Midterm Permit Review (MT-9)

for the

Colowyo Mine

Colowyo Coal Company, L.P

Permit No. C-1981-019

Conducted by
Colorado Division of Reclamation, Mining and Safety
1313 Sherman Street, Room 215
Denver, CO 80203
303-866-3567
Michael Cunningham, Director

Hunter Ridley
Environmental Protection Specialist

May 5, 2025

In Fulfillment of C.R.S. 34-33-115(3), and the following Regulations of the Colorado Mined Land Reclamation Board for Coal Mining:
2.08.3, 2.06.2(10), 2.06.3(4)(a), 2.06.5(3)(c), 2.06.7(5) and 3.02.2(4)

Midterm Review (MT-9)
Colowyo Mine
C-1981-019

This document presents the results of the Midterm Review of the Colowyo Coal Company, LP's (CCC) Colowyo Mine (Colowyo), conducted by the Colorado Division of Reclamation, Mining and Safety (the Division). This Midterm Review was conducted to fulfill the requirements of the Colorado Surface Coal Mining Reclamation Act, and Rules 2.08.3, 2.06.2(9), 2.06.3(4), 2.06.5(3), 2.06.7(5) and 3.02.2(4) of the Rules and Regulations of the Colorado Mined Land Reclamation Board for Coal Mining.

Rule 2.08.3 requires the Division to conduct a review of each permit issued, prior to its midterm (2 ½ years). Based on this review, for good cause shown, the Division may require reasonable revisions to, or modifications of, the permits provisions to ensure compliance with the Act and Regulations.

Rules 2.06.2, 2.06.3, 2.06.5 and 2.06.7 require that during the midterm review, where applicable, experimental practices, mountaintop removal variances, variances from approximate original contour (AOC), and variances from contemporaneous reclamation, respectively, be reviewed by the Division. The Colowyo Mine does not conduct any experimental practices (Rule 2.06.2), mountain top removal operations (Rule 2.06.3) or have a variance for contemporaneous reclamation for combined surface and underground mining (Rule 2.06.7). Variances have been granted for approximate original contour due to steep slope mining (Rule 2.06.5) at the Colowyo Mine. These items are addressed in Section IV below.

Rule 3.02.2(4) requires the Division to review the amount of performance bond liability and the terms of acceptance of the bond every 2 ½ years.

The proposed decision date for Permit Renewal No. 8 was January 5, 2023. The permit for the Colowyo Mine was issued on February 25, 2023. The Proposed Decision and Findings of Compliance were updated at the time of the proposed decision for Permit Renewal No. 8.

Section I -History of Site

Site location
The Colowyo Mine is a surface mine located in Moffat and Rio Blanco Counties, Colorado, approximately 23 miles south of the town of Craig, Colorado. The permit area is west of and contiguous with Colorado State Highway 13. The permit area encompasses 26,173.14 acres (3,481.67 Federal, 1,277.00 State and 21,414.47 private surface acres; 21,778.47 Federal, 1,287.21 State and 3,099.46 private coal acres). The total permitted disturbance and affected area is 5,419.60 acres. The Colowyo Mine is comprised of five open pits: the East Pit, the Section 16 Pit, the West Pit, the South Taylor Pit, and the Collom Pit. Multiple seam mining is currently conducted in the Collom Pit, multiple seam mining was conducted in the East, West, and South Taylor Pits which are currently in reclamation and two seams were mined in the Section 16 Pit, which is also in reclamation. Coal from the Colowyo Mine is trucked to the Gossard Loadout and shipped to market by rail.

Permit History

Pre-startup activities for a surface mine permit commenced in the summer of 1973 and Open Pit Mining Permit No. 76-15 was issued on August 31, 1976. This permit was converted to Development and Extraction Mining Permit No. 76-15C/A on January 25, 1977. An application for Permit C-1981-019 was submitted on September 13, 1982 and the permanent program permit was issued on November 4, 1982. The permit was renewed on July 10, 1987 (RN-01), June 30, 1992 (RN-02), November 5, 1997 (RN-03), November 5, 2002 (RN-04), October 23, 2009 (RN-05), May 20, 2013(RN-06), August 14, 2018 (RN-07), and February 25, 2023 (RN-08).

Mining History

Underground mining activities in the vicinity of the current permit were started in 1914. Colowyo conducted underground mining operations at the Red Wing Mine from 1945- 1974. Surface mining operations began in 1976 and have continued uninterrupted to date. Initially permitted as a single seam operation, Colowyo began its operations in the East Pit, mining from north to south. The East Pit was developed as a multi-seam operation (eight seams) in 1977. An eastern appendage of the East Pit, the Section 11 Pit, was approved in 1991 and was later absorbed into the East Pit. Coal extraction by open pit mining concluded in the East Pit in 2003 with highwall mining continuing until 2006. Operations in the two-seam Section 16 Pit were initiated in 1998. The Section 16 Pit mining was initially conducted from east to west but was later changed to mine from north to south, as coal resources were depleted. Mining in the Section 16 Pit concluded in 2002. The West Pit was developed as a multi-seam operation (eight seams) in 1998. The pit progressed from north to south and active mining operations were completed in 2015. The South Taylor Pit was developed as a multi-seam operation (7 seams) in 2007. Mining operations in the South Taylor Pit concluded in 2023. Coal extraction in the South Taylor Pit continues to date. With the approval of Permit Revision No. 4, the Collom Pit Area, located west of the South Taylor Pit, has been incorporated into Colowyo's Permit Application Package (PAP). Mining operations in the Collom Pit began in 2016 and is progressing from the north to the south. The Collom Pit is developed as a multi-seam operation (8 seams).

Auger mining was conducted at the interface between the Section 11 Pit and East Pit from 1993-1994. Highwall mining operations were conducted in the East Pit from 2004- 2006. Highwall mining operations were conducted in the West Pit in 2004, 2006, 2007 and 2008. Highwall mining operations were conducted in the South Taylor Pit beginning in 2009 through 2023. Highwall mining is currently being conducted in the Collom Pit. The use of highwall mining at the Colowyo Mine has extended the economic recovery of coal resources beyond the economic limits of deep-pit operations.

<u>Section II - Revisions to Permit C-1981-019</u>

Since the approval of Permit Renewal No. 8 (April 18, 2022), the following minor revisions (MR) and technical revisions (TR) have been received for Permit No. C-1981- 019.

Minor Revision 240 – MR240 updates Exhibit 13C with additional areas scheduled for topsoil removal to support the advancement of surface and highwall mining in the Collom Pit. The revision was received on April 20, 2022, deemed complete on April 25, 2022 and approved on April 25, 2022. +$408,354.00

Technical Revision 153 - TR153 provides a new design for the at grade crossing at Moffat County Road 51 to facilitate moving a dragline through the crossing. The revision was received on April 21, 2022, deemed complete on April 26, 2022 and approved on June 28, 2022. +$524.00

Technical Revision 154 - TR154 proposes are revised mining plan and post mine topography for the Collom Pit. The revision was received on May 3, 2022, deemed complete on May 13, 2022 and approved on July 12, 2022.

Minor Revision 241 – MR241 proposes updated to the topsoil movement for the West and South Taylor Pits. The revision was received on May 23, 2022, deemed complete on June 2, 2022 and approved on June 6, 2022.

Minor Revision 242 – MR242 proposes a topsoil windrow on the west crest of Little Collom Gulch within the Collom Pit. proposes two light-use roads adjacent to the Collom Haul Road for access to monitor and maintain several small sediment sumps. The revision was received on June 20, 2022, deemed complete on June 30, 2022 and approved on July 8, 2022.

Minor Revision 243 – MR243 proposes a topsoil windrow on the west crest of Little Collom Gulch within the Collom Pit. The revision was received on July 14, 2022, deemed complete on July 22, 2022 and approved on August 1, 2022.

Minor Revision 244 – MR244 provides an updated certificate of insurance for the Colowyo Mine. The revision was received on August 2, 2022, deemed complete on August 3, 2022 and approved on August 3, 2022.

Technical Revision 155 - TR155 proposes two sediment ponds, the Upper and Lower Section 3 Ponds respectively, which are proposed to be within Streeter Ditch directly below the primary crushing facility at Colowyo. The sediment ponds will be used in series with the Lower Section 3 Pond being a non-discharging structure. The revision was received on August 16, 2022, deemed complete on August 26, 2022 and approved on October 17, 2022. +$95,851.00

Technical Revision 156 - TR156 proposes to include a geotechnical report addendum (Exhibit 23, Item 4) into the permit to address the requirement from Exhibit 23, Item 1 (Figure 4), for a geotextile fabric to placed over the underdrain in the Little Collom Gulch Valley Fill. The revision was received on September 23, 2022, deemed complete on October 3, 2022 and approved on November 7, 2022.

Technical Revision 157 - TR157 proposes to reduce Colowyo's reclamation liability. The revision was received on December 8, 2022, deemed complete on December 16, 2022 and approved on February 14, 2023. - $38,218,109.00

Minor Revision 245 – MR245 revised the mine plan timing for theSouth Taylor Pit, and provides documentation of a wildfire that occurred within the mine permit boundary. The revision was received on December 14, 2022, deemed complete on December 20, 2022 and approved on December 20, 2022.

Technical Revision 158 - TR158 proposes additional sediment control measures for the Final East Pit Ditch watershed. The revision was received on December 15, 2022, deemed complete on December 23, 2022 and approved on February 21, 2023. +$100,910.00

Technical Revision 159 - TR159 proposes access roads in the East Pit reclamation areas to construct sediment ponds and manage post mine channels and stock ponds. TR-159 also includes disturbance acres for a borrow area directly north of the Section 3 Ponds locations to facilitate construction of both ponds this summer, and TR-159 proposes to revised Reach 1 of the Final East Pit Ditch from a nonerobile channel to a riprap lined channel. The revision was received on April 11, 2023, deemed complete on April 21, 2023 and approved on May 26, 2023. +$26,097.00

Minor Revision 246 – MR246 updates Exhibit 13C with the dragline regrade volumes for the Collom Pit, and updates Map 26A with blasting information for a new structure north of the permit area. The revision was received on April 21, 2023, deemed complete on May 1, 2023 and approved on May 9, 2023. +$251,184.00

Minor Revision 247 – MR247 proposes a topsoil pile in the West Pit reclamation, and updates Section 4.12 with ground disturbing activities that are occurring within Colowyo’s permit boundary that is not associated with Colowyo’s mining operations. The revision was received on June 13, 2023, deemed complete on June 20, 2023 and approved on June 29, 2023. +$729.00

MR248 – MR248 proposes a topsoil pile to support advancement of the Collom Pit and proposes updates to Exhibit 13C – Cumulative Bond Schedule with topsoil removal and stockpiling for continued development of the Collom Pit. The revision was received on June 26, 2023, deemed complete on July 6, 2023 and approved on July 14, 2023. +$283,631.00

Minor Revision 249 - MR249 provides an updated cultural resource baseline report and proposes installation of an emergency propane generator. The revision was received on July 12, 2023, deemed complete on July 17, 2023 and approved on August 24, 2023. +$13,707.00

Minor Revision 250 - MR250 provides a new certificate of insurance for Colowyo Mine. The revision was received on August 1, 2023, deemed complete on August 2, 2023 and approved on August 2, 2023.

Minor Revision 251 - MR251 provides documentation of a wildland fire that occurred within the mine permit boundary that is not associated with Colowyo's mining operation. The revision was received on August 7, 2023, deemed complete on August 16, 2023 and approved on August 17, 2023.

Minor Revision 252 - MR252 proposes to add another magnesium chloride tank at the Gossard Loadout Facility. The revision was received on August 9, 2023, deemed complete on August 18, 2023 and approved on August 24, 2023. +$704.00

Technical Revision 160 - TR160 proposes six small channels and three sediment sumps to manage storm water runoff from the Collom Haul Road. Some of the proposed channels will route stormwater runoff to existing sediment control structures and others are proposed to be routed to existing sumps or newly proposed sumps. The revision was received on September 18, 2023 deemed complete on September 28, 2023 and approved on December 12, 2023. +$25,577.00

Technical Revision 161 - TR161 proposes revisions to the Collom Mine Plan by reducing the areas to be mine and revises the overall mining timing. TR-161 also proposes a revised post mine topography (PMT) for the Collom and South Taylor Pits. The revision was received on October 24, 2023, deemed complete on November 3, 2023 and approved on December 14, 2023. +$114,512.00

Minor Revision 253 - MR253 proposes to change the resident agent for Colowyo. The revision was received on December 12, 2023, deemed complete on December 14, 2023 and approved on December 14, 2023.

Technical Revision 162 - TR162 proposed the GD-3 channel to route surface water runoff from the intersection of Haul Road A and the Collom Haul Road to the Gossard Pond. The revision was received on February 5, 2024, deemed complete on February 13, 2024 and approved on March 15, 2024. +$6,105.00

Technical Revision 163 - TR163 provides the as-builts for EP1, EP2, EP3 stock ponds, and the Section 15 Pond. The revision was received on February 22, 2024, deemed complete on February 26, 2024 and approved on March 26, 2024.

Minor Revision 254 - MR254 corrected issues with tables numbers for Colowyo's seed mixture and contingency seed mixture. It also revised the surface water monitoring plan, by changing the correct laboratory methodology for Mercury from total recoverable to total. The revision was received on March 21, 2024, deemed complete on March 29, 2024 and approved on April 3, 2024.

Minor Revision 255 - MR-255 allowed for the re-brushing of a light use road on the west side of Taylor Creek. The revision was received on June 25, 2024, deemed complete on July 2, 2024 and approved on July 10, 2024. +$5,780.00

Minor Revision 256 - MR-256 provides an updated certificate of liability insurance for Colowyo. The revision was received on August 5, 2024, deemed complete on August 6, 2024 and approved on August 6, 2024.

Minor Revision 257 - MR-257 documented ground disturbance activities that occurred within Colowyo's permit boundary from an adjacent solar construction project. The ground disturbance is not associated with Colowyo. The revision was received on August 12, 2024, deemed complete on August 14, 2024 and approved on August 22, 2024.

Minor Revision 258 - MR-258 proposed disturbance for a light-use road along the west side of Taylor Creek. The revision was received on August 15, 2024, deemed complete on August 15, 2024 and approved on August 16, 2024. +$8,710.00

Minor Revision 259 - MR-259 proposed to retain the Streeter Pond as a permanent impoundment at the request of the surface landowner. The revision was received on August 21, 2024, deemed complete on August 26, 2024 and approved on August 28, 2024.

Technical Revision 164 - TR164 provides the as-built for the Upper and Lower Section 3 Ponds. The revision was received on September 19, 2024, deemed complete on September 20, 2024 and approved on November 1, 2024.

Technical Revision 165 - TR165 proposed reduction of the permit boundary to remove the Streeter Ditch and Pond. The revision was received on December 12, 2024, deemed complete on December 20, 2024 and approved on March 3, 2025.

Technical Revision 166 - TR166 proposes changes to the Colowyo's topsoil replacement and seeding plans. The revision was received on March 11, 2025, deemed complete on March 12, 2025 and approved on April 8, 2025.

Minor Revision 260 - MR-260 provides an updated certificate of liability insurance for Colowyo. The revision was received on April 8, 2025, deemed complete on April 8, 2025 and approved on April 8, 2025.

Minor Revision 261 - MR-261 updates the permit by removing references to Streeter Pond and the lower segment of Streeter Ditch which have been Phase III released and are now outside the mine permit boundary. The revision was received on April 9, 2025, deemed complete on April 9, 2025, and approved on April 9, 2025.

Section III - Status of Stipulations

According to the Division's records, there are five outstanding stipulations attached to Permit No. C-1981-019. These stipulations are listed below.

Stipulation 2

Prior to disturbing any lands in the Lower Wilson area, the Colowyo Coal Company shall provide the Division with a PERMIT revision containing a mine plan and a reclamation plan and any additional baseline monitoring information (surface water, ground water, soils, vegetation, etc.) requested by the Division.
The approval of Permit Revision 02 is only an approval for disturbance in the South Taylor Pit (South Taylor Pit, West Valley Fill, East Valley Fill and associated structures). NO DISTURBANCE IS APPROVED FOR THE LOWER WILSON AREA WITH THE APPROVAL OF PERMIT REVISION 02.

Stipulation 3

Prior to disturbing the Lower Wilson area the Colowyo Coal Company shall perform further archaeological investigations on seven areas identified as requiring more detailed study in the October 1984 report titled "Cultural Resources Investigations in the Danforth Hills Proposed Coal Lease Area; Moffat and Rio Blanco Counties, Colorado; Consolidation Coal Company. These areas are as follows: 5MF1652,

5MF1935, 5MF1937, 5MF4003, 5MF4010, 5MF4011 AND THE Bison BoneIN THE CUT-BANK.

The additional study data will be forwarded to the Colorado Historic Society for their evaluation and a determination of the proper course of action required.

Stipulation 4

Prior to disturbing the Lower Wilson area the Colowyo Coal Company shall perform further archaeological investigations on the six areas identified on Map 16A as "unsurveyed areas". Additionally, Colowyo will be required to survey any other areas that are determined to have no survey or inadequate survey data. The six unsurveyed areas shown on Map 16A are all within Township 4 North Range 93 West and are basically described as follows:

SW¼ SW¼ Section 15

SW¼ SW¼ Section 22

SE¼ NE¼ Section 28

SW¼ SE¼ Section 28 E½

NW¼ Section 33 W½

SW¼ Section 33

The additional study data will be forwarded to the Colorado Historic Society for their evaluation and a determination of the proper course of action required.

Stipulation 19

Dewatering well permits must be in place, and a minor revision be submitted and approved by the Division to update Section 2.03.10 of Volume 1 of the Permit Application Package, before any construction of any dewatering wells associated with the Collom Pit is allowed to occur.

Stipulation 20

A discharge permit for water pumped from the dewatering wells must be in place, and a minor revision to the Permit submitted and approved by the Division to update section 2.03.10 of Volume 1 of the Permit Application Package, before any pumping from wells associated with the Collom Pit is allowed to occur.

Section IV - Permit Variances

Rule 2.06.2 - Experimental Practices Mining: The Colowyo Mine originally constructed the Streeter Fill as an experimental practice under Rule 2.06.2. With the approval of Technical Revision 10, approved on August 28, 1986, the division changed the status of the fill from experimental and determined that the fill meet all of the requirements of Rule 4.09. Detailed information regarding the Streeter Fill can be found in Permit Sections 2.06.2 and 4.09 and in Exhibit 12.

Rule 2.06.3 - Mountaintop Removal Mining: The Colowyo Mine does not conduct mountaintop removal operations.

Rule 2.06.5 - Permits Incorporating Variances from Approximate Original Contour Restoration Requirements for Steep Slope Mining: The Division has granted Colowyo a variance from approximate original contour for portions of the South Taylor Pit. A large portion of the South Taylor Pit has slopes in excess of 20 degrees. Pursuant to Rule 2.06.5 (2), the Division has made the appropriate written findings regarding this variance. The most recent findings were written for Permit Renewal 07 and are dated August 14, 2018. Additionally, pursuant to Rule 2.06.5(3)(c), the Division is required to "evaluate the progress and development of the mining activities and to establish that the permittee is proceeding in accordance with the terms of the variance... (n)ot later than the middle of each permit term." At the present time Colowyo is mining within the South Taylor Pit and no reclamation has been performed in this area. Colowyo is placing excess material into the previously mined area of the South Taylor Pit as described in the approved plan. The Division will continue to monitor the activities in the South Taylor Pit and, pursuant to Rule 2.06.5(3)(b). No variance from approximate original contour for the Collom Pit has yet been requested. Colowyo maintains the option to pursue this in the future as an amendment to the permit.

Rule 2.06.7 - Variances for Delay in Contemporaneous Reclamation Requirements in Combined Surface and Underground Mining Operations: Colowyo does not have any combined surface and underground mining operations

Section V - Decision to Require Revisions or Additional Information

Pursuant to 2.08.3, the Division finds that the permit application C-1981-019 contains deficiencies or items which need addressed following the review for the purpose of fulfilling the requirements of the Colorado Surface Coal Mining Reclamation Act, and the Regulations of the Colorado Mined Land Reclamation Board for Coal Mining. The Division requests that the permittee correct the deficiencies or replay to the Division's comments by submission of revised permit pages under an appropriate revision application, or by activities on the ground, by July 7, 2025.

Vol 1 Rule 2.01 - General Requirements

1. Please update the total permit area referenced in Section 2.01.6 for Volume 1.

2. In previous years, Colowyo’s Certificate of Liability Insurance has been submitted to the Division via a Minor Revision to incorporate the certificate into the formal permit file. This year, Colowyo submitted their Certificate of Liability Insurance to the Division’s public records via a General Documents upload. The Certificate of Liability Insurance document is not required by Rule to be included in the formal permit. If Colowyo wishes to cease formal documentation of the Certificate of Liability Insurance via Minor Revisions, please request that this section, Exhibit 03, be removed from the permit.

Vol 1 Rule 2.03.5 - Compliance Information

3. Exhibit 2, Item 3 lists violation notices received during the last three years by Colowyo in connection with the surface coal mining operation and lists violation notices received by those

companies related through the " ownership and control" relationship. Please update these sections to include the following violations cited for Colowyo and other sites related to Colowyo through ‘ownership and control’: Colowyo, CV2022001 and Trapper Mine, CO-2023001 and CV2023001.

Vol 1 Rule 2.04.4 – Cultural and Historical Resource Information

4. Several time, this section sites Map 16 as the ‘Historical and Archaeological Site Map’. However, this map has since been updated to the label ‘Map 16B’. Please revise this portion of the permit narrative to reflect the new map citation.

Vol 1 Rule 2.04.6 – Geology Description

5. Pages 2.04-9 and 2.04-10 cite a ‘Map 7’ as the Geology Map. However, this map has since been updated to the label ‘Map 7A’ and is correctly referenced a such mid page 2.04-10. Please revise this portion of the permit narrative to reflect the new map citation.

Vol 1 Rule 2.04.7 – Hydrology Information

6. Page 2.04-22 lists all surface water ponds in the mine area. Currently, this list does not include reference to the newly built Upper and Lower Section 3 Ponds or to Section 15 Pond. Please revise this portion of the permit narrative to reflect the pond additions.

Vol 1 Rule 2.04.10 – Vegetation Information

7. Page 2.04-52 references a ‘Regional Vegetation Map (Map 3)’. However, regional vegetation maps for the entire permit area are currently found on Map 4C Sheets 1 – 11. Please revise this portion of the permit narrative to reflect the updated map citation.

Vol 1 Rule 2.04.11 – Fish and Wildlife Resources Information

8. Please review and update Threatened and Endangered Wildlife/Plant Species sections of the Colowyo's PAP as necessary.

9. Page 2.04-58, 2.04-65 and 2.04-67 reference a ‘Map 14, Wildlife Agent Information’, but no such map exists within the permit file. The Division assumes that Map 15B Sheets 1-3 is the correct citation for these wildlife maps. If so, please update the map citation in this section. If not, please clarify the correction citation for ‘Map 14, Wildlife Agent Information’.

10. Pages 2.04-59, 2.04-60 and 2.04-62 reference a ‘Big Game Use Information Map (Map 13)’. However, this information is currently found on Map 13B Sheets 1 and 2. Please revise this portion of the permit narrative to reflect the updated map citation.

11. Page 2.04-63, 2.04-65 and 2.04-67 reference a ‘Wildlife Observations Map (Map 15)’. However, this information is currently found on Map 15B Sheets 1 - 3. Please revise this portion of the permit narrative to reflect the updated map and sheet citations.

Vol 1 & 12 Rule 2.05.3 - Operations Plan

12. Please update the following tables as necessary.

- Table 2.03-1 -Affected Areas for Mining and Reclamation
- Table 2.04.10-1-4 Vegetation Community Distribution on Areas to be Mined
- Table 2.04.9-7 - Topsoil Mass Balance - South Taylor Mine Area
- Table 2.04.11-15 - Threatened and Endangered Species Potentially Occurring within the Moffat and Rio Blanco Counties
- Table 2.05-1 -Topsoil Balance as of December, 2023
- Table 2.05-2 - Historical Coal Shipped (Sold) and Anticipated Annual Shipped (Sold)
- Table 2.05.2-22 -Total Colowyo Coal Production, 2006 - 2017
- Table 2.05.6-5 - Collom Coal Production and Collom Mine Plan Volumetric Balance

<u>Vol 1 Rule 2.05.4 - Reclamation Plan</u>

13. The Reclamation Plan cites the Postmining Topography Map as Map 19. However, this information is also presented on Map 44. Please revise this portion of the permit narrative to reflect the additional map citation.

14. Page 2.05-28 states that "haul road and road embankment slopes and adjacent areas have been mechanically stabilized and seeded with a mixture shown in Table 7 – Reclamation Seed Mixture". Please clarify if this reference is referring to Table 2.05-7 Grazingland Seed Mixture. If so, please update this section of the permit narrative.

15. Pages 2.05-38 through 52 are repeated pages. A new section 2.05.4 section of the permit narrative should be submitted which omits these pages.

<u>Volume 1 Rule 3</u>

16. This section references a Map 39 as depicting Bond Calculation Cross Sections. However, no such map is currently found within the permit. Please submit this map or update and replace the map citation.

<u>Volume 1 Rule 4</u>

17. Page 4-2 references 'Map 19' to represent approved AOC for South Taylor and Lower Wilson areas. However, this information can also be found on Maps 19A and 19B in the permit. Please revise this portion of the permit narrative to reflect the updated map citations.

18. Page 4-6 references Map 21 and 22 to depict the location of Existing Structures used in support of the mining operation for the South Taylor and Lower Wilson areas. However, this information can also be found on Map 22A in the permit. Please revise this portion of the permit narrative to reflect the updated map citations.

19. Page 4-10 references a 'Soils - South Map (Map 6) and Soils - North Map (Map 5)'. The Soils - North Map (Map 5) does not exist within the permit. Please either submit this map to the permit record or update this section of the permit narrative to use a different

map citation.

Volume 12 Rule 2.0

20. Rule 2, page 14 references Map 7A as a map which depicts the location of boreholes related to the evaluation of geochemical properties of overburden in the South Taylor area. However, the Map 7A included in the permit file does not show these borehole locations. Please update this section with a corrected citation or remove the citation if no map of the borehole locations exists.

21. Rule 2, Page 19 references a 'Map 10' to depict bedrock and shallow monitoring wells for South Taylor. However, this information is also currently found on Maps 10A and 10B in the permit. Please revise this portion of the permit narrative to reflect the updated map citations.

22. Rule 2, Pages 30, 31, 36 reference a 'Map 5A' to represent soils information for South Taylor and Lower Wilson areas. However, this information is also currently found on Map 05D Sheets 1 – 6 in the permit. Please revise this portion of the permit narrative to reflect the updated map citations.

23. Rule 2, Page 42 references 'Maps 4A and 4B' to represent native vegetation type distribution in South Taylor and Lower Wilson areas. However, this information is currently found on Maps 04 and 04C in the permit. Please revise this portion of the permit narrative to reflect the updated map citations.

24. Rule 2, Page 60 references 'Maps 13A, 14A, and 15A' to delineate the distribution of all special-interest habitats identified in the South Taylor area. However, no such map exists within the permit file. Please update the map citation in this section.

25. Rule 2, Page 62 references 'Map 13B' to represent mule deer ranges in South Taylor and Lower Wilson areas. This citation is incomplete, as this information is found more specifically on Map 13B Sheet 2. Please revise this portion of the permit narrative to reflect the updated map citation.

26. Rule 2, Page 72 references 'Map 23' to represent locations of the East Taylor Fill and West Taylor Fill areas. However, this information can also be found on Map 23A in the permit. Please revise this portion of the permit narrative to reflect the updated map citations.

Volume 12 Rule 3.0

27. This section lists Map 40A as the Bond Calculation Cross Sections. However, the current permit and map submitted is titled 'Map 40'. Please revise this portion of the permit narrative to reflect the updated map citation.

28. Map 38, as referenced to in this section, has been renumbered and moved in the permit file. Please update this section's citation to reflect this change.

Volume 15 Rule 2.0

29. Rule 2, Page 14 is repeated in the Division's version of Volume 15 Rule 2.0. Please submit an updated Rule 2 with this extraneous page removed.

30. Rule 2, Page 69 references a 'Map 11B', stating that geologic cross sections for Collom Pit are represented on this map. However, Map 11B is the 'Groundwater Well and Drillhole Locations' map and no cross sections are present on the map. Please correct this map citation and submit a revised page.

Volume 15 Rule 4.0

31. The second paragraph on Rule 4, Page 19 repeatedly mentions a map which depicts the location of possible raptor nesting sites and the location of habitat enhancement 'stock ponds', but no map citation is found in this section. Please update the page and add an appropriate citation.

32. Rule 4, Pages 24 – 38 are repeats of pages already listed in Volume 15, Rule 4.0. Please provide a full document of Volume 15, Rule 4 with these extraneous pages removed.

Section VI - Bonding Summary

The Division currently holds bond monies, in the form of one corporate surety in the amount of \$119,000,000.00. A compiled reclamation cost estimate was developed by the Division as a part of the Permit Renewal No. 8 process issued on February 25, 2023. The Division's reclamation costs have been updated since that date. Per Rule 3.02.1(6), Colowyo has elected to file a cumulative bond schedule for the permit term and not the life of the Mine. For the worst-case-scenario at Colowyo, the Division has determined the reclamation liability for the 2023 - 2028 permit term is \$134,625,646.00. The previous worst-case-scenario at Colowyo was \$117,304,293.00. The difference between this amount for the worst-case-scenario and the previously calculated worst-case-scenario bond reported is an increase of \$17,321,353.00. Therefore, with a bond held in the amount of \$119,000,000.00 by the Division, the Division has an **insufficient** amount in bond monies to assure completion of the remaining reclamation work at the Colowyo Mine if the work had to be performed by the Division, including the cost of reestablishing vegetation on any revegetated areas, should those areas fail. The Division will initiate a surety increase revision pursuant to Rule 3.02.2(4) and provide the permittee with an opportunity for an informal conference on the adjustment pursuant to Rule 3.02.2(4)(a).

This concludes the Division's Midterm Review No. 9 for the Colowyo Mine.

COST SUMMARY WORK

Task description: **MT9 Reclamation Cost Estimate**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 000 State: Colorado Abbreviation: None
Date: 2/6/2025 County: Moffat Filename: C019-000
User: HR1

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Drill and Shoot South Taylor Highwall - Cast Blast (3000 ft)	BLASTING	1	879.14	$1,547,721
002	Load and Haul Spoil to TS-1	TRUCK1	1	958.68	$5,208,378
003	Load and Haul Spoil to TS-2	TRUCK1	1	494.74	$2,436,121
004	Load and Haul Spoil to TS-3	TRUCK1	1	270.80	$1,333,425
005	Load and Haul Spoil to TS-4	TRUCK1	1	399.85	$1,765,366
006	Load and Haul Spoil to TS-5	TRUCK1	1	119.70	$528,475
007	Load and Haul Spoil to TS-6	TRUCK1	1	341.24	$1,506,622
008	Load and Haul Spoil to TS-7	TRUCK1	1	669.72	$3,297,678
009	Load and Haul Spoil to TS-8	TRUCK1	1	1,345.11	$6,623,306
010	Load and Haul Spoil to TS-9	TRUCK1	1	1,153.88	$6,268,898
011	Load and Haul Spoil to TS-10	TRUCK1	1	1,181.95	$6,421,374
012	Load and Haul Spoil to TS-11	TRUCK1	1	1,020.93	$5,546,596
013	Load and Haul Spoil to TS-12	TRUCK1	1	1,054.82	$5,193,928
014	Load and Haul Spoil to TS-13	TRUCK1	1	1,043.25	$5,136,979
015	Load and Haul Spoil to TS-14	TRUCK1	1	1,194.17	$5,880,088
016	Load and Haul Spoil to TS-15	TRUCK1	1	1,151.28	$6,254,777
017	Load and Haul Spoil to TS-16	TRUCK1	1	362.82	$1,786,528
018	Load and Haul Spoil to TS-17	TRUCK1	1	330.23	$1,626,071
019	Load and Haul Spoil to TS-18	TRUCK1	1	197.32	$871,174
020	Load and Haul Spoil to TS-19	TRUCK1	1	63.42	$280,003
021	Load and Haul Spoil to TS-20	TRUCK1	1	118.78	$584,860
022	Load and Haul Spoil to TS-21	TRUCK1	1	175.34	$774,150
023	Load and Haul Spoil to TS-22	TRUCK1	1	91.01	$401,812
024	Regrade Gossard Loadout	DOZER	4	2.36	$6,318
025	Rip Facilities Area	RIPPER	4	60.17	$217,646
026	Rip Coal Stockpile Area	RIPPER	1	3.66	$3,311
027	Rip Gossard Loadout	RIPPER	4	0.96	$3,491
028	Rip Haul Road A and Haul Road B	RIPPER	4	3.14	$11,383
029	Regrade Haul Road A Upper and Lower Ditch	DOZER	1	0.32	$204
030	Rip Gossard Loadout Road	RIPPER	4	1.26	$4,563
031	Regrade Gossard Loadout Road	DOZER	4	1.70	$4,568
032	"Mine" Riprap from South Taylor Pit Temporary Stockpiles for	SITEMAINT ENANCE	1	0.00	$1,566,756
033	Regrade Prospect Pond	DOZER	1	34.19	$15,736
035	Regrade Gossard Loop Pond	DOZER	1	2.28	$1,089
036	Regrade Rail Loop Pond	DOZER	1	0.99	$473
037	Regrade Sewage and Aeration Pond	DOZER	1	12.87	$6,142
038	Regrade Stoker Siding Pond	DOZER	1	7.52	$3,590

039	Regrade Wash Bay Pond	DOZER	1	38.23	$18,244
040	Regrade Wash Bay Sediment Sump	DOZER	1	1.78	$850
041	Regrade Work Area Pond	DOZER	1	134.18	$64,039
042	Regrade Section 16 Pond	DOZER	1	43.08	$20,562
043	Regrade East Taylor Pond	DOZER	1	19.87	$9,483
044	Regrade West Pit Pond	DOZER	1	7.77	$3,711
045	Regrade Taylor Pump Holding Pond	DOZER	1	55.40	$26,439
046	Regrade Section 28 Pond	DOZER	1	64.92	$30,982
047	Regrade West Taylor Pond	DOZER	1	21.38	$10,204
048	Remove and Regrade South Collection Ditch	EXCAVATE	1	62.58	$10,179
049	Remove and Regrade Prospect Collection Ditch	EXCAVATE	1	11.52	$1,875
050	Remove and Regrade North Side Facilities Ditch	EXCAVATE	1	6.10	$993
051	Remove and Regrade Stoker Ditch	EXCAVATE	1	5.85	$952
052	Remove and Regrade West Side Facilities Ditch	EXCAVATE	1	24.42	$3,972
053	Remove and Regrade West Pit Coal Road Ditch	EXCAVATE	1	14.24	$2,317
054	Remove and Regrade East and West Section 16 Ditch	EXCAVATE	1	27.13	$4,414
055	Remove and Regrade Section 16 Fill Ditch	EXCAVATE	1	14.92	$2,428
056	Remove and Regrade Section 28 Collector Ditch	EXCAVATE	1	15.87	$2,581
057	Remove and Regrade Section 29 Collector Ditch	EXCAVATE	1	22.36	$3,637
058	Remove and Regrade 4 Haul Road A Sediment Traps	EXCAVATE	1	4.32	$704
059	Remove and Regrade Six Post-Mining Stock Ponds	EXCAVATE	1	52.66	$8,565
060	Doze Topsoil Pile 9A in West Pit	DOZER	1	0.70	$337
061	Haul Topsoil from Stockpile 15A to Facilities Area	TRUCK1	2	161.98	$1,815,772
062	Haul Topsoil from Pile 15B to West Pit	TRUCK1	2	24.77	$277,716
063	Haul Topsoil from Stockpile 15E to Facilities Area	TRUCK1	2	0.46	$4,674
064	Haul Topsoil from Stockpile 15F to Facilities Area	TRUCK1	2	1.16	$11,855
065	Haul Topsoil from Stockpile 15G to Facilities Area	TRUCK1	2	3.56	$39,955
066	Haul Topsoil from Stockpile 15H to Facilities Area	TRUCK1	2	8.39	$85,506
067	Haul Topsoil from Stockpile 15I to Haul Road A	TRUCK1	2	5.71	$58,190
068	Haul Topsoil from Pile 16C to South Taylor Pit	TRUCK1	2	20.24	$226,904
069	Haul Topsoil from Pile 16D to South Taylor Pit	TRUCK1	2	135.49	$1,518,758
070	Haul Topsoil from Pile 16E to South Taylor Pit	TRUCK1	2	129.16	$1,447,783
071	Haul Topsoil from Pile 17A to Haul Road A	TRUCK1	2	2.08	$23,318
072	Haul Topsoil from Stockpile 17A - 17E to Gossard Loadout	TRUCK1	2	1.49	$15,137
073	Haul Topsoil from Stockpile 18 to South Taylor Pit	TRUCK1	2	70.45	$861,365
074	Haul Topsoil from Stockpile 27A to Haul Road A	TRUCK1	2	2.40	$24,468
075	Doze Topsoil from Windrow 1 - Windrow 5 in West Pit	DOZER	1	37.70	$34,085
076	Replace 48" of Topsoil on Aspen Study Area	TRUCK1	2	11.09	$124,364
077	Replace 48" of Topsoil on Tall Mountain Shrub Study Area	TRUCK1	2	8.32	$93,268
078	Replace 4" of Topsoil on Tall Mountain Shrub Study Area	TRUCK1	2	0.69	$7,773
079	Replace Topsoil from Stockpile to Prospect Pond	DOZER	1	9.19	$4,430
081	Replace Topsoil from Stockpile to Rail Loop Pond	DOZER	1	1.77	$852
082	Replace Topsoil from Stockpile to Gossard Pond	DOZER	1	5.30	$2,555
083	Replace Topsoil from Stockpile to Sewage and Aeration Pond	DOZER	1	10.25	$4,941
084	Replace Topsoil from Stockpile to Stoker Siding Pond	DOZER	1	2.65	$1,278
085	Replace Topsoil from Stockpile to Wash Bay Pond	DOZER	1	12.72	$6,133

086	Replace Topsoil from Stockpile to Wash Bay Sediment Sump	DOZER	1	2.47	$1,192
087	Replace Topsoil from Stockpile to Work Area Pond	DOZER	1	13.43	$6,474
088	Replace Topsoil from Stockpile to Section 16 Pond	DOZER	1	16.25	$7,836
089	Replace Topsoil from Stockpile to East Taylor Pond	DOZER	1	6.01	$2,896
090	Replace Topsoil from Stockpile to Taylor Pump Holding Pond	DOZER	1	1.77	$852
091	Replace Topsoil from Stockpile to West Pit Pond	DOZER	1	10.95	$5,281
092	Replace Topsoil from Stockpile to Section 28 Pond	DOZER	1	8.83	$4,259
093	Replace Topsoil from Topsoil Pile 17F to West Taylor Pond	DOZER	1	8.83	$4,259
094	Replace Topsoil from Stockpile to Collection Ditches	EXCAVATE	1	79.52	$12,934
095	Plug and Seal All Wells and Piezometers for EP, WP and STP	BOREHOLE	1	28.00	$17,855
096	Seal South Taylor In-Pit Exploration Holes (MR153+MR158)	BOREHOLE	1	164.00	$115,982
097a	Reseed East Pit with Grazing Land Seed Mix	REVEGE	1	13.00	$17,664
097b	Reseed East Pit with Grazing Land Seed Mix - Phase 1 Released	REVEGE	1	7.00	$9,457
097c	Reseed East Pit with Grazing Land Seed Mix - Phase 2 Released	REVEGE	1	31.00	$42,550
098b	Reseed East Pit with Sagebrush Steppe Seed Mix - Phase 1 Rel	REVEGE	1	2.00	$3,478
098c	Reseed East Pit with Sagebrush Steppe Seed Mix - Phase 2 Rel	REVEGE	1	2.00	$1,921
099a	Reseed West Pit with Grazing Land Seed Mix	REVEGE	1	119.50	$162,374
099b	Reseed West Pit with Grazing Land Seed Mix - Phase 1 Release	REVEGE	1	22.50	$30,579
099c	Reseed West Pit with Grazing Land Seed Mix - Phase 2 Release	REVEGE	1	107.90	$146,606
100a	Reseed West Pit with Sagebrush Steppe Seed Mix	REVEGE	1	4.00	$117,003
100b	Reseed West Pit with Sagebrush Steppe Seed Mix - Phase 1 Rel	REVEGE	1	4.00	$35,324
100c	Reseed West Pit with Sagebrush Steppe Seed Mix - Phase 2 Rel	REVEGE	1	4.00	$139,915
101	Reseed South Taylor Pit with Grazing Land Seed Mix	REVEGE	1	228.00	$309,870
102	Reseed South Taylor with Sagebrush Steppe Seed Mix	REVEGE	1	4.00	$399,284
103a	Reseed Facility Area with Grazing Land Seed Mix	REVEGE	1	15.00	$20,246
103b	Reseed Facility Area with Sagebrush Steppe Seed Mix	REVEGE	1	4.00	$123,793
104	Reseed Gossard Loadout with Grazing Land Seed Mix	REVEGE	1	30.00	$10,191
105	Reseed Haul Road A with Grazing Land Seed Mix	REVEGE	1	18.00	$24,866
106	Reseed Haul Road B with Grazing Land Seed Mix	REVEGE	1	21.20	$7,202
107	Reseed Prospect Pond with Grazing Land Seed Mix	REVEGE	1	5.20	$1,766
109	Reseed Rail Loop Pond with Grazing Land Seed Mix	REVEGE	1	1.00	$340
110	Reseed Gossard Pond with Grazing Land Seed Mix	REVEGE	1	3.00	$1,019
111	Reseed Sewage and Aeration Pond with Grazing Land Seed Mix	REVEGE	1	5.80	$1,970

112	Reseed Stoker Siding Pond with Grazing Land Seed Mix (MR208)	REVEGE	1	0.40	$544
113	Reseed Wash Bay Pond with Grazing Land Seed Mix	REVEGE	1	7.20	$2,446
114	Reseed Wash Bay Sediment Sump with Grazing Land Seed Mix	REVEGE	1	1.40	$476
115	Reseed Work Area Pond with Grazing Land Seed Mix	REVEGE	1	7.60	$2,582
116	Reseed Section 16 Pond with Grazing Land Seed Mix	REVEGE	1	9.20	$3,125
117	Reseed East Taylor Pond with Grazing Land Seed Mix	REVEGE	1	3.40	$1,155
120	Reseed West Pit Pond with Grazing Land Seed Mix	REVEGE	1	6.20	$2,106
121	Reseed Section 28 Pond with Grazing Land Seed Mix	REVEGE	1	5.00	$1,698
122	Reseed West Taylor Pond with Grazing Land Seed Mix	REVEGE	1	5.00	$1,698
123	Reseed Perimeter Ditches with Grazing Land Seed Mix	REVEGE	1	15.00	$20,110
124	Reseed Aspen Reestablishment Area	REVEGE	1	24.00	$295,904
125	Plant Tall Shrub Reestablishment Areas	REVEGE	1	36.00	$438,414
126	Weed Control - 10% of Reseeded Areas Four Times	REVEGE	1	1,280.00	$255,819
127	Demolish and Remove all Facilities	DEMOLISH	1	600.00	$2,813,046
128	Mobilize/Demobilize Equipment for Initial Reclamation	MOBILIZE	1	107.55	$1,495,270
129	Mobilize/Demobilize Equipment for Pond and Ditch Removal	MOBILIZE	1	5.55	$10,860
130	Mobilize/Demobilize Equipment for Yearly Site Maintenance	MOBILIZE	1	12.22	$85,797
131	Mobilize/Demobilize Equipment for Two Pond Cleanings	MOBILIZE	1	8.44	$7,003
132	Site Maintenance During Ten Year Liability Period	SITEMAINT ENANCE	1	800.00	$776,706
133	Pump 10 Sediment Ponds Prior to Two Cleanings	PUMPING	1	157.54	$28,819
134	Clean 10 Sediment Ponds Two Times	TRUCK1	1	488.45	$200,892
136	Reseed Geotechnical Hole Access Corridors	REVEGE	1	2.00	$2,105
137	PM Drainage E., W., and ST Pits	NA	1	6,432.00	$1,345,573
138	Rip Cut Line from Brush Fire (South Taylor)	RIPPER	1	1.51	$1,381
140	Reseed Admin Building	REVEGE	1	0.80	$2,989
141	Remove and Regrade Stock Pond PD1	EXCAVATE	1	4.18	$681
142	Remove and Regrade Stock Pond PD2	EXCAVATE	1	5.77	$939
143	Remove and Regrade Stock Pond EP1	EXCAVATE	1	4.83	$786
144	Remove and Regrade Stock Pond EP2	EXCAVATE	1	9.16	$1,490
145	Remove and Regrade Stock Pond NTEP1	EXCAVATE	1	7.79	$1,267
146	Remove and Regrade Stock Pond ET1	EXCAVATE	1	2.66	$434
147	Remove and Regrade Stock Pond ET2	EXCAVATE	1	8.87	$1,443
148	Remove and Regrade Stock Pond ETD1	EXCAVATE	1	3.60	$587
149	Remove and Regrade Stock Pond ETD2	EXCAVATE	1	3.60	$587
150	Remove and Regrade Stock Pond WTD1	EXCAVATE	1	3.60	$587
151	Regrade Haul Road A Widening	DOZER	1	440.36	$398,174
152	Regrade Topsoil for Raw Water Line Expansion	DOZER	1	0.08	$73
153	Reseed Raw Water Line Expansion	REVEGE	1	0.50	$2,105
154	Regrade Upper Section 3 Pond	DOZER	1	55.60	$26,537

155	Regrade Lower Section 3 Pond	DOZER	1	67.40	$32,169
156	Regrade Topsoil for Upper and Lower Section 3 Pond Dist.	DOZER	1	26.08	$12,449
157	Reseed Upper and Lower Section 3 Pond Disturbance	REVEGE	1	13.00	$17,596
158	Pump Upper/Lower Section 3 Ponds Prior to Two Cleanings	PUMPING	1	12.90	$1,038
160	Regrade 0.3 Acres Disturbance (TR-153)	DOZER	1	0.86	$296
161	Reseed 0.3 Acres (TR-153)	REVEGE	1	0.50	$204
162	Remove and Regrade Stock Pond EP3	EXCAVATE	1	9.16	$1,490
163	Regrade Section 15 Pond	DOZER	1	33.79	$16,126
164	Replace Topsoil for Section 15 Pond (6.3 acre)	DOZER	1	16.64	$8,025
165	Reseed Section 15 Pond with Grazing Land Seed Mix	REVEGE	1	6.00	$4,280
166	Section 15, EP3 Inlet and EP3 Outlet Post-Mining Channels	NA	1	301.07	$57,444
167	Regrade East Pit Access Roads and Sect 3 Pond Borrow Topsoil	DOZER	1	31.06	$10,687
168	Reseed East PIt Roads and Sect 3 Pond Borrow Area	REVEGE	1	19.50	$13,248
169	Construct STPit Trib 1 and Collom PIt Dusky Draw	NA	1	409.50	$85,680
170	Regrade Topsoil Pile 9A	DOZER	1	2.32	$668
171	Regrade brushed material from 69 kV power line road	DOZER	1	4.64	$2,239
172	Reseed 69 kV power line road	REVEGE	1	4.00	$2,378
173	Regrade brushed material from 69 kV power line road	DOZER	1	7.03	$3,391
174	Reseed 69 kV power line road	REVEGE	1	5.00	$3,601
401	Remove Collom Haul Road and Facility Culverts (MR203)	DEMOLISH	1	26.00	$139,969
402	Demo Collom Facilities and Haul Road Crossing (MR223, MR225)	DEMOLISH	1	60.00	$338,243
403	Rip 29,458' of Collom Haul Road	RIPPER	2	12.69	$2,607
404	Haul/Regrade Spoil to Collom Haul Road: 00+00 - 208+00	TRUCK1	1	138.53	$611,624
405	Haul/Regrade Spoil to Collom Haul Road: 208+00 - 282+00	TRUCK1	1	138.01	$679,583
406	Haul/Regrade Spoil to Collom Haul Road: 282+00 - 395+00	TRUCK1	1	89.87	$488,240
407	Haul/Regrade Topsoil to Collom Haul Road: 112+26 - 149+00	TRUCK1	1	13.83	$61,062
408	Haul/Regrade Topsoil to Collom Haul Road: 149+00 - 222+20	TRUCK1	1	27.15	$133,708
409	Haul/Regrade Topsoil to Collom Haul Road: 222+20 - 242+00	TRUCK1	1	3.60	$17,722
410	Haul/Regrade Topsoil to Collom Haul Road: 242+00 - 275+20	TRUCK1	1	8.51	$37,576
411	Haul/Regrade Topsoil to Collom Haul Road: 275+20 - 298+10	TRUCK1	1	12.35	$54,547
412	Haul/Regrade Topsoil to Collom Haul Road: 298+10 - 336+00	TRUCK1	1	13.11	$57,876
413	Haul/Regrade Topsoil to Collom Haul Road: 336+00 - 396+89	TRUCK1	1	26.39	$129,924
415	Regrade Collom Facility Area	DOZER	4	523.23	$1,857,554

416	Load/Haul/Regrade Topsoil to Collom Facility from TS 25A	TRUCK1	1	96.36	$661,741
417	Section 25 Pond Removal	DOZER	1	13.49	$11,602
418	Middle Pond Removal	DOZER	1	4.95	$4,261
419	Section 36 Pond Removal	DOZER	1	8.09	$6,961
420	Section 26 Pond Removal	DOZER	1	12.19	$10,484
421	Sidehill Pond Removal	DOZER	1	23.21	$19,961
422	Coal Stockpile Pond Removal	DOZER	1	63.87	$54,933
423	Temporary Facilities Pond Removal	DOZER	1	4.73	$4,067
424	Wilson Storage Pond Removal	DOZER	1	15.80	$13,592
425	Regrade Ditch D1	DOZER	1	1.72	$1,483
426	Regrade Ditch D2	DOZER	1	3.13	$2,689
427	Regrade Ditch D3	DOZER	1	1.78	$1,531
428	Regrade Ditch D4	DOZER	1	1.27	$1,094
429	Regrade Ditch D5	DOZER	1	3.14	$2,697
431	Regrade Topsoil for Ditch D1	DOZER	1	0.30	$262
432	Regrade Topsoil for Ditch D2	DOZER	1	1.40	$1,205
433	Regrade Topsoil for Ditch D3	DOZER	1	0.22	$189
434	Regrade Topsoil for Ditch D4	DOZER	1	0.16	$135
435	Regrade Topsoil for Ditch D5	DOZER	1	0.87	$751
437	Regrade Topsoil for West Side Pond Access Road	DOZER	1	4.42	$3,806
438	Regrade Topsoil for East Side Pond Access Road	DOZER	1	4.42	$3,806
439	Regrade Topsoil for Topsoil Access Road	DOZER	1	29.81	$25,643
440	Regrade Topsoil for Temporary North Access Road	DOZER	1	10.00	$8,599
441	Regrade Topsoil for Temporary South Access Road	DOZER	1	10.00	$8,599
442	Regrade Topsoil for Tie-In Road Access Road	DOZER	1	1.43	$1,228
443	Reseed Collom Access Roads (Exh. 13C Table 13C-17)	REVEGE	1	16.00	$22,216
444	Regrade Topsoil for Raw Water Line	DOZER	1	16.54	$14,682
445	Reseed Collom Raw Water Line	REVEGE	1	18.00	$24,709
446	Load, Haul and Regrade Collom Pit Topsoil–RN-08 Permit Term	TRUCK1	1	462.40	$2,940,109
447	Load, Haul and Regrade Collom Pit	TRUCK1	1	1,945.77	$12,371,853
448	Reseed Collom Pit and Temporary Spoil Pile	REVEGE	1	495.00	$672,188
450	Reseed Collom TS Pile Footprints 25B, 26A, 26B, 36A	REVEGE	1	40.50	$55,302
453	Reseed Collom Facility Area	REVEGE	1	251.00	$205,515
459	Collom-Weed control 10% of 1133.4 ac. 3X	REVEGE	1	120.00	$35,550
460	Construct Collom Post-Mining Channels (TR154)	NA	1	1,895.00	$396,521
461	Plug and Seal All Wells for Collom (MR203)	BOREHOLE	1	24.00	$21,687
466	Plug and Seal 16 Geotechnical Boreholes	BOREHOLE	1	24.00	$4,431
468	Reseed Geotechnical Hole Access Corridors	REVEGE	1	2.40	$2,526
470	Plug and Seal 80 Collom In-Pit Drill Holes (MR216)	BOREHOLE	1	949.00	$196,919
471	Regrade Topsoil for Collom In-Pit Drill Pads	DOZER	1	4.73	$4,273
472	Regrade Topsoil for Collom In-Pit Drill Roads	DOZER	1	2.08	$1,882
473	Reseed Collom In-Pit Drill Pads and Roads	REVEGE	1	11.20	$11,788
474	Regrade Topsoil for Collom Power Line	DOZER	1	11.58	$10,473
475	Reseed 14.7 acres for Collom Power Line	REVEGE	1	7.30	$30,942
476	Regrade Ditch CWD-1 (MR202)	DOZER	1	12.95	$3,738
477	Regrade Topsoil for Ditch CWD-1 (MR202)	DOZER	1	5.50	$4,733
478	Reseed Ditch CWD-1	REVEGE	1	4.30	$2,921

479	Reseed Collom Area Fire Lines	REVEGE	1	2.50	$3,397
480	Regrade Topsoil for Collom Haul Road Channels	DOZER	1	1.43	$1,232
481	Reseed Collom Haul Road Channels	REVEGE	1	1.50	$2,412
482	Regrade Collom Dragline Spoil	DOZER	2	181.73	$312,609
483	Regrade Topsoil for New Collom Haul Road Channels	DOZER	1	15.07	$7,192
484	ReseedCollom Haul Road Channels w/Grazing Land Seed Mix	REVEGE	1	11.80	$16,034
485	Regrade Ditch GD-3	DOZER	1	1.34	$431
486	Reseed 3.2 Acres of Disturbance	REVEGE	1	1.50	$6,736
487	Load, Haul and Regrade Collom Pit Topsoil-MR248	TRUCK1	1	37.42	$237,940
488	Reseed Collom TS Pile Footprint 2A	REVEGE	1	9.10	$12,365
489	Load, Haul and Regrade Collom Topsoil from 25A	TRUCK1	1	53.62	$340,908
			SUBTOTALS:		**36641.86**	**$113,768,371**

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	$2,298,121
Performance bond:	1.05	Total =	$1,194,568
Job superintendent:	11,624.54	Total =	$921,477
Profit:	10.00	Total =	$11,376,837
		TOTAL O & P =	$15,791,003
		CONTRACT AMOUNT (direct + O & P) =	$129,559,374

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	$500	Total =	$500
Engineering work and/or contract/bid preparation:	2.00	Total =	$2,591,187
Reclamation management and/or administration:	1.91		$2,474,584
CONTINGENCY:	0.00	Total =	$0
		TOTAL INDIRECT COST =	$20,857,275
		TOTAL BOND AMOUNT (direct + indirect) =	**$134,625,646**

SURFACE BLASTING WORK

Task description: **Drill and Shoot South Taylor Highwall - Cast Blast (3000 ft)**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 001 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 001
User: HR1

Agency or organization name: DRMS

BLAST AREA DIMENSIONS

	QUANTITY	UNIT
Blast Area Configuration:	Box-shaped mass (flat safety benches, general pit blasting)	
Blasting Method Description:	Cast blast (fragmentation + lateral movement)	
Highwall or Bench Face Angle:	1.00	h:1v
Regraded Slope Angle:	0.00	h:1v
Highwall or Bench Length:	3,000	feet
Highwall or Bench Width:	150	feet
Highwall or Bench Height:	100.0	feet
Depth to Base of Cut at Highwall:	50.0	feet

BLAST AREA VOLUMES

	QUANTITY	UNIT
Total Volume of Dimensional Mass to be Shot:	694,444	cubic yards
Blast Volume to Subdrill Grade and Blast Pattern Lines:	679,583	cubic yards
Blast Volume to Finish Grade and Blast Pattern Lines:	603,537	cubic yards
Remaining Volume Required to be Re-Shot or Ripped:	90,907	cubic yards

BLAST AREA DESIGN

	QUANTITY	UNIT
Recommended Blasthole Diameter:	7.351	inches
Selected Blasthole Diameter:	9.875	inches
Subdrilling Allowance:	6.3	feet
Blasthole Depth:	56.3	feet
Density of Rock:	Average Density Rock (ANFO Basis)	rock density
Burden to Charge Diameter Ratio:	25	times diameter
Burden:	21.0	feet
Spacing to Burden Ratio:	1.1	times burden
Spacing:	23.0	feet
Cubic Yards of Rock per Blasthole:	1,007.14	cubic yards
Powder Factor Description:	Medium	rock strength
Powder Factor:	0.575	pounds/cu. yd.
Density of Blasting Agent:	0.85	grams/cc
Quantity of Explosives per Blasthole:	579.11	POUNDS
Height of Powder Column:	20.52	feet
Height of Stemming per Blasthole:	35.78	feet
Stemming to Burden Ratio:	1.70	times burden
Quantity of Stemming per Blasthole:	0.7048	cubic yards
Number of Rows:	5	rows
Number of Blastholes per Row:	130	holes per row
Total Number of Blastholes:	650	holes
Total Length of all Blastholes:	36,595	feet

BLASTING MATERIALS QUANTITIES

	QUANTITY	UNIT
Total Quantity of Stemming Required:	458.15	cubic yards
Total Quantity of Explosives Required:	376,420	pounds
Total Quantity of det. cord/fuse/wire Required:	56,815	linear feet
Quantity of Blasting Caps per Blasthole:	1	cap(s)
Total Quantity of Blasting Caps Required:	650	caps
Quantity of Primers per Blasthole:	1	primer(s)
Total Quantity of Primers Required:	650	primers
Quantity of Delays per Blasthole:	1	delay(s)
Total Quantity of Delays Required:	655	delays

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Description
Drilling Equipment - Drill:	Atlas Capco DML/SP - 9-7/8"
-Drill Pad Preparation:	Cat D11T - 11U
Misc. Drill Support Equipment:	NA
Misc. Explosives Support Equipment:	NA
Explosives Delivery –Bulk Truck:	ANFO Bulk Delivery Truck
-Cap Truck:	Cap Delivery Truck

Cost Breakdown:	Drilling Equipment	Drill Pad Preparation	Misc. Drill Support	Misc. Expl. Support	Explosives Delivery Bulk Truck	Explosives Delivery Cap Truck
	Drilling	Dozer			MiscTruck	MiscTruck
%Utilization-machine:	100	100	NA	NA	100	100
Ownership cost/hour:	$408.05	$334.55	NA	NA	$156.81	$5.06
Operating cost/hour:	$299.61	$260.65	NA	NA	$197.09	$30.58
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	NA	NA	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	NA	NA	$0.00	$0.00
Operator cost/hour:	$78.71	$38.59	NA	NA	$27.68	$27.68
Unit Subtotals:	$786.37	$633.79	$0.00	$0.00	$381.58	$63.32
Number of Units:	1	1	0	0	1	1
Group Subtotals:	$786.37	$633.79	$0.00	$0.00	$381.58	$63.32

Total work team cost/hour: **$1,865.06**

MATERIALS COST

	Description	Unit	Unit Cost	Quantity	Total Cost
Blasting Agent:	Bulk ANFO nom. density (7,900-15,000 fps)	Pound	$0.800	376420.236	$301,136.19
Primers or Boosters:	Cast primer, 1.0 lb (electric or non-electric system)	Each	$14.810	650.000	$9,626.50
Blasting Caps:	Electric cap, delay (electric systems)	Each	$13.079	650.000	$8,501.35
Det. Cord, fuse, or wire:	Detonating cord, 25 gr./ft. (non-electric systems)	Linear foot	$0.660	56815.000	$37,497.90
Delays:	MS connectors (non-electric systems)	Each	$8.860	655.000	$5,803.30
Miscellaneous:	Stemming, 1.5 in. gravel (inert blasthole packing-imported)	Cu. yd.	$32.670	458.150	$14,967.76

Drill bits:	Bit life = 1,750	Linear feet	$2,738.47	20.911	$57,265.32
				Total Materials Cost:	**$434,798.32**

DRILLING AND EXPLOSIVES PREPARATION TIME

Total Drilling Length:	36,595	linear feet
Unadjusted Drilling Rate:	82.00	feet/hour
Drilling Time:	740.10	hours

Job Condition Corrections:

Site Altitude:	7,800	feet
Altitude Adjustment:	0.90	(DRMS est.)
Job Efficiency Factor:	0.67	(CH. Exc. HB)
Adjusted Drilling Rate:	**49.45**	feet/hour
Explosives Prep. Time:	139.05	hours

JOB TIME AND COST

Total Job Time: **879.15** Hours

Unit cost: $2.277 per cu. yd.

Total Job Cost: **$1,547,721**

TRUCK/LOADER TEAM WORK

Task description: **Load and Haul Spoil to TS-1**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 002 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 002
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$29.91	$35.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$237.06	$186.88
Number of Units:	4	1	1	1	1	1
Group Subtotals:	Work: $3,288.72		Support: $1,720.22		Maint: $423.94	

Total work team cost/hour: **$5,432.88**

MATERIAL QUANTITIES

Initial volume: 3,662,979 CCY Swell factor: 1.000
Loose volume: **3,662,979** LCY

Source of estimated volume: Map 35A
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: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	**Loader**	**Source**
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 6" and over diameter 0.03	0.030	(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:	-0.050	minutes
	Adjusted Loader Cycle Time:	**0.675**	minutes
	Net Load Time per Truck:	**1.450**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.450	Minutes	Adjusted for site altitude:	1.480	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Hard, smooth, stabilized, surfaced, watered, maintained 2.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	5876.00	0.00	2.00	2.00	3328	2.657

Haul Time: **2.657** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	5876.00	0.00	2.00	2.00	3503	1.971

Return Time: **1.971** minutes
Total Truck Cycle Time: **8.108** minutes

Loading Tool unit Production: 4,603.46 LCY/Hour — Adjusted for job efficiency: 3,820.87 LCY/Hour

Truck Unit Production: 1,294.34 LCY/Hour — Adjusted for job efficiency: 1,074.30 LCY/Hour

Optimal No. of Trucks: 4 Truck(s) — Selected Number of Trucks: 4 Truck(s)

Adjusted hourly truck team production: 4,297.22 LCY/Hour
Adjusted single truck/loader team production: 3,820.87 LCY/Hour
Adjusted multiple truck/loader team production: **3,820.87** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) — Total job time: **958.68** Hours

Unit cost: $1.422 /LCY — Total job cost: **$5,208,378**

TRUCK/LOADER TEAM WORK

Task description: **Load and Haul Spoil to TS-2**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 003 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 003
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$29.91	$35.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$237.06	$186.88
Number of Units:	3	1	1	1	1	1
Group Subtotals:	Work: $2,779.84		Support: $1,720.22		Maint: $423.94	

Total work team cost/hour: **$4,924.00**

MATERIAL QUANTITIES

Initial volume: 1,890,353 CCY Swell factor: 1.000
Loose volume: **1,890,353** LCY

Source of estimated volume: Map 35A
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: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	**Loader**	**Source**
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 6" and over diameter 0.03	0.030	(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:	-0.050	minutes
	Adjusted Loader Cycle Time:	**0.675**	minutes
	Net Load Time per Truck:	**1.450**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.450	Minutes	Adjusted for site altitude:	1.480	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Hard, smooth, stabilized, surfaced, watered, maintained 2.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1580.00	-9.00	2.00	-7.00	1411	1.320

Haul Time: **1.320** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1580.00	9.00	2.00	11.00	1734	1.314

Return Time: **1.314** minutes
Total Truck Cycle Time: **6.114** minutes

Loading Tool unit Production: 4,603.46 LCY/Hour — Adjusted for job efficiency: 3,820.87 LCY/Hour
Truck Unit Production: 1,716.50 LCY/Hour — Adjusted for job efficiency: 1,424.70 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) — Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 4,274.09 LCY/Hour
Adjusted single truck/loader team production: 3,820.87 LCY/Hour
Adjusted multiple truck/loader team production: **3,820.87** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) — Total job time: **494.74** Hours

Unit cost: $1.289 /LCY — Total job cost: **$2,436,121**

TRUCK/LOADER TEAM WORK

Task description: **Load and Haul Spoil to TS-3**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 004 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 004
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$29.91	$35.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$237.06	$186.88
Number of Units:	3	1	1	1	1	1
Group Subtotals:	Work: $2,779.84		Support: $1,720.22		Maint: $423.94	

Total work team cost/hour: **$4,924.00**

MATERIAL QUANTITIES

Initial volume: 1,034,696 CCY Swell factor: 1.000
Loose volume: **1,034,696** LCY

Source of estimated volume: Map 35A
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: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	**Loader**	**Source**
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 6" and over diameter 0.03	0.030	(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:	-0.050	minutes
	Adjusted Loader Cycle Time:	**0.675**	minutes
	Net Load Time per Truck:	**1.450**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.450	Minutes	Adjusted for site altitude:	1.480	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Hard, smooth, stabilized, surfaced, watered, maintained 2.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1430.00	-9.00	2.00	-7.00	1411	1.224

Haul Time: **1.224** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1430.00	9.00	2.00	11.00	1734	1.228

Return Time: **1.228** minutes
Total Truck Cycle Time: **5.932** minutes

Loading Tool unit Production: 4,603.46 LCY/Hour — Adjusted for job efficiency: 3,820.87 LCY/Hour
Truck Unit Production: 1,769.17 LCY/Hour — Adjusted for job efficiency: 1,468.41 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) — Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 4,405.24 LCY/Hour
Adjusted single truck/loader team production: 3,820.87 LCY/Hour
Adjusted multiple truck/loader team production: **3,820.87** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) — Total job time: **270.80** Hours

Unit cost: $1.289 /LCY — Total job cost: **$1,333,425**

TRUCK/LOADER TEAM WORK

Task description: **Load and Haul Spoil to TS-4**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 005 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 005
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$29.91	$35.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$237.06	$186.88
Number of Units:	2	1	1	1	1	1
Group Subtotals:	Work: $2,270.96		Support: $1,720.22		Maint: $423.94	

Total work team cost/hour: **$4,415.12**

MATERIAL QUANTITIES

Initial volume: 1,527,757 CCY Swell factor: 1.000
Loose volume: **1,527,757** LCY

Source of estimated volume: Map 35A
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: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume: 153.00 LCY
Heaped Volume: 192.00 LCY
Average Volume: 172.50 LCY
Adjusted Volume: 192.00 LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	**Loader**	**Source**
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 6" and over diameter 0.03	0.030	(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:	-0.050	minutes
	Adjusted Loader Cycle Time:	**0.675**	minutes
	Net Load Time per Truck:	**1.450**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.450	Minutes	Adjusted for site altitude:	1.480	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Hard, smooth, stabilized, surfaced, watered, maintained 2.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1101.00	-15.00	2.00	-13.00	757	1.836

Haul Time: **1.836** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1101.00	15.00	2.00	17.00	1225	-0.772

Return Time: **-0.772** minutes
Total Truck Cycle Time: **4.544** minutes

Loading Tool unit Production 4,603.46 LCY/Hour — Adjusted for job efficiency: 3,820.87 LCY/Hour

Truck Unit Production 2,309.63 LCY/Hour — Adjusted for job efficiency: 1,916.99 LCY/Hour

Optimal No. of Trucks: 2 Truck(s) — Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 3,833.98 LCY/Hour
Adjusted single truck/loader team production: 3,820.87 LCY/Hour
Adjusted multiple truck/loader team production: **3,820.87** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) — Total job time: **399.85** Hours

Unit cost: $1.156 /LCY — Total job cost: **$1,765,366**

TRUCK/LOADER TEAM WORK

Task description: **Load and Haul Spoil to TS-5**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 006 State: Colorado Abbreviation: None
Date: 3/25/2025 County: Moffat Filename: 006
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$29.91	$35.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$237.06	$186.88
Number of Units:	2	1	1	1	1	1
Group Subtotals:	Work: $2,270.96		Support: $1,720.22		Maint: $423.94	

Total work team cost/hour: **$4,415.12**

MATERIAL QUANTITIES

Initial volume: 455,009 CCY Swell factor: 1.000
Loose volume: **455,009** LCY

Source of estimated volume: Map 35A
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: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 6" and over diameter 0.03	0.030	(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:	-0.050	minutes
	Adjusted Loader Cycle Time:	**0.675**	minutes
	Net Load Time per Truck:	**1.450**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.450	Minutes	Adjusted for site altitude:	1.480	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Hard, smooth, stabilized, surfaced, watered, maintained 2.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	910.00	-5.00	2.00	-3.00	3450	0.347

Haul Time: **0.347** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	910.00	5.00	2.00	7.00	2398	0.756

Return Time: **0.756** minutes
Total Truck Cycle Time: **4.583** minutes

Loading Tool unit Production 4,603.46 LCY/Hour — Adjusted for job efficiency: 3,820.87 LCY/Hour
Truck Unit Production 2,289.97 LCY/Hour — Adjusted for job efficiency: 1,900.68 LCY/Hour

Optimal No. of Trucks: 2 Truck(s) — Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 3,801.35 LCY/Hour
Adjusted single truck/loader team production: 3,801.35 LCY/Hour
Adjusted multiple truck/loader team production: **3,801.35** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) — Total job time: **119.70** Hours

Unit cost: $1.161 /LCY — Total job cost: **$528,475**

TRUCK/LOADER TEAM WORK

Task description: **Load and Haul Spoil to TS-6**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 007 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 007
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$29.91	$35.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$237.06	$186.88
Number of Units:	2	1	1	1	1	1
Group Subtotals:	Work: $2,270.96		Support: $1,720.22		Maint: $423.94	

Total work team cost/hour: **$4,415.12**

MATERIAL QUANTITIES

Initial volume: 1,063,103 CCY Swell factor: 1.000
Loose volume: **1,063,103** LCY

Source of estimated volume: Map 35A
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: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 6" and over diameter 0.03	0.030	(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:	-0.050	minutes
	Adjusted Loader Cycle Time:	**0.675**	minutes
	Net Load Time per Truck:	**1.450**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.450	Minutes	Adjusted for site altitude:	1.480	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Hard, smooth, stabilized, surfaced, watered, maintained 2.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1172.00	-9.00	2.00	-7.00	1411	1.033

Haul Time: **1.033** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1172.00	9.00	2.00	11.00	1734	1.079

Return Time: **1.079** minutes
Total Truck Cycle Time: **5.592** minutes

Loading Tool unit Production 4,603.46 LCY/Hour — Adjusted for job efficiency: 3,820.87 LCY/Hour
Truck Unit Production 1,876.75 LCY/Hour — Adjusted for job efficiency: 1,557.70 LCY/Hour

Optimal No. of Trucks: 2 Truck(s) — Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 3,115.40 LCY/Hour
Adjusted single truck/loader team production: 3,115.40 LCY/Hour
Adjusted multiple truck/loader team production: **3,115.40** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) — Total job time: **341.24** Hours

Unit cost: $1.417 /LCY — Total job cost: **$1,506,622**

TRUCK/LOADER TEAM WORK

Task description: **Load and Haul Spoil to TS-7**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 008 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 008
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$29.91	$35.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$237.06	$186.88
Number of Units:	3	1	1	1	1	1
Group Subtotals:	Work: $2,779.84		Support: $1,720.22		Maint: $423.94	

Total work team cost/hour: **$4,924.00**

MATERIAL QUANTITIES

Initial volume: 2,558,894 CCY Swell factor: 1.000
Loose volume: **2,558,894** LCY

Source of estimated volume: Map 35A
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: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 6" and over diameter 0.03	0.030	(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:	-0.050	minutes
	Adjusted Loader Cycle Time:	**0.675**	minutes
	Net Load Time per Truck:	**1.450**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.450	Minutes	Adjusted for site altitude:	1.480	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Hard, smooth, stabilized, surfaced, watered, maintained 2.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	5853.00	-1.00	2.00	1.00	3503	2.262

Haul Time: **2.262** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1172.00	9.00	2.00	11.00	1734	1.079

Return Time: **1.079** minutes
Total Truck Cycle Time: **6.821** minutes

Loading Tool unit Production 4,603.46 LCY/Hour — Adjusted for job efficiency: 3,820.87 LCY/Hour

Truck Unit Production 1,538.58 LCY/Hour — Adjusted for job efficiency: 1,277.02 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) — Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 3,831.05 LCY/Hour
Adjusted single truck/loader team production: 3,820.87 LCY/Hour
Adjusted multiple truck/loader team production: **3,820.87** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) — Total job time: **669.72** Hours

Unit cost: $1.289 /LCY — Total job cost: **$3,297,678**

TRUCK/LOADER TEAM WORK

Task description: **Load and Haul Spoil to TS-8**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 009 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 009
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$29.91	$35.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$237.06	$186.88
Number of Units:	3	1	1	1	1	1
Group Subtotals:	Work: $2,779.84		Support: $1,720.22		Maint: $423.94	

Total work team cost/hour: **$4,924.00**

MATERIAL QUANTITIES

Initial volume: 4,628,603 CCY Swell factor: 1.000
Loose volume: **4,628,603** LCY

Source of estimated volume: Map 35A
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: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume: 153.00 LCY
Heaped Volume: 192.00 LCY
Average Volume: 172.50 LCY
Adjusted Volume: 192.00 LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	**Loader**	**Source**
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 6" and over diameter 0.03	0.030	(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:	-0.050	minutes
	Adjusted Loader Cycle Time:	**0.675**	minutes
	Net Load Time per Truck:	**1.450**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.450	Minutes	Adjusted for site altitude:	1.480	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Hard, smooth, stabilized, surfaced, watered, maintained 2.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	5509.00	-1.00	2.00	1.00	3503	2.164

Haul Time: **2.164** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	5509.00	1.00	2.00	3.00	3503	1.950

Return Time: **1.950** minutes
Total Truck Cycle Time: **7.594** minutes

Loading Tool unit Production 4,603.46 LCY/Hour — Adjusted for job efficiency: 3,820.87 LCY/Hour

Truck Unit Production 1,381.95 LCY/Hour — Adjusted for job efficiency: 1,147.02 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) — Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 3,441.07 LCY/Hour
Adjusted single truck/loader team production: 3,441.07 LCY/Hour
Adjusted multiple truck/loader team production: **3,441.07** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) — Total job time: **1,345.11** Hours

Unit cost: $1.431 /LCY — Total job cost: **$6,623,306**

TRUCK/LOADER TEAM WORK

Task description: **Load and Haul Spoil to TS-9**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 010 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 010
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$29.91	$35.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$237.06	$186.88
Number of Units:	4	1	1	1	1	1
Group Subtotals:	Work: $3,288.72		Support: $1,720.22		Maint: $423.94	

Total work team cost/hour: **$5,432.88**

MATERIAL QUANTITIES

Initial volume: 4,408,828 CCY Swell factor: 1.000
Loose volume: **4,408,828** LCY

Source of estimated volume: Map 35A
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: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 6" and over diameter 0.03	0.030	(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:	-0.050	minutes
	Adjusted Loader Cycle Time:	**0.675**	minutes
	Net Load Time per Truck:	**1.450**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.450	Minutes	Adjusted for site altitude:	1.480	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Hard, smooth, stabilized, surfaced, watered, maintained 2.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	6658.00	0.00	2.00	2.00	3328	2.892

Haul Time: **2.892** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	6658.00	0.00	2.00	2.00	3503	2.194

Return Time: **2.194** minutes
Total Truck Cycle Time: **8.566** minutes

Loading Tool unit Production 4,603.46 LCY/Hour Adjusted for job efficiency: 3,820.87 LCY/Hour
Truck Unit Production 1,225.13 LCY/Hour Adjusted for job efficiency: 1,016.86 LCY/Hour

Optimal No. of Trucks: 4 Truck(s) Selected Number of Trucks: 4 Truck(s)

Adjusted hourly truck team production: 4,067.45 LCY/Hour
Adjusted single truck/loader team production: 3,820.87 LCY/Hour
Adjusted multiple truck/loader team production: **3,820.87** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **1,153.88** Hours

Unit cost: $1.422 /LCY Total job cost: **$6,268,898**

TRUCK/LOADER TEAM WORK

Task description: **Load and Haul Spoil to TS-10**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 011 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 011
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$29.91	$35.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$237.06	$186.88
Number of Units:	4	1	1	1	1	1
Group Subtotals:	Work: $3,288.72		Support: $1,720.22		Maint: $423.94	

Total work team cost/hour: **$5,432.88**

MATERIAL QUANTITIES

Initial volume: 4,516,062 CCY Swell factor: 1.000
Loose volume: **4,516,062** LCY

Source of estimated volume: Map 35A
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: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 6" and over diameter 0.03	0.030	(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:	-0.050	minutes
	Adjusted Loader Cycle Time:	**0.675**	minutes
	Net Load Time per Truck:	**1.450**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.450	Minutes	Adjusted for site altitude:	1.480	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Hard, smooth, stabilized, surfaced, watered, maintained 2.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	6762.00	-1.00	2.00	1.00	3503	2.521

Haul Time: **2.521** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	6658.00	0.00	2.00	2.00	3503	2.194

Return Time: **2.194** minutes
Total Truck Cycle Time: **8.195** minutes

Loading Tool unit Production 4,603.46 LCY/Hour — Adjusted for job efficiency: 3,820.87 LCY/Hour
Truck Unit Production 1,280.60 LCY/Hour — Adjusted for job efficiency: 1,062.90 LCY/Hour

Optimal No. of Trucks: 4 Truck(s) — Selected Number of Trucks: 4 Truck(s)

Adjusted hourly truck team production: 4,251.59 LCY/Hour
Adjusted single truck/loader team production: 3,820.87 LCY/Hour
Adjusted multiple truck/loader team production: **3,820.87** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) — Total job time: **1,181.95** Hours

Unit cost: $1.422 /LCY — Total job cost: **$6,421,374**

TRUCK/LOADER TEAM WORK

Task description: **Load and Haul Spoil to TS-11**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 012 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 012
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$29.91	$35.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$237.06	$186.88
Number of Units:	4	1	1	1	1	1
Group Subtotals:	Work: $3,288.72		Support: $1,720.22		Maint: $423.94	

Total work team cost/hour: **$5,432.88**

MATERIAL QUANTITIES

Initial volume: 3,900,843 CCY Swell factor: 1.000
Loose volume: **3,900,843** LCY

Source of estimated volume: Map 35A
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: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	**Loader**	**Source**
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 6" and over diameter 0.03	0.030	(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:	-0.050	minutes
	Adjusted Loader Cycle Time:	**0.675**	minutes
	Net Load Time per Truck:	**1.450**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.450	Minutes	Adjusted for site altitude:	1.480	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Hard, smooth, stabilized, surfaced, watered, maintained 2.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	7359.00	0.00	2.00	2.00	3328	3.102

Haul Time: **3.102** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	7359.00	0.00	2.00	2.00	3503	2.394

Return Time: **2.394** minutes
Total Truck Cycle Time: **8.976** minutes

Loading Tool unit Production 4,603.46 LCY/Hour — Adjusted for job efficiency: 3,820.87 LCY/Hour
Truck Unit Production 1,169.17 LCY/Hour — Adjusted for job efficiency: 970.41 LCY/Hour

Optimal No. of Trucks: 4 Truck(s) — Selected Number of Trucks: 4 Truck(s)

Adjusted hourly truck team production: 3,881.65 LCY/Hour
Adjusted single truck/loader team production: 3,820.87 LCY/Hour
Adjusted multiple truck/loader team production: **3,820.87** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) — Total job time: **1,020.93** Hours

Unit cost: $1.422 /LCY — Total job cost: **$5,546,596**

TRUCK/LOADER TEAM WORK

Task description: **Load and Haul Spoil to TS-12**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 013 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 013
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$29.91	$35.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$237.06	$186.88
Number of Units:	3	1	1	1	1	1
Group Subtotals:	Work: $2,779.84		Support: $1,720.22		Maint: $423.94	

Total work team cost/hour: **$4,924.00**

MATERIAL QUANTITIES

Initial volume: 4,030,324 CCY Swell factor: 1.000
Loose volume: **4,030,324** LCY

Source of estimated volume: Map 35A
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: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 6" and over diameter 0.03	0.030	(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:	-0.050	minutes
	Adjusted Loader Cycle Time:	**0.675**	minutes
	Net Load Time per Truck:	**1.450**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.450	Minutes	Adjusted for site altitude:	1.480	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Hard, smooth, stabilized, surfaced, watered, maintained 2.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1135.00	-5.00	2.00	-3.00	3450	0.415

Haul Time: **0.415** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	7359.00	0.00	2.00	2.00	3503	2.394

Return Time: **2.394** minutes
Total Truck Cycle Time: **6.289** minutes

Loading Tool unit Production 4,603.46 LCY/Hour — Adjusted for job efficiency: 3,820.87 LCY/Hour
Truck Unit Production 1,668.74 LCY/Hour — Adjusted for job efficiency: 1,385.05 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) — Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 4,155.15 LCY/Hour
Adjusted single truck/loader team production: 3,820.87 LCY/Hour
Adjusted multiple truck/loader team production: **3,820.87** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) — Total job time: **1,054.82** Hours

Unit cost: $1.289 /LCY — Total job cost: **$5,193,928**

TRUCK/LOADER TEAM WORK

Task description: **Load and Haul Spoil to TS-13**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 014 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 014
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$29.91	$35.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$237.06	$186.88
Number of Units:	3	1	1	1	1	1
Group Subtotals:	Work: $2,779.84		Support: $1,720.22		Maint: $423.94	

Total work team cost/hour: **$4,924.00**

MATERIAL QUANTITIES

Initial volume: 3,986,133 CCY Swell factor: 1.000
Loose volume: **3,986,133** LCY

Source of estimated volume: Map 35A
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: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 6" and over diameter 0.03	0.030	(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:	-0.050	minutes
	Adjusted Loader Cycle Time:	**0.675**	minutes
	Net Load Time per Truck:	**1.450**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.450	Minutes	Adjusted for site altitude:	1.480	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Hard, smooth, stabilized, surfaced, watered, maintained 2.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2742.00	-2.00	2.00	0.00	3503	1.192

Haul Time: **1.192** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2742.00	2.00	2.00	4.00	3411	1.284

Return Time: **1.284** minutes
Total Truck Cycle Time: **5.956** minutes

Loading Tool unit Production: 4,603.46 LCY/Hour — Adjusted for job efficiency: 3,820.87 LCY/Hour
Truck Unit Production: 1,762.04 LCY/Hour — Adjusted for job efficiency: 1,462.49 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) — Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 4,387.48 LCY/Hour
Adjusted single truck/loader team production: 3,820.87 LCY/Hour
Adjusted multiple truck/loader team production: **3,820.87** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) — Total job time: **1,043.25** Hours

Unit cost: $1.289 /LCY — Total job cost: **$5,136,979**

TRUCK/LOADER TEAM WORK

Task description: **Load and Haul Spoil to TS-14**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 015 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 015
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$29.91	$35.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$237.06	$186.88
Number of Units:	3	1	1	1	1	1
Group Subtotals:	Work: $2,779.84		Support: $1,720.22		Maint: $423.94	

Total work team cost/hour: **$4,924.00**

MATERIAL QUANTITIES

Initial volume: 4,065,316 CCY Swell factor: 1.000
Loose volume: **4,065,316** LCY

Source of estimated volume: Map 35A
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: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 6" and over diameter 0.03	0.030	(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:	-0.050	minutes
	Adjusted Loader Cycle Time:	**0.675**	minutes
	Net Load Time per Truck:	**1.450**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.450	Minutes	Adjusted for site altitude:	1.480	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Hard, smooth, stabilized, surfaced, watered, maintained 2.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4376.00	2.00	2.00	4.00	1786	2.743

Haul Time: **2.743** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4376.00	-2.00	2.00	0.00	3503	1.453

Return Time: **1.453** minutes
Total Truck Cycle Time: **7.676** minutes

Loading Tool unit Production: 4,603.46 LCY/Hour — Adjusted for job efficiency: 3,820.87 LCY/Hour

Truck Unit Production: 1,367.19 LCY/Hour — Adjusted for job efficiency: 1,134.77 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) — Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 3,404.31 LCY/Hour
Adjusted single truck/loader team production: 3,404.31 LCY/Hour
Adjusted multiple truck/loader team production: **3,404.31** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) — Total job time: **1,194.17** Hours

Unit cost: $1.446 /LCY — Total job cost: **$5,880,088**

TRUCK/LOADER TEAM WORK

Task description: **Load and Haul Spoil to TS-15**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 016 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 016
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$29.91	$35.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$237.06	$186.88
Number of Units:	4	1	1	1	1	1
Group Subtotals:	Work: $3,288.72		Support: $1,720.22		Maint: $423.94	

Total work team cost/hour: **$5,432.88**

MATERIAL QUANTITIES

Initial volume: 4,033,424 CCY Swell factor: 1.000
Loose volume: **4,033,424** LCY

Source of estimated volume: Map 35A
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: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	**Loader**	**Source**
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 6" and over diameter 0.03	0.030	(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:	-0.050	minutes
	Adjusted Loader Cycle Time:	**0.675**	minutes
	Net Load Time per Truck:	**1.450**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.450	Minutes	Adjusted for site altitude:	1.480	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Hard, smooth, stabilized, surfaced, watered, maintained 2.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	6594.00	3.00	2.00	5.00	1550	4.524

Haul Time: **4.524** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	6594.00	-3.00	2.00	-1.00	3503	1.941

Return Time: **1.941** minutes
Total Truck Cycle Time: **9.945** minutes

Loading Tool unit Production: 4,603.46 LCY/Hour — Adjusted for job efficiency: 3,820.87 LCY/Hour

Truck Unit Production: 1,055.25 LCY/Hour — Adjusted for job efficiency: 875.85 LCY/Hour

Optimal No. of Trucks: 4 Truck(s) — Selected Number of Trucks: 4 Truck(s)

Adjusted hourly truck team production: 3,503.42 LCY/Hour
Adjusted single truck/loader team production: 3,503.42 LCY/Hour
Adjusted multiple truck/loader team production: **3,503.42** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) — Total job time: **1,151.28** Hours

Unit cost: $1.551 /LCY — Total job cost: **$6,254,777**

TRUCK/LOADER TEAM WORK

Task description: **Load and Haul Spoil to TS-16**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 017 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 017
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$29.91	$35.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$237.06	$186.88
Number of Units:	3	1	1	1	1	1
Group Subtotals:	Work: $2,779.84		Support: $1,720.22		Maint: $423.94	

Total work team cost/hour: **$4,924.00**

MATERIAL QUANTITIES

Initial volume: 1,386,289 CCY Swell factor: 1.000
Loose volume: **1,386,289** LCY

Source of estimated volume: Map 35A
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: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 6" and over diameter 0.03	0.030	(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:	-0.050	minutes
	Adjusted Loader Cycle Time:	**0.675**	minutes
	Net Load Time per Truck:	**1.450**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.450	Minutes	Adjusted for site altitude:	1.480	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Hard, smooth, stabilized, surfaced, watered, maintained 2.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1711.00	-10.00	2.00	-8.00	1411	1.417

Haul Time: **1.417** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1711.00	10.00	2.00	12.00	1628	1.517

Return Time: **1.517** minutes
Total Truck Cycle Time: **6.414** minutes

Loading Tool unit Production 4,603.46 LCY/Hour — Adjusted for job efficiency: 3,820.87 LCY/Hour
Truck Unit Production 1,636.21 LCY/Hour — Adjusted for job efficiency: 1,358.06 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) — Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 4,074.17 LCY/Hour
Adjusted single truck/loader team production: 3,820.87 LCY/Hour
Adjusted multiple truck/loader team production: **3,820.87** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) — Total job time: **362.82** Hours

Unit cost: $1.289 /LCY — Total job cost: **$1,786,528**

TRUCK/LOADER TEAM WORK

Task description: **Load and Haul Spoil to TS-17**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 018 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 018
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$29.91	$35.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$237.06	$186.88
Number of Units:	3	1	1	1	1	1
Group Subtotals:	Work: $2,779.84		Support: $1,720.22		Maint: $423.94	

Total work team cost/hour: **$4,924.00**

MATERIAL QUANTITIES

Initial volume: 1,261,780 CCY Swell factor: 1.000
Loose volume: **1,261,780** LCY

Source of estimated volume: Map 35A
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: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 6" and over diameter 0.03	0.030	(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:	-0.050	minutes
	Adjusted Loader Cycle Time:	**0.675**	minutes
	Net Load Time per Truck:	**1.450**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.450	Minutes	Adjusted for site altitude:	1.480	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Hard, smooth, stabilized, surfaced, watered, maintained 2.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1973.00	-8.00	2.00	-6.00	1870	1.199

Haul Time: **1.199** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1973.00	8.00	2.00	10.00	1789	1.389

Return Time: **1.389** minutes

Total Truck Cycle Time: **6.068** minutes

Loading Tool unit Production 4,603.46 LCY/Hour — Adjusted for job efficiency: 3,820.87 LCY/Hour

Truck Unit Production 1,729.52 LCY/Hour — Adjusted for job efficiency: 1,435.50 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) — Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 4,306.50 LCY/Hour

Adjusted single truck/loader team production: 3,820.87 LCY/Hour

Adjusted multiple truck/loader team production: **3,820.87** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) — Total job time: **330.23** Hours

Unit cost: $1.289 /LCY — Total job cost: **$1,626,071**

TRUCK/LOADER TEAM WORK

Task description: **Load and Haul Spoil to TS-18**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 019 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 019
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$29.91	$35.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$237.06	$186.88
Number of Units:	2	1	1	1	1	1
Group Subtotals:	Work: $2,270.96		Support: $1,720.22		Maint: $423.94	

Total work team cost/hour: **$4,415.12**

MATERIAL QUANTITIES

Initial volume: 736,093 CCY Swell factor: 1.000
Loose volume: **736,093** LCY

Source of estimated volume: Map 35A
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: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume: 153.00 LCY
Heaped Volume: 192.00 LCY
Average Volume: 172.50 LCY
Adjusted Volume: 192.00 LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	**Loader**	**Source**
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 6" and over diameter 0.03	0.030	(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:	-0.050	minutes
	Adjusted Loader Cycle Time:	**0.675**	minutes
	Net Load Time per Truck:	**1.450**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.450	Minutes	Adjusted for site altitude:	1.480	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Hard, smooth, stabilized, surfaced, watered, maintained 2.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	815.00	-5.50	2.00	-3.50	2545	0.433

Haul Time: **0.433** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	815.00	5.50	2.00	7.50	2327	0.757

Return Time: **0.757** minutes

Total Truck Cycle Time: **4.670** minutes

Loading Tool unit Production 4,603.46 LCY/Hour — Adjusted for job efficiency: 3,820.87 LCY/Hour

Truck Unit Production 2,247.31 LCY/Hour — Adjusted for job efficiency: 1,865.26 LCY/Hour

Optimal No. of Trucks: 2 Truck(s) — Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 3,730.53 LCY/Hour

Adjusted single truck/loader team production: 3,730.53 LCY/Hour

Adjusted multiple truck/loader team production: **3,730.53** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) — Total job time: **197.32** Hours

Unit cost: $1.184 /LCY — Total job cost: **$871,174**

TRUCK/LOADER TEAM WORK

Task description: **Load and Haul Spoil to TS-19**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 020 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 020
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$29.91	$35.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$237.06	$186.88
Number of Units:	2	1	1	1	1	1
Group Subtotals:	Work: $2,270.96		Support: $1,720.22		Maint: $423.94	

Total work team cost/hour: **$4,415.12**

MATERIAL QUANTITIES

Initial volume: 239,096 CCY Swell factor: 1.000
Loose volume: **239,096** LCY

Source of estimated volume: Map 35A
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: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 6" and over diameter 0.03	0.030	(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:	-0.050	minutes
	Adjusted Loader Cycle Time:	**0.675**	minutes
	Net Load Time per Truck:	**1.450**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.450	Minutes	Adjusted for site altitude:	1.480	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Hard, smooth, stabilized, surfaced, watered, maintained 2.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	436.00	-2.00	2.00	0.00	3503	0.533

Haul Time: **0.533** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	436.00	2.00	2.00	4.00	3411	0.608

Return Time: **0.608** minutes
Total Truck Cycle Time: **4.621** minutes

Loading Tool unit Production: 4,603.46 LCY/Hour — Adjusted for job efficiency: 3,820.87 LCY/Hour
Truck Unit Production: 2,271.14 LCY/Hour — Adjusted for job efficiency: 1,885.04 LCY/Hour

Optimal No. of Trucks: 2 Truck(s) — Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 3,770.09 LCY/Hour
Adjusted single truck/loader team production: 3,770.09 LCY/Hour
Adjusted multiple truck/loader team production: **3,770.09** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) — Total job time: **63.42** Hours

Unit cost: $1.171 /LCY — Total job cost: **$280,003**

TRUCK/LOADER TEAM WORK

Task description: **Load and Haul Spoil to TS-20**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 021 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 021
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$29.91	$35.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$237.06	$186.88
Number of Units:	3	1	1	1	1	1
Group Subtotals:	Work: $2,779.84		Support: $1,720.22		Maint: $423.94	

Total work team cost/hour: **$4,924.00**

MATERIAL QUANTITIES

Initial volume: 453,833 CCY Swell factor: 1.000
Loose volume: **453,833** LCY

Source of estimated volume: Map 35A
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: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 6" and over diameter 0.03	0.030	(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:	-0.050	minutes
	Adjusted Loader Cycle Time:	**0.675**	minutes
	Net Load Time per Truck:	**1.450**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.450	Minutes	Adjusted for site altitude:	1.480	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Hard, smooth, stabilized, surfaced, watered, maintained 2.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2507.00	-2.00	2.00	0.00	3503	1.125

Haul Time: **1.125** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2507.00	2.00	2.00	4.00	3411	1.215

Return Time: **1.215** minutes
Total Truck Cycle Time: **5.820** minutes

Loading Tool unit Production 4,603.46 LCY/Hour — Adjusted for job efficiency: 3,820.87 LCY/Hour

Truck Unit Production 1,803.22 LCY/Hour — Adjusted for job efficiency: 1,496.67 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) — Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 4,490.02 LCY/Hour
Adjusted single truck/loader team production: 3,820.87 LCY/Hour
Adjusted multiple truck/loader team production: **3,820.87** LCY/Hour

<u>JOB TIME AND COST</u>

Fleet size: 1 Team(s) — Total job time: **118.78** Hours

Unit cost: $1.289 /LCY — Total job cost: **$584,860**

TRUCK/LOADER TEAM WORK

Task description: **Load and Haul Spoil to TS-21**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 022 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 022
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$29.91	$35.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$237.06	$186.88
Number of Units:	2	1	1	1	1	1
Group Subtotals:	Work: $2,270.96		Support: $1,720.22		Maint: $423.94	

Total work team cost/hour: **$4,415.12**

MATERIAL QUANTITIES

Initial volume: 556,913 CCY Swell factor: 1.000
Loose volume: **556,913** LCY

Source of estimated volume: Map 35A
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: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 6" and over diameter 0.03	0.030	(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:	-0.050	minutes
	Adjusted Loader Cycle Time:	**0.675**	minutes
	Net Load Time per Truck:	**1.450**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.450	Minutes	Adjusted for site altitude:	1.480	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Hard, smooth, stabilized, surfaced, watered, maintained 2.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1399.00	0.00	2.00	2.00	3328	1.312

Haul Time: **1.312** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1399.00	0.00	2.00	2.00	3503	0.693

Return Time: **0.693** minutes
Total Truck Cycle Time: **5.485** minutes

Loading Tool unit Production 4,603.46 LCY/Hour — Adjusted for job efficiency: 3,820.87 LCY/Hour

Truck Unit Production 1,913.36 LCY/Hour — Adjusted for job efficiency: 1,588.09 LCY/Hour

Optimal No. of Trucks: 2 Truck(s) — Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 3,176.18 LCY/Hour
Adjusted single truck/loader team production: 3,176.18 LCY/Hour
Adjusted multiple truck/loader team production: **3,176.18** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) — Total job time: **175.34** Hours

Unit cost: $1.390 /LCY — Total job cost: **$774,150**

TRUCK/LOADER TEAM WORK

Task description: **Load and Haul Spoil to TS-22**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 023 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 023
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$29.91	$35.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$237.06	$186.88
Number of Units:	2	1	1	1	1	1
Group Subtotals:	Work: $2,270.96		Support: $1,720.22		Maint: $423.94	

Total work team cost/hour: **$4,415.12**

MATERIAL QUANTITIES

Initial volume: 347,730 CCY Swell factor: 1.000
Loose volume: **347,730** LCY

Source of estimated volume: Map 35A
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: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 6" and over diameter 0.03	0.030	(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:	-0.050	minutes
	Adjusted Loader Cycle Time:	**0.675**	minutes
	Net Load Time per Truck:	**1.450**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.450	Minutes	Adjusted for site altitude:	1.480	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Hard, smooth, stabilized, surfaced, watered, maintained 2.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	628.00	3.00	2.00	5.00	1550	0.675

Haul Time: **0.675** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	628.00	-3.00	2.00	-1.00	3503	0.233

Return Time: **0.233** minutes
Total Truck Cycle Time: **4.388** minutes

Loading Tool unit Production 4,603.46 LCY/Hour — Adjusted for job efficiency: 3,820.87 LCY/Hour
Truck Unit Production 2,391.74 LCY/Hour — Adjusted for job efficiency: 1,985.15 LCY/Hour

Optimal No. of Trucks: 2 Truck(s) — Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 3,970.30 LCY/Hour
Adjusted single truck/loader team production: 3,820.87 LCY/Hour
Adjusted multiple truck/loader team production: **3,820.87** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) — Total job time: **91.01** Hours

Unit cost: $1.156 /LCY — Total job cost: **$401,812**

BULLDOZER WORK

Task description: **Regrade Gossard Loadout**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 024
State: Colorado
Abbreviation: None
Date: 3/11/2025
County: Moffat
Filename: 024
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D11T - 11U
Horsepower: 850
Blade Type: Universal
Attachment: 1-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$334.55	NA
Operating Cost/Hour:	$260.65	100
Ripper own. Cost/Hour:	$36.40	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $670.19
Total Fleet Cost/Hour: **$2,680.74**

MATERIAL QUANTITIES

Initial Volume: 7,422
Swell factor: 1.000
Loose volume: **7,422** LCY

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

HOURLY PRODUCTION

Average push distance: 200 feet
Unadjusted hourly production: 1,560.0 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 5 %
Average site altitude: 7,600 feet

Material weight: 2,572 lbs/LCY

Weight description: User Provided

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	0.903	(CAT HB)
Altitude:	0.930	(CAT HB)
Material Weight:	0.894	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5047

Adjusted unit production: 787.33 LCY/hr
Adjusted fleet production: **3149.32** LCY/hr

JOB TIME AND COST

Fleet size: 4 Dozer(s)
Unit cost: $0.851/LCY

Total job time: **2.36** Hours
Total job cost: **$6,318**

BULLDOZER RIPPING WORK

Task description: **Rip Facilities Area**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #:	025	State:	Colorado	Abbreviation:	None
Date:	3/11/2025	County:	Moffat	Filename:	025
User:	HR1				

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine:	Cat D11T - 11U	Horsepower:	850
Ripper Attachment:	1-Shank Ripper	Shift Basis:	1 per day
		Data Source:	(CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper Ownership Cost/Hour:	$27.44	NA
Ripper Operating Cost/Hour:	$16.65	100
Operator Cost/Hour:	$38.59	NA
Total Unit Cost/Hour:	$904.20	
Total Fleet Cost/Hour:	**$3,616.78**	

MATERIAL QUANTITIES

Selected estimating method: Seismic

Alternate Methods:

Seismic:	462,720	BCY	Bank Volume:	462,720	BCY	Midrange	
Area:	NA	acres	Rip Depth (ft):	NA	Volume:	NA	BCY or CCY

Source of estimated quantity: Maps 19 and 23

HOURLY PRODUCTION

Seismic:

Seismic Velocity:	3,500	feet/second

Area:

Average Ripping Depth:	NA	feet/pass
Average Ripping Width:	NA	feet/pass
Average Ripping Length:	NA	feet/pass
Average Dozer Speed:	NA	feet/minute
Average Maneuver Time:	NA	minutes/pass
Production per unit area:	NA	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production:	2,490.40	Cu. yds./hr
Site Altitude:	7,600	feet
Altitude Adj:	0.93	(CAT HB)
Job Efficiency:	0.83	(1 shift/day)
Net Correction:	0.77	multiplier
Adjusted Hourly Unit Production:	1,922.34	Cu. yds./hr
Adjusted Hourly Fleet Production:	**7,689.36**	Cu. yds./hr

JOB TIME AND COST

Fleet size:	4	Grader(s)	Total job time:	**60.18**	Hours
Unit cost:	$0.470	Per cu. yd.	Total job cost:	**$217,646**	

BULLDOZER RIPPING WORK

Task description: **Rip Coal Stockpile Area**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 026 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 026
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D11T - 11U Horsepower: 850
Ripper Attachment: 1-Shank Ripper Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper Ownership Cost/Hour:	$27.44	NA
Ripper Operating Cost/Hour:	$16.65	100
Operator Cost/Hour:	$38.59	NA
Total Unit Cost/Hour:	$904.20	
Total Fleet Cost/Hour:	**$904.20**	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 2.50 acres Rip Depth (ft): 2.00 Volume: 8,067 BCY or CCY

Source of estimated quantity: Maps 19 and 23

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	2.00	feet/pass
Average Ripping Width:	7.94	feet/pass
Average Ripping Length:	250.00	feet/pass
Average Dozer Speed:	88.00	feet/minute
Average Maneuver Time:	0.25	minutes/pass
Production per unit area:	0.885	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production:	0.885	Acres/hr
Site Altitude:	7,600	feet
Altitude Adj:	0.93	(CAT HB)
Job Efficiency:	0.83	(1 shift/day)
Net Correction:	0.77	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: **3.66** Hours

Unit cost: $1324.237 Per acre Total job cost: **$3,311**

BULLDOZER RIPPING WORK

Task description: **Rip Gossard Loadout**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #:	027	State:	Colorado	Abbreviation:	None
Date:	3/11/2025	County:	Moffat	Filename:	027
User:	HR1				

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine:	Cat D11T - 11U	Horsepower:	850
Ripper Attachment:	1-Shank Ripper	Shift Basis:	1 per day
		Data Source:	(CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper Ownership Cost/Hour:	$27.44	NA
Ripper Operating Cost/Hour:	$16.65	100
Operator Cost/Hour:	$38.59	NA
Total Unit Cost/Hour:	$904.20	

Total Fleet Cost/Hour: **$3,616.78**

MATERIAL QUANTITIES

Selected estimating method: Seismic

Alternate Methods:

Seismic:	7,422	BCY	Bank Volume:	7,422	BCY	Midrange	
Area:	NA	acres	Rip Depth (ft):	NA	Volume:	NA	BCY or CCY

Source of estimated quantity: Map 19

HOURLY PRODUCTION

Seismic:

Seismic Velocity:	3,500	feet/second

Area:

Average Ripping Depth:	NA	feet/pass
Average Ripping Width:	NA	feet/pass
Average Ripping Length:	NA	feet/pass
Average Dozer Speed:	NA	feet/minute
Average Maneuver Time:	NA	minutes/pass
Production per unit area:	NA	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production:	2,490.40	Cu. yds./hr
Site Altitude:	7,600	feet
Altitude Adj:	0.93	(CAT HB)
Job Efficiency:	0.83	(1 shift/day)
Net Correction:	0.77	multiplier
Adjusted Hourly Unit Production:	1,922.34	Cu. yds./hr
Adjusted Hourly Fleet Production:	**7,689.36**	Cu. yds./hr

JOB TIME AND COST

Fleet size:	4	Grader(s)	Total job time:	**0.97**	Hours
Unit cost:	$0.470	Per cu. yd.	Total job cost:	**$3,491**	

BULLDOZER RIPPING WORK

Task description: **Rip Haul Road A and Haul Road B**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #:	028	State:	Colorado	Abbreviation:	None
Date:	3/11/2025	County:	Moffat	Filename:	028
User:	HR1				

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine:	Cat D11T - 11U	Horsepower:	850
Ripper Attachment:	1-Shank Ripper	Shift Basis:	1 per day
		Data Source:	(CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper Ownership Cost/Hour:	$27.44	NA
Ripper Operating Cost/Hour:	$16.65	100
Operator Cost/Hour:	$38.59	NA
Total Unit Cost/Hour:	$904.20	
Total Fleet Cost/Hour:	**$3,616.78**	

MATERIAL QUANTITIES

Selected estimating method: Seismic

Alternate Methods:

Seismic:	24,200	BCY	Bank Volume:	24,200	BCY	Midrange	
Area:	NA	acres	Rip Depth (ft):	NA	Volume:	NA	BCY or CCY

Source of estimated quantity: Division Estimate

HOURLY PRODUCTION

Seismic:

Seismic Velocity:	3,500	feet/second

Area:

Average Ripping Depth:	NA	feet/pass
Average Ripping Width:	NA	feet/pass
Average Ripping Length:	NA	feet/pass
Average Dozer Speed:	NA	feet/minute
Average Maneuver Time:	NA	minutes/pass
Production per unit area:	NA	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production:	2,490.40	Cu. yds./hr
Site Altitude:	7,600	feet
Altitude Adj:	0.93	(CAT HB)
Job Efficiency:	0.83	(1 shift/day)
Net Correction:	0.77	multiplier
Adjusted Hourly Unit Production:	1,922.34	Cu. yds./hr
Adjusted Hourly Fleet Production:	**7,689.36**	Cu. yds./hr

JOB TIME AND COST

Fleet size:	4	Grader(s)	Total job time:	**3.15**	Hours
Unit cost:	$0.470	Per cu. yd.	Total job cost:	**$11,383**	

BULLDOZER WORK

Task description: **Regrade Haul Road A Upper and Lower Ditch**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #:	029	State:	Colorado	Abbreviation:	None
Date:	3/11/2025	County:	Moffat	Filename:	029
User:	HR1				

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D11T - 11U
Horsepower: 850
Blade Type: Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$334.55	NA
Operating Cost/Hour:	$260.65	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $633.79
Total Fleet Cost/Hour: **$633.79**

MATERIAL QUANTITIES

Initial Volume: 642
Swell factor: 1.000
Loose volume: **642** LCY

Source of estimated volume: Exhibit 7-23B, Table 1, Exh. 7-item 23, Fig. B-1
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 50 feet
Unadjusted hourly production: 4,589.5 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: -5 %
Average site altitude: 7,500 feet

Material weight: 2,650 lbs/LCY

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

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(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:	1.115	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4338

Adjusted unit production: 1,990.93 LCY/hr
Adjusted fleet production: **1990.93** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.318/LCY

Total job time: **0.32** Hours
Total job cost: **$204**

BULLDOZER RIPPING WORK

Task description: **Rip Gossard Loadout Road**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #:	030	State:	Colorado	Abbreviation:	None
Date:	3/11/2025	County:	Moffat	Filename:	030
User:	HR1				

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine:	Cat D11T - 11U	Horsepower:	850
Ripper Attachment:	1-Shank Ripper	Shift Basis:	1 per day
		Data Source:	(CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper Ownership Cost/Hour:	$27.44	NA
Ripper Operating Cost/Hour:	$16.65	100
Operator Cost/Hour:	$38.59	NA
Total Unit Cost/Hour:	$904.20	
Total Fleet Cost/Hour:	**$3,616.78**	

MATERIAL QUANTITIES

Selected estimating method: Seismic

Alternate Methods:

Seismic:	9,700	BCY	Bank Volume:	9,700	BCY		Midrange	
Area:	NA	acres	Rip Depth (ft):	NA		Volume:	NA	BCY or CCY

Source of estimated quantity: Division Estimate

HOURLY PRODUCTION

Seismic:

Seismic Velocity:	3,500	feet/second

Area:

Average Ripping Depth:	NA	feet/pass
Average Ripping Width:	NA	feet/pass
Average Ripping Length:	NA	feet/pass
Average Dozer Speed:	NA	feet/minute
Average Maneuver Time:	NA	minutes/pass
Production per unit area:	NA	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production:	2,490.40	Cu. yds./hr
Site Altitude:	7,600	feet
Altitude Adj:	0.93	(CAT HB)
Job Efficiency:	0.83	(1 shift/day)
Net Correction:	0.77	multiplier
Adjusted Hourly Unit Production:	1,922.34	Cu. yds./hr
Adjusted Hourly Fleet Production:	**7,689.36**	Cu. yds./hr

JOB TIME AND COST

Fleet size:	4	Grader(s)	Total job time:	**1.26**	Hours
Unit cost:	$0.470	Per cu. yd.	Total job cost:	**$4,563**	

BULLDOZER WORK

Task description: **Regrade Gossard Loadout Road**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 031
Date: 3/11/2025
User: HR1

State: Colorado
County: Moffat

Abbreviation: None
Filename: 031

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D11T - 11U
Horsepower: 850
Blade Type: Universal
Attachment: 1-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$334.55	NA
Operating Cost/Hour:	$260.65	100
Ripper own. Cost/Hour:	$36.40	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $670.19
Total Fleet Cost/Hour: **$2,680.74**

MATERIAL QUANTITIES

Initial Volume: 9,700
Swell factor: 1.000
Loose volume: **9,700** LCY

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

HOURLY PRODUCTION

Average push distance: 100 feet
Unadjusted hourly production: 2,870.3 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 0 %
Average site altitude: 7,600 feet

Material weight: 2,900 lbs/LCY

Weight description: Decomposed rock - 50% Rock, 50% Earth

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.000	(CAT HB)
Altitude:	0.930	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4958

Adjusted unit production: 1,423.09 LCY/hr
Adjusted fleet production: **5692.36** LCY/hr

JOB TIME AND COST

Fleet size: 4 Dozer(s)
Unit cost: $0.471/LCY

Total job time: **1.70** Hours
Total job cost: **$4,568**

SITE MAINTENANCE

Task description: **“Mine” Riprap from South Taylor Pit Temporary Stockpiles for**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 032 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 032
User: HR1

Agency or organization name: DRMS

UNIT COSTS

Maintenance Item	Hours per Year	Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Loader for Riprap Segregation	667.00	CAT 992K	667.00	EA	$537.91	$358,785.97
Dozer for Riprap Segregation	667.00	Cat D11T - 11U	667.00	EA	$860.11	$573,693.37
Haul Trucks for Riprap Segregation	1334.00	Cat 777F	1,334.00	EA	$377.15	$503,118.10
Excavator for Riprap Segregation	667.00	Cat 345D L 12'-10" Stick	667.00	EA	$196.64	$131,158.88

Job Hours: **0.00** **Total Cost:** **$1,566,756.32**

BULLDOZER WORK

Task description: **Regrade Prospect Pond**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 033 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 033
User: HR1

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:

		Utilization %
Ownership Cost/Hour:	$238.76	NA
Operating Cost/Hour:	$162.29	100
Ripper own. Cost/Hour:	$18.32	NA
Ripper op. Cost/Hour:	$2.25	25
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $460.20
Total Fleet Cost/Hour: **$460.20**

MATERIAL QUANTITIES

Initial Volume: 10,291
Swell factor: 1.165
Loose volume: **11,989** LCY

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

HOURLY PRODUCTION

Average push distance: 150 feet
Unadjusted hourly production: 910.5 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 5 %
Average site altitude: 7,600 feet

Material weight: 2,900 lbs/LCY

Weight description: Decomposed rock - 50% Rock, 50% Earth

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3851

Adjusted unit production: 350.63 LCY/hr
Adjusted fleet production: **350.63** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $1.312/LCY

Total job time: **34.19** Hours
Total job cost: **$15,736**

BULLDOZER WORK

Task description: **Regrade Gossard Loop Pond**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #:	035	State:	Colorado	Abbreviation:	None
Date:	3/12/2025	County:	Moffat	Filename:	C019-035
User:	HR1				

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:

		Utilization %
Ownership Cost/Hour:	$253.16	NA
Operating Cost/Hour:	$164.35	100
Ripper own. Cost/Hour:	$18.79	NA
Ripper op. Cost/Hour:	$2.37	25
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $477.26
Total Fleet Cost/Hour: **$477.26**

MATERIAL QUANTITIES

Initial Volume: 687
Swell factor: 1.165
Loose volume: **800** LCY

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

HOURLY PRODUCTION

Average push distance: 150 feet
Unadjusted hourly production: 910.5 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 5 %
Average site altitude: 7,600 feet

Material weight: 2,900 lbs/LCY

Weight description: Decomposed rock - 50% Rock, 50% Earth

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3851

Adjusted unit production: 350.63 LCY/hr
Adjusted fleet production: **350.63** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $1.361/LCY

Total job time: **2.28** Hours
Total job cost: **$1,089**

BULLDOZER WORK

Task description: **Regrade Rail Loop Pond**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 036 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 036
User: HR1

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:

		Utilization %
Ownership Cost/Hour:	$253.16	NA
Operating Cost/Hour:	$164.35	100
Ripper own. Cost/Hour:	$18.79	NA
Ripper op. Cost/Hour:	$2.37	25
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $477.26
Total Fleet Cost/Hour: **$477.26**

MATERIAL QUANTITIES

Initial Volume: 298
Swell factor: 1.165
Loose volume: **347** LCY

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

HOURLY PRODUCTION

Average push distance: 150 feet
Unadjusted hourly production: 910.5 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 5 %
Average site altitude: 7,600 feet

Material weight: 2,900 lbs/LCY

Weight description: Decomposed rock - 50% Rock, 50% Earth

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3851

Adjusted unit production: 350.63 LCY/hr
Adjusted fleet production: **350.63** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $1.361/LCY

Total job time: **0.99** Hours
Total job cost: **$473**

BULLDOZER WORK

Task description: **Regrade Sewage and Aeration Pond**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #:	037	State:	Colorado	Abbreviation:	None
Date:	3/12/2025	County:	Moffat	Filename:	037
User:	HR1				

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:

		Utilization %
Ownership Cost/Hour:	$253.16	NA
Operating Cost/Hour:	$164.35	100
Ripper own. Cost/Hour:	$18.79	NA
Ripper op. Cost/Hour:	$2.37	25
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $477.26
Total Fleet Cost/Hour: **$477.26**

MATERIAL QUANTITIES

Initial Volume: 3,873
Swell factor: 1.165
Loose volume: **4,512** LCY

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

HOURLY PRODUCTION

Average push distance: 150 feet
Unadjusted hourly production: 910.5 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 5 %
Average site altitude: 7,600 feet

Material weight: 2,900 lbs/LCY

Weight description: Decomposed rock - 50% Rock, 50% Earth

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3851

Adjusted unit production: 350.63 LCY/hr
Adjusted fleet production: **350.63** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $1.361/LCY

Total job time: **12.87** Hours
Total job cost: **$6,142**

BULLDOZER WORK

Task description: **Regrade Stoker Siding Pond**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 038 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 038
User: HR1

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:

		Utilization %
Ownership Cost/Hour:	$253.16	NA
Operating Cost/Hour:	$164.35	100
Ripper own. Cost/Hour:	$18.79	NA
Ripper op. Cost/Hour:	$2.37	25
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $477.26
Total Fleet Cost/Hour: **$477.26**

MATERIAL QUANTITIES

Initial Volume: 2,264
Swell factor: 1.165
Loose volume: **2,638** LCY

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

HOURLY PRODUCTION

Average push distance: 150 feet
Unadjusted hourly production: 910.5 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 5 %
Average site altitude: 7,600 feet

Material weight: 2,900 lbs/LCY

Weight description: Decomposed rock - 50% Rock, 50% Earth

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3851

Adjusted unit production: 350.63 LCY/hr

Adjusted fleet production: **350.63** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: $1.361/LCY

Total job time: **7.52** Hours

Total job cost: **$3,590**

BULLDOZER WORK

Task description: **Regrade Wash Bay Pond**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 039 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 039
User: HR1

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:

		Utilization %
Ownership Cost/Hour:	$253.16	NA
Operating Cost/Hour:	$164.35	100
Ripper own. Cost/Hour:	$18.79	NA
Ripper op. Cost/Hour:	$2.37	25
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $477.26
Total Fleet Cost/Hour: **$477.26**

MATERIAL QUANTITIES

Initial Volume: 11,505
Swell factor: 1.165
Loose volume: **13,403** LCY

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

HOURLY PRODUCTION

Average push distance: 150 feet
Unadjusted hourly production: 910.5 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 5 %
Average site altitude: 7,600 feet

Material weight: 2,900 lbs/LCY

Weight description: Decomposed rock - 50% Rock, 50% Earth

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3851

Adjusted unit production: 350.63 LCY/hr
Adjusted fleet production: **350.63** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $1.361/LCY

Total job time: **38.23** Hours
Total job cost: **$18,244**

BULLDOZER WORK

Task description: **Regrade Wash Bay Sediment Sump**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 040 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 040
User: HR1

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:

		Utilization %
Ownership Cost/Hour:	$253.16	NA
Operating Cost/Hour:	$164.35	100
Ripper own. Cost/Hour:	$18.79	NA
Ripper op. Cost/Hour:	$2.37	25
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $477.26
Total Fleet Cost/Hour: **$477.26**

MATERIAL QUANTITIES

Initial Volume: 536
Swell factor: 1.165
Loose volume: **624** LCY

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

HOURLY PRODUCTION

Average push distance: 150 feet
Unadjusted hourly production: 910.5 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 5 %
Average site altitude: 7,600 feet

Material weight: 2,900 lbs/LCY

Weight description: Decomposed rock - 50% Rock, 50% Earth

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3851

Adjusted unit production: 350.63 LCY/hr
Adjusted fleet production: **350.63** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $1.361/LCY

Total job time: **1.78** Hours
Total job cost: **$850**

BULLDOZER WORK

Task description: **Regrade Work Area Pond**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 041 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 041
User: HR1

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:

		Utilization %
Ownership Cost/Hour:	$253.16	NA
Operating Cost/Hour:	$164.35	100
Ripper own. Cost/Hour:	$18.79	NA
Ripper op. Cost/Hour:	$2.37	25
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $477.26
Total Fleet Cost/Hour: **$477.26**

MATERIAL QUANTITIES

Initial Volume: 40,385
Swell factor: 1.165
Loose volume: **47,049** LCY

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

HOURLY PRODUCTION

Average push distance: 150 feet
Unadjusted hourly production: 910.5 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 5 %
Average site altitude: 7,600 feet

Material weight: 2,900 lbs/LCY

Weight description: Decomposed rock - 50% Rock, 50% Earth

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3851

Adjusted unit production: 350.63 LCY/hr
Adjusted fleet production: **350.63** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $1.361/LCY

Total job time: **134.18** Hours
Total job cost: **$64,039**

BULLDOZER WORK

Task description: **Regrade Section 16 Pond**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 042 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 042
User: HR1

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:

		Utilization %
Ownership Cost/Hour:	$253.16	NA
Operating Cost/Hour:	$164.35	100
Ripper own. Cost/Hour:	$18.79	NA
Ripper op. Cost/Hour:	$2.37	25
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $477.26
Total Fleet Cost/Hour: **$477.26**

MATERIAL QUANTITIES

Initial Volume: 12,967
Swell factor: 1.165
Loose volume: **15,107** LCY

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

HOURLY PRODUCTION

Average push distance: 150 feet
Unadjusted hourly production: 910.5 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 5 %
Average site altitude: 7,600 feet

Material weight: 2,900 lbs/LCY

Weight description: Decomposed rock - 50% Rock, 50% Earth

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3851

Adjusted unit production: 350.63 LCY/hr
Adjusted fleet production: **350.63** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $1.361/LCY

Total job time: **43.08** Hours
Total job cost: **$20,562**

BULLDOZER WORK

Task description: **Regrade East Taylor Pond**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 043 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 043
User: HR1

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:

		Utilization %
Ownership Cost/Hour:	$253.16	NA
Operating Cost/Hour:	$164.35	100
Ripper own. Cost/Hour:	$18.79	NA
Ripper op. Cost/Hour:	$2.37	25
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $477.26
Total Fleet Cost/Hour: **$477.26**

MATERIAL QUANTITIES

Initial Volume: 5,980
Swell factor: 1.165
Loose volume: **6,967** LCY

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

HOURLY PRODUCTION

Average push distance: 150 feet
Unadjusted hourly production: 910.5 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 5 %
Average site altitude: 7,600 feet

Material weight: 2,900 lbs/LCY

Weight description: Decomposed rock - 50% Rock, 50% Earth

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3851

Adjusted unit production: 350.63 LCY/hr
Adjusted fleet production: **350.63** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $1.361/LCY

Total job time: **19.87** Hours
Total job cost: **$9,483**

BULLDOZER WORK

Task description: **Regrade West Pit Pond**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 044 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 044
User: HR1

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:

		Utilization %
Ownership Cost/Hour:	$253.16	NA
Operating Cost/Hour:	$164.35	100
Ripper own. Cost/Hour:	$18.79	NA
Ripper op. Cost/Hour:	$2.37	25
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $477.26
Total Fleet Cost/Hour: **$477.26**

MATERIAL QUANTITIES

Initial Volume: 2,340
Swell factor: 1.165
Loose volume: **2,726** LCY

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

HOURLY PRODUCTION

Average push distance: 150 feet
Unadjusted hourly production: 910.5 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 5 %
Average site altitude: 7,600 feet

Material weight: 2,900 lbs/LCY

Weight description: Decomposed rock - 50% Rock, 50% Earth

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3851

Adjusted unit production: 350.63 LCY/hr
Adjusted fleet production: **350.63** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $1.361/LCY

Total job time: **7.77** Hours
Total job cost: **$3,711**

BULLDOZER WORK

Task description: **Regrade Taylor Pump Holding Pond**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 045 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 045
User: HR1

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:

		Utilization %
Ownership Cost/Hour:	$253.16	NA
Operating Cost/Hour:	$164.35	100
Ripper own. Cost/Hour:	$18.79	NA
Ripper op. Cost/Hour:	$2.37	25
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $477.26
Total Fleet Cost/Hour: **$477.26**

MATERIAL QUANTITIES

Initial Volume: 16,673
Swell factor: 1.165
Loose volume: **19,424** LCY

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

HOURLY PRODUCTION

Average push distance: 150 feet
Unadjusted hourly production: 910.5 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 5 %
Average site altitude: 7,600 feet

Material weight: 2,900 lbs/LCY

Weight description: Decomposed rock - 50% Rock, 50% Earth

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3851

Adjusted unit production: 350.63 LCY/hr
Adjusted fleet production: **350.63** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $1.361/LCY

Total job time: **55.40** Hours
Total job cost: **$26,439**

BULLDOZER WORK

Task description: **Regrade Section 28 Pond**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 046 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 046
User: HR1

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:

		Utilization %
Ownership Cost/Hour:	$253.16	NA
Operating Cost/Hour:	$164.35	100
Ripper own. Cost/Hour:	$18.79	NA
Ripper op. Cost/Hour:	$2.37	25
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $477.26
Total Fleet Cost/Hour: **$477.26**

MATERIAL QUANTITIES

Initial Volume: 19,538
Swell factor: 1.165
Loose volume: **22,762** LCY

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

HOURLY PRODUCTION

Average push distance: 150 feet
Unadjusted hourly production: 910.5 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 5 %
Average site altitude: 7,600 feet

Material weight: 2,900 lbs/LCY

Weight description: Decomposed rock - 50% Rock, 50% Earth

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3851

Adjusted unit production: 350.63 LCY/hr
Adjusted fleet production: **350.63** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $1.361/LCY

Total job time: **64.92** Hours
Total job cost: **$30,982**

BULLDOZER WORK

Task description: **Regrade West Taylor Pond**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 047 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 047
User: HR1

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:

		Utilization %
Ownership Cost/Hour:	$253.16	NA
Operating Cost/Hour:	$164.35	100
Ripper own. Cost/Hour:	$18.79	NA
Ripper op. Cost/Hour:	$2.37	25
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $477.26
Total Fleet Cost/Hour: **$477.26**

MATERIAL QUANTITIES

Initial Volume: 6,435
Swell factor: 1.165
Loose volume: **7,497** LCY

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

HOURLY PRODUCTION

Average push distance: 150 feet
Unadjusted hourly production: 910.5 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 5 %
Average site altitude: 7,600 feet

Material weight: 2,900 lbs/LCY

Weight description: Decomposed rock - 50% Rock, 50% Earth

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3851

Adjusted unit production: 350.63 LCY/hr
Adjusted fleet production: **350.63** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $1.361/LCY

Total job time: **21.38** Hours
Total job cost: **$10,204**

HYDRAULIC EXCAVATOR WORK

Task description: **Remove and Regrade South Collection Ditch**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #:	048	State:	Colorado	Abbreviation:	None
Date:	3/13/2025	County:	Moffat	Filename:	048
User:	HR1				

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine:	Cat 336D L 10'-6" Stick	Horsepower:	268
Attachment 1:	ROPS Cab	Weight (MT):	29.30
		Shift Basis:	1 per day
		Data Source:	(CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$75.78	NA
Operating Cost/Hour:	$52.99	100
Operator Cost/Hour:	$33.87	NA
Total Unit Cost/Hour:	$162.64	

Total Fleet Cost/Hour: $162.64

MATERIAL QUANTITIES

Initial volume: 8,675 CCY Swell factor: 1.165

Loose volume: **10,106** LCY

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

Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Excavator Cycle Time (load bucket, swing loaded, dump bucket, swing empty):

Basic Job Condition Description: SEVERE

Secondary Job Condition within Basic Description: SEVERE

Cycle Time Value: 0.445 minutes

Load Bucket Capacity

Bucket Size Class: Small

Rated Capacity:	1.56	LCY (heaped)
Bucket Fill Factor:	0.925	Loose material - 1/8" to 3/8" (90 - 95%) 0.925
Adjusted Capacity:	**1.44**	LCY

Job Condition Correction Factors

Site Altitude: 9600 feet

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

Unadjusted Hourly Unit Production:	194.56	LCY/Hour
Adjusted Hourly Unit Production:	161.49	LCY/Hour
Adjusted Hourly Fleet Production:	**161.49**	LCY/Hour

JOB TIME AND COST

Fleet size: 1 Excavator Total job time: **62.58** Hours

Unit cost: $1.007 /LCY Total job cost: **$10,179**

HYDRAULIC EXCAVATOR WORK

Task description: **Remove and Regrade Prospect Collection Ditch**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 049 State: Colorado Abbreviation: None
Date: 3/13/2025 County: Moffat Filename: 049
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat 336D L 10'-6" Stick
Attachment 1: ROPS Cab

Horsepower: 268
Weight (MT): 29.30
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$75.78	NA
Operating Cost/Hour:	$52.99	100
Operator Cost/Hour:	$33.87	NA
Total Unit Cost/Hour:	$162.64	

Total Fleet Cost/Hour: $162.64

MATERIAL QUANTITIES

Initial volume: 1,598 CCY Swell factor: 1.165
Loose volume: **1,862** LCY

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

HOURLY PRODUCTION

Excavator Cycle Time (load bucket, swing loaded, dump bucket, swing empty):

Basic Job Condition Description: SEVERE
Secondary Job Condition within Basic Description: SEVERE
Cycle Time Value: 0.445 minutes

Load Bucket Capacity

Bucket Size Class: Small

Rated Capacity:	1.56	LCY (heaped)
Bucket Fill Factor:	0.925	Loose material - 1/8" to 3/8" (90 - 95%) 0.925
Adjusted Capacity:	**1.44**	LCY

Job Condition Correction Factors Site Altitude: 9600 feet

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

Unadjusted Hourly Unit Production:	194.56	LCY/Hour
Adjusted Hourly Unit Production:	161.49	LCY/Hour
Adjusted Hourly Fleet Production:	**161.49**	LCY/Hour

JOB TIME AND COST

Fleet size: 1 Excavator Total job time: **11.53** Hours

Unit cost: $1.007 /LCY Total job cost: **$1,875**

HYDRAULIC EXCAVATOR WORK

Task description: **Remove and Regrade North Side Facilities Ditch**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #:	050	State:	Colorado	Abbreviation:	None
Date:	3/13/2025	County:	Moffat	Filename:	050
User:	HR1				

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine:	Cat 336D L 10’-6” Stick	Horsepower:	268
Attachment 1:	ROPS Cab	Weight (MT):	29.30
		Shift Basis:	1 per day
		Data Source:	(CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$75.78	NA
Operating Cost/Hour:	$52.99	100
Operator Cost/Hour:	$33.87	NA
Total Unit Cost/Hour:	$162.64	

Total Fleet Cost/Hour: $162.64

MATERIAL QUANTITIES

Initial volume: 846 CCY Swell factor: 1.165
Loose volume: **986** LCY

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

HOURLY PRODUCTION

Excavator Cycle Time (load bucket, swing loaded, dump bucket, swing empty):

Basic Job Condition Description: SEVERE
Secondary Job Condition within Basic Description: SEVERE
Cycle Time Value: 0.445 minutes

Load Bucket Capacity

Bucket Size Class: Small

Rated Capacity:	1.56	LCY (heaped)
Bucket Fill Factor:	0.925	Loose material - 1/8” to 3/8” (90 - 95%) 0.925
Adjusted Capacity:	**1.44**	LCY

Job Condition Correction Factors Site Altitude: 9600 feet

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

Unadjusted Hourly Unit Production:	194.56	LCY/Hour
Adjusted Hourly Unit Production:	161.49	LCY/Hour
Adjusted Hourly Fleet Production:	**161.49**	LCY/Hour

JOB TIME AND COST

Fleet size: 1 Excavator Total job time: **6.10** Hours

Unit cost: $1.007 /LCY Total job cost: **$993**

HYDRAULIC EXCAVATOR WORK

Task description: **Remove and Regrade Stoker Ditch**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #:	051	State:	Colorado	Abbreviation:	None
Date:	3/13/2025	County:	Moffat	Filename:	051
User:	HR1				

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine:	Cat 336D L 10'-6" Stick	Horsepower:	268
Attachment 1:	ROPS Cab	Weight (MT):	29.30
		Shift Basis:	1 per day
		Data Source:	(CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$75.78	NA
Operating Cost/Hour:	$52.99	100
Operator Cost/Hour:	$33.87	NA
Total Unit Cost/Hour:	$162.64	

Total Fleet Cost/Hour: $162.64

MATERIAL QUANTITIES

Initial volume: 811 CCY Swell factor: 1.165

Loose volume: **945** LCY

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

Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Excavator Cycle Time (load bucket, swing loaded, dump bucket, swing empty):

Basic Job Condition Description: SEVERE

Secondary Job Condition within Basic Description: SEVERE

Cycle Time Value: 0.445 minutes

Load Bucket Capacity

Bucket Size Class: Small

Rated Capacity:	1.56	LCY (heaped)
Bucket Fill Factor:	0.925	Loose material - 1/8" to 3/8" (90 - 95%) 0.925
Adjusted Capacity:	**1.44**	LCY

Job Condition Correction Factors

Site Altitude: 9600 feet

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

Unadjusted Hourly Unit Production:	194.56	LCY/Hour
Adjusted Hourly Unit Production:	161.49	LCY/Hour
Adjusted Hourly Fleet Production:	**161.49**	LCY/Hour

JOB TIME AND COST

Fleet size: 1 Excavator Total job time: **5.85** Hours

Unit cost: $1.007 /LCY Total job cost: **$952**

HYDRAULIC EXCAVATOR WORK

Task description: **Remove and Regrade West Side Facilities Ditch**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #:	052	State:	Colorado	Abbreviation:	None
Date:	3/13/2025	County:	Moffat	Filename:	052
User:	HR1				

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine:	Cat 336D L 10’-6” Stick	Horsepower:	268
Attachment 1:	ROPS Cab	Weight (MT):	29.30
		Shift Basis:	1 per day
		Data Source:	(CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$75.78	NA
Operating Cost/Hour:	$52.99	100
Operator Cost/Hour:	$33.87	NA
Total Unit Cost/Hour:	$162.64	
Total Fleet Cost/Hour:	$162.64	

MATERIAL QUANTITIES

Initial volume: 3,385 CCY Swell factor: 1.165

Loose volume: **3,944** LCY

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

Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Excavator Cycle Time (load bucket, swing loaded, dump bucket, swing empty):

Basic Job Condition Description: SEVERE

Secondary Job Condition within Basic Description: SEVERE

Cycle Time Value: 0.445 minutes

Load Bucket Capacity

Bucket Size Class: Small

Rated Capacity:	1.56	LCY (heaped)
Bucket Fill Factor:	0.925	Loose material - 1/8” to 3/8” (90 - 95%) 0.925
Adjusted Capacity:	**1.44**	LCY

Job Condition Correction Factors

Site Altitude: 9600 feet

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

Unadjusted Hourly Unit Production:	194.56	LCY/Hour
Adjusted Hourly Unit Production:	161.49	LCY/Hour
Adjusted Hourly Fleet Production:	**161.49**	LCY/Hour

JOB TIME AND COST

Fleet size: 1 Excavator Total job time: **24.42** Hours

Unit cost: $1.007 /LCY Total job cost: **$3,972**

HYDRAULIC EXCAVATOR WORK

Task description: **Remove and Regrade West Pit Coal Road Ditch**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 053 State: Colorado Abbreviation: None
Date: 3/13/2025 County: Moffat Filename: 053
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat 336D L 10'-6" Stick
Attachment 1: ROPS Cab

Horsepower: 268
Weight (MT): 29.30
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$75.78	NA
Operating Cost/Hour:	$52.99	100
Operator Cost/Hour:	$33.87	NA
Total Unit Cost/Hour:	$162.64	

Total Fleet Cost/Hour: $162.64

MATERIAL QUANTITIES

Initial volume: 1,975 CCY Swell factor: 1.165
Loose volume: **2,301** LCY

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

HOURLY PRODUCTION

Excavator Cycle Time (load bucket, swing loaded, dump bucket, swing empty):

Basic Job Condition Description: SEVERE
Secondary Job Condition within Basic Description: SEVERE
Cycle Time Value: 0.445 minutes

Load Bucket Capacity

Bucket Size Class: Small

Rated Capacity: 1.56 LCY (heaped)
Bucket Fill Factor: 0.925 Loose material - 1/8" to 3/8" (90 - 95%) 0.925
Adjusted Capacity: **1.44** LCY

Job Condition Correction Factors

Site Altitude: 9600 feet

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

Unadjusted Hourly Unit Production: 194.56 LCY/Hour
Adjusted Hourly Unit Production: 161.49 LCY/Hour
Adjusted Hourly Fleet Production: **161.49** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Excavator Total job time: **14.25** Hours

Unit cost: $1.007 /LCY Total job cost: **$2,317**

HYDRAULIC EXCAVATOR WORK

Task description: **Remove and Regrade East and West Section 16 Ditch**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #:	054	State:	Colorado	Abbreviation:	None
Date:	3/13/2025	County:	Moffat	Filename:	054
User:	HR1				

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine:	Cat 336D L 10'-6" Stick	Horsepower:	268
Attachment 1:	ROPS Cab	Weight (MT):	29.30
		Shift Basis:	1 per day
		Data Source:	(CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$75.78	NA
Operating Cost/Hour:	$52.99	100
Operator Cost/Hour:	$33.87	NA
Total Unit Cost/Hour:	$162.64	

Total Fleet Cost/Hour: $162.64

MATERIAL QUANTITIES

Initial volume:	3,762	CCY	Swell factor:	1.165
Loose volume:	**4,383**	LCY		

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

HOURLY PRODUCTION

Excavator Cycle Time (load bucket, swing loaded, dump bucket, swing empty):

Basic Job Condition Description: SEVERE
Secondary Job Condition within Basic Description: SEVERE
Cycle Time Value: 0.445 minutes

Load Bucket Capacity

Bucket Size Class: Small

Rated Capacity:	1.56	LCY (heaped)
Bucket Fill Factor:	0.925	Loose material - 1/8" to 3/8" (90 - 95%) 0.925
Adjusted Capacity:	**1.44**	LCY

Job Condition Correction Factors

Site Altitude: 9600 feet

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

Unadjusted Hourly Unit Production:	194.56	LCY/Hour
Adjusted Hourly Unit Production:	161.49	LCY/Hour
Adjusted Hourly Fleet Production:	**161.49**	LCY/Hour

JOB TIME AND COST

Fleet size:	1	Excavator	Total job time:	**27.14**	Hours
Unit cost:	$1.007	/LCY	Total job cost:	**$4,414**	

HYDRAULIC EXCAVATOR WORK

Task description: **Remove and Regrade Section 16 Fill Ditch**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 055 State: Colorado Abbreviation: None

Date: 3/13/2025 County: Moffat Filename: 055

User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat 336D L 10’-6” Stick

Attachment 1: ROPS Cab

Horsepower: 268

Weight (MT): 29.30

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$75.78	NA
Operating Cost/Hour:	$52.99	100
Operator Cost/Hour:	$33.87	NA
Total Unit Cost/Hour:	$162.64	

Total Fleet Cost/Hour: $162.64

MATERIAL QUANTITIES

Initial volume: 2,069 CCY Swell factor: 1.165

Loose volume: **2,410** LCY

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

Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Excavator Cycle Time (load bucket, swing loaded, dump bucket, swing empty):

Basic Job Condition Description: SEVERE

Secondary Job Condition within Basic Description: SEVERE

Cycle Time Value: 0.445 minutes

Load Bucket Capacity

Bucket Size Class: Small

Rated Capacity: 1.56 LCY (heaped)

Bucket Fill Factor: 0.925 Loose material - 1/8” to 3/8” (90 - 95%) 0.925

Adjusted Capacity: **1.44** LCY

Job Condition Correction Factors

Site Altitude: 9600 feet

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

Unadjusted Hourly Unit Production: 194.56 LCY/Hour

Adjusted Hourly Unit Production: 161.49 LCY/Hour

Adjusted Hourly Fleet Production: **161.49** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Excavator Total job time: **14.93** Hours

Unit cost: $1.007 /LCY Total job cost: **$2,428**

HYDRAULIC EXCAVATOR WORK

Task description: **Remove and Regrade Section 28 Collector Ditch**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 056 State: Colorado Abbreviation: None
Date: 3/13/2025 County: Moffat Filename: 056
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat 336D L 10’-6” Stick Horsepower: 268
Attachment 1: ROPS Cab Weight (MT): 29.30
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$75.78	NA
Operating Cost/Hour:	$52.99	100
Operator Cost/Hour:	$33.87	NA
Total Unit Cost/Hour:	$162.64	

Total Fleet Cost/Hour: $162.64

MATERIAL QUANTITIES

Initial volume: 2,200 CCY Swell factor: 1.165
Loose volume: **2,563** LCY

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

HOURLY PRODUCTION

Excavator Cycle Time (load bucket, swing loaded, dump bucket, swing empty):

Basic Job Condition Description: SEVERE
Secondary Job Condition within Basic Description: SEVERE
Cycle Time Value: 0.445 minutes

Load Bucket Capacity

Bucket Size Class: Small

Rated Capacity:	1.56	LCY (heaped)
Bucket Fill Factor:	0.925	Loose material - 1/8” to 3/8” (90 - 95%) 0.925
Adjusted Capacity:	**1.44**	LCY

Job Condition Correction Factors Site Altitude: 9600 feet

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

Unadjusted Hourly Unit Production:	194.56	LCY/Hour
Adjusted Hourly Unit Production:	161.49	LCY/Hour
Adjusted Hourly Fleet Production:	**161.49**	LCY/Hour

JOB TIME AND COST

Fleet size: 1 Excavator Total job time: **15.87** Hours

Unit cost: $1.007 /LCY Total job cost: **$2,581**

HYDRAULIC EXCAVATOR WORK

Task description: **Remove and Regrade Section 29 Collector Ditch**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 057 State: Colorado Abbreviation: None
Date: 3/13/2025 County: Moffat Filename: 057
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat 336D L 10'-6" Stick
Attachment 1: ROPS Cab

Horsepower: 268
Weight (MT): 29.30
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$75.78	NA
Operating Cost/Hour:	$52.99	100
Operator Cost/Hour:	$33.87	NA
Total Unit Cost/Hour:	$162.64	

Total Fleet Cost/Hour: $162.64

MATERIAL QUANTITIES

Initial volume: 3,100 CCY Swell factor: 1.165
Loose volume: **3,612** LCY

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

HOURLY PRODUCTION

Excavator Cycle Time (load bucket, swing loaded, dump bucket, swing empty):

Basic Job Condition Description: SEVERE
Secondary Job Condition within Basic Description: SEVERE
Cycle Time Value: 0.445 minutes

Load Bucket Capacity

Bucket Size Class: Small

Rated Capacity: 1.56 LCY (heaped)
Bucket Fill Factor: 0.925 Loose material - 1/8" to 3/8" (90 - 95%) 0.925
Adjusted Capacity: **1.44** LCY

Job Condition Correction Factors

Site Altitude: 9600 feet

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

Unadjusted Hourly Unit Production: 194.56 LCY/Hour
Adjusted Hourly Unit Production: 161.49 LCY/Hour
Adjusted Hourly Fleet Production: **161.49** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Excavator Total job time: **22.36** Hours

Unit cost: $1.007 /LCY Total job cost: **$3,637**

HYDRAULIC EXCAVATOR WORK

Task description: **Remove and Regrade 4 Haul Road A Sediment Traps**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 058 State: Colorado Abbreviation: None
Date: 3/13/2025 County: Moffat Filename: 058
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat 336D L 10'-6" Stick
Attachment 1: ROPS Cab

Horsepower: 268
Weight (MT): 29.30
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$75.78	NA
Operating Cost/Hour:	$52.99	100
Operator Cost/Hour:	$33.87	NA
Total Unit Cost/Hour:	$162.64	

Total Fleet Cost/Hour: $162.64

MATERIAL QUANTITIES

Initial volume: 600 CCY Swell factor: 1.165
Loose volume: **699** LCY

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

HOURLY PRODUCTION

Excavator Cycle Time (load bucket, swing loaded, dump bucket, swing empty):

Basic Job Condition Description: SEVERE
Secondary Job Condition within Basic Description: SEVERE
Cycle Time Value: 0.445 minutes

Load Bucket Capacity

Bucket Size Class: Small

Rated Capacity: 1.56 LCY (heaped)
Bucket Fill Factor: 0.925 Loose material - 1/8" to 3/8" (90 - 95%) 0.925
Adjusted Capacity: **1.44** LCY

Job Condition Correction Factors

Site Altitude: 9600 feet

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

Unadjusted Hourly Unit Production: 194.56 LCY/Hour
Adjusted Hourly Unit Production: 161.49 LCY/Hour
Adjusted Hourly Fleet Production: **161.49** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Excavator Total job time: **4.33** Hours

Unit cost: $1.007 /LCY Total job cost: **$704**

HYDRAULIC EXCAVATOR WORK

Task description: **Remove and Regrade Six Post-Mining Stock Ponds**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 059 State: Colorado Abbreviation: None
Date: 3/13/2025 County: Moffat Filename: 059
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat 336D L 10’-6” Stick
Attachment 1: ROPS Cab

Horsepower: 268
Weight (MT): 29.30
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$75.78	NA
Operating Cost/Hour:	$52.99	100
Operator Cost/Hour:	$33.87	NA
Total Unit Cost/Hour:	$162.64	

Total Fleet Cost/Hour: $162.64

MATERIAL QUANTITIES

Initial volume: 7,300 CCY Swell factor: 1.165
Loose volume: **8,505** LCY

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

HOURLY PRODUCTION

Excavator Cycle Time (load bucket, swing loaded, dump bucket, swing empty):

Basic Job Condition Description: SEVERE
Secondary Job Condition within Basic Description: SEVERE
Cycle Time Value: 0.445 minutes

Load Bucket Capacity

Bucket Size Class: Small

Rated Capacity: 1.56 LCY (heaped)
Bucket Fill Factor: 0.925 Loose material - 1/8” to 3/8” (90 - 95%) 0.925
Adjusted Capacity: **1.44** LCY

Job Condition Correction Factors

Site Altitude: 9600 feet

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

Unadjusted Hourly Unit Production: 194.56 LCY/Hour
Adjusted Hourly Unit Production: 161.49 LCY/Hour
Adjusted Hourly Fleet Production: **161.49** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Excavator Total job time: **52.66** Hours

Unit cost: $1.007 /LCY Total job cost: **$8,565**

BULLDOZER WORK

Task description: **Doze Topsoil Pile 9A in West Pit**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 060 State: Colorado Abbreviation: None
Date: 3/13/2025 County: Moffat Filename: 060
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D9T - 9SU
Horsepower: 405
Blade Type: Semi-Universal
Attachment: 1-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$253.16	NA
Operating Cost/Hour:	$164.35	100
Ripper own. Cost/Hour:	$15.77	NA
Ripper op. Cost/Hour:	$10.35	100
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $482.22
Total Fleet Cost/Hour: **$482.22**

MATERIAL QUANTITIES

Initial Volume: 416
Swell factor: 1.125
Loose volume: **468** LCY

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

HOURLY PRODUCTION

Average push distance: 100 feet
Unadjusted hourly production: 1,243.2 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: 0 %
Average site altitude: 7,600 feet

Material weight: 2,550 lbs/LCY

Weight description: Earth - Dry packed

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

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

Net correction: 0.5390

Adjusted unit production: 670.08 LCY/hr
Adjusted fleet production: **670.08** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.720/LCY

Total job time: **0.70** Hours
Total job cost: **$337**

TRUCK/LOADER TEAM WORK

Task description: **Haul Topsoil from Stockpile 15A to Facilities Area**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 061 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 061
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	50	50
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$59.82	$70.88
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$266.97	$222.32
Number of Units:	6	2	2	4	1	1
Group Subtotals:	Work:	$5,559.68	Support:	$5,160.66	Maint:	$489.29

Total work team cost/hour: **$11,209.63**

MATERIAL QUANTITIES

Initial volume: 1,130,663 CCY Swell factor: 1.125
Loose volume: **1,271,996** 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: 2,550 Pounds/LCY
Description: Earth - Dry packed
Rated Payload: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 3/4" to 6" diameter 0.00	0.000	(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:	-0.080	minutes
	Adjusted Loader Cycle Time:	**0.645**	minutes
	Net Load Time per Truck:	**1.390**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.390	Minutes	Adjusted for site altitude:	1.418	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	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	2550.00	3.00	3.00	6.00	1266	2.189

Haul Time: **2.189** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2550.00	-3.00	3.00	0.00	3503	0.931

Return Time: **0.931** minutes
Total Truck Cycle Time: **6.538** minutes

Loading Tool unit Production: 4,730.51 LCY/Hour — Adjusted for job efficiency: 3,926.32 LCY/Hour
Truck Unit Production: 1,604.99 LCY/Hour — Adjusted for job efficiency: 1,332.14 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) — Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 3,996.42 LCY/Hour
Adjusted single truck/loader team production: 3,926.32 LCY/Hour
Adjusted multiple truck/loader team production: **7,852.64** LCY/Hour

JOB TIME AND COST

Fleet size: 2 Team(s) — Total job time: **161.98** Hours

Unit cost: $1.427 /LCY — Total job cost: **$1,815,772**

TRUCK/LOADER TEAM WORK

Task description: **Haul Topsoil from Pile 15B to West Pit**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 062 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 062
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	50	50
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$59.82	$70.88
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$266.97	$222.32
Number of Units:	6	2	2	4	1	1
Group Subtotals:	Work: $5,559.68		Support: $5,160.66		Maint: $489.29	

Total work team cost/hour: **$11,209.63**

MATERIAL QUANTITIES

Initial volume: 172,931 CCY Swell factor: 1.125
Loose volume: **194,547** 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: 2,550 Pounds/LCY
Description: Earth - Dry packed
Rated Payload: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 3/4" to 6" diameter 0.00	0.000	(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:	-0.080	minutes
	Adjusted Loader Cycle Time:	**0.645**	minutes
	Net Load Time per Truck:	**1.390**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.390	Minutes	Adjusted for site altitude:	1.418	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	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	2250.00	-2.00	3.00	1.00	3503	1.233

Haul Time: **1.233** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2250.00	2.00	3.00	5.00	3296	1.334

Return Time: **1.334** minutes
Total Truck Cycle Time: **5.985** minutes

Loading Tool unit Production 4,730.51 LCY/Hour — Adjusted for job efficiency: 3,926.32 LCY/Hour
Truck Unit Production 1,753.28 LCY/Hour — Adjusted for job efficiency: 1,455.22 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) — Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 4,365.66 LCY/Hour
Adjusted single truck/loader team production: 3,926.32 LCY/Hour
Adjusted multiple truck/loader team production: **7,852.64** LCY/Hour

JOB TIME AND COST

Fleet size: 2 Team(s) — Total job time: **24.77** Hours

Unit cost: $1.427 /LCY — Total job cost: **$277,716**

TRUCK/LOADER TEAM WORK

Task description: **Haul Topsoil from Stockpile 15E to Facilities Area**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 063 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 063
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	50	50
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$59.82	$70.88
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$266.97	$222.32
Number of Units:	4	2	2	4	1	1
Group Subtotals:	Work:	$4,541.92	Support:	$5,160.66	Maint:	$489.29

Total work team cost/hour: **$10,191.87**

MATERIAL QUANTITIES

Initial volume: 3,201 CCY Swell factor: 1.125
Loose volume: **3,601** 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: 2,550 Pounds/LCY
Description: Earth - Dry packed
Rated Payload: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume: 153.00 LCY
Heaped Volume: 192.00 LCY
Average Volume: 172.50 LCY
Adjusted Volume: 192.00 LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 3/4" to 6" diameter 0.00	0.000	(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:	-0.080	minutes
	Adjusted Loader Cycle Time:	**0.645**	minutes
	Net Load Time per Truck:	**1.390**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.390	Minutes	Adjusted for site altitude:	1.418	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	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	400.00	3.00	3.00	6.00	1266	0.491

Haul Time: **0.491** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	400.00	-3.00	3.00	0.00	3503	0.318

Return Time: **0.318** minutes

Total Truck Cycle Time: **4.227** minutes

Loading Tool unit Production 4,730.51 LCY/Hour — Adjusted for job efficiency: 3,926.32 LCY/Hour

Truck Unit Production 2,482.40 LCY/Hour — Adjusted for job efficiency: 2,060.39 LCY/Hour

Optimal No. of Trucks: 2 Truck(s) — Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 4,120.78 LCY/Hour

Adjusted single truck/loader team production: 3,926.32 LCY/Hour

Adjusted multiple truck/loader team production: **7,852.64** LCY/Hour

JOB TIME AND COST

Fleet size: 2 Team(s) — Total job time: **0.46** Hours

Unit cost: $1.298 /LCY — Total job cost: **$4,674**

TRUCK/LOADER TEAM WORK

Task description: **Haul Topsoil from Stockpile 15F to Facilities Area**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 064 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 064
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	50	50
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$59.82	$70.88
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$266.97	$222.32
Number of Units:	4	2	2	4	1	1
Group Subtotals:	Work: $4,541.92		Support: $5,160.66		Maint: $489.29	

Total work team cost/hour: **$10,191.87**

MATERIAL QUANTITIES

Initial volume: 8,119 CCY Swell factor: 1.125
Loose volume: **9,134** 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: 2,550 Pounds/LCY
Description: Earth - Dry packed
Rated Payload: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	**Loader**	**Source**
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 3/4" to 6" diameter 0.00	0.000	(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:	-0.080	minutes
	Adjusted Loader Cycle Time:	**0.645**	minutes
	Net Load Time per Truck:	**1.390**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.390	Minutes	Adjusted for site altitude:	1.418	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	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	650.00	-7.00	3.00	-4.00	2545	0.365

Haul Time: **0.365** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	650.00	7.00	3.00	10.00	1789	0.649

Return Time: **0.649** minutes
Total Truck Cycle Time: **4.432** minutes

Loading Tool unit Production 4,730.51 LCY/Hour — Adjusted for job efficiency: 3,926.32 LCY/Hour
Truck Unit Production 2,367.58 LCY/Hour — Adjusted for job efficiency: 1,965.09 LCY/Hour

Optimal No. of Trucks: 2 Truck(s) — Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 3,930.19 LCY/Hour
Adjusted single truck/loader team production: 3,926.32 LCY/Hour
Adjusted multiple truck/loader team production: **7,852.64** LCY/Hour

JOB TIME AND COST

Fleet size: 2 Team(s) — Total job time: **1.16** Hours

Unit cost: $1.298 /LCY — Total job cost: **$11,855**

TRUCK/LOADER TEAM WORK

Task description: **Haul Topsoil from Stockpile 15G to Facilities Area**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 065 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 065
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	50	50
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$59.82	$70.88
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$266.97	$222.32
Number of Units:	6	2	2	4	1	1
Group Subtotals:	Work: $5,559.68		Support: $5,160.66		Maint: $489.29	

Total work team cost/hour: **$11,209.63**

MATERIAL QUANTITIES

Initial volume: 24,656 CCY Swell factor: 1.125
Loose volume: **27,738** 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: 2,550 Pounds/LCY
Description: Earth - Dry packed
Rated Payload: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 3/4" to 6" diameter 0.00	0.000	(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:	-0.080	minutes
	Adjusted Loader Cycle Time:	**0.645**	minutes
	Net Load Time per Truck:	**1.390**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.390	Minutes	Adjusted for site altitude:	1.418	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	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	3400.00	0.00	3.00	3.00	2409	1.949

Haul Time: **1.949** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3400.00	0.00	3.00	3.00	3503	1.348

Return Time: **1.348** minutes
Total Truck Cycle Time: **6.715** minutes

Loading Tool unit Production 4,730.51 LCY/Hour — Adjusted for job efficiency: 3,926.32 LCY/Hour

Truck Unit Production 1,562.68 LCY/Hour — Adjusted for job efficiency: 1,297.03 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) — Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 3,891.08 LCY/Hour
Adjusted single truck/loader team production: 3,891.08 LCY/Hour
Adjusted multiple truck/loader team production: **7,782.17** LCY/Hour

JOB TIME AND COST

Fleet size: 2 Team(s) — Total job time: **3.56** Hours

Unit cost: $1.440 /LCY — Total job cost: **$39,955**

TRUCK/LOADER TEAM WORK

Task description: **Haul Topsoil from Stockpile 15H to Facilities Area**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 066 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 066
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	50	50
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$59.82	$70.88
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$266.97	$222.32
Number of Units:	4	2	2	4	1	1
Group Subtotals:	Work:	$4,541.92	Support:	$5,160.66	Maint:	$489.29

Total work team cost/hour: **$10,191.87**

MATERIAL QUANTITIES

Initial volume: 47,142 CCY Swell factor: 1.125
Loose volume: **53,035** 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: 2,550 Pounds/LCY
Description: Earth - Dry packed
Rated Payload: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 3/4" to 6" diameter 0.00	0.000	(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:	-0.080	minutes
	Adjusted Loader Cycle Time:	**0.645**	minutes
	Net Load Time per Truck:	**1.390**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.390	Minutes	Adjusted for site altitude:	1.418	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	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	1700.00	2.00	3.00	5.00	1550	1.367

Haul Time: **1.367** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1700.00	-2.00	3.00	1.00	3503	0.726

Return Time: **0.726** minutes
Total Truck Cycle Time: **5.511** minutes

Loading Tool unit Production: 4,730.51 LCY/Hour — Adjusted for job efficiency: 3,926.32 LCY/Hour
Truck Unit Production: 1,904.06 LCY/Hour — Adjusted for job efficiency: 1,580.37 LCY/Hour

Optimal No. of Trucks: 2 Truck(s) — Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 3,160.75 LCY/Hour
Adjusted single truck/loader team production: 3,160.75 LCY/Hour
Adjusted multiple truck/loader team production: **6,321.49** LCY/Hour

JOB TIME AND COST

Fleet size: 2 Team(s) — Total job time: **8.39** Hours

Unit cost: $1.612 /LCY — Total job cost: **$85,506**

TRUCK/LOADER TEAM WORK

Task description: **Haul Topsoil from Stockpile 15I to Haul Road A**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 067 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 067
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	50	50
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$59.82	$70.88
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$266.97	$222.32
Number of Units:	4	2	2	4	1	1
Group Subtotals:	Work:	$4,541.92	Support:	$5,160.66	Maint:	$489.29

Total work team cost/hour: **$10,191.87**

MATERIAL QUANTITIES

Initial volume: 38,402 CCY Swell factor: 1.125
Loose volume: **43,202** 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: 2,550 Pounds/LCY
Description: Earth - Dry packed
Rated Payload: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 3/4" to 6" diameter 0.00	0.000	(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:	-0.080	minutes
	Adjusted Loader Cycle Time:	**0.645**	minutes
	Net Load Time per Truck:	**1.390**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.390	Minutes	Adjusted for site altitude:	1.418	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	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	750.00	3.00	3.00	6.00	1266	0.768

Haul Time: **0.768** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	750.00	-3.00	3.00	0.00	3503	0.418

Return Time: **0.418** minutes
Total Truck Cycle Time: **4.604** minutes

Loading Tool unit Production: 4,730.51 LCY/Hour — Adjusted for job efficiency: 3,926.32 LCY/Hour
Truck Unit Production: 2,279.14 LCY/Hour — Adjusted for job efficiency: 1,891.69 LCY/Hour

Optimal No. of Trucks: 2 Truck(s) — Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 3,783.37 LCY/Hour
Adjusted single truck/loader team production: 3,783.37 LCY/Hour
Adjusted multiple truck/loader team production: **7,566.75** LCY/Hour

JOB TIME AND COST

Fleet size: 2 Team(s) — Total job time: **5.71** Hours

Unit cost: $1.347 /LCY — Total job cost: **$58,190**

TRUCK/LOADER TEAM WORK

Task description: **Haul Topsoil from Pile 16C to South Taylor Pit**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #:	068	State:	Colorado	Abbreviation:	None
Date:	3/12/2025	County:	Moffat	Filename:	068
User:	HR1				

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	50	50
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$59.82	$70.88
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$266.97	$222.32
Number of Units:	6	2	2	4	1	1
Group Subtotals:	Work:	$5,559.68	Support:	$5,160.66	Maint:	$489.29

Total work team cost/hour: **$11,209.63**

MATERIAL QUANTITIES

Initial volume: 141,291 CCY Swell factor: 1.125
Loose volume: **158,952** 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: 2,550 Pounds/LCY
Description: Earth - Dry packed
Rated Payload: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 3/4" to 6" diameter 0.00	0.000	(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:	-0.080	minutes
	Adjusted Loader Cycle Time:	**0.645**	minutes
	Net Load Time per Truck:	**1.390**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.390	Minutes	Adjusted for site altitude:	1.418	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	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	1500.00	-3.00	3.00	0.00	3503	0.837

Haul Time: **0.837** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1500.00	3.00	3.00	6.00	2853	1.079

Return Time: **1.079** minutes
Total Truck Cycle Time: **5.334** minutes

Loading Tool unit Production: 4,730.51 LCY/Hour — Adjusted for job efficiency: 3,926.32 LCY/Hour
Truck Unit Production: 1,967.24 LCY/Hour — Adjusted for job efficiency: 1,632.81 LCY/Hour

Optimal No. of Trucks: 2 Truck(s) — Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 4,898.44 LCY/Hour
Adjusted single truck/loader team production: 3,926.32 LCY/Hour
Adjusted multiple truck/loader team production: **7,852.64** LCY/Hour

JOB TIME AND COST

Fleet size: 2 Team(s) — Total job time: **20.24** Hours

Unit cost: $1.427 /LCY — Total job cost: **$226,904**

TRUCK/LOADER TEAM WORK

Task description: **Haul Topsoil from Pile 16D to South Taylor Pit**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 069 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 069
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	50	50
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$59.82	$70.88
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$266.97	$222.32
Number of Units:	6	2	2	4	1	1
Group Subtotals:	Work:	$5,559.68	Support:	$5,160.66	Maint:	$489.29

Total work team cost/hour: **$11,209.63**

MATERIAL QUANTITIES

Initial volume: 936,531 CCY Swell factor: 1.125
Loose volume: **1,053,597** 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: 2,550 Pounds/LCY
Description: Earth - Dry packed
Rated Payload: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume: 153.00 LCY
Heaped Volume: 192.00 LCY
Average Volume: 172.50 LCY
Adjusted Volume: 192.00 LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 3/4" to 6" diameter 0.00	0.000	(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:	-0.080	minutes
	Adjusted Loader Cycle Time:	**0.645**	minutes
	Net Load Time per Truck:	**1.390**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.390	Minutes	Adjusted for site altitude:	1.418	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	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	3000.00	2.00	3.00	5.00	1550	2.205

Haul Time: **2.205** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3000.00	-2.00	3.00	1.00	3503	1.097

Return Time: **1.097** minutes

Total Truck Cycle Time: **6.720** minutes

Loading Tool unit Production 4,730.51 LCY/Hour — Adjusted for job efficiency: 3,926.32 LCY/Hour

Truck Unit Production 1,561.52 LCY/Hour — Adjusted for job efficiency: 1,296.06 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) — Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 3,888.19 LCY/Hour

Adjusted single truck/loader team production: 3,888.19 LCY/Hour

Adjusted multiple truck/loader team production: **7,776.38** LCY/Hour

JOB TIME AND COST

Fleet size: 2 Team(s) — Total job time: **135.49** Hours

Unit cost: $1.441 /LCY — Total job cost: **$1,518,758**

TRUCK/LOADER TEAM WORK

Task description: **Haul Topsoil from Pile 16E to South Taylor Pit**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 070 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 070
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	50	50
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$59.82	$70.88
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$266.97	$222.32
Number of Units:	6	2	2	4	1	1
Group Subtotals:	Work:	$5,559.68	Support:	$5,160.66	Maint:	$489.29

Total work team cost/hour: **$11,209.63**

MATERIAL QUANTITIES

Initial volume: 851,824 CCY Swell factor: 1.125
Loose volume: **958,302** 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: 2,550 Pounds/LCY
Description: Earth - Dry packed
Rated Payload: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	**Loader**	**Source**
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 3/4" to 6" diameter 0.00	0.000	(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:	-0.080	minutes
	Adjusted Loader Cycle Time:	**0.645**	minutes
	Net Load Time per Truck:	**1.390**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.390	Minutes	Adjusted for site altitude:	1.418	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	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	3500.00	2.00	3.00	5.00	1550	2.528

Haul Time: **2.528** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3000.00	-2.00	3.00	1.00	3503	1.097

Return Time: **1.097** minutes
Total Truck Cycle Time: **7.043** minutes

Loading Tool unit Production 4,730.51 LCY/Hour — Adjusted for job efficiency: 3,926.32 LCY/Hour

Truck Unit Production 1,489.91 LCY/Hour — Adjusted for job efficiency: 1,236.63 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) — Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 3,709.88 LCY/Hour
Adjusted single truck/loader team production: 3,709.88 LCY/Hour
Adjusted multiple truck/loader team production: **7,419.76** LCY/Hour

JOB TIME AND COST

Fleet size: 2 Team(s) — Total job time: **129.16** Hours

Unit cost: $1.511 /LCY — Total job cost: **$1,447,783**

TRUCK/LOADER TEAM WORK

Task description: **Haul Topsoil from Pile 17A to Haul Road A**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 071 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 071
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	50	50
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$59.82	$70.88
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$266.97	$222.32
Number of Units:	6	2	2	4	1	1
Group Subtotals:	Work:	$5,559.68	Support:	$5,160.66	Maint:	$489.29

Total work team cost/hour: **$11,209.63**

MATERIAL QUANTITIES

Initial volume: 14,520 CCY Swell factor: 1.125
Loose volume: **16,335** 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: 2,550 Pounds/LCY
Description: Earth - Dry packed
Rated Payload: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 3/4" to 6" diameter 0.00	0.000	(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:	-0.080	minutes
	Adjusted Loader Cycle Time:	**0.645**	minutes
	Net Load Time per Truck:	**1.390**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.390	Minutes	Adjusted for site altitude:	1.418	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	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	2250.00	2.00	3.00	5.00	1550	1.721

Haul Time: **1.721** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2250.00	-2.00	3.00	1.00	3503	0.883

Return Time: **0.883** minutes
Total Truck Cycle Time: **6.022** minutes

Loading Tool unit Production: 4,730.51 LCY/Hour — Adjusted for job efficiency: 3,926.32 LCY/Hour
Truck Unit Production: 1,742.50 LCY/Hour — Adjusted for job efficiency: 1,446.28 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) — Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 4,338.84 LCY/Hour
Adjusted single truck/loader team production: 3,926.32 LCY/Hour
Adjusted multiple truck/loader team production: **7,852.64** LCY/Hour

JOB TIME AND COST

Fleet size: 2 Team(s) — Total job time: **2.08** Hours

Unit cost: $1.427 /LCY — Total job cost: **$23,318**

TRUCK/LOADER TEAM WORK

Task description: **Haul Topsoil from Stockpile 17A - 17E to Gossard Loadout**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 072 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 072
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	50	50
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$59.82	$70.88
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$266.97	$222.32
Number of Units:	4	2	2	4	1	1
Group Subtotals:	Work:	$4,541.92	Support:	$5,160.66	Maint:	$489.29

Total work team cost/hour: **$10,191.87**

MATERIAL QUANTITIES

Initial volume: 9,467 CCY Swell factor: 1.125
Loose volume: **10,650** 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: 2,550 Pounds/LCY
Description: Earth - Dry packed
Rated Payload: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	**Loader**	**Source**
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 3/4" to 6" diameter 0.00	0.000	(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:	-0.080	minutes
	Adjusted Loader Cycle Time:	**0.645**	minutes
	Net Load Time per Truck:	**1.390**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.390	Minutes	Adjusted for site altitude:	1.418	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	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	750.00	0.00	3.00	3.00	2409	0.849

Haul Time: **0.849** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	750.00	0.00	3.00	3.00	3503	0.591

Return Time: **0.591** minutes
Total Truck Cycle Time: **4.858** minutes

Loading Tool unit Production 4,730.51 LCY/Hour Adjusted for job efficiency: 3,926.32 LCY/Hour
Truck Unit Production 2,159.98 LCY/Hour Adjusted for job efficiency: 1,792.79 LCY/Hour

Optimal No. of Trucks: 2 Truck(s) Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 3,585.57 LCY/Hour
Adjusted single truck/loader team production: 3,585.57 LCY/Hour
Adjusted multiple truck/loader team production: **7,171.15** LCY/Hour

JOB TIME AND COST

Fleet size: 2 Team(s) Total job time: **1.49** Hours

Unit cost: $1.421 /LCY Total job cost: **$15,137**

TRUCK/LOADER TEAM WORK

Task description: **Haul Topsoil from Stockpile 18 to South Taylor Pit**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 073 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 073
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	50	50
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$59.82	$70.88
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$266.97	$222.32
Number of Units:	8	2	2	4	1	1
Group Subtotals:	Work: $6,577.44		Support: $5,160.66		Maint: $489.29	

Total work team cost/hour: **$12,227.39**

MATERIAL QUANTITIES

Initial volume: 465,544 CCY Swell factor: 1.125
Loose volume: **523,737** 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: 2,550 Pounds/LCY
Description: Earth - Dry packed
Rated Payload: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 3/4" to 6" diameter 0.00	0.000	(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:	-0.080	minutes
	Adjusted Loader Cycle Time:	**0.645**	minutes
	Net Load Time per Truck:	**1.390**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.390	Minutes	Adjusted for site altitude:	1.418	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	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	8000.00	-2.00	3.00	1.00	3503	2.875

Haul Time: **2.875** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	8000.00	2.00	3.00	5.00	3296	3.079

Return Time: **3.079** minutes
Total Truck Cycle Time: **9.372** minutes

Loading Tool unit Production 4,730.51 LCY/Hour — Adjusted for job efficiency: 3,926.32 LCY/Hour

Truck Unit Production 1,119.67 LCY/Hour — Adjusted for job efficiency: 929.33 LCY/Hour

Optimal No. of Trucks: 4 Truck(s) — Selected Number of Trucks: 4 Truck(s)

Adjusted hourly truck team production: 3,717.32 LCY/Hour
Adjusted single truck/loader team production: 3,717.32 LCY/Hour
Adjusted multiple truck/loader team production: **7,434.64** LCY/Hour

JOB TIME AND COST

Fleet size: 2 Team(s) — Total job time: **70.45** Hours

Unit cost: $1.645 /LCY — Total job cost: **$861,365**

TRUCK/LOADER TEAM WORK

Task description: **Haul Topsoil from Stockpile 27A to Haul Road A**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 074 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 074
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	50	50
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$59.82	$70.88
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$266.97	$222.32
Number of Units:	4	2	2	4	1	1
Group Subtotals:	Work: $4,541.92		Support: $5,160.66		Maint: $489.29	

Total work team cost/hour: **$10,191.87**

MATERIAL QUANTITIES

Initial volume: 14,520 CCY Swell factor: 1.125
Loose volume: **16,335** 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: 2,550 Pounds/LCY
Description: Earth - Dry packed
Rated Payload: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 3/4" to 6" diameter 0.00	0.000	(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:	-0.080	minutes
	Adjusted Loader Cycle Time:	**0.645**	minutes
	Net Load Time per Truck:	**1.390**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.390	Minutes	Adjusted for site altitude:	1.418	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	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	1500.00	-5.00	3.00	-2.00	3450	0.518

Haul Time: **0.518** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1500.00	5.00	3.00	8.00	2327	1.184

Return Time: **1.184** minutes
Total Truck Cycle Time: **5.120** minutes

Loading Tool unit Production: 4,730.51 LCY/Hour — Adjusted for job efficiency: 3,926.32 LCY/Hour

Truck Unit Production: 2,049.46 LCY/Hour — Adjusted for job efficiency: 1,701.05 LCY/Hour

Optimal No. of Trucks: 2 Truck(s) — Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 3,402.11 LCY/Hour
Adjusted single truck/loader team production: 3,402.11 LCY/Hour
Adjusted multiple truck/loader team production: **6,804.21** LCY/Hour

JOB TIME AND COST

Fleet size: 2 Team(s) — Total job time: **2.40** Hours

Unit cost: $1.498 /LCY — Total job cost: **$24,468**

BULLDOZER WORK

Task description: **Doze Topsoil from Windrow 1 - Windrow 5 in West Pit**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 075 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 075
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D11T - 11U
Horsepower: 850
Blade Type: Universal
Attachment: 1-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper own. Cost/Hour:	$27.44	NA
Ripper op. Cost/Hour:	$16.65	100
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $904.20
Total Fleet Cost/Hour: **$904.20**

MATERIAL QUANTITIES

Initial Volume: 54,436
Swell factor: 1.000
Loose volume: **54,436** LCY

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

HOURLY PRODUCTION

Average push distance: 100 feet
Unadjusted hourly production: 2,870.3 LCY/hr

Materials consistency description: Loose stockpile 1.2

Average push gradient: -5 %
Average site altitude: 7,600 feet

Material weight: 2,550 lbs/LCY

Weight description: Earth - Dry packed

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.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:	0.600	(FND-SF)
Push gradient:	1.115	(CAT HB)
Altitude:	0.930	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5031

Adjusted unit production: 1,444.05 LCY/hr
Adjusted fleet production: **1444.05** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.626/LCY

Total job time: **37.70** Hours
Total job cost: **$34,085**

TRUCK/LOADER TEAM WORK

Task description: **Replace 48" of Topsoil on Aspen Study Area**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 076 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 076
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	50	50
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$59.82	$70.88
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$266.97	$222.32
Number of Units:	6	2	2	4	1	1
Group Subtotals:	Work:	$5,559.68	Support:	$5,160.66	Maint:	$489.29

Total work team cost/hour: **$11,209.63**

MATERIAL QUANTITIES

Initial volume: 77,440 CCY Swell factor: 1.125
Loose volume: **87,120** 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: 2,550 Pounds/LCY
Description: Earth - Dry packed
Rated Payload: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 3/4" to 6" diameter 0.00	0.000	(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:	-0.080	minutes
	Adjusted Loader Cycle Time:	**0.645**	minutes
	Net Load Time per Truck:	**1.390**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.390	Minutes	Adjusted for site altitude:	1.418	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	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	2500.00	-1.00	3.00	2.00	3328	1.642

Haul Time: **1.642** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2500.00	1.00	3.00	4.00	3411	1.213

Return Time: **1.213** minutes
Total Truck Cycle Time: **6.273** minutes

Loading Tool unit Production 4,730.51 LCY/Hour — Adjusted for job efficiency: 3,926.32 LCY/Hour

Truck Unit Production 1,672.79 LCY/Hour — Adjusted for job efficiency: 1,388.41 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) — Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 4,165.24 LCY/Hour
Adjusted single truck/loader team production: 3,926.32 LCY/Hour
Adjusted multiple truck/loader team production: **7,852.64** LCY/Hour

JOB TIME AND COST

Fleet size: 2 Team(s) — Total job time: **11.09** Hours

Unit cost: $1.427 /LCY — Total job cost: **$124,364**

TRUCK/LOADER TEAM WORK

Task description: **Replace 48" of Topsoil on Tall Mountain Shrub Study Area**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 077 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 077
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	50	50
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$59.82	$70.88
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$266.97	$222.32
Number of Units:	6	2	2	4	1	1
Group Subtotals:	Work: $5,559.68		Support: $5,160.66		Maint: $489.29	

Total work team cost/hour: **$11,209.63**

MATERIAL QUANTITIES

Initial volume: 58,077 CCY Swell factor: 1.125
Loose volume: **65,337** 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: 2,550 Pounds/LCY
Description: Earth - Dry packed
Rated Payload: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 3/4" to 6" diameter 0.00	0.000	(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:	-0.080	minutes
	Adjusted Loader Cycle Time:	**0.645**	minutes
	Net Load Time per Truck:	**1.390**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.390	Minutes	Adjusted for site altitude:	1.418	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	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	2500.00	-1.00	3.00	2.00	3328	1.642

Haul Time: **1.642** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2500.00	1.00	3.00	4.00	3411	1.213

Return Time: **1.213** minutes
Total Truck Cycle Time: **6.273** minutes

Loading Tool unit Production: 4,730.51 LCY/Hour — Adjusted for job efficiency: 3,926.32 LCY/Hour
Truck Unit Production: 1,672.79 LCY/Hour — Adjusted for job efficiency: 1,388.41 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) — Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 4,165.24 LCY/Hour
Adjusted single truck/loader team production: 3,926.32 LCY/Hour
Adjusted multiple truck/loader team production: **7,852.64** LCY/Hour

JOB TIME AND COST

Fleet size: 2 Team(s) — Total job time: **8.32** Hours

Unit cost: $1.427 /LCY — Total job cost: **$93,268**

TRUCK/LOADER TEAM WORK

Task description: **Replace 4" of Topsoil on Tall Mountain Shrub Study Area**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 078 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 078
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	50	50
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$59.82	$70.88
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$266.97	$222.32
Number of Units:	6	2	2	4	1	1
Group Subtotals:	Work:	$5,559.68	Support:	$5,160.66	Maint:	$489.29

Total work team cost/hour: **$11,209.63**

MATERIAL QUANTITIES

Initial volume: 4,840 CCY Swell factor: 1.125
Loose volume: **5,445** 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: 2,550 Pounds/LCY
Description: Earth - Dry packed
Rated Payload: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 3/4" to 6" diameter 0.00	0.000	(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:	-0.080	minutes
	Adjusted Loader Cycle Time:	**0.645**	minutes
	Net Load Time per Truck:	**1.390**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.390	Minutes	Adjusted for site altitude:	1.418	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	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	2500.00	-1.00	3.00	2.00	3328	1.642

Haul Time: **1.642** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2500.00	1.00	3.00	4.00	3411	1.213

Return Time: **1.213** minutes
Total Truck Cycle Time: **6.273** minutes

Loading Tool unit Production 4,730.51 LCY/Hour — Adjusted for job efficiency: 3,926.32 LCY/Hour

Truck Unit Production 1,672.79 LCY/Hour — Adjusted for job efficiency: 1,388.41 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) — Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 4,165.24 LCY/Hour
Adjusted single truck/loader team production: 3,926.32 LCY/Hour
Adjusted multiple truck/loader team production: **7,852.64** LCY/Hour

JOB TIME AND COST

Fleet size: 2 Team(s) — Total job time: **0.69** Hours

Unit cost: $1.427 /LCY — Total job cost: **$7,773**

BULLDOZER WORK

Task description: **Replace Topsoil from Stockpile to Prospect Pond**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 079 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 079
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D9T - 9SU
Horsepower: 405
Blade Type: Semi-Universal
Attachment: 1-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$253.16	NA
Operating Cost/Hour:	$164.35	100
Ripper own. Cost/Hour:	$15.77	NA
Ripper op. Cost/Hour:	$10.35	100
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $482.22
Total Fleet Cost/Hour: **$482.22**

MATERIAL QUANTITIES

Initial Volume: 4,195
Swell factor: 1.125
Loose volume: **4,719** LCY

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

HOURLY PRODUCTION

Average push distance: 125 feet
Unadjusted hourly production: 1,055.6 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: 5 %
Average site altitude: 7,600 feet

Material weight: 2,550 lbs/LCY

Weight description: Earth - Dry packed

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

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

Net correction: 0.4867

Adjusted unit production: 513.76 LCY/hr
Adjusted fleet production: **513.76** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.939/LCY

Total job time: **9.19** Hours
Total job cost: **$4,430**

BULLDOZER WORK

Task description: **Replace Topsoil from Stockpile to Rail Loop Pond**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 081 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 081
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D9T - 9SU
Horsepower: 405
Blade Type: Semi-Universal
Attachment: 1-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$253.16	NA
Operating Cost/Hour:	$164.35	100
Ripper own. Cost/Hour:	$15.77	NA
Ripper op. Cost/Hour:	$10.35	100
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $482.22
Total Fleet Cost/Hour: **$482.22**

MATERIAL QUANTITIES

Initial Volume: 807
Swell factor: 1.125
Loose volume: **908** LCY

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

HOURLY PRODUCTION

Average push distance: 125 feet
Unadjusted hourly production: 1,055.6 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: 5 %
Average site altitude: 7,600 feet

Material weight: 2,550 lbs/LCY

Weight description: Earth - Dry packed

Job Condition Correction Factor

		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

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

Net correction: 0.4867

Adjusted unit production: 513.76 LCY/hr
Adjusted fleet production: **513.76** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.939/LCY

Total job time: **1.77** Hours
Total job cost: **$852**

BULLDOZER WORK

Task description: **Replace Topsoil from Stockpile to Gossard Pond**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 082 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 082
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D9T - 9SU
Horsepower: 405
Blade Type: Semi-Universal
Attachment: 1-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$253.16	NA
Operating Cost/Hour:	$164.35	100
Ripper own. Cost/Hour:	$15.77	NA
Ripper op. Cost/Hour:	$10.35	100
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $482.22
Total Fleet Cost/Hour: **$482.22**

MATERIAL QUANTITIES

Initial Volume: 2,420
Swell factor: 1.125
Loose volume: **2,723** LCY

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

HOURLY PRODUCTION

Average push distance: 125 feet
Unadjusted hourly production: 1,055.6 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: 5 %
Average site altitude: 7,600 feet

Material weight: 2,550 lbs/LCY

Weight description: Earth - Dry packed

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

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

Net correction: 0.4867

Adjusted unit production: 513.76 LCY/hr
Adjusted fleet production: **513.76** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.939/LCY

Total job time: **5.30** Hours
Total job cost: **$2,555**

BULLDOZER WORK

Task description: **Replace Topsoil from Stockpile to Sewage and Aeration Pond**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 083 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 083
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D9T - 9SU
Horsepower: 405
Blade Type: Semi-Universal
Attachment: 1-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$253.16	NA
Operating Cost/Hour:	$164.35	100
Ripper own. Cost/Hour:	$15.77	NA
Ripper op. Cost/Hour:	$10.35	100
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $482.22
Total Fleet Cost/Hour: **$482.22**

MATERIAL QUANTITIES

Initial Volume: 4,679
Swell factor: 1.125
Loose volume: **5,264** LCY

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

HOURLY PRODUCTION

Average push distance: 125 feet
Unadjusted hourly production: 1,055.6 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: 5 %
Average site altitude: 7,600 feet

Material weight: 2,550 lbs/LCY

Weight description: Earth - Dry packed

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

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

Net correction: 0.4867

Adjusted unit production: 513.76 LCY/hr
Adjusted fleet production: **513.76** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.939/LCY

Total job time: **10.25** Hours
Total job cost: **$4,941**

BULLDOZER WORK

Task description: **Replace Topsoil from Stockpile to Stoker Siding Pond**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 084 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 084
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D9T - 9SU
Horsepower: 405
Blade Type: Semi-Universal
Attachment: 1-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$253.16	NA
Operating Cost/Hour:	$164.35	100
Ripper own. Cost/Hour:	$15.77	NA
Ripper op. Cost/Hour:	$10.35	100
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $482.22
Total Fleet Cost/Hour: **$482.22**

MATERIAL QUANTITIES

Initial Volume: 1,210
Swell factor: 1.125
Loose volume: **1,361** LCY

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

HOURLY PRODUCTION

Average push distance: 125 feet
Unadjusted hourly production: 1,055.6 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: 5 %
Average site altitude: 7,600 feet

Material weight: 2,550 lbs/LCY

Weight description: Earth - Dry packed

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

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

Net correction: 0.4867

Adjusted unit production: 513.76 LCY/hr

Adjusted fleet production: **513.76** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: $0.939/LCY

Total job time: **2.65** Hours

Total job cost: **$1,278**

BULLDOZER WORK

Task description: **Replace Topsoil from Stockpile to Wash Bay Pond**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 085 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 085
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D9T - 9SU
Horsepower: 405
Blade Type: Semi-Universal
Attachment: 1-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$253.16	NA
Operating Cost/Hour:	$164.35	100
Ripper own. Cost/Hour:	$15.77	NA
Ripper op. Cost/Hour:	$10.35	100
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $482.22
Total Fleet Cost/Hour: **$482.22**

MATERIAL QUANTITIES

Initial Volume: 5,808
Swell factor: 1.125
Loose volume: **6,534** LCY

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

HOURLY PRODUCTION

Average push distance: 125 feet
Unadjusted hourly production: 1,055.6 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: 5 %
Average site altitude: 7,600 feet

Material weight: 2,550 lbs/LCY

Weight description: Earth - Dry packed

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

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

Net correction: 0.4867

Adjusted unit production: 513.76 LCY/hr
Adjusted fleet production: **513.76** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.939/LCY

Total job time: **12.72** Hours
Total job cost: **$6,133**

BULLDOZER WORK

Task description: **Replace Topsoil from Stockpile to Wash Bay Sediment Sump**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 086 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 086
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D9T - 9SU
Horsepower: 405
Blade Type: Semi-Universal
Attachment: 1-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$253.16	NA
Operating Cost/Hour:	$164.35	100
Ripper own. Cost/Hour:	$15.77	NA
Ripper op. Cost/Hour:	$10.35	100
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $482.22
Total Fleet Cost/Hour: **$482.22**

MATERIAL QUANTITIES

Initial Volume: 1,129
Swell factor: 1.125
Loose volume: **1,270** LCY

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

HOURLY PRODUCTION

Average push distance: 125 feet
Unadjusted hourly production: 1,055.6 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: 5 %
Average site altitude: 7,600 feet

Material weight: 2,550 lbs/LCY

Weight description: Earth - Dry packed

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

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

Net correction: 0.4867

Adjusted unit production: 513.76 LCY/hr
Adjusted fleet production: **513.76** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.939/LCY

Total job time: **2.47** Hours
Total job cost: **$1,192**

BULLDOZER WORK

Task description: **Replace Topsoil from Stockpile to Work Area Pond**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #:	087	State:	Colorado	Abbreviation:	None
Date:	3/12/2025	County:	Moffat	Filename:	087
User:	HR1				

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D9T - 9SU
Horsepower: 405
Blade Type: Semi-Universal
Attachment: 1-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$253.16	NA
Operating Cost/Hour:	$164.35	100
Ripper own. Cost/Hour:	$15.77	NA
Ripper op. Cost/Hour:	$10.35	100
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $482.22
Total Fleet Cost/Hour: **$482.22**

MATERIAL QUANTITIES

Initial Volume: 6,131
Swell factor: 1.125
Loose volume: **6,897** LCY

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

HOURLY PRODUCTION

Average push distance: 125 feet
Unadjusted hourly production: 1,055.6 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: 5 %
Average site altitude: 7,600 feet

Material weight: 2,550 lbs/LCY

Weight description: Earth - Dry packed

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

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

Net correction: 0.4867

Adjusted unit production: 513.76 LCY/hr
Adjusted fleet production: **513.76** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.939/LCY

Total job time: **13.43** Hours
Total job cost: **$6,474**

BULLDOZER WORK

Task description: **Replace Topsoil from Stockpile to Section 16 Pond**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 088 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 088
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D9T - 9SU
Horsepower: 405
Blade Type: Semi-Universal
Attachment: 1-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$253.16	NA
Operating Cost/Hour:	$164.35	100
Ripper own. Cost/Hour:	$15.77	NA
Ripper op. Cost/Hour:	$10.35	100
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $482.22
Total Fleet Cost/Hour: **$482.22**

MATERIAL QUANTITIES

Initial Volume: 7,421
Swell factor: 1.125
Loose volume: **8,349** LCY

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

HOURLY PRODUCTION

Average push distance: 125 feet
Unadjusted hourly production: 1,055.6 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: 5 %
Average site altitude: 7,600 feet

Material weight: 2,550 lbs/LCY

Weight description: Earth - Dry packed

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

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

Net correction: 0.4867

Adjusted unit production: 513.76 LCY/hr
Adjusted fleet production: **513.76** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.939/LCY

Total job time: **16.25** Hours
Total job cost: **$7,836**

BULLDOZER WORK

Task description: **Replace Topsoil from Stockpile to East Taylor Pond**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 089 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: C019-089
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D9T - 9SU
Horsepower: 405
Blade Type: Semi-Universal
Attachment: 1-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$253.16	NA
Operating Cost/Hour:	$164.35	100
Ripper own. Cost/Hour:	$15.77	NA
Ripper op. Cost/Hour:	$10.35	100
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $482.22
Total Fleet Cost/Hour: **$482.22**

MATERIAL QUANTITIES

Initial Volume: 2,743
Swell factor: 1.125
Loose volume: **3,086** LCY

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

HOURLY PRODUCTION

Average push distance: 125 feet
Unadjusted hourly production: 1,055.6 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: 5 %
Average site altitude: 7,600 feet

Material weight: 2,550 lbs/LCY

Weight description: Earth - Dry packed

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

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

Net correction: 0.4867

Adjusted unit production: 513.76 LCY/hr
Adjusted fleet production: **513.76** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.939/LCY

Total job time: **6.01** Hours
Total job cost: **$2,896**

BULLDOZER WORK

Task description: **Replace Topsoil from Stockpile to Taylor Pump Holding Pond**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 090 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 090
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D9T - 9SU
Horsepower: 405
Blade Type: Semi-Universal
Attachment: 1-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$253.16	NA
Operating Cost/Hour:	$164.35	100
Ripper own. Cost/Hour:	$15.77	NA
Ripper op. Cost/Hour:	$10.35	100
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $482.22
Total Fleet Cost/Hour: **$482.22**

MATERIAL QUANTITIES

Initial Volume: 807
Swell factor: 1.125
Loose volume: **908** LCY

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

HOURLY PRODUCTION

Average push distance: 125 feet
Unadjusted hourly production: 1,055.6 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: 5 %
Average site altitude: 7,600 feet

Material weight: 2,550 lbs/LCY

Weight description: Earth - Dry packed

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

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

Net correction: 0.4867

Adjusted unit production: 513.76 LCY/hr
Adjusted fleet production: **513.76** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.939/LCY

Total job time: **1.77** Hours
Total job cost: **$852**

BULLDOZER WORK

Task description: **Replace Topsoil from Stockpile to West Pit Pond**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 091 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 091
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D9T - 9SU
Horsepower: 405
Blade Type: Semi-Universal
Attachment: 1-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$253.16	NA
Operating Cost/Hour:	$164.35	100
Ripper own. Cost/Hour:	$15.77	NA
Ripper op. Cost/Hour:	$10.35	100
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $482.22
Total Fleet Cost/Hour: **$482.22**

MATERIAL QUANTITIES

Initial Volume: 5,001
Swell factor: 1.125
Loose volume: **5,626** LCY

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

HOURLY PRODUCTION

Average push distance: 125 feet
Unadjusted hourly production: 1,055.6 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: 5 %
Average site altitude: 7,600 feet

Material weight: 2,550 lbs/LCY

Weight description: Earth - Dry packed

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

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

Net correction: 0.4867

Adjusted unit production: 513.76 LCY/hr
Adjusted fleet production: **513.76** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.939/LCY

Total job time: **10.95** Hours
Total job cost: **$5,281**

BULLDOZER WORK

Task description: **Replace Topsoil from Stockpile to Section 28 Pond**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 092 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 092
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D9T - 9SU
Horsepower: 405
Blade Type: Semi-Universal
Attachment: 1-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$253.16	NA
Operating Cost/Hour:	$164.35	100
Ripper own. Cost/Hour:	$15.77	NA
Ripper op. Cost/Hour:	$10.35	100
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $482.22
Total Fleet Cost/Hour: **$482.22**

MATERIAL QUANTITIES

Initial Volume: 4,033
Swell factor: 1.125
Loose volume: **4,537** LCY

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

HOURLY PRODUCTION

Average push distance: 125 feet
Unadjusted hourly production: 1,055.6 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: 5 %
Average site altitude: 7,600 feet

Material weight: 2,550 lbs/LCY

Weight description: Earth - Dry packed

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

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

Net correction: 0.4867

Adjusted unit production: 513.76 LCY/hr
Adjusted fleet production: **513.76** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.939/LCY

Total job time: **8.83** Hours
Total job cost: **$4,259**

BULLDOZER WORK

Task description: **Replace Topsoil from Topsoil Pile 17F to West Taylor Pond**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 093 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 093
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D9T - 9SU
Horsepower: 405
Blade Type: Semi-Universal
Attachment: 1-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$253.16	NA
Operating Cost/Hour:	$164.35	100
Ripper own. Cost/Hour:	$15.77	NA
Ripper op. Cost/Hour:	$10.35	100
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $482.22
Total Fleet Cost/Hour: **$482.22**

MATERIAL QUANTITIES

Initial Volume: 4,033
Swell factor: 1.125
Loose volume: **4,537** LCY

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

HOURLY PRODUCTION

Average push distance: 125 feet
Unadjusted hourly production: 1,055.6 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: 5 %
Average site altitude: 7,600 feet

Material weight: 2,550 lbs/LCY

Weight description: Earth - Dry packed

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

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

Net correction: 0.4867

Adjusted unit production: 513.76 LCY/hr
Adjusted fleet production: **513.76** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.939/LCY

Total job time: **8.83** Hours
Total job cost: **$4,259**

HYDRAULIC EXCAVATOR WORK

Task description: **Replace Topsoil from Stockpile to Collection Ditches**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 094 State: Colorado Abbreviation: None
Date: 3/13/2025 County: Moffat Filename: 094
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat 336D L 10'-6" Stick
Attachment 1: ROPS Cab

Horsepower: 268
Weight (MT): 29.30
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$75.78	NA
Operating Cost/Hour:	$52.99	100
Operator Cost/Hour:	$33.87	NA
Total Unit Cost/Hour:	$162.64	

Total Fleet Cost/Hour: $162.64

MATERIAL QUANTITIES

Initial volume: 14,810 CCY Swell factor: 1.125
Loose volume: **16,661** LCY

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

HOURLY PRODUCTION

Excavator Cycle Time (load bucket, swing loaded, dump bucket, swing empty):

Basic Job Condition Description: AVERAGE
Secondary Job Condition within Basic Description: SEVERE
Cycle Time Value: 0.343 minutes

Load Bucket Capacity

Bucket Size Class: Small

Rated Capacity:	1.56	LCY (heaped)
Bucket Fill Factor:	0.925	Loose material - 1/8" to 3/8" (90 - 95%) 0.925
Adjusted Capacity:	**1.44**	LCY

Job Condition Correction Factors

Site Altitude: 7600 feet

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

Unadjusted Hourly Unit Production:	252.42	LCY/Hour
Adjusted Hourly Unit Production:	209.51	LCY/Hour
Adjusted Hourly Fleet Production:	**209.51**	LCY/Hour

JOB TIME AND COST

Fleet size: 1 Excavator Total job time: **79.53** Hours

Unit cost: $0.776 /LCY Total job cost: **$12,934**

<u>BOREHOLE SEALING WORK</u>

Task description: **Plug and Seal All Wells and Piezometers for EP, WP and STP**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 095 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: C019-095
User: HR1

Agency or organization name: DRMS

UNIT COSTS

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Plug West Pit Fill Piezometer	PVC plug - 4 in. diameter borehole	4"	647'	1.00	EA	$36.06	$36.06
- Fill Holes with Cement	Portland cement grout (Bag, material cost only...94 lb. bag)	4"	647'	13.00	bag	$22.00	$286.00
- Cut Casing at Surface	Exposed casing removal - Calculate Circumference in Linear Feet	4"	NA	1.00	LF	$3.23	$3.23
- Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	$46.00	$46.00
- Drill Rig Time	ATLAS COPCO ROC D7-11,4.0 in.	NA	NA	6.00	EA	$450.94	$2,705.64
- Water Truck Time	Water Tanker, 5,000 Gal.	NA	NA	6.00	EA	$101.92	$611.52
Plug West Taylor Fill Piezometer	PVC plug - 4 in. diameter borehole	4"	250'	1.00	EA	$36.06	$36.06
- Fill Holes with Cement	Portland cement grout (Bag, material cost only...94 lb. bag)	4"	250'	5.00	bag	$22.00	$110.00
- Cut Casing at Surface	Exposed casing removal - Calculate Circumference in Linear Feet	4"	NA	1.00	LF	$3.23	$3.23
- Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	$46.00	$46.00
- Drill Rig Time	ATLAS COPCO ROC D7-11,4.0 in.	NA	NA	4.00	EA	$450.94	$1,803.76
- Water Truck Time	Water Tanker, 5,000 Gal.	NA	NA	4.00	EA	$101.92	$407.68
Plug East Taylor Fill Piezometer	PVC plug - 4 in. diameter borehole	4"	250'	1.00	EA	$36.06	$36.06
- Fill Holes with Cement	Portland cement grout (Bag, material cost only...94 lb. bag)	4"	250'	5.00	bag	$22.00	$110.00
- Cut Casing at Surface	Exposed casing removal - Calculate Circumference in Linear	4"	NA	1.00	LF	$3.23	$3.23

	Feet						
- Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	$46.00	$46.00
- Drill Rig Time	ATLAS COPCO ROC D7-11,4.0 in.	NA	NA	4.00	EA	$450.94	$1,803.76
- Water Truck Time	Water Tanker, 5,000 Gal.	NA	NA	4.00	EA	$101.92	$407.68
Plug A6 Well	PVC plug - 4 in. diameter borehole	4"	40'	1.00	EA	$36.06	$36.06
- Fill Holes with Cement	Portland cement grout (Bag, material cost only...94 lb. bag)	4"	40'	1.00	bag	$22.00	$22.00
- Cut Casing at Surface	Exposed casing removal - Calculate Circumference in Linear Feet	4"	NA	1.00	LF	$3.23	$3.23
- Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	$46.00	$46.00
- Drill Rig Time	ATLAS COPCO ROC D7-11,4.0 in.	NA	NA	2.00	EA	$450.94	$901.88
- Water Truck Time	Water Tanker, 5,000 Gal.	NA	NA	2.00	EA	$101.92	$203.84
Plug A7 Well	PVC plug - 4 in. diameter borehole	4"	41'	1.00	EA	$36.06	$36.06
- Fill Holes with Cement	Portland cement grout (Bag, material cost only...94 lb. bag)	4"	41'	1.00	bag	$22.00	$22.00
- Cut Casing at Surface	Exposed casing removal - Calculate Circumference in Linear Feet	4"	NA	1.00	LF	$3.23	$3.23
- Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	$46.00	$46.00
- Drill Rig Time	ATLAS COPCO ROC D7-11,4.0 in.	NA	NA	2.00	EA	$450.94	$901.88
- Water Truck Time	Water Tanker, 5,000 Gal.	NA	NA	2.00	EA	$101.92	$203.84
Plug A8 Well	PVC plug - 10 in. diameter borehole	10"	90'	1.00	EA	$122.34	$122.34
- Fill Holes with Cement	Portland cement grout (Bag, material cost only...94 lb. bag)	10"	90'	11.00	bag	$22.00	$242.00
- Cut Casing at Surface	Exposed casing removal - Calculate Circumference in Linear Feet	10"	NA	1.00	LF	$3.23	$3.23
- Water Truck Time	Water Tanker, 5,000 Gal.	NA	NA	4.00	EA	$101.92	$407.68
- Drill Rig Time	ATLAS COPCO ROC L8(25)	NA	NA	4.00	EA	$616.70	$2,466.80
- Borehole Marker	Borehole location/identification	NA	NA	1.00	EA	$46.00	$46.00

	marker (EA, material cost only)						
Plug North Good Springs Well	PVC plug - 4 in. diameter borehole	4"	40'	1.00	EA	$36.06	$36.06
- Fill Holes with Cement	Portland cement grout (Bag, material cost only...94 lb. bag)	4"	40'	1.00	bag	$22.00	$22.00
- Cut Casing at Surface	Exposed casing removal - Calculate Circumference in Linear Feet	4"	NA	1.00	LF	$3.23	$3.23
- Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	$46.00	$46.00
- Drill Rig Time	ATLAS COPCO ROC D7-11,4.0 in.	NA	NA	2.00	EA	$450.94	$901.88
- Water Truck Time	Water Tanker, 5,000 Gal.	NA	NA	2.00	EA	$101.92	$203.84
Plug Gossard Well	PVC plug - 4 in. diameter borehole	4"	50'	1.00	EA	$36.06	$36.06
- Fill Holes with Cement	Portland cement grout (Bag, material cost only...94 lb. bag)	4"	50'	1.00	bag	$22.00	$22.00
- Cut Casing at Surface	Exposed casing removal - Calculate Circumference in Linear Feet	4"	NA	1.00	LF	$3.23	$3.23
- Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	$46.00	$46.00
- Drill Rig Time	ATLAS COPCO ROC D7-11,4.0 in.	NA	NA	2.00	EA	$450.94	$901.88
- Water Truck Time	Water Tanker, 5,000 Gal.	NA	NA	2.00	EA	$101.92	$203.84
Plug MT-95-02 Well	PVC plug - 4 in. diameter borehole	4"	50'	1.00	EA	$36.06	$36.06
- Fill Holes with Cement	Portland cement grout (Bag, material cost only...94 lb. bag)	4"	50'	1.00	bag	$22.00	$22.00
- Cut Casing at Surface	Exposed casing removal - Calculate Circumference in Linear Feet	4"	NA	1.00	LF	$3.23	$3.23
- Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	$46.00	$46.00
- Drill Rig Time	ATLAS COPCO ROC D7-11,4.0 in.	NA	NA	2.00	EA	$450.94	$901.88
- Water Truck Time	Water Tanker, 5,000 Gal.	NA	NA	2.00	EA	$101.92	$203.84

Job Hours: **28.00** **Total Cost**: **$17,855.00**

BOREHOLE SEALING WORK

Task description: **Seal South Taylor In-Pit Exploration Holes (MR153+MR158)**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 096
Date: 3/12/2025
User: HR1

State: Colorado
County: Moffat

Abbreviation: None
Filename: C019-096

Agency or organization name: DRMS

UNIT COSTS

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
In-Pit Rat Holes (Table Exh. 23A-1)	Portland cement grout (Bag, material cost only...94 lb. bag)	5.625"	13620	594.00	bag	$22.00	$13,068.00
- Drill Rig	ATLAS COPCO ROC L8(25)	5.625"	1813	142.00	EA	$591.33	$83,968.86
Out-Of-Pit Holes (Table Exh. 23A-2)	Portland cement grout (Bag, material cost only...94 lb. bag)	5.625"	2100	92.00	bag	$22.00	$2,024.00
- Drill Rig	ATLAS COPCO ROC L8(25)	5.625"	1813	22.00	EA	$616.70	$13,567.40
- Water Truck	Water Tanker, 5,000 Gal.	N/A	N/A	22.00	EA	$101.92	$2,242.24
- Plug Holes	PVC plug - 6 in. diameter borehole	5.625"	1'	10.00	EA	$65.19	$651.91
- Borehole Markers	Borehole location/identification marker (EA, material cost only)	N/A	N/A	10.00	EA	$46.00	$460.00

Job Hours: **164.00** **Total Cost**: **$115,982.00**

REVEGETATION WORK

Task description: **Reseed East Pit with Grazing Land Seed Mix**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 097A State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 097a
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 26
Estimated Failure Rate: 20%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $585.76
Cost /Acre*: $468.15

Initial Job Cost: **$15,229.76**
Reseeding Job Cost: **$2,434.38**
Total Job Cost: **$17,664**
Job Hours: **13.00**

REVEGETATION WORK

Task description: **Reseed East Pit with Grazing Land Seed Mix -Phase 1 Released**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 097B State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 097b
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	**Rate – PLS LBS / Acre**	**Seeds per SQ. FT**	**Cost /Acre**
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 13.92 Cost /Acre: $585.76

Estimated Failure Rate: 20% Cost /Acre*: $468.15

*Selected Replanting Work Items: SEEDING

Initial Job Cost: **$8,153.78**

Reseeding Job Cost: **$1,303.33**

Total Job Cost: **$9,457**

Job Hours: **7.00**

REVEGETATION WORK

Task description: **Reseed East Pit with Grazing Land Seed Mix -Phase 2 Released**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 097C State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 097c
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	**Rate – PLS LBS / Acre**	**Seeds per SQ. FT**	**Cost /Acre**
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 62.63
Estimated Failure Rate: 20%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $585.76
Cost /Acre*: $468.15

Initial Job Cost: **$36,686.15**
Reseeding Job Cost: **$5,864.05**
Total Job Cost: **$42,550**
Job Hours: **31.00**

REVEGETATION WORK

Task description: **Reseed East Pit with Sagebrush Steppe Seed Mix - Phase 1 Rel**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 098B State: Colorado Abbreviation: None
Date: 4/9/2025 County: Moffat Filename: 098b
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	**Rate – PLS LBS / Acre**	**Seeds per SQ. FT**	**Cost /Acre**
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Big Bluegrass - Sherman	0.20	4.13	$3.17
Mountain Brome - Bromar	0.50	0.80	$3.01
Great Basin Wildrye - Magnar	0.20	0.81	$2.34
Rocky Mountain Fescue	0.20	3.21	$2.16
Slender Wheatgrass - Native	1.50	5.48	$10.60
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.00	3.54	$8.15
Rabbitbrush, Rubber	1.00	14.90	$83.40
Western Wheatgrass - Native	1.50	3.79	$13.51

Needlegrass, Green - Lodorm	1.00	4.16	$8.65
Sagebrush, Mountain or Big	1.00	52.80	$82.70
Flax, Lewis Blue	0.20	1.33	$8.46
Sagebrush, Silver	0.50	9.71	$34.06
Saltbush, Four Wing	2.00	2.75	$39.75
Penstemon, Palmer	0.10	2.21	$7.79
Penstemon, Rocky Mountain	0.20	3.13	$12.28
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	13.50	126.35	**$355.39**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 4.2 Cost /Acre: $709.64
Estimated Failure Rate: 20% Cost /Acre*: $592.03
*Selected Replanting Work Items: SEEDING

Initial Job Cost: **$2,980.49**
Reseeding Job Cost: **$497.31**
Total Job Cost: **$3,478**
Job Hours: **2.00**

REVEGETATION WORK

Task description: **Reseed East Pit with Sagebrush Steppe Seed Mix - Phase 2 Rel**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 098C State: Colorado Abbreviation: None
Date: 4/9/2025 County: Moffat Filename: 098c
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Big Bluegrass - Sherman	0.20	4.13	$3.17
Mountain Brome - Bromar	0.50	0.80	$3.01
Great Basin Wildrye - Magnar	0.20	0.81	$2.34
Rocky Mountain Fescue	0.20	3.21	$2.16
Slender Wheatgrass - Native	1.50	5.48	$10.60
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.00	3.54	$8.15
Rabbitbrush, Rubber	1.00	14.90	$83.40
Western Wheatgrass - Native	1.50	3.79	$13.51

Needlegrass, Green - Lodorm	1.00	4.16	$8.65
Sagebrush, Mountain or Big	1.00	52.80	$82.70
Flax, Lewis Blue	0.20	1.33	$8.46
Sagebrush, Silver	0.50	9.71	$34.06
Saltbush, Four Wing	2.00	2.75	$39.75
Penstemon, Palmer	0.10	2.21	$7.79
Penstemon, Rocky Mountain	0.20	3.13	$12.28
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	13.50	126.35	**$355.39**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 2.32
Estimated Failure Rate: 20%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $709.64
Cost /Acre*: $592.03

Initial Job Cost: **$1,646.36**
Reseeding Job Cost: **$274.70**
Total Job Cost: **$1,921**
Job Hours: **2.00**

REVEGETATION WORK

Task description: **Reseed West Pit with Grazing Land Seed Mix**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 099A State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 099a
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	**Rate – PLS LBS / Acre**	**Seeds per SQ. FT**	**Cost /Acre**
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 239
Estimated Failure Rate: 20%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $585.76
Cost /Acre*: $468.15

Initial Job Cost: **$139,996.64**
Reseeding Job Cost: **$22,377.57**
Total Job Cost: **$162,374**
Job Hours: **119.50**

REVEGETATION WORK

Task description: **Reseed West Pit with Grazing Land Seed Mix - Phase 1 Release**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 099B State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 099b
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 45.01
Estimated Failure Rate: 20%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $585.76
Cost /Acre*: $468.15

Initial Job Cost: **$26,365.06**
Reseeding Job Cost: **$4,214.29**
Total Job Cost: **$30,579**
Job Hours: **22.50**

REVEGETATION WORK

Task description: **Reseed West Pit with Grazing Land Seed Mix - Phase 2 Release**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 099C State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 099c
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 215.79
Estimated Failure Rate: 20%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $585.76
Cost /Acre*: $468.15

Initial Job Cost: **$126,401.15**
Reseeding Job Cost: **$20,204.42**
Total Job Cost: **$146,606**
Job Hours: **107.90**

REVEGETATION WORK

Task description: **Reseed West Pit with Sagebrush Steppe Seed Mix**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 100A State: Colorado Abbreviation: None
Date: 4/8/2025 County: Moffat Filename: 100a
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Big Bluegrass - Sherman	0.20	4.13	$3.17
Mountain Brome - Bromar	0.50	0.80	$3.01
Great Basin Wildrye - Magnar	0.20	0.81	$2.34
Rocky Mountain Fescue	0.20	3.21	$2.16
Slender Wheatgrass - Native	1.50	5.48	$10.60
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.00	3.54	$8.15
Rabbitbrush, Rubber	1.00	14.90	$83.40
Western Wheatgrass - Native	1.50	3.79	$13.51

Needlegrass, Green - Lodorm	1.00	4.16	$8.65
Sagebrush, Mountain or Big	1.00	52.80	$82.70
Flax, Lewis Blue	0.20	1.33	$8.46
Sagebrush, Silver	0.50	9.71	$34.06
Saltbush, Four Wing	2.00	2.75	$39.75
Penstemon, Palmer	0.10	2.21	$7.79
Penstemon, Rocky Mountain	0.20	3.13	$12.28
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	13.50	126.35	**$355.39**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 141.3 Cost /Acre: $709.64
Estimated Failure Rate: 20% Cost /Acre*: $592.03
*Selected Replanting Work Items: SEEDING

Initial Job Cost: **$100,272.13**
Reseeding Job Cost: **$16,730.77**
Total Job Cost: **$117,003**
Job Hours: **4.00**

REVEGETATION WORK

Task description: **Reseed West Pit with Sagebrush Steppe Seed Mix - Phase 1 Rel**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 100B State: Colorado Abbreviation: None
Date: 4/8/2025 County: Moffat Filename: 100b
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Big Bluegrass - Sherman	0.20	4.13	$3.17
Mountain Brome - Bromar	0.50	0.80	$3.01
Great Basin Wildrye - Magnar	0.20	0.81	$2.34
Rocky Mountain Fescue	0.20	3.21	$2.16
Slender Wheatgrass - Native	1.50	5.48	$10.60
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.00	3.54	$8.15
Rabbitbrush, Rubber	1.00	14.90	$83.40
Western Wheatgrass - Native	1.50	3.79	$13.51

Needlegrass, Green - Lodorm	1.00	4.16	$8.65
Sagebrush, Mountain or Big	1.00	52.80	$82.70
Flax, Lewis Blue	0.20	1.33	$8.46
Sagebrush, Silver	0.50	9.71	$34.06
Saltbush, Four Wing	2.00	2.75	$39.75
Penstemon, Palmer	0.10	2.21	$7.79
Penstemon, Rocky Mountain	0.20	3.13	$12.28
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	13.50	126.35	**$355.39**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 42.66
Estimated Failure Rate: 20%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $709.64
Cost /Acre*: $592.03

Initial Job Cost: **$30,273.24**
Reseeding Job Cost: **$5,051.20**
Total Job Cost: **$35,324**
Job Hours: **4.00**

REVEGETATION WORK

Task description: **Reseed West Pit with Sagebrush Steppe Seed Mix - Phase 2 Rel**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 100C State: Colorado Abbreviation: None
Date: 4/8/2025 County: Moffat Filename: 100c
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	**Rate – PLS LBS / Acre**	**Seeds per SQ. FT**	**Cost /Acre**
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Big Bluegrass - Sherman	0.20	4.13	$3.17
Mountain Brome - Bromar	0.50	0.80	$3.01
Great Basin Wildrye - Magnar	0.20	0.81	$2.34
Rocky Mountain Fescue	0.20	3.21	$2.16
Slender Wheatgrass - Native	1.50	5.48	$10.60
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.00	3.54	$8.15
Rabbitbrush, Rubber	1.00	14.90	$83.40
Western Wheatgrass - Native	1.50	3.79	$13.51

Needlegrass, Green - Lodorm	1.00	4.16	$8.65
Sagebrush, Mountain or Big	1.00	52.80	$82.70
Flax, Lewis Blue	0.20	1.33	$8.46
Sagebrush, Silver	0.50	9.71	$34.06
Saltbush, Four Wing	2.00	2.75	$39.75
Penstemon, Palmer	0.10	2.21	$7.79
Penstemon, Rocky Mountain	0.20	3.13	$12.28
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	13.50	126.35	**$355.39**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 168.97 | Cost /Acre: $709.64
Estimated Failure Rate: 20% | Cost /Acre*: $592.03
*Selected Replanting Work Items: SEEDING

Initial Job Cost: **$119,907.87**
Reseeding Job Cost: **$20,007.06**
Total Job Cost: **$139,915**
Job Hours: **4.00**

REVEGETATION WORK

Task description: **Reseed South Taylor Pit with Grazing Land Seed Mix**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 101 State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 101
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 456.1
Estimated Failure Rate: 20%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $585.76
Cost /Acre*: $468.15

Initial Job Cost: **$267,165.14**
Reseeding Job Cost: **$42,704.64**
Total Job Cost: **$309,870**
Job Hours: **228.00**

REVEGETATION WORK

Task description: **Reseed South Taylor with Sagebrush Steppe Seed Mix**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 102 State: Colorado Abbreviation: None
Date: 4/8/2025 County: Moffat Filename: 102
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Big Bluegrass - Sherman	0.20	4.13	$3.17
Mountain Brome - Bromar	0.50	0.80	$3.01
Great Basin Wildrye - Magnar	0.20	0.81	$2.34
Rocky Mountain Fescue	0.20	3.21	$2.16
Slender Wheatgrass - Native	1.50	5.48	$10.60
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.00	3.54	$8.15
Rabbitbrush, Rubber	1.00	14.90	$83.40
Western Wheatgrass - Native	1.50	3.79	$13.51

Needlegrass, Green - Lodorm	1.00	4.16	$8.65
Sagebrush, Mountain or Big	1.00	52.80	$82.70
Flax, Lewis Blue	0.20	1.33	$8.46
Sagebrush, Silver	0.50	9.71	$34.06
Saltbush, Four Wing	2.00	2.75	$39.75
Penstemon, Palmer	0.10	2.21	$7.79
Penstemon, Rocky Mountain	0.20	3.13	$12.28
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	13.50	126.35	**$355.39**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 482.2
Estimated Failure Rate: 20%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $709.64
Cost /Acre*: $592.03

Initial Job Cost: **$342,188.41**
Reseeding Job Cost: **$57,095.37**
Total Job Cost: **$399,284**
Job Hours: **4.00**

REVEGETATION WORK

Task description: **Reseed Facility Area with Grazing Land Seed Mix**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 103A State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: C019-103a
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 29.8 Cost /Acre: $585.76

Estimated Failure Rate: 20% Cost /Acre*: $468.15

*Selected Replanting Work Items: SEEDING

Initial Job Cost: **$17,455.65**

Reseeding Job Cost: **$2,790.17**

Total Job Cost: **$20,246**

Job Hours: **15.00**

REVEGETATION WORK

Task description: **Reseed Facility Area with Sagebrush Steppe Seed Mix**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #:	103B	State:	Colorado	Abbreviation:	None
Date:	4/8/2025	County:	Moffat	Filename:	103b
User:	HR1				

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	**Rate – PLS LBS / Acre**	**Seeds per SQ. FT**	**Cost /Acre**
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Big Bluegrass - Sherman	0.20	4.13	$3.17
Mountain Brome - Bromar	0.50	0.80	$3.01
Great Basin Wildrye - Magnar	0.20	0.81	$2.34
Rocky Mountain Fescue	0.20	3.21	$2.16
Slender Wheatgrass - Native	1.50	5.48	$10.60
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.00	3.54	$8.15
Rabbitbrush, Rubber	1.00	14.90	$83.40
Western Wheatgrass - Native	1.50	3.79	$13.51

Needlegrass, Green - Lodorm	1.00	4.16	$8.65
Sagebrush, Mountain or Big	1.00	52.80	$82.70
Flax, Lewis Blue	0.20	1.33	$8.46
Sagebrush, Silver	0.50	9.71	$34.06
Saltbush, Four Wing	2.00	2.75	$39.75
Penstemon, Palmer	0.10	2.21	$7.79
Penstemon, Rocky Mountain	0.20	3.13	$12.28
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	13.50	126.35	**$355.39**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 149.5
Estimated Failure Rate: 20%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $709.64
Cost /Acre*: $592.03

Initial Job Cost: **$106,091.18**
Reseeding Job Cost: **$17,701.70**
Total Job Cost: **$123,793**
Job Hours: **4.00**

REVEGETATION WORK

Task description: **Reseed Gossard Loadout with Grazing Land Seed Mix**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 104 State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 104
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	**Rate – PLS LBS / Acre**	**Seeds per SQ. FT**	**Cost /Acre**
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 15
Estimated Failure Rate: 20%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $585.76
Cost /Acre*: $468.15

Initial Job Cost: **$8,786.40**
Reseeding Job Cost: **$1,404.45**
Total Job Cost: **$10,191**
Job Hours: **30.00**

REVEGETATION WORK

Task description: **Reseed Haul Road A with Grazing Land Seed Mix**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 105 State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 105
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	Cost /Acre
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	Cost /Acre
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 36.6
Estimated Failure Rate: 20%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $585.76
Cost /Acre*: $468.15

Initial Job Cost: **$21,438.82**
Reseeding Job Cost: **$3,426.86**
Total Job Cost: **$24,866**
Job Hours: **18.00**

REVEGETATION WORK

Task description: **Reseed Haul Road B with Grazing Land Seed Mix**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 106 State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 106
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

			$
Totals Seed Mix			**$**

Application

Description	**Cost /Acre**
	$
Total Seed Application Cost/Acre	**$**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 10.6
Estimated Failure Rate: 20%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $585.76
Cost /Acre*: $468.15

Initial Job Cost: **$6,209.06**
Reseeding Job Cost: **$992.48**
Total Job Cost: **$7,202**
Job Hours: **21.20**

REVEGETATION WORK

Task description: **Reseed Prospect Pond with Grazing Land Seed Mix**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 107 State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 107
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 2.6 Cost /Acre: $585.76

Estimated Failure Rate: 20% Cost /Acre*: $468.15

*Selected Replanting Work Items: SEEDING

Initial Job Cost: **$1,522.98**

Reseeding Job Cost: **$243.44**

Total Job Cost: **$1,766**

Job Hours: **5.20**

REVEGETATION WORK

Task description: **Reseed Rail Loop Pond with Grazing Land Seed Mix**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 109 State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 109
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 0.5
Estimated Failure Rate: 20%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $585.76
Cost /Acre*: $468.15

Initial Job Cost: **$292.88**
Reseeding Job Cost: **$46.82**
Total Job Cost: **$340**
Job Hours: **1.00**

REVEGETATION WORK

Task description: **Reseed Gossard Pond with Grazing Land Seed Mix**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 110 State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 110
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 1.5
Estimated Failure Rate: 20%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $585.76
Cost /Acre*: $468.15

Initial Job Cost: **$878.64**
Reseeding Job Cost: **$140.45**
Total Job Cost: **$1,019**
Job Hours: **3.00**

REVEGETATION WORK

Task description: **Reseed Sewage and Aeration Pond with Grazing Land Seed Mix**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 111 State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 111
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	**Rate – PLS LBS / Acre**	**Seeds per SQ. FT**	**Cost /Acre**
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 2.9
Estimated Failure Rate: 20%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $585.76
Cost /Acre*: $468.15

Initial Job Cost: **$1,698.70**
Reseeding Job Cost: **$271.53**
Total Job Cost: **$1,970**
Job Hours: **5.80**

REVEGETATION WORK

Task description: **Reseed Stoker Siding Pond with Grazing Land Seed Mix (MR208)**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 112 State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 112
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 0.8
Estimated Failure Rate: 20%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $585.76
Cost /Acre*: $468.15

Initial Job Cost: **$468.61**
Reseeding Job Cost: **$74.90**
Total Job Cost: **$544**
Job Hours: **0.40**

REVEGETATION WORK

Task description: **Reseed Wash Bay Pond with Grazing Land Seed Mix**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 113 State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 113
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 3.6
Estimated Failure Rate: 20%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $585.76
Cost /Acre*: $468.15

Initial Job Cost: **$2,108.74**
Reseeding Job Cost: **$337.07**
Total Job Cost: **$2,446**
Job Hours: **7.20**

REVEGETATION WORK

Task description: **Reseed Wash Bay Sediment Sump with Grazing Land Seed Mix**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 114 State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 114
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	**Rate – PLS LBS / Acre**	**Seeds per SQ. FT**	**Cost /Acre**
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 0.7
Estimated Failure Rate: 20%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $585.76
Cost /Acre*: $468.15

Initial Job Cost: **$410.03**
Reseeding Job Cost: **$65.54**
Total Job Cost: **$476**
Job Hours: **1.40**

REVEGETATION WORK

Task description: **Reseed Work Area Pond with Grazing Land Seed Mix**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 115 State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 115
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 3.8
Estimated Failure Rate: 20%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $585.76
Cost /Acre*: $468.15

Initial Job Cost: **$2,225.89**
Reseeding Job Cost: **$355.79**
Total Job Cost: **$2,582**
Job Hours: **7.60**

REVEGETATION WORK

Task description: **Reseed Section 16 Pond with Grazing Land Seed Mix**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 116 State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 116
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 4.6

Estimated Failure Rate: 20%

*Selected Replanting Work Items: SEEDING

Cost /Acre: $585.76

Cost /Acre*: $468.15

Initial Job Cost: **$2,694.50**

Reseeding Job Cost: **$430.70**

Total Job Cost: **$3,125**

Job Hours: **9.20**

REVEGETATION WORK

Task description: **Reseed East Taylor Pond with Grazing Land Seed Mix**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 117 State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 117
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 1.7 Cost /Acre: $585.76
Estimated Failure Rate: 20% Cost /Acre*: $468.15
*Selected Replanting Work Items: SEEDING

Initial Job Cost: **$995.79**
Reseeding Job Cost: **$159.17**
Total Job Cost: **$1,155**
Job Hours: **3.40**

REVEGETATION WORK

Task description: **Reseed West Pit Pond with Grazing Land Seed Mix**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 120 State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 120
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	**Rate – PLS LBS / Acre**	**Seeds per SQ. FT**	**Cost /Acre**
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 3.1
Estimated Failure Rate: 20%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $585.76
Cost /Acre*: $468.15

Initial Job Cost: **$1,815.86**
Reseeding Job Cost: **$290.25**
Total Job Cost: **$2,106**
Job Hours: **6.20**

REVEGETATION WORK

Task description: **Reseed Section 28 Pond with Grazing Land Seed Mix**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 121 State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 121
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 2.5
Estimated Failure Rate: 20%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $585.76
Cost /Acre*: $468.15

Initial Job Cost: **$1,464.40**
Reseeding Job Cost: **$234.08**
Total Job Cost: **$1,698**
Job Hours: **5.00**

REVEGETATION WORK

Task description: **Reseed West Taylor Pond with Grazing Land Seed Mix**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 122 State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 122
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	**Rate – PLS LBS / Acre**	**Seeds per SQ. FT**	**Cost /Acre**
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 2.5
Estimated Failure Rate: 20%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $585.76
Cost /Acre*: $468.15

Initial Job Cost: **$1,464.40**
Reseeding Job Cost: **$234.08**
Total Job Cost: **$1,698**
Job Hours: **5.00**

REVEGETATION WORK

Task description: **Reseed Perimeter Ditches with Grazing Land Seed Mix**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 123 State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 123
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 29.6
Estimated Failure Rate: 20%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $585.76
Cost /Acre*: $468.15

Initial Job Cost: **$17,338.50**
Reseeding Job Cost: **$2,771.45**
Total Job Cost: **$20,110**
Job Hours: **15.00**

REVEGETATION WORK

Task description: **Reseed Aspen Reestablishment Area**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 124 State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 124
User: HR1

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
Subsoil scarification, (MEANS 32 91 13.23 3100)	$245.24
Total Tilling Cost/Acre	**$245.24**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Beardless Wheatgrass - Whitmar	0.50	1.63	$6.92
Big Bluegrass - Sherman	0.20	4.13	$3.17
Bitterbrush, Antelope	1.50	0.46	$84.77
Mountain Brome - Bromar	0.30	0.48	$1.81
Russian Wildrye - Vinal	0.20	0.80	$1.45
Chokecherry	1.20	0.08	$59.35
Rocky Mountain Fescue	0.20	3.21	$2.16
Maple, Rocky Mountain	1.20	0.21	$76.42
Slender Wheatgrass - Pryor	0.20	0.73	$1.24
Mahogany, Curlleaf Mountain	1.20	1.43	$105.97

Mahogany, Mountain	1.20	1.63	$121.14
Rabbitbrush, Rubber	0.15	2.23	$12.51
Vetch, American	0.30	0.14	$36.93
Needlegrass, Green - Lodorm	0.20	0.83	$1.73
Rose, Wood's	0.50	0.00	$26.69
Sagebrush, Mountain or Big	0.25	13.20	$20.67
Flax, Lewis Blue	0.20	1.33	$8.46
Serviceberry, Utah	2.40	4.52	$184.73
Snowberry, Mountain	1.50	2.58	$88.59
Winter Fat	0.50	1.27	$23.36
Penstemon, Palmer	0.10	2.21	$7.79
Penstemon, Rocky Mountain	0.20	3.13	$12.28
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	14.30	52.34	**$892.95**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
Polyprop. mesh, staples Material (MEANS 31 25 14.16 0200)	1.00	ACRE	$5,517.60	$5,517.60
Total Mulch Materials Cost/Acre				**$5,517.60**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
Aspen	550	Container, 1 gallon (MEANS)	$21.64	$0.00	$11,902.00
Totals Nursery Stock Cost / Acre					**$11,902.00**

JOB TIME AND COST

No. of Acres: 12
Cost /Acre: $18,794.43
Estimated Failure Rate: 45%
Cost /Acre*: $13,031.59
*Selected Replanting Work Items: SEEDING,NURSERY

Initial Job Cost: **$225,533.16**

Reseeding Job Cost:	**$70,370.59**
Total Job Cost:	**$295,904**
Job Hours:	**24.00**

REVEGETATION WORK

Task description: **Plant Tall Shrub Reestablishment Areas**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 125 State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 125
User: HR1

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**
Chisel plowing {DMG}	$102.41
Total Tilling Cost/Acre	**$102.41**

SEEDING

Seed Mix	**Rate – PLS LBS / Acre**	**Seeds per SQ. FT**	**Cost /Acre**
Beardless Wheatgrass - Whitmar	0.50	1.63	$6.92
Big Bluegrass - Sherman	0.20	4.13	$3.17
Bitterbrush, Antelope	1.50	0.46	$84.77
Mountain Brome - Bromar	0.30	0.48	$1.81
Russian Wildrye - Vinal	0.20	0.80	$1.45
Chokecherry	1.20	0.08	$59.35
Rocky Mountain Fescue	0.20	3.21	$2.16
Maple, Rocky Mountain	1.20	0.21	$76.42
Slender Wheatgrass - Pryor	0.20	0.73	$1.24
Mahogany, Curlleaf Mountain	1.20	1.43	$105.97

Mahogany, Mountain	1.20	1.63	$121.14
Rabbitbrush, Rubber	0.15	2.23	$12.51
Vetch, American	0.30	0.14	$36.93
Needlegrass, Green - Lodorm	0.20	0.83	$1.73
Rose, Wood's	0.50	0.00	$26.69
Sagebrush, Mountain or Big	0.25	13.20	$20.67
Flax, Lewis Blue	0.20	1.33	$8.46
Serviceberry, Utah	2.40	4.52	$184.73
Snowberry, Mountain	1.50	2.58	$88.59
Winter Fat	0.50	1.27	$23.36
Penstemon, Palmer	0.10	2.21	$7.79
Penstemon, Rocky Mountain	0.20	3.13	$12.28
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	14.30	52.34	**$892.95**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
Polyprop. mesh, staples Material (MEANS 31 25 14.16 0200)	1.00	ACRE	$5,517.60	$5,517.60
Total Mulch Materials Cost/Acre				**$5,517.60**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
Mahogany, Mountain	275	Container, 1 gallon (MEANS)	$21.44	$0.00	$5,896.00
Serviceberry, Utah	275	Container, 1 gallon (MEANS)	$21.44	$0.00	$5,896.00
Totals Nursery Stock Cost / Acre					**$11,792.00**

JOB TIME AND COST

No. of Acres: 18
Cost /Acre: $18,541.60
Estimated Failure Rate: 45%
Cost /Acre*: $12,921.59
*Selected Replanting Work Items: SEEDING,NURSERY

Initial Job Cost:	**$333,748.80**
Reseeding Job Cost:	**$104,664.88**
Total Job Cost:	**$438,414**
Job Hours:	**36.00**

REVEGETATION WORK

Task description: **Weed Control - 10% of Reseeded Areas Four Times**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 126 State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 126
User: HR1

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
	$
Total Tilling Cost/Acre	**$0.00**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
			$
Totals Seed Mix	0.00	0.00	**$0.00**

Application

Description	Cost /Acre
	$

Total Seed Application Cost/Acre	**$0.00**

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - 2,4D @ 1.0 pt/ac	2.00	ACRE	$4.13	$8.25
Herbicide - Glyphosate (Journey)@ 1.0 pt/ac	2.00	ACRE	$3.86	$7.73
Total Mulch Materials Cost/Acre				**$15.98**

Application

Description	Cost /Acre
Weed spray, hand, non-aquatic area, nox. [DMG]	$209.61
Total Mulch Application Cost/Acre	**$209.61**

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: 1134
Estimated Failure Rate: 0%
*Selected Replanting Work Items: NONE

Cost /Acre: $225.59
Cost /Acre*: $0.00

Initial Job Cost: **$255,819.06**
Reseeding Job Cost: **$0.00**
Total Job Cost: **$255,819**
Job Hours: **1,280.00**

DEMOLITION WORK

Task description: **Demolish and Remove all Facilities**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 127 State: Colorado Abbreviation: None
Date: 2/6/2025 County: Moffat Filename: 127
User: HR1

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
Wilson Pond Pump house	16' x 16' x 11'h	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	2,816.00	CF	$0.24	$685.41
Wilson pond pump house foundation	16'x16'x1	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	256.00	SF	$2.31	$592.15
Wilson Pond wet well	17' x 28' x1 '	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	476.00	SF	$2.31	$1,101.04
Fencing 8ft. high	210 L.F.	Fencing, chain link, including posts and fabric - 8 ft. to 10 ft. high	210.00	LF	$3.53	$741.30
Gaurd shcak building	18' x 22' x 11'	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	4,356.00	CF	$0.24	$1,060.25
Guard shack foundation	18' x 22' x .3'	Demo. and on-site disposal in existing pit, 4 in. thick - Max. 10,000 ft. haul	396.00	SF	$0.77	$305.32
Storage shed	10'X 8' x 9'	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	720.00	CF	$0.24	$175.25
Asphalt parking lot	80' x 15'	Pavement, bituminous, demolition only - 3 in. thick	133.00	SY	$5.28	$702.24
rock wall front	20'l X3'w x 9'h	Wall, block, demolition only, 12 in. thick - Vertical reinforcing	180.00	SF	$1.60	$287.28
Rock wall (back)	44' X 3'W X5'H	Wall, block, demolition only, 12 in. thick - Vertical reinforcing	220.00	SF	$1.60	$351.12
Main admin Building	136'L X 64'W X 31'	Bldg. (MN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	269,824.00	CF	$0.33	$88,664.17
Main building floor	136' x 64' x 10"th	Demo. and on-site disposal in existing pit, 10 in. thick - Max.	8,704.00	SF	$1.93	$16,777.83

		10,000 ft. haul				
Lower level entrance structure	31' x 25' x 25'	Bldg. (MN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	19,375.00	CF	$0.33	$6,366.63
lower level entrance floor	31' x 25' x 10" th	Demo. and on-site disposal in existing pit, 10 in. thick - Max. 10,000 ft. haul	775.00	SF	$1.93	$1,493.89
Upper level North entrance struct.	30' x 8' x 13'	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	3,120.00	CF	$0.24	$759.41
Upper level N entrance floor	30' x 8' x 10"th	Demo. and on-site disposal in existing pit, 10 in. thick - Max. 10,000 ft. haul	240.00	SF	$1.93	$462.62
Upper level W entrance struct.	22' x 16' 28'h	Bldg. (MN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	9,856.00	CF	$0.33	$3,238.68
Upper level W entrance floor	22'l x 16' w x 10" th	Demo. and on-site disposal in existing pit, 10 in. thick - Max. 10,000 ft. haul	352.00	SF	$1.93	$678.52
Upper asphalt parking are	206' l x 206'w	Pavement, bituminous, demolition only - 3 in. thick	4,715.10	SY	$5.28	$24,895.73
Lower Asphalt parking area	169'l x 169'w	Pavement, bituminous, demolition only - 3 in. thick	3,173.40	SY	$5.28	$16,755.55
Taylor Creek Pump House	16'X 16' x 11'h	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	2,816.00	CF	$0.24	$685.41
Taylor Creek Pump house concrete	16' x 16' x 1'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	256.00	SF	$2.31	$592.15
TC pump house concrete apron	6' x 3' x 1'th.	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	54.10	SF	$2.31	$125.14
Old Pump house concrete pad	12'x 16' x 1'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	192.00	SF	$2.31	$444.12
Pump inlet system	17' x 31'x 1'th.	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	527.00	SF	$2.31	$1,219.00
Water tank #6	20K gal.	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	2,673.80	CF	$0.24	$650.80
Production office main building	270'l x 42'w x 15'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	170,100.00	CF	$0.24	$41,402.34

Prod. office main building concrete	270'l x 42'w x 10"th	Demo. and on-site disposal in existing pit, 10 in. thick - Max. 10,000 ft. haul	11,340.00	SF	$1.93	$21,858.98
Prod. office concrete porch	270'l x 5'w x 12'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	14,850.00	SF	$2.31	$34,349.54
Asphalt Employee Parking lot	298'x 298'	Pavement, bituminous, demolition only - 3 in. thick	9,867.10	SY	$5.28	$52,098.29
Firehouse	10' x 8'x 8'h.	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	640.00	CF	$0.24	$155.78
Admin services building	64'x 24'x 14'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	21,504.00	CF	$0.24	$5,234.07
admin blg. entryway	16'w 8'x 10'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	1,280.00	CF	$0.24	$311.55
covered stairs Employee Pkg N	25'l x 3'w x 7'h	Demo. and on-site disposal in existing pit, 1.0 ft. x 2 ft. - Max. 10,000 ft. haul	50.00	LF	$4.63	$231.31
covered stairs Employee pk E	25'l x 3'w x 7'h	Demo. and on-site disposal in existing pit, 1.0 ft. x 2 ft. - Max. 10,000 ft. haul	50.00	LF	$4.63	$231.31
covered stairs Employee pk S	25'lx 3'w x 7'h	Demo. and on-site disposal in existing pit, 1.0 ft. x 2 ft. - Max. 10,000 ft. haul	50.00	LF	$4.63	$231.31
open stairs employee pk S	25'l x3'w x7'h	Demo. and on-site disposal in existing pit, 1.0 ft. x 2 ft. - Max. 10,000 ft. haul	50.00	LF	$4.63	$231.31
open stairs employee pk N	25'l x 3'w x 7'h	Demo. and on-site disposal in existing pit, 1.0 ft. x 2 ft. - Max. 10,000 ft. haul	50.00	LF	$4.63	$231.31
Truck shop and warehouse building	204'l x 60'w x 54'h	Bldg. (MN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	660,960.00	CF	$0.33	$217,191.46
Main shop building concrete	204'l x 60'w x 2'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	24,480.00	SF	$2.31	$56,624.69
Tire shop building	80'l x 70'w. 54'h	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	302,400.00	CF	$0.35	$105,114.24
Tire shop building concrete	80'l x 70'w x 2'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	11,200.00	SF	$2.31	$25,906.72

Office area building	162'l x 65'w x 26'h	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	273,780.00	CF	$0.35	$95,165.93
Office Area bldg. concrete	162'w x 65'w x1'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	10,530.00	SF	$2.31	$24,356.94
Compressor building	45'l x 28'w x 15'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	18,900.00	CF	$0.24	$4,600.26
Compresor building concrete	45'l x 28'w x 10"th	Demo. and on-site disposal in existing pit, 10 in. thick - Max. 10,000 ft. haul	1,260.00	SF	$1.93	$2,428.78
1993 warehouse addition	50'w x 75'l x 30'h	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	112,500.00	CF	$0.35	$39,105.00
1993 warehouse addition concrete	50'w x75'l x 1'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	3,750.00	SF	$2.31	$8,674.13
Warehouse cold-storage structure	76'l x 51'w x 17'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	65,892.00	CF	$0.24	$16,038.11
Warehouse cold storage-concrete	76'l x51'w x 1'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	3,876.00	SF	$2.31	$8,965.58
Quonset Hut #1	40'l x 10'w x 8'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	3,200.00	CF	$0.24	$778.88
Quonset Hut #2	40'l x 10'w x 8'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	3,200.00	CF	$0.24	$778.88
Storage trailer (portable)	50'l x 10'w x10'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	5,000.00	CF	$0.24	$1,217.00
Skid mounted building (portable)	20'l x8'w x 8'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	1,280.00	CF	$0.24	$311.55
Paint storage building	30'l x 9'w x 8'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	2,160.00	CF	$0.24	$525.74
Paint storage building (concrete)	30'l x 9'w x 10"th	Demo. and on-site disposal in existing pit, 10 in. thick - Max. 10,000 ft. haul	270.00	SF	$1.93	$520.45
Battery Core Storage Building	12'lx 10'w x 8'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max.	960.00	CF	$0.24	$233.66

		10,000 ft. haul				
Fire Pump Room	22'l x 15'w x 13'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	4,290.00	CF	$0.24	$1,044.19
Fire Pump Room Concrete	22'l x 15'w x 1'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	330.00	SF	$2.31	$763.32
Fire pump room concrete apon	26'l x 15'w x 1'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	390.00	SF	$2.31	$902.11
Additional tool storage	30'l x 15'w x 14'h	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	6,300.00	CF	$0.35	$2,189.88
additional tool storage concrete	30'x 15'w x 1'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	450.00	SF	$2.31	$1,040.90
Warehouse yard fence	1680l.ft.	Fencing, chain link, including posts and fabric - 8 ft. to 10 ft. high	1,680.00	LF	$3.53	$5,930.40
Lube trainler (portable)	40;l x 10'w x 12'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	4,800.00	CF	$0.24	$1,168.32
Main shop concrete apron	204'lx 20'w x 2'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	8,160.00	SF	$2.31	$18,874.90
South Tire shop	21'l x 12'w x 1'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	252.00	SF	$2.31	$582.90
East Tire Shop	30'l x 41'w x 2 ft' th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	2,460.00	SF	$2.31	$5,690.23
North Tire shop	43'l x 12'w x 1'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	516.00	SF	$2.31	$1,193.56
Machine shop concrete	75'l x 28'w x 10" th	Demo. and on-site disposal in existing pit, 10 in. thick - Max. 10,000 ft. haul	2,100.00	SF	$1.93	$4,047.96
Receiving dock concrete	68'l x 28'w x 10"th	Demo. and on-site disposal in existing pit, 10 in. thick - Max. 10,000 ft. haul	1,904.00	SF	$1.93	$3,670.15
Warehouse yard asphalt	331'l x 331'w	Pavement, bituminous, demolition only - 3 in. thick	12,173.40	SY	$5.28	$64,275.55
Tire shop asphalt	60'l x 60'w	Pavement, bituminous, demolition only - 3 in. thick	400.00	SY	$5.28	$2,112.00

Surface Oil Tank #1 5K gal.	5000 gal	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	$259.50	$259.50
oil tank #1 disposal	5000 gal	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	$760.00	$760.00
Surface Oil Tank #2 5K gal.	5000 gal	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	$259.50	$259.50
oil tank #2 disposal	5000 gal	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	$760.00	$760.00
Surface Oil Tank #3 2K gal	2000 gal	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	$259.50	$259.50
oil tank #3 disposal	2000 gal	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	$760.00	$760.00
Surface Oil Tank #4 1K gal.	1000 gal	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	$259.50	$259.50
surface oil tank #4 disposal	1000 gal	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	$760.00	$760.00
Surface Oil Tank #8 6K	6000 gal	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	$259.50	$259.50
surface oil tank #8 disposal	6000 gal	Haul tank to certified salvage dump - 6,000 to 8,000 gal. tank	1.00	EA	$880.00	$880.00
Surface Oil Tank #9 4K gal	4000 gal	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	$259.50	$259.50
surface oil tank #9	4000 gal	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	$760.00	$760.00
Surface Oil Tanks #10, #11, & #12	1150 gal	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	$259.50	$259.50
dispose of oil tanks 10, 11, &12	1150 gal	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	$760.00	$760.00
dispose of oil sludge from all tanks	5% tank vol.	Dispose of tank sludge off-site - Average	1,206.00	GAL	$6.80	$8,200.80
Oil handling building	50'l x 52'w x19'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	49,400.00	CF	$0.24	$12,023.96
Oil handling building foundation	50'l x 52'w x 1'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	2,600.00	SF	$2.31	$6,014.06

Dozer and bucket repair shop building	120'l x 40'w x 24'h	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	115,200.00	CF	$0.35	$40,043.52
Shop building foundation	120'l x 40'w x 2'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	9,600.00	SF	$2.31	$22,205.76
Electrical Repair Shop	40'l x 48'w. x 18'h	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	34,560.00	CF	$0.35	$12,013.06
Electrical shop foundation	40'l x 48'w x 10"th	Demo. and on-site disposal in existing pit, 10 in. thick - Max. 10,000 ft. haul	1,920.00	SF	$1.93	$3,700.99
Electrical shop concrete apron	48'l x 20'w x 1'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	960.00	SF	$2.31	$2,220.58
Shop office building	60'l x 48'w. x 14'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	40,320.00	CF	$0.24	$9,813.89
Shop office concrete	60' x 48'w. x 10"th	Demo. and on-site disposal in existing pit, 10 in. thick - Max. 10,000 ft. haul	2,880.00	SF	$1.93	$5,551.49
Light vehicle repair shop	100'l x 48'w. 14'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	67,200.00	CF	$0.24	$16,356.48
Light vehicle shop concrete	100'l x 48'w x 1'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	4,800.00	SF	$2.31	$11,102.88
Ventilation addition-structure	25'l x 40'w' x 37'h	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	37,000.00	CF	$0.35	$12,861.20
Ventilation addition concrete	25'l x 40'w. x 2'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	2,000.00	SF	$2.31	$4,626.20
Ventilation addition conc. apron	30'l x 3'w x 2'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	180.00	SF	$2.31	$416.36
Lavatory area building	13'l x 12'w x 10'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	1,560.00	CF	$0.24	$379.70
Lavatory area concrete	13'l x 12'h x 1'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	156.00	SF	$2.31	$360.84
Fire protection building	10'l x 8'w x10'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max.	800.00	CF	$0.24	$194.72

		10,000 ft. haul				
Electrical storage (portable)	10'w x 10'l x 8'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	800.00	CF	$0.24	$194.72
Electrical storage concrete pad	52'l x 14'w x 10"th.	Demo. and on-site disposal in existing pit, 10 in. thick - Max. 10,000 ft. haul	728.00	SF	$1.93	$1,403.29
Open storage (skid mounted)	10' l x 6'w x 8'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	480.00	CF	$0.24	$116.83
Dozer repair storage	28'l x 13'w x 12'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	4,368.00	CF	$0.24	$1,063.17
Open storage (permanent mount)	29'l x 6'w x10'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	1,740.00	CF	$0.24	$423.52
Surface Oil Tank #5 700 gal	700 gal	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	$760.00	$760.00
Surface oil tank #5 concrete pad	16'w x 16'l x1'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	256.00	SF	$2.31	$592.15
Deisel Fuel Island concrete	20'l x 4'w x1'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	80.00	SF	$2.31	$185.05
Regular fuel island	6'l x 4'w x 1'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	24.00	SF	$2.31	$55.51
Unleaded fuel island	6'l x 4'w x1'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	24.00	SF	$2.31	$55.51
Truck scales	50'l x 10'w x 3'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	1,500.00	CF	$0.24	$365.10
Truck scales concrete	169'l x 5'w x1'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	845.00	SF	$2.31	$1,954.57
Truck Scales steel guardrail	50'l x 3'h	Railing, roadside guiderail and posts (posts on 20 ft. centers)	50.00	LF	$18.79	$939.50
Scale building	4'l x 4'w x 7'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	112.00	CF	$0.24	$27.26
Lab Crusher building-structure	21'l x 18'w x 15lh	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	50,400.00	CF	$0.35	$17,519.04

Lab Crusher building concrete	21'l x 18'w x 10" th	Demo. and on-site disposal in existing pit, 10 in. thick - Max. 10,000 ft. haul	378.00	SF	$1.93	$728.63
Lab Crusher building concrete apron	16'l x 5'w x 10" th	Demo. and on-site disposal in existing pit, 10 in. thick - Max. 10,000 ft. haul	80.00	SF	$1.93	$154.21
Unleaded fuel Tank #7 19K gal	19000 gal	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	1.00	EA	$432.00	$432.00
Dry ice prep for transport	285 lbs	Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	285.00	LB	$2.11	$601.35
Unleaded fuel tank #7	19000 gal	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	1.00	EA	$1,050.00	$1,050.00
Diesel Fuel tank #5 10K gal	10000 gal	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	1.00	EA	$432.00	$432.00
Dry Ice prep D Fuel Tank #5	150 lbs	Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	150.00	LB	$2.11	$316.50
Diesel Fuel Tank #7	10000 gal	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	1.00	EA	$1,050.00	$1,050.00
Main substation concrete	37'l x 25'w x 1'th	Demo. and on-site disposal in excavated pit, 10 in. thick - Max. 200 ft. push	925.00	SF	$2.07	$1,911.24
Fencing	248 LF	Fencing, chain link, including posts and fabric - 8 ft. to 10 ft. high	248.00	LF	$3.53	$875.44
Main Wash Bay building	50'l x 42'w x 24'h	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	50,400.00	CF	$0.35	$17,519.04
Main Wash bay foundation	50'l x42'w x 2'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	4,200.00	SF	$2.31	$9,715.02
light vehicle wash bay building	30'l x 15'w x 11'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	4,950.00	CF	$0.24	$1,204.83
Light vehicle wash bay foundation	30'l x 15'w x 1'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	450.00	SF	$2.31	$1,040.90
Furance Room	26'l x 12'w x 11'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	3,432.00	CF	$0.24	$835.35
Furnace room foundation	26'l x 12'w x 1'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max.	312.00	SF	$2.31	$721.69

		10,000 ft. haul				
Wash Bay 1993 addition	90'l x 20'w x 18'h	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	84,000.00	CF	$0.35	$29,198.40
Wash bay 1993 addition foundation	90'l x 20'w x 1'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	2,800.00	SF	$2.31	$6,476.68
New 1993 furnace room	50'l x 40'w x 42'h	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	32,400.00	CF	$0.35	$11,262.24
New 1993 furnace room foundation	70'l x 40'w x 2'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	3,600.00	SF	$2.31	$8,327.16
Concrete sump floors	44'; x 29'w x 1'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	1,276.00	SF	$2.31	$2,951.52
Concrete sump walls	151'l x 4'h x 1'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	604.00	SF	$2.31	$1,397.11
Wash bay area light duty apron	17'l x 28'w x1'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	476.00	SF	$2.31	$1,101.04
Wash Bay area North Apron	90'l x 34'w x 2'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	6,120.00	SF	$2.31	$14,156.17
Wash Bay Area South Apron	25'l x 34'w x 2'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	1,700.00	SF	$2.31	$3,932.27
Wash Bay area Sump tie in Apron	62'l x 22'w x 1'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	1,364.00	SF	$2.31	$3,155.07
SW Reclamation building	42'l x 25'w x 15'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	15,750.00	CF	$0.24	$3,833.55
SW reclamation building foundation	50'l x 49'w x 10"th	Demo. and on-site disposal in existing pit, 10 in. thick - Max. 10,000 ft. haul	2,450.00	SF	$1.93	$4,722.62
SW Reclamation building concrete apron	25'l x 19'w x 10"th	Demo. and on-site disposal in existing pit, 10 in. thick - Max. 10,000 ft. haul	475.00	SF	$1.93	$915.61
SW Trailer #1 (portable)	40'l x 10'w x 10'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	4,000.00	CF	$0.24	$973.60
SW Trailer #2 (portable)	40'l x 10'w x10'h	Bldg. (SN) demo./on-site disposal in	4,000.00	CF	$0.24	$973.60

		excavated pit - Max. 10,000 ft. haul				
skid mounted utility storage	10' x 10' x 10'	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	1,000.00	CF	$0.24	$243.40
Skid mounted utility storage concrete footers	10' + 10'	Demo. and on-site disposal in excavated pit, 1.0 ft. x 2 ft. - Max. 200 ft. push	20.00	LF	$4.96	$99.18
Fuel Tank #1 209K gal	209000 gal	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	27,941.20	CF	$0.35	$9,712.36
Fuel Tank #2 209K gal	35' dia.	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	27,941.20	CF	$0.35	$9,712.36
Fuel Tank #3 243K gal	35' dia	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	32,486.60	CF	$0.35	$11,292.34
Sludge removal 3 fuel tanks	3 tanks	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	3.00	EA	$432.00	$1,296.00
Water Tank #1 200K gal	35'dia.	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	26,738.00	CF	$0.35	$9,294.13
Water Tank #2 50K gal	18'dia.	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	6,684.50	CF	$0.35	$2,323.53
Water Tank #3 20K gal	12' dia.	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	2,673.80	CF	$0.35	$929.41
dispose of fuel tank sludge in certified landfill	35000 gal	Dispose of tank sludge off-site - Average	35,000.00	GAL	$6.80	$238,000.00
Dry ice for Fuel Tanks	10500 lbs	Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	10,500.00	LB	$2.11	$22,155.00
Haul 3 fuel tanks to certified dump	3	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	3.00	EA	$1,050.00	$3,150.00
Water Tank #4 25K gal	12' dia.	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	3,342.20	CF	$0.35	$1,161.75
Emulsion Storage Tank 140,000 Lbs.	10'l x 10'w x 6'h	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 10,000 ft. haul	600.00	SF	$1.16	$693.90
ANFO Bin #1 120K lbs	10'l x 10'w x 42'h	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	4,200.00	CF	$0.35	$1,459.92

ANFO Bin #1 Concrete	62'l x 21'w x1'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	1,302.00	SF	$2.31	$3,011.66
Anfo Bin #1 concrete apron	6'l x 11'w x1'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	66.00	SF	$2.31	$152.66
ANFO bin #2 120K lbs.	10'l x 10'w x 42'h	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	4,200.00	CF	$0.35	$1,459.92
ANFO bin #2 concrete apron	6'l x 11'w x 1'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	66.00	SF	$2.31	$152.66
Potable water building	19'l x 16'w x11'h	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	3,344.00	CF	$0.35	$1,162.37
Potable water building concrete	19 x 16 x 10"th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	304.00	SF	$2.31	$703.18
Potable water building concrete apron	16'l x 10'w x'10" th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	160.00	SF	$2.31	$370.10
Fuel loading area	140'l x 50'w x 1'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	7,000.00	SF	$2.31	$16,191.70
Record storage boxcar	55'l x 10'w x 12'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	6,600.00	CF	$0.24	$1,606.44
Potable water filtration building	19'l x 16'w x 11'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	3,344.00	CF	$0.24	$813.93
Potable water filtration building concrete	19'w x 16'l x 10" th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	304.00	SF	$2.31	$703.18
South Taylor pump station	32'l x 27'w x 10'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	8,640.00	CF	$0.24	$2,102.98
South Taylor pump stn. concrete	32'l x 27"w x 10" th	Demo. and on-site disposal in existing pit, 10 in. thick - Max. 10,000 ft. haul	864.00	SF	$1.93	$1,665.45
Blasters shack	55'l x 10'w x12'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	6,600.00	CF	$0.24	$1,606.44
WH Valve house	8'w x8'l'x 9'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max.	576.00	CF	$0.24	$140.20

		10,000 ft. haul				
WH Valve house foundation	8'l x 8'w x 10"th	Demo. and on-site disposal in existing pit, 10 in. thick - Max. 10,000 ft. haul	64.00	SF	$1.93	$123.37
WH Aerial waterline	145 LF	Pipe, sewer/water - 12 in. diameter pipe	145.00	LF	$5.24	$759.80
WH steel fence	70 LF	Fencing, chain link, including posts and fabric - 8 ft. to 10 ft. high	70.00	LF	$3.53	$247.10
WH Water Tank #5 51K gal	51000 gal	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	6,856.00	CF	$0.35	$2,383.15
Stoker Concrete Pump house	12'l x10'w x8'h	Bldg. (SC) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	960.00	CF	$0.31	$294.43
Stoker pump house foundation	12'l x 10'w x1'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	120.00	SF	$2.31	$277.57
Stoker Hopper & structure	2256 cf	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	2,256.00	CF	$0.35	$784.19
Stoker stacking conveyor #1	84'l	OBSOLETE-Conveyor, elevated, including supports - 5 ft. W x 6 ft. H housing	84.00	LF	$44.51	$3,738.76
Stoker stacking conveyor #2	74'l	OBSOLETE-Conveyor, elevated, including supports - 5 ft. W x 6 ft. H housing	74.00	LF	$44.51	$3,293.67
Stoker Crusher	24'l x 11'w x 25'h	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	6,600.00	CF	$0.35	$2,294.16
Stoker crusher foundation	10'l x 9'w x 2 'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	180.00	SF	$2.31	$416.36
Stoker control building	10'l x 10'w x9'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	900.00	CF	$0.24	$219.06
Stoker control blg. foundation	10'l x 10'w x 10"th	Demo. and on-site disposal in existing pit, 10 in. thick - Max. 10,000 ft. haul	100.00	SF	$1.93	$192.76
Stoker Feeder bin	24' dia.	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	10,948.00	CF	$0.35	$3,805.52
Stoker feeder bin foundation	42'l x 14'w x 1'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	588.00	SF	$2.31	$1,360.10

Stoker feeder bin #2	20' dia.	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	8,075.00	CF	$0.35	$2,806.87
Stoker feeder Bin #2 foundation	42'l x 14'w x 1'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	588.00	SF	$2.31	$1,360.10
StokerVibrating screen house	23'l x 23'w x 10'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	5,290.00	CF	$0.24	$1,287.59
Operations building	10'l x 10'w x8'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	800.00	CF	$0.24	$194.72
Operations blg. support structure	24'l x 13'w x12'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	3,744.00	CF	$0.24	$911.29
Water Tank #7 10K gal	10000 gal	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	1,347.00	CF	$0.35	$468.22
Stoker Oil Tank #4 8K gal	8000 gal	Remove sludge, water, and rem. product from tank - 6,000 to 8,000 gal.	1.00	EA	$324.00	$324.00
Stoker oil tank #4 dry Ice	120 lbs	Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	120.00	LB	$2.11	$253.20
Dispose of oil sluge in aproved landfill	400 gal	Dispose of tank sludge off-site - Average	400.00	GAL	$6.80	$2,720.00
Stoker oil tank #4 haul to landfill	8000 gal	Haul tank to certified salvage dump - 6,000 to 8,000 gal. tank	1.00	EA	$880.00	$880.00
Stoker oil tank #4 foundation	10'l x 10'w x 10"th	Demo. and on-site disposal in existing pit, 10 in. thick - Max. 10,000 ft. haul	100.00	SF	$1.93	$192.76
Crusher Pump Room	20'l x 8'w x8'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	1,280.00	CF	$0.24	$311.55
Crusher pump room foundation	20'l x 8'w x 10"th	Demo. and on-site disposal in existing pit, 10 in. thick - Max. 10,000 ft. haul	160.00	SF	$1.93	$308.42
Crusher pump room Apron	15'l x 5'w x 10"th	Demo. and on-site disposal in existing pit, 10 in. thick - Max. 10,000 ft. haul	75.00	SF	$1.93	$144.57
Grizzly- Structure	30'l x 19'w x 13'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	7,410.00	CF	$0.24	$1,803.59
Hopper	25'l x 17'h x 32'h	Bldg. (MN) demo./on-site disposal in excavated pit - Max.	13,600.00	CF	$0.35	$4,727.36

		10,000 ft. haul				
Truck Dump Apron	35'l x 22'w '3'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	2,310.00	SF	$2.31	$5,343.26
Crusher-structure	29'l x 20'w x 25'h	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	14,500.00	CF	$0.35	$5,040.20
Crusher foundation	29'l x 25'w x 3'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	2,400.00	SF	$2.31	$5,551.44
Breaker/Feeder platform	20'l x 13'w x 9'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	2,340.00	SF	$2.31	$5,412.65
Stack tube conveyor	153 LF	OBSOLETE-Conveyor, elevated, including supports - 8 ft. W x 10 ft. H housing	153.00	LF	$53.42	$8,173.26
Retaining wall	50'l x 2'w x 18'h	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	1,800.00	SF	$2.31	$4,163.58
Surge Bin 200 Tons	23'l x 18'w x 26'h	Bldg. (MC) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	10,764.00	CF	$0.45	$4,885.78
Surge Bin foundation	33'l x 20'w x2'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	1,320.00	SF	$2.31	$3,053.29
Operations Building	12'l x 10'w x 9'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	1,080.00	CF	$0.24	$262.87
operations building stairs	27'l x 3'w x 4'h	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	324.00	CF	$0.35	$112.62
Human Resources Building	60'l x 27'w x 10'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	16,200.00	CF	$0.24	$3,943.08
HR bldg. covered entry	8'l x 4'w' 10'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	320.00	CF	$0.24	$77.89
HR bldg. foundation	60'l x 27'w x 10"th	Demo. and on-site disposal in existing pit, 10 in. thick - Max. 10,000 ft. haul	1,620.00	SF	$1.93	$3,122.71
Washbay pond pump house	10'l x 10'w x 10'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	1,000.00	CF	$0.24	$243.40
Washbay pond pumphouse	10'l x 10'w	Demo. and on-site disposal in existing pit,	100.00	SF	$1.93	$192.76

foundation		10 in. thick - Max. 10,000 ft. haul				
Explosives Storage Shed	8'l x 8'w x 5'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	1,920.00	CF	$0.24	$467.33
Fencing	1100 LF	Fencing, chain link, including posts and fabric - 8 ft. to 10 ft. high	1,100.00	LF	$3.53	$3,883.00
MgCl Brine Tank	1069 CF	Bldg. (SC) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	1,069.00	CF	$0.31	$327.86
Cable Repair Building	50'l x 26'w x 10'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	13,000.00	CF	$0.24	$3,164.20
Cable repair blg. foundation	50'l x 26'w x 10"th	Demo. and on-site disposal in existing pit, 10 in. thick - Max. 10,000 ft. haul	1,300.00	SF	$1.93	$2,505.88
Feed conveyor	148 lf	OBSOLETE-Conveyor, elevated, including supports - 5 ft. W x 6 ft. H housing	148.00	LF	$44.51	$6,587.33
1st Transfer belt	294 lf	OBSOLETE-Conveyor, elevated, including supports - 5 ft. W x 6 ft. H housing	294.00	LF	$44.51	$13,085.65
2nd transfer belt	430 lf	OBSOLETE-Conveyor, elevated, including supports - 5 ft. W x 6 ft. H housing	430.00	LF	$44.51	$19,138.87
Surge bin 200T	23'l x 18'w x 26'h	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	10,764.00	CF	$0.35	$3,741.57
Surge bin foundation	33'l x 20'w x 2'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	1,320.00	SF	$2.31	$3,053.29
Tare Scale building	6'l x 5'w' 8'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	240.00	CF	$0.24	$58.42
Tare scale bldg foundation & curbs	360 SF	Demo. and on-site disposal in existing pit, 10 in. thick - Max. 10,000 ft. haul	360.00	SF	$1.93	$693.94
Concrete pump house	19'l x 13'w x 1'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	208.00	SF	$2.31	$481.12
Tunnel entrance building	28'l x 11'w x8'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	2,464.00	CF	$0.24	$599.74
Tunel entrance	28' x11' x 10"th	Demo. and on-site	208.00	SF	$1.93	$400.94

building concrete		disposal in existing pit, 10 in. thick - Max. 10,000 ft. haul				
Tunnel entrance concrete apron	29'l x 4'w x10"th	Demo. and on-site disposal in existing pit, 10 in. thick - Max. 10,000 ft. haul	116.00	SF	$1.93	$223.60
Tunel entrance underground	15'l x 14'w x 15'h	Bldg. (SC) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	3,150.00	CF	$0.31	$966.11
Tunnel entrance underground concrete	15'l x 14'w x 1'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	210.00	SF	$2.31	$485.75
Tunnel entrance stairs	13'l x 8'w x 4'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	416.00	CF	$0.24	$101.25
Tunnel entrance stairs concrete	13'l x 8'w x 1'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	104.00	SF	$2.31	$240.56
Separation wall	120'l x 10'w x 61'h	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	7,320.00	SF	$2.31	$16,931.89
Separation Wall concrete	12'l x 19'w x 1'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	456.00	SF	$2.31	$1,054.77
Wall ventilation building	10'l x 8'w x9'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	720.00	CF	$0.24	$175.25
wall ventilation covered area	14'l x 10'w x 9'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	1,260.00	CF	$0.24	$306.68
wall ventilation concrete	236 SF	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	236.00	SF	$2.31	$545.89
Repair trailer skid mounted	40'l x 10'w x9'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	3,600.00	CF	$0.24	$876.24
Substation fence	108 LF x 8' h	Fencing, chain link, including posts and fabric - 8 ft. to 10 ft. high	108.00	LF	$3.53	$381.24
Operations building	29'l x 29'w x 12'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	10,092.00	CF	$0.24	$2,456.39
Operations building concrete	29'l x 29'h x 1'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	841.00	SF	$2.31	$1,945.32

Operation building concrete apron	33'l x 4'w x 10"th	Demo. and on-site disposal in existing pit, 10 in. thick - Max. 10,000 ft. haul	132.00	SF	$1.93	$254.44
Septic Tank Vault	28'l x 10'w x 1'th	Bldg. (SC) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	280.00	CF	$0.31	$85.88
Retaining Wall #1	32'l x 1'w x 2'h	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	128.00	SF	$2.31	$296.08
Fence Area #1	124 LF	Fencing, wood, all types - 4 ft. to 6 ft. high	124.00	LF	$1.81	$224.44
Hopper	24'l x 20'w x 17'h	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	8,160.00	CF	$0.35	$2,836.42
Crusher building	35'l x 24'w x 51'h	Plant (3S) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	42,840.00	CF	$0.50	$21,539.95
Crusher building foundation	35'l x 24'w x 1'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	840.00	SF	$2.31	$1,943.00
Conveyor-underground	186'l x 10'w x 10'h	OBSOLETE-Conveyor, overland, including supports - 8 ft. W x 10 ft. H housing	186.00	LF	$26.71	$4,968.06
Conveyor-ug-concrete	186'l x 8'w x 1'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	1,488.00	SF	$2.31	$3,441.89
Conveyor "suspended"	270'l x 10'w x 12'h	OBSOLETE-Conveyor, elevated, including supports - 8 ft. W x 10 ft. H housing	270.00	LF	$53.42	$14,423.40
Stack tube base	25'l x 25'w x15'h	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	8,750.00	SF	$2.31	$20,239.63
Tunnel gross scales	47'l x 1'w x 3'h	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	141.00	SF	$2.31	$326.15
Entrance tunnel concrete	175'l x 4'w x 10" th	Demo. and on-site disposal in existing pit, 10 in. thick - Max. 10,000 ft. haul	700.00	SF	$1.93	$1,349.32
Operators area	80'l x 12'w x 9'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	8,640.00	CF	$0.24	$2,102.98
Operator's area concrete	80'l x 36'w x3'h	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	8,640.00	SF	$2.31	$19,985.18
Loading chute area	80'l x 25'w x39'h	Plant (3S) demo./on-site disposal in excavated pit	78,000.00	CF	$0.50	$39,218.40

		- Max. 10,000 ft. haul				
Loading chute area concrete	80'l x 99'w x 3'th	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	23,760.00	SF	$2.31	$54,959.26
Cross-section through tunnel	500'l x 24'w x 24'h	Bldg. (MC) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	288,000.00	CF	$0.45	$130,723.20
Loading chute area top & floor	80' x 50' x 11'h	Bldg. (SC) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	44,000.00	CF	$0.31	$13,494.80
Surface Tank #7 15K gal	12'dia	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	1.00	EA	$432.00	$432.00
Surface Tank #7 dry ice	225 Lbs	Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	225.00	LB	$2.11	$474.75
Surface Tank #7 sludge disposal	750 gal	Dispose of tank sludge off-site - Average	750.00	GAL	$6.80	$5,100.00
Surface Tank #7 haul off	15000 gal	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	1.00	EA	$1,050.00	$1,050.00
RR ballast removal	6314.8 CY	Railroad track - Ballast	6,314.80	CY	$5.52	$34,857.70
RR main line	7375 LF	Railroad track - Ties and track	7,375.00	LF	$16.15	$119,106.25
RR stoker siding	950 LF	Railroad track - Ties and track	950.00	LF	$16.15	$15,342.50
RR scale car siding	200 LF	Railroad track - Ties and track	200.00	LF	$16.15	$3,230.00
Diesel Fuel Tank #6 10K	10'dia.	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	1.00	EA	$432.00	$432.00
Deisel Tank #6 sludge disposal	500 gal	Dispose of tank sludge off-site - Average	500.00	GAL	$6.80	$3,400.00
Deisel Tank #6 dry ice	150 lbs	Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	150.00	LB	$2.11	$316.50
Deisel Tank #6 haul off	10000 gal	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	1.00	EA	$1,050.00	$1,050.00
Deisel Tank #6 foundation	15'l x 15'w x 4" th	Demo. and on-site disposal in existing pit, 4 in. thick - Max. 10,000 ft. haul	225.00	SF	$0.77	$173.48
Oil Tanks 24A, 24B & 24C	540 gal	Excavate and load tank onto trailer, non-leaking - 3,000 gal. to 5,000 gal.	1.00	EA	$692.50	$692.50
Oil Tanks 24 A, B & C foundation	15'l x 10'w x 4"th	Demo. and on-site disposal in existing pit, 4 in. thick - Max. 10,000 ft. haul	150.00	SF	$0.77	$115.65
Surface Tank 11-Chemloc 8K gal	8000 gal	Remove sludge, water, and rem. product from tank - 6,000 to 8,000	1.00	EA	$324.00	$324.00

		gal.				
Surface Tank 11-dispose of sludge	400	Dispose of tank sludge off-site - Average	400.00	GAL	$6.80	$2,720.00
Surface Tank 11 haul off	8000 gal	Haul tank to certified salvage dump - 6,000 to 8,000 gal. tank	1.00	EA	$880.00	$880.00
Surfact Tank 11 foundation	10'l x 10'w x 4"th	Demo. and on-site disposal in existing pit, 4 in. thick - Max. 10,000 ft. haul	100.00	SF	$0.77	$77.10
Concrete Sump	40'l x 40'w x 4"th	Demo. and on-site disposal in existing pit, 4 in. thick - Max. 10,000 ft. haul	1,600.00	SF	$0.77	$1,233.60
Compressor building (portable)	10'l x 10'w x8'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	800.00	CF	$0.24	$194.72
Lube trailer (portable)	20'l x 10'w x 10'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	2,000.00	CF	$0.24	$486.80
Water House (portable)	10'l x 10'w x 8'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	800.00	CF	$0.24	$194.72
Concrete fuel pad	350"l x 50'w x10"th	Demo. and on-site disposal in existing pit, 10 in. thick - Max. 10,000 ft. haul	17,500.00	SF	$1.93	$33,733.00
Deisel Tank #10 200K gal	200,000 gal	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	10.00	EA	$432.00	$4,320.00
Deisel Tank #10 dispose of sludge	10000 gal	Dispose of tank sludge off-site - Average	10,000.00	GAL	$6.80	$68,000.00
Deisel Tank #10 dry ice	3000 LB	Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	3,000.00	LB	$2.11	$6,330.00
Deisel Tank #10 haul off	200,000 gal	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	5.00	EA	$1,050.00	$5,250.00
Oil Overflow Tank #22 1K	1000 gal	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	$259.50	$259.50
Oil Tank #22 dispose of sluge	50 gal	Dispose of tank sludge off-site - Average	50.00	GAL	$6.80	$340.00
Oil Tank #22 dry ice	15 lbs	Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	15.00	LB	$2.11	$31.65
Oil tank #22 haul off	100 gal	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	$760.00	$760.00
boxcar #1, #2 & #3	19800 cf	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	19,800.00	CF	$0.24	$4,819.32
first aid trailer	10'l x8'w x 10'h	Bldg. (SN) demo./on-	800.00	CF	$0.24	$194.72

		site disposal in excavated pit - Max. 10,000 ft. haul				
Fencing	240 LF	Fencing, chain link, including posts and fabric - 8 ft. to 10 ft. high	240.00	LF	$3.53	$847.20
Powerlines	91838 LF	OBSOLETE - Powerline or utility line, line disposal only	91,838.00	LF	$0.09	$8,265.42
Misc site cleanup	5556 CY	Load/haul/dump demolished materials/debris into pit - Max. 5,000 ft. haul	5,556.00	CY	$1.51	$8,395.12
Misc culverts "unmapped"	1000 LF	Pipe, corrugated metal (CMP) - 48 in. diameter pipe	1,000.00	LF	$24.52	$24,522.60
Bone yard clean up	5556 CY	Load/haul/dump demolished materials/debris into pit - Max. 5,000 ft. haul	5,556.00	CY	$1.51	$8,395.12
Disposal of petroleum contaminated soil	1000 CY	Dispose of contaminated soil at approved landfill - Average	1,000.00	CY	$300.00	$300,000.00
Remove Asphalt facilities to Pit	2370.6 CY	Pavement, bituminous, demolition only - 4 in. to 6 in. thick	2,370.60	SY	$8.66	$20,529.40
Remove Asphalt Main haul road	11,728.4 SY	Pavement, bituminous, demolition only - 4 in. to 6 in. thick	11,728.40	SY	$8.66	$101,567.94
Deisel Tank #8 & #9 35.8Kgal	2x 17,900 gal	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	3.00	EA	$432.00	$1,296.00
DEisel Tanks 8 &9 Dispose of sludge	1790 gal	Dispose of tank sludge off-site - Average	1,790.00	GAL	$6.80	$12,172.00
Deisel Tanks 8 &9 dry ice	537 lbs	Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	537.00	LB	$2.11	$1,133.07
Deisel Tank 8&9 haul off	2 x 17,900 gal	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	3.00	EA	$1,050.00	$3,150.00
Substation fencing	250 LF	Fencing, chain link, including posts and fabric - 8 ft. to 10 ft. high	250.00	LF	$3.53	$882.50
First aid building	21'l x 21'w x10'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	4,410.00	CF	$0.24	$1,073.39
Transformer pad concrete	17'l x 17'w x 0.4"th	Demo. and on-site disposal in existing pit, 4 in. thick - Max. 10,000 ft. haul	289.00	SF	$0.77	$222.82
Compressor building	21'l x 21'w x 10'h	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	4,410.00	CF	$0.24	$1,073.39
South Taylor Pit Lot	3000 CF	Load/haul/dump	3,000.00	CY	$1.06	$3,186.00

Facilities		demolished materials/debris into pit - Max. 1,000 ft. haul				
Water Horse	500 CF	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	500.00	CF	$0.24	$121.70
South Taylor Water Tank	200K gal	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	26,738.00	CF	$0.35	$9,294.13
South Taylor Fuel Island Facilities	5000 CF	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	5,000.00	CF	$0.24	$1,217.00
South Taylor fuel Island foundation	500 SF	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	500.00	SF	$2.31	$1,156.55
Demolish GPS storage building	100 CF	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	1,000.00	CF	$0.24	$243.40
Remove powerline extension	4750 LF	OBSOLETE - Powerline or utility line, line disposal only	4,750.00	LF	$0.09	$427.50
Remove 2 substations	1536 CF	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	1,536.00	CF	$0.24	$373.86
Demo Barrel Storage Building	28'x32'x16'	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	14,336.00	CF	$0.24	$3,489.38
Demo Building Foundation	28'x32'	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 10,000 ft. haul	896.00	SF	$1.16	$1,036.22
Demo Administtration Room Addition	14'x14'x16'	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	9,408.00	CF	$0.24	$2,289.91
Demo Salt Storage Building	30' x 39' x 15'	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	17,550.00	CF	$0.24	$4,271.67
- Demo Footers	@8' Spacing	Demo. and on-site disposal in existing pit, 1.0 ft. x 2 ft. - Max. 50 ft. push	34.00	LF	$4.53	$154.05
Demo 2 East Pit Road Culverts	10" @ 50'	Pipe, corrugated metal (CMP) - 10 in. diameter pipe	100.00	LF	$5.19	$518.89
Demo Generator (Labor/Equipement Only)	124 kW	USER PROVIDED ITEM	1.00	EA	$11,975.00	$11,975.00
- Remove 250 Gal. Propane Tank	250 gal	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	$760.00	$760.00

MgCl Tank	2674 CF	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	2,674.00	CF	$0.24	$650.85

Job Hours: **600.00** **Subtotal (unadjusted)**: **$3,081,101.81** **Total Cost (adjusted for location)**: **$2,813,045.95**

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: **Mobilize/Demobilize Equipment for Initial Reclamation**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 128 State: Colorado Abbreviation: None
Date: 3/25/2025 County: Moffat Filename: 128
User: HR1

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:	$10.44	$22.18	$23.94
Operating Cost/Hour:	$26.48	$54.55	$55.65
Operator Cost/Hour:	$22.52	$22.52	$22.52
Helper Cost/Hour:	$0.00	$23.53	$23.53
Total Unit Cost/Hour:	$59.44	$122.78	$125.64

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
LETOURNEAU L2350	293.90	$635.29	$125.64	2	$1,521.86	$251.28	$500.00
KOM45.00U 830E	244.00	$209.47	$125.64	16	$5,361.76	$2,010.24	$4,000.00
Cat D11T - 11U	134.12	$496.62	$125.64	6	$3,733.56	$753.84	$1,500.00
CAT 16M	28.73	$179.39	$122.78	2	$604.34	$245.56	$500.00
Water Tanker, 14,000 Gal.	58.50	$130.32	$125.64	1	$255.96	$125.64	$250.00
Cat 345D L 12'-10" Stick	54.31	$92.31	$125.64	1	$217.95	$125.64	$250.00
ATLAS COPCO ROC D7-11,4.0 in.	0.00	$191.64	$59.44	1	$251.08	$59.44	$250.00
Atlas Capco DML/SP - 9-7/8"	0.00	$358.33	$59.44	1	$417.77	$59.44	$250.00
Water Tanker, 5,000 Gal.	15.00	$51.70	$59.44	1	$111.14	$59.44	$250.00
Grove GMK3055, 141', 54.4 MT	39.30	$167.54	$122.78	6	$1,741.92	$736.68	$1,500.00
				Subtotals:	**$14,217.34**	**$4,427.20**	**$9,250.00**

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Fuel Tanker, 6x4, 210 HP	$53.90	2	$107.80	$107.80
Lube Truck, 6x4, 250 HP	$53.90	2	$107.80	$107.80
ANFO Bulk Delivery Truck	$272.76	1	$272.76	$272.76
Cap Delivery Truck	$47.18	1	$47.18	$47.18
Flatbed Truck, 6x4, 45K GVW	$81.77	2	$163.54	$163.54
Light Duty Pickup, 4x4, 1 T. Crew	$24.60	1	$24.60	$24.60
		Subtotals:	**$723.68**	**$723.68**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	GRAND JUNCTION	
Total one-way travel distance:	130.00	miles
Average Travel Speed:	45.00	mph
Total Non-Roadable Mob/Demob Cost * '* two round trips with haul rig:	$1,491,088.65	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	$4,181.26	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	2.89	2.89
Return Time (Hours):	2.89	2.89
Loading Time (Hours):	24.00	NA
Unloading Time (Hours):	24.00	NA
Subtotals:	53.78	5.78

JOB TIME AND COST

Total job time: **107.56** Hours

Total job cost: **$1,495,270**

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: **Mobilize/Demobilize Equipment for Pond and Ditch Removal**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 129 State: Colorado Abbreviation: None
Date: 3/25/2025 County: Moffat Filename: 129
User: HR1

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:	$10.44	$22.18	$23.94
Operating Cost/Hour:	$26.48	$54.55	$55.65
Operator Cost/Hour:	$22.52	$22.52	$22.52
Helper Cost/Hour:	$0.00	$23.53	$23.53
Total Unit Cost/Hour:	$59.44	$122.78	$125.64

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	$253.16	$125.64	2	$757.60	$251.28	$500.00
Cat 336D L 10'-6" Stick	32.23	$75.78	$122.78	2	$397.12	$245.56	$500.00
CAT 963D	22.29	$83.68	$59.44	2	$286.24	$118.88	$500.00
Drill/Broadcast Seeder with Tractor	25.00	$41.02	$59.44	1	$100.46	$59.44	$250.00
				Subtotals:	**$1,541.42**	**$675.16**	**$1,750.00**

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Flatbed Truck, 6x4, 45K GVW	$81.77	1	$81.77	$81.77
Fuel Tanker, 6x4, 210 HP	$53.90	1	$53.90	$53.90
Lube Truck, 6x4, 250 HP	$53.90	1	$53.90	$53.90
		Subtotals:	**$189.57**	**$189.57**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	HAYDEN	
Total one-way travel distance:	40.00	miles
Average Travel Speed:	45.00	mph
Total Non-Roadable Mob/Demob Cost * '* two round trips with haul rig:	$10,523.43	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	$337.01	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.89	0.89
Return Time (Hours):	0.89	0.89
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	2.78	1.78

JOB TIME AND COST

Total job time: **5.56** Hours

Total job cost: **$10,860**

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: **Mobilize/Demobilize Equipment for Yearly Site Maintenance**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 130 State: Colorado Abbreviation: None
Date: 3/25/2025 County: Moffat Filename: 130
User: HR1

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:	$10.44	$22.18	$23.94
Operating Cost/Hour:	$26.48	$54.55	$55.65
Operator Cost/Hour:	$22.52	$22.52	$22.52
Helper Cost/Hour:	$0.00	$23.53	$23.53
Total Unit Cost/Hour:	$59.44	$122.78	$125.64

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 D6T LGP	26.87	$99.72	$122.78	5	$1,112.50	$613.90	$1,250.00
Cat 324D L 9'-8" Stick	27.33	$73.77	$122.78	5	$982.75	$613.90	$1,250.00
Cat 730	25.19	$108.67	$59.44	10	$1,681.10	$594.40	$2,500.00
CAT 14M	23.57	$129.81	$59.44	5	$946.25	$297.20	$1,250.00
Water Tanker, 5,000 Gal.	15.00	$51.70	$59.44	5	$555.70	$297.20	$1,250.00
Drill/Broadcast Seeder with Tractor	25.00	$41.02	$59.44	5	$502.30	$297.20	$1,250.00
				Subtotals:	**$5,780.60**	**$2,713.80**	**$8,750.00**

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Flatbed Truck, 6x4, 45K GVW	$81.77	5	$408.85	$408.85
Fuel Tanker, 6x4, 210 HP	$53.90	5	$269.50	$269.50
Lube Truck, 6x4, 250 HP	$53.90	5	$269.50	$269.50
		Subtotals:	**$947.85**	**$947.85**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	CRAIG	
Total one-way travel distance:	25.00	miles
Average Travel Speed:	45.00	mph
Total Non-Roadable Mob/Demob Cost * '* two round trips with haul rig:	$84,744.22	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	$1,053.17	

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):	2.50	NA
Unloading Time (Hours):	2.50	NA
Subtotals:	6.11	1.11

JOB TIME AND COST

Total job time:	**12.22**	Hours
Total job cost:	**$85,797**	

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: **Mobilize/Demobilize Equipment for Two Pond Cleanings**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 131 State: Colorado Abbreviation: None
Date: 3/25/2025 County: Moffat Filename: 131
User: HR1

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:	$10.44	$22.18	$23.94
Operating Cost/Hour:	$26.48	$54.55	$55.65
Operator Cost/Hour:	$22.52	$22.52	$22.52
Helper Cost/Hour:	$0.00	$23.53	$23.53
Total Unit Cost/Hour:	$59.44	$122.78	$125.64

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 336D L 10'-6" Stick	32.23	$75.78	$122.78	2	$397.12	$245.56	$500.00
Centrifugal pump - 200M, 10 in.	1.95	$28.78	$59.44	1	$88.22	$59.44	$250.00
				Subtotals:	**$485.34**	**$305.00**	**$750.00**

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Generic 10-12 cy, 6x4	$108.12	6	$648.72	$648.72
Flatbed Truck, 6x4, 45K GVW	$81.77	2	$163.54	$163.54
		Subtotals:	**$812.26**	**$812.26**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	CRAIG	
Total one-way travel distance:	50.00	miles
Average Travel Speed:	45.00	mph
Total Non-Roadable Mob/Demob Cost * '* two round trips with haul rig:	$5,197.67	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	$1,805.02	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	1.11	1.11
Return Time (Hours):	1.11	1.11
Loading Time (Hours):	1.00	NA
Unloading Time (Hours):	1.00	NA
Subtotals:	4.22	2.22

JOB TIME AND COST

Total job time: **8.44** Hours

Total job cost: **$7,003**

SITE MAINTENANCE

Task description: **Site Maintenance During Ten Year Liability Period**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 132 State: Colorado Abbreviation: None

Date: 3/25/2025 County: Moffat Filename: 132

User: HR1

Agency or organization name: DRMS

UNIT COSTS

Maintenance Item	Hours per Year	Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Dozer for Rill and Gully Maintenance	160.00	Cat D6T LGP	800.00	EA	$209.53	$167,624.00
Excavator for Rill and Gully Maintenance	160.00	Cat 324D L 9'-8" Stick	800.00	EA	$151.12	$120,896.00
Haul Trucks for Rill and Gully Maintenance	160.00	Cat 730	1,600.00	EA	$200.17	$320,272.00
Grader for Road Maintenance	60.00	CAT 14M	300.00	EA	$246.70	$74,010.00
Water Truck for Road Maintenance	60.00	Water Tanker, 5,000 Gal.	300.00	EA	$101.92	$30,576.00
Revegetation Equipment	160.00	Drill/Broadcast Seeder with Tractor	800.00	EA	$79.16	$63,328.00

Job Hours: **800.00** **Total Cost**: **$776,706.00**

PUMPING WORK

Task description: **Pump 10 Sediment Ponds Prior to Two Cleanings**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #:	133	State:	Colorado	Abbreviation:	None
Date:	3/25/2025	County:	Moffat	Filename:	133
User:	HR1				

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

	Description	Quantity
Make and Model:	Centrifugal pump - 200M, 10 in.	2
Attachment 1:		0
Attachment 2:	Discharge hose - 2 in. D., 25 ft.	1
Labor Unit 1:	Pump operator	3

Horsepower: 70
Shift Basis: 1 per day
Weight: 1.95
(US Tons)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$57.60	NA
Operating Cost/Hour:	$59.11	100
Operator Cost/Hour:	$66.21	NA
Total Unit Cost/Hour:	$182.92	

Total Fleet Cost/Hour: $182.92

PUMPING QUANTITIES

Initial Pond Volume: 233.00
Final Pond Volume: **75,923,185.14** gallons
Total Pond Inflow Surface Area: 50 Sq. ft.
Total Pond Inflow Volume per Hour: 0.00 gallons

Conversion factor: 325850.5800
Unit inflow rate in gph/sq. ft.: 0.0000

Source of estimated volume: Division Estimate

PUMPING TIME

Maximum Pump Capacity:	200,000	gph/pump
Estimated Suction Head:	10	feet
Estimated Discharge Head:	10	feet
Total Head:	20	feet
CPB Pump Capacity:	201,000	gph/pump
Site Altitude:	7,600	feet
Adjusted Pumping Capacity:	402,000	gph
Initial Unadjusted Pumping Time:	188.86	hours
Inflow during Initial Pumping:	0	gallons
Net Unadjusted Pumping Time:	188.86	Hours
Altitude Adjustment Factor:	0.9100	(3% rule)
Pump Efficiency Factor:	0.9167	(55 min./hr.)
Total Adjusted Pumping Time:	157.55	hours

JOB TIME AND COST

Total job time: **157.55** Hours

Unit cost: $0.000380 /Gallon

Total job cost: **$28,819**

TRUCK/LOADER TEAM WORK

Task description: **Clean 10 Sediment Ponds Two Times**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 134 State: Colorado Abbreviation: None
Date: 3/25/2025 County: Moffat Filename: 134
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Generic 10-12 cy, 6x4
-Loader:	Cat 336D L 10'-6" Stick
Support Equipment -Load Area:	NA
-Dump Area:	NA
Road Maintenance –Motor Grader:	NA
-Water Truck:	NA

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Excavator	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	NA	NA	NA	NA
Ownership cost/hour:	$22.44	$75.78	NA	NA	NA	NA
Operating cost/hour:	$60.44	$52.99	NA	NA	NA	NA
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	NA	NA	NA	NA
Ripper op. cost/hour:	NA	$0.00	NA	NA	NA	NA
Operator cost/hour:	$0.00	$33.87	NA	NA	NA	NA
Unit Subtotals:	$82.88	$162.64	NA	NA	NA	NA
Number of Units:	3	1	0	0	0	0
Group Subtotals:	Work:	$411.28	Support:	$0.00	Maint:	$0.00

Total work team cost/hour: **$411.28**

MATERIAL QUANTITIES

Initial volume: 28,000 CCY Swell factor: 1.000
Loose volume: **28,000** 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: 2,700 Pounds/LCY
Description: Earth - Wet excavated
Rated Payload: 35,400 Pounds
Payload Capacity: 13.11 LCY

Truck Bed (volume) Basis:

Struck Volume:	10.00	LCY
Heaped Volume:	12.00	LCY
Average Volume:	11.00	LCY
Adjusted Volume:	12.00	LCY

Final Truck Volume Based on Number of Loader Passes: **10.92** LCY

Loading Tool Capacity

Bucket Size Class: Small

Rated Capacity:	1.560	LCY (heaped)
Bucket Fill Factor:	0.875	Loose material - 1/2" to 3/4" (85 - 90%) 0.875
Adjusted Capacity:	**1.365**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	Loader	Source
Altitude Adj:	0.970	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.805**	**0.830**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 8 passes

Excavators and Front Shovels:

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

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): NA minutes

Cycle Time Factors		Factor (min.)	Source
Material:	NA	NA	(Cat HB)
Stockpile:	NA	NA	(Cat HB)
Truck Ownership:	NA	NA	(Cat HB)
Operation:	NA	NA	(Cat HB)
Dump Target:	NA	NA	(Cat HB)
	Net Cycle Time Adjustment:	NA	minutes
	Adjusted Loader Cycle Time:	**0.445**	minutes
	Net Load Time per Truck:	**3.215**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.50	Minutes	Adjusted for site altitude:	0.515	Minutes
Truck Load Time:	3.215	Minutes	Adjusted for site altitude:	3.215	Minutes
Truck Maneuver and Dump Time:	0.90	Minutes	Adjusted for site altitude:	0.928	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Loose snow 4.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	18480.00	5.00	4.50	9.50	1068	17.317

Haul Time: **17.317** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	18480.00	-5.00	4.50	-0.50	2938	6.485

Return Time: **6.485** minutes
Total Truck Cycle Time: **28.460** minutes

Loading Tool unit Production: 175.63 LCY/Hour — Adjusted for job efficiency: 145.78 LCY/Hour

Truck Unit Production: 23.02 LCY/Hour — Adjusted for job efficiency: 19.11 LCY/Hour

Optimal No. of Trucks: 8 Truck(s) — Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 57.32 LCY/Hour
Adjusted single truck/loader team production: 57.32 LCY/Hour
Adjusted multiple truck/loader team production: **57.32** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) — Total job time: **488.45** Hours

Unit cost: $7.175 /LCY — Total job cost: **$200,892**

REVEGETATION WORK

Task description: **Reseed Geotechnical Hole Access Corridors**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 136 State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 136
User: HR1

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
	$
Total Tilling Cost/Acre	**$0.00**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Big Bluegrass - Sherman	0.40	8.26	$6.34
Bluebunch Wheatgrass - Secar	4.00	12.86	$42.05
Bitterbrush, Antelope	6.00	1.85	$339.08
Mountain Brome - Bromar	2.00	3.21	$12.03
Great Basin Wildrye - Magnar	1.00	4.06	$11.69
Rocky Mountain Fescue	2.00	32.14	$21.57
Slender Wheatgrass - Pryor	1.50	5.48	$9.27
Milk Vetch, Cicer - Lutana	0.60	2.00	$5.87
Thickspike Wheatgrass - Critana	2.50	8.84	$20.37

Western Wheatgrass - Arriba	3.00	7.58	$27.10
Rabbitbrush, Rubber	0.60	8.94	$50.04
Needlegrass, Green - Lodorm	0.40	1.66	$3.46
Sagebrush, Louisiana or Prairie	1.00	100.79	$184.91
Sagebrush, Mountain or Big	4.00	211.20	$330.80
Flax, Lewis Blue	0.50	3.32	$21.15
Sagebrush, Silver	1.50	29.13	$102.19
Saltbush, Four Wing	3.20	4.41	$63.59
Snowberry, Mountain	1.50	2.58	$88.59
Sumac, Skunkbrush	1.00	0.47	$45.13
Penstemon, Palmer	0.20	4.42	$15.59
Penstemon, Rocky Mountain	1.00	15.67	$61.41
Yarrow, Western	0.40	24.32	$19.30
Totals Seed Mix	38.30	493.19	**$1,481.54**

Application

Description	**Cost /Acre**
Broadcast seeding [DMG]	$272.56
Total Seed Application Cost/Acre	**$272.56**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 1 Cost /Acre: $1,754.10
Estimated Failure Rate: 20% Cost /Acre*: $1,754.10
*Selected Replanting Work Items: SEEDING

Initial Job Cost: **$1,754.10**

Reseeding Job Cost:	**$350.82**
Total Job Cost:	**$2,105**
Job Hours:	**2.00**

BULLDOZER RIPPING WORK

Task description: **Rip Cut Line from Brush Fire (South Taylor)**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #:	138	State:	Colorado	Abbreviation:	None
Date:	3/13/2025	County:	Moffat	Filename:	138
User:	HR1				

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine:	Cat D11T - 11U	Horsepower:	850
Ripper Attachment:	3-Shank Ripper	Shift Basis:	1 per day
		Data Source:	(CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper Ownership Cost/Hour:	$33.65	NA
Ripper Operating Cost/Hour:	$14.83	100
Operator Cost/Hour:	$38.59	NA
Total Unit Cost/Hour:	$908.59	

Total Fleet Cost/Hour: **$908.59**

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic:	NA		Bank Volume:	NA	BCY	NA	
Area:	1.40	acres	Rip Depth (ft):	1.00	Volume:	2,259	BCY or CCY

Source of estimated quantity: Table 7 Exh. 13B-T-20

HOURLY PRODUCTION

Seismic:

Seismic Velocity:	NA	feet/second

Area:

Average Ripping Depth:	3.51	feet/pass
Average Ripping Width:	9.83	feet/pass
Average Ripping Length:	300.00	feet/pass
Average Dozer Speed:	88.00	feet/minute
Average Maneuver Time:	0.25	minutes/pass
Production per unit area:	1.110	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production:	1.110	Acres/hr
Site Altitude:	7,500	feet
Altitude Adj:	1.00	(CAT HB)
Job Efficiency:	0.83	(1 shift/day)
Net Correction:	0.83	multiplier
Adjusted Hourly Unit Production:	0.92	Acres/hr
Adjusted Hourly Fleet Production:	**0.92**	Acres/hr

JOB TIME AND COST

Fleet size:	1	Grader(s)	Total job time:	**1.52**	Hours
Unit cost:	$986.109	Per acre	Total job cost:	**$1,381**	

REVEGETATION WORK

Task description: **Reseed Admin Building**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 140 State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 140
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	**Rate – PLS LBS / Acre**	**Seeds per SQ. FT**	**Cost /Acre**
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 4.4 Cost /Acre: $585.76
Estimated Failure Rate: 20% Cost /Acre*: $468.15
*Selected Replanting Work Items: SEEDING

Initial Job Cost: **$2,577.34**
Reseeding Job Cost: **$411.97**
Total Job Cost: **$2,989**
Job Hours: **0.80**

HYDRAULIC EXCAVATOR WORK

Task description: **Remove and Regrade Stock Pond PD1**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 141 State: Colorado Abbreviation: None
Date: 3/13/2025 County: Moffat Filename: 141
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat 336D L 10'-6" Stick Horsepower: 268
Attachment 1: ROPS Cab Weight (MT): 29.30
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$75.78	NA
Operating Cost/Hour:	$52.99	100
Operator Cost/Hour:	$33.87	NA
Total Unit Cost/Hour:	$162.64	

Total Fleet Cost/Hour: $162.64

MATERIAL QUANTITIES

Initial volume: 580 CCY Swell factor: 1.165
Loose volume: **676** LCY

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

HOURLY PRODUCTION

Excavator Cycle Time (load bucket, swing loaded, dump bucket, swing empty):

Basic Job Condition Description: SEVERE
Secondary Job Condition within Basic Description: SEVERE
Cycle Time Value: 0.445 minutes

Load Bucket Capacity

Bucket Size Class: Small

Rated Capacity: 1.56 LCY (heaped)
Bucket Fill Factor: 0.925 Loose material - 1/8" to 3/8" (90 - 95%) 0.925
Adjusted Capacity: **1.44** LCY

Job Condition Correction Factors Site Altitude: 9600 feet

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

Unadjusted Hourly Unit Production: 194.56 LCY/Hour
Adjusted Hourly Unit Production: 161.49 LCY/Hour
Adjusted Hourly Fleet Production: **161.49** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Excavator Total job time: **4.18** Hours

Unit cost: $1.007 /LCY Total job cost: **$681**

HYDRAULIC EXCAVATOR WORK

Task description: **Remove and Regrade Stock Pond PD2**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #:	142	State:	Colorado	Abbreviation:	None
Date:	3/13/2025	County:	Moffat	Filename:	142
User:	HR1				

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine:	Cat 336D L 10'-6" Stick	Horsepower:	268
Attachment 1:	ROPS Cab	Weight (MT):	29.30
		Shift Basis:	1 per day
		Data Source:	(CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$75.78	NA
Operating Cost/Hour:	$52.99	100
Operator Cost/Hour:	$33.87	NA
Total Unit Cost/Hour:	$162.64	

Total Fleet Cost/Hour: $162.64

MATERIAL QUANTITIES

Initial volume: 800 CCY Swell factor: 1.165

Loose volume: **932** LCY

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

Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Excavator Cycle Time (load bucket, swing loaded, dump bucket, swing empty):

Basic Job Condition Description: SEVERE

Secondary Job Condition within Basic Description: SEVERE

Cycle Time Value: 0.445 minutes

Load Bucket Capacity

Bucket Size Class: Small

Rated Capacity:	1.56	LCY (heaped)
Bucket Fill Factor:	0.925	Loose material - 1/8" to 3/8" (90 - 95%) 0.925
Adjusted Capacity:	**1.44**	LCY

Job Condition Correction Factors

Site Altitude: 9600 feet

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

Unadjusted Hourly Unit Production:	194.56	LCY/Hour
Adjusted Hourly Unit Production:	161.49	LCY/Hour
Adjusted Hourly Fleet Production:	**161.49**	LCY/Hour

JOB TIME AND COST

Fleet size: 1 Excavator Total job time: **5.77** Hours

Unit cost: $1.007 /LCY Total job cost: **$939**

HYDRAULIC EXCAVATOR WORK

Task description: **Remove and Regrade Stock Pond EP1**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #:	143	State:	Colorado	Abbreviation:	None
Date:	3/13/2025	County:	Moffat	Filename:	143
User:	HR1				

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine:	Cat 336D L 10'-6" Stick	Horsepower:	268
Attachment 1:	ROPS Cab	Weight (MT):	29.30
		Shift Basis:	1 per day
		Data Source:	(CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$75.78	NA
Operating Cost/Hour:	$52.99	100
Operator Cost/Hour:	$33.87	NA
Total Unit Cost/Hour:	$162.64	

Total Fleet Cost/Hour: $162.64

MATERIAL QUANTITIES

Initial volume: 670 CCY Swell factor: 1.165

Loose volume: **781** LCY

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

Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Excavator Cycle Time (load bucket, swing loaded, dump bucket, swing empty):

Basic Job Condition Description: SEVERE

Secondary Job Condition within Basic Description: SEVERE

Cycle Time Value: 0.445 minutes

Load Bucket Capacity

Bucket Size Class: Small

Rated Capacity:	1.56	LCY (heaped)
Bucket Fill Factor:	0.925	Loose material - 1/8" to 3/8" (90 - 95%) 0.925
Adjusted Capacity:	**1.44**	LCY

Job Condition Correction Factors

Site Altitude: 9600 feet

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

Unadjusted Hourly Unit Production:	194.56	LCY/Hour
Adjusted Hourly Unit Production:	161.49	LCY/Hour
Adjusted Hourly Fleet Production:	**161.49**	LCY/Hour

JOB TIME AND COST

Fleet size: 1 Excavator Total job time: **4.83** Hours

Unit cost: $1.007 /LCY Total job cost: **$786**

HYDRAULIC EXCAVATOR WORK

Task description: **Remove and Regrade Stock Pond EP2**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 144 State: Colorado Abbreviation: None
Date: 3/13/2025 County: Moffat Filename: 144
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat 336D L 10’-6” Stick
Attachment 1: ROPS Cab

Horsepower: 268
Weight (MT): 29.30
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$75.78	NA
Operating Cost/Hour:	$52.99	100
Operator Cost/Hour:	$33.87	NA
Total Unit Cost/Hour:	$162.64	

Total Fleet Cost/Hour: $162.64

MATERIAL QUANTITIES

Initial volume: 1,270 CCY Swell factor: 1.165
Loose volume: **1,480** LCY

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

HOURLY PRODUCTION

Excavator Cycle Time (load bucket, swing loaded, dump bucket, swing empty):

Basic Job Condition Description: SEVERE
Secondary Job Condition within Basic Description: SEVERE
Cycle Time Value: 0.445 minutes

Load Bucket Capacity

Bucket Size Class: Small

Rated Capacity: 1.56 LCY (heaped)
Bucket Fill Factor: 0.925 Loose material - 1/8” to 3/8” (90 - 95%) 0.925
Adjusted Capacity: **1.44** LCY

Job Condition Correction Factors

Site Altitude: 9600 feet

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

Unadjusted Hourly Unit Production: 194.56 LCY/Hour
Adjusted Hourly Unit Production: 161.49 LCY/Hour
Adjusted Hourly Fleet Production: **161.49** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Excavator Total job time: **9.16** Hours

Unit cost: $1.007 /LCY Total job cost: **$1,490**

HYDRAULIC EXCAVATOR WORK

Task description: **Remove and Regrade Stock Pond NTEP1**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 145 State: Colorado Abbreviation: None
Date: 3/13/2025 County: Moffat Filename: 145
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat 336D L 10'-6" Stick
Attachment 1: ROPS Cab

Horsepower: 268
Weight (MT): 29.30
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$75.78	NA
Operating Cost/Hour:	$52.99	100
Operator Cost/Hour:	$33.87	NA
Total Unit Cost/Hour:	$162.64	

Total Fleet Cost/Hour: $162.64

MATERIAL QUANTITIES

Initial volume: 1,080 CCY Swell factor: 1.165
Loose volume: **1,258** LCY

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

HOURLY PRODUCTION

Excavator Cycle Time (load bucket, swing loaded, dump bucket, swing empty):

Basic Job Condition Description: SEVERE
Secondary Job Condition within Basic Description: SEVERE
Cycle Time Value: 0.445 minutes

Load Bucket Capacity

Bucket Size Class: Small

Rated Capacity: 1.56 LCY (heaped)
Bucket Fill Factor: 0.925 Loose material - 1/8" to 3/8" (90 - 95%) 0.925
Adjusted Capacity: **1.44** LCY

Job Condition Correction Factors

Site Altitude: 9600 feet

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

Unadjusted Hourly Unit Production: 194.56 LCY/Hour
Adjusted Hourly Unit Production: 161.49 LCY/Hour
Adjusted Hourly Fleet Production: **161.49** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Excavator Total job time: **7.79** Hours

Unit cost: $1.007 /LCY Total job cost: **$1,267**

HYDRAULIC EXCAVATOR WORK

Task description: **Remove and Regrade Stock Pond ET1**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #:	146	State:	Colorado	Abbreviation:	None
Date:	3/13/2025	County:	Moffat	Filename:	146
User:	HR1				

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine:	Cat 336D L 10'-6" Stick	Horsepower:	268
Attachment 1:	ROPS Cab	Weight (MT):	29.30
		Shift Basis:	1 per day
		Data Source:	(CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$75.78	NA
Operating Cost/Hour:	$52.99	100
Operator Cost/Hour:	$33.87	NA
Total Unit Cost/Hour:	$162.64	

Total Fleet Cost/Hour: $162.64

MATERIAL QUANTITIES

Initial volume: 370 CCY Swell factor: 1.165

Loose volume: **431** LCY

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

Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Excavator Cycle Time (load bucket, swing loaded, dump bucket, swing empty):

Basic Job Condition Description: SEVERE

Secondary Job Condition within Basic Description: SEVERE

Cycle Time Value: 0.445 minutes

Load Bucket Capacity

Bucket Size Class: Small

Rated Capacity:	1.56	LCY (heaped)
Bucket Fill Factor:	0.925	Loose material - 1/8" to 3/8" (90 - 95%) 0.925
Adjusted Capacity:	**1.44**	LCY

Job Condition Correction Factors

Site Altitude: 9600 feet

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

Unadjusted Hourly Unit Production:	194.56	LCY/Hour
Adjusted Hourly Unit Production:	161.49	LCY/Hour
Adjusted Hourly Fleet Production:	**161.49**	LCY/Hour

JOB TIME AND COST

Fleet size: 1 Excavator Total job time: **2.67** Hours

Unit cost: $1.007 /LCY Total job cost: **$434**

HYDRAULIC EXCAVATOR WORK

Task description: **Remove and Regrade Stock Pond ET2**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #:	147	State:	Colorado	Abbreviation:	None
Date:	3/13/2025	County:	Moffat	Filename:	147
User:	HR1				

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine:	Cat 336D L 10'-6" Stick	Horsepower:	268
Attachment 1:	ROPS Cab	Weight (MT):	29.30
		Shift Basis:	1 per day
		Data Source:	(CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$75.78	NA
Operating Cost/Hour:	$52.99	100
Operator Cost/Hour:	$33.87	NA
Total Unit Cost/Hour:	$162.64	

Total Fleet Cost/Hour: $162.64

MATERIAL QUANTITIES

Initial volume: 1,230 CCY Swell factor: 1.165

Loose volume: **1,433** LCY

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

Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Excavator Cycle Time (load bucket, swing loaded, dump bucket, swing empty):

Basic Job Condition Description: SEVERE

Secondary Job Condition within Basic Description: SEVERE

Cycle Time Value: 0.445 minutes

Load Bucket Capacity

Bucket Size Class: Small

Rated Capacity:	1.56	LCY (heaped)
Bucket Fill Factor:	0.925	Loose material - 1/8" to 3/8" (90 - 95%) 0.925
Adjusted Capacity:	**1.44**	LCY

Job Condition Correction Factors

Site Altitude: 9600 feet

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

Unadjusted Hourly Unit Production:	194.56	LCY/Hour
Adjusted Hourly Unit Production:	161.49	LCY/Hour
Adjusted Hourly Fleet Production:	**161.49**	LCY/Hour

JOB TIME AND COST

Fleet size: 1 Excavator Total job time: **8.87** Hours

Unit cost: $1.007 /LCY Total job cost: **$1,443**

HYDRAULIC EXCAVATOR WORK

Task description: **Remove and Regrade Stock Pond ETD1**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 148 State: Colorado Abbreviation: None
Date: 3/13/2025 County: Moffat Filename: 148
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat 336D L 10'-6" Stick
Attachment 1: ROPS Cab

Horsepower: 268
Weight (MT): 29.30
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$75.78	NA
Operating Cost/Hour:	$52.99	100
Operator Cost/Hour:	$33.87	NA
Total Unit Cost/Hour:	$162.64	

Total Fleet Cost/Hour: $162.64

MATERIAL QUANTITIES

Initial volume: 500 CCY Swell factor: 1.165
Loose volume: **583** LCY

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

HOURLY PRODUCTION

Excavator Cycle Time (load bucket, swing loaded, dump bucket, swing empty):

Basic Job Condition Description: SEVERE
Secondary Job Condition within Basic Description: SEVERE
Cycle Time Value: 0.445 minutes

Load Bucket Capacity

Bucket Size Class: Small

Rated Capacity: 1.56 LCY (heaped)
Bucket Fill Factor: 0.925 Loose material - 1/8" to 3/8" (90 - 95%) 0.925
Adjusted Capacity: **1.44** LCY

Job Condition Correction Factors

Site Altitude: 9600 feet

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

Unadjusted Hourly Unit Production: 194.56 LCY/Hour
Adjusted Hourly Unit Production: 161.49 LCY/Hour
Adjusted Hourly Fleet Production: **161.49** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Excavator Total job time: **3.61** Hours

Unit cost: $1.007 /LCY Total job cost: **$587**

HYDRAULIC EXCAVATOR WORK

Task description: **Remove and Regrade Stock Pond ETD2**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #:	149	State:	Colorado	Abbreviation:	None
Date:	3/13/2025	County:	Moffat	Filename:	149
User:	HR1				

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine:	Cat 336D L 10’-6” Stick	Horsepower:	268
Attachment 1:	ROPS Cab	Weight (MT):	29.30
		Shift Basis:	1 per day
		Data Source:	(CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$75.78	NA
Operating Cost/Hour:	$52.99	100
Operator Cost/Hour:	$33.87	NA
Total Unit Cost/Hour:	$162.64	

Total Fleet Cost/Hour: $162.64

MATERIAL QUANTITIES

Initial volume: 500 CCY Swell factor: 1.165

Loose volume: **583** LCY

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

Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Excavator Cycle Time (load bucket, swing loaded, dump bucket, swing empty):

Basic Job Condition Description: SEVERE

Secondary Job Condition within Basic Description: SEVERE

Cycle Time Value: 0.445 minutes

Load Bucket Capacity

Bucket Size Class: Small

Rated Capacity:	1.56	LCY (heaped)
Bucket Fill Factor:	0.925	Loose material - 1/8” to 3/8” (90 - 95%) 0.925
Adjusted Capacity:	**1.44**	LCY

Job Condition Correction Factors

Site Altitude: 9600 feet

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

Unadjusted Hourly Unit Production:	194.56	LCY/Hour
Adjusted Hourly Unit Production:	161.49	LCY/Hour
Adjusted Hourly Fleet Production:	**161.49**	LCY/Hour

JOB TIME AND COST

Fleet size: 1 Excavator Total job time: **3.61** Hours

Unit cost: $1.007 /LCY Total job cost: **$587**

HYDRAULIC EXCAVATOR WORK

Task description: **Remove and Regrade Stock Pond WTD1**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 150 State: Colorado Abbreviation: None
Date: 3/13/2025 County: Moffat Filename: 150
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat 336D L 10'-6" Stick
Attachment 1: ROPS Cab

Horsepower: 268
Weight (MT): 29.30
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$75.78	NA
Operating Cost/Hour:	$52.99	100
Operator Cost/Hour:	$33.87	NA
Total Unit Cost/Hour:	$162.64	

Total Fleet Cost/Hour: $162.64

MATERIAL QUANTITIES

Initial volume: 500 CCY Swell factor: 1.165
Loose volume: **583** LCY

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

HOURLY PRODUCTION

Excavator Cycle Time (load bucket, swing loaded, dump bucket, swing empty):

Basic Job Condition Description: SEVERE
Secondary Job Condition within Basic Description: SEVERE
Cycle Time Value: 0.445 minutes

Load Bucket Capacity

Bucket Size Class: Small

Rated Capacity:	1.56	LCY (heaped)
Bucket Fill Factor:	0.925	Loose material - 1/8" to 3/8" (90 - 95%) 0.925
Adjusted Capacity:	**1.44**	LCY

Job Condition Correction Factors

Site Altitude: 9600 feet

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

Unadjusted Hourly Unit Production:	194.56	LCY/Hour
Adjusted Hourly Unit Production:	161.49	LCY/Hour
Adjusted Hourly Fleet Production:	**161.49**	LCY/Hour

JOB TIME AND COST

Fleet size: 1 Excavator Total job time: **3.61** Hours

Unit cost: $1.007 /LCY Total job cost: **$587**

BULLDOZER WORK

Task description: **Regrade Haul Road A Widening**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 151 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 151
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D11T - 11U
Horsepower: 850
Blade Type: Universal
Attachment: 1-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper own. Cost/Hour:	$27.44	NA
Ripper op. Cost/Hour:	$16.65	100
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $904.20
Total Fleet Cost/Hour: **$904.20**

MATERIAL QUANTITIES

Initial Volume: 406,089
Swell factor: 1.250
Loose volume: **507,611** LCY

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

HOURLY PRODUCTION

Average push distance: 100 feet
Unadjusted hourly production: 2,870.3 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: 15 %
Average site altitude: 7,600 feet

Material weight: 2,650 lbs/LCY

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

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	0.666	(CAT HB)
Altitude:	0.930	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4016

Adjusted unit production: 1,152.71 LCY/hr
Adjusted fleet production: **1152.71** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.784/LCY

Total job time: **440.36** Hours
Total job cost: **$398,174**

BULLDOZER WORK

Task description: **Regrade Topsoil for Raw Water Line Expansion**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 152 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 152
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D11T - 11U
Horsepower: 850
Blade Type: Universal
Attachment: 1-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper own. Cost/Hour:	$27.44	NA
Ripper op. Cost/Hour:	$16.65	100
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $904.20
Total Fleet Cost/Hour: **$904.20**

MATERIAL QUANTITIES

Initial Volume: 160
Swell factor: 1.000
Loose volume: **160** LCY

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

HOURLY PRODUCTION

Average push distance: 100 feet
Unadjusted hourly production: 2,870.3 LCY/hr

Materials consistency description: Partly consolidated stockpile 1.1

Average push gradient: 0 %
Average site altitude: 7,600 feet

Material weight: 2,550 lbs/LCY

Weight description: Earth - Dry packed

Job Condition Correction Factor

		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	1.100	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.000	(CAT HB)
Altitude:	0.930	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.6893

Adjusted unit production: 1,978.50 LCY/hr
Adjusted fleet production: **1978.5** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.457/LCY

Total job time: **0.08** Hours
Total job cost: **$73**

REVEGETATION WORK

Task description: **Reseed Raw Water Line Expansion**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 153 State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 153
User: HR1

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
	$
Total Tilling Cost/Acre	**$0.00**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Big Bluegrass - Sherman	0.40	8.26	$6.34
Bluebunch Wheatgrass - Secar	4.00	12.86	$42.05
Bitterbrush, Antelope	6.00	1.85	$339.08
Mountain Brome - Bromar	2.00	3.21	$12.03
Great Basin Wildrye - Magnar	1.00	4.06	$11.69
Rocky Mountain Fescue	2.00	32.14	$21.57
Slender Wheatgrass - Pryor	1.50	5.48	$9.27
Milk Vetch, Cicer - Lutana	0.60	2.00	$5.87
Thickspike Wheatgrass - Critana	2.50	8.84	$20.37

Western Wheatgrass - Arriba	3.00	7.58	$27.10
Rabbitbrush, Rubber	0.60	8.94	$50.04
Needlegrass, Green - Lodorm	0.40	1.66	$3.46
Sagebrush, Louisiana or Prairie	1.00	100.79	$184.91
Sagebrush, Mountain or Big	4.00	211.20	$330.80
Flax, Lewis Blue	0.50	3.32	$21.15
Sagebrush, Silver	1.50	29.13	$102.19
Saltbush, Four Wing	3.20	4.41	$63.59
Snowberry, Mountain	1.50	2.58	$88.59
Sumac, Skunkbrush	1.00	0.47	$45.13
Penstemon, Palmer	0.20	4.42	$15.59
Penstemon, Rocky Mountain	1.00	15.67	$61.41
Yarrow, Western	0.40	24.32	$19.30
Totals Seed Mix	38.30	493.19	**$1,481.54**

Application

Description	**Cost /Acre**
Broadcast seeding [DMG]	$272.56
Total Seed Application Cost/Acre	**$272.56**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 1 Cost /Acre: $1,754.10
Estimated Failure Rate: 20% Cost /Acre*: $1,754.10
*Selected Replanting Work Items: SEEDING

Initial Job Cost: **$1,754.10**

Reseeding Job Cost:	**$350.82**
Total Job Cost:	**$2,105**
Job Hours:	**0.50**

BULLDOZER WORK

Task description: **Regrade Upper Section 3 Pond**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 154 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 154
User: HR1

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:

		Utilization %
Ownership Cost/Hour:	$253.16	NA
Operating Cost/Hour:	$164.35	100
Ripper own. Cost/Hour:	$18.79	NA
Ripper op. Cost/Hour:	$2.37	25
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $477.26
Total Fleet Cost/Hour: **$477.26**

MATERIAL QUANTITIES

Initial Volume: 22,850
Swell factor: 1.165
Loose volume: **26,620** LCY

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

HOURLY PRODUCTION

Average push distance: 100 feet
Unadjusted hourly production: 1,243.2 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 5 %
Average site altitude: 7,600 feet

Material weight: 2,900 lbs/LCY

Weight description: Decomposed rock - 50% Rock, 50% Earth

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3851

Adjusted unit production: 478.76 LCY/hr
Adjusted fleet production: **478.76** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.997/LCY

Total job time: **55.60** Hours
Total job cost: **$26,537**

BULLDOZER WORK

Task description: **Regrade Lower Section 3 Pond**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #:	155	State:	Colorado	Abbreviation:	None
Date:	3/12/2025	County:	Moffat	Filename:	155
User:	HR1				

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:

		Utilization %
Ownership Cost/Hour:	$253.16	NA
Operating Cost/Hour:	$164.35	100
Ripper own. Cost/Hour:	$18.79	NA
Ripper op. Cost/Hour:	$2.37	25
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $477.26
Total Fleet Cost/Hour: **$477.26**

MATERIAL QUANTITIES

Initial Volume: 27,700
Swell factor: 1.165
Loose volume: **32,271** LCY

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

HOURLY PRODUCTION

Average push distance: 100 feet
Unadjusted hourly production: 1,243.2 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 5 %
Average site altitude: 7,600 feet

Material weight: 2,900 lbs/LCY

Weight description: Decomposed rock - 50% Rock, 50% Earth

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3851

Adjusted unit production: 478.76 LCY/hr
Adjusted fleet production: **478.76** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.997/LCY

Total job time: **67.40** Hours
Total job cost: **$32,169**

BULLDOZER WORK

Task description: **Regrade Topsoil for Upper and Lower Section 3 Pond Dist.**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 156 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 156
User: HR1

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:

		Utilization %
Ownership Cost/Hour:	$253.16	NA
Operating Cost/Hour:	$164.35	100
Ripper own. Cost/Hour:	$18.79	NA
Ripper op. Cost/Hour:	$2.37	25
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $477.26
Total Fleet Cost/Hour: **$477.26**

MATERIAL QUANTITIES

Initial Volume: 20,900
Swell factor: 1.000
Loose volume: **20,900** LCY

Source of estimated volume: 25.9 Acres @ 6"
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 100 feet
Unadjusted hourly production: 1,243.2 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 0 %
Average site altitude: 7,600 feet

Material weight: 1,600 lbs/LCY

Weight description: Top Soil

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(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: 0.6445

Adjusted unit production: 801.24 LCY/hr
Adjusted fleet production: **801.24** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.596/LCY

Total job time: **26.08** Hours
Total job cost: **$12,449**

REVEGETATION WORK

Task description: **Reseed Upper and Lower Section 3 Pond Disturbance**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 157 State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 157
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 25.9 Cost /Acre: $585.76
Estimated Failure Rate: 20% Cost /Acre*: $468.15
*Selected Replanting Work Items: SEEDING

Initial Job Cost: **$15,171.18**
Reseeding Job Cost: **$2,425.02**
Total Job Cost: **$17,596**
Job Hours: **13.00**

PUMPING WORK

Task description: **Pump Upper/Lower Section 3 Ponds Prior to Two Cleanings**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #:	158	State:	Colorado	Abbreviation:	None
Date:	3/13/2025	County:	Moffat	Filename:	158
User:	HR1				

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

	Description	Quantity
Make and Model:	Centrifugal pump - 200M, 10 in.	1
Attachment 1:		0
Attachment 2:	Discharge hose - 2 in. D., 25 ft.	1
Labor Unit 1:	Pump operator	1

Horsepower: 70
Shift Basis: 1 per day
Weight: 1.95
(US Tons)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$28.82	NA
Operating Cost/Hour:	$29.56	100
Operator Cost/Hour:	$22.07	NA
Total Unit Cost/Hour:	$80.45	

Total Fleet Cost/Hour: $80.45

PUMPING QUANTITIES

Initial Pond Volume:	9.54		Conversion factor:	325850.5800
Final Pond Volume:	**3,108,614.53**	gallons		
Total Pond Inflow Surface Area:	50	Sq. ft.	Unit inflow rate in gph/sq. ft.:	0.0000
Total Pond Inflow Volume per Hour:	0.00	gallons		

Source of estimated volume: Division Estimate

PUMPING TIME

Maximum Pump Capacity:	200,000	gph/pump
Estimated Suction Head:	10	feet
Estimated Discharge Head:	10	feet
Total Head:	20	feet
CPB Pump Capacity:	201,000	gph/pump
Site Altitude:	7,600	feet

Adjusted Pumping Capacity:	201,000	gph
Initial Unadjusted Pumping Time:	15.47	hours
Inflow during Initial Pumping:	0	gallons
Net Unadjusted Pumping Time:	15.47	Hours
Altitude Adjustment Factor:	0.9100	(3% rule)
Pump Efficiency Factor:	0.9167	(55 min./hr.)
Total Adjusted Pumping Time:	12.90	hours

JOB TIME AND COST

Total job time: **12.90** Hours

Unit cost: $0.000334 /Gallon

Total job cost: **$1,038**

BULLDOZER WORK

Task description: **Regrade 0.3 Acres Disturbance (TR-153)**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #:	160	State:	Colorado	Abbreviation:	None
Date:	2/6/2025	County:	Moffat	Filename:	C019-160
User:	HR1				

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine:	Cat D8T - 8SU
Horsepower:	310
Blade Type:	Semi-Universal
Attachment:	1-shank ripper
Shift Basis:	1 per day
Data Source:	(CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$173.32	NA
Operating Cost/Hour:	$109.71	100
Ripper own. Cost/Hour:	$13.69	NA
Ripper op. Cost/Hour:	$9.24	100
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $344.55

Total Fleet Cost/Hour: **$344.55**

MATERIAL QUANTITIES

Initial Volume:	500
Swell factor:	1.000
Loose volume:	**500** LCY

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

Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 200 feet

Unadjusted hourly production: 491.9 LCY/hr

Materials consistency description: Partly consolidated stockpile 1.1

Average push gradient: 0 %

Average site altitude: 7,600 feet

Material weight: 1,600 lbs/LCY

Weight description: Top Soil

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	1.100	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.1816

Adjusted unit production: 581.23 LCY/hr
Adjusted fleet production: **581.23** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.593/LCY

Total job time: **0.86** Hours
Total job cost: **$296**

REVEGETATION WORK

Task description: **Reseed 0.3 Acres (TR-153)**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 161 State: Colorado Abbreviation: None
Date: 2/6/2025 County: Moffat Filename: C019-161
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	**Rate – PLS LBS / Acre**	**Seeds per SQ. FT**	**Cost /Acre**
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 0.3
Estimated Failure Rate: 20%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $585.76
Cost /Acre*: $468.15

Initial Job Cost: **$175.73**
Reseeding Job Cost: **$28.09**
Total Job Cost: **$204**
Job Hours: **0.50**

HYDRAULIC EXCAVATOR WORK

Task description: **Remove and Regrade Stock Pond EP3**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 162 State: Colorado Abbreviation: None
Date: 2/6/2025 County: Moffat Filename: C019-162
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat 336D L 10'-6" Stick
Attachment 1: ROPS Cab

Horsepower: 268
Weight (MT): 29.30
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$75.78	NA
Operating Cost/Hour:	$52.99	100
Operator Cost/Hour:	$33.87	NA
Total Unit Cost/Hour:	$162.64	

Total Fleet Cost/Hour: $162.64

MATERIAL QUANTITIES

Initial volume: 1,270 CCY Swell factor: 1.165
Loose volume: **1,480** LCY

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

HOURLY PRODUCTION

Excavator Cycle Time (load bucket, swing loaded, dump bucket, swing empty):

Basic Job Condition Description: SEVERE
Secondary Job Condition within Basic Description: SEVERE
Cycle Time Value: 0.445 minutes

Load Bucket Capacity

Bucket Size Class: Small

Rated Capacity: 1.56 LCY (heaped)
Bucket Fill Factor: 0.925 Loose material - 1/8" to 3/8" (90 - 95%) 0.925
Adjusted Capacity: **1.44** LCY

Job Condition Correction Factors

Site Altitude: 9600 feet

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

Unadjusted Hourly Unit Production: 194.56 LCY/Hour
Adjusted Hourly Unit Production: 161.49 LCY/Hour
Adjusted Hourly Fleet Production: **161.49** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Excavator Total job time: **9.16** Hours

Unit cost: $1.007 /LCY Total job cost: **$1,490**

BULLDOZER WORK

Task description: **Regrade Section 15 Pond**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 163 State: Colorado Abbreviation: None
Date: 2/6/2025 County: Moffat Filename: C019-163
User: HR1

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:

		Utilization %
Ownership Cost/Hour:	$253.16	NA
Operating Cost/Hour:	$164.35	100
Ripper own. Cost/Hour:	$18.79	NA
Ripper op. Cost/Hour:	$2.37	25
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $477.26
Total Fleet Cost/Hour: **$477.26**

MATERIAL QUANTITIES

Initial Volume: 11,300
Swell factor: 1.165
Loose volume: **13,165** LCY

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

HOURLY PRODUCTION

Average push distance: 150 feet
Unadjusted hourly production: 910.5 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: 5 %
Average site altitude: 7,600 feet

Material weight: 2,900 lbs/LCY

Weight description: Decomposed rock - 50% Rock, 50% Earth

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4279

Adjusted unit production: 389.60 LCY/hr
Adjusted fleet production: **389.6** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $1.225/LCY

Total job time: **33.79** Hours
Total job cost: **$16,126**

BULLDOZER WORK

Task description: **Replace Topsoil for Section 15 Pond (6.3 acre)**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #:	164	State:	Colorado	Abbreviation:	None
Date:	2/6/2025	County:	Moffat	Filename:	C019-164
User:	HR1				

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D9T - 9SU
Horsepower: 405
Blade Type: Semi-Universal
Attachment: 1-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$253.16	NA
Operating Cost/Hour:	$164.35	100
Ripper own. Cost/Hour:	$15.77	NA
Ripper op. Cost/Hour:	$10.35	100
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $482.22
Total Fleet Cost/Hour: **$482.22**

MATERIAL QUANTITIES

Initial Volume: 7,600
Swell factor: 1.125
Loose volume: **8,550** LCY

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

HOURLY PRODUCTION

Average push distance: 125 feet
Unadjusted hourly production: 1,055.6 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: 5 %
Average site altitude: 7,600 feet

Material weight: 2,550 lbs/LCY

Weight description: Earth - Dry packed

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

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

Net correction: 0.4867

Adjusted unit production: 513.76 LCY/hr
Adjusted fleet production: **513.76** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.939/LCY

Total job time: **16.64** Hours
Total job cost: **$8,025**

REVEGETATION WORK

Task description: **Reseed Section 15 Pond with Grazing Land Seed Mix**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 165 State: Colorado Abbreviation: None
Date: 2/6/2025 County: Moffat Filename: C019-165
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 6.3
Estimated Failure Rate: 20%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $585.76
Cost /Acre*: $468.15

Initial Job Cost: **$3,690.29**
Reseeding Job Cost: **$589.87**
Total Job Cost: **$4,280**
Job Hours: **6.00**

BULLDOZER WORK

Task description: **Regrade East Pit Access Roads and Sect 3 Pond Borrow Topsoil**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 167 State: Colorado Abbreviation: None
Date: 2/6/2025 County: Moffat Filename: C019-167
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D8T - 8SU
Horsepower: 310
Blade Type: Semi-Universal
Attachment: 3-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$173.32	NA
Operating Cost/Hour:	$109.71	100
Ripper own. Cost/Hour:	$14.53	NA
Ripper op. Cost/Hour:	$7.95	100
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $344.10
Total Fleet Cost/Hour: **$344.10**

MATERIAL QUANTITIES

Initial Volume: 23,595
Swell factor: 1.000
Loose volume: **23,595** LCY

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

HOURLY PRODUCTION

Average push distance: 150 feet
Unadjusted hourly production: 634.3 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: -5 %
Average site altitude: 7,600 feet

Material weight: 1,600 lbs/LCY

Weight description: Top Soil

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.115	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.1977

Adjusted unit production: 759.70 LCY/hr
Adjusted fleet production: **759.7** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.453/LCY

Total job time: **31.06** Hours
Total job cost: **$10,687**

REVEGETATION WORK

Task description: **Reseed East PIt Roads and Sect 3 Pond Borrow Area**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 168 State: Colorado Abbreviation: None
Date: 2/6/2025 County: Moffat Filename: C019-168
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 19.5
Estimated Failure Rate: 20%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $585.76
Cost /Acre*: $468.15

Initial Job Cost: **$11,422.32**
Reseeding Job Cost: **$1,825.79**
Total Job Cost: **$13,248**
Job Hours: **19.50**

BULLDOZER WORK

Task description: **Regrade Topsoil Pile 9A**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 170 State: Colorado Abbreviation: None
Date: 4/2/2025 County: Moffat Filename: 170
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D8T - 8SU
Horsepower: 310
Blade Type: Semi-Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$173.32	NA
Operating Cost/Hour:	$76.80	70
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $288.70
Total Fleet Cost/Hour: **$288.70**

MATERIAL QUANTITIES

Initial Volume: 645
Swell factor: 1.000
Loose volume: **645** LCY

Source of estimated volume: Map 28 and ARR
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 100 feet
Unadjusted hourly production: 852.6 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 0 %
Average site altitude: 7,500 feet

Material weight: 2,650 lbs/LCY

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

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.200	(S-BY-S)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4668

Adjusted unit production: 397.99 LCY/hr
Adjusted fleet production: **397.99** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.725/LCY

Total job time: **2.32** Hours
Total job cost: **$668**

BULLDOZER WORK

Task description: **Regrade brushed material from 69 kV power line road**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 171 State: Colorado Abbreviation: None
Date: 4/2/2025 County: Moffat Filename: 171
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D9T - 9SU
Horsepower: 405
Blade Type: Semi-Universal
Attachment: 1-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$253.16	NA
Operating Cost/Hour:	$164.35	100
Ripper own. Cost/Hour:	$15.77	NA
Ripper op. Cost/Hour:	$10.35	100
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $482.22
Total Fleet Cost/Hour: **$482.22**

MATERIAL QUANTITIES

Initial Volume: 4,235
Swell factor: 1.115
Loose volume: **4,722** LCY

Source of estimated volume: Division of Reclamation, Mining & Safety, Avg 9 in
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 100 feet
Unadjusted hourly production: 1,243.2 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: 0 %
Average site altitude: 7,600 feet

Material weight: 2,100 lbs/LCY

Weight description: Earth - Loam

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.095	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.8180

Adjusted unit production: 1,016.94 LCY/hr
Adjusted fleet production: **1016.94** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.474/LCY

Total job time: **4.64** Hours
Total job cost: **$2,239**

REVEGETATION WORK

Task description: **Reseed 69 kV power line road**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 172 State: Colorado Abbreviation: None
Date: 4/2/2025 County: Moffat Filename: 172
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	**Rate – PLS LBS / Acre**	**Seeds per SQ. FT**	**Cost /Acre**
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 3.5
Estimated Failure Rate: 20%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $585.76
Cost /Acre*: $468.15

Initial Job Cost: **$2,050.16**
Reseeding Job Cost: **$327.71**
Total Job Cost: **$2,378**
Job Hours: **4.00**

BULLDOZER WORK

Task description: **Regrade brushed material from 69 kV power line road**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 173 State: Colorado Abbreviation: None
Date: 4/2/2025 County: Moffat Filename: C019-173
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D9T - 9SU
Horsepower: 405
Blade Type: Semi-Universal
Attachment: 1-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$253.16	NA
Operating Cost/Hour:	$164.35	100
Ripper own. Cost/Hour:	$15.77	NA
Ripper op. Cost/Hour:	$10.35	100
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $482.22
Total Fleet Cost/Hour: **$482.22**

MATERIAL QUANTITIES

Initial Volume: 6,413
Swell factor: 1.115
Loose volume: **7,150** LCY

Source of estimated volume: Division of Reclamation, Mining & Safety, Avg 9 in
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 100 feet
Unadjusted hourly production: 1,243.2 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: 0 %
Average site altitude: 7,600 feet

Material weight: 2,100 lbs/LCY

Weight description: Earth - Loam

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.095	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.8180

Adjusted unit production: 1,016.94 LCY/hr
Adjusted fleet production: **1016.94** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.474/LCY

Total job time: **7.03** Hours
Total job cost: **$3,391**

REVEGETATION WORK

Task description: **Reseed 69 kV power line road**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 174 State: Colorado Abbreviation: None
Date: 4/2/2025 County: Moffat Filename: 174
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	**Rate – PLS LBS / Acre**	**Seeds per SQ. FT**	**Cost /Acre**
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 5.3 — Cost /Acre: $585.76

Estimated Failure Rate: 20% — Cost /Acre*: $468.15

*Selected Replanting Work Items: SEEDING

Initial Job Cost: **$3,104.53**
Reseeding Job Cost: **$496.24**
Total Job Cost: **$3,601**
Job Hours: **5.00**

DEMOLITION WORK

Task description: **Remove Collom Haul Road and Facility Culverts (MR203)**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 401 State: Colorado Abbreviation: None
Date: 2/6/2025 County: Moffat Filename: C019-401
User: HR1

Agency or organization name: DRMS

UNIT COSTS **Location adjustment: 95.50 %**

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Remove 24" Culverts	24"	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	397.00	LF	$10.60	$4,206.25
Remove 36" Culverts	36"	Pipe, corrugated metal (CMP) - 36 in. diameter pipe	7,030.00	LF	$16.96	$119,230.91
Remove 60" Culverts	60"	Pipe, corrugated metal (CMP) - 60 in. diameter pipe	629.00	LF	$33.06	$20,796.38
Remove 12" Culverts	12"	Pipe, corrugated metal (CMP) - 12 in. diameter pipe	160.00	LF	$5.91	$945.38
Culverts 71 & 72 (TR160)	12"	Pipe, corrugated metal (CMP) - 12 in. diameter pipe	100.00	LF	$5.91	$590.86
Demo GD-3 Culvert (TR162)	24"	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	75.00	LF	$10.60	$794.63

Job Hours: **26.00** **Subtotal (unadjusted)**: **$146,564.41** **Total Cost (adjusted for location)**: **$139,969.01**

DEMOLITION WORK

Task description: **Demo Collom Facilities and Haul Road Crossing (MR223, MR225)**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 402 State: Colorado Abbreviation: None
Date: 2/6/2025 County: Moffat Filename: 402
User: HR1

Agency or organization name: DRMS

UNIT COSTS **Location adjustment: 95.50 %**

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Demo Blasters Building	50' x 80' x 19'	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	76,000.00	CF	$0.24	$18,498.40
Primary Crusher (Task #517)	420'	OBSOLETE-Conveyor, elevated, including supports - 8 ft. W x 10 ft. H housing	420.00	LF	$53.42	$22,436.40
Raw Water Pump Building	20' x 32' x 14'	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	13,440.00	CF	$0.24	$3,271.30
Pump Building Vault	6' x 8' x 18"	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	48.00	SF	$2.27	$108.74
Demo Haul Road Crossing (circular area)	48' x 24' x 217'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	196,337.00	CF	$0.35	$68,246.74
Demo Concrete Pad #1	110' x 100' x 1.875'	Pavement, concrete, demolition only, 7 in. to 24 in. thick - No reinforcing	764.00	CY	$110.50	$84,422.00
Demo Concrete Pad #2	10' x 32' x 1.875'	Pavement, concrete, demolition only, 7 in. to 24 in. thick - No reinforcing	223.00	CY	$110.50	$24,641.50
Demo Facilities Concrete	N/A	Floor, concrete, demolition only, 6 in. thick - No reinforcing	7,750.00	SF	$1.77	$13,717.50
Water Tank	35' dia	Bldg. (MN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	279,941.00	CF	$0.33	$91,988.61
ANFO Silo #1	10' dia x 20'	Bldg. (MN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	6,283.00	CF	$0.33	$2,064.59
ANFO Silo #2	10' dia x 20'	Bldg. (MN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	6,283.00	CF	$0.33	$2,064.59
ANFO Silo #3	10' dia x 20'	Bldg. (MN) demo./on-	6,283.00	CF	$0.33	$2,064.59

		site disposal in existing pit or cut - Max. 10,000 ft. haul				
Communications Building	20' x 20' x 12'	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	4,800.00	CF	$0.24	$1,168.32
Remove Taylor Creek Elevated Pipe	150'	Pipe, steel, welded connections - 10 in. diameter pipe	150.00	LF	$12.24	$1,836.00
Remove Elevated Pipe Footers	1.5' x 2'	Footing, concrete, average reinforcing - 1.5 ft. x 2 ft.	16.00	LF	$6.62	$105.85
15 Collom Power Poles	20'	Utility Poles, Wood 20' to 0' high (each pole)	15.00	EA	$271.50	$4,072.50
Communication Building - Collom Substation	8' x 10' x 12'	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	960.00	CF	$0.24	$233.66
Communication Building - Security Area	8' x 10' x 12'	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	960.00	CF	$0.24	$233.66
Main Communication Tower	100'	Powerline or utility line - Structural Steel Box Type Frame Structure Dismantle and Dispose	3.00	EA	$2,244.00	$6,732.00
Main Communication Tower Pad	25 CY	Demo. and on-site disposal in existing pit, 2.0 ft. x 3 ft. - Max. 50 ft. push	4.00	LF	$13.59	$54.37
Meteorological Station	30'	Powerline or utility line - Structural Steel Box Type Frame Structure Dismantle and Dispose	1.00	EA	$2,244.00	$2,244.00
Meteorological Station Pad	4 CY	Demo. and on-site disposal in existing pit, 1.0 ft. x 2 ft. - Max. 50 ft. push	2.00	LF	$4.53	$9.06
Remove Power Lines	16,897'	OBSOLETE - Powerline or utility line, line disposal only	16,897.00	LF	$0.09	$1,520.73
Remove Collom Haul Road Power Lines	9,617'	OBSOLETE - Powerline or utility line, line disposal only	9,617.00	LF	$0.09	$865.53
Remove Crew Trailer	8' x 24' x 12'	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	2,304.00	CF	$0.24	$560.79
2,000 Gal. Diesel Tank	2000 gal.	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	$760.00	$760.00
- Remove Remaining Fuel	N/A	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	$259.50	$259.50

Job Hours: **60.00** **Subtotal (unadjusted)**: **$354,180.93** **Total Cost (adjusted for** **$338,242.79**

______________ ______________ **location)**: ______________

BULLDOZER RIPPING WORK

Task description: **Rip 29,458' of Collom Haul Road**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #:	403	State:	Colorado	Abbreviation:	None
Date:	3/11/2025	County:	Moffat	Filename:	403
User:	HR1				

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine:	OBSOLETE - Cat D11R - 11SU	Horsepower:	850
Ripper Attachment:	1-Shank Ripper	Shift Basis:	1 per day
		Data Source:	(CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$10.00	NA
Operating Cost/Hour:	$10.00	100
Ripper Ownership Cost/Hour:	$27.44	NA
Ripper Operating Cost/Hour:	$16.65	100
Operator Cost/Hour:	$38.59	NA
Total Unit Cost/Hour:	$102.68	

Total Fleet Cost/Hour: **$205.35**

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic:	NA		Bank Volume:	NA	BCY	NA	
Area:	18.90	acres	Rip Depth (ft):	1.50	Volume:	45,738	BCY or CCY

Source of estimated quantity: Table 7 Exh. 13B-T-20

HOURLY PRODUCTION

Seismic:

Seismic Velocity:	NA	feet/second

Area:

Average Ripping Depth:	3.00	feet/pass
Average Ripping Width:	7.94	feet/pass
Average Ripping Length:	300.00	feet/pass
Average Dozer Speed:	88.00	feet/minute
Average Maneuver Time:	0.25	minutes/pass
Production per unit area:	0.897	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production:	0.897	Acres/hr
Site Altitude:	7,500	feet
Altitude Adj:	1.00	(CAT HB)
Job Efficiency:	0.83	(1 shift/day)
Net Correction:	0.83	multiplier
Adjusted Hourly Unit Production:	0.74	Acres/hr
Adjusted Hourly Fleet Production:	**1.49**	Acres/hr

JOB TIME AND COST

Fleet size:	2	Grader(s)	Total job time:	**12.70**	Hours
Unit cost:	$137.967	Per acre	Total job cost:	**$2,607**	

TRUCK/LOADER TEAM WORK

Task description: **Haul/Regrade Spoil to Collom Haul Road: 00+00 - 208+00**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 404 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 404
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$29.91	$35.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$237.06	$186.88
Number of Units:	2	1	1	1	1	1
Group Subtotals:	Work: $2,270.96		Support: $1,720.22		Maint: $423.94	

Total work team cost/hour: **$4,415.12**

MATERIAL QUANTITIES

Initial volume: 394,559 CCY Swell factor: 1.125
Loose volume: **443,879** LCY

Source of estimated volume: Exhibit 13C
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: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume: 153.00 LCY
Heaped Volume: 192.00 LCY
Average Volume: 172.50 LCY
Adjusted Volume: 192.00 LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 6" and over diameter 0.03	0.030	(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:	-0.050	minutes
	Adjusted Loader Cycle Time:	**0.675**	minutes
	Net Load Time per Truck:	**1.450**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.450	Minutes	Adjusted for site altitude:	1.480	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Hard, smooth, stabilized, surfaced, watered, maintained 2.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1045.00	2.00	2.00	4.00	1786	0.878

Haul Time: **0.878** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1172.00	9.00	2.00	11.00	1734	1.079

Return Time: **1.079** minutes

Total Truck Cycle Time: **5.437** minutes

Loading Tool unit Production: 4,603.46 LCY/Hour — Adjusted for job efficiency: 3,820.87 LCY/Hour

Truck Unit Production: 1,930.25 LCY/Hour — Adjusted for job efficiency: 1,602.11 LCY/Hour

Optimal No. of Trucks: 2 Truck(s) — Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 3,204.22 LCY/Hour

Adjusted single truck/loader team production: 3,204.22 LCY/Hour

Adjusted multiple truck/loader team production: **3,204.22** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) — Total job time: **138.53** Hours

Unit cost: $1.378 /LCY — Total job cost: **$611,624**

TRUCK/LOADER TEAM WORK

Task description: **Haul/Regrade Spoil to Collom Haul Road: 208+00 - 282+00**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 405 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 405
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$29.91	$35.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$237.06	$186.88
Number of Units:	3	1	1	1	1	1
Group Subtotals:	Work: $2,779.84		Support: $1,720.22		Maint: $423.94	

Total work team cost/hour: **$4,924.00**

MATERIAL QUANTITIES

Initial volume: 444,448 CCY Swell factor: 1.125
Loose volume: **500,004** LCY

Source of estimated volume: Exhibit 13C
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: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	**Loader**	**Source**
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 6" and over diameter 0.03	0.030	(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:	-0.050	minutes
	Adjusted Loader Cycle Time:	**0.675**	minutes
	Net Load Time per Truck:	**1.450**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.450	Minutes	Adjusted for site altitude:	1.480	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Hard, smooth, stabilized, surfaced, watered, maintained 2.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4290.00	0.80	2.00	2.80	2409	2.259

Haul Time: **2.259** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4290.00	-0.80	2.00	1.20	3503	1.474

Return Time: **1.474** minutes
Total Truck Cycle Time: **7.213** minutes

Loading Tool unit Production: 4,603.46 LCY/Hour — Adjusted for job efficiency: 3,820.87 LCY/Hour

Truck Unit Production: 1,454.96 LCY/Hour — Adjusted for job efficiency: 1,207.61 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) — Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 3,622.84 LCY/Hour
Adjusted single truck/loader team production: 3,622.84 LCY/Hour
Adjusted multiple truck/loader team production: **3,622.84** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) — Total job time: **138.01** Hours

Unit cost: $1.359 /LCY — Total job cost: **$679,583**

TRUCK/LOADER TEAM WORK

Task description: **Haul/Regrade Spoil to Collom Haul Road: 282+00 - 395+00**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 406 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 406
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$29.91	$35.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$237.06	$186.88
Number of Units:	4	1	1	1	1	1
Group Subtotals:	Work: $3,288.72		Support: $1,720.22		Maint: $423.94	

Total work team cost/hour: **$5,432.88**

MATERIAL QUANTITIES

Initial volume: 292,294 CCY Swell factor: 1.125
Loose volume: **328,831** LCY

Source of estimated volume: Exhibit 13C
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: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 6" and over diameter 0.03	0.030	(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:	-0.050	minutes
	Adjusted Loader Cycle Time:	**0.675**	minutes
	Net Load Time per Truck:	**1.450**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.450	Minutes	Adjusted for site altitude:	1.480	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Hard, smooth, stabilized, surfaced, watered, maintained 2.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	5093.00	4.60	2.00	6.60	1160	4.543

Haul Time: **4.543** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	5093.00	-4.60	2.00	-2.60	3503	1.499

Return Time: **1.499** minutes
Total Truck Cycle Time: **9.522** minutes

Loading Tool unit Production 4,603.46 LCY/Hour — Adjusted for job efficiency: 3,820.87 LCY/Hour

Truck Unit Production 1,102.13 LCY/Hour — Adjusted for job efficiency: 914.77 LCY/Hour

Optimal No. of Trucks: 4 Truck(s) — Selected Number of Trucks: 4 Truck(s)

Adjusted hourly truck team production: 3,659.06 LCY/Hour
Adjusted single truck/loader team production: 3,659.06 LCY/Hour
Adjusted multiple truck/loader team production: **3,659.06** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) — Total job time: **89.87** Hours

Unit cost: $1.485 /LCY — Total job cost: **$488,240**

TRUCK/LOADER TEAM WORK

Task description: **Haul/Regrade Topsoil to Collom Haul Road: 112+26 - 149+00**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 407 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 407
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$29.91	$35.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$237.06	$186.88
Number of Units:	2	1	1	1	1	1
Group Subtotals:	Work: $2,270.96		Support: $1,720.22		Maint: $423.94	

Total work team cost/hour: **$4,415.12**

MATERIAL QUANTITIES

Initial volume: 37,792 CCY Swell factor: 1.125
Loose volume: **42,516** LCY

Source of estimated volume: Exhibit 13C
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: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	**Loader**	**Source**
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 6" and over diameter 0.03	0.030	(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:	-0.050	minutes
	Adjusted Loader Cycle Time:	**0.675**	minutes
	Net Load Time per Truck:	**1.450**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.450	Minutes	Adjusted for site altitude:	1.480	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Hard, smooth, stabilized, surfaced, watered, maintained 2.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2000.00	2.00	2.00	4.00	1786	1.413

Haul Time: **1.413** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2000.00	-2.00	2.00	0.00	3503	0.774

Return Time: **0.774** minutes

Total Truck Cycle Time: **5.667** minutes

Loading Tool unit Production: 4,603.46 LCY/Hour — Adjusted for job efficiency: 3,820.87 LCY/Hour

Truck Unit Production: 1,851.91 LCY/Hour — Adjusted for job efficiency: 1,537.08 LCY/Hour

Optimal No. of Trucks: 2 Truck(s) — Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 3,074.17 LCY/Hour

Adjusted single truck/loader team production: 3,074.17 LCY/Hour

Adjusted multiple truck/loader team production: **3,074.17** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) — Total job time: **13.83** Hours

Unit cost: $1.436 /LCY — Total job cost: **$61,062**

TRUCK/LOADER TEAM WORK

Task description: **Haul/Regrade Topsoil to Collom Haul Road: 149+00 - 222+20**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 408 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 408
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$29.91	$35.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$237.06	$186.88
Number of Units:	3	1	1	1	1	1
Group Subtotals:	Work:	$2,779.84	Support:	$1,720.22	Maint:	$423.94

Total work team cost/hour: **$4,924.00**

MATERIAL QUANTITIES

Initial volume: 92,225 CCY Swell factor: 1.125
Loose volume: **103,753** LCY

Source of estimated volume: Exhibit 13C
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: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 6" and over diameter 0.03	0.030	(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:	-0.050	minutes
	Adjusted Loader Cycle Time:	**0.675**	minutes
	Net Load Time per Truck:	**1.450**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.450	Minutes	Adjusted for site altitude:	1.480	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Hard, smooth, stabilized, surfaced, watered, maintained 2.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2650.00	2.00	2.00	4.00	1786	1.777

Haul Time: **1.777** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2650.00	-2.00	2.00	0.00	3503	0.960

Return Time: **0.960** minutes

Total Truck Cycle Time: **6.217** minutes

Loading Tool unit Production: 4,603.46 LCY/Hour — Adjusted for job efficiency: 3,820.87 LCY/Hour

Truck Unit Production: 1,688.06 LCY/Hour — Adjusted for job efficiency: 1,401.09 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) — Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 4,203.28 LCY/Hour

Adjusted single truck/loader team production: 3,820.87 LCY/Hour

Adjusted multiple truck/loader team production: **3,820.87** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) — Total job time: **27.15** Hours

Unit cost: $1.289 /LCY — Total job cost: **$133,708**

TRUCK/LOADER TEAM WORK

Task description: **Haul/Regrade Topsoil to Collom Haul Road: 222+20 - 242+00**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 409 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 409
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$29.91	$35.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$237.06	$186.88
Number of Units:	3	1	1	1	1	1
Group Subtotals:	Work: $2,779.84		Support: $1,720.22		Maint: $423.94	

Total work team cost/hour: **$4,924.00**

MATERIAL QUANTITIES

Initial volume: 12,224 CCY Swell factor: 1.125
Loose volume: **13,752** LCY

Source of estimated volume: Exhibit 13C
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: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	**Loader**	**Source**
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 6" and over diameter 0.03	0.030	(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:	-0.050	minutes
	Adjusted Loader Cycle Time:	**0.675**	minutes
	Net Load Time per Truck:	**1.450**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.450	Minutes	Adjusted for site altitude:	1.480	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Hard, smooth, stabilized, surfaced, watered, maintained 2.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2650.00	-3.00	2.00	-1.00	3503	0.839

Haul Time: **0.839** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2650.00	3.00	2.00	5.00	3296	1.456

Return Time: **1.456** minutes
Total Truck Cycle Time: **5.775** minutes

Loading Tool unit Production: 4,603.46 LCY/Hour — Adjusted for job efficiency: 3,820.87 LCY/Hour
Truck Unit Production: 1,817.27 LCY/Hour — Adjusted for job efficiency: 1,508.34 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) — Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 4,525.01 LCY/Hour
Adjusted single truck/loader team production: 3,820.87 LCY/Hour
Adjusted multiple truck/loader team production: **3,820.87** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) — Total job time: **3.60** Hours

Unit cost: $1.289 /LCY — Total job cost: **$17,722**

TRUCK/LOADER TEAM WORK

Task description: **Haul/Regrade Topsoil to Collom Haul Road: 242+00 - 275+20**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 410 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 410
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$29.91	$35.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$237.06	$186.88
Number of Units:	2	1	1	1	1	1
Group Subtotals:	Work: $2,270.96		Support: $1,720.22		Maint: $423.94	

Total work team cost/hour: **$4,415.12**

MATERIAL QUANTITIES

Initial volume: 26,098 CCY Swell factor: 1.125
Loose volume: **29,360** LCY

Source of estimated volume: Exhibit 13C
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: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 6" and over diameter 0.03	0.030	(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:	-0.050	minutes
	Adjusted Loader Cycle Time:	**0.675**	minutes
	Net Load Time per Truck:	**1.450**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.450	Minutes	Adjusted for site altitude:	1.480	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Hard, smooth, stabilized, surfaced, watered, maintained 2.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1150.00	-4.50	2.00	-2.50	3450	0.415

Haul Time: **0.415** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1150.00	4.50	2.00	6.50	2853	1.155

Return Time: **1.155** minutes

Total Truck Cycle Time: **5.050** minutes

Loading Tool unit Production 4,603.46 LCY/Hour — Adjusted for job efficiency: 3,820.87 LCY/Hour

Truck Unit Production 2,078.19 LCY/Hour — Adjusted for job efficiency: 1,724.90 LCY/Hour

Optimal No. of Trucks: 2 Truck(s) — Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 3,449.79 LCY/Hour

Adjusted single truck/loader team production: 3,449.79 LCY/Hour

Adjusted multiple truck/loader team production: **3,449.79** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) — Total job time: **8.51** Hours

Unit cost: $1.280 /LCY — Total job cost: **$37,576**

TRUCK/LOADER TEAM WORK

Task description: **Haul/Regrade Topsoil to Collom Haul Road: 275+20 - 298+10**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 411 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 411
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$29.91	$35.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$237.06	$186.88
Number of Units:	2	1	1	1	1	1
Group Subtotals:	Work: $2,270.96		Support: $1,720.22		Maint: $423.94	

Total work team cost/hour: **$4,415.12**

MATERIAL QUANTITIES

Initial volume: 33,588 CCY Swell factor: 1.125
Loose volume: **37,787** LCY

Source of estimated volume: Exhibit 13C
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: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 6" and over diameter 0.03	0.030	(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:	-0.050	minutes
	Adjusted Loader Cycle Time:	**0.675**	minutes
	Net Load Time per Truck:	**1.450**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.450	Minutes	Adjusted for site altitude:	1.480	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Hard, smooth, stabilized, surfaced, watered, maintained 2.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2000.00	-5.75	2.00	-3.75	2545	0.893

Haul Time: **0.893** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2000.00	5.75	2.00	7.75	2327	1.323

Return Time: **1.323** minutes
Total Truck Cycle Time: **5.696** minutes

Loading Tool unit Production 4,603.46 LCY/Hour — Adjusted for job efficiency: 3,820.87 LCY/Hour

Truck Unit Production 1,842.48 LCY/Hour — Adjusted for job efficiency: 1,529.26 LCY/Hour

Optimal No. of Trucks: 2 Truck(s) — Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 3,058.51 LCY/Hour
Adjusted single truck/loader team production: 3,058.51 LCY/Hour
Adjusted multiple truck/loader team production: **3,058.51** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) — Total job time: **12.35** Hours

Unit cost: $1.444 /LCY — Total job cost: **$54,547**

TRUCK/LOADER TEAM WORK

Task description: **Haul/Regrade Topsoil to Collom Haul Road: 298+10 - 336+00**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 412 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 412
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$29.91	$35.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$237.06	$186.88
Number of Units:	2	1	1	1	1	1
Group Subtotals:	Work: $2,270.96		Support: $1,720.22		Maint: $423.94	

Total work team cost/hour: **$4,415.12**

MATERIAL QUANTITIES

Initial volume: 38,534 CCY Swell factor: 1.125
Loose volume: **43,351** LCY

Source of estimated volume: Exhibit 13C
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: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 6" and over diameter 0.03	0.030	(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:	-0.050	minutes
	Adjusted Loader Cycle Time:	**0.675**	minutes
	Net Load Time per Truck:	**1.450**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.450	Minutes	Adjusted for site altitude:	1.480	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Hard, smooth, stabilized, surfaced, watered, maintained 2.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1380.00	-6.00	2.00	-4.00	2545	0.655

Haul Time: **0.655** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1380.00	6.00	2.00	8.00	2327	1.133

Return Time: **1.133** minutes
Total Truck Cycle Time: **5.268** minutes

Loading Tool unit Production: 4,603.46 LCY/Hour — Adjusted for job efficiency: 3,820.87 LCY/Hour
Truck Unit Production: 1,992.18 LCY/Hour — Adjusted for job efficiency: 1,653.51 LCY/Hour

Optimal No. of Trucks: 2 Truck(s) — Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 3,307.02 LCY/Hour
Adjusted single truck/loader team production: 3,307.02 LCY/Hour
Adjusted multiple truck/loader team production: **3,307.02** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) — Total job time: **13.11** Hours

Unit cost: $1.335 /LCY — Total job cost: **$57,876**

TRUCK/LOADER TEAM WORK

Task description: **Haul/Regrade Topsoil to Collom Haul Road: 336+00 - 396+89**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 413 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 413
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	25	25
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$29.91	$35.44
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$237.06	$186.88
Number of Units:	3	1	1	1	1	1
Group Subtotals:	Work: $2,779.84		Support: $1,720.22		Maint: $423.94	

Total work team cost/hour: **$4,924.00**

MATERIAL QUANTITIES

Initial volume: 89,615 CCY Swell factor: 1.125
Loose volume: **100,817** LCY

Source of estimated volume: Exhibit 13C
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: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 6" and over diameter 0.03	0.030	(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:	-0.050	minutes
	Adjusted Loader Cycle Time:	**0.675**	minutes
	Net Load Time per Truck:	**1.450**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.450	Minutes	Adjusted for site altitude:	1.480	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Hard, smooth, stabilized, surfaced, watered, maintained 2.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2100.00	2.00	2.00	4.00	1786	1.469

Haul Time: **1.469** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2100.00	-2.00	2.00	0.00	3503	0.803

Return Time: **0.803** minutes
Total Truck Cycle Time: **5.752** minutes

Loading Tool unit Production 4,603.46 LCY/Hour — Adjusted for job efficiency: 3,820.87 LCY/Hour
Truck Unit Production 1,824.54 LCY/Hour — Adjusted for job efficiency: 1,514.37 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) — Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 4,543.10 LCY/Hour
Adjusted single truck/loader team production: 3,820.87 LCY/Hour
Adjusted multiple truck/loader team production: **3,820.87** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) — Total job time: **26.39** Hours

Unit cost: $1.289 /LCY — Total job cost: **$129,924**

BULLDOZER WORK

Task description: **Regrade Collom Facility Area**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #:	415	State:	Colorado	Abbreviation:	None
Date:	3/11/2025	County:	Moffat	Filename:	415
User:	HR1				

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D11T - 11U
Horsepower: 850
Blade Type: Universal
Attachment: 1-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper own. Cost/Hour:	$27.44	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $887.55
Total Fleet Cost/Hour: **$3,550.18**

MATERIAL QUANTITIES

Initial Volume: 1,467,700
Swell factor: 1.250
Loose volume: **1,834,625** LCY

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

HOURLY PRODUCTION

Average push distance: 100 feet
Unadjusted hourly production: 2,870.3 LCY/hr

Materials consistency description: Loose stockpile 1.2

Average push gradient: 25 %
Average site altitude: 7,600 feet

Material weight: 2,650 lbs/LCY

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

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.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:	1.000	(DOZ-OC)
Push gradient:	0.422	(CAT HB)
Altitude:	0.930	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3054

Adjusted unit production: 876.59 LCY/hr
Adjusted fleet production: **3506.36** LCY/hr

JOB TIME AND COST

Fleet size: 4 Dozer(s)
Unit cost: $1.012/LCY

Total job time: **523.23** Hours
Total job cost: **$1,857,554**

TRUCK/LOADER TEAM WORK

Task description: **Load/Haul/Regrade Topsoil to Collom Facility from TS 25A**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 416 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 416
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	50	50
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$59.82	$70.88
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$266.97	$222.32
Number of Units:	5	1	1	2	1	1
Group Subtotals:	Work: $3,797.60		Support: $2,580.33		Maint: $489.29	

Total work team cost/hour: **$6,867.22**

MATERIAL QUANTITIES

Initial volume: 327,278 CCY Swell factor: 1.125
Loose volume: **368,188** 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: 2,550 Pounds/LCY
Description: Earth - Dry packed
Rated Payload: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	**Loader**	**Source**
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 6" and over diameter 0.03	0.030	(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:	-0.050	minutes
	Adjusted Loader Cycle Time:	**0.675**	minutes
	Net Load Time per Truck:	**1.450**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.450	Minutes	Adjusted for site altitude:	1.480	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Hard, smooth, stabilized, surfaced, watered, maintained 2.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	6500.00	5.00	2.00	7.00	1160	5.791

Haul Time: **5.791** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	6500.00	-5.00	2.00	-3.00	3503	1.913

Return Time: **1.913** minutes
Total Truck Cycle Time: **11.184** minutes

Loading Tool unit Production 4,603.46 LCY/Hour — Adjusted for job efficiency: 3,820.87 LCY/Hour

Truck Unit Production 938.34 LCY/Hour — Adjusted for job efficiency: 778.82 LCY/Hour

Optimal No. of Trucks: 5 Truck(s) — Selected Number of Trucks: 5 Truck(s)

Adjusted hourly truck team production: 3,894.11 LCY/Hour
Adjusted single truck/loader team production: 3,820.87 LCY/Hour
Adjusted multiple truck/loader team production: **3,820.87** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) — Total job time: **96.36** Hours

Unit cost: $1.797 /LCY — Total job cost: **$661,741**

BULLDOZER WORK

Task description: **Section 25 Pond Removal**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #:	417	State:	Colorado	Abbreviation:	None
Date:	3/11/2025	County:	Moffat	Filename:	417
User:	HR1				

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D11T - 11U
Horsepower: 850
Blade Type: Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $860.11
Total Fleet Cost/Hour: **$860.11**

MATERIAL QUANTITIES

Initial Volume: 9,500
Swell factor: 1.125
Loose volume: **10,688** LCY

Source of estimated volume: Exh 7,Item 23,Fig. C9
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 150 feet
Unadjusted hourly production: 2,036.8 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 0 %
Average site altitude: 6,900 feet

Material weight: 2,650 lbs/LCY

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

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3890

Adjusted unit production: 792.32 LCY/hr
Adjusted fleet production: **792.32** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $1.086/LCY

Total job time: **13.49** Hours
Total job cost: **$11,602**

BULLDOZER WORK

Task description: **Middle Pond Removal**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 418 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 418
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D11T - 11U
Horsepower: 850
Blade Type: Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $860.11
Total Fleet Cost/Hour: **$860.11**

MATERIAL QUANTITIES

Initial Volume: 6,600
Swell factor: 1.125
Loose volume: **7,425** LCY

Source of estimated volume: Exh 7,Item 23,Fig. C8
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 115 feet
Unadjusted hourly production: 2,568.1 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 0 %
Average site altitude: 6,900 feet

Material weight: 2,650 lbs/LCY

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

Job Condition Correction Factor		Source
Operator Skill:	1.000	(EXCL.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5836

Adjusted unit production: 1,498.74 LCY/hr

Adjusted fleet production: **1498.74** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: $0.574/LCY

Total job time: **4.95** Hours

Total job cost: **$4,261**

BULLDOZER WORK

Task description: **Section 36 Pond Removal**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 419 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 419
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D11T - 11U
Horsepower: 850
Blade Type: Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $860.11
Total Fleet Cost/Hour: **$860.11**

MATERIAL QUANTITIES

Initial Volume: 5,700
Swell factor: 1.125
Loose volume: **6,413** LCY

Source of estimated volume: Exh 7,Item 23,Fig. C7
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 150 feet
Unadjusted hourly production: 2,036.8 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 0 %
Average site altitude: 6,900 feet

Material weight: 2,650 lbs/LCY

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

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3890

Adjusted unit production: 792.32 LCY/hr
Adjusted fleet production: **792.32** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $1.086/LCY

Total job time: **8.09** Hours
Total job cost: **$6,961**

BULLDOZER WORK

Task description: **Section 26 Pond Removal**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 420 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 420
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D11T - 11U
Horsepower: 850
Blade Type: Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $860.11
Total Fleet Cost/Hour: **$860.11**

MATERIAL QUANTITIES

Initial Volume: 10,400
Swell factor: 1.125
Loose volume: **11,700** LCY

Source of estimated volume: Exh 7,Item 23,Fig. C6
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 120 feet
Unadjusted hourly production: 2,467.4 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 0 %
Average site altitude: 6,900 feet

Material weight: 2,650 lbs/LCY

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

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3890

Adjusted unit production: 959.82 LCY/hr
Adjusted fleet production: **959.82** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.896/LCY

Total job time: **12.19** Hours
Total job cost: **$10,484**

BULLDOZER WORK

Task description: **Sidehill Pond Removal**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 421 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 421
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D11T - 11U
Horsepower: 850
Blade Type: Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $860.11
Total Fleet Cost/Hour: **$860.11**

MATERIAL QUANTITIES

Initial Volume: 19,800
Swell factor: 1.125
Loose volume: **22,275** LCY

Source of estimated volume: Exh 7,Item 23,Fig. C5
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 120 feet
Unadjusted hourly production: 2,467.4 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 0 %
Average site altitude: 6,900 feet

Material weight: 2,650 lbs/LCY

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

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3890

Adjusted unit production: 959.82 LCY/hr
Adjusted fleet production: **959.82** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.896/LCY

Total job time: **23.21** Hours
Total job cost: **$19,961**

BULLDOZER WORK

Task description: **Coal Stockpile Pond Removal**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 422 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 422
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D11T - 11U
Horsepower: 850
Blade Type: Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $860.11
Total Fleet Cost/Hour: **$860.11**

MATERIAL QUANTITIES

Initial Volume: 61,301
Swell factor: 1.000
Loose volume: **61,301** LCY

Source of estimated volume: Exh 7,Item 23,Fig. C5
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 120 feet
Unadjusted hourly production: 2,467.4 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 0 %
Average site altitude: 6,900 feet

Material weight: 2,650 lbs/LCY

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

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3890

Adjusted unit production: 959.82 LCY/hr
Adjusted fleet production: **959.82** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.896/LCY

Total job time: **63.87** Hours
Total job cost: **$54,933**

BULLDOZER WORK

Task description: **Temporary Facilities Pond Removal**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 423 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 423
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D11T - 11U
Horsepower: 850
Blade Type: Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $860.11
Total Fleet Cost/Hour: **$860.11**

MATERIAL QUANTITIES

Initial Volume: 4,538
Swell factor: 1.000
Loose volume: **4,538** LCY

Source of estimated volume: Exh 7,Item 23,Fig. C5
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 120 feet
Unadjusted hourly production: 2,467.4 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 0 %
Average site altitude: 6,900 feet

Material weight: 2,650 lbs/LCY

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

Job Condition Correction Factor

		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3890

Adjusted unit production: 959.82 LCY/hr
Adjusted fleet production: **959.82** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.896/LCY

Total job time: **4.73** Hours
Total job cost: **$4,067**

BULLDOZER WORK

Task description: **Wilson Storage Pond Removal**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 424 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 424
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D11T - 11U
Horsepower: 850
Blade Type: Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $860.11
Total Fleet Cost/Hour: **$860.11**

MATERIAL QUANTITIES

Initial Volume: 16,127
Swell factor: 1.000
Loose volume: **16,127** LCY

Source of estimated volume: Exh 7,Item 23,Fig. C5
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 120 feet
Unadjusted hourly production: 2,467.4 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: -15 %
Average site altitude: 6,900 feet

Material weight: 2,650 lbs/LCY

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

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	0.800	(POOR)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.329	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4136

Adjusted unit production: 1,020.52 LCY/hr
Adjusted fleet production: **1020.52** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.843/LCY

Total job time: **15.80** Hours
Total job cost: **$13,592**

BULLDOZER WORK

Task description: **Regrade Ditch D1**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 425 State: Colorado Abbreviation: None
Date: 3/11/2025 County: Moffat Filename: 425
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D11T - 11U
Horsepower: 850
Blade Type: Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $860.11
Total Fleet Cost/Hour: **$860.11**

MATERIAL QUANTITIES

Initial Volume: 2,462
Swell factor: 1.000
Loose volume: **2,462** LCY

Source of estimated volume: Exhibit 7-23B Table 1, Ex. 7 , Item 23 Fig. B-1
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 50 feet
Unadjusted hourly production: 4,589.5 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 0 %
Average site altitude: 7,500 feet

Material weight: 2,650 lbs/LCY

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

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	0.800	(POOR)

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

Net correction: 0.3112

Adjusted unit production: 1,428.25 LCY/hr
Adjusted fleet production: **1428.25** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.602/LCY

Total job time: **1.72** Hours
Total job cost: **$1,483**

BULLDOZER WORK

Task description: **Regrade Ditch D2**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 426 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 426
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D11T - 11U
Horsepower: 850
Blade Type: Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $860.11
Total Fleet Cost/Hour: **$860.11**

MATERIAL QUANTITIES

Initial Volume: 7,960
Swell factor: 1.000
Loose volume: **7,960** LCY

Source of estimated volume: Exhibit 7-23B, Table 1, Exh. 7-item 23, Fig. B-1
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 50 feet
Unadjusted hourly production: 4,589.5 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: -20 %
Average site altitude: 7,500 feet

Material weight: 2,650 lbs/LCY

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

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(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:	1.426	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5548

Adjusted unit production: 2,546.25 LCY/hr
Adjusted fleet production: **2546.25** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.338/LCY

Total job time: **3.13** Hours
Total job cost: **$2,689**

BULLDOZER WORK

Task description: **Regrade Ditch D3**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 427 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 427
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D11T - 11U
Horsepower: 850
Blade Type: Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $860.11
Total Fleet Cost/Hour: **$860.11**

MATERIAL QUANTITIES

Initial Volume: 3,814
Swell factor: 1.000
Loose volume: **3,814** LCY

Source of estimated volume: Exhibit 7-23B, Table 1, Exh. 7-item 23, Fig. B-1
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 50 feet
Unadjusted hourly production: 4,589.5 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 0 %
Average site altitude: 7,500 feet

Material weight: 2,650 lbs/LCY

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

Job Condition Correction Factor

		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.200	(S-BY-S)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4668

Adjusted unit production: 2,142.38 LCY/hr
Adjusted fleet production: **2142.38** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.401/LCY

Total job time: **1.78** Hours
Total job cost: **$1,531**

BULLDOZER WORK

Task description: **Regrade Ditch D4**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 428 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 428
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D11T - 11U
Horsepower: 850
Blade Type: Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $860.11
Total Fleet Cost/Hour: **$860.11**

MATERIAL QUANTITIES

Initial Volume: 2,726
Swell factor: 1.000
Loose volume: **2,726** LCY

Source of estimated volume: Exhibit 7-23B, Table 1, Exh. 7-item 23, Fig. B-1
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 50 feet
Unadjusted hourly production: 4,589.5 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 0 %
Average site altitude: 7,500 feet

Material weight: 2,650 lbs/LCY

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

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.200	(S-BY-S)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4668

Adjusted unit production: 2,142.38 LCY/hr
Adjusted fleet production: **2142.38** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.401/LCY

Total job time: **1.27** Hours
Total job cost: **$1,094**

BULLDOZER WORK

Task description: **Regrade Ditch D5**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 429 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 429
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D11T - 11U
Horsepower: 850
Blade Type: Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $860.11
Total Fleet Cost/Hour: **$860.11**

MATERIAL QUANTITIES

Initial Volume: 6,717
Swell factor: 1.000
Loose volume: **6,717** LCY

Source of estimated volume: Exhibit 7-23B, Table 1, Exh. 7-item 23, Fig. B-1
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 50 feet
Unadjusted hourly production: 4,589.5 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 0 %
Average site altitude: 7,500 feet

Material weight: 2,650 lbs/LCY

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

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.200	(S-BY-S)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4668

Adjusted unit production: 2,142.38 LCY/hr
Adjusted fleet production: **2142.38** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.401/LCY

Total job time: **3.14** Hours
Total job cost: **$2,697**

BULLDOZER WORK

Task description: **Regrade Topsoil for Ditch D1**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 431 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 431
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D11T - 11U
Horsepower: 850
Blade Type: Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $860.11
Total Fleet Cost/Hour: **$860.11**

MATERIAL QUANTITIES

Initial Volume: 602
Swell factor: 1.125
Loose volume: **677** LCY

Source of estimated volume: Exhibit 7-23B, Table 1, Exh. 7-item 23, Fig. B-1
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 50 feet
Unadjusted hourly production: 4,589.5 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 0 %
Average site altitude: 7,500 feet

Material weight: 2,550 lbs/LCY

Weight description: Earth - Dry packed

Job Condition Correction Factor

		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.200	(S-BY-S)
Visibility:	1.000	(AVG.)

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

Net correction: 0.4851

Adjusted unit production: 2,226.37 LCY/hr
Adjusted fleet production: **2226.37** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.386/LCY

Total job time: **0.30** Hours
Total job cost: **$262**

BULLDOZER WORK

Task description: **Regrade Topsoil for Ditch D2**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 432 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 432
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D11T - 11U
Horsepower: 850
Blade Type: Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $860.11
Total Fleet Cost/Hour: **$860.11**

MATERIAL QUANTITIES

Initial Volume: 2,772
Swell factor: 1.125
Loose volume: **3,119** LCY

Source of estimated volume: Exhibit 7-23B, Table 1, Exh. 7-item 23, Fig. B-1
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 50 feet
Unadjusted hourly production: 4,589.5 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 0 %
Average site altitude: 7,500 feet

Material weight: 2,550 lbs/LCY

Weight description: Earth - Dry packed

Job Condition Correction Factor

		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.200	(S-BY-S)
Visibility:	1.000	(AVG.)

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

Net correction: 0.4851

Adjusted unit production: 2,226.37 LCY/hr
Adjusted fleet production: **2226.37** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.386/LCY

Total job time: **1.40** Hours
Total job cost: **$1,205**

BULLDOZER WORK

Task description: **Regrade Topsoil for Ditch D3**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 433 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 433
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D11T - 11U
Horsepower: 850
Blade Type: Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $860.11
Total Fleet Cost/Hour: **$860.11**

MATERIAL QUANTITIES

Initial Volume: 434
Swell factor: 1.125
Loose volume: **488** LCY

Source of estimated volume: Exhibit 7-23B, Table 1, Exh. 7-item 23, Fig. B-1
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 50 feet
Unadjusted hourly production: 4,589.5 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 0 %
Average site altitude: 7,500 feet

Material weight: 2,550 lbs/LCY

Weight description: Earth - Dry packed

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.200	(S-BY-S)
Visibility:	1.000	(AVG.)

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

Net correction: 0.4851

Adjusted unit production: 2,226.37 LCY/hr
Adjusted fleet production: **2226.37** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.386/LCY

Total job time: **0.22** Hours
Total job cost: **$189**

BULLDOZER WORK

Task description: **Regrade Topsoil for Ditch D4**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 434 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 434
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D11T - 11U
Horsepower: 850
Blade Type: Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $860.11
Total Fleet Cost/Hour: **$860.11**

MATERIAL QUANTITIES

Initial Volume: 311
Swell factor: 1.125
Loose volume: **350** LCY

Source of estimated volume: Exhibit 7-23B, Table 1, Exh. 7-item 23, Fig. B-1
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 50 feet
Unadjusted hourly production: 4,589.5 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 0 %
Average site altitude: 7,500 feet

Material weight: 2,550 lbs/LCY

Weight description: Earth - Dry packed

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.200	(S-BY-S)
Visibility:	1.000	(AVG.)

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

Net correction: 0.4851

Adjusted unit production: 2,226.37 LCY/hr
Adjusted fleet production: **2226.37** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.386/LCY

Total job time: **0.16** Hours
Total job cost: **$135**

BULLDOZER WORK

Task description: **Regrade Topsoil for Ditch D5**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 435 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 435
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D11T - 11U
Horsepower: 850
Blade Type: Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $860.11
Total Fleet Cost/Hour: **$860.11**

MATERIAL QUANTITIES

Initial Volume: 1,727
Swell factor: 1.125
Loose volume: **1,943** LCY

Source of estimated volume: Exhibit 7-23B, Table 1, Exh. 7-item 23, Fig. B-1
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 50 feet
Unadjusted hourly production: 4,589.5 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 0 %
Average site altitude: 7,500 feet

Material weight: 2,550 lbs/LCY

Weight description: Earth - Dry packed

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.200	(S-BY-S)
Visibility:	1.000	(AVG.)

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

Net correction: 0.4851

Adjusted unit production: 2,226.37 LCY/hr
Adjusted fleet production: **2226.37** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.386/LCY

Total job time: **0.87** Hours
Total job cost: **$751**

BULLDOZER WORK

Task description: **Regrade Topsoil for West Side Pond Access Road**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 437 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 437
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D11T - 11U
Horsepower: 850
Blade Type: Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $860.11
Total Fleet Cost/Hour: **$860.11**

MATERIAL QUANTITIES

Initial Volume: 2,688
Swell factor: 1.125
Loose volume: **3,024** LCY

Source of estimated volume: Exhibit 7-23B, Table 1, Exh. 7-item 23, Fig. B-1
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 200 feet
Unadjusted hourly production: 1,560.0 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 5 %
Average site altitude: 7,500 feet

Material weight: 2,550 lbs/LCY

Weight description: Earth - Dry packed

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.200	(S-BY-S)
Visibility:	1.000	(AVG.)

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

Net correction: 0.4381

Adjusted unit production: 683.44 LCY/hr
Adjusted fleet production: **683.44** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $1.258/LCY

Total job time: **4.42** Hours
Total job cost: **$3,806**

BULLDOZER WORK

Task description: **Regrade Topsoil for East Side Pond Access Road**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 438 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 438
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D11T - 11U
Horsepower: 850
Blade Type: Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $860.11
Total Fleet Cost/Hour: **$860.11**

MATERIAL QUANTITIES

Initial Volume: 2,688
Swell factor: 1.125
Loose volume: **3,024** LCY

Source of estimated volume: Exhibit 7-23B, Table 1, Exh. 7-item 23, Fig. B-1
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 200 feet
Unadjusted hourly production: 1,560.0 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 5 %
Average site altitude: 7,500 feet

Material weight: 2,550 lbs/LCY

Weight description: Earth - Dry packed

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.200	(S-BY-S)
Visibility:	1.000	(AVG.)

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

Net correction: 0.4381

Adjusted unit production: 683.44 LCY/hr
Adjusted fleet production: **683.44** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $1.258/LCY

Total job time: **4.42** Hours
Total job cost: **$3,806**

BULLDOZER WORK

Task description: **Regrade Topsoil for Topsoil Access Road**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 439 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 439
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D11T - 11U
Horsepower: 850
Blade Type: Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $860.11
Total Fleet Cost/Hour: **$860.11**

MATERIAL QUANTITIES

Initial Volume: 22,362
Swell factor: 1.125
Loose volume: **25,157** LCY

Source of estimated volume: Exhibit 7-23B, Table 1, Exh. 7-item 23, Fig. B-1
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 200 feet
Unadjusted hourly production: 1,560.0 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: -5 %
Average site altitude: 7,500 feet

Material weight: 2,550 lbs/LCY

Weight description: Earth - Dry packed

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.200	(S-BY-S)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.115	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5409

Adjusted unit production: 843.80 LCY/hr
Adjusted fleet production: **843.8** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $1.019/LCY

Total job time: **29.81** Hours
Total job cost: **$25,643**

BULLDOZER WORK

Task description: **Regrade Topsoil for Temporary North Access Road**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 440 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 440
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D11T - 11U
Horsepower: 850
Blade Type: Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $860.11
Total Fleet Cost/Hour: **$860.11**

MATERIAL QUANTITIES

Initial Volume: 7,499
Swell factor: 1.125
Loose volume: **8,436** LCY

Source of estimated volume: Exhibit 7-23B, Table 1, Exh. 7-item 23, Fig. B-1
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 200 feet
Unadjusted hourly production: 1,560.0 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: -5 %
Average site altitude: 7,500 feet

Material weight: 2,550 lbs/LCY

Weight description: Earth - Dry packed

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.200	(S-BY-S)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.115	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5409

Adjusted unit production: 843.80 LCY/hr
Adjusted fleet production: **843.8** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $1.019/LCY

Total job time: **10.00** Hours
Total job cost: **$8,599**

BULLDOZER WORK

Task description: **Regrade Topsoil for Temporary South Access Road**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 441 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 441
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D11T - 11U
Horsepower: 850
Blade Type: Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $860.11
Total Fleet Cost/Hour: **$860.11**

MATERIAL QUANTITIES

Initial Volume: 7,499
Swell factor: 1.125
Loose volume: **8,436** LCY

Source of estimated volume: Exhibit 7-23B, Table 1, Exh. 7-item 23, Fig. B-1
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 200 feet
Unadjusted hourly production: 1,560.0 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: -5 %
Average site altitude: 7,500 feet

Material weight: 2,550 lbs/LCY

Weight description: Earth - Dry packed

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.200	(S-BY-S)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.115	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5409

Adjusted unit production: 843.80 LCY/hr
Adjusted fleet production: **843.8** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $1.019/LCY

Total job time: **10.00** Hours
Total job cost: **$8,599**

BULLDOZER WORK

Task description: **Regrade Topsoil for Tie-In Road Access Road**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #:	442	State:	Colorado	Abbreviation:	None
Date:	3/12/2025	County:	Moffat	Filename:	442
User:	HR1				

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D11T - 11U
Horsepower: 850
Blade Type: Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $860.11
Total Fleet Cost/Hour: **$860.11**

MATERIAL QUANTITIES

Initial Volume: 1,071
Swell factor: 1.125
Loose volume: **1,205** LCY

Source of estimated volume: Exhibit 7-23B, Table 1, Exh. 7-item 23, Fig. B-1
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 200 feet
Unadjusted hourly production: 1,560.0 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: -5 %
Average site altitude: 7,500 feet

Material weight: 2,550 lbs/LCY

Weight description: Earth - Dry packed

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.200	(S-BY-S)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.115	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5409

Adjusted unit production: 843.80 LCY/hr
Adjusted fleet production: **843.8** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $1.019/LCY

Total job time: **1.43** Hours
Total job cost: **$1,228**

REVEGETATION WORK

Task description: **Reseed Collom Access Roads (Exh. 13C Table 13C-17)**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 443 State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 443
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
				Totals Nursery Stock Cost / Acre	**$0.00**

JOB TIME AND COST

No. of Acres: 32.7
Estimated Failure Rate: 20%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $585.76
Cost /Acre*: $468.15

Initial Job Cost: **$19,154.35**
Reseeding Job Cost: **$3,061.70**
Total Job Cost: **$22,216**
Job Hours: **16.00**

BULLDOZER WORK

Task description: **Regrade Topsoil for Raw Water Line**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 444 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 444
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D11T - 11U
Horsepower: 850
Blade Type: Universal
Attachment: 1-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper own. Cost/Hour:	$27.44	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $887.55
Total Fleet Cost/Hour: **$887.55**

MATERIAL QUANTITIES

Initial Volume: 28,657
Swell factor: 1.125
Loose volume: **32,239** LCY

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

HOURLY PRODUCTION

Average push distance: 100 feet
Unadjusted hourly production: 2,870.3 LCY/hr

Materials consistency description: Loose stockpile 1.2

Average push gradient: 5 %
Average site altitude: 7,600 feet

Material weight: 2,550 lbs/LCY

Weight description: Earth - Dry packed

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.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:	1.000	(DOZ-OC)
Push gradient:	0.903	(CAT HB)
Altitude:	0.930	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.6790

Adjusted unit production: 1,948.93 LCY/hr
Adjusted fleet production: **1948.93** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.455/LCY

Total job time: **16.54** Hours
Total job cost: **$14,682**

REVEGETATION WORK

Task description: **Reseed Collom Raw Water Line**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 445 State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 445
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	**Rate – PLS LBS / Acre**	**Seeds per SQ. FT**	**Cost /Acre**
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	Cost /Acre
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	Cost /Acre
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 36.37
Estimated Failure Rate: 20%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $585.76
Cost /Acre*: $468.15

Initial Job Cost: **$21,304.09**
Reseeding Job Cost: **$3,405.32**
Total Job Cost: **$24,709**
Job Hours: **18.00**

TRUCK/LOADER TEAM WORK

Task description: **Load, Haul and Regrade Collom Pit Topsoil–RN-08 Permit Term**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 446 State: Colorado Abbreviation: None
Date: 3/25/2025 County: Moffat Filename: 446
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	50	50
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$59.82	$70.88
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$266.97	$222.32
Number of Units:	4	1	1	2	1	1
Group Subtotals:	Work: $3,288.72		Support: $2,580.33		Maint: $489.29	

Total work team cost/hour: **$6,358.34**

MATERIAL QUANTITIES

Initial volume: 1,412,134 CCY Swell factor: 1.215
Loose volume: **1,715,743** 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: 492,200 Pounds
Payload Capacity: 307.63 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 6" and over diameter 0.03	0.030	(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:	-0.050	minutes
	Adjusted Loader Cycle Time:	**0.675**	minutes
	Net Load Time per Truck:	**1.450**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.450	Minutes	Adjusted for site altitude:	1.480	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	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	5144.00	3.00	3.00	6.00	1266	4.238

Haul Time: **4.238** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	5144.00	-3.00	3.00	0.00	3503	1.672

Return Time: **1.672** minutes
Total Truck Cycle Time: **9.390** minutes

Loading Tool unit Production: 4,603.46 LCY/Hour — Adjusted for job efficiency: 3,820.87 LCY/Hour

Truck Unit Production: 1,117.62 LCY/Hour — Adjusted for job efficiency: 927.62 LCY/Hour

Optimal No. of Trucks: 4 Truck(s) — Selected Number of Trucks: 4 Truck(s)

Adjusted hourly truck team production: 3,710.50 LCY/Hour
Adjusted single truck/loader team production: 3,710.50 LCY/Hour
Adjusted multiple truck/loader team production: **3,710.50** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) — Total job time: **462.40** Hours

Unit cost: $1.714 /LCY — Total job cost: **$2,940,109**

TRUCK/LOADER TEAM WORK

Task description: **Load, Haul and Regrade Collom Pit**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #:	447	State:	Colorado	Abbreviation:	None
Date:	2/6/2025	County:	Moffat	Filename:	C019-447
User:	HR1				

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	50	50
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$59.82	$70.88
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$266.97	$222.32
Number of Units:	4	1	1	2	1	1
Group Subtotals:	Work: $3,288.72		Support: $2,580.33		Maint: $489.29	

Total work team cost/hour: **$6,358.34**

MATERIAL QUANTITIES

Initial volume: 6,608,464 CCY Swell factor: 1.125

Loose volume: **7,434,522** 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: 2,550 Pounds/LCY

Description: Earth - Dry packed

Rated Payload: 492,200 Pounds

Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 6" and over diameter 0.03	0.030	(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:	-0.050	minutes
	Adjusted Loader Cycle Time:	**0.675**	minutes
	Net Load Time per Truck:	**1.450**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.450	Minutes	Adjusted for site altitude:	1.480	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	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	4244.00	3.80	3.00	6.80	1160	3.827

Haul Time: **3.827** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4244.00	-3.80	3.00	-0.80	3503	1.249

Return Time: **1.249** minutes
Total Truck Cycle Time: **8.556** minutes

Loading Tool unit Production 4,603.46 LCY/Hour Adjusted for job efficiency: 3,820.87 LCY/Hour

Truck Unit Production 1,226.57 LCY/Hour Adjusted for job efficiency: 1,018.05 LCY/Hour

Optimal No. of Trucks: 4 Truck(s) Selected Number of Trucks: 4 Truck(s)

Adjusted hourly truck team production: 4,072.20 LCY/Hour
Adjusted single truck/loader team production: 3,820.87 LCY/Hour
Adjusted multiple truck/loader team production: **3,820.87** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **1,945.77** Hours

Unit cost: $1.664 /LCY Total job cost: **$12,371,853**

REVEGETATION WORK

Task description: **Reseed Collom Pit and Temporary Spoil Pile**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 448 State: Colorado Abbreviation: None
Date: 2/6/2025 County: Moffat Filename: 448
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 989.4
Estimated Failure Rate: 20%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $585.76
Cost /Acre*: $468.15

Initial Job Cost: **$579,550.94**
Reseeding Job Cost: **$92,637.52**
Total Job Cost: **$672,188**
Job Hours: **495.00**

REVEGETATION WORK

Task description: **Reseed Collom TS Pile Footprints 25B, 26A, 26B, 36A**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 450 State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 450
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	**Rate – PLS LBS / Acre**	**Seeds per SQ. FT**	**Cost /Acre**
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 81.4
Estimated Failure Rate: 20%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $585.76
Cost /Acre*: $468.15

Initial Job Cost: **$47,680.86**
Reseeding Job Cost: **$7,621.48**
Total Job Cost: **$55,302**
Job Hours: **40.50**

REVEGETATION WORK

Task description: **Reseed Collom Facility Area**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 453 State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 453
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	**Rate – PLS LBS / Acre**	**Seeds per SQ. FT**	**Cost /Acre**
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 302.5
Estimated Failure Rate: 20%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $585.76
Cost /Acre*: $468.15

Initial Job Cost: **$177,192.40**
Reseeding Job Cost: **$28,323.08**
Total Job Cost: **$205,515**
Job Hours: **251.00**

REVEGETATION WORK

Task description: **Collom-Weed control 10% of 1133.4 ac. 3X**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 459 State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 459
User: HR1

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
	$
Total Tilling Cost/Acre	**$0.00**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
			$
Totals Seed Mix	0.00	0.00	**$0.00**

Application

Description	Cost /Acre
	$

Total Seed Application Cost/Acre	**$0.00**

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - 2,4D @ 1.0 pt/ac	0.50	ACRE	$4.13	$2.06
Herbicide - Escort @ 1.0 pt/ac	0.25	ACRE	$76.96	$19.24
Total Mulch Materials Cost/Acre				**$21.30**

Application

Description	Cost /Acre
Weed spray, truck, non-aquatic area, nox. [DMG]	$83.26
Total Mulch Application Cost/Acre	**$83.26**

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: 340

Estimated Failure Rate: 0%

*Selected Replanting Work Items: NONE

Cost /Acre: $104.56

Cost /Acre*: $0.00

Initial Job Cost: **$35,550.40**

Reseeding Job Cost: **$0.00**

Total Job Cost: **$35,550**

Job Hours: **120.00**

BOREHOLE SEALING WORK

Task description: **Plug and Seal All Wells for Collom (MR203)**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 461
Date: 3/12/2025
User: HR1

State: Colorado
County: Moffat

Abbreviation: None
Filename: 461

Agency or organization name: DRMS

UNIT COSTS

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Plug MC-04-01 Well	PVC plug - 4 in. diameter borehole	4"	65'	1.00	EA	$36.06	$36.06
- Fill Holes with Cement	Portland cement grout (Bag, material cost only...94 lb. bag)	4"	65'	13.00	bag	$22.00	$286.00
- Cut Casing at Surface	Exposed casing removal - Calculate Circumference in Linear Feet	4"	NA	1.00	LF	$3.23	$3.23
- Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	$46.00	$46.00
- Drill Rig Time	ATLAS COPCO ROC D7-11,4.0 in.	NA	NA	2.00	EA	$450.94	$901.88
- Water Truck Time	Water Tanker, 5,000 Gal.	NA	NA	2.00	EA	$101.92	$203.84
Plug MC-04-02 Well	PVC plug - 4 in. diameter borehole	4"	83'	1.00	EA	$36.06	$36.06
- Fill Holes with Cement	Portland cement grout (Bag, material cost only...94 lb. bag)	4"	83'	2.00	bag	$22.00	$44.00
- Cut Casing at Surface	Exposed casing removal - Calculate Circumference in Linear Feet	4"	NA	1.00	LF	$3.23	$3.23
- Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	$46.00	$46.00
- Drill Rig Time	ATLAS COPCO ROC D7-11,4.0 in.	NA	NA	2.00	EA	$450.94	$901.88
- Water Truck Time	Water Tanker, 5,000 Gal.	NA	NA	2.00	EA	$101.92	$203.84
Plug MLC-04-01 Well	PVC plug - 4 in. diameter borehole	4"	74'	1.00	EA	$36.06	$36.06
- Fill Holes with Cement	Portland cement grout (Bag, material cost only...94 lb. bag)	4"	74'	1.00	bag	$22.00	$22.00
- Cut Casing at Surface	Exposed casing removal - Calculate Circumference in Linear	4"	NA	1.00	LF	$3.23	$3.23

	Feet						
- Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	$46.00	$46.00
- Drill Rig Time	ATLAS COPCO ROC D7-11,4.0 in.	NA	NA	2.00	EA	$450.94	$901.88
- Water Truck Time	Water Tanker, 5,000 Gal.	NA	NA	2.00	EA	$101.92	$203.84
Plug MJ-95-01 Well	PVC plug - 6 in. diameter borehole	6"	48'	1.00	EA	$65.19	$65.19
- Fill Holes with Cement	Portland cement grout (Bag, material cost only...94 lb. bag)	6"	48'	2.00	bag	$22.00	$44.00
- Cut Casing at Surface	Exposed casing removal - Calculate Circumference in Linear Feet	6"	NA	1.00	LF	$3.23	$3.23
- Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	$46.00	$46.00
- Drill Rig Time	ATLAS COPCO ROC L8(25)	NA	NA	2.00	EA	$616.70	$1,233.40
- Water Truck Time	Water Tanker, 5,000 Gal.	NA	NA	2.00	EA	$101.92	$203.84
Plug MJ-95-03 Well	PVC plug - 6 in. diameter borehole	6"	30'	1.00	EA	$65.19	$65.19
- Fill Holes with Cement	Portland cement grout (Bag, material cost only...94 lb. bag)	6"	30'	1.00	bag	$22.00	$22.00
- Cut Casing at Surface	Exposed casing removal - Calculate Circumference in Linear Feet	6"	NA	1.00	LF	$3.23	$3.23
- Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	$46.00	$46.00
- Drill Rig Time	ATLAS COPCO ROC L8(25)	NA	NA	2.00	EA	$616.70	$1,233.40
- Water Truck Time	Water Tanker, 5,000 Gal.	NA	NA	2.00	EA	$101.92	$203.84
Plug Trout Creek Well	PVC plug - 6 in. diameter borehole	6"	1200'	1.00	EA	$65.19	$65.19
- Fill Holes with Cement	Portland cement grout (Bag, material cost only...94 lb. bag)	6"	1200'	52.00	bag	$22.00	$1,144.00
- Cut Casing at Surface	Exposed casing removal - Calculate Circumference in Linear Feet	6"	NA	1.00	LF	$3.23	$3.23
- Water Truck Time	Water Tanker, 5,000 Gal.	NA	NA	12.00	EA	$101.92	$1,223.04
- Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	$46.00	$46.00

- Drill Rig Time	ATLAS COPCO ROC L8(25)	NA	NA	12.00	EA	$616.70	$7,400.40
Plug Potable Water Well	PVC plug - 8 in. diameter borehole	8.75"	1150'	1.00	EA	$89.31	$89.31
- Fill Holes with Cement	Portland cement grout (Bag, material cost only...94 lb. bag)	8.75"	1150'	107.00	bag	$22.00	$2,354.00
- Cut Casing at Surface	Exposed casing removal - Calculate Circumference in Linear Feet	8.75"	NA	1.00	LF	$3.23	$3.23
- Water Truck Time	Water Tanker, 5,000 Gal.	NA	NA	12.00	EA	$101.92	$1,223.04
- Drill Rig Time	Truck Mounted - 3.0 in. - 1,700 ft. capy.	NA	NA	12.00	EA	$82.96	$995.52
- Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	$46.00	$46.00

Job Hours: **24.00** **Total Cost**: **$21,687.00**

BOREHOLE SEALING WORK

Task description: **Plug and Seal 16 Geotechnical Boreholes**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 466 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 466
User: HR1

Agency or organization name: DRMS

UNIT COSTS

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill Holes with Cement	Portland cement grout (Bag, material cost only...94 lb. bag)	4"	1120'	49.00	bag	$22.00	$1,078.00
- Borehole Marker	Borehole location/identification marker (EA, material cost only)	N/A	N/A	16.00	EA	$46.00	$736.00
- Truck and Labor	Flatbed Truck, 6x4, 45K GVW	N/A	N/A	32.00	EA	$81.77	$2,616.64

Job Hours: **24.00** **Total Cost**: **$4,431.00**

REVEGETATION WORK

Task description: **Reseed Geotechnical Hole Access Corridors**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 468 State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 468
User: HR1

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
	$
Total Tilling Cost/Acre	**$0.00**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Big Bluegrass - Sherman	0.40	8.26	$6.34
Bluebunch Wheatgrass - Secar	4.00	12.86	$42.05
Bitterbrush, Antelope	6.00	1.85	$339.08
Mountain Brome - Bromar	2.00	3.21	$12.03
Great Basin Wildrye - Magnar	1.00	4.06	$11.69
Rocky Mountain Fescue	2.00	32.14	$21.57
Slender Wheatgrass - Pryor	1.50	5.48	$9.27
Milk Vetch, Cicer - Lutana	0.60	2.00	$5.87
Thickspike Wheatgrass - Critana	2.50	8.84	$20.37

Western Wheatgrass - Arriba	3.00	7.58	$27.10
Rabbitbrush, Rubber	0.60	8.94	$50.04
Needlegrass, Green - Lodorm	0.40	1.66	$3.46
Sagebrush, Louisiana or Prairie	1.00	100.79	$184.91
Sagebrush, Mountain or Big	4.00	211.20	$330.80
Flax, Lewis Blue	0.50	3.32	$21.15
Sagebrush, Silver	1.50	29.13	$102.19
Saltbush, Four Wing	3.20	4.41	$63.59
Snowberry, Mountain	1.50	2.58	$88.59
Sumac, Skunkbrush	1.00	0.47	$45.13
Penstemon, Palmer	0.20	4.42	$15.59
Penstemon, Rocky Mountain	1.00	15.67	$61.41
Yarrow, Western	0.40	24.32	$19.30
Totals Seed Mix	38.30	493.19	**$1,481.54**

Application

Description	**Cost /Acre**
Broadcast seeding [DMG]	$272.56
Total Seed Application Cost/Acre	**$272.56**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 1.2
Estimated Failure Rate: 20%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $1,754.10
Cost /Acre*: $1,754.10

Initial Job Cost: **$2,104.92**

Reseeding Job Cost:	**$420.98**
Total Job Cost:	**$2,526**
Job Hours:	**2.40**

BOREHOLE SEALING WORK

Task description: **Plug and Seal 80 Collom In-Pit Drill Holes (MR216)**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 470 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 470
User: HR1

Agency or organization name: DRMS

UNIT COSTS

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Bottom Plug	PVC plug - 6 in. diameter borehole	5.625"	91200	80.00	EA	$65.19	$5,215.29
- Fill Holes with Cement	Portland cement grout (Bag, material cost only...94 lb. bag)	5.625"	91200	3,497.00	bag	$22.00	$76,934.00
- Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	80.00	EA	$46.00	$3,680.00
- Drill Rig Time	Truck Mounted - 3.0 in. - 1,700 ft. capy.	NA	NA	949.00	EA	$82.96	$78,729.04
- Water Truck Time	Water Tanker, 2,500 Gal.	NA	NA	949.00	EA	$34.10	$32,360.90

Job Hours: **949.00** **Total Cost**: **$196,919.00**

BULLDOZER WORK

Task description: **Regrade Topsoil for Collom In-Pit Drill Pads**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #:	471	State:	Colorado	Abbreviation:	None
Date:	3/12/2025	County:	Moffat	Filename:	471
User:	HR1				

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D11T - 11U
Horsepower: 850
Blade Type: Universal
Attachment: 1-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper own. Cost/Hour:	$27.44	NA
Ripper op. Cost/Hour:	$16.65	100
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $904.20
Total Fleet Cost/Hour: **$904.20**

MATERIAL QUANTITIES

Initial Volume: 13,552
Swell factor: 1.000
Loose volume: **13,552** LCY

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

HOURLY PRODUCTION

Average push distance: 100 feet
Unadjusted hourly production: 2,870.3 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: 0 %
Average site altitude: 7,600 feet

Material weight: 1,600 lbs/LCY

Weight description: Top Soil

Job Condition Correction Factor

		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.000	(CAT HB)
Altitude:	0.930	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.9990

Adjusted unit production: 2,867.43 LCY/hr
Adjusted fleet production: **2867.43** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.315/LCY

Total job time: **4.73** Hours
Total job cost: **$4,273**

BULLDOZER WORK

Task description: **Regrade Topsoil for Collom In-Pit Drill Roads**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 472 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 472
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D11T - 11U
Horsepower: 850
Blade Type: Universal
Attachment: 1-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper own. Cost/Hour:	$27.44	NA
Ripper op. Cost/Hour:	$16.65	100
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $904.20
Total Fleet Cost/Hour: **$904.20**

MATERIAL QUANTITIES

Initial Volume: 5,969
Swell factor: 1.000
Loose volume: **5,969** LCY

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

HOURLY PRODUCTION

Average push distance: 100 feet
Unadjusted hourly production: 2,870.3 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: 0 %
Average site altitude: 7,600 feet

Material weight: 1,600 lbs/LCY

Weight description: Top Soil

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.000	(CAT HB)
Altitude:	0.930	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.9990

Adjusted unit production: 2,867.43 LCY/hr
Adjusted fleet production: **2867.43** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.315/LCY

Total job time: **2.08** Hours
Total job cost: **$1,882**

REVEGETATION WORK

Task description: **Reseed Collom In-Pit Drill Pads and Roads**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 473 State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 473
User: HR1

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
	$
Total Tilling Cost/Acre	**$0.00**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Big Bluegrass - Sherman	0.40	8.26	$6.34
Bluebunch Wheatgrass - Secar	4.00	12.86	$42.05
Bitterbrush, Antelope	6.00	1.85	$339.08
Mountain Brome - Bromar	2.00	3.21	$12.03
Great Basin Wildrye - Magnar	1.00	4.06	$11.69
Rocky Mountain Fescue	2.00	32.14	$21.57
Slender Wheatgrass - Pryor	1.50	5.48	$9.27
Milk Vetch, Cicer - Lutana	0.60	2.00	$5.87
Thickspike Wheatgrass - Critana	2.50	8.84	$20.37

Western Wheatgrass - Arriba	3.00	7.58	$27.10
Rabbitbrush, Rubber	0.60	8.94	$50.04
Needlegrass, Green - Lodorm	0.40	1.66	$3.46
Sagebrush, Louisiana or Prairie	1.00	100.79	$184.91
Sagebrush, Mountain or Big	4.00	211.20	$330.80
Flax, Lewis Blue	0.50	3.32	$21.15
Sagebrush, Silver	1.50	29.13	$102.19
Saltbush, Four Wing	3.20	4.41	$63.59
Snowberry, Mountain	1.50	2.58	$88.59
Sumac, Skunkbrush	1.00	0.47	$45.13
Penstemon, Palmer	0.20	4.42	$15.59
Penstemon, Rocky Mountain	1.00	15.67	$61.41
Yarrow, Western	0.40	24.32	$19.30
Totals Seed Mix	38.30	493.19	**$1,481.54**

Application

Description	**Cost /Acre**
Broadcast seeding [DMG]	$272.56
Total Seed Application Cost/Acre	**$272.56**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 5.6 Cost /Acre: $1,754.10

Estimated Failure Rate: 20% Cost /Acre*: $1,754.10

*Selected Replanting Work Items: SEEDING

Initial Job Cost: **$9,822.96**

Reseeding Job Cost:	**$1,964.59**
Total Job Cost:	**$11,788**
Job Hours:	**11.20**

BULLDOZER WORK

Task description: **Regrade Topsoil for Collom Power Line**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 474 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 474
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D11T - 11U
Horsepower: 850
Blade Type: Universal
Attachment: 1-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper own. Cost/Hour:	$27.44	NA
Ripper op. Cost/Hour:	$16.65	100
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $904.20
Total Fleet Cost/Hour: **$904.20**

MATERIAL QUANTITIES

Initial Volume: 25,000
Swell factor: 1.000
Loose volume: **25,000** LCY

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

HOURLY PRODUCTION

Average push distance: 100 feet
Unadjusted hourly production: 2,870.3 LCY/hr

Materials consistency description: Loose stockpile 1.2

Average push gradient: 0 %
Average site altitude: 7,600 feet

Material weight: 2,550 lbs/LCY

Weight description: Earth - Dry packed

Job Condition Correction Factor

		Source
Operator Skill:	0.900	(AB.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:	1.000	(DOZ-OC)
Push gradient:	1.000	(CAT HB)
Altitude:	0.930	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.7520

Adjusted unit production: 2,158.47 LCY/hr
Adjusted fleet production: **2158.47** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.419/LCY

Total job time: **11.58** Hours
Total job cost: **$10,473**

REVEGETATION WORK

Task description: **Reseed 14.7 acres for Collom Power Line**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 475 State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 475
User: HR1

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
	$
Total Tilling Cost/Acre	**$0.00**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Big Bluegrass - Sherman	0.40	8.26	$6.34
Bluebunch Wheatgrass - Secar	4.00	12.86	$42.05
Bitterbrush, Antelope	6.00	1.85	$339.08
Mountain Brome - Bromar	2.00	3.21	$12.03
Great Basin Wildrye - Magnar	1.00	4.06	$11.69
Rocky Mountain Fescue	2.00	32.14	$21.57
Slender Wheatgrass - Pryor	1.50	5.48	$9.27
Milk Vetch, Cicer - Lutana	0.60	2.00	$5.87
Thickspike Wheatgrass - Critana	2.50	8.84	$20.37

Western Wheatgrass - Arriba	3.00	7.58	$27.10
Rabbitbrush, Rubber	0.60	8.94	$50.04
Needlegrass, Green - Lodorm	0.40	1.66	$3.46
Sagebrush, Louisiana or Prairie	1.00	100.79	$184.91
Sagebrush, Mountain or Big	4.00	211.20	$330.80
Flax, Lewis Blue	0.50	3.32	$21.15
Sagebrush, Silver	1.50	29.13	$102.19
Saltbush, Four Wing	3.20	4.41	$63.59
Snowberry, Mountain	1.50	2.58	$88.59
Sumac, Skunkbrush	1.00	0.47	$45.13
Penstemon, Palmer	0.20	4.42	$15.59
Penstemon, Rocky Mountain	1.00	15.67	$61.41
Yarrow, Western	0.40	24.32	$19.30
Totals Seed Mix	38.30	493.19	**$1,481.54**

Application

Description	**Cost /Acre**
Broadcast seeding [DMG]	$272.56
Total Seed Application Cost/Acre	**$272.56**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 14.7 Cost /Acre: $1,754.10
Estimated Failure Rate: 20% Cost /Acre*: $1,754.10
*Selected Replanting Work Items: SEEDING

Initial Job Cost: **$25,785.27**

Reseeding Job Cost:	**$5,157.05**
Total Job Cost:	**$30,942**
Job Hours:	**7.30**

BULLDOZER WORK

Task description: **Regrade Ditch CWD-1 (MR202)**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 476 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 476
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D8T - 8SU
Horsepower: 310
Blade Type: Semi-Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$173.32	NA
Operating Cost/Hour:	$76.80	70
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $288.70
Total Fleet Cost/Hour: **$288.70**

MATERIAL QUANTITIES

Initial Volume: 5,923
Swell factor: 1.000
Loose volume: **5,923** LCY

Source of estimated volume: Exhibit 7-23B, Table 1, Exh. 7-item 23, Fig. B-1
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 50 feet
Unadjusted hourly production: 1,400.0 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 0 %
Average site altitude: 7,500 feet

Material weight: 2,650 lbs/LCY

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

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.200	(S-BY-S)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4668

Adjusted unit production: 653.52 LCY/hr
Adjusted fleet production: **653.52** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.442/LCY

Total job time: **12.95** Hours
Total job cost: **$3,738**

BULLDOZER WORK

Task description: **Regrade Topsoil for Ditch CWD-1 (MR202)**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 477 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: 477
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D11T - 11U
Horsepower: 850
Blade Type: Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $860.11
Total Fleet Cost/Hour: **$860.11**

MATERIAL QUANTITIES

Initial Volume: 4,998
Swell factor: 1.000
Loose volume: **4,998** LCY

Source of estimated volume: Exhibit 7-23B, Table 1, Exh. 7-item 23, Fig. B-1
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 200 feet
Unadjusted hourly production: 1,560.0 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 0 %
Average site altitude: 7,500 feet

Material weight: 2,550 lbs/LCY

Weight description: Earth - Dry packed

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.200	(S-BY-S)
Visibility:	1.000	(AVG.)

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

Net correction: 0.5822

Adjusted unit production: 908.23 LCY/hr
Adjusted fleet production: **908.23** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.947/LCY

Total job time: **5.50** Hours
Total job cost: **$4,733**

REVEGETATION WORK

Task description: **Reseed Ditch CWD-1**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 478 State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 478
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 4.3
Estimated Failure Rate: 20%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $585.76
Cost /Acre*: $468.15

Initial Job Cost: **$2,518.77**
Reseeding Job Cost: **$402.61**
Total Job Cost: **$2,921**
Job Hours: **4.30**

REVEGETATION WORK

Task description: **Reseed Collom Area Fire Lines**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 479 State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 479
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 5
Estimated Failure Rate: 20%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $585.76
Cost /Acre*: $468.15

Initial Job Cost: **$2,928.80**
Reseeding Job Cost: **$468.15**
Total Job Cost: **$3,397**
Job Hours: **2.50**

BULLDOZER WORK

Task description: **Regrade Topsoil for Collom Haul Road Channels**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 480 State: Colorado Abbreviation: None
Date: 3/12/2025 County: Moffat Filename: C019-480
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D11T - 11U
Horsepower: 850
Blade Type: Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	100
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $860.11
Total Fleet Cost/Hour: **$860.11**

MATERIAL QUANTITIES

Initial Volume: 4,578
Swell factor: 1.000
Loose volume: **4,578** LCY

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

HOURLY PRODUCTION

Average push distance: 100 feet
Unadjusted hourly production: 2,870.3 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: -5 %
Average site altitude: 7,600 feet

Material weight: 1,600 lbs/LCY

Weight description: Top Soil

Job Condition Correction Factor

		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.115	(CAT HB)
Altitude:	0.930	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.1139

Adjusted unit production: 3,197.23 LCY/hr
Adjusted fleet production: **3197.23** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.269/LCY

Total job time: **1.43** Hours
Total job cost: **$1,232**

REVEGETATION WORK

Task description: **Reseed Collom Haul Road Channels**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 481 State: Colorado Abbreviation: None
Date: 3/28/2025 County: Moffat Filename: 481
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	**Rate – PLS LBS / Acre**	**Seeds per SQ. FT**	**Cost /Acre**
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 3.55
Estimated Failure Rate: 20%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $585.76
Cost /Acre*: $468.15

Initial Job Cost: **$2,079.45**
Reseeding Job Cost: **$332.39**
Total Job Cost: **$2,412**
Job Hours: **1.50**

BULLDOZER WORK

Task description: **Regrade Collom Dragline Spoil**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 482 State: Colorado Abbreviation: None
Date: 2/6/2025 County: Moffat Filename: C019-482
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D11T - 11U
Horsepower: 850
Blade Type: Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$496.62	NA
Operating Cost/Hour:	$324.90	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	100
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $860.11
Total Fleet Cost/Hour: **$1,720.21**

MATERIAL QUANTITIES

Initial Volume: 1,070,258
Swell factor: 1.000
Loose volume: **1,070,258** LCY

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

HOURLY PRODUCTION

Average push distance: 65 feet
Unadjusted hourly production: 3,986.3 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: -10 %
Average site altitude: 7,600 feet

Material weight: 2,650 lbs/LCY

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

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.225	(CAT HB)
Altitude:	0.930	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.7387

Adjusted unit production: 2,944.68 LCY/hr
Adjusted fleet production: **5889.36** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: $0.292/LCY

Total job time: **181.73** Hours
Total job cost: **$312,609**

BULLDOZER WORK

Task description: **Regrade Topsoil for New Collom Haul Road Channels**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 483 State: Colorado Abbreviation: None
Date: 4/3/2025 County: Moffat Filename: 483
User: HR1

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:

		Utilization %
Ownership Cost/Hour:	$253.16	NA
Operating Cost/Hour:	$164.35	100
Ripper own. Cost/Hour:	$18.79	NA
Ripper op. Cost/Hour:	$2.37	25
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $477.26
Total Fleet Cost/Hour: **$477.26**

MATERIAL QUANTITIES

Initial Volume: 10,648
Swell factor: 1.000
Loose volume: **10,648** LCY

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

HOURLY PRODUCTION

Average push distance: 150 feet
Unadjusted hourly production: 910.5 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: 5 %
Average site altitude: 7,600 feet

Material weight: 1,600 lbs/LCY

Weight description: Top Soil

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.7760

Adjusted unit production: 706.55 LCY/hr
Adjusted fleet production: **706.55** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.675/LCY

Total job time: **15.07** Hours
Total job cost: **$7,192**

REVEGETATION WORK

Task description: **ReseedCollom Haul Road Channels w/Grazing Land Seed Mix**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 484 State: Colorado Abbreviation: None
Date: 4/3/2025 County: Moffat Filename: 484
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 23.6
Estimated Failure Rate: 20%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $585.76
Cost /Acre*: $468.15

Initial Job Cost: **$13,823.94**
Reseeding Job Cost: **$2,209.67**
Total Job Cost: **$16,034**
Job Hours: **11.80**

BULLDOZER WORK

Task description: **Regrade Ditch GD-3**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #:	485	State:	Colorado	Abbreviation:	None
Date:	4/3/2025	County:	Moffat	Filename:	485
User:	HR1				

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D8T - 8SU
Horsepower: 310
Blade Type: Semi-Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$173.32	NA
Operating Cost/Hour:	$109.71	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $321.62
Total Fleet Cost/Hour: **$321.62**

MATERIAL QUANTITIES

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

Source of estimated volume: Exhibit 7-23B, Table 1, Exh. 7-item 23, Fig. B-1
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 50 feet
Unadjusted hourly production: 1,400.0 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 0 %
Average site altitude: 7,500 feet

Material weight: 1,600 lbs/LCY

Weight description: Top Soil

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(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: 0.6445

Adjusted unit production: 902.30 LCY/hr

Adjusted fleet production: **902.3** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: $0.356/LCY

Total job time: **1.34** Hours

Total job cost: **$431**

REVEGETATION WORK

Task description: **Reseed 3.2 Acres of Disturbance**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 486 State: Colorado Abbreviation: None
Date: 4/3/2025 County: Moffat Filename: 486
User: HR1

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**
	$
Total Tilling Cost/Acre	**$0.00**

SEEDING

Seed Mix	**Rate – PLS LBS / Acre**	**Seeds per SQ. FT**	**Cost /Acre**
Big Bluegrass - Sherman	0.40	8.26	$6.34
Bluebunch Wheatgrass - Secar	4.00	12.86	$42.05
Bitterbrush, Antelope	6.00	1.85	$339.08
Mountain Brome - Bromar	2.00	3.21	$12.03
Great Basin Wildrye - Magnar	1.00	4.06	$11.69
Rocky Mountain Fescue	2.00	32.14	$21.57
Slender Wheatgrass - Pryor	1.50	5.48	$9.27
Milk Vetch, Cicer - Lutana	0.60	2.00	$5.87
Thickspike Wheatgrass - Critana	2.50	8.84	$20.37

Western Wheatgrass - Arriba	3.00	7.58	$27.10
Rabbitbrush, Rubber	0.60	8.94	$50.04
Needlegrass, Green - Lodorm	0.40	1.66	$3.46
Sagebrush, Louisiana or Prairie	1.00	100.79	$184.91
Sagebrush, Mountain or Big	4.00	211.20	$330.80
Flax, Lewis Blue	0.50	3.32	$21.15
Sagebrush, Silver	1.50	29.13	$102.19
Saltbush, Four Wing	3.20	4.41	$63.59
Snowberry, Mountain	1.50	2.58	$88.59
Sumac, Skunkbrush	1.00	0.47	$45.13
Penstemon, Palmer	0.20	4.42	$15.59
Penstemon, Rocky Mountain	1.00	15.67	$61.41
Yarrow, Western	0.40	24.32	$19.30
Totals Seed Mix	38.30	493.19	**$1,481.54**

Application

Description	**Cost /Acre**
Broadcast seeding [DMG]	$272.56
Total Seed Application Cost/Acre	**$272.56**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 3.2

Estimated Failure Rate: 20%

*Selected Replanting Work Items: SEEDING

Cost /Acre: $1,754.10

Cost /Acre*: $1,754.10

Initial Job Cost: **$5,613.12**

Reseeding Job Cost:	**$1,122.62**
Total Job Cost:	**$6,736**
Job Hours:	**1.50**

TRUCK/LOADER TEAM WORK

Task description: **Load, Haul and Regrade Collom Pit Topsoil-MR248**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 487 State: Colorado Abbreviation: None
Date: 4/3/2025 County: Moffat Filename: 487
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	50	50
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$59.82	$70.88
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$266.97	$222.32
Number of Units:	4	1	1	2	1	1
Group Subtotals:	Work:	$3,288.72	Support:	$2,580.33	Maint:	$489.29

Total work team cost/hour: **$6,358.34**

MATERIAL QUANTITIES

Initial volume: 138,853 CCY Swell factor: 1.000
Loose volume: **138,853** 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: 492,200 Pounds
Payload Capacity: 307.63 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 6" and over diameter 0.03	0.030	(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:	-0.050	minutes
	Adjusted Loader Cycle Time:	**0.675**	minutes
	Net Load Time per Truck:	**1.450**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.450	Minutes	Adjusted for site altitude:	1.480	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	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	5144.00	3.00	3.00	6.00	1266	4.238

Haul Time: **4.238** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	5144.00	-3.00	3.00	0.00	3503	1.672

Return Time: **1.672** minutes
Total Truck Cycle Time: **9.390** minutes

Loading Tool unit Production: 4,603.46 LCY/Hour — Adjusted for job efficiency: 3,820.87 LCY/Hour

Truck Unit Production: 1,117.62 LCY/Hour — Adjusted for job efficiency: 927.62 LCY/Hour

Optimal No. of Trucks: 4 Truck(s) — Selected Number of Trucks: 4 Truck(s)

Adjusted hourly truck team production: 3,710.50 LCY/Hour
Adjusted single truck/loader team production: 3,710.50 LCY/Hour
Adjusted multiple truck/loader team production: **3,710.50** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) — Total job time: **37.42** Hours

Unit cost: $1.714 /LCY — Total job cost: **$237,940**

REVEGETATION WORK

Task description: **Reseed Collom TS Pile Footprint 2A**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 488 State: Colorado Abbreviation: None
Date: 4/3/2025 County: Moffat Filename: 488
User: HR1

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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	**Rate – PLS LBS / Acre**	**Seeds per SQ. FT**	**Cost /Acre**
Beardless Wheatgrass - Whitmar	2.00	6.52	$27.68
Mountain Brome - Bromar	1.00	1.61	$6.02
Great Basin Wildrye - Magnar	0.50	2.03	$5.84
Rocky Mountain Fescue	0.50	8.03	$5.39
Slender Wheatgrass - Native	0.75	2.74	$5.30
Milk Vetch, Cicer - Monarch	0.30	1.00	$2.87
Thickspike Wheatgrass - Critana	1.25	4.42	$10.19
Western Wheatgrass - Arriba	1.50	3.79	$13.55
Needlegrass, Green - Lodorm	0.75	3.12	$6.48
Sagebrush, Mountain or Big	0.50	26.40	$41.35

Flax, Lewis Blue	0.25	1.66	$10.57
Saltbush, Four Wing	1.60	2.20	$31.80
Snowberry, Mountain	0.75	1.29	$44.29
Penstemon, Rocky Mountain	0.25	3.92	$15.35
Yarrow, Western	0.10	6.08	$4.82
Totals Seed Mix	12.00	74.80	**$231.51**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	**No / Acre**	**Type and Size**	**Planting Cost**	**Fertilizer Pellet Cost**	**Cost /Acre**
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 18.2 Cost /Acre: $585.76
Estimated Failure Rate: 20% Cost /Acre*: $468.15
*Selected Replanting Work Items: SEEDING

Initial Job Cost: **$10,660.83**
Reseeding Job Cost: **$1,704.07**
Total Job Cost: **$12,365**
Job Hours: **9.10**

TRUCK/LOADER TEAM WORK

Task description: **Load, Haul and Regrade Collom Topsoil from 25A**

Site: **Colowyo Coal Mine** Permit Action: MT9 Permit/Job#: C1981019

PROJECT IDENTIFICATION

Task #: 489 State: Colorado Abbreviation: None
Date: 4/3/2025 County: Moffat Filename: C019-489
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	KOMATSU 830E
-Loader:	LETOURNEAU L2350
Support Equipment -Load Area:	Cat D11T - 11U
-Dump Area:	Cat D11T - 11U
Road Maintenance –Motor Grader:	CAT 16M
-Water Truck:	Water Tanker, 14,000 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	50	50
Ownership cost/hour:	$209.47	$635.29	$496.62	$496.62	$179.39	$130.32
Operating cost/hour:	$274.17	$581.06	$324.90	$324.90	$59.82	$70.88
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Ripper op. cost/hour:	NA	$0.00	$0.00	$0.00	$0.00	$0.00
Operator cost/hour:	$25.24	$36.85	$38.59	$38.59	$27.76	$21.12
Unit Subtotals:	$508.88	$1,253.20	$860.11	$860.11	$266.97	$222.32
Number of Units:	4	1	1	2	1	1
Group Subtotals:	Work: $3,288.72		Support: $2,580.33		Maint: $489.29	

Total work team cost/hour: **$6,358.34**

MATERIAL QUANTITIES

Initial volume: 176,837 CCY Swell factor: 1.125
Loose volume: **198,942** 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: 2,550 Pounds/LCY
Description: Earth - Dry packed
Rated Payload: 492,200 Pounds
Payload Capacity: 193.02 LCY

Truck Bed (volume) Basis:

Struck Volume:	153.00	LCY
Heaped Volume:	192.00	LCY
Average Volume:	172.50	LCY
Adjusted Volume:	192.00	LCY

Final Truck Volume Based on Number of Loader Passes: **174.90** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	53.000	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	**58.300**	LCY

Job Condition Corrections: Site Altitude (ft.): 7600 feet

	Truck	Loader	Source
Altitude Adj:	1.000	0.980	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.830**	**0.813**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 3 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): 0.725 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 6" and over diameter 0.03	0.030	(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:	-0.050	minutes
	Adjusted Loader Cycle Time:	**0.675**	minutes
	Net Load Time per Truck:	**1.450**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.80	Minutes	Adjusted for site altitude:	0.800	Minutes
Truck Load Time:	1.450	Minutes	Adjusted for site altitude:	1.480	Minutes
Truck Maneuver and Dump Time:	1.20	Minutes	Adjusted for site altitude:	1.200	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0

Haul Route:

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Haul Time: **4.238** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	5144.00	-3.00	3.00	0.00	3503	1.672

Return Time: **1.672** minutes
Total Truck Cycle Time: **9.390** minutes

Loading Tool unit Production 4,603.46 LCY/Hour — Adjusted for job efficiency: 3,820.87 LCY/Hour

Truck Unit Production 1,117.62 LCY/Hour — Adjusted for job efficiency: 927.62 LCY/Hour

Optimal No. of Trucks: 4 Truck(s) — Selected Number of Trucks: 4 Truck(s)

Adjusted hourly truck team production: 3,710.50 LCY/Hour
Adjusted single truck/loader team production: 3,710.50 LCY/Hour
Adjusted multiple truck/loader team production: **3,710.50** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) — Total job time: **53.62** Hours

Unit cost: $1.714 /LCY — Total job cost: **$340,908**