



COLORADO
Division of Reclamation,
Mining and Safety
Department of Natural Resources

July 15, 2025

Micheal Murphy
Land Survey Advisors, LLC
296 Timber Lakes Est
Heber City, UT 84032

**Re: Crystal Vitoria Mine, File No. P-2025-004, Notice of Intent to Conduct Prospecting Operations,
Notice of Deficiency- Request for Financial and Performance Warranties**

Dear Mr. Murphy,

The Division of Reclamation, Mining and Safety (Division) has completed the review of the above listed Notice of Intent to Conduct Prospecting (NOI) and found that the submitted application materials meets the minimum requirements of the Act and Rules and Regulations.

Division Staff conducted a Reclamation Cost Estimate based on the details of your application. Staff calculations determined that the total cost to achieve reclamation of the project to be \$23,792.00 (Cost Estimation Worksheets Enclosed). To date, the Division has received the minimum bond required for filing of \$2,000.00. Please provide the Division with either a replacement Financial Warranty for the full amount or the **\$21,792.00** difference along with the appropriate Financial Warranty Form. In addition to the Financial Warranty, please execute and submit the Performance Warranty (Enclosed) and Affidavit of Authority (enclosed). Once the Financial and Performance Warranties are received and accepted by the Division your Notice can be accepted.

Please note, the Decision Date for your application is Friday July 18, 2025. To allow sufficient time for the submittal and acceptance of the Financial and Performance Warranties, please submit a written two week Decision Date Extension Request on or before Friday July 18, 2025. If you have any questions please feel free to contact me. Direct contact can be made at the Division's Grand Junction Field Office, by phone at 303-866-3567 Ext. 8187 or by email at lucas.west@state.co.us.

Sincerely,

Lucas West
Environmental Protection Specialist
Division of Reclamation, Mining and Safety

CC: Travis Marshall, DRMS



EC: Cullen LaPointe, USFS

COST SUMMARY WORK

Task description: Cost Summary

Site: Crystal Victoria Mine

Permit Action: New App

Permit/Job#: P2025004

PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 7/14/2025

County: Chaffee

Filename: P004-000

User: LJW

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Replace Portal Gate	MINESEAL	1	16.00	\$5,444
002	Plug and Abandon Monitoring Holes	BOREHOLE	1	8.00	\$590
002a	Seal Underground hole if it makes water	BOREHOLE	1	24.00	\$3,146
003	Remove and dispose of mud pit liner	DEMOLISH	1	16.00	\$613
004	Backfill Mud Pit Area	EXCAVATE	1	0.55	\$78
005	Mob/Demob	MOBILIZE	1	19.11	\$7,742
<u>SUBTOTALS:</u>				83.66	\$17,613

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	\$356
Performance bond:	1.05	Total =	\$185
Job superintendent:	29.83	Total =	\$2,241
Profit:	10.00	Total =	\$1,761

TOTAL O & P = \$4,543

CONTRACT AMOUNT (direct + O & P) = \$22,156

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	<u>\$0</u>	Total =	<u>\$0</u>
Engineering work and/or contract/bid preparation:	<u>0.00</u>	Total =	<u>\$0</u>
Reclamation management and/or administration:	<u>5.00</u>		<u>\$1,108</u>

CONTINGENCY: 3.00 Total = \$528

TOTAL INDIRECT COST = \$6,179

TOTAL BOND AMOUNT (direct + indirect) = \$23,792

SAFEGUARDING UNDERGROUND OPENINGS

Task description: Replace Portal Gate

Site: Crystal Victoria Mine

Permit Action: New App

Permit/Job#: P2025004

PROJECT IDENTIFICATION

Task #: 001

State: Colorado

Abbreviation: None

Date: 7/14/2025

County: Chaffee

Filename: P004-001

User: LJW

Agency or organization name: DRMS

UNIT COSTS

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Gated Adit Closure	8' x 12'	Adit closure - grate with bat access, ladder type (per opening)	1.00	EA	\$5,443.82	\$5,443.82

Job Hours: 16.00

Total Cost: \$5,443.82

BOREHOLE SEALING WORK

Task description: Plug and Abandon Monitoring Holes

Site: Crystal Victoria Mine

Permit Action: New App

Permit/Job#: P2025004

PROJECT IDENTIFICATION

Task #: 002

State: Colorado

Abbreviation: None

Date: 7/14/2025

County: Chaffee

Filename: P004-002

User: LJW

Agency or organization name: DRMS

UNIT COSTS

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Seal 3 Monitoring Holes	Portland cement grout - 2 in. (labor, equip, materials)	2	25	75.00	LF	\$7.87	\$589.88

Job Hours: 8.00

Total Cost: \$590.00

BOREHOLE SEALING WORK

Task description: Seal Underground hole if it makes water

Site: Crystal Victoria Mine

Permit Action: New App

Permit/Job#: P2025004

PROJECT IDENTIFICATION

Task #: 002A

State: Colorado

Abbreviation: None

Date: 7/14/2025

County: Chaffee

Filename: P004-002a

User: LJW

Agency or organization name: DRMS

UNIT COSTS

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Seal Underground Exploration Hole	Portland cement grout - 2 in. (labor, equip, materials)	4	400	400.00	LF	\$7.87	\$3,146.00

Job Hours: 24.00

Total Cost: \$3,146.00

DEMOLITION WORK

Task description: Remove and dispose of mud pit liner

Site: Crystal Victoria Mine

Permit Action: New App

Permit/Job#: P2025004

PROJECT IDENTIFICATION

Task #: 003

State: Colorado

Abbreviation: None

Date: 7/14/2025

County: Chaffee

Filename: P004-003

User: LJW

Agency or organization name: DRMS

UNIT COSTS

Location adjustment: 87.90 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Lined Mud Pit, 25 x 25	25' x 25' x 3'	Loading only, open areas (unconfined) - Track loader	69.00	CY	\$0.86	\$59.06
Haul liner to dump	25 x 25	Hauling only, per mile, 12-18 CY truck - 30 mph average speed	40.00	MI	\$10.41	\$416.54
Dump Fees	NA	Dump fees - Building construction materials.	20.00	CY	\$11.10	\$222.00

Job Hours: 16.00

Subtotal
(unadjusted): \$697.60

Total Cost
(adjusted for location): \$613.19

HYDRAULIC EXCAVATOR WORK

Task description: Backfill Mud Pit Area

Site: Crystal Victoria Mine

Permit Action: New App

Permit/Job#: P2025004

PROJECT IDENTIFICATION

Task #: 004
Date: 7/14/2025
User: LJW

State: Colorado
County: Chaffee

Abbreviation: None
Filename: P004-004

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat 311D LRR 8'-6" Stick
Attachment 1: ROPS Cab

Horsepower: 80
Weight (MT): 12.74
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$53.39	NA
Operating Cost/Hour:	\$29.07	100
Operator Cost/Hour:	\$59.31	NA
Total Unit Cost/Hour:	\$141.77	
Total Fleet Cost/Hour:	\$141.77	

MATERIAL QUANTITIES

Initial volume: 69 CCY Swell factor: 1.000
Loose volume: 69 LCY

Source of estimated volume: Division of Reclamation, Mining & Safety
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Excavator Cycle Time (load bucket, swing loaded, dump bucket, swing empty):

Basic Job Condition Description: AVERAGE
Secondary Job Condition within Basic Description: AVERAGE
Cycle Time Value: 0.242 minutes

Load Bucket Capacity

Rated Capacity: 0.68 LCY (heaped) Bucket Size Class: Medium
Bucket Fill Factor: 1.025 Rock - Earth Mixture (100%-105%) 1.025
Adjusted Capacity: 0.70 LCY

Job Condition Correction Factors

Site Altitude: 11900 feet

Altitude Adj: 0.87 Source (CAT HB)
Job Efficiency: 0.83 (1 shift/day)
Net Correction: 0.72 multiplier

Unadjusted Hourly Unit Production: 172.81 LCY/Hour
Adjusted Hourly Unit Production: 124.79 LCY/Hour
Adjusted Hourly Fleet Production: 124.79 LCY/Hour

JOB TIME AND COST

Fleet size: 1 Excavator Total job time: 0.55 Hours

Unit cost: \$1.136 /LCY Total job cost: \$78

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Mob/Demob**Site: **Crystal Victoria Mine**Permit Action: **New App**Permit/Job#: **P2025004****PROJECT IDENTIFICATION**Task #: **005**
Date: **7/14/2025**
User: **LJW**State: **Colorado**
County: **Chaffee**Abbreviation: **None**
Filename: **P004-005**Agency or organization name: **DRMS****EQUIPMENT TRANSPORT RIG COST**Shift basis: **1 per day**
Cost Data Source: **CRG Data**Truck Tractor Description: **GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED,
400 HP (2ND HALF, 2006)**Truck Trailer Description: **GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT
TRAILER (25T, 50T, AND 100T)****Cost Breakdown:**

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$21.47	\$38.32	\$48.96
Operating Cost/Hour:	\$31.47	\$60.11	\$65.86
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$22.25	\$22.25
Total Unit Cost/Hour:	\$75.46	\$143.20	\$159.59

NON ROADABLE EQUIPMENT:

Machine Description	Weight/ Unit (TONS)	Owner ship Cost/hr/ unit	Haul Rig Cost/hr/unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet	DOT Permit Cost/ fleet
Cat 311D LRR 8'-6"Stick	14.01	\$53.39	\$75.46	1	\$128.85	\$75.46	\$250.00
ATLAS COPCO ROC D3-01,3.0 in.	0.00	\$166.34	\$75.46	1	\$241.80	\$75.46	\$250.00
Subtotals:					\$370.65	\$150.92	\$500.00

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Subtotals:			\$0.00	\$0.00

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region: LEADVILLE,
 Total one-way travel distance: 35.00 miles
 Average Travel Speed: 45.00 mph

Total Non-Roadable Mob/Demob Cost * \$7,741.73
 ** two round trips with haul rig:
 Total Roadable Mob/Demob Cost ** \$0.00
 ** one round trip, no haul rig:

Transportation Cycle Time:

	Non- Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.78	0.78
Return Time (Hours):	0.78	0.78
Loading Time (Hours):	4.00	NA
Unloading Time (Hours):	4.00	NA
Subtotals:	9.56	1.56

JOB TIME AND COST

Total job time: 19.11 Hours

Total job cost: \$7,742

STATE OF COLORADO

DIVISION OF RECLAMATION, MINING AND SAFETY

Department of Natural Resources

1313 Sherman St., Room 215

Denver, Colorado 80203

Phone: (303) 866-3567

FAX: (303) 832-8106



ONE SITE PROSPECTING FINANCIAL WARRANTY ON BUREAU OF LAND MANAGEMENT LAND CHECK FOR DEPOSIT IN STATE TREASURY

Prospecting Financial Warranty No. _____

Notice of Intent No. _____

This form has been approved by the Mined Land Reclamation Board ("Board") pursuant to section 34-32-117, C.R.S., of the Colorado Land Reclamation Act. Any alteration or modification of this form, without approval by the Board shall result in the financial warranty being invalid and result in the voiding of any permit issued in conjunction with such invalid financial warranty and subject the Prospector to cease and desist orders and civil penalties for prospecting without a permit pursuant to section 34-32-123, C.R.S., of the Colorado Land Reclamation Act.

KNOW ALL MEN BY THESE PRESENTS, that we (I), _____, of the
County of _____, in the State of _____, as Principal(s) are
(am) held hereby and firmly bound unto the State of Colorado, acting through the Mined Land Reclamation Board in
the sum of _____ Dollars (\$ _____) for the payment of which sum, well
and truly to be made, we (I) hereby bind ourselve(s), and each of our (my) legal representatives, executors,
administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has filed a Notice of Intent to Conduct Prospecting Operations with the Board on
the following premises, indicated on the Notice of Intent filed with the Board, which is attached hereto and thereby
incorporated by reference, to wit:

NOW, THEREFORE, the conditions of this obligation as such that if the above-bounded Principal shall, in
conducting such prospecting operations, faithfully perform the provisions of the Notice of Intent to Conduct
Prospecting Operations filed with the Board and the requirements of the plan to implement reclamation measures to
reclaim all lands affected by the prospecting operations approved and modified by the Board, relating to the Colorado
Land Reclamation Act as amended, and the Rules and Regulations adopted pursuant thereto; upon the Board making
a finding that the lands described above have been satisfactorily reclaimed, and approving the Prospector's request for
a financial warranty release on such lands, then this obligation shall be exonerated and discharged and become null
and void; otherwise to remain in full force and effect.

If this financial warranty applies to National Forest System lands, and if this financial warranty is accepted by
the United States Forest Service ("U.S.F.S.") as the bond required under 36 C.F.R. 228.13, then the Prospector, having
requested that the Board and the U.S.F.S. accept this single financial warranty in lieu of the separate bonds which
would otherwise be required by applicable law, hereby agrees that, notwithstanding any other provision hereof, or of
law, this financial warranty shall remain in full force and effect until U.S.F.S. has advised the Board by written notice
that the Prospector's obligations to U.S.F.S., for which this warranty is executed, have been satisfied, and until the
financial warranty has been released by the Board.

If this financial warranty applies to lands under the jurisdiction of the State Board of Land Commissioners("Land Board"), and if this financial warranty, in whole or in part, is accepted by the Land Board as the bond required under its applicable law and procedures, then the Prospector, having requested that the State accept this financial warranty in lieu of the separate bonds which would otherwise be required by the Board or Division of Reclamation, Mining and Safety and by the Land Board, hereby agrees that, notwithstanding any other provision hereof, or of law, this financial warranty shall remain in full force and effect until the Board is notified in writing by the Land Board that the Prospector's obligations to the Land Board, for which this warranty is executed, have been satisfied, and until the financial warranty has been released by the Board.

If all or any part of the affected lands are under the jurisdiction of the Bureau of Land Management, United States Department of the Interior (the "BLM"), and if, at the request of the Prospector on this financial warranty, the BLM has, pursuant to 43 C.F.R., 3809.570, accepted this financial warranty then, notwithstanding any other provision of this financial warranty, or of law, the Prospector hereby agrees that this financial warranty shall not be released until the Board is advised in writing by the BLM that the Prospector's obligations to the BLM, for which this warranty is executed, have been satisfied, and until the financial warranty has been released by the Board. The Prospector agrees that this warranty shall also be redeemable by the Colorado State Director, U.S. Bureau of Land Management.

PROVIDED, however, the Warrantor shall not be liable under this financial warranty for an amount greater in the aggregate than the sum designated in the first paragraph hereof, unless increased by a later amendment, and shall not be liable as respects any obligation related to prospecting and reclamation operations performed after the effective date of a cancellation of this financial warranty pursuant to the terms of Section 34-32-117(5), C.R.S. , as amended. This financial warranty shall remain in force and effect as respects all obligations for all prospecting and reclamation operations performed prior to the effective date of such cancellation unless the Principal files a substitute financial warranty which: 1) assumes liability for all obligations for all prospecting and reclamation operations performed during the effective date of this financial warranty; and 2) is acceptable to the Board; or unless the Board otherwise releases this financial warranty.

The Warrantor reserves the right to cancel this financial warranty, effective only upon an anniversary date, and only by giving written notice to that effect, mailed by Certified Mail, at least ninety (90) days prior to such anniversary date, addressed to both the Prospector at its address herein stated, and to the Board at the address herein stated. In the event of such cancellation, this financial warranty shall nevertheless remain in full force and effect as respects the reclamation of all areas disturbed prior to the effective date of such cancellation, unless and until the Prospector shall file a substitute financial warranty which: (1) assumes liability for all reclamation obligations which shall have arisen at any time while this financial warranty is in force; and (2) is accepted in writing by the Board.

Signed, sealed, and dated this _____ day of _____, _____.

Principal

Principal

By

By

Title

Title

Mailing Address

Mailing Address

APPROVED:

Division Director

Date



COLORADO

Division of Reclamation,
Mining and Safety

Department of Natural Resources

1313 Sherman Street, Room 215
Denver, CO 80203

PERFORMANCE WARRANTY

Permittee/Operator: _____

Operation known as: _____

Permit Number: _____

This form is approved by the Colorado Mined Land Reclamation Board (“Board”) pursuant to C.R.S. 34-32-117 of the Colorado Mined Land Reclamation Act and C.R.S. 34-32.5-117 of the Colorado Land Reclamation Act for the Extraction of Construction Materials.

All parties are on Notice from this Document that:

The above listed Operator provides this warranty to the Board in conjunction with a reclamation Permit to conduct the above described mining operation on certain lands in Colorado. The “Affected Lands” are described in the above listed reclamation Permit, and include any Permit Amendment(s) approved by the Division of Reclamation Mining and Safety (“Division”).

The Colorado Mined Land Reclamation Act, C.R.S. 34-32-101 *et seq.* (“Hard Rock Act”), and the Colorado Land Reclamation Act for the Extraction of Construction Materials, C.R.S. 34-32.5-101 *et seq.* (“Construction Materials Act”), both require a permit issued by the Board to include a written promise by the Operator to comply with all requirements of the Hard Rock and Construction Materials Acts (referred to herein together as “Acts”).

Through the terms and conditions of this performance warranty and Permit, the Operator agrees to be bound by all requirements of the Acts and all Mineral Rules and Regulations of the Board for Hard Rock, Metal, and Designated Mining Operations (2 C.C.R. 407-1) and all Mineral Rules and Regulations of the Board for the Extraction of Construction Materials (2 C.C.R. 407-4) (referred to herein together as “Rules”).

The Operator hereby provides the Board warranties of performance pursuant to C.R.S. 34-32-117(2), (3), and (4)/C.R.S. 34-32.5-117(2), (3), and (4), and promises the Board it will comply with all applicable requirements of the Acts and Rules.

The Operator hereby promises the Board it will comply with all of the terms of the reclamation Permit, including any Permit Amendment(s) approved by the Division. This performance warranty obligation of the Operator shall continue until the Operator’s liability is released by the Board.

The Operator promises to be responsible for reclamation costs up to the amount established by the Board and incorporates its financial warranty to this performance warranty. The Operator agrees to maintain a financial warranty (or warranties) in good standing for the reclamation costs for the entire life of the



Permit. The amount of the financial warranty shall be sufficient to assure the completion of reclamation of affected lands if the Division has to complete such reclamation due to forfeiture. If the Board determines the Operator is in default under this performance warranty and the Operator fails to cure such default, the Operator's financial warranty shall be subject to forfeiture pursuant to C.R.S. 34-32-118/34-32.5-118.

This performance warranty by the Operator is perpetual and shall remain in full force and effect until all obligations have been met and all associated financial warranty is released by the Board. Any release of liability in a succession of Operators shall comply with C.R.S. 34-32-119/34-32.5-119.

The provisions hereof shall bind and inure to the benefit of the parties hereto and their successors and assigns.

SIGNED, SEALED AND DATED this _____ day of _____, 20_____.

Operator: _____

Signature: _____

Name: _____

Title: _____

NOTARIZATION OF OPERATOR'S ACKNOWLEDGEMENT

STATE OF _____)
) ss.

COUNTY OF _____)

The foregoing instrument was acknowledged before me this _____ day of _____, 20_____
(Day) (Month) (Year)

by _____ as _____
(Name) (Title)

of _____.
(Operator)

NOTARY PUBLIC

My Commission expires: _____

APPROVED:
State of Colorado
Mined Land Reclamation Board
Division of Reclamation, Mining and Safety

By: _____ Date: _____
Division Director



COLORADO

**Division of Reclamation,
Mining and Safety**

Department of Natural Resources

1313 Sherman Street, Room 215
Denver, CO 80203

Documentation of Legal Authority to Execute Financial Warranty Documents

The Colorado Mined Land Reclamation Board (“Board”) has adopted the attached Affidavit of Authority to Execute Financial Warranty Documents pursuant to the Mined Land Reclamation Act (C.R.S. § 34-32-101 et. seq.) and the Land Reclamation Act for the Extraction of Construction Materials (C.R.S. § 34-32.5-101 et. seq.). The Board and the Division of Reclamation Mining and Safety (“Division”) have determined that, in order to carry out the financial warranty requirements set forth in C.R.S. §§ 34-32-117 and 34-32.5-117 with reasonable diligence, it is prudent to verify the legal authority of the individual signing all necessary documents.

Accordingly, you must provide confirmation of the legal authority of the individual signing all Financial Warranty Documents to the Division. You may do so either by submitting a resolution of the decision-making body of your company that authorizes an individual to sign the Financial Warranty Documents on the company’s behalf, or by completing and notarizing the attached affidavit. The Division reserves the right to require the attached affidavit in all circumstances. Please note that if you are a sole proprietor who is executing documents on your own behalf, documentation of legal authority is unnecessary.



Affidavit of Authority to Execute Financial Warranty Documents

Before me this day, the undersigned _____ [name of authorized person], in his/her capacity as _____ [title of authorized person] ("Affiant"), personally appeared and, being first duly sworn upon oath said:

1. This affidavit is being executed and submitted on behalf of _____ [name of business organization], a(n) _____ [legal form of business organization, *e.g.*, corporation, partnership, limited liability company, etc.], in good standing in the State of Colorado (the "Company").
2. It is in the interest of the Company to execute certain financial warranty documents associated with file number _____ (DRMS file number), which are required by the Colorado Mined Land Reclamation Board and Division of Reclamation Mining and Safety pursuant to Colorado law ("Financial Warranty Documents").
3. Affiant is duly authorized to sign such Financial Warranty Documents on behalf of the Company and to bind the Company to the same.
4. Affiant is not prohibited or limited by the Company's governing documents or by any applicable law from executing the Financial Warranty Documents.
5. Affiant will inform the Division of Reclamation Mining and Safety within thirty (30) days in the event that his/her authorization to execute Financial Warranty Documents on the Company's behalf is terminated.

Further, Affiant sayeth not.

Affiant's Name

Signature

STATE OF _____)
_____) ss.:
COUNTY OF _____)

The foregoing instrument was acknowledged before me this _____ day of _____, _____,
by _____ as _____ of _____.

Notary Public _____

My Commission Expires _____