STATE OF COLORADO

Reilley - DNR, Robin <robin.reilley@state.co.us>

MR228 RCE

1 message

Reilley - DNR, Robin <robin.reilley@state.co.us> Thu, Aug 3, 2023 at 3:29 PM
To: Graham Roberts <graham.roberts@trappermine.com>, Robin Reilley - DNR <robin.reilley@state.co.us>

Graham,

As attached for your files. Please let me know if you have any questions.

Thank you
Robin

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MR228_CostEstimate_Summary.pdf
201K

COST SUMMARY WORK

Task description: **L Pit Temporary Diversion**

Site: **Trapper Mine** Permit Action: MR228 Permit/Job#: C1981010

PROJECT IDENTIFICATION

Task #: 000 State: Colorado Abbreviation: None
Date: 7/31/2023 County: Moffat Filename: C010-000
User: RAR

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
089	Regrade Diversions	DOZER	1	1.18	$522
L16	Seed L Pit diversion: Rangeland with Shrubs	REVEGE	1	2.30	$1,586
			SUBTOTALS:	**3.48**	**$2,108**

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	$43
Performance bond:	1.05	Total =	$22
Job superintendent:	1.74	Total =	$113
Profit:	10.00	Total =	$211
		TOTAL O & P =	$389
		CONTRACT AMOUNT (direct + O & P) =	$2,497

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	$500	Total =	$500
Engineering work and/or contract/bid preparation:	4.25	Total =	$106
Reclamation management and/or administration:	5.00		$125
CONTINGENCY:	0.00	Total =	$0

TOTAL INDIRECT COST = $1,120

TOTAL BOND AMOUNT (direct + indirect) = $3,228

BULLDOZER WORK

Task description: **Regrade Diversions**

Site: **Trapper Mine** Permit Action: M228 Permit/Job#: C1981010

PROJECT IDENTIFICATION

Task #: 089
Date: 7/31/2023
User: RAR

State: Colorado
County: Moffat

Abbreviation: None
Filename: L pit Diversion

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:

		Utilization %
Ownership Cost/Hour:	$241.38	NA
Operating Cost/Hour:	$143.92	100
Ripper own. Cost/Hour:	$14.11	NA
Ripper op. Cost/Hour:	$3.73	50
Operator Cost/Hour:	$41.30	NA

Total unit Cost/Hour: $444.44
Total Fleet Cost/Hour: **$444.44**

MATERIAL QUANTITIES

Initial Volume: 532
Swell factor: 1.000
Loose volume: **532** LCY

Source of estimated volume: A-8.2
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: Compacted fill or embankment 0.9

Average push gradient: 0 %
Average site altitude: 7,500 feet

Material weight: 2,550 lbs/LCY

Weight description: Earth - Dry packed

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	0.800	(POOR)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3234

Adjusted unit production: 452.76 LCY/hr

Adjusted fleet production: **452.76** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: $0.982/LCY

Total job time: **1.18** Hours

Total job cost: **$522**

REVEGETATION WORK

Task description: **Seed L Pit diversion: Rangeland with Shrubs**

Site: **Trapper Mine** Permit Action: MR228 Permit/Job#: C1981010

PROJECT IDENTIFICATION

Task #: L16 State: Colorado Abbreviation: None
Date: 7/31/2023 County: Moffat Filename: L pit diversion
User: RAR

Agency or organization name: DRMS

FERTILIZING

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			$	$
			Total Fertilizer Materials Cost/Acre	**$0.00**

Application

Description	Cost /Acre
	$
Total Fertilizer Application Cost/Acre	**$0.00**

TILLING

Description	Cost /Acre
	$
Total Tilling Cost/Acre	**$0.00**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Arrowleaf Balsamroot	0.40	0.50	$28.08
Beardless Wheatgrass - Whitmar	0.31	1.01	$3.63
Bitterbrush, Antelope	4.40	1.35	$85.80
Mountain Brome - Bromar	0.72	1.16	$2.74
Great Basin Wildrye - Magnar	0.92	3.74	$10.63
Kentucky Bluegrass - Ginger	0.06	2.96	$0.19
Alfalfa - Ladak (inoculated)	0.10	0.48	$0.26
Chokecherry	3.00	0.21	$87.00
Burnett, Small (or Little) - Delar	0.40	0.51	$1.00
Sheep Fescue - Covar	0.15	2.34	$0.92
Milk Vetch, Cicer - Lutana	0.30	1.00	$2.46

Slender Wheatgrass - San Luis	0.28	1.02	$1.19
Streambank Wheatgrass - Sodar	0.26	0.85	$1.48
Thickspike Wheatgrass - Critana	0.28	0.99	$1.93
Western Wheatgrass - Arriba	0.38	0.96	$2.47
Rabbitbrush, Rubber	0.26	3.87	$16.72
Needlegrass, Green - Lodorm	0.24	1.00	$2.83
Rose, Wood's	0.96	0.00	$19.68
Sagebrush, Mountain or Big	0.07	3.70	$1.38
Flax, Lewis Blue	0.30	1.99	$4.95
Red Top	0.02	2.29	$0.16
Sagebrush, Silver	0.10	1.94	$3.10
Saltbush, Four Wing	0.62	0.85	$7.75
Serviceberry	0.29	0.53	$17.84
Snowberry, Mountain	0.58	1.00	$29.29
Penstemon, Rocky Mountain	0.14	2.19	$4.13
Yarrow, Western	0.07	4.26	$2.93
Globemallow, Munro	0.08	0.91	$7.00
Aster, Pacific	0.02	0.35	$2.39
Goldeneye - Showy	0.08	0.92	$4.80
Totals Seed Mix	15.79	44.87	**$354.70**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$232.00
Total Seed Application Cost/Acre	**$232.00**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres:	2.3	Cost /Acre:	$586.70
Estimated Failure Rate:	17.5%	Cost /Acre*:	$586.70
*Selected Replanting Work Items:	TILLING,SEEDING		

Initial Job Cost:	**$1,349.41**
Reseeding Job Cost:	**$236.15**
Total Job Cost:	**$1,586**
Job Hours:	**2.30**