

## COST SUMMARY WORK

Task description: 2020-12-07 Update SO-01

Site: Hopemore Shaft Permit Action: 2020-12-07 Update SO-01 Permit/Job#: M2013026

### PROJECT IDENTIFICATION

Task #: 000 State: Colorado Abbreviation: None  
Date: 12/7/2020 County: Lake Filename: M026-000  
User: DMC

Agency or organization name: DRMS

### TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
01a	Demolition and disposal of structures	DEMOLISH	1	80.00	\$17,380
02a	Seal Hopemore and Hunter shafts	MINESEAL	1	20.00	\$5,649
03a	Reclamation grading	DOZER	1	15.48	\$2,659
04a	Revegetate disturbed area	REVEGE	1	2.00	\$3,783
05a	Mobilize reclamation crew and equipment	MOBILIZE	1	2.80	\$2,445
<b><u>SUBTOTALS:</u></b>				<b>120.28</b>	<b>\$31,916</b>

### INDIRECT COSTS

#### OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	\$645
Performance bond:	1.05	Total =	\$335
Job superintendent:	60.14	Total =	\$4,183
Profit:	10.00	Total =	\$3,192
		TOTAL O & P =	\$8,354
		CONTRACT AMOUNT (direct + O & P) =	\$40,270

#### LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	\$0	Total =	\$0
Engineering work and/or contract/bid preparation:	0.00	Total =	\$0
Reclamation management and/or administration:	5.00		\$2,014
CONTINGENCY: 0.00		Total =	\$0
		TOTAL INDIRECT COST =	\$10,368

**TOTAL BOND AMOUNT (direct + indirect) = \$42,284**

## DEMOLITION WORK

Task description: Demolition and disposal of structures

Site: Hopemore Shaft

Permit Action: 2020-12-07 Update  
SO-01

Permit/Job#: M2013026

### PROJECT IDENTIFICATION

Task #: 01A  
Date: 12/7/2020  
User: DMC

State: Colorado  
County: Lake

Abbreviation: None  
Filename: M2013026 SO-01 01a

Agency or organization name: DRMS

### UNIT COSTS

Location adjustment: 89.00 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Hopemore shaft building-superstructure	18' x 24' x 12'	Bldg. (MN) demo./off-site disposal in approved landfill - Max. 5 mile haul	5,184.00	CF	\$0.32	\$1,658.88
Hopemore shaft building-concrete floor	18' x 24'	Floor, concrete, demolition only, average reinforcing - 12 in. thick	432.00	SF	\$1.61	\$695.52
Hopemore hoist building and shop	24' x 36' x 12'	Bldg. (SN) demo./off-site disposal in approved landfill - Max. 5 mile haul	10,368.00	CF	\$0.30	\$3,100.03
Hopemore hoist building and shop-concrete floor	24' x 36'	Floor, concrete, demolition only, average reinforcing - 12 in. thick	864.00	SF	\$1.61	\$1,391.04
Compressor room-superstructure	32' x 10' x 12'	Bldg. (SN) demo./off-site disposal in approved landfill - Max. 5 mile haul	3,840.00	CF	\$0.30	\$1,148.16
Compressor room-concrete floor	32' x 10'	Floor, concrete, demolition only, average reinforcing - 12 in. thick	320.00	SF	\$1.61	\$515.20
Water tank building	10' x 10' x 10'	Bldg. (SN) demo./off-site disposal in approved landfill - Max. 5 mile haul	1,000.00	CF	\$0.30	\$299.00
Generator shed	9' x 12' x 12'	Bldg. (SN) demo./off-site disposal in approved landfill - Max. 5 mile haul	1,296.00	CF	\$0.30	\$387.50
Loading/Hauling Foundations	60 c.y.	Loading and 5 mile haul, salvage allowed - Concrete frame structures	60.00	CY	\$12.55	\$753.00
Dump Fees	863 c.y.	Dump fees - Building construction materials.	863.00	CY	\$11.10	\$9,579.30

<b>Job Hours:</b>	<b>80.00</b>	<b>Subtotal</b>		<b>Total Cost</b>	
		<b>(unadjusted):</b>	<b>\$19,527.63</b>	<b>(adjusted for</b>	
				<b>location):</b>	<b>\$17,379.59</b>

## SAFEGUARDING UNDERGROUND OPENINGS

Task description: Seal Hopemore and Hunter shafts

Site: Hopemore Shaft Permit Action: 2020-12-07 Update  
SO-01 Permit/Job#: M2013026

### PROJECT IDENTIFICATION

Task #: 02A State: Colorado Abbreviation: None  
Date: 12/7/2020 County: Lake Filename: M2013026 SO-01 02a  
User: DMC

Agency or organization name: DRMS

### UNIT COSTS

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Shafts	9' x 4.5', 9.5' x 5'	Shaft closure - polyurethane foam plug (per cu. yd.)	26.90	CY	\$210.00	\$5,649.00

Job Hours: 20.00

Total Cost: \$5,649.00

**BULLDOZER WORK**Task description: **Reclamation grading**Site: **Hopemore Shaft**Permit Action: 2020-12-07 Update  
SO-01

Permit/Job#: M2013026

**PROJECT IDENTIFICATION**Task #: 03A  
Date: 12/7/2020  
User: DMCState: Colorado  
County: LakeAbbreviation: None  
Filename: M2013026 SO-01

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:	\$71.95	NA
Operating Cost/Hour:	\$58.55	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:	\$171.79	
Total Fleet Cost/Hour:	<b>\$171.79</b>	

**MATERIAL QUANTITIES**Initial Volume: 1,000  
Swell factor: 1.250  
Loose volume: **1,250 LCY**Source of estimated volume: Division of Reclamation, Mining & Safety  
Source of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 150 feet  
Unadjusted hourly production: 212.5 LCY/hrMaterials consistency description: **Compacted fill or embankment 0.9**Average push gradient: 0 %  
Average site altitude: 11,500 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:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	0.940	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3800

Adjusted unit  
production: 80.75 LCY/hr  
Adjusted fleet  
production: **80.75 LCY/hr**

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)  
Unit cost: \$2.127/LCY

Total job time: **15.48 Hours**  
Total job cost: **\$2,659**

**REVEGETATION WORK**Task description: Revegetate disturbed area

Site: Hopemore Shaft Permit Action: 2020-12-07 Update Permit/Job#: M2013026  
SO-01

**PROJECT IDENTIFICATION**

Task #: 04A State: Colorado Abbreviation: None  
 Date: 12/7/2020 County: Lake Filename: M2013026 SO-01  
 User: DMC

Agency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
8-24-24, 10-15-15, 10-20-20	200.00	pound	\$0.32	\$63.00
			<b>Total Fertilizer Materials Cost/Acre</b>	<b>\$63.00</b>

**Application**

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	\$37.03
<b>Total Fertilizer Application Cost/Acre</b>	<b>\$37.03</b>

**TILLING**

Description	Cost /Acre
Chisel plowing {DMG}	\$94.63
Weed control spraying (MEANS 31 31 16.13 3100)	\$193.60
<b>Total Tilling Cost/Acre</b>	<b>\$288.23</b>

**SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Arizona Fescue - Redondo	4.50	51.65	\$41.63
Mountain Brome - Bromar	3.80	6.11	\$14.44
Western Wheatgrass - Native	6.40	16.16	\$38.40
Prairie Junegrass	4.00	212.62	\$104.00
<b>Totals Seed Mix</b>	<b>18.70</b>	<b>286.54</b>	<b>\$198.47</b>

**Application**

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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
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$301.00	\$602.00
<b>Total Mulch Materials Cost/Acre</b>				<b>\$602.00</b>

## Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$70.17
Power mulcher (MEANS 32 91 13.16 0350)	\$101.93
<b>Total Mulch Application Cost/Acre</b>	<b>\$172.10</b>

## 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:	1.9	Cost /Acre:	\$1,592.83
Estimated Failure Rate:	25%	Cost /Acre*:	\$1,592.83
*Selected Replanting Work Items:	FERTILIZING, TILLING, SEEDING, MULCHING		
Initial Job Cost:	\$3,026.38		
Reseeding Job Cost:	\$756.59		
Total Job Cost:	\$3,783		
Job Hours:	2.00		



**EQUIPMENT MOBILIZATION/DEMOBILIZATION**Task description: **Mobilize reclamation crew and equipment**Site: **Hopemore Shaft** Permit Action: 2020-12-07 Update  
SO-01

Permit/Job#: M2013026

**PROJECT IDENTIFICATION**

Task #: 05A State: Colorado Abbreviation: None  
 Date: 12/7/2020 County: Lake Filename: M2013026 SO-01  
 05a  
 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:	\$17.20	\$29.63	\$38.69
Operating Cost/Hour:	\$26.56	\$47.02	\$55.69
Operator Cost/Hour:	\$23.63	\$23.63	\$23.63
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$67.39	\$123.81	\$141.54

**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	\$71.95	\$123.81	1	\$195.76	\$123.81	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$6.72	\$67.39	1	\$74.11	\$67.39	\$250.00
Power Mulcher (Bowie LD-90)	6.00	\$11.19	\$67.39	1	\$78.58	\$67.39	\$250.00

Subtotals: **\$348.45** **\$258.59** **\$750.00****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.	\$13.23	1	\$13.23	\$13.23

Subtotals: **\$13.23** **\$13.23**

**EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region: LEADVILLE  
 Total one-way travel distance: 5.00 miles  
 Average Travel Speed: 25.00 mph

Total Non-Roadable Mob/Demob Cost \* \$2,439.72  
 \*\* two round trips with haul rig:  
 Total Roadable Mob/Demob Cost \*\* \$5.29  
 \*\* one round trip, no haul rig:

**Transportation Cycle Time:**

	Non- Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.20	0.20
Return Time (Hours):	0.20	0.20
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	1.40	0.40

**JOB TIME AND COST**

Total job time: 2.80 Hours

Total job cost: \$2,445