COST SUMMARY WORK

: New Ell	k Mine	Pe	rmit Action:	RDA Calculation Final	Permit/Jo	b#: <u>C1981012</u>
PROJECT	<u> IDENTIFI</u>	CATION				
Task #:	000	State:	Colorado		Abbreviation:	None
Date:	9/28/2020	County:	Las Anima	S	Filename:	C012-000
	DC1					

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Regrading 30,000 LCY Refuse	GRADER	2	4.14	\$1,274
002	Strip and Place 5 acres of topsoil	TRUCK1	1	82.68	\$57,015
003	Strip and Place 10 acres of Cover over 2 feet from borrow	TRUCK1	1	287.66	\$198,371
004	100 year ditch	EXCAVATE	1	27.86	\$3,051
005	Strip and Place 4 acres of Cover over 2 feet from RDA back	TRUCK1	1	115.07	\$79,349
006	Strip and Place 5 acres of Cover over 2 feet from borrow	TRUCK1	1	236.40	\$163,021
007	Reseed RDA	REVEGE	1	5.00	\$6,172
008	Replace topsoil over borrow area	TRUCK1	1	53.94	\$30,099
		<u>SUBTO</u>	TALS:	812.75	\$538,352

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02		Total =	\$10,875
Performance bond:	1.05		Total =	\$5,653
Job superintendent:	379.40		Total =	\$26,387
Profit:	10.00		Total =	\$53,835
			TOTAL O & P =	\$96,750
	CONT	RACT AMOUNT	Γ (direct + O & P) =	\$635,102
LEGAL - ENGINEERING - PRO	DJECT MANAGEMENT	:		
Financial warranty processi	ng (legal/related costs):	\$500	Total =	\$500
Engineering work and/or c	ontract/bid preparation:	5.23	Total =	\$33,216
Reclamation management	t and/or administration:	4.00		\$25,404
	CONTINGENCY:	0.00	Total =	\$0
		TOTAL I	NDIRECT COST =	\$155,870

TOTAL BOND AMOUNT (direct + indirect) = \$694,222

MOTOR GRADER WORK

Task description:	Regrading 30,0	00 LCY Refu	ise			
te: New Elk Mine	Ре	ermit Action:	RDA Reclar Final	mation	Permit/Job#:	C1981012
PROJECT IDENTIF	TICATION					
Task #: 001	State:	Colorado		Abb	reviation: N	Jone
Date: $9/23/2020$		Las Anima	s			2012-001
User: DC1	·					
Agency or orga	anization name: D	RMS				
HOURLY EQUIPM	ENT COST					
Basic Machin	ne: CAT 16M			Horsepower:	29	7
Ripper Attachme	nt: Multi-Shank R	ipper		Shift Basis:	1 per	day
				Data Source:	(CR	G)
Cost Breakdown:						
				Utilization %		
	ership Cost/Hour:		\$55.79	NA	_	
	erating Cost/Hour:		\$60.08	100	_	
	ership Cost/Hour:		\$4.83	NA	=	
	erating Cost/Hour:		\$4.40	100 NA	-	
-	erator Cost/Hour:		\$28.56	NA	_	
Tota	al Unit Cost/Hour:		\$153.65			
Tota	l Fleet Cost/Hour:	\$307	.30			
MATERIAL QUAN	FITIES					
	to be graded or rippe	ed: 19.00			а	cres
	ce of estimated acreas	-	or provided			
HOURLY PRODUC	TION					
HOUKLIIKODUC						
	Average Grader Sp		1.50	mph		
	Selected Applica			grading (0-2.5 m		
	Selected Blade A Effective Blade Let		0 16.00	degrees feet)	
Width	of blade overlap per	-	2.00	feet		
	or ripping width per		14.00	feet		
6 6	d Hourly Unit Produc	·	2.5455	acres/h	our	
Job Condition Correction	-			te Altitude: 768		
		Course	~		<u> </u>	
Altitude Adj:	1.00	Source (CAT HB)			
Job Efficiency:	0.90	(1 sh/d, fav)				
Net Correction:	0.9000	multiplier	•/			
		1				
	Adjusted Hourly Unit		2.2909	acres/Hour		
А	djusted Hourly Fleet	Production:	4.5818	acres/Hour	•	
JOB TIME AND CO	<u>ST</u>					
Fleet size:	2 Grader(s))	Total job time	: <u>4.1</u> :	5 F	Iours
Unit cost: \$6	57.07 per acre		Total job cost	t: \$1,2 '	74	
0 mi cosi	per acre		10101 100 008		/ ••	

Task descriptio	n: Strip a	nd Place 5 acre	s of topsoil			
Site: New Elk Mi	ne	Permit A	ction: <u>RDA Calc</u>	culation Final	Permit/Job#:	C1981012
PROJECT ID	ENTIFICATION	Ī				
	02 /28/2020	State: Colo County: Las	rado Animas	Abl	Filename: C0	ne 12-002
User: D	DC1					
Agency	y or organization na	me: DRMS				
<u>HOURLY EQ</u>	UIPMENT COS	<u>r</u>		Shift ba	sis: <u>1 per day</u>	
			Equipment Descr	ription		
	Truck Loader Tea		at 725			
			t 319D L 8'-10"			
St	upport Equipment -I		t D7R DS Series I t D7R DS Series I			
Road	-D I Maintenance –Mot	1	AT 14M	ILOP		
Road			ater Tanker, 3,500	Gal.		
Cost Breakdow	n: Truck/Lo	ader Team	Support	Equipment	Maintena	ance Equipment
	Truck	Excavator	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machin	ie: 100	100	50	50	25	25
Ownership cost/hou	ır: \$56.08	\$36.95	\$76.61	\$76.61	\$65.89	\$14.71
Operating cost/hou	ır: \$45.18	\$39.39	\$37.39	\$37.39	\$14.74	\$7.65
%Utilization-ripe	er: NA	0	NA	NA	NA	NA
Ripper ow cost/hou		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Ripper op. cost/hou	ır: NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Operator cost/hou	ır: \$32.54	\$37.32	\$41.30	\$41.30	\$28.56	\$0.00
Unit Subtotal	ls: \$133.80	\$113.66	\$155.30	\$155.30	\$109.19	\$22.35
Number of Unit	ts: 1	1	1	1	1	1
Group Subtotal	ls: Work:	\$247.46	Support:	\$310.60	Maint:	\$131.54

Total work team cost/hour: **<u>\$689.60</u>**

MATERIAL QUANTITIES

Initial volume:	9,274	CCY	Swell factor:	1.000	
Loose volume:	9,274	LCY			
Source	e of estimated volume:	Division of	Reclamation, Min	ing & Safety	
Source of	estimated swell factor:	Cat Handb	ook		
Ν	Aaterial Purchase Cost:	\$0.00			
	Total Cost:	\$0.00			

Truck Capacity: Truck Payload (weight) Basi	ç.				
Material weight:	<u>3.</u> 1,600		Pounds/LCY		
Description:	Top Soil				
Rated Payload:	52,000		Pounds		
Payload Capacity:	32.50		LCY		
Truck Bed (volume) Basis:					
Struck Volume:	14.50	LCY			
Heaped Volume:	18.70	LCY			
Average Volume:	16.60	LCY			
Adjusted Volume:	18.70	LCY			
Final	Truck Volume	Based on Nur	nber of Loader Passes	: 18.23	LCY
Loading Tool Capacity					
			Buc	cket Size Class: M	ledium
Rated Capacity:	1.100	LCY (he	eaped)		
Bucket Fill Factor:	0.975		naterial - uniform aggr	egates to 1/8" (95-10	00%) 0.975
Adjusted Capacity:	1.073	LCY		<u> </u>	
Job Condition Corrections	<u>:</u>		Site Altitude (ft.)): <u>7680</u> feet	
	Truck	Loade			
Altitude Adj:	1.000	0.830	(,	
Job Efficiency:	0.830	0.830) (CAT H	IB)	
Net Correction:	0.830	0.689)		
Loading Tool Cycle Time:		Number of Lo	ading Tool Passes Rec	quired to Fill	17 passes
Excavators and Front Shove	ls:			Truck:	17
Machine Cycle Time v Selected Value			AVERAGE AVERAGE		
Track Loaders –		<u> </u>			
Cycle Time Elements (min.)	:				
Load: NA	1	Maneuver: N	NA	Dump: 0.100)
Wheel and Trac	k Loaders - Ui	nadjusted Basic	c Loader Cycle Time (load, dump, maneuver):	NA minutes
Cycle Time Factors	1			Factor (min.)	Source
Material:	NA			NA	(Cat HB)
Stockpile:	NA			NA	(Cat HB)
Truck Ownership:	NA			NA	(Cat HB)
Operation:	NA			NA	(Cat HB)
Dump Target:	NA			NA	(Cat HB)
		Net Cy	cle Time Adjustment:	NA	minutes
			d Loader Cycle Time:	0.282	minutes
		Net I	Load Time per Truck:	4.612	minutes

Truck Exchange Time:	0.50	Minutes	Adjusted for site altitude:	0.500	Minutes
Truck Load Time:	4.612	Minutes	Adjusted for site altitude:	5.557	Minutes
Truck Maneuver and Dump Time:	0.90	Minutes	Adjusted for site altitude:	0.900	Minutes

Truck Travel (Haul & Return) Time: maintained 2.0

Ha	ul Route	:							
S	eg #	Haul Distar	nce	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
		(Ft)			(%)	(%)	(fpm)	Time (min)	
1		800.00		5.00	2.00	7.00	1050	0.821	
	1					Haul Time:	0.821	minute	es
Ret	turn Rou	te:							
S	eg #	Haul Distar	nce	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
		(Ft)			(%)	(%)	(fpm)	Time (min)	
1		800.00		-5.00	2.00	-3.00	3159	0.317	
						Return Time:	0.317	minu	tes
					Total Tru	ck Cycle Time:	8.095	5 minu	tes
Load	ling Tool	l unit							
	Produ		80.62	LCY/Hour		Adjusted for jo	ob efficiency:	149.91	LCY/Hour
Truck Un	nit Produ								
		1	35.15	LCY/Hour		Adjusted for jo	ob efficiency:	112.17	LCY/Hour
Optimal N	lo. of Tr	ucks:	1	Truck(s)		Selected Numb	er of Trucks:	1	Truck(s)
				Adjusted	hourly truck	team productio	n: 112.	.17 LCY	//Hour
				Adjusted single	truck/loader	team productio	n: 112.	.17 LCY	/Hour
			A	djusted multiple	e truck/loader	team productio	n: <u>112.</u>	.17 LCY	/Hour
<u>JO</u>	DB TIM	E AND CO	ST						
	Fleet s	ize:	1	Team(s)	Т	otal job time:	82.6	8 He	ours
	Unit c	ost: \$6	5.148	/LCY	Т	Fotal job cost:	\$57,0	15	

Task description:	Strip an	d Place 10 ac	res of Cover over	2 feet from borr	DW	
Site: New Elk Mine		Permit A	Action: RDA Cal	culation Final	Permit/Job#:	C1981012
PROJECT IDEN	TIFICATION					
Task #: 003		State: Col	orado	Abl	previation: N	None
Date: 9/28/	2020 C	County: Las	Animas		Filename: C	2012-003
User: DC1						
Agency or	organization nam	ne: DRMS				
HOURLY EQUI	PMENT COST	-		Shift ba	usis: <u>1 per day</u>	
			Equipment Descr	ription		
Т	ruck Loader Tear		Cat 725			
			at 319D L 8'-10"			
Suppo	ort Equipment -Le		at D7R DS Series			
Dood Ma	-Du aintenance –Moto	1	at D7R DS Series	II LGP		
Koau Ma			Vater Tanker, 3,500) Gal		,
	· · · ·	of fluck.	<i>uter Tulker</i> , <i>3,300</i>	, oui.		
Cost Breakdown:	Truck/Loa	der Team	Support	Equipment	Mainte	enance Equipment
	Truck	Excavator	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	10	0 50	50	25	5 25
Ownership cost/hour:	\$56.08	\$36.9	5 \$76.61	\$76.61	\$65.89	9 \$14.71
Operating cost/hour:	\$45.18	\$39.3	9 \$37.39	\$37.39	\$14.74	4 \$7.65
%Utilization-riper:	NA		0 NA	NA	NA	A NA
Ripper own. cost/hour:	NA	\$0.0	0 \$0.00	\$0.00	\$0.00	0.00
Ripper op. cost/hour:	NA	\$0.0	0 \$0.00	\$0.00	\$0.00	0 \$0.00
Operator cost/hour:	\$32.54	\$37.3	2 \$41.30	\$41.30	\$28.50	5 \$0.00
Unit Subtotals:	\$133.80	\$113.6	6 \$155.30	\$155.30	\$109.19	9 \$22.35
Number of Units:	1		1 1	1	1	1 1
Group Subtotals:	Work:	\$247.46	Support:	\$310.60	Maint	: \$131.54

Total work team cost/hour: \$689.60

MATERIAL QUANTITIES

Initial volume:	32,267	CCY	Swell factor:	1.000	
Loose volume:	32,267	LCY			
Sourc	e of estimated volume:	Operator P	rovided		
Source of	estimated swell factor:	Cat Handb	ook		
Ν	Aaterial Purchase Cost:	\$0.00			
	Total Cost:	\$0.00			

Truck Consoity:	<u> </u>				
<u>Truck Capacity:</u> Truck Payload (weight) Basi	is.				
Material weight:	2,650	Pounds	ИCY		
Description:		rock - 25% Rock, 75%			
Rated Payload:	52,000	Pounds			
Payload Capacity:	19.62	LCY	,		
Tuyloud Cupucity.		Let			
Truck Bed (volume) Basis:					
Struck Volume:	14.50	LCY			
Heaped Volume:		LCY			
Average Volume:		LCY			
Adjusted Volume:		LCY			
	m 1 1 / 1 m			10.00	
	Truck Volume E	Based on Number of I	Loader Passes:	18.23	LCY
Loading Tool Capacity			Bucke	et Size Class:	Medium
Rated Capacity:	1.100	LCY (heaped)			
Bucket Fill Factor:	0.975	Loose material -	uniform aggreg	ates to 1/8" (95-1	100%) 0.975
Adjusted Capacity:	1.073	LCY		× -	,
Iob Condition Corrections	·• ·•	Site	e Altitude (ft.): <u>'</u>	<u>7680</u> feet	
	Truck	Loader	Source		
Altitude Adj:	1.000	0.830	(CAT HB		
Job Efficiency:	0.830	0.830	(CAT HB)	
Net Correction:	0.830	0.689			
Loading Tool Cycle Time:	: N	Number of Loading To	ool Passes Requi	ired to Fill	passes
	_	united of Louding Te	sorr asses requ	Truck:	17 passes
Excavators and Front Shove	<u>515.</u>				
Machine Cycle Time v					
Selected Value	within this Basic	Rating: AVERAC	GE		
Track Loaders -	- Material Descri	ption:			
Cycle Time Elements (min.)	:				
Cycle Time Elements (min.) Load: <u>NA</u>		aneuver: NA		Dump: 0.10	00
Load: NA	M			•	
Load: NA	M	aneuver: <u>NA</u> djusted Basic Loader	•	•	NA minutes
Load: NA	M		•	ad, dump,	minutes
Load: NA Wheel and Trac	M		•	ad, dump, aneuver):	NA minutes
Load: NA Wheel and Trac Cycle Time Factors	M k Loaders - Una		•	ad, dump, aneuver): Factor (min.)	NA minutes Source
Load: <u>NA</u> Wheel and Trac <u>Cycle Time Factors</u> Material:	M ck Loaders - Una NA NA		•	ad, dump, aneuver): Factor (min.) NA	NA minutes Source (Cat HB)
Load: NA Wheel and Trac Cycle Time Factors Material: Stockpile:	M ck Loaders - Una NA NA NA		•	ad, dump, aneuver): Factor (min.) NA NA	NA minutes Source (Cat HB) (Cat HB)
Load: NA Wheel and Trac Cycle Time Factors Material: Stockpile: Truck Ownership:	M ck Loaders - Una NA NA NA NA NA	djusted Basic Loader		ad, dump, aaneuver): Factor (min.) NA NA NA NA NA NA	NA minutes Source (Cat HB)
Load: NA Wheel and Trac Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	M ck Loaders - Una NA NA NA NA NA	djusted Basic Loader	Adjustment:	ad, dump, aneuver): Factor (min.) NA NA NA NA NA NA NA	NA minutes Source (Cat HB) minutes
Load: NA Wheel and Trac Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	M ck Loaders - Una NA NA NA NA NA	djusted Basic Loader	Adjustment:	ad, dump, aaneuver): Factor (min.) NA NA NA NA NA NA	NA minutes Source (Cat HB)

Truck Cycle Time:

Truck Exchange Time:	0.50	Minutes	Adjusted for site altitude:	0.500	Minutes
Truck Load Time:	4.612	Minutes	Adjusted for site altitude:	5.557	Minutes
Truck Maneuver and Dump Time:	0.90	Minutes	Adjusted for site altitude:	0.900	Minutes

Truck Travel (Haul & Return) Time: maintained 2.0

Ha	ul Route	:							
S	eg #	Haul Dista	nce	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
		(Ft)			(%)	(%)	(fpm)	Time	
1		800.00		5.00	2.00	7.00	1050	(min) 0.821	-
1		800.00		5.00	2.00	7.00	1050	0.821	
						Haul Time:	0.821	minut	tes
	turn Rou								-
S	eg #	Haul Distar	nce	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
		(Ft)			(%)	(%)	(fpm)	Time (min)	
1		800.00		-5.00	2.00	-3.00	3159	0.317	
						Return Time:	0.317	, minu	ites
					Total Tru	ck Cycle Time:			
T I									
Load	ling Tool Produ		80.62	LCY/Hour		Adjusted for jo	hafficianau	140.01	LCY/Hour
Truck Un			80.02			Aujusted for jo	bb efficiency.	149.91	
TTUCK OI	in i iouu		35.15	LCY/Hour		Adjusted for jo	ob efficiency.	112.17	LCY/Hour
			55.15			riajustea foi je	se entereney.	112.17	
Optimal N	lo. of Tr	ucks:	1	Truck(s)		Selected Numb	er of Trucks:	1	Truck(s)
				Adjusted	hourly truck	team productio	n: 112.	17 LC	Y/Hour
				Adjusted single	truck/loader	team productio	n: 112.	17 LC	Y/Hour
			A	djusted multiple	truck/loader	team productio	n: 112.	17 LC	Y/Hour
<u>JO</u>	B TIM	E AND CC	<u>ST</u>						
	Fleet s	ize:	1	Team(s)	Т	otal job time:	287.6	6 H	Iours
	Unit c	ost:\$	5.148	/LCY	Т	Total job cost:	\$198,3	71	

HYDRAULIC EXCAVATOR WORK

Task description:	100 year ditch					
: New Elk Mine	Per	rmit Action:	RDA Calcula	tion Final	Permit/Jo	b#: <u>C1981012</u>
PROJECT IDENTIF	ICATION					
Task #: 004 Date: 9/28/2020 User: DC1	State: County:	Colorado Las Anim	as		previation: Filename:	None C012-004
Agency or orga	nization name: DR	RMS				
HOURLY EQUIPME	ENT COST					
Basic Machine: Attachment 1:	Cat 315D L 8'-6" S ROPS Cab	Stick	,	Horsepower: Weight (MT): Shift Basis:	1	115 7.32 per day
				Data Source:	(I	CRG)
Cost Breakdown:			Utilization %			
Ownership Cost/			NA			
Operating Cost/ Operator Cost/			100 NA			
Total Unit Cost/			11/1	_		
Total Fleet Cost						
Loose volume:	4,000 4,000 of estimated volume: timated swell factor: <u>FION</u>	_ CCY _ LCY _ Operator _ Cat Hanc	Swell fact Provided Ibook	tor: <u>1.000</u>		
Excavator Cycle Time (lo	oad bucket, swing loa	ded, dump b	oucket, swing en	<u>npty):</u>		
			ondition Descrip			
	Secondary Job Cor	dition withi	in Basic Descrip Cycle Time Va		RAGE	minutes
Load Bucket Capacity			Cycle Thile Va	alue. <u>0.230</u>		_ minutes
· · ·				Bucket Size	Class: M	Iedium
Rated Capacit Bucket Fill Facto		_ LCY (he	aped) arth Mixture (10	00% 1050%) 14		
Adjusted Capacit		LCY		,070-10 <i>5 7</i> 0 / 1.0	545	
Job Condition Correction		_	Sit	te Altitude: <u>78</u>	<u>20</u> feet	
Altitude Adj: Job Efficiency: Net Correction:	0.90 0.83 0.75	Source (CAT HI (1 shift/da multiplier	B) ay)			
Una	djusted Hourly Unit I	Production:	192.19	LCY/Hou	r	
А	djusted Hourly Unit I ljusted Hourly Fleet I	Production:	143.56 143.56	LCY/Hou LCY/Hou		
JOB TIME AND CO			v			
	1 Excavato	or To	otal job time:	27.	86	Hours
						-

Unit cost:	\$0.763	/LCY
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Total job cost: \$3,051

Strip and Place 4 acres of Cover over 2 feet from RDA back								
Site: New Elk Mine		Permit Ac	tion: RDA Calc	ulation Final	Permit/Job#:	C1981012		
PROJECT IDEN	TIFICATION							
Task #: 005		State: Color	ado	Abb	previation: N	Vone		
Date: 9/28/	2020	County: Las A	nimas		Filename: C	2012-005		
User: DC1								
Agency or	organization nam	ne: DRMS						
HOURLY EQUI	PMENT COST	-		Shift ba	sis: <u>1 per day</u>			
			Equipment Descr	iption				
T	Truck Loader Team -Truck: Cat 725							
-Loader: Cat 319D L 8'-10" Stick								
Support Equipment -Load Area: Cat D7R DS Series II LGP								
-Dump Area: Cat D7R DS Series II LGP Road Maintenance –Motor Grader: CAT 14M								
Koau Ma			$\frac{1}{14}$ ter Tanker, 3,500	Gal				
	· · · ·	ter fruck. Wu	ter Tunker, 5,500	Sui.				
Cost Breakdown:	Truck/Loa	der Team	Support	Equipment	Mainte	enance Equipment		
	Truck	Excavator	Load Area	Dump Area	Motor Grader	Water Truck		
%Utilization-machine:	100	100	50	50	25	5 25		
Ownership cost/hour:	\$56.08	\$36.95	\$76.61	\$76.61	\$65.89	9 \$14.71		
Operating cost/hour:	\$45.18	\$39.39	\$37.39	\$37.39	\$14.74	\$7.65		
%Utilization-riper:	NA	0	NA	NA	NA	A NA		
Ripper own. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		
Ripper op. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00) \$0.00		
Operator cost/hour:	\$32.54	\$37.32	\$41.30	\$41.30	\$28.56	5 \$0.00		
Unit Subtotals:	\$133.80	\$113.66	\$155.30	\$155.30	\$109.19	\$22.35		
Number of Units:	1	1	1	1	1	l 1		
Group Subtotals:	Work:	\$247.46	Support:	\$310.60	Maint	: \$131.54		

Total work team cost/hour: **<u>\$689.60</u>**

MATERIAL QUANTITIES

Initial volume:	12,907	CCY	Swell factor:	1.000	
Loose volume:	12,907	LCY			
Source	e of estimated volume:	Operator Pr	ovided		
Source of	estimated swell factor:	Cat Handbo	ook		
Material Purchase Cost:		\$0.00			
	Total Cost:	\$0.00			

Material weight:	<u>is:</u> 2,650	Pound	sЛСV		
Description:		rock - 25% Rock, 75			
Rated Payload:	52,000	Pound			
Payload Capacity:	19.62	LCY			
ruck Bed (volume) Basis:					
Struck Volume:		LCY			
Heaped Volume:		LCY			
Average Volume:		LCY			
Adjusted Volume:	18.70	LCY			
Final	Truck Volume]	Based on Number of	Loader Passes:	18.23	LCY
oading Tool Capacity					
	1 100		Buck	et Size Class:	Medium
Rated Capacity:	1.100	LCY (heaped)	uniform	ratas to 1/0" (OF	100%)0075
Bucket Fill Factor: Adjusted Capacity:	0.975 1.073	Loose material	- uniform aggreg	gates to 1/8" (95-2	100%)0.975
Aujusted Capacity.	1.075				
ob Condition Corrections	<u>):</u>	Si	te Altitude (ft.):	<u>7680</u> feet	
	Truck	Loader	Source		
Altitude Adj:	1.000	0.830	(CAT HB)	
Job Efficiency:	0.830	0.830	(CAT HB)	
Net Correction:	0.830	0.689			
Loading Tool Cycle Time	: 1	Number of Loading T	ool Passes Requ	ired to Fill	17 passe
Excavators and Front Shove	_	C C		Truck:	17 pusse
Machine Cycle Time	vs Job Condition	n Rating: AVERA	GE		
•	within this Basic	U			
	- Material Descri				
ycle Time Elements (min.)		ipuon.			
Load: NA		laneuver: NA		Dump: 0.10	00
Loud. 1111					
		dineted Resic Loade	•	ad, dump, naneuver):	NA minutes
	ck Loaders - Una	agusted Basic Loade.	n		
		lujusicu Dasie Loade.	n	Factor (min.)	Source
Wheel and Trac Cycle Time Factors Material:	NA			Factor (min.) NA	(Cat HB)
Wheel and Trac Cycle Time Factors Material: Stockpile:	NA NA		n	Factor (min.) NA NA	(Cat HB) (Cat HB)
Wheel and Trac Cycle Time Factors Material: Stockpile: Truck Ownership:	NA NA NA		n	Factor (min.) NA NA NA	(Cat HB) (Cat HB) (Cat HB)
Wheel and Trac Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	NA NA NA NA		n	Factor (min.) NA NA NA NA	(Cat HB)(Cat HB)(Cat HB)(Cat HB)
Wheel and Trac Cycle Time Factors Material: Stockpile: Truck Ownership:	NA NA NA NA			Factor (min.) NA NA NA NA NA NA	(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)
Wheel and Trac Cycle Time Factors Material Stockpile Truck Ownership Operation	NA NA NA NA	Net Cycle Time	e Adjustment:	Factor (min.) NA NA NA NA NA NA NA	(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)minutes
Wheel and Trac Cycle Time Factors Material Stockpile Truck Ownership Operation	NA NA NA NA	Net Cycle Time Adjusted Loade	e Adjustment:	Factor (min.) NA NA NA NA NA NA	(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)

Truck Exchange Time:	0.50	Minutes	Adjusted for site altitude:	0.500	Minutes
Truck Load Time:	4.612	Minutes	Adjusted for site altitude:	5.557	Minutes
Truck Maneuver and Dump Time:	0.90	Minutes	Adjusted for site altitude:	0.900	Minutes

Truck Travel (Haul & Return) Time: maintained 2.0

На	aul Route	:							
S	Seg #	Haul I	Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel]
		(Ft)			(%)	(%)	(fpm)	Time	
1	1	800.00)	5.00	2.00	7.00	1050	(min) 0.821	-
	1	800.00)	5.00	2.00	7.00	1050	0.821	
Haul Time: 0.821 minutes									
	eturn Rou			1				1	-
S	Seg #		Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
		(Ft)			(%)	(%)	(fpm)	Time (min)	
1	1	800.00)	-5.00	2.00	-3.00	3159	0.317	-
						Return Time:	0.317	minu	ites
					Total Tru	ck Cycle Time:			
					100001110			<u> </u>	
Loa	ding Too		100 60				1 60 1	140.01	
T	Produ		180.62	LCY/Hour		Adjusted for jo	ob efficiency:	149.91	LCY/Hour
Truck U	nit Produ	ction	135.15	LCY/Hour		Adjusted for jo	ab afficiancy:	112.17	LCY/Hour
		-	155.15			Aujusted for jo	be efficiency.	112.17	
Optimal 1	No. of Tr	ucks:	1	Truck(s)		Selected Numb	er of Trucks:	1	Truck(s)
				Adjusted	hourly truck	team productio	n: 112.	.17 LC	Y/Hour
				Adjusted single	truck/loader	team productio	n: 112.	.17 LC	Y/Hour
			A	djusted multiple	truck/loader	team productio	n: 112.	.17 LC	Y/Hour
JC	OB TIM	E ANI	O COST						
	Fleet s	size:	1	Team(s)	Т	otal job time:	115.0)7 H	lours
	Unit c	cost:	\$6.148	/LCY	Т	`otal job cost: _	\$79,34	49	

Task description:Strip and Place 5 acres of Cover over 2 feet from borrow								
Site: New Elk Mine		Permit A	Action: <u>RDA C</u>	alculation	Final	Permit/Jo	b#: _	C1981012
PROJECT IDEN	TIFICATION							
Task #: 006		State: Col	lorado		Abb	previation:	Nor	ne
Date: 9/28/	2020	County: Las	s Animas		-	Filename:	C01	2-006
User: DC1								
Agency or	organization nan	ne: DRMS						
HOURLY EQUI	PMENT COST	<u>.</u>			Shift ba	sis: <u>1 per da</u>	<u>ıy</u>	
			Equipment De	scription				
Т	ruck Loader Tea		Cat 725	•				
-Loader: Cat 319D L 8'-10" Stick								
Support Equipment -Load Area: Cat D7R DS Series II LGP								
-Dump Area: Cat D7R DS Series II LGP								
Road Maintenance – Motor Grader:CAT 14M-Water Truck:Water Tanker, 3,500 Gal.								
	- ** a	ter Huck.	vater ranker, 5,5	00 Oai.				,
Cost Breakdown:	Truck/Loa	der Team	Supp	ort Equipm	ent	Mai	ntena	nce Equipment
<u></u>	Truck	Excavator	Load Area		o Area	Motor Grader		Water Truck
%Utilization-machine:	100	10	0 5	0	50	orador	25	25
Ownership cost/hour:	\$56.08	\$36.9	5 \$76.6	1	\$76.61	\$65	5.89	\$14.71
Operating cost/hour:	\$45.18	\$39.3	9 \$37.3	9	\$37.39	\$14	.74	\$7.65
%Utilization-riper:	NA		0 N.		NA		NA	NA
Ripper own. cost/hour:	NA	\$0.0	0 \$0.0	0	\$0.00	\$C	0.00	\$0.00
				_	* • • •	ф.с	0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.0	90 \$0.0	0	\$0.00	\$0	0.00	φ0.00
Ripper op. cost/hour: Operator cost/hour:	NA \$32.54	\$0.0 \$37.3			\$0.00 \$41.30		3.56	\$0.00
			\$41.3	0			8.56	
Operator cost/hour:	\$32.54	\$37.3 \$113.6	\$41.3	0	\$41.30	\$28	8.56	\$0.00

Total work team cost/hour: \$689.60

MATERIAL QUANTITIES

26,517	CCY	Swell factor:	1.000	
26,517	LCY			
e of estimated volume:	Operator P	rovided		
estimated swell factor:	Cat Handb	ook		
Material Purchase Cost:	\$0.00			
Total Cost:	\$0.00			
	26,517 e of estimated volume: estimated swell factor: Material Purchase Cost:	26,517LCYce of estimated volume:Operator Festimated swell factor:Cat HandbMaterial Purchase Cost:\$0.00	26,517LCYce of estimated volume: estimated swell factor:Operator Provided Cat HandbookMaterial Purchase Cost:\$0.00	26,517 LCY ce of estimated volume: Operator Provided cestimated swell factor: Cat Handbook Material Purchase Cost: \$0.00

Truck Capacity: Truck Payload (weight) Basis: 2,650 Material weight: Pounds/LCY Description: Decomposed rock - 25% Rock, 75% Earth Rated Payload: 52,000 Pounds Payload Capacity: 19.62 LCY Truck Bed (volume) Basis: Struck Volume: 14.50 LCY Heaped Volume: 18.70 LCY Average Volume: 16.60 LCY Adjusted Volume: 18.70 LCY Final Truck Volume Based on Number of Loader Passes: 18.23 LCY Loading Tool Capacity Bucket Size Class: Medium Rated Capacity: LCY (heaped) 1.100 Loose material - uniform aggregates to 1/8" (95-100%) 0.975 **Bucket Fill Factor:** 0.975 Adjusted Capacity: 1.073 LCY **Job Condition Corrections:** Site Altitude (ft.): 7680 feet Truck Loader Source 1.000 Altitude Adj: 0.830 (CAT HB) Job Efficiency: 0.830 0.830 (CAT HB) Net Correction: 0.830 0.689 Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill passes 17 Truck: Excavators and Front Shovels: Machine Cycle Time vs. Job Condition Rating: AVERAGE Selected Value within this Basic Rating: AVERAGE Track Loaders – Material Description: Cycle Time Elements (min.): Load: NA Maneuver: NA Dump: 0.100 Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, minutes NA maneuver): **Cycle Time Factors** Factor (min.) Source Material: NA NA (Cat HB) Stockpile: NA NA (Cat HB) Truck Ownership: NA NA (Cat HB) **Operation:** NA NA (Cat HB) Dump Target: NA NA (Cat HB) Net Cycle Time Adjustment: NA minutes Adjusted Loader Cycle Time: 0.282 minutes Net Load Time per Truck: 4.612 minutes

Truck Cycle Time:

Truck Exchange Time:	0.50	Minutes	Adjusted for site altitude:	0.500	Minutes
Truck Load Time:	4.612	Minutes	Adjusted for site altitude:	5.557	Minutes
Truck Maneuver and Dump Time:	0.90	Minutes	Adjusted for site altitude:	0.900	Minutes

Truck Travel (Haul & Return) Time: maintained 2.0

	Haul Rout	2:							
	Seg #	Haul Distar	nce	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
		(Ft)			(%)	(%)	(fpm)	Time (min)	
	1	800.00		5.00	2.00	7.00	1050	0.821	
						Haul Time:	0.821	minutes	
	Return Ro	ite:							
	Seg #	Haul Distar	nce	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
		(Ft)			(%)	(%)	(fpm)	Time (min)	
	1	800.00		-5.00	2.00	-3.00	3159	0.317	
						Return Time:	0.317	minute	s
					Total Tru	ck Cycle Time:			
									-
L	oading To		00 6				1 07 1	1 10 01	
T 1			80.62	LCY/Hour		Adjusted for jo	ob efficiency:	149.91	LCY/Hour
Iruck	Unit Prod		25 15	I CV/II		A dimente d'En	1	112 17	LCV/II.
		1	35.15	LCY/Hour		Adjusted for jo	ob efficiency:	112.17	LCY/Hour
Optima	al No. of T	rucks:	1	Truck(s)		Selected Numb	er of Trucks:	1	Truck(s)
				Adjusted	hourly truck	team productio	n: 112.	17 LCY/	Hour
				Adjusted single	•	-		17 LCY/	Hour
			А	djusted multiple	truck/loader	team productio	n: 112.	17 LCY/	Hour
	JOB TIM	IE AND CC	<u>ST</u>						
	Fleet	size:	1	Team(s)	Т	otal job time:	236.4	0 Hou	ırs

 Unit cost:
 \$6.148
 /LCY
 Total job cost:
 \$163,021

REVEGETATION WORK

Task #: 007 State: Colorado Abbreviation: None
Date:9/28/2020County:Las AnimasFilename:C012-007User:DC1

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
Buffalograss - Bison	0.50	0.48	\$4.75
Blue Grama - Hachita	0.67	10.94	\$10.70
Little Bluestem - Cimarron	1.20	7.16	\$14.98
Sideoats Grama - Butte	2.50	8.21	\$22.50
Milk Vetch, Cicer - Monarch	0.33	1.10	\$2.71
Streambank Wheatgrass - Sodar	1.50	4.89	\$8.55
Sainfoin - Remont	1.67	0.73	\$5.28
Thickspike Wheatgrass - Critana	0.50	1.77	\$3.44
Western Wheatgrass - Arriba	2.00	5.05	\$13.00
Rabbitbrush, Rubber	0.15	2.23	\$9.64
Rose, Wood's	0.20	0.00	\$4.10
Daisy or Sunflower, Maximillians	0.11	0.62	\$6.16
Flax, Lewis Blue	0.11	0.73	\$1.82
Spike Muhly	0.33	12.12	\$3.20
Penstemon, Rocky Mountain	0.11	1.72	\$3.25
Totals Seed Mix	11.88	57.76	\$114.07

Application

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

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$301.00	\$602.00
Total Mulch Materials Cost/Acre				\$602.00

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$70.17
Power mulcher (MEANS 32 91 13.16 0350)		\$101.93
	Total Mulch Application Cost/Acre	\$172.10

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

JOB TIME AND COST

No. of Acres:	5	Cost /Acre:	\$1,120.17
Estimated Failure Rate:	33%	Cost /Acre*:	\$346.07
*Selected Replanting Work Items:	SEEDING		·
Initial Job Cost: \$5,600.85			

Reseeding Job Cost:	\$571.02
Total Job Cost:	\$6,172
Job Hours:	5.00

Task description:	Replace	e topsoil ov	ver bo	rrow area				
Site: New Elk Mine		Pern	nit Act	ion: <u>RDA Calc</u>	ulation Final	Permit/Job	#: _	C1981012
PROJECT IDEN	TIFICATION							
Task #: 008		State:	Colora	ado	Abb	previation:	Non	e
Date: 9/29/2	2020	County:	Las A	nimas		Filename:	C012	2-008
User: DC1								
Agency or	organization nan	ne: DRM	4S					
HOURLY EQUIE	PMENT COST	<u> </u>			Shift ba	sis: <u>1 per day</u>	<u>/</u>	
				Equipment Descr	iption			
T	ruck Loader Tea		Cat					
	-Loader: Cat 319D L 8'-10" Stick Support Equipment -Load Area: Cat D7R DS Series II LGP							
Suppo	1 1	oad Area: imp Area:		D7R DS Series I D7R DS Series I				
Road Ma	intenance – Moto		NA	D/R DS Series I	ILOP			
Road Wit		ter Truck:	NA					
Cost Breakdown:	Truck/Loa	der Team		Support	Equipment	Main	itenar	nce Equipment
	Truck	Excavato	or	Load Area	Dump Area	Motor Grader		Water Truck
%Utilization-machine:	100		100	50	50	N	ΙA	NA
Ownership cost/hour:	\$56.08	\$3	6.95	\$76.61	\$76.61	N	ΙA	NA
Operating cost/hour:	\$45.18	\$3	9.39	\$37.39	\$37.39	N	ΙA	NA
%Utilization-riper:	NA		0	NA	NA	N	JA	NA
Ripper own. cost/hour:	NA	\$	0.00	\$0.00	\$0.00	Ň	JA	NA
Ripper op. cost/hour:	NA	\$	0.00	\$0.00	\$0.00	N	ΙA	NA
Operator cost/hour:	\$32.54	\$3	7.32	\$41.30	\$41.30	N	ΙA	NA
Unit Subtotals:	\$133.80	\$11	3.66	\$155.30	\$155.30	N	ΙA	NA
Number of Units:	1		1	1	1		0	0

Total work team cost/hour: \$558.06

Work:

\$247.46

MATERIAL QUANTITIES

Group Subtotals:

Initial volume:	6,050	CCY	Swell factor:	1.000	
Loose volume:	6,050	LCY			-
Sourc	e of estimated volume:	Division of	f Reclamation, Min	ing & Safety	
Source of	estimated swell factor:	Cat Handb	ook		
Ν	Iaterial Purchase Cost:	\$0.00			
	Total Cost:	\$0.00			

Support:

\$310.60

\$0.00

Maint:

Truck Capacity: Truck Payload (weight) Basi	ç.				
Material weight:	<u>3.</u> 1,600		Pounds/LCY		
Description:	Top Soil				
Rated Payload:	52,000		Pounds		
Payload Capacity:	32.50		LCY		
5 I 5					
Truck Bed (volume) Basis:					
Struck Volume:	14.50	LCY			
Heaped Volume:	18.70	LCY			
Average Volume:	16.60	LCY			
Adjusted Volume:	18.70	LCY			
Final	Truck Volume	Based on Nur	nber of Loader Passes	s: 18.23	LCY
Loading Tool Capacity					
			Bu	cket Size Class: N	ledium
Rated Capacity:	1.100	LCY (he			
Bucket Fill Factor:	0.975		naterial - uniform agg	regates to 1/8" (95-10	00%) 0.975
Adjusted Capacity:	1.073	LCY		8	
J					
Job Condition Corrections	<u>:</u>		Site Altitude (ft.): <u>7680</u> feet	
	Truck	Loade			
Altitude Adj:	1.000	0.830	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	
Job Efficiency:	0.830	0.830) (CAT H	HB)	
Net Correction:	0.830	0.689)		
Loading Tool Cycle Time:		Number of Lo	ading Tool Passes Re	•	17 passes
Excavators and Front Shove	<u>ls:</u>			Truck:	17
Machine Cycle Time v Selected Value			AVERAGE AVERAGE		
Track Loaders –		<u> </u>			
Cycle Time Elements (min.)		•			
Load: NA	1	Maneuver: N	NA	Dump: 0.100)
Wheel and Trac	k Loaders - Ui	adjusted Basic	c Loader Cycle Time	(load, dump, maneuver):	NA minutes
Cycle Time Factors				Factor (min.)	Source
Material:	NA			NA	(Cat HB)
Stockpile:	NA			NA	(Cat HB)
Truck Ownership:	NA			NA	(Cat HB)
Operation:	NA			NA	(Cat HB)
Dump Target:	NA			NA	(Cat HB)
	1	Net Cy	cle Time Adjustment:		minutes
			l Loader Cycle Time:		minutes
		Net I	Load Time per Truck:		minutes

Task # 000

Truck Exchange Time:	0.50	Minutes	Adjusted for site altitude:	0.500	Minutes
Truck Load Time:	4.612	Minutes	Adjusted for site altitude:	5.557	Minutes
Truck Maneuver and Dump Time:	0.90	Minutes	Adjusted for site altitude:	0.900	Minutes

Truck Travel (Haul & Return) Time: maintained 2.0

Haul	Route:

Seg #	Haul Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel
	(Ft)		(%)	(%)	(fpm)	Time (min)
1	800.00	5.00	2.00	7.00	1050	0.821
				Haul Time:	0.821	minutes
Return Ro	oute:					
Seg #	Haul Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel
	(Ft)		(%)	(%)	(fpm)	Time (min)
	× ,					(11111)
1	800.00	-5.00	2.00	-3.00	3159	0.317
1		-5.00	2.00	-3.00 Return Time:		0.317

Production	180.62	LCY/Hour	Adjusted for job ef	ficiency:	149.91	LCY/Hour
Truck Unit Production						
	135.15	LCY/Hour	Adjusted for job ef	ficiency:	112.17	LCY/Hour
Optimal No. of Trucks:	1	Truck(s)	Selected Number o	f Trucks:	1	Truck(s)
		Adjusted hou	urly truck team production:	112.17	LCY/F	Iour
		Adjusted single tru	112.17	LCY/H	Iour	
	А	djusted multiple tru	ck/loader team production:	112.17	LCY/H	Iour
JOB TIME AN	D COST					
Fleet size:	1	Team(s)	Total job time:	53.94	Hou	rs
Unit cost:	\$4.975	/LCY	Total job cost:	\$30,099		