



COLORADO

Division of Reclamation,
Mining and Safety

Department of Natural Resources

1313 Sherman St. Room 215
Denver, CO 80203

April 5, 2018

Mr. George Glasier
Pinon Ridge Mining LLC
P O Box 825
31161 Highway 90
Nucla, CO 81424

Re: Carnation Mine, Permit No. M-1977-416, Financial Warranty Increase, Revision No. SI-2

Dear Mr. Glasier:

In an effort to ensure the Financial Warranty for the above referenced site adequately reflects the actual current costs of fulfilling the requirements of the approved reclamation plan, the Colorado Division of Reclamation, Mining and Safety (Division) has updated the reclamation cost estimate (copy enclosed). ***Therefore, pursuant to Section 34-32-117(4) of the Colorado Land Reclamation Act, adequate Financial Warranty must be submitted to the Division within 60 days of the mailing date of this letter.*** The additional amount needs to be accepted prior to Friday, June 08, 2018. Please review the enclosed figures as soon as possible and contact our office if any calculation errors are noted.

Staff calculations estimate the cost to reclaim the above referenced site to be \$40,245.00. This is an increase of \$17,777.00 over the \$22,468.00 currently held by the Division. This estimate is based on conditions observed during the March 28, 2018 inspection.

Please make arrangements with Barbara Coria at the Division of Reclamation, Mining and Safety Denver Office, phone no. 303.866.3567, ext. 8148 for submittal of the financial warranty. Any questions regarding completion, execution and/or submittal of financial warranty forms should also be directed to Barbara Coria. If you require additional information, have questions or concerns, please contact me at the DRMS Grand Junction Field Office or by email at lucas.west@state.co.us.

Sincerely,

Lucas J. West
Environmental Protection Specialist
Division of Reclamation, Mining and Safety
1313 Sherman Street, Room 215
Denver, CO 80203
Phone: (970)-243-6368



Enclosure: Reclamation Cost Estimate Update Worksheets

cc: Barbara J. Coria, Financial Assurance Specialist, DRMS
Russ Means, Senior Environmental Protection Specialist

Ec: James Blair, Bureau of Land Management

COST SUMMARY WORK

Task description: _____

Site: Carnation Mine

Permit Action: 2018 Update

Permit/Job#: M1977416

PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 4/4/2018

County: San Miguel

Filename: M416-000

User: LJW

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Demolition of onsite structures	DEMOLISH	1	10.00	\$714.73
002	Portal closure (backfilling)	MINESEAL	1	12.00	\$18,900.00
003	Grading SW dump to 2:1	DOZER	1	2.06	\$425.00
004	Grading main dump area to 2:1	DOZER	1	0.34	\$71.00
005	Ripping compaction on mine roads and dumps	RIPPER	1	4.83	\$998.00
006	Revegetate 3.1 acre disturbance	REVEGE	1	16.00	\$5,204.00
007	Haul reclamation equipment to and from site	MOBILIZE	1	6.00	\$3,367.00
<u>SUBTOTALS:</u>				51.23	\$29,680

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02
Performance bond: 1.05
Job superintendent: 25.61
Profit: 10.00

Total = \$599.54

Total = \$311.64

Total = \$1,870.81

Total = \$2,968.00

TOTAL O & P = \$5,749.99

CONTRACT AMOUNT (direct + O & P) = \$35,429.99

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): 0.00

Total = 0.00

Engineering work and/or contract/bid preparation: 8.59

Total = \$3,043.44

Reclamation management and/or administration: 5.00

\$1,771.50

CONTINGENCY: 0.00

Total = \$0.00

TOTAL INDIRECT COST = \$10,564.93

TOTAL BOND AMOUNT (direct + indirect) = \$40,244.93

DEMOLITION WORK

Task description: Demolition of onsite structures

Site: Carnation Mine

Permit Action: 2018 Update

Permit/Job#: M1977416

PROJECT IDENTIFICATION

Task #: 001

State: Colorado

Abbreviation: None

Date: 4/4/2018

County: San Miguel

Filename: M416-001

User: LJW

Agency or organization name: DRMS

UNIT COSTS

Location adjustment: 96.90 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Shop/office pad	20x30	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 50 ft. push	600.00	SF	\$0.60	\$357.60
Portal shed structure	10x20x10	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 50 ft. push	2,000.00	CF	\$0.17	\$348.00
Overhead electric line & poles	3200 LF	Disposal of utility pole cross arms and hardware surplus material	3,200.00	LF	\$0.01	\$32.00

Job Hours: 10.00

Subtotal
(unadjusted): \$737.60

Total Cost
(adjusted for location): \$714.73

SAFEGUARDING UNDERGROUND OPENINGS

Task description: Portal closure (backfilling)

Site: Carnation Mine

Permit Action: 2018 Update

Permit/Job#: M1977416

PROJECT IDENTIFICATION

Task #: 002

State: Colorado

Abbreviation: None

Date: 4/4/2018

County: San Miguel

Filename: M416-002

User: LJW

Agency or organization name: DRMS

UNIT COSTS

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Portal, place debris in adit	10x10	Adit closure - backfilling (per cu. yd.)	100.00	CY	\$27.00	\$2,700.00
Portal, 30 ft earthen backfill	10x10	Adit closure - backfilling (per cu. yd.)	600.00	CY	\$27.00	\$16,200.00

Job Hours: 12.00

Total Cost: \$18,900.00

BULLDOZER WORKTask description: Grading SW dump to 2:1Site: Carnation MinePermit Action: 2018 UpdatePermit/Job#: M1977416**PROJECT IDENTIFICATION**Task #: 003State: ColoradoAbbreviation: NoneDate: 4/4/2018County: San MiguelFilename: M416-003User: LJWAgency 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:	<u>\$83.81</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$66.17</u>	<u>100</u>
Ripper own. Cost/Hour:	<u>\$7.55</u>	<u>NA</u>
Ripper op. Cost/Hour:	<u>\$7.21</u>	<u>100</u>
Operator Cost/Hour:	<u>\$41.85</u>	<u>NA</u>
Total unit Cost/Hour:	<u>\$206.59</u>	
Total Fleet Cost/Hour:	<u>\$206.59</u>	

MATERIAL QUANTITIESInitial Volume: 807Swell factor: 1.000Loose volume: 807 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell
factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 100 feetUnadjusted hourly
production: 852.6 LCY/hrMaterials consistency description: Partly consolidated stockpile 1.1Average push
gradient: -15 %Average site altitude: 5,800 feetMaterial weight: 2,550 lbs/LCYWeight description: Sandstone**Job Condition Correction Factor****Source**

Operator Skill:	0.750	(AVG.)
Material consistency:	1.100	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	0.800	(POOR)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.700	(FND-MF)
Push gradient:	1.329	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4597

Adjusted unit
production: 391.94 LCY/hr

Adjusted fleet
production: 391.94 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.527/LCY

Total job time: 2.06 Hours

Total job cost: \$425

BULLDOZER WORKTask description: Grading main dump area to 2:1Site: Carnation MinePermit Action: 2018 UpdatePermit/Job#: M1977416**PROJECT IDENTIFICATION**Task #: 004State: ColoradoAbbreviation: NoneDate: 4/4/2018County: San MiguelFilename: M416-004User: LJWAgency 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:	\$83.81	NA
Operating Cost/Hour:	\$66.17	100
Ripper own. Cost/Hour:	\$7.55	NA
Ripper op. Cost/Hour:	\$7.21	100
Operator Cost/Hour:	\$41.85	NA
Total unit Cost/Hour:	\$206.59	
Total Fleet Cost/Hour:	\$206.59	

MATERIAL QUANTITIESInitial Volume: 100Swell factor: 1.000Loose volume: 100 LCYSource of estimated volume: Division of Reclamation, Mining & Safety

Source of estimated swell

factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 150 feetUnadjusted hourly
production: 634.3 LCY/hrMaterials consistency description: Partly consolidated stockpile 1.1Average push
gradient: -15 %Average site altitude: 5,800 feetMaterial weight: 2,550 lbs/LCYWeight description: Sandstone**Job Condition Correction Factor****Source**

Operator Skill:	0.750	(AVG.)
Material consistency:	1.100	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	0.800	(POOR)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.700	(FND-MF)
Push gradient:	1.329	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4597

Adjusted unit
production: 291.59 LCY/hr

Adjusted fleet
production: 291.59 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.708/LCY

Total job time: 0.34 Hours

Total job cost: \$71

BULLDOZER RIPPING WORK

Task description: Ripping compaction on mine roads and dumps

Site: Carnation Mine Permit Action: 2018 Update Permit/Job#: M1977416

PROJECT IDENTIFICATION

Task #: 005 State: Colorado Abbreviation: None
Date: 4/4/2018 County: San Miguel Filename: M416-005
User: LJW

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D8T - 8SU Horsepower: 310
Ripper Attachment: 3-Shank Ripper Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	<u>\$83.81</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$66.17</u>	<u>100</u>
Ripper Ownership Cost/Hour:	<u>\$7.55</u>	<u>NA</u>
Ripper Operating Cost/Hour:	<u>\$7.21</u>	<u>100</u>
Operator Cost/Hour:	<u>\$41.85</u>	<u>NA</u>
Total Unit Cost/Hour:	<u>\$206.59</u>	
Total Fleet Cost/Hour:	<u>\$206.59</u>	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 3.10 acres Rip Depth (ft): 1.50 Volume: 7,502 BCY or CCY

Source of estimated quantity: EPP

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	<u>2.56</u>	<u>mph</u>
Average Ripping Width:	<u>7.08</u>	<u>degrees</u>
Average Ripping Length:	<u>200.00</u>	<u>feet</u>
Average Dozer Speed:	<u>88.00</u>	<u>feet</u>
Average Maneuver Time:	<u>0.25</u>	<u>feet</u>
Production per unit area:	<u>0.773</u>	<u>acres/hour</u>

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.773 Acres/hr
Site Altitude: 5,800 feet
Altitude Adj: 1.00 (CAT HB)
Job Efficiency: 0.83 (1 shift/day)
Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.64 Acres/hr
Adjusted Hourly Fleet Production: 0.64 Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 4.83 Hours

Unit cost: \$321.940 Per acre Total job cost: \$998

REVEGETATION WORKTask description: Revegetate 3.1 acre disturbanceSite: Carnation MinePermit Action: 2018 UpdatePermit/Job#: M1977416**PROJECT IDENTIFICATION**Task #: 006State: ColoradoAbbreviation: NoneDate: 4/4/2018County: San MiguelFilename: M416-006User: LJWAgency 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
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$106.29
Total Tilling Cost/Acre	\$106.29

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Nespar	3.00	9.71	\$23.25
Sand Dropseed	0.20	23.88	\$2.17
Crested Wheatgrass - Nordan	6.00	27.55	\$24.00
Western Wheatgrass - Arriba	6.00	15.15	\$48.48
Flax, Lewis Blue	0.50	3.32	\$8.25
Saltbush, Four Wing	4.00	5.51	\$50.00
Totals Seed Mix	19.70	85.11	\$156.15

Application

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
Hay, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$261.00	\$522.00
Herbicide - 2,4D @ 1.0 pt/ac	3.10	ACRE	\$2.74	\$8.49
Total Mulch Materials Cost/Acre				\$530.49

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$66.02
Weed spray, hand, non-aquatic areas, ann. [DMG]	\$117.20
Total Mulch Application Cost/Acre	\$183.22

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: 3.1 Cost /Acre: \$1,243.37
 Estimated Failure Rate: 35% Cost /Acre*: \$1,243.37
 *Selected Replanting Work Items: TILLING,SEEDING,MULCHING

Initial Job Cost: \$3,854.45
 Reseeding Job Cost: \$1,349.06
 Total Job Cost: \$5,204
 Job Hours: 16.00

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: Haul reclamation equipment to and from siteSite: Carnation MinePermit Action: 2018 UpdatePermit/Job#: M1977416**PROJECT IDENTIFICATION**Task #: 007State: ColoradoAbbreviation: NoneDate: 4/4/2018County: San MiguelFilename: M416-007User: LJWAgency or organization name: DRMS**EQUIPMENT TRANSPORT RIG COST**Shift basis: 1 per dayCost Data Source: CRG DataTruck 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 D8T - 8SU	53.08	\$91.36	\$125.45	1	\$216.81	\$125.45	\$0.00
CAT 908H	7.12	\$12.87	\$88.67	1	\$101.54	\$88.67	\$0.00
Drill/Broadcast Seeder with Tractor	25.00	\$12.22	\$88.67	1	\$100.89	\$88.67	\$0.00
Power Mulcher (Bowie LD-90)	6.00	\$7.03	\$88.67	1	\$95.70	\$88.67	\$250.00

Subtotals: **\$514.94** **\$391.46** **\$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, 3/4 T.	\$12.26	1	\$12.26	\$12.26

Subtotals: **\$12.26** **\$12.26**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	NATURITA	
Total one-way travel distance:	40.00	miles
Average Travel Speed:	40.00	mph

Total Non-Roadable Mob/Demob Cost *	\$3,342.68
'* two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	\$24.52
** one round trip, no haul rig:	

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):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	3.00	2.00

JOB TIME AND COST

Total job time:	6.00	Hours
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Total job cost:	\$3,367
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