FINAL

June 2009

Off-Post
Quarterly Groundwater Monitoring Report

Prepared For

Department of the Army
Camp Stanley Storage Activity
Boerne, Texas

November 2009

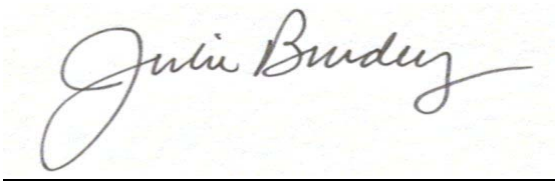
GEOSCIENTIST CERTIFICATION

June 2009 Off-post Quarterly Groundwater Monitoring Report

For

Department of the Army
Camp Stanley Storage Activity
Boerne, Texas

I, Julie Burdey, P.G., hereby certify that the June 2009 Off-post Quarterly Groundwater Monitoring Report for the Camp Stanley Storage Activity installation in Boerne, Texas accurately represents the site conditions of the subject area. This certification is limited only to geoscientific products contained in the subject report and is made on the basis of written and oral information provided by the CSSA Environmental Office, laboratory data provided by APPL, and field data obtained during groundwater monitoring conducted at the site in June 2009, and is true and accurate to the best of my knowledge and belief.



Julie Burdey, P.G.
State of Texas
Geology License No. 1913

11/02/2009
Date

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EXECUTIVE SUMMARY

- A total of 28 off-post groundwater well samples were collected during the June 2009 monitoring event.
- Analyses indicated off-post wells OFR-3, RFR-10, and I10-4 exceeded the maximum contaminant level (MCL) for tetrachloroethene (PCE). Wells OFR-3 and RFR-10 were previously equipped with a granular activated carbon (GAC) treatment system. Well I10-4 sits in a vacant lot, is not currently being used, and there is no pump in the well.
- Post-GAC samples collected in March 2009 were all non-detect indicating that the GAC filtration systems are functioning properly. Post-GAC samples will be collected again during the September 2009 event.
- Semi-annual GAC maintenance was performed in May 2009. This involved replacing one carbon canister and other routine maintenance in each GAC. During this maintenance visit the GAC structures were also replaced with new metal buildings. The next GAC maintenance visit will be conducted in November 2009.

JUNE 2009
OFF-POST GROUNDWATER MONITORING REPORT
CAMP STANLEY STORAGE ACTIVITY

1.0 INTRODUCTION

This report presents results from the off-post quarterly sampling performed at Camp Stanley Storage Activity (CSSA) in June 2009 as required by the Administrative Order on Consent dated May 5, 1999. The purpose of this report is to present a summary of the sampling results. Results from all four 2009 quarterly monitoring events (March, June, September, and December) will be described in detail in an Annual Report to be submitted after December 2009. The Annual Report will also provide an interpretation of all analytical results and an evaluation of any temporal or spatial trends observed in the groundwater contaminant plume during investigations.

Groundwater monitoring scoped under the U.S. Army Corps of Engineers (USACE) Fort Worth District (CESWF), Contract W9126G-07-D-0028, Task Order DO11, was performed June 1-5, 2009. The quarterly off-post groundwater monitoring program was initiated in September 2001 in accordance with the **Off-Post Monitoring Program and Response Plan** (**CSSA, 2002,** herein referred to as the "Plan"). Action levels for detection of volatile organic compounds (VOCs) and the rationale for sampling off-post wells are located in the Plan.

The CSSA groundwater monitoring program also follows the provisions of the groundwater monitoring program DQOs as well as the recommendations of all applicable project-specific work plans. **Appendix A** provides an evaluation of the Data Quality Objective Attainment for this sampling event.

Current objectives of the off-post groundwater monitoring program include determining whether concentrations of chlorinated VOCs detected in off-post public and private drinking water wells exceed safe drinking water standards. Other objectives are to determine the lateral and vertical extent of the contaminant plumes and identify trends (decreasing or increasing) in contaminant levels over time in the sampled wells.

2.0 JUNE 2009 ANALYTICAL RESULTS

In June 2009, a groundwater sample was collected from each of 28 off-post wells shown in **Figure 2-1**. Well DOM-2 was not sampled this quarter due to the lack of electricity at the property. Post-GAC (granular activated carbon) samples were not collected during this event. Post-GAC samples (LS-6, LS-7, RFR-10, RFR-11, and OFR-3) are collected semi-annually and will be sampled again during the September 2009 monitoring event. **Table 2-1** includes the rationale for selection of the wells sampled in June 2009, and **Figure 2-1** provides well locations for the following sampled wells:

- Two public supply well in the Fair Oaks area (FO-J1 and FO-17);
- Three public supply wells in the Hidden Springs Estates subdivision (HS-1, HS-2 and HS-3);
- One public well (I10-7) and one privately owned unused well (I10-4), in the Interstate-10 area;

- Nine privately owned wells in the Jackson Woods subdivision (JW-6, JW-7, JW-8, JW-12, JW-13, JW-14, JW-28, JW-29, and JW-30);
- Five wells in the Leon Springs Villa area (one public well: LS-6; two privately-owned wells: LS-5 and LS-7; and two wells: LS-1 and LS-4 that were taken out of service but will remain in the sampling program for data collection purposes);
- Two privately owned wells on Old Fredericksburg Road (OFR-1 and OFR-3); and
- Five privately owned wells in the Ralph Fair Road area (RFR-8, RFR-10, RFR-11, RFR-13, and RFR-14).

All wells were sampled from a tap located as close to the wellhead as possible. Most taps were previously installed by CSSA to obtain a representative groundwater sample before pressurization or storage of groundwater in the water supply distribution system. Water was purged to engage the well pump prior to sample collection. Conductivity, pH, and temperature readings were recorded to confirm adequate purging while the well was pumping. Generally, this required an average of 20 gallons to be purged prior to sample collection.

A total of 28 groundwater samples, two field duplicate samples, two matrix spike/matrix spike duplicate (MS/MSD) pairs, and three trip blanks were submitted to Agriculture & Priority Pollutant Laboratory (APPL) in Fresno, California for analysis. Groundwater samples were analyzed for the short list of VOCs using SW-846 Method 8260B. The approved short list of VOCs includes *cis*-1,2-dichloroethene (*cis*-1,2-DCE), *trans*-1,2-DCE, 1,1-DCE, tetrachlorethene (PCE), trichloroethene (TCE), and vinyl chloride.

The data packages (Parsons internal reference DO11 #50, #51, #53 and #54) contain the analytical results for this sampling event. Laboratory results were reviewed and verified according to the guidelines outlined in the CSSA Quality Assurance Project Plan (QAPP), Version 1.0. Parsons received data packages June 23 through June 30, 2009.

Concentrations of the VOCs detected in June 2009 are presented in **Table 2-2**. Full analytical results from the June 2009 sampling event are presented in **Appendix B**. As shown in **Table 2-1**, 29 samples were scheduled for collection in June 2009, but one well (DOM-2) was not sampled due to the lack of electricity at the well.

On May 18, 2009 routine semi-annual maintenance was performed on the GAC treatment systems installed at LS-6, LS-7, OFR-3, RFR-10, and RFR-11. The carbon canisters were exchanged, new metal GAC shelters were installed, and other routine maintenance was performed. Post-GAC samples were not collected this quarter but will be collected again in September 2009.

Based on historical detections, the lateral extent of VOC contamination extends approximately 0.5 mile beyond the south and west boundaries of CSSA. Detections of VOCs have extended south to well HS-1 and HS-2 and west to OFR-1 **(Figure 2-1).**

Table 2-1
Sampling Rationale for June 2009

Well ID	2001 Sept	2001 Dec	2002 Mar	2002 June	2002 Sept	2002 Dec	2003 Mar	2003 June	2003 Sept	2003 Dec	2004 Mar	2004 June	2004 Sept	2004 Dec	2005 Mar	2005 June	2005 Sept	2005 Dec	2006 Mar	2006 June	2006 Sept	2006 Dec	2007 Mar	2007 June	2007 Sept	2007 Dec	2008 Mar	2008 June	2008 Sept	2008 Dec	2009 Mar	2009 June	Sampling Frequency:
DOM-2		NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS	NS	Yes	As needed, once annually
FO-8	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	As needed, once annually
FO-17	NS	NS		NS	NS	NS		NS	NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS	NS	NS		NS	NS	NS	NS	NS	Yes	As needed, once annually
FO-22		NS	NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS	NS		NS	NS	NS		NS	As needed, once annually
FO-J1												NS						NS	NS													Yes	Qtrly, 1 year thru Mar 10
HS-1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS												Yes	Qtrly, 1 year thru Sept 09
HS-2	NS																															Yes	Qtrly, 1 year thru Sept 09
HS-3	NS		NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS	NS	NS		NS	NS	NS		NS	Yes	As needed, once annually
I10-2																				NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	As needed, once annually
I10-4	NS									NS														NA	NA	NA	NA	NA	NA			Yes	Quarterly
I10-5	NS	NS	NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS	NS	NS	NS	NS	NS		NS	As needed, once annually
I10-7	NS	NS		NS	NS	NS			NS	NS	NS		NS																			Yes	Qtrly, for delineation
I10-8	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS			NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	As needed, once annually
JW-5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS					NS	NS	NS										NS	As needed, once annually
JW-6		NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS	NS	NS		NS	NS	NS	NS	Yes	As needed, once annually
JW-7		NS	NS	NS	NS	NS	NS	NS																								Yes	Qtrly, 1 year thru Dec 09
JW-8	NS	NS	NS	NS	NS	NS	NS																									Yes	Qtrly, 1 year thru June 09
JW-9																NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	As needed, once annually
JW-9-A2*	NS	NS	NS	NS	NS		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	As needed
JW-12		NS	NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS	NS	NS	NS			NS	NS			NS		NS	NS		Yes	Qtrly, 1 year thru Dec 09
JW-13		NS	NS	NS	NS		NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS	Yes	As needed, once annually
JW-14																			Tol													Yes	Qtrly, due to location
JW-15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS					NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	As needed, once annually
JW-26	NS	NS		NS											NS	NS	NS		NS	NS	NS		NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	Wellowner declined access.
JW-27	NS	NS	NS	NS	NS	NS	NS		NS	NS	NS		NS	NS	NS		NS									NS						NS	As needed, once annually
JW-28	NS	NS	NS	NS	NS	NS	NS	NS																	NS	NS	NS					Yes	Qtrly, due to location
JW-29	NS	NS	NS	NS	NS	NS	NS																									Yes	Qtrly, due to location
JW-30	NS	NS	NS	NS	NS	NS																										Yes	Qtrly, due to location
LS-1													NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS					Yes	QED low flow pump installed
LS-2																		NS			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	Well is offline
LS-2/LS-3-A1	NS	NS	NS	NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS	NS	NS	NS	NS	NS	NS	NS	NS	Well is offline
LS-3																								NS	NS	NS	NS	NS	NS	NS	NS	NS	Well is offline
LS-2/LS-3-A2	NS	NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS	NS	NS	NS	NS	NS	NS	NS	NS	Well is offline
LS-4																								NS	NS	NS	NS					Yes	QED low flow pump installed
LS-5																																Yes	Qtrly, 1 year thru Mar 10
LS-6																																Yes	Qtrly, 1 year thru Mar 10
LS-6-A2				NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS	Biannually (Mar & Sept)
LS-7																																Yes	Qtrly, 1 year thru Mar 10
LS-7-A2				NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS	Biannually (Mar & Sept)
OFR-1	NS																															Yes	Qtrly, 1 year thru Mar 10
OFR-2	NS	NS																	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well was P&A by Centex
OFR-3																																Yes	Qtrly, 1 year thru Mar 10
OFR-3-A2	NS	NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS	Biannually (Mar & Sept)
OFR-4	NS	NS	NS	NS	NS	NS	NS			NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	As needed, once annually
RFR-3	NS	NS	NS	NS	NS	NS	NS	NS	NS						NS	NS	NS		NS	NS		NS	NS	NS			NS	NS	NS		NS	NS	As needed, once annually
RFR-4	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		NS	NS	NS	Tol	NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	As needed, once annually
RFR-5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS			NS	NS	As needed, once annually
RFR-6		NS	NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Plugged & abandoned
RFR-7		NS	NS		NS	NS	NS	NS	NS		NS	NS	NS		NS	NS	NS	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Plugged & abandoned
RFR-8		NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS	Yes	As needed, once annually
RFR-9			NS		NS	NS	NS			NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS	As needed, once annually
RFR-10																																Yes	Qtrly, 1 year thru Sept 09
RFR-10-A2				NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS	Biannually (Mar & Sept)
RFR-10-B2				NS	NS	NS	NS	NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS	Biannually (Mar & Sept)
RFR-11																																Yes	Qtrly, 1 year thru Sept 09
RFR-11-A2				NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS	Biannually (Mar & Sept)
RFR-12																				NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	As needed, once annually
RFR-13										Well Installed										NS	NS	NS		NS	NS	NS		NS	NS	NS	Yes	As needed, once annually
RFR-14															Well Installed																Yes	Qtrly, 1 year thru Mar 10

Total Pre GAC	29
Total Post GAC	0
Total # of first time samples	0
Total # of samples:	29

VOCs detected are greater than 90% of the MCL. Sample monthly; quarterly after GAC installation.

VOCs detected are greater than 80% of the MCL. The well will be placed on a monthly sampling schedule until GAC installation then quarterly sampling after GAC installation.

VOCs detected are less than 80% of the MCL (<4.0 ppb and >0.06 ppb for PCE & <4.0 ppb >0.05 ppb for TCE). After four quarters of stable results the well can be removed from quarterly sampling.

This well has a GAC filtration unit installed by CSSA. Post GAC samples are collected every six months.
A1 - after GAC canister #1
A2 - after GAC canister #2
*JW-9-A2 is the well owner's system, not a CSSA GAC.

Yes — To be sampled in June 2009.

FT — First event for sampling by CSSA.

NS — Not sampled for that event.

No VOCs detected. Sample on an as needed basis.

NA — Not applicable, samples can no longer be collected from this locaiton due to P&A or declined right-of-entry.

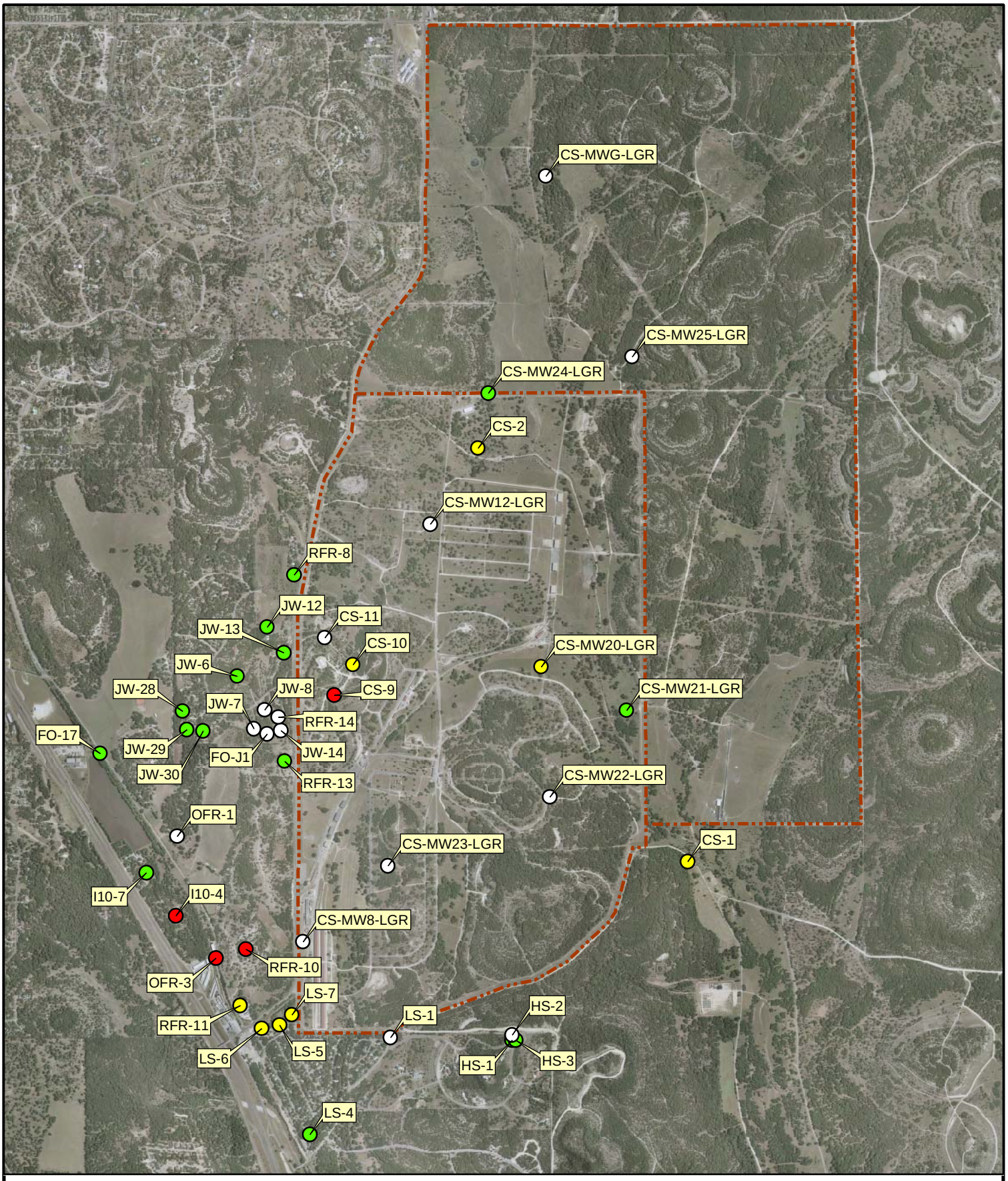

Figure 2-1

On-Post and Off-Post Well Sampling Locations for June 2009

Camp Stanley Storage Activity

PARSONS

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Table 2-2
June 2009 Off-Post Groundwater Results, Detected Analytes Only

Subdivision	Well ID	Sample Date	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	PCE	TCE	Vinyl Chloride	Comments
Fair Oaks	FO-17	6/2/2009	--	--	--	--	--	--	no historical PCE/TCE detections
	FO-J1	6/3/2009	--	--	--	**0.57F**	--	--	sporadic F flagged results since 2002
Hidden Springs	HS-1	6/3/2009	--	--	--	--	--	--	
	HS-2	6/3/2009	--	--	--	**0.23F**	--	--	
	HS-3	6/3/2009	--	--	--	--	--	--	no historical PCE/TCE detections
IH-10	I10-4	6/1/2009	--	--	--	**6.48**	**2.7**	--	PCE first detected above the MCL in Dec. 2008
	I10-7	6/2/2009	--	--	--	--	--	--	furthest clean well to the west along IH-10
	I10-7 FD	6/2/2009	--	--	--	--	--	--	
Jackson Woods Subdivision	JW-6	6/2/2009	--	--	--	--	--	--	
	JW-7	6/2/2009	--	--	--	**0.48F**	--	--	consistent F flagged PCE detections
	JW-8	6/3/2009	--	--	--	**0.37F**	--	--	
	JW-12	6/5/2009	--	--	--	--	--	--	one PCE detection in 09/07
	JW-13	6/5/2009	--	--	--	--	--	--	no historical PCE/TCE detections
	JW-14	6/3/2009	--	--	--	**0.19F**	--	--	
	JW-28	6/2/2009	--	--	--	--	--	--	no historical PCE/TCE detections
	JW-29	6/10/2009	--	--	--	--	--	--	
	JW-29 FD	6/10/2009	--	--	--	--	--	--	
	JW-30	6/2/2009	--	--	--	--	--	--	
Leon Springs Villas	LS-1	6/4/2009	--	--	--	**0.85F**	--	--	sampled with QED bladder pump, well not in use
	LS-1 FD	6/4/2009	--	--	--	**0.76F**	**0.20F**	--	
	LS-4	6/4/2009	--	--	--	--	--	--	sampled with QED bladder pump, well not in use
	LS-5	6/1/2009	--	--	--	**0.80F**	**2.64**	--	
	LS-6	6/1/2009	--	--	--	**0.93F**	**1.33**	--	GAC unit on well
	LS-7	6/1/2009	--	--	--	**1.87**	**0.72F**	--	GAC unit on well
Old Fredericksburg	OFR-1	6/3/2009	--	--	--	**0.33F**	--	--	
	OFR-3	6/1/2009	--	--	--	**5.98**	**3.21**	--	GAC unit on well
Ralph Fair Road	RFR-8	6/3/2009	--	--	--	--	--	--	no historical PCE/TCE detections
	RFR-10	6/1/2009	--	--	--	**8.78**	**2.65**	--	GAC unit on well
	RFR-11	6/1/2009	--	--	--	**0.49F**	**1.45**	--	GAC unit on well
	RFR-13	6/3/2009	--	--	--	--	--	--	
	RFR-14	6/3/2009	--	--	--	**0.24F**	--	--	consistent F flagged PCE results
Laboratory Detection Limits & Maximum Contaminant Level									
Method Detection Limit (MDL)			**0.12**	**0.07**	**0.08**	**0.06**	**0.05**	**0.08**	
Reporting Limit (RL)			**1.2**	**1.2**	**0.6**	**1.4**	**1**	**1.1**	
Max. Contaminant Level (MCL)			**7**	**70**	**100**	**5**	**5**	**2**	

BOLD	= Above the MDL
BOLD	= Above the RL
BOLD	= Above the MCL

All samples were analyzed by APPL, Inc.
VOC data reported in ug/L.
Abbreviations/Notes:

FD	Field Duplicate
TCE	Trichloroethene
PCE	Tetrachloroethene
DCE	Dichloroethene

Data Qualifiers
--The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.
F-The analyte was positively identified but the associated numerical value is below the RL.

3.0 SUMMARY AND RECOMMENDATIONS

Results of the June 2009 sampling are summarized as follows:

- PCE exceeded the MCL in wells OFR-3, RFR-10, and I10-4 in June 2009. Wells OFR-3 and RFR-10 are equipped with GAC treatment systems. Well I10-4 is a privately owned well that is not currently being used. The pump has been removed and the well owner has been asked to contact Camp Stanley if the status of the well changes.
- PCE/TCE was detected above the RL in drinking water wells LS-5, LS-6, LS-7, and RFR-11. Three of these wells (LS-6, LS-7, RFR-11) have GAC treatment systems in place, and well LS-5 is monitored quarterly (and has never exceeded the MCL)?
- Low levels (below the RL) of PCE/TCE were also detected in wells FO-J1, HS-2, JW-7, JW-8, JW-14, LS-1, OFR-1, and RFR-14.
- 1,1-DCE, *cis*-1,2-DCE, *trans*-1,2-DCE, and vinyl chloride were not detected in any off-post wells in June 2009.
- No VOCs were detected in wells FO-17, HS-1, HS-3, I10-7, JW-6, JW-12, JW-13, JW-28, JW-29, JW-30, LS-4, RFR-8, and RFR-13.
- Post-GAC samples were collected in March 2009. All post-GAC samples were non-detect indicating the GAC units are functioning properly. The next post-GAC samples will be collected in September 2009.
- Semi-annual GAC maintenance was performed in May 2009; the next semi-annual GAC maintenance will be due in November 2009. New metal GAC shelters were installed in May 2009.
- In the event additional wells are located to the west and southwest of CSSA, they may be added to future sampling events.
- In accordance with project DQOs, the rationale for the selection of 23 wells and 6 post-GAC sampled to be collected in September 2009 is provided in **Table 3-1**.

Table 3-1
Sampling Rationale for September 2009

Well ID	2001 Sept	2001 Dec	2002 Mar	2002 June	2002 Sept	2002 Dec	2003 Mar	2003 June	2003 Sept	2003 Dec	2004 Mar	2004 June	2004 Sept	2004 Dec	2005 Mar	2005 June	2005 Sept	2005 Dec	2006 Mar	2006 June	2006 Sept	2006 Dec	2007 Mar	2007 June	2007 Sept	2007 Dec	2008 Mar	2008 June	2008 Sept	2008 Dec	2009 Mar	2009 June	2009 Sept	Sampling Frequency:
DOM-2		NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS	NS	NS	NA	main electricity has been disconnected
FO-8	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	As needed, once annually
FO-17	NS	NS		NS	NS	NS		NS	NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS	NS	NS		NS	NS	NS		NS	NS	As needed, once annually
FO-22		NS	NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS	NS		NS	NS	NS		NS	NS	As needed, once annually
FO-J1												NS						NS	NS														Yes	Qtrly, 1 year thru June 10
HS-1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS													Yes	Qtrly, 1 year thru Sept 09
HS-2	NS																																Yes	Qtrly, 1 year thru June 10
HS-3	NS		NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS		NS	NS	NS		NS		NS	As needed, once annually
I10-2																				NS	NS	NS					NS	NS	NS		NS	NS	NS	As needed, once annually
I10-4	NS									NS																NA	NA	NA	NA	NA	NA			Yes	Quarterly
I10-5	NS	NS	NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS	NS	NS	NS	NS	NS		NS	NS	As needed, once annually
I10-7	NS	NS		NS	NS	NS			NS	NS	NS		NS																				Yes	Qtrly, for delineation
I10-8	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS	As needed, once annually
JW-5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS					NS	NS	NS										NS	NS	As needed, once annually
JW-6		NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS		NS	NS	NS		NS		NS	As needed, once annually
JW-7		NS	NS	NS	NS	NS	NS	NS																									Yes	Qtrly, 1 year thru June 10
JW-8	NS	NS	NS	NS	NS	NS	NS																										Yes	Qtrly, 1 year thru June 10
JW-9																NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	Ns	As needed, once annually
JW-9-A2*	NS	NS	NS	NS	NS		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	As needed
JW-12		NS	NS	NS	NS		NS	NS	NS	NS		NS	NS	NS		NS	NS	NS	NS	NS		NS	NS			NS		NS	NS				Yes	Qtrly, 1 year thru Dec 09
JW-13		NS	NS	NS	NS		NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS		NS	NS		As needed, once annually
JW-14																			Tol														Yes	Qtrly, due to location
JW-15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS						NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	As needed, once annually
JW-26	NS	NS		NS											NS	NS	NS		NS	NS	NS		NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	Wellowner declined access.
JW-27	NS	NS	NS	NS	NS	NS	NS		NS	NS	NS		NS	NS	NS		NS									NS						NS	NS	As needed, once annually
JW-28	NS	NS	NS	NS	NS	NS	NS	NS																	NS	NS	NS						Yes	Qtrly, due to location
JW-29	NS	NS	NS	NS	NS	NS	NS																										Yes	Qtrly, due to location
JW-30	NS	NS	NS	NS	NS	NS																											Yes	Qtrly, due to location
LS-1													NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS						Yes	QED low flow pump installed
LS-2																		NS			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	Well is offline
LS-2/LS-3-A1	NS	NS	NS	NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	Well is offline
LS-3																								NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	Well is offline
LS-2/LS-3-A2	NS	NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	Well is offline
LS-4																								NS	NS	NS	NS						Yes	QED low flow pump installed
LS-5																																	Yes	Qtrly, 1 year thru Mar 10
LS-6																																	Yes	Qtrly, 1 year thru Mar 10
LS-6-A2				NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS	Yes	Biannually (Mar & Sept)
LS-7																																	Yes	Qtrly, 1 year thru Mar 10
LS-7-A2				NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS	Yes	Biannually (Mar & Sept)
OFR-1	NS																																Yes	Qtrly, 1 year thru Mar 10
OFR-2	NS	NS																		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well was P&A by Centex
OFR-3																																	Yes	Qtrly, 1 year thru Mar 10
OFR-3-A2	NS	NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS	Yes	Biannually (Mar & Sept)
OFR-4	NS	NS	NS	NS	NS	NS	NS			NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	As needed, once annually
RFR-3	NS	NS	NS	NS	NS	NS	NS	NS	NS						NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	Yes	As needed, once annually
RFR-4	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		NS	NS	NS	Tol	NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	As needed, once annually
RFR-5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	As needed, once annually
RFR-6		NS	NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Plugged & abandoned
RFR-7		NS	NS		NS	NS	NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Plugged & abandoned
RFR-8		NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	As needed, once annually
RFR-9			NS		NS	NS	NS			NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS	Yes	As needed, once annually
RFR-10																																	Yes	Qtrly, 1 year thru Sept 09
RFR-10-A2				NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS	Yes	Biannually (Mar & Sept)
RFR-10-B2				NS	NS	NS	NS	NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS	Yes	Biannually (Mar & Sept)
RFR-11																																	Yes	Qtrly, 1 year thru Sept 09
RFR-11-A2				NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS	Yes	Biannually (Mar & Sept)
RFR-12																				NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	As needed, once annually
RFR-13											Well Installed										NS	NS	NS		NS	NS	NS		NS	NS	NS			NS	As needed, once annually
RFR-14																	Well Installed																Yes	Qtrly, 1 year thru Mar 10

Total Pre GAC	26
Total Post GAC	6
Total # of first time samples	0
Total # of samples:	32

VOCs detected are greater than 90% of the MCL. Sample monthly; quarterly after GAC installation.

VOCs detected are greater than 80% of the MCL. The well will be placed on a monthly sampling schedule until GAC installation then quarterly sampling after GAC installation.

VOCs detected are less than 80% of the MCL (<4.0 ppb and >0.06 ppb for PCE & <4.0 ppb >0.05 ppb for TCE). After four quarters of stable results the well can be removed from quarterly sampling.

This well has a GAC filtration unit installed by CSSA. Post GAC samples are collected every six months.
A1 - after GAC canister #1
A2 - after GAC canister #2
*JW-9-A2 is the well owner's system, not a CSSA GAC.

Yes — To be sampled in September 2009.

FT — First event for sampling by CSSA.

NS — Not sampled for that event.

No VOCs detected. Sample on an as needed basis.

NA — Not applicable, samples can no longer be collected from this locaiton due to P&A or declined right-of-entry.

APPENDIX A
EVALUATION OF DATA QUALITY OBJECTIVES ATTAINMENT

Appendix A Evaluation of Data Quality Objectives Attainment

Activity	Objectives	Action	Objective Attained?	Recommendations
Field Sampling	Conduct field sampling in accordance with procedures defined in the project work plan, SAP, QAPP, and HSP.	All sampling was conducted in accordance with the procedures described in the project plans.	Yes	NA
Contamination Characterization (Groundwater Contamination)	Determine the potential extent of off-post contamination (§2.3.1 of the DQOs for the Groundwater Contamination Investigation, revised November 2003).	Samples for laboratory analysis were collected from selected off-post public and private wells, which are located within a ½ mile radius of CSSA.	Partially	Replace wells where no VOCs were detected with wells that may be identified in the future, located to the west and southwest of AOC-65 to provide better definition of plume 2. Continue sampling of wells to the west of plume 1 (Fair Oaks and Jackson Woods) to confirm any detections possibly related to plume 1.
	Meet CSSA QAPP quality assurance requirements.	Samples were analyzed in accordance with the CSSA QAPP, and approved variances. A chemist verified all data.	Yes	NA
		All data flagged with a "U" and "J" are usable for characterizing contamination.	Yes	NA

Activity	Objectives	Action	Objective Attained?	Recommendations
	Evaluate CSSA monitoring program and expand as necessary (§2.3.1 of the DQOs for the Groundwater Contamination Investigation, revised November 2003). Determine locations of future monitoring locations.	Evaluation of data collected is ongoing and is reported in this quarterly groundwater report and will be reported in future quarterly groundwater reports. Additional information covering the CSSA monitoring program is available in Volume 5, CSSA Environmental Encyclopedia.	Yes	Continue data evaluation and quarterly teleconferences for evaluation of the monitoring program. Each teleconference/planning session covers expansion of the quarterly monitoring program, if necessary.
Project schedule/ Reporting	The quarterly monitoring project schedule shall provide a schedule for sampling, analysis, validation, verification, reviews, and reports for monitoring events off-post.	A schedule for sampling, analysis, validation, verification and data review, and reports is provided in this quarterly groundwater report and will be reported in future quarterly groundwater reports. Additional information covering the CSSA monitoring program is available in Volume 5, CSSA Environmental Encyclopedia.	Yes	Continue quarterly reporting to include a schedule for sampling, analysis, validation, and verification and data review and data reports.

Activity	Objectives	Action	Objective Attained?	Recommendations
Remediation	Evaluate the effectiveness of GACs (§3.2.3) and install as needed (§3.2.5 both of the DQOs for the Groundwater Contamination Investigation, revised November 2003).	Perform maintenance as needed. Install new GACs as needed.	Yes	Maintenance to the off-post GAC systems to be continued by Parsons' personnel every 3 weeks. Twice yearly (or as needed) maintenance to the off-post GAC systems by additional subcontractors to continue. Evaluations of future sampling results for installation of new GAC systems will occur as needed.

APPENDIX B
JUNE 2009 QUARTERLY OFF-POST GROUNDWATER ANALYTICAL RESULTS

Appendix B
June 2009 Quarterly Off-Post Groundwater Analytical Results

Well ID	Sample Date	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	PCE	TCE	Vinyl Chloride
FO-17	6/2/2009	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
FO-J1	6/3/2009	0.12U	0.07U	0.08U	**0.57F**	0.05U	0.08U
HS-1	6/3/2009	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
HS-2	6/3/2009	0.12U	0.07U	0.08U	**0.23F**	0.05U	0.08U
HS-3	6/3/2009	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
I10-4	6/1/2009	0.12U	0.07U	0.08U	**6.48**	**2.7**	0.08U
I10-7	6/2/2009	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
I10-7 FD	6/2/2009	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
JW-6	6/2/2009	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
JW-7	6/2/2009	0.12U	0.07U	0.08U	**0.48F**	0.05U	0.08U
JW-8	6/3/2009	0.12U	0.07U	0.08U	**0.37F**	0.05U	0.08U
JW-12	6/5/2009	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
JW-13	6/5/2009	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
JW-14	6/3/2009	0.12U	0.07U	0.08U	**0.19F**	0.05U	0.08U
JW-28	6/2/2009	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
JW-29	6/10/2009	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
JW-29 FD	6/10/2009	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
JW-30	6/2/2009	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
LS-1	6/4/2009	0.12U	0.07U	0.08U	**0.85F**	0.05U	0.08U
LS-1 FD	6/4/2009	0.12U	0.07U	0.08U	**0.76F**	**0.20F**	0.08U
LS-4	6/4/2009	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
LS-5	6/1/2009	0.12U	0.07U	0.08U	**0.80F**	**2.64**	0.08U
LS-6	6/1/2009	0.12U	0.07U	0.08U	**0.93F**	**1.33**	0.08U
LS-7	6/1/2009	0.12U	0.07U	0.08U	**1.87**	**0.72F**	0.08U
OFR-1	6/3/2009	0.12U	0.07U	0.08U	**0.33F**	0.05U	0.08U
OFR-3	6/1/2009	0.12U	0.07U	0.08U	**5.98**	**3.21**	0.08U
RFR-8	6/3/2009	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
RFR-10	6/1/2009	0.12U	0.07U	0.08U	**8.78**	**2.65**	0.08U
RFR-11	6/1/2009	0.12U	0.07U	0.08U	**0.49F**	**1.45**	0.08U
RFR-13	6/3/2009	0.12U	0.07U	0.08U	0.06U	0.05U	0.08U
RFR-14	6/3/2009	0.12U	0.07U	0.08U	**0.24F**	0.05U	0.08U

BOLD	= Above the MDL
BOLD	= Above the RL
BOLD	= Above the MCL

All samples were analyzed by APPL, Inc.
VOC data reported in ug/L.

Abbreviations/Notes:

FD	Field Duplicate
TCE	Trichloroethene
PCE	Tetrachloroethene
DCE	Dichloroethene

Data Qualifiers
U-The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.
F-The analyte was positively identified but the associated numerical value is below the RL.