STATE OF COLORADO

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



May 30, 2012

Christy Woodward Denison Mines (USA) Corp. 1050 17th Street, Suite 950 Denver, CO 80265 John W. Hickenlooper Governor

Mike King Executive Director

Loretta E. Piñeda Director

Re: Sunday Mine, Permit No. M-1977-285, Amendment AM-3, Approval of Environmental Protection Plan, and Notice of Financial Warranty Increase.

Dear Ms. Woodward,

On May 21, 2012 the Division of Reclamation, Mining and Safety approved Amendment AM-3 to the Sunday Mine 112d-2 permit, which incorporates the Environmental Protection Plan (EPP) into the permit, as required by Hard Rock/Metal Rule 6.4.21.

The EPP includes requirements for the installation of a PVC ore pad liner. The construction of the ore pad liner must be completed prior to re-commencing any mining activity. The Sunday Mine permit is currently in a status of Temporary Cessation, as approved under Revision TC-2, approved on September 20, 2010. Please be aware that prior to initiating the construction of the groundwater wells or the ore pad liner, you must inform the Division of the intent to place the permit into Active status, and the date of such change.

As part of the approval to incorporate these significant changes into this permit under Amendment AM-3, the amount of financial warranty (bond) was reviewed. The existing amount of financial warranty is \$194,161. The Division's review of the reclamation costs reveals that the current bond amount is insufficient. The preliminary updated reclamation costs were mailed to you previously. This revised estimate includes the atmospheric bulkheads, and the revised total is \$304,184. This is a shortage of \$110,023. The revised reclamation costs are shown in the enclosed packet. You will note the addition of Task 014 and the new total on the Cost Summary.

Please consider this letter to be your Notice of Financial Warranty increase. The additional amount must be provided to the Division, in an approvable format, within 60 days from the date of this letter. The present bond is in the form of a corporate surety, whose amount may be modified by providing a rider to the surety. Please direct all questions or submittals pertaining to the bond to Ms. Barbara Coria in the Division's Denver Office (see address in letterhead, above). You may reach her by phone at 303-866-3567 ext 8148.

Page 1

Christy Woodward/M-1977-285 May 30, 2012 Page 2

Please note that the bond estimate includes all reclamation tasks that are required under the current permit and plans, inclusive of the new EPP requirements. This letter states the amount of bond increase that is required at this time. For future bond reductions to become effective, such as for reasons of performance of portions of the reclamation tasks, a separate bond reduction request must be submitted (see Hard Rock Rule 4.14 and 4.17). The reclamation plan may also be revised for phased bond increases to coincide with phased installation of structures, which may result in a bond reduction.

The Tres Rios Field Office of the Bureau of Land Management (BLM), in Dolores, is currently completing its process of updating the plan of operations to include the groundwater wells and other aspects of the mining plan. In accordance with the MOU between the Division and the BLM, the two agencies have coordinated on the updated permit plans, and the BLM has had opportunity to review the Division's updated reclamation cost estimate. The BLM will inform the Division as to whether it accepts the current estimate, and subsequent adjustment to the bond amount may be made if necessary.

The Division appreciates the diligence and cooperation shown by Denison throughout this amendment process. If you have questions, please contact me at the Division's Durango Field Office: 691 CR 233, Room A-2, Durango, CO 81301; telephone 970-247-5193.

Sincerely,

Bob Oswald

Environmental Protection Specialist

Encl: Bond estimate packet

Bob (knowl)

Ec: Steve Shuey, DRMS, Grand Junction

Barbara Coria, DRMS, Denver

James Blair, BLM, Tres Rios Field Office, Dolores

(c:\12-05 docs\Sunday AM-3 Appr/rco)

COST SUMMARY WORK

Task description:

Cost summary (revised 5/30/12)

Site: Sunday Mine

Permit Action: AM-3

Permit/Job#: __M1977285

PROJECT IDENTIFICATION

Task #: 000 Date: 3/5/2012 State:

Colorado County: San Miguel Abbreviation: Filename: None M285-000

User: RCO

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Demolition of structures, underground or onsite	DEMOLISH			
001	disposal	DEMOLISH	1	0.00	\$39,258.17
002	Portal closure (backfilling)	MINESEAL	d_1	40.00	Ø1 500 21
002	Downhill dozing of waste dump	DOZER	⊣		\$1,500.21
003	Rough grading on top of pad and against cut face	DOZER	1	56.49	\$14,651.33
005	Lateral dozing of dump face	-	1	140.12	\$36,340.70
005		DOZER	1	25.98	\$6,737.47
007	Vent shaft closure S-1	MINESEAL	1	20.00	\$6,635.94
	Vent shaft closure S-2	MINESEAL	1	20.00	\$6,635.94
800	Vent shaft closure S-3	MINESEAL	1	20.00	\$6,635.94
009	Vent shaft closure S-4	MINESEAL	1	20.00	\$6,635.94
010	Vent shaft closure S-7	MINESEAL	1	20.00	\$6,635.94
011	Vent shaft closure S-8	MINESEAL	1	20.00	\$6,635.94
012	Vent shaft closure S-15	MINESEAL	1	20.00	\$6,635.94
013	Vent shaft closure (5 add'l shafts, per AM-2, 2007)	MINESEAL	1	100.00	\$33,179.70
014	Install atmospheric blukheads underground	MINESEAL] 1	48.00	\$4,500.00
015	Rip (older) vent shaft roads	RIPPER	1	1.59	\$425.00
016	Rip new vent shaft pads	RIPPER] 1	1.69	\$451.00
017	Rip new vent shaft roads	RIPPER	1	3.58	\$956.00
018	Rip (older) vent shaft pads	RIPPER	1	1.69	\$451.00
019	Rip portal pad and dump areas	RIPPER	1	8.11	\$2,164.00
020	Grade new vent shaft roads	DOZER	1	2.23	\$578.83
021	Grade (older) vent shaft roads	DOZER	1	1.10	\$285.41
022	Grade (older) vent shaft pads	DOZER	1	1,40	\$362.76
023	Grade new vent shaft pads	DOZER	1	1.40	\$362.76
024	Carry topsoil up to pad for spreading	TRUCK1	1	4.28	\$1,174.54
025	Spread topsoil on pad	DOZER	1	1.37	\$354.53
026	Remove and backfill ore pad liner and gravel	LOADER	1	4.20	\$412.00
027	Remove and backfill very low grade ore	LOADER	1	5.92	\$580.00
028	Revegetate (older) vent shaft pads and vent roads	REVEGE	1	4.00	\$2,524.55
029	Revegetate new vent shaft pads and vent roads	REVEGE	1	6.00	\$4,102.39
030	Revegetate "affected area" at portal pad and dump	REVEGE	1	24.00	\$34,712.54
031	Haul reclamation equipment to and from site	MOBILIZE	1	8.00	\$5,456.98
		1.100111111	1 -		
		SUBTO	TALS:	631.15	\$ \$237,973.45

INDIRECT COSTS

OVERHEAD AND PROFIT:

2.02 Liability insurance: \$4,807.06 Total = Performance bond: 1.05 Total = \$2,498.72 Job superintendent: 150.00 Total = \$8,895.00 Total = Profit: 10.00 \$23,797.35

TOTAL O & P = \$39,998.13

CONTRACT AMOUNT (direct + O & P) = $\sqrt{277,971.58}$

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): 500.00 Total = 500.00

Engineering work and/or contract/bid preparation: 4.25 Total = \$11,813.79

Reclamation management and/or administration: 5.00 \$13,898.58

CONTINGENCY: 0.00 Total = \$0.00

TOTAL INDIRECT COST = \$66,210.50

TOTAL BOND AMOUNT (direct + indirect) = \$304,183.95

DEMOLITION WORK

	Task description:	Demolition of structures, u	nderground or	onsite disposal		
Site:	Sunday Mine	Permit Action:	AM-3	Permit/Job#:	M1977285	

PROJECT IDENTIFICATION

Task #:	_001	State:	Colorado	Abbreviation:	None	
Date:	3/1/2012	County:	San Miguel	Filename:	M285-001	

User: RCO

Agency or organization name: DRMS

UNIT COSTS

Location adjustment: 96.90 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Warehouse/wash bay	44x16x12	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 200 ft. push	4,884.00	CF	\$0.16	\$761.90
Auxiliary bldg.	14x20x10	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 200 ft. push	2,800.00	CF	\$0.16	\$436.80
West shop	40x40x15	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 200 ft. push	24,000.00	CF	\$0.16	\$3,744.00
East shop	41x35x15	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 200 ft. push	21,525.00	CF	\$0.16	\$3,357.90
Attached storage	12x26x10	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 200 ft. push	3,120.00	CF	\$0.16	\$486.72
Attached storage	12x12x10	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 200 ft. push	1,440.00	CF	\$0.16	\$224.64
Office and dry	50x36x15	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 50 ft. push	27,000.00	CF	\$0.15	\$4,104.00
Small items warehouse	28x12x10	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 50 ft. push	3,360.00	CF	\$0.15	\$510.72
Compressor bldg.	20x16x12	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 50 ft. push	3,840.00	CF	\$0.15	\$583.68
Compressor bldg.	20x40x15	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 50 ft. push	12,000.00	CF	\$0.15	\$1,824.00
Warehouse/wash bay slab	44x16	Demo. and on-site disposal in existing pit, 4 in. thick - Max. 200 ft. push	704.00	SF	\$1.05	\$739.20

	T 40 40		-			
Warehouse/wash bay ext. slab	19x19	Demo. and on-site disposal in existing pit,	361.00	SF	\$1.05	\$379.05
		4 in. thick - Max. 200 ft. push				
Auxiliary bldg. slab	14x20	Demo. and on-site disposal in existing pit,	280.00	SF	\$1.05	\$294.00
		4 in. thick - Max. 200 ft.				
West shop slab	40x40	Demo. and on-site	1,600.00	SF	\$1.05	\$1,680.00
		disposal in existing pit, 4 in. thick - Max. 200 ft. push		į		
West shop ext. (W) slab	36x36	Demo. and on-site disposal in existing pit,	1,296.00	SF	\$1.05	\$1,360.80
3140		4 in. thick - Max. 200 ft.				
West shop sidewalk	4x36	Demo. and on-site	144.00	SF	\$1.05	\$151.20
		disposal in existing pit, 4 in. thick - Max. 200 ft. push				
West shop ext. (S)	12x40	Demo. and on-site	480.00	SF	\$1.05	\$504.00
slab		disposal in existing pit, 4 in. thick - Max. 200 ft. push				
East shop slab	41x35	Demo. and on-site	1,435.00	SF	\$1.05	\$1,506.75
		disposal in existing pit, 4 in. thick - Max. 200 ft.				
Attached storage slab	12x26	push Demo. and on-site	312.00	SF	\$1.05	\$327.60
Trimonou storage slato	12.20	disposal in existing pit, 4 in. thick - Max. 200 ft.	312.00	Sr	\$1.03	\$327.00
Attached storage slab	12x12	Demo. and on-site	144.00	SF	\$1.05	\$151.20
		disposal in existing pit, 4 in. thick - Max. 200 ft. push				
East shop ext. (W)	35x13	Demo. and on-site	455.00	SF	\$1.05	\$477.75
slab		disposal in existing pit, 4 in. thick - Max. 200 ft. push				
Office and dry slab	50x36	Demo. and on-site	1,800.00	SF	\$1.05	\$1,890.00
		disposal in existing pit, 4 in. thick - Max. 200 ft. push				
Office and dry	90x4	Demo. and on-site	360.00	SF	\$1.04	\$374.40
sidewalk		disposal in existing pit, 4 in. thick - Max. 50 ft. push				
Small items	28x12	Demo. and on-site	336.00	SF	\$1.04	\$349.44
warehouse slab		disposal in existing pit, 4 in. thick - Max. 50 ft. push				
Compressor bldg.	20x16	Demo. and on-site	320.00	SF	\$1.04	\$332.80
slab		disposal in existing pit, 4 in. thick - Max. 50 ft. push				
Compressor bldg.	20x40	Demo. and on-site	800.00	SF	\$1.04	\$832.00
slab		disposal in existing pit, 4 in. thick - Max. 50 ft.				

		push				
Denison-owned powerlines	3800 LF single poles	Powerline or telephone line, overhead, wood - Single pole	3,800.00	LF	\$2.60	\$9,872.40
Misc debris/materials	50x60x10 mass	Push demolished materials/rubble/debris into pit - Max. 200 ft. push	1,111.00	CY	\$0.69	\$763.26
Denison-owned non- PCB transformers	20x20x48 inch	Hazardous waste removal - Drum solids/liquids, per drum, (1-6 drum job)	6.00	DRUM	\$415.65	\$2,493.90

				Total Cost	
		Subtotal		(adjusted for	
Job Hours: _	0.00	(unadjusted):	\$40,514.11	location):	\$39,258.17

	rask description:	Portal closu	re (backinning)					
Site:	Sunday Mine		Permit Action:	AM-3	Permit/	Job#:	M1977285	
<u>PROJE</u>	CCT IDENTIFICATIO	<u>N</u>						
Task #		State:	Colorado		Abbreviation:	_Non		
Date User		County:	San Miguel		Filename:	_M28	35-002	
OSCI	Agency or organiza	tion name: _ I	ORMS					

UNIT COSTS

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Portal, backfill debris in	10x10	Adit closure - backfilling	600.00	CY	\$2.11	\$1,266.00
adit		(per cu. yd.)				
Portal, backfill	10x10	Adit closure - backfilling	111.00	CY	\$2.11	\$234.21
overburden/earth		(per cu. yd.)				

Job Hours:	40.00	Total Cost:	\$1,500.21

Note: Underground placement of demolition debris performed by underground loader. Earthen backfill up to 30 feet deep performed by underground loader. Surface of earthen backfill contoured by dozer (separate task).

Task description:	Dov	vnhill dozing	of waste dur	np		
: Sunday Mine		Pen	mit Action: _	AM-3	Permit/Job#:	M197728
PROJECT IDE	NTIFICAT	ION				
Task #: 003	2112210111	State:	Colorado		Abbreviation:	None
Date: 3/2/2	2012	County:	San Miguel		Filename:	M285-003
User: RCC		county.			riichanic.	W1285-005
Agency o	or organization	n name: _DR	RMS			
HOURLY EQU	TPMENT C	OST				
Basic Machine:						
Horsepower:	405			_		
Blade Type:	Semi-Univ	versal		_		
Attachment:	3-shank rij	pper	·	_		
Shift Basis:	1 per day			_		
Data Source:	(CRG)			_		
Cost Breakdown:						
Ownership Cost/I	Hour	\$80.19		Utilization %		
Operating Cost/I		\$140.68		NA 100		
Ripper op. Cost/I		\$0.00	· · · · · · · · · · · · · · · · · · ·	0		
Operator Cost/I		\$38.49	-		<u> </u>	
Operator Cost/1	10ui	<u> Ф30.49</u>		NA		
Total Fleet Cost/Ho	our: <u>\$259</u>		· -			
MATERIAL OU	J ANTITIES	8				
MATERIAL QU		<u> </u>				
Initial Volume:	31,500	<u>S</u>	_			
Initial Volume: Swell factor:	31,500 1.335		_			
Initial Volume: Swell factor: Loose volume:	31,500 1.335 42,053 LCY	7				
Initial Volume: Swell factor: Loose volume: Source of estimated	31,500 1.335 42,053 LCY	/ Division o		n, Mining & Safety		
Initial Volume: Swell factor: Loose volume:	31,500 1.335 42,053 LCY	/ Division o		n, Mining & Safety		
Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated	31,500 1.335 42,053 LCY d volume: d swell factor:	/ Division o		n, Mining & Safety		
Initial Volume: Swell factor: Loose volume: Source of estimated	31,500 1.335 42,053 LCY d volume: d swell factor:	/ Division o		n, Mining & Safety		
Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated	31,500 1.335 42,053 LCY d volume: d swell factor:	Division of Cat Handl		n, Mining & Safety		
Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push dista	31,500 1.335 42,053 LCY d volume: d swell factor: DUCTION nce:	Division of Cat Handle	book	n, Mining & Safety		
Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated	31,500 1.335 42,053 LCY d volume: d swell factor: DUCTION nce:	Division of Cat Handl	book	n, Mining & Safety		
Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push dista	31,500 1.335 42,053 LCY d volume: d swell factor: DUCTION nce: production:	Division of Cat Handle 120 feet 1,093.1 LCY	book			
Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push dista Unadjusted hourly Materials consisten	31,500 1.335 42,053 LCY d volume: d swell factor: DUCTION nce: production:	Division of Cat Handle 120 feet 1,093.1 LCY	book Y/hr			
Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push dista Unadjusted hourly Materials consisten Average push gradi	31,500 1.335 42,053 LCY d volume: d swell factor: DUCTION nce: production: acy description ient:25 %	Division of Cat Handle 120 feet 1,093.1 LCY	book Y/hr			
Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROI Average push dista Unadjusted hourly	31,500 1.335 42,053 LCY d volume: d swell factor: DUCTION nce: production: acy description ient:25 %	Division of Cat Handle 120 feet 1,093.1 LCY	book Y/hr			
Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROPARTIES Average push dista Unadjusted hourly Materials consistent Average push gradia Average site altitude	31,500 1.335 42,053 LCY d volume: d swell factor: DUCTION nce: production: acy description ient: de: 5,800	Division of Cat Handle 120 feet 1,093.1 LCY	book Y/hr			
Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push dista Unadjusted hourly Materials consisten Average push gradia Average site altitud Material weight:	31,500 1.335 42,053 LCY d volume: d swell factor: DUCTION nce: production: ccy description ient:	Division of Cat Handle 120 feet 1,093.1 LCY 120 feet 1,093.1 LCY 120 feet 1,093.1 LCY	book Y/hr			
Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push dista Unadjusted hourly Materials consisten Average push gradi Average site altitud Material weight: Weight description	31,500 1.335 42,053 LCY d volume: d swell factor: DUCTION nce: production: acy description ient:	Division of Cat Handle 120 feet 1,093.1 LCY 1: Consoli 6 0 feet O lbs/LCY Stone	book Y/hr	le 1.0		
Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push dista Unadjusted hourly Materials consisten Average push gradi Average site altitud Material weight: Weight description Job Condition Corr	31,500 1.335 42,053 LCY d volume: d swell factor: DUCTION nce: production: acy description ient:	Division of Cat Handle 120 feet 1,093.1 LCY 1: Consoli	book Y/hr	le 1.0		
Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push dista Unadjusted hourly Materials consistent Average push gradit Average site altitud Material weight: Weight description Job Condition Corr	31,500 1.335 42,053 LCY d volume: d swell factor: DUCTION nce: production: acy description ient:	Division of Cat Handle 120 feet 1,093.1 LCY 120 feet 1,093.1 LCY 120 feet 1,093.1 LCY 120 feet 1,093.1 LCY 120 feet 1,093.1 LCY	book Y/hr dated stockpi	le 1.0		

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.516	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.6810

Adjusted unit production: 744.40 LCY/hr

Adjusted fleet production: 744.4 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.348/LCY

Total job time: 56.49 Hours
Total job cost: \$14,651.33

BULLDOZER WORK

Task description:	Rough grading on top of pac	d and against cut face	_	
e: Sunday Mine	Permit Action:	AM-3	Permit/Job#:	M1977285
PROJECT IDENTIFIC	CATION CATION			
Task #: 004	State: Colorado		Abbreviation:	None
Date: 3/2/2012	County: San Migue	el	Filename:	M285-004
User: RCO			_	111200 001
Agency or organiz	ration name: DRMS			
HOURLY EQUIPMEN	T COST			
•	9T - 9SU			
Horsepower: 405	<u> </u>			
	Universal	_		
<u> </u>	nk ripper	_		
				
Shift Basis: 1 per Data Source: (CRG		<u> </u>		
)			
Cost Breakdown:		1		
		<u>Utilization %</u>		
Ownership Cost/Hour:	\$80.19	NA		
Operating Cost/Hour:	\$140.68	100		
Ripper op. Cost/Hour:	\$0.00	0		
Operator Cost/Hour:	\$38.49	NA		
Total unit Cost/Hour:	P250.25			
	\$259.35			
Total Fleet Cost/Hour:	\$259.35			
MATERIAL QUANTIT	MES .			
Initial Volume: 29,800				
Swell factor: 1,335				
Loose volume: 39,783	ICV			
Loose volume: 39,783	LCI			
Source of estimated volume	: Division of Reclamati	ion, Mining & Safety		
Source of estimated swell fa	ctor: Cat Handbook			
HOURLY PRODUCTION	<u>ON</u>			
Average push distance:	200 feet			
Unadjusted hourly production		 _		
Chadjusted hourry products	л. <u>700.0 LC 17Ш</u>			
Materials consistency descri	ption: Consolidated stock	pile 1.0		
Average push gradient:	5 %			
<u> </u>	5,800 feet			
	7,500 1001			
Material weight:	2,550 lbs/LCY		=5	
Weight description:	Sandstone			
Job Condition Correction Fa	ictor	Source		
Operator Ski		(AVG.)		
Material consistence		(CAT HB)		
Dozing metho		(GEN.)		
20200 1101110		(())		

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4056

Adjusted unit production: 283.92 LCY/hr
Adjusted fleet production: 283.92 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.913/LCY

Total job time: 140.12 Hours
Total job cost: \$36,340.70

	<u>BULLDOZ</u>	ER WORK		
Task description:	Lateral dozing of dump face			
Site: Sunday Mine	Permit Action:	AM-3	Permit/Job#:	M1977285
PROJECT IDENTI	FICATION			
Task #: 005	State: Colorado		Abbreviation:	None
Date: 3/2/2012	County: San Migue	1	Filename:	M285-005
User: RCO				
Agency or org	anization name:DRMS			
HOURLY EQUIPM	ENT COST			
Basic Machine: Ca	at D9T - 9SU			
Horsepower: 40		_		
· · · · · · · · · · · · · · · · · · ·	emi-Universal			
	shank ripper	_		
	per day CRG)	_		
	жо)			
Cost Breakdown:	1	TT/11 / 0/		
Ownership Cost/Hour:	\$80.19	<u>Utilization %</u> NA		
Operating Cost/Hour:		100		
Ripper op. Cost/Hour:		0		
Operator Cost/Hour:		NA		
T-4-1	4250.25			
Total unit Cost/Hour: Total Fleet Cost/Hour:	\$259.35 \$259.35			
Total Floor Cost/Hour.	\$437.33			
MATERIAL QUAN	<u>TITIES</u>			
Initial Volume: 9,7	50			
Swell factor: 1.3				
Loose volume: 13,	016 LCY			
Source of estimated volu	ume: Division of Reclamation	on Mining & Safety		
Source of estimated swe		on, willing & Safety		
000000000000000000000000000000000000000				
HOURLY PRODUC	<u>'TION</u>			
Average push distance:	150 feet			
Unadjusted hourly produ				
Materials consistency de	escription: Consolidated stockp	ile 1.0		
·	*			
Average push gradient:	-10 %			
Average site altitude:	5,800 feet			
Material weight:	2,550 lbs/LCY			
Weight description:	Sandstone			

0.750 1.000 1.000

Job Condition Correction Factor
Operator Skill:
Material consistency:

Dozing method:

Source (AVG.) (CAT HB)

(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Task # 005

Net correction: 0.5503

Adjusted unit production: 501.05 LCY/hr
Adjusted fleet production: 501.05 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.518/LCY

Total job time: 25.98 Hours
Total job cost: \$6,737.47

	rask description:	vent shatt clo	sure S-1				
Site:	Sunday Mine	P	ermit Action:	AM-3	Permit/.	Job#: <u>M1977285</u>	
<u>PROJE</u>	CCT IDENTIFICATION	<u>N</u>					
Task #			Colorado		Abbreviation:	None	
Date	: 3/2/2012	County:	San Miguel		Filename:	M285-006	
User	: RCO						
	Agency or organiza	tion name: Di	RMS				

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Remove steel fan/diffuser	6x6x4	Haul to portal for burial	5.00	CY	\$16.00	\$80.00
Break concrete collar, push down shaft	12x12x1 ft	Concrete, reinforced	85.00	SF	\$3.50	\$297.50
Cut off steel casing	6 ft diam x 3 ft H	Welding truck	1.00	EA	\$945.00	\$945.00
Weld on steel plate	6'x6'x0.5"	Welding truck	1.00	EA	\$315.00	\$315.00
Frame/reinf/pour concrete cap	6'x6'x6"	Shaft closure - concrete cap, poured-in-place (per sq. ft.)	36.00	SF	\$138.29	\$4,978.44
Set location monument	NA	Install during surface backfill	1.00	EA	\$20.00	\$20.00

Job Hours:	20.00	Total Cost:	\$6,635.94

	lask description:	Vent shaft cl	osure S-2				
Site:	Sunday Mine		Permit Action:	AM-3	Permit/.	Tob#: <u>M1977285</u>	_
<u>PROJE</u>	CCT IDENTIFICATION	<u>N</u>					
Task #	·	State:	Colorado		Abbreviation:	None	
Date	:3/2/2012	County:	San Miguel		Filename:	M285-007	
User	: _RCO						
	Agency or organization	tion name:I	ORMS				

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Remove steel fan/diffuser	6x6x4	Haul to portal for burial	5.00	CY	\$16.00	\$80.00
Break concrete collar, push down shaft	12x12x1 ft	Concrete, reinforced	85.00	SF	\$3.50	\$297.50
Cut off steel casing	6 ft diam x 3 ft H	Welding truck	1.00	EA	\$945.00	\$945.00
Weld on steel plate	6'x6'x0.5"	Welding truck	1.00	EA	\$315.00	\$315.00
Frame/reinf/pour concrete cap	6'x6'x6"	Shaft closure - concrete cap, poured-in-place (per sq. ft.)	36.00	SF	\$138.29	\$4,978.44
Set location monument	NA	Install during surface backfill	1.00	EA	\$20.00	\$20.00

Job Hours:	20.00	Total Cost:	\$6,635.94

	Task description:	Vent shaft	closure S-3				
Site:	Sunday Mine		Permit Action:	AM-3	Permit/.	Tob#: <u>M1977285</u>	
PROJE	CCT IDENTIFICATION	<u>1</u>					
Task #	: _008	State:	Colorado		Abbreviation:	None	
Date	: 3/2/2012	County:	San Miguel		Filename:	M285-008	
User	: RCO						
	Agency or organizat	ion name: _	DRMS				

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Remove steel fan/diffuser	бхбх4	Haul to portal for burial	5.00	CY	\$16.00	\$80.00
Break concrete collar, push down shaft	12x12x1 ft	Concrete, reinforced	85.00	SF	\$3.50	\$297.50
Cut off steel casing	6 ft diam x 3 ft H	Welding truck	1.00	EA	\$945.00	\$945.00
Weld on steel plate	6'x6'x0.5"	Welding truck	1.00	EA	\$315.00	\$315.00
Frame/reinf/pour concrete cap	6'x6'x6"	Shaft closure - concrete cap, poured-in-place (per sq. ft.)	36.00	SF	\$138.29	\$4,978.44
Set location monument	NA	Install during surface backfill	1.00	EA	\$20.00	\$20.00

Job Hours: 🔙	20.00	Total Cost:	\$6,635,94

-	Task description:	Vent shaft o	closure S-4			
Site:	Sunday Mine		Permit Action:	AM-3	Permit/	Job#: <u>M1977285</u>
PROJE	CT IDENTIFICATION	<u>1</u>				
Task #:		State:	Colorado	<u> </u>	Abbreviation:	None
Date: User:		County:	San Miguel	-	Filename:	M285-009

UNIT COSTS

Agency or organization name: DRMS

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Remove steel fan/diffuser	6x6x4	Haul to portal for burial	5.00	CY	\$16.00	\$80.00
Break concrete collar, push down shaft	12x12x1 ft	Concrete, reinforced	85.00	SF	\$3.50	\$297.50
Cut off steel casing	6 ft diam x 3 ft H	Welding truck	1.00	EA	\$945.00	\$945.00
Weld on steel plate	6'x6'x0.5"	Welding truck	1.00	EA	\$315.00	\$315.00
Frame/reinf/pour concrete cap	6'x6'x6"	Shaft closure - concrete cap, poured-in-place (per sq. ft.)	36.00	SF	\$138.29	\$4,978.44
Set location monument	NA	Install during surface backfill	1.00	EA	\$20.00	\$20.00

Job Hours:	20.00	Total Cost:	\$6,635.94
			40,000.

	Task description:	Vent shaft closure S-7			
Site:	Sunday Mine	Permit Action:	AM-3	Permit/Jo	ob#: <u>M1977285</u>
PROJE	CT IDENTIFICATIO	<u>N</u>			
Task#	: 010	State: Colorado		Abbreviation:	None
Date		County: San Miguel		Filename:	M285-010
I Iser	· RCO				

Agency or organization name: DRMS

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Remove steel fan/diffuser	6x6x4	Haul to portal for burial	5.00	CY	\$16.00	\$80.00
Break concrete collar, push down shaft	12x12x1 ft	Concrete, reinforced	85.00	SF	\$3.50	\$297.50
Cut off steel casing	6 ft diam x 3 ft H	Welding truck	1.00	EA	\$945.00	\$945.00
Weld on steel plate	6'x6'x0.5"	Welding truck	1.00	EA	\$315.00	\$315.00
Frame/reinf/pour concrete cap	6'x6'x6"	Shaft closure - concrete cap, poured-in-place (per sq. ft.)	36.00	SF	\$138.29	\$4,978.44
Set location monument	NA	Install during surface backfill	1.00	EA	\$20.00	\$20.00

Job Hours: 20.00	Total Cost:	\$6,635.94

	Task description:	Vent shaft	closure S-8			
Site:	Sunday Mine		Permit Action:	AM-3	Permit/	ob#: <u>M1977285</u>
<u>PROJE</u>	CT IDENTIFICATION	<u> </u>				
Task #	: _011	State:	Colorado		Abbreviation:	None
Date	: 3/2/2012	County:	San Miguel		Filename:	M285-011
User	: RCO	-				

UNIT COSTS

Agency or organization name: __DRMS

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Remove steel fan/diffuser	6x6x4	Haul to portal for burial	5.00	CY	\$16.00	\$80.00
Break concrete collar, push down shaft	12x12x1 ft	Concrete, reinforced	85.00	SF	\$3.50	\$297.50
Cut off steel casing	6 ft diam x 3 ft H	Welding truck	1.00	EA	\$945.00	\$945.00
Weld on steel plate	6'x6'x0.5"	Welding truck	1.00 .	EA	\$315.00	\$315.00
Frame/reinf/pour concrete cap	6'x6'x6"	Shaft closure - concrete cap, poured-in-place (per sq. ft.)	36.00	SF	\$138.29	\$4,978.44
Set location monument	NA	Install during surface backfill	1.00	EA	\$20.00	\$20.00

Job Hours:	20.00	Total Cost:	\$6,635.94
		<u></u>	+-,

T	ask description:	Vent shaft closure S-15			
Site: _	Sunday Mine	Permit Action:	AM-3	Permit/J	ob#: <u>M1977285</u>
PROJEC	T IDENTIFICATIO	<u>N</u>			
Task #: Date: User:	012 3/2/2012 RCO	State: Colorado County: San Miguel		Abbreviation: Filename:	None M285-012
	Agency or organizat	tion name: DRMS			

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Remove steel fan/diffuser	6x6x4	Haul to portal for burial	5.00	CY	\$16.00	\$80.00
Break concrete collar, push down shaft	12x12x1 ft	Concrete, reinforced	85.00	SF	\$3.50	\$297.50
Cut off steel casing	6 ft diam x 3 ft H	Welding truck	1.00	EA	\$945.00	\$945.00
Weld on steel plate	6'x6'x0.5"	Welding truck	1.00	EA	\$315.00	\$315.00
Frame/reinf/pour concrete cap	6'x6'x6"	Shaft closure - concrete cap, poured-in-place (per sq. ft.)	36.00	SF	\$138.29	\$4,978.44
Set location monument	NA	Install during surface backfill	1.00	EA	\$20.00	\$20.00

Job Hours:	20.00	Total Cost:	\$6,635.94

	Task description:	Vent shaft	closure (5 add'l	shafts, per AN	<u>(I-2, 2007)</u>	<u>.</u>	
Site:	Sunday Mine		Permit Action:	AM-3	Permit/.	Job#: <u>M1977285</u>	
PROJE	CCT IDENTIFICATION	<u>1</u>					
Task #	: _013	State:	Colorado		_ Abbreviation:	None	
Date	: 3/2/2012	County:	San Miguel	· .	Filename:	M285-013	
User	: RCO						_
	Agency or organizat	ion name:	DRMS				

UNIT COSTS

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Remove steel fan/diffuser	6x6x4	Haul to portal for burial	25.00	CY	\$16.00	\$400.00
Break concrete collar, push down shaft	12x12x1 ft	Concrete, reinforced	425.00	SF	\$3.50	\$1,487.50
Cut off steel casing	6 ft diam x 3 ft H	Welding truck	5.00	EA	\$945.00	\$4,725.00
Weld on steel plate	6'x6'x0.5"	Welding truck	5.00	ĒA	\$315.00	\$1,575.00
Frame/reinf/pour concrete cap	6'x6'x6"	Shaft closure - concrete cap, poured-in-place (per sq. ft.)	180.00	SF	\$138.29	\$24,892.20
Set location monument	NA	Install during surface backfill	5.00	EA	\$20.00	\$100.00

Job Hours: 100.00	Total Cost:	\$33,179.70
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Note: These five shafts were approved under AM-2 in 2007 (though no individual shaft numbers are shown here). Assumption is made that all are approx 6-ft diam, with concrete collars and steel fan housings to be removed, steel casings to be cut off, and steel plate plus concrete caps to be installed for closure. The dirtwork involved with cutting the casings and final backfilling is included in the tasks.

,	Task description:	Install atm	ospheric bulkhe	ads underground	<u> </u>			_
Site:	Sunday Mine		Permit Action:	AM-3	Permit/.	Job#: _	M1977285	
PROJE	<u>CT IDENTIFICATION</u>	<u>v</u>						
Task #:		State:	Colorado		Abbreviation:	None	;	
Date:	5/30/2012	County:	San Miguel		Filename:	M28:	5-014	
User:	RCO							
	Agency or organizat	ion name:	DRMS					

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Underground workings	12x15	PUF block wall, non- backed	3.00	EA	\$1,500.00	\$4,500.00

Job Hours:	48.00	Total Cost:	\$4,500.00
			ΨT3200.00

	Task description:	Rip (older) vent shaft ro	ads		
Site	: Sunday Mine	Permit Actio	on: <u>AM-3</u>	Permit/Job#	#: <u>M1977285</u>
	PROJECT IDEN	TIFICATION			
	Task #: 015	State: Colora	ıdo	Abbreviation:	None
	Date: 3/2/20			Filename:	M285-015
	User: RCO				
	Agency or	organization name: DRMS			
	HOURLY EQUI	PMENT COST			
	Basic Ma	chine: Cat D9T - 9SU		Horsepower:	405
	Ripper Attach				per day
					CRG)
	Cost Breakdown:				
			τ	Itilization %	
	(Ownership Cost/Hour:	\$80.19	NA	
			\$140.68	100	
	Ripper	Operating Cost/Hour:	\$7.17	100	
			\$38.49	NA	
			\$266.52		
	7	Total Fleet Cost/Hour:	\$266.52		
	MATERIAL QU	<u>ANTITIES</u>	Selected estimating m	ethod: Area	
	Alternate Methods:				
Seismic:	NA	Bank Volum	e: NA	BCY	NA
Area:	1.18	acres Rip Depth (ft		Volume: 1,904	BCY or CCY
1200				1,701	Berucer
	5	ource of estimated quantity: Per	mit file		
	HOURLY PROD	<u>UCTION</u>			
	Seismic:				
		Seismic Velocity:	NA	feet/second	
	A ****	- -		 .	
	Area:	Average Ripping Depth:	2.00	mph	
		Average Ripping Width:	7.67	degrees	
		Average Ripping Length:	500.00	feet	
		Average Dozer Speed:	88.00	feet	
		Average Maneuver Time:	0.25	feet	
		Production per unit area:	0.891	acres/hour	
	Job Condition Corre	ction Factors			
	Unadj	usted Hourly Unit Production:	0.891	Acres/hr	
		Site Altitude:	7,200	feet	
		Altitude Adj:	1.00	(CAT HB)	
		Job Efficiency:	0.83	(1 shift/day)	
		Net Correction:	0.83	multiplier	
		Adjusted Hourly Unit Producti	on: 0.74	Acres/hr	
		Adjusted Hourly Fleet Producti		Acres/hr	
	JOB TIME AND	COST			
	Fleet size:	1 Grader(s)	Total job time:	1.60	Hours
	Unit cost:	6360.588 Per acre	Total job cost:	\$425.00	

	Task description:	Rip new vent shaft pads								
Site	Sunday Mine	Permit Action	n: <u>AM-3</u>	Permit/Job#:	M1977285					
	PROJECT IDENTIF	<u>ICATION</u>								
	Task #: 016	State: Colorad	.0	Abbreviation:	None					
	Date: 3/2/2012	County: San Mig		Filename:	M285-016					
	User: RCO									
	Agency or organization name: DRMS									
	HOURLY EQUIPMI	ENT COST								
	Basic Machine	e: Cat D9T - 9SU]	Horsepower:	405					
	Ripper Attachmen	t: 3-Shank Ripper		Shift Basis: 1 p	er day					
				Data Source: (C	CRG)					
	Cost Breakdown:									
	0	1: 0 ./77		Itilization %						
			80.19	NA						
			140.68	100						
		-	37.17 38.49	100 NA						
	-		266.52	<u>NA</u>						
			266.52							
	MATERIAL QUANT	<u>.111ES</u> So	elected estimating m	ethod: Area						
	Alternate Methods:									
Seismic:	NA	Bank Volume:	_NA		NA					
Area:	ac	res Rip Depth (ft):	1.00	Volume: 2,017	BCY or CC					
	Source of estimated quantity: AM-2 (approved in 2007)									
	HOURLY PRODUCTION									
	Seismic:									
		Seismic Velocity:	NA	feet/second						
	Area:									
	111111	Average Ripping Depth:	2.00	mph						
		Average Ripping Width:	7.67	degrees						
	,	Average Ripping Length:	500.00	feet						
		Average Dozer Speed:	88.00	feet						
		Average Maneuver Time:	0.25	feet						
		Production per unit area:	0.891	acres/hour						
:	Job Condition Correction	Factors								
	Unadjusted	Hourly Unit Production:	0.891	Acres/hr						
		Site Altitude:	7,200	feet						
		Altitude Adj:	1.00	(CAT HB)						
		Job Efficiency:	0.83	(1 shift/day)						
		Net Correction:	0.83	multiplier						
	A	djusted Hourly Unit Production	ı: 0.74	Acres/hr						
		djusted Hourly Fleet Production		Acres/hr						
:	JOB TIME AND CO	<u>8T</u>								
	Fleet size: 1	Grader(s)	Total job time:	1.69	Hours					
	Unit cost: \$360.	588 Per acre	Total job cost:	\$451.00						

	Task description	Rip new vent shaft roads							
Site	: Sunday Mine	Permit Actio	on: AM-3	Permit/Job#:	M1977285				
	PROJECT ID	ENTIFICATION							
	Task #: 01	7 State: Colora	do	Abbreviation: None					
		2/2012 County: San M		Filename:	M285-017				
	User: RC								
	Agency	or organization name: _DRMS							
	HOURLY EQ	UIPMENT COST	-						
		Machine: Cat D9T - 9SU		Horsepower: 4	105				
	Ripper Att				er day				
					RG)				
	Cost Breakdown	:							
		•	1	Utilization %					
			\$80.19	NA NA					
			3140.68	100					
	Ripj	per Operating Cost/Hour:	\$7.17	100					
			\$38.49	NA					
		Total Unit Cost/Hour:	5266.52						
		Total Fleet Cost/Hour: \$266.52							
	MATERIAL (<u>DUANTITIES</u>	Selected estimating n	nethod: Area					
	Alternate Method	<u>ls:</u>							
Seismic:	NA	Bank Volume	:: NA	BCY	NΑ				
Area:	2.65	acres Rip Depth (ft)		Volume: 4,275	BCY or CC				
	Source of estimated quantity: Amendment (approved in AM-2, 2007)								
	HOURLY PRO	<u>DDUCTION</u>							
	Seismic:								
		Seismic Velocity:	NA	feet/second					
	Area:								
		Average Ripping Depth:	2.00	mph					
		Average Ripping Width:	7.67	degrees					
		Average Ripping Length:	500.00	feet					
		Average Dozer Speed:	88.00	feet					
		Average Maneuver Time:	0.25	feet					
		Production per unit area:	0.891	acres/hour					
	Job Condition Co	rrection Factors							
	Un	adjusted Hourly Unit Production:	0.891	Acres/hr					
		Site Altitude:	7,200	feet					
		Altitude Adj:	1.00	(CAT HB)					
		Job Efficiency:	0.83	(1 shift/day)					
		Net Correction:	0.83	multiplier					
		Adjusted Hourly Unit Production	on: 0.74	Acres/hr					
		Adjusted Hourly Fleet Production		Acres/hr					
	JOB TIME AN	D COST							
	Fleet size:	1 Grader(s)	Total job time:	3.59	Hours				
	_		•						
	Unit cost:	\$360.588 Per acre	Total job cos t:	<u>\$956.00</u>					

	Task description	n: <u>Rip (</u>	older) vent shaft pads						
Site	: Sunday Mine	e	Permit Action:	AM-3	Permit/Job#	: M1977285			
	PROJECT ID	ENTIFICATI	<u>ON</u>						
	Task #: _ 01	18	State: Colorado	_	Abbreviation:	None			
		2/2012	County: San Migu	el	Filename:	M285-018			
	User: R	CO							
	Agenc	y or organization	name: DRMS						
	HOURLY EQ	DUIPMENT CO	<u>OST</u>						
	Basic	Machine: Cat	D9T - 9SU		Horsepower:	405			
	Ripper At	ttachment: 3-S	hank Ripper		Shift Basis: 1	per day			
					Data Source: (CRG)			
	Cost Breakdown	<u>ı:</u>							
		O	-4/TI		Itilization %				
		Ownership Co Operating Co		0.19	NA 100				
	Rip	oper Operating Co		1.17	100				
	1	Operator Co		8.49	NA				
		Total Unit Co	st/Hour: \$26	6.52					
		Total Fleet Co	ost/Hour: \$26	6.52					
	MATERIAL (<u>QUANTITIES</u>	Sei	ected estimating m	ethod: Area				
	Alternate Metho	ds:		Ü					
Seismic:	NA NA		Bank Volume:	NA	BCY	NA			
Area:	1.25	acres	Rip Depth (ft):	1.00	Volume: 2,017	BCY or CCY			
		Source of estin		t file (7 yent shoft m					
	Source of estimated quantity: Permit file (7 vent shaft pads) HOURLY PRODUCTION								
		ODUCTION							
	Seismic:	c	Saiamia Valaaituu	NT A	£+/1				
			Seismic Velocity:	NA	feet/second				
:	Area:		70		_				
			Ripping Depth:	2.00	mph				
			e Ripping Width: Ripping Length:	7.67 500.00	degrees feet				
			ge Dozer Speed:	88.00	feet				
			Maneuver Time:	0.25	feet				
		_	ion per unit area:	0.891	acres/hour				
	Job Condition Co	orrection Factors							
	Ur	adjusted Hourly	Unit Production:	0.891	Acres/hr				
			Site Altitude:	7,200	feet				
			Altitude Adj:	1.00	(CAT HB)				
			Job Efficiency:	0.83	(1 shift/day)				
			Net Correction:	0.83	multiplier				
		Adjusted l	Hourly Unit Production:	0.74	Acres/hr				
		_	Iourly Fleet Production:	0.74	Acres/hr				
•	JOB TIME AN	ND COST							
•	Fleet size:	1	Grader(s)	Total job time:	1.69	Hours			
	_	\$2 <i>C</i> A 500	.,	•					
	Unit cost:	\$360.588	Per acre	Total job cost:	<u>\$4</u> 51.00				

	Task description	n: Rip por	tal pad and dump ar	eas						
Site	: Sunday Min	e	Permit Action:	AM-3	Permit/Job#	: M1977285				
	PROJECT II	<u>DENTIFICATION</u>								
	Task #: 01	19	State: Colorado		Abbreviation:	None				
			County: San Migue	el	Filename:	M285-019				
		CO				111200 013				
	Agenc	y or organization nar	ne: DRMS							
	HOURLY EC	UIPMENT COST	<u>C</u>							
	Basic	Machine: Cat D9	T - 9SU		Horsepower:	405				
	Ripper A		k Ripper			per day				
						CRG)				
	Cost Breakdown	<u>n:</u>								
		0 1: 0 .//	7		Utilization %					
		Ownership Cost/I			NA 100					
	n:	Operating Cost/I			100					
	KIŢ	oper Operating Cost/I Operator Cost/I			100 NA					
		Total Unit Cost/I			NA					
										
		Total Fleet Cost/Hour: \$266.52								
		<u>QUANTITIES</u>	Sele	ected estimating n	nethod: Area					
	Alternate Metho	o <u>ds:</u>								
Seismic:	NA		Bank Volume:	NA	BCY	NA				
Area:	6.00	acres	Rip Depth (ft):	1.00	Volume: 9,680	BCY or CO				
	Source of estimated quantity: Permit file									
	HOURLY PRODUCTION									
	Seismic:									
	<u>Belsime.</u>	Seis	mic Velocity:	NA	feet/second					
	Area:									
	211041	Average Ri	pping Depth:	2.00	mph					
		_	pping Width:	7.67	degrees					
			ping Length:	500.00	feet					
		Average	Dozer Speed:	88.00	feet					
		Average Ma	neuver Time:	0.25	feet					
		Production	per unit area:	0.891	acres/hour					
	Job Condition C	orrection Factors								
	Uı	nadjusted Hourly Uni	t Production:	0.891	Acres/hr					
			Site Altitude:	7,200	feet					
			Altitude Adj:	1.00	(CAT HB)					
		Je	b Efficiency:	0.83	(1 shift/day)					
		Ne	et Correction:	0.83	multiplier					
		Adjusted Hou	rly Unit Production:	0.74	Acres/hr					
			rly Fleet Production:	0.74	Acres/hr					
	JOB TIME AL	ND COST								
	Fleet size:	1 G:	rader(s)	Total job time:	8.12	Hours				
	TInit acet			-						
	Unit cost:	\$360.588 Pe	er acre	Total job cost:	\$2,164.00					

			BULLDOZ	ER WORK		
Task description:	Grad	e new vent	shaft roads			
e: Sunday Mine		Per	mit Action:	AM-3	Permit/Job#:	M197728
PROJECT IDEN	NTIFICATION	<u>ON</u>				
Task #: 020 Date: $3/2/20$ User: RCO	012	State: County:	Colorado San Migue	el	Abbreviation: Filename:	None M285-020
Agency or	organization:	name: DF	RMS			
HOURLY EQUI	PMENT CO	<u>ost</u>				
Basic Machine: Horsepower: Blade Type: Attachment: Shift Basis: Data Source:	Cat D9T - 9 405 Semi-Unive 3-shank ripp 1 per day (CRG)	rsal				
Cost Breakdown:				<u>Utilization %</u>	<u>۸</u>	
Ownership Cost/H		\$80.19		NA NA	<u></u>	
Operating Cost/H		\$140.68		100		
Ripper op. Cost/H Operator Cost/H		\$0.00 \$38,49		0 NA		
MATERIAL QU Initial Volume: Swell factor:	2,138 1.000		<u> </u>			
Loose volume: _ Source of estimated	2,138 LCY volume:	Division (— of Reclamati	on, Mining & Safety	7	
Source of estimated	swell factor:	Cat Hand	book			
HOURLY PROD						
Average push distar Unadjusted hourly p		50 feet 2,110.5 LC	Y/hr			
Materials consistence	y description:	Loose s	tockpile 1.2			
Average push gradie	ent: 0 %					
Average site altitude	e: 7,200 t	feet				
Material weight:	2,650	bs/LCY				
Weight description:	Decom	posed rock	- 25% Rock,	75% Earth		
Job Condition Corre				Source	<u>e</u>	
	rator Skill: _		750	(AVG.		
Material co	onsistency: _		200	(CAT H	<u>B)</u>	

0.750 1.200 1.000

Dozing method:

(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:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4539

Adjusted unit production: 957.96 LCY/hr
Adjusted fleet production: 957.96 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.271/LCY

Total job time: 2.23 Hours
Total job cost: \$578.83

BULLDOZER WORK

Sunday Mine	_	Per	mit Action:	AM-3	Permit/Job#:	M197728
PROJECT IDEN	TIFICATI	<u>ON</u>				
Task #: 021		State:	Colorado		Abbreviation:	None
Date: 3/2/20	012	County:	San Miguel		Filename:	M285-021
User: RCO		•				
Agency or	organization	name: _DF	RMS			
HOURLY EQUI	PMENT CO	<u>DST</u>				
Basic Machine:	Cat D9T - 9	SU				
Horsepower:	405					
Blade Type:	Semi-Unive	ersal				
Attachment:	3-shank rip					
Shift Basis:	1 per day	r - -				
Data Source:	(CRG)					
Cost Breakdown:						
			-	Utilization %		
Ownership Cost/H	our:	\$80.19		NA		
Operating Cost/H		\$140.68		100		
Ripper op. Cost/H		\$0.00		0		
Operator Cost/H		\$38.49		NA NA		
-						
Total unit Cost/Hou						
Total Fleet Cost/Hor	ur: \$259.	55				
	A NITTTING					
M A TENTOTAL AT	ALIVE I I I I I I I					
MATERIAL QU						
MATERIAL QU. Initial Volume: _	952					
<u> </u>						
Initial Volume:	952		 			
Initial Volume: Swell factor: Loose volume:	952 1.000 952 LCY	Division	— — of Peclamatics	Mining & Section		
Initial Volume: Swell factor: Loose volume: Source of estimated	952 1.000 952 LCY volume:			, Mining & Safety		
Initial Volume: Swell factor: Loose volume: Source of estimated	952 1.000 952 LCY volume:	Division of Cat Hand		, Mining & Safety		
Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated	952 1.000 952 LCY volume: swell factor:			, Mining & Safety		
Initial Volume: _ Swell factor: _	952 1.000 952 LCY volume: swell factor:			, Mining & Safety		
Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated	952 1.000 952 LCY volume: swell factor:			, Mining & Safety		
Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distan	952 1.000 952 LCY volume: swell factor:	Cat Hand	book	, Mining & Safety		
Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distan Unadjusted hourly p	952 1.000 952 LCY volume: swell factor: DUCTION .ce: roduction:	Cat Hand 50 feet 2,110.5 LC	book Y/hr	, Mining & Safety		
Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distan Unadjusted hourly p	952 1.000 952 LCY volume: swell factor: DUCTION .ce: roduction:	Cat Hand 50 feet 2,110.5 LC	book	, Mining & Safety		
Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distan Unadjusted hourly p	952 1.000 952 LCY volume: swell factor: UCTION ce: roduction:	Cat Hand 50 feet 2,110.5 LC	book Y/hr	, Mining & Safety		
Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distan Unadjusted hourly p Materials consistence	952 1.000 952 LCY volume: swell factor: PUCTION ce: roduction: ry description:	Cat Hand 50 feet 2,110.5 LCV Loose s	book Y/hr	, Mining & Safety		
Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distan Unadjusted hourly p Materials consistence	952 1.000 952 LCY volume: swell factor: PUCTION ce: roduction: ry description:	Cat Hand 50 feet 2,110.5 LCV Loose s	book Y/hr	, Mining & Safety		
Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distan Unadjusted hourly p Materials consistence Average push gradie	952 1.000 952 LCY volume: swell factor: DUCTION .ce:	Cat Hand 50 feet 2,110.5 LCV Loose s	book Y/hr	, Mining & Safety		
Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distan Unadjusted hourly p Materials consistence Average push gradie Average site altitude Material weight:	952 1.000 952 LCY volume: swell factor: DUCTION ce: roduction: ry description: ent: 5 % 7,200 2,650	Cat Hand 50 feet 2,110.5 LCY Loose s feet	book Y/hr			
Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distan Unadjusted hourly p Materials consistence Average push gradie Average site altitude Material weight: Weight description:	952 1.000 952 LCY volume: swell factor: DUCTION ce: roduction: ent: 5 % 7,200 2,650 Decom	Cat Hand 50 feet 2,110.5 LCY Loose s feet	book Y/hr stockpile 1.2	5% Earth		
Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distan Unadjusted hourly p Materials consistence Average push gradie Average site altitude Material weight: Weight description:	952 1.000 952 LCY volume: swell factor: DUCTION ce: roduction: ent: 5 % 7,200 2,650 Decom	Cat Hand 50 feet 2,110.5 LCY Loose s feet lbs/LCY	book Y/hr stockpile 1.2			

Dozing method:

1.000

(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.700	(FND-MF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4099

Adjusted unit production: 865.09 LCY/hr
Adjusted fleet production: 865.09 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.300/LCY

Total job time: 1.10 Hours
Total job cost: \$285.41

BULLDOZER WORK

Sunday Mine		Permit Action	n: <u>AM-3</u>	Permit/Job#:	M197728
PROJECT IDE	<u>NTIFICAT</u>	<u>ION</u>			
Task #: 022		State: Colorad	lo	Abbreviation:	None
Date: $3/2/2$	2012	County: San Mig		Filename:	M285-022
User: RCC)			•	V- 1
Agency o	or organization	n name: DRMS			
HOURLY EQU	IPMENT C	COST			
Basic Machine:	Cat D9T -	· 9SU			
Horsepower:					
Blade Type:	Semi-Uni	versal			
Attachment:	3-shank ri				
Shift Basis:		· · · · · · · · · · · · · · · · · · ·			
Data Source:		 			
Cost Breakdown:					
			Utilization %		
Ownership Cost/I	Hour:	\$80.19	NA		
Operating Cost/I		\$140.68	100		
Ripper op. Cost/I		\$0.00	0		
Operator Cost/l		\$38.49	NA		
Total unit Cost/Ho Total Fleet Cost/Ho	<u></u>				
Initial Volume: Swell factor: Loose volume: Source of estimates	1,210 1.000 1,210 LCY		ation, Mining & Safety		
Source of estimated			ation, withing & Saicty	·	
HOURLY PRO	<u>DUCTION</u>				
Average push dista		50 feet			
Unadjusted hourly	production:	2,110.5 LCY/hr			
Materials consisten	cy description	n: Loose stockpile 1	.2		
Average push grad					
Average site altitud	le:7,200	0 feet			
	2,656	0 lbs/LCY			
Material weight:					
Material weight: Weight description		omposed rock - 25% Roc	ck, 75% Earth		
Weight description	: Deco	•	Source		
Weight description Tob Condition Corr Ope	: Deco	0.750	Source (AVG.)		
Weight description Tob Condition Corr Ope Material c	: Deco	•	Source)	

1.000	(AVG.)
0.830	(1 SHIFT/DAY)
0.700	(FND-MF)
0.903	(CAT HB)
1.000	(CAT HB)
0.868	(CAT HB)
1.000	(PAT)
	0.830 0.700 0.903 1.000 0.868

Net correction: 0.4099

Adjusted unit production: 865.09 LCY/hr
Adjusted fleet production: 865.09 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.300/LCY

Total job time: 1.40 Hours
Total job cost: \$362.76

BULLDOZER WORK

Task description:	Grade new vent shaft pads
-------------------	---------------------------

Site: Sunday Mine Permit Action: AM-3 Permit/Job#: M1977285

PROJECT IDENTIFICATION

Task #: 023 State: Colorado Abbreviation: None

Date: 3/2/2012 County: San Miguel Filename: M285-023

User: RCO

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D9T - 9SU

Horsepower: 405

Blade Type: Semi-Universal
Attachment: 3-shank ripper

Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

 Ownership Cost/Hour:
 \$80.19
 NA

 Operating Cost/Hour:
 \$140.68
 100

 Ripper op. Cost/Hour:
 \$0.00
 0

 Operator Cost/Hour:
 \$38.49
 NA

Total unit Cost/Hour: \$259.35

Total Fleet Cost/Hour: \$259.35

MATERIAL QUANTITIES

Initial Volume: 1,210
Swell factor: 1.000
Loose volume: 1,210 LCY

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

Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 50 feet

Unadjusted hourly production: 2,110.5 LCY/hr

Materials consistency description: Loose stockpile 1.2

Average push gradient: 5 %

Average site altitude: 7,200 feet

Material weight: 2,650 lbs/LCY

Weight description: Decomposed rock - 25% Rock, 75% Earth

 Job Condition Correction Factor
 Source

 Operator Skill:
 0.750
 (AVG.)

 Material consistency:
 1.200
 (CAT HB)

 Dozing method:
 1.000
 (GEN.)

1.000	(AVG.)
0.830	(1 SHIFT/DAY)
0.700	(FND-MF)
0.903	(CAT HB)
1.000	(CAT HB)
0.868	(CAT HB)
1.000	(PAT)
	0.830 0.700 0.903 1.000 0.868

Net correction: 0.4099

Adjusted unit production: 865.09 LCY/hr
Adjusted fleet production: 865.09 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.300/LCY

Total job time: 1.40 Hours

Total job cost: 1.40 Hours \$362.76

TRUCK/LOADER TEAM WORK

Sunday Mine Permi	it Action: AM-3	Permit/Job#:	M1977285
PROJECT IDENTIFICATION			
Task #: 024 State:	Colorado	Abbreviation:	None
Date: 3/5/2012 County:	San Miguel	Filename:	M285-024
User: RCO		-	-
Agency or organization name: DRM			
HOURLY EQUIPMENT COST		Shift basis: 1 per day	
	Equipment Description	Shift basis: 1 per day	
		Shift basis: 1 per day	
HOURLY EQUIPMENT COST	Equipment Description	Shift basis: 1 per day	
HOURLY EQUIPMENT COST Truck Loader Team -Truck:	Equipment Description Generic 8-10 cy, 6x4	Shift basis: 1 per day	
HOURLY EQUIPMENT COST Truck Loader Team -Truck: -Loader:	Equipment Description Generic 8-10 cy, 6x4 CAT 938H	Shift basis: 1 per day	
HOURLY EQUIPMENT COST Truck Loader Team -Truck: -Loader: Support Equipment -Load Area:	Equipment Description Generic 8-10 cy, 6x4 CAT 938H NA	Shift basis: 1 per day	

Cost Breakdown:	Truck/Lo	oader Team Support		Equipment	Maintenan	Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck	
%Utilization-machine:	100	100	NA	NA	NA	NA	
Ownership cost/hour:	\$9.13	\$22.07	NA	NA	NA	NA	
Operating cost/hour:	\$49.72	\$37.34	NA	NA	NA	NA	
Ripper op. cost/hour:	NA	\$0.00	NA	NA	NA	NA	
Operator cost/hour:	\$0.00	\$38.49	NA	NA	NA	NA	
Unit Subtotals:	\$58.85	\$97.90	NA	NA	NA	NA	
Number of Units:	3	1	0	0	0	0	
Group Subtotals:	Work:	\$274.45	Support:	\$0.00	Maint:	\$0.00	

Total work team cost/hour: \$274.45

MATERIAL QUANTITIES

Initial volume: 1,555 CCY Swell factor: 1.000
Loose volume: 1,555 LCY

Source of estimated volume:
Source of estimated swell factor:
Material Purchase Cost:
Total Cost:

Division of Reclamation, Mining & Safety

Cat Handbook

\$0.00

\$0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: 2,550 Pounds/LCY

Description: Earth - Dry packed

Rated Payload: 27,280 Pounds

Payload Capacity: 10.70 LCY

Truck Bed	(volume)	Basis:
-----------	----------	--------

Struck Volume: 8.00 LCY Heaped Volume: 10.00 LCY Average Volume: 9.00 LCY LCY Adjusted Volume: 10.00

> Final Truck Volume Based on Number of Loader Passes: LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity: 3.900 LCY (heaped) **Bucket Fill Factor:** 1.050 Moist loam or sandy clay (100% - 110%) 1.050

Adjusted Capacity: 4.095 LCY

Site Altitude (ft.): 7200 feet

	Truck	Loader	Source
Altitude Adj:	1.000	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.830	0.830	

Loading Tool Cycle Time:

Job Condition Corrections:

Number of Loading Tool Passes Required to Fill Truck: 2

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating:

Selected Value within this Basic Rating:

Track Loaders – Material Description:

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump:

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver):

0.483

minutes

Minutes

Minutes

Cycle Time Factors		Factor (min.)	Source
Material:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Operation:	Inconsistent operation 0.04	0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)

Net Cycle Time Adjustment: 0.040 minutes Adjusted Loader Cycle Time: 0.523 minutes Net Load Time per Truck: 0.623 minutes

Truck Cycle Time:

Truck Exchange Time: 0.50 Minutes Truck Load Time: 0.623 Minutes Adjusted for site altitude:

Adjusted for site altitude: 0.500 0.623

Truck Maneuver and Dump Time: 0.80 Minutes Adjusted for site altitude: 0.800 Minutes

Truck Travel (Haul & Return) Time:

Road Condition: Rutted dirt, little maintenance, no water, 1" tire

penetration 4.0

Haul Route:

Seg#	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	6.00	4.00	10.00	1068	0.950

Haul Time: 0.950 minutes Return Route: Seg# Haul Distance Grade (%) Roll. Res Total Res Velocity Travel Time (Ft) (%) (%) (fpm) (min) 1000.00 -6.00 4.00 -2.00 2938

> Return Time: 0.410 minutes Total Truck Cycle Time: 3.283 minutes

0.410

Loading Tool unit

Production 437.77 LCY/Hour Adjusted for job efficiency: 363.35 LCY/Hour Truck Unit Production

Adjusted for job efficiency: 124.25 LCY/Hour Optimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 _ Truck(s)

> Adjusted hourly truck team production: 372.76 LCY/Hour Adjusted single truck/loader team production: 363.35 LCY/Hour Adjusted multiple truck/loader team production: 363.35 LCY/Hour

JOB TIME AND COST

149.70

LCY/Hour

Fleet size: 1 Team(s) Total job time: 4.28 Hours

Unit cost: \$0.755 /LCY Total job cost: \$1,174.54

	BULLDOZ	ER WORK		
Task description:	Spread topsoil on pad			
ite: Sunday Mine	Permit Action:	AM-3	Permit/Job#:	M1977285
PROJECT IDENTIFIC	CATION			
Task #: 025	State: Colorado		Abbreviation:	None
Date: 3/5/2012	County: San Migue		Filename:	M285-025
User: RCO			i iichanic.	141203-023
Agency or organiz	zation name: DRMS			
HOURLY EQUIPMEN	T COST			
	9T - 9SU			
Horsepower: 405	<u> </u>	_		
	Universal	_		
	nk ripper	-		
Shift Basis: 1 per	day	_		
Data Source: (CRG		_ _		
Cost Breakdown:	.			
		Utilization %		
Ownership Cost/Hour:	\$80.19	NA		
Operating Cost/Hour:	\$140.68	100		
Ripper op. Cost/Hour:	\$0.00	0		
Operator Cost/Hour:	\$38.49	NA		
Total unit Cost/Hour:	\$259.35			
	\$259.35			
	<u> </u>			
MATERIAL QUANTIT	TIES			
Initial Volume: 1,555				
Swell factor: 1,000				
Loose volume: 1,555 I	CV			
Source of estimated volume		on, Mining & Safety		
Source of estimated swell fa	ctor: Cat Handbook			
HOURLY PRODUCTION	<u>ON</u>			
Average push distance:	50 feet			
Unadjusted hourly production		 _		
Materials consistency descri	ption: Loose stockpile 1.2			
<u> </u>	0 %			
Average site altitude:	7,200 feet			
Material weight:	2,550 lbs/LCY		_	
Weight description:	Earth - Dry packed			
Job Condition Correction Fa	ctor	Source		
Operator Ski		(AVG.)		
Material consistence		(CAT HB)		
		— (C111 1110)		

Material consistency: Dozing method:

1.000

(GEN.)

Visibility:	1.000	(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: 0.5390

Adjusted unit production:

1,137.56 LCY/hr

Adjusted fleet production:

1137.56 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost:

\$0.228/LCY

Total job time:

1.37 Hours

Total job cost: \$354.53

WHEEL LOADER - LOAD AND CARRY WORK

Task description: Remove and backfill ore pad liner and gravel Site: Sunday Mine Permit Action: AM-3 Permit/Job#: M1977285 PROJECT IDENTIFICATION Task #: 026 State: Colorado Abbreviation: None 3/5/2012 Date: San Miguel M285-026 County: Filename: User: **RCO** Agency or organization name: DRMS **HOURLY EQUIPMENT COST** Basic Machine: **CAT 938H** Horsepower: 172 Attachment 1: ROPS Cab Shift Basis: 1 per day Data Source: (CRG) Cost Breakdown: Utilization % Ownership Cost/Hour: \$22.07 NA Operating Cost/Hour: \$37.34 100 Operator Cost/Hour: NA \$38.49 Total Unit Cost/Hour: \$97.90 Total Fleet Cost/Hour: \$97.90 MATERIAL QUANTITIES CCY Initial volume: Swell factor: 1.060 Loose volume: 589 LCY Source of estimated volume: Division of Reclamation, Mining & Safety Source of estimated swell factor: Cat Handbook HOURLY PRODUCTION Loader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.483 minutes Cycle Time Factors Factor (min.) Source Material: Material 3/4" to 6" diameter 0.00 0.000 (Cat HB) Stockpile: No adjustment - factor not applicable 0.00 0.000 (Cat HB) Truck Ownership: No adjustment - factor not applicable 0.00 0.000 (Cat HB) Operation: Constant operation -0.04 -0.040(Cat HB) Dump Target: No adjustment - factor not applicable 0.00 0.000 (Cat HB) Net Cycle Time Adjustment: -0.040minutes Adjusted Basic Cycle Time: 0.443 minutes Rolling Resistance – Road Conditions Rutted dirt, little maintenance, no water, 1" tire penetration 4.0 Rutted dirt, little maintenance, no water, 1" tire penetration 4.0 Return: Haul and Return Time Length Grade Res. Total Res. Rolling Travel Time Source (feet) (%)Res. (%) (%)(minutes) Haul Route: 400 5.00 4.00 9.00 0.4811 (Cat HB)

Return Route:

400

5.00

4.00

9.00

(Cat HB)

0.4273

			Total Travel Tir Total Cycle Tir		
Load Bucket Capacity					
Rated Capaci Bucket Fill Fact	or: 0.975		aped) gravel (95% - 100	%) 0.975	
Adjusted Capaci	ty:3.80	_ LCY			
Job Condition Correction Site Altitude: 7200 feet	n Factors				
Altitude Adj: Job Efficiency: Net Correction:	1.00 0.83 0.83	Source (CAT HE (1 shift/da multiplier	<u>y)</u>		
	nadjusted Hourly Unit Adjusted Hourly Unit Adjusted Hourly Fleet	Production:	168.89 140.18 140.18	LCY/Hour LCY/Hour LCY/Hour	
JOB TIME AND CO	<u>DST</u>				
Fleet size:	1 Loader(s)	•	Total job time:	4.20	Hours
Unit cost: \$0	.698 /LCY		Total job cost:	\$412.00)

WHEEL LOADER - LOAD AND CARRY WORK

Task description: Remove and backfill very low grade ore Site: Sunday Mine Permit Action: AM-3 Permit/Job#: M1977285 PROJECT IDENTIFICATION Task #: 027 State: Colorado Abbreviation: None Date: 3/5/2012 County: San Miguel Filename: M285-027 User: **RCO** Agency or organization name: DRMS **HOURLY EQUIPMENT COST CAT 938H** Basic Machine: Horsepower: 172 Attachment 1: ROPS Cab Shift Basis: 1 per day Data Source: (CRG) Cost Breakdown: Utilization % Ownership Cost/Hour: \$22.07 NA Operating Cost/Hour: \$37.34 100 Operator Cost/Hour: \$38.49 NA Total Unit Cost/Hour: \$97.90 Total Fleet Cost/Hour: \$97.90 MATERIAL QUANTITIES Initial volume: CCY Swell factor: 1.335 Loose volume: 1,001 LCY Source of estimated volume: Division of Reclamation, Mining & Safety Source of estimated swell factor: Cat Handbook HOURLY PRODUCTION Loader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.483 minutes Cycle Time Factors Factor (min.) Source Material: Bank or broken material 0.04 0.040 (Cat HB) Stockpile: No adjustment - factor not applicable 0.00 0.000 (Cat HB) Truck Ownership: No adjustment - factor not applicable 0.00 0.000 (Cat HB) Operation: Constant operation -0.04 -0.040 (Cat HB) Dump Target: No adjustment - factor not applicable 0.00 0.000 (Cat HB) Net Cycle Time Adjustment: 0.000 minutes Adjusted Basic Cycle Time: 0.483 minutes Rolling Resistance - Road Conditions Haul: Rutted dirt, little maintenance, no water, 1" tire penetration 4.0 Return: Rutted dirt, little maintenance, no water, 1" tire penetration 4.0 Haul and Return Time Rolling Length Grade Res. Total Res. Travel Time Source (feet) (%) Res. (%) (%)(minutes) Haul Route: 400 4.00 0.00 4.00 0.3302 (Cat HB) Return Route: 400 0.00 4.00 4.00 0.3081 (Cat HB)

			Total Travel Ti Total Cycle Ti		minutes minutes
Load Bucket Capacity			Total Cycle 11	1,1200	_ minutes
Rated Capacity: Bucket Fill Factor: Adjusted Capacity:	3.90 0.975 3.80	LCY (hea	aped) gravel (95% - 100	9%) 0.975	
Job Condition Correction I Site Altitude: 5800 feet		LC1			
Ad	1.00 0.83 0.83 justed Hourly Uni justed Hourly Uni usted Hourly Flee	t Production:	y)	LCY/Hour LCY/Hour LCY/Hour	
JOB TIME AND COS	<u> </u>				
Fleet size: 1	Loader(s)	Total job time:	5.93	Hours
Unit cost: \$0.57	79 /LCY		Total job cost:	\$580.00	

REVEGETATION WORK

Task description:

Revegetate (older) vent shaft pads and vent roads

Site: Sunday Mine

Permit Action: _AM-3

Permit/Job#: M1977285

PROJECT IDENTIFICATION

Task #:

028

State:

Colorado

Abbreviation:

None

3/5/2012 Date: User: RCO

County:

San Miguel

Filename:

M285-028

Agency or organization name: DRMS

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)		\$92.35
Weed control spraying (MEANS 31 31 16.13 3100)		\$145.20
	Total Tilling Cost/Acre	\$237.55

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Native	0.96	15.67	\$9.72
Indian Ricegrass - Native	7.42	24.02	\$48.97
Sand Dropseed	0.14	16.71	\$0.96
Bottlebrush Squirreltail	4.08	17.98	\$99.27
Galleta	4.94	18.03	\$121.87
Muttongrass	0.20	4.13	\$7.20
Sagebrush, Mountain or Big	0.20	10.56	\$6.60
Saltbush, Four Wing	0.50	0.69	\$5.25
Winter Fat	0.50	1.27	\$16.00

	Totals Seed Mix	18.94	109.07	\$315.84
Application				
Description				Cost /Acre
Broadcast seeding [DMG]			·	\$255.76
! !	Total Seed	Application	on Cost/Acre	\$255.76

MULCHING and MISCELLANEOUS

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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 Stock Cost / Acre					\$0.00

JOB TIME AND COST

No. of Acres: 2.4 Estimated Failure Rate: 30%

Cost /Acre: \$809.15 Cost /Acre*: \$809.15

*Selected Replanting Work Items: TILLING, SEEDING

Initial Job Cost: \$1,941.96

Reseeding Job Cost: \$582.59

Total Job Cost: \$2,524.55

Job Hours: 4.00

Note: This is the BLM-required seed mix that was approved under TR-3 in 2007.

REVEGETATION WORK

Task description:

Revegetate new vent shaft pads and vent roads

Site: Sunday Mine

Permit Action: AM-3

Permit/Job#: M1977285

PROJECT IDENTIFICATION

Task #:

029 State: Colorado

Abbreviation:

None

Date: User:

3/5/2012 RCO

San Miguel County:

Filename:

M285-029

Agency or organization name: DRMS

FERTILIZING

Materials

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

Application

Description	Cost /Acre	
	\$	
Total Fe	rtilizer Application Cost/Acre \$0.00	

TILLING

Description		Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	·-	\$92.35
Weed control spraying (MEANS 31 31 16.13 3100)		\$145.20
	Total Tilling Cost/Acre	\$237,55

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Native	0.96	15.67	\$9.72
Indian Ricegrass - Native	7.42	24.02	\$48.97
Sand Dropseed	0.14	16.71	\$0.96
Bottlebrush Squirreltail	4.08	17.98	\$99.27
Galleta	4.94	18.03	\$121.87
Muttongrass	0.20	4.13	\$7.20
Sagebrush, Mountain or Big	0.20	10.56	\$6.60
Saltbush, Four Wing	0.50	0.69	\$5.25
Winter Fat	0.50	1.27	\$16.00

	Totals Seed Mix	18.94	109.07	\$315.84
Application				
Description				Cost /Acre
Broadcast seeding [DMG]				\$255.76
	Total Seed	Application	on Cost/Acre	\$255.76

MULCHING and MISCELLANEOUS

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

Application

Description		Cost /Acre
		\$
<u>_</u>	Total Mulch Application Cost/Acre	\$0.00

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
n					\$
·		Tot	als Nursery Stoo	k Cost / Acre	\$0.00

JOB TIME AND COST

No. of Acres: 3.9 Cost /Acre: \$809.15 Estimated Failure Rate: 30% Cost /Acre*: \$809.15

*Selected Replanting Work Items: TILLING, SEEDING

Initial Job Cost: \$3,155.69

Reseeding Job Cost: \$946.71

Total Job Cost: \$4,102.39

Job Hours: 6.00

Note: This is the BLM-required seed mix that was approved under TR-3 in 2007.

REVEGETATION WORK

Task description:

Revegetate "affected area" at portal pad and dump

Site: Sunday Mine

Permit Action: <u>AM</u>-3

Permit/Job#: M1977285

PROJECT IDENTIFICATION

Task #:

030

State:

Colorado San Miguel

Abbreviation:

None

Date: User:

3/5/2012 **RCO**

County:

Filename:

M285-030

Agency or organization name: DRMS

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)	\$92.35
Weed control spraying (MEANS 31 31 16.13 3100)	\$145.20
Total Tilling Cost/Acre	\$237.55

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Native	0.96	15.67	\$9.72
Indian Ricegrass - Native	7.42	24.02	\$48.97
Sand Dropseed	0.14	16.71	\$0.96
Bottlebrush Squirreltail	4.08	17.98	\$99.27
Galleta	4.94	18.03	\$121.87
Muttongrass	0.20	4.13	\$7.20
Sagebrush, Mountain or Big	0.20	10.56	\$6.60
Saltbush, Four Wing	0.50	0.69	\$5.25
Winter Fat	0.50	1.27	\$16.00

	Totals Seed Mix	18.94	109.07	\$315.84
Application				
Description				Cost /Acre
Broadcast seeding [DMG]				\$255.76
	Total Seed	Application	on Cost/Acre	\$255.76

MULCHING and MISCELLANEOUS

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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
					\$
		Tot	als Nursery Stoc	ek Cost / Acre	\$0.00

JOB TIME AND COST

No. of Acres: 33 Cost /Acre: __\$809.15 Cost /Acre*:

*Selected Replanting Work Items: 30%

*TILLING,SEEDING

Initial Job Cost: \$26,701.95 Reseeding Job Cost: \$8,010.59
Total Job Cost: \$34,712.54 Job Hours: 24.00

Note: This is the BLM-required seed mix that was approved under TR-3 in 2007.

\$809.15

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: Haul reclamation equipment to and from site

Site: Sunday Mine Permit Action: AM-3 Permit/Job#: M1977285

PROJECT IDENTIFICATION

Task #: 031 State: Colorado Abbreviation; None

Date: 3/5/2012 County: San Miguel Filename: M285-031

User: RCO

Agency or organization name: DRMS

EQUIPMENT TRANSPORT RIG COST

Shift basis: 1 per day
Cost Data Source: CRG Data

Truck Tractor Description: GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED,

400 HP (2ND HALF, 2006)

Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT TRAILER

(25T, 50T, AND 100T)

Cost Breakdown:

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$16.63	\$18.37	\$22.33
Operating Cost/Hour:	\$44.38	\$46.13	\$50.07
Operator Cost/Hour:	\$27.66	\$27.66	\$27.66
Helper Cost/Hour:	\$0.00	\$25.39	\$25,39
Total Unit Cost/Hour:	\$88.67	\$117.55	\$125.45

NON ROADABLE EQUIPMENT:

Machine Description	Weight/ Unit (TONS)	Owner ship Cost/hr/ unit	Haul Rig Cost/hr/unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet	DOT Permit Cost/ fleet
Cat D9T - 9SU	66.13	\$80.19	\$125.45	1	\$205.64	\$125.45	\$250.00
CAT 938H	16.34	\$22.07	\$88.67	1	\$110.74	\$88.67	\$250.00
CAT 924H	12.69	\$13.81	\$88.67	1	\$102.48	\$88.67	\$250.00

Subtotals: \$418.86 \$302.79 \$750.00

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Drill/Broadcast Seeder with Tractor	\$96.97	1	\$96.97	\$96.97
Generic 8-10 cy, 6x4	\$81.14	3	\$243.42	\$243.42
Light Duty Pickup, 4x4, 1 T. Crew	\$78.73	1	\$78.73	\$78.73

Subtotals: \$419.12 \$419.12

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:
Total one-way travel distance:
Average Travel Speed:

NATURITA
miles
40.00
mph

Total Non-Roadable Mob/Demob Cost *

* two round trips with haul rig:

Total Roadable Mob/Demob Cost **

** one round trip, no haul rig:

\$838.24

\$4,618.74

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	1.00	1.00
Return Time (Hours):	1.00	1.00
Loading Time (Hours):	1.00	NA
Unloading Time (Hours):	1.00	ŇA
Subtotals:	4.00	2.00

JOB TIME AND COST

Total job time: 8.00 Hours

Total job cost: \$5,456.98