

December 8, 2023

Katie Conrado Meeker Sand & Gravel, Inc. P.O. Box 1550 Meeker, CO 81641

RE: Meeker Pit, Permit No. M-1976-038, AM-3 Preliminary Reclamation Cost Estimate-Rev 1

Dear Ms. Conrado:

This reclamation cost update was in response AM-3 submitted on October 10, 2023. As of December 1, 2023 all adequacy items have been sufficiently addressed. Modifications from the original calculation have been made based on response received on December 5, 2023 (denoted in red).

Below is a table summarizing input values that have been updated based on the amended permit (AM-3). 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.

General Assumptions:

- Maximum disturbance of 50 acres. Current operation includes commercial area of 11.51 ac, 3.48 ac permanent road, 2.31 ac process ponds permanent, overburden footprint 5.09 ac, topsoil footprint 5.38 ac.
- Minimum of 24" of overburden and average of 9" of topsoil
- Maximum of 1,000 LF of highwall going to a 3H: 1V
- Disk 6", Drill seed, mulch w/ 1.5 ton/ac of straw, weed treatment

Task	Form Used	Description
01a	Truck/ Dozer	Perimeter Boundary Grading North highwall Max 575 LF, 18'H @ Vertical going to 3H: 1V backfill = 10,350 CCY Stockpile located 175LF avg away
01b	Dozer	Highwall Grading to 3H: 1V= 12,263 CCY @ 70' push Max 425 LF, 18'H@ vert going to 3H: 1V cut/fill = 1,913 CCY plus transported vol of 10,350 CCY



01c	Dozer	Grade out recycle ponds 650 CCY w/ 50' push			
02a	Truck/ Dozer	Place 24" of overburden over 22.26 ac = 71,826 CCY Assuming graded highwalls do not need more cover Stockpile located Max 600', currently 177' away until in Phase I.			
02b	Dozer	Grade transported overburden = 80,804 LCY w/ 50' push Misc. pit floor grading will be smoothed out during this task.			
03a	Grader	Decompact soils 12" for 32.73 ac			
04a	Truck/ Dozer	Topsoil 9" over 27.35 ac = 33,094 CCY Stockpile located Max 600', currently 192' away until in Phase I.			
04b	Dozer	Grade transported topsoil = 40,209 LCY w/ 50' push			
05a	Reveg	Reveg 32.73 ac w/ 25% failure rate Disc, Drill seed, apply 3000 lbs. per ac mulch and crimp, weed treatment			
10a	Mob	Initial Mobilization			
10b	Mob	Secondary Mobilization			
Indirect		Add in Division's standard indirect cost approx. 28%			

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

Sincerely,

Amy Yeldell

Environmental Protection Specialist

Amy Geldell

COST SUMMARY WORK

Ta	ask description: Upo	lated based on AM-3				
Site: _	Meeker Pit	Permit Action:	AM-3		Permit/Job	o#: <u>M1976038</u>
PR	OJECT IDENTIFICATI	<u>ON</u>				
	Task #: ACY Date: 11/29/2023 User: ACY	State: Colorado County: Rio Blanco	0		Abbreviation: Filename:	None M038-ACY
	Agency or organization	name: DRMS				
<u>TA</u>	SK LIST (DIRECT COS	<u>TS)</u>				
Task 1a	Description Transport Highwall Backfi		Form Used TRUCK1	Fleet Size	Task Hours 10.56	Cost \$12,248
1b 1c 2a	Re-grade All Highwall to 3 Grading pond slopes Transport Overburden	H:1V Slopes	DOZER DOZER TRUCK1	$\begin{bmatrix} 2\\2\\2 \end{bmatrix}$	8.55 0.40 73.31	\$7,561 \$357 \$84,998
2b 3a 4a	Grade Transported Overbu Decompact Pit Floor Transport Topsoil	rden	DOZER GRADER TRUCK1	2 1 2	35.52 27.93 36.48	\$31,421 \$6,151 \$42,296
4b 5a 0a	Grade Transported Overbu Reveg Affected Lands Initial Mobilization of Equ		DOZER REVEGE MOBILIZE	2 1 1	11.09 50.00 2.53	\$9,808 \$52,869 \$11,098
0a 0b	Secondary Mobilization of		MOBILIZE	1	2.53	\$771
			SUBTO	OTALS:	258.9	\$259,578
IN	DIRECT COSTS					
OV	ERHEAD AND PROFIT:					
	Liability insurance: Performance bond: Job superintendent: Profit:	2.02 1.05 129.45 10.00		TOTAI	Total =	5,243 2,726 3,425 25,958 42,351
		CONTI	RACT AMOUNT	Γ (direct +	O & P) =	801,929
LE	GAL - ENGINEERING - PRO	DJECT MANAGEMENT:	:			
	Financial warranty processi Engineering work and/or c Reclamation managemen	ontract/bid preparation:	\$500 0.00 5.00	 	Total =	500
		CONTINGENCY:	3.00		Total = \$7	7,787
			TOTAL I	NDIRECT	$\Gamma COST = \$6$	55,735
		TOTAL BO	ND AMOUNT (direct + iı	ndirect) = \$3	325,313

TRUCK/LOADER TEAM WORK

Site: Meeker Pit		Permit	Actio	n: AM-3		Permit/Job#:	M1976038	
PROJECT IDEN	<u> TIFICATION</u>	<u>[</u>						
Task #: 01A			Colora		Ab		None	
Date: 12/1/2		County: _F	Rio Bla	anco		Filename: N	M038-01a	
User: ACY								
Agency or	organization nar	ne: DRM	S					-
HOURLY EQUI	PMENT COST	<u>r</u>			Shift bas	is: 1 per day		
			Е	Equipment Descri	ption			_
7	Truck Loader Tea	· ·	Cat 7					-
	ant Familian ant I	-Loader:		972H				=
Supp	ort Equipment -L	oad Area: ump Area:	NA NA					-
Road M	Taintenance –Mot	•	NA					-
		ter Truck:	NA					<u>-</u>
Cost Breakdown:	Truck/Los	ader Team Loader		Support I Load Area	Equipment Dump Area	Mainten Motor Grade	nance Equipa	
					1		•	
%Utilization-machine:	100		100	NA	NA	NA		NA
Ownership cost/hour:	\$108.06		7.78	NA	NA	NA		NA
Operating cost/hour:	\$71.88	\$56	5.23	NA	NA	NA NA		NA
%Utilization-riper:	NA	Φ.	0	NA	NA	NA NA		NA
Ripper own. cost/hour:	NA NA		0.00	NA NA	NA NA	NA NA		NA
Ripper op. cost/hour:	NA		0.00	NA NA	NA NA	NA NA		NA
Operator cost/hour:	\$32.54		0.71	NA NA	NA	NA NA		NA
Unit Subtotals:	\$212.48	\$154	-	NA	NA	N.A		NA
Number of Units:	4	Φ1 150 26	2	0	0		0 0000	0
Group Subtotals:	Work:	\$1,159.36		Support:	\$0.00	Maint	t: \$0.00	
Total work team coa	st/hour: \$1,159.	36						
MATERIAL QU	ANTITIES							
Initial volume			CCY	Swell	factor: 1.125			
Loose volume	: 11,64	4	LCY					
	urce of estimated				cal going to 3H: 1	V backfill		_
Source	of estimated swe			andbook				-
	Material Purch	_	\$0.00 \$0.00					-
	10		φυ.υυ					-
HOURLY PRO	DUCTION							
Truck Capacity: Truck Payload (wei	oht) Racic							
Material v				Pounds/LCY				
		Dry packed						=.
Rated Pa	yload: 62,000		-	Pounds				

LCY

Payload Capacity: 24.31

Truck Travel (Haul & Return) Time:

penetration 5.0

Truck Bed (volume) Basis:						
Struck Volume:	17.10	LCY				
Heaped Volume:	22.10	LCY				
Average Volume:	19.60	LCY				
Adjusted Volume:	22.10	LCY				
Final	Truck Volume	Based on Number of	Loader Passes:	18.48	LCY	
Loading Tool Capacity						
			Bucl	ket Size Class: N	A	_
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.):	5565 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				
Loading Tool Cycle Time:	•	r of Loading Tool Pass	es Required to	Fill Truck:	3 1	oasses
Excavators and Front Shove	<u></u>					
Machine Cycle Time v Selected Value						
Track Loaders -	Material Descr	ription:				
Cycle Time Elements (min.)	:					
Load: NA		Ianeuver: NA		Dump: 0.100	1	
Load. NA		Taneuver. NA		Dump. 0.100	, 	
Wheel and Track Loaders	- Unadjusted Ba	asic Loader Cycle Time	e (load, dump, r	maneuver):0	.525 min	utes
Cycle Time Factors				Factor (min.)	Source	
Material:	Material 3/4"	' to 6" diameter 0.00		0.000		
Stockpile:	Conveyor or			0.000	(Cat HB)	_
		dozer piled 10 ft. high		0.000	(Cat HB)	-
Truck Ownership:	No adjustmen	nt - factor not applicab		0.000 0.000	(Cat HB) (Cat HB)	
Operation:	No adjustmer Constant ope	nt - factor not applicab ration -0.04		0.000 0.000 -0.040	(Cat HB) (Cat HB) (Cat HB)	-
	No adjustmen	nt - factor not applicab ration -0.04 get 0.00	le 0.00	0.000 0.000 -0.040 0.000	(Cat HB) (Cat HB) (Cat HB) (Cat HB)	
Operation:	No adjustmer Constant ope	nt - factor not applicab ration -0.04 get 0.00 Net Cycle Time	e 0.00 Adjustment:	0.000 0.000 -0.040 0.000 -0.040	(Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	
Operation:	No adjustmer Constant ope	nt - factor not applicab ration -0.04 get 0.00 Net Cycle Time Adjusted Loader	Adjustment: Cycle Time:	0.000 0.000 -0.040 0.000 -0.040 0.485	(Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	- - - -
Operation:	No adjustmer Constant ope	nt - factor not applicab ration -0.04 get 0.00 Net Cycle Time	Adjustment: Cycle Time:	0.000 0.000 -0.040 0.000 -0.040	(Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	
Operation:	No adjustmer Constant ope	nt - factor not applicab ration -0.04 get 0.00 Net Cycle Time Adjusted Loader	Adjustment: Cycle Time:	0.000 0.000 -0.040 0.000 -0.040 0.485	(Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	
Operation: Dump Target:	No adjustment Constant ope Nominal targ	nt - factor not applicab ration -0.04 get 0.00 Net Cycle Time Adjusted Loader	Adjustment: Cycle Time: ne per Truck:	0.000 0.000 -0.040 0.000 -0.040 0.485	(Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	Minutes
Operation: Dump Target: Truck Cycle Time:	No adjustment Constant open Nominal targ	nt - factor not applicab ration -0.04 get 0.00 Net Cycle Time Adjusted Loader Net Load Tir	Adjustment: Cycle Time: ne per Truck: Adjusted	0.000 0.000 -0.040 0.000 -0.040 0.485 1.070	(Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	Minutes Minutes

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	175.00	0.00	5.00	5.00	1427	0.245

Haul Time: 0.245 minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	175.00	0.00	5.00	5.00	2646	0.226

Return Time: 0.226 minutes
Total Truck Cycle Time: 3.141 minutes

Loading Tool unit

Production Truck Unit Production

Truck Unit Production

353.01 LCY/Hour Adjusted for job efficiency: 551.08 LCY/Hour Adjusted for job efficiency: 293.00 LCY/Hour Optimal No. of Trucks: 2 Truck(s)

Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 585.99 LCY/Hour Adjusted single truck/loader team production: 551.08 LCY/Hour Adjusted multiple truck/loader team production: 1,102.16 LCY/Hour

JOB TIME AND COST

 Fleet size:
 2
 Team(s)
 Total job time:
 10.56
 Hours

 Unit cost:
 \$1.052
 /LCY
 Total job cost:
 \$12,248

BULLDOZER WORK

Task description:	Re-gi	rade All Hig	ghwall to 3H	:1V Slopes		
Meeker Pit		Per	mit Action: _	AM-3	Permit/Job#:	M1976038
PROJECT IDEN	TIFICATIO	<u>ON</u>				
Task #: 01B		State:	Colorado		Abbreviation:	None
Date: 11/29/	2023	County:	Rio Blanco)	Filename:	M038-01b
User: ACY		,			-	
Agency or	organization i	name: DF	RMS			
HOURLY EQUII	PMENT CO	OST				
Basic Machine:	Cat D9T - 9					
Horsepower:	405			<u> </u>		
Blade Type:	Semi-Unive	rsal				
Attachment:	NA			_		
Shift Basis: Data Source:	1 per day (CRG)			<u> </u>		
Cost Breakdown:						
			4.2.2. = :	<u>Utilization %</u>		
Ownership Cost/Ho			\$238.76	NA 100		
Operating Cost/Ho			\$162.29	100 NA		
Ripper own. Cost/Ho Ripper op. Cost/Ho			\$0.00 \$0.00	NA 0		
Operator Cost/Ho	-		\$41.30	NA		
Total unit Cost/Hour Total Fleet Cost/Hou						
Initial Volume: Swell factor: Loose volume: Source of estimated	12,263 1.125 13,796 LCY volume:		 8'H vert to 3	H: 1V cutfill + Transpor	ted vol	
Source of estimated	swell factor	grading Cat Hand	hook		<u> </u>	
Source of estimated	swell factor.	Cat Hand	DOOK			
HOURLY PROD	<u>UCTION</u>					
Average push distan	ce:	70 feet				
Unadjusted hourly p		1,633.5 LC	Y/hr			
Materials consistence	y description:	Partly	consolidated :	stockpile 1.1		
Average push gradie	nt: 0 %					
Average site altitude		feet				
Material weight:	2,550	lbs/LCY			<u> </u>	
Weight description:	Earth	- Dry packed	d			
Job Condition Corre				Source		
	ator Skill:		750	(AVG.)		
Material co			100	(CAT HB)		
Dozin	g method: _	1.	000	(GEN.)		

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4941

Adjusted unit production: 807.11 LCY/hr
Adjusted fleet production: 1614.22 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: \$0.548/LCY

Total job time: 8.55 Hours
Total job cost: \$7,561

BULLDOZER WORK

Task description: Gra	ding pond slopes			
e: Meeker Pit	Permit Action:A	AM-3	Permit/Job#:	M1976038
PROJECT IDENTIFICAT	ION			
Task #: 01C	State: Colorado		Abbreviation:	None
Date: 11/29/2023	County: Rio Blanco		Filename:	M038-01c
User: ACY			-	
Agency or organization	n name: DRMS			
HOURLY EQUIPMENT O				
•				
Basic Machine: Cat D9T -	9SU	-		
Horsepower: 405		-		
Blade Type: Semi-Uni	versal	-		
Attachment: NA		-		
Shift Basis: 1 per day		_		
Data Source: (CRG)		_		
Cost Breakdown:				
Cost Bleakdowii.		<u>Utilization %</u>		
Ownership Cost/Hour:	\$238.76	NA		
	\$162.29	100		
Operating Cost/Hour:				
Ripper own. Cost/Hour:	\$0.00	NA		
Ripper op. Cost/Hour:	\$0.00	0		
Operator Cost/Hour:	\$41.30	NA		
Total unit Cost/Hour: \$442	235			
Total Fleet Cost/Hour: \$884				
Total Freet Cost/Hour\$88-				
	٦			
MATERIAL QUANTITIES	<u>S</u>			
Initial Volume: 650				
Swell factor: 1.060				
Loose volume: 689 LCY				
Loose volume: 689 LC 1				
Source of estimated volume:	Exhibit L			
Source of estimated swell factor	: Cat Handbook			
HOURLY PRODUCTION				
Average push distance:	50 feet			
Unadjusted hourly production:	2,110.5 LCY/hr			
Materials consistency description	n: Compacted fill or eml	bankment 0.9		
Average push gradient: 0 %				
Average site altitude: 6,56	5 feet			
Material weight: 2,55	0 lbs/LCY		<u> </u>	
Weight description: Grav	vel - Dry			
Job Condition Correction Factor		Source		
Operator Skill:	0.750	(AVG.)		
Material consistency:	0.730	(CAT HB))		
Dozing method:	1.000	(GEN.)		
Visibility:	1.000			
visidility:	1.000	(AVG.)		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4043

Adjusted unit production: 853.28 LCY/hr
Adjusted fleet production: 1706.56 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: \$0.518/LCY

Total job time: 0.40 Hours
Total job cost: \$357

TRUCK/LOADER TEAM WORK

ite: _]	Meeker Pit		Permit	Actio	on: AM-3		Permit/Job#: M	1976038
DI								
		NTIFICATION	-					
	Task #: 02A Date: 12/7/	2022		Colora		Ab	breviation: Not	
		2023 02 PM	County: I	Rio Bl	anco		Filename: M0	38-02a
	User: ACY							
	Agency or	r organization nar	ne: DRM	S				
ш	NIDI V FAII	IPMENT COST				Shift had	is: 1 per day	
110	JUKLI EQUI	II WIENT COS.	<u>L</u>	1	Equipment Descri		is. <u>i pei uay</u>	
		Fruck Loader Tea	m -Truck:	Cat	730	ption		
		· T	-Loader:		Г 972Н			
	Supp	oort Equipment -L Di-	oad Area: imp Area:	NA NA				
	Road M	Iaintenance –Mot		NA				
		-Wa	ter Truck:	NA				
C	at Ducaledani.	Т1-/І	T		Commont I	7	Maintanan	Ei
Co	st Breakdown:	Truck/Los	ader Team Loader		Load Area	Equipment Dump Area	Motor Grader	ce Equipment Water Truck
 Htiliza	ation-machine:	100		100	NA	NA	NA	NA NA
	ship cost/hour:	\$108.06		7.78	NA NA	NA NA	NA NA	NA NA
	ting cost/hour:	\$71.88		6.23	NA	NA	NA	NA NA
	ilization-riper:	NA	Ψ.	0	NA	NA	NA	NA NA
pper o	wn. cost/hour:	NA	\$0	0.00	NA	NA	NA	NA NA
Ripper	op. cost/hour:	NA	\$0	0.00	NA	NA	NA	NA NA
Oper	ator cost/hour:	\$32.54	\$40	0.71	NA	NA	NA	NA
	Unit Subtotals:	\$212.48	\$154	4.72	NA	NA	NA	NA NA
	mber of Units:	4		2	0	0	0	(
Gr	oup Subtotals:	Work:	\$1,159.36		Support:	\$0.00	Maint:	\$0.00
To	tal work team co	st/hour: \$1,159.	36					
	4 MEDIAL OF							
<u>M</u>	ATERIAL QU	<u>JANTITIES</u>						
	Initial volume			CCY	Swell	factor: 1.125		
	Loose volume	e: 80,8 0	4	LCY				
		ource of estimated			ver 22.26 ac - Bo	ond response		
	Source	e of estimated swe Material Purch	_	\$0.00	Iandbook			
			otal Cost: _	\$0.00				
			_					
<u>H</u>	OURLY PRO	<u>DDUCTION</u>						
<u>Tr</u>	uck Capacity:							
	ick Payload (wei				.			
	Material v	weight: 2,550			Pounds/LCY			
			Dry packed	l				

Payload Capacity:	24.31	LCY				
Truck Bed (volume) Basis:	:					
Struck Volume:	17.10	LCY				
Heaped Volume:	22.10	LCY				
Average Volume:	19.60	LCY				
Adjusted Volume:	22.10	LCY				
Fin	al Truck Volume	e Based on Number o	of Loader Passes:	18.48	LCY	
Loading Tool Capacity						
			Buc	ket Size Class:	NA	_
Rated Capacity:		LCY (heaped)				_
Bucket Fill Factor:	1.100		rt mixtures (100	0-120%) 1.100		=
Adjusted Capacity:	6.160	LCY				
Job Condition Correction	<u>ıs:</u>	S	ite Altitude (ft.):	<u>6565</u> 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				

Loading Tool Cycle Tim		·	usses Required to	Fill Truck:	3 r	าลรรคร
Loading Tool Cycle Tim Excavators and Front Sho	e: Numbe	er of Loading Tool Pa	asses Required to	Fill Truck:		oasses
Excavators and Front Short Machine Cycle Time	e: Numbe vels: vs. Job Condition	er of Loading Tool Pa	asses Required to	Fill Truck:	3r	passes
Excavators and Front Sho Machine Cycle Time Selected Valu	e: Numbe vels: vs. Job Condition e within this Bas	er of Loading Tool Pa on Rating: <u>NA</u> ic Rating: <u>NA</u>	· 		3I	oasses
Excavators and Front Short Machine Cycle Time Selected Valu Track Loaders	e: Number vels: e vs. Job Condition within this Baser — Material Description	er of Loading Tool Pa on Rating: <u>NA</u> ic Rating: <u>NA</u>	asses Required to			passes
Excavators and Front Sho Machine Cycle Time Selected Valu	e: Numbervels: e vs. Job Condition e within this Base – Material Description.	er of Loading Tool Pa on Rating: <u>NA</u> ic Rating: <u>NA</u>	· 			passes
Excavators and Front Shormal Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA	e: Numbervels: e vs. Job Condition e within this Base — Material Description: .):	on Rating: NA ic Rating: NA ription: NA		Dump: 0.10	00	
Excavators and Front Shormal Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader	e: Number vels: e vs. Job Condition e within this Bass — Material Description: .): No. 1	on Rating: NA ic Rating: NA ription: NA		Dump: 0.10	00 0.525 minu	
Excavators and Front Shormal Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA	e: Number vels: e vs. Job Condition e within this Bass — Material Description: .): Material Description: See Linadjusted Bass See Linadjusted Bass See Linadjusted Bass See Linadjusted Bass See Linadjusted Bass	on Rating: NA ic Rating: NA ription: NA	me (load, dump, 1	Dump: 0.10	00	
Excavators and Front Shormal Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factors	e: Number vels: e vs. Job Condition within this Bass — Material Description: No.: See a Unadjusted Bass Material 3/4'	on Rating: NA ic Rating: NA ription: NA Maneuver: NA asic Loader Cycle Ti	me (load, dump, 1	Dump: 0.10 maneuver): Factor (min.)	00 0.525 minu Source	
Excavators and Front Shormal Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factors Material	e: Number vels: e vs. Job Condition within this Bas: – Material Description: S - Unadjusted Bas: Material 3/4* Conveyor or	on Rating: NA ic Rating: NA ription: Maneuver: NA asic Loader Cycle Ti	me (load, dump, 1	Dump: 0.10 maneuver): Factor (min.) 0.000	00 minu Source (Cat HB)	
Excavators and Front Shormal Machine Cycle Time Selected Valua Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile	e: Number vels: vels: vs. Job Condition within this Bass Material Description: No.: Material 3/4' Conveyor or No adjustme	on Rating: NA ic Rating: NA ription: NA asic Loader Cycle Ti to 6" diameter 0.00 dozer piled 10 ft. hig	me (load, dump, 1	Dump: 0.10 maneuver): Factor (min.) 0.000 0.000	00	
Excavators and Front Shorm Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (minimal Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile Truck Ownership	e: Number vels: e vs. Job Condition within this Base — Material Describing. S - Unadjusted Base — Material 3/4° Conveyor or — No adjustme — Constant ope	on Rating: NA ic Rating: NA ription: NA asic Loader Cycle Ti to 6" diameter 0.00 dozer piled 10 ft. hig ont - factor not applicateration -0.04	me (load, dump, 1	Dump: 0.10 maneuver): Factor (min.) 0.000 0.000 0.000	00 minus Source (Cat HB) (Cat HB) (Cat HB)	
Excavators and Front Shorm Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (minimal Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile Truck Ownership Operation	e: Number vels: e vs. Job Condition within this Base — Material Describing. S - Unadjusted Base — Material 3/4° Conveyor or — No adjustme — Constant ope	on Rating: NA ic Rating: NA ription: Maneuver: NA asic Loader Cycle Ti to 6" diameter 0.00 dozer piled 10 ft. hig ent - factor not applica eration -0.04 get 0.00 Net Cycle Tir	me (load, dump, 1) gh and up 0.00 able 0.00 me Adjustment:	Dump: 0.10 maneuver): Factor (min.) 0.000 0.000 -0.040 0.000 -0.040	00 Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)	
Excavators and Front Shorm Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (minimal Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile Truck Ownership Operation	e: Number vels: e vs. Job Condition within this Base — Material Describing. S - Unadjusted Base — Material 3/4° Conveyor or — No adjustme — Constant ope	on Rating: NA ic Rating: NA ription: NA asic Loader Cycle Ti to 6" diameter 0.00 dozer piled 10 ft. hig ent - factor not applicate a cration -0.04 get 0.00 Net Cycle Tir Adjusted Load	me (load, dump, 1 gh and up 0.00 able 0.00 me Adjustment: ler Cycle Time:	Dump: 0.10 maneuver): Factor (min.) 0.000 0.000 -0.040 0.000 -0.040 0.485	00 Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	
Excavators and Front Shorm Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (minimal Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile Truck Ownership Operation	e: Number vels: e vs. Job Condition within this Base — Material Describing. S - Unadjusted Base — Material 3/4° Conveyor or — No adjustme — Constant ope	on Rating: NA ic Rating: NA ription: NA asic Loader Cycle Ti to 6" diameter 0.00 dozer piled 10 ft. hig ent - factor not applicate a cration -0.04 get 0.00 Net Cycle Tir Adjusted Load	me (load, dump, 1) gh and up 0.00 able 0.00 me Adjustment:	Dump: 0.10 maneuver): Factor (min.) 0.000 0.000 -0.040 0.000 -0.040	00 Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	
Excavators and Front Shorm Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (minimal Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile Truck Ownership Operation	e: Number vels: e vs. Job Condition within this Base — Material Describing. S - Unadjusted Base — Material 3/4° Conveyor or — No adjustme — Constant ope	on Rating: NA ic Rating: NA ription: NA asic Loader Cycle Ti to 6" diameter 0.00 dozer piled 10 ft. hig ent - factor not applicate a cration -0.04 get 0.00 Net Cycle Tir Adjusted Load	me (load, dump, 1 gh and up 0.00 able 0.00 me Adjustment: ler Cycle Time:	Dump: 0.10 maneuver): Factor (min.) 0.000 0.000 -0.040 0.000 -0.040 0.485	00 Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	
Excavators and Front Shormal Machine Cycle Time Selected Valuatrack Loaders Cycle Time Elements (minute Load: NA Wheel and Track Loader Material Stockpile Truck Ownership Operation Dump Target	e: Number vels: e vs. Job Condition within this Bass — Material Describing. S - Unadjusted Bass — Material 3/4° Conveyor or No adjustme — Constant ope — Nominal targ	on Rating: NA ic Rating: NA ription: NA asic Loader Cycle Ti to 6" diameter 0.00 dozer piled 10 ft. hig ent - factor not applicate a cration -0.04 get 0.00 Net Cycle Tir Adjusted Load	me (load, dump, 1 gh and up 0.00 able 0.00 me Adjustment: ler Cycle Time: Time per Truck:	Dump: 0.10 maneuver): Factor (min.) 0.000 0.000 -0.040 0.000 -0.040 0.485	00 Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	utes
Excavators and Front Shormal Machine Cycle Time Selected Valua Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Material Stockpile Truck Ownership Operation Dump Target Truck Cycle Time:	e: Number vels: e vs. Job Condition within this Base — Material Describing. S - Unadjusted Base — Material 3/4° — Conveyor or — No adjustme — Constant ope — Nominal targeme: 0.60	on Rating: NA ic Rating: NA ription: NA maneuver: NA asic Loader Cycle Ti to 6" diameter 0.00 dozer piled 10 ft. higher - factor not applicate a cration -0.04 get 0.00 Net Cycle Tir Adjusted Load Net Load T	me (load, dump, 1) gh and up 0.00 able 0.00 me Adjustment: ler Cycle Time: Time per Truck:	Dump: 0.10 maneuver): Factor (min.) 0.000 0.000 -0.040 0.000 -0.040 0.485 1.070	O0 Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	

<u>Truck Travel (Haul & Return) Time:</u> penetration 5.0

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

177.00

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	177.00	0.00	5.00	5.00	1427	0.247

Haul Time: 0.247 minutes Return Route: Travel Haul Distance Grade (%) Roll. Res Total Res Velocity Seg# Time (Ft) (%) (%) (fpm) (min)

5.00

0.00

Return Time: 0.226 minutes
Total Truck Cycle Time: 3.143 minutes

2646

0.226

Loading Tool unit

Production 663.95 LCY/Hour Adjusted for job efficiency: 551.08 LCY/Hour

5.00

Truck Unit Production

352.78 LCY/Hour Adjusted for job efficiency: 292.81 LCY/Hour

Optimal No. of Trucks: 2 Truck(s) Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 585.62 LCY/Hour Adjusted single truck/loader team production: 551.08 LCY/Hour Adjusted multiple truck/loader team production: 1,102.16 LCY/Hour

JOB TIME AND COST

Fleet size: _____ 2 ____ Team(s) Total job time: _____ 73.31 Hours

Unit cost: \$1.052 /LCY Total job cost: \$84,998

BULLDOZER WORK

Meeker Pit					
wieckei Fit		Permit Action:	AM-3	Permit/Job#:	M1976038
PROJECT IDEN	TIFICATION	J			
Task #: 02B		State: Colorado		Abbreviation:	None
Date: 12/1/20	023	County: Rio Blance	0	Filename:	M038-02b
User: ACY				-	
Agency or o	organization na	me: DRMS			
HOURLY EQUIF		_			
Basic Machine: _ Horsepower:	Cat D9T - 9SU 405	J	<u>—</u>		
Blade Type:	Semi-Universa	al			
Attachment:	NA				
Shift Basis: _ Data Source:	1 per day (CRG)		<u> </u>		
Cost Breakdown:	(CICO)				
			<u>Utilization %</u>		
Ownership Cost/Ho		\$238.76	NA		
Operating Cost/Ho		\$162.29	100		
Ripper own. Cost/Ho		\$0.00	NA		
Ripper op. Cost/Ho	-	\$0.00	0		
Operator Cost/Ho	our:	\$41.30	NA		
Total Fleet Cost/Hou MATERIAL QU A					
MATERIAL QUA					
MATERIAL QUA Initial Volume: _ Swell factor: _	ANTITIES 80,804				
MATERIAL QUA Initial Volume: _ Swell factor: _	80,804 1.000 80,804 LCY volume:	Transported vol gradi	ng- Rev Bond calc		
MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated	80,804 1.000 80,804 LCY volume:swell factor:		ng- Rev Bond calc		
MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated of the stimated	80,804 1.000 80,804 LCY volume: swell factor: UCTION ce:50	Cat Handbook) feet	ng- Rev Bond calc		
MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated source o	80,804 1.000 80,804 LCY volume: swell factor: UCTION ce:50 roduction:2,	Cat Handbook) feet 110.5 LCY/hr			
MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated of source of estimated of the stimated of the st	80,804 1.000 80,804 LCY volume: swell factor: UCTION ce: 50 roduction: 2,	Cat Handbook) feet			
MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated source o	80,804 1.000 80,804 LCY volume: swell factor: UCTION ce: 50 roduction: 2, y description: nt: 0 %	Cat Handbook) feet 110.5 LCY/hr Loose stockpile 1.2			
MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated of source of estimated of source of estimated of the standard of	80,804 1.000 80,804 LCY volume: swell factor: UCTION ce: 50 roduction: 2, y description: nt: 0 %	Cat Handbook O feet 110.5 LCY/hr Loose stockpile 1.2			
MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated of source of estimated of source of source of estimated of	80,804 1.000 80,804 LCY volume: swell factor: UCTION ce: 50 roduction: 2,550 lbs	Cat Handbook O feet 110.5 LCY/hr Loose stockpile 1.2			
MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated of source of estimated of source of estimated of the standard of	80,804 1.000 80,804 LCY volume: swell factor: UCTION ce:50 roduction:2, y description: nt:0 % :6,565 fec2,550 lbsEarth - E ction Factor	Cat Handbook O feet 110.5 LCY/hr Loose stockpile 1.2 et S/LCY Ory packed	Source		
MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated of source of estimated of source of estimated of the standard of	80,804 1.000 80,804 LCY volume: swell factor: UCTION ce:50 roduction:2, y description: nt:0 %2,550 lbsEarth - D ction Factor ator Skill:	Cat Handbook O feet 110.5 LCY/hr Loose stockpile 1.2 et S/LCY Ory packed 0.750	Source (AVG.)		
Initial Volume: Swell factor: Loose volume: Source of estimated of Source	80,804 1.000 80,804 LCY volume: swell factor: UCTION ce:50 roduction:2, y description: nt:0 %2,550 lbsEarth - D ction Factor ator Skill:	Cat Handbook O feet 110.5 LCY/hr Loose stockpile 1.2 et S/LCY Ory packed	Source		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5390

Adjusted unit production: 1,137.56 LCY/hr
Adjusted fleet production: 2275.12 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: \$0.389/LCY

Total job time: 35.52 Hours
Total job cost: \$31,421

MOTOR GRADER WORK

Task description:	Decompact Pit Floor			
: Meeker Pit	Permit Action	n: <u>AM-3</u>	Perm	it/Job#: <u>M1976038</u>
PROJECT IDENTIFIC	<u>CATION</u>			
Task #: 03A Date: 12/1/2023 User: ACY	State: Colorad County: Rio Bla		Abbrev File	name: None M038-03a
Agency or organi	ization name: <u>DRMS</u>			
HOURLY EQUIPMEN	NT COST			
Basic Machine: Ripper Attachment:	CAT 160M Multi-Shank Ripper		Horsepower:Shift Basis:Data Source:	213 1 per day (CRG)
Cost Breakdown:		1	T	
Owner	ship Cost/Hour:	\$102.08	Utilization % NA	
	ting Cost/Hour:	\$79.65	100	
Ripper Owner	ship Cost/Hour:		NA	
	ting Cost/Hour:ator Cost/Hour:	\$4.02 \$28.56	100 N A	
=	uor Cost/Hour: Unit Cost/Hour:	\$220.14	NA	
		220.14		
Total r	Fleet Cost/Hour: \$2	220.14		
MATERIAL QUANTI	TIES			
Total Area to	o be graded or ripped: 32.7	3		acres
Source	of estimated acreage: Rev	ised Bond calc		
HOURLY PRODUCT	<u>ION</u>			
	Average Grader Speed:	1.50	mph	10
	Selected Application: Selected Blade Angle:	Ripp -1	oing (0-3 mph) - 1.5 degrees	00
	Effective Blade Length:	0.00	feet	
	f blade overlap per pass:	2.00	feet	
	r ripping width per pass:	7.58	feet	
Unadjusted 1	Hourly Unit Production:	1.3782	acres/hour	
Job Condition Correction	Factors -	Site	e Altitude: <u>6565</u> fee	t
	Sour			
Altitude Adj:	1.00 (CAT			
Job Efficiency: Net Correction:	0.85 (1sh/d, 1 0.8500 multipl			
			~~	
	ljusted Hourly Unit Productio justed Hourly Fleet Productio		acres/Hour acres/Hour	
IOD TIME AND COS	Т			
JOB TIME AND COS	<u> </u>			
Fleet size: 1		Total job time:	27.94	Hours

TRUCK/LOADER TEAM WORK

Task description:	Transpo	ort Topsoil				
Site: Meeker Pit		Permit Ac	tion: AM-3		Permit/Job#: N	M1976038
PROJECT IDEN	TIFICATION					
Task #: 04A		State: Colo	orado	Ab	breviation: N	one
Date: 12/7/2		County: Rio	Blanco		Filename: M	1038-04a
User: $\frac{4:06:3}{ACY}$	30 PM					
Agency or	organization nar	ne: DRMS				
HOURLY EQUI	PMENT COST	Γ		Shift bas	is: 1 per day	
		_	Equipment Descri			
Т	Truck Loader Tea		at 730 AT 972H			
Supp	ort Equipment -L					
	-Dı	ımp Area: N	A			
Road M	aintenance –Mot	or Grader: N. ater Truck: N.				
	- vv a	tter Truck: N.	A			
Cost Breakdown:		ader Team		Equipment		nce Equipment
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	NA	NA	NA	NA
Ownership cost/hour:	\$108.06	\$57.78	NA	NA	NA	NA
Operating cost/hour:	\$71.88	\$56.23		NA	NA	
%Utilization-riper:	NA	0		NA	NA	
Ripper own. cost/hour:	NA NA	\$0.00		NA NA	NA NA	
Ripper op. cost/hour: Operator cost/hour:	NA \$32.54	\$0.00 \$40.71		NA NA	NA NA	
Unit Subtotals:	\$212.48	\$154.72		NA NA	NA NA	
Number of Units:	4	2		0	0	
Group Subtotals:	Work:	\$1,159.36	Support:	\$0.00	Maint:	
1			2.77	7 0 10 0		
Total work team cos	st/hour: \$1,159.	<u>36</u>				
MATERIAL QU	ANTITIES					
Initial volume		CC	V Swell	factor: 1.215		
Loose volume				1actor. 1.213		
So	urce of estimated	volume: 9"	over 27.35 ac -Rev	Bond Calc		
	of estimated swe		Handbook	Bona Care		
	Material Purch					
	То	otal Cost: \$0.	00			
HOURLY PRO	DUCTION					
Truck Capacity: Truck Payload (wei	ght) Basis:					
Material v	veight: 1,600		Pounds/LCY	-		
	iption: Top So		D 1			
Rated Pa	yload: <u>62,000</u>		Pounds			

=						
Payload Capacity:	38.75	LCY				
Truck Bed (volume) Basis: Struck Volume:	17.10	LCY				
Heaped Volume:		LCY				
Average Volume:		LCY				
Adjusted Volume:		LCY				
Final	l Truck Volume	Based on Number of	Loader Passes:	18.48	LCY	
Loading Tool Capacity						
Rated Capacity:	5.600	LCY (heaped)	Buck	ket Size Class:	NA	_
Bucket Fill Factor:	1.100	Other - rock/dirt	mixtures (100-	-120%) 1.100		_
Adjusted Capacity:	6.160	LCY	`	,		_
Job Condition Corrections	<u>:</u>	Site	e Altitude (ft.): <u>6</u>	5565 feet		
	Truck	Loader	Source			
Altitude Adj:	1.000	1.000	(CAT HB)		
Job Efficiency:	0.830	0.830	(CAT HB			
Net Correction:	0.830	0.830				
Loading Tool Cycle Time:	Numbe	r of Loading Tool Pass	ses Required to I	Fill Truck:	3	passes
			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			1
Excavators and Front Shove	els:					
Machine Cycle Time v	vs. Job Conditio					
Machine Cycle Time v Selected Value	vs. Job Conditio within this Basi	ic Rating: NA				
Machine Cycle Time v Selected Value Track Loaders –	vs. Job Conditio within this Basi Material Descr	ic Rating: NA				
Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.)	vs. Job Conditio within this Basi Material Descr	ic Rating: NA			00	
Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA	vs. Job Conditio within this Basi Material Descr :	ic Rating: NA ription: Maneuver: NA	o (lood, dump, p	·		utos
Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders	vs. Job Conditio within this Basi Material Descr :	ic Rating: NA ription: Maneuver: NA	e (load, dump, n	naneuver):	0.525 min	utes
Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors	vs. Job Conditio within this Basi Material Descr : M - Unadjusted Ba	ic Rating: NA ription: Maneuver: NA asic Loader Cycle Tim	e (load, dump, n	naneuver): Factor (min.)	0.525 min Source	utes
Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders – Cycle Time Factors Material:	vs. Job Conditio within this Basi Material Descr :	ic Rating: NA ription: NA Maneuver: NA asic Loader Cycle Tim to 6" diameter 0.00		naneuver): Factor (min.) 0.000	0.525 min Source (Cat HB)	utes
Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile:	ws. Job Condition within this Basic Material Describes: Multiple Material 3/4' Conveyor or	ic Rating: NA ription: NA Maneuver: NA asic Loader Cycle Tim to 6" diameter 0.00 dozer piled 10 ft. high	and up 0.00	naneuver): Factor (min.)	0.525 min Source	utes
Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders – Cycle Time Factors Material:	ws. Job Condition within this Basic Material Describes: Multiple Material 3/4' Conveyor or	ic Rating: NA ription: NA Maneuver: NA asic Loader Cycle Tim to 6" diameter 0.00 dozer piled 10 ft. high nt - factor not applicab	and up 0.00	naneuver):	0.525 min Source (Cat HB) (Cat HB)	utes
Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership:	ws. Job Condition within this Basis Material Describes: Musterial Describes: Musterial Material 3/4" Conveyor or No adjustments	Ic Rating: NA Iniption: Maneuver: NA Assic Loader Cycle Time To 6" diameter 0.00 dozer piled 10 ft. high nt - factor not applicable Tration -0.04	and up 0.00	Factor (min.) 0.000 0.000 0.000	0.525 min Source (Cat HB) (Cat HB) (Cat HB)	utes
Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	ys. Job Conditio within this Basi Material Descr :	ic Rating: NA ription: Maneuver: NA asic Loader Cycle Tim to 6" diameter 0.00 dozer piled 10 ft. high nt - factor not applicabe tration -0.04 get 0.00 Net Cycle Time	and up 0.00 le 0.00	Factor (min.) 0.000 0.000 0.000 -0.040 0.040	0.525 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	utes
Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	ys. Job Conditio within this Basi Material Descr :	Adjusted Loader L	and up 0.00 le 0.00 e Adjustment: Cycle Time:	Factor (min.) 0.000 0.000 0.000 -0.040 0.040 0.485	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	utes
Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	ys. Job Conditio within this Basi Material Descr :	Adjusted Loader L	and up 0.00 le 0.00	Factor (min.) 0.000 0.000 0.000 -0.040 0.040	0.525 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	utes
Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	ys. Job Conditio within this Basi Material Descr :	Adjusted Loader L	and up 0.00 le 0.00 e Adjustment: Cycle Time:	Factor (min.) 0.000 0.000 0.000 -0.040 0.040 0.485	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	utes
Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	within this Basis Material Describes: Musterial Describes: Musterial Describes: Musterial 3/4* Conveyor or No adjustment Constant ope Nominal targ	Adjusted Loader L	and up 0.00 le 0.00 e Adjustment: Cycle Time: ne per Truck:	Factor (min.) 0.000 0.000 0.000 -0.040 0.040 0.485	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	utes
Machine Cycle Time v Selected Value Track Loaders - Cycle Time Elements (min.) Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time:	ys. Job Condition within this Basis Material Describes:	Agic Rating: NA Maneuver: NA Masic Loader Cycle Time To 6" diameter 0.00 dozer piled 10 ft. high nt - factor not applicable ration -0.04 get 0.00 Net Cycle Time Adjusted Loade Net Load Time	and up 0.00 le 0.00 Adjustment: Cycle Time: ne per Truck: Adjusted	Factor (min.) 0.000 0.000 0.000 -0.040 0.000 -0.040 0.485 1.070	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	

<u>Truck Travel (Haul & Return) Time:</u> penetration 5.0

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	192.00	0.00	5.00	5.00	1427	0.257

Haul Time: 0.257 minutes

Return Route:

recturn re	rate.					
Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	192.00	0.00	5.00	5.00	2646	0.232

Return Time: 0.232 minutes
Total Truck Cycle Time: 3.159 minutes

Loading Tool unit

Production 663.95 LCY/Hour Adjusted for job efficiency: 551.08 LCY/Hour Truck Unit Production

351.00 LCY/Hour Adjusted for job efficiency: 291.33 LCY/Hour

Optimal No. of Trucks: 2 Truck(s) Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 582.66 LCY/Hour Adjusted single truck/loader team production: 551.08 LCY/Hour Adjusted multiple truck/loader team production: 1,102.16 LCY/Hour

JOB TIME AND COST

Fleet size: 2 Team(s) Total job time: 36.48 Hours

Unit cost: \$1.052 /LCY Total job cost: \$42,296

BULLDOZER WORK

PROJECT IDENTIFICATION Task #: 04B State: Colorado Date: 12/1/2023 County: Rio Blanco User: ACY Agency or organization name: DRMS HOURLY EQUIPMENT COST Basic Machine: Cat D9T - 9SU Horsepower: 405 Blade Type: Semi-Universal Attachment: NA Shift Basis: 1 per day Data Source: (CRG) Cost Breakdown: Utilization NA	Abbreviation: None Filename: M038-04b
Task #: 04B State: Colorado Date: 12/1/2023 County: Rio Blanco Weer: ACY Agency or organization name: DRMS HOURLY EQUIPMENT COST Basic Machine: Cat D9T - 9SU Horsepower: 405 Blade Type: Semi-Universal Attachment: NA Shift Basis: 1 per day Data Source: (CRG) Cost Breakdown: Utilization	
Date: 12/1/2023 County: Rio Blanco User: ACY Agency or organization name: DRMS HOURLY EQUIPMENT COST Basic Machine: Cat D9T - 9SU Horsepower: 405 Blade Type: Semi-Universal Attachment: NA Shift Basis: 1 per day Data Source: (CRG) Cost Breakdown:	
Date: 12/1/2023 County: Rio Blanco User: ACY Agency or organization name: DRMS HOURLY EQUIPMENT COST Basic Machine: Cat D9T - 9SU Horsepower: 405 Blade Type: Semi-Universal Attachment: NA Shift Basis: 1 per day Data Source: (CRG) Cost Breakdown:	
User: ACY Agency or organization name: DRMS HOURLY EQUIPMENT COST Basic Machine: Cat D9T - 9SU Horsepower: 405 Blade Type: Semi-Universal Attachment: NA Shift Basis: 1 per day Data Source: (CRG) Cost Breakdown:	
HOURLY EQUIPMENT COST Basic Machine: Cat D9T - 9SU Horsepower: 405 Blade Type: Semi-Universal Attachment: NA Shift Basis: 1 per day Data Source: (CRG) Cost Breakdown:	
Basic Machine: Cat D9T - 9SU Horsepower: 405 Blade Type: Semi-Universal Attachment: NA Shift Basis: 1 per day Data Source: (CRG) Cost Breakdown:	
Horsepower: 405 Blade Type: Semi-Universal Attachment: NA Shift Basis: 1 per day Data Source: (CRG) Cost Breakdown:	
Blade Type: Semi-Universal Attachment: NA Shift Basis: 1 per day Data Source: (CRG) Cost Breakdown:	
Attachment: NA Shift Basis: 1 per day Data Source: (CRG) Cost Breakdown: Utilization	
Shift Basis: 1 per day Data Source: (CRG) Cost Breakdown: Utilization	
Data Source: (CRG) Cost Breakdown: Utilization	
Cost Breakdown: Utilization	
<u>Utilization</u>	
Ownership Cost/Hour: \$238.76 NA	<u>%</u>
*	
Operating Cost/Hour: \$162.29 100	
Ripper own. Cost/Hour: \$0.00 NA	
Ripper op. Cost/Hour: \$0.00 0	
Operator Cost/Hour: \$41.30 NA	
MATERIAL QUANTITIES Initial Volume: 40,209 Swell factor: 1.000	
Loose volume: 40,209 LCY	
Source of estimated volume: Source of estimated swell factor: Transported vol grading- Rev bond calc Cat Handbook	
HOURLY PRODUCTION	
Average push distance: 50 feet	
Unadjusted hourly production: 2,110.5 LCY/hr	
Materials consistency description: Loose stockpile 1.2	
Average push gradient: 0 % Average site altitude: 6,565 feet	
Material weight: 1,600 lbs/LCY	
Weight description: Top Soil	
Job Condition Correction Factor Sour	
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
Operator Skill: 0.750 (AVC	
Operator Skill: 0.750 (AVC Material consistency: 1.200 (CAT) Dozing method: 1.000 (GEN	

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.8593

Adjusted unit production: 1,813.55 LCY/hr
Adjusted fleet production: 3627.1 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: \$0.244/LCY

Total job time: 11.09 Hours
Total job cost: \$9,808

REVEGETATION WORK

Task description:	Reveg Affected Lands	1				
Meeker Pit	Permit Action: AM-3 Permit/Job#:					: M1976038
PROJECT IDENTIFICA	ATION					
Task #:05AState:ColoradoAbbreviation:No. 1Date:12/1/2023County:Rio BlancoFilename:No. 1						None M038-05a
User: ACY						
Agency or organiza	ation name: DRMS					
FERTILIZING						
Materials						
Description		Units / Acre	Unit	Cost	t / Unit	Cost /Acre
				\$		\$
				Tota	al Fertilizer Materials Cost/Acre	\$0.00
application Description						Cost /Acre
Description						\$
						\$
		Total	Fertilizer A	pplication	n Cost/Acre	\$0.00
<u> TILLING</u>						
Description						Cost /Acre
Disc harrowing, 6" deep	(MEANS 32 91 13.23 6	100)				\$112.82
			To	otal Tilling	g Cost/Acre	\$112.82
SEEDING						
C 1M*				Rate –	Coods	Cost /A ama

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Big Bluegrass - Sherman	1.50	30.99	\$12.71
Indian Ricegrass - Paloma	1.05	3.40	\$11.68
Orchardgrass - Paiute	1.50	18.60	\$6.11
Mountain Brome - Bromar	1.50	2.41	\$5.70
Russian Wildrye - Vinal	2.25	9.04	\$13.91
Triticale	3.00	1.72	\$2.25
Sweetvetch, Utah or Northern	0.30	0.14	\$22.50
Sagebrush, Mountain or Big	0.30	15.84	\$5.93
Prairie Junegrass	0.75	39.87	\$19.50
Alfalfa - Travois (Yellow Alfalfa)	0.75	3.62	\$1.91

Bluebunch Wheatgrass - Goldar	2.10	6.75	\$9.66
Totals Seed Mix	15.00	132.36	\$111.86

Application

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

MULCHING and MISCELLANEOUS

Materials

	Units /			
Description	Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - 2,4D @ 1.0 pt/ac	1.00	ACRE	\$4.01	\$4.01
Straw, delivered {MEANS 31 25 14.16 1200}	1.50	TON	\$429.79	\$644.68
Total Mulch Materials Cost/Acre				\$648.69

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$74.46
Weed spray, truck, non-aquatic area, nox. [DMG]		\$62.72
	Total Mulch Application Cost/Acre	\$137.18

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres: 32.73

Cost /Acre: \$1,242.55 Cost /Acre*: \$1,242.55 Estimated Failure Rate: 30%

*Selected Replanting Work Items: TILLING,SEEDING,MULCHING

Initial Job Cost: **\$40,668.66**Reseeding Job Cost: **\$12,200.60** Total Job Cost: **\$52,869**

Job Hours: **50.00**

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description:	nitiai Modilizatior	i of Equipment			
ite: Meeker Pit	Permi	t Action: AM-3		Permit/Job	p#: <u>M1976038</u>
PROJECT IDENTIFICA	<u>TION</u>				
Task #: 10A Date: 12/1/2023 User: ACY		Colorado Rio Blanco		eviation: ilename:	None M038-10a
Agency or organizat	ion name: DRM	S			
EQUIPMENT TRANSPO	ORT RIG COST				
			Shift ba Cost Data Sou		l per day CRG Data
Truck Tractor De	escription: GEN		AY TRUCK TRACTO 400 HP (2ND HALF,		DIESEL POWERED,
Truck Trailer De	escription:		IG GOOSENECK, DI AILER (25T, 50T, Al		K EQUIPMENT
Cost Breakdown:					
Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons		
Ownership Cost/Hour		\$36.04	\$47.05		
Operating Cost/Hour		\$76.08	\$82.85		
Operator Cost/Hour	: \$22.52	\$22.52	\$22.52		
Helper Cost/Hour	: \$0.00	\$23.53	\$23.53		

NON ROADABLE EQUIPMENT:

Total Unit Cost/Hour:

\$82.29

Machine	Weight/	Owner ship	Haul Rig	Fleet	Haul Trip	Return Trip	DOT Permit
Description	Unit	Cost/hr/ unit	Cost/hr/uni	Size	Cost/hr/	Cost/hr/ fleet	Cost/ fleet
_	(TONS)		t		fleet		
Cat 730	25.19	\$108.06	\$82.29	4	\$761.40	\$329.16	\$1,000.00
CAT 160M	17.53	\$107.91	\$82.29	1	\$190.20	\$82.29	\$500.00
CAT 972H	28.00	\$57.78	\$158.17	2	\$431.90	\$316.34	\$500.00
Cat D9T - 9SU	60.01	\$238.76	\$175.95	2	\$829.42	\$351.90	\$500.00
Drill/Broadcast	25.00	\$6.73	\$82.29	1	\$89.02	\$82.29	\$250.00
Seeder with							
Tractor							

\$158.17

\$175.95

Subtotals: **\$2,301.94** \$1,161.98 \$2,750.00

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	\$91.58	1	\$91.58	\$91.58
Light Duty Pickup, 4x4, 3/4 T.	\$43.51	4	\$174.04	\$174.04

Subtotals:	\$265.62	\$265.62
Subjolats.	m2U3.U2	D4U5.U4

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:

Total one-way travel distance:

Average Travel Speed:

MEEKER

4.00 miles

30.00 mph

Transportation Cycle Time:

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

JOB TIME AND COST

Total job time:	2.53	Hours
Total job cost:	\$11.098	

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task descrip	tion: S	Secondary Mob	ilization of E	quipment	t		
te: Meeker P	it	Pe	rmit Action:	AM-3		Permit/Jol	o#: <u>M1976038</u>
PROJECT I	DENTIFICA	TION					
Task #: _ Date: _ User: _	10B 12/1/2023 ACY	State: County:	Colorado Rio Blanco)	A	Abbreviation: Filename:	None M038-10b
Age	ncy or organizat	ion name: Dl	RMS				
EQUIPMEN	NT TRANSPO	ORT RIG COS	<u>ST</u>		Shi Cost Data		1 per day CRG Data
Т	Truck Tractor De	escription: G	ENERIC ON-		AY TRUCK TRA 400 HP (2ND H <i>A</i>		DIESEL POWERED,
·	Fruck Trailer De	escription:				K EQUIPMENT	
Cost Breakdov	wn:						
Available R	ig Capacities	0-25 Tons	26-50	Tons	51+ Tons	_	
	rship Cost/Hour		\$36	5.04	\$47.05	_	
Oper	ating Cost/Hour	: \$39.51	\$7 <i>6</i>	5.08	\$82.85	_	
Ope	rator Cost/Hour	: \$22.52	\$22	2.52	\$22.52	_	
H	elper Cost/Hour	: \$0.00	\$23	3.53	\$23.53	_	
Total	Unit Cost/Hour	: \$82.29	\$15	8.17	\$175.95		

NON ROADABLE EQUIPMENT:

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

Subtotals: \$89.02 \$82.29 \$250.00

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	\$91.58	1	\$91.58	\$91.58
Light Duty Pickup, 4x4, 3/4 T.	\$43.51	2	\$87.02	\$87.02

Subtotals: \$178.60 \$178.60

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region: MEEKER

Total one-way travel distance: 4.00 miles

Average Travel Speed: 30.00 mph

Total Non-Roadable Mob/Demob Cost *
 '* two round trips with haul rig:
 Total Roadable Mob/Demob Cost **
 ** one round trip, no haul rig:

\$47.63

Transportation Cycle Time:

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

JOB TIME AND COST

Total job time:	2.53	Hours
Total job cost:	\$771	