



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

January 30, 2025

Jason Burkey
Oldcastle SW Group, Inc. dba United Companies of Mesa County
2273 River Road
Grand Junction, CO 81502-3609

Re: Vader Pit - File No. M-1978-287
Oldcastle SW Group, Inc. dba United Companies of Mesa
County Surety Increase (SI-3)

Dear Jason Burkey:

On January 30, 2025 the Division of Reclamation, Mining and Safety increased the Financial Warranty requirement for this permit to **\$100,712.00**, in accordance with Rule 4.2.1 of the Rules and Regulations. **This is an increase of \$42,212.00** over the \$58,500 currently held.

The Division ordered amendment of the current Financial Warranty or submittal of a new Financial Warranty reflecting the increase, is due within 60 days from the date of this letter (March 31, 2025).

Please make arrangements with Sara M. Stevenson-Benn at the Division's Denver office for submittal of the financial warranty. Any other questions regarding completion, execution and/or submittal of financial warranty forms should also be directed to Sara M. Stevenson-Benn by telephone at (303) 866-3567, or by email at Sara.stevenson-benn@state.co.us.

The Permittee for this site may be scheduled for a Formal Board Hearing for possible revocation of the permit if the amount of any increased Financial Warranty has not been provided by March 31, 2025.

If you have any questions, please contact me by telephone at (970) 433-8393, or by email at Dustin.czapla@state.co.us.

Sincerely,

Dustin M. Czapla
Environmental Protection Specialist



COST SUMMARY WORK

Task description: 2024-12-18

Site: Vader Pit

Permit Action: 2024-12-18

Permit/Job#: M1978287

PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 12/18/2024

County: Gunnison

Filename: M287-000

User: DMC

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
01a	Haul topsoil to area north of creek on east side of pond	TRUCK1	1	7.92	\$2,839
02a	Spread topsoil	DOZER	1	4.13	\$1,328
03a	Revegetate area north of creek	REVEGE	1	5.00	\$5,576
04a	Rip area south of creek	RIPPER	1	20.51	\$7,061
04b	Finish grade area south of creek	DOZER	1	20.58	\$6,618
05a	Distribute topsoil throughout area south of creek	TRUCK1	1	36.55	\$13,107
06a	Spread topsoil	DOZER	1	23.95	\$7,702
07a	Revegetate area south of creek	REVEGE	1	16.00	\$32,340
08a	Mobilize reclamation crew and equipment	MOBILIZE	1	2.57	\$3,027
<u>SUBTOTALS:</u>				137.21	\$79,598

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02
Performance bond: 1.05
Job superintendent: 68.61
Profit: 10.00

Total = \$1,608

Total = \$836

Total = \$5,438

Total = \$7,960

TOTAL O & P = \$15,842

CONTRACT AMOUNT (direct + O & P) = \$95,440

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): \$500

Total = \$500

Engineering work and/or contract/bid preparation: 0.00

Total = \$0

Reclamation management and/or administration: 5.00

\$4,772

CONTINGENCY: 0.00

Total = \$0

TOTAL INDIRECT COST = \$21,114

TOTAL BOND AMOUNT (direct + indirect) = \$100,712

TRUCK/LOADER TEAM WORKTask description: Haul topsoil to area north of creek on east side of pondSite: Vader PitPermit Action: 2024-12-18Permit/Job#: M1978287PROJECT IDENTIFICATIONTask #: 01AState: ColoradoAbbreviation: NoneDate: 12/18/2024County: GunnisonFilename: 01aUser: DMCAgency or organization name: DRMSHOURLY EQUIPMENT COSTShift 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:	NA
Road Maintenance -Motor Grader:	NA
-Water Truck:	NA

Cost Breakdown:Truck/Loader TeamSupport EquipmentMaintenance Equipment

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	50	NA	NA	NA	NA
Ownership cost/hour:	\$27.14	\$62.43	NA	NA	NA	NA
Operating cost/hour:	\$62.81	\$28.99	NA	NA	NA	NA
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	NA	NA	NA	NA
Ripper op. cost/hour:	NA	\$0.00	NA	NA	NA	NA
Operator cost/hour:	\$25.24	\$36.85	NA	NA	NA	NA
Unit Subtotals:	\$115.19	\$128.27	NA	NA	NA	NA
Number of Units:	2	1	0	0	0	0
Group Subtotals:	Work: \$358.65		Support: \$0.00		Maint: \$0.00	

Total work team cost/hour: \$358.65MATERIAL QUANTITIESInitial volume: 3,025

CCY

Swell factor: 1.000Loose volume: 3,025

LCY

Source of estimated volume: Approx. 2.5 ac. @ 9" depthSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00HOURLY PRODUCTIONTruck Capacity:Truck Payload (weight) Basis:Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 50,300

Pounds

Payload Capacity: 31.44

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: **16.38** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	5.600	LCY (heaped)
Bucket Fill Factor:	0.975	Loose material - mixed moist aggregates (95-100%) 0.975
Adjusted Capacity:	5.460	LCY

Job Condition Corrections:

Site Altitude (ft.): 7750 feet

	Truck	Loader	Source
Altitude Adj:	0.970	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.805	0.830	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	Conveyor or dozer piled 10 ft. high and up 0.00	0.000	(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:		-0.060	minutes
Adjusted Loader Cycle Time:		0.465	minutes
Net Load Time per Truck:		1.030	minutes

Truck Cycle Time:

Truck Exchange Time:	0.50	Minutes	Adjusted for site altitude:	0.515	Minutes
Truck Load Time:	1.030	Minutes	Adjusted for site altitude:	1.030	Minutes
Truck Maneuver and Dump Time:	0.90	Minutes	Adjusted for site altitude:	0.928	Minutes

Truck Travel (Haul & Return) Time:
penetration 4.0

Road Condition: Rutted dirt, little maintenance, no water, 1" tire

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2200.00	0.00	4.00	4.00	2665	0.988

Haul Time: **0.988** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2200.00	0.00	4.00	4.00	2849	0.808

Return Time: **0.808** minutesTotal Truck Cycle Time: **4.269** minutes

Loading Tool unit
 Production 635.93 LCY/Hour Adjusted for job efficiency: 527.82 LCY/Hour
 Truck Unit Production
230.20 LCY/Hour Adjusted for job efficiency: 191.07 LCY/Hour
 Optimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 382.13 LCY/Hour
 Adjusted single truck/loader team production: 382.13 LCY/Hour
 Adjusted multiple truck/loader team production: **382.13** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **7.92** HoursUnit cost: \$0.939 /LCY Total job cost: **\$2,839**

BULLDOZER WORKTask description: Spread topsoilSite: Vader Pit Permit Action: 2024-12-18 Permit/Job#: M1978287**PROJECT IDENTIFICATION**

Task #: 02A State: Colorado Abbreviation: None
 Date: 12/18/2024 County: Gunnison Filename: 02a
 User: DMC

Agency 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>\$173.32</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$109.71</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>\$38.59</u>	<u>NA</u>

Total unit Cost/Hour: \$321.62
 Total Fleet Cost/Hour: \$321.62

MATERIAL QUANTITIES

Initial Volume: 3,025
 Swell factor: 1.000
 Loose volume: 3,025 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: 852.6 LCY/hr

Materials consistency description: Loose stockpile 1.2

Average push gradient: 0 %
 Average site altitude: 7,750 feet

Material weight: 1,600 lbs/LCYWeight description: Top Soil**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	<u>0.750</u>	<u>(AVG.)</u>
Material consistency:	<u>1.200</u>	<u>(CAT HB)</u>
Dozing method:	<u>1.000</u>	<u>(GEN.)</u>
Visibility:	<u>1.000</u>	<u>(AVG.)</u>

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: 732.64 LCY/hr

Adjusted fleet production: **732.64** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.439/LCY

Total job time: **4.13** Hours

Total job cost: **\$1,328**

REVEGETATION WORKTask description: Revegetate area north of creekSite: Vader PitPermit Action: 2024-12-18Permit/Job#: M1978287**PROJECT IDENTIFICATION**Task #: 03AState: ColoradoAbbreviation: NoneDate: 12/18/2024County: GunnisonFilename: 03aUser: DMCAgency 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
Chisel plowing {DMG}	\$102.41
Weed control spraying (MEANS 31 31 16.13 3100)	\$338.80
Total Tilling Cost/Acre	\$441.21

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Orchardgrass - Latar	1.00	12.40	\$4.68
Smooth Brome - Manchar	5.50	18.31	\$28.71
Timothy - Climax	0.50	14.35	\$2.08
Totals Seed Mix	7.00	45.05	\$35.47

Application

Description	Cost /Acre
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Drill Seeding (DRMS Survey Cost)	\$236.64
Total Seed Application Cost/Acre	\$236.64

MULCHING and MISCELLANEOUS**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$492.78	\$985.56
Total Mulch Materials Cost/Acre				\$985.56

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$85.37
Total Mulch Application Cost/Acre	\$85.37

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: 2.5 Cost /Acre: \$1,784.25
 Estimated Failure Rate: 25% Cost /Acre*: \$1,784.25
 *Selected Replanting Work Items: TILLING,SEEDING,MULCHING

Initial Job Cost: **\$4,460.63**
 Reseeding Job Cost: **\$1,115.16**
 Total Job Cost: **\$5,576**
 Job Hours: **5.00**

BULLDOZER RIPPING WORK

Task description: Rip area south of creek

Site: Vader Pit Permit Action: 2024-12-18 Permit/Job#: M1978287

PROJECT IDENTIFICATION

Task #: 04A State: Colorado Abbreviation: None
Date: 12/18/2024 County: Gunnison Filename: 04a
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:	<u>\$173.32</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$109.71</u>	<u>100</u>
Ripper Ownership Cost/Hour:	<u>\$14.53</u>	<u>NA</u>
Ripper Operating Cost/Hour:	<u>\$7.95</u>	<u>100</u>
Operator Cost/Hour:	<u>\$38.59</u>	<u>NA</u>
Total Unit Cost/Hour:	<u>\$344.10</u>	
Total Fleet Cost/Hour:	<u>\$344.10</u>	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 14.00 acres Rip Depth (ft): 2.00 Volume: 45,173 BCY or CCY

Source of estimated quantity: Site inspection

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	<u>2.56</u>	<u>feet/pass</u>
Average Ripping Width:	<u>7.08</u>	<u>feet/pass</u>
Average Ripping Length:	<u>500.00</u>	<u>feet/pass</u>
Average Dozer Speed:	<u>88.00</u>	<u>feet/minute</u>
Average Maneuver Time:	<u>0.25</u>	<u>minutes/pass</u>
Production per unit area:	<u>0.822</u>	<u>acres/hour</u>

Job Condition Correction Factors

Unadjusted Hourly Unit Production:	<u>0.822</u>	<u>Acres/hr</u>
Site Altitude:	<u>7,750</u>	<u>feet</u>
Altitude Adj:	<u>1.00</u>	<u>(CAT HB)</u>
Job Efficiency:	<u>0.83</u>	<u>(1 shift/day)</u>
Net Correction:	<u>0.83</u>	<u>multiplier</u>

Adjusted Hourly Unit Production: 0.68 Acres/hr
Adjusted Hourly Fleet Production: 0.68 Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 20.52 Hours

Unit cost: \$504.345 Per acre Total job cost: \$7,061

BULLDOZER WORKTask description: Finish grade area south of creekSite: Vader PitPermit Action: 2024-12-18Permit/Job#: M1978287**PROJECT IDENTIFICATION**Task #: 04BState: ColoradoAbbreviation: NoneDate: 12/18/2024County: GunnisonFilename: 04bUser: DMCAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D8T - 8SUHorsepower: 310Blade Type: Semi-UniversalAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$173.32	NA
Operating Cost/Hour:	\$109.71	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$38.59	NA

Total unit Cost/Hour: \$321.62Total Fleet Cost/Hour: \$321.62**MATERIAL QUANTITIES**Initial Volume: 3,500Swell factor: 1.000Loose volume: 3,500 LCYSource of estimated volume: Estimate from inspectionSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 200 feetUnadjusted hourly production: 491.9 LCY/hrMaterials consistency description: Dry, non-cohesive 0.8Average push gradient: 0 %Average site altitude: 7,750 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:	0.800	(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: 0.3458

Adjusted unit production: 170.10 LCY/hr

Adjusted fleet production: **170.1** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$1.891/LCY

Total job time: **20.58** Hours

Total job cost: **\$6,618**

TRUCK/LOADER TEAM WORKTask description: Distribute topsoil throughout area south of creekSite: Vader PitPermit Action: 2024-12-18Permit/Job#: M1978287**PROJECT IDENTIFICATION**Task #: 05AState: ColoradoAbbreviation: NoneDate: 12/18/2024County: GunnisonFilename: 05aUser: DMCAgency 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:	NA
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	50	NA	NA	NA	NA
Ownership cost/hour:	\$27.14	\$62.43	NA	NA	NA	NA
Operating cost/hour:	\$62.81	\$28.99	NA	NA	NA	NA
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	NA	NA	NA	NA
Ripper op. cost/hour:	NA	\$0.00	NA	NA	NA	NA
Operator cost/hour:	\$25.24	\$36.85	NA	NA	NA	NA
Unit Subtotals:	\$115.19	\$128.27	NA	NA	NA	NA
Number of Units:	2	1	0	0	0	0
Group Subtotals:	Work: \$358.65		Support: \$0.00		Maint: \$0.00	

Total work team cost/hour: \$358.65**MATERIAL QUANTITIES**Initial volume: 17,545

CCY

Swell factor: 1.000Loose volume: 17,545

LCY

Source of estimated volume: Approx. 14.5.5 ac. @ 9" depthSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 50,300

Pounds

Payload Capacity: 31.44

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: 16.38 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	5.600	LCY (heaped)
Bucket Fill Factor:	0.975	Loose material - mixed moist aggregates (95-100%) 0.975
Adjusted Capacity:	5.460	LCY

Job Condition Corrections:

Site Altitude (ft.): 7750 feet

	Truck	Loader	Source
Altitude Adj:	0.970	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.805	0.830	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	Conveyor or dozer piled 10 ft. high and up 0.00	0.000	(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:		-0.060	minutes
Adjusted Loader Cycle Time:		0.465	minutes
Net Load Time per Truck:		1.030	minutes

Truck Cycle Time:

Truck Exchange Time:	0.50	Minutes	Adjusted for site altitude:	0.515	Minutes
Truck Load Time:	1.030	Minutes	Adjusted for site altitude:	1.030	Minutes
Truck Maneuver and Dump Time:	0.90	Minutes	Adjusted for site altitude:	0.928	Minutes

Truck Travel (Haul & Return) Time:
penetration 4.0

Road Condition: Rutted dirt, little maintenance, no water, 1" tire

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	0.00	4.00	4.00	2665	0.538

Haul Time: **0.538** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	0.00	4.00	4.00	2849	0.387

Return Time: **0.387** minutesTotal Truck Cycle Time: **3.398** minutes

Loading Tool unit
 Production 635.93 LCY/Hour Adjusted for job efficiency: 527.82 LCY/Hour
 Truck Unit Production
289.20 LCY/Hour Adjusted for job efficiency: 240.04 LCY/Hour
 Optimal No. of Trucks: 2 Truck(s) Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 480.08 LCY/Hour
 Adjusted single truck/loader team production: 480.08 LCY/Hour
 Adjusted multiple truck/loader team production: **480.08** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **36.55** HoursUnit cost: \$0.747 /LCY Total job cost: **\$13,107**

BULLDOZER WORKTask description: Spread topsoilSite: Vader Pit Permit Action: 2024-12-18 Permit/Job#: M1978287**PROJECT IDENTIFICATION**

Task #: 06A State: Colorado Abbreviation: None
 Date: 12/18/2024 County: Gunnison Filename: 06a
 User: DMC

Agency 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>\$173.32</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$109.71</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>\$38.59</u>	<u>NA</u>

Total unit Cost/Hour: \$321.62
 Total Fleet Cost/Hour: \$321.62

MATERIAL QUANTITIES

Initial Volume: 17,545
 Swell factor: 1.000
 Loose volume: 17,545 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: 852.6 LCY/hr

Materials consistency description: Loose stockpile 1.2

Average push gradient: 0 %
 Average site altitude: 7,750 feet

Material weight: 1,600 lbs/LCYWeight description: Top Soil**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	<u>0.750</u>	<u>(AVG.)</u>
Material consistency:	<u>1.200</u>	<u>(CAT HB)</u>
Dozing method:	<u>1.000</u>	<u>(GEN.)</u>
Visibility:	<u>1.000</u>	<u>(AVG.)</u>

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: 732.64 LCY/hr

Adjusted fleet production: **732.64** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.439/LCY

Total job time: **23.95** Hours

Total job cost: **\$7,702**

REVEGETATION WORKTask description: Revegetate area south of creekSite: Vader PitPermit Action: 2024-12-18Permit/Job#: M1978287**PROJECT IDENTIFICATION**Task #: 07AState: ColoradoAbbreviation: NoneDate: 12/18/2024County: GunnisonFilename: 07aUser: DMCAgency 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
Chisel plowing {DMG}	\$102.41
Weed control spraying (MEANS 31 31 16.13 3100)	\$338.80
Total Tilling Cost/Acre	\$441.21

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Orchardgrass - Latar	1.00	12.40	\$4.68
Smooth Brome - Manchar	5.50	18.31	\$28.71
Timothy - Climax	0.50	14.35	\$2.08
Totals Seed Mix	7.00	45.05	\$35.47

Application

Description	Cost /Acre
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Drill Seeding (DRMS Survey Cost)	\$236.64
Total Seed Application Cost/Acre	\$236.64

MULCHING and MISCELLANEOUS**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$492.78	\$985.56
Total Mulch Materials Cost/Acre				\$985.56

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$85.37
Total Mulch Application Cost/Acre	\$85.37

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: 14.5 Cost /Acre: \$1,784.25
 Estimated Failure Rate: 25% Cost /Acre*: \$1,784.25
 *Selected Replanting Work Items: TILLING,SEEDING,MULCHING

Initial Job Cost: \$25,871.63
 Reseeding Job Cost: \$6,467.91
 Total Job Cost: \$32,340
 Job Hours: 16.00

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Mobilize reclamation crew and equipment**Site: **Vader Pit**Permit Action: **2024-12-18**Permit/Job#: **M1978287****PROJECT IDENTIFICATION**

Task #: **08A** State: **Colorado** Abbreviation: **None**
 Date: **12/18/2024** County: **Gunnison** Filename: **08a**
 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:	\$10.44	\$22.18	\$23.94
Operating Cost/Hour:	\$26.48	\$54.55	\$55.65
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$59.44	\$122.78	\$125.64

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	\$187.85	\$125.64	1	\$313.49	\$125.64	\$250.00
CAT 972H	28.00	\$62.43	\$122.78	1	\$185.21	\$122.78	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$41.02	\$59.44	1	\$100.46	\$59.44	\$250.00

Subtotals: **\$599.16** **\$307.86** **\$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	\$115.19	2	\$230.38	\$230.38
Light Duty Pickup, 4x4, 3/4 T.	\$13.77	1	\$13.77	\$13.77

Subtotals: **\$244.15** **\$244.15**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region: GUNNISON
 Total one-way travel distance: 5.00 miles
 Average Travel Speed: 35.00 mph

Total Non-Roadable Mob/Demob Cost * \$2,957.47
 ** two round trips with haul rig:
 Total Roadable Mob/Demob Cost ** \$69.76
 ** one round trip, no haul rig:

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>0.14</u>	<u>0.14</u>
Return Time (Hours):	<u>0.14</u>	<u>0.14</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>1.29</u>	<u>0.29</u>

JOB TIME AND COST

Total job time: 2.57 Hours

Total job cost: \$3,027