

September 29, 2016

Kevin Anderson
Connell Resources, Inc.
7785 Highland Meadows Pkwy, Ste 100
Fort Collins, CO 80528



COLORADO
Division of Reclamation,
Mining and Safety
Department of Natural Resources

1313 Sherman Street, Room 215
Denver, CO 80203

RE: Hayden Gravel Pit, Permit No. M-1987-164, Reclamation Costs Update and Notice of Surety Increase (SI-2)

Dear Mr. Anderson:

In an effort to ensure the Financial Warranty for the above referenced site adequately reflects the actual current costs of fulfilling the requirements of the approved reclamation plan, the Colorado Division of Reclamation, Mining and Safety (Division) has updated the reclamation cost estimate (copy enclosed).

Division calculations estimate the cost to reclaim the above referenced site to be \$224,521. This is an increase of \$9,821 over the \$214,700 currently held by the Division. This estimate is based on conditions observed during the September 20, 2016 inspection. ***Therefore, pursuant to Section 34-32.5-117(4) of the Colorado Land Reclamation Act, adequate Financial Warranty must be submitted to the Division within 60 days of the mailing date of this letter.*** The additional amount needs to be accepted prior to **Monday, November 28, 2016**. Please review the enclosed figures as soon as possible and contact our office if any calculation errors are noted.

Please make arrangements with Barbara Coria at the Division of Reclamation, Mining and Safety Denver Office, phone no. 303.866.3567, ext. 8148 for submittal of the financial warranty. Any questions regarding completion, execution and/or submittal of financial warranty forms should also be directed to Barbara Coria.

If you require additional information, or have questions or concerns, please feel free to contact me. Amy Yeldell at the Division of Reclamation, Mining and Safety, 1313 Sherman St., Room 215, Denver, CO 80203. Direct contact can be made by phone at 970-254-8511 or via email at amy.yeldell@state.co.us

Sincerely,

Amy Yeldell

Environmental Protection Specialist
Department of Natural Resources
Division of Reclamation, Mining and Safety
Phone: (970) 254-8511

Ec: Russ Means, Senior EPS, Grand Junction DRMS
Enc: Financial Warranty Cost Estimate



COST SUMMARY WORK

Task description: Updated post inspection 9-20-16

Site: Hayden Gravel Pit

Permit Action: 2016-09

Permit/Job#: M1987164

PROJECT IDENTIFICATION

Task #: ACY

State: Colorado

Abbreviation: None

Date: 9/27/2016

County: Routt

Filename: M164-ACY

User: ACY

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

| Task | Description | Form Used | Fleet Size | Task Hours | Cost |
|--------------------------|--|-----------|------------|---------------|------------------|
| 01a | Demolition of asphalt plant and support facilities | DEMOLISH | 1 | 40.00 | \$32,033.15 |
| 02a | Transport backfill material to highwalls in Phase 3 area | LOADER | 2 | 22.14 | \$6,935.00 |
| 03a | Establish 3H:1V slopes in Phase 3 area | DOZER | 2 | 8.96 | \$3,049.00 |
| 03b | Grade stockpiles | DOZER | 2 | 14.27 | \$4,856.00 |
| 04a | Rip pit floor in Phase 2 and 3 area | RIPPER | 1 | 29.31 | \$5,104.00 |
| 05a | Transport topsoil from stockpiles | LOADER | 2 | 103.31 | \$46,392.00 |
| 06a | Distribute topsoil | DOZER | 2 | 27.70 | \$8,868.00 |
| 07a | Revegetate Camilletti Hay Meadows | REVEGE | 1 | 36.00 | \$37,039.00 |
| 07b | Revegetate Dryland Pasture | REVEGE | 1 | 24.00 | \$19,722.00 |
| 08a | Mobilize reclamation crew and equipment | MOBILIZE | 1 | 4.22 | \$6,468.00 |
| <u>SUBTOTALS:</u> | | | | 309.91 | \$170,466 |

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02

Total = \$3,443.41

Performance bond: 1.05

Total = \$1,789.89

Job superintendent: 154.96

Total = \$11,541.05

Profit: 10.00

Total = \$17,046.60

TOTAL O & P = \$33,820.95

CONTRACT AMOUNT (direct + O & P) = \$204,286.95

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 = \$8,682.20

Reclamation management and/or administration: 5.41

\$11,051.92

CONTINGENCY: 0.00

Total = \$0.00

TOTAL INDIRECT COST = \$54,055.07

TOTAL BOND AMOUNT (direct + indirect) = \$224,521.07

DEMOLITION WORK

Task description: Demolition of asphalt plant and support facilities

Site: Hayden Gravel Pit

Permit Action: 2016-09

Permit/Job#: M1987164

PROJECT IDENTIFICATION

Task #: 01A

State: Colorado

Abbreviation: None

Date: 9/27/2016

County: Routt

Filename: M164-01a

User: ACY

Agency or organization name: DRMS

UNIT COSTS

Location adjustment: 91.30 %

| Structure or Item Description | Dimensions | Demolition Menu Selection | Quantity | Unit | Unit Cost | Total Cost |
|-------------------------------|-------------|--|-----------|------|-----------|-------------|
| Asphalt plant structures | 30,000 c.f. | Plant (3S) demo./off-site disposal in approved landfill - Max. 15 mile haul | 30,000.00 | CF | \$1.14 | \$34,290.00 |
| Scale/load out ramp | 360 | Demo. and on-site disposal in excavated pit, 12 in. thick - Max. 50 ft. push | 360.00 | SF | \$2.21 | \$795.60 |

Job Hours: 40.00

Subtotal
(unadjusted): \$35,085.60

Total Cost
(adjusted for location): \$32,033.15

WHEEL LOADER – LOAD AND CARRY WORKTask description: Transport backfill material to highwalls in Phase 3 areaSite: Hayden Gravel Pit Permit Action: 2016-09 Permit/Job#: M1987164**PROJECT IDENTIFICATION**

Task #: 02A State: Colorado Abbreviation: None
 Date: 9/27/2016 County: Routt Filename: M164-02a
 User: ACY

Agency or organization name: DRMS**HOURLY EQUIPMENT COST**

Basic Machine: CAT 980H Horsepower: 315
 Attachment 1: ROPS Cab Shift Basis: 2 per day
 Data Source: (CRG)

Cost Breakdown:

| | | Utilization % |
|------------------------|----------|---------------|
| Ownership Cost/Hour: | \$53.90 | NA |
| Operating Cost/Hour: | \$63.95 | 100 |
| Operator Cost/Hour: | \$38.75 | NA |
| Total Unit Cost/Hour: | \$156.60 | |
| Total Fleet Cost/Hour: | \$313.19 | |

MATERIAL QUANTITIES

Initial volume: 7,778 CCY Swell factor: 1.124
 Loose volume: 8,739 LCY

Source of estimated volume: Onsite observations 1400ft 10' vertical to a 3:1
 Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTIONLoader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.550 minutes

| Cycle Time Factors | | Factor (min.) | Source |
|----------------------------|---|---------------|----------|
| Material: | Material up to 1/8" diameter 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) |
| Operation: | Constant operation -0.04 | -0.040 | (Cat HB) |
| Dump Target: | Nominal target 0.00 | 0.000 | (Cat HB) |
| Net Cycle Time Adjustment: | | -0.060 | minutes |
| Adjusted Basic Cycle Time: | | 0.490 | minutes |

Rolling Resistance – Road Conditions

Haul: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0
 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: | 800 | 0.00 | 5.00 | 5.00 | 0.7072 | (Cat HB) |
| Return Route: | 800 | 0.00 | 4.00 | 4.00 | 0.6037 | (Cat HB) |

Total Travel Time: 1.3109 minutes
 Total Cycle Time: 1.8009 minutes

Load Bucket Capacity

Rated Capacity: 7.50 LCY (heaped)
 Bucket Fill Factor: 0.975 Loose material - uniform aggregates to 1/8" (95-100%) 0.975
 Adjusted Capacity: 7.31 LCY

Job Condition Correction Factors

Site Altitude: 6500 feet

| | | |
|-----------------|-------------|----------------|
| | | Source |
| Altitude Adj: | <u>1.00</u> | (CAT HB) |
| Job Efficiency: | <u>0.81</u> | (2 shifts/day) |
| Net Correction: | <u>0.81</u> | multiplier |

Unadjusted Hourly Unit Production: 243.63 LCY/Hour
 Adjusted Hourly Unit Production: 197.34 LCY/Hour
 Adjusted Hourly Fleet Production: 394.68 LCY/Hour

JOB TIME AND COST

Fleet size: 2 Loader(s) Total job time: 22.14 Hours
 Unit cost: \$0.794 /LCY Total job cost: \$6,935

BULLDOZER WORKTask description: **Establish 3H:1V slopes in Phase 3 area**Site: **Hayden Gravel Pit**Permit Action: **2016-09**Permit/Job#: **M1987164****PROJECT IDENTIFICATION**Task #: **03A**State: **Colorado**Abbreviation: **None**Date: **9/27/2016**County: **Routt**Filename: **M164-03a**User: **ACY**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D8T - 8U**Horsepower: **305**Blade Type: **Universal**Attachment: **3-shank ripper**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

| | | <u>Utilization %</u> |
|------------------------|---------|----------------------|
| Ownership Cost/Hour: | \$52.86 | NA |
| Operating Cost/Hour: | \$68.35 | 100 |
| Ripper own. Cost/Hour: | \$8.40 | NA |
| Ripper op. Cost/Hour: | \$1.69 | 30 |
| Operator Cost/Hour: | \$38.89 | NA |

Total unit Cost/Hour: **\$170.19**Total Fleet Cost/Hour: **\$340.37****MATERIAL QUANTITIES**Initial Volume: **9,200**Swell factor: **1.000**Loose volume: **9,200 LCY**Source of estimated volume: **Division of Reclamation, Mining & Safety**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **50 feet**Unadjusted hourly production: **1,627.0 LCY/hr**Materials consistency description: **Loose stockpile 1.2**Average push gradient: **15 %**Average site altitude: **6,500 feet**Material weight: **2,900 lbs/LCY**Weight description: **Sand and gravel - Dry****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: | 0.666 | (CAT HB) |
| Altitude: | 1.000 | (CAT HB) |
| Material Weight: | 0.793 | (CAT HB) |
| Blade type: | 1.000 | (PAT) |

Net correction: 0.3156

Adjusted unit production: 513.48 LCY/hr

Adjusted fleet production: **1026.96** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)

Unit cost: \$0.331/LCY

Total job time: **8.96** Hours

Total job cost: **\$3,049**

BULLDOZER WORKTask description: Grade stockpilesSite: Hayden Gravel Pit Permit Action: 2016-09 Permit/Job#: M1987164**PROJECT IDENTIFICATION**

Task #: 03B State: Colorado Abbreviation: None
 Date: 9/27/2016 County: Routt Filename: M164-03b
 User: ACY

Agency or organization name: DRMS**HOURLY EQUIPMENT COST**

Basic Machine: Cat D8T - 8U
 Horsepower: 305
 Blade Type: Universal
 Attachment: 3-shank ripper
 Shift Basis: 1 per day
 Data Source: (CRG)

Cost Breakdown:

| | | <u>Utilization %</u> |
|------------------------|----------------|----------------------|
| Ownership Cost/Hour: | <u>\$52.86</u> | <u>NA</u> |
| Operating Cost/Hour: | <u>\$68.35</u> | <u>100</u> |
| Ripper own. Cost/Hour: | <u>\$8.40</u> | <u>NA</u> |
| Ripper op. Cost/Hour: | <u>\$1.69</u> | <u>30</u> |
| Operator Cost/Hour: | <u>\$38.89</u> | <u>NA</u> |

Total unit Cost/Hour: \$170.19
 Total Fleet Cost/Hour: \$340.37

MATERIAL QUANTITIES

Initial Volume: 22,000
 Swell factor: 1.000
 Loose volume: 22,000 LCY

Source of estimated volume: Division of Reclamation, Mining & Safety
 Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 50 feet
 Unadjusted hourly production: 1,627.0 LCY/hr

Materials consistency description: Loose stockpile 1.2

Average push gradient: 0 %
 Average site altitude: 6,500 feet

Material weight: 2,900 lbs/LCYWeight description: Sand and gravel - Dry**Job Condition Correction Factor**

| | | <u>Source</u> |
|-----------------------|--------------|-----------------|
| Operator Skill: | <u>0.750</u> | <u>(AVG.)</u> |
| Material consistency: | <u>1.200</u> | <u>(CAT HB)</u> |
| Dozing method: | <u>1.000</u> | <u>(GEN.)</u> |
| Visibility: | <u>1.000</u> | <u>(AVG.)</u> |

| | | |
|------------------|-------|---------------|
| 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: | 0.793 | (CAT HB) |
| Blade type: | 1.000 | (PAT) |

Net correction: 0.4739

Adjusted unit production: 771.04 LCY/hr

Adjusted fleet production: **1542.08** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)

Unit cost: \$0.221/LCY

Total job time: **14.27** Hours

Total job cost: **\$4,856**

BULLDOZER RIPPING WORK

Task description: Rip pit floor in Phase 2 and 3 area

Site: Hayden Gravel Pit

Permit Action: 2016-09

Permit/Job#: M1987164

PROJECT IDENTIFICATION

Task #: 04A

State: Colorado

Abbreviation: None

Date: 9/27/2016

County: Routt

Filename: M164-04a

User: ACY

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D8T - 8U
Ripper Attachment: 3-Shank Ripper

Horsepower: 305
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

| | | Utilization % |
|-----------------------------|-----------------|---------------|
| Ownership Cost/Hour: | \$52.86 | NA |
| Operating Cost/Hour: | \$68.35 | 100 |
| Ripper Ownership Cost/Hour: | \$8.40 | NA |
| Ripper Operating Cost/Hour: | \$5.62 | 100 |
| Operator Cost/Hour: | \$38.89 | NA |
| Total Unit Cost/Hour: | \$174.12 | |
| Total Fleet Cost/Hour: | \$174.12 | |

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 20.00 acres Rip Depth (ft): 2.00 Volume: 64,533 BCY or CCY

Source of estimated quantity: Site maps and field estimates

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth: 2.56 mph
Average Ripping Width: 7.08 degrees
Average Ripping Length: 500.00 feet
Average Dozer Speed: 88.00 feet
Average Maneuver Time: 0.25 feet
Production per unit area: 0.822 acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.822 Acres/hr
Site Altitude: 6,500 feet
Altitude Adj: 1.00 (CAT HB)
Job Efficiency: 0.83 (1 shift/day)
Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.68 Acres/hr
Adjusted Hourly Fleet Production: **0.68** Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: **29.31** Hours

Unit cost: \$255.207 Per acre Total job cost: **\$5,104**

WHEEL LOADER – LOAD AND CARRY WORKTask description: Transport topsoil from stockpilesSite: Hayden Gravel PitPermit Action: 2016-09Permit/Job#: M1987164**PROJECT IDENTIFICATION**Task #: 05AState: ColoradoAbbreviation: NoneDate: 9/27/2016County: RouttFilename: M164-05aUser: ACYAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: CAT 988HAttachment 1: ROPS CabHorsepower: 475Shift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

| | | Utilization % |
|------------------------|----------|---------------|
| Ownership Cost/Hour: | \$86.92 | NA |
| Operating Cost/Hour: | \$99.00 | 100 |
| Operator Cost/Hour: | \$38.60 | NA |
| Total Unit Cost/Hour: | \$224.52 | |
| Total Fleet Cost/Hour: | \$449.03 | |

MATERIAL QUANTITIESInitial volume: 77,440

CCY

Swell factor: 1.000Loose volume: 77,440

LCY

Source of estimated volume: Exhibit L- 48 ac @ 12"Source of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Loader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.575 minutes

| Cycle Time Factors | | Factor (min.) | Source |
|----------------------------|---|---------------|----------|
| Material: | Material up to 1/8" diameter 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) |
| Operation: | Constant operation -0.04 | -0.040 | (Cat HB) |
| Dump Target: | Nominal target 0.00 | 0.000 | (Cat HB) |
| Net Cycle Time Adjustment: | | -0.060 | minutes |
| Adjusted Basic Cycle Time: | | 0.515 | minutes |

Rolling Resistance – Road ConditionsHaul: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0Return: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0**Haul and Return Time**

| | Length (feet) | Grade Res. (%) | Rolling Res. (%) | Total Res. (%) | Travel Time (minutes) | Source |
|---------------|------------------|-------------------|---------------------|-------------------|--------------------------|----------|
| Haul Route: | 500 | 0.00 | 5.00 | 5.00 | 0.3662 | (Cat HB) |
| Return Route: | 500 | 0.00 | 5.00 | 5.00 | 0.3107 | (Cat HB) |

Total Travel Time: 0.6769 minutes
 Total Cycle Time: 1.1919 minutes

Load Bucket Capacity

Rated Capacity: 9.20 LCY (heaped)
 Bucket Fill Factor: 0.975 Loose material - uniform aggregates to 1/8" (95-100%) 0.975
 Adjusted Capacity: 8.97 LCY

Job Condition Correction Factors

Site Altitude: 6500 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: 451.54 LCY/Hour
 Adjusted Hourly Unit Production: 374.77 LCY/Hour
 Adjusted Hourly Fleet Production: 749.55 LCY/Hour

JOB TIME AND COST

Fleet size: 2 Loader(s) Total job time: 103.32 Hours
 Unit cost: \$0.599 /LCY Total job cost: \$46,392

BULLDOZER WORKTask description: **Distribute topsoil**Site: **Hayden Gravel Pit** Permit Action: **2016-09** Permit/Job#: **M1987164****PROJECT IDENTIFICATION**

Task #: **06A** State: **Colorado** Abbreviation: **None**
 Date: **9/27/2016** County: **Routt** Filename: **M164-06a**
 User: **ACY**

Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**

Basic Machine: **Cat D8T - 8U**
 Horsepower: **305**
 Blade Type: **Universal**
 Attachment: **NA**
 Shift Basis: **1 per day**
 Data Source: **(CRG)**

Cost Breakdown:

| | | <u>Utilization %</u> |
|------------------------|---------|----------------------|
| Ownership Cost/Hour: | \$52.86 | NA |
| Operating Cost/Hour: | \$68.35 | 100 |
| Ripper own. Cost/Hour: | \$0.00 | NA |
| Ripper op. Cost/Hour: | \$0.00 | 0 |
| Operator Cost/Hour: | \$38.89 | NA |

Total unit Cost/Hour: **\$160.10**
 Total Fleet Cost/Hour: **\$320.20**

MATERIAL QUANTITIES

Initial Volume: **77,440**
 Swell factor: **1.000**
 Loose volume: **77,440 LCY**

Source of estimated volume: **Division of Reclamation, Mining & Safety**
 Source of estimated swell factor: **Cat Handbook**

HOURLY PRODUCTION

Average push distance: **50 feet**
 Unadjusted hourly production: **1,627.0 LCY/hr**

Materials consistency description: **Loose stockpile 1.2**

Average push gradient: **0 %**
 Average site altitude: **6,500 feet**

Material weight: **1,600 lbs/LCY**Weight description: **Top Soil****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: | 1.438 | (CAT HB) |
| Blade type: | 1.000 | (PAT) |

Net correction: 0.8593

Adjusted unit production: 1,398.08 LCY/hr

Adjusted fleet production: **2796.16** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)

Unit cost: \$0.115/LCY

Total job time: **27.70** Hours

Total job cost: **\$8,868**

REVEGETATION WORKTask description: Revegetate Camilletti Hay Meadows

Site: Hayden Gravel Pit Permit Action: 2016-09 Permit/Job#: M1987164

PROJECT IDENTIFICATION

Task #: 07A State: Colorado Abbreviation: None
 Date: 9/27/2016 County: Routt Filename: M164-07a
 User: ACY

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) | \$107.59 |
| Weed control spraying (MEANS 31 31 16.13 3100) | \$242.00 |
| Total Tilling Cost/Acre | \$349.59 |

SEEDING

| Seed Mix | Rate – PLS LBS / Acre | Seeds per SQ. FT | Cost /Acre |
|------------------------|--------------------------------|------------------------|----------------|
| Alfalfa - Common | 3.00 | 14.46 | \$7.68 |
| Smooth Brome - Manchar | 1.63 | 5.43 | \$3.21 |
| Totals Seed Mix | 4.63 | 19.89 | \$10.89 |

Application

| Description | Cost /Acre |
|-------------|------------|
|-------------|------------|

| | |
|---|-----------------|
| Drill Seeding (DRMS Survey Cost) | \$232.00 |
| Total Seed Application Cost/Acre | \$232.00 |

MULCHING and MISCELLANEOUS**Materials**

| Description | Units / Acre | Unit | Cost / Unit | Cost /Acre |
|---|-----------------|------|-------------|-----------------|
| Straw, delivered {MEANS 31 25 14.16 1200} | 2.00 | TON | \$246.00 | \$492.00 |
| Total Mulch Materials Cost/Acre | | | | \$492.00 |

Application

| Description | Cost /Acre |
|--|-----------------|
| Crimping, with tractor {DMG survey data} | \$66.02 |
| Power mulcher (MEANS 32 91 13.16 0350) | \$97.14 |
| Total Mulch Application Cost/Acre | \$163.16 |

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: 23.75 Cost /Acre: \$1,247.64
 Estimated Failure Rate: 25% Cost /Acre*: \$1,247.64
 *Selected Replanting Work Items: TILLING,SEEDING,MULCHING

Initial Job Cost: **\$29,631.45**
 Reseeding Job Cost: **\$7,407.86**
 Total Job Cost: **\$37,039**
 Job Hours: **36.00**

REVEGETATION WORKTask description: Revegetate Dryland PastureSite: Hayden Gravel PitPermit Action: 2016-09Permit/Job#: M1987164**PROJECT IDENTIFICATION**Task #: 07BState: ColoradoAbbreviation: NoneDate: 9/27/2016County: RouttFilename: M164-07bUser: ACYAgency 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) | \$107.59 |
| Weed control spraying (MEANS 31 31 16.13 3100) | \$242.00 |
| Total Tilling Cost/Acre | \$349.59 |

SEEDING

| Seed Mix | Rate – PLS LBS / Acre | Seeds per SQ. FT | Cost /Acre |
|-----------------------------|--------------------------------|------------------------|----------------|
| Smooth Brome - Manchar | 6.50 | 21.64 | \$12.81 |
| Pubescent Wheatgrass - Luna | 7.00 | 14.46 | \$15.68 |
| Totals Seed Mix | 13.50 | 36.10 | \$28.49 |

Application

| Description | Cost /Acre |
|----------------------------------|------------|
| Drill Seeding (DRMS Survey Cost) | \$232.00 |

| | |
|---|-----------------|
| Total Seed Application Cost/Acre | \$232.00 |
|---|-----------------|

MULCHING and MISCELLANEOUS**Materials**

| Description | Units / Acre | Unit | Cost / Unit | Cost /Acre |
|---|---------------------|-------------|--------------------|-------------------|
| Straw, delivered {MEANS 31 25 14.16 1200} | 2.00 | TON | \$246.00 | \$492.00 |
| Total Mulch Materials Cost/Acre | | | | \$492.00 |

Application

| Description | Cost /Acre |
|--|-------------------|
| Crimping, with tractor {DMG survey data} | \$66.02 |
| Power mulcher (MEANS 32 91 13.16 0350) | \$97.14 |
| Total Mulch Application Cost/Acre | \$163.16 |

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: 12.47 Cost /Acre: \$1,265.24
 Estimated Failure Rate: 25% Cost /Acre*: \$1,265.24
 *Selected Replanting Work Items: TILLING,SEEDING,MULCHING

Initial Job Cost: **\$15,777.54**
 Reseeding Job Cost: **\$3,944.39**
 Total Job Cost: **\$19,722**
 Job Hours: **24.00**

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Mobilize reclamation crew and equipment**Site: **Hayden Gravel Pit**Permit Action: **2016-09**Permit/Job#: **M1987164****PROJECT IDENTIFICATION**Task #: **08A**State: **Colorado**Abbreviation: **None**Date: **9/27/2016**County: **Routt**Filename: **M164-08a**User: **ACY**Agency or organization name: **DRMS****EQUIPMENT TRANSPORT RIG COST**Shift basis: **1 per day**Cost Data Source: **CRG Data**Truck Tractor Description: **GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED,
400 HP (2ND HALF, 2006)**Truck Trailer Description: **GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT
TRAILER (25T, 50T, AND 100T)****Cost Breakdown:**

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

NON ROADABLE EQUIPMENT:

| Machine Description | Weight/ Unit (TONS) | Owner ship Cost/hr/ unit | Haul Rig Cost/hr/unit | Fleet Size | Haul Trip Cost/hr/ fleet | Return Trip Cost/hr/ fleet | DOT Permit Cost/ fleet |
|-------------------------------------|---------------------------|-----------------------------|--------------------------|---------------|--------------------------------|-------------------------------|---------------------------|
| Cat D8R Series II - 8U (2005) | 53.17 | \$45.97 | \$125.45 | 2 | \$342.83 | \$250.90 | \$500.00 |
| CAT 980G (2001) | 32.70 | \$34.37 | \$117.55 | 2 | \$303.83 | \$235.10 | \$500.00 |
| Drill/Broadcast Seeder with Tractor | 25.00 | \$39.59 | \$88.67 | 1 | \$128.26 | \$88.67 | \$250.00 |
| Power Mulcher (Reinco M90) | 6.00 | \$6.72 | \$88.67 | 1 | \$95.39 | \$88.67 | \$250.00 |

Subtotals: **\$870.31** **\$663.34** **\$1,500.00****ROADABLE EQUIPMENT:**

| Machine Description | Total Cost/hr/ unit | Fleet Size | Haul Trip Cost/hr/ fleet | Return Trip Cost/hr/ fleet |
|-----------------------------------|------------------------|------------|-----------------------------|-------------------------------|
| Light Duty Pickup, 4x4, 1 T. Crew | \$20.91 | 1 | \$20.91 | \$20.91 |

Subtotals: **\$20.91** **\$20.91**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:

STEAMBOAT
SPRINGSTotal one-way travel distance: 25.00 milesAverage Travel Speed: 45.00 mph

Total Non-Roadable Mob/Demob Cost *

\$6,444.68

** two round trips with haul rig:

Total Roadable Mob/Demob Cost **

\$23.23

** one round trip, no haul rig:

Transportation Cycle Time:

| | Non- Roadable Equipment | Roadable Equipment |
|-------------------------|-------------------------------|-----------------------|
| Haul Time (Hours): | 0.56 | 0.56 |
| Return Time (Hours): | 0.56 | 0.56 |
| Loading Time (Hours): | 0.50 | NA |
| Unloading Time (Hours): | 0.50 | NA |
| Subtotals: | 2.11 | 1.11 |

JOB TIME AND COSTTotal job time: 4.22 HoursTotal job cost: \$6,468