



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

June 13, 2023

David Forenza
Mesa Agg LLC
PO Box 7790
Avon, CO 81620

Re: Orchard Mesa Aggr - File No. M-1995-005
Mesa Agg LLC
Surety Increase (SI-3)
Surety Increase

Dear David Forenza:

On June 13, 2023 the Division of Reclamation, Mining and Safety increased the current Financial Warranty for this permit to \$78,239.00, in accordance with Rule 4.2.1 of the Rules and Regulations. This is an increase of \$21,838.57.

Please see the April 18, 2023 inspection report for details regarding why this surety increase is required.

The Division ordered amendment of the current Financial Warranty, or submittal of a new Financial Warranty reflecting the increase, within 60 days from the date of this letter (June 13, 2023).

Please make arrangements with Sara M. Stevenson-Benn at the Division's Denver office for submittal of the financial warranty. Any other questions regarding completion, execution and/or submittal of financial warranty forms should also be directed to Sara M. Stevenson-Benn by telephone at (303) 866-3567 (8148), or by email at Sara.stevenson-benn@state.co.us.

The Permittee for this site may be scheduled for a Formal Board Hearing for possible revocation of the permit after August 12, 2023, if the amount of any increased Financial Warranty has not been provided.

Bond Held:	\$56,400.43
Prior Liability:	\$56,400.43
Change in Liability:	\$21,838.57
Revised Liability:	\$78,239.00
Prior Permit Acreage:	46.10



Change in Permit Acreage:	0.00
Revised Permit Acreage:	46.10
Prior Affected Acreage:	46.00
Change in Affected Acreage:	0.00
Revised Affected Acreage:	46.00

If you have any questions, please contact me by telephone at (303) 866-3567 x 8183, or by email at Amy.yeldell@state.co.us.

Sincerely,



Amy C. Yeldell
Environmental Protection Specialist

COST SUMMARY WORK

Task description: _____

Site: Orchard Mesa Aggr

Permit Action: 04-2023

Permit/Job#: M1995005

PROJECT IDENTIFICATION

Task #: ACY

State: Colorado

Abbreviation: None

Date: 5/3/2023

County: Mesa

Filename: M005-ACY

User: ACY

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
01a	Regrading highwalls from near vertical to 3H:1V	DOZER	1	20.08	\$5,271
02a	Rip compacted areas	RIPPER	1	19.58	\$5,542
03a	Transport topsoil	LOADER	1	41.80	\$5,883
03b	Grade topsoil	DOZER	1	12.57	\$3,300
04a	Reveg of active mine areas	REVEGE	1	24.00	\$27,272
04b	Reveg of unreleased reclaimed areas areas	REVEGE	1	8.00	\$5,120
05a	Initial Mobilization	MOBILIZE	1	2.44	\$3,408
05b	Secondary Mobilization	MOBILIZE	1	2.44	\$1,398
<u>SUBTOTALS:</u>				130.91	\$57,194

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02

Total = \$1,155

Performance bond: 1.05

Total = \$601

Job superintendent: 65.46

Total = \$4,918

Profit: 10.00

Total = \$5,719

TOTAL O & P = \$12,393

CONTRACT AMOUNT (direct + O & P) = \$69,587

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

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

Total = \$500

Engineering work and/or contract/bid preparation: 4.25

Total = \$2,957

Reclamation management and/or administration: 5.00

\$3,479

CONTINGENCY: 3.00

Total = \$1,716

TOTAL INDIRECT COST = \$21,045

TOTAL BOND AMOUNT (direct + indirect) = \$78,239

BULLDOZER WORKTask description: **Regrading highwalls from near vertical to 3H:1V**Site: **Orchard Mesa Aggr**Permit Action: 04-2023Permit/Job#: M1995005**PROJECT IDENTIFICATION**Task #: 01AState: ColoradoAbbreviation: NoneDate: 5/3/2023County: MesaFilename: M005-01aUser: 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:	\$124.85	NA
Operating Cost/Hour:	\$97.63	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: \$262.52Total Fleet Cost/Hour: **\$262.52****MATERIAL QUANTITIES**Initial Volume: 11,074Swell factor: 1.090Loose volume: **12,071 LCY**Source of estimated volume: 2000 LF @ 20'H vertical to 3H:1VSource 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: 4,900 feetMaterial weight: 2,400 lbs/LCYWeight description: Clay 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:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.958	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4294

Adjusted unit production: 601.16 LCY/hr

Adjusted fleet production: **601.16** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.437/LCY

Total job time: **20.08** Hours

Total job cost: **\$5,271**

BULLDOZER RIPPING WORK

Task description: Rip compacted areas

Site: Orchard Mesa Aggr

Permit Action: 04-2023

Permit/Job#: M1995005

PROJECT IDENTIFICATION

Task #: 02A

State: Colorado

Abbreviation: None

Date: 5/3/2023

County: Mesa

Filename: M005-02a

User: ACY

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D8T - 8SU
Ripper Attachment: 3-Shank Ripper

Horsepower: 310
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$124.85	NA
Operating Cost/Hour:	\$97.63	100
Ripper Ownership Cost/Hour:	\$13.10	NA
Ripper Operating Cost/Hour:	\$7.30	100
Operator Cost/Hour:	\$40.04	NA
Total Unit Cost/Hour:	\$282.92	
Total Fleet Cost/Hour:	\$282.92	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 13.00 acres Rip Depth (ft): 2.00 Volume: 41,947 BCY or CCY

Source of estimated quantity: Staff estimates

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: 4,900 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: **0.66** Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: **19.59** Hours

Unit cost: \$426.325 Per acre Total job cost: **\$5,542**

WHEEL LOADER – LOAD AND CARRY WORKTask description: Transport topsoilSite: Orchard Mesa Aggr Permit Action: 04-2023 Permit/Job#: M1995005**PROJECT IDENTIFICATION**

Task #: 03A State: Colorado Abbreviation: None
 Date: 5/3/2023 County: Mesa Filename: M005-03a
 User: ACY

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

Basic Machine: CAT 972H Horsepower: 287
 Attachment 1: ROPS Cab Shift Basis: 1 per day
 Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$53.96	NA
Operating Cost/Hour:	\$50.78	100
Operator Cost/Hour:	\$35.97	NA
Total Unit Cost/Hour:	\$140.71	
Total Fleet Cost/Hour:	\$140.71	

MATERIAL QUANTITIES

Initial volume: 8,432 CCY Swell factor: 1.125
 Loose volume: 9,486 LCY

Source of estimated volume: 4" depth over 15.68 ac
 Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTIONLoader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.525 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	Conveyor or dozer piled 10 ft. high 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:		-0.050	minutes
Adjusted Basic Cycle Time:		0.475	minutes

Rolling Resistance – Road Conditions

Haul: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0
 Return: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0

Haul and Return Time

	Length (feet)	Grade Res. (%)	Rolling Res. (%)	Total Res. (%)	Travel Time (minutes)	Source
Haul Route:	500	0.00	5.00	5.00	0.4611	(Cat HB)
Return Route:	500	0.00	5.00	5.00	0.4160	(Cat HB)

Total Travel Time: 0.8771 minutes
 Total Cycle Time: 1.3521 minutes

Load Bucket Capacity

Rated Capacity: 5.60 LCY (heaped)
 Bucket Fill Factor: 1.100 Other - rock/dirt mixtures (100-120%) 1.100
 Adjusted Capacity: 6.16 LCY

Job Condition Correction Factors

Site Altitude: 4900 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: 273.36 LCY/Hour
 Adjusted Hourly Unit Production: 226.89 LCY/Hour
 Adjusted Hourly Fleet Production: 226.89 LCY/Hour

JOB TIME AND COST

Fleet size:	<u>1</u>	Loader(s)	Total job time:	<u>41.81</u>	Hours
Unit cost:	<u>\$0.620</u>	/LCY	Total job cost:	<u>\$5,883</u>	

BULLDOZER WORKTask description: Grade topsoilSite: Orchard Mesa Aggr Permit Action: 04-2023 Permit/Job#: M1995005**PROJECT IDENTIFICATION**

Task #: 03B State: Colorado Abbreviation: None
 Date: 5/3/2023 County: Mesa Filename: M005-03b
 User: ACY

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>\$124.85</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$97.63</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: \$262.52
 Total Fleet Cost/Hour: \$262.52

MATERIAL QUANTITIES

Initial Volume: 9,486
 Swell factor: 1.000
 Loose volume: 9,486 LCY

Source of estimated volume: Transported topsoil
 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: Loose stockpile 1.2

Average push gradient: 0 %
 Average site altitude: 4,900 feet

Material weight: 2,550 lbs/LCYWeight description: Earth - Dry packed**Job Condition Correction Factor**

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

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	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: \$0.348/LCY

Total job time: **12.57** Hours

Total job cost: **\$3,300**

REVEGETATION WORKTask description: Reveg of active mine areasSite: Orchard Mesa AggrPermit Action: 04-2023Permit/Job#: M1995005**PROJECT IDENTIFICATION**Task #: 04AState: ColoradoAbbreviation: NoneDate: 5/3/2023County: MesaFilename: M005-04aUser: ACYAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
8-24-24, 10-15-15, 10-20-20	50.00	pound	\$0.35	\$17.50
			Total Fertilizer Materials Cost/Acre	\$17.50

Application

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	\$39.64
Total Fertilizer Application Cost/Acre	\$39.64

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$117.18
Total Tilling Cost/Acre	\$117.18

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Paloma	3.25	10.52	\$36.16
Sand Dropseed	0.25	29.84	\$2.44
Crested Wheatgrass - Fairway	2.00	9.18	\$8.05
Galleta	2.00	7.30	\$44.70
Saltbush, Four Wing	1.00	1.38	\$12.50
Saltbush, Shadscale	1.00	1.49	\$10.00
Winter Fat	1.00	2.55	\$20.50
Totals Seed Mix	10.50	62.26	\$134.34

Application

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

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Hay, delivered {MEANS 31 25 14.16 1200}	1.00	TON	\$421.36	\$421.36
Herbicide - 2,4D @ 1.0 pt/ac	1.00	ACRE	\$3.04	\$3.04
Total Mulch Materials Cost/Acre				\$424.40

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$73.00
Power mulcher (MEANS 32 91 13.16 0350)	\$141.57
Weed spray, truck, non-aquatic area, nox. [DMG]	\$62.72
Total Mulch Application Cost/Acre	\$277.29

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:	<u>15.68</u>	Cost /Acre:	<u>\$1,242.35</u>
Estimated Failure Rate:	<u>40%</u>	Cost /Acre*:	<u>\$1,242.35</u>
*Selected Replanting Work Items:	<u>FERTILIZING,TILLING,SEEDING,MU LCHING</u>		
Initial Job Cost:	<u>\$19,480.05</u>		
Reseeding Job Cost:	<u>\$7,792.02</u>		
Total Job Cost:	<u>\$27,272</u>		
Job Hours:	24.00		

REVEGETATION WORKTask description: **Reveg of unreleased reclaimed areas areas**Site: **Orchard Mesa Aggr**Permit Action: 04-2023Permit/Job#: M1995005**PROJECT IDENTIFICATION**Task #: 04BState: ColoradoAbbreviation: NoneDate: 5/3/2023County: MesaFilename: M005-04bUser: ACYAgency 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)	\$117.18
Total Tilling Cost/Acre	\$117.18

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Paloma	3.25	10.52	\$36.16
Sand Dropseed	0.25	29.84	\$2.44
Crested Wheatgrass - Fairway	2.00	9.18	\$8.05
Galleta	2.00	7.30	\$44.70
Saltbush, Four Wing	1.00	1.38	\$12.50
Saltbush, Shadscale	1.00	1.49	\$10.00
Winter Fat	1.00	2.55	\$20.50
Totals Seed Mix	10.50	62.26	\$134.34

Application

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

MULCHING and MISCELLANEOUS**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Hay, delivered {MEANS 31 25 14.16 1200}	1.00	TON	\$421.36	\$421.36
Herbicide - 2,4D @ 1.0 pt/ac	1.00	ACRE	\$3.04	\$3.04
Total Mulch Materials Cost/Acre				\$424.40

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$73.00
Power mulcher (MEANS 32 91 13.16 0350)	\$141.57
Weed spray, truck, non-aquatic area, nox. [DMG]	\$62.72
Total Mulch Application Cost/Acre	\$277.29

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: 4.32 Cost /Acre: \$1,185.21
 Estimated Failure Rate: 0% Cost /Acre*: \$0.00
 *Selected Replanting Work Items: NONE

Initial Job Cost: **\$5,120.11**
 Reseeding Job Cost: **\$0.00**
 Total Job Cost: **\$5,120**
 Job Hours: **8.00**

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Initial Mobilization**Site: **Orchard Mesa Aggr**Permit Action: **04-2023**Permit/Job#: **M1995005****PROJECT IDENTIFICATION**Task #: **05A**State: **Colorado**Abbreviation: **None**Date: **5/3/2023**County: **Mesa**Filename: **M005-05a**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:**

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$15.25	\$23.06	\$37.58
Operating Cost/Hour:	\$25.26	\$30.83	\$51.41
Operator Cost/Hour:	\$27.71	\$27.71	\$27.71
Helper Cost/Hour:	\$0.00	\$20.22	\$20.22
Total Unit Cost/Hour:	\$68.22	\$101.82	\$136.92

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	\$137.95	\$136.92	1	\$274.87	\$136.92	\$250.00
CAT 972H	28.00	\$53.96	\$101.82	1	\$155.78	\$101.82	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$6.25	\$68.22	1	\$74.47	\$68.22	\$250.00
Power Mulcher (Bowie LD-90)	6.00	\$14.79	\$68.22	1	\$83.01	\$68.22	\$250.00

Subtotals: **\$588.13** **\$375.18** **\$1,000.00****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	\$80.76	1	\$80.76	\$80.76

Subtotals: **\$80.76** **\$80.76**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>GRAND JUNCTION</u>	
Total one-way travel distance:	<u>5.00</u>	miles
Average Travel Speed:	<u>45.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$3,390.33</u>
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$17.95</u>
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>0.11</u>	<u>0.11</u>
Return Time (Hours):	<u>0.11</u>	<u>0.11</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>1.22</u>	<u>0.22</u>

JOB TIME AND COST

Total job time:	<u>2.44</u>	Hours
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Total job cost:	<u>\$3,408</u>
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EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Secondary Mobilization**Site: **Orchard Mesa Aggr**Permit Action: **04-2023**Permit/Job#: **M1995005****PROJECT IDENTIFICATION**Task #: **05B**State: **Colorado**Abbreviation: **None**Date: **5/3/2023**County: **Mesa**Filename: **M005-05b**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:**

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$15.25	\$23.06	\$37.58
Operating Cost/Hour:	\$25.26	\$30.83	\$51.41
Operator Cost/Hour:	\$27.71	\$27.71	\$27.71
Helper Cost/Hour:	\$0.00	\$20.22	\$20.22
Total Unit Cost/Hour:	\$68.22	\$101.82	\$136.92

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	\$6.25	\$68.22	1	\$74.47	\$68.22	\$250.00
Power Mulcher (Bowie LD-90)	6.00	\$14.79	\$68.22	1	\$83.01	\$68.22	\$250.00
Subtotals:					\$157.48	\$136.44	\$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	\$80.76	1	\$80.76	\$80.76
Subtotals:			\$80.76	\$80.76

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>GRAND JUNCTION</u>	
Total one-way travel distance:	<u>5.00</u>	miles
Average Travel Speed:	<u>45.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$1,380.28</u>
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$17.95</u>
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>0.11</u>	<u>0.11</u>
Return Time (Hours):	<u>0.11</u>	<u>0.11</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>1.22</u>	<u>0.22</u>

JOB TIME AND COST

Total job time:	<u>2.44</u>	Hours
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Total job cost:	<u>\$1,398</u>
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