September 22, 2016

Russell Larsen Elam Construction, Inc. 556 Struthers Ave Grand Junction, CO 81501



COLORADO Division of Reclamation, Mining and Safety Department of Natural Resources

1313 Sherman Street, Room 215 Denver, CO 80203

RE: 5 Mile Pit, File No.M-2016-026, Contruction Material Regular (112) Operation Reclamation Permit Application Decision Letter – Financial and Performance Warranty Request

Dear Mr. Larsen:

On September 22, 2016, the Division of Reclamation, Mining and Safety (Division) approved the above noted permit application.

The amount of financial warranty set by the Division for this operation is an amount of *\$240,629* (*calculation enclosed*). A financial warranty of the entire amount, as well as a performance warranty, must be submitted to the Division before a Reclamation Permit may be issued. Please select a type of financial warranty from those detailed in Rule 4.3. Once a financial warranty type is selected, please download the applicable financial warranty and performance warranty forms from the Division's website http://mining.state.co.us/Mineral%20Forms.htm. You may also contact the Division to have copies of your selected warranty forms mailed to you.

Please make arrangements with Barbara Coria at the Division of Reclamation, Mining and Safety Denver Office, phone no. 303.866.3567, ext. 8148 for submittal of the financial and performance warranties. Any questions regarding completion, execution and/or submittal of financial and/or performance warranty forms should also be directed to Barbara Coria.

PLEASE NOTE THAT MINING OPERATIONS MAY NOT COMMENCE UNTIL A PERMIT HAS BEEN ISSUED BY THE DIVISION <u>AFTER</u> RECEIPT OF THE FINANCIAL AND PERFORMANCE WARRANTIES. A PERMIT WILL NOT BE ISSUED UNTIL THE ADEQUACY OF BOTH THE FINANCIAL WARRANTY AND PERFORMANCE WARRANTY ARE VERIFIED BY THE DIVISION.

If you require additional information, or have questions or concerns, please feel free to contact me. Amy Yeldell at the Division of Reclamation, Mining and Safety, 1313 Sherman St., Room 215, Denver, CO 80203. Direct contact can be made by phone at 970-254-8511 or via email at amy.yeldell@ state.co.us

Sincerely,

Amy Geldell

Amy Yeldell Environmental Protection Specialist Department of Natural Resources Division of Reclamation, Mining and Safety

Russell Larsen September 22, 2016 Page 2

Phone: (970) 254-8511 Fax: (970) 241-1516

Cc:

Russ Means, Senior EPS, Grand Junction DRMS Barbra Coria, Denver DRMS Jon Muller, Elam Construction, Inc.

COST SUMMARY WORK

Task description:		Application- C	Option 2 w/o la	kes				
Site: 5	Mile Pit		F	Permit Action:	App-2	Permit/Jol	o#: <u>M2016026</u>	
<u>PRC</u>	DJECT	000 9/12/2016 ACY	EATION State: County:	Colorado Garfield		Abbreviation: Filename:	None M026-000	

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task		Form	Fleet	Task	~
Task	Description	Used	Size	Hours	Cost
02a	Removal of facilities	DEMOLISH	1	8.00	\$3,742.29
03a	Transport backfill for highwall	TRUCK1	1	5.03	\$5,058.00
03b	Grading highwall backfill	DOZER] 1	2.18	\$437.00
04a	Transport backfill detention pond	TRUCK1] 1	7.79	\$7,839.00
04b	Grading detention pond	DOZER	1	3.38	\$677.00
05a	Rip roads and compacted areas	RIPPER	1	6.43	\$1,379.00
06a	Transport topsoil	TRUCK1] 1	86.14	\$86,430.00
06b	Grading topsoil	DOZER	1	22.54	\$4,511.00
07a	Reveg 25.6 ac Rangeland	REVEGE	1	40.00	\$73,245.00
08a	Initial Mobilization	MOBILIZE	1	2.44	\$5,015.00
		<u>SUBTO</u>	TALS:	183.93	\$188,333

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	\$3,804.33
Performance bond:	1.05	Total =	\$1,977.50
Job superintendent:	91.96	Total =	\$6,849.18
Profit:	10.00	Total =	\$18,833.30
		TOTAL O & P =	\$31,464.31
		CONTRACT AMOUNT (direct + O & P) = $($	\$219,797.31

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

TOTAL BO	ND AMOUNT (d	lirect + indirect) =	\$240,628.56
	TOTAL I	NDIRECT COST =	\$52,295.56
CONTINGENCY:	0.00	Total =	\$0.00
Reclamation management and/or administration:	5.00		\$10,989.87
Engineering work and/or contract/bid preparation:	4.25	Total =	\$9,341.39
Financial warranty processing (legal/related costs):	500.00	Total =	500.00

DEMOLITION WORK

Site:	5 Mile Pit		Permit Action:	App-2	Permit/.	lob#: <u>M2016026</u>
<u>ROJEC</u>	CT IDENTIFICAT	<u>ION</u>				
Task #:	02A	State:	Colorado		Abbreviation:	None
Date:	9/14/2016	County:	Garfield		Filename:	M026-02a
	ACV					

UNIT COSTS

Location adjustment: 95.50 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Scale foundation	20'W x 60'L x 3'D	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	1,500.00	SF	\$2.22	\$3,330.00
Scale house	10'W x 10XL x 10'H	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	1,000.00	CF	\$0.19	\$189.00
Scale House Foundation	(3) 3' x 10' x 2'	Demo. and on-site disposal in existing pit, 2.0 ft. x 3 ft Max. 10,000 ft. haul	30.00	LF	\$13.32	\$399.63

				Total Cost	
		Subtotal		(adjusted for	
Job Hours:	8.00	(unadjusted):	\$3,918.63	location):	\$3,742.29

TRUCK/LOADER TEAM WORK

Site: 5 Mile Dit	r .	Dermit Acti	on: Ann 2		Permit/Joh#• M	2016026
Site: <u>5 Mile Pit</u>		Permit Activ	on: <u>App-2</u>		Permit/Job#: <u>M</u>	2016026
PROJECT IDEN	TIFICATION					
Task #: 03A		State: Colora	ado	Ab	breviation: Noi	ne
Date: 9/13/2	016	County: Garfie	eld		Filename: M0	26-03a
User: <u>ACY</u>						
Agency or	organization nan	ne: DRMS				
HOURLY EQUI	PMENT COST	ſ		Shift bas	is: 1 per day	
		-	Equipment Descri	ption	- <u>+</u>	
Т	ruck Loader Tea	m -Truck: Cat	775F	F		
		-Loader: CA	T 988H			
Supp	Drt Equipment -L	Load Area: Cat	D81 - 8SU D8T - 8SU			
Road Ma	aintenance – Mote	or Grader: NA	001 000			
. <u></u>	-Wa	ter Truck: NA				
Cost Brookdown	Truck/Log	dor Toom	Support	Equipmont	Maintanan	co Equipmont
Cost Breakuowii;	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
% Utilization machine:	100	100	50	100	NA	N A
Ownership cost/hour:	\$91.45	\$86.92	\$82.01	\$82.01	NA	NA
Operating cost/hour:	\$95.55	\$99.00	\$39.62	\$79.23	NA	NA
%Utilization-riper:	NA	0	50	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$8.40	\$0.00	NA	NA
Ripper op. cost/hour:	NA	\$0.00	\$2.81	\$0.00	NA	NA
Operator cost/hour:	\$22.10	\$38.60	\$38.89	\$38.89	NA	NA
Unit Subtotals:	\$209.10	\$224.52	\$163.33	\$200.13	NA	NA
Number of Units:	2	1	1	1	0	(
Group Subtotals:	Work:	\$642.72	Support:	\$363.46	Maint:	\$0.00
Total work team cos	t/hour: <u>\$1,006.</u>	18				
MATERIAL OU						
<u>MATERIAL QU</u>	ANIIIE5					
Initial volume:	4,000	$\frac{\text{CCY}}{\text{ICY}}$	Swell	factor: <u>1.115</u>		
Loose volume.			211 4 0 0 0 1 4 0 1 0 1			
Source	arce of estimated	volume: Back	fill 1000' L x 12' Fandbook	H @ 1.5H:1V to	3H:1V	
Source	Material Purcha	ase Cost: $$0.00$)			
	То	otal Cost: \$0.00)			
HOURLY PRO	DUCTION					
Truck Consoiter						
Truck Capacity: Truck Payload (weighted)	ght) Basis:					
Material w	veight: 2,100		Pounds/LCY			
Descri	ption: Earth -	Loam				
D	ulaad. 141.00	Δ	Dour 1-			

Wheel and Track Load Cycle Time Facto Materi Stockpi Truck Ownershi Operatio Dump Targ Truck Cycle Time: Truck Exchange T Truck Load T ck Maneuver and Dump T	ime: 0.80 ime: 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80	r dozer piled 10 ft. h wnership of trucks ar veration -0.04 rget 0.00 Net Cycle T Adjusted Loa Net Load Minutes Minutes Minutes Minutes Minutes	igh or less 0.01 id loaders -0.04 ime Adjustment: ider Cycle Time: Time per Truck: Adjusted Adjusted Adjusted	0.010 -0.040 -0.040 0.000 -0.090 0.485 2.040 for site altitude: for site altitude:	(Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes 0.800 2.040 1.200	Minute Minute Minute
Wheel and Track Load Cycle Time Facto Materi Stockpi Truck Ownersh Operatio Dump Targ Truck Cycle Time: Truck Exchange T Truck Load T	ime: 0.80 ime: 2.040	r dozer piled 10 ft. h wnership of trucks ar veration -0.04 rget 0.00 Net Cycle T Adjusted Loa Net Load Minutes Minutes	igh or less 0.01 id loaders -0.04 ime Adjustment: ider Cycle Time: Time per Truck: Adjusted Adjusted	0.010 -0.040 -0.040 0.000 -0.090 0.485 2.040 for site altitude: for site altitude:	(Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes 0.800 2.040	 Minute
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Wheel and Track Load Cycle Time Facto Materi Stockpi Truck Ownershi Operatio Dump Targ	al: Material 1/8 le: Conveyor o p: Common ov on: Constant op et: Nominal tar	r dozer piled 10 ft. h wnership of trucks ar veration -0.04 get 0.00 Net Cycle T Adjusted Loa Net Load	igh or less 0.01 ad loaders -0.04 ime Adjustment: ader Cycle Time: Time per Truck:	0.010 0.010 -0.040 -0.040 0.000 -0.090 0.485 2.040	(Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	-
Wheel and Track Load Cycle Time Facto Materi Stockpi Truck Ownersh Operatio Dump Targ	al: Material 1/8 le: Conveyor o p: Common ov n: Constant op et: Nominal tar	r dozer piled 10 ft. h wnership of trucks ar veration -0.04 rget 0.00 Net Cycle T Adjusted Loa	igh or less 0.01 ad loaders -0.04 ime Adjustment: ader Cycle Time:	0.010 0.040 -0.040 0.000 -0.090 0.485 0.010	(Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	
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Wheel and Track Load Cycle Time Facto Materi Stockpi Truck Ownersh Operatio Dump Targ	al: Material 1/8 le: Conveyor o p: Common ov n: Constant op et: Nominal tar	r dozer piled 10 ft. h wnership of trucks ar veration -0.04 rget 0.00	igh or less 0.01 id loaders -0.04	0.010 -0.040 -0.040 0.000	(Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	
Wheel and Track Load Cycle Time Facto Materi Stockpi Truck Ownershi	al: Material 1/8 le: Conveyor of p: Common ov n: Constant op	r dozer piled 10 ft. h wnership of trucks ar peration -0.04	igh or less 0.01 nd loaders -0.04	0.010 -0.040 -0.040	(Cat HB) (Cat HB) (Cat HB) (Cat HB)	-
Wheel and Track Load Cycle Time Facto Materi Stockpi Truck Ownershi	al: Material 1/8 e: Conveyor of p: Common ov	r dozer piled 10 ft. h wnership of trucks ar	igh or less 0.01 id loaders -0.04	0.010 -0.040	(Cat HB) (Cat HB) (Cat HB)	_
Wheel and Track Load Cycle Time Facto Materi Stockni	al: Material 1/8 e: Convevor of	r dozer piled 10 ft. h	igh or less 0.01	0.010	(Cat HB)	_
Wheel and Track Load Cycle Time Facto Materi	ors al: Material 1/8	(1)	· · · · · =	(),,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Wheel and Track Load		" to 3//" diameter -) 02	Factor (min.)	Source (Cat HB)	
	ers - Unadjusted E	Basic Loader Cycle T	ime (load, dump, r	maneuver):0	.575 minu	ites
Load: NA]	Maneuver: NA		Dump: 0.100)	
Cycle Time Elements (m	in.):					
Track Loade	rs – Material Desc	cription:				
Machine Cycle Tin Selected Va	ne vs. Job Conditi lue within this Ba	on Rating: <u>NA</u> sic Rating: NA				
Excavators and Front Sh	ovels:					
Loading Tool Cycle Ti	ne: Numb	er of Loading Tool I	Passes Required to 1	Fill Truck:	5 p	asses
Net Correction:	0.830	0.830				
500 Linelency.	0.050	0.050		·/		
Ioh Efficiency:	0.830	0.830		<u>2)</u>		
A 14:4. J A	1 000	Loader	Source			
Job Condition Correcti	ons:	x x	Site Altitude (ft.): <u>4</u>	5000 feet		
Aujusted Capacity	. 10,140					
Adjusted Conseits		Uner - rock/d	int mixtures (100	-120%) 1.100		-
Rated Capacity	<i>'</i> : <u>9.200</u>	LCY (heaped))	1200() 1 100		-
			Buch	ket Size Class: N	A	_
Loading Tool Capacity						
F	inal Truck Volum	e Based on Number	of Loader Passes:	50.60	LCY	
		LCI				
Aujustea volume.	55.60					
Adjusted Volume:	49.45	LCY				
Heaped Volume: Average Volume: Adjusted Volume:	<u> </u>	·				

Haul Rou	te:							
Seg #	Haul (Et)	Distance	Grade (%)	Roll. Res	Total Res	Velocity (fnm)	Travel Time	
	(11)			(70)	(70)	(ipiii)	(min)	
1	1000.	00	0.00	5.00	5.00	1528	0.782	
					Haul Time:	0.782	minutes	
Return Re	oute:							
Seg #	Haul	Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
	(Ft)			(%)	(%)	(fpm)	(min)	
1	1000.	00	0.00	5.00	5.00	3357	0.536	
					Return Time:	0.536	minute	S
				Total Tru	ck Cycle Time:	5.358	minute	S
Loading Too	ol unit							
Produ Travala Unit Produ	uction	1,069.01	LCY/Hour		Adjusted for j	ob efficiency:	887.28	LCY/Hour
		566.63	LCY/Hour		Adjusted for j	ob efficiency:	470.30	LCY/Hour
Optimal No. of Tr	rucks:	2	Truck(s)		Selected Num	ber of Trucks:	2	Truck(s)
			Adjuste	d hourly truc	k team production	on: 940	.60 LCY	/Hour
			Adjusted sing	le truck/loade	er team production	on: 887	.28 LCY	/Hour
			Adjusted multip	le truck/loade	er team production	on: 887	.28 LCY	/Hour
JOB TI	ME AP	ND COST						
Fleet	size:	1	Team(s)	r	Fotal job time:	5.03	Ho	ours
Unit	cost:	\$1.134	/LCY		Total job cost:	\$5,05	58	

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BULLDOZER WORK

5 Mile Pit	Per	mit Action:	App-2	Permit/Job#:	M2016026
PROJECT IDENTI	FICATION				
Task #: 03B	State:	Colorado		Abbreviation:	None
Date: $9/13/2010$	5 County:	Garfield		Filename:	M026-03b
User: ACY				-	
Agency or org	ganization name: DI	RMS			
HOURLY EQUIPM	IENT COST				
Basic Machine:	at D8T - 8SU				
Horsepower: 3	10				
Blade Type: S	emi-Universal				
Shift Basis: 1	A por day				
Data Source: ((TRG)				
Data Source. (
Cost Breakdown:					
		602 0 1	<u>Utilization %</u>		
Ownership Cost/Hour	:	\$82.01	NA		
Operating Cost/Hour	:	\$79.23	100		
Ripper own. Cost/Hour	:	\$0.00	NA		
Rinner on Cost/Hour	•	\$0.00	0		
Cost Tour	•	****			
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour:	\$200.13 \$200.13	\$38.89	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 2,0	\$200.13 \$200.13 \$200.13 TITIES 000	\$38.89	NA		
Mapper op. Cost/Hour Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 2,0 Swell factor: 1.0 Loose volume: 2,0	\$200.13 \$200.13 \$200.13 XTITIES 000 000 000 LCY	\$38.89	NA		
Apper op. Cost/Hour Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 2,0 Swell factor: 1.0 Loose volume: 2,0 Source of estimated vol Source of estimated swell	\$200.13 \$200.13 \$200.13 (TITIES) 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 Cat Hance	\$38.89	NA aterial		
Mapper op. Cost/Hour Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 2,0 Swell factor: 1.0 Loose volume: 2,0 Source of estimated vol Source of estimated swell HOURLY PRODUCE 100		\$38.89	NA 		
Mapper op. Cost/Hour Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 2,0 Swell factor: 1.0 Loose volume: 2,0 Source of estimated vol Source of estimated swell HOURLY PRODUC Average push distance:		\$38.89	NA aterial		
Mapper op. Cost/Hour Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 2,0 Swell factor: 1.0 Loose volume: 2,0 Source of estimated vol Source of estimated swell HOURLY PRODUC Average push distance: Unadjusted hourly prod	\$200.13 \$200.13 \$200.13 TITIES 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 <	\$38.89 			
Mapper op. Cost/Hour Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 2,0 Swell factor: 1.0 Loose volume: 2,0 Source of estimated vol 500 Source of estimated swell 400 HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency d	\$200.13 \$200.13 \$200.13 TITIES 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 <	\$38.89 	aterial		
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Mapper op. Cost/Hour Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 2,0 Swell factor: 1.0 Loose volume: 2,0 Source of estimated vol Source of estimated swell HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency d Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Job Condition Correction	$\begin{array}{c} & \\ & \\ & \\ & \\ \hline \\ \\ & \\ \hline \\ \\ & \\ \hline \\ \\ \hline \\ \\ & \\ \hline \\ \hline \\ \\ \hline \\ \hline \\ \\ \hline \\ \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline \\ \\ \hline \\ \\ \hline \hline \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline \hline \\ \hline \\ \hline \hline \\ \hline \\ \hline \\ \hline \\ \hline \hline \\ \hline \hline \\ \hline \\ \hline \hline \hline \hline \\ \hline \hline \hline \hline \\ \hline \hline \hline \hline \hline \\ \hline \hline \hline \hline \hline \hline \hline \\ \hline \hline$	\$38.89	aterial		
Mapper op. Cost/Hour Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 2,0 Swell factor: 1.0 Loose volume: 2,0 Source of estimated vol Source of estimated vol Source of estimated swatch HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency d Average site altitude: Material weight: Weight description: Job Condition Correction Operator	$\frac{\$200.13}{\$200.13}$ $\frac{\$200.13}{\$200.13}$ $\overline{\text{TITTIES}}$ $\frac{1000}{100}$ $\frac{100}{100}$ $\frac{50}{1400.0}$ $\frac{50}{1400.0}$ $\frac{50}{1400.0}$ $\frac{50}{1400.0}$ $\frac{50}{1400.0}$ $\frac{0\%}{5,000}$ $\frac{0\%}{5,000}$ $\frac{0\%}{5,000}$ $\frac{0\%}{5,000}$ $\frac{1400.0}{1400.0}$ $\frac{0\%}{5,000}$ $\frac{0\%}{5,000}$ $\frac{1400.0}{1400.0}$ 140	\$38.89 same state	aterial		
Mapper op. Cost/Hour Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 2,0 Swell factor: 1.0 Loose volume: 2,0 Source of estimated vol Source of estimated swell HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency d Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consistency Operator	$\begin{array}{c} & \\ & \\ & \\ & \\ \hline \\ \\ & \\ \hline \\ \\ \hline \\ \\ & \\ \hline \\ \\ \hline \\ \hline \\ \\ \hline \\ \hline \\ \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline \\ \\ \hline \hline \\ \hline \hline \\ \hline \\ \hline \hline \\ \hline \\ \hline \hline \\ \hline \hline \\ \hline \\ \hline \hline \hline \\ \hline \hline \\ \hline \hline \\ \hline \hline \hline \\ \hline \hline \hline \\ \hline \hline \\ \hline \hline \hline \\ \hline \hline \hline \\ \hline \hline \hline \\ \hline \hline \hline \hline \\ \hline \hline \hline \\ \hline \hline \hline \hline \hline \\ \hline \hline \hline \hline \hline \\ \hline \hline \hline \hline \hline \hline \\ \hline \hline \hline \hline \hline \hline \hline \hline \\ \hline \hline$	\$38.89 same state	A A A A A A A A A A A A A A A A A A A		
Mapper op. Cost/Hour Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 2,0 Swell factor: 1.0 Loose volume: 2,0 Source of estimated vol Source of estimated swell HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency d Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consi Dozing m	$\begin{array}{c} & \underbrace{\$200.13} \\ & \underbrace{\$200.13} \\ \hline \\ \\ & \underbrace{\$200.13} \\ \hline \\ \\ & \underbrace{$100.13} \\ \hline \\ \\ \\ \\ \\ & \underbrace{$100.13} \\ \hline \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ $	\$38.89 	A A A A A A A A A A A A A A A A A A A		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.095	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.6544	
Adjusted unit production: 9	16.16 LCY/hr	
Adjusted fleet production: 9	16.16 LCY/hr	

Fleet size:	1 Dozer(s)
Unit cost:	\$0.218/LCY

Total job time:	2.18 Hours
Total job cost:	\$437

TRUCK/LOADER TEAM WORK

Task description:	Transpo	rt backfill dete	ntion pond			
Site: 5 Mile Pit		Permit Act	ion: <u>App-2</u>	1	Permit/Job#: <u>M</u>	2016026
PROJECT IDEN	TIFICATION					
Task #: 04A		State: Color	rado	Ab	breviation: No	ne
Date: 9/13/2	016 0	County: Garfi	eld		Filename: M0	026-04a
User: ACY						
Agency or	organization nam	e: DRMS				
HOURLY EQUI	PMENT COST			Shift bas	sis: 1 per day	
		-	Equipment Descri	ption		
Т	ruck Loader Tear	n -Truck: Ca	t 775F	puon		
		-Loader: CA	AT 988H			
Suppo	ort Equipment -Lo	bad Area: Ca	t D8T - 8SU t D8T - 8SU			
Road Ma	aintenance – Moto	or Grader: NA	A			
	-Wat	er Truck: NA	A			
Cost Breakdown:	Truck/Loa	der Team	Support	Equipment	Maintenan	ce Equipment
<u>Cost Breakdowii</u> .	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	50	100	NA	NA
Ownership cost/hour:	\$91.45	\$86.92	\$82.01	\$82.01	NA	NA
Operating cost/hour:	\$95.55	\$99.00	\$39.62	\$79.23	NA	NA
%Utilization-riper:	NA	0	50	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$8.40	\$0.00	NA	NA
Ripper op. cost/hour:	NA	\$0.00	\$2.81	\$0.00	NA	NA
Operator cost/hour:	\$22.10	\$38.60	\$38.89	\$38.89	NA	NA
Unit Subtotals:	\$209.10	\$224.52	\$163.33	\$200.13	NA	NA
Number of Units:	2	1	1	1	0	0
Group Subtotals:	Work:	\$642.72	Support:	\$363.46	Maint:	\$0.00
Total work team cos	t/hour: <u>\$1,006.1</u>	8				
MATERIAL QU	ANTITIES					
Initial volume:	6,200	CC	Y Swell	factor: 1.115		
Loose volume:	6,913		Y			
Sou	arce of estimated	volume: Exh	ibit L			
Source	of estimated swel	ll factor: Cat	Handbook			
	Material Purcha	the Cost: $\$0.0$	00			
	10	tai Cost. <u>50.</u>	10			
HOURLY PRO	DUCTION					
Truck Capacity:						
Truck Payload (weig	ght) Basis:		_	_		
Material w	veight: $2,100$	Loom	Pounds/LCY			
Descri Rated Pa	vload: 141 220	Loam	Pounds			
Payload Car	bacity: 67.25	·	LCY			

Wheel and Track Load Cycle Time Facto Materi Stockpi Truck Ownershi Operatio Dump Targ Truck Cycle Time: Truck Exchange T Truck Load T ck Maneuver and Dump T	ime: 0.80 ime: 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80	r dozer piled 10 ft. h wnership of trucks ar veration -0.04 rget 0.00 Net Cycle T Adjusted Loa Net Load Minutes Minutes Minutes Minutes Minutes	igh or less 0.01 id loaders -0.04 ime Adjustment: ider Cycle Time: Time per Truck: Adjusted Adjusted Adjusted	0.010 -0.040 -0.040 0.000 -0.090 0.485 2.040 for site altitude: for site altitude:	(Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes 0.800 2.040 1.200	Minute Minute Minute
Wheel and Track Load Cycle Time Facto Materi Stockpi Truck Ownersh Operatio Dump Targ Truck Cycle Time: Truck Exchange T Truck Load T	ime: 0.80 ime: 2.040	r dozer piled 10 ft. h wnership of trucks ar veration -0.04 rget 0.00 Net Cycle T Adjusted Loa Net Load Minutes Minutes	igh or less 0.01 id loaders -0.04 ime Adjustment: ider Cycle Time: Time per Truck: Adjusted Adjusted	0.010 -0.040 -0.040 0.000 -0.090 0.485 2.040 for site altitude: for site altitude:	(Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes 0.800 2.040	 Minute
Wheel and Track Load Cycle Time Facto Materi Stockpi Truck Ownershi Operatio Dump Targ Truck Cycle Time: Truck Exchange T	ime: 0.80	r dozer piled 10 ft. h wnership of trucks ar beration -0.04 rget 0.00 Net Cycle T Adjusted Loa Net Load	igh or less 0.01 ad loaders -0.04 ime Adjustment: ader Cycle Time: Time per Truck: Adjusted	0.010 -0.040 -0.040 0.000 -0.090 0.485 2.040 for site altitude:	(Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes 0.800	 Minute
Wheel and Track Load Cycle Time Facto Materi Stockpi Truck Ownersh Operatio Dump Targ	al: Material 1/8 le: Conveyor o p: Common ov n: Constant op et: Nominal tar	r dozer piled 10 ft. h wnership of trucks ar eration -0.04 get 0.00 Net Cycle T Adjusted Loa Net Load	igh or less 0.01 ad loaders -0.04 ime Adjustment: ader Cycle Time: Time per Truck:	0.010 -0.040 -0.040 0.000 -0.090 0.485 2.040	(Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	-
Wheel and Track Load Cycle Time Facto Materi Stockpi Truck Ownershi Operatio Dump Targ	al: Material 1/8 le: Conveyor o p: Common ov on: Constant op et: Nominal tar	r dozer piled 10 ft. h wnership of trucks ar veration -0.04 get 0.00 Net Cycle T Adjusted Loa Net Load	igh or less 0.01 ad loaders -0.04 ime Adjustment: ader Cycle Time: Time per Truck:	0.010 0.010 -0.040 -0.040 0.000 -0.090 0.485 2.040	(Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	-
Wheel and Track Load Cycle Time Facto Materi Stockpi Truck Ownersh Operatio Dump Targ	al: Material 1/8 le: Conveyor o p: Common ov n: Constant op et: Nominal tar	r dozer piled 10 ft. h wnership of trucks ar veration -0.04 rget 0.00 Net Cycle T Adjusted Loa	igh or less 0.01 ad loaders -0.04 ime Adjustment: ader Cycle Time:	0.010 0.040 -0.040 0.000 -0.090 0.485 0.010	(Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	
Wheel and Track Load Cycle Time Facto Materi Stockpi Truck Ownershi Operatio Dump Targ	al: Material 1/8 le: Conveyor o p: Common ov n: Constant op et: Nominal tar	r dozer piled 10 ft. h wnership of trucks ar eration -0.04 get 0.00 Net Cycle T	igh or less 0.01 ad loaders -0.04 ime Adjustment:	0.010 0.010 -0.040 -0.040 0.000 -0.090	(Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	
Wheel and Track Load Cycle Time Facto Materi Stockpi Truck Ownersh Operatio Dump Targ	al: Material 1/8 le: Conveyor o p: Common ov n: Constant op et: Nominal tar	r dozer piled 10 ft. h wnership of trucks ar veration -0.04 rget 0.00	igh or less 0.01 id loaders -0.04	0.010 -0.040 -0.040 0.000	(Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	
Wheel and Track Load Cycle Time Facto Materi Stockpi Truck Ownershi	al: Material 1/8 le: Conveyor of p: Common ov n: Constant op	r dozer piled 10 ft. h wnership of trucks ar peration -0.04	igh or less 0.01 nd loaders -0.04	0.010 -0.040 -0.040	(Cat HB) (Cat HB) (Cat HB) (Cat HB)	-
Wheel and Track Load Cycle Time Facto Materi Stockpi Truck Ownershi	al: Material 1/8 e: Conveyor of p: Common ov	r dozer piled 10 ft. h wnership of trucks ar	igh or less 0.01 id loaders -0.04	0.010 -0.040	(Cat HB) (Cat HB) (Cat HB)	_
Wheel and Track Load Cycle Time Facto Materi Stockni	al: Material 1/8 e: Convevor of	r dozer piled 10 ft. h	igh or less 0.01	0.010	(Cat HB)	_
Wheel and Track Load Cycle Time Facto Materi	ors al: Material 1/8	(1)	· · · · · =	(),,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Wheel and Track Load		" to 3//" diameter -) 02	Factor (min.)	Source (Cat HB)	
	ers - Unadjusted E	Basic Loader Cycle T	ime (load, dump, r	maneuver):0	.575 minu	ites
Load: NA]	Maneuver: NA		Dump: 0.100)	
Cycle Time Elements (m	in.):					
Track Loade	rs – Material Desc	cription:				
Machine Cycle Tin Selected Va	ne vs. Job Conditi lue within this Ba	on Rating: <u>NA</u> sic Rating: NA				
Excavators and Front Sh	ovels:					
Loading Tool Cycle Ti	ne: Numb	er of Loading Tool I	Passes Required to 1	Fill Truck:	5 p	asses
Net Correction:	0.830	0.830				
500 Linelency.	0.050	0.050		·/		
Ioh Efficiency:	0.830	0.830		<u>2)</u>		
A 14:4. J A	1 000	Loader	Source			
Job Condition Correcti	ons:	x x	Site Altitude (ft.): <u>4</u>	5000 feet		
Aujusted Capacity	. 10,140					
Adjusted Conseits		Uner - rock/d	int mixtures (100	-120%) 1.100		-
Rated Capacity	<i>'</i> : <u>9.200</u>	LCY (heaped))	1200() 1 100		-
			Buch	ket Size Class: N	A	_
Loading Tool Capacity						
F	inal Truck Volum	e Based on Number	of Loader Passes:	50.60	LCY	
		LCI				
Aujustea volume.	55.60					
Adjusted Volume:	49.45	LCY				
Heaped Volume: Average Volume: Adjusted Volume:	<u> </u>	·				

_	Haul Koul		•		D 11 D	T 1 D	X X 1 	T	
	Seg #	Haul D	istance	Grade (%)	Roll. Res	Total Res	Velocity	Time	
		(Ft)			(%)	(%)	(fpm)	(min)	
	1	1200.00	0	0.00	5.00	5.00	1528	0.913	
_						Haul Time:	0.913	minutes	
_	Return Ro	ute:		11					
	Seg #	Haul D	istance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
		(Ft)			(%)	(%)	(fpm)	Time (min)	
	1	1200.0	0	0.00	5.00	5.00	3357	0.596	
						Return Time:	0.596	minutes	
					Total Tru	ck Cycle Time:	5.549	minutes	
Lo	ading Tool	lunit							
Lo	Produ	ction	1,069.01	LCY/Hour		Adjusted for j	ob efficiency:	887.28	LCY/Hour
Truck	Unit Produ	ction							
			547.13	LCY/Hour		Adjusted for j	ob efficiency:	454.11	LCY/Hour
Optimal	l No. of Tr	ucks:	2	Truck(s)		Selected Numl	per of Trucks:	2	Truck(s)
				Adjuste	d hourly truc	k team production	on: 908	.23 LCY/H	lour
				Adjusted sing	le truck/loade	er team productio	on [.] 887	.28 LCY/H	lour
				r rajabiea bilig	le truck fouut	r team production	007		
				Adjusted multip	le truck/loade	er team production	on: 887.	.28 LCY/H	lour
	IOD TIN	ATE A NU	D COST	Adjusted multip	le truck/loade	er team production	on: 887.	.28 LCY/H	lour
	JOB TIN	1E ANI	D COST	Adjusted multip	le truck/loade	er team productio	on: 887.	.28 LCY/H	lour
	JOB TIN Fleet s	1E ANI iize:	D COST 1	Adjusted multip	le truck/loade	Frotal job time:	7.79	28 LCY/H	lour s

Page 1 of 2

BULLDOZER WORK

	014	ung ucientio	n pona			
5 Mile Pit		Perr	mit Action:	App-2	Permit/Job#:	M2016026
PROJECT IDEM	NTIFICATI	ON				
Task #: 04B Date: 9/13/ User: ACY	2016	State: County:	Colorado Garfield		Abbreviation: Filename:	None M026-04b
Agency of	r organization	name: DR	MS			
HOURLY EQUI	IPMENT CO	<u>OST</u>				
Basic Machine:	Cat D8T - 2	8SU				
Horsepower:	310 Sami Univ					
Attachment:		ersar				
Shift Basis	1 per day					
Data Source:	(CRG)					
	(000)			_		
<u>Cost Breakdown</u> :			I			
Ownership Cost/L	Jour		\$82.01	<u>Utilization %</u>		
Operating Cost/F	Iour.		\$79.23	100		
Ripper own. Cost/F	Hour:		\$0.00	NA		
Ripper op. Cost/F	Hour:		\$0.00	0		
Operator Cost/F	Hour:		\$38.89	NA		
	our: \$200.	.13				
MATERIAL QU Initial Volume:	JANTITIES 3,100	.13				
MATERIAL OL Initial Volume: Swell factor: Loose volume:	JANTITIES 3,100 1.000 3,100 LCY	.13				
MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated	JANTITIES 3,100 1.000 3,100 LCY 1 volume: 1 swell factor: DUCTION	Half of tra Cat Handl	ansported ma	aterial		
MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROI Average push distan Unadjusted hourly j	JANTITIES 3,100 1.000 3,100 LCY I volume: swell factor: DUCTION nce: production:	Half of tra Cat Handl 50 feet 1,400.0 LCY	 ansported ma book Y/hr			
MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROI Average push distan Unadjusted hourly p	JANTITIES 3,100 1.000 3,100 LCY d volume: d swell factor: DUCTION nce: production: cy description	Half of tra Cat Handl 50 feet 1,400.0 LCY n: Loose s	ansported ma book	iterial		
MATERIAL OU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated MOURLY PROI Average push distan Unadjusted hourly p Materials consisten Average push gradi Average site altitud	JANTITIES 3,100 1.000 3,100 LCY d volume: d swell factor: DUCTION nce: production: cy description ient: 0% le: 5,000	Half of tra Cat Handl 50 feet 1,400.0 LCY h: Loose s		nterial		
MATERIAL OU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated Mourly PROI Average push distan Unadjusted hourly Materials consisten Average push gradi Average site altitud Material weight:	$\begin{array}{r} \underline{3,100} \\ \underline{3,100} \\ \underline{1.000} \\ \underline{3,100} \\ \underline{1.000} \\ \underline{3,100} \\ \underline{1.000} \\ \underline{3,100} \\ \underline{1.000} \\ 1.$	Half of tra Cat Handl 50 feet 1,400.0 LCY h: Loose s) feet) lbs/LCY				
MATERIAL OU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated Mourly PROI Average push distan Unadjusted hourly p Materials consisten Average push gradi Average site altitud Material weight: Weight description:	JANTITIES 3,100 1.000 3,100 LCY 1 volume: 1 swell factor: DUCTION nce: production: cy description: ient: 0 % 4: 5,000 2,100 : Earth	Half of tra Cat Handl 50 feet 1,400.0 LCY h: Loose s) feet) lbs/LCY - Loam		nterial		
MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated MOURLY PROI Average push distand Unadjusted hourly provide Materials consisten Average push gradi Average site altitud Material weight: Weight description: Iob Condition Corr	JANTITIES 3,100 1.000 3,100 LCY d volume: d swell factor: DUCTION nce: production: cy description ient: 0% le: 5,000 2,100 : Earth rection Factor	Half of tra Cat Handl 50 feet 1,400.0 LCY 1: Loose s 0 feet 0 lbs/LCY				
MATERIAL OU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated Mourney push dista Unadjusted hourly p Materials consisten Average push gradi Average site altitud Material weight: Weight description: <u>Iob Condition Corr</u> Ope	JANTITIES 3,100 1.000 3,100 LCY 4 volume: 4 swell factor: DUCTION nce: production: cy description ient: 0 % le: 5,000 curve: cur	Half of tra Cat Handl 50 feet 1,400.0 LCY h: Loose s) feet) lbs/LCY - Loam 0.		aterial		
MATERIAL OU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated Source of estimated Mournage push dista Unadjusted hourly p Materials consisten Average push gradi Average push gradi Average site altitud Material weight: Weight description: <u>Iob Condition Corre</u> Ope Material c	JANTITIES 3,100 1.000 3,100 LCY 4 volume: 4 swell factor: DUCTION nce: production: ient: 0 % le: 5,000 2,100 : Earth rection Factor erator Skill: onsistency:	<u>Half of tra</u> <u>Cat Handl</u> 50 feet 1,400.0 LCY h: <u>Loose s</u>) feet) lbs/LCY - Loam 0.7 1.1		terial <u>Source</u> (AVG.) (CAT HB)		
MATERIAL OL Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated Source of estimated MATERIAL OL Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROI Average push distat Unadjusted hourly Materials consisten Average push gradi Average site altitud Material weight: Weight description: Iob Condition Corr Ope Material c	JANTITIES 3,100 1.000 3,100 LCY 1 volume: 1 swell factor: DUCTION nce: production: cy description: ient: 0 % 2,100 : Earth ection Factor erator Skill: onsistency: ng method:	<u>Half of tra</u> <u>Cat Handl</u> 50 feet 1,400.0 LCY h: Loose s 0 feet 0 lbs/LCY - Loam 0.7 1.1 1.0		Source (AVG.) (CAT HB) (GEN.)		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.095	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.6544	
Adjusted unit production: 9	16.16 LCY/hr	
Adjusted fleet production: 9	16.16 LCY/hr	

Fleet size:	1 Dozer(s)
Unit cost:	\$0.218/LCY

Total job time:	3.38 Hours
Total job cost:	\$677

BULLDOZER RIPPING WORK

Site:			-				
	: 5 Mile Pit		Permit Action:	App-2	Pern	nit/Job#: <u>M20160</u>	26
	PROJECT ID	ENTIFICAT	ION				
	Task #: 054	A	State: Colorado		Abbrev	viation: None	
	Date: $9/1$	3/2016	County: Garfield		File	ename: <u>M026-05</u>	a
	User: <u>AC</u>	_ <u>1</u>					
	Agency	or organization	n name: DRMS				
	HOURLY EQ	UIPMENT C	<u>COST</u>				
	Basic	Machine: Ca	at D8T - 8SU		Horsepower:	310	
	Ripper Att	tachment: 3-	Shank Ripper	_	Shift Basis:	1 per day	
					Data Source:	(CRG)	
	Cost Breakdown:	<u>:</u>		1			
		Ownershin (`ost/Hour	\$82.01	Utilization %		
		Operating C	Cost/Hour:	\$79.23	100		
	Rippe	er Ownership C	Cost/Hour:	\$8.40	NA		
	Ripp	per Operating C	Cost/Hour:	\$5.62	100		
		Uperator C	Lost/Hour:	\$38.89 \$217.15	INA		
				\$214.15			
		Total Fleet C	Cost/Hour: \$214	.15			
	MATERIAL (UANTITIE	<u>S</u> Sele	cted estimating	method: Area		
	Alternate Method	ds:					
mic:	NA		Bank Volume:	NA	BCY	NA	
rea:	4.00	acres	Rip Depth (ft):	2.00	Volume: 12,	907	BCY or
		Source of est	imated quantity: Reclam	. 1			
			indeca quantity, iteetan	ation plan			
		ODUCTION		lation plan			
	HOURLY PRO	ODUCTION		lation plan			
	HOURLY PRO	ODUCTION	Seismic Velocity:	NA	feet/secon	4	
	HOURLY PRO	ODUCTION	Seismic Velocity:	NA	feet/second	1	
	HOURLY PRO Seismic: Area:	ODUCTION	Seismic Velocity:	NA	feet/second	1	
	HOURLY PRO Seismic: Area:	ODUCTION Avera Avera	Seismic Velocity: ge Ripping Depth: ge Ripping Width:	NA 2.56 7.08	feet/second	1	
	HOURLY PRO Seismic: Area:	ODUCTION Avera Avera Averag	Seismic Velocity: ge Ripping Depth: ge Ripping Width: ge Ripping Length:	NA 2.56 7.08 150.00	feet/second mph degrees feet	1	
	HOURLY PRO Seismic: Area:	ODUCTION Avera Avera Averag Ave	Seismic Velocity: ge Ripping Depth: ge Ripping Width: ge Ripping Length: grage Dozer Speed:	NA 2.56 7.08 150.00 88.00	feet/second mph degrees feet feet	1	
	HOURLY PRO Seismic: Area:	ODUCTION Avera Avera Averag Ave Averag Produ	Seismic Velocity: ge Ripping Depth: ge Ripping Width: ge Ripping Length: rage Dozer Speed: e Maneuver Time:	NA 2.56 7.08 150.00 88.00 0.25 0.748	feet/second mph degrees feet feet feet feet	1	
	HOURLY PRO	ODUCTION Avera Avera Averag Ave Averag Produc	Seismic Velocity: ge Ripping Depth: ge Ripping Width: ge Ripping Length: arage Dozer Speed: e Maneuver Time: ction per unit area:	NA 2.56 7.08 150.00 88.00 0.25 0.748	feet/second mph degrees feet feet feet feet acres/hour	1	
	HOURLY PRO Seismic: Area: Job Condition Co	ODUCTION Avera Avera Averag Ave Averag Produc	Seismic Velocity: ge Ripping Depth: ge Ripping Width: ge Ripping Length: rage Dozer Speed: e Maneuver Time: ction per unit area:	NA 2.56 7.08 150.00 88.00 0.25 0.748	feet/second mph degrees feet feet feet feet acres/hour	1	
	HOURLY PRO Seismic: Area: Job Condition Co Un	ODUCTION Avera Avera Averag Ave Averag Produc Dirrection Factor	Seismic Velocity: ge Ripping Depth: ge Ripping Width: ge Ripping Length: e Maneuver Time: ction per unit area: sy Unit Production:	NA 2.56 7.08 150.00 88.00 0.25 0.748 0.748	feet/second mph degrees feet feet feet acres/hour Acres/hr	1	
	HOURLY PRO Seismic: Area: Job Condition Co Un	ODUCTION Avera Avera Averag Ave Averag Production Factor adjusted Hourl	Seismic Velocity:	NA 2.56 7.08 150.00 88.00 0.25 0.748 0.748 5,000	feet/second mph degrees feet feet feet acres/hour Acres/hr feet	1	
	HOURLY PRO Seismic: Area: Job Condition Co Un	ODUCTION Avera Avera Averag Averag Production Factor hadjusted Hourl	Seismic Velocity:	NA 2.56 7.08 150.00 88.00 0.25 0.748 0.748 5,000 1.00	feet/second mph degrees feet feet feet acres/hour Acres/hr feet (CAT HB)	d	
	HOURLY PRO Seismic: Area: Job Condition Co Un	ODUCTION Avera Avera Averag Produc Orrection Factor hadjusted Hourl	Seismic Velocity:	NA 2.56 7.08 150.00 88.00 0.25 0.748 0.748 5,000 1.00 0.83 0.83	feet/second mph degrees feet feet feet acres/hour Acres/hr feet (CAT HB) (1 shift/da	d) y)	
	HOURLY PRO Seismic: Area: Job Condition Cco Un	ODUCTION Avera Avera Averag Averag Production Factor nadjusted Hourl	Seismic Velocity:	NA 2.56 7.08 150.00 88.00 0.25 0.748 0.748 5,000 1.00 0.83 0.83	feet/second mph degrees feet feet feet acres/hour Acres/hr feet (CAT HB) (1 shift/daj multiplier	d) y)	
	HOURLY PRO Seismic: Area: Job Condition Co Un	ODUCTION Avera Avera Averag Produc orrection Factor hadjusted Hourl	Seismic Velocity:	NA 2.56 7.08 150.00 88.00 0.25 0.748 0.748 5,000 1.00 0.83 0.83 0.83 0.62	feet/second mph degrees feet feet feet acres/hour Acres/hr (CAT HB) (1 shift/daj multiplier Acres/hr	d) y)	
	HOURLY PRO Seismic: Area: Job Condition Cc Un	ODUCTION Avera Avera Averag Produc Dirrection Factor hadjusted Hourl Adjusted	Seismic Velocity:	NA 2.56 7.08 150.00 88.00 0.25 0.748 0.748 5,000 1.00 0.83 0.83 0.62 0.62	feet/second mph degrees feet feet feet acres/hour Acres/hr feet (CAT HB) (1 shift/daj multiplier Acres/hr Acres/hr	d) y)	
	HOURLY PRO Seismic: Area: Job Condition Co Un	ODUCTION Avera Avera Averag Produc Orrection Factor hadjusted Hourl Adjusted Adjusted	Seismic Velocity:	NA 2.56 7.08 150.00 88.00 0.25 0.748 5,000 1.00 0.83 0.62 0.62	feet/second mph degrees feet feet feet acres/hour Acres/hr feet (CAT HB) (1 shift/da multiplier Acres/hr Acres/hr	d) y)	
	HOURLY PRO Seismic: Area: Job Condition Co Un JOB TIME AN Fleet size:	ODUCTION Avera Avera Averag Produc orrection Factor hadjusted Hourl Adjusted Adjusted MD COST 1	Seismic Velocity:	NA 2.56 7.08 150.00 88.00 0.25 0.748 0.748 5,000 1.00 0.83 0.83 0.62 0.62 Total job tim	feet/second mph degrees feet feet feet acres/hour Acres/hr feet (CAT HB) (1 shift/da multiplier Acres/hr Acres/hr 6.4	d) y)	urs

TRUCK/LOADER TEAM WORK

Site: 5 Mile Pit		Permit Act	ion: <u>App-2</u>		Permit/Job#:	M2016026
PROJECT IDE	NTIFICATION	[
Task #: 06A		- State: Color	ado	Ab	breviation:	None
Date: $9/13/$	2016	County: Garfi	eld		Filename:	M026-06a
User: ACY		-				
Agency of	r organization nar	ne: DRMS				<u> </u>
HOURLY EQU	IPMENT COST	<u>r</u>		Shift bas	is: <u>1 per day</u>	
,		TT 1 (Equipment Descri	ption		
	Truck Loader Tea	-Loader: Ca	t //SF T 988H			
Sup	oort Equipment -I	Load Area: Cat	t D8T - 8SU			
	-D	ump Area: Car	t D8T - 8SU			
Road N	Iaintenance – Mot	or Grader: NA	L			
	-W2	iter Truck: NA				
Cost Breakdown:	Truck/Lo	ader Team	Support	Equipment	Mainter	nance Equipment
<u>Cost Dicundo (mi</u>	Truck	Loader	Load Area	Dump Area	Motor Grade	er Water Truck
% Utilization machine:	100	100	50	100	N	A N
% Ounzation-machine.	\$01.45	\$86.02	\$82.01	\$82.01	N N	
Operating cost/hour:	\$91.45	\$99.00	\$39.62	\$70.23	N	
%Utilization-riper:	\$95.55 NA	\$99.00	0	\$79.23 NA	N	A N
Ripper own. cost/hour:	NA	\$0.00	\$8.40	\$0.00	N	A N
Ripper op. cost/hour:	NA	\$0.00	\$0.00	\$0.00	N	A N
Operator cost/hour:	\$22.10	\$38.60	\$38.89	\$38.89	N	A N
Unit Subtotals:	\$209.10	\$224.52	\$160.52	\$200.13	N	A N
Number of Units:	2	1	1	1		0
Group Subtotals:	Work:	\$642.72	Support:	\$360.65	Main	t: \$0.00
Total work team co	ost/hour: <u>\$1,003.</u>	37			I	
MATERIAL OI	IANTITIES					
Initial volume	x 41.301	CCN		factor: 1.215		
Loose volume	e: 50,18	LCY	z Swen	1.215		
Sc	ource of estimated	volume: Exh	ibit I -25 6 ac @ 1'	2" deen		
Source	e of estimated swe	ell factor: Cat	Handbook	2 deep		
	Material Purch	ase Cost: \$0.0	0			
	То	otal Cost: \$0.0	0			
HOURLY PRO	DUCTION					
Truck Conscitue						
Truck Payload (we	ight) Basis:					
Material	weight: 1,600		Pounds/LCY			
Desc	ription: Top So	oil	_			
Rated P	ayload: $141,22$	0	Pounds			
Payload Ca	ipacity: 88.26		LUY			

Cycle Time Elements (mir Load: NA Wheel and Track Loader Cycle Time Factor Material Stockpile Truck Ownership Operation Dump Target Truck Exchange Tin Truck Load Tin ck Maneuver and Dump Tin	me: 0.80 me: 2.040 me: 1.20	cription:NA Maneuver:NA Basic Loader Cycle T 3" to 3/4" diameter -C r dozer piled 10 ft. hi wnership of trucks an beration -0.04 rget 0.00 Net Cycle Ti Adjusted Load Net Load Minutes Minutes Minutes	Time (load, dump, 0.02 igh or less 0.01 id loaders -0.04 ime Adjustment: ider Cycle Time: Time per Truck: Adjustec Adjustec Adjustec	Dump: 0.100 maneuver): 0 Factor (min.) -0.020 0.010 -0.040 -0.040 -0.040 -0.090 0.485 2.040 -0.040 I for site altitude:	0.575 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) 0.800 0.800 2.040 1.200	utes
Cycle Time Elements (mir Load: NA Wheel and Track Loader Cycle Time Factor Material Stockpile Truck Ownership Operation Dump Target	me: 0.80	cription:NA Maneuver: NA Basic Loader Cycle T 3" to 3/4" diameter -C r dozer piled 10 ft. hi wnership of trucks an beration -0.04 rget 0.00 Net Cycle Ti Adjusted Load Net Load Minutes Minutes	ime (load, dump,).02 igh or less 0.01 id loaders -0.04 ime Adjustment: ider Cycle Time: Time per Truck: Adjustec Adjustec	Dump: 0.100 maneuver): 0 Factor (min.) -0.020 0.010 -0.040 -0.040 0.000 -0.090 0.485 2.040) .575 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) 0.800 2.040	utes
Cycle Time Elements (mir Load: NA Wheel and Track Loader Cycle Time Factor Material Stockpile Truck Ownership Operation Dump Target	n.): s - Unadjusted F s - Unadjusted F s - Material 1/8 Conveyor o Common ov Common ov Constant op Nominal tar	cription:NA Maneuver:NA Basic Loader Cycle T 3" to 3/4" diameter -C r dozer piled 10 ft. hi wnership of trucks an beration -0.04 rget 0.00 Net Cycle Ti Adjusted Loa Net Load Minutes	Yime (load, dump,).02 igh or less 0.01 id loaders -0.04 ime Adjustment: ider Cycle Time: Time per Truck: Adjusted	Dump: 0.100 maneuver): 0 Factor (min.) -0.020 0.010 -0.040 -0.040 0.000 -0.090 0.485 2.040) .575 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) 0.800	utes
Cycle Time Elements (mir Load: NA Wheel and Track Loader Cycle Time Factor Material Stockpile Truck Ownership Operation Dump Target	n.): s - Unadjusted H s - Unadjusted H s - Unadjusted H s - Conveyor o c Conveyor o c Common ov c Constant op c Nominal tar	cription: Maneuver:NA Basic Loader Cycle T 3" to 3/4" diameter -C r dozer piled 10 ft. hi wnership of trucks an peration -0.04 rget 0.00 Net Cycle Ti Adjusted Loa Net Load	Time (load, dump, 0.02 gh or less 0.01 d loaders -0.04 ime Adjustment: der Cycle Time: Time per Truck:	Dump: 0.100 maneuver): 0 Factor (min.) -0.020 0.010 -0.040 -0.040 0.000 -0.090 0.485 2.040) .575 min Source (Cat HB) (Cat	utes
Cycle Time Elements (mir Load: NA Wheel and Track Loader Cycle Time Factor Material Stockpile Truck Ownership Operation Dump Target	n.): s - Unadjusted I s - Conveyor o Conveyor o Common ov Constant op Nominal tar	cription:NA Maneuver:NA Basic Loader Cycle T B" to 3/4" diameter -(r dozer piled 10 ft. hi wnership of trucks an beration -0.04 rget 0.00 Net Cycle Ti Adjusted Loa Net Load	Yime (load, dump,).02 igh or less 0.01 id loaders -0.04 ime Adjustment: ider Cycle Time: Time per Truck:	Dump: 0.100 maneuver): 0 Factor (min.) -0.020 0.010 -0.040 -0.040 0.000 -0.090 0.485 2.040) .575 min Source (Cat HB) (Cat HB)	utes
Cycle Time Elements (mir Load: <u>NA</u> Wheel and Track Loader Cycle Time Factor Material Stockpile Truck Ownership Operation Dump Target	n.): s - Unadjusted I s - l: Material 1/8 :: Conveyor o :: Common ov :: Constant op :: Nominal tar	cription: Maneuver: Basic Loader Cycle T 3" to 3/4" diameter -C r dozer piled 10 ft. hi wnership of trucks an beration -0.04 rget 0.00 Net Cycle Ti Adjusted Load Net Load	Yime (load, dump, 0.02 igh or less 0.01 id loaders -0.04 ime Adjustment: ider Cycle Time: Time per Truck:	Dump: 0.100 maneuver): 0 Factor (min.) -0.020 0.010 -0.040 -0.040 0.000 -0.090 0.485 2.040) Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	utes
Cycle Time Elements (mir Load: NA Wheel and Track Loader Cycle Time Factor Material Stockpile Truck Ownership Operation Dump Target	n.): s - Unadjusted I s : Material 1/8 : Conveyor o : Common ov : Constant op : Nominal tar	cription:NA Maneuver:NA Basic Loader Cycle T 3" to 3/4" diameter -(r dozer piled 10 ft. hi wnership of trucks an beration -0.04 rget 0.00 Net Cycle Ti Adjusted Loa	Yime (load, dump,).02 igh or less 0.01 id loaders -0.04 ime Adjustment: ider Cycle Time:	Dump: 0.100 maneuver): 0 Factor (min.) -0.020 0.010 -0.040 -0.040 0.000 -0.090 0.485) .575 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Cycle Time Elements (mir Load: NA Wheel and Track Loader Cycle Time Factor Material Stockpile Truck Ownership Operation Dump Target	n.): s - Unadjusted F s - Unadjusted F s - Unadjusted F s - Conveyor o c Conveyor o c Common ov c Constant op c Nominal tar	cription:NA Maneuver:NA Basic Loader Cycle T B" to 3/4" diameter -C r dozer piled 10 ft. hi wnership of trucks an beration -0.04 rget 0.00 Net Cycle T	ime (load, dump, 0.02 igh or less 0.01 id loaders -0.04	Dump: 0.100 maneuver): 0 Factor (min.) -0.020 0.010 -0.040 -0.040 0.000 -0.090) .575 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	utes
Cycle Time Elements (mir Load: NA Wheel and Track Loader Cycle Time Factor Material Stockpile Truck Ownership Operation	s - Waterial Desi n.): s - Unadjusted I s - c Material 1/8 c Conveyor o c Common ov c Constant op	Cription:NA Maneuver:NA Basic Loader Cycle T 3" to 3/4" diameter -C r dozer piled 10 ft. hi wnership of trucks an peration -0.04 reet 0 00	Time (load, dump, 0.02 Igh or less 0.01 Id loaders -0.04	Dump: 0.100 maneuver): 0 Factor (min.) -0.020 0.010 -0.040 -0.040 0.000) Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Cycle Time Elements (mir Load: NA Wheel and Track Loader Cycle Time Factor Material Stockpile Truck Ownership	s - Unadjusted I s - Unadjusted I s - Material 1/8 :: Conveyor o : Common ov	Cription:NA Maneuver:NA Basic Loader Cycle T 3" to 3/4" diameter -C r dozer piled 10 ft. hi wnership of trucks an	ime (load, dump,).02 igh or less 0.01 id loaders -0.04	Dump: 0.100 maneuver): 0 Factor (min.) -0.020 0.010 -0.040) .575 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Cycle Time Elements (mir Load: NA Wheel and Track Loader Cycle Time Factor Material Stockpile	s – Waterial Desi n.): s – Unadjusted F s – Material 1/8 c: Conveyor o	Maneuver: <u>NA</u> Basic Loader Cycle T 3" to 3/4" diameter -C r dozer piled 10 ft. hi	ime (load, dump,).02 igh or less 0.01	Dump: 0.100 maneuver): 0 Factor (min.) -0.020 0.010) min Source (Cat HB) (Cat HB)	utes
Cycle Time Elements (mir Load: NA Wheel and Track Loader Cycle Time Factor Material	s – Waterial Desi	Maneuver: NA Basic Loader Cycle T <u>3" to 3/4" diameter -C</u>	`ime (load, dump,).02	Dump: 0.100 maneuver): 0 Factor (min.) -0.020) <u>.575</u> min <u>Source</u> (Cat HB)	utes
Cycle Time Elements (mir Load: <u>NA</u> Wheel and Track Loader Cycle Time Factor	s – Waterial Desi n.): s - Unadjusted I	cription: Maneuver:NA Basic Loader Cycle T	ime (load, dump,	Dump: 0.100 maneuver): 0 Factor (min.)) .575 min Source	utes
Cycle Time Elements (mir Load: <u>NA</u> Wheel and Track Loader	n.): 	cription: Maneuver:NA Basic Loader Cycle T	``ime (load, dump,	Dump: 0.100) .575 min	utes
Cycle Time Elements (mir Load: NA	n.):	cription: Maneuver:NA		Dump: 0.100)	
Cycle Time Elements (mir	n.):	cription:				
Coule Three Floor ()		cription:				
Track Loaders		anintian				
Selected Valu	e within this Ba	sic Rating: NA				
Machine Cycle Time	e vs. Job Conditi	ion Rating: NA				
Excavators and Front Sho	vels:					
Loading Tool Cycle Tim	e: Numb	er of Loading Tool P	asses Required to	Fill Truck:	5 1	passes
Net Correction:	0.830	0.830				
Job Efficiency:	0.830	0.830	(CAT HI	3)		
Altitude Adj:	1.000	1.000	(CAT HI	3)		
	Truck	Loader	Source	1		
Job Condition Correction	<u>ns:</u>	5	Site Altitude (ft.):	<u>5000</u> feet		
Adjusted Capacity:	9.660	LCY				
Bucket Fill Factor:	1.050	Other - moist	Ioam (100-	110%) 1.050		_
Rated Capacity:	9.200	LCY (heaped))			_
<u>Bouums roor cupueny</u>			Buc	ket Size Class: N	IA	
Loading Tool Canacity			of Louder Fusies.	-10120		
Fir	al Truck Volum	e Based on Number	of Loader Passes	48 30	ICY	
Adjusted Volume:	55.60					
Average Volume: Adjusted Volume:	<u>49.45</u> <u>55.60</u>	LCY LCY				
Heaped Volume: Average Volume: Adjusted Volume:	<u>55.60</u> <u>49.45</u> <u>55.60</u>	LCY LCY LCY				

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Haul Rou	ute:							
Seg #	Haul (Ft)	Distance	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)	
1	1000.	00	0.00	20.00	20.00	321	3.117	
Datum D	outo				Haul Time:	3.117	minutes	
Seg #	Haul (Ft)	Distance	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)	
1	1000.	00	0.00	20.00	20.00	924	1.101	
				Total Tru	Return Time: ck Cycle Time:	1.101 8.258	minute	28 28
Loading To Prod Truck Unit Prod	ol unit uction uction	1,020.42	LCY/Hour		Adjusted for j	ob efficiency:	846.95	LCY/Hour
		350.93	LCY/Hour		Adjusted for j	ob efficiency:	291.27	LCY/Hour
Optimal No. of T	rucks:	3	Truck(s)		Selected Num	ber of Trucks:	2	Truck(s)
			Adjuste Adjusted sing Adjusted multip	d hourly truc le truck/loade le truck/loade	k team productio er team productio er team productio	on: 582 on: 582 on: 582	.55 LCY .55 LCY .55 LCY	//Hour //Hour //Hour
<u>JOB TI</u>	ME AN	ND COST						
Fleet	size:	1	Team(s)	r	Total job time:	86.14	4 He	ours
Unit	cost:	\$1.722	/LCY		Total job cost:	\$86,43	30	

Page 1 of 2

BULLDOZER WORK

Task description:	Gra	ding topsoil				
5 Mile Pit		Per	mit Action:	App-2	Permit/Job#:	M2016026
PROJECT IDEN	TIFICAT	<u>ION</u>				
Task #: 06B Date: 9/13/2 User: ACY	2016	State: County:	Colorado Garfield		Abbreviation: Filename:	None M026-06b
Agency or	organization	n name: DF	RMS			
HOURLY EQUI	<u>PMENT C</u>	<u>OST</u>				
Basic Machine:	Cat D8T -	8SU				
Horsepower: Blada Type:	310 Somi Univ	vorsal				
Attachment	NA	versar				
Shift Basis:	1 per day					
Data Source:	(CRG)					
Cost Proskdown						
COST DICARUOWII.				Utilization %		
Ownership Cost/H	lour:		\$82.01	NA		
Operating Cost/H	lour:		\$79.23	100		
Ripper own. Cost/H	lour:		\$0.00	NA		
Ripper op. Cost/H	lour:		\$0.00	0		
Operator Cost/H	lour:		\$38.89	NA		
MATERIAL QU Initial Volume:	ANTITIES 20,651	<u>8</u>				
Swell factor:	1.000					
Loose volume:	20,651 LC	Y				
Source of estimated Source of estimated	volume: swell factor	Half of tr Cat Hand	ansported m book	aterial		
HOURLY PROI	DUCTION					
Average push distar	nce:	50 feet				
Unadjusted hourly	production:	1,400.0 LC	Y/hr			
Materials consisten	cy descriptio	n: Loose s	stockpile 1.2			
Average push gradi Average site altitud	ent: 0% e: $5,00$	0 feet				
Material weight:	2,10	0 lbs/LCY				
Weight description:	Eart	n - Loam				
•						
Job Condition Corre	ection Factor	_		Source		
Job Condition Corre Ope	ection Factor rator Skill:	0.	750	Source (AVG.)		
Job Condition Corro Ope Material co	ection Factor rator Skill: onsistency:		750 200	Source (AVG.) (CAT HB)		
Job Condition Corre Ope Material co Dozin	ection Factor rator Skill: onsistency: ng method:	0.	750 200 000	Source (AVG.) (CAT HB) (GEN.)		

Task # 06B

Job efficienc	y: 0.830	(1 SHIFT/DAY)
Spoil pil	e: 0.800	(FND-RF)
Push gradier	nt: 1.000	(CAT HB)
Altitud	e: 1.000	(CAT HB)
Material Weigh	nt: 1.095	(CAT HB)
Blade typ	e: 1.000	(PAT)
Net correctio	n: 0.6544	
Adjusted unit production:	916.16 LCY/hr	
Adjusted fleet production:	916.16 LCY/hr	

Fleet size:	1 Dozer(s)
Unit cost:	\$0.218/LCY

Total job time:	22.54 Hours
Total job cost:	\$4,511

REVEGETATION WORK

Т	ask descrip	tion:	Reveg 25.6 ac Rangeland			
ite:	5 Mile Pit	t	Permit Action:	App-2	Permit/Job	#: <u>M2016026</u>
<u>PR</u>	ROJECT	IDENTIFI(CATION			
	Task #:	07A	State: Colorado		Abbreviation:	None
	Date:	6/8/2016	County: Garfield		Filename:	M026-07a
		ACN				

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)	\$107.59
Total Tilling Cost/Acre	\$107.59

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Paloma	18.00	58.26	\$157.14
Bluebunch Wheatgrass - Secar	18.00	57.85	\$123.30
Bottlebrush Squirreltail	18.00	79.34	\$448.38
Galleta	6.00	21.90	\$151.50
Streambank Wheatgrass - Sodar	11.00	35.86	\$46.42
Western Wheatgrass - Arriba	40.00	101.01	\$147.60
Totals Seed Mix	111.00	354.22	\$1,074.34

Application

Description	Cost /Acre
Broadcast seeding [DMG]	\$261.80
Total Seed Application Cost/Acre	\$261.80

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Hay, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$265.00	\$530.00
Herbicide - 2,4D @ 1.0 pt/ac	1.00	ACRE	\$1.25	\$1.25
Total Mulch Materials Cost/Acre				\$531.25

Application

pplication		
Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$66.02
Power mulcher (MEANS 32 91 13.16 0350)		\$97.14
Weed spray, truck, non-aquatic area, nox. [DMG]		\$62.72
	Total Mulch Application Cost/Acre	\$225.88

NURSERY STOCK PLANTING

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

	No. of Acres:	25.6	Cost /Acre:	\$2,200.86
Estimate	ed Failure Rate:	30%	Cost /Acre*:	\$2,200.86
*Selected Replanti	ng Work Items:	TILLING,SEEDIN	G,MULCHING	
Initial Job Cost:	\$56,342.02			
Reseeding Job Cost:	\$16,902.60			
Total Job Cost:	\$73,245			
Job Hours:	40.00			

EQUIPMENT MOBILIZATION/DEMOBILIZATION

	1. <u>1111</u>			_			
: 5 Mile Pit		Permit	Action: App-	2		Permit/Job#: <u>M</u>	2016026
PROJECT IDI	ENTIFICATI	ON					
Task #: 08	3A	State: Co	olorado		Abbre	eviation: None	
Date: 9/	13/2016	County: Ga	arfield		Fi	lename: M026	5-80a
User: A	CY						
Agency	or organization	n name: DRMS					
EQUIPMENT	TRANSPOR	<u>T RIG COST</u>					
					Shift ba	sis: 1 per da	y
				C	Cost Data Sou	rce: CRG Da	ta
Truc	ck Tractor Desc	rintion GENE	RIC ON-HIGH	WAYTRI	ICK TRACTO	DR 6X4 DIESEI	POWERED
1100	en fractor Dese			400 HP	(2ND HALF.	2006)	LI CHERED,
Tru	ck Trailer Desc	ription: G	ENERIC FOLD	NG GOO	SENECK, DE	ROP DECK EOU	IPMENT
		inpulsii. O		FRAILER ((25T, 50T, A)	ND 100T)	
						,	
Cost Breakdown:							
Available Rig	Capacities	0-25 Tons	26-50 Tons	51+	Tons		
Ownershi	ip Cost/Hour:	\$16.63	\$18.37	\$2	2.33		
Operatin	ng Cost/Hour:	\$44.38	\$46.13	\$5	0.07		
Operate	or Cost/Hour:	\$27.66	\$27.66	\$2	7.66		
Helpe	er Cost/Hour:	\$0.00	\$25.39	\$2	5.39		
Total Un	nit Cost/Hour:	\$88.67	\$117.55	\$12	25.45		
NON ROADAL	BLE EQUIPN	MENT:					
Machine	Weight/	Owner shin	Haul Rig	Fleet	Haul Trin	Return Trip	DOT Permit
Description	Unit	Cost/br/ unit	Cost/br/uni	Size	Cost/br/	Cost/hr/ fleet	Cost/ fleet
Description	(TONS)	COSt/III/ ullit	t	SIZE	fleet		
Cat D8T - 8SU	53.08	\$90.41	\$125.45	1	\$215.86	\$125.45	\$250.00
CAT 988H	54.46	\$86.92	\$125.45	1	\$212.37	\$125.45	\$250.00
Cat 775F	50.39	\$91.45	\$117.55	2	\$418.00	\$235.10	\$250.00
Drill/Broadcast	25.00	\$30.65	\$88.67	1	\$119.32	\$88.67	\$250.00
Seeder with							
Tractor							
Power Mulcher (Reinco M90)	6.00	\$6.72	\$88.67	1	\$95.39	\$88.67	\$250.00
. ,	1	l			· · ·	· ·	· ·
				Subtotals.	\$1.060.94	\$663.34	\$1,250,00

Subtotals: \$1,060.94 \$663.34 \$1,250.00

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	\$43.35	1	\$43.35	\$43.35
		Subtotals:	\$43.35	\$43.35

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	PARACHUTE	
Total one-way travel distance:	5.00	miles
Average Travel Speed:	45.00	mph
Total Non-Roadable Mob/Demob Cost *	\$5,005.05	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	\$9.63	

Transportation Cycle Time:

	Non-	
	Roadable	Roadable
	Equipment	Equipment
Haul Time (Hours):	0.11	0.11
Return Time (Hours):	0.11	0.11
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	1.22	0.22

JOB TIME AND COST

Total job time: **2.44** Hours

Total job cost: **\$5,015**