# 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 COLORADO
DIVISION OF
RECLAMATION
MINING
— &—
SAFETY

September 26, 2013

Glen Williams Cotter Corporation P.O. Box 700 Nucla, CO 81424 John W. Hickenlooper Governor

Mike King Executive Director

Loretta Piñeda Director

RE: C-LP-21 Mine, Permit No. M-1977-305, Amendment (AM-1) Approval

Dear Mr. Williams:

On September 26, 2013 the Division of Reclamation, Mining and Safety (Division) approved the Amendment application (AM-1) that was submitted on October 1, 2012, addressing the following:

Update permit to meet requirements for 112d operations.

The terms of AM-1 approved by the Division are hereby incorporated into Permit No. M-1977-305. All other conditions and requirements of the permit remain in full force and effect.

The Division has estimated the reclamation costs based on the operation proposed through AM-1 and determined that the required Financial Warranty shall be set at \$40,300.00. According to Division records, the Department of Energy (DOE) currently holds a Financial Warranty of \$48,000.00, and the Division holds a Financial Warranty of \$100.00 for this site. Therefore, the financial warranty currently in place is considered adequate.

If you require additional information, or have questions or concerns, please contact me at the DRMS Grand Junction Field Office.

Sincerely,

Dustin Czapla

Environmental Protection Specialist Department of Natural Resources

Division of Reclamation, Mining and Safety

101 South 3<sup>rd</sup>, Suite 301 Grand Junction, CO 81501 Phone: (970) 243-6299

Fax: (970) 241-1516

Cc: Ed Cotter, DOE

# **COST SUMMARY WORK**

Task description: AM1

Site: C-LP-21 Mine Permit Action: AM1 Permit/Job#: M1977305

## **PROJECT IDENTIFICATION**

Task #: 000 State: Colorado Abbreviation: None

Date: 8/13/2013 County: Montrose Filename: M305-000
User: DMC

Agency or organization name: DRMS

#### TASK LIST (DIRECT COSTS)

| Task | Description                             | Form<br>Used | Fleet<br>Size | Task<br>Hours | Cost       |
|------|---|--------------|---------------|---------------|------------|
| 01a  | Demolition/disposal of structures       | DEMOLISH     | 1             | 16.00         | \$7,833.66 |
| 02a  | Seal mine openings                      | MINESEAL     | 1             | 40.00         | \$5,584.26 |
| 03a  | Grade waste dump                        | DOZER        | 1             | 14.72         | \$2,038.52 |
| 04a  | Haul fines from stockpile to waste pile | TRUCK1       | 1             | 1.73          | \$348.39   |
| 04b  | Spread fines                            | DOZER        | 1             | 1.15          | \$159.39   |
| 05a  | Pock waste pile                         | EXCAVATE     | 1             | 15.57         | \$1,463.00 |
| 06a  | Revegetate disturbed area               | REVEGE       | 1             | 16.00         | \$9,989.24 |
| 07a  | Mobilize reclamation crew and equipment | MOBILIZE     | 1             | 3.71          | \$2,959.37 |
|      |   | 108.88       | \$30,375.83   |               |            |

#### **INDIRECT COSTS**

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

 Liability insurance:
 2.02%
 Total = \$613.59

 Performance bond:
 1.05%
 Total = \$318.95

 Job superintendent:
 54.44 hrs
 Total = \$3,560.92

Profit: 10.00% Total = \$3,300.92

TOTAL O & P =  $\frac{\$7,531.04}{\$37,906.87}$ 

#### LEGAL - ENGINEERING - PROJECT MANAGEMENT:

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

Engineering work and/or contract/bid preparation: 0.00% Total = \$0.00

Reclamation management and/or administration: 5.00% \$1,895.34

CONTINGENCY: 0.00 Total = \$0.00

TOTAL INDIRECT COST = \$9,926.38

TOTAL BOND AMOUNT (direct + indirect) = <u>\$40,300.00</u>

# **DEMOLITION WORK**

| Site: | Task description:  C-LP-21 Mine | Demolition/disposal of strue | <br>Permit/   | Job#: M1977305 |
|-------|---------------------------------|------------------------------|---------------|----------------|
| '     | CT IDENTIFICATION               | <u>ON</u>                    |               |                |
| Task# | : 01A                           | State: Colorado              | Abbreviation: | None           |
| Date  | : 8/13/2013                     | County: Montrose             | Filename:     | M305-01a       |
| User  | : DMC                           |                              | -             |                |

# **UNIT COSTS**

# Location adjustment: 94.70 %

| Structure or Item Description | Dimensions             | Demolition Menu<br>Selection   | Quantity | Unit | Unit<br>Cost | Total Cost |
|-------------------------------|------------------------|--|----------|------|--------------|------------|
| Shop/dry                      | 20' x 10' x 10'        | Bldg. (SN) demo./off-site<br>disposal in approved<br>landfill - Max. 30 mile<br>haul | 2,000.00 | CF   | \$1.14       | \$2,288.00 |
| Maintenance shop              | 20' x 10' x 10'        | Bldg. (SN) demo./off-site<br>disposal in approved<br>landfill - Max. 30 mile<br>haul | 2,000.00 | CF   | \$1.14       | \$2,288.00 |
| Compressor shed               | 20' x 10' x 10'        | Bldg. (SN) demo./off-site<br>disposal in approved<br>landfill - Max. 30 mile<br>haul | 2,000.00 | CF   | \$1.14       | \$2,288.00 |
| Foundations                   | (3) 20' x 10' x<br>10' | Demo. and on-site<br>disposal in existing pit, 8<br>in. thick - Max. 200 ft.<br>push | 600.00   | SF   | \$2.22       | \$1,332.00 |
| Haulage road culverts         | (2) 12' x 24"          | Pipe, corrugated metal (CMP) - 24 in. diameter pipe                                  | 24.00    | LF   | \$3.17       | \$76.08    |

|            |       |               |            | Total Cost    |            |
|------------|-------|---------------|------------|---------------|------------|
|            |       | Subtotal      |            | (adjusted for |            |
| Job Hours: | 16.00 | (unadjusted): | \$8,272.08 | location):    | \$7,833.66 |

# SAFEGUARDING UNDERGROUND OPENINGS

| Site:        | C-LP-21 Mine    |         | Permit Action: | AM1 | Permit/J      | ob#: <u>M1977305</u> |
|--------------|-----------------|---------|----------------|-----|---------------|----------------------|
| <u> lOJI</u> | CCT IDENTIFICAT | CION    |                |     |               |                      |
| Γask #       | : _02A          | State:  | Colorado       |     | Abbreviation: | None                 |
| I ask n      |                 |         | 3.6            | -   | Tilanama -    | N4205 00-            |
| Date         | : 8/13/2013     | County: | Montrose       |     | Filename:     | M305-02a             |

# **UNIT COSTS**

| Opening Description | Dimensions      | Closure Method                            | Quantity | Unit | Unit<br>Cost | Total Cost |
|---------------------|-----------------|---|----------|------|--------------|------------|
| Portal              | 10' x 10' x 50' | Adit closure - backfilling (per cu. yd.)  | 186.00   | CY   | \$1.61       | \$299.46   |
| Venthole            | 5               | Shaft closure - backfilling (per opening) | 5.00     | EA   | \$1,056.96   | \$5,284.80 |

Job Hours: 40.00 Total Cost: \$5,584.26

# **BULLDOZER WORK**

| Task description:                          | G              | rade waste dump                  |                      |                            |                  |
|--|----------------|----------------------------------|----------------------|----------------------------|------------------|
| : C-LP-21 Mine                             |                | Permit Action:                   | AM1                  | Permit/Job#:               | M1977305         |
| PROJECT IDE                                | NTIFICA        | TION                             |                      |                            |                  |
| Task #: 03A                                | _              | State: Colorado County: Montrose |                      | Abbreviation:<br>Filename: | None<br>M305-03a |
| User: DM                                   | C              |                                  |                      |                            | 111303 034       |
| Agency                                     | or organizat   | on name: DRMS                    |                      |                            |                  |
| HOURLY EQU                                 | IPMENT         | COST                             |                      |                            |                  |
| Basic Machine:                             | Cat D67        | LGP                              |                      |                            |                  |
| Horsepower:                                | 200            |                                  |                      |                            |                  |
| Blade Type:                                | Straight       |                                  |                      |                            |                  |
| Attachment:                                | NA             |                                  |                      |                            |                  |
| Shift Basis:                               | 1 per da       | у                                |                      |                            |                  |
| Data Source:                               | (CRG)          |                                  |                      |                            |                  |
| Cost Breakdown:                            |                |                                  | 1 52                 |                            |                  |
|  |                |                                  | <u>Utilization %</u> |                            |                  |
| Ownership Cost/                            |                | \$35.09                          | NA                   |                            |                  |
| Operating Cost/                            |                | \$65.97                          | 100                  |                            |                  |
| Ripper op. Cost/                           |                | \$0.00                           | 0                    |                            |                  |
| Operator Cost/                             | Hour:          | \$37.41                          | NA                   |                            |                  |
| MATERIAL OI  Initial Volume: Swell factor: | 1,944<br>1.000 |                                  |                      |                            |                  |
| Loose volume:                              | 1,944 LC       |                                  |                      |                            |                  |
| Source of estimate Source of estimate      |                |                                  | ion, Mining & Safety |                            |                  |
| HOURLY PRO                                 | DUCTION        | <b>V</b>                         |                      |                            |                  |
| Average push dista                         |                | 50 feet                          |                      |                            |                  |
| Unadjusted hourly                          |                |                                  |                      |                            |                  |
| Materials consister                        | ncy descript   | ion: Rock, avg. ripped o         | or blasted 0.7       |                            |                  |
| Average push grad                          | ient: 0 %      | √o.                              |                      |                            |                  |
| Average site altitud                       |                | 50 feet                          |                      |                            |                  |
| Material weight:                           | _2,7           | 00 lbs/LCY                       |                      | _                          |                  |
| Weight description                         | : Sto          | one - crushed                    |                      |                            |                  |
| Job Condition Cor                          |                |                                  | Source               |                            |                  |
|  | erator Skill:  |                                  | (AVG.)               |                            |                  |
|  | consistency:   |                                  | (CAT HB)             |                            |                  |
| Doz  | ing method:    | 1.000                            | (GEN.)               |                            |                  |

| 1.000 | (AVG.)                                    |
|-------|---|
| 0.830 | (1 SHIFT/DAY)                             |
| 0.800 | (FND-RF)                                  |
| 1.000 | (CAT HB)                                  |
| 1.000 | (CAT HB)                                  |
| 0.852 | (CAT HB)                                  |
| 1.000 | (PAT)                                     |
|       | 0.830<br>0.800<br>1.000<br>1.000<br>0.852 |

Net correction: 0.2970

Adjusted unit production: 132.05 LCY/hr
Adjusted fleet production: 132.05 LCY/hr

# **JOB TIME AND COST**

Fleet size: 1 Dozer(s)

Unit cost: \$1.049/LCY

Total job time: 14.72 Hours
Total job cost: \$2,038.52

# TRUCK/LOADER TEAM WORK

| Task description: |              | Haul fines from stockpile to waste pile |                       |  |
|-------------------|--------------|---|-----------------------|--|
| Site:             | C-LP-21 Mine | Permit Action: AM1                      | Permit/Joh#: M1077305 |  |

#### **PROJECT IDENTIFICATION**

Task #:04AState:ColoradoAbbreviation:NoneDate:8/13/2013County:MontroseFilename:M305-04a

User: DMC

Agency or organization name: DRMS

#### **HOURLY EQUIPMENT COST**

Equipment Description

Truck Loader Team -Truck: Cat 725

-Loader: CAT 950H high lift

Support Equipment -Load Area: NA

-Dump Area: NA

Shift basis: 1 per day

Road Maintenance – Motor Grader: NA
-Water Truck: NA

| Cost Breakdown:       | Truck/Loader Team |          | Support   | Equipment | Maintenance Equipment |             |
|-----------------------|-------------------|----------|-----------|-----------|-----------------------|-------------|
|                       | Truck             | Loader   | Load Area | Dump Area | Motor Grader          | Water Truck |
| %Utilization-machine: | 100               | 50       | NA        | NA        | NA                    | NA          |
| Ownership cost/hour:  | \$34.10           | \$24.98  | NA        | NA        | NA                    | NA          |
| Operating cost/hour:  | \$59.73           | \$21.52  | NA        | NA        | NA                    | NA          |
| Ripper op. cost/hour: | NA                | \$0.00   | NA        | NA        | NA                    | NA          |
| Operator cost/hour:   | \$25.66           | \$35.82  | NA        | NA        | NA                    | NA          |
| Unit Subtotals:       | \$119.49          | \$82.31  | NA        | NA        | NA                    | NA          |
| Number of Units:      | 1                 | 1        | 0         | 0         | 0                     | 0           |
| Group Subtotals:      | Work:             | \$201.80 | Support:  | \$0.00    | Maint:                | \$0.00      |

Total work team cost/hour: \$201.80

### **MATERIAL QUANTITIES**

Initial volume: 300 CCY Swell factor: 1.000

Loose volume: 300 LCY

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

Source of estimated swell factor: Cat Handbook
Material Purchase Cost: \$0.00

Total Cost: \$0.00

# **HOURLY PRODUCTION**

#### **Truck Capacity:**

Truck Payload (weight) Basis:

Material weight: 1,600 Pounds/LCY
Description: Top Soil

Rated Payload: 52,000 Pounds
Payload Capacity: 32.50 LCY

Truck Bed (volume) Basis:

Struck Volume: 14.50 LCY Heaped Volume: 18.70 **LCY** Average Volume: 16.60 LCY Adjusted Volume: 18.70 LCY

> Final Truck Volume Based on Number of Loader Passes: 16.77 LCY

**Loading Tool Capacity** 

Bucket Size Class: NA

Rated Capacity: 4.300 LCY (heaped)

Bucket Fill Factor: 0.975 Loose material - mixed moist aggregates (95-100%) 0.975

Adjusted Capacity: 4.193

Job Condition Corrections:

Site Altitude (ft.): 6450 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:

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA

Selected Value within this Basic Rating:

Track Loaders – Material Description:

Cycle Time Elements (min.):

Load: NA

Maneuver:

NA

Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.500 minutes

Cycle Time Factors Factor (min.) Source Material: Mixed material 0.02 0.020 (Cat HB) Stockpile: Conveyor or dozer piled 10 ft. high and up 0.00 0.000 (Cat HB) Truck Ownership: Common ownership of trucks and loaders -0.04 -0.040(Cat HB) Constant operation -0.04 Operation: -0.040 (Cat HB) Dump Target: Nominal target 0.00 0.000 (Cat HB)

Net Cycle Time Adjustment: -0.060 minutes Adjusted Loader Cycle Time: 0.440 minutes Net Load Time per Truck: 1.420 minutes

Truck Cycle Time:

Truck Exchange Time: 0.50 Minutes Adjusted for site altitude: 0.500 Minutes Truck Load Time: 1.420 Minutes Adjusted for site altitude: 1.420 Minutes Truck Maneuver and Dump Time: 0.90 Minutes Adjusted for site altitude: 0.900 Minutes

Truck Travel (Haul & Return) Time:

Road Condition: Soft, rutted dirt, no maintenance or water, 8" tire

penetration 14

| Н   | ลนใ | D | 011   | ıte. |
|-----|-----|---|-------|------|
| - 1 | สเม |   | 4 114 | 116  |

| Seg # | Haul Distance<br>(Ft) | Grade (%) | Roll. Res<br>(%) | Total Res<br>(%) | Velocity<br>(fpm) | Travel<br>Time<br>(min) |
|-------|-----------------------|-----------|------------------|------------------|-------------------|-------------------------|
| 1     | 400.00                | 15.00     | 14.00            | 29.00            | 221               | 1.810                   |

Haul Time: 1.810 minutes

Return Route:

| 1cotain 1 | Totali Route.         |           |                  |                  |                   |                         |  |  |
|-----------|-----------------------|-----------|------------------|------------------|-------------------|-------------------------|--|--|
| Seg #     | Haul Distance<br>(Ft) | Grade (%) | Roll. Res<br>(%) | Total Res<br>(%) | Velocity<br>(fpm) | Travel<br>Time<br>(min) |  |  |
| 1         | 400.00                | -15.00    | 14.00            | -1.00            | 3159              | 0.176                   |  |  |

Return Time: 0.176 minutes
Total Truck Cycle Time: 4.806 minutes

Loading Tool unit

Production 524.06 LCY/Hour Adjusted for job efficiency: 434.97 LCY/Hour Truck Unit Production 209.36 LCY/Hour Adjusted for job efficiency: 173.77 LCY/Hour

Optimal No. of Trucks: \_\_\_\_\_3 \_\_\_ Truck(s) Selected Number of Trucks: \_\_\_\_1 Truck(s)

Adjusted hourly truck team production: 173.77 LCY/Hour Adjusted single truck/loader team production: 173.77 LCY/Hour Adjusted multiple truck/loader team production: 173.77 LCY/Hour

#### **JOB TIME AND COST**

 Fleet size:
 1
 Team(s)
 Total job time:
 1.73
 Hours

 Unit cost:
 \$1.161
 /LCY
 Total job cost:
 \$348.39

|   |                                | <u>BULLDOZ</u>                        | ZER WORK                   |               |          |
|---|--------------------------------|---------------------------------------|----------------------------|---------------|----------|
| Task description:                       | Sprea                          | d fines                               |                            |               |          |
| e: C-LP-21 Mine                         |                                | Permit Action:                        | AM1                        | Permit/Job#:  | M197730  |
|   |                                | - 0                                   |                            |               |          |
| PROJECT IDE                             | <u>NTIFICATIO</u>              | <u>N</u>                              |                            |               |          |
| Task #: 04B                             |                                | State: Colorado                       |                            | Abbreviation: | None     |
|   | /2013                          | County: Montrose                      |                            | Filename:     | M305-04b |
| User: DMC                               | <u> </u>                       |                                       |                            |               |          |
| Agency o                                | r organization n               | ame: DRMS                             |                            |               |          |
| HOURLY EQU                              | IPMENT CO                      | <u>ST</u>                             |                            |               |          |
| Basic Machine:                          | Cat D6T LG                     | P                                     |                            |               |          |
| Horsepower:                             | 200                            |                                       |                            |               |          |
| Blade Type:                             | Straight                       |                                       | <del></del> -              |               |          |
| Attachment:                             | NA                             |                                       | <del></del> ,              |               |          |
| Shift Basis:                            | 1 per day                      |                                       |                            |               |          |
| Data Source:                            | (CRG)                          |                                       |                            |               |          |
| Cost Breakdown:                         |                                |                                       |                            |               |          |
| Ownership Cost/I                        | Hour:                          | \$35.09                               | <u>Utilization %</u><br>NA |               |          |
| Operating Cost/I                        |                                | \$65.97                               | 100                        |               |          |
| Ripper op. Cost/I                       |                                | \$0.00                                | 0                          |               |          |
| Operator Cost/I                         |                                | \$37.41                               | NA                         | -             |          |
| MATERIAL QU                             |                                |                                       |                            |               |          |
| Initial Volume:                         | 300                            |                                       |                            |               |          |
| Swell factor:                           | 1.000                          |                                       |                            |               |          |
| Loose volume:                           | 300 LCY                        |                                       |                            |               |          |
| Source of estimated Source of estimated |                                | Division of Reclamati<br>Cat Handbook | on, Mining & Safety        |               |          |
| HOURLY PRO                              | DUCTION                        |                                       |                            |               |          |
| Average push dista<br>Unadjusted hourly |                                | 00 feet<br>03.3 LCY/hr                |                            |               |          |
| Materials consisten                     | cy description:                | Loose stockpile 1.2                   |                            |               |          |
| Average push gradi                      |                                |                                       |                            |               |          |
| Average site altitud                    | e: 6,450 fe                    | eet                                   |                            |               |          |
| Material weight:                        | 1,600 1                        | os/LCY                                |                            |               |          |
| Weight description:                     | Top Soi                        | 1                                     |                            |               |          |
| Job Condition Corr                      | ection Factor<br>erator Skill: | 0.750                                 | Source                     |               |          |
| Ope                                     | AGIOI SKIII.                   | 0.730                                 | (AVG.)                     |               |          |

1.200

1.000

Material consistency:

Dozing method:

(CAT HB)

(GEN.)

| 1.000 | (AVG.)                                    |
|-------|---|
| 0.830 | (1 SHIFT/DAY)                             |
| 0.800 | (FND-RF)                                  |
| 1.000 | (CAT HB)                                  |
| 1.000 | (CAT HB)                                  |
| 1.438 | (CAT HB)                                  |
| 1.000 | (PAT)                                     |
|       | 0.830<br>0.800<br>1.000<br>1.000<br>1.438 |

Net correction: 0.8593

Adjusted unit production: 260.63 LCY/hr
Adjusted fleet production: 260.63 LCY/hr

# **JOB TIME AND COST**

Fleet size: 1 Dozer(s)

Unit cost: \$0.531/LCY

Total job time: 1.15 Hours
Total job cost: \$159.39

# HYDRAULIC EXCAVATOR WORK

| CIDALI  |   | waste pile   |  |  |   |               |                 |
|---|---|--|--|--|---|---------------|-----------------|
| e: C-LP-21 Mine   |   | Perm   | it Action:   | AM1  | Pe  | rmit/Job#:    | M1977305        |
| PROJECT IDENTII   | FICATIO   | <u>DN</u>  |  |  |   |               |                 |
| Task #: 05A   |   | State:   | Colorado   |  | Ahhr  | eviation:     | None            |
| Date: 8/13/2013   | )   | County:  | Montrose   |  |   | ilename:      | M305-05a        |
| User: DMC   |   | _  |  |  |   | _             |                 |
| Agency or orga  | anization 1   | name: DRN  | AS   |  |   |               |                 |
| <b>HOURLY EQUIPM</b>  | ENT CO  | <u>ost</u>   |  |  |   |               |                 |
| Basic Machine:  |   | D L 8'-6" Sti  | ick  |  | Horsepower:   | 1             | 15              |
| Attachment 1:   | ROPS C  | Cab  |  | /  | Weight (MT):  | 1'            | 7.32            |
|   |   |  |  |  | Shift Basis:  |               | er day          |
|   |   |  |  |  | Data Source:  | (C            | RG)             |
| Cost Breakdown:   |   |  |  |  |   |               |                 |
| O   | 77.7  | 000.00   |  | Utilization %  |   |               |                 |
| Ownership Cost  | _   | \$23.85  |  | NA<br>100  | _   |               |                 |
| Operating Cost Operator Cost  |   | \$36.12<br>\$33.94   |  | 100  | _   |               |                 |
| Total Unit Cost   |   | \$93.94  |  | NA   | _   |               |                 |
|   | _   | \$73.71  |  |  |   |               |                 |
| Total Fleet Cost  | t/Hour: _   | \$93.91  | 1  |  |   |               |                 |
| MATERIAL QUAN   |   |  |  |  |   |               |                 |
|   | 2,000   |  | CCY  | Swell facto  | or: 1.000   |               |                 |
| Loose volume:   | 2,000   |  | LCY  |  |   |               |                 |
| Source<br>Source of e   |   | ed volume:<br>well factor:   | Division<br>Cat Hand   | of Reclamation, Malbook  | lining & Safety   |               |                 |
| HOURLY PRODUC   | TION  |  |  |  |   |               | ·               |
| Excavator Cycle Time (I   |   |  |  | 1  |   |               |                 |
| Excavator Cycle Time II   | load bucke  | t, swing load  | ea, aump i   | bucket, swing empi   | ts/}•   |               |                 |
|   |   |  | _  |  | <u></u>   |               |                 |
|   |   | В  | asic Job C   | Condition Descripti  | on: AVERA   | GE            |                 |
| ,   | Secon   | В  | asic Job C   | Condition Descripti<br>nin Basic Descripti   | on: AVERA   |               |                 |
|   | Secon   | В  | asic Job C   | Condition Descripti  | on: AVERA   |               | minutes         |
| Load Bucket Capacity  | Secon   | В  | asic Job C   | Condition Descripti<br>nin Basic Descripti   | on: AVERA<br>on: AVERA<br>ue: 0.256   | GE            |                 |
| Load Bucket Capacity  |   | B<br>dary Job Con  | asic Job C   | Condition Descripti<br>nin Basic Descripti<br>Cycle Time Val   | on: AVERA   | GE            | minutes<br>dium |
| Load Bucket Capacity  Rated Capacit   | y:  | B<br>dary Job Cond<br>0.80   | asic Job C<br>dition with  | Condition Descripti<br>nin Basic Descripti<br>Cycle Time Val<br>aped)  | on: AVERAGON: AVERAGON: 0.256  Bucket Size Cl   | GE<br>ass: Me |                 |
| Load Bucket Capacity  Rated Capacit  Bucket Fill Factor   | y:  | B dary Job Cond  | asic Job C<br>dition with<br>LCY (he<br>Blasted r                                  | Condition Descripti<br>nin Basic Descripti<br>Cycle Time Val   | on: AVERAGON: AVERAGON: 0.256  Bucket Size Cl   | GE<br>ass: Me |                 |
| Load Bucket Capacity  Rated Capacit  Bucket Fill Facto  Adjusted Capacit  | y:<br>or:<br>y:                                       | B<br>dary Job Cond<br>0.80   | asic Job C<br>dition with  | Condition Descripti<br>nin Basic Descripti<br>Cycle Time Val<br>aped)  | on: AVERAGON: AVERAGON: 0.256  Bucket Size Cl   | GE<br>ass: Me |                 |
| Load Bucket Capacity  Rated Capacit  Bucket Fill Factor   | y:<br>or:<br>y:                                       | B dary Job Cond  | asic Job C<br>dition with<br>LCY (he<br>Blasted r                                  | Condition Descripting Basic Description Cycle Time Valuped)  aped)  ock - avg. blasted   | on: AVERAGON: AVERAGON: 0.256  Bucket Size Cl   | ass: Me       |                 |
| Load Bucket Capacity  Rated Capacit Bucket Fill Facto Adjusted Capacit Job Condition Correction   | y:<br>or:<br>y:<br>n Factors                          | 0.80<br>0.825  | LCY (he Blasted r LCY  | Condition Description Basic Description Cycle Time Value Time Value aped)  ock - avg. blasted                                  | on: AVERA<br>on: AVERA<br>ue: 0.256<br>Bucket Size Cl<br>(75 - 90%) 0.8   | ass: Me       |                 |
| Load Bucket Capacity  Rated Capacit Bucket Fill Facto Adjusted Capacit Job Condition Correction  Altitude Adj:  | y:<br>or:<br>y:<br>n Factors                          | 0.80<br>0.825<br>0.66  | LCY (he Blasted r LCY Source (CAT H)   | Condition Description Basic Description Cycle Time Value aped)  ock - avg. blasted  Site 2                                     | on: AVERA<br>on: AVERA<br>ue: 0.256<br>Bucket Size Cl<br>(75 - 90%) 0.8   | ass: Me       |                 |
| Load Bucket Capacity  Rated Capacit Bucket Fill Facto Adjusted Capacit  Job Condition Correction  Altitude Adj: Job Efficiency:   | y:  | 0.80<br>0.825<br>0.66  | LCY (he Blasted r LCY Source (CAT H) (1 shift/da                                   | Condition Description Basic Description Cycle Time Value aped)  aped)  ock - avg. blasted  Site A                              | on: AVERA<br>on: AVERA<br>ue: 0.256<br>Bucket Size Cl<br>(75 - 90%) 0.8   | ass: Me       |                 |
| Load Bucket Capacity  Rated Capacit Bucket Fill Facto Adjusted Capacit  Job Condition Correction  Altitude Adj: Job Efficiency: Net Correction:   | y:  | 0.80<br>0.825<br>0.66  | LCY (he Blasted r LCY  Source (CAT H) (1 shift/da multiplier                       | condition Description Basic Description Cycle Time Value aped) ock - avg. blasted Site 2                                       | on: AVERAGON: AVERAGON: 0.256  Bucket Size Cl (75 - 90%) 0.8  Altitude: 6450 f                                      | ass: Me       |                 |
| Load Bucket Capacity  Rated Capacit Bucket Fill Facto Adjusted Capacit  Job Condition Correction  Altitude Adj: Job Efficiency: Net Correction:  Un                                       | y:  | 0.80<br>0.825<br>0.66  | LCY (he Blasted r LCY  Source (CAT H) (1 shift/da multiplier coduction:            | condition Description Basic Description Cycle Time Value Aped) aped) ock - avg. blasted Site A                                 | on: AVERA on: AVERA ue: 0.256  Bucket Size Cl (75 - 90%) 0.8  Altitude: 6450 f                                      | ass: Me       |                 |
| Load Bucket Capacity  Rated Capacit Bucket Fill Facto Adjusted Capacit  Job Condition Correction  Altitude Adj: Job Efficiency: Net Correction:   | y: y: n Factors  1.0 0.8 0.8 adjusted H               | 0.80 0.825 0.66  Jourly Unit Property Unit P | LCY (he Blasted r LCY  Source (CAT H) (1 shift/da multiplier roduction:            | condition Description Basic Description Cycle Time Value Time Value aped)  oock - avg. blasted  Site A  By  154.69  128.39     | on: AVERA on: AVERA ue: 0.256  Bucket Size Cl (75 - 90%) 0.8  Altitude: 6450 f                                      | ass: Me       |                 |
| Rated Capacity  Rated Capacit Bucket Fill Facto Adjusted Capacit  Job Condition Correction  Altitude Adj: Job Efficiency: Net Correction:   | y: pr: y: 1.0 0.8 0.8 adjusted H ddjusted H           | 0.80<br>0.825<br>0.66  | LCY (he Blasted r LCY  Source (CAT H) (1 shift/da multiplier roduction:            | condition Description Basic Description Cycle Time Value Aped) aped) ock - avg. blasted Site A                                 | on: AVERA on: AVERA ue: 0.256  Bucket Size Cl (75 - 90%) 0.8  Altitude: 6450 f                                      | ass: Me       |                 |
| Rated Capacity  Rated Capacity  Bucket Fill Factor Adjusted Capacity  Job Condition Correction  Altitude Adj: Job Efficiency: Net Correction:  Under Addition Correction  JOB TIME AND CO | y: y: y: n Factors  1.0 0.8 0.8 adjusted H Adjusted H | 0.80 0.825 0.66  Ourly Unit Prourly Unit Prourly Fleet Fleet Prourly Fleet Prourly Fleet Fleet Fleet | LCY (he Blasted r LCY  Source (CAT H) (1 shift/da multiplier roduction: roduction: | condition Description Basic Description Cycle Time Value Time Value aped)  oock - avg. blasted  Site 2  154.69  128.39  128.39 | on: AVERA on: AVERA ue: 0.256  Bucket Size Cl (75 - 90%) 0.8  Altitude: 6450 f  LCY/Hour LCY/Hour LCY/Hour LCY/Hour | ass: Me       | dium            |
| Rated Capacity  Rated Capacity  Bucket Fill Factor Adjusted Capacity  Job Condition Correction  Altitude Adj: Job Efficiency: Net Correction:  Under Add  Add  JOB TIME AND CO            | y: pr: y: 1.0 0.8 0.8 adjusted H ddjusted H           | 0.80 0.825 0.66  Jourly Unit Property Unit P | LCY (he Blasted r LCY  Source (CAT H) (1 shift/da multiplier roduction: roduction: | condition Description Basic Description Cycle Time Value Time Value aped)  oock - avg. blasted  Site A  By  154.69  128.39     | on: AVERA on: AVERA ue: 0.256  Bucket Size Cl (75 - 90%) 0.8  Altitude: 6450 f                                      | ass: Me       |                 |

# **REVEGETATION WORK**

Task description:

Revegetate disturbed area

Site: C-LP-21 Mine

Permit Action: AM1

Permit/Job#: <u>M1</u>977305

# PROJECT IDENTIFICATION

Task #:

06A

State: County:

Agency or organization name: DRMS

Colorado Montrose

Abbreviation:

None

Date: 8/13/2013 User:

**DMC** 

Filename: M305-06a

# **FERTILIZING**

#### Materials

| Description | Units /<br>Acre | Unit          | Cost / Unit         | Cost /Acre |
|-------------|-----------------|---------------|---------------------|------------|
|             |                 |               | \$                  | \$         |
|             | Tot             | al Fertilizer | Materials Cost/Acre | \$0.00     |

Application

| Description |  | Cost /Acre |
|-------------|--|------------|
|             |  | \$         |
|             | Total Fertilizer Application Cost/Acre | \$0.00     |

## **TILLING**

| Description                                    |                                | Cost /Acre |
|--|--------------------------------|------------|
| Weed control spraying (MEANS 31 31 16.13 3100) |                                | \$145.20   |
|  | <b>Total Tilling Cost/Acre</b> | \$145.20   |

# **SEEDING**

| Seed Mix                         | Rate –<br>PLS<br>LBS /<br>Acre | Seeds<br>per SQ.<br>FT | Cost /Acre |
|----------------------------------|--------------------------------|------------------------|------------|
| Blue Grama - Hachita             | 2.00                           | 32.64                  | \$21.30    |
| Indian Ricegrass - Paloma        | 4.00                           | 12.95                  | \$34.84    |
| Galleta                          | 2.00                           | 7.30                   | \$50.40    |
| Slender Wheatgrass - Native      | 2.00                           | 7.30                   | \$4.50     |
| Needle and Thread                | 1.00                           | 2.64                   | \$46.99    |
| Western Wheatgrass - Native      | 4.00                           | 10.10                  | \$12.16    |
| Needlegrass, Green - Lodorm      | 2.00                           | 8.31                   | \$10.78    |
| Flax, Lewis Blue                 | 1.00                           | 6.63                   | \$16.52    |
| Saltbush, Four Wing              | 3.00                           | 4.13                   | \$32.19    |
| Globemallow, Scarlet (or copper) | 0.30                           | 3.40                   | \$42.14    |
| Winter Fat                       | 1.00                           | 2.55                   | \$32.69    |
| Penstemon, Palmer                | 0.50                           | 11.06                  | \$15.50    |
| Totals Seed Mix                  | 22.80                          | 109.01                 | \$320.01   |

Application

| Description             | Cost /Acre                       |
|-------------------------|----------------------------------|
| Broadcast seeding [DMG] | \$261.28                         |
| Total See               | d Application Cost/Acre \$261.28 |

# **MULCHING and MISCELLANEOUS**

Materials

| Description | Units /<br>Acre | Unit        | Cost / Unit         | Cost /Acre |
|-------------|-----------------|-------------|---------------------|------------|
|             |                 |             | \$                  | \$         |
|             | 1               | Total Mulch | Materials Cost/Acre | \$0.00     |

Application

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

# **NURSERY STOCK PLANTING**

| Common Name                      | No /<br>Acre | Type and Size | Planting<br>Cost | Fertilizer<br>Pellet Cost | Cost /Acre |
|----------------------------------|--------------|---------------|------------------|---------------------------|------------|
|                                  |              |               |                  |                           | \$         |
| Totals Nursery Stock Cost / Acre |              |               |                  | \$0.00                    |            |

# **JOB TIME AND COST**

No. of Acres: 11 Estimated Failure Rate: 25%

Cost /Acre: \$726.49

\*Selected Replanting Work Items: TILLING, SEEDING

Cost /Acre\*: \$726.49

Initial Job Cost: \$7,991.39

Reseeding Job Cost: \$1,997.85

Total Job Cost: **\$9,989.24** 

Job Hours: **16.00** 

# **EQUIPMENT MOBILIZATION/DEMOBILIZATION**

Task description:

Mobilize reclamation crew and equipment

Site: C-LP-21 Mine

Permit Action: AM1

Permit/Job#: M1977305

PROJECT IDENTIFICATION

Task #:

07A

State:

Colorado

Abbreviation:

None

Date: User:

8/13/2013 DMC

Montrose County:

Filename:

M305-07a

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<br>Description    | Weight/<br>Unit<br>(TONS) | Owner ship<br>Cost/hr/ unit | Haul Rig<br>Cost/hr/unit | Fleet<br>Size | Haul Trip<br>Cost/hr/<br>fleet | Return Trip<br>Cost/hr/ fleet | DOT Permit<br>Cost/ fleet |
|---------------------------|---------------------------|-----------------------------|--------------------------|---------------|--------------------------------|-------------------------------|---------------------------|
| Cat D6T LGP               | 26.87                     | \$35.09                     | \$117.55                 | 1             | \$152.64                       | \$117.55                      | \$250.00                  |
| Cat 315D L 8'-6"<br>Stick | 19.05                     | \$23.85                     | \$88.67                  | 1             | \$112.52                       | \$88.67                       | \$250.00                  |
| CAT 950H high lift        | 20.13                     | \$24.98                     | \$88.67                  | 1             | \$113.65                       | \$88.67                       | \$250.00                  |

Subtotals: \$378.81 \$294.89 \$750.00

# **ROADABLE EQUIPMENT:**

| Machine Description               | Total Cost/hr/ unit | Fleet Size | Haul Trip<br>Cost/hr/ fleet | Return Trip<br>Cost/hr/ fleet |
|-----------------------------------|---------------------|------------|-----------------------------|-------------------------------|
| Cat 725                           | \$119.49            | 1          | \$119.49                    | \$119.49                      |
| Light Duty Pickup, 4x4, 1 T. Crew | \$25.51             | 1          | \$25.51                     | \$25.51                       |

Subtotals:

\$145.00

\$145.00

#### **EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region:

Total one-way travel distance:

Average Travel Speed:

NUCLA

miles

35.00

mph

Total Non-Roadable Mob/Demob Cost \*

'\* two round trips with haul rig:

Total Roadable Mob/Demob Cost \*\*

\*\* one round trip, no haul rig:

\$2,835.08

\$124.29

Transportation Cycle Time:

|                         | Non-Roadable<br>Equipment | Roadable<br>Equipment |
|-------------------------|---------------------------|-----------------------|
| Haul Time (Hours):      | 0.43                      | 0.43                  |
| Return Time (Hours):    | 0.43                      | 0.43                  |
| Loading Time (Hours):   | 0.50                      | NA                    |
| Unloading Time (Hours): | 0.50                      | NA                    |
| Subtotals:              | 1.86                      | 0.86                  |

# **JOB TIME AND COST**

| Total job time: | 3.71 | Hours |
|-----------------|------|-------|
|                 |      |       |