

April 28, 2022

Daniel Takami
Grand Island Resources, LLC
12567 West Cedar Dr
Lakewood, CO 80228

RE: Cross Gold Mine, Permit No. M-1977-410, Technical Revision No. 10 (TR-10), Adequacy Review No. 3

Mr. Takami:

The Division of Reclamation, Mining and Safety (DRMS/the Division) has completed its review of your adequacy response submitted on April 26, 2022 for Technical Revision No. 10 (TR-10). After reviewing the materials submitted, DRMS has identified the following adequacy item(s) that must be addressed before an approval of TR-10 can be issued:

- 1) The revised Figure 1 – Water Management System includes a “Temporary Backwash Tank” located just southeast of the water treatment conex. This tank was not included on the previous version of this figure, and no additional details on this tank were provided in the revised materials. The tank is only referenced in the caption of Figure 16 provided in Appendix A which states “Current Backwash and Settling Tank”. The photograph presented in this figure shows the exterior of a large steel tank. Please provide a description of this temporary backwash tank, including its main components, its capacity, how it will be connected to the main treatment conex, and its use in the water treatment/management regime. Additionally, please describe what will be done with the residual sediments deposited inside the tank during the backwash process.
- 2) DRMS has the following comments pertaining to the revised groundwater monitoring plan provided in Appendix F:
 - a. Please provide a revised Table 4 groundwater sampling parameter list that includes the following parameters and associated standards:

Nitrate, dissolved	10.0 mg/L as N
Nitrite, dissolved	1.0 mg/L as N
Total Nitrate + Nitrite, dissolved	10.0 mg/L as N
Sulfate, dissolved	250 mg/L
Silver, dissolved	0.05 mg/L

- b. Please commit to sampling all three groundwater monitoring wells and the two mine effluent locations for all analytical parameters listed in Table 4 (as revised per item 2a above).



- 3) DRMS has calculated the required financial warranty for the water management and treatment program proposed in this revision to be in the amount of \$225,199.00 (see enclosed estimate). Because the operator has already posted an interim financial warranty of \$162,841.00 for water treatment, the additional required financial warranty for TR-10 approval will be in the amount of \$62,358.00. Please be aware, the costs associated with removal and disposal of the secondary pipelines (differentiated in purple on Figure 1 – Water Management System) are based on DRMS's measurements on Figure 1 (approximate 725 feet total), as the operator did not provide this information as requested.

This completes the Division's 3rd adequacy review of the materials submitted for TR-10. The decision date for TR-10 is set for **April 28, 2022**. Please be advised, the Board Order issued for Violation No. MV-2021-017 requires this revision to be approved no later than the current decision date. Therefore, the Division will make a decision on this revision by the close of business on April 28, 2022. Given the limited time remaining to complete the review process, please do not re-submit the entire revision application. It is only necessary to respond to the specific items requested.

If you have any questions, you may contact me by telephone at 303-866-3567, ext. 8129, or by email at amy.eschberger@state.co.us.

Sincerely,



Amy Eschberger
Environmental Protection Specialist

Encl: DRMS bond estimate

Cc: Richard Mittasch, Grand Island Resources, LLC
Patrick Lennberg, DRMS
Jared Ebert, DRMS
Michael Cunningham, DRMS

COST SUMMARY WORK

Task description: Cost Summary

Site: Cross Gold Mine

Permit Action: TR-10 2022

Permit/Job#: M1977410

PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 4/27/2022

County: Boulder

Filename: M77-410

User: AME

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Filtration media (8 filters)(\$15 ea)(replace 2x/wk)(2 yrs)	NA	0	0.00	\$24,960
002	Polishing media (2 vessels)(\$25,000 ea)(replace 1x/yr)(2 yrs)	NA	0	0.00	\$100,000
003	Filtration system equipment (3)(\$300 ea)(replace 1x/20 yrs)	NA	0	0.00	\$900
004	Polishing system equipment (3)(\$1,500 ea)(replace 1x/20 yrs)	NA	0	0.00	\$4,500
005	Control valves (20)(\$30 ea)(replace 1x/10 yrs)	NA	0	0.00	\$600
006	In-plant piping (50 ft)(\$1.50/ft)(replace 1x/10 yrs)	NA	0	0.00	\$75
007	External piping (600 ft)(\$1.25/ft)(replace 1x/20 yrs)	NA	0	0.00	\$750
008	Instrumentation (12)(\$50 ea)(replace 1x/15 yrs)	NA	0	0.00	\$600
009	Water quality sampling and testing (24/yr)(\$300 ea)(2 yrs)	NA	0	0.00	\$14,400
010	Inspection and sample collection (416 hrs/yr)(\$45/hr)(2 yrs)	NA	0	0.00	\$37,440
011	Data processing and reporting (48 hrs/yr)(\$75/hr)(2 yrs)	NA	0	0.00	\$7,200
012	Pipeline removal and disposal	DEMOLISH	1	8.00	\$3,552
<u>SUBTOTALS:</u>				8	\$194,977

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 0.00

Total = \$0

Performance bond: 0.00

Total = \$0

Job superintendent: 0.00

Total = \$0

Profit: 10.00

Total = \$19,498

TOTAL O & P = \$19,498

CONTRACT AMOUNT (direct + O & P) = \$214,475

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): \$0

Total = \$0

Engineering work and/or contract/bid preparation: 0.00

Total = \$0

Reclamation management and/or administration: 5.00

\$10,724

CONTINGENCY: 0.00

Total = \$0

TOTAL INDIRECT COST = \$30,222

TOTAL BOND AMOUNT (direct + indirect) = \$225,199

DEMOLITION WORK

Task description: Pipeline removal and disposal

Site: Cross Gold Mine

Permit Action: TR-10 2022

Permit/Job#: M1977410

PROJECT IDENTIFICATION

Task #: 012

State: Colorado

Abbreviation: None

Date: 4/27/2022

County: Boulder

Filename: M410-012

User: AME

Agency or organization name: DRMS

UNIT COSTS

Location adjustment: 102.20 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Water Pipeline Removal (725 ft secondary use)	725ftx6in diam	Pipe, sewer/water - 12 in. diameter pipe	725.00	LF	\$4.57	\$3,313.25
Water Pipeline Disposal	725ftx6in diam	Loading and 5 mile haul, salvage allowed - Steel frame structures	15.00	CY	\$10.85	\$162.75

Job Hours: 8.00

Subtotal
(unadjusted): \$3,476.00

Total Cost
(adjusted for location): \$3,552.47