

March 1, 2017

M.J Cadgene
Cadgene Pit
P.O. Box 10
Redvale, CO 81431



COLORADO
Division of Reclamation,
Mining and Safety
Department of Natural Resources

1313 Sherman Street, Room 215
Denver, CO 80203

RE: Cadgene Pit, Permit No. M-1983-158, Reclamation Costs Update and Notice of Surety Increase (SI-4)

Mr. Cadgene:

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 34-32.5-117(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 **Monday, May 01, 2017**. 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 \$30,000.00. This is an increase of \$8,700.00 over the \$21,300.00 currently held by the Division. This estimate is based on current prices and conditions observed during the February 24, 2017 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.

Sincerely,

Dustin Czapla
Environmental Protection Specialist
Department of Natural Resources
Division of Reclamation, Mining and Safety
101 South 3rd, Suite 301
Grand Junction, CO 81501
Phone: (970) 243-6299

Enc: Financial Warranty Cost Estimate



COST SUMMARY WORK

Task description: 2017 Reclamation Cost Update

Site: Cadgene Pit

Permit Action: 2017 Update

Permit/Job#: M1983158

PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 3/1/2017

County: Montrose

Filename: M158-000

User: DMC

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
01a	Reduce highwalls to 3H:1V slopes	DOZER	1	2.96	\$567.00
02a	Rip pit floor prior to topsoil placement	RIPPER	1	11.98	\$2,477.00
03a	Topsoil placement	DOZER	1	9.99	\$1,916.00
04a	Revegetation	REVEGE	1	8.00	\$16,475.00
05a	Mobilization	MOBILIZE	1	3.04	\$2,706.00
<u>SUBTOTALS:</u>				35.97	\$24,141

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02

Total = \$487.65

Performance bond: 1.05

Total = \$253.48

Job superintendent: 17.99

Total = \$1,313.80

Profit: 10.00

Total = \$2,414.10

TOTAL O & P = \$4,469.03

CONTRACT AMOUNT (direct + O & P) = \$28,610.03

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): 0.00

Total = 0.00

Engineering work and/or contract/bid preparation: 0.00

Total = \$0.00

Reclamation management and/or administration: 5.00

\$1,430.50

CONTINGENCY: 0.00

Total = \$0.00

TOTAL INDIRECT COST = \$5,899.53

TOTAL BOND AMOUNT (direct + indirect) = \$30,040.53

BULLDOZER WORKTask description: **Reduce highwalls to 3H:1V slopes**Site: **Cadgene Pit**Permit Action: 2017 UpdatePermit/Job#: M1983158**PROJECT IDENTIFICATION**Task #: 01A
Date: 3/1/2017
User: DMCState: Colorado
County: MontroseAbbreviation: None
Filename: M158-01aAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D8T - 8SU
Horsepower: 310
Blade Type: Semi-Universal
Attachment: NA
Shift Basis: 1 per day
Data 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>\$0.00</u>	<u>NA</u>
Ripper op. Cost/Hour:	<u>\$0.00</u>	<u>0</u>
Operator Cost/Hour:	<u>\$41.85</u>	<u>NA</u>

Total unit Cost/Hour: \$191.83
Total Fleet Cost/Hour: **\$191.83****MATERIAL QUANTITIES**Initial Volume: 2,507
Swell factor: 1.000
Loose volume: **2,507 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/hrMaterials consistency description: Partly consolidated stockpile 1.1Average push gradient: -10 %
Average site altitude: 6,300 feetMaterial weight: 2,550 lbs/LCYWeight description: Earth - Dry packedJob Condition Correction FactorSource

Operator Skill:	0.750	(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:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.6053

Adjusted unit
production: 847.42 LCY/hr
Adjusted fleet
production: **847.42** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.226/LCY

Total job time: **2.96** Hours
Total job cost: **\$567**

BULLDOZER RIPPING WORK

Task description: Rip pit floor prior to topsoil placement

Site: Cadgene Pit

Permit Action: 2017 Update

Permit/Job#: M1983158

PROJECT IDENTIFICATION

Task #: 02A

State: Colorado

Abbreviation: None

Date: 3/1/2017

County: Montrose

Filename: M158-02a

User: DMC

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

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA

Bank Volume: NA

BCY NA

Area: 7.00 acres

Rip Depth (ft): 1.00

Volume: 11,293

BCY or CCY

Source of estimated quantity: DRMS

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	<u>2.56</u>	mph
Average Ripping Width:	<u>7.08</u>	degrees
Average Ripping Length:	<u>100.00</u>	feet
Average Dozer Speed:	<u>88.00</u>	feet
Average Maneuver Time:	<u>0.25</u>	feet
Production per unit area:	<u>0.703</u>	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.703 Acres/hr

Site Altitude: 6,300 feet

Altitude Adj: 1.00 (CAT HB)

Job Efficiency: 0.83 (1 shift/day)

Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.58 Acres/hr

Adjusted Hourly Fleet Production: **0.58** Acres/hr

JOB TIME AND COST

Fleet size: 1

Grader(s)

Total job time: **11.99**

Hours

Unit cost: \$353.844

Per acre

Total job cost: **\$2,477**

BULLDOZER WORKTask description: Topsoil placementSite: Cadgene PitPermit Action: 2017 UpdatePermit/Job#: M1983158**PROJECT IDENTIFICATION**Task #: 03A
Date: 3/1/2017
User: DMCState: Colorado
County: MontroseAbbreviation: None
Filename: M158-03aAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D8T - 8SU
Horsepower: 310
Blade Type: Semi-Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$83.81	NA
Operating Cost/Hour:	\$66.17	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.85	NA
Total unit Cost/Hour:	\$191.83	
Total Fleet Cost/Hour:	\$191.83	

MATERIAL QUANTITIESInitial Volume: 5,445
Swell factor: 1.000
Loose volume: **5,445 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: 634.3 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: 0 %
Average site altitude: 6,300 feetMaterial weight: 1,600 lbs/LCYWeight description: Top SoilJob Condition Correction FactorSource

Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(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:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.8593

Adjusted unit
production: 545.05 LCY/hr
Adjusted fleet
production: **545.05** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.352/LCY

Total job time: **9.99** Hours
Total job cost: **\$1,916**

REVEGETATION WORKTask description: **Revegetation**Site: **Cadgene Pit**Permit Action: 2017 UpdatePermit/Job#: M1983158**PROJECT IDENTIFICATION**Task #: 04AState: ColoradoAbbreviation: NoneDate: 3/1/2017County: MontroseFilename: M158-04aUser: DMCAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
10-34-0, 18-46-0, 5-10-5	200.00	pound	\$0.34	\$68.00
Total Fertilizer Materials Cost/Acre				\$68.00

Application

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	\$144.62
Total Fertilizer Application Cost/Acre	\$144.62

TILLING

Description	Cost /Acre
Chisel plowing {DMG}	\$90.60
Weed control spraying (MEANS 31 31 16.13 3100)	\$242.00
Total Tilling Cost/Acre	\$332.60

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Sand Dropseed	0.15	17.91	\$1.63
Thickspike Wheatgrass - Critana	2.75	9.72	\$15.79
Western Wheatgrass - Arriba	6.00	15.15	\$48.48
Totals Seed Mix	8.90	42.78	\$65.89

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
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$261.00	\$522.00
Total Mulch Materials Cost/Acre				\$522.00

Application

Description	Cost /Acre
Power mulcher (MEANS 32 91 13.16 0350)	\$99.32
Total Mulch Application Cost/Acre	\$99.32

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:	9	Cost /Acre:	\$1,464.43
Estimated Failure Rate:	25%	Cost /Acre*:	\$1,464.43
*Selected Replanting Work Items:	FERTILIZING, TILLING, SEEDING, MULCHING		

Initial Job Cost:	\$13,179.87
Reseeding Job Cost:	\$3,294.97
Total Job Cost:	\$16,475
Job Hours:	8.00

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Mobilization**Site: **Cadgene Pit**Permit Action: **2017 Update**Permit/Job#: **M1983158****PROJECT IDENTIFICATION**

Task #: **05A** State: **Colorado** Abbreviation: **None**
 Date: **3/1/2017** County: **Montrose** Filename: **M158-05a**
 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:	\$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	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$12.22	\$88.67	1	\$100.89	\$88.67	\$250.00
Power Mulcher (Bowie LD-90)	6.00	\$7.03	\$88.67	1	\$95.70	\$88.67	\$250.00

Subtotals: **\$413.40** **\$302.79** **\$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.	\$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:	<u>NORWOOD</u>	
Total one-way travel distance:	<u>13.00</u>	miles
Average Travel Speed:	<u>50.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$2,699.22</u>
'* two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$6.38</u>
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.26	0.26
Return Time (Hours):	0.26	0.26
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	1.52	0.52

JOB TIME AND COST

Total job time: 3.04 Hours

Total job cost: \$2,706