

5090
Ser 6426/8126
30 April 1998

Mr. Michael Rochette
California Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, California 94612

Subj: MOFFETT FEDERAL AIRFIELD (MFA) SITE 9 SOURCE CONTROL MEASURES (SCM)
SELF-MONITORING REPORT FOR THE BUILDING 6, 12, AND 45 TREATMENT SYSTEMS
QUARTER 3 JULY THROUGH SEPTEMBER 1997
QUARTER 4 OCTOBER THROUGH DECEMBER 1997
QUARTER 1 JANUARY THROUGH MARCH 1998

Dear Mr. Rochette:

The U.S. Navy is submitting this self-monitoring report for the Building 6, 12, and 45 treatment systems for the third quarter of 1997, fourth quarter of 1997, and the first quarter of 1998. Summary tables, laboratory results, and chain-of-custody records for each quarter are attached.

Quarter 3, July through September 1997

Construction of the West-side Aquifer Treatment System (WATS) began in August 1997. The WATS is intended to replace the Site 9 SCMs and uses some of the components of these systems. As a result, the Building 6 and Building 12 treatment systems were dismantled on 15 August 1997 and were not sampled during the August and September sampling events. The pumps for extraction wells W9-46 (Building 6) and W9-47 (Building 12) were removed from service and these wells were reverted back to service as monitoring wells.

Extraction well FP9-1, which pumped to the Building 45 treatment system, was shut down on 18 September 1998, because its piping had to be removed to accommodate the excavation for the WATS treatment pad. This well was also reverted back to monitoring well service. Well W61-1, however, remained in service during this period.

No volatile organic compounds (VOCs), purgeable total petroleum hydrocarbons (TPH), or extractable TPH were detected in the effluent from the Building 6 treatment system during the July 1997 sampling event. No VOCs, purgeable TPH, or extractable TPH were detected in the effluent from the Building 45 treatment system during the July, August, and September 1997 sampling events.

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Chromium (50 micrograms per liter [$\mu\text{g/L}$]), lead (4.4 $\mu\text{g/L}$), and selenium (6.0 $\mu\text{g/L}$), were detected above permit limits in effluent samples from the Building 45 treatment system. Chromium (19 $\mu\text{g/L}$), lead (3.4 $\mu\text{g/L}$) and selenium (8.0 $\mu\text{g/L}$) were detected in the sample collected at the National Aeronautics and Space Administration (NASA) settling basin (NSB), slightly above the permit limits of 11 $\mu\text{g/L}$ (chromium), 3.2 $\mu\text{g/L}$ (lead), and 5 $\mu\text{g/L}$ (selenium). The Building 45 effluent may have contributed to the chromium, lead, and selenium levels at the NSB. However, these constituents are not known groundwater contaminants at MFA and the levels detected are consistent with naturally occurring regional and basewide background chromium, lead, and selenium concentrations in groundwater. At any rate, fish toxicity testing of the effluent from the Building 45 treatment system indicated that effluent toxicity was below the permit limits.

Quarter 4, October through December 1997

No VOCs, purgeable TPH, or extractable TPH were detected in the effluent from the Building 45 treatment system during the October, November, and December 1997 sampling events.

Lead (3.3 $\mu\text{g/L}$) and selenium (9.4 $\mu\text{g/L}$), were detected above permit limits in effluent samples from the Building 45 treatment system. Lead (9.4 $\mu\text{g/L}$) was also detected in the sample collected at the NSB, above the permit limit of 3.2 $\mu\text{g/L}$. Selenium, however, was not detected at the NSB. However, lead and selenium are not known groundwater contaminants at MFA and the levels detected are consistent with naturally occurring regional and basewide background concentrations in groundwater. Fish toxicity testing of the effluent from the Building 45 treatment system indicated 100-percent survival of 3-spined stickleback for 96 hours.

Quarter 1, January through March 1998

The transfer pump from the air stripper sump broke down on 21 January 1998. As a result, the system was shut down and the January sampling event was canceled. On 4 February 1998, the water level in the Hangar 1 Sump reached a critical level and the Building 45 system was started up to treat the water. The system was re-plumbed to bypass the air stripper and routed the Hangar 1 Sump and Electrical Vault 5 water directly to the two granular activated carbon (GAC) units. Well W61-1 was not turned on during this period to reserve hydraulic capacity for the storm drain action water and reduce contaminant loading on the GAC. The air stripper transfer pump was repaired on 3 April 1998 and the system is now operating normally. Well W61-1 has also resumed extraction.

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No VOCs, purgeable TPH, or extractable TPH were detected in the effluent from the Building 45 treatment system during the February and March 1998 sampling events. These results indicate that bypassing the air stripper and treating the water only with GAC was just as effective at contaminant removal as normal operation.

With the exception of selenium, all metals were below permit limits in the Building 45 effluent sample. Selenium was detected at 9.4 µg/L, above the 5.0 µg/L permit limit. Selenium, however, was not detected in the sample collected at the NSB. Selenium is not a known groundwater contaminant at MFA and the level detected is consistent with naturally occurring regional and basewide background concentrations in groundwater. Fish toxicity testing of the effluent from the Building 45 treatment system indicated that effluent toxicity was below the permit limit.

Please call Mr. Su Don Tu of my staff at (650) 244-2524 or Mr. David Berestka of Tetra Tech at (303) 312-8856 if you have any questions or comments.

Sincerely,

ORIGINAL SIGNED BY:
STEPHEN CHAO
BRAC Environmental Coordinator

Encl:

- (1) Self-Monitoring Report for Quarter 3, July through September 1997
- (2) Self-Monitoring Report for Quarter 4, October through December 1997
- (3) Self-Monitoring Report for Quarter 1, January through March 1998

Copy to:
Tetra Tech EM Inc. (Attn: David Berestka)

Blind copies to:
642, 6422, 6426
Information Repository (2 copies)
Chron, green
Activity File: Moffett/Q198

ENCLOSURE 1

**SELF-MONITORING REPORT FOR QUARTER 3
JULY THROUGH SEPTEMBER 1997**

**THIS ENCLOSURE WAS NOT SUBMITTED TO THE
ADMINISTRATIVE RECORD FILE.**

QUESTIONS MAY BE DIRECTED TO:

**DIANE C. SILVA
RECORDS MANAGEMENT SPECIALIST
NAVAL FACILITIES ENGINEERING COMMAND
SOUTHWEST
1220 PACIFIC HIGHWAY
SAN DIEGO, CA 92132**

TELEPHONE: (619) 532-3676

ENCLOSURE 2

SELF-MONITORING REPORT FOR QUARTER 4
OCTOBER THROUGH DECEMBER 1997

THIS ENCLOSURE WAS NOT SUBMITTED TO THE
ADMINISTRATIVE RECORD FILE.

QUESTIONS MAY BE DIRECTED TO:

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NAVAL FACILITIES ENGINEERING COMMAND
SOUTHWEST
1220 PACIFIC HIGHWAY
SAN DIEGO, CA 92132

TELEPHONE: (619) 532-3676

ENCLOSURE 3

**SELF-MONITORING REPORT FOR QUARTER 1
JANUARY THROUGH MARCH 1998**

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ADMINISTRATIVE RECORD FILE.**

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SOUTHWEST
1220 PACIFIC HIGHWAY
SAN DIEGO, CA 92132**

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