

COST SUMMARY WORK

Task description: MR323 Developmental Boreholes

Site: Foidel Creek Mine

Permit Action: MR323

Permit/Job#: C1982056

PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 8/9/2023

County: Routt

Filename: 000

User: HR1

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Plug and Seal 7 Exploration Boreholes	BOREHOLE	1	67.00	\$100,488
002	Regrade Drill Pads and Mud Pits	DOZER	1	22.77	\$10,034
003	Replace Topsoil on Drill Pads and Mud Pits	DOZER	1	9.60	\$4,232
004	Reseed 5.65 acres disturbance	REVEGE	1	5.65	\$1,796
<u>SUBTOTALS:</u>				105.02	\$116,550

BOREHOLE SEALING WORK

Task description: Plug and Seal 7 Exploration Boreholes

Site: Foidel Creek Mine

Permit Action: MR323

Permit/Job#: C1982056

PROJECT IDENTIFICATION

Task #: 001

State: Colorado

Abbreviation: None

Date: 8/25/2023 1:23:56

County: Routt

Filename: 001

PM

User: HR1

Agency or organization name: DRMS

UNIT COSTS

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Seal Holes WC2301-07	Portland cement grout (Bag, material cost only...94 lb. bag)	8.09"	12,600	3,430.00	bag	\$19.95	\$68,428.50
Borehole Plug	PVC plug - 8 in. diameter borehole	8.09"	NA	7.00	EA	\$87.55	\$612.88
Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	7.00	EA	\$39.00	\$273.00
Cut Casing at Surface	Exposed casing removal - Calculate Circumference in Linear Feet	NA	2.12'	2.12	LF	\$4.55	\$9.65
Drill Rig and Labor	SCHRAMM T450WS	NA	NA	56.00	EA	\$522.23	\$29,244.88
Water Truck	Water Tanker, 2,500 Gal.	NA	NA	56.00	EA	\$34.27	\$1,919.12

Job Hours: 67.00

Total Cost: \$100,488.00

BULLDOZER WORKTask description: **Regrade Drill Pads and Mud Pits**Site: **Foidel Creek Mine**Permit Action: **MR323**Permit/Job#: **C1982056****PROJECT IDENTIFICATION**

Task #:	002	State:	Colorado	Abbreviation:	None
Date:	8/25/2023	County:	Routt	Filename:	002
	1:28:33 PM				
User:	HR1				

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:	\$241.38	NA
Operating Cost/Hour:	\$143.92	100
Ripper own. Cost/Hour:	\$14.11	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour:	\$440.71
Total Fleet Cost/Hour:	\$440.71

MATERIAL QUANTITIES

Initial Volume:	9,919
Swell factor:	1.250
Loose volume:	12,399 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: **Compacted fill or embankment 0.9**

Average push gradient:	0 %
Average site altitude:	6,800 feet

Material weight: **2,650 lbs/LCY**Weight description: **Decomposed rock - 25% Rock, 75% Earth****Job Condition Correction Factor**

		<u>Source</u>
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: 544.60 LCY/hr

Adjusted fleet production: **544.6** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.809/LCY

Total job time: **22.77** Hours

Total job cost: **\$10,034**

BULLDOZER WORKTask description: **Replace Topsoil on Drill Pads and Mud Pits**Site: **Foidel Creek Mine**Permit Action: MR323Permit/Job#: C1982056**PROJECT IDENTIFICATION**Task #: 003State: ColoradoAbbreviation: NoneDate: 8/25/2023County: RouttFilename: 0031:32:43 PMUser: HR1Agency 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:	\$241.38	NA
Operating Cost/Hour:	\$143.92	100
Ripper own. Cost/Hour:	\$14.11	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: \$440.71Total Fleet Cost/Hour: **\$440.71****MATERIAL QUANTITIES**Initial Volume: 5,791Swell factor: 1.000Loose volume: **5,791 LCY**Source of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 75 feetUnadjusted hourly production: 1,017.1 LCY/hrMaterials consistency description: Partly consolidated stockpile 1.1Average push gradient: 0 %Average site altitude: 6,700 feetMaterial weight: 2,550 lbs/LCYWeight description: Earth - Dry packed**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	1.100	(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:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5929

Adjusted unit production: 603.04 LCY/hr

Adjusted fleet production: **603.04** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.731/LCY

Total job time: **9.60** Hours

Total job cost: **\$4,232**

REVEGETATION WORKTask description: Reseed 5.65 acres disturbanceSite: Foidel Creek MinePermit Action: MR323Permit/Job#: C1982056**PROJECT IDENTIFICATION**Task #: 004State: ColoradoAbbreviation: NoneDate: 8/25/2023County: RouttFilename: 00411:27:43 AMUser: HR1Agency 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
Alfalfa - Common	0.21	1.01	\$0.54
Orchardgrass - Elsie	0.48	5.95	\$1.49
Meadow Brome - Regar	0.40	0.37	\$1.59
Smooth Brome - Lincoln	0.77	2.56	\$2.56
Intermediate Wheatgrass - Rush	1.52	3.25	\$4.26
Pubescent Wheatgrass - Greenleaf	1.52	3.14	\$5.55
Slender Wheatgrass - Native	1.86	6.79	\$8.60
Milk Vetch, Cicer - Lutana	0.24	0.80	\$1.97

Timothy - Climax	0.39	11.19	\$0.62
Desert Wheatgrass	1.14	2.88	\$5.70
Totals Seed Mix	8.53	37.94	\$32.87

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: 5.65 Cost /Acre: \$264.87
 Estimated Failure Rate: 20% Cost /Acre*: \$264.87
 *Selected Replanting Work Items: SEEDING

Initial Job Cost: **\$1,496.52**
 Reseeding Job Cost: **\$299.30**
 Total Job Cost: **\$1,796**
 Job Hours: **5.65**