FINAL

March 2006

Off-Post
Quarterly Groundwater Monitoring Report

Prepared For

Department of the Army
Camp Stanley Storage Activity
Boerne, Texas

August 2006

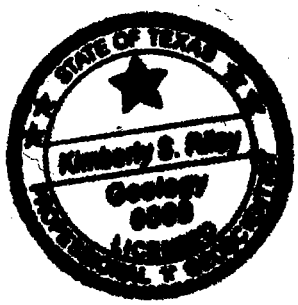
GEOSCIENTIST CERTIFICATION

March 2006 Off-post Quarterly Groundwater Monitoring Report

For

Department of the Army
Camp Stanley Storage Activity
Boerne, Texas

I, Kimberly S. Riley, P.G., hereby certify that the March 2006 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 verbal information provided by the CSSA Environmental Office, laboratory data provided by APPL, and field data obtained during groundwater monitoring conducted at the site in March 2006, and is true and accurate to the best of my knowledge and belief.



Kimberly S. Riley, P.G.
State of Texas
Geology License No. 6068

8/4/06
Date

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MARCH 2006
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 March 2006 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. Similar reports will summarize the planned June and September 2006 sampling results. The results from all four 2006 quarterly monitoring events (March, June, September, and December) will be described in detail in an Annual Report. 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 Air Force Center for Environmental Excellence (AFCEE) 4P/AE Contract F41624-03-D-8613, Task Order (TO) 0008, was performed March 20 - 23, 2006. The quarterly off-post groundwater monitoring program was initiated in September 2001 in accordance with the **Off-Post Monitoring Program and Response Plan** (**CSSA, June 2002,** herein referred to as the Plan). Action levels for detection of volatile organic compounds (VOCs) and decisions to sample an off-post well can be found on page 6 of the above-mentioned report.

In addition to the DQOs, the CSSA groundwater monitoring program follows the provisions of the groundwater monitoring program DQOs as well as the recommendations of the **Three-Tiered Long Term Monitoring Network Optimization Evaluation (Parsons, 2005)** which provided recommendations for sampling based on a long-term monitoring optimization (LTMO) study performed for the CSSA groundwater monitoring program. LTMO study sampling frequencies were implemented on-post only in December 2005, as approved by the Texas Commission on Environmental Quality (TCEQ) and the United States Environmental Protection Agency (USEPA).

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 MARCH 2006 ANALYTICAL RESULTS

Samples were collected from 33 off-post wells sampled in March 2006. Post-GAC samples were also collected. Post-GAC samples (LS-2/LS-3, LS-6, LS-7, RFR-10, RFR-11, and OFR-3) are collected semi-annually and will be sampled again during the September 2006 monitoring event. **Table 1.1** includes the rationale for selection of wells to be sampled in March 2006 and **Figure 1.1** gives well locations for the following samples wells:

- One privately-owned well in the Dominion subdivision (DOM-2);
- One public supply well in the Fair Oaks area (FO-8);
- One public well in the Hidden Springs Estates subdivision (HS-2);

- Two public wells (I10-2 & I10-7) and one privately-owned well in the Interstate I-10 area (I10-4);
- Ten privately-owned wells in the Jackson Woods subdivision (JW-5, JW-7, JW-8, JW-9, JW-14, JW-15, JW-27, JW-28, JW-29, and JW-30);
- Six wells in the Leon Springs Villa area (four public wells: LS-2, LS-3, LS-4, and LS-6; and two privately-owned wells: LS-5 and LS-7);

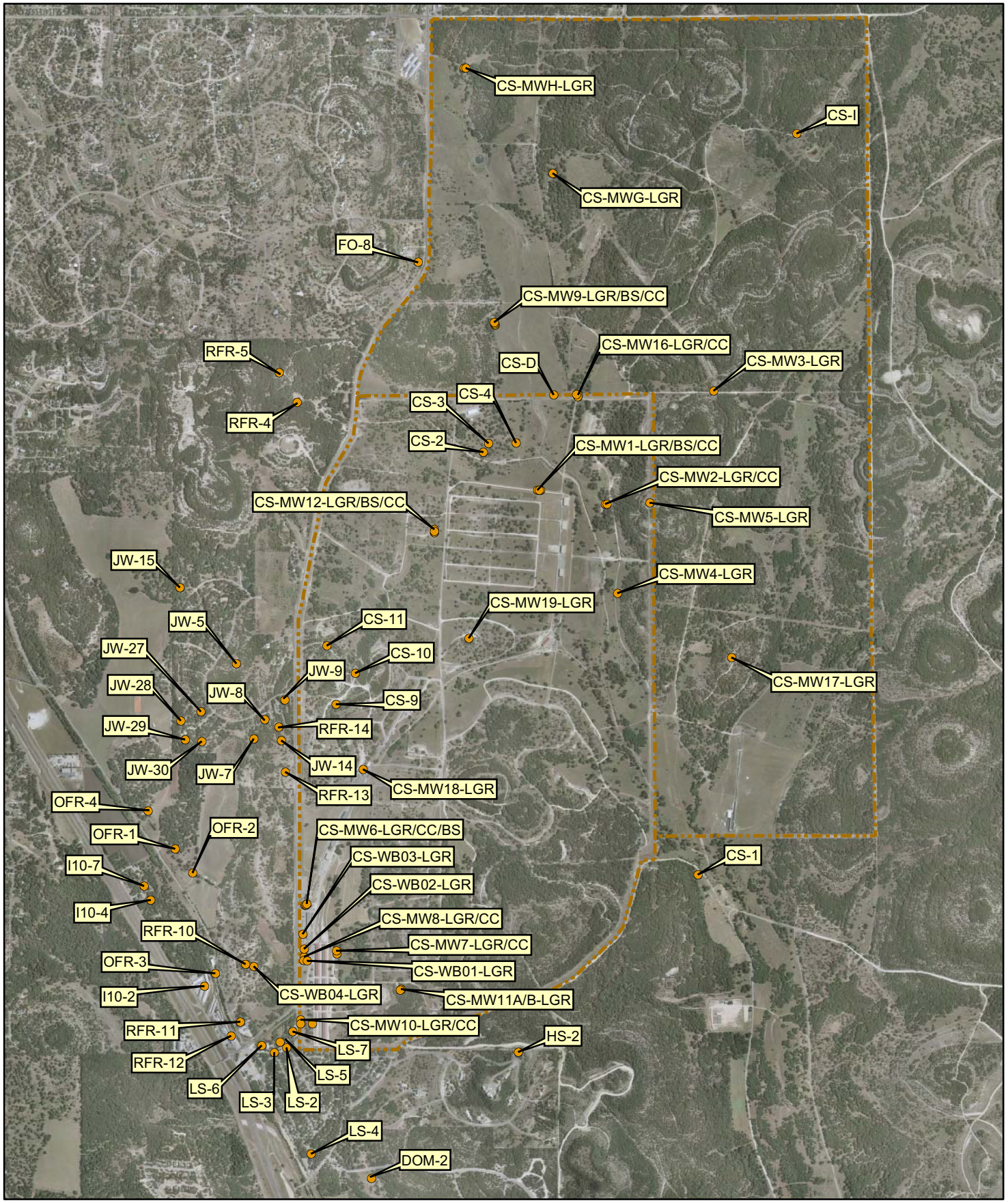

Figure 1.1

March 2006, Off-Post Well Sampling Locations with On-Post Locations Shown
Camp Stanley Storage Activity

PARSONS

J:\743\743322 CSSA TO 08\05000-Off-Post\Mar 06 Event\march_06_monitoring.mxd - 6/30/2006 @ 4:11:09 PM

Table 1-1
Sampling Rationale for March 2006

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	Mar-06	Sampling Frequency:
DOM-2		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	Yes	As needed, once annually
FO-17	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	As needed, once annually
FO-J1												NS						NS	Yes	Qtrly, 1 year thru June 06
HS-1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	Well is offline
HS-2	NS																		Yes	Qtrly, 1 year thru June 06
HS-3	NS		NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS	As needed, once annually
I10-2																			Yes	Qtrly, 1 year thru Mar 06
I10-4	NS									NS									Yes	Qtrly, 1 year thru Sept. 06
I10-5	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	As needed, once annually
JW-5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS				Yes	Qtrly for 1 year
JW-6		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 Dec 06
JW-8	NS	NS	NS	NS	NS	NS	NS												Yes	Qtrly, 1 year thru Dec 06
JW-9																NS	NS	NS	Yes	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	As needed
JW-12		NS	NS	NS	NS		NS	NS	NS	NS		NS	NS	NS		NS	NS	NS	Yes	As needed, once annually
JW-13		NS	NS	NS	NS		NS		NS	NS	NS		NS	NS	NS		NS	NS	NS	As needed, once annually
JW-14																			Yes	Qtrly, 1 year thru Mar 06
JW-15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS				Yes	Qtrly for 1 year
JW-26	NS	NS		NS											NS	NS	NS		NS	As needed, once annually
JW-27	NS	NS	NS	NS	NS	NS	NS		NS	NS	NS		NS	NS	NS		NS		Yes	Qtrly, 1 year thru Sept. 06
JW-28	NS	NS	NS	NS	NS	NS	NS	NS											Yes	Qtrly, 1 year thru Sept. 06
JW-29	NS	NS	NS	NS	NS	NS	NS												Yes	Qtrly, due to location
JW-30	NS	NS	NS	NS	NS	NS													Yes	Qtrly, 1 year thru Dec 06
LS-1													NS	NS	NS	NS	NS	NS	NS	Well is offline
LS-2																		NS	Yes	Qtrly, 1 year thru Dec 06
LS-2/LS-3-A1	NS	NS	NS	NS		NS		NS		NS		NS		NS		NS		NS	Yes	Biannually (Mar & Sept)
LS-3																			Yes	Qtrly, 1 year thru Dec 06
LS-2/LS-3-A2	NS	NS		NS		NS		NS		NS		NS		NS		NS		NS	Yes	Biannually (Mar & Sept)
LS-4																			Yes	Qtrly, 1 year thru Sept. 06
LS-5																			Yes	Qtrly, 1 year thru Dec 06
LS-6																			Yes	Qtrly, 1 year thru Dec 06
LS-6-A2				NS		NS		NS		NS		NS		NS		NS		NS	Yes	Biannually (Mar & Sept)
LS-7																			Yes	Qtrly, 1 year thru Dec 06
LS-7-A2				NS		NS		NS		NS		NS		NS		NS		NS	Yes	Biannually (Mar & Sept)
OFR-1	NS																		Yes	Qtrly, 1 year thru Dec 06
OFR-2	NS	NS																	Yes	Qtrly, 1 year thru Dec 06
OFR-3																			Yes	Qtrly, 1 year thru Dec 06
OFR-3-A2	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	Yes	As needed, once annually
RFR-3	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	Yes	As needed, once annually
RFR-5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		NS	NS	NS		NS	NS	NS	Yes	As needed, once annually
RFR-6		NS	NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS	NS	NS	Well to be abandoned by owner
RFR-7		NS	NS		NS	NS	NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	As needed, once annually
RFR-8		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	As needed, once annually
RFR-10																			Yes	Qtrly, 1 year thru Dec 06
RFR-10-A2				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	Yes	Biannually (Mar & Sept)
RFR-11																			Yes	Qtrly, 1 year thru Dec 06
RFR-11-A2				NS		NS		NS		NS		NS		NS		NS		NS	Yes	Biannually (Mar & Sept)
RFR-12																			Yes	Qtrly, 1 year thru Mar. 06
RFR-13											Well Installed								Yes	Qtrly, 1 year thru June 06
RFR-14																	Well Installed		FT	Qtrly, 1 year thru Dec 06

Total Pre GAC	34
Total Post GAC	8
Total # of first time samples	1
Total # of samples:	43

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.

Yes — To be sampled in March 2006

FT — First event for sampling by CSSA.

VOCs detected are less than 80% of the MCL (<4.0 ppb and >0.11 ppb for PCE & <4.0 ppb >0.14 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.

NS — Not sampled for that event.

No VOCs detected. Sample on an as needed basis.

- Four privately-owned wells on Old Fredericksburg Road (OFR-1, OFR-2, OFR-3, and OFR-4); and
- Seven privately-owned wells in the Ralph Fair Road area (RFR-4, RFR-5, RFR-10, RFR-11, RFR-12, RFR-13 and RFR-14).

All wells were sampled from a tap located as close to the wellhead as possible. Most taps were installed by CSSA to obtain a representative groundwater sample before pressurization or storage 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 forty-one groundwater samples, four field duplicate samples, two matrix spike/matrix spike duplicate (MS/MSD) pairs, and two trip blanks were submitted to APPL Laboratory (APPL) in Fresno, California for analysis. Groundwater samples were analyzed for the CSSA specific short list of VOCs using SW-846 Method 8260. The EPA-approved short list of VOCs includes bromodichloromethane, bromoform, chloroform, dibromochloromethane, dichlorodifluoromethane, *cis*-1,2-dichloroethene (*cis*-1,2-DCE), *trans*-1,2-DCE, 1,1-DCE, methylene chloride, naphthalene, PCE, TCE, toluene, and vinyl chloride.

The data packages (Parsons internal reference TO08 #194 - #195) 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). Parsons received data packages on April 12, 2006 through April 17, 2006, and the data verification reports were submitted to AFCEE on April 27, 2006. AFCEE approved these data packages May 9, 2006.

Concentrations of only the VOCs that were detected in March 2006 are presented in **Table 2.1**. Full analytical results from the March 2006 sampling event are presented in **Appendix B**. As shown in **Table 1.1**, thirty-five wells were planned for sampling in March 2006 with eight post GAC samples. Well FO-J1 did not produce enough water and well JW-12 was sold to another property owner; therefore, thirty-three samples were collected along with eight post GAC samples. If groundwater is available, FO-J1 will be rescheduled for sampling in June 2006. The new property owners at well JW-12 have been contacted by mail and an access agreement is pending.

In January 2006 routine maintenance was performed on the GAC treatment systems installed at LS-6, LS-7, OFR-3, RFR-10, and RFR11. The carbon canisters were exchanged and the ultraviolet lights were replaced. Post-GAC samples will be collected again in September 2006.

Based on historical detections, the lateral extent of VOC contamination extends approximately 0.5 mile beyond the south and west boundaries of CSSA. The historic plume has extended south to well LS-4 and west to I10-7.

3.0 SUMMARY AND RECOMMENDATIONS

- PCE exceeded the MCL in well RFR-10.
- PCE was detected below the MCL in well LS-7.
- TCE was detected below the MCL in wells RFR-10 and RFR-11.
- PCE and/or TCE was detected below the RL in wells JW-7, JW-8, JW-30, LS-2, LS-

3, LS-5, LS-6, LS-7, OFR-1, OFR-2, OFR-3, RFR-11 and RFR-14.

- Cis-1,2-DCE was detected below the RL in well RFR-10.
- Dichlorodifluoromethane was detected below the RL in wells JW-7 and OFR-3.
- No VOCs were detected in wells DOM-2, FO-8, HS-2, I10-2, I10-4, I10-7, JW-5, JW-9, JW-14, JW-15, JW-27, JW-28, JW-29, LS-4, RFR-4, RFR-5, RFR-12, and RFR-13.
- No VOCs were detected in the post GAC samples.
- In March 2006 methylene chloride was detected in thirty-eight of the forty-five samples collected along with the associated quality control samples and results were flagged according to the CSSA QAPP.
- In the event additional wells are located to the west and southwest of CSSA, they may be added to future sampling events. Future sampling events will continue to include wells to the west of CS-D and CS-MW16-LGR (Fair Oaks and Jackson Woods Subdivision areas) to confirm they continue to meet drinking water standards.
- In accordance with project DQOs, the rationale for selection of wells to be sampled in June 2006 is provided in **Table 4.1**.

Table 2-1, March 2006
Off-Post Groundwater Results, Detected Analytes Only

Comm-unity	Well ID	Date Sampled	Bromo-dichloro-methane	*cis* -1,2-DCE	Dichloro-difluoro-methane	Methylene Chloride	TCE	PCE	Toluene	Comments
Domi nion	DOM-2	3/22/2006	0.06M	--	--	--	--	--	--	
Fair Oaks	FO-8	3/22/2006	--	--	--	--	--	--	--	
Hidden Springs Estates	HS-2	3/23/2006	--	--	--	**1.15F**	--	--	--	
IH-10 Area	I10-2	3/23/2006	--	--	--	--	--	--	--	
	I10-4	3/22/2006	--	--	--	**1.18F**	--	--	--	
	I10-7	3/20/2006	--	--	--	**1.10F**	--	--	--	
Jackson Woods	JW-5	3/22/2006	--	--	--	**1.14F**	--	--	--	
	JW-7	3/21/2006	--	--	**0.15F**	**1.20F**	--	**0.42F**	--	
	JW-8	3/23/2006	--	--	--	**1.12F**	--	**0.32F**	--	
	JW-8 FD	3/23/2006	--	--	--	**1.16F**	--	**0.25F**	--	
	JW-9	3/21/2006	--	--	--	**1.13F**	--	--	--	
	JW-14	3/21/2006	--	--	--	**1.10F**	--	--	**0.14F**	
	JW-15	3/21/2006	--	--	--	**1.13F**	--	--	--	
	JW-27	3/21/2006	--	--	--	**1.10F**	--	--	--	
	JW-28	3/22/2006	--	--	--	**1.15F**	--	--	--	
	JW-29	3/21/2006	--	--	--	**1.09M**	--	--	--	
	JW-30	3/22/2006	--	--	--	**1.13F**	--	**0.16F**	--	
Leon springs Villa	LS-2	3/23/2006	--	--	--	**1.17F**	**0.36F**	**1.35F**	--	
	LS-3	3/23/2006	--	--	--	--	**0.20F**	**0.92F**	--	
	LS-2/LS-3 A1	3/23/2006	--	--	--	--	--	--	--	
	LS-2/LS-3 A2	3/23/2006	--	--	--	**1.11F**	--	--	--	
	LS-4	3/23/2006	--	--	--	**1.18F**	--	--	--	
	LS-5	3/20/2006	--	--	--	**1.13F**	**0.14F**	--	--	
	LS-6	3/20/2006	--	--	--	**1.09F**	**0.69F**	**1.22F**	--	
	LS-6-A2	3/20/2006	--	--	--	**1.12F**	--	--	--	
	LS-7	3/20/2006	--	--	--	**1.12F**	**0.29F**	**2.74**	--	
	LS-7-A2	3/20/2006	--	--	--	**1.10F**	--	--	--	
Old Fredericksburg Road	OFR-1	3/21/2006	--	--	--	--	--	**0.35F**	--	
	OFR-2	3/20/2006	--	--	--	**1.15F**	--	**0.28F**	--	
	OFR-3	3/22/2006	--	--	**0.61F**	**1.15F**	**0.46F**	**0.35F**	--	
	OFR-3 FD	3/22/2006	--	--	**0.66F**	**1.15F**	**0.52F**	**0.41F**	--	
	OFR-3-A2	3/22/2006	--	--	--	--	--	--	--	
	OFR-4	3/21/2006	--	--	--	--	--	--	--	
	OFR-4 FD	3/21/2006	--	--	--	**1.14F**	--	--	--	
Ralph Fair Road	RFR-4	3/21/2006	--	--	--	**1.26F**	--	--	--	
	RFR-5	3/21/2006	--	--	--	**1.27F**	--	--	--	
	RFR-10	3/20/2006	--	**0.64F**	--	**1.12F**	**2.76**	**6.27**	--	
	RFR-10-A2	3/20/2006	--	--	--	**1.14F**	--	--	--	
	RFR-10-B2	3/20/2006	--	--	--	**1.10F**	--	--	--	
	RFR-11	3/20/2006	--	--	--	**1.08F**	**1.39**	**0.33F**	--	
	RFR-11-A2	3/20/2006	--	--	--	**1.12F**	--	--	--	
	RFR-11-A2 FD	3/20/2006	--	--	--	**1.10F**	--	--	--	
	RFR-12	3/23/2006	--	--	--	**1.21F**	--	--	--	
	RFR-13	3/22/2006	--	--	--	**1.15F**	--	--	--	
	RFR-14	3/23/2006	--	--	--	**1.19F**	--	**0.20F**	--	
Laboratory Detection Limits										
Method Detection Limit	**MDL**		0.06	0.07	0.11	0.51	0.05	0.06	0.06	
Reporting Limit	**RL**		0.8	1.2	1	2	1	1.4	1.1	
Max. Contaminant Level	**MCL**			70	--	5	5	5	1000	

BOLD	Value > or = MCL
BOLD	MCL > Value > or = RL
BOLD	RL > Value > MDL

This table presents detected analytical results only.
All samples were analyzed by APPL, Inc.

Abbreviations/Notes:

FD	Field Duplicate
MDL	Method Detection Limit
N	Environmental Sample
SQL	Sample Quantitation Limit
DL	Dilution

Data Qualifiers:
F- The analyte was positively identified but the associated numerical value is below the RL.
J - The analyte was positively identified, the quantitation is an estimation.
U - The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.
M- Matrix Effect Present

Table 4-1
Sampling Rationale for June 2006

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	Jun-06	Sampling Frequency:
DOM-2		NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	As needed, once annually
FO-8	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	Yes	As needed, once annually
FO-22		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 06
HS-1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	Well is offline
HS-2	NS																			Yes	Qtrly, 1 year thru June 06
HS-3	NS		NS		NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	NS	Yes	As needed, once annually
I10-2																				NS	Qtrly, 1 year thru Mar 06
I10-4	NS									NS										Yes	Qtrly, 1 year thru Sept. 06
I10-5	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	As needed, once annually
JW-5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS					NS	Qtrly for 1 year
JW-6		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 06
JW-8	NS	NS	NS	NS	NS	NS	NS													Yes	Qtrly, 1 year thru Dec 06
JW-9																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	As needed
JW-12		NS	NS	NS	NS		NS	NS	NS	NS		NS	NS	NS		NS	NS	NS	NS	Yes	As needed, once annually
JW-13		NS	NS	NS	NS		NS		NS	NS	NS		NS	NS	NS		NS	NS	NS	Yes	As needed, once annually
JW-14																			Tol	NS	Qtrly, 1 year thru Mar 06
JW-15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS					NS	Qtrly for 1 year
JW-26	NS	NS		NS											NS	NS	NS		NS	NS	As needed, once annually
JW-27	NS	NS	NS	NS	NS	NS	NS		NS	NS	NS		NS	NS	NS		NS			Yes	Qtrly, 1 year thru Sept. 06
JW-28	NS	NS	NS	NS	NS	NS	NS	NS												Yes	Qtrly, 1 year thru Sept. 06
JW-29	NS	NS	NS	NS	NS	NS	NS													Yes	Qtrly, due to location
JW-30	NS	NS	NS	NS	NS	NS														Yes	Qtrly, 1 year thru Dec 06
LS-1													NS	NS	NS	NS	NS	NS	NS	NS	Well is offline
LS-2																		NS		Yes	Qtrly, 1 year thru Dec 06
LS-2/LS-3-A1	NS	NS	NS	NS		NS		NS		NS		NS		NS		NS		NS		NS	Biannually (Mar & Sept)
LS-3																				Yes	Qtrly, 1 year thru Dec 06
LS-2/LS-3-A2	NS	NS		NS		NS		NS		NS		NS		NS		NS		NS		NS	Biannually (Mar & Sept)
LS-4																				Yes	Qtrly, 1 year thru Sept. 06
LS-5																				Yes	Qtrly, 1 year thru Dec 06
LS-6																				Yes	Qtrly, 1 year thru Dec 06
LS-6-A2				NS		NS		NS		NS		NS		NS		NS		NS		NS	Biannually (Mar & Sept)
LS-7																				Yes	Qtrly, 1 year thru Dec 06
LS-7-A2				NS		NS		NS		NS		NS		NS		NS		NS		NS	Biannually (Mar & Sept)
OFR-1	NS																			Yes	Qtrly, 1 year thru Dec 06
OFR-2	NS	NS																		Yes	Qtrly, 1 year thru Dec 06
OFR-3																				Yes	Qtrly, 1 year thru Dec 06
OFR-3-A2	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	As needed, once annually
RFR-3	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	As needed, once annually
RFR-5	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	NS	NS	NS	Well to be abandoned by owner
RFR-7		NS	NS		NS	NS	NS	NS	NS		NS	NS	NS		NS	NS	NS		NS	NS	As needed, once annually
RFR-8		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	As needed, once annually
RFR-10																				Yes	Qtrly, 1 year thru Dec 06
RFR-10-A2				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	Biannually (Mar & Sept)
RFR-11																				Yes	Qtrly, 1 year thru Dec 06
RFR-11-A2				NS		NS		NS		NS		NS		NS		NS		NS		NS	Biannually (Mar & Sept)
RFR-12																				NS	Qtrly, 1 year thru Mar. 06
RFR-13											Well Installed									Yes	Qtrly, 1 year thru June 06
RFR-14																Well Installed				Yes	Qtrly, 1 year thru Dec 06

Total Pre GAC	21
Total Post GAC	0
Total # of first time samples	0
Total # of samples:	21

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.

Yes — To be sampled in June 2006

FT — First event for sampling by CSSA.

VOCs detected are less than 80% of the MCL (<4.0 ppb and >0.11 ppb for PCE & <4.0 ppb >0.14 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.

NS — Not sampled for that event.

No VOCs detected. Sample on an as needed basis.

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, and 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	Monthly maintenance to the off-post GAC systems to be continued by Parsons' personnel. Quarterly (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
MARCH 2006 QUARTERLY OFF-POST GROUNDWATER ANALYTICAL RESULT

Appendix B
March 2006 Quarterly Off-Post Groundwater Analytical Results

Well ID	Date Sampled	Bromo-dichloro-methane	Bromoform	Chloroform	Dibromochloromethane	*cis* -1,2-DCE	Dichloro-difluoro-methane	*trans* -1,2-DCE	1,1-DCE	Methylene Chloride	Naphthalene	TCE	PCE	Toluene	Vinyl Chloride
DOM-2	3/22/2006	0.06M	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	0.51U	0.07U	0.05U	0.06U	0.06U	0.08U
FO-8	3/22/2006	0.06U	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	0.51U	0.07U	0.05U	0.06U	0.06U	0.08U
HS-2	3/23/2006	0.06U	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	**1.15F**	0.07U	0.05U	0.06U	0.06U	0.08U
I10-2	3/23/2006	0.06U	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	0.51U	0.07U	0.05U	0.06U	0.06U	0.08U
I10-4	3/22/2006	0.06U	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	**1.18F**	0.07U	0.05U	0.06U	0.06U	0.08U
I10-7	3/20/2006	0.06U	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	**1.10F**	0.07U	0.05U	0.06U	0.06U	0.08U
JW-5	3/22/2006	0.06U	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	**1.14F**	0.07U	0.05U	0.06U	0.06U	0.08U
JW-7	3/21/2006	0.06U	0.13U	0.06U	0.06U	0.07U	**0.15F**	0.08U	0.12U	**1.20F**	0.07U	0.05U	**0.42F**	0.06U	0.08U
JW-8	3/23/2006	0.06U	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	**1.12F**	0.07U	0.05U	**0.32F**	0.06U	0.08U
JW-8 FD	3/23/2006	0.06U	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	**1.16F**	0.07U	0.05U	**0.25F**	0.06U	0.08U
JW-9	3/21/2006	0.06U	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	**1.13F**	0.07U	0.05U	0.06U	0.06U	0.08U
JW-14	3/21/2006	0.06U	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	**1.10F**	0.07U	0.05U	0.06U	**0.14F**	0.08U
JW-15	3/21/2006	0.06U	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	**1.13F**	0.07U	0.05U	0.06U	0.06U	0.08U
JW-27	3/21/2006	0.06U	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	**1.10F**	0.07U	0.05U	0.06U	0.06U	0.08U
JW-28	3/22/2006	0.06U	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	**1.15F**	0.07U	0.05U	0.06U	0.06U	0.08U
JW-29	3/21/2006	0.06U	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	**1.09M**	0.07U	0.05U	0.06U	0.06U	0.08U
JW-30	3/22/2006	0.06U	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	**1.13F**	0.07U	0.05U	**0.16F**	0.06U	0.08U
LS-2	3/23/2006	0.06U	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	**1.17F**	0.07U	**0.36F**	**1.35F**	0.06U	0.08U
LS-3	3/23/2006	0.06U	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	0.51U	0.07U	**0.20F**	**0.92F**	0.06U	0.08U
LS-2/LS-3 A1	3/23/2006	0.06U	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	0.51U	0.07U	0.05U	0.06U	0.06U	0.08U
LS-2/LS-3 A2	3/23/2006	0.06U	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	**1.11F**	0.07U	0.05U	0.06U	0.06U	0.08U
LS-4	3/23/2006	0.06U	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	**1.18F**	0.07U	0.05U	0.06U	0.06U	0.08U
LS-5	3/20/2006	0.06U	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	**1.13F**	0.07U	**0.14F**	0.06U	0.06U	0.08U
LS-6	3/20/2006	0.06U	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	**1.09F**	0.07U	**0.69F**	**1.22F**	0.06U	0.08U
LS-6-A2	3/20/2006	0.06U	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	**1.12F**	0.07U	0.05U	0.06U	0.06U	0.08U
LS-7	3/20/2006	0.06U	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	**1.12F**	0.07U	**0.29F**	**2.74**	0.06U	0.08U
LS-7-A2	3/20/2006	0.06U	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	**1.10F**	0.07U	0.05U	0.06U	0.06U	0.08U
OFR-1	3/21/2006	0.06U	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	0.51U	0.07U	0.05U	**0.35F**	0.06U	0.08U
OFR-2	3/20/2006	0.06U	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	**1.15F**	0.07U	0.05U	**0.28F**	0.06U	0.08U
OFR-3	3/22/2006	0.06U	0.13U	0.06U	0.06U	0.07U	**0.61F**	0.08U	0.12U	**1.15F**	0.07U	**0.46F**	**0.35F**	0.06U	0.08U
OFR-3 FD	3/22/2006	0.06U	0.13U	0.06U	0.06U	0.07U	**0.66F**	0.08U	0.12U	**1.15F**	0.07U	**0.52F**	**0.41F**	0.06U	0.08U
OFR-3-A2	3/22/2006	0.06U	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	0.51U	0.07U	0.05U	0.06U	0.06U	0.08U
OFR-4	3/21/2006	0.06U	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	0.51U	0.07U	0.05U	0.06U	0.06U	0.08U
OFR-4 FD	3/21/2006	0.06U	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	**1.14F**	0.07U	0.05U	0.06U	0.06U	0.08U
RFR-4	3/21/2006	0.06U	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	**1.26F**	0.07U	0.05U	0.06U	0.06U	0.08U
RFR-5	3/21/2006	0.06U	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	**1.27F**	0.07U	0.05U	0.06U	0.06U	0.08U
RFR-10	3/20/2006	0.06U	0.13U	0.06U	0.06U	**0.64F**	0.11U	0.08U	0.12U	**1.12F**	0.07U	**2.76**	**6.27**	0.06U	0.08U
RFR-10-A2	3/20/2006	0.06U	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	**1.14F**	0.07U	0.05U	0.06U	0.06U	0.08U
RFR-10-B2	3/20/2006	0.06U	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	**1.10F**	0.07U	0.05U	0.06U	0.06U	0.08U
RFR-11	3/20/2006	0.06U	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	**1.08F**	0.07U	**1.39**	**0.33F**	0.06U	0.08U
RFR-11-A2	3/20/2006	0.06U	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	**1.12F**	0.07U	0.05U	0.06U	0.06U	0.08U
RFR-11-A2 FD	3/20/2006	0.06U	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	**1.10F**	0.07U	0.05U	0.06U	0.06U	0.08U
RFR-12	3/23/2006	0.06U	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	**1.21F**	0.07U	0.05U	0.06U	0.06U	0.08U
RFR-13	3/22/2006	0.06U	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	**1.15F**	0.07U	0.05U	0.06U	0.06U	0.08U
RFR-14	3/23/2006	0.06U	0.13U	0.06U	0.06U	0.07U	0.11U	0.08U	0.12U	**1.19F**	0.07U	0.05U	**0.20F**	0.06U	0.08U

BOLD	Value > or = MCL
BOLD	MCL > Value > or = RL
BOLD	RL > Value > MDL

Abbreviations/Notes:

FD	Field Duplicate
MDL	Method Detection Limit
N	Environmental Sample
SQL	Sample Quantitation Limit
DL	Dilution
RL	Reporting Limit

This table presents all laboratory results.
All samples were analyzed by APPL, Inc.

Data Qualifiers:

F- The analyte was positively identified but the associated numerical value is below the RL.
J - The analyte was positively identified, the quantitation is an estimation.
U - The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.
M- Matrix Effect Present