Camp Stanley Storage Activity
Groundwater Contamination – March 2005 Sampling
FACT SHEET

No. 22 – March 2005

The purpose of this fact sheet is to provide an overview of the quarterly groundwater sampling conducted in March 2005. Future fact sheets will be issued to provide additional information regarding on-going sampling, investigation, and cleanup activities. The results for all groundwater sampling events are available in the Camp Stanley Storage Activity (CSSA) Environmental Encyclopedia located at the downtown San Antonio Public Library, 600 Soledad Street, behind the Reference Desk in the Government Documentation Section on the 2nd floor, or on the internet at www.stanley.army.mil.

On-post Groundwater Monitoring

On-post groundwater monitoring has been conducted since 1991 as part of the Camp Stanley Storage Activity (CSSA) environmental program. The wells sampled include drinking water, monitoring, and agricultural/livestock wells. All active on-post wells are analyzed quarterly for volatile organic compounds (VOCs). Metals analysis for arsenic, cadmium, lead, barium, chromium, copper, nickel, zinc, and mercury is conducted quarterly for the drinking water wells and annually for the monitoring and agriculture wells.

The laboratory results obtained from the March 2005 sampling indicated decreasing concentrations of VOC levels on-post as compared to findings reported in previous fact sheets. No metals results were above the appropriate U.S. Environmental Protection Agency (EPA) maximum contaminant level (MCL), action level (AL), or secondary standard during the March 2005 sampling event.

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 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 CSSA VOC source areas, and to respond according to the Plan if contaminant levels in those wells exceed standards. As part of the Plan, 31 off-post wells were sampled in March 2005.

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

CSSA takes action if VOC contamination is detected in off-post 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 detection and resampling the well for confirmation. If additional sampling confirms previous test results, CSSA will either 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).

March 2005 Groundwater Sampling Results

The locations of all off-post wells sampled in March 2005 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 March 2005. Twenty-one wells had VOC detections. One well, RFR-10, exceeded the MCL for PCE and TCE in the March 2005 sampling event. PCE and/or TCE concentrations detected in wells LS-2, LS-3, LS-6, LS-7, OFR-3, and RFR-11 were below the MCL and all other VOC detections were below the laboratory reporting limit. In all other wells tested, VOC detections were below the applicable MCLs in drinking water and below the laboratory reporting limit (RL) for PCE and TCE.

CSSA will continue to sample both on- and off-post groundwater on a quarterly basis. CSSA will continue to coordinate this groundwater monitoring program with the 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, private well owners, and others.

March 2005 post-GAC Sampling Results

Because of the previously detected presence of VOCs, seven off-post wells in the area are equipped with GAC filters. In March 2005, analyses of the post-GAC water samples confirmed that no VOCs related to the CSSA source areas were present above the applicable MCLs, and that the GAC units were working properly. Table 2 presents the results for PCE and TCE from post-GAC water treatment systems sampled. CSSA will review the efficiency of the GAC for PCE, TCE and chloroform at LS-2 and –3 this fiscal year.

Source Area Cleanup

Groundwater contamination at CSSA is associated with three VOC source areas that have been identified. Two source areas, Solid Waste Management Unit (SWMU) B-3 and SWMU O-1, are in the central portion of CSSA and affect the area designated as Plume 1. Cleanup activities at SWMU B-3 and O-1 involve soil vapor extraction (SVE). In late 2003, some of the VOC contaminated soil at SWMU B-3 was removed. In February 2004, a new pilot SVE system was installed at SWMU B-3. Area of Concern (AOC)-65, was identified in the southwest corner of CSSA as the other potential source area and affects the area designated as Plume 2. An SVE system installed during the summer of 2002 is being tested to evaluate its effectiveness and optimize performance. A significant

reduction in soil gas concentrations beneath AOC-65 and/or Building 90 has been observed since initial operation of the SVE system. The SVE system west of Building 90 will be operated for the foreseeable future.

Public Comment

CSSA will continue to inform the public about various 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 or (210) 336-0449 (mobile)

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

Well Number	PCE (ppb)	TCE (ppb)
FO-8	ND	ND
FO-J1	0.12F	0.25F
JW-7	0.38F	ND
JW-8	0.12F	0.21F
JW-9	ND	ND
JW-14	0.10F	ND
JW-28	ND	ND
JW-29	ND	ND
JW-30	0.10F	0.23F
RFR-4	ND	ND
RFR-5	ND	ND
RFR-13	ND	ND

The MCL for PCE and TCE is 5.0 ppb
ND = The VOC was not detected above the method detection limit.
F = The VOC was not detected above the RL.
Bold = Concentration > MCL

Table 1, cont'd
Off-post wells near Plume 2

Well Number	PCE (ppb)	TCE (ppb)
DOM-2	ND	ND
HS-2	0.17F	ND
I10-2	0.12F	0.12F
I10-4	ND	ND
I10-7	ND	ND
JW-12	ND	ND
LS-2*	**2.25**	0.40F
LS-3*	**1.74**	0.19F
LS-4	0.18F	ND
LS-5	ND	0.17F
LS-6*	**4.22**	0.41F
LS-7*	**2.32**	0.31F
OFR-1	0.19F	ND
OFR-2	ND	ND
OFR-3*	1.35F	**2.08**
OFR-4	ND	ND
RFR-10*	**8.03**	**5.19**
RFR-11*	**4.84**	0.32F
RFR-12	ND	0.20F

The MCL for PCE and TCE is 5.0 ppb
ND = The VOC was not detected above the method detection limit.
F = The VOC was not detected above the RL.
Bold = Concentration > MCL
*These wells are equipped with a GAC filtration system. Results in this table are for samples collected prior to treatment by the GAC filtration system.

Table 2 - GAC System Sampling Results
March 2003
Off-post wells

Well Number	PCE (ppb)	TCE (ppb)
LS-2/LS-3-A2	ND	ND
LS-6-A2	ND	ND
LS-7-A2	ND	ND
OFR-3-A2	ND	ND
RFR-10-A2	ND	ND
RFR-10-B2	ND	ND
RFR-11-A2	ND	ND

The MCL for PCE and TCE is 5.0 ppb
ND = The VOC was not detected above the method detection limit.
F = The VOC was not detected above the RL.
A1 – Sampled after 1st GAC canister
A2 – Sampled after 2nd GAC canister

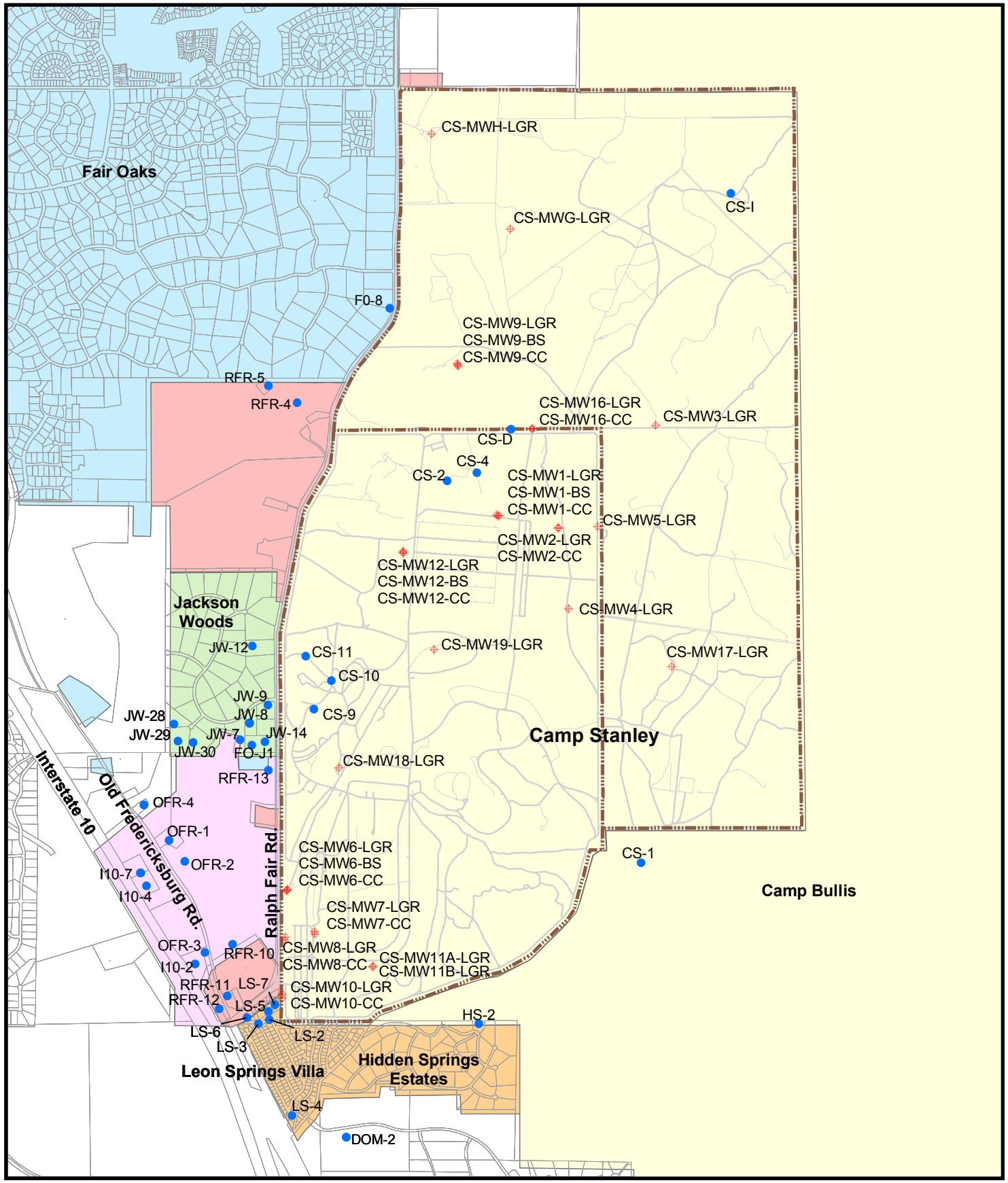

Figure 1

Water Well and Monitoring Well Locations Sampled in March 2005

Camp Stanley Storage Activity

PARSONS

J:\743\743322\05000offpost\Mar05\quarterly_monitoring_Mar2005.mxd