### **COST SUMMARY WORK**

State:	Colorado Jackson		Abbreviation: Filename:	None M043-000
.4	County:	State: Colorado County: Jackson	State: Colorado County: Jackson	State: Colorado Abbreviation: 4 County: Jackson Filename:

Task		Form	Fleet	Task	
Task	Description	Used	Size	Hours	Cost
001	3:1 Levelling	DOZER	1	1.53	\$318
002	Topsoil Replacement	DOZER	1	23.79	\$4,943
004	Topsoil Replacement	LOADER	1	58.61	\$5,905
005	Reseeding	REVEGE	1	21.00	\$17,404
006	Equipment Mobilization	MOBILIZE	1	6.60	\$3,832
		<u>SUBTO</u>	TALS:	111.53	\$32,402

# **INDIRECT COSTS**

## OVERHEAD AND PROFIT:

Liability insurance:2.02Total =\$655Performance bond:1.05Total =\$340Job superintendent:122.93Total =\$9,745

Profit: 10.00 Total =  $\frac{\$3,240}{\text{TOTAL O \& P}}$  \$13,980

CONTRACT AMOUNT (direct + O & P) =  $\frac{$46,382}{$}$ 

#### LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): \$500 Total = \$500

Engineering work and/or contract/bid preparation: 4.25 Total = \$1,971

Reclamation management and/or administration: 5.00 \$2,319

CONTINGENCY: 0.00 Total = \$0

TOTAL INDIRECT COST = \$18,770

TOTAL BOND AMOUNT (direct + indirect) = \$51,172

# **BULLDOZER WORK**

Task description:	3:1 L	evelling				
: Arapaho Pit		Per —	mit Action:	Phase A-1 Reclamation	Permit/Job#:	M2024043
PROJECT IDEN	NTIFICATIO	)N				
Task #: 001 Date: 8/19/ User: BEH		State: County:	Colorado Jackson		Abbreviation: Filename:	None M043-001
Agency or	r organization	name: DI	RMS			
HOURLY EQUI						
Basic Machine:	Cat D7R D8		п			
		3 AK Selies	11	<del>_</del>		
Horsepower:	240	1				
Blade Type:	Semi-Unive	ersai		<u> </u>		
Attachment:	NA			<u> </u>		
Shift Basis:	1 per day			<u> </u>		
Data Source:	(CRG)			<u> </u>		
Cost Breakdown:						
				Utilization %		
Ownership Cost/F	lour:		\$90.24	NA		
Operating Cost/F			\$78.95	100		
Ripper own. Cost/F			\$0.00	NA		
			\$0.00	0		
Ripper op. Cost/F						
Operator Cost/F	lour:		\$38.59	NA		
MATERIAL QU Initial Volume: Swell factor:	1,000 1.230					
Loose volume:	<b>1,230</b> LCY					
Source of estimated Source of estimated		Division Cat Hand		ion, Mining & Safety		
HOURLY PROI	<u>DUCTION</u>					
Average push dista Unadjusted hourly	_	50 feet 1,022.9 LC	Y/hr			
Materials consisten	cy description	: Compa	acted fill or e	mbankment 0.9		
Average push gradi	ent: -30 %					
Average site altitud						
Material weight:	2,100	lbs/LCY			<u> </u>	
Weight description	: Earth	- Loam				
Job Condition Corr				Source		
Оре	erator Skill:	0	.750	(AVG.)		
Material c	onsistency:	0	.900	(CAT HB))		
	ng method:		000	(GEN.)		

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.095	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.7857

Adjusted unit production: 803.69 LCY/hr
Adjusted fleet production: 803.69 LCY/hr

# **JOB TIME AND COST**

Fleet size: 1 Dozer(s)
Unit cost: \$0.259/LCY

Total job time: 1.53 Hours
Total job cost: \$318

# **BULLDOZER WORK**

Task description:	Tops	oil Replace	ment			
: Arapaho Pit		Per —	mit Action:	Phase A-1 Reclamation	Permit/Job#:	M2024043
PROJECT IDEN	NTIFICATIO	ON				
Task #: 002	2024	State: County:	Colorado Jackson		Abbreviation: Filename:	None M043-002
Agency of	r organization	name: DI	RMS			
			CIVIS			
HOURLY EQUI		<u></u>				
Basic Machine:	·	S XR Series	П			
Horsepower:	240					
Blade Type:	Semi-Unive	ersal		<u> </u>		
Attachment:	NA					
Shift Basis:	1 per day			<u> </u>		
Data Source:	(CRG)			<u> </u>		
Cost Breakdown:						
Cost Breakdo WII.				Utilization %		
Ownership Cost/H	lour.		\$90.24	NA		
Operating Cost/F			\$78.95	100		
Ripper own. Cost/H			\$0.00	NA		
Ripper own. Cost/I			\$0.00	0	<u></u>	
Operator Cost/F			\$38.59			
Operator Costri	10u1.		\$30.37	NA		
MATERIAL QU Initial Volume: Swell factor:	10,665 1.000		<u> </u>			
Loose volume:	<b>10,665</b> LCY					
Source of estimated Source of estimated		Division Cat Hand		ion, Mining & Safety		
HOURLY PRO	DUCTION					
Average push dista	nce:	75 feet				
Unadjusted hourly	production:	854.1 LCY	/hr			
Materials consisten	cy description	: Partly	consolidated	stockpile 1.1		
Average push gradi	ient: 0 %					
Average site altitud		feet				
Material weight:	2,100	lbs/LCY				
Weight description	: Earth	- Loam				
Job Condition Corr				Source		
	erator Skill: _		.750	(AVG.)		
Material c	onsistency:	1	.100	(CAT HB)		
Dozi	ng method:	1	000	(GEN )	=	

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.700	(FND-MF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.095	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5249

Adjusted unit production: 448.32 LCY/hr
Adjusted fleet production: 448.32 LCY/hr

# **JOB TIME AND COST**

Fleet size: 1 Dozer(s)
Unit cost: \$0.463/LCY

Total job time: 23.79 Hours
Total job cost: \$4,943

# WHEEL LOADER – LOAD AND CARRY WORK

Arapaho Pit		Permit Action	Phase A-Reclamat		Permit/Job#	#: <u>M2024043</u>
PROJECT IDEN	TIFICATION	J				
	THICHIO	<u>-</u> '	do		A bhassistion.	None
Task #: 004 Date: 8/22/2	024	State: Colora County: Jackso			Abbreviation: Filename:	None M043-004
User: BEH	024	County. Jackso	111		rnename.	W1043-004
Agency or	organization na	me: DRMS				
HOURLY EQUI						
Basic Machin			-	Horsepo		172
Attachment	1: ROPS Cal	b	=	Shift B		per day
				Data Sou	irce: (	(CRG)
Cost Breakdown:			1			
			Utilizatio	on %		
Ownership (		\$32.87	NA			
Operating (		\$31.02	100			
Operator (		\$36.85	NA			
Total Unit (	ost/Hour:	\$100.74	<u></u>			
Total Fleet	Cost/Hour:	\$100.74				
MATERIAL OIL	ANTITIES					
MATERIAL QU	<u> </u>					
Initial volume:	10,665	CCY	Swe	ell factor:1.0	00	
	<u> </u>		Swe	ell factor: 1.0	000	
Initial volume: Loose volume:	10,665	LCY		ell factor: 1.0	<u> </u>	
Initial volume: Loose volume: So	10,665 10,66	d volume: Divis			<u> </u>	
Initial volume: Loose volume: So Source	10,665 10,66  arce of estimated sw	d volume: Divis	ion of Reclama		<u> </u>	
Initial volume: Loose volume: So	10,665 10,66  arce of estimated sw	d volume: Divis	ion of Reclama		<u> </u>	
Initial volume: Loose volume: So Source	10,665 10,66 10 of estimated sw	d volume: Divis	ion of Reclama Iandbook	ation, Mining &	Safety	minutes
Initial volume: Loose volume: So: Source HOURLY PROD	10,665 10,66  arce of estimated of estimated sw UCTION Unadjus	d volume: Divisell factor: Cat F	ion of Reclama Iandbook ime (load, dum	ntion, Mining &	Safety  0.483	
Initial volume: Loose volume: Sor Source  HOURLY PROD Loader Cycle Time: Cycle Time	10,665 10,665 10,665 10 of estimated swell control con	d volume: Divisell factor: Cat F	ion of Reclama Iandbook me (load, dum	ntion, Mining &	Safety	minutes Source (Cat HB)
Initial volume: Loose volume: Sor Source  HOURLY PROD Loader Cycle Time: Cycle Time	10,665 10,66 10,665 10,665 10	d volume: Divis Cat F	ion of Reclama Iandbook me (load, dum	ntion, Mining &	Safety  0.483 Factor (min.)	Source
Initial volume: Loose volume: Sor Source  HOURLY PROD Loader Cycle Time: Cycle Time	10,665 10,665 10,665 10 of estimated sw  PUCTION Unadjust Factors   aterial: Material: Dum	d volume: Divisell factor: Cat F	ion of Reclama Iandbook me (load, dum	p, maneuver):	0.483 Factor (min.) 0.020	Source (Cat HB)
Initial volume: Loose volume: Soirce  HOURLY PROD  Loader Cycle Time:  Cycle Time M  Sto  Truck Own	10,665  10,665  10,665  Irce of estimated swell of	d volume: Divisell factor: Cat Formula up to 1/8" diamped by truck 0.02 djustment - factor it tant operation -0.0	ion of Reclama landbook  ime (load, dum neter 0.02	p, maneuver):	0.483 Factor (min.) 0.020 0.020 0.000 -0.040	Source (Cat HB) (Cat HB)
Initial volume: Loose volume: Soirce  HOURLY PROD  Loader Cycle Time:  Cycle Time M  Sto  Truck Own	10,665  10,665  10,665  Irce of estimated swell of	d volume: Divised Figure 1	ion of Reclama Iandbook  ime (load, dum  neter 0.02  not applicable (4	p, maneuver):	0.483 Factor (min.) 0.020 0.020 0.000 -0.040 0.000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)
Initial volume: Loose volume: Soirce  HOURLY PROD  Loader Cycle Time:  Cycle Time M  Sto  Truck Own	10,665  10,665  10,665  Irce of estimated swell of	ted Basic Cycle Trial up to 1/8" diamped by truck 0.02 ljustment - factor itant operation -0.0 inal target 0.00	ion of Reclama Iandbook  ime (load, dum neter 0.02  not applicable (4	p, maneuver):  0.00  djustment:	0.483 Factor (min.) 0.020 0.020 0.000 -0.040 0.000 0.000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes
Initial volume: Loose volume: Soirce  HOURLY PROD  Loader Cycle Time:  Cycle Time M  Sto  Truck Own	10,665  10,665  10,665  Irce of estimated swell of	ted Basic Cycle Trial up to 1/8" diamped by truck 0.02 ljustment - factor itant operation -0.0 inal target 0.00	ion of Reclama Iandbook  ime (load, dum  neter 0.02  not applicable (4	p, maneuver):  0.00  djustment:	0.483 Factor (min.) 0.020 0.020 0.000 -0.040 0.000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)
Initial volume: Loose volume: Soirce  HOURLY PROD  Loader Cycle Time:  Cycle Time M  Sto  Truck Own	10,665  10,665  10,665  10,665  Incree of estimated swell and swell and swell and swell are swell at each process. Target: Nominal and swell and s	d volume: Divisell factor: Cat F  ted Basic Cycle Ti rial up to 1/8" diarred by truck 0.02 djustment - factor in tant operation -0.00 inal target 0.00  Net	ion of Reclama Iandbook  ime (load, dum neter 0.02  not applicable (4	p, maneuver):  0.00  djustment:	0.483 Factor (min.) 0.020 0.020 0.000 -0.040 0.000 0.000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes
Initial volume: Loose volume: Sor Source  HOURLY PROD  Loader Cycle Time:  Cycle Time M Sto Truck Own Ope Dump  Rolling Resistance -	10,665  10,665  10,665  10,665  Irce of estimated swell and the stimated swell and the swell are sw	d volume: Divisell factor: Cat F  ted Basic Cycle Ti rial up to 1/8" diarred by truck 0.02 djustment - factor in tant operation -0.00 inal target 0.00  Net	ion of Reclama landbook  ime (load, dum neter 0.02  not applicable (4  Cycle Time A justed Basic C	p, maneuver):  0.00  djustment: ycle Time:	0.483 Factor (min.) 0.020 0.020 0.000 -0.040 0.000 0.000 0.483	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes
Initial volume: Loose volume: Soir Source  HOURLY PROD Loader Cycle Time: Cycle Time M Sto Truck Own Ope Dump  Rolling Resistance -	10,665  10,665  10,665  10,665  Irce of estimated sw  OUCTION  Unadjus  Factors aterial: Material: Material: No acceptation: Construction: Construction: No minus  Road Condition  Haul: Rutted of	d volume: Divisell factor: Cat Formula up to 1/8" diamped by truck 0.02 dipustment - factor in tant operation -0.00 inal target 0.00  Net Addings	ion of Reclama landbook  ime (load, dum neter 0.02  not applicable (4  Cycle Time A justed Basic Cy	p, maneuver):  0.00  djustment: ycle Time:	0.483 Factor (min.) 0.020 0.020 0.000 -0.040 0.000 0.483	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes
Initial volume: Loose volume: Sor Source  HOURLY PROD  Loader Cycle Time:  Cycle Time  M  Sto Truck Own  Ope Dump  Rolling Resistance -	10,665  10,665  10,665  10,665  Irce of estimated sweet of estimated sweet estimated estimated sweet estimated	divolume: Divised Programmer Programmer Divised Programmer Divised Programmer Divised Programmer Divised Programmer Divised Programmer Division Div	ion of Reclama landbook  ime (load, dum neter 0.02  not applicable (4  Cycle Time A justed Basic Cy	p, maneuver):  0.00  djustment: ycle Time:	0.483 Factor (min.) 0.020 0.020 0.000 -0.040 0.000 0.483	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes
Initial volume: Loose volume: Soir Source  HOURLY PROD Loader Cycle Time: Cycle Time M Sto Truck Own Ope Dump  Rolling Resistance -	10,665  10,665  10,665  10,665  10,665  Incre of estimated sward of estimated sward of estimated sward in the sward of estimated sward in the sward of estimated sward in the sward of estimated in the sward in the	d volume: Divisel factor: Cat F  ted Basic Cycle Ti  rial up to 1/8" diaraped by truck 0.02 dijustment - factor is tant operation -0.00  inal target 0.00  Net Add  ns  dirt, little maintena dirt, little maintena	ion of Reclama Iandbook  ime (load, dum neter 0.02  not applicable (4  Cycle Time A justed Basic Cy nnce, no water, nnce, no water,	p, maneuver):  0.00  djustment: ycle Time:  1" tire penetrati 1" tire penetrati	0.483 Factor (min.) 0.020 0.020 0.000 -0.040 0.000 0.000 0.483	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes
Initial volume: Loose volume: Sor Source  HOURLY PROD  Loader Cycle Time:  Cycle Time  M  Sto Truck Own  Ope Dump  Rolling Resistance -	10,665 10	d volume: Divisel factor: Cat F  ted Basic Cycle Ti  rial up to 1/8" diaraped by truck 0.02 ljustment - factor is tant operation -0.00 inal target 0.00  Net Additt, little maintena dirt, little main	ion of Reclama Iandbook  ime (load, dum neter 0.02  not applicable (4  Cycle Time A justed Basic Cy nnce, no water, nnce, no water, nnce, no water,	p, maneuver):  0.00  djustment: ycle Time:  1" tire penetrati 1" tire penetrati Total Res.	0.483 Factor (min.) 0.020 0.020 0.000 -0.040 0.000 0.000 0.483  ion 4.0 ion 4.0	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes
Initial volume: Loose volume: Sor Source  HOURLY PROD  Loader Cycle Time:  Cycle Time  M  Sto Truck Own  Ope Dump  Rolling Resistance -	10,665 10	d volume: Divisel factor: Cat F  ted Basic Cycle Ti  rial up to 1/8" diaraped by truck 0.02 dijustment - factor is tant operation -0.00  inal target 0.00  Net Add  ns  dirt, little maintena dirt, little maintena	ion of Reclama Iandbook  ime (load, dum neter 0.02  not applicable (4  Cycle Time A justed Basic Cy nnce, no water, nnce, no water,	p, maneuver):  0.00  djustment: ycle Time:  1" tire penetrati 1" tire penetrati	0.483 Factor (min.) 0.020 0.020 0.000 -0.040 0.000 0.000 0.483	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes

Total Travel Time: 0.6383 minutes Total Cycle Time: 1.1208 minutes **Load Bucket Capacity** Rated Capacity: 3.90 LCY (heaped) Bucket Fill Factor: Moist loam or sandy clay (100% - 110%) 1.050 1.050 Adjusted Capacity: 4.10 LCY Job Condition Correction Factors Site Altitude: 8550 feet Source Altitude Adj: (CAT HB) Job Efficiency: 0.83 (1 shift/day) Net Correction: 0.83 multiplier Unadjusted Hourly Unit Production: 219.22 LCY/Hour Adjusted Hourly Unit Production: 181.95 LCY/Hour Adjusted Hourly Fleet Production: 181.95 LCY/Hour JOB TIME AND COST Fleet size: 1 Loader(s) Total job time: **58.61** Hours

Total job cost:

\$5,905

Unit cost: \_\_\_\_ \$0.554 /LCY

# **REVEGETATION WORK**

7	Task description:	Reseeding				
			Permit Action:	Phase A-1		
Site:	Arapaho Pit			Reclamation	Permit/Job#:	M2024043

# **PROJECT IDENTIFICATION**

Task #:005State:ColoradoAbbreviation:NoneDate:8/22/2024County:JacksonFilename:M043-005

User: BEH

Agency or organization name: DRMS

# **FERTILIZING**

#### Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Composted manure DRMS Survey	20.00	pound	\$0.43	\$8.56
			Total Fertilizer Materials Cost/Acre	\$8.56

Application

Description		Cost /Acre
Manure, tractor spreader (MEANS 32 91 13.23 4450)		\$77.10
	<b>Total Fertilizer Application Cost/Acre</b>	\$77.10

# **TILLING**

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$117.61
Weed control spraying (MEANS 31 31 16.13 3100)	\$338.80
Total Tilling Cost/A	Acre \$456.41

# **SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Arizona Fescue - Redondo	5.00	57.39	\$75.32
Prairie Clover, Purple - Kaneb	0.50	3.42	\$22.45
Sandberg Bluegrass - VNS	4.00	84.94	\$57.79
Smooth Brome - Lincoln	4.00	13.31	\$19.43
Bluebunch Wheatgrass - Goldar	6.00	19.28	\$68.76
Totals Seed Mix	19.50	178.35	\$243.74

### **Application**

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

## **MULCHING and MISCELLANEOUS**

### Materials

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

**Application** 

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

## **NURSERY STOCK PLANTING**

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

## **JOB TIME AND COST**

No. of Acres: 13.22 Cost /Acre: \$1,058.37
Estimated Failure Rate: 50% Cost /Acre\*: \$516.30

\*Selected Replanting Work Items: SEEDING

Initial Job Cost: \$13,991.65

Reseeding Job Cost: \$3,412.74

Total Job Cost: \$17,404

21.00

### **EQUIPMENT MOBILIZATION/DEMOBILIZATION**

		Permit Action:	Phase A-1			
Site:	Arapaho Pit		Reclamation	Permit/Job#:	M2024043	

### **PROJECT IDENTIFICATION**

Task description:

Task #:006State:ColoradoAbbreviation:NoneDate:8/22/2024County:JacksonFilename:M043-006

User: BEH

Agency or organization name: DRMS

### **EQUIPMENT TRANSPORT RIG COST**

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

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

400 HP (2ND HALF, 2006)

Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT

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

#### Cost Breakdown:

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$10.44	\$22.18	\$23.94
Operating Cost/Hour:	\$26.48	\$54.55	\$55.65
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$59.44	\$122.78	\$125.64

**Equipment Mobilization** 

### **NON ROADABLE EQUIPMENT:**

Machine	Weight/	Owner ship	Haul Rig	Fleet	Haul Trip	Return Trip	DOT Permit
Description	Unit	Cost/hr/ unit	Cost/hr/uni	Size	Cost/hr/	Cost/hr/ fleet	Cost/ fleet
	(TONS)		t		fleet		
CAT 938H	16.34	\$32.87	\$59.44	1	\$92.31	\$59.44	\$250.00
Cat D7R DS XR	32.01	\$90.24	\$122.78	1	\$213.02	\$122.78	\$250.00
Series II							
Drill/Broadcast	25.00	\$41.02	\$59.44	1	\$100.46	\$59.44	\$250.00
Seeder with							
Tractor							

Subtotals: \$405.79 \$241.66 \$750.00

### **ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 3/4 T.	\$13.77	1	\$13.77	\$13.77

Subtotals: \$13.77 \$13.77

## **EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region: STEAMBOAT

SPRINGS

Total one-way travel distance: 46.00 miles
Average Travel Speed: 40.00 mph

Total Non-Roadable Mob/Demob Cost \*

'\* two round trips with haul rig:

Total Roadable Mob/Demob Cost \*\*

\*\* one round trip, no haul rig:

\$3,800.72

\$31.67

### **Transportation Cycle Time:**

	Non-	
	Roadable	Roadable
	Equipment	Equipment
Haul Time (Hours):	1.15	1.15
Return Time (Hours):	1.15	1.15
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	3.30	2.30

### **JOB TIME AND COST**

Total job time: 6.60 Hours

Total job cost: \$3,832

Rated Payload: 52,800 pounds

Payload Capacity: 25.14 LCY

# **SCRAPER TEAM WORK**

		Permit Action:	Phase A-1			
Site: Arapaho Pit		Permit Action:	Reclamation	Peri	mit/Job#: <u>M202</u>	4043
PROJECT IDENT	<u> TIFICATION</u>					
Task #: 007	S	State: Colorado		Abbre	viation: None	
Date: 12/18/2	.024 Cou	unty: <u>Jackson</u>		Fil	ename: M043-	007
User: BEH						
Agency or o	organization name:	DRMS				
<b>HOURLY EQUIP</b>	MENT_		COSTS	hift basis: 1 per d	<u>ay</u>	
		Fauinme	ent Description			
-	-S	craper: Cat 627				
	-	Dozer: Cat D8	T - 8SU			
Suppor	rt Equipment -Load					
Road Mai	intenance –Motor (	p Area: NA Grader: NA				
	-Water					
	a ***				3.5	-
Cost Breakdown:	Scraper Wor	rk Team Dozer	Support Equip Load Area	pment Dump Area	Maintenance Motor Grader	Water Truck
	-			•		
%Utilization-machine:	100	100	NA	NA	NA	NA
Ownership cost/hour:	\$217.39	\$173.32	NA	NA	NA	NA
Operating cost/hour:	\$257.76	\$109.71	NA NA	NA NA	NA NA	NA NA
%Utilization-ripper:	NA NA	NA co.oo	NA	NA	NA NA	NA NA
Ripper own. cost/hour:	NA	\$0.00	NA NA	NA	NA	NA
Ripper op. cost/hour:	NA #20.00	\$0.00	NA NA	NA	NA	NA
Operator cost/hour:	\$30.90	\$38.59	NA	NA	NA	NA NA
Unit Subtotals:	\$506.05	\$321.62	NA	NA	NA	NA
Number of Units:	1	1	0	0	0	0
Group Subtotals:	Work:	\$827.67	Support:	\$0.00	Maint:	\$0.00
Total work team cost	/hour: <b>\$827.67</b>					
MATERIAL QUA	NTITIES					
		CCV	G 11.6	1.000		
Initial volume: Loose volume:	10,665 10,665	CCY LCY	Swell fact	tor: 1.000		
		<del></del>				
	rce of estimated vo	<del></del>	of Reclamation, I	Mining & Safety		
Source o	or estimated swell i	actor. <u>Cat Hair</u>	dook			
<b>HOURLY PRODU</b>	UCTION					
			Scraper Bo	owl (volume) Basi	is:	
Material weight:	2 100 lbs/LCV		•	Volume: 15.70		CY
Material description:			Heaped			CY

LCY

LCY

Average Volume: 18.85

Adjusted Capacity: 18.85

$\alpha$		٦.
710	ı d	ime:
Cyc	ıc ı	mic.

Scraper Loading Time: 0.50 Minutes
Maneuver and Spread Time: 0.60 Minutes

Job Condition Correction: Site Altitude: 8600 feet

	Scraper	Push Dozer	Source
Altitude Adj:	0.960	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.797	0.830	

**Travel Time:** 

Road Condition: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0

#### Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	400.00	0.00	5.00	5.00	2218	0.32

Haul Time: **0.32** minutes

#### Return Route:

Seg	# Haul Distance (Ft)	Grade (%)	Roll. Res	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	400.00	0.00	5.00	5.00	2814	0.28

Return Time: **0.28** minutes Total Scraper team cycle time: 1.70 minutes Adjusted for job conditions: 530.24 LCY/Hour Selected Number of Scrapers: Scraper(s) 1 Adjusted single scraper team (unit) hourly production: 530.24 LCY/Hour Adjusted multiple scraper team (fleet) hourly production: 530.24 LCY/Hour

Unadjusted unit production/hour: 665.29 LCY/Hour Optimal Number of Scrapers per push dozer:

#### JOB TIME AND COST

Fleet size:	1	Team(s)	Total job time:	20.11	Hour
Unit cost:	\$1.561	/LCY	Total job cost:	\$16,647	