

October 18, 2024

Jason McGraw General Shale Brick, Inc 1845 W. Dartmouth Ave Denver, CO 80110-1308

RE: North Chieftain Mine, Permit No. M-1978-014, Estimated Reclamation Costs Update

Dear Mr. McGraw:

In an effort to ensure the Financial Warranty for the above referenced site adequately reflects the actual current costs of fulfilling the requirements of the approved reclamation plan, the Colorado Division of Reclamation, Mining and Safety (Division) has updated the reclamation cost estimate (copy enclosed).

Division calculations estimate the cost to reclaim the above referenced site to be \$185,236.00. This is an increase of \$111,805 over the \$73,431 currently held by the Division. This estimate is based on conditions observed during the September 16, 2024 inspection. Please review the enclosed figures as soon as possible and contact our office if any calculation errors are noted.

During the review of the North Chieftain Mine, it has come to the Division's attention that the reclamation liability amount has not been updated since 2008. A bond recalculation was performed, and a significant increase in reclamation cost resulted due to typical inflation and industry price changes. Because the reclamation bond has not been adjusted in some time, the Division has updated the reclamation cost estimate for the North Chieftain Mine to ensure the financial warranty reflects the actual current cost of fulfilling the requirements of the reclamation plan per Rule 4.2.1.

If no comments are received by November 1, 2024 then it is the Divisions understanding that the operator has no objections to the bond calculated on October 18, 2024 for the amount of \$185,236 according to the <u>current</u> permit conditions. At that time a Notice for Surety Increase will be issued for the above amount as required by the Act and Rules.

If you require additional information, or have questions or concerns, please feel free to contact me.



Sincerely,

Ben Hammar

Environmental Protection Specialist Department of Natural Resources

Ec:

Zachary Trujillo, Senior EPS, DRMS

Enc: Financial Warranty Cost Estimate

COST SUMMARY WORK

	North Chieftain	Permit Action:	2024 Bond Ca	lculation	Permit/Job	#: <u>M1978014</u>
PR	OJECT IDENTIFICATION	<u>ON</u>				
	Task #: 010	State: Colorado			Abbreviation:	None
	Date: 9/18/2024	County: Jefferson			Filename:	M014-010
	User: BEH				_	
	Agency or organization	name: DRMS				
	Agency of organization	name. DRWS				
TΑ	SK LIST (DIRECT COS	<u>ΓS)</u>				
			Form	Fleet	Task	
k	Description		Used	Size	Hours	Cost
	Regrade		TRUCK1	1	44.99	\$38,295
	Topsoil		TRUCK1	1	88.57	\$75,394
	Reveg		REVEGE	1	39.00	\$23,533
	Equipment Mobilization		MOBILIZE	1	1.57	\$3,176
[N]	DIRECT COSTS				1	
	DIRECT COSTS ERHEAD AND PROFIT:					
	ERHEAD AND PROFIT:	2.02			Tatal #2	926
	ERHEAD AND PROFIT: Liability insurance:	2.02				,836
	ERHEAD AND PROFIT: Liability insurance: Performance bond:	1.05			Total =	,474
	ERHEAD AND PROFIT: Liability insurance:				Total =	,474 ,872
	ERHEAD AND PROFIT: Liability insurance: Performance bond: Job superintendent:	1.05 74.07		TOTAI	Total =	,474
	ERHEAD AND PROFIT: Liability insurance: Performance bond: Job superintendent:	1.05 74.07 10.00	RACT AMOUNT		Total =	,474 ,872 4,040
OV	ERHEAD AND PROFIT: Liability insurance: Performance bond: Job superintendent:	1.05 74.07 10.00 CONTI			Total =	,474 ,872 4,040 4,222
OV	ERHEAD AND PROFIT: Liability insurance: Performance bond: Job superintendent: Profit: GAL - ENGINEERING - PRO	1.05 74.07 10.00 CONTI			Total = \$1 Total = \$5 Total = \$1 O & P = \$2 O & P) = \$1	,474 ,872 4,040 4,222 64,620
OV	ERHEAD AND PROFIT: Liability insurance: Performance bond: Job superintendent: Profit: GAL - ENGINEERING - PROFINANCIAL STATE OF THE PROFINANCIAL WARRANTY PROCESSION AND PROFINANCIAL WARRANTY WARRANTY PROFINANCIAL WARRANTY W	1.05 74.07 10.00 CONTI			$ \begin{array}{r} \text{Total} = & \$1 \\ \text{Total} = & \$5 \\ \text{Total} = & \$1 \\ \text{C O & P} = & \$2 \\ \text{O & P} = & \$1 \\ \text{Total} = & \$5 \\ \end{array} $,474 ,872 4,040 4,222 64,620
OV	ERHEAD AND PROFIT: Liability insurance: Performance bond: Job superintendent: Profit: GAL - ENGINEERING - PRO	1.05 74.07 10.00 CONTI	\$500 7.22		Total = \$1 Total = \$5 Total = \$1 O & P = \$2 O & P) = \$1 Total = \$5 Total = \$5 Total = \$5	,474 ,872 4,040 4,222 64,620
OV	ERHEAD AND PROFIT: Liability insurance: Performance bond: Job superintendent: Profit: GAL - ENGINEERING - PROFINANCIAL WARTEN WARTEN WARTEN WARTEN WORK AND COMMENT OF THE PROFINANCIAL WARTEN WARTE	1.05 74.07 10.00 CONTI	\$500 7.22		Total = \$1 Total = \$5 Total = \$1 O & P = \$2 O & P) = \$1 Total = \$5 Total = \$5 Total = \$5	,474 ,872 4,040 4,222 64,620 00 1,886 ,231
OV	ERHEAD AND PROFIT: Liability insurance: Performance bond: Job superintendent: Profit: GAL - ENGINEERING - PROFINANCIAL WARTEN WARTEN WARTEN WARTEN WORK AND COMMENT OF THE PROFINANCIAL WARTEN WARTE	1.05 74.07 10.00 CONTI	\$500 7.22 5.00 0.00	Γ (direct +	Total = \$1 Total = \$5 Total = \$1 O & P = \$2 O & P) = \$1 Total = \$5 Total = \$5 Total = \$1 \$8	,474 ,872 4,040 4,222 64,620 00 1,886 ,231
OV	ERHEAD AND PROFIT: Liability insurance: Performance bond: Job superintendent: Profit: GAL - ENGINEERING - PROFINANCIAL WARTEN WARTEN WARTEN WARTEN WORK AND COMMENT OF THE PROFINANCIAL WARTEN WARTE	1.05 74.07 10.00 CONTINUET MANAGEMENT (In a contract/bid preparation: a tand/or administration: CONTINGENCY:	\$500 7.22 5.00 0.00	Γ (direct + NDIRECT	Total = \$1. Total = \$5. Total = \$1. C O & P = \$2. O & P) = \$1. Total = \$5. Total = \$5. Total = \$5. Total = \$1. \$8. Total = \$0. T COST = \$4.	,474 ,872 4,040 4,222 64,620 00 1,886 ,231

TRUCK/LOADER TEAM WORK

Ownership cost/hour: \$108.67 \$36.61 NA \$173.32 NA NA Operating cost/hour: \$66.26 \$35.43 NA \$109.71 NA NA %Utilization-riper: NA 0 NA NA NA NA Ripper own. cost/hour: NA \$0.00 NA \$0.00 NA NA Ripper op. cost/hour: NA \$0.00 NA \$0.00 NA NA Operator cost/hour: \$24.82 \$56.64 NA \$40.04 NA NA Unit Subtotals: \$199.75 \$128.68 NA \$323.07 NA NA	Task description: Site: North Chieftain	Regrade		on:2024 Bond (Calculation_	Permit/Job#: M	I1978014
Date: 9/19/2024 County: Jefferson Filename: M014-011	PROJECT IDENT	<u> </u>					
Agency or organization name: DRMS	Task #: 011		State: Colora	ido	Ab	breviation: No	one
Agency or organization name: DRMS)24	County: Jeffers	on		Filename: Mo	014-011
Equipment Description	User: BEH						
Equipment Description Truck Loader Team -Truck: Cat 730 CAT 950H	Agency or o	organization nan	ne: DRMS				
Truck Loader Team -Truck: Cat 730 CAT 950H Support Equipment -Load Area: NA Cat D8T - 8SU NA NA NA NA NA NA NA	HOURLY EQUIP	MENT COST	<u>r</u>		Shift bas	is: 1 per day	
CAT 950H Support Equipment -Load Area: NA Cat D8T - 8SU			I	Equipment Descri	ption		
Support Equipment - Load Area:	Tr	uck Loader Tea					
Cost Breakdown: Truck/Loader Team Support Equipment Maintenance Equipment				Г 950Н			
Road Maintenance	Suppo			DOT OCIT			
Cost Breakdown:	Road Mai			D61 - 650			
Wutilization-machine: 100 100 NA 100 NA NA Ownership cost/hour: \$108.67 \$36.61 NA \$173.32 NA NA Operating cost/hour: \$66.26 \$35.43 NA \$109.71 NA NA %Utilization-riper: NA 0 NA NA NA NA Ripper own. cost/hour: NA \$0.00 NA \$0.00 NA NA Ripper op. cost/hour: NA \$0.00 NA \$0.00 NA NA Operator cost/hour: \$24.82 \$56.64 NA \$40.04 NA NA Unit Subtotals: \$199.75 \$128.68 NA \$323.07 NA NA Number of Units: 2 1 0 1 0 0 Group Subtotals: Work: \$528.18 Support: \$323.07 Maint: \$0.00	Touc Ivia						
Wutilization-machine: 100 100 NA 100 NA NA Ownership cost/hour: \$108.67 \$36.61 NA \$173.32 NA NA Operating cost/hour: \$66.26 \$35.43 NA \$109.71 NA NA %Utilization-riper: NA 0 NA NA NA NA Ripper own. cost/hour: NA \$0.00 NA \$0.00 NA NA Ripper op. cost/hour: NA \$0.00 NA \$0.00 NA NA Operator cost/hour: \$24.82 \$56.64 NA \$40.04 NA NA Unit Subtotals: \$199.75 \$128.68 NA \$323.07 NA NA Number of Units: 2 1 0 1 0 0 Group Subtotals: Work: \$528.18 Support: \$323.07 Maint: \$0.00			1				
%Utilization-machine: 100 100 NA 100 NA NA Ownership cost/hour: \$108.67 \$36.61 NA \$173.32 NA NA Operating cost/hour: \$66.26 \$35.43 NA \$109.71 NA NA %Utilization-riper: NA 0 NA NA NA NA Ripper own. cost/hour: NA \$0.00 NA \$0.00 NA NA Ripper op. cost/hour: NA \$0.00 NA \$0.00 NA NA Operator cost/hour: \$24.82 \$56.64 NA \$40.04 NA NA Unit Subtotals: \$199.75 \$128.68 NA \$323.07 NA NA Namber of Units: 2 1 0 1 0 0 Group Subtotals: Work: \$528.18 Support: \$323.07 Maint: \$0.00	Cost Breakdown:						
Ownership cost/hour: \$108.67 \$36.61 NA \$173.32 NA NA Operating cost/hour: \$66.26 \$35.43 NA \$109.71 NA NA %Utilization-riper: NA 0 NA NA NA NA Ripper own. cost/hour: NA \$0.00 NA \$0.00 NA NA Ripper op. cost/hour: NA \$0.00 NA \$0.00 NA NA Operator cost/hour: \$24.82 \$56.64 NA \$40.04 NA NA Unit Subtotals: \$199.75 \$128.68 NA \$323.07 NA NA Number of Units: 2 1 0 1 0 0 Group Subtotals: Work: \$528.18 Support: \$323.07 Maint: \$0.00		Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
Operating cost/hour: \$66.26 \$35.43 NA \$109.71 NA NA %Utilization-riper: NA 0 NA NA NA NA Ripper own. cost/hour: NA \$0.00 NA \$0.00 NA NA Ripper op. cost/hour: NA \$0.00 NA \$0.00 NA NA Operator cost/hour: \$24.82 \$56.64 NA \$40.04 NA NA Unit Subtotals: \$199.75 \$128.68 NA \$323.07 NA NA Number of Units: 2 1 0 1 0 0 Group Subtotals: Work: \$528.18 Support: \$323.07 Maint: \$0.00	%Utilization-machine:	100	100	NA	100	NA	NA
%Utilization-riper: NA 0 NA NA NA NA Ripper own. cost/hour: NA \$0.00 NA \$0.00 NA NA Ripper op. cost/hour: NA \$0.00 NA \$0.00 NA NA Operator cost/hour: \$24.82 \$56.64 NA \$40.04 NA NA Unit Subtotals: \$199.75 \$128.68 NA \$323.07 NA NA Number of Units: 2 1 0 1 0 0 Group Subtotals: Work: \$528.18 Support: \$323.07 Maint: \$0.00	Ownership cost/hour:	\$108.67	\$36.61	NA	\$173.32	NA	NA
Ripper own. cost/hour: NA \$0.00 NA \$0.00 NA NA Ripper op. cost/hour: NA \$0.00 NA \$0.00 NA NA Operator cost/hour: \$24.82 \$56.64 NA \$40.04 NA NA Unit Subtotals: \$199.75 \$128.68 NA \$323.07 NA NA Number of Units: 2 1 0 1 0 0 Group Subtotals: Work: \$528.18 Support: \$323.07 Maint: \$0.00	Operating cost/hour:	\$66.26	\$35.43	NA	\$109.71	NA	NA
Ripper op. cost/hour: NA \$0.00 NA \$0.00 NA NA Operator cost/hour: \$24.82 \$56.64 NA \$40.04 NA NA Unit Subtotals: \$199.75 \$128.68 NA \$323.07 NA NA Number of Units: 2 1 0 1 0 0 Group Subtotals: Work: \$528.18 Support: \$323.07 Maint: \$0.00	%Utilization-riper:	NA	0	NA	NA	NA	NA
Operator cost/hour: \$24.82 \$56.64 NA \$40.04 NA NA Unit Subtotals: \$199.75 \$128.68 NA \$323.07 NA NA Number of Units: 2 1 0 1 0 0 Group Subtotals: Work: \$528.18 Support: \$323.07 Maint: \$0.00	Ripper own. cost/hour:	NA	\$0.00	NA	\$0.00	NA	NA
Unit Subtotals: \$199.75 \$128.68 NA \$323.07 NA NA Number of Units: 2 1 0 1 0 0 Group Subtotals: Work: \$528.18 Support: \$323.07 Maint: \$0.00	Ripper op. cost/hour:	NA	\$0.00	NA	\$0.00	NA	NA
Number of Units: 2 1 0 1 0 0 Group Subtotals: Work: \$528.18 Support: \$323.07 Maint: \$0.00	Operator cost/hour:	\$24.82	\$56.64	NA	\$40.04	NA	NA
Number of Units: 2 1 0 1 0 0 Group Subtotals: Work: \$528.18 Support: \$323.07 Maint: \$0.00	Unit Subtotals:	\$199.75	\$128.68	NA	\$323.07	NA	NA
	Number of Units:			0		0	0
1	Group Subtotals:	Work:	\$528.18	Support:	\$323.07	Maint:	\$0.00
Total work team cost/hour: \$851.25	-		,	11		1	.
	Total work team cost	/hour: \$851.25	<u> </u>				
	•						
MATERIAL QUANTITIES	Initial volume:	16,000	CCY	Swell	factor: 1.090		

Initial volume: 16,000 CCY Swell factor: 1.090 Loose volume: 17,440 LCY

Source of estimated volume: Division of Reclamation, Mining & Safety

Source of estimated swell factor: Cat Handbook

Material Purchase Cost: \$0.00

Total Cost: \$0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: 2,400 Pounds/LCY
Description: Clay and gravel - Dry

Rated Payload: 62,000 Pounds
Payload Capacity: 25.83 LCY

Truck Travel (Haul & Return) Time:

maintained 3.0

		J	_		- Min
	_	J	_		Min
0.60	Maria	A 1	C	0.600) (°
	Net Load Time	per Truck: _	1.720	minutes	
			0.540	minutes	
	Net Cycle Time A	_	0.040	minutes	_
			0.000	(Cat HB)	_
•			0.000	(Cat HB)	
		0.00			_
					_
Material up to	1/8" diameter 0.02		3 /		_
Unadjusted Ba	sic Loader Cycle Time (load, dump, m	,		utes
M	aneuver: NA		Dump: 0.100	0	
Material Descri	ption:				
ls:					
Number	of Loading Tool Passes	Required to F	ill Truck:	4	passes
0.830	0.830				
0.830	0.830	(CAI HB)		
			000 feet		
4.313					
		(100-1	10%) 1.050		_
4.300		(100 1	100/\ 1.050		_
		Buck	et Size Class: N	IA	_
Truck Volume	Based on Number of Loa	ader Passes:	18.06	LCY	
22.10	LC I				
	LCY				
22.10	I OX				
	Truck Volume 4.300 1.050 4.515 Truck 1.000 0.830 Number s. Job Condition within this Basic Material Describe Material Describe Material Up to Dumped by truck No adjustmen No adjustmen No adjustmen No adjustmen	Truck Volume Based on Number of Lo 4.300	Truck Volume Based on Number of Loader Passes: Buck 4.300 LCY (heaped) 1.050 Other - moist loam (100-1) 4.515 LCY Site Altitude (ft.): 6 Truck Loader Source 1.000 1.000 (CAT HB) 0.830 0.830 (CAT HB) 0.830 0.830 (CAT HB) within this Basic Rating: Material Description: Maneuver: NA Unadjusted Basic Loader Cycle Time (load, dump, material up to 1/8" diameter 0.02 Dumped by truck 0.02 No adjustment - factor not applicable 0.00 No adjustment - factor not applicable 0.00 No minal target 0.00 Net Cycle Time Adjustment: Adjusted Loader Cycle Time: Net Load Time per Truck: 1.720 Minutes Adjusted to the same truck of the same truck	19.60	19.60

CIRCES Cost Estimating Software

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	0.00	3.00	3.00	2183	0.722

Haul Time: **0.722** minutes Return Route: Travel Haul Distance Grade (%) Roll. Res Total Res Velocity Seg# Time (Ft) (%) (%) (fpm) (min) 1000.00 0.00 3.00 3.00 2936 0.495

Return Time: 0.495 minutes
Total Truck Cycle Time: 4.537 minutes

Loading Tool unit

Production Truck Unit Production

238.84 LCY/Hour Adjusted for job efficiency: 387.67 LCY/Hour

Adjusted for job efficiency: 198.23 LCY/Hour

Optimal No. of Trucks: 2 Truck(s)

Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 396.47 LCY/Hour Adjusted single truck/loader team production: 387.67 LCY/Hour Adjusted multiple truck/loader team production: 387.67 LCY/Hour

JOB TIME AND COST

 Fleet size:
 1
 Team(s)
 Total job time:
 44.99
 Hours

 Unit cost:
 \$2.196
 /LCY
 Total job cost:
 \$38,295

TRUCK/LOADER TEAM WORK

Task description:	Topsoil					
Site: North Chieftain		Permit Ac	tion: 2024 Bond	Calculation	Permit/Job#: M	1978014
PROJECT IDEN	TIFICATION					
Task #: 012		State: Colo	orado	Ab	breviation: No	ne
Date: 9/18/2	.024 C	County: Jeffe	erson		Filename: MO	014-012
User: BEH						
Agency or	organization name	e: DRMS				
HOURLY EQUI	PMENT COST	•		Shift bas	sis: 1 per day	
			Equipment Descri	ption		
Т	ruck Loader Tean		at 730			
Sunn	ort Equipment -Lo		AT 950H A			
Бирр			at D8T - 8SU			
Road M	aintenance –Motor					
	-Wate	er Truck: N	A			
Cost Breakdown:	Truck/Load	der Team	Support 1	Equipment	Maintenan	ice Equipment
Cost Bicandown.		Loader	Load Area	Dump Area	Motor Grader	Water Truck
Utilization-machine:	100	100	NA NA	100	NA	NA
Ownership cost/hour:	\$108.67	\$36.61	NA	\$173.32	NA	NA
Operating cost/hour:	\$66.26	\$35.43		\$109.71	NA	NA
%Utilization-riper:	NA	0	- 1	NA	NA	NA
ipper own. cost/hour:	NA	\$0.00		\$0.00	NA	NA
Ripper op. cost/hour:	NA	\$0.00		\$0.00	NA	NA
Operator cost/hour:	\$24.82	\$56.64		\$40.04	NA	NA
Unit Subtotals:	\$199.75	\$128.68		\$323.07	NA	NA
Number of Units:	2	1		1	0	0
Group Subtotals:	Work:	\$528.18	Support:	\$323.07	Maint:	\$0.00
Total work team cos						
Initial volume	31.500	CC	Y Swell	factor: 1 090		
Loose volume	,			1.070		
	urce of estimated v of estimated swell Material Purchas	l factor: Cat se Cost: \$0.0		on, Mining & Safe	ety	
Total work team cos MATERIAL QU Initial volume Loose volumes	ANTITIES 31,500 34,335 urce of estimated woof estimated swell Material Purchas Tot	CC 5 LC volume: Div l factor: Cat	Y Swell Y vision of Reclamation t Handbook 00	factor: 1.090		

HOURLY PRODUCTION

Truck Capacity:
Truck Payload (weight) Basis:

Material weight:	2,400	Pounds/LCY
Description:	Clay and gravel - Dry	
Rated Payload:	62,000	Pounds
Payload Capacity:	25.83	LCY

Struck Volume:	17.10	LCY				
Heaped Volume:		LCY				
Average Volume:		LCY				
Adjusted Volume:		LCY				
_						
	Truck Volume	Based on Number of Loa	ader Passes:	18.06	LCY	
Loading Tool Capacity			Bucket Si	go Closse N	٨	
Poted Conscitus	4.300	LCY (heaped)	Ducket Si	ze Class: N	A	_
Rated Capacity: Bucket Fill Factor:	1.050	Other - moist loam	(100-110%	1.050		_
Adjusted Capacity:	4.515	LCY	(100-11070) 1.030		
Job Condition Corrections			ltitude (ft.): <u>6000</u>	feet		
Altitude Adj:	Truck 1.000	Loader 1.000	Source (CAT HB)			
Job Efficiency:	0.830	0.830	(CAT HB)			
Job Efficiency.	0.830	0.030	(CAT IIB)			
Net Correction:	0.830	0.830				
Loading Tool Cycle Time :	Numbe	r of Loading Tool Passes	Required to Fill T	ruck:	4 r	passes
	_"	of Loading 10011 asses	Required to 1 m 1	ruck.	}	passe
Hycavatore and Front Show	ale:					
Excavators and Front Shove		D .: NA				
Machine Cycle Time	vs. Job Conditio					
Machine Cycle Time v Selected Value	vs. Job Conditio within this Basi	c Rating: NA				
Machine Cycle Time Selected Value Track Loaders -	vs. Job Conditio within this Basi Material Descr	c Rating: NA				
Machine Cycle Time v Selected Value Track Loaders - Cycle Time Elements (min.)	vs. Job Conditio within this Basi Material Descr	c Rating: NA	Γ			
Machine Cycle Time Selected Value Track Loaders -	vs. Job Conditio within this Basi Material Descr	c Rating: NA	Ε	Dump: 0.100)	
Machine Cycle Time v Selected Value Track Loaders - Cycle Time Elements (min.)	vs. Job Conditio within this Basi Material Descr :	c Rating: NA iption: Ianeuver: NA			.500 mini	utes
Machine Cycle Time Selected Value Track Loaders - Cycle Time Elements (min.) Load: NA	vs. Job Conditio within this Basi Material Descr :	c Rating: NA iption: Ianeuver: NA	oad, dump, mane			utes
Machine Cycle Time of Selected Value Track Loaders - Cycle Time Elements (min.) Load: NA Wheel and Track Loaders	vs. Job Conditio within this Basi Material Descr :	c Rating: NA iption: Ianeuver: NA	oad, dump, mane	aver):0.	.500 min	utes
Machine Cycle Time Selected Value Track Loaders - Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors	vs. Job Conditio within this Basi Material Descr :	c Rating: NA ription: NA Maneuver: NA asic Loader Cycle Time (1) o 1/8" diameter 0.02	oad, dump, mane	uver): 0.	.500 minu	utes
Machine Cycle Time Selected Value Track Loaders - Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership:	ys. Job Conditio within this Basi Material Descr : M - Unadjusted Ba Material up to Dumped by t No adjustmen	ruck 0.02 nt - factor not applicable (1.2)	oad, dump, maner	actor (min.) 0.020 0.020 0.000	Source (Cat HB) (Cat HB) (Cat HB)	utes
Machine Cycle Time Selected Value Track Loaders - Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	ys. Job Conditio within this Basi Material Descr : M - Unadjusted Ba Material up to Dumped by t No adjustment	ription: Maneuver: NA Masic Loader Cycle Time (Inc.) 10 1/8" diameter 0.02 Manual Truck 0.02 Manual Tru	oad, dump, maner	actor (min.) 0.020 0.020 0.000 0.000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Machine Cycle Time Selected Value Track Loaders - Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership:	ys. Job Conditio within this Basi Material Descr : M - Unadjusted Ba Material up to Dumped by t No adjustmen	ription: Maneuver: NA Masic Loader Cycle Time (Interpretation of 1/8" diameter 0.02 Manual of 1/8" diameter 0.02	0.00 0.00	actor (min.) 0.020 0.020 0.000 0.000 0.000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Machine Cycle Time Selected Value Track Loaders - Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	ys. Job Conditio within this Basi Material Descr : M - Unadjusted Ba Material up to Dumped by t No adjustment	ruck 0.02 nt - factor not applicable of the factor not applicable of the total one of the t	oad, dump, maner Fa	actor (min.) 0.020 0.020 0.000 0.000 0.000 0.040	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	utes
Machine Cycle Time Selected Value Track Loaders - Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	ys. Job Conditio within this Basi Material Descr : M - Unadjusted Ba Material up to Dumped by t No adjustment	ruck 0.02 nt - factor not applicable et 0.00 Net Cycle Time A Adjusted Loader C	oad, dump, maner 0.00 0.00 djustment: ycle Time:	actor (min.) 0.020 0.020 0.000 0.000 0.000 0.040 0.540	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	utes
Machine Cycle Time Selected Value Track Loaders - Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	ys. Job Conditio within this Basi Material Descr : M - Unadjusted Ba Material up to Dumped by t No adjustment	ruck 0.02 nt - factor not applicable of the factor not applicable of the total one of the t	oad, dump, maner 0.00 0.00 djustment: ycle Time:	actor (min.) 0.020 0.020 0.000 0.000 0.000 0.040	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	utes
Machine Cycle Time y Selected Value Track Loaders - Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time:	ys. Job Conditio within this Basi Material Descr : Unadjusted Basi Material up to Dumped by to No adjustment No adjustment No adjustment Nominal targ	ription: Maneuver: NA Masic Loader Cycle Time (Interpretation of 1/8" diameter 0.02 Maneuver: NA Masic Loader Cycle Time (Interpretation of 1/8" diameter 0.02 Maneuver: NA Masic Loader Cycle Time (Interpretation of 1/8" diameter 0.02 Maneuver: NA	oad, dump, maner 0.00 0.00 djustment: ycle Time: per Truck:	actor (min.) 0.020 0.020 0.000 0.000 0.000 0.040 0.540 1.720	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	
Machine Cycle Time Selected Value Track Loaders - Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time: Truck Exchange Time	ys. Job Condition within this Basin Material Describes: Musterial Describes: Musterial up to Dumped by the No adjustment No adjustment No adjustment Nominal target: Dumped by the No adjustment No adjustment Nominal target: Dumped by the No adjustment No adjustment Nominal target: Dumped by the Nominal target	Inc Rating: NA Inpition: NA Inpition: NA Insic Loader Cycle Time (Inc.) Input 1/8" diameter 0.02 Inc. 1/8" diameter	oad, dump, maner Fail	actor (min.) 0.020 0.020 0.000 0.000 0.000 0.040 0.540 1.720 ite altitude:	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes 0.600	
Machine Cycle Time y Selected Value Track Loaders - Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time:	Material Describer Unadjusted Basis No adjustment No adjus	ription: Maneuver: NA Masic Loader Cycle Time (Interpretation of 1/8" diameter 0.02 Maneuver: NA Masic Loader Cycle Time (Interpretation of 1/8" diameter 0.02 Maneuver: NA Masic Loader Cycle Time (Interpretation of 1/8" diameter 0.02 Maneuver: NA	oad, dump, maner 0.00 0.00 djustment: ycle Time: per Truck:	actor (min.) 0.020 0.020 0.000 0.000 0.000 0.040 0.540 1.720 ite altitude:	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	——————————————————————————————————————

<u>Truck Travel (Haul & Return) Time:</u> Road Condition: <u>Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0</u>

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	0.00	3.00	3.00	2183	0.722

Haul Time: 0.722 minutes

Return Route:

recturn rec	rate.					
Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	0.00	3.00	3.00	2936	0.495

2 Truck(s)

Return Time: 0.495 minutes
Total Truck Cycle Time: 4.537 minutes

Selected Number of Trucks: 2 Truck(s)

Loading Tool unit

Optimal No. of Trucks:

Production 467.07 LCY/Hour Adjusted for job efficiency: 387.67 LCY/Hour Truck Unit Production 238.84 LCY/Hour Adjusted for job efficiency: 198.23 LCY/Hour

Adjusted hourly truck team production: 396.47 LCY/Hour Adjusted single truck/loader team production: 387.67 LCY/Hour

Adjusted multiple truck/loader team production: 387.67 LCY/Hour

JOB TIME AND COST

 Fleet size:
 1
 Team(s)
 Total job time:
 88.57
 Hours

 Unit cost:
 \$2.196
 /LCY
 Total job cost:
 \$75,394

REVEGETATION WORK

North Chieftain	Permit Action: _20	24 Bond Calo	culation	Permit/Job#	: <u>M1978014</u>
PROJECT IDENTIFIC	ATION				
Task #: 014	State: Colorado		Ał	breviation:	None
Date: 9/18/2024	County: Jefferson				M014-014
User: BEH					
Agency or organiz	ation name: DRMS				
FERTILIZING					
/aterials					
Daniel d'an	Units /	TI24	Co	st / Unit	Cost /Acre
Description	Acre	Unit			
13-13-13, 19-9-0	45.00	pound	\$0.	72	\$32.45
			To	tal Fertilizer	
				Materials	
				Cost/Acre	\$32.45
Description	er (MEANS 32 01 90.13 0140)				Cost /Acre \$17.86
		tal Fertilizer	Application	on Cost/Acre	
Description		tal Fertilizer	Applicatio	on Cost/Acre	\$17.86
Description Truck whirlwind spreado		tal Fertilizer	Application	on Cost/Acre	\$17.86
Description Truck whirlwind spreado		tal Fertilizer	Application	on Cost/Acre	\$17.86 \$17.86
Description Truck whirlwind spreado TILLING Description		tal Fertilizer	Application	on Cost/Acre	\$17.86 \$17.86 Cost /Acre
Description Truck whirlwind spreado TILLING Description				on Cost/Acre	\$17.86 \$17.86 Cost /Acre
Description Truck whirlwind spreado TILLING Description					\$17.86 \$17.86 Cost /Acre \$102.41
Description Truck whirlwind spreads TILLING Description Chisel plowing {DMG}			Fotal Tillin	ng Cost/Acre	\$17.86 \$17.86 Cost /Acre \$102.41 \$102.41
Description Truck whirlwind spreads TILLING Description Chisel plowing {DMG}			Rate – PLS LBS /	Seeds per SQ.	\$17.86 \$17.86 Cost /Acre \$102.41
Description Truck whirlwind spreade TLLING Description Chisel plowing {DMG} EEEDING Seed Mix	То		Rate – PLS LBS / Acre	Seeds per SQ. FT	\$17.86 \$17.86 Cost /Acre \$102.41 \$102.41
Description Truck whirlwind spreade TLLING Description Chisel plowing {DMG} SEEDING Seed Mix Crested Wheatgrass - No	ordan		Rate – PLS LBS / Acre 4.00	Seeds per SQ. FT	\$17.86 \$17.86 Cost /Acre \$102.41 \$102.41 Cost /Acre
Description Truck whirlwind spreade TILLING Description Chisel plowing {DMG} SEEDING Seed Mix Crested Wheatgrass - No Pubescent Wheatgrass -	ordan Luna		Rate – PLS LBS / Acre 4.00 5.40	Seeds per SQ. FT 18.37 11.16	\$17.86 \$17.86 Cost /Acre \$102.41 \$102.41 Cost /Acre \$21.25 \$27.02
Description Truck whirlwind spreade CILLING Description Chisel plowing {DMG} SEEDING Seed Mix Crested Wheatgrass - No	ordan Luna		Rate – PLS LBS / Acre 4.00	Seeds per SQ. FT	\$17.86 \$17.86 Cost /Acre \$102.41 \$102.41 Cost /Acre

Description
Drill Seeding (DRMS Survey Cost)

Cost /Acre \$236.64

Total Seed Application Cost/Acre	\$236.64

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/A	Acre \$0.00

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres: 39 Cost /Acre: \$482.73

Estimated Failure Rate: 25% Cost /Acre*: \$482.73

*Selected Replanting Work Items: FERTILIZING,TILLING,SEEDING

Initial Job Cost: \$18,826.47

Reseeding Job Cost: \$4,706.62

Total Job Cost: \$23,533

39.00

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description	n: Equi	pment Mobi	lization				
e: North Chieft	ain	Perr	mit Action:	2024 Box	nd Calculation	Permit/Jol	b#: <u>M1978014</u>
PROJECT IDI	ENTIFICATIO	<u>N</u>					
Task #: 01	15	State:	Colorado			Abbreviation:	None
Date: 9/	18/2024	County:	Jefferson			Filename:	M014-015
User: B	EH						
					Sh Cost Data		1 per day CRG Data
True	ck Tractor Descri	ption: GE	NERIC ON-		Y TRUCK TR 00 HP (2ND H	, ,	DIESEL POWERED,
Tru	ck Trailer Descri	ption:	GENERIC		,		K EQUIPMENT
				TRA	AILER (25T, 50	T, AND 100T)	<u> </u>
Cost Breakdown:	-						
Available Rig	Capacities	0-25 Tons	26-50	Tons	51+ Tons	<u>—</u>	
0	in Cost/House	¢10.44	\$22	10	\$22.04		

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

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 D8T - 8SU	47.71	\$173.32	\$122.78	1	\$296.10	\$122.78	\$250.00
Drill/Broadcast	25.00	\$41.02	\$59.44	1	\$100.46	\$59.44	\$250.00
Seeder with							
Tractor							
Cat 730	25.19	\$108.67	\$59.44	2	\$336.22	\$118.88	\$250.00
CAT 950H	20.13	\$36.61	\$59.44	1	\$96.05	\$59.44	\$250.00

Subtotals: \$828.83 \$360.54 \$1,000.00

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	\$24.60	1	\$24.60	\$24.60

Subtotals:	\$24.60	\$24.60

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:

Total one-way travel distance:

Average Travel Speed:

LAKEWOOD

miles

5.00

mph

Transportation Cycle Time:

	Non-	
	Roadable	Roadable
	Equipment	Equipment
Haul Time (Hours):	0.14	0.14
Return Time (Hours):	0.14	0.14
Loading Time (Hours):	0.25	NA
Unloading Time (Hours):	0.25	NA
Subtotals:	0.79	0.29

JOB TIME AND COST

Total job time:	1.57	Hours
Total job cost:	\$3.176	