

February 21, 2025

Scott Bakken Energy Fuels Resources (USA) Inc. 225 Union Blvd Suite 600 Lakewood, CO 80228

Re: Whirlwind Mine - File No. M-2007-044 Energy Fuels Resources (USA) Inc. Technical Revision (TR-2) TR Water Treatment Facility & Bond update

Dear Scott Bakken:

On February 21, 2025 the Division of Reclamation, Mining and Safety concluded its review of the Technical Revision application submitted to the Division on November 21, 2024, addressing the following:

Improve existing water treatment facility with new 'bolt-on' system to treat mine water to meet new lower effluent limits set by CDPHE. Also, prior to construction update bond estimate items as per 2022 letter from DRMS.

The decision reached by the Division is: approve. Concurrence from BLM received on 2/21/2025. Approve water treatment system add on and adjust bond. New required amount \$1,069,384

The terms of Technical Revision No. 2 approved by the Division are hereby incorporated into Permit No. M-2007-044. All other conditions and requirements of Permit No. M-2007-044 remain in full force and effect.

The revised liability amount exceeds the financial warranty currently held (see below), please submit additional bond or a rider to your existing bond that equals or exceeds the Revised Liability. The revision will not be final until the bond is approved by the Division.

Bond Held:	\$375,078.00
Prior Liability:	\$375,078.00
Change in Liability:	\$694,306.00
Revised Liability:	\$1,069,384.00
Prior Permit Acreage:	31.91



Change in Permit Acreage:	0.00
Revised Permit Acreage:	31.91
Prior Affected Acreage:	10.00
Change in Affected Acreage:	0.00
Revised Affected Acreage:	10.00

If you have any questions, please contact me by telephone at (970) 210-1272, or by email at Amy.yeldell@state.co.us.

Sincerely,

Amy Geldell

Amy C. Yeldell Environmental Protection Specialist

M-GR-04



Bond table changes TR-2

General Assumptions:

- Inflationary updates on all task for 2024 pricing
- Includes new Linkan water treatment system (TR-2)
- Whirlwind Bulkhead cost avg of 3 quotes provided under TR-2
- No Packrat contingency bulkhead since only surface was affected to date
- Updated user provided items
- Demo job hours and equipment used summarized on attached sheet.

Below is a table which summarizes the input changes made from CS-1 to TR-2. This table does not account for inflation or unit cost changes.

Task	Form Used	Description
BH1	N/A	Avg Cost = \$465,340
		Iron Woman = \$575,000, Thirsty Bird = \$202,183, RAM = \$619,730
01P	Demo	Adjust total job hours - see attached sheet
02P	Mineseal	No Changes
03P	Dozer	No Changes
04P	Excavate	Switch to 320D since used for Demo
05P	Excavate	Switch to 320D since used for Demo
06P	Dozer	No Changes
07P	Reveg	No Changes
08P	Loader	No Changes
01W	Demo	Update user provided costs
		Adjusted total job hours – see attached sheet
		Water Treatment Sludge Disposal: 19CY generated, using past backfill becomes 40 CY. Quote Thirsty Bird \$85,000



		Water Treatment Liner Disposal: \$45,500 remove liner and haul to offsite landfill
		Add Disposal of Ion Exchanger Units : Quote from WRT \$10,000
02W	Loader	No Changes
03W	Loader	No Changes
04W	Mineseal	No Changes
05W	Dozer	No Changes
06W	Ripper	No Changes
07W	Dozer	15,324 CY Correct volume based on pg. E-15
08W	Reveg	Include seeding of spread topsoil footprint. Add 1.82 ac for total of 9.89 ac. Update method to hydro seeing and hydro mulch Pg E-16 Reduced job hrs. based on seeding method
09W	Dozer	No Changes
1WP	Mineseal	No Changes
2WP	Borehole	Use quotes for plugging power drops Thirsty Bird Quote \$2,500 Add-Monitoring Well abandonment 2" PVC ~150 ft deep
3WP	Demo	Update user provided costs Thirsty Bird Quote \$2 per LF pf wire
4WP	Ripper	No Changes
5WP	Dozer	No Changes
6WP	Reveg	No Changes
MB1	Mob	Updated for equipment used
MB2	Mob	No Changes
Indirect	•	No Changes

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 Geldell

Amy Yeldell Environmental Protection Specialist

Ec: Travis Marshall, Senior EPS, Grand Junction DRMS Jennifer Whitington, BLM

		Job Demo H	ours						
)1P									
ask	Quantity	Unit	Min Hrs	Max Hrs	Crew	Crew			
oad Out bins - load	5	CY	0.33	0.33	B-17	B-17	Loader - 450E	Dump Truck, 8 C.Y., 220 H.P.	
hop doors	120	MI	7.2	7.2	B-34B	B-34B	Dump Truck, 12 C.Y., 400 H.P.		
taining wall	300	LF	32.1	32.1	B-13K	B-13K	Excavator - 315D		
ad Out bins - load	48	LF	2.19	2.23	CIRCES 16	CIRCES 16	Dozer - D8	Excavator - 320D	
ad Out bins -haul	120	MI	7.2	7.2	B-34B	B-34B	Dump Truck, 12 C.Y., 400 H.P.		
ad Out bins - Dump fee	5	CY	-	-	-	-	-	-	
otal			49.02	49.06					
1W									
sk	Quantity	Unit	Min Hrs	Max Hrs	Crew	Crew	_		
ter Treatment Sludge Dis	40	CY	?	?	?	?			
in link fence	1,100	LF	50.6	50.6	B-6	B-6	Loader - 450E		
rbed wire fince	2,500	LF	92.5	92.5	-	-	-		
ater treatement liner disp	7,000	SqFt	?	?	?	?			
nop building	222	CF	0.12	0.14	B-3	B-3	Track Loader - 963D		
nop slab	3,000	SF	6.67	7.25	CIRCES 16	CIRCES 16	Dozer - D8	Excavator - 320D	
sed oil pad	80	SF	0.18	0.2	CIRCES 16	CIRCES 16	Dozer - D8	Excavator - 320D	
x. slab	24	SF	0.05	0.06	CIRCES 16	CIRCES 16	Dozer - D8	Excavator - 320D	
e pad sump	36	SF	0.08	0.09	CIRCES 16	CIRCES 16	Dozer - D8	Excavator - 320D	
sposal of ion exchanges	1	EA	?	?	?	?			
tal			150.20	150.84					

COST SUMMARY WORK

Task description:		Update tasks ba	sed on TR-2					
Site:	te: Whirlwind Mine		Permit Action:		TR2	Permit/Job	#: <u>M2007044</u>	
<u>P</u>]	Task #:	IDENTIFIC ACY 2/6/2025 ACY	State:	Colorado Mesa		Abbreviation: Filename:	None M044-ACY	
	Age	ency or organi	zation name: DR	RMS				

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fle et Size	Task Hours	Cost
01P	Removal of structures from Packrat Portal	DEMOLISH	1	49.02	\$8,274
02p	Packrat-Seal Portal	MINESEAL	1	16.00	\$3,649
03P	Packrat Re-establish 3H: 1V Slopes	DOZER	1	18.61	\$6,321
04P	Packrat Pock 0.99 ac of slopes	EXCAVATE	1	25.11	\$13,044
05P	Packrat Spread avalible topsoil over pcoking	EXCAVATE	1	2.96	\$1,539
06P	Packrat Cut/fil establish water bars on access rd	DOZER	1	7.00	\$2,377
07P	Packrat Reveg 0.99 ac @ portal and 0.95 ac of access rd	REVEGE	1	24.00	\$16,250
08P	Packrat Place obstruction boulders in place	LOADER	1	3.01	\$363
BH1	Whirlwind decline bulkhead construction	NA	1	1.00	\$465,340
01W	Whirlwind Demo of Structures at portal	DEMOLISH	1	150.00	\$138,227
02W	Whirlwind Replace 11K cu/yrds of ore in portal	LOADER	1	67.54	\$8,141
03W	Whirlwind Remove 18" of sub surface at ore pad	LOADER	1	7.98	\$962
04W	Whirlwind Backfill portal	MINESEAL	1	16.00	\$3,649
05W	Whirlwind Establish 3H: 1V Slopes on waste piles	DOZER	1	23.27	\$7,901
06W	Whirlwind Rip 7.41 ac of compacted areas	RIPPER	1	12.69	\$4,386
07W	Whirlwind Spread topsoil over 8.07 ac	DOZER	1	27.37	\$8,842
08W	Whirlwind Reveg 8.07 ac + topsoil area 1.82 ac	REVEGE	1	16.00	\$54,864
09W	Whirlwind Backfill Sediment Pond	DOZER	1	15.89	\$5,395
1WP	Seal 2 air shafts	MINESEAL	1	32.00	\$41,293
2WP	Seal 2 power drops	BOREHOLE	1	24.00	\$3,786
3WP	Remove power drop lines	DEMOLISH	1	8.00	\$363
4WP	Rip vent and power drop areas prior to topsoil	RIPPER	1	2.22	\$768
5WP	Push topsoil over vent and power pads	DOZER	1	2.56	\$826
6WP	Reveg 1.1 ac of vent and power pads	REVEGE	1	16.00	\$9,408
MB1	Initial Mobilization	MOBILIZE	1	8.00	\$15,387
MB2	Secondary Mobilization	MOBILIZE	1	8.00	\$3,425
		TALS:	584.23	\$824,780	

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: Performance bond: Job superintendent: Profit:	2.02 1.05 292.12 10.00	RACT AMOUNT	Total = Total = Total = Total = TOTAL O & P = (direct + O & P) =	\$16,661 \$8,660 \$23,156 \$82,478 \$130,955 \$955,735
LEGAL - ENGINEERING - PRO	DJECT MANAGEMENT	`:		
Financial warranty process Engineering work and/or or Reclamation managemer	\$500 4.25 5.00	Total = Total =	\$500 \$40,619 \$47,787	
	CONTINGENCY:	3.00	Total =	\$24,743
		TOTAL IN	DIRECT COST =	\$244,604

DEMOLITION WORK

r	Task description:	Removal of	structures from	n Packrat Portal		
Site:	Whirlwind Mine		Permit Action:	TR2	Permit/.	Job#: <u>M2007044</u>
PROJE	CT IDENTIFICATIO	<u>N</u>				
Task #:	01P	State:	Colorado		Abbreviation:	None
Date:	2/6/2025	County:	Mesa		Filename:	M044-01P
User:	ACY					
	Agency or organiza	tion name:	DRMS			

Location adjustment: 90.70 %

UNIT COSTS

Structure or Item **Demolition Menu** Unit **Total Cost** Dimensions Quantity Unit Description Selection Cost Load out bins-load 12x12x22 Loading and 2 mile haul, 5.00 CY \$105.75 \$21.15 no salvage - Machine loading Hauling only, per mile, shop doors 12x8 120.00 MI \$4.43 \$532.02 12-18 CY truck - 50 mph average speed retaining wall 30' x 8' Concrete retaining wall, 300.00 LF \$24.05 \$7,215.00 8' high, no reinforcing Load out footers 3' x 2' Dia Demo. and on-site 48.00 LF \$14.21 \$682.05 disposal in excavated pit, 2.0 ft. x 3 ft. - Max. 50 ft. push Load out Bins- haul 120 mi Hauling only, per mile, 120.00 MI \$4.43 \$532.02 12-18 CY truck - 50 mph average speed Load out bins - dump 5 CY Dump fees - Building CY \$11.10 5.00 \$55.50 construction materials. fee

				Total Cost	
		Subtotal		(adjusted for	
Job Hours:	49.02	(unadjusted):	\$9,122.34	location):	\$8,273.96

SAFEGUARDING UNDERGROUND OPENINGS

I	Task description:	Packrat-Se	al Portal			
Site:	Whirlwind Mine		Permit Action:	TR2	Permit/.	Job#: <u>M2007044</u>
<u>PROJE</u>	CT IDENTIFICATION	<u>N</u>				
Task #: Date: User:	2/6/2025	State: County:	Colorado Mesa		Abbreviation: Filename:	None M044-02p
	Agency or organizat	ion name:	DRMS			
<u>UNIT C</u>	<u>COSTS</u>					

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Pakckrat Portal	12 x 10	Adit closure - backfilling (per opening)	1.00	EA	\$3,649.41	\$3,649.41

Job Hours: 16.00

Total Cost: \$3,649.41

BULLDOZER WORK

			-		
Whirlwind Mine	Pern	nit Action:	TR2	Permit/Job#:	M2007044
PROJECT IDENTIF	ICATION				
Task #: 03P	State:	Colorado		Abbreviation:	None
Date: 2/6/2025	County:	Mesa		Filename:	M044-03P
User: ACY	5 _			-	
Agency or orga	nization name:	MS			
HOURLY EQUIPMI	ENT COST				
Basic Machine: Ca	t D8T - 8SU				
Horsepower: 31					
Blade Type: Set	mi-Universal				
Attachment: 3-s	shank ripper				
	ber day				
Data Source: (C	RG)				
Cost Breakdown:					
			<u>Utilization %</u>		
Ownership Cost/Hour:		\$173.32	NA		
Operating Cost/Hour:		\$109.71	100		
Ripper own. Cost/Hour:		\$14.53	NA		
Ripper op. Cost/Hour:		\$1.99	25		
Operator Cost/Hour:		\$40.04	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour:	\$339.58 \$339.58				
Total Fleet Cost/Hour: MATERIAL QUANT	\$339.58 <u>FITIES</u>				
Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: <u>3,20</u>	\$339.58 FITIES 00				
Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: <u>3,20</u> Swell factor: <u>1.33</u>	\$339.58 FITIES 00 35				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,20 Swell factor: 1.33 Loose volume: 4,27	\$339.58 FITIES 00 35 72 LCY				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,20 Swell factor: 1.33 Loose volume: 4,27 Source of estimated volu	\$339.58 FITIES 00 35 72 LCY ume:Reclamati				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,20 Swell factor: 1.33 Loose volume: 4,27	\$339.58 FITIES 00 35 72 LCY ume:Reclamation				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,20 Swell factor: 1.33 Loose volume: 4,27 Source of estimated volu Source of estimated swell	\$339.58 FITIES 00 35 72 LCY Ime: Reclamati Il factor: Cat Handb				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,20 Swell factor: 1.33 Loose volume: 4,27 Source of estimated volu Source of estimated swel HOURLY PRODUCT 1.33	\$339.58 FITIES 00 35 72 LCY Ime: Reclamation Il factor: Cat Handber TION				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,20 Swell factor: 1.33 Loose volume: 4,27 Source of estimated volu Source of estimated swell	\$339.58 FITIES 00 35 72 LCY ume: <u>Reclamati</u> 11 factor: <u>Cat Handt</u> TION 100 feet	book			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,20 Swell factor: 1.33 Loose volume: 4,27 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUCC Average push distance:	\$339.58 FITIES 00 35 72 LCY ume: Reclamati Il factor: Cat Handb TION action: 852.6 LCY/b	nr	 mbankment 0.9		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,20 Swell factor: 1.33 Loose volume: 4,27 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de	\$339.58 FITIES 00 35 72 LCY ume: Reclamati 11 factor: Cat Handb TION action: 100 feet scription: Compace	nr	 mbankment 0.9		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,20 Swell factor: 1.33 Loose volume: 4,27 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUCC Average push distance: Unadjusted hourly produ	\$339.58 FITIES 00 35 72 LCY ume: Reclamati Il factor: Cat Handb TION action: 852.6 LCY/b	nr	 mbankment 0.9		
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Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,20 Swell factor: 1.33 Loose volume: 4,27 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUCT Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude:	\$339.58 FITIES 00 35 72 LCY ume: Reclamati Il factor: Cat Handb TION action: 100 feet action: 852.6 LCY/h scription: Compace 15 % 6,800 feet	nr	 mbankment 0.9		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,20 Swell factor: 1.33 Loose volume: 4,27 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUCC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight:	\$339.58 FITIES 00 35 72 LCY nme: Reclamati Il factor: Cat Handb TION action: 100 feet action: 852.6 LCY/h scription: Compace 15 % 6,800 feet 2,550 lbs/LCY Sandstone	nr	 mbankment 0.9		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,20 Swell factor: 1.33 Loose volume: 4,27 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator	\$339.58 FITIES 00 35 72 LCY ume: Reclamati 11 factor: Cat Handb TION action: 100 feet action: 2.6 LCY/r scription: Compace 15 % 6,800 feet 2,550 lbs/LCY Sandstone n Factor 0.7	pook nr eted fill or en			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,20 Swell factor: 1.33 Loose volume: 4,27 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consist	\$339.58 ITTIES 00 35 72 LCY me: Reclamati I factor: Cat Handb TION I for feet action: Compace I for feet actor Sandstone n Factor Skill: 0.7 tency: 0.9	250 250	Source (AVG.) (CAT HB))	
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: <u>3,20</u> Swell factor: <u>1.33</u> Loose volume: <u>4,27</u> Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consist Dozing material	\$339.58 FITIES 00 35 72 LCY time: Reclamati Il factor: Cat Handb TION action: 100 feet action: 852.6 LCY/r scription: Compace 15 % 6,800 feet 2,550 lbs/LCY Sandstone b Factor Skill: 0.7 tency: 0.9 0.9 ethod: 1.0 0.9	pook nr eted fill or en	Source (AVG.))	

Job efficience	cy:	0.830	(1 SHIFT/DAY)
Spoil pi	ile:	0.800	(FND-RF)
Push gradient:		0.666	(CAT HB)
Altituc	de:	1.000	(CAT HB)
Material Weight	ht:	0.902	(CAT HB)
Blade typ	pe:	1.000	(PAT)
Net correction	on:	0.2692	
Adjusted unit production:	229	0.52 LCY/hr	
Adjusted fleet production:	229	0.52 LCY/hr	

Fleet size:	1 Dozer(s)
Unit cost:	\$1.480/LCY

Total job time:	18.61 Hours
Total job cost:	\$6,321

HYDRAULIC EXCAVATOR WORK

Task description:	Packrat Pock 0.	99 ac of slop	es			
: Whirlwind Mine	Per	mit Action:	TR2	Pe	rmit/Job#:	: M2007044
PROJECT IDENTIF	TICATION					
Task #: 04P Date: 2/6/2025 User: ACY	State: County:	Colorado Mesa			eviation: ïlename:	None M044-04P
Agency or orga	nization name: DI	RMS				
HOURLY EQUIPM	ENT COST					
Basic Machine: Attachment 1:	Cat 320D L 9'-6" S ROPS Cab	Stick	Weig Sh	sepower: ght (MT):	2 1 p	148 21.55 per day
Cost Breakdown:			Dat	a Source:	(CRG)
Ownership Cost/			Utilization % NA			
Operating Cost/ Operator Cost/			100 NA			
Total Unit Cost/						
Total Fleet Cost	·					
MATERIAL QUAN	-					
Initial volume:	3,750 3,750	CCY LCY	Swell factor:	1.000		
		Cat Hand	lbook			
<u>Excurator Cycle Time (1</u>	oud odeket, owing iot	-	Condition Description:	AVERA	GE	
	Secondary Job Co		in Basic Description:	SEVERI		
			Cycle Time Value:	0.312		minutes
Load Bucket Capacity			D		1 N	(. 1'
Rated Capacit	y: 1.54	LCY (he		cket Size C	lass: M	leatum
Bucket Fill Facto	· · · · · · · · · · · · · · · · · · ·		Vell blasted (60% - 759	%) 0.675		
Adjusted Capacit		LCY	```	/		
Job Condition Correction	n Factors		Site Alti	tude: <u>6800</u>	feet	
		Source				
Altitude Adj:	0.90	(CAT H)				
Job Efficiency: Net Correction:	0.83 0.75	(1 shift/da multiplier				
-		-				
	adjusted Hourly Unit Adjusted Hourly Unit			LCY/Hour LCY/Hour		
	djusted Hourly Fleet			LCY/Hour		
JOB TIME AND CO	•					
Fleet size:	1 Excavat	or T	otal job time:	25.11	l	Hours
Unit cost: \$3.	.478 /LCY		Total job cost:	\$13,04	14	

HYDRAULIC EXCAVATOR WORK

Task description:	Packrat Spread a	avalible tops	oil over pcoking		
Whirlwind Mine	Peri	mit Action:	TR2	Permit/Job	#: <u>M2007044</u>
PROJECT IDENTIFI	CATION				
Task #: 05P Date: 2/6/2025 User: ACY	State: County:	Colorado Mesa		Abbreviation: Filename:	
Agency or organ	ization name: DR	RMS			
HOURLY EQUIPME	NT COST				
Basic Machine:	Cat 320D L 9'-6" S	Stick	Н	lorsepower:	148
Attachment 1:	ROPS Cab			eight (MT):	21.55
					per day (CRG)
Cost Breakdown:					<u> </u>
			Utilization %		
Ownership Cost/H			NA 100		
Operating Cost/H Operator Cost/H			100 NA		
Total Unit Cost/H		1	INA		
Total Fleet Cost/H		.42			
MATERIAL QUANT Initial volume: 67		CCY	Swell factor	• 1.125	
Loose volume: 75		- LCY	Swell lactor	. 1.123	
	f estimated volume:	– Reclamat	ion Dlan		
	imated swell factor:	Cat Hand			
HOURLY PRODUCT	<u>10N</u>				
Excavator Cycle Time (los	ad bucket, swing loa	ided, dump b	ucket, swing empty	<u>):</u>	
		Basic Job C	ondition Description	n: AVERAGE	
	Secondary Job Co	ondition with	in Basic Description		
			Cycle Time Valu	e: 0.284	minutes
Load Bucket Capacity					
		//		Bucket Size Class: <u>N</u>	Aedium
Rated Capacity: Bucket Fill Factor:		_ LCY (hea		0.00/11.00/10.50	
Adjusted Capacity:		LCY	m or sandy clay (10	0% - 110%) 1.030	
• • •			S:4- A	14:4-1-1 (2000 for at	
Job Condition Correction	racions		Site A	ltitude: <u>6800</u> feet	
A 1." · 1 · A · 1"	0.00	Source	•		
Altitude Adj: Job Efficiency:	0.90 0.83	(CAT HE			
Net Correction:	0.83	(1 shift/da multiplier			
		-			
	djusted Hourly Unit		341.62	LCY/Hour	
	djusted Hourly Unit ljusted Hourly Fleet		<u>255.19</u> 255.19	LCY/Hour LCY/Hour	
		r rouuction:	200.19		
JOB TIME AND COS	_				
Fleet size: 1	Excavate	or To	otal job time:	2.96	Hours
Unit cost: \$2.0	35 /LCY		Total job cost:	\$1,539	
φ2.0	<u></u> /LC1		10111 100 0050.	ψ1,007	

BULLDOZER WORK

Whirlwind Mine		Per	mit Action:	TR2	Permit/Job#:	M2007044
PROJECT IDENTI	IFICATION					
		Chatar	Calanada		A h h m m m i m i	Nezz
		State:	Colorado		Abbreviation:	None MO44.0CD
Date: <u>2/6/2025</u>		County:	Mesa		Filename:	M044-06P
User: <u>ACY</u>						
Agency or or	ganization nam	e: DF	RMS			
HOURLY EQUIPM	MENT COST					
Basic Machine:	Cat D8T - 8SU					
Horsepower: 3	310					
Blade Type: S	Semi-Universal					
Attachment: 3	3-shank ripper					
	1 per day					
	(CRG)					
Cost Breakdown:						
				Utilization %		
Ownership Cost/Hour			\$173.32	NA		
Operating Cost/Hour			\$109.71	100		
Ripper own. Cost/Hour	r:		\$14.53	NA		
Ripper op. Cost/Hour	r:		\$1.99	25		
Operator Cost/Hour	r:		\$40.04	NA		
Total Fleet Cost/Hour:						
MATERIAL QUAN	NTITIES					
MATERIAL QUAN Initial Volume: _1,	NTITIES ,597					
MATERIAL QUAN Initial Volume: <u>1,</u> Swell factor: <u>1</u> .	NTITIES 597 430					
MATERIAL QUAN Initial Volume: <u>1,</u> Swell factor: <u>1</u> .	NTITIES ,597					
MATERIAL QUAN Initial Volume: <u>1</u> , Swell factor: <u>1</u> . Loose volume: <u>2</u> ,	NTITIES ,597 .430 ,284 LCY	Peclamat				
MATERIAL QUAN Initial Volume: <u>1,</u> Swell factor: <u>1.</u> Loose volume: <u>2,</u> Source of estimated vo	NTITIES 597 430 284 LCY blume:		 tion Plan			
MATERIAL QUAN Initial Volume: <u>1</u> , Swell factor: <u>1</u> . Loose volume: <u>2</u> ,	NTITIES 597 430 284 LCY blume:	Reclamat Cat Hand				
MATERIAL QUAN Initial Volume: 1, Swell factor: 1. Loose volume: 2, Source of estimated vo Source of estimated sw	NTITIES ,597 ,430 ,284 LCY olume: vell factor:					
MATERIAL QUAN Initial Volume: <u>1,</u> Swell factor: <u>1.</u> Loose volume: <u>2,</u> Source of estimated vo	NTITIES ,597 ,430 ,284 LCY olume: vell factor:					
MATERIAL QUAN Initial Volume: 1, Swell factor: 1. Loose volume: 2, Source of estimated vo Source of estimated sw	NTITIES ,597 ,430 ,284 LCY blume: F vell factor: C CTION					
MATERIAL QUAN Initial Volume: 1, Swell factor: 1. Loose volume: 2, Source of estimated vo Source of estimated sw HOURLY PRODU	NTITIES ,597 ,430 ,284 LCY olume: plume: vell factor: CTION	Cat Hand	lbook			
MATERIAL QUAN Initial Volume: 1, Swell factor: 1. Loose volume: 2, Source of estimated vo Source of estimated sw HOURLY PRODUC	NTITIES 597 430 ,284 LCY olume: F vell factor: C CTION :: 100 duction: 852	Cat Hand) feet 2.6 LCY/	lbook /hr	 mbankment 0.9		
MATERIAL QUAN Initial Volume: 1, Swell factor: 1. Loose volume: 2, Source of estimated vo Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly proof Materials consistency of	NTITIES ,597 ,430 ,284 LCY olume: F vell factor: C CTION v: 100 duction: 852 description:	Cat Hand) feet 2.6 LCY/	lbook /hr	 mbankment 0.9		
MATERIAL QUAN Initial Volume: 1, Swell factor: 1. Loose volume: 2, Source of estimated vo Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly proof Materials consistency of	NTITIES ,597 ,430 ,284 LCY olume: F vell factor: C CTION v: 100 duction: 852 description:	Cat Hand) feet 2.6 LCY/	lbook /hr	 mbankment 0.9		
MATERIAL QUAN Initial Volume: 1, Swell factor: 1. Loose volume: 2, Source of estimated vo Source of estimated sw HOURLY PRODUC Average push distance Unadjusted hourly proc	NTITIES ,597 ,430 ,284 LCY olume: F vell factor: C CTION v: 100 duction: 852 description:	Cat Hand) feet 2.6 LCY Compa	lbook /hr	 mbankment 0.9		
MATERIAL QUAN Initial Volume: 1, Swell factor: 1. Loose volume: 2, Source of estimated vo Source of estimated sw HOURLY PRODUC Average push distance Unadjusted hourly proc Materials consistency of Average push gradient	NTITIES .597 .430 .284 LCY .284 LCY blume: .284 LCY blume: .284 LCY blume: .284 LCY blume: .284 LCY blume:	Cat Hand) feet 2.6 LCY Compa	lbook /hr	 mbankment 0.9		
MATERIAL QUAN Initial Volume: 1, Swell factor: 1. Loose volume: 2, Source of estimated vo Source of estimated sw HOURLY PRODUC Average push distance Unadjusted hourly proc Materials consistency of Average push gradient	NTITIES .597 .430 .284 LCY .284 LCY blume: .284 LCY blume: .284 LCY blume: .284 LCY blume: .284 LCY blume:	Cat Hand) feet 2.6 LCY/ Compa	lbook /hr	 mbankment 0.9		
MATERIAL QUAN Initial Volume: 1, Swell factor: 1. Loose volume: 2, Source of estimated vo Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency of Average push gradient: Average site altitude: Material weight:	NTITIES ,597 ,430 ,284 LCY olume: well factor: Ourme: Ourme: Ourme: Ourme: Ourme: Ourme: Ourme: CTION description:	Cat Hand) feet 2.6 LCY/ Compa LCY	lbook /hr heted fill or e			
MATERIAL QUAN Initial Volume: 1, Swell factor: 1. Loose volume: 2, Source of estimated vo Source of estimated vo Source of estimated sw HOURLY PRODUC Average push distance Unadjusted hourly prod Materials consistency of Average push gradient Average site altitude: Material weight: Weight description:	NTITIES ,597 ,430 ,284 LCY plume: F vell factor: C CTION escription: 100 description: - .: -10 %	Cat Hand) feet 2.6 LCY Compa LCY	lbook /hr	, 25% Earth		
MATERIAL QUAN Initial Volume: 1, Swell factor: 1. Loose volume: 2, Source of estimated vo Source of estimated vo Source of estimated sw HOURLY PRODUC Average push distance Unadjusted hourly prod Materials consistency of Average push gradient Average site altitude: Material weight: Weight description: Iob Condition Correcti	NTITIES ,597 ,430 ,284 LCY plume: F vell factor: C CTION :: 100 description: - :: -10 %	Cat Hand) feet 2.6 LCY/ Compa LCY sed rock	/hr hr heted fill or en 	, 25% Earth		
MATERIAL QUAN Initial Volume: 1, Swell factor: 1. Loose volume: 2, Source of estimated vo Source of estimated vo Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency of Average push gradient: Average site altitude: Material weight: Weight description: Iob Condition Correctii Operate	NTITIES ,597 ,430 ,284 LCY olume: polume: vell factor: CTION description:	Cat Hand) feet 2.6 LCY/ Compa LCY sed rock 0.	lbook /hr heted fill or e - 75% Rock .750	, 25% Earth Source (AVG.)		
MATERIAL QUAN Initial Volume: <u>1</u> , Swell factor: <u>1</u> . Loose volume: <u>2</u> , Source of estimated vo Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency of Average push gradient: Average site altitude: Material weight: Weight description: <u>Iob Condition Correcti</u> Operato Material cons	NTITIES .597 .430 .284 LCY olume: F vell factor: C CTION :: 100 duction: 852 description: - :: -10 %	Compa Compa LCY sed rock 0.	lbook /hr .cted fill or e - 75% Rock .750 .900	, 25% Earth <u>Source</u> (AVG.) (CAT HB))		
MATERIAL QUAN Initial Volume: 1, Swell factor: 1. Loose volume: 2, Source of estimated vo Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly proc Materials consistency of Average push gradient: Average site altitude: Material weight: Weight description: Iob Condition Correctin Operator Material cons Dozing n	NTITIES .597 .430 .284 LCY olume: F vell factor: C CTION :: 100 duction: 852 description: - :: -10 %	Cat Hand () feet ()	lbook /hr heted fill or e - 75% Rock .750	, 25% Earth Source (AVG.)		

Job efficience	cy: 0.830	(1 SHIFT/DAY)
Spoil pi	le: 0.800	(FND-RF)
Push gradie	nt: 1.225	(CAT HB)
Altitud	le: 1.000	(CAT HB)
Material Weig	ht: 0.697	(CAT HB)
Blade typ	pe: 1.000	(PAT)
Net correction		
Adjusted unit production:	326.29 LCY/hr	
Adjusted fleet production:	326.29 LCY/hr	

Fleet size:	1 Dozer(s)
Unit cost:	\$1.041/LCY

Total job time:	7.00 Hours
Total job cost:	\$2,377

REVEGETATION WORK

Task description:		otion:	Packrat Reveg 0.99 ac @ po	rtal and 0.95 a	c of access rd	
Site:	e: Whirlwind Mine		Permit Action:	TR2	Permit/Jol	o#: <u>M2007044</u>
<u>PR</u>	OJECT	IDENTIFI	CATION			
	Task #:	07P	State: Colorado		Abbreviation:	None
	Date:	2/6/2025	County: Mesa		Filename:	M044-07P
	User:	ACY				

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
	\$
Total Tilling Cost/Acre	\$0.00

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Hachita	0.60	9.79	\$17.19
Indian Ricegrass - Paloma	2.80	9.06	\$57.49
Crested Wheatgrass - Nordan	2.00	9.18	\$10.63
Pubescent Wheatgrass - Luna	4.00	8.26	\$20.02
Slender Wheatgrass - Pryor	2.60	9.49	\$16.07
Milk Vetch, Cicer - Lutana	0.40	1.33	\$3.92
Western Wheatgrass - Arriba	3.60	9.09	\$32.52
Needle and Thread	3.20	8.45	\$260.57
Flax, Lewis Blue	1.00	6.63	\$42.30

Saltbush, Four Wing	4.00	5.51	\$79.49
Penstemon, Palmer	0.20	4.42	\$15.59
Totals Seed Mix	24.40	81.23	\$555.78

Application

Description		Cost /Acre
Broadcast seeding [DMG]		\$272.56
	Total Seed Application Cost/Acre	\$272.56

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Hay, delivered {MEANS 31 25 14.16 1200}	1.00	TON	\$492.78	\$492.78
Herbicide - Curtail @ 4.0 pt/ac	1.00	ACRE	\$36.14	\$36.14
Total Mulch Materials Cost/Acre				\$528.92

Application

Description		Cost /Acre
Hand spread, 1" deep (MEANS 32 91 13.16 0200)		\$4,017.20
Weed spray, hand, non-aquatic area, nox. [DMG]		\$209.61
	Total Mulch Application Cost/Acre	\$4,226.81

NURSERY STOCK PLANTING

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

No. of Acres:	1.94	Cost /Acre:	\$5,584.07
Estimated Failure Rate:	50%	Cost /Acre*:	\$5,584.07
*Selected Replanting Work Items:	SEEDING, MULCHING		

Initial Job Cost:	\$10,833.10
Reseeding Job Cost:	\$5,416.55
Total Job Cost:	\$16,250
Job Hours:	24.00

WHEEL LOADER - LOAD AND CARRY WORK

Task description:	Packrat	Place obstr	uction b	oulders in	place			
: Whirlwind Mine		Permit	Action:	TR2			Permit/Job#:	M2007044
PROJECT IDENT	TIFICATION	ſ						
Task #: 08P			Colorado			Ab	breviation:	None
Date: 2/6/202 User: ACY	5	County: <u>N</u>	Aesa			_	Filename:	M044-08P
Agency or o	rganization nar	ne: DRMS	S					
HOURLY EQUIP	MENT COST	<u> </u>						
Basic Machine	: CAT 938H	I			Ho	rsepower:		172
Attachment 1	: ROPS Cat)				hift Basis:		er day
					Dat	ta Source:		CRG)
Cost Breakdown:								
				Utilizatio	on %			
Ownership Co		\$32.87		NA				
Operating Co		\$31.02		100				
Operator Co		\$56.64		NA				
Total Unit Co	ost/Hour:	\$120.53						
Total Fleet C	ost/Hour:	\$120.53						
	250 417 ce of estimated f estimated swe	volume:	CCY LCY <u>Reclama</u> Cat Han	ation Plan	ell factor:	1.667		
Source o	i estimated swe			UDOOK				
HOURLY PRODU	JCTION							
Loader Cycle Time:	Unadjust	ted Basic Cy	cle Time	e (load, dum	p, maneuv	er):	0.483	minutes
Cycle Time Fa	actors					Fact	or (min.)	Source
Ma	terial: No ad	justment - fa	actor not	applicable (0.00	(0.000	(Cat HB)
		justment - fa	actor not	applicable (0.00	(0.000	(Cat HB)
Truck Owne		justment - fa			0.00		0.000	(Cat HB)
		sistent operat					0.040	(Cat HB)
Dump T	arget: No ad	justment - fa					0.000	(Cat HB)
				cle Time A			0.040	minutes
			Adjus	ted Basic C	ycie 11me:	(0.523	minutes
Rolling Resistance -	Road Condition	<u>15</u>						
Ц	aul: Rutted d	lirt, little mai	intenanc	e no water	?" tire ner	netration 5	0	
Retu		lirt, little mai						
Haul and Return Time				<u>,</u> ,,				
	Length	Grade Re	es.	Rolling	Total R	es. Tı	ravel Time	~
	(feet)	(%)		Res. (%)	(%)		(minutes)	Source
Haul Route:	200	6.00		5.00	11.00		0.2803	(Cat HB)

-9.00

5.00

-4.00

600

Return Route:

0.4621

(Cat HB)

(Cat HB)

			Total Travel Tin Total Cycle Tin		minutes minutes
Load Bucket Capacity					
Rated Capaci		LCY (hea	1 /	(80, 100%) 0.000	
Bucket Fill Fact Adjusted Capac		LCY	oll, boulders, roots	(80 -100%) 0.900	
Job Condition Correction Site Altitude: <u>6800</u> feet					
		Source			
Altitude Adj:	1.00	(CAT HB	8)		
Job Efficiency:	0.83	(1 shift/da	y)		
Net Correction:	0.83	multiplier			
U	nadjusted Hourly Uni	it Production:	166.49	LCY/Hour	
	Adjusted Hourly Uni	it Production:	138.19	LCY/Hour	
	Adjusted Hourly Flee	et Production:	138.19	LCY/Hour	
JOB TIME AND CO	<u>DST</u>				
Fleet size:	1 Loader(s	5)	Total job time:	3.02	Hours

 Unit cost:
 \$0.872
 /LCY
 Total job cost:
 \$363

DEMOLITION WORK

Task description	on: Whir	lwind Demo of Structures a	at portal				
Site: Whirlwind Mine		Permit Action: TR2			Permit/Job#: <u>M2007044</u>		
PROJECT IDENTI	FICATION						
Task #: 01W Date: 2/6/2025 User: ACY	Co	State: <u>Colorado</u> ounty: <u>Mesa</u>				e 14-01W	
	or organization nar	ne: DRMS		Looot	ion adjustmon	t. 00 70 %	
UNIT COSTS	<u> </u>	T		Local	ion adjustmen	<u>1: 90.70 %</u>	
Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost	
Water treatment sludge disposal	40 CY yrds	USER PROVIDED ITEM	40.00	CY	\$2,125.00	\$85,000.00	
Chain link fence	6' H x 1100 LF	Fencing, chain link, including posts and fabric - to 6 ft. high	1,100.00	LF	\$3.02	\$3,322.00	
Barbed wire fence	3 strand	Fencing, barbed wire, - 3 strand	2,500.00	LF	\$1.82	\$4,550.00	
Water treatment liner disposal	7000 sq/ft	USER PROVIDED ITEM	7,000.00	SF	\$6.50	\$45,500.00	
Shop Building	40' x 50'	Bldg. (SN) demo./off- site disposal in approved landfill - Max. 60 mile haul	222.00	CF	\$0.76	\$168.85	
Shop slab	40' x 50' x 6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	3,000.00	SF	\$1.24	\$3,719.10	
Used Oil pad	8' x 10' x 4"	Demo. and on-site disposal in excavated pit, 4 in. thick - Max. 200 ft. push	80.00	SF	\$0.83	\$66.12	
Aux. Slab	4' x 6' x 6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	24.00	SF	\$1.24	\$29.75	
Ore pad sump	6' x 6' x 6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	36.00	SF	\$1.24	\$44.63	
Disposal of Ion Exchanger Units	TR2	USER PROVIDED ITEM	1.00	EA	\$10,000.00	\$10,000.00	

			Total Cost		
		Subtotal		(adjusted for	
Job Hours:	150.00	(unadjusted):	\$152,400.45	location):	\$138,227.21

Page 1 of 2

WHEEL LOADER - LOAD AND CARRY WORK

Whirlwind Mine		Permit	Action:	TR2		Pe	rmit/Job#:	M2007044
	TIFICATIO	T						
PROJECT IDEN	IIFICATIO							
Task #: $02W$	25		<u>Colorado</u>				eviation:	None
Date: 2/6/20 User: ACY	25	County: <u>1</u>	Mesa			F	ilename: _	M044-02W
Agency or	organization na	me: DRM	S					
HOURLY EQUI	PMENT COS	<u>5</u> T						
Basic Machin	ne: CAT 938	Н			Horse	oower:	1	172
Attachment	1: ROPS Ca	lb			Shift	Basis:	1 pe	er day
					Data S	ource:	(C	CRG)
Cost Breakdown:								
				Utilizatio	on %			
Ownership (\$32.87		NA				
Operating (\$31.02		100				
Operator (\$56.64		NA				
Total Unit C	ost/Hour:	\$120.53						
Total Fleet	Cost/Hour:	\$120.53	3					
MATERIAL QU	11,000	00	CCY	Swe	ell factor: <u>1</u>	.000		
Initial volume: Loose volume: Sor	<u>11,000</u> <u>11,0</u> urce of estimate	d volume:	LCY Accepted	d estimate	ell factor: <u>1</u>	.000		
Initial volume: Loose volume: Source	11,000 11,0 arce of estimate of estimated sw	d volume:	LCY	d estimate	ell factor: <u>1</u>	.000		
Initial volume: Loose volume: Source HOURLY PROD	11,000 11,0 arce of estimate of estimated sw	d volume: vell factor:	LCY Accepted Cat Hand	d estimate dbook				
Initial volume: Loose volume: Source	11,000 11,0 arce of estimate of estimated sw	d volume: vell factor:	LCY Accepted Cat Hand	d estimate dbook	ell factor: <u>1</u> p, maneuver):		0.483	minutes
Initial volume: Loose volume: Source HOURLY PROD	11,000 11,0 urce of estimate of estimated sw UCTION Unadjus	d volume: vell factor:	LCY Accepted Cat Hand	d estimate dbook			1	minutes Source
Initial volume: Loose volume: Source HOURLY PROD Loader Cycle Time: Cycle Time M	11,000 11,0 arce of estimated of estimated sw UCTION Unadjust Factors aterial: Mixe	d volume: vell factor: sted Basic Cy ed material 0.	LCY Accepted Cat Hand vcle Time	<u>d estimate</u> dbook (load, dum	p, maneuver):	Factor 0.0	(min.) 20	Source (Cat HB)
Initial volume: Loose volume: Source HOURLY PROD Loader Cycle Time: Cycle Time M Sto	11,000 11,0 urce of estimated of estimated sw UCTION Unadjust Factors aterial: Mixed ockpile: No a	d volume: vell factor: sted Basic Cy ed material 0. djustment - fa	LCY Accepted Cat Hand vcle Time 02 actor not	d estimate dbook (load, dum applicable (p, maneuver):	Factor 0.0 0.0	(min.) 020 000	Source (Cat HB) (Cat HB)
Initial volume: Loose volume: Source HOURLY PROD Loader Cycle Time: Cycle Time M Sto Truck Owr	11,000 11,0 urce of estimate of estimated sw UCTION Unadjus Factors aterial: Mixe sckpile: No a uership: No a	d volume: /ell factor: sted Basic Cy ed material 0. djustment - fa djustment - fa	LCY Accepted Cat Hand vcle Time 02 actor not actor not	d estimate dbook (load, dum applicable (p, maneuver):	Factor 0.0 0.0 0.0	(min.) 20 000 000	Source (Cat HB) (Cat HB) (Cat HB)
Initial volume: Loose volume: Source HOURLY PROD Loader Cycle Time: Cycle Time M Sto Truck Owr Ope	11,000 11,0 urce of estimate of estimated sw UCTION Unadjust Factors aterial: Mixes ockpile: No a ership: No a eration: Conservation:	d volume: vell factor: sted Basic Cy ed material 0. djustment - fa djustment - fa stant operatio	LCY Accepted Cat Hand vcle Time 02 actor not actor not n -0.04	d estimate dbook (load, dum applicable (p, maneuver):	Factor 0.0 0.0 0.0 -0.0	(min.))20)00)00)00)40	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)
Initial volume: Loose volume: Source HOURLY PROD Loader Cycle Time: Cycle Time M Sto Truck Owr Ope	11,000 11,0 urce of estimate of estimated sw UCTION Unadjust Factors aterial: Mixes ockpile: No a ership: No a eration: Conservation:	d volume: /ell factor: sted Basic Cy ed material 0. djustment - fa djustment - fa	LCY Accepted Cat Hand vcle Time 02 actor not actor not n -0.04 00	d estimate dbook (load, dum applicable (applicable (p, maneuver): 0.00	Factor 0.0 0.0 0.0 -0.0 0.0	(min.) 20 000 000 040 000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)
Initial volume: Loose volume: Source HOURLY PROD Loader Cycle Time: Cycle Time M Sto Truck Owr Ope	11,000 11,0 urce of estimate of estimated sw UCTION Unadjust Factors aterial: Mixes ockpile: No a ership: No a eration: Conservation:	d volume: vell factor: sted Basic Cy ed material 0. djustment - fa djustment - fa stant operatio	LCY Accepted Cat Hand vcle Time 02 actor not actor not n -0.04 00 Net Cy	d estimate dbook (load, dum applicable (p, maneuver): 0.00 0.00 djustment:	Factor 0.0 0.0 0.0 -0.0	(min.))20)00)00)40)00)20	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)
Initial volume: Loose volume: Source HOURLY PROD Loader Cycle Time: Cycle Time M Sto Truck Owr Op Dump	11,000 11,0 urce of estimate of estimated sw UCTION Unadjust Factors aterial: Mixes ockpile: No a ership: No a eration: Cons Target: Nom	d volume: yell factor: sted Basic Cy ed material 0. djustment - fa djustment - fa tant operatio inal target 0.	LCY Accepted Cat Hand vcle Time 02 actor not actor not n -0.04 00 Net Cy	d estimate dbook (load, dum applicable (applicable (cle Time A	p, maneuver): 0.00 0.00 djustment:	Factor 0.0 0.0 -0.0 -0.0 -0.0	(min.))20)00)00)40)00)20	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes
Initial volume: Loose volume: Source HOURLY PROD Loader Cycle Time: Cycle Time M Sta Sta Dump Dump	11,000 11,0 11,0 urce of estimate of estimated sw UCTION Unadjust Factors aterial: Mixes ckpile: No a ership: No a eration: Cons Target: Nom	d volume: vell factor: sted Basic Cy ed material 0. djustment - fa djustment - fa stant operatio inal target 0.0 ons	LCY Accepted Cat Hand vcle Time 02 actor not actor not n -0.04 00 Net Cy Adjust	d estimate dbook (load, dum applicable (applicable (cle Time A ted Basic C	p, maneuver): D.00 D.00 djustment: ycle Time:	Factor 0.0 0.0 -0.0 -0.0 -0.0 0.4	(min.))20)00)00)40)00)20	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes
Initial volume: Loose volume: Source HOURLY PROD Loader Cycle Time: Cycle Time M Sto Truck Owr Op Dump	11,000 11,0 11,0 urce of estimate of estimated sw UCTION Unadjust Factors aterial: Mixes ckpile: No a ership: No a eration: Cons Target: Nom - Road Condition Haul: Rutted	d volume: vell factor: sted Basic Cy ed material 0. djustment - fa djustment - fa stant operatio inal target 0.4 ons dirt, little ma	LCY Accepted Cat Hand vcle Time 02 actor not actor not n -0.04 00 Net Cy Adjust	d estimate dbook (load, dum applicable (applicable (applicable (cle Time A ted Basic C e, no water,	p, maneuver): 0.00 0.00 djustment: ycle Time: 2" tire penetr	Factor 0.0 0.0 -0.0 -0.0 -0.0 -0.4 ation 5.0	(min.))20)00)00)40)00)20	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes
Initial volume: Loose volume: Source HOURLY PROD Loader Cycle Time: Cycle Time M Sto Truck Owr Op Dump	11,000 11,0 11,0 urce of estimate of estimated sw UCTION Unadjust Factors aterial: Mixes ockpile: No a ership: No a eration: Cons Target: Nom - Road Condition Haul: Rutted	d volume: vell factor: sted Basic Cy ed material 0. djustment - fa djustment - fa stant operatio inal target 0.4 ons dirt, little ma	LCY Accepted Cat Hand vcle Time 02 actor not actor not n -0.04 00 Net Cy Adjust	d estimate dbook (load, dum applicable (applicable (applicable (cle Time A ted Basic C e, no water,	p, maneuver): D.00 D.00 djustment: ycle Time:	Factor 0.0 0.0 -0.0 -0.0 -0.0 -0.4 ation 5.0	(min.))20)00)00)40)00)20	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes
Initial volume: Loose volume: Source HOURLY PROD Loader Cycle Time: Cycle Time M Sto Truck Owr Op Dump	11,000 11,0 11,0 urce of estimate of estimated sw UCTION Unadjus Factors aterial: Mixe ckpile: No a ership: No a eration: Cons Target: Nom - Road Condition Haul: Rutted turn: Rutted	d volume: vell factor: sted Basic Cy ed material 0. djustment - fa djustment - fa stant operatio inal target 0.4 ons dirt, little ma	LCY Accepted Cat Hand vcle Time 02 actor not actor not n -0.04 00 Net Cy Adjust	d estimate dbook (load, dum applicable (applicable (applicable (cle Time A ted Basic C e, no water,	p, maneuver): 0.00 0.00 djustment: ycle Time: 2" tire penetr	Factor 0.0 0.0 -0.0 -0.0 -0.0 -0.4 ation 5.0	(min.))20)00)00)40)00)20	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes
Initial volume: Loose volume: Source HOURLY PROD Loader Cycle Time: Cycle Time M Sta Sta Truck Owr Opa Dump Rolling Resistance -	11,000 11,0 11,0 urce of estimated sw UCTION Unadjust Factors aterial: Mixed ockpile: No a ership: No a ration: Cons Target: Nom - Road Condition Haul: Rutted turn: Rutted	d volume: yell factor: sted Basic Cy ed material 0. djustment - fa djustment - fa stant operatio inal target 0.0 <u>ons</u> dirt, little ma dirt, little ma	LCY Accepted Cat Hand vcle Time 02 actor not actor not n -0.04 00 Net Cy Adjust intenance	d estimate dbook (load, dum applicable (applicable (applicable (cle Time A ted Basic C e, no water, e, no water,	p, maneuver): D.00 D.00 djustment: ycle Time: 2" tire penetr 2" tire penetr	Factor 0.0 0.0 0.0 -0.0 -0.0 -0.0 0.4 ation 5.0 ation 5.0	(min.))20)00)00)40)00)20 :63	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes
Initial volume: Loose volume: Source HOURLY PROD Loader Cycle Time: Cycle Time M Sta Sta Truck Owr Opa Dump Rolling Resistance -	11,000 11,0 11,0 urce of estimate of estimated sw UCTION Unadjus Factors aterial: Mixe ckpile: No a ership: No a eration: Cons Target: Nom - Road Condition Haul: Rutted turn: Rutted	d volume: vell factor: sted Basic Cy ed material 0. djustment - fa djustment - fa stant operatio inal target 0.4 ons dirt, little ma	LCY Accepted Cat Hand vcle Time 02 actor not actor not actor not n -0.04 00 Net Cy Adjust intenance intenance	d estimate dbook (load, dum applicable (applicable (applicable (cle Time A ted Basic C e, no water,	p, maneuver): 0.00 0.00 djustment: ycle Time: 2" tire penetr	Factor 0.0 0.0 0.0 -0.0 0.0 -0.0 0.4 ation 5.0 ation 5.0	(min.))20)00)00)40)00)20	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes

Return Route:

300

0.00

5.00

5.00

(Cat HB)

0.2465

			Total Travel Tin Total Cycle Tin		minutes minutes
Load Bucket Capacity					
Rated Capacity Bucket Fill Factor Adjusted Capacity	: 0.825	LCY (heap Blasted roo LCY	. ,	(75 - 90%) 0.825	
Job Condition Correction Site Altitude: <u>6800</u> feet	Factors				
		Source			
Altitude Adj:	1.00	(CAT HB))		
Job Efficiency:	0.83	(1 shift/day	<i>i</i>)		
Net Correction:	0.83	multiplier			
Una	djusted Hourly Unit	t Production:	196.21	LCY/Hour	
	djusted Hourly Unit		162.85	LCY/Hour	
Ad	djusted Hourly Fleet	t Production:	162.85	LCY/Hour	
JOB TIME AND COS	<u>ST</u>				
Fleet size: 1	Loader(s))	Total job time:	67.55	Hours

 Unit cost:
 \$0.740
 /LCY
 Total job cost:
 \$8,141

WHEEL LOADER - LOAD AND CARRY WORK

Whirlwind Mine		Peri	mit Action:	TR2		Pe	ermit/Job#:	M2007044
PROJECT IDEN	TIFICATIO	<u>DN</u>						
Task #: 03W		State:	Colorado)		Abbr	eviation:	None
Date: 2/6/20 User: ACY	25	County:	Mesa			F	ilename:	M044-03W
Agency or	organization r	name: DR	RMS					
HOURLY EQUI	PMENT CO	ST						
Basic Machir					Hor	sepower:	1	172
Attachment						ift Basis:		er day
T tetue initiation of the second seco						a Source:	-	CRG)
Cost Breakdown:								
				Utilizatio	on %			
Ownership O		\$32.8		NA				
Operating C		\$31.0		100				
Operator (\$56.6		NA				
Total Unit C	Cost/Hour:	\$120.	.53					
Total Fleet	Cost/Hour:	\$120	.53					
MATERIAL QU			CCY	Swe	ell factor:	1.215		
Initial volume: Loose volume:	1,210	470 ted volume:	_ CCY _ LCY Reclama	Swe ation Plan	ell factor:	1.215		
Initial volume: Loose volume: Sou	1,210	ted volume:	LCY Reclama	ation Plan	ell factor:	1.215		
Initial volume: Loose volume: Sou Source	1,210 1,	ted volume:	LCY Reclama	ation Plan	ell factor:	1.215		
Initial volume: Loose volume: Sou Source HOURLY PROD	1,210 1,- arce of estimated s PUCTION	ted volume: well factor:	LCY Reclama Cat Han	ation Plan Idbook				
Initial volume: Loose volume: Source HOURLY PROD	1,210 1,4 1,4 1,4 1,4 1,4 1,4 1,4 1,4	ted volume: well factor:	LCY Reclama Cat Han	ation Plan			0.483	minutes
Initial volume: Loose volume: Source HOURLY PROD Loader Cycle Time: Cycle Time	1,210 1,4 1,4 1,4 1,4 1,4 1,4 1,4 1,4	ted volume: well factor: usted Basic	LCY <u>Reclama</u> Cat Han	ation Plan Idbook		r): Factor	(min.)	Source
Initial volume: Loose volume: Source HOURLY PROD Loader Cycle Time Cycle Time	1,210 1,210 1,2 1,2 1,2 1,2 1,2 1,2 1,2 1,2	ted volume: well factor: usted Basic terial 3/4" to	LCY <u>Reclama</u> Cat Han Cycle Time	ation Plan Idbook e (load, dum er 0.00	p, maneuve	r): Factor 0.0	(min.) 000	Source (Cat HB)
Initial volume: Loose volume: Source HOURLY PROD Loader Cycle Time Cycle Time	1,210 1,210 1,20	ted volume: well factor: usted Basic <u>terial 3/4" to</u> adjustment	LCY <u>Reclama</u> Cat Han Cycle Time <u>o 6" diamet</u> factor not	ation Plan Idbook e (load, dum er 0.00 applicable (p, maneuve	r): Factor 0.0	(min.) 000 000	Source (Cat HB) (Cat HB)
Initial volume: Loose volume: Source HOURLY PROD Loader Cycle Time: Cycle Time M Sto Truck Own	1,210 1,210 1,2 1,2 1,2 1,2 1,2 1,2 1,2 1,2	ted volume: well factor: usted Basic terial 3/4" to adjustment adjustment	LCY <u>Reclama</u> Cat Han Cycle Time o 6" diamet - factor not - factor not	ation Plan dbook e (load, dum er 0.00 applicable (applicable (p, maneuve	r): Factor 0.0 0.0	(min.) 000 000 000	Source (Cat HB) (Cat HB) (Cat HB)
Initial volume: Loose volume: Source HOURLY PROD Loader Cycle Time: Cycle Time M Sto Truck Own Ope	1,210 1,210 1,2 1,2 1,2 1,2 1,2 1,2 1,2 1,2	ted volume: well factor: usted Basic terial 3/4" to adjustment adjustment onsistent op	LCY Reclama Cat Han Cycle Time o 6" diamet - factor not - factor not eration 0.04	ation Plan dbook e (load, dum er 0.00 applicable (applicable (p, maneuve	r): Factor 0.0 0.0 0.0 0.0	(min.) 000 000 000 000 040	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)
Initial volume: Loose volume: Source HOURLY PROD Loader Cycle Time: Cycle Time M Sto Truck Own Ope	1,210 1,210 1,2 1,2 1,2 1,2 1,2 1,2 1,2 1,2	ted volume: well factor: usted Basic terial 3/4" to adjustment adjustment	LCY <u>Reclama</u> Cat Han Cycle Time o 6" diamet - factor not - factor not eration 0.04 0.00	ation Plan dbook e (load, dum er 0.00 applicable (applicable (4	p, maneuve 0.00 0.00	r): Factor 0.0 0.0 0.0 0.0 0.0	(min.) 000 000 000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)
Initial volume: Loose volume: Source HOURLY PROD Loader Cycle Time: Cycle Time M Sto Truck Own Ope	1,210 1,210 1,2 1,2 1,2 1,2 1,2 1,2 1,2 1,2	ted volume: well factor: usted Basic terial 3/4" to adjustment adjustment onsistent op	LCY <u>Reclama</u> Cat Han Cycle Time o 6" diamet - factor not eration 0.04 0.00 Net C	ation Plan dbook e (load, dum er 0.00 applicable (applicable (p, maneuve D.00 D.00 djustment:	r): Factor 0.0 0.0 0.0 0.0 0.0	(min.) 000 000 000 000 040 000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)
Initial volume: Loose volume: Source HOURLY PROD Loader Cycle Time: M Cycle Time M Sto Truck Own Ope Dump	1,210 1,210 1,2 1,2 1,2 1,2 1,2 1,2 1,2 1,2	ted volume: well factor: usted Basic terial 3/4" to adjustment adjustment onsistent op minal target	LCY <u>Reclama</u> Cat Han Cycle Time o 6" diamet - factor not eration 0.04 0.00 Net C	ation Plan adbook e (load, dum er 0.00 applicable (applicable (4 ycle Time A	p, maneuve D.00 D.00 djustment:	r): Factor 0.0 0.0 0.0 0.0 0.0	(min.) 000 000 000 040 000 040	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes
Initial volume: Loose volume: Source HOURLY PROD Loader Cycle Time: Cycle Time M Sto Truck Own Ope Dump	1,210 1,	ted volume: well factor: usted Basic terial 3/4" to adjustment adjustment onsistent op minal target ions	LCY Reclama Cat Han Cycle Time o 6" diamet - factor not - factor not eration 0.04 0.00 Net Cy Adjus	ation Plan dbook e (load, dum er 0.00 applicable (applicable (4 ycle Time A sted Basic C	p, maneuve D.00 D.00 djustment: ycle Time:	r): Factor 0.0 0.0 0.0 0.0 0.0 0.0 0.5	(min.) 000 000 000 000 040 000 040 523	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes
Initial volume: Loose volume: Source HOURLY PROD Loader Cycle Time: Cycle Time M Sto Truck Own Ope Dump	1,210 1,210 1,210 1,2 1,2 1,2 1,2 1,2 1,2 1,2 1,2	ted volume: well factor: usted Basic terial 3/4" to adjustment adjustment onsistent op minal target ions d dirt, little	LCY <u>Reclama</u> Cat Han Cycle Time o 6" diamet - factor not - factor not eration 0.04 0.00 Net Cy Adjus	ation Plan dbook e (load, dum er 0.00 applicable (applicable (4 ycle Time A sted Basic C e, no water,	p, maneuve 0.00 0.00 djustment: ycle Time: 2" tire pene	r): Factor 0.0 0.0 0.0 0.0 0.0 0.5 etration 5.0	(min.) 000 000 000 000 040 000 040 523	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes
Initial volume: Loose volume: Source HOURLY PROD Loader Cycle Time: Cycle Time M Sto Truck Own Ope Dump	1,210 1,210 1,210 1,2 1,2 1,2 1,2 1,2 1,2 1,2 1,2	ted volume: well factor: usted Basic terial 3/4" to adjustment adjustment onsistent op minal target ions d dirt, little	LCY <u>Reclama</u> Cat Han Cycle Time o 6" diamet - factor not - factor not eration 0.04 0.00 Net Cy Adjus	ation Plan dbook e (load, dum er 0.00 applicable (applicable (4 ycle Time A sted Basic C	p, maneuve 0.00 0.00 djustment: ycle Time: 2" tire pene	r): Factor 0.0 0.0 0.0 0.0 0.0 0.5 etration 5.0	(min.) 000 000 000 000 040 000 040 523	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes
Initial volume: Loose volume: Source HOURLY PROD Loader Cycle Time: Cycle Time M Sto Truck Own Ope Dump	1,210 Irce of estimated s of estimated s UCTION Unadj Factors aterial: Ma ockpile: No ership: No ership: No eration: Inc Target: No - Road Condit Haul: Rutter	ted volume: well factor: usted Basic terial 3/4" to adjustment adjustment onsistent op minal target ions d dirt, little	LCY <u>Reclama</u> Cat Han Cycle Time o 6" diamet - factor not - factor not eration 0.04 0.00 Net Cy Adjus	ation Plan dbook e (load, dum er 0.00 applicable (applicable (4 ycle Time A sted Basic C e, no water,	p, maneuve 0.00 0.00 djustment: ycle Time: 2" tire pene	r): Factor 0.0 0.0 0.0 0.0 0.0 0.5 etration 5.0	(min.) 000 000 000 000 040 000 040 523	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes
Initial volume: Loose volume: Source HOURLY PROD Loader Cycle Time: Cycle Time M Sto Truck Own Ope Dump Rolling Resistance - H Re	1,210 1,210 1,210 1,2 1,2 1,2 1,2 1,2 1,2 1,2 1,2	ted volume: well factor: usted Basic terial 3/4" to adjustment adjustment onsistent op minal target ions d dirt, little p	LCY <u>Reclama</u> Cat Han Cycle Time o 6" diamet - factor not - factor not eration 0.04 0.00 Net C Adjus maintenanc maintenanc	ation Plan dbook e (load, dum er 0.00 applicable (applicable (4 ycle Time A sted Basic Cy e, no water, e, no water,	p, maneuve D.00 D.00 djustment: ycle Time: 2" tire pene 2" tire pene	r): Factor 0.0 0.0 0.0 0.0 0.0 0.5 etration 5.0 etration 5.0	(min.) 000 000 000 040 000 040 523	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes
Initial volume: Loose volume: Source HOURLY PROD Loader Cycle Time: Cycle Time M Sto Truck Own Ope Dump Rolling Resistance - H Re	1,210 Irce of estimated s of estimated s UCTION Unadj Factors aterial: Ma ockpile: No ership: No ership: No eration: Inc Target: No - Road Condit Haul: Rutter	ted volume: well factor: usted Basic terial 3/4" to adjustment adjustment onsistent op minal target ions d dirt, little	LCY <u>Reclama</u> Cat Han Cycle Time <u>o 6" diamet</u> <u>- factor not</u> <u>- factor not</u> <u>eration 0.04</u> 0.00 Net C Adjus <u>maintenanc</u> maintenanc	ation Plan dbook e (load, dum er 0.00 applicable (applicable (4 ycle Time A sted Basic C e, no water,	p, maneuve 0.00 0.00 djustment: ycle Time: 2" tire pene	r): Factor 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.5 etration 5.0 etration 5.0 etration 5.0	(min.) 000 000 000 000 040 000 040 523	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes

200

Return Route:

0.00

5.00

5.00

(Cat HB)

0.1643

			Total Travel Ti	me: 0.3476	minutes
			Total Cycle Ti	me: 0.8701	minutes
Load Bucket Capacity					
Rated Capac	city: 3.90	LCY (hea	nped)		
Bucket Fill Fac	tor: 0.825	Blasted re	ock - avg. blasted	(75 - 90%) 0.825	
Adjusted Capac	city: 3.22	LCY			
Job Condition Correction Site Altitude: 6800 fee					
		Source			
Altitude Adj:	1.00	(CAT HE	8)		
Job Efficiency:	0.83	(1 shift/da	y)		
Net Correction:	0.83	multiplier			
τ	Inadjusted Hourly U		221.87	LCY/Hour	
	Adjusted Hourly Un		184.15	_ LCY/Hour	
	Adjusted Hourly Fle	et Production:	184.15	LCY/Hour	
JOB TIME AND C	<u>OST</u>				
Fleet size:	1 Loader	(s)	Total job time:	7.98	Hours

 Unit cost:
 \$0.654
 /LCY
 Total job cost:
 \$962

SAFEGUARDING UNDERGROUND OPENINGS

,	Task description:	Whirlwind	Backfill portal			
Site:	Whirlwind Mine		Permit Action:	TR2	Permit/.	Job#: <u>M2007044</u>
<u>PROJE</u>	CT IDENTIFICATION	<u>1</u>				
Task #: Date:	2/6/2025	State: County:	Colorado Mesa		Abbreviation: Filename:	None M044-04W
User:	ACY Agency or organizat	ion name:	DRMS			
UNIT C						

Unit **Opening Description** Dimensions **Closure Method** Quantity Unit Cost **Total Cost** Whirlwind Portal 10' x 12' Adit closure - backfilling 1.00 EA \$3,649.41 \$3,649.41 (per opening)

Job Hours: 16.00

Total Cost: \$3,649.41

BULLDOZER WORK

Task description:	Willi Iwillu Estab	1511 511, 1 1	Slopes on waste piles		
Whirlwind Mine	Perm	nit Action:	TR2	Permit/Job#:	M2007044
PROJECT IDENTIFIC	ATION				
Task #: 05W	State:	Colorado		Abbreviation:	None
Date: $2/6/2025$	County:	Mesa		Filename:	M044-05W
User: ACY	County.	Wiesa		i nename.	101044-03 00
Agency or organiz	ation name: DR	MS			
HOURLY EQUIPMEN	<u>T COST</u>				
	8T - 8SU				
Horsepower: 310					
• •	Universal				
	nk ripper				
Shift Basis: 1 per					
Data Source: (CRG	()				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:		\$173.32	NA		
Operating Cost/Hour:		\$109.71	100		
Ripper own. Cost/Hour:		\$14.53	NA		
Ripper op. Cost/Hour:		\$1.99	25		
Operator Cost/Hour:		\$40.04	NA		
MATERIAL QUANTIT Initial Volume: 4,000					
Swell factor: 1.335		_			
Loose volume: 5,340 I	LCY				
	. D				
Source of estimated volume Source of estimated swell fa					
Source of estimated swell it		JOOK			
HOURLY PRODUCTI	<u>ON</u>				
Average push distance:	100 feet				
Unadjusted hourly production		hr			
Materials consistency descri	iption: <u>Compac</u>	cted fill or ei	nbankment 0.9		
Average push gradient:	15 %				
Average site altitude:	6,800 feet				
Matarial maight	2 550 lbs/I CV				
Material weight:	2,550 lbs/LCY				
Weight description:	Sandstone				
			Source		
lob Condition Correction Fa					
lob Condition Correction Fa Operator Sk	ill: 0.7	750	(AVG.)		
lob Condition Correction Fa Operator Sk Material consistence	ill: 0.7 cy: 0.9	900	(AVG.) (CAT HB))		
lob Condition Correction Fa Operator Sk	ill: 0.7 cy: 0.9 od: 1.0		(AVG.)		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	0.666	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)
Net correction: Adjusted unit production: 22	0.2692 9.52 LCY/hr	
J I		

Adjusted fleet production:	229.52 LCY/hr	

Fleet size:	1 Dozer(s)
Unit cost:	\$1.480/LCY

Total job time:	23.27 Hours
Total job cost:	\$7,901

BULLDOZER RIPPING WORK

	Task description:	Whirlwind	Rip 7.41 ac of con	npacted areas				
Site	: Whirlwind M	ine	Permit Action:	TR2	Per	mit/Job#:	M200704	14
	PROJECT ID	ENTIFICATION						
	Task #: 06V	N St	ate: Colorado		Abbre	viation:	None	
		/2025 Cou			Fi	lename:	M044-06	W
	User: AC							
	Agency	or organization name:	DRMS					
	HOURLY EQ	UIPMENT COST						
	Basic 1	Machine: Cat D8T -	8SU		Horsepower:		310	
	Ripper Att	achment: <u>3-Shank Ri</u>	pper		Shift Basis:		ber day	
					Data Source:	(0	CRG)	
	Cost Breakdown:				Litilization 0/			
		Ownership Cost/Hour	r:	\$173.32	Utilization % NA			
		Operating Cost/Hour	r:	\$109.71	100			
		er Ownership Cost/Hour		\$14.53	NA			
	Rıpp	oer Operating Cost/Hour Operator Cost/Hour		\$7.95 \$40.04	100 NA			
		Total Unit Cost/Hour		\$345.55				
		Total Fleet Cost/Hour	r: <u>\$345</u>					
	MATERIAL C	<u>DUANTITIES</u>	Sele	cted estimating	method: Area			
	Alternate Method	l <u>s:</u>						
Seismic:	NA		Bank Volume:	NA	BCY		NA	
Area:	7.41	acres	Rip Depth (ft):	2.50	Volume: 29	9,887		BCY or CC
	Source of estimated quantity: Reclamation Plan							
	HOURLY PRO	DUCTION						
	Seismic:							
	<u>Seisinie.</u>	Seismic	Velocity:	NA	feet/seco	nd		
	Area:		•					
	<u>Alta.</u>	Average Rippi	ng Depth:	1.00	feet/pass			
		Average Rippi	ng Width:	7.08	feet/pass			
		Average Rippin		100.00	feet/pass			
		Average Doz Average Maneu		<u>88.00</u> 0.25	feet/minu minutes/p			
		Production per		0.703	acres/hou			
	Job Condition Co	rrection Factors						
			. 1	0.702	A			
	Un	adjusted Hourly Unit Pr		0.703	Acres/hr			
			Altitude:	6,800 1.00	feet			
			tude Adj: fficiency:	0.83	(CAT HE (1 shift/da			
			orrection:	0.83	(1 shift da multiplier	-		
		Adjusted Hourly	· · · · · · · · · · · · · · · · · · ·	0.58	Acres/hr			
		Adjusted Hourly		0.58	Acres/hr			
	JOB TIME AN				_			
				Total islation		<u>(</u>)	TT.	
	Fleet size:	1 Grade	er(s)	Total job time	. 12	.69	Hou	118
	Unit cost:	\$591.852 Per ad	cre	Total job cost	t:\$4,	386		

BULLDOZER WORK

	Whirlwind Spread topso		0.07 ac		
Whirlwind Mine	Permit Acti	on: <u>T</u> F	R2	Permit/Job#:	M2007044
PROJECT IDENTIF	ICATION				
Task #: 07W	State: Colora	ado		Abbreviation:	None
Date: 2/6/2025	County: Mesa			Filename:	M044-07W
User: ACY					
Agency or organ	nization name: DRMS				
HOURLY EQUIPME	ENT COST				
	t D8T - 8SU				
Horsepower: 310					
VI	ni-Universal				
Attachment: NA Shift Basis: 1 p					
	er day RG)				
	XU)				
Cost Breakdown:		I			
	4150	22	<u>Utilization %</u>		
Ownership Cost/Hour:	\$173. \$109.		NA 100		
Operating Cost/Hour: Ripper own. Cost/Hour:	<u>\$109.</u> \$0.		100 NA		
Ripper own. Cost/Hour: Ripper op. Cost/Hour:	\$0. \$0.		25		
Operator Cost/Hour:	\$40.		NA		
Total unit Cost/Hour: Total Fleet Cost/Hour:	\$323.07 \$323.07		_		
Total Fleet Cost/Hour: MATERIAL QUANI	\$323.07 <u>TITIES</u>		_		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,3	\$323.07 TITIES 24		_		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,3 Swell factor: 1.00	\$323.07 <u>STITIES</u> 24 0				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,3 Swell factor: 1.00 Loose volume: 15,3	\$323.07 TITIES 24 0 24 LCY 24 LCY				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,3 Swell factor: 1.00 Loose volume: 15,3 Source of estimated volu	\$323.07 TITIES 24 0 24 LCY me:Reclamation Plan	E-15			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,3 Swell factor: 1.00 Loose volume: 15,3	\$323.07 TITIES 24 0 24 LCY me: Reclamation Plan	E-15			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,3 Swell factor: 1.00 Loose volume: 15,3 Source of estimated volu Source of estimated swel	\$323.07 CITIES 24 0 24 LCY me: Reclamation Plan 1 factor: Cat Handbook	E-15			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,3 Swell factor: 1.00 Loose volume: 15,3 Source of estimated volu 5,3 Source of estimated volu 5,3 HOURLY PRODUCT 15,3	\$323.07 TITIES 24 0 24 LCY me: Reclamation Plan 1 factor: Cat Handbook FION	E-15			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,3 Swell factor: 1.00 Loose volume: 15,3 Source of estimated volu: Source of estimated volu: Source of estimated swel HOURLY PRODUCT Average push distance:	\$323.07 CITIES 24 0 24 LCY me: Reclamation Plan 1 factor: Cat Handbook FION 100 feet	E-15			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,3 Swell factor: 1.00 Loose volume: 15,3 Source of estimated volu 50 Source of estimated volu 50 MOURLY PRODUCT Average push distance: Unadjusted hourly product 100	\$323.07 CITIES 24 0 24 LCY me: Reclamation Plan 1 factor: Cat Handbook FION 100 feet ction: 852.6 LCY/hr				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,3 Swell factor: 1.00 Loose volume: 15,3 Source of estimated volu: 50 Source of estimated volu: 50 MOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency destance	\$323.07 CITIES 24 0 24 LCY me: Reclamation Plan 1 factor: Cat Handbook IION 100 feet ction: 852.6 LCY/hr				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,3 Swell factor: 1.00 Loose volume: 15,3 Source of estimated volu 50 Source of estimated volu 50 MOURLY PRODUCT Average push distance: Unadjusted hourly produced Materials consistency dese Average push gradient: 100	\$323.07 CITIES 24 0 24 LCY me: Reclamation Plan 1 factor: Cat Handbook FION ction: 100 feet scription: Partly consolid -15 %				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,3 Swell factor: 1.00 Loose volume: 15,3 Source of estimated volu: 50 Source of estimated volu: 50 MOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency destance	\$323.07 CITIES 24 0 24 LCY me: Reclamation Plan 1 factor: Cat Handbook FION ction: 100 feet scription: Partly consolid				
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Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,3 Swell factor: 1.00 Loose volume: 15,3 Source of estimated volu 50 Source of estimated volu 50 Mource of estimated swel 100 HOURLY PRODUCY Average push distance: Unadjusted hourly produce Materials consistency des Average push gradient: Average site altitude:	\$323.07 CITIES 24 0 24 LCY me: Reclamation Plan 1 factor: Cat Handbook I factor: Cat Handbook IION 100 feet ction: 852.6 LCY/hr scription: Partly consolid -15 % 6,800 feet				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,3 Swell factor: 1.00 Loose volume: 15,3 Source of estimated volu: Source of estimated volu: Source of estimated swel HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight:	\$323.07 CITIES 24 0 24 LCY me: Reclamation Plan 1 factor: Cat Handbook I factor: Cat Handbook IION 100 feet ction: 852.6 LCY/hr scription: Partly consolid -15 % 6,800 feet 2,550 lbs/LCY Earth - Dry packed				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,3 Swell factor: 1.00 Loose volume: 15,3 Source of estimated volu: Source of estimated volu: Source of estimated swel HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average site altitude: Material weight: Weight description: Job Condition Correction Operator	\$323.07 CITIES 24 0 24 LCY me: Reclamation Plan 1 factor: Cat Handbook IION ction: 100 feet scription: Partly consolid -15 % 6,800 feet 2,550 lbs/LCY Earth - Dry packed Factor 0.750				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,3 Swell factor: 1.00 Loose volume: 15,3 Source of estimated volu: Source of estimated volu: Source of estimated swel HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consist	\$323.07 CITIES 24 0 24 LCY me: Reclamation Plan 1 factor: Cat Handbook Ifficient Cat Handbook Ifficient 100 feet ction: 100 feet ction: 100 feet ction: 252.6 LCY/hr scription: Partly consolid -15 % 6,800 feet 2,550 lbs/LCY Earth - Dry packed Factor 0.750 Skill: 0.750 ency: 1.100		<u>Source</u> (AVG.) (CAT HB)		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,3 Swell factor: 1.00 Loose volume: 15,3 Source of estimated volu: Source of estimated volu: Source of estimated swel HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consist Dozing me	\$323.07 CITIES 24 0 24 LCY me: Reclamation Plan 1 factor: Cat Handbook Ifficient Cat Handbook Ifficient 100 feet ction: 100 feet ction: 100 feet ction: 252.6 LCY/hr scription: Partly consolid -15 % 6,800 feet 2,550 lbs/LCY Earth - Dry packed Factor 0.750 Skill: 0.750 ency: 1.100		Source (AVG.)		

Job efficience	cy:	0.830	(1 SHIFT/DAY)
Spoil pi	le:	0.800	(FND-RF)
Push gradient:		1.329	(CAT HB)
Altitud	de:	1.000	(CAT HB)
Material Weight: Blade type:		0.902	(CAT HB)
		1.000	(PAT)
Net correction	on:	0.6567	
Adjusted unit production:	55	9.90 LCY/hr	
Adjusted fleet production:	55	9.9 LCY/hr	

Fleet size:	1 Dozer(s)
Unit cost:	\$0.577/LCY

Total job time:	27.37 Hours
Total job cost:	\$8,842

REVEGETATION WORK

Task description:		otion:	Whirlwind Reveg 8.07 ac + t	opsoil area 1.82	2 ac	
Site:	Site: Whirlwind Mine		Permit Action: <u>TR2</u>		Permit/Jol	o#: <u>M2007044</u>
<u>P</u>]	ROJECT	IDENTIFIC	CATION			
	Task #:	08W	State: Colorado		Abbreviation:	None
	Date:	2/6/2025	County: Mesa		Filename:	M044-08W
	User:	ACY				

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)	\$117.61
Total Tilling Cost/Acre	\$117.61

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Hachita	0.60	9.79	\$17.19
Indian Ricegrass - Paloma	2.80	9.06	\$57.49
Crested Wheatgrass - Nordan	2.00	9.18	\$10.63
Pubescent Wheatgrass - Luna	4.00	8.26	\$20.02
Slender Wheatgrass - Pryor	2.60	9.49	\$16.07
Milk Vetch, Cicer - Lutana	0.40	1.33	\$3.92
Western Wheatgrass - Arriba	3.60	9.09	\$32.52
Needle and Thread	3.20	8.45	\$260.57
Flax, Lewis Blue	1.00	6.63	\$42.30
Saltbush, Four Wing	4.00	5.51	\$79.49

Penstemon, Palmer	0.20	4.42	\$15.59
		01.02	
Totals Seed Mix	24.40	81.23	\$555.78

Application

Description		Cost /Acre
Hydro seeding (MEANS 32 92 19.14 0200)		\$1,359.07
	Total Seed Application Cost/Acre	\$1,359.07

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - Curtail @ 4.0 pt/ac	1.00	ACRE	\$36.14	\$36.14
Hydromulch, 1 ton/ac. rate {Materials Only}	1.00	ACRE	\$1,459.26	\$1,459.26
Total Mulch Materials Cost/Acre				\$1,495.40

Application

Description		Cost /Acre
NA-mulch application incl. with hydroseeding		\$0.00
Weed spray, hand, non-aquatic area, nox. [DMG]		\$209.61
	Total Mulch Application Cost/Acre	\$209.61

NURSERY STOCK PLANTING

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

	No. of Acres:	9.89	Cost /Acre:	\$3,737.47
Estimate	ed Failure Rate:	50%	Cost /Acre*:	\$3,619.86
*Selected Replanti	ng Work Items:	SEEDING, MULCHING	G	
Initial Job Cost:	\$36,963.58			
Reseeding Job Cost:	\$17,900.21			
Total Job Cost:	\$54,864			
Job Hours:	16.00			

BULLDOZER WORK

Task description:	Whirlwin	d Backfill Sedimer	nt Pond		
Whirlwind Mine		Permit Action:	TR2	Permit/Job#:	M2007044
PROJECT IDENTI	FICATION				
Task #: 09W		State: Colorado		Abbreviation:	None
Date: $2/6/2025$		ounty: Mesa		Filename:	M044-09W
User: ACY		J			
Agency or org	anization name	: DRMS			
HOURLY EQUIPM	ENT COST				
Basic Machine:	at D8T - 8SU				
Horsepower: 31					
• •	emi-Universal				
	shank ripper				
	per day				
Data Source: (C	CRG)				
Cost Breakdown:			l		
		¢172.22	Utilization %		
Ownership Cost/Hour:		\$173.32	NA		
Operating Cost/Hour: Ripper own. Cost/Hour:		\$109.71 \$14.53	100 NA		
Ripper op. Cost/Hour:		<u>\$14.33</u> \$1.99	25		
Operator Cost/Hour:		\$40.04			
Operator Cost/Hour.		\$40.04	NA		
MATERIAL QUAN Initial Volume: 4,6					
Swell factor: 1.1					
Source of estimated volu		eclamation Plan			
Source of estimated voi		at Handbook			
HOURLY PRODUC					
		6			
Average push distance: Unadjusted hourly prod	<u>100</u> uction: 852.	feet 6 LCY/hr			
Materials consistency de		Compacted fill or e	mbankment 0.9		
Average push gradient: Average site altitude:	-5 % 6,800 feet				
Material weight:	2,900 lbs/L	СҮ			
Weight description:	Decompose	ed rock - 50% Rock	, 50% Earth		
Job Condition Correction	n Factor		Source		
Job Condition Correction Operator	n <u>Factor</u> r Skill:	0.750	Source (AVG.)		
Job Condition Correction Operator Material consis	n Factor r Skill: stency:	0.750 0.900	Source (AVG.) (CAT HB))	
Job Condition Correction Operator Material consis Dozing m	n Factor r Skill: stency:	0.750	Source (AVG.))	

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.115	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:		
Adjusted unit production: 3	37.89 LCY/hr	
Adjusted fleet production: 3	37.89 LCY/hr	

Fleet size:	1 Dozer(s)
Unit cost:	\$1.005/LCY

Total job time:	15.89 Hours
Total job cost:	\$5,395

SAFEGUARDING UNDERGROUND OPENINGS

	Task description:	Seal 2 air sl	hafts			
Site:	Whirlwind Mine		Permit Action:	TR2	Permit/.	Job#: <u>M2007044</u>
<u>PROJE</u>	CT IDENTIFICATION	N				
Task #: Date: User:	: 2/6/2025	State: County:	Colorado Mesa		Abbreviation: Filename:	None M044-1WP
Agency or organization name: DRMS						
<u>UNIT C</u>	<u>COSTS</u>					

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Air shaft	6' dia	Shaft closure - monolithic plug (per opening)	2.00	EA	\$20,646.59	\$41,293.18

Job Hours: ______ 32.00

Total Cost: \$41,293.18

BOREHOLE SEALING WORK

r	Task description:	Seal 2 powe	er drops			
Site:	Whirlwind Mine		Permit Action:	TR2	Permit/J	Job#: <u>M2007044</u>
PROJE	CT IDENTIFICATION	<u>N</u>				
Task #:	2WP	State:	Colorado		Abbreviation:	None
Date:	2/6/2025	County:	Mesa		Filename:	M044-2WP
User:	ACY					
	Agency or organizat	ion name:	DRMS			

UNIT COSTS

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Seal Power drop holes	USER PROVIDED ITEM	6	5	2.00	EA	\$1,250.00	\$2,500.00
Plug W-1	Portland cement grout - 2 in. (labor, equip, materials)	2	150	150.00	LF	\$8.57	\$1,285.65

Job Hours: 24.00

Total Cost: \$3,786.00

DEMOLITION WORK

Task description	n: Remov	e power drop lines				
Site: Whirlwind M	ine	Permit Action: <u>TR2</u>		Pe	ermit/Job#:	M2007044
PROJECT IDENTIF	ICATION					
Task #: 3WP State: Colorado Abbreviation: None						
Date: 2/6/2025 County: Mesa Filename: M044-3WP						
User: ACY						
Agency or organization name: DRMS						
<u>UNIT COSTS</u>				Location	adjustmen	<u>t: 90.70 %</u>
Structure or Item Description Dimensions		Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
power drops for mine	200 LF of cable	USER PROVIDED	200.00	LF	\$2.00	\$400.00
		ITEM				

				Total Cost	
		Subtotal		(adjusted for	
Job Hours:	8.00	(unadjusted):	\$400.00	location):	\$362.80

BULLDOZER RIPPING WORK

	Task description	Rip vent a	nd power drop are	as prior to tops	oil		
Site	: Whirlwind M	ine	Permit Action:	TR2	Permi	t/Job#: <u>N</u>	12007044
	PROJECT ID	ENTIFICATION					
	Task #: 4W	/P S	tate: Colorado		Abbrevia	tion: No	one
		5/2025 Cou	inty: Mesa		Filen		044-4WP
	User: AC	CY					
	Agency	or organization name:	DRMS				
	HOURLY EQ	UIPMENT COST					
	Basic	Machine: Cat D8T -	8SU		Horsepower:	310	
	Ripper Att	achment: 3-Shank R	lipper		Shift Basis:	1 per d	
					Data Source:	(CRG	
	Cost Breakdown	<u>.</u>		1 -			
		Ownership Cost/Hou	14.	\$173.32	Utilization % NA		
		Operating Cost/Hot		\$109.71	100		
	Ripp	er Ownership Cost/Hou		\$14.53	NA		
	Rip	per Operating Cost/Hou		\$7.95	100		
		Operator Cost/Hou Total Unit Cost/Hou		\$40.04	NA		
		Total Unit Cost/Hot	Ir:	\$345.55			
		Total Fleet Cost/Hou	ır: \$345	.55			
	MATERIAL (<u> UANTITIES</u>	Sele	cted estimating 1	method: Area		
	Alternate Method	<u>1s:</u>					
Seismic:	NA		Bank Volume:	NA	BCY	NA	
Area:	1.10	acres	Rip Depth (ft):	2.00	Volume: 3,549		BCY or CCY
		Source of estimated of	uantity: Reclam	ation Plan			
	HOURLY PR		[j ·				
		<u>objection</u>					
	Seismic:	Seismi	e Velocity:	NA	feet/second		
		Seisini					
	Area:	Average Ripp	ing Donthy	1.00	feet/pass		
		Average Ripp		7.08	feet/pass		
		Average Rippi		50.00	feet/pass		
		Average Do		88.00	feet/minute		
		Average Maner Production pe		0.25 0.596	minutes/pas acres/hour	5	
		-		0.390			
	Job Condition Co	orrection Factors					
	Un	adjusted Hourly Unit F	roduction:	0.596	Acres/hr		
		Sit	e Altitude:	6,800	feet		
			titude Adj:	1.00	(CAT HB)		
			Efficiency:	0.83	(1 shift/day)		
		Net C	Correction:	0.83	multiplier		
			Unit Production:	0.49	Acres/hr		
		Adjusted Hourly	Fleet Production:	0.49	Acres/hr		
	JOB TIME AN	ND COST					
	Fleet size:	1 Grac	ler(s)	Total job time	: 2.22		Hours
	Unit cost:	\$698.580 Per a	ncre	Total job cost	:\$768		

BULLDOZER WORK

Task description:	Push topsoil over	vent and po	ower pads		
Whirlwind Mine	Perr	nit Action:	TR2	Permit/Job#:	M2007044
PROJECT IDENTIF	TICATION				
Task #: 5WP Date: 2/6/2025 User: ACY	State: County:	Colorado Mesa		Abbreviation: Filename:	None M044-5WP
Agency or organ	nization name: DR	MS			
HOURLY EQUIPME	ENT COST				
	t D8T - 8SU				
Horsepower: <u>310</u> Blade Type: Ser	0 mi-Universal				
Attachment: NA					
	ber day				
	RG)				
	- /				
Cost Breakdown:		I			
Ownership Cost/Hours		\$173.32	<u>Utilization %</u> NA		
Ownership Cost/Hour: Operating Cost/Hour:		\$173.32	<u> </u>		
Ripper own. Cost/Hour:		\$109.71	NA		
Ripper op. Cost/Hour:		\$0.00	<u> </u>		
Operator Cost/Hour:		\$40.04	NA		
Operator Cost/Hour.		\$ + 0.0 +	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour:	\$323.07 \$323.07				
Total Fleet Cost/Hour: MATERIAL QUANI	\$323.07 <u>FITIES</u>				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: <u>1,76</u>	\$323.07 FITIES 59				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: <u>1,76</u> Swell factor: <u>1.00</u>	\$323.07 FITIES 59 00				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 1,76 Swell factor: 1.00 Loose volume: 1,76	\$323.07 FITIES 59 00 59 LCY				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 1,76 Swell factor: 1.00 Loose volume: 1,76 Source of estimated volume	\$323.07 FITIES 59 00 59 LCY me:Reclamati				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 1,76 Swell factor: 1.00 Loose volume: 1,76	\$323.07 FITIES 59 00 59 LCY me:Reclamati				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 1,76 Swell factor: 1.00 Loose volume: 1,76 Source of estimated volum Source of estimated swell	\$323.07 FITIES 59 00 59 LCY me: Reclamati 11 factor: Cat Handl				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 1,76 Swell factor: 1.00 Loose volume: 1,76 Source of estimated volume	\$323.07 FITIES 59 00 59 LCY me: Reclamati 11 factor: Cat Handl				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 1,76 Swell factor: 1.00 Loose volume: 1,76 Source of estimated volum Source of estimated volum Source of estimated swel HOURLY PRODUCT	\$323.07 FITIES 59 00 59 LCY me: Reclamati 11 factor: Cat Handl				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 1,76 Swell factor: 1.00 Loose volume: 1,76 Source of estimated volum Source of estimated swell	\$323.07 EITIES 59 00 59 LCY ime: Reclamati 11 factor: Cat Handl TION 50 feet	book			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 1,76 Swell factor: 1.00 Loose volume: 1,76 Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance:	\$323.07 FITIES 59 00 59 LCY me: Reclamati Il factor: Cat Handle TION action: 50 feet 1,400.0 LCY	book ř/hr	 stockpile 1.1		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 1,76 Swell factor: 1.00 Loose volume: 1,76 Source of estimated volu 1,76 Source of estimated volu Source of estimated swel HOURLY PRODUC? Average push distance: Unadjusted hourly product Materials consistency destance	\$323.07 FITIES 59 00 59 LCY ime: Reclamati 11 factor: Cat Handle TION action: 50 feet 1,400.0 LCY scription: Partly c	book ř/hr	stockpile 1.1		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 1,76 Swell factor: 1.00 Loose volume: 1,76 Source of estimated volu 1,76 Source of estimated volu 1,76 Mource of estimated volu 1,76 Mource of estimated swell 1,76 Mource of estimatesten e	\$323.07 FITIES 59 00 59 LCY me: Reclamati Il factor: Cat Handl TION action: 50 feet 1,400.0 LCY	book ř/hr			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 1,76 Swell factor: 1.00 Loose volume: 1,76 Source of estimated volu 1,76 Source of estimated volu Source of estimated swell HOURLY PRODUCT 1 Average push distance: 1 Unadjusted hourly produc 1 Materials consistency des 1 Average push gradient: 1	\$323.07 FITIES 59 00 59 LCY ime: Reclamati 1 factor: Cat Handle TION action: 50 feet action: 1,400.0 LCY scription: Partly c 0 %	book ř/hr			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 1,76 Swell factor: 1.00 Loose volume: 1,76 Source of estimated volum 1,76 Source of estimated volum 1,76 Source of estimated volum 1,76 Materials consistence: 1,76 Materials consistency des 1,76 Average push gradient: Average site altitude:	\$323.07 FITIES 59 00 59 LCY ime: Reclamati 11 factor: Cat Handle TION action: 50 feet action: 1,400.0 LCY scription: Partly c 0 % 6,800 feet	book //hr onsolidated i	stockpile 1.1		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 1,76 Swell factor: 1.00 Loose volume: 1,76 Source of estimated volum 1,76 Source of estimated volum 1,76 Source of estimated volum Source of estimated volum Materials consistency destinated swell 1,76 Average push distance: 1,76 Unadjusted hourly product 1,76 Average push distance: 1,76 Materials consistency destinated swell 1,76 Average push gradient: 1,76 Average site altitude: 1,76 Material weight: 1,76 Weight description: 1,76	\$323.07 FITIES 59 00 59 LCY 59 LCY ime: Reclamati 11 factor: Cat Handle TION action: 50 feet action: 1,400.0 LCY scription: Partly c 0 % 6,800 feet 2,550 lbs/LCY Earth - Dry packed	book //hr onsolidated i			
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Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 1,76 Swell factor: 1.00 Loose volume: 1,76 Source of estimated volum 1,76 Materials consistency dest 1,76 Average push distance: 1,76 Unadjusted hourly product 1,76 Average push gradient: Average site altitude: Average site altitude: 1,76 Material weight: 1,76 Weight description: 1,00 Job Condition Correction 1,76	\$323.07 ETTIES 59 16 59 LCY extension 20 6,800 feet 2,550 lbs/LCY Earth - Dry packed 1 Factor Skill: 0.'	book //hr onsolidated s	Source		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 1,76 Swell factor: 1.00 Loose volume: 1,76 Source of estimated volumes 1,76 Material sconsistence: 1,76 Unadjusted hourly product 1,76 Materials consistency des 1,76 Average push distance: 1,76 Materials consistency des 1,76 Average site altitude: 1,76 Material weight: 1,76 Weight description: 1,76 Job Condition Correction 1,76	\$323.07 FITIES 59 00 59 100 59 100 59 LCY Imme: Reclamati 11 factor: $Cat Handle TION 50 feet action: 1,400.0 LCY scription: Partly c 0\% 6,800 feet 2,550 lbs/LCY Earth - Dry packed 1.50 lbs/LCY Earth - Dry packed 1.50 lbs/LCY $	book //hr onsolidated i 	Source (AVG.)		

Task # 5WP

Job efficience	cy: 0.830	(1 SHIFT/DAY)
Spoil pi	le: 0.800	(FND-RF)
Push gradie	nt: 1.000	(CAT HB)
Altitud	le: 1.000	(CAT HB)
Material Weig	ht: 0.902	(CAT HB)
Blade typ	be: 1.000	(PAT)
Net correction	on: 0.4941	
Adjusted unit production:	691.74 LCY/hr	
Adjusted fleet production:	691.74 LCY/hr	

JOB TIME AND COST

Fleet size:	1 Dozer(s)
Unit cost:	\$0.467/LCY

Total job time:	2.56 Hours
Total job cost:	\$826

REVEGETATION WORK

]	Task description:		Reveg 1.1 ac of vent and power pads				
Site:	ite: Whirlwind Mine		Permit Action: TR2		Permit/Job#: <u>M200704</u>		
PROJECT IDENTIFICATION							
	Task #: Date: User:	6WP 2/6/2025 ACY	State:ColoradoCounty:Mesa		Abbreviation: Filename:	None M044-6WP	
			ization name:DRMS				

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)	\$117.61
Total Tilling Cost/Acre	\$117.61

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Hachita	0.60	9.79	\$17.19
Indian Ricegrass - Paloma	2.80	9.06	\$57.49
Crested Wheatgrass - Nordan	2.00	9.18	\$10.63
Pubescent Wheatgrass - Luna	4.00	8.26	\$20.02
Slender Wheatgrass - Pryor	2.60	9.49	\$16.07
Milk Vetch, Cicer - Lutana	0.40	1.33	\$3.92
Western Wheatgrass - Arriba	3.60	9.09	\$32.52
Needle and Thread	3.20	8.45	\$260.57
Flax, Lewis Blue	1.00	6.63	\$42.30
Saltbush, Four Wing	4.00	5.51	\$79.49

Penstemon, Palmer	0.20	4.42	\$15.59
		01.02	
Totals Seed Mix	24.40	81.23	\$555.78

Application

Description	Cost /Acre
Broadcast seeding [DMG]	\$272.56
Total Seed Application Cost/Acre	\$272.56

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Hay, delivered {MEANS 31 25 14.16 1200}	1.00	TON	\$492.78	\$492.78
Herbicide - Curtail @ 4.0 pt/ac	1.00	ACRE	\$36.14	\$36.14
Total Mulch Materials Cost/Acre				\$528.92

Application

Description	Cost /Acre
Hand spread, 1" deep (MEANS 32 91 13.16 0200)	\$4,017.20
Weed spray, hand, non-aquatic area, nox. [DMG]	\$209.61
Total Mulch Application Cost/Acre	\$4,226.81

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:	1.1	Cost /Acre:	\$5,701.68	
Estimate	ed Failure Rate:	50%	Cost /Acre*:	\$5,701.68	
*Selected Replanti	ng Work Items:	TILLING,SEEDIN	G,MULCHING		
Initial Job Cost:	\$6,271.85				
Reseeding Job Cost:	\$3,135.92				
Total Job Cost:					
Job Hours:	16.00				

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description	: <u>Init</u>	ial Mobilization					
: Whirlwind M	line	Permit	Action: TR2			Permit/Job#: <u>M</u>	2007044
PROJECT IDE	ENTIFICATI	<u>ON</u>					
Task #: M	B1	State: Co	olorado		Abbro	eviation: None	
Date: 2/6	5/2025		esa		F	ilename: M044	-MB1
User: AC	CY						
Agency	or organization	n name: DRMS					
EQUIPMENT '	TRANSPOR	T RIG COST					
					01 . 6 1		
					Shift ba		
					Cost Data Sou	rce: CRG Da	ta
Truc	k Tractor Desc	ription: GENE	RIC ON-HIGH	WAY TR	UCK TRACTO	OR, 6X4, DIESEL	POWERED,
					P (2ND HALF,		
True	ck Trailer Desc	ription: G	ENERIC FOLD	ING GOO	OSENECK, DI	ROP DECK EQU	IPMENT
					(25T, 50T, Al		
7							
Cost Breakdown:							
Available Rig (Capacities	0-25 Tons	26-50 Tons	51	+ Tons		
Ownershi	p Cost/Hour:	\$10.44	\$22.18	\$	23.94		
Operatin	g Cost/Hour:	\$26.48	\$54.55	\$	55.65		
Operato	or Cost/Hour:	\$22.52	\$22.52	\$	522.52		
Helpe	er Cost/Hour:	\$0.00	\$23.53	\$	23.53		
Total Uni	it Cost/Hour:	\$59.44	\$122.78	\$	125.64		
NON ROADAE			1				
Machine	Weight/	Owner ship	Haul Rig	Fleet	Haul Trip	Return Trip Cost/hr/ fleet	DOT Permit Cost/ fleet
Description	Unit	Cost/hr/ unit	Cost/hr/uni	Size	Cost/hr/	Cost/III/ fieet	Cost/ neet
<u>a</u>	(TONS)		t		fleet		**
Cat D8T - 8SU Cat 315D L 8'-6"	53.08	\$187.85	\$125.64	1	\$313.49	\$125.64 \$59.44	\$250.00
Stick	19.05	\$244.29	\$59.44	1	\$303.73	\$39.44	\$250.00
CAT 938H	16.34	\$32.87	\$59.44	1	\$92.31	\$59.44	\$250.00
Hydroseeder with		\$45.21	\$122.78	1	\$167.99	\$122.78	\$250.00
Tractor							
CAT 246C	3.58	\$39.42	\$59.44	1	\$98.86	\$59.44	\$250.00
Cat 320D L 9'-6" Stick	23.70	\$244.29	\$59.44	1	\$303.73	\$59.44	\$250.00
CAT 450E	9.80	\$78.06	\$59.44	1	\$137.50	\$59.44	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$41.02	\$59.44	1	\$100.46	\$59.44	\$250.00

Subtotals: \$1,518.07 \$605.06 \$2,000.00

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	\$78.53	1	\$78.53	\$78.53
Water Tanker, 3,500 Gal.	\$92.81	1	\$92.81	\$92.81

CIRCES Cost Estimating Software

Mobilization Worksheet Cont'd

Generic 12-18 cy, 6x4 Light Duty Pickup, 4x4, 1 T. Crew	\$114.77 \$81.06	2	\$229.54 \$162.12	\$229.54 \$162.12
Light Duty Pickup, 4x4, 3/4 T.	\$97.64	1	\$97.64	\$97.64
		:	Subtotals: \$660.64	\$660.64

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	GRAND JUNCTION	
Total one-way travel distance:	60.00	miles
Average Travel Speed:	40.00	mph
Total Non-Roadable Mob/Demob Cost * '* two round trips with haul rig:	\$13,405.53	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	\$1,981.92	

Transportation Cycle Time:

	Non- Roadable	Roadable
	Equipment	Equipment
Haul Time (Hours):	1.50	1.50
Return Time (Hours):	1.50	1.50
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	4.00	3.00

JOB TIME AND COST

Total job time: **8.00** Hours

Total job cost: \$15,387

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description:	Sec	ondary Mobiliza	tion					
: Whirlwind Min	ne	Permit	Action: TR2			Permit/Job	#: <u>M2</u>	007044
PROJECT IDEN	TIFICATI	ON						
Task #: MB2	2	State: Co	olorado		Abbre	eviation:	None	
Date: 2/6/2		County: M	esa		Fi	ilename:	M044-	MB2
User: ACY	[
Agency of	r organizatio	n name: DRMS						
EQUIPMENT T	RANSPOR	T RIG COST						
					Shift ba	voia: 1	nor day	
				(Cost Data Sou		per day RG Data	
_								
Truck	Tractor Desc	ription: GENE	RIC ON-HIGH				DIESEL	POWERED,
Π. 1	T. 1. D.				(2ND HALF,		Z EQUU	
Iruck	Trailer Desc	ription: G	ENERIC FOLD				EQUI	PMENI
				IKAILEK	(25T, 50T, AN	ND 1001)		
Cost Breakdown:								
Available Rig Ca	pacities	0-25 Tons	26-50 Tons	51+	Tons			
Ownership	Cost/Hour:	\$10.44	\$22.18	\$2	.3.94			
Operating	Cost/Hour:	\$26.48	\$54.55	\$5	5.65			
Operator	Cost/Hour:	\$22.52	\$22.52	\$2	2.52			
Helper	Cost/Hour:	\$0.00	\$23.53	\$2	23.53			
Total Unit	Cost/Hour:	\$59.44	\$122.78	\$1	25.64			
NON ROADABL	<u>LE EQUIP</u>	MENT:						
Machine	Weight/	Owner ship	Haul Rig	Fleet	Haul Trip	Return 7	Trip	DOT Permit
Description	Unit	Cost/hr/ unit	Cost/hr/uni	Size	Cost/hr/	Cost/hr/	fleet	Cost/ fleet
r	(TONS)		t		fleet			
Hydroseeder with Tractor	28.00	\$45.21	\$122.78	1	\$167.99	\$122.78		\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$41.02	\$59.44	1	\$100.46	\$59.44		\$250.00
				0 1.4.4.1	¢2(0.45	¢10/		¢500.00
				Subtotals:	\$268.45	\$182	2.22	\$500.00

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 1 T. Crew	\$81.06	1	\$81.06	\$81.06
Light Duty Pickup, 4x4, 3/4 T.	\$97.64	1	\$97.64	\$97.64
		Subtotals:	\$178.70	\$178.70

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region: Total one-way travel distance:	GRAND JUNCTION 60.00	miles
Average Travel Speed:	40.00	mph
Total Non-Roadable Mob/Demob Cost *	\$2,888.91	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	\$536.10	

Transportation Cycle Time:

	Non- Roadable	Roadable
	Equipment	Equipment
Haul Time (Hours):	1.50	1.50
Return Time (Hours):	1.50	1.50
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	4.00	3.00

JOB TIME AND COST

Total job time: **8.00** Hours

Total job cost: \$3,425