

COST SUMMARY WORK

Task description: Cost Summary

Site: Colorado Rose Red Pit Permit Action: AM02_AdequacyResponseEstimate Permit/Job#: M1978332

PROJECT IDENTIFICATION

Task #: 000 State: Colorado Abbreviation: None
Date: 6/14/2018 County: Larimer Filename: M332-000
User: JLE

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Grated Adit Closure with Doors	MINESEAL	1	48.00	\$14,148.00
002	Grade and shape parking areas	LOADER	1	1.27	\$262.00
003	Mobilization	MOBILIZE	1	4.36	\$1,585.00
<u>SUBTOTALS:</u>				53.63	\$15,995

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	\$323.10
Performance bond:	1.05	Total =	\$167.95
Job superintendent:	26.82	Total =	\$1,958.84
Profit:	10.00	Total =	\$1,599.50

TOTAL O & P = \$4,049.39

CONTRACT AMOUNT (direct + O & P) = \$20,044.39

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	<u>0.00</u>	Total =	<u>0.00</u>
Engineering work and/or contract/bid preparation:	<u>4.25</u>	Total =	<u>\$851.89</u>
Reclamation management and/or administration:	<u>5.00</u>		<u>\$1,002.22</u>

CONTINGENCY: 0.00 Total = \$0.00

TOTAL INDIRECT COST = \$5,903.50

TOTAL BOND AMOUNT (direct + indirect) = \$21,898.50

Required Bond Amount: **\$21,900.00**

SAFEGUARDING UNDERGROUND OPENINGS

Task description: Grated Adit Closure with Doors

Site: Colorado Rose Red Pit Permit Action: AM02_AdequacyResponseEstimate Permit/Job#: M1978332

PROJECT IDENTIFICATION

Task #: 001 State: Colorado Abbreviation: None
Date: 6/14/2018 County: Larimer Filename: NA
User: JLE

Agency or organization name: DRMS

UNIT COSTS

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Room Closures	3 Openings	Adit closure - grated door (per opening)	3.00	EA	\$4,716.00	\$14,148.00

Job Hours: 48.00

Total Cost: \$14,148.00

WHEEL LOADER – LOAD AND CARRY WORK

Task description: Grade and shape parking areas

Site: Colorado Rose Red Pit Permit Action: AM02_AdequacyResponseEstimate Permit/Job#: M1978332

PROJECT IDENTIFICATION

Task #: 002 State: Colorado Abbreviation: None
Date: 6/14/2018 County: Larimer Filename: NA
User: JLE

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: CAT 988H Horsepower: 475
Attachment 1: ROPS Cab Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$83.38	NA
Operating Cost/Hour:	\$81.23	100
Operator Cost/Hour:	\$41.46	NA
Total Unit Cost/Hour:	\$206.07	
Total Fleet Cost/Hour:	\$206.07	

MATERIAL QUANTITIES

Initial volume: 1,120 CCY Swell factor: 1.000
Loose volume: 1,120 LCY

Source of estimated volume: Division of Reclamation, Mining & Safety
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Loader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.575 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders - 0.04	-0.040	(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:		-0.060	minutes
Adjusted Basic Cycle Time:		0.515	minutes

Rolling Resistance – Road Conditions

Haul: Very hard, smooth, asphalt or concrete, no tire penetration 1.2
Return: Very hard, smooth, asphalt or concrete, no tire penetration 1.2

Haul and Return Time

	Length (feet)	Grade Res. (%)	Rolling Res. (%)	Total Res. (%)	Travel Time (minutes)	Source
Haul Route:	60	0.00	1.20	1.20	0.0289	(Cat HB)
Return Route:	60	0.00	1.20	1.20	0.0291	(Cat HB)

Total Travel Time: 0.0580 minutes
Total Cycle Time: **0.5730** minutes

Load Bucket Capacity

Rated Capacity: 9.20 LCY (heaped)
Bucket Fill Factor: 1.100 Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity: **10.12** LCY

Job Condition Correction Factors

Site Altitude: 7040 feet

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

Unadjusted Hourly Unit Production: 1,059.74 LCY/Hour
Adjusted Hourly Unit Production: 879.58 LCY/Hour
Adjusted Hourly Fleet Production: **879.58** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Loader(s) Total job time: **1.27** Hours
Unit cost: \$0.234 /LCY Total job cost: **\$262**

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Mobilization**Site: **Colorado Rose Red Pit** Permit Action: **AM02_AdequacyResponseEstimate** Permit/Job#: **M1978332****PROJECT IDENTIFICATION**

Task #: **003** State: **Colorado** Abbreviation: **None**
 Date: **6/14/2018** County: **Larimer** Filename: **M332-003**
 User: **JLE**

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:	\$16.63	\$18.37	\$22.33
Operating Cost/Hour:	\$44.38	\$46.13	\$50.07
Operator Cost/Hour:	\$27.66	\$27.66	\$27.66
Helper Cost/Hour:	\$0.00	\$25.39	\$25.39
Total Unit Cost/Hour:	\$88.67	\$117.55	\$125.45

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 988H	54.46	\$83.38	\$125.45	1	\$208.83	\$125.45	\$250.00

Subtotals: **\$208.83** **\$125.45** **\$250.00**

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 1 T. Crew	\$47.96	2	\$95.92	\$95.92
Fuel Tanker, 6x4, 210 HP	\$74.87	1	\$74.87	\$74.87

Subtotals: **\$170.79** **\$170.79**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region: **LYONS**
 Total one-way travel distance: **8.00** miles
 Average Travel Speed: **8.00** mph

Total Non-Roadable Mob/Demob Cost * **\$1,243.74**
 ** two round trips with haul rig:

Total Roadable Mob/Demob Cost **
 ** one round trip, no haul rig:

\$341.58

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	1.00	1.00
Return Time (Hours):	1.00	1.00
Loading Time (Hours):	0.09	NA
Unloading Time (Hours):	0.09	NA
Subtotals:	2.18	2.00

JOB TIME AND COST

Total job time: 4.36 Hours

Total job cost: \$1,585