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REMOVAL SUPPORT TEAM 2
EPA CONTRACT EP-W-06-072

January 18, 2008

Jack Harmon, On-Scene Coordinator
U.S. Environmental Protection Agency, Region II
Removal Action Branch
2890 Woodbridge Avenue
Edison, NJ 08837

EPA CONTRACT NO: EP-W-06-072
TDD NO: TO-0007-0017
DOCUMENT CONTROL NO: RST 2-02-F-0333
SUBJECT: BUCKBEE-MEARS SITE
FINAL SAMPLING AND ANALYSIS REPORT

Dear Mr. Harmon:

Enclosed please find the Final Sampling and Analysis Report pertaining to the August 6 – 10 and 20 - 30, 2007, investigation at the Buckbee-Mears site located in Cortland, Cortland County, New York. If you have any questions or comments, please call me at (732) 585-4421.

Very truly yours,

WESTON SOLUTIONS, INC.

Laura Holloway
Site Project Manager

Enclosure

cc: TDD No. TO-0007-0017



FINAL SAMPLING AND ANALYSIS REPORT

**BUCKBEE-MEARS SITE
30 KELLOGG ROAD
CORTLAND, CORTLAND COUNTY, NEW YORK**

Prepared by

Removal Support Team 2
Weston Solutions, Inc.
Edison, New Jersey 08837

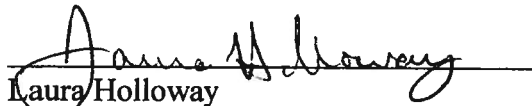
Prepared for

U.S. Environmental Protection Agency
Region II – Removal Action Branch
Edison, New Jersey 08837

DCN #: RST-02-F-0333
TDD #: TO-0007-0017
EPA Contract No.: EP-W-06-072


Approved by:

RST 2


Laura Holloway
Site Project Manager

1/22/08
Date

RST 2


John Brennan
Group Leader

1/18/08
Date

USEPA

Jack Harmon
On-Scene Coordinator

Date:

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1.0 SITE BACKGROUND AND DESCRIPTION

The Buckbee-Mears facility (Site) is located at 30 Kellogg Road, Cortland, Cortland County, New York (see Figure 1 in Appendix A). The facility was known for making aperture masks, which are a part of the picture tubes used in color television sets. They also specialized in micro-technology and photochemical machining, developing the AccuCoil PCM method to produce stress and burr free metal parts.

The property is approximately 15 acres in size and contains a large production building, office building and several support buildings including a flammable storage building and hazardous waste storage area. The combined size of the buildings is estimated at 367,000 square feet. These structures are situated in an area of mixed land use including residential and industrial. The Site is bordered by a rehabilitation and extended care home to the north, a water treatment facility to the east, railroad tracks and a wooded area to the south, and a residence and farm land to the southeast.

In January 2007, EPA initiated an Emergency Removal Action, which included the disposal of hydrochloric acid, sulfuric acid, chromic acid, anhydrous ammonia, and over 5,700 containers. A sampling event was conducted by RST 2 in March of 2007 to identify any contamination of the water and sludge in the sumps located throughout the facility. The EPA and the Region II Emergency Rapid Response Services (ERRS) Contractor are currently removing process pipe lines and tanks that are located in the facility.

2.0 GENERAL SCOPE OF WORK

The overall objectives of this investigation were:

1. To determine the presence or absence of contamination in the water and sludge of recharged sumps, in the concrete floor, on the floor liner, and of staining throughout the buildings;
2. To characterize unknown materials in containers connected to the process lines throughout the facility through field screening.

3.0 SAMPLE SUMMARY

The sampling event occurred in two phases: the first phase took place during the week of August 6, 2007, and included the collection of water and sludge samples from multiple recharged sumps. The second phase began on August 20, 2007, and was completed on August 30, 2007. This portion included the collection of concrete, solid

waste, dust, and wipe samples, as well as the field screening characterization.

Refer to Figures 2 and 3 in Appendix A for sample locations and field screening locations, Tables 1 to 6 in Appendix B for sample descriptions, and the analytical data package in Appendix C.

4.0 LABORATORY ASSIGNMENTS

The following list provides a general summary of the laboratories utilized during the sampling event.

<u>Analyses</u>	<u>Sample Media</u>	<u>Laboratory</u>
RCRA Metals	Water/Sludge/ Wipe/Dust/ Solid Waste/Concrete	Chemtech Consulting Group 284 Sheffield Ave Mountainside, NJ

5.0 SAMPLE DISPATCH DATA

CLP

On August 10, 2007, RST 2 personnel relinquished 12 water samples, one water field duplicate sample, two sludge samples, and one sludge field duplicate sample to ChemTech Consulting Group for Resource Conservation and Recovery Act (RCRA) Metals analysis. The samples were shipped via FedEx Airbill No. 860806667688 with Inorganic Traffic Report and Chain of Custody Record No. 2-200338754-081007-0001. The Chain of Custody Record can be found in Appendix D.

On August 24, 2007, RST 2 personnel relinquished 28 concrete samples, two concrete field duplicate samples, 22 solid waste samples, three dust samples, and one dust field duplicate sample to ChemTech Consulting Group for RCRA Metals analysis. The samples were shipped via FedEx Airbill No. 962558293701 with Inorganic Traffic Report and Chain of Custody Record No. 2-200338754-082407-0001. The Chain of Custody Record can be found in Appendix D.

On August 24, 2007, RST 2 personnel relinquished 22 solid waste samples, two solid waste field duplicate samples, one concrete sample, 11 wipe samples, one wipe field duplicate sample, and four field QC (rinsate blanks) samples to ChemTech Consulting Group for RCRA Metals analysis. The samples were shipped via FedEx Airbill No. 862558293745 and Inorganic Traffic Report and Chain of Custody Record No. 2-

200338754-082407-0004. The Chain of Custody can be found in Appendix D.

On August 30, 2007, RST 2 personnel relinquished one concrete sample, one solid waste sample, and one water sample to ChemTech Consulting Group for RCRA Metals analysis. The samples were shipped via FedEx Airbill No. 857744010504 and Inorganic Traffic Report and Chain of Custody Record No. 2-200338754-083007-0001. The Chain of Custody can be found in Appendix D.

6.0 ON-SITE PERSONNEL

Name	Representing	Duties On-Site
Laura Holloway	Region 2, RST 2	Site Project Manager, Site Health and Safety, Sample Management
Terry Kish	Region 2, RST 2	Sample Collection
Tara Rowland	Region 2, RST 2	Sample Collection, Sample Management
Jairo Castillo	Region 2, RST 2	Sample Collection, Sample Management
Jeffrey Jager	Region 2, RST 2	Sample Collection
Sayed Iqbal	Region 2, RST 2	Field Screening Characterization
Jack Harmon	Region 2, EPA	On-Scene Coordinator

7.0 PHASE I SAMPLING EVENT

7.1 General Description

The first phase of the sampling event included the collection of water and sludge samples from recharged sumps throughout the facility. The objective of conducting this part of the sampling event separately was to allow time to pump out the liquids and sludge in order to collect core samples from the sumps.

7.2 Water Sampling & Analysis

Twelve water samples (BM-L-01 through BM-L-08 and BM-L-10 through BM-L-14), and one field duplicate sample (BM-L-03) were collected from the recharged sumps throughout the facility to determine the presence or absence of metals contamination. Refer to Figure 2 in Appendix A for sample locations, Tables 1 to 5 in Appendix B for sample collection information, and Appendix C for the analytical data package. Each of the samples were submitted for RCRA metals analysis.

The analytical results indicate that eleven of the water samples exhibited levels of chromium above the detection limit ranging from 0.0022 (J) parts per million (ppm) in sample BM-L-11 (location 70) to 6.14 ppm in sample BM-L-05 (location 41). Six samples exhibited levels of lead above the detection limit ranging from 0.0043 (J) ppm in sample BM-L-11 to 0.557 ppm in sample BM-L-05. Sample BM-L-05 also exhibited a level of mercury above the detection limit at 0.0071 ppm. The chromium and lead analytical results are summarized in Figure 2 in Appendix A, and the validated data package is included in Appendix C.

7.3 Sludge Sampling & Analysis

Two sludge samples (BM-SL-01 and BM-SL-03), and one field duplicate sample (BM-SL-02) were collected from recharged sumps located throughout the facility to determine the presence or absence of metals contamination. Refer to Figure 2 in Appendix A for sample locations, Tables 2 and 5 in Appendix B for sample collection information, and Appendix C for the analytical data package. Each of the samples were submitted for RCRA metals analysis.

Samples BM-SL-01 and BM-SL-02 (location 42) were collected from a brown material located in the trench located in room 2-44. The analytical results indicate that sample BM-SL-01 exhibited a level of chromium above the detection limit at 1,300 ppm, and sample BM-SL-02 exhibited a level of chromium above the detection limit at 696 ppm. Sample BM-SL-03 (location 90) was collected from the eastern side of the trench located in room 5-133. The analytical results indicate that the sample exhibited levels of arsenic above the detection limit at 102 (J) ppm and levels of chromium above the detection limit at 667 ppm. The chromium and lead analytical results are summarized in Figure 2 in Appendix A, and the analytical data package is included as Appendix C.

8.0 PHASE II SAMPLING EVENT

8.1 General Description

The second phase of the sampling event was originally scheduled to include the collection of core samples from each sump, concrete chip samples from the floor, trenches, and containment areas, wipe samples from walls/equipment, "buildup" material from the ventilation system, and the process lines, and "buildup" material from one particular

sump. During the progression of the collection of concrete floor chip samples it was discovered that the composition of the floor was different than expected and not uniform throughout the facility. In some locations the floor was concrete, while in other locations the floor was lined with a thick epoxy layer. It was determined by EPA that RST 2 will collect any observed stained concrete, and will collect the liner when no staining is observed on the concrete. Some of the samples that had previously been labeled as concrete samples may have been recollected, and the sample name was not changed. Therefore, several of the solid waste samples have a sample name indicating it is concrete, even though this is not the case. In addition, as the ERRS contractor attempted to collect core samples from the sumps, it was discovered that the layers in the floor of the sumps were also different than what was expected. It was originally believed that the sumps contained a plastic liner, under which there was a concrete layer, and then an unknown layer under that concrete. After further investigation, the sumps were found to contain two layers of heavy plastic meshed with a concrete layer. These layers of plastic presented difficulties for sample collection and after discussions with the OSC it was determined that the core samples from the sumps would not be collected. To replace the core samples, the collection of tellerettes, gravel from the roof, and extra samples from the tunnel were sent for analysis instead.

8.2 Concrete Sampling & Analysis

Thirty concrete samples (BM-CC-01 through BM-CC-03, BM-CC-07, BM-CC-12, BM-CC-14, BM-CC-18, BM-CC-20 through BM-CC-22, BM-CC-26, BM-CC-30, BM-CC-37, BM-CC-39, BM-CC-43 through BM-CC-55, and BM-CC-57 through BM-CC-59), and two field duplicate samples (BM-CC-34 and BM-CC-41) were collected from the floor and the containment areas throughout the facility at depths of 0 to 3 inches to determine the extent of metals contamination. Refer to Figure 2 in Appendix A for sample locations, Tables 1 to 5 in Appendix B for sample collection information, Appendix C for the analytical data package. All samples were submitted for RCRA metals analysis.

The analytical results indicate that levels of chromium, lead, and mercury were observed in several of the samples to be above the detection limit. Concentrations of chromium above the detection level ranged from 15.9 ppm in sample BM-CC-34 (location 91) to 19,000 ppm (diluted by a factor of 10) in sample BM-CC-41 (location 97). Concentrations of lead above the detection level ranged from 2 ppm in sample BM-CC-41 (location 97) to 122 ppm in sample BM-CC-01 (location 81). Concentrations of

mercury above the detection level ranged from 0.037 (J) in sample BM-CC-02 (location 79) to 3.6 (J) ppm in sample BM-CC-44 (location 8). The chromium and lead analytical results are summarized in Figure 2 in Appendix A, and the analytical data package is included as Appendix C.

8.3 Solid Waste Sampling & Analysis

Forty-four solid waste samples (BM-CC-04 through BM-CC-06, BM-CC-08 through BM-CC-11, BM-CC-13, BM-CC-15 through BM-CC-17, BM-CC-23 through BM-CC-25, BM-CC-27 through BM-CC-29, BM-CC-31 through BM-CC-33, BM-CC-35, BM-SW-04, BM-SW-05, BM-SW-07 through BM-SW-21, BM-SW-23 through BM-SW-26, BM-SW-28, and BM-SW-29), and three field duplicate samples (BM-CC-19, BM-SW-22, and BM-SW-27) were collected from throughout the facility. Refer to Figure 2 in Appendix A for sample locations, Tables 1 to 5 in Appendix B for sample collection information, and Appendix C for the analytical data package. Each of the samples were submitted for RCRA metals analysis.

The analytical results indicate that barium levels were observed above the detection limit ranging from 21.4 ppm in sample BM-CC-28 (location 69) to 10,700 ppm (diluted by a factor of 5) in sample BM-SW-14 (location 48). Concentrations of chromium above the detection limit ranged from 4.6 ppm in sample BM-CC-13 (location 54) to 9,060 ppm in sample BM-SW-25 (location 13). Concentrations of lead above the detection limit ranged from 0.48 (J) ppm in sample BM-SW-05 (location 46) to 340 (J) ppm in sample BM-SW-28 (location 12). The chromium and lead analytical results are summarized in Figure 2 in Appendix A, and the analytical data package is included as Appendix C.

8.4 Dust Sampling & Analysis

Three composite dust samples (BM-SW-01, BM-SW-02, and BM-SW-06), and one field duplicate sample (BM-SW-03) were collected from the ventilation shafts in Building 1 and a sump in Building 1. Refer to Figure 2 in Appendix A for sample locations, Table 2 in Appendix B for sample collection information, and Appendix C for the analytical data package. All samples were submitted for RCRA metals analysis.

Sample BM-SW-01 (location 10) was collected from buildup material located in the ventilation shaft in Room 1-120. The analytical results indicated that the sample

exhibited concentrations of barium above the detection limit at 60.1 ppm, concentrations of chromium above the detection limit at 326 ppm, and concentrations of lead above the detection limit at 9.3 ppm. Sample BM-SW-02 and duplicate sample BM-SW-03 (location 35) were collected from the buildup material in the ventilation shaft located in Room 1-125. The analytical results indicate that both samples exhibited concentrations of chromium above the detection limit at 30.1 ppm and 34.6 ppm, respectively. The analytical results also indicate that both samples exhibited concentrations of lead above the detection limit at 6.3 ppm and 6 ppm, respectively. Sample BM-SW-06 (location 9) was collected from the material located on the floor of the large sump running down the middle of room 1-127. The analytical results indicate that the sample exhibited concentrations of arsenic above the detection limit at 127 ppm, and concentrations of chromium above the detection limit at 476 ppm. The chromium and lead analytical results are summarized in Figure 2 in Appendix A and the analytical data package is included as Appendix C.

8.5 Wipe Sampling & Analysis

Eleven wipe samples (BM-W-01 through BM-W-11), and one field duplicate sample (BM-W-12) were collected from stains on the equipment and walls throughout the facility. Refer to Figure 2 in Appendix A for sample locations, Tables 1 to 5 in Appendix B for sample collection information. Each of the samples were submitted for chromium and lead analyses.

The analytical results indicated that concentrations of chromium above the detection limit ranged from 2.6 ppm in sample BM-W-11 (location 95) to 3,850 ppm in sample BM-W-06 (location 7). The analytical results also indicate that concentrations of lead above the detection limit ranged from 0.35 ppm (J) in sample BM-W-08 (location 44) to 19.5 ppm in sample BM-W-06. The chromium and lead analytical results are summarized in Figure 2 in Appendix A, and the analytical data package is included as Appendix C.

9.0 FIELD SCREENING CHARACTERIZATION

Seven samples were collected from throughout the facility for field screening characterization. Four samples were collected from tanks connected to the process lines, two samples were collected from the tunnel, and one sample was collected from a core sample in Room 1-127. The ERRS Contractor and RST 2 personnel also collected pH levels of puddles and condensation at locations throughout the facility. Refer to Figure 3

in Appendix A for field screening characterization information and pH locations, and Table 6 in Appendix B for a summary of the field screening characterization results.

Each of the samples appeared to contain chloride, and additional tests indicated the presence of either ferric or ferrous iron in at least four of the samples. The pH of the condensation on the process equipment in Room 5-128 was observed to be 1, and the condensation on the process equipment in Room 5-137 was observed to be 2. The material that composed sample BM-SW-04 (location 5) was observed to have a pH of 11, and the crystal-like material that composed sample BM-SW-05 was observed to have a pH of 12. The liquid in the nalgene tank from which sample BM-SW-05 was collected was observed to have a pH of 14.

10.0 SITE SPECIFIC QUALITY ASSURANCE/QUALITY CONTROL PLAN

The objective of the Quality Assurance/Quality Control (QA/QC) plan is to provide analytical results which are legally defensible in a court of law. The QA/QC plan incorporated procedures for field sampling, chain of custody, laboratory analyses, and reporting to assure generation of sound analytical results. Sampling procedures were conducted in accordance with the Sampling Quality Assurance Project Plan (QAPP), DCN RST 2-02-F-0288, dated 08/06/07 and prepared by the Removal Support Team 2.

10.1 Sampling Equipment and Methods

Samples were collected at the locations as described in Sections 7.0 through 8.0. The concrete samples were collected at depths of 0 to 3 inches below grade using a hammer drill. The solid waste samples were each collected from surfaces throughout the facility using the same hammer drill. The hammer drill was decontaminated using water andalconox after each sample was collected. The composite dust samples were collected using dedicated, disposable plastic scoops and homogenized using dedicated, disposable aluminum pans. The wipe samples were collected using Ghost Wipes® over a 100 cm² template following ASTM's *Standard Practice for Field Collection of Organic Compounds from Surfaces Using Wipe Sampling* (2001) operating procedure. Including the aforementioned items, all samples for this investigation were collected in accordance with the Sampling Design in the QAPP.

10.2 Quality Assurance/Quality Control Samples

A Level 3 Quality Assurance Objective was specified for this investigation. Therefore, the collection of QA/QC samples included the collection of one field duplicate sample and one additional volume for Matrix Spike/Matrix Spike Duplicate (MS/MSD) analysis at the frequency of one per 20 samples per matrix, excluding wipe samples. This analysis provides information about the effect of sample matrix digestion and measurement methodology. Field duplicate samples provide an indication of sample homogeneity and were not identified to the laboratory.

11.0 FIELD OBSERVATIONS

As stated above, in cases where the concrete liner was stained and there was no indication that the concrete under the liner was stained, the liner was collected as the sample for analysis. At some sample locations, there was sludge like material or a liquid coating the top of the liner. It was not always possible to separate the material covering the liner from the intended sample, and may have affected the analytical results. Samples that were noted to be covered with material include the following:

- BM-CC-12
- BM-CC-14
- BM-CC-37
- BM-CC-39
- BM-CC-43
- BM-CC-08
- BM-CC-10
- BM-CC-33
- BM-CC-03

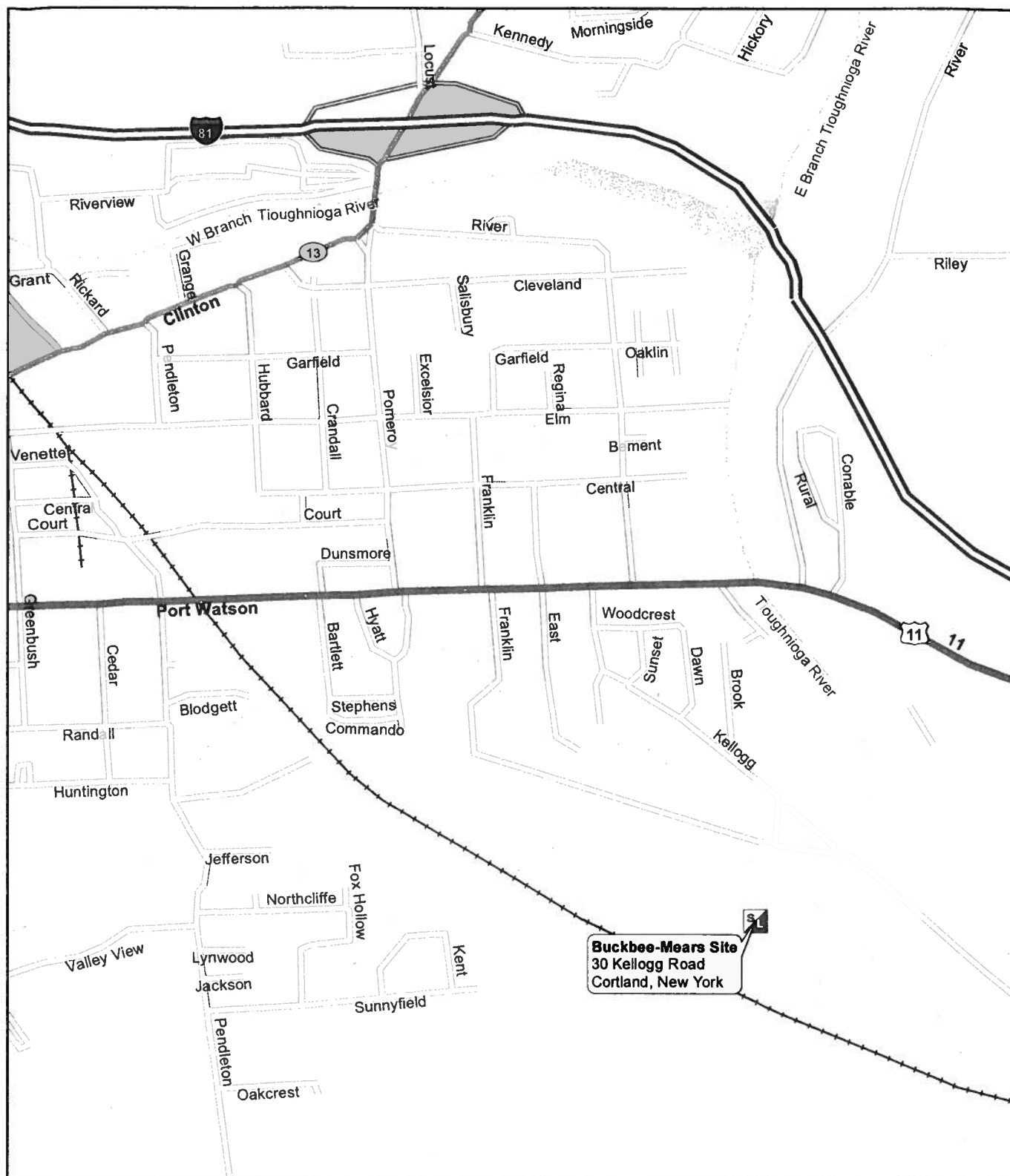
Some of the sample locations were in areas that were not accessible to RST 2 (confined spaces). In such instances, the ERRS Contractor collected the samples. These included:

- BM-L-01
- BM-SW-28
- BM-SW-25
- BM-SW-26
- BM-SW-27
- BM-CC-52
- BM-CC-52
- BM-L-14
- BM-SW-15
- BM-SW-16
- BM-SW-17
- BM-SW-18
- BM-CC-48
- BM-SW-19
- BM-CC-04
- BM-CC-22
- BM-CC-16
- BM-CC-18
- BM-CC-20
- BM-SW-06

APPENDIX A

FIGURES

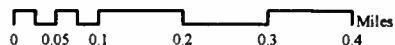
Note : Figure 2 (oversize) at
end of Reference. GVO



Legend



Site Location



Weston Solutions, Inc.
Federal Programs Division

In Association With
Innovative Technical Solutions, Inc.,
Scientific and Environmental Associates, Inc.
and Avatar Environmental, LLC.

Figure 1: Site Location Map

BUCKBEE-MEARS SITE
CORTLAND, NEW YORK

U.S. ENVIRONMENTAL PROTECTION AGENCY
REMOVAL SUPPORT TEAM 2
CONTRACT # EP-W-06-072

DATE MODIFIED: 05/09/2007	GIS ANALYST: F. CAMPBELL
EPA OSC: M. PANE	RST SPM: T. KISH
FILENAME: BUCKBEE-MEARS.MXD	

APPENDIX B

TABLES

Table 1
Validated Analytical Results
Building 1
Buckbee-Mears Site

August 2007

Location #	1	2	3	4	5	6	7	8	9	10	11	12
RST 2 Sample ID	BM-CC-45	BM-SW-13	BM-W-07	BM-CC-46	BM-SW-04	BM-SW-12	BM-W-06	BM-CC-44	BM-SW-06	BM-SW-01	BM-L-01	BM-SW-28
CLP No.	MB4E23	MB4E47	MB4E68	MB4E34	MB4E06	MB4E46	MB4E67	MB4E32	MB4E08	MB4E03	MB4CX2	MB4E61
Room No.	1-65	1-32	1-32	1-67	1-127	1-127	1-127	1-127	1-127	1-120	1-120	1-120
Sample Date/Time	8/23/2007 @ 10:58:00	8/23/2007 @ 10:20	8/24/2007 @ 09:50	8/23/2007 @ 10:30	8/21/2007 @ 14:30	8/23/2007 @ 10:10	8/24/2007 @ 09:40	8/23/2007 @ 09:45	8/21/2007 @ 15:45	8/21/2007 @ 14:00	8/9/2007 @ 10:05	8/24/2007 @ 10:30
Sample Item	Floor stain	Floor stain	Wall stain	Trench	Buildup under process line	Trench	Equipment	Floor stains	Sump	Buildup in vent	Tunnel water	Tunnel ceiling
Matrix	Concrete	Solid Waste	Wipe	Concrete	Solid Waste	Solid Waste	Wipe	Concrete	Dust	Dust	Water	Solid Waste
Arsenic	5.1	27.1		3.4		26.1		5.3	127	1.8		0.58 J
Barium	29.3			39.7 J				77.4		60.1		
Cadmium	2.5	0.44 J		1.1	0.2 J	1.9		0.69	3.4 J	2.2 J	0.0544	67.8
Chromium	234		10.3 mg Cr/100cm ²	1060 J			3850 mg Cr/100cm ²	1,770	476	326	0.963	194
Lead	34.8	3 J	1.2 mg Pb/100cm ²	6.5		24.3 J	19.5 mg Pb/100cm ²	24.5 J		9.3		340 J
Mercury	0.11	0.070 J		1.4		0.056 J		3.6 J	0.12	0.031 J		0.074 J
Selenium												
Silver	2.3							1.8 J		1.1		2.4 J

Location #	13	14	14	15	16	17	18	19	20	21	22	23
RST 2 Sample ID	BM-SW-25	BM-SW-26	BM-SW-27 (Dup. of BM-SW-26)	BM-CC-52	BM-CC-54	BM-L-14	BM-SW-07	BM-CC-32	BM-W-01	BM-CC-30	BM-CC-50	BM-SW-15
CLP No.	MB4E58	MB4E59	MB4E60	MB4E41	MB4E43	MB4E81	MB4E26	MB4E02	MB4E62	MB4E01	MB4E39	MB4E49
Room No.	1-120	1-120	1-120	1-120	1-120	1-120	1-120	1-121	1-121	1-122	1-122	1-123
Sample Date/Time	8/24/2007 @ 10:00	8/24/2007 @ 10:10	8/24/2007 @ 10:20	8/23/2007 @ 17:40	8/23/2007 @ 17:40	8/29/2007 @ 10:30	8/22/2007 @ 15:25	8/21/2007 @ 16:10	8/24/2007 @ 08:55	8/21/2007 @ 16:00	8/23/2007 @ 16:30	8/23/2007 @ 12:00
Sample Item	East wall in Tunnel	West wall in tunnel	West wall in tunnel	Tunnel wall chip	Tunnel wall chip	Pipe buildup in tunnel	Trench	Floor stains	Wall stains	Ferric Chloride containment area	Sodium Bisulfite containment area	Hydrochloric Acid containment area
Matrix	Solid Waste	Solid Waste	Solid Waste	Concrete	Concrete	Water	Solid Waste	Solid Waste	Wipe	Concrete	Concrete	Solid Waste
Arsenic	15.7	10.8	14.7	1.2	26.3	0.008 J				5	3	2.3
Barium	285	632	127							39.3	46.7 J	
Cadmium	43.5	39.1	56.8	2.8	10.9	0.0353 J	0.21 J				0.57	0.63
Chromium	9,060	3,270	3,420	2,340 J	1,380 J	4.27 J	153	1,270	150 mg Cr/100cm ²	35.8	18.5 J	21.5
Lead	84.8 J	42.3 J	161 J	15.3	15	0.254 J	19.8	17	1.2 mg Pb/100cm ²	2.8	6.3	3.9 J
Mercury	1.2 J	0.61 J	0.5 J	0.065 J	0.11	0.00062 J	0.058 J					
Selenium	3.1 J	2.8 J	2.7 J									
Silver	34.7 J	12.8 J	13.7 J	0.36 J								0.19 J

J - Estimated value

Results are in milligrams per kilogram (mg/kg)

Gray box - Not analyzed or result was below the detection limit

Table 1
Validated Analytical Results
Building 1
Buckbee-Mears Site

August 2007

Location #	24	25	26	27	28	29	30	31	31	32	33	34
RST 2 Sample ID	BM-SW-16	BM-SW-17	BM-SW-18	BM-CC-48	BM-CC-53	BM-W-09	BM-CC-51	BM-SW-21	BM-SW-22 (Dup. of BM-SW-21)	BM-SW-08	BM-SW-09	BM-W-02
CLP No.	MB4E50	MB4E51	MB4E52	MB4E37	MB4E42	MB4E70	MB4E40	MB4E55	MB4E56	MB4E27	MB4E28	MB4E63
Room No.	1-123	1-123	1-123	1-124	1-127	1-127	1-127	1-127	1-127	1-123	1-125	1-125
Sample Date/Time	8/23/2007 @ 15:05	8/23/2007 @ 15:15	8/23/2007 @ 15:25	8/23/2007 @ 15:45	8/23/2007 @ 15:08	8/24/2007 @ 10:40	8/23/2007 @ 14:55	8/23/2007 @ 16:10	8/23/2007 @ 16:20	8/22/2007 @ 16:45	8/22/2007 @ 16:55	8/24/2007 @ 09:10
Sample Item	Sodium Hydroxide containment area	Containment area	Containment area	Containment area	2nd floor - floor stain	2nd floor - wall stains	2nd floor - ceiling chip	2nd floor - tellerettes	2nd floor - tellerettes	floor stains	Floor stains	Equipment
Matrix	Solid Waste	Solid Waste	Solid Waste	Solid Waste	Water	Wipe	Concrete	Solid Waste	Solid Waste	Solid Waste	Solid Waste	Wipe
Arsenic	1.5	2.4		3	2.9		13.4			0.64 J	5.3	
Barium				45.7 J	43.8 J		33.3 J				36.9	
Cadmium	0.69	1.4	1.1	1.3	1.3		1.6	4.1 J	1.5 J	0.92	4.4	
Chromium	58	294		112 J	16.1 J		17.1 J			51.3	196	49.8 mg Cr/100cm ²
Lead	97.4 J	38.4 J	34.5 J	9	8		7.6	2.2 J	4.1 J	17.8	17.4	15 mg Pb/100cm ²
Mercury		0.073 J								2.2	0.26	
Selenium		1.5 J										
Silver	1 J	2.7 J								0.38 J		

Location #	35	35	36	37	38	39	39	40	99	100	101	102
RST 2 Sample ID	BM-SW-02	BM-SW-03 (Dup. of BM-SW-02)	BM-SW-11	BM-SW-10	BM-SW-19	BM-L-02	BM-L-03 (Dup. of BM-L-02)	BM-L-04	BM-CC-57	BM-CC-58	BM-CC-59	BM-SW-29
CLP No.	MB4E04	MB4E05	MB4E30	MB4E29	MB4E53	MB4CX3	MB4CX4	MB4CX5	MB4E45	MB4E74	MB4E79	MB4E80
Room No.	1-125	1-125	1-126	1-126	1-126	1-21	1-21	1-42	Tunnel	1-127	1-127	Tunnel
Sample Date/Time	8/21/2007 @ 14:15	8/21/2007 @ 14:25	8/22/2007 @ 17:25	8/22/2007 @ 17:05	8/23/2007 @ 16:00	8/7/2007 @ 08:35	8/7/2007 @ 08:50	8/8/2007 @ 09:00	8/23/2007 @ 15:25	8/24/2007 @ 14:00	8/27/2007 @ 11:00	8/28/2007 @ 10:35
Sample Item	Buildup in vent	Buildup in vent	Floor stains	Trench	Containment area	Sump	Sump	Sump				
Matrix	Dust	Dust	Solid Waste	Solid Waste	Solid Waste	Water	Water	Water	Concrete	Concrete	Concrete	Solid Waste
Arsenic	1.2	2.1		1.4					3.7	2.8	4	5.4
Barium			36.5		29.1				31.5	37.9	180 J	22 J
Cadmium	5 J	5.9	3	1.2	0.29 J		0.0013 J		0.73	1.7		0.53
Chromium	30.1	34.6		187					15.2	1.720	319 J	22.3 J
Lead	6.3	6	17.5 J	24	8.9 J		0.0054 J		6.1	62.4 J	11.1	13.8
Mercury			0.71	0.17			0.00012 J			0.063 J		
Selenium												
Silver				0.63 J						3.1 J		

J - Estimated value
Results are in milligrams per kilogram (mg/kg)
Gray box - Not analyzed or result was below the detection limit

Table 2
Validated Analytical Results
Building 2
Buckbee-Mears Site

August 2007

Location #	41	42	42	43	44	45	46
RST 2 Sample ID	BM-L-05	BM-SL-01	BM-SL-02 (Dup. of BM-SL-01)	BM-CC-55	BM-W-08	BM-SW-23	BM-SW-05
CLP No.	MB4CX6	MB4CY3	MB4CY4	MB4E44	MB4E69	MB4E57	MB4E07
Room No.	2-16	2-44	2-44	2-45	2-45	2-12	2-12
Sample Date/Time	8/7/2007 @ 09:10	8/7/2007 @ 09:20	8/7/2007 @ 09:30	8/23/2007 @ 16:29	8/24/2007 @ 10:25	8/23/2007 @ 15:55	8/21/2007 @ 14:40
Sample Item	Sump	Trench	Trench	Trench	Equipment	Floor stains	Buildup on nalgene tank in sump
Matrix	Water	Sludge	Sludge	Concrete	Wipe	Solid Waste	Solid Waste
Arsenic	0.018			2.7			
Barium		8.7 J		36.5 J		26.8	
Cadmium		1.2 J	1.2 J	0.7		6.7	
Chromium	6.140	1300 J	696 J	20.1 J	19 mg Cr/100cm ²		
Lead	0.557 J			6.4	0.35 J mg Pb/100cm ²	7 J	0.48 J
Mercury	0.0071	0.27	0.18			0.28	
Selenium							
Silver							0.86 J

J - Estimated value
Results are in milligrams per kilogram (mg/kg)
Gray box - Not analyzed or result was below the detection limit

Table 3
Validated Analytical Results
Building 3
Buckbee-Mears Site

August 2007

Location #	47	48	50	51	52	53
RST 2 Sample ID	BM-L-12	BM-SW-14	BM-L-14	BM-CC-47	BM-CC-49	BM-L-13
CLP No.	MB4CY0	MB4E48	MB4CY2	MB4E36	MB4E38	MB4CY1
Room No.	3-1	3-1	3-3	3-3	3-3	3-3
Sample Date/Time	8/8/2007 @ 15:05	8/23/2007 @ 11:15	8/8/2007 @ 15:55	8/23/2007 @ 11:47	8/23/2007 @ 11:55	8/8/2007 @ 15:20
Sample Item	Sump	Trench	Sump	Trench	Trench	Sump
Matrix	Water	Solid Waste	Water	Concrete	Concrete	Water
Arsenic		0.7 J		3.5	1.7	
Barium	0.202	10,700 D		49 J	44.2 J	
Cadmium	0.0013 J	0.22 J		0.62	1.5	0.0029 J
Chromium	1.04	16.9	0.732	22.1 J	129 J	0.0136
Lead	0.0076 J	3		6.7	14.5	
Mercury	0.00018 J	0.14	0.0042	0.04 J		
Selenium						
Silver	0.0034 J		0.0222			

J - Estimate value

D- Diluted sample

Results are in milligrams per kilogram (mg/kg)

Grayed box - Not analyzed or result was below the detection limit

Table 4
Validated Analytical Results
Building 4
Buckbee-Mears Site

August 2007

Location #	54	55	56	56
RST 2 Sample ID	BM-CC-13	BM-CC-15	BM-CC-17	BM-CC-19 (Dup. of BM-CC-17)
CLP No.	MB4E10	MB4E11	MB4E12	MB4E13
Room No.	4-2	4-2	4-3	4-3
Sample Date/Time	8/22/2007 @ 12:25	8/21/2007 @ 14:10	8/21/2007 @ 14:22	8/21/2007 @ 14:30
Sample Item	Trench	Floor stains	Floor stains	Floor stains
Matrix	Solid Waste	Solid Waste	Solid Waste	Solid Waste
Arsenic				
Barium	26			37.2
Cadmium	0.17 J		0.082 J	0.29 J
Chromium	4.6	10.8	12.8	
Lead	1.5	0.57 J	1.7	13.3 J
Mercury				
Selenium				
Silver				

J - Estimated Value

Results are in milligrams per kilogram (mg/kg)

Grayed box - Result not available or result was below the detection limit

Table 5
Validated Analytical Results
Building 5
Buckbee-Mears Site

August 2007

Location #	57	58	59	60	61	62	63	64	65	66	67
RST 2 Sample ID	BM-CC-04	BM-CC-35	BM-CC-33	BM-CC-27	BM-CC-29	BM-CC-23	BM-CC-25	BM-CC-31	BM-L-07	BM-CC-26	BM-CC-24
CLP No.	MB4DY5	MB4E21	MB4E19	MB4E17	MB4E18	MB4E15	MB4E16	MB4E20	MB4CX8	MB4D29	MB4DZ8
Room No.	5-134	5-76	5-76	5-117	5-117	5-152	5-152	5-110	5-112	5-159	5-159
Sample Date/Time	8/20/2007 @ 14:50	8/22/2007 @ 15:50	8/22/2007 @ 15:35	8/22/2007 @ 15:08	8/22/2007 @ 15:22	8/22/2007 @ 14:52	8/21/2007 @ 15:15	8/22/2007 @ 14:59	8/7/2007 @ 11:00	8/21/2007 @ 10:40	8/22/2007 @ 12:05
Sample Item	containment	Trench	Floor stains	Trench	Floor stains	Trench	Floor stains	Trench	Sump	Floor stains	Trench
Matrix	Solid Waste	Solid Waste	Solid Waste	Solid Waste	Solid Waste	Solid Waste	Solid Waste	Solid Waste	Water	Concrete	Solid Waste
Arsenic	8.4		1.1	0.96 J	22.6	0.96 J		0.69 J		1.6	
Barium	40.8	41.7			0.31 J					21.7	
Cadmium	4.3 J	0.66	0.077 J	0.067 J		0.19 J	0.11 J		0.99 J		
Chromium	1.180	24.1	73.6	41.2		63.1		49	16.7	17.7	10.3
Lead	33.1	2	2.1	1.8	1.6 J	7.3	1.6 J	0.61 J		3.5	1.4
Mercury	0.27			0.1		0.14		0.12			
Selenium			1.4 J	1.4 J		1.2 J		0.79 J			0.98 J
Silver			2.6	0.28 J	0.26 J	0.33 J					0.37 J

Location #	68	69	70	71	72	73	74	75	76	77	78	79
RST 2 Sample ID	BM-L-10	BM-CC-28	BM-L-11	BM-CC-22	BM-CC-16	BM-CC-18	BM-CC-20	BM-CC-08	BM-CC-10	BM-CC-12	BM-CC-14	BM-CC-02
CLP No.	MB4CX9	MB4E00	MB4CY5	MB4DZ7	MB4DZ4	MB4DZ5	MB4CZ6	MB4DY9	MB4DZ1	MB4DE2	MB4DZ3	MB4DY3
Room No.	5-159	5-159	5-159	5-140	5-140	5-140	5-140	5-140	5-140	5-140	5-140	5-134
Sample Date/Time	8/7/2007 @ 11:40	8/21/2007 @ 10:52	8/8/2007 @ 12:50	8/21/2007 @ 10:25	8/21/2007 @ 09:50	8/21/2007 @ 10:00	8/21/2007 @ 10:15	8/22/2007 @ 11:45	8/22/2007 @ 11:40	8/21/2007 @ 09:29	8/21/2007 @ 09:34	8/20/2007 @ 14:25
Sample Item	Sump	Trench	Sump	Containment area	Containment area	Containment area	Containment area	Trench	Trench	Trench	Trench	Floor stains
Matrix	Water	Solid Waste	Water	Concrete	Solid Waste	Concrete	Concrete	Solid Waste	Solid Waste	Concrete	Concrete	Concrete
Arsenic				3.7		1.8	2.9			2.2	2.5	2.6
Barium		21.4		24.8	27.1	21.2	24.9		80.1	37.1	35.9	23.8
Cadmium		0.19 J		2.3 J	0.33 J				3.6	0.68 J		0.8 J
Chromium	0.0067 J		0.0022 J	48.9		36.4	16.8	20.1		31.6	18.3	177
Lead		7 J	0.0043 J	2.4	11.8 J	3	2.4	1.9	118 J	4.2	3.4	23.7
Mercury												0.037 J
Selenium												
Silver								0.36 J	0.4 J			

J - Estimated Value

Results are in milligrams per kilogram (mg/kg)

Grayed box - Result not available or result was below the detection limit

Table 5
Validated Analytical Results
Building 5
Buckbee-Mears Site

August 2007

Location #	80	81	82	83	84	85	86	87	88	88	89
RST 2 Sample ID	BM-CC-03	BM-CC-01	BM-L-06	BM-CC-05	BM-CC-06	BM-W-10	BM-CC-09	BM-CC-11	BM-W-03	BM-W-12 (Dup. of BM-W-03)	BM-W-04
CLP No.	MB4DY4	MB4DY2	MB4CX7	MB4DY6	MB4DY7	MB4E71	MBDZ0	MB4E09	MB4E64	MB4E73	MB4E65
Room No.	5-134	5-134	5-101	5-101	5-132	5-132	5-151	5-124	5-124	5-124	5-124
Sample Date/Time	8/20/2007 @ 14:35	8/20/2007 @ 14:30	8/7/2007 @ 10:45	8/20/2007 @ 15:00	8/20/2007 @ 15:10	8/24/2007 @ 10:05	8/21/2007 @ 10:10	8/21/2007 @ 13:58	8/24/2007 @ 11:45	8/24/2007 @ 11:50	8/24/2007 @ 11:40
Sample Item	Floor stains	Trench	Sump	Trench	Floor stains	Wall stains	Floor stains	Floor stains	Wall stains	Wall stains	Equipment
Matrix	Concrete	Concrete	Water	Solid Waste	Solid Waste	Wipe	Solid Waste	Solid Waste	Wipe	Wipe	Wipe
Arsenic	2.1	4.9	8.2 J	1.4			1.9	0.97 J			
Barium	25.4	44	816	49			21.7				
Cadmium	1.3 J	2.4 J	2.1 J		0.29 J			0.15 J			
Chromium	62.1	1,110	339	15.6		287 mg Cr/100cm ²	18.4	656	411 mg Cr/100cm ²	243 mg Cr/100cm ²	466 mg Cr/100cm ²
Lead	2.9	122	22.7 J	2.2	1.3 J		2.6	1.2	0.6 J mg Pb/100cm ²	1.3 mg Pb/100cm ²	0.48 J mg Pb/100cm ²
Mercury	0.31	0.063 J	0.4								
Selenium			11 J								
Silver		0.9 J									

Location	90	91	91	91	92	93	94	95	96	97	97	98
RST 2 Sample ID	BM-SL-03	BM-CC-21	BM-CC-34 (Dup. of BM-CC-21)	BM-SW-24	BM-CC-07	BM-W-05	BM-CC-43	BM-W-11	BM-CC-37	BM-CC-39	BM-CC-41 (Dup. of BM-CC-39)	BM-SW-20
CLP No.	MB4CY6	MB4E14	MB4E31	MB4E35	MB4DY8	MB4E66	MB4E25	MB4E72	MB4E22	MB4E23	MB4E24	MB4E54
Room No.	5-133	5-133	5-133	5-133	5-128	5-128	5-137	5-137	5-139	5-139	5-139	Roof
Sample Date/Time	8/8/2007 @ 14:35	8/23/2007 @ 09:35	8/23/2007 @ 09:45	8/24/2007 @ 09:25	8/20/2007 @ 15:45	8/24/2007 @ 12:00	8/21/2007 @ 17:20	8/24/2007 @ 12:20	8/21/2007 @ 17:00	8/21/2007 @ 17:10	8/21/2007 @ 17:10	8/23/2007 @ 16:15
Sample Item	Sump	Trench	Trench	Trench	Trench	Equipment	Trench	Equipment	Trench (Black material)	Trench (Tan material)	Trench (Tan material)	Stained gravel
Matrix	Sludge	Concrete	Concrete	Solid Waste	Concrete	Wipe	Concrete	Wipe	Concrete	Concrete	Concrete	Solid Waste
Arsenic	102 J	2.4	1.9		3.4		28.3		2.2	2.2	2.5	
Barium		25.8	20.9		24.5				74.3	72.2	44.7	
Cadmium		0.43 J	0.56	1.8	0.96 J		3.7		0.42 J	0.56	0.38 J	2.8
Chromium	667 J	20.8	15.9		91.1	10.2 mg Cr/100cm ²	550	2.6 mg Cr/100cm ²	1040 J		19200 D	
Lead		4.4	4.4	1.5 J	3.3	0.78 J mg Pb/100cm ²		0.58 J mg Pb/100cm ²	2.7		2	15.9 J
Mercury	2.4 J	0.089 J	0.097 J	2	0.74		0.16					0.31
Selenium												
Silver	5.1 J			0.44 J						0.48 J		

J - Estimated Value

Results are in milligrams per kilogram (mg/kg)

Grayed box - Result not available or result was below the detection limit

TABLE 6
Field Screening Characterization Summary Results
Buckbee-Mears Site
Cortland, New York
August 27 - 30, 2007

Sample ID	A	B	C	D	E	F	G
Physical Characteristics	Liquid	Solid	Solid	Liquid	Solid	Liquid	Solid
Color/ Description	Yellow with greenish undertone, collected from tank connected to process line in Room 5-133	Granular - brown/silver, collected from tank in Room 5-137	Crystal with some chunks, dark brown color with no odor, collected from tank in Room 5-137	Brown liquid containing suspended solid, collected from tank in Room 5-139	Chunks - rocks, gravels, concrete; gray color, collected from the tunnel near the entrance in Room 1-73	Watery, collected from the tunnel near the entrance in Room 1-73	Chunks of rocks, concrete, with brownish mud/soil, collected from a core sample in Room 1-127
Clarity	Clear	Opaque	Opaque	Cloudy	Opaque	Clear	Opaque
Solubility	Soluble in water, not in xylene	Partially Soluble in water, not in xylene	Partially Soluble in water, not in xylene, partially soluble in alcohol	Soluble in water, not in xylene, soluble in alcohol	None in water/xylene	Soluble in water, not in xylene	None in water/xylene
Viscosity	N/A	N/A	N/A	1-2*	N/A	1-2*	N/A
Reaction	None in air/water	None in air/water	None in air/water	None in air/water	None in air/water	None in air/water	None in air/water
pH	1	5	1-2	1	4-5	11-12	7
Chlorine (Hot wire)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ignitable	-	-	-	-	-	-	-
Cyanide	-	-	-	-	N/A	-	N/A
Oxidizer	+	-	+(weak)	+	-	-	-
Chloride	+	+	+	+	+	+	+
Peroxide	-	-	-	-	-	-	-
Mercury	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sulfide	-	-	-	-	-	-	-
PCB	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Additional Comments	Most likely ferric chloride	Mixture contains ferric chloride. Lead also present.	Contains ferrous iron. Chromium not present.	Contains ferrous iron	None	White precipitates in alcohol, carbonates present (possibly calcium).	Chromium test - negative

N/A = Not applicable
- = negative
+ = positive

*

HazCat Viscosity Standard	
Viscosity 1	methanol
Viscosity 2	ethylene glycol
Viscosity 3	corn oil
Viscosity 4	automatic transmission fluid
Viscosity 5	10W-30 motor oil
Viscosity 6	glycerin, USP

APPENDIX C
CLP RCRA METALS DATA VALIDATION
PACKAGE

RECORD OF COMMUNICATION

REGIONAL SAMPLE CONTROL CENTER

DATE: 8/23/2007
 SUBJECT: CLP Data Package for Quality Assurance Review
 FROM: Hazardous Waste Support Section (HWSS)/RSCC
 TO: HWSS ESAT-TOPO

TDF # 06-0780

Attached is the following INORGANIC Data Package to be reviewed for Quality Assurance

SITE: Buckbee Mears

CASE #: 36686

SDG#: MB4CX2, MB4CY3

SAMPLER: W-RST

PROJ. CODE: RV **SITE SPILL #:** YH

#SAMPLES

MATRIX

LAB: CHEM **OPERABLE UNIT:** 00

3

Sludge

TURN-AROUND-TIME: 21 day

13

Water

CERCLIS ID #: NYN000205908

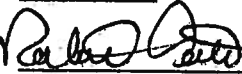
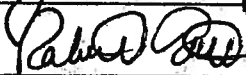
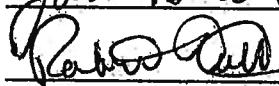
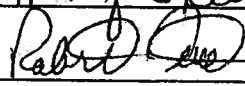
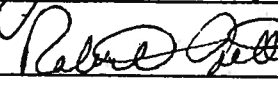
FRACTION: TAL-Metals (7 + Hg)
 (MA # 1435.0)

Contaminant(s) of Concern (If known)

REGION II RSCC DATA TRANSFER LOG

Relinquished By

Received By

<u>Signature</u>	<u>Date/Time</u>	<u>Signature</u>	<u>Date/Time</u>
	8/27/07 11:05 AM	John Bulich	8/27/07 11:05 AM
John Bulich	8/30/07 1:30 PM		8/30/07 1:30 PM
	8/30/07 1:35 PM	Haniif Sheikh	8/30/07 1:35
Haniif Sheikh	8/30/07 4:15 PM	Adly Michael	8/30/07 4:15 PM
	8/31/07 8:52 AM	John Bulich	8/31/07 8:52 AM
John Bulich	8/31/07 9:30 AM		8/31/07 9:30 AM

USEPA Region 2
Evaluation of Metals Data for the Contract Laboratory Program
Data Assessment and Contract Compliance Review

SOP: HW-2 Revision 13

Appendix A.2

Sept. 2005

Inorganic Data Review Narrative

Case#	<u>36686</u>	Site:	<u>Buckbee Mears</u>	Matrix:	Soil	<u>3</u>
SDG#	<u>MB4CX2 & MB4CY3</u>	Lab:	<u>CHEM</u>	Water	<u>13</u>	
Sampling Team:	<u>W-RST</u>	Reviewer:	<u>J. Bulich</u>	Other	<u>0</u>	

A.2.1 Data Validation Flags:

The following flags may have been applied in red by the data validator and must be considered by the data user.

- J - This flag indicates the result qualified as estimated
- R and Red-Line - A red-line drawn through a sample result indicates unusable value. The red-lined data are known to contain significant errors based on documented information and must not be used by the data user.
- U - This data validation qualifier is applied to sample results \geq MDL when associated blank is contaminated

Fully Usable Data - The results that do not carry "J" or "red-line" are fully usable.

A.2.2 Laboratory Qualifiers:

The CLP laboratory applies a contractual qualifier on all Form I'S and the QC Form when a QC analysis is outside the control limits. These qualifiers are not applied on the Lotus or XLS spreadsheets. These qualifiers and their meanings are as follows:

N: This qualifier indicates the lack of accuracy in the reported result, and is applied when matrix spiked sample recovery is outside the control limits.

E: This qualifier indicates the presence of interference, and is applied when the ICP serial dilution is outside the control limits.

*: This qualifier indicate the lack of precision, and is applied on Form I'S and Form VI when the Lab Duplicate analysis is outside the control limits.

U: This is a concentration qualifier that laboratory applies to a non-detected result which is essentially less than the Method Detection Limit (MDL). A non-detected result of an analyte is indicated by the Contract Required Quantitation Limit (CRQL) of that analyt suffixed with "U".

J: This is also a concentration qualifier that laboratory applies to a positive result below the CRQL.

NOTE: The laboratory qualifiers are crossed out and replaced with the appropriate data validation qualifiers (J, R or U) by the data validator.

Standard Operating Procedure

USEPA Region 2

Evaluation of Metals Data for the Contract Laboratory Program Data Assessment and Contract Compliance Review

SOP: HW-2 Revision 13

Appendix A.2

Sept. 2005

A.2.3.1 Data Case Description:

This case consists of thirteen (13) aqueous and three (3) soil samples collected at the Buckbee Mears site between 8/7/07 and 8/9/07 for seven (7) selected TAL Metals and Hg analysis according to the USEPA CLP SOW No. ILM05.4 (MA # 1435.0). The field duplicate pairs for this sampling event were MB4CX3/MB4CX4 and MB4CY3/MB4CY4. Matrix spike, laboratory duplicate and serial dilution analyses were performed on samples MB4CY5 and MB4CY6. .

As per EPA Technical Direction Form (TDF) only the following criteria were reviewed by the validator: Holding Time, CRQL Standard, Initial and Continuing Calibration Blanks, Preparation Blanks, Matrix Spike (soil), Laboratory Duplicate, Field Duplicate, ICP Serial Dilution and Field Blank. The qualifiers applied on Form Is and CADRE EXCEL spreadsheets were based on ESAT data review of the above-mentioned criteria. For all other criteria, see the attached CADRE Reports.

A.2.3.2 CSF Audit: No problems.

A.2.3.3 Technical Review:

SDG # MB4CX2

INITIAL & CONTINUING CALIBRATION BLANKS

The CCB was \geq MDL but \leq CRQL for Ba when MDL was $<$ CRQL. All associated samples results \geq MDL but \leq CRQL have been changed to the CRQL with a "U".

"U": Ba \rightarrow MB4CX2 \rightarrow MB4CX6, MB4CX8, MB4CX9, MB4CY1, MB4CY2, MB4CY5 & MB4CY7.

LABORATORY DUPLICATE

The absolute difference between sample and duplicate results was greater than CRQL for Pb when sample and/or duplicate results were less than 5XCRQL. All associated sample results \geq MDL have been considered estimated and flagged "J".

"J": Pb \rightarrow MB4CX4 \rightarrow MB4CX7, MB4CY0, MB4CY5 & MB4CY7.

FIELD DUPLICATE

The RPD between sample (MB4CX3) and duplicate (MB4CX4) results was $\geq 120\%$ for Cr and Ag when both sample and duplicate results were greater than 5XCRQL. The sample and its Field Duplicate results \geq CRQL have been rejected.

"R": Cr & Ag \rightarrow MB4CX3 & MB4CX4.

SDG # MB4CY3

INITIAL & CONTINUING CALIBRATION BLANKS

The CCB was \geq MDL but \leq CRQL for Ba when MDL was $<$ CRQL. All associated samples results \geq MDL but \leq CRQL have been changed to the CRQL with a "U".

"U": Ba \rightarrow MB4CY4 & MB4CY6.

MATRIX SPIKE

The matrix spike recovery was outside the control limits of 75 - 125% when sample concentration was less than 4 X spike concentration for Cd (%R = 30) and Pb (%R = 0). When matrix recoveries are less than 10%, all associated results (detects and non-detects) have been rejected "R" and red-lined. When matrix recoveries are between 10-74%, all associated results have been considered estimated and flagged "J" and non-detects as "UJ".

"J": Cd \rightarrow MB4CY3, MB4CY4 & MB4CY6.

"R": Pb \rightarrow MB4CY3, MB4CY4 & MB4CY6.

LABORATORY DUPLICATE

The RPD between sample and duplicate results was \geq 35% but less than 120 for As when both sample and duplicate results were greater than 5 X CRQL. All associated sample results \geq CRQL have been considered estimated and flagged "J".

"J": As \rightarrow MB4CY6.

FIELD DUPLICATE

The RPD between sample (MB4CY3) and duplicate (MB4CY4) results was \geq 35% for Cr when both sample and duplicate results were $>$ 5XCRQL. The sample and its Field Duplicate results \geq CRQL have been qualified as estimated "J". The absolute difference between sample (MB4CY3) and duplicate (MB4CY4) results was \geq 4XCRQL for Pb when sample and/or duplicate results were less than 5XCRQL. (Pb was previously rejected for Matrix Spike criteria. No action was taken here.)

"J": Cr \rightarrow MB4CY3 & MB4CY4.

PERCENT SOLIDS

The percent solids was less than 50 % for sample MB4CY6 (40%). All analyte results not previously qualified have been considered estimated and flagged "J".

"J": MB4CY6 \rightarrow All analytes not previously not qualified.

A.2.3.4 Contract-Problem/Non-Compliance: None.

HWSS Reviewer:

Signature

HS

Date:

8/30/07

Contractor
Reviewer:

Signature

John Budick

Date:

8/30/07

Verified by:

Signature

Chel M. [Signature]

Date:

8/30/07

NO. HW-2 SDG# MB 4CX2 & MB 4CY3
Evaluation of Metals Data for the Contract Laboratory Program (CLP)

based on

SOW - ILM05.3

(SOP Revision 13)

United States Environmental Protection Agency
Region 2

Date: September 2005

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Standard Operating Procedure
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Data Assessment and Contract Compliance Review

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1.0 Scope

- 1.1 This Standard Operating Procedure (SOP) applies to the evaluation of Routine Analytical Services (RAS) inorganic data generated in accordance with the EPA Contract Laboratory Program (CLP) protocols.
- 1.2 This Region 2 inorganic data validation SOP is used to determine the usability of analytical data generated from water and soil/sediment samples collected from Superfund sites in EPA Region 2.
- 1.3 Data should be generated and validated in accordance with the site specific Project Quality Objectives (PQOs) developed prior to the sample collection event. This SOP can be customized to validate the data according to the site specific PQOs. If the site specific DQOs are not available, this SOP must be used in its entirety.
- 1.4 This SOP is based, for the most part, upon analytical and quality assurance requirements specified in the Statement of Work SOW-ILM05.3, as well as in the final (October 2004) of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review. The SOP Checklist, Appendix A.1, provides guidance in conducting the data validation. The result of the use of this SOP is a **Total Review** of the data: **Technical plus Contract - Compliance Review**.

2.0 Contract Compliance Review

This type of review is the first step in data validation which is carried out to ensure that the CLP laboratory has analyzed the environmental samples in accordance with the Statement of Work (SOW), and provided a data package which is both complete and compliant. This means that laboratory's procedures were performed exactly as specified in the CLP Statement of Works (SOW) and the data package contains all the deliverables including the information required under the contract.

2.1 Completeness

The data validator must check the entire data package to ensure that all deliverables required under the CLP contract are present and legible. In addition, copies of the Contract Compliance Screening (CCS) report, re-submittal from the laboratory, and Regional documentation should also be present in the data package. In Region 2, the data package completeness check is currently performed by the Regional Sample Control Coordinator (RSCC) for each Sample Delivery Group (SDG). The data package is not released to the data validator until all the required deliverables are received

from the laboratory.

2.2 Compliance

The data validator must check to ensure that all steps from sample receipt through sample preparation, analysis, data calculation and reporting are documented, and the information/data required under the contract is present in the appropriate reporting Forms and laboratory logs.

2.3 Contract Compliance Screening (CCS)

This screening step essentially checks the data package for the Completeness and Compliance requirements, and is performed by the Sample Management Office (SMO) currently operated by Computer Sciences Corporation (CSC), an EPA contractor. The CCS Report outlines the incomplete and non-compliant items as "Defects" in the data package, and is sent to the laboratory which is required to provide additional or missing information/data required under the contract. The CCS Report for each SDG is transmitted electronically by the SMO to the Regional office. The CCS Report is intended to aid the data validator in locating any problems, both corrected and uncorrected. The incorrect original deliverable(s) of the data package must be replaced by the re-submittal(s) received from the laboratory in response to the CCS Report. The data validation should, however, be carried out even if the CCS Report is not available.

Web-based CCS is available for CLP laboratories to check their data prior to its delivery to EPA.

3.0 Technical Review

Technical review of the RAS data is carried out on the complete and compliant data to ensure its **validity** (i.e., data is of known quality and scientifically valid) and **usability** (i.e., data set is sufficiently complete and of sufficient quality to support a decision or an action described in the specific objectives of a data collection activity). The technical review process provides information on analytical limitations of data, if any, based on specific Quality Assurance/Quality Control (QA/QC) criteria. This is accomplished by performing an in-depth review of both the field deliverables which document the field sampling activities, and the laboratory analytical data deliverables which document the laboratory activities carried out to generate the reported data. Essentially, the validator shall first ensure that the data package is complete and compliant. The validator shall then evaluate data/information on all these deliverables (Final data sheets, Forms for QC analyses Chain-of-Custody/Traffic Report Forms, raw data, etc.) against the QA/QC acceptance criteria specified in the SOP "Checklist" (Appendix A.1). The validator must answer each question in the

" Checklist" and take an appropriate action as required under "Action" to qualify the data. As a result of the technical review, the data validator may qualify some of the data as **rejected** or as **estimated**. The data validator shall write a **Data Review Narrative** documenting the qualified data and the reason(s) for the qualification.

3.1 If the **raw data** necessary to support the reported results are not provided, the data validation must not be performed. The laboratory must be contacted to obtain missing raw data.

3.2 If batch quality control analyses are performed on samples other than **site specific samples**, data must not be validated or at best be considered as estimated. The data user must be notified of this action.

3.3 **QA/QC Acceptance Criteria**

In order that reviews be consistent among reviewers, QA/QC protocol (stated in Appendix A.1) should be strictly adhered to. If a lab provides more than one set of QC analyses or more than one particular QC analysis for an SDG, the validator shall use the worst QC analysis to evaluate the SDG data. Professional judgement should only be used in the rare instances not addressed in the "Checklist".

3.4 **Data Validation Flags**

Three types of data validation flags (J, R & U) are used in Region 2 to qualify the data.

3.4.1 **Flag "R" indicates Rejected Data**

Sample results determined to be unacceptable must preferably be lined over and flagged " R" with a red pencil only on the Inorganic Analysis Data Sheets (CLP Form I's). Data rejected on the basis of an unacceptable QC analysis should be excluded from further review or consideration. Data are rejected when associated QC analysis results exceed the expanded control limits of the QC criteria. The rejected data are known to contain significant errors based on documented information. The data user **must not** use the rejected data to make environmental decisions.

3.4.2 **Flag "J" indicates Estimated Data**

Sample results determined to be estimated must be flagged "J" with a red pencil only on the CLP Form I's. Data are flagged (J) when a QC analysis falls outside the primary acceptance limits. The qualified "J" data are not excluded from further review or consideration. However, only one flag (J) is applied to a sample result even though several associated QC analyses may fail. The "J" data may be biased high or low.

3.4.3 Flg "U" indicates Non-Detects

Sample results \geq MDL associated with a contaminated blank are flagged "U" with a red pencil only on Form I's.

4.0 Contractual Qualifiers

The CLP laboratory applies contractual qualifiers on all Form I'S and the QC Forms when QC analyses are outside the control limits. These qualifiers are not applied on the Lotus or XLS spreadsheets with the exception of U and J. The contractual qualifiers and their meanings are as follows:

- N : This qualifier indicates the lack of accuracy in the reported result, and is applied when matrix spiked sample recovery is outside the control limits.
- E : This qualifier indicates the presence of interference, and is applied when the ICP serial dilution analysis is outside the control limits.
- * : This qualifier indicates the lack of precision, and is applied to sample results on Form I's and Form VI when the Lab Duplicate analysis is outside the control limits.
- U : This is a concentration qualifier that laboratory applies to a non-detected result which is essentially less than the Method Detection Limit (MDL). A non-detected result of an analysis is indicated by the Contract Required Quantitation Limit (CRQL) of that analyze suffixed with "U".
- J : This is a concentration qualifier that the laboratory applies to a positive result below the CRQL (i.e., \geq MDL but $<$ CRQL).

NOTE: The laboratory qualifiers are crossed out and replaced with the appropriate data validation qualifiers (J, R or U) by the data validator.

4.0 Rounding Rule

The data reviewer must follow the standard practice to round off percent recoveries on the QC reporting forms.

5.0 Data Review Narrative (Appendix A.2)

The data review narrative should be written using the format of Appendix A.2. The narrative should indicate the QC analyses outside the acceptance limits and the actions taken to qualify the associated data. The narrative should be

prepared on a Personal Computer or a typewriter. If hand-written, under no circumstances should a pencil be used to write the narrative. The Data Review Narrative should be written in four (4) Sections: (i) Data Case Description, (ii) Complete SDG File (CSF) Audit Section, (iii) Technical Review Section, and (iv) Contract-Problems/Non-Compliance Section.

5.1 Data Case Description Section

The data validator must briefly describe the data case in this Section, outlining important information such as the number of samples, their matrix, sampling date(s), analysis (TAL metals, mercury or cyanide), samples used for QC analyses, Field Blank(s), Field Duplicates, etc.

5.2 Complete SDG File (CSF) Audit Section

The data validator must perform an audit on each SDG in the data package to ensure that all SDG-specific documents (sampling, samples shipping and receiving, telephone contact logs, etc.) are present in the data case. The audit shall also discover any discrepancy in the deliverables. In Region 2, this audit is currently performed by the ESAT data validator and its findings reported under "Comments" on a CSF inventory checklist. The validator informs the CLP Project Officer (PO) of the missing or additional information/deliverable required for data validation. The PO then contacts the lab for the desired deliverable/information. The findings of the CSF audit are reported in the CSF Section of the Data Review Narrative (Appendix A.2).

5.3 Technical Review Section

The data validator shall report in this Section only the rejected (R) and estimated data (J) and the data rendered non-detects (U) as a result of technical review. It is imperative that the data reviewer highlights (i) QC analysis criteria applied to reject (R) or flag (J, U) the data, (ii) Samples rejected (R) or flagged (J, U), and (iii) the QC analysis out of control limits. The rest of the data that are not qualified (rejected or estimated) are not reported in this Section, and should be considered fully useable.

5.4 Contract-Problems/Non-Compliance Section

All the CLP non-compliant items detected during data review must be reported in this Section.

6.0 Computer-Aided Data Review and Evaluation (CADRE)

CADRE is a computer program that performs semi-automated Quality Assurance (QA) and Quality Control (QC) checks of results from the chemical analysis of soil and water samples according to the CLP protocols. After the CADRE data

qualification is complete, a Lotus 1,2,3 spreadsheet or an XLS spreadsheet with data validation qualifiers (R,J,U) is generated for each SDG. Currently, Sample Management Office (SMO) performs this task using Data Assessment Tool (DAT), a software-driven process, and forwards to the Regions the customized electronic spreadsheets (Lotus 1,2,3 or XLS spreadsheet) and QC reports via the DART (Data Assessment Rapid Transmittal) system. Manual data validation is performed in conjunction with electronic data validation which can only be done by a trained and experienced data validator. The manual data review complements CADRE's findings to complete an assessment of data quality in a shorter time than by a solely manual process. The data validator must review the XLS or Lotus 1,2,3 spreadsheet against Form I's to ensure that the same results on Form I's and the Spreadsheet are qualified with the same data validation qualifiers. The spreadsheet for each SDG is provided with the Data Review Narrative.

7.0 Performance Evaluation Sample (PES) Based Data Validation Strategy

7.1 Scope and Summary

This strategy offers the use of Performance Evaluation Samples (PES) in the data validation process as a means of ensuring the quality of the CLP data while significantly reducing the validation time. The single blind PES provided by EPA (or any other reputable firm) is analyzed with samples of each matrix in a Sample Delivery Group (SDG). A software program (e.g., PEAC TOOLS, SPS Web or equivalent) is used to determine whether or not the PES results fall within the previously statistically determined acceptance limits ("Action Low" and "Action High") for the Contaminants of Concern (COC). The PES results falling within the Action Limits are considered as acceptable results and may be designated as "Passed" analytes, and results of the analytes falling outside the Action Limits are considered as unacceptable and may be designated as "Failed" analytes. In either case ("Passed" Analytes or "Failed" analytes), the associated data is validated according to the Region 2 data validation SOP HW-2 in conjunction with the latest version of the WinCadre QC reports. The following strategy (procedure) is used:

7.2 "Passed" COC

If the COC in an SDG are within statistically generated Action Limits, the data validation is conducted according to QC analyses indicated by check marks (\checkmark) in the "Review COC For" column of the Table I. The SDG samples are validated using the Region 2 data validation SOP in conjunction with the latest version of the WinCADRE QC reports. The validation

flags (J, R, U) are applied on Form I's as well on the CADRE Lotus 1,2,3 or XLS spreadsheet. Corrections, if needed, are then made on the Lotus or XLS spreadsheet to ensure that all results on Form I's carry the same data validation and concentration flags as are on the Lotus or XLS Spreadsheet.

7.3 "Failed" COC

If the COC in an SDG are not within the statistically generated Action Limits, the data validation is conducted according to the data validation SOP QC Criteria indicated by check marks (✓) in the "Review COC For" column of Table II. The SDG samples are validated using the Region 2 data validation SOP in conjunction with the latest version of the WinCADRE QC reports. The data validation flags (J,R,U) are applied on Form I's as well on the CADRE Lotus 1,2,3 or XLS Spreadsheet. Corrections, if needed, are then made on the Lotus or XLS spreadsheet to ensure that all results on Form I's carry the same data validation and concentration flags as are on the Lotus or XLS Spreadsheet.

7.4 COC "Not Evaluated"

Acceptance limits for the analytes not present/spiked in the PE sample are not provided on the PES Scoring Evaluation Report. Such analytes will be marked as "Not Evaluated" in the PES Evaluation Column. These analytes will be validated much the same way as the "Failed Analytes".

The failed analytes and the analytes not present/spiked in the PE sample require data validation according to the QC criteria specified in Table II, and are identified by the TOPO in the TDF for the Case/SDG.

Table I

QC Criteria	Review COC for
Holding Time & Preservation	√
Initial Calibration	
Initial Calibration Verification	
CRQL Standard	√
Blanks-Initial & Continuing	
Preparation Blank	
ICP Interference Check Sample	
Pre- Digestion/Distillation Matrix Spike	
Post Digestion Spike	
Laboratory Duplicate	
Field Duplicates Comparison	√
Lab Control Sample	
ICP Serial Dilution	
Field Blank Contamination	√
Percent Solids	√
Transcription/Computation Check	
Raw Data	
Total vs. Dissolved Concentrations Comparison	√

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Table II

Failed PES - Contaminants of Concern are not within the limits
(PES Result \leq Action Low, PES Result \geq Action High OR The Limits Not Established)

QC Criteria	Review COC for
Holding Time & Preservation	√
Initial Calibration	
Initial Calibration Verification	
CRQL Standard	√
Blanks-Initial & Continuing	
Preparation Blank	√
ICP Interference Check Sample	
Pre- Digestion/Distillation Matrix Spike	√
Post Digestion Spike	
Laboratory Duplicate	√
Field Duplicates Comparison	√
Lab Control Sample	√
ICP Serial Dilution	√
Field Blank Contamination	√
Percent Solids	√
Transcription/Computation Check	√
Raw Data	
Total vs. Dissolved Concentrations Comparison	√

- The CSF (Complete SDG File) audit will be completed before the PES validation strategy is applied.
- Comparison of the Lotus or XLS Spreadsheet must be after the PES validation strategy is applied.
- The Contract Compliance can be checked after the PES validation strategy is applied.

8.0 Sampling Trip Report

The sampler prepares a Sampling Trip Report for each sampling event and sends it to the RSCC. The report provides details of all activities performed for each sampling event on the Superfund site. It also lists the field QC samples such as Field Duplicates, Field/Rinse Blanks, sampling time and date for each sample, and samples associated with each field/rinse blank. The validator must use this information to evaluate the Field Duplicate pairs as well as the samples associated with contaminated Field/Rinse Blanks.

9.0 Telephone Record Log (Appendix A.3)

A Telephone Record Log (Appendix A.3) must be written by the data validator when a deliverable is missing or a clarification is needed about a lab procedure. The data validator should outline a basic profile of the Case on the Telephone Record Log Form, clearly indicating the reason(s) for inquiry and forward this Form to CLP PO/TOPO who will contact the lab to receive the missing document or information. The original Telephone Record Log is kept in the data package and a copy attached to the Data Review Narrative.

10.0 Request for Re-Analysis (Appendix A.6)

Data validator must note all items of contract non-compliance in the Data Review Narrative. If holding times and sample storage times have not been exceeded, the Project Officer (PO) may request re-analysis if items of non-compliance are critical to data assessment. Requests are to be made on "CLP Re-Analysis Request/Approval Record" form (Appendix A.4).

11.0 CLP Data Assessment Summary Form (Appendix A.7)

Fill in the total number of analytes performed by different methods and the number of analytes rejected (R) or flagged (J) as estimated due to corresponding quality control criteria. Place an "X" in boxes wherever analyses were not performed, or criteria do not apply.

12.0 Data Review Log:

It is recommended that the data validator maintain a log of the reviews completed to document:

- a. Case number
- b. SDG # (s)
- c. number of samples
- d. matrix of samples
- e. contract laboratory
- f. site name
- g. start-date of the data case review
- h. completion-date of the data case review
- i. actual hours spent
- j. reviewer's signature

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13.0 Record of Communication -

This is a Regional document prepared and provided by the RSCC for each data package. The ROC indicates the Case #, site name, samples and sample matrix and the laboratory name. The presence of a ROC in a data package is an indication that the package has been reviewed by the RSCC for completeness and is ready for data validation.

14.0 Forwarded Paperwork

Upon completion of review, the following are to be forwarded to EPA for final review:

- a. Data package
- b. Completed data assessment checklist (Appendix A.1, original)
- c. Original and a copy of completed data review narrative (Appendix A.2)
- d. CLASS Contract Compliance Screening (CCS) report
- e. Telephone Record Log (Appendix A.3)
- f. Field Duplicates Form (Appendix A.4)
- g. Total/Dissolved Concentrations Form (Appendix A.5)
- h. CLP Re-analysis Request/Approval Record Form (Appendix A.6)
- i. Data Assessment Summary Form (Appendix A.7)
- j. CADRE Spreadsheet on a computer diskette.

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ACRONYMS

AA	Atomic Absorption
AOC	Analytical Operations/Data Quality Center
CADRE	Computer-Aided Data Review and Evaluation
CCB	Continuing Calibration Blank
CCS	Contract Compliance Screening
CCV	Continuing Calibration Verification
CLP	Contract Laboratory Program
CO	Contracting Officer
COC	Contaminants of Concern
CRI	CRQL Check Standard
CRQL	Contract Required Quantitation Limit
CSF	Complete SDG File
CVAA	Cold Vapor AA
DART	Data Assessment Rapid Transmittal
DAT	Data Assessment Tool
DF	Dilution Factor
DQO	Data Quality Objective
ICB	Initial Calibration Blank
ICP	Inductively Coupled Plasma
ICP-AES	Inductively Coupled Plasma - Atomic Emission Spectroscopy
ICP-MS	Inductively Coupled Plasma - Mass Spectrometry
ICS	Interference Check Sample
ICV	Initial Calibration Verification
LCS	Laboratory Control Sample
LRS	Linear Range Sample
MDL	Method Detection Limit
NIST	National Institute of Standards and Technology
OERR	Office of Emergency and Remedial Response
OSWER	Office of Solid Waste and Emergency Response
PB	Preparation Blank
PE	Performance Evaluation
%D	Percent Difference
%R	Percent Recovery
%RI	Percent Relative Intensity
%RSD	Percent Relative Standard Deviation
%S	Percent Solids
PO	Project Officer
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
QC	Quality Control
RPD	Relative Percent Difference
RSCC	Regional Sample Control Center
SDG	Sample Delivery Group
SMO	Sample Management Office
SOP	Standard Operating Procedure
SW	Statement of Work
TAL	Target Analyze List

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Inorganic Target Analyze List And Contract Required Quantitation Limits (CRQLs)

Analyze	CAS Number	ICP-AES CRQL	ICP-AES CRQL	ICP-MS CRQL
		Water Ug/L	Soil mg/kg	Water Ug/L
Aluminum	7429-90-5	200	20	---
Antimony	7440-36-0	60	6	2
Arsenic	7440-38-2	10	1	1
Barium	7440-39-3	200	20	10
Beryllium	7440-41-7	5	0.5	1
Cadmium	7440-43-9	5	0.5	1
Calcium	7440-70-2	5000	500	-----
Chromium	7440-47-3	10	1	2
Cobalt	7440-48-4	50	5	1
Copper	7440-50-8	25	2.5	2
Iron	7439-89-6	100	10	----
Lead	7439-92-1	10	1	1
Magnesium	7439-95-4	5000	500	-----
Manganese	7439-96-5	15	1.5	1
Mercury	7439-97-6	0.2	0.1	---
Nickel	7440-02-0	40	4	1
Potassium	7440-09-7	5000	500	-----
Selenium	7782-49-2	35	3.5	5
Silver	7440-22-4	10	1	1
Sodium	7440-23-5	5000	500	-----
Thallium	7440-28-0	25	2.5	1
Vanadium	7440-62-2	50	5	1
Zinc	7440-66-6	60	6	2
Cyanide	57-12-5	10	2.5	--
--				

Review of Records Data for the Contract Laboratory Program
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SOP: HW-2

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Appendix A.1

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Site:

Case #:

SDG #:

Samples: Soil Water

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OP	HW-2	Revision 13	Appendix A.1	Sept. 2005
				<div style="display: flex; justify-content: space-around; font-weight: bold; font-size: small;"> YES NO N/A </div>
.1.1	<u>Contract Compliance Screening Report</u> Present?			<div style="display: flex; justify-content: space-around;"> [<input checked="" type="checkbox"/>] _____ _____ </div>
	<u>ACTION:</u> If no, contact RSCC/PO.			
.1.2	<u>Record of Communication (from RSCC)</u> Present?			<div style="display: flex; justify-content: space-around;"> [<input checked="" type="checkbox"/>] _____ _____ </div>
	<u>ACTION:</u> If no, request from the RSCC.			
.1.3	<u>Sampling Trip Report</u> Present and complete?			<div style="display: flex; justify-content: space-around;"> [<input checked="" type="checkbox"/>] _____ _____ </div>
	<u>ACTION:</u> If no, contact RSCC/PO.			
.1.4	<u>Chain of Custody/Sample Traffic Report</u> Present?			<div style="display: flex; justify-content: space-around;"> [<input checked="" type="checkbox"/>] _____ _____ </div>
	Legible?			<div style="display: flex; justify-content: space-around;"> [<input checked="" type="checkbox"/>] _____ _____ </div>
	Signature of sample custodian present?			<div style="display: flex; justify-content: space-around;"> [<input checked="" type="checkbox"/>] _____ _____ </div>
	<u>ACTION:</u> If no, contact RSCC/WAM/PO.			
1.5	<u>Cover Page</u> Present?			<div style="display: flex; justify-content: space-around;"> [<input checked="" type="checkbox"/>] _____ _____ </div>
	Is the Cover Page properly filled in and the verbatim signed by the lab manager or the manager's designee?			<div style="display: flex; justify-content: space-around;"> [<input checked="" type="checkbox"/>] _____ _____ </div>
	Do the sample identification numbers on the Cover Page agree with sample Identification numbers on:			
	(a) Traffic Report Sheet?			<div style="display: flex; justify-content: space-around;"> [<input checked="" type="checkbox"/>] _____ _____ </div>
	(b) Form I's?			<div style="display: flex; justify-content: space-around;"> [<input checked="" type="checkbox"/>] _____ _____ </div>
	Is the number of samples on the Cover Page the same as the number of			

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samples on the Traffic Report sheet
and the Regional Record of Communication
(ROC) for the data Case?

YES

NO

N/A

[✓]

—

—

ACTION:

If no for any of the above, prepare
Telephone Record Log and contact RSCC/PO
for re-submittal of the corrected Cover Page
from the laboratory.

1.6

SDG Narrative, DC-1 & DC-2 Form

Is the SDG Narrative present?

[✓]

—

—

Is Sample Log-In Sheet (Form DC-1)
present and complete?

[✓]

—

—

Is Complete SDG Inventory Sheet (Form DC-2)
present and complete?

[✓]

—

—

ACTION:

If no, write in the Contract-Problems/
Non-Compliance Section of the Data Review
Narrative.

1.7

Form I to XV

N/A AS PER TDF.

1.7.1

Are all the Form I through Form XV
labeled with:

Laboratory Name?

[]

—

✓

Laboratory Code?

[]

—

✓

RAS/Non-RAS Case No.?

[]

—

✓

SDG No.?

[]

—

✓

Contract No.?

[]

—

✓

ACTION:

If no for any of the above, note under
Contract Problem/Non-Compliance Section
of the "Data Review Narrative" and contact
PO for corrected Form(s) from the laboratory.

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YES NO N/A

.1.7.2 After comparing values on Forms I-IX against the raw data, do any computation/transcription errors exceed 10% of the reported values on the Forms for:

(a) all analytes analyzed by ICP-AES?	___	[___]	✓
(b) all analytes analyzed by ICP-MS?	___	[___]	✓
(c) Mercury?	___	[___]	✓
(d) Cyanide?	___	[___]	✓

ACTION:

If yes, prepare Telephone Record Log and contact CLP PO/TOPO for the corrected data from the laboratory.

.1.8 **Raw Data**
Data shall not be validated without the hard/electronic copies of the associated raw data for samples and QC samples.

N/A AS PER TDF.

1.8.1 **Digestion/Distillation Log**

Digestion Log for ICP-AES (Form XII) present?	[___]	___	✓
Digestion Log for ICP-MS (Form XII) present?	[___]	___	✓
Digestion Log for mercury (Form XII) present?	[___]	___	✓
Distillation Log for cyanide (Form XII) present?	[___]	___	✓
Are pH values for metals and cyanide reported for each aqueous sample?	[___]	___	✓
Are percent solids calculations present for soils/sediments?	[___]	___	✓
Are preparation dates present on the sample preparation logs/bench sheets?	[___]	___	✓

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YES NO N/A

NOTE:

Digestion/Distillation log must include weights, volumes, and dilutions used to obtain the reported results.

A.1.8.2 Is the analytical instrument real-time printouts present for:

ICP-AES?

☐ ☐ ☒

ICP-MS?

☐ ☐ ☒

Mercury?

☐ ☐ ☒

Cyanide?

☐ ☐ ☒

Are all laboratory bench sheets and instrument raw data printouts necessary to support all sample analyses and QC operations:

Legible?

☐ ☐ ☒

Properly labeled?

☐ ☐ ☒

Are all field samples, QC samples and field QC samples present on:

Digestion/Distillation log?

☐ ☐ ☒

Instrument Printouts?

☐ ☐ ☒

ACTION:

If no for any of the above questions in Section A.1.8.1 and Section A.1.8.2, write Telephone Record Log and contact TOPO/PO for re-submittal from the laboratory.

..9 **Technical Holding Times:** (Aqueous and soil samples)

(Examine sample Traffic Reports and digestion/distillation logs to determine the holding time from the sample collection date to the sample preparation date.)

..9.1 Cyanide distillation(14 days)exceeded?

☐ ☐ ☒

Mercury analysis(28 days) exceeded?

☐ ☒ ☐

Other Metals analysis(180 days)exceeded?

☐ ☒ ☐

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YES NO N/A

ACTION:

If yes, reject (R) and red-line non-detects and flag as estimated (J) results \geq MDL even if sample(s) was preserved properly.

NOTE:

In addition to qualifying the data, a list of all samples and analytes which exceeded the holding times must be prepared. Report for each sample the number of days that were exceeded. (Subtract the sample collection date from the sample preparation date). Attach this list to the data review narrative.

1.9.2 Is pH of aqueous samples for:

Metals Analysis ≤ 2 ?

[☒]

Cyanide Analysis ≥ 12 ?

[___]

[☒]

ACTION:

If no for any of the above, flag non-detects as "R" and detects as "J".

1.9.3 Is the cooler temperature ≤ 10 C°?

[☒]

ACTION:

If cooler temperature is >10 °C, flag non-detects as "UJ" and detects as "J".

1.10 **Final Data Correctness - Form I**

N/A AS PER TDF.

1.10.1 Are Form I's for all samples present and complete?

[___]

[☒]

ACTION:

If no, prepare Telephone Record Log and contact CLP PO/TOPO for submittal from the laboratory.

1.10.2 Verify there are no calculation and transcription errors in the results reported on Form I's. Circle on each Form I all results that are incorrect.

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Is the calculation error less than 10% of the correct result?

YES

NO

N/A

[]

—

✓

Are results on Form I's reported in correct units (ug/L for aqueous and MG/KG for soils)?

[]

—

✓

Are results on Form I'S reported by correct significant figures?

[]

—

✓

Are soil sample results on Form I's corrected for percent solids?

[]

—

✓

Are all "less than MDL" values reported by the CRQLs and coded with "U"?

[]

—

✓

Are values less than the CRQLs but greater than or equal to the MDLs flagged with "J"?

[]

—

✓

Are appropriate contractual quality control and Method qualifiers used?

[]

—

✓

ACTION:

If no for any of the above questions, prepare Telephone Record Log, and contact CLP PO/TOPO for corrected data.

1.10.3 Do EPA sample identification numbers and the corresponding laboratory sample identification numbers match on the Cover Page, Form I's and in the raw data?

[]

—

✓

Was a brief physical description of the samples before and after digestion given on the Form I's?

[]

—

✓

Was any sample result outside the mercury/cyanide calibration range or the ICP-AES/ICP-MS linear range diluted and noted on the Form I?

[]

—

✓

ACTION:

If no for any of the above, note under the Contract-Problem/Non-Compliance Section of the Data Review Narrative.

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YES NO N/A

1.1.11 Initial Calibration

N/A AS PER TDF.

1.1.11.1 Is a record of at least 2 point
(A blank and a standard) calibration
present for ICP-AES analysis?

[] — ✓

Is a record of at least 2 point
(a blank and a standard) calibration
present for ICP-MS analysis?

[] — ✓

Is a record of at least 5 point calibration
(a blank & 4 standards) present for Hg analysis?

[] — ✓

Is a record of at least 4 point calibration
(a blank & 4 standards) present for cyanide?

[] — ✓

ACTION:If incomplete or no initial calibration
was performed, reject (R) and red-line
the associated data (detects & non-detects).Is one initial calibration standard
at the CRQL level for cyanide and
mercury?

[] — ✓

ACTION:If no, write in the Contract Problem/
Non-Compliance Section of the Data
Review Narrative.1.11.2 Is the curve correlation
coefficient ≥ 0.995 for:

Mercury Analysis?

[] — ✓

Cyanide Analysis?

[] — ✓

ICP-AES (more than 2 point Calib.)?

[] — ✓

ICP-MS (more than 2 point calib.)?

[] — ✓

ACTION:If no, qualify the associated sample
results \geq MDL as estimated "J" and
non-detects as "UJ".NOTE:The correlation coefficient shall
be calculated by the data validator
using standard concentrations and the

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YES NO N/A

corresponding instrument response (e.g. absorbance, peak area, peak height, etc.).

1.1.12 Initial and Continuing Calibration Verification- Form IIA

1.1.12.1 Present and complete for every metal and cyanide?

[] — ✓

Present and complete for ICP-AES and ICP-MS when both these methods were used for the same analyte?

[] — ✓

ACTION:

If no for any of the above, prepare a Telephone Record Log and contact PO/TOPO for re-submittal from the laboratory.

1.1.12.2 Was a Continuing Calibration Verification performed every 10 samples or every 2 hours whichever is more frequent?

[] — ✓

ACTION:

If no for any of the above, write in the Contract-Problem/Non-Compliance Section of the Data Review Narrative.

1.1.12.3 Was an ICV or a mid-range standard distilled and analyzed with each batch of cyanide samples?

[] — ✓

ACTION:

If no for any of the above, write in the Contract-Problem/Non-Compliance Section of the Data Review Narrative and qualify results \geq MDL as estimated (J).

1.1.12.2 Circle on each Form IIA all percent recoveries that are outside the contract windows.

Are ICV/CCVs within control limits for:

Metals - 90-110%R?

[] — ✓

Hg - 80-120%R?

[] — ✓

Cyanide - 85-115%R?

[] — ✓

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YES NO N/A

ACTION:

If no, qualify all samples between a previous technically acceptable CCV standard and a subsequent technically acceptable CCV standard as follows as follows:

Qualify as estimated (J) all detects and non-detects, if the ICV/CCV %R is between 75-89% (65-79% for Hg; 70-84% for CN). Qualify only positive results (\geq MDL) as "J" if the ICV/CCV %R is between 111-125% (121-135% for Hg; 116-130% for CN). Reject (R) and red-line only detects if the recovery is greater than 125% (135% for Hg; 130% for CN). Reject (R) and red-line all associated results (hits and non-detects) if the recovery is less than 75% (65% for Hg; 70% for CN).

NOTE:

For ICV that does not fall within the acceptance limits, qualify all samples reported from the analytical run.

- .1.12.3 Was the distilled ICV or mid-range standard for cyanide within acceptance limits (85-115%)? ☐ ☐ ☒

ACTION:

If no, Qualify all cyanide results \geq MDL as "J".

.1.13 **CRQL Standard Analysis - Form IIB**

- .1.13.1 For each ICP-AES run, was a CRI (CRQL or MDL when MDL > CRQL) standard analyzed? ☒ ☐ ☐
(Note: CRI is not required for Al, Ba, Ca, Fe, Mg, Na and K.)

For each ICP-MS run, was a CRI (CRQL or MDL when MDL > CRQL) standard analyzed for each mass/isotope used for the analysis? ☒ ☐ ☒

For each mercury run, was a CRQL standard analyzed? ☒ ☐ ☐

For each cyanide run, was a CRQL standard analyzed? ☒ ☐ ☒

JB

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YES NO N/A

ACTION:

If no for any of the above, write this deficiency in the Contract Problems/ Non-Compliance Section of the Data Review Narrative, inform CLP PO and flag results in the affected ranges (detects <2xCRQL) as J and non-detects UJ.

The affected ranges are:

ICP-AES Analysis - *True Value \pm CRQL

ICP-MS Analysis - *True Value \pm CRQL

Mercury Analysis - *True Value \pm CRQL

Cyanide Analysis - *True Value \pm CRQL

* True value of the CRQL Standard

- 1.13.2 Was a CRQL standard analyzed after the ICV/ICB, before the final CCV/CCB and once every 20 analytical samples in the analytical run for each analysis?

[☒] ☐ ☐

ACTION:

If no, write in the Contract Problem/ Non-Compliance Section of the "Data Review Narrative".

- 1.13.3 Circle on each Form IIB all percent recoveries that are outside the acceptance windows.

Is the CRQL standard within control limits for:

Metals (ICP-AES/ICP-MS) - 70 - 130%?

[☒] ☐ ☐

Mercury - 70 - 130%?

[☒] ☐ ☐

Cyanide - 70 - 130%?

[☐] ☐ [☒

ACTION:

If no, flag detects <2xCRQL as "J" and non-detects as "UJ" if the CRQL standard recovery is between 50-69%. Flag (J) only detects <2xCRQL if the recovery is between 131% and \leq 180%. If the recovery is less than 50%, reject (R) and red-line non-detects and detects < 2xCRQL, and flag (J) detects between 2xCRQL and ICV/CCV. Reject and red-line only detects <2xCRQL and flag (J) detects \geq 2xCRQL but < ICV/CCV if the recovery is > 180%.

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YES NO N/A

NOTE:

1. Qualify all field samples analyzed between a previous technically acceptable analysis of the CRQL standard and a subsequent acceptable analysis of the CRQL standard
2. Flag (J) or reject (R) only the final sample results on Form I's when sample raw data are within the affected ranges and the CRQL standard is outside the acceptance windows.
3. The samples and the CRQL standard must be analyzed in the same analytical run.

.1.14 **Initial and Continuing Calibration Blanks - Form III**

- .1.14.1 Present and complete for all the instruments used for the metals and cyanide analyses?

[☒] ☐ ☐

Was an initial Calibration Blank analyzed after ICV?

[☒] ☐ ☐

Was a continuing Calibration Blank analyzed after every CCV and every 10 samples or every 2 hours, whichever is more frequent?

[☒] ☐ ☐

Were the ICB & CCB values \geq MDL but $<$ CRQL reported on Form III and flagged "J" by using MDLs from direct analysis (Preparation Method "NP1")?

[☒] ☐ ☐

(Check Form III against the raw data)

ACTION:

If no, inform CLP PO/TOPO and make a note in the Contract-Problems/Non-Compliance Section of the "Data Review Narrative".

- 1.14.2 Circle with red pencil on each Form III all Calib. Blank values that are:

\geq MDL but \leq CRQL

$>$ CRQL

- 1.14.2.1 When MDL $<$ CRQL, is any Calib. Blank value \geq MDL but \leq CRQL?

☒ [☐] ☐

ACTION:

If yes, change sample results \geq MDL but \leq CRQL to the CRQL with a "U".
Do not qualify non-detects.

1.1.14.2.2 When MDL < CRQL, is any Calib. Blank value > CRQL?

_____ [✓] _____

ACTION:

If yes, reject (R) and red line the associated sample results > CRQL but < ICB/CCB Blank Result. Flag as "J" detects > ICB/CCB blank value but < 10xICB/CCB value. Change the sample results \geq MDL but \leq the CRQL to CRQL with a "U".

1.1.14.2.3 Is any Calibration Blank value below the negative CRQL?

_____ [✓] _____

ACTION:

If yes, flag (J) as estimated all associated sample results \geq CRQL but < 10xCRQL.

NOTE:

1. For ICB that does not meet the technical QC Criteria, apply the action to all samples reported from the analytical run.
2. For CCBs that do not meet the technical QC criteria, apply the action to all samples analyzed between a previous technically acceptable analysis of CCB and a subsequent technically acceptable analysis of the CCB in the analytical run.,

1.15 **Preparation Blank - FORM III**

NOTE: The Preparation Blank for mercury is the same as the calibration blank.

1.15.1 Was one Preparation Blank prepared with and analyzed for:

Each Sample Delivery Group (SDG)?

[✓] _____

Each batch of the SDG samples digested/distilled?

[✓] _____

Each matrix type?

[✓] _____

All instruments used for metals and cyanide analyses?

[✓] _____

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YES NO N/A

ACTION:

If no for any of the above, flag as estimated (J) all the associated positive data <10xMDL for which the Preparation Blank was not analyzed.

NOTE:

If only one blank was analyzed for more than 20 samples, then the first 20 samples analyzed are not estimated (J), but all additional samples must be qualified (J).

1.15.2 Circle with red pencil on each Form III all Prep. Blank values that are:

\geq MDL but \leq CRQL, and

$>$ CRQL

1.15.2.1 When MDL < CRQL, is any preparation blank value \geq MDL but \leq CRQL?

___ [☒] ___

ACTION:

If yes, change sample result \geq MDL but \leq CRQL to CRQL with a "U".

1.15.2.2 When the MDL \leq CRQL, is any Preparation Blank value greater than its CRQL?

___ [☒] ___

If yes, is the Prep. Blank value greater than the value of the associated Field Blank collected and analyzed with the SDG samples?

___ [☐] ☒

If yes, is the lowest concentration of that analyte in the associated samples less than 10 times the Preparation Blank value?

___ [☐] ☒

ACTION:

If yes, reject (R) and red-line all associated sample results greater than the CRQL but less than the Prep. Blank value. Flag as "J" detects $>$ Prep. Blank value but $<10 \times$ Prep. Blank. If the sample result \geq MDL but \leq CRQL, replace it with CRQL-U.

If the Prep. Blank value is less than the same

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analyte value in the Field Blank, do not qualify the sample results due to the Prep. Blank criteria.

YES NO N/A

NOTE:

Convert soil sample result to mg/Kg on wet weight basis to compare with the soil Prep. Blank result on Form III.

1.15.2.3 Is the Prep. Blank concentration below the negative CRQL?

— [✓] —

ACTION:

If yes, flag (J) all associated sample results less than 10xCRQL. Qualify non-detects as estimated (UJ).

1.15.2.4 When the MDL is greater than the CRQL, is the preparation blank concentration on Form III greater than two times the MDL?

— [✓] —

ACTION:

If yes, reject (R) and red-line all positive sample results with sample raw data less than 10 times the Preparation Blank value.

1.16 **ICP-AES/ICP-MS Interference Check Sample (ICS) - Form IV**

NOTE: Not required for CN, Hg, Al, Ca, Fe and Mg.

1.16.1 Present and complete?

[✓] — —

Was ICS analyzed at the beginning and end of each analytical run, and once for every 20 analytical samples?

[✓] — —

Was ICS analyzed at the beginning of the ICP-MS analytical run?

[] — ✓

ACTION:

If no, flag as estimated (J) all sample results.

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YES

NO

N/A

.1.16.2 ICP-AES Method

.1.16.2.1 ICSA Solution:

For ICP-AES, are the ICSA "Found" analyte values within the control limits \pm of CRQL of the true/established mean value?

[☒]

If no for any of the above, is the sample concentration of Al, Ca, Fe, or Mg in the same units (ug/L or MG/KG) greater than or equal to its respective concentration in the ICSA Solution on Form IV?

[☒]

ACTION:

If yes, apply the following action to all samples analyzed between a previous technically acceptable analysis of the ICS and a subsequent technically acceptable analysis of the ICS in the analytical run:

Flag (J) as estimated only sample results \geq MDL for which the ICSA "Found" value is greater than (True value+CRQL). Do not qualify non-detects. If the ICSA "Found" value is less than (True value-CRQL), flag non-detects as "UJ" and detects as "J".

1.16.2.3 ICSAB Solution

For ICP-AES, are all analyte results in ICSAB within the control limits of 80-120 of the true/established mean value?

[☒]

If no for any of the above, is the sample concentration of Al, Ca, Fe, or Mg in the same units (ug/L or MG/KG) greater than or equal to its respective concentration in the ICSAB Solution on Form IV?

[☒]

ACTION:

If yes, apply the following action to all samples analyzed between a previous technically acceptable analysis of the ICS and a subsequent technically acceptable analysis of the ICS in the analytical run:

Flag (J) as estimated those associated sample results \geq MDL for which the ICSAB analyte recovery is greater than 120% but \leq 150%. If the ICSAB recovery falls within

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YES

NO

N/A

50-79%, qualify sample results \geq MDL as "J" and non-detects as "UJ". Reject (R) and red-line all sample results (detects & non-detects) for which the ICSAB analyte recovery is less than 50%. If the recovery is above 150%, reject (R) and red-line only positive results.

1.16.3 ICP-MS Method

1.16.3.1 ICSA Solution:

For ICP-MS, are the ICSA "Found" analyte values within the control limits of \pm CRQL of the true/established mean value?

[] — ☒

ACTION:

If no, apply the following action to all samples reported from the analytical run:

Flag (J) as estimated only sample results \geq MDL if the ICSA "Found" value is greater than (True value+CRQL). Do not qualify non-detects. If the ICSA "Found" value is less than (True value-CRQL), flag the associated sample detects as "J" and non-detects as "UJ".

1.16.3.3 ICSAB Solution

For ICP-MS, are all analyte results in ICSAB within the control limits of 80-120% of the true/established mean value, whichever is greater?

[] — ☒

ACTION:

If no, apply the following action to all samples reported from the analytical run:

Flag (J) as estimated those associated sample results \geq MDL for which the ICSAB analyte recovery is greater than 120% but \leq 150%. If the ICSAB recovery falls within 50-79% flag (J) as estimated the associated sample results \geq MDL. Reject (R) and red-line those all sample detects and non-detects for which the ICSAB analyte recovery is less than 50%. If the recovery is above 150%, reject (R) and red-line only detects (\geq MDL).

17 Spiked Sample Recovery: Pre-Digestion/Pre-Distillation)-Form V A
Note: Not required for Ca, Mg, K, and Na (both matrices); Al and Fe (soil only)

17.1 Was Matrix Spike analysis performed:

For each matrix type?

[☒] — —

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	YES	NO	N/A
For each SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
On one of the SDG samples?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
For each concentration range (i.e., low, med., high)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
For each analytical Method (ICP-AES, ICP-MS, Hg, CN) used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Was a spiked sample prepared and analyzed with the SDG samples?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ACTION:

If no for any of the above, flag as estimated (J) all the positive data for which a spiked sample was not analyzed.

NOTE:

If more than one spiked sample were analyzed for one SDG, then qualify the associated data based on the worst spiked sample analysis.

1.17.2 Was a field blank or PE sample used for the spiked sample analysis?

☐ ☒ ☐

ACTION:

If yes, flag (J) as estimated positive data of the associated SDG samples for which field blank or PE sample was used for the spiked sample analysis.

1.17.3 Circle on each Form VA all spike recoveries that are outside the control limits (75-125%) that have sample concentrations less than four times the added spike concentrations.

Are all recoveries within the control limits when sample concentrations are less than or equal to four times the spike concentrations?

☐ ☒ ☐

NOTE:

Disregard the out of control spike recoveries for analytes whose concentrations are greater than or equal to four times the spike added.

Are results outside the control limits

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(75-125%) flagged with Lab Qualifier "N"
on Form I's and Form VA?

YES NO N/A

[✓] — —

ACTION:

If no for any of the above, write in
the Contract - Problems/Non-Compliance
Section of the Data Review Narrative.

1.17.4 Aqueous

Are any spike recoveries:

(a) less than 30%?

— [✓] —

(b) between 30-74%?

— [✓] —

(c) between 126-150%?

— [✓] —

(d) greater than 150%?

— [✓] —

ACTION:

If the matrix spike recovery is less than
30%, reject (R) and red-line all associated
aqueous data (detects & non-detects). If
between 30-74%, qualify all associated
aqueous data \geq MDL as "J" and non-detects
as "UJ". If between 126-150%, flag (J)
all data \geq MDL as "J". If greater than 150%,
reject (R) and red-line all associated data \geq MDL.

(NOTE: Replace "N" with "J", "R" as appropriate.)

1.17.5 Soil/Sediment

Are any spike recoveries:

(a) less than 10%?

✓ [] —

(b) between 10-74%?

✓ [] —

(c) between 126-200%?

— [✓] —

(d) greater than 200%?

— [✓] —

ACTION:

If yes for any of the above, proceed
as follows:

If the matrix spike recovery is less
than 10%, reject (R) and red-line all
associated data (detects & non-detects);
if between 10-74%, qualify all associated
data \geq MDL as "J" and non-detects as "UJ";

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if between 126-200%, flag (J) all associated data \geq MDL as "J" If greater than 200%, reject (R) and red-line all associated data \geq MDL.
(NOTE: Replace "N" with "J" or "R" as appropriate.)

YES NO N/A

1.18 Lab Duplicates) - Form VI

1.18.1 Was the lab duplicate analysis performed:

For each SDG?

[✓]

On one of the SDG samples?

[✓]

For each matrix type?

[✓]

For each concentration range
(low or med.)?

[✓]

For each analytical Method
(ICP-AES/ICP-MS, Hg, CN) Used?

[✓]

Was a lab duplicate prepared and
analyzed with the SDG samples?

[✓]

ACTION:

If no for any of the above, flag (J) as estimated all the SDG sample results (detects & non-detects) for which the lab duplicate analysis was not performed.

NOTE:

If more than one lab duplicate sample were analyzed for an SDG, then qualify the associated samples based on the worst lab duplicate analysis.

1.18.2 Was a Field Blank or PE sample used for the Lab Duplicate analysis?

— [✓] —

ACTION:

If yes, flag as estimated (J) all SDG sample results (hits & non-detects) for which Field Blank or PE sample was used for duplicate analysis.

1.18.3 Circle on each Form VI all values that are:

RPD > 20%, or

Absolute Difference > CRQL

Are all values within control limits (RPD \leq 20% or absolute

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difference $\leq \pm CRQL$?

YES	NO	N/A
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

If no, are all results outside the control limits flagged with an "*" (Lab Qualifier) on Form VI and on all Form I's?

YES	NO	N/A
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ACTION:

If no, write in the Contract-Problems/ Non-Compliance Section of the Data Review Narrative.

NOTE:

The laboratory is not required to report on Form VI the RPD when both values are non-detects.

1.18.4 Aqueous

1.18.4.1 When sample and duplicate values are both $\geq 5 \times CRQL$ (substitute MDL for CRQL when MDL > CRQL),

is any RPD > 20% but < 100%?

YES	NO	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

is any RPD $\geq 100\%$?

YES	NO	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

ACTION:

If the RPD is > 20% but < 100%, flag (J) as estimated the associated sample data $\geq CRQL$. If the RPD is $\geq 100\%$, reject (R) and red-line the associated sample data $\geq CRQL$.

(NOTE: Replace "*" with "J" or "R" as appropriate.)

1.18.4.2 When the sample and/or duplicate value $< 5 \times CRQL$ (substitute MDL for CRQL when MDL > CRQL), is the absolute difference between sample and duplicate values:

> $\pm CRQL$?

YES	NO	N/A
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

> $\pm 2 \times CRQL$?

YES	NO	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

ACTION:

If the absolute difference is > CRQL, flag as estimated all the associated sample results $\geq MDL$ but < $5 \times CRQL$ as "J" and non-detects as "UJ". If the absolute difference is > $2 \times CRQL$, reject (R) and

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YES

NO

N/A

red-line all the associated non-detects
and detects \geq MDL but $< 5 \times \text{CRQL}$.

NOTE:

1. Replace "*" with "J", "UJ" or "R" as appropriate.)
2. If one value is $> \text{CRQL}$ and the other value is non-detect,
calculate the absolute difference between the value $> \text{CRQL}$
and the MDL, and use this difference to qualify sample results.

.1.18.5 Soil/Sediment

.1.18.5.1 When sample and duplicate values
are both $\geq 5 \times \text{CRQL}$ (substitute MDL for
CRQL when MDL $> \text{CRQL}$),

is any RPD $\geq 35\%$ but $< 120\%$?

✓

[]

is any RPD $\geq 120\%$?

—

[✓]

ACTION:

If the RPD is $\geq 35\%$ and $< 120\%$, flag
(J) as estimated the associated sample
data $\geq \text{CRQL}$. If the RPD is $\geq 120\%$, reject
(R) and red-line the associated sample
data $\geq \text{CRQL}$.

.1.18.5.2 When the sample and/or duplicate value
 $< 5 \times \text{CRQL}$ (substitute MDL for CRQL when MDL $> \text{CRQL}$),
is the absolute difference between sample
and duplicate:

$> \pm 2 \times \text{CRQL}$?

—

[✓]

$> \pm 4 \times \text{CRQL}$

—

[✓]

ACTION:

If the absolute difference is $> 2 \times \text{CRQL}$,
flag all the associated sample results $\geq \text{MDL}$
but $< 5 \times \text{CRQL}$ as "J" and non-detects as "UJ".
If the absolute difference is $> 4 \times \text{CRQL}$, reject
(R) and red-line all the associated non-detects
and detects $\geq \text{MDL}$ but $< 5 \times \text{CRQL}$.

NOTE:

1. Replace "*" with "J", "UJ" or "R" as appropriate.)
2. If one value is $> \text{CRQL}$ and the other value is non-detect,
calculate the absolute difference between the value $> \text{CRQL}$
and the MDL, and use this difference to qualify sample results.

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	YES	NO	N/A
--	-----	----	-----

1.1.19 Field Duplicates

Aqueous Field Duplicates

- 1.1.19.1 Was an aqueous Field Duplicate pair collected and analyzed?
(Check Sampling Trip Report)

[✓]	—	—
-----	---	---

ACTION:

If yes, prepare a Form (Appendix A.4) for each aqueous Field Duplicate pair. Report the sample and Field Duplicate results on Appendix A.4 from their respective Form I's. Calculate and report RPD on Appendix A.4 when sample and its Field Duplicate values are both $> 5 \times \text{CRQL}$. Calculate and report the absolute difference on Appendix A.4 when at least one value (sample or duplicate) is $< 5 \times \text{CRQL}$. Evaluate the aqueous Field Duplicate analysis in accordance with the QC criteria stated in Sections A.1.19.2 and A.1.19.3.

NOTE:

1. Do not transfer "*" from Form I's to Appendix A.4.
2. Do not calculate RPD when both values are non-detects.
3. Substitute MDL for CRQL when $\text{MDL} > \text{CRQL}$.
4. If one value is $> \text{CRQL}$ and the other value is non-detect, calculate the absolute difference between the value $> \text{CRQL}$ and the MDL, and use this the criteria to qualify the results.

- 1.1.19.2 Circle all values on the Form (Appendix A.4) for Field Duplicates that have:

$\text{RPD} \geq 20\%$ or

Difference $> \pm \text{CRQL}$

When sample and duplicate values are both $\geq 5 \times \text{CRQL}$ (substitute MDL for CRQL when $\text{MDL} > \text{CRQL}$),

is any $\text{RPD} \geq 20\%$?

—	[✓]	—
---	-----	---

is any $\text{RPD} \geq 100\%$?

[✓]	[]	—
-----	-----	---

ACTION:

If the RPD is $> 20\%$ but $< 100\%$, flag (J) only the associated sample and its Field Duplicate results $\geq \text{CRQL}$. If the RPD is $\geq 100\%$, reject (R) and red-line only the associated sample and its Field Duplicate result $\geq \text{CRQL}$.

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A.1.19.3 When the sample and/or duplicate value(s)
<5xCRQL (substitute MDL for CRQL when MDL >CRQL),
is the absolute difference between sample
and duplicate:

YES NO N/A

> \pm CRQL?

— [✓] —

> \pm 2 x CRQL?

— [✓] —

ACTION:

If the absolute difference is > CRQL,
flag detects \geq MDL but < 5xCRQL as "J"
and non-detects as "UJ". If the difference
is > 2xCRQL, reject (R) and red-line non-detects
and results \geq MDL but < 5xCRQL of the sample
and its Field Duplicate.

Soil/Sediment Field Duplicates

1.19.4 Was a soil field duplicate pair
collected and analyzed?
(Check Sampling Trip Report)

[✓] — —

ACTION:

If yes, for each soil Field Duplicate
pair proceed as follows:

Prepare Appendix A.4 for each Field Duplicate
pair. Report on Appendix A.4 all sample and its
Field Duplicate results in MG/KG from their
respective Form I's. Calculate and report RPD when
sample and its duplicate values are both greater
than 5xCRQL. Calculate and report the
absolute difference when at least one value
(sample or duplicate) is < 5xCRQL. Evaluate the
Field Duplicate analysis in accordance with the
QC Criteria stated in Sections A.1.19.5 and A.1.19.6.

NOTE:

1. Do not transfer "*" from Form I's to Appendix A.4.
2. Do not calculate RPD when both values are non-detects.
3. Substitute MDL for CRQL when MDL > CRQL.
4. If one value is >CRQL and the other
value is non-detect, calculate the
absolute difference between the
value > CRQL and the MDL, and apply
the criteria to qualify the results.

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1.19.5 Circle on each Appendix A.4 all values that have:

YES NO N/A

RPD \geq 35%, or Difference $> \pm 2 \times \text{CRQL}$
When sample and duplicate values
are both $\geq 5 \times \text{CRQL}$ (substitute MDL for
CRQL when MDL $>$ CRQL),

is any RPD \geq 35% but $<$ 120%?

✓ [] —

is any RPD \geq 120%?

✓ [] —

ACTION:

If the RPD is \geq 35% but $<$ 120%,
flag only the associated sample
and its Field Duplicate results
 \geq CRQL as "J". If the RPD is \geq 120%,
reject (R) and red-line only the sample
and its Field Duplicate results \geq CRQL.

1.19.6 When the sample and/or duplicate value(s)
 $< 5 \times \text{CRQL}$ (substitute MDL for CRQL when MDL $>$ CRQL),
is the absolute difference between sample
and Field Duplicate:

$> \pm 2 \times \text{CRQL}$?

— [✓] —

$> \pm 4 \times \text{CRQL}$?

✓ [] —

ACTION:

If the absolute difference is $> 2 \times \text{CRQL}$, flag
Sample and its Field Duplicate results \geq MDL
but $< 5 \times \text{CRQL}$ as "J" and non-detects as "UJ".
If the difference is $> 4 \times \text{CRQL}$, reject (R) and
red-line non-detects and detects \geq MDL but
 $< 5 \times \text{CRQL}$ of the sample and its Field Duplicate.

20 Laboratory Control Sample (LCS) - Form VII

20.1 Was one LCS prepared and analyzed for:

Each SDG?

[✓] — —

Each matrix type?

[✓] — —

Each batch samples digested/distilled?

[✓] — —

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For each Method(ICP-AES, ICP-MS, Hg, CN)
used?

YES NO N/A

[✓] — —

Was an LCS prepared and analyzed with
the samples?

[✓] — —

ACTION:

If no for any of the above, prepare
Telephone Record Log and contact
CLP PO or TOPO for submittal of the
LCS results. Flag (J) as estimated all
the data for which an LCS was not
analyzed.

NOTE:

If only one LCS was analyzed for
more than 20 samples, then the first
20 samples analyzed are not flagged(J),
but all additional samples must be
qualified (J).

1.20.2 **Aqueous LCS**

Circle on each Form VII the LCS percent
recoveries outside control limits 80-120%.

NOTE: 1. Use digested ICV as LCS for aqueous mercury
2. Use distilled ICV as LCS for aqueous cyanide

Is any LCS recovery:

Less than 50%?

— [✓] —

Between 50% and 79%?

— [✓] —

Between 121% and 150%?

— [✓] —

Greater than 150%?

— [✓] —

ACTION:

If the LCS recovery is less than 50%,
reject (R) and red-line all associated
sample data (detects & non-detects); for
a recovery between 50-79%, flag detects
as "J" all non-detects as "UJ". if the LCS
recovery is between 121-150%, flag only
detects as "J". if the recovery is greater
than 150%, reject (R) and red-line all detects.

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1.1.20.3 Solid LCS

YES NO N/A

If an analyte's MDL is equal to or greater than the true value of LCS, disregard the "Action" below for that analyte even though the LCS is out of control limits.

Is the LCS "Found" value greater than the Upper Control Limit reported on Form VII?

— [✓] —

ACTION:

If yes, flag (J) all the associated detects \geq MDL as estimated (J).

Is the LCS "Found" value lower than the Lower Control Limit reported on Form VII?

— [✓] —

ACTION:

If yes, flag detects as "J" and non-detects as "UJ".

1.21 ICP-AES/ICP-MS Serial Dilution - Form VIII

NOTE: Serial dilution analysis is required only when the initial concentration is equal to or greater than 50 x MDL.

1.21.1 Was a Serial Dilution analysis performed:

For each SDG?

[✓] — —

On one of the SDG samples?

[✓] — —

For each matrix type?

[✓] — —

For each concentration range (low or med.)?

[✓] — —

Was a Serial Dilution sample analyzed with the SDG samples?

[✓] — —

ACTION:

If no for any of the above, flag as estimated (J) detects \geq MDL of all the SDG samples for which the ICP Serial Dilution Analysis was not performed.

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YES NO N/A

A.1.21.2 Was a Field Blank or PE sample used
for the Serial Dilution Analysis?

— [✓] —

ACTION:

If yes, flag as estimated (J) detects
≥ MDL of all the SDG samples

A.1.21.3 Circle on Form VIII the Percent Differences
(%D) between sample results and its dilution
results that are outside the control limits ± 10%
when initial concentrations ≥ 50 x MDLs.

Are results outside the control
limits flagged with an "E" (Lab Qualifier)
on Form VIII and all Form I's?

[] — ✓

ACTION:

If no, write in the Contract-Problem/
Non-Compliance Section of the Data
Review Narrative.

A.1.21.4 Are any %D values:

> 10%?

— [✓] —

≥ 100%?

— [✓] —

ACTION:

If the Percent Difference (%D) is
greater than 10%, flag (J) as estimated
all associated samples whose raw data ≥ MDL;
if the %D is ≥ 100%, reject (R) and red-line
all associated samples with raw data ≥ MDL.

(NOTE: Replace "E" with "J" or "R" as appropriate.)

1.22 Total/Dissolved or Inorganic/Total Analytes

1.22.1 Were any analyses performed for
dissolved as well as total analytes
on the same sample(s)?

— [] ✓

Were any analyses performed for
inorganic as well as total analytes
on the same sample(s)?

— [] ✓

ACTION:

If yes, prepare a Form (Appendix A.5)
to compare the differences between
dissolved (or inorganic) and total
analyte concentrations. Compute each

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difference on Appendix A.5 as a percent of the total analyte only when both of the following conditions are fulfilled:

YES NO N/A

- (1) The dissolved(or inorganic) concentration is greater than total concentration, and
- (2) greater than or equal to 5xMDL.

1.22.2 Is any dissolved (or inorganic) concentration greater than its total concentration by more than 20%?

— [] ✓

1.22.3 Is any dissolved(or inorganic) concentration greater than its total concentration by more than 50%?

— [] ✓

ACTION:

If the percent difference is greater than 20%, flag (J) both dissolved/inorganic and total concentrations as estimated. If the difference is more than 50%, reject (R) and red-line both the values.

1.23 **Field Blank - Form I**

NOTE: Designate "Field Blank" as such on Form I

1.23.1 Was a Field/Rinsate Bank collected and analyzed with the SDG samples?

[] ✓ —

If yes, is any Field/Rinsate Blank absolute value of an analyte on Form I greater than its CRQL(or 2xMDL when MDL>CRQL)?

— [] ✓

If yes, circle the Field Blank value on Form I that is greater than the CRQL, (or 2 x MDL when MDL > CRQL).

Is any Field Blank value greater than CRQL also greater than the Preparation Blank value?

— [] ✓

If yes, is the Field Blank value (> CRQL and > the prep. blank value) already rejected due to other QC criteria?

[] — ✓

ACTION:

If the Field Blank value was not rejected, reject all associated sample data (except

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the Field Blank results) greater than the CRQL but less than the Field Blank value. Reject on Form I's the soil sample results whose raw values in ug/L in the instrument printout are greater than the CRQL but less than the Field Blank value in ug/L. Flag as "J" detects between the Field Blank value and 10x Field Blank value. If the sample result \geq MDL but \leq CRQL, replace it with CRQL-U.

YES NO N/A

If the Field Blank value is less than the Prep. Blank value, do not qualify the sample results due to the Field Blank criteria.

NOTE:

1. Field Blank result previously rejected due to other criteria cannot be used to qualify field samples.
2. Do not use Rinsate Blank associated with soils to qualify water samples and vice versa.

1.24 Verification of Instrumental Parameters - Form IX, XA, XB, XI

1.24.1 Is verification report present for:

Method Detection Limits (Form IX-Annually)?	[]	—	✓
ICP-AES Interelement Correction Factors (Form XA & XB -Quarterly)?	[]	—	✓
ICP-AES & ICP-MS Linear Ranges (Form XI-Quarterly)?	[]	—	✓

ACTION:

If no, contact CLP PO/TOPO for submittal from the laboratory.

..24.2 Method Detection Limits - Form IX

.24.2.1 Are MDLs present on Form IX for:

All the analytes?	[]	—	✓
All the instruments used?	[]	—	✓
Digested and undigested samples and Calib.Blanks?	[]	—	✓
ICP-AES and ICP-MS when both instruments are used for the same analyte?	[]	—	✓

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ACTION:

If no for any of the above, prepare Telephone Record Log and contact CLP PO/TOPO for submittal of the MDLs from the laboratory. Report to CLP PO and write in the Contract Problems/Non-Compliance Section of the Data Review Narrative if the MDL concentration is not less than $\frac{1}{2}$ CRQL.

YES

NO

N/A

1.24.2.2 Is MDL greater than the CRQL for any analyte?

— ☐ ☒

If yes, is the analyte concentration on Form I greater than 5 x MDL for the sample analyzed on the instrument whose MDL exceeds CRQL?

☐ — ☒

ACTION:

If no, flag as estimated (J) all values less than five times MDL for the analyte whose MDL exceeds the CRQL.

1.24.3 Linear Ranges - Form XI

1.24.3.1 Was any sample result higher than the high linear range for ICP-AES or ICP-MS?

— ☐ ☒

Was any sample result higher than the highest calibration standard for mercury or cyanide?

— ☐ ☒

If yes for any of the above, was the sample diluted to obtain the result reported on Form I?

☐ — ☒

ACTION:

If no, flag (J) as estimated the affected detects (\geq MDL) reported on Form I.

.25 ICP-MS Tune Analysis - Form XIV

.25.1 Was the ICP-MS instrument tuned prior to calibration?

☐ — ☒

ACTION:

If no, reject (R) and red-line all sample data for which tuning was not performed.

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	<u>YES</u>	<u>NO</u>	<u>N/A</u>
1.1.25.2 Was the tuning solution analyzed or scanned at least five times consecutively?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Were all the required isotopes spanning the analytical range present in the tuning solution?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Was the mass resolution within 0.1 amu for each isotope in the tuning solution?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Was %RSD less than 5% for each isotope of each analyte in the tuning solution?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

ACTION:

If no for any of the above, qualify all results \geq MDL associated with that Tune as estimated "J", and all non-detects associated with that Tune as "UJ".

1.26 ICP-MS Internal Standards - Form XV

1.26.1 Were the Internal Standards added to all the samples and all QC samples and calibration standards (except the Tuning Solution)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Were all the target analyte masses bracketed by the masses of the five internal standards?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

ACTION:

If none of the Internal Standards was added to the samples, reject (R) and red-line all the associated sample data (detects & non-detects). If internal standards were used but did not cover all the analyte masses, reject (R) and red-line only the analyte results not bracketed by the internal standard masses.

1.26.2 Was the intensity of an Internal Standard in each sample within 60-125% of the intensity of the same Internal Standard in the calibration blank?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

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YES NO N/A

If no, was the original sample diluted two fold, Internal Standard added and the sample re-analyzed?

[]

—

✓

Was the %RI for the two fold diluted sample within the acceptance limits (60-125%)?

[]

—

✓

ACTION:

If no for any of the above, flag detects as "J" and non-detects "UJ" of all the analytes with atomic masses between the

atomic mass of the internal standard lighter than the affected internal standard, and the atomic mass of the internal standard heavier than the affected internal standard.

1.27 Percent Solids of Sediments

1.27.1 Are percent solids in sediment(s):

< 50%?

✓

[]

—

ACTION:

If yes, qualify as estimated (J) all detects and non-detects of a sample that has percent solids less than 50% (i.e., moisture content greater than 50%).

NOTE:

Flag(J) only the sample results that were not previously flagged due to other QC criteria.

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HAZ. WASTE SUPPORT SEC.

COVER PAGE

Lab Name CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36686 NRAS No.: _____ SDG No.: MB4CX2SOW No.: ILM05.4

EPA Sample No.

Lab Sample ID

MB4CX2
MB4CX3
MB4CX4
MB4CX5
MB4CX6
MB4CX7
MB4CX8
MB4CX9
MB4CY0
MB4CY1
MB4CY2
MB4CY5
MB4CY5D
MB4CY5S
MB4CY7

Y3998-01
Y3998-02
Y3998-03
Y3998-04
Y3998-05
Y3998-06
Y3998-07
Y3998-08
Y3998-10
Y3998-11
Y3998-12
Y3998-13
Y3998-14
Y3998-15
Y3998-09

	(Yes/No)	ICP-AES	ICP-MS
Were ICP-AES and ICP-MS interelement corrections applied?	(Yes/No)	<u>YES</u>	_____
Were ICP-AES and ICP-MS background corrections applied?	(Yes/No)	<u>YES</u>	_____
If yes, were raw data generated before application of background corrections?	(Yes/No)	<u>NO</u>	_____

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette (or via an alternate means of electronic transmission, if approved in advance by USEPA) has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: _____

Name: PARVEEN HASAN

Date: _____

Title: EPA PROJECT MANAGER

CHEMTECH

284 Sheffield Street
Mountainside, NJ 07092

RECEIVED
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SDG NARRATIVE

USEPA
SDG # MB4CX2
CASE # 36686
CONTRACT # EPW06047
LAB NAME: CHEMTECH CONSULTING GROUP
LAB CODE: CHEM
CHEMTECH PROJECT #Y3998

A. Number of Samples and Date of Receipt

13 Water Samples were delivered to the laboratory intact on 08/11/07.

B. Parameters

Test requested for Total Metals (by ICP-AES) & Hg.

C. Cooler Temp

Indicator Bottle: Presence/Absence
Cooler: 4°C

D. Detail Documentation (related to Sample Handling Shipping, Analytical Problem, Temp of Cooler etc):

Issue: The lab received 10 samples labeled as wastewater and 3 samples labeled as sludge. The Case is scheduled for 18 water samples and 3 waste samples under MA 1435.0.

E. Corrective Action taken for above:

Resolution: Per Region 2, the wastewater samples are to be analyzed as routine water samples and the 3 sludge samples are to be analyzed as the waste samples using MA 1435.0. The laboratory will note the issue in the SDG Narrative

F. Analytical Techniques:

All analyses were based on CLP Methodology by method ILM05.4

CHEMTECH

284 Sheffield Street
Mountainside, NJ 07092

G. Calculation:

For ICP-AES:

Result in Ug/L on Forms = Results in ppm (ICP-AES Raw Data) X 1000

For Hg:

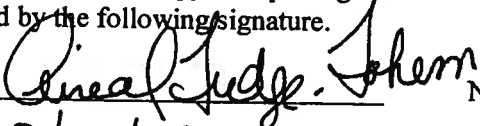
Result in Ug/L on Forms = Results in ppb (Hg Raw Data)

H. QA/ QC

Calibrations met requirements. Interference check met requirements. Blank analyses did not indicate any presence of contamination. Laboratory Control sample was within control limits. Spike sample did meet requirements. Duplicate sample did meet requirements except for Lead. Serial Dilution did meet requirements.

I certify that the data package is in compliance with the terms and conditions of the contract both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Director or his designee, as verified by the following signature.

Signature



Name: Areal Fudge-Johnson

Date

8/16/07

Title: DATA ENTRY CHEMIST

3

SDG Number: MB4CX2

☒ ICP-AES Analysis

☐ ICP-MS Analysis

Laboratory Name: CHEMTECH

Laboratory Code: CHEM

Contract No. EPW06047

Case No. 36686

Analysis Price _____

SDG Turnaround

21/PR days

Modified Analysis (if applicable):

Modification Reference No: _____

USEPA Sample Numbers in SDG (Listed in Numerical Order)

MB4CX2	MB4CX3	MB4CX4	MB4CX5
MB4CX6	MB4CX7	MB4CX8	MB4CX9
MB4CY7	MB4CY0	MB4CY1	MB4CY2
MB4CY5	MB4CY5D	MB4CY5S	

First Sample in SDG

Last Sample in SDG

MB4CX2

MB4CY5S

First Sample Receipt Date

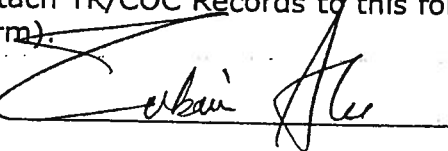
Last Sample Receipt Date

8/11/2007 10:15:00 AM

8/11/2007 10:15:00 AM

Note: There are a maximum of 20 **field** samples (excluding PE samples) in an SDG. Attach TR/COC Records to this form in alphanumeric order (the order listed above on this form).

Signature



Date

8/11/07

2

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4CX2

Lab Name CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36686 NRAS No.: _____ SDG No.: MB4CX2Matrix: (soil/water) WATER Lab Sample ID: Y3998-01Level: (low/med) LOW Date Received: 08/11/2007% Solids: 0.0Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	200 46.2	U		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	54.4			P
7440-70-2	Calcium				NR
7440-47-3	Chromium	963			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	10.0	U		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	35.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4CX3

Lab Name CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36686 NRAS No.: _____ SDG No.: MB4CX2Matrix: (soil/water) WATERLab Sample ID: Y3998-02Level: (low/med) LOWDate Received: 08/11/2007% Solids: 0.0Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	200 35.4	U		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	125		R	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	10.0	U		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	35.0	U		P
7440-22-4	Silver	62.9		R	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWNClarity Before: CLOUDY

Texture: _____

Color After: YELLOWClarity After: CLEAR

Artifacts: _____

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4CX4

Lab Name CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36686 NRAS No.: _____ SDG No.: MB4CX2Matrix: (soil/water) WATERLab Sample ID: Y3998-03Level: (low/med) LOWDate Received: 08/11/2007% Solids: 0.0Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	200 47.0	JU		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	1.3	J		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	2210		R	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	5.4	J	J	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.12	J		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	35.0	U		P
7440-22-4	Silver	1960		R	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWNClarity Before: CLOUDY

Texture: _____

Color After: YELLOWClarity After: CLEAR

Artifacts: _____

Comments:

USEPA - CLP
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4CX5

Lab Name CHEMTECH CONSULTING GROUP Contract: EPW06047

Lab Code: CHEM Case No.: 36686 NRAS No.: _____ SDG No.: MB4CX2

Matrix: (soil/water) WATER Lab Sample ID: Y3998-04

Level: (low/med) LOW Date Received: 08/11/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	200 15.3	U		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	5.1	J		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	5.5	J	J	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	35.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

USEPA - CLP
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4CX6

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047

Lab Code: CHEM Case No.: 36686 NRAS No.: _____ SDG No.: MB4CX2

Matrix: (soil/water) WATER Lab Sample ID: Y3998-05

Level: (low/med) LOW Date Received: 08/11/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	18.0			P
7440-39-3	Barium	200 24.8	JU		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	6140			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	557		J	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	7.1			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	35.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: CLOUDY Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

USEPA - CLP
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4CX7

Lab Name CHEMTECH CONSULTING GROUP Contract: EPW06047

Lab Code: CHEM Case No.: 36686 NRAS No.: _____ SDG No.: MB4CX2

Matrix: (soil/water) WATER Lab Sample ID: Y3998-06

Level: (low/med) LOW Date Received: 08/11/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	8.2	J		P
7440-39-3	Barium	816			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	2.1	J		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	339			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	22.7		+	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.40			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	11.0	J		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: CLOUDY Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

USEPA - CLP
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4CX8

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047

Lab Code: CHEM Case No.: 36686 NRAS No.: _____ SDG No.: MB4CX2

Matrix: (soil/water) WATER Lab Sample ID: Y3998-07

Level: (low/med) LOW Date Received: 08/11/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	200 -88.9	JU		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.99	J		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	16.7			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	10.0	U	+	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	35.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

USEPA - CLP
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4CX9

Lab Name CHEMTECH CONSULTING GROUP Contract: EPW06047

Lab Code: CHEM Case No.: 36686 NRAS No.: _____ SDG No.: MB4CX2

Matrix: (soil/water) WATER Lab Sample ID: Y3998-08

Level: (low/med) LOW Date Received: 08/11/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	200 23.3	U		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	6.7	J		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	10.0	U	←	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	35.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

USEPA - CLP
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4CY0

Lab Name CHEMTECH CONSULTING GROUP Contract: EPW06047

Lab Code: CHEM Case No.: 36686 NRAS No.: _____ SDG No.: MB4CX2

Matrix: (soil/water) WATER Lab Sample ID: Y3998-10

Level: (low/med) LOW Date Received: 08/11/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	202			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	1.3	J		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	1040			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	7.6	+	+	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.18	J		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	35.0	U		P
7440-22-4	Silver	3.4	J		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: CLOUDY Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4CY1

Lab Name CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36686 NRAS No.: _____ SDG No.: MB4CX2Matrix: (soil/water) WATER Lab Sample ID: Y3998-11Level: (low/med) LOW Date Received: 08/11/2007% Solids: 0.0Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	200 26.8	U		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	2.9	J		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	13.6			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	10.0	U	→	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	35.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

USEPA - CLP
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4CY2

Lab Name CHEMTECH CONSULTING GROUP Contract: EPW06047

Lab Code: CHEM Case No.: 36686 NRAS No.: _____ SDG No.: MB4CX2

Matrix: (soil/water) WATER Lab Sample ID: Y3998-12

Level: (low/med) LOW Date Received: 08/11/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	200 93.0	U		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	732			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	10.0	U		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	4.2			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	35.0	U		P
7440-22-4	Silver	22.2			P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4CY5

Lab Name CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36686 NRAS No.: _____ SDG No.: MB4CX2Matrix: (soil/water) WATER Lab Sample ID: Y3998-13Level: (low/med) LOW Date Received: 08/11/2007% Solids: 0.0Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	200 - 38.5	U		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	2.2	J		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	4.3	J	J	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	35.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: COLORLESSClarity Before: CLEAR

Texture: _____

Color After: COLORLESSClarity After: CLEAR

Artifacts: _____

Comments:

USEPA - CLP
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4CY7

Lab Name CHEMTECH CONSULTING GROUP Contract: EPW06047

Lab Code: CHEM Case No.: 36686 NRAS No.: _____ SDG No.: MB4CX2

Matrix: (soil/water) WATER Lab Sample ID: Y3998-09

Level: (low/med) LOW Date Received: 08/11/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	4.4	J		P
7440-39-3	Barium	200 44.9	J		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	1.0	J		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	637			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	6.6	J	J	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.20	J		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	35.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: CLOUDY Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

COVER PAGE

HAZ. WASTE SUPPORT SEC

Lab Name CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36686 NRAS No.: 1435.0 SDG No.: MB4CY3SOW No.: ILM05.4

EPA Sample No.

MB4CY3MB4CY4MB4CY6MB4CY6DMB4CY6S

Lab Sample ID

Y3997-01Y3997-02Y3997-03Y3997-04Y3997-05

ICP-AES

ICP-MS

Were ICP-AES and ICP-MS interelement corrections applied?

(Yes/No)

YES

Were ICP-AES and ICP-MS background corrections applied?

(Yes/No)

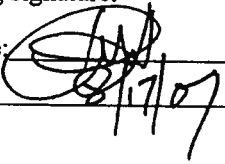
YESIf yes, were raw data generated before
application of background corrections?

(Yes/No)

NO

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette (or via an alternate means of electronic transmission, if approved in advance by USEPA) has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Name: PARVEEN HASANDate: 8/17/07Title: EPA PROJECT MANAGER

CHEMTECH
284 Sheffield Street
Mountainside, NJ 07092

RECEIVED
AUG 20 2007
HAZ. WASTE SUPPORT SEC.

SDG NARRATIVE

USEPA
SDG # MB4CY3
CASE # 36686
CONTRACT # EPW06047
LAB NAME: CHEMTECH CONSULTING GROUP
LAB CODE: CHEM
CHEMTECH PROJECT #Y3997
MODIFIED ANALYSIS: 1435.0

A. Number of Samples and Date of Receipt

3 Sludge Samples were delivered to the laboratory intact on 08/11/07.

B. Parameters

Test requested for Total Metals (by ICP-AES) & Hg.

C. Cooler Temp

Indicator Bottle: Presence/Absence
Cooler: 4°C

D. Detail Documentation (related to Sample Handling Shipping, Analytical Problem, Temp of Cooler etc):

Issue: The lab received 10 samples labeled as wastewater and 3 samples labeled as sludge. The Case is scheduled for 18 water samples and 3 waste samples under MA 1435.0.

E. Corrective Action taken for above:

Resolution: Per Region 2, the wastewater samples are to be analyzed as routine water samples and the 3 sludge samples are to be analyzed as the waste samples using MA 1435.0. The laboratory will note the issue in the SDG Narrative.

F. Analytical Techniques:

All analyses were based on CLP Methodology by method ILM05.4

CHEMTECH

284 Sheffield Street
Mountainside, NJ 07092

G. Calculation:

Water Sample Calculation:

For ICP-AES:

Result in Ug/L on Forms = Results in ppm (ICP-AES Raw Data) X 1000 X Dilution Factor (if any)

For Hg:

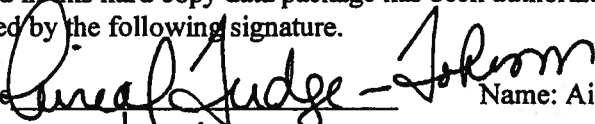
Result in Ug/L on Forms = Results in ppb (Hg Raw Data) X Dilution Factor (if any)

H. QA/ QC

Calibrations met requirements. Interference check met requirements. Blank analyses did not indicate any presence of contamination. Laboratory Control sample was within control limits. Spike sample did meet requirements except for Lead, & Cadmium. Duplicate sample did meet requirements except for Arsenic, Chromium, & Silver. Serial Dilution did meet requirements.

I certify that the data package is in compliance with the terms and conditions of the contract both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Director or his designee, as verified by the following signature.

Signature



Name: Areal Fudge-Johnson

Date

8/16/07

Title: DATA ENTRY CHEMIST

SDG Number: MB4CY3

RECEIVED

AUG 20 2007

HAZ. WASTE SUPPORT SEC.

☒ ICP-AES Analysis☐ ICP-MS AnalysisLaboratory
Name: CHEMTECHLaboratory Code: CHEMContract No. EPW06047Case No. 36686Analysis
Price _____

SDG Turnaround

21/PR days

Modified Analysis (if applicable):

Modification Reference No: 1435.0

USEPA Sample Numbers in SDG (Listed in Numerical Order)

MB4CY3	MB4CY4	MB4CY6	MB4CY6D
MB4CY6S			

First Sample in SDG

Last Sample in SDG

MB4CY3MB4CY6S

First Sample Receipt Date

Last Sample Receipt Date

8/11/2007 10:15:00 AM8/11/2007 10:15:00 AM**Note:** There are a maximum of 20 **field** samples (excluding PE samples) in an SDG.

Attach TR/COC Records to this form in alphanumeric order (the order listed above on this form).

Signature

[Signature]

Date

8/11/07

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4CY3

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36686 NRAS No.: 1435.0 SDG No.: MB4CY3Matrix: (soil/water) SOIL Lab Sample ID: Y3997-01Level: (low/med) LOW Date Received: 08/11/2007% Solids: 80.1Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1.2	U		P
7440-39-3	Barium	8.7	J		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	1.2		N J	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	1300		N J	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	15.0		N R	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.27			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	4.4	U		P
7440-22-4	Silver	1.2	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN

Clarity Before: _____

Texture: MEDIUMColor After: YELLOW

Clarity After: _____

Artifacts: _____

Comments:

USEPA - CLP
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4CY4

Lab Name CHEMTECH CONSULTING GROUP Contract: EPW06047

Lab Code: CHEM Case No.: 36686 NRAS No.: 1435.0 SDG No.: MB4CY3

Matrix: (soil/water) SOIL Lab Sample ID: Y3997-02

Level: (low/med) LOW Date Received: 08/11/2007

% Solids: 70.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1.4	U	+	P
7440-39-3	Barium	28.5 6.3	U		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	1.2		NR J	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	696		+ J	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	5.6		NR R	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.18			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	1.4	U	+	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4CY6

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36686 NRAS No.: 1435.0 SDG No.: MB4CY3Matrix: (soil/water) SOIL Lab Sample ID: Y3997-03Level: (low/med) LOW Date Received: 08/11/2007% Solids: 40.4Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	102			P
7440-39-3	Barium	49.5 5.8	U	J	P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	1.2	U	N J	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	667		J	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	2.5	U	N R	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	2.4			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	8.7	U		P
7440-22-4	Silver	5.1		J	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN

Clarity Before: _____

Texture: MEDIUMColor After: YELLOW

Clarity After: _____

Artifacts: _____

Comments:

REGIONAL SAMPLE CONTROL CENTER

ROC #2

DATE: 9/21/2007
 SUBJECT: CLP Data Package for Quality Assurance Review
 FROM: Hazardous Waste Support Section (HWSS)/RSCC
 TO: HWSS ESAT-TOPO

TDF# 06-0827

Attached is the following INORGANIC Data Package to be reviewed for Quality Assurance

SITE: Buckbee Mears

CASE #: 36740

SDG#: MB4DY2, MB4DY7, MB4E32, MB4E75

SAMPLER: W-RST

PROJ. CODE: RV SITE SPILL #: YH

#SAMPLES

MATRIX

LAB: CHEM OPERABLE UNIT: 00

49

Waste

TURN-AROUND-TIME: 21 day

5

Water

CERCLIS ID #: NYN000205908

FRACTION: Metals (8) (MA #1469.0)

Contaminant(s) of Concern (If known)

REGION II RSCC DATA TRANSFER LOG

Relinquished By

Received By

Signature

Date/Time

Signature

Date/Time

<u>Rabala</u>	<u>9/25/07 9⁰⁰ am</u>	<u>C. Starna</u>	<u>9/25/07 9:00 am</u>
<u>C. Starna</u>	<u>10/10/07 10: am</u>	<u>Rabala</u>	<u>10/10/07 10⁰⁰ am</u>
<u>Rabala</u>	<u>10/10/07 10:30 am</u>	<u>Hand Sheikh</u>	<u>10/10/07 10:30 AM</u>
<u>Hand Sheikh</u>	<u>10/10/07 3:10 pm</u>	<u>Rabala</u>	<u>10/10/07 3¹⁰ pm</u>
<u>Rabala</u>	<u>10/10/07 3²⁰ pm</u>	<u>John Bulich</u>	<u>10/10/07 3:20 PM</u>
<u>John Bulich</u>	<u>10/10/07</u>	<u>Rabala</u>	<u>10/10/07</u>

SEP 18 2007

COVER PAGE

HAZ. WASTE SUPPORT SEC.

Lab Name CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4DY2SOW No.: ILM05.4

EPA Sample No.

MB4DY2
MB4DY3
MB4DY4
MB4DY5
MB4DY6
MB4DY8
MB4DY9
MB4DZ0
MB4DZ2
MB4DZ3
MB4DZ5
MB4DZ6
MB4DZ7
MB4DZ8
MB4DZ9
MB4E01
MB4E02
MB4E03
MB4E04
MB4E08
MB4E08D
MB4E08S

Lab Sample ID

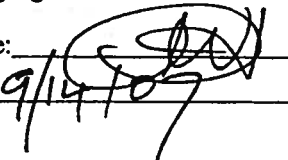
Y4209-01
Y4209-02
Y4209-03
Y4209-04
Y4209-05
Y4209-06
Y4209-07
Y4209-08
Y4209-09
Y4209-10
Y4209-11
Y4209-12
Y4209-13
Y4209-14
Y4209-15
Y4209-16
Y4209-17
Y4209-18
Y4209-19
Y4209-20
Y4209-21
Y4209-22

		ICP-AES	ICP-MS
Were ICP-AES and ICP-MS interelement corrections applied?	(Yes/No)	<u>YES</u>	<u> </u>
Were ICP-AES and ICP-MS background corrections applied?	(Yes/No)	<u>YES</u>	<u> </u>
If yes, were raw data generated before application of background corrections?	(Yes/No)	<u>NO</u>	<u> </u>

Comments:

THE "E" QUALIFIERS ON FORM I AND VIII FOR CADMIUM INDICATE CHEMICAL OR PHYSICAL INTERFERENCE EFFECTS, WHICH WERE SUSPECTED DURING THAT ELEMENT'S ANALYSES ONLY.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette (or via an alternate means of electronic transmission, if approved in advance by USEPA) has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: 
Date: 9/14/07

Name: PARVEEN HASAN
Title: EPA PROJECT MANAGER

CHEMTECH

284 Sheffield Street
Mountainside, NJ 07092

RECEIVED

SEP 13 2007

HAZ. WASTE SUPPORT SEC.

SDG NARRATIVE

USEPA
SDG # MB4DY2
CASE # 36740
CONTRACT # EPW06047
LAB NAME: CHEMTECH CONSULTING GROUP
LAB CODE: CHEM
CHEMTECH PROJECT #Y4209
MODIFIED ANALYSIS: 1469.0

A. Number of Samples and Date of Receipt

20 Waste Samples were delivered to the laboratory intact on 08/25/07 .

B. Parameters

Test requested for Total Metals (by ICP-AES), & Hg.

C. Cooler Temp

Indicator Bottle: Presence/Absence

Cooler: 4°C

**D. Detail Documentation (related to Sample Handling
Shipping, Analytical Problem, Temp of Cooler etc):**

Issue 1: The Case is scheduled for laboratory QC on the wipe samples however the Modified Analysis document states that laboratory QC is not required on the wipe samples.

Issue 2: The laboratory would like to confirm that laboratory QC is not required on the water samples.

Issue 3: Sample MB4E32 is designated for laboratory QC however there is insufficient volume for lab QC and analysis. In addition, the lab already has enough samples designated for lab QC for all SDGs therefore the lab would like to forgo lab QC on this sample.

E. Corrective Action taken for above:

Resolution 1: Per Region 2, the laboratory shall analyze the wipe samples using the MA 1469.0 and not analyze for Lab QC (Lab Duplicate & Matrix Spike) analyses for these samples.

2

CHEMTECH

284 Sheffield Street

Mountainside, NJ 07092

Resolution 2: Per Region 2, if all samples in an SDG are field/rinse blanks, the Lab QC (Lab Dup & Matrix Spike) are not required. If field/rinse blanks and field samples are both present in an SDG, then the lab QC s are required.

Resolution 3: Per Region 2, if enough samples have been designated for QCs for all SDGs, then there is no need to analyze sample MB4E32 for lab QC and the lab shall note the issue in the SDG Narrative.

F. Analytical Techniques:

All analyses were based on CLP Methodology by method ILM05.4.

G. Calculation:

For ICP-AES:

Result in Ug/L on Forms = Results in ppm (ICP-AES Raw Data) X 1000 X Dilution Factor (if any)

For Hg:

Result in Ug/L on Forms = Results in ppb (Hg Raw Data) X Dilution Factor (if any)

Soil Sample Calculation:

Conversion of results from mg/L to mg/kg (Dry Weight Basis):

$Mg/Kg = (Result\ in\ mg/L) \times 1000 \times 100\% \text{ Solid} \times \text{Fraction of Sample Amount Taken in Prep.}$

H. QA/ QC

Calibrations met requirements. Interference check met requirements. Blank analyses did not indicate any presence of contamination. Laboratory Control sample was within control limits. Spike sample did meet requirements except for Selenium. Duplicate sample did meet requirements except for Cadmium. Serial Dilution did meet requirements except for Cadmium.

I certify that the data package is in compliance with the terms and conditions of the contract both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Director or his designee, as verified by the following signature.

Signature

Aireal Fudge-Johnson

Name: Aireal Fudge-Johnson

Date

8/31/07

Title: DATA ENTRY CHEMIST

3

SDG Number: MB4DY2

RECEIVED

SEP 18 2007

HAZ. WASTE SUPPORT SEC.

☒ ICP-AES Analysis☐ ICP-MS AnalysisLaboratory
Name:

CHEMTECH

Laboratory Code:

CHEM

Contract No.

EPW06047

Case No.

36740

Analysis Price

SDG Turnaround

PR / 21 days

Modified Analysis (if applicable):

Modification Reference No: 1469.0

USEPA Sample Numbers in SDG (Listed in Numerical Order)

MB4DY2	MB4DY3	MB4DY4	MB4DY5
MB4DY6	MB4DY8	MB4DY9	MB4DZ0
MB4DZ2	MB4DZ3	MB4DZ5	MB4DZ6
MB4DZ7	MB4DZ8	MB4DZ9	MB4E01
MB4E02	MB4E03	MB4E04	MB4E08
MB4E08D	MB4E08S		

First Sample in SDG

MB4DY2

Last Sample in SDG

MB4E08S

First Sample Receipt Date

8/25/2007 10:15:00 AM

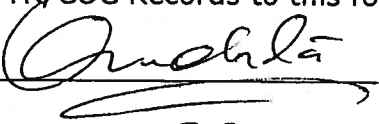
Last Sample Receipt Date

8/25/2007 10:15:00 AM

Note: There are a maximum of 20 **field** samples (excluding PE samples) in an SDG.

Attach TR/COC Records to this form in alphanumeric order (the order listed above on this form).

Signature



Date

8/27/07

7

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4DY2

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4DY2Matrix: (soil/water) SOIL Lab Sample ID: Y4209-01Level: (low/med) LOW Date Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	4.9			P
7440-39-3	Barium	44.0			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	2.4		JE J	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	1110			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	122			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.063	J		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U	JE J	P
7440-22-4	Silver	0.90	J		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN

Clarity Before: _____

Texture: MEDIUMColor After: YELLOW

Clarity After: _____

Artifacts: _____

Comments:

USEPA - CLP
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4DY3

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047

Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4DY2

Matrix: (soil/water) SOIL Lab Sample ID: Y4209-02

Level: (low/med) LOW Date Received: 08/25/2007

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	2.6			P
7440-39-3	Barium	23.8			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.80		AB J	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	177			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	23.7			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.037	J		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.4	U	AB J	P
7440-22-4	Silver	0.98	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments:

USEPA - CLP
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4DY4

Lab Name CHEMTECH CONSULTING GROUP Contract: EPW06047

Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4DY2

Matrix: (soil/water) SOIL Lab Sample ID: Y4209-03

Level: (low/med) LOW Date Received: 08/25/2007

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	2.1			P
7440-39-3	Barium	25.4			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	1.3		+ J	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	62.1			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	2.9			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.31			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U	+ J	P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments:

USEPA - CLP
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4DY5

Lab Name CHEMTECH CONSULTING GROUP Contract: EPW06047

Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4DY2

Matrix: (soil/water) SOIL Lab Sample ID: Y4209-04

Level: (low/med) LOW Date Received: 08/25/2007

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	8.4			P
7440-39-3	Barium	40.8			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	4.3		E J	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	1180			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	33.1			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.27			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U	+ J	P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4DY6

Lab Name CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4DY2Matrix: (soil/water) SOIL Lab Sample ID: Y4209-05Level: (low/med) LOW Date Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1.4			P
7440-39-3	Barium	49.0			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.50 0.20	U	+	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	15.6			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	2.2			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.095	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U	+	P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN

Clarity Before: _____

Texture: MEDIUMColor After: YELLOW

Clarity After: _____

Artifacts: _____

Comments:

USEPA - CLP
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4DZ2

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047

Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4DY2

Matrix: (soil/water) SOIL Lab Sample ID: Y4209-09

Level: (low/med) LOW Date Received: 08/25/2007

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	2.2			P
7440-39-3	Barium	37.1			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.68		E J	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	31.6			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	4.2			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U	** J	P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4DZ5

Lab Name CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4DY2Matrix: (soil/water) SOIL Lab Sample ID: Y4209-11Level: (low/med) LOW Date Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1.8			P
7440-39-3	Barium	21.2			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.50	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	36.4			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	3.0			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN

Clarity Before: _____

Texture: MEDIUMColor After: YELLOW

Clarity After: _____

Artifacts: _____

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4DZ7

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4DY2Matrix: (soil/water) SOIL Lab Sample ID: Y4209-13Level: (low/med) LOW Date Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	3.7			P
7440-39-3	Barium	24.8			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	2.3		+ J	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	48.9			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	2.4			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U	+ J	P
7440-22-4	Silver	0.99	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN

Clarity Before: _____

Texture: MEDIUMColor After: YELLOW

Clarity After: _____

Artifacts: _____

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4DZ8

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4DY2Matrix: (soil/water) SOIL Lab Sample ID: Y4209-14Level: (low/med) LOW Date Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	<u>1.0</u> 1.0	U		P
7440-39-3	Barium	<u>200</u> 9.0	U		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.50	U	+ J	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	10.3			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	1.4			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.091	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.98	+	+ J	P
7440-22-4	Silver	0.37	J		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN

Clarity Before: _____

Texture: MEDIUMColor After: YELLOW

Clarity After: _____

Artifacts: _____

Comments:

USEPA - CLP
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E01

Lab Name CHEMTECH CONSULTING GROUP Contract: EPW06047

Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4DY2

Matrix: (soil/water) SOIL Lab Sample ID: Y4209-16

Level: (low/med) LOW Date Received: 08/25/2007

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	5.0			P
7440-39-3	Barium	39.3			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.50 0.42	U	+	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	35.8			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	2.8			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.095	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U	+	P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E04

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4DY2Matrix: (soil/water) SOIL Lab Sample ID: Y4209-19Level: (low/med) LOW Date Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1.2			P
7440-39-3	Barium	20.0 9.9 7.1			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	5.0		B J	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	30.1			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	6.3			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U	H J	P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN

Clarity Before: _____

Texture: MEDIUMColor After: YELLOW

Clarity After: _____

Artifacts: _____

Comments:

USEPA - CLP

IA-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E08

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4DY2Matrix: (soil/water) SOIL Lab Sample ID: Y4209-20Level: (low/med) LOW Date Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	127			P
7440-39-3	Barium	20.0 4.4 → 10			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	3.4		4.5 7	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	476			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	1.0	U		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.12			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U	4.5 7	P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN

Clarity Before: _____

Texture: MEDIUMColor After: YELLOW

Clarity After: _____

Artifacts: _____

Comments:

From: Rudolph, Elizabeth [erudolph@fedcsc.com]
Sent: Tuesday, August 28, 2007 9:20 AM
To: parveen
Subject: FW: New Issue #48 | Case 36740 | Lab CHEM | Issue Multiple
Parveen,

Could you please confirm that none of the water samples are listed as field samples? In addition, please note resolutions below.

-Non-sampler issues-

Issue 1: The Case is scheduled for laboratory QC on the wipe samples however the Modified Analysis document states that laboratory QC is not required on the wipe samples.

Resolution 1: Per Region 2, the laboratory shall analyze the wipe samples using the MA 1469.0 and not analyze for Lab QC (Lab Duplicate & Matrix Spike) analyses for these samples. The lab should note the issue in the SDG Narrative.

-Laboratory problems-

Issue 2: The laboratory would like to confirm that laboratory QC is not required on the water samples.

Resolution 3: Per Region 2, if all samples in an SDG are field/rinse blanks, the Lab QC (Lab Dup & Matrix Spike) are not required. If field/rinse blanks and field samples are both present in an SDG, then the lab QC s are required. The lab should note the issue in the SDG Narrative.

-Insufficient/inappropriate designation of laboratory QC-

Issue 2: Sample MB4E32 is designated for laboratory QC however there is insufficient volume for lab QC and analysis. In addition, the lab already has enough samples designated for lab QC for all SDGs therefore the lab would like to forgo lab QC on this sample.

Resolution 3: Per Region 2, if enough samples have been designated for QCs for all SDGs, then there is no need to analyze sample MB4E32 for lab QC and the lab shall note the issue in the SDG Narrative.

Please let me know if you have any questions.
Thanks,

Beth

—Original Message—

From: Sheikh.Muhammad@epamail.epa.gov [mailto:Sheikh.Muhammad@epamail.epa.gov]
Sent: Monday, August 27, 2007 5:10 PM
To: Rudolph, Elizabeth
Cc: Michael.adly@epamail.epa.gov; feranda.jennifer@epa.gov; Mauel.Linda@epamail.epa.gov
Subject: Re: New Issue #48 | Case 36740 | Lab CHEM | Issue Multiple

Beth,

Here are the resolutions:

Issue 1: Please advise the lab to analyze the wipe samples using the MA 1469.0 and not analyze Lab QC (Lab Duplicate & Matrix Spike) analyses for these samples. The lab should note the issue in the SDG narrative.

Issue 2: If all samples in an SDG are field/rinse blanks, the Lab QC (Lab Dup & Matrix Spike) are not required. If field/rinse blanks and field samples are both present in an SDG, then the lab QC s are required. The lab should note the issue in the SDG narrative.

Issue 3: If enough samples have been designated for QCs for all SDGs, there is no need to analyze sample MB4E32 for lab QCs.
The lab should note the issue in the SDG narrative.

Thanks,

Hanif Sheikh
Alt. CLP PO
EPA-Region 2
Tel. (732) 906-6169
Fax # (732) 321-6622

-----Original Message-----

From: Rudolph, Elizabeth
Sent: Monday, August 27, 2007 3:35 PM
To: Hanif (E-mail)
Cc: Adly Michael; Jennifer Feranda
Subject: New Issue #48 | Case 36740 | Lab CHEM | Issue Multiple

Hanif,

CHEM is reporting the following three issues, please advise how the laboratory should proceed.

-Non-sampler issues-

Issue 1: The Case is scheduled for laboratory QC on the wipe samples however the Modified Analysis document states that laboratory QC is not required on the wipe samples.

-Laboratory problems-

Issue 2: The laboratory would like to confirm that laboratory QC is not required on the water samples.

-Insufficient/inappropriate designation of laboratory QC-

Issue 2: Sample MB4E32 is designated for laboratory QC however there is insufficient volume for lab QC and analysis. In addition, the lab already has enough samples designated for lab QC for all SDGs therefore the lab would like to forgo lab QC on this sample.

Please let me know if you have any questions.
Thanks,

Beth

This is a PRIVATE message. If you are not the intended recipient, please delete without copying and kindly advise us by e-mail of the mistake in delivery. NOTE: Regardless of content, this e-mail shall not operate to bind CSC to any order or other contract unless pursuant to explicit written agreement or government initiative expressly permitting the use of e-mail for such purpose.

8/27/2007 3:00 PM Phone conversation between Beth Rudolph, SMO, and Parveen Hasan, CHEM. Parveen reported the following three issues.

Issue 1: The Case is scheduled for laboratory QC on the wipe samples however the Modified Analysis document states that laboratory QC is not required on the wipe samples.

Issue 2: The laboratory would like to confirm that laboratory QC is not required on the water samples.

Issue 2: Sample MB4E32 is designated for laboratory QC however there is not sufficient volume for lab QC and analysis. In addition the lab already has enough samples designated for lab QC for all SDGs therefore the lab would like to forgo lab QC on this sample.

CHEMTECH

284 Sheffield Street

Mountainside, NJ 07092

Resolution 2: Per Region 2, if all samples in an SDG are field/rinse blanks, the Lab QC (Lab Dup & Matrix Spike) are not required. If field/rinse blanks and field samples are both present in an SDG, then the lab QC s are required.

Resolution 3: Per Region 2, if enough samples have been designated for QCs for all SDGs, then there is no need to analyze sample MB4E32 for lab QC and the lab shall note the issue in the SDG Narrative.

F. Analytical Techniques:

All analyses were based on CLP Methodology by method ILM05.4

G. Calculation:

For ICP-AES:

Result in Ug/L on Forms = Results in ppm (ICP-AES Raw Data) X 1000 X Dilution Factor (if any)

For Hg:

Result in Ug/L on Forms = Results in ppb (Hg Raw Data) X Dilution Factor (if any)

Soil Sample Calculation:

Conversion of results from mg/L to mg/kg (Dry Weight Basis):

$Mg/Kg = (Result\ in\ mg/L) \times 1000 \times 100\% \text{ Solid} \times \text{Fraction of Sample Amount Taken in Prep.}$

H. QA/ QC

Calibrations met requirements. Interference check met requirements. Blank analyses did not indicate any presence of contamination. Laboratory Control sample was within control limits. Spike sample did meet requirements except for Arsenic, Chromium, Lead, & Selenium. Duplicate sample did meet requirements except for Arsenic & Chromium. Serial Dilution did meet requirements.

I certify that the data package is in compliance with the terms and conditions of the contract both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Director or his designee, as verified by the following signature.

Signature

Aireal Fudge-Johnson

Name: Aireal Fudge-Johnson

Date

8/31/07

Title: DATA ENTRY CHEMIST

3

SDG Number: MB4DY7

RECEIVED

SEP 18 2007

HAZ. WASTE SUPPORT SERV

☒ ICP-AES Analysis☐ ICP-MS AnalysisLaboratory
Name:CHEMTECH

Laboratory Code:

CHEM

Contract No.

EPW06047

Case No.

36740

Analysis Price

SDG Turnaround

PR/21 days

Modified Analysis (if applicable):

Modification Reference No:

1469.0

USEPA Sample Numbers in SDG (Listed in Numerical Order)

MB4DY7	MB4DZ1	MB4DZ4	MB4E00
MB4E06	MB4E07	MB4E13	MB4E16
MB4E18	MB4E23	MB4E30	MB4E35
MB4E35D	MB4E35S	MB4E46	MB4E47
MB4E52	MB4E53	MB4E54	MB4E55
MB4E56	MB4E57		

First Sample In SDG

MB4DY7

Last Sample in SDG

MB4E57

First Sample Receipt Date

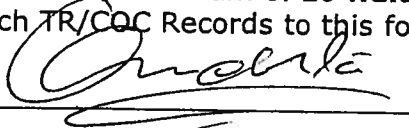
8/25/2007 10:15:00 AM

Last Sample Receipt Date

8/25/2007 10:15:00 AM**Note:** There are a maximum of 20 **field** samples (excluding PE samples) in an SDG.

Attach TR/COC Records to this form in alphanumeric order (the order listed above on this form).

Signature



Date

8/27/07

USEPA - CLP
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E00

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047

Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4DY7

Matrix: (soil/water) SOIL Lab Sample ID: Y4207-04

Level: (low/med) LOW Date Received: 08/25/2007

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1.5		NR R	P
7440-39-3	Barium	21.4			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.19	J		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	19.1		NR R	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	7.0		NR J	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U	NR J	P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E07

Lab Name CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4DY7Matrix: (soil/water) SOILLab Sample ID: Y4207-06Level: (low/med) LOWDate Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1.0	U	---	P
7440-39-3	Barium	20.0 0.93	J U		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.50	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	---		--- R	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	0.48	J	--- J	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.095	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U	--- J	P
7440-22-4	Silver	0.86	J		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN

Clarity Before: _____

Texture: MEDIUMColor After: YELLOW

Clarity After: _____

Artifacts: _____

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E13

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4DY7Matrix: (soil/water) SOIL Lab Sample ID: Y4207-07Level: (low/med) LOW Date Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1.9		** R	P
7440-39-3	Barium	37.2			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.29	J		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	19.5		** R	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	13.3		** J	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U	** J	P
7440-22-4	Silver	0.99	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN

Clarity Before: _____

Texture: MEDIUMColor After: YELLOW

Clarity After: _____

Artifacts: _____

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E18

Lab Name CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4DY7Matrix: (soil/water) SOIL Lab Sample ID: Y4207-09Level: (low/med) LOW Date Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1.0	U	NR	P
7440-39-3	Barium	22.6			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.31	J		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	16.7		NR	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	1.6		NR	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U	NR	P
7440-22-4	Silver	0.26	J		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN

Clarity Before: _____

Texture: MEDIUMColor After: YELLOW

Clarity After: _____

Artifacts: _____

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E23

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4DY7Matrix: (soil/water) SOIL Lab Sample ID: Y4207-10Level: (low/med) LOW Date Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1.0	U	ND	P
7440-39-3	Barium	72.2			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.56			P
7440-70-2	Calcium				NR
7440-47-3	Chromium	102000		ND	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	1.0	U	ND	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U	ND	P
7440-22-4	Silver	0.48	J		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: GRAY

Clarity Before: _____

Texture: MEDIUMColor After: BLUE

Clarity After: _____

Artifacts: _____

Comments:

USEPA - CLP
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E30

Lab Name CHEMTECH CONSULTING GROUP Contract: EPW06047

Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4DY7

Matrix: (soil/water) SOIL Lab Sample ID: Y4207-11

Level: (low/med) LOW Date Received: 08/25/2007

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	2.6		NR R	P
7440-39-3	Barium	36.5			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	3.0			P
7440-70-2	Calcium				NR
7440-47-3	Chromium	76.1		NR R	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	17.5		NR J	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.71			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U	NR J	P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E46

Lab Name CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4DY7Matrix: (soil/water) SOIL Lab Sample ID: Y4207-15Level: (low/med) LOW Date Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	2.3		NR R	P
7440-39-3	Barium	26.1			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	1.9			P
7440-70-2	Calcium				NR
7440-47-3	Chromium	2180		NR R	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	24.3		NR J	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.056	J		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.4	U	NR J	P
7440-22-4	Silver	0.98	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN

Clarity Before: _____

Texture: MEDIUMColor After: YELLOW

Clarity After: _____

Artifacts: _____

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E47

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4DY7Matrix: (soil/water) SOIL Lab Sample ID: Y4207-16Level: (low/med) LOW Date Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	2.2		NR R	P
7440-39-3	Barium	27.1			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.44	J		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	122		NR R	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	3.0		NR J	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.070	J		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U	NR J	P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN

Clarity Before: _____

Texture: MEDIUMColor After: YELLOW

Clarity After: _____

Artifacts: _____

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E53

Lab Name CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4DY7Matrix: (soil/water) SOIL Lab Sample ID: Y4207-18Level: (low/med) LOW Date Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	2.0		NR R	P
7440-39-3	Barium	29.1			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.29	J		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	16.0		NR R	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	8.9		NR J	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U	NR J	P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN

Clarity Before: _____

Texture: MEDIUMColor After: YELLOW

Clarity After: _____

Artifacts: _____

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E55

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4DY7Matrix: (soil/water) SOIL Lab Sample ID: Y4207-20Level: (low/med) LOW Date Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1.0	U	NR	P
7440-39-3	Barium	20.0 1.0	U		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	4.1			J P
7440-70-2	Calcium				NR
7440-47-3	Chromium	6.7		NR	R P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	2.2		NR	J P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U	NR	J P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN

Clarity Before: _____

Texture: MEDIUMColor After: YELLOW

Clarity After: _____

Artifacts: _____

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E57

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4DY7Matrix: (soil/water) SOIL Lab Sample ID: Y4207-22Level: (low/med) LOW Date Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	5.7		NR R	P
7440-39-3	Barium	26.8			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	6.7			P
7440-70-2	Calcium				NR
7440-47-3	Chromium	134		NR R	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	7.0		NR J	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.28			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U	NR J	P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN

Clarity Before: _____

Texture: MEDIUMColor After: YELLOW

Clarity After: _____

Artifacts: _____

Comments:

SOW No.: ILM05.4

Y4208-11
Y4208-08
Y4208-09
Y4208-10
Y4208-01
Y4208-02
Y4208-03
Y4208-04
Y4208-05
Y4208-06
Y4208-07

(Yes/No) NO

THE "E" QUALIFIERS ON FORM I AND VIII FOR LEAD AND SILVER INDICATE CHEMICAL OR PHYSICAL INTERFERENCE EFFECTS, WHICH WERE SUSPECTED DURING THOSE ELEMENTS' ANALYSES ONLY.

Title: EPA PROJECT MANAGER

From: Rudolph, Elizabeth [erudolph@fedcsc.com]
Sent: Tuesday, August 28, 2007 9:20 AM
To: parveen
Subject: FW: New Issue #48 | Case 36740 | Lab CHEM | Issue Multiple
Parveen,

Could you please confirm that none of the water samples are listed as field samples? In addition, please note resolutions below.

-Non-sampler issues-

Issue 1: The Case is scheduled for laboratory QC on the wipe samples however the Modified Analysis document states that laboratory QC is not required on the wipe samples.

Resolution 1: Per Region 2, the laboratory shall analyze the wipe samples using the MA 1469.0 and not analyze for Lab QC (Lab Duplicate & Matrix Spike) analyses for these samples. The lab should note the Issue in the SDG Narrative.

-Laboratory problems-

Issue 2: The laboratory would like to confirm that laboratory QC is not required on the water samples.

Resolution 3: Per Region 2, if all samples in an SDG are field/rinse blanks, the Lab QC (Lab Dup & Matrix Spike) are not required. If field/rinse blanks and field samples are both present in an SDG, then the lab QC s are required. The lab should note the issue in the SDG Narrative.

-Insufficient/inappropriate designation of laboratory QC-

Issue 2: Sample MB4E32 is designated for laboratory QC however there is insufficient volume for lab QC and analysis. In addition, the lab already has enough samples designated for lab QC for all SDGs therefore the lab would like to forgo lab QC on this sample.

Resolution 3: Per Region 2, if enough samples have been designated for QCs for all SDGs, then there is no need to analyze sample MB4E32 for lab QC and the lab shall note the Issue in the SDG Narrative.

Please let me know if you have any questions.
Thanks,

Beth

-----Original Message-----

From: Sheikh.Muhammad@epamail.epa.gov [mailto:Sheikh.Muhammad@epamail.epa.gov]
Sent: Monday, August 27, 2007 5:10 PM
To: Rudolph, Elizabeth
Cc: Michael.adly@epamail.epa.gov; feranda.jennifer@epa.gov; Mael.Linda@epamail.epa.gov
Subject: Re: New Issue #48 | Case 36740 | Lab CHEM | Issue Multiple

Beth,

Here are the resolutions:

Issue 1: Please advise the lab to analyze the wipe samples using the MA 1469.0 and not analyze Lab QC (Lab Duplicate & Matrix Spike) analyses for these samples. The lab should note the issue in the SDG narrative.

Issue 2: If all samples in an SDG are field/rinse blanks, the Lab QC (Lab Dup & Matrix Spike) are not required. If field/rinse blanks and field samples are both present in an SDG, then the lab QC s are required. The lab should note the issue in the SDG narrative.

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COVER PAGE

Lab Name CHEMTECH CONSULTING GROUP Contract: EPW06047

Lab Code: CHEM Case No.: 36740 NRAS No.: _____ SDG No.: MB4E75

SOW No.: ILM05.4

EPA Sample No.

MB4E75

MB4E76

MB4E77

MB4E78

MB4E81

Lab Sample ID

Y4212-01

Y4212-02

Y4212-03

Y4212-04

Y4212-05

Were ICP-AES and ICP-MS interelement corrections applied?

(Yes/No)

ICP-AES

ICP-MS

YES

Were ICP-AES and ICP-MS background corrections applied?

(Yes/No)

YES

If yes, were raw data generated before
application of background corrections?

(Yes/No)

NO

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette (or via an alternate means of electronic transmission, if approved in advance by USEPA) has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: _____

Date: _____

Name: PARVEEN HASAN

Title: EPA PROJECT MANAGER

COVER PAGE

ILM05.4

1

**Sample Delivery Group (SDG)
Cover Sheet**

SDG Number: MB4E75

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HAZ. WASTE SUPPORT SEC

☒ ICP-AES Analysis

☐ ICP-MS Analysis

Laboratory Name: CHEMTECH

Laboratory Code: CHEM

Contract No. EPW06047

Case No. 36740

Analysis Price _____

SDG Turnaround 21 Days

Modified Analysis (if applicable):

Modification Reference No: _____

USEPA Sample Numbers in SDG (Listed in Numerical Order)

MB4E75	MB4E76	MB4E77	MB4E78
MB4E81			

First Sample in SDG

MB4E75

Last Sample in SDG

MB4E81

First Sample Receipt Date

8/25/2007 10:15:00 AM

Last Sample Receipt Date

8/31/2007 9:30:00 AM

Note: There are a maximum of 20 **field** samples (excluding PE samples) in an SDG. Attach TR/COC Records to this form in alphanumeric order (the order listed above on this form).

Signature 

Date

9/4/07

8

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1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW0604713 MB4E77Lab Code: CHEM Case No.: 36740 NRAS No.: _____ SDG No.: MB4E75Matrix: (soil/water) WATERLab Sample ID: Y4212-03Level: (low/med) LOWDate Received: 08/25/2007% Solids: 0.0Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	200 0.87	U		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	10.0	U		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	35.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: COLORLESSClarity Before: CLEAR

Texture: _____

Color After: COLORLESSClarity After: CLEAR

Artifacts: _____

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047FB MB4E78Lab Code: CHEM Case No.: 36740 NRAS No.: _____ SDG No.: MB4E75Matrix: (soil/water) WATER Lab Sample ID: Y4212-04Level: (low/med) LOW Date Received: 08/25/2007% Solids: 0.0Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	200 <u>15</u>	U		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	10.0	U		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	35.0	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: COLORLESSClarity Before: CLEAR

Texture: _____

Color After: COLORLESSClarity After: CLEAR

Artifacts: _____

Comments:

USEPA - CLP
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E81

Lab Name CHEMTECH CONSULTING GROUP Contract: EPW06047

Lab Code: CHEM Case No.: 36740 NRAS No.: _____ SDG No.: MB4E75

Matrix: (soil/water) WATER Lab Sample ID: Y4212-05

Level: (low/med) LOW Date Received: 08/31/2007

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	8.0	J		P
7440-39-3	Barium	200 H0	JU		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	35.3		J	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	4270		J	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	254		J	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.62		J	CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	35.0	U	J	P
7440-22-4	Silver	10.0	U	J	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN

Clarity Before: CLOUDY

Texture: _____

Color After: YELLOW

Clarity After: CLEAR

Artifacts: _____

Comments:

From: Rudolph, Elizabeth [erudolph@fedcsc.com]
Sent: Tuesday, September 04, 2007 12:34 PM
To: parveen
Cc: Adly Michael; Jennifer Feranda
Subject: Region 02 | Case 36740 | Lab CHEM | Issue Multiple | FINAL
Parveen,

Summary Start

Situation: The laboratory received 2 samples, MB4E79 and MB4E80 today (LRD: 08/31/07), sample MB4E79 is muddy with concrete and sample MB4E80 is a solid rock with water in the jar.

-Laboratory problems-

Issue 1: The laboratory would like to know if they should do percent solid for these two sample.

Resolution 1: Per Region 2, the laboratory should perform percent solids.

-Non-standard Matrix-

Issue 2: For sample MB4E80, should the lab crush the rock and ignore the water portion?

Resolution 2: Per Region 2, the lab shall crush and analyze the rock and ignore the water portion.

-Laboratory problems-

Issue 3: The lab also received water sample MB4E81, the lab would like to know if laboratory QC is not required.

Resolution 3: Per Region 2, laboratory QC is not required on the water samples.

Summary End

Thanks,
Beth

From: Feranda.Jennifer@epamail.epa.gov [mailto:Feranda.Jennifer@epamail.epa.gov]
Sent: Tuesday, September 04, 2007 12:37 PM
To: Rudolph, Elizabeth
Subject: FW: Case 36740

Beth - This is to confirm that no QC is required for the aqueous samples for this case.

If you have any additional questions, please let me know.

Jennifer

Jennifer E. Feranda
U.S. EPA Region II
CLP Project Officer/RSCC
Phone: (732) 321-6687
Fax: (732) 321-6622

From: Rudolph, Elizabeth
Sent: Tuesday, September 04, 2007 11:02 AM
To: Adly Michael; Jennifer Feranda
Subject: Issues 56 and 57 | Case 36740 | Lab CHEM | Issue Laboratory problems

Jennifer,

It appears that issues 56 and 57 are the same issue so I will combine them. The Case is not scheduled for laboratory QC on the water samples. Should the Case be scheduled for lab QC on the water samples? There are 11 waters total that were scheduled. I have not been receiving shipping information for this Case and have had to request the TR/COCs from the lab but I believe that water samples were shipped on 8/24 and 8/30. Please advise.

Thanks,

a) Should the lab do percent Solid for these two sample? Yes
b) For sample MB4E80- should the lab crush the rock and ignore the water portion? Yes, please crush and analyze the rock and ignore the water portion.
Issue 2: Lab also received water sample MB4E81 (according to jar- its Tunnel water), should Lab require QC for this sample? Was this sample marked for QC? If so, then yes, it should be analyzed for QC.

This issue was already reported and is waiting for a resolution. See issue #56.

Thanks,
Beth

From: parveen [mailto:parveen@chemtech.net]
Sent: Friday, August 31, 2007 3:28 PM
To: Rudolph, Elizabeth
Subject: RE: Region 02 | Case 36740 | Lab CHEM | Issue Laboratory problems | FINAL
Beth,

Issue 1: Lab received 2 samples MB4E79 & MB4E80 today (LRD: 08/31/07), sample MB4E79 is muddy w/ concrete and sample MB4E80 is solid rock w/ water in the jar. Lab wants to know-

a) Should Lab do % Solid for these two sample?
b) For sample MB4E80- should Lab crush the rock and ignore the water portion?

Issue 2: Lab also received water sample MB4E81 (according to jar- its Tunnel water), should Lab require QC for this sample?

Thanks
Parveen Hasan
284 Sheffield Street
Mountainside , NJ07092
(908) 789-8900 Ext. 210
www.chemtech.net

From: Feranda.Jennifer@epamall.epa.gov [mailto:Feranda.Jennifer@epamall.epa.gov]
Sent: Tuesday, September 04, 2007 10:40 AM
To: Rudolph, Elizabeth
Cc: Michael.Adly@epamall.epa.gov
Subject: Re: New Issue #56 | Case 36740 | Lab CHEM | Issue Laboratory problems

Beth - QC is required for this case. I am not sure I understand what the issue is or why the lab assumes that all these samples are blanks, but according to the sampler, QC is required and that QC samples were designated in one of their shipments.

If you need the samples required for QC, please let me know.

Thanks - Jennifer

Jennifer E. Feranda
U.S. EPA Region II
CLP Project Officer/RSCC
Phone: (732) 321-6687
Fax: (732) 321-6622

-----"Rudolph, Elizabeth" <erudolph@fedcsc.com> wrote: -----

REGIONAL SAMPLE CONTROL CENTER

ROC #1

DATE: 9/21/2007
 SUBJECT: CLP Data Package for Quality Assurance Review
 FROM: Hazardous Waste Support Section (HWSS)/RSCC
 TO: HWSS ESAT-TOPO

TDF# 06-0828

Attached is the following INORGANIC Data Package to be reviewed for Quality Assurance

SITE: Buckbee Mears

CASE #: 36740

SDG#: MB4E05, MB4E22, MB4E62

SAMPLER: W-RST

PROJ. CODE: RV **SITE SPILL #:** YH

#SAMPLES

MATRIX

LAB: CHEM **OPERABLE UNIT:** 00

12

Wipes

TURN-AROUND-TIME: 21 day

34

Solid Waste

CERCLIS ID #: NYN000205908

FRACTION: Metals (8) (MA #1469.0)

Contaminant(s) of Concern (If known)

REGION II RSCC DATA TRANSFER LOG

Relinquished By

Received By

Signature

Date/Time

Signature

Date/Time

<i>Robert Bell</i>	9/25/07 9 ⁰⁵ AM	C-Stance	9/25/07 9:05 am
C-Stance	10/5/07	C-Miller	10/5/07
C-Miller	10/9/07 12 ⁰⁵ PM	Robert Bell	10/9/07 12 ⁰⁵ PM
Robert Bell	10/9/07 1 ⁰⁰ PM	Hanif Sheikh	10/9/07 1 PM
Hanif Sheikh	10/9/07 2:37 PM	Robert Bell	10/9/07 2 ⁵⁷ PM
Robert Bell	10/9/07 3 ⁰⁰ PM	Shelton	10/9/07
Shelton	10/09/07 3:30 PM	Robert Bell	10/9/07 5 ⁵⁰ PM

Inorganic Data Review Narrative

Case# 36740	Site: BUCKABEE MEARS	Soil: 20
SDG# MB4E05	Lab: CHEM	Water:
Sampling Team: W-RST	Reviewer: C. ALAIMO	Other: 0

A.2.1 Data Validation Flags:

The following flags may have been applied in red by the data validator and must be considered by the data user.

J - This flag indicates the result qualified as estimated

R and RedLine - A redline drawn through a sample result indicates unusable value. The redlined data are known to contain significant errors based on documented information and must not be used by the data user.

U - This data validation qualifier is applied to sample results \geq MDL when associated blank is contaminated

Fully Usable Data - The results that do not carry "J" or "red-line" are fully usable.

A.2.2 Laboratory Qualifiers:

The CLP laboratory applies a contractual qualifier on all Form I'S and the QC Form when a QC analysis is outside the control limits. These qualifiers are not applied on the Lotus or XLS spreadsheets. These qualifiers and their meanings are as follows:

N: This qualifier indicates the lack of accuracy in the reported result, and is applied when matrix spiked sample recovery is outside the control limits.

E: This qualifier indicates the presence of interference, and is applied when the ICP serial dilution is outside the control limits.

*: This qualifier indicate the lack of precision, and is applied on Form I'S and Form VI when the Lab Duplicate analysis is outside the control limits.

U: This is a concentration qualifier that laboratory applies to a non-detected result which is essentially less than the Method Detection Limit (MDL). A non-detected result of an analyte is indicated by the Contract Required Quantitation Limit (CRQL) of that analyte suffixed with "U".

J: This is also a concentration qualifier that laboratory applies to a positive result below the CRQL.

NOTE: The laboratory qualifiers are crossed out and replaced with the appropriate data validation qualifiers (J, R or U) by the data validator.

A.2.3.1 Data Case Description:

This case consists of twenty (20) soil samples collected at the Buckabee Mears site between 08/21/07 & 08/23/07 for eight (08) Total TAL Metals analysis according to the USEPA CLP SOW No. ILM05.4 & NRAS# 1469.0. Matrix spike, laboratory duplicate and serial dilution analyses were performed on sample MB4E17. Samples MB4E14 & MB4E31 were identified as field duplicate pair.

As per EPA Technical Direction Form (TDF) only the following criteria were reviewed by the data validator: Holding Time, CRQL Standard, Matrix Spike, ICS, Laboratory Duplicate, Field Duplicate, ICP Serial Dilution, and Field Blank. The qualifiers applied on Form Is and CADRE EXCEL spreadsheets are based on ESAT data review of the above-mentioned criteria. For all other criteria see the attached CADRE Reports.

A.2.3.2 CSF Audit: No problems.

A.2.3.3 Technical Review:

ICB/CCB

The Calibration Blanks values were \geq MDL but \leq CRQL for Ba. (Only analytes that required qualifications were mentioned.) The following associated positive results \leq CRQL were raised to the CRQL and qualified "U".

"U" -> Ba in MB4E05, MB4E09, MB4E11, MB4E12, MB4E15, MB4E17, MB4E19, MB4E20, MB4E25, MB4E26, MB4E27, MB4E29

A.2.3.4 Contract-Problem/Non-Compliance:

None found.

HWSS Reviewer:

HS
Signature

Date:

10/9/07

Contractor
Reviewer:

Chad M. [Signature]
Signature

Date:

10/9/07

Verified by:

Signature

Date:

Inorganic Data Review Narrative

Case# 36740	Site: BUCKABEE MEARS	Soil: 14
SDG# MB4E22	Lab: CHEM	Water:
Sampling Team: W-RST	Reviewer: C. ALAIMO	Other: 0

A.2.1 Data Validation Flags:

The following flags may have been applied in red by the data validator and must be considered by the data user.

J - This flag indicates the result qualified as estimated

R and RedLine - A redline drawn through a sample result indicates unusable value. The redlined data are known to contain significant errors based on documented information and must not be used by the data user.

U - This data validation qualifier is applied to sample results \geq MDL when associated blank is contaminated

Fully Usable Data - The results that do not carry "J" or "red-line" are fully usable.

A.2.2 Laboratory Qualifiers:

The CLP laboratory applies a contractual qualifier on all Form I'S and the QC Form when a QC analysis is outside the control limits. These qualifiers are not applied on the Lotus or XLS spreadsheets. These qualifiers and their meanings are as follows:

N: This qualifier indicates the lack of accuracy in the reported result, and is applied when matrix spiked sample recovery is outside the control limits.

E: This qualifier indicates the presence of interference, and is applied when the ICP serial dilution is outside the control limits.

*: This qualifier indicate the lack of precision, and is applied on Form I'S and Form VI when the Lab Duplicate analysis is outside the control limits.

U: This is a concentration qualifier that laboratory applies to a non-detected result which is essentially less than the Method Detection Limit (MDL). A non-detected result of an analyte is indicated by the Contract Required Quantitation Limit (CRQL) of that analyte suffixed with "U".

J: This is also a concentration qualifier that laboratory applies to a positive result below the CRQL.

NOTE: The laboratory qualifiers are crossed out and replaced with the appropriate data validation qualifiers (J, R or U) by the data validator.

A.2.3.1 Data Case Description:

This case consists of fourteen (14) soil samples collected at the Buckabee Mears site between 08/21/07 & 08/27/07 for eight (08) Total TAL Metals analysis according to the USEPA CLP SOW No. ILM05.4 & NRAS# 1469.0. Matrix spike, laboratory duplicate and serial dilution analyses were performed on sample MB4E22.

As per EPA Technical Direction Form (TDF) only the following criteria were reviewed by the data validator: Holding Time, CRQL Standard, Matrix Spike, ICS, Laboratory Duplicate, Field Duplicate, ICP Serial Dilution, and Field Blank. The qualifiers applied on Form Is and CADRE EXCEL spreadsheets are based on ESAT data review of the above-mentioned criteria. For all other criteria see the attached CADRE Reports.

A.2.3.2 CSF Audit: No problems.

A.2.3.3 Technical Review:

ICB/CCB

The Calibration Blanks values were \geq MDL but \leq CRQL for Ba. (Only analytes that required qualifications were mentioned.) The following associated positive results \leq CRQL were raised to the CRQL and qualified "U".

"U" -> Ba in MB4E41, MB4E43

LABORATORY DUPLICATE

The RPD between sample and duplicate results was \geq 35% but less than 120% for Cr when both sample and duplicate results were greater than 5 X CRQL. All associated sample results greater or equal to CRQL have been considered estimated and flagged "J".

"J" -> Cr in MB4E22, MB4E33, MB4E34, MB4E36, MB4E37, MB4E38, MB4E39, MB4E40, MB4E41, MB4E42, MB4E43, MB4E44, MB4E79 & MB4E80

The absolute difference between sample and duplicate results was greater than 2XCRQL for Ba when sample and/or duplicate results were less than 5 X CRQL. All associated sample results \geq MDL but \leq 5XCRQL have been considered estimated and flagged "J".

"J" -> Ba in MB4E22, MB4E33, MB4E34, MB4E36, MB4E37, MB4E38, MB4E39, MB4E40, MB4E41, MB4E42, MB4E43, MB4E44, MB4E79 & MB4E80

Evaluation of Metals Data for the Contract Laboratory Program
Data Assessment and Contract Compliance Review

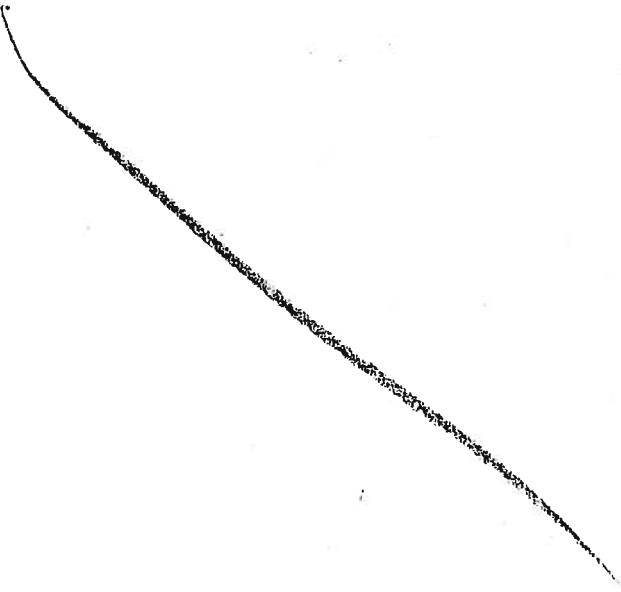
SOP: HW-2 Revision 13

Appendix A.2

Sept. 2005

A.2.3.4 Contract-Problem/Non-Compliance:

None found.



HWSS Reviewer:

HS

Signature

Date:

10/9/07

Contractor
Reviewer:

Charles M. Alon

Signature

Date:

10/9/07

Verified by:

Signature

Date:

Inorganic Data Review Narrative

Case# 36740	Site: BUCKABEE MEARS	Soil:
SDG# MB4E62	Lab: CHEM	Water:
Sampling Team: W-RST	Reviewer: C. ALAIMO	Other: 12

A.2.1 Data Validation Flags:

The following flags may have been applied in red by the data validator and must be considered by the data user.

J - This flag indicates the result qualified as estimated

R and RedLine - A redline drawn through a sample result indicates unusable value. The redlined data are known to contain significant errors based on documented information and must not be used by the data user.

U - This data validation qualifier is applied to sample results \geq MDL when associated blank is contaminated

Fully Usable Data - The results that do not carry "J" or "red-line" are fully usable.

A.2.2 Laboratory Qualifiers:

The CLP laboratory applies a contractual qualifier on all Form I'S and the QC Form when a QC analysis is outside the control limits. These qualifiers are not applied on the Lotus or XLS spreadsheets. These qualifiers and their meanings are as follows:

N: This qualifier indicates the lack of accuracy in the reported result, and is applied when matrix spiked sample recovery is outside the control limits.

E: This qualifier indicates the presence of interference, and is applied when the ICP serial dilution is outside the control limits.

*: This qualifier indicate the lack of precision, and is applied on Form I'S and Form VI when the Lab Duplicate analysis is outside the control limits.

U: This is a concentration qualifier that laboratory applies to a non-detected result which is essentially less than the Method Detection Limit (MDL). A non-detected result of an analyte is indicated by the Contract Required Quantitation Limit (CRQL) of that analyte suffixed with "U".

J: This is also a concentration qualifier that laboratory applies to a positive result below the CRQL.

NOTE: The laboratory qualifiers are crossed out and replaced with the appropriate data validation qualifiers (J, R or U) by the data validator.

A.2.3.1 Data Case Description:

Evaluation of Metals Data for the Contract Laboratory Program
Data Assessment and Contract Compliance Review

SOP: HW-2 Revision 13

Appendix A.2

Sept. 2005

This case consists of twelve (12) wipe samples collected at the Buckabee Mears site on 08/24/07 for two (02) Total TAL Metals analysis (Cr & Pb) according to the USEPA CLP SOW No. ILM05.4 & NRAS# 1469.0. Matrix spike, laboratory duplicate and serial dilution analyses were not performed as per contract statement.

As per EPA Technical Direction Form (TDF) only the following criteria were reviewed by the data validator: Holding Time, CRQL Standard, Matrix Spike, ICS, Laboratory Duplicate, Field Duplicate, ICP Serial Dilution, and Field Blank. The qualifiers applied on Form Is and CADRE EXCEL spreadsheets are based on ESAT data review of the above-mentioned criteria. For all other criteria see the attached CADRE Reports.

A.2.3.2 CSF Audit: No problems.

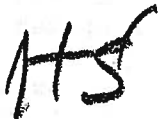
A.2.3.3 Technical Review:

All QC criteria have been satisfied and the data are assessed to be acceptable and fully usable without qualifications.

A.2.3.4 Contract-Problem/Non-Compliance:

None found.

HWSS Reviewer:

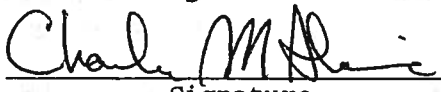


Signature

Date:

10/9/07

Contractor
Reviewer:



Signature

Date:

10/9/07

Verified by:

Signature

Date:

uation of Metals Data for the Contract Laboratory Program (CLP)

based on

SOW - ILM05.3

(SOP Revision 13)

United States Environmental Protection Agency
Region 2

Date: September 2005

PREPARED BY:

Hanif Sheikh
Hanif Sheikh, Quality Assurance Chemist
Hazardous Waste Support Section

DATE: 9/30/05

APPROVED BY:

Linda M. Mauel
Linda Mauel, Chief
Hazardous Waste Support Section

DATE: 9/30/05

APPROVED BY:

Robert Runyon
Robert Runyon, Chief
Hazardous Waste Support Branch

DATE: 10/6/05

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from the laboratory.

2.2 Compliance

The data validator must check to ensure that all steps from sample receipt through sample preparation, analysis, data calculation and reporting are documented, and the information/data required under the contract is present in the appropriate reporting Forms and laboratory logs.

2.3 Contract Compliance Screening (CCS)

This screening step essentially checks the data package for the Completeness and Compliance requirements, and is performed by the Sample Management Office (SMO) currently operated by Computer Sciences Corporation (CSC), an EPA contractor. The CCS Report outlines the incomplete and non-compliant items as "Defects" in the data package, and is sent to the laboratory which is required to provide additional or missing information/data required under the contract. The CCS Report for each SDG is transmitted electronically by the SMO to the Regional office. The CCS Report is intended to aid the data validator in locating any problems, both corrected and uncorrected. The incorrect original deliverable(s) of the data package must be replaced by the re-submittal(s) received from the laboratory in response to the CCS Report. The data validation should, however, be carried out even if the CCS Report is not available.

Web-based CCS is available for CLP laboratories to check their data prior to its delivery to EPA.

3.0 Technical Review

Technical review of the RAS data is carried out on the complete and compliant data to ensure its **validity** (i.e., data is of known quality and scientifically valid) and **usability** (i.e., data set is sufficiently complete and of sufficient quality to support a decision or an action described in the specific objectives of a data collection activity). The technical review process provides information on analytical limitations of data, if any, based on specific Quality Assurance/Quality Control (QA/QC) criteria. This is accomplished by performing an in-depth review of both the field deliverables which document the field sampling activities, and the laboratory analytical data deliverables which document the laboratory activities carried out to generate the reported data. Essentially, the validator shall first ensure that the data package is complete and compliant. The validator shall then evaluate data/information on all these deliverables (Final data sheets, Forms for QC analyses Chain-of-Custody/Traffic Report Forms, raw data, etc.) against the QA/QC acceptance criteria specified in the SOP "Checklist" (Appendix A.1). The validator must answer each question in the

3.4.3 Flg "U" indicates Non-Detects

Sample results \geq MDL associated with a contaminated blank are flagged "U" with a red pencil only on Form I's.

4.0 Contractual Qualifiers

The CLP laboratory applies contractual qualifiers on all Form I's and the QC Forms when QC analyses are outside the control limits. These qualifiers are not applied on the Lotus or XLS spreadsheets with the exception of U and J. The contractual qualifiers and their meanings are as follows:

N : This qualifier indicates the lack of accuracy in the reported result, and is applied when matrix spiked sample recovery is outside the control limits.

E : This qualifier indicates the presence of interference, and is applied when the ICP serial dilution analysis is outside the control limits.

* : This qualifier indicates the lack of precision, and is applied to sample results on Form I's and Form VI when the Lab Duplicate analysis is outside the control limits.

U : This is a concentration qualifier that laboratory applies to a non-detected result which is essentially less than the Method Detection Limit (MDL). A non-detected result of an analysis is indicated by the Contract Required Quantitation Limit (CRQL) of that analyze suffixed with "U".

J : This is a concentration qualifier that the laboratory applies to a positive result below the CRQL (i.e., \geq MDL but $<$ CRQL).

NOTE: The laboratory qualifiers are crossed out and replaced with the appropriate data validation qualifiers (J, R or U) by the data validator.

4.0 Rounding Rule

The data reviewer must follow the standard practice to round off percent recoveries on the QC reporting forms.

5.0 Data Review Narrative (Appendix A.2)

The data review narrative should be written using the format of Appendix A.2. The narrative should indicate the QC analyses outside the acceptance limits and the actions taken to qualify the associated data. The narrative should be

qualification is complete, a Lotus 1,2,3 spreadsheet or an XLS spreadsheet with data validation qualifiers (R,J,U) is generated for each SDG. Currently, Sample Management Office (SMO) performs this task using Data Assessment Tool (DAT), a software-driven process, and forwards to the Regions the customized electronic spreadsheets (Lotus 1,2,3 or XLS spreadsheet) and QC reports via the DART (Data Assessment Rapid Transmittal) system. Manual data validation is performed in conjunction with electronic data validation which can only be done by a trained and experienced data validator. The manual data review complements CADRE's findings to complete an assessment of data quality in a shorter time than by a solely manual process. The data validator must review the XLS or Lotus 1,2,3 spreadsheet against Form I's to ensure that the same results on Form I's and the Spreadsheet are qualified with the same data validation qualifiers. The spreadsheet for each SDG is provided with the Data Review Narrative.

7.0 Performance Evaluation Sample (PES) Based Data Validation Strategy

7.1 Scope and Summary

This strategy offers the use of Performance Evaluation Samples (PES) in the data validation process as a means of ensuring the quality of the CLP data while significantly reducing the validation time. The single blind PES provided by EPA (or any other reputable firm) is analyzed with samples of each matrix in a Sample Delivery Group (SDG). A software program (e.g., PEAC TOOLS, SPS Web or equivalent) is used to determine whether or not the PES results fall within the previously statistically determined acceptance limits ("Action Low" and "Action High") for the Contaminants of Concern (COC). The PES results falling within the Action Limits are considered as acceptable results and may be designated as "Passed" analytes, and results of the analytes falling outside the Action Limits are considered as unacceptable and may be designated as "Failed" analytes. In either case ("Passed" Analytes or "Failed" analytes), the associated data is validated according to the Region 2 data validation SOP HW-2 in conjunction with the latest version of the WinCadre QC reports. The following strategy (procedure) is used:

7.2 "Passed" COC

If the COC in an SDG are within statistically generated Action Limits, the data validation is conducted according to QC analyses indicated by check marks (✓) in the "Review COC For" column of the Table I. The SDG samples are validated using the Region 2 data validation SOP in conjunction with the latest version of the WinCADRE QC reports. The validation

Table I

Passed PES - All Contaminants of Concern are within the limits
(Action Low \leq PES Result \leq Action High)

QC Criteria	Review COC for
Holding Time & Preservation	√
Initial Calibration	
Initial Calibration Verification	
CRQL Standard	√
Blanks-Initial & Continuing	
Preparation Blank	
ICP Interference Check Sample	
Pre- Digestion/Distillation Matrix Spike	
Post Digestion Spike	
Laboratory Duplicate	
Field Duplicates Comparison	√
Lab Control Sample	
ICP Serial Dilution	
Field Blank Contamination	√
Percent Solids	√
Transcription/Computation Check	
Raw Data	
Total vs. Dissolved Concentrations Comparison	√

- The CSF (Complete SDG File) audit will be completed before the PES validation strategy is applied.
- Comparison of the Lotus or XLS Spreadsheet must be after the PES validation strategy is applied. The Contract
- Compliance can be checked after the PES validation strategy is applied.

8.0 Sampling Trip Report

The sampler prepares a Sampling Trip Report for each sampling event and sends it to the RSCC. The report provides details of all activities performed for each sampling event on the Superfund site. It also lists the field QC samples such as Field Duplicates, Field/Rinse Blanks, sampling time and date for each sample, and samples associated with each field/rinse blank. The validator must use this information to evaluate the Field Duplicate pairs as well as the samples associated with contaminated Field/Rinse Blanks.

9.0 Telephone Record Log (Appendix A.3)

A Telephone Record Log (Appendix A.3) must be written by the data validator when a deliverable is missing or a clarification is needed about a lab procedure. The data validator should outline a basic profile of the Case on the Telephone Record Log Form, clearly indicating the reason(s) for inquiry and forward this Form to CLP PO/TOPO who will contact the lab to receive the missing document or information. The original Telephone Record Log is kept in the data package and a copy attached to the Data Review Narrative.

10.0 Request for Re-Analysis (Appendix A.6)

Data validator must note all items of contract non-compliance in the Data Review Narrative. If holding times and sample storage times have not been exceeded, the Project Officer (PO) may request re-analysis if items of non-compliance are critical to data assessment. Requests are to be made on "CLP Re-Analysis Request/Approval Record" form (Appendix A.4).

11.0 CLP Data Assessment Summary Form (Appendix A.7)

Fill in the total number of analytes performed by different methods and the number of analytes rejected (R) or flagged (J) as estimated due to corresponding quality control criteria. Place an "X" in boxes wherever analyses were not performed, or criteria do not apply.

12.0 Data Review Log:

It is recommended that the data validator maintain a log of the reviews completed to document:

- a. Case number
- b. SDG # (s)
- c. number of samples
- d. matrix of samples
- e. contract laboratory
- f. site name
- g. start-date of the data case review
- h. completion-date of the data case review
- i. actual hours spent
- j. reviewer's signature

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ACRONYMS

AA	Atomic Absorption
AOC	Analytical Operations/Data Quality Center
CADRE	Computer-Aided Data Review and Evaluation
CCB	Continuing Calibration Blank
CCS	Contract Compliance Screening
CCV	Continuing Calibration Verification
CLP	Contract Laboratory Program
CO	Contracting Officer
COC	Contaminants of Concern
CRI	CRQL Check Standard
CRQL	Contract Required Quantitation Limit
CSF	Complete SDG File
CVAA	Cold Vapor AA
DART	Data Assessment Rapid Transmittal
DAT	Data Assessment Tool
DF	Dilution Factor
DQO	Data Quality Objective
ICB	Initial Calibration Blank
ICP	Inductively Coupled Plasma
ICP-AES	Inductively Coupled Plasma - Atomic Emission Spectroscopy
ICP-MS	Inductively Coupled Plasma - Mass Spectrometry
ICS	Interference Check Sample
ICV	Initial Calibration Verification
LCS	Laboratory Control Sample
LRS	Linear Range Sample
MDL	Method Detection Limit
NIST	National Institute of Standards and Technology
OERR	Office of Emergency and Remedial Response
OSWER	Office of Solid Waste and Emergency Response
PB	Preparation Blank
PE	Performance Evaluation
%D	Percent Difference
%R	Percent Recovery
%RI	Percent Relative Intensity
%RSD	Percent Relative Standard Deviation
%S	Percent Solids
PO	Project Officer
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
QC	Quality Control
RPD	Relative Percent Difference
RSCC	Regional Sample Control Center
SDG	Sample Delivery Group
SMO	Sample Management Office
SOP	Standard Operating Procedure
SOW	Statement of Work
TAL	Target Analyze List

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Site: Bockabee Mears

Case #: 36740

SDG #: MB4E05 / MB4E22 / MB4E62

Samples: 20 Soil ~~Water~~ ¹⁸ ~~28~~ Swipes

14 concrete

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samples on the Traffic Report sheet
and the Regional Record of Communication
(ROC) for the data Case?

YES	NO	N/A
[<input checked="" type="checkbox"/>]	[]	[]

ACTION:

If no for any of the above, prepare
Telephone Record Log and contact RSCC/PO
for re-submittal of the corrected Cover Page
from the laboratory.

1.6 **SDG Narrative, DC-1 & DC-2 Form**

Is the SDG Narrative present?

[<input checked="" type="checkbox"/>]	[]	[]
---	---------	---------

Is Sample Log-In Sheet (Form DC-1)
present and complete?

[<input checked="" type="checkbox"/>]	[]	[]
---	---------	---------

Is Complete SDG Inventory Sheet (Form DC-2)
present and complete?

[<input checked="" type="checkbox"/>]	[]	[]
---	---------	---------

ACTION:

If no, write in the Contract-Problems/
Non-Compliance Section of the Data Review
Narrative.

1.7 **Form I to XV**

1.7.1 Are all the Form I through Form XV
labeled with:

Laboratory Name?

[<input checked="" type="checkbox"/>]	[]	[]
---	---------	---------

Laboratory Code?

[<input checked="" type="checkbox"/>]	[]	[]
---	---------	---------

RAS/Non-RAS Case No.?

[<input checked="" type="checkbox"/>]	[]	[]
---	---------	---------

SDG No.?

[<input checked="" type="checkbox"/>]	[]	[]
---	---------	---------

Contract No.?

[<input checked="" type="checkbox"/>]	[]	[]
---	---------	---------

ACTION:

If no for any of the above, note under
Contract Problem/Non-Compliance Section
of the "Data Review Narrative" and contact
PO for corrected Form(s) from the laboratory.

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YES NO N/A

NOTE:

Digestion/Distillation log must include weights, volumes, and dilutions used to obtain the reported results.

.1.8.2 Is the analytical instrument
real-time printouts present for:

ICP-AES?

☐

—

☒

ICP-MS?

☐

—

☒

Mercury?

☐

—

☒

Cyanide?

☐

—

☒

Are all laboratory bench sheets
and instrument raw data printouts
necessary to support all sample
analyses and QC operations:

Legible?

☐

—

☒

Properly labeled?

☐

—

☒

Are all field samples, QC samples
and field QC samples present on:

Digestion/Distillation log?

☐

—

☒

Instrument Printouts?

☐

—

☒

ACTION:

If no for any of the above questions in
Section A.1.8.1 and Section A.1.8.2, write
Telephone Record Log and contact TOPO/PO
for re-submittal from the laboratory.

.9

Technical Holding Times: (Aqueous and soil samples)

(Examine sample Traffic Reports and digestion/distillation logs to
determine the holding time from the sample collection date to the sample
preparation date.)

.9.1

Cyanide distillation(14 days)exceeded?

—

☐

☒

Mercury analysis(28 days) exceeded?

—

☒

—

Other Metals analysis(180 days)exceeded?

—

☒

—

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	YES	NO	N/A
Is the calculation error less than 10% of the correct result?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are results on Form I's reported in correct units (ug/L for aqueous and MG/KG for soils)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are results on Form I'S reported by correct significant figures?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are soil sample results on Form I's corrected for percent solids?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are all "less than MDL" values reported by the CRQLs and coded with "U"?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are values less than the CRQLs but greater than or equal to the MDLs flagged with "J"?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are appropriate contractual quality control and Method qualifiers used?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

ACTION:

If no for any of the above questions, prepare Telephone Record Log, and contact CLP PO/TOPO for corrected data.

1.10.3 Do EPA sample identification numbers and the corresponding laboratory sample identification numbers match on the Cover Page, Form I's and in the raw data?

☐ ☐ ☒

Was a brief physical description of the samples before and after digestion given on the Form I's?

☐ ☐ ☒

Was any sample result outside the mercury/cyanide calibration range or the ICP-AES/ICP-MS linear range diluted and noted on the Form I?

☐ ☐ ☒

ACTION:

If no for any of the above, note under the Contract-Problem/Non-Compliance Section of the Data Review Narrative.

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YES NO N/A

corresponding instrument response (e.g. absorbance, peak area, peak height, etc.).

1.12 Initial and Continuing Calibration Verification- Form IIA *N/A as per TDF*

1.12.1 Present and complete for every metal and cyanide?

[] — ☒

Present and complete for ICP-AES and ICP-MS when both these methods were used for the same analyte?

[] — ☒

ACTION:

If no for any of the above, prepare a Telephone Record Log and contact PO/TOPO for re-submittal from the laboratory.

1.12.2 Was a Continuing Calibration Verification performed every 10 samples or every 2 hours whichever is more frequent?

[] — ☒

ACTION:

If no for any of the above, write in the Contract-Problem/Non-Compliance Section of the Data Review Narrative.

1.12.3 Was an ICV or a mid-range standard distilled and analyzed with each batch of cyanide samples?

[] — ☒

ACTION:

If no for any of the above, write in the Contract-Problem/Non-Compliance Section of the Data Review Narrative and qualify results \geq MDL as estimated (J).

1.12.2 Circle on each Form IIA all percent recoveries that are outside the contract windows.

Are ICV/CCVs within control limits for:

Metals - 90-110%R?

[] — ☒

Hg - 80-120%R?

[] — ☒

Cyanide - 85-115%R?

[] — ☒

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ACTION:

If no for any of the above, write this deficiency in the Contract Problems/ Non-Compliance Section of the Data Review Narrative, inform CLP PO and flag results in the affected ranges (detects <2xCRQL) as J and non-detects UJ.

The affected ranges are:

ICP-AES Analysis - *True Value \pm CRQL
ICP-MS Analysis - *True Value \pm CRQL
Mercury Analysis - *True Value \pm CRQL
Cyanide Analysis - *True Value \pm CRQL
* True value of the CRQL Standard

- 1.13.2 Was a CRQL standard analyzed after the ICV/ICB, before the final CCV/CCB and once every 20 analytical samples in the analytical run for each analysis?

☒ ☐ ☐

ACTION:

If no, write in the Contract Problem/ Non-Compliance Section of the "Data Review Narrative".

- 1.13.3 Circle on each Form IIB all percent recoveries that are outside the acceptance windows.

Is the CRQL standard within control limits for:

Metals (ICP-AES/ICP-MS) - 70 - 130%?

☒ ☐ ☐

Mercury - 70 - 130%?

☒ ☐ ☐

Cyanide - 70 - 130%?

☐ ☐ ☒

ACTION:

If no, flag detects <2xCRQL as "J" and non-detects as "UJ" if the CRQL standard recovery is between 50-69%. Flag (J) only detects <2xCRQL if the recovery is between 131% and \leq 180%. If the recovery is less than 50%, reject (R) and red-line non-detects and detects < 2xCRQL, and flag (J) detects between 2xCRQL and ICV/CCV. Reject and red-line only detects <2xCRQL and flag (J) detects \geq 2xCRQL but < ICV/CCV if the recovery is > 180%.

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YES NO N/A

1.14.2.2 When MDL < CRQL, is any Calib. Blank value > CRQL?

_____ [/] _____

ACTION:

If yes, reject (R) and red line the associated sample results > CRQL but < ICB/CCB Blank Result. Flag as "J" detects > ICB/CCB blank value but < 10xICB/CCB value. Change the sample results \geq MDL but \leq the CRQL to CRQL with a "U".

1.14.2.3 Is any Calibration Blank value below the negative CRQL?

_____ [/] _____

ACTION:

If yes, flag (J) as estimated all associated sample results \geq CRQL but < 10xCRQL.

NOTE:

1. For ICB that does not meet the technical QC Criteria, apply the action to all samples reported from the analytical run.
2. For CCBs that do not meet the technical QC criteria, apply the action to all samples analyzed between a previous technically acceptable analysis of CCB and a subsequent technically acceptable analysis of the CCB in the analytical run.

1.15 **Preparation Blank - FORM III**

NOTE: The Preparation Blank for mercury is the same as the calibration blank.

1.15.1 Was one Preparation Blank prepared with and analyzed for:

Each Sample Delivery Group (SDG)?

[/] _____

Each batch of the SDG samples digested/distilled?

[/] _____

Each matrix type?

[/] _____

All instruments used for metals and cyanide analyses?

[/] _____

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analyte value in the Field Blank, do not
qualify the sample results due to the
Prep. Blank criteria.

YES

NO

N/A

NOTE:

Convert soil sample result to mg/Kg on
wet weight basis to compare with the soil
Prep. Blank result on Form III.

1.15.2.3 Is the Prep. Blank concentration
below the negative CRQL?

___ ☒ ___

ACTION:

If yes, flag (J) all associated
sample results less than 10xCRQL.
Qualify non-detects as estimated (UJ).

1.15.2.4 When the MDL is greater than the
CRQL, is the preparation blank
concentration on Form III greater
than two times the MDL?

___ ☒ ___

ACTION:

If yes, reject (R) and red-line all
positive sample results with sample
raw data less than 10 times the
Preparation Blank value.

.16 ICP-AES/ICP-MS Interference Check Sample (ICS) - Form IV

NOTE: Not required for CN, Hg, Al, Ca, Fe and Mg.

.16.1 Present and complete?

☒ ___

Was ICS analyzed at the beginning
and end of each analytical run, and
once for every 20 analytical samples?

☒ ___

Was ICS analyzed at the beginning of
the ICP-MS analytical run?

☐ ___ ☒

ACTION:

If no, flag as estimated (J) all
sample results.

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YES NO N/A

50-79%, qualify sample results \geq MDL as "J" and non-detects as "UJ". Reject (R) and red-line all sample results (detects & non-detects) for which the ICSAB analyte recovery is less than 50%. If the recovery is above 150%, reject (R) and red-line only positive results.

1.16.3 ICP-MS Method

1.16.3.1 ICSA Solution:

For ICP-MS, are the ICSA "Found" analyte values within the control limits of \pm CRQL of the true/established mean value?

☐

ACTION:

If no, apply the following action to all samples reported from the analytical run:

Flag (J) as estimated only sample results \geq MDL if the ICSA "Found" value is greater than (True value+CRQL). Do not qualify non-detects. If the ICSA "Found" value is less than (True value-CRQL), flag the associated sample detects as "J" and non-detects as "UJ".

1.16.3.3 ICSAB Solution

For ICP-MS, are all analyte results in ICSAB within the control limits of 80-120% of the true/established mean value, whichever is greater?

☐

ACTION:

If no, apply the following action to all samples reported from the analytical run:

Flag (J) as estimated those associated sample results \geq MDL for which the ICSAB analyte recovery is greater than 120% but \leq 150%. If the ICSAB recovery falls within 50-79% flag (J) as estimated the associated sample results \geq MDL. Reject (R) and red-line those all sample detects and non-detects for which the ICSAB analyte recovery is less than 50%. If the recovery is above 150%, reject (R) and red-line only detects (\geq MDL).

1.17 Spiked Sample Recovery: Pre-Digestion/Pre-Distillation)-Form V A
Note: Not required for Ca, Mg, K, and Na (both matrices); Al and Fe (soil only)

1.1 Was Matrix Spike analysis performed:

For each matrix type?

☐

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difference $\leq \pm \text{CRQL}$?

YES

NO

N/A

☒

☐

☐

If no, are all results outside the control limits flagged with an "*" (Lab Qualifier) on Form VI and on all Form I's?

☒

☐

☐

ACTION:

If no, write in the Contract-Problems/Non-Compliance Section of the Data Review Narrative.

NOTE:

The laboratory is not required to report on Form VI the RPD when both values are non-detects.

1.18.4 Aqueous

1.18.4.1 When sample and duplicate values are both $\geq 5 \times \text{CRQL}$ (substitute MDL for CRQL when $\text{MDL} > \text{CRQL}$),

is any RPD $> 20\%$ but $< 100\%$?

☐

☐

☒

is any RPD $\geq 100\%$?

☐

☐

☒

ACTION:

If the RPD is $> 20\%$ but $< 100\%$, flag (J) as estimated the associated sample data $\geq \text{CRQL}$. If the RPD is $\geq 100\%$, reject (R) and red-line the associated sample data $\geq \text{CRQL}$.

(NOTE: Replace "*" with "J" or "R" as appropriate.)

1.18.4.2 When the sample and/or duplicate value $< 5 \times \text{CRQL}$ (substitute MDL for CRQL when $\text{MDL} > \text{CRQL}$), is the absolute difference between sample and duplicate values:

$> \pm \text{CRQL}$?

☐

☐

☒

$> \pm 2 \times \text{CRQL}$?

☐

☐

☐

ACTION:

If the absolute difference is $> \text{CRQL}$, flag as estimated all the associated sample results $\geq \text{MDL}$ but $< 5 \times \text{CRQL}$ as "J" and non-detects as "UJ". If the absolute difference is $> 2 \times \text{CRQL}$, reject (R) and

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1.19 Field Duplicates

YES

NO

N/A

Aqueous Field Duplicates

- 1.19.1 Was an aqueous Field Duplicate pair collected and analyzed?
(Check Sampling Trip Report)

[]

—

/

ACTION:

If yes, prepare a Form (Appendix A.4) for each aqueous Field Duplicate pair. Report the sample and Field Duplicate results on Appendix A.4 from their respective Form I's. Calculate and report RPD on Appendix A.4 when sample and its Field Duplicate values are both $> 5 \times \text{CRQL}$. Calculate and report the absolute difference on Appendix A.4 when at least one value (sample or duplicate) is $< 5 \times \text{CRQL}$. Evaluate the aqueous Field Duplicate analysis in accordance with the QC criteria stated in Sections A.1.19.2 and A.1.19.3.

NOTE:

1. Do not transfer "*" from Form I's to Appendix A.4.
2. Do not calculate RPD when both values are non-detects.
3. Substitute MDL for CRQL when $\text{MDL} > \text{CRQL}$.
4. If one value is $> \text{CRQL}$ and the other value is non-detect, calculate the absolute difference between the value $> \text{CRQL}$ and the MDL, and use this the criteria to qualify the results.

- 1.19.2 Circle all values on the Form (Appendix A.4) for Field Duplicates that have:

$\text{RPD} \geq 20\%$ or

$\text{Difference} > \pm \text{CRQL}$

When sample and duplicate values are both $\geq 5 \times \text{CRQL}$ (substitute MDL for CRQL when $\text{MDL} > \text{CRQL}$),

is any $\text{RPD} \geq 20\%$?

is any $\text{RPD} \geq 100\%$?

—

[]

—

[]

/

ACTION:

If the RPD is $> 20\%$ but $< 100\%$, flag (J) only the associated sample and its Field Duplicate results $\geq \text{CRQL}$. If the RPD is $\geq 100\%$, reject (R) and red-line only the associated sample and its Field Duplicate result $\geq \text{CRQL}$.

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YES

NO

N/A

1.19.5 Circle on each Appendix A.4 all values that have:

RPD $\geq 35\%$, or Difference $> \pm 2 \times \text{CRQL}$
When sample and duplicate values are both $\geq 5 \times \text{CRQL}$ (substitute MDL for CRQL when MDL $> \text{CRQL}$),

is any RPD $\geq 35\%$ but $< 120\%$?

is any RPD $\geq 120\%$?

YES	<input checked="" type="checkbox"/>	NO
YES	<input checked="" type="checkbox"/>	NO

ACTION:

If the RPD is $\geq 35\%$ but $< 120\%$, flag only the associated sample and its Field Duplicate results $\geq \text{CRQL}$ as "J". If the RPD is $\geq 120\%$, reject (R) and red-line only the sample and its Field Duplicate results $\geq \text{CRQL}$.

1.19.6 When the sample and/or duplicate value(s) $< 5 \times \text{CRQL}$ (substitute MDL for CRQL when MDL $> \text{CRQL}$), is the absolute difference between sample and Field Duplicate:

$> \pm 2 \times \text{CRQL}$?

$> \pm 4 \times \text{CRQL}$?

YES	<input checked="" type="checkbox"/>	NO
YES	<input checked="" type="checkbox"/>	NO

ACTION:

If the absolute difference is $> 2 \times \text{CRQL}$, flag Sample and its Field Duplicate results $\geq \text{MDL}$ but $< 5 \times \text{CRQL}$ as "J" and non-detects as "UJ". If the difference is $> 4 \times \text{CRQL}$, reject (R) and red-line non-detects and detects $\geq \text{MDL}$ but $< 5 \times \text{CRQL}$ of the sample and its Field Duplicate.

20 Laboratory Control Sample (LCS) - Form VII

N/A as per TDF

20.1 Was one LCS prepared and analyzed for:

Each SDG?

Each matrix type?

Each batch samples digested/distilled?

<input type="checkbox"/>	YES	<input checked="" type="checkbox"/>
<input type="checkbox"/>	YES	<input checked="" type="checkbox"/>
<input type="checkbox"/>	YES	<input checked="" type="checkbox"/>

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1.20.3 Solid LCS

YES

NO

N/A

If an analyte's MDL is equal to or greater than the true value of LCS, disregard the "Action" below for that analyte even though the LCS is out of control limits.

Is the LCS "Found" value greater than the Upper Control Limit reported on Form VII?

— [] — ☒

ACTION:

If yes, flag (J) all the associated detects \geq MDL as estimated (J).

Is the LCS "Found" value lower than the Lower Control Limit reported on Form VII?

— [] — ☒

ACTION:

If yes, flag detects as "J" and non-detects as "UJ".

1.21 ICP-AES/ICP-MS Serial Dilution - Form VIII

NOTE: Serial dilution analysis is required only when the initial concentration is equal to or greater than 50 x MDL.

1.21.1 Was a Serial Dilution analysis performed:

For each SDG?

[☒] — —

On one of the SDG samples?

[☒] — —

For each matrix type?

[☒] — —

For each concentration range (low or med.)?

[☒] — —

Was a Serial Dilution sample analyzed with the SDG samples?

[☒] — —

ACTION:

If no for any of the above, flag as estimated (J) detects \geq MDL of all the SDG samples for which the ICP Serial Dilution Analysis was not performed.

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YES

NO

N/A

difference on Appendix A.5 as a percent of the total analyte only when both of the following conditions are fulfilled:

- (1) The dissolved(or inorganic)concentration is greater than total concentration, and
- (2) greater than or equal to 5xMDL.

1.22.2 Is any dissolved (or inorganic) concentration greater than its total concentration by more than 20%?

— [] ✓

1.22.3 Is any dissolved(or inorganic) concentration greater than its total concentration by more than 50%?

— [] ✓

ACTION:

If the percent difference is greater than 20%, flag (J) both dissolved/inorganic and total concentrations as estimated. If the difference is more than 50%, reject (R) and red-line both the values.

Field Blank - Form I

NOTE: Designate "Field Blank" as such on Form I

1.23.1 Was a Field/Rinsate Bank collected and analyzed with the SDG samples?

[] — ✓

If yes, is any Field/Rinsate Blank absolute value of an analyte on Form I greater than its CRQL(or 2xMDL when MDL>CRQL)?

— [] ✓

If yes, circle the Field Blank value on Form I that is greater than the CRQL, (or 2 x MDL when MDL > CRQL).

Is any Field Blank value greater than CRQL also greater than the Preparation Blank value?

— [] ✓

If yes, is the Field Blank value (> CRQL and > the prep. blank value) already rejected due to other QC criteria?

[] — ✓

ACTION:

If the Field Blank value was not rejected, reject all associated sample data (except

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Appendix A.1

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YES

NO

N/A

ACTION:

If no for any of the above, prepare Telephone Record Log and contact CLP PO/TOPO for submittal of the MDLs from the laboratory. Report to CLP PO and write in the Contract Problems/Non-Compliance Section of the Data Review Narrative if the MDL concentration is not less than $\frac{1}{2}$ CRQL.

- 1.24.2.2 Is MDL greater than the CRQL for any analyte?

— [] — ✓

If yes, is the analyte concentration on Form I greater than 5 x MDL for the sample analyzed on the instrument whose MDL exceeds CRQL?

[] — — ✓

ACTION:

If no, flag as estimated (J) all values less than five times MDL for the analyte whose MDL exceeds the CRQL.

1.24.3 Linear Ranges - Form XI

N/A as per TDT

- 1.24.3.1 Was any sample result higher than the high linear range for ICP-AES or ICP-MS?

— [] — ✓

Was any sample result higher than the highest calibration standard for mercury or cyanide?

— [] — ✓

If yes for any of the above, was the sample diluted to obtain the result reported on Form I?

[] — — ✓

ACTION:

If no, flag (J) as estimated the affected detects (\geq MDL) reported on Form I.

.25 ICP-MS Tune Analysis - Form XIV

- .25.1 Was the ICP-MS instrument tuned prior to calibration?

[] — — ✓

ACTION:

If no, reject (R) and red-line all sample data for which tuning was not performed.

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YES NO N/A

If no, was the original sample diluted
two fold, Internal Standard added and the
sample re-analyzed?

[]

—

—

Was the %RI for the two fold diluted sample
within the acceptance limits (60-125%)?

[]

—

—

ACTION:

If no for any of the above, flag detects
as "J" and non-detects "UJ" of all the
analytes with atomic masses between the

atomic mass of the internal standard lighter
than the affected internal standard, and the
atomic mass of the internal standard heavier
than the affected internal standard.

1.27 **Percent Solids of Sediments**

1.27.1 Are percent solids in sediment(s):

< 50%?

—

[]

—

ACTION:

If yes, qualify as estimated (J) all detects and
non-detects of a sample that has percent solids
less than 50%(i.e.,moisture content greater than 50%).

NOTE:

Flag(J) only the sample results
that were not previously flagged
due to other QC criteria.

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E09

Lab Name CHEMTECH CONSULTING GROUP Contract: EPW06047

Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E05

Matrix: (soil/water) SOIL Lab Sample ID: Y4210-02

Level: (low/med) LOW Date Received: 08/25/2007

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	0.97	J		P
7440-39-3	Barium	2.0 12.0	J U		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.15	J		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	656			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	1.2			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	0.99	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments:

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1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E10

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047

Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E05

Matrix: (soil/water) SOIL Lab Sample ID: Y4210-03

Level: (low/med) LOW Date Received: 08/25/2007

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1.0	U		P
7440-39-3	Barium	26.0			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.17	J		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	4.6			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	1.5			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.095	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN

Clarity Before: _____

Texture: MEDIUM

Color After: YELLOW

Clarity After: _____

Artifacts: _____

Comments:

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EPA SAMPLE NO.

MB4E11

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047

Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E05

Matrix: (soil/water) SOIL Lab Sample ID: Y4210-04

Level: (low/med) LOW Date Received: 08/25/2007

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1.0	U		P
7440-39-3	Barium	20 10.1	J U		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.50	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	10.8			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	0.57	J		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.095	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E12

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E05Matrix: (soil/water) SOIL Lab Sample ID: Y4210-05Level: (low/med) LOW Date Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1.0	U		P
7440-39-3	Barium	20 15	J	U	P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.082	J		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	12.8			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	1.7			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN

Clarity Before: _____

Texture: MEDIUMColor After: YELLOW

Clarity After: _____

Artifacts: _____

Comments:

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EPA SAMPLE NO.

MB4E14

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E05Matrix: (soil/water) SOIL Lab Sample ID: Y4210-06Level: (low/med) LOW Date Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	2.4			P
7440-39-3	Barium	25.8			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.43	J		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	20.8			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	4.4			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.089	J		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.4	U		P
7440-22-4	Silver	0.98	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN

Clarity Before: _____

Texture: MEDIUMColor After: YELLOW

Clarity After: _____

Artifacts: _____

Comments:

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EPA SAMPLE NO.

MB4E15

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E05Matrix: (soil/water) SOIL Lab Sample ID: Y4210-07Level: (low/med) LOW Date Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	0.96	J		P
7440-39-3	Barium	20123	J	U	P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.19	J		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	631			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	7.3			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.14			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	1.2	J		P
7440-22-4	Silver	0.33	J		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: _____ Texture: MEDIUMColor After: YELLOW Clarity After: _____ Artifacts: _____

Comments:

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EPA SAMPLE NO.

MB4E17

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E05Matrix: (soil/water) SOIL Lab Sample ID: Y4210-08Level: (low/med) LOW Date Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	0.96	J		P
7440-39-3	Barium	20 49	J	U	P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.067	J		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	412			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	1.8			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	1.4	J		P
7440-22-4	Silver	0.28	J		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN

Clarity Before: _____

Texture: MEDIUMColor After: YELLOW

Clarity After: _____

Artifacts: _____

Comments:

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EPA SAMPLE NO.

MB4E19

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E05Matrix: (soil/water) SOIL Lab Sample ID: Y4210-11Level: (low/med) LOW Date Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1.1			P
7440-39-3	Barium	2.0 1.1	Y	U	P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.077	J		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	73.6			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	2.1			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	1.4	J		P
7440-22-4	Silver	2.6			P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN

Clarity Before: _____

Texture: MEDIUMColor After: YELLOW

Clarity After: _____

Artifacts: _____

Comments:

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EPA SAMPLE NO.

MB4E20

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E05Matrix: (soil/water) SOILLab Sample ID: Y4210-12Level: (low/med) LOWDate Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	0.69	J		P
7440-39-3	Barium	2.0 3.0	J	U	P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.50	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	49.0			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	0.61	J		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.12			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.79	J		P
7440-22-4	Silver	0.99	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN

Clarity Before: _____

Texture: MEDIUMColor After: YELLOW

Clarity After: _____

Artifacts: _____

Comments:

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EPA SAMPLE NO.

MB4E21

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047

Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E05

Matrix: (soil/water) SOIL Lab Sample ID: Y4210-13

Level: (low/med) LOW Date Received: 08/25/2007

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1.0	U		P
7440-39-3	Barium	41.7			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.66			P
7440-70-2	Calcium				NR
7440-47-3	Chromium	24.1			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	2.0			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.091	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments:

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EPA SAMPLE NO.

MB4E24

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047

Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E05

Matrix: (soil/water) SOIL Lab Sample ID: Y4210-14

Level: (low/med) LOW Date Received: 08/25/2007

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	2.5			P
7440-39-3	Barium	44.7			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.38	J		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	19200		D	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	2.0			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments:

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EPA SAMPLE NO.

MB4E25

Lab Name CHEMTECH CONSULTING GROUP Contract: EPW06047

Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E05

Matrix: (soil/water) SOIL Lab Sample ID: Y4210-15

Level: (low/med) LOW Date Received: 08/25/2007

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	28.3			P
7440-39-3	Barium	20.6	✓	U	P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	3.7			P
7440-70-2	Calcium				NR
7440-47-3	Chromium	550			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	1.0	U		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.16			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E26

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E05Matrix: (soil/water) SOIL Lab Sample ID: Y4210-16Level: (low/med) LOW Date Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1.0	U		P
7440-39-3	Barium	20 15.9	J	U	P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.21	J		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	153			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	19.8			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.058	J		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: _____ Texture: MEDIUMColor After: YELLOW Clarity After: _____ Artifacts: _____

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E27

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E05Matrix: (soil/water) SOIL Lab Sample ID: Y4210-17Level: (low/med) LOW Date Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	0.64	J		P
7440-39-3	Barium	20.54	J	U	P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.92			P
7440-70-2	Calcium				NR
7440-47-3	Chromium	51.3			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	17.8			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	2.2			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	0.38	J		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: _____ Texture: MEDIUMColor After: YELLOW Clarity After: _____ Artifacts: _____

Comments:

USEPA - CLP
IA-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E28

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047

Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E05

Matrix: (soil/water) SOIL Lab Sample ID: Y4210-18

Level: (low/med) LOW Date Received: 08/25/2007

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	5.3			P
7440-39-3	Barium	36.9			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	4.4			P
7440-70-2	Calcium				NR
7440-47-3	Chromium	196			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	17.4			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.26			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E29

Lab Name CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E05Matrix: (soil/water) SOIL Lab Sample ID: Y4210-19Level: (low/med) LOW Date Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1.4			P
7440-39-3	Barium	2.0 2.0	J	U	P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	1.2			P
7440-70-2	Calcium				NR
7440-47-3	Chromium	187			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	24.0			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.17			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	0.63	J		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN

Clarity Before: _____

Texture: MEDIUMColor After: YELLOW

Clarity After: _____

Artifacts: _____

Comments:

USEPA - CLP
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E31

Lab Name CHEMTECH CONSULTING GROUP Contract: EPW06047

Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E05

Matrix: (soil/water) SOIL Lab Sample ID: Y4210-20

Level: (low/med) LOW Date Received: 08/25/2007

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1.9			P
7440-39-3	Barium	20.9			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.56			P
7440-70-2	Calcium				NR
7440-47-3	Chromium	15.9			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	4.4			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.097	J		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments:

USEPA - CLP

IA-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E45

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E05Matrix: (soil/water) SOIL Lab Sample ID: Y4210-21Level: (low/med) LOW Date Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	3.7			P
7440-39-3	Barium	31.5			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.73			P
7440-70-2	Calcium				NR
7440-47-3	Chromium	15.2			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	6.1			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.4	U		P
7440-22-4	Silver	0.98	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN

Clarity Before: _____

Texture: MEDIUMColor After: YELLOW

Clarity After: _____

Artifacts: _____

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E48

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E05Matrix: (soil/water) SOIL Lab Sample ID: Y4210-22Level: (low/med) LOW Date Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	0.70	J		P
7440-39-3	Barium	10700		D	P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.22	J		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	16.9			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	3.0			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.14			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN

Clarity Before: _____

Texture: MEDIUMColor After: YELLOW

Clarity After: _____

Artifacts: _____

Comments:

From: Rudolph, Elizabeth [erudolph@fedcsc.com]
Sent: Tuesday, August 28, 2007 9:20 AM
To: parveen
Subject: FW: New Issue #48 | Case 36740 | Lab CHEM | Issue Multiple
Parveen,

Could you please confirm that none of the water samples are listed as field samples? In addition, please note resolutions below.

-Non-sampler issues-

Issue 1: The Case is scheduled for laboratory QC on the wipe samples however the Modified Analysis document states that laboratory QC is not required on the wipe samples.

Resolution 1: Per Region 2, the laboratory shall analyze the wipe samples using the MA 1469.0 and not analyze for Lab QC (Lab Duplicate & Matrix Spike) analyses for these samples. The lab should note the issue in the SDG Narrative.

-Laboratory problems-

Issue 2: The laboratory would like to confirm that laboratory QC is not required on the water samples.

Resolution 3: Per Region 2, if all samples in an SDG are field/rinse blanks, the Lab QC (Lab Dup & Matrix Spike) are not required. If field/rinse blanks and field samples are both present in an SDG, then the lab QC s are required. The lab should note the issue in the SDG Narrative.

-Insufficient/inappropriate designation of laboratory QC-

Issue 2: Sample MB4E32 is designated for laboratory QC however there is insufficient volume for lab QC and analysis. In addition, the lab already has enough samples designated for lab QC for all SDGs therefore the lab would like to forgo lab QC on this sample.

Resolution 3: Per Region 2, if enough samples have been designated for QCs for all SDGs, then there is no need to analyze sample MB4E32 for lab QC and the lab shall note the issue in the SDG Narrative.

Please let me know if you have any questions.
Thanks,

Beth

-----Original Message-----

From: Sheikh.Muhammad@epamail.epa.gov [mailto:Sheikh.Muhammad@epamail.epa.gov]
Sent: Monday, August 27, 2007 5:10 PM
To: Rudolph, Elizabeth
Cc: Michael.adly@epamail.epa.gov; feranda.jennifer@epa.gov; Mauel.Linda@epamail.epa.gov
Subject: Re: New Issue #48 | Case 36740 | Lab CHEM | Issue Multiple

Beth,

Here are the resolutions:

Issue 1: Please advise the lab to analyze the wipe samples using the MA 1469.0 and not analyze Lab QC (Lab Duplicate & Matrix Spike) analyses for these samples. The lab should note the issue in the SDG narrative.

Issue 2: If all samples in an SDG are field/rinse blanks, the Lab QC (Lab Dup & Matrix Spike) are not required. If field/rinse blanks and field samples are both present in an SDG, then the lab QC s are required. The lab should note the issue in the SDG narrative.

Issue 3: If enough samples have been designated for QCs for all SDGs, there is no need to analyze sample MB4E32 for lab QCs.
The lab should note the issue in the SDG narrative.

Thanks,

Hanif Sheikh
Alt. CLP PO
EPA-Region 2
Tel. (732) 906-6169
Fax # (732) 321-6622

-----Original Message-----

From: Rudolph, Elizabeth
Sent: Monday, August 27, 2007 3:35 PM
To: Hanif (E-mail)
Cc: Adly Michael; Jennifer Feranda
Subject: New Issue #48 | Case 36740 | Lab CHEM | Issue Multiple

Hanif,

CHEM is reporting the following three issues, please advise how the laboratory should proceed.

-Non-sampler issues-

Issue 1: The Case is scheduled for laboratory QC on the wipe samples however the Modified Analysis document states that laboratory QC is not required on the wipe samples.

-Laboratory problems-

Issue 2: The laboratory would like to confirm that laboratory QC is not required on the water samples.

-Insufficient/inappropriate designation of laboratory QC-

Issue 2: Sample MB4E32 is designated for laboratory QC however there is insufficient volume for lab QC and analysis. In addition, the lab already has enough samples designated for lab QC for all SDGs therefore the lab would like to forgo lab QC on this sample.

Please let me know if you have any questions.

Thanks,

Beth

This is a PRIVATE message. If you are not the intended recipient, please delete without copying and kindly advise us by e-mail of the mistake in delivery. NOTE: Regardless of content, this e-mail shall not operate to bind CSC to any order or other contract unless pursuant to explicit written agreement or government initiative expressly permitting the use of e-mail for such purpose.

8/27/2007 3:00 PM Phone conversation between Beth Rudolph, SMO, and Parveen Hasan, CHEM. Parveen reported the following three issues.

Issue 1: The Case is scheduled for laboratory QC on the wipe samples however the Modified Analysis document states that laboratory QC is not required on the wipe samples.

Issue 2: The laboratory would like to confirm that laboratory QC is not required on the water samples.

Issue 2: Sample MB4E32 is designated for laboratory QC however there is not sufficient volume for lab QC and analysis. In addition the lab already has enough samples designated for lab QC for all SDGs therefore the lab would like to forgo lab QC on this sample.

Request for Quote (RFQ) for Modified Analysis

Date: August 15, 2007

Subject: Modification Reference Number: 1469.0

Title: Liquid Waste, Solid Waste, Concrete, Plastic, Dust and Wipe matrix

~~Sample Matrix: Liquid Waste, Solid Waste, Concrete, Plastic, Dust and Wipe~~

Fraction Affected: Metals, Mercury

Statement of Work: ILM05.4

Purpose:

The Contractor Laboratory is requested to perform the following modified analyses under the Inorganic Statement of Work (SOW) ILM05.4, based on the additional specifications listed below. Unless specifically modified by this modification, all analyses, Quality Control (QC), and reporting requirements specified in SOW ILM05.4 remain unchanged and in full force and effect. The number of samples requested in this modification is not guaranteed.

Please note that accepting a modified analysis request is voluntary, and that the Laboratory is not required to accept the modified analysis. There will be no adverse effect to the Laboratory for not accepting the modified analysis request. However, once the Laboratory accepts the request for modified analysis, it shall perform the analysis in accordance with this modification and as specified in SOW ILM05.4.

The Laboratory is requested to review the modification described herein, determine whether or not it shall accept the requested modified analyses, and complete the attached response form. The Laboratory shall provide comments in response to the required changes in the designated area, in order to ensure that the modified analysis can be completed in accordance with the specifications described herein.

The requirements in the RFQ are as stated and any defects will be assessed by SMO per the laboratory contract. The Laboratory should take this into account when submitting their quote.

Notice to Contractors: Acceptance of Modified Analysis samples will not count against the monthly capacity.

Modification to the SOW Specifications:

The Laboratory shall provide the Preliminary Results (PR) for the requested analyses within 7 days of the VTSR.

Solid Waste, Concrete, Plastic, Dust and Wipe

The Laboratory shall prepare and analyze solid waste, concrete, plastic, dust and wipe matrices as solids for Metals and Mercury as indicated on the Traffic Report/Chain of Custody Record.

The Laboratory shall digest these matrices by Methods, HS1, HS2, or MS1 and analyze the samples for metals by ICP-AES.

The Laboratory shall digest these matrices by Method CS1 and analyze the samples for Mercury.

The Laboratory shall report the results for waste samples in units of mg/kg.

No Duplicate or Matrix Spike analysis is required for the wipe samples.

The Laboratory is warned that the composition of these waste samples is unknown and may contain high levels of target analytes or non-target interferences. The Laboratory is strongly urged to screen the samples prior to analysis. The Laboratory is further warned that the wastes may contain volatile or reactive substances and should only be opened and handled in appropriate hoods and that any acid addition or heating steps should be performed with caution.

Liquid Waste

The Laboratory shall prepare and analyze the liquid waste sample as aqueous for Metals and Mercury as indicated on the Traffic Report/Chain of Custody Record.

The Laboratory shall digest the samples by Methods, HW1 or MW1 and analyze the samples for metals by ICP-AES.

The Laboratory shall digest these samples by methods CW1 or CW2 and analyze for Mercury by AA.

The Laboratory shall report the results for waste samples in units of ug/L.

The Laboratory is warned that the composition of these waste samples is unknown and may contain high levels of target analytes or non-target interferences. The Laboratory is strongly urged to screen the samples prior to analysis. The Laboratory is further warned that the wastes may contain volatile or reactive substances and should only be opened and handled in appropriate hoods and that any acid addition or heating steps should be performed with caution.

Reporting Requirements:

Hardcopy and electronic data reporting are required as specified per SOW ILM05.4. All hardcopy and electronic data shall be adjusted to incorporate modified specifications. This includes attaching ~~a copy of the requirements for modified analysis to the SDG Narrative. If specific problems occur~~ with incorporation of the modified analysis into the hardcopy and/or electronic deliverable, the Laboratory shall contact the DASS Manager within the Sample Management Office (SMO) at (703) 818-4233 or via e-mail at CCSSUPPORT@fedcsc.com for resolution.

All samples and/or fractions assigned to an SDG shall be analyzed under the same Modified Analysis requirements as established in this memorandum. The Laboratory shall not include data from multiple Modified Analyses in one SDG.

The Laboratory shall include the Modification Reference Number 1469.0 on each hardcopy data form under the "NRAS No:" header appearing on each form as well as the "NRAS No." field on the Record type 21 of the electronic deliverable (if diskette deliverable is required). The Laboratory shall also document the Modification Reference Number and Solicitation Number on the SDG Coversheet.

Clarifications/Revisions to the RFQ for Modified Analysis:

Laboratory Name: CHEM
Laboratory Comments:

CHEMTECH
284 Sheffield Street
Mountainside, NJ 07092

RECEIVED
SEP 18 2007
HAZ. WASTE SUPPORT SEC.

SDG NARRATIVE

USEPA
SDG # MB4E22
CASE # 36740
CONTRACT # EPW06047
LAB NAME: CHEMTECH CONSULTING GROUP
LAB CODE: CHEM
CHEMTECH PROJECT #Y4211
MODIFIED ANALYSIS: 1469.0

A. Number of Samples and Date of Receipt

14 Solid Samples were delivered to the laboratory intact on 08/25/07 & 08/31/07.

B. Parameters

Test requested for Total Metals (by ICP-AES) & Hg.

C. Cooler Temp

Indicator Bottle: Presence/Absence
Cooler: 4° & 6°C

D. Detail Documentation (related to Sample Handling Shipping, Analytical Problem, Temp of Cooler etc):

Issue 1: The laboratory would like to know if they should do percent solid for these two samples

Issue 2: For sample MB4E80, should the lab crush the rock and ignore the water portion?

Issue 3: The lab also received water sample MB4E81, the lab would like to know if laboratory QC is not required.

Issue 4: The Case is scheduled for laboratory QC on the wipe samples however the Modified Analysis document states that laboratory QC is not required on the wipe samples.

Issue 5: sample MB4E32 is designated for laboratory QC however there is insufficient volume for lab QC and analysis. In addition, the lab already has enough samples designated for lab QC for all SDGs therefore the lab would like to forgo lab QC on this sample.

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CHEMTECH

284 Sheffield Street

Mountainside, NJ 07092

E. Corrective Action taken for above:

Resolution 1: Per Region 2, the laboratory should perform percent solids.

Resolution 2: Per Region 2, the lab shall crush and analyze the rock and ignore the water portion.

Resolution 3: Per Region 2, laboratory QC is not required on the water samples.

Resolution 4 Per Region 2, the laboratory shall analyze the wipe samples using the MA 1469.0 and not analyze for Lab QC (Lab Duplicate & Matrix Spike) .

Resolution 5: Per Region 2, if enough samples have been designated for QCs for all SDGs, then there is no need to analyze sample MB4E32 for lab QC and the lab shall note the issue in the SDG Narrative.

F. Analytical Techniques:

All analyses were based on CLP Methodology by method ILM05.4

G. Calculation:

For ICP-AES:

Result in Ug/L on Forms = Results in ppm (ICP-AES Raw Data) X 1000 X Dilution Factor (if any)

For Hg:

Result in Ug/L on Forms = Results in ppb (Hg Raw Data) X Dilution Factor (if any)

Soil Sample Calculation:

Conversion of results from mg/L to mg/kg (Dry Weight Basis):

Mg/Kg = (Result in mg/L) X 1000 X 100/ % Solid X Fraction of Sample Amount Taken in Prep.

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CHEMTECH

284 Sheffield Street
Mountainside, NJ 07092

H. QA/ QC

Calibrations met requirements. Interference check met requirements. Blank analyses did not indicate any presence of contamination. Laboratory Control sample was within control limits. Spike sample did meet requirements. Duplicate sample did meet requirements except for Barium & Chromium. Serial Dilution did meet requirements.

I certify that the data package is in compliance with the terms and conditions of the contract both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Director or his designee, as verified by the following signature.

Signature

Aireal Fudge-Johnson

Name: Aireal Fudge-Johnson

Date

9/6/07

Title: DATA ENTRY CHEMIST

4

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E05

Lab Name CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E05Matrix: (soil/water) SOILLab Sample ID: Y4210-01Level: (low/med) LOWDate Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	2.1			P
7440-39-3	Barium	2.2 3.6	X	U	P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	5.9			P
7440-70-2	Calcium				NR
7440-47-3	Chromium	34.6			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	6.0			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	0.99	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN

Clarity Before: _____

Texture: MEDIUMColor After: YELLOW

Clarity After: _____

Artifacts: _____

Comments:

SDG Number: MB4E22**RECEIVED**

SEP 18 2007

HAZ. WASTE SUPPORT SEC.

Laboratory
Name:CHEMTECHLaboratory Code: CHEMContract No. EPW06047Case No. 36740Analysis
Price

SDG Turnaround

21/PR dayModified Analysis (if applicable):Modification Reference No: 1469.0

USEPA Sample Numbers in SDG (Listed in Numerical Order)

MB4E22	MB4E22D	MB4E22S	MB4E33
MB4E34	MB4E36	MB4E37	MB4E38
MB4E39	MB4E40	MB4E41	MB4E42
MB4E43	MB4E44	MB4E79	MB4E80

First Sample in SDG

Last Sample in SDG

MB4E22MB4E80

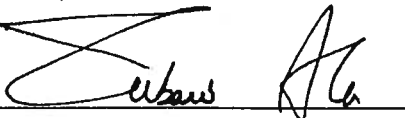
First Sample Receipt Date

Last Sample Receipt Date

8/25/2007 10:15:00 AM8/31/2007 9:30:00 AM**Note:** There are a maximum of 20 **field** samples (excluding PE samples) in an SDG.

Attach TR/COC Records to this form in alphanumeric order (the order listed above on this form).

Signature



Date

8/27/07

9

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E22

Lab Name CHEMTECH CONSULTING GROUP Contract: EPW06047

Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E22

Matrix: (soil/water) SOIL Lab Sample ID: Y4211-01

Level: (low/med) LOW Date Received: 08/25/2007

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	2.2			P
7440-39-3	Barium	74.3		* J	P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.42	J		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	1040		* J	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	2.7			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E34

Lab Name CHEMTECH CONSULTING GROUP Contract: EPW06047

Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E22

Matrix: (soil/water) SOIL Lab Sample ID: Y4211-05

Level: (low/med) LOW Date Received: 08/25/2007

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	3.4			P
7440-39-3	Barium	39.7		*	P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	1.1			P
7440-70-2	Calcium				NR
7440-47-3	Chromium	1060		*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	6.5			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	1.4			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.4	U		P
7440-22-4	Silver	0.98	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E36

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E22Matrix: (soil/water) SOIL Lab Sample ID: Y4211-06Level: (low/med) LOW Date Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	3.5			P
7440-39-3	Barium	49.0		* J	P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.62			P
7440-70-2	Calcium				NR
7440-47-3	Chromium	22.1		* J	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	6.7			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.040	J		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: _____ Texture: MEDIUMColor After: YELLOW Clarity After: _____ Artifacts: _____

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E37

Lab Name CHEMTECH CONSULTING GROUP Contract: EPW06047

Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E22

Matrix: (soil/water) SOIL Lab Sample ID: Y4211-07

Level: (low/med) LOW Date Received: 08/25/2007

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	3.0			P
7440-39-3	Barium	45.7		* J	P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	1.3			P
7440-70-2	Calcium				NR
7440-47-3	Chromium	112		* J	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	9.0			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E38

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E22Matrix: (soil/water) SOIL Lab Sample ID: Y4211-08Level: (low/med) LOW Date Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1.7			P
7440-39-3	Barium	44.2		* J	P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	1.5			P
7440-70-2	Calcium				NR
7440-47-3	Chromium	129		* J	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	14.5			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: _____ Texture: MEDIUMColor After: YELLOW Clarity After: _____ Artifacts: _____

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E39

Lab Name CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E22Matrix: (soil/water) SOIL Lab Sample ID: Y4211-09Level: (low/med) LOW Date Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	3.0			P
7440-39-3	Barium	46.7		* J	P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.57			P
7440-70-2	Calcium				NR
7440-47-3	Chromium	18.5		* J	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	6.3			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.091	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: _____ Texture: MEDIUMColor After: YELLOW Clarity After: _____ Artifacts: _____

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E40

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E22Matrix: (soil/water) SOIL Lab Sample ID: Y4211-10Level: (low/med) LOW Date Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	13.4			P
7440-39-3	Barium	33.3		* J	P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	1.6			P
7440-70-2	Calcium				NR
7440-47-3	Chromium	17.1		* J	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	7.6			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.095	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	0.99	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: _____ Texture: MEDIUMColor After: YELLOW Clarity After: _____ Artifacts: _____

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E41

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047

Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E22

Matrix: (soil/water) SOIL Lab Sample ID: Y4211-11

Level: (low/med) LOW Date Received: 08/25/2007

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1.2			P
7440-39-3	Barium	20 14.7	J	* UJ	P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	2.8			P
7440-70-2	Calcium				NR
7440-47-3	Chromium	2340		* J	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	15.3			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.065	J		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	0.36	J		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E42

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047

Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E22

Matrix: (soil/water) SOIL Lab Sample ID: Y4211-12

Level: (low/med) LOW Date Received: 08/25/2007

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	2.9			P
7440-39-3	Barium	43.8		* J	P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	1.3			P
7440-70-2	Calcium				NR
7440-47-3	Chromium	16.1		* J	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	8.0			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.095	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E43

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E22Matrix: (soil/water) SOIL Lab Sample ID: Y4211-13Level: (low/med) LOW Date Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	26.3			P
7440-39-3	Barium	20.40	↓	* <u>VS</u>	P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	10.9			P
7440-70-2	Calcium				NR
7440-47-3	Chromium	1380		* <u>J</u>	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	15.0			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.11			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN

Clarity Before: _____

Texture: MEDIUMColor After: YELLOW

Clarity After: _____

Artifacts: _____

Comments:

1A-IN
 INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E44

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E22Matrix: (soil/water) SOIL Lab Sample ID: Y4211-14Level: (low/med) LOW Date Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	2.7			P
7440-39-3	Barium	36.5		* J	P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.70			P
7440-70-2	Calcium				NR
7440-47-3	Chromium	20.1		* J	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	6.4			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.095	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: _____ Texture: MEDIUMColor After: YELLOW Clarity After: _____ Artifacts: _____

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E79

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E22Matrix: (soil/water) SOIL Lab Sample ID: Y4211-15Level: (low/med) LOW Date Received: 08/31/2007% Solids: 100.0Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	4.0			P
7440-39-3	Barium	180		*	P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.50	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	319		*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	11.1			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: _____ Texture: MEDIUMColor After: YELLOW Clarity After: _____ Artifacts: _____

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E80

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E22Matrix: (soil/water) SOIL Lab Sample ID: Y4211-16Level: (low/med) LOW Date Received: 08/31/2007% Solids: 100.0Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	5.4			P
7440-39-3	Barium	22.0		* J	P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.53			P
7440-70-2	Calcium				NR
7440-47-3	Chromium	22.3		* J	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	13.8			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: _____ Texture: MEDIUMColor After: YELLOW Clarity After: _____ Artifacts: _____

Comments:

From: Rudolph, Elizabeth [erudolph@fedcsc.com]
Sent: Tuesday, August 28, 2007 9:20 AM
To: parveen
Subject: FW: New Issue #48 | Case 36740 | Lab CHEM | Issue Multiple
Parveen,

Could you please confirm that none of the water samples are listed as field samples? In addition, please note resolutions below.

-Non-sampler issues-

Issue 1: The Case is scheduled for laboratory QC on the wipe samples however the Modified Analysis document states that laboratory QC is not required on the wipe samples.

Resolution 1: Per Region 2, the laboratory shall analyze the wipe samples using the MA 1469.0 and not analyze for Lab QC (Lab Duplicate & Matrix Spike) analyses for these samples. The lab should note the issue in the SDG Narrative.

-Laboratory problems-

Issue 2: The laboratory would like to confirm that laboratory QC is not required on the water samples.

Resolution 3: Per Region 2, if all samples in an SDG are field/rinse blanks, the Lab QC (Lab Dup & Matrix Spike) are not required. If field/rinse blanks and field samples are both present in an SDG, then the lab QC s are required. The lab should note the issue in the SDG Narrative.

-Insufficient/inappropriate designation of laboratory QC-

Issue 2: Sample MB4E32 is designated for laboratory QC however there is insufficient volume for lab QC and analysis. In addition, the lab already has enough samples designated for lab QC for all SDGs therefore the lab would like to forgo lab QC on this sample.

Resolution 3: Per Region 2, if enough samples have been designated for QCs for all SDGs, then there is no need to analyze sample MB4E32 for lab QC and the lab shall note the issue in the SDG Narrative.

Please let me know if you have any questions.
Thanks,

Beth

-----Original Message-----

From: Sheikh.Muhammad@epamail.epa.gov [mailto:Sheikh.Muhammad@epamail.epa.gov]
Sent: Monday, August 27, 2007 5:10 PM
To: Rudolph, Elizabeth
Cc: Michael.adly@epamail.epa.gov; feranda.jennifer@epa.gov; Mauel.Linda@epamail.epa.gov
Subject: Re: New Issue #48 | Case 36740 | Lab CHEM | Issue Multiple

Beth,

Here are the resolutions:

Issue 1: Please advise the lab to analyze the wipe samples using the MA 1469.0 and not analyze Lab QC (Lab Duplicate & Matrix Spike) analyses for these samples. The lab should note the issue in the SDG narrative.

Issue 2: If all samples in an SDG are field/rinse blanks, the Lab QC (Lab Dup & Matrix Spike) are not required. If field/rinse blanks and field samples are both present in an SDG, then the lab QC s are required. The lab should note the issue in the SDG narrative.

Issue 3: If enough samples have been designated for QCs for all SDGs, there is no need to analyze sample MB4E32 for lab QCs.
The lab should note the issue in the SDG narrative.

Thanks,

Hanif Sheikh
Alt. CLP PO
EPA-Region 2
Tel. (732) 906-6169
Fax # (732) 321-6622

-----Original Message-----

From: Rudolph, Elizabeth
Sent: Monday, August 27, 2007 3:35 PM
To: Hanif (E-mail)
Cc: Adly Michael; Jennifer Feranda
Subject: New Issue #48 | Case 36740 | Lab CHEM | Issue Multiple

Hanif,

CHEM is reporting the following three issues, please advise how the laboratory should proceed.

-Non-sampler issues-

Issue 1: The Case is scheduled for laboratory QC on the wipe samples however the Modified Analysis document states that laboratory QC is not required on the wipe samples.

-Laboratory problems-

Issue 2: The laboratory would like to confirm that laboratory QC is not required on the water samples.

-Insufficient/inappropriate designation of laboratory QC-

Issue 2: Sample MB4E32 is designated for laboratory QC however there is insufficient volume for lab QC and analysis. In addition, the lab already has enough samples designated for lab QC for all SDGs therefore the lab would like to forgo lab QC on this sample.

Please let me know if you have any questions.

Thanks,

Beth

This is a PRIVATE message. If you are not the intended recipient, please delete without copying and kindly advise us by e-mail of the mistake in delivery. NOTE: Regardless of content, this e-mail shall not operate to bind CSC to any order or other contract unless pursuant to explicit written agreement or government initiative expressly permitting the use of e-mail for such purpose.

8/27/2007 3:00 PM Phone conversation between Beth Rudolph, SMO, and Parveen Hasan, CHEM. Parveen reported the following three issues.

Issue 1: The Case is scheduled for laboratory QC on the wipe samples however the Modified Analysis document states that laboratory QC is not required on the wipe samples.

Issue 2: The laboratory would like to confirm that laboratory QC is not required on the water samples.

Issue 2: Sample MB4E32 is designated for laboratory QC however there is not sufficient volume for lab QC and analysis. In addition the lab already has enough samples designated for lab QC for all SDGs therefore the lab would like to forgo lab QC on this sample.

From: Rudolph, Elizabeth [erudolph@fedcsc.com]
Sent: Tuesday, September 04, 2007 12:34 PM
To: parveen
Cc: Adly Michael; Jennifer Feranda
Subject: Region 02 | Case 36740 | Lab CHEM | Issue Multiple | FINAL
Parveen,

Summary Start

Situation: The laboratory received 2 samples, MB4E79 and MB4E80 today (LRD: 08/31/07), sample MB4E79 is muddy with concrete and sample MB4E80 is a solid rock with water in the jar.

-Laboratory problems-

Issue 1: The laboratory would like to know if they should do percent solid for these two sample.

Resolution 1: Per Region 2, the laboratory should perform percent solids.

-Non-standard Matrix-

Issue 2: For sample MB4E80, should the lab crush the rock and ignore the water portion?

Resolution 2: Per Region 2, the lab shall crush and analyze the rock and ignore the water portion.

-Laboratory problems-

Issue 3: The lab also received water sample MB4E81, the lab would like to know if laboratory QC is not required.

Resolution 3: Per Region 2, laboratory QC is not required on the water samples.

Summary End

Thanks,
Beth

From: Feranda.Jennifer@epamail.epa.gov [mailto:Feranda.Jennifer@epamail.epa.gov]
Sent: Tuesday, September 04, 2007 12:37 PM
To: Rudolph, Elizabeth
Subject: FW: FW: Case 36740

Beth - This is to confirm that no QC is required for the aqueous samples for this case.

If you have any additional questions, please let me know.

Jennifer

Jennifer E. Feranda
U.S. EPA Region II
CLP Project Officer/RSCC
Phone: (732) 321-6687
Fax: (732) 321-6622

From: Rudolph, Elizabeth
Sent: Tuesday, September 04, 2007 11:02 AM
To: Adly Michael; Jennifer Feranda
Subject: Issues 56 and 57 | Case 36740 | Lab CHEM | Issue Laboratory problems

Jennifer,

It appears that issues 56 and 57 are the same issue so I will combine them. The Case is not scheduled for laboratory QC on the water samples. Should the Case be scheduled for lab QC on the water samples? There are 11 waters total that were scheduled. I have not been receiving shipping information for this Case and have had to request the TR/COCs from the lab but I believe that water samples were shipped on 8/24 and 8/30. Please advise.

Thanks,
Beth

From: Rudolph, Elizabeth
Sent: Tuesday, September 04, 2007 10:49 AM
To: Adly Michael; Jennifer Feranda
Subject: Region 02 | Case 36740 | Lab CHEM | Issue Laboratory problems

Jennifer,

Regarding issue 3 below, the water samples for this Case were expected to be blanks and therefore laboratory QC is not scheduled for any of the water samples. The sample MB4E81 is labeled as a Tunnel water which is why the lab is questioning if lab QC is required even though the Case is not scheduled for lab QC on water samples. Please advise.

Situation: The laboratory received 2 samples, MB4E79 and MB4E80 today (LRD: 08/31/07), sample MB4E79 is muddy with concrete and sample MB4E80 is a solid rock with water in the jar. Lab would like to know:

Issue 1: The laboratory would like to know if they should do percent solid for these two sample.

Resolution 1: Per Region 2, the laboratory should perform percent solids.

Issue 2: For sample MB4E80, should the lab crush the rock and ignore the water portion?

Resolution 2: Per Region 2, the lab shall crush and analyze the rock and ignore the water portion.

Issue 3: The lab also received water sample MB4E81 (according to jar- its Tunnel water), the lab would like to know if laboratory QC is required. The water samples for this Case are not scheduled for laboratory QC.

Thanks,
Beth

From: Feranda.Jennifer@epamail.epa.gov [mailto:Feranda.Jennifer@epamail.epa.gov]
Sent: Tuesday, September 04, 2007 10:38 AM
To: Rudolph, Elizabeth
Cc: Michael.Adly@epamail.epa.gov
Subject: Re: New Issue #57 | Case 36740 | Lab CHEM | Issue Laboratory problems

Beth - Please see responded below in blue.

Any questions, please let me know.

Jennifer
Jennifer E. Feranda
U.S. EPA Region II
CLP Project Officer/RSCC
Phone: (732) 321-6687
Fax: (732) 321-6622

-----"Rudolph, Elizabeth" <erudolph@fedcsc.com> wrote: -----

To: Adly Michael/R2/USEPA/US@EPA, Jennifer Feranda/R2/USEPA/US@EPA
From: "Rudolph, Elizabeth" <erudolph@fedcsc.com>
Date: 08/31/2007 04:02PM
Subject: New Issue #57 | Case 36740 | Lab CHEM | Issue Laboratory problems

Jennifer,

CHEM is reporting the following two issues. Please advise how the laboratory should proceed.

Issue 1: The Lab received 2 samples MB4E79 and MB4E80 today (LRD: 08/31/07), sample MB4E79 is muddy w/ concrete and sample MB4E80 is solid rock w/ water in the jar. Lab would like to know:

- a) Should the lab do percent Solid for these two sample? Yes
- b) For sample MB4E80- should the lab crush the rock and ignore the water portion? Yes, please crush and analyze the rock and ignore the water portion.

Issue 2: Lab also received water sample MB4E81 (according to jar- its Tunnel water), should Lab require QC for this sample? Was this sample marked for QC? If so, then yes, it should be analyzed for QC.

This issue was already reported and is waiting for a resolution. See issue #56.

Thanks,
Beth

From: parveen [mailto:parveen@chemtech.net]

Sent: Friday, August 31, 2007 3:28 PM

To: Rudolph, Elizabeth

Subject: RE: Region 02 | Case 36740 | Lab CHEM | Issue Laboratory problems | FINAL

Beth,

Issue 1: Lab received 2 samples MB4E79 & MB4E80 today (LRD: 08/31/07), sample MB4E79 is muddy w/ concrete and sample MB4E80 is solid rock w/ water in the jar. Lab wants to know-

- a) Should Lab do % Solid for these two sample?
- b) For sample MB4E80- should Lab crush the rock and ignore the water portion?

Issue 2: Lab also received water sample MB4E81 (according to jar- its Tunnel water), should Lab require QC for this sample?

Thanks
Parveen Hasan
284 Sheffield Street
Mountainside, NJ 07092
(908) 789-8900 Ext. 210
www.chemtech.net

From: Feranda.Jennifer@epamail.epa.gov [mailto:Feranda.Jennifer@epamail.epa.gov]

Sent: Tuesday, September 04, 2007 10:40 AM

To: Rudolph, Elizabeth

Cc: Michael.Adly@epamail.epa.gov

Subject: Re: New Issue #56 | Case 36740 | Lab CHEM | Issue Laboratory problems

Beth - QC is required for this case. I am not sure I understand what the issue is or why the lab assumes that all these samples are blanks, but according to the sampler, QC is required and that QC samples were designated in one of their shipments.

If you need the samples required for QC, please let me know.

Thanks - Jennifer

Jennifer E. Feranda
U.S. EPA Region II

Request for Quote (RFQ) for Modified Analysis

Date: August 15, 2007

Subject: Modification Reference Number: 1469.0
Title: Liquid Waste, Solid Waste, Concrete, Plastic, Dust and Wipe matrix
~~Sample Matrix: Liquid Waste, Solid Waste, Concrete, Plastic, Dust and Wipe~~
Fraction Affected: Metals, Mercury
Statement of Work: ILM05.4

Purpose:

The Contractor Laboratory is requested to perform the following modified analyses under the Inorganic Statement of Work (SOW) ILM05.4, based on the additional specifications listed below. Unless specifically modified by this modification, all analyses, Quality Control (QC), and reporting requirements specified in SOW ILM05.4 remain unchanged and in full force and effect. The number of samples requested in this modification is not guaranteed.

Please note that accepting a modified analysis request is voluntary, and that the Laboratory is not required to accept the modified analysis. There will be no adverse effect to the Laboratory for not accepting the modified analysis request. However, once the Laboratory accepts the request for modified analysis, it shall perform the analysis in accordance with this modification and as specified in SOW ILM05.4.

The Laboratory is requested to review the modification described herein, determine whether or not it shall accept the requested modified analyses, and complete the attached response form. The Laboratory shall provide comments in response to the required changes in the designated area, in order to ensure that the modified analysis can be completed in accordance with the specifications described herein.

The requirements in the RFQ are as stated and any defects will be assessed by SMO per the laboratory contract. The Laboratory should take this into account when submitting their quote.

Notice to Contractors: Acceptance of Modified Analysis samples will not count against the monthly capacity.

Reporting Requirements:

Hardcopy and electronic data reporting are required as specified per SOW ILM05.4. All hardcopy and electronic data shall be adjusted to incorporate modified specifications. This includes attaching a copy of the requirements for modified analysis to the SDG Narrative. If specific problems occur with incorporation of the modified analysis into the hardcopy and/or electronic deliverable, the Laboratory shall contact the DASS Manager within the Sample Management Office (SMO) at (703) 818-4233 or via e-mail at CCSSUPPORT@fedcsc.com for resolution.

All samples and/or fractions assigned to an SDG shall be analyzed under the same Modified Analysis requirements as established in this memorandum. The Laboratory shall not include data from multiple Modified Analyses in one SDG.

The Laboratory shall include the Modification Reference Number 1469.0 on each hardcopy data form under the "NRAS No." header appearing on each form as well as the "NRAS No." field on the Record type 21 of the electronic deliverable (if diskette deliverable is required). The Laboratory shall also document the Modification Reference Number and Solicitation Number on the SDG Coversheet.

Clarifications/Revisions to the RFQ for Modified Analysis:

Laboratory Name: CHEM**Laboratory Comments:**

CHEMTECH
284 Sheffield Street
Mountainside, NJ 07092

SDG NARRATIVE

USEPA
SDG # MB4E62
CASE # 36740
CONTRACT # EPW06047
LAB NAME: CHEMTECH CONSULTING GROUP
LAB CODE: CHEM
CHEMTECH PROJECT #Y4221
MODIFIED ANALYSIS: 1469.0

A. Number of Samples and Date of Receipt

12 Wipe Samples were delivered to the laboratory intact on 08/25/07.

B. Parameters

Test requested for Total Metals (by ICP-AES)& Hg.

C. Cooler Temp

Indicator Bottle: Presence/Absence
Cooler: 4°C

D. Detail Documentation (related to Sample Handling Shipping, Analytical Problem, Temp of Cooler etc):

Issue 1: The lab also received water sample MB4E81, the lab would like to know if laboratory QC is not required.

Issue 2: The Case is scheduled for laboratory QC on the wipe samples however the Modified Analysis document states that laboratory QC is not required on the wipe samples.

Issue 3: sample MB4E32 is designated for laboratory QC however there is insufficient volume for lab QC and analysis. In addition, the lab already has enough samples designated for lab QC for all SDGs therefore the lab would like to forgo lab QC on this sample.

E. Corrective Action taken for above:

Resolution 1 :Per Region 2, laboratory QC is not required on the water samples.

Resolution 2:Per Region 2, the laboratory shall analyze the wipe samples using the MA 1469.0 and not analyze for Lab QC (Lab Duplicate & Matrix Spike) .

Resolution 3 :Per Region 2, if enough samples have been designated for QCs for all SDGs, then there is no need to analyze sample MB4E32 for lab QC and the lab shall note the issue in the SDG Narrative.

2

CHEMTECH
284 Sheffield Street
Mountainside, NJ 07092

F. Analytical Techniques:

All analyses were based on CLP Methodology by method ILM05.4

G. Calculation:

For ICP-AES:

Result in Ug/L on Forms = Results in ppm (ICP-AES Raw Data) X 1000 X Dilution Factor (if any)

For Hg:

Result in Ug/L on Forms = Results in ppb (Hg Raw Data) X Dilution Factor (if any)

Soil Sample Calculation:

Conversion of results from mg/L to mg/kg (Dry Weight Basis):

Mg/Kg = (Result in mg/L) X 1000 X 100/ % Solid X Fraction of Sample Amount Taken in Prep.

H. QA/ QC

Calibrations met requirements. Interference check met requirements. Blank analyses did not indicate any presence of contamination. Laboratory Control sample was within control limits. Spike sample did meet requirements. Duplicate sample did meet requirements. Serial Dilution did meet requirements.

I certify that the data package is in compliance with the terms and conditions of the contract both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Director or his designee, as verified by the following signature.

Signature

Aireal Fudge-Johnson

Name: Aireal Fudge-Johnson

Date

9/6/07

Title: DATA ENTRY CHEMIST

3

Cover Sheet

SDG Number: MB4E62

RECEIVED
SEP 13 2007
HAZ. WASTE SUPPORT SEC.

☒ ICP-AES Analysis

☐ ICP-MS Analysis

Laboratory Name: CHEMTECH

Laboratory Code: CHEM

Contract No. EPW06047

Case No. 36740

Analysis Price _____

SDG Turnaround

PR / 21 Days

Modified Analysis (if applicable):

Modification Reference No: 1469.0

USEPA Sample Numbers in SDG (Listed in Numerical Order)

MB4E62	MB4E63	MB4E64	MB4E65
MB4E66	MB4E67	MB4E68	MB4E69
MB4E70	MB4E71	MB4E72	MB4E73

First Sample in SDG

MB4E62

Last Sample in SDG

MB4E73

First Sample Receipt Date

8/25/2007 10:15:00 AM

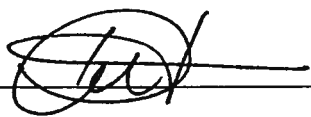
Last Sample Receipt Date

8/25/2007 10:15:00 AM

Note: There are a maximum of 20 **field** samples (excluding PE samples) in an SDG.

Attach TR/COC Records to this form in alphanumeric order (the order listed above on this form).

Signature _____



Date

9/4/07

7

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E62

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E62Matrix: (soil/water) SOIL Lab Sample ID: Y4221-01Level: (low/med) LOW Date Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or MG/WIPEdry weight): MG/WIPE

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	150			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	1.2			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: WHITE

Clarity Before: _____

Texture: FINEColor After: COLORLESS

Clarity After: _____

Artifacts: _____

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E63

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E62Matrix: (soil/water) SOIL Lab Sample ID: Y4221-02Level: (low/med) LOW Date Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or MG/WIPEdry weight): MG/WIPE

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	49.8			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	15.0			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: _____ Texture: FINEColor After: YELLOW Clarity After: _____ Artifacts: _____

Comments:

USEPA - CLP
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E64

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047

Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E62

Matrix: (soil/water) SOIL Lab Sample ID: Y4221-03

Level: (low/med) LOW Date Received: 08/25/2007

% Solids: 100.0

Concentration Units (ug/L or MG/WIPEdry weight): MG/WIPE

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	411			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	0.60	J		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: WHITE Clarity Before: _____ Texture: FINE

Color After: COLORLESS Clarity After: _____ Artifacts: _____

Comments:

USEPA - CLP
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E65

Lab Name CHEMTECH CONSULTING GROUP Contract: EPW06047

Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E62

Matrix: (soil/water) SOIL Lab Sample ID: Y4221-04

Level: (low/med) LOW Date Received: 08/25/2007

% Solids: 100.0

Concentration Units (ug/L or MG/WIPEdry weight): MG/WIPE

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	466			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	0.48	J		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: WHITE Clarity Before: _____ Texture: FINE

Color After: COLORLESS Clarity After: _____ Artifacts: _____

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E66

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E62Matrix: (soil/water) SOIL Lab Sample ID: Y4221-05Level: (low/med) LOW Date Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or MG/WIPEdry weight): MG/WIPE

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	10.2			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	0.78	J		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: _____ Texture: FINEColor After: YELLOW Clarity After: _____ Artifacts: _____

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E67

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E62Matrix: (soil/water) SOIL Lab Sample ID: Y4221-06Level: (low/med) LOW Date Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or MG/WIPEdry weight): MG/WIPE

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	3850			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	19.5			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: _____ Texture: FINEColor After: YELLOW Clarity After: _____ Artifacts: _____

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E68

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E62Matrix: (soil/water) SOIL Lab Sample ID: Y4221-07Level: (low/med) LOW Date Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or MG/WIPEdry weight): MG/WIPE

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	10.3			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	1.2			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: _____ Texture: FINEColor After: YELLOW Clarity After: _____ Artifacts: _____

Comments:

USEPA - CLP
1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E69

Lab Name CHEMTECH CONSULTING GROUP Contract: EPW06047

Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E62

Matrix: (soil/water) SOIL Lab Sample ID: Y4221-08

Level: (low/med) LOW Date Received: 08/25/2007

% Solids: 100.0

Concentration Units (ug/L or MG/WIPEdry weight): MG/WIPE

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	19.0			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	0.35	J		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: _____ Texture: FINE

Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments:

USEPA - CLP

IA-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E70

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E62Matrix: (soil/water) SOIL Lab Sample ID: Y4221-09Level: (low/med) LOW Date Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or MG/WIPEdry weight): MG/WIPE

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	9.6			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	1.0			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: _____ Texture: FINEColor After: YELLOW Clarity After: _____ Artifacts: _____

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E71

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E62Matrix: (soil/water) SOIL Lab Sample ID: Y4221-10Level: (low/med) LOW Date Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or MG/WIPEdry weight): MG/WIPE

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	287			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	1.0	U		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN

Clarity Before: _____

Texture: FINEColor After: YELLOW

Clarity After: _____

Artifacts: _____

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E72

Lab Name: CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E62Matrix: (soil/water) SOIL Lab Sample ID: Y4221-11Level: (low/med) LOW Date Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or MG/WIPEdry weight): MG/WIPE

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	2.6			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	0.58	J		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: WHITE Clarity Before: _____ Texture: FINEColor After: COLORLESS Clarity After: _____ Artifacts: _____

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB4E73

Lab Name CHEMTECH CONSULTING GROUP Contract: EPW06047Lab Code: CHEM Case No.: 36740 NRAS No.: 1469.0 SDG No.: MB4E62Matrix: (soil/water) SOIL Lab Sample ID: Y4221-12Level: (low/med) LOW Date Received: 08/25/2007% Solids: 100.0Concentration Units (ug/L or MG/WIPEdry weight): MG/WIPE

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	243			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	1.3			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: WHITE

Clarity Before: _____

Texture: FINEColor After: COLORLESS

Clarity After: _____

Artifacts: _____

Comments:

From: Rudolph, Elizabeth [erudolph@fedcsc.com]
Sent: Tuesday, August 28, 2007 9:20 AM
To: parveen
Subject: FW: New Issue #48 | Case 36740 | Lab CHEM | Issue Multiple
Parveen,

Could you please confirm that none of the water samples are listed as field samples? In addition, please note resolutions below.

-Non-sampler issues-

Issue 1: The Case is scheduled for laboratory QC on the wipe samples however the Modified Analysis document states that laboratory QC is not required on the wipe samples.

Resolution 1: Per Region 2, the laboratory shall analyze the wipe samples using the MA 1469.0 and not analyze for Lab QC (Lab Duplicate & Matrix Spike) analyses for these samples. The lab should note the issue in the SDG Narrative.

-Laboratory problems-

Issue 2: The laboratory would like to confirm that laboratory QC is not required on the water samples.

Resolution 3: Per Region 2, if all samples in an SDG are field/rinse blanks, the Lab QC (Lab Dup & Matrix Spike) are not required. If field/rinse blanks and field samples are both present in an SDG, then the lab QC s are required. The lab should note the issue in the SDG Narrative.

-Insufficient/inappropriate designation of laboratory QC-

Issue 2: Sample MB4E32 is designated for laboratory QC however there is insufficient volume for lab QC and analysis. In addition, the lab already has enough samples designated for lab QC for all SDGs therefore the lab would like to forgo lab QC on this sample.

Resolution 3: Per Region 2, if enough samples have been designated for QCs for all SDGs, then there is no need to analyze sample MB4E32 for lab QC and the lab shall note the issue in the SDG Narrative.

Please let me know if you have any questions.
Thanks,

Beth

-----Original Message-----

From: Sheikh.Muhammad@epamail.epa.gov [mailto:Sheikh.Muhammad@epamail.epa.gov]
Sent: Monday, August 27, 2007 5:10 PM
To: Rudolph, Elizabeth
Cc: Michael.adly@epamail.epa.gov; feranda.jennifer@epa.gov; Maud.Linda@epamail.epa.gov
Subject: Re: New Issue #48 | Case 36740 | Lab CHEM | Issue Multiple

Beth,

Here are the resolutions:

Issue 1: Please advise the lab to analyze the wipe samples using the MA 1469.0 and not analyze Lab QC (Lab Duplicate & Matrix Spike) analyses for these samples. The lab should note the issue in the SDG narrative.

Issue 2: If all samples in an SDG are field/rinse blanks, the Lab QC (Lab Dup & Matrix Spike) are not required. If field/rinse blanks and field samples are both present in an SDG, then the lab QC s are required. The lab should note the issue in the SDG narrative.

Issue 3: If enough samples have been designated for QCs for all SDGs, there is no need to analyze sample MB4E32 for lab QCs.

The lab should note the issue in the SDG narrative.

Thanks,

Hanif Sheikh
Alt. CLP PO
EPA-Region 2
Tel. (732) 906-6169
Fax # (732) 321-6622

-----Original Message-----

From: Rudolph, Elizabeth
Sent: Monday, August 27, 2007 3:35 PM
To: Hanif (E-mail)
Cc: Adly Michael; Jennifer Feranda
Subject: New Issue #48 | Case 36740 | Lab CHEM | Issue Multiple

Hanif,

CHEM is reporting the following three issues, please advise how the laboratory should proceed.

-Non-sampler issues-

Issue 1: The Case is scheduled for laboratory QC on the wipe samples however the Modified Analysis document states that laboratory QC is not required on the wipe samples.

-Laboratory problems-

Issue 2: The laboratory would like to confirm that laboratory QC is not required on the water samples.

-Insufficient/inappropriate designation of laboratory QC-

Issue 2: Sample MB4E32 is designated for laboratory QC however there is insufficient volume for lab QC and analysis. In addition, the lab already has enough samples designated for lab QC for all SDGs therefore the lab would like to forgo lab QC on this sample.

Please let me know if you have any questions.

Thanks,

Beth

This is a PRIVATE message. If you are not the intended recipient, please delete without copying and kindly advise us by e-mail of the mistake in delivery. NOTE: Regardless of content, this e-mail shall not operate to bind CSC to any order or other contract unless pursuant to explicit written agreement or government initiative expressly permitting the use of e-mail for such purpose.

8/27/2007 3:00 PM Phone conversation between Beth Rudolph, SMO, and Parveen Hasan, CHEM. Parveen reported the following three issues.

Issue 1: The Case is scheduled for laboratory QC on the wipe samples however the Modified Analysis document states that laboratory QC is not required on the wipe samples.

Issue 2: The laboratory would like to confirm that laboratory QC is not required on the water samples.

Issue 2: Sample MB4E32 is designated for laboratory QC however there is not sufficient volume for lab QC and analysis. In addition the lab already has enough samples designated for lab QC for all SDGs therefore the lab would like to forgo lab QC on this sample.

Request for Quote (RFQ) for Modified Analysis

Date: August 15, 2007

Subject: Modification Reference Number: 1469.0

Title: Liquid Waste, Solid Waste, Concrete, Plastic, Dust and Wipe matrix

Sample Matrix: Liquid Waste, Solid Waste, Concrete, Plastic, Dust and Wipe

Fraction Affected: Metals, Mercury

Statement of Work: ILM05.4

Purpose:

The Contractor Laboratory is requested to perform the following modified analyses under the Inorganic Statement of Work (SOW) ILM05.4, based on the additional specifications listed below. Unless specifically modified by this modification, all analyses, Quality Control (QC), and reporting requirements specified in SOW ILM05.4 remain unchanged and in full force and effect. The number of samples requested in this modification is not guaranteed.

Please note that accepting a modified analysis request is voluntary, and that the Laboratory is not required to accept the modified analysis. There will be no adverse effect to the Laboratory for not accepting the modified analysis request. However, once the Laboratory accepts the request for modified analysis, it shall perform the analysis in accordance with this modification and as specified in SOW ILM05.4.

The Laboratory is requested to review the modification described herein, determine whether or not it shall accept the requested modified analyses, and complete the attached response form. The Laboratory shall provide comments in response to the required changes in the designated area, in order to ensure that the modified analysis can be completed in accordance with the specifications described herein.

The requirements in the RFQ are as stated and any defects will be assessed by SMO per the laboratory contract. The Laboratory should take this into account when submitting their quote.

Notice to Contractors: Acceptance of Modified Analysis samples will not count against the monthly capacity.

Modification to the SOW Specifications:

The Laboratory shall provide the Preliminary Results (PR) for the requested analyses within 7 days of the VTSR.

Solid Waste, Concrete, Plastic, Dust and Wipe

The Laboratory shall prepare and analyze solid waste, concrete, plastic, dust and wipe matrices as solids for Metals and Mercury as indicated on the Traffic Report/Chain of Custody Record.

The Laboratory shall digest these matrices by Methods, HS1, HS2, or MS1 and analyze the samples for metals by ICP-AES.

The Laboratory shall digest these matrices by Method CS1 and analyze the samples for Mercury.

The Laboratory shall report the results for waste samples in units of mg/kg.

No Duplicate or Matrix Spike analysis is required for the wipe samples.

The Laboratory is warned that the composition of these waste samples is unknown and may contain high levels of target analytes or non-target interferences. The Laboratory is strongly urged to screen the samples prior to analysis. The Laboratory is further warned that the wastes may contain volatile or reactive substances and should only be opened and handled in appropriate hoods and that any acid addition or heating steps should be performed with caution.

Liquid Waste

The Laboratory shall prepare and analyze the liquid waste sample as aqueous for Metals and Mercury as indicated on the Traffic Report/Chain of Custody Record.

The Laboratory shall digest the samples by Methods, HW1 or MW1 and analyze the samples for metals by ICP-AES.

The Laboratory shall digest these samples by methods CW1 or CW2 and analyze for Mercury by AA.

The Laboratory shall report the results for waste samples in units of ug/L.

The Laboratory is warned that the composition of these waste samples is unknown and may contain high levels of target analytes or non-target interferences. The Laboratory is strongly urged to screen the samples prior to analysis. The Laboratory is further warned that the wastes may contain volatile or reactive substances and should only be opened and handled in appropriate hoods and that any acid addition or heating steps should be performed with caution.

Reporting Requirements:

Hardcopy and electronic data reporting are required as specified per SOW ILM05.4. All hardcopy and electronic data shall be adjusted to incorporate modified specifications. This includes attaching a copy of the requirements for modified analysis to the SDG Narrative. If specific problems occur with incorporation of the modified analysis into the hardcopy and/or electronic deliverable, the Laboratory shall contact the DASS Manager within the Sample Management Office (SMO) at (703) 818-4233 or via e-mail at CCSSUPPORT@fedcsc.com for resolution.

All samples and/or fractions assigned to an SDG shall be analyzed under the same Modified Analysis requirements as established in this memorandum. The Laboratory shall not include data from multiple Modified Analyses in one SDG.

The Laboratory shall include the Modification Reference Number 1469.0 on each hardcopy data form under the "NRAS No:" header appearing on each form as well as the "NRAS No." field on the Record type 21 of the electronic deliverable (if diskette deliverable is required). The Laboratory shall also document the Modification Reference Number and Solicitation Number on the SDG Coversheet.

Clarifications/Revisions to the RFQ for Modified Analysis:

Laboratory Name: CHEM**Laboratory Comments:**

APPENDIX D
CHAIN OF CUSTODY RECORDS

Region: 2		Date Shipped: 8/10/2007		Chain of Custody Record	
Project Code: RV		Carrier Name: FedEx		Relinquished By: (Date / Time)	
Account Code:		Airbill: 860806667688		Received By: (Date / Time)	
CERCLIS ID:		Shipped to: ChemTech Consulting Group (CHEM)		Sampler Signature:	
Spill ID: YH		110 Route 4		1 (Date / Time)	
Site Name/State: Buckbee-Mears Site/NY		Englewood NJ 07631		2 (Date / Time)	
Project Leader: Laura Holloway		(201) 568-7400		3	
Action: Removal Action				4	
Sampling Co: Weston Solutions, Inc., RST 2					

INORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	PRESERVATIVE/ Bottles	TAG No./	STATION LOCATION	SAMPLE COLLECT DATE/TIME	ORGANIC SAMPLE No.	QC Type
1B4CX2	Wastewater/ Laura Holloway	L/G	RCRA Metal (21)	(HNO3) (1)		BM-L-01	S: 8/9/2007 10:05		-
1B4CX3	Wastewater/ Laura Holloway	L/G	RCRA Metal (21)	(HNO3) (1)		BM-L-02	S: 8/7/2007 8:35		-
1B4CX4	Wastewater/ Laura Holloway	L/G	RCRA Metal (21)	(HNO3) (1)		BM-L-03	S: 8/7/2007 8:50		-
1B4CX5	Wastewater/ Laura Holloway	L/G	RCRA Metal (21)	(HNO3) (1)		BM-L-04	S: 8/7/2007 9:00		-
1B4CX6	Wastewater/ Laura Holloway	L/G	RCRA Metal (21)	(HNO3) (1)		BM-L-05	S: 8/7/2007 9:10		-
1B4CX7	Wastewater/ Laura Holloway	L/G	RCRA Metal (21)	(HNO3) (1)		BM-L-06	S: 8/7/2007 10:45		-
1B4CX8	Wastewater/ Laura Holloway	L/G	RCRA Metal (21)	(HNO3) (1)		BM-L-07	S: 8/7/2007 11:00		-
1B4CX9	Wastewater/ Laura Holloway	L/G	RCRA Metal (21)	(HNO3) (1)		BM-L-10	S: 8/7/2007 11:40		-
1B4CY7	Wastewater/ Laura Holloway	L/G	RCRA Metal (21)	(HNO3) (1)		BM-L-08	S: 8/7/2007 11:10		-

Shipment for Case complete? N	Sample(s) to be used for laboratory QC:		Additional Sampler Signature(s):		Chain of Custody Seal Number:
	Concentration: L = Low, M = Low/Medium, H = High		Type/Designate: Composite = C, Grab = G		Shipment Iced?
Analysis Key: RCRA Metal = RCRA Metals					



FedEx Tracking Number 8608 0666 7688

1 From Please print and print hard. Sender's FedEx Account Number 810107 Date 8/10/07 154581227
Sender's Name Laura Hollaway Phone 17321570-4943
Company Weston Solutions, Inc.
Address 1090 King Georges Post Rd. Suite 201 Dept./Floor/Room/Phone
City Edison State NJ ZIP 08837
2 Your Internal Billing Reference 20401.025.084.1016
3 To Recipient's Name Parveen Hasan Phone 19081789-8900
Company Chemtech Consulting Group
Recipient's Address 284 Sheffield St Dept./Floor/Room/Phone
Address Mountain side NJ ZIP 07092
To request a package be held at a specific FedEx location, print FedEx address here.



Sender's Copy

4a Express Package Service
☒ FedEx Priority Overnight Next business morning. Delivery guaranteed by 10:00 AM. Saturday Delivery NOT available.
☐ FedEx Standard Overnight Next business afternoon. Saturday Delivery NOT available.
☐ FedEx 2Day Second business day. Saturday Delivery NOT available.
☐ FedEx Express Saver Third business day. Saturday Delivery NOT available.
*To meet deadlines, minimum charge: One-pound rate.

4b Express Freight Service
☐ FedEx 1Day Freight* Next business day. Delivery guaranteed by 10:00 AM. Saturday Delivery NOT available.
☐ FedEx 2Day Freight Second business day. Saturday Delivery NOT available.
☐ FedEx 3Day Freight Third business day. Saturday Delivery NOT available.
*Call for Confirmation.

5 Packaging
☐ FedEx Envelope*
☐ FedEx Pak* Includes FedEx Small Pak, FedEx Large Pak, and FedEx Shrink Pak.
☐ FedEx Tube
☒ Other
*Declared value limit \$500.

6 Special Handling
☒ SATURDAY Delivery NOT Available for FedEx Priority Overnight, FedEx Express Saver, or FedEx 2Day Freight.
Does this shipment contain dangerous goods?
☒ No ☐ Yes (per DOT regulations, dangerous goods must be shipped in FedEx packaging)
☐ Yes (per DOT regulations, dangerous goods must be shipped in FedEx packaging)
Include FedEx address in Section 3.
☐ HOLD Saturday at FedEx Location Available ONLY for FedEx 2Day to select locations.
Dry Ice ☐ Yes ☐ No Dry Ice & UN 1845 ☐ Cargo Aircraft Only
Dangerous goods (including dry ice) cannot be shipped in FedEx packaging.

7 Payment Bill to
☐ Sender ☐ Recipient ☒ Third Party ☐ Credit Card ☐ Cash/Check
FedEx acct. No. 154581227 Total Packages 1 Total Weight 44 \$.00 Total Declared Value* AGT
FedEx Use Only

8 NEW Residential Delivery Signature Options If you require a signature, check Direct or Indirect.
☐ No Signature Required Anytime at recipient's address. Signature may be left with a neighbor or other adult at a neighboring address. Sign for delivery. Fee applies.
☐ Direct Signature Anytime at recipient's address. Signature may be left with a neighbor or other adult at a neighboring address. Sign for delivery. Fee applies.
☐ Indirect Signature Anytime at recipient's address. Signature may be left with a neighbor or other adult at a neighboring address. Sign for delivery. Fee applies.

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Detailed Results

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Tracking number	860806667688	Reference	20401 025 007 1016
Signed for by	Z.ALI	Delivered to	Shipping/Receiving
Ship date	Aug 10, 2007	Service type	Priority Overnight
Delivery date	Aug 11, 2007 10:15 AM	Weight	45.0 lbs.
Status	Delivered		
Signature image available	<u>Yes</u>		

Date/Time	Activity	Location	Details
Aug 11, 2007	10:15 AM	Delivered	
	9:08 AM	On FedEx vehicle for delivery	UNION, NJ
	8:40 AM	At local FedEx facility	UNION, NJ
	6:59 AM	Arrived at FedEx location	NEWARK, NJ
	3:09 AM	Departed FedEx location	MEMPHIS, TN
Aug 10, 2007	6:05 PM	Left origin	VESTAL, NY
	3:34 PM	Picked up	VESTAL, NY

Region: 2	Date Shipped: 8/11/2007	Chain of Custody Record	
Project Code: RV	Carrier Name: FedEx	Relinquished By (Date / Time)	Sampler Signature:
Account Code:	Airbill: 860806667699	Received By (Date / Time)	
CERCLIS ID:	Shipped to: ChemTech Consulting Group (CHEM) 110 Route 4 Englewood NJ 07631 (201) 568-7400		
Spill ID: YH			
Site Name/State: Buckbee-Mears Site/NY			
Project Leader: Laura Holloway			
Action: Removal Action			
Sampling Co: Weston Solutions, Inc., RST 2			

INORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME	ORGANIC SAMPLE No.	QC Type
1B4CY0	Wastewater/ Laura Holloway	L/G	RCRA Metal (21)	(HNO3) (1)	BM-L-12	S: 8/8/2007 15:05		--
1B4CY1	Wastewater/ Laura Holloway	L/G	RCRA Metal (21)	(HNO3) (1)	BM-L-13	S: 8/8/2007 15:20		--
1B4CY2	Wastewater/ Laura Holloway	L/G	RCRA Metal (21)	(HNO3) (1)	BM-L-14	S: 8/8/2007 15:55		--
1B4CY3	Sludge/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-SL-01	S: 8/7/2007 9:20		--
1B4CY4	Sludge/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-SL-02	S: 8/7/2007 9:30		--
1B4CY5	Wastewater/ Laura Holloway	L/G	RCRA Metal (21)	(HNO3) (3)	BM-L-11	S: 8/8/2007 12:50		--
1B4CY6	Sludge/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (3)	BM-SL-03	S: 8/8/2007 14:35		--

Shipment for Case complete? N	Sample(s) to be used for laboratory QC: MB4CY5, MB4CY6	Additional Sampler Signature(s):	Chain of Custody Seal Number:
Analysis Key: RCRA Metal = RCRA Metals	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G	Shipment Iced?



FedEx Tracking Number

8608 0666 7699

1 From Please print and press hard
Date 8/10/07 Sender's FedEx Account Number 154581227
Sender's Name Laura Hollaway Phone 17324570-4943
Company Weston Solutions Inc.
Address 1090 King George Road, Suite 201
City Edison, NJ State NJ ZIP 08837
2 Your Internal Billing Reference 20401.02501007.1016
3 To Recipient's Name Parveen Hasan Phone 19081789-8900
Company Chemtech Consulting Group
Recipient's Address 284 Sheffield St
We cannot deliver to P.O. boxes or P.O. ZIP codes.
Address Mountain Side State NJ ZIP 07092



Sender's Copy

4a Express Package Service
☒ FedEx Priority Overnight
FedEx Priority Overnight shipments will be delivered on Monday unless SATURDAY Delivery is selected.
☐ FedEx 2Day
Second business day* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
☐ FedEx Express Saver
Third business day* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
4b Express Freight Service
☐ FedEx 1Day Freight*
Monday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
☐ FedEx 2Day Freight
Tuesday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
☐ FedEx 3Day Freight
Third business day* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
5 Packaging
☐ FedEx Envelope*
☐ FedEx Pak*
Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak.
☐ FedEx Tube
☒ Other
6 Special Handling
☒ SATURDAY Delivery
NOT Available for FedEx Priority Overnight, FedEx Express Saver, or FedEx 2Day Freight.
Does this shipment contain dangerous goods?
☒ No
As per attached Shipper's Declaration, no special handling is required.
☐ Yes
Shipper's Declaration required.
7 Payment Bill to:
☐ Sender
Account No. in Section 1 will be billed.
☐ Recipient
☒ Third Party
☐ Credit Card
☐ Cash/Check
Total Packages 1 Total Weight 40 Total Declared Value* \$.00
FedEx Act. No. 154581227 Exp. Date
Cred. Card No. 07092

8 NEW Residential Delivery Signature Options
☐ No Signature Required
Package may be left without obtaining a signature for delivery.
☐ Direct Signature
Anyone at recipient's address may sign for delivery. No applies.
☐ Indirect Signature
If no one is available at recipient's address, anyone in the household may sign for delivery's use only.
520

Rev. Date 9/05/94 or 11/02/01 © 1994-2005 FEDEX-PRINTED IN U.S.A. 507

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Detailed Results

[? Quick Help](#)

Tracking number	860806667699	Reference	20401 025 007 1016
Signed for by	Z.ALI	Delivered to	Shipping/Receiving
Ship date	Aug 10, 2007	Service type	Priority Overnight
Delivery date	Aug 11, 2007 10:15 AM	Weight	45.0 lbs.
Status	Delivered		
Signature image available	<u>Yes</u>		

Date/Time	Activity	Location	Details
Aug 11, 2007	10:15 AM Delivered		
	9:07 AM On FedEx vehicle for delivery	UNION, NJ	
	8:29 AM At local FedEx facility	UNION, NJ	
	6:59 AM Arrived at FedEx location	NEWARK, NJ	
	3:09 AM Departed FedEx location	MEMPHIS, TN	
Aug 10, 2007	6:05 PM Left origin	VESTAL, NY	
	3:34 PM Picked up	VESTAL, NY	

USEPA Contract Laboratory Program Inorganic Traffic Report & Chain of Custody Record

Case No: 36740
DAS No: R

Region: Project Code: Account Code: CERCLIS ID: Spill ID: Site Name/State: Project Leader: Action: Sampling Co:	2 RV NYN00205908 YH Buckbee-Mears Site 2/NY Laura Holloway Removal Action Weston Solutions, Inc.	Date Shipped: Carrier Name: Airbill: Shipped to:	8/24/2007 FedEx 962558293701 ChemTech Consulting Group (CHEMED) 284 Sheffield Street Mountainside NJ 07092 (908) 789-8900	Chain of Custody Record	Relinquished By Received By (Date / Time) (Date / Time)	1 2 3 4	J. Holloway J. Holloway 8/24/07 8/24/07	Sampler Signature: Received By (Date / Time)	8/24/07 8/24/07
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INORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME	ORGANIC SAMPLE No.	QC Type
VB4DY2	Concrete/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-CC-01	S: 8/20/2007 14:30		--
VB4DY3	Concrete/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-CC-02	S: 8/20/2007 14:25		--
VB4DY4	Concrete/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-CC-03	S: 8/20/2007 14:35		--
VB4DY5	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-CC-04	S: 8/20/2007 14:50		--
VB4DY6	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-CC-05	S: 8/20/2007 15:00		--
VB4DY8	Concrete/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-CC-07	S: 8/20/2007 15:45		--
VB4DY9	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-CC-08	S: 8/22/2007 11:45		--
VB4DZ0	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-CC-09	S: 8/21/2007 10:10		--
VB4DZ2	Concrete/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-CC-12	S: 8/21/2007 9:29		--
VB4DZ3	Concrete/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-CC-14	S: 8/21/2007 9:34		--
VB4DZ5	Concrete/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-CC-18	S: 8/21/2007 10:00		--

Shipment for Case Complete? N	Sample(s) to be used for laboratory QC: MB4E08, MB4E17, MB4E22, MB4E32	Additional Sampler Signature(s):	Chain of Custody Seal Number:
Analysis Key: RCRA Metal = RCRA Metals	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G	Shipment Iced?

Region: 2	Date Shipped: 8/24/2007	STATION LOCATION	SAMPLE COLLECT DATE/TIME	ORGANIC SAMPLE No.	QC Type
Project Code: RV	Carrier Name: FedEx				
Account Code: NYN00205908	Airbill: ChemTech Consulting Group (CHEMED)				
CERCLIS ID: YH	Shipped to: 284 Sheffield Street				
Spill ID: Buckbee-Mears Site 2/NY	Mountainside NJ 07092				
Site Name/State: Laura Holloway	(908) 789-8900				
Project Leader: Removal Action					
Action: Weston Solutions, Inc.					
Sampling Co:					

INORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	PRESERVATIVE/ Bottles	TAG No./	STATION LOCATION	SAMPLE COLLECT DATE/TIME	ORGANIC SAMPLE No.	QC Type
VB4DZ6	Concrete/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)		BM-CC-20	S: 8/21/2007 10:15		-
VB4DZ7	Concrete/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)		BM-CC-22	S: 8/21/2007 10:25		-
VB4DZ8	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)		BM-CC-24	S: 8/22/2007 12:05		-
VB4DZ9	Concrete/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)		BM-CC-26	S: 8/21/2007 10:40		-
VB4E01	Concrete/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)		BM-CC-30	S: 8/21/2007 16:00		-
VB4E02	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)		BM-CC-32	S: 8/21/2007 16:10		-
VB4E03	Dust/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)		BM-SW-01	S: 8/21/2007 14:00		-
VB4E04	Dust/ Laura Holloway	M/C	RCRA Metal (21)	(Ice Only) (1)		BM-SW-02	S: 8/21/2007 14:15		-
VB4E05	Dust/ Laura Holloway	M/C	RCRA Metal (21)	(Ice Only) (1)		BM-SW-03	S: 8/21/2007 14:25		-
VB4E08	Dust/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (2)		BM-SW-06	S: 8/21/2007 15:45		-
VB4E09	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)		BM-CC-11	S: 8/21/2007 13:58		-

Shipment for Case complete? N	Sample(s) to be used for laboratory QC: MB4E08, MB4E17, MB4E22, MB4E32	Additional Sampler Signature(s):	Chain of Custody Seal Number:
Analysis Key: RCRA Metal = RCRA Metals	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G	Shipment Iced?

Region: Project Code: Account Code: CERCLIS ID: Spill ID: Site Name/State: Project Leader: Action: Sampling Co:	2 RV NYN00205908 YH Buckbee-Mears Site 2/NY Laura Holloway Removal Action Weston Solutions, Inc.	Date Shipped: 8/24/2007 Carrier Name: FedEx Airbill: 962558293701 Shipped to: ChemTech Consulting Group (CHEMED) 284 Sheffield Street Mountainside NJ 07092 (908) 789-8900	Chain of Custody Record Relinquished By: <i>J. Holloway</i> Received By: (Date / Time) 8/24/07 2 3 4	Sampler Signature: Received By: (Date / Time)
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INORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME	ORGANIC SAMPLE No.	QC Type
VB4E10	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-CC-13	S: 8/22/2007 12:25		--
VB4E11	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-CC-15	S: 8/21/2007 14:10		--
VB4E12	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-CC-17	S: 8/21/2007 14:22		--
VB4E14	Concrete/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-CC-21	S: 8/23/2007 9:35		--
VB4E15	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-CC-23	S: 8/22/2007 14:52		--
VB4E17	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (2)	BM-CC-27	S: 8/22/2007 15:08		--
VB4E19	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-CC-33	S: 8/22/2007 15:35		--
VB4E20	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-CC-31	S: 8/22/2007 14:59		--
VB4E21	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-CC-35	S: 8/22/2007 15:50		--
VB4E22	Concrete/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (2)	BM-CC-37	S: 8/21/2007 17:00		--
VB4E24	Concrete/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-CC-41	S: 8/21/2007 17:10		--

Shipment for Case : complete? N	Sample(s) to be used for laboratory QC: MB4E08, MB4E17, MB4E22, MB4E32	Additional Sampler Signature(s):	Chain of Custody Seal Number:
Analysis Key: RCRA Metal = RCRA Metals	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G	Shipment Iced?



USEPA Contract Laboratory Program Inorganic Traffic Report & Chain of Custody Record

Case No: 36740

DAS No:

R

Region: 2		Date Shipped: 8/24/2007		Carrier Name: FedEx		Relinquished By: <i>J. Holloway</i>		Sampler Signature:	
Project Code: RV		Airbill: 962558293701		Shipped to: ChemTech Consulting Group (CHEMED)		Received By:		(Date / Time)	
Account Code: NYN00205908				284 Sheffield Street					
CERCLIS ID: YH				(908) 789-8900					
Spill ID: Buckbee-Mears Site 2/NY									
Site Name/State: Laura Holloway									
Project Leader: Removal Action									
Action: Weston Solutions, Inc.									
Sampling Co:									

INORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME	ORGANIC SAMPLE No.	QC Type
MB4E25	Concrete/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-CC-43	S: 8/21/2007 17:20		--
MB4E26	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-SW-07	S: 8/22/2007 15:25		--
MB4E27	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-SW-08	S: 8/22/2007 16:45		--
MB4E28	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-SW-09	S: 8/22/2007 16:55		--
MB4E29	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-SW-10	S: 8/22/2007 17:05		--
MB4E31	Concrete/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-CC-34	S: 8/23/2007 9:45		--
MB4E32	Concrete/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (2)	BM-CC-44	S: 8/23/2007 9:45		--
MB4E33	Concrete/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-CC-45	S: 8/23/2007 10:58		--
MB4E34	Concrete/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-CC-46	S: 8/23/2007 10:30		--
MB4E36	Concrete/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-CC-47	S: 8/23/2007 11:47		--
MB4E37	Concrete/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-CC-48	S: 8/23/2007 15:45		--

Shipment for Case Complete? N	Sample(s) to be used for laboratory QC: MB4E08, MB4E17, MB4E22, MB4E32	Additional Sampler Signature(s):	Chain of Custody Seal Number:
Analysis Key: RCRA Metal = RCRA Metals	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G	Shipment Iced? _____

R Number: 2-200338754-082407-0001

t provides preliminary results. Requests for preliminary results will increase analytical costs.

and Copy to: Sample Management Office, Attn: Heather Bauer, CSC, 15000 Conference Center Dr., Chantilly, VA 20151-3819; Phone 703/818-4200; Fax 13/818-4602

REGION COPY

Region: 2	Date Shipped: 8/24/2007	Chain of Custody Record	
Project Code: RV	Carrier Name: FedEx	Relinquished By	Sampler Signature:
Account Code: NYN00205908	Airbill: 962558293701	(Date / Time)	Received By
Spill ID: YH	Shipped to:	1 <i>J. H. H. H. H.</i>	(Date / Time)
Site Name/State: Buckbee-Mears Site 2/NY		2	
Project Leader: Laura Holloway		3	
Action: Removal Action		4	
Sampling Co: Weston Solutions, Inc.			

INORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	PRESERVATIVE/ Bottles	TAG No./	STATION LOCATION	SAMPLE COLLECT DATE/TIME	ORGANIC SAMPLE No.	QC Type
VB4E38	Concrete/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)		BM-CC-49	S: 8/23/2007 11:55		--
VB4E39	Concrete/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)		BM-CC-50	S: 8/23/2007 16:30		--
VB4E40	Concrete/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)		BM-CC-51	S: 8/23/2007 14:55		--
VB4E41	Concrete/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)		BM-CC-52	S: 8/23/2007 17:40		--
VB4E42	Concrete/ Laura Holloway	M/G	RCRA Metal (21)	(1)		BM-CC-53	S: 8/23/2007 15:08		--
VB4E43	Concrete/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)		BM-CC-54	S: 8/23/2007 17:50		--
VB4E44	Concrete/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)		BM-CC-55	S: 8/23/2007 16:29		--
VB4E45	Concrete/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)		BM-CC-57	S: 8/23/2007 15:25		--
VB4E48	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)		BM-SW-14	S: 8/23/2007 11:15		--
VB4E49	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)		BM-SW-15	S: 8/23/2007 12:00		--
VB4E50	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)		BM-SW-16	S: 8/23/2007 15:05		--

Shipment for Case Complete ? N	Sample(s) to be used for laboratory QC: MB4E08, MB4E17, MB4E22, MB4E32	Additional Sampler Signature(s):	Chain of Custody Seal Number:
Analysis Key: RCRA Metal = RCRA Metals	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G	Shipment Iced? _____

Region: 2	Date Shipped: 8/24/2007	Carrier Name: FedEx	Station Location
Project Code: RV	Airbill: 962558293701	Shipped to: ChemTech Consulting Group (CHEMED) 284 Sheffield Street Mountainside NJ 07092 (908) 789-8900	
CERCLIS ID: NYN00205908			
Spill ID: YH			
Site Name/State: Buckbee-Mears Site 2/NY			
Project Leader: Laura Holloway			
Action: Removal Action			
Sampling Co: Weston Solutions, Inc.			

INORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	PRESERVATIVE/ BOTTLES	TAG No./	STATION LOCATION	SAMPLE COLLECT DATE/TIME	ORGANIC SAMPLE No.	QC Type
VB4E51	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)		BM-SW-17	S: 8/23/2007 15:15		

Shipment for Case complete? N	Sample(s) to be used for laboratory QC: MB4E08, MB4E17, MB4E22, MB4E32	Additional Sampler Signature(s):	Chain of Custody Seal Number:
Analysis Key: RCRA Metal = RCRA Metals	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G	Shipment Iced?

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Tracking number	862558293701	Reference	20401 025 007 1016
Signed for by	Signature release on file	Service type	Priority Overnight
Ship date	Aug 24, 2007	Weight	92.0 lbs.
Delivery date	Aug 25, 2007 10:13 AM		
Status	Delivered		
Signature image available	No		

Date/Time	Activity	Location	Details
Aug 25, 2007	10:13 AM Delivered		Left at garage. Package delivered to recipient address - release authorized
	9:03 AM On FedEx vehicle for delivery	UNION, NJ	
	8:46 AM At local FedEx facility	UNION, NJ	
	6:35 AM Arrived at FedEx location	NEWARK, NJ	
	3:19 AM Departed FedEx location	MEMPHIS, TN	
Aug 24, 2007	6:03 PM Left origin	VESTAL, NY	
	5:32 PM Picked up	VESTAL, NY	

Region: 2	Date Shipped: 8/24/2007	Carrier Name: FedEx	Chain of Custody Record
Project Code: RV	Airbill: 862558293745	Shipped to: ChemTech Consulting Group (CHEMED) 284 Sheffield Street Mountainside NJ 07092 (908) 789-8900	Relinquished By <i>J. Allaway</i> 8/24/07
Account Code: NYN00205908			Sampler Signature:
Spill ID: YH			Received By
Site Name/State: Buckbee-Mears Site 2/NY			(Date / Time)
Project Leader: Laura Holloway			(Date / Time)
Action: Removal Action			
Sampling Co: Weston Solutions, Inc.			

INORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	PRESERVATIVE/ BOTTLES	TAG No./	STATION LOCATION	SAMPLE COLLECT DATE/TIME	ORGANIC SAMPLE No.	QC Type
MB4DY7	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)		BM-CC-06	S: 8/20/2007 15:10		-
MB4DZ1	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)		BM-CC-10	S: 8/22/2007 11:40		-
MB4DZ4	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)		BM-CC-16	S: 8/21/2007 9:50		-
MB4E00	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)		BM-CC-28	S: 8/21/2007 10:52		-
MB4E06	Solid Waste/ Laura Holloway	M/C	RCRA Metal (21)	(Ice Only) (1)		BM-SW-04	S: 8/21/2007 14:30		-
MB4E07	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)		BM-SW-05	S: 8/21/2007 14:40		-
MB4E13	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)		BM-CC-19	S: 8/21/2007 14:30		-
MB4E16	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)		BM-CC-25	S: 8/21/2007 15:15		-
MB4E18	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)		BM-CC-29	S: 8/22/2007 15:22		-
MB4E23	Concrete/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)		BM-CC-39	S: 8/21/2007 17:10		-
MB4E30	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)		BM-SW-11	S: 8/22/2007 17:25		-

Shipment for Case complete? N	Sample(s) to be used for laboratory QC: MB4E35, MB4E58	Additional Sampler Signature(s):	Chain of Custody Seal Number:
Analysis Key: RCRA Metal = RCRA Metals	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G	Shipment Iced?

Region: 2	Date Shipped: 8/24/2007	Chain of Custody Record	
Project Code: RV	Carrier Name: FedEx	Relinquished By	Sampler Signature:
Account Code: NYN00205908	Airbill: 862558293745	(Date / Time)	Received By
CERCLIS ID: YH	Shipped to: Chem Tech Consulting Group (CHEMED) 284 Sheffield Street Mountainside NJ 07092 (908) 789-8900	1 <i>[Signature]</i> 8/24/07	
Spill ID:		2	
Site Name/State: Buckbee-Mears Site 2/NY		3	
Project Leader: Laura Holloway		4	
Action: Removal Action			
Sampling Co: Weston Solutions, Inc.			

INORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME	ORGANIC SAMPLE No.	QC Type
MB4E35	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (2)	BM-SW-24	S: 8/24/2007 9:25		-
MB4E46	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-SW-12	S: 8/23/2007 10:10		-
MB4E47	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-SW-13	S: 8/23/2007 10:20		-
MB4E52	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-SW-18	S: 8/23/2007 15:25		-
MB4E53	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-SW-19	S: 8/23/2007 16:00		-
MB4E54	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-SW-20	S: 8/23/2007 16:15		-
MB4E55	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-SW-21	S: 8/23/2007 16:10		-
MB4E56	Solid Waste/ Laura Holloway	L/G	RCRA Metal (21)	(Ice Only) (1)	BM-SW-22	S: 8/23/2007 16:20		-
MB4E57	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-SW-23	S: 8/23/2007 15:55		-
MB4E58	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (2)	BM-SW-25	S: 8/24/2007 10:00		-
MB4E59	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-SW-26	S: 8/24/2007 10:10		-

Shipment for Case Complete?	Sample(s) to be used for laboratory QC: MB4E35, MB4E58	Additional Sampler Signature(s):	Chain of Custody Seal Number:
Analysis Key: RCRA Metal = RCRA Metals	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G	Shipment Iced?

Region: 2		Date Shipped: 8/24/2007	
Project Code: RV		Carrier Name: FedEx	
Account Code: NYN00205908		Airbill: 862558293745	
Spill ID: YH		Shipped to: ChemTech Consulting Group (CHEMED)	
Site Name/State: Buckbee-Mears Site 2/NY		284 Sheffield Street	
Project Leader: Laura Holloway		Mountainside NJ 07092	
Action: Removal Action		(908) 789-8900	
Sampling Co: Weston Solutions, Inc.			

INORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME	ORGANIC SAMPLE No.	QC Type
1B4E60	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-SW-27	S: 8/24/2007 10:20		--
1B4E61	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-SW-28	S: 8/24/2007 10:30		--
1B4E62	Wipe Sample/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-W-01	S: 8/24/2007 8:55		--
1B4E63	Wipe Sample/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-W-02	S: 8/24/2007 9:10		--
1B4E64	Wipe Sample/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-W-03	S: 8/24/2007 11:45		--
1B4E65	Wipe Sample/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-W-04	S: 8/24/2007 11:40		--
1B4E66	Wipe Sample/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-W-05	S: 8/24/2007 12:00		--
1B4E67	Wipe Sample/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-W-06	S: 8/24/2007 9:40		--
1B4E68	Wipe Sample/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-W-07	S: 8/24/2007 9:50		--
1B4E69	Wipe Sample/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-W-08	S: 8/24/2007 10:25		--
1B4E70	Wipe Sample/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-W-09	S: 8/24/2007 10:40		--

Shipment for Case complete? N	Sample(s) to be used for laboratory QC:	Additional Sampler Signature(s):	Chain of Custody Seal Number:
	MB4E35, MB4E58		
Analysis Key:	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G	Shipment Iced? _____
	RCRA Metal = RCRA Metals		

Region: 2	Date Shipped: 8/24/2007	Carrier Name: FedEx	Shipped to: Chem Tech Consulting Group (CHEMED) 284 Sheffield Street Mountainside NJ 07092 (908) 789-8900
Project Code: RV	Airbill: 862558293745		
Account Code: NYN00205908			
CERCLIS ID: YH			
Spill ID: Buckbee-Mears Site 2/NY			
Site Name/State: Laura Holloway			
Project Leader: Removal Action			
Action: Weston Solutions, Inc.			
Sampling Co:			

Chain of Custody Record				Relinquished By		(Date / Time)		Received By		(Date / Time)	
				J. Holloway		8/24/07					
				3							
				4							

INORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	PRESERVATIVE/ Bottles	TAG No./	STATION LOCATION	SAMPLE COLLECT DATE/TIME	ORGANIC SAMPLE No.	QC Type
MB4E71	Wipe Sample/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)		BM-W-10	S: 8/24/2007 12:05		
MB4E72	Wipe Sample/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)		BM-W-11	S: 8/24/2007 12:20		
MB4E73	Wipe Sample/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)		BM-W-12	S: 8/24/2007 11:50		
MB4E74	Concrete/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)		BM-CC-58	S: 8/24/2007 14:00		
MB4E75	Water/ Laura Holloway	/G	RCRA Metal (21)	(HNO3) (1)		RB-82007	S: 8/20/2007 15:21		Rinsate
MB4E76	Water/ Laura Holloway	/G	RCRA Metal (21)	(HNO3) (1)		RB-82107	S: 8/21/2007 15:21		Rinsate
MB4E77	Water/ Laura Holloway	/G	RCRA Metal (21)	(HNO3) (1)		RB-82207	S: 8/22/2007 15:21		Rinsate
MB4E78	Water/ Laura Holloway	/G	RCRA Metal (21)	(HNO3) (1)		RB-82307	S: 8/23/2007 15:21		Rinsate

Shipment for Case complete? N	Sample(s) to be used for laboratory QC: MB4E35, MB4E58	Additional Sampler Signature(s):	Chain of Custody Seal Number:
Analysis Key: RCRA Metal = RCRA Metals	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G	Shipment Iced?

FedEx. US Airbill

Express

FedEx Tracking Number 8625 5829 3745

1 From Please print and press hard. Sender's FedEx Account Number 8625 5829 3745

Date 8/24/07 Sender's Name Laura Holladay Phone 1732 570-4943

Company Weston Solutions, Inc.

Address 1010 West 4th King George Post Rd Suite 201 Dept Floor/Room

City Edison State NJ ZIP 08837

2 Your Internal Billing Reference 20401-075-007-1016 OPTIONAL First 24 characters will appear on invoice.

3 To Recipient's Name Parveen Hasen Phone 1 908 789-8900

Company Chemtech Consulting group

Recipient's Address 294 Sheffield St We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address To request a package be held at a specific FedEx location, print FedEx address here.

City Mountainside State NJ ZIP 07092



Sender's Copy

4a Express Package Service Packages up to 150 lbs.

☒ FedEx Priority Overnight ☐ FedEx Standard Overnight ☐ FedEx First Overnight

☐ FedEx 2Day ☐ FedEx Express Saver ☐ FedEx 3Day Freight

☐ FedEx 1Day Freight ☐ FedEx 2Day Freight ☐ FedEx 3Day Freight

4b Express Freight Service Packages over 150 lbs. ☐ FedEx 1Day Freight ☐ FedEx 2Day Freight ☐ FedEx 3Day Freight

5 Packaging ☐ FedEx Envelope* ☐ FedEx Pak* ☐ FedEx Tube ☐ FedEx Box ☒ Other

6 Special Handling ☒ SATURDAY Delivery ☐ HOLD Saturday at FedEx Location ☐ HOLD Saturday at FedEx Location

7 Payment Bill to ☐ Sender ☐ Recipient ☒ Third Party ☐ Credit Card ☐ Cash/Check

Total Packages 1 Total Weight 82.25 Total Declared Value* \$15458.227

8 Residential Delivery Signature Options ☐ No Signature Required ☐ Direct Signature ☐ Indirect Signature

520

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Tracking number	862558293745	Reference	20401 025 007 1016
Signed for by	Signature release on file	Service type	Priority Overnight
Ship date	Aug 24, 2007	Weight	83.0 lbs.
Delivery date	Aug 25, 2007 10:13 AM		
Status	Delivered		
Signature image available	<u>No</u>		

Date/Time	Activity	Location	Details
Aug 25, 2007	10:13 AM Delivered		Left at garage. Package delivered to recipient address - release authorized
	9:03 AM On FedEx vehicle for delivery	UNION, NJ	
	8:46 AM At local FedEx facility	UNION, NJ	
	6:35 AM Arrived at FedEx location	NEWARK, NJ	
	3:19 AM Departed FedEx location	MEMPHIS, TN	
Aug 24, 2007	6:03 PM Left origin	VESTAL, NY	
	5:30 PM Picked up	VESTAL, NY	

Region: 2		Date Shipped: 8/30/2007	
Project Code: RV		Carrier Name: FedEx	
Account Code: NYN00205908		Airbill: 857744010504	
Spill ID: YH		Shipped to: ChemTech Consulting Group (CHEMED)	
Site Name/State: Buckbee-Mears Site 2/NY		284 Sheffield Street	
Project Leader: Laura Holloway		Mountainside NJ 07092	
Action: Removal Action		(908) 789-8900	
Sampling Co: Weston Solutions, Inc.			

INORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME	ORGANIC SAMPLE No.	QC Type
MB4E79	Concrete/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-CC-59	S: 8/27/2007 11:00		--
MB4E80	Solid Waste/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-SW-29	S: 8/28/2007 10:35		--
MB4E81	Water/ Laura Holloway	M/G	RCRA Metal (21)	(Ice Only) (1)	BM-L-14	S: 8/29/2007 10:30		--

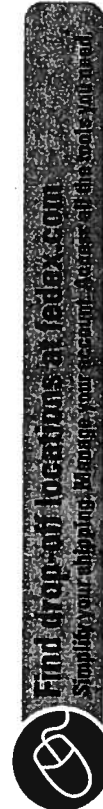
Shipment for Case Complete? N	Sample(s) to be used for laboratory QC:	Additional Sampler Signature(s):	Chain of Custody Seal Number:
Analysis Key: RCRA Metal = RCRA Metals	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G	Shipment Iced?

FedEx® US Airbill

Express

FedEx Tracking Number 8577 4401 0504

1 From Please print and press hard
 Date 8/30/07 Sender's FedEx Account Number
 Sender's Name Laura Halloway Phone (732) 570-4943
 Company Weston Solutions, Inc.
 Address 1090 King George Post Rd, Suite 201
 City Edison State NJ ZIP 08837
 2 Your Internal Billing Reference 20401.025.0851.1016
 3 To
 Recipient's Name Parveen Hasan Phone (908) 787-8900
 Company Chemtech Consulting Group
 Recipient's Address 284 Sheffield St.
 We cannot deliver to P.O. boxes or P.O. ZIP codes.
 Address
 To request a package be held at a specific FedEx location, print FedEx address here.
 City Mountainside State NJ ZIP 07092



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4a Express Package Service
☒ FedEx Priority Overnight
 Next business morning, Friday
 shipments will be delivered on Monday
 unless SATURDAY Delivery is selected.
☐ FedEx 2Day
 Second business day, Thursday
 shipments will be delivered on Monday
 unless SATURDAY Delivery is selected.
 FedEx Envelope rate not available. Minimum charge: One pound rate.
☐ FedEx Express Saver
 Third business day, Saturday
 shipments will be delivered on Monday
 unless SATURDAY Delivery is selected.
 Packages up to 150 lbs.
☐ FedEx Standard Overnight
 Next business afternoon, Saturday
 delivery to select locations.
☐ FedEx First Overnight
 Earliest next business morning
 delivery to select locations.
 Saturday Delivery NOT available.
 4b Express Freight Service
☐ FedEx 1Day Freight
 Next business day, Friday
 shipments will be delivered on Monday
 unless SATURDAY Delivery is selected.
☐ FedEx 2Day Freight
 Second business day, Thursday
 shipments will be delivered on Monday
 unless SATURDAY Delivery is selected.
☐ FedEx 3Day Freight
 Third business day, Saturday
 delivery to select locations.
 Saturday Delivery NOT available.
 Packages over 150 lbs.
 5 Packaging
☐ FedEx Envelope*
☐ FedEx Pak*
 Includes FedEx Small Pak,
 FedEx Large Pak, and FedEx Sturdy Pak.
☐ FedEx Tube
☐ FedEx Box
☐ Other
 6 Special Handling
☐ SATURDAY Delivery
 NOT available for
 FedEx Standard Overnight,
 FedEx First Overnight, FedEx Express
 Saver, or FedEx 2Day Freight.
 Does this shipment contain dangerous goods?
☒ No ☐ Yes
 One box must be checked.
☐ Fragile
☐ Perishable
☐ Hazardous
 Dangerous goods (including dry ice) cannot be shipped in FedEx packaging.
 7 Payment Bill to:
☐ Sender
 Select the bill to party.
☐ Recipient
☐ Third Party
☐ Credit Card
☐ Cash/Check
 Enter FedEx Account No. or Credit Card No. below.
 FedEx Account No. 154581227
 Credit Card No. 154581227
 Total Packages 1
 Total Weight 15
 Total Declared Value \$.00
 8 NEW Residential Delivery Signature Options If you require a signature, check Direct or Indirect.
☐ No Signature Required
 Package may be left without a signature.
☐ Direct Signature
 Requires a signature at delivery.
☐ Indirect Signature
 First one is available at delivery. Second one is available at delivery. Third one is available at delivery. Fourth one is available at delivery. Fifth one is available at delivery. Sixth one is available at delivery. Seventh one is available at delivery. Eighth one is available at delivery. Ninth one is available at delivery. Tenth one is available at delivery.
 FedEx Use Only 520

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Tracking number	857744010504	Reference	20401 025 007 1016
Signed for by	D.DELEON	Delivered to	Shipping/Receiving
Ship date	Aug 30, 2007	Service type	Priority Overnight
Delivery date	Aug 31, 2007 9:26 AM	Weight	15.0 lbs.
Status	Delivered		
Signature image available	<u>Yes</u>		

Date/Time	Activity	Location	Details
Aug 31, 2007	9:26 AM Delivered		
	8:08 AM On FedEx vehicle for delivery	UNION, NJ	
	8:03 AM At local FedEx facility	UNION, NJ	
Aug 30, 2007	10:16 PM Arrived at FedEx location	NEWARK, NJ	
	8:34 PM Left origin	EDISON, NJ	
	6:56 PM Picked up	EDISON, NJ	

APPENDIX E
FIELD SCREENING
CHARACTERIZATION LOGS



Restoring Resource Efficiency

REMOVAL SUPPORT TEAM
DRUM INVENTORY LOGMost likely Fecl₃SITE NAME: BuckbeePROJECT NO.: ALOGGER: EE

PROJECT NO.:

SAMPLE NO.:

SAMPLER:

DRUM DESCRIPTION:

CONSTRUCTION Fiber <input type="checkbox"/> Poly <input type="checkbox"/> Steel <input type="checkbox"/> Nickel <input type="checkbox"/> Stainless <input type="checkbox"/> Other <input type="checkbox"/>		TYPE Poly Lined <input type="checkbox"/> Overpack <input type="checkbox"/> Open Top <input type="checkbox"/> Ring Top <input type="checkbox"/> Closed Top <input type="checkbox"/>		CONDITION rusted <input type="checkbox"/> dented <input type="checkbox"/> leaking <input type="checkbox"/> bulging <input type="checkbox"/> perforated <input type="checkbox"/> good <input type="checkbox"/> other _____	
DRUM SIZE (Gallons): 85 <input type="checkbox"/> 55 <input type="checkbox"/> 42 <input type="checkbox"/> 30 <input checked="" type="checkbox"/> 15 <input type="checkbox"/> 10 <input type="checkbox"/> 5 <input type="checkbox"/> Other _____					
MFG NAME					
CHEMICAL NAME					
DRUM MARKINGS					
DRUM LABELS					

FIELD AIR MONITORING INSTRUMENT READINGS: LEL _____ PID _____ FID _____ RAD METER _____ OTHER _____

PHYSICAL DESCRIPTION:

LAYERS		PHYSICAL				COLOR / DESCRIPTION			CLARITY			SOLUBILITY		REACTION	
P H A S E	I N C H E S	L I Q U I D	S O L I D	S L U D G E	G E L	Oil, Watery, Gel, Soft, Crystal,	Syrup, Paste, Spongy, Hard, Granular,	Viscous, Chunks, Soaplike, Powder, Rubbery	C L E A R	C L O U D Y	O P A Q U E	W A T E R	H E X A N E	A I R	W A T E R
Top		X				yellow with greenish			X			X	-	-	-
Middle						injection									
Bottom															

FIELD SCREENING RESULTS:

Layers	pH	Chlorine (Hot Wire)	Ignitable	Cyanide	Oxidizer	Chloride	Peroxide	Mercury	Sulfide	PCB
Top	1	N/A	-	-	+	+	-	N/A	-	N/A
Middle										
Bottom										

ASSIGNED WASTE STREAM - BASED ON INITIAL RCRA HAZARD

TEST COMPATIBILITY RESULTS:

Prepared by: EEDate: 8/28/07



REMOVAL SUPPORT TEAM
DRUM INVENTORY LOG

*mixture contain FeCl₂
also Pb present.*

SITE NAME: Buckbee
DRUM NO.: B
LOGGER: SP

PROJECT NO.:
SAMPLE NO.:
SAMPLER:

DRUM DESCRIPTION:

CONSTRUCTION Fiber <input type="checkbox"/> Poly <input type="checkbox"/> Steel <input type="checkbox"/> Nickel <input type="checkbox"/> Stainless <input type="checkbox"/> Other <input type="checkbox"/>		TYPE Poly Lined <input type="checkbox"/> Overpack <input type="checkbox"/> Open Top <input type="checkbox"/> Ring Top <input type="checkbox"/> Closed Top <input type="checkbox"/>		CONDITION rusted <input type="checkbox"/> dented <input type="checkbox"/> leaking <input type="checkbox"/> bulging <input type="checkbox"/> perforated <input type="checkbox"/> good other _____	
DRUM SIZE (Gallons): 85 <input type="checkbox"/> 55 <input type="checkbox"/> 42 <input type="checkbox"/> <u>30</u> <input type="checkbox"/> 15 <input type="checkbox"/> 10 <input type="checkbox"/> 5 <input type="checkbox"/> Other _____					
MFG NAME _____					
CHEMICAL NAME _____					
DRUM MARKINGS _____					
DRUM LABELS _____					

FIELD AIR MONITORING INSTRUMENT READINGS: LEL _____ PID _____ FID _____ RAD METER _____ OTHER _____

PHYSICAL DESCRIPTION:

LAYERS		PHYSICAL				COLOR / DESCRIPTION			CLARITY			SOLUBILITY		REACTION	
PHASE	INCHES	LIQUID	SOLID	SUDGE	GEL	Oil, Watery, Gel, Soft, Crystal,	Syrup, Paste, Spongy, Hard, Granular,	Viscous, Chunks, Soaplike, Powder, Rubbery	CLEAR	CLOUDY	OPAQUE	WATER	HEXANE	AIR	WATER
Top			X			Brown / Silver					X	PS	-	-	-
Middle															
Bottom															

FIELD SCREENING RESULTS:

Layers	pH	Chlorine (Hot Wire)	Ignitable	Cyanide	Oxidizer	Chloride	Peroxide	Mercury	Sulfide	PCB
Top	5	N/A	-	-	-	+	-	N/A	-	N/A
Middle										
Bottom										

ASSIGNED WASTE STREAM - BASED ON INITIAL RCRA HAZARD

TEST COMPATIBILITY RESULTS:

Prepared by: SS

Date: 8/28/07



REMOVAL SUPPORT TEAM
DRUM INVENTORY LOG

*Contains fumes
No Chromium*

SITE NAME: Buckley - Means
Sample
DRUM NO.: C
LOGGER: Laura Holberry

PROJECT NO.:
SAMPLE NO.:
SAMPLER:

DRUM DESCRIPTION:

CONSTRUCTION Fiber <input type="checkbox"/> Poly <input type="checkbox"/> Steel <input type="checkbox"/> Nickel <input type="checkbox"/> Stainless <input type="checkbox"/> Other <input type="checkbox"/>		TYPE Poly Lined <input type="checkbox"/> Overpack <input type="checkbox"/> Open Top <input type="checkbox"/> Ring Top <input type="checkbox"/> Closed Top <input type="checkbox"/>		CONDITION rusted <input type="checkbox"/> dented <input type="checkbox"/> leaking <input type="checkbox"/> bulging <input type="checkbox"/> perforated <input type="checkbox"/> good other _____	
DRUM SIZE (Gallons): 85 <input type="checkbox"/> 55 <input type="checkbox"/> 42 <input type="checkbox"/> 30 <input type="checkbox"/> 15 <input type="checkbox"/> 10 <input type="checkbox"/> 5 <input type="checkbox"/> Other _____					
MFG NAME					
CHEMICAL NAME					
DRUM MARKINGS					
DRUM LABELS					

FIELD AIR MONITORING INSTRUMENT READINGS: LEL _____ PID _____ FID _____ RAD METER _____ OTHER _____

PHYSICAL DESCRIPTION:

LAYERS		PHYSICAL				COLOR / DESCRIPTION			CLARITY			SOLUBILITY		REACTION	
PHASE	INCHES	LIQUID	SOLID	SLUDGE	GEL	Oil, Watery, Gel, Soft, Crystal	Syrup, Paste, Spongy, Hard, Granular,	Viscous, Chunks, Soaplike, Powder, Rubbery	CLEAR	CLOUDY	OPAQUE	WATER	HEXAMETHYLENE	AIR	WATER
Top			X								X	PS	-	-	-
Middle															
Bottom															

FIELD SCREENING RESULTS:

Layers	pH	Chlorine (Hot Wire)	Ignitable	Cyanide	Oxidizer	Chloride	Peroxide	Mercury	Sulfide	PCB
Top	1-2	N/A	-	-	+ (weak)	+	-	N/A	-	N/A
Middle										
Bottom										

ASSIGNED WASTE STREAM - BASED ON INITIAL RCRA HAZARD

TEST COMPATIBILITY RESULTS:

Prepared by: CH/EE

Date: 8/28/07



REMOVAL SUPPORT TEAM
DRUM INVENTORY LOG

contains fumes

SITE NAME: Buckbee - Means
DRUM NO.: D
LOGGER: Laura Hollaway

PROJECT NO.:
SAMPLE NO.:
SAMPLER:

DRUM DESCRIPTION:

CONSTRUCTION Fiber <input type="checkbox"/> Poly <input type="checkbox"/> Steel <input type="checkbox"/> Nickel <input type="checkbox"/> Stainless <input type="checkbox"/> Other <input type="checkbox"/>		TYPE Poly Lined <input type="checkbox"/> Overpack <input type="checkbox"/> Open Top <input type="checkbox"/> Ring Top <input type="checkbox"/> Closed Top <input type="checkbox"/>		CONDITION rusted <input type="checkbox"/> dented <input type="checkbox"/> leaking <input type="checkbox"/> bulging <input type="checkbox"/> perforated <input type="checkbox"/> good <input type="checkbox"/> other _____
DRUM SIZE (Gallons): 85 <input type="checkbox"/> 55 <input type="checkbox"/> 42 <input type="checkbox"/> 30 <input type="checkbox"/> 15 <input checked="" type="checkbox"/> 10 <input type="checkbox"/> 5 <input type="checkbox"/> Other _____				
MFG NAME _____				
CHEMICAL NAME _____				
DRUM MARKINGS _____				
DRUM LABELS _____				

FIELD AIR MONITORING INSTRUMENT READINGS: LEL _____ PID _____ FID _____ RAD METER _____ OTHER _____

PHYSICAL DESCRIPTION:

LAYERS		PHYSICAL				COLOR / DESCRIPTION			CLARITY			SOLUBILITY		REACTION	
P H A S E	I N C H E S	L I Q U I D	S O L I D	S L U D G E	G E L	Oil, Watery, Gel, Soft, Crystal,	Syrup, Paste, Spongy, Hard, Granular,	Viscous, Chunks, Soaplike, Powder, Rubbery	C L E A R	C L O U D Y	O P A Q U E	W A T E R	X E N E L E A N E	A I R	W A T E R
Top		X				Viscous = 1-2				X		+	-	-	-
Middle						Brown liquid containing suspended solid, white									
Bottom						in methanol									

FIELD SCREENING RESULTS:

Layers	pH	Chlorine (Hot Wire)	Ignitable	Cyanide	Oxidizer	Chloride	Peroxide	Mercury	Sulfide	PCB
Top	1	N/A	-	-	+	+	-	N/A	-	N/A
Middle										
Bottom										

ASSIGNED WASTE STREAM - BASED ON INITIAL RCRA HAZARD

TEST COMPATIBILITY RESULTS:

Prepared by: LH

Date: 8/28/07



REMOVAL SUPPORT TEAM
DRUM INVENTORY LOG

SITE NAME: Buckhorn - Moens

PROJECT NO.:

DRUM NO.: TUNNEL CORE WT END E

SAMPLE NO.:

LOGGER: SE

SAMPLER:

DRUM DESCRIPTION:

CONSTRUCTION Fiber <input type="checkbox"/> Poly <input type="checkbox"/> Steel <input type="checkbox"/> Nickel <input type="checkbox"/> Stainless <input type="checkbox"/> Other <input type="checkbox"/>		TYPE Poly Lined <input type="checkbox"/> Overpack <input type="checkbox"/> Open Top <input type="checkbox"/> Ring Top <input type="checkbox"/> Closed Top <input type="checkbox"/>		CONDITION rusted <input type="checkbox"/> dented <input type="checkbox"/> leaking <input type="checkbox"/> bulging <input type="checkbox"/> perforated <input type="checkbox"/> good <input type="checkbox"/> other _____	
DRUM SIZE (Gallons): 85 <input type="checkbox"/> 55 <input type="checkbox"/> 42 <input type="checkbox"/> 30 <input checked="" type="checkbox"/> 15 <input type="checkbox"/> 10 <input type="checkbox"/> 5 <input type="checkbox"/> Other _____					
MFG NAME _____					
CHEMICAL NAME _____					
DRUM MARKINGS _____					
DRUM LABELS _____					

FIELD AIR MONITORING INSTRUMENT READINGS: LEL _____ PID _____ FID _____ RAD METER _____ OTHER _____

PHYSICAL DESCRIPTION:

LAYERS		PHYSICAL				COLOR / DESCRIPTION			CLARITY			SOLUBILITY		REACTION	
PHASE	INCHES	LIQUID	SOLID	SLUDGE	GEL	Oil, Watery, Gel, Soft, Crystal,	Syrup, Paste, Spongy, Hard, Granular,	Viscous, <u>Chunks</u> , Soaplike, Powder, Rubbery	CLEAR	CLOUDY	OPAQUE	WATER	HEXANE	AIR	WATER
Top			X			Rocks, gravel, concrete					X	-	-	-	-
Middle						gravel									
Bottom															

FIELD SCREENING RESULTS:

HAZARD Screening on Core Wash water.

Layers	pH	Chlorine (Hot Wire)	Ignitable	Cyanide	Oxidizer	Chloride	Peroxide	Mercury	Sulfide	PCB
Top	4-5	N/A	-	N/A	-	+	-	N/A	-	N/A
Middle										
Bottom										

ASSIGNED WASTE STREAM - BASED ON INITIAL RCRA HAZARD

--

TEST COMPATIBILITY RESULTS:

--

Prepared by: SE

Date:

8/29/07



REMOVAL SUPPORT TEAM
DRUM INVENTORY LOG

SITE NAME: Buckhorn Meadows
DRUM NO.: TUNNEL WATER **F**
LOGGER: SE

PROJECT NO.:
SAMPLE NO.:
SAMPLER:

DRUM DESCRIPTION:

CONSTRUCTION Fiber <input type="checkbox"/> Poly <input type="checkbox"/> Steel <input type="checkbox"/> Nickel <input type="checkbox"/> Stainless <input type="checkbox"/> Other <input type="checkbox"/>		TYPE Poly Lined <input type="checkbox"/> Overpack <input type="checkbox"/> Open Top <input type="checkbox"/> Ring Top <input type="checkbox"/> Closed Top <input type="checkbox"/>		CONDITION rusty <input type="checkbox"/> dented <input type="checkbox"/> leaking <input type="checkbox"/> bulging <input type="checkbox"/> perforated <input type="checkbox"/> good <input type="checkbox"/> other _____
DRUM SIZE (Gallons): 85 <input type="checkbox"/> 55 <input type="checkbox"/> 42 <input type="checkbox"/> 30 <input type="checkbox"/> 15 <input type="checkbox"/> 10 <input type="checkbox"/> 5 <input type="checkbox"/> Other _____				
MFG NAME _____				
CHEMICAL NAME _____				
DRUM MARKINGS _____				
DRUM LABELS _____				

** white precipitate in methanol.
Carbonates present (such as Calcium)*

FIELD AIR MONITORING INSTRUMENT READINGS: LEL _____ PID _____ FID _____ RAD METER _____ OTHER _____ * *MeOH*

PHYSICAL DESCRIPTION:

LAYERS		PHYSICAL				COLOR / DESCRIPTION			CLARITY			SOLUBILITY		REACTION	
P H A S E	I N C H E S	L I Q U I D	S O L I D	S L U D G E	G E L	Oil, Watery, Gel, Soft, Crystal,	Syrup, Paste, Spongy, Hard, Granular,	Viscous, Chunks, Soaplike, Powder, Rubbery	C L E A R	C L O U D Y	O P A Q U E	W A T E R	W A T E R	A I R	W A T E R
Top		X				Viscous & 1~			X			+	-	-	-
Middle															
Bottom															

FIELD SCREENING RESULTS:

Layers	pH	Chlorine (Hot Wire)	Ignitable	Cyanide	Oxidizer	Chloride	Peroxide	Mercury	Sulfide	PCB
Top	11-12	N/A	-	-	-	+	-	N/A	-	N/A
Middle										
Bottom										

ASSIGNED WASTE STREAM - BASED ON INITIAL RCRA HAZARD

TEST COMPATIBILITY RESULTS:

Prepared by: SE

Date: 8/29/07



REMOVAL SUPPORT TEAM
DRUM INVENTORY LOG

SITE NAME: Buckbee - main

DRUM NO.: 2M 1-127 CORE G

LOGGER: sf

PROJECT NO.:

SAMPLE NO.:

SAMPLER:

DRUM DESCRIPTION:

CONSTRUCTION Fiber <input type="checkbox"/> Poly <input type="checkbox"/> Steel <input type="checkbox"/> Nickel <input type="checkbox"/> Stainless <input type="checkbox"/> Other <input type="checkbox"/>		TYPE Poly Lined <input type="checkbox"/> Overpack <input type="checkbox"/> Open Top <input type="checkbox"/> Ring Top <input type="checkbox"/> Closed Top <input type="checkbox"/>		CONDITION rusted <input type="checkbox"/> dented <input type="checkbox"/> leaking <input type="checkbox"/> bulging <input type="checkbox"/> perforated <input type="checkbox"/> good <input type="checkbox"/> other _____
DRUM SIZE (Gallons): 85 <input type="checkbox"/> 55 <input type="checkbox"/> 42 <input type="checkbox"/> 30 <input type="checkbox"/> 15 <input type="checkbox"/> 10 <input type="checkbox"/> 5 <input type="checkbox"/> Other _____				
MFG NAME _____				
CHEMICAL NAME _____				
DRUM MARKINGS _____				
DRUM LABELS _____				

Chromium Test - Negative

FIELD AIR MONITORING INSTRUMENT READINGS: LEL _____ PID _____ FID _____ RAD METER _____ OTHER _____

PHYSICAL DESCRIPTION:

LAYERS		PHYSICAL				COLOR / DESCRIPTION			CLARITY			SOLUBILITY		REACTION	
PHASE	INCHES	LIQUID	SOLID	SLUDGE	GEL	Oil, Watery, Gel, Soft, Crystal,	Syrup, Paste, Spongy, Hard, Granular,	Viscous, Chunks, Soaplike, Powder, Rubbery	CLEAR	CLOUDY	OPAQUE	WATER	HEXANE	AIR	WATER
Top			X												
Middle								<i>Rocks, concrete chunks</i>			X	-	-	-	-
Bottom								<i>with brownish mud/soil</i>							

FIELD SCREENING RESULTS:

Screening performed on chunk wash water.

Layers	pH	Chlorine (Hot Wire)	Ignitable	Cyanide	Oxidizer	Chloride	Peroxide	Mercury	Sulfide	PCB
Top	7	N/A	-	N/A	-	+	-	N/A	-	N/A
Middle										
Bottom										

ASSIGNED WASTE STREAM - BASED ON INITIAL RCRA HAZARD

TEST COMPATIBILITY RESULTS:

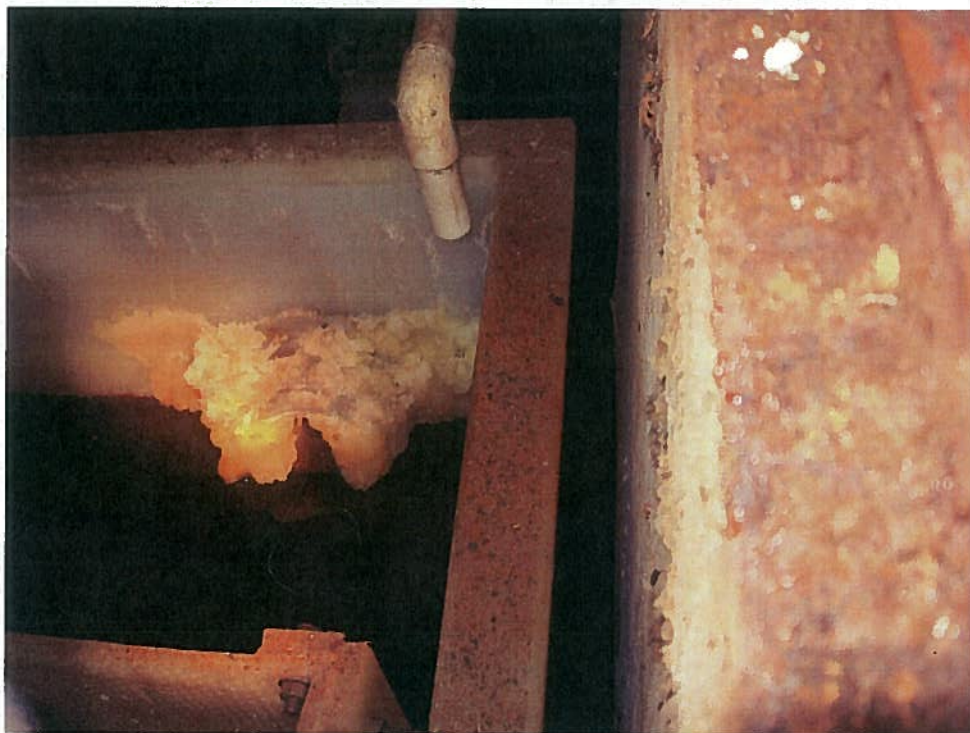
Prepared by: sf

Date: 8/29/07

APPENDIX F
PHOTOGRAPHIC DOCUMENTATION –
AUGUST 2007



Photograph 1: Sample location 77 (BM-CC-03), liquid material reacted with newly exposed concrete. The pH of the material was 2.5.

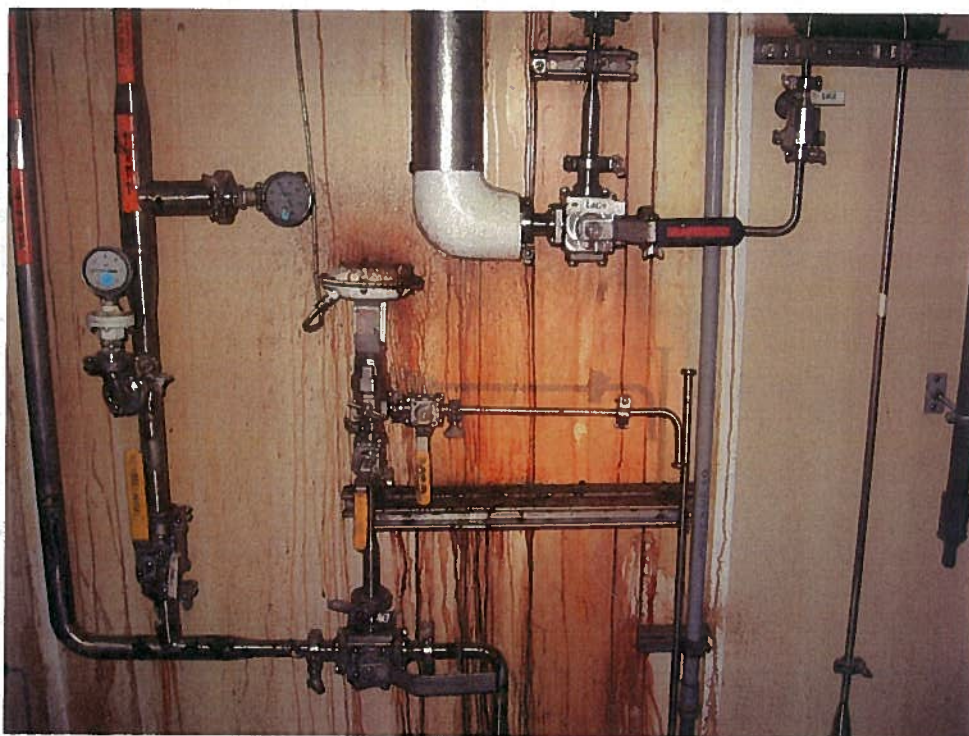


Photograph 2: Sample location 43 (BM-SW-05), crystal-like material with a pH of 12. The liquid in this tank has a pH of 14.

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August 6 – 30, 2007

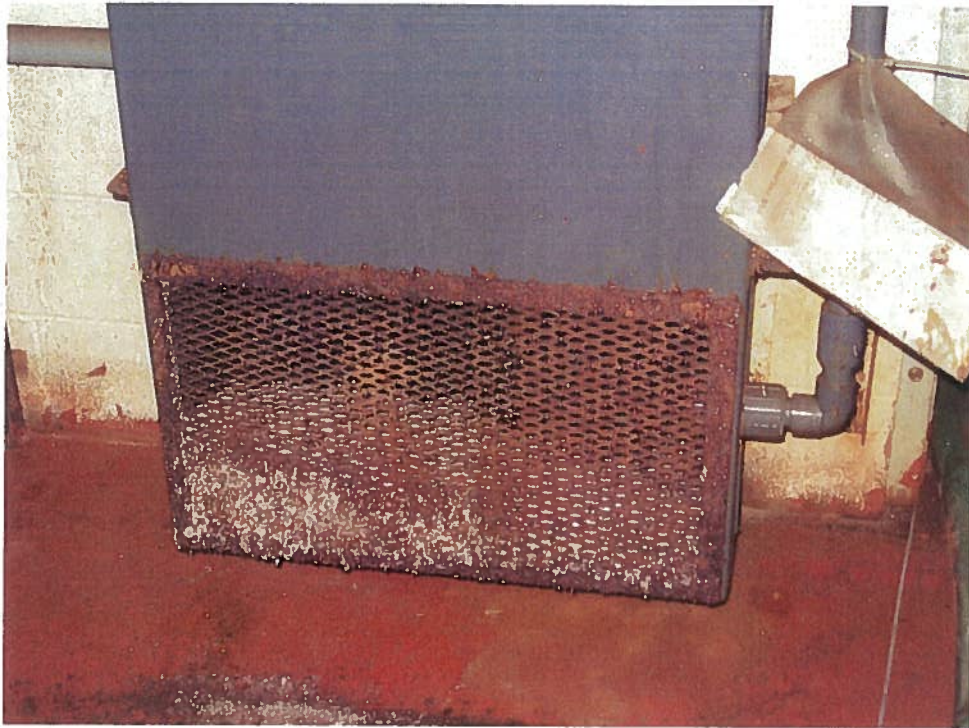


Photograph 3: Sample location 88 (BM-CC-21/BM-CC-34/BM-SW-24), collected from the liner and the concrete in the trench.



Photograph 4: Sample location 82 (BM-W-10), a wipe sample was collected from this Chromic Acid Room located in Building 5.

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Photograph 5: Sample location 32 (BM-SW-02/BM-SW-03), “buildup” of dust-like material in the ventilation shaft.

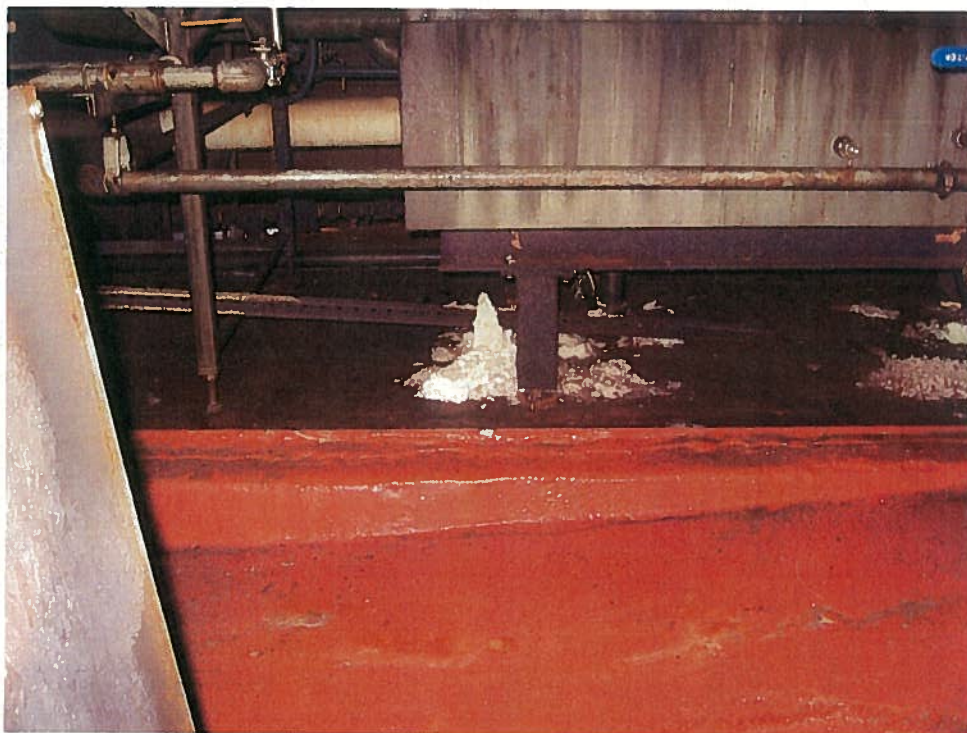


Photograph 6: Sample location 28 (BM-CC-51), ceiling chip located near the ventilation shaft.

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Photograph 7: Tank connected to a process line in Room 5-137. Sample C was collected from this for field screening characterization.



Photograph 8: Composite sample location 5 (BM-SW-04), crystal-like white/yellow material that has a pH of 11.

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Cortland, New York
August 6 – 30, 2007



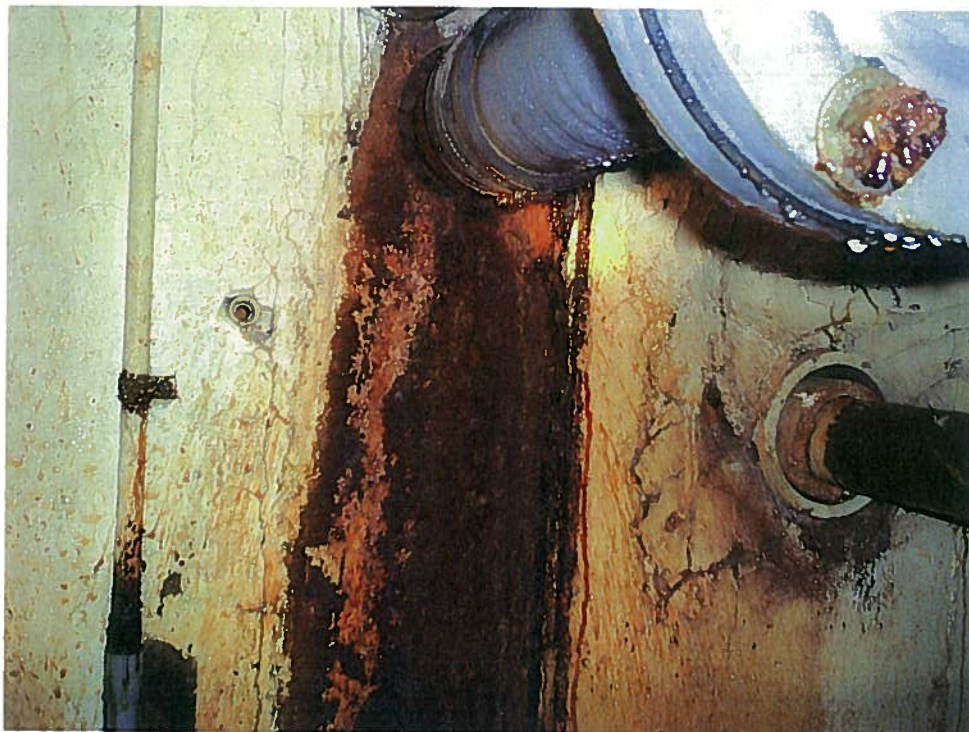
Photograph 9: Composite sample location 5 (BM-SW-05), crystal-like material located inside the process line.



Photograph 10: Sample location 31 (BM-SW-21/BM-SW-22), tellerettes from inside the ventilation system.



Photograph 11: Floor stains that are present throughout the facility.



Photograph 12: A leaking pipe in the tunnel running under Building 1 that is corroding the concrete wall.

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August 6 – 30, 2007



Photograph 13: Sample location 98 (BM-SW-20), gravel that appears stained collected from the roof of the building.



Photograph 14: Sample location 85 (BM-W-03/BM-W-12) on the wall in the Chromic Acid room in Building 5.

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Cortland, New York
August 6 – 30, 2007



Photograph 15: Sample A collected from a tank connected to the process line in Room 5-133 for field screening characterization.



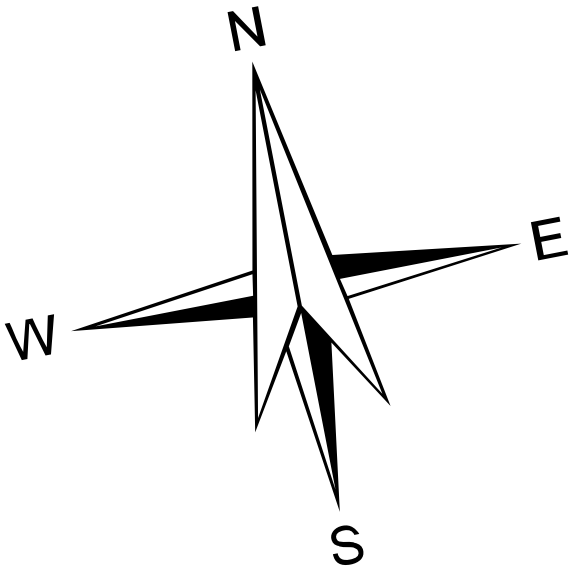
Photograph 16: The pH of the condensation on this process line in Room 5-133 is 3.



Photograph 17: The pH of the condensation located on this process line in room 5-128 is 1.



Photograph 18: Sample location 39 (BM-SL-01/BM-SL-02) consisted of the brown material, the pH is 5.



SCALE
1:474

LEGEND

● Sample Location

Location No.	97	13	7	14	14	8	100	42	19	57	81	4	86
Room No.	S-139	1-120	1-127	1-120	1-120	1-127	1-127	2-44	1-121	S-134	S-134	1-47	S-139
Sample ID	BM-CC-01 (Dep. of BM-CC-01)	BM-SW-25	BM-W-06	BM-SW-27 (Dep. of BM-SW-26)	BM-SW-26	BM-CC-44	BM-CC-58	BM-SL-01	BM-CC-32	BM-CC-04	BM-CC-01	BM-CC-46	BM-CC-37
Chromium Results (ppm)	19.200	9.060	3.850	3.420	3.270	1.770	1.720	1.300 J	1.270	1.180	1.110	1.060 J	1.040 J
Location No.	42	90	87	42	86	9	89	60	88	10	100	25	87
Room No.	2-44	S-133	S-124	S-132	S-137	1-127	S-124	S-117	S-124	1-120	1-127	S-132	S-132
Sample ID	BM-SL-02 (Dep. of BM-SL-01)	BM-SL-03	BM-CC-11	BM-CC-23	BM-CC-43	BM-SW-06	BM-W-04	BM-CC-27	BM-W-03	BM-SW-01	BM-CC-59	BM-SW-17	BM-W-10
Chromium Results (ppm)	696	667 J	658	631	550	476	466	412	411	326	319 J	294	287
Location No.	88	1	33	12	37	79	18	20	52	27	92	19	40
Room No.	S-134	1-65	1-125	1-120	1-126	S-134	1-120	1-121	3-3	1-124	S-128	S-76	S-134
Sample ID	BM-W-12 (Dep. of BM-W-03)	BM-CC-45	BM-SW-09	BM-SW-28	BM-SW-10	BM-CC-02	BM-SW-07	BM-W-01	BM-CC-49	BM-CC-48	BM-CC-07	BM-CC-33	BM-CC-05
Chromium Results (ppm)	243	234	196	194	187	177	153	150	129 J	112 J	93.1	73.6	62.1
Location No.	24	32	34	44	78	71	21	31	77	55	98	102	51
Room No.	1-129	1-122	1-122	S-110	S-140	S-140	1-122	1-122	S-140	1-125	S-76	Trained	3-3
Sample ID	BM-SW-16	BM-SW-08	BM-W-02	BM-CC-51	BM-CC-22	BM-CC-14	BM-CC-31	BM-SW-05 (Dep. of BM-SW-02)	BM-CC-12	BM-SW-02	BM-CC-55	BM-SW-29	BM-CC-47
Chromium Results (ppm)	58	51.3	49.8	49	48.5	36.4	35.8	34.6	31.6	30.1	24.1	22.3 J	22.1 J
Location No.	23	91	75	43	44	22	86	78	66	30	48	74	28
Room No.	1-123	S-133	S-140	2-45	2-45	1-122	S-151	S-140	S-159	1-125	3-1	S-140	1-125
Sample ID	BM-SW-15	BM-CC-21	BM-CC-08	BM-CC-55	BM-W-08	BM-CC-50	BM-CC-49	BM-CC-14	BM-CC-26	BM-CC-51	BM-SW-14	BM-CC-20	BM-CC-53
Chromium Results (ppm)	21.5	20.8	20.1	20.1 J	19	18.5 J	18.4	18.3	17.7	17.1 J	16.9	16.8	16.1 J
Location No.	91	83	99	56	3	47	93	29	41	95	11	48	40
Room No.	S-133	S-140	Trained	Trained	6-3	S-137	S-130	1-127	S-66	S-137	S-120	S-159	1-47
Sample ID	BM-CC-05	BM-CC-07	BM-CC-17	BM-W-07	BM-CC-24	BM-W-05	BM-W-09	BM-L-01	BM-W-11	BM-L-01	BM-L-01	BM-L-04	BM-L-11
Chromium Results (ppm)	15.9	15.6	15	12.8	10.3	10.3	10.2	9.6	6.14	2.6	0.945	0.0067 J	0.0022 J

Location No.	13	14	81	76	24	13	100	14	25	1	26	57	8
Room No.	1-120	1-120	S-134	S-140	1-122	1-120	1-127	1-120	1-123	1-124	S-134	1-127	1-127
Sample ID	BM-SW-28	BM-SW-27 (Dep. of BM-SW-26)	BM-CC-01	BM-CC-10	BM-SW-14	BM-SW-25	BM-CC-58	BM-SW-24	BM-SW-17	BM-CC-45	BM-SW-18	BM-CC-04	BM-CC-44
Lead Results (ppm)	340.1	140.3	122	118.1	97.61	84.8 J	62.4	42.3 J	38.4 J	34.8	34.5 J	33.1	24.5 J
Location No.	6	17	10	16	7	36	36	34	34	92	100	56	
Room No.	1-127	1-128	S-134	1-120	1-127	1-124	1-120	1-121	1-123	S-3	Trained	6-3	
Sample ID	BM-SW-12	BM-SW-10	BM-CC-02	BM-SW-07	BM-W-06	BM-SW-08	BM-SW-11	BM-SW-09	BM-CC-32	BM-W-02	BM-CC-09	BM-CC-19 (Dep. of BM-CC-17)	
Lead Results (ppm)	243.1	24	25.7	19.8	19.5	17.8	17.5 J	17.4	17	15	14.5	13.8	13.5 J
Location No.	72	88	35	27	38	20	86	42	48	91	4	47	
Room No.	S-140	1-127	1-120	1-124	1-126	1-125	1-125	S-132	S-132	S-3	1-67	2-43	
Sample ID	BM-CC-14	BM-CC-59	BM-SW-01	BM-CC-03	BM-SW-19	BM-CC-03	BM-CC-23	BM-SW-03	BM-CC-28	BM-CC-07	BM-CC-04	BM-CC-55	
Lead Results (ppm)	118.1 J	11.1	8.5	9	8.9 J	8	7.6	7.3	7.1	7.3	6.7	6.5	6.4
Location No.	23	35	99	31	91	91	37	23	46	78	92	1	48
Room No.	1-123	Trained	1-123	S-133	S-133	S-140	1-123	S-140	S-140	S-139	1-127	1-127	3-1
Sample ID	BM-CC-16	BM-SW-02	BM-CC-57	BM-SW-02 (Dep. of BM-SW-02)	BM-CC-21	BM-CC-12	BM-SW-05	BM-CC-26	BM-CC-14	BM-CC-07	BM-SW-13	BM-SW-14	
Lead Results (ppm)	6.3	6.3	6.1	6	4.4	4.4	4.2	3.9 J	3.5	3.4	3.3	3.1	3
Location No.	73	80	31	56	67	88	88	84	3	26	47	29	40
Room No.	S-140	S-134	1-122	S-133	S-139	S-140	S-140	S-140	S-76	S-139	S-140	S-140	S-137
Sample ID	BM-CC-17	BM-CC-01	BM-CC-50	BM-CC-57	BM-CC-09	BM-CC-32	BM-CC-05	BM-CC-31	BM-CC-35	BM-CC-41 (Dep. of BM-CC-39)	BM-CC-08	BM-CC-27	
Lead Results (ppm)	3	2.9	2.8	2.7	2.6	2.4	2.4	2.2	2.1	2	2	1.9	1.8
Location No.	56	61	63	81	67	88	88	84	3	26	47	29	40
Room No.	S-140	S-134	1-122	S-133	S-139	S-140	S-140	S-140	S-76	S-139	S-140	S-140	S-137
Sample ID	BM-CC-17	BM-CC-01	BM-CC-50	BM-CC-57	BM-CC-09	BM-CC-32	BM-CC-05	BM-CC-31	BM-CC-35	BM-CC-41 (Dep. of BM-CC-39)	BM-CC-08	BM-CC-27	
Lead Results (ppm)	3	2.9	2.8	2.7	2.6	2.4	2.4	2.2	2.1	2	2	1.9	1.8
Location No.	64	95	41	89	44	40	78	70					
Room No.	S-139	S-132	S-134	S-133	S-133	S-133	S-133	S-133					
Sample ID	BM-CC-11	BM-W-11	BM-L-05	BM-W-04	BM-W-08	BM-L-04	BM-L-04 (Dep. of BM-L-02)	BM-L-11					
Lead Results (ppm)	0.61 J	0.18 J	0.57 J	0.41 J	0.35 J	0.0051 J	0.0054 J	0.0051 J					

NOTE: ALL TABLE RESULTS ARE IN DESCENDING ORDER.

Figure 2:
Sample Location Map

BUCKBEE-MEARS SITE
CORTLAND, NEW YORK

UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY
REMOVAL SUPPORT TEAM 2
CONTRACT # EP-W-06-072

Weston Solutions, Inc.
Federal Programs Division

In Association With
Avatar Environmental, LLC,
Innovative Technological Solutions, Inc. &
Scientific and Environmental Associates, Inc.

GIS ANALYST: F. CAMPBELL
EPA OSC: J. HARMON
RST SPM: L. HOLLOWAY
FILENAME: BUCKBEE-MEARS.MXD
FIGURE: 2
REVISION: 2
DATE MODIFIED: 12/31/2007

