

DRAFT

August 31, 2023

Mark Gardner Ephemeral Resources, LLC P.O. Box 1769 Grand Junction, CO 81502

RE: Whitewater Pit 500, Permit No. M-1977-129, Bonding Changes with TR-6

Dear Mr. Gardner:

This reclamation cost update was in response to Technical Revision (TR-6) and the follow up site inspection conducted on August 29, 2023. It is Division policy to periodically update its costs to ensure that the Financial Warranty adequately, reflects the actual current cost of fulfilling the requirements of the approved reclamation plan.

The bond was last recalculated in 2009 with TR-4. Below is a table summarizing input values that have been updated based on site conditions. This table does not account for price changes resulting from inflation or other RS Means cost changes. Bond calculations are based on a combination of field observations and worst case scenario based on the approved reclamation plan.

Assumptions:

- Revised TR-5 seed mix. TR-5 does not clarify which areas area salty vs not salty. Anything within 25 feet of a pond is salty (wetlands), and all other reclamation is non-salty (uplands).
- TR-6 committed to a 2,000 LF max of 1H: 1V highwall requiring backfill and 5,000 LF of 2H: 1V cut/fill
- Total affected lands is 416.47. Maximum disturbance at any time is 250 acres the majority would be lakes. Seeding and topsoil maximum of 50 ac.
- Bond for Option 2 in Stage S until mined. Max of 35 ac gravel RV parking area
- Acreages are based off of TR-6 Option 2 table
- Topsoil is located within Stage 6, Stage 4 Part B, none in south mine, has to be hauled if required.
- Stages are named based off of TR-6 revised map. Stage 4B is included with Stage 3 Part B



Task	Form Used	Description
03a	Pump	Stage 3 Part B Dewater approx. 40 ac
		Current estimated pit/pond
03b	Truck/	Stage 3 Part B Haul Backfill
	loader	1:1 backfill 1,600LF @ 20'H from pile in Stage 3 Part B (1100LF truck) = 23,704 CY
		Combination TR-6 grading max and site conditions
03c	Dozer	Stage 3 Part B Grading slopes = 29,260 CY
		2:1 cut/fill 3,000 LF @ 20'H = 5,556 CY
		Plus grading transported backfill vol 23,704 CY
03d	Ripper	Stage 3 Part B Rip stockpiled area, 4 ac overburden/topsoil, stripped areas, and CW stockpile area = 12 ac
03e	Truck/ loader	Stage 3 Part B Apply topsoil to affected lands, 21.99 ac ac @ 9" = 26,607 CY
		Pit will become inundated. Current unreclaimed shore line approx. $5800 \text{ LF } \times 75'\text{W} = 9.99 \text{ ac}$
		Plus stockpile areas above water 12 ac
		Topsoil source is berm in phase avg. 1100 LF to placement
03f	Reveg	Stage 3 Part B Reveg Salty Mix = 3.33 ac
		affected lands = 21.99 ac
		Pit will become inundated. Shore line – 5800 LF * 25'W = 3.33 ac
03g	Reveg	Stage 3 Part B Reveg Non-Salty Mix = 18.66 ac
		21.99 ac -3.33c = 18.66
04f	Reveg	Stage 4 Part A Reveg Salty Mix - 3.44 ac
		Affected lands = 8.66 ac
		Pit will become inundated. Shore line $-6,000 \text{ LF} * 25'W = 3.44 \text{ ac}$
		Per TR-6 remaining items
04g	Reveg	Stage 4 Part A Reveg Non-Salty Mix = 5.22
		8.66 ac – 3.44 ac = 5.22 ac
06c	Dozer	Stage 6 Grading stockpiles flat = 13,230 CY

		2000LF of 5' berms = 9260 CY
		700 LF @ 35'H of 2H: 1V stockpile to 3H: 1V cut/fill = 3970 CY
		Site conditions
06d	Ripper	Stage 6 Ripping affected lands = 9.3 ac
06e	Truck/	Stage 6 Apply topsoil to affected lands, 9.3 ac @ 9" = 11,253 CY
	loader	Topsoil hauled from north of raw material stockpile stage 6, avg 700 LF to placement
06g	Reveg	Stage 6 Reveg affected lands = 9.3 ac in
		Salty Mix- No pond/shore areas
		Non-Salty Mix = 9.3 ac
S2	Reveg	Phase S-Opt 2 Secondary failure seeding of reclaimed = 8.9
		Salty Mix-areas adjacent to ponds
		50% of 16.38 ac previously reclaimed per TR-6
X01	Mob	Initial Mobilization
X02	Mob	Secondary Mobilization reveg equipment only

Per policy I wanted to send this out for review prior to issuance. Please look it over and let me know if there are errors or concerns. As noted you may also wish to revise your reclamation plan. If no response is received by **Tuesday**, **October 31**, **2023** then I'll issue SI-2 the following Monday as is. SI-2 will result in a total required bond amount of **\$574,451**, which is <u>an increase of \$286,951</u> over the \$287,500 currently held.

Please feel free to contact me with any further questions. Amy Yeldell at the Division of Reclamation, Mining and Safety, Rm 215, 1001 E 62nd Ave, Denver CO 80216. Direct contact can be made by phone at 303-866-3567 Ext 8183 or via email at amy.yeldell@ state.co.us

Sincerely,

Amy Yeldell

Environmental Protection Specialist

Ec:

Travis Marshall, Senior EPS, Grand Junction DRMS

COST SUMMARY WORK

Task description:		TR-6 Bond update						
Site: Whitewater Pit 500		Permit Action: TR-6			Permit/Job	o#: M1977129		
<u>PI</u>	ROJECT	IDENTIFIC	CATION					
	Task #:	ACY	State:	Colorado		Abbreviation:	None	
	Date:	8/29/2023	County:	Mesa		Filename:	M129-ACY	
	User:	ACY						
	Age	ency or organi	zation name: DR	MS				

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
03a	Stage 3 Part B Dewater Pit	PUMPING	1	1,476.73	\$72,788
03b	Stage 3 Part B Haul Backfill	TRUCK1	1	53.02	\$43,129
03c	Stage 3 Part B Grading slopes	DOZER	2	28.58	\$24,310
03d	Stage 3 Part B Rip stockpiled areas	RIPPER	2	9.35	\$8,357
03e	Stage 3 Part B Apply Topsoil	TRUCK1	1	57.26	\$101,238
03f	Stage 3 Part B Reveg Salty Mix	REVEGE	1	5.00	\$9,294
03g	Stage 3 Part B Reveg Non-Salty Mix	REVEGE	1	28.00	\$53,421
04f	Stage 4 Part A Reveg Salty	REVEGE	1	5.00	\$9,601
04g	Stage 4 Part A Reveg Non-Salty	REVEGE	1	8.00	\$14,944
06c	Stage 6 Grading slopes and slopes	DOZER	2	18.43	\$15,674
06d	Stage 6 Rip affected lands	RIPPER	2	7.24	\$6,477
06e	Stage 6 Apply Topsoil	TRUCK1	1	26.94	\$42,121
06g	Stage 6 Reveg Non-Salty	REVEGE	1	14.00	\$26,625
S2	Phase S - Opt 2 Secondary failure seeding of reclaimed	REVEGE	1	9.00	\$16,560
X01	Initial Mobilization	MOBILIZE	1	2.53	\$10,505
X02	Secondary Mobilization	MOBILIZE	1	2.53	\$1,527
		SUBTO	OTALS:	1751.61	\$456,571

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	\$9,223
Performance bond:	1.05	Total =	\$4,794
Job superintendent:	140.00	Total =	\$9,111
Profit:	10.00	Total =	\$45,657
		TOTALO & P =	\$68 785

TOTAL O & P = \$68,785 CONTRACT AMOUNT (direct + O & P) = \$525,356

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	\$500	Total =	\$500
Engineering work and/or contract/bid preparation:	4.25	Total =	\$22,328
Reclamation management and/or administration:	5.00	•	\$26,268

CONTINGENCY: 0.00 Total = _\$0

TOTAL INDIRECT COST = \$117,880

TOTAL BOND AMOUNT (direct + indirect) = __\$574,451

PUMPING WORK

Task description:	Stage 3 Part B	B Dewater Pit			
Site: Whitewater Pit 500	F	Permit Action:	TR-6	Permit/Job#:	M1977129
PROJECT IDENTIF	<u> TICATION</u>				
Task #: 03A	State	e: Colorado		Abbreviation:	None
Date: 8/29/2023	County			Filename:	M129-03a
User: ACY				_	
Agency or orga	nnization name:	DRMS			
HOURLY EQUIPMI	ENT COST				
	Description			Quantity	
Make and Model:	Submersible pur	mp - 460v. 8 in		Quantity	
Attachment 1:	Suction hose - 6			1	
Attachment 2:	Discharge hose			4	
Labor Unit 1:	Pump operator		·	1	
Horsepower:	95				
	per day				
	0.70				
<u> </u>	(S Tons)				
Cost Breakdown:	,				
Cost Breakdown.			Utilization %		
Ownership Cost/	Hour: \$1	7.02	NA		
Operating Cost/		4.04	100		
Operator Cost/	Hour: \$2	28.23	NA		
Total Unit Cost/	Hour: \$4	19.29			
Total Fleet Cost.	/Hour: \$	49.29			
		+7.27			
<u>PUMPING QUANTI</u>	TIES				
Initial Pond Vol	lume:8	300.00		Conversion factor:	325850.5800
Final Pond Vol		80,464.00	gallons		
Total Pond Inflow Su				Unit inflow rate in	
		2,000	_ Sq. ft.	gph/sq. ft.:	0.1758
Total Pond Inflow Vo		0.67.60	11		
per I	Hour: 3,	867.60	_ gallons		
Source	of estimated volun	ne: Anticipat	ed 40 ac pond 20'D		
PUMPING TIME					
Ma	ximum Pump Capa	ecity:	170,000	gph/pump	
	Estimated Suction H		10	feet	
	mated Discharge H		15	feet	
250.	Total H		25	feet	
	CPB Pump Capa		165,600	gph/pump	
	Site Alti		4,600	feet	
Adius	sted Pumping Capa	eity.	165,600	gph	
	djusted Pumping T		1,574.16	hours	
	during Initial Pum		6,088,211	gallons	
	djusted Pumping T		1,610.92	Hours	
	ude Adjustment Fa		1.0000	(3% rule)	
	Pump Efficiency Fa		0.9167	(55 min./hr.)	
	djusted Pumping T		1,476.73	hours	
JOB TIME AND CO	ST		_		
JOD THILD CO	<u>~ ~</u>		Total job time	e: 1,476.73	Hours
			.		
Unit cost: \$0.00	00273 /Gallon	l	Total job cos	t: \$72,788	

TRUCK/LOADER TEAM WORK

	Task description:	Stage 3	Part B Haul Bacl	kfill			
Site:	Whitewater Pit	500	Permit Action	on: TR-6	·	Permit/Job#: N	11977129
	PROJECT IDEN	NTIFICATION	<u>I</u>				
	Task #: 03B		State: Colora	ndo	Ab	breviation: No	one
	Date: 8/29/2 User: ACY	2023	County: Mesa			Filename: M	129-03b
	Agency or	r organization nar	ne: DRMS				
	HOURLY EQUI	PMENT COST	_			is: <u>1 per day</u>	
_				Equipment Descri	ption		
		Fruck Loader Tea					
_	C	To the second I		Г 972Н			
	Supp	oort Equipment -L	Load Area: NA ump Area: NA				
_	Road M	Iaintenance –Mot		Γ 14M			
	Road IV			er Tanker, 2,500	Gal.		
_			l l	, ,			
	Cost Breakdown:	Truck/Loa	ader Team	Support 1	Equipment	Maintena	nce Equipment
		Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Uti	lization-machine:	100	100	NA	NA	50	0
Owı	nership cost/hour:	\$108.06	\$57.78	NA	NA	\$149.33	\$11.35
Op	erating cost/hour:	\$71.88	\$56.23	NA	NA	\$46.40	\$0.00
%	Utilization-riper:	NA	0	NA	NA	NA	NA
Rippe	er own. cost/hour:	NA	\$0.00	NA	NA	\$0.00	\$0.00
Rip	per op. cost/hour:	NA	\$0.00	NA	NA	\$0.00	\$0.00
O	perator cost/hour:	\$24.82	\$35.97	NA	NA	\$46.87	\$0.00
	Unit Subtotals:	\$204.76	\$149.98	NA	NA	\$242.60	\$11.35
	Number of Units:	2	1	0	0	1	1
	Group Subtotals:	Work:	\$559.50	Support:	\$0.00	Maint:	\$253.95

Total work team cost/hour: \$813.45

MATERIAL QUANTITIES

Initial volume: 23,704 CCY Swell factor: 1.090 Loose volume: 25,837 LCY

Source of estimated volume: 1:1 backfill 1,600LF @ 20'H

Source of estimated swell factor: Cat Handbook

Material Purchase Cost: \$0.00

mase Cost: 50.00

Total Cost: \$0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: 2,400 Pounds/LCY
Description: Clay and gravel - Dry

Rated Payload: 62,000 Pounds
Payload Capacity: 25.83 LCY

Truck Bed (volume) Basis: Struck Volume:	17.10	LCY			
Heaped Volume:	22.10	LCY			
Average Volume:	19.60	LCY			
Adjusted Volume:	22.10	LCY			
	l Truck Volume	e Based on Number of	of Loader Passes:	18.48	LCY
Loading Tool Capacity			Buck	et Size Class: N	ſΑ
Rated Capacity:	5.600	LCY (heaped)		et Bize Class. 11	
Bucket Fill Factor:	1.100	Other - rock/di		120%) 1.100	
Adjusted Capacity:	6.160	LCY	(200		
Job Condition Corrections	s :	S	Site Altitude (ft.): 4	600 feet	
	Truck	Loader	Source		
Altitude Adj:	1.000	1.000	(CAT HB)	
Job Efficiency:	0.830	0.830	(CAT HB		
·					
Net Correction:	0.830	0.830			
Loading Tool Cycle Time	<u> </u>	of Loading 10011	asses Required to F	fill Truck:	gass pass
Excavators and Front Shov Machine Cycle Time	e <u>ls:</u> vs. Job Conditio	on Rating: NA	asses Required to r	III Truck:	3 pass
Excavators and Front Shov Machine Cycle Time Selected Value	e <u>ls:</u> vs. Job Conditio within this Bas	on Rating: NA ic Rating: NA	asses Required to F	III Truck:	3 pass
Excavators and Front Shov Machine Cycle Time Selected Value Track Loaders	els: vs. Job Condition within this Bas Material Desc.	on Rating: NA ic Rating: NA	asses Required to r	ill Truck:	3 pass
Excavators and Front Shov Machine Cycle Time Selected Value Track Loaders - Cycle Time Elements (min.	els: vs. Job Condition within this Bas Material Desc it	on Rating: NA ic Rating: NA iription:	asses Required to r		
Excavators and Front Shov Machine Cycle Time Selected Value Track Loaders	els: vs. Job Condition within this Bas Material Desc it	on Rating: NA ic Rating: NA	asses Required to r	Dump:0.100	
Excavators and Front Shov Machine Cycle Time Selected Value Track Loaders - Cycle Time Elements (min.	els: vs. Job Condition within this Bas Material Desc :	on Rating: NA		Dump: 0.100	
Excavators and Front Shov Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min. Load: NA	els: vs. Job Condition within this Bas Material Desc :	on Rating: NA		Dump: 0.100)
Excavators and Front Shov Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min. Load: NA Wheel and Track Loaders	els: vs. Job Condition within this Bas Material Desc :	on Rating: NA ic Rating: NA ription: NA Maneuver: NA asic Loader Cycle Ta		Dump: 0.100 naneuver): 0 Factor (min.) 0.020) .525 minutes Source (Cat HB)
Excavators and Front Shov Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors	vs. Job Condition within this Bas Material Desc b: Unadjusted B Mixed mater	on Rating: NA ic Rating: NA ription: NA Maneuver: NA asic Loader Cycle Ta	ime (load, dump, n	Dump: 0.100 naneuver): 0 Factor (min.)) minutes
Excavators and Front Shov Machine Cycle Time Selected Value Track Loaders - Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership:	els: vs. Job Condition within this Base Material Desc : Unadjusted B Mixed mater Conveyor or Common ow	on Rating: NA ic Rating: NA ription: NA Maneuver: NA asic Loader Cycle Ta rial 0.02 dozer piled 10 ft. hi rnership of trucks and	ime (load, dump, n	Dump: 0.100 naneuver): 0 Factor (min.) 0.020 0.000 -0.040	Source (Cat HB) (Cat HB) (Cat HB)
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Excavators and Front Shov Machine Cycle Time Selected Value Track Loaders - Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership:	els: vs. Job Condition within this Base Material Desc : Unadjusted B Mixed mater Conveyor or Common ow	on Rating: NA ic	ime (load, dump, n gh and up 0.00 d loaders -0.04	Dump: 0.100 naneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	Source (Cat HB) (Cat HB)
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Excavators and Front Shov Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	els: vs. Job Condition within this Bas Material Desc : Unadjusted B Mixed mater Conveyor or Common ow Constant ope	on Rating: NA ic Rating: NA ription: NA Maneuver: NA asic Loader Cycle Ti dozer piled 10 ft. hi mership of trucks and eration -0.04 get 0.00 Net Cycle Ti Adjusted Load	ime (load, dump, n gh and up 0.00 d loaders -0.04	Dump: 0.100 naneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	Source (Cat HB) (Cat HB)
Excavators and Front Shov Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	els: vs. Job Condition within this Bas Material Desc : Unadjusted B Mixed mater Conveyor or Common ow Constant ope	on Rating: NA ic Rating: NA ription: NA Maneuver: NA asic Loader Cycle Ti dozer piled 10 ft. hi mership of trucks and eration -0.04 get 0.00 Net Cycle Ti Adjusted Load	ime (load, dump, n gh and up 0.00 d loaders -0.04 me Adjustment:	Dump: 0.100 naneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.465	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes
Excavators and Front Shov Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	els: vs. Job Condition within this Bas Material Desc b: Unadjusted B Mixed mater Conveyor or Common ow Constant ope Nominal targ	on Rating: NA ic Rating: NA ription: NA Maneuver: NA asic Loader Cycle Ti dozer piled 10 ft. hi mership of trucks and eration -0.04 get 0.00 Net Cycle Ti Adjusted Load	ime (load, dump, n gh and up 0.00 d loaders -0.04 me Adjustment: der Cycle Time: Γime per Truck:	Dump: 0.100 naneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.465	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes
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<u>Truck Travel (Haul & Return) Time:</u> Road Condition: <u>Rutted dirt, little maintenance, no water, 1" tire penetration 4.0</u>

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1100.00	-5.00	4.00	-1.00	3080	0.425

Task # 03B

Haul Time: 0.425 minutes

Return Route:

rectarii rec	ate.					
Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1100.00	5.00	4.00	9.00	1700	0.722

Return Time: 0.722 minutes
Total Truck Cycle Time: 3.777 minutes

Loading Tool unit

Production Truck Unit Production

293.57 LCY/Hour Adjusted for job efficiency: 564.60 LCY/Hour Adjusted for job efficiency: 243.66 LCY/Hour Optimal No. of Trucks: 2 Truck(s)

Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 487.32 LCY/Hour Adjusted single truck/loader team production: 487.32 LCY/Hour Adjusted multiple truck/loader team production: 487.32 LCY/Hour

JOB TIME AND COST

 Fleet size:
 1
 Team(s)
 Total job time:
 53.02
 Hours

 Unit cost:
 \$1.669
 /LCY
 Total job cost:
 \$43,129

BULLDOZER WORK

Task description:	Stag	e 3 Part B G	rading slop	es		
Whitewater Pit	500	Per	mit Action:	TR-6	Permit/Job#:	M1977129
PROJECT IDE	NTIFICATI	<u>ON</u>				
Task #: 03C		State:	Colorado		Abbreviation:	None
Date: 8/29/	2023	County:	Mesa	-	Filename:	M129-03c
User: ACY	•					
Agency o	r organization	name: DI	RMS			
HOURLY EQU	IPMENT CO	<u>OST</u>				
Basic Machine:	Cat D8T - 8	8SU				
Horsepower:	310					
Blade Type:	Semi-Univ	ersal				
Attachment:	NA			_		
Shift Basis: Data Source:	1 per day (CRG)			<u> </u>		
	(CRG)			<u> </u>		
Cost Breakdown:				II('1' - 4' 0/		
Ownership Cost/I	Hour:		\$241.38	<u>Utilization %</u> NA		
Operating Cost/I			\$143.92	100		
Ripper own. Cost/I			\$0.00	NA		
Ripper op. Cost/I			\$0.00	0		
Operator Cost/I	Hour:		\$40.04	NA		
MATERIAL QU Initial Volume: Swell factor:	29,260 1.090					
Loose volume:	31,893 LCY					
Source of estimated Source of estimated HOURLY PRO	l swell factor:	2:1 cut/fi Cat Hand		20'H and transported	backfill	
		5 0.0				
Average push dista Unadjusted hourly		70 feet 1,093.7 LC	Y/hr			
Materials consister	cy description	: Consol	idated stock	pile 1.0		
Average push grad Average site altitud						
Material weight:	2,400	lbs/LCY				
Weight description	: Clay	and gravel - l	Dry			
Job Condition Corr	ection Factor erator Skill:	0.	750	Source (AVG.)		
	onsistency:		000	(CAT HB)		
	ng method:		000	(GEN.)		
	Visibility:	1.	000	(AVG.)		

0.830	(1 SHIFT/DAY)
0.600	(FND-SF)
1.426	(CAT HB)
1.000	(CAT HB)
0.958	(CAT HB)
1.000	(PAT)
	0.600 1.426 1.000 0.958

Net correction: 0.5102

Adjusted unit production: 558.01 LCY/hr
Adjusted fleet production: 1116.02 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: \$0.762/LCY

Total job time: 28.58 Hours
Total job cost: \$24,310

BULLDOZER RIPPING WORK

Site:	Task description:	Stage 3 Part B Rip stockp				
	: Whitewater Pit	Permit Action	n: <u>TR-6</u>	Permit/J	Job#: M19	77129
	PROJECT IDE	NTIFICATION				
	Task #: 03D	State: Colorad	lo	Abbreviati	on: None	
		/2023 County: Mesa		Filenar		-03d
	User: ACY					
	Agency o	or organization name: DRMS				
	HOURLY EQU	IPMENT COST				
	Basic M	fachine: Cat D8T - 8SU		Horsepower:	310	
	Ripper Atta			Shift Basis:	1 per day	
				Data Source:	(CRG)	
	Cost Breakdown:					
				Utilization %		
		Ownership Cost/Hour:	\$241.38	NA		
	ъ.	Operating Cost/Hour:	\$143.92	100		
		Ownership Cost/Hour:	\$14.11	NA 100		
	Rippe	er Operating Cost/Hour: Operator Cost/Hour:	\$7.45 \$40.04	100 NA		
		Total Unit Cost/Hour:	\$446.90	NA		
			893.79			
	MATERIAL Q		selected estimating	g method: Area		
	Alternate Methods	_				
Seismic:	NA 12.00	Bank Volume		BCY Volume: 38,720	NA	BCY or CC
Area:		acres Rip Depth (ft)	<u></u>		<u> </u>	BC1 01 CC
		Source of estimated quantity: Stoc	kpiles and strippe	d areas		
	HOURLY PRO	<u>DUCTION</u>				
	Seismic:					
		Seismic Velocity:	NT A			
	Area:		NA	feet/second		
			NA NA	feet/second		
		Average Ripping Depth:	2.56			
		Average Ripping Depth: Average Ripping Width:		feet/second feet/pass feet/pass		
		Average Ripping Width: Average Ripping Length:	2.56 7.08 200.00	feet/pass		
		Average Ripping Width: Average Ripping Length: Average Dozer Speed:	2.56 7.08 200.00 88.00	feet/pass feet/pass feet/pass feet/minute		
		Average Ripping Width: Average Ripping Length: Average Dozer Speed: Average Maneuver Time:	2.56 7.08 200.00 88.00 0.25	feet/pass feet/pass feet/pass feet/minute minutes/pass		
		Average Ripping Width: Average Ripping Length: Average Dozer Speed:	2.56 7.08 200.00 88.00	feet/pass feet/pass feet/pass feet/minute		
	Job Condition Cor	Average Ripping Width: Average Ripping Length: Average Dozer Speed: Average Maneuver Time: Production per unit area:	2.56 7.08 200.00 88.00 0.25	feet/pass feet/pass feet/pass feet/minute minutes/pass		
		Average Ripping Width: Average Ripping Length: Average Dozer Speed: Average Maneuver Time: Production per unit area:	2.56 7.08 200.00 88.00 0.25	feet/pass feet/pass feet/pass feet/minute minutes/pass		
		Average Ripping Width: Average Ripping Length: Average Dozer Speed: Average Maneuver Time: Production per unit area: rection Factors	2.56 7.08 200.00 88.00 0.25 0.773	feet/pass feet/pass feet/pass feet/minute minutes/pass acres/hour		
		Average Ripping Width: Average Ripping Length: Average Dozer Speed: Average Maneuver Time: Production per unit area: rection Factors djusted Hourly Unit Production: Site Altitude: Altitude Adj:	2.56 7.08 200.00 88.00 0.25 0.773 0.773 4,600 1.00	feet/pass feet/pass feet/pass feet/pass feet/minute minutes/pass acres/hour Acres/hr feet (CAT HB)		
		Average Ripping Width: Average Ripping Length: Average Dozer Speed: Average Maneuver Time: Production per unit area: rection Factors djusted Hourly Unit Production: Site Altitude: Altitude Adj: Job Efficiency:	2.56 7.08 200.00 88.00 0.25 0.773 4,600 1.00 0.83	feet/pass feet/pass feet/pass feet/pass feet/minute minutes/pass acres/hour Acres/hr feet (CAT HB) (1 shift/day)		
		Average Ripping Width: Average Ripping Length: Average Dozer Speed: Average Maneuver Time: Production per unit area: rection Factors djusted Hourly Unit Production: Site Altitude: Altitude Adj:	2.56 7.08 200.00 88.00 0.25 0.773 0.773 4,600 1.00	feet/pass feet/pass feet/pass feet/pass feet/minute minutes/pass acres/hour Acres/hr feet (CAT HB)		
		Average Ripping Width: Average Ripping Length: Average Dozer Speed: Average Maneuver Time: Production per unit area: rection Factors djusted Hourly Unit Production: Site Altitude: Altitude Adj: Job Efficiency:	2.56 7.08 200.00 88.00 0.25 0.773 4,600 1.00 0.83 0.83	feet/pass feet/pass feet/pass feet/pass feet/minute minutes/pass acres/hour Acres/hr feet (CAT HB) (1 shift/day)		
		Average Ripping Width: Average Ripping Length: Average Dozer Speed: Average Maneuver Time: Production per unit area: rection Factors djusted Hourly Unit Production: Site Altitude: Altitude Adj: Job Efficiency: Net Correction:	2.56 7.08 200.00 88.00 0.25 0.773 0.773 4,600 1.00 0.83 0.83 0.83	feet/pass feet/pass feet/pass feet/pass feet/minute minutes/pass acres/hour Acres/hr feet (CAT HB) (1 shift/day) multiplier		
		Average Ripping Width: Average Ripping Length: Average Dozer Speed: Average Maneuver Time: Production per unit area: rection Factors djusted Hourly Unit Production: Site Altitude: Altitude Adj: Job Efficiency: Net Correction: Adjusted Hourly Unit Production	2.56 7.08 200.00 88.00 0.25 0.773 0.773 4,600 1.00 0.83 0.83 0.83	feet/pass feet/pass feet/pass feet/pass feet/minute minutes/pass acres/hour Acres/hr feet (CAT HB) (1 shift/day) multiplier Acres/hr		
	Una	Average Ripping Width: Average Ripping Length: Average Dozer Speed: Average Maneuver Time: Production per unit area: rection Factors djusted Hourly Unit Production: Site Altitude: Altitude Adj: Job Efficiency: Net Correction: Adjusted Hourly Unit Production	2.56 7.08 200.00 88.00 0.25 0.773 0.773 4,600 1.00 0.83 0.83 0.83	feet/pass feet/pass feet/pass feet/pass feet/minute minutes/pass acres/hour Acres/hr feet (CAT HB) (1 shift/day) multiplier Acres/hr Acres/hr		Hours

TRUCK/LOADER TEAM WORK

			1110 011 2011		<u>, 01111</u>		
	Task description:	Stage 3	Part B Apply To	psoil			
Site	Whitewater Pit	500	Permit Actio	on: TR-6		Permit/Job#:N	M1977129
	PROJECT IDEN	NTIFICATION	Ī				
	Task #: 03E		State: Colora	ndo	Ab	breviation: N	one
	Date: 8/31/	2023	County: Mesa			Filename: N	I129-03e
	User: ACY	· 					
	Agency or	r organization nar	ne: DRMS				
	HOURLY EQUI	IPMENT COST	<u>r</u>		Shift bas	is: <u>1 per day</u>	
			I	Equipment Descri	ption		
	r	Truck Loader Tea		<u> </u>	1		
_				Г 972Н			
	Supp	oort Equipment -L		D8T - 8SU			
-	Road M	ום- Iaintenance –Mot		D8T - 8SU Γ 14M			
	Road IV.			er Tanker, 2,500	Gal.		
_			,				
	Cost Breakdown:		ader Team	1.1	Equipment		ance Equipment
		Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Uti	llization-machine:	100	100	30	100	50	0
Ow	nership cost/hour:	\$108.06	\$57.78	\$241.38	\$241.38	\$149.33	\$11.35
Op	erating cost/hour:	\$71.88	\$56.23	\$43.18	\$143.92	\$46.40	\$0.00
9	Utilization-riper:	NA	0	NA	NA	NA	NA
Ripp	er own. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Rip	per op. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
O	perator cost/hour:	\$24.82	\$35.97	\$40.04	\$40.04	\$46.87	\$0.00
	Unit Subtotals:	\$204.76	\$149.98	\$324.59	\$425.34	\$242.60	\$11.35
	Number of Units:	3	1	1	1	1	1
	Group Subtotals:	Work:	\$764.26	Support:	\$749.93	Maint:	\$253.95

Total work team cost/hour: \$1,768.14

MATERIAL QUANTITIES

Initial volume: 26,607 CCY Swell factor: 1.215

Loose volume: 32,328 LCY

Source of estimated volume: 21.99 ac ac @ 9"
Source of estimated swell factor: Cat Handbook

Material Purchase Cost: \$0.00

Total Cost: \$0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: 1,600 Pounds/LCY
Description: Top Soil

Rated Payload: 62,000 Pounds
Payload Capacity: 38.75 LCY

Truck Travel (Haul & Return) Time:

penetration 4.0

Truck Bed (volume) Bas	ic.									
Struck Volume:		17.10	LCY							
Heaped Volume:			LCY							
Average Volume:			LCY							
Adjusted Volume:			LCY							
F	inal Tr	ruck Volume	Based on N	Number of L	oader Pass	ses:	18.48		LCY	
Loading Tool Capacity										
]	Bucket Size	e Class:	NA		
Rated Capacity	y:	5.600	LCY ((heaped)						
Bucket Fill Factor	r:	1.100	Other	- rock/dirt n	nixtures	(100-120%	1.100			
Adjusted Capacity	y:	6.160	LCY							
Job Condition Correcti	ons:			Site	Altitude (f	t.): <u>4600</u> fe	et			
	-	Гruck	Loa	der	Sou	irce				
Altitude Adj:		1.000		000	(CAT	THB)				
Job Efficiency:	-	0.830	0.8	330	(CAT	THB)				
Net Correction:		0.830	0.8	30						
Ļ										
Excavators and Front Sh										
Machine Cycle Tir Selected Va	ne vs lue wit	Job Condition Thin this Basic	c Rating:	NA NA						
Machine Cycle Tir Selected Va Track Loade	ne vs lue wit	Job Condition Thin this Basic	c Rating:							
Machine Cycle Tir Selected Va	ne vs lue wit	Job Condition Thin this Basic	c Rating:				_			
Machine Cycle Tir Selected Va Track Loade	ne vs lue wit	Job Condition Thin this Basic Thin this Descri	c Rating:			Du	mp: _0	0.100		
Machine Cycle Tir Selected Va Track Loade Cycle Time Elements (m	me vs lue wit ers – M in.):	Job Condition thin this Basic aterial Descri	c Rating:iption:	NA NA	(load, dun		• ==	0.100		inutes
Machine Cycle Tir Selected Va Track Loade Cycle Time Elements (m Load: NA Wheel and Track Load	me vs lue with the state of the state o	Job Condition thin this Basic aterial Descri M nadjusted Ba	c Rating:iption: faneuver: sic Loader	NA NA	(load, dun	np, maneuv	• ==	0.525	Source	inutes
Machine Cycle Tir Selected Va Track Loade Cycle Time Elements (m Load: NA Wheel and Track Load Cycle Time Facto	me vs lue with rrs – M in.): ers - U ors al: I	Job Condition thin this Basic aterial Descri M nadjusted Ba	c Rating:	NA NA Cycle Time		np, maneuv Fac	tor (min. 0.020	0.525	Source (Cat HB)	inutes
Machine Cycle Tir Selected Va Track Loade Cycle Time Elements (m Load: NA Wheel and Track Load Cycle Time Facto Materi	me vs lue with rrs – M in.): ers - U ors al: le: (Job Condition thin this Basic aterial Descri M madjusted Ba Mixed materi Conveyor or of	c Rating:	NA NA Cycle Time 10 ft. high a	and up 0.00	np, maneuv Fac	tor (min. 0.020 0.000	0.525	Source (Cat HB) (Cat HB)	inutes
Machine Cycle Tir Selected Va Track Loade Cycle Time Elements (m Load: NA Wheel and Track Loade Cycle Time Facto Materi Stockpi Truck Ownersh	me vs lue with rrs – M in.): ers - U ors al: le: ip: (ip: (ip: (ip: (ip: (ip: (ip: (ip:	Job Condition Thin this Basic aterial Descri M That analysis Ba Mixed materi Conveyor or Common own	c Rating:	NA NA Cycle Time 10 ft. high a rucks and lo	and up 0.00	np, maneuv Fac	tor (min. 0.020 0.000 -0.040	0.525	Source (Cat HB) (Cat HB) (Cat HB)	inutes
Machine Cycle Tir Selected Va Track Loade Cycle Time Elements (m Load: NA Wheel and Track Load Cycle Time Facto Materi Stockpi Truck Ownersh	me vs lue with rrs – M in.): ers - U ors al: le: cip: con: con:	Job Condition thin this Basic aterial Descri M nadjusted Ba Mixed materi Conveyor or o Common own Constant open	c Rating:	NA NA Cycle Time 10 ft. high a rucks and lo	and up 0.00	Fac	er): tor (min. 0.020	0.525	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)	inutes
Machine Cycle Tir Selected Va Track Loade Cycle Time Elements (m Load: NA Wheel and Track Loade Cycle Time Facto Materi Stockpi Truck Ownersh	me vs lue with rrs – M in.): ers - U ors al: le: cip: con: con:	Job Condition Thin this Basic aterial Descri M That analysis Ba Mixed materi Conveyor or Common own	c Rating:	NA Cycle Time 10 ft. high a rucks and lo	and up 0.00 aders -0.04	raneuv Fac	tor (min. 0.020 0.000 -0.040 0.000	0.525	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	inutes
Machine Cycle Tir Selected Va Track Loade Cycle Time Elements (m Load: NA Wheel and Track Load Cycle Time Facto Materi Stockpi Truck Ownersh	me vs lue with rrs – M in.): ers - U ors al: le: cip: con: con:	Job Condition thin this Basic aterial Descri M nadjusted Ba Mixed materi Conveyor or o Common own Constant open	c Rating:	NA NA Cycle Time 10 ft. high a rucks and lo	and up 0.00 aders -0.04 Adjustmer	rp, maneuv Fac 0 4	tor (min. 0.020 0.000 -0.040 -0.040 0.000 -0.060	0.525	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	inutes
Machine Cycle Tir Selected Va Track Loade Cycle Time Elements (m Load: NA Wheel and Track Load Cycle Time Facto Materi Stockpi Truck Ownersh	me vs lue with rrs – M in.): ers - U ors al: le: cip: con: con:	Job Condition thin this Basic aterial Descri M nadjusted Ba Mixed materi Conveyor or o Common own Constant open	aneuver: al 0.02 dozer piled nership of tration -0.04 et 0.00 Net 0 Adjus	NA NA Cycle Time 10 ft. high a rucks and lo Cycle Time sted Loader	and up 0.00 aders -0.04 Adjustmer Cycle Tim	rac Fac Fac Table 1 Ta	tor (min. 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.465	0.525	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	inutes
Machine Cycle Tir Selected Va Track Loade Cycle Time Elements (m Load: NA Wheel and Track Load Cycle Time Facto Materi Stockpi Truck Ownersh	me vs lue with rrs – M in.): ers - U ors al: le: cip: con: con:	Job Condition thin this Basic aterial Descri M nadjusted Ba Mixed materi Conveyor or o Common own Constant open	aneuver: al 0.02 dozer piled nership of tration -0.04 et 0.00 Net 0 Adjus	NA NA Cycle Time 10 ft. high a rucks and lo	and up 0.00 aders -0.04 Adjustmer Cycle Tim	rac Fac Fac Table 1 Ta	tor (min. 0.020 0.000 -0.040 -0.040 0.000 -0.060	0.525	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	inutes
Machine Cycle Tir Selected Va Track Loade Cycle Time Elements (m Load: NA Wheel and Track Load Cycle Time Facto Materi Stockpi Truck Ownersh	me vs lue with rrs – M in.): ers - U ors al: le: cip: con: con:	Job Condition thin this Basic aterial Descri M nadjusted Ba Mixed materi Conveyor or o Common own Constant open	aneuver: al 0.02 dozer piled nership of tration -0.04 et 0.00 Net 0 Adjus	NA NA Cycle Time 10 ft. high a rucks and lo Cycle Time sted Loader	and up 0.00 aders -0.04 Adjustmer Cycle Tim	rac Fac Fac Table 1 Ta	tor (min. 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.465	0.525	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	inutes
Machine Cycle Tir Selected Va Track Loade Cycle Time Elements (m Load: NA Wheel and Track Load Cycle Time Facto Materi Stockpi Truck Ownersh Operatio Dump Targ	me vs lue with trs – M in.): ers - U ors al: !! le: (ip: (ip: (ip: (ip: (ip: (ip: (ip: (ip	Job Condition thin this Basic aterial Descri M nadjusted Ba Mixed materi Conveyor or o Common own Constant open	aneuver: al 0.02 dozer piled nership of tration -0.04 et 0.00 Net 0 Adjus	NA Cycle Time 10 ft. high a rucks and lo Cycle Time sted Loader et Load Time	and up 0.00 aders -0.04 Adjustmer Cycle Tim te per Truc	rac Fac Fac Table 1 Ta	tor (min. 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.465 1.030	0.525	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	inutes
Machine Cycle Tir Selected Va Track Loade Cycle Time Elements (m Load: NA Wheel and Track Load Cycle Time Facto Materi Stockpi Truck Ownersh Operatio Dump Targ	me vs lue with the state of the state o	Job Condition Thin this Basic aterial Descri Manadjusted Ba Mixed materi Conveyor or of Common own Constant open Nominal targe	c Rating:	NA NA Cycle Time 10 ft. high a rucks and lo Cycle Time sted Loader et Load Time	Adjustmer Cycle Tim e per Truc	rich interest in the interest	tor (min. 0.020	0.525	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	

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	1100.00	0.00	4.00	4.00	1774	0.810

Haul Time: 0.810 minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1100.00	5.00	4.00	9.00	1700	0.722

Return Time: 0.722 minutes
Total Truck Cycle Time: 4.162 minutes

Loading Tool unit

Adjusted hourly truck team production:
Adjusted single truck/loader team production:
Adjusted multiple truck/loader team production:

564.60

663.36

LCY/Hour

564.60

LCY/Hour

JOB TIME AND COST

 Fleet size:
 1
 Team(s)
 Total job time:
 57.26
 Hours

 Unit cost:
 \$3.132
 /LCY
 Total job cost:
 \$101,238

REVEGETATION WORK

Whitewater Pit 500	Perm	nit Action: TR-6	5		Permit/Job#	: M1977129
ROJECT IDENTIFICA	TION					
Task #: 03F	State:	Colorado		Abl	breviation:	None
Date: 8/31/2023	County:	Mesa		_	Filename:	M129-03f
User: ACY	_					
Agency or organiza	tion name: DRM	1S				
CRTILIZING						
nterials						
Description		Units / Acre	Unit	Cos	t / Unit	Cost /Acre
Ammonium nitrate, 33-0-0	0	120.00	pound	\$0.6	52	\$74.80
Superphosphate, 0-20-0 w		100.00	pound	\$0.6		\$69.00
				Tot	al Fertilizer Materials	****
plication Description Tractor towed spreader (M	IEANS 32 01 90.1:	3 0120)			Cost/Acre	\$143.80 Cost /Acre \$41.82
Description	MEANS 32 01 90.1:	3 0120)			Cost/Acre	Cost /Acre
Description	1EANS 32 01 90.13		l Fertilizer A	pplicatio		Cost /Acre
Description	MEANS 32 01 90.13		l Fertilizer A	pplicatio		Cost /Acre \$41.82
Description Tractor towed spreader (N	1EANS 32 01 90.13		l Fertilizer A	pplicatio		Cost /Acre \$41.82 \$41.82
Description Tractor towed spreader (N LLING Description		Total	l Fertilizer A	pplicatio		Cost /Acre \$41.82
Description Tractor towed spreader (N		Total	l Fertilizer A	pplicatio		Cost /Acre \$41.82 \$41.82 Cost /Acre
Description Tractor towed spreader (N LLING Description		Total				Cost /Acre \$41.82 \$41.82 Cost /Acre
Description Tractor towed spreader (Machine International		Total			n Cost/Acre	Cost /Acre \$41.82 \$41.82 Cost /Acre \$112.82
Description Tractor towed spreader (N LLING Description		Total	To	tal Tillin	n Cost/Acre	Cost /Acre \$41.82 \$41.82 Cost /Acre \$112.82
Description Tractor towed spreader (Machine Interest of the Interest of Intere		Total	To	tal Tillin Rate –	n Cost/Acre	Cost /Acre \$41.82 \$41.82 Cost /Acre \$112.82
Description Tractor towed spreader (Machine International		Total	To	otal Tillin Rate – PLS	n Cost/Acre	Cost /Acre \$41.82 \$41.82 Cost /Acre \$112.82
Description Tractor towed spreader (Machine Interest of the Interest of Intere		Total	To	Rate – PLS LBS /	n Cost/Acre	Cost /Acre \$41.82 \$41.82 Cost /Acre \$112.82
Description Tractor towed spreader (Machine Interest of the Interest of Intere		Total	To	Rate – PLS LBS / Acre	n Cost/Acre g Cost/Acre Seeds per SQ. FT	Cost /Acre \$41.82 \$41.82 Cost /Acre \$112.82 \$112.82
Description Tractor towed spreader (Management of Management of Manageme	MEANS 32 91 13.2	Total	To	Rate – PLS LBS / Acre 0.50	g Cost/Acre Seeds per SQ. FT 19.51	Cost /Acre \$41.82 \$41.82 Cost /Acre \$112.82 \$112.82 Cost /Acre \$114.24
Description Tractor towed spreader (Machine Interest of the Interest of Intere	MEANS 32 91 13.2	Total	To	Rate – PLS LBS / Acre	n Cost/Acre g Cost/Acre Seeds per SQ. FT	Cost /Acre \$41.82 \$41.82 Cost /Acre \$112.82 \$112.82

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
Herbicide - 2,4D @ 1.0 pt/ac	1.00	ACRE	\$4.01	\$4.01
Herbicide - Glyphosate (Journey)@ 1.0 pt/ac	1.00	ACRE	\$3.75	\$3.75
Straw, delivered {MEANS 31 25 14.16 1200}	1.50	TON	\$429.79	\$644.68
Total Mulch Materials Cost/Acre				\$652.44

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$74.46
Power mulcher (MEANS 32 91 13.16 0350)		\$147.67
Weed spray, hand, aquatic area, nox. [DMG]		\$183.16
Weed spray, truck, non-aquatic area, nox. [DMG]		\$62.72
	Total Mulch Application Cost/Acre	\$468.01

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
		Totals 1	Nursery Stoc	k Cost / Acre	\$0.00

JOB TIME AND COST

No. of Acres: 3.33 Cost/Acre: \$1,860.65

Estimated Failure Rate: 50% Cost /Acre*: \$1,860.65

*Selected Replanting Work Items: FERTILIZING,TILLING,SEEDING,MU

LCHING

Initial Job Cost: \$6,195.96

Reseeding Job Cost: \$3,097.98

Total Job Cost: \$9,294

Job Hours: 5.00

REVEGETATION WORK

Task description: Stage 3 Part B Re	eveg Non-Salty M	ix			
: Whitewater Pit 500 Peru	00 Permit Action: TR-6 Permit/Job#:				
PROJECT IDENTIFICATION Task #: 03G State: County: ACY Agency or organization name: DR	Colorado Mesa MS				None M129-03g
FERTILIZING .					
Materials Description	Units / Acre	Unit	Cost	t / Unit	Cost /Acre
Ammonium nitrate, 33-0-0	120.00	pound	\$0.6	2	\$74.80
Superphosphate, 0-20-0 with 12% S	100.00	pound	\$0.69	9	\$69.00
			Tota	al Fertilizer Materials Cost/Acre	\$143.80
Application Description					Cost /Acre
Tractor towed spreader (MEANS 32 01 90.1	13 0120)				\$41.82
		Fertilizer Ap	plication	n Cost/Acre	\$41.82
<u>TILLING</u>					
Description					Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13	.23 6100)				\$112.82
		Tot	al Tilling	g Cost/Acre	\$112.82
SEEDING					
Seed Mix		P	Rate – PLS LBS /	Seeds per SQ. FT	Cost /Acre

A	p	рı	uc	a	u	O.	n

Galleta

Bluebunch Wheatgrass - Secar

Crested Wheatgrass - Ephraim

Western Wheatgrass - Arriba

Description	Cost /Acre

Totals Seed Mix

Acre

9.50

3.00

4.00

8.00

24.50

30.53

13.77

14.60

20.20

79.11

\$103.31

\$12.98 \$89.40

\$52.00

\$257.69

Reveg	Worksheet	Cont	C

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

MULCHING and MISCELLANEOUS

Materials

	Units /			
Description	Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - 2,4D @ 1.0 pt/ac	1.00	ACRE	\$4.01	\$4.01
Herbicide - Glyphosate (Journey)@ 1.0 pt/ac	1.00	ACRE	\$3.75	\$3.75
Straw, delivered {MEANS 31 25 14.16 1200}	1.50	TON	\$429.79	\$644.68
Total Mulch Materials Cost/Acre				\$652.44

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$74.46
Power mulcher (MEANS 32 91 13.16 0350)		\$147.67
Weed spray, hand, aquatic area, nox. [DMG]		\$183.16
Weed spray, truck, non-aquatic area, nox. [DMG]		\$62.72
	Total Mulch Application Cost/Acre	\$468.01

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
		Totals 1	Nursery Stoc	ek Cost / Acre	\$0.00

JOB TIME AND COST

 No. of Acres:
 18.66
 Cost /Acre:
 \$1,908.58

 Estimated Failure Rate:
 50%
 Cost /Acre*:
 \$1,908.58

*Selected Replanting Work Items: FERTILIZING,TILLING,SEEDING,MU

LCHING

Initial Job Cost: \$35,614.10

Reseeding Job Cost: \$17,807.05

Total Job Cost: \$53,421

28.00

REVEGETATION WORK

Γask descri Whitewa	ater Pit 500	Permit A	ction: TR-6	ó		Permit/Job#	: M1977129
***************************************				<u> </u>		1 0111114 0 0011	
ROJECT	TIDENTIFICAT	<u> TION</u>					
Task #:	04F	State: Colo	orado		Abb	reviation:	None
Date:		County: Mesa	a		•	Filename:	M129-04f
User:	ACY	_					
Ag	gency or organization	on name: DRMS					
ERTILIZ	<u>ZING</u>						
aterials							1
Descript	tion		Units / Acre	Unit	Cost	/ Unit	Cost /Acre
	ium nitrate, 33-0-0		120.00	pound	\$0.62		\$74.80
	osphate, 0-20-0 wit		100.00	pound	\$0.69		\$69.00
					Tota	al Fertilizer	
	_					Materials Cost/Acre	\$143.80
pplication						Materials	
Descript	tion	FANS 32 01 90 13 012	20)			Materials	Cost /Acre
Descript	tion	EANS 32 01 90.13 012	20)			Materials	
Descript	tion	EANS 32 01 90.13 012		l Fertilizer A	pplication	Materials Cost/Acre	Cost /Acre
Descript Tractor t	tion	EANS 32 01 90.13 012		l Fertilizer A	pplication	Materials Cost/Acre	Cost /Acre \$41.82
Descript Tractor t	tion owed spreader (MI	EANS 32 01 90.13 012		l Fertilizer A	pplication	Materials Cost/Acre	Cost /Acre \$41.82 \$41.82
Descript Tractor t ILLING Descript	tion rowed spreader (MI	EANS 32 01 90.13 012	Total	l Fertilizer A	pplication	Materials Cost/Acre	Cost /Acre \$41.82
Descript Tractor t ILLING Descript	tion rowed spreader (MI		Total	l Fertilizer A	pplication	Materials Cost/Acre	Cost /Acre \$41.82 \$41.82 Cost /Acre
Descript Tractor t ILLING Descript	tion rowed spreader (MI		Total			Materials Cost/Acre	Cost /Acre \$41.82 \$41.82 Cost /Acre
Descript Tractor t ILLING Descript	tion owed spreader (MI tion rowing, 6" deep (M		Total			Materials Cost/Acre	Cost /Acre \$41.82 \$41.82 Cost /Acre \$112.82

Application	Ap	plic	ation
-------------	----	------	-------

Alkali Sacaton

Saltgrass, Inland

Spike Muhly

Saltbush, Four Wing - Dewinged

Description	Cost /Acre
Description	Cost/Acre

Totals Seed Mix

Acre

0.50

1.00

4.00

0.60

6.10

19.51

55.45

22.04

98.61

1.61

\$14.24

\$18.50

\$5.82

\$171.20

\$209.76

Reveg worksneet Cont a	1 ask # 04F

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	\$4.01	\$4.01
Herbicide - Glyphosate (Journey)@ 1.0 pt/ac	1.00	ACRE	\$3.75	\$3.75
Straw, delivered {MEANS 31 25 14.16 1200}	1.50	TON	\$429.79	\$644.68
Total Mulch Materials Cost/Acre				\$652.44

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$74.46
Power mulcher (MEANS 32 91 13.16 0350)		\$147.67
Weed spray, hand, aquatic area, nox. [DMG]		\$183.16
Weed spray, truck, non-aquatic area, nox. [DMG]		\$62.72
	Total Mulch Application Cost/Acre	\$468.01

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
	\$0.00				

JOB TIME AND COST

No. of Acres: 3.44 Cost / Acre: \$1,860.65

Estimated Failure Rate: 50% Cost /Acre*: \$1,860.65

*Selected Replanting Work Items: FERTILIZING,TILLING,SEEDING,MU

*Selected Replanting Work Items: FERTILIZING,TILLING,SEEDING,MU LCHING

Initial Job Cost: \$6,400.64

Reseeding Job Cost: \$3,200.32

Total Job Cost: \$9,601

Job Hours: 5.00

REVEGETATION WORK

williewater Fit 500	Vhitewater Pit 500 Permit Action: TR-6					#: <u>M1977129</u>
ROJECT IDENTIFICATIO)N					
Task #: 04G		Colorado		A 1	hraviation	None
Date: 8/31/2023	State: County:	Colorado Mesa		At	obreviation: Filename:	None M129-04g
User: ACY	County.	Iviesa			Thename.	W1129-04g
Agency or organization	name: DR	MS				
CRTILIZING						
nterials						
Description		Units / Acre	Unit	Co	st / Unit	Cost /Acre
Ammonium nitrate, 33-0-0		120.00	pound	\$0.	62	\$74.80
Superphosphate, 0-20-0 with 1	2% S	100.00	pound	\$0.		\$69.00
					otal Fertilizer Materials	
					Coct/A one	@1/2 QA
plication Description		l			Cost/Acre	\$143.80 Cost /Acre
	NS 32 01 90.	13 0120)			COSTACTE	
Description	NS 32 01 90.		al Fertilizer	Application	on Cost/Acre	Cost /Acre
Description	NS 32 01 90.		al Fertilizer	Application		Cost /Acre \$41.82
Description Tractor towed spreader (MEA) LLING	NS 32 01 90.		al Fertilizer	Application		Cost /Acre \$41.82
Description Tractor towed spreader (MEA)		Tota	al Fertilizer	Application		Cost /Acre \$41.82
Description Tractor towed spreader (MEAI LLING Description		Tota				Cost /Acre \$41.82 \$41.82 Cost /Acre
Description Tractor towed spreader (MEAI LLING Description		Tota			on Cost/Acre	Cost /Acre \$41.82 \$41.82 Cost /Acre \$112.82
Description Tractor towed spreader (MEAN LLING Description Disc harrowing, 6" deep (MEAN D		Tota		Rate – PLS LBS /	on Cost/Acre	Cost /Acre \$41.82 \$41.82 Cost /Acre \$112.82
Description Tractor towed spreader (MEAI LLING Description Disc harrowing, 6" deep (MEAI CEDING Seed Mix	ANS 32 91 13	Tota		Rate – PLS LBS / Acre	on Cost/Acre ng Cost/Acre Seeds per SQ. FT	Cost /Acre \$41.82 \$41.82 Cost /Acre \$112.82 \$112.82
Description Tractor towed spreader (MEAI LLING Description Disc harrowing, 6" deep (MEAI EEDING Seed Mix Bluebunch Wheatgrass - Secar	ANS 32 91 13	Tota		Rate – PLS LBS / Acre 9.50	on Cost/Acre Seeds per SQ. FT 30.53	Cost /Acre \$41.82 \$41.82 Cost /Acre \$112.82 \$112.82 Cost /Acre \$113.31
Description Tractor towed spreader (MEAI LLING Description Disc harrowing, 6" deep (MEAI CEDING Seed Mix	ANS 32 91 13	Tota		Rate – PLS LBS / Acre	on Cost/Acre ng Cost/Acre Seeds per SQ. FT	Cost /Acre \$41.82 \$41.82 Cost /Acre \$112.82 \$112.82

Totals Seed Mix

Application

Description

24.50

\$257.69

Cost /Acre

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

MULCHING and MISCELLANEOUS

Materials

Reveg Worksheet Cont'd

	Units /			
Description	Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - 2,4D @ 1.0 pt/ac	1.00	ACRE	\$4.01	\$4.01
Herbicide - Glyphosate (Journey)@ 1.0 pt/ac	1.00	ACRE	\$3.75	\$3.75
Straw, delivered {MEANS 31 25 14.16 1200}	1.50	TON	\$429.79	\$644.68
Total Mulch Materials Cost/Acre				\$652.44

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$74.46
Power mulcher (MEANS 32 91 13.16 0350)		\$147.67
Weed spray, hand, aquatic area, nox. [DMG]		\$183.16
Weed spray, truck, non-aquatic area, nox. [DMG]		\$62.72
	Track Market American Control	
	Total Mulch Application Cost/Acre	\$468.01

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
	\$0.00				

JOB TIME AND COST

No. of Acres: 5.22 Cost / Acre: \$1,908.58

Estimated Failure Rate: 50% Cost /Acre*: \$1,908.58

*Selected Replanting Work Items: FERTILIZING,TILLING,SEEDING,MU

LCHING
Initial Job Cost: \$9,962.79

 Reseeding Job Cost:
 \$4,981.39

 Total Job Cost:
 \$14,944

 Job Hours:
 8.00

BULLDOZER WORK

Task descriptio	n:	Stage 6	Grading	slopes and s	lopes			
: Whitewater	Pit 500		Per	mit Action:	TR-6		Permit/Job#:	M1977129
PROJECT II	<u>DENTIFI</u>	<u>CATION</u>						
Task #: 0	6C		State:	Colorado			Abbreviation:	None
	/31/2023		County:	Mesa			Filename:	M129-06c
User: A	CY		•	-			-	
Agend	cy or organ	nization nan	ne: DI	RMS				
HOURLY E	QUIPME	NT COS	<u>r</u>					
Basic Machi		D8T - 8SU	-					
Horsepow								
Blade Ty		ni-Universa	l					
Attachme								
Shift Ba		er day			_			
Data Sour	rce: (CR	(U)			_			
Cost Breakdow	<u>n</u> :							
_						<u>Utilization %</u>		
Ownership Co				\$241.38		NA		
Operating Co				\$143.92		100		
Ripper own. Co				\$0.00		NA O		
Ripper op. Co				\$0.00		0		
Operator Co	ost/Hour:			\$40.04		NA		
MATERIAL Initial Volum Swell factor	e: 13,23 or: 1.090	30		_				
Loose volum	e: 14,4 2	21 LCY						
Source of estim		_	2000LF o		nd 700 l	LF @ 35'H of 2H	I: 1V	
HOURLY PI	RODUCT	<u> TION</u>						
Average push d Unadjusted hou			feet 193.7 LC	Y/hr				
Materials consi	stency des	cription:	Consol	idated stockp	oile 1.0			
Average push g Average site alt		0 % 4,600 fee	t					
Material weigh	t:	2,400 lbs/	/LCY				_	
Weight descrip	tion:	Clay and	gravel -	Dry				
Job Condition (Correction	Factor				Source		
	Operator S		0	.750]	(AVG.)		
	ial consiste			.000		(CAT HB)		
Ι	Dozing me			.000		(GEN.)		
	Visib	ility:	1	.000		(AVG.)		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.600	(FND-SF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.958	(CAT HB)

(PAT)

1.000

Page 2 of 2

Net correction: 0.3578

Adjusted unit production: 391.33 LCY/hr
Adjusted fleet production: 782.66 LCY/hr

Blade type:

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: \$1.087/LCY

Total job time: 18.43 Hours
Total job cost: \$15,674

BULLDOZER RIPPING WORK

	Task description	n: Sta	ge 6 Rip affected lands					
Site	: Whitewater	Pit 500	Permit Action:	TR-6	F	Permit/Job#	M1977	129
	PROJECT ID	ENTIFICAT	<u>ION</u>					
	Task #: 06	SD State: Color			Abl	breviation:	None	
		31/2023	County: Mesa			Filename:	M129-06	ód
		CY	<u> </u>					
	Agenc	y or organization	n name: DRMS					
	HOURLY EQ	OUIPMENT C	OST					
	Basic	Machine: Ca	nt D8T - 8SU		Horsepower:		310	
			Shank Ripper	<u> </u>	Shift Basis:	11	per day	
	11		rr.		Data Source:		CRG)	
	Cost Breakdown	<u>1:</u>						
					Utilization %			
		Ownership C		\$241.38	NA	_		
		Operating C		\$143.92	100	_		
		per Ownership C		\$14.11	NA	_		
	Кıŗ	oper Operating C		\$7.45 \$40.04	100	_		
		Operator C Total Unit C		\$446.90	NA	_		
		Total Fleet C	Cost/Hour: \$893	.79				
	MATERIAL	QUANTITIES	Selection Select	cted estimating	g method: Are	ea		
	Alternate Metho	ods:						
Seismic:	NA		Bank Volume:	NA	BCY		NA	
Area:	9.30	acres	Rip Depth (ft):	2.00	Volume:	30,008		BCY or CCY
		Source of est	imated quantity: Affected	d areas				
	HOURLY PR	ODUCTION						
		<u> </u>						
	Seismic:		Seismic Velocity:	NA	feet/sec	cond		
			Seisinic velocity.	IVA	1000/800	cond		
	Area:		D' ' D 4	2.56	C /			
			ge Ripping Depth:	2.56 7.08	feet/pa			
			ge Ripping Width: ge Ripping Length:	200.00	feet/pa feet/pa			
			rage Dozer Speed:	88.00	feet/mi			
			e Maneuver Time:	0.25	minute			
		_	ction per unit area:	0.773	acres/h	_		
	Job Condition C	Correction Factor	rs					
			y Unit Production:	0.773	Acres/l	hr		
	S	nagastea 110an		4,600	 -			
			Site Altitude: Altitude Adj:	1.00	feet (CAT)	HR)		
			Job Efficiency:	0.83	(1 shift			
			Net Correction:	0.83	multip	•		
			d Hourly Unit Production: Hourly Fleet Production:	0.64 1.28	Acres/hr Acres/hr			
	JOB TIME A	ND COST			_			
	Fleet size:	2	Grader(s)	Total job tin	me:	7.25	Но	ours
	Unit cost:	\$696.428	Per acre	Total job co	ost:	\$6,477		

TRUCK/LOADER TEAM WORK

Task description:	Stage 6	Apply To	psoil						
Site: Whitewater Pit	ite: Whitewater Pit 500 Permit					Permit/Job#: M	1977129		
PROJECT IDE	NTIFICATION	[
Task #: 06E		State:	Colora	ado	Ab	breviation: No	ne		
Date: 8/31/	2023	County:	Mesa			Filename: M1	129-06e		
User: ACY	· 								
Agency o	r organization nan	ne: DR	MS						
HOURLY EQU	IPMENT COST	<u>T</u>]	Equipment Descri		is: <u>1 per day</u>			
-	Truck Loader Tea	m -Truck:	Cat	730					
<u></u>		-Loader:		CAT 972H					
Supp	oort Equipment -L			Cat D8T - 8SU					
D 13		ımp Area:							
Road N	Iaintenance – Moto	or Grader: .ter Truck:	CAT 14M Water Tanker, 2,500 Gal.						
	- vv a	iter fruck.	wa	ici Talikci, 2,300 v	Oai.				
Cost Breakdown:	Truck/Loa	ader Team		- 11	Equipment		nce Equipment		
	Truck	Loader		Load Area	Dump Area	Motor Grader	Water Truck		
0/ Utilization machine:	100		100	20	100	50	0		

<u>Cost Breakdown:</u>	Truck/Lo	ader Team	Support Equipment		der Team Support Equipment Maintenan		ce Equipment
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck	
%Utilization-machine:	100	100	30	100	50	0	
Ownership cost/hour:	\$108.06	\$57.78	\$241.38	\$241.38	\$149.33	\$11.35	
Operating cost/hour:	\$71.88	\$56.23	\$43.18	\$143.92	\$46.40	\$0.00	
%Utilization-riper:	NA	0	NA	NA	NA	NA	
Ripper own. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Ripper op. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Operator cost/hour:	\$24.82	\$35.97	\$40.04	\$40.04	\$46.87	\$0.00	
Unit Subtotals:	\$204.76	\$149.98	\$324.59	\$425.34	\$242.60	\$11.35	
Number of Units:	2	1	1	1	1	1	
Group Subtotals:	Work:	\$559.50	Support:	\$749.93	Maint:	\$253.95	

Total work team cost/hour: \$1,563.38

MATERIAL QUANTITIES

Initial volume: 11,253 CCY Swell factor: 1.215

Loose volume: 13,672 LCY

Source of estimated volume: 9.3 ac @ 9"

Source of estimated swell factor:

Cat Handbook

Material Purchase Cost: \$0.00

hase Cost: 50.00

Total Cost: \$0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: 1,600 Pounds/LCY
Description: Top Soil

Rated Payload: 62,000 Pounds
Payload Capacity: 38.75 LCY

Tours Dad (colours) David						
Truck Bed (volume) Basis Struck Volume:		LCY				
Heaped Volume:		LCY				
Average Volume:		LCY				
Adjusted Volume:		LCY				
·		Based on Number of	Londor Dassas	18.48	LCY	
Loading Tool Capacity	iai Truck volume	based on Number of	Loader 1 asses.	10.40	LC1	
Loading 1001 Capacity			Rucl	ket Size Class: N	NΑ	
Rated Capacity:	5.600	LCY (heaped)	Buci		12.2	_
Bucket Fill Factor:		Other - rock/dirt	mixtures (100	-120%) 1.100		_
Adjusted Capacity:	6.160	LCY				_
Job Condition Correction	ns:	Site	e Altitude (ft.): 4	1600 feet		
	Truck	Loader	Source			
Altitude Adj:	1.000	1.000	(CAT HB	3)		
Job Efficiency:	0.830	0.830	(CAT HB	3)		
Net Correction:	0.830	0.830				
Loading Tool Cycle Tim	e: Number	of Loading Tool Pass	ses Required to 1	Fill Truck:	3	passes
Excavators and Front Sho		J	1			•
Machine Cycle Time		n Rating: NA				
	e within this Basic					
Track Loaders	s – Material Descri	ption:				
Cycle Time Elements (min	n.):					
Load: NA	M	aneuver: NA		Dump: 0.10	0	
Wheel and Track Loader	rs - Unadjusted Ba	sic Loader Cycle Tim	e (load, dump, r	naneuver):().525 min	utes
Cycle Time Factor	s			Factor (min.)	Source	
Material		al 0.02		0.020	(Cat HB)	_
Stockpile	e: Conveyor or o	dozer piled 10 ft. high	and up 0.00	0.000	(Cat HB)	
Truck Ownership		ership of trucks and l	oaders -0.04	-0.040	(Cat HB)	_
Operation				-0.040	(Cat HB)	_
Dump Target	t: Nominal targe		A 11	0.000	(Cat HB)	_
		Net Cycle Time	-	-0.060	minutes	
		Adjusted Loade Net Load Ti	ne per Truck:	0.465 1.030	minutes minutes	
Truck Cycle Time:			_			
Truck Exchange Ti	me: 0.60	Minutes	Adjusted	for site altitude:	0.600	Minute
Truck Load Ti		Minutes	•	for site altitude:	1.030	_ Minutes
ick Maneuver and Dump Ti		Minutes	•	for site altitude:	1.000	Minutes
1		<u> </u>	J	-		_

<u>Truck Travel (Haul & Return) Time:</u> Road Condition: <u>Rutted dirt, little maintenance, no water, 1" tire penetration 4.0</u>

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	700.00	0.00	4.00	4.00	1774	0.584

Haul Time: 0.584 minutes

Return Route:

rectarii rec	ate.					
Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	700.00	0.00	4.00	4.00	2855	0.413

Return Time: 0.413 minutes
Total Truck Cycle Time: 3.627 minutes

Loading Tool unit

Production Truck Unit Production

Truck Unit Production

Adjusted for job efficiency: 564.60 LCY/Hour Truck Unit Production

Adjusted for job efficiency: 253.74 LCY/Hour Optimal No. of Trucks: 2 Truck(s)

Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 507.47 LCY/Hour Adjusted single truck/loader team production: 507.47 LCY/Hour Adjusted multiple truck/loader team production: 507.47 LCY/Hour

JOB TIME AND COST

 Fleet size:
 1
 Team(s)
 Total job time:
 26.94
 Hours

 Unit cost:
 \$3.081
 /LCY
 Total job cost:
 \$42,121

REVEGETATION WORK

Task description:	Stage 6 Reveg Non-Sa	alty			
: Whitewater Pit 500	Permit A	ction: TR-6	5	Permit/Job#	: M1977129
PROJECT IDENTIF	<u>ICATION</u>				
Task #: 06G Date: 8/31/2023 User: ACY		orado sa			None M129-06g
Agency or orga	nization name: DRMS				
FERTILIZING Materials		Units /			
Description		Acre	Unit	Cost / Unit	Cost /Acre
Ammonium nitrate, 33	3-0-0	120.00	pound	\$0.62	\$74.80
Superphosphate, 0-20	-0 with 12% S	100.00	pound	\$0.69	\$69.00
				Total Fertilizer Materials Cost/Acre	\$143.80
				Cosumere	ψ143.00
Application					T
Description					Cost /Acre
Tractor towed spreade	er (MEANS 32 01 90.13 01	20)			\$41.82
		Total	l Fertilizer A _l	oplication Cost/Acre	\$41.82

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$112.82
Total Tilling Cost/Acre	\$112.82

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Bluebunch Wheatgrass - Secar	9.50	30.53	\$103.31
Crested Wheatgrass - Ephraim	3.00	13.77	\$12.98
Galleta	4.00	14.60	\$89.40
Western Wheatgrass - Arriba	8.00	20.20	\$52.00
Totals Seed Mix	24.50	79.11	\$257.69

Application

Description	Cost /Acre

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

MULCHING and MISCELLANEOUS

Materials

Reveg Worksheet Cont'd

	Units /			
Description	Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - 2,4D @ 1.0 pt/ac	1.00	ACRE	\$4.01	\$4.01
Herbicide - Glyphosate (Journey)@ 1.0 pt/ac	1.00	ACRE	\$3.75	\$3.75
Straw, delivered {MEANS 31 25 14.16 1200}	1.50	TON	\$429.79	\$644.68
Total Mulch Materials Cost/Acre				\$652.44

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$74.46
Power mulcher (MEANS 32 91 13.16 0350)		\$147.67
Weed spray, hand, aquatic area, nox. [DMG]		\$183.16
Weed spray, truck, non-aquatic area, nox. [DMG]		\$62.72
	Total Mulch Application Cost/Acre	\$468.01

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: 9.3 Cost /Acre: \$1,908.58

Estimated Failure Rate: 50% Cost /Acre*: \$1,908.58

*Selected Replanting Work Items: FERTILIZING,TILLING,SEEDING,MU

LCHING

Initial Job Cost: **\$17,749.79** Reseeding Job Cost: \$8,874.90 Total Job Cost: **\$26,625** Job Hours: **14.00**

REVEGETATION WORK

Whitewater Pit 500					Permit/Job#	: <u>M1977129</u>
ROJECT IDENTIFIC Task #: S2 Date: 8/29/2023 User: ACY	State:	Colorado Mesa		_		None M129-S2
	zation name: <u>DRN</u>	MS				
ERTILIZING nterials						
Description		Units / Acre	Unit	Cost	/ Unit	Cost /Acre
Ammonium nitrate, 33-	0-0	120.00	pound	\$0.62	,	\$74.80
Superphosphate, 0-20-0	with 12% S	100.00	pound	\$0.69		\$69.00
					l Fertilizer Materials Cost/Acre	\$143.80
_	(MEANS 32 01 90.1	3 0120)				Cost /Acre \$41.82
Description Tractor towed spreader	(MEANS 32 01 90.1		l Fertilizer A	pplication	Cost/Acre	
Description Tractor towed spreader LLING Description		Total	l Fertilizer A	pplication	Cost/Acre	\$41.82 \$41.82 Cost /Acre
Description Tractor towed spreader LLING		Total			Cost/Acre	\$41.82 \$41.82
Description Tractor towed spreader LLING Description Disc harrowing, 6" deep		Total				\$41.82 \$41.82 Cost /Acre \$112.82
Description Tractor towed spreader LLING Description Disc harrowing, 6" deep		Total	To	Rate – PLS LBS / Acre	Cost/Acre Seeds per SQ. FT	\$41.82 \$41.82 Cost /Acre \$112.82 \$112.82
Description Tractor towed spreader LLING Description Disc harrowing, 6" deep EEDING Seed Mix Alkali Sacaton	o (MEANS 32 91 13.	Total	To	Rate – PLS LBS / Acre 0.50	Cost/Acre Seeds per SQ. FT 19.51	\$41.82 \$41.82 Cost /Acre \$112.82 \$112.82
Description Tractor towed spreader LLING Description Disc harrowing, 6" deep EEDING Seed Mix Alkali Sacaton Saltbush, Four Wing - I	o (MEANS 32 91 13.	Total	To	Rate – PLS LBS / Acre 0.50 1.00	Cost/Acre Seeds per SQ. FT 19.51 1.61	\$41.82 \$41.82 Cost /Acre \$112.82 \$112.82 Cost /Acre
Description Tractor towed spreader LLING Description Disc harrowing, 6" deep EEDING Seed Mix Alkali Sacaton Saltbush, Four Wing - I Saltgrass, Inland	o (MEANS 32 91 13.	Total	To	Rate – PLS LBS / Acre 0.50 1.00 4.00	Seeds per SQ. FT 19.51 1.61 55.45	\$41.82 \$41.82 Cost /Acre \$112.82 \$112.82 Cost /Acre \$14.24 \$18.50 \$171.20
Description Tractor towed spreader LLING Description Disc harrowing, 6" deep EEDING Seed Mix Alkali Sacaton Saltbush, Four Wing - I	o (MEANS 32 91 13.	Total	To	Rate – PLS LBS / Acre 0.50 1.00	Cost/Acre Seeds per SQ. FT 19.51 1.61	\$41.82 \$41.82 Cost /Acre \$112.82 \$112.82 Cost /Acre

Description

Cost /Acre

Drill Seeding (DRMS Survey Cost)		\$232.00
Т	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	\$4.01	\$4.01
Herbicide - Glyphosate (Journey)@ 1.0 pt/ac	1.00	ACRE	\$3.75	\$3.75
Straw, delivered {MEANS 31 25 14.16 1200}	1.50	TON	\$429.79	\$644.68
Total Mulch Materials Cost/Acre				\$652.44

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$74.46
Power mulcher (MEANS 32 91 13.16 0350)		\$147.67
Weed spray, hand, aquatic area, nox. [DMG]		\$183.16
Weed spray, truck, non-aquatic area, nox. [DMG]		\$62.72
	Total Mulch Application Cost/Acre	\$468.01

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
	\$0.00				

JOB TIME AND COST

 No. of Acres:
 8.9
 Cost /Acres:
 \$1,860.65

 Estimated Failure Rate:
 0%
 Cost /Acre*:
 \$0.00

*Selected Replanting Work Items: NONE

Initial Job Cost: \$16,559.79

Reseeding Job Cost: \$0.00

Total Job Cost: Job Hours: 9.00

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description:	Initial Mobilization		
te: Whitewater Pit 500	Permit Action: TR-6	Permit/Jol	b#: M1977129
PROJECT IDENTIFI	<u>ICATION</u>		
Task #: X01 Date: 8/31/2023 User: ACY	State: Colorado County: Mesa	Abbreviation: Filename:	None M129-X01
Agency or organ			
			1 per day CRG Data
EQUIPMENT TRANS	SPORT RIG COST or Description: GENERIC ON-HIGHWA		CRG Data

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$20.26	\$36.04	\$47.05
Operating Cost/Hour:	\$39.51	\$76.08	\$82.85
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$82.29	\$158.17	\$175.95

NON ROADABLE EQUIPMENT:

Machine	Weight/	Owner ship	Haul Rig	Fleet	Haul Trip	Return Trip	DOT Permit
Description	Unit	Cost/hr/ unit	Cost/hr/uni	Size	Cost/hr/	Cost/hr/ fleet	Cost/ fleet
	(TONS)		t		fleet		
Submersible pump	0.70	\$15.28	\$82.29	1	\$97.57	\$82.29	\$250.00
- 460v, 8 in.							
CAT 972H	28.00	\$57.78	\$158.17	1	\$215.95	\$158.17	\$250.00
Cat 730	25.19	\$108.06	\$82.29	3	\$571.05	\$246.87	\$750.00
CAT 14M	23.57	\$149.33	\$82.29	1	\$231.62	\$82.29	\$250.00
Water Tanker,	5.25	\$11.35	\$82.29	1	\$93.64	\$82.29	\$250.00
2,500 Gal.							
Cat D8T - 8SU	53.08	\$255.49	\$175.95	2	\$862.88	\$351.90	\$250.00
Drill/Broadcast	25.00	\$6.73	\$82.29	1	\$89.02	\$82.29	\$250.00
Seeder with							
Tractor							
Power Mulcher	6.00	\$25.94	\$82.29	1	\$108.23	\$82.29	\$250.00
(Bowie LD-90)							

Subtotals: **\$2,269.96** \$1,168.39 \$2,500.00

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Flatbed Truck, 4x2, 30K GVW	\$92.68	1	\$92.68	\$92.68
Light Duty Pickup, 4x4, 3/4 T.	\$44.06	2	\$88.12	\$88.12

Subtotals:	\$180.80	\$180.80

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region: GRAND JUNCTION

Total one-way travel distance:

Average Travel Speed:

6.00 miles 45.00 mph

Total Non-Roadable Mob/Demob Cost *

'* two round trips with haul rig:

Total Roadable Mob/Demob Cost **

** one round trip, no haul rig:

\$10,456.81 \$48.21

Transportation Cycle Time:

	Non-	
	Roadable	Roadable
	Equipment	Equipment
Haul Time (Hours):	0.13	0.13
Return Time (Hours):	0.13	0.13
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	1.27	0.27

JOB TIME AND COST

Total job time: 2.53 Hours

Total job cost: \$10,505

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: Se	condary Mobiliza	ation		
ite: Whitewater Pit 500	Permit	t Action: TR-6	Permit/Jo	ob#: <u>M1977129</u>
PROJECT IDENTIFICAT	<u>ION</u>			
Task #: X02	State: C	colorado	Abbreviation:	None
Date: 8/31/2023 User: ACY	County: N	Iesa	Filename:	M129-X02
Agency or organization	n name: DRMS	5		
EQUIPMENT TRANSPOR	RT RIG COST			
			Shift basis:	1 per day
			Cost Data Source:	CRG Data
Truck Tractor Des	cription: GENI		AY TRUCK TRACTOR, 6X4, 400 HP (2ND HALF, 2006)	DIESEL POWERED,
Truck Trailer Des	cription:	GENERIC FOLDIN	IG GOOSENECK, DROP DEC	CK EQUIPMENT
		TR	AILER (25T, 50T, AND 100T	
Cost Breakdown:				
Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons	
Ownership Cost/Hour:	\$20.26	\$36.04	\$47.05	
Operating Cost/Hour:	\$39.51	\$76.08	\$82.85	
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52	
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53	

NON ROADABLE EQUIPMENT:

Total Unit Cost/Hour:

\$82.29

Machine	Weight/	Owner ship	Haul Rig	Fleet	Haul Trip	Return Trip	DOT Permit
Description	Unit	Cost/hr/ unit	Cost/hr/uni	Size	Cost/hr/	Cost/hr/ fleet	Cost/ fleet
	(TONS)		t		fleet		
Drill/Broadcast	25.00	\$6.73	\$82.29	1	\$89.02	\$82.29	\$250.00
Seeder with							
Tractor							
Power Mulcher	6.00	\$25.94	\$82.29	1	\$108.23	\$82.29	\$250.00
(Bowie LD-90)							

\$158.17

\$175.95

Subtotals: \$197.25 \$164.58 \$500.00

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Flatbed Truck, 4x2, 30K GVW	\$92.68	1	\$92.68	\$92.68
Light Duty Pickup, 4x4, 3/4 T.	\$44.06	1	\$44.06	\$44.06

Subtotals: \$136.74 \$136.74

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:

Total one-way travel distance:

Average Travel Speed:

GRAND JUNCTION
miles
mph

Transportation Cycle Time:

	Non-		
	Roadable	Roadable	
	Equipment	Equipment	
Haul Time (Hours):	0.13	0.13	
Return Time (Hours):	0.13	0.13	
Loading Time (Hours):	0.50	NA	
Unloading Time (Hours):	0.50	NA	
Subtotals:	1.27	0.27	

JOB TIME AND COST

Total job cost: 2.53 Hours

Total job cost: \$1,527