

# DEPARTMENT OF THE ARMY CAMP STANLEY STORAGE ACTIVITY, MCAAP 25800 RALPH FAIR ROAD, BOERNE, TX 78015-4800

November 1, 2011

U-156-11

1103 Dwyerbrook San Antonio, TX 78253

SUBJECT: Sampling of Water Wells:

LS-5, Located at 7579 Curres Creek Road LS-6, Located at 7655 Curres Creek Road

Dear

Camp Stanley Storage Activity (CSSA) collected groundwater samples from well LS-5 on 9/6/11 and 9/28/11 and well LS-6 on 9/6/11. These samples were submitted to a laboratory contracted by CSSA's environmental contractor for volatile organic compound (VOC) analysis. This letter provides you with the VOC data from the laboratory results and a formal thank you for your assistance in this groundwater monitoring effort.

An abbreviated summary of analytical results for well LS-5 compared to maximum contaminant levels (MCLs) allowed in drinking water by the U.S. EPA under the Safe Drinking Water Act is provided below:

Date Sampled	VOC Compound	Result (ppb)	MCL (ppb)
Well LS-5,	located at 7579 Curres Creek Rd.		
9/6/11	Tetrachloroethene (PCE)	1.38F	5
	Trichloroethene (TCE)	4.80	5
	cis-1,2-Dichloroethene (DCE)	<0.07 (non-detect)	70

<sup>\*</sup>The "F" qualifier indicates the value is above the laboratory method detection limit, but below the laboratory reporting limit for the compound.

Based on the analytical data, levels of the VOCs PCE and TCE were identified in water samples from your well LS-5 before granular activated carbon (GAC) filtration. These levels are below the applicable MCLs and do not affect the usability of your well.

The laboratory reported that the TCE level exceeded 90% of the MCL during the sampling event on 9/6/11. CSSA took immediate measures to ensure the drinking water was safe and additionally provided bottled water on 9/21/11. An additional water sample was collected on 9/28/11 showing significantly lower concentrations of TCE in the well water. An abbreviated summary of analytical results of the 9/28/11 sampling event are shown below:

Date Sampled	VOC Compound	Result (ppb)	MCL (ppb)
Well LS-5, located at 7579 Curres Creek			
9/28/11	Tetrachloroethene (PCE)	1.11F	5
	Trichloroethene (TCE)	2.54	5
	<i>cis</i> -1,2-Dichloroethene (DCE)	<0.07 (non-detect)	70

<sup>\*</sup>The "F" qualifier indicates the value is above the laboratory method detection limit, but below the laboratory reporting limit for the compound.

Because of the high levels in the initial sampling event, CSSA Environmental decided to connect a Granular Activated Carbon (GAC) unit to the well. Carbonair Environmental Systems of San Marcos, Texas installed the GAC filtration system on well LS-5 on 10/6/11. The system will remain in operation for the foreseeable future or until significant reductions in contamination levels are seen in the water in the well before it enters the filtration system. CSSA will be responsible for all costs associated with operation and maintenance of this system. Copies of the well LS-5 laboratory data sheets for the 9/6/11 and 9/28/11 sampling events are provided to you as an attachment for your records. Well LS-5 is scheduled be sampled again in December 2011.

In addition to LS-5, sampling was also conducted for well LS-6. An abbreviated summary of analytical results for well LS-6 compared to maximum contaminant levels (MCLs) allowed in drinking water by the U.S. EPA under the Safe Drinking Water Act is provided below:

Date Sampled	VOC Compound	Result (ppb)	MCL (ppb)
Well LS-6,	located at 7655 Curres Creek Rd.		
9/6/11	Tetrachloroethene (PCE)	1.43	5
	Trichloroethene (TCE)	1.87	5
	cis-1,2-Dichloroethene (DCE)	<0.07 (non-detect)	70

Based on the analytical data, levels of the VOCs PCE and TCE were identified in water samples from your well LS-6 before granular activated carbon (GAC) filtration. These levels are below the applicable MCLs and do not affect the usability of your well.

On 9/6/11, CSSA collected a sample from your well (LS-6) after the water was processed through the GAC filter system. This sample is representative of the water being delivered to your church for daily use. Based on the analytical data, no VOCs related to CSSA's groundwater investigation were identified in the sample after the second carbon canister (A2). A summary of the post-GAC analytical results is provided below. Copies of the well LS-6 laboratory data sheets for the 9/6/11 sampling events are attached. CSSA will collect additional confirmation samples on a 6-month basis to confirm the systems remain effective.

Date		Result	MCL
Sampled	VOC compound	(ppb)	(ppb)
Well LS-6-A2,	located at 7655 Curres Creek Rd.		
9/6/11	PCE	<0.06 (non-detect)	5
	TCE	<0.05 (non-detect)	5
	cis-1,2-DCE	<0.07 (non-detect)	70

As part of the ongoing CSSA environmental program, we are continuing to investigate and cleanup VOC source areas on the installation and to track these compounds in groundwater on- and off-post. As part of this effort, well LS-6 is scheduled be sampled again in December 2011.

Carbonair Environmental Systems of San Marcos, Texas previously installed the GAC filtration system on your well LS-6. The system will remain in operation for the foreseeable future or until significant reductions in contamination levels are seen in the water in your well before it enters the filtration system. CSSA will continue to be responsible for all costs associated with operation and maintenance of these systems and will continue to send a representative every three weeks to exchange the five-micron pre-and post-filters in the system. Carbonair exchanged the first carbon canister and performed other routine maintenance on your LS-6 system in July 2011. If you experience any problems with this system, please let the installer or CSSA know immediately. Carbonair is very responsive and can make additional maintenance visits if needed.

Again, we would like to thank you for your cooperation. We regret that your wells have been impacted, but remain committed to making sure your water is safe to use and keeping you informed. If you have any questions concerning this letter, please contact Gabriel Moreno-Fergusson, Environmental Program Manager, at (210) 698-5208.

Sincerely,

Jason D. Shirley Installation Manager

#### **Enclosures**

cc: Mr. Greg Lyssy, EPA Region 6

Mr. Kirk Coulter, TCEQ Central Office Mr. Henry Karnei, TCEQ Region 13

Ms. Kyle Cunningham, San Antonio Metropolitan Health Dist.

Ms. Julie Burdey, Parsons

Analytical Method: EPA 8260B

Preparatory Method:

5030B

AAB #: 110909AS-159130

Lab Name: APPL, Inc

Contract #: 2010\*1286022\*000

Field Sample ID: LS-5

Lab Sample ID: AY45750

Matrix: Water

% Solids: NA

Initial Calibration ID: S110908

Date Received: 07-Sep-11

Date Prepared: 10-Sep-11

Date Analyzed: 10-Sep-11

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifier
1,1-DCE	0.12	1.2	0.12	1		U
CIS-1,2-DCE	0.07	1.2	0.07	1		U
TCE	0.05	1.0	4.80	1		
TETRACHLOROETHENE	0.06	1.4	1.38	1		F
TRANS-1,2-DCE	0.08	0.6	0.08	1		U
VINYL CHLORIDE	0.08	1.1	0.08	1		U

Surrogate	Recovery	<b>Control Limits</b>	Qualifier
SURROGATE: 1,2-DICHLOROETHANE-	97.7	69-139	
SURROGATE: 4-BROMOFLUOROBENZ	101	75-125	
SURROGATE: DIBROMOFLUOROMETH	99.2	75-125	
SURROGATE: TOLUENE-D8 (S)	97.8	75-125	

Internal Std	Qualifier
1,4-DICHLOROBENZENE-D4 (IS)	
CHLOROBENZENE-D5 (IS)	
FLUOROBENZENE (IS)	

Comments:	
ARF: 65592	

Analytical Method: EPA 8260B

A 8260B Preparatory Method:

5030B

AAB #: 111001AS-159728

Lab Name: APPL, Inc

Contract #: 2010\*1286022\*000

Field Sample ID: LS-5

Lab Sample ID: AY47426

Matrix: Water

% Solids: NA

Initial Calibration ID: S110929A

Date Prepared: 01-Oct-11

ar Candration 1D. 3110929

Date Analyzed: 01-Oct-11

Date Received: 29-Sep-11 Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifier
1,1-DCE	0.12	1.2	0.12	1		J
CIS-1,2-DCE	0.07	1.2	0.07	1		Į
TCE	0.05	1.0	2.54	1		
TETRACHLOROETHENE	0.06	1.4	1.11	1		F
TRANS-1,2-DCE	0.08	0.6	0.08	1		J
VINYL CHLORIDE	0.08	1.1	0.08	1		J

Surrogate	Recovery	Control Limits	Qualifier
SURROGATE: 1,2-DICHLOROETHANE-	103	69-139	
SURROGATE: 4-BROMOFLUOROBENZ	95.3	75-125	
SURROGATE: DIBROMOFLUOROMETH	100	75-125	
SURROGATE: TOLUENE-D8 (S)	97.8	75-125	

DODINE DO (b)	27.0
Internal Std	Qualifier
1,4-DICHLOROBENZENE-D4 (	IS)
CHLOROBENZENE-D5 (IS)	
FLUOROBENZENE (IS)	

ARF: 65834

Analytical Method: EPA 8260B

Preparatory Method: 5030B

AAB #: 110909AS-159130

Lab Name: APPL, Inc

Contract #: 2010\*1286022\*000

Matrix: Water

Field Sample ID: LS-6

% Solids: NA

Lab Sample ID: AY45741

Initial Calibration ID: S110908

Date Received: 07-Sep-11

Date Prepared: 09-Sep-11

Date Analyzed: 09-Sep-11

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifier
1,1-DCE CIS-1,2-DCE	0.12	1.2	0.12	1		Ţ
CIS-1,2-DCE	0.07	1.2	0.07	1		U
TCE	0.05	1.0	1.87	1		
TETRACHLOROETHENE	0.06	1.4	1.43	1		
TRANS-1,2-DCE	0.08	0.6	0.08	1		U
VINYL CHLORIDE	0.08	1.1	0.08	1		ī

Surrogate	Recovery	Control Limits	Qualifier
SURROGATE: 1,2-DICHLOROETHANE-	99.7	69-139	
SURROGATE: 4-BROMOFLUOROBENZ	103	75-125	
SURROGATE: DIBROMOFLUOROMETH	97.1	75-125	
SURROGATE: TOLUENE-D8 (S)	99.9	75-125	

Internal Std	Qualifier
1,4-DICHLOROBENZENE-D4 (IS)	
CHLOROBENZENE-D5 (IS)	
FLUOROBENZENE (IS)	

Comments:
-----------

ARF: 65592

Analytical Method: EPA 8260B

260B Preparatory Method:

5030B

AAB #: 110909AS-159130

Lab Name: APPL, Inc

Contract #: 2010\*1286022\*000

Lab Sample ID: AY45742

Matrix: Water

Field Sample ID: LS-6-A2 % Solids: NA

Initial Calibration ID: S110908

Date Received: 07-Sep-11

Date Prepared: 09-Sep-11

Date Analyzed: 09-Sep-11

Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifier
1,1-DCE CIS-1,2-DCE	0.12	1.2	0.12	1		J
CIS-1,2-DCE	0.07	1.2	0.07	1		L
TCE	0.05	1.0	0.05	1		J
TETRACHLOROETHENE	0.06	1.4	0.06	1	-	Ţ
TRANS-1,2-DCE	0.08	0.6	0.08	1		J
VINYL CHLORIDE	0.08	1.1	0.08	1		Ţ

Surrogate	Recovery	Control Limits	Qualifier
SURROGATE: 1,2-DICHLOROETHANE-	106	69-139	
SURROGATE: 4-BROMOFLUOROBENZ	106	75-125	
SURROGATE: DIBROMOFLUOROMETH	103	75-125	
SURROGATE: TOLUENE-D8 (S)	103	75-125	

Internal Std	Qualifier
1,4-DICHLOROBENZENE-D4 (IS)	
CHLOROBENZENE-D5 (IS)	
FLUOROBENZENE (IS)	

Co	mr	ner	its:

ARF: 65592