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LABORATORY IDENTIFICATION NUMBER: 1510280

SECTION 1.

3440 South 700 West
Salt Lake City, UT 84119

CASE NARRATIVE
CHAIN-OF-CUSTODIES

SECTION 2.

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ANALYTICAL REPORTS

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web: www.awal-labs.com

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SECTION 4.

Kyle F. Gross
Laboratory Director

INSTRUMENT QC SUMMARIES

Jose Rocha
QA Officer

SECTION 5.

LOGBOOKS, RUNLOGS AND RAW DATA PER
ANALYSIS

Assembled by:

Reviewed by:

Melissa Connolly	Digitally signed by Melissa Connolly DN: cn=Melissa Connolly, o=American West Analytical Laboratories, ou, email=melissa@awa-labs.com, c=US Date: 2015.11.30 15:15:28 -07'00'
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Kyle F. Gross	Digitally signed by Kyle F. Gross Date: 2015.11.30 15:49:06 -07'00'
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SECTION 1.

- ❑ CASE NARRATIVE
- ❑ AWAL CHAIN-OF-CUSTODY
- ❑ CLIENT CHAIN-OF-CUSTODY

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Jose Rocha
QA Officer



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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Jim Harris
Utah Division of Water Quality
PO Box 144870
SLC, UT 84114
TEL: (801) 538-6329

RE: Gold King Mine Spill / 01255.1.016.03

Dear Jim Harris:

Lab Set ID: 1510280

American West Analytical Laboratories received sample(s) on 10/14/2015 for the analyses presented in the following report.

American West Analytical Laboratories (AWAL) is accredited by The National Environmental Laboratory Accreditation Program (NELAP) in Utah and Texas; and is state accredited in Colorado, Idaho, New Mexico, Wyoming, and Missouri.

All analyses were performed in accordance to the NELAP protocols unless noted otherwise. Accreditation scope documents are available upon request. If you have any questions or concerns regarding this report please feel free to call.

The abbreviation "Surr" found in organic reports indicates a surrogate compound that is intentionally added by the laboratory to determine sample injection, extraction, and/or purging efficiency. The "Reporting Limit" found on the report is equivalent to the practical quantitation limit (PQL). This is the minimum concentration that can be reported by the method referenced and the sample matrix. The reporting limit must not be confused with any regulatory limit. Analytical results are reported to three significant figures for quality control and calculation purposes.

Thank You,

Kyle F. Gross
Digitally signed
by Kyle F. Gross
Date:
2015.11.30
15:49:27 -07'00'

Approved by:

Laboratory Director or designee

REVISED

10-21-15

5 samples taken off hold per Brad. J

American West Analytical Laboratories

D

WORK ORDER SUMMARY

Work Order: **1510280** Page 1 of 2
 Due Date: 11/4/2015

Client: Utah Division of Water Quality
Client ID: UTD200

Contact: Jim Harris
QC Level: III+ MDL

Project: Gold King Mine Spill / 01255.1.016.03

WO Type: Standard

Comments: QC 3+, Report to the MDL. Include EDD. Email to lenoras@utah.gov. / also email Brad Martin. All samples are on hold waiting for further instructions. / 10-21-15 samples taken off hold, per Brad Martin. Run total metals only. Samples are not preserved;

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage
1510280-001A	GK01-ST-01	10/2/2015 1200h	10/14/2015 1040h	200.7-W 6 SEL Analytes: AL CA FE MG K NA	Aqueous	DF	Metals
				200.7-W-PR		DF	Metals
				200.8-W		DF	Metals
				17 SEL Analytes: SB AS BA BE CD CR CO CU PB MN MO NI SE AG TL V ZN			
				200.8-W-PR		DF	Metals
				HG-DW-245.1		DF	Metals
				HG-DW-PR		DF	Metals
1510280-002A	GK01-ST-02	10/3/2015 0000h	10/14/2015 1040h		Aqueous	HOLD	
1510280-003A	GK01-ST-03	10/3/2015 1200h	10/14/2015 1040h		Aqueous	HOLD	
1510280-004A	GK03-ST-01	10/2/2015 1200h	10/14/2015 1040h	200.7-W 6 SEL Analytes: AL CA FE MG K NA	Aqueous	DF	Metals
				200.7-W-PR		DF	Metals
				200.8-W		DF	Metals
				17 SEL Analytes: SB AS BA BE CD CR CO CU PB MN MO NI SE AG TL V ZN			
				200.8-W-PR		DF	Metals
				HG-DW-245.1		DF	Metals
				HG-DW-PR		DF	Metals
1510280-005A	GK03-ST-02	10/3/2015 0000h	10/14/2015 1040h		Aqueous	HOLD	
1510280-006A	GK03-ST-03	10/3/2015 1200h	10/14/2015 1040h		Aqueous	HOLD	
1510280-007A	GK04-ST-01	10/2/2015 1200h	10/14/2015 1040h	200.7-W 6 SEL Analytes: AL CA FE MG K NA	Aqueous	DF	Metals
				200.7-W-PR		DF	Metals
				200.8-W		DF	Metals
				17 SEL Analytes: SB AS BA BE CD CR CO CU PB MN MO NI SE AG TL V ZN			
				200.8-W-PR		DF	Metals
				HG-DW-245.1		DF	Metals
				HG-DW-PR		DF	Metals

Printed: 10/21/2015

FOR LABORATORY USE ONLY (fill out on page 1):

%M RT CN TAT QC HOK

HOK

HOK

COC Emailed

WORK ORDER SUMMARY

Work Order: **1510280** Page 2 of 2

Client: Utah Division of Water Quality

Due Date: 11/4/2015

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage
1510280-008A	GK04-ST-02	10/3/2015 0000h	10/14/2015 1040h		Aqueous		HOLD
1510280-009A	GK04-ST-03	10/3/2015 1200h	10/14/2015 1040h		Aqueous		HOLD
1510280-010A	GK05-ST-01	10/2/2015 1200h	10/14/2015 1040h	200.7-W 6 SEL Analytes: AL CA FE MG K NA	Aqueous		DF-Metals
				200.7-W-PR			DF-Metals
				200.8-W			DF-Metals
				17 SEL Analytes: SB AS BA BE CD CR CO CU PB MN MO NI SE AG TL V ZN			
				200.8-W-PR			DF-Metals
				HG-DW-245.1			DF-Metals
				HG-DW-PR			DF-Metals
1510280-011A	GK05-ST-02	10/3/2015 0000h	10/14/2015 1040h		Aqueous		HOLD
1510280-012A	GK05-ST-03	10/3/2015 1200h	10/14/2015 1040h		Aqueous		HOLD

American West Analytical Laboratories

D

WORK ORDER SUMMARY

Work Order: **1510280**

Page 1 of 1

Client: Utah Division of Water Quality


Due Date: 10/28/2015

Client ID: UTD200

Contact: Jim Harris

Project: Gold King Mine Spill / 01255.1.016.03

WO Type: Standard

Comments: QC 3+. Report to the MDL. Include EDD. Email to lenoras@utah.gov. / also email Brad Martin. All samples are on hold waiting for further instructions.; 

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage
1510280-001A	GK01-ST-01	10/2/2015 1200h	10/14/2015 1040h		Aqueous		HOLD
1510280-002A	GK01-ST-02	10/3/2015 0000h	10/14/2015 1040h		Aqueous		HOLD
1510280-003A	GK01-ST-03	10/3/2015 1200h	10/14/2015 1040h		Aqueous		HOLD
1510280-004A	GK03-ST-01	10/2/2015 1200h	10/14/2015 1040h		Aqueous		HOLD
1510280-005A	GK03-ST-02	10/3/2015 0000h	10/14/2015 1040h		Aqueous		HOLD
1510280-006A	GK03-ST-03	10/3/2015 1200h	10/14/2015 1040h		Aqueous		HOLD
1510280-007A	GK04-ST-01	10/2/2015 1200h	10/14/2015 1040h		Aqueous		HOLD
1510280-008A	GK04-ST-02	10/3/2015 0000h	10/14/2015 1040h		Aqueous		HOLD
1510280-009A	GK04-ST-03	10/3/2015 1200h	10/14/2015 1040h		Aqueous		HOLD
1510280-010A	GK05-ST-01	10/2/2015 1200h	10/14/2015 1040h		Aqueous		HOLD
1510280-011A	GK05-ST-02	10/3/2015 0000h	10/14/2015 1040h		Aqueous		HOLD
1510280-012A	GK05-ST-03	10/3/2015 1200h	10/14/2015 1040h		Aqueous		HOLD

Printed: 10/15/2015

FOR LABORATORY USE ONLY (fill out on page 1):

%M

RT

CN

TAT

QC

HOK

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HOK

HOK

HOK

HOK

1510280
1510277
10/14/15

AWAL Lab Sample Set #
Page 1 of 1

CHAIN OF CUSTODY

All analysts will be conducted using NELAP accredited methods and all data will be reported using AWAL's standard analysis files and reporting limits (PRL) unless specifically requested otherwise on this Chain of Custody and/or attached documentation.

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Client: State of Utah / Techlaw, Inc.
Address: 195 North 1950 West
Salt Lake City UT 84119
Contact: Jim Harris / Brad Morton
Phone #: 801-536-4360 Cell #: _____
Email: _____
Project Name: Gold King Mine Spill
Project #: 01255.1.016.03
PO #: _____
Sampler Name: Techlaw, Inc.

QC Level:	Turn Around Time:					Laboratory Use Only
	1	2	3	3+	4	
1	1	2	3	3+	4	Report down to the MDL Include EDD: Lab Filler for: Field Filler for:
2	1	2	3	3+	4	For Compliance With: <input type="checkbox"/> NELAP <input type="checkbox"/> PCRA <input type="checkbox"/> CWA <input type="checkbox"/> SDWA <input type="checkbox"/> ELAP / A2LA <input type="checkbox"/> NLLAP <input type="checkbox"/> Non-Compliance <input type="checkbox"/> Other:
3	1	2	3	3+	4	Known Hazards & Sample Comments
4	1	2	3	3+	4	
5	1	2	3	3+	4	
6	1	2	3	3+	4	
7	1	2	3	3+	4	
8	1	2	3	3+	4	
9	1	2	3	3+	4	
10	1	2	3	3+	4	
11	1	2	3	3+	4	
12	1	2	3	3+	4	

Sample ID	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Metals Taken Off Hold *	Hardness	Conductivity	Alkalinity / Bicarb / Carb	Sulfate / Chloride	Nitrate / Nitrite	Total Phosphorus	TSS / TDS / #
GK01-ST-01	10/2/15	12:00	1	S	X	✓	✓	✓	✓	✓	✓	✓
GK01-ST-02	10/3/15	0:00	1	S	X	✓	✓	✓	✓	✓	✓	✓
GK01-ST-03	10/3/15	12:00	1	S	X	✓	✓	✓	✓	✓	✓	✓
GK03-ST-01	10/2/15	12:00	1	S	X	✓	✓	✓	✓	✓	✓	✓
GK03-ST-02	10/3/15	0:00	1	S	X	✓	✓	✓	✓	✓	✓	✓
GK03-ST-03	10/3/15	12:00	1	S	X	✓	✓	✓	✓	✓	✓	✓
GK04-ST-01	10/2/15	12:00	1	S	X	✓	✓	✓	✓	✓	✓	✓
GK04-ST-02	10/3/15	0:00	1	S	X	✓	✓	✓	✓	✓	✓	✓
GK04-ST-03	10/3/15	12:00	1	S	X	✓	✓	✓	✓	✓	✓	✓
GK05-ST-01	10/2/15	12:00	1	S	X	✓	✓	✓	✓	✓	✓	✓
GK05-ST-02	10/3/15	0:00	1	S	X	✓	✓	✓	✓	✓	✓	✓
GK05-ST-03	10/3/15	12:00	1	S	X	✓	✓	✓	✓	✓	✓	✓

Special Instructions: hold for Analysis

* TOTAL METALS LIST:
Al, Ca, Fe, K, Mg, Na, Hg
Sb, As, Ba, Be, Cd, Cr, Co, Cu
Pb, Mn, Mo, Ni, Ag, Se, Ti
V, Zn
- Run 10/2/15

Relinquished by: Dan Michor Date: 10/12/15 Time: _____
Signature: _____
Print Name: Dan Michor
Relinquished by: _____ Date: _____ Time: _____
Signature: _____
Print Name: _____
Relinquished by: _____ Date: _____ Time: _____
Signature: _____
Print Name: _____
Relinquished by: _____ Date: 10/14/15 Time: 10:40
Signature: Denise Brown
Print Name: DENISE BROWN



Inorganic Case Narrative

Client: Utah Division of Water Quality
Contact: Jim Harris
Project: Gold King Mine Spill / 01255.1.016.03
Lab Set ID: 1510280

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Sample Receipt Information:

Date of Receipt: 10/14/2015
Date of Collection: 10/2-10/3/2015
Date of Analyses Request: 10/21/2015
Sample Condition: Intact
C-O-C Discrepancies: None

Holding Time and Preservation Requirements: The analysis and preparation of all samples were performed within the method holding times. All samples were properly preserved.

Preparation and Analysis Requirements: The samples were analyzed following the methods stated on the analytical reports.

Analytical QC Requirements: All instrument calibration and calibration check requirements were met. All internal standard recoveries met method criterion.

Batch QC Requirements: MB, LCS, MS, MSD, RPD, DUP, PDS, SD:

Method Blanks (MBs): No target analytes were detected above the reporting limits, indicating that the procedure was free from contamination. Barium and Antimony were observed between the MDL and reporting limit on sample MB-39859.

Laboratory Control Sample (LCSs): All LCS recoveries were within control limits, indicating that the preparation and analysis were in control.

Matrix Spike / Matrix Spike Duplicate (MS/MSD): All percent recoveries and RPDs (Relative Percent Differences) were inside established limits, with the following exceptions:

Sample ID	Analyte	QC	Explanation
1510280-004A	Aluminum	MS/MSD	High analyte concentration
1510280-004A	Calcium	MS/MSD	High analyte concentration
1510280-004A	Iron	MS/MSD	High analyte concentration
1510280-004A	Antimony	MS/MSD	Sample matrix interference
1510280-004A	Barium	MS/MSD	Sample matrix interference
1510280-004A	Manganese	MS/MSD	Sample matrix interference



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Laboratory Director

Jose Rocha
QA Officer

Duplicate (DUP): The parameters that require a duplicate analysis had RPDs within the control limits.

Post Digestion Spike (PDS): The PDS percent recoveries were within the control limits, with the following exceptions: the PDS percent recoveries for Calcium and Sodium on sample 1510280-004A were outside of the control limits due to sample matrix interference.

Serial Dilution (SD): The serial dilution RPDs were within the control limits, with the following exceptions: the analyte concentrations for Silver on samples 1510280-001A and 1510280-010A and for Antimony, Cadmium, and Molybdenum on sample 1510280-004A were too low for serial dilution evaluation. The RPD for Mercury on sample 1510280-001A was outside of the control limit due to low analyte concentration. The RPD for Sodium on sample 1510280-004A was outside of the control limit due to sample matrix interference.

Corrective Action: None required.



SAMPLE SUMMARY

Client: Utah Division of Water Quality **Contact:** Jim Harris
Project: Gold King Mine Spill / 01255.1.016.03
Lab Set ID: 1510280
Date Received: 10/14/2015 1040h

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Salt Lake City, UT 84119

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Lab Sample ID	Client Sample ID	Date Collected	Matrix	Analysis
1510280-001A	GK01-ST-01	10/2/2015 1200h	Aqueous	ICP Metals, Total
1510280-001A	GK01-ST-01	10/2/2015 1200h	Aqueous	Mercury, Drinking Water
1510280-001A	GK01-ST-01	10/2/2015 1200h	Aqueous	ICPMS Metals, Total
1510280-004A	GK03-ST-01	10/2/2015 1200h	Aqueous	ICP Metals, Total
1510280-004A	GK03-ST-01	10/2/2015 1200h	Aqueous	Mercury, Drinking Water
1510280-004A	GK03-ST-01	10/2/2015 1200h	Aqueous	ICPMS Metals, Total
1510280-007A	GK04-ST-01	10/2/2015 1200h	Aqueous	ICP Metals, Total
1510280-007A	GK04-ST-01	10/2/2015 1200h	Aqueous	Mercury, Drinking Water
1510280-007A	GK04-ST-01	10/2/2015 1200h	Aqueous	ICPMS Metals, Total
1510280-010A	GK05-ST-01	10/2/2015 1200h	Aqueous	ICP Metals, Total
1510280-010A	GK05-ST-01	10/2/2015 1200h	Aqueous	Mercury, Drinking Water
1510280-010A	GK05-ST-01	10/2/2015 1200h	Aqueous	ICPMS Metals, Total

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



SECTION 2.

□ ANALYTICAL REPORTS

- The contract required detection limits (CRDL's) were met.
- There is an analytical report for each sample on the chain-of-custody.
- The results and dates on the analytical reports match the raw data.
- The information on the header of the analytical reports including the field ID's, the sample dates, and the received date match the chain-of-custody.

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

INORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Jim Harris
Project: Gold King Mine Spill / 01255.1.016.03
Lab Sample ID: 1510280-001
Client Sample ID: GK01-ST-01
Collection Date: 10/2/2015 1200h
Received Date: 10/14/2015 1040h

Analytical Results

TOTAL METALS

Compound	CAS	Units	Date Prepared	Date Analyzed	Method Used	MDL	Reporting Limit	Analytical Result	Qual
Aluminum	7429-90-5	mg/L	10/22/2015 1302h	11/2/2015 1445h	E200.7	0.0237	0.100	4.55	
Antimony	7440-36-0	mg/L	10/22/2015 1302h	10/30/2015 059h	E200.8	0.0000366	0.00200	0.00108	JB
Arsenic	7440-38-2	mg/L	10/22/2015 1302h	10/30/2015 059h	E200.8	0.0000920	0.00200	0.00234	
Barium	7440-39-3	mg/L	10/22/2015 1302h	10/30/2015 059h	E200.8	0.000538	0.00200	0.188	B
Beryllium	7440-41-7	mg/L	10/22/2015 1302h	10/30/2015 059h	E200.8	0.0000288	0.00200	0.000308	J
Cadmium	7440-43-9	mg/L	10/22/2015 1302h	10/30/2015 059h	E200.8	0.000193	0.000500	< 0.000500	U
Calcium	7440-70-2	mg/L	10/22/2015 1302h	11/2/2015 1303h	E200.7	0.401	10.0	111	
Chromium	7440-47-3	mg/L	10/22/2015 1302h	10/30/2015 059h	E200.8	0.00154	0.00200	0.00319	
Cobalt	7440-48-4	mg/L	10/22/2015 1302h	10/30/2015 059h	E200.8	0.0000434	0.00400	0.00188	J
Copper	7440-50-8	mg/L	10/22/2015 1302h	10/30/2015 059h	E200.8	0.000692	0.00200	0.00682	
Iron	7439-89-6	mg/L	10/22/2015 1302h	11/2/2015 1445h	E200.7	0.0767	0.100	3.91	
Lead	7439-92-1	mg/L	10/22/2015 1302h	10/30/2015 059h	E200.8	0.000264	0.00200	0.00355	
Magnesium	7439-95-4	mg/L	10/22/2015 1302h	11/2/2015 1445h	E200.7	0.0294	1.00	18.0	
Manganese	7439-96-5	mg/L	10/22/2015 1302h	10/30/2015 059h	E200.8	0.00153	0.00200	0.0955	
Mercury	7439-97-6	mg/L	10/26/2015 1630h	10/27/2015 919h	E245.1	0.0000892	0.000150	0.0000533	J#
Molybdenum	7439-98-7	mg/L	10/22/2015 1302h	10/30/2015 059h	E200.8	0.000206	0.00200	0.00153	J
Nickel	7440-02-0	mg/L	10/22/2015 1302h	10/30/2015 059h	E200.8	0.000754	0.00200	0.00520	
Potassium	7440-09-7	mg/L	10/22/2015 1302h	11/2/2015 1445h	E200.7	0.247	1.00	4.38	
Selenium	7782-49-2	mg/L	10/22/2015 1302h	10/30/2015 059h	E200.8	0.0000634	0.00200	0.000686	J
Silver	7440-22-4	mg/L	11/5/2015 1046h	11/5/2015 1415h	E200.8	0.0000244	0.00200	0.000202	J#
Sodium	7440-23-5	mg/L	10/22/2015 1302h	11/2/2015 1303h	E200.7	0.330	10.0	45.3	
Thallium	7440-28-0	mg/L	10/22/2015 1302h	10/30/2015 059h	E200.8	0.0000242	0.00200	0.0000565	J
Vanadium	7440-62-2	mg/L	10/22/2015 1302h	10/30/2015 059h	E200.8	0.000438	0.00440	0.00816	
Zinc	7440-66-6	mg/L	10/22/2015 1302h	10/30/2015 059h	E200.8	0.00476	0.00500	0.0158	

- High RPD due to low analyte concentration. In this range, high RPDs are expected.

B - This analyte was also detected in the method blank below the PQL.

J - Estimated value between the MDL and the reporting limit (PQL).

U - This flag indicates the compound was analyzed for but not detected above the MDL.



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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

INORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Jim Harris
Project: Gold King Mine Spill / 01255.1.016.03
Lab Sample ID: 1510280-007
Client Sample ID: GK04-ST-01
Collection Date: 10/2/2015 1200h
Received Date: 10/14/2015 1040h

Analytical Results TOTAL METALS

Compound	CAS	Units	Date Prepared	Date Analyzed	Method Used	MDL	Reporting Limit	Analytical Result	Qual
Aluminum	7429-90-5	mg/L	10/22/2015 1302h	11/2/2015 1318h	E200.7	0.237	1.00	183	
Antimony	7440-36-0	mg/L	10/22/2015 1302h	10/30/2015 127h	E200.8	0.0000366	0.00200	0.000393	JB
Arsenic	7440-38-2	mg/L	10/22/2015 1302h	11/3/2015 1053h	E200.8	0.0000920	0.00200	0.0202	
Barium	7440-39-3	mg/L	10/22/2015 1302h	10/30/2015 1039h	E200.8	0.00538	0.0200	5.40	B
Beryllium	7440-41-7	mg/L	10/22/2015 1302h	10/30/2015 1036h	E200.8	0.0000288	0.00200	0.0173	
Cadmium	7440-43-9	mg/L	10/22/2015 1302h	10/30/2015 127h	E200.8	0.000193	0.000500	0.00524	
Calcium	7440-70-2	mg/L	10/22/2015 1302h	11/2/2015 1318h	E200.7	0.401	10.0	424	
Chromium	7440-47-3	mg/L	10/22/2015 1302h	10/30/2015 127h	E200.8	0.00154	0.00200	0.123	
Cobalt	7440-48-4	mg/L	10/22/2015 1302h	10/30/2015 127h	E200.8	0.0000434	0.00400	0.148	
Copper	7440-50-8	mg/L	10/22/2015 1302h	10/30/2015 127h	E200.8	0.000692	0.00200	0.333	
Iron	7439-89-6	mg/L	10/22/2015 1302h	11/2/2015 1318h	E200.7	0.767	1.00	178	
Lead	7439-92-1	mg/L	10/22/2015 1302h	10/30/2015 127h	E200.8	0.000264	0.00200	0.228	
Magnesium	7439-95-4	mg/L	10/22/2015 1302h	11/2/2015 1318h	E200.7	0.294	10.0	103	
Manganese	7439-96-5	mg/L	10/22/2015 1302h	10/30/2015 1039h	E200.8	0.0153	0.0200	10.8	
Mercury	7439-97-6	mg/L	10/26/2015 1630h	10/27/2015 926h	E245.1	0.0000892	0.000150	0.00106	
Molybdenum	7439-98-7	mg/L	10/22/2015 1302h	10/30/2015 127h	E200.8	0.000206	0.00200	0.000519	J
Nickel	7440-02-0	mg/L	10/22/2015 1302h	10/30/2015 127h	E200.8	0.000754	0.00200	0.204	
Potassium	7440-09-7	mg/L	10/22/2015 1302h	11/2/2015 1318h	E200.7	2.47	10.0	33.3	
Selenium	7782-49-2	mg/L	10/22/2015 1302h	10/30/2015 127h	E200.8	0.0000634	0.00200	0.00188	J
Silver	7440-22-4	mg/L	11/4/2015 1528h	11/5/2015 912h	E200.8	0.0000244	0.00200	0.00671	
Sodium	7440-23-5	mg/L	10/22/2015 1302h	11/2/2015 1318h	E200.7	0.330	10.0	59.9	
Thallium	7440-28-0	mg/L	10/22/2015 1302h	10/30/2015 127h	E200.8	0.0000242	0.00200	0.00244	
Vanadium	7440-62-2	mg/L	10/22/2015 1302h	10/30/2015 127h	E200.8	0.000438	0.00440	0.178	
Zinc	7440-66-6	mg/L	10/22/2015 1302h	10/30/2015 127h	E200.8	0.00476	0.00500	0.862	

B - This analyte was also detected in the method blank below the PQL.

J - Estimated value between the MDL and the reporting limit (PQL).



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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

INORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Jim Harris
Project: Gold King Mine Spill / 01255.1.016.03
Lab Sample ID: 1510280-010
Client Sample ID: GK05-ST-01
Collection Date: 10/2/2015 1200h
Received Date: 10/14/2015 1040h

Analytical Results

TOTAL METALS

Compound	CAS	Units	Date Prepared	Date Analyzed	Method Used	MDL	Reporting Limit	Analytical Result	Qual
Aluminum	7429-90-5	mg/L	10/22/2015 1302h	11/2/2015 1320h	E200.7	0.237	1.00	33.0	
Antimony	7440-36-0	mg/L	10/22/2015 1302h	10/30/2015 130h	E200.8	0.0000366	0.00200	0.000266	JB
Arsenic	7440-38-2	mg/L	10/22/2015 1302h	10/30/2015 1042h	E200.8	0.0000920	0.00200	0.00670	
Barium	7440-39-3	mg/L	10/22/2015 1302h	10/30/2015 1042h	E200.8	0.000538	0.00200	0.587	B
Beryllium	7440-41-7	mg/L	10/22/2015 1302h	10/30/2015 1042h	E200.8	0.0000288	0.00200	0.00243	
Cadmium	7440-43-9	mg/L	10/22/2015 1302h	10/30/2015 130h	E200.8	0.000193	0.000500	0.000550	
Calcium	7440-70-2	mg/L	10/22/2015 1302h	11/2/2015 1320h	E200.7	0.401	10.0	115	
Chromium	7440-47-3	mg/L	10/22/2015 1302h	10/30/2015 130h	E200.8	0.00154	0.00200	0.0216	
Cobalt	7440-48-4	mg/L	10/22/2015 1302h	10/30/2015 130h	E200.8	0.0000434	0.00400	0.0171	
Copper	7440-50-8	mg/L	10/22/2015 1302h	10/30/2015 130h	E200.8	0.000692	0.00200	0.0467	
Iron	7439-89-6	mg/L	10/22/2015 1302h	11/2/2015 1320h	E200.7	0.767	1.00	28.8	
Lead	7439-92-1	mg/L	10/22/2015 1302h	10/30/2015 130h	E200.8	0.000264	0.00200	0.0287	
Magnesium	7439-95-4	mg/L	10/22/2015 1302h	11/2/2015 1320h	E200.7	0.294	10.0	23.1	
Manganese	7439-96-5	mg/L	10/22/2015 1302h	10/30/2015 130h	E200.8	0.00153	0.00200	0.898	
Mercury	7439-97-6	mg/L	10/26/2015 1630h	10/27/2015 928h	E245.1	0.0000892	0.000150	0.0000700	J
Molybdenum	7439-98-7	mg/L	10/22/2015 1302h	10/30/2015 130h	E200.8	0.000206	0.00200	0.000555	J
Nickel	7440-02-0	mg/L	10/22/2015 1302h	10/30/2015 130h	E200.8	0.000754	0.00200	0.0246	
Potassium	7440-09-7	mg/L	10/22/2015 1302h	11/2/2015 1456h	E200.7	0.247	1.00	8.67	
Selenium	7782-49-2	mg/L	10/22/2015 1302h	10/30/2015 130h	E200.8	0.0000634	0.00200	0.000855	J
Silver	7440-22-4	mg/L	11/4/2015 1528h	11/5/2015 915h	E200.8	0.0000244	0.00200	0.000207	JS
Sodium	7440-23-5	mg/L	10/22/2015 1302h	11/2/2015 1320h	E200.7	0.330	10.0	49.6	
Thallium	7440-28-0	mg/L	10/22/2015 1302h	10/30/2015 130h	E200.8	0.0000242	0.00200	0.000404	J
Vanadium	7440-62-2	mg/L	10/22/2015 1302h	10/30/2015 130h	E200.8	0.000438	0.00440	0.0418	
Zinc	7440-66-6	mg/L	10/22/2015 1302h	10/30/2015 130h	E200.8	0.00476	0.00500	0.120	

\$ - Sample concentration too low for serial dilution evaluation.

B - This analyte was also detected in the method blank below the PQL.

J - Estimated value between the MDL and the reporting limit (PQL).



SECTION 3.

❑ BATCH QC REPORTS

❑ METHOD BLANK (MB) REPORTS

- ❑ Raw data matches method blank reports.
- ❑ Any results greater than the contract required detection limit are flagged.

❑ LABORATORY CONTROL SAMPLE (LCS) REPORTS

- ❑ Raw data matches LCS reports.
- ❑ Any results outside the control limits are flagged.

❑ MATRIX SPIKE / MATRIX SPIKE DUPLICATE (MS/MSD) REPORTS

- ❑ Raw data matches MS/MSD reports.
- ❑ Any results outside the control limits are flagged and qualified.

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Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality

Lab Set ID: 1510280

Project: Gold King Mine Spill / 01255.1.016.03

Contact: Jim Harris

Dept: ME

QC Type: LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: LCS-39857													
Date Analyzed:		11/02/2015 1300h											
Test Code:		200.7-W											
Date Prepared:		10/22/2015 1302h											
Aluminum	1.02	mg/L	E200.7	0.0237	0.100	1.000	0	102	85 - 115				
Calcium	10.8	mg/L	E200.7	0.0401	1.00	10.00	0	108	85 - 115				
Iron	1.01	mg/L	E200.7	0.0767	0.100	1.000	0	101	85 - 115				
Magnesium	10.7	mg/L	E200.7	0.0294	1.00	10.00	0	107	85 - 115				
Potassium	10.9	mg/L	E200.7	0.247	1.00	10.00	0	109	85 - 115				
Sodium	11.1	mg/L	E200.7	0.0330	1.00	10.00	0	111	85 - 115				
Lab Sample ID: LCS-39859													
Date Analyzed:		10/30/2015 056h											
Test Code:		200.8-W											
Date Prepared:		10/22/2015 1302h											
Antimony	0.179	mg/L	E200.8	0.0000366	0.00200	0.2000	0	89.3	85 - 115				
Arsenic	0.191	mg/L	E200.8	0.0000920	0.00200	0.2000	0	95.6	85 - 115				
Barium	0.188	mg/L	E200.8	0.000538	0.00200	0.2000	0	93.8	85 - 115				
Beryllium	0.199	mg/L	E200.8	0.0000288	0.00200	0.2000	0	99.7	85 - 115				
Cadmium	0.192	mg/L	E200.8	0.000193	0.000500	0.2000	0	96.0	85 - 115				
Chromium	0.194	mg/L	E200.8	0.00154	0.00200	0.2000	0	96.9	85 - 115				
Cobalt	0.190	mg/L	E200.8	0.0000434	0.00400	0.2000	0	94.9	85 - 115				
Copper	0.193	mg/L	E200.8	0.000692	0.00200	0.2000	0	96.7	85 - 115				
Lead	0.193	mg/L	E200.8	0.000264	0.00200	0.2000	0	96.7	85 - 115				
Manganese	0.199	mg/L	E200.8	0.00153	0.00200	0.2000	0	99.5	85 - 115				
Molybdenum	0.196	mg/L	E200.8	0.000206	0.00200	0.2000	0	97.9	85 - 115				
Nickel	0.189	mg/L	E200.8	0.000754	0.00200	0.2000	0	94.4	85 - 115				
Selenium	0.188	mg/L	E200.8	0.0000634	0.00200	0.2000	0	93.9	85 - 115				
Thallium	0.192	mg/L	E200.8	0.0000242	0.00200	0.2000	0	95.9	85 - 115				
Vanadium	0.196	mg/L	E200.8	0.000438	0.00440	0.2000	0	98.0	85 - 115				
Zinc	0.954	mg/L	E200.8	0.00476	0.00500	1.000	0	95.4	85 - 115				

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Kyle F. Gross
 Laboratory Director

Jose Rocha
 QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1510280
Project: Gold King Mine Spill / 01255.1.016.03

Contact: Jim Harris
Dept: ME
QC Type: LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: LCS-40083													
Date Analyzed:		11/05/2015 906h											
Test Code:		200.8-W											
Date Prepared:		11/04/2015 1528h											
Silver	0.190	mg/L	E200.8	0.0000244	0.00200	0.2000	0	94.9	85 - 115				
Lab Sample ID: LCS-40094													
Date Analyzed:		11/05/2015 1412h											
Test Code:		200.8-W											
Date Prepared:		11/05/2015 1046h											
Silver	0.203	mg/L	E200.8	0.0000244	0.00200	0.2000	0	102	85 - 115				
Lab Sample ID: LCS-39922													
Date Analyzed:		10/27/2015 842h											
Test Code:		HG-DW-245.1											
Date Prepared:		10/26/2015 1630h											
Mercury	0.00329	mg/L	E245.1	0.00000892	0.000150	0.003330	0	98.7	85 - 115				

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Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality

Lab Set ID: 1510280

Project: Gold King Mine Spill / 01255.1.016.03

Contact: Jim Harris

Dept: ME

QC Type: MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB-39857													
Date Analyzed: 11/02/2015 1258h													
Test Code: 200.7-W													
Date Prepared: 10/22/2015 1302h													
Aluminum	< 0.100	mg/L	E200.7	0.0237	0.100								U
Calcium	< 1.00	mg/L	E200.7	0.0401	1.00								U
Iron	< 0.100	mg/L	E200.7	0.0767	0.100								U
Magnesium	< 1.00	mg/L	E200.7	0.0294	1.00								U
Potassium	< 1.00	mg/L	E200.7	0.247	1.00								U
Sodium	< 1.00	mg/L	E200.7	0.0330	1.00								U
Lab Sample ID: MB-39859													
Date Analyzed: 10/30/2015 053h													
Test Code: 200.8-W													
Date Prepared: 10/22/2015 1302h													
Antimony	0.000224	mg/L	E200.8	0.0000366	0.00200								JB
Arsenic	< 0.00200	mg/L	E200.8	0.0000920	0.00200								U
Barium	0.000896	mg/L	E200.8	0.000538	0.00200								JB
Beryllium	< 0.00200	mg/L	E200.8	0.0000288	0.00200								U
Cadmium	< 0.000500	mg/L	E200.8	0.000193	0.000500								U
Chromium	< 0.00200	mg/L	E200.8	0.00154	0.00200								U
Cobalt	< 0.00400	mg/L	E200.8	0.0000434	0.00400								U
Copper	< 0.00200	mg/L	E200.8	0.000692	0.00200								U
Lead	< 0.00200	mg/L	E200.8	0.000264	0.00200								U
Manganese	< 0.00200	mg/L	E200.8	0.00153	0.00200								U
Molybdenum	< 0.00200	mg/L	E200.8	0.000206	0.00200								U
Nickel	< 0.00200	mg/L	E200.8	0.000754	0.00200								U
Selenium	< 0.00200	mg/L	E200.8	0.0000634	0.00200								U
Thallium	< 0.00200	mg/L	E200.8	0.0000242	0.00200								U
Vanadium	< 0.00440	mg/L	E200.8	0.000438	0.00440								U
Zinc	< 0.00500	mg/L	E200.8	0.00476	0.00500								U

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 Laboratory Director

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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1510280
Project: Gold King Mine Spill / 01255.1.016.03

Contact: Jim Harris
Dept: ME
QC Type: MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB-40083	Date Analyzed:	11/05/2015	903h										
Test Code:	200.8-W	Date Prepared:	11/04/2015	1528h									
Silver	< 0.00200	mg/L	E200.8	0.0000244	0.00200								U
Lab Sample ID: MB-40094	Date Analyzed:	11/05/2015	1409h										
Test Code:	200.8-W	Date Prepared:	11/05/2015	1046h									
Silver	< 0.00200	mg/L	E200.8	0.0000244	0.00200								U
Lab Sample ID: MB-39922	Date Analyzed:	10/27/2015	837h										
Test Code:	HG-DW-245.1	Date Prepared:	10/26/2015	1630h									
Mercury	< 0.000150	mg/L	E245.1	0.00000892	0.000150								U

B - This analyte was also detected in the method blank below the PQL.

J - Estimated value between the MDL and the reporting limit (PQL).

U - This flag indicates the compound was analyzed for but not detected above the MDL.

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Jose Rocha

QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality

Lab Set ID: 1510280

Project: Gold King Mine Spill / 01255.1.016.03

Contact: Jim Harris

Dept: ME

QC Type: MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1510280-004AMS													
Date Analyzed:		11/02/2015 1450h											
Test Code:		200.7-W											
Date Prepared:		10/22/2015 1302h											
Aluminum	17.8	mg/L	E200.7	0.0237	0.100	1.000	14.1	369	70 - 130				2
Iron	12.1	mg/L	E200.7	0.0767	0.100	1.000	13.8	-165	70 - 130				2
Potassium	16.4	mg/L	E200.7	0.247	1.00	10.00	5.93	104	70 - 130				
Lab Sample ID: 1510280-004AMS													
Date Analyzed:		11/02/2015 1313h											
Test Code:		200.7-W											
Date Prepared:		10/22/2015 1302h											
Calcium	137	mg/L	E200.7	0.401	10.0	10.00	131	59.0	70 - 130				2
Magnesium	36.0	mg/L	E200.7	0.294	10.0	10.00	26.1	98.6	70 - 130				
Sodium	57.2	mg/L	E200.7	0.330	10.0	10.00	46.2	110	70 - 130				
Lab Sample ID: 1510280-004AMS													
Date Analyzed:		10/30/2015 121h											
Test Code:		200.8-W											
Date Prepared:		10/22/2015 1302h											
Antimony	0.106	mg/L	E200.8	0.0000366	0.00200	0.2000	0.000188	52.9	75 - 125				1
Cadmium	0.193	mg/L	E200.8	0.000193	0.000500	0.2000	0.000301	96.3	75 - 125				
Chromium	0.211	mg/L	E200.8	0.00154	0.00200	0.2000	0.0171	97.2	75 - 125				
Cobalt	0.199	mg/L	E200.8	0.0000434	0.00400	0.2000	0.00897	95.0	75 - 125				
Copper	0.208	mg/L	E200.8	0.000692	0.00200	0.2000	0.0206	93.7	75 - 125				
Lead	0.203	mg/L	E200.8	0.000264	0.00200	0.2000	0.0165	93.5	75 - 125				
Manganese	0.632	mg/L	E200.8	0.00153	0.00200	0.2000	0.606	13.2	75 - 125				1
Molybdenum	0.182	mg/L	E200.8	0.000206	0.00200	0.2000	0.000914	90.7	75 - 125				
Nickel	0.203	mg/L	E200.8	0.000754	0.00200	0.2000	0.015	93.8	75 - 125				
Selenium	0.183	mg/L	E200.8	0.0000634	0.00200	0.2000	0.000635	91.0	75 - 125				
Thallium	0.191	mg/L	E200.8	0.0000242	0.00200	0.2000	0.000221	95.3	75 - 125				
Vanadium	0.218	mg/L	E200.8	0.000438	0.00440	0.2000	0.0225	97.5	75 - 125				
Zinc	1.03	mg/L	E200.8	0.00476	0.00500	1.000	0.0685	96.0	75 - 125				
Lab Sample ID: 1510280-004AMS													
Date Analyzed:		10/30/2015 1029h											
Test Code:		200.8-W											
Date Prepared:		10/22/2015 1302h											
Arsenic	0.203	mg/L	E200.8	0.0000920	0.00200	0.2000	0.00451	99.1	75 - 125				

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1510280
Project: Gold King Mine Spill / 01255.1.016.03

Contact: Jim Harris
Dept: ME
QC Type: MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1510280-004AMS													
Date Analyzed:		10/30/2015 1029h											
Test Code:		200.8-W											
Date Prepared:		10/22/2015 1302h											
Barium	0.477	mg/L	E200.8	0.000538	0.00200	0.2000	0.435	21.1	75 - 125				1
Beryllium	0.197	mg/L	E200.8	0.0000288	0.00200	0.2000	0.00109	97.8	75 - 125				
Lab Sample ID: 1510280-010AMS													
Date Analyzed:		11/05/2015 925h											
Test Code:		200.8-W											
Date Prepared:		11/04/2015 1528h											
Silver	0.190	mg/L	E200.8	0.0000244	0.00200	0.2000	0.000207	95.1	75 - 125				
Lab Sample ID: 1510280-001AMS													
Date Analyzed:		11/05/2015 1425h											
Test Code:		200.8-W											
Date Prepared:		11/05/2015 1046h											
Silver	0.220	mg/L	E200.8	0.0000244	0.00200	0.2000	0.000202	110	75 - 125				
Lab Sample ID: 1510499-001CMS													
Date Analyzed:		10/27/2015 849h											
Test Code:		HG-DW-245.1											
Date Prepared:		10/26/2015 1630h											
Mercury	0.00329	mg/L	E245.1	0.00000892	0.000150	0.003330	0	98.7	80 - 120				
Lab Sample ID: 1510280-001AMS													
Date Analyzed:		10/27/2015 921h											
Test Code:		HG-DW-245.1											
Date Prepared:		10/26/2015 1630h											
Mercury	0.00329	mg/L	E245.1	0.00000892	0.000150	0.003330	0.0000533	97.1	80 - 120				

¹ - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.

² - Analyte concentration is too high for accurate matrix spike recovery and/or RPD.

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Kyle F. Gross

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Jose Rocha

QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality

Lab Set ID: 1510280

Project: Gold King Mine Spill / 01255.1.016.03

Contact: Jim Harris

Dept: ME

QC Type: MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1510280-004AMSD													
Date Analyzed:		11/02/2015 1453h											
Test Code:		200.7-W											
Date Prepared:		10/22/2015 1302h											
Aluminum	17.6	mg/L	E200.7	0.0237	0.100	1.000	14.1	352	70 - 130	17.8	0.970	20	²
Iron	12.2	mg/L	E200.7	0.0767	0.100	1.000	13.8	-161	70 - 130	12.1	0.350	20	²
Potassium	15.8	mg/L	E200.7	0.247	1.00	10.00	5.93	98.6	70 - 130	16.4	3.47	20	
Lab Sample ID: 1510280-004AMSD													
Date Analyzed:		11/02/2015 1315h											
Test Code:		200.7-W											
Date Prepared:		10/22/2015 1302h											
Calcium	135	mg/L	E200.7	0.401	10.0	10.00	131	35.0	70 - 130	137	1.76	20	²
Magnesium	34.8	mg/L	E200.7	0.294	10.0	10.00	26.1	86.9	70 - 130	36	3.28	20	
Sodium	56.0	mg/L	E200.7	0.330	10.0	10.00	46.2	98.0	70 - 130	57.2	2.10	20	
Lab Sample ID: 1510280-004AMSD													
Date Analyzed:		10/30/2015 124h											
Test Code:		200.8-W											
Date Prepared:		10/22/2015 1302h											
Antimony	0.101	mg/L	E200.8	0.0000366	0.00200	0.2000	0.000188	50.6	75 - 125	0.106	4.41	20	¹
Cadmium	0.186	mg/L	E200.8	0.000193	0.000500	0.2000	0.000301	93.0	75 - 125	0.193	3.52	20	
Chromium	0.207	mg/L	E200.8	0.00154	0.00200	0.2000	0.0171	94.9	75 - 125	0.211	2.16	20	
Cobalt	0.194	mg/L	E200.8	0.0000434	0.00400	0.2000	0.00897	92.4	75 - 125	0.199	2.69	20	
Copper	0.203	mg/L	E200.8	0.000692	0.00200	0.2000	0.0206	91.0	75 - 125	0.208	2.61	20	
Lead	0.197	mg/L	E200.8	0.000264	0.00200	0.2000	0.0165	90.3	75 - 125	0.203	3.19	20	
Manganese	0.641	mg/L	E200.8	0.00153	0.00200	0.2000	0.606	17.8	75 - 125	0.632	1.42	20	¹
Molybdenum	0.176	mg/L	E200.8	0.000206	0.00200	0.2000	0.000914	87.7	75 - 125	0.182	3.41	20	
Nickel	0.199	mg/L	E200.8	0.000754	0.00200	0.2000	0.015	92.2	75 - 125	0.203	1.64	20	
Selenium	0.175	mg/L	E200.8	0.0000634	0.00200	0.2000	0.000635	87.2	75 - 125	0.183	4.29	20	
Thallium	0.185	mg/L	E200.8	0.0000242	0.00200	0.2000	0.000221	92.3	75 - 125	0.191	3.19	20	
Vanadium	0.213	mg/L	E200.8	0.000438	0.00440	0.2000	0.0225	95.1	75 - 125	0.218	2.25	20	
Zinc	0.981	mg/L	E200.8	0.00476	0.00500	1.000	0.0685	91.2	75 - 125	1.03	4.72	20	
Lab Sample ID: 1510280-004AMSD													
Date Analyzed:		10/30/2015 1033h											
Test Code:		200.8-W											
Date Prepared:		10/22/2015 1302h											
Arsenic	0.197	mg/L	E200.8	0.0000920	0.00200	0.2000	0.00451	96.2	75 - 125	0.203	2.88	20	

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Client: Utah Division of Water Quality

Lab Set ID: 1510280

Project: Gold King Mine Spill / 01255.1.016.03

Contact: Jim Harris

Dept: ME

QC Type: MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1510280-004AMSD													
Date Analyzed:	10/30/2015 1033h												
Test Code:	200.8-W												
Date Prepared:	10/22/2015 1302h												
Barium	0.480	mg/L	E200.8	0.000538	0.00200	0.2000	0.435	22.7	75 - 125	0.477	0.680	20	1
Beryllium	0.189	mg/L	E200.8	0.0000288	0.00200	0.2000	0.00109	94.1	75 - 125	0.197	3.86	20	
Lab Sample ID: 1510280-010AMSD													
Date Analyzed:	11/05/2015 928h												
Test Code:	200.8-W												
Date Prepared:	11/04/2015 1528h												
Silver	0.187	mg/L	E200.8	0.0000244	0.00200	0.2000	0.000207	93.5	75 - 125	0.19	1.72	20	
Lab Sample ID: 1510280-001AMSD													
Date Analyzed:	11/05/2015 1428h												
Test Code:	200.8-W												
Date Prepared:	11/05/2015 1046h												
Silver	0.221	mg/L	E200.8	0.0000244	0.00200	0.2000	0.000202	111	75 - 125	0.22	0.530	20	
Lab Sample ID: 1510499-001CMSD													
Date Analyzed:	10/27/2015 851h												
Test Code:	HG-DW-245.1												
Date Prepared:	10/26/2015 1630h												
Mercury	0.00328	mg/L	E245.1	0.00000892	0.000150	0.003330	0	98.4	80 - 120	0.00329	0.305	20	
Lab Sample ID: 1510280-001AMSD													
Date Analyzed:	10/27/2015 923h												
Test Code:	HG-DW-245.1												
Date Prepared:	10/26/2015 1630h												
Mercury	0.00337	mg/L	E245.1	0.00000892	0.000150	0.003330	0.0000533	99.6	80 - 120	0.00329	2.50	20	

¹ - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.

² - Analyte concentration is too high for accurate matrix spike recovery and/or RPD.

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