

February 8, 2022

Kurt Blunt Blue Mountain Energy, Inc. 3607 County Rd. 65 Rangely, CO 81648

RE: Deserado Mine, C-1981-018

Technical Revision No. 73 Second Adequacy Review

Dear Mr. Blunt,

The Colorado Division of Reclamation, Mining and Safety (the Division) received the Deserado Mine's responses to the Division's Preliminary Adequacy Review for Technical Revision No. 73 (TR-73) on February 1, 2022. The Division has completed its review of BME's responses and has the following comments:

#### Rule 2.05.4(2)(b) – Reclamation Plan

1. The Division completed a reclamation cost estimate for reclaiming the activities proposed under TR-73. The Division estimates the costs to be in the amount of \$25,590.00. The Division estimates the total reclamation liability for the Deserado Mine to be \$6,533,708.00. The current bond held by the Division is in the amount of \$6,600,000.00. The current bond held is enough to cover the additional costs proposed under TR-73. No additional bond monies are required to be submitted with this revision. A copy of the Reclamation Cost Estimate has been enclosed with this letter for your review.

#### **Rule 4.05.9 Impoundments**

5. On Map 164A, the road should be shown as new disturbance with the dotted blue line. Please update the map 164A to reflect the map legend.

This concludes the Division's second adequacy review of Technical Revision No. 73. If you have any questions or concerns, please feel free to contact me at (303)-866-3567 x8185 or by email at clayton.wein@state.co.us.



Page 2 of 2 Kurt Blunt 2/8/2022

Sincerely,

Clayton Wein

Clayton Wein

**Environmental Protection Specialist** 

cc: Travis Marshall, Senior Environmental Protection Specialist

#### **COST SUMMARY WORK**

Т	ask description:	DW-1R Dewaterin	ng System				
Site:	Deserado Mine	Perm	nit Action:	ΓR73		Permit/Job#: C1981018	
PF	ROJECT IDENTIFIC	CATION					
<u>T</u> A	Task #:         000           Date:         2/8/2022           User:         CCW           Agency or organi   ASK LIST (DIRECT	County:zation name:DRN	Colorado Moffat IS		<i>A</i>	Abbreviation: Filename:	None C18-000
Task	Description			Form U <b>sed</b>	Fleet Size	Task Hours	Cost
001	Plug and Seal DW-11	R Borehole	]	BOREHOLE	1	8.00	\$16,702
002	Regrade DW-1R Pon	d	]	OOZER	1	2.56	\$867
003	Regrade DW-1R Ligh	nt Use Road	]	OOZER	1	0.83	\$280
004	Topsoil Replacement	for the DW-1R Pond	. ]	OOZER	1	1.22	\$403
005	Topsoil Replacement Road	for the DW-1R Ligh	t Use 1	OOZER	1	0.40	\$131
006	Reseed DW-1R Pond		]	REVEGE	1	10.00	\$406
007	Reseed DW-1R Light	Use Road	1	REVEGE	1	10.00	\$131

#### **INDIRECT COSTS**

#### **OVERHEAD AND PROFIT:**

Liability insurance: 2.02 Total = \$382 Performance bond: 1.05 Total = \$199 Job superintendent: 12.50 Total = \$900 Profit: 10.00 Total = \$1,892

TOTAL O &  $P = \frac{$3,373}{}$ 

33.01

\$18,920

CONTRACT AMOUNT (direct + O & P) =  $\frac{$52,293}{$22,293}$ 

#### LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): \$0 Total = \$0 Engineering work and/or contract/bid preparation: 8.59 Total = \$1,915 Reclamation management and/or administration: 6.20 \$1,382

CONTINGENCY: 0.00 Total = \$0

**SUBTOTALS:** 

TOTAL INDIRECT COST = \$6,670

TOTAL BOND AMOUNT (direct + indirect) = \$25,590

# **BOREHOLE SEALING WORK**

ite: D	eserado Mine	Permit Action:	TR73	Permit	/Job#: <u>C1981018</u>
OJECT	TIDENTIFICAT	ΓΙΟΝ			
Task #:	001	State: Colorado		Abbreviation:	None
Date: User:	2/8/2022 CCW	County: Moffat		Filename:	C018-001

# **UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Seal 10" Borehole	Portland cement grout - 10 in. (labor, equip, materials)	10	1697	1,697.00	LF	\$9.75	\$16,545.75
Bottom Plug 10"	PVC plug - 10 in. diameter borehole	10	NA	1.00	EA	\$115.29	\$115.29
Cut Casing 10" diameter	Exposed casing removal - Calculate Circumference in Linear Feet	10	NA	1.00	LF	\$3.26	\$3.26
Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$37.50	\$37.50

Job Hours:	8.00	<b>Total Cost</b> :	\$16,702.00
JOD Hours:	8.00	Total Cost:	\$16,702.00

Task description:	Regrade DW-1R Pond			
e: Deserado Mine	Permit Acti	on: TR73	Permit/Jo	b#: <u>C1981018</u>
PROJECT IDENTIF	<u>ICATION</u>			
Task #: 002 Date: 2/8/2022 User: CCW	State: Colora County: Moffat		Abbreviation: Filename:	None C018-002
Agency or orga	nnization name: DRMS			
HOURLY EQUIPME	ENT COST			
Horsepower: 40	at D9T - 9SU 95 emi-Universal			
Shift Basis: 1	shank ripper per day CRG)			
Cost Breakdown:		<u>Utilization %</u>		
Ownership Cost/Hour: Operating Cost/Hour:				
Ripper own.	\$10.2			
Cost/Hour: Ripper op. Cost/Hour:	<u> </u>			
Operator Cost/Hour:				
MATERIAL QUANT  Initial Volume: 1,5  Swell factor: 1.2	73			
	66 LCY			
Source of estimated vol Source of estimated sw factor:		p 162		
HOURLY PRODUCT	ΓΙΟΝ			
Average push distance: Unadjusted hourly production:	100 feet 1,243.2 LCY/hr			
Materials consistency d	lescription: Compacted fill	or embankment 0.9		
Average push gradient:	-10 %			
Average site altitude:	5,800 feet			
Material weight:	2,550 lbs/LCY			
Weight description:	Earth - Dry packed			
Job Condition Correction	Factor	Source		

Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:
Adjusted fleet 769.54 LCY/hr

production: 769.54 LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)
Unit cost: \$0.441/LCY

Total job time: 2.56 Hours
Total job cost: \$867

Task description:	Reg	rade DW-1R I	ight Use F	Road		
Site: Deserado Mine		Perm	it Action:	TR73	Permit/Jo	b#: <u>C1981018</u>
PROJECT IDENT	IFICATIO	<u>ON</u>				
Task #: 003 Date: 2/8/202 User: CCW	22	_	Colorado Moffat		Abbreviation: Filename:	None C018-003
Agency or o	rganization	name: DRM	IS			
HOURLY EQUIP	MENT CO	<u>OST</u>				
Basic Machine: Horsepower: Blade Type: Attachment: Shift Basis: Data Source:	Cat D9T - 405 Semi-Univ 3-shank rip 1 per day (CRG)	versal		- - - -		
Cost Breakdown:	, , ,					
Ownership Cost/Ho Operating Cost/Ho			\$126.01 \$141.41	NA 100		
Ripper ov	wn.		\$19.26	NA		
Cost/Ho Ripper op. Cost/Ho			\$11.48	100		
Operator Cost/Ho			\$41.30	NA		
Swell factor:	ar: <b>\$339</b>					
Source of estimated Source of estimated factor:		Section V a		2		
HOURLY PRODU	CTION					
Average push distan Unadjusted hourly production:	ce:	100 feet 1,243.2 LCY/	hr			
Materials consistenc	y description	n: Compact	ed fill or en	nbankment 0.9		
Average push gradient:	-10 %		_			
Average site altitude	e: <u>5,800</u>	) feet	_			
Material weight:	2,550	lbs/LCY			<u>—</u>	
Weight description:	Earth	- Dry packed				
Job Condition Correct	ion Factor			Source		

Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:

Adjusted fleet production:

769.54 LCY/hr

769.54 LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)
Unit cost: \$0.441/LCY

Total job time: 0.83 Hours
Total job cost: \$280

Task description:	Topsoil Replacement for the	DW-1R Pond			
e: Deserado Mine	: Deserado Mine Permit Action:		Permit/Job#: C1981018		
PROJECT IDENTIFI	<u>CATION</u>				
Task #: 004	State: Colorado		Abbreviation:	None	
Date: 2/8/2022	County: Moffat		Filename:	C018-004	
User: CCW					
Agency or organ	nization name: DRMS				
HOURLY EQUIPME	NT COST				
	t D9T - 9SU	_			
Horsepower: 405		_			
•••	mi-Universal	_			
	hank ripper er day				
	RG)	<u> </u>			
Cost Breakdown:					
Ownership Cost/Hour:	\$126.01	<u>Utilization %</u> NA			
Operating Cost/Hour:	\$141.41	100			
Ripper own.	\$19.26	NA			
Cost/Hour: Ripper op. Cost/Hour:	\$1.72	15			
Operator Cost/Hour:	\$41.30	NA			
MATERIAL QUANTI	<u>ITIES</u>				
Initial Volume: 655 Swell factor: 1.00	<u> </u>				
	LCY				
Source of estimated volu		on Mining & Safety			
Source of estimated word factor:		on, wining & Saicty			
HOURLY PRODUCT					
Average push distance:	75 feet				
Unadjusted hourly production:	1,514.3 LCY/hr				
Materials consistency de	escription: Compacted fill or en	mbankment 0.9			
Average push gradient:	0 %				
Average site altitude:	5,600 feet				
Material weight:	2,550 lbs/LCY				
Weight description:	Earth - Dry packed		_		
Job Condition Correction	Factor_	Source			

Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.700	(FND-MF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production: 535.61 LCY/hr

Adjusted fleet production: 535.61 LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)
Unit cost: \$0.616/LCY

Total job time: 1.22 Hours
Total job cost: \$403

Task description:  Descrado Mine	Topsoil Replacement for the			1.11. (100101
Deserado Mine	Permit Action	: TR73	Permit/Jo	b#: <u>C198101</u>
PROJECT IDENTIFIC	CATION			
Task #: 005	State: Colorado	<b>.</b>	Abbreviation:	None
Date: $\frac{2/8}{2022}$	County: Moffat		Filename:	C018-005
User: $\frac{27672022}{\text{CCW}}$	County		i nename.	2010 003
Agency or organ	ization name: DRMS			
HOURLY EQUIPME	NT COST			
Basic Machine: Cat	D9T - 9SU			
Horsepower: 405		<del></del>		
	ni-Universal	<del></del>		
Attachment: 3-sl	hank ripper	<del></del>		
	er day			
Data Source: (CF				
Cost Breakdown:				
Ownership Cost/Hour:	\$126.01	<u>Utilization %</u> NA		
Operating Cost/Hour:	\$120.01	100		
Ripper own.	\$19.26	NA NA		
Cost/Hour:	\$1.72	15		
Ripper op. Cost/Hour:	\$1.72			
Operator Cost/Hour:	\$41.50	NA		
Total unit Cost/Hour:	\$329.70			
Total Fleet Cost/Hour:	\$329.70			
MATERIAL QUANTI	TIES			
Initial Volume: 212				
Swell factor: $\frac{212}{1.00}$	<u> </u>			
Loose volume: 212				
Loose volume: 212	LC I			
Source of estimated volu	me: Division of Reclama	ation, Mining & Safety		
Source of estimated swel	l Cat Handbook			
factor:				
	·			
HOURLY PRODUCT	<u>ION</u>			
	75 feet			
Average push distance:	1,514.3 LCY/hr			
Unadjusted hourly	1,514.3 LC Y/nr			
production:				
Materials consistency de	scription: Compacted fill or	embankment 0 0		
iviaterials collisistency ut	compacicu illi oi	emoankment 0.3		
Average push	0 %			
gradient:	•			
Average site altitude:	5,600 feet			
Material weight:	2,550 lbs/LCY			
_			<del></del>	
Weight description:	Earth - Dry packed			
ob Condition Correction 1	Factor	Source		

Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.700	(FND-MF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production: 535.61 LCY/hr

Adjusted fleet production: 535.61 LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)
Unit cost: \$0.616/LCY

Total job time: 0.40 Hours
Total job cost: \$131

# **REVEGETATION WORK**

Deserado Mine	ne Permit Action: TR73 Permit/Job#:		: <u>C1981018</u>			
ROJECT IDENTIFIC	ATION					
Task #: 006	State: Col	orado		Abb	reviation:	None
Date: 2/8/2022	County: Rio	Blanco		<del>-</del>	Filename:	C018-006
User: CCW						
Agency or organiz	ation name: DRMS					
ERTILIZING						
Materials						
		Units /		G .	/ # 7 * 4	G
Description		Acre	Unit	Cost	/ Unit	Cost /Acre
				\$		\$
				Tota	al Fertilizer	
					Materials Cost/Acre	\$0.00
					COSUACIE	φυ.υυ
Application						
						Cost /Acre
Description						
						\$
		Tota	l Fertilizer A	nnlication	. Cost/Acro	Φ0.00
		1014	rerunzer A	тррисация	COSUACIE	\$0.00
<u> </u>						
Description					Cost /Acre	
						\$
			Te	otal Tilling	g Cost/Acre	\$0.00
<u>SEEDING</u>						
Sood Mire				Rate –	Seeds	Cost /Acre
Seed Mix				PLS	per SO.	Cust /Acre

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Alkali Sacaton	0.10	3.90	\$2.85
Indian Ricegrass - Nespar	0.40	1.29	\$3.55
Beardless Wheatgrass - Whitmar	0.50	1.63	\$5.86
Bluebunch Wheatgrass - Secar	0.50	1.61	\$5.44
Canby Bluegrass - Canbar	0.20	4.25	\$2.05
Crested Wheatgrass - Nordan	4.00	18.37	\$15.60
Russian Wildrye - Bozoisky	2.00	8.03	\$12.96
Bottlebrush Squirreltail	0.20	0.88	\$3.25
Sandberg Bluegrass - VNS	0.20	4.25	\$1.68

Pubescent Wheatgrass - Greenleaf	1.00	2.07	\$3.65
Sheep Fescue - Covar	0.20	3.12	\$1.22
Slender Wheatgrass - Pryor	2.00	7.30	\$8.50
Milk Vetch, Cicer - Monarch	1.00	3.33	\$8.20
Thickspike Wheatgrass - Critana	1.00	3.54	\$6.88
Western Wheatgrass - Arriba	2.00	5.05	\$13.00
Needlegrass, Green - Lodorm	0.60	2.49	\$7.07
Sagebrush, Mountain or Big	0.10	5.28	\$1.98
Prairie Junegrass	0.20	10.63	\$5.20
Flax, Lewis Blue	0.40	2.65	\$6.60
Saltbush, Four Wing	2.00	2.75	\$25.00
Saltbush, Shadscale	0.50	0.75	\$5.00
Yarrow, White	0.10	6.36	\$4.00
Totals Seed Mix	19.20	99.54	\$149.52

Application

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

# **MULCHING and MISCELLANEOUS**

#### Materials

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

**Application** 

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

### **NURSERY STOCK PLANTING**

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
		<b>Totals</b> 2	Nursery Stoc	ek Cost / Acre	\$0.00

## **JOB TIME AND COST**

No. of Acres:	0.65	Cost /Acre:	\$416.74
Estimated Failure Rate:	50%	Cost /Acre*:	\$416.74
*Selected Replanting Work Items:	SEEDING		
Initial Job Cost: \$270.88			

Reseeding Job Cost:	\$135.44
Total Job Cost:	\$406
Job Hours:	10.00

# **REVEGETATION WORK**

Task description:	Reseed DW-1R		2		D 1.77.1.11	G1001010
Deserado Mine	ne Permit Action: TR73 Permit/Job#:		C1981018			
ROJECT IDEN	TIFICATION					
Task #: 007	State:	Colorado		Abh	reviation: N	None
Date: 2/8/2	County:	Rio Blanco				C018-007
User: CCW	<u> </u>					
Agency or	organization name: DF	RMS				
<b>ERTILIZING</b>						
<b>Iaterials</b>						
Description		Units /	Unit	Cost	/ Unit	Cost /Acre
Description		Acre	Cint		7 CIIIC	
				\$		\$
				Tota	ıl Fertilizer	
					Materials Cost/Acre	\$0.00
					Cost/Acre	φυ.υυ
pplication  Description						Cost /Acre
•						\$
						Ψ
		Total	Fertilizer A	Application	Cost/Acre	\$0.00
TILLING					-	
Description						Cost /Acre
						\$
			T	otal Tilling	g Cost/Acre	\$0.00
<b>EEDING</b>						
				Rate –	G 1	G
Seed Mix				PLS LBS /	Seeds per SQ.	Cost /Acre
Ī				1.03/	FT	

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Alkali Sacaton	0.10	3.90	\$2.85
Indian Ricegrass - Nespar	0.40	1.29	\$3.55
Beardless Wheatgrass - Whitmar	0.50	1.63	\$5.86
Bluebunch Wheatgrass - Secar	0.50	1.61	\$5.44
Canby Bluegrass - Canbar	0.20	4.25	\$2.05
Crested Wheatgrass - Nordan	4.00	18.37	\$15.60
Russian Wildrye - Bozoisky	2.00	8.03	\$12.96
Bottlebrush Squirreltail	0.20	0.88	\$3.25
Sandberg Bluegrass - VNS	0.20	4.25	\$1.68

Pubescent Wheatgrass - Greenleaf	1.00	2.07	\$3.65
Sheep Fescue - Covar	0.20	3.12	\$1.22
Slender Wheatgrass - Pryor	2.00	7.30	\$8.50
Milk Vetch, Cicer - Monarch	1.00	3.33	\$8.20
Thickspike Wheatgrass - Critana	1.00	3.54	\$6.88
Western Wheatgrass - Arriba	2.00	5.05	\$13.00
Needlegrass, Green - Lodorm	0.60	2.49	\$7.07
Sagebrush, Mountain or Big	0.10	5.28	\$1.98
Prairie Junegrass	0.20	10.63	\$5.20
Flax, Lewis Blue	0.40	2.65	\$6.60
Saltbush, Four Wing	2.00	2.75	\$25.00
Saltbush, Shadscale	0.50	0.75	\$5.00
Yarrow, White	0.10	6.36	\$4.00
Totals Seed Mix	19.20	99.54	\$149.52

Application

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

## **MULCHING and MISCELLANEOUS**

#### Materials

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

**Application** 

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

### **NURSERY STOCK PLANTING**

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

## **JOB TIME AND COST**

No. of Acres:	0.21	Cost /Acre:	\$416.74
Estimated Failure Rate:	50%	Cost /Acre*:	\$416.74
*Selected Replanting Work Items:	SEEDING		
Initial Job Cost: \$87.52			

Reseeding Job Cost:	\$43.76
Total Job Cost:	\$131
Job Hours:	10.00