



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

1313 Sherman Street, Room 215  
Denver, CO 80203

September 22, 2021

Brian Briggs  
Ouray Silver Mines, Inc.  
P.O. Box 564  
1900 Main Street, Suite 1  
Ouray, CO 81427

**RE: Revenue Mine, Permit No. M-2012-032, Technical Revision (TR-16 ) Approval**

Dear Mr. Briggs:

On October 23, 2019 the Division of Reclamation, Mining, and Safety (Division) approved the Technical Revision request (TR-4) submitted on July 26, 2019, addressing the following:

*Addition of surface facilities including:*

1. *Two equipment storage warehouses*
2. *Security Shack*
3. *Two temporary lineout buildings*
4. *Vehicle wash-down area*
5. *Two temporary Gen Sets*

The terms of the TR-4 approved by the Division are hereby incorporated into Permit No. M-1977-098. All other conditions and requirements of the permit remain in full force and effect.

The estimated liability amount of \$517,219.00 exceeds the \$ 476,269.41 Financial Warranty currently held for this site. If you have not already done so, please submit additional bond in the amount of \$ 40949.59. 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.

Pursuant to Hard Rock and Metals Mining Rule 4.2.1(2) The Operator has 60 days from the date of this notice to submit the required Financial Warranty. The additional amount or replacement warranty for a total Financial Warranty of \$517,219.00 must be received no later than Monday November 22, 2021. Please note that no facilities approved under this Technical Revision may be installed until the Financial Warranty is received and accepted.

If you require additional information, or have questions or concerns, please feel free to contact me. Lucas West at the Division of Reclamation, Mining and Safety, 1313 Sherman St., Room 215, Denver, CO 80203. Direct contact can be made by phone at 303-866-3567 Ext 8187 or via email at [lucas.west@state.co.us](mailto:lucas.west@state.co.us).



Sincerely,



**Lucas West**

Environmental Protection Specialist

Cc: Travis Marshall, Senior EPS, Grand Junction DRMS  
Amy Yeldell, Environmental Protection Specialist

Ec: Todd Jesse, OSMI Inc.  
Michelle Robbins, OSMI Inc.

## COST SUMMARY WORK

Task description: TR-16 Update of Buildings Cost

Site: Revenue Mine

Permit Action: TR-16

Permit/Job#: M2012032

### PROJECT IDENTIFICATION

Task #: ACY

State: Colorado

Abbreviation: None

Date: 9/2/2021

County: Ouray

Filename: M32-000

User: ACY

Agency or organization name: DRMS

### TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
<b>Site Clean-up</b>					
01a	Removal of Permanent Structures and Surface Debris	DEMOLISH	1	180.00	\$98,565
01b	Disposal of Chemicals-Per TR-14	DEMOLISH	1	16.00	\$4,928
<b>Portal Closure</b>					
02a	Contour portal backfill areas	DOZER	1	21.99	\$6,790
02b	Reinforce gate at Revenue Portal	MINESEAL	1	40.00	\$3,000
<b>Vent Shafts</b>					
03a	Shaft foundation and structure removal	DEMOLISH	1	80.00	\$32,054
03b	Vent Shaft Closure-Cut Casing	BOREHOLE	1	10.00	\$204
03c	Vent Shaft Closure-Place Seal	MINESEAL	1	72.00	\$5,365
03d	Vent Shaft Closure- Excavate & Bury	EXCAVATE	1	2.47	\$482
<b>Grading</b>					
04a	Minor site grading	DOZER	1	8.31	\$2,565
<b>Topsoil/Caprock</b>					
05a	Import Topsoil-Purchase and Delivery	NA	1	250.00	\$176,000
05b	Spread Topsoil on TSF	DOZER	1	7.33	\$2,262
05c	Transport caprock for Atlas TSF	TRUCK1	1	17.02	\$8,715
05d	Spread Caprock on TSF	DOZER	1	28.16	\$8,694
<b>Revegetation</b>					
06a	Reveg TSF	REVEGE	1	30.00	\$7,245
06b	Reveg Vent Shafts	REVEGE	1	10.00	\$4,394
<b>Equipment Mobilization</b>					
07a	Initial Mobilization	MOBILIZE	1	11.14	\$16,140
07b	Walk equipment to Governors Basin	MOBILIZE	1	18.66	\$4,469
07c	Secondary Mobilization	MOBILIZE	1	7.14	\$1,708
<b><u>SUBTOTALS:</u></b>				<b>810.22</b>	<b>\$383,580</b>

**INDIRECT COSTS****OVERHEAD AND PROFIT:**

Liability insurance:	2.02	Total =	\$7,748
Performance bond:	1.05	Total =	\$4,028
Job superintendent:	405.11	Total =	\$29,180
Profit:	10.00	Total =	\$38,358
		TOTAL O & P =	\$79,314
		CONTRACT AMOUNT (direct + O & P) =	\$462,894

**LEGAL - ENGINEERING - PROJECT MANAGEMENT:**

Financial warranty processing (legal/related costs):	\$0	Total =	\$0
Engineering work and/or contract/bid preparation:	4.25	Total =	\$19,673
Reclamation management and/or administration:	5.00		\$23,145

CONTINGENCY:	3.00	Total =	\$11,507
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TOTAL INDIRECT COST =	\$133,639
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<b>TOTAL BOND AMOUNT (direct + indirect) =</b>	<b>\$517,219</b>
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## DEMOLITION WORK

Task description: Removal of Permanent Structures and Surface Debris

Site: Revenue Mine

Permit Action: TR-16

Permit/Job#: M2012032

### PROJECT IDENTIFICATION

Task #: 01A

State: Colorado

Abbreviation: None

Date: 9/2/2021 9:54:42

County: Ouray

Filename: M032-01a

AM

User: ACY

Agency or organization name: DRMS

### UNIT COSTS

Location adjustment: 87.60 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Remove Diesel Storage Tank	10,000 gal	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	2.00	EA	\$760.00	\$1,520.00
Diesel Filling Station	TR-11 PAR Pg. 25	USER PROVIDED ITEM	1.00	EA	\$500.00	\$500.00
Administration Bldg- Internal Contents Only	TR-11 Table L-2	USER PROVIDED ITEM	1.00	EA	\$3,600.00	\$3,600.00
Air Compressor Bldg-Internal Contents Only	TR-11 Table L-2	USER PROVIDED ITEM	1.00	EA	\$2,000.00	\$2,000.00
Propane Storage Bldg A	TR-1 PAR pg. 25	USER PROVIDED ITEM	1.00	EA	\$750.00	\$750.00
Propane Storage Bldg C	TR-11 PAR pg. 25	USER PROVIDED ITEM	1.00	EA	\$750.00	\$750.00
Vent Fan	TR-11 PAR pg. 25	USER PROVIDED ITEM	1.00	EA	\$500.00	\$500.00
Rail Yard Track & Ties	TR-11 PAR pg.25	Railroad track - Ties and track	400.00	LF	\$9.98	\$3,992.00
Rail Yard & Battery Charging Bldg- Contents Only	TR-13	USER PROVIDED ITEM	1.00	EA	\$2,000.00	\$2,000.00
Underground Warehouse and Shop	TR-11 PAR pg.25	USER PROVIDED ITEM	1.00	EA	\$500.00	\$500.00
Concentrator & Filter Bldg- Internal Contents Only	DRMS	USER PROVIDED ITEM	1.00	EA	\$16,000.00	\$16,000.00
Waste Storage Pad & Secondary Containment	TR-11 PAR pg.25	USER PROVIDED ITEM	1.00	EA	\$4,000.00	\$4,000.00
Tailings Thickener - Tank Cut Up	TR-11 PAR pg.25	USER PROVIDED ITEM	1.00	EA	\$5,000.00	\$5,000.00
Tailings Thickener- Cement Pad and Piping	TR-11 PAR pg. 25	USER PROVIDED ITEM	1.00	EA	\$23,011.20	\$23,011.20
Crusher & Retaining Wall	TR-11 PAR pg. 25	USER PROVIDED ITEM	1.00	EA	\$4,000.00	\$4,000.00
Portal Cover Structure	TR-11 PAR pg.25	USER PROVIDED ITEM	1.00	EA	\$4,080.00	\$4,080.00
Half-Culvert	TR-11 PAR Table L-1	USER PROVIDED ITEM	1.00	EA	\$7,840.00	\$7,840.00
Water Tanks	TR-11 PAR pg.25	USER PROVIDED ITEM	4.00	EA	\$150.00	\$600.00

Misc Debris-Disposal	TR-11 PAR pg.25	Dump fees - Building construction materials.	150.00	CY	\$11.10	\$1,665.00
Misc Debris- Transport	TR-11 PAR pg. 25	Hauling only, per mile, 12-18 CY truck - 30 mph average speed	390.00	MI	\$7.61	\$2,967.90
2x Equipment Storage Shed- Building Demo	TR-16	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 200 ft. push	114,000.00	CF	\$0.20	\$22,914.00
2x Equipment Storage Shed-Footers	TR-16	Demo. and on-site disposal in existing pit, 1.5 ft. x 2 ft. - Max. 200 ft. push	68.00	LF	\$6.05	\$411.40
Security Building- Load and transport	TR-16	Hauling only, per mile, 12-18 CY truck - 30 mph average speed	53.00	MI	\$7.61	\$403.33
Equipment Wash Area-Slab	TR-16	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 200 ft. push	490.00	SF	\$1.01	\$493.92
Equipment Wash Area-curbing	TR-16	Demo. and on-site disposal in existing pit, 1.0 ft. x 2 ft. - Max. 50 ft. push	120.00	LF	\$3.90	\$468.00
Remove Diesel Storage Tank- Generator	TR-16	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	1.00	EA	\$1,050.00	\$1,050.00
Materials Storage Connex	TR-11 PAR pg. 25	USER PROVIDED ITEM	3.00	EA	\$500.00	\$1,500.00

Job Hours: 180.00Subtotal  
(unadjusted): \$112,516.75Total Cost  
(adjusted for  
location): \$98,564.67

## DEMOLITION WORK

Task description: Disposal of Chemicals-Per TR-14

Site: Revenue Mine

Permit Action: TR-16

Permit/Job#: M2012032

### PROJECT IDENTIFICATION

Task #: 01B

State: Colorado

Abbreviation: None

Date: 9/2/2021 9:59:16

County: Ouray

Filename: M032-01b

AM

User: ACY

Agency or organization name: DRMS

### UNIT COSTS

Location adjustment: 87.60 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Lime	2x 1800 lb Super Sacks	Dump fees - Reclamation station, usual charge	2.00	CY	\$11.10	\$22.20
Xanthate (Nax, Flottec SIPX Collector)	4x 50 lb bags	Hazardous waste removal - Bulk solids, small quantities (up to 1.5 tons)	0.10	TON	\$2,608.20	\$260.82
MIBC (OrePrep F-549, Polyfroth W20)	2x 55 gal drum	Hazardous waste removal - Drum solids/liquids, per drum, (1-6 drum job)	2.00	DRUM	\$680.65	\$1,361.30
Aerophine 3418A	1x 55 gal drum	Hazardous waste removal - Drum solids/liquids, per drum, (1-6 drum job)	1.00	DRUM	\$680.65	\$680.65
Sodium Metabisulfate	10x 50 lb bags	Hazardous waste removal - Bulk solids, small quantities (up to 1.5 tons)	0.25	TON	\$2,608.20	\$652.05
Copper Sulfate	10x 50 lb bags	Hazardous waste removal - Bulk solids, small quantities (up to 1.5 tons)	0.25	TON	\$2,608.20	\$652.05
AeroFloat 242 (DanaFloat 067)	1x 55 gal drum	Hazardous waste removal - Drum solids/liquids, per drum, (1-6 drum job)	1.00	DRUM	\$680.65	\$680.65
Zinc Sulfate	10x 50 lb bags	Hazardous waste removal - Bulk solids, small quantities (up to 1.5 tons)	0.25	TON	\$2,608.20	\$652.05
Hyperfloc AF-309	4x 50lb bags	Hazardous waste removal - Bulk solids, small quantities (up to 1.5 tons)	0.10	TON	\$2,608.20	\$260.82
Transportation-Lime	2 CY	Hauling only, per mile, 12-18 CY truck - 30 mph average speed	53.00	MI	\$7.61	\$403.33

Job Hours: 16.00

Subtotal  
(unadjusted): \$5,625.92

Total Cost  
(adjusted for location): \$4,928.31

**BULLDOZER WORK**Task description: Contour portal backfill areasSite: Revenue MinePermit Action: TR-16Permit/Job#: M2012032**PROJECT IDENTIFICATION**Task #: 02AState: ColoradoAbbreviation: NoneDate: 9/2/2021County: OurayFilename: M032-02a10:00:51 AMUser: ACYAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D9T - 9SUHorsepower: 405Blade Type: Semi-UniversalAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$126.01	NA
Operating Cost/Hour:	\$141.41	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: \$308.72Total Fleet Cost/Hour: \$308.72**MATERIAL QUANTITIES**Initial Volume: 3,328Swell factor: 1.165Loose volume: 3,877 LCYSource of estimated volume: TR-11 inputsSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 235 feetUnadjusted hourly production: 588.4 LCY/hrMaterials consistency description: Rock, well ripped or blasted 0.8Average push gradient: 5 %Average site altitude: 10,650 feetMaterial weight: 2,900 lbs/LCYWeight description: Decomposed rock - 50% Rock, 50% Earth**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.900	(AB.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:	0.700	(FND-MF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.2996

Adjusted unit production: 176.28 LCY/hr

Adjusted fleet production: **176.28** LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)

Unit cost: \$1.751/LCY

Total job time: **21.99** Hours

Total job cost: **\$6,790**

## SAFEGUARDING UNDERGROUND OPENINGS

Task description: Reinforce gate at Revenue Portal

Site: Revenue Mine

Permit Action: TR-16

Permit/Job#: M2012032

### PROJECT IDENTIFICATION

Task #: 02B

State: Colorado

Abbreviation: None

Date: 9/2/2021 10:01:52

County: Ouray

Filename: M032-02b

AM

User: ACY

Agency or organization name: DRMS

### UNIT COSTS

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Revenue Gate	TR-11 PAR Table L-1	USER PROVIDED ITEM	1.00	EA	\$3,000.00	\$3,000.00

Job Hours: 40.00

Total Cost: \$3,000.00

## DEMOLITION WORK

Task description: Shaft foundation and structure removal

Site: Revenue Mine

Permit Action: TR-16

Permit/Job#: M2012032

### PROJECT IDENTIFICATION

Task #: 03A

State: Colorado

Abbreviation: None

Date: 9/2/2021 10:49:43

County: Ouray

Filename: M032-03a

AM

User: ACY

Agency or organization name: DRMS

### UNIT COSTS

Location adjustment: 87.60 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
960 Raise Shaft-Superstructure & foundation	TR-11 PAR Demo	USER PROVIDED ITEM	1.00	EA	\$14,333.33	\$14,333.33
Yellow Rose Shaft-Superstructure & foundation	TR-11 PAR Demo	USER PROVIDED ITEM	1.00	EA	\$14,333.33	\$14,333.33
Monongahela Shaft/Hoist Foundation	TR-11 PAR	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	144.00	SF	\$1.95	\$280.94
Monongahela Shaft/Hoist-Superstructure	TR-11 PAR	Plant (1S) demo./on-site disposal in existing pit or cut - Max. 50 ft. push	2,304.00	CF	\$0.29	\$677.38
Monongahela- Lift house	TR-11 PAR	Plant (1S) demo./on-site disposal in existing pit or cut - Max. 200 ft. push	4,000.00	CF	\$0.31	\$1,224.00
Monongahela-Refuge Chamber	DRMS	Demo. only, small or single buildings (single story) - Steel structures	8,000.00	CF	\$0.18	\$1,432.00
Monongahela- CMP Walkway	DRMS	Pipe, corrugated metal (CMP) - 96 in. diameter pipe	100.00	LF	\$43.10	\$4,310.10

Job Hours: 80.00

Subtotal  
(unadjusted): \$36,591.08

Total Cost  
(adjusted for location): \$32,053.79

## BOREHOLE SEALING WORK

Task description: Vent Shaft Closure-Cut Casing

Site: Revenue Mine

Permit Action: TR-16

Permit/Job#: M2012032

### PROJECT IDENTIFICATION

Task #: 03B

State: Colorado

Abbreviation: None

Date: 9/2/2021 10:52:26

County: Ouray

Filename: M032-03b

AM

User: ACY

Agency or organization name: DRMS

### UNIT COSTS

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
960 Raise- Cut Casing	Exposed casing removal - Calculate Circumference in Linear Feet	72	18.8	18.80	LF	\$3.26	\$61.29
Yellow Rose Shaft- Cut casing	Exposed casing removal - Calculate Circumference in Linear Feet	72	18.8	18.80	LF	\$3.26	\$61.29
Monogahela Shaft (escape)- Cut Casing	Exposed casing removal - Calculate Circumference in Linear Feet	96	25.1	25.10	LF	\$3.26	\$81.83

Job Hours: 10.00

Total Cost: \$204.00

## SAFEGUARDING UNDERGROUND OPENINGS

Task description: Vent Shaft Closure-Place Seal

Site: Revenue Mine

Permit Action: TR-16

Permit/Job#: M2012032

### PROJECT IDENTIFICATION

Task #: 03C

State: Colorado

Abbreviation: None

Date: 9/2/2021 10:53:34  
AM

County: Ouray

Filename: M032-03c

User: ACY

Agency or organization name: DRMS

### UNIT COSTS

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
960 Raise- Plate	6' x 6'	Shaft closure - grate (per sq. ft.)	36.00	SF	\$32.50	\$1,170.00
Yellow Rose Shaft- Plate	6' x 6'	Shaft closure - grate (per sq. ft.)	36.00	SF	\$32.50	\$1,170.00
Monongahela Shaft (escape)- Plate	8' x 8'	Shaft closure - grate (per sq. ft.)	64.00	SF	\$32.50	\$2,080.00
960 Raise- Cement Cap	6' x 6' x 6"	Shaft closure - concrete cap, poured-in-place (per Cubic Feet)	18.00	CF	\$13.89	\$250.02
Yellow Rose Shaft- Cement Cap	6' x 6' x 6"	Shaft closure - concrete cap, poured-in-place (per Cubic Feet)	18.00	CF	\$13.89	\$250.02
Monongahela Shaft (escape)- Cement Cap	8' x 8' x 6"	Shaft closure - concrete cap, poured-in-place (per Cubic Feet)	32.00	CF	\$13.89	\$444.48

Job Hours: 72.00

Total Cost: \$5,364.52

## HYDRAULIC EXCAVATOR WORK

Task description: Vent Shaft Closure- Excavate & Bury

Site: Revenue Mine Permit Action: TR-16 Permit/Job#: M2012032

### PROJECT IDENTIFICATION

Task #: 03D State: Colorado Abbreviation: None  
Date: 9/2/2021 County: Ouray Filename: M032-03d  
10:58:03 AM  
User: ACY

Agency or organization name: DRMS

### HOURLY EQUIPMENT COST

Basic Machine: Cat 336D L 10'-6" Stick Horsepower: 268  
Attachment 1: ROPS Cab Weight (MT): 29.30  
Shift Basis: 1 per day  
Data Source: (CRG)

#### Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	<u>\$83.42</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$74.14</u>	<u>100</u>
Operator Cost/Hour:	<u>\$37.32</u>	<u>NA</u>
Total Unit Cost/Hour:	<u>\$194.88</u>	
Total Fleet Cost/Hour:	<u>\$194.88</u>	

### MATERIAL QUANTITIES

Initial volume: 353 CCY Swell factor: 1.330  
Loose volume: 469 LCY

Source of estimated volume: DRMS

Source of estimated swell factor: Cat Handbook

### HOURLY PRODUCTION

Excavator Cycle Time (load bucket, swing loaded, dump bucket, swing empty):

Basic Job Condition Description: BELOW AVERAGE  
Secondary Job Condition within Basic Description: SEVERE  
Cycle Time Value: 0.390 minutes

#### Load Bucket Capacity

Rated Capacity: 1.56 LCY (heaped) Bucket Size Class: Small  
Bucket Fill Factor: 1.025 Rock - Earth Mixture (100%-105%) 1.025  
Adjusted Capacity: 1.60 LCY

#### Job Condition Correction Factors

Site Altitude: 10650 feet

		Source
Altitude Adj:	<u>0.93</u>	<u>(CAT HB)</u>
Job Efficiency:	<u>0.83</u>	<u>(1 shift/day)</u>
Net Correction:	<u>0.77</u>	<u>multiplier</u>

Unadjusted Hourly Unit Production: 246.00 LCY/Hour  
Adjusted Hourly Unit Production: 189.89 LCY/Hour  
Adjusted Hourly Fleet Production: 189.89 LCY/Hour

### JOB TIME AND COST

Fleet size: 1 Excavator Total job time: 2.47 Hours

Unit cost: \$1.026 /LCY Total job cost: \$482

**BULLDOZER WORK**Task description: Minor site gradingSite: Revenue Mine Permit Action: TR-16 Permit/Job#: M2012032**PROJECT IDENTIFICATION**

Task #: 04A State: Colorado Abbreviation: None  
 Date: 9/2/2021 County: Ouray Filename: M032-04a  
11:14:10 AM  
 User: ACY

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

Basic Machine: Cat D9T - 9SU  
 Horsepower: 405  
 Blade Type: Semi-Universal  
 Attachment: NA  
 Shift Basis: 1 per day  
 Data Source: (CRG)

**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$126.01</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$141.41</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>\$41.30</u>	<u>NA</u>

Total unit Cost/Hour: \$308.72  
 Total Fleet Cost/Hour: \$308.72

**MATERIAL QUANTITIES**

Initial Volume: 3,045  
 Swell factor: 1.165  
 Loose volume: 3,547 LCY

Source of estimated volume: TR-13  
 Source of estimated swell factor: Cat Handbook

**HOURLY PRODUCTION**

Average push distance: 90 feet  
 Unadjusted hourly production: 1,351.7 LCY/hr

Materials consistency description: Rock, well ripped or blasted 0.8

Average push gradient: 0 %  
 Average site altitude: 10,650 feet

Material weight: 2,900 lbs/LCYWeight description: Decomposed rock - 50% Rock, 50% Earth**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	<u>0.750</u>	<u>(AVG.)</u>
Material consistency:	<u>0.800</u>	<u>(CAT HB)</u>
Dozing method:	<u>1.000</u>	<u>(GEN.)</u>

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: 0.3159

Adjusted unit production: 427.00 LCY/hr

Adjusted fleet production: **427** LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)  
 Unit cost: \$0.723/LCY

Total job time: **8.31** Hours  
 Total job cost: **\$2,565**



**BULLDOZER WORK**Task description: **Spread Topsoil on TSF**Site: **Revenue Mine**Permit Action: **TR-16**Permit/Job#: **M2012032****PROJECT IDENTIFICATION**Task #: **05B**State: **Colorado**Abbreviation: **None**Date: **9/2/2021**County: **Ouray**Filename: **M032-05b****11:15:53 AM**User: **ACY**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D9T - 9SU**Horsepower: **405**Blade Type: **Semi-Universal**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<b><u>Utilization %</u></b>
Ownership Cost/Hour:	<b><u>\$126.01</u></b>	<b><u>NA</u></b>
Operating Cost/Hour:	<b><u>\$141.41</u></b>	<b><u>100</u></b>
Ripper own. Cost/Hour:	<b><u>\$0.00</u></b>	<b><u>NA</u></b>
Ripper op. Cost/Hour:	<b><u>\$0.00</u></b>	<b><u>0</u></b>
Operator Cost/Hour:	<b><u>\$41.30</u></b>	<b><u>NA</u></b>

Total unit Cost/Hour: **\$308.72**Total Fleet Cost/Hour: **\$308.72****MATERIAL QUANTITIES**Initial Volume: **4,001**Swell factor: **1.125**Loose volume: **4,501 LCY**Source of estimated volume: **TR-11 PAR**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **100 feet**Unadjusted hourly production: **1,243.2 LCY/hr**Materials consistency description: **Partly consolidated stockpile 1.1**Average push gradient: **0 %**Average site altitude: **10,650 feet**Material weight: **2,550 lbs/LCY**Weight description: **Earth - Dry packed****Job Condition Correction Factor**

		<b><u>Source</u></b>
Operator Skill:	<b><u>0.750</u></b>	<b><u>(AVG.)</u></b>
Material consistency:	<b><u>1.100</u></b>	<b><u>(CAT HB)</u></b>
Dozing method:	<b><u>1.000</u></b>	<b><u>(GEN.)</u></b>

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: 0.4941

Adjusted unit production: 614.27 LCY/hr

Adjusted fleet production: **614.27** LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)

Unit cost: \$0.503/LCY

Total job time: **7.33** Hours

Total job cost: **\$2,262**

**TRUCK/LOADER TEAM WORK**Task description: Transport caprock for Atlas TSFSite: Revenue MinePermit Action: TR-16Permit/Job#: M2012032**PROJECT IDENTIFICATION**Task #: 05CState: ColoradoAbbreviation: NoneDate: 9/2/2021County: OurayFilename: M032-05cUser: ACYAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

Equipment Description	
Truck Loader Team -Truck:	Generic 15-18 cy, 6x4
-Loader:	CAT 966H
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	100	NA	NA	NA	NA
Ownership cost/hour:	\$33.16	\$59.72	NA	NA	NA	NA
Operating cost/hour:	\$53.10	\$55.20	NA	NA	NA	NA
% Utilization-ripper:	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:	\$32.54	\$40.71	NA	NA	NA	NA
Unit Subtotals:	\$118.80	\$155.63	NA	NA	NA	NA
Number of Units:	3	1	0	0	0	0
Group Subtotals:	Work: \$512.03		Support: \$0.00		Maint: \$0.00	

Total work team cost/hour: \$512.03**MATERIAL QUANTITIES**Initial volume: 6,389

CCY

Swell factor: 1.000Loose volume: 6,389

LCY

Source of estimated volume: 3.96 ac @ 1 ft thickSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:**Truck Payload (weight) Basis:Material weight: 2,950

Pounds/LCY

Description: Traprock - brokenRated Payload: 63,980

Pounds

Payload Capacity: 21.69

LCY

**Truck Bed (volume) Basis:**

Struck Volume:	15.00	LCY
Heaped Volume:	18.00	LCY
Average Volume:	16.50	LCY
Adjusted Volume:	18.00	LCY

Final Truck Volume Based on Number of Loader Passes: 16.50 LCY

**Loading Tool Capacity**

Bucket Size Class: NA

Rated Capacity:	5.000	LCY (heaped)
Bucket Fill Factor:	0.825	Blasted rock - avg. blasted (75 - 90%) 0.825
Adjusted Capacity:	<b>4.125</b>	LCY

**Job Condition Corrections:**

Site Altitude (ft.): 10650 feet

	Truck	Loader	Source
Altitude Adj:	0.890	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	<b>0.739</b>	<b>0.830</b>	

**Loading Tool Cycle Time:** Number of Loading Tool Passes Required to Fill Truck: 4 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): 0.500 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 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:		-0.080	minutes
Adjusted Loader Cycle Time:		<b>0.420</b>	minutes
Net Load Time per Truck:		<b>1.360</b>	minutes

**Truck Cycle Time:**

Truck Exchange Time:	0.50	Minutes	Adjusted for site altitude:	0.562	Minutes
Truck Load Time:	1.360	Minutes	Adjusted for site altitude:	1.360	Minutes
Truck Maneuver and Dump Time:	0.90	Minutes	Adjusted for site altitude:	1.011	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	3500.00	2.00	4.00	6.00	1477	2.417

Haul Time: 2.417 minutes

## Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3500.00	-2.00	4.00	2.00	2960	1.217

Return Time: 1.217 minutesTotal Truck Cycle Time: 6.567 minutes

## Loading Tool unit

Production 515.14 LCY/Hour      Adjusted for job efficiency: 427.57 LCY/Hour  
Truck Unit Production 150.75 LCY/Hour      Adjusted for job efficiency: 125.12 LCY/Hour

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

Adjusted hourly truck team production: 375.37 LCY/Hour  
Adjusted single truck/loader team production: 375.37 LCY/Hour  
Adjusted multiple truck/loader team production: 375.37 LCY/Hour

**JOB TIME AND COST**Fleet size: 1 Team(s)      Total job time: 17.02 HoursUnit cost: \$1.364 /LCY      Total job cost: \$8,715

**BULLDOZER WORK**Task description: **Spread Caprock on TSF**Site: **Revenue Mine**Permit Action: **TR-16**Permit/Job#: **M2012032****PROJECT IDENTIFICATION**Task #: **05D**State: **Colorado**Abbreviation: **None**Date: **9/2/2021**County: **Ouray**Filename: **M032-05d****11:43:46 AM**User: **ACY**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D9T - 9SU**Horsepower: **405**Blade Type: **Semi-Universal**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<b><u>Utilization %</u></b>
Ownership Cost/Hour:	<b><u>\$126.01</u></b>	<b><u>NA</u></b>
Operating Cost/Hour:	<b><u>\$141.41</u></b>	<b><u>100</u></b>
Ripper own. Cost/Hour:	<b><u>\$0.00</u></b>	<b><u>NA</u></b>
Ripper op. Cost/Hour:	<b><u>\$0.00</u></b>	<b><u>0</u></b>
Operator Cost/Hour:	<b><u>\$41.30</u></b>	<b><u>NA</u></b>

Total unit Cost/Hour: **\$308.72**Total Fleet Cost/Hour: **\$308.72****MATERIAL QUANTITIES**Initial Volume: **8,002**Swell factor: **1.215**Loose volume: **9,722 LCY**Source of estimated volume: **TR-11 PAR**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **100 feet**Unadjusted hourly production: **1,243.2 LCY/hr**Materials consistency description: **Rock, well ripped or blasted 0.8**Average push gradient: **0 %**Average site altitude: **10,650 feet**Material weight: **3,300 lbs/LCY**Weight description: **Decomposed rock - 75% Rock, 25% Earth****Job Condition Correction Factor**

		<b><u>Source</u></b>
Operator Skill:	<b><u>0.750</u></b>	<b><u>(AVG.)</u></b>
Material consistency:	<b><u>0.800</u></b>	<b><u>(CAT HB)</u></b>
Dozing method:	<b><u>1.000</u></b>	<b><u>(GEN.)</u></b>

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:	0.697	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.2777

Adjusted unit production: 345.24 LCY/hr

Adjusted fleet production: **345.24 LCY/hr**

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)  
 Unit cost: \$0.894/LCY

Total job time: **28.16 Hours**  
 Total job cost: **\$8,694**

**REVEGETATION WORK**Task description: Reveg TSFSite: Revenue MinePermit Action: TR-16Permit/Job#: M2012032**PROJECT IDENTIFICATION**Task #: 06AState: ColoradoAbbreviation: NoneDate: 9/2/2021County: OurayFilename: M032-06a12:02:48 PMUser: ACYAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
			<b>Total Fertilizer Materials Cost/Acre</b>	<b>\$0.00</b>

**Application**

Description	Cost /Acre
	\$
<b>Total Fertilizer Application Cost/Acre</b>	<b>\$0.00</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
Indian Ricegrass - Paloma	2.96	9.58	\$32.93
Mountain Brome - Bromar	8.00	12.86	\$30.40
Sandberg Bluegrass - VNS	1.00	21.24	\$8.40
Rye, Winter - VNS	19.20	7.93	\$10.27
Sheep Fescue - Covar	2.88	44.96	\$17.57
Slender Wheatgrass - Native	5.60	20.44	\$25.90
Milk Vetch, Cicer - Monarch	1.92	6.39	\$15.74
Thickspike Wheatgrass - Critana	6.76	23.90	\$46.48



Flax, Lewis Blue	0.50	3.32	\$8.25
Yarrow, Western	0.12	7.30	\$5.02
<b>Totals Seed Mix</b>	48.94	157.91	<b>\$200.96</b>

**Application**

Description	Cost /Acre
Broadcast seeding [DMG]	\$267.22
<b>Total Seed Application Cost/Acre</b>	<b>\$267.22</b>

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

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - 2,4D @ 1.0 pt/ac	1.00	ACRE	\$2.98	\$2.98
Hydromulch, 1 ton/ac. rate {Materials Only}	1.00	ACRE	\$424.71	\$424.71
<b>Total Mulch Materials Cost/Acre</b>				<b>\$427.69</b>

**Application**

Description	Cost /Acre
Hydromulching (MEANS 32 92 19.13 1100)	\$96.80
Weed spray, hand, non-aquatic area, nox. [DMG]	\$183.16
<b>Total Mulch Application Cost/Acre</b>	<b>\$279.96</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:	4.74	Cost /Acre:	\$1,175.83
Estimated Failure Rate:	30%	Cost /Acre*:	\$1,175.83
*Selected Replanting Work Items:	SEEDING,MULCHING		
Initial Job Cost:	\$5,573.43		
Reseeding Job Cost:	\$1,672.03		
Total Job Cost:	\$7,245		
Job Hours:	30.00		

**REVEGETATION WORK**Task description: **Reveg Vent Shafts**Site: **Revenue Mine**Permit Action: **TR-16**Permit/Job#: **M2012032****PROJECT IDENTIFICATION**Task #: **06B**State: **Colorado**Abbreviation: **None**Date: **9/2/2021**County: **Ouray**Filename: **M032-06b****12:03:34 PM**User: **ACY**Agency or organization name: **DRMS****FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
			<b>Total Fertilizer Materials Cost/Acre</b>	<b>\$0.00</b>

**Application**

Description	Cost /Acre
	\$
<b>Total Fertilizer Application Cost/Acre</b>	<b>\$0.00</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
Indian Ricegrass - Paloma	2.96	9.58	\$32.93
Mountain Brome - Bromar	8.00	12.86	\$30.40
Sandberg Bluegrass - VNS	1.00	21.24	\$8.40
Rye, Winter - VNS	19.20	7.93	\$10.27
Sheep Fescue - Covar	2.88	44.96	\$17.57
Slender Wheatgrass - Native	5.60	20.44	\$25.90
Milk Vetch, Cicer - Monarch	1.92	6.39	\$15.74
Thickspike Wheatgrass - Critana	6.76	23.90	\$46.48

Flax, Lewis Blue	0.50	3.32	\$8.25
Yarrow, Western	0.12	7.30	\$5.02
<b>Totals Seed Mix</b>	48.94	157.91	<b>\$200.96</b>

**Application**

Description	Cost /Acre
Broadcast seeding [DMG]	\$267.22
<b>Total Seed Application Cost/Acre</b>	<b>\$267.22</b>

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

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Hay, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$307.02	\$614.04
Herbicide - 2,4D @ 1.0 pt/ac	1.00	ACRE	\$2.98	\$2.98
<b>Total Mulch Materials Cost/Acre</b>				<b>\$617.02</b>

**Application**

Description	Cost /Acre
Hand spread, 1" deep (MEANS 32 91 13.16 0200)	\$3,630.00
Weed spray, hand, non-aquatic area, nox. [DMG]	\$183.16
<b>Total Mulch Application Cost/Acre</b>	<b>\$3,813.16</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: 0.69                      Cost /Acre: \$4,898.36  
 Estimated Failure Rate: 30%                      Cost /Acre\*: \$4,898.36  
 \*Selected Replanting Work Items: SEEDING,MULCHING

Initial Job Cost: **\$3,379.87**  
 Reseeding Job Cost: **\$1,013.96**  
 Total Job Cost: **\$4,394**  
 Job Hours: **10.00**

**EQUIPMENT MOBILIZATION/DEMOBILIZATION**Task description: **Initial Mobilization**Site: **Revenue Mine**Permit Action: **TR-16**Permit/Job#: **M2012032****PROJECT IDENTIFICATION**

Task #: **07A** State: **Colorado** Abbreviation: **None**  
 Date: **9/2/2021** County: **Ouray** Filename: **M032-07a**  
 11:57:44 AM  
 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:	\$21.28	\$37.94	\$47.67
Operating Cost/Hour:	\$26.55	\$50.48	\$56.21
Operator Cost/Hour:	\$20.54	\$20.54	\$20.54
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$68.37	\$132.49	\$147.95

**NON ROADABLE EQUIPMENT:**

Machine Description	Weight/ Unit (TONS)	Owner ship Cost/hr/ unit	Haul Rig Cost/hr/unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet	DOT Permit Cost/ fleet
Cat D9T - 9SU	60.01	\$126.01	\$147.95	1	\$273.96	\$147.95	\$250.00
Hydroseeder with Tractor	28.00	\$13.97	\$132.49	1	\$146.46	\$132.49	\$250.00
Cat 336D L 10'-6" Stick	32.23	\$83.42	\$132.49	1	\$215.91	\$132.49	\$250.00
Cat 725	24.54	\$72.63	\$68.37	3	\$423.00	\$205.11	\$1,000.00
CAT 966H	25.80	\$59.72	\$68.37	1	\$128.09	\$68.37	\$250.00

Subtotals: **\$1,187.42** **\$686.41** **\$2,000.00**

**ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Flatbed Truck, 6x4, 45K GVW	\$76.83	1	\$76.83	\$76.83

Subtotals: **\$76.83** **\$76.83**

**EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region:	<u>MONTROSE</u>	
Total one-way travel distance:	<u>45.00</u>	miles
Average Travel Speed:	<u>35.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$15,942.94</u>
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    \*\* two round trips with haul rig:

Total Roadable Mob/Demob Cost **	<u>\$197.56</u>
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    \*\* one round trip, no haul rig:

**Transportation Cycle Time:**

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>1.29</u>	<u>1.29</u>
Return Time (Hours):	<u>1.29</u>	<u>1.29</u>
Loading Time (Hours):	<u>1.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>1.50</u>	<u>NA</u>
Subtotals:	<u>5.57</u>	<u>2.57</u>

**JOB TIME AND COST**

Total job time:	<u>11.14</u>	Hours
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Total job cost:	<u>\$16,140</u>
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**EQUIPMENT MOBILIZATION/DEMOBILIZATION**Task description: **Walk equipment to Govenors Basin**Site: **Revenue Mine**Permit Action: **TR-16**Permit/Job#: **M2012032****PROJECT IDENTIFICATION**

Task #: 07B State: Colorado Abbreviation: None  
 Date: 9/2/2021 County: Ouray Filename: M032-07b  
12:00:12 PM  
 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:	\$21.28	\$37.94	\$47.67
Operating Cost/Hour:	\$26.55	\$50.48	\$56.21
Operator Cost/Hour:	\$20.54	\$20.54	\$20.54
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$68.37	\$132.49	\$147.95

**NON ROADABLE EQUIPMENT:**

Machine Description	Weight/ Unit (TONS)	Owner ship Cost/hr/ unit	Haul Rig Cost/hr/unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet	DOT Permit Cost/ fleet
Cat 336D L 10'-6" Stick	32.23	\$83.42	\$132.49	1	\$215.91	\$132.49	\$250.00

Subtotals: **\$215.91** **\$132.49** **\$250.00****ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Flatbed Truck, 6x4, 45K GVW	\$76.83	1	\$76.83	\$76.83

Subtotals: **\$76.83** **\$76.83**

**EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region:

REVENUE-GOV

BASIN

Total one-way travel distance:

3.50

miles

Average Travel Speed:

0.75

mph

Total Non-Roadable Mob/Demob Cost \*

\$3,751.73

\*\* two round trips with haul rig:

Total Roadable Mob/Demob Cost \*\*

\$717.08

\*\* one round trip, no haul rig:

**Transportation Cycle Time:**

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	4.67	4.67
Return Time (Hours):	4.67	4.67
Loading Time (Hours):	0.00	NA
Unloading Time (Hours):	0.00	NA
Subtotals:	9.33	9.33

**JOB TIME AND COST**Total job time: 18.67 HoursTotal job cost: \$4,469

**EQUIPMENT MOBILIZATION/DEMOBILIZATION**Task description: **Secondary Mobilization**Site: **Revenue Mine**Permit Action: **TR-16**Permit/Job#: **M2012032****PROJECT IDENTIFICATION**

Task #: **07C** State: **Colorado** Abbreviation: **None**  
 Date: **9/2/2021** County: **Ouray** Filename: **M032-07c**  
 12:01:41 PM  
 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:	\$21.28	\$37.94	\$47.67
Operating Cost/Hour:	\$26.55	\$50.48	\$56.21
Operator Cost/Hour:	\$20.54	\$20.54	\$20.54
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$68.37	\$132.49	\$147.95

**NON ROADABLE EQUIPMENT:**

Machine Description	Weight/ Unit (TONS)	Owner ship Cost/hr/ unit	Haul Rig Cost/hr/unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet	DOT Permit Cost/ fleet
Hydroseeder with Tractor	28.00	\$13.97	\$132.49	1	\$146.46	\$132.49	\$250.00

Subtotals: **\$146.46** **\$132.49** **\$250.00**

**ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Flatbed Truck, 6x4, 45K GVW	\$76.83	1	\$76.83	\$76.83

Subtotals: **\$76.83** **\$76.83**



**EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region:	<u>MONTROSE</u>	
Total one-way travel distance:	<u>45.00</u>	miles
Average Travel Speed:	<u>35.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$1,510.22</u>
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$197.56</u>
** one round trip, no haul rig:	

**Transportation Cycle Time:**

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>1.29</u>	<u>1.29</u>
Return Time (Hours):	<u>1.29</u>	<u>1.29</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>3.57</u>	<u>2.57</u>

**JOB TIME AND COST**

Total job time:	<u>7.14</u>	Hours
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Total job cost:	<u>\$1,708</u>
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