



Cripple Creek & Victor - M-1980-244 Grassy Valley Monthly Monitoring March 2023

1 message

Antonio Matarrese <Antonio.Matarrese@newmont.com>

Thu, Apr 27, 2023 at 4:28 PM

To: "Russell - DNR, Elliott" <elliott.russell@state.co.us>

Cc: Patrick Lennberg - DNR <patrick.lennberg@state.co.us>, Katie Blake <Katie.Blake@newmont.com>, Johnna Gonzalez <Johnna.Gonzalez@newmont.com>

Elliott -

Please see the attached graphs and analytical report for Grassy Valley monitoring for the month of March 2023.

Best Regards,

Tony



Antonio Matarrese

ENVIRONMENTAL COORDINATOR

100 North 3rd Street

Victor, Colorado 80860

📞 (719) 851-4185

📠 (719) 250-3452

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Monthly_Grassy_Valley_Report_-_March_2023.pdf

6615K



Cripple Creek & Victor
Gold Mining Company
P.O. Box 191
100 North 3rd Street
Victor, Colorado 80860

P 719.689.2977
F 719.689.3254
newmont.com

April 27, 2023

SENT VIA EMAIL

Mr. Elliott Russell
Environmental Protection Specialist
Colorado Department of Natural Resources
Division of Reclamation, Mining, and Safety
Office of Mined Land Reclamation
1313 Sherman Street, Room 215
Denver, Colorado 80203

Re: Monthly Grassy Valley March 2023 Report Submission, April 27, 2023

Dear Mr. Russell,

Please see the attached Grassy Valley data (included within Attachment A) for monitoring well GVMW-25, surface water monitoring location GV-06, and Seep 1 & Seep 2, for the month of March, 2023.

The analytical reports and data shown on the graphs for the month of March are from a reanalysis performed by the lab to confirm ammonia results. The original sample results showed a very minor increase in the ammonia concentration for the GVMW-25 sample however, the duplicate (GVMW-125) sample showed below reporting limit for ammonia. The parent (GVMW-25) and the duplicate (GVMW-125) were both reanalyzed by the lab for ammonia concentrations. The reanalysis confirmed the initial results for the duplicate sample, but not for the parent sample. Upon reanalysis, the parent sample results were below the reporting limit for ammonia as shown in the analytical data within this report.

Should you require further information please do not hesitate to contact Antonio Matarrese at 719.851.4185 or antonio.matarrese@newmont.com or myself at 719.851.4048 or katie.blake@newmont.com

Sincerely,

DocuSigned by:

Katie Blake

5A3D013B629844B...

Katie Blake

Sustainability & External Relations Manager
Cripple Creek and Victor Gold Mining Company

EC: P. Lennberg
M. Cunningham
K. Blake
R. Parratt
A. Matarrese
N. Townley

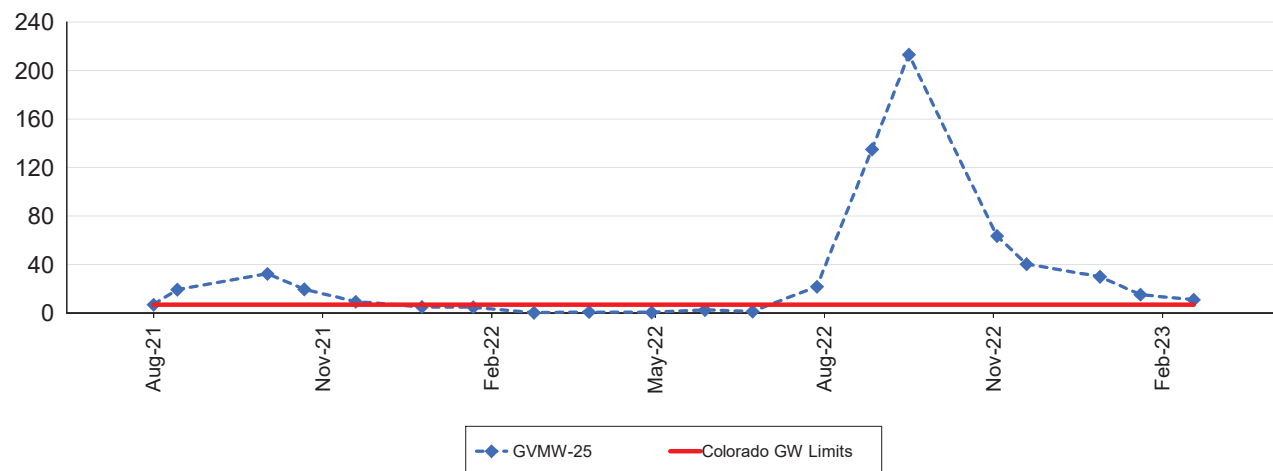
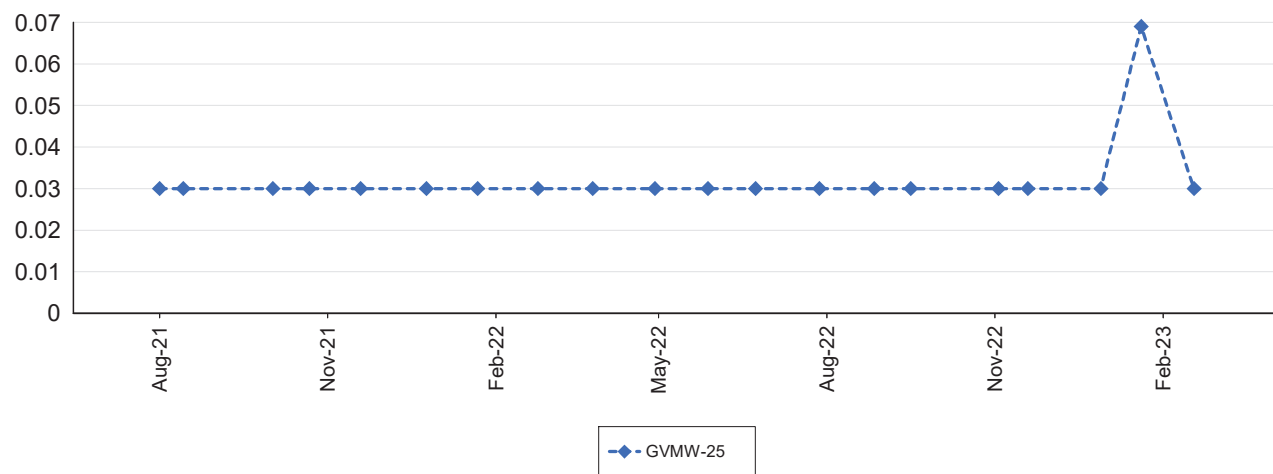
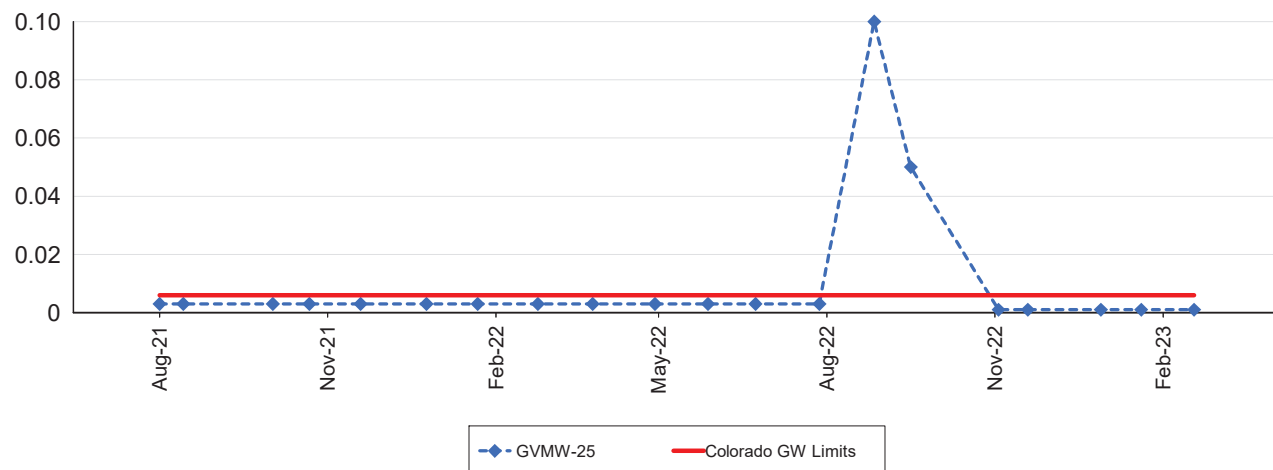
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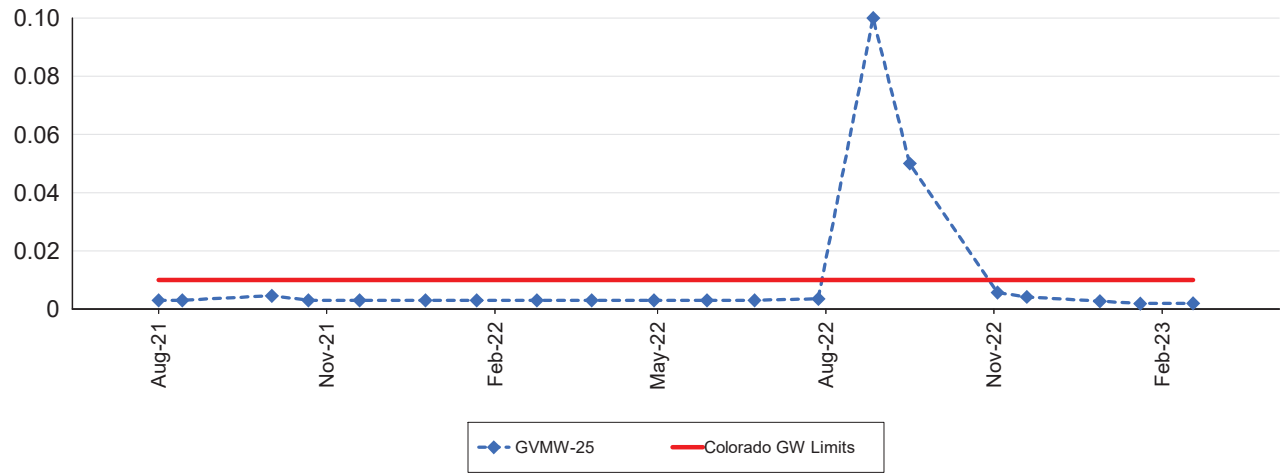
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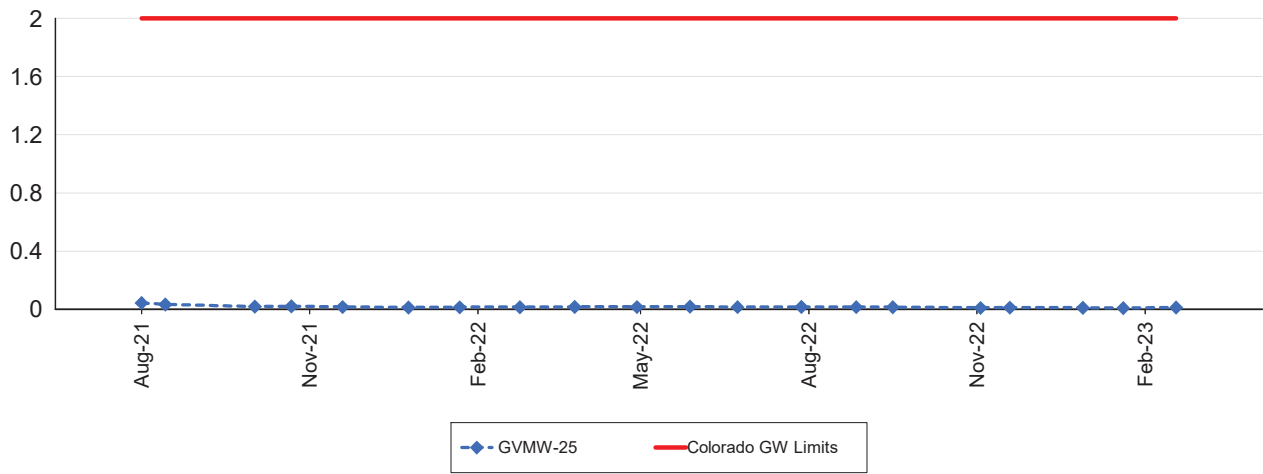
Attachment A

: Aluminium - Dissolved (mg/L)**: Ammonia (mg/L)****: Antimony - Dissolved (mg/L)**

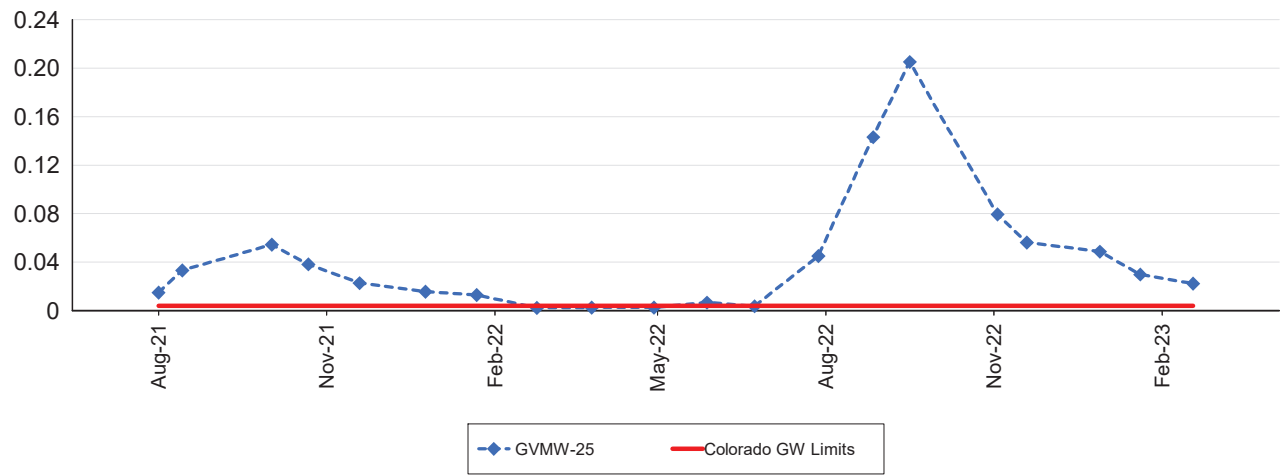
: Arsenic - Dissolved (mg/L)



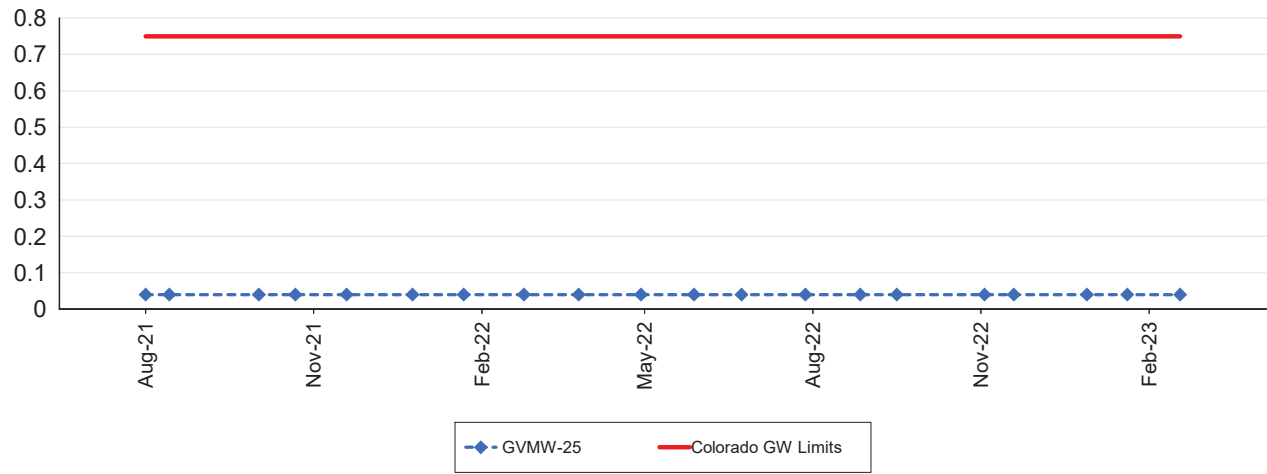
: Barium - Dissolved (mg/L)



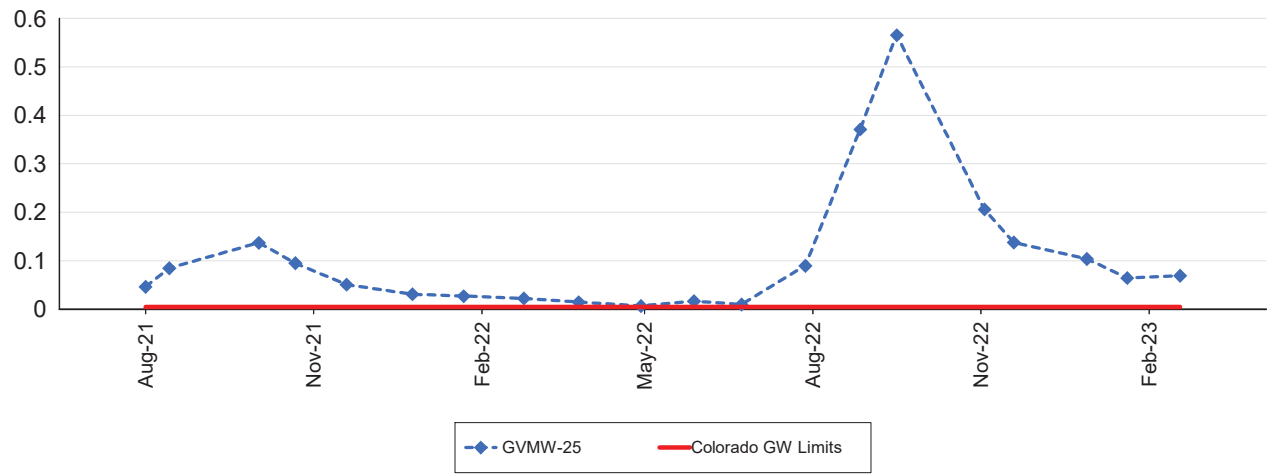
: Beryllium - Dissolved (mg/L)



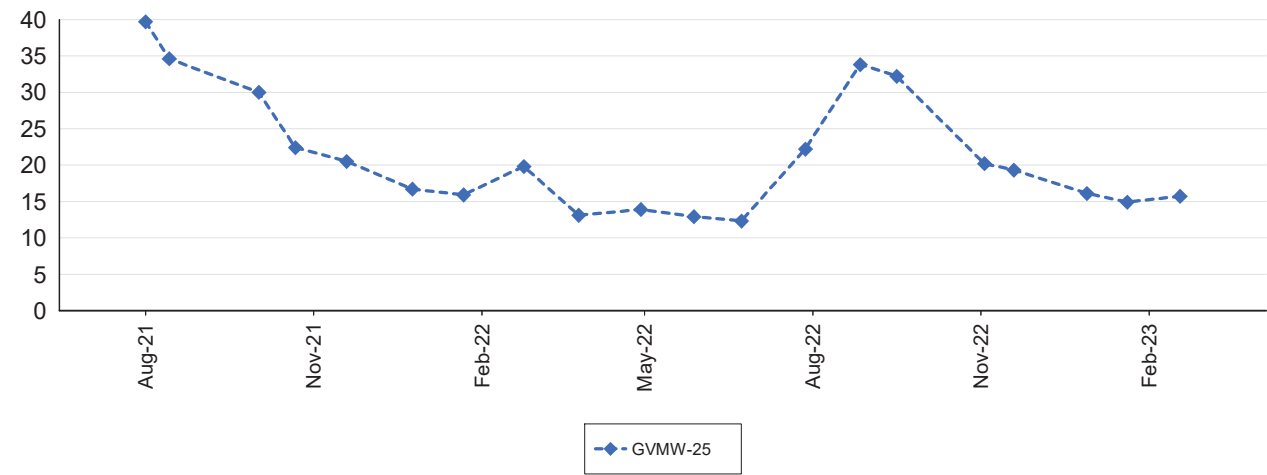
: Boron - Dissolved (mg/L)



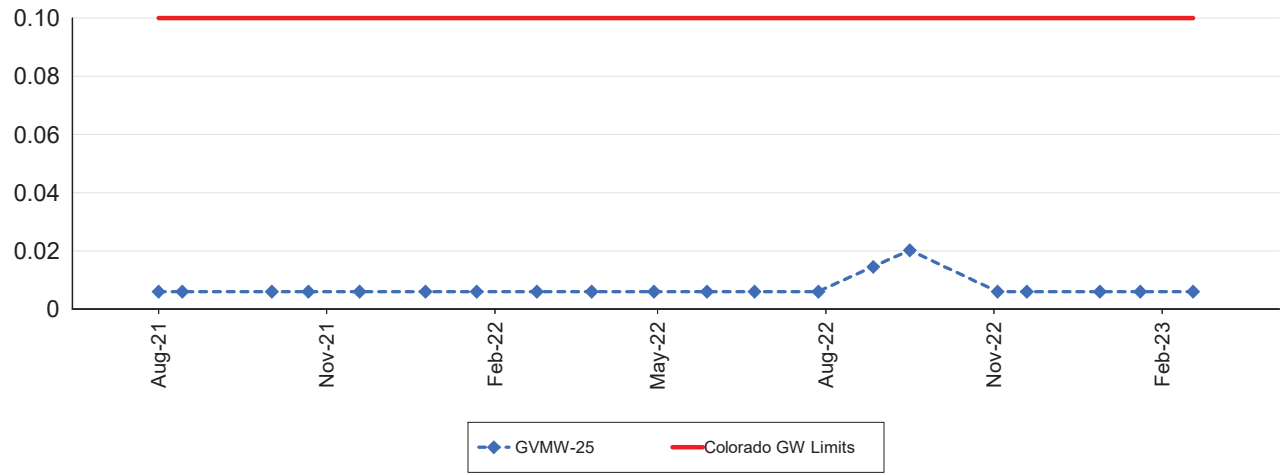
: Cadmium - Dissolved (mg/L)



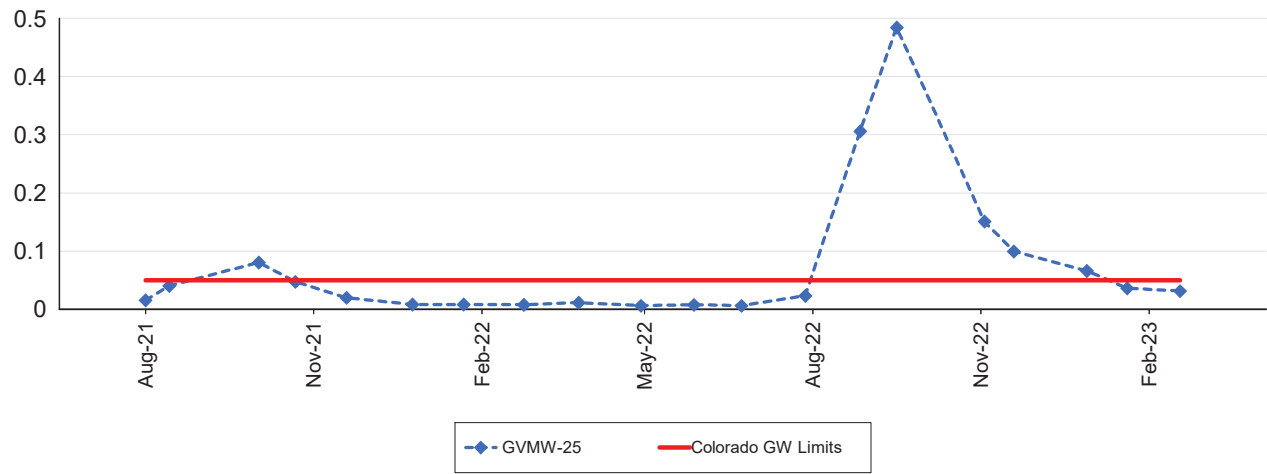
: Chloride - Total (mg/L)



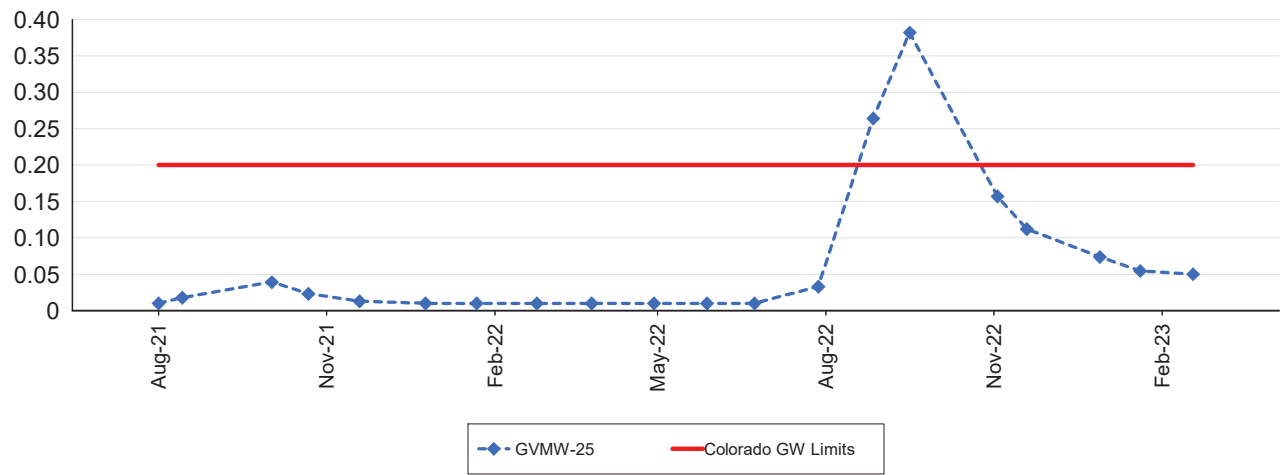
: Chromium - Dissolved (mg/L)

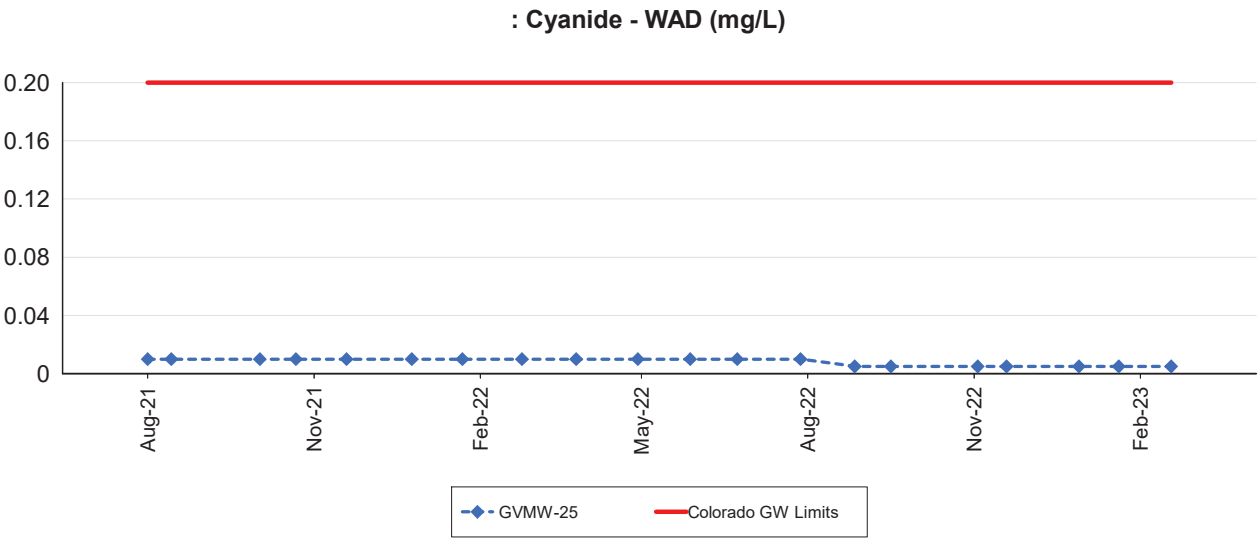
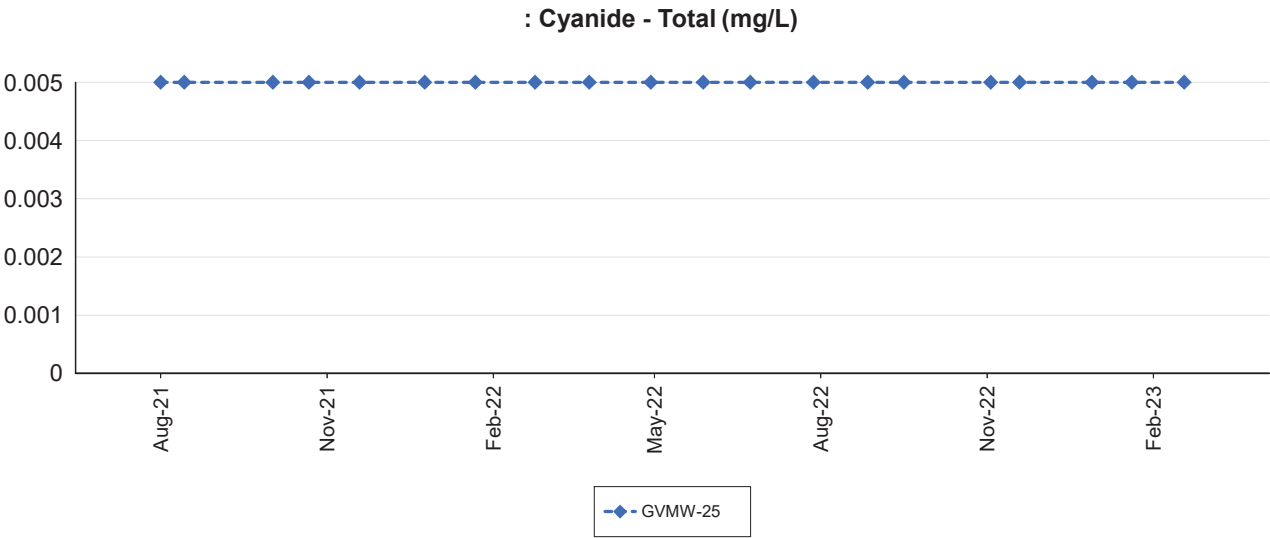
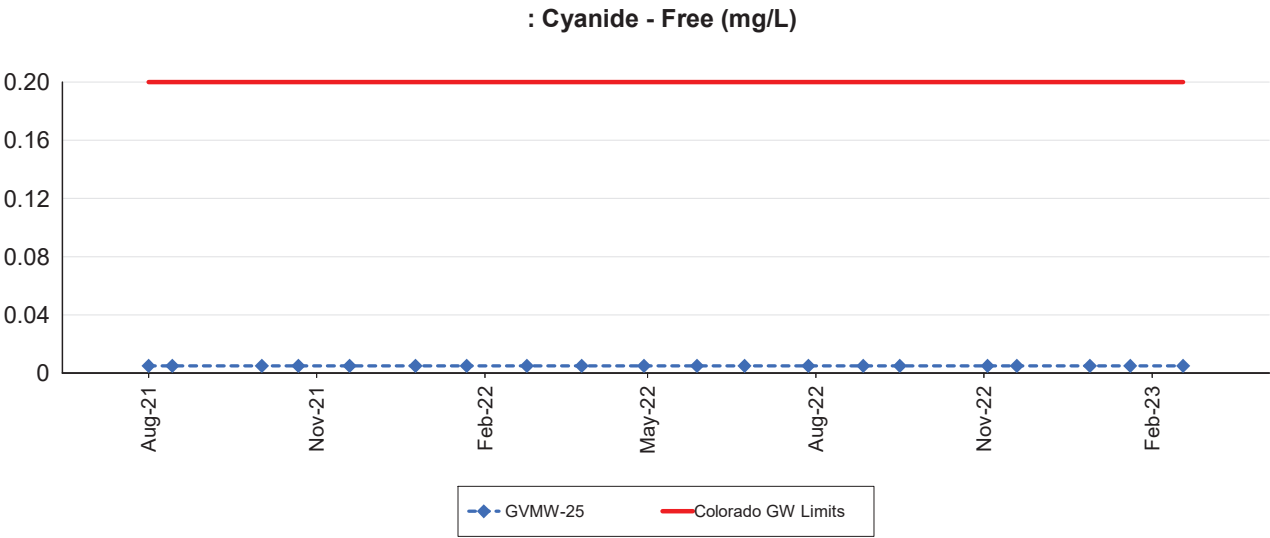


: Cobalt - Dissolved (mg/L)

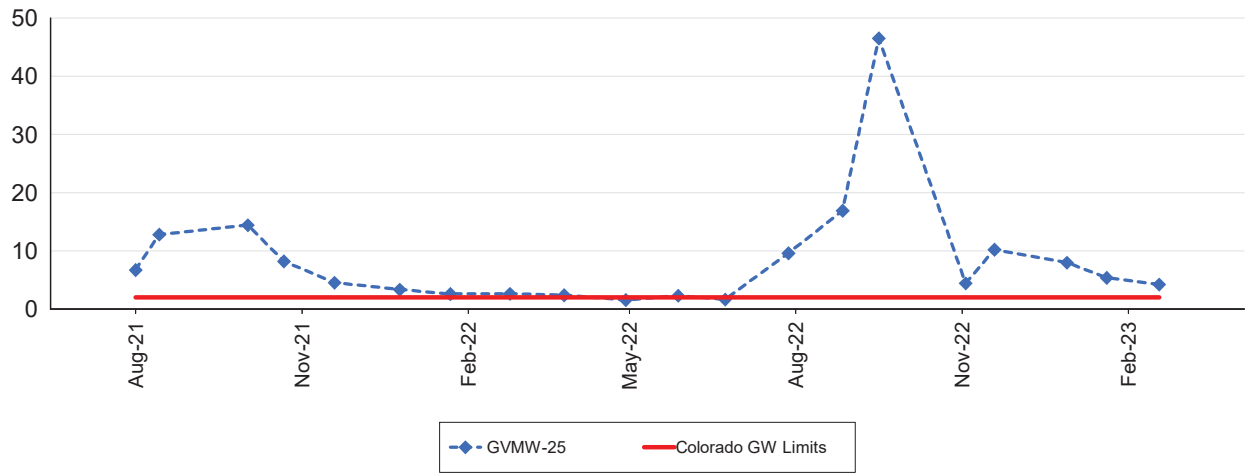


: Copper - Dissolved (mg/L)

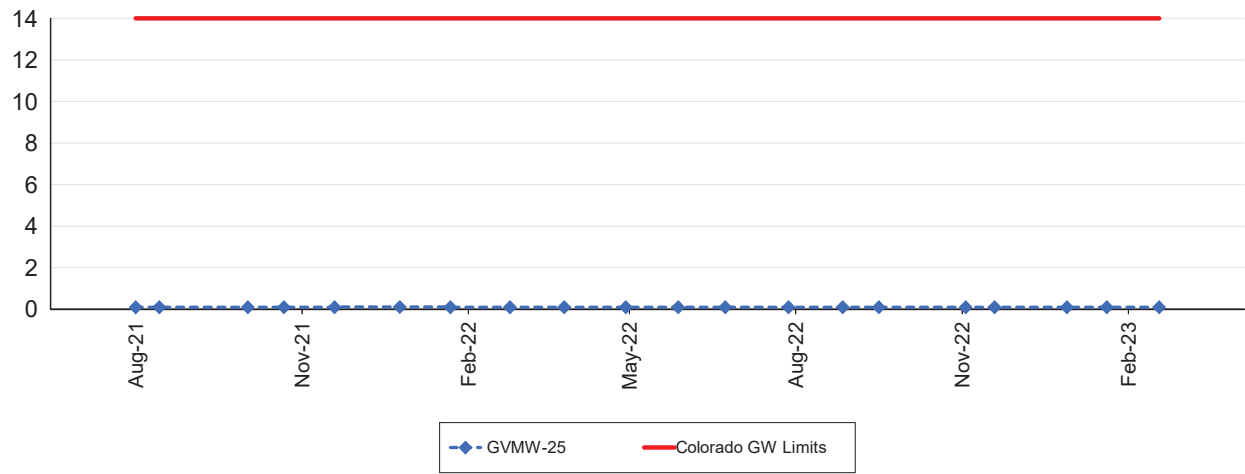




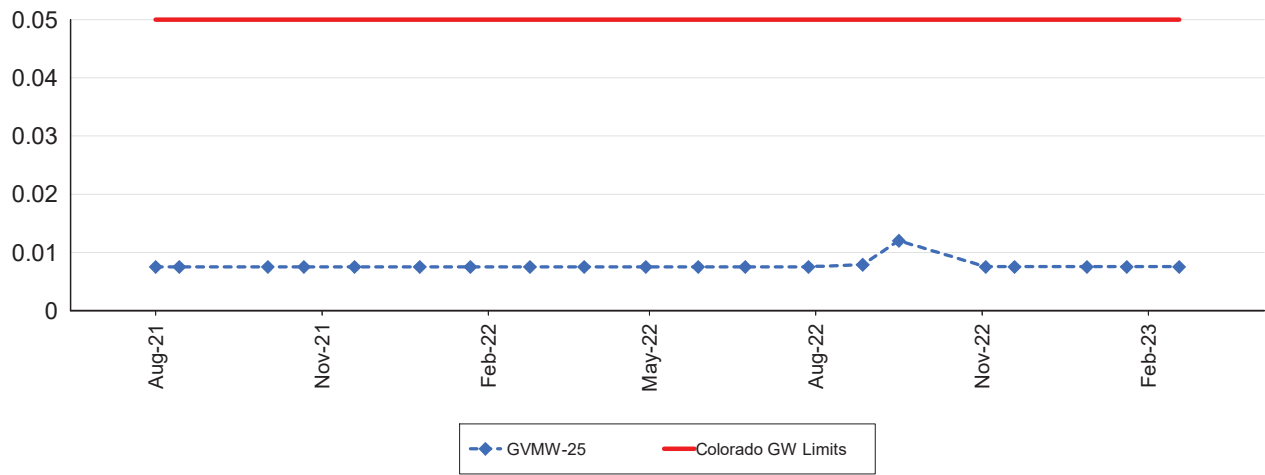
: Fluoride - Total F (mg/L)



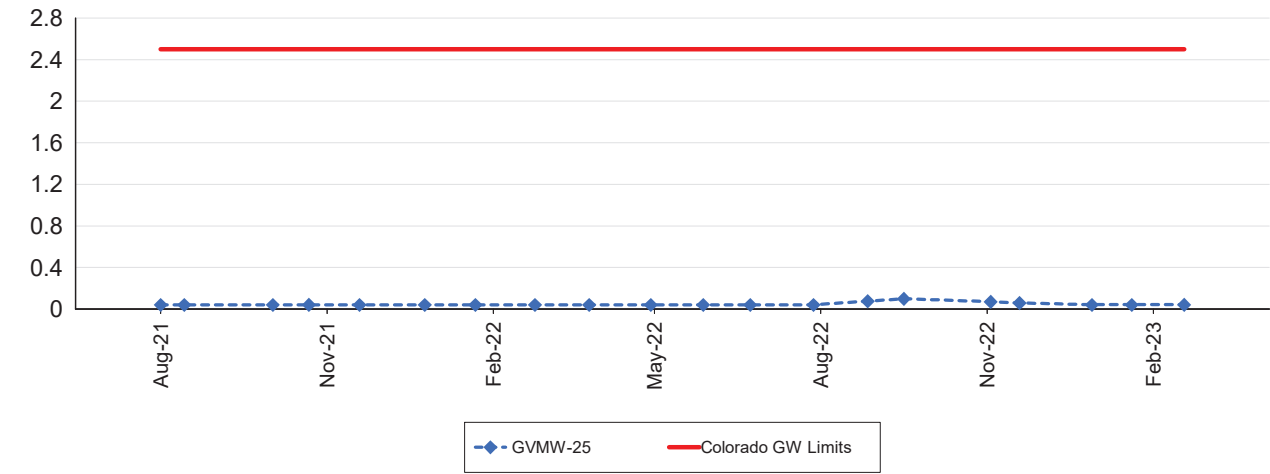
: Iron - Dissolved (mg/L)



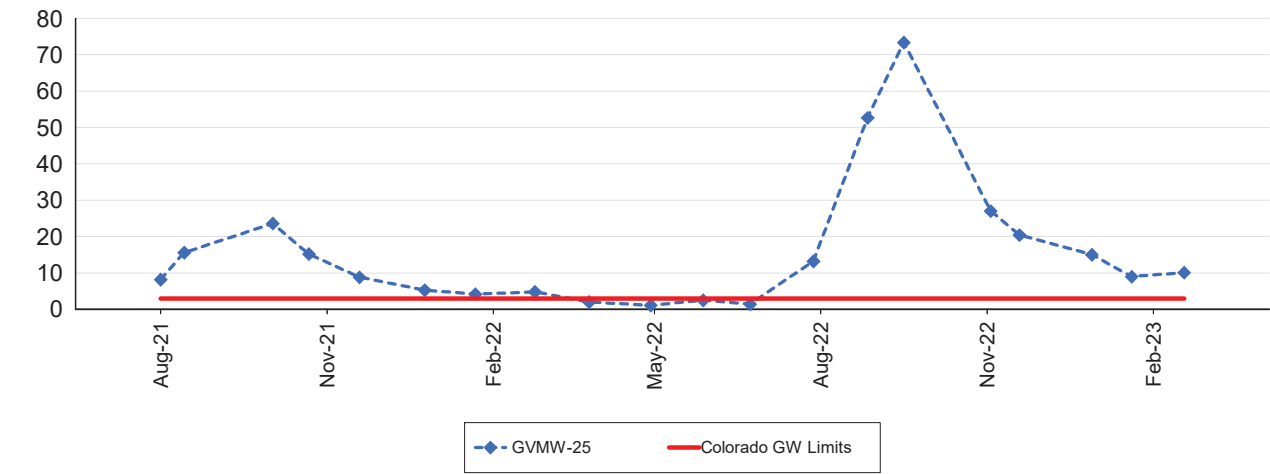
: Lead - Dissolved (mg/L)



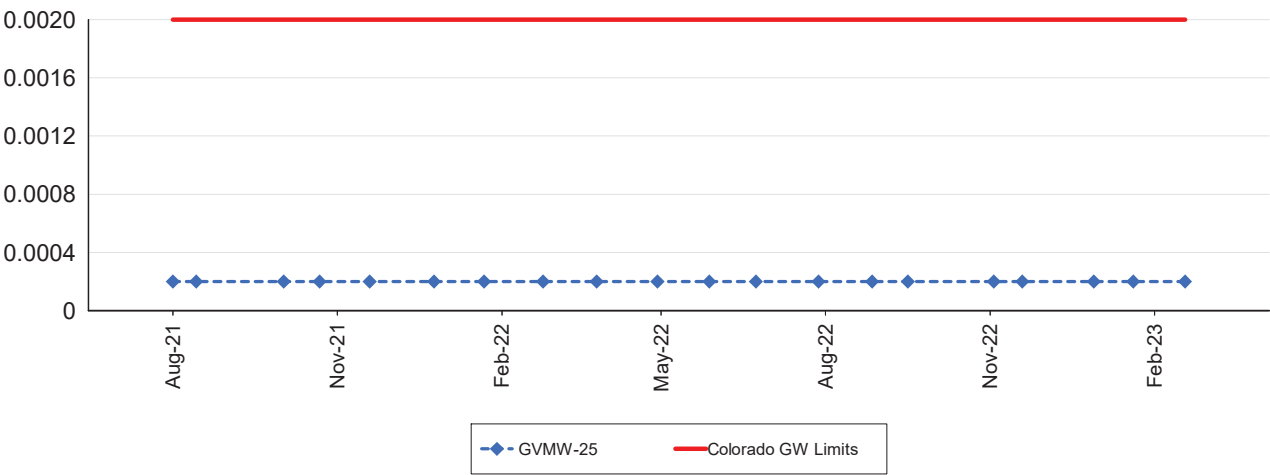
: Lithium - Dissolved (mg/L)



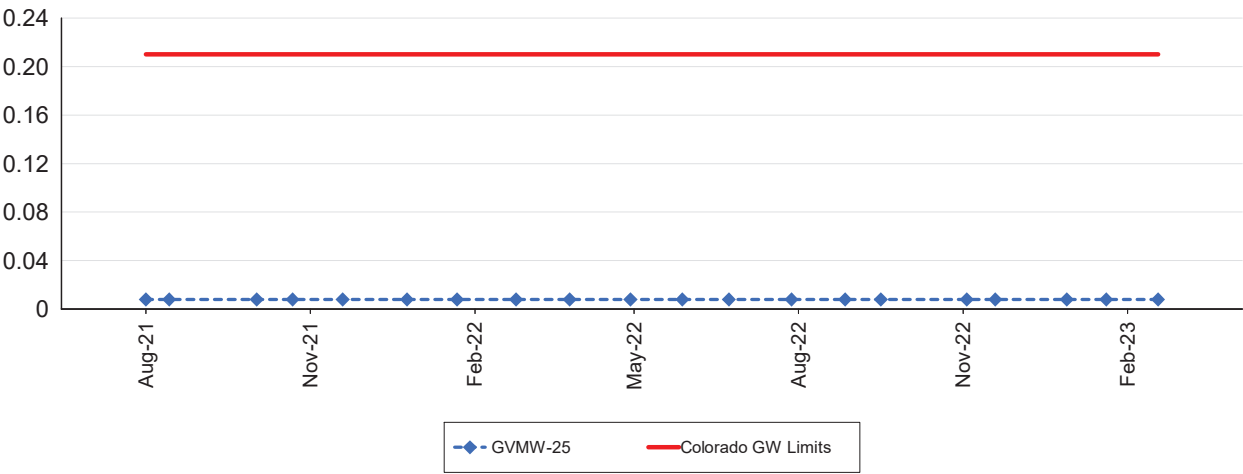
: Manganese - Dissolved (mg/L)



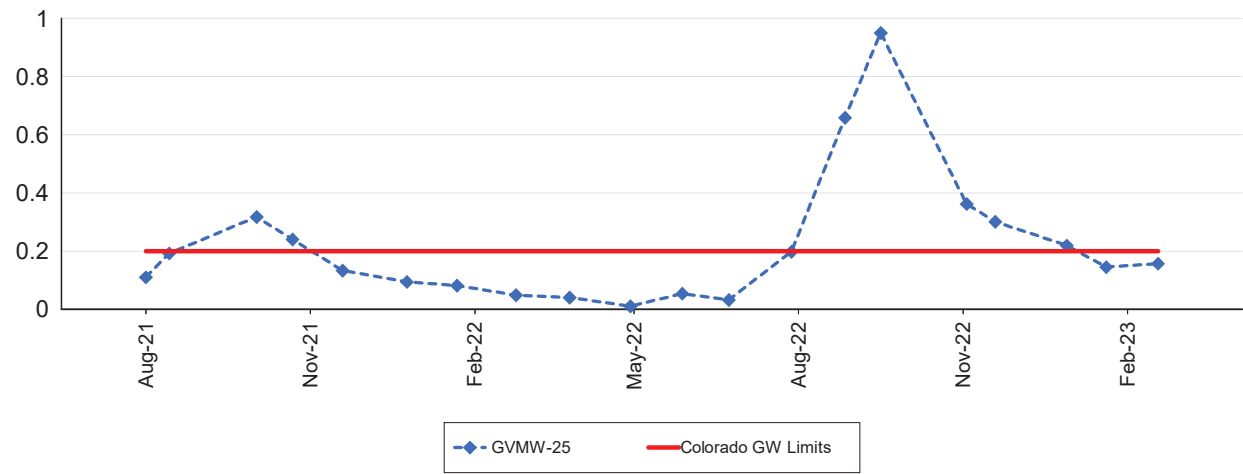
: Mercury - Dissolved (mg/L)



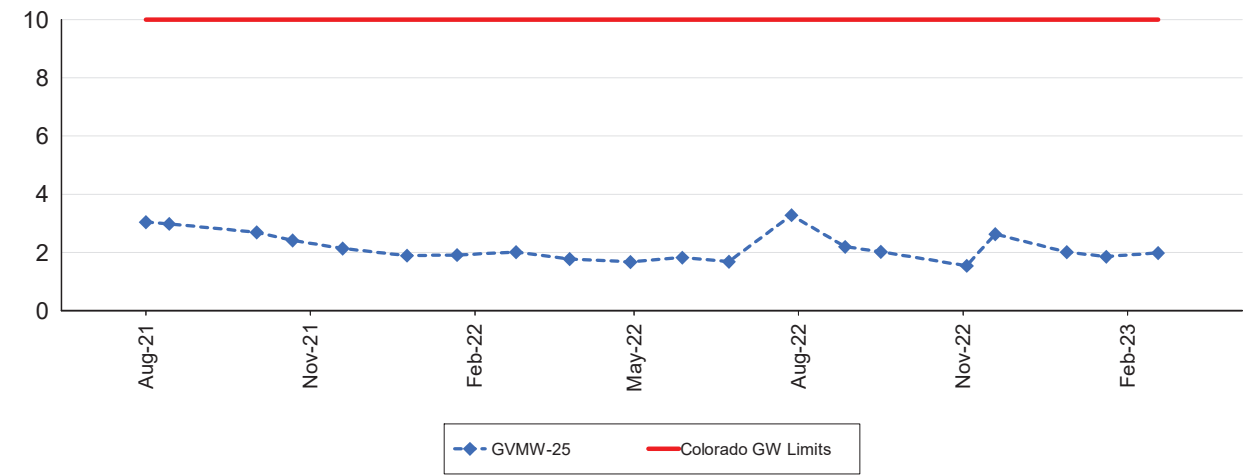
: Molybdenum - Dissolved (mg/L)



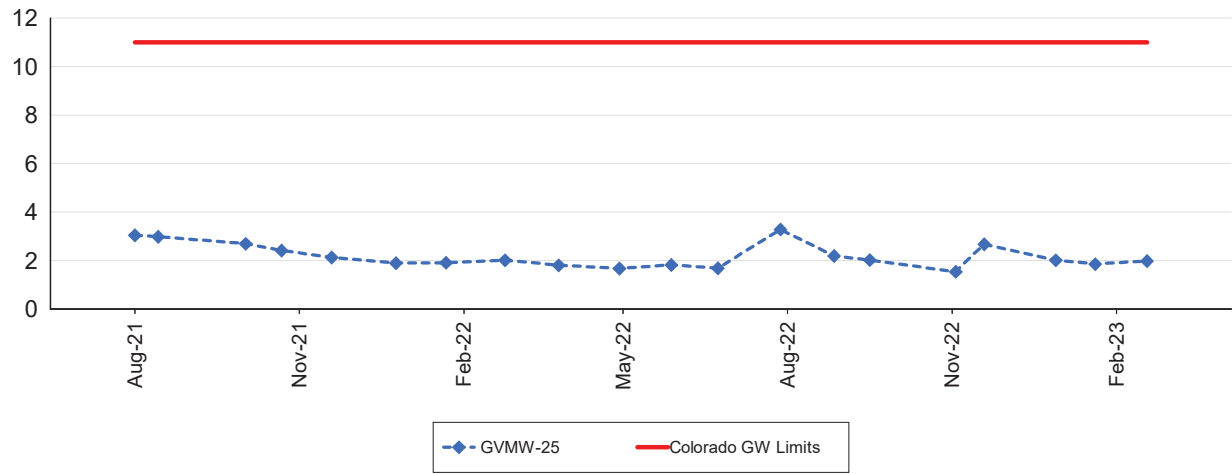
: Nickel - Dissolved (mg/L)



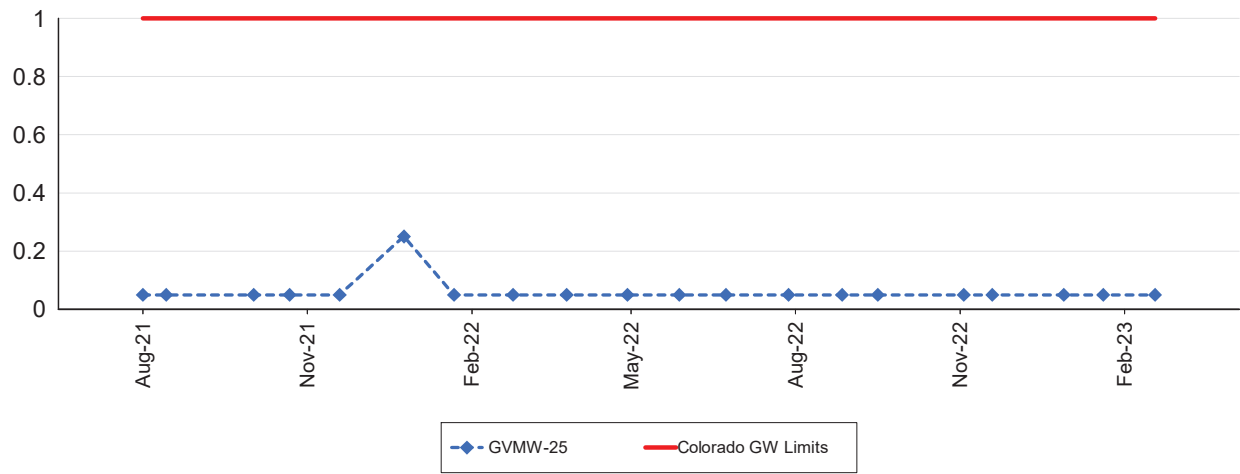
: Nitrate as Nitrogen (mg/L)



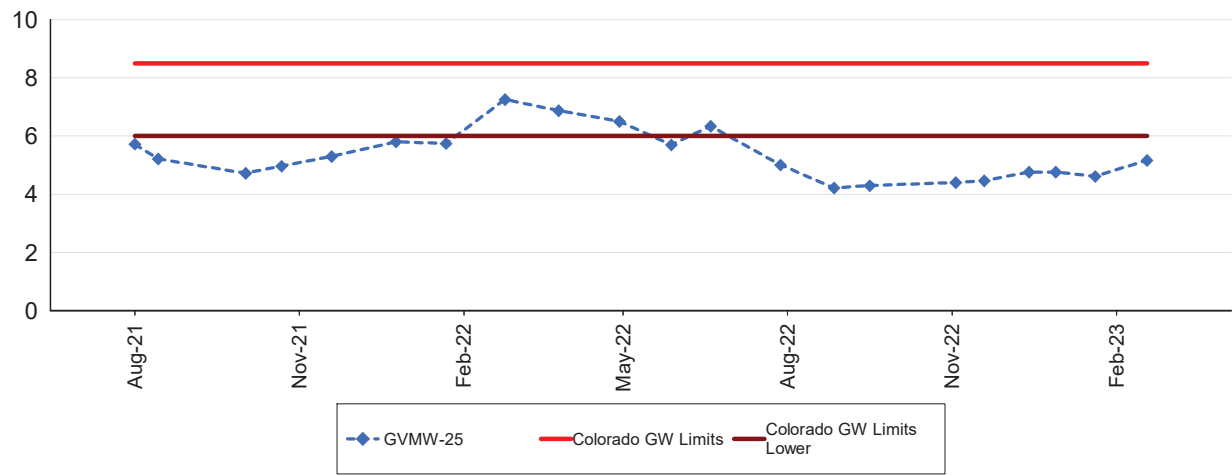
: Nitrite + Nitrate as Nitrogen (mg/L)

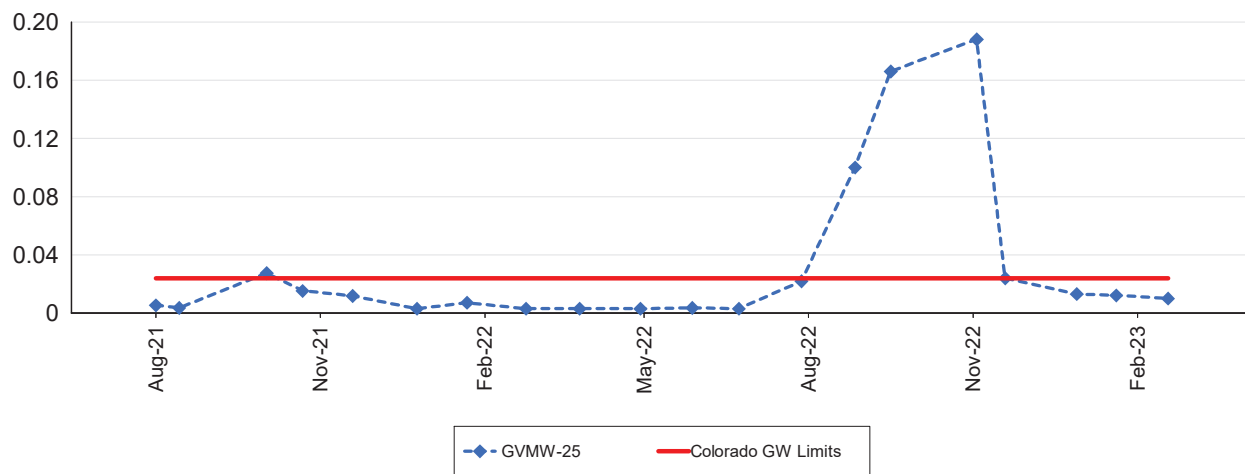
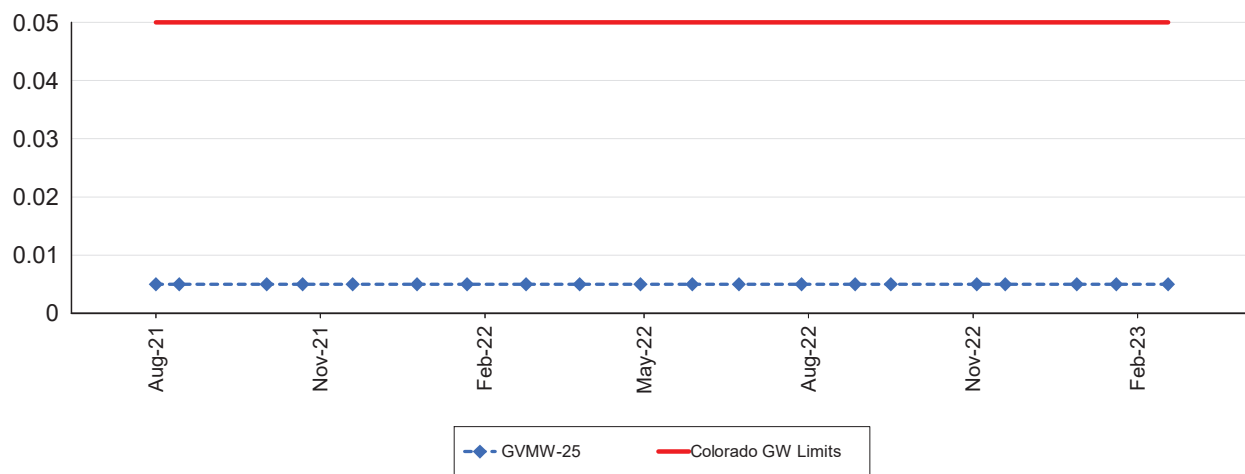
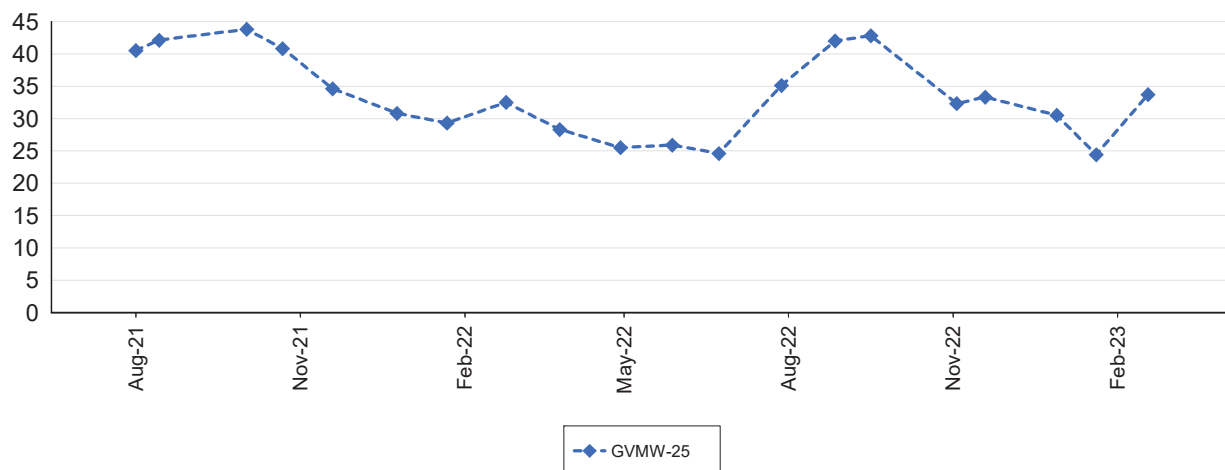


: Nitrite as Nitrogen (mg/L)

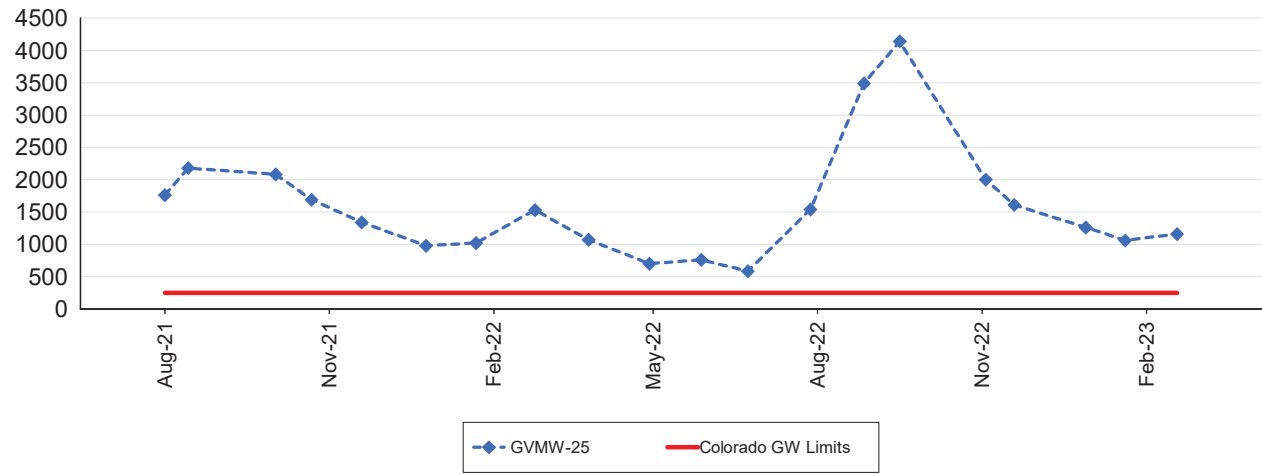


: pH Field (pH unit)

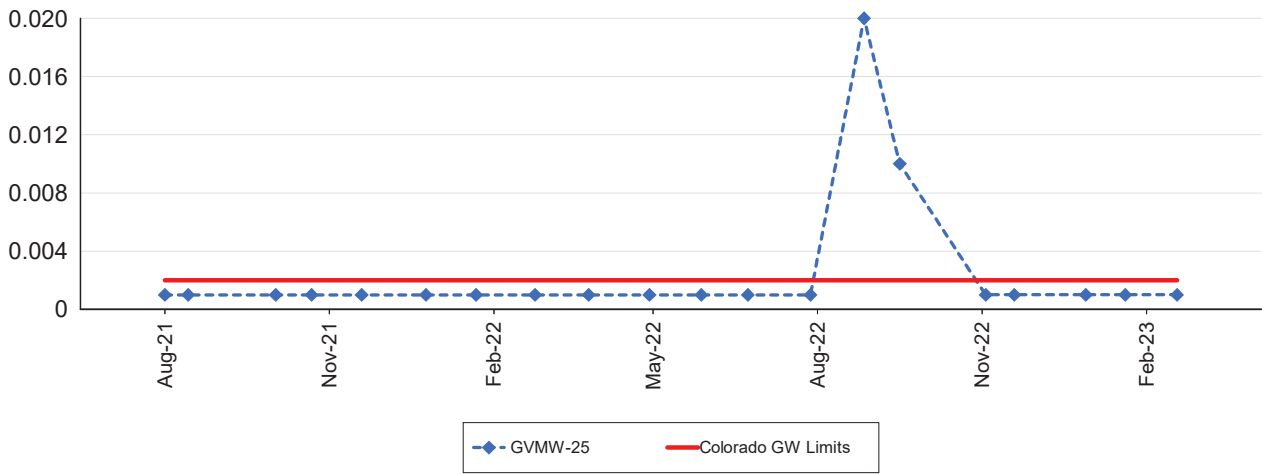


: Selenium - Dissolved (mg/L)**: Silver - Dissolved (mg/L)****: Sodium - Dissolved (mg/L)**

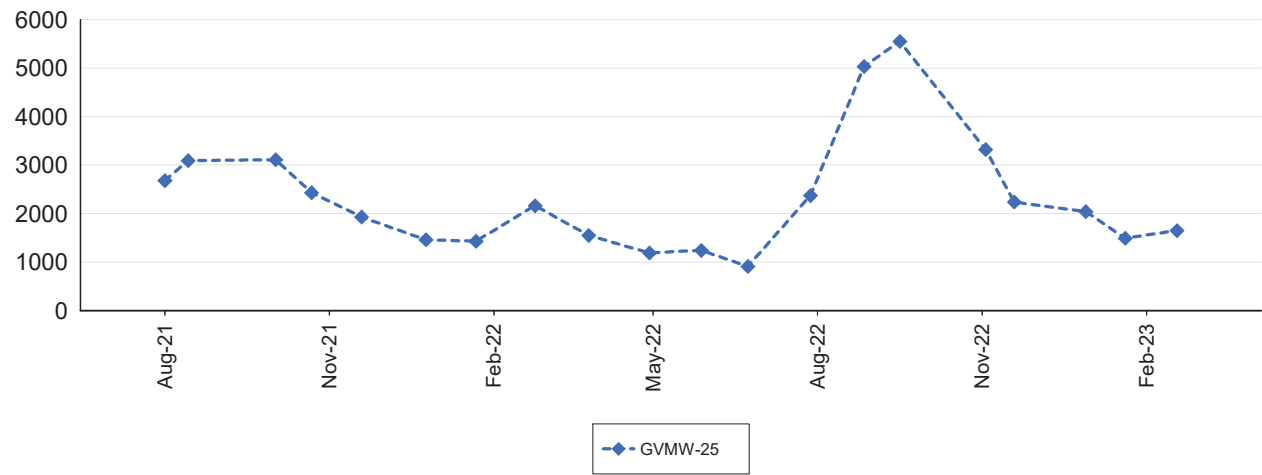
: Sulfate - Total (mg/L)



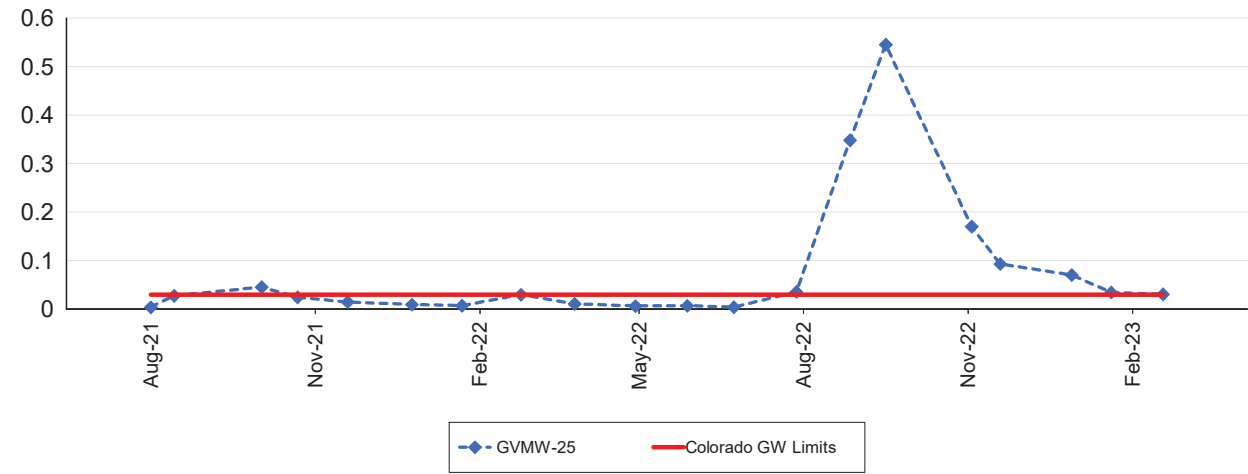
: Thallium - Dissolved (mg/L)



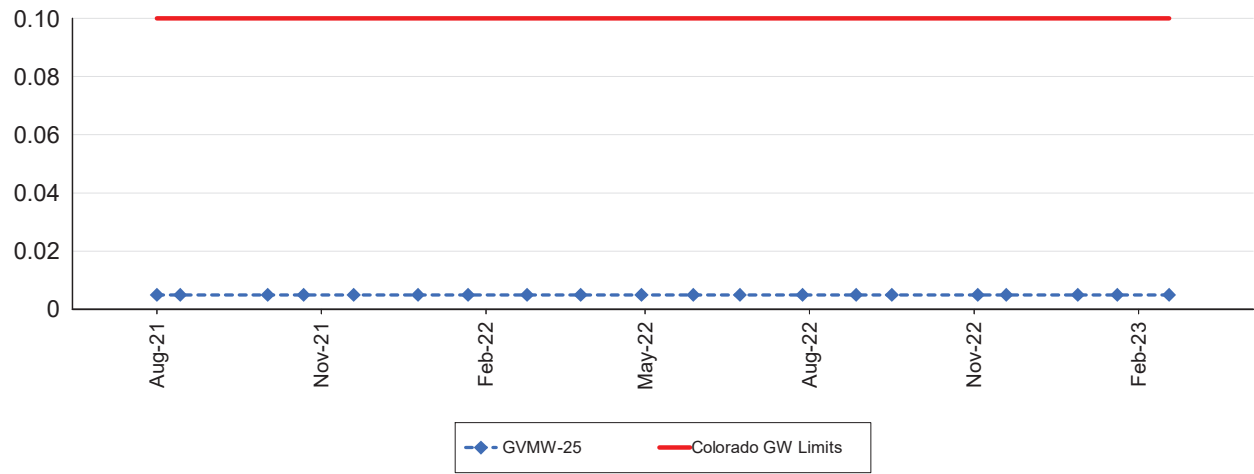
: Total Dissolved Solids (mg/L)



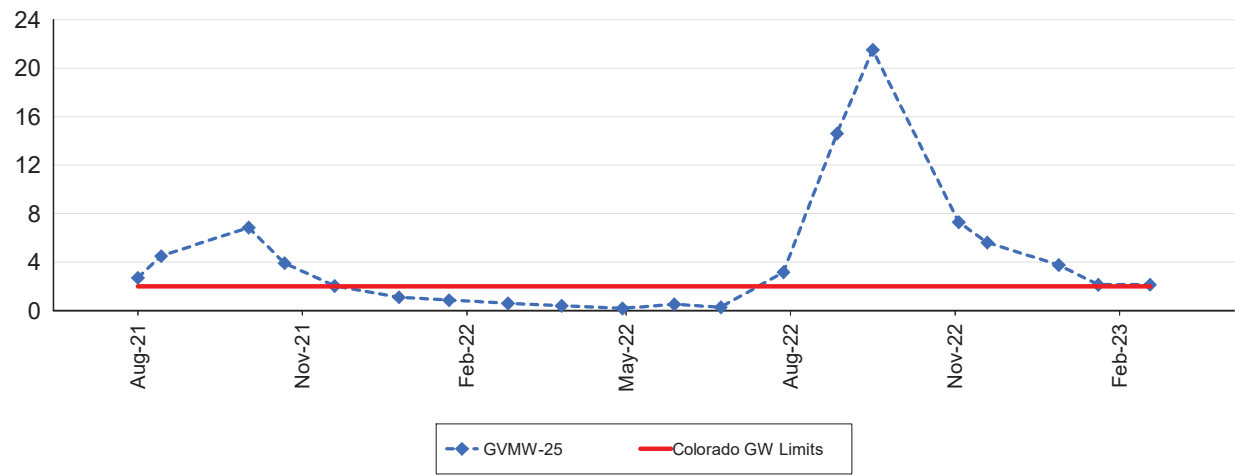
: Uranium - Dissolved (mg/L)



: Vanadium - Dissolved (mg/L)



: Zinc - Dissolved (mg/L)



Analytical Reports



One Government Gulch - PO Box 929

Kellogg, ID 83837-0929

(208) 784-1258

www.svl.net**Newmont - Cripple Creek & Victor**

Post Office Box 191

Victor, CO 80860

Work Order: **X3C0119**

Reported: 12-Apr-23 17:32

Client Sample ID: **GVMW-25**

Sampled: 08-Mar-23 13:42

Received: 09-Mar-23

Sampled By: PB

SVL Sample ID: **X3C0119-01 (Ground Water)****Sample Report Page 1 of 2**

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Metals (Total Recoverable--reportable as Total per 40 CFR 136)										
EPA 200.7	Calcium	315	mg/L	0.100	0.035		X310222	AS	03/14/23 12:46	
EPA 200.7	Magnesium	74.3	mg/L	0.500	0.045		X310222	AS	03/14/23 12:46	
EPA 200.7	Potassium	5.05	mg/L	0.50	0.09		X310222	AS	03/14/23 12:46	
SM 2340 B	Hardness (as CaCO3)	1090	mg/L	2.31	0.271		N/A		03/15/23 10:56	

Metals (Dissolved)

EPA 200.7	Aluminum	10.9	mg/L	0.080	0.054		X310197	AS	03/15/23 10:56	
EPA 200.7	Barium	0.0128	mg/L	0.0020	0.0019		X310197	AS	03/15/23 10:04	
EPA 200.7	Beryllium	0.0223	mg/L	0.00200	0.00080		X310197	AS	03/15/23 10:04	
EPA 200.7	Boron	< 0.0400	mg/L	0.0400	0.0078		X310197	AS	03/15/23 10:04	
EPA 200.7	Cadmium	0.0694	mg/L	0.0020	0.0016		X310197	AS	03/15/23 10:04	
EPA 200.7	Calcium	292	mg/L	0.100	0.069		X310197	AS	03/15/23 10:04	M3
EPA 200.7	Chromium	< 0.0060	mg/L	0.0060	0.0020		X310197	AS	03/15/23 10:04	
EPA 200.7	Cobalt	0.0313	mg/L	0.0060	0.0046		X310197	AS	03/15/23 10:04	
EPA 200.7	Copper	0.0501	mg/L	0.0100	0.0027		X310197	AS	03/15/23 10:04	
EPA 200.7	Iron	< 0.100	mg/L	0.100	0.056		X310197	AS	03/15/23 10:04	
EPA 200.7	Lead	< 0.0075	mg/L	0.0075	0.0049		X310197	AS	03/15/23 10:04	
EPA 200.7	Lithium	0.041	mg/L	0.040	0.025		X310197	AS	03/15/23 10:04	
EPA 200.7	Magnesium	88.9	mg/L	0.500	0.090		X310197	AS	03/15/23 10:56	
EPA 200.7	Manganese	10.1	mg/L	0.0080	0.0034		X310197	AS	03/15/23 10:04	M3
EPA 200.7	Molybdenum	< 0.0080	mg/L	0.0080	0.0034		X310197	AS	03/15/23 10:04	
EPA 200.7	Nickel	0.157	mg/L	0.0100	0.0048		X310197	AS	03/15/23 10:04	
EPA 200.7	Potassium	4.21	mg/L	0.50	0.18		X310197	AS	03/15/23 10:04	
EPA 200.7	Silver	< 0.0050	mg/L	0.0050	0.0019		X310197	AS	03/15/23 10:04	
EPA 200.7	Sodium	33.7	mg/L	0.50	0.12		X310197	AS	03/15/23 10:56	
EPA 200.7	Vanadium	< 0.0050	mg/L	0.0050	0.0019		X310197	AS	03/15/23 10:04	
EPA 200.7	Zinc	2.14	mg/L	0.0100	0.0054		X310197	AS	03/15/23 10:04	
EPA 200.8	Antimony	< 0.00100	mg/L	0.00100	0.00072		X311126	SMU	03/17/23 10:13	
EPA 200.8	Arsenic	< 0.00200	mg/L	0.00200	0.00042	2	X311126	SMU	03/17/23 10:45	D1
EPA 200.8	Selenium	0.0100	mg/L	0.00200	0.00048	2	X311126	SMU	03/17/23 10:45	D1
EPA 200.8	Thallium	< 0.00100	mg/L	0.00100	0.000160	2	X311126	SMU	03/17/23 10:45	D1
EPA 200.8	Uranium	0.0302	mg/L	0.000200	0.000104	2	X311126	SMU	03/17/23 10:45	D1

Metals (Filtered)

EPA 245.1	Mercury	< 0.000200	mg/L	0.000200	0.000093		X311042	RCA	03/14/23 11:33	
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Classical Chemistry Parameters

ASTM D7237	Cyanide (free) @ pH 6 @20.0°C	< 0.0050	mg/L	0.0050	0.0048		X311020	HJL	03/14/23 09:51	
EPA 335.4	Cyanide (total)	< 0.0050	mg/L	0.0050	0.0038		X311016	KAG	03/20/23 15:38	
EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.013		X313152	KAG	04/11/23 18:48	H1
EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.013		X313152	KAG	04/11/23 18:49	H1
OIA 1677	Cyanide (WAD)	< 0.0050	mg/L	0.0050	0.0010		X311021	HJL	03/14/23 12:30	
SM 2310 B	Acidity to pH 8.3	32.2	mg/L as CaCO3	10.0			X312013	MWD	03/20/23 14:01	
SM 2320 B	Total Alkalinity	< 1.0	mg/L as CaCO3	1.0			X311092	MWD	03/15/23 10:51	R2B
SM 2320 B	Bicarbonate	< 1.0	mg/L as CaCO3	1.0			X311092	MWD	03/15/23 10:51	R2B
SM 2320 B	Carbonate	< 1.0	mg/L as CaCO3	1.0			X311092	MWD	03/15/23 10:51	
SM 2320 B	Hydroxide	< 1.0	mg/L as CaCO3	1.0			X311092	MWD	03/15/23 10:51	
SM 2540 C	Total Diss. Solids	1650	mg/L	10			X311085	TJL	03/14/23 14:20	
SM 2540 D	Total Susp. Solids	70.0	mg/L	5.0			X311086	TJL	03/14/23 14:20	
SM 4500 H B	pH @17.8°C	5.0	pH Units				X311092	MWD	03/15/23 10:51	H5

SVL holds the following certifications:

AZ:0538, ID:ID00019, NV:ID000192007A, UT(TNI):ID000192015-1, WA:C573

Work order Report Page 2 of 13



One Government Gulch - PO Box 929

Kellogg, ID 83837-0929

(208) 784-1258

www.svl.net**Newmont - Cripple Creek & Victor**

Post Office Box 191

Victor, CO 80860

Work Order: **X3C0119**

Reported: 12-Apr-23 17:32

Client Sample ID: **GVMW-25**SVL Sample ID: **X3C0119-01 (Ground Water)**

Sampled: 08-Mar-23 13:42

Received: 09-Mar-23

Sampled By: PB

Sample Report Page 2 of 2

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Anions by Ion Chromatography										
EPA 300.0	Chloride	15.7	mg/L	10.0	1.10	50	X310175	RS	03/09/23 14:50	D2
EPA 300.0	Fluoride	4.21	mg/L	0.100	0.017		X310175	RS	03/09/23 14:32	
EPA 300.0	Nitrate as N	1.98	mg/L	0.050	0.013		X310175	RS	03/09/23 14:32	
EPA 300.0	Nitrate+Nitrite as N	1.98	mg/L	0.100	0.044		X310175	RS	03/09/23 14:32	
EPA 300.0	Nitrite as N	< 0.050	mg/L	0.050	0.031		X310175	RS	03/09/23 14:32	
EPA 300.0	Sulfate as SO4	1160	mg/L	15.0	9.00	50	X310175	RS	03/09/23 14:50	D2

Cation/Anion Balance and TDS Ratios

Cation Sum: 23.9 meq/L

Anion Sum: 25.0 meq/L

C/A Balance: -2.17 %

Calculated TDS: 1612

TDS/cTDS: 1.02

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Katie Yoder

Field Sheets

Newmont Mining Co
Cripple Creek & Victor Gold Mining Co

Groundwater Sampling Log

Location : Grassy Valley

Date: 3/8/23

Technician: P. Barela / B. Doering

Quarter: 1

Static Water Level (DTW): 68.4

Well ID: GVMW-25

Is well Dry? NO

If so Dry at: —

Well Depth: 79
feet

Time	Drawdown (ft)	pH (S.U.)	Cond. (uS/cm)	Temp. (°C)	Notes
11:42	.3	4.37	2054	5.9	3L/min
11:55	4.9	5.25	1523	6	
12:05	7.9	5.12	1873	6	.7L/min
12:15	8	5.08	1938	7	
12:20	9.1	5.13	1927	6.6	
12:29	—	—	—	—	Dry at 77 Ft
1:42	6.6	5.16	1938	6.7	

73.3

76.3

76.4

77.5

75

Sample Method: Purged & Return Rate (gpm): .7 Time Start: 11:42 Time End: 1:42

Final Parameters	Stabilization Guidance	Met?	Comments
pH	<u>5.16</u>	0.1	<u>Y/N</u>
Conductivity	<u>1728</u>	3%	<u>Y/N</u>
Temp°C	<u>6.7</u>	10%	<u>Y/N</u>
Final H2O level		feet	

O/G visible: Y/N

Turbid?

Y/N

— slight discoloration

Equipment Decontaminated: Y/N

Decontamination procedure used:

triple rinse with Liquinox

Signature: [Signature]

Weather: Overcast / windy / cold

Newmont Mining Co

Cripple Creek & Victor Gold Mining Co

Surface Water Sampling Log

Location: GV 06Date: 3/8/23Technician: P. BarelaQuarter: 1

Time	pH (S.U.)	Cond. (uS/cm)	Temp. (°C)	Notes
10:18	—	—	—	Frozen

Sample Method: NO sampleOil/Gas visible [Y/N]Turbid [Y/N]Clear [Y/N]Weather: Clear 24 FSignature: 

Comments:

Sample location Frozen. NO safe access due to Frozen Ice build up.

Newmont Mining Co**Cripple Creek & Victor Gold Mining Co****Surface Water Sampling Log**Location : Seep -1Date: 3/8/23Technician: P. BarelaQuarter: 1

Time	pH (S.U.)	Cond. (uS/cm)	Temp. (°C)	Notes
2:21 pm	—	—	—	Frozen . snow Present

Sample Method: NOOil/Gas visible ☒ [Y/N]Turbid ☒ [Y/N]Clear ☒ [Y/N]Weather: overcast / windy / coldSignature: **Comments:**

snow present . the existing snow from weeks ago.

Newmont Mining Co

Cripple Creek & Victor Gold Mining Co

Surface Water Sampling Log

Location: Seep 2Date: 3/8/23Technician: P. BarolaQuarter: 1

Time	pH (S.U.)	Cond. (uS/cm)	Temp. (°C)	Notes
2:26 pm	—	—	—	Frozen snow present

Sample Method: NOOil/Gas visible ☒ [Y/N]Turbid ☒ [Y/N]Clear ☒ [Y/N]Weather: over cast/cold/windySignature: 

Comments:

Some snow melt but no flow present.

QA/QC

**Newmont - Cripple Creek & Victor**

Post Office Box 191

Victor, CO 80860

Work Order: **X3C0119**

Reported: 12-Apr-23 17:32

Client Sample ID: **GVMW-125**

Sampled: 08-Mar-23 13:42

Received: 09-Mar-23

Sampled By: PB

SVL Sample ID: **X3C0119-02 (Ground Water)****Sample Report Page 1 of 2**

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
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Metals (Total Recoverable--reportable as Total per 40 CFR 136)

EPA 200.7	Calcium	309	mg/L	0.100	0.035		X310222	AS	03/14/23 12:52	
EPA 200.7	Magnesium	72.9	mg/L	0.500	0.045		X310222	AS	03/14/23 12:52	
EPA 200.7	Potassium	4.48	mg/L	0.50	0.09		X310222	AS	03/14/23 12:52	
SM 2340 B	Hardness (as CaCO3)	1070	mg/L	2.31	0.271		N/A		03/15/23 11:06	

Metals (Dissolved)

EPA 200.7	Aluminum	9.94	mg/L	0.080	0.054		X310197	AS	03/15/23 11:06	
EPA 200.7	Barium	0.0110	mg/L	0.0020	0.0019		X310197	AS	03/15/23 10:13	
EPA 200.7	Beryllium	0.0192	mg/L	0.00200	0.00080		X310197	AS	03/15/23 10:13	
EPA 200.7	Boron	< 0.0400	mg/L	0.0400	0.0078		X310197	AS	03/15/23 10:13	
EPA 200.7	Cadmium	0.0618	mg/L	0.0020	0.0016		X310197	AS	03/15/23 10:13	
EPA 200.7	Calcium	261	mg/L	0.100	0.069		X310197	AS	03/15/23 10:13	
EPA 200.7	Chromium	< 0.0060	mg/L	0.0060	0.0020		X310197	AS	03/15/23 10:13	
EPA 200.7	Cobalt	0.0279	mg/L	0.0060	0.0046		X310197	AS	03/15/23 10:13	
EPA 200.7	Copper	0.0466	mg/L	0.0100	0.0027		X310197	AS	03/15/23 10:13	
EPA 200.7	Iron	< 0.100	mg/L	0.100	0.056		X310197	AS	03/15/23 10:13	
EPA 200.7	Lead	< 0.0075	mg/L	0.0075	0.0049		X310197	AS	03/15/23 10:13	
EPA 200.7	Lithium	< 0.040	mg/L	0.040	0.025		X310197	AS	03/15/23 10:13	
EPA 200.7	Magnesium	77.9	mg/L	0.500	0.090		X310197	AS	03/15/23 11:06	
EPA 200.7	Manganese	8.99	mg/L	0.0080	0.0034		X310197	AS	03/15/23 10:13	
EPA 200.7	Molybdenum	< 0.0080	mg/L	0.0080	0.0034		X310197	AS	03/15/23 10:13	
EPA 200.7	Nickel	0.140	mg/L	0.0100	0.0048		X310197	AS	03/15/23 10:13	
EPA 200.7	Potassium	3.73	mg/L	0.50	0.18		X310197	AS	03/15/23 10:13	
EPA 200.7	Silver	< 0.0050	mg/L	0.0050	0.0019		X310197	AS	03/15/23 10:13	
EPA 200.7	Sodium	30.4	mg/L	0.50	0.12		X310197	AS	03/15/23 11:06	
EPA 200.7	Vanadium	< 0.0050	mg/L	0.0050	0.0019		X310197	AS	03/15/23 10:13	
EPA 200.7	Zinc	1.90	mg/L	0.0100	0.0054		X310197	AS	03/15/23 10:13	
EPA 200.8	Antimony	< 0.00100	mg/L	0.00100	0.00072		X311126	SMU	03/17/23 10:16	
EPA 200.8	Arsenic	< 0.00200	mg/L	0.00200	0.00042	2	X311126	SMU	03/17/23 10:48	D1
EPA 200.8	Selenium	0.00944	mg/L	0.00200	0.00048	2	X311126	SMU	03/17/23 10:48	D1
EPA 200.8	Thallium	< 0.00100	mg/L	0.00100	0.000160	2	X311126	SMU	03/17/23 10:48	D1
EPA 200.8	Uranium	0.0270	mg/L	0.000200	0.000104	2	X311126	SMU	03/17/23 10:48	D1

Metals (Filtered)

EPA 245.1	Mercury	< 0.000200	mg/L	0.000200	0.000093		X311042	RCA	03/14/23 11:35	
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Classical Chemistry Parameters

ASTM D7237	Cyanide (free) @ pH 6 @20.0°C	< 0.0050	mg/L	0.0050	0.0048		X311020	HJL	03/14/23 09:52	
EPA 335.4	Cyanide (total)	< 0.0050	mg/L	0.0050	0.0038		X311016	KAG	03/20/23 15:40	
EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.013		X313152	KAG	04/11/23 18:52	H1
EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.013		X313152	KAG	04/11/23 18:54	H1
OIA 1677	Cyanide (WAD)	< 0.0050	mg/L	0.0050	0.0010		X311021	HJL	03/14/23 12:36	
SM 2310 B	Acidity to pH 8.3	32.2	mg/L as CaCO3	10.0			X312013	MWD	03/20/23 14:01	
SM 2320 B	Total Alkalinity	2.2	mg/L as CaCO3	1.0			X311092	MWD	03/15/23 10:57	
SM 2320 B	Bicarbonate	2.2	mg/L as CaCO3	1.0			X311092	MWD	03/15/23 10:57	
SM 2320 B	Carbonate	< 1.0	mg/L as CaCO3	1.0			X311092	MWD	03/15/23 10:57	
SM 2320 B	Hydroxide	< 1.0	mg/L as CaCO3	1.0			X311092	MWD	03/15/23 10:57	
SM 2540 C	Total Diss. Solids	1710	mg/L	10			X311085	TJL	03/14/23 14:20	
SM 2540 D	Total Susp. Solids	38.0	mg/L	5.0			X311086	TJL	03/14/23 14:20	
SM 4500 H B	pH @18.2°C	5.1	pH Units				X311092	MWD	03/15/23 10:57	H5

SVL holds the following certifications:

AZ:0538, ID:ID00019, NV:ID000192007A, UT(TNI):ID000192015-1, WA:C573

Work order Report Page 4 of 13



One Government Gulch - PO Box 929

Kellogg, ID 83837-0929

(208) 784-1258

www.svl.net**Newmont - Cripple Creek & Victor**

Post Office Box 191

Victor, CO 80860

Work Order: **X3C0119**

Reported: 12-Apr-23 17:32

Client Sample ID: **GVMW-125**

Sampled: 08-Mar-23 13:42

SVL Sample ID: **X3C0119-02 (Ground Water)**

Received: 09-Mar-23

Sampled By: PB

Sample Report Page 2 of 2

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Anions by Ion Chromatography										
EPA 300.0	Chloride	15.3	mg/L	10.0	1.10	50	X310175	RS	03/09/23 15:27	D2
EPA 300.0	Fluoride	3.98	mg/L	0.100	0.017		X310175	RS	03/09/23 15:09	
EPA 300.0	Nitrate as N	1.93	mg/L	0.050	0.013		X310175	RS	03/09/23 15:09	
EPA 300.0	Nitrate+Nitrite as N	1.93	mg/L	0.100	0.044		X310175	RS	03/09/23 15:09	
EPA 300.0	Nitrite as N	< 0.050	mg/L	0.050	0.031		X310175	RS	03/09/23 15:09	
EPA 300.0	Sulfate as SO4	1140	mg/L	15.0	9.00	50	X310175	RS	03/09/23 15:27	D2

Cation/Anion Balance and TDS Ratios

Cation Sum: 21.9 meq/L

Anion Sum: 24.6 meq/L

C/A Balance: -5.63 %

Calculated TDS: 1564

TDS/cTDS: 1.09

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Katie Yoder



One Government Gulch - PO Box 929

Kellogg, ID 83837-0929

(208) 784-1258

www.svl.net**Newmont - Cripple Creek & Victor**

Post Office Box 191

Victor, CO 80860

Work Order: **X3C0119**

Reported: 12-Apr-23 17:32

Client Sample ID: **RB0308**

Sampled: 08-Mar-23 10:54

Received: 09-Mar-23

Sampled By: PB

SVL Sample ID: **X3C0119-03 (Ground Water)****Sample Report Page 1 of 2**

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Metals (Total Recoverable--reportable as Total per 40 CFR 136)										
EPA 200.7	Calcium	0.863	mg/L	0.100	0.035		X310222	AS	03/14/23 12:55	
EPA 200.7	Magnesium	< 0.500	mg/L	0.500	0.045		X310222	AS	03/14/23 12:55	
EPA 200.7	Potassium	< 0.50	mg/L	0.50	0.09		X310222	AS	03/14/23 12:55	
SM 2340 B	Hardness (as CaCO ₃)	< 2.31	mg/L	2.31	0.271		N/A		03/15/23 11:09	

Metals (Dissolved)

EPA 200.7	Aluminum	< 0.080	mg/L	0.080	0.054		X310197	AS	03/15/23 11:09	
EPA 200.7	Barium	< 0.0020	mg/L	0.0020	0.0019		X310197	AS	03/15/23 10:17	
EPA 200.7	Beryllium	< 0.00200	mg/L	0.00200	0.00080		X310197	AS	03/15/23 10:17	
EPA 200.7	Boron	< 0.0400	mg/L	0.0400	0.0078		X310197	AS	03/15/23 10:17	
EPA 200.7	Cadmium	< 0.0020	mg/L	0.0020	0.0016		X310197	AS	03/15/23 10:17	
EPA 200.7	Calcium	0.714	mg/L	0.100	0.069		X310197	AS	03/15/23 10:17	
EPA 200.7	Chromium	< 0.0060	mg/L	0.0060	0.0020		X310197	AS	03/15/23 10:17	
EPA 200.7	Cobalt	< 0.0060	mg/L	0.0060	0.0046		X310197	AS	03/15/23 10:17	
EPA 200.7	Copper	< 0.0100	mg/L	0.0100	0.0027		X310197	AS	03/15/23 10:17	
EPA 200.7	Iron	< 0.100	mg/L	0.100	0.056		X310197	AS	03/15/23 10:17	
EPA 200.7	Lead	< 0.0075	mg/L	0.0075	0.0049		X310197	AS	03/15/23 10:17	
EPA 200.7	Lithium	< 0.040	mg/L	0.040	0.025		X310197	AS	03/15/23 10:17	
EPA 200.7	Magnesium	< 0.500	mg/L	0.500	0.090		X310197	AS	03/15/23 11:09	
EPA 200.7	Manganese	0.0089	mg/L	0.0080	0.0034		X310197	AS	03/15/23 10:17	
EPA 200.7	Molybdenum	< 0.0080	mg/L	0.0080	0.0034		X310197	AS	03/15/23 10:17	
EPA 200.7	Nickel	< 0.0100	mg/L	0.0100	0.0048		X310197	AS	03/15/23 10:17	
EPA 200.7	Potassium	< 0.50	mg/L	0.50	0.18		X310197	AS	03/15/23 10:17	
EPA 200.7	Silver	< 0.0050	mg/L	0.0050	0.0019		X310197	AS	03/15/23 10:17	
EPA 200.7	Sodium	< 0.50	mg/L	0.50	0.12		X310197	AS	03/15/23 11:09	
EPA 200.7	Vanadium	< 0.0050	mg/L	0.0050	0.0019		X310197	AS	03/15/23 10:17	
EPA 200.7	Zinc	< 0.0100	mg/L	0.0100	0.0054		X310197	AS	03/15/23 10:17	
EPA 200.8	Antimony	< 0.00100	mg/L	0.00100	0.00072		X311126	SMU	03/17/23 10:18	
EPA 200.8	Arsenic	< 0.00100	mg/L	0.00100	0.00021		X311126	SMU	03/17/23 10:18	
EPA 200.8	Selenium	< 0.00100	mg/L	0.00100	0.00024		X311126	SMU	03/17/23 10:18	
EPA 200.8	Thallium	< 0.00100	mg/L	0.00100	0.00008		X311126	SMU	03/17/23 10:18	
EPA 200.8	Uranium	0.000157	mg/L	0.000100	0.000052		X311126	SMU	03/17/23 10:18	

Metals (Filtered)

EPA 245.1	Mercury	< 0.000200	mg/L	0.000200	0.000093		X311042	RCA	03/14/23 11:38	
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Classical Chemistry Parameters

ASTM D7237	Cyanide (free) @ pH 6 @20.0°C	< 0.0050	mg/L	0.0050	0.0048		X311020	HJL	03/14/23 09:54	
EPA 335.4	Cyanide (total)	< 0.0050	mg/L	0.0050	0.0038		X311016	KAG	03/20/23 15:10	
EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.013		X311046	JM	03/16/23 14:21	
OIA 1677	Cyanide (WAD)	< 0.0050	mg/L	0.0050	0.0010		X311021	HJL	03/14/23 12:38	
SM 2310 B	Acidity to pH 8.3	< 10.0	mg/L as CaCO ₃	10.0			X312013	MWD	03/20/23 14:01	
SM 2320 B	Total Alkalinity	1.2	mg/L as CaCO ₃	1.0			X311092	MWD	03/15/23 11:03	
SM 2320 B	Bicarbonate	1.2	mg/L as CaCO ₃	1.0			X311092	MWD	03/15/23 11:03	
SM 2320 B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			X311092	MWD	03/15/23 11:03	
SM 2320 B	Hydroxide	< 1.0	mg/L as CaCO ₃	1.0			X311092	MWD	03/15/23 11:03	
SM 2540 C	Total Diss. Solids	18	mg/L	10			X311085	TJL	03/14/23 14:20	
SM 2540 D	Total Susp. Solids	< 5.0	mg/L	5.0			X311086	TJL	03/14/23 14:20	
SM 4500 H B	pH @18.0°C	6.3	pH Units				X311092	MWD	03/15/23 11:03	H5

SVL holds the following certifications:

AZ:0538, ID:ID00019, NV:ID000192007A, UT(TNI):ID000192015-1, WA:C573

Work order Report Page 6 of 13



One Government Gulch - PO Box 929

Kellogg, ID 83837-0929

(208) 784-1258

www.svl.net**Newmont - Cripple Creek & Victor**

Post Office Box 191

Victor, CO 80860

Work Order: **X3C0119**

Reported: 12-Apr-23 17:32

Client Sample ID: **RB0308**SVL Sample ID: **X3C0119-03 (Ground Water)**

Sampled: 08-Mar-23 10:54

Received: 09-Mar-23

Sampled By: PB

Sample Report Page 2 of 2

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Anions by Ion Chromatography										
EPA 300.0	Chloride	< 0.20	mg/L	0.20	0.02		X310175	RS	03/09/23 15:45	
EPA 300.0	Fluoride	< 0.100	mg/L	0.100	0.017		X310175	RS	03/09/23 15:45	
EPA 300.0	Nitrate as N	< 0.050	mg/L	0.050	0.013		X310175	RS	03/09/23 15:45	
EPA 300.0	Nitrate+Nitrite as N	< 0.100	mg/L	0.100	0.044		X310175	RS	03/09/23 15:45	
EPA 300.0	Nitrite as N	< 0.050	mg/L	0.050	0.031		X310175	RS	03/09/23 15:45	
EPA 300.0	Sulfate as SO4	2.24	mg/L	0.30	0.18		X310175	RS	03/09/23 15:45	

Cation/Anion Balance and TDS Ratios

Cation Sum: 0.06 meq/L

Anion Sum: 0.08 meq/L

C/A Balance: -11.29 %

Calculated TDS: 4

TDS/cTDS: 4.80

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Katie Yoder

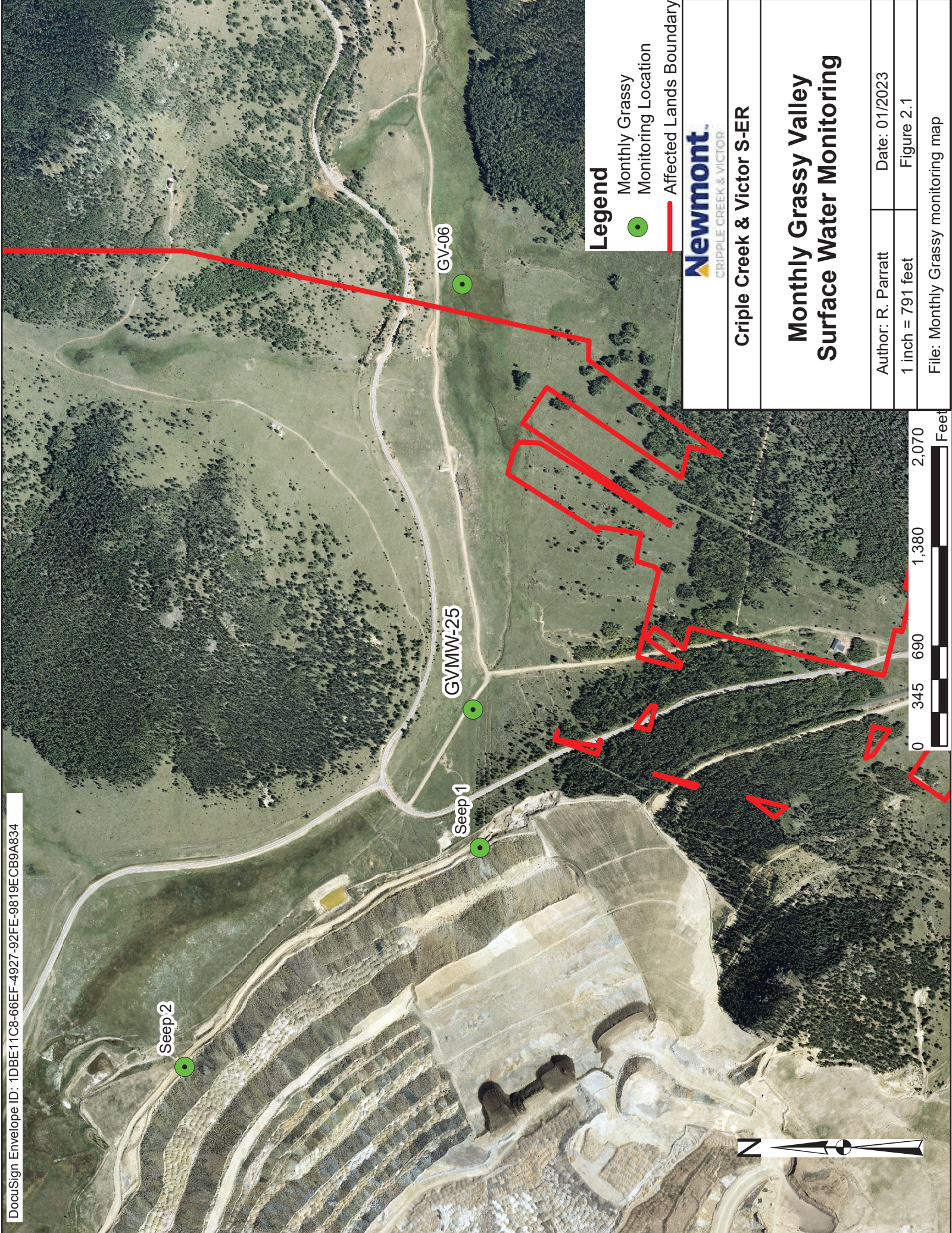
Surface Water Photos







Map



Legend

- Monthly Grassy Monitoring Location
- Affected Lands Boundary



Cripple Creek & Victor S-ER

Monthly Grassy Valley Surface Water Monitoring

Author: R. Parratt	Date: 01/2023
1 inch = 791 feet	Figure 2.1
File: Monthly Grassy monitoring map	

