



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

May 27, 2005

U-261-05

Subject: Sampling of Four Bexar Met Water Wells:
LS-2
LS-3
LS-4
HS-2,

Camp Stanley Storage Activity (CSSA) collected groundwater samples from the above wells during March 2005. These samples were submitted to a Department of Defense (DoD) approved laboratory 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 detected VOC compounds 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-2			
3/23/05 (#106-WP2)	Tetrachloroethene (PCE)	2.25	5
	Trichloroethene (TCE)	0.40F	5
	cis-1,2-dichloroethene (DCE)	<0.07 (non-detect)	70
Well LS-3			
3/23/05 (#106-WP1)	PCE	1.74	5
	TCE	0.19F	5
	DCE	<0.07 (non-detect)	70
Well LS-4			
3/23/05	PCE	0.18F	5
	TCE	<0.05 (non-detect)	5
	DCE	<0.07 (non-detect)	70
Well HS-2			
3/23/05	PCE	0.17F	5
	TCE	<0.05 (non-detect)	5
	DCE	<0.07 (non-detect)	70

*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, low levels of the VOCs PCE and TCE were identified in water samples from wells LS-2, LS-3 and LS-4, and HS-2. Results from the laboratory analysis are provided as an attachment for the events included in the summary tables above.

Although these VOCs are not naturally occurring, they are below the MCL and as such, do not prevent usability of your wells.

In April 2002, a granular activated carbon (GAC) filtration system was installed at wells LS-2 and LS-3 by Carbonair Environmental Systems of San Marcos, Texas. CSSA is responsible for all costs associated with operation and maintenance of this system. Carbonair will exchange the carbon canister, if needed, and perform other routine maintenance operations at future scheduled visits. Carbonair performed maintenance on the system in August 2004. If you experience any problems with the system, please let the installer or CSSA know immediately. Carbonair is very responsive and can make additional maintenance visits if needed.

On 3/23/05, CSSA collected two additional samples after the water was processed through the first and second GAC filters. Based on the analytical data, low levels of the VOCs PCE, TCE, and chloroform were identified in the sample after the first carbon canister (A1) and only chloroform, which is not related to CSSA's groundwater investigation, was identified in the sample collected after the second carbon canister (A2). Chloroform is regulated by the EPA as a total trihalomethane (TTHM) and the combined MCL for TTHM is 80 ppb. These compounds are common byproducts related to disinfectants added to drinking water. Chloroform levels are below the applicable MCL and do not affect usability of your well.

A summary of the post GAC analytical results is provided below. Copies of the laboratory data sheets are attached. CSSA will collect additional confirmation samples periodically to confirm the system remains effective. The next post GAC sampling will be conducted in September 2005.

Date Sampled	VOC compound	Result (ppb)	MCL (ppb)
Well LS-2/LS-3 POST GAC, GAC samples for 106-WP2 and 106-WP1			
3/23/05 A1, First Carbon Canister	PCE	0.74F	5
	TCE	0.33F	5
	DCE	<0.07 (non-detect)	70
Well LS-2/LS-3 POST GAC, GAC samples for 106-WP2 and 106-WP1			
3/23/05 A2, Second Carbon Canister	PCE	<0.06 (non-detect)	5
	TCE	<0.05 (non-detect)	5
	DCE	<0.07 (non-detect)	70

*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, no VOCs related to CSSA's groundwater investigation were identified in the post-GAC water samples from Well LS-2/3. However, low concentrations of PCE, TCE, and chloroform were found in sample A1, while only chloroform was found in sample A2. These levels are below the applicable MCL and do not affect usability of the wells.

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, we may contact you in the future to schedule another sampling event for your well listed above.

Again, we would like to thank you for your cooperation. If you have any questions concerning this letter, please contact me at 295-7416.

Sincerely,


Jason D. Shirley
Installation Manager

Attachments

cc: Mr. Greg Lyssy, EPA Region 6
Mr. Sonny Rayos, TCEQ Central Office
Mr. Tom Haberle, TCEQ Region 13
Ms. Abigail Power, TCEQ Region 13
Ms. Kyle Cunningham, San Antonio Metropolitan Health Dist.
Ms. Julie Burdey, Parsons
Ms. Kimberly Riley, Parsons

AFCEE
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: EPA 8260B Preparatory Method: 5030B AAB #: 050404AC-85395
 Lab Name: APPL, Inc Contract #: F41624-03-D-8613, TO 08
 Field Sample ID: LS-2 Lab Sample ID: AX16356 Matrix: Water
 % Solids: NA Initial Calibration ID: C050331
 Date Received: 25-Mar-05 Date Prepared: 04-Apr-05 Date Analyzed: 04-Apr-05
 Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifier
1,1-DCE	0.12	1.2	0.12	1		U
Bromodichloromethane	0.06	0.8	0.06	1		U
Bromoform	0.13	1.2	0.13	1		U
Chloroform	0.06	0.3	0.06	1		U
Cis-1,2-DCE	0.07	1.2	0.07	1		U
Dibromochloromethane	0.06	0.5	0.06	1		U
Dichlorodifluoromethane	0.11	1.0	0.11	1		U
Methylene chloride	0.51	2.0	0.51	1		U
Naphthalene	0.07	0.4	0.07	1		U
TCE	0.05	1.0	0.40	1		F
Tetrachloroethene	0.06	1.4	2.25	1		
Toluene	0.06	1.1	0.06	1		U
Trans-1,2-DCE	0.08	0.6	0.08	1		U
Vinyl chloride	0.08	1.1	0.08	1		U

Surrogate	Recovery	Control Limits	Qualifier
1,2-DCA-D4(S)	106	69-139	
4-Bromofluorobenzene(S)	97.8	75-125	
Dibromofluoromethane(S)	111	75-125	
Toluene-D8(S)	96.0	75-125	

Internal Std	Qualifier
1,4-Dichlorobenzene-D(IS)	
Chlorobenzene-D5(IS)	
Fluorobenzene(IS)	

Comments: ARF: 46940

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ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: EPA 8260B Preparatory Method: 5030B AAB #: 050404AC-85395
 Lab Name: APPL, Inc Contract #: F41624-03-D-8613, TO 08
 Field Sample ID: LS-3 Lab Sample ID: AX16359 Matrix: Water
 % Solids: NA Initial Calibration ID: C050331
 Date Received: 25-Mar-05 Date Prepared: 04-Apr-05 Date Analyzed: 04-Apr-05
 Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifier
1,1-DCE	0.12	1.2	0.12	1		U
Bromodichloromethane	0.06	0.8	0.06	1		U
Bromoform	0.13	1.2	0.13	1		U
Chloroform	0.06	0.3	0.06	1		U
Cis-1,2-DCE	0.07	1.2	0.07	1		U
Dibromochloromethane	0.06	0.5	0.06	1		U
Dichlorodifluoromethane	0.11	1.0	0.11	1		U
Methylene chloride	0.51	2.0	0.51	1		U
Naphthalene	0.07	0.4	0.07	1		U
TCE	0.05	1.0	0.19	1		F
Tetrachloroethene	0.06	1.4	1.74	1		
Toluene	0.06	1.1	0.06	1		U
Trans-1,2-DCE	0.08	0.6	0.08	1		U
Vinyl chloride	0.08	1.1	0.08	1		U

Surrogate	Recovery	Control Limits	Qualifier
1,2-DCA-D4(S)	114	69-139	
4-Bromofluorobenzene(S)	92.3	75-125	
Dibromofluoromethane(S)	111	75-125	
Toluene-D8(S)	88.6	75-125	

Internal Std	Qualifier
1,4-Dichlorobenzene-D(IS)	
Chlorobenzene-D5(IS)	
Fluorobenzene(IS)	

Comments: ARF: 46940

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ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: EPA 8260B Preparatory Method: 5030B AAB #: 050404AC-85395
 Lab Name: APPL, Inc Contract #: F41624-03-D-8613, TO 08
 Field Sample ID: LS-4 Lab Sample ID: AX16360 Matrix: Water
 % Solids: NA Initial Calibration ID: C050331
 Date Received: 25-Mar-05 Date Prepared: 04-Apr-05 Date Analyzed: 04-Apr-05
 Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifier
1,1-DCE	0.12	1.2	0.12	1		U
Bromodichloromethane	0.06	0.8	0.06	1		U
Bromoform	0.13	1.2	0.13	1		U
Chloroform	0.06	0.3	0.06	1		U
Cis-1,2-DCE	0.07	1.2	0.07	1		U
Dibromochloromethane	0.06	0.5	0.06	1		U
Dichlorodifluoromethane	0.11	1.0	0.11	1		U
Methylene chloride	0.51	2.0	0.51	1		U
Naphthalene	0.07	0.4	0.07	1		U
TCE	0.05	1.0	0.05	1		U
Tetrachloroethene	0.06	1.4	0.18	1		F
Toluene	0.06	1.1	0.06	1		U
Trans-1,2-DCE	0.08	0.6	0.08	1		U
Vinyl chloride	0.08	1.1	0.08	1		U

Surrogate	Recovery	Control Limits	Qualifier
1,2-DCA-D4(S)	112	69-139	
4-Bromofluorobenzene(S)	99.1	75-125	
Dibromofluoromethane(S)	110	75-125	
Toluene-D8(S)	89.0	75-125	

Internal Std	Qualifier
1,4-Dichlorobenzene-D(IS)	
Chlorobenzene-D5(IS)	
Fluorobenzene(IS)	

Comments: ARF: 46940

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ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: EPA 8260B Preparatory Method: 5030B AAB #: 050404AS-85391
 Lab Name: APPL, Inc Contract #: F41624-03-D-8613, TO 08
 Field Sample ID: HS-2 Lab Sample ID: AX16348 Matrix: Water
 % Solids: NA Initial Calibration ID: S050331
 Date Received: 25-Mar-05 Date Prepared: 04-Apr-05 Date Analyzed: 04-Apr-05
 Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifier
1,1-DCE	0.12	1.2	0.12	1		U
Bromodichloromethane	0.06	0.8	0.06	1		U
Bromoform	0.13	1.2	0.13	1		U
Chloroform	0.06	0.3	0.06	1		U
Cis-1,2-DCE	0.07	1.2	0.07	1		U
Dibromochloromethane	0.06	0.5	0.06	1		U
Dichlorodifluoromethane	0.11	1.0	0.11	1		U
Methylene chloride	0.51	2.0	0.51	1		U
Naphthalene	0.07	0.4	0.07	1		U
TCE	0.05	1.0	0.05	1		U
Tetrachloroethene	0.06	1.4	0.17	1		F
Toluene	0.06	1.1	0.06	1		U
Trans-1,2-DCE	0.08	0.6	0.08	1		U
Vinyl chloride	0.08	1.1	0.08	1		U

Surrogate	Recovery	Control Limits	Qualifier
1,2-DCA-D4(S)	107	69-139	
4-Bromofluorobenzene(S)	119	75-125	
Dibromofluoromethane(S)	105	75-125	
Toluene-D8(S)	93.4	75-125	

Internal Std	Qualifier
1,4-Dichlorobenzene-D(IS)	
Chlorobenzene-D5(IS)	
Fluorobenzene(IS)	

Comments: ARF: 46940

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ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: EPA 8260B Preparatory Method: 5030B AAB #: 050404AC-85395
 Lab Name: APPL, Inc Contract #: F41624-03-D-8613, TO 08
 Field Sample ID: LS-2/LS-3-A1 Lab Sample ID: AX16357 Matrix: Water
 % Solids: NA Initial Calibration ID: C050331
 Date Received: 25-Mar-05 Date Prepared: 04-Apr-05 Date Analyzed: 04-Apr-05
 Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifier
1,1-DCE	0.12	1.2	0.12	1		U
Bromodichloromethane	0.06	0.8	0.06	1		U
Bromoform	0.13	1.2	0.13	1		U
Chloroform	0.06	0.3	0.07	1		F
Cis-1,2-DCE	0.07	1.2	0.07	1		U
Dibromochloromethane	0.06	0.5	0.06	1		U
Dichlorodifluoromethane	0.11	1.0	0.11	1		U
Methylene chloride	0.51	2.0	0.51	1		U
Naphthalene	0.07	0.4	0.07	1		U
TCE	0.05	1.0	0.33	1		F
Tetrachloroethene	0.06	1.4	0.74	1		F
Toluene	0.06	1.1	0.06	1		U
Trans-1,2-DCE	0.08	0.6	0.08	1		U
Vinyl chloride	0.08	1.1	0.08	1		U

Surrogate	Recovery	Control Limits	Qualifier
1,2-DCA-D4(S)	109	69-139	
4-Bromofluorobenzene(S)	94.0	75-125	
Dibromofluoromethane(S)	111	75-125	
Toluene-D8(S)	89.1	75-125	

Internal Std	Qualifier
1,4-Dichlorobenzene-D(IS)	
Chlorobenzene-D5(IS)	
Fluorobenzene(IS)	

Comments: ARF: 46940

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ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: EPA 8260B Preparatory Method: 5030B AAB #: 050404AC-85395
 Lab Name: APPL, Inc Contract #: F41624-03-D-8613, TO 08
 Field Sample ID: LS-2/LS-3-A2 Lab Sample ID: AX16358 Matrix: Water
 % Solids: NA Initial Calibration ID: C050331
 Date Received: 25-Mar-05 Date Prepared: 04-Apr-05 Date Analyzed: 04-Apr-05
 Concentration Units: ug/L

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifier
1,1-DCE	0.12	1.2	0.12	1		U
Bromodichloromethane	0.06	0.8	0.06	1		U
Bromoform	0.13	1.2	0.13	1		U
Chloroform	0.06	0.3	0.10	1		F
Cis-1,2-DCE	0.07	1.2	0.07	1		U
Dibromochloromethane	0.06	0.5	0.06	1		U
Dichlorodifluoromethane	0.11	1.0	0.11	1		U
Methylene chloride	0.51	2.0	0.51	1		U
Naphthalene	0.07	0.4	0.07	1		U
TCE	0.05	1.0	0.05	1		U
Tetrachloroethene	0.06	1.4	0.06	1		U
Toluene	0.06	1.1	0.06	1		U
Trans-1,2-DCE	0.08	0.6	0.08	1		U
Vinyl chloride	0.08	1.1	0.08	1		U

Surrogate	Recovery	Control Limits	Qualifier
1,2-DCA-D4(S)	105	69-139	
4-Bromofluorobenzene(S)	94.3	75-125	
Dibromofluoromethane(S)	104	75-125	
Toluene-D8(S)	93.9	75-125	

Internal Std	Qualifier
1,4-Dichlorobenzene-D(IS)	
Chlorobenzene-D5(IS)	
Fluorobenzene(IS)	

Comments: ARF: 46940