STATE OF COLORADO

Lennberg - DNR, Patrick <patrick.lennberg@state.co.us>

Complaint Recieved (CT3), Cross Gold Mine, M1977-410

Rmittasch@nedmining.com <Rmittasch@nedmining.com> Tue, Sep 13, 2022 at 12:08 PM
To: "Lennberg - DNR, Patrick" <patrick.lennberg@state.co.us>, Daniel Takami <danieltakami@gmail.com>

Patrick

There is currently no material leaving the site, nor is there any active dumping anywhere.

the complaint speaks of hazardous water coming from the mine, our test results are coming back fantastic. Lab data is showing better than reportable levels on our metals.

Please review the attached, and I hope this answers the complaint.

Kind Regards,

Richard Mittasch, Vice President

Nederland Mining Consultants, Inc.

Phone: 720-893-3749

Mobile: 516 582-0833

Email: Rmittasch@nedmining.com

4415 Caribou Rd, PO Box 3395, Nederland, CO 80466

[Quoted text hidden]

2 attachments

J165744-1 UDS Level 2 Report Final Report.pdf
841K

J165253-1 UDS Level 2 Report Final Report.pdf
922K

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

Laboratory Job ID: 280-165253-1
Client Project/Site: Wastewater Discharge - Nederland, CO

For:
GS Mining Company LLC
422 Gregory Street
Central City, Colorado 80427

Attn: Patrick Delaney

Authorized for release by:
8/19/2022 11:03:08 AM

Dylan Bieniulis, Project Manager I
(303)736-0138
Dylan.Bieniulis@et.eurofinsus.com

Table of Contents

Definitions/Glossary

Client: GS Mining Company LLC
Job ID: 280-165253-1
Project/Site: Wastewater Discharge - Nederland, CO

Qualifiers

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 280-165253-1

Laboratory: Eurofins Denver

Narrative

CASE NARRATIVE

Client: GS Mining Company LLC

Project: Wastewater Discharge - Nederland, CO

Report Number: 280-165253-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT
The samples were received on 08/08/2022; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 8.5 C.

Receipt temperature is considered acceptable as the samples were collected and submitted to the laboratory on the same date.

TOTAL RECOVERABLE METALS (ICP)
Sample OUTFALL-001 (280-165253-1) was analyzed for Total Recoverable Metals (ICP) in accordance with EPA Method 200.7. The samples were prepared on 08/09/2022 and analyzed on 08/10/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

POTENTIALLY DISSOLVED METALS (ICPMS)
Sample OUTFALL-001 (280-165253-1) was analyzed for potentially dissolved metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared on 08/15/2022 and 08/18/2022 and analyzed on 08/16/2022 and 08/18/2022.

Lead and Silver were detected in method blank MB 280-583640/1-B at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL RECOVERABLE METALS (ICPMS)
Sample OUTFALL-001 (280-165253-1) was analyzed for total recoverable metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared on 08/09/2022 and analyzed on 08/10/2022.

The continuing calibration verification (CCV) associated with batch 280-583683 recovered (119%) above the upper control limit (110%) for Zinc. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have bee reported. The associated samples are impacted: OUTFALL-001 (280-165253-1), (CCV 280-583683/81), (CCV 280-583683/89), (LCS 280-583382/2-A), and (MB 280-583382/1-A).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Job ID: 280-165253-1 (Continued)

Laboratory: Eurofins Denver (Continued)

TOTAL MERCURY (CVAA)
Sample OUTFALL-001 (280-165253-1) was analyzed for total mercury (CVAA) in accordance with EPA Method 245.1. The samples were prepared on 08/09/2022 and analyzed on 08/10/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TRIVALENT CHROMIUM - POTENTIALLY DISSOLVED
Sample OUTFALL-001 (280-165253-1) was analyzed for Trivalent Chromium - Potentially Dissolved in accordance with SM3500_CR3_B. The samples were analyzed on 08/17/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TRIVALENT CHROMIUM - TOTAL RECOVERABLE
Sample OUTFALL-001 (280-165253-1) was analyzed for Trivalent Chromium - Total Recoverable in accordance with SM3500_CR3_B. The samples were analyzed on 08/17/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SPECIFIC CONDUCTIVITY
Sample OUTFALL-001 (280-165253-1) was analyzed for specific conductivity in accordance with SM20 2510B. The samples were analyzed on 08/10/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL SUSPENDED SOLIDS
Sample OUTFALL-001 (280-165253-1) was analyzed for total suspended solids in accordance with SM20 2540D. The samples were analyzed on 08/10/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HEXAVALENT CHROMIUM
Sample OUTFALL-001 (280-165253-1) was analyzed for hexavalent chromium in accordance with SM 3500 CR B. The samples were analyzed on 08/08/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HEXAVALENT CHROMIUM
Sample OUTFALL-001 (280-165253-1) was analyzed for hexavalent chromium in accordance with 3500_CR_B. The samples were analyzed on 08/08/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

CORROSIVITY (PH)
Sample OUTFALL-001 (280-165253-1) was analyzed for corrosivity (pH) in accordance with SM20 4500 H+ B. The samples were analyzed on 08/10/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SULFIDE
Sample OUTFALL-001 (280-165253-1) was analyzed for sulfide in accordance with SM20 4500 S2 D. The samples were analyzed on 08/09/2022.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Job ID: 280-165253-1 (Continued)

Laboratory: Eurofins Denver (Continued)

HYDROGEN SULFIDE

Sample OUTFALL-001 (280-165253-1) was analyzed for Hydrogen Sulfide in accordance with SM20 4500 S2 H. The samples were analyzed on 08/17/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165253-1

Client Sample ID: OUTFALL-001

Lab Sample ID: 280-165253-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	12	J	100	9.1	ug/L	1		200.7 Rev 4.4	Total Recoverable
Lead	0.37	J	1.0	0.23	ug/L	1		200.8	Total Recoverable
Copper	2.7	B	2.0	0.71	ug/L	1		200.8	Potentially Dissolved
Lead	0.42	J B	1.0	0.23	ug/L	1		200.8	Potentially Dissolved
Silver	0.24	J B	0.50	0.045	ug/L	1		200.8	Potentially Dissolved
Zinc	13		10	2.0	ug/L	1		200.8	Potentially Dissolved
Specific Conductance	200		2.0	2.0	umhos/cm	1		SM 2510B	Total/NA
pH adj. to 25 deg C	8.1	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	19.8	HF	1.0	1.0	Degrees C	1		SM 4500 H+ B	Total/NA
Field pH	8.1		1.0	1.0	SU	1		SM4500 S2 H	Total/NA
Field Temperature	20		1.0	1.0	Celsius	1		SM4500 S2 H	Total/NA
Specific Conductance	200		2.0	2.0	umhos/cm	1		SM4500 S2 H	Total/NA
Chromium, hexavalent	0.010	J	0.020	0.0040	mg/L	1		SM 3500 CR B	Dissolved

This Detection Summary does not include radiochemical test results.

Method Summary

Client: GS Mining Company LLC
Job ID: 280-165253-1
Project/Site: Wastewater Discharge - Nederland, CO

Method	Method Description	Protocol	Laboratory
200.7 Rev 4.4	Metals (ICP)	EPA	EET DEN
200.8	Metals (ICP/MS)	EPA	EET DEN
245.1	Mercury (CVAA)	EPA	EET DEN
SM 2510B	Conductivity, Specific Conductance	SM	EET DEN
SM 2540D	Solids, Total Suspended (TSS)	SM	EET DEN
SM 3500 CR B	Chromium, Hexavalent	SM	EET DEN
SM 4500 H+ B	pH	SM	EET DEN
SM 4500 S2 D	Sulfide, Total	SM	EET DEN
SM3500 CR B	Chromium, Trivalent	SM	EET DEN
SM4500 S2 H	Unionized Hydrogen Sulfide	SM	EET DEN
200.7	Preparation, Total Recoverable Metals	EPA	EET DEN
200.8	Preparation, Total Recoverable Metals	EPA	EET DEN
245.1	Preparation, Mercury	EPA	EET DEN
FILTRATION	Sample Filtration	None	EET DEN
Poten_Diss_Met	Filtration for Potentially Dissolved Metals	EPA	EET DEN

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165253-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-165253-1	OUTFALL-001	Water	08/08/22 12:40	08/08/22 15:52

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Client Sample ID: OUTFALL-001
Date Collected: 08/08/22 12:40
Date Received: 08/08/22 15:52

Lab Sample ID: 280-165253-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**12**	**J**	100	9.1	ug/L		08/09/22 14:55	08/10/22 17:17	1

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Client Sample ID: OUTFALL-001
Date Collected: 08/08/22 12:40
Date Received: 08/08/22 15:52

Lab Sample ID: 280-165253-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		08/09/22 14:30	08/10/22 23:51	1
Cadmium	ND		1.0	0.088	ug/L		08/09/22 14:30	08/10/22 23:51	1
Chromium	ND		3.0	0.88	ug/L		08/09/22 14:30	08/10/22 23:51	1
Copper	ND		2.0	0.71	ug/L		08/09/22 14:30	08/10/22 23:51	1
Lead	**0.37**	**J**	1.0	0.23	ug/L		08/09/22 14:30	08/10/22 23:51	1
Zinc	ND	^+	10	2.0	ug/L		08/09/22 14:30	08/10/22 23:51	1

Method: 200.8 - Metals (ICP/MS) - Potentially Dissolved

Client Sample ID: OUTFALL-001
Date Collected: 08/08/22 12:40
Date Received: 08/08/22 15:52

Lab Sample ID: 280-165253-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		08/15/22 15:02	08/16/22 19:49	1
Cadmium	ND		1.0	0.088	ug/L		08/15/22 15:02	08/16/22 19:49	1
Chromium	ND		3.0	0.88	ug/L		08/15/22 15:02	08/16/22 19:49	1
Copper	**2.7**	**B**	2.0	0.71	ug/L		08/15/22 15:02	08/16/22 19:49	1
Lead	**0.42**	**J B**	1.0	0.23	ug/L		08/15/22 15:02	08/16/22 19:49	1
Manganese	ND		2.0	0.51	ug/L		08/15/22 15:02	08/16/22 19:49	1
Nickel	ND		2.0	0.28	ug/L		08/15/22 15:02	08/16/22 19:49	1
Selenium	ND		5.0	1.0	ug/L		08/15/22 15:02	08/16/22 19:49	1
Silver	**0.24**	**J B**	0.50	0.045	ug/L		08/15/22 15:02	08/16/22 19:49	1
Zinc	**13**		10	2.0	ug/L		08/18/22 08:57	08/18/22 17:12	1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: OUTFALL-001
Date Collected: 08/08/22 12:40
Date Received: 08/08/22 15:52

Lab Sample ID: 280-165253-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.061	ug/L		08/09/22 17:35	08/10/22 17:25	1

General Chemistry

Client Sample ID: OUTFALL-001
Date Collected: 08/08/22 12:40
Date Received: 08/08/22 15:52

Lab Sample ID: 280-165253-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	**200**		2.0	2.0	umhos/cm			08/10/22 09:11	1
Total Suspended Solids	ND		4.0	1.1	mg/L			08/10/22 10:17	1
Chromium, hexavalent	ND		0.020	0.0040	mg/L			08/08/22 19:26	1
pH adj. to 25 deg C	**8.1**	**HF**	0.1	0.1	SU			08/10/22 09:49	1
Temperature	**19.8**	**HF**	1.0	1.0	Degrees C			08/10/22 09:49	1

General Chemistry (Continued)

Client Sample ID: OUTFALL-001
Date Collected: 08/08/22 12:40
Date Received: 08/08/22 15:52

Lab Sample ID: 280-165253-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.050	0.022	mg/L			08/09/22 20:33	1
Un-ionized Hydrogen Sulfide	ND		1.0	1.0	mg/L			08/17/22 08:03	1
Field pH	**8.1**		1.0	1.0	SU			08/17/22 08:03	1
Field Temperature	**20**		1.0	1.0	Celsius			08/17/22 08:03	1
Specific Conductance	**200**		2.0	2.0	umhos/cm			08/17/22 08:03	1
Sulfide	ND		4.0	4.0	mg/L			08/17/22 08:03	1

General Chemistry - Total Recoverable

Client Sample ID: OUTFALL-001
Date Collected: 08/08/22 12:40
Date Received: 08/08/22 15:52

Lab Sample ID: 280-165253-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, trivalent	ND	H	0.020	0.020	mg/L			08/17/22 09:38	1

General Chemistry - Dissolved

Client Sample ID: OUTFALL-001
Date Collected: 08/08/22 12:40
Date Received: 08/08/22 15:52

Lab Sample ID: 280-165253-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	**0.010**	**J**	0.020	0.0040	mg/L			08/08/22 19:31	1

General Chemistry - Potentially Dissolved

Client Sample ID: OUTFALL-001
Date Collected: 08/08/22 12:40
Date Received: 08/08/22 15:52

Lab Sample ID: 280-165253-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, trivalent (dissolved)	ND		0.020	0.020	mg/L			08/17/22 09:39	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 280-583419/1-A
Matrix: Water
Analysis Batch: 583687

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 583419

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		100	9.1	ug/L		08/09/22 14:55	08/10/22 13:34	1

Lab Sample ID: LCS 280-583419/2-A
Matrix: Water
Analysis Batch: 583687

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 583419

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	10000	9870		ug/L		99	85 - 115

Lab Sample ID: LCSD 280-583419/3-A
Matrix: Water
Analysis Batch: 583687

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 583419

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron	10000	9960		ug/L		100	85 - 115	1	20

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 280-583382/1-A
Matrix: Water
Analysis Batch: 583683

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 583382

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		08/09/22 14:30	08/10/22 23:22	1
Cadmium	ND		1.0	0.088	ug/L		08/09/22 14:30	08/10/22 23:22	1
Chromium	ND		3.0	0.88	ug/L		08/09/22 14:30	08/10/22 23:22	1
Copper	ND		2.0	0.71	ug/L		08/09/22 14:30	08/10/22 23:22	1
Lead	ND		1.0	0.23	ug/L		08/09/22 14:30	08/10/22 23:22	1
Zinc	ND	^+	10	2.0	ug/L		08/09/22 14:30	08/10/22 23:22	1

Lab Sample ID: LCS 280-583382/2-A
Matrix: Water
Analysis Batch: 583683

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 583382

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	40.0	43.1		ug/L		108	89 - 111
Cadmium	40.0	40.3		ug/L		101	89 - 111
Chromium	40.0	41.0		ug/L		102	86 - 115
Copper	40.0	41.2		ug/L		103	90 - 115
Lead	40.0	40.4		ug/L		101	88 - 115
Zinc	40.0	42.1	^+	ug/L		105	88 - 115

Lab Sample ID: MB 280-583640/1-B
Matrix: Water
Analysis Batch: 584178

Client Sample ID: Method Blank
Prep Type: Potentially Dissolved
Prep Batch: 583979

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		08/15/22 15:02	08/16/22 19:42	1
Cadmium	ND		1.0	0.088	ug/L		08/15/22 15:02	08/16/22 19:42	1
Chromium	ND		3.0	0.88	ug/L		08/15/22 15:02	08/16/22 19:42	1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 280-583640/1-B
Matrix: Water
Analysis Batch: 584178

Client Sample ID: Method Blank
Prep Type: Potentially Dissolved
Prep Batch: 583979

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		2.0	0.71	ug/L		08/15/22 15:02	08/16/22 19:42	1
Lead	0.551	J	1.0	0.23	ug/L		08/15/22 15:02	08/16/22 19:42	1
Manganese	ND		2.0	0.51	ug/L		08/15/22 15:02	08/16/22 19:42	1
Nickel	ND		2.0	0.28	ug/L		08/15/22 15:02	08/16/22 19:42	1
Selenium	ND		5.0	1.0	ug/L		08/15/22 15:02	08/16/22 19:42	1
Silver	0.0620	J	0.50	0.045	ug/L		08/15/22 15:02	08/16/22 19:42	1

Lab Sample ID: LCS 280-583640/2-B
Matrix: Water
Analysis Batch: 584178

Client Sample ID: Lab Control Sample
Prep Type: Potentially Dissolved
Prep Batch: 583979

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	40.0	43.3		ug/L		108	89 - 111
Cadmium	40.0	42.1		ug/L		105	89 - 111
Chromium	40.0	42.4		ug/L		106	86 - 115
Copper	40.0	44.4		ug/L		111	90 - 115
Lead	40.0	41.0		ug/L		103	88 - 115
Manganese	40.0	42.9		ug/L		107	87 - 115
Nickel	40.0	40.7		ug/L		102	86 - 115
Selenium	40.0	44.8		ug/L		112	85 - 114
Silver	40.0	40.2		ug/L		101	90 - 114

Lab Sample ID: 280-165253-1 MS
Matrix: Water
Analysis Batch: 584178

Client Sample ID: OUTFALL-001
Prep Type: Potentially Dissolved
Prep Batch: 583979

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	ND		40.0	42.3		ug/L		106	79 - 120
Cadmium	ND		40.0	41.5		ug/L		104	89 - 111
Chromium	ND		40.0	41.2		ug/L		103	86 - 115
Copper	2.7	B	40.0	44.0		ug/L		103	90 - 115
Lead	0.42	J B	40.0	39.3		ug/L		97	88 - 115
Manganese	ND		40.0	40.9		ug/L		102	87 - 115
Nickel	ND		40.0	40.9		ug/L		102	86 - 115
Selenium	ND		40.0	42.2		ug/L		106	85 - 114
Silver	0.24	J B	40.0	40.3		ug/L		100	70 - 130

Lab Sample ID: 280-165253-1 MSD
Matrix: Water
Analysis Batch: 584178

Client Sample ID: OUTFALL-001
Prep Type: Potentially Dissolved
Prep Batch: 583979

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	ND		40.0	43.4		ug/L		108	79 - 120	2	20
Cadmium	ND		40.0	41.6		ug/L		104	89 - 111	0	20
Chromium	ND		40.0	41.8		ug/L		105	86 - 115	2	20
Copper	2.7	B	40.0	42.1		ug/L		98	90 - 115	5	20
Lead	0.42	J B	40.0	39.8		ug/L		98	88 - 115	1	20
Manganese	ND		40.0	42.1		ug/L		105	87 - 115	3	20
Nickel	ND		40.0	39.7		ug/L		99	86 - 115	3	20

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-165253-1 MSD
Matrix: Water
Analysis Batch: 584178

Client Sample ID: OUTFALL-001
Prep Type: Potentially Dissolved
Prep Batch: 583979

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Selenium	ND		40.0	42.4		ug/L		106	85 - 114	0	20
Silver	0.24	J B	40.0	39.8		ug/L		99	70 - 130	1	20

Lab Sample ID: MB 280-583640/1-C
Matrix: Water
Analysis Batch: 584432

Client Sample ID: Method Blank
Prep Type: Potentially Dissolved

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.0	0.23	ug/L			08/18/22 17:01	1
Zinc	ND		10	2.0	ug/L			08/18/22 17:01	1

Lab Sample ID: LCS 280-583640/2-C
Matrix: Water
Analysis Batch: 584432

Client Sample ID: Lab Control Sample
Prep Type: Potentially Dissolved

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	40.0	42.6		ug/L		106	88 - 115
Zinc	40.0	41.5		ug/L		104	88 - 115

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 280-583449/1-A
Matrix: Water
Analysis Batch: 583661

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 583449

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.061	ug/L		08/09/22 17:35	08/10/22 17:07	1

Lab Sample ID: LCS 280-583449/2-A
Matrix: Water
Analysis Batch: 583661

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 583449

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.85		ug/L		97	90 - 110

Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: MB 280-583549/5
Matrix: Water
Analysis Batch: 583549

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	ND		2.0	2.0	umhos/cm			08/10/22 09:11	1

Lab Sample ID: LCS 280-583549/4
Matrix: Water
Analysis Batch: 583549

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Specific Conductance	1410	1400		umhos/cm		99	90 - 110

Method: SM 2510B - Conductivity, Specific Conductance (Continued)

Lab Sample ID: 280-165253-1 DU
Matrix: Water
Analysis Batch: 583549

Client Sample ID: OUTFALL-001
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Specific Conductance	200			199		umhos/cm				1	10

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 280-583568/3
Matrix: Water
Analysis Batch: 583568

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0	1.1	mg/L			08/10/22 10:17	1

Lab Sample ID: LCS 280-583568/1
Matrix: Water
Analysis Batch: 583568

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Suspended Solids			500	394		mg/L		79	79 - 114		

Lab Sample ID: LCSD 280-583568/2
Matrix: Water
Analysis Batch: 583568

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Suspended Solids			500	409		mg/L		82	79 - 114	4	20

Method: SM 3500 CR B - Chromium, Hexavalent

Lab Sample ID: MB 280-583373/10
Matrix: Water
Analysis Batch: 583373

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.020	0.0040	mg/L			08/08/22 19:26	1

Lab Sample ID: LCS 280-583373/8
Matrix: Water
Analysis Batch: 583373

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chromium, hexavalent			0.100	0.102		mg/L		102	91 - 112		

Lab Sample ID: LCSD 280-583373/9
Matrix: Water
Analysis Batch: 583373

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium, hexavalent			0.100	0.102		mg/L		102	91 - 112	0	20

Method: SM 3500 CR B - Chromium, Hexavalent (Continued)

Lab Sample ID: 280-165253-1 MS
Matrix: Water
Analysis Batch: 583373

Client Sample ID: OUTFALL-001
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium, hexavalent	ND		0.100	0.104		mg/L		104	91 - 112

Lab Sample ID: 280-165253-1 MSD
Matrix: Water
Analysis Batch: 583373

Client Sample ID: OUTFALL-001
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium, hexavalent	ND		0.100	0.112		mg/L		112	91 - 112	7	20

Lab Sample ID: 280-165253-1 DU
Matrix: Water
Analysis Batch: 583373

Client Sample ID: OUTFALL-001
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chromium, hexavalent	ND		ND		mg/L		NC	20

Lab Sample ID: MB 280-583368/3-A
Matrix: Water
Analysis Batch: 583373

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.020	0.0040	mg/L			08/08/22 19:30	1

Lab Sample ID: LCS 280-583368/1-A
Matrix: Water
Analysis Batch: 583373

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium, hexavalent	0.100	0.102		mg/L		102	91 - 112

Lab Sample ID: LCSD 280-583368/2-A
Matrix: Water
Analysis Batch: 583373

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium, hexavalent	0.100	0.102		mg/L		102	91 - 112	0	20

Lab Sample ID: 280-165253-1 MS
Matrix: Water
Analysis Batch: 583373

Client Sample ID: OUTFALL-001
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium, hexavalent	0.010	J	0.100	0.104		mg/L		94	91 - 112

Lab Sample ID: 280-165253-1 MSD
Matrix: Water
Analysis Batch: 583373

Client Sample ID: OUTFALL-001
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium, hexavalent	0.010	J	0.100	0.109		mg/L		98	91 - 112	4	20

Method: SM 3500 CR B - Chromium, Hexavalent

Lab Sample ID: 280-165253-1 DU
Matrix: Water
Analysis Batch: 583373

Client Sample ID: OUTFALL-001
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Chromium, hexavalent	0.010	J		ND		mg/L				NC	20

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 280-583571/4
Matrix: Water
Analysis Batch: 583571

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
pH adj. to 25 deg C			7.00	7.0		SU		100	99 - 101		

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 280-583518/37
Matrix: Water
Analysis Batch: 583518

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.050	0.022	mg/L			08/09/22 20:27	1

Lab Sample ID: LCS 280-583518/35
Matrix: Water
Analysis Batch: 583518

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Sulfide			0.500	0.482		mg/L		96	81 - 122		

Lab Sample ID: LCSD 280-583518/36
Matrix: Water
Analysis Batch: 583518

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide			0.500	0.476		mg/L		95	81 - 122	1	10

Method: SM4500 S2 H - Unionized Hydrogen Sulfide

Lab Sample ID: MB 280-584181/1
Matrix: Water
Analysis Batch: 584181

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Un-ionized Hydrogen Sulfide	ND		1.0	1.0	mg/L			08/17/22 08:03	1
Field pH	ND		1.0	1.0	SU			08/17/22 08:03	1
Field Temperature	ND		1.0	1.0	Celsius			08/17/22 08:03	1
Specific Conductance	ND		2.0	2.0	umhos/cm			08/17/22 08:03	1
Sulfide	ND		4.0	4.0	mg/L			08/17/22 08:03	1

Metals

Prep Batch: 583382

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165253-1	OUTFALL-001	Total Recoverable	Water	200.8	
MB 280-583382/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 280-583382/2-A	Lab Control Sample	Total Recoverable	Water	200.8	

Prep Batch: 583419

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165253-1	OUTFALL-001	Total Recoverable	Water	200.7	
MB 280-583419/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 280-583419/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
LCSD 280-583419/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7	

Prep Batch: 583449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165253-1	OUTFALL-001	Total/NA	Water	245.1	
MB 280-583449/1-A	Method Blank	Total/NA	Water	245.1	
LCS 280-583449/2-A	Lab Control Sample	Total/NA	Water	245.1	

Filtration Batch: 583640

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165253-1	OUTFALL-001	Potentially Dissolvec	Water	Poten_Diss_Met	
MB 280-583640/1-B	Method Blank	Potentially Dissolvec	Water	Poten_Diss_Met	
LCS 280-583640/2-B	Lab Control Sample	Potentially Dissolvec	Water	Poten_Diss_Met	
280-165253-1 MS	OUTFALL-001	Potentially Dissolvec	Water	Poten_Diss_Met	
280-165253-1 MSD	OUTFALL-001	Potentially Dissolvec	Water	Poten_Diss_Met	

Analysis Batch: 583661

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165253-1	OUTFALL-001	Total/NA	Water	245.1	583449
MB 280-583449/1-A	Method Blank	Total/NA	Water	245.1	583449
LCS 280-583449/2-A	Lab Control Sample	Total/NA	Water	245.1	583449

Analysis Batch: 583683

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165253-1	OUTFALL-001	Total Recoverable	Water	200.8	583382
MB 280-583382/1-A	Method Blank	Total Recoverable	Water	200.8	583382
LCS 280-583382/2-A	Lab Control Sample	Total Recoverable	Water	200.8	583382

Analysis Batch: 583687

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165253-1	OUTFALL-001	Total Recoverable	Water	200.7 Rev 4.4	583419
MB 280-583419/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	583419
LCS 280-583419/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	583419
LCSD 280-583419/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7 Rev 4.4	583419

Prep Batch: 583979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165253-1	OUTFALL-001	Potentially Dissolvec	Water	200.8	583640
MB 280-583640/1-B	Method Blank	Potentially Dissolvec	Water	200.8	583640
LCS 280-583640/2-B	Lab Control Sample	Potentially Dissolvec	Water	200.8	583640
280-165253-1 MS	OUTFALL-001	Potentially Dissolvec	Water	200.8	583640
280-165253-1 MSD	OUTFALL-001	Potentially Dissolvec	Water	200.8	583640

Metals

Analysis Batch: 584178

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165253-1	OUTFALL-001	Potentially Dissolvec	Water	200.8	583979
MB 280-583640/1-B	Method Blank	Potentially Dissolvec	Water	200.8	583979
LCS 280-583640/2-B	Lab Control Sample	Potentially Dissolvec	Water	200.8	583979
280-165253-1 MS	OUTFALL-001	Potentially Dissolvec	Water	200.8	583979
280-165253-1 MSD	OUTFALL-001	Potentially Dissolvec	Water	200.8	583979

Prep Batch: 584309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165253-1	OUTFALL-001	Potentially Dissolvec	Water	200.8	583640

Analysis Batch: 584432

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165253-1	OUTFALL-001	Potentially Dissolvec	Water	200.8	584309
MB 280-583640/1-C	Method Blank	Potentially Dissolvec	Water	200.8	
LCS 280-583640/2-C	Lab Control Sample	Potentially Dissolvec	Water	200.8	

General Chemistry

Filtration Batch: 583368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165253-1	OUTFALL-001	Dissolved	Water	FILTRATION	
MB 280-583368/3-A	Method Blank	Dissolved	Water	FILTRATION	
LCS 280-583368/1-A	Lab Control Sample	Dissolved	Water	FILTRATION	
LCSD 280-583368/2-A	Lab Control Sample Dup	Dissolved	Water	FILTRATION	
280-165253-1 MS	OUTFALL-001	Dissolved	Water	FILTRATION	
280-165253-1 MSD	OUTFALL-001	Dissolved	Water	FILTRATION	
280-165253-1 DU	OUTFALL-001	Dissolved	Water	FILTRATION	

Analysis Batch: 583373

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165253-1	OUTFALL-001	Dissolved	Water	SM 3500 CR B	583368
280-165253-1	OUTFALL-001	Total/NA	Water	SM 3500 CR B	
MB 280-583368/3-A	Method Blank	Dissolved	Water	SM 3500 CR B	583368
MB 280-583373/10	Method Blank	Total/NA	Water	SM 3500 CR B	
LCS 280-583368/1-A	Lab Control Sample	Dissolved	Water	SM 3500 CR B	583368
LCS 280-583373/8	Lab Control Sample	Total/NA	Water	SM 3500 CR B	
LCSD 280-583368/2-A	Lab Control Sample Dup	Dissolved	Water	SM 3500 CR B	583368
LCSD 280-583373/9	Lab Control Sample Dup	Total/NA	Water	SM 3500 CR B	
280-165253-1 MS	OUTFALL-001	Dissolved	Water	SM 3500 CR B	583368
280-165253-1 MS	OUTFALL-001	Total/NA	Water	SM 3500 CR B	
280-165253-1 MSD	OUTFALL-001	Dissolved	Water	SM 3500 CR B	583368
280-165253-1 MSD	OUTFALL-001	Total/NA	Water	SM 3500 CR B	
280-165253-1 DU	OUTFALL-001	Dissolved	Water	SM 3500 CR B	583368
280-165253-1 DU	OUTFALL-001	Total/NA	Water	SM 3500 CR B	

Analysis Batch: 583518

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165253-1	OUTFALL-001	Total/NA	Water	SM 4500 S2 D	
MB 280-583518/37	Method Blank	Total/NA	Water	SM 4500 S2 D	
LCS 280-583518/35	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
LCSD 280-583518/36	Lab Control Sample Dup	Total/NA	Water	SM 4500 S2 D	

QC Association Summary

Client: GS Mining Company LLC
Job ID: 280-165253-1
Project/Site: Wastewater Discharge - Nederland, CO

General Chemistry

Analysis Batch: 583549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165253-1	OUTFALL-001	Total/NA	Water	SM 2510B	
MB 280-583549/5	Method Blank	Total/NA	Water	SM 2510B	
LCS 280-583549/4	Lab Control Sample	Total/NA	Water	SM 2510B	
280-165253-1 DU	OUTFALL-001	Total/NA	Water	SM 2510B	

Analysis Batch: 583568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165253-1	OUTFALL-001	Total/NA	Water	SM 2540D	
MB 280-583568/3	Method Blank	Total/NA	Water	SM 2540D	
LCS 280-583568/1	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 280-583568/2	Lab Control Sample Dup	Total/NA	Water	SM 2540D	

Analysis Batch: 583571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165253-1	OUTFALL-001	Total/NA	Water	SM 4500 H+ B	
LCS 280-583571/4	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 584181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165253-1	OUTFALL-001	Total/NA	Water	SM4500 S2 H	
MB 280-584181/1	Method Blank	Total/NA	Water	SM4500 S2 H	

Analysis Batch: 584198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165253-1	OUTFALL-001	Total Recoverable	Water	SM3500 CR B	

Analysis Batch: 584199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165253-1	OUTFALL-001	Potentially Dissolvec	Water	SM3500 CR B	

Lab Chronicle

Client: GS Mining Company LLC
Job ID: 280-165253-1
Project/Site: Wastewater Discharge - Nederland, CO

Client Sample ID: OUTFALL-001
Lab Sample ID: 280-165253-1

Date Collected: 08/08/22 12:40
Matrix: Water

Date Received: 08/08/22 15:52

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.7			50 mL	50 mL	583419	08/09/22 14:55	MCR	EET DEN
Total Recoverable	Analysis	200.7 Rev 4.4		1			583687	08/10/22 17:17	KRP	EET DEN
Potentially Dissolvec	Filtration	Poten_Diss_Met			200 mL	200 mL	583640	08/10/22 16:21	KMS	EET DEN
Potentially Dissolvec	Prep	200.8			50 mL	50 mL	583979	08/15/22 15:02	MCR	EET DEN
Potentially Dissolvec	Analysis	200.8		1			584178	08/16/22 19:49	LMT	EET DEN
Potentially Dissolvec	Filtration	Poten_Diss_Met			200 mL	200 mL	583640	08/10/22 16:21	KMS	EET DEN
Potentially Dissolvec	Prep	200.8			50 mL	50 mL	584309	08/18/22 08:57	PFM	EET DEN
Potentially Dissolvec	Analysis	200.8		1			584432	08/18/22 17:12	LMT	EET DEN
Total Recoverable	Prep	200.8			50 mL	50 mL	583382	08/09/22 14:30	MCR	EET DEN
Total Recoverable	Analysis	200.8		1			583683	08/10/22 23:51	LMT	EET DEN
Total/NA	Prep	245.1			30 mL	50 mL	583449	08/09/22 17:35	CEH	EET DEN
Total/NA	Analysis	245.1		1			583661	08/10/22 17:25	CEH	EET DEN
Total/NA	Analysis	SM 2510B		1			583549	08/10/22 09:11	KEG	EET DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	583568	08/10/22 10:17	ASP	EET DEN
Dissolved	Filtration	FILTRATION			2 mL	2 mL	583368	08/08/22 18:51	LRB	EET DEN
Dissolved	Analysis	SM 3500 CR B		1	2 mL	2 mL	583373	08/08/22 19:31	LRB	EET DEN
Total/NA	Analysis	SM 3500 CR B		1	2 mL	2 mL	583373	08/08/22 19:26	LRB	EET DEN
Total/NA	Analysis	SM 4500 H+ B		1			583571	08/10/22 09:49	KEG	EET DEN
Total/NA	Analysis	SM 4500 S2 D		1	2 mL	2 mL	583518	08/09/22 20:33	LRB	EET DEN
Potentially Dissolvec	Analysis	SM3500 CR B		1			584199	08/17/22 09:39	DNM	EET DEN
Total Recoverable	Analysis	SM3500 CR B		1			584198	08/17/22 09:38	DNM	EET DEN
Total/NA	Analysis	SM4500 S2 H		1			584181	08/17/22 08:03	SAH	EET DEN

Laboratory References:
EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Accreditation/Certification Summary

Client: GS Mining Company LLC
Job ID: 280-165253-1
Project/Site: Wastewater Discharge - Nederland, CO

Laboratory: Eurofins Denver

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-23
A2LA	ISO/IEC 17025	2907.01	10-31-23
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	02-08-23
Arizona	State	AZ0713	12-20-22
Arkansas DEQ	State	19-047-0	06-01-22 *
California	State	2513	01-08-23
Connecticut	State	PH-0686	09-30-22
Florida	NELAP	E87667-57	06-30-23
Georgia	State	4025-011	01-08-23
Illinois	NELAP	2000172019-1	04-30-23
Iowa	State	IA#370	12-02-22
Kansas	NELAP	E-10166	04-30-23
Kentucky (WW)	State	KY98047	12-31-22
Louisiana	NELAP	30785	06-30-14 *
Louisiana	NELAP	30785	06-30-23
Minnesota	NELAP	1788752	12-31-22
Nevada	State	CO000262020-1	07-31-22 *
New Hampshire	NELAP	205319	04-28-23
New Jersey	NELAP	190002	06-30-23
New York	NELAP	59923	04-01-23
North Carolina (WW/SW)	State	358	12-31-22
North Dakota	State	R-034	01-08-23
Oklahoma	NELAP	8614	08-31-22
Oregon	NELAP	4025-011	01-09-23
Pennsylvania	NELAP	013	07-31-23
South Carolina	State	72002001	01-08-23
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183-21-19	10-01-22
USDA	US Federal Programs	P330-20-00065	03-06-23
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO000262019-11	07-31-22 *
Virginia	NELAP	10490	06-14-23
Washington	State	C583-19	08-03-22 *
West Virginia DEP	State	354	11-30-22
Wisconsin	State	999615430	08-31-22
Wyoming (UST)	A2LA	2907.01	10-31-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins TestAmerica, Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Phone (303) 431-7171

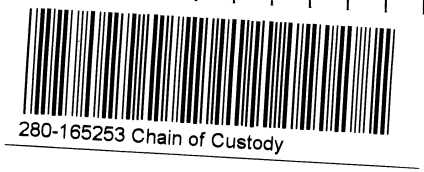
Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Tracey Cotterell	Lab PM: Bieniulis, Dylan T	Carrier Tracking No(s):	COC No:
Client Contact: Patrick Delaney	Phone:	E-Mail: Dylan.Bieniulis@Eurofinset.com	State of Origin:	Page:
Company: Grand Island Resources	PWSID:			Job #:
Address: 12567 West Cedar Road Suite 250	Due Date Requested:			
City: Lakewood	TAT Requested (days):			
State, Zip: CO, 80466	Compliance Project: Δ Yes Δ No			
Phone: 315-414-6986	PO #: Advance Payment Required			
Email: pdelaney@blackfoxmining.com	WO #:			
Project Name: Wastewater Discharge - Nederland, CO	Project #: 28022821			
Site: First half of the month event	SSOW#:			

Temp - 11°C
pH - 8.4

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2510B - Specific Conductance, 2540D - TSS, SM4500_H+ - pH / Temp	3500_CR_B - Total Hexavalent Cr and Trivalent Cr (calc)	3500_CR_B - Dissolved Hexavalent Cr (LAB FILTER) and Potentially Dissolved Trivalent Cr (calc)	SM4500_S2_D - Sulfide and SM3500_S2_H - Unionized Hydrogen Sulfide (calc)		200.8 - Potentially Dissolved Metals (First half of the month permit list)	200.7 / 200.8 / 245.1 - Total Recoverable Metals and Mercury (First half of the month permit list)				Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	CB		D	D					
OUTFALL-001	8/8/22	12:40pm	G	W	N		X	X	X	X		X	X				8	*First half of the month potentially dissolved metals permit list = 200.8 (As, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, Zn)
																		*First half of the month total recoverable metals permit list = 200.7 (Fe), 200.8 (As, Cd, Cr, Cu, Pb, Zn), and 245.1 (Hg)
																		pH =
																		temp =



Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For 1 Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	8/8/22 3:52pm			8/8/22 1532	EAOS
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 8.4 (EA) IR2

Ver: 01/16/2019

8/19/2022

Login Sample Receipt Checklist

Client: GS Mining Company LLC

Job Number: 280-165253-1

Login Number: 165253
List Number: 1
Creator: Davis, Madison T

List Source: Eurofins Denver

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	Received same day of collection; chilling process has begun.
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

Laboratory Job ID: 280-165744-1
Client Project/Site: Wastewater Discharge - Nederland, CO

For:
GS Mining Company LLC
422 Gregory Street
Central City, Colorado 80427

Attn: Patrick Delaney

Authorized for release by:
9/7/2022 3:30:20 PM

Dylan Bieniulis, Project Manager I
(303)736-0138
Dylan.Bieniulis@et.eurofinsus.com

Table of Contents

Definitions/Glossary

Client: GS Mining Company LLC
Job ID: 280-165744-1
Project/Site: Wastewater Discharge - Nederland, CO

Qualifiers

Metals

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 280-165744-1

Laboratory: Eurofins Denver

Narrative

CASE NARRATIVE

Client: GS Mining Company LLC

Project: Wastewater Discharge - Nederland, CO

Report Number: 280-165744-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 08/22/2022; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 5.5 C.

POTENTIALLY DISSOLVED METALS (ICPMS)

Sample OUTFALL-001 (280-165744-1) was analyzed for potentially dissolved metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared on 08/30/2022 and analyzed on 08/31/2022.

This report includes Reporting Limits (RLs) for 200.8 Potentially Dissolved Silver that are less than Eurofins TestAmerica Denver's standard reporting limit. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Due to laboratory error the following sample was filtered 106 hours after collection, which is outside of recommended 8-96 hours following preservation for the requested potentially dissolved metals: OUTFALL-001 (280-165744-1). The client was notified on 9/7/2022 and instructed the labroatory to report the qualified data.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL RECOVERABLE METALS (ICPMS)

Sample OUTFALL-001 (280-165744-1) was analyzed for total recoverable metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared on 08/23/2022 and analyzed on 08/24/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: GS Mining Company LLC
Job ID: 280-165744-1
Project/Site: Wastewater Discharge - Nederland, CO

Client Sample ID: OUTFALL-001
Lab Sample ID: 280-165744-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	1.1	J	2.0	0.71	ug/L	1		200.8	Total Recoverable
Lead	0.85	J	1.0	0.23	ug/L	1		200.8	Total Recoverable
Copper	2.5	H	2.0	0.71	ug/L	1		200.8	Potentially Dissolved
Lead	0.46	J H	1.0	0.23	ug/L	1		200.8	Potentially Dissolved
Zinc	9.2	J H	10	2.0	ug/L	1		200.8	Potentially Dissolved

This Detection Summary does not include radiochemical test results.

Method Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165744-1

Method	Method Description	Protocol	Laboratory
200.8	Metals (ICP/MS)	EPA	EET DEN
200.8	Preparation, Total Recoverable Metals	EPA	EET DEN
Poten_Diss_Met	Filtration for Potentially Dissolved Metals	EPA	EET DEN

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165744-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-165744-1	OUTFALL-001	Water	08/22/22 08:00	08/22/22 16:55

Client Sample Results

Client: GS Mining Company LLC
Job ID: 280-165744-1
Project/Site: Wastewater Discharge - Nederland, CO

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Client Sample ID: OUTFALL-001
Date Collected: 08/22/22 08:00
Date Received: 08/22/22 16:55

Lab Sample ID: 280-165744-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	**1.1**	**J**	2.0	0.71	ug/L		08/23/22 14:45	08/24/22 09:58	1
Lead	**0.85**	**J**	1.0	0.23	ug/L		08/23/22 14:45	08/24/22 09:58	1

Method: 200.8 - Metals (ICP/MS) - Potentially Dissolved

Client Sample ID: OUTFALL-001
Date Collected: 08/22/22 08:00
Date Received: 08/22/22 16:55

Lab Sample ID: 280-165744-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND	H	1.0	0.088	ug/L		08/30/22 11:40	08/31/22 18:16	1
Copper	**2.5**	**H**	2.0	0.71	ug/L		08/30/22 11:40	08/31/22 18:16	1
Lead	**0.46**	**J H**	1.0	0.23	ug/L		08/30/22 11:40	08/31/22 18:16	1
Silver	ND	H	0.50	0.045	ug/L		08/30/22 11:40	08/31/22 18:16	1
Zinc	**9.2**	**J H**	10	2.0	ug/L		08/30/22 11:40	08/31/22 18:16	1

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 280-584768/1-A
Matrix: Water
Analysis Batch: 584927

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 584768

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		2.0	0.71	ug/L		08/23/22 14:45	08/24/22 09:23	1
Lead	ND		1.0	0.23	ug/L		08/23/22 14:45	08/24/22 09:23	1

Lab Sample ID: LCS 280-584768/2-A
Matrix: Water
Analysis Batch: 584927

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 584768

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Copper	40.0	43.1		ug/L		108	90 - 115
Lead	40.0	42.3		ug/L		106	88 - 115

Lab Sample ID: MB 280-585277/1-B
Matrix: Water
Analysis Batch: 585798

Client Sample ID: Method Blank
Prep Type: Potentially Dissolved
Prep Batch: 585492

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.0	0.088	ug/L		08/30/22 11:40	09/01/22 11:28	1
Copper	ND		2.0	0.71	ug/L		08/30/22 11:40	09/01/22 11:28	1
Lead	ND		1.0	0.23	ug/L		08/30/22 11:40	09/01/22 11:28	1
Silver	ND		0.50	0.045	ug/L		08/30/22 11:40	09/01/22 11:28	1
Zinc	ND		10	2.0	ug/L		08/30/22 11:40	09/01/22 11:28	1

Lab Sample ID: LCS 280-585277/2-B
Matrix: Water
Analysis Batch: 585719

Client Sample ID: Lab Control Sample
Prep Type: Potentially Dissolved
Prep Batch: 585492

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cadmium	40.0	41.9		ug/L		105	89 - 111
Copper	40.0	43.2		ug/L		108	90 - 115
Lead	40.0	42.6		ug/L		106	88 - 115
Silver	40.0	41.7		ug/L		104	90 - 114
Zinc	40.0	41.1		ug/L		103	88 - 115

QC Association Summary

Client: GS Mining Company LLC
Job ID: 280-165744-1
Project/Site: Wastewater Discharge - Nederland, CO

Metals

Prep Batch: 584768

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165744-1	OUTFALL-001	Total Recoverable	Water	200.8	
MB 280-584768/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 280-584768/2-A	Lab Control Sample	Total Recoverable	Water	200.8	

Analysis Batch: 584927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165744-1	OUTFALL-001	Total Recoverable	Water	200.8	584768
MB 280-584768/1-A	Method Blank	Total Recoverable	Water	200.8	584768
LCS 280-584768/2-A	Lab Control Sample	Total Recoverable	Water	200.8	584768

Filtration Batch: 585277

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165744-1	OUTFALL-001	Potentially Dissolvec	Water	Poten_Diss_Met	
MB 280-585277/1-B	Method Blank	Potentially Dissolvec	Water	Poten_Diss_Met	
LCS 280-585277/2-B	Lab Control Sample	Potentially Dissolvec	Water	Poten_Diss_Met	

Prep Batch: 585492

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165744-1	OUTFALL-001	Potentially Dissolvec	Water	200.8	585277
MB 280-585277/1-B	Method Blank	Potentially Dissolvec	Water	200.8	585277
LCS 280-585277/2-B	Lab Control Sample	Potentially Dissolvec	Water	200.8	585277

Analysis Batch: 585719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165744-1	OUTFALL-001	Potentially Dissolvec	Water	200.8	585492
LCS 280-585277/2-B	Lab Control Sample	Potentially Dissolvec	Water	200.8	585492

Analysis Batch: 585798

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-585277/1-B	Method Blank	Potentially Dissolvec	Water	200.8	585492

Lab Chronicle

Client: GS Mining Company LLC
Job ID: 280-165744-1
Project/Site: Wastewater Discharge - Nederland, CO

Client Sample ID: OUTFALL-001
Lab Sample ID: 280-165744-1
Date Collected: 08/22/22 08:00
Matrix: Water
Date Received: 08/22/22 16:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Potentially Dissolvec	Filtration	Poten_Diss_Met			250 mL	250 mL	585277	08/26/22 17:00	LRD	EET DEN
Potentially Dissolvec	Prep	200.8			50 mL	50 mL	585492	08/30/22 11:40	MCR	EET DEN
Potentially Dissolvec	Analysis	200.8		1			585719	08/31/22 18:16	LMT	EET DEN
Total Recoverable	Prep	200.8			50 mL	50 mL	584768	08/23/22 14:45	MCR	EET DEN
Total Recoverable	Analysis	200.8		1			584927	08/24/22 09:58	LMT	EET DEN

Laboratory References:

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Accreditation/Certification Summary

Client: GS Mining Company LLC
Job ID: 280-165744-1
Project/Site: Wastewater Discharge - Nederland, CO

Laboratory: Eurofins Denver

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-23
A2LA	ISO/IEC 17025	2907.01	10-31-23
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	02-08-23
Arizona	State	AZ0713	12-20-22
Arkansas DEQ	State	19-047-0	06-01-22 *
California	State	2513	01-08-23
Connecticut	State	PH-0686	09-30-22
Florida	NELAP	E87667-57	06-30-23
Georgia	State	4025-011	01-08-23
Illinois	NELAP	2000172019-1	04-30-23
Iowa	State	IA#370	12-02-22
Kansas	NELAP	E-10166	04-30-23
Kentucky (WW)	State	KY98047	12-31-22
Louisiana	NELAP	30785	06-30-14 *
Louisiana	NELAP	30785	06-30-23
Minnesota	NELAP	1788752	12-31-22
Nevada	State	CO000262020-1	07-31-22 *
New Hampshire	NELAP	205319	04-28-23
New Jersey	NELAP	190002	06-30-23
New York	NELAP	59923	04-01-23
North Carolina (WW/SW)	State	358	12-31-22
North Dakota	State	R-034	01-08-23
Oregon	NELAP	4025-011	01-09-23
Pennsylvania	NELAP	013	07-31-23
South Carolina	State	72002001	01-08-23
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183-21-19	10-01-22
USDA	US Federal Programs	P330-20-00065	03-06-23
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO000262019-11	07-31-23
Virginia	NELAP	10490	06-14-23
Washington	State	C583-19	08-03-22 *
West Virginia DEP	State	354	11-30-22
Wyoming (UST)	A2LA	2907.01	10-31-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins TestAmerica, Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Phone (303) 431-7171

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: BM	Lab PM: Bieniulis, Dylan T	Carrier Tracking No(s):	COC No:
Client Contact: ~~Daniel Pollock~~ Patrick Delaney	Phone: 303-506-1618	E-Mail: Dylan.Bieniulis@Eurofinset.com	State of Origin:	Page:
Company: Grand Island Resources	PWSID:			Job #:
Address: 12567 West Cedar Road Suite 250	Due Date Requested:			
City: Lakewood	TAT Requested (days):			
State, Zip: CO, 80466	Compliance Project: Δ Yes Δ No			
Phone: ~~312-342-6145~~ 315-414-6986	PO #: Advance Payment Required			
Email: ~~Dpollock@nodmining.com~~ pdelaney@blackfoxmining.com	WO #:			
Project Name: Wastewater Discharge - Nederland, CO	Project #: 28022821			
Site: second half of the month event	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.8 - Potentially Dissolved Metals (Second half of the month permit list)	200.8 - Total Recoverable Metals (Second half of the month permit list)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D		
OUTFALL-001	8/22/22	8am	G	W	N		X	X		*Second half of the month potentially dissolved metals permit list = 200.8 (Cd, Cu, Pb, Ag, Zn) *Second half of the month total recoverable metals permit list = 200.8 (Cu, Pb)
										temp = 8°C pH = 8.8

280-165744 Chain of Custody

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For 1 Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	8/22/22 4:55pm			08/22/2022 1655	ETA DFW
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 5.5 CF+0.0 IR#12

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: GS Mining Company LLC

Job Number: 280-165744-1

Login Number: 165744
List Number: 1
Creator: Kazenga, Oliver M

List Source: Eurofins Denver

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	