

September 9, 2021

Fred Orr Baculite Mesa, LLC. 5040 Acoma Street Denver, CO 80216

RE: Division's Financial Warranty Cost Estimates for Baculite Mesa Pit (M1997-011)

Dear Mr. Orr,

On August 26, 2021 the Division performed an inspection as part of the Division's Routine Monitoring Program of the Baculite Mesa Pit. As part of the inspection the financial warranty for the mine was calculated. The Division used observations made during the inspection, and information submitted as 2021 Annual Report during the cost estimate calculations.

A copy of the mine's estimate is attached for your review. The Division will allow 14 days to review and comment on the bond estimate prior to issuing a surety increase notice for the Baculite Mesa Pit. Once the surety increase is issued by the Division, the Operator will have 60 days to provide the additional financial warranty.

If you need additional information or have any questions, please contact me at Division of Reclamation, Mining and Safety, 1313 Sherman Street, Room 215, Denver, CO 80203, by telephone at **303-866-3567 x8114**, or by email at patrick.lennberg@state.co.us.

Sincerely,

Patrick Lennberg

Environmental Protection Specialist

cc: Jared Ebert, DRMS

ec: Fred Orr, Baculite Mesa, LLC., fred@5040group.com

Steve O'Brian, Environment Inc., Environment-inc@outdrs.net





COST SUMMARY WORK

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' —	Baculite Mesa Pit	Permit Action:	Insp 2021		Permit/Job	#: <u>M1997011</u>
)D	OJECT IDENTIFICA	ATION				
1 11					Abbreviation:	None
	Task #: 000 Date: 9/9/2021	State: Colorado County: Pueblo			Filename:	None M011-000
	User: JPL	County. Fueblo			riiename.	WI011-000
	Agency or organiza	ntion name: DRMS				
TA	SK LIST (DIRECT C	COSTS)				
k			Form	Fleet	Task	
<u> </u>	Description		Used	Size	Hours	Cost
	Grade Highwall to 3:1		DOZER	1	27.31	\$6,890
	Spread Topsoil 6" over	38 acres	SCRAPER1	1	11.85	\$23,954
	Reveg		REVEGE	1	25.00	\$40,473
	Mob/Demob		MOBILIZE	1	2.44	\$8,708
	DIRECT COSTS					
	DIRECT COSTS ERHEAD AND PROFIT	<u>:</u>				
					Total = \$1	,617
	ERHEAD AND PROFIT	e: 2.02				,617 40
	ERHEAD AND PROFIT Liability insuranc Performance bondon Job superintenden	e: 2.02 d: 1.05 at: 33.30			Total =	40 ,399
	ERHEAD AND PROFIT Liability insuranc Performance bone	e: 2.02 d: 1.05 at: 33.30			Total =	40 ,399 ,002
	ERHEAD AND PROFIT Liability insuranc Performance bondon Job superintenden	e: 2.02 d: 1.05 at: 33.30 it: 10.00			Total =	40 ,399 ,002 2,858
	ERHEAD AND PROFIT Liability insuranc Performance bondon Job superintenden	e: 2.02 d: 1.05 at: 33.30 it: 10.00	RACT AMOUNT		Total =	40 ,399 ,002
OV	ERHEAD AND PROFIT Liability insuranc Performance bond Job superintenden Profi	e: 2.02 d: 1.05 at: 33.30 it: 10.00			Total =	40 ,399 ,002 2,858
OV	ERHEAD AND PROFIT Liability insuranc Performance bond Job superintenden Profi	e: 2.02 d: 1.05 at: 33.30 it: 10.00 CONT			Total = \$8 Total = \$2 Total = \$8 L O & P = \$1 O & P) = \$9	40 ,399 ,002 2,858
OV	ERHEAD AND PROFIT Liability insuranc Performance bone Job superintenden Profit GAL - ENGINEERING -	e: 2.02 d: 1.05 at: 33.30 it: 10.00	:		Total =	40 ,399 ,002 2,858 2,883
OV	ERHEAD AND PROFIT Liability insurance Performance bone Job superintenden Profit GAL - ENGINEERING - Financial warranty proc Engineering work and	e: 2.02 d: 1.05 at: 33.30 it: 10.00 CONT PROJECT MANAGEMENT cessing (legal/related costs):	: \$500		$ \begin{aligned} \text{Total} &= & \$8 \\ \text{Total} &= & \$2 \\ \text{Total} &= & \$8 \\ \text{L O & P} &= & \$1 \\ \text{O & P}) &= & \$9 \\ \end{aligned} $ $ \begin{aligned} \text{Total} &= & \$5 \\ \text{Total} &= & \$5 \end{aligned} $	40 ,399 ,002 2,858 2,883
OV	ERHEAD AND PROFIT Liability insurance Performance bone Job superintenden Profit GAL - ENGINEERING - Financial warranty proc Engineering work and	e: 2.02 d: 1.05 at: 33.30 it: 10.00 CONT PROJECT MANAGEMENT ressing (legal/related costs): /or contract/bid preparation:	\$500 8.00		Total = \$8 Total = \$2 Total = \$8 L O & P = \$1 O & P) = \$9 Total = \$5 Total = \$7	40 ,399 ,002 2,858 2,883 00 ,431 ,396
OV	ERHEAD AND PROFIT Liability insurance Performance bone Job superintenden Profit GAL - ENGINEERING - Financial warranty proc Engineering work and	e: 2.02 d: 1.05 at: 33.30 it: 10.00 CONT PROJECT MANAGEMENT ressing (legal/related costs): for contract/bid preparation: ment and/or administration:	\$500 8.00 5.81 0.00	Γ (direct +	Total = \$8 Total = \$2 Total = \$8 L O & P = \$1 O & P) = \$9 Total = \$5 Total = \$5 Total = \$5 Total = \$0	40 ,399 ,002 2,858 2,883 00 ,431 ,396

BULLDOZER WORK

Task description:	Grade Highwal	l to 3:1			
e: Baculite Mesa Pit	Pe	ermit Action:	Insp 2021	Permit/Jo	b#: <u>M1997011</u>
<u>PROJECT IDENTIFI</u>	CATION				
Task #: 001 Date: 9/9/2021	State: County:	Colorado Pueblo	-	Abbreviation: Filename:	None M011-001
User: JPL	County.	1 ucolo		Thename.	W011-001
Agency or organ	nization name: D	RMS			
HOURLY EQUIPME	NT COST				
	t D8T - 8SU		_		
Horsepower: 310			_		
	mi-Universal		_		
	shank ripper		_		
	er day RG)		_		
	KO)		<u> </u>		
Cost Breakdown:		ı	TT/''' '' 0'		
O1: - C/II		¢07.46	<u>Utilization %</u>		
Ownership Cost/Hour: Operating Cost/Hour:		\$97.46 \$97.63	NA 100		
Ripper own.			100		
Cost/Hour:		\$15.19	NA		
Ripper op. Cost/Hour:		\$1.99	20		
Operator Cost/Hour:		\$40.04	NA		
MATERIAL QUANT Initial Volume: 13,2	200				
Swell factor: 1.16 Loose volume: 15,3	55 378 LCY	<u> </u>			
Source of estimated volu Source of estimated swe factor:		Highwall gra dbook			
HOURLY PRODUCT	<u>'ION</u>				
Average push distance:	100 feet				
Unadjusted hourly production:	852.6 LCY	//hr			
Materials consistency de	escription: Conso	lidated stockp	pile 1.0		
Average push gradient:	-5 %				
Average site altitude:	5,250 feet				
Material weight:	2,900 lbs/LCY			<u> </u>	
Weight description:	Decomposed roc	k - 50% Rock	, 50% Earth		
Job Condition Correction Operator		.750	Source (AVG.)		

Material consistency:	1.000	(CAT HB)
Dozing method:	1.200	(SLOT)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.115	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.6605

Adjusted unit production:

Adjusted fleet production:

563.14 LCY/hr

563.14 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.448/LCY

Total job time: 27.31 Hours
Total job cost: \$6,890

SCRAPER TEAM WORK

Task description:	Spread To	opsoil 6" ov	er 38	acres				
Site: Baculite Mesa Pi	t	Permit Action: Insp 2021			P	Permit/Job#: M1997011		
PROJECT IDENT	<u>IFICATION</u>							
Task #: 002 Date: 9/9/202 User: JPL		State: Columnty: Pue	orado blo)		viation: None ename: M011-	-002	
Agency or o	organization name	DRMS						
HOURLY EQUIP	MENT_			COSTS	Shift basis: 1 per	day		
				ent Description				
Suppor		-Dozer: N	IA IA	7G w/push-pull				
Road Mai	ntenance -Motor	Grader: C	IA CAT 1 Vater	4M Tanker, 2,500 Ga	1.			
Cost Breakdown:	Scraper Wo	rk Team		Support Equi	ipment	Maintenano	ce Equipment	
	Scraper	Dozer		Load Area	Dump Area	Motor Grader	Water Truck	
%Utilization-machine:	100]	NA	NA	NA	25	25	
Ownership cost/hour:	\$223.48]	NA	NA	NA	\$85.80	\$11.70	
Operating cost/hour:	\$193.77]	NA	NA	NA	\$15.10	\$4.50	
%Utilization-ripper:	NA]	NA	NA	NA	NA	NA	
Ripper own. cost/hour:	NA]	NA	NA	NA	\$0.00	\$0.00	
Ripper op. cost/hour:	NA]	NA	NA	NA	\$0.00	\$0.00	
Operator cost/hour:	\$47.07]	NA	NA	NA	\$46.87	\$0.00	
Unit Subtotals:	\$464.32]	NA	NA	NA	\$147.77	\$16.20	
Number of Units:	4		0	0	0	1	1	
Group Subtotals:	Work:	\$1,857.2	8	Support:	\$0.00	Maint:	\$163.97	
Total work team cost/	hour: \$2,021.25							
MATERIAL QUA	<u>NTITIES</u>							
Initial volume: Loose volume:	30,700 30,700	CO LO	CY CY	Swell fact	tor: 1.000			
	ce of estimated vo f estimated swell			s of topsoil over 3 ndbook	8 acres			
HOURLY PRODU	<u>ICTION</u>							
				Scraper B	Bowl (volume) Ba	sis:		
Material weight:	2,650 lbs/LCY			Struck	Volume: 24.00	L	.CY	
Material description:	Decomposed roo 75% Earth	ck - 25% Ro	ck,	-	Volume: 34.00	I	CY	
Rated Payload: Payload Capacity:	81,600 pounds 30.79 LCY			Average Adjusted C			.CY .CY	

Site Altitude: 5250 feet

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7)	10	$\boldsymbol{\rho}$	11	me:
\sim	\sim 1	•	11	m.

Scraper Loading Time: 1.00 Minutes
Maneuver and Spread Time: 0.60 Minutes

Job Condition Correction:

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

Travel Time:

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	550.00	-6.00	3.00	-3.00	2972	0.24

Haul Time: **0.24** minutes

Return Route:

Seg#	Haul Distance (Ft)	Grade (%)	Roll. Res	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	550.00	6.00	3.00	9.00	1711	0.39

Return Time: **0.39** minutes

Total Scraper team cycle time:
Adjusted for job conditions:
Selected Number of Scrapers:

2.23 minutes
1,295.25 LCY/Hour
Scraper(s)

Adjusted single scraper team (unit) hourly production: 2,590.49 LCY/Hour Adjusted multiple scraper team (fleet) hourly production: 2,590.49 LCY/Hour

JOB TIME AND COST

 Fleet size:
 1
 Team(s)
 Total job time:
 11.85
 Hours

 Unit cost:
 \$0.780
 /LCY
 Total job cost:
 \$23,954

REVEGETATION WORK

	Baculite Mesa Pit	Perm	it Action: Insp	2021		Permit/Job#	#: <u>M1997011</u>
R	OJECT IDENTIFICAT	<u>ION</u>					
	Task #: 003 Date: 9/9/2021 User: JPL	_	Colorado Pueblo		Al		None M011-003
	Agency or organization	n name: DRM	1S				
7	RTILIZING						
	terials						
	Description		Units / Acre	Unit	Со	st / Unit	Cost /Acre
	Mono-Ammonium Phosphat	te, 11-50-0	40.00	pound	\$0.	30	\$12.00
					То	tal Fertilizer Materials	¢12.00
_						Cost/Acre	\$12.00
	Description Truck whirlwind spreader (N	MEANS 32 01 90	13 0140)				Cost /Acre
	Truck whirlwind spreader (N	MEANS 32 01 90	,				\$16.12
		MEANS 32 01 90	,	Fertilizer	Applicatio	on Cost/Acre	
		MEANS 32 01 90	,	Fertilizer	Application	on Cost/Acre	\$16.12
()	Truck whirlwind spreader (N	MEANS 32 01 90	,	Fertilizer	Application	on Cost/Acre	\$16.12
()	Truck whirlwind spreader (N	MEANS 32 01 90	,	Fertilizer	Application	on Cost/Acre	\$16.12 \$16.12
0	Truck whirlwind spreader (N	MEANS 32 01 90	,			on Cost/Acre	\$16.12 \$16.12 Cost /Acre
0	Truck whirlwind spreader (N	MEANS 32 01 90	,				\$16.12 \$16.12 Cost /Acre
	Truck whirlwind spreader (N	MEANS 32 01 90	,		Rate – PLS LBS /		\$16.12 \$16.12 Cost /Acre
<u> </u>	Truck whirlwind spreader (Machine Machine) LLING Description EDING Seed Mix	MEANS 32 01 90	,		Rate – PLS LBS / Acre	Seeds per SQ. FT	\$16.12 \$16.12 Cost /Acre \$ \$0.00
	Truck whirlwind spreader (N LLING Description EDING	MEANS 32 01 90	,		Rate – PLS LBS /	ng Cost/Acre Seeds per SQ.	\$16.12 \$16.12 Cost /Acre \$
<u> </u>	Truck whirlwind spreader (N LLING Description EDING Seed Mix Blue Grama - Lovington Sand Dropseed Sideoats Grama - Vaughn		,		Rate – PLS LBS / Acre 0.60 0.50 3.60	Seeds per SQ. FT 9.79 59.69 11.82	\$16.12 \$16.12 Cost /Acre \$ \$0.00 Cost /Acre \$9.59 \$4.88 \$30.15
<u> </u>	Truck whirlwind spreader (N LLING Description EDING Seed Mix Blue Grama - Lovington Sand Dropseed Sideoats Grama - Vaughn Sand Bluestem - Woodward		,		Rate – PLS LBS / Acre 0.60 0.50 3.60 1.60	Seeds per SQ. FT 9.79 59.69 11.82 4.15	\$16.12 \$16.12 Cost /Acre \$ \$0.00 Cost /Acre \$9.59 \$4.88 \$30.15 \$33.87
<u> </u>	Truck whirlwind spreader (N LLING Description EDING Seed Mix Blue Grama - Lovington Sand Dropseed Sideoats Grama - Vaughn		,		Rate – PLS LBS / Acre 0.60 0.50 3.60	Seeds per SQ. FT 9.79 59.69 11.82	\$16.12 \$16.12 Cost /Acre \$ \$0.00 Cost /Acre \$9.59 \$4.88 \$30.15

Cost /Acre

Description		
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
Hay, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$307.02	\$614.04
Total Mulch Materials Cost/Acre				\$614.04

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$71.57
	Total Mulch Application Cost/Acre	\$71.57

NURSERY STOCK PLANTING

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

JOB TIME AND COST

 No. of Acres:
 38
 Cost /Acre:
 \$1,033.15

 Estimated Failure Rate:
 10%
 Cost /Acre*:
 \$319.42

*Selected Replanting Work Items: SEEDING

Initial Job Cost: \$39,259.70

Reseeding Job Cost: \$1,213.80

Total Job Hours: \$40,473

25.00

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: Mo	b/Demob			
ite: Baculite Mesa Pit	Permit	Action: Insp 20)21 Permit/J	ob#: <u>M1997011</u>
PROJECT IDENTIFICATI	ON			
Task #: 004 Date: 9/9/2021 User: JPL		olorado ueblo	Abbreviation Filename	
Agency or organization	n name: DRMS	S		
EQUIPMENT TRANSPOR	T RIG COST		Shift basis: Cost Data Source:	1 per day CRG Data
Truck Tractor Desc	eription: GENI	ERIC ON-HIGHW		, DIESEL POWERED,
Truck Trailer Desc	eription: C		NG GOOSENECK, DROP DE RAILER (25T, 50T, AND 100'	~
Cost Breakdown:				
Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons	
Ownership Cost/Hour:	\$21.28	\$37.94	\$47.67	
Operating Cost/Hour:	\$26.55	\$50.48	\$56.21	
Operator Cost/Hour	\$20.54	\$20.54	\$20.54	

NON ROADABLE EQUIPMENT:

Total Unit Cost/Hour:

Helper Cost/Hour:

\$0.00

\$68.37

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	\$97.46	\$132.49	1	\$229.95	\$132.49	\$250.00
Cat 637G w/push-	59.59	\$223.48	\$147.95	4	\$1,485.72	\$591.80	\$1,000.00
pull							
CAT 14M	23.57	\$85.80	\$68.37	1	\$154.17	\$68.37	\$250.00
Drill/Broadcast	25.00	\$7.98	\$68.37	2	\$152.70	\$136.74	\$500.00
Seeder with							
Tractor							

\$23.53

\$132.49

\$23.53

\$147.95

Subtotals: \$2,022.54 \$929.40 \$2,000.00

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Water Tanker, 2,500 Gal.	\$29.70	1	\$29.70	\$29.70

Subtotals:	\$29.70	\$29.70

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:

Total one-way travel distance:

Average Travel Speed:

PUEBLO

miles

45.00

mph

Total Non-Roadable Mob/Demob Cost *
 '* two round trips with haul rig:
Total Roadable Mob/Demob Cost **
 ** one round trip, no haul rig:

\$6.60

Transportation Cycle Time:

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

JOB TIME AND COST

Total job time: _	2.44	Hours
Total job cost:	\$8,708	