

1313 Sherman St. Room 215 Denver, CO 80203

May 12, 2021

Justin Bilyeu Mahogany Energy Resources, LLC 285 8th St Meeker, CO 81641

RE: Shale Core 2020-03, File No. P-2021-003, Receipt of Notice of Intent to Conduct Prospecting Operations for Hard Rock / Metals Mines Application Package

Dear Mr. Bilyeu:

On May 6, 2021, the Division of Reclamation, Mining and Safety filed your Notice of Intent to Conduct Prospecting Operations for Hard Rock / Metal Mines Application package for the Shale Core 2020-03, File No. P-2021-003 located in Rio Blanco County. The decision date for your application is scheduled for Monday, July 5, 2021.

The Division has reviewed the revised application materials that were submitted on May 6, 2021 and deemed the information adequate for approval.

In reviewing the materials submitted the Division has determined that the \$2,000 currently held by the Division is inadequate to fulfill the reclamation requirements and additional bonding is necessary. Division calculations estimate the cost to reclaim the above referenced site to be \$8,517.00. Attached is a copy the reclamation cost estimate. The additional bond amount of \$6,517.00 must be posted by the 60 day deficiency deadline (Monday, July 5, 2021).

Please complete the attached financial warranty documents and return them to Sara Stevenson-Benn at the Divisions Denver Office. If you have additional questions regarding completion, execution and/or submittal of financial warranty forms please contact Sara directly at 303.866.3567, ext. 8148.

This letter shall not be construed to mean that there are no other technical deficiencies in your application. The Division will review your application to determine whether it is adequate to meet the requirements of the Act after submittal of all required items.

If you have any questions concerning our request, please contact us.



Sincerely,

Amy Geldell

Amy C. Yeldell Environmental Protection Specialist

Ec: Travis Marshall, DRMS Sara Stevenson-Benn, DRMS

M-EX-01B

DIVISION OF RECLAMATION, MINING AND SAFETY Department of Natural Resources

1313 Sherman St., Room 215 Denver, Colorado 80203 Phone: (303) 866-3567 FAX: (303) 832-8106



ONE SITE PROSPECTING FINANCIAL WARRANTY

CHECK FOR DEPOSIT IN STATE TREASURY

Prospecting Financial Warranty No.

Notice of Intent No. _____

This form has been approved by the Mined Land Reclamation Board ("Board") pursuant to section 34-32-117, C.R.S., of the Colorado Land Reclamation Act. Any alteration or modification of this form, without approval by the Board shall result in the financial warranty being invalid and result in the voiding of any permit issued in conjunction with such invalid financial warranty, and subject the Prospector to cease and desist orders and civil penalties for prospecting without a permit pursuant to section 34-32-123, C.R.S., of the Colorado Land Reclamation Act.

KNOW ALL MEN BY THESE PRESENTS, That we (I), _____

of the County of	, in the State of	as

Principal(s) are (am) held hereby and firmly bound unto the State of Colorado, acting through the Mined Land

Reclamation Board in the sum of ______ Dollars (\$______) for the

payment of which sum, well and truly to be made, we (I) hereby bind ourselve(s), and each of our (my) legal

representatives, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has filed Notices of Intent to Conduct Prospecting Operations with the Board on the premises indicated on the Notices of Intent filed with the Board which are attached hereto and thereby incorporated by reference, to wit:

NOW, THEREFORE, the conditions of this obligation are such that if the above-bounded Principal shall, in conducting such prospecting operations, faithfully perform the provisions of the Notices of Intent to Conduct Prospecting operations filed or to be filed with the Board and the requirements of the plan to implement reclamation measures to reclaim all of the lands affected throughout the State by such prospecting operations, approved and modified by the Colorado Land Reclamation Act as amended, and the Rules and Regulations adopted pursuant thereto; upon the Board making the finding that all of the lands described in the Notices of Intent to Conduct Prospecting Operations filed or to be filed with the Board which are attached hereto and hereby incorporated by reference have been satisfactorily reclaimed and approving the Prospector's request for a financial warranty release on such lands, then this obligation shall be exonerated and discharged and become null and void; otherwise to remain in full force and effect.

PROVIDED, however, the Warrantor shall not be liable under this financial warranty for an amount greater in the aggregate than the sum designated in the first paragraph hereof, unless increased by a later amendment, and shall not be liable as respects any obligation related to prospecting and reclamation operations performed after the effective date of a cancellation of this financial warranty pursuant to the terms of Section 34-32-117(5), as amended. This financial warranty shall remain in force and effect as respects all obligations for all prospecting and reclamation operations performed prior to the effective date of such cancellation unless the Principal files a substitute bond which: 1) assumes liability for all obligations for all prospecting and reclamation operations performed during the effective dates of this financial warranty ; and 2) is acceptable to the Board; or unless the Board otherwise releases this financial warranty.

The Warrantor reserves the right to cancel this financial warranty, effective only upon an anniversary date, and only by giving written notice to that effect, mailed by Certified Mail, at least ninety (90) days prior to such anniversary date, addressed to both the Prospector at its address herein stated, and to the Board at the address herein stated. In the event of such cancellation, this financial warranty shall nevertheless remain in full force and effect as respects the reclamation of all areas disturbed prior to the effective date of such cancellation, unless and until the Prospector shall file a substitute financial warranty which: (1) assumes liability for all reclamation obligations which shall have arisen at any time while this financial warranty is in force; and (2) is accepted in writing by the Board.

Signed, sealed, and dated this	day of	,,	
Principal		Principal	
By		Ву	
Title		Title	
Mailing Address		Mailing Address	
APPROVED:			
By Division Director		Date	
Division Director		Date	

COST SUMMARY WORK

Т	ask descrip	otion:	New NOI App					
Site:	Shale Co	re 2020-03	Pe	rmit Action:	New NOI	Permit/Job	#: <u>P2021003</u>	
<u>P</u>]	ROJECT Task #:	<u>IDENTIFIC</u> ACY	CATION State:	Colorado		Abbreviation:	None	
	Date: User:	5/12/2021 ACY	County:	Rio Blanco		Filename:	P003-ACY	
	Age	ency or organi	zation name:	RMS				

TASK LIST (DIRECT COSTS)

Task		Form	Fleet	Task	
Task	Description	Used	Size	Hours	Cost
01a	Backfill/Grade Pad	DOZER	1	1.37	\$231
02a	Backfill/Grade Pit	DOZER	1	0.43	\$73
03a	Decompact	RIPPER	1	0.45	\$81
04a	Apply Topsoil	DOZER	1	0.77	\$130
05a	Reveg	REVEGE	1	5.00	\$1,175
06a	Remove Exclusion Fence	DEMOLISH	1	8.00	\$2,529
10a	Initial Mobilization	MOBILIZE	1	9.00	\$2,976
10b	Secondary Mobilization	MOBILIZE	1	3.50	\$143
		<u>SUBTO</u>	TALS:	28.52	\$7,338

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	\$148
Performance bond:	1.05	Total =	\$77
Job superintendent:	0.00	Total =	\$0
Profit:	10.00	Total =	\$734
		TOTAL O & P =	\$959
		CONTRACT AMOUNT (direct + O & P) = $(1 + 1)^{-1}$	\$8,297

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	\$0	Total =	\$0
Engineering work and/or contract/bid preparation:	0.00	Total =	\$0
Reclamation management and/or administration:	0.00		\$0
CONTINGENCY:	3.00	Total =	\$220
	TOTA	L INDIRECT COST =	\$1,179
TOTAL BO	ND AMOUN	T (direct + indirect) =	\$8,517

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BULLDOZER WORK

Task description:	Backfill/Grade P	u u			
Shale Core 2020-03	Per	mit Action:	New NOI	Permit/Job#:	P2021003
PROJECT IDENTIF	ICATION				
Task #: 01A Date: 5/12/2021 User: ACY	State: County:	Colorado Rio Blanco)	Abbreviation: Filename:	None P003-01a
Agency or organ	nization name: DR	RMS			
HOURLY EQUIPME	<u>ENT COST</u>				
	D6T XL				
Horsepower: 185	ni-Universal				
Blade Type: Sen Attachment: NA			_		
	er day		_		
Data Source: (CF	•				
	(0)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:		\$68.78	NA		
Operating Cost/Hour:		\$58.85	100		
Ripper own. Cost/Hour:		\$0.00	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$41.30	NA		
Total Fleet Cost/Hour:	<u>\$168.92</u>				
MATERIAL QUANT Initial Volume: 300	<u>ITIES</u>				
MATERIAL QUANT	ITIES 0				
MATERIAL QUANT Initial Volume: 300 Swell factor: 1.00	TTIES 0 LCY ne:Pad Draw				
MATERIAL QUANTInitial Volume:300Swell factor:1.00Loose volume:300Source of estimated volume	ITIES 0 LCY ne: Pad Draw factor: Cat Hand				
MATERIAL QUANT Initial Volume: 300 Swell factor: 1.00 Loose volume: 300 Source of estimated volum Source of estimated swell	ITIES 0 LCY ne: Pad Draw factor: Cat Hand CION 50 feet	book			
MATERIAL QUANT Initial Volume: 300 Swell factor: 1.00 Loose volume: 300 Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance:	ITIES 0 LCY ne: Pad Draw factor: Cat Hand CION ction: 50 feet ction: 444.6 LCY/	book	 stockpile 1.1		
MATERIAL QUANT Initial Volume: 300 Swell factor: 1.00 Loose volume: 300 Source of estimated volur Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product	ITIES 0 LCY ne: Pad Draw factor: Cat Hand CION ction: 50 feet ction: 444.6 LCY/	book			
MATERIAL QUANT Initial Volume: 300 Swell factor: 1.00 Loose volume: 300 Source of estimated volur Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency dest Average push gradient:	TTIES 0 LCY ne: Pad Draw factor: Cat Hand FION ction: 50 feet ction: 444.6 LCY/ cription: Partly c 0 %	book	stockpile 1.1		
MATERIAL QUANT Initial Volume: 300 Swell factor: 1.000 Loose volume: 300 Source of estimated volur Source of estimated volur Source of estimated volur Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude:	TTIES 0 LCY ne: Pad Draw factor: Cat Hand CION ction: 50 feet ction: 444.6 LCY/ cription: Partly c 0 % 8,393 feet	hr hr consolidated	stockpile 1.1		
MATERIAL QUANT Initial Volume: 300 Swell factor: 1.000 Loose volume: 300 Source of estimated volum Source of estimated volum Source of estimated volum Materials consistency des Average push gradient: Average site altitude: Material weight:	TTIES 0 LCY ne: Pad Draw factor: Cat Hand Cat Hand Constant 50 feet ction: 444.6 LCY/ cription: Partly c 0 % 8,393 feet 2,550 lbs/LCY Earth - Dry packed	hr hr consolidated			
MATERIAL QUANT Initial Volume: 300 Swell factor: 1.000 Loose volume: 300 Source of estimated volum Source of estimated volum Source of estimated volum Materials consistency des Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator	TTIES 0 LCY ne: Pad Draw factor: Cat Hand TION ction: 50 feet	hr hr consolidated			
MATERIAL QUANT Initial Volume: 300 Swell factor: 1.00 Loose volume: 300 Source of estimated volu Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator S Material consister	TTIES 0 LCY ne: Pad Draw factor: Cat Hand FION ction: 50 feet	hr hr consolidated 1 750 100	Source (AVG.) (CAT HB)		
MATERIAL QUANT Initial Volume: 300 Swell factor: 1.00 Loose volume: 300 Source of estimated volu Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator S Material consist Dozing me	TTIES 0 LCY ne: Pad Draw factor: Cat Hand FION ction: 50 feet ction: 444.6 LCY/ cription: Partly c 0 % 8,393 feet 2,550 lbs/LCY Earth - Dry packed Factor Skill: 0. ency: 1. thod: 1.	hr consolidated 1 750	Source (AVG.)		

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:		0.902	(CAT HB)
Blade type:		1.000	(PAT)
Net correction	on:	0.4941	
Adjusted unit production:	21	9.68 LCY/hr	
Adjusted fleet production:	21	9.68 LCY/hr	
-	-		

Fleet size:	1 Dozer(s)
Unit cost:	\$0.769/LCY
tal ich times	1 27 Hours

Total job time:	1.37 Hours
Total job cost:	\$231

BULLDOZER WORK

Task description:	Backfill/Grade P	it			
Shale Core 2020-03	Peri	nit Action:	New NOI	Permit/Job#:	P2021003
PROJECT IDENTIFI	CATION				
Task #: 02A Date: 5/12/2021 User: ACY	State: County:	Colorado Rio Blanco)	Abbreviation: Filename:	None P003-02a
Agency or organ	ization name: DR	MS			
HOURLY EQUIPME	NT COST				
Basic Machine: <u>Cat</u> Horsepower: 185	D6T XL				
1 <u> </u>	ni-Universal				
Attachment: NA	n Oniversa				
	er day				
Data Source: (CR					
)				
Cost Breakdown:		1	Litilization 0/		
Ownership Cost/Hour:		\$68.78	<u>Utilization %</u> NA		
Operating Cost/Hour:		\$58.85	100		
Ripper own. Cost/Hour:		\$0.00	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$41.30	NA		
MATERIAL QUANT					
Swell factor:1.000Loose volume:95 Loose					
Source of estimated volum		Ų			
Source of estimated swell	factor: Cat Hand	book			
HOURLY PRODUCT					
Average push distance: Unadjusted hourly produc	tion: 50 feet 444.6 LCY/	hr			
Materials consistency des	cription: <u>Partly c</u>	onsolidated	stockpile 1.1		
Average push gradient: Average site altitude:	0 % 8,393 feet				
Material weight:	2,550 lbs/LCY				
Weight description:	Earth - Dry packed	[
			Source		
Job Condition Correction					
Operator S	Skill: 0.	750	(AVG.)		
Operator S Material consiste	Skill: 0. ency: 1.	100	(AVG.) (CAT HB)		
Operator S	Skill: 0. ency: 1. shod: 1.		(AVG.)		

Job efficiency	0.830	(1 SHIFT/DAY)
Spoil pile	0.800	(FND-RF)
Push gradien	t: 1.000	(CAT HB)
Altitude	2: 1.000	(CAT HB)
Material Weigh	t: 0.902	(CAT HB)
Blade type	e: 1.000	(PAT)
Net correction	n:0.4941	
Adjusted unit production:	219.68 LCY/hr	
Adjusted fleet production:	219.68 LCY/hr	

Fleet size:	1 Dozer(s)
Unit cost:	\$0.769/LCY
Total job time	0 13 Hours

rotar job time:	0.45 Hours
Total job cost:	\$73

BULLDOZER RIPPING WORK

	Task description:	Dec	ompact				
Site	: _Shale Core 20	20-03	Permit Action:	New NOI	Permit/Job	#: <u>P2021003</u>	
	PROJECT ID	ENTIFICATI	ION				
	Task #: 03.		State: Colorado		Abbreviation:		
	Date: 5/1 User: AC	2/2021	County: Rio Blanco)	Filename:	P003-03a	
		or organization	n name: DRMS				
	HOURLY EQ	•					
			t D6T XL		Horsepower:	185	
	Ripper Att		Shank Ripper		Shift Basis: 1	per day	
					Data Source:	(CRG)	
	Cost Breakdown	<u>:</u>		1 .			
		Ownership C	ost/Hour	\$68.78	Utilization % NA		
		Operating C		\$58.85	100		
		er Ownership C	lost/Hour:	\$4.86	NA		
	Rip	per Operating C		\$3.70	100		
		Operator C Total Unit C		\$41.30	NA		
		Total Unit C	.ost/Hour:	\$177.48			
		Total Fleet C	Cost/Hour: \$177	.48			
	MATERIAL ()UANTITIES	Sele	cted estimating 1	method: Area		
	Alternate Method	<u>ls:</u>					
Seismic:	NA		Bank Volume:	NA	BCY	NA	
Area:	0.21	acres	Rip Depth (ft):	2.00	Volume: 678	BCY	or CCY
		Source of esti	mated quantity: NOI A	ор			
	HOURLY PR	ODUCTION					
	Seismic:						
			Seismic Velocity:	NA	feet/second		
	Area:						
			ge Ripping Depth:	1.64	feet/pass		
			ge Ripping Width:	6.58	feet/pass		
			e Ripping Length: rage Dozer Speed:	50.00 88.00	feet/pass feet/minute		
			e Maneuver Time:	0.25	minutes/pass		
			ction per unit area:	0.554	acres/hour		
	Job Condition Co	orrection Factor	<u>s</u>				
	Un	adjusted Hourly	y Unit Production:	0.554	Acres/hr		
			Site Altitude:	8,363	feet		
			Altitude Adj:	1.00	(CAT HB)		
			Job Efficiency:	0.83	(1 shift/day)		
			Net Correction:	0.83	multiplier		
			l Hourly Unit Production: Hourly Fleet Production:	0.46 0.46	Acres/hr Acres/hr		
	JOB TIME AN		-				
	Fleet size:	1	Grader(s)	Total job time	. 0.46	Hours	
	Unit cost:	\$386.066	Per acre	Total job cost	: \$81		

Page 1 of 2

BULLDOZER WORK

		soil			
Shale Core 2020-03		Permit Action:	New NOI	Permit/Job#:	P2021003
PROJECT IDENTI	FICATION				
Task #: 04A		State: Colorado		Abbreviation:	None
Date: $5/12/2021$		unty: Rio Blanc	20	Filename:	P003-04a
User: ACY	00			i nonunio.	1005 014
	·	DDMC			
Agency or orga	anization name:	DRMS			
HOURLY EQUIPM	ENT COST				
	at D6T XL				
Horsepower: 18					
*1	emi-Universal				
Attachment: N.					
	per day				
Data Source: (C	CRG)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:		\$68.78	NA		
Operating Cost/Hour:		\$58.85	100		
Ripper own. Cost/Hour:		\$0.00	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$41.30	NA		
Fotal unit Cost/Hour: Fotal Fleet Cost/Hour:	\$168.92 \$168.92 TITIES				
	\$168.92 TITIES				
Fotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 205 Swell factor: 1.0	\$168.92 TITIES 5 00				
Fotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 205 Swell factor: 1.0	\$168.92 TITIES				
Fotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 205 Swell factor: 1.0 Loose volume: 205	\$168.92 TITIES 5 00 5 LCY				
Fotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 205 Swell factor: 1.0 Loose volume: 205 Source of estimated volume	\$168.92 TITIES 5 00 5 LCY ume: Pao	d Drawing			
Fotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 205 Swell factor: 1.0 Loose volume: 205	\$168.92 TITIES 5 00 5 LCY ume: Pao	d Drawing t Handbook			
Fotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 205 Swell factor: 1.0 Loose volume: 205 Source of estimated volume	\$168.92 TITIES 5 00 5 LCY ume: Pac ell factor: Ca	Ų			
Fotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 205 Swell factor: 1.0 Loose volume: 205 Source of estimated volu Source of estimated swe	\$168.92 TITIES 5 00 5 LCY ume: Pac ell factor: Ca	t Handbook			
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Fotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 205 Swell factor: 1.0 Loose volume: 205 Source of estimated volu 205 Source of estimated swe 205 HOURLY PRODUC Average push distance: Unadjusted hourly produce Materials consistency de Average push gradient: 100	\$168.92 TITIES 5 00 5 LCY ume: Pace 5 LCY ume: Pace 2 If factor: Ca 2 TION uction: 50 fe uction: 444.6 escription: H 0 %	t Handbook et 5 LCY/hr Partly consolidated			
Fotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 205 Swell factor: 1.0 Loose volume: 205 Source of estimated volu 205 Source of estimated sweet 205 HOURLY PRODUC Average push distance: Unadjusted hourly product Materials consistency defined Average push gradient: Average site altitude: Material weight: Material weight:	\$168.92TITIES5005 LCYume:Pad611 factor:CaCTIONcution: 50 feuction: 50 feuction: 50 feuction: 444.6 escription:I 0 % $8,393$ feet $2,100$ lbs/L0	t Handbook et 5 LCY/hr Partly consolidated			
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 205 Swell factor: 1.0 Loose volume: 205 Source of estimated volu 205 Source of estimated swell 300 HOURLY PRODUC Average push distance: Unadjusted hourly product 4 Vaterials consistency de 4 Average push gradient: 4 Average site altitude: 4 Waterial weight: 4 Weight description: 3	\$168.92 TITIES 5 00 5 LCY ume: Pace 5 LCY ume: Pace 1 factor: Ca 2TION scription: 444.6 escription: I 0 % 8,393 feet 2,100 lbs/L0 Earth - Loan	t Handbook et 5 LCY/hr Partly consolidated			
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 205 Swell factor: 1.0 Loose volume: 205 Source of estimated volu 205 Source of estimated volu 205 Source of estimated sweet 205 HOURLY PRODUC Average push distance: Unadjusted hourly product Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Iob Condition Correction 205	\$168.92 TITIES 5 00 5 LCY ume: Pace 5 LCY ume: Pace 5 LCY ume: Pace ctor: Ca CTION secription: If 0 % 8,393 feet 2,100 lbs/LQ Earth - Loan n Factor	t Handbook et 5 LCY/hr Partly consolidated CY n	Source		
Fotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 205 Swell factor: 1.0 Loose volume: 205 Source of estimated volu 205 Source of estimated sweet 205 HOURLY PRODUC Average push distance: Unadjusted hourly product Materials consistency defavorage site altitude: Material weight: Weight description: Iob Condition Correction Operator	\$168.92 TITIES 5 00 5 LCY ume: Pace 5 LCY ume: Pace 5 LCY ume: Pace ctor: Ca 2TION action: 50 fe uction: 444.6 escription: I 0 % 8,393 feet 2,100 lbs/L0 Earth - Loan n Factor r r Skill:	t Handbook et 5 LCY/hr Partly consolidated CY n 0.750	Source (AVG.)		
Fotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 205 Swell factor: 1.0 Loose volume: 205 Source of estimated volu 205 Source of estimated sweet 205 HOURLY PRODUC Average push distance: Unadjusted hourly product Materials consistency defavorage site altitude: Material weight: Weight description: Iob Condition Correction Operator Material consist 1000000000000000000000000000000000000	\$168.92 TITIES 5 00 5 LCY ume: Pace 5 LCY Ca 5 LCY Stency: 5 LCY Stency:	t Handbook et 5 LCY/hr Partly consolidated CY n 0.750 1.100	<u>Source</u> (AVG.) (CAT HB)		
Fotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 205 Swell factor: 1.0 Loose volume: 205 Source of estimated volt 205 Source of estimated sweet 205 HOURLY PRODUC Average push distance: Unadjusted hourly product Materials consistency defavorage site altitude: Material weight: Weight description: (ob Condition Correction Operator Material consistency models of the consistency of the consistency of the consistency of the consistency of the condition for the consistency of the consistency of the condition for the consistency of the condition for the consistency of the	\$168.92 TITIES 5 00 5 LCY ume: Pace 5 LCY Ca 5 LCY Stency: 5 LCY Stency:	t Handbook et 5 LCY/hr Partly consolidated CY n 0.750	Source (AVG.)		

Task # 04A

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:	0.5998	
Adjusted unit production: 26	6.67 LCY/hr	
Adjusted fleet production: 26	6.67 LCY/hr	
·		

Fleet size:	1 Dozer(s)
Unit cost:	\$0.633/LCY

Total job time:	0.77 Hours
Total job cost:	\$130

REVEGETATION WORK

Task de	scription:	Reveg				
Site: Shale	Core 2020-03	Per	mit Action:	New NOI	Permit/Job	#: <u>P2021003</u>
	<u>CT IDENTIFIC</u>					
Task		State:	Colorado		Abbreviation:	None
Da	te: 5/12/2021	County:	Rio Blanco	l.	Filename:	P003-05a
Us	er: ACY					
	Agency or organi	zation name:	MS			

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)	\$107.16
Total Tilling Cost/Acre	\$107.16

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Lupine, Silky	3.48	1.97	\$242.21
Slender Wheatgrass - Native	5.80	21.17	\$26.83
Milk Vetch, Cicer - Lutana	3.00	9.99	\$24.60
Western Wheatgrass - Rosanna	7.42	18.74	\$42.67
Prairie Junegrass	1.18	62.72	\$30.68
Serviceberry	3.38	6.21	\$207.87
Snowberry, Mountain	3.18	5.48	\$160.59
Penstemon, Rocky Mountain	0.92	14.42	\$27.14
		140.69	\$762.58

Totals Seed Mix 28.36

Application

Description		Cost /Acre
Broadcast seeding [DMG]		\$267.22
	Total Seed Application Cost/Acre	\$267.22

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - 2,4D @ 1.0 pt/ac	1.00	ACRE	\$2.92	\$2.92
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$301.00	\$602.00
Total Mulch Materials Cost/Acre				\$604.92

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$70.17
Hand spread, 1" deep (MEANS 32 91 13.16 0200)		\$3,436.40
Weed spray, hand, non-aquatic area, nox. [DMG]		\$183.16
	Total Mulch Application Cost/Acre	\$3,689.73

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
		Totals 1	Nursery Stoc	k Cost / Acre	\$0.00

No. of Acres:	0.21	Cost /Acre:	\$5,431.61
Estimated Failure Rate:	3%	Cost /Acre*:	\$5,431.61
*Selected Replanting Work Items:	TILLING,SEEDIN	G,MULCHING	

Initial Job Cost:	\$1,140.64
Reseeding Job Cost:	\$34.22
Total Job Cost:	\$1,175
Job Hours:	5.00

DEMOLITION WORK

Task description	n: Remov	e Exclusion Fence				
Site: Shale Core 2020-03 Permit Action: New NOI Permit/Job#: P2021003						
PROJECT IDENTIF	ICATION					
Task #: 06A	Sta	ate: Colorado		Abbreviati	ion: Noi	ne
Date: 5/12/2021	Cour	ty: Rio Blanco		Filena	me: P00	03-06a
User: ACY						
Agency	or organization name	: DRMS				;
<u>UNIT COSTS</u>				Location	<u>adjustmer</u>	nt: 90.70 %
Structure or Item Description	Dimensions	Demolition Men Selection	u Quantit	y Unit	Unit Cost	Total Cost
Wire Fence	1776	Fencing, barbed wire strand	a, - 3 1,776.00) LF	\$1.57	\$2,788.32

				Total Cost	
		Subtotal		(adjusted for	
Job Hours:	8.00	(unadjusted):	\$2,788.32	location):	\$2,529.01

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description	: Ini	tial Mobilization					
: Shale Core 20	020-03	Permit	Action: <u>New</u>	Арр]	Permit/Job#:	2021003
PROJECT IDE	NTIFICATI	ON					
Task #: 10	А	State: Co	olorado		Abbre	viation: Non	e
Date: 5/1 User: AC	12/2021	County: Ri	o Blanco		Fi	lename: P00	3-10a
Agency	or organization	n name: DRMS					
EQUIPMENT '	IKANSPUK	I RIG COST					
					Shift ba		
				C	Cost Data Sour	rce: CRG E	Data
Truc	k Tractor Desc	ription: GENE	RIC ON-HIGH	WAY TRU	CK TRACTO	OR, 6X4, DIESE	EL POWERED,
		1			(2ND HALF,		
True	ck Trailer Desc	ription: G	ENERIC FOLD	NG GOO	SENECK, DR	OP DECK EQ	UIPMENT
		1			25T, 50T, AN		
						,	
Cost Breakdown:							
Available Rig (Capacities	0-25 Tons	26-50 Tons	51+	Tons		
	p Cost/Hour:	\$17.20	\$29.63		8.69		
	g Cost/Hour:	\$26.56	\$47.02	\$5	5.69		
Operato	or Cost/Hour:	\$23.63	\$23.63	\$2	3.63		
Helpe	er Cost/Hour:	\$0.00	\$23.53	\$2	3.53		
Total Uni	it Cost/Hour:	\$67.39	\$123.81	\$14	41.54		
NON ROADAE	BLE EOUIPM	MENT:					
				-	** 155 1	Det m Tein	DOT Permit
Machine	Weight/	Owner ship	Haul Rig	Fleet	Haul Trip	Return Trip Cost/hr/ fleet	Cost/ fleet
Description	Unit	Cost/hr/ unit	Cost/hr/uni	Size	Cost/hr/	Cost/m/ neet	Cost/ neet
	(TONS)	*=2 < 1	t		fleet	.	**
Cat D6T XL	25.01	\$73.64	\$67.39	1	\$141.03	\$67.39	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$6.72	\$67.39	1	\$74.11	\$67.39	\$250.00
	I	I	1	1		1	L
				Subtotals:	\$215.14	\$134.78	\$500.00

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Flatbed Truck, 4x2, 15K GVW	\$50.90	1	\$50.90	\$50.90
Light Duty Pickup, 4x4, 3/4 T.	\$40.91	1	\$40.91	\$40.91
		Subtotals:	\$91.81	\$91.81

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region: Total one-way travel distance: Average Travel Speed:	RIFILE, CO 70.00 40.00	miles mph
Total Non-Roadable Mob/Demob Cost * '* two round trips with haul rig:	\$2,655.00	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	\$321.34	

Transportation Cycle Time:

	Non- Roadable Equipment	Roadable Equipment
Haul Time (Hours):	1.75	1.75
Return Time (Hours):	1.75	1.75
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	4.50	3.50

JOB TIME AND COST

Total job time: 9.00 Hours

Total job cost: \$2,976

EQUIPMENT MOBILIZATION/DEMOBILIZATION

: Shale Core 2	020-03	Permit	Action: New	Арр	I	Permit/Job	o#: <u>P2</u>	2021003
PROJECT IDI	ENTIFICATI	ON						
	DB 12/2021 CY		olorado o Blanco			eviation: lename:	None P003-	-10b
Agency	or organization	n name: DRMS						
EQUIPMENT	TRANSPOR	<u>T RIG COST</u>						
				С	Shift ba Cost Data Sour		1 per da CRG Da	
Truc	ck Tractor Desc	ription: GENE	RIC ON-HIGH				DIESEL	POWERED,
				400 HP	(2ND HALF.	2006)		
Tru	ck Trailer Desc	ription: G	ENERIC FOLD	ING GOO	(2ND HALF, SENECK, DR (25T, 50T, AN	ROP DECI	K EQUI	IPMENT
		ription: G		ING GOO	SENECK, DR	ROP DECI	K EQUI	IPMENT
Cost Breakdown: Available Rig	Capacities	0-25 Tons	26-50 Tons	DING GOO TRAILER (51+	SENECK, DR 25T, 50T, AN Tons	ROP DECI	K EQUI	IPMENT
Cost Breakdown: Available Rig Ownershi	C apacities p Cost/Hour:	0-25 Tons \$17.20	26-50 Tons \$29.63	DING GOO TRAILER (51+ \$3	SENECK, DR 25T, 50T, AN Tons 8.69	ROP DECI	K EQUI	IPMENT
Cost Breakdown: Available Rig Ownershi Operatir	C apacities p Cost/Hour: g Cost/Hour:	0-25 Tons \$17.20 \$26.56	26-50 Tons \$29.63 \$47.02	PING GOO FRAILER (51+ \$3 \$5	SENECK, DR 25T, 50T, AN Tons 8.69 5.69	ROP DECI	K EQUI	IPMENT
Cost Breakdown: Available Rig Ownersh Operatir Operato	Capacities p Cost/Hour: g Cost/Hour: or Cost/Hour:	0-25 Tons \$17.20 \$26.56 \$23.63	26-50 Tons \$29.63 \$47.02 \$23.63	PING GOOD FRAILER (51+ \$3 \$5 \$2	SENECK, DR 25T, 50T, AN Tons 8.69 5.69 3.63	ROP DECI	K EQUI	IPMENT
Cost Breakdown: Available Rig (Ownershi Operatir Operati Help	Capacities p Cost/Hour: g Cost/Hour: or Cost/Hour: er Cost/Hour:	0-25 Tons \$17.20 \$26.56	26-50 Tons \$29.63 \$47.02	PING GOOD TRAILER (51+ \$3 \$5 \$2 \$2 \$2 \$2	SENECK, DR 25T, 50T, AN Tons 8.69 5.69 3.63 3.53	ROP DECI	K EQUI	IPMENT
Cost Breakdown: Available Rig (Ownershi Operatir Operati Help	Capacities p Cost/Hour: g Cost/Hour: or Cost/Hour:	0-25 Tons \$17.20 \$26.56 \$23.63	26-50 Tons \$29.63 \$47.02 \$23.63	PING GOOD TRAILER (51+ \$3 \$5 \$2 \$2 \$2 \$2	SENECK, DR 25T, 50T, AN Tons 8.69 5.69 3.63	ROP DECI	K EQUI	IPMENT
Cost Breakdown: Available Rig (Ownershi Operatir Operati Help	Capacities p Cost/Hour: g Cost/Hour: or Cost/Hour: er Cost/Hour: it Cost/Hour:	0-25 Tons \$17.20 \$26.56 \$23.63 \$0.00 \$67.39	26-50 Tons \$29.63 \$47.02 \$23.63 \$23.53	PING GOOD TRAILER (51+ \$3 \$5 \$2 \$2 \$2 \$2	SENECK, DR 25T, 50T, AN Tons 8.69 5.69 3.63 3.53	ROP DECI	K EQUI	IPMENT
Cost Breakdown: Available Rig (Ownershi Operatir Operato Helpo Total Un	Capacities p Cost/Hour: g Cost/Hour: or Cost/Hour: er Cost/Hour: it Cost/Hour: BLE EQUIPI	0-25 Tons \$17.20 \$26.56 \$23.63 \$0.00 \$67.39 MENT:	26-50 Tons \$29.63 \$47.02 \$23.63 \$23.53 \$123.81	PING GOOD FRAILER (51+ \$3 \$5 \$2 \$2 \$14	SENECK, DR 25T, 50T, AN Tons 8.69 5.69 3.63 3.53 41.54	OP DECI		
Cost Breakdown: Available Rig (Ownershi Operatir Operati Help Total Un	Capacities p Cost/Hour: g Cost/Hour: or Cost/Hour: er Cost/Hour: it Cost/Hour:	0-25 Tons \$17.20 \$26.56 \$23.63 \$0.00 \$67.39	26-50 Tons \$29.63 \$47.02 \$23.63 \$23.53	PING GOOD TRAILER (51+ \$3 \$5 \$2 \$2 \$2 \$2	SENECK, DR 25T, 50T, AN Tons 8.69 5.69 3.63 3.53	ROP DECI	Trip	IPMENT DOT Permit Cost/ fleet

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.	\$40.91	1	\$40.91	\$40.91
		Subtotals:	\$40.91	\$40.91

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region: Total one-way travel distance: Average Travel Speed:	RIFILE, CO 70.00 40.00	miles mph
Total Non-Roadable Mob/Demob Cost *	\$0.00	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	\$143.19	

Transportation Cycle Time:

	Non- Roadable Equipment	Roadable Equipment
Haul Time (Hours):	1.75	1.75
Return Time (Hours):	1.75	1.75
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	4.50	3.50

JOB TIME AND COST

Total job time: **3.50** Hours

Total job cost: ______\$143