

September 21, 2022

Richard Bower Bower Brothers Construction, Inc. 595 Taylor St. Craig, CO 81625

#### Re: Hertzog Pit (Permit No. M-1981-276) Amendment No. 1 (AM-01) Second Adequacy Review

Dear Mr. Bower:

After reviewing adequacy responses for AM-01 from Bower Brothers Construction, Inc., for the Hertzog Pit (Hertzog) the Division has the following comments:

Items 1 - 11 from the Division's adequacy letter dated August 4, 2022 have been resolved. No additional comments necessary.

#### Rule 6.14.12 – Reclamation Costs

12. Division: The Division has reviewed proposed Exhibit L for AM-01. After the review, it appears the proposed reclamation cost estimate provided was the original cost estimate for the Lay Creek Pit (formally Taylor Pit, M-2013-006). The tasks provided doesn't appear to include the tasks associated with the Hertzog Pit as well as the additional 5 acres of affected area proposed with AM-01 associated with the Lay Creek Pit. Please update proposed Exhibit L to include the reclamation tasks and costs associated with the Hertzog Pit as well as additional 5 acres of affected proposed under AM-01.

As requested with the Division's August 4, 2022, tasks and costs associated with both the Lay Creek and Hertzog Pits have been provided. The total cost for both pits as provided total to \$44,682.00. The Division has conducted a reclamation cost estimate (RCE) of the proposed changes to the Hertzog Mine. The Division's RCE estimates the costs associated with the Hertzog Pit should the work be performed by the Division. The total value of this RCE is **\$67,681.00** (see attached). This amount is \$22,999.00 more than the provided estimate under Hertzog Exhibit L. It should be noted that the Division currently holds two performance bonds for a total amount of \$52,054.00 which is less than the Division's RCE associated with the Hertzog AM-01. The Division respectfully requests a response from Bower Brothers Construction Inc. with any questions regarding the cost estimate or an acceptance of the Division's estimate.



If you have any questions, feel free to contact me.

Sincerely,

30-56

Zach Trujillo Environmental Protection Specialist (303) 866-3567 ext. 8164 Zach.Trujillo@state.co.us

# COST SUMMARY WORK

Task description:	Reclaim Hertzog	g Mine			
Site: Hertzog Pit	Per	rmit Action: <u>AM01</u>	Permit/Job	o#: <u>M1981276</u>	
PROJECT IDENTIFIC Task #: _000	CATION State:	Colorado	Abbreviation:	None	
Date: <u>8/3/2022</u> User: <u>ZTT</u>	County:	Moffat	Filename:	M276-000	

Agency or organization name: DRMS

# TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Transport Overburden - Lay Creek Pit	LOADER	2	15.99	\$4,252
002	Grade Overburden - Lay Creek Pit	DOZER	2	5.99	\$4,176
003	Transport Topsoil - Lay Creek Pit	LOADER	2	8.39	\$2,233
004	Grade Topsoil - Lay Creek Pit	DOZER	2	1.97	\$1,375
005	Revegetate Lay Creek Pit Area	REVEGE	1	7.50	\$8,691
006	Transport Overburden - Hertzog Pit	LOADER	2	18.39	\$4,890
007	Grade Overburden - Hertzog Pit	DOZER	2	6.89	\$4,802
008	Transport Topsoil - Hertzog Pit	LOADER	2	10.29	\$2,737
009	Grade Topsoil - Hertzog Pit	DOZER	2	2.42	\$1,686
010	Revegetate Hertzog Pit Area	REVEGE	1	7.50	\$8,691
011	Mobilization reclamation crew/equipment	MOBILIZE	1	4.40	\$5,035
		<u>SUBT(</u>	)TALS:	89.73	\$48,568

## **INDIRECT COSTS**

## OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	\$981
Performance bond:	1.05	Total =	\$510
Job superintendent:	87.54	Total =	\$6,577
Profit:	10.00	Total =	\$4,857
		TOTAL O & P =	\$12,925
		CONTRACT AMOUNT (direct + $O \& P$ ) =	\$61,493

#### LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	\$500	Total =	\$500
Engineering work and/or contract/bid preparation:	4.25	Total =	\$2,613
Reclamation management and/or administration:	5.00		\$3,075
		-	
CONTINGENCY:	0.00	Total =	\$0
	TOTAL IN	DIRECT COST =	\$19,113
TOTAL BO	ND AMOUNT (di	irect + indirect) =	\$67,681

Task description:	Transport Overl	ourden - La	y Creek Pit				
: Hertzog Pit	Per	mit Action:	AM01		Permit/.	Job#:	M1981276
PROJECT IDENTIFIC	ATION						
Task #: 001	State:	Colorado			Abbreviati	on	None
Date: $9/21/2022$	County:	Moffat			Filena		M276-001
User: ZTT	County.	Wollar			Thend	<u> </u>	11270 001
Agency or organiz	ation name:	RMS					
HOURLY EQUIPMEN	T COST						
Basic Machine: C	AT 966H			Horsep	ower:	2	262
	OPS Cab			Shift			er day
				Data So		-	(RG)
						,	
Cost Breakdown:		1	Utilizatio	n %			
Ownership Cost/Ho	ur: \$49.1	15	NA	1 /0			
Operating Cost/Ho			100				
Operator Cost/Ho			NA				
Total Unit Cost/Ho							
Total Fleet Cost/Ho	our: \$265	.79					
Initial volume:8,00 Loose volume:	00 <b>8,000</b>	CCY LCY	Swe	Il factor: 1	.000	-	
Source of e	estimated volume:	Exh. L					
Source of estin	nated swell factor:	Cat Hand	dbook				
HOURLY PRODUCTION	<u>ON</u>						
Loader Cycle Time:	Unadjusted Basic	Cycle Time	(load, dump	, maneuver):	0.50	0	minutes
Cycle Time Factors					Factor (min	.)	Source
Material:	Material 3/4" to	o 6" diamete	er 0.00		0.000		(Cat HB)
Stockpile:	Conveyor or do				0.010		(Cat HB)
Truck Ownership:	Common owne		cks and load	ers -0.04	-0.040		(Cat HB)
Operation:	Constant opera				-0.040		(Cat HB)
Dump Target:	Nominal target				0.000		(Cat HB)
		•	cle Time Ac	-	-0.070		minutes
		Adjust	ted Basic Cy	cle Time:	0.430		minutes
Rolling Resistance – Road C	Conditions						
Haul:	Soft, rutted dirt, r	o maintenai	nce or water	4" tire penet	ration 8.0		
Return:	Soft, rutted dirt, r					· · · · · · · · · · · · · · · · · · ·	
Haul and Return Time							
L	ength Grade	Res.	Rolling	Total Res.	Travel Ti	me	C arrest
	feet) (%		Res. (%)	(%)	(minutes		Source

Haul Route:

Return Route:

300

300

0.00

0.00

8.00

8.00

8.00

8.00

(Cat HB)

(Cat HB)

0.3457

0.3199

			Total Travel Tin		minutes
			Total Cycle Ti	me: <b>1.0955</b>	minutes
Load Bucket Capacity					
Rated Capaci	ty: 5.00	LCY (heape	ed)		
Bucket Fill Facto	or: 1.100	Other - rock	/dirt mixtures	(100-120%) 1.100	
Adjusted Capaci	ty: <b>5.50</b>	LCY			
Job Condition Correction Site Altitude: <u>6000</u> feet	n Factors				
		Source			
Altitude Adj:	1.00	(CAT HB)			
Job Efficiency:	0.83	(1 shift/day)			
Net Correction:	0.83	multiplier			
	nadjusted Hourly Uni		301.22	LCY/Hour	
	Adjusted Hourly Uni	it Production:	250.01	LCY/Hour	
1	Adjusted Hourly Flee	et Production:	500.03	LCY/Hour	
JOB TIME AND CO	<u>)ST</u>				
Fleet size:	2 Loader(s	s) 7	Total job time:	16.00	Hours

Unit cost:         \$0.532         /LCY         Total job cost:         \$4,252	Unit cost:	\$0.532	/LCY	Total job cost:	\$4,252
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Task description:	Grade	Overburden - Lay C	reek Pit		
: Hertzog Pit		Permit Action:	AM01	Permit/Job#:	M1981276
PROJECT IDE	NTIFICATIO	<u>N</u>			
Task #: 002		State: Colorado		Abbreviation:	None
	/2022	County: Moffat		Filename:	M276-002
User: ZTT				-	
Agency o	r organization na	me: DRMS			
HOURLY EQU	IPMENT COS	<u>ST</u>			
Basic Machine:	Cat D9T - 9S	U			
Horsepower:	405				
Blade Type: Attachment:	Semi-Univers				
Shift Basis:	3-shank rippe	ſ			
Data Source:	1 per day (CRG)				
Cost Breakdown:			1		
			Utilization %		
Ownership Cost/I		\$146.30	NA		
Operating Cost/I		\$141.41	100		
Ripper own. Cost/I		\$17.01	NA		
Ripper op. Cost/I		\$2.66	30		
Operator Cost/I	Hour:	\$41.30	NA		
-					
Total unit Cost/Ho	ur: \$348.68				
Total unit Cost/Ho Total Fleet Cost/Ho MATERIAL OI	our: <b>\$697.35</b>				
	our: <b>\$697.35</b>				
Total Fleet Cost/Ho MATERIAL QU Initial Volume:	our: <b>\$697.35</b> J <b>ANTITIES</b> 8,000				
Total Fleet Cost/He MATERIAL QU Initial Volume: Swell factor: Loose volume:	\$697.35           JANTITIES           8,000           1.000           8,000 LCY				
Total Fleet Cost/He MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated	\$697.35         JANTITIES         8,000         1.000         8,000 LCY         d volume:	Exhibit L			
Total Fleet Cost/He MATERIAL QU Initial Volume: Swell factor: Loose volume:	\$697.35         JANTITIES         8,000         1.000         8,000 LCY         d volume:				
Total Fleet Cost/He MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated	our:       \$697.35         JANTITIES       8,000         1.000       8,000 LCY         d volume:	Exhibit L			
Total Fleet Cost/He MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PRO	bur:       \$697.35         JANTITIES       8,000         1.000       8,000 LCY         d volume:	Exhibit L Cat Handbook			
Total Fleet Cost/He MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PRO Average push dista	our:       \$697.35         JANTITIES       8,000         1.000       8,000 LCY         d volume:       4 swell factor:         DUCTION       1.000	Exhibit L Cat Handbook 00 feet			
Total Fleet Cost/He MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PRO	our:       \$697.35         JANTITIES       8,000         1.000       8,000 LCY         d volume:       4 swell factor:         DUCTION       1.000	Exhibit L Cat Handbook			
Total Fleet Cost/He MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PRO Average push dista	our:       \$697.35         JANTITIES       8,000         1.000       8,000 LCY         d volume:       4 swell factor:         DUCTION       1         production:       1	Exhibit L Cat Handbook	  mbankment 0.9		
Total Fleet Cost/He MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PRO Average push dista Unadjusted hourly Materials consister	our:       \$697.35         JANTITIES       8,000         1.000       8,000 LCY         d volume:	Exhibit L Cat Handbook 00 feet ,243.2 LCY/hr	  mbankment 0.9		
Total Fleet Cost/He MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PRO Average push dista Unadjusted hourly	our:       \$697.35         JANTITIES       8,000         1.000       8,000 LCY         d volume:          d swell factor:          DUCTION          nnce:          production:          ncy description:          ient:	Exhibit L Cat Handbook 00 feet ,243.2 LCY/hr Compacted fill or e	   mbankment 0.9		
Total Fleet Cost/He MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PRO Average push dista Unadjusted hourly Materials consister Average push grad	our:       \$697.35         JANTITIES       8,000         1.000       8,000 LCY         d volume:          d swell factor:          DUCTION          nnce:          production:          ncy description:          ient:	Exhibit L Cat Handbook 00 feet ,243.2 LCY/hr Compacted fill or e	  mbankment 0.9		
Total Fleet Cost/He MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PRO Average push dista Unadjusted hourly Materials consister Average push grad Average site altitud	our:       \$697.35         JANTITIES       8,000         1.000       8,000 LCY         d volume:	Exhibit L Cat Handbook 00 feet ,243.2 LCY/hr Compacted fill or e	  mbankment 0.9		
Total Fleet Cost/He MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated MURLY PRO Average push dista Unadjusted hourly Materials consister Average push grad Average site altitud Material weight: Weight description	our:       \$697.35         JANTITIES       8,000         1.000       8,000 LCY         d volume:	Exhibit L Cat Handbook 00 feet ,243.2 LCY/hr Compacted fill or e eet	  mbankment 0.9		
Total Fleet Cost/He MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated MURLY PRO Average push dista Unadjusted hourly Materials consister Average push grad Average site altitud Material weight: Weight description	our:       \$697.35         JANTITIES       8,000         1.000       8,000 LCY         d volume:	Exhibit L Cat Handbook 00 feet ,243.2 LCY/hr Compacted fill or e eet			
Total Fleet Cost/He MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated Muterials consister Average push dista Unadjusted hourly Materials consister Average push grad Average site altitud Material weight: Weight description Job Condition Corr Opt	our:       \$697.35         JANTITIES       8,000         1.000       8,000 LCY         d volume:	Exhibit L Cat Handbook 00 feet ,243.2 LCY/hr Compacted fill or e set ss/LCY Dry packed	Source		
Total Fleet Cost/He MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated Muterials consister Average push dista Unadjusted hourly Materials consister Average push grad Average site altitud Material weight: Weight description Job Condition Corr Op Material c	our:       \$697.35         JANTITIES       8,000         1.000       8,000 LCY         d volume:	Exhibit L Cat Handbook 00 feet ,243.2 LCY/hr Compacted fill or e set os/LCY Dry packed 0.750	Source (AVG.)		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	1.329	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.5373	
Adjusted unit production: 66	57.97 LCY/hr	
Adjusted fleet production: 13	335.94 LCY/hr	

Fleet size:	2 Dozer(s)
Unit cost:	\$0.522/LCY

Total job time:	<b>5.99</b> Hours
Total job cost:	\$4,176

				eek Pit				
Hertzog Pit		Peri	mit Action:	AM01			Permit/Job#:	M1981276
PROJECT IDEN	TIFICATI	ON						
Task #: 003		State:	Colorado			Ah	breviation:	None
Date: $9/21/2$	022	County:	Moffat				Filename:	M276-003
User: ZTT								
Agency or	organization	name: DR	MS					
HOURLY EQUI	PMENT CO	<u>OST</u>						
Basic Machir	e: CAT 9	66H			Н	orsepower:		262
Attachment						Shift Basis:	-	er day
					D	ata Source:	(0	CRG)
Cost Breakdown:								
				Utilizatio	on %			
Ownership C		\$49.1		NA				
Operating C		\$43.0		100				
Operator C		\$40.7		NA				
Total Unit C	Cost/Hour:	\$132.	90					
Total Fleet	Cost/Hour:	\$265	.79					
	rce of estim	ated volume: swell factor:	LCY Exh. L Cat Hand	dbook				
				ubook				
HOURLY PROD								
HOURLY PROD	Unac	ljusted Basic			p, maneu		0.500	minutes
HOURLY PROD Loader Cycle Time: Cycle Time I	Unac Factors	•	Cycle Time	e (load, dum	p, maneu	Fact	tor (min.)	Source
HOURLY PROD Loader Cycle Time: Cycle Time I M	Unac Factors aterial: M	aterial 3/4" to	Cycle Time	e (load, dum er 0.00		Fact	tor (min.) 0.000	Source (Cat HB)
HOURLY PROD Loader Cycle Time: Cycle Time I M Sto	Unac Factors aterial: M ckpile: Co	aterial 3/4" to	Cycle Time 6" diamete zer piled 10	e (load, dum er 0.00 ) ft. high or	less 0.01	Fact	tor (min.) 0.000 0.010	Source (Cat HB) (Cat HB)
HOURLY PROD Loader Cycle Time: Cycle Time I M Sto Truck Own	Unac Factors aterial: M ckpile: Co ership: Co	aterial 3/4" to onveyor or do ommon owne	Cycle Time o 6" diamete zer piled 10 rship of true	e (load, dum er 0.00 ) ft. high or	less 0.01	Fact	tor (min.) 0.000 0.010 0.040	Source (Cat HB) (Cat HB) (Cat HB)
HOURLY PROD Loader Cycle Time: Cycle Time I M Sto Truck Own Ope	Unac Factors aterial: M ckpile: Co ership: Co eration: Co	aterial 3/4" to onveyor or do ommon owne onstant operation	Cycle Time o 6" diamete zer piled 10 rship of true ion -0.04	e (load, dum er 0.00 ) ft. high or	less 0.01	Fact	tor (min.) 0.000 0.010 0.040 0.040	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)
HOURLY PROD Loader Cycle Time: Cycle Time I M Sto Truck Own	Unac Factors aterial: M ckpile: Co ership: Co eration: Co	aterial 3/4" to onveyor or do ommon owne	Cycle Time o 6" diamete zer piled 10 rship of true ion -0.04 0.00	e (load, dum er 0.00 ) ft. high or cks and loac	less 0.01 lers -0.04	Fact	tor (min.) 0.000 0.010 0.040 0.040 0.040 0.000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)
HOURLY PROD Loader Cycle Time: Cycle Time I M Sto Truck Own Ope	Unac Factors aterial: M ckpile: Co ership: Co eration: Co	aterial 3/4" to onveyor or do ommon owne onstant operation	Cycle Time o 6" diamete zer piled 10 rship of truc ion -0.04 0.00 Net Cy	e (load, dum er 0.00 ) ft. high or cks and load	less 0.01 lers -0.04 djustmen	Fact	tor (min.) 0.000 0.010 0.040 0.040	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)
HOURLY PROD Loader Cycle Time: Cycle Time I M Sto Truck Own Ope Dump	Unac Factors aterial: M ckpile: Co ership: Co ration: Co Target: No	aterial 3/4" to onveyor or do ommon owne onstant operatorial ominal target	Cycle Time o 6" diamete zer piled 10 rship of truc ion -0.04 0.00 Net Cy	e (load, dum er 0.00 ) ft. high or cks and loac	less 0.01 lers -0.04 djustmen	Fact	tor (min.) 0.000 0.010 0.040 0.040 0.000 0.000 0.070	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes
HOURLY PROD Loader Cycle Time: Cycle Time I M Sto Truck Own Ope Dump '	Unac Factors aterial: M ckpile: Co ership: Co ration: Co Target: No Road Condi	aterial 3/4" to onveyor or do ommon owne onstant operat ominal target	Cycle Time o 6" diamete zer piled 10 rship of true ion -0.04 0.00 Net Cy Adjust	e (load, dum er 0.00 ) ft. high or cks and load rcle Time A ted Basic C	less 0.01 lers -0.04 djustmen ycle Time	Fact	tor (min.) 0.000 0.010 0.040 0.040 0.000 0.000 0.070 0.430	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes
HOURLY PROD Loader Cycle Time: Cycle Time I M Sto Truck Own Ope Dump ' Rolling Resistance –	Unac Factors a aterial: M ckpile: Co ership: Co oration: Co Target: No Road Condi Haul: Soft	aterial 3/4" to onveyor or do ommon owne onstant operat ominal target itions , rutted dirt, n	Cycle Time o 6" diamete zer piled 10 rship of true ion -0.04 0.00 Net Cy Adjust	e (load, dum er 0.00 ) ft. high or cks and load rcle Time A ted Basic C nce or water	less 0.01 lers -0.04 djustmen ycle Time	Fact	tor (min.) 0.000 0.010 0.040 0.040 0.000 0.070 0.430 8.0	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes
HOURLY PROD Loader Cycle Time: Cycle Time I M Sto Truck Own Ope Dump ' Rolling Resistance –	Factors       Unac         Factors       M         aterial:       M         ckpile:       Co         ership:       Co         ership:       Co         tration:       Co         Target:       No         Road Condi         Haul:       Soft	aterial 3/4" to onveyor or do ommon owne onstant operat ominal target	Cycle Time o 6" diamete zer piled 10 rship of true ion -0.04 0.00 Net Cy Adjust	e (load, dum er 0.00 ) ft. high or cks and load rcle Time A ted Basic C nce or water	less 0.01 lers -0.04 djustmen ycle Time	Fact	tor (min.) 0.000 0.010 0.040 0.040 0.000 0.070 0.430 8.0	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes
HOURLY PROD Loader Cycle Time: Cycle Time I M Sto Truck Own Ope Dump ' Rolling Resistance –	Unac Factors   aterial: M ckpile: Co ership: Co ration: Co Target: No Road Condi Haul: Soft turn: Soft	aterial 3/4" to onveyor or do ommon owne onstant operat ominal target itions , rutted dirt, n	Cycle Time o 6" diamete zer piled 10 rship of true ion -0.04 0.00 Net Cy Adjust	e (load, dum er 0.00 ) ft. high or cks and load rcle Time A ted Basic C nce or water	less 0.01 lers -0.04 djustmen ycle Time	Fact	tor (min.) 0.000 0.010 0.040 0.040 0.000 0.070 0.430 8.0	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes
HOURLY PROD Loader Cycle Time: Cycle Time I M Sto Truck Own Ope Dump ' Rolling Resistance – H Re	Unac Factors   aterial: M ckpile: Ca ership: Ca rration: Ca raget: Na Road Condi Haul: Soft turn: Soft ne	aterial 3/4" to onveyor or do ommon owne onstant operat ominal target itions , rutted dirt, n , rutted dirt, n	Cycle Time o 6" diamete zer piled 10 rship of true ion -0.04 0.00 Net Cy Adjust o maintenan	e (load, dum er 0.00 ) ft. high or cks and load rcle Time A ted Basic C nce or water nce or water	less 0.01 lers -0.04 djustmen ycle Time r, 4" tire j	Fact Fact re:	tor (min.) 0.000 0.010 0.040 0.040 0.000 0.070 0.430 8.0 8.0	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes
HOURLY PROD Loader Cycle Time: Cycle Time I M Sto Truck Own Ope Dump ' Rolling Resistance – H Re	Unac Factors   aterial: M ckpile: Co ership: Co ration: Co Target: No Road Condi Haul: Soft turn: Soft	aterial 3/4" to onveyor or do ommon owne onstant operat ominal target itions , rutted dirt, n , rutted dirt, n	Cycle Time o 6" diamete zer piled 10 rship of true ion -0.04 0.00 Net Cy Adjust o maintenan o maintenan o maintenan	e (load, dum er 0.00 ) ft. high or cks and load rcle Time A ted Basic C nce or water	less 0.01 lers -0.04 djustmen ycle Time	Fact Fact Fact Fact Fact Fact Fact Fact	tor (min.) 0.000 0.010 0.040 0.040 0.000 0.070 0.430 8.0	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes

Return Route:

300

0.00

8.00

8.00

0.3199

(Cat HB)

			Total Travel T Total Cycle T		minutes minutes
Load Bucket Capacity					
Rated Capacity	y:5.00	LCY (hea	ped)		
Bucket Fill Factor	r: 1.100	Other - ro	ck/dirt mixtures	(100-120%) 1.100	
Adjusted Capacity	y: <u>5.50</u>	LCY			
Job Condition Correction Site Altitude: <u>6000</u> feet	<u>i Factors</u>				
		Source			
Altitude Adj:	1.00	(CAT HB	5)		
Job Efficiency:	0.83	(1 shift/da	y)		
Net Correction:	0.83	multiplier			
Una	adjusted Hourly Un	it Production:	301.22	LCY/Hour	
A	djusted Hourly Un	it Production:	250.01	LCY/Hour	
А	djusted Hourly Flee	et Production:	500.03	LCY/Hour	
JOB TIME AND CO					
Fleet size:	2 Loader(s	5)	Total job time:	8.40	Hours

Unit cost:	\$0.532	/LCY	Total job cost:	\$2,233

Task description:	Gradelo	opsoil - Lay Creek P			
Hertzog Pit		Permit Action:	AM01	Permit/Job#:	M1981276
PROJECT IDENI	<b>TIFICATION</b>				
Task #: 004		State: Colorado		Abbreviation:	None
Date: $9/21/20$	22 0	County: Moffat		Filename:	M276-004
User: ZTT					
Agency or o	organization nam	e: DRMS			
HOURLY EQUIP	MENT COST	-			
	Cat D9T - 9SU				
Horsepower:	405				
Blade Type:	Semi-Universal				
Attachment:	3-shank ripper				
Shift Basis:	1 per day				
Data Source:	(CRG)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Ho	ur:	\$146.30	NA		
Operating Cost/Ho		\$141.41	100		
Ripper own. Cost/Ho		\$17.01	NA		
Ripper op. Cost/Ho		\$2.66	30		
Total Fleet Cost/Hour	\$348.68 <b>\$697.35</b>	\$41.30	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour MATERIAL QUA Initial Volume:	\$348.68 s697.35 <b>NTITIES</b> 4,200	541.30	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour MATERIAL QUA Initial Volume: Swell factor:	\$348.68 r: <b>\$697.35</b>		NA		
Total unit Cost/Hour: Total Fleet Cost/Hour MATERIAL QUA Initial Volume: Swell factor: Loose volume:	\$348.68 \$697.35 <b>NTITIES</b> 4,200 1.000 <b>4,200</b> LCY		NA		
Total unit Cost/Hour: Total Fleet Cost/Hour MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated v	\$348.68 \$697.35 <b>NTITIES</b> 4,200 1.000 4,200 LCY rolume:E	Exhibit L	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour MATERIAL QUA Initial Volume: Swell factor: Loose volume:	\$348.68 \$697.35 <b>NTITIES</b> 4,200 1.000 4,200 LCY rolume:E		NA		
Total unit Cost/Hour: Total Fleet Cost/Hour MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated v Source of estimated s	\$348.68         \$697.35         NTITIES         4,200         1.000         4,200 LCY         rolume:       E         well factor:       C	Exhibit L	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated v Source of estimated s HOURLY PRODU	\$348.68         \$697.35         NTITIES         4,200         1.000         4,200 LCY         rolume:       E         well factor:       C         UCTION	Exhibit L Cat Handbook	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated v Source of estimated s HOURLY PRODU	\$348.68         \$697.35         NTITIES         4,200         1.000         4,200 LCY         rolume:          well factor:          UCTION         e:      100	Exhibit L Cat Handbook	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated v Source of estimated s	\$348.68         \$697.35         NTITIES         4,200         1.000         4,200 LCY         rolume:          well factor:          UCTION         e:      100	Exhibit L Cat Handbook	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated v Source of estimated s HOURLY PRODU	\$348.68         \$697.35         NTITIES         4,200         1.000         4,200 LCY         rolume:       E         well factor:       C         UCTION         e:       100         oduction:       1,20	Exhibit L Cat Handbook			
Total unit Cost/Hour: Total Fleet Cost/Hour MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated v Source of estimated v Source of estimated s HOURLY PRODU Average push distanc Unadjusted hourly pro Materials consistency	\$348.68         \$697.35         NTITIES         4,200         1.000         4,200 LCY         rolume:       E         well factor:       C         UCTION         e:       100         oduction:       1,2         r description:       1         nt:       -15 %	Exhibit L Cat Handbook ) feet 43.2 LCY/hr Compacted fill or en			
Total unit Cost/Hour: Total Fleet Cost/Hour MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated v Source of estimated v Source of estimated s HOURLY PRODU Average push distanc Unadjusted hourly pro- Materials consistency	\$348.68         \$697.35         NTITIES         4,200         1.000         4,200 LCY         rolume:       E         well factor:       C         UCTION         e:       100         oduction:       1,2         r description:       1         nt:       -15 %	Exhibit L Cat Handbook ) feet 43.2 LCY/hr Compacted fill or en			
Total unit Cost/Hour: Total Fleet Cost/Hour MATERIAL QUA Initial Volume: 4 Swell factor: 1 Loose volume: 4 Source of estimated v Source of estimated v Source of estimated s HOURLY PRODU Average push distanc Unadjusted hourly pro Materials consistency Average push gradier Average site altitude:	\$348.68         \$697.35         NTITIES         4,200         1.000         4,200 LCY         rolume:       E         well factor:       C         UCTION         e:       100         oduction:       1,2         r description:       1         nt:       -15 %	Exhibit L Cat Handbook ) feet 43.2 LCY/hr Compacted fill or en			
Total unit Cost/Hour: Total Fleet Cost/Hour MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated v Source of estimated v Source of estimated s HOURLY PRODU Average push distanc Unadjusted hourly pro Materials consistency Average push gradien Average site altitude: Material weight:	\$348.68         \$697.35         NTITIES $4,200$ $1.000$ $4,200$ LCY         rolume:       E         well factor:       C         UCTION         e:       100         oduction:       1,2         v description:       -         nt:       -15 %         6,000 feet	Exhibit L Cat Handbook ) feet 43.2 LCY/hr Compacted fill or en			
Total unit Cost/Hour: Total Fleet Cost/Hour MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated v Source of estimated v Source of estimated s HOURLY PRODU Average push distanc Unadjusted hourly pro Materials consistency	\$348.68         \$697.35         NTITIES         4,200         1.000         4,200 LCY         rolume:       E         well factor:       C         UCTION         e:       100         oduction:       1,2         description:       -         nt:       -15 %	Exhibit L Cat Handbook ) feet 43.2 LCY/hr Compacted fill or en			
Total unit Cost/Hour: Total Fleet Cost/Hour MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated v Source of estimated v Source of estimated s HOURLY PRODU Average push distanc Unadjusted hourly pro Materials consistency Average push gradien Average site altitude: Material weight: Weight description: Job Condition Correc	\$348.68         \$697.35         NTITIES         4,200         1.000         4,200 LCY         rolume:       E         well factor:       C         UCTION         e:       100         oduction:       1,2         description:       -         nt:       -15 %	Exhibit L Cat Handbook ) feet 43.2 LCY/hr Compacted fill or en	  mbankment 0.9		
Total unit Cost/Hour: Total Fleet Cost/Hour MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated v Source of estimated v Source of estimated s HOURLY PRODU Average push distanc Unadjusted hourly pro Materials consistency Average push gradien Average site altitude: Material weight: Weight description: Job Condition Correc	\$348.68         \$697.35         NTITIES         4,200         1.000         4,200 LCY         rolume:       E         well factor:       C         UCTION         e:       100         oduction:       1,2         oduction:       1,2         odescription:       1         nt:       -15 %         6,000 feet       1,600 lbs/         Top Soil       1         tion Factor       I         ttor Skill:	Exhibit L Cat Handbook 0 feet 43.2 LCY/hr Compacted fill or en LCY	  mbankment 0.9		
Total unit Cost/Hour: Total Fleet Cost/Hour MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated v Source of estimated v Source of estimated s HOURLY PRODU Average push distanc Unadjusted hourly pro Materials consistency Average push gradien Average site altitude: Material weight: Weight description: Job Condition Correc Opera Material con	\$348.68         \$697.35         NTITIES         4,200         1.000         4,200 LCY         rolume:       E         well factor:       C         UCTION         e:       100         oduction:       1,2         oduction:       1,2         odescription:       1         nt:       -15 %         6,000 feet       1,600 lbs/         Top Soil       1         tion Factor       I         ttor Skill:	Exhibit L Exhibit L Cat Handbook 0 feet 43.2 LCY/hr Compacted fill or en LCY 0.750			

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	1.329	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.8566	
Adjusted unit production: 1,	,064.93 LCY/hr	
Adjusted fleet production: 2	129.86 LCY/hr	

Fleet size:	2 Dozer(s)
Unit cost:	\$0.327/LCY

Total job time:	<b>1.97</b> Hours
Total job cost:	\$1,375

# **REVEGETATION WORK**

Task descri	ption:	Revegetate Lay Creek Pit Ar	ea		
e: Hertzog	Pit	Permit Action:	AM01	Permit/Job	o#: <u>M1981276</u>
PROJECT	IDENTIFIC	CATION			
Task #:	005	State: Colorado		Abbreviation:	None
Task #: Date:	005 9/21/2022	State: <u>Colorado</u> County: Moffat		Abbreviation: Filename:	None M276-005

# **FERTILIZING**

#### Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
			Total Fertilizer Materials	
			Cost/Acre	\$0.00

# Application

Description	Cost /Acre
	\$
Total Fertilizer Application Cost/Acre	\$0.00

## **TILLING**

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$117.18
Total Tilling Cost/Acre	\$117.18

## **SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Orchardgrass - Shawnee	0.30	3.72	\$0.93
Crested Wheatgrass - Standard	2.50	11.48	\$10.38
Smooth Brome - Manchar	1.60	5.33	\$5.32
Intermediate Wheatgrass - Rush	2.50	5.34	\$7.00
Pubescent Wheatgrass - Luna	2.25	4.65	\$7.65
Totals Seed Mix	9.15	30.51	\$31.28

Application

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

# **MULCHING and MISCELLANEOUS**

#### Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - 2,4D @ 1.0 pt/ac	1.00	ACRE	\$3.04	\$3.04
<b>Total Mulch Materials Cost/Acre</b>				\$3.04

#### Application

Description		Cost /Acre
Weed spray, truck, non-aquatic area, nox. [DMG]		\$62.72
	Total Mulch Application Cost/Acre	\$62.72

## NURSERY STOCK PLANTING

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

No. of Acres: Estimated Failure Rate:		35%		Cost /Acre: Cost /Acre*:			
*Selected Replanti	ng Work Items:	TILLING,SEEL	DING				
Initial Job Cost:	/						
Reseeding Job Cost: Total Job Cost:							
Job Hours:							

Task description:	Transpor	t Overk	ourden - He	rtzog Pit				
: Hertzog Pit		Peri	mit Action:	AM01		Pe	rmit/Job#:	M1981276
PROJECT IDENT	TIFICATION							
Task #: 006		State:	Colorado			Abbr	eviation:	None
Date: 9/21/20	22 Co	ounty:	Moffat			F	ilename:	M276-006
User: ZTT								
Agency or o	rganization name	e: DR	RMS					
HOURLY EQUIP	MENT COST							
Basic Machine	: CAT 966H				Horsep	ower.		262
Attachment 1						Basis:		er day
					Data S	-	-	CRG)
~ ~							(-	)
Cost Breakdown:				T 14:1:4:	- 0/			
Ownership Co	ost/Hour	<b>\$49.</b> ]	15	Utilization NA	11 70			
Operating Co		\$49.1 \$43.0		100				
Operating Co Operator Co		\$40.7		NA				
Total Unit Co		\$132.		1011				
Total Fleet C	ost/Hour:	\$265	.79					
MATERIAL QUA Initial volume: Loose volume:	9,200 9,200		CCY LCY	Swe	ll factor: <u>1</u>	.000		
Sour	ce of estimated v	olume:	6" over 1	4.3 acres				
	f estimated swell		Cat Hand					
HOURLY PRODU		d Basic	Cycle Time	(load, dump	o, maneuver):		0.500	minutes
Cycle Time Fa	actors					Factor	(min.)	Source
		1 3/4" to	o 6" diamete	er 0.00		0.0	, ,	(Cat HB)
				ft. high or l			010	(Cat HB)
Truck Owner				ks and load	ers -0.04		040	(Cat HB)
			tion -0.04				040	(Cat HB)
Dump T	arget: Nomina	l target					000	(Cat HB)
			•	cle Time Ad	-		070	minutes
			Adjust	ed Basic Cy	cle l'ime:	0.4	30	minutes
Rolling Resistance – I	Road Conditions							
H	aul: Soft, rutte	d dirt n	o maintena	ice or water	, 4" tire penet	ration 8	0	
Retu					4" tire penet			
					,		-	
Haul and Return Time	<u>e</u>							
	Length	Grade		Rolling	Total Res.	Trav	vel Time	Source
	(feet)	(%	5) F	Res. (%)	(%)	(m	inutes)	Source

8.00

8.00

8.00

8.00

300

300

Haul Route:

Return Route:

0.00

0.00

(Cat HB)

(Cat HB)

0.3457

0.3199

			Total Travel T Total Cycle T		minutes minutes
Load Bucket Capacity					
Rated Capacit	y:5.00	LCY (hea	ped)		
Bucket Fill Facto	or: 1.100	Other - ro	ck/dirt mixtures	(100-120%) 1.100	
Adjusted Capacit	y: <b>5.50</b>	LCY			
Job Condition Correction Site Altitude: <u>6000</u> feet	n Factors				
		Source			
Altitude Adj:	1.00	(CAT HB	)		
Job Efficiency:	0.83	(1 shift/day	/)		
Net Correction:	0.83	multiplier			
Un	adjusted Hourly Un	it Production:	301.22	LCY/Hour	
1	Adjusted Hourly Un	it Production:	250.01	LCY/Hour	
A	djusted Hourly Flee	et Production:	500.03	LCY/Hour	
JOB TIME AND CO			m . 1. 1 .	10.40	···
Fleet size:	2 Loader(s	s)	Total job time:	18.40	Hours

Unit cost:	\$0.532	/LCY	Total job cost:	\$4,890
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Task description:	Grade Overbur	den - Hertzog	g Pit		
Hertzog Pit	Pe	rmit Action:	AM01	Permit/Job#:	M1981276
PROJECT IDENTI	<b>FICATION</b>				
Task #: 007	State:	Colorado		Abbreviation:	None
Date: $9/21/2022$		Moffat		Filename:	M276-007
User: ZTT				· · · · · ·	
Agency or org	ganization name: <u>D</u>	RMS			
HOURLY EQUIPM	IENT COST				
	Cat D9T - 9SU				
	05		_		
VI	emi-Universal				
	-shank ripper per day				
	CRG)				
<u> </u>					
Cost Breakdown:					
			<u>Utilization %</u>		
Ownership Cost/Hour		\$146.30	NA		
Operating Cost/Hour		\$141.41	100		
Ripper own. Cost/Hour		\$17.01	NA		
Ripper op. Cost/Hour		\$2.66	30		
Operator Cost/Hour	•• •	\$41.30	NA		
	200				
	000 200 LCY				
Source of estimated vol	lume: Exhibit	r			
Source of estimated vol					
Source of estimated sw		UDOOK			
HOURLY PRODUC	CTION				
Average push distance:					
		NY 7 4			
Unadjusted hourly proc		CY/hr			
	luction: 1,243.2 LC		mbankment 0.9		
Unadjusted hourly proc Materials consistency d Average push gradient:	luction:         1,243.2 L0           lescription:         Comp          15 %		nbankment 0.9		
Unadjusted hourly proc Materials consistency d Average push gradient: Average site altitude:	luction:       1,243.2 L0         lescription:      Comp		nbankment 0.9		
Unadjusted hourly proc Materials consistency d Average push gradient:	luction:         1,243.2 L0           lescription:         Comp          15 %		nbankment 0.9		
Unadjusted hourly proc Materials consistency d Average push gradient: Average site altitude:	luction:       1,243.2 L0         lescription:      Comp	acted fill or er	mbankment 0.9		
Unadjusted hourly prod Materials consistency d Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction	luction: 1,243.2 LC lescription: Comp -15 % 6,000 feet 2,550 lbs/LCY Earth - Dry packet on Factor	acted fill or er	Source		
Unadjusted hourly prod Materials consistency d Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator	luction: 1,243.2 LC lescription: Comp -15 % 6,000 feet 2,550 lbs/LCY Earth - Dry packe on Factor or Skill: (	acted fill or en	Source (AVG.)		
Unadjusted hourly prod Materials consistency d Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operato Material consi	luction: 1,243.2 LC lescription: Comp 15 % 6,000 feet 2,550 lbs/LCY Earth - Dry packet on Factor or Skill:C	acted fill or en	Source (AVG.) (CAT HB))		
Unadjusted hourly prod Materials consistency d Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operato Material consi Dozing m	luction: 1,243.2 LC lescription: Comp -15 % 6,000 feet 2,550 lbs/LCY Earth - Dry packet on Factor or Skill: C istency: C nethod: .	acted fill or en	Source (AVG.)		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	1.329	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.5373	
Adjusted unit production: 66	57.97 LCY/hr	
Adjusted fleet production: 13	335.94 LCY/hr	

Fleet size:	2 Dozer(s)
Unit cost:	\$0.522/LCY

Total job time:	<b>6.89</b> Hours
Total job cost:	\$4,802

Task description:	Transpo	rt Topsoil - Hei	tzog Pit			
Hertzog Pit		Permit Acti	ion: AM01		Permit/Job	#: <u>M1981276</u>
PROJECT IDENTI	FICATION					
Task #: 008		State: Color	ento		Abbreviation:	None
Date: $9/21/2022$	<u> </u>	County: Moffa			Filename:	
User: ZTT			at		T fichanie.	
Agency or org	anization nam	ne: DRMS				
HOURLY EQUIPM	IENT COST	-				
Basic Machine:	CAT 966H			Horse	oower:	262
Attachment 1:	ROPS Cab					per day
			_	Data S		(CRG)
Cast Due als desume						, , , , , , , , , , , , , , , , , , , ,
Cost Breakdown:			Utilizati	on %		
Ownership Cos	t/Hour	\$49.15	NA			
Operating Cos		\$43.04	100			
Operator Cos		\$40.71	NA			
Total Unit Cos		\$132.90	L			
Total Fleet Cos	st/Hour:	\$265.79				
Initial volume: Loose volume:	5,150 <b>5,150</b>			ell factor: <u>1</u>	.000	
	e of estimated estimated swe		L Handbook			
HOURLY PRODUC	TION					
Loader Cycle Time:		ed Basic Cycle 7	ime (load, dum	p. maneuver):	0.500	minutes
		, , , , , , , , , , , , , , , , , , ,	(,	<b>F</b> ,,		
Cycle Time Fac		al 3/4" to 6" dia	meter 0.00		Factor (min.) 0.000	(Cat HB)
Stock		yor or dozer pile		less 0.01	0.000	(Cat HB)
Truck Owners		on ownership of			-0.040	(Cat HB)
Operat	1	int operation -0.0			-0.040	(Cat HB)
Dump Tar		al target 0.00			0.000	(Cat HB)
•	0		t Cycle Time A	djustment:	-0.070	minutes
		A	djusted Basic C	ycle Time:	0.430	minutes
Rolling Resistance – Ro	ad Condition	c.				
		_				
Hau		ed dirt, no maint				
Return	n: Soft, rutt	ed dirt, no maint	tenance or wate	r, 4" tire penet	ration 8.0	
Haul and Return Time						
[	Length	Grade Res.	Rolling	Total Res.	Travel Time	
	(feet)	(%)	Res. (%)	(%)	(minutes)	Source
Haul Route:	300	0.00	8.00	8.00	0.3457	(Cat HB)

Return Route:

300

0.00

8.00

8.00

0.3199

(Cat HB)

			Total Travel Time:0.6655Total Cycle Time:1.0955		
			Total Cycle Time:		minutes
Load Bucket Capacity					
Rated Capaci	ity: 5.00	LCY (hea	ped)		
Bucket Fill Fact	tor: 1.100	Other - ro	ck/dirt mixtures	(100-120%) 1.100	1
Adjusted Capaci	ity: <b>5.50</b>	LCY			
Job Condition Correction Site Altitude: 6000 feet					
		Source			
Altitude Adj:	1.00	(CAT HB	)		
Job Efficiency:	0.83	(1 shift/day	y)		
Net Correction:	0.83	multiplier			
	nadjusted Hourly Uni Adjusted Hourly Uni Adjusted Hourly Flee	it Production:	301.22 250.01 <b>500.03</b>	LCY/Hour LCY/Hour LCY/Hour	
	najustea mourry mee				
JOB TIME AND CO	<u>OST</u>				
Fleet size:	2 Loader(s	5)	Total job time:	10.30	Hours

Total job cost: **\$2,737** 

Unit cost: \_\_\_\_\_\$0.532 /LCY

Task description:	Gra	adeTopsoil - H	iertzog Pit			
Hertzog Pit		Perr	nit Action:	AM01	Permit/Job#:	M1981276
PROJECT IDEN	NTIFICAT	<u>ION</u>				
Task #:         009           Date:         9/21/           User:         ZTT	2022	State: County:	Colorado Moffat		Abbreviation: Filename:	None M276-009
Agency of	r organizatio	n name: DR	MS			
HOURLY EQU	IPMENT C	COST				
Basic Machine:	Cat D9T -	- 9SU				
Horsepower:	405					
Blade Type:	Semi-Uni					
Attachment:	3-shank ri	pper				
Shift Basis:	1 per day					
Data Source:	(CRG)					
Cost Breakdown:						
				Utilization %		
Ownership Cost/H	Iour:		\$146.30	NA		
Operating Cost/H			\$141.41	100		
Ripper own. Cost/H			\$17.01	NA		
			\$2.66	30		
Ripper op. Cost/F			<b>* * * * * *</b> *			
Ripper op. Cost/F Operator Cost/F Total unit Cost/Hou Total Fleet Cost/Ho <b>MATERIAL OU</b>	ır: \$343 our: <b>\$69</b>	7.35	\$41.30	NA		
Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL OU Initial Volume:	ur: <u>\$34</u> 3 our: <b>\$69</b> J <b>ANTITIE</b> 5,150	7.35	\$41.30	NA		
Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QU	nr: \$343 our: <b>\$69</b> J <b>ANTITIE</b>	7.35 <u>8</u>	\$41.30	NA		
Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Ho MATERIAL OU Initial Volume: Swell factor: Loose volume: Source of estimated	ur: \$343 bur: <b>\$69</b> JANTITIE 5,150 1.000 <b>5,150</b> LCY I volume:	7.35 <u>S</u>		NA		
Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Hou <b>MATERIAL OU</b> Initial Volume: Swell factor: Loose volume:	ur: \$343 bur: <b>\$69</b> JANTITIE 5,150 1.000 <b>5,150</b> LCY I volume:	7.35 <u>S</u>		NA		
Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Ho MATERIAL OU Initial Volume: Swell factor: Loose volume: Source of estimated	ur: \$343 bur: <b>\$69</b> UANTITIE 5,150 1.000 <b>5,150</b> LCY I volume: I swell factor	7.35 <u>S</u>		NA		
Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Hou <b>MATERIAL QU</b> Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROI Average push dista	ur: \$343 pur: <b>\$69</b> UANTITIE 5,150 1.000 5,150 LCY 1 volume: 1 swell factor DUCTION nce:	7.35 <u>S</u> <u>Exhibit L</u> <u>Cat Hand</u> 100 feet	 book	NA		
Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Hou <b>MATERIAL QU</b> Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROI	ur: \$343 pur: <b>\$69</b> UANTITIE 5,150 1.000 5,150 LCY 1 volume: 1 swell factor DUCTION nce:	7.35 S Exhibit L Cat Hand	 book	NA		
Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Hou <b>MATERIAL QU</b> Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROI Average push dista	ur: <u>\$343</u> pur: <u>\$69</u> JANTITIE 5,150 1.000 5,150 LCY 1 volume: 1 swell factor DUCTION nce: production:	7.35 <u>S</u> <u>Exhibit L</u> <u>Cat Hand</u> <u>100 feet</u> <u>1,243.2 LC</u>	book Y/hr	 		
Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Hou <b>MATERIAL OU</b> Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated <b>HOURLY PROI</b> Average push dista Unadjusted hourly	ur: \$343 pur: \$69 JANTITIE 5,150 1.000 5,150 LCY 1 volume: 1 swell factor DUCTION nce: production: cy descriptic ent:15	7.35 <u>S</u> <u>Exhibit L</u> <u>Cat Hand</u> <u>100 feet</u> <u>1,243.2 LC</u> on: <u>Compar</u>	book Y/hr			
Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Hou Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROI Average push dista Unadjusted hourly Materials consisten Average push gradi	Ir: $$343$ $pur:$ $$69'$ $JANTITIE$ $5,150$ $1.000$ $5,150$ $1.000$ $5,150$ $LCY$ $I$ volume: $I$ swell factor $DUCTION$ nce:production:cy descriptionent: $-15$ $e:$ $6,000$	7.35 <u>S</u> <u>Exhibit L</u> <u>Cat Hand</u> <u>100 feet</u> <u>1,243.2 LC</u> on: <u>Compar</u> %	book Y/hr			
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cy: 0.830	(1 SHIFT/DAY)
le: 0.800	(SSD-AC)
nt: 1.329	(CAT HB)
le: 1.000	(CAT HB)
ht: 1.438	(CAT HB)
pe: 1.000	(PAT)
on: 0.8566	
1,064.93 LCY/hr	
2129.86 LCY/hr	
	le:       0.800         nt:       1.329         le:       1.000         ht:       1.438         pe:       1.000         pn:       0.8566         1,064.93 LCY/hr

Fleet size:	2 Dozer(s)
Unit cost:	\$0.327/LCY

Total job time:	2.42 Hours
Total job cost:	\$1,686

# **REVEGETATION WORK**

Task descri	ption:	Revegetate Hertzog Pit Area	,		
te: Hertzog	Pit	Permit Action:	AM01	Permit/Job	o#: <u>M1981276</u>
<b>PROJECT</b>	IDENTIFIC	CATION			
Task #:	010	State: Colorado		Abbreviation:	None
Date:	9/21/2022	County: Moffat		Filename:	M276-010
	ZTT				

# **FERTILIZING**

#### Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
			Total Fertilizer Materials	
			Cost/Acre	\$0.00

# Application

Description	Cost /Acre
	\$
Total Fertilizer Application Cost/Acre	\$0.00

## **TILLING**

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$117.18
Total Tilling Cost/Acre	\$117.18

## **SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Orchardgrass - Shawnee	0.30	3.72	\$0.93
Crested Wheatgrass - Standard	2.50	11.48	\$10.38
Smooth Brome - Manchar	1.60	5.33	\$5.32
Intermediate Wheatgrass - Rush	2.50	5.34	\$7.00
Pubescent Wheatgrass - Luna	2.25	4.65	\$7.65
Totals Seed Mix	9.15	30.51	\$31.28

Application

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

# **MULCHING and MISCELLANEOUS**

#### Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - 2,4D @ 1.0 pt/ac	1.00	ACRE	\$3.04	\$3.04
<b>Total Mulch Materials Cost/Acre</b>				\$3.04

#### Application

Description		Cost /Acre
Weed spray, truck, non-aquatic area, nox. [DMG]		\$62.72
	Total Mulch Application Cost/Acre	\$62.72

## NURSERY STOCK PLANTING

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

	No. of Acres: ed Failure Rate:	35%		Cost /Acre: Cost /Acre*:	
*Selected Replanti Initial Job Cost:	\$6,693.30	TILLING,SEEL	DING		
Reseeding Job Cost: Total Job Cost: Job Hours:	\$8,691				