

COST SUMMARY WORK

Task description: AM01 Estimate

Site: Upper Gold Links Mine

Permit Action: 2022-10-20 AM01

Permit/Job#: M2016083

PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 10/20/2022

County: Gunnison

Filename: M2016083 AM01

User: DMC

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
01a	Seal Portals	MINESEAL	1	20.00	\$14,229
02a	Debris disposal	DEMOLISH	1	4.00	\$88
03a	Earthwork	DOZER	1	12.36	\$2,269
03b	Haul topsoil	LOADER	1	6.51	\$701
04a	Revegetation	REVEGE	1	3.00	\$2,766
05a	Mobilization	MOBILIZE	1	4.97	\$2,256
<u>SUBTOTALS:</u>				50.84	\$22,309

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02
Performance bond: 1.05
Job superintendent: 0.00
Profit: 10.00

Total = \$451
Total = \$234
Total = \$0
Total = \$2,231

TOTAL O & P = \$2,916

CONTRACT AMOUNT (direct + O & P) = \$25,225

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): \$0
Engineering work and/or contract/bid preparation: 0.00
Reclamation management and/or administration: 5.00

Total = \$0
Total = \$0
Total = \$1,261

CONTINGENCY: 0.00

Total = \$0

TOTAL INDIRECT COST = \$4,177

TOTAL BOND AMOUNT (direct + indirect) = \$26,486

SAFEGUARDING UNDERGROUND OPENINGS

Task description: Seal Portals

Site: Upper Gold Links Mine Permit Action: 2022-10-20 AM01 Permit/Job#: M2016083

PROJECT IDENTIFICATION

Task #: 01A State: Colorado Abbreviation: None
Date: 10/20/2022 County: Gunnison Filename: M2016083 AM01
User: DMC

Agency or organization name: DRMS

UNIT COSTS

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
400 Level	8'H x 7'W	Adit closure - grated door (per opening)	1.00	EA	\$7,114.38	\$7,114.38
300 Level	8,H x 7'W	Adit closure - grated door (per opening)	1.00	EA	\$7,114.38	\$7,114.38

Job Hours: 20.00

Total Cost: \$14,228.76

DEMOLITION WORK

Task description: Debris disposal

Site: Upper Gold Links Mine

Permit Action: 2022-10-20 AM01

Permit/Job#: M2016083

PROJECT IDENTIFICATION

Task #: 02A

State: Colorado

Abbreviation: None

Date: 10/20/2022

County: Gunnison

Filename: M2016083AM0102a

User: DMC

Agency or organization name: DRMS

UNIT COSTS

Location adjustment: 92.10 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Debris disposal	50 c.y.	Excavate disposal pit with dozer (includes completed pit backfilling/grading)	50.00	CY	\$1.92	\$96.00

Job Hours: 4.00

Subtotal
(unadjusted): \$96.00

Total Cost
(adjusted for location): \$88.42

BULLDOZER WORKTask description: **Earthwork**Site: **Upper Gold Links Mine**Permit Action: **2022-10-20 AM01**Permit/Job#: **M2016083****PROJECT IDENTIFICATION**Task #: **03A**State: **Colorado**Abbreviation: **None**Date: **10/20/2022**County: **Gunnison**Filename: **M2016083AM0103**User: **DMC****a**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D6T LGP**Horsepower: **200**Blade Type: **Straight**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$75.83	NA
Operating Cost/Hour:	\$66.34	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.30	NA
Total unit Cost/Hour:	\$183.47	
Total Fleet Cost/Hour:	\$183.47	

MATERIAL QUANTITIESInitial Volume: **2,000**Swell factor: **1.000**Loose volume: **2,000 LCY**Source of estimated volume: **Division of Reclamation, Mining & Safety**Source of estimated swell
factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **60 feet**Unadjusted hourly
production: **409.6 LCY/hr**Materials consistency description: **Rock, well ripped or blasted 0.8**Average push
gradient: **0 %**Average site altitude: **10,000 feet**Material weight: **2,900 lbs/LCY**Weight description: **Decomposed rock - 50% Rock, 50% Earth****Job Condition Correction Factor****Source**

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:	1.000	(DOZ-OC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3949

Adjusted unit
production: 161.75 LCY/hr
Adjusted fleet
production: **161.75 LCY/hr**

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$1.134/LCY

Total job time: **12.36 Hours**
Total job cost: **\$2,269**

WHEEL LOADER – LOAD AND CARRY WORKTask description: Haul topsoilSite: Upper Gold Links MinePermit Action: 2022-10-20 AM01Permit/Job#: M2016083**PROJECT IDENTIFICATION**Task #: 03BState: ColoradoAbbreviation: NoneDate: 10/20/2022County: GunnisonFilename: M083-03bUser: DMCAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: CAT 924HAttachment 1: ROPS CabHorsepower: 128Shift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		Utilization %
Ownership Cost/Hour:	\$35.89	NA
Operating Cost/Hour:	\$30.95	100
Operator Cost/Hour:	\$40.71	NA
Total Unit Cost/Hour:	\$107.55	
Total Fleet Cost/Hour:	\$107.55	

MATERIAL QUANTITIESInitial volume: 807

CCY

Swell factor: 1.000Loose volume: 807

LCY

Source of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION****Loader Cycle Time:**Unadjusted Basic Cycle Time (load, dump, maneuver): 0.475 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Stockpile:	Conveyor or dozer piled 10 ft. high and up 0.00	0.000	(Cat HB)
Truck Ownership:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.040	minutes
Adjusted Basic Cycle Time:		0.435	minutes

Rolling Resistance – Road ConditionsHaul: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0Return: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0**Haul and Return Time**

	Length (feet)	Grade Res. (%)	Rolling Res. (%)	Total Res. (%)	Travel Time (minutes)	Source
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Haul Route:	500	0.00	5.00	5.00	0.3527	(Cat HB)
Return Route:	500	0.00	5.00	5.00	0.3527	(Cat HB)

Total Travel Time: 0.7054 minutes
Total Cycle Time: 1.1404 minutes

Load Bucket Capacity

Rated Capacity: 2.70 LCY (heaped)
Bucket Fill Factor: 1.050 Other - moist loam (100-110%) 1.050
Adjusted Capacity: 2.84 LCY

Job Condition Correction Factors

Site Altitude: 10000 feet

Altitude Adj:	<u>1.00</u>	Source (CAT HB)
Job Efficiency:	<u>0.83</u>	(1 shift/day)
Net Correction:	<u>0.83</u>	multiplier

Unadjusted Hourly Unit Production: 149.16 LCY/Hour
Adjusted Hourly Unit Production: 123.80 LCY/Hour
Adjusted Hourly Fleet Production: 123.80 LCY/Hour

JOB TIME AND COST

Fleet size: 1 Loader(s) Total job time: 6.52 Hours
Unit cost: \$0.869 /LCY Total job cost: \$701

REVEGETATION WORKTask description: RevegetationSite: Upper Gold Links MinePermit Action: 2022-10-20 AM01Permit/Job#: M2016083PROJECT IDENTIFICATIONTask #: 04AState: ColoradoAbbreviation: NoneDate: 10/20/2022County: GunnisonFilename: M2016083AM0104User: DMC

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Agency or organization name: DRMSFERTILIZINGMaterials

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
Weed control spraying (MEANS 31 31 16.13 3100)	\$290.40
Total Tilling Cost/Acre	\$290.40

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Alpine Fescue	6.00	179.06	\$108.60
Sainfoin - Remont	3.00	1.31	\$9.48
Penstemon, Rocky Mountain	1.00	15.67	\$29.50
Canada Bluegrass - Reubens	5.00	286.96	\$32.50
Totals Seed Mix	15.00	483.01	\$180.08

Application

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Description	Cost /Acre
Broadcast seeding [DMG]	\$267.22
Total Seed Application Cost/Acre	\$267.22

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: 3 Cost /Acre: \$737.70
 Estimated Failure Rate: 25% Cost /Acre*: \$737.70
 *Selected Replanting Work Items: TILLING,SEEDING

Initial Job Cost: **\$2,213.10**
 Reseeding Job Cost: **\$553.28**
 Total Job Cost: **\$2,766**
 Job Hours: **3.00**

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Mobilization**Site: **Upper Gold Links Mine**Permit Action: **2022-10-20 AM01**Permit/Job#: **M2016083****PROJECT IDENTIFICATION**Task #: **05A**State: **Colorado**Abbreviation: **None**Date: **10/20/2022**County: **Gunnison**Filename: **M201608305a**User: **DMC**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:**

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$15.25	\$23.06	\$37.58
Operating Cost/Hour:	\$25.26	\$30.83	\$51.41
Operator Cost/Hour:	\$27.71	\$27.71	\$27.71
Helper Cost/Hour:	\$0.00	\$20.22	\$20.22
Total Unit Cost/Hour:	\$68.22	\$101.82	\$136.92

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 D6T LGP	26.87	\$75.83	\$101.82	1	\$177.65	\$101.82	\$250.00
CAT 924H	12.69	\$35.89	\$68.22	1	\$104.11	\$68.22	\$250.00
Subtotals:					\$281.76	\$170.04	\$500.00

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 3/4 T.	\$14.23	1	\$14.23	\$14.23
Subtotals:			\$14.23	\$14.23

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>GUNNISON</u>	
Total one-way travel distance:	<u>26.00</u>	miles
Average Travel Speed:	<u>35.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$2,234.77</u>
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$21.14</u>
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>0.74</u>	<u>0.74</u>
Return Time (Hours):	<u>0.74</u>	<u>0.74</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>2.49</u>	<u>1.49</u>

JOB TIME AND COST

Total job time: 4.97 Hours

Total job cost: \$2,256