Ft. Collins, Colorado LIMS Version: 6.824

Wednesday, August 17, 2016

Karen Waters-Husted
CH2M HILL Plateau Remediation Company
2420 Stevens Center
Richland, WA 99352

Re: ALS Workorder: 1607598
Project Name: 100-KR-4, JULY 2016
Project Number: I16-026

Dear Ms. Waters-Husted:

Two water samples were received from CH2M HILL Plateau Remediation Company, on 7/30/2016. 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: 1607598
Client Name: CH2M HILL Plateau Remediation Company
Client Project Name: 100-KR-4, JULY 2016
Client Project Number: I16-026
Client PO Number: BOA 54854

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
B35W43	1607598-1		WATER	29-Jul-16	9:13
B35W38	1607598-2		WATER	29-Jul-16	9:13

CH2MHill Plateau Remediation Company

1607598

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I16-026-002**

Collector	CHRIS FULTON CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	I16-026	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	100-KR-4, JULY 2016	Logbook No.	HNF-N-506 87 / 11	Ice Chest No.	GWS-562
Shipped To (Lab)	ALS Environmental Ft. Collins	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.	77768 80622883
Protocol	CERCLA	Priority:	30 Days **PRIORITY**	Offsite Property No.	6885

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

N/A

Special Handling:N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B35W43 (1)	Y	W	7/29/16	0513	1x500-mL G/P	6010_METALS_ICP: COMMON; 7470_MERCURY_CV: COMMON (AQUEOUS)	6 Months	HNO3 to pH <2
B35W38 (2)	N	W	|	|	1x500-mL G/P	6010_METALS_ICP: COMMON; 7470_MERCURY_CV: COMMON (AQUEOUS)	6 Months	HNO3 to pH <2

8/17/2016

ALS1607598

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
CHRIS FULTON CHPRC			JUL 29 2016 0937	Lesly Wall /CHPRC			JUL 29 2016 0937
Relinquished By	Lesly Wall /CHPRC		JUL 29 2016 1400	Received By	FEDEX		Date/Time
Relinquished By	FED EX		Date/Time	Received By	CTrimble		7-30-16 1035
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S	Soil	DS	Drum Solids
SE	Sediment	DL	Drum Liquids
SO	Solid	T	Tissue
SL	Sludge	WI	Wipe
W	Water	L	Liquid
O	Oil	V	Vegetation
A	Air	X	Other

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

PRINTED ON 7/27/2016 FSR ID = FSR34637 A-6004-842 (REV 2)

ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: CHPRC Workorder No: 1607598

Project Manager: JE Initials: CDS Date: 7-30-16

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 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):	Amb							
No. of custody seals on cooler:	2							
DOT Survey/ Acceptance Information — External µR/hr reading:	10							
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: 7/30/16

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

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

ORIGIN ID:PSCA (509) 528-8428
LESLY WALL
CH2M
6267 LATAH ST
6289 LATAH ST
RICHLAND, WA 99354
UNITED STATES US

SHIP DATE: 29JUL16
ACTWGT: 28.00 LB
CAD: 107668051/INET3790

BILL THIRD PARTY

TO JULIE ELLINGSON
ALS GLOBAL
225 COMMERCE DRIVE

FORT COLLINS CO 80524
(970) 490-1511
INV:
PO:
REF: PTR# 6895
DEPT:

544J1/5CBD/14EB

10

1

1607598

FedEx Express

J1622106750601uv

SATURDAY 12:00P
PRIORITY OVERNIGHT
DSR
80524
CO-US DEN

TRK# 0201 7768 8062 2883

XO FTCA

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.

ALS1607598
8/12/2016

Price Confirmation

Order Number: 1607598
FailSafe Date: 8/12/2016
Due Date: 8/26/2016
Date Received: 7/30/2016

ALS -- Fort Collins

Date Printed: Saturday, July 30, 2016

Received From:

Client Name: CH2M HILL Plateau Remediation Company
Client Project Name: 100-KR-4, JULY 2016
Client Project Number: I16-026
PO Number: BOA 54854
Project Manager: JME

Invoice To:

Invoice Name: CH2M HILL Plateau Remediation Company
Contact: Doris Ayres
Street: 2420 Stevens Center
City: Richland **State:** WA **Zip:** 99352

Matrix: WATER

Client Item Code	Test Nickname	Quantity	Base Price	Percent Surcharge	Base Price + Surchrg	Extended Price
	AS6010	2		N/A		
	Ba6010_CHPRC	2		N/A		
	CA6010	2		N/A		
	CD6010	2		N/A		
	CO6010	2		N/A		
	CR6010	2		N/A		
	Cu6010_CHPRC	2		N/A		
	Fe6010_CHPRC	2		N/A		
	K6010	2		N/A		
	mg6010_CHPRC	2		N/A		
	Mn6010_CHPRC	2		N/A		
	Na6010_CHPRC	2		N/A		
	NI6010	2		N/A		
	SB6010	2		N/A		
	V6010	2		N/A		
	ZN6010	2		N/A		
7470_MERCURY_CV:COMMON	HG7470	2	$15.00	N/A	$15.00	$30.00
6010_METALS_ICP:COMMON	AG6010	2	$75.00	N/A	$75.00	$150.00

Metals

Case Narrative

CH2M HILL Plateau Remediation Company

100-KR-4, JULY 2016 – I16-026

Work Order Number: 1607598

1. This report consists of 2 water samples for total recoverable or dissolved metals.

2. The samples were received intact at ambient temperature by ALS on 07/30/16.

3. The sample for dissolved metals had been filtered prior to receipt. Both 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, the samples were digested following method 3005A and the current revision of SOP 806.

   For analysis by Cold Vapor AA (CVAA), the samples were digested following method 7470A and the current revision of SOP 812.

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

   Analysis by CVAA followed method 7470A and the current revision of SOP 812.

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. Potassium and sodium were detected above the MDL. 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.

9. Matrix specific quality control procedures.

   Sample 1607598-1 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.
   - A serial dilution was analyzed with the ICP batch. All acceptance criteria were met.

10. Sample dilutions were not required for the requested analyses.

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 — 8/11/16
Jill Latelle — Date
Inorganics Primary Data Reviewer

8/17/16
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: 1607598
Client Name: CH2M HILL Plateau Remediation Company
ClientProject ID: 100-KR-4, JULY 2016 I16-026

Field ID: B35W43
Lab ID: 1607598-1

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 29-Jul-16
Date Extracted: 04-Aug-16
Date Analyzed: 05-Aug-16
Prep Method: SW3005 Rev A

Prep Batch: IP160804-4
QCBatchID: IP160804-4-5
Run ID: IT160805-1A6
Cleanup: NONE
Basis: As Received
File Name: 160805A.

Analyst: Steve Workman
Sample Aliquot: 50 g
Final Volume: 50 g
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7440-36-0	ANTIMONY	1	5.4	20	5.4	U	
7440-38-2	ARSENIC	1	3.9	10	3.9	U	
7440-39-3	BARIUM	1	42	20	0.99		
7440-43-9	CADMIUM	1	0.95	5	0.95	U	
7440-70-2	CALCIUM	1	56000	1000	23		
7440-47-3	CHROMIUM	1	42	10	1.1		
7440-48-4	COBALT	1	1	10	1	U	
7440-50-8	COPPER	1	1.9	8	1.9	U	
7439-89-6	IRON	1	97	50	16		
7439-95-4	MAGNESIUM	1	13000	750	21		
7439-96-5	MANGANESE	1	0.7	5	0.7	U	
7440-02-0	NICKEL	1	1.6	20	1.6	U	
7440-09-7	POTASSIUM	1	6100	1000	170		
7440-22-4	SILVER	1	1.6	10	1.6	U	
7440-23-5	SODIUM	1	18000	500	26		
7440-62-2	VANADIUM	1	9.9	10	0.93	B	
7440-66-6	ZINC	1	3	20	3	U	

Data Package ID: *it1607598-1*

Total Recoverable ICP Metals

Method SW6010B

Sample Results

Lab Name: ALS -- Fort Collins
Work Order Number: 1607598
Client Name: CH2M HILL Plateau Remediation Company
ClientProject ID: 100-KR-4, JULY 2016 I16-026

Field ID: B35W38
Lab ID: 1607598-2

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 29-Jul-16
Date Extracted: 04-Aug-16
Date Analyzed: 05-Aug-16
Prep Method: SW3005 Rev A

Prep Batch: IP160804-4
QCBatchID: IP160804-4-5
Run ID: IT160805-1A6
Cleanup: NONE
Basis: As Received
File Name: 160805A.

Analyst: Steve Workman
Sample Aliquot: 50 g
Final Volume: 50 g
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7440-36-0	ANTIMONY	1	5.4	20	5.4	U	
7440-38-2	ARSENIC	1	3.9	10	3.9	U	
7440-39-3	BARIUM	1	44	20	0.99		
7440-43-9	CADMIUM	1	0.95	5	0.95	U	
7440-70-2	CALCIUM	1	56000	1000	23		
7440-47-3	CHROMIUM	1	43	10	1.1		
7440-48-4	COBALT	1	1	10	1	U	
7440-50-8	COPPER	1	1.9	8	1.9	U	
7439-89-6	IRON	1	16	50	16	U	
7439-95-4	MAGNESIUM	1	13000	750	21		
7439-96-5	MANGANESE	1	0.7	5	0.7	U	
7440-02-0	NICKEL	1	1.6	20	1.6	U	
7440-09-7	POTASSIUM	1	6200	1000	170		
7440-22-4	SILVER	1	1.6	10	1.6	U	
7440-23-5	SODIUM	1	18000	500	26		
7440-62-2	VANADIUM	1	11	10	0.93		
7440-66-6	ZINC	1	3	20	3	U	

Data Package ID: *it1607598-1*

Dissolved MERCURY

Method SW7470A

Sample Results

Lab Name: ALS -- Fort Collins
Client Name: CH2M HILL Plateau Remediation Company
Client Project ID: 100-KR-4, JULY 2016 I16-026
Work Order Number: 1607598 **Final Volume:** 10 ml
Reporting Basis: As Received **Matrix:** WATER
Analyst: Nathan A. Quatier **Result Units:** UG/L

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Flag	Sample Aliquot
B35W43	1607598-1	7/29/2016	8/3/2016	08/04/2016	N/A	1	0.06	0.2	0.06	U	10 ml

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: *hg1607598-1*

Total MERCURY

Method SW7470A

Sample Results

Lab Name: ALS -- Fort Collins
Client Name: CH2M HILL Plateau Remediation Company
Client Project ID: 100-KR-4, JULY 2016 I16-026
Work Order Number: 1607598 **Final Volume:** 10 ml
Reporting Basis: As Received **Matrix:** WATER
Analyst: Nathan A. Quatier **Result Units:** UG/L

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Flag	Sample Aliquot
B35W38	1607598-2	7/29/2016	8/3/2016	08/04/2016	N/A	1	0.06	0.2	0.06	U	10 ml

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: *hg1607598-1*

ICP Metals

Method SW6010B

Method Blank

Lab Name: ALS -- Fort Collins
Work Order Number: 1607598
Client Name: CH2M HILL Plateau Remediation Company
ClientProject ID: 100-KR-4, JULY 2016 I16-026

Lab ID: IP160804-4MB

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 04-Aug-16
Date Analyzed: 05-Aug-16

Prep Batch: IP160804-4
QCBatchID: IP160804-4-5
Run ID: IT160805-1A6
Cleanup: NONE
Basis: N/A
File Name: 160805A.

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

CASNO	Target Analyte	DF	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7440-36-0	ANTIMONY	1	5.4	20	5.4	U	
7440-38-2	ARSENIC	1	3.9	10	3.9	U	
7440-39-3	BARIUM	1	0.99	20	0.99	U	
7440-43-9	CADMIUM	1	0.95	5	0.95	U	
7440-70-2	CALCIUM	1	23	1000	23	U	
7440-47-3	CHROMIUM	1	1.1	10	1.1	U	
7440-48-4	COBALT	1	1	10	1	U	
7440-50-8	COPPER	1	1.9	8	1.9	U	
7439-89-6	IRON	1	16	50	16	U	
7439-95-4	MAGNESIUM	1	21	750	21	U	
7439-96-5	MANGANESE	1	0.7	5	0.7	U	
7440-02-0	NICKEL	1	1.6	20	1.6	U	
7440-09-7	POTASSIUM	1	240	1000	170	B	
7440-22-4	SILVER	1	1.6	10	1.6	U	
7440-23-5	SODIUM	1	77	500	26	B	
7440-62-2	VANADIUM	1	0.93	10	0.93	U	
7440-66-6	ZINC	1	3	20	3	U	

Data Package ID: *it1607598-1*

ICP Metals

Method SW6010B

Laboratory Control Sample

Lab Name: ALS -- Fort Collins
Work Order Number: 1607598
Client Name: CH2M HILL Plateau Remediation Company
ClientProject ID: 100-KR-4, JULY 2016 I16-026

Lab ID: IP160804-4LCS

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 08/04/2016
Date Analyzed: 08/05/2016
Prep Method: SW3005A

Prep Batch: IP160804-4
QCBatchID: IP160804-4-5
Run ID: IT160805-1A6
Cleanup: NONE
Basis: N/A
File Name: 160805A.

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

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
7440-36-0	ANTIMONY	500	487	20		97	80 - 120%
7440-38-2	ARSENIC	1000	1010	10		101	80 - 120%
7440-39-3	BARIUM	1000	1000	20		100	80 - 120%
7440-43-9	CADMIUM	50	49.7	5		99	80 - 120%
7440-70-2	CALCIUM	40000	40100	1000		100	80 - 120%
7440-47-3	CHROMIUM	200	198	10		99	80 - 120%
7440-48-4	COBALT	500	485	10		97	80 - 120%
7440-50-8	COPPER	250	258	8		103	80 - 120%
7439-89-6	IRON	1000	945	50		94	80 - 120%
7439-95-4	MAGNESIUM	40000	39300	750		98	80 - 120%
7439-96-5	MANGANESE	500	486	5		97	80 - 120%
7440-02-0	NICKEL	500	492	20		98	80 - 120%
7440-09-7	POTASSIUM	40000	39500	1000		99	80 - 120%
7440-22-4	SILVER	100	102	10		102	80 - 120%
7440-23-5	SODIUM	40000	38500	500		96	80 - 120%
7440-62-2	VANADIUM	500	483	10		97	80 - 120%
7440-66-6	ZINC	500	503	20		101	80 - 120%

Data Package ID: *it1607598-1*

ICP Metals

Method SW6010B

Matrix Spike And Matrix Spike Duplicate

Lab Name: ALS -- Fort Collins
Work Order Number: 1607598
Client Name: CH2M HILL Plateau Remediation Company
ClientProject ID: 100-KR-4, JULY 2016 I16-026

Field ID: B35W43
LabID: 1607598-1MS

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 29-Jul-16
Date Extracted: 04-Aug-16
Date Analyzed: 05-Aug-16
Prep Method: SW3005 Rev A

Prep Batch: IP160804-4
QCBatchID: IP160804-4-5
Run ID: IT160805-1A6
Cleanup: NONE
Basis: As Received

Sample Aliquot: 50 g
Final Volume: 50 g
Result Units: UG/L
File Name: 160805A.

CASNO	Target Analyte	Sample Result	Samp Qual	MS Result	MS Qual	Reporting Limit	Spike Added	MS % Rec.	Control Limits
7440-36-0	ANTIMONY	5.4	U	485		20	500	97	80 - 120%
7440-38-2	ARSENIC	3.9	U	1010		10	1000	101	80 - 120%
7440-39-3	BARIUM	42		1050		20	1000	101	80 - 120%
7440-43-9	CADMIUM	0.95	U	48.9		5	50	98	80 - 120%
7440-70-2	CALCIUM	56000		97200		1000	40000	103	80 - 120%
7440-47-3	CHROMIUM	42		240		10	200	99	80 - 120%
7440-48-4	COBALT	1	U	477		10	500	95	80 - 120%
7440-50-8	COPPER	1.9	U	269		8	250	107	80 - 120%
7439-89-6	IRON	97		967		50	1000	87	80 - 120%
7439-95-4	MAGNESIUM	13000		53400		750	40000	100	80 - 120%
7439-96-5	MANGANESE	0.7	U	501		5	500	100	80 - 120%
7440-02-0	NICKEL	1.6	U	479		20	500	96	80 - 120%
7440-09-7	POTASSIUM	6100		48700		1000	40000	107	80 - 120%
7440-22-4	SILVER	1.6	U	103		10	100	103	80 - 120%
7440-23-5	SODIUM	18000		59400		500	40000	102	80 - 120%
7440-62-2	VANADIUM	9.9	B	494		10	500	97	80 - 120%
7440-66-6	ZINC	3	U	517		20	500	103	80 - 120%

Data Package ID: *it1607598-1*

ICP Metals

Method SW6010B

Matrix Spike And Matrix Spike Duplicate

Lab Name: ALS -- Fort Collins
Work Order Number: 1607598
Client Name: CH2M HILL Plateau Remediation Company
ClientProject ID: 100-KR-4, JULY 2016 I16-026

Field ID: B35W43
LabID: 1607598-1MSD

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 29-Jul-16
Date Extracted: 04-Aug-16
Date Analyzed: 05-Aug-16
Prep Method: SW3005 Rev A

Prep Batch: IP160804-4
QCBatchID: IP160804-4-5
Run ID: IT160805-1A6
Cleanup: NONE
Basis: As Received

Sample Aliquot: 50 g
Final Volume: 50 g
Result Units: UG/L
File Name: 160805A.

CASNO	Target Analyte	MSD Result	MSD Qual	Spike Added	MSD % Rec.	Reporting Limit	RPD Limit	RPD
7440-36-0	ANTIMONY	485		500	97	20	20	0
7440-38-2	ARSENIC	1010		1000	101	10	20	0
7440-39-3	BARIUM	1050		1000	101	20	20	0
7440-43-9	CADMIUM	49.3		50	99	5	20	1
7440-70-2	CALCIUM	96400		40000	102	1000	20	1
7440-47-3	CHROMIUM	240		200	99	10	20	0
7440-48-4	COBALT	477		500	95	10	20	0
7440-50-8	COPPER	289		250	115	8	20	7
7439-89-6	IRON	941		1000	84	50	20	3
7439-95-4	MAGNESIUM	53200		40000	99	750	20	0
7439-96-5	MANGANESE	502		500	100	5	20	0
7440-02-0	NICKEL	479		500	96	20	20	0
7440-09-7	POTASSIUM	48700		40000	107	1000	20	0
7440-22-4	SILVER	101		100	101	10	20	2
7440-23-5	SODIUM	59200		40000	102	500	20	0
7440-62-2	VANADIUM	492		500	96	10	20	0
7440-66-6	ZINC	554		500	111	20	20	7

Data Package ID: *it1607598-1*

Mercury

Method SW7470A

Method Blank

Lab Name: ALS -- Fort Collins
Work Order Number: 1607598
Client Name: CH2M HILL Plateau Remediation Company
ClientProject ID: 100-KR-4, JULY 2016 I16-026

Lab ID: HG160803-3MB

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 03-Aug-16
Date Analyzed: 04-Aug-16

Prep Batch: HG160803-3
QCBatchID: HG160803-3-1
Run ID: HG160804-1A2
Cleanup: NONE
Basis: N/A
File Name: HG160804-1

Sample Aliquot: 10 ml
Final Volume: 10 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	DF	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7439-97-6	MERCURY	1	0.06	0.2	0.06	U	

Data Package ID: *hg1607598-1*

Mercury

Method SW7470A

Laboratory Control Sample

Lab Name: ALS -- Fort Collins
Work Order Number: 1607598
Client Name: CH2M HILL Plateau Remediation Company
ClientProject ID: 100-KR-4, JULY 2016 I16-026

Lab ID: HG160803-3LCS

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 08/03/2016
Date Analyzed: 08/04/2016
Prep Method: METHOD

Prep Batch: HG160803-3
QCBatchID: HG160803-3-1
Run ID: HG160804-1A2
Cleanup: NONE
Basis: N/A
File Name: HG160804-1

Sample Aliquot: 10 ml
Final Volume: 10 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
7439-97-6	MERCURY	1	0.966	0.2		97	80 - 120%

Data Package ID: *hg1607598-1*

Mercury

Method SW7470A

Matrix Spike And Matrix Spike Duplicate

Lab Name: ALS -- Fort Collins
Work Order Number: 1607598
Client Name: CH2M HILL Plateau Remediation Company
ClientProject ID: 100-KR-4, JULY 2016 I16-026

Field ID: B35W43
LabID: 1607598-1MS

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 29-Jul-16
Date Extracted: 03-Aug-16
Date Analyzed: 04-Aug-16
Prep Method: METHOD

Prep Batch: HG160803-3
QCBatchID: HG160803-3-1
Run ID: HG160804-1A2
Cleanup: NONE
Basis: As Received

Sample Aliquot: 10 ml
Final Volume: 10 ml
Result Units: UG/L
File Name: HG160804-1

CASNO	Target Analyte	Sample Result	Samp Qual	MS Result	MS Qual	Reporting Limit	Spike Added	MS % Rec.	Control Limits
7439-97-6	MERCURY	0.06	U	1.98		0.2	2	99	80 - 120%

Field ID: B35W43
LabID: 1607598-1MSD

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 29-Jul-16
Date Extracted: 03-Aug-16
Date Analyzed: 04-Aug-16
Prep Method: METHOD

Prep Batch: HG160803-3
QCBatchID: HG160803-3-1
Run ID: HG160804-1A2
Cleanup: NONE
Basis: As Received

Sample Aliquot: 10 ml
Final Volume: 10 ml
Result Units: UG/L
File Name: HG160804-1

CASNO	Target Analyte	MSD Result	MSD Qual	Spike Added	MSD % Rec.	Reporting Limit	RPD Limit	RPD
7439-97-6	MERCURY	2.05		2	103	0.2	20	3

Data Package ID: *hg1607598-1*