

March 30, 2018

Russell Larsen
Elam Construction, Inc.
566 Struthers Ave
Grand Junction, CO 81501



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

1313 Sherman Street, Room 215
Denver, CO 80203

RE: Mule Farm Gravel Pit, Permit No. M-1991-079, Reclamation Costs Update and Notice of Surety Increase (SI-1)

Dear Mr. Larsen:

In an effort to ensure the Financial Warranty for the above referenced site adequately reflects the actual current costs of fulfilling the requirements of the approved reclamation plan, the Colorado Division of Reclamation, Mining and Safety (Division) has updated the reclamation cost estimate (copy enclosed).

Division calculations estimate the cost to reclaim the above referenced site to be \$133,969.67 rounded up to \$133,970.00. This is an increase of \$9,482.00 over the \$124,488.00 currently held by the Division. This estimate is based on conditions observed during the March 20, 2018. ***Therefore, 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 to **Tuesday, May 29, 2018**. Please review the enclosed figures as soon as possible and contact our office if any calculation errors are noted.

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

Sincerely,

Amy Yeldell
Environmental Protection Specialist
Department of Natural Resources
Division of Reclamation, Mining and Safety
Phone: (970) 254-8511

Ec: Russ Means, Senior EPS, Grand Junction DRMS
Jon Muller, Elam Construction, Inc.
Enc: Financial Warranty Cost Estimate



COST SUMMARY WORK

Task description: Post inspection update 3-20-18

Site: Mule Farm Gravel Pit

Permit Action: 2018-03

Permit/Job#: M1991079

PROJECT IDENTIFICATION

Task #: ACY

State: Colorado

Abbreviation: None

Date: 3/23/2018

County: Mesa

Filename: M079-acy

User: ACY

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
01a	Demo	DEMOLISH	1	8.00	\$2,913.25
02a	Dewater pond for grading	PUMPING	1	344.89	\$28,930.00
03a	Transport overburden for backfill and grading	SCRAPER1	1	23.62	\$21,159.00
04a	Grade backfill material	DOZER	1	30.04	\$5,723.00
05a	Rip compacted areas	RIPPER	1	9.65	\$1,983.00
06a	Transport topsoil	SCRAPER1	1	21.31	\$19,088.00
07a	Grade topsoil	DOZER	1	30.04	\$5,723.00
08a	Reveg pond slopes Approx. 3 ac	REVEGE	1	8.00	\$1,707.00
09a	Reveg flat areas Approx. 16.5 ac	REVEGE	1	24.00	\$10,610.00
10a	Initial Mobilization	MOBILIZE	1	2.57	\$6,598.00
11a	Secondary Mobilization	MOBILIZE	1	2.57	\$1,526.00
<u>SUBTOTALS:</u>				504.69	\$105,960

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	\$2,140.39
Performance bond:	1.05	Total =	\$1,112.58
Job superintendent:	100.00	Total =	\$7,305.00
Profit:	10.00	Total =	\$10,596.00

TOTAL O & P = \$21,153.97

CONTRACT AMOUNT (direct + O & P) = \$127,113.97

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	<u>500.00</u>	Total =	<u>500.00</u>
Engineering work and/or contract/bid preparation:	<u>0.00</u>	Total =	<u>\$0.00</u>
Reclamation management and/or administration:	<u>5.00</u>		<u>\$6,355.70</u>

CONTINGENCY: 0.00 Total = \$0.00

TOTAL INDIRECT COST = \$28,009.67

TOTAL BOND AMOUNT (direct + indirect) = \$133,969.67

TOTAL BOND AMOUNT (Rounded) = \$133,970.00

DEMOLITION WORK

Task description: Demo

Site: Mule Farm Gravel Pit

Permit Action: 2018-03

Permit/Job#: M1991079

PROJECT IDENTIFICATION

Task #: 01A

State: Colorado

Abbreviation: None

Date: 3/23/2018

County: Mesa

Filename: M079-01a

User: ACY

Agency or organization name: DRMS

UNIT COSTS

Location adjustment: 95.50 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Remove asphalt test strip	100' x 40'	Pavement, bituminous, demolition only - 3 in. thick	444.00	SY	\$4.33	\$1,922.52
Removal of scale footers	4 x 10'W x 2'H	Demo. and on-site disposal in excavated pit, 2.0 ft. x 3 ft. - Max. 200 ft. push	400.00	LF	\$2.82	\$1,128.00

Job Hours: 8.00

Subtotal
(unadjusted): \$3,050.52

Total Cost
(adjusted for location): \$2,913.25

PUMPING WORK

Task description:

Dewater pond for gradingSite: Mule Farm Gravel PitPermit Action: 2018-03Permit/Job#: M1991079

PROJECT IDENTIFICATION

Task #: 02AState: ColoradoAbbreviation: NoneDate: 3/23/2018County: MesaFilename: M079-02aUser: ACYAgency or organization name: DRMS

HOURLY EQUIPMENT COST

	Description	Quantity
Make and Model:	Submersible pump - 460v, 8 in.	3
Attachment 1:	Suction hose - 6 in. diam., 25 ft.	3
Attachment 2:	Discharge hose - 6 in. D., 25 ft.	12
Labor Unit 1:	Pump operator	1

Horsepower: 95Shift Basis: 1 per dayWeight: 0.70

(US Tons)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$18.48	NA
Operating Cost/Hour:	\$36.87	100
Operator Cost/Hour:	\$28.53	NA
Total Unit Cost/Hour:	\$83.88	

Total Fleet Cost/Hour: \$83.88

PUMPING QUANTITIES

Initial Pond Volume:	<u>570.00</u>		Conversion factor:	<u>325850.5800</u>
Final Pond Volume:	<u>185,734,830.60</u>	gallons		
Total Pond Inflow Surface Area:	<u>60,000</u>	Sq. ft.	Unit inflow rate in gph/sq. ft.:	<u>0.1758</u>
Total Pond Inflow Volume per Hour:	<u>10,548.00</u>	gallons		

Source of estimated volume: Staff estimates 28.5 ac pond 20' deep 3,000 lft inflow river

PUMPING TIME

Maximum Pump Capacity:	<u>170,000</u>	gph/pump
Estimated Suction Head:	<u>15</u>	feet
Estimated Discharge Head:	<u>5</u>	feet
Total Head:	<u>20</u>	feet
CPB Pump Capacity:	<u>168,000</u>	gph/pump
Site Altitude:	<u>4,600</u>	feet
Adjusted Pumping Capacity:	<u>504,000</u>	gph
Initial Unadjusted Pumping Time:	<u>368.52</u>	hours
Inflow during Initial Pumping:	<u>3,887,165</u>	gallons
Net Unadjusted Pumping Time:	<u>376.23</u>	Hours
Altitude Adjustment Factor:	<u>1.0000</u>	(3% rule)
Pump Efficiency Factor:	<u>0.9167</u>	(55 min./hr.)
Total Adjusted Pumping Time:	<u>344.89</u>	hours

JOB TIME AND COST

Total job time: 344.89 HoursUnit cost: \$0.000153 /GallonTotal job cost: \$28,930

SCRAPER TEAM WORKTask description: **Transport overburden for backfill and grading**Site: **Mule Farm Gravel Pit**Permit Action: 2018-03Permit/Job#: M1991079**PROJECT IDENTIFICATION**Task #: 03AState: ColoradoAbbreviation: NoneDate: 3/23/2018County: MesaFilename: M079-03aUser: ACYAgency or organization name: DRMS**HOURLY EQUIPMENT**COSTShift basis: 1 per day

Equipment Description	
-Scraper:	Cat 637G w/push-pull
-Dozer:	Cat D8T - 8SU
Support Equipment -Load Area:	NA
-Dump Area:	NA
Road Maintenance -Motor Grader:	NA
-Water Truck:	NA

Cost Breakdown:**Scraper Work Team****Support Equipment****Maintenance Equipment**

	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	NA	NA	NA	NA
Ownership cost/hour:	\$152.84	\$83.81	NA	NA	NA	NA
Operating cost/hour:	\$158.39	\$66.17	NA	NA	NA	NA
%Utilization-ripper:	NA	NA	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:	\$41.46	\$40.52	NA	NA	NA	NA
Unit Subtotals:	\$352.69	\$190.50	NA	NA	NA	NA
Number of Units:	2	1	0	0	0	0
Group Subtotals:	Work: \$895.88		Support:	\$0.00	Maint:	\$0.00

Total work team cost/hour: **\$895.88****MATERIAL QUANTITIES**Initial volume: 22,222

CCY

Swell factor: 1.060Loose volume: **23,555**

LCY

Source of estimated volume: 1200 lft of 1:1 going to 3:1 backfillSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION****Scraper Bowl (volume) Basis:**

Material weight: 2,900 lbs/LCY
 Material description: Sand and gravel - Dry
 Rated Payload: 81,600 pounds
 Payload Capacity: 28.14 LCY

Struck Volume: 24.00 LCY
 Heaped Volume: 34.00 LCY
 Average Volume: 29.00 LCY
 Adjusted Capacity: **28.14** LCY

Cycle Time:Scraper Loading Time: 1.00 MinutesManeuver and Spread Time: 0.60 MinutesJob Condition Correction:

Site Altitude: 4600 feet

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

Travel Time:Road Condition: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	0.00	5.00	5.00	1867	0.68

Haul Time: 0.68 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	0.00	5.00	5.00	2795	0.53

Return Time: 0.53 minutesTotal Scraper team cycle time: 2.81 minutesAdjusted for job conditions: 997.34 LCY/HourSelected Number of Scrapers: 2 Scraper(s)Adjusted single scraper team (unit) hourly production: 997.34 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 997.34 LCY/HourUnadjusted unit production/hour: 1,201.62 LCY/Hour

Optimal Number of Scrapers per push dozer: _____

JOB TIME AND COSTFleet size: 1 Team(s)Total job time: 23.62 HoursUnit cost: \$0.898 /LCYTotal job cost: \$21,159

BULLDOZER WORKTask description: **Grade backfill material**Site: **Mule Farm Gravel Pit** Permit Action: **2018-03** Permit/Job#: **M1991079****PROJECT IDENTIFICATION**

Task #: **04A** State: **Colorado** Abbreviation: **None**
 Date: **3/23/2018** County: **Mesa** Filename: **M079-04a**
 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:	\$83.81	NA
Operating Cost/Hour:	\$66.17	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$40.52	NA

Total unit Cost/Hour: **\$190.50**
 Total Fleet Cost/Hour: **\$190.50**

MATERIAL QUANTITIES

Initial Volume: **22,222**
 Swell factor: **1.000**
 Loose volume: **22,222 LCY**

Source of estimated volume: **1200 lft 1:1 to 3:1 transported**
 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: **-5 %**
 Average site altitude: **4,600 feet**

Material weight: **2,900 lbs/LCY**Weight description: **Sand and gravel - Dry****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	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:	1.115	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5284

Adjusted unit production: 739.76 LCY/hr

Adjusted fleet production: **739.76** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.258/LCY

Total job time: **30.04** Hours

Total job cost: **\$5,723**

BULLDOZER RIPPING WORK

Task description: Rip compacted areas

Site: Mule Farm Gravel Pit Permit Action: 2018-03 Permit/Job#: M1991079

PROJECT IDENTIFICATION

Task #: 05A State: Colorado Abbreviation: None
Date: 3/23/2018 County: Mesa Filename: M079-05a
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:	\$83.81	NA
Operating Cost/Hour:	\$66.17	100
Ripper Ownership Cost/Hour:	\$7.55	NA
Ripper Operating Cost/Hour:	\$7.21	100
Operator Cost/Hour:	\$40.52	NA
Total Unit Cost/Hour:	\$205.26	
Total Fleet Cost/Hour:	\$205.26	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 6.00 acres Rip Depth (ft): 2.00 Volume: 19,360 BCY or CCY

Source of estimated quantity: Staff estimates from inspection

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth: 2.56 mph
Average Ripping Width: 7.08 degrees
Average Ripping Length: 150.00 feet
Average Dozer Speed: 88.00 feet
Average Maneuver Time: 0.25 feet
Production per unit area: 0.748 acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.748 Acres/hr
Site Altitude: 4,600 feet
Altitude Adj: 1.00 (CAT HB)
Job Efficiency: 0.83 (1 shift/day)
Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.62 Acres/hr
Adjusted Hourly Fleet Production: **0.62** Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: **9.66** Hours

Unit cost: \$330.434 Per acre Total job cost: **\$1,983**

SCRAPER TEAM WORKTask description: Transport topsoilSite: Mule Farm Gravel PitPermit Action: 2018-03Permit/Job#: M1991079**PROJECT IDENTIFICATION**Task #: 06AState: ColoradoAbbreviation: NoneDate: 3/23/2018County: MesaFilename: M079-06aUser: ACYAgency or organization name: DRMS**HOURLY EQUIPMENT**COSTShift basis: 1 per day

	Equipment Description
-Scraper:	Cat 637G w/push-pull
-Dozer:	Cat D8T - 8SU
Support Equipment -Load Area:	NA
-Dump Area:	NA
Road Maintenance -Motor Grader:	NA
-Water Truck:	NA

Cost Breakdown:

Scraper Work Team

Support Equipment

Maintenance Equipment

	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	NA	NA	NA	NA
Ownership cost/hour:	\$152.84	\$83.81	NA	NA	NA	NA
Operating cost/hour:	\$158.39	\$66.17	NA	NA	NA	NA
%Utilization-ripper:	NA	NA	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:	\$41.46	\$40.52	NA	NA	NA	NA
Unit Subtotals:	\$352.69	\$190.50	NA	NA	NA	NA
Number of Units:	2	1	0	0	0	0
Group Subtotals:	Work: \$895.88		Support:	\$0.00	Maint:	\$0.00

Total work team cost/hour: **\$895.88****MATERIAL QUANTITIES**Initial volume: 18,352

CCY

Swell factor: 1.215Loose volume: **22,298**

LCY

Source of estimated volume: 19.5 acres at 7" thickSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Scraper Bowl (volume) Basis:

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

Cycle Time:Scraper Loading Time: 1.00 MinutesManeuver and Spread Time: 0.60 MinutesJob Condition Correction:

Site Altitude: 4600 feet

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

Travel Time:Road Condition: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	0.00	5.00	5.00	1867	0.63

Haul Time: 0.63 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	0.00	5.00	5.00	2795	0.53

Return Time: 0.53 minutesTotal Scraper team cycle time: 2.76 minutesAdjusted for job conditions: 1,046.52 LCY/HourSelected Number of Scrapers: 2 Scraper(s)Adjusted single scraper team (unit) hourly production: 1,046.52 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 1,046.52 LCY/HourUnadjusted unit production/hour: 1,260.87 LCY/Hour

Optimal Number of Scrapers per push dozer: _____

JOB TIME AND COSTFleet size: 1 Team(s)Total job time: 21.31 HoursUnit cost: \$0.856 /LCYTotal job cost: \$19,088

BULLDOZER WORKTask description: Grade topsoilSite: Mule Farm Gravel Pit Permit Action: 2018-03 Permit/Job#: M1991079**PROJECT IDENTIFICATION**

Task #: 07A State: Colorado Abbreviation: None
 Date: 3/23/2018 County: Mesa Filename: M079-07a
 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>\$83.81</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$66.17</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>\$40.52</u>	<u>NA</u>

Total unit Cost/Hour: \$190.50
 Total Fleet Cost/Hour: \$190.50

MATERIAL QUANTITIES

Initial Volume: 22,222
 Swell factor: 1.000
 Loose volume: 22,222 LCY

Source of estimated volume: 1200 lft 1:1 to 3:1 transported
 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: -5 %
 Average site altitude: 4,600 feet

Material weight: 2,900 lbs/LCYWeight description: Sand and gravel - Dry**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:	1.115	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5284

Adjusted unit production: 739.76 LCY/hr

Adjusted fleet production: **739.76** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.258/LCY

Total job time: **30.04** Hours

Total job cost: **\$5,723**

REVEGETATION WORKTask description: Reveg pond slopes Approx. 3 acSite: Mule Farm Gravel PitPermit Action: 2018-03Permit/Job#: M1991079**PROJECT IDENTIFICATION**Task #: 08AState: ColoradoAbbreviation: NoneDate: 3/23/2018County: MesaFilename: M079-08aUser: 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)	\$106.29
Total Tilling Cost/Acre	\$106.29

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Red Top	0.30	34.37	\$2.48
Reed Canarygrass - VNS	5.30	61.57	\$25.60
Totals Seed Mix	5.60	95.93	\$28.07

Application

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

Total Seed Application Cost/Acre	\$232.00
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MULCHING and MISCELLANEOUS**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost / Acre
Herbicide - 2,4D @ 1.0 pt/ac	1.00	ACRE	\$2.74	\$2.74
Total Mulch Materials Cost/Acre				\$2.74

Application

Description	Cost / Acre
Weed spray, truck, aquatic area, nox. [DMG]	\$68.50
Total Mulch Application Cost/Acre	\$68.50

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: 3 Cost /Acre: \$437.60
 Estimated Failure Rate: 30% Cost /Acre*: \$437.60
 *Selected Replanting Work Items: TILLING,SEEDING,MULCHING

Initial Job Cost: **\$1,312.80**
 Reseeding Job Cost: **\$393.84**
 Total Job Cost: **\$1,707**
 Job Hours: **8.00**

REVEGETATION WORKTask description: Reveg flat areas Approx. 16.5 acSite: Mule Farm Gravel PitPermit Action: 2018-03Permit/Job#: M1991079**PROJECT IDENTIFICATION**Task #: 09AState: ColoradoAbbreviation: NoneDate: 3/23/2018County: MesaFilename: M079-09aUser: 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)	\$106.29
Total Tilling Cost/Acre	\$106.29

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Sand Dropseed	0.20	23.88	\$2.17
Crested Wheatgrass - Standard	4.00	18.37	\$15.00
Yellow Sweet Clover - Madrid	2.80	16.71	\$7.92
Tall Wheatgrass - Jose	10.20	18.50	\$24.68
Totals Seed Mix	17.20	77.45	\$49.78

Application

Description	Cost /Acre
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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
Herbicide - 2,4D @ 1.0 pt/ac	1.00	ACRE	\$2.74	\$2.74
Total Mulch Materials Cost/Acre				\$2.74

Application

Description	Cost /Acre
Weed spray, truck, aquatic area, nox. [DMG]	\$68.50
Total Mulch Application Cost/Acre	\$68.50

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: 16.5 Cost /Acre: \$459.31
 Estimated Failure Rate: 40% Cost /Acre*: \$459.31
 *Selected Replanting Work Items: TILLING,SEEDING,MULCHING

Initial Job Cost: **\$7,578.62**
 Reseeding Job Cost: **\$3,031.45**
 Total Job Cost: **\$10,610**
 Job Hours: **24.00**

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Initial Mobilization**Site: **Mule Farm Gravel Pit**Permit Action: **2018-03**Permit/Job#: **M1991079****PROJECT IDENTIFICATION**Task #: **10A**State: **Colorado**Abbreviation: **None**Date: **3/23/2018**County: **Mesa**Filename: **M079-10a**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:	\$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 637G w/push-pull	59.59	\$152.84	\$125.45	2	\$556.58	\$250.90	\$500.00
Cat D8T - 8SU	47.71	\$83.81	\$117.55	2	\$402.72	\$235.10	\$500.00
Drill/Broadcast Seeder with Tractor	25.00	\$12.22	\$88.67	2	\$201.78	\$177.34	\$500.00
Submersible pump - 460v, 8 in.	0.70	\$5.50	\$88.67	1	\$94.17	\$88.67	\$250.00

Subtotals: **\$1,255.25** **\$752.01** **\$1,750.00****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	\$47.96	1	\$47.96	\$47.96

Subtotals: **\$47.96** **\$47.96**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	GRAND JUNCTION, CO	
Total one-way travel distance:	5.00	miles
Average Travel Speed:	35.00	mph
Total Non-Roadable Mob/Demob Cost *	\$6,584.00	
'* two round trips with haul rig:		
Total Roadable Mob/Demob Cost **	\$13.70	
** one round trip, no haul rig:		

Transportation Cycle Time:

	Non- Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.14	0.14
Return Time (Hours):	0.14	0.14
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	1.29	0.29

JOB TIME AND COST

Total job time:	2.57	Hours
Total job cost:	\$6,598	

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: Secondary MobilizationSite: Mule Farm Gravel PitPermit Action: 2018-03Permit/Job#: M1991079**PROJECT IDENTIFICATION**Task #: 11AState: ColoradoAbbreviation: NoneDate: 3/23/2018County: MesaFilename: M079-11aUser: ACYAgency or organization name: DRMS**EQUIPMENT TRANSPORT RIG COST**Shift basis: 1 per dayCost Data Source: CRG DataTruck 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:	\$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	\$12.22	\$88.67	2	\$201.78	\$177.34	\$500.00

Subtotals: **\$201.78** **\$177.34** **\$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	\$47.96	1	\$47.96	\$47.96

Subtotals: **\$47.96** **\$47.96**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	GRAND JUNCTION, CO	
Total one-way travel distance:	<u>5.00</u>	miles
Average Travel Speed:	<u>35.00</u>	mph
Total Non-Roadable Mob/Demob Cost *	\$1,511.88	
** two round trips with haul rig:		
Total Roadable Mob/Demob Cost **	<u>\$13.70</u>	
** one round trip, no haul rig:		

Transportation Cycle Time:

	Non- Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.14	0.14
Return Time (Hours):	0.14	0.14
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	1.29	0.29

JOB TIME AND COST

Total job time: 2.57 Hours

Total job cost: \$1,526