

November 20, 2023

Jim Doody Grand Junction Pipe & Supply Co. 556 Struthers Ave Grand Junction, CO 81501

RE: Soaring Eagle Gravel Pit, Permit No. M-1999-025, Proposed Surety Increase SI-1

Dear Mr. Doody:

This reclamation cost update was in response to the site inspection conducted on November 7, 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 2018. Below is a table summarizing input values that have been updated. 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.

Task	Form Used	Description
	-	Scale is mobile, no demo required
01a	Pumping	Dewater Pit for Grading
		Pit is approx. 55 ac @ 10ft
		Prev. 35 ac @ 11ft
02a	Dozer	Excavate Outlet structure - No changes
02b	Dozer	Excavate Inlet Structure – No changes
03a	-	Riprap for structures - No changes
03b	Excavator	Place riprap on Outlet Structure - No changes



03c	Excavator	Place riprap on Inlet Structure - No changes
04a	Dozer	Highwall reduction grade to 3H: 1V = 17,167 BCY 20'H x 3000LF @ Vert cut/fill = 16,667 CCY + 500 CY of pond bottom berm grading Prev. 64,000 CCY with scraper backfilled
04b	Dozer	Create wetland bench. Flatten out areas adjacent to pond approx. 12 ac with 48" of grading. = 77,440 CY Prev. 14,444 CCY with scraper
05a	Ripper	Rip compacted areas 24 ac Prev. 31 ac
06a	Truck	Haul Topsoil Pit slopes and wetland areas 22 ac @ 7" = 20,704 CCY, Avg 2,000 LF haul Prev. 1943 CY (2 ac) w scraper
06b	Dozer	Spread Topsoil Pit slopes and wetland areas 22 ac @ 7" = 25,155 LCY 50 ft push 0%
06c	Truck	Haul Topsoil facilities and road areas 24 ac @ 7" = 22,587 CCY, Avg 1200 LF Prev. 27,929 (29 ac) w scraper
06d	Dozer	Spread Topsoil facilities and road areas 24 ac @ 7" = 27,443 LCY 50 ft push 0%
07a	Reveg	Reveg 42 acres Prev. 32 ac
08a	Site Maintenance	Install Wetlands Exclusion Fencing
10a	Mob	Update equipment used
10b	Mob	Update equipment used

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. If no response is received by **Monday, January**

22, 2024 then I'll issue SI-1 as is. SI-1 will result in a total required bond amount of \$583,211, which is an increase of \$340,723 over the \$242,488 currently held.

Sincerely,

Amy Yeldell

Environmental Protection Specialist

Amy Geldell

Ec:

Travis Marshall, Senior EPS, Grand Junction DRMS

COST SUMMARY WORK

e: Soaring	Eagle Gravel Pit	Permit Action:	2023	Permit/Job	#: <u>M1999025</u>
	IDENTIFICAT ACY	State: Colorado		Abbreviation:	None
Date:	11/20/2023 ACY	County: Mesa		Filename:	M025

TASK LIST (DIRECT COSTS)

Task		Form	Fleet	Task	
Task	Description	Used	Size	Hours	Cost
01a	Dewater 55 ac pit	PUMPING	1	1,037.03	\$23,043
02a	Excavate outlets structure	DOZER	2	2.22	\$2,042
02b	Excavate inlet structure	DOZER	2	2.22	\$2,042
03a	Provide 3,080 CY of 2 ft D50 Riprap	NA	5	16.00	\$0
03b	Place riprap on outlet structure	EXCAVATE	1	17.40	\$2,919
03c	Place riprap on inlet structure	EXCAVATE	1	17.40	\$2,919
04a	Reduce highwalls to 3H: 1V	DOZER	2	14.49	\$13,337
04b	Create wetlands bench	DOZER	2	158.00	\$145,453
05a	Rip compacted areas prior to topsoil replacement	RIPPER	1	34.52	\$16,170
06a	Haul topsoil to slopes	TRUCK1	1	45.82	\$49,280
06b	Spread topsoil on pit slopes	DOZER	2	9.25	\$8,157
06c	Haul topsoil to facilities areas	TRUCK1	1	47.41	\$50,994
06d	Spread topsoil on facilities areas	DOZER	2	10.09	\$8,899
07a	Reveg disturbed areas	REVEGE	1	60.00	\$112,833
08a	Install wetlands exclusion fencing	SITEMAINTENANCE	1	80.00	\$8,800
10a	Initial mobilization	MOBILIZE	1	2.57	\$8,706
10b	Secondary mobilization	MOBILIZE	1	2.57	\$1,565
		SUBTO	OTALS:	1556.99	\$457,159

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02 Total = \$9,235Performance bond: 1.05 Total = \$4,800 Job superintendent: 260.00 Total = \$16,921 $Total = \frac{\$45,716}{\$76,671}$ TOTAL O & P = \frac{\\$76,671}{\\$76,671} \$45,716 Profit: 10.00

CONTRACT AMOUNT (direct + O & P) = $\frac{$533,830}{}$

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	\$0	Total =	\$0
Engineering work and/or contract/bid preparation:	4.25	Total =	\$22,688
Reclamation management and/or administration:	5.00		\$26,692

CONTINGENCY: 0.00 Total = _\$0

TOTAL INDIRECT COST = \$126,051

TOTAL BOND AMOUNT (direct + indirect) = \$583,210

PUMPING WORK

Task description: Dewa	ter 55 ac pit			
te: Soaring Eagle Gravel Pit	Permit Action:	2023	Permit/Job#:	M1999025
PROJECT IDENTIFICATION	<u>ON</u>			
Task #: 01A Date: 11/20/2023 User: ACY	State: Colorado County: Mesa		Abbreviation: Filename:	None M025-01a
Agency or organization r	name: DRMS			
HOURLY EQUIPMENT CO	ST			
Descrip			Quantity	
	rsible pump - 460v, 8 in	l.	Quantity	
	n hose - 6 in. diam., 25 f		2	
	rge hose - 6 in. D., 25 ft		4	
	operator		0	
Horsepower: 95				
Shift Basis: 1 per day				
Weight: 0.70				
(US Tons)				
Cost Breakdown:				
		Utilization %		
Ownership Cost/Hour:	\$18.10	NA		
Operating Cost/Hour:	\$4.12	100		
Operator Cost/Hour:	\$0.00	NA		
Total Unit Cost/Hour:	\$22.22			
Total Fleet Cost/Hour:	\$22.22			
PUMPING QUANTITIES	¥ 			
Initial Pond Volume:	550.00		Conversion factor:	325850.5800
Final Pond Volume:	179,217,819.00	_ gallons	T 1. 1 Cl	
Total Pond Inflow Surface	20,000		Jnit inflow rate in	0.1750
Area: Total Pond Inflow Volume	28,000	Sq. ft.	gph/sq. ft.:	0.1758
per Hour:	4,922.40	gallons		
Source of estimat	ted volume. Assume	2800'L x 10'H river side ¡	nit slone	
PUMPING TIME	rea voiame.	2000 E X TO TITIVEI BIGE	sit stope	
	ımp Capacity:		gph/pump	
	Suction Head:		eet	
Estimated Dis	scharge Head:		eet	
CDD D	Total Head:		eet	
CPB Pt	imp Capacity:		gph/pump	
	Site Altitude:	4,490 f	eet	
A 11 170		1.62.200	1	
Adjusted Pump	0 1 2		gph	
Initial Unadjusted Po			nours	
Inflow during Ini Net Unadjusted Po		-	gallons Hours	
Altitude Adjus			3% rule)	
	ciency Factor:		55 min./hr.)	
Total Adjusted Po			nours	
JOB TIME AND COST		Total job time:	1,037.04	Hours
		v	,	
Unit cost: \$0.000125	/Gallon	Total job cost:	\$23,043	

BULLDOZER WORK

• —	Excavate outlets structure	2022	D / / J . 1 . # .	M1000025
Soaring Eagle Gravel Pit	Permit Action:	2023	_ Permit/Job#:	M1999025
PROJECT IDENTIFICA	ATION			
Task #: 02A	State: Colorado		Abbreviation:	None
Date: 11/20/2023	County: Mesa)	Filename:	M025-02a
User: ACY	County. Niesa		Thename.	W1023-02a
Agency or organizat	tion name: DRMS			
HOURLY EQUIPMENT	COST			
	T - 9SU			
Horsepower: 405				
	Iniversal			
Attachment: 3-shank				
Shift Basis: 1 per da	ay			
Data Source: (CRG)				
Cost Breakdown:		1		
	****	<u>Utilization %</u>		
Ownership Cost/Hour:	\$238.76	NA 100		
Operating Cost/Hour:	\$162.29	100		
Ripper own. Cost/Hour:	\$18.32			
Ripper op. Cost/Hour:	\$0.90			
Operator Cost/Hour:	\$40.04	NA		
Initial Volume: 2,555 Swell factor: 1.180				
Loose volume: 3,015 LO	CY			
Source of estimated volume:	Outlet details in peri	nit (TR-2 estimate)		
Source of estimated swell fac				
HOURLY PRODUCTIO	IN			
Average push distance:	50 feet			
Unadjusted hourly production	n:			
Materials consistency descrip	tion: Compacted fill or	embankment 0.9		
<u> </u>	% 490 feet			
Material weight: 2,	400 lbs/LCY			
Weight description: C	lay and gravel - Dry			
Job Condition Correction Fac		Source		
Operator Skill		(AVG.)		
Material consistency		(CAT HB))		
Dozing method Visibility		(GEN.)		
Visibility	7: 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)
Blade type:	1.000	(PAT)

Net correction: 0.3220

Adjusted unit production: 679.58 LCY/hr
Adjusted fleet production: 1359.16 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: \$0.677/LCY

Total job time: 2.22 Hours
Total job cost: \$2,042

BULLDOZER WORK

	ption:		Acavate inici	structure			
: Soaring	Eagle G	ravel Pit	P	ermit Action:	2023	Permit/Job#:	M1999025
PROJEC'	T IDEN	TIFICA'	TION				
Task #:	02B		State	: Colorado		Abbreviation:	None
Date:	11/20/	2023	County	: Mesa		Filename:	M025-02b
User:	ACY		_				
\mathbf{A}_{i}	gency or	organizati	ion name:	DRMS			
HOURLY	Z EQUI	PMENT_	COST				
Basic Ma		Cat D9T	- 9SU		<u></u>		
	power:	405			<u></u>		
	e Type:	Semi-Uı					
	hment: t Basis:	3-shank			<u> </u>		
	Source:	1 per da (CRG)	у		<u></u>		
	-	(CNO)					
Cost Break	down:				Utilization %		
Ownershi	n Cost/U	Our.		\$238.76	Utilization % NA		
Operating				\$162.29	100		
Ripper own				\$18.32	NA		
Ripper op				\$0.90	10		
Operator	r Cost/H	our:		\$40.04	NA		
Total Fleet			20.61				
MATERI Initial Vo	AL QU	ANTITI 2,555					
MATERI Initial Vo Swell f	AL QU	2,555 1.180	<u>ES</u>				
MATERI Initial Vo	AL QU. blume: factor: blume: sstimated	2,555 1.180 3,015 LC volume:	ES Y Outlet	details in perm	it (TR-2 estimate)		
MATERI Initial Vo Swell f Loose vo Source of e Source of e	AL QU. plume: _ factor: _ plume: _ estimated	2,555 1.180 3,015 LC volume: swell fact	ES Y Outlet Cat Ha		it (TR-2 estimate)		
MATERI Initial Vo Swell f Loose vo Source of e	AL QU. blume: factor: blume: cstimated cstimated restimated stimated restimated	2,555 1.180 3,015 LC volume: swell factorice:	ES Outlet Cat Ha So feet	ndbook	it (TR-2 estimate)		
MATERI Initial Vo Swell f Loose vo Source of e Source of e HOURLY Average pu	AL QU. blume: factor: blume: cstimated estimated Y PROD ash distan	2,555 1.180 3,015 LC volume: swell factor OUCTION ce: production:	Outlet Cat Ha Solve 50 feet 2,110.5 L	ndbook .CY/hr	it (TR-2 estimate)		
MATERI Initial Vo Swell f Loose vo Source of e Source of e HOURLY Average pu Unadjusted	AL QU. blume: _ factor: _ blume: _ stimated stimated Y PROD ash distan hourly p onsistence ash gradie	2,555 1.180 3,015 LC volume: swell fact DUCTION ace: production: ry descript ent: 0 9	Outlet	ndbook .CY/hr			
MATERI Initial Vo Swell f Loose vo Source of e Source of e HOURLY Average pu Unadjusted Materials co	AL QU. blume: factor: factor: clume: estimated stimated ash distan hourly p onsistence ash gradic e altitude	2,555 1.180 3,015 LC volume: swell factoreduction: sy descript ent: 0 9 2: 4,4	ES Outlet Cat Ha Solution:	ndbook .CY/hr			
MATERI Initial Vo Swell f Loose vo Source of e Source of e HOURLY Average pu Unadjusted Materials co Average pu Average sit	AL QU. blume: factor: factor: blume: estimated stimated A PROD ash distan hourly p onsistence ash gradie	2,555 1.180 3,015 LC volume: swell factorize: oroduction: ent: 0 9 2,44	ES Outlet Cat Ha Solution:	CY/hr pacted fill or e			
MATERI Initial Vo Swell f Loose vo Source of e Source of e HOURLY Average pu Unadjusted Materials co Average pu Average sit	AL QU. blume: factor:	2,555 1.180 3,015 LC volume: swell factoreduction: sy descript ent: 0 9 4,4 Cliention Factoreduction Factored Factoreduction Factoreduction Factoreduction Factoreduction Factoreduction Factoreduction Factoreduction Factoreduction Factored Factoreduction Factoreduction Factoreduction Factoreduction Factoreduction Factoreduction Factoreduction Factoreduction Factor	ES Outlet Cat Ha So feet 2,110.5 L ion: Com 490 feet 400 lbs/LCY ay and gravel or	CY/hr pacted fill or e	mbankment 0.9		
MATERI Initial Vo Swell f Loose vo Source of e Source of e HOURLY Average pu Unadjusted Materials co Average pu Average sit Material we Weight des	AL QU. blume: factor:	2,555 1.180 3,015 LC volume: swell factor for duction: a cetton Factor Skill:	ES Outlet Cat Ha So feet 2,110.5 L ion: Com 490 feet 400 lbs/LCY ay and gravel or cor	CY/hr pacted fill or e - Dry	mbankment 0.9 Source (AVG.)		
MATERI Initial Vo Swell f Loose vo Source of e Source of e HOURLY Average pu Unadjusted Materials co Average pu Average sit Material we Weight des	AL QU. plume:factor:olume: estimated PROD ash distant hourly p onsistence ash gradie as altitude eight: cription: Oper aterial co	2,555 1.180 3,015 LC volume: swell factoreduction: sy descript ent: 0 9 4,4 Cliention Factoreduction Factored Factoreduction Factoreduction Factoreduction Factoreduction Factoreduction Factoreduction Factoreduction Factoreduction Factored Factoreduction Factoreduction Factoreduction Factoreduction Factoreduction Factoreduction Factoreduction Factoreduction Factor	ES Outlet Or: Outlet Cat Ha Solution: Com Hard 190 feet 400 lbs/LCY ay and gravel Hard 190 feet Or:	CY/hr pacted fill or e	mbankment 0.9		

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)
Blade type:	1.000	(PAT)

Net correction: 0.3220

Adjusted unit production: 679.58 LCY/hr
Adjusted fleet production: 1359.16 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: \$0.677/LCY

Total job time: 2.22 Hours
Total job cost: \$2,042

HYDRAULIC EXCAVATOR WORK

Task description:	Place riprap on outlet struc	cture		
: Soaring Eagle Gravel l	Pit Permit Action:	: 2023	Permit/	Job#: <u>M1999025</u>
PROJECT IDENTIFIC	CATION			
Task #: 03B Date: 11/20/2023 User: ACY	State: Colorado County: Mesa	0	Abbreviat Filena	
Agency or organi	zation name: DRMS			
HOURLY EQUIPMEN	NT COST			
	Cat 320D L 9'-6" Stick ROPS Cab		Horsepower: Weight (MT): Shift Basis: Data Source:	148 21.55 1 per day (CRG)
Cost Breakdown:		Utilization %		(= =/
Ownership Cost/Hoogerating Cost/Hoogerator Cos	our: \$50.01 our: \$46.87	NA 100 NA		
Total Fleet Cost/H	Iour: \$167.73	=		
	TIES CCY CCY LCY	Swell fac	tor: 1.000	-
	Festimated volume: Outlet s mated swell factor: Cat Han	structure design (Tandbook	R-2 estimate)	
HOURLY PRODUCT	<u>ION</u>			
Excavator Cycle Time (loa	nd bucket, swing loaded, dump	bucket, swing emp	pty):	
Load Bucket Capacity	Basic Job Secondary Job Condition wi	Condition Descrip thin Basic Descrip Cycle Time Va	tion: SEVERE	minutes
Load Bucket Capacity			Bucket Size Class:	Medium
Rated Capacity: Bucket Fill Factor: Adjusted Capacity:	111 -	neaped) Poorly blasted (40°		
Job Condition Correction I	Factors	Site	e Altitude: 4490 feet	
Ad	Source 1.00 (CAT I 0.83 (1 shift/s) 0.83 multiplic 1.00 (CAT I 0.83 (1 shift/s) 0.84 multiplic 1.00 (CAT I 0.85 (1 shift/s) 0.85 multiplic 1.00 (CAT I 0.86 (1 shift/s) 0.87 (1 shift/s) 0.88 multiplic 1.00 (CAT I 0.80 (CAT	HB) day) er 1: 106.62 1: 88.49	LCY/Hour LCY/Hour LCY/Hour	
JOB TIME AND COS	<u>r</u>			
Fleet size: 1	Excavator	Total job time:	17.40	Hours
Unit cost: \$1.89	95 /LCY	Total job cost:	\$2,919	

HYDRAULIC EXCAVATOR WORK

Task description:	Place riprap on i	inlet struct	ure			
Soaring Eagle Grave	Per	mit Action:	2023	Pei	mit/Job#:	M1999025
PROJECT IDENTIF	<u>ICATION</u>					
Task #: 03C	State:	Colorado		Abbre	eviation:	None
Date: 11/20/202		Mesa			lename:	M025-03c
User: ACY	<u> </u>	111054			_	111025 050
Agency or orga	anization name: DF	RMS				
HOURLY EQUIPM						
Basic Machine:	Cat 320D L 9'-6" S	Stick		Horsepower:	1	48
Attachment 1:	ROPS Cab		,	Weight (MT):	21	1.55
				Shift Basis:		er day
				Data Source: _	(C	RG)
Cost Breakdown:			Utilization %			
Ownership Cost	/Hour: \$70.8	85	Officiation % NA			
Operating Cost			100			
Operator Cost			NA	<u> </u>		
Total Unit Cost						
Total Fleet Cost	:/Hour: \$167	'.73				
MATERIAL QUAN						
	1,540	CCY	Swell fact	or: 1.000		
	1,540	- LCY	S on ruce	1.000		
Course	of estimated volume:	— Outlet a	turnatuma dagian (TI	D 2 actimate)		
	stimated swell factor:		tructure design (TI dbook	K-2 estimate)		
HOURLY PRODUC	TION					
Excavator Cycle Time (1	oad bucket, swing loa	ided, dump	bucket, swing emp	oty):		
		Basic Job (Condition Descript			
	Secondary Job Co	ondition wit	hin Basic Descript		2	
			Cycle Time Va	alue: 0.390		minutes
Load Bucket Capacity						
				Bucket Size Cl	ass: Me	dium
Rated Capacit		_ LCY (he		V 500/\0.150		
Bucket Fill Facto			Poorly blasted (409	% - 50%) 0.450		
Adjusted Capacit	-	_ LCY	~**	A1.5 1 4400 6	. ,	
Job Condition Correction	1 ractors	_		: Altitude: <u>4490</u> f	eet	
٨ ١٨ ــ ــ ــ ٨ عند	1.00	Source				
Altitude Adj: Job Efficiency:	1.00	(CAT H (1 shift/d				
Net Correction:	0.83	multiplie				
		-				
	adjusted Hourly Unit			LCY/Hour		
	Adjusted Hourly Unit			LCY/Hour		
	Adjusted Hourly Fleet	Production	88.49	LCY/Hour		
JOB TIME AND CO	ST					
Fleet size:	1 Excavate	or 7	Total job time:	17.40		Hours
Unit cost: \$1	.895 /LCY		Total job cost:	\$2,919)	
Omi cost.	.0/J /LC I		i otai joo cost.	φ4,717	·	

BULLDOZER WORK

Soaring Eagle G		highwalls to 3H: 1	<u>v</u>		
Douring Dagic G	ravel Pit	Permit Action:	2023	Permit/Job#:	M1999025
PROJECT IDEN	TIFICATION				
Task #: 04A		State: Colorado)	Abbreviation:	None
Date: 11/20/	/2023	County: Mesa		Filename:	M025-04a
User: ACY		-		-	
Agency or	organization nan	ne: DRMS			
HOURLY EQUI	PMENT COST	<u> </u>			
Basic Machine:	Cat D9T - 9SU	_			
Horsepower:	405				
Blade Type:	Semi-Universa	I			
Attachment:	3-shank ripper				
Shift Basis:	1 per day				
Data Source:	(CRG)				
Cost Breakdown:					
			<u>Utilization %</u>		
Ownership Cost/He		\$238.76			
Operating Cost/He		\$162.29			
Ripper own. Cost/He		\$18.32			
Ripper op. Cost/He		\$0.90			
Operator Cost/He	our:	\$40.04	NA		
MATERIAL QUA	17,167 1.180				
Loose volume: _	20,257 LCY				
Source of estimated Source of estimated		Staff estimates Cat Handbook			
	swell factor:				
Source of estimated	swell factor: 0 OUCTION Ice: 70				
HOURLY PROD Average push distan	OUCTION Ice: 70 Iroduction: 1,6	Cat Handbook feet	embankment 0.9		
HOURLY PROD Average push distan Unadjusted hourly p	swell factor: 6 OUCTION Ace: 70 Production: 1,6 Extra description: ent: -15 %	feet 633.5 LCY/hr Compacted fill or	embankment 0.9		
HOURLY PROD Average push distan Unadjusted hourly p Materials consistence Average push gradie	swell factor: 6 OUCTION Ace: 70 Production: 1,6 Extra description: ent: -15 %	feet 633.5 LCY/hr Compacted fill or	embankment 0.9		
HOURLY PROD Average push distan Unadjusted hourly p Materials consistence Average push gradie Average site altitude	Swell factor:	feet 633.5 LCY/hr Compacted fill or	embankment 0.9		
HOURLY PROD Average push distant Unadjusted hourly p Materials consistence Average push gradie Average site altitude Material weight: Weight description: Job Condition Corre	swell factor:	feet 633.5 LCY/hr Compacted fill or t /LCY gravel - Dry	Source		
HOURLY PROD Average push distan Unadjusted hourly p Materials consistence Average push gradie Average site altitude Material weight: Weight description: Job Condition Corre Open	swell factor:	feet 633.5 LCY/hr Compacted fill or t /LCY gravel - Dry 0.750	Source (AVG.)		
HOURLY PROD Average push distan Unadjusted hourly p Materials consistence Average push gradie Average site altitude Material weight: Weight description: Job Condition Corre Oper Material co	swell factor:	feet 633.5 LCY/hr Compacted fill or t /LCY gravel - Dry	Source		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.600	(FND-SF)
Push gradient:	1.329	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.958	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4280

Adjusted unit production: 699.14 LCY/hr
Adjusted fleet production: 1398.28 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: \$0.658/LCY

Total job time: 14.49 Hours
Total job cost: \$13,337

BULLDOZER WORK

Task description:	Create	e wetlands bench			
: Soaring Eagle (Gravel Pit	Permit Action:	2023	Permit/Job#:	M1999025
PROJECT IDE	NTIFICATIO NTIFICATIO	<u>N</u>			
Task #: 04B		State: Colorado		Abbreviation:	None
	0/2023	County: Mesa		Filename:	M025-04b
User: ACY	7	<u> </u>		-	
Aganaya	or organization n	ame: DRMS			
Agency	n organization n	anie. Drivis			
HOURLY EQU	IPMENT COS	<u>ST</u>			
Basic Machine:	Cat D9T - 9S	SU			
Horsepower:	405		<u> </u>		
Blade Type:	Semi-Univer	sal	<u> </u>		
Attachment:	3-shank rippe	er			
Shift Basis:	1 per day				
Data Source:	(CRG)				
Cost Breakdown:					
COST DICARGOWII.			Utilization %		
Ownership Cost/	Hour:	\$238.76	NA		
Operating Cost/		\$162.29	100		
Ripper own. Cost/		\$18.32	NA		
Ripper op. Cost/		\$0.90	10		
Operator Cost/	-	\$40.04	NA		
Operator Cost/1		Ψ+0.0+	INA		
Total unit Cost/Ho	ur: \$460.30)			
Total Fleet Cost/H	our: \$920.6 1				
		-			
MATERIAL QU	IANTITIES				
MATERIAL Q	DANTILLS				
Initial Volume:	77,440				
Swell factor:	1.180				
Loose volume:	91,379 LCY				
Source of estimate	d volumo.	12 ac @ 48"			
Source of estimate		Cat Handbook			
Source of estimate	d swell factor:	Cat Handbook			
MOUDI W DD O	DIIGHTON				
HOURLY PRO	<u>DUCTION</u>				
Average push dista	nnce:	75 feet			
Unadjusted hourly		305.3 LCY/hr			
					
Materials consister	ncy description:	Compacted fill or e	mbankment 0.9		
Average push grad	ient: -5 %				
Average site altitue		eet			
-	 				
Material weight:	2,400 11	os/LCY			
Weight description	Clay or	d graval Dry			
•	-	d gravel - Dry	~		
Job Condition Cor		0.570	Source		
	erator Skill:	0.750	(AVG.)		
	consistency:	0.900	(CAT HB))		
Doz	ing method:	1.000	(GEN.)		
	Visibility:	1.000	(AVG.)		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.600	(FND-SF)
Push gradient:	1.115	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.958	(CAT HB)
Blade type:	1.000	(PAT)
	:	

Net correction: 0.3591

Adjusted unit production: 289.18 LCY/hr
Adjusted fleet production: 578.36 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: \$1.592/LCY

Total job time: 158.00 Hours 145,453

BULLDOZER RIPPING WORK

	Task description:	Rip_	compacted areas prior to	topsoil repla	cement			
Site	: Soaring Eagle	Gravel Pit	Permit Action:	2023	Po	ermit/Job#	: <u>M19990</u>	25
	PROJECT ID	ENTIFICATI	ION					
	Task #: 05.	A	State: Colorado		Abb	reviation:	None	
		/20/2023	County: Mesa			Filename:	M025-05	a
	User: AC							
	Agency	or organization	n name: DRMS					
	HOURLY EQ	UIPMENT C	<u>OST</u>					
	Basic	Machine: Ca	t D9T - 9SU		Horsepower:		405	
	Ripper Att	achment: 3-5	Shank Ripper		Shift Basis:	1	per day	
			••		Data Source:	(CRG)	
	Cost Breakdown	•						
		_			Utilization %			
		Ownership C	Cost/Hour:	\$238.76	NA			
		Operating C		\$162.29	100	_		
		er Ownership C		\$18.32	NA	_		
	Rip	per Operating C		\$8.98	100	-		
		Operator C		\$40.04	NA	_		
		Total Unit C	Cost/Hour:	\$468.39				
		Total Fleet C	Cost/Hour: \$468	3.39				
	MATERIAL (<u>)UANTITIES</u>	Sele	cted estimating	g method: Area	ı		
	Alternate Method	ds:		`				
Seismic:	NA		Bank Volume:	NA	BCY		NA	
Area:	24.00	acres	Rip Depth (ft):	2.00		77,440	INA	BCY or CC
			mated quantity: Staff es			,		
			mated quantity. Starr es	umacs				
	HOURLY PRO	<u>obuction</u>						
	Seismic:							
			Seismic Velocity:	NA	feet/sec	ond		
	Area:							
			ge Ripping Depth:	2.00	feet/pas	S		
			ge Ripping Width:	7.67	feet/pas			
		_	e Ripping Length:	200.00	feet/pas			
			rage Dozer Speed:	88.00	feet/mir			
			e Maneuver Time:	0.25	minutes	-		
			ction per unit area:	0.838	acres/ho	our		
	Job Condition Co							
	Un	adjusted Hourly	y Unit Production:	0.838	Acres/h	r		
			Site Altitude:	4,490	feet			
			Altitude Adj:	1.00	(CAT H			
			Job Efficiency:	0.83	(1 shift/			
			Net Correction:	0.83	multipli	ier		
			Hourly Unit Production: Hourly Fleet Production:	0.70 0.70	Acres/hr Acres/hr			
	JOB TIME AN	ND COST						
	Fleet size:	1	_ Grader(s)	Total job tin	ne:3	34.52	Но	urs
	Unit cost:	\$673.769	Per acre	Total job co	ost: \$1	16,170		

TRUCK/LOADER TEAM WORK

Site: Soaring Eagle Gr	avel Pit	Permit	Actio	on: 2023		Permit/Job#:	M1999025	ı
						-		
PROJECT IDEN	<u>TIFICATION</u>	[
Task #:06A			Colora	ado	Ab		None	
Date: 11/20/	2023	County:!	Mesa			Filename: _	M025-06a	
User: ACY								
Agency or	organization nar	ne: DRM	S					_
HOURLY EQUIP	PMENT COST	<u>r</u>			Shift bas	is: 1 per day		
			I	Equipment Descri	ption			_
T	ruck Loader Tea		Cat					_
Cunno	ort Equipment -L	-Loader:		Г 972H D9T - 9SU				_
Suppo		ump Area:	NA	D91 - 930				_
Road Ma	intenance –Mot		NA					_
	-Wa	ter Truck:	NA					- -
		_						
Cost Breakdown:	Truck/Loa	ader Team Loader		Support I Load Area	Equipment Dump Area	Mainte Motor Grade	nance Equip	
		Loadel			1			
%Utilization-machine:	100		100	20	NA		ÍΑ	NA
Ownership cost/hour:	\$108.06		7.78	\$238.76	NA		ſA	NA
Operating cost/hour:	\$71.88	\$50	6.23	\$32.46	NA		A	NA
%Utilization-riper:	NA		0	NA	NA		[A	NA
Ripper own. cost/hour:	NA		0.00	\$0.00	NA		A	NA
Ripper op. cost/hour:	NA		0.00	\$0.00	NA		A	NA
Operator cost/hour:	\$24.82		5.97	\$40.04	NA		A	NA
Unit Subtotals:	\$204.76	\$149	9.98	\$311.25	NA	N	ÍA .	NA
Number of Units:	3		1	1	0		0	0
Group Subtotals:	Work:	\$764.26		Support:	\$311.25	Mair	nt: \$0.00	
Total work team cos	t/hour: \$1,075.	51						
MATERIAL QUA	<u>ANTITIES</u>							
Initial volume:	20,704		CCY	Swell	factor: 1.215			
Loose volume:	25,15	55	LCY					
Sou	rce of estimated	volume:	Divis	sion of Reclamatic	on, Mining & Safe	ety		
Source	of estimated swe	ell factor:		Handbook	,	•		_
	Material Purch	_	\$0.00					_
	То	otal Cost: _	\$0.00)				_
HOURLY PRO	DUCTION							
	DUCTION							
Truck Capacity:	100							
Truck Payload (weig Material w				Pounds/LCY				
		*1		Founds/LC I				
Descri	ption: Top So	011						

LCY

Payload Capacity: 38.75

Truck Travel (Haul & Return) Time:

penetration 5.0

Tmole Dad (volume) Dadie						
Truck Bed (volume) Basis: Struck Volume:	17.10 L	.CY				
Heaped Volume:		.CY				
Average Volume:		CY				
Adjusted Volume:		CY				
<u>-</u>		Based on Number of	Loader Passes:	18.48	LCY	
Loading Tool Capacity	i Truck volume i	susce on realiser of	Bouder 1 usses.	10110		
Loading Tool Capacity			Buc	ket Size Class: N	NΑ	
Rated Capacity:	5.600	LCY (heaped)				
Bucket Fill Factor:	1.100	Other - rock/dirt	mixtures (100)-120%) 1.100		_
Adjusted Capacity:	6.160	LCY				
Job Condition Corrections	<u>:</u>	Site	Altitude (ft.):	4490 feet		
	Truck	Loader	Source			
Altitude Adj:	1.000	1.000	(CAT HE	3)		
Job Efficiency:	0.830	0.830	(CAT HE	3)		
Net Correction:	0.830	0.830				
	II.		_			
	within this Basic - Material Descrip	Rating: NA				
Cycle Time Elements (min.)	:					
Load: NA	Ma	neuver: NA		Dump: 0.10	0	
Wheel and Track Loaders	- Unadjusted Bas	ic Loader Cycle Tim	e (load, dump,	maneuver):(0.525 min	utes
Cycle Time Factors				Factor (min.)	Source	
Material:		o 6" diameter 0.00		0.000	(Cat HB)	_
Stockpile:		ozer piled 10 ft. high		0.000	(Cat HB)	_
Truck Ownership:		ership of trucks and l	oaders -0.04	-0.040	(Cat HB)	_
Operation:	Constant opera			-0.040	(Cat HB)	_
Dump Target:	Nominal target			0.000	(Cat HB)	_
		Net Cycle Time		-0.080	minutes	
		Adjusted Loade Net Load Ti	ne per Truck:	0.445 0.990	minutes minutes	
Truck Cycle Time:			-			
Truck Exchange Tim	e: 0.60	Minutes	Adiusted	for site altitude:	0.600	Minute
Truck Load Tim	-	Minutes	•	for site altitude:	0.990	– Minute
ck Maneuver and Dump Tim		Minutes	· ·	for site altitude:	1.000	– Minute
1			3			

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

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2000.00	0.00	5.00	5.00	1427	1.524

Haul Time: **1.524** minutes Return Route: Travel Haul Distance Grade (%) Roll. Res Total Res Velocity Seg# Time (Ft) (%) (%) (fpm) (min) 2000.00 0.00 5.00 5.00 2646 0.915

Return Time: 0.915 minutes
Total Truck Cycle Time: 5.029 minutes

Loading Tool unit

Production Truck Unit Production

Truck Unit Production

220.48 LCY/Hour Adjusted for job efficiency: 578.81 LCY/Hour Adjusted for job efficiency: 183.00 LCY/Hour Optimal No. of Trucks: 3 Truck(s)

Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 549.00 LCY/Hour Adjusted single truck/loader team production: 549.00 LCY/Hour Adjusted multiple truck/loader team production: 549.00 LCY/Hour

JOB TIME AND COST

 Fleet size:
 1
 Team(s)
 Total job time:
 45.82
 Hours

 Unit cost:
 \$1.959
 /LCY
 Total job cost:
 \$49,280

BULLDOZER WORK

Task description:	Spre	ead topsoil on pit slopes			
: Soaring Eagle G	ravel Pit	Permit Action:	2023	Permit/Job#:	M1999025
PROJECT IDEN	TIFICATI	<u>ON</u>			
Task #: 06B		State: Colorado		Abbreviation:	None
Date: 11/20	/2023	County: Mesa		Filename:	M025-06b
User: ACY				_	
Agency or	organization	name: DRMS			
HOURLY EQUI	C				
Basic Machine:	Cat D9T - 9				
Horsepower:	405		<u> </u>		
Blade Type:	Semi-Univ	ersal			
Attachment:	NA				
Shift Basis:	1 per day				
Data Source:	(CRG)				
Cost Breakdown:					
			<u>Utilization %</u>		
Ownership Cost/H		\$238.76	NA		
Operating Cost/H		\$162.29	100		
Ripper own. Cost/H		\$0.00	NA		
Ripper op. Cost/H		\$0.00	10		
Operator Cost/H	lour:	\$40.04	NA		
Total unit Cost/Hou Total Fleet Cost/Ho	ur: \$882.	17			
	ur: \$882. ANTITIES 25,155	17			
Total Fleet Cost/Ho MATERIAL QU Initial Volume:	ur: \$882. ANTITIES				
MATERIAL QU Initial Volume: Swell factor:	ANTITIES 25,155 1.000 25,155 LCY volume:	Transported volume			
MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated	ANTITIES 25,155 1.000 25,155 LCY volume: swell factor:	Transported volume			
MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated	ANTITIES 25,155 1.000 25,155 LCY volume: swell factor: DUCTION nce:	Transported volume			
MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distant	ANTITIES 25,155 1.000 25,155 LCY volume: swell factor: DUCTION nce: production:	Transported volume Cat Handbook 50 feet 2,110.5 LCY/hr			
MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distar Unadjusted hourly p	ANTITIES 25,155 1.000 25,155 LCY volume: swell factor: DUCTION nce: production: cy description ent: 0 %	Transported volume Cat Handbook 50 feet 2,110.5 LCY/hr Loose stockpile 1.2			
MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distar Unadjusted hourly p	### \$882. ### ANTITIES 25,155	Transported volume Cat Handbook 50 feet 2,110.5 LCY/hr Loose stockpile 1.2			
MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distar Unadjusted hourly publication Average push gradie Average site altitude	### \$882. ### ### ### ### ### ### #### #### ##	Transported volume Cat Handbook 50 feet 2,110.5 LCY/hr Loose stockpile 1.2			
MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distar Unadjusted hourly p Materials consistence Average push gradic Average site altitude Material weight: Weight description: Job Condition Corre	### \$882. ### ANTITIES 25,155	Transported volume Cat Handbook 50 feet 2,110.5 LCY/hr Loose stockpile 1.2 0 feet 0 lbs/LCY Soil	Source		
MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distant Unadjusted hourly p Materials consistence Average push gradie Average site altitude Material weight: Weight description: Job Condition Correct Open	### \$882. ### ### ### ### ### ### #### #### ##	Transported volume Cat Handbook 50 feet 2,110.5 LCY/hr Loose stockpile 1.2 feet 0 lbs/LCY Soil 0.750	Source (AVG.)		
MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distant Unadjusted hourly p Materials consistence Average site altitude Material weight: Weight description: Job Condition Corre Oper Material co	### \$882. ### ### ### ### ### ### #### #### ##	Transported volume Cat Handbook 50 feet 2,110.5 LCY/hr Loose stockpile 1.2 0 feet 0 lbs/LCY Soil	Source		

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

Net correction: 0.6445

Adjusted unit production: 1,360.22 LCY/hr
Adjusted fleet production: 2720.44 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: \$0.324/LCY

Total job time: 9.25 Hours
Total job cost: \$8,157

TRUCK/LOADER TEAM WORK

Task description:	Haul top	osoil to facilities	areas			
Site: Soaring Eagle G	Fravel Pit	Permit Action	on: 2023		Permit/Job#: M	1999025
PROJECT IDEN	NTIFICATION					
Task #: 06C		State: Colora	ıdo	Ab	breviation: No	
		County: Mesa			Filename: M0	25-06c
User: <u>ACY</u> Agency or	r organization nan	ne: DRMS				
HOURLY EQUI	IPMENT COST	<u></u>		Shift bas	is: 1 per day	
		I	Equipment Descri	ption		
ŗ	Гruck Loader Tea					
Supr	oort Equipment -L		Г 972Н D9T - 9SU			<u> </u>
		imp Area: NA	271 780			
Road M	Iaintenance –Moto -Wa	or Grader: NA ter Truck: NA				
Cost Breakdown:		ader Team	Support I	Equipment	Maintenan	ce Equipment
Cost Broaked will	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	20	NA	NA	NA
Ownership cost/hour:	\$108.06	\$57.78	\$238.76	NA	NA	NA
Operating cost/hour:	\$71.88	\$56.23	\$32.46	NA	NA	NA
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	NA	NA
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	NA	NA
Operator cost/hour:	\$24.82	\$35.97	\$40.04	NA	NA	NA
Unit Subtotals:	\$204.76	\$149.98	\$311.25	NA	NA	NA
Number of Units:	3	1	1	0	0	0
Group Subtotals:	Work:	\$764.26	Support:	\$311.25	Maint:	\$0.00
Total work team co		51				
Initial volume	e: 22,587	CCY	Swell	factor: 1.215		
Loose volume	: 27,44	3 LCY				
	ource of estimated e of estimated swe Material Purcha To	ell factor: Cat H		on, Mining & Safe	ety	
HOURLY PRO	DUCTION					
Truck Capacity: Truck Payload (wei Material v			Pounds/LCY			
	ription: Top So	oil	I Junus/LC I			
Rated Pa	ayload: 62,000		Pounds			
Payload Ca	pacity: 38.75		LCY			

LCY
LCY
LCY
LCY
passes
minutes
Source
Cat HB)
minutes
minutes minutes
).600 Mi
).990 Mi
1.000 Mi

<u>Truck Travel (Haul & Return) Time:</u> Road Condition: <u>Rutted dirt, little maintenance, no water, 2" tire penetration 5.0</u>

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1200.00	0.00	5.00	5.00	1427	0.963

Haul Time: **0.963** minutes Return Route: Travel Haul Distance Grade (%) Roll. Res Total Res Velocity Seg# Time (Ft) (%) (%) (fpm) (min) 1200.00 0.00 5.00 5.00 2646 0.613

Return Time: 0.613 minutes
Total Truck Cycle Time: 4.166 minutes

Loading Tool unit

Adjusted hourly truck team production: 662.72 LCY/Hour Adjusted single truck/loader team production: 578.81 LCY/Hour Adjusted multiple truck/loader team production: 578.81 LCY/Hour

JOB TIME AND COST

 Fleet size:
 1
 Team(s)
 Total job time:
 47.41
 Hours

 Unit cost:
 \$1.858
 /LCY
 Total job cost:
 \$50,994

BULLDOZER WORK

Task description:	Spr	ead topsoil on facilities a	reas		
: Soaring Eagle	Gravel Pit	Permit Action:	2023	Permit/Job#:	M1999025
PROJECT IDE	NTIFICAT	<u>ION</u>			
Task #: 06D)	State: Colorado		Abbreviation:	None
	20/2023	County: Mesa		Filename:	M025-06d
User: AC		,		-	
Agency	or organizatio	n name: DRMS			
HOURLY EQU	JIPMENT C	COST			
Basic Machine	Cat D9T -	- 9SU			
Horsepower					
Blade Type		versal	<u></u>		
Attachment			<u> </u>		
Shift Basis			<u>—</u>		
Data Source	(CRG)				
Cost Breakdown:					
			<u>Utilization %</u>		
Ownership Cost		\$238.76	NA		
Operating Cost		\$162.29	100		
Ripper own. Cost		\$0.00	NA 10		
Ripper op. Cost		\$0.00	10		
Operator Cost	Hour:	\$40.04	NA		
Total unit Cost/Ho Total Fleet Cost/H					
	Sour: \$882	2.17			
Total Fleet Cost/F MATERIAL O Initial Volume:	VANTITIE 27,443	<u>S</u>			
MATERIAL Q Initial Volume: Swell factor:	UANTITIE 27,443 1.000 27,443 LC ed volume:	Y Transported volume			
MATERIAL Q Initial Volume: Swell factor: Loose volume: Source of estimate	UANTITIE 27,443 1.000 27,443 LC ed volume: ed swell factor	Y Transported volume			
MATERIAL Q Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate	UANTITIE 27,443 1.000 27,443 LC ed volume: ed swell factor DUCTION ance:	Y Transported volume			
MATERIAL O Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate HOURLY PRO	UANTITIES 27,443 1.000 27,443 LC ed volume: ed swell factor DUCTION ance: y production:	Transported volume Cat Handbook 50 feet 2,110.5 LCY/hr			
MATERIAL O Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate HOURLY PRO Average push dist Unadjusted hourly	UANTITIES 27,443 1.000 27,443 LC ed volume: ed swell factor DUCTION ance: // production: ncy description dient: 0 %	Transported volume Cat Handbook 50 feet 2,110.5 LCY/hr			
MATERIAL Q Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate HOURLY PRO Average push dist Unadjusted hourly Materials consiste Average push grad	\$882 UANTITIES 27,443 1.000 27,443 LC ed volume: ed swell factor DUCTION ance: production: ncy description dient: 0 % de: 4,49 de:	Y Transported volume Cat Handbook 50 feet 2,110.5 LCY/hr on: Loose stockpile 1.2			
MATERIAL Q Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate Source of estimate HOURLY PRO Average push dist Unadjusted hourly Materials consiste Average push grad Average site altitude	\$882 UANTITIE 27,443 1.000 27,443 LC ed volume: ed swell factor DUCTION ance: production: ncy description dient: 0 % 4,49 1,600	Y Transported volume Cat Handbook 50 feet 2,110.5 LCY/hr In: Loose stockpile 1.2			
MATERIAL Q Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate Source of estimate HOURLY PRO Average push dist Unadjusted hourly Materials consiste Average push grace Average site altitue Material weight: Weight descriptio	\$882 UANTITIES 27,443 1.000 27,443 LC ed volume: ed swell factor DUCTION ance: production: ncy description de: 4,49 1,60 n: Top rection Factor Tactor Tact	Y Transported volume Cat Handbook 50 feet 2,110.5 LCY/hr Don: Loose stockpile 1.2 00 feet 00 lbs/LCY Soil	Source		
MATERIAL O Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate HOURLY PRO Average push dist Unadjusted hourly Materials consiste Average push grad Average site altitut Material weight: Weight description Job Condition Con On	UANTITIES 27,443 1.000 27,443 LC ed volume: ed swell factor DUCTION ance: production: ncy description dient: de: 4,49 1,60 n: Top	Y Transported volume Cat Handbook 50 feet 2,110.5 LCY/hr on: Loose stockpile 1.2 00 feet 00 lbs/LCY Soil 1 0.750	Source (AVG.)		
MATERIAL Q Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate Source of estimate HOURLY PRO Average push dist Unadjusted hourly Materials consiste Average push grace Average site altitue Material weight: Weight description Job Condition Con On Material	\$882 UANTITIES 27,443 1.000 27,443 LC ed volume: ed swell factor DUCTION ance: production: ncy description de: 4,49 1,60 n: Top rection Factor Tactor Tact	Y Transported volume Cat Handbook 50 feet 2,110.5 LCY/hr Don: Loose stockpile 1.2 00 feet 00 lbs/LCY Soil	Source		

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

Net correction: 0.6445

Adjusted unit production: 1,360.22 LCY/hr
Adjusted fleet production: 2720.44 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: \$0.324/LCY

Total job time: 10.09 Hours
Total job cost: \$8,899

REVEGETATION WORK

Soaring Eagle Gravel Pit Permit Action: 2023					Permit/Job	#: <u>M1999025</u>
ROJECT IDENTIFICATION						
Task #: 07A	State: Colo	rado		Al	bbreviation:	None
	County: Mesa				Filename:	M025-07a
User: ACY	<u> </u>				-	
Agency or organization nar	ne: DRMS					
ERTILIZING						
aterials						
		Units /				
Description		Acre	Unit	Co	st / Unit	Cost /Acre
Potassium nitrate, 13-46-0		100.00	pound	\$0.	.68	\$68.00
				Т	otal Fertilizer	
				10	nai Ferunzer Materials	
					Cost/Acre	
		1	1		COSULICIE	ψ00•00
Description Tractor towed spreader (MEANS	32 01 90.13 012	20)				Cost /Acre \$41.82
Description Tractor towed spreader (MEANS		Total			on Cost/Acre	\$41.82 \$41.82 Cost /Acre \$112.82
Tractor towed spreader (MEANS LLING Description		Total			on Cost/Acre	\$41.82 \$41.82 Cost /Acre \$112.82
Description Tractor towed spreader (MEANS LLING Description Disc harrowing, 6" deep (MEANS		Total				\$41.82 \$41.82 Cost /Acre \$112.82
Description Tractor towed spreader (MEANS LLING Description		Total		Rate – PLS LBS /		\$41.82 \$41.82 Cost /Acre \$112.82
Description Tractor towed spreader (MEANS LLING Description Disc harrowing, 6" deep (MEANS		Total		Fotal Tilli Rate – PLS	ng Cost/Acre Seeds per SQ.	\$41.82 \$41.82 Cost /Acre \$112.82 \$112.82
Description Tractor towed spreader (MEANS LLING Description Disc harrowing, 6" deep (MEANS EEDING Seed Mix		Total		Rate – PLS LBS / Acre	ng Cost/Acre Seeds per SQ. FT	\$41.82 \$41.82 Cost /Acre \$112.82 \$112.82
Description Tractor towed spreader (MEANS LLING Description Disc harrowing, 6" deep (MEANS EEDING Seed Mix Alkali Sacaton		Total		Rate – PLS LBS / Acre 0.30	Seeds per SQ. FT	\$41.82 \$41.82 Cost /Acre \$112.82 \$112.82 Cost /Acre
Description Tractor towed spreader (MEANS LLING Description Disc harrowing, 6" deep (MEANS EEDING Seed Mix Alkali Sacaton Canada Wildrye		Total		Rate – PLS LBS / Acre 0.30 5.50	Seeds per SQ. FT	\$41.82 \$41.82 Cost /Acre \$112.82 \$112.82 Cost /Acre \$8.54 \$59.62
Description Tractor towed spreader (MEANS LLING Description Disc harrowing, 6" deep (MEANS EEDING Seed Mix Alkali Sacaton Canada Wildrye Reed Canarygrass - VNS		Total		Rate – PLS LBS / Acre 0.30 5.50 1.66	Seeds per SQ. FT 11.71 14.52 19.28	\$41.82 \$41.82 Cost /Acre \$112.82 \$112.82 Cost /Acre \$8.54 \$59.62 \$8.22

Description

Cost /Acre

Broadcast seeding [DMG]	\$267.22
Total Seed Application Cost/Acre	\$267.22

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Hay, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$429.79	\$859.57
Herbicide - Curtail @ 4.0 pt/ac	1.00	ACRE	\$35.09	\$35.09
Total Mulch Materials Cost/Acre				\$894.66

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
	Total Mulch Application Cost/Acre	\$405.29

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
Willow, Sandbar	31	Tubling, 10 cu. in. container {(MEANS)	\$2.14	\$0.00	\$66.34
	\$66.34				

JOB TIME AND COST

 No. of Acres:
 42
 Cost /Acre:
 \$2,066.53

 Estimated Failure Rate:
 30%
 Cost /Acre*:
 \$2,066.53

*Selected Replanting Work Items: FERTILIZING,TILLING,SEEDING,NU RSERY,MULCHING

Initial Job Cost: \$86,794.26

Reseeding Job Cost: \$26,038.28

Total Job Cost: \$112,833

Job Hours: 60.00

SITE MAINTENANCE

Site:	Soaring Eagle Gravel Pit	1	Permit Action:	2023	Permit/	Job#: <u>M1999025</u>
PROJE	CT IDENTIFICATION					
	08A 11/20/2023 ACY	State: County:	Colorado Mesa		Abbreviation: Filename:	None M025-08a
	Agency or organization	on name:I	ORMS			

UNIT COSTS

Maintenance Item	Hours per Year	Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Install Wetlands	80.00	Fencing, barbed wire, - 3	5,000.00	LF	\$1.76	\$8,800.00
Fencing		strand				

Job Hours: 80.00 Total Cost: \$8,800.00

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Site:	Soaring Eagle Gravel Pit	Permit Action:	2023	Permit/Job#:	M1999025

PROJECT IDENTIFICATION

Task description:

Task #:10AState:ColoradoAbbreviation:NoneDate:11/20/2023County:MesaFilename:M025-10a

User: ACY

Agency or organization name: DRMS

EQUIPMENT TRANSPORT RIG COST

Shift basis: 1 per day
Cost Data Source: CRG Data

Truck Tractor Description: GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED,

400 HP (2ND HALF, 2006)

Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT

TRAILER (25T, 50T, AND 100T)

Cost Breakdown:

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$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

Initial mobilization

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 D9T - 9SU	66.13	\$257.08	\$175.95	2	\$866.06	\$351.90	\$250.00
Cat 320D L 9'-6"	23.70	\$70.85	\$82.29	1	\$153.14	\$82.29	\$250.00
Stick							
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	\$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: \$2,101.02 \$1,086.10 \$1,750.00

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.	\$116.86	2	\$233.72	\$233.72

Subtotals:	\$326.40	\$326.40
Subtotuis.	Ψυ=υ•ιυ	Ψυ-10

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region: GRAND JUNCTION Total one-way travel distance: 5.00 miles mph

Average Travel Speed: 35.00

Total Non-Roadable Mob/Demob Cost *

** two round trips with haul rig:
Total Roadable Mob/Demob Cost **

** one round trip, no haul rig:

\$8,612.65

\$93.26

<u>Transportation Cycle Time:</u>

Non-	
Roadable	Roadable
Equipment	Equipment
0.14	0.14
0.14	0.14
0.50	NA
0.50	NA
1.29	0.29
	Roadable Equipment 0.14 0.14 0.50 0.50

JOB TIME AND COST

Total job time: 2.57 Hours

Total job cost: _____**\$8,706**

EQUIPMENT MOBILIZATION/DEMOBILIZATION

PROJECT IDENTIFICATION Task #: 10B	
Task #: 10B State: Colorado Abbreviation: None Date: 11/20/2023 County: Mesa Filename: M025 User: ACY Agency or organization name: DRMS EQUIPMENT TRANSPORT RIG COST Shift basis: 1 per da Cost Data Source: CRG Data Truck Tractor Description: GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEI 400 HP (2ND HALF, 2006) Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQU	1999025
Date: 11/20/2023 County: Mesa Filename: M025 User: ACY Agency or organization name: DRMS EQUIPMENT TRANSPORT RIG COST Shift basis: 1 per da Cost Data Source: CRG Data Source: CRG Data Source: Truck Tractor Description: GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEI 400 HP (2ND HALF, 2006) Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQU	
EQUIPMENT TRANSPORT RIG COST Shift basis: 1 per da Cost Data Source: CRG Dat Truck Tractor Description: GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEI 400 HP (2ND HALF, 2006) Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQU	5-10b
Truck Tractor Description: GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEI 400 HP (2ND HALF, 2006) Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQU	
400 HP (2ND HALF, 2006) Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQU	-
Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQU	L POWERED,
TRAILER (25T, 50T, AND 100T)	IPMENT
Cost Breakdown:	
Available Rig Capacities 0-25 Tons 26-50 Tons 51+ Tons	

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		
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: \$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
Light Duty Pickup, 4x4, 3/4 T.	\$116.86	2	\$233.72	\$233.72

Subtotals: \$233.72 \$233.72

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):	0.14	0.14
Return Time (Hours):	0.14	0.14
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	1.29	0.29

JOB TIME AND COST

Total job cost: 2.57 Hours

Total job cost: \$1,565