



California Regional Water Quality Control Board

Central Valley Region

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REVIEW OF QUARTERLY BASEWIDE GROUNDWATER REPORT, VERIFICATION SAMPLING AND ANALYSIS, FALL 2002, NINTH QUARTER, NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA), CROWS LANDING FLIGHT FACILITY, STANISLAUS COUNTY

We have reviewed the *Quarterly Basewide Groundwater Report, Verification Sampling And Analysis, Fall 2002, Ninth Quarter, NASA Crows Landing Flight Facility, Stanislaus County* (Report), dated 5 March 2003. The Report provides the quarterly groundwater analytical results for the November 2002 sampling event. The Report includes monitoring data from selected basewide groundwater monitoring wells at the Underground Storage Tanks (USTs) Cluster 2, Installation Restoration Program (IRP) Site 11, and the Administration Area Plume, which includes the IRP Site 17, UST Cluster 1, and UST 117.

Groundwater was analyzed for the following constituents:

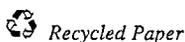
- Volatile Organic Compounds (VOCs), including methyl-tert-butyl-ether (MtBE) and ethylene dibromide (EDB) using EPA Method 8260; and
- Total Petroleum Hydrocarbons (TPH) as gasoline (-g), JP-4 jet fuel (-j), diesel (-d), and motor oil (-mo) using EPA Method 8015B.

A silica gel cleanup for TPH-d and TPH-mo analyses was performed on all groundwater samples.

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California Environmental Protection Agency



The Report makes the following conclusions:

1. The analytical results are fairly consistent with the previous quarter (Summer 2002) groundwater sampling event, and do not indicate recent significant changes in the nature or extent of degraded groundwater.
2. Site 11 is not impacted by petroleum hydrocarbons or VOCs.
3. Data from the local groundwater depression at the Bell Road (eastern site boundary) monitoring wells 17-MW-25(S) and 17-MW-25(MS) needs to be analyzed to determine if groundwater pumping from off-site agricultural supply well 6S/8E-16M1 affects the Administration Area groundwater plume. The Navy is conducting field work to investigate this area.

General Comments

We concur with the Report's findings that a local depression exists in the water table near monitoring wells 17-MW-25(S) and 17-MW-25(MS) along the eastern facility property boundary, as noted in previous monitoring reports. This depression may be the result of groundwater withdrawal at the nearby agricultural supply well 6S/8E-16M1.

The Report also indicates that you are preparing plans to conduct additional fieldwork to evaluate the local groundwater depression. The investigation will include soil borings and the installation of piezometers to provide information on the hydrogeology in the mid-shallow zone and to attempt to determine if off-site agricultural well pumping is impacting plume migration.

We are in receipt of your report entitled *Bell Road Piezometers and Extraction Well, NASA Crows Landing Flight Facility*, dated 20 March 2003. The subject report will be reviewed under separate cover.

If you have any questions, please call Dale Essary at (559) 445-5093.



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DSJ:dee

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