



## COLORADO

Division of Reclamation,  
Mining and Safety

Department of Natural Resources

1313 Sherman Street, Room 215  
Denver, CO 80203

February 25, 2019

Bud Bower  
Bower Brothers Construction, Inc.  
595 Taylor St  
Craig, CO 81625

**RE: Hertzog Pit, Permit No. M-1981-276, Technical Revision (TR-3 ) Approval**

Dear Mr. Bower:

On February 25, 2019 the Division of Reclamation, Mining and Safety (Division) approved the Technical Revision request (TR-3) submitted on January 18, 2019, addressing the following:

*Reclamation Progress Update and Bonding Figures*

The terms of the TR-3 approved by the Division are hereby incorporated into Permit No. M-1981-276. All other conditions and requirements of the permit remain in full force and effect.

The estimated liability amount of \$52,054 exceeds the \$ 36,650 Financial Warranty currently held for this site. If you have not already done so, please submit additional bond in the amount of \$ 15,404. **Pursuant to Section 34-32.5-117(4) of the Colorado Land Reclamation Act, adequate Financial Warranty must be submitted to the Division within 60 days of the mailing date of this letter.** The additional amount needs to be accepted prior **Friday, April 26, 2019**. Please review the enclosed figures as soon as possible and contact our office if any calculation errors are noted. The revision will not be final until the bond is approved by the Division.

Please make arrangements with Barbara Coria at the Division of Reclamation, Mining and Safety Denver Office, phone no. 303.866.3567, ext. 8148 for submittal of the financial warranty. Any questions regarding completion, execution and/or submittal of financial warranty forms should also be directed to Barbara Coria.

If you require additional information, or have questions or concerns, please feel free to contact me. Amy Yeldell at the Division of Reclamation, Mining and Safety, 1313 Sherman St., Room 215, Denver, CO 80203. Direct contact can be made by phone at 970-254-8511 or via email at [amy.yeldell@state.co.us](mailto:amy.yeldell@state.co.us)



Sincerely,

A handwritten signature in black ink that reads "Amy Yeldell". The signature is written in a cursive, flowing style.

**Amy Yeldell**  
Environmental Protection Specialist

Cc: Wally Erickson, Senior EPS, Grand Junction DRMS

## Hertzog Pit TR-3 Update

01a West-Secondary failure seeding Only  
35% of 10.4ac

02a North-Seeding of 4.8ac w 35% failure

03 Central Reclaim Area (Est. 3ac)

a Rip 3ac Compacted

b Transport topsoil 3ac @ 6"  $\rightarrow$  2420 cy - 300 ft

c Grade/spread topsoil 2420 cy

d Seed 3ac w 35% failure

04a Grade Highwall 200 LF @ 15' H cutfill vertical to 3:1  $\rightarrow$  623 cy

05a Rip Compacted areas (Est. ~3ac)

06a Transport Overburden 5000 cy ~300 ft

06b Spread transported topsoil 5000 cy

07a Transport topsoil 15ac @ 6"  $\rightarrow$  12,100 cy ~250 ft

07b Spread/Grade topsoil 12,100 cy

07c Seed 15ac w/ 35% failure

08a Initial Mob

08b Secondary Mob - Reveg only

★ ~15K of bond tasks could be removed once spring TR-3 task complete & only secondary seeding remains

15ac/Max-East

## COST SUMMARY WORK

Task description: TR-3 Update 2019

Site: Hertzog Pit

Permit Action: TR-3

Permit/Job#: M1981276

### PROJECT IDENTIFICATION

Task #: ACY

State: Colorado

Abbreviation: None

Date: 2/25/2019

County: Moffat

Filename: M276-ACY

User: ACY

Agency or organization name: DRMS

### TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
01a	West-Secondary seeding 35% of 10.4ac	REVEGE	1	6.00	\$1,498.00
02a	North-Seeding of 4.8 ac	REVEGE	1	6.50	\$3,177.00
03a	Central Reclaim- Rip Compacted Areas	RIPPER	1	4.67	\$1,053.00
03b	Central Reclaim Area-Transport Topsoil	LOADER	2	6.31	\$1,237.00
03c	Central Reclaim Area-Spread Transported Topsoil	DOZER	1	3.21	\$669.00
03d	Central Reclaim Area- Seeding 3 ac	REVEGE	1	3.50	\$1,986.00
04a	East 15 ac Max-Grade Highwall	DOZER	1	1.41	\$309.00
05a	East 15 ac Max - Rip Compacted Areas	RIPPER	1	4.67	\$1,053.00
06a	East 15 ac Max-Transport overburden stockpile	LOADER	2	12.30	\$2,408.00
06b	East 15 ac Max-Spread Transported Overburden	DOZER	1	9.04	\$1,886.00
07a	East 15 ac Max-Transport Topsoil	LOADER	2	31.59	\$6,186.00
07b	East 15 ac Max-Spread Transported Topsoil	DOZER	1	16.03	\$3,343.00
07c	East 15 ac Max-Seeding	REVEGE	1	20.50	\$9,929.00
08a	Initial Mobilization	MOBILIZE	1	4.40	\$3,824.00
08b	Secondary Mobilization	MOBILIZE	1	4.40	\$997.00
<b>SUBTOTALS:</b>				<b>134.53</b>	<b>\$39,555</b>

### INDIRECT COSTS

#### OVERHEAD AND PROFIT:

Liability insurance: 2.02  
Performance bond: 1.05  
Job superintendent: 40.00  
Profit: 10.00

Total = \$799.01

Total = \$415.33

Total = \$2,922.00

Total = \$3,955.50

TOTAL O & P = \$8,091.84

CONTRACT AMOUNT (direct + O & P) = \$47,646.84

#### LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): 0.00  
Engineering work and/or contract/bid preparation: 4.25  
Reclamation management and/or administration: 5.00

Total = 0.00

Total = \$2,024.99

\$2,382.34

CONTINGENCY: 0.00

Total = \$0.00

TOTAL INDIRECT COST = \$12,499.17

**TOTAL BOND AMOUNT (direct + indirect) = \$52,054.17**

**REVEGETATION WORK**Task description: West-Secondary seeding 35% of 10.4acSite: Hertzog PitPermit Action: TR-3Permit/Job#: M1981276**PROJECT IDENTIFICATION**Task #: 01AState: ColoradoAbbreviation: NoneDate: 2/25/2019County: MoffatFilename: M276-01aUser: ACYAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
0-20-20, 4-8-12, 10-10-10	20.00	pound	\$0.21	\$4.20
			<b>Total Fertilizer Materials Cost/Acre</b>	<b>\$4.20</b>

**Application**

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	\$34.72
<b>Total Fertilizer Application Cost/Acre</b>	<b>\$34.72</b>

**TILLING**

Description	Cost /Acre
	\$
<b>Total Tilling Cost/Acre</b>	<b>\$0.00</b>

**SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Bluebunch Wheatgrass - Secar	1.50	4.82	\$11.78
Crested Wheatgrass - Standard	4.80	22.04	\$18.43
Smooth Brome - Manchar	1.25	4.16	\$5.45
Intermediate Wheatgrass - Rush	3.75	8.01	\$14.40
Pubescent Wheatgrass - Luna	3.50	7.23	\$14.60
<b>Totals Seed Mix</b>	<b>14.80</b>	<b>46.26</b>	<b>\$64.65</b>

**Application**

Cost /Acre
------------

Description	
Drill Seeding (DRMS Survey Cost)	\$232.00
<b>Total Seed Application Cost/Acre</b>	<b>\$232.00</b>

**MULCHING and MISCELLANEOUS****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - 2,4D @ 1.0 pt/ac	1.00	ACRE	\$2.81	\$2.81
<b>Total Mulch Materials Cost/Acre</b>				<b>\$2.81</b>

**Application**

Description	Cost /Acre
Weed spray, truck, non-aquatic area, nox. [DMG]	\$73.22
<b>Total Mulch Application Cost/Acre</b>	<b>\$73.22</b>

**NURSERY STOCK PLANTING**

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

**JOB TIME AND COST**

No. of Acres: 3.64                      Cost /Acre: \$411.60  
 Estimated Failure Rate: 0%                      Cost /Acre\*: \$0.00  
 \*Selected Replanting Work Items: NONE

Initial Job Cost: \$1,498.22  
 Reseeding Job Cost: \$0.00  
 Total Job Cost: \$1,498  
 Job Hours: 6.00

**REVEGETATION WORK**Task description: North-Seeding of 4.8 acSite: Hertzog PitPermit Action: TR-3Permit/Job#: M1981276**PROJECT IDENTIFICATION**Task #: 02AState: ColoradoAbbreviation: NoneDate: 2/25/2019County: MoffatFilename: M276-02aUser: ACYAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
0-20-20, 4-8-12, 10-10-10	20.00	pound	\$0.21	\$4.20
			<b>Total Fertilizer Materials Cost/Acre</b>	<b>\$4.20</b>

**Application**

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	\$34.72
<b>Total Fertilizer Application Cost/Acre</b>	<b>\$34.72</b>

**TILLING**

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$106.29
<b>Total Tilling Cost/Acre</b>	<b>\$106.29</b>

**SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Bluebunch Wheatgrass - Secar	1.50	4.82	\$11.78
Crested Wheatgrass - Standard	4.80	22.04	\$18.43
Smooth Brome - Manchar	1.25	4.16	\$5.45
Intermediate Wheatgrass - Rush	3.75	8.01	\$14.40
Pubescent Wheatgrass - Luna	3.50	7.23	\$14.60
<b>Totals Seed Mix</b>	<b>14.80</b>	<b>46.26</b>	<b>\$64.65</b>

**Application**

Description	Cost /Acre
-------------	------------

Drill Seeding (DRMS Survey Cost)	\$232.00
<b>Total Seed Application Cost/Acre</b>	<b>\$232.00</b>

**MULCHING and MISCELLANEOUS****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - 2,4D @ 1.0 pt/ac	1.00	ACRE	\$2.81	\$2.81
<b>Total Mulch Materials Cost/Acre</b>				<b>\$2.81</b>

**Application**

Description	Cost /Acre
Weed spray, truck, non-aquatic area, nox. [DMG]	\$73.22
<b>Total Mulch Application Cost/Acre</b>	<b>\$73.22</b>

**NURSERY STOCK PLANTING**

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

**JOB TIME AND COST**

No. of Acres: 4.8 Cost /Acre: \$517.89  
 Estimated Failure Rate: 35% Cost /Acre\*: \$411.60  
 \*Selected Replanting Work Items: FERTILIZING,SEEDING,MULCHING  
 Initial Job Cost: \$2,485.87  
 Reseeding Job Cost: \$691.49  
 Total Job Cost: \$3,177  
 Job Hours: 6.50



## BULLDOZER RIPPING WORK

Task description: Central Reclaim- Rip Compacted Areas

Site: Hertzog Pit Permit Action: TR-3 Permit/Job#: M1981276

### PROJECT IDENTIFICATION

Task #: 03A State: Colorado Abbreviation: None  
Date: 2/25/2019 County: Moffat Filename: M276-03a  
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:	<u>\$93.62</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$73.35</u>	<u>100</u>
Ripper Ownership Cost/Hour:	<u>\$8.93</u>	<u>NA</u>
Ripper Operating Cost/Hour:	<u>\$7.78</u>	<u>100</u>
Operator Cost/Hour:	<u>\$41.52</u>	<u>NA</u>
Total Unit Cost/Hour:	<u>\$225.20</u>	
Total Fleet Cost/Hour:	<u>\$225.20</u>	

### MATERIAL QUANTITIES

Selected estimating method: Area

#### Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA  
Area: 3.00 acres Rip Depth (ft): 2.00 Volume: 9,680 BCY or CCY

Source of estimated quantity: TR-3 map and staff estimate

### HOURLY PRODUCTION

#### Seismic:

Seismic Velocity: NA feet/second

#### Area:

Average Ripping Depth:	<u>2.00</u>	<u>mph</u>
Average Ripping Width:	<u>7.08</u>	<u>degrees</u>
Average Ripping Length:	<u>200.00</u>	<u>feet</u>
Average Dozer Speed:	<u>88.00</u>	<u>feet</u>
Average Maneuver Time:	<u>0.25</u>	<u>feet</u>
Production per unit area:	<u>0.773</u>	<u>acres/hour</u>

#### Job Condition Correction Factors

Unadjusted Hourly Unit Production:	<u>0.773</u>	<u>Acres/hr</u>
Site Altitude:	<u>6,000</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:	<u>0.64</u>	<u>Acres/hr</u>
Adjusted Hourly Fleet Production:	<u>0.64</u>	<u>Acres/hr</u>

### JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 4.68 Hours

Unit cost: \$350.941 Per acre Total job cost: \$1,053

**WHEEL LOADER – LOAD AND CARRY WORK**Task description: **Central Reclaim Area-Transport Topsoil**Site: **Hertzog Pit**Permit Action: **TR-3**Permit/Job#: **M1981276****PROJECT IDENTIFICATION**Task #: **03B**State: **Colorado**Abbreviation: **None**Date: **2/25/2019**County: **Moffat**Filename: **M276-03b**User: **ACY**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **CAT 950H**Horsepower: **197**Attachment 1: **ROPS Cab**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		Utilization %
Ownership Cost/Hour:	\$26.14	NA
Operating Cost/Hour:	\$30.84	100
Operator Cost/Hour:	\$40.90	NA
Total Unit Cost/Hour:	\$97.89	
Total Fleet Cost/Hour:	\$195.78	

**MATERIAL QUANTITIES**Initial volume: **2,420**

CCY

Swell factor: **1.125**Loose volume: **2,723**

LCY

Source of estimated volume: **6" depth over 3 ac**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Loader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): **0.500** 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 Basic Cycle Time:		0.430	minutes

**Rolling Resistance – Road Conditions**Haul: **Soft, rutted dirt, no maintenance or water, 4" tire penetration 8.0**Return: **Soft, rutted dirt, no maintenance or water, 4" tire penetration 8.0****Haul and Return Time**

	Length (feet)	Grade Res. (%)	Rolling Res. (%)	Total Res. (%)	Travel Time (minutes)	Source
Haul Route:	300	0.00	8.00	8.00	0.3479	(Cat HB)
Return Route:	300	0.00	8.00	8.00	0.3155	(Cat HB)

Total Travel Time: 0.6635 minutes  
 Total Cycle Time: 1.0935 minutes

Load Bucket Capacity

Rated Capacity: 4.30 LCY (heaped)  
 Bucket Fill Factor: 1.100 Other - rock/dirt mixtures (100-120%) 1.100  
 Adjusted Capacity: 4.73 LCY

Job Condition Correction FactorsSite Altitude: 6000 feet

		Source
Altitude Adj:	<u>1.00</u>	(CAT HB)
Job Efficiency:	<u>0.83</u>	(1 shift/day)
Net Correction:	<u>0.83</u>	multiplier

Unadjusted Hourly Unit Production: 259.54 LCY/Hour  
 Adjusted Hourly Unit Production: 215.42 LCY/Hour  
 Adjusted Hourly Fleet Production: 430.84 LCY/Hour

JOB TIME AND COST

Fleet size: 2 Loader(s) Total job time: 6.32 Hours  
 Unit cost: \$0.454 /LCY Total job cost: \$1,237

**BULLDOZER WORK**Task description: Central Reclaim Area-Spread Transported TopsoilSite: Hertzog PitPermit Action: TR-3Permit/Job#: M1981276**PROJECT IDENTIFICATION**Task #: 03CState: ColoradoAbbreviation: NoneDate: 2/25/2019County: MoffatFilename: M276-03cUser: ACYAgency 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:	\$93.62	NA
Operating Cost/Hour:	\$73.35	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.52	NA

Total unit Cost/Hour: \$208.49Total Fleet Cost/Hour: \$208.49**MATERIAL QUANTITIES**Initial Volume: 2,420Swell factor: 1.000Loose volume: 2,420 LCYSource of estimated volume: 6" over 3 acSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feetUnadjusted hourly production: 1,400.0 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: 0 %Average site altitude: 6,000 feetMaterial weight: 2,550 lbs/LCYWeight description: Earth - Dry packed**Job Condition Correction Factor**

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

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5390

Adjusted unit production: 754.60 LCY/hr

Adjusted fleet production: 754.6 LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)

Unit cost: \$0.276/LCY

Total job time: 3.21 Hours

Total job cost: \$669

**REVEGETATION WORK**Task description: Central Reclaim Area- Seeding 3 acSite: Hertzog PitPermit Action: TR-3Permit/Job#: M1981276**PROJECT IDENTIFICATION**Task #: 03DState: ColoradoAbbreviation: NoneDate: 2/25/2019County: MoffatFilename: M276-03dUser: ACYAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
0-20-20, 4-8-12, 10-10-10	20.00	pound	\$0.21	\$4.20
			<b>Total Fertilizer Materials Cost/Acre</b>	<b>\$4.20</b>

**Application**

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	\$34.72
<b>Total Fertilizer Application Cost/Acre</b>	<b>\$34.72</b>

**TILLING**

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$106.29
<b>Total Tilling Cost/Acre</b>	<b>\$106.29</b>

**SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Bluebunch Wheatgrass - Secar	1.50	4.82	\$11.78
Crested Wheatgrass - Standard	4.80	22.04	\$18.43
Smooth Brome - Manchar	1.25	4.16	\$5.45
Intermediate Wheatgrass - Rush	3.75	8.01	\$14.40
Pubescent Wheatgrass - Luna	3.50	7.23	\$14.60
<b>Totals Seed Mix</b>	<b>14.80</b>	<b>46.26</b>	<b>\$64.65</b>

**Application**

Description	Cost /Acre
-------------	------------

Drill Seeding (DRMS Survey Cost)	\$232.00
<b>Total Seed Application Cost/Acre</b>	<b>\$232.00</b>

**MULCHING and MISCELLANEOUS****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - 2,4D @ 1.0 pt/ac	1.00	ACRE	\$2.81	\$2.81
<b>Total Mulch Materials Cost/Acre</b>				<b>\$2.81</b>

**Application**

Description	Cost /Acre
Weed spray, truck, non-aquatic area, nox. [DMG]	\$73.22
<b>Total Mulch Application Cost/Acre</b>	<b>\$73.22</b>

**NURSERY STOCK PLANTING**

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

**JOB TIME AND COST**

No. of Acres: 3 Cost /Acre: \$517.89  
 Estimated Failure Rate: 35% Cost /Acre\*: \$411.60  
 \*Selected Replanting Work Items: FERTILIZING,SEEDING,MULCHING  
 Initial Job Cost: \$1,553.67  
 Reseeding Job Cost: \$432.18  
 Total Job Cost: \$1,986  
 Job Hours: 3.50

**BULLDOZER WORK**Task description: East 15 ac Max-Grade HighwallSite: Hertzog PitPermit Action: TR-3Permit/Job#: M1981276**PROJECT IDENTIFICATION**Task #: 04AState: ColoradoAbbreviation: NoneDate: 2/25/2019County: MoffatFilename: M276-04aUser: ACYAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D8T - 8SUHorsepower: 310Blade Type: Semi-UniversalAttachment: 3-shank ripperShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$93.62	NA
Operating Cost/Hour:	\$73.35	100
Ripper own. Cost/Hour:	\$8.93	NA
Ripper op. Cost/Hour:	\$2.33	30
Operator Cost/Hour:	\$41.52	NA

Total unit Cost/Hour: \$219.75Total Fleet Cost/Hour: \$219.75**MATERIAL QUANTITIES**Initial Volume: 623Swell factor: 1.124Loose volume: 700 LCYSource of estimated volume: 200 LF @ 15' H vertical to 3:1 cut fillSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feetUnadjusted hourly production: 1,400.0 LCY/hrMaterials consistency description: Compacted fill or embankment 0.9Average push gradient: 0 %Average site altitude: 6,000 feetMaterial weight: 2,900 lbs/LCYWeight 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	(SSD-AC)
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: 497.56 LCY/hr  
Adjusted fleet production: **497.56** LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)  
Unit cost: \$0.442/LCY

Total job time: 1.41 Hours  
Total job cost: **\$309**

## BULLDOZER RIPPING WORK

Task description: East 15 ac Max - Rip Compacted Areas

Site: Hertzog Pit Permit Action: TR-3 Permit/Job#: M1981276

### PROJECT IDENTIFICATION

Task #: 05A State: Colorado Abbreviation: None  
Date: 2/25/2019 County: Moffat Filename: M276-05a  
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:	<u>\$93.62</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$73.35</u>	<u>100</u>
Ripper Ownership Cost/Hour:	<u>\$8.93</u>	<u>NA</u>
Ripper Operating Cost/Hour:	<u>\$7.78</u>	<u>100</u>
Operator Cost/Hour:	<u>\$41.52</u>	<u>NA</u>
Total Unit Cost/Hour:	<u>\$225.20</u>	
Total Fleet Cost/Hour:	<u>\$225.20</u>	

### MATERIAL QUANTITIES

Selected estimating method: Area

#### Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA  
Area: 3.00 acres Rip Depth (ft): 2.00 Volume: 9,680 BCY or CCY

Source of estimated quantity: TR-3 map and staff estimate

### HOURLY PRODUCTION

#### Seismic:

Seismic Velocity: NA feet/second

#### Area:

Average Ripping Depth:	<u>2.00</u>	<u>mph</u>
Average Ripping Width:	<u>7.08</u>	<u>degrees</u>
Average Ripping Length:	<u>200.00</u>	<u>feet</u>
Average Dozer Speed:	<u>88.00</u>	<u>feet</u>
Average Maneuver Time:	<u>0.25</u>	<u>feet</u>
Production per unit area:	<u>0.773</u>	<u>acres/hour</u>

#### Job Condition Correction Factors

Unadjusted Hourly Unit Production:	<u>0.773</u>	<u>Acres/hr</u>
Site Altitude:	<u>6,000</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:	<u>0.64</u>	<u>Acres/hr</u>
Adjusted Hourly Fleet Production:	<u>0.64</u>	<u>Acres/hr</u>

### JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 4.68 Hours  
Unit cost: \$350.941 Per acre Total job cost: \$1,053

**WHEEL LOADER – LOAD AND CARRY WORK**Task description: East 15 ac Max-Transport overburden stockpileSite: Hertzog PitPermit Action: TR-3Permit/Job#: M1981276**PROJECT IDENTIFICATION**Task #: 06AState: ColoradoAbbreviation: NoneDate: 2/25/2019County: MoffatFilename: M276-06aUser: ACYAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: CAT 950HHorsepower: 197Attachment 1: ROPS CabShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		Utilization %
Ownership Cost/Hour:	\$26.14	NA
Operating Cost/Hour:	\$30.84	100
Operator Cost/Hour:	\$40.90	NA
Total Unit Cost/Hour:	\$97.89	
Total Fleet Cost/Hour:	\$195.78	

**MATERIAL QUANTITIES**Initial volume: 5,000

CCY

Swell factor: 1.060Loose volume: 5,300

LCY

Source of estimated volume: TR-3Source of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Loader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.500 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 Basic Cycle Time:		0.430	minutes

**Rolling Resistance – Road Conditions**Haul: Soft, rutted dirt, no maintenance or water, 4" tire penetration 8.0Return: Soft, rutted dirt, no maintenance or water, 4" tire penetration 8.0**Haul and Return Time**

	Length (feet)	Grade Res. (%)	Rolling Res. (%)	Total Res. (%)	Travel Time (minutes)	Source
Haul Route:	300	0.00	8.00	8.00	0.3479	(Cat HB)
Return Route:	300	0.00	8.00	8.00	0.3155	(Cat HB)

Total Travel Time: 0.6635 minutes  
 Total Cycle Time: 1.0935 minutes

Load Bucket Capacity

Rated Capacity: 4.30 LCY (heaped)  
 Bucket Fill Factor: 1.100 Other - rock/dirt mixtures (100-120%) 1.100  
 Adjusted Capacity: 4.73 LCY

Job Condition Correction Factors

Site Altitude: 6000 feet

		Source
Altitude Adj:	<u>1.00</u>	(CAT HB)
Job Efficiency:	<u>0.83</u>	(1 shift/day)
Net Correction:	<u>0.83</u>	multiplier

Unadjusted Hourly Unit Production: 259.54 LCY/Hour  
 Adjusted Hourly Unit Production: 215.42 LCY/Hour  
 Adjusted Hourly Fleet Production: 430.84 LCY/Hour

JOB TIME AND COST

Fleet size: 2 Loader(s) Total job time: 12.30 Hours  
 Unit cost: \$0.454 /LCY Total job cost: \$2,408

**BULLDOZER WORK**Task description: East 15 ac Max-Spread Transported OverburdenSite: Hertzog PitPermit Action: TR-3Permit/Job#: M1981276**PROJECT IDENTIFICATION**Task #: 06BState: ColoradoAbbreviation: NoneDate: 2/25/2019County: MoffatFilename: M276-06bUser: ACYAgency 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:	\$93.62	NA
Operating Cost/Hour:	\$73.35	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.52	NA

Total unit Cost/Hour: \$208.49Total Fleet Cost/Hour: \$208.49**MATERIAL QUANTITIES**Initial Volume: 5,000Swell factor: 1.000Loose volume: 5,000 LCYSource of estimated volume: TR-3Source of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feetUnadjusted hourly production: 1,400.0 LCY/hrMaterials consistency description: Consolidated stockpile 1.0Average push gradient: 0 %Average site altitude: 6,000 feetMaterial weight: 2,900 lbs/LCYWeight description: Sand and gravel - Dry**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:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3949

Adjusted unit production: 552.86 LCY/hr

Adjusted fleet production: **552.86** LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)

Unit cost: \$0.377/LCY

Total job time: 9.04 Hours

Total job cost: **\$1,886**

**WHEEL LOADER – LOAD AND CARRY WORK**Task description: East 15 ac Max-Transport TopsoilSite: Hertzog PitPermit Action: TR-3Permit/Job#: M1981276**PROJECT IDENTIFICATION**Task #: 07A  
Date: 2/25/2019  
User: ACYState: Colorado  
County: MoffatAbbreviation: None  
Filename: M276-07aAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: CAT 950H  
Attachment 1: ROPS CabHorsepower: 197  
Shift Basis: 1 per day  
Data Source: (CRG)**Cost Breakdown:**

		Utilization %
Ownership Cost/Hour:	\$26.14	NA
Operating Cost/Hour:	\$30.84	100
Operator Cost/Hour:	\$40.90	NA
Total Unit Cost/Hour:	\$97.89	
Total Fleet Cost/Hour:	\$195.78	

**MATERIAL QUANTITIES**Initial volume: 12,100 CCY      Swell factor: 1.125  
Loose volume: 13,613 LCYSource of estimated volume: 6" depth over 15 ac  
Source of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Loader Cycle Time:      Unadjusted Basic Cycle Time (load, dump, maneuver): 0.500 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 Basic Cycle Time:		0.430	minutes

**Rolling Resistance – Road Conditions**Haul: Soft, rutted dirt, no maintenance or water, 4" tire penetration 8.0  
Return: Soft, rutted dirt, no maintenance or water, 4" tire penetration 8.0**Haul and Return Time**

	Length (feet)	Grade Res. (%)	Rolling Res. (%)	Total Res. (%)	Travel Time (minutes)	Source
Haul Route:	300	0.00	8.00	8.00	0.3479	(Cat HB)
Return Route:	300	0.00	8.00	8.00	0.3155	(Cat HB)

Total Travel Time: 0.6635 minutes  
 Total Cycle Time: 1.0935 minutes

Load Bucket Capacity

Rated Capacity: 4.30 LCY (heaped)  
 Bucket Fill Factor: 1.100 Other - rock/dirt mixtures (100-120%) 1.100  
 Adjusted Capacity: 4.73 LCY

Job Condition Correction Factors

Site Altitude: 6000 feet

		Source
Altitude Adj:	<u>1.00</u>	(CAT HB)
Job Efficiency:	<u>0.83</u>	(1 shift/day)
Net Correction:	<u>0.83</u>	multiplier

Unadjusted Hourly Unit Production: 259.54 LCY/Hour  
 Adjusted Hourly Unit Production: 215.42 LCY/Hour  
 Adjusted Hourly Fleet Production: 430.84 LCY/Hour

JOB TIME AND COST

Fleet size: 2 Loader(s) Total job time: 31.60 Hours  
 Unit cost: \$0.454 /LCY Total job cost: \$6,186



**BULLDOZER WORK**Task description: East 15 ac Max-Spread Transported TopsoilSite: Hertzog PitPermit Action: TR-3Permit/Job#: M1981276**PROJECT IDENTIFICATION**Task #: 07BState: ColoradoAbbreviation: NoneDate: 2/25/2019County: MoffatFilename: M276-07bUser: ACYAgency 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:	\$93.62	NA
Operating Cost/Hour:	\$73.35	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.52	NA

Total unit Cost/Hour: \$208.49Total Fleet Cost/Hour: \$208.49**MATERIAL QUANTITIES**Initial Volume: 12,100Swell factor: 1.000Loose volume: 12,100 LCYSource of estimated volume: 6" over 15 acSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feetUnadjusted hourly production: 1,400.0 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: 0 %Average site altitude: 6,000 feetMaterial weight: 2,550 lbs/LCYWeight description: Earth - Dry packed**Job Condition Correction Factor**

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

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5390

Adjusted unit production: 754.60 LCY/hr

Adjusted fleet production: 754.6 LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)

Unit cost: \$0.276/LCY

Total job time: 16.03 Hours

Total job cost: \$3,343

**REVEGETATION WORK**Task description: East 15 ac Max-SeedingSite: Hertzog PitPermit Action: TR-3Permit/Job#: M1981276**PROJECT IDENTIFICATION**Task #: 07CState: ColoradoAbbreviation: NoneDate: 2/25/2019County: MoffatFilename: M276-07cUser: ACYAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
0-20-20, 4-8-12, 10-10-10	20.00	pound	\$0.21	\$4.20
			<b>Total Fertilizer Materials Cost/Acre</b>	<b>\$4.20</b>

**Application**

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	\$34.72
<b>Total Fertilizer Application Cost/Acre</b>	<b>\$34.72</b>

**TILLING**

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$106.29
<b>Total Tilling Cost/Acre</b>	<b>\$106.29</b>

**SEEDING**

Seed Mix	Rate - PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Bluebunch Wheatgrass - Secar	1.50	4.82	\$11.78
Crested Wheatgrass - Standard	4.80	22.04	\$18.43
Smooth Brome - Manchar	1.25	4.16	\$5.45
Intermediate Wheatgrass - Rush	3.75	8.01	\$14.40
Pubescent Wheatgrass - Luna	3.50	7.23	\$14.60
<b>Totals Seed Mix</b>	<b>14.80</b>	<b>46.26</b>	<b>\$64.65</b>

**Application**

Description	Cost /Acre
-------------	------------

Drill Seeding (DRMS Survey Cost)	\$232.00
<b>Total Seed Application Cost/Acre</b>	<b>\$232.00</b>

**MULCHING and MISCELLANEOUS****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - 2,4D @ 1.0 pt/ac	1.00	ACRE	\$2.81	\$2.81
<b>Total Mulch Materials Cost/Acre</b>				<b>\$2.81</b>

**Application**

Description	Cost /Acre
Weed spray, truck, non-aquatic area, nox. [DMG]	\$73.22
<b>Total Mulch Application Cost/Acre</b>	<b>\$73.22</b>

**NURSERY STOCK PLANTING**

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

**JOB TIME AND COST**

No. of Acres:	15	Cost /Acre:	\$517.89
Estimated Failure Rate:	35%	Cost /Acre*:	\$411.60
*Selected Replanting Work Items:	FERTILIZING,SEEDING,MULCHING		
Initial Job Cost:	\$7,768.35		
Reseeding Job Cost:	\$2,160.90		
Total Job Cost:	\$9,929		
Job Hours:	20.50		

**EQUIPMENT MOBILIZATION/DEMOBILIZATION**Task description: **Initial Mobilization**Site: **Hertzog Pit**Permit Action: **TR-3**Permit/Job#: **M1981276****PROJECT IDENTIFICATION**Task #: **08A**State: **Colorado**Abbreviation: **None**Date: **2/25/2019**County: **Moffat**Filename: **M276-08a**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:	\$16.63	\$18.37	\$22.33
Operating Cost/Hour:	\$44.38	\$46.13	\$50.07
Operator Cost/Hour:	\$27.66	\$27.66	\$27.66
Helper Cost/Hour:	\$0.00	\$25.39	\$25.39
Total Unit Cost/Hour:	\$88.67	\$117.55	\$125.45

**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 950H	20.13	\$26.14	\$88.67	2	\$229.62	\$177.34	\$250.00
Cat D8T - 8SU	53.08	\$102.55	\$125.45	1	\$228.00	\$125.45	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$15.54	\$88.67	1	\$104.21	\$88.67	\$250.00

Subtotals: **\$561.83** **\$391.46** **\$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, 1 T. Crew	\$47.19	1	\$47.19	\$47.19

Subtotals: **\$47.19** **\$47.19**

**EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region:	<u>CRAIG, CO</u>	
Total one-way travel distance:	<u>30.00</u>	miles
Average Travel Speed:	<u>50.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$3,767.61</u>
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$56.63</u>
** one round trip, no haul rig:	

**Transportation Cycle Time:**

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>0.60</u>	<u>0.60</u>
Return Time (Hours):	<u>0.60</u>	<u>0.60</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>2.20</u>	<u>1.20</u>

**JOB TIME AND COST**

Total job time:	<u>4.40</u>	Hours
Total job cost:	<u>\$3,824</u>	

**EQUIPMENT MOBILIZATION/DEMOBILIZATION**Task description: **Secondary Mobilization**Site: **Hertzog Pit**Permit Action: **TR-3**Permit/Job#: **M1981276****PROJECT IDENTIFICATION**Task #: **08B**State: **Colorado**Abbreviation: **None**Date: **2/25/2019**County: **Moffat**Filename: **M276-08b**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:	\$16.63	\$18.37	\$22.33
Operating Cost/Hour:	\$44.38	\$46.13	\$50.07
Operator Cost/Hour:	\$27.66	\$27.66	\$27.66
Helper Cost/Hour:	\$0.00	\$25.39	\$25.39
Total Unit Cost/Hour:	\$88.67	\$117.55	\$125.45

**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	\$15.54	\$88.67	1	\$104.21	\$88.67	\$250.00

Subtotals: **\$104.21** **\$88.67** **\$250.00****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	\$47.19	1	\$47.19	\$47.19

Subtotals: **\$47.19** **\$47.19**

**EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region:	<u>CRAIG, CO</u>	
Total one-way travel distance:	<u>30.00</u>	miles
Average Travel Speed:	<u>50.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$939.88</u>
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$56.63</u>
** one round trip, no haul rig:	

**Transportation Cycle Time:**

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.60	0.60
Return Time (Hours):	0.60	0.60
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	2.20	1.20

**JOB TIME AND COST**

Total job time:	<u>4.40</u>	Hours
Total job cost:	<u>\$997</u>	