division
Naval Facilities Engineering Command
1230 Columbia Street, Suite 1100
San Diego, CA 92101

RE: Spring 2005 Alameda Basewide Annual Groundwater Monitoring Report, Alameda Point

Dear Mr. Macchiarella:

EPA received the Spring 2005 Alameda Basewide Annual Groundwater Monitoring Report, prepared by ITSI, on July 29, 2005. The Navy and regulators had a meeting on August 31 to discuss the contents of the report and develop criteria for determining which wells are redundant and can be dropped from the monitoring program, where new wells need to be added, how sampling frequency can be reduced in specific wells and whether analytical suites can be dropped from analysis for specific wells. In addition, we decided that the Annual Report need not be revised and submitted as "Final". Instead the Navy and ITSI will prepare and submit additional tables screening sampling results against CTRs for sites where the groundwater can migrate to the surrounding Bay, and using the 95th UCL from the background data set for inorganics as a screen for metals. The agencies will not provide formal comments on this document, but we will pass along some comments put together by EPA's contractor, TechLaw Inc, for consideration in future annual reports and for use in developing the upcoming sampling addendum.

We appreciate the work that the Navy and ITSI have put into producing an informative, user-friendly annual groundwater monitoring report and look forward to working together to further refine and improve the Alameda Point groundwater monitoring program over the next year.

If you have any questions, feel free to call me at (415) 972-3029.

Sincerely,

A handwritten signature in cursive script that reads "Anna-Marie Cook".

Anna-Marie Cook
Remedial Project Manager

enclosure

cc: Claudia Domingo, SWDiv
Marcia Liao, DTSC
Judy Huang, RWQCB
Peter Russell, Russell Resources, Inc
Karla Brasaemle, TechLaw Inc
Mark Ripperda, EPA
John Chesnutt, EPA

**EPA Review of the 2005 Annual Basewide Groundwater Monitoring Report
Alameda Point (performed by TechLaw Inc)**

The apparent groundwater flow direction has changed from quarter to quarter at the Site 3 group sites, the Site 5 group sites, Site 6, Site 7, Site 8, the Site 9 group sites, Site 16, and the Site 25 group sites. In part, this may be due to the fact that water levels were not always collected from the same wells each quarter. In some cases, the cause for the apparent change is not evident, but it is important to determine the groundwater flow direction as various sites are moving into feasibility studies so that plume stability can be assessed accurately. The following table summarizes the range of groundwater flow directions at each of these sites or site groups:

Site/Site Group	Range in Groundwater Flow Directions
Site 3 Group Sites (Site 3)	north and northeast; south and southwest; or radially outward
Site 5 Group Sites (FWBZ)	west; northwest; north; or northeast
Site 5 Group Sites (SWBZ)	southwest and south; east; northeast; or north
Site 6	northeast, east or southeast; south and southeast; west; south and southwest
Site 7	east or southwest; northwest or southeast; north, northeast, or east; flow into southeast corner, then south; south and possibly west
Site 8	north; northeast; southwest and northeast turning northwest
Site 9 group sites	south or southeast; south southwest except west in southern portion of site; southwest or into sink west of Building 530
Site 16	southeast; south and southwest; west, west northwest or south
Site 25 group	northwest; into central trough then southeast or west; southwest; west; into central trough then west or southeast

Other issues noted:

- Groundwater measurements are collected over a 12 hour period; this period includes both a high and a low tide, which may influence the apparent groundwater flow direction at some sites. Ideally measurements would be taken within 2 hours of the low tide. Alternatively, measurements should be collected from each site at the same time in relation to the tide each quarter. Also, since tidal influence on the confined second water bearing zone (SWBZ) is likely, SWBZ measurements should be collected in the minimum possible time from each site.
- It is unclear how soil gas measurements can be collected when a location is flooded.
- It is unclear why both analyses for both semivolatile organic compound (SVOCs) and polynuclear aromatic hydrocarbons (PAHs) are being done for some sites. This seems redundant; perhaps one analytical method could be chosen to accomplish multiple needs.
- At Site 7, the extent of the methyl tert butyl ether (MTBE) plume has not been defined to the north and east. Also, it is unclear why new monitoring wells M07A-10 and M-7A-11 are not being sampled for total petroleum hydrocarbons (TPH) as gasoline and diesel, when TPH concentrations have been increasing at this site.
- At Site 8, it is unclear why M08-04 is not being sampled for metals; this well is in the area with lead contamination in soil. Also, as previously recommended, M08-06 should be sampled for volatile organic compounds (VOCs) because it was the location of the highest historical trichloroethene (TCE) concentration.
- At Site 14, the reason for the winter spikes in VOC concentrations in M112-A is unclear; since M101-A is only being sampled semiannually, it is not possible to assess the extent of these elevated VOC concentrations.
- At Site 25, there is no basis for assuming that the benzene/naphthalene contaminant plume flows to the southwest toward Site 7. Groundwater flow in this area is to the west or to the west-northwest, and benzene has been detected in M25-07.
- At Site 27, additional monitoring wells are needed as noted in our review of the Remedial Investigation Report.