



3440 South 700 West
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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

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

RE: Gold King Mine - San Juan River Sampling

Dear Lenora Sullivan:

Lab Set ID: 1508300

American West Analytical Laboratories received sample(s) on 8/14/2015 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.

This is a revision to a report originally issued 8/15/2015. Pages 1, 5, 10, and 15 have been revised. The collection time on sample 1508300-004 was corrected.

Thank You,

Approved by: _____
Laboratory Director or designee



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Jose Rocha
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INORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Lenora Sullivan
Project: Gold King Mine - San Juan River Sampling
Lab Sample ID: 1508300-001
Client Sample ID: San Juan R at Mexican Hat US163 Xing (4953000)
Collection Date: 8/14/2015 1143h
Received Date: 8/14/2015 2000h

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	8/14/2015 2142h	8/15/2015 433h	E200.7	0.237	1.00	124	
Antimony	7440-36-0	mg/L	8/14/2015 2142h	8/15/2015 244h	E200.8	0.0000366	0.00200	0.00114	JB
Arsenic	7440-38-2	mg/L	8/14/2015 2142h	8/15/2015 244h	E200.8	0.0000920	0.00200	0.0372	
Barium	7440-39-3	mg/L	8/14/2015 2142h	8/15/2015 324h	E200.8	0.00269	0.0100	4.32	
Beryllium	7440-41-7	mg/L	8/14/2015 2142h	8/15/2015 244h	E200.8	0.0000288	0.00200	0.0152	B
Cadmium	7440-43-9	mg/L	8/14/2015 2142h	8/15/2015 244h	E200.8	0.000193	0.000500	0.00374	
Calcium	7440-70-2	mg/L	8/14/2015 2142h	8/15/2015 445h	E200.7	4.01	100	720	
Chromium	7440-47-3	mg/L	8/14/2015 2142h	8/15/2015 244h	E200.8	0.00154	0.00200	0.0511	
Cobalt	7440-48-4	mg/L	8/14/2015 2142h	8/15/2015 244h	E200.8	0.0000434	0.00400	0.0596	
Copper	7440-50-8	mg/L	8/14/2015 2142h	8/15/2015 244h	E200.8	0.000692	0.00200	0.0842	
Iron	7439-89-6	mg/L	8/14/2015 2142h	8/15/2015 401h	E200.7	0.0767	0.100	46.9	
Lead	7439-92-1	mg/L	8/14/2015 2142h	8/15/2015 244h	E200.8	0.000264	0.00200	0.166	
Magnesium	7439-95-4	mg/L	8/14/2015 2142h	8/15/2015 433h	E200.7	0.294	10.0	105	
Manganese	7439-96-5	mg/L	8/14/2015 2142h	8/15/2015 324h	E200.8	0.00764	0.0100	5.63	
Mercury	7439-97-6	mg/L	8/14/2015 2207h	8/15/2015 752h	E245.1	0.00000892	0.000150	0.000372	
Molybdenum	7439-98-7	mg/L	8/14/2015 2142h	8/15/2015 244h	E200.8	0.000206	0.00200	0.000919	J
Nickel	7440-02-0	mg/L	8/14/2015 2142h	8/15/2015 244h	E200.8	0.000754	0.00200	0.111	
Potassium	7440-09-7	mg/L	8/14/2015 2142h	8/15/2015 401h	E200.7	0.247	1.00	30.4	
Selenium	7782-49-2	mg/L	8/14/2015 2142h	8/15/2015 244h	E200.8	0.0000634	0.00200	0.00241	B
Silver	7440-22-4	mg/L	8/14/2015 2142h	8/15/2015 244h	E200.8	0.0000244	0.00200	0.00111	J
Sodium	7440-23-5	mg/L	8/14/2015 2142h	8/15/2015 433h	E200.7	0.330	10.0	78.6	
Thallium	7440-28-0	mg/L	8/14/2015 2142h	8/15/2015 244h	E200.8	0.0000242	0.00200	0.000988	J
Vanadium	7440-62-2	mg/L	8/14/2015 2142h	8/15/2015 244h	E200.8	0.000438	0.00440	0.115	
Zinc	7440-66-6	mg/L	8/14/2015 2142h	8/15/2015 244h	E200.8	0.00476	0.00500	0.270	

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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Jose Rocha
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INORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Lenora Sullivan
Project: Gold King Mine - San Juan River Sampling
Lab Sample ID: 1508300-002
Client Sample ID: San Juan R at Sand Island (4953250)
Collection Date: 8/14/2015 1102h
Received Date: 8/14/2015 2000h

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	8/14/2015 2142h	8/15/2015 435h	E200.7	0.237	1.00	66.3	
Antimony	7440-36-0	mg/L	8/14/2015 2142h	8/15/2015 247h	E200.8	0.0000366	0.00200	0.000545	JB
Arsenic	7440-38-2	mg/L	8/14/2015 2142h	8/15/2015 247h	E200.8	0.0000920	0.00200	0.0168	
Barium	7440-39-3	mg/L	8/14/2015 2142h	8/15/2015 247h	E200.8	0.000538	0.00200	1.46	
Beryllium	7440-41-7	mg/L	8/14/2015 2142h	8/15/2015 247h	E200.8	0.0000288	0.00200	0.00748	B
Cadmium	7440-43-9	mg/L	8/14/2015 2142h	8/15/2015 247h	E200.8	0.000193	0.000500	0.00140	
Calcium	7440-70-2	mg/L	8/14/2015 2142h	8/15/2015 435h	E200.7	0.401	10.0	148	
Chromium	7440-47-3	mg/L	8/14/2015 2142h	8/15/2015 247h	E200.8	0.00154	0.00200	0.0298	
Cobalt	7440-48-4	mg/L	8/14/2015 2142h	8/15/2015 247h	E200.8	0.0000434	0.00400	0.0418	
Copper	7440-50-8	mg/L	8/14/2015 2142h	8/15/2015 247h	E200.8	0.000692	0.00200	0.116	
Iron	7439-89-6	mg/L	8/14/2015 2142h	8/15/2015 403h	E200.7	0.0767	0.100	58.2	
Lead	7439-92-1	mg/L	8/14/2015 2142h	8/15/2015 247h	E200.8	0.000264	0.00200	0.0960	
Magnesium	7439-95-4	mg/L	8/14/2015 2142h	8/15/2015 403h	E200.7	0.0294	1.00	35.6	
Manganese	7439-96-5	mg/L	8/14/2015 2142h	8/15/2015 327h	E200.8	0.00764	0.0100	2.16	
Mercury	7439-97-6	mg/L	8/14/2015 2207h	8/15/2015 753h	E245.1	0.00000892	0.000150	0.000270	
Molybdenum	7439-98-7	mg/L	8/14/2015 2142h	8/15/2015 247h	E200.8	0.000206	0.00200	0.000621	J
Nickel	7440-02-0	mg/L	8/14/2015 2142h	8/15/2015 247h	E200.8	0.000754	0.00200	0.0492	
Potassium	7440-09-7	mg/L	8/14/2015 2142h	8/15/2015 403h	E200.7	0.247	1.00	12.5	
Selenium	7782-49-2	mg/L	8/14/2015 2142h	8/15/2015 247h	E200.8	0.0000634	0.00200	0.00156	JB
Silver	7440-22-4	mg/L	8/14/2015 2142h	8/15/2015 247h	E200.8	0.0000244	0.00200	0.000574	J
Sodium	7440-23-5	mg/L	8/14/2015 2142h	8/15/2015 403h	E200.7	0.0330	1.00	55.7	
Thallium	7440-28-0	mg/L	8/14/2015 2142h	8/15/2015 247h	E200.8	0.0000242	0.00200	0.00110	J
Vanadium	7440-62-2	mg/L	8/14/2015 2142h	8/15/2015 247h	E200.8	0.000438	0.00440	0.0774	
Zinc	7440-66-6	mg/L	8/14/2015 2142h	8/15/2015 247h	E200.8	0.00476	0.00500	0.288	

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

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INORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Lenora Sullivan
Project: Gold King Mine - San Juan River Sampling
Lab Sample ID: 1508300-003
Client Sample ID: San Juan River at Town of Montezuma (4953990)
Collection Date: 8/14/2015 955h
Received Date: 8/14/2015 2000h

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	8/14/2015 2142h	8/15/2015 437h	E200.7	0.237	1.00	62.0	
Antimony	7440-36-0	mg/L	8/14/2015 2142h	8/15/2015 251h	E200.8	0.0000366	0.00200	0.000443	JB
Arsenic	7440-38-2	mg/L	8/14/2015 2142h	8/15/2015 251h	E200.8	0.0000920	0.00200	0.0160	
Barium	7440-39-3	mg/L	8/14/2015 2142h	8/15/2015 251h	E200.8	0.000538	0.00200	1.40	
Beryllium	7440-41-7	mg/L	8/14/2015 2142h	8/15/2015 251h	E200.8	0.0000288	0.00200	0.00703	B
Cadmium	7440-43-9	mg/L	8/14/2015 2142h	8/15/2015 251h	E200.8	0.000193	0.000500	0.00141	
Calcium	7440-70-2	mg/L	8/14/2015 2142h	8/15/2015 437h	E200.7	0.401	10.0	153	
Chromium	7440-47-3	mg/L	8/14/2015 2142h	8/15/2015 251h	E200.8	0.00154	0.00200	0.0299	
Cobalt	7440-48-4	mg/L	8/14/2015 2142h	8/15/2015 251h	E200.8	0.0000434	0.00400	0.0398	
Copper	7440-50-8	mg/L	8/14/2015 2142h	8/15/2015 251h	E200.8	0.000692	0.00200	0.106	
Iron	7439-89-6	mg/L	8/14/2015 2142h	8/15/2015 405h	E200.7	0.0767	0.100	54.3	
Lead	7439-92-1	mg/L	8/14/2015 2142h	8/15/2015 251h	E200.8	0.000264	0.00200	0.0908	
Magnesium	7439-95-4	mg/L	8/14/2015 2142h	8/15/2015 405h	E200.7	0.0294	1.00	32.9	
Manganese	7439-96-5	mg/L	8/14/2015 2142h	8/15/2015 330h	E200.8	0.00764	0.0100	2.06	
Mercury	7439-97-6	mg/L	8/14/2015 2207h	8/15/2015 759h	E245.1	0.00000892	0.000150	0.000247	
Molybdenum	7439-98-7	mg/L	8/14/2015 2142h	8/15/2015 251h	E200.8	0.000206	0.00200	0.000722	J
Nickel	7440-02-0	mg/L	8/14/2015 2142h	8/15/2015 251h	E200.8	0.000754	0.00200	0.0484	
Potassium	7440-09-7	mg/L	8/14/2015 2142h	8/15/2015 405h	E200.7	0.247	1.00	12.7	
Selenium	7782-49-2	mg/L	8/14/2015 2142h	8/15/2015 251h	E200.8	0.0000634	0.00200	0.00149	JB
Silver	7440-22-4	mg/L	8/14/2015 2142h	8/15/2015 251h	E200.8	0.0000244	0.00200	0.000495	J
Sodium	7440-23-5	mg/L	8/14/2015 2142h	8/15/2015 405h	E200.7	0.0330	1.00	59.5	
Thallium	7440-28-0	mg/L	8/14/2015 2142h	8/15/2015 251h	E200.8	0.0000242	0.00200	0.00104	J
Vanadium	7440-62-2	mg/L	8/14/2015 2142h	8/15/2015 251h	E200.8	0.000438	0.00440	0.0764	
Zinc	7440-66-6	mg/L	8/14/2015 2142h	8/15/2015 251h	E200.8	0.00476	0.00500	0.265	

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

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Laboratory Director

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QA Officer

INORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Lenora Sullivan
Project: Gold King Mine - San Juan River Sampling
Lab Sample ID: 1508300-004
Client Sample ID: San Juan R at US160 Xing in CO (4954000)
Collection Date: 8/14/2015 850h
Received Date: 8/14/2015 2000h

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	8/14/2015 2142h	8/15/2015 408h	E200.7	0.0237	0.100	44.3	²
Antimony	7440-36-0	mg/L	8/14/2015 2142h	8/15/2015 254h	E200.8	0.0000366	0.00200	0.000413	JB ¹
Arsenic	7440-38-2	mg/L	8/14/2015 2142h	8/15/2015 254h	E200.8	0.0000920	0.00200	0.0125	
Barium	7440-39-3	mg/L	8/14/2015 2142h	8/15/2015 254h	E200.8	0.000538	0.00200	0.918	
Beryllium	7440-41-7	mg/L	8/14/2015 2142h	8/15/2015 254h	E200.8	0.0000288	0.00200	0.00489	B
Cadmium	7440-43-9	mg/L	8/14/2015 2142h	8/15/2015 254h	E200.8	0.000193	0.000500	0.000984	
Calcium	7440-70-2	mg/L	8/14/2015 2142h	8/15/2015 439h	E200.7	0.401	10.0	114	²
Chromium	7440-47-3	mg/L	8/14/2015 2142h	8/15/2015 254h	E200.8	0.00154	0.00200	0.0237	
Cobalt	7440-48-4	mg/L	8/14/2015 2142h	8/15/2015 254h	E200.8	0.0000434	0.00400	0.0271	
Copper	7440-50-8	mg/L	8/14/2015 2142h	8/15/2015 254h	E200.8	0.000692	0.00200	0.0705	
Iron	7439-89-6	mg/L	8/14/2015 2142h	8/15/2015 408h	E200.7	0.0767	0.100	39.1	²
Lead	7439-92-1	mg/L	8/14/2015 2142h	8/15/2015 254h	E200.8	0.000264	0.00200	0.0643	
Magnesium	7439-95-4	mg/L	8/14/2015 2142h	8/15/2015 408h	E200.7	0.0294	1.00	22.4	
Manganese	7439-96-5	mg/L	8/14/2015 2142h	8/15/2015 254h	E200.8	0.00153	0.00200	1.36	
Mercury	7439-97-6	mg/L	8/14/2015 2207h	8/15/2015 746h	E245.1	0.00000892	0.000150	0.000148	J
Molybdenum	7439-98-7	mg/L	8/14/2015 2142h	8/15/2015 254h	E200.8	0.000206	0.00200	0.000772	J ¹
Nickel	7440-02-0	mg/L	8/14/2015 2142h	8/15/2015 254h	E200.8	0.000754	0.00200	0.0345	
Potassium	7440-09-7	mg/L	8/14/2015 2142h	8/15/2015 408h	E200.7	0.247	1.00	10.4	
Selenium	7782-49-2	mg/L	8/14/2015 2142h	8/15/2015 254h	E200.8	0.0000634	0.00200	0.00132	JB
Silver	7440-22-4	mg/L	8/14/2015 2142h	8/15/2015 254h	E200.8	0.0000244	0.00200	0.000380	J
Sodium	7440-23-5	mg/L	8/14/2015 2142h	8/15/2015 439h	E200.7	0.330	10.0	54.8	²
Thallium	7440-28-0	mg/L	8/14/2015 2142h	8/15/2015 254h	E200.8	0.0000242	0.00200	0.000706	J
Vanadium	7440-62-2	mg/L	8/14/2015 2142h	8/15/2015 254h	E200.8	0.000438	0.00440	0.0600	
Zinc	7440-66-6	mg/L	8/14/2015 2142h	8/15/2015 254h	E200.8	0.00476	0.00500	0.197	

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.

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

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

Reissue of a previously generated report. The collection time has been revised. Information herein supersedes that of the previously issued reports.



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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

INORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Lenora Sullivan
Project: Gold King Mine - San Juan River Sampling
Lab Sample ID: 1508300-005
Client Sample ID: San Juan R at Clay Hills
Collection Date: 8/14/2015 1433h
Received Date: 8/14/2015 2000h

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	8/14/2015 2142h	8/15/2015 359h	E200.7	0.237	1.00	73.9	
Antimony	7440-36-0	mg/L	8/14/2015 2142h	8/15/2015 320h	E200.8	0.0000366	0.00200	0.000377	JB
Arsenic	7440-38-2	mg/L	8/14/2015 2142h	8/15/2015 320h	E200.8	0.0000920	0.00200	0.0217	
Barium	7440-39-3	mg/L	8/14/2015 2142h	8/15/2015 333h	E200.8	0.00269	0.0100	2.04	
Beryllium	7440-41-7	mg/L	8/14/2015 2142h	8/15/2015 320h	E200.8	0.0000288	0.00200	0.00721	B
Cadmium	7440-43-9	mg/L	8/14/2015 2142h	8/15/2015 320h	E200.8	0.000193	0.000500	0.00222	
Calcium	7440-70-2	mg/L	8/14/2015 2142h	8/15/2015 359h	E200.7	0.401	10.0	422	
Chromium	7440-47-3	mg/L	8/14/2015 2142h	8/15/2015 320h	E200.8	0.00154	0.00200	0.0338	
Cobalt	7440-48-4	mg/L	8/14/2015 2142h	8/15/2015 320h	E200.8	0.0000434	0.00400	0.0351	
Copper	7440-50-8	mg/L	8/14/2015 2142h	8/15/2015 320h	E200.8	0.000692	0.00200	0.0597	
Iron	7439-89-6	mg/L	8/14/2015 2142h	8/15/2015 418h	E200.7	0.0767	0.100	34.7	
Lead	7439-92-1	mg/L	8/14/2015 2142h	8/15/2015 320h	E200.8	0.000264	0.00200	0.0892	
Magnesium	7439-95-4	mg/L	8/14/2015 2142h	8/15/2015 359h	E200.7	0.294	10.0	63.4	
Manganese	7439-96-5	mg/L	8/14/2015 2142h	8/15/2015 333h	E200.8	0.00764	0.0100	2.90	
Mercury	7439-97-6	mg/L	8/14/2015 2207h	8/15/2015 801h	E245.1	0.00000892	0.000150	0.000168	
Molybdenum	7439-98-7	mg/L	8/14/2015 2142h	8/15/2015 320h	E200.8	0.000206	0.00200	0.00103	J
Nickel	7440-02-0	mg/L	8/14/2015 2142h	8/15/2015 320h	E200.8	0.000754	0.00200	0.0629	
Potassium	7440-09-7	mg/L	8/14/2015 2142h	8/15/2015 418h	E200.7	0.247	1.00	17.3	
Selenium	7782-49-2	mg/L	8/14/2015 2142h	8/15/2015 320h	E200.8	0.0000634	0.00200	0.00182	JB
Silver	7440-22-4	mg/L	8/14/2015 2142h	8/15/2015 320h	E200.8	0.0000244	0.00200	0.000664	J
Sodium	7440-23-5	mg/L	8/14/2015 2142h	8/15/2015 418h	E200.7	0.0330	1.00	59.7	
Thallium	7440-28-0	mg/L	8/14/2015 2142h	8/15/2015 320h	E200.8	0.0000242	0.00200	0.000670	J
Vanadium	7440-62-2	mg/L	8/14/2015 2142h	8/15/2015 320h	E200.8	0.000438	0.00440	0.0845	
Zinc	7440-66-6	mg/L	8/14/2015 2142h	8/15/2015 320h	E200.8	0.00476	0.00500	0.198	

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:** Lenora Sullivan
Project: Gold King Mine - San Juan River Sampling
Lab Sample ID: 1508300-001
Client Sample ID: San Juan R at Mexican Hat US163 Xing (4953000)
Collection Date: 8/14/2015 1143h
Received Date: 8/14/2015 2000h

Analytical Results

DISSOLVED METALS

Compound	CAS	Units	Date Prepared	Date Analyzed	Method Used	MDL	Reporting Limit	Analytical Result	Qual
Aluminum	7429-90-5	mg/L	8/14/2015 2142h	8/15/2015 515h	E200.7	0.0237	0.100	0.120	
Antimony	7440-36-0	mg/L	8/14/2015 2142h	8/15/2015 159h	E200.8	0.0000366	0.00200	0.00104	J
Arsenic	7440-38-2	mg/L	8/14/2015 2142h	8/15/2015 159h	E200.8	0.0000920	0.00200	0.00233	B
Barium	7440-39-3	mg/L	8/14/2015 2142h	8/15/2015 159h	E200.8	0.000538	0.00200	0.157	
Beryllium	7440-41-7	mg/L	8/14/2015 2142h	8/15/2015 159h	E200.8	0.0000288	0.00200	0.0000429	J
Cadmium	7440-43-9	mg/L	8/14/2015 2142h	8/15/2015 159h	E200.8	0.000193	0.000500	< 0.000500	U
Calcium	7440-70-2	mg/L	8/14/2015 2142h	8/15/2015 515h	E200.7	0.0401	1.00	46.2	
Chromium	7440-47-3	mg/L	8/14/2015 2142h	8/15/2015 159h	E200.8	0.00154	0.00200	< 0.00200	U
Cobalt	7440-48-4	mg/L	8/14/2015 2142h	8/15/2015 159h	E200.8	0.0000434	0.00400	0.000236	J
Copper	7440-50-8	mg/L	8/14/2015 2142h	8/15/2015 159h	E200.8	0.000692	0.00200	0.00586	B
Iron	7439-89-6	mg/L	8/14/2015 2142h	8/15/2015 515h	E200.7	0.0767	0.100	< 0.100	U
Lead	7439-92-1	mg/L	8/14/2015 2142h	8/15/2015 159h	E200.8	0.000264	0.00200	< 0.00200	U
Magnesium	7439-95-4	mg/L	8/14/2015 2142h	8/15/2015 515h	E200.7	0.0294	1.00	10.5	
Manganese	7439-96-5	mg/L	8/14/2015 2142h	8/15/2015 159h	E200.8	0.00153	0.00200	0.00243	
Mercury	7439-97-6	mg/L	8/14/2015 2207h	8/15/2015 821h	E245.1	0.00000892	0.000150	< 0.000150	U
Molybdenum	7439-98-7	mg/L	8/14/2015 2142h	8/15/2015 159h	E200.8	0.000206	0.00200	0.00587	B
Nickel	7440-02-0	mg/L	8/14/2015 2142h	8/15/2015 159h	E200.8	0.000754	0.00200	0.00175	J
Potassium	7440-09-7	mg/L	8/14/2015 2142h	8/15/2015 515h	E200.7	0.247	1.00	4.29	
Selenium	7782-49-2	mg/L	8/14/2015 2142h	8/15/2015 159h	E200.8	0.0000634	0.00200	0.00156	JB
Silver	7440-22-4	mg/L	8/14/2015 2142h	8/15/2015 159h	E200.8	0.0000244	0.00200	0.000152	J
Sodium	7440-23-5	mg/L	8/14/2015 2142h	8/15/2015 500h	E200.7	0.330	10.0	68.0	B ²
Thallium	7440-28-0	mg/L	8/14/2015 2142h	8/15/2015 159h	E200.8	0.0000242	0.00200	0.000182	JB
Vanadium	7440-62-2	mg/L	8/14/2015 2142h	8/15/2015 159h	E200.8	0.000438	0.00440	0.00806	B
Zinc	7440-66-6	mg/L	8/14/2015 2142h	8/15/2015 159h	E200.8	0.00476	0.00500	< 0.00500	U

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

Analysis performed on a portion of the sample filtered at the laboratory upon receipt.

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:** Lenora Sullivan
Project: Gold King Mine - San Juan River Sampling
Lab Sample ID: 1508300-002
Client Sample ID: San Juan R at Sand Island (4953250)
Collection Date: 8/14/2015 1102h
Received Date: 8/14/2015 2000h

Analytical Results

DISSOLVED METALS

Compound	CAS	Units	Date Prepared	Date Analyzed	Method Used	MDL	Reporting Limit	Analytical Result	Qual
Aluminum	7429-90-5	mg/L	8/14/2015 2142h	8/15/2015 533h	E200.7	0.0237	0.100	< 0.100	U
Antimony	7440-36-0	mg/L	8/14/2015 2142h	8/15/2015 215h	E200.8	0.0000366	0.00200	0.00103	J
Arsenic	7440-38-2	mg/L	8/14/2015 2142h	8/15/2015 215h	E200.8	0.0000920	0.00200	0.00203	B
Barium	7440-39-3	mg/L	8/14/2015 2142h	8/15/2015 215h	E200.8	0.000538	0.00200	0.0786	
Beryllium	7440-41-7	mg/L	8/14/2015 2142h	8/15/2015 215h	E200.8	0.0000288	0.00200	0.0000535	J
Cadmium	7440-43-9	mg/L	8/14/2015 2142h	8/15/2015 215h	E200.8	0.000193	0.000500	< 0.000500	U
Calcium	7440-70-2	mg/L	8/14/2015 2142h	8/15/2015 533h	E200.7	0.0401	1.00	53.2	
Chromium	7440-47-3	mg/L	8/14/2015 2142h	8/15/2015 215h	E200.8	0.00154	0.00200	< 0.00200	U
Cobalt	7440-48-4	mg/L	8/14/2015 2142h	8/15/2015 215h	E200.8	0.0000434	0.00400	0.000131	J
Copper	7440-50-8	mg/L	8/14/2015 2142h	8/15/2015 215h	E200.8	0.000692	0.00200	0.00331	B
Iron	7439-89-6	mg/L	8/14/2015 2142h	8/15/2015 533h	E200.7	0.0767	0.100	< 0.100	U
Lead	7439-92-1	mg/L	8/14/2015 2142h	8/15/2015 215h	E200.8	0.000264	0.00200	< 0.00200	U
Magnesium	7439-95-4	mg/L	8/14/2015 2142h	8/15/2015 533h	E200.7	0.0294	1.00	8.26	
Manganese	7439-96-5	mg/L	8/14/2015 2142h	8/15/2015 215h	E200.8	0.00153	0.00200	0.00702	
Mercury	7439-97-6	mg/L	8/14/2015 2207h	8/15/2015 823h	E245.1	0.00000892	0.000150	< 0.000150	U
Molybdenum	7439-98-7	mg/L	8/14/2015 2142h	8/15/2015 215h	E200.8	0.000206	0.00200	0.00531	B
Nickel	7440-02-0	mg/L	8/14/2015 2142h	8/15/2015 215h	E200.8	0.000754	0.00200	0.00238	
Potassium	7440-09-7	mg/L	8/14/2015 2142h	8/15/2015 533h	E200.7	0.247	1.00	3.27	
Selenium	7782-49-2	mg/L	8/14/2015 2142h	8/15/2015 215h	E200.8	0.0000634	0.00200	0.00108	JB
Silver	7440-22-4	mg/L	8/14/2015 2142h	8/15/2015 215h	E200.8	0.0000244	0.00200	0.000193	J
Sodium	7440-23-5	mg/L	8/14/2015 2142h	8/15/2015 533h	E200.7	0.0330	1.00	49.5	B
Thallium	7440-28-0	mg/L	8/14/2015 2142h	8/15/2015 215h	E200.8	0.0000242	0.00200	0.000129	JB
Vanadium	7440-62-2	mg/L	8/14/2015 2142h	8/15/2015 215h	E200.8	0.000438	0.00440	0.00588	B
Zinc	7440-66-6	mg/L	8/14/2015 2142h	8/15/2015 215h	E200.8	0.00476	0.00500	0.00487	J

Analysis performed on a portion of the sample filtered at the laboratory upon receipt.

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Laboratory Director

Jose Rocha
QA Officer

INORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Lenora Sullivan
Project: Gold King Mine - San Juan River Sampling
Lab Sample ID: 1508300-003
Client Sample ID: San Juan River at Town of Montezuma (4953990)
Collection Date: 8/14/2015 955h
Received Date: 8/14/2015 2000h

Analytical Results

DISSOLVED METALS

Compound	CAS	Units	Date Prepared	Date Analyzed	Method Used	MDL	Reporting Limit	Analytical Result	Qual
Aluminum	7429-90-5	mg/L	8/14/2015 2142h	8/15/2015 535h	E200.7	0.0237	0.100	0.0248	J
Antimony	7440-36-0	mg/L	8/14/2015 2142h	8/15/2015 218h	E200.8	0.0000366	0.00200	0.000582	J
Arsenic	7440-38-2	mg/L	8/14/2015 2142h	8/15/2015 218h	E200.8	0.0000920	0.00200	0.00127	JB
Barium	7440-39-3	mg/L	8/14/2015 2142h	8/15/2015 218h	E200.8	0.000538	0.00200	0.0851	
Beryllium	7440-41-7	mg/L	8/14/2015 2142h	8/15/2015 218h	E200.8	0.0000288	0.00200	0.0000403	J
Cadmium	7440-43-9	mg/L	8/14/2015 2142h	8/15/2015 218h	E200.8	0.000193	0.000500	< 0.000500	U
Calcium	7440-70-2	mg/L	8/14/2015 2142h	8/15/2015 535h	E200.7	0.0401	1.00	55.1	
Chromium	7440-47-3	mg/L	8/14/2015 2142h	8/15/2015 218h	E200.8	0.00154	0.00200	< 0.00200	U
Cobalt	7440-48-4	mg/L	8/14/2015 2142h	8/15/2015 218h	E200.8	0.0000434	0.00400	0.000146	J
Copper	7440-50-8	mg/L	8/14/2015 2142h	8/15/2015 218h	E200.8	0.000692	0.00200	0.00379	B
Iron	7439-89-6	mg/L	8/14/2015 2142h	8/15/2015 535h	E200.7	0.0767	0.100	< 0.100	U
Lead	7439-92-1	mg/L	8/14/2015 2142h	8/15/2015 218h	E200.8	0.000264	0.00200	< 0.00200	U
Magnesium	7439-95-4	mg/L	8/14/2015 2142h	8/15/2015 535h	E200.7	0.0294	1.00	7.81	
Manganese	7439-96-5	mg/L	8/14/2015 2142h	8/15/2015 218h	E200.8	0.00153	0.00200	< 0.00200	U
Mercury	7439-97-6	mg/L	8/14/2015 2207h	8/15/2015 811h	E245.1	0.00000892	0.000150	< 0.000150	U
Molybdenum	7439-98-7	mg/L	8/14/2015 2142h	8/15/2015 218h	E200.8	0.000206	0.00200	0.00284	B
Nickel	7440-02-0	mg/L	8/14/2015 2142h	8/15/2015 218h	E200.8	0.000754	0.00200	0.00176	J
Potassium	7440-09-7	mg/L	8/14/2015 2142h	8/15/2015 535h	E200.7	0.247	1.00	3.51	
Selenium	7782-49-2	mg/L	8/14/2015 2142h	8/15/2015 218h	E200.8	0.0000634	0.00200	0.000989	JB
Silver	7440-22-4	mg/L	8/14/2015 2142h	8/15/2015 218h	E200.8	0.0000244	0.00200	0.0000355	J
Sodium	7440-23-5	mg/L	8/14/2015 2142h	8/15/2015 535h	E200.7	0.0330	1.00	53.0	B
Thallium	7440-28-0	mg/L	8/14/2015 2142h	8/15/2015 218h	E200.8	0.0000242	0.00200	0.0000272	JB
Vanadium	7440-62-2	mg/L	8/14/2015 2142h	8/15/2015 218h	E200.8	0.000438	0.00440	0.00307	JB
Zinc	7440-66-6	mg/L	8/14/2015 2142h	8/15/2015 218h	E200.8	0.00476	0.00500	< 0.00500	U

Analysis performed on a portion of the sample filtered at the laboratory upon receipt.

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Jose Rocha
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INORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Lenora Sullivan
Project: Gold King Mine - San Juan River Sampling
Lab Sample ID: 1508300-004
Client Sample ID: San Juan R at US160 Xing in CO (4954000)
Collection Date: 8/14/2015 850h
Received Date: 8/14/2015 2000h

Analytical Results

DISSOLVED METALS

Compound	CAS	Units	Date Prepared	Date Analyzed	Method Used	MDL	Reporting Limit	Analytical Result	Qual
Aluminum	7429-90-5	mg/L	8/14/2015 2142h	8/15/2015 537h	E200.7	0.0237	0.100	0.0648	J
Antimony	7440-36-0	mg/L	8/14/2015 2142h	8/15/2015 221h	E200.8	0.0000366	0.00200	0.000421	J
Arsenic	7440-38-2	mg/L	8/14/2015 2142h	8/15/2015 221h	E200.8	0.0000920	0.00200	0.00170	JB
Barium	7440-39-3	mg/L	8/14/2015 2142h	8/15/2015 221h	E200.8	0.000538	0.00200	0.0723	
Beryllium	7440-41-7	mg/L	8/14/2015 2142h	8/15/2015 221h	E200.8	0.0000288	0.00200	0.0000382	J
Cadmium	7440-43-9	mg/L	8/14/2015 2142h	8/15/2015 221h	E200.8	0.000193	0.000500	< 0.000500	U
Calcium	7440-70-2	mg/L	8/14/2015 2142h	8/15/2015 537h	E200.7	0.0401	1.00	53.4	
Chromium	7440-47-3	mg/L	8/14/2015 2142h	8/15/2015 221h	E200.8	0.00154	0.00200	< 0.00200	U
Cobalt	7440-48-4	mg/L	8/14/2015 2142h	8/15/2015 221h	E200.8	0.0000434	0.00400	0.000133	J
Copper	7440-50-8	mg/L	8/14/2015 2142h	8/15/2015 221h	E200.8	0.000692	0.00200	0.00386	B
Iron	7439-89-6	mg/L	8/14/2015 2142h	8/15/2015 537h	E200.7	0.0767	0.100	< 0.100	U
Lead	7439-92-1	mg/L	8/14/2015 2142h	8/15/2015 221h	E200.8	0.000264	0.00200	< 0.00200	U
Magnesium	7439-95-4	mg/L	8/14/2015 2142h	8/15/2015 537h	E200.7	0.0294	1.00	6.61	
Manganese	7439-96-5	mg/L	8/14/2015 2142h	8/15/2015 221h	E200.8	0.00153	0.00200	0.00180	J
Mercury	7439-97-6	mg/L	8/14/2015 2207h	8/15/2015 825h	E245.1	0.00000892	0.000150	< 0.000150	U
Molybdenum	7439-98-7	mg/L	8/14/2015 2142h	8/15/2015 221h	E200.8	0.000206	0.00200	0.00365	B
Nickel	7440-02-0	mg/L	8/14/2015 2142h	8/15/2015 221h	E200.8	0.000754	0.00200	0.00314	
Potassium	7440-09-7	mg/L	8/14/2015 2142h	8/15/2015 537h	E200.7	0.247	1.00	3.66	
Selenium	7782-49-2	mg/L	8/14/2015 2142h	8/15/2015 221h	E200.8	0.0000634	0.00200	0.00110	JB
Silver	7440-22-4	mg/L	8/14/2015 2142h	8/15/2015 221h	E200.8	0.0000244	0.00200	< 0.00200	U
Sodium	7440-23-5	mg/L	8/14/2015 2142h	8/15/2015 537h	E200.7	0.0330	1.00	52.4	B
Thallium	7440-28-0	mg/L	8/14/2015 2142h	8/15/2015 221h	E200.8	0.0000242	0.00200	0.0000385	JB
Vanadium	7440-62-2	mg/L	8/14/2015 2142h	8/15/2015 221h	E200.8	0.000438	0.00440	0.00411	JB
Zinc	7440-66-6	mg/L	8/14/2015 2142h	8/15/2015 221h	E200.8	0.00476	0.00500	< 0.00500	U

Analysis performed on a portion of the sample filtered at the laboratory upon receipt.

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

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

Reissue of a previously generated report. The collection time has been revised. Information herein supersedes that of the previously issued reports.

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



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Laboratory Director

Jose Rocha
QA Officer

INORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Lenora Sullivan
Project: Gold King Mine - San Juan River Sampling
Lab Sample ID: 1508300-005
Client Sample ID: San Juan R at Clay Hills
Collection Date: 8/14/2015 1433h
Received Date: 8/14/2015 2000h

Analytical Results

DISSOLVED METALS

Compound	CAS	Units	Date Prepared	Date Analyzed	Method Used	MDL	Reporting Limit	Analytical Result	Qual
Aluminum	7429-90-5	mg/L	8/14/2015 2142h	8/15/2015 539h	E200.7	0.0237	0.100	0.0385	J
Antimony	7440-36-0	mg/L	8/14/2015 2142h	8/15/2015 234h	E200.8	0.0000366	0.00200	0.000316	J
Arsenic	7440-38-2	mg/L	8/14/2015 2142h	8/15/2015 234h	E200.8	0.0000920	0.00200	0.00189	JB
Barium	7440-39-3	mg/L	8/14/2015 2142h	8/15/2015 234h	E200.8	0.000538	0.00200	0.121	
Beryllium	7440-41-7	mg/L	8/14/2015 2142h	8/15/2015 234h	E200.8	0.0000288	0.00200	< 0.00200	U
Cadmium	7440-43-9	mg/L	8/14/2015 2142h	8/15/2015 234h	E200.8	0.000193	0.000500	< 0.000500	U
Calcium	7440-70-2	mg/L	8/14/2015 2142h	8/15/2015 539h	E200.7	0.0401	1.00	51.1	
Chromium	7440-47-3	mg/L	8/14/2015 2142h	8/15/2015 234h	E200.8	0.00154	0.00200	< 0.00200	U
Cobalt	7440-48-4	mg/L	8/14/2015 2142h	8/15/2015 234h	E200.8	0.0000434	0.00400	0.000125	J
Copper	7440-50-8	mg/L	8/14/2015 2142h	8/15/2015 234h	E200.8	0.000692	0.00200	0.00360	B
Iron	7439-89-6	mg/L	8/14/2015 2142h	8/15/2015 539h	E200.7	0.0767	0.100	< 0.100	U
Lead	7439-92-1	mg/L	8/14/2015 2142h	8/15/2015 234h	E200.8	0.000264	0.00200	< 0.00200	U
Magnesium	7439-95-4	mg/L	8/14/2015 2142h	8/15/2015 539h	E200.7	0.0294	1.00	8.23	
Manganese	7439-96-5	mg/L	8/14/2015 2142h	8/15/2015 234h	E200.8	0.00153	0.00200	< 0.00200	U
Mercury	7439-97-6	mg/L	8/14/2015 2207h	8/15/2015 827h	E245.1	0.00000892	0.000150	< 0.000150	U
Molybdenum	7439-98-7	mg/L	8/14/2015 2142h	8/15/2015 234h	E200.8	0.000206	0.00200	0.00330	B
Nickel	7440-02-0	mg/L	8/14/2015 2142h	8/15/2015 234h	E200.8	0.000754	0.00200	0.00128	J
Potassium	7440-09-7	mg/L	8/14/2015 2142h	8/15/2015 539h	E200.7	0.247	1.00	3.69	
Selenium	7782-49-2	mg/L	8/14/2015 2142h	8/15/2015 234h	E200.8	0.0000634	0.00200	0.00113	JB
Silver	7440-22-4	mg/L	8/14/2015 2142h	8/15/2015 234h	E200.8	0.0000244	0.00200	0.0000286	J
Sodium	7440-23-5	mg/L	8/14/2015 2142h	8/15/2015 539h	E200.7	0.0330	1.00	49.8	B
Thallium	7440-28-0	mg/L	8/14/2015 2142h	8/15/2015 234h	E200.8	0.0000242	0.00200	< 0.00200	U
Vanadium	7440-62-2	mg/L	8/14/2015 2142h	8/15/2015 234h	E200.8	0.000438	0.00440	0.00538	B
Zinc	7440-66-6	mg/L	8/14/2015 2142h	8/15/2015 234h	E200.8	0.00476	0.00500	< 0.00500	U

Analysis performed on a portion of the sample filtered at the laboratory upon receipt.

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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Laboratory Director

Jose Rocha
QA Officer

INORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Lenora Sullivan
Project: Gold King Mine - San Juan River Sampling
Lab Sample ID: 1508300-001
Client Sample ID: San Juan R at Mexican Hat US163 Xing (4953000)
Collection Date: 8/14/2015 1143h
Received Date: 8/14/2015 2000h

Analytical Results

Compound	CAS	Units	Date Prepared	Date Analyzed	Method Used	MDL	Reporting Limit	Analytical Result	Qual
Alkalinity (as CaCO ₃)		mg/L		8/15/2015 606h	SM2320B	1.86	10.0	127	
Bicarbonate (as CaCO ₃)		mg/L		8/15/2015 606h	SM2320B	1.86	10.0	127	
Carbonate (as CaCO ₃)		mg/L		8/15/2015 606h	SM2320B	1.86	10.0	< 10.0	U
Chloride	16887-00-6	mg/L		8/14/2015 2155h	E300.0	0.0751	1.00	12.7	
Conductivity		µmhos/cm		8/15/2015 542h	SM2510B	0.436	2.00	659	
Hardness (as CaCO ₃)		mg/L		8/15/2015	SM2340B	10.0	10.0	2,230	
Hardness, Dissolved (as CaCO ₃)		mg/L		8/15/2015	SM2340B	10.0	10.0	159	
Nitrate/Nitrite (as N)	7727-37-9	mg/L		8/14/2015 2334h	E353.2	0.00833	0.0100	0.763	
pH @ 25° C		pH Units		8/14/2015 2003h	SM4500-H+B	1.00	1.00	7.93	
Phosphate, Total (as P)	7723-14-0	mg/L	8/15/2015 750h	8/15/2015 1043h	SM4500-P-F	0.106	0.250	8.98	²
Sulfate	14808-79-8	mg/L		8/14/2015 2155h	E300.0	0.211	7.50	173	
Total Dissolved Solids		mg/L		8/14/2015 2040h	SM2540C	30.6	50.0	760	
Total Suspended Solids	TSS	mg/L		8/14/2015 2020h	SM2540D	142	150	17,700	

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

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INORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Lenora Sullivan
Project: Gold King Mine - San Juan River Sampling
Lab Sample ID: 1508300-002
Client Sample ID: San Juan R at Sand Island (4953250)
Collection Date: 8/14/2015 1102h
Received Date: 8/14/2015 2000h

Analytical Results

Compound	CAS	Units	Date Prepared	Date Analyzed	Method Used	MDL	Reporting Limit	Analytical Result	Qual
Alkalinity (as CaCO3)		mg/L		8/15/2015 606h	SM2320B	1.86	10.0	113	
Bicarbonate (as CaCO3)		mg/L		8/15/2015 606h	SM2320B	1.86	10.0	1,110	
Carbonate (as CaCO3)		mg/L		8/15/2015 606h	SM2320B	1.86	10.0	< 10.0	U
Chloride	16887-00-6	mg/L		8/14/2015 2246h	E300.0	0.0751	1.00	11.9	
Conductivity		µmhos/cm		8/15/2015 542h	SM2510B	0.436	2.00	594	
Hardness (as CaCO3)		mg/L		8/15/2015	SM2340B	10.0	10.0	517	
Hardness, Dissolved (as CaCO3)		mg/L		8/15/2015	SM2340B	10.0	10.0	167	
Nitrate/Nitrite (as N)	7727-37-9	mg/L		8/14/2015 2335h	E353.2	0.00833	0.0100	0.508	
pH @ 25° C		pH Units		8/14/2015 2003h	SM4500-H+B	1.00	1.00	8.23	
Phosphate, Total (as P)	7723-14-0	mg/L	8/15/2015 750h	8/15/2015 1034h	SM4500-P-F	0.0212	0.0500	2.03	
Sulfate	14808-79-8	mg/L		8/14/2015 2246h	E300.0	0.211	7.50	146	
Total Dissolved Solids		mg/L		8/14/2015 2040h	SM2540C	30.6	50.0	630	@
Total Suspended Solids	TSS	mg/L		8/14/2015 2020h	SM2540D	142	150	6,580	

@ - High RPD due to suspected sample non-homogeneity or matrix interference.

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INORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Lenora Sullivan
Project: Gold King Mine - San Juan River Sampling
Lab Sample ID: 1508300-003
Client Sample ID: San Juan River at Town of Montezuma (4953990)
Collection Date: 8/14/2015 955h
Received Date: 8/14/2015 2000h

Analytical Results

Compound	CAS	Units	Date Prepared	Date Analyzed	Method Used	MDL	Reporting Limit	Analytical Result	Qual
Alkalinity (as CaCO ₃)		mg/L		8/15/2015 606h	SM2320B	1.86	10.0	115	
Bicarbonate (as CaCO ₃)		mg/L		8/15/2015 606h	SM2320B	1.86	10.0	115	
Carbonate (as CaCO ₃)		mg/L		8/15/2015 606h	SM2320B	1.86	10.0	< 10.0	U
Chloride	16887-00-6	mg/L		8/14/2015 2303h	E300.0	0.0751	1.00	10.1	
Conductivity		µmhos/cm		8/15/2015 542h	SM2510B	0.436	2.00	636	
Hardness (as CaCO ₃)		mg/L		8/15/2015	SM2340B	10.0	10.0	518	
Hardness, Dissolved (as CaCO ₃)		mg/L		8/15/2015	SM2340B	10.0	10.0	170	
Nitrate/Nitrite (as N)	7727-37-9	mg/L		8/14/2015 2336h	E353.2	0.00833	0.0100	0.509	
pH @ 25° C		pH Units		8/14/2015 2003h	SM4500-H+B	1.00	1.00	8.33	
Phosphate, Total (as P)	7723-14-0	mg/L	8/15/2015 750h	8/15/2015 1035h	SM4500-P-F	0.0212	0.0500	1.97	
Sulfate	14808-79-8	mg/L		8/14/2015 2303h	E300.0	0.211	7.50	154	
Total Dissolved Solids		mg/L		8/14/2015 2040h	SM2540C	30.6	50.0	480	
Total Suspended Solids	TSS	mg/L		8/14/2015 2020h	SM2540D	142	150	6,180	

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INORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Lenora Sullivan
Project: Gold King Mine - San Juan River Sampling
Lab Sample ID: 1508300-004
Client Sample ID: San Juan R at US160 Xing in CO (4954000)
Collection Date: 8/14/2015 850h
Received Date: 8/14/2015 2000h

Analytical Results

Compound	CAS	Units	Date Prepared	Date Analyzed	Method Used	MDL	Reporting Limit	Analytical Result	Qual
Alkalinity (as CaCO3)		mg/L		8/15/2015 606h	SM2320B	1.86	10.0	110	
Bicarbonate (as CaCO3)		mg/L		8/15/2015 606h	SM2320B	1.86	10.0	110	
Carbonate (as CaCO3)		mg/L		8/15/2015 606h	SM2320B	1.86	10.0	< 10.0	U
Chloride	16887-00-6	mg/L		8/14/2015 2320h	E300.0	0.0751	1.00	9.04	
Conductivity		µmhos/cm		8/15/2015 542h	SM2510B	0.436	2.00	634	
Hardness (as CaCO3)		mg/L		8/15/2015	SM2340B	10.0	10.0	377	
Hardness, Dissolved (as CaCO3)		mg/L		8/15/2015	SM2340B	10.0	10.0	160	
Nitrate/Nitrite (as N)	7727-37-9	mg/L		8/14/2015 2338h	E353.2	0.00833	0.0100	0.718	
pH @ 25° C		pH Units		8/14/2015 2003h	SM4500-H+B	1.00	1.00	8.25	
Phosphate, Total (as P)	7723-14-0	mg/L	8/15/2015 750h	8/15/2015 1035h	SM4500-P-F	0.0212	0.0500	1.36	
Sulfate	14808-79-8	mg/L		8/14/2015 2320h	E300.0	0.211	7.50	135	
Total Dissolved Solids		mg/L		8/14/2015 2040h	SM2540C	30.6	50.0	720	
Total Suspended Solids	TSS	mg/L		8/14/2015 2020h	SM2540D	142	150	4,100	

Reissue of a previously generated report. The collection time has been revised. Information herein supersedes that of the previously issued reports.

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INORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Lenora Sullivan
Project: Gold King Mine - San Juan River Sampling
Lab Sample ID: 1508300-005
Client Sample ID: San Juan R at Clay Hills
Collection Date: 8/14/2015 1433h
Received Date: 8/14/2015 2000h

Analytical Results

Compound	CAS	Units	Date Prepared	Date Analyzed	Method Used	MDL	Reporting Limit	Analytical Result	Qual
Alkalinity (as CaCO ₃)		mg/L		8/15/2015 606h	SM2320B	1.86	10.0	117	
Bicarbonate (as CaCO ₃)		mg/L		8/15/2015 606h	SM2320B	1.86	10.0	117	
Carbonate (as CaCO ₃)		mg/L		8/15/2015 606h	SM2320B	1.86	10.0	< 10.0	U
Chloride	16887-00-6	mg/L		8/15/2015 1059h	E300.0	0.0751	1.00	10.3	
Conductivity		µmhos/cm		8/15/2015 542h	SM2510B	0.436	2.00	615	
Hardness (as CaCO ₃)		mg/L		8/15/2015	SM2340B	10.0	10.0	1,310	
Hardness, Dissolved (as CaCO ₃)		mg/L		8/15/2015	SM2340B	10.0	10.0	161	
Nitrate/Nitrite (as N)	7727-37-9	mg/L		8/14/2015 2339h	E353.2	0.00833	0.0100	0.539	
pH @ 25° C		pH Units		8/14/2015 2003h	SM4500-H+B	1.00	1.00	8.21	
Phosphate, Total (as P)	7723-14-0	mg/L	8/15/2015 750h	8/15/2015 1036h	SM4500-P-F	0.0212	0.0500	3.71	
Sulfate	14808-79-8	mg/L		8/15/2015 1059h	E300.0	0.211	7.50	144	
Total Dissolved Solids		mg/L		8/14/2015 2040h	SM2540C	30.6	50.0	570	
Total Suspended Solids	TSS	mg/L		8/14/2015 2020h	SM2540D	142	150	8,320	

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QC SUMMARY REPORT

Client: Utah Division of Water Quality

Contact: Lenora Sullivan

Lab Set ID: 1508300

Dept: ME

Project: Gold King Mine - San Juan River Sampling

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-38583													
Date Analyzed:		08/15/2015 458h											
Test Code:		200.7-DIS											
Date Prepared:		08/14/2015 2142h											
Aluminum	0.982	mg/L	E200.7	0.0237	0.100	1.000	0	98.2	85 - 115				
Calcium	9.61	mg/L	E200.7	0.0401	1.00	10.00	0	96.1	85 - 115				
Iron	0.921	mg/L	E200.7	0.0767	0.100	1.000	0	92.1	85 - 115				
Magnesium	9.64	mg/L	E200.7	0.0294	1.00	10.00	0	96.4	85 - 115				
Potassium	9.89	mg/L	E200.7	0.247	1.00	10.00	0	98.9	85 - 115				
Sodium	9.69	mg/L	E200.7	0.0330	1.00	10.00	0	96.9	85 - 115				
Lab Sample ID: LCS-38581													
Date Analyzed:		08/15/2015 431h											
Test Code:		200.7-W											
Date Prepared:		08/14/2015 2142h											
Aluminum	0.959	mg/L	E200.7	0.0237	0.100	1.000	0	95.9	85 - 115				
Calcium	9.57	mg/L	E200.7	0.0401	1.00	10.00	0	95.7	85 - 115				
Iron	0.926	mg/L	E200.7	0.0767	0.100	1.000	0	92.6	85 - 115				
Magnesium	9.67	mg/L	E200.7	0.0294	1.00	10.00	0	96.7	85 - 115				
Potassium	9.79	mg/L	E200.7	0.247	1.00	10.00	0	97.9	85 - 115				
Sodium	9.68	mg/L	E200.7	0.0330	1.00	10.00	0	96.8	85 - 115				
Lab Sample ID: LCS-38584													
Date Analyzed:		08/15/2015 155h											
Test Code:		200.8-DIS											
Date Prepared:		08/14/2015 2142h											
Antimony	0.176	mg/L	E200.8	0.0000366	0.00200	0.2000	0	88.2	85 - 115				
Arsenic	0.200	mg/L	E200.8	0.0000920	0.00200	0.2000	0	99.8	85 - 115				
Barium	0.189	mg/L	E200.8	0.000538	0.00200	0.2000	0	94.6	85 - 115				
Beryllium	0.198	mg/L	E200.8	0.0000288	0.00200	0.2000	0	99.1	85 - 115				
Cadmium	0.192	mg/L	E200.8	0.000193	0.000500	0.2000	0	95.8	85 - 115				
Chromium	0.188	mg/L	E200.8	0.00154	0.00200	0.2000	0	94.1	85 - 115				
Cobalt	0.188	mg/L	E200.8	0.0000434	0.00400	0.2000	0	93.8	85 - 115				
Copper	0.193	mg/L	E200.8	0.000692	0.00200	0.2000	0	96.4	85 - 115				
Lead	0.190	mg/L	E200.8	0.000264	0.00200	0.2000	0	95.0	85 - 115				
Manganese	0.188	mg/L	E200.8	0.00153	0.00200	0.2000	0	93.8	85 - 115				
Molybdenum	0.191	mg/L	E200.8	0.000206	0.00200	0.2000	0	95.4	85 - 115				



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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality

Contact: Lenora Sullivan

Lab Set ID: 1508300

Dept: ME

Project: Gold King Mine - San Juan River Sampling

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-38584		Date Analyzed:	08/15/2015 155h										
Test Code: 200.8-DIS		Date Prepared:	08/14/2015 2142h										
Nickel	0.190	mg/L	E200.8	0.000754	0.00200	0.2000	0	95.0	85 - 115				
Selenium	0.201	mg/L	E200.8	0.0000634	0.00200	0.2000	0	101	85 - 115				
Silver	0.189	mg/L	E200.8	0.0000244	0.00200	0.2000	0	94.6	85 - 115				
Thallium	0.187	mg/L	E200.8	0.0000242	0.00200	0.2000	0	93.3	85 - 115				
Vanadium	0.192	mg/L	E200.8	0.000438	0.00440	0.2000	0	95.9	85 - 115				
Zinc	0.997	mg/L	E200.8	0.00476	0.00500	1.000	0	99.7	85 - 115				
Lab Sample ID: LCS-38582		Date Analyzed:	08/15/2015 241h										
Test Code: 200.8-W		Date Prepared:	08/14/2015 2142h										
Antimony	0.175	mg/L	E200.8	0.0000366	0.00200	0.2000	0	87.7	85 - 115				
Arsenic	0.197	mg/L	E200.8	0.0000920	0.00200	0.2000	0	98.5	85 - 115				
Barium	0.186	mg/L	E200.8	0.000538	0.00200	0.2000	0	93.0	85 - 115				
Beryllium	0.196	mg/L	E200.8	0.0000288	0.00200	0.2000	0	98.1	85 - 115				
Cadmium	0.190	mg/L	E200.8	0.000193	0.000500	0.2000	0	94.8	85 - 115				
Chromium	0.187	mg/L	E200.8	0.00154	0.00200	0.2000	0	93.7	85 - 115				
Cobalt	0.186	mg/L	E200.8	0.0000434	0.00400	0.2000	0	92.9	85 - 115				
Copper	0.191	mg/L	E200.8	0.000692	0.00200	0.2000	0	95.6	85 - 115				
Lead	0.188	mg/L	E200.8	0.000264	0.00200	0.2000	0	94.2	85 - 115				
Manganese	0.189	mg/L	E200.8	0.00153	0.00200	0.2000	0	94.3	85 - 115				
Molybdenum	0.187	mg/L	E200.8	0.000206	0.00200	0.2000	0	93.7	85 - 115				
Nickel	0.185	mg/L	E200.8	0.000754	0.00200	0.2000	0	92.7	85 - 115				
Selenium	0.196	mg/L	E200.8	0.0000634	0.00200	0.2000	0	97.9	85 - 115				
Silver	0.187	mg/L	E200.8	0.0000244	0.00200	0.2000	0	93.5	85 - 115				
Thallium	0.185	mg/L	E200.8	0.0000242	0.00200	0.2000	0	92.3	85 - 115				
Vanadium	0.190	mg/L	E200.8	0.000438	0.00440	0.2000	0	95.2	85 - 115				
Zinc	0.993	mg/L	E200.8	0.00476	0.00500	1.000	0	99.3	85 - 115				



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1508300
Project: Gold King Mine - San Juan River Sampling

Contact: Lenora Sullivan
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-38585	Date Analyzed:	08/15/2015	740h										
Test Code: HG-DW-245.1	Date Prepared:	08/14/2015	2207h										
Mercury	0.00350	mg/L	E245.1	0.00000892	0.000150	0.003330	0	105	85 - 115				
Lab Sample ID: LCS-38586	Date Analyzed:	08/15/2015	805h										
Test Code: HG-DW-DIS-245.1	Date Prepared:	08/14/2015	2207h										
Mercury	0.00336	mg/L	E245.1	0.00000892	0.000150	0.003330	0	101	85 - 115				



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QC SUMMARY REPORT

Client: Utah Division of Water Quality

Contact: Lenora Sullivan

Lab Set ID: 1508300

Dept: ME

Project: Gold King Mine - San Juan River Sampling

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-38583													
Date Analyzed:		08/15/2015 541h											
Test Code:		200.7-DIS											
Date Prepared:		08/14/2015 2142h											
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	0.110	mg/L	E200.7	0.0330	1.00								JB
Lab Sample ID: MB-38581													
Date Analyzed:		08/15/2015 428h											
Test Code:		200.7-W											
Date Prepared:		08/14/2015 2142h											
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-38584													
Date Analyzed:		08/15/2015 152h											
Test Code:		200.8-DIS											
Date Prepared:		08/14/2015 2142h											
Antimony	< 0.00200	mg/L	E200.8	0.0000366	0.00200								U
Arsenic	0.000422	mg/L	E200.8	0.0000920	0.00200								JB
Barium	< 0.00200	mg/L	E200.8	0.000538	0.00200								U
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	0.000885	mg/L	E200.8	0.000692	0.00200								JB
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	0.00131	mg/L	E200.8	0.000206	0.00200								JB



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Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality

Contact: Lenora Sullivan

Lab Set ID: 1508300

Dept: ME

Project: Gold King Mine - San Juan River Sampling

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-38584	Date Analyzed:	08/15/2015	152h										
Test Code:	200.8-DIS	Date Prepared:	08/14/2015	2142h									
Nickel	< 0.00200	mg/L	E200.8	0.000754	0.00200								U
Selenium	0.000282	mg/L	E200.8	0.0000634	0.00200								JB
Silver	< 0.00200	mg/L	E200.8	0.0000244	0.00200								U
Thallium	0.0000404	mg/L	E200.8	0.0000242	0.00200								JB
Vanadium	0.00167	mg/L	E200.8	0.000438	0.00440								JB
Zinc	< 0.00500	mg/L	E200.8	0.00476	0.00500								U
Lab Sample ID: MB-38582	Date Analyzed:	08/15/2015	238h										
Test Code:	200.8-W	Date Prepared:	08/14/2015	2142h									
Antimony	0.0000866	mg/L	E200.8	0.0000366	0.00200								JB
Arsenic	< 0.00200	mg/L	E200.8	0.0000920	0.00200								U
Barium	< 0.00200	mg/L	E200.8	0.000538	0.00200								U
Beryllium	0.0000313	mg/L	E200.8	0.0000288	0.00200								JB
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	0.0000989	mg/L	E200.8	0.0000634	0.00200								JB
Silver	< 0.00200	mg/L	E200.8	0.0000244	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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Kyle F. Gross
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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1508300
Project: Gold King Mine - San Juan River Sampling

Contact: Lenora Sullivan
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-38585	Date Analyzed:	08/15/2015	738h										
Test Code:	HG-DW-245.1	Date Prepared:	08/14/2015	2207h									
Mercury	< 0.000150	mg/L	E245.1	0.00000892	0.000150								U
Lab Sample ID: MB-38586	Date Analyzed:	08/15/2015	803h										
Test Code:	HG-DW-DIS-245.1	Date Prepared:	08/14/2015	2207h									
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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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1508300
Project: Gold King Mine - San Juan River Sampling

Contact: Lenora Sullivan
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: 1508300-001CMS	Date Analyzed:	08/15/2015	502h										
Test Code:	200.7-DIS	Date Prepared:	08/14/2015	2142h									
Sodium	73.9	mg/L	E200.7	0.330	10.0	10.00	68	58.5	70 - 130				2
Lab Sample ID: 1508300-001CMS	Date Analyzed:	08/15/2015	529h										
Test Code:	200.7-DIS	Date Prepared:	08/14/2015	2142h									
Aluminum	1.12	mg/L	E200.7	0.0237	0.100	1.000	0.12	99.8	70 - 130				
Calcium	55.5	mg/L	E200.7	0.0401	1.00	10.00	46.2	92.2	70 - 130				
Iron	0.988	mg/L	E200.7	0.0767	0.100	1.000	0	98.8	70 - 130				
Magnesium	20.4	mg/L	E200.7	0.0294	1.00	10.00	10.5	99.2	70 - 130				
Potassium	14.2	mg/L	E200.7	0.247	1.00	10.00	4.29	99.4	70 - 130				
Lab Sample ID: 1508300-004BMS	Date Analyzed:	08/15/2015	414h										
Test Code:	200.7-W	Date Prepared:	08/14/2015	2142h									
Aluminum	53.2	mg/L	E200.7	0.0237	0.100	1.000	44.3	889	70 - 130				2
Iron	43.6	mg/L	E200.7	0.0767	0.100	1.000	39.1	451	70 - 130				2
Magnesium	33.5	mg/L	E200.7	0.0294	1.00	10.00	22.4	111	70 - 130				
Potassium	21.0	mg/L	E200.7	0.247	1.00	10.00	10.4	106	70 - 130				
Lab Sample ID: 1508300-004BMS	Date Analyzed:	08/15/2015	441h										
Test Code:	200.7-W	Date Prepared:	08/14/2015	2142h									
Calcium	120	mg/L	E200.7	0.401	10.0	10.00	114	59.1	70 - 130				2
Sodium	62.7	mg/L	E200.7	0.330	10.0	10.00	54.8	78.4	70 - 130				
Lab Sample ID: 1508300-001CMS	Date Analyzed:	08/15/2015	208h										
Test Code:	200.8-DIS	Date Prepared:	08/14/2015	2142h									
Antimony	0.183	mg/L	E200.8	0.0000366	0.00200	0.2000	0.00104	90.9	75 - 125				
Arsenic	0.205	mg/L	E200.8	0.0000920	0.00200	0.2000	0.00233	101	75 - 125				
Barium	0.347	mg/L	E200.8	0.000538	0.00200	0.2000	0.157	94.8	75 - 125				
Beryllium	0.200	mg/L	E200.8	0.0000288	0.00200	0.2000	0.0000429	100	75 - 125				
Cadmium	0.190	mg/L	E200.8	0.000193	0.000500	0.2000	0	95.2	75 - 125				
Chromium	0.187	mg/L	E200.8	0.00154	0.00200	0.2000	0	93.6	75 - 125				



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QC SUMMARY REPORT

Client: Utah Division of Water Quality

Contact: Lenora Sullivan

Lab Set ID: 1508300

Dept: ME

Project: Gold King Mine - San Juan River Sampling

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: 1508300-001CMS	Date Analyzed:	08/15/2015 208h											
Test Code:	200.8-DIS	Date Prepared:	08/14/2015 2142h										
Cobalt	0.185	mg/L	E200.8	0.0000434	0.00400	0.2000	0.000236	92.6	75 - 125				
Copper	0.197	mg/L	E200.8	0.000692	0.00200	0.2000	0.00586	95.5	75 - 125				
Lead	0.191	mg/L	E200.8	0.000264	0.00200	0.2000	0	95.3	75 - 125				
Manganese	0.189	mg/L	E200.8	0.00153	0.00200	0.2000	0.00243	93.1	75 - 125				
Molybdenum	0.198	mg/L	E200.8	0.000206	0.00200	0.2000	0.00587	96.2	75 - 125				
Nickel	0.185	mg/L	E200.8	0.000754	0.00200	0.2000	0.00175	91.8	75 - 125				
Selenium	0.201	mg/L	E200.8	0.0000634	0.00200	0.2000	0.00156	99.7	75 - 125				
Silver	0.188	mg/L	E200.8	0.0000244	0.00200	0.2000	0.000152	93.9	75 - 125				
Thallium	0.186	mg/L	E200.8	0.0000242	0.00200	0.2000	0.000182	93.1	75 - 125				
Vanadium	0.200	mg/L	E200.8	0.000438	0.00440	0.2000	0.00806	95.7	75 - 125				
Zinc	1.01	mg/L	E200.8	0.00476	0.00500	1.000	0	101	75 - 125				
Lab Sample ID: 1508300-004BMS	Date Analyzed:	08/15/2015 304h											
Test Code:	200.8-W	Date Prepared:	08/14/2015 2142h										
Antimony	0.0382	mg/L	E200.8	0.0000366	0.00200	0.2000	0.000413	18.9	75 - 125				1
Arsenic	0.177	mg/L	E200.8	0.0000920	0.00200	0.2000	0.0125	82.2	75 - 125				
Barium	1.11	mg/L	E200.8	0.000538	0.00200	0.2000	0.918	93.9	75 - 125				
Beryllium	0.198	mg/L	E200.8	0.0000288	0.00200	0.2000	0.00489	96.7	75 - 125				
Cadmium	0.195	mg/L	E200.8	0.000193	0.000500	0.2000	0.000984	96.9	75 - 125				
Chromium	0.208	mg/L	E200.8	0.00154	0.00200	0.2000	0.0237	92.2	75 - 125				
Cobalt	0.214	mg/L	E200.8	0.0000434	0.00400	0.2000	0.0271	93.3	75 - 125				
Copper	0.256	mg/L	E200.8	0.000692	0.00200	0.2000	0.0705	92.8	75 - 125				
Lead	0.256	mg/L	E200.8	0.000264	0.00200	0.2000	0.0643	96.1	75 - 125				
Manganese	1.56	mg/L	E200.8	0.00153	0.00200	0.2000	1.36	99.0	75 - 125				
Molybdenum	0.0979	mg/L	E200.8	0.000206	0.00200	0.2000	0.000772	48.5	75 - 125				1
Nickel	0.222	mg/L	E200.8	0.000754	0.00200	0.2000	0.0345	93.9	75 - 125				
Selenium	0.162	mg/L	E200.8	0.0000634	0.00200	0.2000	0.00132	80.4	75 - 125				
Silver	0.191	mg/L	E200.8	0.0000244	0.00200	0.2000	0.00038	95.3	75 - 125				
Thallium	0.180	mg/L	E200.8	0.0000242	0.00200	0.2000	0.000706	89.5	75 - 125				



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1508300
Project: Gold King Mine - San Juan River Sampling

Contact: Lenora Sullivan
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: 1508300-004BMS	Date Analyzed:	08/15/2015	304h										
Test Code:	200.8-W	Date Prepared:	08/14/2015	2142h									
Vanadium	0.243	mg/L	E200.8	0.000438	0.00440	0.2000	0.06	91.5	75 - 125				
Zinc	1.16	mg/L	E200.8	0.00476	0.00500	1.000	0.197	96.7	75 - 125				
Lab Sample ID: 1508300-004BMS	Date Analyzed:	08/15/2015	748h										
Test Code:	HG-DW-245.1	Date Prepared:	08/14/2015	2207h									
Mercury	0.00358	mg/L	E245.1	0.00000892	0.000150	0.003330	0.000148	103	80 - 120				
Lab Sample ID: 1508300-003CMS	Date Analyzed:	08/15/2015	813h										
Test Code:	HG-DW-DIS-245.1	Date Prepared:	08/14/2015	2207h									
Mercury	0.00334	mg/L	E245.1	0.00000892	0.000150	0.003330	0	100	85 - 115				

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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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1508300
Project: Gold King Mine - San Juan River Sampling

Contact: Lenora Sullivan
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: 1508300-001CMSD													
Date Analyzed:	08/15/2015 504h												
Test Code:	200.7-DIS												
Date Prepared:	08/14/2015 2142h												
Sodium	74.3	mg/L	E200.7	0.330	10.0	10.00	68	62.5	70 - 130	73.9	0.538	20	2
Lab Sample ID: 1508300-001CMSD													
Date Analyzed:	08/15/2015 531h												
Test Code:	200.7-DIS												
Date Prepared:	08/14/2015 2142h												
Aluminum	1.09	mg/L	E200.7	0.0237	0.100	1.000	0.12	97.2	70 - 130	1.12	2.32	20	
Calcium	53.9	mg/L	E200.7	0.0401	1.00	10.00	46.2	76.6	70 - 130	55.5	2.85	20	
Iron	0.971	mg/L	E200.7	0.0767	0.100	1.000	0	97.1	70 - 130	0.988	1.75	20	
Magnesium	20.0	mg/L	E200.7	0.0294	1.00	10.00	10.5	94.9	70 - 130	20.4	2.14	20	
Potassium	14.0	mg/L	E200.7	0.247	1.00	10.00	4.29	97.1	70 - 130	14.2	1.67	20	
Lab Sample ID: 1508300-004BMSD													
Date Analyzed:	08/15/2015 416h												
Test Code:	200.7-W												
Date Prepared:	08/14/2015 2142h												
Aluminum	48.8	mg/L	E200.7	0.0237	0.100	1.000	44.3	450	70 - 130	53.2	8.60	20	2
Iron	40.2	mg/L	E200.7	0.0767	0.100	1.000	39.1	109	70 - 130	43.6	8.15	20	
Magnesium	32.2	mg/L	E200.7	0.0294	1.00	10.00	22.4	97.8	70 - 130	33.5	3.98	20	
Potassium	20.2	mg/L	E200.7	0.247	1.00	10.00	10.4	97.4	70 - 130	21	4.21	20	
Lab Sample ID: 1508300-004BMSD													
Date Analyzed:	08/15/2015 443h												
Test Code:	200.7-W												
Date Prepared:	08/14/2015 2142h												
Calcium	118	mg/L	E200.7	0.401	10.0	10.00	114	37.2	70 - 130	120	1.84	20	2
Sodium	61.6	mg/L	E200.7	0.330	10.0	10.00	54.8	68.0	70 - 130	62.7	1.66	20	2
Lab Sample ID: 1508300-001CMSD													
Date Analyzed:	08/15/2015 212h												
Test Code:	200.8-DIS												
Date Prepared:	08/14/2015 2142h												
Antimony	0.182	mg/L	E200.8	0.0000366	0.00200	0.2000	0.00104	90.6	75 - 125	0.183	0.389	20	
Arsenic	0.205	mg/L	E200.8	0.0000920	0.00200	0.2000	0.00233	101	75 - 125	0.205	0.0468	20	
Barium	0.344	mg/L	E200.8	0.000538	0.00200	0.2000	0.157	93.7	75 - 125	0.347	0.635	20	
Beryllium	0.199	mg/L	E200.8	0.0000288	0.00200	0.2000	0.0000429	99.6	75 - 125	0.2	0.448	20	
Cadmium	0.191	mg/L	E200.8	0.000193	0.000500	0.2000	0	95.4	75 - 125	0.19	0.188	20	
Chromium	0.189	mg/L	E200.8	0.00154	0.00200	0.2000	0	94.4	75 - 125	0.187	0.856	20	



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QC SUMMARY REPORT

Client: Utah Division of Water Quality

Contact: Lenora Sullivan

Lab Set ID: 1508300

Dept: ME

Project: Gold King Mine - San Juan River Sampling

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: 1508300-001CMSD		Date Analyzed:	08/15/2015 212h										
Test Code: 200.8-DIS		Date Prepared:	08/14/2015 2142h										
Cobalt	0.187	mg/L	E200.8	0.0000434	0.00400	0.2000	0.000236	93.2	75 - 125	0.185	0.619	20	
Copper	0.197	mg/L	E200.8	0.000692	0.00200	0.2000	0.00586	95.4	75 - 125	0.197	0.0914	20	
Lead	0.190	mg/L	E200.8	0.000264	0.00200	0.2000	0	95.0	75 - 125	0.191	0.346	20	
Manganese	0.189	mg/L	E200.8	0.00153	0.00200	0.2000	0.00243	93.1	75 - 125	0.189	0.00146	20	
Molybdenum	0.198	mg/L	E200.8	0.000206	0.00200	0.2000	0.00587	96.3	75 - 125	0.198	0.118	20	
Nickel	0.188	mg/L	E200.8	0.000754	0.00200	0.2000	0.00175	93.0	75 - 125	0.185	1.30	20	
Selenium	0.200	mg/L	E200.8	0.0000634	0.00200	0.2000	0.00156	99.2	75 - 125	0.201	0.463	20	
Silver	0.187	mg/L	E200.8	0.0000244	0.00200	0.2000	0.000152	93.4	75 - 125	0.188	0.456	20	
Thallium	0.187	mg/L	E200.8	0.0000242	0.00200	0.2000	0.000182	93.3	75 - 125	0.186	0.179	20	
Vanadium	0.202	mg/L	E200.8	0.000438	0.00440	0.2000	0.00806	96.7	75 - 125	0.2	1.01	20	
Zinc	1.02	mg/L	E200.8	0.00476	0.00500	1.000	0	102	75 - 125	1.01	0.363	20	
Lab Sample ID: 1508300-004BMSD		Date Analyzed:	08/15/2015 317h										
Test Code: 200.8-W		Date Prepared:	08/14/2015 2142h										
Antimony	0.0384	mg/L	E200.8	0.0000366	0.00200	0.2000	0.000413	19.0	75 - 125	0.0382	0.412	20	1
Arsenic	0.173	mg/L	E200.8	0.0000920	0.00200	0.2000	0.0125	80.4	75 - 125	0.177	2.07	20	
Barium	1.08	mg/L	E200.8	0.000538	0.00200	0.2000	0.918	79.3	75 - 125	1.11	2.68	20	
Beryllium	0.195	mg/L	E200.8	0.0000288	0.00200	0.2000	0.00489	95.3	75 - 125	0.198	1.50	20	
Cadmium	0.191	mg/L	E200.8	0.000193	0.000500	0.2000	0.000984	95.1	75 - 125	0.195	1.81	20	
Chromium	0.202	mg/L	E200.8	0.00154	0.00200	0.2000	0.0237	89.3	75 - 125	0.208	2.80	20	
Cobalt	0.209	mg/L	E200.8	0.0000434	0.00400	0.2000	0.0271	90.9	75 - 125	0.214	2.27	20	
Copper	0.248	mg/L	E200.8	0.000692	0.00200	0.2000	0.0705	88.6	75 - 125	0.256	3.31	20	
Lead	0.250	mg/L	E200.8	0.000264	0.00200	0.2000	0.0643	92.8	75 - 125	0.256	2.60	20	
Manganese	1.51	mg/L	E200.8	0.00153	0.00200	0.2000	1.36	75.3	75 - 125	1.56	3.08	20	
Molybdenum	0.0957	mg/L	E200.8	0.000206	0.00200	0.2000	0.000772	47.5	75 - 125	0.0979	2.23	20	1
Nickel	0.218	mg/L	E200.8	0.000754	0.00200	0.2000	0.0345	91.6	75 - 125	0.222	2.08	20	
Selenium	0.156	mg/L	E200.8	0.0000634	0.00200	0.2000	0.00132	77.3	75 - 125	0.162	3.86	20	
Silver	0.188	mg/L	E200.8	0.0000244	0.00200	0.2000	0.00038	93.9	75 - 125	0.191	1.49	20	
Thallium	0.176	mg/L	E200.8	0.0000242	0.00200	0.2000	0.000706	87.5	75 - 125	0.18	2.22	20	



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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: 1508300

Project: Gold King Mine - San Juan River Sampling

Contact: Lenora Sullivan

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: 1508300-004BMSD	Date Analyzed:	08/15/2015	317h										
Test Code:	200.8-W	Date Prepared:	08/14/2015	2142h									
Vanadium	0.239	mg/L	E200.8	0.000438	0.00440	0.2000	0.06	89.7	75 - 125	0.243	1.50	20	
Zinc	1.14	mg/L	E200.8	0.00476	0.00500	1.000	0.197	94.4	75 - 125	1.16	2.00	20	
Lab Sample ID: 1508300-004BMSD	Date Analyzed:	08/15/2015	750h										
Test Code:	HG-DW-245.1	Date Prepared:	08/14/2015	2207h									
Mercury	0.00349	mg/L	E245.1	0.00000892	0.000150	0.003330	0.000148	100	80 - 120	0.00358	2.45	20	
Lab Sample ID: 1508300-003CMSD	Date Analyzed:	08/15/2015	815h										
Test Code:	HG-DW-DIS-245.1	Date Prepared:	08/14/2015	2207h									
Mercury	0.00320	mg/L	E245.1	0.00000892	0.000150	0.003330	0	96.2	85 - 115	0.00334	3.98	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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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1508300
Project: Gold King Mine - San Juan River Sampling

Contact: Lenora Sullivan
Dept: WC
QC Type: DUP

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1508300-001ADUP Date Analyzed: 08/15/2015 542h													
Test Code: COND-W-2510B													
Conductivity	653	µmhos/cm	SM2510B	0.436	2.00					659	0.915	5	
Lab Sample ID: 1508300-005ADUP Date Analyzed: 08/14/2015 2003h													
Test Code: PH-4500H+B													
pH @ 25° C	8.19	pH Units	SM4500-H+B	1.00	1.00					8.21	0.244	5	
Lab Sample ID: 1508300-002ADUP Date Analyzed: 08/14/2015 2040h													
Test Code: TDS-W-2540C													
Total Dissolved Solids	460	mg/L	SM2540C	30.6	50.0					630	31.2	5	@
Lab Sample ID: 1508300-002ADUP Date Analyzed: 08/14/2015 2020h													
Test Code: TSS-W-2540D													
Total Suspended Solids	6,640	mg/L	SM2540D	142	150					6580	0.908	5	

@ - High RPD due to suspected sample non-homogeneity or matrix interference.



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1508300
Project: Gold King Mine - San Juan River Sampling

Contact: Lenora Sullivan
Dept: WC
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-R81699 Date Analyzed: 08/14/2015 2139h													
Test Code: 300.0-W													
Chloride	4.90	mg/L	E300.0	0.00751	0.100	5.000	0	97.9	90 - 110				
Sulfate	4.81	mg/L	E300.0	0.0211	0.750	5.000	0	96.2	90 - 110				
Lab Sample ID: LCS-R81685 Date Analyzed: 08/15/2015 606h													
Test Code: ALK-W-2320B													
Alkalinity (as CaCO3)	49,900	mg/L	SM2320B	1.86	10.0	50,000	0	99.7	90 - 110				
Lab Sample ID: LCS-R81679 Date Analyzed: 08/15/2015 542h													
Test Code: COND-W-2510B													
Conductivity	1,000	µmhos/cm	SM2510B	0.436	2.00	1,000	0	100	98 - 102				
Lab Sample ID: LCS-R81674 Date Analyzed: 08/14/2015 2330h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	0.975	mg/L	E353.2	0.00833	0.0100	1.000	0	97.5	90 - 110				
Lab Sample ID: LCS-R81690 Date Analyzed: 08/14/2015 2003h													
Test Code: PH-4500H+B													
pH @ 25° C	9.01	pH Units	SM4500-H+B	1.00	1.00	9.000	0	100	98 - 102				
Lab Sample ID: LCS-38587 Date Analyzed: 08/15/2015 1031h													
Test Code: PO4-W-4500PF Date Prepared: 08/15/2015 750h													
Phosphate, Total (as P)	0.998	mg/L	SM4500-P-F	0.0212	0.0500	1.000	0	99.8	90 - 110				
Lab Sample ID: LCS-R81698 Date Analyzed: 08/14/2015 2040h													
Test Code: TDS-W-2540C													
Total Dissolved Solids	214	mg/L	SM2540C	6.13	10.0	205.0	0	104	80 - 120				
Lab Sample ID: LCS-R81702 Date Analyzed: 08/14/2015 2020h													
Test Code: TSS-W-2540D													
Total Suspended Solids	95.0	mg/L	SM2540D	2.83	3.00	100.0	0	95.0	80 - 120				



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QC SUMMARY REPORT

Client: Utah Division of Water Quality

Lab Set ID: 1508300

Project: Gold King Mine - San Juan River Sampling

Contact: Lenora Sullivan

Dept: WC

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-R81699 Date Analyzed: 08/14/2015 2122h													
Test Code: 300.0-W													
Chloride	< 0.100	mg/L	E300.0	0.00751	0.100								U
Sulfate	< 0.750	mg/L	E300.0	0.0211	0.750								U
Lab Sample ID: MB-R81685 Date Analyzed: 08/15/2015 606h													
Test Code: ALK-W-2320B													
Alkalinity (as CaCO3)	< 10.0	mg/L	SM2320B	1.86	10.0								U
Bicarbonate (as CaCO3)	< 10.0	mg/L	SM2320B	1.86	10.0								U
Carbonate (as CaCO3)	< 10.0	mg/L	SM2320B	1.86	10.0								U
Lab Sample ID: MB-R81679 Date Analyzed: 08/15/2015 542h													
Test Code: COND-W-2510B													
Conductivity	< 2.00	µmhos/cm	SM2510B	0.436	2.00								U
Lab Sample ID: MB-R81674 Date Analyzed: 08/14/2015 2329h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	< 0.0100	mg/L	E353.2	0.00833	0.0100								U
Lab Sample ID: MB-38587 Date Analyzed: 08/15/2015 1031h													
Test Code: PO4-W-4500PF Date Prepared: 08/15/2015 750h													
Phosphate, Total (as P)	< 0.0500	mg/L	SM4500-P-F	0.0212	0.0500								U
Lab Sample ID: MB-R81698 Date Analyzed: 08/14/2015 2040h													
Test Code: TDS-W-2540C													
Total Dissolved Solids	< 10.0	mg/L	SM2540C	6.13	10.0								U
Lab Sample ID: MB-R81702 Date Analyzed: 08/14/2015 2020h													
Test Code: TSS-W-2540D													
Total Suspended Solids	< 3.00	mg/L	SM2540D	2.83	3.00								U

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



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1508300
Project: Gold King Mine - San Juan River Sampling

Contact: Lenora Sullivan
Dept: WC
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: 1508300-001AMS													
Date Analyzed: 08/14/2015 2212h													
Test Code: 300.0-W													
Chloride	61.6	mg/L	E300.0	0.0751	1.00	50.00	12.7	97.8	90 - 110				
Sulfate	221	mg/L	E300.0	0.211	7.50	50.00	173	95.3	90 - 110				
Lab Sample ID: 1508300-001AMS													
Date Analyzed: 08/15/2015 606h													
Test Code: ALK-W-2320B													
Alkalinity (as CaCO3)	228	mg/L	SM2320B	1.86	10.0	100.0	127	101	80 - 120				
Lab Sample ID: 1508300-005AMS													
Date Analyzed: 08/14/2015 2340h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	9.86	mg/L	E353.2	0.0833	0.100	10.00	0.539	93.2	90 - 110				
Lab Sample ID: 1508300-001DMS													
Date Analyzed: 08/15/2015 1044h													
Test Code: PO4-W-4500PF													
Date Prepared: 08/15/2015 750h													
Phosphate, Total (as P)	10.6	mg/L	SM4500-P-F	0.106	0.250	1.000	8.98	158	90 - 110				²

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



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1508300
Project: Gold King Mine - San Juan River Sampling

Contact: Lenora Sullivan
Dept: WC
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: 1508300-001AMSD													
Date Analyzed: 08/14/2015 2229h													
Test Code: 300.0-W													
Chloride	60.9	mg/L	E300.0	0.0751	1.00	50.00	12.7	96.4	90 - 110	61.6	1.17	20	
Sulfate	219	mg/L	E300.0	0.211	7.50	50.00	173	90.6	90 - 110	221	1.08	20	
Lab Sample ID: 1508300-001AMSD													
Date Analyzed: 08/15/2015 606h													
Test Code: ALK-W-2320B													
Alkalinity (as CaCO ₃)	232	mg/L	SM2320B	1.86	10.0	100.0	127	105	80 - 120	228	1.44	10	
Lab Sample ID: 1508300-005AMSD													
Date Analyzed: 08/14/2015 2342h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	9.62	mg/L	E353.2	0.0833	0.100	10.00	0.539	90.9	90 - 110	9.86	2.37	10	
Lab Sample ID: 1508300-001DMSD													
Date Analyzed: 08/15/2015 1045h													
Test Code: PO4-W-4500PF													
Date Prepared: 08/15/2015 750h													
Phosphate, Total (as P)	10.7	mg/L	SM4500-P-F	0.106	0.250	1.000	8.98	172	90 - 110	10.6	1.32	10	²

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

The collection time for sample 1508300-004 has been corrected. MC

GenericEDD_QC

WORK ORDER Summary

Work Order: **1508300** Page 1 of 5

Client: Utah Division of Water Quality
Client ID: UTD200
Project: Gold King Mine - San Juan River Sampling
Comments: Same Day Rush. QC2+. Dissolved metals need to be lab filtered. Evaluated down to the MDL. Use sparingly, do not preserve entire sample. Include EDD. CC: Jim Harris and Trisha Johnson;

Contact: Lenora Sullivan
QC Level: II+ MDL
WO Type: Standard
Due Date: 8/17/2015

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage
1508300-001A	San Juan R at Mexican Hat US163 Xing (4953000)	8/14/2015 1143h	8/14/2015 2000h	300.0-W	Aqueous	<input checked="" type="checkbox"/>	df - wc
				<i>2 SEL Analytes: CL SO4</i>			
				ALK-W-2320B		<input checked="" type="checkbox"/>	df - wc
				<i>3 SEL Analytes: ALK ALKB ALKC</i>			
				COND-W-2510B		<input type="checkbox"/>	df - wc
				NO2/NO3-W-353.2		<input type="checkbox"/>	df - wc
				PH-4500H+B		<input type="checkbox"/>	df - wc
				TDS-W-2540C		<input type="checkbox"/>	df - wc
				TSS-W-2540D		<input type="checkbox"/>	df - wc
1508300-001B				200.7-W		<input checked="" type="checkbox"/>	df - total metals
				<i>6 SEL Analytes: AL CA FE MG K NA</i>			
				200.7-W-PR		<input type="checkbox"/>	df - total metals
				200.8-W		<input checked="" type="checkbox"/>	df - total metals
				<i>17 SEL Analytes: SB AS BA BE CD CR CO CU PB MN MO NI SE AG TL V ZN</i>			
				200.8-W-PR		<input type="checkbox"/>	df - total metals
				HARD-2340B		<input type="checkbox"/>	df - total metals
				HG-DW-245.1		<input type="checkbox"/>	df - total metals
				HG-DW-PR		<input type="checkbox"/>	df - total metals
1508300-001C				200.7-DIS		<input checked="" type="checkbox"/>	df - dis metals
				<i>6 SEL Analytes: AL CA FE MG K NA</i>			
				200.7-DIS-PR		<input type="checkbox"/>	df - dis metals
				200.8-DIS		<input checked="" type="checkbox"/>	df - dis metals
				<i>17 SEL Analytes: SB AS BA BE CD CR CO CU PB MN MO NI SE AG TL V ZN</i>			
				200.8-DIS-PR		<input type="checkbox"/>	df - dis metals
				FILTER-PR		<input type="checkbox"/>	df - dis metals

WORK ORDER Summary

Work Order: **1508300** Page 2 of 5

Client: Utah Division of Water Quality

Due Date: 8/17/2015

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage			
1508300-001C	San Juan R at Mexican Hat US163 Xing (4953000)	8/14/2015 1143h	8/14/2015 2000h	HARD-2340B	Aqueous	<input checked="" type="checkbox"/>	df - dis metals	2		
				<i>1 SEL Analytes: HARD</i>						
				HG-DW-DIS-245.1		<input type="checkbox"/>	df - dis metals			
				HG-DW-DIS-PR		<input type="checkbox"/>	df - dis metals			
1508300-001D				PO4-W-4500PF		<input type="checkbox"/>	df -po4, no2/no3	1		
				PO4-W-PR		<input type="checkbox"/>	df -po4, no2/no3			
1508300-002A	San Juan R at Sand Island (4953250)	8/14/2015 1102h	8/14/2015 2000h	300.0-W	Aqueous	<input checked="" type="checkbox"/>	df - wc	1		
				<i>2 SEL Analytes: CL SO4</i>						
				ALK-W-2320B		<input checked="" type="checkbox"/>	df - wc			
				<i>3 SEL Analytes: ALK ALKB ALKC</i>						
				COND-W-2510B		<input type="checkbox"/>	df - wc			
				NO2/NO3-W-353.2		<input type="checkbox"/>	df - wc			
				PH-4500H+B		<input type="checkbox"/>	df - wc			
				TDS-W-2540C		<input type="checkbox"/>	df - wc			
1508300-002B					TSS-W-2540D		<input type="checkbox"/>	df - wc		
					200.7-W		<input checked="" type="checkbox"/>	df - total metals		
					<i>6 SEL Analytes: AL CA FE MG K NA</i>					
					200.7-W-PR		<input type="checkbox"/>	df - total metals		
					200.8-W		<input checked="" type="checkbox"/>	df - total metals		
					<i>17 SEL Analytes: SB AS BA BE CD CR CO CU PB MN MO NI SE AG TL V ZN</i>					
				200.8-W-PR		<input type="checkbox"/>	df - total metals			
				HARD-2340B		<input type="checkbox"/>	df - total metals			
				HG-DW-245.1		<input type="checkbox"/>	df - total metals			
				HG-DW-PR		<input type="checkbox"/>	df - total metals			
1508300-002C					200.7-DIS		<input checked="" type="checkbox"/>	df - dis metals	2	
					<i>6 SEL Analytes: AL CA FE MG K NA</i>					
					200.7-DIS-PR		<input type="checkbox"/>	df - dis metals		
					200.8-DIS		<input checked="" type="checkbox"/>	df - dis metals		
					<i>17 SEL Analytes: SB AS BA BE CD CR CO CU PB MN MO NI SE AG TL V ZN</i>					
					200.8-DIS-PR		<input type="checkbox"/>	df - dis metals		
				FILTER-PR		<input type="checkbox"/>	df - dis metals			
				HARD-2340B		<input checked="" type="checkbox"/>	df - dis metals			
				<i>1 SEL Analytes: HARD</i>						
				HG-DW-DIS-245.1		<input type="checkbox"/>	df - dis metals			
				HG-DW-DIS-PR		<input type="checkbox"/>	df - dis metals			
1508300-002D				PO4-W-4500PF		<input type="checkbox"/>	df -po4, no2/no3	1		

WORK ORDER Summary

Client: Utah Division of Water Quality

Due Date: 8/17/2015

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage	
1508300-002D	San Juan R at Sand Island (4953250)	8/14/2015 1102h	8/14/2015 2000h	PO4-W-PR	Aqueous	<input type="checkbox"/>	df -po4, no2/no3	1
1508300-003A	San Juan River at Town of Montezuma (4953990)	8/14/2015 0955h	8/14/2015 2000h	300.0-W	Aqueous	<input checked="" type="checkbox"/>	df - wc	1
				2 SEL Analytes: CL SO4				
				ALK-W-2320B		<input checked="" type="checkbox"/>	df - wc	
				3 SEL Analytes: ALK ALKB ALKC				
				COND-W-2510B		<input type="checkbox"/>	df - wc	
				NO2/NO3-W-353.2		<input type="checkbox"/>	df - wc	
				PH-4500H+B		<input type="checkbox"/>	df - wc	
				TDS-W-2540C		<input type="checkbox"/>	df - wc	
				TSS-W-2540D		<input type="checkbox"/>	df - wc	
1508300-003B				200.7-W		<input checked="" type="checkbox"/>	df - total metals	
				6 SEL Analytes: AL CA FE MG K NA				
				200.7-W-PR		<input type="checkbox"/>	df - total metals	
				200.8-W		<input checked="" type="checkbox"/>	df - total 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		<input type="checkbox"/>	df - total metals	
				HARD-2340B		<input type="checkbox"/>	df - total metals	
				HG-DW-245.1		<input type="checkbox"/>	df - total metals	
				HG-DW-PR		<input type="checkbox"/>	df - total metals	
1508300-003C				200.7-DIS		<input checked="" type="checkbox"/>	df - dis metals	2
				6 SEL Analytes: AL CA FE MG K NA				
				200.7-DIS-PR		<input type="checkbox"/>	df - dis metals	
				200.8-DIS		<input checked="" type="checkbox"/>	df - dis metals	
				17 SEL Analytes: SB AS BA BE CD CR CO CU PB MN MO NI SE AG TL V ZN				
				200.8-DIS-PR		<input type="checkbox"/>	df - dis metals	
				FILTER-PR		<input type="checkbox"/>	df - dis metals	
				HARD-2340B		<input checked="" type="checkbox"/>	df - dis metals	
				1 SEL Analytes: HARD				
				HG-DW-DIS-245.1		<input type="checkbox"/>	df - dis metals	
				HG-DW-DIS-PR		<input type="checkbox"/>	df - dis metals	
1508300-003D				PO4-W-4500PF		<input type="checkbox"/>	df -po4, no2/no3	1
				PO4-W-PR		<input type="checkbox"/>	df -po4, no2/no3	
1508300-004A	San Juan R at US160 Xing in CO (4954000)	8/14/2015 0850h	8/14/2015 2000h	300.0-W	Aqueous	<input checked="" type="checkbox"/>	df - wc	1
				2 SEL Analytes: CL SO4				
				ALK-W-2320B		<input checked="" type="checkbox"/>	df - wc	
				3 SEL Analytes: ALK ALKB ALKC				

WORK ORDER Summary

Work Order: **1508300** Page 4 of 5

Client: Utah Division of Water Quality

Due Date: 8/17/2015

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage			
1508300-004A	San Juan R at US160 Xing in CO (4954000)	8/14/2015 0850h	8/14/2015 2000h	COND-W-2510B	Aqueous	<input type="checkbox"/>	df - wc	1		
				NO2/NO3-W-353.2		<input type="checkbox"/>	df - wc			
				PH-4500H+B		<input type="checkbox"/>	df - wc			
				TDS-W-2540C		<input type="checkbox"/>	df - wc			
				TSS-W-2540D		<input type="checkbox"/>	df - wc			
1508300-004B				200.7-W		<input checked="" type="checkbox"/>	df - total metals			
				<i>6 SEL Analytes: AL CA FE MG K NA</i>						
				200.7-W-PR		<input type="checkbox"/>	df - total metals			
				200.8-W		<input checked="" type="checkbox"/>	df - total metals			
				<i>17 SEL Analytes: SB AS BA BE CD CR CO CU PB MN MO NI SE AG TL V ZN</i>						
				200.8-W-PR		<input type="checkbox"/>	df - total metals			
				HARD-2340B		<input type="checkbox"/>	df - total metals			
				HG-DW-245.1		<input type="checkbox"/>	df - total metals			
				HG-DW-PR		<input type="checkbox"/>	df - total metals			
				1508300-004C				200.7-DIS		<input checked="" type="checkbox"/>
<i>6 SEL Analytes: AL CA FE MG K NA</i>										
200.7-DIS-PR		<input type="checkbox"/>	df - dis metals							
200.8-DIS		<input checked="" type="checkbox"/>	df - dis metals							
<i>17 SEL Analytes: SB AS BA BE CD CR CO CU PB MN MO NI SE AG TL V ZN</i>										
200.8-DIS-PR		<input type="checkbox"/>	df - dis metals							
FILTER-PR		<input type="checkbox"/>	df - dis metals							
HARD-2340B		<input checked="" type="checkbox"/>	df - dis metals							
<i>1 SEL Analytes: HARD</i>										
HG-DW-DIS-245.1		<input type="checkbox"/>	df - dis metals							
1508300-004D				HG-DW-DIS-PR		<input type="checkbox"/>	df - dis metals			
				PO4-W-4500PF		<input type="checkbox"/>	df -po4, no2/no3	1		
				PO4-W-PR		<input type="checkbox"/>	df -po4, no2/no3			
1508300-005A	San Juan R at Clay Hills	8/14/2015 1433h	8/14/2015 2000h	300.0-W	Aqueous	<input checked="" type="checkbox"/>	df - wc	1		
				<i>2 SEL Analytes: CL SO4</i>						
				ALK-W-2320B		<input checked="" type="checkbox"/>	df - wc			
				<i>3 SEL Analytes: ALK ALKB ALKC</i>						
				COND-W-2510B		<input type="checkbox"/>	df - wc			
				NO2/NO3-W-353.2		<input type="checkbox"/>	df - wc			
				PH-4500H+B		<input type="checkbox"/>	df - wc			
TDS-W-2540C		<input type="checkbox"/>	df - wc							
TSS-W-2540D		<input type="checkbox"/>	df - wc							

WORK ORDER Summary

Work Order: **1508300** Page 5 of 5

Client: Utah Division of Water Quality

Due Date: 8/17/2015

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage			
1508300-005B	San Juan R at Clay Hills	8/14/2015 1433h	8/14/2015 2000h	200.7-W	Aqueous	<input checked="" type="checkbox"/>	df - total metals	1		
				<i>6 SEL Analytes: AL CA FE MG K NA</i>						
				200.7-W-PR		<input type="checkbox"/>	df - total metals			
				200.8-W		<input checked="" type="checkbox"/>	df - total metals			
				<i>17 SEL Analytes: SB AS BA BE CD CR CO CU PB MN MO NI SE AG TL V ZN</i>						
				200.8-W-PR		<input type="checkbox"/>	df - total metals			
				HARD-2340B		<input type="checkbox"/>	df - total metals			
				HG-DW-245.1		<input type="checkbox"/>	df - total metals			
1508300-005C				HG-DW-PR		<input type="checkbox"/>	df - total metals			
				200.7-DIS		<input checked="" type="checkbox"/>	df - dis metals	2		
				<i>6 SEL Analytes: AL CA FE MG K NA</i>						
				200.7-DIS-PR		<input type="checkbox"/>	df - dis metals			
				200.8-DIS		<input checked="" type="checkbox"/>	df - dis metals			
				<i>17 SEL Analytes: SB AS BA BE CD CR CO CU PB MN MO NI SE AG TL V ZN</i>						
				200.8-DIS-PR		<input type="checkbox"/>	df - dis metals			
				FILTER-PR		<input type="checkbox"/>	df - dis metals			
1508300-005D				HARD-2340B		<input checked="" type="checkbox"/>	df - dis metals			
				<i>1 SEL Analytes: HARD</i>						
				HG-DW-DIS-245.1		<input type="checkbox"/>	df - dis metals			
				HG-DW-DIS-PR		<input type="checkbox"/>	df - dis metals			
				PO4-W-4500PF		<input type="checkbox"/>	df -po4, no2/no3	1		
				PO4-W-PR		<input type="checkbox"/>	df -po4, no2/no3			

