

THE FACTS

Information About
Environmental Cleanup
at McClellan AFB.

Produced by McClellan AFB Environmental Management

Number 17

McClellan Expands Groundwater Investigation to Areas Southeast of Base

This fact sheet provides a description of the basewide environmental investigation and cleanup that has been underway at McClellan since 1979, as well as information about contamination assessment and cleanup activities in the southeast portion of the base, known as Operable Unit (OU) A. McClellan Air Force Base (AFB) is continuing its investigation of environmental contamination on- and off-base. McClellan has been expanding its investigation of groundwater contamination to areas adjacent but outside the borders of the base. For the past year, the area south and southeast of the base has been under investigation. Figure 1 is a map of the base and the location of the various operable units.

Background

Since 1979, McClellan has been investigating environmental contamination resulting from past hazardous materials handling and disposal practices. As part of a basewide investigation, McClellan has been studying the groundwater quality on base and in areas surrounding the base.

In June 1983, McClellan completed a preliminary investigation which confirmed that groundwater beneath the base was contaminated with organic compounds. The materials handling and disposal practices that resulted in the contamination have been stopped. McClellan currently uses environmentally safe guidelines for management and disposal of petroleum products and solvents.

As part of its investigation, McClellan installed and sampled monitoring wells off-base to determine the extent of groundwater contamination. The results of the off-base sampling revealed that contamination had moved off-base to the west near OU D. In May 1986, McClellan launched a \$3.4 million cleanup plan that included hooking up approximately 550 residences to municipal drinking water sources. These homes, located west of the base, had previously used private wells. While these wells were not all contaminated, McClellan officials believed it was best to connect all residents simultaneously.

Groundwater cleanup efforts have been prioritized based on risk. In March 1987, a \$3.2 million groundwater treatment plant began treating contaminated groundwater beneath OU D. In July 1988, McClellan connected monitoring and extraction wells in OU C to the groundwater treatment plant. To date, the groundwater treat-

ment plant has removed more than 41,000 pounds of organic contamination from the groundwater beneath OU C and D. In July 1990, McClellan's Groundwater Treatment Plant was selected for the 1990 Environmental Success award given by the National Environmental Awards Council.

McClellan AFB is continuing to make progress in determining the nature and extent of groundwater contamination on and off-base. Groundwater contamination can be minimized or removed by treating the source of contamination. To remove source contamination, McClellan is using innovative treatment technologies to clean up prior waste disposal pits and contaminated soil at several locations throughout the base. For example, a soil vapor extraction system was installed in OU D in 1992, and this system has removed over 46,000 pounds of contamination in pilot tests.

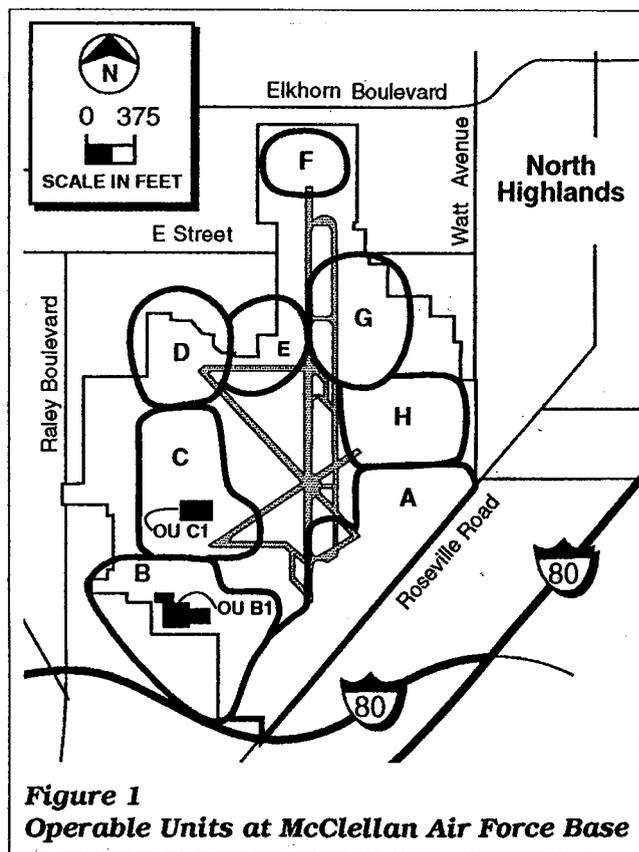


Figure 1
Operable Units at McClellan Air Force Base

Operable Unit (OU) A

Operable Unit A is located in the southeast portion of McClellan AFB. Aircraft support and maintenance facilities have been located in this area since the late 1930s. Industrial activities and facilities within OU A include aircraft and engine maintenance facilities, surface drainages, underground facilities, laboratories, storage areas, and warehouses.

On-base monitoring wells have shown the groundwater beneath OU A to be contaminated with volatile organic compounds (VOCs) such as trichloroethylene (TCE). VOCs are organic compounds that readily evaporate (volatilize) at room temperature. TCE is an organic solvent that was widely used in aircraft maintenance activities at the base until 1978.

McClellan has been investigating groundwater contamination throughout the base as part of its Groundwater OU Remedial Investigation. McClellan created the Groundwater Operable Unit in 1992 to more comprehensively study basewide groundwater contamination. McClellan is also investigating the possibility of installing extraction wells and an additional groundwater treatment plant in OU A.

Results of Sampling Off-Base Near OU A

McClellan AFB has been conducting quarterly groundwater sampling in off-base monitoring wells near Operable Unit (OU) A. The groundwater plume beneath OU A is being further studied to determine flow direction and rate.

McClellan AFB will continue to conduct quarterly groundwater sampling and results will be presented at the quarterly Technical Review Committee (TRC) meetings and in future fact sheets and newsletters. Results of extensive quarterly sampling and analysis of cleanup remedies will be presented in the draft remedial investigation/feasibility study

(RI/FS) in February 1994. The RI/FS for the Groundwater Operable Unit will be available for public review; a public comment period is planned to begin in April 1994.

In the past, trace levels of trichloroethylene (TCE) have been detected off-base in the shallow groundwater zone, approximately 100 to 125 feet below ground surface (bgs). The levels of TCE found off-base near OU A are well below the maximum contaminant level (MCL) permitted by the State of California, which is 5 parts per billion (ppb). An MCL is a drinking water standard promulgated under the Safe Drinking Water Act.

Figure 2 shows the location of the off-base monitoring wells and Table 1 presents some of the groundwater sampling results for TCE.

Preliminary results of prioritized study indicate soil and groundwater contamination has been found on-base, southwest of MW 1061 near Site 24 in OU A. This site-specific investigation is refining McClellan's understanding of regional groundwater quality and flow direction and rate. McClellan has expanded its study to off-base areas near Site 24, and will be installing and testing monitoring wells near the Air National Guard Station. Potential

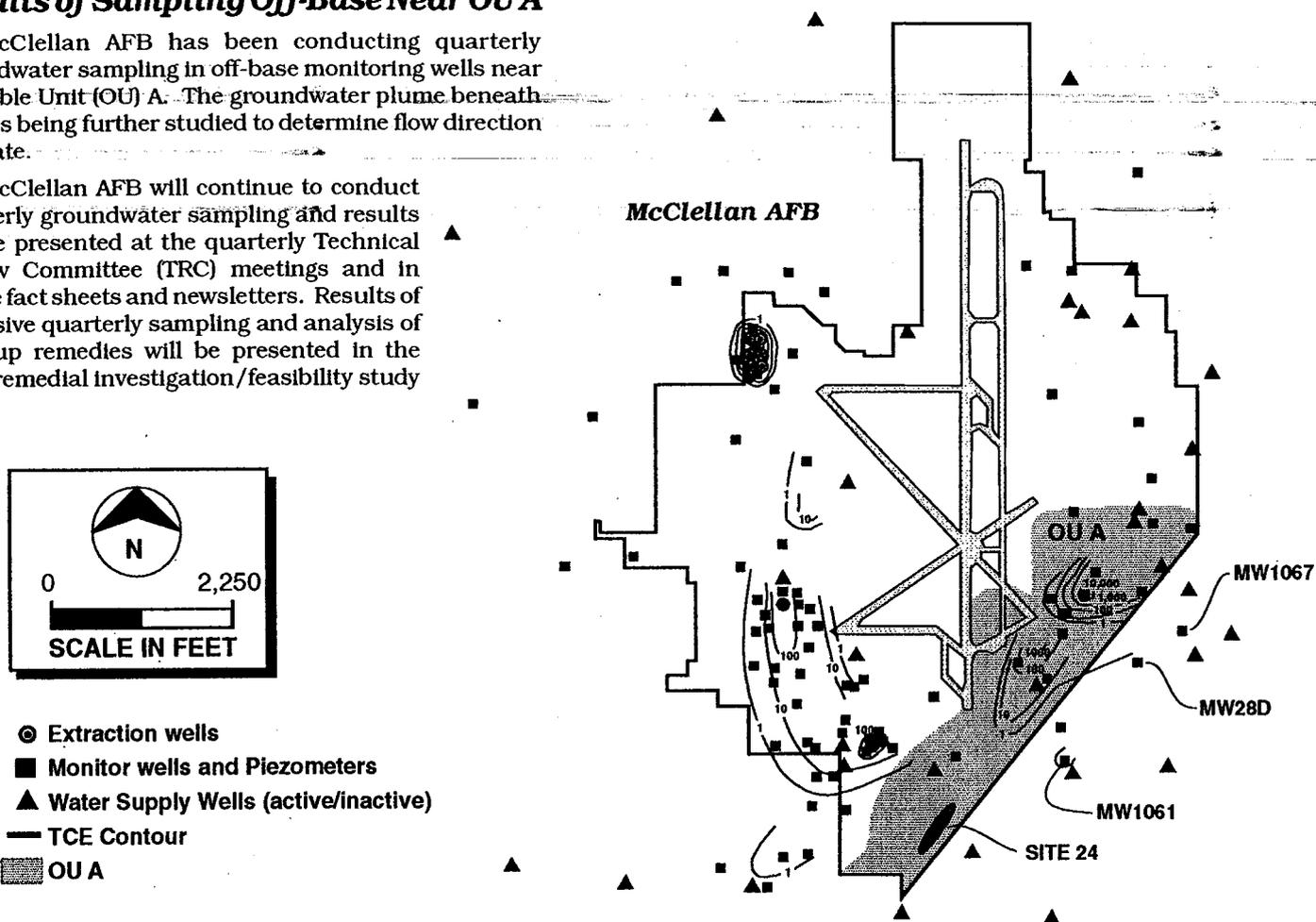
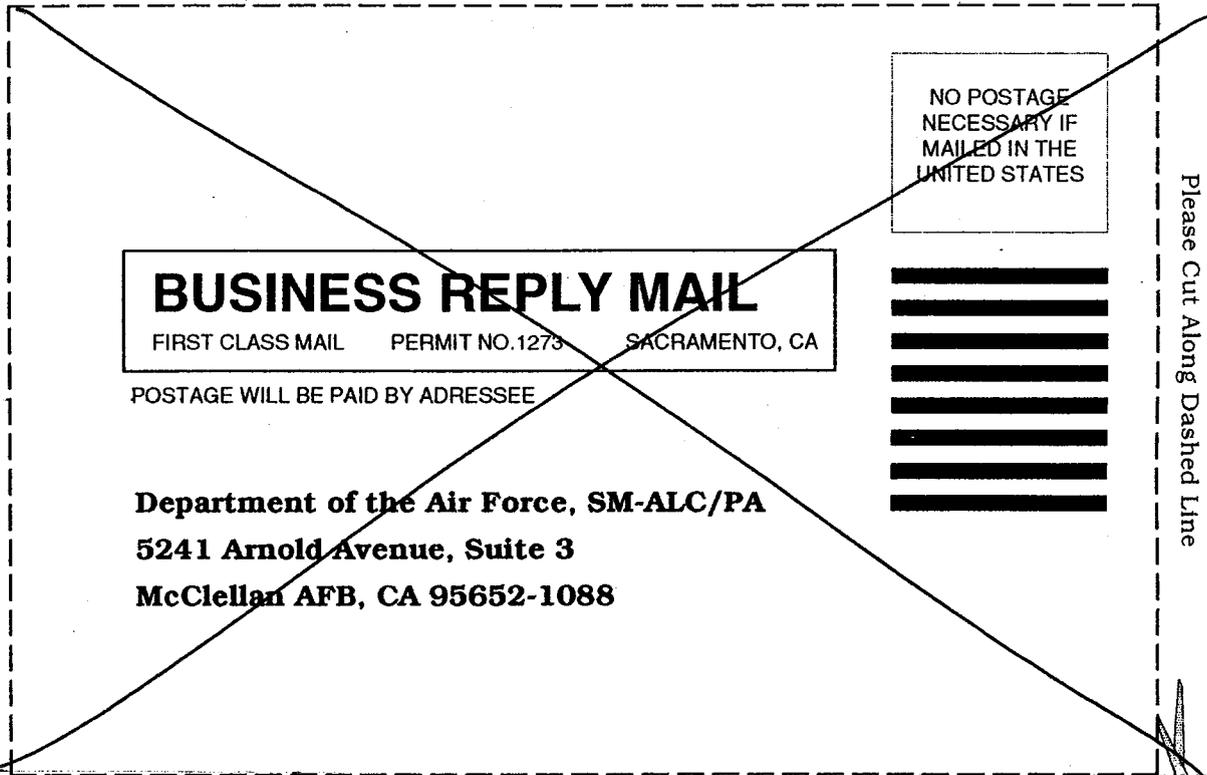


Figure 2

Extraction, monitoring, and water supply wells on and off base. Contours indicate concentrations measured for TCE in parts per billion (ppb) in the shallow groundwater zone.



sources of the groundwater contamination will be investigated and remediated. More information on results of study in this area will be provided at future TRC meetings, newsletters, and fact sheets.

Information Repositories

McClellan AFB maintains information repositories containing fact sheets, minutes from Technical Review Committee meetings, technical documents, the Community Relations Plan, and other reference materials. For further information, please contact Debbie Heindel, Community Relations Coordinator, at (916) 643-0830, ext. 385.

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McClellan AFB Library

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	10/2/92	4/13/93
Monitoring Well 1067 (104 to 124 feet bgs)	1.3	Nondetectable
Monitoring Well 28D (125 to 135 feet bgs)	Nondetectable	Nondetectable
Monitoring Well 1061 (98 to 118 feet bgs)	Nondetectable	0.68

^a This was the first time this well showed any detectable concentration, because the well has historically been dry. Again, the concentration detected is far below the state MCL.

For More Information Contact

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