Ft. Collins, Colorado LIMS Version: 6.821 Page 1 of 1

Thursday, August 04, 2016

Laine Sumner
CH2M HILL Plateau Remediation Company
2420 Stevens Center
Richland, WA 99352

Re: ALS Workorder: 1607380
Project Name: 200 West Pump & Treat - FBR Micronutrient Analysis
Project Number: F16-047

Dear Ms. Sumner:

Four water samples were received from CH2M HILL Plateau Remediation Company, on 7/21/2016. The samples were scheduled for the following analysis:

Metals

The results for these analyses are contained in the enclosed reports.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,

ALS Environmental
Julie Ellingson
Project Manager

ADDRESS 225 Commerce Drive, Fort Collins, Colorado, USA 80524 | PHONE +1 970 490 1511 | FAX +1 970 490 1522
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Environmental www.alsglobal.com
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ALS -- Fort Collins

Sample Number(s) Cross-Reference Table

OrderNum: 1607380
Client Name: CH2M HILL Plateau Remediation Company
Client Project Name: 200 West Pump & Treat - FBR Micronutrient Analysis
Client Project Number: F16-047
Client PO Number: BOA 54854

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
B362D9	1607380-1		WATER	20-Jul-16	10:15
B362C7	1607380-2		WATER	20-Jul-16	11:40
B362D3	1607380-3		WATER	20-Jul-16	11:28
B362C3	1607380-4		WATER	20-Jul-16	11:58

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST 1607380			F16-047-046	PAGE 1 OF 1
COLLECTOR: CHRIS FULTON, CHPRC	COMPANY CONTACT: SUMNER, LC	TELEPHONE NO.: 376-3922	PROJECT COORDINATOR: SUMNER, LC	PRICE CODE: 7C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 289-T, Effluent Tank, Valve V07-Y80 D*	PROJECT DESIGNATION: 200 West Pump & Treat - Fluidized Bed Reactor (FBR) Micronutrient Analys		SAF NO.: F16-047	AIR QUALITY: ☐	
ICE CHEST NO.: GWS-376	FIELD LOGBOOK NO.: HNF-N- 491 15	ACTUAL SAMPLE DEPTH: N/A	COA: 303111	METHOD OF SHIPMENT: FEDERAL EXPRESS	ORIGINAL
SHIPPED TO: ALS Environmental Ft. Collins	OFFSITE PROPERTY NO.: 6847		BILL OF LADING/AIR BILL NO.: 7768 0425 3386		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
*Contains Radioactive Material at concentrations that are not be regulated for transportation per 49 CFR/IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1. NA

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HNO3 to pH <2
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	500mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B362D9 (1)	WATER	JUL 20 2016	1015	✓

FILTER

8/4/2016
ALS1607380

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
CHRIS FULTON CHPRC	JUL 20 2016 1110	Janelle Zunker CHPRC	JUL 20 2016 1110
Janelle Zunker CHPRC	JUL 20 2016 1400	FEDEX	
FED EX		CTrinkle C Trinkle 7-21-16 0915	

SPECIAL INSTRUCTIONS
Filtering shall be performed by SGRP Field Sampling Services using a (0.45µm) filter while in the field. The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) 6020_METALS_ICPMS: COMMON {Aluminum, Chromium, Cobalt, Copper, Molybdenum, Selenium}; 6020_METALS_ICPMS: COMMON (Add-on) {Arsenic, Manganese, Nickel, Strontium, Zinc}; 6010_METALS_ICP: COMMON {Calcium, Iron, Magnesium, Potassium, Sodium}; 6010_METALS_ICP: COMMON (Add-on) {Bismuth, Boron, Lithium, Phosphorus, Silicon};

FILTER

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 6/22/2016 FSR ID = FSR33503 TRVL NUM = TRVL-16-181 A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST 1607380

F16-047-034 | PAGE 1 OF 1

COLLECTOR: CHRIS FULTON CHPRC	COMPANY CONTACT: SUMNER, LC	TELEPHONE NO.: 376-3922	PROJECT COORDINATOR: SUMNER, LC
SAMPLING LOCATION: 289-T, FBR-A Effluent, valve V25-Y40A1	PROJECT DESIGNATION: 200 West Pump & Treat - Fluidized Bed Reactor (FBR) Micronutrient Analys		SAF NO.: F16-047
ICE CHEST NO.: GOS-376	FIELD LOGBOOK NO.: ~~HNF-N-~~ 491-15	ACTUAL SAMPLE DEPTH: N/A	COA: 303111
SHIPPED TO: ALS Environmental Ft. Collins	OFFSITE PROPERTY NO.: 6847		BILL OF LADING/AIR BILL NO.: 7768 0425 3386

PRICE CODE: 7C | AIR QUALITY: ☐ | DATA TURNAROUND: 15 Days / 15 Days

METHOD OF SHIPMENT: FEDERAL EXPRESS

ORIGINAL

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
*Contains Radioactive Material at concentrations that are not be regulated for transportation per 49 CFR/IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1. NA

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HNO3 to pH <2
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	500mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B362C7 (2)	WATER	JUL 20 2016	1140	✓

FILTER

8/4/2016
ALS1607380

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
CHRIS FULTON CHPRC	JUL 20 2016 1240	Lesly Wall /CHPRC	JUL 20 2016 1240
Lesly Wall /CHPRC	JUL 20 2016 1400	FEDEX	
FED EX		C Trimble Comb	7-21-16 0910

SPECIAL INSTRUCTIONS
Filtering shall be performed by SGRP Field Sampling Services using a (0.45µm) filter while in the field. The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) 6020_METALS_ICPMS: COMMON {Aluminum, Chromium, Cobalt, Copper, Molybdenum, Selenium}; 6020_METALS_ICPMS: COMMON (Add-on) {Arsenic, Manganese, Nickel, Strontium, Zinc}; 6010_METALS_ICP: COMMON {Calcium, Iron, Magnesium, Potassium, Sodium}; 6010_METALS_ICP: COMMON (Add-on) {Bismuth, Boron, Lithium, Phosphorus, Silicon};

FILTER

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 6/22/2016 | FSR ID = FSR33516 | TRVL NUM = TRVL-16-181 | A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST 1607380		F16-047-040	PAGE 1 OF 1
COLLECTOR: CHRIS FULTON CHPRC	COMPANY CONTACT: SUMNER, LC	TELEPHONE NO.: 376-3922	PROJECT COORDINATOR: SUMNER, LC	PRICE CODE: 7C
SAMPLING LOCATION: 289-T, FBR-B Effluent, valve V25-Y40B1	PROJECT DESIGNATION: 200 West Pump & Treat - Fluidized Bed Reactor (FBR) Micronutrient Analys		SAF NO.: F16-047	AIR QUALITY ☐
ICE CHEST NO.: GW5-376	FIELD LOGBOOK NO.: HNF-N-491-15	ACTUAL SAMPLE DEPTH: N/A	COA: 303111	METHOD OF SHIPMENT: FEDERAL EXPRESS
SHIPPED TO: ALS Environmental Ft. Collins	OFFSITE PROPERTY NO.: 6847		BILL OF LADING/AIR BILL NO.: 776804253386	

DATA TURNAROUND: 15 Days / 15 Days

ORIGINAL

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
*Contains Radioactive Material at concentrations that are not be regulated for transportation per 49 CFR/IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1. NA

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HNO3 to pH <2
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	500mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B362D3 (3)	WATER	JUL 20 2016	1128	✓

FILTER

8/4/2016
ALS1607380

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
CHRIS FULTON CHPRC	JUL 20 2016 1240	Lesly Wall CHPRC JUL 20 2016	1240
Lesly Wall CHPRC	JUL 20 2016 1400	FEDEX	
FED EX		CTrm3k Combe	7-01-16 0915
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

Filtering shall be performed by SGRP Field Sampling Services using a (0.45µm) filter while in the field. The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) 6020_METALS_ICPMS: COMMON {Aluminum, Chromium, Cobalt, Copper, Molybdenum, Selenium}; 6020_METALS_ICPMS: COMMON (Add-on) {Arsenic, Manganese, Nickel, Strontium, Zinc}; 6010_METALS_ICP: COMMON {Calcium, Iron, Magnesium, Potassium, Sodium}; 6010_METALS_ICP: COMMON (Add-on) {Bismuth, Boron, Lithium, Phosphorus, Silicon};

FILTER

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 6/22/2016 FSR ID = FSR33519 TRVL NUM = TRVL-16-181 A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	78112 CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST 1607380			F16-047-030	PAGE 1 OF 1
COLLECTOR CHRIS FULTON CHPRC	COMPANY CONTACT SUMNER, LC	TELEPHONE NO. 376-3922	PROJECT COORDINATOR SUMNER, LC	PRICE CODE 7C	DATA TURNAROUND
SAMPLING LOCATION 289-T, Influent Tank, Valve V12-Y30	PROJECT DESIGNATION 200 West Pump & Treat - Fluidized Bed Reactor (FBR) Micronutrient Analys		SAF NO. F16-047	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO. GWS-376	FIELD LOGBOOK NO. HNF-N- 4/21-15	ACTUAL SAMPLE DEPTH N/A	COA 303111	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO ALS Environmental Ft. Collins	OFFSITE PROPERTY NO. 6847		BILL OF LADING/AIR BILL NO. 7768 0425 3384		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
*Contains Radioactive Material at concentrations that are not be regulated for transportation per 49 CFR/IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1. NA

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HNO3 to pH <2
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	500mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B362C3 (4)	WATER	JUL 20 2016	1158	✓

FILTER

8/4/2016
ALS1607380

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
CHRIS FULTON	JUL 20 2016 1240	Lesly Wall /CHPRC	JUL 20 2016 1240
Lesly Wall /CHPRC	JUL 20 2016 1400	FEDEX	
		CTrimble	7-21-16 0910

SPECIAL INSTRUCTIONS
Filtering shall be performed by SGRP Field Sampling Services using a (0.45µm) filter while in the field. The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) 6020_METALS_ICPMS: COMMON {Aluminum, Chromium, Cobalt, Copper, Molybdenum, Selenium}; 6020_METALS_ICPMS: COMMON (Add-on) {Arsenic, Manganese, Nickel, Strontium, Zinc}; 6010_METALS_ICP: COMMON {Calcium, Iron, Magnesium, Potassium, Sodium}; 6010_METALS_ICP: COMMON (Add-on) {Bismuth, Boron, Lithium, Phosphorus, Silicon};

FILTER

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 6/22/2016 FSR ID = FSR33502 TRVL NUM = TRVL-16-181 A-6003-618 (REV 2)

ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: CHPRC Workorder No: 1607380

Project Manager: JK Initials: CDT Date: 7-21-16

1. Does this project require any special handling in addition to standard ALS procedures?			YES	NO
2. Are custody seals on shipping containers intact?	NONE		YES	NO
3. Are Custody seals on sample containers intact?	NONE		YES	NO
4. Is there a COC (Chain-of-Custody) present or other representative documents?			YES	NO
5. Are the COC and bottle labels complete and legible?			YES	NO
6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)			YES	NO
7. Were airbills / shipping documents present and/or removable?	DROP OFF		YES	NO
8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	N/A		YES	NO
9. Are all aqueous non-preserved samples pH 4-9?	N/A		YES	NO
10. Is there sufficient sample for the requested analyses?			YES	NO
11. Were all samples placed in the proper containers for the requested analyses?			YES	NO
12. Are all samples within holding times for the requested analyses?			YES	NO
13. Were all sample containers received intact? (not broken or leaking, etc.)			YES	NO
14. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) headspace free? Size of bubble: ____ < green pea ____ > green pea	N/A		YES	NO
15. Do any water samples contain sediment? Amount of sediment: ____ dusting ____ moderate ____ heavy	N/A		YES	NO
16. Were the samples shipped on ice?			YES	NO
17. Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: #2 #4	RAD ONLY		YES	NO

Cooler #:	1							
Temperature (°C):	3.0							
No. of custody seals on cooler:	2							
DOT Survey/ Acceptance Information — External µR/hr reading:	12							
Background µR/hr reading:	11							

Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? YES / NO / NA (If no, see Form 008.)

Additional Information: PROVIDE DETAILS BELOW FOR A NO RESPONSE TO ANY QUESTION ABOVE, EXCEPT #1 AND #16.

If applicable, was the client contacted? YES / NO / NA Contact: _____ Date/Time: _____

Project Manager Signature / Date: 7/22/16

*IR Gun #2: Oakton, SN 29922500201-0066
*IR Gun #4: Oakton, SN 2372220101-0002

Form 201r24.xls (06/04/2012)

1607380

12-20-30

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Metals

Case Narrative

CH2M HILL Plateau Remediation Company

200 West Pump & Treat – FBR Micronutrient Analysis – F16-047

Work Order Number: 1607380

1. This report consists of 4 water samples for total recoverable or dissolved metals.

2. The samples were received cool and intact by ALS on 07/21/16.

3. The samples for dissolved metals had been filtered prior to receipt. All samples had a pH less than 2 upon receipt.

4. The samples were prepared and analyzed based on SW-846, 3rd Edition procedures.

   For analysis by Trace ICP and ICP-MS, the samples were digested following method 3005A and the current revision of SOP 806.

5. Analysis by Trace ICP followed method 6010B and the current revision of SOP 834.

   Analysis by ICP-MS followed method 6020A and the current revision of SOP 827.

6. All standards and solutions are NIST traceable and were used within their recommended shelf life.

7. The samples were prepared and analyzed within the established hold times.

All in house quality control procedures were followed, as described below.

8. General quality control procedures.

   - A preparation (method) blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
   - The preparation (method) blank associated with each digestion batch was below the reporting limit for the requested analytes. Sample results have been compared to the blank results.

- All laboratory control sample criteria were met.
- All initial and continuing calibration blanks were below the reporting limit for the requested analytes.
- All initial and continuing calibration verifications were within the acceptance criteria for the requested analytes.
- The interference check samples and high standard readbacks associated with Method 6010B were within acceptance criteria.
- The interference check samples associated with Method 6020A were analyzed.

9. Matrix specific quality control procedures.

   Sample 1607380-1 was designated as the quality control sample for each analysis.

   Similarity of matrix and therefore relevance of the QC results should not be automatically inferred for any sample other than the native sample selected for QC.

   - A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for accuracy were met.
   - Matrix spike recoveries could not be evaluated for the following analyte:

Analyte	Sample ID
Silicon	1607380-1

     The concentration of this analyte in the native sample was greater than four times the concentration of matrix spike added during the digestion. When sample concentration is that much greater than the spike added, spike recoveries may not be accurate. The laboratory control sample indicates that the digestion and analysis were in control.
   - A serial dilution was analyzed with each ICP batch. All acceptance criteria were met with the following exception:

Analyte	Sample ID
Cobalt	1607380-1L

     The native sample result is flagged for serial dilution failure.

10. It is a standard practice that samples for ICP-MS are analyzed at a dilution. The 10X factor can be considered an artifact of the prep and does not indicate a secondary dilution and is therefore not flagged as a dilution.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Jill Latelle — 7/31/16
Jill Latelle — Date
Inorganics Primary Data Reviewer

7/31/16
Inorganics Final Data Reviewer — Date

Inorganic Data Reporting Qualifiers

The following qualifiers are used as needed by the laboratory when reporting results of inorganic analyses.

- Result qualifier -- A “B” is entered if the reported value was obtained from a reading that was less than the Reporting Limit but greater than or equal to the Method Detection Limit (MDL). If the analyte was analyzed for but not detected a “U” is entered. For samples, negative values are reported as non-detects (“U” flagged). For blanks, if the absolute value of the negative value is above the MDL and below the reporting limit, then the result is “B” flagged.

- QC qualifier -- Specified entries and their meanings are as follows:

  E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.

  M - Duplicate injection precision was not met.

  N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.

  Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.

  * - Duplicate analysis (relative percent difference) not within control limits.

  S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

  C - The analyte was detected in both the sample and the associated QC blank, and the sample concentration was <=20X the blank concentration.

  D - Analyte was reported at a secondary dilution factor, typically DF>1 (i.e., the primary preparation required dilution to either bring the analyte within the calibration range or to minimize interference). Required for organics/wetchem if the sample was diluted.

Dissolved ICP Metals

Method SW6010B

Sample Results

Lab Name: ALS -- Fort Collins
Work Order Number: 1607380
Client Name: CH2M HILL Plateau Remediation Company
ClientProject ID: 200 West Pump & Treat - FBR Micronutrient Analysis F16-047

Field ID: B362D9
Lab ID: 1607380-1

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 20-Jul-16
Date Extracted: 27-Jul-16
Date Analyzed: 28-Jul-16
Prep Method: SW3005 Rev A

Prep Batch: IP160727-2
QCBatchID: IP160727-2-1
Run ID: IP160728-1A2
Cleanup: NONE
Basis: As Received
File Name:

Analyst: Nathan A. Quatier
Sample Aliquot: 50 ml
Final Volume: 50 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7440-69-9	BISMUTH	1	4.6	20	4.6	U	
7440-42-8	BORON	1	42	30	11		
7440-70-2	CALCIUM	1	63000	1000	51		
7439-89-6	IRON	1	33	50	16	B	
7439-93-2	LITHIUM	1	8	10	3.6	B	
7439-95-4	MAGNESIUM	1	20000	750	58		
7723-14-0	PHOSPHORUS	1	1100	50	11		
7440-09-7	POTASSIUM	1	7700	1000	86		
7440-21-3	SILICON	1	20000	50	29		
7440-23-5	SODIUM	1	50000	500	61		

Data Package ID: *ip1607380-1*

Dissolved ICP Metals

Method SW6010B

Sample Results

Lab Name: ALS -- Fort Collins
Work Order Number: 1607380
Client Name: CH2M HILL Plateau Remediation Company
ClientProject ID: 200 West Pump & Treat - FBR Micronutrient Analysis F16-047

Field ID: B362C7
Lab ID: 1607380-2

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 20-Jul-16
Date Extracted: 27-Jul-16
Date Analyzed: 28-Jul-16
Prep Method: SW3005 Rev A

Prep Batch: IP160727-2
QCBatchID: IP160727-2-1
Run ID: IP160728-1A2
Cleanup: NONE
Basis: As Received
File Name:

Analyst: Nathan A. Quatier
Sample Aliquot: 50 ml
Final Volume: 50 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7440-69-9	BISMUTH	1	4.6	20	4.6	U	
7440-42-8	BORON	1	37	30	11		
7440-70-2	CALCIUM	1	64000	1000	51		
7439-89-6	IRON	1	110	50	16		
7439-93-2	LITHIUM	1	7	10	3.6	B	
7439-95-4	MAGNESIUM	1	20000	750	58		
7723-14-0	PHOSPHORUS	1	270	50	11		
7440-09-7	POTASSIUM	1	7500	1000	86		
7440-21-3	SILICON	1	23000	50	29		
7440-23-5	SODIUM	1	26000	500	61		

Data Package ID: *ip1607380-1*

Dissolved ICP Metals

Method SW6010B

Sample Results

Lab Name: ALS -- Fort Collins
Work Order Number: 1607380
Client Name: CH2M HILL Plateau Remediation Company
ClientProject ID: 200 West Pump & Treat - FBR Micronutrient Analysis F16-047

Field ID: B362D3
Lab ID: 1607380-3

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 20-Jul-16
Date Extracted: 27-Jul-16
Date Analyzed: 28-Jul-16
Prep Method: SW3005 Rev A

Prep Batch: IP160727-2
QCBatchID: IP160727-2-1
Run ID: IP160728-1A2
Cleanup: NONE
Basis: As Received
File Name:

Analyst: Nathan A. Quatier
Sample Aliquot: 50 ml
Final Volume: 50 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7440-69-9	BISMUTH	1	4.6	20	4.6	U	
7440-42-8	BORON	1	38	30	11		
7440-70-2	CALCIUM	1	64000	1000	51		
7439-89-6	IRON	1	55	50	16		
7439-93-2	LITHIUM	1	7.9	10	3.6	B	
7439-95-4	MAGNESIUM	1	20000	750	58		
7723-14-0	PHOSPHORUS	1	220	50	11		
7440-09-7	POTASSIUM	1	5400	1000	86		
7440-21-3	SILICON	1	24000	50	29		
7440-23-5	SODIUM	1	26000	500	61		

Data Package ID: *ip1607380-1*

Dissolved ICP Metals

Method SW6010B

Sample Results

Lab Name: ALS -- Fort Collins
Work Order Number: 1607380
Client Name: CH2M HILL Plateau Remediation Company
ClientProject ID: 200 West Pump & Treat - FBR Micronutrient Analysis F16-047

Field ID: B362C3
Lab ID: 1607380-4

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 20-Jul-16
Date Extracted: 27-Jul-16
Date Analyzed: 28-Jul-16
Prep Method: SW3005 Rev A

Prep Batch: IP160727-2
QCBatchID: IP160727-2-1
Run ID: IP160728-1A2
Cleanup: NONE
Basis: As Received
File Name:

Analyst: Nathan A. Quatier
Sample Aliquot: 50 ml
Final Volume: 50 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7440-69-9	BISMUTH	1	4.6	20	4.6	U	
7440-42-8	BORON	1	19	30	11	B	
7440-70-2	CALCIUM	1	66000	1000	51		
7439-89-6	IRON	1	16	50	16	U	
7439-93-2	LITHIUM	1	6.3	10	3.6	B	
7439-95-4	MAGNESIUM	1	20000	750	58		
7723-14-0	PHOSPHORUS	1	14	50	11	B	
7440-09-7	POTASSIUM	1	5500	1000	86		
7440-21-3	SILICON	1	24000	50	29		
7440-23-5	SODIUM	1	24000	500	61		

Data Package ID: *ip1607380-1*

Dissolved ICPMS Metals

Method SW6020A

Sample Results

Lab Name: ALS -- Fort Collins
Work Order Number: 1607380
Client Name: CH2M HILL Plateau Remediation Company
ClientProject ID: 200 West Pump & Treat - FBR Micronutrient Analysis F16-047

Field ID: B362D9
Lab ID: 1607380-1

Analysis ReqCode: 6020_METALS_I

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 20-Jul-16
Date Extracted: 27-Jul-16
Date Analyzed: 28-Jul-16
Prep Method: SW3005 Rev A

Prep Batch: IP160727-2
QCBatchID: IP160727-2-2
Run ID: IM160728-11A2
Cleanup: NONE
Basis: As Received
File Name: 023SMPL_

Analyst: Brent A. Stanfield
Sample Aliquot: 50 ml
Final Volume: 50 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	10	14	100	14	U	
7440-38-2	ARSENIC	10	0.21	2	0.18	B	
7440-47-3	CHROMIUM	10	1.1	10	1.1	U	
7440-48-4	COBALT	10	4.7	5	0.07	B	E
7440-50-8	COPPER	10	7	8	1.1	B	
7439-96-5	MANGANESE	10	19	5	0.3		
7439-98-7	MOLYBDENUM	10	23	2	0.41		
7440-02-0	NICKEL	10	4.2	20	4.2	U	
7782-49-2	SELENIUM	10	3.3	10	0.66	B	
7440-24-6	STRONTIUM	10	270	5	0.31		
7440-66-6	ZINC	10	9.1	100	9.1	U	

Data Package ID: *im1607380-1*

Dissolved ICPMS Metals

Method SW6020A

Sample Results

Lab Name: ALS -- Fort Collins
Work Order Number: 1607380
Client Name: CH2M HILL Plateau Remediation Company
ClientProject ID: 200 West Pump & Treat - FBR Micronutrient Analysis F16-047

Field ID: B362C7
Lab ID: 1607380-2

Analysis ReqCode: 6020_METALS_I

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 20-Jul-16
Date Extracted: 27-Jul-16
Date Analyzed: 28-Jul-16
Prep Method: SW3005 Rev A

Prep Batch: IP160727-2
QCBatchID: IP160727-2-2
Run ID: IM160728-11A2
Cleanup: NONE
Basis: As Received
File Name: 028SMPL_

Analyst: Brent A. Stanfield
Sample Aliquot: 50 ml
Final Volume: 50 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	10	21	100	14	B	
7440-38-2	ARSENIC	10	0.84	2	0.18	B	
7440-47-3	CHROMIUM	10	1.1	10	1.1	U	
7440-48-4	COBALT	10	17	5	0.07		
7440-50-8	COPPER	10	1.6	8	1.1	B	
7439-96-5	MANGANESE	10	56	5	0.3		
7439-98-7	MOLYBDENUM	10	20	2	0.41		
7440-02-0	NICKEL	10	6.2	20	4.2	B	
7782-49-2	SELENIUM	10	3.1	10	0.66	B	
7440-24-6	STRONTIUM	10	270	5	0.31		
7440-66-6	ZINC	10	42	100	9.1	B	

Data Package ID: *im1607380-1*

Dissolved ICPMS Metals

Method SW6020A

Sample Results

Lab Name: ALS -- Fort Collins
Work Order Number: 1607380
Client Name: CH2M HILL Plateau Remediation Company
ClientProject ID: 200 West Pump & Treat - FBR Micronutrient Analysis F16-047

Field ID: B362D3
Lab ID: 1607380-3

Analysis ReqCode: 6020_METALS_I

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 20-Jul-16
Date Extracted: 27-Jul-16
Date Analyzed: 28-Jul-16
Prep Method: SW3005 Rev A

Prep Batch: IP160727-2
QCBatchID: IP160727-2-2
Run ID: IM160728-11A2
Cleanup: NONE
Basis: As Received
File Name: 029SMPL_

Analyst: Brent A. Stanfield
Sample Aliquot: 50 ml
Final Volume: 50 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	10	21	100	14	B	
7440-38-2	ARSENIC	10	0.66	2	0.18	B	
7440-47-3	CHROMIUM	10	2.6	10	1.1	B	
7440-48-4	COBALT	10	19	5	0.07		
7440-50-8	COPPER	10	1.7	8	1.1	B	
7439-96-5	MANGANESE	10	60	5	0.3		
7439-98-7	MOLYBDENUM	10	22	2	0.41		
7440-02-0	NICKEL	10	6.1	20	4.2	B	
7782-49-2	SELENIUM	10	2.7	10	0.66	B	
7440-24-6	STRONTIUM	10	270	5	0.31		
7440-66-6	ZINC	10	17	100	9.1	B	

Data Package ID: *im1607380-1*

Dissolved ICPMS Metals

Method SW6020A

Sample Results

Lab Name: ALS -- Fort Collins
Work Order Number: 1607380
Client Name: CH2M HILL Plateau Remediation Company
ClientProject ID: 200 West Pump & Treat - FBR Micronutrient Analysis F16-047

Field ID: B362C3
Lab ID: 1607380-4

Analysis ReqCode: 6020_METALS_I

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 20-Jul-16
Date Extracted: 27-Jul-16
Date Analyzed: 28-Jul-16
Prep Method: SW3005 Rev A

Prep Batch: IP160727-2
QCBatchID: IP160727-2-2
Run ID: IM160728-11A2
Cleanup: NONE
Basis: As Received
File Name: 030SMPL_

Analyst: Brent A. Stanfield
Sample Aliquot: 50 ml
Final Volume: 50 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	10	14	100	14	U	
7440-38-2	ARSENIC	10	1.8	2	0.18	B	
7440-47-3	CHROMIUM	10	18	10	1.1		
7440-48-4	COBALT	10	0.07	5	0.07	U	
7440-50-8	COPPER	10	1.1	8	1.1	U	
7439-96-5	MANGANESE	10	0.3	5	0.3	U	
7439-98-7	MOLYBDENUM	10	3.8	2	0.41		
7440-02-0	NICKEL	10	4.2	20	4.2	U	
7782-49-2	SELENIUM	10	3.7	10	0.66	B	
7440-24-6	STRONTIUM	10	280	5	0.31		
7440-66-6	ZINC	10	9.1	100	9.1	U	

Data Package ID: *im1607380-1*

ICP Metals

Method SW6010B

Method Blank

Lab Name: ALS -- Fort Collins
Work Order Number: 1607380
Client Name: CH2M HILL Plateau Remediation Company
ClientProject ID: 200 West Pump & Treat - FBR Micronutrient Analysis F16-047

Lab ID: IP160727-2MB

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 27-Jul-16
Date Analyzed: 28-Jul-16

Prep Batch: IP160727-2
QCBatchID: IP160727-2-1
Run ID: IP160728-1A2
Cleanup: NONE
Basis: N/A
File Name:

Sample Aliquot: 50 ml
Final Volume: 50 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	DF	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7440-69-9	BISMUTH	1	4.6	20	4.6	U	
7440-42-8	BORON	1	11	30	11	U	
7440-70-2	CALCIUM	1	51	1000	51	U	
7439-89-6	IRON	1	16	50	16	U	
7439-93-2	LITHIUM	1	3.6	10	3.6	U	
7723-14-0	PHOSPHORUS	1	11	50	11	U	
7440-09-7	POTASSIUM	1	86	1000	86	U	
7440-21-3	SILICON	1	29	50	29	U	
7440-23-5	SODIUM	1	61	500	61	U	

Data Package ID: *ip1607380-1*

ICP Metals

Method SW6010B

Method Blank

Lab Name: ALS -- Fort Collins
Work Order Number: 1607380
Client Name: CH2M HILL Plateau Remediation Company
ClientProject ID: 200 West Pump & Treat - FBR Micronutrient Analysis F16-047

Lab ID: IP160727-2MB

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 27-Jul-16
Date Analyzed: 29-Jul-16

Prep Batch: IP160727-2
QCBatchID: IP160727-2-1
Run ID: IP160729-1A5
Cleanup: NONE
Basis: N/A
File Name:

Sample Aliquot: 50 ml
Final Volume: 50 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	DF	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7439-95-4	MAGNESIUM	1	58	750	58	U	

Data Package ID: *ip1607380-1*

ICP Metals

Method SW6010B

Laboratory Control Sample

Lab Name: ALS -- Fort Collins
Work Order Number: 1607380
Client Name: CH2M HILL Plateau Remediation Company
ClientProject ID: 200 West Pump & Treat - FBR Micronutrient Analysis F16-047

Lab ID: IP160727-2LCS

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 07/27/2016
Date Analyzed: 07/28/2016
Prep Method: SW3005A

Prep Batch: IP160727-2
QCBatchID: IP160727-2-1
Run ID: IP160728-1A2
Cleanup: NONE
Basis: N/A
File Name:

Sample Aliquot: 50 ml
Final Volume: 50 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
7440-69-9	BISMUTH	500	511	20		102	80 - 120%
7440-42-8	BORON	1000	1020	30		102	80 - 120%
7440-70-2	CALCIUM	40000	42400	1000		106	80 - 120%
7439-89-6	IRON	1000	1050	50		105	80 - 120%
7439-93-2	LITHIUM	500	527	10		105	80 - 120%
7439-95-4	MAGNESIUM	40000	38600	750		96	80 - 120%
7723-14-0	PHOSPHORUS	10000	10200	50		102	80 - 120%
7440-09-7	POTASSIUM	40000	39700	1000		99	80 - 120%
7440-21-3	SILICON	1000	1060	50		106	80 - 120%
7440-23-5	SODIUM	40000	41300	500		103	80 - 120%

Data Package ID: *ip1607380-1*

ICP Metals

Method SW6010B

Matrix Spike And Matrix Spike Duplicate

Lab Name: ALS -- Fort Collins
Work Order Number: 1607380
Client Name: CH2M HILL Plateau Remediation Company
ClientProject ID: 200 West Pump & Treat - FBR Micronutrient Analysis F16-0

Field ID: B362D9
LabID: 1607380-1MS

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 20-Jul-16
Date Extracted: 27-Jul-16
Date Analyzed: 28-Jul-16
Prep Method: SW3005 Rev A

Prep Batch: IP160727-2
QCBatchID: IP160727-2-1
Run ID: IP160728-1A2
Cleanup: NONE
Basis: As Received

Sample Aliquot: 50 ml
Final Volume: 50 ml
Result Units: UG/L
File Name:

CASNO	Target Analyte	Sample Result	Samp Qual	MS Result	MS Qual	Reporting Limit	Spike Added	MS % Rec.	Control Limits
7440-69-9	BISMUTH	4.6	U	527		20	500	105	80 - 120%
7440-42-8	BORON	42		1070		30	1000	103	80 - 120%
7440-70-2	CALCIUM	63000		106000		1000	40000	106	80 - 120%
7439-89-6	IRON	33	B	1010		50	1000	98	80 - 120%
7439-93-2	LITHIUM	8	B	549		10	500	108	80 - 120%
7439-95-4	MAGNESIUM	20000		58500		750	40000	97	80 - 120%
7723-14-0	PHOSPHORUS	1100		11200		50	10000	101	80 - 120%
7440-09-7	POTASSIUM	7700		48100		1000	40000	101	80 - 120%
7440-21-3	SILICON	20000		22500		50	1000	247	80 - 120%
7440-23-5	SODIUM	50000		89900		500	40000	99	80 - 120%

Data Package ID: *ip1607380-1*

ICP Metals

Method SW6010B

Matrix Spike And Matrix Spike Duplicate

Lab Name: ALS -- Fort Collins
Work Order Number: 1607380
Client Name: CH2M HILL Plateau Remediation Company
ClientProject ID: 200 West Pump & Treat - FBR Micronutrient Analysis F16-0

Field ID: B362D9
LabID: 1607380-1MSD

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 20-Jul-16
Date Extracted: 27-Jul-16
Date Analyzed: 28-Jul-16
Prep Method: SW3005 Rev A

Prep Batch: IP160727-2
QCBatchID: IP160727-2-1
Run ID: IP160728-1A2
Cleanup: NONE
Basis: As Received

Sample Aliquot: 50 ml
Final Volume: 50 ml
Result Units: UG/L
File Name:

CASNO	Target Analyte	MSD Result	MSD Qual	Spike Added	MSD % Rec.	Reporting Limit	RPD Limit	RPD
7440-69-9	BISMUTH	525		500	105	20	20	1
7440-42-8	BORON	1070		1000	102	30	20	0
7440-70-2	CALCIUM	104000		40000	103	1000	20	1
7439-89-6	IRON	1060		1000	103	50	20	4
7439-93-2	LITHIUM	559		500	110	10	20	2
7439-95-4	MAGNESIUM	58000		40000	96	750	20	1
7723-14-0	PHOSPHORUS	11300		10000	102	50	20	1
7440-09-7	POTASSIUM	48600		40000	102	1000	20	1
7440-21-3	SILICON	22400		1000	239	50	20	0
7440-23-5	SODIUM	91000		40000	101	500	20	1

Data Package ID: *ip1607380-1*

ICPMS Metals

Method SW6020A

Method Blank

Lab Name: ALS -- Fort Collins
Work Order Number: 1607380
Client Name: CH2M HILL Plateau Remediation Company
ClientProject ID: 200 West Pump & Treat - FBR Micronutrient Analysis F16-047

Lab ID: IP160727-2MB

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 27-Jul-16
Date Analyzed: 28-Jul-16

Prep Batch: IP160727-2
QCBatchID: IP160727-2-2
Run ID: IM160728-11A2
Cleanup: NONE
Basis: N/A
File Name: 021SMPL_

Sample Aliquot: 50 ml
Final Volume: 50 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	DF	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	10	14	100	14	U	
7440-38-2	ARSENIC	10	0.18	2	0.18	U	
7440-47-3	CHROMIUM	10	1.1	10	1.1	U	
7440-48-4	COBALT	10	0.07	5	0.07	U	
7440-50-8	COPPER	10	1.1	8	1.1	U	
7439-96-5	MANGANESE	10	0.3	5	0.3	U	
7439-98-7	MOLYBDENUM	10	0.41	2	0.41	U	
7440-02-0	NICKEL	10	4.2	20	4.2	U	
7782-49-2	SELENIUM	10	0.66	10	0.66	U	
7440-24-6	STRONTIUM	10	0.31	5	0.31	U	
7440-66-6	ZINC	10	9.1	100	9.1	U	

Data Package ID: *im1607380-1*

ICPMS Metals

Method SW6020A

Laboratory Control Sample

Lab Name: ALS -- Fort Collins
Work Order Number: 1607380
Client Name: CH2M HILL Plateau Remediation Company
ClientProject ID: 200 West Pump & Treat - FBR Micronutrient Analysis F16-047

Lab ID: IM160727-2LCS

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 07/27/2016
Date Analyzed: 07/28/2016
Prep Method: SW3005A

Prep Batch: IP160727-2
QCBatchID: IP160727-2-2
Run ID: IM160728-11A2
Cleanup: NONE
Basis: N/A
File Name: 022SMPL_

Sample Aliquot: 50 ml
Final Volume: 50 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
7429-90-5	ALUMINUM	5000	5170	100		103	80 - 120%
7440-38-2	ARSENIC	100	108	2		108	80 - 120%
7440-47-3	CHROMIUM	500	527	10		105	80 - 120%
7440-48-4	COBALT	100	107	5		107	80 - 120%
7440-50-8	COPPER	1000	1100	8		110	80 - 120%
7439-96-5	MANGANESE	100	106	5		106	80 - 120%
7439-98-7	MOLYBDENUM	100	103	2		103	80 - 120%
7440-02-0	NICKEL	500	527	20		105	80 - 120%
7782-49-2	SELENIUM	100	114	10		114	80 - 120%
7440-24-6	STRONTIUM	100	105	5		105	80 - 120%
7440-66-6	ZINC	2000	2160	100		108	80 - 120%

Data Package ID: *im1607380-1*

ICPMS Metals

Method SW6020A

Matrix Spike And Matrix Spike Duplicate

Lab Name: ALS -- Fort Collins
Work Order Number: 1607380
Client Name: CH2M HILL Plateau Remediation Company
ClientProject ID: 200 West Pump & Treat - FBR Micronutrient Analysis F16-0

Field ID: B362D9
LabID: 1607380-1MS

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 20-Jul-16
Date Extracted: 27-Jul-16
Date Analyzed: 28-Jul-16
Prep Method: SW3005 Rev A

Prep Batch: IP160727-2
QCBatchID: IP160727-2-2
Run ID: IM160728-11A2
Cleanup: NONE
Basis: As Received

Sample Aliquot: 50 ml
Final Volume: 50 ml
Result Units: UG/L
File Name: 026SMPL_

CASNO	Target Analyte	Sample Result	Samp Qual	MS Result	MS Qual	Reporting Limit	Spike Added	MS % Rec.	Control Limits
7429-90-5	ALUMINUM	14	U	5130		100	5000	103	75 - 125%
7440-38-2	ARSENIC	0.21	B	108		2	100	108	75 - 125%
7440-47-3	CHROMIUM	1.1	U	524		10	500	105	75 - 125%
7440-48-4	COBALT	4.7	B	111		5	100	107	75 - 125%
7440-50-8	COPPER	7	B	1080		8	1000	108	75 - 125%
7439-96-5	MANGANESE	19		125		5	100	106	75 - 125%
7439-98-7	MOLYBDENUM	23		128		2	100	105	75 - 125%
7440-02-0	NICKEL	4.2	U	523		20	500	105	75 - 125%
7782-49-2	SELENIUM	3.3	B	113		10	100	110	75 - 125%
7440-24-6	STRONTIUM	270		384		5	100	114	75 - 125%
7440-66-6	ZINC	9.1	U	2100		100	2000	105	75 - 125%

Data Package ID: *im1607380-1*

ICPMS Metals

Method SW6020A

Matrix Spike And Matrix Spike Duplicate

Lab Name: ALS -- Fort Collins
Work Order Number: 1607380
Client Name: CH2M HILL Plateau Remediation Company
ClientProject ID: 200 West Pump & Treat - FBR Micronutrient Analysis F16-0

Field ID: B362D9
LabID: 1607380-1MSD

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 20-Jul-16
Date Extracted: 27-Jul-16
Date Analyzed: 28-Jul-16
Prep Method: SW3005 Rev A

Prep Batch: IP160727-2
QCBatchID: IP160727-2-2
Run ID: IM160728-11A2
Cleanup: NONE
Basis: As Received

Sample Aliquot: 50 ml
Final Volume: 50 ml
Result Units: UG/L
File Name: 027SMPL_

CASNO	Target Analyte	MSD Result	MSD Qual	Spike Added	MSD % Rec.	Reporting Limit	RPD Limit	RPD
7429-90-5	ALUMINUM	5100		5000	102	100	20	1
7440-38-2	ARSENIC	109		100	108	2	20	1
7440-47-3	CHROMIUM	522		500	104	10	20	0
7440-48-4	COBALT	110		100	105	5	20	1
7440-50-8	COPPER	1090		1000	108	8	20	0
7439-96-5	MANGANESE	125		100	106	5	20	0
7439-98-7	MOLYBDENUM	127		100	104	2	20	1
7440-02-0	NICKEL	521		500	104	20	20	0
7782-49-2	SELENIUM	111		100	108	10	20	1
7440-24-6	STRONTIUM	384		100	114	5	20	0
7440-66-6	ZINC	2100		2000	105	100	20	0

Data Package ID: *im1607380-1*