



November 13, 2023

Merial Currier
Currie Gravel Pit, Inc.
P.O. Box 27059
Dever, CO 80227

RE: Currier Gravel Pit, Permit No. M-1980-203, Proposed Surety Increase SI-2

Dear Ms. Currier:

This reclamation cost update was in response to the site inspection conducted on October 25, 2023. It is Division policy to periodically update its costs to ensure that the Financial Warranty adequately, reflects the actual current cost of fulfilling the requirements of the approved reclamation plan.

The bond was last increased in 2011 with SI-1. Below is a table summarizing input values that have been updated since the SI-1 calculation. This table does not account for price changes resulting from inflation or other RS Means cost changes. Bond calculations are based on a combination of field observations and worst case scenario based on the approved reclamation plan.

Task	Form Used	Description
01a	Dozer	Grade all highwalls to 3H: 1V = 6,898 LCY 20'H x 45'L @ 1H:1V backfill = 6,667 LCY 10'H x 500' @2H: 1V cut/fill = 231 Push misc. material at base up slope. Previously: D7 w 100% ripper, 4100 LCY, 70' Push, -10%
01b	Dozer	Grade misc. stockpiles and general contour blending = 507 LCY 15' x 30' x 50' = 417 CY 8' x 10' x 60' = 90 CY
02a	Ripper	No changes Decompact 5 acres of compacted areas (slopes only) w/D7



03a	Dozer	Spread 6" of topsoil over pit slopes only. No topsoil on level areas for livestock use. 5 ac @ 6" is 4,033 CY, 300 ft avg push Previously: D7 w 100% ripper, 2420 LCY, 70' push -10%
04a	Reveg	Revegetate entire site 5 Ac w/ 25% failure Only reveg topsoiled areas. Add weed treatment Previously 7 ac
05a	Mob	Initial Mobilization
05b	Mob	Secondary Mobilization for seeding failure areas
Indirect		Division standard ~28%

Per policy I wanted to send this out for review prior to issuance. Please look it over and let me know if there are errors or concerns. If no response is received by **Friday, December 15, 2023** then I'll issue SI-2 the following Monday as is. SI-2 will result in a total required bond amount of \$53,039, which is an increase of **\$37,159.02** over the \$15,879.98 currently held.

Sincerely,



Amy Yeldell
Environmental Protection Specialist

Ec:
Travis Marshall, Senior EPS, Grand Junction DRMS
micurrier@gmail.com
vandercpa@aol.com

COST SUMMARY WORK

Task description: 2023 post inspection update

Site: Currier Gravel Pit

Permit Action: 2023

Permit/Job#: M1980203

PROJECT IDENTIFICATION

Task #: ACY

State: Colorado

Abbreviation: None

Date: 11/9/2023

County: Mesa

Filename: M203-ACY

User: ACY

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
01a	Grade pit slopes to 3H:1V	DOZER	1	53.02	\$13,831
01b	Misc. grading and contour blending	DOZER	1	1.49	\$389
02a	Rip 5 acres of compacted area	RIPPER	1	8.76	\$2,287
03a	Spread topsoil over slopes	DOZER	1	20.00	\$4,935
04a	Revegetate 5 acres disturbance	REVEGE	1	8.00	\$9,793
05a	Initial Mobilization	MOBILIZE	1	7.00	\$5,106
05b	Secondary Mobilization	MOBILIZE	1	7.00	\$2,620
<u>SUBTOTALS:</u>				105.27	\$38,961

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02

Total = \$787

Performance bond: 1.05

Total = \$409

Job superintendent: 52.64

Total = \$3,425

Profit: 10.00

Total = \$3,896

TOTAL O & P = \$8,518

CONTRACT AMOUNT (direct + O & P) = \$47,479

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): \$0

Total = \$0

Engineering work and/or contract/bid preparation: 4.25

Total = \$2,018

Reclamation management and/or administration: 5.00

\$2,374

CONTINGENCY: 3.00

Total = \$1,169

TOTAL INDIRECT COST = \$14,078

TOTAL BOND AMOUNT (direct + indirect) = \$53,039

BULLDOZER WORKTask description: **Grade pit slopes to 3H:1V**Site: **Currier Gravel Pit**Permit Action: 2023Permit/Job#: M1980203**PROJECT IDENTIFICATION**Task #: 01AState: ColoradoAbbreviation: NoneDate: 11/12/2023County: MesaFilename: M203-01aUser: ACYAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D7R DS XR Series IIHorsepower: 240Blade Type: Semi-UniversalAttachment: 3-shank ripperShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper own. Cost/Hour:	\$9.06	NA
Ripper op. Cost/Hour:	\$5.02	100
Operator Cost/Hour:	\$40.04	NA

Total unit Cost/Hour: \$260.86Total Fleet Cost/Hour: **\$260.86****MATERIAL QUANTITIES**Initial Volume: 6,898Swell factor: 1.000Loose volume: **6,898 LCY**Source of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 200 feetUnadjusted hourly production: 410.8 LCY/hrMaterials consistency description: Partly consolidated stockpile 1.1Average push gradient: 15 %Average site altitude: 7,600 feetMaterial weight: 2,650 lbs/LCYWeight description: Decomposed rock - 25% Rock, 75% Earth**Job Condition Correction Factor**

		<u>Source</u>
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:	0.666	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3167

Adjusted unit production: 130.10 LCY/hr

Adjusted fleet production: **130.1** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$2.005/LCY

Total job time: **53.02** Hours

Total job cost: **\$13,831**

BULLDOZER WORKTask description: Misc. grading and contour blendingSite: Currier Gravel PitPermit Action: 2023Permit/Job#: M1980203**PROJECT IDENTIFICATION**Task #: 01BState: ColoradoAbbreviation: NoneDate: 11/12/2023County: MesaFilename: M203-01bUser: ACYAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D7R DS XR Series IIHorsepower: 240Blade Type: Semi-UniversalAttachment: 3-shank ripperShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper own. Cost/Hour:	\$9.06	NA
Ripper op. Cost/Hour:	\$5.02	100
Operator Cost/Hour:	\$40.04	NA

Total unit Cost/Hour: \$260.86Total Fleet Cost/Hour: **\$260.86****MATERIAL QUANTITIES**Initial Volume: 507Swell factor: 1.000Loose volume: **507 LCY**Source of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 100 feetUnadjusted hourly production: 714.3 LCY/hrMaterials consistency description: Partly consolidated stockpile 1.1Average push gradient: 0 %Average site altitude: 7,600 feetMaterial weight: 2,650 lbs/LCYWeight description: Decomposed rock - 25% Rock, 75% Earth**Job Condition Correction Factor**

		<u>Source</u>
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:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4755

Adjusted unit production: 339.65 LCY/hr

Adjusted fleet production: **339.65** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.768/LCY

Total job time: **1.49** Hours

Total job cost: **\$389**

BULLDOZER RIPPING WORK

Task description: Rip 5 acres of compacted area

Site: Currier Gravel Pit Permit Action: 2023 Permit/Job#: M1980203

PROJECT IDENTIFICATION

Task #: 02A State: Colorado Abbreviation: None
Date: 11/12/2023 County: Mesa Filename: M203-02a
User: ACY

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D7R DS XR Series II Horsepower: 240
Ripper Attachment: 3-Shank Ripper Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	<u>\$114.76</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$91.98</u>	<u>100</u>
Ripper Ownership Cost/Hour:	<u>\$9.06</u>	<u>NA</u>
Ripper Operating Cost/Hour:	<u>\$5.02</u>	<u>100</u>
Operator Cost/Hour:	<u>\$40.04</u>	<u>NA</u>
Total Unit Cost/Hour:	<u>\$260.86</u>	
Total Fleet Cost/Hour:	<u>\$260.86</u>	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 5.00 acres Rip Depth (ft): 1.00 Volume: 8,067 BCY or CCY

Source of estimated quantity: Staff Estimate

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth: 2.45 feet/pass
Average Ripping Width: 6.50 feet/pass
Average Ripping Length: 150.00 feet/pass
Average Dozer Speed: 88.00 feet/minute
Average Maneuver Time: 0.25 minutes/pass
Production per unit area: 0.687 acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.687 Acres/hr
Site Altitude: 7,600 feet
Altitude Adj: 1.00 (CAT HB)
Job Efficiency: 0.83 (1 shift/day)
Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.57 Acres/hr
Adjusted Hourly Fleet Production: **0.57** Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: **8.77** Hours

Unit cost: \$457.412 Per acre Total job cost: **\$2,287**

BULLDOZER WORKTask description: Spread topsoil over slopesSite: Currier Gravel PitPermit Action: 2023Permit/Job#: M1980203**PROJECT IDENTIFICATION**Task #: 03AState: ColoradoAbbreviation: NoneDate: 11/12/2023County: MesaFilename: M203-03aUser: ACYAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D7R DS XR Series IIHorsepower: 240Blade Type: Semi-UniversalAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	100
Operator Cost/Hour:	\$40.04	NA

Total unit Cost/Hour: \$246.78Total Fleet Cost/Hour: **\$246.78****MATERIAL QUANTITIES**Initial Volume: 4,033Swell factor: 1.215Loose volume: **4,900 LCY**Source of estimated volume: 6" over 5 acSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 300 feetUnadjusted hourly production: 311.1 LCY/hrMaterials consistency description: Partly consolidated stockpile 1.1Average push gradient: 0 %Average site altitude: 7,600 feetMaterial weight: 1,600 lbs/LCYWeight description: Top Soil**Job Condition Correction Factor**

		<u>Source</u>
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:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.7877

Adjusted unit production: 245.05 LCY/hr

Adjusted fleet production: **245.05** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$1.007/LCY

Total job time: **20.00** Hours

Total job cost: **\$4,935**

REVEGETATION WORKTask description: Revegetate 5 acres disturbanceSite: Currier Gravel PitPermit Action: 2023Permit/Job#: M1980203**PROJECT IDENTIFICATION**Task #: 04AState: ColoradoAbbreviation: NoneDate: 11/12/2023County: MesaFilename: M203-04aUser: ACYAgency 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)	\$112.82
Total Tilling Cost/Acre	\$112.82

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Crested Wheatgrass - Fairway	2.00	9.18	\$8.05
Yellow Sweet Clover - Madrid	0.70	4.18	\$1.98
Western Wheatgrass - Native	10.60	26.77	\$63.60
Totals Seed Mix	13.30	40.13	\$73.63

Application

Description	Cost /Acre
Drill Seeding (DRMS Survey Cost)	\$232.00

Total Seed Application Cost/Acre	\$232.00
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MULCHING and MISCELLANEOUS**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - 2,4D @ 1.0 pt/ac	1.00	ACRE	\$4.01	\$4.01
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$429.79	\$859.57
Total Mulch Materials Cost/Acre				\$863.58

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$74.46
Power mulcher (MEANS 32 91 13.16 0350)	\$147.67
Weed spray, truck, non-aquatic area, nox. [DMG]	\$62.72
Total Mulch Application Cost/Acre	\$284.85

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: 5 Cost /Acre: \$1,566.88
 Estimated Failure Rate: 25% Cost /Acre*: \$1,566.88
 *Selected Replanting Work Items: TILLING,SEEDING,MULCHING
 Initial Job Cost: \$7,834.40
 Reseeding Job Cost: \$1,958.60
 Total Job Cost: \$9,793
 Job Hours: 8.00

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Initial Mobilization**Site: **Currier Gravel Pit**Permit Action: **2023**Permit/Job#: **M1980203****PROJECT IDENTIFICATION**

Task #: **05A** State: **Colorado** Abbreviation: **None**
 Date: **11/12/2023** County: **Mesa** Filename: **M203-05a**
 10:45:55 AM
 User: **ACY**

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:	\$20.26	\$36.04	\$47.05
Operating Cost/Hour:	\$39.51	\$76.08	\$82.85
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$82.29	\$158.17	\$175.95

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 D7R DS XR Series II	35.93	\$123.82	\$158.17	1	\$281.99	\$158.17	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$6.73	\$82.29	1	\$89.02	\$82.29	\$250.00
Power Mulcher (Bowie LD-90)	6.00	\$25.94	\$82.29	1	\$108.23	\$82.29	\$250.00

Subtotals: **\$479.24** **\$322.75** **\$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, 1 T. Crew	\$128.47	2	\$256.94	\$256.94

Subtotals: **\$256.94** **\$256.94**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>GRAND JUNCTION</u>	
Total one-way travel distance:	<u>50.00</u>	miles
Average Travel Speed:	<u>40.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$4,463.46</u>
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$642.35</u>
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>1.25</u>	<u>1.25</u>
Return Time (Hours):	<u>1.25</u>	<u>1.25</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>3.50</u>	<u>2.50</u>

JOB TIME AND COST

Total job time:	<u>7.00</u>	Hours
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Total job cost:	<u>\$5,106</u>
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EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: Secondary MobilizationSite: Currier Gravel PitPermit Action: 2023Permit/Job#: M1980203**PROJECT IDENTIFICATION**Task #: 05BState: ColoradoAbbreviation: NoneDate: 11/12/2023County: MesaFilename: M203-05bUser: ACYAgency 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:	\$20.26	\$36.04	\$47.05
Operating Cost/Hour:	\$39.51	\$76.08	\$82.85
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$82.29	\$158.17	\$175.95

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
Drill/Broadcast Seeder with Tractor	25.00	\$6.73	\$82.29	1	\$89.02	\$82.29	\$250.00
Power Mulcher (Bowie LD-90)	6.00	\$25.94	\$82.29	1	\$108.23	\$82.29	\$250.00

Subtotals: **\$197.25** **\$164.58** **\$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, 1 T. Crew	\$128.47	1	\$128.47	\$128.47

Subtotals: **\$128.47** **\$128.47**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>GRAND JUNCTION</u>	
Total one-way travel distance:	<u>50.00</u>	miles
Average Travel Speed:	<u>40.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$2,299.08</u>
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$321.18</u>
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>1.25</u>	<u>1.25</u>
Return Time (Hours):	<u>1.25</u>	<u>1.25</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>3.50</u>	<u>2.50</u>

JOB TIME AND COST

Total job time:	<u>7.00</u>	Hours
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Total job cost:	<u>\$2,620</u>
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