



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

16 October 2003

U - 001 - 04

Mr. Sonny Rayos  
Texas Commission on Environmental Quality  
Corrective Action Section, Closure Team  
P.O. Box 13087 (MC-127)  
Austin, TX 78711-3087

Subject: Response to TCEQ Letter to CSSA dated August 20, 2003  
Camp Stanley Storage Activity (CSSA), Boerne, Texas  
TCEQ Number: Solid Waste Registration Number 69026  
EPA Identification Number: TXD2210020739

Dear Mr. Rayos:

The Camp Stanley Storage Activity (CSSA), Red River Army Depot, Tank-Automotive and Armaments Command, Army Materiel Command, U.S. Army, has received the letter from the Texas Commission on Environmental Quality (TCEQ), dated 20 August 2003, concerning the closure for Solid Waste Management Unit (SWMU) B-10.

The letter listed comments regarding the removal, decontamination, and closure efforts at SWMU B-10. A meeting was conducted on 4 September 2003 between TCEQ, and CSSA's contractor, Parsons, to discuss the comments and to further pursue closing the site under Risk Reduction Standard 1 (RRS1). Based on the meeting, a response to the TCEQ comments are provided below:

**Comment #1**

The highest concentration of zinc and lead were found at soil borings B-10-TrBott-17 and B-10-TrBott-16 at 1,100.5 mg/kg and 2,343 mg/kg, respectively. According to the report, because all waste material and soil were removed to the bedrock contact, the elevated concentrations at these two locations were considered "suspect." CSSA elected to resample and collect samples at 3 feet depth and at 6.5 feet depth at these locations. The resample results indicated 0.63 and 1.27 mg/kg zinc and lead, respectively. This procedure is out of the ordinary. In any cleanup activity, the contamination is effectively removed or excavated and a verification sample collected after the removal action. Because no actual removal of the 1,100.5 mg/kg and 2,343 mg/kg zinc and lead, respectively was conducted, the TCEQ cannot approve a RRS No.1.

*Response to Comment #1*

All debris and affected soils were removed from SWMU B-10 in September/October 2002 in order to satisfy RRS No.1 closure criteria for the soil medium. A backhoe was used to remove all debris, soil, and weathered bedrock down to the competent bedrock. No additional removal of waste or waste residue can practically be accomplished.

A photo of some of the debris removed from the site is shown in Attachment A as Photo No. 1. After all of the debris and soils had been removed from the site down to the bedrock surface (which occurred at a depth of four to six feet below ground surface), confirmation samples were collected from the bedrock/soil contact and excavation sidewalls. Photo Nos. 2 and 3 depict the relatively smooth surface of the bedrock underlying B-10. The site was backfilled (as shown in Photo No. 4) with clay with the site eventually used for remedial demonstration efforts and lay down area for other SWMU removal actions. All waste and contaminated media were removed and confirmation samples from the base of the excavation were collected by pulverizing the limestone bedrock and placing the particles (gravel-sized and smaller) into the sampling container. Samples collected at two locations in November 2000, were reported at 2,343 mg/kg lead for B-10-TrBott-16 and 1,100.5 mg/kg zinc for B-10-TrBott-17. These elevated results were considered suspect because metals concentrations at these levels were not detected in any of the soils removed from the site, and because the samples were collected after all waste, soil, and weathered bedrock had been removed. Therefore, in April 2003, samples of limestone at the soil/bedrock contact were re-collected from sample locations at B-10-TrBott-16 and B-10-TrBott-17. Analytical results were reported at 1.27 mg/kg lead and 0.63 mg/kg zinc, respectively. These results indicate that removal action performed in September/October 2000 was sufficient in meeting the RRS1 closure criteria for the soil medium at SWMU B-10.

**Comment #2**

As specified in Section 2.1.7. and reiterated in Section 2.2.7. of the submitted report, no groundwater investigation was conducted during the closure of SWMU B-10. Groundwater investigation is not required according to the approved workplan. Because the groundwater resources was not investigated, the TCEQ can only approve (if applicable) the attainment of cleanup levels for soil medium. To demonstrate the attainment of cleanup levels for RRS No.1, 30 TAC §335.554(e) requires that collection and analysis of samples from the media of concern (i.e., soil and groundwater).

Further to the issue of no groundwater investigation, the TCEQ has a concern on how CSSA will determine whether SWMU B-10 has released or releasing or contributing to any groundwater contamination if no groundwater investigation was conducted at near SWMU B-10.

**Response for Comment #2**

The groundwater within the vicinity of SWMU B-10 has been impacted by neighboring SWMUs O-1 and B-3. Quarterly groundwater monitoring at the facility has shown that groundwater in the vicinity of these sites is contaminated with chlorinated solvents tetrachloroethene (PCE), trichloroethene (TCE), and cis-1,2-dichloroethene (cis-1,2-DCE). It is suspected that SWMU O-1 and/or SWMU B-3, which are located directly north and south of SWMU B-10, have contributed to groundwater contamination near SWMU B-10. PCE was detected in soil samples at concentrations of up to 1,390 mg/kg at SWMU O-1 (the oxidation pond), and TCE was detected at concentrations as high as 222 mg/kg at SWMU B-3. CSSA does not believe that the groundwater has been impacted from waste management activities at SWMU B-10 samples collected at the

site. No PCE, TCE, or DCE were detected at concentrations above the RL in any soil samples, not even the sample collected directly underneath an empty and crushed drum discovered that was labeled "perchloroethylene." This drum and the potential for the drum to have contributed to the affected groundwater in the area are further discussed in the Response for Comment #3. RLs are 0.007 mg/kg for PCE, 0.01 mg/kg for TCE, and 0.006 mg/kg for cis-1,2-DCE.

Because groundwater contamination from other sources was previously identified within the SWMU B-10 area, no additional groundwater investigation was conducted during the B-10 study and closure work. A map showing locations of SWMUs and Areas of Concern (AOsC) in the vicinity of B-10 is provided in Attachment B as Figure 1. Additionally, Figure 1 identifies the groundwater monitoring wells within the vicinity of SWMU B-10.

A plume map for the affected groundwater within the area was requested during the meeting on September 4, 2003. However, plume maps are currently incomplete for the area, but will be available in future submittals associated with the groundwater investigation project in the area. For this response, a table presenting the site specific COCs reported for the wells is provided for your review as Attachment B.

Typically, if groundwater is encountered during drilling/boring operations, a sample is collected and analyzed for the COCs at that site. Also, should water collect in an excavation or trench being remediated potentially a sample would be collected and analyzed. None of these conditions existed at SWMU B-10 during the removal action.

#### **Comment #3**

Two buried drums with one drum labeled "perchloroethylene" was found at or near sample designated as B 10-DA-Bottom 1 (please refer to Figure B10-7). Figure B10-8 specifies the location of all samples and verification samples. The TCEQ compared Figures B10-7 and B10-8; this comparison showed that the nearest verification sample for the buried drums was sample location 10. Sample 10 appears to be at least 15 feet to the south-southeast of the buried drums and therefore cannot be used to accurately define that contamination was removed.

#### **Response for Comment #3**

During excavation activities in September/October 2000, two drums were uncovered with one of the two drums containing a painted stenciled label "tetrachloroethylene". Photos of the labeled drum are shown in Photo Nos. 5 and 6. The blue drum on the right side of each photo is the drum with the PCE label. Soil samples were collected from the soil directly below the drum (sample B10-DE1). Results of analyses indicated no presence of PCE or its attenuation constituents. Therefore, the potential of SWMU B-10 contributing to impacted groundwater is minimal. On September 23, 2003, the backfilled clay in the vicinity of the drum were excavated to bedrock, and two samples were collected from the bedrock that was estimated to be directly below the former location of the drum with the PCE label. Results of analysis from these two samples indicated that all contaminated soil media were removed and that the site has met RRS No.1 closure criteria.

**Comment #4**

The final report documents all analytical data in a tabulated manner. The TCEQ requires the submission of all pertinent and actual laboratory analytical reports, laboratory and field QA/QC data and chain of custody information with the report.

*Response for Comment #4*

Camp Stanley has a very rigorous quality assurance program to ensure high quality data. All of the laboratories conducting analyses for Camp Stanley were audited by CSSA, AFCEE, and Parsons prior to sample shipment. For the SWMU B-10 samples, Parsons and the laboratories strictly adhered to the Air Force Center for Environmental Excellence Quality Assurance Program Plan (recently revised slightly to the CSSA QAPP). Analytical data was reviewed by the laboratory as required by the QAPP, and then electronic and hard copies of the data were submitted by the laboratory. Both copies of the data were 100% verified by Parsons' chemists, in accordance with the AFCEE QAPP. The data validation summary report, included with each investigation report, describes the findings of this review. Finally, the analytical data and validation report was reviewed and approved by AFCEE chemists.

The AFCEE and CSSA QAPP requirements for analytical data packages are extensive. Due to the volume of analytical data, analytical reports, laboratory and field QA/QC data, and chain-of-custody forms are not included in hard copies of the Environmental Encyclopedia or closure reports. The data validation summary reports and summary analytical tables are provided instead. However, these laboratory reports are available for TCEQ review if necessary.

Parsons will provide a copy of the requested data for this site so you can review the information given to us by the laboratory.

If you have any further questions, or if we can be of any assistance, do not hesitate to call me at 210-295-7416.

Sincerely,

  
JASON D. SHIRLEY  
Installation Manager

Attachments

cc: Mr. Greg Lyssy  
EPA Region 6

Mr. Kent Grubb  
U.S. Army, Army Medical Command, Fort Sam Houston, Staff Judge Advocate

Mr. Jorge Salazar  
TCEQ, San Antonio Regional Office

Ms. Julie Burdey  
Parsons

Attachment A

PHOTOGRAPHS

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Photo No. 1 - Excavation of debris at SWMU B-10



Photo No. 2 - Excavation of soil at SWMU B-10 down to bedrock surface



Photo No. 3 - Excavation of soil and exposure of bedrock surface and vertical wall of bedrock



Photo No. 4 - Backfilling to grade at SWMU B-10



Photo No. 5 - Debris uncovered at SWMU B-10



Photo No. 6 - Right side shows an exposed 55-gallon drum which was labeled as containing PCE



Photo No. 7 - Resampling program in September 2003 showing initial soil removal at approximate location of area that contained the 55-gallon drum labeled as containing PCE

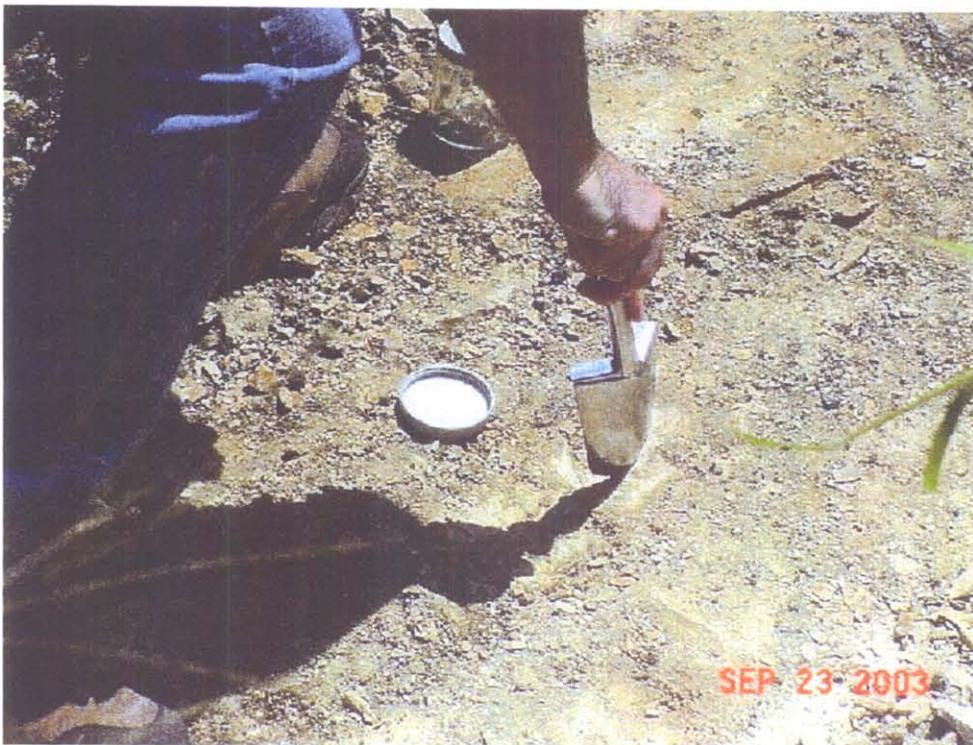


Photo No. 8 - Sampling bedrock at the base of SWMU B-10

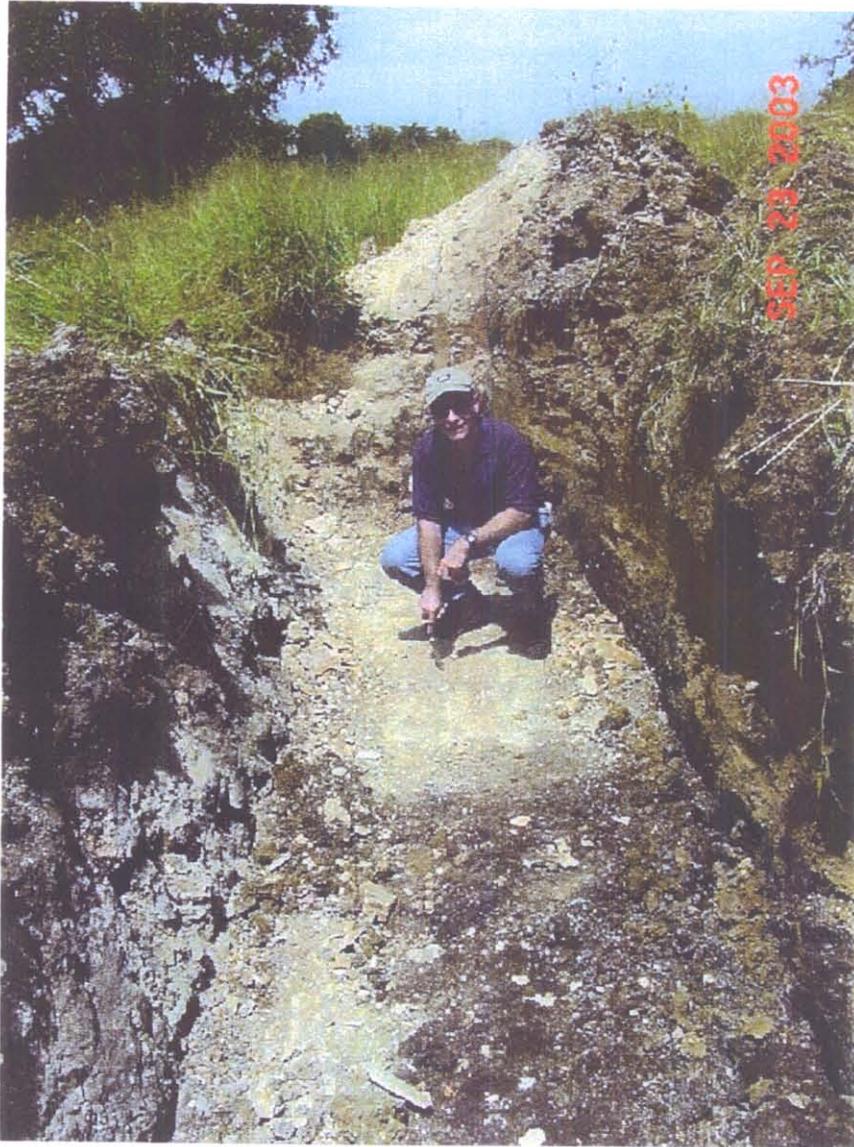


Photo No. 9 - Bedrock surface at base of B-10

| Well ID      | PCE (µg/L) [MCL = 5 µg/L] |              |                  |               |                  |             |
|--------------|---------------------------|--------------|------------------|---------------|------------------|-------------|
|              | Most Recent Detection     |              | Maximum Detected |               | Minimum Detected |             |
|              | Sample Date               | Conc.        | Sample Date      | Conc.         | Sample Date      | Conc.       |
| CS-2         | 6/19/2003                 | 0.1F         | 9/7/1999         | 1.12F         | 9/10/2002        | 0.073F      |
| CS-3         | 12/16/1999                | 0.99F        | 11/4/1992        | 1.1           | 11/4/1992        | 1.1         |
| CS-4         | 6/23/2003                 | 1.7          | 11/4/1992        | 2.8           | 6/23/2003        | 1.7         |
| CS-D         | 6/19/2003                 | <b>200.0</b> | 6/19/2003        | 200.0         | 11/3/1992        | <b>8.6</b>  |
| CS-MW1-LGR   | 6/19/2003                 | <b>9.9</b>   | 9/18/2000        | 25.44         | 3/22/2000        | 3.13        |
| CS-MW1-BS    | 3/25/2003                 | 0.19F        | 3/25/2003        | 0.19F         | 6/16/2003        | 0.05U       |
| CS-MW1-CC    | 6/16/2003                 | 0.05U        | 6/16/2003        | 0.05U         | 6/16/2003        | 0.05U       |
| CS-MW2-LGR   | 6/17/2003                 | 2.2          | 12/13/1999       | <b>13.97</b>  | 12/13/2002       | 2.1         |
| CS-MW2-CC    | 6/17/2003                 | 0.05U        | 6/17/2003        | 0.05U         | 6/17/2003        | 0.05U       |
| CS-MW4-LGR   | 6/23/2003                 | 0.061F       | 3/21/2003        | 0.12F         | 6/23/2003        | 0.061F      |
| CS-MW5-LGR   | 6/23/2003                 | 1.3F         | 3/17/2003        | 1.7           | 9/11/2002        | 0.32F       |
| CS-MW9-LGR   | 6/20/2003                 | 0.071F       | 6/20/2003        | 0.071F        | 3/13/2002        | 0.041F      |
| CS-MW9-BS    | 6/20/2003                 | 0.05U        | 12/14/2001       | 0.11U         | 6/20/2003        | 0.05U       |
| CS-MW9-CC    | 6/20/2003                 | 0.05U        | 12/14/2001       | 0.11U         | 6/20/2003        | 0.05U       |
| CS-MW12-LGR  | 6/16/2003                 | 0.05U        | 6/16/2003        | 0.05U         | 6/16/2003        | 0.05U       |
| CS-MW12-BS   | 6/16/2003                 | 0.05U        | 6/16/2003        | 0.05U         | 6/16/2003        | 0.05U       |
| CS-MW12-CC   | 6/16/2003                 | 0.05U        | 6/16/2003        | 0.05U         | 6/16/2003        | 0.05U       |
| CS-MW16-LGR* | 6/19/2003                 | <b>18.0</b>  | 9/15/2000        | <b>360.66</b> | 6/19/2003        | <b>18.0</b> |
| CS-MW16-CC   | NA                        | NA           | NA               | NA            | NA               | NA          |

| Well ID      | TCE (µg/L) [MCL = 5 µg/L] |              |                  |              |                  |             |
|--------------|---------------------------|--------------|------------------|--------------|------------------|-------------|
|              | Most Recent Detection     |              | Maximum Detected |              | Minimum Detected |             |
|              | Sample Date               | Conc.        | Sample Date      | Conc.        | Sample Date      | Conc.       |
| CS-2         | 12/14/2001                | 0.17F        | 12/14/2001       | 0.17F        | 12/14/2001       | 0.17F       |
| CS-3         | 12/16/1999                | 0.06U        | 2/27/1996        | 2U           | 12/16/1999       | 0.06U       |
| CS-4         | 6/23/2003                 | 3.5          | 6/23/2003        | 3.5          | 4/6/1995         | 0.9         |
| CS-D         | 6/19/2003                 | <b>290.0</b> | 6/19/2003        | <b>290.0</b> | 11/3/1992        | <b>15.0</b> |
| CS-MW1-LGR   | 6/19/2003                 | <b>26.0</b>  | 12/12/2001       | <b>32.29</b> | 3/22/2000        | 3.0         |
| CS-MW1-BS    | 6/16/2003                 | 0.17F        | 3/25/2003        | 0.24F        | 6/16/2003        | 0.17F       |
| CS-MW1-CC    | 6/16/2003                 | 0.03U        | 6/16/2003        | 0.03U        | 6/16/2003        | 0.03U       |
| CS-MW2-LGR   | 6/17/2003                 | 1.8          | 3/20/01          | <b>9.80</b>  | 6/17/2003        | 1.8         |
| CS-MW2-CC    | 6/17/2003                 | 0.03U        | 6/17/2003        | 0.03U        | 6/17/2003        | 0.03U       |
| CS-MW4-LGR   | 6/23/2003                 | 0.044F       | 3/21/2003        | 0.098F       | 6/23/2003        | 0.044F      |
| CS-MW5-LGR   | 6/23/2003                 | 2.6          | 6/23/2003        | 2.6          | 9/11/2002        | 0.4F        |
| CS-MW9-LGR   | 3/17/2003                 | 0.26F        | 3/17/2003        | 0.26F        | 3/17/2003        | 0.26F       |
| CS-MW9-BS    | 6/20/2003                 | 0.03U        | 12/14/2001       | 0.27U        | 6/20/2003        | 0.03U       |
| CS-MW9-CC    | 6/20/2003                 | 0.03U        | 12/14/2001       | 0.27U        | 6/20/2003        | 0.03U       |
| CS-MW12-LGR  | 6/16/2003                 | 0.03U        | 6/16/2003        | 0.03U        | 6/16/2003        | 0.03U       |
| CS-MW12-BS   | 6/16/2003                 | 0.03U        | 6/16/2003        | 0.03U        | 6/16/2003        | 0.03U       |
| CS-MW12-CC   | 6/16/2003                 | 0.03U        | 6/16/2003        | 0.03U        | 6/16/2003        | 0.03U       |
| CS-MW16-LGR* | 6/19/2003                 | <b>18.0</b>  | 8/23/1991        | <b>509.0</b> | 6/19/2003        | <b>18.0</b> |
| CS-MW16-CC   | NA                        | NA           | NA               | NA           | NA               | NA          |

Bold Results = Value > MCL

\* CS-MW16-LGR, CS-MW1-LGR, and CS-MW2-LGR were upgraded from open borehole wells to LGR-only screened wells in September 2002.

Results given in µg/L (micrograms per liter)

F = The analyte was positively identified but The associated numerical value is below The RL.

J = The analyte was positively identified below quantitation limits; the quantitation is an estimate.

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the method detection.

NA = not sampled for this parameter.

| Well ID      | <i>cis</i> -1,2-DCE (µg/L) [MCL = 70 µg/L] |              |                  |              |                  |        |
|--------------|--|--------------|------------------|--------------|------------------|--------|
|              | Most Recent Detection                      |              | Maximum Detected |              | Minimum Detected |        |
|              | Sample Date                                | Conc.        | Sample Date      | Conc.        | Sample Date      | Conc.  |
| CS-2         | 6/19/2003                                  | 0.09U        | 2/27/1996        | 4U           | 6/19/2003        | 0.09U  |
| CS-3         | 12/16/1999                                 | 0.145U       | 2/27/1996        | 4U           | 12/16/1999       | 0.145U |
| CS-4         | 6/23/2003                                  | 1.2          | 6/23/2003        | 1.2          | 4/6/1995         | 0.8U   |
| CS-D         | 6/19/2003                                  | <b>270.0</b> | 6/19/2003        | <b>270.0</b> | 12/4/1991        | 43.0   |
| CS-MW1-LGR   | 6/19/2003                                  | 17.0         | 9/13/2001        | 29.0         | 3/22/2000        | 2.3    |
| CS-MW1-BS    | 6/16/2003                                  | 1.1F         | 3/25/2003        | 1.3          | 6/16/2003        | 1.1F   |
| CS-MW1-CC    | 6/16/2003                                  | 0.09U        | 6/16/2003        | 0.09U        | 6/16/2003        | 0.09U  |
| CS-MW2-LGR   | 6/17/2003                                  | 1.1F         | 3/20/2001        | 4.6          | 6/17/2003        | 1.1F   |
| CS-MW2-CC    | 6/17/2003                                  | 0.09U        | 6/17/2003        | 0.09U        | 6/17/2003        | 0.09U  |
| CS-MW4-LGR   | 6/23/2003                                  | 0.2F         | 3/21/2003        | 0.22F        | 6/18/2002        | 0.11F  |
| CS-MW5-LGR   | 6/23/2003                                  | 2.1          | 3/17/2003        | 2.8          | 12/13/2002       | 1.0F   |
| CS-MW9-LGR   | 6/20/2003                                  | 0.09U        | 12/14/2001       | 0.11U        | 6/20/2003        | 0.09U  |
| CS-MW9-BS    | 6/20/2003                                  | 0.09U        | 12/14/2001       | 0.11U        | 6/20/2003        | 0.09U  |
| CS-MW9-CC    | 3/17/2003                                  | 0.4F         | 3/17/2003        | 0.4F         | 3/17/2003        | 0.4F   |
| CS-MW12-LGR  | 6/16/2003                                  | 0.09U        | 6/16/2003        | 0.09U        | 6/16/2003        | 0.09U  |
| CS-MW12-BS   | 6/16/2003                                  | 0.09U        | 6/16/2003        | 0.09U        | 6/16/2003        | 0.09U  |
| CS-MW12-CC   | 6/16/2003                                  | 0.09U        | 6/16/2003        | 0.09U        | 6/16/2003        | 0.09U  |
| CS-MW16-LGR* | 6/19/2003                                  | 15.0         | 4/7/1995         | <b>290.0</b> | 6/19/2003        | 15.0   |
| CS-MW16-CC   | NA   | NA           | NA               | NA           | NA               | NA     |

Bold Results = Value > MCL

\* CS-MW16-LGR, CS-MW1-LGR, and CS-MW2-LGR were upgraded from open borehole wells to LGR-only screened wells in September 2002.

Results given in µg/L (micrograms per liter)

F = The analyte was positively identified but The associated numerical value is below The RL.

J = The analyte was positively identified below quantitation limits; the quantitation is an estimate.

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the method detection.

NA = not sampled for this parameter.

| Well ID     | Copper (mg/L) [MCL=1.3 mg/L] <sup>1</sup> |          |                  |          |                  |          |
|-------------|---|----------|------------------|----------|------------------|----------|
|             | Most Recent Detection                     |          | Maximum Detected |          | Minimum Detected |          |
|             | Sample Date                               | Conc.    | Sample Date      | Conc.    | Sample Date      | Conc.    |
| CS-2        | 6/19/2003                                 | 0.0016F  | 12/12/1995       | 0.05     | 3/20/2001        | 0.001F   |
| CS-3        | 12/16/1999                                | 0.004F   | 1/19/1996        | 0.05     | 12/16/1999       | 0.004F   |
| CS-4        | 6/23/2003                                 | 0.002F   | 6/23/2003        | 0.002F   | 6/23/2003        | 0.002F   |
| CS-D        | 6/19/2003                                 | 0.0011F  | 2/29/1996        | 0.04     | 3/20/2001        | 0.001F   |
| CS-MW1-LGR  | 6/19/2003                                 | 0.0014F  | 6/13/2001        | 0.005F   | 9/12/2000        | 0.001F   |
| CS-MW1-BS   | 6/16/2003                                 | 0.0017F  | 3/25/2003        | 0.0018F  | 6/16/2003        | 0.0017F  |
| CS-MW1-CC   | 6/16/2003                                 | 0.0017F  | 3/25/2003        | 0.0018F  | 6/16/2003        | 0.0017F  |
| CS-MW2-LGR  | 6/17/2003                                 | 0.0024F  | 6/13/2001        | 0.005F   | 3/20/2001        | 0.001F   |
| CS-MW2-CC   | 6/17/2003                                 | 0.0011F  | 6/17/2003        | 0.0011F  | 6/17/2003        | 0.0011F  |
| CS-MW4-LGR  | 6/14/2001                                 | 0.004F   | 6/14/2001        | 0.004F   | 6/14/2001        | 0.004F   |
| CS-MW5-LGR  | 6/23/2003                                 | 0.00097U | 6/20/2003        | 0.00097U | 6/20/2003        | 0.00097U |
| CS-MW9-LGR  | 6/20/2003                                 | 0.00097U | 6/20/2003        | 0.00097U | 6/20/2003        | 0.00097U |
| CS-MW9-BS   | 6/20/2003                                 | 0.00097U | 6/20/2003        | 0.00097U | 6/20/2003        | 0.00097U |
| CS-MW9-CC   | 6/20/2003                                 | 0.00097U | 6/20/2003        | 0.00097U | 6/20/2003        | 0.00097U |
| CS-MW12-LGR | 6/16/2003                                 | 0.0022F  | 6/16/2003        | 0.0022F  | 6/16/2003        | 0.0022F  |
| CS-MW12-BS  | 6/16/2003                                 | 0.0013F  | 6/16/2003        | 0.0013F  | 6/16/2003        | 0.0013F  |
| CS-MW12-CC  | 6/16/2003                                 | 0.0018F  | 6/16/2003        | 0.0018F  | 6/16/2003        | 0.0018F  |
| CS-MW16-LGR | 6/19/2003                                 | 0.0012F  | 12/13/1995       | 0.05     | 12/13/2000       | 0.001F   |
| CS-MW16-CC  | NA  | NA       | NA               | NA       | NA               | NA       |

| Well ID     | Chromium (mg/L) [MCL = 0.1 mg/L] <sup>1</sup> |          |                  |         |                  |          |
|-------------|---|----------|------------------|---------|------------------|----------|
|             | Most Recent Detection                         |          | Maximum Detected |         | Minimum Detected |          |
|             | Sample Date                                   | Conc.    | Sample Date      | Conc.   | Sample Date      | Conc.    |
| CS-2        | 6/18/2002                                     | 0.0173J  | 6/18/2002        | 0.039J  | 6/13/2001        | 0.002F   |
| CS-3        | 12/16/1999                                    | 0.005F   | 12/16/1999       | 0.005F  | 12/16/1999       | 0.005F   |
| CS-4        | 6/23/2003                                     | 0.0021U  | 6/23/2003        | 0.0021U | 6/23/2003        | 0.0021U  |
| CS-D        | 6/18/2002                                     | 0.0026J  | 3/20/2001        | 0.004F  | 6/18/2002        | 0.0026J  |
| CS-MW1-LGR  | 9/10/2002                                     | 0.0013F  | 6/12/2000        | 0.006F  | 9/10/2002        | 0.0013F  |
| CS-MW1-BS   | 6/16/2003                                     | 0.0058F  | 6/16/2003        | 0.0058F | 3/25/2003        | 0.001F   |
| CS-MW1-CC   | 6/16/2003                                     | 0.0021U  | 6/16/2003        | 0.0021U | 6/16/2003        | 0.0021U  |
| CS-MW2-LGR  | 6/13/2001                                     | 0.003F   | 3/21/2000        | 0.009F  | 6/13/2001        | 0.003F   |
| CS-MW2-CC   | 6/17/2003                                     | 0.0021U  | 6/17/2003        | 0.0021U | 6/17/2003        | 0.0021U  |
| CS-MW4-LGR  | 6/18/2002                                     | 0.0026J  | 6/18/2002        | 0.0026J | 6/14/2001        | 0.002F   |
| CS-MW5-LGR  | 6/18/2002                                     | 0.0026J  | 6/18/2002        | 0.0026J | 6/14/2001        | 0.002F   |
| CS-MW9-LGR  | 9/12/2001                                     | 0.003F   | 9/12/2001        | 0.003F  | 6/14/2001        | 0.002F   |
| CS-MW9-BS   | 6/14/2001                                     | 0.003F   | 6/14/2001        | 0.003F  | 6/14/2001        | 0.003F   |
| CS-MW9-CC   | 12/14/2001                                    | 0.013    | 12/14/2001       | 0.013   | 6/14/2001        | 0.002F   |
| CS-MW12-LGR | 12/16/2002                                    | 0.0013F  | 12/16/2002       | 0.0013F | 12/16/2002       | 0.0013F  |
| CS-MW12-BS  | 6/16/2003                                     | 0.0021U  | 6/16/2003        | 0.0021U | 6/16/2003        | 0.0021U  |
| CS-MW12-CC  | 12/16/2002                                    | 0.0011F  | 12/16/2002       | 0.0011F | 12/16/2002       | 0.0011F  |
| CS-MW16-LGR | 9/9/2002                                      | 0.00085F | 12/14/1999       | 0.006F  | 9/9/2002         | 0.00085F |
| CS-MW16-CC  | NA  | NA       | NA               | NA      | NA               | NA       |

Bold Results = Value > MCL

\* CS-MW16-LGR, CS-MW1-LGR, and CS-MW2-LGR were upgraded from open borehole wells to LGR-only screened wells in September 2002.

<sup>1</sup> Note that the MCL and TRRP Tier 1 GW PCL - Residential standards for Cr, Cu and Pb are equivalent between the two standards. There is not an MCL for Zn, but there is a TRRP Tier 1 GW PCL - Residential standard.

Results given in ug/L (micrograms per liter)

F = The analyte was positively identified but The associated numerical value is below The RL.

J = The analyte was positively identified below quantitation limits; the quantitation is an estimate.

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the method detection.

NA = not sampled for this parameter.

| Well ID     | Lead (mg/L) [Action Level = 0.015 mg/L] <sup>1</sup> |          |                  |          |                  |          |
|-------------|--|----------|------------------|----------|------------------|----------|
|             | Most Recent Detection                                |          | Maximum Detected |          | Minimum Detected |          |
|             | Sample Date  | Conc.    | Sample Date      | Conc.    | Sample Date      | Conc.    |
| CS-2        | 6/19/2003  | 0.0021F  | 12/12/1995       | 0.25     | 3/14/2002        | 0.00073F |
| CS-3        | 2/27/1996  | 0.028    | 12/12/1995       | 0.029    | 1/19/1996        | 0.002    |
| CS-4        | 6/23/2003  | 0.00019  | 6/23/2003        | 0.00019  | 6/23/2003        | 0.00019  |
| CS-D        | 6/19/2003  | 0.00033F | 6/18/2002        | 0.0044   | 6/19/2003        | 0.00033F |
| CS-MW1-LGR  | 6/19/2003  | 0.00047F | 6/19/2003        | 0.00047F | 9/10/2002        | 0.0004F  |
| CS-MW1-BS   | 6/16/2003  | 0.0002F  | 6/16/2003        | 0.0002F  | 6/16/2003        | 0.0002F  |
| CS-MW1-CC   | 6/16/2003  | 0.00019U | 6/16/2003        | 0.00019U | 3/25/2003        | 0.00015U |
| CS-MW2-LGR  | 9/10/2002  | 0.00064F | 6/13/2001        | 0.001F   | 3/14/2002        | 0.00021F |
| CS-MW2-CC   | 6/17/2003  | 0.00019U | 6/17/2003        | 0.00019U | 6/17/2003        | 0.00019U |
| CS-MW4-LGR  | 3/14/2002  | 0.00015F | 3/14/2002        | 0.00015F | 3/14/2002        | 0.00015F |
| CS-MW5-LGR  | 6/18/2002  | 0.00022F | 9/12/2001        | 0.0009F  | 6/18/2002        | 0.00022F |
| CS-MW9-LGR  | 6/19/2002  | 0.0015F  | 6/14/2001        | 0.0025F  | 9/12/2001        | 0.0009F  |
| CS-MW9-BS   | 6/19/2002  | 0.00054F | 9/12/2001        | 0.0024F  | 6/19/2002        | 0.00054F |
| CS-MW9-CC   | 6/20/2003  | 0.00019U | 6/20/2003        | 0.00019U | 6/20/2003        | 0.00019U |
| CS-MW12-LGR | 6/16/2003  | 0.00019U | 6/16/2003        | 0.00019U | 6/16/2003        | 0.00019U |
| CS-MW12-BS  | 6/16/2003  | 0.00019U | 6/16/2003        | 0.00019U | 6/16/2003        | 0.00019U |
| CS-MW12-CC  | 12/16/2002   | 0.00037F | 12/16/2002       | 0.00037F | 12/16/2002       | 0.00035F |
| CS-MW16-LGR | 9/9/2002   | 0.025F   | 9/9/2002         | 0.025F   | 6/18/2002        | 0.00037F |
| CS-MW16-CC  | NA   | NA       | NA               | NA       | NA               | NA       |

| Well ID     | Zinc (mg/L) [TRRP Tier 1 GW PCL-Residential = 7.3 mg/L] <sup>1</sup> |         |                  |        |                  |         |
|-------------|--|---------|------------------|--------|------------------|---------|
|             | Most Recent Detection  |         | Maximum Detected |        | Minimum Detected |         |
|             | Sample Date  | Conc.   | Sample Date      | Conc.  | Sample Date      | Conc.   |
| CS-2        | 6/19/2003  | 0.0053F | 12/12/1995       | 0.33   | 12/13/2000       | 0.0029F |
| CS-3        | 12/16/1999   | 0.013   | 1/19/1996        | 0.05   | 12/16/1999       | 0.013   |
| CS-4        | 6/23/2003  | 0.072   | 6/23/2003        | 0.072  | 12/13/1995       | 0.04    |
| CS-D        | 6/19/2003  | 0.013   | 12/14/2001       | 0.079  | 6/19/2003        | 0.013   |
| CS-MW1-LGR  | 6/19/2003  | 0.0069F | 9/10/2002        | 0.081  | 3/20/2001        | 0.0033F |
| CS-MW1-BS   | 6/16/2003  | 0.078   | 6/16/2003        | 0.078  | 3/25/2003        | 0.034   |
| CS-MW1-CC   | 6/16/2003  | 0.005F  | 6/16/2003        | 0.005F | 6/16/2003        | 0.005F  |
| CS-MW2-LGR  | 6/17/2003  | 0.026   | 6/17/2003        | 0.026  | 9/12/2000        | 0.003F  |
| CS-MW2-CC   | 6/17/2003  | 0.027   | 6/17/2003        | 0.027  | 6/17/2003        | 0.027   |
| CS-MW4-LGR  | 6/23/2003  | 0.013   | 6/14/2001        | 0.019F | 9/13/2001        | 0.009F  |
| CS-MW5-LGR  | 6/23/2003  | 0.029   | 6/14/2001        | 0.144  | 3/21/2002        | 0.0162  |
| CS-MW9-LGR  | 6/20/2003  | 0.016   | 6/14/2001        | 0.022F | 3/13/2002        | 0.0132  |
| CS-MW9-BS   | 6/20/2003  | 0.0074F | 6/14/2001        | 0.021F | 6/19/2002        | 0.0033  |
| CS-MW9-CC   | 6/20/2003  | 0.0056F | 6/14/2001        | 0.054  | 6/20/2003        | 0.0056F |
| CS-MW12-LGR | 6/16/2003  | 0.031   | 12/16/2002       | 0.096  | 6/16/2003        | 0.031   |
| CS-MW12-BS  | 6/16/2003  | 0.018   | 6/16/2003        | 0.018  | 12/16/2002       | 0.012   |
| CS-MW12-CC  | 6/16/2003  | 0.02    | 6/16/2003        | 0.02   | 12/16/2002       | 0.017   |
| CS-MW16-LGR | 6/19/2003  | 0.33    | 3/14/2002        | 0.779  | 9/12/2000        | 0.005F  |
| CS-MW16-CC  | NA   | NA      | NA               | NA     | NA               | NA      |

Bold Results = Value > MCL

\* CS-MW16-LGR, CS-MW1-LGR, and CS-MW2-LGR were upgraded from open borehole wells to LGR-only screened wells in September 2002.

<sup>1</sup> Note that the MCL and TRRP Tier 1 GW PCL - Residential standards for Cr, Cu and Pb are equivalent between the two standards. There is not an MCL for Zn, but there is a TRRP Tier 1 GW PCL - Residential standard.

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