

## COST SUMMARY WORK

Task description: 2022 calc updated for inflation

Site: K-Bar-T Pit

Permit Action: 11-2024

Permit/Job#: M1978221

### PROJECT IDENTIFICATION

Task #: ACY

State: Colorado

Abbreviation: None

Date: 11/26/2024

County: Rio Blanco

Filename: M221-ACY

User: ACY

Agency or organization name: DRMS

### TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
01a	Re-grade 200LF highwall from 1H:1V to 3H:1V	DOZER	1	8.71	\$945
02a	Rip 2.5 acres of compacted area	RIPPER	1	4.88	\$561
03a	Spread 6" of topsoil over 2.5 acres	DOZER	1	30.53	\$3,313
04a	Revegetation of 2.5 acres	REVEGE	1	8.00	\$6,284
05a	Initial Mobilization	MOBILIZE	1	2.68	\$2,281
05b	Secondary Mobilization	MOBILIZE	1	2.68	\$1,520
<b><u>SUBTOTALS:</u></b>				<b>57.48</b>	<b>\$14,904</b>

### INDIRECT COSTS

#### OVERHEAD AND PROFIT:

Liability insurance: 2.02

Total = \$301

Performance bond: 1.05

Total = \$156

Job superintendent: 10.00

Total = \$793

Profit: 10.00

Total = \$1,490

TOTAL O & P = \$2,741

CONTRACT AMOUNT (direct + O & P) = \$17,645

#### LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): \$0

Total = \$0

Engineering work and/or contract/bid preparation: 4.25

Total = \$750

Reclamation management and/or administration: 5.41

\$955

CONTINGENCY: 3.00

Total = \$447

TOTAL INDIRECT COST = \$4,892

**TOTAL BOND AMOUNT (direct + indirect) = \$19,796**

**BULLDOZER WORK**Task description: **Re-grade 200LF highwall from 1H:1V to 3H:1V**Site: **K-Bar-T Pit**Permit Action: **11-2024**Permit/Job#: **M1978221****PROJECT IDENTIFICATION**Task #: **01A**State: **Colorado**Abbreviation: **None**Date: **11/26/2024**County: **Rio Blanco**Filename: **M221-01a**User: **ACY**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D5N LGP - 5P**Horsepower: **96**Blade Type: **Power Angle Tilt**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$39.33	NA
Operating Cost/Hour:	\$30.60	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: **\$108.52**Total Fleet Cost/Hour: **\$108.52****MATERIAL QUANTITIES**Initial Volume: **1,157**Swell factor: **1.124**Loose volume: **1,300 LCY**Source of estimated volume: **25'H 200LF 1:1 to 3:1 cut fill**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **75 feet**Unadjusted hourly production: **376.8 LCY/hr**Materials consistency description: **Compacted fill or embankment 0.9**Average push gradient: **-5 %**Average site altitude: **6,570 feet**Material weight: **2,900 lbs/LCY**Weight description: **Sand and gravel - Dry****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.115	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3963

Adjusted unit production: 149.33 LCY/hr

Adjusted fleet production: **149.33 LCY/hr**

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)

Unit cost: \$0.727/LCY

Total job time: **8.71 Hours**

Total job cost: **\$945**

## BULLDOZER RIPPING WORK

Task description: Rip 2.5 acres of compacted area

Site: K-Bar-T Pit

Permit Action: 11-2024

Permit/Job#: M1978221

### PROJECT IDENTIFICATION

Task #: 02A

State: Colorado

Abbreviation: None

Date: 11/26/2024

County: Rio Blanco

Filename: M221-02a

User: ACY

Agency or organization name: DRMS

### HOURLY EQUIPMENT COST

Basic Machine: Cat D5N LGP - 5P  
Ripper Attachment: 3-Shank Ripper

Horsepower: 96  
Shift Basis: 1 per day  
Data Source: (CRG)

#### Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$39.33	NA
Operating Cost/Hour:	\$30.60	100
Ripper Ownership Cost/Hour:	\$3.72	NA
Ripper Operating Cost/Hour:	\$2.62	100
Operator Cost/Hour:	\$38.59	NA
Total Unit Cost/Hour:	\$114.86	
Total Fleet Cost/Hour:	<b>\$114.86</b>	

### MATERIAL QUANTITIES

Selected estimating method: Area

#### Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA  
Area: 2.25 acres Rip Depth (ft): 1.50 Volume: 5,445 BCY or CCY

Source of estimated quantity: Compacted areas-previously accepted values

### HOURLY PRODUCTION

#### Seismic:

Seismic Velocity: NA feet/second

#### Area:

Average Ripping Depth: 1.11 feet/pass  
Average Ripping Width: 5.08 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: 0.555 acres/hour

#### Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.555 Acres/hr  
Site Altitude: 6,570 feet  
Altitude Adj: 1.00 (CAT HB)  
Job Efficiency: 0.83 (1 shift/day)  
Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.46 Acres/hr  
Adjusted Hourly Fleet Production: **0.46** Acres/hr

### JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: **4.89** Hours

Unit cost: \$249.462 Per acre Total job cost: **\$561**

**BULLDOZER WORK**Task description: Spread 6" of topsoil over 2.5 acresSite: K-Bar-T PitPermit Action: 11-2024Permit/Job#: M1978221**PROJECT IDENTIFICATION**Task #: 03AState: ColoradoAbbreviation: NoneDate: 11/26/2024County: Rio BlancoFilename: M221-03aUser: ACYAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D5N LGP - 5PHorsepower: 96Blade Type: Power Angle TiltAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$39.33	NA
Operating Cost/Hour:	\$30.60	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: \$108.52Total Fleet Cost/Hour: \$108.52**MATERIAL QUANTITIES**Initial Volume: 2,016Swell factor: 1.115Loose volume: 2,248 LCYSource of estimated volume: 6" over 2.5 acSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 200 feetUnadjusted hourly production: 150.0 LCY/hrMaterials consistency description: Compacted fill or embankment 0.9Average push gradient: 0 %Average site altitude: 6,570 feetMaterial weight: 2,100 lbs/LCYWeight description: Earth - Loam**Job Condition Correction Factor**

		<u>Source</u>
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:	1.095	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4908

Adjusted unit production: 73.62 LCY/hr

Adjusted fleet production: **73.62** LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)

Unit cost: \$1.474/LCY

Total job time: **30.53** Hours

Total job cost: **\$3,313**

**REVEGETATION WORK**Task description: Revegetation of 2.5 acresSite: K-Bar-T PitPermit Action: 11-2024Permit/Job#: M1978221**PROJECT IDENTIFICATION**Task #: 04AState: ColoradoAbbreviation: NoneDate: 11/26/2024County: Rio BlancoFilename: M221-04aUser: ACYAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
10-34-0, 18-46-0, 5-10-5	200.00	pound	\$0.51	\$102.32
			<b>Total Fertilizer Materials Cost/Acre</b>	<b>\$102.32</b>

**Application**

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	\$43.12
<b>Total Fertilizer Application Cost/Acre</b>	<b>\$43.12</b>

**TILLING**

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$117.61
<b>Total Tilling Cost/Acre</b>	<b>\$117.61</b>

**SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Intermediate Wheatgrass - Oahe	6.00	12.81	\$27.87
Pubescent Wheatgrass - Greenleaf	3.00	6.20	\$14.28
Yellow Sweet Clover - Madrid	1.00	5.97	\$4.53
<b>Totals Seed Mix</b>	<b>10.00</b>	<b>24.98</b>	<b>\$46.68</b>

**Application**

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

<b>Total Seed Application Cost/Acre</b>	<b>\$236.64</b>
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**MULCHING and MISCELLANEOUS****Materials**

<b>Description</b>	<b>Units / Acre</b>	<b>Unit</b>	<b>Cost / Unit</b>	<b>Cost /Acre</b>
Herbicide - 2,4D @ 1.0 pt/ac	1.00	ACRE	\$4.13	\$4.13
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$492.78	\$985.56
<b>Total Mulch Materials Cost/Acre</b>				<b>\$989.69</b>

**Application**

<b>Description</b>	<b>Cost /Acre</b>
Crimping, with tractor {DMG survey data}	\$85.37
Power mulcher (MEANS 32 91 13.16 0350)	\$157.25
Weed spray, truck, non-aquatic area, nox. [DMG]	\$83.26
<b>Total Mulch Application Cost/Acre</b>	<b>\$325.89</b>

**NURSERY STOCK PLANTING**

<b>Common Name</b>	<b>No / Acre</b>	<b>Type and Size</b>	<b>Planting Cost</b>	<b>Fertilizer Pellet Cost</b>	<b>Cost /Acre</b>
					\$
<b>Totals Nursery Stock Cost / Acre</b>					<b>\$0.00</b>

**JOB TIME AND COST**

No. of Acres: 2.5 Cost /Acre: \$1,861.95  
 Estimated Failure Rate: 35% Cost /Acre\*: \$1,861.95  
 \*Selected Replanting Work Items: FERTILIZING,TILLING,SEEDING,MU  
LCHING

Initial Job Cost: \$4,654.88  
 Reseeding Job Cost: \$1,629.21  
 Total Job Cost: \$6,284  
 Job Hours: 8.00



**EQUIPMENT MOBILIZATION/DEMOBILIZATION**Task description: **Initial Mobilization**Site: **K-Bar-T Pit**Permit Action: **11-2024**Permit/Job#: **M1978221****PROJECT IDENTIFICATION**Task #: **05A**State: **Colorado**Abbreviation: **None**Date: **11/26/2024**County: **Rio Blanco**Filename: **M221-05a**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:**

<b>Available Rig Capacities</b>	<b>0-25 Tons</b>	<b>26-50 Tons</b>	<b>51+ Tons</b>
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 D5N LGP - 5P	12.10	\$43.05	\$59.44	1	\$102.49	\$59.44	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$41.02	\$59.44	1	\$100.46	\$59.44	\$250.00
Power Mulcher (Bowie LD-90)	6.00	\$27.21	\$59.44	1	\$86.65	\$59.44	\$250.00

Subtotals: **\$289.60** **\$178.32** **\$750.00****ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 3/4 T.	\$119.71	1	\$119.71	\$119.71

Subtotals: **\$119.71** **\$119.71**

**EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region: MEEKER  
 Total one-way travel distance: 6.00 miles  
 Average Travel Speed: 35.00 mph

Total Non-Roadable Mob/Demob Cost \* \$2,239.63  
 \*\* two round trips with haul rig:  
 Total Roadable Mob/Demob Cost \*\* \$41.04  
 \*\* one round trip, no haul rig:

**Transportation Cycle Time:**

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>0.17</u>	<u>0.17</u>
Return Time (Hours):	<u>0.17</u>	<u>0.17</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>1.34</u>	<u>0.34</u>

**JOB TIME AND COST**

Total job time: 2.69 Hours

Total job cost: \$2,281

**EQUIPMENT MOBILIZATION/DEMOBILIZATION**Task description: **Secondary Mobilization**Site: **K-Bar-T Pit**Permit Action: **11-2024**Permit/Job#: **M1978221****PROJECT IDENTIFICATION**Task #: **05B**State: **Colorado**Abbreviation: **None**Date: **11/26/2024**County: **Rio Blanco**Filename: **M221-05b**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:**

<b>Available Rig Capacities</b>	<b>0-25 Tons</b>	<b>26-50 Tons</b>	<b>51+ Tons</b>
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
Drill/Broadcast Seeder with Tractor	25.00	\$41.02	\$59.44	1	\$100.46	\$59.44	\$250.00
Power Mulcher (Bowie LD-90)	6.00	\$27.21	\$59.44	1	\$86.65	\$59.44	\$250.00

Subtotals: **\$187.11** **\$118.88** **\$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, 3/4 T.	\$119.71	1	\$119.71	\$119.71

Subtotals: **\$119.71** **\$119.71**

**EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region: MEEKER  
 Total one-way travel distance: 6.00 miles  
 Average Travel Speed: 35.00 mph

Total Non-Roadable Mob/Demob Cost \* \$1,479.13  
 \*\* two round trips with haul rig:  
 Total Roadable Mob/Demob Cost \*\* \$41.04  
 \*\* one round trip, no haul rig:

**Transportation Cycle Time:**

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>0.17</u>	<u>0.17</u>
Return Time (Hours):	<u>0.17</u>	<u>0.17</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>1.34</u>	<u>0.34</u>

**JOB TIME AND COST**

Total job time: 2.69 Hours

Total job cost: \$1,520