



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

May 19, 2023

Tony Tennyson  
Colowyo Coal Company L.P.  
5731 State Highway 13  
Meeker, CO 81641

**Re: Colowyo Coal Mine (Permit No. C-1981-019)**  
**Technical Revision No. 159 (TR-159)**  
**Adequacy Review**

Dear Mr. Tennyson:

After reviewing Colowyo Coal Company L.P. (Colowyo) Technical Revision No. 159, the Division has the following adequacy comment:

1. The Division has performed a cost estimate to determine the associated disturbances with TR-159. This includes the regrade of topsoil placement for the proposed East Pit access roads and Section 3 Pond borrow area along with reseeding costs. Additionally, the Division calculated the cost for the demolition of the two culverts associated with the proposed roads. The total amount of this estimate is **\$26,097.00** (see attached cost estimate). The Division's cost estimate is consistent with previous cost estimates approved by both the Division and Colowyo. The Division respectfully requests a response from Colowyo with any questions regarding the cost estimate or an acceptance of the Division's estimate.

If you have any questions, feel free to contact me.

Sincerely,

Zach Trujillo  
Environmental Protection Specialist  
(303) 866-3567 ext. 8164  
Zach.Trujillo@state.co.us



## COST SUMMARY WORK

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

Site: Colowyo Coal Mine

Permit Action: TR159

Permit/Job#: C1981019

### PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 5/19/2023

County: Moffat

Filename: C019-000

User: ZTT

Agency or organization name: DRMS

### TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Regrade East Pit Access Roads and Sect 3 Pond Borrow Topsoil	DOZER	1	31.06	\$8,826
002	Reseed East Pit Roads and Sect 3 Pond Borrow Area	REVEGE	1	19.50	\$11,298
003	Demo East Pit Road Culverts	DEMOLISH	1	2.00	\$342
<b><u>SUBTOTALS:</u></b>				<b>52.56</b>	<b>\$20,466</b>

### INDIRECT COSTS

#### OVERHEAD AND PROFIT:

Liability insurance: 2.02

Total = \$413

Performance bond: 1.05

Total = \$215

Job superintendent: 26.28

Total = \$1,974

Profit: 10.00

Total = \$2,047

TOTAL O & P = \$4,649

CONTRACT AMOUNT (direct + O & P) = \$25,115

#### LEGAL - ENGINEERING - PROJECT MANAGEMENT:

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

Total = \$0

Engineering work and/or contract/bid preparation: 2.00

Total = \$502

Reclamation management and/or administration: 1.91

\$480

CONTINGENCY: 0.00

Total = \$0

TOTAL INDIRECT COST = \$5,631

**TOTAL BOND AMOUNT (direct + indirect) = \$26,097**

**BULLDOZER WORK**Task description: **Regrade East Pit Access Roads and Sect 3 Pond Borrow Topsoil**Site: **Colowyo Coal Mine**Permit Action: TR159Permit/Job#: C1981019**PROJECT IDENTIFICATION**Task #: 001State: ColoradoAbbreviation: NoneDate: 5/19/2023County: MoffatFilename: CUser: ZTTAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D8T - 8SUHorsepower: 310Blade Type: Semi-UniversalAttachment: 3-shank ripperShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$124.85	NA
Operating Cost/Hour:	\$97.63	100
Ripper own. Cost/Hour:	\$13.10	NA
Ripper op. Cost/Hour:	\$7.30	100
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: \$284.18Total Fleet Cost/Hour: **\$284.18****MATERIAL QUANTITIES**Initial Volume: 23,595Swell factor: 1.000Loose volume: **23,595 LCY**Source of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 150 feetUnadjusted hourly production: 634.3 LCY/hrMaterials consistency description: Consolidated stockpile 1.0Average push gradient: -5 %Average site altitude: 7,600 feetMaterial weight: 1,600 lbs/LCYWeight description: Top Soil**Job Condition Correction Factor**

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

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.115	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.1977

Adjusted unit production: 759.70 LCY/hr

Adjusted fleet production: **759.7** LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)

Unit cost: \$0.374/LCY

Total job time: **31.06** Hours

Total job cost: **\$8,826**

**REVEGETATION WORK**Task description: Reseed East Pit Roads and Sect 3 Pond Borrow AreaSite: Colowyo Coal MinePermit Action: TR159Permit/Job#: C1981019**PROJECT IDENTIFICATION**Task #: 002State: ColoradoAbbreviation: NoneDate: 5/19/2023County: MoffatFilename: C019-002User: ZTTAgency 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
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$117.18
<b>Total Tilling Cost/Acre</b>	<b>\$117.18</b>

**SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Beardless Wheatgrass - Whitmar	2.00	6.52	\$23.45
Mountain Brome - Bromar	1.00	1.61	\$3.80
Great Basin Wildrye - Magnar	0.50	2.03	\$5.78
Rocky Mountain Fescue	0.50	8.03	\$3.63
Slender Wheatgrass - Native	0.75	2.74	\$3.47
Milk Vetch, Cicer - Monarch	0.30	1.00	\$2.46
Thickspike Wheatgrass - Critana	1.25	4.42	\$8.59
Western Wheatgrass - Arriba	1.50	3.79	\$9.75
Needlegrass, Green - Lodorm	0.75	3.12	\$8.83
Sagebrush, Mountain or Big	0.50	26.40	\$9.88

Flax, Lewis Blue	0.25	1.66	\$4.13
Saltbush, Four Wing	1.60	2.20	\$20.00
Snowberry, Mountain	0.75	1.29	\$37.88
Penstemon, Rocky Mountain	0.25	3.92	\$7.38
Yarrow, Western	0.10	6.08	\$4.18
<b>Totals Seed Mix</b>	<b>12.00</b>	<b>74.80</b>	<b>\$153.18</b>

**Application**

Description	Cost /Acre
Drill Seeding (DRMS Survey Cost)	\$232.00
<b>Total Seed Application Cost/Acre</b>	<b>\$232.00</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:	19.5	Cost /Acre:	\$502.36
Estimated Failure Rate:	20%	Cost /Acre*:	\$385.18
*Selected Replanting Work Items:	SEEDING		

Initial Job Cost:	<b>\$9,796.02</b>
Reseeding Job Cost:	<b>\$1,502.20</b>
Total Job Cost:	<b>\$11,298</b>
Job Hours:	<b>19.50</b>

## DEMOLITION WORK

Task description: Demo East Pit Road Culverts

Site: Colowyo Coal Mine

Permit Action: TR159

Permit/Job#: C1981019

### PROJECT IDENTIFICATION

Task #: 003

State: Colorado

Abbreviation: None

Date: 5/19/2023

County: Moffat

Filename: C019-003

User: ZTT

Agency or organization name: DRMS

### UNIT COSTS

Location adjustment: 89.80 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Demo 2 East Pit Road Culverts	10" @ 50'	Pipe, corrugated metal (CMP) - 10 in. diameter pipe	100.00	LF	\$3.81	\$380.70

Job Hours: 2.00

Subtotal  
(unadjusted): \$380.70

Total Cost  
(adjusted for location): \$341.87