



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

July 13, 2023

Richard Bassi
Bassi North Farm, LLC
2045 Lake Ave
Pueblo, CO 81004

RE: North Farm Road Gravel Pit, Permit No. M-2000-110, Estimated Reclamation Costs Update

Dear Mr. Bassi:

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).

Division calculations estimate the cost to reclaim the above referenced site to be \$35,449. This is an increase of \$8,666 over the \$26,783 currently held by the Division. This estimate is based on conditions observed during the April 11, 2023 inspection. Please review the enclosed figures as soon as possible and contact our office if any calculation errors are noted.

The estimated reclamation cost was last calculated in August of 2017. Per rule 4.2.1(2) the estimation is periodically updated to ensure that the Division holds a sufficient sum to cover the cost of reclamation. The increase in the financial Warranty is due to increases in the cost of fuel, equipment, and labor since the last adjustment.

If no comments are received by August 10, 2023 then it is the Division's understanding that the operator has no objections to the bond calculated on July 13, 2023 for the amount of \$35,449 according to the current permit conditions. At that time a Notice for Surety Increase will be issued for the above amount as required by the Act and Rules.

If you require additional information, or have questions or concerns, please feel free to contact me.

Sincerely,

Todd Jesse
Environmental Protection Specialist
Department of Natural Resources

Cc:
Travis Marshall, Senior EPS, Grand Junction DRMS

Enc: Financial Warranty Cost Estimate



COST SUMMARY WORK

Task description: Summary

Site: North Farm Road Gravel Pit

Permit Action: 2023 update

Permit/Job#: M2000110

PROJECT IDENTIFICATION

Task #: 002

State: Colorado

Abbreviation: None

Date: 6/8/2023

County: Rio Grande

Filename: M110-002

User: TJ1

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001a	Rough Grading	DOZER	1	12.77	\$3,367
002a	Rip Compacted Areas	RIPPER	1	4.74	\$1,349
003a	Haul topsoil from stockpile for spreading	SCRAPER1	1	7.30	\$9,525
004a	Spread topsoil on graded areas	DOZER	1	6.49	\$1,846
005a	Revegetate Disturbed Area	REVEGE	1	8.00	\$7,986
006a	Mobilization	MOBILIZE	1	2.50	\$3,695
<u>SUBTOTALS:</u>				41.8	\$27,768

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	\$561
Performance bond:	1.05	Total =	\$292
Job superintendent:	20.90	Total =	\$1,570
Profit:	10.00	Total =	\$2,777
		TOTAL O & P =	\$5,199
		CONTRACT AMOUNT (direct + O & P) =	\$32,967

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	\$0	Total =	\$0
Engineering work and/or contract/bid preparation:	0.00	Total =	\$0
Reclamation management and/or administration:	5.00		\$1,648
CONTINGENCY:		Total =	\$833

TOTAL INDIRECT COST = \$7,681

TOTAL BOND AMOUNT (direct + indirect) = \$35,449

BULLDOZER WORKTask description: **Rough Grading**Site: **North Farm Road Gravel Pit**Permit Action: 2023 updatePermit/Job#: M2000110**PROJECT IDENTIFICATION**Task #: 001AState: ColoradoAbbreviation: NoneDate: 6/8/2023County: Rio GrandeFilename: M110-001aUser: TJ1Agency 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>\$124.85</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$97.63</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>\$41.30</u>	<u>NA</u>
Total unit Cost/Hour:	<u>\$263.78</u>	
Total Fleet Cost/Hour:	<u>\$263.78</u>	

MATERIAL QUANTITIES

Initial Volume: 5,082
 Swell factor: 1.165
 Loose volume: **5,921 LCY**

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

HOURLY PRODUCTION

Average push distance: 65 feet
 Unadjusted hourly production: 1,170.3 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: -5 %
 Average site altitude: 7,640 feet

Material weight: 2,900 lbs/LCYWeight description: Decomposed rock - 50% Rock, 50% EarthJob Condition Correction FactorSource

Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(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:	1.115	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3963

Adjusted unit
production: 463.79 LCY/hr
Adjusted fleet
production: **463.79** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.569/LCY

Total job time: **12.77** Hours
Total job cost: **\$3,367**

BULLDOZER RIPPING WORK

Task description: Rip Compacted Areas

Site: North Farm Road Gravel Pit

Permit Action: 2023 update

Permit/Job#: M2000110

PROJECT IDENTIFICATION

Task #: 002A

State: Colorado

Abbreviation: None

Date: 6/8/2023

County: Rio Grande

Filename: M110-002a

User: TJ1

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:	\$124.85	NA
Operating Cost/Hour:	\$97.63	100
Ripper Ownership Cost/Hour:	\$13.10	NA
Ripper Operating Cost/Hour:	\$7.30	100
Operator Cost/Hour:	\$41.30	NA
Total Unit Cost/Hour:	\$284.18	
Total Fleet Cost/Hour:	\$284.18	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA

Bank Volume: NA

BCY NA

Area: 3.15 acres

Rip Depth (ft): 1.50

Volume: 7,623 BCY or CCY

Source of estimated quantity: TR-01 Application

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	<u>2.56</u>	feet/pass
Average Ripping Width:	<u>7.08</u>	feet/pass
Average Ripping Length:	<u>300.00</u>	feet/pass
Average Dozer Speed:	<u>88.00</u>	feet/minute
Average Maneuver Time:	<u>0.25</u>	minutes/pass
Production per unit area:	<u>0.800</u>	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.800 Acres/hr

Site Altitude: 7,640 feet

Altitude Adj: 1.00 (CAT HB)

Job Efficiency: 0.83 (1 shift/day)

Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.66 Acres/hr

Adjusted Hourly Fleet Production: 0.66 Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 4.75 Hours

Unit cost: \$428.224 Per acre Total job cost: \$1,349

SCRAPER TEAM WORKTask description: Haul topsoil from stockpile for spreadingSite: North Farm Road Gravel PitPermit Action: 2023 updatePermit/Job#: M2000110**PROJECT IDENTIFICATION**Task #: 003AState: ColoradoAbbreviation: NoneDate: 6/8/2023County: Rio GrandeFilename: M110-003aUser: TJ1Agency or organization name: DRMS**HOURLY EQUIPMENT**COSTShift basis: 1 per day

Equipment Description	
-Scraper:	Cat 627G w/push-pull
-Dozer:	Cat D8T - 8SU
Support Equipment -Load Area:	NA
-Dump Area:	NA
Road Maintenance -Motor Grader:	NA
-Water Truck:	NA

Cost Breakdown:

	Scraper Work Team		Support Equipment		Maintenance Equipment	
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	NA	NA	NA	NA
Ownership cost/hour:	\$227.06	\$124.85	NA	NA	NA	NA
Operating cost/hour:	\$252.32	\$97.63	NA	NA	NA	NA
%Utilization-ripper:	NA	100	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$13.10	NA	NA	NA	NA
Ripper op. cost/hour:	NA	\$7.30	NA	NA	NA	NA
Operator cost/hour:	\$30.90	\$41.30	NA	NA	NA	NA
Unit Subtotals:	\$510.28	\$284.18	NA	NA	NA	NA
Number of Units:	2	1	0	0	0	0
Group Subtotals:	Work:	\$1,304.74	Support:	\$0.00	Maint:	\$0.00

Total work team cost/hour: \$1,304.74**MATERIAL QUANTITIES**Initial volume: 4,358

CCY

Swell factor: 1.000Loose volume: 4,358

LCY

Source of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION****Scraper Bowl (volume) Basis:**

Material weight:	<u>2,550 lbs/LCY</u>	Struck Volume:	<u>15.70</u>	LCY
Material description:	<u>Earth - Dry packed</u>	Heaped Volume:	<u>22.00</u>	LCY
Rated Payload:	<u>52,800 pounds</u>	Average Volume:	<u>18.85</u>	LCY
Payload Capacity:	<u>20.71 LCY</u>	Adjusted Capacity:	<u>18.85</u>	LCY

Cycle Time:Scraper Loading Time: 0.90 MinutesManeuver and Spread Time: 0.60 MinutesJob Condition Correction:

Site Altitude: 7640 feet

	Scraper	Push Dozer	Source
Altitude Adj:	0.960	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.797	0.830	

Travel Time:Road Condition: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1500.00	0.00	5.00	5.00	2218	0.84

Haul Time: 0.84 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1500.00	0.00	5.00	5.00	2814	0.68

Return Time: 0.68 minutesTotal Scraper team cycle time: 3.02 minutesAdjusted for job conditions: 596.96 LCY/HourSelected Number of Scrapers: 2 Scraper(s)Adjusted single scraper team (unit) hourly production: 596.96 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 596.96 LCY/HourUnadjusted unit production/hour: 749.01 LCY/Hour

Optimal Number of Scrapers per push dozer: _____

JOB TIME AND COSTFleet size: 1 Team(s)Total job time: 7.30 HoursUnit cost: \$2.186 /LCYTotal job cost: \$9,525

BULLDOZER WORKTask description: Spread topsoil on graded areasSite: North Farm Road Gravel PitPermit Action: 2023 updatePermit/Job#: M2000110**PROJECT IDENTIFICATION**Task #: 004AState: ColoradoAbbreviation: NoneDate: 6/8/2023County: Rio GrandeFilename: M110-004aUser: TJ1Agency 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:	\$124.85	NA
Operating Cost/Hour:	\$97.63	100
Ripper own.		
Cost/Hour:	\$13.10	NA
Ripper op. Cost/Hour:	\$7.30	100
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: \$284.18Total Fleet Cost/Hour: **\$284.18****MATERIAL QUANTITIES**Initial Volume: 4,901Swell factor: 1.000Loose volume: **4,901 LCY**Source of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feetUnadjusted hourly production: 1,400.0 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: 0 %Average site altitude: 7,640 feetMaterial weight: 2,550 lbs/LCYWeight description: Earth - Dry packedJob 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:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5390

Adjusted unit
production: 754.60 LCY/hr
Adjusted fleet
production: **754.6 LCY/hr**

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.377/LCY

Total job time: **6.49 Hours**
Total job cost: **\$1,846**

REVEGETATION WORKTask description: Revegetate Disturbed AreaSite: North Farm Road Gravel PitPermit Action: 2023 updatePermit/Job#: M2000110**PROJECT IDENTIFICATION**Task #: 005A
Date: 6/8/2023
User: TJ1State: Colorado
County: Rio GrandeAbbreviation: None
Filename: M110-005aAgency 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	\$0.38	\$76.00
			Total Fertilizer Materials Cost/Acre	\$76.00

Application

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	\$39.64
Total Fertilizer Application Cost/Acre	\$39.64

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$117.18
Total Tilling Cost/Acre	\$117.18

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Crested Wheatgrass - Ephraim	5.50	25.25	\$23.79
Russian Wildrye - Bozoisky	1.00	4.02	\$6.48
Streambank Wheatgrass - Sodar	1.00	3.26	\$5.70
Western Wheatgrass - Arriba	3.00	7.58	\$19.50
Totals Seed Mix	10.50	40.11	\$55.47

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
Hay, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$421.36	\$842.72
Total Mulch Materials Cost/Acre				\$842.72

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$73.00
Power mulcher (MEANS 32 91 13.16 0350)	\$141.57
Total Mulch Application Cost/Acre	\$214.57

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:	4.05	Cost /Acre:	\$1,577.58
Estimated Failure Rate:	25%	Cost /Acre*:	\$1,577.58
*Selected Replanting Work Items:	FERTILIZING,TILLING,SEEDING,MU LCHING		
Initial Job Cost:	\$6,389.20		
Reseeding Job Cost:	\$1,597.30		
Total Job Cost:	\$7,986		
Job Hours:	8.00		

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Mobilization**Site: **North Farm Road Gravel Pit**Permit Action: 2023 updatePermit/Job#: M2000110**PROJECT IDENTIFICATION**Task #: 006AState: ColoradoAbbreviation: NoneDate: 6/8/2023County: Rio GrandeFilename: M110-006aUser: TJ1Agency 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:	\$15.25	\$23.06	\$37.58
Operating Cost/Hour:	\$25.26	\$30.83	\$51.41
Operator Cost/Hour:	\$27.71	\$27.71	\$27.71
Helper Cost/Hour:	\$0.00	\$20.22	\$20.22
Total Unit Cost/Hour:	\$68.22	\$101.82	\$136.92

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	47.71	\$124.85	\$101.82	1	\$226.67	\$101.82	\$250.00
Cat 627G w/push-pull	43.48	\$227.06	\$101.82	1	\$328.88	\$101.82	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$6.25	\$68.22	1	\$74.47	\$68.22	\$250.00
Power Mulcher (Bowie LD-90)	6.00	\$14.79	\$68.22	1	\$83.01	\$68.22	\$250.00

Subtotals: **\$713.03** **\$340.08** **\$1,000.00****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	\$24.30	1	\$24.30	\$24.30

Subtotals: **\$24.30** **\$24.30**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region: MONTE VISTA
 Total one-way travel distance: 5.00 miles
 Average Travel Speed: 40.00 mph

Total Non-Roadable Mob/Demob Cost * \$3,689.34
 * two round trips with haul rig:
 Total Roadable Mob/Demob Cost ** \$6.08
 ** one round trip, no haul rig:

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.13	0.13
Return Time (Hours):	0.13	0.13
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	1.25	0.25

JOB TIME AND COST

Total job time: 2.50 Hours

Total job cost: \$3,695