

STATE OF COLORADO

DIVISION OF RECLAMATION, MINING AND SAFETY

Department of Natural Resources

1313 Sherman St., Room 215

Denver, Colorado 80203

Phone: (303) 866-3567

FAX: (303) 832-8106



November 21, 2011

Ivan Geer
Grand Junction Concrete Pipe Co.
P.O. Box 1849
Grand Junction, CO
81502

John W. Hickenlooper
Governor

Mike King
Executive Director

Loretta E. Piñeda
Director

RE: Una Pit, File No. M-1980-080, Reclamation Costs Update and Notice of Surety Increase SI-3

Dear Mr. Geer:

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 **Friday, January 20, 2012**. Please review the enclosed figures as soon as possible and contact our office if any calculation errors are noted.

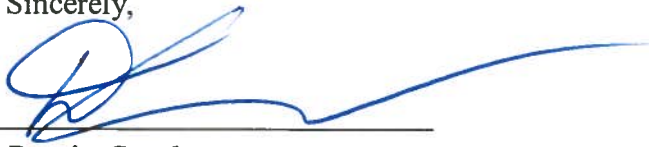
Staff calculations estimate the cost to reclaim the above referenced site to be \$300,071.47. This is an increase of \$76,177.00 over the \$223,894.00 currently held by the Division. This estimate is based on conditions observed during the November 15, 2011 inspection.

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 don't hesitate to contact me at the DRMS Grand Junction Field Office at 101 South 3rd Street, Suite 301, Grand Junction, CO, 81501, Phone: (970) 243-6299, Fax: (970) 241-1516.

STATE OF COLORADO

Sincerely,



Dustin Czapla

Environmental Protection Specialist

Division of Reclamation, Mining and Safety

Cc:

Enc: Financial Warranty Cost Estimate

COST SUMMARY

Task description: Financial Warranty Review

Site: Una Pit

Permit Action: 2011 Midterm Review

Permit/Job#: M1980080

PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 11/17/2011

County: Garfield

Filename: M080-000

User: DMC

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
01a	Demo scales	DEMOLISH	1	8.00	\$49.85
02a	Higwall reduction/site grading	DOZER	2	151.02	\$60,372.53
03a	Rip compacted plant and stockpile area, and roads.	RIPPER	2	16.36	\$6,974.00
04a	Distribute topsoil/fines to areas requiring seeding	LOADER	2	140.74	\$39,615.00
04b	Spread topsoil/fines	DOZER	2	21.16	\$8,459.73
05a	Revegetate disturbed areas (except for 62 ac. lake)	REVEGE	1	40.00	\$34,932.81
06a	Mobilize reclamation crew and equipment	MOBILIZE	1	4.28	\$5,757.22
<u>SUBTOTALS:</u>				381.56	\$156,161.14

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02

Total = \$3,154.46

Performance bond: 1.05

Total = \$1,639.69

Job superintendent: 194.55

Total = \$11,536.82

Profit: 10.00

Total = \$15,616.11

TOTAL O & P = \$31,947.08

CONTRACT AMOUNT (direct + O & P) = \$188,108.22

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): 500.00

Total = 500.00

Engineering work and/or contract/bid preparation: 0.00

Total = \$0.00

Reclamation management and/or administration: 5.00

\$9,405.41

CONTINGENCY: 3.00

Total = \$4,684.83

TOTAL INDIRECT COST = \$46,537.33

BOND AMOUNT (direct + indirect) = \$202,698.47

Substitute Water Supply Plan = \$97,373.00

TOTAL BOND AMOUNT = \$300,071.47

DEMOLITION WORK

Task description: Demo scales

Site: Una Pit

Permit Action: 2011 Midterm Review

Permit/Job#: M1980080

PROJECT IDENTIFICATION

Task #: 01A

State: Colorado

Abbreviation: None

Date: 11/17/2011

County: Garfield

Filename: M080-01a

User: DMC

Agency or organization name: DRMS

UNIT COSTS

Location adjustment: 102.20 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Scales (2)	Approx. 12'W x 40'L x 2'H	Push demolished materials/rubble/debris into pit - Max. 200 ft. push	71.00	CY	\$0.69	\$48.78

Job Hours: 8.00

Subtotal
(unadjusted): \$48.78

Total Cost
(adjusted for location): \$49.85

BULLDOZER WORKTask description: Higwall reduction/site gradingSite: Una PitPermit Action: 2011 Midterm ReviewPermit/Job#: M1980080PROJECT IDENTIFICATIONTask #: 02AState: ColoradoAbbreviation: NoneDate: 11/17/2011County: GarfieldFilename: M080-02aUser: DMCAgency or organization name: DRMSHOURLY EQUIPMENT COSTBasic Machine: Cat D8T - 8UHorsepower: 310Blade Type: UniversalAttachment: NAShift Basis: 1 per dayData Source: (CRG)Cost Breakdown:

		<u>Utilization %</u>
Ownership Cost/Hour:	\$58.56	NA
Operating Cost/Hour:	\$102.84	100
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$38.49	NA

Total unit Cost/Hour: \$199.89Total Fleet Cost/Hour: \$399.77MATERIAL QUANTITIESInitial Volume: 100,000Swell factor: 1.000Loose volume: 100,000 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat HandbookHOURLY PRODUCTIONAverage push distance: 100 feetUnadjusted hourly production: 931.6 LCY/hrMaterials consistency description: Compacted fill or embankment 0.9Average push gradient: 0 %Average site altitude: 5,000 feetMaterial weight: 2,900 lbs/LCYWeight description: Sand and gravel - DryJob Condition Correction FactorOperator Skill: 0.750Material consistency: 0.900Dozing method: 1.000Source

(AVG.)

(CAT HB))

(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:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3554

Adjusted unit production: 331.09 LCY/hr

Adjusted fleet production: 662.18 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)

Unit cost: \$0.604/LCY

Total job time: 151.02 Hours

Total job cost: \$60,372.53

BULLDOZER RIPPING WORK

Task description: Rip compacted plant and stockpile area, and haul roads.

Site: Una Pit

Permit Action: 2011 Midterm Review

Permit/Job#: M1980080

PROJECT IDENTIFICATION

Task #: 03A

State: Colorado

Abbreviation: None

Date: 11/17/2011

County: Garfield

Filename: M080-03a

User: DMC

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D8T - 8U

Horsepower: 310

Ripper Attachment: 3-Shank Ripper

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$65.28	NA
Operating Cost/Hour:	\$102.84	100
Ripper Operating Cost/Hour:	\$6.49	100
Operator Cost/Hour:	\$38.49	NA
Total Unit Cost/Hour:	\$213.10	
Total Fleet Cost/Hour:	\$426.20	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA

Bank Volume: NA

BCY

NA

Area: 21 acres

Rip Depth (ft): 1.00

Volume: 33,880

BCY or CCY

Source of estimated quantity: TR2 Mine plan map and site observations

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>200.00</u>	feet
Average Dozer Speed:	<u>88.00</u>	feet
Average Maneuver Time:	<u>0.25</u>	feet
Production per unit area:	<u>0.773</u>	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.773 Acres/hr

Site Altitude: 5,000 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: 1.28 Acres/hr

JOB TIME AND COST

Fleet size: 2 Grader(s) Total job time: 16.36 Hours

Unit cost: \$332.085 Per acre Total job cost: \$6,974.00

WHEEL LOADER – LOAD AND CARRY WORKTask description: Distribute topsoil over areas requiring seedingSite: Una Pit Permit Action: 2011 Midterm Review Permit/Job#: M1980080**PROJECT IDENTIFICATION**

Task #: 04A State: Colorado Abbreviation: None
 Date: 11/17/2011 County: Garfield Filename: M080-04a
 User: DMC

Agency or organization name: DRMS**HOURLY EQUIPMENT COST**

Basic Machine: CAT 972H Horsepower: 287
 Attachment 1: ROPS Cab Shift Basis: 1 per day
 Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$36.70	NA
Operating Cost/Hour:	\$65.54	100
Operator Cost/Hour:	\$38.49	NA
Total Unit Cost/Hour:	\$140.73	
Total Fleet Cost/Hour:	\$281.46	

MATERIAL QUANTITIES

Initial volume: 33,880 CCY Swell factor: 1.000
 Loose volume: 33,880 LCY

Source of estimated volume: 21 ac. @ 12" depth
 Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTIONLoader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.525 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material up to 1/8" diameter 0.02	0.020	(Cat HB)
Stockpile:	Conveyor or dozer piled 10 ft. high and up 0.00	0.000	(Cat HB)
Truck Ownership:	No adjustment - factor not applicable 0.00	0.000	(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:		-0.020	minutes
Adjusted Basic Cycle Time:		0.505	minutes

Rolling Resistance – Road Conditions

Haul: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0
 Return: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0

Haul and Return Time

	Length (feet)	Grade Res. (%)	Rolling Res. (%)	Total Res. (%)	Travel Time (minutes)	Source
Haul Route:	1000	0.00	5.00	5.00	0.9222	(Cat HB)
Return Route:	1000	0.00	5.00	5.00	0.8320	(Cat HB)

Total Travel Time: 1.7542 minutes
 Total Cycle Time: 2.2592 minutes

Load Bucket Capacity

Rated Capacity: 5.60 LCY (heaped)
 Bucket Fill Factor: 0.975 Loose material - uniform aggregates to 1/8" (95-100%) 0.975
 Adjusted Capacity: 5.46 LCY

Job Condition Correction FactorsSite Altitude: 5000 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:	<u>145.01</u>	LCY/Hour
Adjusted Hourly Unit Production:	<u>120.36</u>	LCY/Hour
Adjusted Hourly Fleet Production:	<u>240.72</u>	LCY/Hour

JOB TIME AND COST

Fleet size:	<u>2</u>	Loader(s)	Total job time:	<u>140.75</u>	Hours
Unit cost:	<u>\$1.169</u>	/LCY	Total job cost:	<u>\$39,615.00</u>	

BULLDOZER WORKTask description: **Spread topsoil**Site: **Una Pit**Permit Action: **2011 Midterm Review**Permit/Job#: **M1980080****PROJECT IDENTIFICATION**Task #: **04B**State: **Colorado**Abbreviation: **None**Date: **11/17/2011**County: **Garfield**Filename: **M080-04b**User: **DMC**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D8T - 8U**Horsepower: **310**Blade Type: **Universal**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$58.56	NA
Operating Cost/Hour:	\$102.84	100
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$38.49	NA

Total unit Cost/Hour: **\$199.89**Total Fleet Cost/Hour: **\$399.77****MATERIAL QUANTITIES**Initial Volume: **33,880**Swell factor: **1.000**Loose volume: **33,880 LCY**Source of estimated volume: **Division of Reclamation, Mining & Safety**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **100 feet**Unadjusted hourly production: **931.6 LCY/hr**Materials consistency description: **Loose stockpile 1.2**Average push gradient: **0 %**Average site altitude: **5,000 feet**Material weight: **1,600 lbs/LCY**Weight description: **Top Soil****Job Condition Correction Factor**

		<u>Source</u>
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: 800.52 LCY/hr

Adjusted fleet production: 1601.04 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
 Unit cost: \$0.250/LCY

Total job time: 21.16 Hours
 Total job cost: \$8,459.73

REVEGETATION WORKTask description: Revegetate disturbed areas (except for 62 ac. lake)Site: Una PitPermit Action: 2011 Midterm ReviewPermit/Job#: M1980080**PROJECT IDENTIFICATION**Task #: 05AState: ColoradoAbbreviation: NoneDate: 11/17/2011County: GarfieldFilename: M080-05aUser: DMCAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
10-34-0, 18-46-0, 5-10-5	250.00	pound	\$0.32	\$80.00
Total Fertilizer Materials Cost/Acre				\$80.00

Application

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	\$50.09
Total Fertilizer Application Cost/Acre	\$50.09

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$92.35
Weed control spraying (MEANS 31 31 16.13 3100)	\$145.20
Total Tilling Cost/Acre	\$237.55

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Paloma	1.00	3.24	\$8.53
Slender Wheatgrass - San Luis	2.20	8.03	\$7.99
Tall Wheatgrass - Jose	5.50	9.97	\$12.10
Saltgrass, Inland	1.00	13.86	\$46.00
Totals Seed Mix	9.70	35.10	\$74.62

Application

Description	Cost /Acre
Drill seeding {DMG}	\$90.11
Total Seed Application Cost/Acre	\$90.11

MULCHING and MISCELLANEOUS**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost / Acre
Herbicide - Curtail @ 4.0 pt/ac	1.00	ACRE	\$15.90	\$15.90
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$164.00	\$328.00
Total Mulch Materials Cost/Acre				\$343.90

Application

Description	Cost / Acre
Crimping, with tractor {DMG survey data}	\$65.89
Weed spray, truck, aquatic area, nox. [DMG]	\$60.19
Total Mulch Application Cost/Acre	\$126.08

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost / Acre
Cottonwood, Narrowleaf	30	Tubling, 10 cu. in. container {(MEANS)}	\$3.85	\$2.40	\$115.50
Totals Nursery Stock Cost / Acre					\$115.50

JOB TIME AND COST

No. of Acres:	25	Cost / Acre:	\$1,117.85
Estimated Failure Rate:	25%	Cost / Acre*:	\$1,117.85
*Selected Replanting Work Items:	FERTILIZING, TILLING, SEEDING, NURSERY, MULCHING		
Initial Job Cost:	\$27,946.25		
Reseeding Job Cost:	\$6,986.56		
Total Job Cost:	\$34,932.81		
Job Hours:	40.00		

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Mobilize reclamation crew and equipment**Site: **Una Pit**Permit Action: **2011 Midterm Review**Permit/Job#: **M1980080****PROJECT IDENTIFICATION**Task #: **06A**State: **Colorado**Abbreviation: **None**Date: **11/17/2011**County: **Garfield**Filename: **M080-06a**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 - 8U	53.70	\$65.28	\$125.45	2	\$381.46	\$250.90	\$500.00
CAT 972H	28.00	\$36.70	\$117.55	2	\$308.50	\$235.10	\$500.00
Drill/Broadcast Seeder with Tractor	25.00	\$39.59	\$88.67	1	\$128.26	\$88.67	\$250.00

Subtotals: **\$818.22** **\$574.67** **\$1,250.00****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	\$25.30	1	\$25.30	\$25.30

Subtotals: **\$25.30** **\$25.30**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>RIFLE</u>	
Total one-way travel distance:	<u>20.00</u>	miles
Average Travel Speed:	<u>35.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$5,728.31</u>
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$28.91</u>
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>0.57</u>	<u>0.57</u>
Return Time (Hours):	<u>0.57</u>	<u>0.57</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>2.14</u>	<u>1.14</u>

JOB TIME AND COST

Total job time:	<u>4.29</u>	Hours
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Total job cost:	<u>\$5,757.22</u>
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