

COST SUMMARY WORK

Task description: Reclamation Cost Summary

Site: Fountain Pit

Permit Action: TR-3 Update

Permit/Job#: M1982155

PROJECT IDENTIFICATION

Task #: 100

State: Colorado

Abbreviation: None

Date: 10/28/2022

County: El Paso

Filename: M155-100

User: TC1

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

| Task | Description | Form Used | Fleet Size | Task Hours | Cost |
|--------------------------|---|-------------|------------|----------------|--------------------|
| 101A | Slope grading: NE Side Slopes (32 Ac @ 3.5 mph) | DOZERGRADER | 1 | 8.50 | \$3,031 |
| 101B | NE Side Slopes Windrow Grading | GRADER | 1 | 1.67 | \$420 |
| 101C | NE Sideslopes Topsoil Placement | TRUCK1 | 1 | 83.24 | \$95,704 |
| 101D | NE Sideslope Seed and Mulch 52.2 Acres | REVEGE | 1 | 76.00 | \$95,274 |
| 200 | NW area reseed 43.75 Ac @ 25% failure | REVEGE | 1 | 20.00 | \$15,916 |
| 300 | 10-Ac Overburden stockpile reseed 10 Ac @ 25% failure | REVEGE | 1 | 5.00 | \$3,650 |
| 400 | HW Reduction (East-West Face) | DOZER | 1 | 50.17 | \$17,739 |
| 401 | HW Reduction (West Sidewall) | DOZER | 1 | 0.83 | \$295 |
| 402 | West Sidewall Backfill | TRUCK1 | 1 | 129.20 | \$148,552 |
| 403 | HW Reduction (East Sidewall) | DOZER | 1 | 28.32 | \$10,013 |
| 404 | East Sidewall Backfill | TRUCK1 | 1 | 11.73 | \$13,488 |
| 450 | Growth Media Placement | TRUCK1 | 1 | 376.75 | \$433,187 |
| 500 | Demo Wash Plant | DEMOLISH | 1 | 0.00 | \$2,331 |
| 600 | Seed and Mulch 172 Acres | REVEGE | 1 | 344.00 | \$313,930 |
| 610 | Seed and Mulch 20 Acres Newly Stripped Area | REVEGE | 1 | 344.00 | \$36,504 |
| 700 | mob/demob | MOBILIZE | 1 | 2.20 | \$8,021 |
| <u>SUBTOTALS:</u> | | | | 1481.61 | \$1,198,055 |

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02
Performance bond: 1.05
Job superintendent: 760.14
Profit: 10.00

Total = \$24,201

Total = \$12,580

Total = \$57,109

Total = \$119,806

TOTAL O & P = \$213,695

CONTRACT AMOUNT (direct + O & P) = \$1,411,750

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): \$0
Engineering work and/or contract/bid preparation: 4.25
Reclamation management and/or administration: 5.00

Total = \$0

Total = \$59,999

\$70,588

CONTINGENCY: 0.00

Total = \$0

TOTAL INDIRECT COST = \$344,282

TOTAL BOND AMOUNT (direct + indirect) = \$1,542,338

DOZERGRADER WORKTask description: Slope grading: NE Side Slopes (32 Ac @ 3.5 mph)Site: Fountain PitPermit Action: TR-3 UpdatePermit/Job#: M1982155**PROJECT IDENTIFICATION**Task #: 101AState: ColoradoAbbreviation: NoneDate: 9/29/2022County: El PasoFilename: M155-101AUser: TC1Agency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D9T - 9SU

Horsepower: _____

Blade Type: _____

Attachment: 1-shank ripperShift Basis: 1 per day

Data Source: _____

Cost Breakdown:

| | | <u>Utilization %</u> |
|---------------------------|-----------------|----------------------|
| Ownership Cost/Hour: | \$146.30 | NA |
| Operating Cost/Hour: | \$141.41 | 100 |
| Ripper own. Cost/Hour: | \$19.06 | NA |
| Ripper op. Cost/Hour: | \$9.73 | 100 |
| Operator Cost/Hour: | \$40.04 | NA |
| Total unit Cost/Hour: | \$356.54 | |
| Total Fleet Cost/Hour: | \$356.54 | |

JOB TIME AND COSTFleet size: 1 Dozer(s)Unit cost: \$356.54/LCYTotal job time: **8.50** HoursTotal job cost: **\$3,031**

MOTOR GRADER WORK

Task description: NE Side Slopes Windrow Grading

Site: Fountain Pit

Permit Action: TR-3 Update

Permit/Job#: M1982155

PROJECT IDENTIFICATION

Task #: 101B

State: Colorado

Abbreviation: None

Date: 9/29/2022

County: El Paso

Filename: M155-101B

User: TC1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: CAT 14M

Horsepower: 259

Ripper Attachment: Multi-Shank Ripper

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

| | | Utilization % |
|-----------------------------|-----------------|---------------|
| Ownership Cost/Hour: | \$114.80 | NA |
| Operating Cost/Hour: | \$79.39 | 100 |
| Ripper Ownership Cost/Hour: | \$5.34 | NA |
| Ripper Operating Cost/Hour: | \$3.98 | 100 |
| Operator Cost/Hour: | \$46.87 | NA |
| Total Unit Cost/Hour: | \$250.38 | |
| Total Fleet Cost/Hour: | \$250.38 | |

MATERIAL QUANTITIES

Total Area to be graded or ripped: 6.00 acres

Source of estimated acreage: TR-3 Exh L, p. 5

HOURLY PRODUCTION

| | | |
|--|---------------------------------------|------------|
| Average Grader Speed: | <u>3.25</u> | mph |
| Selected Application: | <u>Heavy blading (0-6 mph) - 3.25</u> | |
| Selected Blade Angle: | <u>30</u> | degrees |
| Effective Blade Length: | <u>12.10</u> | feet |
| Width of blade overlap per pass: | <u>2.00</u> | feet |
| Net grading or ripping width per pass: | <u>10.10</u> | feet |
| Unadjusted Hourly Unit Production: | <u>3.9788</u> | acres/hour |

Job Condition Correction Factors

Site Altitude: 5740 feet

| | | |
|-----------------|---------------|---------------|
| Altitude Adj: | <u>1.00</u> | Source |
| Job Efficiency: | <u>0.90</u> | (CAT HB) |
| Net Correction: | <u>0.9000</u> | (1sh/d, fav.) |
| | | multiplier |

Adjusted Hourly Unit Production: 3.5809 acres/Hour

Adjusted Hourly Fleet Production: **3.5809** acres/Hour

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: **1.68** Hours

Unit cost: \$69.92 per acre Total job cost: **\$420**

TRUCK/LOADER TEAM WORKTask description: NE Sideslopes Topsoil PlacementSite: Fountain PitPermit Action: TR-3 UpdatePermit/Job#: M1982155**PROJECT IDENTIFICATION**Task #: 101CState: ColoradoAbbreviation: NoneDate: 9/29/2022County: El PasoFilename: M155-101CUser: TC1Agency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

| | Equipment Description |
|---------------------------------|--------------------------|
| Truck Loader Team -Truck: | Cat 730 |
| -Loader: | CAT 980H |
| Support Equipment -Load Area: | NA |
| -Dump Area: | Cat D7R DS Series II LGP |
| Road Maintenance -Motor Grader: | CAT 14M |
| -Water Truck: | Water Tanker, 5,000 Gal. |

Cost Breakdown:

| | Truck/Loader Team | | Support Equipment | | Maintenance Equipment | |
|------------------------|-------------------|----------|-------------------|-----------|-----------------------|-------------|
| | Truck | Loader | Load Area | Dump Area | Motor Grader | Water Truck |
| %Utilization-machine: | 100 | 100 | NA | 100 | 25 | 25 |
| Ownership cost/hour: | \$97.13 | \$54.58 | NA | \$92.78 | \$114.80 | \$37.19 |
| Operating cost/hour: | \$65.52 | \$53.14 | NA | \$79.33 | \$19.85 | \$12.83 |
| %Utilization-riper: | NA | 0 | NA | NA | NA | NA |
| Ripper own. cost/hour: | NA | \$0.00 | NA | \$0.00 | \$0.00 | \$0.00 |
| Ripper op. cost/hour: | NA | \$0.00 | NA | \$0.00 | \$0.00 | \$0.00 |
| Operator cost/hour: | \$24.82 | \$35.97 | NA | \$40.04 | \$46.87 | \$0.00 |
| Unit Subtotals: | \$187.47 | \$143.69 | NA | \$212.15 | \$181.52 | \$50.02 |
| Number of Units: | 3 | 1 | 0 | 1 | 1 | 1 |
| Group Subtotals: | Work: \$706.10 | | Support: \$212.15 | | Maint: \$231.54 | |

Total work team cost/hour: \$1,149.79**MATERIAL QUANTITIES**Initial volume: 51,089

CCY

Swell factor: 1.125Loose volume: 57,475

LCY

Source of estimated volume: TR-3, Exh L, pp. 5 - 6Source 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: 62,000

Pounds

Payload Capacity: 24.31

LCY

Truck Bed (volume) Basis:

| | | |
|------------------|-------|-----|
| Struck Volume: | 17.10 | LCY |
| Heaped Volume: | 22.10 | LCY |
| Average Volume: | 19.60 | LCY |
| Adjusted Volume: | 22.10 | LCY |

Final Truck Volume Based on Number of Loader Passes: 16.50 LCY

Loading Tool Capacity

Bucket Size Class: NA

| | | |
|---------------------|--------------|---|
| Rated Capacity: | 7.500 | LCY (heaped) |
| Bucket Fill Factor: | 1.100 | Other - rock/dirt mixtures (100-120%) 1.100 |
| Adjusted Capacity: | 8.250 | LCY |

Job Condition Corrections:

Site Altitude (ft.): 5740 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 passes

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA
 Selected Value within this Basic Rating: NA

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): 0.550 minutes

| Cycle Time Factors | | Factor (min.) | Source |
|-----------------------------|---|---------------|----------|
| Material: | Mixed material 0.02 | 0.020 | (Cat HB) |
| Stockpile: | No adjustment - factor not applicable 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 Loader Cycle Time: | | 0.490 | minutes |
| Net Load Time per Truck: | | 0.590 | minutes |

Truck Cycle Time:

| | | | | | |
|-------------------------------|-------|---------|-----------------------------|-------|---------|
| Truck Exchange Time: | 0.60 | Minutes | Adjusted for site altitude: | 0.600 | Minutes |
| Truck Load Time: | 0.590 | Minutes | Adjusted for site altitude: | 0.590 | Minutes |
| Truck Maneuver and Dump Time: | 1.00 | Minutes | Adjusted for site altitude: | 1.000 | Minutes |

Truck Travel (Haul & Return) Time:

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

maintained 3.0

Haul Route:

| Seg # | Haul Distance (Ft) | Grade (%) | Roll. Res (%) | Total Res (%) | Velocity (fpm) | Travel Time (min) |
|-------|--------------------|-----------|---------------|---------------|----------------|-------------------|
| 1 | 1000.00 | 2.00 | 3.00 | 5.00 | 1427 | 0.823 |

Haul Time: **0.823** minutes

Return Route:

| Seg # | Haul Distance (Ft) | Grade (%) | Roll. Res (%) | Total Res (%) | Velocity (fpm) | Travel Time (min) |
|-------|--------------------|-----------|---------------|---------------|----------------|-------------------|
| 1 | 1000.00 | -2.00 | 3.00 | 1.00 | 3060 | 0.459 |

Return Time: **0.459** minutesTotal Truck Cycle Time: **3.472** minutes

Loading Tool unit

Production 831.93 LCY/HourAdjusted for job efficiency: 690.50 LCY/Hour

Truck Unit Production

285.14 LCY/HourAdjusted for job efficiency: 236.66 LCY/HourOptimal No. of Trucks: 3 Truck(s)Selected Number of Trucks: 3 Truck(s)Adjusted hourly truck team production: 709.99 LCY/HourAdjusted single truck/loader team production: 690.50 LCY/HourAdjusted multiple truck/loader team production: **690.50** LCY/Hour**JOB TIME AND COST**Fleet size: 1 Team(s)Total job time: **83.24** HoursUnit cost: \$1.665 /LCYTotal job cost: **\$95,704**

REVEGETATION WORKTask description: NE Sideslope Seed and Mulch 52.2 AcresSite: Fountain PitPermit Action: TR-3 UpdatePermit/Job#: M1982155PROJECT IDENTIFICATIONTask #: 101DState: ColoradoAbbreviation: NoneDate: 10/28/2022County: El PasoFilename: M155-101DUser: TC1Agency or organization name: DRMSFERTILIZING**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 |
|--------------------------------|----------------|
| Chisel plowing {DMG} | \$98.43 |
| Total Tilling Cost/Acre | \$98.43 |

SEEDING

| Seed Mix | Rate – PLS LBS / Acre | Seeds per SQ. FT | Cost /Acre |
|-----------------------------|--------------------------------|------------------------|----------------|
| Blue Grama - Native | 0.50 | 8.16 | \$6.86 |
| Little Bluestem - Native | 1.00 | 5.97 | \$13.57 |
| Sideoats Grama - Vaughn | 1.00 | 3.28 | \$8.38 |
| White Sweet Clover | 0.50 | 2.98 | \$2.06 |
| Western Wheatgrass - Native | 3.00 | 7.58 | \$18.00 |
| Needlegrass, Green - Lodorm | 2.00 | 8.31 | \$23.55 |
| Totals Seed Mix | 8.00 | 36.28 | \$72.42 |

Application

| 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 |
|---|-----------------|------|-------------|-----------------|
| Hay, delivered {MEANS 31 25 14.16 1200} | 2.00 | TON | \$421.36 | \$842.72 |
| Total Mulch Materials Cost/Acre | | | | \$842.72 |

Application

| Description | Cost /Acre |
|--|-------------------|
| Crimping, with tractor {DMG survey data} | \$73.00 |
| Power mulcher (MEANS 32 91 13.16 0350) | \$141.57 |
| Total Mulch Application Cost/Acre | \$214.57 |

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: | 52.2 | Cost /Acre: | \$1,460.14 |
| Estimated Failure Rate: | 25% | Cost /Acre*: | \$1,460.14 |
| *Selected Replanting Work Items: | TILLING,SEEDING,MULCHING | | |
| Initial Job Cost: | \$76,219.31 | | |
| Reseeding Job Cost: | \$19,054.83 | | |
| Total Job Cost: | \$95,274 | | |
| Job Hours: | 76.00 | | |

REVEGETATION WORKTask description: NW area reseed 43.75 Ac @ 25% failureSite: Fountain PitPermit Action: TR-3 UpdatePermit/Job#: M1982155PROJECT IDENTIFICATIONTask #: 200State: ColoradoAbbreviation: NoneDate: 9/29/2022County: El PasoFilename: M155-200User: TC1Agency or organization name: DRMSFERTILIZING**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 |
|--------------------------------|----------------|
| Chisel plowing {DMG} | \$98.43 |
| Total Tilling Cost/Acre | \$98.43 |

SEEDING

| Seed Mix | Rate – PLS LBS / Acre | Seeds per SQ. FT | Cost /Acre |
|-----------------------------|--------------------------------|------------------------|----------------|
| Blue Grama - Native | 0.50 | 8.16 | \$6.86 |
| Little Bluestem - Native | 1.00 | 5.97 | \$13.57 |
| Sideoats Grama - Vaughn | 1.00 | 3.28 | \$8.38 |
| White Sweet Clover | 0.50 | 2.98 | \$2.06 |
| Western Wheatgrass - Native | 3.00 | 7.58 | \$18.00 |
| Needlegrass, Green - Lodorm | 2.00 | 8.31 | \$23.55 |
| Totals Seed Mix | 8.00 | 36.28 | \$72.42 |

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 |
|---|-------------------------|-------------|--------------------|-------------------|
| Hay, delivered {MEANS 31 25 14.16 1200} | 2.00 | TON | \$421.36 | \$842.72 |
| Total Mulch Materials Cost/Acre | | | | \$842.72 |

Application

| Description | Cost /Acre |
|--|-------------------|
| Crimping, with tractor {DMG survey data} | \$73.00 |
| Power mulcher (MEANS 32 91 13.16 0350) | \$141.57 |
| Total Mulch Application Cost/Acre | \$214.57 |

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: 10.9 Cost /Acre: \$1,460.14
 Estimated Failure Rate: 0% Cost /Acre*: \$0.00
 *Selected Replanting Work Items: NONE

Initial Job Cost: **\$15,915.53**
 Reseeding Job Cost: **\$0.00**
 Total Job Cost: **\$15,916**
 Job Hours: **20.00**

REVEGETATION WORKTask description: 10-Ac Overburden stockpile reseed 10 Ac @ 25% failureSite: Fountain PitPermit Action: TR-3 UpdatePermit/Job#: M1982155PROJECT IDENTIFICATIONTask #: 300State: ColoradoAbbreviation: NoneDate: 9/29/2022County: El PasoFilename: M155-300User: TC1Agency or organization name: DRMSFERTILIZING**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 |
|--------------------------------|----------------|
| Chisel plowing {DMG} | \$98.43 |
| Total Tilling Cost/Acre | \$98.43 |

SEEDING

| Seed Mix | Rate – PLS LBS / Acre | Seeds per SQ. FT | Cost /Acre |
|-----------------------------|--------------------------------|------------------------|----------------|
| Blue Grama - Native | 0.50 | 8.16 | \$6.86 |
| Little Bluestem - Native | 1.00 | 5.97 | \$13.57 |
| Sideoats Grama - Vaughn | 1.00 | 3.28 | \$8.38 |
| White Sweet Clover | 0.50 | 2.98 | \$2.06 |
| Western Wheatgrass - Native | 3.00 | 7.58 | \$18.00 |
| Needlegrass, Green - Lodorm | 2.00 | 8.31 | \$23.55 |
| Totals Seed Mix | 8.00 | 36.28 | \$72.42 |

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 |
|---|-------------------------|-------------|--------------------|-------------------|
| Hay, delivered {MEANS 31 25 14.16 1200} | 2.00 | TON | \$421.36 | \$842.72 |
| Total Mulch Materials Cost/Acre | | | | \$842.72 |

Application

| Description | Cost /Acre |
|--|-------------------|
| Crimping, with tractor {DMG survey data} | \$73.00 |
| Power mulcher (MEANS 32 91 13.16 0350) | \$141.57 |
| Total Mulch Application Cost/Acre | \$214.57 |

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: 2.5 Cost /Acre: \$1,460.14
 Estimated Failure Rate: 0% Cost /Acre*: \$0.00
 *Selected Replanting Work Items: NONE

Initial Job Cost: **\$3,650.35**
 Reseeding Job Cost: **\$0.00**
 Total Job Cost: **\$3,650**
 Job Hours: **5.00**

BULLDOZER WORKTask description: **HW Reduction (East-West Face)**Site: **Fountain Pit**Permit Action: **TR-3 Update**Permit/Job#: **M1982155****PROJECT IDENTIFICATION**Task #: **400**State: **Colorado**Abbreviation: **None**Date: **9/29/2022**County: **El Paso**Filename: **M155-400**User: **TC1**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D9T - 9SU**Horsepower: **405**Blade Type: **Semi-Universal**Attachment: **3-shank ripper**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

| | | <u>Utilization %</u> |
|-----------------------|----------|----------------------|
| Ownership Cost/Hour: | \$146.30 | NA |
| Operating Cost/Hour: | \$141.41 | 100 |
| Ripper own. | | |
| Cost/Hour: | \$17.01 | NA |
| Ripper op. Cost/Hour: | \$8.85 | 100 |
| Operator Cost/Hour: | \$40.04 | NA |

Total unit Cost/Hour: **\$353.61**Total Fleet Cost/Hour: **\$353.61****MATERIAL QUANTITIES**Initial Volume: **60,089**Swell factor: **1.124**Loose volume: **67,516 LCY**Source of estimated volume: **TR-3 Exh L & Tasks # 400.1A & B**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **50 feet**Unadjusted hourly production: **2,110.5 LCY/hr**Materials consistency description: **Compacted fill or embankment 0.9**Average push gradient: **-15 %**Average site altitude: **5,740 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: | 0.900 | (CAT HB)) |
| Dozing method: | 1.200 | (SLOT) |
| Visibility: | 1.000 | (AVG.) |
| Job efficiency: | 0.830 | (1 SHIFT/DAY) |
| Spoil pile: | 0.900 | (SSD-FC) |
| Push gradient: | 1.329 | (CAT HB) |
| Altitude: | 1.000 | (CAT HB) |
| Material Weight: | 0.793 | (CAT HB) |
| Blade type: | 1.000 | (PAT) |

Net correction: 0.6377

Adjusted unit
production: 1,345.87 LCY/hr
Adjusted fleet
production: **1345.87** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.263/LCY

Total job time: **50.17** Hours
Total job cost: **\$17,739**

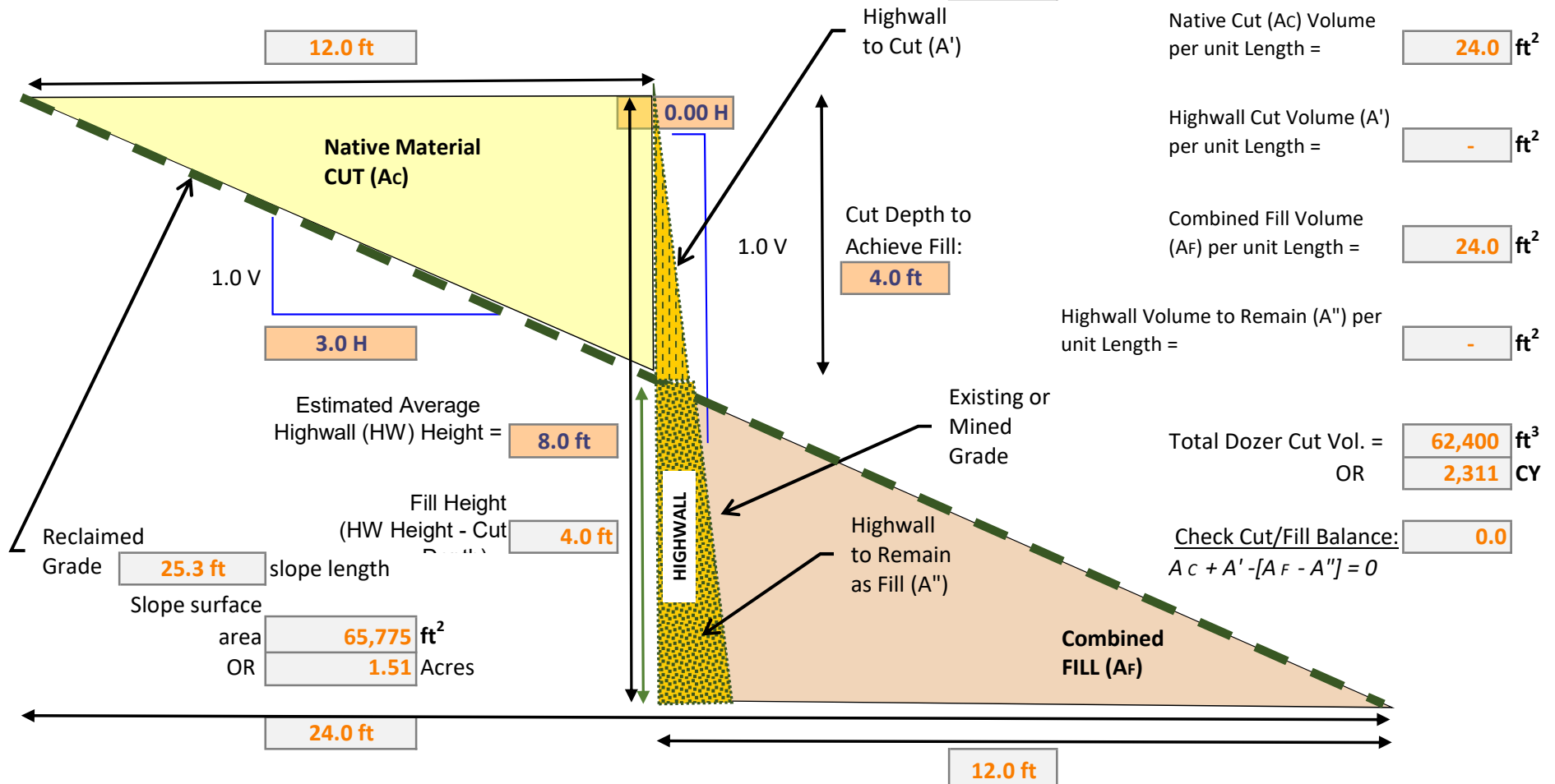
Task # 400.1A East-West Overburden Highwall Cut/Fill Volume Estimate

PROJECT: Fountain Pit
 PERMIT No.: M-1982-155
 HIGHWALL LOCATION: 2600 feet Length of Overburden Highwall

LEGEND

Input

Result



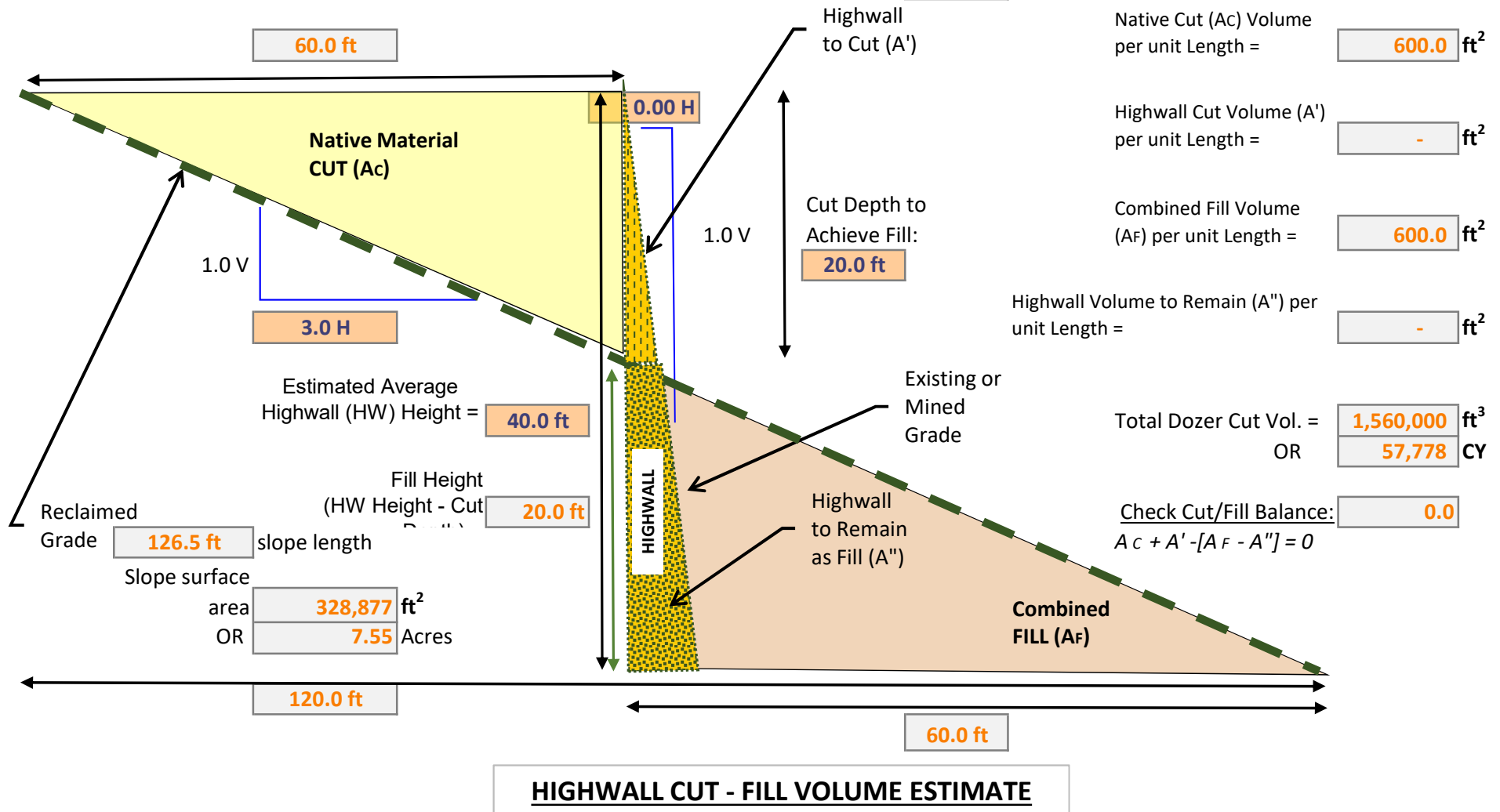
HIGHWALL CUT - FILL VOLUME ESTIMATE

Task # 400.1B East-West Working Face Highwall Cut/Fill Volume Estimate

PROJECT: Fountain Pit
 PERMIT No.: M-1982-155
 HIGHWALL LOCATION: 2600 feet Length of Working Face Highwall

LEGEND

| |
|--------|
| Input |
| Result |



BULLDOZER WORKTask description: **HW Reduction (West Sidewall)**Site: **Fountain Pit**Permit Action: **TR-3 Update**Permit/Job#: **M1982155****PROJECT IDENTIFICATION**Task #: **401**State: **Colorado**Abbreviation: **None**Date: **9/29/2022**County: **El Paso**Filename: **M155-401**User: **TC1**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D9T - 9SU**Horsepower: **405**Blade Type: **Semi-Universal**Attachment: **3-shank ripper**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

| | | <u>Utilization %</u> |
|-----------------------|----------|----------------------|
| Ownership Cost/Hour: | \$146.30 | NA |
| Operating Cost/Hour: | \$141.41 | 100 |
| Ripper own. | | |
| Cost/Hour: | \$17.01 | NA |
| Ripper op. Cost/Hour: | \$8.85 | 100 |
| Operator Cost/Hour: | \$40.04 | NA |

Total unit Cost/Hour: **\$353.61**Total Fleet Cost/Hour: **\$353.61****MATERIAL QUANTITIES**Initial Volume: **1,000**Swell factor: **1.124**Loose volume: **1,124 LCY**Source of estimated volume: **TR-3 Exh L p. 3 & Figure 2**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **50 feet**Unadjusted hourly production: **2,110.5 LCY/hr**Materials consistency description: **Compacted fill or embankment 0.9**Average push gradient: **-15 %**Average site altitude: **5,740 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: | 0.900 | (CAT HB)) |
| Dozing method: | 1.200 | (SLOT) |
| Visibility: | 1.000 | (AVG.) |
| Job efficiency: | 0.830 | (1 SHIFT/DAY) |
| Spoil pile: | 0.900 | (SSD-FC) |
| Push gradient: | 1.329 | (CAT HB) |
| Altitude: | 1.000 | (CAT HB) |
| Material Weight: | 0.793 | (CAT HB) |
| Blade type: | 1.000 | (PAT) |

Net correction: 0.6377

Adjusted unit
production: 1,345.87 LCY/hr
Adjusted fleet
production: **1345.87** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.263/LCY

Total job time: **0.83** Hours
Total job cost: **\$295**

TRUCK/LOADER TEAM WORKTask description: West Sidewall BackfillSite: Fountain PitPermit Action: TR-3 UpdatePermit/Job#: M1982155PROJECT IDENTIFICATIONTask #: 402State: ColoradoAbbreviation: NoneDate: 9/29/2022County: El PasoFilename: M155-402User: TC1Agency or organization name: DRMSHOURLY EQUIPMENT COSTShift basis: 1 per day

| | Equipment Description |
|---------------------------------|--------------------------|
| Truck Loader Team -Truck: | Cat 730 |
| -Loader: | CAT 980H |
| Support Equipment -Load Area: | NA |
| -Dump Area: | Cat D7R DS Series II LGP |
| Road Maintenance -Motor Grader: | CAT 14M |
| -Water Truck: | Water Tanker, 5,000 Gal. |

Cost Breakdown:

| | Truck/Loader Team | | Support Equipment | | Maintenance Equipment | |
|------------------------|-------------------|----------|-------------------|-----------|-----------------------|-------------|
| | Truck | Loader | Load Area | Dump Area | Motor Grader | Water Truck |
| %Utilization-machine: | 100 | 100 | NA | 100 | 25 | 25 |
| Ownership cost/hour: | \$97.13 | \$54.58 | NA | \$92.78 | \$114.80 | \$37.19 |
| Operating cost/hour: | \$65.52 | \$53.14 | NA | \$79.33 | \$19.85 | \$12.83 |
| %Utilization-riper: | NA | 0 | NA | NA | NA | NA |
| Ripper own. cost/hour: | NA | \$0.00 | NA | \$0.00 | \$0.00 | \$0.00 |
| Ripper op. cost/hour: | NA | \$0.00 | NA | \$0.00 | \$0.00 | \$0.00 |
| Operator cost/hour: | \$24.82 | \$35.97 | NA | \$40.04 | \$46.87 | \$0.00 |
| Unit Subtotals: | \$187.47 | \$143.69 | NA | \$212.15 | \$181.52 | \$50.02 |
| Number of Units: | 3 | 1 | 0 | 1 | 1 | 1 |
| Group Subtotals: | Work: \$706.10 | | Support: \$212.15 | | Maint: \$231.54 | |

Total work team cost/hour: \$1,149.79MATERIAL QUANTITIESInitial volume: 79,300

CCY

Swell factor: 1.125Loose volume: 89,213

LCY

Source of estimated volume: TR-3, Exh L, p 3 & Figure 2Source of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00HOURLY PRODUCTIONTruck Capacity:

Truck Payload (weight) Basis:

Material weight: 2,550

Pounds/LCY

Description: Earth - Dry packedRated Payload: 62,000

Pounds

Payload Capacity: 24.31

LCY

Truck Bed (volume) Basis:

| | | |
|------------------|-------|-----|
| Struck Volume: | 17.10 | LCY |
| Heaped Volume: | 22.10 | LCY |
| Average Volume: | 19.60 | LCY |
| Adjusted Volume: | 22.10 | LCY |

Final Truck Volume Based on Number of Loader Passes: 16.50 LCY

Loading Tool Capacity

Bucket Size Class: NA

| | | |
|---------------------|--------------|---|
| Rated Capacity: | 7.500 | LCY (heaped) |
| Bucket Fill Factor: | 1.100 | Other - rock/dirt mixtures (100-120%) 1.100 |
| Adjusted Capacity: | 8.250 | LCY |

Job Condition Corrections:

Site Altitude (ft.): 5740 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 passes

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA
 Selected Value within this Basic Rating: NA

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): 0.550 minutes

| Cycle Time Factors | | Factor (min.) | Source |
|-----------------------------|---|---------------|----------|
| Material: | Mixed material 0.02 | 0.020 | (Cat HB) |
| Stockpile: | No adjustment - factor not applicable 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 Loader Cycle Time: | | 0.490 | minutes |
| Net Load Time per Truck: | | 0.590 | minutes |

Truck Cycle Time:

| | | | | | |
|-------------------------------|-------|---------|-----------------------------|-------|---------|
| Truck Exchange Time: | 0.60 | Minutes | Adjusted for site altitude: | 0.600 | Minutes |
| Truck Load Time: | 0.590 | Minutes | Adjusted for site altitude: | 0.590 | Minutes |
| Truck Maneuver and Dump Time: | 1.00 | Minutes | Adjusted for site altitude: | 1.000 | Minutes |

Truck Travel (Haul & Return) Time:

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

maintained 3.0

Haul Route:

| Seg # | Haul Distance (Ft) | Grade (%) | Roll. Res (%) | Total Res (%) | Velocity (fpm) | Travel Time (min) |
|-------|-----------------------|-----------|------------------|------------------|-------------------|-------------------------|
| 1 | 1000.00 | 1.00 | 3.00 | 4.00 | 1774 | 0.753 |

Haul Time: **0.753** minutes

Return Route:

| Seg # | Haul Distance (Ft) | Grade (%) | Roll. Res (%) | Total Res (%) | Velocity (fpm) | Travel Time (min) |
|-------|-----------------------|-----------|------------------|------------------|-------------------|-------------------------|
| 1 | 1000.00 | -1.00 | 3.00 | 2.00 | 3040 | 0.476 |

Return Time: **0.476** minutesTotal Truck Cycle Time: **3.419** minutes

Loading Tool unit

| | | | | | |
|-----------------------|---------------|----------|------------------------------|---------------|----------|
| Production | <u>831.93</u> | LCY/Hour | Adjusted for job efficiency: | <u>690.50</u> | LCY/Hour |
| Truck Unit Production | <u>289.56</u> | LCY/Hour | Adjusted for job efficiency: | <u>240.33</u> | LCY/Hour |

| | | | | | |
|------------------------|----------|----------|----------------------------|----------|----------|
| Optimal No. of Trucks: | <u>3</u> | Truck(s) | Selected Number of Trucks: | <u>3</u> | Truck(s) |
|------------------------|----------|----------|----------------------------|----------|----------|

| | | |
|---|----------------------|----------|
| Adjusted hourly truck team production: | <u>721.00</u> | LCY/Hour |
| Adjusted single truck/loader team production: | <u>690.50</u> | LCY/Hour |
| Adjusted multiple truck/loader team production: | <u>690.50</u> | LCY/Hour |

JOB TIME AND COST

| | | | | | |
|-------------|----------|---------|-----------------|----------------------|-------|
| Fleet size: | <u>1</u> | Team(s) | Total job time: | <u>129.20</u> | Hours |
|-------------|----------|---------|-----------------|----------------------|-------|

| | | | | |
|------------|----------------|------|-----------------|-------------------------|
| Unit cost: | <u>\$1.665</u> | /LCY | Total job cost: | <u>\$148,552</u> |
|------------|----------------|------|-----------------|-------------------------|

BULLDOZER WORKTask description: **HW Reduction (East Sidewall)**Site: **Fountain Pit**Permit Action: **TR-3 Update**Permit/Job#: **M1982155****PROJECT IDENTIFICATION**Task #: **403**State: **Colorado**Abbreviation: **None**Date: **9/29/2022**County: **El Paso**Filename: **M155-403**User: **TC1**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D9T - 9SU**Horsepower: **405**Blade Type: **Semi-Universal**Attachment: **3-shank ripper**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

| | | <u>Utilization %</u> |
|-----------------------|----------|----------------------|
| Ownership Cost/Hour: | \$146.30 | NA |
| Operating Cost/Hour: | \$141.41 | 100 |
| Ripper own. | | |
| Cost/Hour: | \$17.01 | NA |
| Ripper op. Cost/Hour: | \$8.85 | 100 |
| Operator Cost/Hour: | \$40.04 | NA |

Total unit Cost/Hour: **\$353.61**Total Fleet Cost/Hour: **\$353.61****MATERIAL QUANTITIES**Initial Volume: **33,920**Swell factor: **1.124**Loose volume: **38,113 LCY**Source of estimated volume: **TR-3 Exh L p. 4 & Figures 3 & 4**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **50 feet**Unadjusted hourly production: **2,110.5 LCY/hr**Materials consistency description: **Compacted fill or embankment 0.9**Average push gradient: **-15 %**Average site altitude: **5,740 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: | 0.900 | (CAT HB)) |
| Dozing method: | 1.200 | (SLOT) |
| Visibility: | 1.000 | (AVG.) |
| Job efficiency: | 0.830 | (1 SHIFT/DAY) |
| Spoil pile: | 0.900 | (SSD-FC) |
| Push gradient: | 1.329 | (CAT HB) |
| Altitude: | 1.000 | (CAT HB) |
| Material Weight: | 0.793 | (CAT HB) |
| Blade type: | 1.000 | (PAT) |

Net correction: 0.6377

Adjusted unit
production: 1,345.87 LCY/hr
Adjusted fleet
production: **1345.87** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.263/LCY

Total job time: **28.32** Hours
Total job cost: **\$10,013**

TRUCK/LOADER TEAM WORKTask description: **East Sidewall Backfill**Site: **Fountain Pit**Permit Action: **TR-3 Update**Permit/Job#: **M1982155****PROJECT IDENTIFICATION**Task #: **404**State: **Colorado**Abbreviation: **None**Date: **9/29/2022**County: **El Paso**Filename: **M155-404**User: **TC1**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

| | Equipment Description |
|---------------------------------|--------------------------|
| Truck Loader Team -Truck: | Cat 730 |
| -Loader: | CAT 980H |
| Support Equipment -Load Area: | NA |
| -Dump Area: | Cat D7R DS Series II LGP |
| Road Maintenance -Motor Grader: | CAT 14M |
| -Water Truck: | Water Tanker, 5,000 Gal. |

Cost Breakdown:

| | Truck/Loader Team | | Support Equipment | | Maintenance Equipment | |
|------------------------|-------------------|----------|-------------------|-----------|-----------------------|-------------|
| | Truck | Loader | Load Area | Dump Area | Motor Grader | Water Truck |
| %Utilization-machine: | 100 | 100 | NA | 100 | 25 | 25 |
| Ownership cost/hour: | \$97.13 | \$54.58 | NA | \$92.78 | \$114.80 | \$37.19 |
| Operating cost/hour: | \$65.52 | \$53.14 | NA | \$79.33 | \$19.85 | \$12.83 |
| %Utilization-riper: | NA | 0 | NA | NA | NA | NA |
| Ripper own. cost/hour: | NA | \$0.00 | NA | \$0.00 | \$0.00 | \$0.00 |
| Ripper op. cost/hour: | NA | \$0.00 | NA | \$0.00 | \$0.00 | \$0.00 |
| Operator cost/hour: | \$24.82 | \$35.97 | NA | \$40.04 | \$46.87 | \$0.00 |
| Unit Subtotals: | \$187.47 | \$143.69 | NA | \$212.15 | \$181.52 | \$50.02 |
| Number of Units: | 3 | 1 | 0 | 1 | 1 | 1 |
| Group Subtotals: | Work: \$706.10 | | Support: \$212.15 | | Maint: \$231.54 | |

Total work team cost/hour: **\$1,149.79****MATERIAL QUANTITIES**Initial volume: **7,200**

CCY

Swell factor: **1.125**Loose volume: **8,100**

LCY

Source of estimated volume: **TR-3, Exh L, p 4 & Figures 3 & 4**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: **2,550**

Pounds/LCY

Description: **Earth - Dry packed**Rated Payload: **62,000**

Pounds

Payload Capacity: **24.31**

LCY

Truck Bed (volume) Basis:

| | | |
|------------------|-------|-----|
| Struck Volume: | 17.10 | LCY |
| Heaped Volume: | 22.10 | LCY |
| Average Volume: | 19.60 | LCY |
| Adjusted Volume: | 22.10 | LCY |

Final Truck Volume Based on Number of Loader Passes: 16.50 LCY

Loading Tool Capacity

Bucket Size Class: NA

| | | |
|---------------------|--------------|---|
| Rated Capacity: | 7.500 | LCY (heaped) |
| Bucket Fill Factor: | 1.100 | Other - rock/dirt mixtures (100-120%) 1.100 |
| Adjusted Capacity: | 8.250 | LCY |

Job Condition Corrections:

Site Altitude (ft.): 5740 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 passes

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA
 Selected Value within this Basic Rating: NA

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): 0.550 minutes

| Cycle Time Factors | | Factor (min.) | Source |
|-----------------------------|---|---------------|----------|
| Material: | Mixed material 0.02 | 0.020 | (Cat HB) |
| Stockpile: | No adjustment - factor not applicable 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 Loader Cycle Time: | | 0.490 | minutes |
| Net Load Time per Truck: | | 0.590 | minutes |

Truck Cycle Time:

| | | | | | |
|-------------------------------|-------|---------|-----------------------------|-------|---------|
| Truck Exchange Time: | 0.60 | Minutes | Adjusted for site altitude: | 0.600 | Minutes |
| Truck Load Time: | 0.590 | Minutes | Adjusted for site altitude: | 0.590 | Minutes |
| Truck Maneuver and Dump Time: | 1.00 | Minutes | Adjusted for site altitude: | 1.000 | Minutes |

Truck Travel (Haul & Return) Time:

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,
maintained 3.0

Haul Route:

| Seg # | Haul Distance (Ft) | Grade (%) | Roll. Res (%) | Total Res (%) | Velocity (fpm) | Travel Time (min) |
|-------|--------------------|-----------|---------------|---------------|----------------|-------------------|
| 1 | 1000.00 | 1.00 | 3.00 | 4.00 | 1774 | 0.753 |

Haul Time: **0.753** minutes

Return Route:

| Seg # | Haul Distance (Ft) | Grade (%) | Roll. Res (%) | Total Res (%) | Velocity (fpm) | Travel Time (min) |
|-------|--------------------|-----------|---------------|---------------|----------------|-------------------|
| 1 | 1000.00 | -1.00 | 3.00 | 2.00 | 3040 | 0.476 |

Return Time: **0.476** minutesTotal Truck Cycle Time: **3.419** minutes

Loading Tool unit

Production 831.93 LCY/HourAdjusted for job efficiency: 690.50 LCY/Hour

Truck Unit Production

289.56 LCY/HourAdjusted for job efficiency: 240.33 LCY/HourOptimal No. of Trucks: 3 Truck(s)Selected Number of Trucks: 3 Truck(s)Adjusted hourly truck team production: 721.00 LCY/HourAdjusted single truck/loader team production: 690.50 LCY/HourAdjusted multiple truck/loader team production: **690.50** LCY/Hour**JOB TIME AND COST**Fleet size: 1 Team(s)Total job time: **11.73** HoursUnit cost: \$1.665 /LCYTotal job cost: **\$13,488**

TRUCK/LOADER TEAM WORKTask description: **Growth Media Placement**Site: **Fountain Pit**Permit Action: **TR-3 Update**Permit/Job#: **M1982155****PROJECT IDENTIFICATION**Task #: **450**State: **Colorado**Abbreviation: **None**Date: **9/29/2022**County: **El Paso**Filename: **M155-450**User: **TC1**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

| | Equipment Description |
|---------------------------------|--------------------------|
| Truck Loader Team -Truck: | Cat 730 |
| -Loader: | CAT 980H |
| Support Equipment -Load Area: | NA |
| -Dump Area: | Cat D7R DS Series II LGP |
| Road Maintenance –Motor Grader: | CAT 14M |
| -Water Truck: | Water Tanker, 5,000 Gal. |

Cost Breakdown:

| | Truck/Loader Team | | Support Equipment | | Maintenance Equipment | |
|------------------------|-------------------|----------|-------------------|-----------|-----------------------|-------------|
| | Truck | Loader | Load Area | Dump Area | Motor Grader | Water Truck |
| %Utilization-machine: | 100 | 100 | NA | 100 | 25 | 25 |
| Ownership cost/hour: | \$97.13 | \$54.58 | NA | \$92.78 | \$114.80 | \$37.19 |
| Operating cost/hour: | \$65.52 | \$53.14 | NA | \$79.33 | \$19.85 | \$12.83 |
| %Utilization-riper: | NA | 0 | NA | NA | NA | NA |
| Ripper own. cost/hour: | NA | \$0.00 | NA | \$0.00 | \$0.00 | \$0.00 |
| Ripper op. cost/hour: | NA | \$0.00 | NA | \$0.00 | \$0.00 | \$0.00 |
| Operator cost/hour: | \$24.82 | \$35.97 | NA | \$40.04 | \$46.87 | \$0.00 |
| Unit Subtotals: | \$187.47 | \$143.69 | NA | \$212.15 | \$181.52 | \$50.02 |
| Number of Units: | 3 | 1 | 0 | 1 | 1 | 1 |
| Group Subtotals: | Work: \$706.10 | | Support: \$212.15 | | Maint: \$231.54 | |

Total work team cost/hour: **\$1,149.79****MATERIAL QUANTITIES**Initial volume: **231,244**

CCY

Swell factor: **1.125**Loose volume: **260,150**

LCY

Source of estimated volume: **TR-3, Exh L: 10" over 172 acres**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: **2,550**

Pounds/LCY

Description: **Earth - Dry packed**Rated Payload: **62,000**

Pounds

Payload Capacity: **24.31**

LCY

Truck Bed (volume) Basis:

| | | |
|------------------|-------|-----|
| Struck Volume: | 17.10 | LCY |
| Heaped Volume: | 22.10 | LCY |
| Average Volume: | 19.60 | LCY |
| Adjusted Volume: | 22.10 | LCY |

Final Truck Volume Based on Number of Loader Passes: 16.50 LCY

Loading Tool Capacity

Bucket Size Class: NA

| | | |
|---------------------|--------------|---|
| Rated Capacity: | 7.500 | LCY (heaped) |
| Bucket Fill Factor: | 1.100 | Other - rock/dirt mixtures (100-120%) 1.100 |
| Adjusted Capacity: | 8.250 | LCY |

Job Condition Corrections:

Site Altitude (ft.): 5740 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 passes

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA
 Selected Value within this Basic Rating: NA

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): 0.550 minutes

| Cycle Time Factors | | Factor (min.) | Source |
|-----------------------------|---|---------------|----------|
| Material: | Mixed material 0.02 | 0.020 | (Cat HB) |
| Stockpile: | No adjustment - factor not applicable 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 Loader Cycle Time: | | 0.490 | minutes |
| Net Load Time per Truck: | | 0.590 | minutes |

Truck Cycle Time:

| | | | | | |
|-------------------------------|-------|---------|-----------------------------|-------|---------|
| Truck Exchange Time: | 0.60 | Minutes | Adjusted for site altitude: | 0.600 | Minutes |
| Truck Load Time: | 0.590 | Minutes | Adjusted for site altitude: | 0.590 | Minutes |
| Truck Maneuver and Dump Time: | 1.00 | Minutes | Adjusted for site altitude: | 1.000 | Minutes |

Truck Travel (Haul & Return) Time:

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

maintained 3.0

Haul Route:

| Seg # | Haul Distance (Ft) | Grade (%) | Roll. Res (%) | Total Res (%) | Velocity (fpm) | Travel Time (min) |
|-------|--------------------|-----------|---------------|---------------|----------------|-------------------|
| 1 | 1200.00 | 0.00 | 3.00 | 3.00 | 2183 | 0.813 |

Haul Time: **0.813** minutes

Return Route:

| Seg # | Haul Distance (Ft) | Grade (%) | Roll. Res (%) | Total Res (%) | Velocity (fpm) | Travel Time (min) |
|-------|--------------------|-----------|---------------|---------------|----------------|-------------------|
| 1 | 1200.00 | 0.00 | 3.00 | 3.00 | 2936 | 0.563 |

Return Time: **0.563** minutesTotal Truck Cycle Time: **3.566** minutes

Loading Tool unit Production 831.93 LCY/Hour Adjusted for job efficiency: 690.50 LCY/Hour
 Truck Unit Production 277.62 LCY/Hour Adjusted for job efficiency: 230.43 LCY/Hour
 Optimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)
 Adjusted hourly truck team production: 691.28 LCY/Hour
 Adjusted single truck/loader team production: 690.50 LCY/Hour
 Adjusted multiple truck/loader team production: **690.50** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **376.75** HoursUnit cost: \$1.665 /LCY Total job cost: **\$433,187**

DEMOLITION WORK

Task description: Demo Wash Plant

Site: Fountain Pit

Permit Action: TR-3 Update

Permit/Job#: M1982155

PROJECT IDENTIFICATION

Task #: 500

State: Colorado

Abbreviation: None

Date: 9/29/2022

County: El Paso

Filename: M155-500

User: TC1

Agency or organization name: DRMS

UNIT COSTS

Location adjustment: 87.90 %

| Structure or Item Description | Dimensions | Demolition Menu Selection | Quantity | Unit | Unit Cost | Total Cost |
|--------------------------------|---------------|---|----------|------|-----------|------------|
| Wash Plant Demo/Haul to Midway | 8' x 36' x 7' | Plant (1S) demo./off-site disposal in approved landfill - Max. 15 mile haul | 2,016.00 | CF | \$0.73 | \$1,467.65 |
| Demo concrete support slab | 800 sqft | Floor, concrete, demolition only, average reinforcing - 8 in. thick | 800.00 | SF | \$1.48 | \$1,184.00 |

Job Hours: 0.00

Subtotal
(unadjusted): \$2,651.65

Total Cost
(adjusted for location): \$2,330.80

REVEGETATION WORKTask description: Seed and Mulch 172 AcresSite: Fountain PitPermit Action: TR-3 UpdatePermit/Job#: M1982155PROJECT IDENTIFICATIONTask #: 600State: ColoradoAbbreviation: NoneDate: 9/28/2022County: El PasoFilename: M155-600User: TC1Agency or organization name: DRMSFERTILIZING**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 |
|--------------------------------|----------------|
| Chisel plowing {DMG} | \$98.43 |
| Total Tilling Cost/Acre | \$98.43 |

SEEDING

| Seed Mix | Rate – PLS LBS / Acre | Seeds per SQ. FT | Cost /Acre |
|-----------------------------|--------------------------------|------------------------|----------------|
| Blue Grama - Native | 0.50 | 8.16 | \$6.86 |
| Little Bluestem - Native | 1.00 | 5.97 | \$13.57 |
| Sideoats Grama - Vaughn | 1.00 | 3.28 | \$8.38 |
| White Sweet Clover | 0.50 | 2.98 | \$2.06 |
| Western Wheatgrass - Native | 3.00 | 7.58 | \$18.00 |
| Needlegrass, Green - Lodorm | 2.00 | 8.31 | \$23.55 |
| Totals Seed Mix | 8.00 | 36.28 | \$72.42 |

Application

| 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 |
|---|-----------------|------|-------------|-----------------|
| Hay, delivered {MEANS 31 25 14.16 1200} | 2.00 | TON | \$421.36 | \$842.72 |
| Total Mulch Materials Cost/Acre | | | | \$842.72 |

Application

| Description | Cost /Acre |
|--|-------------------|
| Crimping, with tractor {DMG survey data} | \$73.00 |
| Power mulcher (MEANS 32 91 13.16 0350) | \$141.57 |
| Total Mulch Application Cost/Acre | \$214.57 |

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: | 172 | Cost /Acre: | \$1,460.14 |
| Estimated Failure Rate: | 25% | Cost /Acre*: | \$1,460.14 |
| *Selected Replanting Work Items: | TILLING,SEEDING,MULCHING | | |
| Initial Job Cost: | \$251,144.08 | | |
| Reseeding Job Cost: | \$62,786.02 | | |
| Total Job Cost: | \$313,930 | | |
| Job Hours: | 344.00 | | |

REVEGETATION WORKTask description: Seed and Mulch 20 Acres Newly Stripped AreaSite: Fountain PitPermit Action: TR-3 UpdatePermit/Job#: M1982155PROJECT IDENTIFICATIONTask #: 610State: ColoradoAbbreviation: NoneDate: 10/28/2022County: El PasoFilename: M155-610User: TC1Agency or organization name: DRMSFERTILIZING**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 |
|--------------------------------|----------------|
| Chisel plowing {DMG} | \$98.43 |
| Total Tilling Cost/Acre | \$98.43 |

SEEDING

| Seed Mix | Rate – PLS LBS / Acre | Seeds per SQ. FT | Cost /Acre |
|-----------------------------|--------------------------------|------------------------|----------------|
| Blue Grama - Native | 0.50 | 8.16 | \$6.86 |
| Little Bluestem - Native | 1.00 | 5.97 | \$13.57 |
| Sideoats Grama - Vaughn | 1.00 | 3.28 | \$8.38 |
| White Sweet Clover | 0.50 | 2.98 | \$2.06 |
| Western Wheatgrass - Native | 3.00 | 7.58 | \$18.00 |
| Needlegrass, Green - Lodorm | 2.00 | 8.31 | \$23.55 |
| Totals Seed Mix | 8.00 | 36.28 | \$72.42 |

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 |
|---|-----------------|------|-------------|-----------------|
| Hay, delivered {MEANS 31 25 14.16 1200} | 2.00 | TON | \$421.36 | \$842.72 |
| Total Mulch Materials Cost/Acre | | | | \$842.72 |

Application

| Description | Cost /Acre |
|--|-----------------|
| Crimping, with tractor {DMG survey data} | \$73.00 |
| Power mulcher (MEANS 32 91 13.16 0350) | \$141.57 |
| Total Mulch Application Cost/Acre | \$214.57 |

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: | 20 | Cost /Acre: | \$1,460.14 |
| Estimated Failure Rate: | 25% | Cost /Acre*: | \$1,460.14 |
| *Selected Replanting Work Items: | TILLING,SEEDING,MULCHING | | |

| | |
|---------------------|--------------------|
| Initial Job Cost: | \$29,202.80 |
| Reseeding Job Cost: | \$7,300.70 |
| Total Job Cost: | \$36,504 |
| Job Hours: | 344.00 |

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Mob/demob (includes AM-3 area)**Site: **Fountain Pit**Permit Action: TR-3 UpdatePermit/Job#: M1982155**PROJECT IDENTIFICATION**

Task #: 700 State: Colorado Abbreviation: None
 Date: 9/28/2022 County: El Paso Filename: M155-700
 User: TC1

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: | \$15.25 | \$23.06 | \$37.58 |
| Operating Cost/Hour: | \$25.26 | \$30.83 | \$51.41 |
| Operator Cost/Hour: | \$27.71 | \$27.71 | \$27.71 |
| Helper Cost/Hour: | \$0.00 | \$20.22 | \$20.22 |
| Total Unit Cost/Hour: | \$68.22 | \$101.82 | \$136.92 |

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 | 60.01 | \$146.30 | \$136.92 | 1 | \$283.22 | \$136.92 | \$250.00 |
| Drill/Broadcast Seeder with Tractor | 25.00 | \$6.25 | \$68.22 | 1 | \$74.47 | \$68.22 | \$250.00 |
| Power Mulcher (Bowie LD-90) | 6.00 | \$14.79 | \$68.22 | 1 | \$83.01 | \$68.22 | \$250.00 |
| Cat 730 | 25.19 | \$97.13 | \$68.22 | 3 | \$496.05 | \$204.66 | \$750.00 |
| CAT 14M | 23.57 | \$120.14 | \$68.22 | 1 | \$188.36 | \$68.22 | \$250.00 |
| Cat D7R DS Series II LGP | 34.57 | \$92.78 | \$101.82 | 1 | \$194.60 | \$101.82 | \$250.00 |
| CAT 980H | 33.12 | \$54.58 | \$101.82 | 1 | \$156.40 | \$101.82 | \$250.00 |
| Water Tanker, 5,000 Gal. | 15.00 | \$37.19 | \$68.22 | 1 | \$105.41 | \$68.22 | \$250.00 |

Subtotals: **\$1,581.52** **\$818.10** **\$2,500.00****ROADABLE EQUIPMENT:**

| Machine Description | Total Cost/hr/ unit | Fleet Size | Haul Trip Cost/hr/ fleet | Return Trip Cost/hr/ fleet |
|---------------------|------------------------|------------|-----------------------------|-------------------------------|
|---------------------|------------------------|------------|-----------------------------|-------------------------------|

Subtotals: **\$0.00** **\$0.00**

EQUIPMENT HAUL DISTANCE and Time

| | | |
|--|-------------------------|-------|
| Nearest Major City or Town within project area region: | <u>COLORADO SPRINGS</u> | |
| Total one-way travel distance: | <u>15.00</u> | miles |
| Average Travel Speed: | <u>50.00</u> | mph |

| | |
|-------------------------------------|-------------------|
| Total Non-Roadable Mob/Demob Cost * | <u>\$8,021.29</u> |
| ** two round trips with haul rig: | |
| Total Roadable Mob/Demob Cost ** | <u>\$0.00</u> |
| ** one round trip, no haul rig: | |

Transportation Cycle Time:

| | Non-Roadable Equipment | Roadable Equipment |
|-------------------------|---------------------------|-----------------------|
| Haul Time (Hours): | <u>0.30</u> | <u>0.30</u> |
| Return Time (Hours): | <u>0.30</u> | <u>0.30</u> |
| Loading Time (Hours): | <u>0.25</u> | <u>NA</u> |
| Unloading Time (Hours): | <u>0.25</u> | <u>NA</u> |
| Subtotals: | <u>1.10</u> | <u>0.60</u> |

JOB TIME AND COST

| | | |
|-----------------|-------------|-------|
| Total job time: | <u>2.20</u> | Hours |
|-----------------|-------------|-------|

| | |
|-----------------|----------------|
| Total job cost: | <u>\$8,021</u> |
|-----------------|----------------|