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

February 12, 2024

Andy Azacarraga
M.A. Concrete Construction, Inc.
2323 River Road
Grand Junction, CO 81505

RE: Cole Pit, Permit No. M-2004-020, Proposed bond calculation SI-2

Dear Mr. Azacarraga:

This reclamation cost update was based on site conditions observed at the January 24, 2024 site inspection. The last bond update was conducted in 2018 in conjunction with SI-1. 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.

Below is a table summarizing input values that have been used. 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 permit.

Task	Form Used	Justification
01a	Demo	Remove Scale house and scale 10’ x 10’ x 10’ on side disposal, 200 ‘push
02a	Dozer	Regrade highwalls, cut/fill = 14,986 BCY @ 70’Push 10’H x 1000LF @ 1H:1V to a 3H: 1V = 926 CCY 15’H x 2000LF @ Vert to 3H: 1V = 6,248 BCY 15’H x 900 LF @ Vert to 3H: 1V = 2,812 BCY Misc pile grading in Phase 1 = 5,000 CCY
03a	Truck	Apply Overburden 68 ac @ 6” min = 54,853 CCY 100 ac affected – 8 ac reclaimed – 24 ac prev. topsoiled = 68 ac 600 LF Load/Carry and Avg 50’push to spread

03b	Ripper	Decompact Pit floor/stockpile areas ~ 56 ac
04a	Truck	Topsoil affected lands 68 ac @ 6" = 54,853 CCY 100 ac affected – 8 ac reclaimed – 24 ac prev. topsoiled = 68 ac 600 LF Load/Carry and Avg 50'push to spread
05a	Reveg	Reveg Mix B – Slopes 12 ac
05b	Reveg	Reveg Mix A - Pit Floor 80 ac
05c	Reveg	Reveg Mix A – 8ac previously reclaimed
10a	Mob	Initial Mobilization – Updated Fleet used 3 x D8 Dozer 1 x 972 Loader 3 Dump Truck, 12 C.Y Drill seeder and Power Mulcher
10b	Mob	Secondary Mobilization

Please provide feedback on the Divisions calculation by April 12, 2024. If the Division does not receive a response by **Friday, April 12, 2024** then the Division will issue a Notice of Surety Increase SI-2 at the proposed amount of $311,882 for a total bond amount of **$711,742** to be held.

Please feel free to contact me with any further questions.

Sincerely,

Amy Yeldell

Amy Yeldell
Environmental Protection Specialist

Ec: Travis Marshall, Senior EPS, Grand Junction DRMS

COST SUMMARY WORK

Task description: **Post inspection update**

Site: **Cole Gravel Pit** Permit Action: 1-24 Permit/Job#: M2004020

PROJECT IDENTIFICATION

Task #: ACY State: Colorado Abbreviation: None
Date: 2/9/2024 County: Mesa Filename: M020-ACY
User: ACY

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
01a	Demo	DEMOLISH	1	2.00	$194
02a	Regrade all slopes to 3H: 1V or less	DOZER	3	17.09	$22,629
03a	Apply overburden to affected lands	TRUCK1	1	106.11	$86,512
03b	Decompact pit floor	RIPPER	3	29.08	$39,000
04a	Apply topsoil to affected lands	TRUCK1	1	106.11	$90,330
05a	Revegetation Mix B - 12 ac of slope area	REVEGE	1	20.00	$35,953
05b	Revegetation of Mix A - 80 acres on pit floor	REVEGE	1	130.00	$253,337
05c	Revegetation of Mix A - 8 ac previsouly reclaimed	REVEGE	1	12.00	$24,792
10a	Initial mobilization	MOBILIZE	1	3.06	$8,919
10b	Secondary mobilization	MOBILIZE	1	3.06	$1,772
			SUBTOTALS:	**428.51**	**$563,438**

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	$11,381
Performance bond:	1.05	Total =	$5,916
Job superintendent:	214.26	Total =	$13,944
Profit:	10.00	Total =	$56,344
		TOTAL O & P =	$87,585
		CONTRACT AMOUNT (direct + O & P) =	$651,023

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	$500	Total =	$500
Engineering work and/or contract/bid preparation:	4.25	Total =	$27,668
Reclamation management and/or administration:	5.00		$32,551
CONTINGENCY:	0.00	Total =	$0
		TOTAL INDIRECT COST =	$148,305
		TOTAL BOND AMOUNT (direct + indirect) =	**$711,743**

DEMOLITION WORK

Task description: **Demo**

Site: **Cole Gravel Pit** Permit Action: 1-24 Permit/Job#: M2004020

PROJECT IDENTIFICATION

Task #: 01A State: Colorado Abbreviation: None
Date: 2/9/2024 County: Mesa Filename: M020-01a
User: ACY

Agency or organization name: DRMS

UNIT COSTS **Location adjustment: 89.80 %**

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Scale house	10x10x10	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 200 ft. push	1,000.00	CF	$0.22	$216.40

Job Hours: **2.00** **Subtotal (unadjusted)**: **$216.40** **Total Cost (adjusted for location)**: **$194.33**

BULLDOZER WORK

Task description: **CTaskDescription**

Site: **CSite** Permit Action: CJobAction Permit/Job#: CPermitID

PROJECT IDENTIFICATION

Task #:	TTT	State:	CState	Abbreviation:	CAbbreviation
Date:	mmddyyyy	County:	CCounty	Filename:	CFilename
User:	UUU				

Agency or organization name: CAgencyName

HOURLY EQUIPMENT COST

Basic Machine: Cat D8T - 8SU
Horsepower: 310
Blade Type: Semi-Universal
Attachment: 3-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$241.38	NA
Operating Cost/Hour:	$143.92	100
Ripper own. Cost/Hour:	$14.11	NA
Ripper op. Cost/Hour:	$1.86	25
Operator Cost/Hour:	$40.04	NA

Total unit Cost/Hour: $441.31
Total Fleet Cost/Hour: **$1,323.92**

MATERIAL QUANTITIES

Initial Volume: 14,986
Swell factor: 1.330
Loose volume: **19,931** LCY

Source of estimated volume: Reduce all slopes to 3H:1V or less
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 70 feet
Unadjusted hourly production: 1,093.7 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 0 %
Average site altitude: 5,150 feet

Material weight: 2,900 lbs/LCY

Weight description: Decomposed rock - 50% Rock, 50% Earth

Job Condition Correction Factor		Source
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:	1.000	(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: 388.70 LCY/hr
Adjusted fleet production: **1166.1** LCY/hr

JOB TIME AND COST

Fleet size: 3 Dozer(s)
Unit cost: $1.135/LCY

Total job time: **17.09** Hours
Total job cost: **$22,629**

TRUCK/LOADER TEAM WORK

Task description: **Apply overburden to affected lands**

Site: **Cole Gravel Pit** Permit Action: 1-24 Permit/Job#: M2004020

PROJECT IDENTIFICATION

Task #: 03A State: Colorado Abbreviation: None
Date: 2/12/2024 County: Mesa Filename: M020-03a
User: ACY

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Generic 12-18 cy, 6x4
-Loader:	CAT 972H
Support Equipment -Load Area:	NA
-Dump Area:	Cat D8T - 8SU
Road Maintenance –Motor Grader:	NA
-Water Truck:	NA

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	NA	25	NA	NA
Ownership cost/hour:	$26.39	$57.78	NA	$241.38	NA	NA
Operating cost/hour:	$64.76	$56.23	NA	$35.98	NA	NA
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	NA	$0.00	NA	NA
Ripper op. cost/hour:	NA	$0.00	NA	$0.00	NA	NA
Operator cost/hour:	$24.82	$35.97	NA	$40.04	NA	NA
Unit Subtotals:	$115.97	$149.98	NA	$317.40	NA	NA
Number of Units:	3	1	0	1	0	0
Group Subtotals:	Work:	$497.89	Support:	$317.40	Maint:	$0.00

Total work team cost/hour: **$815.29**

MATERIAL QUANTITIES

Initial volume: 54,853 CCY Swell factor: 1.125
Loose volume: **61,710** LCY

Source of estimated volume: 68 ac @ 6”
Source of estimated swell factor: Cat Handbook
Material Purchase Cost: $0.00
Total Cost: $0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: 2,550 Pounds/LCY
Description: Earth - Dry packed
Rated Payload: 50,300 Pounds
Payload Capacity: 19.73 LCY

Truck Bed (volume) Basis:

Struck Volume:	12.00	LCY
Heaped Volume:	18.00	LCY
Average Volume:	15.00	LCY
Adjusted Volume:	18.00	LCY

Final Truck Volume Based on Number of Loader Passes: **12.32** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	5.600	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**6.160**	LCY

Job Condition Corrections: Site Altitude (ft.): 5150 feet

	Truck	**Loader**	**Source**
Altitude Adj:	1.000	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.830**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 2 passes

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA

Selected Value within this Basic Rating: NA

Track Loaders – Material Description:

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.525 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 3/4" to 6" diameter 0.00	0.000	(Cat HB)
Stockpile:	Conveyor or dozer piled 10 ft. high or less 0.01	0.010	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(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:	-0.070	minutes
	Adjusted Loader Cycle Time:	**0.455**	minutes
	Net Load Time per Truck:	**0.555**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.50	Minutes	Adjusted for site altitude:	0.500	Minutes
Truck Load Time:	0.555	Minutes	Adjusted for site altitude:	0.555	Minutes
Truck Maneuver and Dump Time:	0.90	Minutes	Adjusted for site altitude:	0.900	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Soft, rutted dirt, no maintenance or water, 4" tire penetration 8.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	600.00	1.00	8.00	9.00	1249	0.515

Haul Time: **0.515** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	600.00	-1.00	8.00	7.00	2555	0.266

Return Time: **0.266** minutes
Total Truck Cycle Time: **2.736** minutes

Loading Tool unit Production 700.66 LCY/Hour — Adjusted for job efficiency: 581.55 LCY/Hour
Truck Unit Production 270.18 LCY/Hour — Adjusted for job efficiency: 224.25 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) — Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 672.74 LCY/Hour
Adjusted single truck/loader team production: 581.55 LCY/Hour
Adjusted multiple truck/loader team production: **581.55** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) — Total job time: **106.11** Hours

Unit cost: $1.402 /LCY — Total job cost: **$86,512**

BULLDOZER RIPPING WORK

Task description: **Decompact pit floor**

Site: **Cole Gravel Pit** Permit Action: 1-24 Permit/Job#: M2004020

PROJECT IDENTIFICATION

Task #: 03B State: Colorado Abbreviation: None
Date: 2/12/2024 County: Mesa Filename: M020-03b
User: ACY

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:	$241.38	NA
Operating Cost/Hour:	$143.92	100
Ripper Ownership Cost/Hour:	$14.11	NA
Ripper Operating Cost/Hour:	$7.45	100
Operator Cost/Hour:	$40.04	NA
Total Unit Cost/Hour:	$446.90	

Total Fleet Cost/Hour: **$1,340.69**

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 56.00 acres Rip Depth (ft): 2.00 Volume: 180,693 BCY or CCY

Source of estimated quantity: Staff estimates

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	2.00	feet/pass
Average Ripping Width:	7.08	feet/pass
Average Ripping Length:	200.00	feet/pass
Average Dozer Speed:	88.00	feet/minute
Average Maneuver Time:	0.25	minutes/pass
Production per unit area:	0.773	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production:	0.773	Acres/hr
Site Altitude:	5,150	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:	**1.93**	Acres/hr

JOB TIME AND COST

Fleet size: 3 Grader(s) Total job time: **29.09** Hours

Unit cost: $696.428 Per acre Total job cost: **$39,000**

TRUCK/LOADER TEAM WORK

Task description: **Apply topsoil to affected lands**

Site: **Cole Gravel Pit** Permit Action: 1-24 Permit/Job#: M2004020

PROJECT IDENTIFICATION

Task #: 04A State: Colorado Abbreviation: None
Date: 2/9/2024 County: Mesa Filename: M020-04a
User: ACY

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Generic 12-18 cy, 6x4
-Loader:	CAT 972H
Support Equipment -Load Area:	NA
-Dump Area:	Cat D8T - 8SU
Road Maintenance –Motor Grader:	NA
-Water Truck:	NA

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	NA	50	NA	NA
Ownership cost/hour:	$26.39	$57.78	NA	$241.38	NA	NA
Operating cost/hour:	$64.76	$56.23	NA	$71.96	NA	NA
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	NA	$0.00	NA	NA
Ripper op. cost/hour:	NA	$0.00	NA	$0.00	NA	NA
Operator cost/hour:	$24.82	$35.97	NA	$40.04	NA	NA
Unit Subtotals:	$115.97	$149.98	NA	$353.38	NA	NA
Number of Units:	3	1	0	1	0	0
Group Subtotals:	Work:	$497.89	Support:	$353.38	Maint:	$0.00

Total work team cost/hour: **$851.27**

MATERIAL QUANTITIES

Initial volume: 54,853 CCY Swell factor: 1.125
Loose volume: **61,710** LCY

Source of estimated volume: 68 ac @ 6”
Source of estimated swell factor: Cat Handbook
Material Purchase Cost: $0.00
Total Cost: $0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: 2,550 Pounds/LCY
Description: Earth - Dry packed
Rated Payload: 50,300 Pounds
Payload Capacity: 19.73 LCY

Truck Bed (volume) Basis:

Struck Volume:	12.00	LCY
Heaped Volume:	18.00	LCY
Average Volume:	15.00	LCY
Adjusted Volume:	18.00	LCY

Final Truck Volume Based on Number of Loader Passes: **12.32** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	5.600	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**6.160**	LCY

Job Condition Corrections: Site Altitude (ft.): 5150 feet

	Truck	**Loader**	**Source**
Altitude Adj:	1.000	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.830**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 2 passes

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA

Selected Value within this Basic Rating: NA

Track Loaders – Material Description:

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.525 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 3/4" to 6" diameter 0.00	0.000	(Cat HB)
Stockpile:	Conveyor or dozer piled 10 ft. high or less 0.01	0.010	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(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:	-0.070	minutes
	Adjusted Loader Cycle Time:	**0.455**	minutes
	Net Load Time per Truck:	**0.555**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.50	Minutes	Adjusted for site altitude:	0.500	Minutes
Truck Load Time:	0.555	Minutes	Adjusted for site altitude:	0.555	Minutes
Truck Maneuver and Dump Time:	0.90	Minutes	Adjusted for site altitude:	0.900	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Soft, rutted dirt, no maintenance or water, 4" tire penetration 8.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	600.00	1.00	8.00	9.00	1249	0.515

Haul Time: **0.515** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	600.00	-1.00	8.00	7.00	2555	0.266

Return Time: **0.266** minutes
Total Truck Cycle Time: **2.736** minutes

Loading Tool unit Production: 700.66 LCY/Hour — Adjusted for job efficiency: 581.55 LCY/Hour
Truck Unit Production: 270.18 LCY/Hour — Adjusted for job efficiency: 224.25 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) — Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 672.74 LCY/Hour
Adjusted single truck/loader team production: 581.55 LCY/Hour
Adjusted multiple truck/loader team production: **581.55** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) — Total job time: **106.11** Hours

Unit cost: $1.464 /LCY — Total job cost: **$90,330**

REVEGETATION WORK

Task description: **Revegetation Mix B - 12 ac of slope area**

Site: **Cole Gravel Pit** Permit Action: 1-24 Permit/Job#: M2004020

PROJECT IDENTIFICATION

Task #: 05A State: Colorado Abbreviation: None
Date: 2/9/2024 County: Mesa Filename: M020-05a
User: ACY

Agency or organization name: DRMS

FERTILIZING

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
Ammonium sulfate, 21-0-0 with 24% S	5.00	pound	$0.53	$2.65
Richlawn 3-6-3 w/ mycorrihiza humates (Pounds)	500.00	pound	$0.46	$227.80
			Total Fertilizer Materials Cost/Acre	**$230.45**

Application

Description	**Cost /Acre**
Tractor towed spreader (MEANS 32 01 90.13 0120)	$41.82
Total Fertilizer Application Cost/Acre	**$41.82**

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**
Arrowleaf Balsamroot	0.25	0.31	$17.55
Indian Ricegrass - Paloma	3.00	9.71	$33.38
Galleta	2.00	7.30	$44.70
Rabbitbrush, Rubber	0.12	1.79	$7.72
Sage, Fringed	0.06	5.01	$2.46
Sagebrush, Mountain or Big	0.12	6.34	$2.37
Saltbush, Four Wing	2.00	2.75	$25.00
Globemallow, Scarlet (or copper)	0.50	5.66	$67.75
Timothy - Climax	2.00	57.39	$3.20

Yarrow, Western	0.12	7.30	$5.02
Totals Seed Mix	10.17	103.56	**$209.14**

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**
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: 12
Estimated Failure Rate: 60%
*Selected Replanting Work Items: TILLING,SEEDING,MULCHING

Cost /Acre: $1,974.66
Cost /Acre*: $1,702.39

Initial Job Cost: **$23,695.92**
Reseeding Job Cost: **$12,257.21**
Total Job Cost: **$35,953**
Job Hours: **20.00**

REVEGETATION WORK

Task description: **Revegetation of Mix A - 80 acres on pit floor**

Site: **Cole Gravel Pit** Permit Action: 1-24 Permit/Job#: M2004020

PROJECT IDENTIFICATION

Task #: 05B State: Colorado Abbreviation: None
Date: 2/9/2024 County: Mesa Filename: M020-05b
User: ACY

Agency or organization name: DRMS

FERTILIZING

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Ammonium sulfate, 21-0-0 with 24% S	5.00	pound	$0.53	$2.65
Richlawn 3-6-3 w/ mycorrihiza humates (Pounds)	500.00	pound	$0.46	$227.80
			Total Fertilizer Materials Cost/Acre	**$230.45**

Application

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	$41.82
Total Fertilizer Application Cost/Acre	**$41.82**

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
Indian Ricegrass - Paloma	1.00	3.24	$11.13
Galleta	2.00	7.30	$44.70
Milk Vetch, Cicer - Monarch	20.00	66.57	$164.00
Saltbush, Four Wing	2.00	2.75	$25.00
Globemallow, Scarlet (or copper)	0.50	5.66	$67.75
Timothy - Climax	2.00	57.39	$3.20
Totals Seed Mix	27.50	142.92	**$315.78**

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
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: 80
Estimated Failure Rate: 60%
*Selected Replanting Work Items: TILLING,SEEDING,MULCHING

Cost /Acre: $2,081.30
Cost /Acre*: $1,809.03

Initial Job Cost: **$166,504.00**
Reseeding Job Cost: **$86,833.44**
Total Job Cost: **$253,337**
Job Hours: **130.00**

REVEGETATION WORK

Task description: **Revegetation of Mix A - 8 ac previsouly reclaimed**

Site: **Cole Gravel Pit** Permit Action: 1-24 Permit/Job#: M2004020

PROJECT IDENTIFICATION

Task #: 05C State: Colorado Abbreviation: None
Date: 2/9/2024 County: Mesa Filename: M020-05c
User: ACY

Agency or organization name: DRMS

FERTILIZING

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Ammonium sulfate, 21-0-0 with 24% S	5.00	pound	$0.53	$2.65
Richlawn 3-6-3 w/ mycorrihiza humates (Pounds)	500.00	pound	$0.46	$227.80
			Total Fertilizer Materials Cost/Acre	**$230.45**

Application

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	$41.82
Total Fertilizer Application Cost/Acre	**$41.82**

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
Indian Ricegrass - Paloma	1.00	3.24	$11.13
Galleta	2.00	7.30	$44.70
Milk Vetch, Cicer - Monarch	20.00	66.57	$164.00
Saltbush, Four Wing	2.00	2.75	$25.00
Globemallow, Scarlet (or copper)	0.50	5.66	$67.75
Timothy - Climax	2.00	57.39	$3.20
Totals Seed Mix	27.50	142.92	**$315.78**

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
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: 8

Cost /Acre: $2,081.30

Estimated Failure Rate: 60%

Cost /Acre*: $1,696.21

*Selected Replanting Work Items: SEEDING,MULCHING

Initial Job Cost: **$16,650.40**

Reseeding Job Cost: **$8,141.81**

Total Job Cost: **$24,792**

Job Hours: **12.00**

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: **Initial mobilization**

Site: **Cole Gravel Pit** Permit Action: 1-24 Permit/Job#: M2004020

PROJECT IDENTIFICATION

Task #:	10A	State:	Colorado	Abbreviation:	None
Date:	2/9/2024	County:	Mesa	Filename:	M020-10a
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 D8T - 8SU	53.08	$255.49	$175.95	3	$1,294.32	$527.85	$500.00
CAT 972H	28.00	$57.78	$158.17	1	$215.95	$158.17	$750.00
Drill/Broadcast Seeder with Tractor	25.00	$6.73	$82.29	2	$178.04	$164.58	$250.00
Power Mulcher (Bowie LD-90)	6.00	$25.94	$82.29	1	$108.23	$82.29	$250.00
				Subtotals:	**$1,796.54**	**$932.89**	**$1,750.00**

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Generic 12-18 cy, 6x4	$115.97	3	$347.91	$347.91
Flatbed Truck, 6x4, 45K GVW	$89.38	1	$89.38	$89.38
Light Duty Pickup, 4x4, 1 T. Crew	$128.47	2	$256.94	$256.94
		Subtotals:	**$694.23**	**$694.23**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	GRAND JUNCTION	
Total one-way travel distance:	12.00	miles
Average Travel Speed:	45.00	mph
Total Non-Roadable Mob/Demob Cost * '* two round trips with haul rig:	$8,548.78	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	$370.26	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.27	0.27
Return Time (Hours):	0.27	0.27
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	1.53	0.53

JOB TIME AND COST

Total job time: **3.07** Hours

Total job cost: **$8,919**

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: **Secondary mobilization**

Site: **Cole Gravel Pit** Permit Action: 1-24 Permit/Job#: M2004020

PROJECT IDENTIFICATION

Task #:	10B	State:	Colorado	Abbreviation:	None
Date:	2/12/2024	County:	Mesa	Filename:	M020-10b
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
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
Flatbed Truck, 6x4, 45K GVW	$89.38	1	$89.38	$89.38
Light Duty Pickup, 4x4, 1 T. Crew	$128.47	2	$256.94	$256.94
		Subtotals:	**$346.32**	**$346.32**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	GRAND JUNCTION	
Total one-way travel distance:	12.00	miles
Average Travel Speed:	45.00	mph
Total Non-Roadable Mob/Demob Cost * '* two round trips with haul rig:	$1,587.48	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	$184.70	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.27	0.27
Return Time (Hours):	0.27	0.27
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	1.53	0.53

JOB TIME AND COST

Total job time:	**3.07**	Hours
Total job cost:	**$1,772**	