



STATE OF  
COLORADO

Jesse - DNR, Todd <todd.jesse@state.co.us>

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## MR-189 2025 Nitrogen Holes and Exploration Drilling

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**Jesse - DNR, Todd** <todd.jesse@state.co.us>

Tue, Feb 25, 2025 at 12:13 PM

To: "Wein - DNR, Clayton" <clayton.wein@state.co.us>

Cc: Kurt Blunt <kblunt@deserado.com>

Kurt,

Attached is an adequacy review with a reclamation cost estimate for MR-189. Let us know if the estimate looks good and we can approve the revision.

Thanks,

Todd

[Quoted text hidden]



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**2025-02-25 MR189 adequacy reveiw c1981018.pdf**

588K



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

February 25, 2025

Kurt Blunt  
Blue Mountain Energy  
3607 County Rd. 65  
Rangely, CO 81648

***RE: Deserado, File No. C-1981-018, MR-189 Adequacy Review***

Dear Mr. Blunt:

The Division of Reclamation, Mining and Safety (Division) is in the process of reviewing the above referenced Minor Revision in order to ensure that it adequately satisfies the requirements of the Colorado Surface Coal Mining Reclamation Act and the associated Rules and Regulations of the Colorado Mined Land Reclamation Board for Coal Mining.

1. The Division has created a Reclamation Cost Estimate using the information provided in MR-189. The estimated reclamation cost total is \$8,627. Please see the attached Reclamation Cost Estimate.

This concludes the adequacy review. Please submit your response(s) to the above listed item(s) by Thursday, February 27, 2025 in order to allow the Division sufficient time for review prior to the Decision Date of March 3, 2025.

If you require additional information, or have questions or concerns, please contact me at the Division's Grand Junction Field Office - [todd.jesse@state.co.us](mailto:todd.jesse@state.co.us) or 720-688-0626.

Sincerely,

***Todd Jesse***  
Environmental Protection Specialist  
Department of Natural Resources  
Division of Reclamation, Mining and Safety  
101 South 3<sup>rd</sup>, Suite 301  
Grand Junction, CO 81501  
Phone: (970) 243-6299

Cc: Clayton Weins, DRMS  
Travis Marshall, Senior EPS, DRMS



## COST SUMMARY WORK

Task description: \_\_\_\_\_

Site: Deserado Mine

Permit Action: MR189

Permit/Job#: C1981018

### PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 2/25/2025

County: Moffat

Filename: C018-000

User: TJ1

Agency or organization name: DRMS

### TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Plug and Seal Exploration Wells	BOREHOLE	1	0.00	\$758
002	Backfill and Regrade Topsoil MR-189 Eploration Drill Pads	DOZER	1	2.16	\$1,027
003	Backfill and Regrade Topsoil MR-189 Nitrogen Drill Pads	DOZER	1	1.03	\$490
004	Reseed Exploration Drill Pads & Roads	REVEGE	1	10.00	\$1,318
005	Reseed Nirtogen Drill Pads & Roads	REVEGE	1	10.00	\$629
006	Equipment Mobilization for Borehole Sealing	MOBILIZE	1	4.44	\$1,520
<b><u>SUBTOTALS:</u></b>				<b>27.63</b>	<b>\$5,742</b>

### INDIRECT COSTS

#### OVERHEAD AND PROFIT:

Liability insurance: 2.02

Total = \$116

Performance bond: 1.05

Total = \$60

Job superintendent: 13.81

Total = \$1,095

Profit: 10.00

Total = \$574

TOTAL O & P = \$1,845

CONTRACT AMOUNT (direct + O & P) = \$7,587

#### LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): \$500

Total = \$500

Engineering work and/or contract/bid preparation: 4.00

Total = \$303

Reclamation management and/or administration: 3.13

\$237

CONTINGENCY: 0.00

Total = \$0

TOTAL INDIRECT COST = \$2,886

**TOTAL BOND AMOUNT (direct + indirect) = \$8,628**

## BOREHOLE SEALING WORK

Task description: Plug and Seal Exploration Wells

Site: Deserado Mine

Permit Action: MR189

Permit/Job#: C1981018

### PROJECT IDENTIFICATION

Task #: 001

State: Colorado

Abbreviation: None

Date: 2/25/2025

County: Moffat

Filename: C018-001

User: TJ1

Agency or organization name: DRMS

### UNIT COSTS

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
2025CH-1 Concrete Plug	Portland cement grout - 6 in. (labor, equip, materials)	6	10' x 2	1.00	LF	\$9.68	\$9.68
- Bottom Plug	PVC plug - 6 in. diameter borehole	6	10'	1.00	EA	\$65.19	\$65.19
-Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$46.00	\$46.00
2025C-2 Concrete Plug	Portland cement grout - 6 in. (labor, equip, materials)	6	10' X 2	1.00	LF	\$9.68	\$9.68
- Bottom Plug	PVC plug - 6 in. diameter borehole	6	10'	1.00	EA	\$65.19	\$65.19
- Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$46.00	\$46.00
2025C-3 Concrete Plug	Portland cement grout - 6 in. (labor, equip, materials)	6	10' X 2	1.00	LF	\$9.68	\$9.68
- Bottom Plug	PVC plug - 6 in. diameter borehole	6	10'	1.00	EA	\$65.19	\$65.19
- Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$46.00	\$46.00
5R-XC 8 Concrete Plug	Portland cement grout - 10 in. (labor, equip, materials)	9	10' X 2	1.00	LF	\$12.05	\$12.05
- Bottom Plug	PVC plug - 10 in. diameter borehole	9	10'	1.00	EA	\$122.34	\$122.34
- Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$46.00	\$46.00
5R-XC 21 Concrete Plug	Portland cement grout - 10 in. (labor, equip, materials)	9	10' X 2	1.00	LF	\$12.05	\$12.05
- Bottom Plug	PVC plug - 10 in. diameter borehole	9	10'	1.00	EA	\$122.34	\$122.34
- Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$46.00	\$46.00

	location/identification marker (EA, material cost only)						
Water Truck	Water Tanker, 2,500 Gal.	NA	NA	1.00	EA	\$34.10	\$34.10

**Job Hours:** 0.00**Total Cost:** \$757.00

**BULLDOZER WORK**Task description: **Backfill and Regrade Topsoil MR-189 Exploration Drill Pads**Site: **Deserado Mine**Permit Action: **MR189**Permit/Job#: **C1981018****PROJECT IDENTIFICATION**Task #: **002**State: **Colorado**Abbreviation: **None**Date: **2/25/2025**County: **Moffat**Filename: **C018-002**User: **TJ1**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D9T - 9SU**Horsepower: **405**Blade Type: **Semi-Universal**Attachment: **3-shank ripper**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<b><u>Utilization %</u></b>
Ownership Cost/Hour:	\$253.16	NA
Operating Cost/Hour:	\$164.35	100
Ripper own. Cost/Hour:	\$18.79	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$38.59	NA

Total unit Cost/Hour: **\$474.89**Total Fleet Cost/Hour: **\$474.89****MATERIAL QUANTITIES**Initial Volume: **1,420**Swell factor: **1.250**Loose volume: **1,775 LCY**Source of estimated volume: **MR-189 Application**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **50 feet**Unadjusted hourly production: **2,110.5 LCY/hr**Materials consistency description: **Compacted fill or embankment 0.9**Average push gradient: **0 %**Average site altitude: **5,700 feet**Material weight: **2,650 lbs/LCY**Weight description: **Decomposed rock - 25% Rock, 75% Earth****Job Condition Correction Factor**

		<b><u>Source</u></b>
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3890

Adjusted unit production: 820.98 LCY/hr

Adjusted fleet production: **820.98** LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)

Unit cost: \$0.578/LCY

Total job time: **2.16** Hours

Total job cost: **\$1,027**

**BULLDOZER WORK**Task description: **Backfill and Regrade Topsoil MR-189 Nitrogen Drill Pads**Site: **Deserado Mine**Permit Action: **MR189**Permit/Job#: **C1981018****PROJECT IDENTIFICATION**Task #: **003**State: **Colorado**Abbreviation: **None**Date: **2/25/2025**County: **Moffat**Filename: **C018-003**User: **TJ1**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D9T - 9SU**Horsepower: **405**Blade Type: **Semi-Universal**Attachment: **3-shank ripper**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<b><u>Utilization %</u></b>
Ownership Cost/Hour:	\$253.16	NA
Operating Cost/Hour:	\$164.35	100
Ripper own. Cost/Hour:	\$18.79	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$38.59	NA

Total unit Cost/Hour: **\$474.89**Total Fleet Cost/Hour: **\$474.89****MATERIAL QUANTITIES**Initial Volume: **678**Swell factor: **1.250**Loose volume: **848 LCY**Source of estimated volume: **MR-189 Application**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **50 feet**Unadjusted hourly production: **2,110.5 LCY/hr**Materials consistency description: **Compacted fill or embankment 0.9**Average push gradient: **0 %**Average site altitude: **5,700 feet**Material weight: **2,650 lbs/LCY**Weight description: **Decomposed rock - 25% Rock, 75% Earth****Job Condition Correction Factor**

		<b><u>Source</u></b>
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3890

Adjusted unit production: 820.98 LCY/hr

Adjusted fleet production: **820.98** LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)

Unit cost: \$0.578/LCY

Total job time: **1.03** Hours

Total job cost: **\$490**

**REVEGETATION WORK**Task description: Reseed Exploration Drill Pads & RoadsSite: Deserado MinePermit Action: MR189Permit/Job#: C1981018**PROJECT IDENTIFICATION**Task #: 004State: ColoradoAbbreviation: NoneDate: 2/25/2025County: Rio BlancoFilename: C018-004User: TJ1Agency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
			<b>Total Fertilizer Materials Cost/Acre</b>	<b>\$0.00</b>

**Application**

Description	Cost /Acre
	\$
<b>Total Fertilizer Application Cost/Acre</b>	<b>\$0.00</b>

**TILLING**

Description	Cost /Acre
	\$
<b>Total Tilling Cost/Acre</b>	<b>\$0.00</b>

**SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Alkali Sacaton	0.10	3.90	\$2.91
Indian Ricegrass - Nespar	0.40	1.29	\$6.89
Beardless Wheatgrass - Whitmar	0.50	1.63	\$6.92
Bluebunch Wheatgrass - Secar	0.50	1.61	\$5.26
Canby Bluegrass - Canbar	0.20	4.25	\$3.00
Crested Wheatgrass - Nordan	4.00	18.37	\$21.25
Russian Wildrye - Bozoisky	2.00	8.03	\$22.15
Bottlebrush Squirreltail	0.20	0.88	\$5.08
Sandberg Bluegrass - VNS	0.20	4.25	\$2.89

Pubescent Wheatgrass - Greenleaf	1.00	2.07	\$4.76
Sheep Fescue - Covar	0.20	3.12	\$1.23
Slender Wheatgrass - Pryor	2.00	7.30	\$12.36
Milk Vetch, Cicer - Monarch	1.00	3.33	\$9.56
Thickspike Wheatgrass - Critana	1.00	3.54	\$8.15
Western Wheatgrass - Arriba	2.00	5.05	\$18.07
Needlegrass, Green - Lodorm	0.60	2.49	\$5.19
Sagebrush, Mountain or Big	0.10	5.28	\$8.27
Prairie Junegrass	0.20	10.63	\$9.75
Flax, Lewis Blue	0.40	2.65	\$16.92
Saltbush, Four Wing	2.00	2.75	\$39.75
Saltbush, Shadscale	0.50	0.75	\$9.04
Yarrow, White	0.10	6.36	\$7.34
<b>Totals Seed Mix</b>	<b>19.20</b>	<b>99.54</b>	<b>\$226.72</b>

**Application**

Description	Cost /Acre
Broadcast seeding [DMG]	\$272.56
<b>Total Seed Application Cost/Acre</b>	<b>\$272.56</b>

**MULCHING and MISCELLANEOUS****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
<b>Total Mulch Materials Cost/Acre</b>				<b>\$0.00</b>

**Application**

Description	Cost /Acre
	\$
<b>Total Mulch Application Cost/Acre</b>	<b>\$0.00</b>

**NURSERY STOCK PLANTING**

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
<b>Totals Nursery Stock Cost / Acre</b>					<b>\$0.00</b>

**JOB TIME AND COST**

No. of Acres: 1.76                      Cost /Acre: \$499.28  
 Estimated Failure Rate: 50%                      Cost /Acre\*: \$499.28  
 \*Selected Replanting Work Items: SEEDING  
 Initial Job Cost: **\$878.73**

Reseeding Job Cost:	<b>\$439.37</b>
Total Job Cost:	<b>\$1,318</b>
Job Hours:	<b>10.00</b>

**REVEGETATION WORK**Task description: Reseed Nirtogen Drill Pads & RoadsSite: Deserado MinePermit Action: MR189Permit/Job#: C1981018**PROJECT IDENTIFICATION**Task #: 005State: ColoradoAbbreviation: NoneDate: 2/25/2025County: Rio BlancoFilename: C018-005User: TJ1Agency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
			<b>Total Fertilizer Materials Cost/Acre</b>	<b>\$0.00</b>

**Application**

Description	Cost /Acre
	\$
<b>Total Fertilizer Application Cost/Acre</b>	<b>\$0.00</b>

**TILLING**

Description	Cost /Acre
	\$
<b>Total Tilling Cost/Acre</b>	<b>\$0.00</b>

**SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Alkali Sacaton	0.10	3.90	\$2.91
Indian Ricegrass - Nespar	0.40	1.29	\$6.89
Beardless Wheatgrass - Whitmar	0.50	1.63	\$6.92
Bluebunch Wheatgrass - Secar	0.50	1.61	\$5.26
Canby Bluegrass - Canbar	0.20	4.25	\$3.00
Crested Wheatgrass - Nordan	4.00	18.37	\$21.25
Russian Wildrye - Bozoisky	2.00	8.03	\$22.15
Bottlebrush Squirreltail	0.20	0.88	\$5.08
Sandberg Bluegrass - VNS	0.20	4.25	\$2.89

Pubescent Wheatgrass - Greenleaf	1.00	2.07	\$4.76
Sheep Fescue - Covar	0.20	3.12	\$1.23
Slender Wheatgrass - Pryor	2.00	7.30	\$12.36
Milk Vetch, Cicer - Monarch	1.00	3.33	\$9.56
Thickspike Wheatgrass - Critana	1.00	3.54	\$8.15
Western Wheatgrass - Arriba	2.00	5.05	\$18.07
Needlegrass, Green - Lodorm	0.60	2.49	\$5.19
Sagebrush, Mountain or Big	0.10	5.28	\$8.27
Prairie Junegrass	0.20	10.63	\$9.75
Flax, Lewis Blue	0.40	2.65	\$16.92
Saltbush, Four Wing	2.00	2.75	\$39.75
Saltbush, Shadscale	0.50	0.75	\$9.04
Yarrow, White	0.10	6.36	\$7.34
<b>Totals Seed Mix</b>	19.20	99.54	<b>\$226.72</b>

**Application**

Description	Cost /Acre
Broadcast seeding [DMG]	\$272.56
<b>Total Seed Application Cost/Acre</b>	<b>\$272.56</b>

**MULCHING and MISCELLANEOUS****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
<b>Total Mulch Materials Cost/Acre</b>				<b>\$0.00</b>

**Application**

Description	Cost /Acre
	\$
<b>Total Mulch Application Cost/Acre</b>	<b>\$0.00</b>

**NURSERY STOCK PLANTING**

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
<b>Totals Nursery Stock Cost / Acre</b>					<b>\$0.00</b>

**JOB TIME AND COST**

No. of Acres: 0.84                      Cost /Acre: \$499.28  
 Estimated Failure Rate: 50%                      Cost /Acre\*: \$499.28  
 \*Selected Replanting Work Items: SEEDING  
 Initial Job Cost: **\$419.40**

Reseeding Job Cost:	<b>\$209.70</b>
Total Job Cost:	<b>\$629</b>
Job Hours:	<b>10.00</b>

**EQUIPMENT MOBILIZATION/DEMOBILIZATION**Task description: **Equipment Mobilization for Borehole Sealing**Site: **Deserado Mine**Permit Action: **MR189**Permit/Job#: **C1981018****PROJECT IDENTIFICATION**Task #: **006**State: **Colorado**Abbreviation: **None**Date: **2/25/2025**County: **Moffat**Filename: **C018-006**User: **TJ1**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:**

<b>Available Rig Capacities</b>	<b>0-25 Tons</b>	<b>26-50 Tons</b>	<b>51+ Tons</b>
Ownership Cost/Hour:	\$10.44	\$22.18	\$23.94
Operating Cost/Hour:	\$26.48	\$54.55	\$55.65
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$59.44	\$122.78	\$125.64

**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
SCHRAMM T450WS	0.00	\$281.20	\$59.44	1	\$340.64	\$59.44	\$250.00

Subtotals: **\$340.64** **\$59.44** **\$250.00****ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 1 T. Crew	\$24.60	1	\$24.60	\$24.60
Water Tanker, 2,500 Gal.	\$34.10	1	\$34.10	\$34.10

Subtotals: **\$58.70** **\$58.70**

**EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region: CRAIG  
 Total one-way travel distance: 50.00 miles  
 Average Travel Speed: 45.00 mph

Total Non-Roadable Mob/Demob Cost \* \$1,389.07  
 \*\* two round trips with haul rig:  
 Total Roadable Mob/Demob Cost \*\* \$130.44  
 \*\* one round trip, no haul rig:

**Transportation Cycle Time:**

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	1.11	1.11
Return Time (Hours):	1.11	1.11
Loading Time (Hours):	0.00	NA
Unloading Time (Hours):	0.00	NA
Subtotals:	2.22	2.22

**JOB TIME AND COST**

Total job time: 4.44 Hours

Total job cost: \$1,520