

STATE OF  
COLORADO

Girardi - DNR, Chris &lt;chris.girardi@state.co.us&gt;

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**Peat Mine, M-1994-081- Updated Cost Estimate**

1 message

**Girardi - DNR, Chris** <chris.girardi@state.co.us>

Fri, Jan 31, 2025 at 2:38 PM

To: Brandon Garrison &lt;brandongarrison39@gmail.com&gt;

Cc: Marcus Mortensen &lt;mortensenmw@gmail.com&gt;, Jared Ebert - DNR &lt;jared.ebert@state.co.us&gt;

Good afternoon,

Attached to this email is the Division's Cost Estimate to complete reclamation at the site. After our discussions regarding the reclamation liability cost cited in the September 2024 Inspection Report, I've made revisions to the estimate. Based on the 2024 inspection and distribution of peat stockpiles, the Division estimates the affected land to be approximately 20-30 acres and used 25 acres as the basis for acres needed to be revegetated.

Please provide any feedback or comments regarding the estimate within 2 weeks. After two weeks, the Division will send a Surety Increase Letter officially requesting the increase in surety.

Have a nice weekend,  
Chris

Chris Girardi

Environmental Protection Specialist Intern

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

P: (720) 793-3041

Physical: 1313 Sherman Street, Room 215, Denver, CO 80203

Mailing: DRMS Room 215, 1001 E 62nd Ave, Denver, CO 80216

[chris.girardi@state.us.co](mailto:chris.girardi@state.us.co) | <https://drms.colorado.gov/>**PeatMineCostEstimate\_1.31.2025.pdf**  
226K

## COST SUMMARY WORK

Task description: Post 2024 Inspection

Site: Peat Mine

Permit Action: 2024 Inspection

Permit/Job#: M1994081

### PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 1/31/2025

County: Alamosa

Filename: M081-000

User: CMG

Agency or organization name: DRMS

### TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Push peat stockpiles and grade site	SITEMAINT ENANCE	1	8.00	\$2,753
001A	Cut down Highwall in Parcel D	DOZER	1	8.39	\$2,821
002	Revegetate disturbed areas	REVEGE	1	25.00	\$18,443
004	Mobilize reclamation equipment	MOBILIZE	1	2.96	\$2,360
<b><u>SUBTOTALS:</u></b>				<b>44.35</b>	<b>\$26,377</b>

### INDIRECT COSTS

#### OVERHEAD AND PROFIT:

Liability insurance: 2.02  
Performance bond: 1.05  
Job superintendent: 22.18  
Profit: 10.00

Total = \$533

Total = \$277

Total = \$1,758

Total = \$2,638

TOTAL O & P = \$5,205

CONTRACT AMOUNT (direct + O & P) = \$31,582

#### LEGAL - ENGINEERING - PROJECT MANAGEMENT:

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

Total = \$500

Engineering work and/or contract/bid preparation: 4.25

Total = \$1,342

Reclamation management and/or administration: 5.00

\$1,579

CONTINGENCY: 0.00

Total = \$0

TOTAL INDIRECT COST = \$8,627

**TOTAL BOND AMOUNT (direct + indirect) = \$35,004**

SITE MAINTENANCE

Task description: **Push peat stockpiles and grade site**

Site: **Peat Mine** Permit Action: 2024 Inspection Permit/Job#: M1994081

**PROJECT IDENTIFICATION**

Task #: 001A State: Colorado Abbreviation: None  
Date: 1/7/2025 County: Alamosa Filename: M081-001  
User: CMG

Agency or organization name: DRMS

**UNIT COSTS**

Maintenance Item	Hours per Year	Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Grade out peat stockpiles	8.00	Cat D8T - 8SU	8.00	EA	\$344.10	\$2,752.80

Job Hours: 8.00 Total Cost: \$2,752.80

## BULLDOZER WORK

Task description: Cut down Highwall in Parcel D

Site: Peat Mine Permit Action: 2024 Inspection Permit/Job#: M1994081

### PROJECT IDENTIFICATION

Task #: 001B State: Colorado Abbreviation: None  
Date: 10/16/2024 County: Alamosa Filename: M081-001A  
User: CMG

Agency or organization name: DRMS

### HOURLY EQUIPMENT COST

Basic Machine: Cat D8T - 8SU  
Horsepower: 310  
Blade Type: Semi-Universal  
Attachment: 3-shank ripper  
Shift Basis: 1 per day  
Data Source: (CRG)

#### Cost Breakdown:

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$173.32</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$109.71</u>	<u>100</u>
Ripper own. Cost/Hour:	<u>\$14.53</u>	<u>NA</u>
Ripper op. Cost/Hour:	<u>\$0.00</u>	<u>0</u>
Operator Cost/Hour:	<u>\$38.59</u>	<u>NA</u>

Total unit Cost/Hour: \$336.15  
Total Fleet Cost/Hour: **\$336.15**

### MATERIAL QUANTITIES

Initial Volume: 2,767  
Swell factor: 1.060  
Loose volume: **2,933** LCY

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

### HOURLY PRODUCTION

Average push distance: 50 feet  
Unadjusted hourly  
production: 1,400.0 LCY/hr

Materials consistency  
description: Dry, non-cohesive 0.8

Average push  
gradient: 5 %  
Average site altitude: 7,500 feet

Material weight: 2,900 lbs/LCY

Weight description: Sand and gravel - Dry

<u>Job Condition</u>	<u>Correction Factor</u>	<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	0.800	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.700	(FND-MF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.2496

Adjusted unit  
production: 349.44 LCY/hr  
Adjusted fleet  
production: **349.44** LCY/hr

#### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)  
Unit cost: \$0.962/LCY

Total job time: **8.39** Hours  
Total job cost: **\$2,821**

## REVEGETATION WORK

Task description: Revegetate disturbed areas

Site: Peat Mine Permit Action: 2024 Inspection Permit/Job#: M1994081

### PROJECT IDENTIFICATION

Task #: 002 State: Colorado Abbreviation: None  
Date: 1/8/2025 County: Alamosa Filename: M1994081  
User: CMG

Agency 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
Chisel plowing {DMG}	\$102.41
<b>Total Tilling Cost/Acre</b>	<b>\$102.41</b>

### SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Birdsfoot Trefoil - Empire	0.25	2.40	\$2.37
Big Bluegrass - Sherman	0.50	10.33	\$7.93
Meadow Brome - Fleet	3.00	2.75	\$15.67
Bluebunch Wheatgrass - Secar	1.00	3.21	\$10.51
Red Clover - Medium	0.50	3.10	\$3.52
White Dutch Clover - Alice	0.25	4.88	\$1.74
Sheep Fescue - Azay	0.50	7.81	\$2.42
Slender Wheatgrass - San Luis	2.00	7.30	\$12.07
Needlegrass, Green - Lodorm	2.00	8.31	\$17.29
Prairie Junegrass	0.15	7.97	\$7.31

Timothy - Climax	0.25	7.17	\$1.04
<b>Totals Seed Mix</b>	10.40	65.24	<b>\$81.87</b>

#### **Application**

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

#### **MULCHING and MISCELLANEOUS**

##### **Materials**

<b>Description</b>	<b>Units / Acre</b>	<b>Unit</b>	<b>Cost / Unit</b>	<b>Cost /Acre</b>
Herbicide - Plateau @ 1.0 pt/ac	1.00	ACRE	\$20.39	\$20.39
<b>Total Mulch Materials Cost/Acre</b>				<b>\$20.39</b>

##### **Application**

<b>Description</b>	<b>Cost /Acre</b>
Weed spray, truck, non-aquatic area, nox. [DMG]	\$83.26
<b>Total Mulch Application Cost/Acre</b>	<b>\$83.26</b>

#### **NURSERY STOCK PLANTING**

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

#### **JOB TIME AND COST**

No. of Acres:	25	Cost /Acre:	\$560.49
Estimated Failure Rate:	50%	Cost /Acre*:	\$354.43
*Selected Replanting Work Items:	SEEDING		

Initial Job Cost:	<b>\$14,012.25</b>
Reseeding Job Cost:	<b>\$4,430.38</b>
Total Job Cost:	<b>\$18,443</b>
Job Hours:	<b>25.00</b>

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: Mobilize reclamation equipment

Site: Peat Mine Permit Action: 2024 Inspection Permit/Job#: M1994081

**PROJECT IDENTIFICATION**

Task #: 003 State: Colorado Abbreviation: None  
Date: 10/14/2024 County: Alamosa Filename: M1994081  
User: CMG

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
Cat D8T - 8SU	47.71	\$173.32	\$122.78	1	\$296.10	\$122.78	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$41.02	\$59.44	2	\$200.92	\$118.88	\$250.00

Subtotals: 

<b>\$497.02</b>	<b>\$241.66</b>	<b>\$500.00</b>
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**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

Subtotals: 

<b>\$24.60</b>	<b>\$24.60</b>
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**EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region:	<u>ALAMOSA</u>	
Total one-way travel distance:	<u>12.00</u>	miles
Average Travel Speed:	<u>50.00</u>	mph
Total Non-Roadable Mob/Demob Cost *	<u>\$2,348.61</u>	
'* two round trips with haul rig:		
Total Roadable Mob/Demob Cost **	<u>\$11.81</u>	
** one round trip, no haul rig:		

**Transportation Cycle Time:**

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>0.24</u>	<u>0.24</u>
Return Time (Hours):	<u>0.24</u>	<u>0.24</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>1.48</u>	<u>0.48</u>

**JOB TIME AND COST**

Total job time:	<u>2.96</u>	Hours
Total job cost:	<u>\$2,360</u>	