

Cost Estimate for TR10 at THE Aggregate, M-1977-193

1 message

Bowles - DNR, Brock

 brock.bowles@state.co.us>

Mon, Aug 23, 2021 at 7:08 PM

To: Kenneth Klco <kenneth.klco@gmail.com>, Randy DiLuzio <rdiluzio@tezakheavyequipment.com>, sscarter@blm.gov Cc: Tim Cazier <tim.cazier@state.co.us>

Hi everyone,

I have been assisting Tim Cazier with the cost estimate for TR10 at the T.H.E Aggregate Pit, M-1977-193. The DRMS cost estimate is attached.

The cost estimate submitted by Tezak had a total of: \$1,160,109.73 (both BLM and private land). I ran the numbers in our system for verification and got a significantly lower value: \$911,998.

After a little research and discussion with our cost estimate specialist, there are two main reasons for the large difference:

1. Ken Klco was given the cost of \$596.77 per acre for fertilizer application by DRMS. DRMS got this value from RSMeans, who we later learned changed their cost this year to include labor, equipment and material costs. DRMS prices these items separately. So, Ken's estimate unknowingly double charged for these services. DRMS has corrected this discrepancy and the reclamation cost in this estimate is adjusted to reflect this change.

2. The structural demolition task #170 submitted by Tezak in TR10 was \$66,656.70 based on the 2013 estimate. The DRMS cost for the demolition is \$32,989. I do not know why the cost is significantly lower and our cost estimator does not know why either. We have not kept records tracking the changes in costs over the years, but the current value reflects the RSMeans market value.

The tasks on BLM land are labeled as such. We are planning to approve TR10 on Sept 8. Please have your questions to me prior to Sept 8. If we don't hear from you we will assume you approve of the estimate.

I can be reached at 720-774-0040 or brock.bowles@state.co.us for questions.

Thanks, Brock

Brock Bowles
Environmental Protection Specialist



P 720.774.0040 | F 303.832.8106 1313 Sherman St., Room 215, Denver, CO 80203 brock.bowles@state.co.us | https://drms.colorado.gov



COST SUMMARY WORK

Task description:	Site Reclamation	
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Site: **T.H.E. Aggregate Source** Permit Action: TR10 Permit/Job#: M1977193

PROJECT IDENTIFICATION

Task #:000State:ColoradoAbbreviation:NoneDate:8/16/2021County:FremontFilename:M193-000

User: BFB

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task		Form	Fleet	Task	-
	Description	Used	Size	Hours	Cost
110	Phase 1- Replace Topsoil (12" over 123.3 ac)	SCRAPER1	1	392.04	\$125,465
120	Phase 1- Rough Grade Topsoil (10% of Task 110 area)	GRADER	1	8.94	\$1,013
130	Phase 1- Rip Pit Floor	RIPPER	1	198.91	\$43,146
140	Phase 1- Reseed Dist Area (pit flr, borrow area & rd easm't)	REVEGE	1	123.00	\$306,592
150	Phase 1- Bench Ditch Maintenance	DOZERGRA DER	1	5.00	\$572
170	Permanent Structure Demolition	DEMOLISH	1	80.00	\$32,989
190	Mob/Demob	MOBILIZE	1	1.40	\$2,109
210	Phase 2 BLM- Replace Topsoil (12" over 14.3 ac)	SCRAPER1	1	45.47	\$14,551
220	Phase 2 BLM- Rough Grade Topsoil (10% of Task 210 area)	GRADER	1	1.04	\$118
230	Phase 2 BLM- Rip Pit Floor	RIPPER	1	23.07	\$5,004
240	Phase 2 BLM- Reseed	REVEGE	1	14.00	\$35,558
250	Phase 2 BLM- Bench Ditch Maintenance	DOZERGRA DER	1	2.00	\$229
310	Phase 3 BLM- Replace Topsoil (12" over 7.8 ac)	SCRAPER1	1	24.80	\$7,937
320	Phase 3 BLM- Rough Grade Topsoil (10% of Task 310 area)	GRADER	1	0.56	\$64
330	Phase 3 BLM- Rip Pit Floor	RIPPER	1	12.58	\$2,729
340	Phase 3 BLM- Reseed	REVEGE	1	8.00	\$19,395
350	Phase 3 BLM- Bench Ditch Maintenance	DOZERGRA DER	1	3.45	\$394
410	Phase 4 BLM- Replace Topsoil (12" over 7.1 ac)	SCRAPER1	1	22.57	\$7,224
420	Phase 4 BLM- Rough Grade Topsoil (10% of Task 410 area)	GRADER	1	0.51	\$58
430	Phase 4 BLM- Rip Pit Floor	RIPPER	1	11.45	\$2,484
440	Phase 4 BLM- Reseed	REVEGE	1	7.00	\$17,655
450	Phase 4 BLM- Bench Ditch Maintenance	DOZERGRA DER	1	3.22	\$368
501	Phase 5 BLM- Replace Topsoil (12" over 2.7 ac)	SCRAPER1	1	8.58	\$2,747
502	Phase 5 BLM- Rough Grade Topsoil (10% of Task 501 area)	GRADER	1	0.51	\$58
503	Phase 5 BLM- Rip Pit Floor	RIPPER	1	4.35	\$945
504	Phase 5 BLM- Reseed	REVEGE	1	3.00	\$6,714
505	Phase 5 BLM- Bench Ditch Maintenance	DOZERGRA DER	1	4.49	\$513
551	Phase 5 Tezak- Replace Topsoil (12" over 17.3 ac)	SCRAPER1	1	55.01	\$17,604

552	Phase 5 Tezak- Rough Grade (10% of Task 551	GRADER	1	1.25	\$143
	area)				
553	Phase 5 Tezak- Rip Pit Floor	RIPPER	1	27.91	\$6,054
554	Phase 5 Tezak- Reseed	REVEGE	1	17.00	\$43,017
555	Phase 5 Tezak- Bench Ditch Maintenance	DOZERGRA	1	2.42	\$277
		DER			
		TALS:	1113.53	\$703,726	

INDIRECT COSTS

OVERHEAD AND PROFIT:

 Liability insurance:
 2.02 Total =
 \$14,215

 Performance bond:
 1.05 Total =
 \$7,389

 Job superintendent:
 536.17 Total =
 \$38,620

 Profit:
 10.00 Total =
 \$70,373

TOTAL O & P =\$130,597

CONTRACT AMOUNT (direct + O & P) = \$834,323

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

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

Engineering work and/or contract/bid preparation: 4.25 Total = \$35,459

Reclamation management and/or administration: 5.00 \$41,716

CONTINGENCY: 0.00 Total = \$0

TOTAL INDIRECT COST = \$208,272

TOTAL BOND AMOUNT (direct + indirect) = \$911,998

SCRAPER TEAM WORK

Task description:	Phase 1- Re	place Topsoil (1	2" over 123.3 ac))		
Site: T.H.E. Aggregate	Source	Permit Action:	TR10	Perr	mit/Job#: <u>M197</u>	7193
PROJECT IDENTIFICATION						
Task #: 110	St	tate: Colorado		Abbrev	viation: None	
	<u>)21</u> Cou	nty: Fremont		Fil	ename: 771931	10
Agency or o	organization name:	DRMS				
HOURLY EQUIP	PMENT_		COSTS	hift basis: 1 per d	<u>ay</u>	
			IG			
Suppo						
	-Dump	Area: NA				
Road Ma						
-	- water	TIUCK. NA				
Cost Breakdown:	Scraper Worl	k Team				
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	NA	NA	NA	NA	NA
Ownership cost/hour:	\$147.77	NA	NA	NA	NA	NA
Operating cost/hour:	\$141.36	NA	NA	NA	NA	NA
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	NA	NA	NA	NA
Ripper op. cost/hour:	NA	NA	NA	NA	NA	NA
Operator cost/hour:	\$30.90	NA	NA	NA	NA	NA
Unit Subtotals:	\$320.03	NA	NA	NA	NA	NA
Number of Units:	1	0	0	0	0	0
Group Subtotals:	Work:	\$320.03	Support:	\$0.00	Maint:	\$0.00
			Swell face	tor: 1.125		
HOURLY PROD	<u>UCTION</u>					
	<u></u>		Scraper B	owl (volume) Basi	is:	
Material weight:	2,650 lbs/LCY					CV
Material description:	Decomposed rock	- 25% Rock,		Volume: 24.00 Volume: 34.00		CY
Rated Payload:	81,600 pounds		Average	Volume: 29.00		CY
Payload Capacity:	30.79 LCY		Adjusted (CY

a 1		_		
Cvcl	le.	11	m	e:

 $\begin{array}{lll} \text{Scraper Loading Time:} & \underline{0.80} \text{ Minutes} \\ \text{Maneuver and Spread Time:} & \underline{0.70} \text{ Minutes} \\ \end{array}$

Job Condition Correction: Site Altitude: 5600 feet

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

Travel Time:

Road Condition: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	500.00	3.00	5.00	8.00	783	0.67

Haul Time: **0.67** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	500.00	-3.00	5.00	2.00	2914	0.36

0.36 Return Time: minutes Total Scraper team cycle time: 2.53 minutes Adjusted for job conditions: 570.83 LCY/Hour Selected Number of Scrapers: 1 Scraper(s) Adjusted single scraper team (unit) hourly production: 570.83 LCY/Hour Adjusted multiple scraper team (fleet) hourly production: 570.83 LCY/Hour

Unadjusted unit production/hour:	687.75	LCY/Hou
Optimal Number of Scrapers per push dozer:		_

JOB TIME AND COST

Fleet size:	1	Team(s)	Total job time:	392.04	Hours
Unit cost:	\$0.561	/LCY	Total job cost:	\$125,465	

MOTOR GRADER WORK

Task description:	Phase	e 1- Kougn	Grade Topso	oil (10% of Tas	sk 110 area)		
T.H.E. Aggregate	Source	Per	mit Action:	TR10	P	ermit/Job#	: M1977193
PROJECT IDEN	CIFICATIO	<u>N</u>					
Task #: 120		State:	Colorado		Abb	reviation:	None
Date: 8/16/20)21	County:	Fremont			Filename:	M193-120
User: BFB		•					
Agency or o	organization r	name: DI	RMS				
HOURLY EQUIP	MENT CO	<u>ST</u>					
Basic Mac	hine: CAT	7 12M			Horsepower:		158
Ripper Attach					Shift Basis:	1 1	per day
					Data Source:		CRG)
Cost Breakdown:							
					Utilization %		
	wnership Cos			\$47.01	NA	=	
	Operating Cos			\$37.67	100	_	
	wnership Co			\$0.00	NA	_	
Ripper (Operating Cos			\$0.00	NT A	=	
-	Operator Co			\$28.56	NA	-	
1	Cotal Unit Co	st/Hour:		\$113.24			
T	otal Fleet Co	st/Hour:	\$113	3.24			
	Area to be gra		·				acres
S	ource of estin	nated acreas	ge: TR10 a	pplication			
HOURLY PROD	<u>UCTION</u>						
		e Grader Sp		1.50	mph		
		ted Applica			grading (0-2.5 m		
		ed Blade A		30	degrees		
W		e Blade Le		10.40	feet		
	dth of blade of the of			2.00 8.40	feet feet		
	isted Hourly			1.5273	acres/h	nur	
Job Condition Correct	•	Omi Troduc			te Altitude: 5600		
			Source	51	1 <u>2000</u>		
Altitude Ad	j: 1.0	00	(CAT HE	3)			
Job Efficienc			(1sh/d, fav				
Net Correction		000	multiplier	·			
	Adinsted I	Hourly Unit	Production:	1.3745	acres/Hour		
	•	•	Production:	1.3745	acres/Hour		
	rajustea 11	10011	1 Todaction.	1.0770	ucies/110ui		
JOB TIME AND	COST						
Fleet size:	1	Grader(s)		Total job time	e: 8.9 5	5	Hours
Unit cost:	\$82.38	per acre		Total job cost	t: \$1,0 1	13	
CIII COSt.	Ψ02.20	per acre		Total job cost	Ψ1,0		

BULLDOZER RIPPING WORK

	Task description:	Phase	e 1- Rip Pit Floor				
Site:	T.H.E. Aggre	gate Source	Permit Action:	TR10	Permit/Jo	ob#: <u>M197</u>	7193
	PROJECT ID	ENTIFICATIO	<u>ON</u>				
	Task #: 130)	State: Colorado		Abbreviatio	n: None	
	Date: 8/1	6/2021	County: Fremont		Filenam	ne: M193-	130
	User: BF	В					
	Agency	or organization	name: DRMS				
	HOURLY EQ	UIPMENT CO	<u>OST</u>				
	Basic 1	Machine: Cat	D7R DS XR Series II		Horsepower:	240	
	Ripper Att		nank Ripper		Shift Basis:	1 per day	
			**		Data Source:	(CRG)	
	Cost Breakdown:						
		-			Utilization %		
		Ownership Co	st/Hour:	\$81.02	NA		
		Operating Co		\$79.33	100		
		er Ownership Co		\$9.32	NA		
	Ripp	per Operating Co		\$5.93	100		
		Operator Co		\$41.30	NA		
		Total Unit Co	st/Hour:	\$216.90			
		Total Fleet Co	st/Hour: \$21 6	5.90			
	MATERIAL (DUANTITIES	Sele	ected estimating	g method: Area		
	Alternate Method		Seic	otod ostimating	, memou. <u> </u>		
• •		<u></u>	D 1 W . 1	NIA	DCV	NTA	
ismic: Area:	NA 123.30	acres	Bank Volume: Rip Depth (ft):	NA 1.00	BCY Volume: 198,924	NA 1	BCY or C
Aica.	123.30				volume	r	_ bcrore
		Source of estin	nated quantity: TR10 A	Application			
	HOURLY PRO	<u>ODUCTION</u>					
	Seismic:						
		S	Seismic Velocity:	NA	feet/second		
	Area:						
	Alca.	Average	e Ripping Depth:	2.45	feet/pass		
			e Ripping Width:	6.50	feet/pass		
			Ripping Length:	400.00	feet/pass		
			age Dozer Speed:	88.00	feet/minute		
			Maneuver Time:	0.25	minutes/pass		
		Product	ion per unit area:	0.747	acres/hour		
	Job Condition Co	orrection Factors					
	Un	adjusted Hourly	Unit Production:	0.747	Acres/hr		
			Site Altitude:	5,600	feet		
			Altitude Adj:	1.00	(CAT HB)		
			Job Efficiency:	0.83	(1 shift/day)		
			Net Correction:	0.83	multiplier		
		Adjusted 1	Hourly Unit Production:	0.62	Acres/hr		
			Hourly Fleet Production:	0.62	Acres/hr		
	JOB TIME AN	· ·	-	_			
	Fleet size:	1	Grader(s)	Total job tim	ne: 198.92	ŀ	Hours
	_	Φ240.02 <i>°</i>		· ·			
	Unit cost:	\$349.925	Per acre	Total job co	st: \$43,146		

REVEGETATION WORK

Task description: Phase 1- Reseed Dist Area (pit flr, borrow area & rd easm't)						
Site:	T.H.E. Aggregate Sour	Per Per	mit Action:	TR10	Permit/Job#:	M1977193

PROJECT IDENTIFICATION

140 Task #: State: Colorado Abbreviation: None Date: 8/16/2021 County: Fremont Filename: M193-140

User: BFB

Agency or organization name: DRMS

FERTILIZING

Task description:

Materials

	Units /			
Description	Acre	Unit	Cost / Unit	Cost /Acre
6-24-24, 10-20-10, 15-15-15	300.00	pound	\$0.29	\$87.00
Composted manure DRMS Survey	2,000.00	pound	\$0.02	\$47.40
			Total Fertilizer Materials	
			Cost/Acre	\$134.40

Application

Description		Cost /Acre
Tractor spreader (MEANS 32 91 13.16 0950)		\$27.44
Tractor towed spreader (MEANS 32 01 90.13 0120)		\$38.77
	Total Fertilizer Application Cost/Acre	\$66.21

TILLING

Description Chisel plowing {DMG}	Cost /Acre \$96.50
Cinsci piowing (Divio)	φ90.30
Total Tilling Cost/Acre	\$96.50

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Hachita	0.50	8.16	\$7.99
Indian Ricegrass - Nespar	1.50	4.86	\$13.31
Sideoats Grama - Butte	2.50	8.21	\$22.50
Juniper, Single Seed	1.00	0.29	\$75.33
Crested Wheatgrass - Standard	0.50	2.30	\$2.08
Pine, Pinyon	1.00	0.03	\$29.50
Mahogany, Mountain	1.50	2.03	\$55.21
Needle and Thread	1.50	3.96	\$62.78
Western Wheatgrass - Native	1.00	2.53	\$6.00

Saltbush, Four Wing	2.50	3.44	\$31.25
Winter Fat	1.50	3.82	\$30.75
Totals Seed Mix	15.00	39.63	\$336.69

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
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$307.02	\$614.04
Total Mulch Materials Cost/Acre				\$614.04

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$71.57
Power mulcher (MEANS 32 91 13.16 0350)		\$106.29
	Total Mulch Application Cost/Acre	\$177.86

NURSERY STOCK PLANTING

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

JOB TIME AND COST

Cost /Acre: \$1,657.70 Cost /Acre*: \$1,657.70 No. of Acres: 123.3

Estimated Failure Rate: 50%

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

LCHING

Initial Job Cost: **\$204,394.41** Reseeding Job Cost: **\$102,197.21** Total Job Cost: **\$306,592** Job Hours: **123.00**

DOZERGRADER WORK

Task description: T.H.E. Aggregate S	Source Pe	rmit Action:	TR10	Permit/Job#:	M1977193
PROJECT IDENT	IFICATION	-		_	
Task #: 150 Date: 8/16/202 User: BFB	State: County:	Colorado Fremont		Abbreviation: Filename:	None M193-150
	ganization name:D	RMS			
HOURLY EQUIPN	MENT COST				
	Cat D5K2 XL - 5P				
Horsepower:			<u> </u>		
Blade Type:			<u> </u>		
	NA		<u> </u>		
	l per day				
Data Source:			_		
Cost Breakdown:					
			<u>Utilization %</u>		
Ownership Cost/Hou		\$36.53	NA		
Operating Cost/Hou		\$36.50	100		
Ripper own. Cost/Hou		\$0.00	NA		
Ripper op. Cost/Hou		\$0.00	0		
Operator Cost/Hou	r:	\$41.30	NA		
Total unit Cost/Hour:	\$114.33				
Total Fleet Cost/Hour:	\$114.33				

Unit cost: \$114.33/LCY

Total job time: 5.00 Hours Total job cost: \$572

DEMOLITION WORK

	Task description:	Permanent Structure Demo	olition		
Site:	T.H.E. Aggregate Source	Permit Action:	TR10	Permit/J	Job#: M1977193
PROJE	CT IDENTIFICATION				
Task #:	: 170	State: Colorado		Abbreviation:	None
Date:	8/17/2021	County: Fremont		Filename:	M193-170
User:	BFB	-			
	Agency or organizati	on name: DRMS			

<u>UNIT COSTS</u> <u>Location adjustment: 94.10 %</u>

Structure or Item Description Dimensions		Dimensions Demolition Menu Selection			Unit Cost	Total Cost	
Existing Office - single story	30'x40'x8'	Bldg. (SN) demo./off-site disposal in approved landfill - Max. 15 mile haul	9,600.00	CF	\$0.36	\$3,427.20	
Existing Office Floor	30'x40'	Floor, concrete, demolition only, average reinforcing - 6 in. thick	1,200.00	SF	\$0.96	\$1,152.00	
Office Addition - 2- story portion ONLY	30'x40'x16'	Bldg. (MN) demo./off- site disposal in approved landfill - Max. 15 mile haul	19,200.00	CF	\$0.38	\$7,296.00	
Office Addition Mech. Room	8.5'x10'x8'	Bldg. (SN) demo./off-site disposal in approved landfill - Max. 15 mile haul	680.00	CF	\$0.36	\$242.76	
Office Addition Vault (conc.)	9.5'x10'x8'	Bldg. (SC) demo./off-site disposal in approved landfill - Max. 15 mile haul	760.00	CF	\$0.61	\$462.84	
Office Addition Floor	30'x40'+18'x10'	Floor, concrete, demolition only, average reinforcing - 6 in. thick	1,380.00	SF	\$0.96	\$1,324.80	
Water Tank Stor. bldg #1 (dirt floor)	35'x20'x8'	Bldg. (SN) demo./off-site disposal in approved landfill - Max. 15 mile haul	5,600.00	CF	\$0.36	\$1,999.20	
Water Tank Stor. bldg #2 (dirt floor)	35'x15'x8'	Bldg. (SN) demo./off-site disposal in approved landfill - Max. 15 mile haul	4,200.00	CF	\$0.36	\$1,499.40	
Remove Pavement from Cañon City prop.	1000'x30'	Pavement, bituminous, demolition only - 3 in. thick	3,333.00	SY	\$4.66	\$15,531.78	
Truck Scale Pit Floors (2)	70'x10' each	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 10,000 ft. haul	1,400.00	SF	\$1.00	\$1,401.40	
Truck Scale Pit Foundation	70'x20'	Demo. and on-site disposal in existing pit, 1.0 ft. x 2 ft Max. 10,000 ft. haul	180.00	LF	\$4.00	\$720.00	

		Subtotal		(adjusted for	
Job Hours:	80.00	(unadjusted):	\$35,057.38	location):	\$32,988.99

EQUIPMENT MOBILIZATION/DEMOBILIZATION

T.H.E. Aggregate Source	Permit Action: TR10	Permit/Jo	b#: <u>M1977193</u>
PROJECT IDENTIFICATION			
Task #: 190 Sta Date: 8/17/2021 Coun User: BFB	ate: Colorado aty: Fremont	Abbreviation: Filename:	None M193-190
Agency or organization name:	DRMS		
EQUIPMENT TRANSPORT RIG	COST		
EQUIPMENT TRANSPORT RIG	<u>COST</u>		1 per day CRG Data
Truck Tractor Description:	GENERIC ON-HIGHWAY TR	Cost Data Source:	CRG Data

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$21.28	\$37.94	\$47.67
Operating Cost/Hour:	\$26.55	\$50.48	\$56.21
Operator Cost/Hour:	\$20.54	\$20.54	\$20.54
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$68.37	\$132.49	\$147.95

NON ROADABLE EQUIPMENT:

Machine	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		
Cat 631G	52.50	\$147.77	\$147.95	1	\$295.72	\$147.95	\$250.00
Cat D7R DS XR	32.01	\$81.02	\$132.49	1	\$213.51	\$132.49	\$250.00
Series II							
CAT 12M	16.01	\$47.01	\$68.37	1	\$115.38	\$68.37	\$250.00
Cat D5K2 XL - 5P	11.15	\$36.53	\$68.37	1	\$104.90	\$68.37	\$250.00

\$729.51 \$1,000.00 Subtotals: \$417.18

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Drill/Broadcast Seeder with Tractor	\$16.28	1	\$16.28	\$16.28
Power Mulcher (Bowie LD-90)	\$33.28	1	\$33.28	\$33.28

Subtotals:	\$49.56	\$49.56

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:

Total one-way travel distance:

Average Travel Speed:

CAÑON CITY

miles

3.00

mph

Transportation Cycle Time:

	Non-	
	Roadable	Roadable
	Equipment	Equipment
Haul Time (Hours):	0.10	0.10
Return Time (Hours):	0.10	0.10
Loading Time (Hours):	0.25	NA
Unloading Time (Hours):	0.25	NA
Subtotals:	0.70	0.20

JOB TIME AND COST

Total job cost: 1.40 Hours

Total job cost: \$2,969

SCRAPER TEAM WORK

Task description:	Phase 2 BL	M- Replace Tops	soil (12" over 14.	3 ac)		
Site: T.H.E. Aggregate	Source	Permit Action:	TR10	Perr	mit/Job#: <u>M197</u>	7193
PROJECT IDEN	<u> </u>					
Task #:210	Si	tate: Colorado		Abbrev	viation: None	
Date: 8/16/20	<u>)21</u> Cou	nty: Fremont		Fil	ename: <u>M193-</u>	210
User: BFB						
Agency or o	organization name:	DRMS				
HOURLY EQUIP	<u>PMENT</u>		COSTS	hift basis: 1 per d	<u>ay</u>	
	g.		ent Description			
		craper: Cat 631 Dozer: NA	G			
Suppo	rt Equipment -Load					
	-Dump					
Road Ma	intenance –Motor C -Water					
	- water	TIUCK. NA				
Cost Breakdown:	Scraper Wor	k Team	Support Equip	pment	Maintenance	
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	NA	NA	NA	NA	NA.
Ownership cost/hour:	\$147.77	NA	NA	NA	NA	NA NA
Operating cost/hour:	\$141.36	NA	NA	NA	NA	NA NA
%Utilization-ripper:	NA	NA	NA	NA	NA	NA NA
Ripper own. cost/hour:	NA	NA	NA	NA	NA	NA.
Ripper op. cost/hour:	NA	NA	NA	NA	NA	NA NA
Operator cost/hour:	\$30.90	NA	NA	NA	NA	NA.
Unit Subtotals:	\$320.03	NA	NA	NA	NA	NA NA
Number of Units:	1	0	0	0	0	(
Group Subtotals:	Work:	\$320.03	Support:	\$0.00	Maint:	\$0.00
Total work team cost	/hour: <u>\$320.03</u>					
MATERIAL QUA	<u>ANTITIES</u>					
Initial volume:	23,071	CCY	Swell fact	tor: 1.125		
Loose volume:	25,955	LCY				
	rce of estimated vol					
Source of	of estimated swell fa	actor: Cat Hand	lbook			
HOURLY PROD	UCTION					
210012211102	<u> </u>		Saranar Pa	owl (volume) Basi	ic.	
para ta ta	2 (50 11 / 7 (5))		-			CV
Material weight: Material description:	2,650 lbs/LCY Decomposed rock	25% Rook	Struck Heaped	Volume: 24.00 Volume: 34.00		CY CY
wrateriai description:	75% Earth	- 23% NOCK,	пеареа	v ofullie. 34.00	L	CI
Rated Payload:	81,600 pounds		Average 3			CY
Payload Capacity:	30.79 LCY		Adjusted C			CY

\sim	4			•	
7)	IC	Α	11	1n	ne:
\sim				111	10.

 $\begin{array}{lll} \text{Scraper Loading Time:} & \underline{0.80} \text{ Minutes} \\ \text{Maneuver and Spread Time:} & \underline{0.70} \text{ Minutes} \end{array}$

Job Condition Correction: Site Altitude: 5600 feet

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

Travel Time:

Road Condition: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	500.00	3.00	5.00	8.00	783	0.67

Haul Time: **0.67** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	500.00	-3.00	5.00	2.00	2914	0.36

Return Time: 0.36 minutes Total Scraper team cycle time: 2.53 minutes Adjusted for job conditions: 570.83 LCY/Hour Selected Number of Scrapers: 1 Scraper(s) Adjusted single scraper team (unit) hourly production: 570.83 LCY/Hour Adjusted multiple scraper team (fleet) hourly production: 570.83 LCY/Hour

Unadjusted unit production/hour:	687.75	LCY/Hou
Optimal Number of Scrapers per push dozer:		_

JOB TIME AND COST

Fleet size:	1	_ Team(s)	Total job time:	45.47	Hours
Unit cost:	\$0.561	_ /LCY	Total job cost:	\$14,551	

MOTOR GRADER WORK

T.H.E. Aggregate					
Tillibi riggiegate	Source Pe	rmit Action:	TR10	Per	mit/Job#: <u>M1977193</u>
PROJECT IDENT	<u>'IFICATION</u>				
Task #: 220	State:	Colorado		Abbre	viation: None
Date: 8/16/202	County:	Fremont		Fi	lename: M193-220
User: BFB					
Agency or or	rganization name: D	RMS			
		ICIVIS			
HOURLY EQUIP	MENT COST				
Basic Mach	nine: CAT 12M			Horsepower:	158
Ripper Attachm	nent:			Shift Basis:	1 per day
				Data Source:	(CRG)
Cost Breakdown:					
				Utilization %	
	wnership Cost/Hour: _		\$47.01	NA	
	perating Cost/Hour:		\$37.67	100	
	wnership Cost/Hour:		\$0.00	NA	
* *	perating Cost/Hour:		\$0.00		
	Operator Cost/Hour:		\$28.56	NA	
To	otal Unit Cost/Hour: _		\$113.24		
Tc	otal Fleet Cost/Hour:	\$113	3.24		
	rea to be graded or ripp				acres
So	urce of estimated acrea	ge: TR10 a	pplication		
HOURLY PRODU	<u>ICTION</u>				
	Average Grader S	peed:	1.50	mph	
	Selected Applic	ation:	Finish	mph grading (0-2.5 mph	n) - 1.5
	Selected Applic Selected Blade A	ation:	Finish 30		n) - 1.5
	Selected Applic Selected Blade A Effective Blade Le	ation:	Finish 30 10.40	grading (0-2.5 mpl degrees feet	n) - 1.5
Wid	Selected Applic Selected Blade A Effective Blade Le Ith of blade overlap per	ation: Angle: ength: pass:	Finish 30 10.40 2.00	grading (0-2.5 mph degrees feet feet	n) - 1.5
Wid Net gradi	Selected Applic Selected Blade A Effective Blade Le Ith of blade overlap per ng or ripping width per	ation: Angle: ength: pass:	Finish 30 10.40 2.00 8.40	grading (0-2.5 mph degrees feet feet feet	
Wid Net gradi Unadjus	Selected Applic Selected Blade A Effective Blade Le Ith of blade overlap per ng or ripping width per sted Hourly Unit Produ	ation: Angle: ength: pass:	Finish 30 10.40 2.00 8.40 1.5273	grading (0-2.5 mph degrees feet feet feet acres/hou	r
Wid Net gradi	Selected Applic Selected Blade A Effective Blade Le Ith of blade overlap per ng or ripping width per sted Hourly Unit Produ	ation: Angle: ength: pass: pass: ction:	Finish 30 10.40 2.00 8.40 1.5273	grading (0-2.5 mph degrees feet feet feet	r
Wid Net gradin Unadjus Job Condition Correct	Selected Applic Selected Blade A Effective Blade Leath of blade overlap per ng or ripping width per sted Hourly Unit Production Factors	ation: Angle: ength: pass: pass: ction: Source	Finish 30 10.40 2.00 8.40 1.5273	grading (0-2.5 mph degrees feet feet feet acres/hou	r
Wid Net gradin Unadjus <u>Job Condition Correct</u> Altitude Adj	Selected Applic Selected Blade A Effective Blade Le Ith of blade overlap per ng or ripping width per sted Hourly Unit Produ tion Factors : 1.00	ation: Angle: ength: pass: pass: ction: Source (CAT HB	Finish 30 10.40 2.00 8.40 1.5273 Si	grading (0-2.5 mph degrees feet feet feet acres/hou	r
Wid Net gradin Unadjus <u>Job Condition Correct</u> Altitude Adj Job Efficiency	Selected Applic Selected Blade A Effective Blade Le Ith of blade overlap per ng or ripping width per sted Hourly Unit Produ tion Factors : 1.00 : 0.90	ation: Angle: ength: pass: pass: ction: Source (CAT HB (1sh/d, fav	Finish 30 10.40 2.00 8.40 1.5273 Si	grading (0-2.5 mph degrees feet feet feet acres/hou	r
Wid Net gradin Unadjus <u>Job Condition Correct</u> Altitude Adj	Selected Applic Selected Blade A Effective Blade Le Ith of blade overlap per ng or ripping width per sted Hourly Unit Produ tion Factors : 1.00 : 0.90	ation: Angle: ength: pass: pass: ction: Source (CAT HB	Finish 30 10.40 2.00 8.40 1.5273 Si	grading (0-2.5 mph degrees feet feet feet acres/hou	r
Wid Net gradin Unadjus <u>Job Condition Correct</u> Altitude Adj Job Efficiency	Selected Applic Selected Blade A Effective Blade Le Ith of blade overlap per ng or ripping width per sted Hourly Unit Produ tion Factors : 1.00 : 0.90 : 0.9000 Adjusted Hourly Uni	ation: Angle: Ength: Pass: Pass: Ction: Source (CAT HB (1sh/d, fav multiplier t Production:	Finish 30 10.40 2.00 8.40 1.5273 Si 3)	grading (0-2.5 mph degrees feet feet feet acres/hou acres/Hour	r
Wid Net gradin Unadjus <u>Job Condition Correct</u> Altitude Adj Job Efficiency	Selected Applic Selected Blade A Effective Blade Le Ith of blade overlap per ng or ripping width per sted Hourly Unit Production Factors : 1.00 : 0.90 : 0.9000	ation: Angle: Ength: Pass: Pass: Ction: Source (CAT HB (1sh/d, fav multiplier t Production:	Finish 30 10.40 2.00 8.40 1.5273 Si 3)	grading (0-2.5 mph degrees feet feet feet acres/hou ite Altitude: 5600 fe	r
Wid Net gradin Unadjus <u>Job Condition Correct</u> Altitude Adj Job Efficiency Net Correction	Selected Applic Selected Blade A Effective Blade Leath of blade overlap pering or ripping width peristed Hourly Unit Production Factors 1.00 1.00 1.00 2.0.9000 2.0.9000 3.0.9000 3.0.9000 4.0.9000 4.0.9000 4.0.9000 4.0.9000 4.0.9000 4.0.9000 5.0.9000	ation: Angle: Ength: Pass: Pass: Ction: Source (CAT HB (1sh/d, fav multiplier t Production:	Finish 30 10.40 2.00 8.40 1.5273 Si 3)	grading (0-2.5 mph degrees feet feet feet acres/hou acres/Hour	r
Wid Net gradin Unadjus Job Condition Correct Altitude Adj Job Efficiency Net Correction	Selected Applic Selected Blade A Effective Blade Leath of blade overlap pering or ripping width persted Hourly Unit Production Factors 1.00 1.00 2.0.90 3.40justed Hourly Unit Adjusted Hourly Flee	ation: Angle: Ength: pass: pass: ction: Source (CAT HB (1sh/d, fav multiplier t Production: t Production:	Finish 30 10.40 2.00 8.40 1.5273 Si 3) 7.) 1.3745 1.3745	grading (0-2.5 mph degrees feet feet feet acres/hou ite Altitude: 5600 fe	r
Wid Net gradin Unadjus <u>Job Condition Correct</u> Altitude Adj Job Efficiency Net Correction	Selected Applic Selected Blade A Effective Blade Leath of blade overlap pering or ripping width peristed Hourly Unit Production Factors 1.00 1.00 1.00 2.0.9000 2.0.9000 3.0.9000 3.0.9000 4.0.9000 4.0.9000 4.0.9000 4.0.9000 4.0.9000 4.0.9000 5.0.9000	ation: Angle: Ength: pass: pass: ction: Source (CAT HB (1sh/d, fav multiplier t Production: t Production:	Finish 30 10.40 2.00 8.40 1.5273 Si 3)	grading (0-2.5 mph degrees feet feet feet acres/hou ite Altitude: 5600 fe	r

BULLDOZER RIPPING WORK

	Task description:	Phas	e 2 BLM- Rip Pit Floor				
Site:	T.H.E. Aggreg	gate Source	Permit Action:	TR10	Permit/Job	o#: <u>M197719</u>	3
	PROJECT IDI	ENTIFICATI	<u>ON</u>				
	Task #: 230)	State: Colorado		Abbreviation	: None	
		6/2021	County: Fremont		Filename		
	User: BF	В					
	Agency	or organization	name: DRMS				
	HOURLY EQ	UIPMENT CO	<u>OST</u>				
	Basic I	Machine: Cat	D7R DS XR Series II		Horsepower:	240	
	Ripper Atta	achment: 3-S	hank Ripper			1 per day	
					Data Source:	(CRG)	
	Cost Breakdown:						
				404.05	Utilization %		
		Ownership Co		\$81.02	NA 100		
	Rinne	Operating Co er Ownership Co		\$79.33 \$9.32	100 NA		
		er Operating Co		\$5.93	100		
	Tupp	Operator Co		\$41.30	NA		
		Total Unit Co		\$216.90			
		Total Fleet Co	ost/Hour: \$21	6.90			
	MATERIAL Q	UANTITIES	Sel	ected estimating	g method: Area		
	Alternate Method		ben	cted estimating	, method. <u>Med</u>		
Seismic:	NA		Bank Volume:	NA	BCY	NA	
Area:	14.30	acres	Rip Depth (ft):	1.00	Volume: 23,071		BCY or CC
		Source of estir	nated quantity: TR10	Application			
	HOURLY PRO			rr ·····			
		<u>DECTION</u>					
	Seismic:	9	Seismic Velocity:	NA	feet/second		
		•		1111			
	Area:	Avaraa	e Ripping Depth:	1.00	feet/pass		
			e Ripping Deptil. e Ripping Width:	6.50	feet/pass		
			Ripping Length:	400.00	feet/pass		
			age Dozer Speed:	88.00	feet/minute		
			Maneuver Time:	0.25	minutes/pass		
		Product	ion per unit area:	0.747	acres/hour		
	Job Condition Co	rrection Factors					
	Una	adjusted Hourly	Unit Production:	0.747	Acres/hr		
			Site Altitude:	5,600	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 l	Hourly Fleet Production:	0.62	Acres/hr		
	JOB TIME AN	ID COST					
	Fleet size:	1	Grader(s)	Total job tim	ne: 23.07	Hou	rs
	Unit cost:	\$349.925	Per acre	Total job cos	st: \$5,004		

REVEGETATION WORK

Task description: Phase 2 BLM- Reseed

Site: T.H.E. Aggregate Source Permit Action: TR10 Permit/Job#: M1977193

PROJECT IDENTIFICATION

Task #:240State:ColoradoAbbreviation:NoneDate:8/16/2021County:FremontFilename:M193-240

User: BFB

Agency or organization name: DRMS

FERTILIZING

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
6-24-24, 10-20-10, 15-15-15	300.00	pound	\$0.29	\$87.00
Composted manure DRMS Survey	2,000.00	pound	\$0.02	\$47.40
			Total Fertilizer Materials Cost/Acre	\$134.40

Application

Description		Cost /Acre
Tractor spreader (MEANS 32 91 13.16 0950)		\$27.44
Tractor towed spreader (MEANS 32 01 90.13 0120)		\$38.77
	Total Fertilizer Application Cost/Acre	\$66.21

TILLING

Description Chisel plowing {DMG}	Cost /Acre \$96.50
Total Tilling Cost/Acre	

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Hachita	0.50	8.16	\$7.99
Indian Ricegrass - Nespar	1.50	4.86	\$13.31
Sideoats Grama - Butte	2.50	8.21	\$22.50
Juniper, Single Seed	1.00	0.29	\$75.33
Crested Wheatgrass - Standard	0.50	2.30	\$2.08
Pine, Pinyon	1.00	0.03	\$29.50
Mahogany, Mountain	1.50	2.03	\$55.21
Needle and Thread	1.50	3.96	\$62.78
Western Wheatgrass - Native	1.00	2.53	\$6.00

Saltbush, Four Wing	2.50	3.44	\$31.25
Winter Fat	1.50	3.82	\$30.75
Totals Seed Mix	15.00	39.63	\$336.69

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
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$307.02	\$614.04
Total Mulch Materials Cost/Acre				\$614.04

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$71.57
Power mulcher (MEANS 32 91 13.16 0350)		\$106.29
	Total Mulch Application Cost/Acre	\$177.86

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

Cost /Acre: \$1,657.70 Cost /Acre*: \$1,657.70 No. of Acres: 14.3

Estimated Failure Rate: 50%

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

LCHING

Initial Job Cost: **\$23,705.11** Reseeding Job Cost: **\$11,852.56** Total Job Cost: \$35,558 Job Hours: **14.00**

DOZERGRADER WORK

T.H.E. A	Aggregate	Source	Peri	mit Action:	TR10	Permit/Job#:	M1977193
PROJEC'	T IDEN	ΓΙΓΙCΑΤ	<u>ION</u>				
Task #:	250		State:	Colorado		Abbreviation:	None
Date:	8/17/20	021	County:	Fremont		Filename:	M193-250
User:	BFB				_		
А	gency or (organizatio	n name: DR	RMS			
**	geney or .	organizatio.					
HOURLY	FOUIF	PMENT (COST				
Basic M	achine: power:	Cat D5K2	XL - 5P				
	epower: e Type:						
	hment:	NA			<u> </u>		
	t Basis:	1 per day			<u> </u>		
	Source:	1 per day					
	_						
Cost Break	<u>aown</u> :				Litilization 0/		
Ownershi	n Cost/Ha	\iir•		\$36.53	<u>Utilization %</u> NA		
	g Cost/Ho			\$36.50	100		
Ripper own				\$0.00	NA		
Ripper or				\$0.00	0		
	r Cost/Ho			\$41.30	NA		
Total unit C	Cost/Hour	: \$114	1 33				
Total Fleet							
Total Fleet	Cost/Hou	ir: \$11 2	1.33				
JOB TIM	E AND	COST					
	Fleet size	: 1 Doze	er(s)				
	Unit cost		3/LCY				

Total job time: 2.00 Hours \$229

SCRAPER TEAM WORK

Task description:	Phase 3 BI	LM- Rep	lace Tops	soil (12" over 7.8	ac)		
Site: T.H.E. Aggregate	Source	Permi	t Action:	TR10	Peri	nit/Job#: <u>M197</u>	7193
PROJECT IDEN Task #: 310 Date: 8/16/20 User: BFB)21 Co	unty:	Colorado Fremont			viation: None M193-	310
Agency or o	organization name:	DRM	IS				
HOURLY EQUIP	PMENT_			COSTS	hift basis: 1 per d	<u>ay</u>	
				nt Description			
Suppo	rt Equipment -Loa	Scraper: -Dozer: d Area: p Area:	NA NA NA	G			
Road Ma	intenance –Motor		NA NA				
Cost Breakdown:	Scraper Wo			Support Equi		Maintenance	
	Scraper	Do	zer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100		NA	NA	NA	NA	NA
Ownership cost/hour:	\$147.77		NA	NA	NA	NA	NA
Operating cost/hour:	\$141.36		NA	NA	NA	NA	NA
%Utilization-ripper:	NA		NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA		NA	NA	NA	NA	NA
Ripper op. cost/hour:	NA		NA	NA	NA	NA	NA
Operator cost/hour:	\$30.90		NA	NA	NA	NA	NA
Unit Subtotals:	\$320.03		NA	NA	NA	NA	NA
Number of Units:	1	ф.22	0	0	0	0	(
Group Subtotals:	Work:	\$320	0.03	Support:	\$0.00	Maint:	\$0.00
Total work team cost MATERIAL QUA							
Initial volume: Loose volume:	12,584 14,157		CCY LCY	Swell fac	tor: 1.125		
	rce of estimated vo of estimated swell	_	TR10 app				
HOURLY PROD	UCTION						
	<u></u>			Scraper B	owl (volume) Basi	is:	
Material weight:	2,650 lbs/LCY			<u> </u>	Volume: 24.00		CY
Material description:	Decomposed roc 75% Earth	k - 25% l	Rock,	Heaped	Volume: 34.00	L	CY
Rated Payload: Payload Capacity:	81,600 pounds 30.79 LCY			Average Adjusted (CY CY

~			•		
Cvc	P	1	11	$n\epsilon$	٠.

 $\begin{array}{lll} \text{Scraper Loading Time:} & \underline{0.80} \text{ Minutes} \\ \text{Maneuver and Spread Time:} & \underline{0.70} \text{ Minutes} \end{array}$

Job Condition Correction: Site Altitude: 5600 feet

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

Travel Time:

Road Condition: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	500.00	3.00	5.00	8.00	783	0.67

Haul Time: **0.67** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	500.00	-3.00	5.00	2.00	2914	0.36

Return Time: 0.36 minutes Total Scraper team cycle time: 2.53 minutes Adjusted for job conditions: 570.83 LCY/Hour Selected Number of Scrapers: 1 Scraper(s) Adjusted single scraper team (unit) hourly production: 570.83 LCY/Hour Adjusted multiple scraper team (fleet) hourly production: 570.83 LCY/Hour

Unadjusted unit production/hour:	687.75	LCY/Hou
Optimal Number of Scrapers per push dozer:		

JOB TIME AND COST

Fleet size:	1	Team(s)	Total job time:	24.80	Hours
Unit cost:	\$0.561	/LCY	Total job cost:	\$7,937	

MOTOR GRADER WORK

Task description:	Phase 3 BLM- Rou	gh Grade Topsoil (10 ^e	% of Task 310 area)	
e: T.H.E. Aggregate	Source Permit	Action: TR10	Permit/Jo	ob#: <u>M1977193</u>
PROJECT IDENT	<u>IFICATION</u>			
Task #: 320 Date: 8/16/202 User: BFB		Colorado Fremont	Abbreviatio Filenam	
Agency or or	ganization name: <u>DRM</u>	S		
HOURLY EQUIP	MENT COST			
Basic Mach Ripper Attachm			Horsepower:Shift Basis:	158 1 per day
			Data Source:	(CRG)
Cost Breakdown:			TT::11 .: 0/	
Ov	vnership Cost/Hour:	\$47.01	Utilization % NA	
	perating Cost/Hour:	\$37.67	100	
	vnership Cost/Hour:	\$0.00	NA	
* *	perating Cost/Hour:	\$0.00		
	Operator Cost/Hour:	\$28.56	NA	
To	otal Unit Cost/Hour:	\$113.24	_	
То	tal Fleet Cost/Hour:	\$113.24	_	
MATERIAL QUA	NTITIES			
_	rea to be graded or ripped:	0.78		a aras
				acres
20	urce of estimated acreage:	TR10 application		
HOURLY PRODU	CTION			
	Average Grader Spee		mph	
	Selected Applicatio		sh grading (0-2.5 mph) - 1.	5
	Selected Blade Angl		degrees	
Wid	Effective Blade Lengt		feet	
	th of blade overlap per pas ng or ripping width per pas		feet feet	
	ted Hourly Unit Productio		acres/hour	
Job Condition Correct	•		Site Altitude: 5600 feet	
		Source		
Altitude Adj	1.00	(CAT HB)		
Job Efficiency		(1sh/d, fav.)		
Net Correction	0.9000	multiplier		
	Adjusted Hourly Unit Pr	oduction: 1.3745	acres/Hour	
	Adjusted Hourly Fleet Pr			
JOB TIME AND C	COST			
Fleet size:	1 Grader(s)	Total job tir	me: 0.57	Hours
Unit and	202 20	T-4-1 !- 1	est. ¢c4	
Unit cost:	582.38 per acre	Total job co	ost: \$64	

BULLDOZER RIPPING WORK

	Task description:	Phas	e 3 BLM- Rip Pit Floor								
Site	T.H.E. Aggre	gate Source	Permit Action:	TR10	Permit	/Job#:	M19771	93			
	PROJECT ID	ENTIFICATION	<u>ON</u>								
	Task #: 330)	State: Colorado		Abbreviat	ion:	None				
		6/2021	County: Fremont		Filena	ime:	M193-33	0			
	User: BF	В									
	Agency	or organization	name: DRMS								
	HOURLY EQ	UIPMENT CO	<u>OST</u>								
	Basic	Machine: Cat	D7R DS XR Series II		Horsepower:	2	240				
	Ripper Att	achment: 3-S	hank Ripper	<u> </u>	Shift Basis:		er day				
					Data Source:	(C	CRG)				
	Cost Breakdown:	-		1	TT: 11 0/						
		Ownership Co	ost/Hour	\$81.02	Utilization % NA						
		Operating Co		\$79.33	100						
		er Ownership Co		\$9.32	NA						
	Ripp	oer Operating Co Operator Co		\$5.93 \$41.30	100 NA						
		Total Unit Co		\$216.90	NA						
			-								
		Total Fleet Co	ost/Hour: \$21 0	<u>).90 </u>							
	MATERIAL (<u>DUANTITIES</u>	Sele	ected estimating	method: Area						
	Alternate Method	ls:									
Seismic:	NA		Bank Volume:	NA	BCY		NA				
Area:	7.80	acres	Rip Depth (ft):	1.00	Volume: 12,58	4		BCY or CCY			
	Source of estimated quantity: TR10 Application										
	HOURLY PRODUCTION										
	Seismic:										
		S	Seismic Velocity:	NA	feet/second						
	Area:										
			e Ripping Depth:	1.00	feet/pass						
		_	e Ripping Width: Ripping Length:	6.50 400.00	feet/pass feet/pass						
			age Dozer Speed:	88.00	feet/minute						
		Average	Maneuver Time:	0.25	minutes/pass						
		Product	tion per unit area:	0.747	acres/hour						
	Job Condition Co	orrection Factors									
	Un	adjusted Hourly	Unit Production:	0.747	Acres/hr						
			Site Altitude:	5,600	feet						
			Altitude Adj:	1.00	(CAT HB)						
			Job Efficiency:	0.83	(1 shift/day)						
			Net Correction:	0.83	multiplier						
			Hourly Unit Production:	0.62	Acres/hr						
		v	Hourly Fleet Production:	0.62	Acres/hr						
	JOB TIME AN	ND COST									
	Fleet size:	1	Grader(s)	Total job time	e: 12.58		Но	urs			
	Unit cost:	\$349.925	Per acre	Total job cos	st: \$2,729)					

REVEGETATION WORK

Task description: Phase 3 BLM- Reseed

Site: T.H.E. Aggregate Source Permit Action: TR10 Permit/Job#: M1977193

PROJECT IDENTIFICATION

Task #:340State:ColoradoAbbreviation:NoneDate:8/16/2021County:FremontFilename:M193-340

User: BFB

Agency or organization name: DRMS

FERTILIZING

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
6-24-24, 10-20-10, 15-15-15	300.00	pound	\$0.29	\$87.00
Composted manure DRMS Survey	2,000.00	pound	\$0.02	\$47.40
			Total Fertilizer Materials Cost/Acre	\$134.40

Application

Description		Cost /Acre
Tractor spreader (MEANS 32 91 13.16 0950)		\$27.44
Tractor towed spreader (MEANS 32 01 90.13 0120)		\$38.77
	Total Fertilizer Application Cost/Acre	\$66.21

TILLING

Description Chisel plowing {DMG}	Cost /Acre \$96.50
Total Tilling Cost/Ac	

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Hachita	0.50	8.16	\$7.99
Indian Ricegrass - Nespar	1.50	4.86	\$13.31
Sideoats Grama - Butte	2.50	8.21	\$22.50
Juniper, Single Seed	1.00	0.29	\$75.33
Crested Wheatgrass - Standard	0.50	2.30	\$2.08
Pine, Pinyon	1.00	0.03	\$29.50
Mahogany, Mountain	1.50	2.03	\$55.21
Needle and Thread	1.50	3.96	\$62.78
Western Wheatgrass - Native	1.00	2.53	\$6.00

Saltbush, Four Wing	2.50	3.44	\$31.25
Winter Fat	1.50	3.82	\$30.75
Totals Seed Mix	15.00	39.63	\$336.69

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
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$307.02	\$614.04
Total Mulch Materials Cost/Acre				\$614.04

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$71.57
Power mulcher (MEANS 32 91 13.16 0350)		\$106.29
	Total Mulch Application Cost/Acre	\$177.86

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: 7.8 Cost /Acre: \$1,657.70 Cost /Acre*: \$1,657.70

Estimated Failure Rate: 50%

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

LCHING

Initial Job Cost: **\$12,930.06** Reseeding Job Cost: \$6,465.03 Total Job Cost: **\$19,395** Job Hours: **8.00**

DOZERGRADER WORK

Task description:	Pha	ase 3 BLM- B	ench Ditch	Maintenance		
e: T.H.E. Aggreg	ate Source	Per	mit Action:	TR10	Permit/Job#:	M1977193
PROJECT IDE	ENTIFICAT	<u>ION</u>				
Task #: 350		State:	Colorado		Abbreviation:	None
	7/2021	County:	Fremont		Filename:	M193-350
User: BFI	3	-				
Agency	or organizatio	n name: DF	RMS			
HOURLY EQU	JIPMENT (COST				
Basic Machine						
Horsepower						
Blade Type						
Attachment						
Shift Basis	: 1 per day					
Data Source	:					
Cost Breakdown:						
				<u>Utilization %</u>		
Ownership Cost	Hour:		\$36.53	NA		
Operating Cost	Hour:		\$36.50	100		
Ripper own. Cost			\$0.00	NA		
Ripper op. Cost	Hour:		\$0.00	0		
Operator Cost	Hour:		\$41.30	NA		
Total unit Cost/Ho	our: \$114	4.33				
Total Fleet Cost/H	Hour: \$114	4.33				
JOB TIME AN	D COST					
Fleet s	size: 1 Doze	er(s)				
Unit o		33/LCY				
Total job ti	ime: 3.45 H	lours				
Total job o						

SCRAPER TEAM WORK

Task description:	Phase 4 BLM- R	eplace Top	soil (12" over 7.1	ac)		
Site: T.H.E. Aggregate	e Source Per	mit Action:	TR10	Peri	mit/Job#: <u>M197</u>	7193
PROJECT IDEN	TIFICATION					
Task #: 410	State:	Colorado		Abbrev	viation: None	
Date: 8/16/20	O21 County:	Fremont		Fil	ename: M193-4	410
User: BFB						
Agency or	organization name: DI	RMS				
HOURLY EQUIP	PMENT_		COSTS	hift basis: 1 per d	ay	
			ent Description			
	-Scrape -Doze		lG			
Suppo	ort Equipment -Load Area					
Барро	-Dump Area					
Road Ma	intenance – Motor Grade					
	-Water Truck	: NA				
Cost Breakdown:	Scraper Work Tea	m	Support Equi	nmant	Maintenance	Fauinment
Cost Dreakdown.	_	Dozer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	NA	NA	NA	NA	NA
Ownership cost/hour:	\$147.77	NA NA	NA NA	NA NA	NA NA	NA NA
Operating cost/hour:	\$141.36	NA	NA	NA	NA	NA NA
%Utilization-ripper:	NA NA	NA	NA	NA	NA	NA NA
Ripper own. cost/hour:	NA	NA	NA	NA	NA	NA NA
Ripper op. cost/hour:	NA	NA	NA	NA	NA	NA
Operator cost/hour:	\$30.90	NA	NA	NA	NA	NA
Unit Subtotals:	\$320.03	NA	NA	NA	NA	NA
Number of Units:	1	0	0	0	0	(
Group Subtotals:	Work: \$	320.03	Support:	\$0.00	Maint:	\$0.00
Total work team cost						
MATERIAL QUA	<u>ANTITIES</u>					
Initial volume:	11,454	_ CCY	Swell fact	tor: 1.125		
Loose volume:	12,886	_ LCY				
	arce of estimated volume: of estimated swell factor:		plication dbook			
HOURLY PROD	<u>UCTIO</u> N					
	<u></u>		Scraper B	owl (volume) Basi	is:	
Motorial: -1.	2.650 lba/J.CV		<u></u>		<u> </u>	TV.
Material weight: Material description:	2,650 lbs/LCY Decomposed rock - 25	% Rock,		Volume: 24.00 Volume: 34.00		CY CY
•	75% Earth		-			
Rated Payload: Payload Capacity:	81,600 pounds 30.79 LCY		Average Adjusted (CY CY

a 1		_		
Cvcl	le.	11	m	e:

 $\begin{array}{lll} \text{Scraper Loading Time:} & \underline{0.80} \text{ Minutes} \\ \text{Maneuver and Spread Time:} & \underline{0.70} \text{ Minutes} \\ \end{array}$

Job Condition Correction: Site Altitude: 5600 feet

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

Travel Time:

Road Condition: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	500.00	3.00	5.00	8.00	783	0.67

Haul Time: **0.67** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res	Total Res	Velocity (fpm)	Travel Time (min)
1	500.00	-3.00	5.00	2.00	2914	0.36

0.36 Return Time: minutes Total Scraper team cycle time: 2.53 minutes Adjusted for job conditions: 570.83 LCY/Hour Selected Number of Scrapers: 1 Scraper(s) Adjusted single scraper team (unit) hourly production: 570.83 LCY/Hour Adjusted multiple scraper team (fleet) hourly production: 570.83 LCY/Hour

Unadjusted unit production/hour:	687.75	LCY/Hou
Optimal Number of Scrapers per push dozer:		_

JOB TIME AND COST

Fleet size:	1	_ Team(s)	Total job time:	22.57	Hours
Unit cost:	\$0.561	/LCY	Total job cost:	\$7,224	

MOTOR GRADER WORK

Task descri	iption:	Phase	e 4 BLM- R	Rough Grade	Topsoil (10%	of Task 410 are	ea)	
T.H.E. A	Aggregate So	ource	Per	mit Action:	TR10	P	ermit/Job#:	M1977193
PROJEC'	T IDENTI	FICATIO	<u>ON</u>					
Task #:	420		State:	Colorado		Abb	reviation:	None
Date:	8/16/2021	1	County:	Fremont			Filename:	M193-420
User:	BFB		,					
A	gency or org	ganization	name: DI	RMS				
HOURLY	Y EQUIPM	IENT CO	OST					
	Basic Machi		<u></u> Γ 12Μ			Horsepower:		158
	er Attachme		1 12111		<u>—</u>	Shift Basis:		per day
тарр	er muchine				_	Data Source:		CRG)
Cost Proofs	darran							<u> </u>
Cost Break	down:					Utilization %		
	Owi	nership Co	st/Hour:		\$47.01	NA		
		erating Co			\$37.67	100	_	
	Ripper Own				\$0.00	NA	- -	
	Ripper Op	_			\$0.00		_	
		perator Co	_		\$28.56	NA	=	
	Tot	al Unit Co	st/Hour:		\$113.24			
	Tota	al Fleet Co	st/Hour:	\$113	3.24			
MATERI	AL QUAN	TITIES						
	Total Are	a to be gra	aded or rippe	ed: 0.71				acres
	Sou	rce of estin	nated acreas	ge: TR10 a	pplication			
		~						
HOURLY	Y PRODUC	<u>CTION</u>						
			ge Grader S _l		1.50	mph		
			cted Applica			grading (0-2.5 m		
			ted Blade A		30	degrees	3	
	XX 22 1.1		ve Blade Le		10.40	feet		
			overlap per		2.00	feet		
			g width per Unit Produc		8.40 1.5273	feet	011#	
		•				acres/h		
Job Conditi	ion Correction	on Factors			Si	te Altitude: 5600) feet	
A	ltitude Adj:	1	.00	Source (CAT HB	0			
	Efficiency:		90	(1sh/d, fav				
	Correction:		000	multiplier	<u>·/</u>			
1101				•	1 25 15	~~		
		•	•	Production:	1.3745	acres/Hour		
	•	Aajusted I	nourly Fleet	Production:	1.3745	acres/Hour		
JOB TIM	IE AND CO	<u>OST</u>						
Fleet si	ze:	1	Grader(s)		Total job time	e: 0.5	2	Hours
TT!4	act. de	20			Total :-1	d <i>=</i>	o	
Unit co	JSC: \$8	32.38	per acre		Total job cost	t: \$5 8	•	_

BULLDOZER RIPPING WORK

	Task description:	Phas	e 4 BLM- Rip Pit Floor				_
Site:	T.H.E. Aggreg	gate Source	Permit Action:	TR10	Permit/Job	#: <u>M1977193</u>	
	PROJECT ID	ENTIFICATIO	<u>ON</u>				
	Task #: 430)	State: Colorado		Abbreviation:	None	
		6/2021	County: Fremont		Filename:		
	User: BF	В					
	Agency	or organization	name: DRMS				
	HOURLY EQ	UIPMENT CO	<u>OST</u>				
	Basic 1	Machine: Cat	D7R DS XR Series II		Horsepower:	240	
	Ripper Att		hank Ripper			per day	
					Data Source:	(CRG)	-
	Cost Breakdown:						
					Utilization %		
		Ownership Co		\$81.02	NA NA		
	Dinn	Operating Co		\$79.33 \$9.32	100 NA		
		er Ownership Co per Operating Co		\$5.93	NA 100		
	Кірі	Operator Co		\$41.30	NA		
		Total Unit Co		\$216.90			
		Total Fleet Co	st/Hour: \$210	6.90			
	MATERIAL (DUANTITIES	Sele	ected estimating	g method: Area		
	Alternate Method		Sele	cica estimating	method. Area		_
Seismic:	NA	. <u></u>	Bank Volume:	NA	ВСҮ	NA	
Area:	7.10	acres	Rip Depth (ft):	1.00	Volume: 11,455		CY or CC
		Source of estin	nated quantity: TR10	Application			
	HOURLY PRO			11			
	Seismic:	<u> </u>					
	<u>Scisific.</u>	S	Seismic Velocity:	NA	feet/second		
	A		, <u> </u>				
	Area:	Average	e Ripping Depth:	1.00	feet/pass		
			e Ripping Width:	6.50	feet/pass		
		_	Ripping Length:	400.00	feet/pass		
			ige Dozer Speed:	88.00	feet/minute		
		_	Maneuver Time:	0.25	minutes/pass		
		Product	ion per unit area:	0.747	acres/hour		
	Job Condition Co	rrection Factors					
	Un	adjusted Hourly	Unit Production:	0.747	Acres/hr		
			Site Altitude:	5,600	feet		
			Altitude Adj:	1.00	(CAT HB)		
			Job Efficiency:	0.83	(1 shift/day)		
			Net Correction:	0.83	multiplier		
			Hourly Unit Production:	0.62	Acres/hr		
		Adjusted I	Hourly Fleet Production:	0.62	Acres/hr		
	JOB TIME AN	ID COST					
	Fleet size:	1	Grader(s)	Total job tim	ne: 11.45	Hours	
	Unit cost:	\$349.925	Per acre	Total job cos	st: \$2,484		

REVEGETATION WORK

7	Task description:	Phase 4 BLM- Reseed			
Site:	T.H.E. Aggregate Sour	ce Permit Action:	TR10	Permit/Job#:	M1977193

PROJECT IDENTIFICATION

Task #:440State:ColoradoAbbreviation:NoneDate:8/16/2021County:FremontFilename:M193-440

User: BFB

Agency or organization name: DRMS

FERTILIZING

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
6-24-24, 10-20-10, 15-15-15	300.00	pound	\$0.29	\$87.00
Composted manure DRMS Survey	2,000.00	pound	\$0.02	\$47.40
			Total Fertilizer Materials Cost/Acre	\$134.40

Application

Description		Cost /Acre
Tractor spreader (MEANS 32 91 13.16 0950)		\$27.44
Tractor towed spreader (MEANS 32 01 90.13 0120)		\$38.77
	Total Fertilizer Application Cost/Acre	\$66.21

TILLING

Description Chisel plowing {DMG}	Cost /Acre \$96.50
Total Tilling Cost/Acre	

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Hachita	0.50	8.16	\$7.99
Indian Ricegrass - Nespar	1.50	4.86	\$13.31
Sideoats Grama - Butte	2.50	8.21	\$22.50
Juniper, Single Seed	1.00	0.29	\$75.33
Crested Wheatgrass - Standard	0.50	2.30	\$2.08
Pine, Pinyon	1.00	0.03	\$29.50
Mahogany, Mountain	1.50	2.03	\$55.21
Needle and Thread	1.50	3.96	\$62.78
Western Wheatgrass - Native	1.00	2.53	\$6.00

Saltbush, Four Wing	2.50	3.44	\$31.25
Winter Fat	1.50	3.82	\$30.75
Totals Seed Mix	15.00	39.63	\$336.69

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
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$307.02	\$614.04
Total Mulch Materials Cost/Acre				\$614.04

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$71.57
Power mulcher (MEANS 32 91 13.16 0350)		\$106.29
	Total Mulch Application Cost/Acre	\$177.86

NURSERY STOCK PLANTING

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

JOB TIME AND COST

Cost /Acre: \$1,657.70 Cost /Acre*: \$1,657.70 No. of Acres: 7.1

Estimated Failure Rate: 50%

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

LCHING

Initial Job Cost: **\$11,769.67** Reseeding Job Cost: \$5,884.84 Total Job Cost: **\$17,655** Job Hours: **7.00**

DOZERGRADER WORK

Task description:	Phase 4 BLM- B	ench Ditch	Maintenance		
T.H.E. Aggregate Sou	irce Peri	mit Action:	TR10	Permit/Job#:	M1977193
PROJECT IDENTIFI	<u>ICATION</u>				
Task #: 450	State:	Colorado		Abbreviation:	None
Date: 8/17/2021	County:	Fremont		Filename:	M193-450
User: BFB					
Agency or organ	nization name: DF	RMS			
HOURLY EQUIPME	ENT COST				
Basic Machine: Cat	: D5K2 XL - 5P				
Horsepower:			 ;		
Blade Type:					
Attachment: NA					
Shift Basis: 1 pe	er day				
Data Source:	•				
Cost Breakdown:					
			<u>Utilization %</u>		
Ownership Cost/Hour:		\$36.53	NA		
Operating Cost/Hour:		\$36.50	100		
Ripper own. Cost/Hour:		\$0.00	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$41.30	NA		
Total unit Cost/Hour:	\$114.33				
Total Fleet Cost/Hour:	\$114.33				
JOB TIME AND COS	<u>8T</u>				
Fleet size:	1 Dozer(s)				
	\$114.33/LCY				

Total job time: 3.22 Hours Total job cost: \$368

SCRAPER TEAM WORK

Task description:	Phase 5 BI	LM- Rep	lace Tops	soil (12" over 2.7	ac)		
Site: T.H.E. Aggregate	Source	Permi	t Action:	TR10	Peri	nit/Job#: <u>M197</u>	7193
PROJECT IDEN Task #: 501 Date: 8/16/20 User: BFB)21 Co	unty:	Colorado Fremont			viation: None ename: M193-	501
Ç •	organization name:	DRM	IS				
HOURLY EQUIP	<u>PMENT</u>			COSTS	hift basis: 1 per d	<u>ay</u>	
				nt Description			
Suppo	rt Equipment -Loa		NA NA	G			
Road Ma	intenance –Motor	p Area: Grader: Truck:	NA NA NA				
Cost Breakdown:	Scraper Wo	rk Team		Support Equi	pment	Maintenance	Equipment
	Scraper	Do	zer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100		NA	NA	NA	NA	NA.
Ownership cost/hour:	\$147.77		NA	NA	NA	NA	NA
Operating cost/hour:	\$141.36		NA	NA	NA	NA	NA
%Utilization-ripper:	NA		NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA		NA	NA	NA	NA	NA
Ripper op. cost/hour:	NA		NA	NA	NA	NA	NA
Operator cost/hour:	\$30.90		NA	NA	NA	NA	NA
Unit Subtotals:	\$320.03		NA	NA	NA	NA	NA
Number of Units:	1		0	0	0	0	(
Group Subtotals:	Work:	\$320	0.03	Support:	\$0.00	Maint:	\$0.00
Total work team cost MATERIAL QUA							
Initial volume: Loose volume:	4,356 4,901		CCY LCY	Swell fac	tor: 1.125		
	rce of estimated vo of estimated swell	_	TR10 ap				
HOURLY PROD	UCTION						
				Scraper B	owl (volume) Basi	is·	
Material weight:	2,650 lbs/LCY			<u> </u>	Volume: 24.00		CY
Material description:	Decomposed roc 75% Earth	k - 25%]	Rock,		Volume: 24.00 Volume: 34.00		CY
Rated Payload: Payload Capacity:	81,600 pounds 30.79 LCY			Average Adjusted (CY CY

\sim	4			•
('\	10	Α	113	ime:
\mathbf{c}	/ U		1.	m.

 $\begin{array}{lll} \text{Scraper Loading Time:} & \underline{0.80} \text{ Minutes} \\ \text{Maneuver and Spread Time:} & \underline{0.70} \text{ Minutes} \end{array}$

Job Condition Correction: Site Altitude: 5600 feet

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

Travel Time:

Road Condition: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	500.00	3.00	5.00	8.00	783	0.67

Haul Time: **0.67** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	500.00	-3.00	5.00	2.00	2914	0.36

0.36 Return Time: minutes Total Scraper team cycle time: 2.53 minutes Adjusted for job conditions: 570.83 LCY/Hour Selected Number of Scrapers: 1 Scraper(s) Adjusted single scraper team (unit) hourly production: 570.83 LCY/Hour Adjusted multiple scraper team (fleet) hourly production: 570.83 LCY/Hour

Unadjusted unit production/hour:	687.75	LCY/Hou
Optimal Number of Scrapers per push dozer:		

JOB TIME AND COST

Fleet size: Unit cost:	1	Team(s)	Total job time:	\$2,747	Hours
	\$0.561	/LCY	Total job cost:		

MOTOR GRADER WORK

Task descri	iption:	Phase	e 5 BLM- R	lough Grade	Topsoil (10%	of Task 501 are	ea)	
T.H.E. A	Aggregate So	ource	Per	mit Action:	TR10	I	Permit/Job#:	M1977193
PROJEC	T IDENTI	FICATIO	<u>)N</u>					
Task #:	502		State:	Colorado		Abl	oreviation:	None
Date:	8/16/2021	<u></u> [County:	Fremont			Filename:	M193-502
User:	BFB		•					
A	gency or org	anization	name: DI	RMS				
HOUKLY	<u>EQUIPM</u>		<u></u>					
	Basic Machin	-	Γ 12M			Horsepower:		158
Ripp	er Attachme	nt:				Shift Basis:		per day
						Data Source:	(CRG)
Cost Break	down:							
						Utilization %		
		nership Co			\$47.01	NA	=	
		erating Co			\$37.67	100	_	
	Ripper Owr				\$0.00	NA	=	
	Ripper Op	_			\$0.00	NY A	_	
		perator Co	_		\$28.56	NA	_	
	Tot	al Unit Co	st/Hour:		\$113.24			
	Tota	al Fleet Co	st/Hour:	\$113	3.24			
		•	ided or rippe	·				acres
	Sour	rce of estir	nated acreas	ge: TR10 a	pplication			
HOURLY	PRODUC	<u>CTION</u>						
		Averag	ge Grader S ₁	peed:	1.50	mph		
			cted Applica			grading (0-2.5 n	nph) - 1.5	
			ted Blade A		30	degree	S	
			ve Blade Le		10.40	feet		
			overlap per		2.00	feet		
			g width per		8.40 1.5273	feet		
		•	Unit Produc	UII.		acres/h		
Job Conditi	ion Correction	on Factors		_	Si	te Altitude: 560	O feet	
Α.	ltitude Adj:	1	00	Source (CAT HB	2)			
	Efficiency:		90	(1sh/d, fav				
	Correction:		000	multiplier	<u>·) </u>			
INCL		-		•				
			•	Production:	1.3745	acres/Hour		
		Adjusted H	Iourly Fleet	Production:	1.3745	acres/Hour	ſ	
JOB TIM	E AND CO	OST						
Fleet si		1	Grader(s)		Total job time	e: 0.5	12	Hours
,,,,,			(3)		J			=
Unit co	ost: \$8	32.38	per acre		Total job cost	t: \$5	8	

BULLDOZER RIPPING WORK

	Task description:	Pha	se 5 BLM- Rip Pit Floor				
Site	T.H.E. Aggre	gate Source	Permit Action:	TR10	Permit/Job#	t: M1977193	
	PROJECT ID	ENTIFICAT	ION				
	Task #: 503	3	State: Colorado		Abbreviation:	None	
		6/2021	County: Fremont		Filename:	M193-503	
	User: BF		, <u> </u>				
	Agency	or organization	n name: DRMS				
	HOURLY EQ	UIPMENT C	OST				
			nt D7R DS XR Series II		Horsepower:	240	
	Ripper Att		Shank Ripper	<u></u>		per day	
	11	·				(CRG)	
	Cost Breakdown						
	COSt DICARGOWII	<u>-</u>			Utilization %		
		Ownership C	Cost/Hour:	\$81.02	NA		
		Operating C		\$79.33	100		
	Ripp	er Ownership C	Cost/Hour:	\$9.32	NA		
	Rip	per Operating C		\$5.93	100		
		Operator C		\$41.30	NA		
		Total Unit C	Cost/Hour:	\$216.90			
		Total Fleet C	ost/Hour \$21	6.90			
			<u> </u>	0.50			
	MATERIAL (<u>)UANTITIES</u>	Sel-	ected estimating	g method: Area		
	Alternate Method	<u>ls:</u>					
Seismic:	NA		Bank Volume:	NA	BCY	NA	
Area:	2.70	acres	Rip Depth (ft):	1.00	Volume: 4,356	BCY	or CO
		Source of est	imated quantity: TR10	Application			
			inated quantity	пррисацоп			
	HOURLY PRO	<u>ODUCTION</u>					
	Seismic:						
			Seismic Velocity:	NA	feet/second		
	Area:						
	Alca.	Avera	ge Ripping Depth:	1.00	feet/pass		
			ge Ripping Width:	6.50	feet/pass		
			e Ripping Length:	400.00	feet/pass		
			rage Dozer Speed:	88.00	feet/minute		
		Averag	e Maneuver Time:	0.25	minutes/pass		
		Produ	ction per unit area:	0.747	acres/hour		
	Job Condition Co	orrection Factor	<u>'S</u>				
	Un	adjusted Hourl	y Unit Production:	0.747	Acres/hr		
			Site Altitude:	5,600	feet		
			Altitude Adj:	1.00	(CAT HB)		
			Job Efficiency:	0.83	(1 shift/day)		
			Net Correction:	0.83	multiplier		
		∆ dineto	d Hourly Unit Production:	0.62	Acres/hr		
			Hourly Fleet Production:		Acres/hr		
	JOB TIME AN	·		V•V2			
	Fleet size:	1	Grader(s)	Total job tir	me: 4.36	Hours	
	_	Φ2.10.627		· ·			
	Unit cost:	\$349.925	Per acre	Total job co	ost: \$945		

REVEGETATION WORK

Task description: Phase 5 BLM- Reseed

Site: T.H.E. Aggregate Source Permit Action: TR10 Permit/Job#: M1977193

PROJECT IDENTIFICATION

Task #:504State:ColoradoAbbreviation:NoneDate:8/16/2021County:FremontFilename:M193-504

User: BFB

Agency or organization name: DRMS

FERTILIZING

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
6-24-24, 10-20-10, 15-15-15	300.00	pound	\$0.29	\$87.00
Composted manure DRMS Survey	2,000.00	pound	\$0.02	\$47.40
			Total Fertilizer Materials Cost/Acre	\$134.40

Application

Description		Cost /Acre
Tractor spreader (MEANS 32 91 13.16 0950)		\$27.44
Tractor towed spreader (MEANS 32 01 90.13 0120)		\$38.77
	Total Fertilizer Application Cost/Acre	\$66.21

TILLING

Description	Cost /Acre
Chisel plowing {DMG}	\$96.50
Total Tilling Cost/Acre	\$96.50

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Hachita	0.50	8.16	\$7.99
Indian Ricegrass - Nespar	1.50	4.86	\$13.31
Sideoats Grama - Butte	2.50	8.21	\$22.50
Juniper, Single Seed	1.00	0.29	\$75.33
Crested Wheatgrass - Standard	0.50	2.30	\$2.08
Pine, Pinyon	1.00	0.03	\$29.50
Mahogany, Mountain	1.50	2.03	\$55.21
Needle and Thread	1.50	3.96	\$62.78
Western Wheatgrass - Native	1.00	2.53	\$6.00

Saltbush, Four Wing	2.50	3.44	\$31.25
Winter Fat	1.50	3.82	\$30.75
Totals Seed Mix	15.00	39.63	\$336.69

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
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$307.02	\$614.04
Total Mulch Materials Cost/Acre				\$614.04

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$71.57
Power mulcher (MEANS 32 91 13.16 0350)		\$106.29
	Total Mulch Application Cost/Acre	\$177.86

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: 2.7 Cost /Acre: \$1,657.70 Cost /Acre*: \$1,657.70

Estimated Failure Rate: 50%

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

LCHING

Initial Job Cost: **\$4,475.79** Reseeding Job Cost: \$2,237.90 Total Job Cost: \$6,714 Job Hours: **3.00**

DOZERGRADER WORK

Task description:	Phase 5 BLM-	Bench Ditch	Maintenance		
: T.H.E. Aggregate S	Source Pe	ermit Action:	TR10	Permit/Job#:	M1977193
PROJECT IDENT	<u>IFICATION</u>				
Task #: 505	State:	Colorado		Abbreviation:	None
Date: 8/17/202	County:	Fremont		Filename:	M193-505
User: BFB					
Agency or or	ganization name: D	ORMS			
HOURLY EQUIPM	MENT COST				
Basic Machine:	Cat D5K2 XL - 5P				
Horsepower:					
Blade Type:			<u></u>		
	NA		<u></u>		
	1 per day		<u></u>		
Data Source:			<u> </u>		
Cost Breakdown:					
			<u>Utilization %</u>		
Ownership Cost/Hou	ır:	\$36.53	NA		
Operating Cost/Hou	ır:	\$36.50	100		
Ripper own. Cost/Hou	ır:	\$0.00	NA		
Ripper op. Cost/Hou	ır:	\$0.00	0		
Operator Cost/Hou	ır:	\$41.30	NA		
Total unit Cost/Hour:	\$114.33				
Total Fleet Cost/Hour:	\$114.33				
JOB TIME AND C	'OST				
JOD THATE AND C	WBI .				
Fleet size:	1 Dozer(s)				
Unit cost:	\$114.33/LCY				

Total job time: 4.49 Hours
Total job cost: \$513

SCRAPER TEAM WORK

Task description:	Phase 5 Te	zak- Rej	olace Top	osoil (12" over 17	7.3 ac)		
Site: T.H.E. Aggregate	Source	Permi	t Action:	TR10	Peri	mit/Job#: <u>M197</u>	7193
PROJECT IDEN	<u> FIFICATION</u>						
Task #: 551	S	State:	Colorado		Abbrev	viation: None	
Date: 8/16/20			Fremont			ename: M193-	551
User: BFB							
Agency or o	organization name:	DRM	IS				
HOURLY EQUIP	PMENT _			COSTS	hift basis: 1 per d	<u>ay</u>	
		i		ent Description			
		craper: -Dozer:	Cat 631 NA	G			
Suppo	rt Equipment -Loa		NA				
	-Dum	p Area:	NA				
Road Ma	intenance –Motor		NA				
-	-Water	Truck:	NA				
Cost Breakdown:	Scraper Wo	rk Toom		Support Equi	nmant	Maintenance	Equipment
Cost Breakdown.	Scraper Wo	Do	zer	Load Area	Dump Area	Motor Grader	Water Truck
0/ 11/11:	_		NIA	NTA		NYA	NT A
%Utilization-machine:	100		NA	NA NA	NA NA	NA NA	NA NA
Ownership cost/hour:	\$147.77		NA	NA NA	NA NA	NA NA	NA NA
Operating cost/hour:	\$141.36		NA	NA NA	NA	NA	NA NA
%Utilization-ripper:	NA		NA	NA	NA	NA	NA NA
Ripper own. cost/hour:	NA		NA	NA	NA	NA	NA NA
Ripper op. cost/hour:	NA		NA	NA	NA	NA	NA NA
Operator cost/hour:	\$30.90		NA	NA	NA	NA	NA
Unit Subtotals:	\$320.03		NA	NA	NA	NA	NA
Number of Units:	1		0	0	0	0	(
Group Subtotals:	Work:	\$320	0.03	Support:	\$0.00	Maint:	\$0.00
Total work team cost MATERIAL QUA							
'			CCV	C 11 C	1.105		
Initial volume: Loose volume:	27,911 31,400		CCY LCY	Swell fact	tor: 1.125		
	•						
	rce of estimated vo of estimated swell t	-	TR10 ap				
HOURLY PROD	<u>UCTION</u>						
				Scraper B	owl (volume) Basi	is:	
Material weight:	2,650 lbs/LCY			Struck	Volume: 24.00	L	CY
Material description:	Decomposed roc	k - 25%]	Rock,		Volume: 34.00		CY
Rated Payload:	75% Earth 81,600 pounds			Average	Volume: 29.00	Τ.	CY
Payload Canacity:	30.79 I CY			Adjusted (CY

\sim	- 1			•	
C_{3}	701	ρ		111	10.
\sim	<i>/</i> U 1	•	1	111	ı.

 $\begin{array}{ll} \text{Scraper Loading Time:} & \underline{0.80} \text{ Minutes} \\ \text{Maneuver and Spread Time:} & \underline{0.70} \text{ Minutes} \end{array}$

Job Condition Correction: Site Altitude: 5600 feet

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

Travel Time:

Road Condition: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res	Total Res	Velocity (fpm)	Travel Time (min)
1	500.00	3.00	5.00	8.00	783	0.67

Haul Time: **0.67** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	500.00	-3.00	5.00	2.00	2914	0.36

Return Time: 0.36 minutes Total Scraper team cycle time: 2.53 minutes Adjusted for job conditions: 570.83 LCY/Hour Selected Number of Scrapers: 1 Scraper(s) Adjusted single scraper team (unit) hourly production: 570.83 LCY/Hour Adjusted multiple scraper team (fleet) hourly production: 570.83 LCY/Hour

Unadjusted unit production/hour:	687.75	LCY/Hou
Optimal Number of Scrapers per push dozer:		

JOB TIME AND COST

Fleet size:	1	Team(s)	Total job time:	55.01	Hours
Unit cost:	\$0.561	/LCY	Total job cost:	\$17,604	

MOTOR GRADER WORK

Task descri	•				e (10% of Task			
T.H.E. A	Aggregate S	ource	Per	mit Action:	TR10		Permit/Job#	: <u>M1977193</u>
PROJEC	<u>T IDENTI</u>	FICATION	<u>ON</u>					
Task #:	552		State:	Colorado		Abl	oreviation:	None
Date:	8/16/202	1	County:	Fremont			Filename:	M193-552
User:	BFB		·	-				
A	gency or org	ganization	name: DI	RMS				
HOURLY	Z EQUIPM	IENT CO	<u>OST</u>					
]	Basic Machi	ne: CA	Т 12М			Horsepower:		158
Ripp	er Attachme	ent:				Shift Basis:	1 1	per day
11					 ;	Data Source:		CRG)
Cost Break	down:							
						Utilization %		
		nership Co			\$47.01	NA	_	
		erating Co			\$37.67	100	_	
	Ripper Own				\$0.00	NA	_	
	Ripper Op	erating Co perator Co			\$0.00 \$28.56	NJ A	_	
		perator Co tal Unit Co			\$28.56	NA	_	
	100	iai Unii Co	ost/flour:		\$115.24			
	Tota	al Fleet Co	st/Hour:	\$113	3.24			
		_	aded or rippe	·	mulication			acres
	Sou	ice of esti	mated acreas	ge. <u>IKIO a</u>	pplication			
HOURLY	<u> PRODUC</u>	CTION						
			ge Grader S _l		1.50	mph_		
			cted Applica			grading (0-2.5 n		
			ted Blade A		30 10.40	degree	S	
	Widt		ve Blade Le: overlap per		2.00	feet feet		
			g width per		8.40	feet		
			Unit Produc		1.5273	acres/h	our	
Job Conditi	ion Correction	•				ite Altitude: 5600		
				Source				
A	ltitude Adj:	1.	.00	(CAT HE	3)			
	Efficiency:		.90	(1sh/d, fav				
Net	Correction:	0.9	0000	multiplier				
		Adjusted	Hourly Unit	Production:	1.3745	acres/Hour	•	
			•	Production:	1.3745	acres/Hou		
		- 10,00000 1		- 1000000000	2101710		-	
JOB TIM	E AND CO	<u>OST</u>						
Fleet si	ze:	1	Grader(s)		Total job time	e: <u>1.2</u>	6	Hours
Unit co	net· ¢	82.38	per acre		Total job cost	t: \$1 4	13	
Omi C	<i>σ</i> οι Φα	04.30	per acre		i otai job cos	ι φ1 ⁴	rJ	_

BULLDOZER RIPPING WORK

	Task description:	Phas	e 5 Tezak- Rip Pit Floor	•			
Site	: T.H.E. Aggreg	gate Source	Permit Action:	TR10	Permit/Jo	b#: <u>M1977</u>	193
	PROJECT IDI	ENTIFICATION	<u>ON</u>				
	Task #: 553	3	State: Colorado		Abbreviation	n: None	
		6/2021	County: Fremont		Filename		53
	User: BF	В					
	Agency	or organization	name: DRMS				
	HOURLY EQ	UIPMENT CO	<u>OST</u>				
	Basic 1	Machine: Cat	D7R DS XR Series II		Horsepower:	240	
	Ripper Att		hank Ripper		Shift Basis:	1 per day	
					Data Source:	(CRG)	
	Cost Breakdown:						
					Utilization %		
		Ownership Co		\$81.02	NA NA		
	Dina	Operating Co		\$79.33 \$9.32	100 NA		
		er Ownership Co per Operating Co		\$5.93	NA 100		
	Кірі	Operator Co		\$41.30	NA		
		Total Unit Co		\$216.90	1111		
		Total Fleet Co	ost/Hour: \$216	5.90			
	MATERIAL C				.1. 1. A		
			Sele	ected estimating	g method: Area		
	Alternate Method	<u>1S:</u>					
Seismic: Area:	NA 17.30	acres	Bank Volume: _ Rip Depth (ft):	NA 1.00	BCY Volume: 27,911	NA	BCY or CC
Alta.	17.30				volume		_ BCT OF CC
			nated quantity: TR10 A	Application			
	HOURLY PRO	<u>ODUCTION</u>					
	Seismic:	,		27.1			
			Seismic Velocity:	NA	feet/second		
	Area:						
			e Ripping Depth:	1.00	feet/pass		
			e Ripping Width:	6.50	feet/pass		
		C	Ripping Length:age Dozer Speed:	400.00 88.00	feet/pass feet/minute		
			Maneuver Time:	0.25	minutes/pass		
		_	ion per unit area:	0.747	acres/hour		
	Job Condition Co	orrection Factors					
			Unit Production:	0.747	Acres/hr		
	O.I.	juotta 110aily					
			Site Altitude: Altitude Adj:	5,600 1.00	feet (CAT HB)		
			Job Efficiency:	0.83	(1 shift/day)		
			Net Correction:	0.83	multiplier		
		Adjusted	Hourly Unit Production:	0.62	Acres/hr		
			Hourly Fleet Production:	0.62	Acres/hr		
	JOB TIME AN	ND COST					
	Fleet size:	1	Grader(s)	Total job tim	ne: 27.91	Н	ours
		Φ240.02 <i>-</i>	•	·			-
	Unit cost:	\$349.925	Per acre	Total job cos	st: \$6,054		

REVEGETATION WORK

Task description: Phase 5 Tezak- Reseed

Site: T.H.E. Aggregate Source Permit Action: TR10 Permit/Job#: M1977193

PROJECT IDENTIFICATION

Task #:554State:ColoradoAbbreviation:NoneDate:8/16/2021County:FremontFilename:M193-554

User: BFB

Agency or organization name: DRMS

FERTILIZING

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
6-24-24, 10-20-10, 15-15-15	300.00	pound	\$0.29	\$87.00
Composted manure DRMS Survey	2,000.00	pound	\$0.02	\$47.40
			Total Fertilizer Materials Cost/Acre	\$134.40

Application

Description		Cost /Acre
Tractor spreader (MEANS 32 91 13.16 0950)		\$27.44
Tractor towed spreader (MEANS 32 01 90.13 0120)		\$38.77
	Total Fertilizer Application Cost/Acre	\$66.21

TILLING

Description Chisel plowing {DMG}	Cost /Acre \$96.50
Total Tilling Cost/Ac	

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Hachita	0.50	8.16	\$7.99
Indian Ricegrass - Nespar	1.50	4.86	\$13.31
Sideoats Grama - Butte	2.50	8.21	\$22.50
Juniper, Single Seed	1.00	0.29	\$75.33
Crested Wheatgrass - Standard	0.50	2.30	\$2.08
Pine, Pinyon	1.00	0.03	\$29.50
Mahogany, Mountain	1.50	2.03	\$55.21
Needle and Thread	1.50	3.96	\$62.78
Western Wheatgrass - Native	1.00	2.53	\$6.00

Saltbush, Four Wing	2.50	3.44	\$31.25
Winter Fat	1.50	3.82	\$30.75
Totals Seed Mix	15.00	39.63	\$336.69

Application

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

MULCHING and MISCELLANEOUS

Materials

Description Strong deligated (MEANS 21 25 14 16 1200)	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$307.02	\$614.04
Total Mulch Materials Cost/Acre				\$614.04

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$71.57
Power mulcher (MEANS 32 91 13.16 0350)		\$106.29
	Total Mulch Application Cost/Acre	\$177.86

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

Cost /Acre: \$1,657.70 Cost /Acre*: \$1,657.70 No. of Acres: 17.3

Estimated Failure Rate: 50%

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

LCHING

Initial Job Cost: **\$28,678.21** Reseeding Job Cost: **\$14,339.11** Total Job Cost: **\$43,017** Job Hours: **17.00**

DOZERGRADER WORK

Task description:	Phase 5 Tezak- I	sench Ditch	Maintenance		
T.H.E. Aggregate S	ource Per	mit Action:	TR10	Permit/Job#:	M1977193
PROJECT IDENTI	<u>FICATION</u>				
Task #: 555	State:	Colorado		Abbreviation:	None
Date: 8/17/202		Fremont		Filename:	M193-555
User: BFB				-	
Agency or org	ganization name: DF	RMS			
11801107 01 018	<u></u>				
HOURLY EQUIPM	IENT COST				
Basic Machine: C	Cat D5K2 XL - 5P				
Horsepower:	<u> </u>				
Blade Type:					
	VA.				
	per day				
Data Source:					
Coot Doods down					
Cost Breakdown:			I It:1:+: 0/		
Ownership Cost/Hour	••	\$36.53	<u>Utilization %</u> NA		
Operating Cost/Hour		\$36.50	100		
Ripper own. Cost/Hour		\$0.00	NA		
Ripper own. Cost/Hour		\$0.00	0		
Operator Cost/Hour		\$41.30			
Operator Cost/Hour	•	\$41.30	NA		
T . 1 '. C ./II	011400				
Total unit Cost/Hour:	\$114.33				