

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



John W. Hickenlooper
Governor

Mike King
Executive Director

Loretta E. Piñeda
Director

May 30, 2012

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

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

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

State: Colorado

Abbreviation: None

Date: 3/5/2012

County: San Miguel

Filename: 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 disposal	DEMOLISH	1	0.00	\$39,258.17
002	Portal closure (backfilling)	MINESEAL	1	40.00	\$1,500.21
003	Downhill dozing of waste dump	DOZER	1	56.49	\$14,651.33
004	Rough grading on top of pad and against cut face	DOZER	1	140.12	\$36,340.70
005	Lateral dozing of dump face	DOZER	1	25.98	\$6,737.47
006	Vent shaft closure S-1	MINESEAL	1	20.00	\$6,635.94
007	Vent shaft closure S-2	MINESEAL	1	20.00	\$6,635.94
008	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
SUBTOTALS:				631.15	\$ \$237,973.45

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	\$4,807.06
Performance bond:	1.05	Total =	\$2,498.72
Job superintendent:	150.00	Total =	\$8,895.00
Profit:	10.00	Total =	\$23,797.35
		TOTAL O & P =	\$39,998.13
		CONTRACT AMOUNT (direct + O & P) =	\$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, underground 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

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

		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

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

SAFEGUARDING UNDERGROUND OPENINGS

Task description: Portal closure (backfilling)

Site: Sunday Mine

Permit Action: AM-3

Permit/Job#: M1977285

PROJECT IDENTIFICATION

Task #: 002

State: Colorado

Abbreviation: None

Date: 3/2/2012

County: San Miguel

Filename: M285-002

User: RCO

Agency or organization name: DRMS

UNIT COSTS

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

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).

BULLDOZER WORKTask description: Downhill dozing of waste dumpSite: Sunday MinePermit Action: AM-3Permit/Job#: M1977285**PROJECT IDENTIFICATION**Task #: 003State: ColoradoAbbreviation: NoneDate: 3/2/2012County: San MiguelFilename: M285-003User: RCOAgency 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:

		<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: \$259.35Total Fleet Cost/Hour: \$259.35**MATERIAL QUANTITIES**

Initial Volume: 31,500
 Swell factor: 1.335
 Loose volume: 42,053 LCY

Source of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 120 feetUnadjusted hourly production: 1,093.1 LCY/hrMaterials consistency description: Consolidated stockpile 1.0Average push gradient: -25 %Average site altitude: 5,800 feetMaterial weight: 2,550 lbs/LCYWeight description: Sandstone**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.516	(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 WORKTask description: Rough grading on top of pad and against cut faceSite: Sunday MinePermit Action: AM-3Permit/Job#: M1977285**PROJECT IDENTIFICATION**Task #: 004State: ColoradoAbbreviation: NoneDate: 3/2/2012County: San MiguelFilename: M285-004User: RCOAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D9T - 9SUHorsepower: 405Blade Type: Semi-UniversalAttachment: 3-shank ripperShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<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: \$259.35Total Fleet Cost/Hour: \$259.35**MATERIAL QUANTITIES**Initial Volume: 29,800Swell factor: 1.335Loose volume: 39,783 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 200 feetUnadjusted hourly production: 700.0 LCY/hrMaterials consistency description: Consolidated stockpile 1.0Average push gradient: 5 %Average site altitude: 5,800 feetMaterial weight: 2,550 lbs/LCYWeight description: Sandstone**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)

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**

BULLDOZER WORKTask description: Lateral dozing of dump faceSite: Sunday MinePermit Action: AM-3Permit/Job#: M1977285**PROJECT IDENTIFICATION**Task #: 005State: ColoradoAbbreviation: NoneDate: 3/2/2012County: San MiguelFilename: M285-005User: RCOAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D9T - 9SUHorsepower: 405Blade Type: Semi-UniversalAttachment: 3-shank ripperShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<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: \$259.35Total Fleet Cost/Hour: \$259.35**MATERIAL QUANTITIES**Initial Volume: 9,750Swell factor: 1.335Loose volume: 13,016 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 150 feetUnadjusted hourly production: 910.5 LCY/hrMaterials consistency description: Consolidated stockpile 1.0Average push gradient: -10 %Average site altitude: 5,800 feetMaterial weight: 2,550 lbs/LCYWeight description: Sandstone**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)

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

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

SAFEGUARDING UNDERGROUND OPENINGS

Task description: Vent shaft closure S-1

Site: Sunday Mine

Permit Action: AM-3

Permit/Job#: M1977285

PROJECT IDENTIFICATION

Task #: 006

State: Colorado

Abbreviation: None

Date: 3/2/2012

County: San Miguel

Filename: M285-006

User: RCO

Agency or organization 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	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

SAFEGUARDING UNDERGROUND OPENINGS

Task description: Vent shaft closure S-2

Site: Sunday Mine

Permit Action: AM-3

Permit/Job#: M1977285

PROJECT IDENTIFICATION

Task #: 007

State: Colorado

Abbreviation: None

Date: 3/2/2012

County: San Miguel

Filename: M285-007

User: RCO

Agency or organization 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	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

SAFEGUARDING UNDERGROUND OPENINGS

Task description: Vent shaft closure S-3

Site: Sunday Mine

Permit Action: AM-3

Permit/Job#: M1977285

PROJECT IDENTIFICATION

Task #: 008

State: Colorado

Abbreviation: None

Date: 3/2/2012

County: San Miguel

Filename: M285-008

User: RCO

Agency or organization 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	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

SAFEGUARDING UNDERGROUND OPENINGS

Task description: Vent shaft closure S-4

Site: Sunday Mine

Permit Action: AM-3

Permit/Job#: M1977285

PROJECT IDENTIFICATION

Task #: 009

State: Colorado

Abbreviation: None

Date: 3/2/2012

County: San Miguel

Filename: M285-009

User: RCO

Agency or organization 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	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

SAFEGUARDING UNDERGROUND OPENINGS

Task description: Vent shaft closure S-7

Site: Sunday Mine

Permit Action: AM-3

Permit/Job#: M1977285

PROJECT IDENTIFICATION

Task #: 010

State: Colorado

Abbreviation: None

Date: 3/2/2012

County: San Miguel

Filename: M285-010

User: RCO

Agency or organization 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	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

SAFEGUARDING UNDERGROUND OPENINGS

Task description: Vent shaft closure S-8

Site: Sunday Mine

Permit Action: AM-3

Permit/Job#: M1977285

PROJECT IDENTIFICATION

Task #: 011

State: Colorado

Abbreviation: None

Date: 3/2/2012

County: San Miguel

Filename: M285-011

User: RCO

Agency or organization 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	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

SAFEGUARDING UNDERGROUND OPENINGS

Task description: Vent shaft closure S-15

Site: Sunday Mine

Permit Action: AM-3

Permit/Job#: M1977285

PROJECT IDENTIFICATION

Task #: 012

State: Colorado

Abbreviation: None

Date: 3/2/2012

County: San Miguel

Filename: M285-012

User: RCO

Agency or organization 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	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

SAFEGUARDING UNDERGROUND OPENINGS

Task description: Vent shaft closure (5 add'l shafts, per AM-2, 2007)

Site: Sunday Mine

Permit Action: AM-3

Permit/Job#: M1977285

PROJECT IDENTIFICATION

Task #: 013

State: Colorado

Abbreviation: None

Date: 3/2/2012

County: San Miguel

Filename: M285-013

User: RCO

Agency or organization 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	EA	\$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

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.

SAFEGUARDING UNDERGROUND OPENINGS

Task description: Install atmospheric bulkheads underground

Site: Sunday Mine

Permit Action: AM-3

Permit/Job#: M1977285

PROJECT IDENTIFICATION

Task #: 014

State: Colorado

Abbreviation: None

Date: 5/30/2012

County: San Miguel

Filename: M285-014

User: RCO

Agency or organization name: DRMS

UNIT COSTS

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

BULLDOZER RIPPING WORK

Task description: Rip (older) vent shaft roads

Site: Sunday Mine

Permit Action: AM-3

Permit/Job#: M1977285

PROJECT IDENTIFICATION

Task #: 015

State: Colorado

Abbreviation: None

Date: 3/2/2012

County: San Miguel

Filename: M285-015

User: RCO

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D9T - 9SU
Ripper Attachment: 3-Shank Ripper

Horsepower: 405

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$80.19	NA
Operating Cost/Hour:	\$140.68	100
Ripper Operating Cost/Hour:	\$7.17	100
Operator Cost/Hour:	\$38.49	NA
Total Unit Cost/Hour:	\$266.52	
Total Fleet Cost/Hour:	\$266.52	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA

Bank Volume: NA

BCY

NA

Area: 1.18 acres

Rip Depth (ft): 1.00

Volume: 1,904

BCY or CCY

Source of estimated quantity: Permit file

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	<u>2.00</u>	mph
Average Ripping Width:	<u>7.67</u>	degrees
Average Ripping Length:	<u>500.00</u>	feet
Average Dozer Speed:	<u>88.00</u>	feet
Average Maneuver Time:	<u>0.25</u>	feet
Production per unit area:	<u>0.891</u>	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

Adjusted Hourly Unit Production: 0.74 Acres/hr

Adjusted Hourly Fleet Production: 0.74 Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s)

Total job time: 1.60 Hours

Unit cost: \$360.588 Per acre

Total job cost: \$425.00

BULLDOZER RIPPING WORK

Task description: Rip new vent shaft pads

Site: Sunday Mine

Permit Action: AM-3

Permit/Job#: M1977285

PROJECT IDENTIFICATION

Task #: 016

State: Colorado

Abbreviation: None

Date: 3/2/2012

County: San Miguel

Filename: M285-016

User: RCO

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D9T - 9SU

Horsepower: 405

Ripper Attachment: 3-Shank Ripper

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	<u>\$80.19</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$140.68</u>	<u>100</u>
Ripper Operating Cost/Hour:	<u>\$7.17</u>	<u>100</u>
Operator Cost/Hour:	<u>\$38.49</u>	<u>NA</u>
Total Unit Cost/Hour:	<u>\$266.52</u>	
Total Fleet Cost/Hour:	<u>\$266.52</u>	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA

Bank Volume: NA

BCY NA

Area: 1.25 acres

Rip Depth (ft): 1.00

Volume: 2,017 BCY or CCY

Source of estimated quantity: AM-2 (approved in 2007)

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	<u>2.00</u>	<u>mph</u>
Average Ripping Width:	<u>7.67</u>	<u>degrees</u>
Average Ripping Length:	<u>500.00</u>	<u>feet</u>
Average Dozer Speed:	<u>88.00</u>	<u>feet</u>
Average Maneuver Time:	<u>0.25</u>	<u>feet</u>
Production per unit area:	<u>0.891</u>	<u>acres/hour</u>

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

Adjusted Hourly Unit Production: 0.74 Acres/hr

Adjusted Hourly Fleet Production: 0.74 Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s)

Total job time: 1.69 Hours

Unit cost: \$360.588 Per acre

Total job cost: \$451.00

BULLDOZER RIPPING WORK

Task description: Rip new vent shaft roads

Site: Sunday Mine

Permit Action: AM-3

Permit/Job#: M1977285

PROJECT IDENTIFICATION

Task #: 017

State: Colorado

Abbreviation: None

Date: 3/2/2012

County: San Miguel

Filename: M285-017

User: RCO

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D9T - 9SU

Horsepower: 405

Ripper Attachment: 3-Shank 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 Operating Cost/Hour:	\$7.17	100
Operator Cost/Hour:	\$38.49	NA
Total Unit Cost/Hour:	\$266.52	
Total Fleet Cost/Hour:	\$266.52	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA

Bank Volume: NA

BCY

NA

Area: 2.65 acres

Rip Depth (ft): 1.00

Volume: 4,275

BCY or CCY

Source of estimated quantity: Amendment (approved in AM-2, 2007)

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	<u>2.00</u>	mph
Average Ripping Width:	<u>7.67</u>	degrees
Average Ripping Length:	<u>500.00</u>	feet
Average Dozer Speed:	<u>88.00</u>	feet
Average Maneuver Time:	<u>0.25</u>	feet
Production per unit area:	<u>0.891</u>	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production:	<u>0.891</u>	Acres/hr
Site Altitude:	<u>7,200</u>	feet
Altitude Adj:	<u>1.00</u>	(CAT HB)
Job Efficiency:	<u>0.83</u>	(1 shift/day)
Net Correction:	<u>0.83</u>	multiplier
Adjusted Hourly Unit Production:	<u>0.74</u>	Acres/hr
Adjusted Hourly Fleet Production:	<u>0.74</u>	Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 3.59 Hours

Unit cost: \$360.588 Per acre Total job cost: \$956.00

BULLDOZER RIPPING WORK

Task description: Rip (older) vent shaft pads

Site: Sunday Mine

Permit Action: AM-3

Permit/Job#: M1977285

PROJECT IDENTIFICATION

Task #: 018

State: Colorado

Abbreviation: None

Date: 3/2/2012

County: San Miguel

Filename: M285-018

User: RCO

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D9T - 9SU

Horsepower: 405

Ripper Attachment: 3-Shank 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 Operating Cost/Hour:	\$7.17	100
Operator Cost/Hour:	\$38.49	NA
Total Unit Cost/Hour:	\$266.52	
Total Fleet Cost/Hour:	\$266.52	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA

Bank Volume: NA

BCY

NA

Area: 1.25 acres

Rip Depth (ft): 1.00

Volume: 2,017

BCY or CCY

Source of estimated quantity: Permit file (7 vent shaft pads)

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	<u>2.00</u>	mph
Average Ripping Width:	<u>7.67</u>	degrees
Average Ripping Length:	<u>500.00</u>	feet
Average Dozer Speed:	<u>88.00</u>	feet
Average Maneuver Time:	<u>0.25</u>	feet
Production per unit area:	<u>0.891</u>	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

Adjusted Hourly Unit Production: 0.74 Acres/hr

Adjusted Hourly Fleet Production: 0.74 Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 1.69 Hours

Unit cost: \$360.588 Per acre Total job cost: \$451.00

BULLDOZER RIPPING WORK

Task description: Rip portal pad and dump areas

Site: Sunday Mine

Permit Action: AM-3

Permit/Job#: M1977285

PROJECT IDENTIFICATION

Task #: 019

State: Colorado

Abbreviation: None

Date: 3/2/2012

County: San Miguel

Filename: M285-019

User: RCO

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D9T - 9SU

Horsepower: 405

Ripper Attachment: 3-Shank Ripper

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	<u>\$80.19</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$140.68</u>	<u>100</u>
Ripper Operating Cost/Hour:	<u>\$7.17</u>	<u>100</u>
Operator Cost/Hour:	<u>\$38.49</u>	<u>NA</u>
Total Unit Cost/Hour:	<u>\$266.52</u>	
Total Fleet Cost/Hour:	<u>\$266.52</u>	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA

Bank Volume: NA

BCY

NA

Area: 6.00 acres

Rip Depth (ft): 1.00

Volume: 9,680

BCY or CCY

Source of estimated quantity: Permit file

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	<u>2.00</u>	<u>mph</u>
Average Ripping Width:	<u>7.67</u>	<u>degrees</u>
Average Ripping Length:	<u>500.00</u>	<u>feet</u>
Average Dozer Speed:	<u>88.00</u>	<u>feet</u>
Average Maneuver Time:	<u>0.25</u>	<u>feet</u>
Production per unit area:	<u>0.891</u>	<u>acres/hour</u>

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

Adjusted Hourly Unit Production: 0.74 Acres/hr

Adjusted Hourly Fleet Production: 0.74 Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 8.12 Hours

Unit cost: \$360.588 Per acre Total job cost: \$2,164.00

BULLDOZER WORKTask description: Grade new vent shaft roadsSite: Sunday MinePermit Action: AM-3Permit/Job#: M1977285**PROJECT IDENTIFICATION**Task #: 020State: ColoradoAbbreviation: NoneDate: 3/2/2012County: San MiguelFilename: M285-020User: RCOAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D9T - 9SUHorsepower: 405Blade Type: Semi-UniversalAttachment: 3-shank ripperShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<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: \$259.35Total Fleet Cost/Hour: \$259.35**MATERIAL QUANTITIES**Initial Volume: 2,138Swell factor: 1.000Loose volume: 2,138 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feetUnadjusted hourly production: 2,110.5 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: 0 %Average site altitude: 7,200 feetMaterial weight: 2,650 lbs/LCYWeight description: Decomposed rock - 25% Rock, 75% Earth**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(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:	0.868	(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 WORKTask description: Grade (older) vent shaft roadsSite: Sunday MinePermit Action: AM-3Permit/Job#: M1977285**PROJECT IDENTIFICATION**Task #: 021State: ColoradoAbbreviation: NoneDate: 3/2/2012County: San MiguelFilename: M285-021User: RCOAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D9T - 9SUHorsepower: 405Blade Type: Semi-UniversalAttachment: 3-shank ripperShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<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: \$259.35Total Fleet Cost/Hour: \$259.35**MATERIAL QUANTITIES**Initial Volume: 952Swell factor: 1.000Loose volume: 952 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feetUnadjusted hourly production: 2,110.5 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: 5 %Average site altitude: 7,200 feetMaterial weight: 2,650 lbs/LCYWeight description: Decomposed rock - 25% Rock, 75% Earth**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(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:	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 WORKTask description: Grade (older) vent shaft padsSite: Sunday MinePermit Action: AM-3Permit/Job#: M1977285**PROJECT IDENTIFICATION**Task #: 022State: ColoradoAbbreviation: NoneDate: 3/2/2012County: San MiguelFilename: M285-022User: RCOAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D9T - 9SUHorsepower: 405Blade Type: Semi-UniversalAttachment: 3-shank ripperShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<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: \$259.35Total Fleet Cost/Hour: \$259.35**MATERIAL QUANTITIES**Initial Volume: 1,210Swell factor: 1.000Loose volume: 1,210 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feetUnadjusted hourly production: 2,110.5 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: 5 %Average site altitude: 7,200 feetMaterial weight: 2,650 lbs/LCYWeight description: Decomposed rock - 25% Rock, 75% Earth**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(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:	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: 1.40 Hours
Total job cost: \$362.76

BULLDOZER WORKTask description: Grade new vent shaft padsSite: Sunday MinePermit Action: AM-3Permit/Job#: M1977285**PROJECT IDENTIFICATION**Task #: 023State: ColoradoAbbreviation: NoneDate: 3/2/2012County: San MiguelFilename: M285-023User: RCOAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D9T - 9SUHorsepower: 405Blade Type: Semi-UniversalAttachment: 3-shank ripperShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<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: \$259.35Total Fleet Cost/Hour: \$259.35**MATERIAL QUANTITIES**Initial Volume: 1,210Swell factor: 1.000Loose volume: 1,210 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feetUnadjusted hourly production: 2,110.5 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: 5 %Average site altitude: 7,200 feetMaterial weight: 2,650 lbs/LCYWeight description: Decomposed rock - 25% Rock, 75% Earth**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(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:	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: **1.40 Hours**
Total job cost: **\$362.76**

TRUCK/LOADER TEAM WORKTask description: Carry topsoil up to pad for spreadingSite: Sunday MinePermit Action: AM-3Permit/Job#: M1977285**PROJECT IDENTIFICATION**Task #: 024State: ColoradoAbbreviation: NoneDate: 3/5/2012County: San MiguelFilename: M285-024User: RCOAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

Equipment Description	
Truck Loader Team -Truck:	Generic 8-10 cy, 6x4
-Loader:	CAT 938H
Support Equipment -Load Area:	NA
-Dump Area:	NA
Road Maintenance -Motor Grader:	NA
-Water Truck:	NA

<u>Cost Breakdown:</u>	<u>Truck/Loader Team</u>		<u>Support Equipment</u>		<u>Maintenance Equipment</u>	
	<u>Truck</u>	<u>Loader</u>	<u>Load Area</u>	<u>Dump Area</u>	<u>Motor Grader</u>	<u>Water Truck</u>
%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: 1.000Loose volume: 1,555

LCY

Source of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 2,550

Pounds/LCY

Description: Earth - Dry packedRated 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
Adjusted Volume:	10.00	LCY

Final Truck Volume Based on Number of Loader Passes: 8.19 LCYLoading Tool CapacityBucket 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

Job Condition Corrections: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: Number of Loading Tool Passes Required to Fill Truck: 2 passesExcavators and Front Shovels:Machine Cycle Time vs. Job Condition Rating: NASelected Value within this Basic Rating: NA

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.483 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	Adjusted for site altitude:	0.500	Minutes
Truck Load Time:	0.623	Minutes	Adjusted for site altitude:	0.623	Minutes
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" tirepenetration 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 (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	-6.00	4.00	-2.00	2938	0.410

Return Time: 0.410 minutesTotal Truck Cycle Time: 3.283 minutes

Loading Tool unit
 Production 437.77 LCY/Hour
 Truck Unit Production 149.70 LCY/Hour
 Optimal No. of Trucks: 3 Truck(s)

Adjusted for job efficiency: 363.35 LCY/Hour
 Adjusted for job efficiency: 124.25 LCY/Hour
 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 COSTFleet size: 1 Team(s)Total job time: 4.28 HoursUnit cost: \$0.755 /LCYTotal job cost: \$1,174.54

BULLDOZER WORKTask description: Spread topsoil on padSite: Sunday MinePermit Action: AM-3Permit/Job#: M1977285**PROJECT IDENTIFICATION**Task #: 025State: ColoradoAbbreviation: NoneDate: 3/5/2012County: San MiguelFilename: M285-025User: RCOAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D9T - 9SUHorsepower: 405Blade Type: Semi-UniversalAttachment: 3-shank ripperShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<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: \$259.35Total Fleet Cost/Hour: \$259.35**MATERIAL QUANTITIES**Initial Volume: 1,555Swell factor: 1.000Loose volume: 1,555 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feetUnadjusted hourly production: 2,110.5 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: 0 %Average site altitude: 7,200 feetMaterial weight: 2,550 lbs/LCYWeight description: Earth - Dry packed**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(CAT HB)
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 WORKTask 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**Date: **3/5/2012**County: **San Miguel**Filename: **M285-026**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:	\$38.49	NA
Total Unit Cost/Hour:	\$97.90	
Total Fleet Cost/Hour:	\$97.90	

MATERIAL QUANTITIESInitial volume: **556**

CCY

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:		-0.040	minutes
Adjusted Basic Cycle Time:		0.443	minutes

Rolling Resistance – Road ConditionsHaul: **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**

	Length (feet)	Grade Res. (%)	Rolling Res. (%)	Total Res. (%)	Travel Time (minutes)	Source
Haul Route:	400	5.00	4.00	9.00	0.4811	(Cat HB)
Return Route:	400	5.00	4.00	9.00	0.4273	(Cat HB)

Total Travel Time: 0.9084 minutes
 Total Cycle Time: 1.3509 minutes

Load Bucket Capacity

Rated Capacity:	<u>3.90</u>	LCY (heaped)
Bucket Fill Factor:	<u>0.975</u>	Sand and gravel (95% - 100%) 0.975
Adjusted Capacity:	<u>3.80</u>	LCY

Job Condition Correction FactorsSite Altitude: 7200 feet

Altitude Adj:	<u>1.00</u>	Source
Job Efficiency:	<u>0.83</u>	(CAT HB)
Net Correction:	<u>0.83</u>	(1 shift/day)
		multiplier

Unadjusted Hourly Unit Production:	<u>168.89</u>	LCY/Hour
Adjusted Hourly Unit Production:	<u>140.18</u>	LCY/Hour
Adjusted Hourly Fleet Production:	<u>140.18</u>	LCY/Hour

JOB TIME AND COST

Fleet size:	<u>1</u>	Loader(s)	Total job time:	<u>4.20</u>	Hours
Unit cost:	<u>\$0.698</u>	/LCY	Total job cost:	<u>\$412.00</u>	

WHEEL LOADER – LOAD AND CARRY WORKTask description: Remove and backfill very low grade oreSite: Sunday MinePermit Action: AM-3Permit/Job#: M1977285**PROJECT IDENTIFICATION**Task #: 027State: ColoradoAbbreviation: NoneDate: 3/5/2012County: San MiguelFilename: M285-027User: RCOAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: CAT 938HAttachment 1: ROPS CabHorsepower: 172Shift Basis: 1 per dayData 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 QUANTITIESInitial volume: 750

CCY

Swell factor: 1.335Loose volume: 1,001

LCY

Source of estimated volume: Division of Reclamation, Mining & SafetySource 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 ConditionsHaul: Rutted dirt, little maintenance, no water, 1" tire penetration 4.0Return: Rutted dirt, little maintenance, no water, 1" tire penetration 4.0**Haul and Return Time**

	Length (feet)	Grade Res. (%)	Rolling Res. (%)	Total Res. (%)	Travel Time (minutes)	Source
Haul Route:	400	0.00	4.00	4.00	0.3302	(Cat HB)
Return Route:	400	0.00	4.00	4.00	0.3081	(Cat HB)

Total Travel Time: 0.6383 minutes
 Total Cycle Time: 1.1208 minutes

Load Bucket Capacity

Rated Capacity: 3.90 LCY (heaped)
 Bucket Fill Factor: 0.975 Sand and gravel (95% - 100%) 0.975
 Adjusted Capacity: 3.80 LCY

Job Condition Correction FactorsSite Altitude: 5800 feet

		Source
Altitude Adj:	<u>1.00</u>	(CAT HB)
Job Efficiency:	<u>0.83</u>	(1 shift/day)
Net Correction:	<u>0.83</u>	multiplier

Unadjusted Hourly Unit Production: 203.56 LCY/Hour
 Adjusted Hourly Unit Production: 168.96 LCY/Hour
 Adjusted Hourly Fleet Production: 168.96 LCY/Hour

JOB TIME AND COST

Fleet size: 1 Loader(s) Total job time: 5.93 Hours
 Unit cost: \$0.579 /LCY Total job cost: \$580.00

REVEGETATION WORKTask description: Revegetate (older) vent shaft pads and vent roadsSite: Sunday MinePermit Action: AM-3Permit/Job#: M1977285**PROJECT IDENTIFICATION**Task #: 028State: ColoradoAbbreviation: NoneDate: 3/5/2012County: San MiguelFilename: M285-028User: RCOAgency 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 Cost/Acre	\$255.76

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 Stock Cost / Acre					\$0.00

JOB TIME AND COST

No. of Acres:	2.4	Cost /Acre:	\$809.15
Estimated Failure Rate:	30%	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 WORKTask 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: **3/5/2012**County: **San Miguel**Filename: **M285-029**User: **RCO**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 Cost/Acre	\$255.76

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 Stock 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 WORKTask description: Revegetate "affected area" at portal pad and dumpSite: Sunday MinePermit Action: AM-3Permit/Job#: M1977285**PROJECT IDENTIFICATION**Task #: 030State: ColoradoAbbreviation: NoneDate: 3/5/2012County: San MiguelFilename: M285-030User: RCOAgency 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 Cost/Acre	\$255.76

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 Stock Cost / Acre					\$0.00

JOB TIME AND COST

No. of Acres:	33	Cost /Acre:	\$809.15
Estimated Failure Rate:	30%	Cost /Acre*:	\$809.15
*Selected Replanting Work Items:	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.

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: Haul reclamation equipment to and from siteSite: Sunday MinePermit Action: AM-3Permit/Job#: M1977285**PROJECT IDENTIFICATION**Task #: 031State: ColoradoAbbreviation: NoneDate: 3/5/2012County: San MiguelFilename: M285-031User: RCOAgency or organization name: DRMS**EQUIPMENT TRANSPORT RIG COST**Shift basis: 1 per day
Cost Data Source: CRG DataTruck 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:	<u>NATURITA</u>	
Total one-way travel distance:	<u>40.00</u>	miles
Average Travel Speed:	<u>40.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$4,618.74</u>
-------------------------------------	-------------------

* two round trips with haul rig:

Total Roadable Mob/Demob Cost **	<u>\$838.24</u>
----------------------------------	-----------------

** one round trip, no haul rig:

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>1.00</u>	<u>1.00</u>
Return Time (Hours):	<u>1.00</u>	<u>1.00</u>
Loading Time (Hours):	<u>1.00</u>	<u>NA</u>
Unloading Time (Hours):	<u>1.00</u>	<u>NA</u>
Subtotals:	<u>4.00</u>	<u>2.00</u>

JOB TIME AND COST

Total job time:	<u>8.00</u>	Hours
-----------------	-------------	-------

Total job cost:	<u>\$5,456.98</u>
-----------------	-------------------