

COST SUMMARY WORK

Task description: Cost Summary

Site: 5J Pit

Permit Action: New Permit

Permit/Job#: M2024032

PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 10/15/2024

County: Larimer

Filename: M032-000

User: JR2

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Aspect A - Doze active mine face to 3H:1V	DOZER	2	5.91	\$3,820
002	Aspect A - Backfill pit side sloped to 3H:1V	DOZER	2	11.83	\$7,641
003	Aspect A - Rough grade	DOZER	2	7.31	\$4,722
004	Aspect A - Place growth medium	SCRAPER1	1	12.42	\$22,710
005	Aspect A - Final grade	DOZER	2	7.31	\$4,722
006	Aspect B - Scarify Pit floor	RIPPER	2	6.02	\$4,166
007	Aspect B - Rough grade	DOZER	2	6.64	\$4,292
008	Aspect B - Place growth medium	SCRAPER1	1	13.69	\$25,033
009	Aspect B - Final grade	DOZER	2	8.06	\$5,205
010	Aspect C - Place growth medium	SCRAPER1	1	10.02	\$18,324
011	Aspect C - Final grade	DOZER	2	5.90	\$3,809
012	Aspect D - Scarify employee areas	RIPPER	2	1.50	\$1,041
013	Aspect D - Rough grade	DOZER	2	1.66	\$1,073
014	Aspect D - Place growth medium	SCRAPER1	1	1.41	\$2,580
015	Aspect D - Final grade	DOZER	2	1.66	\$1,073
016	Seed all disturbed areas	REVEGE	1	48.30	\$22,808
017	Re-seed 20% of disturbed areas	REVEGE	1	9.70	\$4,545
018	Mob/Demob	MOBILIZE	1	5.60	\$12,942
<u>SUBTOTALS:</u>				164.94	\$150,506

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02

Total = \$3,040

Performance bond: 1.05

Total = \$1,580

Job superintendent: 82.47

Total = \$6,537

Profit: 10.00

Total = \$15,051

TOTAL O & P = \$26,209

CONTRACT AMOUNT (direct + O & P) = \$176,715

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

\$8,836

CONTINGENCY: 0.00

Total = \$0

TOTAL INDIRECT COST = \$35,544

TOTAL BOND AMOUNT (direct + indirect) = \$186,050

BULLDOZER WORKTask description: Aspect A - Doze active mine face to 3H:1VSite: 5J Pit Permit Action: New Permit Permit/Job#: M2024032**PROJECT IDENTIFICATION**

Task #:	<u>001</u>	State:	<u>Colorado</u>	Abbreviation:	<u>None</u>
Date:	<u>10/15/2024</u>	County:	<u>Larimer</u>	Filename:	<u>001</u>
User:	<u>JR2</u>				

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

Basic Machine:	<u>Cat D8T - 8SU</u>
Horsepower:	<u>310</u>
Blade Type:	<u>Semi-Universal</u>
Attachment:	<u>NA</u>
Shift Basis:	<u>1 per day</u>
Data Source:	<u>(CRG)</u>

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>\$40.04</u>	<u>NA</u>

Total unit Cost/Hour:	<u>\$323.07</u>
Total Fleet Cost/Hour:	<u>\$646.13</u>

MATERIAL QUANTITIES

Initial Volume:	<u>6,250</u>
Swell factor:	<u>1.125</u>
Loose volume:	<u>7,031 LCY</u>

Source of estimated volume:	<u>Operator Estimate</u>
Source of estimated swell factor:	<u>Cat Handbook</u>

HOURLY PRODUCTION

Average push distance:	<u>50 feet</u>
Unadjusted hourly production:	<u>1,400.0 LCY/hr</u>

Materials consistency description: Consolidated stockpile 1.0

Average push gradient:	<u>10 %</u>
Average site altitude:	<u>5,410 feet</u>

Material weight: 2,650 lbs/LCYWeight description: Decomposed rock - 25% Rock, 75% Earth

<u>Job Condition Correction Factor</u>		<u>Source</u>
Operator Skill:	<u>0.750</u>	<u>(AVG.)</u>
Material consistency:	<u>1.000</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:	1.000	(DOZ-OC)
Push gradient:	0.786	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4247

Adjusted unit production: 594.58 LCY/hr

Adjusted fleet production: **1189.16** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)

Unit cost: \$0.543/LCY

Total job time: **5.91** Hours

Total job cost: **\$3,820**

BULLDOZER WORKTask description: Aspect A - Backfill pit side sloped to 3H:1VSite: 5J Pit Permit Action: New Permit Permit/Job#: M2024032**PROJECT IDENTIFICATION**

Task #: 002 State: Colorado Abbreviation: None
 Date: 10/15/2024 County: Larimer Filename: M032-002
 User: JR2

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>\$40.04</u>	<u>NA</u>

Total unit Cost/Hour: \$323.07
 Total Fleet Cost/Hour: \$646.13

MATERIAL QUANTITIES

Initial Volume: 12,500
 Swell factor: 1.125
 Loose volume: 14,063 LCY

Source of estimated volume: Operator Estimate
 Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 50 feet
 Unadjusted hourly production: 1,400.0 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: 10 %
 Average site altitude: 5,410 feet

Material weight: 2,650 lbs/LCYWeight description: Decomposed rock - 25% Rock, 75% Earth**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	<u>0.750</u>	<u>(AVG.)</u>
Material consistency:	<u>1.000</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:	1.000	(DOZ-OC)
Push gradient:	0.786	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4247

Adjusted unit production: 594.58 LCY/hr

Adjusted fleet production: **1189.16** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)

Unit cost: \$0.543/LCY

Total job time: **11.83** Hours

Total job cost: **\$7,641**

BULLDOZER WORKTask description: Aspect A - Rough gradeSite: 5J Pit Permit Action: New Permit Permit/Job#: M2024032**PROJECT IDENTIFICATION**

Task #: 003 State: Colorado Abbreviation: None
 Date: 10/15/2024 County: Larimer Filename: 003
 User: JR2

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>\$40.04</u>	<u>NA</u>

Total unit Cost/Hour: \$323.07
 Total Fleet Cost/Hour: \$646.13

MATERIAL QUANTITIES

Initial Volume: 7,099
 Swell factor: 1.125
 Loose volume: 7,986 LCY

Source of estimated volume: Operator Estimate (8.8ac x 6in)
 Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 50 feet
 Unadjusted hourly production: 1,400.0 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: 5 %
 Average site altitude: 5,410 feet

Material weight: 2,650 lbs/LCYWeight description: Decomposed rock - 25% Rock, 75% Earth**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	<u>0.750</u>	<u>(AVG.)</u>
Material consistency:	<u>1.000</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:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3903

Adjusted unit production: 546.42 LCY/hr

Adjusted fleet production: **1092.84** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)

Unit cost: \$0.591/LCY

Total job time: **7.31** Hours

Total job cost: **\$4,722**

SCRAPER TEAM WORKTask description: **Aspect A - Place growth medium**Site: **5J Pit**Permit Action: New PermitPermit/Job#: M2024032**PROJECT IDENTIFICATION**Task #: 004State: ColoradoAbbreviation: NoneDate: 10/15/2024County: LarimerFilename: M032-004User: JR2Agency or organization name: DRMS**HOURLY EQUIPMENT**COSTShift basis: 1 per day

Equipment Description	
-Scraper:	Cat 631G
-Dozer:	NA
Support Equipment -Load Area:	NA
-Dump Area:	Cat D8T - 8SU
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	NA	NA	100	NA	NA
Ownership cost/hour:	\$442.19	NA	NA	\$173.32	NA	NA
Operating cost/hour:	\$252.89	NA	NA	\$109.71	NA	NA
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	NA	\$0.00	NA	NA
Ripper op. cost/hour:	NA	NA	NA	\$0.00	NA	NA
Operator cost/hour:	\$57.52	NA	NA	\$40.04	NA	NA
Unit Subtotals:	\$752.60	NA	NA	\$323.07	NA	NA
Number of Units:	2	0	0	1	0	0
Group Subtotals:	Work:	\$1,505.20	Support:	\$323.07	Maint:	\$0.00

Total work team cost/hour: **\$1,828.27****MATERIAL QUANTITIES**Initial volume: 14,197

CCY

Swell factor: 1.215Loose volume: **17,249**

LCY

Source of estimated volume: Operator Estimate (8.8ac x 1ft)Source of estimated swell factor: Cat Handbook**HOURLY PRODUCTION****Scraper Bowl (volume) Basis:**

Material weight:	<u>1,600 lbs/LCY</u>	Struck Volume:	<u>24.00</u>	LCY
Material description:	<u>Top Soil</u>	Heaped Volume:	<u>34.00</u>	LCY
Rated Payload:	<u>81,600 pounds</u>	Average Volume:	<u>29.00</u>	LCY
Payload Capacity:	<u>51.00 LCY</u>	Adjusted Capacity:	<u>29.00</u>	LCY

Cycle Time:Scraper Loading Time: 0.80 MinutesManeuver and Spread Time: 0.70 MinutesJob Condition Correction:

Site Altitude: 5410 feet

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

Travel Time:Road Condition: Rutted dirt, little maintenance, no water, 1" tire penetration 4.0Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	300.00	5.00	4.00	9.00	733	0.43

Haul Time: 0.43 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	300.00	-5.00	4.00	-1.00	2920	0.15

Return Time: 0.15 minutesTotal Scraper team cycle time: 2.08 minutesAdjusted for job conditions: 694.33 LCY/HourSelected Number of Scrapers: 2 Scraper(s)Adjusted single scraper team (unit) hourly production: 1,388.65 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 1,388.65 LCY/HourUnadjusted unit production/hour: 836.54 LCY/Hour

Optimal Number of Scrapers per push dozer: _____

JOB TIME AND COSTFleet size: 1 Team(s)Total job time: 12.42 HoursUnit cost: \$1.317 /LCYTotal job cost: \$22,710

BULLDOZER WORKTask description: Aspect A - Final gradeSite: 5J Pit Permit Action: New Permit Permit/Job#: M2024032**PROJECT IDENTIFICATION**

Task #: 005 State: Colorado Abbreviation: None
 Date: 10/15/2024 County: Larimer Filename: M032-005
 User: JR2

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>\$40.04</u>	<u>NA</u>

Total unit Cost/Hour: \$323.07
 Total Fleet Cost/Hour: \$646.13

MATERIAL QUANTITIES

Initial Volume: 7,099
 Swell factor: 1.125
 Loose volume: 7,986 LCY

Source of estimated volume: Operator Estimate (8.8ac x 6in)
 Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 50 feet
 Unadjusted hourly production: 1,400.0 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: 5 %
 Average site altitude: 5,410 feet

Material weight: 2,650 lbs/LCYWeight description: Decomposed rock - 25% Rock, 75% Earth**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	<u>0.750</u>	<u>(AVG.)</u>
Material consistency:	<u>1.000</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:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3903

Adjusted unit production: 546.42 LCY/hr

Adjusted fleet production: **1092.84** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)

Unit cost: \$0.591/LCY

Total job time: **7.31** Hours

Total job cost: **\$4,722**

BULLDOZER RIPPING WORK

Task description: Aspect B - Scarify Pit floor

Site: 5J Pit Permit Action: New Permit Permit/Job#: M2024032

PROJECT IDENTIFICATION

Task #: 006 State: Colorado Abbreviation: None
Date: 10/15/2024 County: Larimer Filename: M032-006
User: JR2

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:	\$173.32	NA
Operating Cost/Hour:	\$109.71	100
Ripper Ownership Cost/Hour:	\$14.53	NA
Ripper Operating Cost/Hour:	\$7.95	100
Operator Cost/Hour:	\$40.04	NA
Total Unit Cost/Hour:	\$345.55	
Total Fleet Cost/Hour:	\$691.09	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 8.00 acres Rip Depth (ft): 2.00 Volume: 25,813 BCY or CCY

Source of estimated quantity: Operator Estimate

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

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

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.800 Acres/hr
Site Altitude: 5,410 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: **1.33** Acres/hr

JOB TIME AND COST

Fleet size: 2 Grader(s) Total job time: **6.03** Hours

Unit cost: \$520.701 Per acre Total job cost: **\$4,166**

BULLDOZER WORKTask description: **Aspect B - Rough grade**Site: **5J Pit** Permit Action: **New Permit** Permit/Job#: **M2024032****PROJECT IDENTIFICATION**

Task #: **007** State: **Colorado** Abbreviation: **None**
 Date: **10/15/2024** County: **Larimer** Filename: **M032-007**
 User: **JR2**

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:	\$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:	\$40.04	NA

Total unit Cost/Hour: **\$323.07**
 Total Fleet Cost/Hour: **\$646.13**

MATERIAL QUANTITIES

Initial Volume: **6,453**
 Swell factor: **1.125**
 Loose volume: **7,260 LCY**

Source of estimated volume: **Operator Estimate (8ac x 6in)**
 Source of estimated swell factor: **Cat Handbook**

HOURLY PRODUCTION

Average push distance: **50 feet**
 Unadjusted hourly production: **1,400.0 LCY/hr**

Materials consistency description: **Consolidated stockpile 1.0**

Average push gradient: **5 %**
 Average site altitude: **5,410 feet**

Material weight: **2,650 lbs/LCY**Weight description: **Decomposed rock - 25% Rock, 75% Earth****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(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:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3903

Adjusted unit production: 546.42 LCY/hr

Adjusted fleet production: **1092.84** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)

Unit cost: \$0.591/LCY

Total job time: **6.64** Hours

Total job cost: **\$4,292**

SCRAPER TEAM WORKTask description: **Aspect B - Place growth medium**Site: **5J Pit**Permit Action: **New Permit**Permit/Job#: **M2024032****PROJECT IDENTIFICATION**Task #: **008**State: **Colorado**Abbreviation: **None**Date: **10/15/2024**County: **Larimer**Filename: **M032-008**User: **JR2**Agency or organization name: **DRMS****HOURLY EQUIPMENT**COSTShift basis: **1 per day**

Equipment Description	
-Scraper:	Cat 631G
-Dozer:	NA
Support Equipment -Load Area:	NA
-Dump Area:	Cat D8T - 8SU
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	NA	NA	100	NA	NA
Ownership cost/hour:	\$442.19	NA	NA	\$173.32	NA	NA
Operating cost/hour:	\$252.89	NA	NA	\$109.71	NA	NA
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	NA	\$0.00	NA	NA
Ripper op. cost/hour:	NA	NA	NA	\$0.00	NA	NA
Operator cost/hour:	\$57.52	NA	NA	\$40.04	NA	NA
Unit Subtotals:	\$752.60	NA	NA	\$323.07	NA	NA
Number of Units:	2	0	0	1	0	0
Group Subtotals:	Work: \$1,505.20		Support: \$323.07		Maint:	\$0.00

Total work team cost/hour: **\$1,828.27****MATERIAL QUANTITIES**Initial volume: **15,649**

CCY

Swell factor: **1.215**Loose volume: **19,014**

LCY

Source of estimated volume: **Operator Estimate (9.7ac x 1ft)**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION****Scraper Bowl (volume) Basis:**

Material weight:	1,600 lbs/LCY	Struck Volume:	24.00	LCY
Material description:	Top Soil	Heaped Volume:	34.00	LCY
Rated Payload:	81,600 pounds	Average Volume:	29.00	LCY
Payload Capacity:	51.00 LCY	Adjusted Capacity:	29.00	LCY

Cycle Time:Scraper Loading Time: 0.80 MinutesManeuver and Spread Time: 0.70 MinutesJob Condition Correction:

Site Altitude: 5410 feet

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

Travel Time:Road Condition: Rutted dirt, little maintenance, no water, 1" tire penetration 4.0Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	300.00	5.00	4.00	9.00	733	0.43

Haul Time: 0.43 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	300.00	-5.00	4.00	-1.00	2920	0.15

Return Time: 0.15 minutesTotal Scraper team cycle time: 2.08 minutesAdjusted for job conditions: 694.33 LCY/HourSelected Number of Scrapers: 2 Scraper(s)Adjusted single scraper team (unit) hourly production: 1,388.65 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 1,388.65 LCY/HourUnadjusted unit production/hour: 836.54 LCY/Hour

Optimal Number of Scrapers per push dozer: _____

JOB TIME AND COSTFleet size: 1 Team(s)Total job time: 13.69 HoursUnit cost: \$1.317 /LCYTotal job cost: \$25,033

BULLDOZER WORKTask description: **Aspect B - Final grade**Site: **5J Pit** Permit Action: **New Permit** Permit/Job#: **M2024032****PROJECT IDENTIFICATION**

Task #: **009** State: **Colorado** Abbreviation: **None**
 Date: **10/15/2024** County: **Larimer** Filename: **M032-009**
 User: **JR2**

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:	\$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:	\$40.04	NA

Total unit Cost/Hour: **\$323.07**
 Total Fleet Cost/Hour: **\$646.13**

MATERIAL QUANTITIES

Initial Volume: **7,825**
 Swell factor: **1.125**
 Loose volume: **8,803 LCY**

Source of estimated volume: **Operator Estimate (9.7ac x 6in)**
 Source of estimated swell factor: **Cat Handbook**

HOURLY PRODUCTION

Average push distance: **50 feet**
 Unadjusted hourly production: **1,400.0 LCY/hr**

Materials consistency description: **Consolidated stockpile 1.0**

Average push gradient: **5 %**
 Average site altitude: **5,410 feet**

Material weight: **2,650 lbs/LCY**Weight description: **Decomposed rock - 25% Rock, 75% Earth****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(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:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3903

Adjusted unit production: 546.42 LCY/hr

Adjusted fleet production: **1092.84** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)

Unit cost: \$0.591/LCY

Total job time: **8.06** Hours

Total job cost: **\$5,205**

SCRAPER TEAM WORKTask description: **Aspect C - Place growth medium**Site: **5J Pit**Permit Action: New PermitPermit/Job#: M2024032**PROJECT IDENTIFICATION**Task #: 010State: ColoradoAbbreviation: NoneDate: 10/15/2024County: LarimerFilename: M032-010User: JR2Agency or organization name: DRMS**HOURLY EQUIPMENT**COSTShift basis: 1 per day

Equipment Description	
-Scraper:	Cat 631G
-Dozer:	NA
Support Equipment -Load Area:	NA
-Dump Area:	Cat D8T - 8SU
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	NA	NA	100	NA	NA
Ownership cost/hour:	\$442.19	NA	NA	\$173.32	NA	NA
Operating cost/hour:	\$252.89	NA	NA	\$109.71	NA	NA
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	NA	\$0.00	NA	NA
Ripper op. cost/hour:	NA	NA	NA	\$0.00	NA	NA
Operator cost/hour:	\$57.52	NA	NA	\$40.04	NA	NA
Unit Subtotals:	\$752.60	NA	NA	\$323.07	NA	NA
Number of Units:	2	0	0	1	0	0
Group Subtotals:	Work: \$1,505.20		Support: \$323.07		Maint:	\$0.00

Total work team cost/hour: **\$1,828.27****MATERIAL QUANTITIES**Initial volume: 11,455

CCY

Swell factor: 1.215Loose volume: **13,918**

LCY

Source of estimated volume: Operator Estimate (7.1ac x 1ft)Source of estimated swell factor: Cat Handbook**HOURLY PRODUCTION****Scraper Bowl (volume) Basis:**

Material weight:	<u>1,600 lbs/LCY</u>	Struck Volume:	<u>24.00</u>	LCY
Material description:	<u>Top Soil</u>	Heaped Volume:	<u>34.00</u>	LCY
Rated Payload:	<u>81,600 pounds</u>	Average Volume:	<u>29.00</u>	LCY
Payload Capacity:	<u>51.00 LCY</u>	Adjusted Capacity:	<u>29.00</u>	LCY

Cycle Time:Scraper Loading Time: 0.80 MinutesManeuver and Spread Time: 0.70 MinutesJob Condition Correction:

Site Altitude: 5410 feet

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

Travel Time:Road Condition: Rutted dirt, little maintenance, no water, 1" tire penetration 4.0Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	300.00	5.00	4.00	9.00	733	0.43

Haul Time: 0.43 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	300.00	-5.00	4.00	-1.00	2920	0.15

Return Time: 0.15 minutesTotal Scraper team cycle time: 2.08 minutesAdjusted for job conditions: 694.33 LCY/HourSelected Number of Scrapers: 2 Scraper(s)Adjusted single scraper team (unit) hourly production: 1,388.65 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 1,388.65 LCY/HourUnadjusted unit production/hour: 836.54 LCY/Hour

Optimal Number of Scrapers per push dozer: _____

JOB TIME AND COSTFleet size: 1 Team(s)Total job time: 10.02 HoursUnit cost: \$1.317 /LCYTotal job cost: \$18,324

BULLDOZER WORKTask description: Aspect C - Final gradeSite: 5J Pit Permit Action: New Permit Permit/Job#: M2024032**PROJECT IDENTIFICATION**

Task #: 011 State: Colorado Abbreviation: None
 Date: 10/15/2024 County: Larimer Filename: M032-011
 User: JR2

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>\$40.04</u>	<u>NA</u>

Total unit Cost/Hour: \$323.07
 Total Fleet Cost/Hour: \$646.13

MATERIAL QUANTITIES

Initial Volume: 5,727
 Swell factor: 1.125
 Loose volume: 6,443 LCY

Source of estimated volume: Operator Estimate (7.1ac x 6in)
 Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 50 feet
 Unadjusted hourly production: 1,400.0 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: 5 %
 Average site altitude: 5,410 feet

Material weight: 2,650 lbs/LCYWeight description: Decomposed rock - 25% Rock, 75% Earth**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	<u>0.750</u>	<u>(AVG.)</u>
Material consistency:	<u>1.000</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:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3903

Adjusted unit production: 546.42 LCY/hr

Adjusted fleet production: **1092.84** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)

Unit cost: \$0.591/LCY

Total job time: **5.90** Hours

Total job cost: **\$3,809**

BULLDOZER RIPPING WORK

Task description: Aspect D - Scarify employee areas

Site: 5J Pit Permit Action: New Permit Permit/Job#: M2024032

PROJECT IDENTIFICATION

Task #: 012 State: Colorado Abbreviation: None
Date: 10/15/2024 County: Larimer Filename: M032-012
User: JR2

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:	\$173.32	NA
Operating Cost/Hour:	\$109.71	100
Ripper Ownership Cost/Hour:	\$14.53	NA
Ripper Operating Cost/Hour:	\$7.95	100
Operator Cost/Hour:	\$40.04	NA
Total Unit Cost/Hour:	\$345.55	
Total Fleet Cost/Hour:	\$691.09	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 2.00 acres Rip Depth (ft): 2.00 Volume: 6,453 BCY or CCY

Source of estimated quantity: Operator Estimate

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

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

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.800 Acres/hr
Site Altitude: 5,410 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: **1.33** Acres/hr

JOB TIME AND COST

Fleet size: 2 Grader(s) Total job time: **1.51** Hours

Unit cost: \$520.701 Per acre Total job cost: **\$1,041**

BULLDOZER WORKTask description: **Aspect D - Rough grade**Site: **5J Pit** Permit Action: **New Permit** Permit/Job#: **M2024032****PROJECT IDENTIFICATION**

Task #:	013	State:	Colorado	Abbreviation:	None
Date:	10/15/2024	County:	Larimer	Filename:	M032-013
User:	JR2				

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:	\$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:	\$40.04	NA

Total unit Cost/Hour:	\$323.07
Total Fleet Cost/Hour:	\$646.13

MATERIAL QUANTITIES

Initial Volume:	1,613
Swell factor:	1.125
Loose volume:	1,815 LCY

Source of estimated volume:	Operator Estimate (2ac x 6in)
Source of estimated swell factor:	Cat Handbook

HOURLY PRODUCTION

Average push distance:	50 feet
Unadjusted hourly production:	1,400.0 LCY/hr

Materials consistency description: **Consolidated stockpile 1.0**

Average push gradient:	5 %
Average site altitude:	5,410 feet

Material weight: **2,650 lbs/LCY**Weight description: **Decomposed rock - 25% Rock, 75% Earth****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(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:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3903

Adjusted unit production: 546.42 LCY/hr

Adjusted fleet production: **1092.84** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)

Unit cost: \$0.591/LCY

Total job time: **1.66** Hours

Total job cost: **\$1,073**

SCRAPER TEAM WORKTask description: **Aspect D - Place growth medium**Site: **5J Pit**Permit Action: New PermitPermit/Job#: M2024032**PROJECT IDENTIFICATION**Task #: 014State: ColoradoAbbreviation: NoneDate: 10/15/2024County: LarimerFilename: M032-014User: JR2Agency or organization name: DRMS**HOURLY EQUIPMENT**COSTShift basis: 1 per day

Equipment Description	
-Scraper:	Cat 631G
-Dozer:	NA
Support Equipment -Load Area:	NA
-Dump Area:	Cat D8T - 8SU
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	NA	NA	100	NA	NA
Ownership cost/hour:	\$442.19	NA	NA	\$173.32	NA	NA
Operating cost/hour:	\$252.89	NA	NA	\$109.71	NA	NA
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	NA	\$0.00	NA	NA
Ripper op. cost/hour:	NA	NA	NA	\$0.00	NA	NA
Operator cost/hour:	\$57.52	NA	NA	\$40.04	NA	NA
Unit Subtotals:	\$752.60	NA	NA	\$323.07	NA	NA
Number of Units:	2	0	0	1	0	0
Group Subtotals:	Work: \$1,505.20		Support: \$323.07		Maint:	\$0.00

Total work team cost/hour: **\$1,828.27****MATERIAL QUANTITIES**Initial volume: 1,613

CCY

Swell factor: 1.215Loose volume: **1,960**

LCY

Source of estimated volume: Operator Estimate (2ac x 1ft)Source of estimated swell factor: Cat Handbook**HOURLY PRODUCTION****Scraper Bowl (volume) Basis:**

Material weight:	<u>1,600 lbs/LCY</u>	Struck Volume:	<u>24.00</u>	LCY
Material description:	<u>Top Soil</u>	Heaped Volume:	<u>34.00</u>	LCY
Rated Payload:	<u>81,600 pounds</u>	Average Volume:	<u>29.00</u>	LCY
Payload Capacity:	<u>51.00 LCY</u>	Adjusted Capacity:	<u>29.00</u>	LCY

Cycle Time:Scraper Loading Time: 0.80 MinutesManeuver and Spread Time: 0.70 MinutesJob Condition Correction:

Site Altitude: 5410 feet

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

Travel Time:Road Condition: Rutted dirt, little maintenance, no water, 1" tire penetration 4.0Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	300.00	5.00	4.00	9.00	733	0.43

Haul Time: 0.43 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	300.00	-5.00	4.00	-1.00	2920	0.15

Return Time: 0.15 minutesTotal Scraper team cycle time: 2.08 minutesAdjusted for job conditions: 694.33 LCY/HourSelected Number of Scrapers: 2 Scraper(s)Adjusted single scraper team (unit) hourly production: 1,388.65 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 1,388.65 LCY/HourUnadjusted unit production/hour: 836.54 LCY/Hour

Optimal Number of Scrapers per push dozer: _____

JOB TIME AND COSTFleet size: 1 Team(s)Total job time: 1.41 HoursUnit cost: \$1.317 /LCYTotal job cost: \$2,580

BULLDOZER WORKTask description: Aspect D - Final gradeSite: 5J Pit Permit Action: New Permit Permit/Job#: M2024032**PROJECT IDENTIFICATION**

Task #: 015 State: Colorado Abbreviation: None
 Date: 10/15/2024 County: Larimer Filename: M032-015
 User: JR2

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>\$40.04</u>	<u>NA</u>

Total unit Cost/Hour: \$323.07
 Total Fleet Cost/Hour: \$646.13

MATERIAL QUANTITIES

Initial Volume: 1,613
 Swell factor: 1.125
 Loose volume: 1,815 LCY

Source of estimated volume: Operator Estimate (2ac x 6in)
 Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 50 feet
 Unadjusted hourly production: 1,400.0 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: 5 %
 Average site altitude: 5,410 feet

Material weight: 2,650 lbs/LCYWeight description: Decomposed rock - 25% Rock, 75% Earth**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	<u>0.750</u>	<u>(AVG.)</u>
Material consistency:	<u>1.000</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:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3903

Adjusted unit production: 546.42 LCY/hr

Adjusted fleet production: **1092.84** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)

Unit cost: \$0.591/LCY

Total job time: **1.66** Hours

Total job cost: **\$1,073**

REVEGETATION WORKTask description: Seed all disturbed areasSite: 5J PitPermit Action: New PermitPermit/Job#: M2024032**PROJECT IDENTIFICATION**Task #: 016State: ColoradoAbbreviation: NoneDate: 10/15/2024County: LarimerFilename: M032-016User: JR2Agency 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)	\$117.61
Weed control spraying (MEANS 31 31 16.13 3100)	\$338.80
Total Tilling Cost/Acre	\$456.41

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Switchgrass - Nebraska 28	0.40	3.57	\$4.45
Blue Grama - Native	0.45	7.35	\$9.60
Sideoats Grama - El Reno	2.70	8.86	\$65.95
Western Wheatgrass - Native	4.00	10.10	\$36.02
Needlegrass, Green - Lodorm	2.00	8.31	\$17.29
Totals Seed Mix	9.55	38.19	\$133.31

Application

Description	Cost /Acre
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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
	\$
Total Mulch Application Cost/Acre	\$0.00

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: 27.6 Cost /Acre: \$826.36
 Estimated Failure Rate: 0% Cost /Acre*: \$369.95
 *Selected Replanting Work Items: SEEDING

Initial Job Cost: **\$22,807.54**
 Reseeding Job Cost: **\$0.00**
 Total Job Cost: **\$22,808**
 Job Hours: **48.30**

REVEGETATION WORKTask description: Re-seed 20% of disturbed areasSite: 5J PitPermit Action: New PermitPermit/Job#: M2024032**PROJECT IDENTIFICATION**Task #: 017State: ColoradoAbbreviation: NoneDate: 10/15/2024County: LarimerFilename: M032-017User: JR2Agency 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)	\$117.61
Weed control spraying (MEANS 31 31 16.13 3100)	\$338.80
Total Tilling Cost/Acre	\$456.41

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Switchgrass - Nebraska 28	0.40	3.57	\$4.45
Blue Grama - Native	0.45	7.35	\$9.60
Sideoats Grama - El Reno	2.70	8.86	\$65.95
Western Wheatgrass - Native	4.00	10.10	\$36.02
Needlegrass, Green - Lodorm	2.00	8.31	\$17.29
Totals Seed Mix	9.55	38.19	\$133.31

Application

Description	Cost /Acre
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
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
	\$
Total Mulch Application Cost/Acre	\$0.00

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:	5.5	Cost /Acre:	\$826.36
Estimated Failure Rate:	0%	Cost /Acre*:	\$369.95
*Selected Replanting Work Items:	SEEDING		

Initial Job Cost:	\$4,544.98
Reseeding Job Cost:	\$0.00
Total Job Cost:	\$4,545
Job Hours:	9.70

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Mob/Demob**Site: **5J Pit**Permit Action: **New Permit**Permit/Job#: **M2024032****PROJECT IDENTIFICATION**Task #: **018**State: **Colorado**Abbreviation: **None**Date: **10/15/2024**County: **Larimer**Filename: **M032-018**User: **JR2**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	2	\$626.98	\$251.28	\$500.00
Cat 631G	52.50	\$442.19	\$125.64	2	\$1,135.66	\$251.28	\$500.00
Drill/Broadcast Seeder with Tractor	25.00	\$41.02	\$59.44	2	\$200.92	\$118.88	\$500.00

Subtotals: **\$1,963.56** **\$621.44** **\$1,500.00****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	\$24.60	1	\$24.60	\$24.60

Subtotals: **\$24.60** **\$24.60**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>FORT COLLINS</u>	
Total one-way travel distance:	<u>16.00</u>	miles
Average Travel Speed:	<u>40.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$12,922.24</u>
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$19.68</u>
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>0.40</u>	<u>0.40</u>
Return Time (Hours):	<u>0.40</u>	<u>0.40</u>
Loading Time (Hours):	<u>1.00</u>	<u>NA</u>
Unloading Time (Hours):	<u>1.00</u>	<u>NA</u>
Subtotals:	<u>2.80</u>	<u>0.80</u>

JOB TIME AND COST

Total job time:	<u>5.60</u>	Hours
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Total job cost:	<u>\$12,942</u>
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