



# Camp Stanley Storage Activity Groundwater Contamination – June 2003 Sampling FACT SHEET

No. 15 – September 2003

*The purpose of this fact sheet is to provide an overview of the quarterly groundwater sampling conducted in June 2003. Future fact sheets will be issued to provide additional information regarding on-going sampling, investigation, and cleanup activities. The results for all groundwater sampling are available in the CSSA Environmental Encyclopedia located behind the Reference Desk in the Government Documentation Section on the 2nd floor at the downtown San Antonio Public Library, 600 Soledad Street, San Antonio, Texas, or on the internet at [www.stanley.army.mil](http://www.stanley.army.mil).*

## On-post Groundwater Monitoring

As part of the Camp Stanley Storage Activity (CSSA) environmental program, on-post groundwater monitoring has been conducted since 1991. The wells sampled include drinking water, monitoring, and agricultural/livestock wells. The laboratory results obtained from the June 2003 sampling indicated minor changes to volatile organic compound (VOC) levels on-post from findings reported in previous fact sheets.

All on-post drinking water wells are analyzed quarterly for the metals arsenic, cadmium, lead, barium, chromium, copper, nickel, zinc, and mercury. All existing CSSA monitoring and agricultural/livestock wells are analyzed for the same nine metals once annually. Newly installed monitoring wells sampled for the first time are analyzed for the same nine metals and calcium, iron, magnesium, manganese, potassium, and sodium. In June 2003, the annual sampling event for monitoring and agricultural/livestock wells was conducted. No on-post monitoring or drinking water wells had metals results above the appropriate maximum contaminant level (MCL), action level or secondary standard.

## CSSA Off-post Groundwater Monitoring Plan

CSSA describes its off-post groundwater monitoring plan in its *Off-Post Monitoring Program and Response Plan*, July 2001 (Plan). The goals of this Plan are to confirm that drinking water meets U.S. Environmental Protection Agency (EPA) and Texas Commission on Environmental Quality (TCEQ) safe drinking water standards, to determine where VOC contamination has migrated, monitor off-post water wells near known VOC source areas at CSSA, and to respond according to the Plan if contaminant levels in these wells exceed standards. As part of the Plan, 31 off-post wells were sampled in June 2003.

Off-post water wells were selected for testing based on continued protection of drinking water and to provide detailed information for the environmental program. Factors such as well location, screened interval, and sampling access were all considered when making well selections.

CSSA takes action if VOC contamination is detected in on- and off-post drinking water wells at concentrations greater than 90 percent of the MCL or above 4.5 parts per billion (ppb) for tetrachloroethene (PCE) and trichloroethene (TCE). This action includes supplying

bottled water to the affected residents within 24 hours of the notification of detection and resampling the well for confirmation. If additional sampling confirms previous test results, CSSA will install and maintain a granular activated carbon (GAC) filter, which will remove contaminants from the water or connect the well owner to an alternate water supply for as long as contaminant levels exceed standards. Seven GAC filtration systems have been installed for off-post water wells: LS-7 (August 2001), LS-6 (August 2001), RFR-10 (two units, October 2001), RFR-11 (October 2001), LS-2/LS-3 (April 2002), and OFR-3 (April 2002).

## June 2003 Groundwater Sampling Results

The locations of all off-post wells sampled in June 2003 are shown on Figure 1. According to the EPA drinking water standards, concentrations below 5.0 ppb for PCE and TCE are considered safe. Table 1 (see back) presents groundwater analytical data for PCE and TCE from June 2003. PCE in wells LS-2 and LS-7 were below the MCL in June 2003 after exceeding the MCL for the first time in December 2002. RFR-10 also exceeded the MCL for both PCE and TCE in June 2003. RFR-11 was below the MCL in June 2003. Off-post wells with concentrations exceeding MCLs in the past were equipped with a GAC filtration system. All other VOC detections were below the applicable drinking water MCLs and do not prevent the use of these wells. CSSA will continue to sample both on- and off-post groundwater on a quarterly basis for the foreseeable future. CSSA will continue to coordinate this groundwater monitoring program with many regulatory agencies and other potentially affected parties, including the EPA, TCEQ, Fort Sam Houston, City of Fair Oaks, Fair Oaks Water Utilities, Bexar Metropolitan Water District, Bexar County Commissioners' office, State Representatives' offices, local, state, and federal elected officials, and others.

## Source Area Cleanup

Groundwater contamination at CSSA is associated with three VOC source areas that have been identified to date. Two source areas, Solid Waste Management Units (SWMUs) B-3 and O-1, are in the central portion of CSSA and affect the area designated as Plume 1. Cleanup activities at SWMU B-3 have involved soil vapor extraction (SVE) and removal of over 700 cubic yards of VOC contaminated soils. Additional SVE cleanup is currently being planned. A third source area, Area of Concern (AOC)-65, was identified in the southwest corner of CSSA and affects the area designated as Plume 2. Cleanup activities include the installation and testing of an SVE system, removal of over 600 cubic yards of contaminated soils, and rework of a surface drainage ditch to route rainwater run-off away from the site. Testing of the AOC-65 SVE system is being conducted to evaluate its effectiveness and to optimize performance. A significant reduction in soil gas concentrations beneath AOC-65/Building 90 was observed during the initial operation of the sub-slab SVE system. Testing of the SVE system west of Building 90 is ongoing.

**Public Comment**

CSSA will continue to inform the public about different aspects of its environmental program. The public is welcome to comment on this fact sheet and the environmental activities at CSSA by writing to:

Installation Manager  
 Camp Stanley Storage Activity  
 25800 Ralph Fair Road  
 Boerne, Texas 78015-4800

You may also comment by calling:

- CSSA Installation Manager, Mr. Jason D. Shirley, at (210) 295-7416;
- EPA Regional Program Manager, Mr. Greg Lyssy, at (214) 665-8317; or
- Fort Sam Houston, Public Affairs Office, Mr. Phillip Reidinger, at (210) 221-1151

**Table 1 - Groundwater Sampling Results  
 Off-post wells near Plume 1**

Well Number	PCE (ppb)	TCE (ppb)
FO-J1	0.24	ND
JW-13	ND	ND
JW-14	ND	ND
JW-26	0.14	ND
JW-27	ND	ND
JW-29	0.11	ND
JW-30	0.20	ND
JW-6	ND	ND
JW-8	0.34	ND
JW-9	ND	ND
RFR-8	ND	ND

**Off-post wells near Plume 2**

Well Number	PCE (ppb)	TCE (ppb)
HS-2	0.2	ND
HS-3	ND	ND
I10-2	ND	ND
I10-4	ND	ND
I10-7	ND	ND
LS-1	0.3	0.48
LS-2 (Pre GAC)	2.20	0.38
LS-3 (Pre GAC)	2.20	0.51
LS-4	0.2	ND
LS-5	ND	0.19
LS-6 (Pre GAC)	2.70	0.23
LS-7 (Pre GAC)	3.60	0.38
OFR-1	0.4	ND
OFR-2	0.2	ND
OFR-3 (Pre GAC)	3.60	2.82
OFR-4	ND	ND
RFR-10 (Pre GAC)	<b>21.40</b>	<b>9.52</b>
RFR-11 (Pre GAC)	3.10	1.17
RFR-12	ND	0.24
RFR-9	ND	ND

The MCL for PCE and TCE is 5.0 ppb

ND = The VOC was not detected above the method detection limit.

Bold = Concentration > MCL

