Proposed Decision and Findings of Compliance for the

> Trapper Mine C1981010

Permit Revision No. 11

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Table of Contents

Introduction		1
Proposed Decisio	n	2
Summary		3
The Review		3
Description of	of the Environment	5
Description of	of the Operation and Reclamation Plans	9
Findings of the C	colorado Division of Reclamation, Mining and Safety	11
Section A - F	Rule 2.07.6	11
Section B - R	Rule 4	14
I.	Roads	15
II.	Support Facilities	15
III.	Hydrologic Balance	16
IV.	Topsoil	17
V.	Sealing of Drilled Holes and Underground Openings	17
VI.	Use of Explosives	17
VII.	Disposal of Excess Spoil	17
VIII.	Coal Mine Waste Banks	18
IX.	Coal Mine Waste	18
Х.	Backfilling and Grading	18
XI.	Revegetation	18
XII.	Post-mining Land Use	18
XIII.	Protection of Fish, Wildlife and Related Environmental Values	19
XIV.	Protection of Underground Mining	19
XV.	Subsidence Control	19
XVI.	Concurrent Surface and Underground Mining	19
XVII.	Auger Mining	19
XVIII.	Operations on Alluvial Valley Floors	19
XIX.	Operations on Prime Farmland	21
XX.	Mountaintop Removal	21
XXI.	Operations on Steep Slopes	21
XXII	In Situ Processing	22
Appendix A	Stipulation Maps	22

Introduction

The Colorado Division of Reclamation, Mining and Safety (the Division), received an application for a permit revision to conduct surface coal mining and reclamation operations at the Trapper Mine Inc. The application was submitted by Trapper Mining, Inc. (TMI) who operates the mine. The Trapper mine is located on state and private lands within Moffat County, Colorado.

The review process for permit revisions as well as detailed information concerning the findings of compliance are described in the Colorado Surface Coal Mining Reclamation Act (C.R.S. 34-33-101 et seq.) and the Regulations of the Colorado Mined Land Reclamation Board for Coal Mining. Rules referred to in this document are contained within those regulations. Specific information about TMI's mining and reclamation operations can be found in the permit application and permit revision applications on file with the Division of Reclamation, Mining and Safety, 1313 Sherman Street, Room 215, Denver, Colorado 80203 and, in DRMS's document management system at the following website:

http://drmsweblink.state.co.us/drmsweblink/search.aspx?dbid=0

This Findings document comprises the decision package prepared by the Colorado Division of Reclamation, Mining and Safety (the Division) for TMI, Permit Revision No. 11 (PR11), and includes:

- 1. The proposed decision to approve the permit revision application.
- 2. A summary constituting:
 - a. A history of the review of the permit revision application.
 - b. A description of the environment affected by the operation.
 - c. A description of the mining and reclamation plan.
- 3. The written findings of compliance the Division prepared as required by the

Colorado Surface Coal Mining Reclamation Act.

This permit revision (PR11), application comprises an updated mining and reclamation plan for the new permit term. This permit revision proposes to disturb an additional 235.5 acres within the approved permit area during the 2023-2027 permit term and includes expanding the permitted mine area by 137.1 acres on the NW corner of the site.

In the L-Pit, additional dip-line as well as strike-line cuts will be completed. In the western portion of the mine, I Pit (Middle and East) and J-Pits (West) will continue to be opened towards the west in sections and highwall mined. C-Pit, will be opened down dip of previous mining and will be highwall mined. Mining associated with C-Pit are located in areas that were previously surface mined and Phase III released. The 137.1 acres of new permit area are located on the northwest side of the site. When PR11 was submitted, TMI proposed to open a new pit (I-Pit West) and highwall mine into the 137.1-acre expansion area. However, during the adequacy review process, TMI withdrew their proposal to mine I-Pit West. However, TMI still maintains the proposal to expand the permit area as originally proposed with PR11. New mining in the western portion of the site will require the construction and or modification of three sediment control structures. During the 2023-2027 permit term, continued reclamation of the site is proposed and will encompass finish grading, topsoil and

seeding of the D and E Pits, the portion of the Ash Pit that achieves fill elevation, as well as the majority of the active areas in C, I, J, L and N Pits. Out of pit spoil will be replaced once mining is complete and the affected land within this area will be reclaimed as rangeland for livestock grazing and wildlife habitat.

Proposed Decision

The Colorado Division of Reclamation, Mining and Safety Proposes to APPROVE the Application for Permit Revision No 11 (PR11).

The application was submitted by Trapper Mining, Inc. ("TMI"). This decision is based on a finding that the operations comply with all requirements of the Colorado State Program as found in the Colorado Surface Coal Mining Reclamation Act, C.R.S. 34-33-101 et seq., and the Regulations promulgated pursuant to the Act. If no request for a formal hearing is made within thirty (30) days of the first publication of the issuance of this proposed decision, then this decision becomes final. The permit revision will be finalized upon submittal to DRMS of acceptable surety by the applicant if necessary. The permit application, all supporting documentation and any stipulations or conditions become a binding part of the permit.

No coal mining operations may be conducted on any Federal surface or coal until the Assistant Secretary for Lands and Minerals Management ("ASLM") with the U.S. Department of the Interior has approved any required federal mining plan or modification thereof. On January 3, 2023 the Office of Surface Mining, Reclamation and Enforcement ("OSMRE") informed DRMS a mining plan modification from the ASLM is not required for PR11.

This proposed decision proposes an additional of 235.5 new acres of surface disturbance within the current permit boundary PR11, as well as a 137.1 acre expansion of the permit boundary in the NW corner of the site. In previous findings document, the Division did not make a distinction between disturbance acreage and affected acreage. However, upon review of these definitions (Rule 1.04(7) and (36)) the Division now finds this distinction is appropriate since surface disturbance is not associated with the underground activities associated with highwall/auger mining. The affected acreage at the Trapper Mine now includes the areas above the highwall/auger mine workings. Much of the affected area underlies the disturbance area at the Trapper Mine. The proposed decision form for PR11 reflects this distinction as the affected area will not equal the disturbance area.

Status of Stipulations

The stipulation history for the Trapper Mine was reviewed with this permit revision application. The review included an investigation of any stipulations imposed, and any responses to existing stipulations received, since the last permit renewal. Any stipulations associated with this permit and issued over the life of this operation which are not discussed in this findings document have been complied with or have been terminated.

New Stipulation:

Stipulation #23 attached with this permitting action comprises the following:

Prior to affecting the 25.4 acres located in the L pit and 4 acres near the J Pit as per the areas of interest shown on Map M45 "Cultural Resources Surveys Conducted on and Adjacent to the Trapper 2

Mine", submitted as a revised map with this permitting action on 5 April 2023, TMI must submit the following:

- 1. A minor revision that includes the results of a cultural resources inventory conducted on the 25.4 acres located in the L pit and the 4 acres near the J Pit area as shown on permit map M45. These cultural survey results shall be submitted from the cultural resources specialist who conducted the inventory in the form of a full inventory report or a statement of findings. The inventory must be a class III cultural resource inventory completed by a cultural resource specialist who meets the Secretary of Interior's Standards. The results must indicate if any cultural and historic resources listed or eligible to be listed on the National Register of Historic Places and any significant known archaeological sites were identified during the inventory per Rule 2.04.4. If any are identified, TMI must revise the permit to include the required information to satisfy Rule 2.05.6(4) prior to affecting this area. If no resources are identified, once the minor revision is approved and issued, TMI could proceed to affect this area.
- 2. If the minor revision discussed above only included a statement of findings describing the results of the inventory, TMI shall submit a separate minor revision that includes the full detailed inventory report prepared by the cultural resource specialist.

Appendix A, at the end of this document provides views depicting the locations of stipulated areas extracted from Trapper Mine's Map 45, "*Cultural Resources Surveys Conducted on and Adjacent to the Trapper Mine*", submitted with the PR11 permitting action.

Summary

Utah International Inc. began exploration drilling operations for Trapper Mine in 1954 to obtain geologic information on the structure of coalbeds and estimates of mineable coal reserves. In 1973, Utah International Inc. and four electric utilities signed a contract for delivery of coal to fuel the Craig Generating Station. This coal delivery obligation of approximately 111 million tons over a 52 year period required strip mining six to seven thousand acres of land since the mining activities began in 1976.

Environmental studies for the Trapper Mine began in 1972 and intensified in 1973 and 1974. Most of those studies will continue throughout the life of the project. Trapper Mine endeavors to reclaim disturbed lands to as good as or better condition than before mining. A high priority is attached to the reclamation programs, all of which are designed to protect wildlife, water, air quality and other environmental resources of the mine area.

The shop and warehouse buildings were completed in November 1975, while the office complex was completed in November of 1976. The construction of the first of three, 30 cubic yard walking draglines started in February 1976.

Actual mining operations began in May, 1977, and coal deliveries started in August 1978.

The original owner of Trapper Mine was Utah International, Inc. an international mining company. All initial permitting and mining efforts were performed by Utah International. In July 1982, Utah International formed the subsidiary, Trapper Mining Inc. to consolidate and hold the properties and

rights that make up Trapper Mine. The owners of the Craig Generating Station, the electric utility receiving its coal from Trapper Mine, purchased Trapper Mining Inc. in July of 1983.

This findings document replaces Trapper Mine's previous findings document associated with Permit Renewal RN8. Please note that much of the information in this document is derived from those previous documents.

The Review Process: Permit History and Revisions

No revisions have been approved since the last permit renewal (RN8) issued in February 2023. For details regarding the revision history please refer to the RN8 findings documents available on the Laserfiche weblink here:

https://dnrweblink.state.co.us/drms/search.aspx?cr=1

Enforcement Actions

No enforcement actions have been issued since the last midterm review.

The PR11 Review Chronology

- DRMS received TMI's application 14 October 2022.
- DRMS found the application complete 24 October 2022.
- TMI published its public notice weekly for four consecutive weeks beginning 2 November 2022.
- No objections or requests for informal conferences were received by DRMS during the public comment period.
- DRMS on 9 November 2022 requested a Section 7 consultation for the PR11 permit revision from the United States Fish and Wildlife Service (USFWS). On 7 December 2022 DRMS received an email from USFWS requesting additional information regarding jurisdictional questions and DRMS responded and USFWS provided concurrence on April 13, 2023.
- The State Historical Preservation officer, through History Colorado, provided letters to DRMS on 7 November 2022 and 3 February 2023 requesting additional cultural surveys to cover lands previously identified as possibly exhibiting cultural resources. As a result of this consultation, Stipulation 23 was added to the permit.
- Colorado Parks and Wildlife sent a comment letter dated 7 November 2022.
- The State Land Board provided a letter on 10 March 2022 stating that they had no objections to the application.
- OSMRE on 3 January 2023 deemed that a mine plan modification was not necessary and BLM concurred with the finding.
- DRMS reviewed the application and sent TMI preliminary adequacy questions 23 December 2022. DRMS received TMI's preliminary adequacy responses 20 January 2023. DRMS reviewed TMI's response to adequacy and sent a second adequacy letter on 29 February 2023. Adequacy specific to DRMS's cost estimate were finalized by DRMS 3 February 2023. Adequacy questions specific to Rules 2.05.6 and 4.05 were sent to TM1 on 3 April 2023. On 5 April 2023 DRMS received TMI's response to DRMS's 29 February and 3 April 2023 adequacy. On 7 April 2023 DRMS found TMI's response to adequacy questions specific to Rules 2.05.6 and 4.05 to be adequate.

Description of the Environment

Location of Permit Area

With the PR11 permitting action, Trapper Mine expanded the permit boundary in the northwest portion of the mine. The legal description of the lands included within the permit area of the Trapper Mine follows:

Township 5 North, Range 90 West Section 4 W¹/₂NW¹/₄, W¹/₂SW¹/₄, SE¹/₄SW¹/₄, NE¹/₄SW¹/₄ south west of Moffat County Road 33, W¹/₂W¹/₂NE¹/₄NW¹/₄, W¹/₂W¹/₂SE¹/₄NW¹/₄ Section 5 All Section 6 N¹/₂, N¹/₂ S¹/₂ Section 8 N¹/₂NW¹/₄, N¹/₂NE¹/₄ Section 9 N¹/₂NW¹/₄, NW¹/₄NW¹/₄ south west of Moffat County Road 33 Township 5 North, Range 91 West Section 1 N¹/₂, SW¹/₄, N¹/₂ SE¹/₄, SW¹/₄ SE¹/₄ Section 2, Section 3 All Section 4 E¹/₂, E¹/₂E¹/₂ SW¹/₄, E¹/₂SE¹/₄NW¹/₄, NE¹/₄NW¹/₄ Section 5 NE¹/₄ Township 6 North, Range 90 West Section 30 SW¹/₄ Section 31 All Section 32 S¹/₂, S¹/₂ N¹/₂, NW¹/₄NW¹/₄ Section 33 That portion which lies west of the ROW of Moffat County Road 33 Township 6 North, Range 91 West Section 21 That portion containing Trapper Mining Inc. access Section 25 S¹/₂, S¹/₂ N¹/₂ Section 26 S¹/₂, S¹/₂ N¹/₂ Section 27 S¹/₂, S¹/₂ N¹/₂, S¹/₂ N¹/₂ NE¹/₄, SE¹/₄ NE¹/₄ NW¹/₄ Section 28 S¹/₂, N¹/₂ east of County Road 107 excluding the portion north of the Trapper Mine access road Section 29 SE¹/₄, E¹/₂ SW¹/₄, E 150' W¹/₂ SW¹/₄. Section 32 E¹/₂, E¹/₂ W¹/₂, E 150' W¹/₂ W¹/₂ Section 33, Section 34. Section 35 and Section 36 All.

The Castor Gulch and Breeze Mountain USGS 7.5-minute quadrangle maps contain the location of the affected area.

Trapper Mine is located in northwest Colorado along the northern slope of the Williams Fork Mountains, approximately six miles southwest of the City of Craig. The boundaries of the permit area are about six miles long (east to west) by two miles wide (north to south) as shown on Map 1 below.



Map 1: The 11294 acre Trapper Mine permit boundary and the area's typical pre mine dendritic drainage pattern as per the NHD Hydrology Dataset The permit boundary expansion is shown in the northwest corner of the boundary.

Physiographic Setting

Trapper Mine extends across the northern slope of the Williams Fork Mountains between elevations of 6,500 ft. and 7,800 ft. The crest of the Williams Fork Mountains forms a long ridge extending east/west at elevations between 7,400 and 7,800 ft. The Yampa River flows generally from east to west a short distance north of the permit area. The Williams Fork River skirts the south side of the mine site and flows into the Yampa River one mile west of the mine.

Geologic Setting

The bedrock at the ground surface in the Trapper permit area is an interbedded sequence of sandstones, siltstones, shale, and coals comprised of the Cretaceous-age Williams Fork Formation. The Williams Fork Formation forms part of the regionally extensive Mesa Verde Group. Younger unconsolidated alluvial deposits of Quaternary age form a thin mantle over the Williams Fork Formation in stream drainages. Structurally, the mine is situated on the south limb of the northwest-plunging Big Bottom syncline. Major faults extend across the region, but none have been found in the permit area.

Coal Seam Stratigraphy

The Williams Fork Formation is stratigraphically subdivided into three units or members. These, in ascending order are:

- 1. the lower Williams Fork
- 2. the Twentymile sandstone
- 3. the upper Williams Fork

with individual thicknesses of 920 ft. 100 ft. and 680ft. respectively. The coal seams being mined at Trapper Mine are all in the upper Williams Fork member and their nomenclature, in descending order, consists of:

F 0 G2 0 Η 0 Ι \cap L 0 Μ 0 Q and Q rider 0 R and R rider. 0

Surface Water Hydrology

Drainages within and adjacent to the permit area (on the north facing slope) drain south to north in a dendritic pattern as illustrated in Map 1 above. Drainages flow primarily in response to snowmelt and /or heavy rains, eventually discharging to the Yampa River. Drainages in the southern portion of the permit area drain southward to the Williams Fork River. Natural surface waters are of a calcium-magnesium-sulfate type, with total dissolved solids content commonly greater than 1000 mg/1 in the smaller streams, and less than 1000 mg/1 in the largest streams. Total dissolved solids concentrations commonly peak during periods of low stream flows; during high flows, waters are diluted, resulting in low concentrations.

Ground Water Hydrology

Within the general area of the Trapper Mine, ground water exists in both bedrock and alluvial aquifers. Significant bedrock aquifers are the Trout Creek, Middle, Twentymile, and White sandstones. The Middle, Twentymile and White sandstones lie within the Williams Fork Formation; the Trout Creek sandstone is the uppermost member of the underlying Iles Formation. The major alluvial aquifers in the area are associated with the Yampa and Williams Fork Rivers. Many of the coal seams, discontinuous sandstones, siltstones and some of the smaller alluvial bodies in the area of the mine are also water bearing. These, however, characteristically contain insufficient quantities of water to be considered significant aquifers. Of the bedrock aquifers, the Twentymile sandstone produces the best quality ground water, a bicarbonate-type possessing a relatively low total dissolved solid content of less than 600 mg/1. Ground water in the White sandstone contains total dissolved solids generally greater than 600 mg/1 due to high levels of sulfate and bicarbonate. Ground water in the coal-seam aquifers and interbedded sandstones and siltstones is commonly of poor quality with total dissolved solids greater than 1000 mg/1 due to high levels of bicarbonate and sodium.

Regional Climate

The region has a highland continental climate characterized by low precipitation, large fluctuations in diurnal temperatures, low humidity, moderate wind speeds, and high levels of insolation (exposure to sunlight). The Craig area is in the rain/snow shadow of mountain ranges to the west and south and consequently has a high number of dry, clear days.

Local Climate

The climate of the Craig, Colorado area is characteristic of semi-arid steppe regions. Average annual precipitation for the town of Craig, six miles north of Trapper, is 13. 5 inches, of which over one third is snowfall (averaging 66.5 inches/year). Trapper Mine's average annual precipitation is 16.7 inches. Mean annual temperature in Craig is 43°F, with recorded extremes of -45°F and 100°F. Winds predominate from the west, but are locally modified by topographic features. The growing

season for the area in the vicinity of Craig averages 77 frost-free days.

Soil Types, Characteristics and Distribution

Three soil orders are found in the permit area:

- 1. Aridisols
- 2. Entisols
- 3. Mollisols.

Characteristic of fairly steep, semi-arid regions of northwestern Colorado, they represent soils grading from recently developed soil bodies with minimum horizon development (Entisols) to older soils comprising well defined diagnostic horizons (Mollisols). Overall, the soils found in the permit area are relatively deep and well drained exhibiting effective rooting depth ranges from two to sixty inches. The deepest soils yielding the greatest rooting depths occur in valleys and on the leeward sides of ridges. Soil reaction is slightly acid to moderately alkaline over the permit area with the exception of inclusions of small scattered areas with saline substrata. These small areas have probably formed in place from weathered sodic shale.

Vegetation Distribution

Vegetation in the area grows largely in response to macro-climatic influences of the region. The north-facing slopes, having moderate to deep soils characterize a relatively mesic moisture regime and favorable levels of insolation throughout the year, exhibit well-developed mountain shrub communities. On colluvial toe slopes, communities dominated by sagebrush and grasses occur. On the south-facing slopes behind the ridgeline of the Williams Fork Mountains, vegetative communities are less developed with respect to cover, density, and production due to the less favorable soils, moisture regime, and increased solar insolation. The trend in these areas is toward communities dominated by juniper, pinon, mountain mahogany and xerophytes.

Historical farming and ranching within the current permit area modified, to varying degrees, natural vegetative communities. Much of the land along toe-slopes and valley bottoms was cleared of native vegetation and is currently used for dry land agriculture. Most of the north-facing slopes in the area have been historically used for the grazing of sheep and /or cattle. These activities produced a mosaic of vegetation communities in the permit area comprised of mountain shrub, sagebrush/grass, and pinon/juniper.

Wildlife

Fauna are diverse in and adjacent to the permit area due to the wide variety of habitat types and include: Antelope, Mule deer, Elk, Blue grouse, Columbian sharp-tail grouse, and sage grouse. All are residents or occasional residents of the permit area, as are numerous types of waterfowl, song birds and raptors. The area provides habitat and migration routes for antelope, elk and mule deer. Raptors, several species of game birds, and numerous smaller mammals are found in the Williams Fork Mountains and surrounding areas.

Land Uses

Land uses in the area are rangeland, wildlife habitat, and agriculture. Cattle and sheep graze in the Williams Fork Mountains. Dry land wheat is cultivated on colluvial toe slopes of the Williams Fork Mountains. Native hay and dry land wheat are cultivated on the soils of the Yampa and Williams Fork River valleys.

Description of the Operation and Reclamation Plans

The current permit area covers 11,156.69 acres. This PR11 application will allow the company to continue mining and reclamation as currently approved while expanding the permit boundary by 137.1 acres to comprise a total of 11,293.79 acres.

Mining Method

Total cumulative coal production over the life of the Trapper mine is projected to be a maximum of 74 million tons. Coal mining occurs at the Trapper Mine using surface mining methods and auger mining. For surface mining, draglines remove overburden and interburden, while front-end loaders and haul trucks remove the coal seams. Trapper Mining, Inc. has historically oriented the pits north-south, parallel to the downhill dip of the coal seams. PR5 reoriented pits G, F and Z (East F-Pit) parallel with the strike of the coal seams in an east-west direction. Strike line pits progress from north to south. Each successive pit cut occurs next to and parallel to the previous cut. When more than one seam is recovered in a pit, partings are removed by dozer, or backhoe, or similar equipment if thin; or by dragline, if thick.

The October 2006 landslide in the East Panel of Trapper Mine created a need for a change in mining methods for the East Panel area, resulting in Permit Revision PR6. The K-Pit and L-Pit (originally identified as G Pit) were originally planned as dragline pits, consistent with Trapper's historical mining method.

Strip Pits

Trapper mined or plans to mine coal from the following four pits during the 2023-2027 permit term:

- 1. Lancaster (L), Pit
- 2. Nighthawk (N) Pit
- 3. I Pits (East, Middle)
- 4. J Pit (West), and
- 5. C Pit

Pits advance generally southward. Individual cuts in pits are as much as 6,000 ft. long. The maximum width of a cut is 200 feet. In 2002, D-Pit progressed to the point that it merged with E-Pit. This combination D/E-Pit is approved for ash disposal, however TMI plans to reclaim this pit as there is no longer a need to utilize the D and E Pits for ash disposal. A (Ashmore) pit remains open for ash disposal (see description of ash disposal below). Highwall mining in I Pit began in 2021. I and J Pits comprise single seam pits to the F and G2 seams. N Pit was opened in 2021 for highwall mining in the L, M and Q seams. C Pit proposes mining in L seam and down to the Q seam. Opening I Pit West was initially proposed and has since been withdrawn from the R11 permitting action.

Auger/Higwall Mining

Auger or "highwall mining" is conducted in the end walls of the C, I, J, L and N pits. The pits are developed in sections from west to east with contemporaneous backfilling minimizing the out-of-pit spoil placement. An HW N800 Addcar System is utilized. A launch vehicle platform, sitting on the boxcut floor controls the systems functions, rigid conveyor cars each fitted with a belt conveyor are fed by a remote controlled underground continuous miner. Real Time feedback to the outside

operator from video cameras and a HORTS guidance system provides three dimensional locations. Gamma sensors in the cutting head provide the ability to sense roof and floor rock to maintain the miner in the coal seam. Auger depth of penetration and coal recovery vary depending on coal seam splitting, thinning or pinching, coal quality, roof and floor integrity, and machine limitations. Penetration depths at 1,200 feet or less are common. All highwall mining must comply with Rule 4.23.2. Additional mining of this type is proposed with PR11 for the 2023-2027 permit term.

Removal of Topsoil and Overburden

Prior to disturbance, and in advance of pit construction, vegetation is cleared and topsoil is removed and salvaged. Stockpiled soils are shaped and seeded to establish vegetation for protection from wind and water erosion. After topsoil removal, the overburden is drilled and blasted in advance of the pit. Overburden is then stripped by draglines, scrapers, truck/loader or bulldozers. Finally, frontend loaders load coal into 90-ton haul trucks, which deliver the raw coal to the Craig Power Plant.

Trapper removed 24.6 billion cubic yards (BCY) of spoil material in the K-Pit and placed the material in a permanent fill that is known as Horse Gulch Fill. Additional spoil from the K-Pit is also placed north of the pit and elsewhere on the site to meet the requirements of the post-mine topography. The Horse Gulch fill is completed. The only portion of Trapper's operation located downslope from the Horse Gulch Fill is Trapper's Horse Gulch sediment control pond.

Backfilling of Pits

After removing coal from economically recoverable coal seams, associated pits are backfilled with spoil (overburden and interburden) and then graded by dragline and dozers. As a dragline removes overburden and interburden, spoil ridges are created by dumping the material from a recently open pit into a recently mined out pit. Dozers and graders then smooth the spoil ridges and blend the ridges into the existing topography.

Timing of Backfilling and Grading

The Operator committed to the regulatory requirements of contemporaneous reclamation: that there will never be more than four ungraded spoil rows (including the active one) at any one time.

Topsoiling and Seeding

After final grading of the spoil ridges, topsoil is placed on the spoil to a depth of 18 inches on cropland and 12 inches on rangeland. A variation of +/- 2 inches is allowed due to compaction and operational considerations. Areas are then seeded with one of three main seed mixes, depending on the elevation. Seed mixes contain various native grasses, forbs and shrubs, while the lowest elevation site seed mix contains only grasses and forbs. Shrub clumps of approximately 1.6 acres are also located throughout the reclaimed areas. Seeding occurs by both drill and broadcasting methods.

Long-Term Ash Disposal Plan

The applicant continues to backfill Ashmore pit with ash from the Craig Power Plant. Ash will not be disposed in Enfield/Derringer pits, as the power plant has reduced its coal consumption, shutting down one tower, with the closure of the power plant slated for 2028. The ash is approximately 60% fly ash, 20% bottom ash, and 20% scrubber sludge. A maximum of 5,250 tons per day of the waste will be disposed of at the Trapper Mine with an average of 1,222 tons per day expected. This is equivalent to an average annual volume of waste of about 231 acre-feet, after compaction. The 10

applicant expects this waste burial process will continue for the life of the mine. Down-gradient ground water monitoring wells are in place to detect any potential degradation of the ground water due to leachate through the ash waste pile.

Findings of the Colorado Division of Reclamation, Mining and Safety for Trapper Mine

Explanation of Findings

Pursuant to Rule 2.07.6(2) of the Regulations of the Colorado Mined Land Reclamation Board for Coal Mining, and the approved state program, the Division of Reclamation, Mining and Safety or the Board must make specific written findings prior to issuance of a permit, permit renewal or permit revision. These findings are based on information made available to the Division that demonstrates that the applicant will be able to operate in compliance with the Colorado Surface Coal Mining Reclamation Act and the Regulations promulgated pursuant to the Act.

The findings in the following sections required by Rule 2.07.6(2) are listed in accordance with that Rule. The findings and specific approvals required pursuant to Rule 2.07.6(2)(m) are listed in accordance with Rule 4 and are organized under subject or discipline subtitles.

This findings document has been updated for this permit revision (PR11). The following findings have been reevaluated and updated if necessary to reflect changes which will occur as a result of this permit revision. Any stipulations from the original permit and findings document or subsequent revisions that have been totally resolved to the satisfaction of the Division have been removed from this document.

Section A - Findings Required by Rule 2.07.6

- 1. The permit application is accurate and complete. All requirements of the Act and these rules have been complied with (2.07.6(2)(a)).
- 2. Based on information contained in the permit application and other information available to the Division, the Division finds that surface coal mining and reclamation can be feasibly accomplished at the Trapper Mine (2.07.6(2)(b)).
- 3. The assessment of the probable cumulative impacts of all anticipated coal mining in the general area on the hydrologic balance, as described in 2.05.6(3), has been reviewed for PR11 by the Division. This assessment, entitled Yampa River Cumulative Hydrologic Impact Assessment (CHIA), is available for inspection at the offices of the Division.

Please refer to Section B.III. E (Probable Hydrologic Consequences), of this document for additional discussion of the predicted hydrologic consequences of mining operations at Trapper Mine. The Division finds that the operations proposed under PR11 are designed to prevent damage to the hydrologic balance outside the proposed permit area in

accordance with Rule 2.07.6(2)(c).

- 4. The Division finds that the affected area is, subject to valid rights existing as of August 3, 1977, not within:
 - a) An area designated unsuitable for surface coal mining operations (2.07.6(2)(d)(i));
 - b) An area under study for designation as unsuitable for surface coal mining operations (2.07.6(2)(d)(ii));
 - c) The boundaries of the National Park System, the National Wildlife Refuge System, the National System of Trails, the National Wilderness Preservation System, the Wild and Scenic Rivers System including rivers under study for designation, and National Recreation Areas (2.07.6(2)(d)(iii)(A));
 - d) Three hundred feet of any public building, school, church, community or institutional building, or public park (2.07.6(2)(d)(iii)(B));
 - e) One hundred feet of a cemetery (2.07.6(2)(d)(iii)(C));
 - f) The boundaries of any National Forest unless the required finding of compatibility has been made by the Secretary of the U.S. Department of Agriculture (2.07.6(2)(d)(iii)(D));
 - g) One hundred feet of the outside right-of-way line of any public road except where mine access or haul roads join such line, and excepting any roads for which the necessary approvals have been received, notices published, public hearing opportunities provided, and written findings made (2.07.6(2)(d)(iv));
 - h) Three hundred feet of an occupied dwelling unless a written waiver from the owner has been provided (2.07.6(2)(d)(v)).
 - i) PR11 is proposed to be approved with Stipulation #23 noted above. TMI must satisfy the requirements of Stipulation #23 prior to affecting 29.4 acres within the mine plan area. Currently identified archaeological, cultural and historic sites are discussed in Section 2.9.1, 2.9.2, and Appendix K of the PAP. Site 5MF948 is discussed in section 3.4.3.1 and Appendix K of the PAP. Subject to valid existing rights as of August 3, 1977, the Division finds the mining operation is not within an area designated unsuitable for mining, will not adversely affect any Federal Public Lands or Rivers, publicly owned parks, buildings, schools or churches or place listed on or eligible for listing in the National Register of Historic Places as determined by the State Historic Preservation Office (30 CFR 76), (2.07.6(2)(d)).
- 5. The proposed permit area is not within an area designated unsuitable for surface coal mining operation and/or within an area under study for designation as unsuitable for surface coal mining operations in accordance with Rule 2.07.6(2)(e).

- 6. For this surface mining operation, private mineral estate has not been severed from private surface estate, therefore, the documentation specified by Rule 2.03.6(2) is not required (2.07.6(2)(f)).
- 7. On the basis of evidence submitted by the applicant and received from other state and federal agencies as a result of the Section 34-33-114(3) compliance review required by the Colorado Surface Coal Mining Reclamation Act, the Division finds that Trapper Mining, Inc. does not own or control any operations which are currently in violation of any law, rule, or regulation of the United States, or any State law, rule, or regulation, or any provision of the Surface Mining Control and Reclamation Act or the Colorado Surface Coal Mining Reclamation Act (2.07.6(2)(g)(i)).
- 8. Prior to proposing this decision, on 10 April 2023 the Division queried the Office of Surface Mining Applicant Violator System. The system recommendation for the proposed application was "adequate."
- 9. Trapper Mining, Inc. does not control and has not controlled mining operations with a demonstrated pattern of willful violations of the Act of such nature, duration, and with such resulting irreparable damage to the environment as to indicate an intent not to comply with the provisions of the Act (2.07.6(2)(h)).
- 10. The Division finds that surface coal mining and reclamation operations to be performed under this permit will not be inconsistent with other such operations anticipated to be performed in areas adjacent to the permit area (2.07.6(2)(i)).
- For PR11, the Division estimated the reclamation liability for the site to be \$41,744,040.00. The Division currently holds a \$45,100,000.00 performance bond for the Trapper Mine. Therefore a sufficient performance bond is held in accordance with Rule 2.07.6(2)(j).
- 12. The Division has made a negative determination for the presence of prime farmland within the permit area. The decision is based on a pre-application investigation of soils found within the proposed permit area. Pursuant to 2.04.12(2) criteria, the applicant has provided information demonstrating that lands within the permit area possessing cropland potential are not irrigated or naturally sub-irrigated, have no dependable water supply of adequate quality, and receive less than 14 inches of annual precipitation. Therefore, the Division hereby renders a negative determination for the presence of prime farmland within the permit area (2.07.6(2)(k)).
- 13. Based on information provided in the application, the Division determined that two alluvial valley floors (AVFs) exist near the permit area:
 - a. the Yampa River AVF
 - b. Williams Fork River AVF.

The Division finds that the proposed surface coal mining operation will not affect either AVF. For additional specific findings concerning these AVFs, please refer to permit Section B, XVII.

14. The Division approved the post-mining land uses of rangeland, wildlife habitat and cropland

as meeting the requirements of Rule 4.16 for the permit area (2.07.6(2)(1)).

- 15. Specific approvals have been granted or are proposed. These approvals are addressed in the following section, Section B (2.07.6(2)(m)).
- 16. The Division finds that the activities proposed by the PR11 application will not affect the continued existence of endangered or threatened species or result in the destruction or adverse modification of their critical habitats as determined under the Endangered Species Act of 1973 (16 USC Sec. 1531 et seq.) or the Nongame, Endangered or Threatened Species Conservation Act (Section 33-2-101 et seq., C.R.S), (2.07.6(2)(n)).
- 17. The Division finds that the applicant has satisfied the applicable requirements of Rules 4.23 through 4.29 regarding special categories of mining (2.07.6(2)(p)).

Section B - Findings Required Rule 4

- I. Roads Rule 4.03
 - A. Haul Roads
 Haul roads discussed in permit Section 3.7.2, Vol. III, occur upstream of adequate sediment control facilities (4. 03.1 (2)(c)).
 - B. Access Roads Access roads, discussed in permit Section 3.7.3, Vol III, meet requirements of Rule 4.03.2(2)(c).
- II. Support Facilities Rule 4.04 Support facilities discussed in permit Section 3.8, Vol. III, meet requirements of Rule 4.04(6).
- III. Hydrologic Balance Rule 4.05

Volume 4 of the Trapper Mine permit application includes an assessment of the probable hydrologic consequences of the proposed mining operation. Each year, Trapper assesses the ongoing impacts to the hydrologic system in its annual hydrologic report submitted as Appendix W of the permit application. The probable hydrologic consequences as set forth in Volume 4 and Appendix W are summarized below.

- A. Water Quality Standards and Effluent Limitations Surface discharge at the Trapper Mine is monitored under CDPS permit #CO-0032115 issued by the Colorado Department of Public Health and Environment. In addition, the applicant has quarterly and monthly reporting requirements as part of its surface water monitoring program. WET testing through bio-monitoring sampling is required in the following drainages if mine-contaminated water is discharged.
 - 1. East Flume System 2. Middle Pyeatt System

B. Stream Channel Diversions

Drainage way reconstruction is discussed under Section 4.8. 1.3, Vol. IV of the permit application. Channel lining structures, retention basins, and artificial channel roughness structures are proposed for use to control erosion. The applicant uses rock check structures, various geotextiles, and rapid growing vegetation within reconstructed drainages to control erosion. (4.05.4(2)(a)).

C. Sedimentation Ponds

Sediment ponds are discussed under Section 4.8.1.4, Vol. IV of the permit application.

The applicant uses sedimentation ponds in all disturbed drainages to control increased sediment loads resulting from disturbance within the ephemeral drainages on the mine site. All sediment ponds are designed to contain or treat, at a minimum, the 10-year, 24-hour event and to safely pass the 25-year, 24-hour event. One MSHA size pond exists on the site in the Coyote drainage.

- D. Surface and Ground Water Monitoring
 - The applicant will conduct monitoring of ground water in a manner approved by the Division. The ground water monitoring plan can be found in Section 4.8.5.2a, Vol. IV of the permit application (4.05.13(1)). Baseline groundwater quality information is presented in Section 2.7.5.2 of the currently approved PAP (Page 2-463). Water quality has been monitored at five different locations at the mine site; Sites GA, GB, GC, GD and GE.
 - 2. The applicant will conduct monitoring of surface water in a manner approved by the Division. The monitoring plan was submitted under 2.05.6(3)(b)(iv) and can be found in Section 4.8.5.1a of the permit application, Vol. IV (4.05.13(2)).

The Division reviewed the surface and ground water monitoring plans as part of the permit revision PR11 review process. These monitoring plans are adequate to monitor for the development of impacts, if any should develop. Well GP-09 has been designated the groundwater point of compliance for the Third White Sandstone aquifer, and the Coy well is the point of compliance for the Flume Gulch alluvium. The applicable standard at the points of compliance is the Interim Narrative Standard from Regulation 41, The Basic Standards for Groundwater (Reg 41).

Water monitoring was undertaken down dip of the I and J pits near the Coyote Pond for the pits as they develop to the west. These wells have been drilled under the MR225 permitting action and monitor the First, Second and Third White Sandstone aquifers.

New or revised surface water monitoring is proposed under PR11 associated with new pond construction in the East and West Buzzard drainages as outlined in the submission.

E. Probable Hydrologic Consequences

The model for leachate formation and migration at the Trapper Mine is based on a study conducted by the U.S. Geological Survey at the Seneca II Mine in Routt County, approximately 14 miles east of the Trapper Mine (U.S. Geological Survey Water Resources Investigations Report 92-4187). The model is described in the probable hydrologic consequences of the permit application (Section 4.8).

No drawdowns have been detected in aquifer wells within one mile from the permit boundary. Observed drawdowns have been temporary and are limited to the immediate vicinity of the pits. The operator expects such limited drawdowns to continue with future mining.

The proposed mining operation will have little if any effects on the post-mining recharge capacity. The applicant's studies concluded that the recharge capacity of the reclaimed spoils will actually be slightly higher than the pre-mine condition. The mine activities should not impact any regional aquifers except the Third White Sandstone. Mined strata dip far beneath the Yampa River alluvial aquifer and communication between these strata and the alluvial aquifer is negligible.

Permit section 4.8.2.2 discusses potential drawdown impacts to adjacent wells. A groundwater monitoring program is discussed in section 4.8.3.2 of the permit. Point of compliance wells are in place.

Surface Water Impacts

Surface water flow and quality are monitored in the Flume System, Johnson Gulch, No Name Gulch, Ute Gulch, Pyeatt System, Oak, Gulch, Horse Gulch and Deal Gulch. Generally, Johnson, No Name East Pyeatt and Middle Flume gulches exhibit flow over the course of the year. The most noticeable change in surface water quality resulting from mining activities constitutes increased levels of total dissolved solids (TDS). TMI expects higher TDS in some surface water runoff for a few years after reclamation in an area. Increased TDS levels occur periodically when the contribution from precipitation and snowmelt is at a minimum (base flow conditions).

Conductivity, TDS and major constituents tend to increase as the ground water contribution comprises a larger portion of flow. For a detailed analysis of surface water impacts, the 2021 Annual Hydrology Report, Section 2.5 of the permit presents the most current information.

Leachate that may discharge from the toe of the Horse Gulch Fill probably will cause an increase in the dissolved solids content of natural stream flows in Horse Gulch. Rain or snowmelt provides most natural surface water flows in Horse Gulch. Although loading of Horse Gulch surface flows with dissolved solids from the fill would be a local impact, it does not rise to the level of material damage because use or potential use is not likely to be impaired. An exceedance of an instream standard in Horse Gulch is unlikely because leachate from the fill will probably be alkaline (like all other Trapper leachates) and is not likely to contain high concentrations of the inorganic or metals constituents for which there are numeric standards in Horse Gulch.

Ground Water Impacts

The 2021 Annual Hydrology Report (AHR), Section 2.5 of the permit presents the most current information regarding springs and seeps at TMI. Appendix B presents ground water quality data from 2012 through 2021. Flow from the springs and seeps is shown on Table B-2. A CD submitted with the AHR provides all historical data.

The NPDES permit #C0-0032115 issued by the Colorado Department of Public Health and Environment describes water quality monitoring requirements. Pit dewatering occurs in L, N Pits, and well dewatering in the G Pit wells. All pit water is routed to NPDES drainage systems with discharges monitored at the approved outfall. Dust suppression for the main haul road consumes most of the water yielded from dewatering activities. Currently a number of the listed outfalls encompass Phase III bond released areas and therefore are no longer subject to DRMS monitoring requirements.

IV. Topsoil

Soil information can be found in Section 2.6, Volume II and Section 4.9, Vol. IV.

The Division previously granted a variance from topsoil removal in accordance with Rule 4. 06.2(2)(a). Specific areas which the operator will not strip topsoil are limited to rocky areas which occur over limited areas throughout the mine area. Each area approved is handled separately as a minor revision to the permit and no general variance is currently approved.

V. Sealing of Drilled Holes and Underground Openings Sealing of wells, holes, and other openings is discussed in permit Section 3. 3, Vol. III.

The Division requires each hole, well, or other underground opening be capped, sealed, backfilled or otherwise managed as per Rule 4.07.3.

VI. Use of Explosives

The blasting plan, as well as other items related to blasting, are discussed in permit Section 3.4, Vol. III.

The Division approved blasting at times other than those described in the blasting schedule due to unavoidable hazardous situations. These situations include elimination of misfires, adverse weather, equipment failure, and safety related reasons (4.08.3(2)(b)(v) and (4.08.4(2)).

VII. Disposal of Excess Spoil

Permit section 3. 5.3, Vol. III of the application discusses disposal of excess spoil.

In accordance with TR106 and Appendix T, the K-Pit Buttress Fill is no longer required. The Horse Gulch Fill is described in Appendix T and inspected in accordance with Rule 4.09.1(11), and meets the definitions and regulations associated with valley fill and head of hollow construction. The Horse Gulch underdrain and runoff diversions were constructed in accordance with Rules 4.09.2(2), 4.09.3(1), and 4.09.2(7). The slope stability analysis for the Horse Gulch Fill demonstrates that the fill is designed to meet rules (4.09.1(7)) and (4.09.2(1)).

VIII. Coal Mine Waste Banks

No specific approvals are granted to the applicant under this section.

IX. Coal Mine Waste

No specific approvals are granted to the applicant under this section.

X. Backfilling and Grading

Backfilling and grading are discussed under Section 3.5, Vol. III of the permit application.

- 1. The applicant is bonded for a maximum of four (4) spoil ridges at any time within each pit area. Reclamation has historically been, and is proposed for completion, at approximately the same rate as disturbance of any new ground (4.14.1).
- 2. Trapper committed to a minimum safety factor of 1.5 to ensure long term global stability in both the L and Ash Pits, exceeding the minimum requirements (4.12.2 and 4.27.3)
- 3. The Post Mine Topography Map (Map M12) is a permit requirement in permit section 3.5.3.
- 4. During PR9, TMI requested a variance for backfilling and grading portions of the L and Ash Pits to the approximate original contour in accordance with Rule 2.06.5. Based on a stability analysis provided by TMI with (PR9), they demonstrated that based on unique combinations of steepness of the pit floor, spoil thickness, spoil saturation, and the presence of a weak shale/clay layer in the floor of the pit, steep slopes for the final cut of the L Pit and Ash Pit should be identified as any slope over 16 degrees. Therefore, these areas qualify for a variance from the requirement to backfill and grade to the approximate original contour under the steep slope mining provision. The findings required for a variance in accordance with Rule 2.06.5 and Rule 4.27.4 are discussed below in the Operations on Steep Slopes, Section XX of this document.

XI. Revegetation

The Division previously approved Trapper's revegetation plan as set forth in permit Section 3.6, Vol. III of the application.

- The applicant uses introduced species in the reclamation seed mix, and submitted information illustrating the desirability and necessity of introduced species in achieving the approved post-mining land use illustrating that these species are not poisonous or noxious (4.15.2). In conjunction with Trapper's years of reclamation experience, Trapper has reduced the number of introduced species in the seed mixes utilized at the site. DRMS found the seed mix adjustments acceptable.
- Methods to measure species diversity, woody plant density, herbaceous cover and production are discussed in permit section 4.4.1, Volume IV. Seed mixes and revegetation practices are designed to meet diversity standards set forth in the permit. The applicant will reestablish shrubs on Range Sites A and B by including various native shrubs in the seed mixes and by transplanting mature woody shrub clumps. There is no shrub density standard for Range Site C. (4.15.7(1)).

XII. Post-mining Land Use

Post-mining land use is discussed under Section 4.2, Vol. IV of the permit application.

Cropland, rangeland and wildlife habitat are currently approved post-mining land uses. These land uses meet the criteria of Rule 4.16.3.

XIII. Protection of Fish, Wildlife and Related Environmental Values Section 4. 6 of Vol. IV of the permit application discusses the protection of fish, wildlife and related environmental values.

Wildlife habitat is a planned post-mining land use. The applicant selected appropriate plant species and distributions to benefit fish and wildlife (4.18(4)(i)).

XIV. Protection of Underground Mining

This PR11 permitting action proposes further mining on the west portion of the site in the I and J Pits. The area had been fully reclaimed (4.19(1)), and 4.22.4(1)) will be re-disturbed as per PR10 and PR11.

XV. Subsidence Control No specific approvals are granted to the applicant under this section.

XVI. Concurrent Surface and Underground Mining No specific approvals are granted to the applicant under this section.

XVII. Auger Mining - Rule 4.23

Auger of highwall mining is planned in the C, I, J, L and N pits. Subsidence is not anticipated with any highwall mining activities at the site. Trapper is not currently aware of any abandoned or active underground mine workings in any of the pertinent coal seams in the proposed highwall mining areas. In the event abandoned or active underground mining operations are identified, no highwall mining will be conducted within 500 feet of previous workings in the applicable seams. Trapper is also not aware of any dwellings, buildings, tanks, impoundments or utilities overlying areas planned for highwall mining. Design criteria established by Agapito Associates Inc. will be utilized to ensure long-term stability of highwalls and mining areas based on seam and overburden thickness. Access to highwall miner entries will be blocked or buried within 30 days following coal extraction.

XVIII. Operations on Alluvial Valley Floors

Operations on alluvial valley floors (AVFs) are discussed in Section 4.8.4 of Vol. IV of the permit application.

1.	Yampa River	2.	Williams Fork River
3.	No Name Gulch	4.	Johnson Gulch
5.	Pyeatt Gulch	6.	Flume Gulch

The above alluvial valleys would meet the regulatory definition of an alluvial valley floor (AVF) if the valleys had water availability sufficient for flood-irrigated agricultural activities [Section 1.04(10)], or availability of water sufficient for sub-irrigated agricultural activities [Section 1.04(10)]. Flood irrigation is practiced on the valley floors of the Yampa River in the Big Bottom area and the Williams Fork River near its confluence with the Yampa. Based on the presence of unconsolidated stream-laid holding streams with water availability sufficient for flood-irrigated agricultural activities, the following two alluvial valleys have been determined to be alluvial valley floors:

- 1. the Yampa River in the Big Bottom area
- 2. the Williams Fork River near its confluence with the Yampa River.

Map 35A and Map 52 indicate the locations of AVF well sites and the location of alluvial valley floors. The Coy well drilled into the alluvium of Flume drainage functions as a point of compliance well. Four wells are drilled into the Pyeatt alluvium, well J1 is located in the Johnson drainage alluvium and one of the three GLEV wells in the Deacon drainage reached the alluvium at the very north east corner of the permit. This GLEV well is located downgradient of any mining to the east that may occur in the future. These wells constitute an environmental monitoring system during surface coal mining and reclamation operations continuing until release of all bonds in accordance with Rule 3 (4.24.4).

Four gulches (No Name, Johnson, Pyeatt, and Flume) are determined not to be alluvial valley floors based on their absence of water availability sufficient for flood-irrigation or sub-irrigation agricultural activities.

Potential impacts to the Yampa River AVF resulting from the proposed mining operation are negligible. Generally, the Yampa River AVF receives very little of its water supply (surface and ground water) from the proposed mine area. The majority of the flow in the river and subsequent recharge to the alluvial aquifer derive from the headwaters portions of the drainage, far upstream from Trapper. The applicant states that the contribution of surface water from the Trapper mine is insignificant as per page 2-533 of the permit application.

This is substantiated by seepage, runoff, and potentiometric studies in Appendix H of the permit application. Based on the information presented by the applicant, the Division finds that proposed surface coal mining operations will not interrupt, discontinue, or preclude farming on the Yampa River AVF, nor materially damage surface or ground water quantity or quality in systems supplying the Yampa River AVF (4. 24.3(1)), (4.24.3(3), and 2.06. 8(5)(a)(ii)).

The potential for impacts from mining to the Williams Fork AVF is also negligible. The Williams Fork River is located south of the proposed mining area. Almost exclusively, spring snowmelt comprises the only surface discharge from sediment ponds in the drainages flowing towards the Williams Fork River. It is likely that much of the discharge from these ponds infiltrate into the permeable Twentymile Sandstone outcrop prior to reaching the Williams Fork River. Therefore, the Division finds that the proposed surface coal mining operations will not interrupt, discontinue, or preclude farming on the Williams Fork AVF, and will not materially damage the quantity or quality of water in surface or ground water systems that supply the Williams Fork AVF (4.24. 3(1)), (4.24.3(3), and 2.06. 8(5)(a)(ii)).

The Division finds that:

1. Proposed mining activities comply with the requirements of the Act and the Regulations with respect to alluvial valley floors, (2. 06.8(5)(a)(iii)).

2. The surface coal mining and reclamation operations will be conducted to preserve the essential hydrologic functions of alluvial valley floors outside the permit area and to reestablish the essential hydrologic functions of alluvial valley floors within the affected area

throughout the mining and reclamation process (4. 24.2).

XVIII. Operations on Prime Farmland

No prime farmlands currently exist within the proposed permit area. Therefore any specific approvals under this section do not apply.

XIX. Mountaintop Removal

No specific approvals are granted to the applicant under this section.

XX. Operations on Steep Slopes

Trapper was approved for a variance from backfilling and grading to the approximate original contour in the L Pit and in the Ash Pit with PR9. The following summarizes the findings required by Rule 2.06.5 for the incorporation of a variance from the approximate original contour restoration requirements for steep slope mining:

- 1. TMI is not revising the post-mining land use for rangeland, wildlife habitat and cropland. The L and Ash pits will be reclaimed to support the approved post mine land use of rangeland which will support grazing as an agricultural use.
- 2. The post-mine land use established by reclamation of the L and Ash pits constitutes an equal or better economic use.
- 3. The applicant is not proposing an alternative post-mining land use whereby this is not applicable.
- 4. TMI has demonstrated the watershed of lands within the proposed permit area and adjacent areas will be improved by the operation. TMI demonstrated there will be a reduction in the total suspended solids or other pollutants discharged to the surface waters from the permit area as compared to such discharges prior to mining in the L and Ash pits.
- 5. TMI provided documentation to the landowners of the affected land associated with the variance; TMI and the Colorado State Land Board has knowingly requested, in writing, as part of the (PR9) application, that a variance be granted.
- 6. The applicant has demonstrated that the proposed operation will be conducted in accordance with Rule 4.27.4:
 - a. The L and Ash Pits highwalls will be eliminated and backfilled with spoil and the post mine configuration will exceed the required 1.3 factor of safety as required by the rule.
 - b. The watershed control of the area shall be improved. There will not be a significant change to the post-mining watershed areas that would impact seasonal or flood flows. The sediment yield per acre, postmining in the L and Ash pits shall be less than pre- mining levels.
 - c. The land above the highwalls in the Ash and L pits will only be disturbed in compliance with the approved mining and reclamation plan as depicted on map M10A and M10B and will be necessary for the establishment of the proposed post-mining topography as shown on Map M12.
 - d. The proposed plan, if implemented as described in the permit application package should allow compliance with Rule 2.06.5.
 - e. Not applicable to this operation.
- 7. The proposed operation should allow for other requirements of the Act, Rules and this regulatory program to be met should TMI conduct the operation as proposed.

XXI. In Situ ProcessingNo specific approvals are granted to the applicant under this section.Appendix A: Stipulation Maps

This Appendix comprises two detailed views of areas requiring additional cultural surveys. These captures were taken by DRMS from TMI's submission of Map M45, *Cultural Resources Surveys Conducted on and Adjacent to the Trapper Mine* on 10 April 2023. The views indicate the locations requiring additional cultural resources surveys, L Pit -25.4 acres and the West Panel, 4 acres. TMI must satisfy Stipulation #23 prior to disturbing these areas.



Map2: L Pit area depicting, in pink, the 25.4 acres requiring cultural resource survey.

Worst Case Costs for Permitting Action PR11 Year 2023

Post PR11 Estimate

Phase Bond Release Area Cost Accounting			Liability	Acres	Cost /Acre	%	Phase Bond Release	Acreage
	Worst Case Bond		\$ 39,216612.00	2836.40	\$15,649.35	100%	Phase 1	4684.5
	Phase I Bond Release		\$ 1,629,831.55	294.70	\$6,259.74	40%	Phase 2	4389.8
	Phase II Bond Release		\$ 897,596.41	432.80	\$2,347.40	15%	Phase 3	3957.0
<u>Total</u>		TOTAL	\$41,744,040	3563.9				

COST SUMMARY WORK

Та	sk descrip	otion:	PR11 Reclamati	on Cost Esti	mate			
Site: Trapper Mine		Pe	rmit Action:	PR11	Pe	ermit/Job#:	C1981010	
	OJECT Task #:	IDENTIFIC	CATION State:	Colorado		Abbrev	iation: 1	None
	Date: User:	5/31/2022 ZTT	County:	Moffat		File	ename: (2010-000
	Age	ency or organiz	zation name:	RMS				

TASK LIST (DIRECT COSTS)

$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$			Form	Fleet	Task	
001B Load/Haul Section E1,423,800 TRUCK1 1 40.89 \$274,182 002 Ash Disposal Pit Regrade (Section 1) DOZER 2 32.26 \$38,6828 002B Ash Disposal Pit Regrade (Section 3-1) DOZER 2 32.20 \$36,628 003 Ash Disposal Pit Regrade (Section 3-2) DOZER 2 2.27 \$2,597 003B Ash Disposal Pit Regrade (Section 3-2) DOZER 2 7.7.54 \$88,683 004 Regrade Johnson Coal Stockpile DOZER 1 13.37 \$7,646 004A D/E Pit Regrade (West) DOZER 4 91.64 \$419,242 005A D/E Pit Regrade (West) DOZER 4 53.06 \$76,816 033 Regrade D-Main Road DOZER 4 87.61 \$126,826 033 Regrade LOM Roads DOZER 4 87.61 \$126,826 034 Regrade C Nads (Middle A and North A N pit) DOZER 4 87.61 \$126,827 036 Regrade C Pit Haul Road< (Id J Mo	Task	Description				Cost
002 Ash Disposal Pit Regrade (Section 1) DOZER 2 25.26 \$28,894 003 Ash Disposal Pit Regrade (Section 2) DOZER 2 32.20 \$36,828 003 Ash Disposal Pit Regrade (Section 3-1) DOZER 2 2.27 \$2,597 003B Ash Disposal Pit Regrade (Section 3-2) DOZER 2 77.54 \$88,683 004A D/E Pit Regrade (Section 3-2) DOZER 13.37 \$7,646 005A D/E Pit Regrade (Section 3-2) DOZER 6 117.26 \$402,333 030 Regrade C Naad DOZER 4 72.55 \$105,020 031 Regrade D-Main Road DOZER 4 53.06 \$76,816 032 Regrade LOM Roads DOZER 4 53.06 \$76,816 033 Regrade A Roads (old LOM, cross-over, ash pit) DOZER 4 58.27 \$84,349 034 Regrade L3 Haul Roads (Cast A and East DOZER 4 59.52 \$86,171 039 Regrade L1/ Roads (U1 Spoil, I Mid, I West) DOZER<	001	Ash Disposal Pit Regrade (NW section)	DOZER	2	11.75	\$13,435
002B Ash Disposal Pit Regrade (Section 3-1) DOZER 2 32.20 \$36,828 003 Ash Disposal Pit Regrade (Section 3-1) DOZER 2 2.27 \$2,597 003B Ash Disposal Pit Regrade (Section 3-2) DOZER 2 77.54 \$88,683 004 Regrade Jonson Coal Stockpile DOZER 1 13.37 \$7,646 004A D/E Pit Regrade (Spoil Side East) DOZER 8 91.64 \$419,242 005A D/E Pit Regrade (West) DOZER 4 72.55 \$105,020 030 Regrade D-Main Road DOZER 4 72.55 \$105,020 031 Regrade E Road DOZER 4 87.61 \$126,826 033 Regrade LOM Roads DOZER 4 87.61 \$126,826 034 Regrade LOM Roads (old LOM, cross-over, ash DOZER 4 58.27 \$84,349 035 Regrade E N Haul Road DOZER 4 59.52 \$86,171 039 Regrade LOM Roads (KI EPRL K3) DOZER <td>001B</td> <td>Load/Haul Section E1,423,800</td> <td>TRUCK1</td> <td>1</td> <td>40.89</td> <td>\$274,182</td>	001B	Load/Haul Section E1,423,800	TRUCK1	1	40.89	\$274,182
003 Ash Disposal Pit Regrade (Section 3-1) DOZER 2 2.27 \$2,597 003B Ash Disposal Pit Regrade (Section 3-2) DOZER 2 77.54 \$88,683 004 Regrade Johnson Coal Stockpile DOZER 1 13.37 \$7,646 004A DE Pit Regrade (Spoil Side East) DOZER 6 117.26 \$402,333 030 Regrade DAmin Road DOZER 4 72.55 \$105,020 031 Regrade DAmin Road DOZER 4 53.06 \$76,816 032 Regrade LOM Roads DOZER 4 87.61 \$126,826 033 Regrade LOM Roads (Middle A and North A N pit) DOZER 4 58.27 \$84,349 034 Regrade C Pit Haul Road DOZER 4 59.52 \$86,171 035 Regrade LO Roads (Middle A and Stright, I West) DOZER 4 67.82 \$98,174 036 Regrade C Pit Haul Roads (East A and East DOZER 4 67.82 \$98,174 039 Regrade I/J Roads (I/J	002	Ash Disposal Pit Regrade (Section 1)	DOZER	2	25.26	\$28,894
003B Ash Disposal Pit Regrade (Section 3-2) DOZER 2 77.54 \$88,683 004 Regrade Johnson Coal Stockpile DOZER 1 13.37 \$7,646 004A D/E Pit Regrade (Spoil Side East) DOZER 8 91.64 \$419,242 005A D/E Pit Regrade (West) DOZER 6 117.26 \$402,333 030 Regrade D-Main Road DOZER 4 75.55 \$105,020 031 Regrade LoM Roads DOZER 4 53.06 \$76,816 032 Regrade LOM Roads DOZER 4 158.24 \$229,073 034 Regrade A Roads (Middle A and North A N pit) DOZER 4 21.12 \$48,295 0i1 Regrade C Pit Haul Road DOZER 4 21.12 \$48,295 036 Regrade C Pit Haul Road DOZER 4 59.52 \$86,171 039 Regrade I/J Roads (I/J Spoil, I Mid, I West) DOZER 4 67.82 \$98,174 040 Regrade Mo Name Access Road DOZER	002B	Ash Disposal Pit Regrade (Section 2)	DOZER	2	32.20	\$36,828
004 Regrade Johnson Coal Stockpile DOZER 1 13.37 \$7,646 004A D/E Pit Regrade (Spoil Side East) DOZER 8 91.64 \$\$419,242 005A D/E Pit Regrade (West) DOZER 6 117.26 \$\$402,333 030 Regrade DC Road DOZER 4 72.55 \$\$105,020 031 Regrade D-Main Road DOZER 4 53.06 \$\$76,816 032 Regrade LOM Roads DOZER 4 \$\$2,676,816 \$\$20073 034 Regrade A Roads (Midle A and North A N pit) DOZER 4 \$\$8,27 \$\$\$43,439 035 Regrade C Pit Haul Road DOZER 4 \$\$12,682 \$\$2,77 \$\$\$43,439 036 Regrade C Pit Haul Road DOZER 4 \$\$12,682 \$\$2,9174 039 Regrade C Pit Haul Roads (East A and East DOZER 4 \$\$12,822 \$\$98,174 039 Regrade IJ Roads (IJ Spoil, I Mid, I West) DOZER 4 \$\$47,128 \$\$98,678 042 Regrade	003	Ash Disposal Pit Regrade (Section 3-1)	DOZER	2	2.27	\$2,597
004A DE Pit Regrade (Spoil Side East) DOZER 8 91.64 \$419,242 005A DE Pit Regrade (West) DOZER 6 117.26 \$402,333 030 Regrade DAin Road DOZER 4 72.55 \$105,020 031 Regrade DAin Road DOZER 4 53.06 \$76.816 032 Regrade East and West Ash Roads DOZER 4 87.61 \$126,826 033 Regrade LOM Roads DOZER 4 87.61 \$126,826 034 Regrade A Roads (Middle A and North A N pit) DOZER 4 58.27 \$84,349 035 Regrade C Pit Haul Road DOZER 4 59.52 \$86,171 039 Regrade LJ Roads (East A and East DOZER 4 67.82 \$98,174 ASplit, BridgeRd)	003B	Ash Disposal Pit Regrade (Section 3-2)	DOZER	2	77.54	\$88,683
005A D/E Pit Regrade (West) DOZER 6 117.26 \$402,333 030 Regrade BC Road DOZER 4 72.55 \$105,020 031 Regrade D-Main Road DOZER 4 72.55 \$105,020 031 Regrade LOM Roads DOZER 4 87.61 \$126,826 033 Regrade LOM Roads DOZER 4 87.61 \$126,826 033 Regrade LOM Roads DOZER 4 58.27 \$84,349 035 Regrade N Pit Roads (old LOM, cross-over, ash DOZER 4 21.12 \$48,295 036 Regrade C Pit Haul Road DOZER 4 59.52 \$86,171 039 Regrade E At Haul Roads (East A and East DOZER 4 67.82 \$98,174 ASplit, BridgeRd) DOZER 4 67.82 \$98,678 040 Regrade K Dit Haul Roads (K1 EPRL K3) DOZER 4 64.71 \$93,678 041 Regrade No Name Access Road DOZER 4 10.79 \$15,616 <td< td=""><td>004</td><td>Regrade Johnson Coal Stockpile</td><td>DOZER</td><td>1</td><td>13.37</td><td>\$7,646</td></td<>	004	Regrade Johnson Coal Stockpile	DOZER	1	13.37	\$7,646
030Regrade BC RoadDOZER472.55\$105,020031Regrade D-Main RoadDOZER4 53.06 \$76,816032Regrade East and West Ash RoadsDOZER4 53.06 \$76,816033Regrade LOM RoadsDOZER4 158.24 \$229,073034Regrade A Roads (Middle A and North A N pit)DOZER4 58.27 \$84,349035Regrade N Pit Roads (old LOM, cross-over, ash pit)DOZER4 59.52 \$86,171036Regrade C Pit Haul RoadDOZER4 67.82 \$98,174037Regrade K Pit Haul Roads (East A and East ASplit, BridgeRd)DOZER4 67.82 \$98,174040Regrade K Pit Haul Roads (K1 EPRL K3)DOZER4 64.71 \$93,678042Regrade Mine Access RoadDOZER4 23.58 \$34,128044Regrade No Name Access RoadDOZER4 1.79 \$2,586046Regrade No Name Access Road (1 and 2)DOZER4 1.79 \$2,586046Regrade Middle Pyeatt Access Road (1, 2 and 3)DOZER4 4.57 \$6,619050Regrade East Pyeatt Access RoadDOZER4 4.57 \$6,619051Regrade East Flume Access RoadDOZER4 2.68 \$3,878052Regrade West Flume Access RoadDOZER4 4.57 \$6,619056Regrade Middle Pyeatt Access RoadDOZER4 4.57 \$6,619050Regrade	004A	D/E Pit Regrade (Spoil Side East)	DOZER	8	91.64	\$419,242
031 Regrade D-Main Road DOZER 4 53.06 \$76,816 032 Regrade East and West Ash Roads DOZER 4 87.61 \$126,826 033 Regrade LOM Roads DOZER 4 158.24 \$229,073 034 Regrade A Roads (Middle A and North A N pit) DOZER 4 158.27 \$84,349 035 Regrade N Pit Roads (old LOM, cross-over, ash DOZER 4 28.27 \$84,349 036 Regrade C Pit Haul Road DOZER 4 21.12 \$48,295 pit)	005A	D/E Pit Regrade (West)	DOZER	6	117.26	\$402,333
032 Regrade East and West Ash Roads DOZER 4 87.61 \$126,826 033 Regrade LOM Roads DOZER 4 158.24 \$229,073 034 Regrade A Roads (Middle A and North A N pit) DOZER 4 58.27 \$84,349 035 Regrade N Pit Roads (old LOM, cross-over, ash pit) DOZER 4 21.12 \$48,295 036 Regrade C Pit Haul Road DOZER 4 59.52 \$86,171 039 Regrade East A Haul Roads (East A and East DOZER 4 67.82 \$98,174 040 Regrade K Pit Haul Roads (K1 EPRL K3) DOZER 4 26.16 \$37,892 041 Regrade Mine Access Road DOZER 4 23.58 \$34,128 044 Regrade No Name Access Roads #2, #4, 5R DOZER 4 10.79 \$15,616 045 Regrade Middle Pyeatt Access Road (1 and 2) DOZER 4 6.61 \$9,566 046 Regrade Bast Pyeatt Access Road DOZER 4 6.61 \$9,566 048 Regrade Gro	030	Regrade BC Road	DOZER	4	72.55	\$105,020
033Regrade LOM RoadsDOZER4158.24\$229,073034Regrade A Roads (Middle A and North A N pit)DOZER458.27\$84,349035Regrade N Pit Roads (old LOM, cross-over, ash pit)DOZER421.12\$48,295036Regrade C Pit Haul RoadDOZER459.52\$86,171039Regrade East A Haul Roads (East A and East Asplit, BridgeRd)DOZER467.82\$98,174040Regrade LJ Roads (/J Spoil, I Mid, I West)DOZER464.71\$93,678041Regrade K Pit Haul Roads (KI EPRL K3)DOZER464.71\$93,678042Regrade No Name Access Roads #2, #4, 5RDOZER410.79\$15,616045Regrade No Name Access Road (1 and 2)DOZER41.79\$2,586046Regrade West Pyeatt Access Road (1, 2 and 3)DOZER46.61\$9,566048Regrade East Pyeatt Access RoadDOZER44.57\$6,619049Regrade Grouse Access RoadDOZER42.68\$3,878051Regrade East Flume Access RoadDOZER42.68\$3,878052Regrade Deal Access RoadDOZER42.68\$3,878053Regrade Grouse Access Roads (Horse and Horse1)DOZER42.68\$3,878054Regrade Grouse Access Roads (Horse and Horse1)DOZER42.68\$3,878055Regrade Middle Flume Access RoadsDOZER42.68\$3,878 </td <td>031</td> <td>Regrade D-Main Road</td> <td>DOZER</td> <td>4</td> <td>53.06</td> <td>\$76,816</td>	031	Regrade D-Main Road	DOZER	4	53.06	\$76,816
034Regrade A Roads (Middle A and North A N pit)DOZER458.27\$84,349035Regrade N Pit Roads (old LOM, cross-over, ash pit)DOZER421.12\$48,295036Regrade C Pit Haul RoadDOZER459.52\$86,171039Regrade East A Haul Roads (East A and East ASplit, BridgeRd)DOZER467.82\$98,174040Regrade I/J Roads (I/J Spoil, I Mid, I West)DOZER464.71\$93,678041Regrade K Pit Haul Roads (K1 EPRL K3)DOZER464.71\$93,678042Regrade Mine Access RoadDOZER423.58\$34,128044Regrade No Name Access Roads #2, #4, 5RDOZER410.79\$15,616045Regrade Potable Water Well Access RoadDOZER41.79\$2,586046Regrade Potable Water Social (1 and 2)DOZER46.61\$9,566047Regrade East Pyeatt Access Road (1, 2 and 3)DOZER46.61\$9,566048Regrade Grouse Access RoadDOZER44.57\$6,619050Regrade East Flume Access RoadDOZER42.68\$3,878051Regrade Deal Access RoadDOZER42.68\$3,878052Regrade Horse Access RoadDOZER46.07\$8,791054Regrade East Flume Access RoadDOZER44.60\$6,658055Regrade Middle Flume Access Roads (1 and 3)DOZER44.60\$6,658<	032	Regrade East and West Ash Roads	DOZER	4	87.61	\$126,826
035Regrade N Pit Rods (old LOM, cross-over, ash pit)DOZER421.12\$48,295036Regrade C Pit Haul RoadDOZER459.52\$86,171039Regrade East A Haul Roads (East A and East ASplit, BridgeRd)DOZER467.82\$98,174040Regrade I/J Roads (I/J Spoil, I Mid, I West)DOZER467.82\$98,174041Regrade K Pit Haul Roads (K1 EPRL K3)DOZER464.71\$93,678042Regrade Mine Access RoadDOZER423.58\$34,128044Regrade No Name Access Roads #2, #4, 5RDOZER410.79\$15,616045Regrade Potable Water Well Access RoadDOZER41.79\$2,586046Regrade Best Pyeatt Access Road (1 and 2)DOZER46.61\$9,566048Regrade East Pyeatt Access Road (1, 2 and 3)DOZER49.23\$13,367049Regrade Grouse Access RoadDOZER42.68\$3,878051Regrade Deal Access RoadDOZER42.68\$3,878052Regrade Deal Access RoadDOZER42.68\$3,878053Regrade Horse Access RoadDOZER42.68\$3,878054Regrade Middle Flume Access RoadDOZER42.68\$3,878055Regrade Middle Flume Access Roads (1 and 3)DOZER44.60\$6,658056Regrade Oak Access RoadsDOZER44.60\$6,658056Regr	033	Regrade LOM Roads	DOZER	4	158.24	\$229,073
pit)DOZER459.52\$86,171036Regrade C Pit Haul RoadDOZER467.82\$98,174039Regrade East A Haul Roads (East A and East ASplit, BridgeRd)DOZER467.82\$98,174040Regrade I/J Roads (I/J Spoil, I Mid, I West)DOZER426.16\$37,892041Regrade K Pit Haul Roads (K1 EPRL K3)DOZER426.16\$37,892041Regrade No Name Access RoadDOZER423.58\$34,128044Regrade No Name Access RoadDOZER410.79\$15,616045Regrade Potable Water Well Access RoadDOZER41.79\$2,586046Regrade West Pyeatt Access Road (1 and 2)DOZER46.61\$9,566048Regrade East Pyeatt Access Road (1, 2 and 3)DOZER44.57\$6,619050Regrade Grouse Access RoadDOZER42.68\$3,878051Regrade West Flume Access RoadDOZER42.68\$3,878052Regrade Horse Access RoadDOZER42.68\$3,878053Regrade Morse Access RoadDOZER42.68\$3,878054Regrade West Horse Access RoadDOZER42.68\$3,878055Regrade Middle Flume Access RoadDOZER42.68\$3,878054Regrade Middle Flume Access RoadDOZER42.68\$3,878055Regrade Middle Flume Access RoadDOZER42.68 <td>034</td> <td>Regrade A Roads (Middle A and North A N pit)</td> <td>DOZER</td> <td>4</td> <td>58.27</td> <td>\$84,349</td>	034	Regrade A Roads (Middle A and North A N pit)	DOZER	4	58.27	\$84,349
036Regrade C Pit Haul RoadDOZER459.52\$86,171039Regrade East A Haul Roads (East A and East ASplit, BridgeRd)DOZER467.82\$98,174040Regrade I/J Roads (I/J Spoil, I Mid, I West)DOZER426.16\$37,892041Regrade K Pit Haul Roads (K1 EPRL K3)DOZER464.71\$93,678042Regrade Mine Access RoadDOZER423.58\$34,128044Regrade No Name Access Roads #2, #4, 5RDOZER410.79\$15,616045Regrade Potable Water Well Access RoadDOZER41.79\$2,586046Regrade West Pyeatt Access Road (1 and 2)DOZER46.61\$9,566047Regrade Midel Pyeatt Access Road (1, 2 and 3)DOZER46.61\$9,566048Regrade Crouse Access RoadDOZER44.57\$6,619050Regrade Grouse Access RoadDOZER42.68\$3,878051Regrade East Flume Access RoadDOZER42.68\$3,878052Regrade Horse Access RoadDOZER42.68\$3,878053Regrade Horse Access RoadDOZER42.68\$3,878054Regrade Middle Flume Access RoadDOZER42.68\$3,878055Regrade Middle Flume Access RoadDOZER42.68\$3,878054Regrade Middle Flume Access RoadsDOZER44.60\$6,658055Regrade Middle Flume Access	035		DOZER	4	21.12	\$48,295
039Regrade East A Haul Roads (East A and East ASplit, BridgeRd)DOZER467.82\$98,174040Regrade I/J Roads (I/J Spoil, I Mid, I West)DOZER426.16\$37,892041Regrade K Pit Haul Roads (K1 EPRL K3)DOZER464.71\$93,678042Regrade Mine Access RoadDOZER423.58\$34,128044Regrade No Name Access Roads #2, #4, 5RDOZER410.79\$15,616045Regrade Potable Water Well Access RoadDOZER41.79\$2,586046Regrade West Pyeatt Access Road (1 and 2)DOZER46.61\$9,566047Regrade Middle Pyeatt Access Road (1, 2 and 3)DOZER46.61\$9,566048Regrade Grouse Access RoadDOZER44.57\$6,619049Regrade Grouse Access RoadDOZER42.68\$3,878051Regrade East Flume Access RoadDOZER42.68\$3,878052Regrade Deal Access RoadDOZER42.68\$3,878053Regrade Horse Access RoadDOZER42.68\$3,878054Regrade West Horse Access RoadDOZER42.68\$3,878055Regrade Middle Flume Access RoadsDOZER44.60\$6,658056Regrade Middle Flume Access RoadsDOZER44.60\$6,658056Regrade Oak Access RoadsDOZER44.60\$6,658057Regrade Middle Flume Access Ro	0.2.6	1	DOZED	<u> </u>	50.50	ADC 171
ASplit, BridgeRd)DOZER426.16\$37,892040Regrade I/J Roads (I/J Spoil, I Mid, I West)DOZER426.16\$37,892041Regrade K Pit Haul Roads (K1 EPRL K3)DOZER464.71\$93,678042Regrade Mine Access RoadDOZER423.58\$34,128044Regrade No Name Access Roads #2, #4, 5RDOZER410.79\$15,616045Regrade Potable Water Well Access RoadDOZER41.79\$2,586046Regrade West Pyeatt Access Road (1 and 2)DOZER47.14\$10,342047Regrade Midle Pyeatt Access Road (1, 2 and 3)DOZER46.61\$9,566048Regrade East Pyeatt Access RoadDOZER44.57\$6,619049Regrade Grouse Access RoadDOZER42.68\$3,878050Regrade East Flume Access RoadDOZER42.68\$3,878051Regrade Deal Access RoadDOZER42.68\$3,878052Regrade Horse Access RoadDOZER42.68\$3,878053Regrade Horse Access RoadDOZER42.68\$3,878054Regrade West Horse Access RoadDOZER42.68\$3,878055Regrade Middle Flume Access RoadsDOZER44.60\$6,658056Regrade Oak Access RoadsDOZER44.46\$6,463		U		-		
041Regrade K Pit Haul Roads (K1 EPRL K3)DOZER464.71\$93,678042Regrade Mine Access RoadDOZER423.58\$34,128044Regrade No Name Access Roads #2, #4, 5RDOZER410.79\$15,616045Regrade Potable Water Well Access RoadDOZER41.79\$2,586046Regrade West Pyeatt Access Road (1 and 2)DOZER47.14\$10,342047Regrade Middle Pyeatt Access Road (1, 2 and 3)DOZER46.61\$9,566048Regrade East Pyeatt Access Road (1, 2 and 3)DOZER44.57\$6,619049Regrade Grouse Access RoadDOZER42.68\$3,878050Regrade East Flume Access RoadDOZER42.68\$3,878051Regrade East Flume Access RoadDOZER42.68\$3,878052Regrade Deal Access RoadDOZER42.68\$3,878053Regrade Horse Access RoadDOZER42.68\$3,878054Regrade West Horse Access RoadDOZER42.68\$3,878055Regrade Middle Flume Access Roads (1 and 3)DOZER44.60\$6,658056Regrade Oak Access RoadsDOZER44.60\$6,658056Regrade Sage Access RoadsDOZER44.46\$6,463	039		DOZER	4	67.82	\$98,174
042Regrade Mine Access RoadDOZER423.58\$34,128044Regrade No Name Access Roads #2, #4, 5RDOZER410.79\$15,616045Regrade Potable Water Well Access RoadDOZER41.79\$2,586046Regrade West Pyeatt Access Road (1 and 2)DOZER47.14\$10,342047Regrade Middle Pyeatt Access Road (1, 2 and 3)DOZER46.61\$9,566048Regrade East Pyeatt Access Road (1, 2 and 3)DOZER49.23\$13,367049Regrade Grouse Access RoadDOZER44.57\$6,619050Regrade West Flume Access RoadDOZER42.68\$3,878051Regrade East Flume Access RoadDOZER42.68\$3,878052Regrade Deal Access RoadDOZER46.07\$8,791054Regrade Horse Access RoadDOZER42.68\$3,878055Regrade West Horse Access Roads (1 and 3)DOZER44.60\$6,658056Regrade Oak Access RoadsDOZER44.60\$6,658056Regrade Oak Access RoadsDOZER44.60\$6,658056Regrade Goak Access RoadsDOZER44.60\$6,658057Regrade Oak Access RoadsDOZER44.46\$6,463	040	Regrade I/J Roads (I/J Spoil, I Mid, I West)	DOZER	4	26.16	\$37,892
044Regrade No Name Access Roads #2, #4, 5RDOZER410.79\$15,616045Regrade Potable Water Well Access RoadDOZER41.79\$2,586046Regrade West Pyeatt Access Road (1 and 2)DOZER47.14\$10,342047Regrade Middle Pyeatt Access Road (1, 2 and 3)DOZER46.61\$9,566048Regrade East Pyeatt Access Road (1, 2 and 3)DOZER49.23\$13,367049Regrade Grouse Access RoadDOZER44.57\$6,619050Regrade West Flume Access RoadDOZER42.68\$3,878051Regrade East Flume Access RoadDOZER42.68\$3,878052Regrade Deal Access RoadDOZER42.68\$3,878053Regrade West Horse Access RoadDOZER42.68\$3,878054Regrade West Horse Access RoadDOZER42.68\$3,878055Regrade Middle Flume Access Roads (1 and 3)DOZER44.60\$6,658056Regrade Oak Access RoadsDOZER43.39\$4,912057Regrade Sage Access RoadsDOZER44.46\$6,463	041	Regrade K Pit Haul Roads (K1 EPRL K3)	DOZER	4	64.71	\$93,678
045Regrade Potable Water Well Access RoadDOZER41.79\$2,586046Regrade West Pyeatt Access Road (1 and 2)DOZER47.14\$10,342047Regrade Middle Pyeatt Access Road (1, 2 and 3)DOZER46.61\$9,566048Regrade East Pyeatt Access Road (1, 2 and 3)DOZER49.23\$13,367049Regrade Grouse Access RoadDOZER44.57\$6,619050Regrade West Flume Access RoadDOZER42.68\$3,878051Regrade East Flume Access RoadDOZER42.68\$3,878052Regrade Deal Access RoadDOZER42.68\$3,878053Regrade Horse Access RoadDOZER46.07\$8,791054Regrade West Horse Access RoadDOZER42.68\$3,878055Regrade Middle Flume Access Roads (1 and 3)DOZER44.60\$6,658056Regrade Oak Access RoadsDOZER44.60\$6,658057Regrade Oak Access RoadsDOZER44.46\$6,463	042	Regrade Mine Access Road	DOZER	4	23.58	\$34,128
046Regrade West Pyeatt Access Road (1 and 2)DOZER47.14\$10,342047Regrade Middle Pyeatt Access Road (1, 2 and 3)DOZER46.61\$9,566048Regrade East Pyeatt Access Road (1, 2 and 3)DOZER49.23\$13,367049Regrade Grouse Access RoadDOZER44.57\$6,619050Regrade West Flume Access RoadDOZER42.68\$3,878051Regrade East Flume Access RoadDOZER42.68\$3,878052Regrade Deal Access RoadDOZER42.68\$3,878053Regrade Horse Access Roads (Horse and Horse1)DOZER46.07\$8,791054Regrade West Horse Access Roads (1 and 3)DOZER42.68\$3,878055Regrade Middle Flume Access Roads (1 and 3)DOZER44.60\$6,658056Regrade Oak Access RoadsDOZER43.39\$4,912057Regrade Sage Access RoadsDOZER44.46\$6,463	044	Regrade No Name Access Roads #2, #4, 5R	DOZER	4	10.79	\$15,616
047Regrade Middle Pyeatt Access Road (1, 2 and 3)DOZER46.61\$9,566048Regrade East Pyeatt Access Road (1, 2 and 3)DOZER49.23\$13,367049Regrade Grouse Access RoadDOZER44.57\$6,619050Regrade West Flume Access RoadDOZER42.68\$3,878051Regrade East Flume Access RoadDOZER42.68\$3,878052Regrade Deal Access RoadDOZER42.68\$3,878053Regrade Horse Access Roads (Horse and Horse1)DOZER46.07\$8,791054Regrade West Horse Access RoadDOZER42.68\$3,878055Regrade Middle Flume Access Roads (1 and 3)DOZER44.60\$6,658056Regrade Oak Access RoadsDOZER43.39\$4,912057Regrade Sage Access RoadsDOZER44.46\$6,463	045	Regrade Potable Water Well Access Road	DOZER	4	1.79	\$2,586
048Regrade East Pyeatt Access Road (1, 2 and 3)DOZER49.23\$13,367049Regrade Grouse Access RoadDOZER44.57\$6,619050Regrade West Flume Access RoadDOZER42.68\$3,878051Regrade East Flume Access RoadDOZER42.68\$3,878052Regrade Deal Access RoadDOZER42.68\$3,878053Regrade Horse Access Roads (Horse and Horse1)DOZER46.07\$8,791054Regrade West Horse Access RoadsDOZER42.68\$3,878055Regrade Middle Flume Access Roads (1 and 3)DOZER44.60\$6,658056Regrade Oak Access RoadsDOZER43.39\$4,912057Regrade Sage Access RoadsDOZER44.46\$6,463	046	Regrade West Pyeatt Access Road (1 and 2)	DOZER	4	7.14	\$10,342
049Regrade Grouse Access RoadDOZER44.57\$6,619050Regrade West Flume Access RoadDOZER42.68\$3,878051Regrade East Flume Access RoadDOZER42.68\$3,878052Regrade Deal Access RoadDOZER42.68\$3,878053Regrade Horse Access Roads (Horse and Horse1)DOZER46.07\$8,791054Regrade West Horse Access RoadsDOZER42.68\$3,878055Regrade Middle Flume Access Roads (1 and 3)DOZER44.60\$6,658056Regrade Oak Access RoadsDOZER43.39\$4,912057Regrade Sage Access RoadsDOZER44.46\$6,463	047	Regrade Middle Pyeatt Access Road (1, 2 and 3)	DOZER	4	6.61	\$9,566
050Regrade West Flume Access RoadDOZER42.68\$3,878051Regrade East Flume Access RoadDOZER42.68\$3,878052Regrade Deal Access RoadDOZER42.68\$3,878053Regrade Horse Access Roads (Horse and Horse1)DOZER42.68\$3,878054Regrade West Horse Access RoadDOZER42.68\$3,878055Regrade Middle Flume Access Roads (1 and 3)DOZER44.60\$6,658056Regrade Oak Access RoadsDOZER43.39\$4,912057Regrade Sage Access RoadsDOZER44.46\$6,463	048	Regrade East Pyeatt Access Road (1, 2 and 3)	DOZER	4	9.23	\$13,367
051Regrade East Flume Access RoadDOZER42.68\$3,878052Regrade Deal Access RoadDOZER42.68\$3,878053Regrade Horse Access Roads (Horse and Horse1)DOZER46.07\$8,791054Regrade West Horse Access RoadDOZER42.68\$3,878055Regrade Middle Flume Access Roads (1 and 3)DOZER44.60\$6,658056Regrade Oak Access RoadsDOZER43.39\$4,912057Regrade Sage Access RoadsDOZER44.46\$6,463	049	Regrade Grouse Access Road	DOZER	4	4.57	\$6,619
052Regrade Deal Access RoadDOZER42.68\$3,878053Regrade Horse Access Roads (Horse and Horse1)DOZER46.07\$8,791054Regrade West Horse Access RoadDOZER42.68\$3,878055Regrade Middle Flume Access Roads (1 and 3)DOZER44.60\$6,658056Regrade Oak Access RoadsDOZER43.39\$4,912057Regrade Sage Access RoadsDOZER44.46\$6,463	050	Regrade West Flume Access Road	DOZER	4	2.68	\$3,878
053Regrade Horse Access Roads (Horse and Horse1)DOZER46.07\$8,791054Regrade West Horse Access RoadDOZER42.68\$3,878055Regrade Middle Flume Access Roads (1 and 3)DOZER44.60\$6,658056Regrade Oak Access RoadsDOZER43.39\$4,912057Regrade Sage Access RoadsDOZER44.46\$6,463	051	Regrade East Flume Access Road	DOZER	4	2.68	\$3,878
054Regrade West Horse Access RoadDOZER42.68\$3,878055Regrade Middle Flume Access Roads (1 and 3)DOZER44.60\$6,658056Regrade Oak Access RoadsDOZER43.39\$4,912057Regrade Sage Access RoadsDOZER44.46\$6,463	052	Regrade Deal Access Road	DOZER	4	2.68	\$3,878
055Regrade Middle Flume Access Roads (1 and 3)DOZER44.60\$6,658056Regrade Oak Access RoadsDOZER43.39\$4,912057Regrade Sage Access RoadsDOZER44.46\$6,463	053	Regrade Horse Access Roads (Horse and Horse1)	DOZER	4	6.07	\$8,791
056Regrade Oak Access RoadsDOZER43.39\$4,912057Regrade Sage Access RoadsDOZER44.46\$6,463	054		DOZER	4	2.68	\$3,878
057Regrade Sage Access RoadsDOZER44.46\$6,463	055	Regrade Middle Flume Access Roads (1 and 3)	DOZER	4	4.60	\$6,658
	056	Regrade Oak Access Roads	DOZER	4	3.39	\$4,912
	057	Regrade Sage Access Roads	DOZER	4	4.46	\$6,463
058Regrade Johnson Access RoadDOZER411.07\$16,030	058	Regrade Johnson Access Road	DOZER	4	11.07	\$16,030
063 Rip BC Walk Road RIPPER 4 2.24 \$3,553	063	Rip BC Walk Road	RIPPER	4	2.24	\$3,553
064Rip D-main Pit Haul RoadsRIPPER48.40\$13,311	064	Rip D-main Pit Haul Roads	RIPPER	4	8.40	\$13,311

065	Rip West Ash Haulroads (West Ash, West Ash1	RIPPER	4	5.98	\$9,474
	and West Ash 2)				
066	Rip LOM Haul Roads (F2 and F2-G5)	RIPPER	4	8.76	\$13,879
067	Rip A Pit Haul Roads (Middle A and North A)	RIPPER	4	6.43	\$10,184
068	Rip N Pit Haul Roads	RIPPER	4	5.38	\$8,526
072	Rip East A Haul Roads (East A and East A Split)	RIPPER	4	2.96	\$4,690
074	Rip Access Road (Tasks 042-059)	RIPPER	4	3.11	\$4,926
075	Rip K Pit Haul Roads (KMain, K1, K2, K3)	RIPPER	4	2.12	\$3,363
077	Rip I/J Roads (I/J Spoil, I Mid, I West)	RIPPER	4	4.55	\$7,214
078	Regrade Coyote Impoundment	DOZER	2	288.69	\$208,963
079	Regrade Middle Pyeatt Impoundments Impoundment (1,2, 3)	DOZER	1	51.73	\$18,721
080	Regrade Far East Buzzard Impoundment	DOZER	1	0.56	\$204
081	Regrade Sage Impoundments (1 and 2)	DOZER	1	18.91	\$6,845
082	Regrade West Horse Impoundment	DOZER	1	3.52	\$1,273
083	Regrade Impoundment H	DOZER	1	7.29	\$2,637
084	Regrade Industrial Waste Pond	DOZER	1	7.47	\$2,703
085	Regrade Deal 1 and 2	DOZER	1	9.83	\$3,835
086	Regrade Deacon 1,2 and Jeffway 1,2 impoundments	DOZER	1	94.72	\$36,962
087	Regrade W. Buzzard #4 Impoundment	DOZER	1	6.00	\$2,343
088	Regrade E. Buzzard #3 Impoundment	DOZER	1	7.04	\$2,747
089	Regrade Diversions	DOZER	1	61.42	\$17,231
090	Replace Topsoil on Ash Pits (ASH1)	SCRAPER1	1	5.20	\$29,208
090A	Replace Topsoil on Ash Pits (ASH2)	SCRAPER1	1	12.78	\$71,735
090B	Replace Topsoil on Ash Pits (A92-4 to Pit)	TRUCK1	1	107.16	\$259,367
090 D	Replace Topsoil on D/E Pits (Truck/Excavator)	TRUCK1	1	416.57	\$873,326
091A	Replace Topsoil on D/E Pits (D97-1)	SCRAPER1	1	14.75	\$79,262
091B	Replace Topsoil on D/E Pits (D1-07)	SCRAPER1	1	1.99	\$10,706
091	Replace Topsoil at C Pit	SCRAPER1	1	91.03	\$511,131
096	Replace Topsoil at West Panel, BC rd, Shop	SCRAPER1	1	13.22	\$74,249
096A	(Scraper) Replace Topsoil at West Panel, BC rd, Shop (Truck/Excavator)	TRUCK1	1	147.14	\$308,466
097	Replace Topsoil at East Panel Ponds, A road (Scraper)	SCRAPER1	1	20.64	\$115,897
097A	Replace Topsoil at East Panel Ponds, A Rd	TRUCK1	1	209.29	\$438,768
	(Truck/Excavator)				. ,
098	Re-topsoil Johnson Coal Stockpile	SCRAPER1	1	4.14	\$23,254
099	Replace Topsoil at Dragline Walk Road (ASH4)	TRUCK1	1	8.17	\$14,484
099A	Replace Topsoil at Dragline Walk Road (ASH1)	TRUCK1	1	33.14	\$58,752
100	Facilities Area	REVEGE	1	75.00	\$28,037
100A	Seed D Pit Range A-B	REVEGE	1	319.30	\$220,117
101	Roads (including BC road) below 6700'	REVEGE	1	196.00	\$73,382
102	Finish Grading I/J Pit	GRADER	2	21.73	\$13,139
103	Ponds below 6700' (Coyote, Sage, E Buzzard)	REVEGE	1	26.00	\$9,719
104	Johnson Coal Stockpile	REVEGE	1	12.00	\$4,710
105	topsoil piles below 6700'	REVEGE	1	27.00	\$10,131
107	Roads: >6700 ftRangeland with Shrubs	REVEGE	1	54.00	\$37,364
108	Ash pitRangeland with Shrubs	REVEGE	1	115.00	\$79,691
109	Seed D/E Pit Range B	REVEGE	1	15.00	\$10,331
111	Ponds above 6700'(Deal, Deacon, Jeffways, West Horse)	REVEGE	1	19.00	\$12,898
112	topsoil piles above 6700'	REVEGE	1	5.00	\$3,516
113	Shrub Transplants as per operator	NA	1	40.00	\$155,204

CIRCES Cost Estimating Software

20	Seal Land Slide Monitoring Stations	BOREHOLE	1	4.00	\$5,315
21	Plug and Seal Exploration Drill Holes	BOREHOLE	1	80.00	\$25,280
22	Plug and Seal Monitoring Wells	BOREHOLE	1	185.00	\$108,065
28	Reveg for 20 x .3 acres drillholes	REVEGE	1	6.00	\$4,136
29	Regrade .3acres x 20 drill pads	DOZER	1	60.58	\$16,996
80	Demolish structures, remove materials and debris	DEMOLISH	1	100.00	\$788,371
81	Culvert Removal and Disposal	DEMOLISH	1	60.00	\$127,840
2	Mobilize and Demobilize from Hayden, CO	MOBILIZE	1	5.34	\$75,650
3	Drill and Blast L Pit 1,776,482 BCY	NA	3	407.00	\$640,555
4	Drill and Blast Ash Pit 106,474 BCY	NA	3	37.75	\$43,232
5	Drill and Blast J Pit 513,911 BCY	NA	3	142.00	\$193,985
6	Place holder	NA	0	0.00	\$0
)1	Regrade L Pit X-sec:407,200	DOZER	4	38.19	\$87,365
)2	Regrade L Pit X-sec:406,700	DOZER	4	96.29	\$220,258
)3	Regrade L Pit X-sec:406,200	DOZER	4	54.48	\$124,607
)4	Regrade L Pit X-sec:405700	DOZER	4	71.33	\$163,163
)5	Regrade L Pit X-sec:405,200	DOZER	4	386.09	\$883,157
)6	Regrade L Pit X-sec:404,700	DOZER	4	428.34	\$979,780
)7	Regrade L Pit X-sec:404,700 Regrade L Pit X-sec:404,200	DOZER	4	269.44	\$616,327
18	Regrade L Pit X-sec:404,200 Regrade L Pit X-sec:403,700	DOZER	-	58.40	\$133,596
	Regrade L Pit X-sec:403,700 Regrade L Pit X-sec:403,200		4		
9	<u> </u>	DOZER	4	61.03	\$139,605
0	Regrade L Pit X-sec:402,700	DOZER	4	178.08	\$407,352
1	Regrade L Pit X-sec:402,200	DOZER	4	339.20	\$775,880
2	Regrade L Pit X-sec:401,700	DOZER	4	88.07	\$201,461
3	Regrade L Pit X-sec:401,200	DOZER	4	62.00	\$141,825
4	Regrade L Pit X-secs:400,700 and 400,200	DOZER	4	47.12	\$107,774
5	Regrade L PIt (Truck/Excavator)	TRUCK1	1	459.83	\$1,495,471
6	Seed L Pit: Rangeland with Shrubs	REVEGE	1	804.00	\$554,187
7	Regrade L Pit North Haul road.6.5 ac X 9 ft th.	DOZER	2	32.35	\$36,981
8	Replace Topsoil on L Pit (Scrapper)	SCRAPER1	1	166.47	\$934,752
9	Replace Topsoil on L Pit (Truck/Excavator)	TRUCK1	1	708.38	\$1,714,488
120	Site Maintenance; Rill and Gully Repair and Pond	SITEMAINT	1	600.00	\$240,462
	Cleaning	ENANCE	4 .		
)1	Regrade N Pit	DOZER	2	1,071.15	\$1,225,074
)2	Backfill and Grading N Pit	TRUCK1	1	604.84	\$2,246,168
)2a	Backfill and Grading I Pit	TRUCK1		156.39	\$508,620
)2b	Backfill and Grading J Pit	DOZER	2	450.41	\$515,134
)3	Backfill and Grading C Pit	TRUCK1	1	1,914.22	\$6,225,540
3	Replace Topsoil on C Pit	SCRAPER1	1	90.64	\$508,981
4	Replace Topsoil on N Pit (Scraper)	SCRAPER1	1	169.86	\$953,793
4a	Replace Topsoil on N Pit (Truck/Excavator)	TRUCK1	1	147.82	\$305,805
5	Replace Topsoil in I Pit	SCRAPER1	1	13.46	\$75,606
16	Replace Topsoil on J Pit (Truck/Excavator)	TRUCK1	1	103.22	\$213,547
6a	Replace Topsoil in J Pit (Scraper)	SCRAPER1	1	3.87	\$21,726
17	Replace Topsoil on I/J Pit	TRUCK1	1	54.31	\$94,773
8	Seed N PitRangeland w/o shrubs (<6700 ft.)	REVEGE	1	44.00	\$16,486
8a	Seed N Pit: >6700 ftRangeland with Shrubs	REVEGE	1	244.00	\$168,483
19	Seed J Pit without shrubs (Range C)	REVEGE	1	66.00	\$24,598
	Seed I Pit without Shrubs	REVEGE	1	35.00	\$13,140
			-		
20	Seed I/J Pits no shrubs (Range C)	REVEGE	1	31.00	\$11,502
20 21 22		REVEGE REVEGE	1 1	31.00 189.00	\$11,502 \$70,241

		<u>S</u>	<u>UBTOTALS:</u>	16285.	57 \$32,408,8
INDIRECT COSTS				<u> </u>	
OVERHEAD AND PROFIT:					
Liability insurance:	2.02			Total =	\$654,659
Performance bond:	1.05			Total =	\$340,293
Job superintendent:	540.76			Total =	\$40,627
Profit:	10.00			Total =	\$3,240,886
			TOTAL	LO&P =	
	CONT	RACT AM	OUNT (direct +	O & P) =	\$36,685,325
LEGAL - ENGINEERING - PR Financial warranty process Engineering work and/or of Reclamation management	ing (legal/related costs): contract/bid preparation:	\$0 4.25 2.65		Total = Total =	\$0 \$1,559,126 \$972,161
	CONTINGENCY:	0.00		Total =	\$0
		TO	TAL INDIRECT	COST =	\$6,807,753
	TOTAL BO	ND AMOU	NT (direct + in	direct) =	\$39,216,613

Page 1 of 2

BULLDOZER WORK

Task description:	Ash Disposal Pit	Regrade (N	w section)		
Trapper Mine	Per	mit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENTI	FICATION				
Task #: 001	State:	Colorado		Abbreviation:	None
Date: $11/22/20$		Mineral		Filename:	C81015
User: ZTT	C = 0.11.j :				
Agency or org	ganization name: DF	RMS			
HOURLY EQUIPM	<u>IENT COST</u>				
	Cat D11T - 11U				
· · ·	350				
• 1	Jniversal				
	NA				
	8 per day				
Data Source: (CRG)				
Cost Breakdown:					
o 11 o o-		***	<u>Utilization %</u>		
Ownership Cost/Hour		\$257.09	NA		
Operating Cost/Hour		\$273.21	100		
Ripper own. Cost/Hour		\$0.00	NA		
Ripper op. Cost/Hour		\$0.00	0		
Operator Cost/Hour	r:	\$41.55	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN					
Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: <u>43</u>	\$1,143.70				
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 43 Swell factor: 1.0	\$1,143.70 NTITIES 3,722				
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 43 Swell factor: 1.0	\$1,143.70 NTITIES 3,722 000 3,722 LCY lume: Permit A		Sable A.4.1 and A-2.8		
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 43 Swell factor: 1.0 Loose volume: 43 Source of estimated vo	\$1,143.70 NTITIES 3,722 000 3,722 LCY lume: Permit Ar vell factor: Cat Hand		Sable A.4.1 and A-2.8		
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 43 Swell factor: 1.0 Loose volume: 43 Source of estimated vol Source of estimated sw	\$1,143.70 NTITIES 3,722 000 3,722 LCY lume: Permit A vell factor: Cat Hand CTION		Sable A.4.1 and A-2.8		
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 43 Swell factor: 1.0 Loose volume: 43 Source of estimated vo Source of estimated sw HOURLY PRODUCE 43	\$1,143.70 NTITIES 3,722 000 3,722 LCY lume: Permit A vell factor: Cat Hand CTION : 150 feet	lbook	`able A.4.1 and A-2.8		
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 43 Swell factor: 1.0 Loose volume: 43 Source of estimated volume: 43 Source of estimated sw 43 HOURLY PRODUCE 43	\$1,143.70 NTITIES 3,722 000 3,722 LCY lume: Permit Agent Age	lbook	 Yable A.4.1 and A-2.8		
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 43 Swell factor: 1.0 Loose volume: 43 Source of estimated volume: 43 Source of estimated volume: 43 Source of estimated sw 43 HOURLY PRODUC 43 Average push distance: 10 Unadjusted hourly proc 43 Materials consistency c 43 Average push gradient: 43	\$1,143.70 NTITIES 3,722 000 3,722 LCY lume: Permit Ay vell factor: Cat Hand CTION : 150 feet duction: 2,036.8 LC description: Loose s : -30 %	Y/hr	 `able A.4.1 and A-2.8		
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 43 Swell factor: 1.4 Loose volume: 43 Source of estimated volume: 43 Source of estimated volume: 43 Source of estimated volume: 43 Materials consistency of estimated sw 43 Mountly PRODUC 43 Average push distance: 10 Materials consistency of estimated hourly proc 43 Materials consistency of estimated hourly proc 43 Materials consistency of estimated hourly proc 43	\$1,143.70 NTITIES 3,722 000 3,722 LCY lume: Permit Age vell factor: Cat Hand CTION : 150 feet duction: 2,036.8 LC description: Loose s : -30 % 6,800 feet	Y/hr	 Yable A.4.1 and A-2.8		
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 43 Swell factor: 1.0 Loose volume: 43 Source of estimated volume: 43 Source of estimated volume: 43 Source of estimated sw 43 HOURLY PRODUC 43 Average push distance: 10 Unadjusted hourly proc 43 Materials consistency c 43 Average push gradient: 43	\$1,143.70 NTITIES 3,722 000 3,722 LCY lume: Permit Ay vell factor: Cat Hand CTION : 150 feet duction: 2,036.8 LC description: Loose s : -30 %	Y/hr	 `able A.4.1 and A-2.8 		
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 43 Swell factor: 1.0 Loose volume: 43 Source of estimated volume: 43 Source of estimated volume: 43 Source of estimated volume: 43 Materials consistency of estimated sw 43 Materials consistency of estimated hourly process 44 Material weight: 44 Weight description: 44	\$1,143.70 NTITIES 3,722 000 3,722 LCY lume: Permit A vell factor: Cat Hand CTION : 150 feet duction: 2,036.8 LC description: Loose s : -30 % 6,800 feet 2,475 lbs/LCY User Provided	Y/hr	 `able A.4.1 and A-2.8 		
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 43 Swell factor: 1.0 Loose volume: 43 Source of estimated volume: 43 Average push distance: 100 Unadjusted hourly prod 100 Average push distance: 100 Average push distance: 100 Materials consistency of 100 Average site altitude: 100 Material weight: 100 Weight description: 100 Lob Condition Correction 100	\$1,143.70 NTITIES 3,722 000 3,722 LCY lume: Permit A vell factor: Cat Hand CTION : 150 feet duction: 2,036.8 LC description: Loose s : -30 % 6,800 feet 2,475 lbs/LCY User Provided on Factor	Y/hr stockpile 1.2			
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 43 Swell factor: 1.0 Loose volume: 43 Source of estimated vo Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly proc Materials consistency c Average site altitude: Material weight: Weight description: Job Condition Correction Operate	\$1,143.70 NTITIES 3,722 000 3,722 LCY lume: Permit Age vell factor: Cat Hand CTION : 150 feet duction: 2,036.8 LC description: Loose st : -30 % 6,800 feet 2,475 lbs/LCY User Provided on Factor 0. or Skill: 0.	Y/hr stockpile 1.2	<u>Source</u> (AVG.)		
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 43 Swell factor: 1.0 Loose volume: 43 Source of estimated vo Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly proc Materials consistency of Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consi	\$1,143.70NTITIES3,7220003,722 LCY000lume:Permit Agent Ag	Y/hr stockpile 1.2	<u>Source</u> (AVG.) (CAT HB)		
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 43 Swell factor: 1.0 Loose volume: 43 Source of estimated volume: 43 Source of estimated volume: 43 Source of estimated sw 40 HOURLY PRODUC Average push distance: Unadjusted hourly proc 43 Materials consistency of 43 Average push gradient: 43 Average site altitude: 43 Material weight: 43 Weight description: 43 Iob Condition Correction 43 Material considered 43	\$1,143.70NTITIES3,7220003,722 LCYlume:Permit Arell factor:rell factor:Cat HandCTION:150 feetduction:2,036.8 LCdescription:Loose state:-30 %6,800 feet2,475 lbs/LCYUser Providedon Factor0or Skill:01method:1	Y/hr stockpile 1.2	<u>Source</u> (AVG.)		

Job efficiency:	0.790	(3 SHIFTS/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.929	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.9137	
Adjusted unit production: 1	,861.02 LCY/hr	
Adjusted fleet production: 3	722.04 LCY/hr	

JOB TIME AND COST

Fleet size:	2 Dozer(s)
Unit cost:	\$0.307/LCY

Total job time:	11.75 Hours
Total job cost:	\$13,435

TRUCK/LOADER TEAM WORK

Site: Trapper Mine	Load/Haul Section E1,423,800 Permit Action: PR11				Permit/Job#: C1981010		
PROJECT IDEN	FIFICATION						
Task #: 001B		State: Color		Ab	breviation: No		
Date: <u>11/22/2</u> User: ZTT	2022	County: Moffa	at		Filename: C0	10-001B	
		ne: DRMS					
Agency or o	organization nan	ne. DRMS					
HOURLY EQUIE	MENT COST	<u>r</u>		Shift bas	sis: <u>1 per day</u>		
			Equipment Descri	ption			
Tı	ruck Loader Tea		MATSU 830E				
-Loader: Support Equipment -Load Area:			T 6090				
	-Dump Area:						
Road Ma	intenance – Mot		T 16M				
	-Wa	ter Truck: Wa	ter Tanker, 14,000) Gal.			
Cost Breakdown:	Truck/Loa	ader Team	Support 1	Equipment	Maintenan	ce Equipment	
	Truck	Shovel	Load Area	Dump Area	Motor Grader	Water Truck	
%Utilization-machine:	100	100	NA	25	25	50	
Ownership cost/hour:	\$179.05	\$23.07	NA	\$153.67	\$163.86	\$105.60	
Operating cost/hour:	\$247.93	\$930.15	NA	\$41.74	\$27.47	\$76.75	
%Utilization-riper:	NA	0	NA	NA	NA	NA	
Ripper own. cost/hour:	NA	\$0.00	NA	\$0.00	\$0.00	\$0.00	
Ripper op. cost/hour:	NA ©24.42	\$0.00	NA	\$0.00	\$0.00	\$0.00	
Operator cost/hour: Unit Subtotals:	\$34.42	\$37.32	NA	\$41.30	\$28.56	\$0.00	
Number of Units:	\$461.40	\$990.54	NA 0	\$236.71	\$219.88	\$182.4	
Group Subtotals:	Work:	\$6,065.94	Support:	\$236.71	Maint:	\$402.29	
			Support.	Φ250.71	Wallit.	φ+02.27	
Total work team cost	/hour: <u>\$6,704.9</u>	94					
MATERIAL QUA	ANTITIES						
Initial volume:	128,454	CCY	7 Swall	factor: 1.000			
Loose volume:	128,454			1actor. 1.000			
Sou	rce of estimated	volume: Tabl	e A-4.1A				
	of estimated swe		Handbook				
	Material Purcha						
	Te	otal Cost: \$0.0	0				
HOURLY PRO	DUCTION						
<u>Truck Capacity:</u> Truck Payload (weig	ht) Basis:						
Material w	eight: 3,300		Pounds/LCY				
Descri		*	6 Rock, 25% Earth	1			
Rated Pay	load: 492,20	Δ	Pounds				

Struck Volume:						
	153.00	LCY				
Heaped Volume:	192.00	LCY				
Average Volume:	172.50	LCY				
Adjusted Volume:	149.15	LCY				
Final 7	Truck Volum	e Based on Number	of Loader Passes:	145.78	LCY	
Loading Tool Capacity						
<u>v</u>			Bucl	ket Size Class: N	IA	
Rated Capacity:	58.900	LCY (heaped				_
Bucket Fill Factor:	0.825		- avg. blasted (75 -	- 90%) 0.825		-
Adjusted Capacity:	48.593	LCY		,		-
Job Condition Corrections:			Site Altitude (ft.): 6	<u>5400</u> feet		
	Truck	Loader	Source			
Altitude Adj:	1.000	1.000	(CAT HE			
Job Efficiency:	0.830	0.830	(CAT HB	3)		
Net Correction:	0.830	0.830				
Loading Tool Cycle Time:	Numbe	er of Loading Tool I	Passes Required to 1	Fill Truck:	3 p	asses
Excavators and Front Shovels	s:					
Machine Cycle Time vs			VE AVERAGE			
Selected Value w	vithin this Bas	sic Rating: AVER				
	vithin this Bas	sic Rating: AVER				
Selected Value w	vithin this Bas	sic Rating: AVER				
Selected Value w Track Loaders – I Cycle Time Elements (min.):	vithin this Bas Material Desc	ic Rating: AVEF		 Dump: 0.100)	
Selected Value w Track Loaders – I	vithin this Bas Material Desc	sic Rating: AVER		 Dump:0.100)	
Selected Value w Track Loaders – I Cycle Time Elements (min.):	vithin this Bas Material Desc -	ription:NA	RAGE	I) NA minu	Ites
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: <u>NA</u> Wheel and Track Loaders -	vithin this Bas Material Desc -	ription:NA	RAGE	naneuver):	NA minu	Ites
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: <u>NA</u> Wheel and Track Loaders - Cycle Time Factors	vithin this Bas Material Desc Unadjusted B	ription:NA	RAGE	naneuver): Factor (min.)	NA minu Source	ites
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: <u>NA</u> Wheel and Track Loaders - <u>Cycle Time Factors</u> Material:	vithin this Bas Material Desc N Unadjusted B NA	ription:NA	RAGE	naneuver): Factor (min.) NA	NA minu Source (Cat HB)	ites
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: <u>NA</u> Wheel and Track Loaders - Cycle Time Factors	vithin this Bas Material Desc Unadjusted B	ription:NA	RAGE	naneuver): Factor (min.)	NA minu Source	ites
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Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership:	vithin this Bas Material Desc 	sic Rating: AVER ription: Maneuver: NA Pasic Loader Cycle T	RAGE	naneuver): Factor (min.) NA NA NA NA NA NA NA	NA minu Source (Cat HB) (Cat HB) (Cat HB)	ites
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	vithin this Bas Material Desc Unadjusted B NA NA NA NA	sic Rating: AVER ription: Maneuver: NA sasic Loader Cycle T	RAGE Fime (load, dump, r	naneuver): Factor (min.) NA NA NA NA NA NA NA NA	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	ites
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	vithin this Bas Material Desc Unadjusted B NA NA NA NA	sic Rating: AVER ription: Maneuver: NA asic Loader Cycle T Adjusted Loa	RAGE Γime (load, dump, r	naneuver): Factor (min.) NA NA NA NA NA NA O.498	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	ites
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	vithin this Bas Material Desc Unadjusted B NA NA NA NA	sic Rating: AVER ription: Maneuver: NA asic Loader Cycle T Adjusted Loa	RAGE Fime (load, dump, r	naneuver): Factor (min.) NA NA NA NA NA NA NA NA	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	Ites
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Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Exchange Time: Truck Load Time:	vithin this Bas Material Desc Unadjusted B NA NA NA NA NA NA NA O.80 1.494	sic Rating: AVER ription: Maneuver: NA sasic Loader Cycle 7 sasic Loader Cycle 7 Net Cycle 7 Adjusted Loa Net Load Minutes Minutes	RAGE Fime (load, dump, r "ime Adjustment: ader Cycle Time: Time per Truck: Adjusted Adjusted	naneuver): Factor (min.) NA NA NA NA NA 0.498 1.494 for site altitude: for site altitude:	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes 0.800 1.494	- - - - Minute
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Haul Route								
Seg #	Haul D (Ft)	istance	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)	
1	11428.	00	10.00	3.00	13.00	620	18.513	
					Haul Time:	18.513	minutes	
Return Ro	ute:				-			
Seg #	Haul D (Ft)	istance	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time	
	. ,					_	(min)	
1	11428.	00	-10.00	3.00	-7.00	3450	3.415	
				Total True	Return Time: ck Cycle Time:	3.415	minutes	
Loading Tool	lunit				ý			
Produc		3,812.84	LCY/Hour		Adjusted for j	ob efficiency:	3,164.66	LCY/Hour
Truck Unit Produc		344.06	LCY/Hour		Adjusted for j	ob efficiency:	285.57	LCY/Hour
Optimal No. of Tru	ucks:	11	Truck(s)		Selected Num	ber of Trucks:	11	Truck(s)
					k team production			
					r team production			
			Adjusted multip	le truck/loade	r team production	on: 3,141	LCY/	Hour
JOB TIM	1E ANI	D COST						
Fleet s	ize:	1	Team(s)	1	Total job time:	40.89	9 Hou	ırs
Unit c	ost:	\$2.134	/LCY	r	Fotal job cost:	\$274,1	82	

BULLDOZER WORK

Task description:	Ash Dispos	al Pit Regrade (S	ection 1)		
Trapper Mine		Permit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENT	IFICATION				
Task #: 002	S	state: Colorado		Abbreviation:	None
Date: $\frac{002}{11/22/20}$		unty: Mineral		Filename:	C010-002
User: ZTT					0010 002
Agency or or	rganization name:	DRMS			
HOURLY EQUIPM	MENT COST				
	Cat D11T - 11U				
	850				
••	Universal				
	NA				
	3 per day				
Data Source:	(CRG)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hou		\$257.09	NA		
Operating Cost/Hou		\$273.21	100		
Ripper own. Cost/Hou		\$0.00	NA		
Ripper op. Cost/Hou	ır:	\$0.00	0		
Operator Cost/Hou	ır:	\$41.55	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL OUA					
Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: <u>2</u>	\$1,143.70				
Total Fleet Cost/Hour: MATERIAL QUAI Initial Volume: 2. Swell factor: 1.	: \$1,143.70 NTITIES 4,907				
Total Fleet Cost/Hour: MATERIAL QUAI Initial Volume: 2. Swell factor: 1.	: \$1,143.70 NTITIES 4,907 .000 4,907 LCY plume: Per	mit Appendix A, T	 Γable A.4.1 and A-2.8		
Total Fleet Cost/Hour: MATERIAL QUAI Initial Volume: 2 Swell factor: 1 Loose volume: 2 Source of estimated volume 2	: \$1,143.70 <u>NTITIES</u> 4,907 .000 4,907 LCY plume: <u>Per</u> well factor: <u>Cat</u>		Γable A.4.1 and A-2.8		
Total Fleet Cost/Hour: MATERIAL QUAI Initial Volume: 2 Swell factor: 1 Loose volume: 2 Source of estimated volume 2 Source of estimated volume 3	: \$1,143.70 <u>NTITIES</u> 4,907 .000 4,907 LCY plume: Per well factor: Cat	Handbook	 Γable A.4.1 and A-2.8		
Total Fleet Cost/Hour: MATERIAL QUAI Initial Volume: 2. Swell factor: 1. Loose volume: 2. Source of estimated volume: 2. Source of estimated sw 4. HOURLY PRODU 4.	: \$1,143.70 NTITIES 4,907 .000 4,907 LCY olume: Per well factor: Cat ICTION e: 420 fe	Handbook	 Γable A.4.1 and A-2.8		
Total Fleet Cost/Hour: MATERIAL QUAI Initial Volume: 2 Swell factor: 1 Loose volume: 2 Source of estimated volume 2 Source of estimated volume 2 MOURLY PRODU Average push distance	\$1,143.70 NTITIES 4,907 .000 4,907 LCY olume: Per well factor: Cat VCTION e: 420 fe oduction: 774.7	Handbook			
Total Fleet Cost/Hour: MATERIAL QUAI Initial Volume: 2: Swell factor: 1. Loose volume: 2: Source of estimated volume 2: Source of estimated sw 4000000000000000000000000000000000000	: \$1,143.70 NTITIES 4,907 .000 4,907 LCY blume: Per well factor: Cat ICTION e: 420 fe bduction: 774.7 description: L	eet LCY/hr			
Total Fleet Cost/Hour: MATERIAL QUAI Initial Volume: 2 Swell factor: 1 Loose volume: 2 Source of estimated volume: 2 Source of estimated sw 4 HOURLY PRODU 4 Average push distance 0 Unadjusted hourly pro 1	: \$1,143.70 NTITIES 4,907 .000 4,907 LCY blume: Per well factor: Cat ICTION e: 420 fe bduction: 774.7 description: L	eet LCY/hr			
Total Fleet Cost/Hour: MATERIAL QUAI Initial Volume: 2: Swell factor: 1. Loose volume: 2: Source of estimated volume: 2: Source of estimated sw 4000000000000000000000000000000000000	: \$1,143.70 NTITIES 4,907 .000 4,907 LCY Dume: Per well factor: Cat CTION C: 420 fc Dduction: 774.7 description: L t:5 %	eet LCY/hr LOSE stockpile 1.2			
Total Fleet Cost/Hour: MATERIAL QUAI Initial Volume: 2: Swell factor: 1 Loose volume: 2: Source of estimated volume: 2: Source of estimated volume: 2: Source of estimated volume: 2: MADURLY PRODU Average push distance Unadjusted hourly pro Materials consistency Average push gradient Average site altitude:	\$1,143.70 NTITIES 4,907 .000 4,907 LCY olume: Per well factor: Cat VCTION e: 420 fe oduction: 774.7 description: L t: -5 % 6,800 feet	eet LCY/hr Loose stockpile 1.2			
Total Fleet Cost/Hour: MATERIAL QUAI Initial Volume: 2: Swell factor: 1. Loose volume: 2: Source of estimated volume: 2: Source of estimated volume: 2: Source of estimated volume: 2: Materials consistency 4 Average push distance 1 Unadjusted hourly pro 1 Average push gradient 4 Average site altitude: 1 Material weight: 1 Weight description: 1 Job Condition Correct 1	: \$1,143.70 <u>NTITIES</u> 4,907 .000 4,907 LCY olume: Per well factor: Cat <u>VCTION</u> e: 420 fa oduction: 774.7 description: L t: -5 % 6,800 feet 2,475 lbs/LC User Provide ion Factor	eet LCY/hr Loose stockpile 1.2			
Total Fleet Cost/Hour: MATERIAL QUAI Initial Volume: 2: Swell factor: 1. Loose volume: 2: Source of estimated volume: 2: Source of estimated volume: 2: Source of estimated swell HOURLY PRODU Average push distance Unadjusted hourly proof Materials consistency Average push gradient Average site altitude: Material weight: Weight description: Job Condition Correct Operat Operat	\$1,143.70 NTITIES 4,907 .000 4,907 LCY olume: Per well factor: Cat VCTION e: 420 fe oduction: 774.7 description: L t: -5 %	eet LCY/hr Loose stockpile 1.2 CY ed 0.750	<u>Source</u> (AVG.)		
Total Fleet Cost/Hour: MATERIAL QUAI Initial Volume: 2: Swell factor: 1. Loose volume: 2: Source of estimated volume: 2: Source of estimated volume: 2: Source of estimated volume: 2: Materials consistency 4: Average push distance 1: Unadjusted hourly pro 4: Materials consistency 4: Average push gradient 4: Average site altitude: 1: Material weight: 1: Weight description: 1: Job Condition Correct 1: Operat 1: Material cons 1:	\$1,143.70 NTITIES 4,907 .000 4,907 LCY olume: Per well factor: Cat ICTION e: 420 fc oduction: 774.7 description: L t: -5 % 6,800 feet 2,475 lbs/LC User Provide tor Skill: sistency: Sistency:	eet LCY/hr Loose stockpile 1.2 CY ed 0.750 1.200	<u>Source</u> (AVG.) (CAT HB)		
Total Fleet Cost/Hour: MATERIAL QUAI Initial Volume: 2: Swell factor: 1. Loose volume: 2: Source of estimated vo Source of estimated vo Source of estimated sw HOURLY PRODU Average push distance Unadjusted hourly pro Materials consistency Average push gradient Average site altitude: Material weight: Weight description: Job Condition Correct Operat Material cons Dozing	\$1,143.70 NTITIES 4,907 .000 4,907 LCY olume: Per well factor: Cat VCTION e: 420 fe oduction: 774.7 description: L t: -5 %	eet LCY/hr Loose stockpile 1.2 CY ed 0.750	<u>Source</u> (AVG.)		

Task # 002

Job efficiency:	0.790	(3 SHIFTS/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	1.115	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.929	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.6363	
Adjusted unit production: 49	92.94 LCY/hr	
Adjusted fleet production: 98	85.88 LCY/hr	

JOB TIME AND COST

Fleet size:	2 Dozer(s)
Unit cost:	\$1.160/LCY

Total job time:	25.26 Hours				
Total job cost:	\$28,894				
Task description:	Ash Disposa	l Pit Regrade (Se	ection 2)		
--	---	---	--	---------------	-----------
Trapper Mine		Permit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENTIE	EICATION				
Task #: 002B	St	ate: Colorado		Abbreviation:	None
Date: 11/22/202	2 Cour			Filename:	C010-002B
User: ZTT					
Agency or orga	anization name:	DRMS			
HOURLY EQUIPM	<u>ENT COST</u>				
	at D11T - 11U				
Horsepower: 85					
Blade Type: Un Attachment: NA	niversal				
	per day				
	RG)				
Cost Breakdown:			TT-11 - 04		
Ownership Cost/Hour:		\$257.09	<u>Utilization %</u> NA		
Ownership Cost/Hour: Operating Cost/Hour:		\$257.09	100		
Ripper own. Cost/Hour:		\$0.00	NA		
Ripper own. Cost/flour.		\$0.00	0		
Ripper on Cost/Hour					
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN'	\$571.85 \$1,143.70	\$41.55	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume:35,	\$1,143.70 FITIES 685	\$41.55	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: <u>35,</u> Swell factor: <u>1.00</u>	\$1,143.70 FITIES 685 00	\$41.55	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: 35, Swell factor: 1.00 Loose volume: 35,	\$1,143.70 FITIES 685 00 685 LCY				
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN'</u> Initial Volume: <u>35,</u> Swell factor: <u>1.00</u> Loose volume: <u>35,</u> Source of estimated volu	\$1,143.70 FITIES 685 00 685 LCY Ime:Pern	nit Appendix A, T	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: 35, Swell factor: 1.00 Loose volume: 35,	\$1,143.70 FITIES 685 00 685 LCY Ime:Pern				
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: <u>35,</u> Swell factor: <u>1.00</u> Loose volume: <u>35,</u> Source of estimated volu Source of estimated swe	\$1,143.70 <u>FITIES</u> 685 00 685 LCY 1me: <u>Pern</u> 11 factor: <u>Cat 1</u>	nit Appendix A, T			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 35, Swell factor: 1.00 Loose volume: 35, Source of estimated volu Source of estimated swe HOURLY PRODUC	\$1,143.70 <u>FITIES</u> 685 00 685 LCY Ime: <u>Pern</u> 11 factor: <u>Cat 1</u> TION	nit Appendix A, T Handbook			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 35, Swell factor: 1.00 Loose volume: 35, Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance:	\$1,143.70 FITIES 685 00 685 LCY Ime: Pern Il factor: Cat I TION _410 fee	nit Appendix A, T Handbook			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 35, Swell factor: 1.00 Loose volume: 35, Source of estimated volu Source of estimated swe HOURLY PRODUC	\$1,143.70 FITIES 685 00 685 LCY Ime: Pern Il factor: Cat I TION _410 fee	nit Appendix A, T Handbook			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 35, Swell factor: 1.00 Loose volume: 35, Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance:	\$1,143.70 FITIES 685 00 685 LCY ime: Perm 11 factor: Cat 1 TION action: 792.6 1	nit Appendix A, T Handbook	Table A.4.1 and A-2.8		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: 35,4 Swell factor: 1.00 Loose volume: 35,4 Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient:	\$1,143.70 FITTES 685 00 685 LCY Ime: Pern Il factor: Cat I TION action: 792.6 I escription: Lc -10 %	nit Appendix A, T Handbook	Table A.4.1 and A-2.8		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: 35,4 Swell factor: 1.00 Loose volume: 35,5 Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de	\$1,143.70 FITTES 685 00 685 LCY ime: Pern 11 factor: Cat 1 TION action: 410 fee rescription: Lc	nit Appendix A, T Handbook	Table A.4.1 and A-2.8		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: 35,4 Swell factor: 1.00 Loose volume: 35,4 Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient:	\$1,143.70 FITTES 685 00 685 LCY Ime: Pern Il factor: Cat I TION action: 792.6 I escription: Lc -10 %	nit Appendix A, T Handbook et LCY/hr bose stockpile 1.2	Table A.4.1 and A-2.8		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: 35, Swell factor: 1.00 Loose volume: 35, Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude:	\$1,143.70 FITIES 685 600 685 LCY ime: Perm 11 factor: Cat I TION action: 792.6 I escription: Lc -10 % 6,800 feet	nit Appendix A, T Handbook et LCY/hr pose stockpile 1.2	Table A.4.1 and A-2.8		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 35, Swell factor: 1.00 Loose volume: 35, Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction	\$1,143.70 FITIES 685 600 685 LCY ime: Perm Il factor: Cat I TION action: 792.6 I escription: Lc -10 % 6,800 feet 2,475 lbs/LC User Provided n Factor 1	nit Appendix A, T Handbook et LCY/hr bose stockpile 1.2	Fable A.4.1 and A-2.8		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 35, Swell factor: 1.00 Loose volume: 35, Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator	\$1,143.70 FITIES 685 600 685 LCY ime: Perm Il factor: Cat I TION action: 792.6 I escription: Lc -10 % 6,800 feet 2,475 lbs/LC User Provided n Factor Skill:	nit Appendix A, T Handbook et LCY/hr pose stockpile 1.2 Y 1			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: <u>35,0</u> Swell factor: <u>1.00</u> Loose volume: <u>35,0</u> Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consis	\$1,143.70 FITTIES 685 00 685 LCY ime: Perm 11 factor: Cat 1 TION action: 792.6 1 escription: Lc -10 % 6,800 feet 2,475 lbs/LC User Provided n Factor Skill: tency:	hit Appendix A, T Handbook et LCY/hr bose stockpile 1.2 Y d 0.750 1.200	Source (AVG.) (CAT HB)		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: <u>35,0</u> Swell factor: <u>1.00</u> Loose volume: <u>35,0</u> Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consis Dozing m	\$1,143.70 FITTIES 685 00 685 LCY ime: Perm 11 factor: Cat 1 TION action: 792.6 1 escription: Lc -10 % 6,800 feet 2,475 lbs/LC User Provided n Factor Skill: tency:	nit Appendix A, T Handbook et LCY/hr pose stockpile 1.2 Y 1			

Task # 002B

Job efficiency:	0.790	(3 SHIFTS/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.929	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.6991	
Adjusted unit production: 55	54.11 LCY/hr	
Adjusted fleet production: 11	08.22 LCY/hr	

Fleet size:	2 Dozer(s)
Unit cost:	\$1.032/LCY

Total job time:	32.20 Hours
Total job cost:	\$36,828

Task description:	Ash Disposal	Pit Regrade (S	ection 3-1)		
: Trapper Mine]	Permit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENTI	FICATION				
Task #: 003	Stat	e: Colorado		Abbreviation:	None
Date: $11/22/202$				Filename:	C010-003
User: ZTT				-	
Agency or org	anization name:	DRMS			
HOURLY EQUIPM	ENT COST				
	at D11T - 11U				
· ·	50				
VI	niversal				
	A				
	per day				
Data Source: (0	CRG)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour	:	\$257.09	NA		
Operating Cost/Hour		\$273.21	100		
Ripper own. Cost/Hour		\$0.00	NA		
Ripper op. Cost/Hour	:	\$0.00	0		
11 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		¢ 11 55	NT A		
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour:	\$571.85 \$1,143.70	\$41.55	NA		
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN	\$571.85 \$1,143.70 TITIES				
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume:7,8	\$571.85 \$1,143.70 TITIES				
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 7,8 Swell factor: 1.0	\$571.85 \$1,143.70 TITIES 33		NA		
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 7,8 Swell factor: 1.0	\$571.85 \$1,143.70 TITIES 33 00 33 LCY ume: Permi Cat Ha		NA		
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 7,8 Swell factor: 1.0 Loose volume: 7,8 Source of estimated vol Source of estimated swe HOURLY PRODUC	\$571.85 \$1,143.70 TITIES 33 00 33 LCY ume: Permi cat Ha CTION	t Appendix A, T andbook			
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 7,8 Swell factor: 1.0 Loose volume: 7,8 Source of estimated vol Source of estimated vol Source of estimated swe HOURLY PRODUC Average push distance:	\$571.85 \$1,143.70 TITIES 33 00 33 LCY ume: Permi cat Ha CTION 120 feet	t Appendix A, T andbook			
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 7,8 Swell factor: 1.0 Loose volume: 7,8 Source of estimated vol Source of estimated swe HOURLY PRODUC	\$571.85 \$1,143.70 TITIES 33 00 33 LCY ume: Permit Cat Hat CTION uction: 2,467.4	t Appendix A, T andbook			
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 7,8 Swell factor: 1.0 Loose volume: 7,8 Source of estimated vol Source of estimated vol Source of estimated swo HOURLY PRODUC Average push distance: Unadjusted hourly prod	\$571.85 \$1,143.70 TITIES 33 00 33 LCY ume: Permit Cat Hat CTION uction: 2,467.4	t Appendix A, T andbook			
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 7,8 Swell factor: 1.0 Loose volume: 7,8 Source of estimated vol Source of estimated vol Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency d Average push gradient:	\$571.85 \$1,143.70 TITIES 33 00 33 LCY ume: Permi ell factor: Cat Hail CTION uction: 120 feet uction: 2,467.42 escription: Loo -10 %	t Appendix A, T andbook LCY/hr se stockpile 1.2			
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 7,8 Swell factor: 1.0 Loose volume: 7,8 Source of estimated vol Source of estimated vol Source of estimated vol Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency d Average push gradient: Average site altitude:	\$571.85 \$1,143.70 TITIES 33 00 33 LCY ume: Permii ell factor: Cat Hail CTION uction: 2,467.4 escription: Loo -10 % 6,800 feet	t Appendix A, T andbook LCY/hr se stockpile 1.2			
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 7,8 Swell factor: 1.0 Loose volume: 7,8 Source of estimated vol Source of estimated vol Source of estimated vol Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency d Average push gradient: Average site altitude: Material weight: Weight description:	\$571.85 \$1,143.70 TITIES 33 00 33 LCY ume: Permii ell factor: Cat Hail CTION uction: 2,467.4 1 escription: Loo -10 % 6,800 feet 2,475 lbs/LCY User Provided	t Appendix A, T andbook LCY/hr se stockpile 1.2			
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 7,8 Swell factor: 1.0 Loose volume: 7,8 Source of estimated vol Source of estimated vol Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency d Average push gradient: Average site altitude: Material weight:	$\begin{array}{r} \$571.85 \\ \$1,143.70 \\ \hline \\ $	t Appendix A, T andbook LCY/hr se stockpile 1.2			
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 7,8 Swell factor: 1.0 Loose volume: 7,8 Source of estimated vol Source of estimated vol Source of estimated vol Source of estimated vol Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency d Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consistency	\$571.85 \$1,143.70 TITIES 33 00 33 LCY ume: Permii cat Ha CTION uction: 120 feet uction: 2,467.42 escription: Loo -10 % 6,800 feet 2,475 lbs/LCY User Provided on Factor r Skill: r Skill:	t Appendix A, T andbook	Fable A.4.1 and A-2.8		
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 7,8 Swell factor: 1.0 Loose volume: 7,8 Source of estimated vol Source of estimated vol Materials consistency d Material consistency Dozing n	\$571.85 \$1,143.70 TITIES 33 00 33 LCY ume: Permii cat Ha CTION uction: 120 feet uction: 2,467.42 escription: Loo -10 % 6,800 feet 2,475 lbs/LCY User Provided on Factor r Skill: r Skill:	t Appendix A, T andbook	Fable A.4.1 and A-2.8		

Job efficiency:	0.790	(3 SHIFTS/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.929	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.6991	
Adjusted unit production: 1,	724.96 LCY/hr	
Adjusted fleet production: 34	49.92 LCY/hr	

Fleet size:	2 Dozer(s)
Unit cost:	\$0.332/LCY

Total job time:	2.27 Hours
Total job cost:	\$2,597

	Ash Disposal Pit Regrade (S	Section 3-2)		
Trapper Mine	Permit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENTIF	TCATION			
Task #: 003B	State: Colorado		Abbreviation:	None
Date: 11/22/2022			Filename:	C010-003B
User: ZTT			-	
Agency or orga	nization name: DRMS			
HOURLY EQUIPMI	ENT COST			
Basic Machine: Ca	t D11T - 11U			
Horsepower: 85				
VI	niversal			
Attachment: NA				
	ber day			
Data Source: (C	RG)			
Cost Breakdown:				
		Utilization %		
Ownership Cost/Hour:	\$257.09	NA		
Operating Cost/Hour:	\$273.21	100		
Ripper own. Cost/Hour:	\$0.00	NA		
Ripper op. Cost/Hour:	\$0.00	0		
Operator Cost/Hour:	\$41.55	NA		
MATERIAL QUANT Initial Volume: 64,6	567			
	X)			
Swell factor: 1.00				
Swell factor:1.00Loose volume:64,6	567 LCY			
Swell factor:1.00Loose volume:64,6Source of estimated volu	567 LCY me: Permit Appendix A, '	Table A.4.1 and A-2.8		
Swell factor:1.00Loose volume:64,6	567 LCY me: Permit Appendix A, '	Table A.4.1 and A-2.8		
Swell factor: 1.00 Loose volume: 64,6 Source of estimated volu Source of estimated swel	667 LCY Ime: Permit Appendix A, ' Il factor: Cat Handbook	Гаble A.4.1 and A-2.8		
Swell factor:1.00Loose volume:64,6Source of estimated volu	667 LCY Ime: Permit Appendix A, ' Il factor: Cat Handbook	Гаble A.4.1 and A-2.8		
Swell factor: 1.00 Loose volume: 64,6 Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance:	667 LCY Ime: Permit Appendix A, ' Il factor: Cat Handbook TION 635 feet	Γable A.4.1 and A-2.8		
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Swell factor: 1.00 Loose volume: 64,6 Source of estimated volu Source of estimated swel HOURLY PRODUC' Average push distance: Unadjusted hourly produ	667 LCY ume: Permit Appendix A, ' Il factor: Cat Handbook TION 635 feet action: 512.4 LCY/hr			
Swell factor: 1.00 Loose volume: 64,6 Source of estimated volu Source of estimated swell HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: 1.00	667 LCY Imme: Permit Appendix A, ' Il factor: Cat Handbook TION 635 feet action: 512.4 LCY/hr scription: Loose stockpile 1.2 -20 % %			
Swell factor: 1.00 Loose volume: 64,6 Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude:	567 LCY ume: Permit Appendix A, ' Il factor: Cat Handbook TION 635 feet action: 512.4 LCY/hr scription: Loose stockpile 1.2 -20 % 6,800 feet			
Swell factor:1.00Loose volume:64,6Source of estimated voluSource of estimated swellHOURLY PRODUCAverage push distance:Unadjusted hourly produMaterials consistency deAverage push gradient:Average site altitude:Material weight:Weight description:	567 LCY ume: Permit Appendix A, ' Il factor: Cat Handbook TION 635 feet action: 512.4 LCY/hr scription: Loose stockpile 1.2 -20 % 6,800 feet 2,475 lbs/LCY User Provided	 2		
Swell factor:1.00Loose volume:64,6Source of estimated voluSource of estimated swellHOURLY PRODUCTAverage push distance:Unadjusted hourly produMaterials consistency deAverage push gradient:Average site altitude:Material weight:	567 LCY ume: Permit Appendix A, ' Il factor: Cat Handbook TION 635 feet action: 512.4 LCY/hr scription: Loose stockpile 1.2 -20 % 6,800 feet 2,475 lbs/LCY User Provided n Factor 1			
Swell factor: 1.00 Loose volume: 64,6 Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consist	667 LCY Permit Appendix A, ' Il factor: Permit Appendix A, ' Cat Handbook Cat Handbook TION 635 feet action: 512.4 LCY/hr scription: Loose stockpile 1.2 -20% -20% $6,800$ feet $2,475$ lbs/LCY User Provided 0.750 Skill: 0.750 tency:			
Swell factor: 1.00 Loose volume: 64,6 Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consist Dozing me	667 LCY Permit Appendix A, ' Il factor: Permit Appendix A, ' Cat Handbook Cat Handbook TION 635 feet action: 512.4 LCY/hr scription: Loose stockpile 1.2 -20% -20% $6,800$ feet $2,475$ lbs/LCY User Provided 0.750 Skill: 0.750 tency:	<u>Source</u> (AVG.)		

Task # 003B

Job efficiency:	0.790	(3 SHIFTS/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	1.426	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.929	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.8138	
Adjusted unit production: 41	6.99 LCY/hr	
Adjusted fleet production: 83	33.98 LCY/hr	

:	Fleet size:
: _	Unit cost:
: _	Unit cost:

Total job time:	77.54 Hours
Total job cost:	\$88,683

PROJECT IDENTIFICATION Task #: 004 Dute: $11/22/2022$ County: Moffat Piters Filename: Quercey or organization name: DRMS HOURY EQUIPMENT COST Basic Machine: Cat D11T-11U Horsepower: 850 Blade Type: Universal Attechnet: NA Shift Basis: 3 per day Data Source: (CGG) Cost Breakdown: Value: Ownership Cost/Hour: \$275.20 Name: 0.00 Napper own. Cost/Hour: \$275.21 Operating Cost/Hour: \$273.21 Operator Cost/Hour: \$271.85 Total unit Cost/Hour: \$571.85 Total unit Cost/Hour: \$571.85 Total Unit Cost/Hour: \$26.112 Source of estimated volume: 26.112 LCY Source of estimated swell factor: Cat Handbook HOURLY PRODUCTION 3584.2 LCY/hr Average push distance: 75 feet Unadjusted hourly production: 3584.2 LCY/hr Material co	Task description:	Regrade Jo	ohnson Coal Stock	pile		
Task #: 004 State: Colorado Abbreviation: None Date: 11/22/2022 County: Moffat Filename: C010-004 Were: ZTT Agency or organization name: DRMS HOURLY EOUIPMENT COST Basic Machine: Catline: Na Basic Machine: Catline: Na Attachment: NA NA Shift Basis: 3 per day Data Source: (CRG) Cost Breakdown: Vilization % NA Na Ownership Cost/Hour: \$257.09 NA Na Ripper own. Cost/Hour: \$257.10 NA Na Operating Cost/Hour: \$257.12 100 Na Ripper own. Cost/Hour: \$50.00 0 Na Ripper own. Cost/Hour: \$51.85 NA Na Total unit Cost/Hour: \$51.85 NA Na Source of estimated volume: \$251.21CY Source of estimated volume: \$254.21CY/hr Source of estimated volume: ?2 feet Material volume: 3.584.21CY/hr Material consist	: Trapper Mine		Permit Action:	PR11	Permit/Job#:	C1981010
Date: 11/22/2022 County: Moffat Filename: $0010-004$ User: ZTT Agency or organization name: DRMS HOURLY EQUIPMENT COST Basic Machine: Cat D111 - 11U Horsepower: 850 Blade Type: Universal Attachment: NA Shift Basis: 3 per day Date: (CRG) Cost Breakdowti Utilization % Ownership Cost/Hour: \$2257.09 NA Shift Basis: Operating Cost/Hour: \$2257.09 NA Operating Cost/Hour: Source (CRG) 00 Ownership Cost/Hour: \$257.09 Na Na Operator Cost/Hour: \$257.09 Na Source of cost/Hour: Source of cost/Hour: \$251.12 Stata \$50.00 Lotal File Cox/Hour: \$571.85 Total File Cox/Hour: \$571.85 Total File Cox/Hour: \$571.85 Source of estimated volume: 2.6112 Source of estimated volume: ?5 feet	PROJECT IDEN	NTIFICATION				
Date: 11/22/2022 County: Moffat Filename: $\overline{C010.004}$ Use: ZTT Agency or organization name: DRMS HOURLY EQUIPMENT COST Basic Machine: Cat D11T - 11U Horseyower: 850 Blade Type: Universal Attachment: NA Shift Basis: 3 per day Data Source: (CGG) Cost Breakdowi: Utilization % Ownership Cost/Hour: \$2257.09 NA Shift Basis: Operating Cost/Hour: \$2257.09 NA Operating Cost/Hour: \$232.1 100 Ripper own Cost/Hour: \$232.1 Total unit Cost/Hour: \$251.85 Total Pael Cost/Hour: \$571.85 Total unit Cost/Hour: \$571.85 Loss or Volume: 26.112 Source of estimated volume: 26.121 CV Source of estimated swell factor: 75 feet Unadjusted hourly production: 3584.2 LCY/hr Material consistency description: Partly consolidated stockpile 1.1 Average push distance:	Task #: 004	S	State: Colorado		Abbreviation:	None
User: \overline{ZTT} Agency or organization name: DRMS HOURLY EQUIPMENT COST Basic Machine: $Cat D11T - 11U$ Horsepower: 850 Blade Type: Universal Attachment: NA Shift Basic: 3 per day Data Source: (CRG) Covership Cost/Hour: S257.09 Na S000 Na S000 Na S000 Ripper on. Cost/Hour: \$257.09 Na S000 Na S000 Operator Cost/Hour: \$257.32 100 NA Source of cost/Hour: \$571.85 MATERIAL QUANTITIES Initial Volume: Initial Volume: $26,112$ Swell factor: Cat Handbook HOURLY PRODUCTION Average push distance: 75 feer Unadjusted hourly production: 358.42 LCY/hr Material consistency description: Partly consolidated stockpile 1.1 Average site altitude: 7.000 feet Material weight: 2.475 lbs/LCY		2/2022 Cor				
HOURLY EQUIPMENT COST Basic Machine: Cat D11T - 11U Horsepower: B30 Blade Type: Universal Blade Type: Universal Blade Type: Universal Matchmen: NA Shift Basis: 3 per day Data Source: (CRG) Cost Breakdown: \$2257.09 Ownership Cost/Hour: \$2273.21 Ooperating Cost/Hour: \$273.21 Source: Cost/Hour: Stipper op. Cost/Hour: \$0.00 Na \$000 Operator Cost/Hour: \$571.85 Total unit Cost/Hour: \$571.85 Material Volume: \$26,112 Swelf factor: 1.000 Loose volume: \$26,112 Swelf factor: Cat Handbook Huadjusted hourly production: 3.584.2 LCY/hr Materials consistency description: Partly consolidated stockpile 1.1 Average site altitude: 7.000 fect Material weight: 2.475 lbs/LCY Weight description: User Provided Iobring methodic 0.750 </th <th>User: ZTT</th> <th></th> <th>·</th> <th></th> <th></th> <th></th>	User: ZTT		·			
Basic Machine: Cat D11T - 11U Horsepower: 850 Blade Type: Universal Attachment: NA Shift Basis: 3 per day Data Source: (CRG) Cost Breakdown: Universal Ownership Cost/Hour: \$257.09 NA Operating Cost/Hour: Surger own, Cost/Hour: \$257.09 NA Operating Cost/Hour: Surger own, Cost/Hour: \$257.09 NA Operating Cost/Hour: Surger own, Cost/Hour: \$257.12 Total unit Cost/Hour: \$571.85 Total unit Cost/Hour: \$571.85 Total Pleet Cost/Hour: \$571.85 Total Pleet Cost/Hour: \$571.85 Source of estimated volume: Permit Appendix A, TableA-4.7 Source of estimated soull factor: Cat Handbook HOURLY PRODUCTION Average push distance: 75 feet Unadjusted hourly production: 3.584.2 LCY/hr Material consistency description: Partly consolidated stockpile 1.1 Average push gradient: 0 % Average site altitude: 7.000 feet <td>Agency o</td> <td>r organization name:</td> <td>DRMS</td> <td></td> <td></td> <td></td>	Agency o	r organization name:	DRMS			
Horsepower: 850 Blade Type: Universal Attachmet: NA Shift Basis: 3 per day Data Source: (CRG) Cost Breakdown: Universal Ownership Cost/Hour: \$257.09 NA NA Operating Cost/Hour: \$257.09 Natterial Cost/Hour: \$257.09 Natterial Cost/Hour: \$257.185 Total unit Cost/Hour: \$571.85 Total Pleet Cost/Hour: \$571.85 Total Pleet Cost/Hour: \$571.85 Sucre of estimated volume: Permit Appendix A, TableA-4.7 Source of estimated swell factor: Cat Handbook HOURLY PRODUCTION 3.584.2 LCY/hr Average push distance: 7.5 feet Unadjusted hourly production: 3.584.2 LCY/hr Material consistency description: Partly consolidated stockpile 1.1 Average push gradi	HOURLY EQU	IPMENT COST				
Blade Type: Universal Attachment: NA Shift Basis 3 per day Data Source: (CRG) Cost Breakdown:						
Attachment: NA Shift Basis: 3 per day Data Source: (CRG) Cost Breakdown: Utilization % Ownership Cost/Hour: \$2273.21 Obart Cost/Hour: \$2273.21 Itilization % 000 Ripper own. Cost/Hour: \$0.00 Operating Cost/Hour: \$0.00 Operator Cost/Hour: \$100 Status \$100 Operator Cost/Hour: \$571.85 Total unit Cost/Hour: \$571.85 Total Pieet Cost/Hour: \$571.85 MATERIAL QUANTITIES Initial Volume: Initial Volume: 26,112 Swell factor: 1.000 Loose volume: 26,112 LCY Source of estimated swell factor: Cat Handbook HOURLY PRODUCTION Average push distance: 75 feet Unadjusted hourly production: 3,584.2 LCY/hr Material sonsistency description: Partly consolidated stockpile 1.1 Average push gradient: 0 % Average site altitude: 7,000 feet Material weight: 2,475 lbs/LCY Weight description:						
Shift Basis: 3 per day Data Source: (CRG) Cost Breakdown: Vililization % Ownership Cost/Hour: \$257.09 NA Operating Cost/Hour: \$273.21 1000 Ripper own. Cost/Hour: \$0.00 NA Operating Cost/Hour: \$20.00 NA Ripper op. Cost/Hour: \$257.85 NA Total unit Cost/Hour: \$571.85 NA Total unit Cost/Hour: \$571.85 NA Total unit Cost/Hour: \$571.85 NA Total linit Cost/Hour: \$571.85 NA Swell factor: 1.000 Cat Handbook MATERIAL QUANTITIES Permit Appendix A, TableA-4.7 Source of estimated swell factor: Cat Handbook HOURLY PRODUCTION 3.584.2 LCY/hr Average push distance: 75 feet Unadjusted hourly production: 3.584.2 LCY/hr Material sconsistency description: Partly consolidated stockpile 1.1 Average push gradient: 0.% Average site altitude: 7.000 feet Material weight: 2.475 lbs/LCY Weight descr				_		
Data Source: (CRG) Cost Breakdown: Utilization % Ownership Cost/Hour: \$257.09 NA NA Operating Cost/Hour: \$273.21 Inper own. Cost/Hour: \$0.00 NA NA Operator Cost/Hour: \$0.00 Operator Cost/Hour: \$50.00 Operator Cost/Hour: \$571.85 Total Init Cost/Hour: \$571.85 Total Fleet Cost/Hour: \$571.85 Total Initial Volume: 26,112 Swell factor: 1.000 Loose volume: 26,112 LCY Source of estimated swell factor: Cat Handbook HOURLY PRODUCTION 3,584.2 LCY/hr Average push distance: 75 feet Unadjusted hourly production: 3,584.2 LCY/hr Materials consistency description: Partly consolidated stockpile 1.1 Average push gradient: 0 % Average site altitude: 7,000 feet Material weight: 2,475 lbs/LCY Weight description: User Provided Job Condition Correction Factor Source Operator Skill: 0,750						
Cost Breakdown: Ownership Cost/Hour: $$257.09$ NA Operating Cost/Hour: $$273.21$ 100 Ripper op. Cost/Hour: $$30.00$ NA Ripper op. Cost/Hour: $$30.00$ NA Operator Cost/Hour: $$50.00$ 0 Operator Cost/Hour: $$51.85$ NA Total unit Cost/Hour: $$571.85$ NA Total unit Cost/Hour: $$571.85$ NA MATERIAL OUANTITIES						
Utilization % Ownership Cost/Hour: \$257.09 NA Operating Cost/Hour: \$273.21 100 Ripper own. Cost/Hour: \$0.00 NA Operator Cost/Hour: \$0.00 0 Operator Cost/Hour: \$571.85 Total unit Cost/Hour: \$571.85 Total unit Cost/Hour: \$571.85 Total unit Cost/Hour: \$571.85 Total unit Cost/Hour: \$6,112 Swell factor: 1.000 Loose volume: 26,112 LCY Source of estimated volume: Permit Appendix A, TableA-4.7 Source of estimated swell factor: Cat Handbook HOURLY PRODUCTION 3,584.2 LCY/hr Average push distance: 7.5 feet Unadjusted hourly production: 3,584.2 LCY/hr Materials consistency description: Partly consolidated stockpile 1.1 Average site altitude: $\overline{7,000}$ feet Material weight: 2,475 lbs/LCY Weight description: User Provided Job Condition Correction Factor Source Operator Skill: 0.750 (AVG.) Material consistency: 1.1						
Ownership Cost/Hour: \$257.09 NA Operating Cost/Hour: \$273.21 100 Ripper op. Cost/Hour: \$0.00 NA Ripper op. Cost/Hour: \$0.00 NA Operator Cost/Hour: \$100 NA Total unit Cost/Hour: \$571.85 NA Total rite Cost/Hour: \$571.85 NA MATERIAL QUANTITIES Initial Volume: $26,112$ Swell factor: 1.000 Loose volume: $26,112$ LCY Source of estimated volume: Permit Appendix A, TableA-4.7 Source of estimated swell factor: Cat Handbook HOURLY PRODUCTION 3,584.2 LCY/hr Materials consistency description: Partly consolidated stockpile 1.1 Average push gradient: $0 %$	Cost Breakdown:		1			
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Ripper op. Cost/Hour: $$0.00$ 0 Operator Cost/Hour: $$41.55$ NA Total unit Cost/Hour: $$571.85$ Total Fleet Cost/Hour: $$571.85$ MATERIAL QUANTITIES Initial Volume: $26,112$ Swell factor: 1.000 Loose volume: $26,112$ Source of estimated volume: Permit Appendix A, TableA-4.7 Source of estimated swell factor: Cat Handbook HOURLY PRODUCTION Average push distance: 75 feet Unadjusted hourly production: $3,584.2$ LCY/hr Materials consistency description: Partly consolidated stockpile 1.1 Average site altitude: $7,000$ feet Material weight: $2,475$ lbs/LCY Weight description: User Provided Job Condition Correction Factor Source Operator Skill: 0.750 (AVG.) Material consistency: 1.100 (CAT HB) Dozing method: 1.000 (GEN.)						
Operator Cost/Hour: \$41.55 NA Total unit Cost/Hour: \$571.85 Total Fleet Cost/Hour: \$571.85 MATERIAL QUANTITIES Initial Volume: 26,112 Swell factor: 1.000 Loose volume: 26,112 LCY Source of estimated volume: Permit Appendix A, TableA-4.7 Source of estimated swell factor: Cat Handbook HOURLY PRODUCTION Average push distance: 75 feet Unadjusted hourly production: 3,584.2 LCY/hr Materials consistency description: Partly consolidated stockpile 1.1 Average push gradient: 0 % Average site altitude: 7.000 feet Material weight: 2,475 lbs/LCY Weight description: User Provided Job Condition Correction Factor Source Operator Skill: 0.750 (AVG) Material consistency: 1.100 (CAT HB) Dozing method: 1.000 (GEN.)						
Total unit Cost/Hour: $$571.85$ Total Fleet Cost/Hour: $$571.85$ MATERIAL QUANTITIES Initial Volume: $26,112$ Swell factor: 1.000 Loose volume: $26,112$ LCY Source of estimated volume: Permit Appendix A, TableA-4.7 Source of estimated swell factor: Cat Handbook HOURLY PRODUCTION Average push distance: 75 feet Unadjusted hourly production: $3,584.2$ LCY/hr Materials consistency description: Partly consolidated stockpile 1.1 Average push gradient: 0 % Average site altitude: $7,000$ feet Material weight: $2,475$ lbs/LCY Weight description: User Provided Job Condition Correction Factor Source Operator Skill: 0.750 (AVG.) Material consistency: 1.100 (CAT HB) Dozing method: 1.000 (GEN.)						
Total Fleet Cost/Hour: \$\$71.85 MATERIAL QUANTITIES Initial Volume: 26,112 Swell factor: 1.000 Loose volume: 26,112 LCY Source of estimated volume: Permit Appendix A, TableA-4.7 Source of estimated swell factor: Cat Handbook HOURLY PRODUCTION Average push distance: 75 feet Unadjusted hourly production: 3,584.2 LCY/hr Materials consistency description: Partly consolidated stockpile 1.1 Average push gradient: 0 % Average site altitude: 7,000 feet Material weight: 2,475 lbs/LCY Weight description: User Provided Job Condition Correction Factor Source Operator Skill: 0.750 Material consistency: 1.100 Material consistency: 1.000	Operator Cost/H	lour:	\$41.55	NA		
Source of estimated volume: Permit Appendix A, TableA-4.7 Source of estimated swell factor: Cat Handbook HOURLY PRODUCTION Average push distance: 75 feet Unadjusted hourly production: 3,584.2 LCY/hr Materials consistency description: Partly consolidated stockpile 1.1 Average push gradient: 0 % Average site altitude: 7,000 feet Material weight: 2,475 lbs/LCY Weight description: User Provided Job Condition Correction Factor Source Operator Skill: 0.750 Material consistency: 1.100 Material consistency: 1.100	Initial Volume:	26,112				
Source of estimated swell factor: Cat Handbook HOURLY PRODUCTION Average push distance: 75 feet Unadjusted hourly production: 3,584.2 LCY/hr Materials consistency description: Partly consolidated stockpile 1.1 Average push gradient: 0 % Average push gradient: 0 % Average site altitude: 7,000 feet Material weight: 2,475 lbs/LCY Weight description: User Provided Job Condition Correction Factor Source Operator Skill: 0.750 Material consistency: 1.100 Dozing method: 1.000	Loose volume:	26,112 LCY				
Average push distance: 75 feet Unadjusted hourly production: 3,584.2 LCY/hr Materials consistency description: Partly consolidated stockpile 1.1 Average push gradient: 0 % Average site altitude: 7,000 feet Material weight: 2,475 lbs/LCY Weight description: User Provided Job Condition Correction Factor Source Operator Skill: 0.750 Material consistency: 1.100 Material consistency: 1.000 Material consistency: 1.000				ableA-4.7		
Unadjusted hourly production: 3,584.2 LCY/hr Materials consistency description: Partly consolidated stockpile 1.1 Average push gradient: 0 % Average site altitude: 7,000 feet Material weight: 2,475 lbs/LCY Weight description: User Provided Job Condition Correction Factor Source Operator Skill: 0.750 Material consistency: 1.100 Material consistency: 1.000 Material consistency: 1.000	HOURLY PRO	DUCTION				
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Average site altitude: 7,000 feet Material weight: 2,475 lbs/LCY Weight description: User Provided Job Condition Correction Factor Source Operator Skill: 0.750 Material consistency: 1.100 Dozing method: 1.000	· ·	·		stockpile 1.1		
Material weight: 2,475 lbs/LCY Weight description: User Provided Job Condition Correction Factor Source Operator Skill: 0.750 Material consistency: 1.100 Dozing method: 1.000						
Weight description: User Provided Job Condition Correction Factor Source Operator Skill: 0.750 (AVG.) Material consistency: 1.100 (CAT HB) Dozing method: 1.000 (GEN.)	-		<u> </u>			
Job Condition Correction FactorSourceOperator Skill:0.750Material consistency:1.100Dozing method:1.000	-				_	
Operator Skill:0.750(AVG.)Material consistency:1.100(CAT HB)Dozing method:1.000(GEN.)	•		ed			
Material consistency:1.100(CAT HB)Dozing method:1.000(GEN.)			0.750			
Dozing method: 1.000 (GEN.)						
				, , ,		
	DOZI	Visibility:	1.000	(GEN.) (AVG.)		

cy: 0.790	(3 SHIFTS/DAY)
le: 0.900	(SSD-FC)
nt: 1.000	(CAT HB)
le: 1.000	(CAT HB)
ht: 0.929	(CAT HB)
be: 1.000	(PAT)
on: 0.5449	
1,953.03 LCY/hr	
1953.03 LCY/hr	
	le: 0.900 nt: 1.000 le: 1.000 ht: 0.929 be: 1.000 on: 0.5449 1,953.03 LCY/hr

Fleet size:	1 Dozer(s)
Unit cost:	\$0.293/LCY

Total job time:	13.37 Hours
Total job cost:	\$7,646

	D/L	n Kegraue	Spoil Side	East)		
Trapper Mine		Pern	nit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDEN	<u> TIFICATIO</u>	<u>DN</u>				
Task #: 004A		State:	Colorado		Abbreviation:	None
Date: $11/22/2$	2022	County:	Moffat		Filename:	C81015
User: ZTT		<u> </u>				
Agency or o	organization 1	name: DR	MS			
HOURLY EQUIP	MENT CO	<u>ST</u>				
Basic Machine:	Cat D11T -	11U				
Horsepower:	850					
Blade Type:	Universal					
Attachment:	NA 2 non dass					
Shift Basis: _ Data Source:	3 per day (CRG)					
	(CKU)					
Cost Breakdown:				Y Y . 141		
Ownership Cost/II-			\$257.00	<u>Utilization %</u>		
Ownership Cost/Ho Operating Cost/Ho			\$257.09 \$273.21	NA 100		
Ripper own. Cost/Ho			\$0.00	NA		
Ripper op. Cost/Ho			\$0.00	0		
Operator Cost/Ho			\$41.55	NA		
Total unit Cost/Hours	: \$571.8	5				
Total Fleet Cost/Hour						
	r: \$4,57 4					
Total Fleet Cost/Hou	r: \$4,574					
Total Fleet Cost/Hou MATERIAL QUA Initial Volume:	r: \$4,57 4 ANTITIES 528,550					
Total Fleet Cost/Hou MATERIAL QUA Initial Volume:	r: \$4,57 4 NTITIES 528,550 1.000	1.82				
Total Fleet Cost/Hou MATERIAL QUA Initial Volume: Swell factor: Loose volume:	r: \$4,574 ANTITIES 528,550 1.000 528,550 LCY	.82	 			
Total Fleet Cost/Hou MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated volume:	r: \$4,574 ANTITIES 528,550 1.000 528,550 LCY volume:	.82	 pendix A, T	Sable 1.4-2		
Total Fleet Cost/Hou MATERIAL QUA Initial Volume: Swell factor: Loose volume:	r: \$4,574 ANTITIES 528,550 1.000 528,550 LCY volume:	.82		Sable 1.4-2		
Total Fleet Cost/Hou MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated v Source of estimated s	r: \$4,574 ANTITIES 528,550 1.000 528,550 LCY volume: swell factor:	.82		Sable 1.4-2		
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Total Fleet Cost/Hou MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated v Source of estimated s HOURLY PRODU Average push distance	r: \$4,574 ANTITIES 528,550 1.000 528,550 LCY volume: swell factor: UCTION xe:	Permit Ap Cat Handb	book	Sable 1.4-2		
Total Fleet Cost/Hou MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated v Source of estimated s HOURLY PRODU	r: \$4,574 ANTITIES 528,550 1.000 528,550 LCY volume: swell factor: UCTION xe:	.82 Permit Ap Cat Handb	book	`able 1.4-2		
Total Fleet Cost/Hou MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated v Source of estimated s HOURLY PRODU Average push distance	r: \$4,574 ANTITIES 528,550 1.000 528,550 LCY volume: swell factor: UCTION ce: roduction:	Permit Ap Cat Handb 335 feet 956.8 LCY/l	book			
Total Fleet Cost/Hou MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated v Source of estimated s HOURLY PRODU Average push distance Unadjusted hourly pr Materials consistency	r: \$4,574 ANTITIES 528,550 1.000 528,550 LCY volume: swell factor: UCTION ce: roduction: y description:	Permit Ap Cat Handb 335 feet 956.8 LCY/l	nr			
Total Fleet Cost/Hou MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated v Source of estimated s HOURLY PRODU Average push distance Unadjusted hourly pr	r: \$4,57 4 ANTITIES 528,550 1.000 528,550 LCY volume: swell factor: UCTION se: roduction: y description: nt:20 %	.82 Permit Ap Cat Handt 335 feet 956.8 LCY/I Consoli	nr			
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Total Fleet Cost/Hou MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated v Source of	r: \$4,574 ANTITIES 528,550 1.000 528,550 LCY volume: swell factor: UCTION ce: vdescription: nt:20 % 7,000 2,475 User F	Permit Ap Cat Handt 335 feet 956.8 LCY/I Consoli feet	nr			
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Total Fleet Cost/Hou MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated volume Source of estimated volume Mourney PRODU Average push distance Unadjusted hourly pr Materials consistency Average push gradier Average site altitude: Material weight: Weight description: Job Condition Correct Opera	r: \$4,574 ANTITIES 528,550 1.000 528,550 LCY volume: swell factor: UCTION ce: roduction: y description: nt:20 % 2,475 User F ction Factor ator Skill:	.82 Permit Ap Cat Handt 335 feet 956.8 LCY/I Consoli feet lbs/LCY brovided	nr dated stockj			
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Task # 004A

Job efficiency:	0.790	(3 SHIFTS/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.426	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.929	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.7535	
Adjusted unit production: 72	20.95 LCY/hr	
Adjusted fleet production: 57	767.6 LCY/hr	

Fleet size:	8 Dozer(s)
Unit cost:	\$0.793/LCY

Total job time:	91.64 Hours
Total job cost:	\$419,242

Task description:	D /	E Pit Regrade	(West)			
Trapper Mine		Per	mit Action:	PR11	Permit/Job	#: <u>C1981010</u>
PROJECT IDEN	TIFICA	<u>FION</u>				
Task #: 005A		State:	Colorado		Abbreviation	None
Date: $11/22/2$	2022	County:	Moffat		Filename:	
User: ZTT	2022	County.	monut		1 Hellume.	
Agency or o	organizatio	on name: DF	RMS			
HOURLY EQUIE	PMENT (COST				
Basic Machine:	Cat D11	Γ - 11Π				
Horsepower:	850	1 110				
Blade Type:	Universa	1				
Attachment:	NA	-				
Shift Basis:	3 per day	1				
Data Source:	(CRG)					
Cost Breakdown:	,					
Cost Divardo wil				Utilizatio	on %	
Ownership Cost/Ho	our:		\$257.09	NA		
Operating Cost/Ho			\$273.21	100		
Ripper own. Cost/Ho			\$0.00	NA		
Ripper op. Cost/Ho			\$0.00	0		
Operator Cost/Ho	our:		\$41.55	NA		
MATERIAL QUA		<u>ES</u>				
	507,233					
	1.000	~~~				
Loose volume:	507,233 L	ĽCY				
Source of estimated	volume:	Permit A	ppendix A, T	able 1.4-2		
Source of estimated s	swell facto	or: Cat Hand	book			
		т				
HOURLY PROD		_				
Average push distant		335 feet	7			
Unadjusted hourly pr	roduction:	956.8 LCY/	hr			
Materials consistency	y descripti	on: <u>Consol</u>	idated stock	pile 1.0		_
Average push gradie	nt:20	%				
Average site altitude	: 7,0	00 feet				
Material weight:	2,4	75 lbs/LCY				
		D 111				
Weight description:	Use	er Provided				-
Weight description: Job Condition Correct				So	<u>urce</u>	_
Job Condition Correct Operation	ction Factor ator Skill:	<u>or</u> 0.	750	(A'	VG.)	_
Job Condition Correc Oper Material con	ction Factor ator Skill: nsistency:	<u>or</u> 0. 1.	000	(A) (CA)	VG.) T HB)	_
Job Condition Correc Oper Material con Dozing	ction Factor ator Skill:	<u>or</u> 0. 1. 1.		(A) (CA) (S-H	VG.)	_

Task # 005A

Job efficiency:		0.790	(3 SHIFTS/DAY)
Spoil pi	ile:	1.000	(DOZ-OC)
Push gradie	ent:	1.426	(CAT HB)
Altitud	de:	1.000	(CAT HB)
Material Weight:		0.929	(CAT HB)
Blade type:		1.000	(PAT)
Net correction	on:	0.7535	
Adjusted unit production:	72	0.95 LCY/hr	
Adjusted fleet production: 43		25.7 LCY/hr	

Fleet size:	6 Dozer(s)
Unit cost:	\$0.793/LCY

Total job time:	117.26 Hours
Total job cost:	\$402,333

Task description:	K	egrade BC Road				
Trapper Mine		Permit Actio	on: <u>PR11</u>		Permit/Job#:	C1981010
PROJECT IDE	NTIFICA'	TION				
Task #: 030		State: Colora	ado		Abbreviation:	None
	2/2022	County: Moffa			Filename:	C010-030
User: ZTT					-	
Agency o	r organizati	on name: DRMS				
HOURLY EQU	IPMENT	<u>COST</u>				
Basic Machine:		T - 10SU				
Horsepower:	574					
Blade Type:	Semi-Uı	niversal				
Attachment:	NA					
Shift Basis:	1 per da	У				
Data Source:	(CRG)					
Cost Breakdown:						
				Utilization %		
Ownership Cost/I		\$153.		NA		
Operating Cost/I		\$166.		100		
Ripper own. Cost/I		\$0.		NA		
Ripper op. Cost/I		\$0.		100		
Operator Cost/I	Hour:	\$41.	30	NA		
Fotal unit Cost/Ho Fotal Fleet Cost/Ho	our: \$1	61.91 , 447.65				
Fotal Fleet Cost/He	our: \$1 J ANTITI	,447.65				
Fotal Fleet Cost/Ho MATERIAL QU Initial Volume:	our: <u>\$1</u> J ANTITII 166,237	,447.65				
Fotal Fleet Cost/He	our: \$1 J ANTITI	,447.65 <u>ES</u>				
Fotal Fleet Cost/He MATERIAL OU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated	Dur: \$1 JANTITI 166,237 1.250 207,796 1 volume: 1 swell factor	,447.65 ES LCY Appendix A, Tabl or: Cat Handbook	le A-6.1			
Fotal Fleet Cost/He MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PRO	Dur: \$1 JANTITII 166,237 1.250 207,796 I d volume: d swell factor DUCTION	,447.65 ES LCY Appendix A, Tabl or: Cat Handbook	le A-6.1			
Fotal Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PRO	Dur: \$1 JANTITII 166,237 1.250 207,796 I 1 volume: 1 swell factor DUCTION nce:	,447.65 ES LCY or: Appendix A, Tabl or: Cat Handbook N 80 feet	le A-6.1			
Fotal Fleet Cost/He MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PRO	Dur: \$1 JANTITII 166,237 1.250 207,796 I 1 volume: 1 swell factor DUCTION nce:	,447.65 ES CCY or: Appendix A, Tabl or: Cat Handbook N 80 feet	le A-6.1			
Fotal Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PRO	Dur: \$1 JANTITII 166,237 1.250 207,796 I d volume: d swell factor DUCTION nce: production:	,447.65 ES CCY Appendix A, Table or: Appendix A, Table or: Cat Handbook N 80 feet 2,028.0 LCY/hr				
Fotal Fleet Cost/He MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PRO Average push dista Jnadjusted hourly Materials consister Average push grad	Dur: \$1 JANTITII 166,237 1.250 207,796 I d volume: d swell factor DUCTION nce: production: acy descript ient: 10	,447.65 ES 				
Fotal Fleet Cost/He MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROM Average push dista Jnadjusted hourly Materials consister	Dur: \$1 JANTITII 166,237 1.250 207,796 I d volume: d swell factor DUCTION nce: production: acy descript ient: 10	,447.65 ES				
Fotal Fleet Cost/He MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PRO Average push dista Jnadjusted hourly Materials consister Average push grad	Dur: $\$1$ JANTITII166,2371.250207,796 Id volume:d swell factord swell factorDUCTIONnce:production:acy descriptient:10le:6,4	,447.65 ES 				
Fotal Fleet Cost/He MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROM Average push dista Jnadjusted hourly Materials consisten Average push grad Average site altitud	pur: $\$1$ <u>JANTITII</u> <u>166,237</u> <u>1.250</u> 207,796 1 volume: d volume: d swell factor <u>DUCTION</u> nce: production: acy descript ient: <u>10</u> le: <u>6,4</u>	,447.65 ES				
Fotal Fleet Cost/He MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated Source of estimated HOURLY PROM Average push dista Jnadjusted hourly Materials consister Average push grad Average site altitud Material weight: Weight description Tob Condition Corr	Dur: \$1 JANTITII 166,237 1.250 207,796 I 207,796 I 3000000000000000000000000000000000000	,447.65 ES LCY or: Appendix A, Table or: Cat Handbook N : 2,028.0 LCY/hr ion: Consolidated st % 400 feet 550 lbs/LCY rth - Dry packed or		Source		
Fotal Fleet Cost/He MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROM Average push dista Jnadjusted hourly Materials consisten Average push grad Average site altitud Material weight: Weight description Option Continue	Dur: \$1 JANTITII 166,237 1.250 207,796 I 1 volume: 1 1 volume: 1 1 swell factor DUCTION nce: production: production: $6,4$ le: $6,4$ 2,5 Ea ection Fact erator Skill:	,447.65 ES LCY or: Appendix A, Table or: Cat Handbook N : 2,028.0 LCY/hr ion: Consolidated st % 400 feet 550 lbs/LCY rth - Dry packed or 0.750		(AVG.)		
Fotal Fleet Cost/He MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROM Average push dista Jnadjusted hourly Materials consistent Average push grad Average site altitud Material weight: Weight description Cob Condition Corre Open Material constant	Dur: $\$1$ 166,2371.250207,796 Id volume:d swell factorDUCTIONnce:production:acy descriptient:10le:6,42,5:Earection Facterator Skill:consistency:	,447.65 ES		(AVG.) (CAT HB)		
Fotal Fleet Cost/He MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROM Average push dista Jnadjusted hourly Materials consistent Average push grad Average site altitud Material weight: Weight description Cob Condition Corre Open Material constant	Dur: \$1 JANTITII 166,237 1.250 207,796 I 1 volume: 1 1 volume: 1 1 swell factor DUCTION nce: production: production: $6,4$ le: $6,4$ 2,5 Ea ection Fact erator Skill:	,447.65 ES LCY or: Appendix A, Table or: Cat Handbook N 80 feet 2,028.0 LCY/hr ion: Consolidated st % 400 feet 550 lbs/LCY rth - Dry packed or 0.750 1.000 1.000		(AVG.)		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	0.786	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.3531	
Adjusted unit production: 71	6.09 LCY/hr	
Adjusted fleet production: 28	864.36 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$0.505/LCY

Total job time:	72.55 Hours
Total job cost:	\$105,020

	8	rade D-Main				
Trapper Mine		Perr	mit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDE	NTIFICATI	<u>ON</u>				
Task #: 031 Date: 11/22 User: ZTT	2/2022	State: County:	Colorado Moffat		Abbreviation: Filename:	None C81010
Agency o	r organization	name: DR	MS			
HOURLY EQU	IPMENT C	<u>OST</u>				
Basic Machine:	Cat D10T	- 10SU				
Horsepower:	574 Semi-Univ					
Blade Type: Attachment:	NA	ersai				
Shift Basis:	1 per day					
Data Source:	(CRG)					
	(61(6))					
Cost Breakdown:			1			
Ownership Cost/I	Jour		\$153.67	<u>Utilization %</u> NA		
Operating Cost/H			\$153.67 \$166.94	100		
Ripper own. Cost/H			\$0.00	NA		
Ripper op. Cost/I			\$0.00	100		
Operator Cost/I			\$41.30	NA		
Total unit Cost/Ho Total Fleet Cost/Ho						
	our: \$1,4 4	7.65				
Total Fleet Cost/Ho <u>MATERIAL QU</u> Initial Volume:	our: \$1,4 4 U ANTITIES 121,593	7.65				
Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor:	our: \$1,4 4 J ANTITIES <u>121,593</u> <u>1.250</u>					
Total Fleet Cost/Ho <u>MATERIAL QU</u> Initial Volume:	our: \$1,4 4 U ANTITIES 121,593					
Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor:	our: \$1,44 JANTITIES 121,593 1.250 151,991 LC d volume:	YAppendix	 A, Table A- book	-6.1		
Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated	our: \$1,44	YAppendix		-6.1		
Total Fleet Cost/He MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated	our: \$1,44	YAppendix	book	-6.1		
Total Fleet Cost/He MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PRO Average push dista	our: \$1,44	Y Appendix Cat Handl 80 feet 2,028.0 LCY	book			
Total Fleet Cost/He MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROM Average push dista Unadjusted hourly	our: \$1,44	Y Appendix Cat Handl 80 feet 2,028.0 LCY n: Consoli	book Y/hr			
Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push dista Unadjusted hourly Materials consister Average push grad Average site altitud	our: $$1,44$ UANTITIES 121,593 1.250 151,991 LC d volume: d swell factor: DUCTION unce: production: ncy description ient: 10 % de: 6,400	Y Appendix Cat Handl 80 feet 2,028.0 LCY n: Consoli	book Y/hr			
Total Fleet Cost/He MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PRO Average push dista Unadjusted hourly Materials consister Average push grad	our: \$1,44 JANTITIES 121,593 1.250 151,991 LC d volume: d swell factor: DUCTION unce: production: hcy description ient: 10 % de: 6,400 2,550	Y Appendix Cat Handl 80 feet 2,028.0 LC n: Consoli	book Y/hr idated stockp			
Total Fleet Cost/He MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROM Average push dista Unadjusted hourly Materials consisten Average push grad Average site altitud Material weight:	our: \$1,44 JANTITIES 121,593 1.250 151,991 d volume: d swell factor: DUCTION unce: production: ient: 10 % de: 6,400 2,550 :: Earth	Y Appendix Cat Handl 80 feet 2,028.0 LCY a. Consoli b feet Consoli Con	book Y/hr idated stockp			
Total Fleet Cost/He MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated MOURLY PROM Average push dista Unadjusted hourly Materials consisten Average push grad Average site altitud Material weight: Weight description Job Condition Corre Opt	our: $$1,44$ UANTITIES 121,593 1.250 151,991 LC d volume: d swell factor: DUCTION unce: production: ient: 10 % de: 6,400 2,550 c Earth rection Factor erator Skill:	Y Appendix Cat Handl 80 feet 2,028.0 LCY a: Consoli b feet Consoli Con	book Y/hr idated stockp	 		
Total Fleet Cost/He MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROM Average push dista Unadjusted hourly Materials consisten Average push grad Average site altitud Material weight: Weight description Job Condition Corr Op Material c	our: \$1,44	Y	book Y/hr idated stockp			
Total Fleet Cost/He MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PRO Average push dista Unadjusted hourly Materials consisten Average push grad Average site altitud Material weight: Weight description Job Condition Corr Op Material c	our: $$1,44$ UANTITIES 121,593 1.250 151,991 LC d volume: d swell factor: DUCTION unce: production: ient: 10 % de: 6,400 2,550 c Earth rection Factor erator Skill:	Y Appendix Cat Handle 80 feet 2,028.0 LCY h: Consoli 0 feet 0 lbs/LCY O.7 0.10 1.0 1.1	book Y/hr idated stockp			

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	0.786	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.3531	
Adjusted unit production: 71	6.09 LCY/hr	
Adjusted fleet production: 28	364.36 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$0.505/LCY

Total job time:	53.06 Hours
Total job cost:	\$76,816

	8	East and West Ash	Koaus		
Trapper Mine		Permit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENT	TIFICATION				
Task #: 032		State: Colorado		Abbreviation:	None
Date: $\frac{0.02}{11/22/2}$		ounty: Moffat		Filename:	C81010
User: ZTT					
Agency or o	organization name	: DRMS			
HOURLY EQUIP	MENT COST				
	Cat D10T - 10SU	J			
Horsepower:	574				
Blade Type:	Semi-Universal				
Attachment:	NA				
Shift Basis:	1 per day				
Data Source:	(CRG)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Ho		\$153.67	NA		
Operating Cost/Ho		\$166.94	100		
Ripper own. Cost/Ho		\$0.00	NA		
Ripper op. Cost/Ho		\$0.00	100		
Operator Cost/Ho	ur:	\$41.30	NA		
MATERIAL QUA	NTITIES				
	200,753				
Initial Volume: 2 Swell factor: 1	200,753 1.250				
Initial Volume: 2 Swell factor: 1 Loose volume: 2	200,753 1.250 250,941 LCY				
Initial Volume: 2 Swell factor: 1 Loose volume: 2 Source of estimated v	200,753 1.250 250,941 LCY volume:A	ppendix A, Table A	-6.1		
Initial Volume: 2 Swell factor: 1 Loose volume: 2	200,753 1.250 250,941 LCY volume:A	ppendix A, Table A at Handbook	-6.1		
Initial Volume: 2 Swell factor: 1 Loose volume: 2 Source of estimated v Source of estimated s	200,753 1.250 250,941 LCY volume: <u>A</u> well factor: <u>C</u>		-6.1		
Initial Volume: 2 Swell factor: 1 Loose volume: 2 Source of estimated v Source of estimated s HOURLY PRODU	200,753 1.250 250,941 LCY /olume: <u>A</u> well factor: <u>Ca</u>	at Handbook	-6.1		
Initial Volume: 2 Swell factor: 1 Loose volume: 2 Source of estimated v Source of estimated s HOURLY PRODU	200,753 1.250 250,941 LCY volume: <u>A</u> well factor: <u>C</u> UCTION we: 80 for	at Handbook	-6.1		
Initial Volume: 2 Swell factor: 1 Loose volume: 2 Source of estimated v Source of estimated s HOURLY PRODU	200,753 1.250 250,941 LCY volume: <u>A</u> well factor: <u>C</u> UCTION we: 80 for	at Handbook	-6.1		
Initial Volume: 2 Swell factor: 1 Loose volume: 2 Source of estimated v Source of estimated s HOURLY PRODU	200,753 1.250 250,941 LCY volume: <u>A</u> well factor: <u>Ca</u> UCTION ve: <u>80 fe</u> oduction: <u>2,02</u>	at Handbook			
Initial Volume: 2 Swell factor: 1 Loose volume: 2 Source of estimated v Source of estimated s HOURLY PRODU Average push distanc Unadjusted hourly pro Materials consistency Average push gradien	200,753 1.250 250,941 LCY 250,941 LCY 200ume: <u>A</u> well factor: <u>Ca</u> WCTION 2000 200 200 200 200 200 200 200 200 2	eet 8.0 LCY/hr			
Initial Volume: 2 Swell factor: 1 Loose volume: 2 Source of estimated v Source of estimated s HOURLY PRODU Average push distanc Unadjusted hourly pro Materials consistency	200,753 1.250 250,941 LCY 250,941 LCY 200ume: <u>A</u> well factor: <u>Ca</u> WCTION 2000 200 200 200 200 200 200 200 200 2	eet 8.0 LCY/hr			
Initial Volume: 2 Swell factor: 1 Loose volume: 2 Source of estimated v Source of estimated s HOURLY PRODU Average push distanc Unadjusted hourly pro Materials consistency Average push gradien	200,753 1.250 250,941 LCY 250,941 LCY 200ume: <u>A</u> well factor: <u>Ca</u> WCTION 2000 200 200 200 200 200 200 200 200 2	at Handbook eet 8.0 LCY/hr Consolidated stock			
Initial Volume: 2 Swell factor: 1 Loose volume: 2 Source of estimated v Source of estimated s HOURLY PRODU Average push distanc Unadjusted hourly pro Materials consistency Average push gradien Average site altitude:	200,753 1.250 250,941 LCY volume: _A well factor: _C: UCTION ve: 80 fr oduction: _2,02 v description: _ nt: 10 %	at Handbook eet 8.0 LCY/hr Consolidated stockj			
Initial Volume: 2 Swell factor: 1 Loose volume: 2 Source of estimated v Source of estimated s HOURLY PRODU Average push distanc Unadjusted hourly pro Materials consistency Average push gradien Average site altitude: Material weight: Weight description: Job Condition Correct	200,753 1.250 250,941 LCY 250,941 LCY 200,753 250,941 LCY 200,753 250,941 LCY 200,753 200,75 200,75 200,75 200,75 200,75 200,75 200,75 200,75 200,75 200,75 200,75 200,75 200,75 200,75 200,75 200,75 200,75 200,75 200,75 200	at Handbook eet 8.0 LCY/hr Consolidated stockj 			
Initial Volume: 2 Swell factor: 1 Loose volume: 2 Source of estimated v Source of estimated v Source of estimated s HOURLY PRODU Average push distanc Unadjusted hourly pro Materials consistency Average push gradien Average site altitude: Material weight: Weight description: Job Condition Correc Opera	200,753 1.250 250,941 LCY 200,753 250,941 LCY 200,753 250,941 LCY 200,753 200,75 200,75 200,75 200,75 200,75 200,75 200,75 200,75 200,75 200,75 200,75 200,75 200,75 200,75 200,75 200,75 200,75 200,75 200,75	eet 8.0 LCY/hr Consolidated stock CY packed 0.750	pile 1.0 <u>Source</u> (AVG.)		
Initial Volume: 2 Swell factor: 1 Loose volume: 2 Source of estimated v Source of estimated s HOURLY PRODU Average push distanc Unadjusted hourly pro Materials consistency Average push gradien Average site altitude: Material weight: Weight description: Job Condition Correc Opera Material com	200,753 1.250 250,941 LCY volume: _A well factor: _Ca UCTION ve: _80 fd oduction: _2,02 v description: nt: 10 % 6,400 feet 2,550 lbs/L	at Handbook eet 8.0 LCY/hr Consolidated stock CY 2 packed 0.750 1.000	pile 1.0 <u>Source</u> (AVG.) (CAT HB)		
Initial Volume: 2 Swell factor: 1 Loose volume: 2 Source of estimated v Source of estimated v Source of estimated s HOURLY PRODU Average push distanc Unadjusted hourly pro Materials consistency Average push gradien Average site altitude: Material weight: Weight description: Job Condition Correc Opera Material con Dozing	200,753 1.250 250,941 LCY 200,753 250,941 LCY 200,753 250,941 LCY 200,753 200,75 200,75 200,75 200,75 200,75 200,75 200,75 200,75 200,75 200,75 200,75 200,75 200,75 200,75 200,75 200,75 200,75 200,75 200,75	eet 8.0 LCY/hr Consolidated stock CY packed 0.750	pile 1.0 <u>Source</u> (AVG.)		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	0.786	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.3531	
Adjusted unit production: 71	6.09 LCY/hr	
Adjusted fleet production: 28	64.36 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$0.505/LCY

Total job time:	87.61 Hours
Total job cost:	\$126,826

		OM Roads			
Trapper Mine		Permit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDEN	TIFICATION				
Task #: 033	St	ate: Colorado		Abbreviation:	None
Date: $\frac{000}{11/22/2}$				Filename:	C010-033
User: ZTT		J			
Agency or	organization name:	DRMS			
HOURLY EQUI	PMENT COST				
Basic Machine:	Cat D10T - 10SU				
Horsepower:	574				
Blade Type:	Semi-Universal				
Attachment: Shift Basis:	NA 1 per dev				
Data Source:	1 per day (CRG)				
=	(CNU)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Ho		\$153.67	NA		
Operating Cost/Ho		\$166.94	100		
Ripper own. Cost/Ho		\$0.00	NA		
Ripper op. Cost/Ho	-	\$0.00	100		
Operator Cost/Ho	our:	\$41.30	NA		
MATERIAL QUA					
Initial Volume:	362,600				
Initial Volume: Swell factor:	362,600 1.250				
Initial Volume: Swell factor:	362,600				
Initial Volume: Swell factor: Loose volume: Source of estimated	362,600 1.250 453,250 LCY volume: <u>App</u>	endix A, Table A Handbook	-6.1		
Initial Volume:	362,600 1.250 453,250 LCY volume: App swell factor: Cat	endix A, Table A Handbook	-6.1		
Initial Volume:	362,600 1.250 453,250 LCY volume: <u>App</u> swell factor: <u>Cat</u> <u>UCTION</u>	Handbook	-6.1		
Initial Volume:	362,600 1.250 453,250 LCY volume: App swell factor: Cat <u>UCTION</u> ce: 80 fee	Handbook	-6.1		
Initial Volume:	362,600 1.250 453,250 LCY volume: App swell factor: Cat UCTION ce: 80 fee roduction: 2,028.	Handbook			
Initial Volume:	362,600 1.250 453,250 LCY volume: App swell factor: Cat UCTION ce: 80 fee roduction: 2,028. y description: C nt: 10 %	Handbook t 0 LCY/hr			
Initial Volume:	362,600 1.250 453,250 LCY volume: App swell factor: Cat UCTION ce: 80 fee roduction: 2,028. y description: C nt: 10 % : 6,400 feet	Handbook t 0 LCY/hr onsolidated stockj			
Initial Volume:	362,600 1.250 453,250 LCY volume: App swell factor: Cat UCTION ce: 80 fee roduction: 2,028. y description: C nt: 10 % : 6,400 feet 2,550 lbs/LC	Handbook t 0 LCY/hr onsolidated stockj			
Initial Volume:	362,600 1.250 453,250 LCY volume: App swell factor: Cat UCTION ce: 80 fee roduction: 2,028. y description: C nt: 10 % : 6,400 feet	Handbook t 0 LCY/hr onsolidated stockj	pile 1.0		
Initial Volume:	362,600 1.250 453,250 LCY volume: App swell factor: Cat UCTION ce: 80 fee roduction: 2,028. y description: C nt: 10 % : 6,400 feet	Handbook t 0 LCY/hr onsolidated stockj Y acked	 pile 1.0 		
Initial Volume:	362,600 1.250 453,250 LCY volume: App swell factor: Cat UCTION ce: 80 fee roduction: 2,028. y description: C nt: 10 % : 6,400 feet	Handbook t 0 LCY/hr onsolidated stockj Y acked 0.750	pile 1.0 <u>Source</u> (AVG.)		
Initial Volume:	362,600 1.250 453,250 LCY volume: App swell factor: Cat UCTION ce: 80 fee roduction: 2,028. y description: C nt: 10 % : 6,400 feet	Handbook t 0 LCY/hr onsolidated stockj Y acked 0.750 1.000	pile 1.0 <u>Source</u> (AVG.) (CAT HB)		
Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated and HOURLY PROD Average push distand Unadjusted hourly push Materials consistency Average push gradie Average site altitude Material weight: Weight description: Job Condition Correct Oper Material co Dozin	362,600 1.250 453,250 LCY volume: App swell factor: Cat UCTION ce: 80 fee roduction: 2,028. y description: C nt: 10 % : 6,400 feet	Handbook t 0 LCY/hr onsolidated stockj Y acked 0.750	pile 1.0 <u>Source</u> (AVG.)		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	0.786	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.3531	
Adjusted unit production: 7	716.09 LCY/hr	
Adjusted fleet production:	2864.36 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$0.505/LCY

Total job time:	158.24 Hours
Total job cost:	\$229,073

	8		and North A N pit)		
Trapper Mine	Peri	mit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENTIF	TICATION				
Task #: 034 Date: 11/22/2022 User: ZTT	State: 2 County:	Colorado Moffat		Abbreviation: Filename:	None C81010
Agency or orga	nization name: DR	RMS			
HOURLY EQUIPMI	ENT COST				
	tt D10T - 10SU				
Horsepower: 574					
• •	mi-Universal				
Attachment: NA Shift Basis: 1 p					
	ber day				
<u></u>	RG)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:		\$153.67	NA		
Operating Cost/Hour:		\$166.94	100		
Ripper own. Cost/Hour:		\$0.00	NA		
Ripper op. Cost/Hour:		\$0.00	100		
Operator Cost/Hour:		\$41.30	NA		
Total Fleet Cost/Hour:	\$361.91 \$1,447.65				
Total Fleet Cost/Hour: MATERIAL QUANT	\$1,447.65 <u>FITIES</u>				
	\$1,447.65 FITIES ,517				
Total Fleet Cost/Hour: <u>MATERIAL QUANT</u> Initial Volume: 133 Swell factor: 1.25	\$1,447.65 FITIES ,517 50				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 133 Swell factor: 1.25	\$1,447.65 FITIES ,517				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 133 Swell factor: 1.25 Loose volume: 166 Source of estimated volu	\$1,447.65 FITIES ,517 50 ,896 LCY une:Appendix		-6.1		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 133 Swell factor: 1.25 Loose volume: 166 Source of estimated volu	\$1,447.65 FITIES ,517 50 ,896 LCY ume:Appendix		-6.1		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 133 Swell factor: 1.25	\$1,447.65 FITIES ,517 50 ,896 LCY une:Appendix		-6.1		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 133 Swell factor: 1.25 Loose volume: 166 Source of estimated volu Source of estimated swel	\$1,447.65 FITIES ,517 50 ,896 LCY Ime: <u>Appendix</u> Il factor: <u>Cat Hand</u>		-6.1		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 133 Swell factor: 1.25 Loose volume: 166 Source of estimated volu Source of estimated swel HOURLY PRODUCT 100	\$1,447.65 FITIES ,517 50 ,896 LCY me: Appendix Il factor: Cat Hand TION		-6.1		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 133 Swell factor: 1.25 Loose volume: 166 Source of estimated volu Source of estimated swel HOURLY PRODUCT Average push distance:	\$1,447.65 <u>FITIES</u> ,517 50 ,896 LCY ume: Appendix Il factor: Cat Hand <u>TION</u> 80 feet	book	-6.1		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 133 Swell factor: 1.25 Loose volume: 166 Source of estimated volu Source of estimated swel	\$1,447.65 <u>FITIES</u> ,517 50 ,896 LCY ume: Appendix Il factor: Cat Hand <u>TION</u> 80 feet	book	-6.1		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 133 Swell factor: 1.25 Loose volume: 166 Source of estimated volu Source of estimated swel HOURLY PRODUCT Average push distance:	\$1,447.65 FITIES ,517 50 ,896 LCY ume: Appendix Il factor: Cat Hand TION 80 feet action: 2,028.0 LCY	book			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 133 Swell factor: 1.25 Loose volume: 166 Source of estimated volu Source of estimated swel HOURLY PRODUCT Average push distance: Unadjusted hourly produ Materials consistency det Average push gradient:	\$1,447.65 FITIES ,517 50 ,896 LCY ume: Appendix Il factor: Cat Hand TION 80 feet action: 2,028.0 LCY	book Y/hr			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 133 Swell factor: 1.25 Loose volume: 166 Source of estimated volu Source of estimated swel HOURLY PRODUC' Average push distance: Unadjusted hourly produ Materials consistency dea Average push gradient: Average site altitude:	\$1,447.65 FITIES ,517 50 ,896 LCY ume: Appendix Il factor: Cat Hand TION action: 80 feet .028.0 LCY escription: Consoli 10 %	book Y/hr			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 133 Swell factor: 1.25 Loose volume: 166 Source of estimated volu Source of estimated swel HOURLY PRODUCC Average push distance: Unadjusted hourly produ Materials consistency deal Average push gradient: Average site altitude: Material weight: Material weight:	\$1,447.65 FITIES ,517 50 ,896 LCY ume: Appendix Il factor: Cat Hand TION action: 2,028.0 LCY escription: Consoli 10 % 6,400 feet	book Y/hr idated stockp			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 133 Swell factor: 1.25 Loose volume: 166 Source of estimated volu Source of estimated swel HOURLY PRODUCC Average push distance: Unadjusted hourly produ	\$1,447.65 FITIES ,517 50 ,896 LCY ume: Appendix Il factor: Cat Hand TION action: 2,028.0 LCY escription: Consolit 10 % 6,400 feet 2,550 lbs/LCY Earth - Dry packed	book Y/hr idated stockp			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 133 Swell factor: 1.25 Loose volume: 166 Source of estimated volu Source of estimated swel HOURLY PRODUC' Average push distance: Unadjusted hourly produ Materials consistency dea Average push gradient: Average site altitude: Material weight: Weight description:	\$1,447.65 FITIES ,517 50 ,896 LCY ume: Appendix Il factor: Cat Hand TION action: 2,028.0 LCY escription: Consoli	book Y/hr idated stockp			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 133 Swell factor: 1.25 Loose volume: 166 Source of estimated volu Source of estimated swel HOURLY PRODUCT Average push distance: Unadjusted hourly produ Materials consistency dea Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Job Condition Correction	\$1,447.65 FITIES ,517 50 ,896 LCY ume: Appendix Il factor: Cat Hand TION action: 2,028.0 LCY escription: Consoli	book Y/hr idated stockp			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 133 Swell factor: 1.25 Loose volume: 166 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUCT Average push distance: Unadjusted hourly produ Materials consistency de: Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator	\$1,447.65 FITTLES ,517 50 ,896 LCY ume: Appendix Il factor: Cat Hand TION action: $\frac{80 \text{ feet}}{2,028.0 \text{ LCY}}$ escription: Consolit $\frac{10 \%}{6,400 \text{ feet}}$ $2,550 \text{ lbs/LCY}$ Earth - Dry packed n Factor Skill: 0. tency: 1.	book Y/hr idated stockp	bile 1.0		

0.830	(1 SHIFT/DAY)
: 0.800	(SSD-AC)
. 0.786	(CAT HB)
: 1.000	(CAT HB)
0.902	(CAT HB)
1.000	(PAT)
: 0.3531	
716.09 LCY/hr	
2864.36 LCY/hr	
	 0.800 0.786 1.000 0.902 1.000 0.3531

Fleet size:	4 Dozer(s)
Unit cost:	\$0.505/LCY

Total job time:	58.27 Hours
Total job cost:	\$84,349

Page 1 of 2

Fask description:	Regrade N Pit	t Roads (old LO	OM, cross-over, ash pit)	
Trapper Mine	F	Permit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENTIF	ICATION				
Task #: 035	State	e: Colorado		Abbreviation:	None
Date: $11/22/2022$ User: ZTT				Filename:	C010-035
Agency or organ	nization name:	DRMS			
HOURLY EQUIPME	ENT COST				
	t D11T - 11U				
Horsepower: 850					
	iversal				
Attachment: NA					
	er day				
Data Source: (CH	RG)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:		\$257.09	NA		
Operating Cost/Hour:		\$273.21	100		
		\$0.00	NA		
Ripper own. Cost/Hour:		\$0.00	100		
Ripper own. Cost/Hour: Ripper op. Cost/Hour:		\$0.00			
Ripper op. Cost/Hour: Operator Cost/Hour: Fotal unit Cost/Hour: Fotal Fleet Cost/Hour:	\$571.60 \$2,286.41	\$41.30	NA		
Ripper op. Cost/Hour: Operator Cost/Hour: Fotal unit Cost/Hour: Fotal Fleet Cost/Hour: MATERIAL QUANT	\$2,286.41				
Ripper op. Cost/Hour: Operator Cost/Hour: Fotal unit Cost/Hour: Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume:105,	\$2,286.41				
Ripper op. Cost/Hour: Operator Cost/Hour: Fotal unit Cost/Hour: Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 105, Swell factor: 1.15	\$2,286.41 <u>FITIES</u> ,283 50				
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 105, 1.15 Swell factor: 1.15 Loose volume: 121,	\$2,286.41 FITIES ,283 50 ,075 LCY	\$41.30			
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 105, Swell factor: 1.15 Loose volume: 121, Source of estimated volume	\$2,286.41 FITIES ,283 50 ,075 LCY me:Table	\$41.30			
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 105, 1.15 Swell factor: 1.15 Loose volume: 121,	\$2,286.41 FITIES ,283 50 ,075 LCY me:Table	\$41.30			
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 105, Swell factor: Loose volume: 121, Source of estimated volu Source of estimated swell	\$2,286.41 EITIES ,283 50 ,075 LCY me: Table A 1 factor: Cat Ha	\$41.30			
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 105, Swell factor: 1.15 Loose volume: 121, Source of estimated volut Source of estimated swell HOURLY PRODUCT	\$2,286.41 EITIES ,283 50 ,075 LCY me: Table A 1 factor: Cat Ha	\$41.30			
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Initial Cost/Hour: MATERIAL QUANT Initial Volume: 105, Swell factor: 1.15 Loose volume: 121, Source of estimated volut Source of estimated swell HOURLY PRODUCT Average push distance:	\$2,286.41 <u>EITIES</u> ,283 50 ,075 LCY me: Table A 1 factor: Cat Ha <u>EION</u> 80 feet	\$41.30			
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 105, Swell factor: 1.15 Loose volume: 121, Source of estimated volut Source of estimated swell HOURLY PRODUCT	\$2,286.41 <u>EITIES</u> ,283 50 ,075 LCY me: Table A 1 factor: Cat Ha <u>EION</u> 80 feet	\$41.30			
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Initial Cost/Hour: MATERIAL QUANT Initial Volume: 105, Swell factor: 1.15 Loose volume: 121, Source of estimated volut Source of estimated swell HOURLY PRODUCT Average push distance:	\$2,286.41 FITIES ,283 50 ,075 LCY me: Table A 1 factor: Cat Ha FION ction: 3,441.4 I	\$41.30	NA		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Initial Cost/Hour: MATERIAL QUANT Initial Volume: 105, Swell factor: 1.15 Loose volume: 121, Source of estimated volume Source of estimated swell HOURLY PRODUCT Average push distance: Jnadjusted hourly product Materials consistency destance	\$2,286.41 CITIES ,283 50 ,075 LCY me: Table / 1 factor: Cat Ha TION ction: 80 feet 3,441.4 I scription: Com	\$41.30	NA		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Initial Cost/Hour: MATERIAL QUANT Initial Volume: 105, Swell factor: 1.15 Loose volume: 121, Source of estimated volume 1000000000000000000000000000000000000	\$2,286.41 CITIES ,283 50 ,075 LCY me: Table / 1 factor: Cat Ha TION ction: 80 feet 3,441.4 I scription: Com 0 %	\$41.30	NA		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Initial Cost/Hour: MATERIAL QUANT Initial Volume: 105, Swell factor: 1.15 Loose volume: 121, Source of estimated volume Source of estimated swell HOURLY PRODUCT Average push distance: Jnadjusted hourly product Materials consistency destance	\$2,286.41 CITIES ,283 50 ,075 LCY me: Table / 1 factor: Cat Ha TION ction: 80 feet 3,441.4 I scription: Com	\$41.30	NA		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Initial Cost/Hour: MATERIAL QUANT Initial Volume: 105, Swell factor: 1.15 Loose volume: 121, Source of estimated volume 1000000000000000000000000000000000000	\$2,286.41 CITIES ,283 50 ,075 LCY me: Table / 1 factor: Cat Ha TION ction: 80 feet 3,441.4 I scription: Com 0 %	\$41.30	NA		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Initial Cost/Hour: MATERIAL QUANT Initial Volume: 105, Swell factor: 1.15 Loose volume: 121, Source of estimated volut Source of estimated swell HOURLY PRODUCT Average push distance: Jnadjusted hourly product Materials consistency destance: Average push gradient: Average site altitude:	\$2,286.41 FITIES ,283 30 ,075 LCY me: Table A 1 factor: Cat Ha FION ction: 3,441.4 I scription: Com 0 % 6,600 feet	\$41.30	NA		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 105, Swell factor: 1.15 Loose volume: 121, Source of estimated volut Source of estimated swell HOURLY PRODUCT Average push distance: Jnadjusted hourly product Materials consistency destance Average site altitude: Material weight: Weight description: Cob Condition Correction	\$2,286.41 FITIES ,283 30 ,075 LCY me: Table 2 1 factor: Cat Ha FION ction: 3,441.4 I scription: Com 0 % 6,600 feet 2,475 lbs/LCY User Provided n Factor Factor	\$41.30	NA		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 105, Swell factor: 1.15 Loose volume: 121, Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Jnadjusted hourly product Materials consistency des Average site altitude: Material weight: Weight description: (ob Condition Correction Operator	\$2,286.41 FITIES ,283 30 ,075 LCY me: Table 2 1 factor: Cat Ha FION ction: 80 feet 3,441.4 I scription: Com 0 % 6,600 feet 2,475 lbs/LCY User Provided n Factor Skill:	\$41.30 A-6.1 andbook LCY/hr npacted fill or en 0.750			
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 105, 1.15 Swell factor: 1.15 Loose volume: 121, Source of estimated volumes 121, Source of estimated swell 1000000000000000000000000000000000000	\$2,286.41 CITIES ,283 50 ,075 LCY me: Table 1 1 factor: Cat Ha TION ction: 80 feet 3,441.4 I scription: Com 0 % 6,600 feet 2,475 lbs/LCY User Provided M Factor Skill: sency:	\$41.30 A-6.1 andbook LCY/hr npacted fill or en 0.750 0.900			
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 105, Swell factor: 1.15 Loose volume: 121, Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Jnadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Iob Condition Correction Operator Material consist Dozing me	\$2,286.41 CITIES ,283 50 ,075 LCY me: Table 1 1 factor: Cat Ha TION ction: 80 feet 3,441.4 I scription: Com 0 % 6,600 feet 2,475 lbs/LCY User Provided M Factor Skill: sency:	\$41.30 A-6.1 andbook LCY/hr npacted fill or en 0.750			

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.929	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.4164	
Adjusted unit production: 1,	433.00 LCY/hr	
Adjusted fleet production: 57	732 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$0.399/LCY

Total job time:	21.12 Hours
Total job cost:	\$48,295

Task description:	Regrade C Pit Haul Road			
Trapper Mine	Permit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENTIFI	CATION			
Task #: 036	State: Colorado		Abbreviation:	None
Date: 11/22/2022	County: Moffat		Filename:	C010-036
User: ZTT			-	
Agency or organ	ization name: DRMS			
HOURLY EQUIPME	NT COST			
Basic Machine: Cat	D10T - 10SU	_		
Horsepower: 574				
• 1	ii-Universal			
Attachment: NA				
	r day			
Data Source: (CR	G)	_		
Cost Breakdown:				
		Utilization %		
Ownership Cost/Hour:	\$153.67	NA		
Operating Cost/Hour:	\$166.94	100		
Ripper own. Cost/Hour:	\$0.00	NA		
Ripper op. Cost/Hour:	\$0.00	0		
Operator Cost/Hour:	\$41.30	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour:	\$361.91 \$1,447.65			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume:136,4	\$1,447.65 <u>ITIES</u> 100			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 136,2 Swell factor: 1.250	\$1,447.65 <u>ITIES</u> 100			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 136,2 Swell factor: 1.250	\$1,447.65 ITIES 100 500 LCY ne:Appendix A, Table a-6	5.1		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 136,2 Swell factor: 1.250 Loose volume: 170,5 Source of estimated volume	\$1,447.65 <u>ITIES</u> 400 500 LCY ne: <u>Appendix A, Table a-6</u> factor: <u>Cat Handbook</u>	5.1		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 136,4 Swell factor: 1.250 Loose volume: 170,5 Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance:	\$1,447.65 <u>ITIES</u> 400 500 LCY he: <u>Appendix A, Table a-6</u> factor: <u>Cat Handbook</u> <u>'ION</u> 80 feet	5.1		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 136,2 Swell factor: 1.250 Loose volume: 170,5 Source of estimated volum Source of estimated swell HOURLY PRODUCT	\$1,447.65 <u>ITIES</u> 400 500 LCY he: <u>Appendix A, Table a-6</u> factor: <u>Cat Handbook</u> <u>'ION</u> 80 feet	5.1		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 136,4 Swell factor: 1.250 Loose volume: 170,5 Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance:	\$1,447.65 ITIES 400 500 LCY ne:Appendix A, Table a-6 factor:Cat Handbook ION 80 feet tion:2,028.0 LCY/hr			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 136,2 Swell factor: 1.250 Loose volume: 170,5 Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product	\$1,447.65 ITIES 100 500 LCY ne:Appendix A, Table a-6 factor:Cat Handbook ION 10N 100 2,028.0 LCY/hr			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 136,4 Swell factor: 1.250 Loose volume: 170,5 Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly produc Materials consistency dese Average push gradient:	\$1,447.65 ITIES IO0 D SOULCY ne: Appendix A, Table a-6 factor: Cat Handbook ION ION SUBJECT Stription: 2,028.0 LCY/hr Cription: Consolidated stockp 10 %			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 136,4 Swell factor: 1.250 Loose volume: 170,5 Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency dese Average push gradient: Average site altitude:	\$1,447.65			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 136,4 Swell factor: 1.250 Loose volume: 170,5 Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency dese Average site altitude: Material weight: Weight description: Job Condition Correction	\$1,447.65			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 136,4 Swell factor: 1.250 Loose volume: 170,5 Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency desc Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator S	\$1,447.65			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 136,4 Swell factor: 1.250 Loose volume: 170,5 Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency desc Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator S Material consistence	\$1,447.65 ITIES IOO IOO IOO IOO IOO IOO IOO IOO IOO IO			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 136,4 Swell factor: 1.250 Loose volume: 170,5 Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency desc Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator S	\$1,447.65 ITIES IOO IO			

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	0.786	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.3531	
Adjusted unit production: 71	6.09 LCY/hr	
Adjusted fleet production: 28	364.36 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$0.505/LCY

Total job time:	59.52 Hours
Total job cost:	\$86,171

			(East A and East ASpli	() 2110g0110)	
Trapper Mine	Perr	mit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENTIF	ICATION				
Task #: 039 Date: 11/22/2022 User: ZTT	State: County:	Colorado Moffat		Abbreviation: Filename:	None C010-039
Agency or organ	nization name: DR	RMS			
HOURLY EQUIPME	ENT COST				
	t D10T - 10SU				
Horsepower: 574					
<i>•</i> 1	ni-Universal				
Attachment: NA					
	er day				
Data Source: (CF	RG)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:		\$153.67	NA		
Operating Cost/Hour:		\$166.94	100		
Ripper own. Cost/Hour:		\$0.00	NA		
Ripper op. Cost/Hour:		\$0.00	100		
Operator Cost/Hour:		\$41.30	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour:	\$361.91 \$1,447.65				
Total Fleet Cost/Hour: MATERIAL QUANT	\$1,447.65 <u>TITIES</u>				
Total Fleet Cost/Hour: <u>MATERIAL QUANT</u> Initial Volume:155,	\$1,447.65 <u>CITIES</u> 400				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 155, Swell factor: 1.25	\$1,447.65 <u>TITIES</u> 400 0				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 155, Swell factor: 1.25	\$1,447.65 <u>CITIES</u> 400				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 155, Swell factor: 1.25 Loose volume: 194, Source of estimated volum	\$1,447.65 <u>TITIES</u> 400 0 250 LCY me:Appendix		-6.1		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 155, Swell factor: 1.25 Loose volume: 194,	\$1,447.65 <u>TITIES</u> 400 0 250 LCY me:Appendix		-6.1		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 155, Swell factor: 1.25 Loose volume: 194, Source of estimated volum Source of estimated swell	\$1,447.65 <u>CITIES</u> 400 0 250 LCY me: <u>Appendix</u> 1 factor: Cat Hand		-6.1		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 155, Swell factor: 1.25 Loose volume: 194, Source of estimated volum	\$1,447.65 <u>CITIES</u> 400 0 250 LCY me: <u>Appendix</u> 1 factor: Cat Hand		-6.1		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 155, Swell factor: 1.25 Loose volume: 194, Source of estimated volu Source of estimated swell HOURLY PRODUCT	\$1,447.65 TITIES 400 0 250 LCY me: Appendix 1 factor: Cat Hand FION		-6.1		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 155, Swell factor: 1.25 Loose volume: 194, Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance:	\$1,447.65 <u>CITIES</u> 400 0 250 LCY me: <u>Appendix</u> 1 factor: <u>Cat Hand</u> <u>FION</u> 80 feet	book	-6.1		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 155, Swell factor: 1.25 Loose volume: 194, Source of estimated volu Source of estimated swell HOURLY PRODUCT	\$1,447.65 <u>CITIES</u> 400 0 250 LCY me: <u>Appendix</u> 1 factor: <u>Cat Hand</u> <u>FION</u> 80 feet	book	-6.1		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 155, Swell factor: 1.25 Loose volume: 194, Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance:	\$1,447.65 CITIES .400 0 .250 LCY me: Appendix 1 factor: Cat Hand FION ction: 2,028.0 LCY	book			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 155, Swell factor: 1.25 Loose volume: 194, Source of estimated volu Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product	\$1,447.65 CITIES 400 0 250 LCY me: Appendix 1 factor: Cat Hand FION ction: 80 feet 2,028.0 LCY scription: Consoli	book Y/hr			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 155, Swell factor: 1.25 Loose volume: 194, Source of estimated volu Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly produc Materials consistency des Average push gradient:	\$1,447.65 CITIES 400 0 250 LCY me: Appendix 1 factor: Cat Hand FION ction: 80 feet 2,028.0 LCY scription: Consoli 10 %	book Y/hr			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 155, Swell factor: 1.25 Loose volume: 194, Source of estimated volu Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly produc	\$1,447.65 CITIES 400 0 250 LCY me: Appendix 1 factor: Cat Hand FION ction: 80 feet 2,028.0 LCY scription: Consoli	book Y/hr			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 155, Swell factor: 1.25 Loose volume: 194, Source of estimated volur Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude:	\$1,447.65 CITIES 400 0 250 LCY me: Appendix 1 factor: Cat Hand FION ction: 80 feet 2,028.0 LCY scription: Consoli 10 %	book Y/hr			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 155, Swell factor: 1.25 Loose volume: 194, Source of estimated volu Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average site altitude: Material weight:	\$1,447.65 CITIES 400 0 250 LCY me: Appendix 1 factor: Cat Hand FION ction: 2,028.0 LCY scription: Consoli 10 % 6,400 feet	book Y/hr idated stockp			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 155, Swell factor: 1.25 Loose volume: 194, Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description:	\$1,447.65 CITIES 400 0 250 LCY me: Appendix 1 factor: Cat Hand FION ction: 2,028.0 LCY scription: Consoli 10 % 6,400 feet 2,550 lbs/LCY Earth - Dry packed	book Y/hr idated stockp			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 155, Swell factor: 1.25 Loose volume: 194, Source of estimated volu Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly produc Materials consistency des Average push gradient:	\$1,447.65 CITIES 400 0 250 LCY me: Appendix 1 factor: Cat Hand FION ction: 2,028.0 LCY scription: Consoli 10 % 6,400 feet 2,550 lbs/LCY Earth - Dry packed Factor Factor	book Y/hr idated stockp			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 155, Swell factor: 1.25 Loose volume: 194, Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator 5 Material consistency	\$1,447.65 CITIES 400 0 250 LCY me: Appendix 1 factor: Cat Hand FION ction: 80 feet 2,028.0 LCY scription: Consoli 10 % 6,400 feet 2,550 lbs/LCY Earth - Dry packed Factor Skill: 0. ency: 1.	book Y/hr idated stockp			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 155, Swell factor: 1.25 Loose volume: 194, Source of estimated volu Source of estimated volu Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly produc Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator 3 Material consiste Dozing me	\$1,447.65CITIES 400 0 0 250 LCYme: Appendix1 factor: Cat HandFIONScription: Cat HandCat HandFIONction: 2,028.0 LCYscription: Consoli10 %6,400 feet2,550 lbs/LCYEarth - Dry packedFactorSkill: 0.ency: 1.ethod: 1.	book Y/hr idated stockp			

0.830	(1 SHIFT/DAY)
: 0.800	(SSD-AC)
. 0.786	(CAT HB)
: 1.000	(CAT HB)
0.902	(CAT HB)
1.000	(PAT)
: 0.3531	
716.09 LCY/hr	
2864.36 LCY/hr	
	 0.800 0.786 1.000 0.902 1.000 0.3531

Fleet size:	4 Dozer(s)
Unit cost:	\$0.505/LCY

Total job time:	67.82 Hours
Total job cost:	\$98,174

Task description:	Regit	iuc 1/5 Koat	is (na shou	, I Mid, I West)		
Trapper Mine		Perm	nit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDEN	TIFICATIC	<u>N</u>				
Task #: 040		State:	Colorado		Abbreviation:	None
Date: $11/22$	/2022	County:	Moffat		Filename:	C010-040
User: ZTT		<u> </u>			-	
Agency or	organization r	ame: DR	MS			
HOURLY EQUI	PMENT CO	<u>ST</u>				
Basic Machine:	Cat D10T -	10SU				
Horsepower:	574					
Blade Type:	Semi-Univer	rsal				
Attachment:	NA					
Shift Basis:	3 per day					
Data Source:	(CRG)					
Cost Breakdown:			1			
	ſ		¢152 67	<u>Utilization %</u>		
Ownership Cost/H			\$153.67	NA		
Operating Cost/H			\$166.94	100		
Ripper own. Cost/H			\$0.00	NA		
Ripper op. Cost/H			\$0.00	25		
Operator Cost/H	lour:		\$41.55	NA		
Total unit Cost/Hou Total Fleet Cost/Ho MATERIAL OU	ur: \$1,448					
Total Fleet Cost/Ho MATERIAL QU Initial Volume: _	ur: \$1,448 (ANTITIES) 111,117					
Fotal Fleet Cost/Ho MATERIAL QU	ur: \$1,448 ANTITIES	.65				
Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated	ur: \$1,448 ANTITIES <u>111,117</u> <u>1.250</u> 138,896 LCY volume:	.65 Permit Ap		ables A-2.3, A.6.1		
Total Fleet Cost/Hot MATERIAL QU Initial Volume: Swell factor: Loose volume:	ur: \$1,448 ANTITIES <u>111,117</u> <u>1.250</u> 138,896 LCY volume:	.65 Permit Ap	Appendix A			
Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated	ur: \$1,448 ANTITIES 111,117 1.250 138,896 LCY volume: swell factor:	.65 Permit Ap Operator,	Appendix A			
Total Fleet Cost/Hot MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated	ur: \$1,448 ANTITIES 111,117 1.250 138,896 LCY volume: swell factor: DUCTION	.65 Permit Ap Operator,	Appendix A			
Total Fleet Cost/Hot MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD	ur: \$1,448 ANTITIES 111,117 1.250 138,896 LCY volume: swell factor: DUCTION nce:	.65 Permit Ap Operator, Table A-6	Appendix A .1			
Total Fleet Cost/Hot MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distan	ur: \$1,448 ANTITIES 111,117 1.250 138,896 LCY volume: swell factor: DUCTION nce: production:	.65 Permit Ap Operator, Table A-6 80 feet 2,028.0 LCY	Appendix A .1			
Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distan Unadjusted hourly p	ur: \$1,448 <u>ANTITIES</u> 111,117 1.250 138,896 LCY volume: swell factor: <u>DUCTION</u> nce: production: cy description:	.65 Permit Ap Operator, Table A-6 80 feet 2,028.0 LCY	Appendix A .1			
Total Fleet Cost/Hor MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distan Unadjusted hourly p	ur:	.65 Permit Ap Operator, Table A-6 80 feet 2,028.0 LCY Consoli	Appendix A .1			
Total Fleet Cost/Hor MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distan Unadjusted hourly p Materials consistence Average push gradie	ur: \$1,448 <u>ANTITIES</u> <u>111,117</u> <u>1.250</u> 138,896 LCY volume: swell factor: <u>DUCTION</u> nce: production: cy description: ent:5 % e:5 %	.65 Permit Ap Operator, Table A-6 80 feet 2,028.0 LCY Consoli	Appendix A .1			
Total Fleet Cost/Hor MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distan Unadjusted hourly p Materials consistence Average push gradie Average site altitude	ur: $$1,448$ ANTITIES 111,117 1.250 138,896 LCY volume: swell factor: DUCTION nce: production: cy description: e: $-5 %$ e: $-6,725 f$.65 Permit Ap Operator, Table A-6 80 feet 2,028.0 LCY Consoli	Appendix A .1			
Total Fleet Cost/Hor MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distan Unadjusted hourly p Materials consistence Average push gradie Average site altitude Material weight: Weight description:	ur: \$1,448 <u>ANTITIES</u> <u>111,117</u> <u>1.250</u> 138,896 LCY volume: swell factor: <u>DUCTION</u> nce: production: cy description: ent:5 % e:5 % 2,475 I User P	.65 Permit Ap Operator, Table A-6 80 feet 2,028.0 LCY Consoli	Appendix A .1			
Total Fleet Cost/Hor MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distan Unadjusted hourly p Materials consistence Average push gradie Average site altitude Material weight: Weight description: Iob Condition Correct	ur: \$1,448 <u>ANTITIES</u> <u>111,117</u> <u>1.250</u> 138,896 LCY volume: swell factor: <u>DUCTION</u> nce: production: cy description: ent:5 % e:5 % 2,475 I User P	.65 Permit Ap Operator, Table A-6 80 feet 2,028.0 LCY Consoli Feet bs/LCY rovided	Appendix A .1			
Total Fleet Cost/Hor MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distan Unadjusted hourly p Materials consistence Average push gradie Average site altitude Material weight: Weight description: Iob Condition Correct	ur: \$1,448 ANTITIES 111,117 1.250 138,896 LCY volume: swell factor: DUCTION nce: production: cy description: ent:5 % e:6,725 ff Strong Factor rator Skill:	.65 Permit Ap Operator, Table A-6 80 feet 2,028.0 LCY Consoli Feet bs/LCY rovided 1.0	Appendix A .1 //hr dated stockp			

Visibility:	1.000	(AVG.)
Job efficiency:	0.790	(3 SHIFTS/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	1.115	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.929	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.6546

Adjusted unit production:	1,327.53 LCY/hr
Adjusted fleet production:	5310.12 LCY/hr

Fleet size:	4 Dozer(s)
Unit cost:	\$0.273/LCY

Total job time:	26.16 Hours
Total job cost:	\$37,892

Task description:	Regrade K	Pit Haul Roads (KI EFKL KJ)		
Trapper Mine		Permit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENT	IFICATION				
Task #: 041	St	tate: Colorado		Abbreviation:	None
Date: $\frac{0.11}{11/22/20}$				Filename:	C010-041
User: ZTT				<u> </u>	0010 011
Agency or or	ganization name:	DRMS			
HOURLY EQUIP	MENT COST				
	Cat D10T - 10SU				
	574				
· · ·	Semi-Universal				
	NA				
	1 per day				
Data Source:	(CRG)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hou	ır:	\$153.67	NA		
Operating Cost/Hou		\$166.94	100		
Ripper own. Cost/Hou		\$0.00	NA		
Ripper op. Cost/Hou		\$0.00	0		
11 1					
Operator Cost/Hou Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL OUA	\$361.91 \$1,447.65	\$41.30	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUA	\$361.91 \$1,447.65	\$41.30	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUA Initial Volume: <u>1</u>	\$361.91 \$1,447.65 NTITIES 48,283	\$41.30	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUA Initial Volume: <u>1</u> Swell factor: <u>1</u>	\$361.91 \$1,447.65 NTITIES 48,283 .250	\$41.30	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUA Initial Volume: <u>1</u> Swell factor: <u>1</u>	\$361.91 \$1,447.65 NTITIES 48,283	\$41.30	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUA Initial Volume: 1 Swell factor: 1 Loose volume: 1 Source of estimated vo	\$361.91 \$1,447.65 NTITIES 48,283 .250 85,354 LCY blume: _App				
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUA Initial Volume: 1 Swell factor: 1 Loose volume: 1	\$361.91 \$1,447.65 NTITIES 48,283 .250 85,354 LCY blume: _App				
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAI Initial Volume: 1 Swell factor: 1 Loose volume: 1 Source of estimated volume 1 Source of estimated system 1	\$361.91 \$1,447.65 NTITIES 48,283 .250 85,354 LCY blume: <u>App</u> vell factor: <u>Cat</u>				
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUA Initial Volume: 1 Swell factor: 1 Loose volume: 1 Source of estimated vo Source of estimated sw HOURLY PRODU	\$361.91 \$1,447.65 NTITIES 48,283 .250 85,354 LCY blume: <u>App</u> vell factor: <u>Cat</u>	bendix A, Table A Handbook			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 1 Swell factor: 1 Loose volume: 1 Source of estimated vo Source of estimated sw HOURLY PRODU	\$361.91 \$1,447.65 NTITIES 48,283 .250 85,354 LCY blume: <u>App</u> vell factor: <u>Cat</u> CTION :: <u>80</u> fee	pendix A, Table A Handbook			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUA Initial Volume: 1 Swell factor: 1 Loose volume: 1 Source of estimated vo Source of estimated sw HOURLY PRODU	\$361.91 \$1,447.65 NTITIES 48,283 .250 85,354 LCY blume: <u>App</u> vell factor: <u>Cat</u> CTION :: <u>80</u> fee	bendix A, Table A Handbook			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 1 Swell factor: 1 Loose volume: 1 Source of estimated vo Source of estimated sw HOURLY PRODU	\$361.91 \$1,447.65 NTITIES 48,283 .250 85,354 LCY olume: App vell factor: Cat CTION e: 80 fee oduction: 2,028.	pendix A, Table A Handbook	-6.1		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAI Initial Volume: 1 Swell factor: 1 Loose volume: 13 Source of estimated volume: 14 Source of estimated swell 14 HOURLY PRODU Average push distance Unadjusted hourly pro Materials consistency	\$361.91 \$1,447.65 NTITIES 48,283 .250 85,354 LCY olume: App vell factor: Cat (CTION) c: 80 fee duction: 2,028. description: C	bendix A, Table A Handbook t 0 LCY/hr	-6.1		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 1 Swell factor: 1 Loose volume: 1 Source of estimated vo Source of estimated sw HOURLY PRODU Average push distance Unadjusted hourly pro	\$361.91 \$1,447.65 NTITIES 48,283 .250 85,354 LCY olume: App vell factor: Cat (CTION) c: 80 fee duction: 2,028. description: C	bendix A, Table A Handbook t 0 LCY/hr	-6.1		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 1 Swell factor: 1 Loose volume: 1 Source of estimated vo Source of estimated sw HOURLY PRODU Average push distance Unadjusted hourly pro Materials consistency Average push gradient	\$361.91 \$1,447.65 NTITIES 48,283 .250 85,354 LCY olume: App vell factor: Cat CTION :: 80 fee duction: 2,028. description: C :: 10 %	bendix A, Table A Handbook t 0 LCY/hr onsolidated stock	-6.1		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAL Initial Volume: 1 Swell factor: 1 Loose volume: 1 Source of estimated volume: Source of estimated volume: Average push distance Unadjusted hourly pro Materials consistency Average push gradient Average site altitude:	\$361.91 \$1,447.65 NTITIES 48,283 .250 85,354 LCY olume: _App vell factor: Cat CTION e: _80 fee oduction: 2,028. description: _C :: 10 % _6,400 feet	endix A, Table A Handbook t 0 LCY/hr onsolidated stockp	-6.1		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 1 Swell factor: 1 Loose volume: 1 Source of estimated vo Source of estimated vo Source of estimated sw HOURLY PRODU Average push distance Unadjusted hourly pro Materials consistency Average push gradient Average site altitude: Material weight:	\$361.91 \$1,447.65 NTITIES 48,283 .250 85,354 LCY olume: _App vell factor: Cat CTION e: _80 fee oduction: 2,028. description: _C :: 10 % _6,400 feet _2,550 lbs/LC _Earth - Dry p	endix A, Table A Handbook t 0 LCY/hr onsolidated stockp	-6.1		
Total unit Cost/Hour: Total Fleet Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAL Initial Volume: 1 Swell factor: 1 Loose volume: 1 Source of estimated volume: 1 Source of estimated volume: 1 Average push distance 1 Unadjusted hourly pro 1 Materials consistency 1 Average push gradient 1 Average site altitude: 1 Material weight: 1 Weight description: 1 Job Condition Correct 1	\$361.91 \$1,447.65 NTITIES 48,283 .250 85,354 LCY olume: _App vell factor: Cat CTION e: _80 fee oduction: 2,028. description: _C :: 10 % _6,400 feet _2,550 lbs/LC _Earth - Dry p	endix A, Table A Handbook t 0 LCY/hr onsolidated stockp	-6.1 		
Total unit Cost/Hour: Total Fleet Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAL Initial Volume: 1 Swell factor: 1 Loose volume: 1 Source of estimated volume: 1 Source of estimated volume: 1 Average push distance 1 Unadjusted hourly pro 1 Materials consistency 1 Average push gradient 1 Average site altitude: 1 Material weight: 1 Weight description: 1 Job Condition Correct 1	\$361.91 \$1,447.65 NTITIES 48,283 .250 85,354 LCY olume: App vell factor: Cat (CTION) :: 80 fee iduction: 2,028. description: C :: 10 % 6,400 feet 2,550 lbs/LC Earth - Dry p ion Factor or Skill:	endix A, Table A Handbook t 0 LCY/hr onsolidated stockp Y	-6.1 		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAI Initial Volume: 1 Swell factor: 1 Loose volume: 12 Source of estimated vo Source of estimated sw HOURLY PRODU Average push distance Unadjusted hourly pro Materials consistency Average push gradient Average site altitude: Material weight: Weight description: Job Condition Correct Operat Material cons Dozing	\$361.91 \$1,447.65 NTITIES 48,283 .250 85,354 LCY olume: App vell factor: Cat (CTION) :: 80 fee iduction: 2,028. description: C :: 10 % 6,400 feet 2,550 lbs/LC Earth - Dry p ion Factor or Skill:	endix A, Table A Handbook t 0 LCY/hr onsolidated stockp Y acked 0.750	-6.1 pile 1.0 <u>Source</u> (AVG.)		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	0.786	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.3531	
Adjusted unit production: 71	6.09 LCY/hr	
Adjusted fleet production: 28	864.36 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$0.505/LCY

Total job time:	64.71 Hours
Total job cost:	\$93,678

Task description:	Regrade Mine Access Road			
Trapper Mine	Permit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENTI	FICATION			
Task #: 042	State: Colorado		Abbreviation:	None
Date: 11/22/202			Filename:	C010-042
User: ZTT				
Agency or orga	anization name: DRMS			
HOURLY EQUIPM	ENT COST			
	at D10T - 10SU			
Horsepower: 57				
Blade Type: Se Attachment: N	emi-Universal			
	per day			
	CRG)	<u> </u>		
Cost Breakdown:		Itilization 0/		
Ownership Cost/Hour:	\$153.67	Utilization % NA		
Operating Cost/Hour:		100		
Ripper own. Cost/Hour:		NA		
Ripper op. Cost/Hour:		0		
Operator Cost/Hour:		NA		
MATERIAL QUAN Initial Volume: 54, Swell factor: 1.2	022			
	528 LCY			
Source of estimated volu Source of estimated swe		-6.1		
HOURLY PRODUC				
Average push distance:	80 feet			
Unadjusted hourly produ	uction: 2,028.0 LCY/hr			
Materials consistency de	escription: <u>Consolidated stock</u>	pile 1.0		
Average push gradient: Average site altitude:	10 % 6,400 feet			
Material weight:	2,550 lbs/LCY			
Weight description:	Earth - Dry packed			
Job Condition Correctio		Source		
Operator		(AVG.)		
Material consis		(CAT HB)		
Dozing m	ethod: <u>1.000</u> ibility: <u>1.000</u>	(GEN.) (AVG.)		
V10				

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	0.786	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.3531	
Adjusted unit production: 7	16.09 LCY/hr	
Adjusted fleet production: 2	864.36 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$0.505/LCY

Total job time:	23.58 Hours
Total job cost:	\$34,128

Task description:	Regrade No Nan	ne meetos ne	$\pi \pi $		
Trapper Mine	Peri	mit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENTI	FICATION				
Task #: 044 Date: 11/23/202 User: ZTT	2 State: County:	Colorado Moffat		Abbreviation: Filename:	None C81010
	anization name:	RMS			
HOURLY EQUIPM	ENT COST				
	at D10T - 10SU				
Horsepower: 57					
	emi-Universal				
Attachment: NA					
	per day				
Data Source: (C	CRG)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:		\$153.67	NA		
Operating Cost/Hour:		\$166.94	100		
Ripper own. Cost/Hour:		\$0.00	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$41.30	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour:	\$361.91 \$1,447.65				
Total Fleet Cost/Hour: MATERIAL QUAN	\$1,447.65 TITIES				
Total Fleet Cost/Hour: MATERIAL QUAN ['] Initial Volume: 24, Swell factor: 1.2	\$1,447.65 TITIES 719 50				
Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: 24,' Swell factor: 1.2. Loose volume: 30,'	\$1,447.65 TITIES 719 50 899 LCY				
Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: 24, Swell factor: 1.2, Loose volume: 30, Source of estimated volume	\$1,447.65 TITIES 719 50 899 LCY ume:Appendix		- 6.2		
Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: 24,' Swell factor: 1.2. Loose volume: 30,'	\$1,447.65 TITIES 719 50 899 LCY ume:Appendix		- 6.2		
Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: 24, Swell factor: 1.2, Loose volume: 30, Source of estimated volume	\$1,447.65 TITIES 719 50 899 LCY ume: <u>Appendix</u> Ul factor: <u>Cat Hand</u>		- 6.2		
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 24, Swell factor: 1.2 Loose volume: 30, Source of estimated volu Source of estimated swe HOURLY PRODUCC	\$1,447.65 TITIES 719 50 899 LCY ume: <u>Appendix</u> 11 factor: <u>Cat Hand</u> CTION		- 6.2		
Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: 24,' Swell factor: 1.2. Loose volume: 30,' Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance:	\$1,447.65 TITIES 719 50 899 LCY ume: Appendix ill factor: Cat Hand CTION 80 feet	book	- 6.2		
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 24, Swell factor: 1.2 Loose volume: 30, Source of estimated volu Source of estimated swe HOURLY PRODUCC	\$1,447.65 TITIES 719 50 899 LCY ume: Appendix ill factor: Cat Hand CTION 80 feet	book	- 6.2		
Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: 24,' Swell factor: 1.2. Loose volume: 30,' Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance:	\$1,447.65 TITIES 719 50 899 LCY ume: Appendix Output Cat Hand Cat Hand Control 80 feet uction: 2,028.0 LCY	book			
Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: 24,' Swell factor: 1.2. Loose volume: 30,' Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly product	\$1,447.65 TITIES 719 50 899 LCY ume: Appendix Output Cat Hand Cat Hand Control 80 feet uction: 2,028.0 LCY	book Y/hr			
Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: 24, Swell factor: 1.2, Loose volume: 30, Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produce Materials consistency de Average push gradient:	\$1,447.65 TITIES 719 50 899 LCY ume: Appendix Ill factor: Cat Hand CTION 80 feet uction: 2,028.0 LCY escription: Consol 10 %	book Y/hr			
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 24, Swell factor: 1.2. Loose volume: 30, Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly product Materials consistency de Average push gradient: Average site altitude:	\$1,447.65 TITIES 719 50 899 LCY ume: Appendix 201 factor: Cat Hand CTION auction: 2,028.0 LCY escription: Consol 10 % 6,400 feet	book Y/hr idated stockp			
Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: 24, Swell factor: 1.2. Loose volume: 30, Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average site altitude: Material weight:	\$1,447.65 TITIES 719 50 899 LCY ume: Appendix Cat Hand 201 factor: Cat Hand 201 factor: 2,028.0 LCY uction: 2,028.0 LCY escription: Consol 10 % 6,400 feet 2,550 lbs/LCY Earth - Dry packed n Factor 10 %	book Y/hr idated stockp			
Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: 24, Swell factor: 1.2. Loose volume: 30, Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly product Materials consistency def Average site altitude: Material weight: Weight description: Job Condition Correction Operator	\$1,447.65 TITIES 719 50 899 LCY ume: Appendix Cat Hand ZTION autoria 80 feet uction: 2,028.0 LCY escription: Consol 10 % 6,400 feet 2,550 lbs/LCY Earth - Dry packed n Factor 0.	book Y/hr idated stockp d 750			
Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: 24, Swell factor: 1.2. Loose volume: 30, Source of estimated volt Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly product Materials consistency defined Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consist	\$1,447.65 TITIES 719 50 899 LCY ame: Appendix 201 factor: Cat Hand 201 factor: Cat Hand 201 factor: 201 Hand 201 factor: Consol 10 % 6,400 feet 2,550 lbs/LCY Earth - Dry packed 10 Factor 0. r Skill: 0.	book Y/hr idated stockp d 750 000	bile 1.0 Source (AVG.) (CAT HB)		
Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: 24, Swell factor: 1.2. Loose volume: 30, Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly product Materials consistency defined Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consist Dozing m	\$1,447.65 TITIES 719 50 899 LCY ame: Appendix 201 factor: Cat Hand 2TION auction: $\frac{80 \text{ feet}}{2,028.0 \text{ LCY}}$ escription: Consol $\frac{10 \%}{6,400 \text{ feet}}$ $2,550 \text{ lbs/LCY}$ Earth - Dry packed n Factor r Skill: 0. ethod: 1.	book Y/hr idated stockp d 750			

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	0.786	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.3531	
Adjusted unit production: 7	16.09 LCY/hr	
Adjusted fleet production: 28	864.36 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$0.505/LCY

Total job time:	10.79 Hours				
Total job cost:	\$15,616				
Trapper Mine	Per	mit Action:	PR11	Permit/Job#:	C1981010
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PROJECT IDENTIF	FICATION				
Task #: 045	State:	Colorado		Abbreviation:	None
Date: $\frac{11/23/2022}{11/23/2022}$		Moffat		Filename:	C010-045
User: ZTT	County:	litonat			0010 010
Agency or orga	anization name:	RMS			
HOURLY EQUIPM	<u>ENT COST</u>				
Basic Machine: Ca	at D10T - 10SU				
Horsepower: 57	4				
Blade Type: Se	mi-Universal				
Attachment: NA	A				
Shift Basis: 1 p	per day				
Data Source: (C	RG)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:		\$153.67	NA		
Operating Cost/Hour:		\$166.94	100		
Ripper own. Cost/Hour:		\$0.00	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$41.30	NA		
MATERIAL QUAN Initial Volume: 4,09					
Initial Volume: 4,09 Swell factor: 1.25	93				
Initial Volume:4,09Swell factor:1.25Loose volume:5,11	93 50 16 LCY	 x A Table 1.	4-5		
Initial Volume: 4,09 Swell factor: 1.25 Loose volume: 5,11 Source of estimated volu	93 50 16 LCY 1me:Appendix		4-5		
Initial Volume:4,09Swell factor:1.25Loose volume:5,11	93 50 16 LCY 1me:Appendix		4-5		
Initial Volume: 4,09 Swell factor: 1.25 Loose volume: 5,11 Source of estimated volu	93 50 16 LCY Ime: <u>Appendix</u> Il factor: <u>Cat Hand</u>		4-5		
Initial Volume: 4,09 Swell factor: 1.25 Loose volume: 5,11 Source of estimated volu Source of estimated swel	93 50 16 LCY Ime: <u>Appendix</u> Il factor: <u>Cat Hand</u>		4-5		
Initial Volume: 4,09 Swell factor: 1.25 Loose volume: 5,11 Source of estimated volu Source of estimated swel HOURLY PRODUC	93 50 16 LCY Ime: <u>Appendix</u> Il factor: <u>Cat Hand</u> TION <u>80 feet</u>	lbook	4-5		
Initial Volume: 4,09 Swell factor: 1.25 Loose volume: 5,11 Source of estimated volu Source of estimated swel HOURLY PRODUC	93 50 16 LCY Ime: Appendix 11 factor: Cat Hand TION S0 feet 12,028.0 LC	lbook			
Initial Volume: 4,09 Swell factor: 1.25 Loose volume: 5,11 Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de	93 50 16 LCY Ime: Appendix 11 factor: Cat Hand TION Solution: 80 feet 12,028.0 LC escription: Consol	lbook Y/hr			
Initial Volume: 4,09 Swell factor: 1.25 Loose volume: 5,11 Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ	93 50 16 LCY Ime: Appendix 11 factor: Cat Hand TION S0 feet 12,028.0 LC	lbook Y/hr			
Initial Volume: 4,09 Swell factor: 1.25 Loose volume: 5,11 Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient:	93 50 16 LCY Ime:Appendix Il factor:Cat Hand TION Inction:80 feet Inction:2,028.0 LC IncreaseConsol10 %	lbook Y/hr			
Initial Volume: 4,09 Swell factor: 1.25 Loose volume: 5,11 Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude:	93 50 16 LCY 16 LCY 18 Appendix 11 factor:	lbook Y/hr idated stockp			
Initial Volume: 4,09 Swell factor: 1.25 Loose volume: 5,11 Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction	93 50 16 LCY 1me: Appendix 11 factor: Cat Hand TION action: 2,028.0 LC escription: Consol 10 % 6,400 feet 2,550 lbs/LCY Earth - Dry packed n Factor	lbook Y/hr idated stockp d			
Initial Volume: 4,09 Swell factor: 1.25 Loose volume: 5,11 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator	93 50 16 LCY Ime: <u>Appendix</u> Il factor: <u>Cat Hand</u> TION Iction: <u>2,028.0 LC</u> escription: <u>Consol</u> <u>10 %</u> <u>6,400 feet</u> <u>2,550 lbs/LCY</u> <u>Earth - Dry packed</u> <u>n Factor</u> Skill: <u>0.</u>	lbook Y/hr idated stockp d			
Initial Volume: 4,09 Swell factor: 1.25 Loose volume: 5,11 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produce Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consist	93 50 16 LCY Ime:	lbook Y/hr idated stockp d .750 .000			
Initial Volume: 4,09 Swell factor: 1.22 Loose volume: 5,11 Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consis Dozing ma	93 50 16 LCY ime: Appendix Il factor: Cat Hand TION action: $2,028.0 LC$ escription: Consol 10 % 6,400 feet 2,550 lbs/LCY Earth - Dry packed n Factor \cdot Skill: 0. tency: 1. ethod: 1.	lbook Y/hr idated stockp d			

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	0.786	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.3531	
Adjusted unit production: 71	16.09 LCY/hr	
Adjusted fleet production: 28	864.36 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$0.505/LCY

Total job time:	1.79 Hours
Total job cost:	\$2,586

Task description:	Regrade West Py	/	11044 (1 4114 2)		
Trapper Mine	Peri	mit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENTIF	TICATION				
Task #: 046 Date: 11/23/2022 User: ZTT	2 State: 2 County:	Colorado Moffat		Abbreviation: Filename:	None C010-046
Agency or orga	nization name:	RMS			
HOURLY EQUIPMI	ENT COST				
	tt D10T - 10SU				
Horsepower: 574					
Blade Type: Ser Attachment: NA	mi-Universal				
	ber day				
1	RG)				
	NU)				
Cost Breakdown:					
			<u>Utilization %</u>		
Ownership Cost/Hour:		\$153.67	NA		
Operating Cost/Hour:		\$166.94	100		
Ripper own. Cost/Hour:		\$0.00	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$41.30	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour:	\$361.91 \$1,447.65				
Total Fleet Cost/Hour: MATERIAL QUANT	\$1,447.65 <u>FITIES</u>				
Total Fleet Cost/Hour: <u>MATERIAL QUANT</u> Initial Volume: <u>16,3</u> Swell factor: <u>1.25</u>	\$1,447.65 FITIES 370 50				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 16,3 Swell factor: 1.25 Loose volume: 20,4	\$1,447.65 FITIES 370 50 463 LCY				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 16,3 Swell factor: 1.25 Loose volume: 20,4 Source of estimated volu	\$1,447.65 FITIES 370 50 463 LCY ume:Appendix		-6.2		
Total Fleet Cost/Hour: <u>MATERIAL QUANT</u> Initial Volume: <u>16,3</u> Swell factor: <u>1.25</u>	\$1,447.65 <u>FITIES</u> 370 50 463 LCY ume:Appendix		-6.2		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 16,3 Swell factor: 1.25 Loose volume: 20,4 Source of estimated volu Source of estimated swel	\$1,447.65 FITIES 370 50 463 LCY Ime: <u>Appendix</u> Il factor: <u>Cat Hand</u>		-6.2		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 16,3 Swell factor: 1.25 Loose volume: 20,4 Source of estimated volu	\$1,447.65 FITIES 370 50 463 LCY Ime: <u>Appendix</u> Il factor: <u>Cat Hand</u>		-6.2		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 16,3 Swell factor: 1.25 Loose volume: 20,4 Source of estimated volu swel HOURLY PRODUCT 1000000000000000000000000000000000000	\$1,447.65 FITIES 370 50 463 LCY Ime: <u>Appendix</u> Il factor: <u>Cat Hand</u>		-6.2		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 16,3 Swell factor: 1.25 Loose volume: 20,4 Source of estimated volu Source of estimated swel	\$1,447.65 FITIES 370 50 463 LCY me: Appendix Il factor: Cat Hand TION 80 feet	book	-6.2		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 16,3 Swell factor: 1.25 Loose volume: 20,4 Source of estimated volu Source of estimated swel HOURLY PRODUCT Average push distance:	\$1,447.65 FITIES 370 50 463 LCY ume: Appendix Il factor: Cat Hand TION 80 feet action: 2,028.0 LCY	book			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 16,3 Swell factor: 1.25 Loose volume: 20,4 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUCT Average push distance: Unadjusted hourly produ Materials consistency des Average push gradient:	\$1,447.65 FITIES 370 50 463 LCY ume: Appendix Il factor: Cat Hand TION 80 feet action: 2,028.0 LCY	book Y/hr			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 16,3 Swell factor: 1.25 Loose volume: 20,4 Source of estimated volu Source of estimated swel HOURLY PRODUC' Average push distance: Unadjusted hourly produ Materials consistency des Average push gradient: Average site altitude:	\$1,447.65 FITIES 370 50 463 LCY ume: Appendix Il factor: Cat Hand TION action: 2028.0 LCY escription: Consolit 10 %	book Y/hr			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 16,3 Swell factor: 1.25 Loose volume: 20,4 Source of estimated volu Source of estimated swel HOURLY PRODUCC Average push distance: Unadjusted hourly produ Materials consistency des Average push gradient: Average site altitude: Material weight: Material weight:	\$1,447.65 FITIES 370 50 463 LCY ume: Appendix Il factor: Cat Hand TION action: 2,028.0 LCY escription: Consoli 10 % 6,400 feet	book Y/hr idated stockp			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 16,3 Swell factor: 1.25 Loose volume: 20,4 Source of estimated volu Source of estimated swel HOURLY PRODUC' Average push distance: Unadjusted hourly produ Materials consistency des Average push gradient: Average site altitude:	\$1,447.65 FITIES 370 50 463 LCY ume: Appendix Il factor: Cat Hand TION action: 2,028.0 LCY escription: Consolit 10 % 6,400 feet 2,550 lbs/LCY Earth - Dry packed	book Y/hr idated stockp			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 16,3 Swell factor: 1.25 Loose volume: 20,4 Source of estimated volu Source of estimated swel HOURLY PRODUC' Average push distance: Unadjusted hourly produ Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description:	\$1,447.65 FITIES 370 50 463 LCY ume: Appendix Il factor: Cat Hand TION action: 2,028.0 LCY escription: Consolit 10 % 6,400 feet 2,550 lbs/LCY Earth - Dry packed n Factor Factor	book Y/hr idated stockp	 bile 1.0		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 16,3 Swell factor: 1.25 Loose volume: 20,4 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUCT Average push distance: Unadjusted hourly produ Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consist	\$1,447.65 FITIES 370 50 463 LCY ume: Appendix 11 factor: Cat Hand TION action: $\frac{80 \text{ feet}}{2,028.0 \text{ LCY}}$ escription: Consoli $\frac{10 \%}{6,400 \text{ feet}}$ $2,550 \text{ lbs/LCY}$ Earth - Dry packed n Factor Skill: 0. tency: 1.	book Y/hr idated stockp			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 16,3 Swell factor: 1.25 Loose volume: 20,4 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consist Dozing me	\$1,447.65 FITIES 370 50 463 LCY ume: Appendix If factor: Cat Hand TION action: $2,028.0 LC^{\circ}$ escription: Consolid 10 % 6,400 feet 2,550 lbs/LCY Earth - Dry packed m Factor Skill: 0. tency: 1. ethod: 1.	book Y/hr idated stockp	 bile 1.0 <u>Source</u> (AVG.)		

Job efficiency	: 0.830	(1 SHIFT/DAY)
Spoil pile	: 0.800	(SSD-AC)
Push gradient	: 0.786	(CAT HB)
Altitude	: 1.000	(CAT HB)
Material Weight	: 0.902	(CAT HB)
Blade type	: 1.000	(PAT)
Net correction	: 0.3531	
Adjusted unit production:	716.09 LCY/hr	
Adjusted fleet production:	2864.36 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$0.505/LCY

Total job time:	7.14 Hours
Total job cost:	\$10,342

Task description:	Regrade Middle	Pyeatt Acce	ss Road (1, 2 and 3)		
Trapper Mine	Per	mit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENTIE	FICATION				
Task #: 047	State:	Colorado		Abbreviation:	None
Date: $11/23/202$		Moffat		Filename:	C010-047
User: ZTT	<u> </u>	Monut		i nonunie.	2010 017
Agency or orga	anization name: DF	RMS			
HOURLY EQUIPM	ENT COST				
	at D10T - 10SU				
Horsepower: 57					
Blade Type: Se	mi-Universal				
Attachment: NA					
	per day				
Data Source: (C	RG)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:		\$153.67	NA		
Operating Cost/Hour:		\$166.94	100		
Ripper own. Cost/Hour:		\$0.00	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$41.30	NA	_	
MATERIAL QUAN					
Initial Volume: <u>15,</u> Swell factor: <u>1.2</u> :					
Loose volume: 18,9	928 LCY				
Source of estimated volu	ime: Appendix	A, Table A-	-6.2		
Source of estimated swe	Il factor: Cat Hand	book			
HOURLY PRODUC	TION				
Average push distance:	80 feet				
Unadjusted hourly produ	action: 2,028.0 LC	Y/hr			
Materials consistency de	escription: <u>Consol</u>	idated stockp	pile 1.0		
Average push gradient:	10 %				
Average site altitude:	6,400 feet				
riverage site annual.	0,700 1001				
Material weight:	2,550 lbs/LCY				
Weight description:	Earth - Dry packed	1			
Job Condition Correction			Source		
		750	(AVG.)		
Operator		750			
Operator Material consis	tency: 1.	000	(CAT HB)		
Operator Material consis Dozing m	tency: 1. ethod: 1.				

Task # 047

0.830	(1 SHIFT/DAY)
: 0.800	(SSD-AC)
. 0.786	(CAT HB)
: 1.000	(CAT HB)
0.902	(CAT HB)
1.000	(PAT)
: 0.3531	
716.09 LCY/hr	
2864.36 LCY/hr	
	 0.800 0.786 1.000 0.902 1.000 0.3531

Fleet size:	4 Dozer(s)
Unit cost:	\$0.505/LCY

Total job time:	6.61 Hours
Total job cost:	\$9,566

Task description:	<u> </u>		Road (1, 2 and 3)		
Trapper Mine	Perr	mit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENTIF	ICATION				
Task #: 048 Date: 11/23/2022 User: ZTT	2 State: 2 County:	Colorado Moffat		Abbreviation: Filename:	None C10-048
Agency or orga	nization name: DR	RMS			
HOURLY EQUIPME	ENT COST				
	t D10T - 10SU				
Horsepower: 574					
<i>•</i> • • • • • • • • • • • • • • • • • •	mi-Universal				
Attachment: NA					
	ber day				
<u></u>	RG)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:		\$153.67	NA		
Operating Cost/Hour:		\$166.94	100		
Ripper own. Cost/Hour:		\$0.00	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$41.30	NA		
Total Fleet Cost/Hour:	\$361.91 \$1,447.65				
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 21,1	\$1,447.65 <u>FITIES</u> 59				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 21,1 Swell factor: 1.25	\$1,447.65 <u>FITIES</u> 59				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 21,1 Swell factor: 1.25 Loose volume: 26,4	\$1,447.65 <u>FITIES</u> 59 50 149 LCY	 	4-5		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 21,1 Swell factor: 1.25	\$1,447.65 <u>FITIES</u> 59 50 149 LCY me:Appendix		4-5		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 21,1 Swell factor: 1.25 Loose volume: 26,4 Source of estimated volu	\$1,447.65 FITIES 59 50 149 LCY me:Appendix		4-5		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 21,1 Swell factor: 1.25 Loose volume: 26,4 Source of estimated volu Source of estimated swel	\$1,447.65 EITIES 59 50 I49 LCY me: <u>Appendix</u> 1 factor: Cat Hand		4-5		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 21,1 Swell factor: 1.25 Loose volume: 26,4 Source of estimated volu Source of estimated swel HOURLY PRODUCT 1000000000000000000000000000000000000	\$1,447.65 FITIES 59 50 149 LCY me: <u>Appendix</u> 1 factor: Cat Hand FION		4-5		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 21,1 Swell factor: 1.25 Loose volume: 26,4 Source of estimated volu Source of estimated swel HOURLY PRODUCT Average push distance:	\$1,447.65 FITIES 59 50 149 LCY me:Appendix 1 factor:Appendix FION80 feet	book	4-5		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 21,1 Swell factor: 1.25 Loose volume: 26,4 Source of estimated volu Source of estimated swel HOURLY PRODUCT 1000000000000000000000000000000000000	\$1,447.65 FITIES 59 50 149 LCY me:Appendix 1 factor:Appendix FION80 feet	book	4-5		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 21,1 Swell factor: 1.25 Loose volume: 26,4 Source of estimated volu Source of estimated swel HOURLY PRODUCT Average push distance:	\$1,447.65 EITHES .59 50 49 LCY me: Appendix 1 factor: Cat Hand TION 80 feet ction: 2,028.0 LCY	book			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 21,1 Swell factor: 1.25 Loose volume: 26,4 Source of estimated volu Source of estimated swel HOURLY PRODUCT Average push distance: Unadjusted hourly produ	\$1,447.65 EITHES .59 50 49 LCY me: Appendix 1 factor: Cat Hand TION 80 feet ction: 2,028.0 LCY	book Y/hr			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 21,1 Swell factor: 1.25 Loose volume: 26,4 Source of estimated volu Source of estimated swel HOURLY PRODUCT Average push distance: Unadjusted hourly produ Materials consistency destance: Average push gradient: 1000000000000000000000000000000000000	\$1,447.65 FITIES .59 50 .49 LCY me: Appendix 1 factor: Cat Hand TION ction: 80 feet _2,028.0 LCY scription: Consoli _10 %	book Y/hr			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 21,1 Swell factor: 1.25 Loose volume: 26,4 Source of estimated volu Source of estimated swel HOURLY PRODUCY Average push distance: Unadjusted hourly produ Materials consistency des Average push gradient: Average site altitude:	\$1,447.65 FITIES .59 50 .49 LCY me: Appendix 1 factor: Cat Hand TION scription: 2,028.0 LCY scription: Consoli 10 % 6,400 feet	book Y/hr idated stockp			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 21,1 Swell factor: 1.25 Loose volume: 26,4 Source of estimated volu Source of estimated swel HOURLY PRODUCY Average push distance: Unadjusted hourly produ Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Job Condition Correction	\$1,447.65 FITIES .59 50 149 LCY me: Appendix 1 factor: Cat Hand FION ction: 2,028.0 LCY scription: Consoli 10 % 6,400 feet 2,550 lbs/LCY Earth - Dry packed n Factor State	book Y/hr idated stockp			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 21,1 Swell factor: 1.25 Loose volume: 26,4 Source of estimated volu Source of estimated swel HOURLY PRODUCT Average push distance: Unadjusted hourly produ Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator	\$1,447.65 FITIES .59 .60 149 LCY me: _Appendix 1 factor: Cat Hand TION ction: _80 feet _2,028.0 LCY scription: Consoli _10 %	book Y/hr idated stockp	 bile 1.0 <u>Source</u> (AVG.)		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 21,1 Swell factor: 1.25 Loose volume: 26,4 Source of estimated volu Source of estimated swel HOURLY PRODUCT Average push distance: Unadjusted hourly produ Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consist Operator	\$1,447.65 ETTIES 59 50 149 LCY me: Appendix 1 factor: Cat Hand TION ction: $\frac{80 \text{ feet}}{2,028.0 \text{ LCY}}$ scription: Consolid 10 % 6,400 feet 2,550 lbs/LCY Earth - Dry packed h Factor Skill: 0. tency: 1.4	book Y/hr idated stockp			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 21,1 Swell factor: 1.25 Loose volume: 26,4 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUCT Average push distance: Unadjusted hourly produ Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consist Dozing me	\$1,447.65 ITTIES 59 50 49 LCY me: Appendix 1 factor: Cat Hand TION ction: 80 feet 2,028.0 LCY scription: Consoli 10 % 6,400 feet 2,550 lbs/LCY Earth - Dry packed Skill: 0. tency: 1. ethod: 1.	book Y/hr idated stockp	 bile 1.0 <u>Source</u> (AVG.)		

Task # 048

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	0.786	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.3531	
Adjusted unit production: 71	6.09 LCY/hr	
Adjusted fleet production: 28	864.36 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$0.505/LCY

Total job time:	9.23 Hours
Total job cost:	\$13,367

Page 1 of 2

Task description:	Reg	rade Grouse	Access Roa	d		
Trapper Mine		Perr	nit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDE	NTIFICATI	ON				
Task #: 049 Date: 11/2. User: ZTT	3/2022	State: County:	Colorado Moffat		Abbreviation: Filename:	None C010-049
Agency o	r organization	name: DR	MS			
HOURLY EQU	IPMENT CO	<u>OST</u>				
Basic Machine:	Cat D10T	- 10SU				
Horsepower:	574					
Blade Type: Attachment:	Semi-Univ NA	versal				
Shift Basis:	1 per day					
Data Source:	(CRG)					
Cost Breakdown:			i			
	T		¢150.57	Utilization %	<u>-</u>	
Ownership Cost/I			\$153.67	NA		
Operating Cost/I			\$166.94 \$0.00	100 NA		
Ripper own. Cost/I			\$0.00 \$0.00	<u>NA</u> 0		
Ripper op. Cost/I Operator Cost/I						
Operator Cost/I	lour:		\$41.30	NA		
Total unit Cost/Ho Total Fleet Cost/Ho	our: \$1,4 4	17.65				
Total unit Cost/Ho Total Fleet Cost/Ho <u>MATERIAL QU</u> Initial Volume:	our: <u>\$1,44</u> J <u>ANTITIES</u> 10,477	17.65				
Total unit Cost/Ho Total Fleet Cost/Ho <u>MATERIAL QU</u>	our: <u>\$1,44</u>	¥7.65				
Total unit Cost/Ho Total Fleet Cost/Ho <u>MATERIAL QU</u> Initial Volume: Swell factor:	Dur: \$1,44 JANTITIES 10,477 1.250 13,096 LCY	47.65	 A, Table 1.4	4-5		
Total unit Cost/Ho Total Fleet Cost/Ho <u>MATERIAL QU</u> Initial Volume: Swell factor: Loose volume:	Dur: \$1,44 JANTITIES 10,477 1.250 13,096 LCY I volume:	47.65		4-5		
Total unit Cost/Ho Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated	Dur: \$1,44	47.65		4-5		
Total unit Cost/Ho Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PRO	Dur: \$1,44 JANTITIES 10,477 1.250 13,096 LCY 1 volume: 1 swell factor: DUCTION	Appendix Cat Handl		4-5		
Total unit Cost/Ho Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated	Dur: \$1,44	47.65	book	4-5		
Total unit Cost/Ho Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PRO Average push dista	Dur: \$1,44	47.65 Appendix Cat Handl 80 feet 2,028.0 LCY	book			
Total unit Cost/Ho Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PRO Average push dista Unadjusted hourly	Dur: \$1,44 JANTITIES 10,477 1.250 13,096 LCY 1 volume: 1 swell factor: DUCTION nce: production: cy description ient: 10 %	Appendix	book Y/hr			
Total unit Cost/Ho Total Fleet Cost/Ho Total Fleet Cost/Ho Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PRO Average push dista Unadjusted hourly Materials consister Average push grad	Dur: \$1,44 JANTITIES 10,477 1.250 13,096 LCY 1 volume: 1 swell factor: DUCTION nce: production: cy description ient: 10 % le: 6,400	Appendix	book Y/hr			
Total unit Cost/Ho Total Fleet Cost/Ho Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PRO Average push dista Unadjusted hourly Materials consister Average push grad Average site altitud	pur: $\$1,44$ JANTITIES 10,477 1.250 13,096 LCY 1 volume: 1 swell factor: DUCTION nce: production: cy description ient: 10 % 6,400 2,550	47.65 Appendix Cat Handl 80 feet 2,028.0 LCY n: Consoli 0 feet	book Ý/hr dated stockp			
Total unit Cost/Ho Total Fleet Cost/Ho Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated Source of estimated HOURLY PRO Average push dista Unadjusted hourly Materials consister Average push grad Average site altitud Material weight:	Dur: $\$1,44$ JANTITIES10,4771.25013,096 LCY1 volume:1 volume:1 swell factor:DUCTIONnce:production:cy descriptionient:10 %le:6,4002,550:Earth	Appendix Appendix Cat Handl 80 feet 2,028.0 LCY n: Consoli 0 feet 0 lbs/LCY a - Dry packed	book Ý/hr dated stockp			
Total unit Cost/Ho Total Fleet Cost/Ho Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated Materials consisten Average push dista Unadjusted hourly Materials consisten Average push grad Average site altitud Material weight: Weight description Job Condition Corr Opt	Dur: $\$1,44$ JANTITIES10,4771.25013,096 LCY1 volume:1 swell factor:DUCTIONnce:production:cy descriptionient:10 %le:6,400	Appendix Appendix Cat Handl 80 feet 2,028.0 LCY n: Consoli 0 feet 0 lbs/LCY n - Dry packed 0.7	book Y/hr dated stockp	 bile 1.0		
Total unit Cost/Ho Total Fleet Cost/Ho Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated MOURLY PRO Average push dista Unadjusted hourly Materials consister Average push grad Average push grad Average site altitud Material weight: Weight description Job Condition Corr Op Material c	pur: $\$1,44$ JANTITIES10,4771.25013,096 LCY1 volume:1 volume:1 swell factor:DUCTIONnce:production:cy descriptionient:10 %le:6,4002,550:Earthection Factorerator Skill:onsistency:	47.65	book Ý/hr dated stockp 1 750 000	 bile 1.0 <u>Source</u> (AVG.) (CAT HI) B)	
Total unit Cost/Ho Total Fleet Cost/Ho Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated MOURLY PRO Average push dista Unadjusted hourly Materials consister Average push grad Average push grad Average site altitud Material weight: Weight description Job Condition Corr Op Material c	Dur: $\$1,44$ JANTITIES10,4771.25013,096 LCY1 volume:1 swell factor:DUCTIONnce:production:cy descriptionient:10 %le:6,400	47.65 47.65 2 Appendix Cat Handl 80 feet 2,028.0 LCY n: Consoli 0 feet 0 lbs/LCY - 0.7 1.0 1.0	book Y/hr dated stockp) B))	

Task # 049

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	0.786	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.3531	
Adjusted unit production: 7	16.09 LCY/hr	
Adjusted fleet production: 2	864.36 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$0.505/LCY

Total job time:	4.57 Hours
Total job cost:	\$6,619

Page 1 of 2

: Trapper Mine		s Road		
	Permit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENTIF	FICATION			
Task #: 050	State: Colorado		Abbreviation:	None
Date: 11/23/2022	2 County: Moffat		Filename:	C010-050
User: ZTT				
Agency or orga	anization name: DRMS			
HOURLY EQUIPMI	ENT COST			
	at D10T - 10SU			
Horsepower: 57				
	mi-Universal			
	per day			
	(RG)			
Cost Breakdown:		I tiligation 0/		
Ownership Cost/Hour:	\$153.67	Utilization % NA		
Operating Cost/Hour:	\$166.94	100		
Ripper own. Cost/Hour:	\$0.00	NA		
Ripper op. Cost/Hour:	\$0.00	0		
Operator Cost/Hour:	\$41.30	NA		
	\$1,447.65			
Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: <u>6,13</u> Swell factor: 1.25	<u>FITIES</u> 39			
MATERIAL QUANT Initial Volume: 6,13 Swell factor: 1.25	<u>FITIES</u> 39			
MATERIAL QUANT Initial Volume: 6,13 Swell factor: 1.25 Loose volume: 7,67 Source of estimated volu	IITIES 39 50 74 LCY Ime: Appendix A,Table A	6.2		
MATERIAL QUANT Initial Volume: 6,13 Swell factor: 1.25 Loose volume: 7,67 Source of estimated volu Source of estimated swel	FITIES 39 50 74 LCY Ime: Appendix A,Table A Il factor: Cat Handbook	6.2		
MATERIAL QUANT Initial Volume: 6,13 Swell factor: 1.25 Loose volume: 7,67 Source of estimated volu Source of estimated swell HOURLY PRODUCC Average push distance:	TITIES 39 50 74 LCY Ime: Appendix A,Table A Il factor: Cat Handbook TION 80 feet	6.2		
MATERIAL QUANT Initial Volume: 6,13 Swell factor: 1.25 Loose volume: 7,67 Source of estimated volu Source of estimated swel HOURLY PRODUC	ITTIES 39 50 74 LCY ime: Appendix A, Table A Il factor: Cat Handbook TION action: 2,028.0 LCY/hr			
MATERIAL QUANT Initial Volume: 6,13 Swell factor: 1.25 Loose volume: 7,67 Source of estimated volu Source of estimated sweld HOURLY PRODUCC Average push distance: Unadjusted hourly produ Materials consistency de	TITIES 39 50 74 LCY nme: Appendix A, Table A Il factor: Cat Handbook TION action: 80 feet 2,028.0 LCY/hr escription: Consolidated stock			
MATERIAL QUANT Initial Volume: 6,13 Swell factor: 1.25 Loose volume: 7,67 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUCC Average push distance: Unadjusted hourly produce	ITTIES 39 50 74 LCY ime: Appendix A, Table A Il factor: Cat Handbook TION 80 feet action: 2,028.0 LCY/hr			
MATERIAL QUANT Initial Volume: 6,13 Swell factor: 1.25 Loose volume: 7,67 Source of estimated volu Source of estimated swell MOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude:	TITIES 39 50 74 LCY nme: Appendix A, Table A Il factor: Cat Handbook TION action: 2,028.0 LCY/hr escription: Consolidated stock 10 %			
MATERIAL QUANT Initial Volume: 6,13 Swell factor: 1.25 Loose volume: 7,67 Source of estimated volu Source of estimated swell MOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description:	TITIES 39 50 74 LCY ime: Appendix A, Table A Il factor: Cat Handbook TION action: 2,028.0 LCY/hr escription: Consolidated stock 10 % 6,400 feet 2,550 lbs/LCY Earth - Dry packed			
MATERIAL QUANT Initial Volume: 6,13 Swell factor: 1.25 Loose volume: 7,67 Source of estimated volu Source of estimated swell HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction	ITTIES 39 50 74 LCY ime: Appendix A, Table A Il factor: Cat Handbook TION action: 2,028.0 LCY/hr escription: Consolidated stock 10 % 6,400 feet 2,550 lbs/LCY Earth - Dry packed n Factor Packed			
MATERIAL QUANT Initial Volume: 6,13 Swell factor: 1.25 Loose volume: 7,67 Source of estimated volu Source of estimated volu Source of estimated swell MOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Operator	TITIES 39 50 74 LCY	cpile 1.0 <u>Source</u> (AVG.)		
MATERIAL QUANT Initial Volume: 6,13 Swell factor: 1.25 Loose volume: 7,67 Source of estimated volu Source of estimated swell HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Dote	TITIES 39 50 74 LCY			

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	0.786	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.3531	
Adjusted unit production: 71	6.09 LCY/hr	
Adjusted fleet production: 28	864.36 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$0.505/LCY

Total job time:	2.68 Hours
Total job cost:	\$3,878

Task description:	Regr					
: Trapper Mine		Perm	nit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDEN	NTIFICATI	<u>ON</u>				
Task #: 051		State:	Colorado		Abbreviation:	None
	3/2022	County:	Moffat		Filename:	C010-051
User: ZTT		<u> </u>		<u> </u>		
Agency or	rorganization	name: DR	MS			
HOURLY EQUI	PMENT CO	<u>DST</u>				
Basic Machine:	Cat D10T -	10SU				
Horsepower:	574					
Blade Type:	Semi-Univ	ersal				
Attachment:	NA					
Shift Basis:	1 per day					
Data Source:	(CRG)					
Cost Breakdown:						
				<u>Utilization %</u>		
Ownership Cost/H			\$153.67	NA		
Operating Cost/H			\$166.94	100		
Ripper own. Cost/H			\$0.00	NA		
Ripper op. Cost/H			\$0.00	0		
Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Ho	ur: <u>\$361</u> . our: \$1,44		\$41.30	NA		
Total unit Cost/Hou	ur: \$361. our: \$1,44 JANTITIES 6,139 1.250		\$41.30	NA		
Total unit Cost/Hou Total Fleet Cost/Ho <u>MATERIAL OU</u> Initial Volume:	ur: <u>\$361.</u> our: \$1,44 J ANTITIES 6,139		\$41.30 	NA		
Total unit Cost/Hou Total Fleet Cost/Ho <u>MATERIAL QU</u> Initial Volume: Swell factor:	ur: \$361. pur: \$1,44 JANTITIES 6,139 1.250 7,674 LCY	7.65	\$41.30			
Total unit Cost/Hou Total Fleet Cost/Ho <u>MATERIAL OU</u> Initial Volume: Swell factor: Loose volume:	ur: \$361. pur: \$1,44 JANTITIES 6,139 1.250 7,674 LCY I volume:	7.65	 A, Table A			
Total unit Cost/Hou Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated	ur: \$361. pur: \$1,44 JANTITIES 6,139 1.250 7,674 LCY I volume: I swell factor:	7.65 	 A, Table A			
Total unit Cost/Hou Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROI	ur: \$361. pur: \$1,44 JANTITIES 6,139 1.250 7,674 LCY I volume: I swell factor: DUCTION	7.65 Appendix Cat Handb	 A, Table A			
Total unit Cost/Hou Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated	ur: \$361. pur: \$1,44 JANTITIES 6,139 1.250 7,674 LCY I volume: I swell factor: DUCTION nce:	7.65 	A, Table A			
Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROI Average push distar	ur: \$361. pur: \$1,44 JANTITIES 6,139 1.250 7,674 LCY I volume: I swell factor: DUCTION nce: production: []	Appendix Cat Handb 80 feet 2,028.0 LCY	A, Table A	-6.2		
Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROI Average push distar Unadjusted hourly p	In: \$361. Sur: \$1,44 JANTITIES 6,139 1.250 7,674 LCY I volume: swell factor: DUCTION nce: production: cy description	Appendix Cat Handb 80 feet 2,028.0 LCY	A, Table A book	-6.2		
Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROI Average push distar Unadjusted hourly p	ur: \$361. pur: \$1,44 JANTITIES 6,139 1.250 7,674 LCY I volume: I swell factor: DUCTION nce: production: cy description ent:10 %	7.65 Appendix Cat Handl 80 feet 2,028.0 LCY : Consoli	A, Table A book	-6.2		
Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROI Average push distar Unadjusted hourly p Materials consistent Average push gradia Average site altitude	ur: $$361.$ yur: $$1,44$ UANTITIES $6,139$ 1.250 7,674 LCY I volume: I swell factor: DUCTION nce: production: cy description ent: 10 % e: 6,400	7.65 Appendix Cat Handl 80 feet 2,028.0 LCY : Consoli	A, Table A book	-6.2		
Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROI Average push distar Unadjusted hourly p Materials consistent Average push gradia Average site altitude	Ir: $$361.$ bur: $$1,44$ JANTITIES 6,139 1.250 7,674 LCY I volume: I swell factor: DUCTION nce: production:	7.65 Appendix Cat Handt 80 feet 2,028.0 LCY Consoli feet	A, Table A- A, Table A- pook //hr dated stockp 	-6.2		
Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROI Average push distar Unadjusted hourly p Materials consistent Average push gradia Average push gradia Average site altitud Material weight: Weight description: Job Condition Correct	Ir: $$361.$ Dur: $$1,44$ DANTITIES $6,139$ 1.250 $7,674$ LCYI volume:I swell factor:DUCTIONnce:production:	7.65 Appendix Cat Handle 80 feet 2,028.0 LCY Consoli feet lbs/LCY - Dry packed	A, Table A A, Table A book	-6.2 		
Total unit Cost/Hou Total Fleet Cost/Hou Total Fleet Cost/Hou Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROI Average push distar Unadjusted hourly p Materials consistent Average push gradid Average push gradid Average site altitud Material weight: Weight description: Job Condition Corra Ope	Ir: $\$361.$ Dur: $\$1,44$ Dar: $\$1,44$ Dar: $\$1,44$ Dar: $\$1,250$ 7,674 LCYI volume:I swell factor:DUCTIONnce:production:DUCTIONent:10 % $e:$ $6,400$ $2,550$ Earthection Factorrator Skill:	7.65 Appendix Cat Handb 80 feet 2,028.0 LCY : Consoli feet lbs/LCY - Dry packed 0.7	A, Table A A, Table A book //hr dated stockp	-6.2 		
Total unit Cost/Hou Total Fleet Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated MOURLY PROI Average push distar Unadjusted hourly p Materials consistence Average push gradic Average push gradic Average site altitud Material weight: Weight description: Job Condition Corre Ope Material co	Ir: $$361.$ Dur: $$1,44$ Dar: $$1,44$ Dar: $$1,44$ Dar: $$1,250$ 7,674 LCYI volume:I swell factor:DUCTIONInce:production:production:cy descriptionent: 10% $6,400$ $2,550$ Earthection Factorrator Skill:onsistency:	7.65 Appendix Cat Handh 80 feet 2,028.0 LCY : Consoli feet lbs/LCY - Dry packed 0.7 1.0	A, Table A Dook X/hr dated stockp	-6.2 		
Total unit Cost/Hou Total Fleet Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated MOURLY PROI Average push distar Unadjusted hourly p Materials consistence Average push gradic Average push gradic Average site altitud Material weight: Weight description: Job Condition Correc Ope Material co	Ir: $\$361.$ Dur: $\$1,44$ Dar: $\$1,44$ Dar: $\$1,44$ Dar: $\$1,250$ 7,674 LCYI volume:I swell factor:DUCTIONnce:production:DUCTIONent:10 % $e:$ $6,400$ $2,550$ Earthection Factorrator Skill:	7.65 	A, Table A A, Table A book //hr dated stockp	-6.2 		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	0.786	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.3531	
Adjusted unit production:	716.09 LCY/hr	
Adjusted fleet production:	2864.36 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$0.505/LCY

Total job time:	2.68 Hours
Total job cost:	\$3,878

Page 1 of 2

Task description:	Regrade De	ai Access Roau			
Trapper Mine		Permit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENT	IFICATION				
Task #: 052	Si	ate: Colorado		Abbreviation:	None
Date: $\frac{0.02}{11/23/20}$				Filename:	C010-052
User: ZTT		J		-	
Agency or or	ganization name:	DRMS			
HOURLY EQUIPM	MENT COST				
	Cat D10T - 10SU				
	574				
• 1	Semi-Universal				
	NA				
	1 per day (CRG)				
Data Source: ((CKG)				
Cost Breakdown:					
		.	Utilization %		
Ownership Cost/Hou		\$153.67	NA		
Operating Cost/Hou		\$166.94	100		
Ripper own. Cost/Hou		\$0.00	NA		
	r:	\$0.00	0		
Ripper op. Cost/Hou		¢ 41 20			
Operator Cost/Hou Total unit Cost/Hour: Total Fleet Cost/Hour:	sting state	\$41.30	NA		
Operator Cost/Hou Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUA</u>	r: \$361.91 \$ 1,447.65 NTITIES	\$41.30	NA		
Operator Cost/Hou Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume:6	r: \$361.91 \$ 1,447.65 NTITIES ,139	\$41.30	NA		
Operator Cost/Hou Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: <u>6</u> , Swell factor: <u>1</u> .	r: \$361.91 \$ 1,447.65 NTITIES	\$41.30	NA		
Operator Cost/Hou Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: <u>6</u> , Swell factor: <u>1</u> .	r: \$361.91 \$1,447.65 NTITIES ,139 ,250 ,674 LCY blume: _App	\$41.30			
Operator Cost/Hou Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 6, Swell factor: 1. Loose volume: 7, Source of estimated vo	r: \$361.91 \$1,447.65 NTITIES ,139 .250 .674 LCY blume: <u>App</u> vell factor: <u>Cat</u>	endix A, Table A Handbook			
Operator Cost/Hou Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAL Initial Volume:	r: \$361.91 \$1,447.65 NTITIES 139 250 674 LCY blume: App vell factor: Cat CTION :: 80 fee	endix A, Table A Handbook			
Operator Cost/Hou Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAI</u> Initial Volume: 6, Swell factor: 1. Loose volume: 7, Source of estimated vo Source of estimated sw <u>HOURLY PRODU</u>	r: \$361.91 \$1,447.65 NTITIES 139 250 674 LCY blume: <u>App</u> vell factor: <u>Cat</u> CTION :: <u>80 fee</u> duction: <u>2,028.</u>	endix A, Table A Handbook	-6.2		
Operator Cost/Hou Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume:	r:	endix A, Table A Handbook t 0 LCY/hr	-6.2		
Operator Cost/Hou Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 6, Swell factor: 1. Loose volume: 7, Source of estimated vo Source of estimated vo Source of estimated sw HOURLY PRODU Average push distance Unadjusted hourly pro Materials consistency of Average push gradient	r:	endix A, Table A Handbook t 0 LCY/hr onsolidated stockp	-6.2		
Operator Cost/Hou Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAI Initial Volume:	r: <u>\$361.91</u> \$1,447.65 NTITIES <u>139</u> <u>250</u> <u>674 LCY</u> blume: <u>App</u> vell factor: <u>Cat</u> CTION :: <u>80 fee</u> duction: <u>2,028</u> . description: <u>C</u> :: <u>10 %</u> <u>6,400 feet</u>	endix A, Table A Handbook t 0 LCY/hr onsolidated stockp	-6.2		
Operator Cost/Hou Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume:	r:	endix A, Table A Handbook t 0 LCY/hr onsolidated stockp	-6.2		
Operator Cost/Hou Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAI Initial Volume:	r:	endix A, Table A Handbook t 0 LCY/hr onsolidated stockp	-6.2 		
Operator Cost/Hou Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume:	r:	endix A, Table A Handbook t 0 LCY/hr onsolidated stockp Y acked 0.750 1.000	-6.2 		
Operator Cost/Hou Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume:	r:	endix A, Table A Handbook t 0 LCY/hr onsolidated stockp Y acked 0.750	-6.2 		

Task # 052

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	0.786	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.3531	
Adjusted unit production: 71	6.09 LCY/hr	
Adjusted fleet production: 28	864.36 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$0.505/LCY

Total job time:	2.68 Hours
Total job cost:	\$3,878

Trapper Mine	Per	mit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENTIF	ICATION				
Task #: 053	State:	Colorado		Abbreviation:	None
Date: <u>11/23/2022</u> User: ZTT	2 County:	Moffat		Filename:	C010-053
	nization nome: DI	DMC			
Agency or organ	mzation name. Dr	RMS			
HOURLY EQUIPME	ENT COST				
	t D10T - 10SU				
Horsepower: 574					
Blade Type: Ser Attachment: NA	mi-Universal				
	ber day				
1	RG)				
<u></u>					
Cost Breakdown:		1	TT:11 .1		
Ourmanshin Cast/II.		¢152 (7	<u>Utilization %</u>		
Ownership Cost/Hour:		\$153.67 \$166.04	<u>NA</u>		
Operating Cost/Hour: Ripper own. Cost/Hour:		\$166.94 \$0.00	100 NA		
Ripper own. Cost/Hour: Ripper op. Cost/Hour:		\$0.00	<u> </u>		
Operator Cost/Hour:		\$41.30	NA		
Total unit Cost/Hour:	\$361.91				
Total Fleet Cost/Hour: MATERIAL QUANI					
MATERIAL QUANTInitial Volume:13,9Swell factor:1.25Loose volume:17,3	FITIES 015 50 394 LCY	 	6.2		
MATERIAL QUANT Initial Volume: 13,9 Swell factor: 1.25	FITIES 015 50 394 LCY me: Appendix	 K A,Table A-0 lbook	6.2		
MATERIAL QUANTInitial Volume:13,9Swell factor:1.25Loose volume:17,3Source of estimated volume	CITIES 015 50 394 LCY me: Appendix 1 factor: Cat Hand		6.2		
MATERIAL QUANT Initial Volume: 13,9 Swell factor: 1.25 Loose volume: 17,3 Source of estimated volu Source of estimated swel HOURLY PRODUCT	FITIES 915 50 394 LCY me: Appendix 1 factor: Cat Hand TION		6.2		
MATERIAL QUANT Initial Volume: 13,9 Swell factor: 1.25 Loose volume: 17,3 Source of estimated volu Source of estimated swel HOURLY PRODUCT Average push distance:	TITIES 015 00 094 LCY me: <u>Appendix</u> 1 factor: <u>Cat Hand</u> TION <u>80 feet</u>	lbook	6.2		
MATERIAL QUANT Initial Volume: 13,9 Swell factor: 1.25 Loose volume: 17,3 Source of estimated volu Source of estimated swel	EITIES 015 50 60 60 60 60 60 60	lbook	6.2		
MATERIAL QUANT Initial Volume: 13,9 Swell factor: 1.25 Loose volume: 17,3 Source of estimated volu Source of estimated swel HOURLY PRODUCT Average push distance:	EITIES 015 50 50 594 LCY me: Appendix 1 factor: Cat Hand TION	lbook			
MATERIAL QUANT Initial Volume: 13,9 Swell factor: 1.25 Loose volume: 17,3 Source of estimated volu Source of estimated swel HOURLY PRODUC? Average push distance: Unadjusted hourly product Materials consistency destance	EITIES 015 50 394 LCY me: Appendix 1 factor: Cat Hand TION scription: 80 feet scription: Consol	lbook Y/hr			
MATERIAL QUANT Initial Volume: 13,9 Swell factor: 1.25 Loose volume: 17,3 Source of estimated volu Source of estimated swel HOURLY PRODUC? Average push distance: Jnadjusted hourly product Materials consistency destance: Average push gradient:	EITIES 015 50 994 LCY me: Appendix 1 factor: Cat Hand TION Cat Hand ction: 2,028.0 LC scription: Consol 10 %	lbook Y/hr			
MATERIAL QUANT Initial Volume: 13,9 Swell factor: 1.25 Loose volume: 17,3 Source of estimated volu Source of estimated swel HOURLY PRODUC? Average push distance: Jnadjusted hourly product Materials consistency destance: Average push gradient: Source destance:	EITIES 015 50 394 LCY me: Appendix 1 factor: Cat Hand TION scription: 80 feet scription: Consol	lbook Y/hr			
MATERIAL QUANT Initial Volume: 13,9 Swell factor: 1.25 Loose volume: 17,3 Source of estimated volum 1000000000000000000000000000000000000	EITIES 015 50 994 LCY me: Appendix 1 factor: Cat Hand TION Cat Hand ction: 2,028.0 LC scription: Consol 10 %	lbook Y/hr			
MATERIAL QUANT Initial Volume: 13,9 Swell factor: 1.25 Loose volume: 17,3 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency dest Average push gradient: Average site altitude: Material weight:	Bit Appendix 015 50 094 LCY 994 LCY me: Appendix 1 factor: Cat Hand TION 80 feet ction: 2,028.0 LC scription: Consol 10 % 6,400 feet	lbook Y/hr idated stockp			
MATERIAL QUANT Initial Volume: 13,9 Swell factor: 1.25 Loose volume: 17,3 Source of estimated volu Source of estimated swel HOURLY PRODUCT Average push distance: Unadjusted hourly product	Bit Appendix 015 300 394 LCY me: 1 factor: Cat Hand TION Cat Hand ction: 2,028.0 LC scription: Consol 10 % 6,400 feet 2,550 lbs/LCY Earth - Dry packed	lbook Y/hr idated stockp			
MATERIAL QUANT Initial Volume: 13,9 Swell factor: 1.25 Loose volume: 17,3 Source of estimated volum 17,3 Source of estimated volum Source of estimated volum Source of estimated volum 11,25 Average push distance: 11,25 Unadjusted hourly produce 11,25 Average push distance: 11,25 Materials consistency des 11,25 Average push gradient: 11,25 Average push gradient: 11,25 Average push gradient: 11,25 Average push gradient: 11,25 Average site altitude: 11,25 Material weight: 11,25 Weight description: 11,25	EITTIES 015 50 994 LCY me: Appendix 1 factor: Cat Hand TION ction: 2,028.0 LC scription: Consol 10 %	lbook Y/hr idated stockp			
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MATERIAL QUANT Initial Volume: 13,9 Swell factor: 1.25 Loose volume: 17,3 Source of estimated volu Source of estimated swel HOURLY PRODUC? Average push distance: Unadjusted hourly produce Materials consistency destance: Average push gradient: Average site altitude: Material weight: Weight description: Iob Condition Correction Operator Material consist Dozing me	EITTIES 015 50 994 LCY me: Appendix 1 factor: Cat Hand TION scription: 2,028.0 LC scription: Consol 10 % 6,400 feet 2,550 lbs/LCY Earth - Dry packed Skill: 0. tency: 1. ethod: 1.	lbook Y/hr idated stockp d			

Task # 053

Job efficiency:		0.830	(1 SHIFT/DAY)
Spoil pile:		0.800	(SSD-AC)
Push gradie	Push gradient:		(CAT HB)
Altitud	de:	1.000	(CAT HB)
Material Weig	Material Weight:		(CAT HB)
Blade typ	Blade type:		(PAT)
Net correction	on:	0.3531	
Adjusted unit production:	71	6.09 LCY/hr	
5 1		64.36 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$0.505/LCY

Total job time:	6.07 Hours
Total job cost:	\$8,791

Page 1 of 2

Task description:	Regrade West H	orse Access	Road		
Trapper Mine	Per	mit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENTIE	FICATION				
Task #: 054	State:	Colorado		Abbreviation:	None
Date: $\frac{001}{11/23/202}$		Moffat		Filename:	C010-054
User: ZTT					
Agency or orga	anization name:	RMS			
HOURLY EQUIPM	<u>ENT COST</u>				
Basic Machine: Ca	at D10T - 10SU				
Horsepower: 57	'4				
• •	emi-Universal				
Attachment: NA					
	per day				
Data Source: (C	CRG)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:		\$153.67	NA		
Operating Cost/Hour:		\$166.94	100		
Ripper own. Cost/Hour:		\$0.00	NA		
		\$0.00	0		
Ripper op. Cost/Hour:					
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour:	\$361.91 \$1,447.65	\$41.30	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN	\$361.91 \$1,447.65	\$41.30	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume:6,12	\$361.91 \$1,447.65 TITIES 39	\$41.30	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: 6,1: Swell factor: 1.2:	\$361.91 \$1,447.65 TITIES 39 50	\$41.30	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: 6,12 Swell factor: 1.2 Loose volume: 7,6	\$361.91 \$1,447.65 TITIES 39 50 74 LCY				
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN'</u> Initial Volume: 6,1: Swell factor: 1.2: Loose volume: 7,6 Source of estimated volu	\$361.91 \$1,447.65 TITIES 39 50 74 LCY Ime:Appendix				
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: 6,12 Swell factor: 1.2 Loose volume: 7,6	\$361.91 \$1,447.65 TITIES 39 50 74 LCY Ime:Appendix				
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: 6,1: Swell factor: 1.2: Loose volume: 7,6 Source of estimated volu Source of estimated swe	\$361.91 \$1,447.65 TITIES 39 50 74 LCY Ime: Appendix Il factor: Cat Hand				
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 6,1: Swell factor: 1.2: Loose volume: 7,6 Source of estimated volu Source of estimated swe HOURLY PRODUC	\$361.91 \$1,447.65 TITIES 39 50 74 LCY 1me: Appendix 11 factor: Cat Hand TION				
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: 6,1: Swell factor: 1.2: Loose volume: 7,6 Source of estimated volu Source of estimated swe	\$361.91 \$1,447.65 TITIES 39 50 74 LCY 1me:Appendix 11 factor:Appendix Cat Hand TION 80 feet	A,Table A-			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 6,1: Swell factor: 1.2: Loose volume: 7,6 Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance:	\$361.91 \$1,447.65 TITIES 39 50 74 LCY Ime: Appendix 11 factor: Cat Hand TION Strict Strict	A,Table A-	6.2		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: 6,1: Swell factor: 1.2: Loose volume: 7,6 Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient:	\$361.91 \$1,447.65 ITTIES 39 50 74 LCY Ime: Appendix 11 factor: Cat Hand TION action: 2,028.0 LC escription: Consol 10 %	 book Y/hr	6.2		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: 6,1: Swell factor: 1.2: Loose volume: 7,6 Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de	\$361.91 \$1,447.65 TITIES 39 50 74 LCY Ime: Appendix 11 factor: Cat Hand TION action: 80 feet 2,028.0 LC escription: Consol	 book Y/hr	6.2		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: 6,1: Swell factor: 1.2: Loose volume: 7,6 Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient:	\$361.91 \$1,447.65 ITTIES 39 50 74 LCY Ime: Appendix 11 factor: Cat Hand TION action: 2,028.0 LC escription: Consol 10 %	 book Y/hr	6.2		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 6,1: Swell factor: 1.2: Loose volume: 7,6 Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude:	\$361.91 \$1,447.65 TITIES 39 50 74 LCY ime: Appendix Cat Hand TION action: 2,028.0 LC escription: Consol 10 % 6,400 feet	 A,Table A book Y/hr idated stockp	6.2		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 6,1: Swell factor: 1.2: Loose volume: 7,6 Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight:	\$361.91 \$1,447.65 TITIES 39 50 74 LCY ime: Appendix 11 factor: Cat Hand 27ION action: 2,028.0 LCC escription: Consol 10 %	 A,Table A book Y/hr idated stockp	6.2		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume:	$ \begin{array}{c} \$361.91 \\ \$1,447.65 \\ \hline \\ \hline \\ 39 \\ 50 \\ \hline \\ 74 LCY \\ \hline \\ \hline \\ 10 \\ \hline 10 \\ \hline \\ 10 \\ \hline 1$	Y/hr idated stockp	6.2 pile 1.0		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume:	\$361.91 \$1,447.65 TITIES 39 50 74 LCY ime: Appendix Table 200 74 LCY ime: Appendix Cat Hand TION action: $2,028.0$ LC escription: Consol 10 % 6,400 feet 2,550 lbs/LCY Earth - Dry packed n Factor 0. Skill: 0. tency: 1.	A,Table A- book Y/hr idated stockp	6.2 6.2 bile 1.0 <u>Source</u> (AVG.) (CAT HB)		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume:	\$361.91 \$1,447.65 TITIES 39 50 74 LCY Ime: Appendix 11 factor: Cat Hand TION action: $2,028.0 \text{ LC}$ escription: Consol 10% 6,400 feet $2,550 \text{ lbs/LCY}$ Earth - Dry packed n Factor \circ Skill: 0. tency: 1. ethod: 1.	Y/hr idated stockp	6.2 bile 1.0 <u>Source</u> (AVG.)		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	0.786	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.3531	
Adjusted unit production: 7	16.09 LCY/hr	
Adjusted fleet production: 2	864.36 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$0.505/LCY

Total job time:	2.68 Hours
Total job cost:	\$3,878

Trapper Mine	Peri	mit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENTIF	FICATION				
Task #: 055	State:	Colorado		Abbreviation:	None
Date: $11/23/2022$		Moffat		Filename:	C010-055
User: ZTT	County.	Wollar		i nenunie.	0010 000
Agency or orga	anization name:	RMS			
HOURLY EQUIPMI	<u>ENT COST</u>				
Basic Machine: Ca	at D10T - 10SU				
Horsepower: 57					
Blade Type: Se	emi-Universal				
Attachment: NA	A				
Shift Basis: 1 p	per day				
Data Source: (C	(RG)				
Cost Breakdown:					
205t DICaraOwii.			Utilization %		
Ownership Cost/Hour:		\$153.67	NA		
Operating Cost/Hour:		\$166.94	100		
Ripper own. Cost/Hour:		\$0.00	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$41.30	NA		
Fotal unit Cost/Hour: Fotal Fleet Cost/Hour: MATERIAL OUAN	\$361.91 \$1,447.65				
Fotal Fleet Cost/Hour: MATERIAL QUAN	\$1,447.65 <u>FITIES</u>				
Fotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: <u>10,5</u>	\$1,447.65 TITIES 539				
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 10,5 Swell factor: 1.25	\$1,447.65 <u>FITIES</u> 539 50				
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 10,5 Swell factor: 1.25	\$1,447.65 TITIES 539				
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 10,5 Swell factor: 1.25	\$1,447.65 <u>FITIES</u> 539 50 174 LCY		-6.2		
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 10,5 Swell factor: 1.25 Loose volume: 13,1	\$1,447.65 FITIES 539 50 174 LCY Ime:Appendix		-6.2		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 10,5 Swell factor: 1.25 Loose volume: 13,1 Source of estimated volu Source of estimated swel	\$1,447.65 <u>FITIES</u> 539 50 174 LCY Ime: <u>Appendix</u> Il factor: <u>Cat Hand</u>		-6.2		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 10,5 Swell factor: 1.25 Loose volume: 13,1 Source of estimated volu Swell Source of estimated swel Swell HOURLY PRODUCC 10,5	\$1,447.65 TITIES 539 50 174 LCY 1me: Appendix 11 factor: Cat Hand TIION		-6.2		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 10,5 Swell factor: 1.25 Loose volume: 13,1 Source of estimated volu Source of estimated swel HOURLY PRODUCC Average push distance:	\$1,447.65 TITIES 539 50 174 LCY ume: Appendix Il factor: Cat Hand TION 80 feet	book	-6.2		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 10,5 Swell factor: 1.25 Loose volume: 13,1 Source of estimated volu Swell Source of estimated swel Swell HOURLY PRODUCC 10,5	\$1,447.65 TITIES 539 50 174 LCY ume: Appendix Il factor: Cat Hand TION 80 feet	book	-6.2		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 10,5 Swell factor: 1.25 Loose volume: 13,1 Source of estimated volu Source of estimated swel HOURLY PRODUCC Average push distance:	\$1,447.65 FITIES 539 50 174 LCY Ime: Appendix If factor: Cat Hand TION action: 2,028.0 LC	book			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 10,5 Swell factor: 1.25 Loose volume: 13,1 Source of estimated volu Source of estimated swel HOURLY PRODUCC Average push distance: Unadjusted hourly produ Materials consistency de	\$1,447.65 TITIES 539 50 174 LCY ime: Appendix 11 factor: Cat Hand TION action: 80 feet action: 2,028.0 LCY escription: Consoli	book Y/hr			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 10,5 Swell factor: 1.25 Loose volume: 13,1 Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient:	\$1,447.65 TITIES 539 50 174 LCY Ime: Appendix Il factor: Cat Hand TION action: 80 feet action: 2,028.0 LC escription: Consoli 10 %	book Y/hr			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 10,5 Swell factor: 1.25 Loose volume: 13,1 Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude:	\$1,447.65 TITIES 539 50 174 LCY ume: Appendix Il factor: Cat Hand TION action: 2,028.0 LC escription: Consolit 10 % 6,400 feet	book Y/hr			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 10,5 Swell factor: 1.25 Loose volume: 13,1 Source of estimated volu Source of estimated swell HOURLY PRODUCC Average push distance: Unadjusted hourly produce Average push gradient: Average site altitude: Material weight:	\$1,447.65 FITHES 539 50 174 LCY ime: Appendix If factor: Cat Hand THON action: 2,028.0 LCY escription: Consolit 10 % 6,400 feet 2,550 lbs/LCY	book Y/hr idated stockp			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 10,5 Swell factor: 1.25 Loose volume: 13,1 Source of estimated volu Source of estimated swel HOURLY PRODUC! Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude:	\$1,447.65 TITIES 539 50 174 LCY ume: Appendix Il factor: Cat Hand TION action: 2,028.0 LC escription: Consolit 10 % 6,400 feet	book Y/hr idated stockp			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 10,5 Swell factor: 1.25 Loose volume: 13,1 Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average site altitude: Material weight: Weight description: Iob Condition Correction	\$1,447.65 TITIES 539 50 174 LCY Ime: Appendix Il factor: Cat Hand TION action: 2,028.0 LCY escription: Consolition: 10 % 6,400 feet 2,550 lbs/LCY Earth - Dry packed n Factor Factor	book Y/hr idated stockp			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 10,5 Swell factor: 1.25 Loose volume: 13,1 Source of estimated volu Source of estimated swell HOURLY PRODUCC Average push distance: Unadjusted hourly product Materials consistency de Average site altitude: Material weight: Weight description: Iob Condition Correction Operator	\$1,447.65 FITHES 539 50 174 LCY ime: Appendix Il factor: Cat Hand THON Cat Hand TTION Cat Hand CTION Cat Hand CTION Cat Hand Cat Hand Cat Hand TTION Cat Hand Consolid Cat Hand Consolid	book Y/hr idated stockp			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 10,5 Swell factor: 1.25 Loose volume: 13,1 Source of estimated volu Source of estimated swell HOURLY PRODUCC Average push distance: Unadjusted hourly produce Materials consistency de Average site altitude: Material weight: Weight description: Iob Condition Correction Operator Material consist	\$1,447.65 TITIES 539 50 174 LCY ime: Appendix Il factor: Cat Hand TION action: 80 feet 2,028.0 LCY escription: Consoli 10 % 6,400 feet 2,550 lbs/LCY Earth - Dry packed n Factor 0. tency: 1.	book Y/hr idated stockp I 750 000	bile 1.0 <u>Source</u> (AVG.) (CAT HB)		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 10,5 Swell factor: 1.25 Loose volume: 13,1 Source of estimated volu Source of estimated swell HOURLY PRODUCC Average push distance: Unadjusted hourly produce Materials consistency de Average site altitude: Material weight: Weight description: Iob Condition Correction Operator Material consist Dozing material	\$1,447.65 TITIES 539 50 174 LCY ime: Appendix 11 factor: Cat Hand TION action: $\frac{80 \text{ feet}}{2,028.0 \text{ LCY}}$ escription: Consolition 10 % 6,400 feet 2,550 lbs/LCY Earth - Dry packed n Factor · Skill: 0. tency: 1. ethod: 1.	book Y/hr idated stockp			

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	0.786	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.3531	
Adjusted unit production: 71	16.09 LCY/hr	
Adjusted fleet production: 28	864.36 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$0.505/LCY

Total job time:	4.60 Hours
Total job cost:	\$6,658

Page 1 of 2

Task description:	Regr	ade Oak Ac	cess Roads			
Trapper Mine		Perr	mit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDEN	TIFICATI	<u>ON</u>				
Task #: 056		State:	Colorado		Abbreviation:	None
Date: $\frac{000}{11/23}$	/2022	County:	Moffat		Filename:	C010-056
User: ZTT		5				
Agency or	organization	name: DR	RMS			
HOURLY EQUI	PMENT CO	<u>DST</u>				
Basic Machine:	Cat D10T -	10SU				
Horsepower:	574	1				
Blade Type:	Semi-Unive	ersal				
Attachment: Shift Basis:	NA 1 man day					
	1 per day					
Data Source:	(CRG)					
Cost Breakdown:						
				Utilization %		
Ownership Cost/H			\$153.67	NA		
Operating Cost/H			\$166.94	100		
	our:		\$0.00	NA		
Ripper own. Cost/H				0		
Ripper op. Cost/H	our:		\$0.00	0		
Ripper op. Cost/H Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Hou	our: our: r: \$361.9 ur: \$1,44		\$0.00	0NA		
Ripper op. Cost/H Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Hou <u>MATERIAL QU</u> Initial Volume:	our: our: r: <u>\$361.9</u> ur: <u>\$1,44 ANTITIES 7,776</u>					
Ripper op. Cost/H Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QU	our: our: r: <u>\$361.9</u> ur: \$1,44 ANTITIES					
Ripper op. Cost/H Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated	our: our: r: \$361.9 ur: \$1,44 ANTITIES 7,776 1.250 9,720 LCY volume: swell factor:	7.65	\$41.30	NA		
Ripper op. Cost/H Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD	our: our: r: <u>\$361.9</u> r: <u>\$1,44</u> ANTITIES 7,776 1.250 9,720 LCY volume: swell factor: PUCTION	7.65 Appendix Cat Hand	\$41.30	NA		
Ripper op. Cost/H Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distan	our: our: r: \$361.9 ur: \$1,44 ANTITIES 7,776 1.250 9,720 LCY volume: swell factor: OUCTION ce:	7.65 Appendix Cat Hand 80 feet	\$41.30	NA		
Ripper op. Cost/H Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD	our: our: r: \$361.9 ur: \$1,44 ANTITIES 7,776 1.250 9,720 LCY volume: swell factor: OUCTION ce:	7.65 Appendix Cat Hand	\$41.30	NA		
Ripper op. Cost/H Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distan	our: our: sur: \$361.9 r: \$361.9 \$1,44 ANTITIES 7,776 1.250 9,720 LCY volume: swell factor: PUCTION ce: roduction:	Appendix Cat Hand 80 feet 2,028.0 LC	\$41.30	-6.2		
Ripper op. Cost/H Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distan Unadjusted hourly p	our:	Appendix Cat Hand 80 feet 2,028.0 LCY : Consoli	\$41.30 	-6.2		
Ripper op. Cost/H Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distan Unadjusted hourly p Materials consistence Average push gradie	our:	Appendix Cat Hand 80 feet 2,028.0 LCY : Consoli	\$41.30 	-6.2		
Ripper op. Cost/H Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated MOURLY PROD Average push distan Unadjusted hourly p Materials consistence Average push gradie Average site altitude	our:	Appendix Cat Hand 80 feet 2,028.0 LC : Consoli feet	\$41.30	-6.2		
Ripper op. Cost/H Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated MOURLY PROD Average push distan Unadjusted hourly p Materials consistence Average push gradie Average site altitude Material weight: Weight description: Job Condition Corre	our: 3361.9 our: $31,44'$ ANTITIES 7,776 1.250 9,720 LCY volume: swell factor: PUCTION cce: roduction: exp description ent: 10 % e: for 6,400 Earth ection Factor	7.65 Appendix Cat Hand 80 feet 2,028.0 LCY Consoli feet lbs/LCY - Dry packed	\$41.30	-6.2 -6.2 -0.2 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1		
Ripper op. Cost/H Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated MOURLY PROD Average push distan Unadjusted hourly p Materials consistence Average push gradie Average site altitude Material weight: Weight description: Job Condition Correc Oper	our: 3361.9 our: $31,44'$ ANTITIES 7,776 1.250 9,720 LCY volume: swell factor: PUCTION ce: roduction: ext = 10 % ext = 10 % ext = 10 % ext = 6,400 Earth extion Factor rator Skill:	7.65 Appendix Cat Hand 80 feet 2,028.0 LCY Consoli feet lbs/LCY - Dry packed 0.	\$41.30 	-6.2 -6.2 -0.2 -0.2 -0.2 -0.2 -0.2 -0.2 -0.2 -0		
Ripper op. Cost/H Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated Mource of estimated HOURLY PROD Average push distan Unadjusted hourly p Materials consistence Average push gradie Average site altitude Material weight: Weight description: Job Condition Corre Oper Material co	our:	Appendix Cat Hand 80 feet 2,028.0 LCY : Consoli feet lbs/LCY - Dry packed 0. 1.	\$41.30 \$41.30 \$41.30 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	-6.2 -6.2 		
Ripper op. Cost/H Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated Source of estimated Mourly PROD Average push distan Unadjusted hourly p Materials consistence Average push gradie Average site altitude Material weight: Weight description: Job Condition Corree Oper Material co	our: 3361.9 our: $31,44'$ ANTITIES 7,776 1.250 9,720 LCY volume: swell factor: PUCTION ce: roduction: ext = 10 % ext = 10 % ext = 10 % ext = 6,400 Earth extion Factor rator Skill:	Appendix Cat Hand 80 feet 2,028.0 LCY : Consoli feet lbs/LCY - Dry packed 0. 1. 1.	\$41.30 	-6.2 -6.2 -0.2 -0.2 -0.2 -0.2 -0.2 -0.2 -0.2 -0		

Task # 056

Job efficiency	·	(1 SHIFT/DAY)
Spoil pile	e: 0.800	(SSD-AC)
Push gradien	t: 0.786	(CAT HB)
Altitude	e: 1.000	(CAT HB)
Material Weigh	t: 0.902	(CAT HB)
Blade type	e: 1.000	(PAT)
Net correction		
Adjusted unit production:	716.09 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$0.505/LCY

Total job time:	3.39 Hours
Total job cost:	\$4,912

Page 1 of 2

	Regrade Sage Ac	ccss Roaus			
: Trapper Mine	Peri	nit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENTIE	FICATION				
Task #: 057	State:	Colorado		Abbreviation:	None
Date: $11/23/202$		Moffat		Filename:	C010-057
User: ZTT				<u>-</u>	
Agency or orga	anization name:	RMS			
HOURLY EQUIPM	ENT COST				
	at D10T - 10SU				
Horsepower: 57					
JI	emi-Universal				
Attachment: N					
	per day				
Data Source: (C	CRG)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:		\$153.67	NA		
Operating Cost/Hour:		\$166.94	100		
Ripper own. Cost/Hour:		\$0.00	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$41.30	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour:	\$361.91 \$1,447.65				
Total Fleet Cost/Hour:	\$1,447.65 TITIES 231				
Total Fleet Cost/Hour: <u>MATERIAL QUAN'</u> Initial Volume: <u>10,</u> Swell factor: <u>1.2</u>	\$1,447.65 TITIES 231				
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 10, Swell factor: 1.2, Loose volume: 12, Source of estimated volume 10,	\$1,447.65 TITIES 231 50 789 LCY ume:Appendix		-6.2		
Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: 10, Swell factor: 1.2. Loose volume: 12, Source of estimated volu Source of estimated swe	\$1,447.65 TITIES 231 50 789 LCY ume: <u>Appendix</u> ell factor: <u>Cat Hand</u>		-6.2		
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 10, Swell factor: 1.2 Loose volume: 12, Source of estimated volu Source of estimated swe HOURLY PRODUCC	\$1,447.65 TITIES 231 50 789 LCY ume: Appendix ell factor: Cat Hand CTION		-6.2		
Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: 10, Swell factor: 1.2. Loose volume: 12, Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance:	\$1,447.65 TITIES 231 50 789 LCY ume: <u>Appendix</u> cat Hand CTION 80 feet	book	-6.2		
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 10, Swell factor: 1.2 Loose volume: 12, Source of estimated volu Source of estimated swe HOURLY PRODUCC	\$1,447.65 TITIES 231 50 789 LCY ume: <u>Appendix</u> cat Hand CTION 80 feet	book	-6.2		
Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: 10, Swell factor: 1.2. Loose volume: 12, Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance:	\$1,447.65 TITIES 231 50 789 LCY ume: Appendix Cat Hand CTION 80 feet uction: 2,028.0 LCY	book			
Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: 10, Swell factor: 1.2, Loose volume: 12, Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ	\$1,447.65 TITIES 231 50 789 LCY ume: Appendix Cat Hand CTION 80 feet uction: 2,028.0 LCY	book Y/hr			
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 10, Swell factor: 1.2, Loose volume: 12, Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient:	\$1,447.65 TITIES 231 50 789 LCY ume: Appendix ell factor: Cat Hand CTION uction: 80 feet 2,028.0 LCY escription: Consoli 10 %	book Y/hr			
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 10, Swell factor: 1.2 Loose volume: 12, Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude:	\$1,447.65 TITIES 231 50 789 LCY ume: Appendix cat Hand Consolid 10 % 6,400 feet	book Y/hr idated stockp			
Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: 10, Swell factor: 1.2. Loose volume: 12, Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight:	\$1,447.65 TITIES 231 50 789 LCY ume: Appendix Cat Hand Cat Hand <t< td=""><td>book Y/hr idated stockp</td><td></td><td></td><td></td></t<>	book Y/hr idated stockp			
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 10, Swell factor: 1.2, Loose volume: 12, Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator	\$1,447.65 TITIES 231 50 789 LCY ume: Appendix Cat Hand Cat Hand Cat Hand CTION uction: 2,028.0 LCY escription: Consoli 10 % 6,400 feet 2,550 lbs/LCY Earth - Dry packed n Factor 0.	book Y/hr idated stockp			
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 10, Swell factor: 1.2, Loose volume: 12, Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consist	\$1,447.65 TITIES 231 50 789 LCY ume: Appendix Cat Hand Cat Hand Cat Hand CTION uction: 80 feet 2,028.0 LCY escription: Consoli 10 % 6,400 feet 2,550 lbs/LCY Earth - Dry packed m Factor r Skill: 0. stency: 1.	book Y/hr idated stockp 1 750 000	bile 1.0 Source (AVG.) (CAT HB)		
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 10, Swell factor: 1.2, Loose volume: 12, Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consis Dozing m	\$1,447.65 TITIES 231 50 789 LCY ume: Appendix cat Hand 2TION uction: $2,028.0 \text{ LCY}$ escription: Consolid 10% 6,400 feet $2,550 \text{ lbs/LCY}$ Earth - Dry packed on Factor r r Skill: 0. stency: 1. ethod: 1.	book Y/hr idated stockp	bile 1.0		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	0.786	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.3531	
Adjusted unit production: 71	6.09 LCY/hr	
Adjusted fleet production: 28	364.36 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$0.505/LCY

Total job time:	4.46 Hours
Total job cost:	\$6,463

Page 1 of 2

Task description:	Regrade Johnso	n Access Roa	ad		
Trapper Mine	Per	mit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENTI	FICATION				
Task #: 058	State:	Colorado		Abbreviation:	None
Date: $11/23/202$		Moffat		Filename:	C010-058
User: ZTT				· · · · · · ·	
Agency or org	anization name: DI	RMS			
HOURLY EQUIPM	ENT COST				
	at D10T - 10SU				
Horsepower: 57					
	emi-Universal				
Attachment: N					
	per day				
Data Source: (C	CRG)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:		\$153.67	NA		
Operating Cost/Hour:		\$166.94	100		
Ripper own. Cost/Hour:		\$0.00 \$0.00	<u>NA</u> 0		
		\$0.00	0		
Ripper op. Cost/Hour: Operator Cost/Hour:		\$41.30	NA		
Ripper op. Cost/Hour:			NA		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN	\$361.91 \$1,447.65		NA		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 25,	\$361.91 \$1,447.65 TITIES 374		NA		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 25, Swell factor: 1.2	\$361.91 \$1,447.65 TITIES 374 50		NA		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 25, Swell factor: 1.2	\$361.91 \$1,447.65 TITIES 374		NA		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 25, Swell factor: Loose volume: 31, Source of estimated volt	\$361.91 \$1,447.65 TITIES 374 50 718 LCY ume:Appendiz	\$41.30 x A, Table A-			
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 25, Swell factor: Loose volume: 31, Source of estimated vol Source of estimated sweet	\$361.91 \$1,447.65 TITIES 374 50 718 LCY ume: Appendix cat Hance	\$41.30 x A, Table A-			
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 25, Swell factor: 1.2 Loose volume: 31, Source of estimated vol Source of estimated sweet HOURLY PRODUCT 1000000000000000000000000000000000000	\$361.91 \$1,447.65 TITIES 374 50 718 LCY ume: <u>Appendin</u> ell factor: <u>Cat Hanc</u> CTION	\$41.30 x A, Table A-			
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 25, Swell factor: Loose volume: 31, Source of estimated vol Source of estimated sweet	\$361.91 \$1,447.65 TITIES 374 50 718 LCY ume: Appendix cat Hance CTION 80 feet	\$41.30 			
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 25, Swell factor: 1.2 Loose volume: 31, Source of estimated vol Source of estimated swe HOURLY PRODUC Average push distance:	\$361.91 \$1,447.65 TITIES 374 50 718 LCY ume: Appendix ell factor: Cat Hance CTION uction: 2,028.0 LC	\$41.30 	-6.2		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 25, Swell factor: 1.2 Loose volume: 31, Source of estimated vol Source of estimated sweet HOURLY PRODUC Average push distance: Unadjusted hourly prod	\$361.91 \$1,447.65 TITIES 374 50 718 LCY ume: Appendix ell factor: Cat Hance CTION uction: 2,028.0 LC	\$41.30 	-6.2		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 25, Swell factor: 1.2 Loose volume: 31, Source of estimated vol Source of estimated vol Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency de Average push gradient:	\$361.91 \$1,447.65 TITIES 374 50 718 LCY ume: Appendix ell factor: Cat Hance CTION uction: 80 feet 2,028.0 LCC escription: Consol 10 %	\$41.30 	-6.2		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 25, Swell factor: 1.2 Loose volume: 31, Source of estimated volt Source of estimated volt Source of estimated sweet HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency de Average push gradient: Average site altitude:	\$361.91 \$1,447.65 TITIES 374 50 718 LCY ume: <u>Appendix</u> ell factor: <u>Cat Hanc</u> 2TION uction: <u>2,028.0 LC</u> escription: <u>Consol</u> <u>10 %</u> <u>6,400 feet</u>	\$41.30 	-6.2		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 25, Swell factor: 1.2 Loose volume: 31, Source of estimated vol Source of estimated vol Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency de Average push gradient: Average site altitude: Material weight:	\$361.91 \$1,447.65 TITIES 374 50 718 LCY ume: Appendix 2015 Appendix 2	\$41.30 	-6.2		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 25, Swell factor: 1.2 Loose volume: 31, Source of estimated vol Source of estimated vol Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator	$\frac{$361.91}{$1,447.65}$ $\frac{$361.91}{$1,447.65}$ $\frac{$374}{50}$ $718 LCY$ ume: Appendixed and the equation Appendixed and the equation Appendixed and the equation and the equati	\$41.30 	-6.2 		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 25, Swell factor: 1.2 Loose volume: 31, Source of estimated vol Source of estimated vol Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consist	$\begin{array}{c} \$361.91 \\ \hline \$1,447.65 \\ \hline \\ \hline \\ \hline \\ \hline \\ \$1,447.65 \\ \hline \\ \hline \\ \hline \\ \hline \\ \$1,447.65 \\ \hline \\ $	\$41.30 	-6.2 		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 25, Swell factor: 1.2 Loose volume: 31, Source of estimated vol Source of estimated vol Source of estimated swee HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consist Dozing m	$\begin{array}{c} \$361.91 \\ \$1,447.65 \\ \hline \\ \hline \\ \hline \\ $	\$41.30 	-6.2 		

Task # 058

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	0.786	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.3531	
Adjusted unit production: 71	6.09 LCY/hr	
Adjusted fleet production: 28	64.36 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$0.505/LCY

Total job time:	11.07 Hours
Total job cost:	\$16,030

	Task description:	Ri	p BC Walk Road					
Site	: Trapper Mine		Permit Action	n: PR11	Per	mit/Job#	: <u>C198101</u>)
	PROJECT IDI	ENTIFICAT	TION					
	Task #: 063 Date: 11/ User: ZT	23/2022	State: Colorad County: Moffat	lo		viation: lename:	None C010-063	
		or organizatio	on name: DRMS					
	HOURLY EQU	-						
			Cat D10T - 10SU		Horsepower:		574	
	Ripper Atta		-Shank Ripper		Shift Basis:		per day	
	~ ~				Data Source:	(CRG)	
	Cost Breakdown:				Utilization %			
		Ownership		\$153.67	NA			
	Dinne		Cost/Hour:	\$166.94 \$22.74	100 NA			
		er Ownership ber Operating		\$22.74	100			
	Tupp		Cost/Hour:	\$41.30	NA			
		Total Unit	Cost/Hour:	\$395.76				
		Total Fleet	Cost/Hour: \$1	,583.05				
	MATERIAL Q	UANTITIE	<u>xs</u> s	elected estimating	g method: Area			
	Alternate Method	ls:						
Seismic:	NA		Bank Volume	: NA	BCY		NA	
Area:	7.50	acres	Rip Depth (ft):),250		BCY or CCY
		Source of es	timated quantity: App	endix A Table 1.4	5			
	HOURLY PRO	DUCTION	ſ					
	Seismic:		-					
	<u></u>		Seismic Velocity:	NA	feet/secon	nd		
	Area:							
			age Ripping Depth:	2.50	feet/pass			
			age Ripping Width:	8.67	feet/pass			
			ge Ripping Length: erage Dozer Speed:	500.00 88.00	feet/pass feet/minu	te		
			ge Maneuver Time:	0.25	minutes/p			
			iction per unit area:	1.007	acres/hou			
	Job Condition Co	rrection Facto	<u>ors</u>					
	Un	adjusted Hour	ly Unit Production:	1.007	Acres/hr			
			Site Altitude:	6,400	feet			
			Altitude Adj:	1.00	(CAT HE	,		
			Job Efficiency:	0.83	(1 shift/d	-		
			Net Correction:	0.83	multiplier	r		
			ed Hourly Unit Productio d Hourly Fleet Productio		Acres/hr Acres/hr			
	JOB TIME AN	C C						
	Fleet size:	4	Grader(s)	Total job tim	ne:2.	24	Hou	rs
	Unit cost:	\$473.684	Per acre	Total job co	st: \$3 ,	553		

Task description	n: Rip	D-main Pit Haul Roads				
Site: Trapper Min	ne	Permit Action:	PR11	Perm	it/Job#: <u>C1</u>	981010
PROJECT II	DENTIFICATI	<u>ON</u>				
Date: 1	64 1/23/2022 TT	State: Colorado County: Moffat		Abbrevi File		ne 0-064
Agenc	cy or organization	name: DRMS				
Ç	OUIPMENT CO					
		t D10T - 10SU		Horsepower:	574	
		hank Ripper		Shift Basis: Data Source:	1 per day (CRG)	у
Cost Breakdow	<u>n:</u>					
		~~	* · - *	Utilization %		
	Ownership Concerting Concerting Concerting		\$153.67	<u>NA</u> 100		
Rin	Operating Co per Ownership Co		\$166.94 \$22.74	NA		
1	pper Operating C		\$11.11	100		
J	Operator C		\$41.30	NA		
	Total Unit C	ost/Hour:	\$395.76			
	Total Fleet C	ost/Hour: \$1,58	3.05			
ΜΑΤΕΡΙΑΙ	QUANTITIES	,				
		Sele	cted estimating	method: Area		
Alternate Metho	ods:					
mic: NA		Bank Volume:	NA	BCY	NA	DOV
rea: 28.10	acres	Rip Depth (ft):	2.50	Volume: 113	,337	BCY or
		mated quantity:Append	lix A Table 1.4-	5		
	<u>RODUCTION</u>					
Seismic:		Solomia Valasitu	NI A	fact/cocond		
		Seismic Velocity:	NA	feet/second		
Area:				a <i>i</i>		
		ge Ripping Depth:	2.50 8.67	feet/pass		
		e Ripping Width: e Ripping Length:	500.00	feet/pass feet/pass		
		age Dozer Speed:	88.00	feet/minute		
		Maneuver Time:	0.25	minutes/pas		
		tion per unit area:	1.007	acres/hour		
Job Condition C	Correction Factors	<u>s</u>				
U	Inadjusted Hourly	Unit Production:	1.007	Acres/hr		
		Site Altitude:	6,400	feet		
		Altitude Adj:	1.00	(CAT HB)	、 、	
		Job Efficiency:	0.83	(1 shift/day)	
		Net Correction:	0.83	multiplier		
		Hourly Unit Production:	0.84	Acres/hr		
	Adjusted	Hourly Fleet Production:	3.34	Acres/hr		
JOB TIME A	ND COST					
Fleet size:	4	Grader(s)	Total job time	e: 8.4	<u>l</u>	Hours
Unit cost:	\$473.684	Per acre	Total job cos	t: \$13,3	11	

	Task description	: Rip	West Ash Haulroads (W	est Ash, West	Ash1 and West	Ash 2)		
Site	: Trapper Min	e	Permit Action:	PR11	P	ermit/Job#	: <u>C19810</u>	10
	PROJECT ID	ENTIFICATI	<u>ION</u>					
	Task #: 06 Date: 11 User: Z1	/23/2022	State:ColoradoCounty:Moffat			reviation: Filename:	None C010-06	5
	Agency	or organization	name: DRMS					
	HOURLY EQ	UIPMENT C	OST					
		Machine: Ca	t D10T - 10SU Shank Ripper		Horsepower: Shift Basis: Data Source:		574 per day CRG)	
	Cost Breakdown	:					/	
	<u>Cost Diouxdown</u>	<u>-</u> Ownership C Operating C		\$153.67 \$166.94	Utilization % NA 100	-		
	11	er Ownership C	ost/Hour:	\$22.74	NA	-		
	Rip	per Operating C Operator C		\$11.11 \$41.30	100 NA	-		
		Total Unit C		\$395.76	NA	-		
				,				
		Total Fleet C	·	5.05				
	MATERIAL (<u> JUANTITIES</u>	Sele	cted estimating	g method: Area	a		
	Alternate Method	ds:						
eismic:	NA		Bank Volume:	NA	BCY		NA	
Area:	20.00	acres	Rip Depth (ft):	2.50	Volume:	80,667		BCY or CC
		Source of esti	mated quantity: Append	lix A Table 1.4	-5			
	HOURLY PR	ODUCTION						
	Seismic:							
			Seismic Velocity:	NA	feet/sec	ond		
	Area:							
			ge Ripping Depth:	2.50	feet/pas			
			ge Ripping Width: e Ripping Length:	<u>8.67</u> 500.00	feet/pas feet/pas			
			rage Dozer Speed:	88.00	feet/mir			
			e Maneuver Time:	0.25	minutes			
		Produc	ction per unit area:	1.007	acres/ho	our		
	Job Condition Co	orrection Factor	<u>s</u>					
	Ur	adjusted Hourly	y Unit Production:	1.007	Acres/h	r		
			Site Altitude: Altitude Adj:	<u>6,400</u> 1.00	feet	ID)		
			Job Efficiency:	0.83	(CAT H (1 shift/			
			Net Correction:	0.83	(1 shift multipli			
			Hourly Unit Production: Hourly Fleet Production:	0.84 3.34	Acres/hr Acres/hr			
	JOB TIME AN	ND COST						
	Fleet size:	4	Grader(s)	Total job tim	ne:	5.98	Ho	ours
	Unit cost:	\$473.684	Per acre	Total job cos	st: \$	9,474		

	Trapper Mine		Permit Action:	PR11	Perm	it/Job#: <u>C19</u>	81010
		ENTIFICATIO					
	T. 1 // 0.5		<u>N</u>				
	Task #: 066 Date: 11/ User: ZT	23/2022	State:ColoradoCounty:Moffat		Abbrevi File		e)-066
	Agency	or organization n	ame: DRMS				
	HOURLY EO	UIPMENT CO	ST				
		Machine: Cat I	D10T - 10SU ank Ripper		Horsepower: Shift Basis: Data Source:	574 1 per day (CRG)	
	Cost Breakdown:					()	
	<u>Cost Dicukdown</u>	-			Utilization %		
		Ownership Cos		\$153.67	NA		
	р.	Operating Cos		\$166.94	100		
	11	er Ownership Cos per Operating Cos		\$22.74 \$11.11	NA 100		
	Кірі	Operator Cos		\$41.30	NA		
		Total Unit Cos		\$395.76			
		Total Fleet Cos	t/Hour: \$1,58	83.05			
	MATERIAL (Sele	ected estimating	method: Area		
	Alternate Method	<u>ls:</u>					
smic:	NA		Bank Volume:	NA	BCY	NA	
Area:	29.30	acres	Rip Depth (ft):	2.50	Volume: 118	,177	BCY or
		Source of estimation	ated quantity: Append	dix A Table 1.4-	-5		
	HOURLY PRO	DDUCTION					
	Seismic:						
	<u>Seisinie.</u>	Se	ismic Velocity:	NA	feet/second	l	
	Aroos		·				
	Area:	Average	Ripping Depth:	2.50	feet/pass		
			Ripping Width:	8.67	feet/pass		
			Ripping Length:	500.00	feet/pass		
			e Dozer Speed:	88.00	feet/minute		
			Ianeuver Time:	0.25	minutes/pa	SS	
		Productio	on per unit area:	1.007	acres/hour		
	Job Condition Co	prrection Factors					
	Un	adjusted Hourly U	Init Production:	1.007	Acres/hr		
			Site Altitude:	6,400	feet		
			Altitude Adj:	1.00	(CAT HB)		
			Job Efficiency:	0.83	(1 shift/day	7)	
			Net Correction:	0.83	multiplier		
		Adjusted H	ourly Unit Production:	0.84	Acres/hr		
			ourly Fleet Production:	3.34	Acres/hr		
	JOB TIME AN	ND COST					
	Fleet size:	4	Grader(s)	Total job time	e: 8.7'	7	Hours

	Task description:	Rip A Pit Haul Roads (M	iddle A and Nortl	h A)		_		
Site	: <u>Trapper Mine</u>	e Permit Actio	n: PR11	Permit/Jo	ob#: <u>C1981010</u>			
	PROJECT ID	ENTIFICATION						
Site Seismic: Area:	Task #: 067			Abbreviatio				
	Date: 11/ User: ZT	<u>23/2022</u> County: <u>Moffat</u>		Filenam	ne: <u>C010-067</u>			
		or organization name: DRMS						
	0.1	UIPMENT COST						
		Machine: Cat D10T - 10SU		Horsepower:	574			
	Ripper Att			Shift Basis:	1 per day			
	~ ~			Data Source:	(CRG)			
	Cost Breakdown:			Utilization %				
		Ownership Cost/Hour:	\$153.67	NA				
		Operating Cost/Hour:	\$166.94	100				
		er Ownership Cost/Hour:	\$22.74	NA				
	Ripp	ber Operating Cost/Hour:	\$11.11	100				
		Operator Cost/Hour: Total Unit Cost/Hour:	\$41.30 \$395.76	NA				
			\$393.70					
		Total Fleet Cost/Hour: \$	1,583.05					
	MATERIAL (DUANTITIES	Selected estimating	g method: Area				
	Alternate Method	<u>ls:</u>						
Seismic:	NA	Bank Volume	e: NA	BCY	NA			
Area:	21.50	acres Rip Depth (ft)): 2.50	Volume: 86,717	BC	CY or CC		
		Source of estimated quantity:App	pendix A Table 1.4	-5				
	HOURLY PRO	ODUCTION						
	Seismic:							
	<u>Seisine.</u>	Seismic Velocity:	NA	feet/second				
	A							
	Area:	Average Ripping Depth:	2.50	feet/pass				
		Average Ripping Width:	8.67	feet/pass				
		Average Ripping Length:	500.00	feet/pass				
		Average Dozer Speed:	88.00	feet/minute				
		Average Maneuver Time:	0.25	minutes/pass				
		Production per unit area:	1.007	acres/hour				
	Job Condition Correction Factors							
	Un	adjusted Hourly Unit Production:	1.007	Acres/hr				
		Site Altitude:	6,400	feet				
		Altitude Adj:	1.00	(CAT HB)				
		Job Efficiency:	0.83	(1 shift/day)				
		Net Correction:	0.83	multiplier				
		Adjusted Hourly Unit Production	on: 0.84	Acres/hr				
		Adjusted Hourly Fleet Production		Acres/hr				
	JOB TIME AN	<u>ND COST</u>						
	Fleet size:	4 Grader(s)	Total job tin	ne: 6.43	Hours			
	Unit cost:	\$473.684 Per acre	Total job co	st: \$10,184				

	Task description	: Rip N	N Pit Haul R	loads					
Site	: Trapper Min	e	Perr	mit Action:	PR11		Permit/Job#	C19810	010
	PROJECT ID	ENTIFICATI(<u>ON</u>						
	Task #: 06	8	State:	Colorado		Ab	breviation:	None	
	Date: 11	/23/2022	County:	Moffat			Filename:	C010-06	i8
	User: ZT	Т							
	Agency	or organization	name: DR	MS					
	HOURLY EQ	UIPMENT CO	<u>DST</u>						
	Basic	Machine: Cat	D10T - 10SU	U		Horsepower:		574	
	Ripper Att	tachment: 3-Sl	3-Shank Ripper			Shift Basis:		per day	
						Data Source:	(CRG)	
	Cost Breakdown	<u>:</u>							
						Utilization %			
		Ownership Co			\$153.67	NA			
	D	Operating Co			\$166.94	100	_		
		er Ownership Co per Operating Co			\$22.74 \$11.11	NA 100			
	Кір	Operator Co			\$41.30	NA			
		Total Unit Co			\$395.76	1 17 1			
		Total Fleet Co	st/Hour:	\$1,58	33.05				
	MATERIAL (<u>DUANTITIES</u>		Sele	ected estimating	g method: Are	ea		
	Alternate Method	ds:							
Seismic:	NA		Banl	c Volume:	NA	BCY		NA	
Area:	18.00	acres		Depth (ft):	2.50	Volume:	72,600		BCY or CCY
		Source of estin	- nated quantit	v Annen	dix A Table 1.4				
			inter quality	y. <u>rippen</u>		5			
	HOURLY PR	ODUCTION							
	Seismic:					a (
		S	Seismic Velo	city:	NA	feet/se	cond		
	Area:								
			e Ripping De		2.50	feet/pa			
		Average Ripping Width:			8.67	feet/pa			
		Average Ripping Length: Average Dozer Speed:			500.00 88.00	feet/pa			
		Average Maneuver Time:			0.25	feet/m	es/pass		
			ion per unit a		1.007	acres/l	-		
	Job Condition Co		1						
			1.007	A 2002	/h.e				
	UI	nadjusted Hourly				Acres/	111		
			Site Altit		6,400	feet			
			Altitude Job Efficie		<u>1.00</u> 0.83	(CAT (1 shif			
			Net Correct		0.83	(1 shif multip			
	Adjusted Hourly Unit Production: Adjusted Hourly Fleet Production:				0.84	Acres/hr			
		· ·	nourly Fleet	rrouuction:	3.34	Acres/hr			
	JOB TIME AN	ND COST							
	Fleet size:	4	Grader(s)		Total job tim	ne:	5.39	Ho	ours
	Unit cost:	\$473.684	Per acre		Total job co	st:	\$8,526		

	Task description:	Rip	East A Haul Roads (Eas	t A and East A	Split)			
Site:	: Trapper Mine	e	Permit Action:	PR11	Permi	t/Job#: <u>C19</u>	981010	
	PROJECT ID	ENTIFICATI	<u>ON</u>					
	Task #: 072 Date: 11/ User: ZT	/23/2022	State:ColoradoCounty:Moffat		Abbrevia Filer		e 0-072	
	Agency	or organization	name: DRMS					
	HOURLY EQ	UIPMENT CO	OST					
		Machine: Cat	D10T - 10SU hank Ripper		Horsepower:	574 1 per day	1	
					Data Source:	(CRG)		
	Cost Breakdown	<u>:</u>			Utilization %			
		Ownership Co	ost/Hour:	\$153.67	NA			
		Operating Co		\$166.94	100			
		er Ownership Co		\$22.74	NA			
	Ripj	per Operating Co		\$11.11	100			
		Operator Co		\$41.30	NA			
		Total Unit Co	ost/Hour:	\$395.76				
		Total Fleet Co	ost/Hour: \$1,58	3.05				
	MATERIAL ()UANTITIES	Sele	cted estimating	method: Area			
	Alternate Method		Sere	etea estimating				
		40.	Daula Valamaa	NT A	DCV	NT A		
mic: Area:	NA 9.90	acres	Bank Volume: Rip Depth (ft):	NA 2.50	BCY Volume: 39,9	NA 30	BCY or	
nca.).)0					50	DC1 01	
		Source of estin	nated quantity: Append	11x A Table 1.4	-5			
	HOURLY PR	ODUCTION						
	Seismic:							
		:	Seismic Velocity:	NA	feet/second			
	Area:							
	<u>I li cu.</u>	Averag	e Ripping Depth:	2.50	feet/pass			
			e Ripping Width:	8.67	feet/pass			
			e Ripping Length:	500.00	feet/pass			
			age Dozer Speed:	88.00	feet/minute			
			Maneuver Time:	0.25	minutes/pas	S		
		Produc	tion per unit area:	1.007	acres/hour			
	Job Condition Correction Factors							
	Un	adjusted Hourly	Unit Production:	1.007	Acres/hr			
			Site Altitude:	6,400	feet			
			Altitude Adj:	1.00	(CAT HB)			
			Job Efficiency:	0.83	(1 shift/day))		
			Net Correction:	0.83	multiplier			
		Adjusted	Hourly Unit Production:	0.84	Acres/hr			
			Hourly Fleet Production:	3.34	Acres/hr			
	JOB TIME AND COST							
	Fleet size:	4	Grader(s)	Total job tim	ie: 2.96	i	Hours	
	_			·			-	
	Unit cost:	\$473.684	Per acre	Total job cos	st: \$4,69	0	_	

	Task description:	Rip Access Road (Tasks 042-	-059)						
Site:	: Trapper Mine	Permit Action:	PR11	Permi	t/Job#: <u>C1</u>	981010			
	PROJECT ID	ENTIFICATION							
	Task #: 074			Abbrevi					
		23/2022 County: Moffat		Filer	name: C01	0-074			
	User: <u>ZT</u>	Γ							
	Agency	or organization name: DRMS							
	HOURLY EO	UIPMENT COST							
		Machine: Cat D10T - 10SU		Horsepower:	574				
	Ripper Att			Shift Basis:	1 per day	/			
	11			Data Source:	(CRG)				
	Cost Breakdown:								
	Cost Dictate will.			Utilization %					
		Ownership Cost/Hour:	\$153.67	NA					
		Operating Cost/Hour:	\$166.94	100					
		er Ownership Cost/Hour:	\$22.74	NA					
	Ripp	Der Operating Cost/Hour:	\$11.11	100 NA					
		Operator Cost/Hour: Total Unit Cost/Hour:	\$41.30 \$395.76	NA					
			φ373./O						
		Total Fleet Cost/Hour: \$1,58	3.05						
	MATERIAL Q	DUANTITIES Sele	ected estimating	method: Area					
	Alternate Method		ierea estimating i						
				DOV					
smic: Area:	NA 10.40	Bank Volume: acres Rip Depth (ft):	NA 2.50	BCY Volume: 41,9	NA 47	BCY c			
Alea.	10.40				+/	BCT 0			
		Source of estimated quantity: Append	dix A Table 1.4-	5					
	HOURLY PRO	DDUCTION							
	Seismic:								
	<u>bershile.</u>	Seismic Velocity:	NA	feet/second					
	A #000	·							
	Area:	Average Ripping Depth:	2.50	feet/pass					
		Average Ripping Width:	8.67	feet/pass					
		Average Ripping Length:	500.00	feet/pass					
		Average Dozer Speed:	88.00	feet/minute					
		Average Maneuver Time:	0.25	minutes/pas	S				
		Production per unit area:	1.007	acres/hour					
	Job Condition Correction Factors								
	Un	adjusted Hourly Unit Production:	1.007	Acres/hr					
		Site Altitude:	6,400	feet					
		Altitude Adj:	1.00	(CAT HB)					
		Job Efficiency:	0.83	(1 shift/day))				
		Net Correction:	0.83	multiplier					
		Adjusted Hourly Unit Production:	0.84	Acres/hr					
		Adjusted Hourly Fleet Production:	3.34	Acres/hr					
	JOB TIME AND COST								
	Fleet size:	4 Grader(s)	Total job time	: 3.11		Hours			
			I Otal JOU tille	. 3.11		110015			
			5			-			
BULLDOZER RIPPING WORK

	Task description:	Rip K Pit	t Haul Roads (KMai	n, K1, K2 , K3	3)			
Site	: Trapper Mine	e	Permit Action:	PR11	P	ermit/Job#	: <u>C1981(</u>	010
	PROJECT ID	ENTIFICATION						
	Task #: 07:		State: Colorado			reviation:	None	
	Date: 11/ User: ZT		ounty: Moffat			Filename:	C010-07	75
	Agency	or organization name	e: DRMS					
	HOURLY EQ	UIPMENT COST						
			T - 10SU		Horsepower:		574	
	Ripper Att	tachment: <u>3-Shank</u>	Ripper	_	Shift Basis: Data Source:		per day CRG)	
	C (D 11				Data Source.	(CKU)	
	Cost Breakdown	<u>:</u>			Utilization %			
		Ownership Cost/H	our:	\$153.67	NA			
		Operating Cost/H		\$166.94	100	_		
		er Ownership Cost/H		\$22.74 \$11.11	NA 100	-		
	Кірј	per Operating Cost/H Operator Cost/H		\$41.30	100 NA	_		
		Total Unit Cost/H		\$395.76		_		
		Total Fleet Cost/H	our: \$1,58	2 05				
			our. \$1,50	5.05				
	MATERIAL (<u>DUANTITIES</u>	Sele	cted estimating	method: Area	a		
	Alternate Method	ds:						
smic:	NA		Bank Volume:	NA	BCY		NA	
Area:	7.10	acres	Rip Depth (ft):	2.50	Volume:	28,637		BCY or
		Source of estimated	l quantity: Append	ix A Table 1.4	-5			
	HOURLY PR	ODUCTION						
	Seismic:							
	<u></u>	Seisn	nic Velocity:	NA	feet/sec	ond		
	Area:							
			oping Depth:	2.50	feet/pas			
			oping Width:	8.67	feet/pas			
		Average Rip	ping Length: Dozer Speed:	500.00 88.00	feet/pas feet/min			
		Average Mar		0.25	minutes			
			per unit area:	1.007	acres/he	-		
	Job Condition Correction Factors							
		adjusted Hourly Unit	Production	1.007	Acres/h	nr		
	UI					ш		
			Site Altitude:	<u>6,400</u> 1.00	feet (CAT H	JB)		
			Altitude Adj: b Efficiency:	0.83	(CAT F (1 shift)	,		
			t Correction:	0.83	(1 sint	-		
		Adjusted Hou	rly Unit Production:	0.84	Acres/hr			
			ly Fleet Production:	3.34	Acres/hr			
	JOB TIME AN	•						
	Fleet size:		ader(s)	Total job tim	e.	2.12	н	ours
	_			·				
	Unit cost:	\$473.684 Pe	r acre	Total job cos	st:\$	3,363		

BULLDOZER RIPPING WORK

Site	Task description:		Iid, I West)			
site.	Trapper Mine	Permit Action:	PR11	Permit	Job#: <u>C1981010</u>)
]	PROJECT IDE	NTIFICATION				
	Task #: 077 Date: 11/2 User: ZTT	State:Colorado3/2022County:Moffat		Abbreviat		
	Agency of	or organization name: DRMS				
ŗ	•••	IPMENT COST				
-		Iachine: Cat D10T - 10SU		Horsepower:	574	
	Ripper Atta			Shift Basis:	1 per day	
	11			Data Source:	(CRG)	
(Cost Breakdown:					
			<i>•150.55</i>	Utilization %		
		Ownership Cost/Hour: Operating Cost/Hour:	\$153.67 \$166.94	<u>NA</u> 100		
	Rippe	· Ownership Cost/Hour:	\$22.74	NA		
		er Operating Cost/Hour:	\$11.11	100		
		Operator Cost/Hour:	\$41.30	NA		
		Total Unit Cost/Hour:	\$395.76			
		Total Fleet Cost/Hour: \$1,5	83.05			
۲	MATERIAL Q					
-			lected estimating	method: Area		
4	Alternate Methods	<u>::</u>				
nic:	NA	Bank Volume:	NA	BCY	NA	
ea:	15.23	acres Rip Depth (ft):	2.50	Volume: 61,42	8 I	BCY of
		Source of estimated quantity: Appen	ndix A Table 6.2			
J	HOURLY PRO	DUCTION				
:	Seismic:					
<u>×</u>	<u>beisinie.</u>	Seismic Velocity:	NA	feet/second		
	Area:					
4	Alta.	Average Ripping Depth:	2.50	feet/pass		
		Average Ripping Width:	8.67	feet/pass		
		Average Ripping Length:	500.00	feet/pass		
		Average Dozer Speed:	88.00	feet/minute		
		Average Maneuver Time: Production per unit area:	0.25	minutes/pass acres/hour		
		·	1.007			
-	Job Condition Cor	rection Factors				
	Una	djusted Hourly Unit Production:	1.007	Acres/hr		
		Site Altitude:	6,400	feet		
		Altitude Adj:	1.00	(CAT HB)		
		Job Efficiency:	0.83	(1 shift/day)		
		Net Correction:	0.83	multiplier		
		Adjusted Hourly Unit Production:		Acres/hr		
				Acres/hr Acres/hr		
	JOB TIME AN	Adjusted Hourly Unit Production: Adjusted Hourly Fleet Production:				
<u>-</u>	JOB TIME AN Fleet size:	Adjusted Hourly Unit Production: Adjusted Hourly Fleet Production:		Acres/hr	Hour	rs

	Trop 1	rade Coyote Impoundme	ent		
: Trapper Mine		Permit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDEN	TIFICATI	<u>ON</u>			
Task #: 078		State: Colorado		Abbreviation:	None
Date: 11/28/ User: ZTT	/2022	County: Moffat		Filename:	C010-078
Agency or	organization	name: DRMS			
HOURLY EQUI	PMENT C	<u>OST</u>			
Basic Machine:	Cat D10T ·	- 10SU			
Horsepower:	574				
Blade Type:	Semi-Univ	ersal			
Attachment:	NA				
Shift Basis:	$\frac{1 \text{ per day}}{(CPC)}$				
Data Source:	(CRG)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/H		\$153.67	NA		
Operating Cost/H		\$166.94	100		
Ripper own. Cost/H		\$0.00	NA		
Ripper op. Cost/H		\$0.00	0		
Operator Cost/H	lour:	\$41.30	NA		
MATERIAL QU	ANTITIES 83,750				
Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated	83,750 1.000 83,750 LCY volume: swell factor:	Appendix A Table A-	7.2		
Initial Volume:	83,750 1.000 83,750 LCY volume: swell factor:	Appendix A Table A-	7.2		
Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated	83,750 1.000 83,750 LCY volume: swell factor: DUCTION nce:	Appendix A Table A-	7.2		
Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distan	83,750 1.000 83,750 LCY volume: swell factor: DUCTION nce: production:	Appendix A Table A- Operator Estimate 500 feet 410.8 LCY/hr			
Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distan Unadjusted hourly p	83,750 1.000 83,750 LCY volume: swell factor: DUCTION nce: production: cy description ent: 10 %	Appendix A Table A- Operator Estimate 500 feet 410.8 LCY/hr			
Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distan Unadjusted hourly p Materials consistence Average push gradie Average site altitude	83,750 1.000 83,750 LCY volume: swell factor: DUCTION nce: production: cy description ent: 10 % 6,400	Appendix A Table A- Operator Estimate 500 feet 410.8 LCY/hr			
Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distan Unadjusted hourly p Materials consistence Average push gradie Average site altitude	$\begin{array}{r} 83,750 \\ \hline 1.000 \\ \hline 83,750 LCY \\ \hline volume: \\ swell factor: \\ \hline 0UCTION \\ \hline nce: \\ \hline oroduction: \\ \hline cy description \\ e: \\ \hline 10 \% \\ e: \\ \hline 2,550 \\ \hline \end{array}$	Appendix A Table A- Operator Estimate 500 feet 410.8 LCY/hr a: Consolidated stockp			
Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distan Unadjusted hourly p Materials consistence Average push gradie Average site altitude Material weight:	83,750 1.000 83,750 LCY volume: swell factor: DUCTION nce: production: cy description ent: 10 % 6,400 2,550 User	Appendix A Table A- Operator Estimate 500 feet 410.8 LCY/hr a: Consolidated stockp 0 feet 0 lbs/LCY Provided			
Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distan Unadjusted hourly p Materials consistence Average push gradie Average site altitude Material weight: Weight description: Job Condition Correct	83,750 1.000 83,750 LCY volume: swell factor: DUCTION nce: production: cy description ent: 10 % 6,400 2,550 User	Appendix A Table A- Operator Estimate 500 feet 410.8 LCY/hr a: Consolidated stockp 0 feet 0 lbs/LCY Provided			
Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distan Unadjusted hourly p Materials consistence Average push gradie Average site altitude Material weight: Weight description: Job Condition Correc Oper Material co	83,750 1.000 83,750 LCY volume: swell factor: DUCTION nce: production: cy description ent: 10 % e: 6,400 2,550 User rator Skill: possistency:	Appendix A Table A- Operator Estimate 500 feet 410.8 LCY/hr a: Consolidated stockp 0 feet 0 lbs/LCY Provided 0.750 1.000			
Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distan Unadjusted hourly p Materials consistence Average push gradie Average site altitude Material weight: Weight description: Job Condition Corree Oper Material co Dozin	83,750 1.000 83,750 LCY volume: swell factor: DUCTION nce: production: cy description ent: 10 % e: 6,400 2,550 User ection Factor rator Skill:	Appendix A Table A- Operator Estimate 500 feet 410.8 LCY/hr a: Consolidated stockp 0 feet 0 lbs/LCY Provided 0.750	bile 1.0		

Job efficience	cy: 0.830	(1 SHIFT/DAY)
Spoil pi	le: 0.800	(FND-RF)
Push gradie	nt: 0.786	(CAT HB)
Altitud	le: 1.000	(CAT HB)
Material Weight	ht: 0.902	(CAT HB)
Blade typ	be: 1.000	(PAT)
Net correction	on: 0.3531	
Adjusted unit production:	145.05 LCY/hr	
Adjusted fleet production:	290.1 LCY/hr	

Fleet size:	2 Dozer(s)
Unit cost:	\$2.495/LCY

Total job time:	288.69 Hours
Total job cost:	\$208,963

Page 1 of 2

Task description:	Regrade Middle	r yeare impo			
Trapper Mine	Peri	mit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENTIF	FICATION				
Task #: 079	State:	Colorado		Abbreviation:	None
Date: $11/28/2022$		Moffat		Filename:	C010-079
User: ZTT	<u> </u>			<u> </u>	2010 017
Agency or orga	anization name: DR	RMS			
HOURLY EQUIPMI	ENT COST				
	at D10T - 10SU				
Horsepower: 574	4 mi-Universal				
Blade Type: Set Attachment: NA			_		
			_		
	per day RG)				
	NU)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:		\$153.67	NA		
Operating Cost/Hour:		\$166.94	100		
Ripper own. Cost/Hour:		\$0.00	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$41.30	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour:	\$361.91 \$361.91				
Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume:15,3	\$361.91 \$361.91 FITIES 381				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,3 Swell factor: 1.00	\$361.91 \$361.91 FITIES 381				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,3 Swell factor: 1.00	\$361.91 \$361.91 FITIES 381 00 381 LCY				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,3 Swell factor: 1.00 Loose volume: 15,3	\$361.91 \$361.91 FITIES 381 00 381 LCY Ime:Appendix	 			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,3 Swell factor: 1.00 Loose volume: 15,3 Source of estimated volu	\$361.91 \$361.91 TITIES 381 00 381 LCY Ime: Appendix Il factor: Operator	 			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,3 Swell factor: 1.00 Loose volume: 15,3 Source of estimated volu Source of estimated swell	\$361.91 \$361.91 TITIES 381 00 381 LCY Ime: Appendix Il factor: Operator	 			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,3 Swell factor: 1.00 Loose volume: 15,3 Source of estimated volu swel HOURLY PRODUCT 100	\$361.91 \$361.91 TITIES 381 00 381 LCY Ime: Appendix 11 factor: Operator TION 225 feet	A Table A- Estimate			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,3 Swell factor: 1.00 Loose volume: 15,3 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUCC Average push distance: Unadjusted hourly produ	\$361.91 \$361.91 FITIES 381 00 381 LCY Ime: Appendix 11 factor: Operator TION 225 feet action: 842.1 LCY/	A Table A- Estimate	7.2		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,3 Swell factor: 1.00 Loose volume: 15,3 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUCT Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient:	\$361.91 \$361.91 TITIES 381 00 381 LCY ime: Appendix Il factor: Operator TION action: 225 feet action: 842.1 LCY/ escription: Consoli 10 %	A Table A- Estimate	7.2		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,3 Swell factor: 1.00 Loose volume: 15,3 Source of estimated volu 50 Source of estimated volu 50 MOURLY PRODUCC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude:	\$361.91 \$361.91 TITIES 381 00 381 LCY ime: Appendix If factor: Operator TION action: 225 feet action: 842.1 LCY/ escription: Consoli 10 % 6,400 feet	A Table A- Estimate	7.2		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,3 Swell factor: 1.00 Loose volume: 15,3 Source of estimated volu 50 Source of estimated volu 50 MOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude:	\$361.91 \$361.91 TITIES 381 00 381 LCY ime: Appendix Il factor: Operator TION action: 225 feet action: 842.1 LCY/ escription: Consoli 10 %	A Table A- Estimate	7.2		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,3 Swell factor: 1.00 Loose volume: 15,3 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUC' Average push distance: Unadjusted hourly produ Materials consistency de Average site altitude: Material weight: Weight description:	\$361.91 \$361.91 \$361.91 ITTIES 381 00 381 LCY ime: Appendix If factor: Operator TION action: 225 feet action: 842.1 LCY/ escription: Consoli 10 % 6,400 feet 2,550 lbs/LCY User Provided	A Table A- Estimate	7.2		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,3 Swell factor: 1.00 Loose volume: 15,3 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUCC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction	\$361.91 \$361.91 \$361.91 TITIES 381 00 381 LCY ime: Appendix 1 factor: Operator TION action: 225 feet action: 225 feet scription: Consoli 10 % 6,400 feet 2,550 lbs/LCY User Provided n Factor Free Provided	hr idated stockp	7.2 7.2 bile 1.0 <u>Source</u>		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,3 Swell factor: 1.00 Loose volume: 15,3 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUCC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator	\$361.91 \$361.91 \$361.91 TITIES 381 00 381 LCY ime: _Appendix 00 381 LCY ime: _Appendix Operator TION action: 225 feet action: 225 feet secription: Consoli 10 % 6,400 feet 2,550 lbs/LCY User Provided n Factor 0.1		7.2 7.2 5000000000000000000000000000000000000		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,3 Swell factor: 1.00 Loose volume: 15,3 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consist	\$361.91 \$361.91 \$361.91 TITIES 381 00 381 LCY Ime: _Appendix 11 factor: Operator TION action: 225 feet scription: Consoli 10 % 6,400 feet 2,550 lbs/LCY User Provided n Factor 0. Skill: 0. tency: 1.	A Table A- Estimate hr idated stockp 750 000	7.2 7.2 5000000000000000000000000000000000000		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 15,3 Swell factor: 1.00 Loose volume: 15,3 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consist Dozing me	\$361.91 \$361.91 TITIES 381 00 381 LCY Ime: Appendix Il factor: Operator TION action: 225 feet action: Consoli		7.2 7.2 5000000000000000000000000000000000000		

cy: 0.830	(1 SHIFT/DAY)
ile: 0.800	(FND-RF)
ent: 0.786	(CAT HB)
de: 1.000	(CAT HB)
ht: 0.902	(CAT HB)
pe: 1.000	(PAT)
on: 0.3531 297.35 LCY/hr	
297.35 LCY/hr	
	Ile: 0.800 nt: 0.786 de: 1.000 ht: 0.902 pe: 1.000 on: 0.3531 297.35 LCY/hr

Fleet size:	1 Dozer(s)
Unit cost:	\$1.217/LCY
Total job time:	51 73 Hours

Total job time:	51.73 Hours
Total job cost:	\$18,721

Task description:	Regrade Far Ea				
Trapper Mine	Per	mit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENTI	FICATION				
Task #: 080	State:	Colorado		Abbreviation:	None
Date: $11/28/20$		Moffat		Filename:	C010-080
User: ZTT	<u></u>				
Agency or org	ganization name:	RMS			
HOURLY EQUIPM	<u>IENT COST</u>				
	Cat D10T - 10SU 74				
1 <u> </u>	semi-Universal				
•1	VA				
	per day				
	CRG)				
Cost Breakdown:		I	TT . 11		
		¢152.67	<u>Utilization %</u>		
Ownership Cost/Hour		\$153.67	NA 100		
Operating Cost/Hour Ripper own. Cost/Hour		\$166.94 \$0.00	100 NA		
Ripper op. Cost/Hour		\$0.00	0		
\mathbf{K}		\$0.00	0		
		¢41.20	NT A		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour:		\$41.30	NA		
Operator Cost/Hour Total unit Cost/Hour:	:: \$361.91 \$361.91 NTITIES	\$41.30	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 34 Swell factor: 1.	:: \$361.91 \$361.91 NTITIES	\$41.30	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 34 Swell factor: 1. Loose volume: 34	:: \$361.91 \$361.91 NTITIES 42 000 12 LCY				
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 34 Swell factor: 1.	:: \$361.91 \$361.91 NTITIES 22 000 2 LCY lume:Appendiz	 x A Table A-			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: <u>34</u> Swell factor: <u>1.1</u> Loose volume: <u>34</u> Source of estimated vo	:: \$361.91 \$361.91 NTITIES 22 000 2 LCY lume:Appendiz				
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: <u>34</u> Swell factor: <u>1.1</u> Loose volume: <u>34</u> Source of estimated vo	:: <u>\$361.91</u> \$361.91 VTITIES ¹²	 x A Table A-			
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 34 Swell factor: 1.1 Loose volume: 34 Source of estimated vo Source of estimated sw HOURLY PRODUC	::	 x A Table A-			
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: <u>34</u> Swell factor: <u>1.4</u> Loose volume: <u>34</u> Source of estimated vo Source of estimated sw <u>HOURLY PRODUC</u>	\$361.91 \$361.91 \$361.91 VTITIES 12 000 12 LCY lume: Appendix ell factor: Operator CTION 100 feet	x A Table A- Estimate			
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 34 Swell factor: 1. Loose volume: 34 Source of estimated vo Source of estimated vo Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly prod	\$361.91 \$361.91 \$361.91 VTITIES 42 000 42 LCY lume: Appendix vell factor: Operator CTION induction: 1,718.9 LC	x A Table A- Estimate	7.2		
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: <u>34</u> Swell factor: <u>1.1</u> Loose volume: <u>34</u> Source of estimated vo Source of estimated vo Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly proc	\$361.91 \$361.91 \$361.91 \$361.91 \$361.91 \$361.91 \$2 000 \$2 12 000 \$2 12 12 12 12 12 12 12 12 12 12 12 12 12 13 14 100 <	x A Table A- Estimate	7.2		
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 34 Swell factor: 1. Loose volume: 34 Source of estimated vo Source of estimated vo Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly prod	\$361.91 \$361.91 \$361.91 \$361.91 \$361.91 \$361.91 \$2 000 \$2 12 000 \$2 12 12 12 12 12 12 12 12 12 12 12 12 12 13 14 100 <	x A Table A- Estimate	7.2		
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: <u>34</u> Swell factor: <u>1.1</u> Loose volume: <u>34</u> Source of estimated vo Source of estimated vo Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly proc Materials consistency of Average push gradient: Average site altitude:	::	x A Table A- Estimate	7.2		
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: <u>34</u> Swell factor: <u>1.1</u> Loose volume: <u>34</u> Source of estimated vo Source of estimated vo Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly proc Materials consistency of Average push gradient: Average site altitude:	\$361.91 \$361.91 \$361.91 \$361.91 \$361.91 \$361.91 \$12 000 \$2 12 000 \$2 12 000 \$2 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 13 14 10 10 6,400 10 6,400 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 </td <td>x A Table A- Estimate</td> <td>7.2</td> <td></td> <td></td>	x A Table A- Estimate	7.2		
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: <u>34</u> Swell factor: <u>1.4</u> Loose volume: <u>34</u> Source of estimated vo Source of estimated vo Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly proc Materials consistency of Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correctin	\$361.91 \$361.91 \$361.91 \$361.91 \$361.91 \$361.91 \$2 000 \$2 12 000 \$2 12 000 \$2 12 12 000 \$2 12 12 12 12 12 12 12 12 12 12 12 12 12 13 14 10 10 6,400 feet 2,550 lbs/LCY User Provided on Factor	 x A Table A- Estimate Y/hr lidated stockp	7.2 ————————————————————————————————————		
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 34 Swell factor: 1.1 Loose volume: 34 Source of estimated vo Source of estimated vo Source of estimated vo Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly proc Materials consistency of Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correcti Operato	\$361.91 \$361.91 \$361.91 \$361.91 VTITIES \$2 000 \$2 LCY lume: Appendix operator CTION duction: 1,718.9 LC lescription: Consol 10 % 6,400 feet 2,550 lbs/LCY User Provided on Factor 0	 x A Table A- Estimate Y/hr lidated stockp	7.2 7.2 pile 1.0 <u>Source</u> (AVG.)		
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: <u>34</u> Swell factor: <u>1.1</u> Loose volume: <u>34</u> Source of estimated vo Source of estimated vo Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly proc Materials consistency of Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correcti Operato Material consi	$\begin{array}{c c} & \\ & \\ & \\ \hline \hline & \\ \hline \hline \\ \hline & \\ \hline \hline \\ \hline & \\ \hline \hline \hline \\ \hline \hline \hline \\ \hline \hline \hline \hline \\ \hline \hline \hline \hline \hline \\ \hline \hline$	 x A Table A- Estimate Y/hr lidated stockp	7.2 7.2 pile 1.0 Source (AVG.) (CAT HB)		
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: <u>34</u> Swell factor: <u>1.1</u> Loose volume: <u>34</u> Source of estimated vo Source of estimated vo Materials consistency of Material consi Dozing r	$\begin{array}{c c} & \\ & \\ & \\ \hline \hline & \\ \hline & \\ \hline \hline & \\ \hline \hline & \\ \hline & \\ \hline \hline & \\ \hline \hline \\ \hline & \\ \hline \hline \\ \hline & \\ \hline \hline \hline \\ \hline \hline \hline \\ \hline \hline \hline \hline \\ \hline \hline \hline \hline \hline \\ \hline \hline$	 x A Table A- Estimate Y/hr lidated stockp	7.2 7.2 pile 1.0 <u>Source</u> (AVG.)		

y: 0.830	(1 SHIFT/DAY)
e: 0.800	(FND-RF)
it: 0.786	(CAT HB)
e: 1.000	(CAT HB)
it: 0.902	(CAT HB)
e: 1.000	(PAT)
n: <u>0.3531</u>	
606.94 LCY/hr	
606.94 LCY/hr	
	e: 0.800 tt: 0.786 e: 1.000 tt: 0.902 e: 1.000 m: 0.3531 606.94 LCY/hr

Fleet size:	1 Dozer(s)
Unit cost:	\$0.596/LCY
Total job time:	0 56 Hours

Hours
4

Task description:	Regrade Sa	ge Impoundment	ts (1 and 2)		
Trapper Mine		Permit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENT	IFICATION				
Task #: 081	S	tate: Colorado		Abbreviation:	None
Date: $11/28/20$		inty: Moffat		Filename:	C010-081
User: ZTT	<u></u> 000	<u></u>		i nonume.	0010 001
Agency or or	ganization name:	DRMS			
HOURLY EQUIPM	MENT COST				
	Cat D10T - 10SU				
	574				
JI	Semi-Universal				
	NA				
	1 per day				
Data Source:((CRG)				
Cost Breakdown:					
		¢1.50.45	<u>Utilization %</u>		
Ownership Cost/Hou		\$153.67	NA		
Operating Cost/Hou		\$166.94	100		
Ripper own. Cost/Hou Ripper op. Cost/Hou		\$0.00 \$0.00	<u>NA</u> 0		
		\$41.30			
Operator Cost/Hou	r:	\$41.30	NA		
MATERIAL QUAN					
	,302				
	.000 , 302 LCY				
Loose volume. <u>o</u> ,	,502 LC 1				
Source of estimated vo		pendix A Table 1.4	-6		
Source of estimated sw	vell factor: Ope	erator Estimate			
HOURLY PRODU	CTION				
Average push distance	e: 150 fe	et			
Unadjusted hourly pro		.2 LCY/hr			
Materials consistency		onsolidated stock	pile 1.0		
A	10.0/				
Average push gradient Average site altitude:					
Average site antitude.	6 /100 feet				
	6,400 feet				
Material weight:	6,400 feet 2,550 lbs/LC	Y			
Material weight: Weight description:					
Weight description: Job Condition Correcti	2,550 lbs/LC User Provide	ed	Source		
Weight description: Job Condition Correction Operat	2,550 lbs/LC User Provide ion Factor_ or Skill:	ed 0.750	(AVG.)		
Weight description: Job Condition Correct Operat Material cons	2,550 lbs/LC User Provide ion Factor or Skill:	0.750 1.000	(AVG.) (CAT HB)		
Weight description: <u>Job Condition Correction</u> Operation Material const Dozing	2,550 lbs/LC User Provide ion Factor_ or Skill:	ed 0.750	(AVG.)		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	0.786	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.3531	
Adjusted unit production: 43	8.97 LCY/hr	
Adjusted fleet production: 43	8.97 LCY/hr	

Fleet size:	1 Dozer(s)
Unit cost:	\$0.824/LCY
Total ich time	19 01 Hours

I otal job time:	18.91 Hours
Total job cost:	\$6,845

Task description:	Regrade West Horse Impour	ndment		
Trapper Mine	Permit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENTIF	ICATION			
Task #: 082	State: Colorado		Abbreviation:	None
Date: 11/28/2022			Filename:	C010-082
User: ZTT				
Agency or orga	nization name: DRMS			
HOURLY EQUIPME	ENT COST			
	t D10T - 10SU			
Horsepower: 574				
<i></i>	mi-Universal			
Attachment: NA Shift Basis: 1 p	er day			
1	RG)			
Cost Breakdown:		TT.'11		
Ownership Cont/II-	¢150	<u>Utilization %</u> NA		
Ownership Cost/Hour: Operating Cost/Hour:	\$153.67 \$166.94	100		
Ripper own. Cost/Hour:	\$0.00	NA		
Ripper op. Cost/Hour:	\$0.00	0		
Operator Cost/Hour:	\$41.30	NA		
Total unit Cost/Hour:	\$361.91			
MATERIAL QUANT Initial Volume: 3,31				
Swell factor: 1.00	0			
Loose volume: 3,31	5 LCY			
Source of estimated volu		7.2		
Source of estimated swel	l factor: Operator Estimate			
HOURLY PRODUC	ΓΙΟΝ			
Average push distance:	55 feet			
Unadjusted hourly produ				
Materials consistency des		bile 1.0		
······································	1			
Average push gradient: Average site altitude:	10 % 6,400 feet			
Material weight:	2,550 lbs/LCY		_	
Weight description:	User Provided			
Job Condition Correction		Source		
Operator		(AVG.)		
Material consist		(CAT HB)		
Dozing me		(GEN.)		
Visil	bility: 1.000	(AVG.)		

cy: 0.830	(1 SHIFT/DAY)
le: 0.800	(FND-RF)
nt: 0.786	(CAT HB)
le: 1.000	(CAT HB)
ht: 0.902	(CAT HB)
pe: 1.000	(PAT)
on: 0.3531	
942.78 LCY/hr	
942.78 LCY/hr	
	le: 0.800 nt: 0.786 de: 1.000 ht: 0.902 be: 1.000 on: 0.3531 942.78 LCY/hr

Fleet size:	1 Dozer(s)
Unit cost:	\$0.384/LCY

Total job time:	3.52 Hours
Total job cost:	\$1,273

Task description:	Regrade Impoundment H			
: Trapper Mine	Permit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENTIF	ICATION			
Task #: 083	State: Colorado		Abbreviation:	None
Date: 11/28/2022			Filename:	C010-083
User: ZTT			-	
Agency or orga	nization name: DRMS			
HOURLY EQUIPME	ENT COST			
Basic Machine: Cat	t D10T - 10SU			
Horsepower: 574				
JI	mi-Universal			
Attachment: NA		_		
	er day	_		
Data Source: (Cl	RG)			
Cost Breakdown:				
		Utilization %		
Ownership Cost/Hour:	\$153.67	NA		
Operating Cost/Hour:	\$166.94	100		
Ripper own. Cost/Hour:	\$0.00	NA		
Ripper op. Cost/Hour:	\$0.00	0		
Operator Cost/Hour:	\$41.30	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour:	\$361.91 \$361.91			
	\$361.91			
Total Fleet Cost/Hour:	\$361.91 <u>TITIES</u>			
Total Fleet Cost/Hour:	\$361.91 TITIES 8			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,19 Swell factor: 1.00	\$361.91 TITIES 8			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,19 Swell factor: 1.00 Loose volume: 3,19 Source of estimated volu	\$361.91 TITIES 8 0 8 LCY me:Appendix A Table A-7			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,19 Swell factor: 1.00 Loose volume: 3,19 Source of estimated volu Source of estimated volu Source of estimated swel	\$361.91 CITIES 8 8 0 0 8 8 0 8 0 8 0 8 0 8 0 8 0 9 0 8 0 1 factor: Appendix A Table A-7 Operator Estimate	7.2		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,19 Swell factor: 1.00 Loose volume: 3,19 Source of estimated volu 3,19 Source of estimated volu 3,19 Mathematical Volume: 1.00 Mathematical Volume: 3,19 Loose volume: 1.00 Mathematical Volume: 3,19 Source of estimated volu 3,19 Mathematical Volume: 3,19 Mathmathmatical Volume: 3,19	\$361.91 TITIES 8 0 8 LCY me: Appendix A Table A-7 1 factor: Operator Estimate FION	 7.2		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,19 Swell factor: 1.00 Loose volume: 3,19 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUCT Average push distance:	\$361.91 CITIES 8 0 8 0 8 8 0 8 0 8 0 8 0 9 0 8 0 9 0 8 0 9 0 9 0 9 0 1 factor: Operator Estimate 0 150 feet	 7.2		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,19 Swell factor: 1.00 Loose volume: 3,19 Source of estimated volu 3,19 Source of estimated volu 3,19 Matter of estimated volu 3,19 Source of estimated volu 3,19 Loose volume: 3,19 Matter of estimated volu 3,19 Source of estimated volu 3,19 Matter of estimated volu 3,19 <	\$361.91 CITIES 8 0 8 0 8 8 0 8 0 8 0 8 0 9 0 8 0 9 0 8 0 9 0 9 0 9 0 1 factor: Operator Estimate 0 150 feet 150 feet	7.2		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,19 Swell factor: 1.00 Loose volume: 3,19 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUCT Average push distance:	\$361.91 TTIES 8 0 8 0 8 8 LCY 8 1 factor: Appendix A Table A-7 Operator Estimate 0 FION 150 feet ction: 1,243.2 LCY/hr			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,19 Swell factor: 1.00 Loose volume: 3,19 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUCT Average push distance: Unadjusted hourly produ	\$361.91 CITIES 8 0 8 0 8 8 0 8 LCY 9 me: Appendix A Table A-7 1 factor: Operator Estimate FION 150 feet ction: 1,243.2 LCY/hr			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,19 Swell factor: 1.00 Loose volume: 3,19 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUCT Average push distance: Unadjusted hourly produ Materials consistency des Average push gradient:	\$361.91 CITIES 18 0 8 0 8 0 8 0 8 0 8 0 8 0 8 0 8 0 8 0 8 1 150 feet 1,243.2 LCY/hr scription:			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,19 Swell factor: 1.00 Loose volume: 3,19 Source of estimated volu 3,19 Source of estimated volu 3,19 Source of estimated volu 3,19 Materials consistency destinated swel 1.00 HOURLY PRODUCY Average push distance: Unadjusted hourly produ Materials consistency destinated swel Average push gradient: Average site altitude:	\$361.91 STTIES 8 0 8 LCY me: Appendix A Table A-7 1 factor: Operator Estimate I factor: Operator Estimate FION 150 feet ction: 1,243.2 LCY/hr scription: Consolidated stockp 10 % 6,400 feet			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,19 Swell factor: 1.00 Loose volume: 3,19 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUCT Average push distance: Unadjusted hourly produ Materials consistency des Average push gradient: Average site altitude: Material weight:	\$361.91 STTIES 8 0 8 LCY me: Appendix A Table A-7 1 factor: Operator Estimate I factor: Operator Estimate I factor: 150 feet ction: 1,243.2 LCY/hr scription: Consolidated stockp 10 % 6,400 feet 2,550 lbs/LCY User Provided			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,19 Swell factor: 1.00 Loose volume: 3,19 Source of estimated volu 3,19 Material sconsistency 3,19 Average push distance: 10 Unadjusted hourly produ Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator	\$361.91 STTIES 8 0 8 LCY me: Appendix A Table A-7 1 factor: Operator Estimate I factor: Operator Estimate I factor: 150 feet ction: 1,243.2 LCY/hr scription: Consolidated stockp 10 % 6,400 feet 2,550 lbs/LCY User Provided Viser Provided 0.750	 ile 1.0		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,19 Swell factor: 1.00 Loose volume: 3,19 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUCT Average push distance: Unadjusted hourly produ Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consist	\$361.91 CITIES 8 0 8 LCY me: Appendix A Table A-7 1 factor: Operator Estimate FION ction: 150 feet 1,243.2 LCY/hr scription: Consolidated stockp 10 %			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,19 Swell factor: 1.00 Loose volume: 3,19 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUCT Average push distance: Unadjusted hourly produ Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consist Dozing me	\$361.91 CITIES 8 0 8 LCY me: Appendix A Table A-7 1 factor: Operator Estimate FION ction: 150 feet 1,243.2 LCY/hr scription: Consolidated stockp 10 %			

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1)
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Fleet size:	1 Dozer(s)
Unit cost:	\$0.824/LCY

Total job time:	7.29 Hours
Total job cost:	\$2,637

PROJECT IDENTIFICATION Task #: 084 State: Colorado Abbreviation: None Date: 11/28/2022 County: Moffat Filename: C010-084 Use: ZTT Agency or organization name: DRMS HOURLY EQUIPMENT COST Basic Machine: Cat D10T - 10SU Horsepower Horsepower 574 Blade Type: Semi-Universal Attachment: NA Shift Basis: 1 per day Data Source: (CGG) Cost Breakdown: Material costHour: Øwnership CostHour: \$153.67 NA Operating CostHour: Shift Basis: 1 per day Data Source: (CGG) Cost Breakdown: \$153.67 Øwnership CostHour: \$155.67 NA Operating CostHour: Shift Basis: 1 per day Data Source: \$361.91 Total Well CostHour: \$361.91 Total Fiel CostHour: \$361.91 Total Fiel CostHour: \$3279 Source of estimated volume: Appendix A TableA-7.2 Source of estimated volume: \$279 LCY	Task description:	Regrade Industrial Waste Po	ond		
Task #: 084 State: Colorado Abbreviation: None Dit: 11/28/2022 County: Moffat Filename: C010-084 User: ZIT Agency or organization name: DRMS Environmentation of the second of the seco	Trapper Mine	Permit Action:	PR11	Permit/Job#:	C1981010
Date: 11/28/2022 County: Moffat Filename: C010-084 Agency or organization name: DRMS HOURLY EQUIPMENT COST Basic Machine: Cat D107 - 10SU Horsepower: 574 Blade Type: Semi-Universal Attachment: NA Attachment: NA Ownership Cost/Hour: \$153.67 Ownership Cost/Hour: \$166.94 Operating Cost/Hour: \$166.94 Operating Cost/Hour: \$166.94 Total unit Cost/Hour: \$30.00 NA Operating Cost/Hour: Still Basis: 1.91 Total unit Cost/Hour: \$361.91 Total Piet Cost/Hour: \$361.91 Total Piet Cost/Hour: \$32.79 Swelf factor: .000 Loose volume: 3.279 Swelf factor: .0perator Estimate HOURLY PRODUCTION A TableA-7.2 Source of estimated swell factor: .0perator Estimate Huadjusted hourly production: 1.243.2 LCY/hr Materials consistency description: .0onsolidated stockpile 1.0	PROJECT IDENTIF	ICATION			
User: <u>ZTT</u>	Task #: 084	State: Colorado		Abbreviation:	None
Agency or organization name: DRMS HORLY EQUIPMENT COST Basic Machine: Cat D107 - 108U Horspower: 574 Blade Type: Semi-Universal Attachment: Na Attachment: Na Data Source: CGG) Cost Breakdown: Ownership Cost/Hour: \$153.67 Nata Source: Ownership Cost/Hour: \$153.67 Nata Source: Operating Cost/Hour: \$153.67 Nator \$100 Ripper own. Cost/Hour: \$153.67 Nator \$100 Operator Cost/Hour: \$16.91 Total unit Cost/Hour: \$361.91 Total Pieet Cost/Hour: \$361.91 Swell factor:	Date: 11/28/2022	County: Moffat		Filename:	C010-084
HOURLY EQUIPMENT COST Basic Machine: Cat D10T - 10SU Horsepower: 574 Blade Type: Semi-Universal Attachment: NA Shift Basis: I per day Data Source: (CRG) Cost Breakdown: Utilization %. Ownership Cost/Hour: \$153.67 NA Source: Operating Cost/Hour: \$153.67 NA \$000 Ripper own. Cost/Hour: \$153.67 NA \$0.00 Operator Cost/Hour: \$165.94 Operator Cost/Hour: \$361.91 Total unit Cost/Hour: \$361.91 Total cost/Hour: \$361.91 Total unit Cost/Hour: \$361.91 Total unit Cost/Hour: \$361.91 Total unit Cost/Hour: \$3279 Swell factor: 1.000 Loose volume: 3.279 Source of estimated volume: Appendix A TableA-7.2 Source of estimated swell factor: Operator Estimate HOURLY PRODUCTION	User: ZTT				
Basic Machine: Cat D10T - 10SU Horsepower: 574 Blade Type: Semi-Universal Attachment: NA Shift Basis: 1 per day Data Source: (CRG) Cost Breakdown: Utilization % Ownership Cost/Hour: \$153.67 NA Operating Cost/Hour: \$166.94 100 Ripper op. Cost/Hour: \$30.00 NA Ripper op. Cost/Hour: \$30.00 0 Operator Cost/Hour: \$30.00 0 Total unit Cost/Hour: \$361.91	Agency or organ	nization name:DRMS			
Horsepower: 574 Blade Type: Semi-Universal Attachmeti: NA Shift Basis: 1 per day Data Source: (CRG) Cost Breakdown: Utilization % Ownership Cost/Hour: \$153.67 NA Operating Cost/Hour: \$166.94 100 Ripper own. Cost/Hour: \$30.00 NA Ripper own. Cost/Hour: \$30.00 0 Operating Cost/Hour: \$361.91 NA Total unit Cost/Hour: \$361.91 NA Total Piet Cost/Hour: \$3279 Swell factor: 1.000 Loose volume: 3.279 Swell factor: Operator Estimate MATERIAL QUANTITIES Initial Volume: 3.279 Swell factor: Operator Estimate Source of estimated volume: Appendix A TableA-7.2 Source of estimated swell factor: Operator Estimate HOURLY PRODUCTION Average push distance: 150 feet Initial consistency description: Initial Consolidated stockpile 1.0 Average push gradient: 0 % Initial consistency description: Consolidated stockpile 1.0 Average sit altitude: <td>HOURLY EQUIPME</td> <td>ENT COST</td> <td></td> <td></td> <td></td>	HOURLY EQUIPME	ENT COST			
Blade Type: Semi-Universal Attachment: NA Shift Basis I per day Data Source: (CRG) Cost Breakdown: Utilization % Ownership Cost/Hour: \$153.67 NA Operating Cost/Hour: \$166.94 100 Ripper own. Cost/Hour: \$0.00 NA Ripper op. Cost/Hour: \$0.00 0 Operator Cost/Hour: \$361.91 Statistical Science Total unit Cost/Hour: \$361.91 Statistical Science Statistical Science MATERIAL OUANTITIES Swelf factor: 1.000 Science Science Jource of estimated volume: Appendix A TableA-7.2 Source of estimated swell factor: Operator Estimate HOURLY PRODUCTION Average push distance: 150 feet Science Science Materials consistency description: Consolidated stockpile 1.0 Source Average push gradient: 10 % Average push gradient: 10 % Source Source Source Weight description: User Provided Source Source Job Condition Correction Factor Source	Basic Machine: Cat	: D10T - 10SU			
Attachnent: NA I per day I per day Data Source: (CRG) Cost Breakdown: Utilization % Ownership Cost/Hour: \$153.67 NA Operating Cost/Hour: \$166.94 100 Ripper own. Cost/Hour: \$0.00 NA Operating Cost/Hour: \$361.91 0 Total unit Cost/Hour: \$361.91 0 Total Fleet Cost/Hour: \$361.91 0 Total Fleet Cost/Hour: \$3279 0 Swell factor: 1.000 0 Loose volume: 3.279 LCY 0 Source of estimated swell factor: Operator Estimate 0 HOURLY PRODUCTION Appendix A TableA-7.2 0 0 Average push distance: 150 feet 0 0 Unadjusted hourly production: 1.243.2 LCY/hr 0 0 Average push gradient: 10 % 0 0 0 Average site altitude: 6.400 feet 0 0 0 0 Material weight: 2.550 lbs/LCY Source 0 0 0					
Shift Basis: I per day Data Source: (CRG) Cost Breakdown: Ownership Cost/Hour: \$153.67 NA NA Operating Cost/Hour: \$166.94 Ipper own. Cost/Hour: \$0.00 NA NA Ripper op. Cost/Hour: \$0.00 Operator Cost/Hour: \$30.00 Operator Cost/Hour: \$361.91 Total unit Cost/Hour: \$361.91 Total Unit Cost/Hour: \$361.91 Mattenate Cost/Hour: \$361.91 Total Unit Cost/Hour: \$361.91 Mattenation of estimate or cost/Hour: \$3279 Source of estimated volume: Appendix A TableA-7.2 Source of estimated volume: Appendix A TableA-7.2 Source of estimated swell factor: Operator Estimate HOURLY PRODUCTION Average push distance: 150 feet Unadjusted hourly production: Consolidated stockpile 1.0 Average push gradient: 10 % Average site altitude: 6.400 feet Material weight: 2.550 lbs/LCY Weight description: <t< td=""><td></td><td></td><td></td><td></td><td></td></t<>					
Data Source: (CRG) Cost Breakdown: Utilization % Ownership Cost/Hour: \$153.67 NA Operating Cost/Hour: \$166.94 100 Ripper op. Cost/Hour: \$0.00 NA Ripper op. Cost/Hour: \$0.00 0 Operator Cost/Hour: \$30.00 0 Total unit Cost/Hour: \$361.91 NA Total Fleet Cost/Hour: \$361.91 NA MATERIAL OUANTITIES Initial Volume: 3.279 Swell factor: 1.000					
Cost Breakdown: Utilization % Ownership Cost/Hour: \$153.67 NA Operating Cost/Hour: \$\$156.94 100 Ripper op. Cost/Hour: \$\$0.00 NA Operator Cost/Hour: \$\$0.00 0 Operator Cost/Hour: \$\$361.91 NA Total unit Cost/Hour: \$\$361.91 NA Total Fleet Cost/Hour: \$\$361.91					
Unitization % Ownership Cost/Hour: \$153.67 NA Operating Cost/Hour: \$166.94 100 Ripper op. Cost/Hour: \$0.00 NA Operator Cost/Hour: \$30.00 0 Operator Cost/Hour: \$361.91 NA Total unit Cost/Hour: \$361.91 NA Total unit Cost/Hour: \$361.91 NA MATERIAL QUANTITIES	<u></u>	(0)			
Ownership Cost/Hour: \$153.67 NA Operating Cost/Hour: \$166.94 100 Ripper op. Cost/Hour: \$0.00 NA Ripper op. Cost/Hour: \$30.00 0 Operator Cost/Hour: \$361.91 NA Total unit Cost/Hour: \$361.91 NA Total Fleet Cost/Hour: \$361.91 NA MATERIAL QUANTITIES Initial Volume: \$3.279 Swell factor: 1.000	Cost Breakdown:				
Operating Cost/Hour: \$166.94 100 Ripper own. Cost/Hour: \$0.00 NA Ripper op. Cost/Hour: \$30.00 0 Operator Cost/Hour: \$361.91 NA Total unit Cost/Hour: \$361.91 NA Total unit Cost/Hour: \$361.91 NA MATERIAL QUANTITIES	Ownership Crat/II-	¢150 77			
Ripper own. Cost/Hour: $$0.00$ NA Ripper op. Cost/Hour: $$0.00$ 0 Operator Cost/Hour: $$361.91$ NA Total unit Cost/Hour: $$361.91$ NA Total Fleet Cost/Hour: $$361.91$ NA MATERIAL QUANTITIES Initial Volume: $$3,279$ Swell factor: 1.000					
Ripper op. Cost/Hour: $$0.00$ 0 Operator Cost/Hour: $$31.30$ NA Total unit Cost/Hour: $$3361.91$ NA Total Fleet Cost/Hour: $$3361.91$ NA MATERIAL QUANTITIES Initial Volume: 3.279 Swell factor: 1.000					
Operator Cost/Hour: \$41.30 NA Total unit Cost/Hour: \$361.91 Total Fleet Cost/Hour: \$361.91 MATERIAL QUANTITIES Initial Volume: 3,279 Swell factor: 1.000 Loose volume: 3,279 LCY Source of estimated volume: Appendix A TableA-7.2 Source of estimated swell factor: Operator Estimate HOURLY PRODUCTION Appendix A TableA-7.2 Average push distance: 150 feet Unadjusted hourly production: 1.243.2 LCY/hr Materials consistency description: Consolidated stockpile 1.0 Average push gradient: 10 % Average site altitude: 6.400 feet Material weight: 2.550 lbs/LCY Weight description: User Provided Job Condition Correction Factor Source Operator Skill: 0.750 (AVG.) Material consistency: 1.000 (CAT HB) Dozing method: 1.000 (GEN.)					
Total unit Cost/Hour: \$361.91 Total Fleet Cost/Hour: \$361.91 MATERIAL QUANTITIES Initial Volume: 3,279 Swell factor: 1.000 Loose volume: 3,279 LCY Source of estimated volume: Appendix A TableA-7.2 Source of estimated swell factor: Operator Estimate HOURLY PRODUCTION 1.243.2 LCY/hr Materials consistency description: Consolidated stockpile 1.0 Average push distance: 10 % Average site altitude: 6,400 feet Material weight: 2,550 lbs/LCY Weight description: User Provided Job Condition Correction Factor Source Operator Skill: 0.750 (AVG.) Material consistency: 1.000 Material consistency: 1.000 (CAT HB)					
Swell factor: 1.000 Loose volume: 3,279 LCY Source of estimated volume: Appendix A TableA-7.2 Source of estimated swell factor: Operator Estimate HOURLY PRODUCTION Average push distance: 150 feet Unadjusted hourly production: 1,243.2 LCY/hr Materials consistency description: Consolidated stockpile 1.0 Average push gradient: 10 % Average site altitude: 6,400 feet Material weight: 2,550 lbs/LCY Weight description: User Provided Job Condition Correction Factor Source Operator Skill: 0.750 Material consistency: 1.000 Material consistency: 1.000					
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Average push gradient: 10 % Average site altitude: 6,400 feet Material weight: 2,550 lbs/LCY Weight description: User Provided Job Condition Correction Factor Source Operator Skill: 0.750 Material consistency: 1.000 Job Dozing method: 1.000	Unadjusted nourry produc	cuon. <u>1,245.2 LC 1/m</u>			
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Weight description: User Provided Job Condition Correction Factor Source Operator Skill: 0.750 (AVG.) Material consistency: 1.000 (CAT HB) Dozing method: 1.000 (GEN.)					
Job Condition Correction FactorSourceOperator Skill:0.750Material consistency:1.000Dozing method:1.000	Material weight:	2,550 lbs/LCY			
Operator Skill:0.750(AVG.)Material consistency:1.000(CAT HB)Dozing method:1.000(GEN.)	Weight description:	User Provided			
Operator Skill:0.750(AVG.)Material consistency:1.000(CAT HB)Dozing method:1.000(GEN.)	Job Condition Correction	Factor	Source		
Dozing method: 1.000 (GEN.)	Operator	Skill: 0.750	(AVG.)		
			(GEN.) (AVG.)		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	0.786	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.3531	
Adjusted unit production: 43	38.97 LCY/hr	
Adjusted fleet production: 43	38.97 LCY/hr	

Fleet size:	1 Dozer(s)
Unit cost:	\$0.824/LCY

Total job time:	7.47 Hours
Total job cost:	\$2,703

Task description: Reg	rade Deal 1 and 2			
Trapper Mine	Permit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENTIFICATI	ION			
Task #: 085 Date: 11/28/2022 User: ZTT	State:ColoradoCounty:Moffat		Abbreviation: Filename:	None C010-085
Agency or organization	name: DRMS			
HOURLY EQUIPMENT C	<u>OST</u>			
Basic Machine: Cat D10T	- 10SU	_		
Horsepower: 574				
Blade Type: Semi-Univ				
Attachment: <u>3-shank rij</u> Shift Basis: 1 per day	pper	_		
Data Source: (CRG)		_		
Cost Breakdown:				
	,	<u>Utilization %</u>		
Ownership Cost/Hour:	\$153.67	NA		
Operating Cost/Hour:	\$166.94	100		
Ripper own. Cost/Hour:	\$22.74 \$5.56	NA		
Ripper op. Cost/Hour:		50		
Operator Cost/Hour:	\$41.30	NA		
MATERIAL QUANTITIES Initial Volume: 9,555 Swell factor: 1.000				
Loose volume: 9,555 LCY				
Source of estimated volume:	A-7.2			
Source of estimated swell factor	Cat Handbook			
HOURLY PRODUCTION				
Average push distance:	50 feet			
Unadjusted hourly production:	2,748.7 LCY/hr			
Materials consistency description	n: Compacted fill or en	nbankment 0.9		
Average push gradient:0 %Average site altitude:7,500) feet			
Material weight: 2,550) lbs/LCY			
Weight description:Earth	1 - Dry packed			
Job Condition Correction Factor		Source		
Operator Skill:	0.750	(AVG.)		
Material consistency:				
	0.900	(CAT HB))		
Dozing method: Visibility:	0.900 1.000 1.000	(CAT HB)) (GEN.) (AVG.)		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.700	(FND-MF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:		
Adjusted unit production: 97	72.22 LCY/hr	
Adjusted fleet production: 97	72.22 LCY/hr	

Fleet size:	1 Dozer(s)
Unit cost:	\$0.401/LCY

Total job time:	9.83 Hours
Total job cost:	\$3,835

Task description: R	egrade Deacon 1	/	, i		
Trapper Mine	Perm	nit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENTIFICA	TION				
Task #: 086	State:	Colorado		Abbreviation:	None
Date: $11/28/2022$	County:	Moffat		Filename:	C010-086
User: ZTT	County.	wionat		Thename.	010-080
Agency or organizati	ion name: DR	MS			
rigency of organizati					
HOURLY EQUIPMENT	COST				
)T - 10SU				
Horsepower: 574 Blade Type: Semi-U	nivorsol				
Attachment: 3-shank					
Shift Basis: 1 per da					
Data Source: (CRG)	.,				
Cost Breakdown:			Utilization %		
Ownership Cost/Hour:		\$153.67	NA		
Operating Cost/Hour:		\$166.94	100		
Ripper own. Cost/Hour:		\$22.74	NA		
Ripper op. Cost/Hour:		\$5.56	50		
Operator Cost/Hour: Total unit Cost/Hour: \$3 Total Fleet Cost/Hour:	90.21 9 0.21 ES	\$41.30	NA		
Operator Cost/Hour: Total unit Cost/Hour: \$3 Total Fleet Cost/Hour: \$3 MATERIAL QUANTITI	90.21	\$41.30	NA		
Operator Cost/Hour:	90.21	\$41.30	NA		
Operator Cost/Hour: Total unit Cost/Hour: \$3 Total Fleet Cost/Hour: \$3 MATERIAL QUANTITIE Initial Volume: 92,093 Swell factor: 1.000	990.21 <u>ES</u>	\$41.30	NA		
Operator Cost/Hour: \$3 Total unit Cost/Hour: \$3 Total Fleet Cost/Hour: \$3 MATERIAL QUANTITIE Initial Volume: 92,093 Swell factor: 1.000 Loose volume: 92,093 L	9 0.21 ES CY	\$41.30			
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Operator Cost/Hour: \$3 Total unit Cost/Hour: \$3 Total Fleet Cost/Hour: \$3 MATERIAL QUANTITIE Initial Volume: 92,093 Swell factor: 1.000 Loose volume: 92,093 L	ES CY 				
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: \$3 MATERIAL QUANTITI Initial Volume: Swell factor: Loose volume: 92,093 1.000 92,093 1.000 92,093 1.000 92,093 1.000 92,093 1.000 92,093 1.000 92,093 1.000 92,093 1.000 92,093 1.000 92,093 1.000 92,093 1.000 92,093 1.000 92,093 1.000 92,093 1.000 92,093 1.000 92,093 1.000 92,093 1.000 92,093 1.000 92,093 1.000 92,093 1.000 92,093 1.000 92,093 1.000 92,093 1.000 92,093 1.000 92,093 1.000 92,093 1.000 92,093 1.000 92,093 1.000 92,093 1.000 92,093 1.000 92,093 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 	ES CY CY CY CY CAT Handb				
Operator Cost/Hour: \$3 Total unit Cost/Hour: \$3 Total Fleet Cost/Hour: \$3 MATERIAL QUANTITI Initial Volume: 92,093 Swell factor: 1.000 Loose volume: 92,093 L Source of estimated volume: Source of estimated swell factor HOURLY PRODUCTION 1000	ES CY CY A-7.2 Cat Handb N				
Operator Cost/Hour: Total unit Cost/Hour: \$3 Total Fleet Cost/Hour: \$3 MATERIAL QUANTITI Initial Volume: 92,093 Swell factor: 1.000 Loose volume: 92,093 L Source of estimated volume: Source of estimated swell fact HOURLY PRODUCTION Average push distance:	ES CY CY CY CY CY Cat Handb N 50 feet	 pook			
Operator Cost/Hour: \$3 Total unit Cost/Hour: \$3 Total Fleet Cost/Hour: \$3 MATERIAL QUANTITIE Initial Volume: 92,093 Swell factor: 1.000 Loose volume: 92,093 L/ Source of estimated volume: Source of estimated swell fact HOURLY PRODUCTIOI Average push distance: Unadjusted hourly production	$\frac{\text{ES}}{\text{CY}}$ $\frac{\text{A-7.2}}{\text{Cat Handb}}$ $\frac{\text{S0 feet}}{2,748.7 \text{ LCY}}$	 pook			
Operator Cost/Hour: Total unit Cost/Hour: \$3 Total Fleet Cost/Hour: \$3 MATERIAL QUANTITI Initial Volume: 92,093 Swell factor: 1.000 Loose volume: 92,093 L Source of estimated volume: Source of estimated swell fact HOURLY PRODUCTION Average push distance:	$\frac{\text{ES}}{\text{CY}}$ $\frac{\text{A-7.2}}{\text{Cat Handb}}$ $\frac{\text{S0 feet}}{2,748.7 \text{ LCY}}$	 pook	 mbankment 0.9		
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y: 0.830	(1 SHIFT/DAY)
e: 0.700	(FND-MF)
nt: 1.000	(CAT HB)
e: 1.000	(CAT HB)
nt: 0.902	(CAT HB)
e: 1.000	(PAT)
n: 0.3537	
972.22 LCY/hr	
972.22 LCY/hr	
	e: 0.700 ht: 1.000 e: 1.000 ht: 0.902 e: 1.000 n: 0.3537 972.22 LCY/hr

Fleet size:	1 Dozer(s)
Unit cost:	\$0.401/LCY

Total job time:	94.72 Hours
Total job cost:	\$36,962

Trapper Mine		Permit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENTI	FICATION				
Task #: 087	Sta	te: Colorado		Abbreviation:	None
Date: $11/28/202$		-		Filename:	C010-087
User: ZTT					
Agency or orga	anization name:	DRMS			
HOURLY EQUIPM	ENT COST				
	at D10T - 10SU				
Horsepower: 57					
I	emi-Universal				
	shank ripper				
	per day				
	CRG)		_		
Cost Breakdown:					
2051 DICANUUWII.			Utilization %		
Ownership Cost/Hour:		\$153.67	NA		
Operating Cost/Hour:		\$166.94	100		
Ripper own. Cost/Hour:		\$22.74	NA		
Ripper op. Cost/Hour:		\$5.56	50		
Operator Cost/Hour:		\$41.30	NA		
operator costribur.		φ+1.50	INA		
Fotal unit Cost/Hour:	\$390.21				
Fotal Fleet Cost/Hour:	\$390.21				
Fotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 4,9 Swell factor: 1.0	\$390.21 TITIES 23 00				
Fotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 4,9 Swell factor: 1.0	\$390.21 TITIES 23				
Fotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 4,9 Swell factor: 1.0	\$390.21 TITIES 23 00 23 LCY	2			
Fotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 4,9 Swell factor: 1.0 Loose volume: 4,9	\$390.21 TITIES 23 00 23 LCY ume: <u>A-7.2</u>	2 Handbook			
Fotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 4,9 Swell factor: 1.0 Loose volume: 4,9 Source of estimated volume	\$390.21 TITIES 23 00 23 LCY ume: <u>A-7.2</u>				
Fotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 4,9 Swell factor: 1.0 Loose volume: 4,9 Source of estimated volume	\$390.21 TITIES 23 00 23 LCY ume: A-7.2 cll factor: Cat H				
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Fotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 4,9 Swell factor: 1.0 Loose volume: 4,9 Source of estimated volu 4,9 Source of estimated swe 4,9 HOURLY PRODUC 4,9	\$390.21 TITIES 23 00 23 LCY ume: A-7.2 ell factor: Cat H CTION 80 feet	Iandbook			
Fotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 4,9 Swell factor: 1.0 Loose volume: 4,9 Source of estimated volu 5000000000000000000000000000000000000	\$390.21 TITIES 23 00 23 LCY ume: A-7.2 ell factor: Cat H CTION auction: 80 feet 2,028.0	Iandbook	 mbankment 0.9		
Fotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 4,9 Swell factor: 1.0 Loose volume: 4,9 Source of estimated volu 4,9 Source of estimated swe 4,9 HOURLY PRODUC Average push distance: Jnadjusted hourly product 4,9 Materials consistency definition 4,9	\$390.21 TITIES 23 00 23 LCY ume: A-7.2 ell factor: Cat F CTION auction: 80 feet 2,028.0 escription: Co	Handbook LCY/hr	 mbankment 0.9		
Fotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 4,9 Swell factor: 1.0 Loose volume: 4,9 Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Jnadjusted hourly product Materials consistency de Average push gradient:	\$390.21 TITIES 23 00 23 LCY ume: A-7.2 cll factor: Cat H CTION auction: 80 feet 2,028.0 escription: Co 0 %	Handbook LCY/hr	 mbankment 0.9		
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Fotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 4,9 Swell factor: 1.0 Loose volume: 4,9 Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Jnadjusted hourly product Materials consistency de Average push gradient: Average site altitude:	\$390.21 TITIES 23 00 23 LCY ume: A-7.2 ell factor: Cat H CTION auction: 2,028.0 escription: Co 0 % 7,500 feet	Handbook LCY/hr mpacted fill or en	 mbankment 0.9		
Fotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 4,9 Swell factor: 1.0 Loose volume: 4,9 Source of estimated volu 4,9 Source of estimated volu 4,9 Source of estimated volu 50 Average push distance: 10 Jnadjusted hourly product 4 Average push gradient: 4 Average site altitude: 4 Average site altitude: 4	\$390.21 TITIES 23 00 23 LCY ume: A-7.2 ell factor: Cat H CTION action: 2,028.0 escription: Co 0 % 7,500 feet 2,550 lbs/LCY Earth - Dry pa	Handbook LCY/hr mpacted fill or en	 mbankment 0.9 		
Fotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 4,9 Swell factor: 1.0 Loose volume: 4,9 Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Jnadjusted hourly product Average push gradient: Average site altitude: Material weight: Weight description:	\$390.21 TITIES 23 00 23 LCY ume: A-7.2 21 factor: Cat H CTION auction: 2,028.0 escription: Co 0 % 7,500 feet 2,550 lbs/LCY Earth - Dry pa n Factor	Handbook LCY/hr mpacted fill or en			
Fotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 4,9 Swell factor: 1.0 Loose volume: 4,9 Source of estimated volu 4,9 Source of estimated volu 50 Source of estimated sweet 4,9 Materials consistency de 4,9 Average push distance: 10 Jnadjusted hourly product 4,9 Average push gradient: 4,9 Average site altitude: 4,9 Material weight: 4,9 Weight description: 4,9	\$390.21 TITIES 23 00 23 LCY ume: A-7.2 21 factor: Cat H 21 factor: Cat H 27 Cat H 200 23 LCY 200 ume: A-7.2 Cat H Cat H 2.028.0 2,028.0 escription: Co 0 % 7,500 feet 2,550 lbs/LCY Earth - Dry pa n Factor r Skill:	Iandbook LCY/hr mpacted fill or en	Source		
Fotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 4,9 Swell factor: 1.0 Loose volume: 4,9 Source of estimated volu 4,9 Source of estimated volu 5 Source of estimated sweet 4 HOURLY PRODUC 4 Average push distance: 1 Jnadjusted hourly product 4 Average push gradient: 4 Average site altitude: 4 Material weight: 4 Weight description: 1 (ob Condition Correction 0 Operator 1	\$390.21 TITIES 23 00 23 LCY ume: A-7.2 21 factor: Cat F 21 factor: Cat F 21 factor: 2.028.0 escription: Co 0 % 7,500 feet 2,550 lbs/LCY Earth - Dry pa m Factor r Skill: stency:	Handbook LCY/hr mpacted fill or en	Source (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:	0.4043	
Adjusted unit production: 81	9.92 LCY/hr	
Adjusted fleet production: 81	9.92 LCY/hr	

Fleet size:	1 Dozer(s)
Unit cost:	\$0.476/LCY

Total job time:	6.00 Hours
Total job cost:	\$2,343

			oundment		
Trapper Mine	Peri	mit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENTIFI	ICATION				
Task #: 088 Date: 11/28/2022 User: ZTT	State:	Colorado Moffat		Abbreviation: Filename:	None C010-088
Agency or organ	nization name: DR	RMS			
HOURLY EQUIPME	ENT COST				
	D10T - 10SU				
Horsepower: 574					
VI	ni-Universal				
	hank ripper				
Shift Basis: 1 pe	er day				
Data Source: (CR	RG)				
Cost Breakdown:		1	TT 111		
0 11 7 77		.	<u>Utilization %</u>		
Ownership Cost/Hour:		\$153.67	NA		
Operating Cost/Hour:		\$166.94	100		
Ripper own. Cost/Hour:		\$22.74	NA		
Ripper op. Cost/Hour:		\$5.56	50		
Operator Cost/Hour:		\$41.30	NA		
	\$390.21 <u>TTIES</u>				
Total Fleet Cost/Hour: <u>MATERIAL QUANT</u> Initial Volume: <u>6,414</u> Swell factor: <u>1.000</u>	<u>ITIES</u> 4 0				
MATERIAL QUANT Initial Volume: 6,414 Swell factor: 1.000	<u>'ITIES</u> 4				
MATERIAL QUANTInitial Volume:6,414Swell factor:1.000Loose volume:6,414	TTIES 4 0 4 LCY				
MATERIAL QUANTInitial Volume:6,414Swell factor:1.000Loose volume:6,414Source of estimated volume	ITIES 4 0 4 LCY me: A-7.2				
MATERIAL QUANTInitial Volume:6,414Swell factor:1.000Loose volume:6,414	ITIES 4 0 4 LCY me: A-7.2	 book			
MATERIAL QUANT Initial Volume: 6,414 Swell factor: 1.000 Loose volume: 6,414 Source of estimated volur 5000000000000000000000000000000000000	$\frac{\text{TTIES}}{4}$ 0 4 LCY $\text{me:} \qquad \underline{\text{A-7.2}}$ $\text{Tactor:} \qquad \underline{\text{Cat Hand}}$	 book			
MATERIAL QUANTInitial Volume:6,414Swell factor:1.000Loose volume:6,414Source of estimated volume	$\frac{\text{TTIES}}{4}$ 0 4 LCY $\text{me:} \qquad \underline{\text{A-7.2}}$ $\text{Tactor:} \qquad \underline{\text{Cat Hand}}$	 book			
MATERIAL QUANT Initial Volume: 6,414 Swell factor: 1.000 Loose volume: 6,414 Source of estimated volur 6,414 Source of estimated volur 6,414 Matter of estimated volur 6,414 Source of estimated volur 6,414 Loose volume: 6,414 Source of estimated volur 6,414 Mathematical volur 6,414 Source of estimated volur 6,414	$\frac{\text{TTIES}}{4}$ 0 4 LCY $\text{me:} \qquad \underline{\text{A-7.2}}$ $\text{Tactor:} \qquad \underline{\text{Cat Hand}}$	 book			
MATERIAL QUANT Initial Volume: 6,414 Swell factor: 1.000 Loose volume: 6,414 Source of estimated volur Source of estimated volur Source of estimated swell HOURLY PRODUCT Average push distance:	$\frac{\text{TTIES}}{4}$ $\frac{4}{0}$ $\frac{4}{4} \text{ LCY}$ $\text{me:} \qquad \underline{\text{A-7.2}}$ $\text{Tactor:} \qquad \underline{\text{Cat Hand}}$ $\frac{\text{TION}}{20 \text{ feet}}$				
MATERIAL QUANT Initial Volume: 6,414 Swell factor: 1.000 Loose volume: 6,414 Source of estimated volur Source of estimated swell HOURLY PRODUCT	TTIES 4 0 4 LCY me: A-7.2 I factor: Cat Hand TION ction: 70 feet 2,253.9 LCY	Y/hr	 mbankment 0.9		
MATERIAL QUANT Initial Volume: 6,414 Swell factor: 1.000 Loose volume: 6,414 Source of estimated volur Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product	TTIES 4 0 4 LCY me: A-7.2 I factor: Cat Hand TION ction: 70 feet 2,253.9 LCY	Y/hr	 mbankment 0.9		
MATERIAL QUANT Initial Volume: 6,414 Swell factor: 1.000 Loose volume: 6,414 Source of estimated volur 6,414 Source of estimated volur swell HOURLY PRODUCT Average push distance: Unadjusted hourly product 0.000	TTIES 4 0 4 LCY me: A-7.2 I factor: Cat Hand TION ction: 70 feet 2,253.9 LCY	Y/hr			
MATERIAL QUANT Initial Volume: 6,414 Swell factor: 1.000 Loose volume: 6,414 Source of estimated volur Source of estimated volur Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient:	TTIES 4 0 4 LCY me: A-7.2 1 factor: Cat Hand FION ction: 70 feet ction: 2,253.9 LC* ecription: Compa 0 %	Y/hr	 mbankment 0.9		
MATERIAL QUANT Initial Volume: 6,414 Swell factor: 1.000 Loose volume: 6,414 Source of estimated volur Source of estimated volur Source of estimated volur Materials consistency des Average push gradient: Average site altitude:	TTIES 4 0 4 LCY me: A-7.2 1 factor: Cat Hand CION ction: $\frac{70 \text{ feet}}{2,253.9 \text{ LCY}}$ scription: Compa 0 % 7,500 feet	Y/hr cted fill or er 	 mbankment 0.9		
MATERIAL QUANT Initial Volume: 6,414 Swell factor: 1.000 Loose volume: 6,414 Source of estimated volur Source of estimated volur Source of estimated volur Materials consistency des Average push gradient: Average site altitude: Material weight:	TTIES404 LCYme:A-7.21 factor:Cat HandCat HandCompa $2,253.9$ LCcription:Compa0 %7,500 feet2,550 lbs/LCYEarth - Dry packed	Y/hr cted fill or er 			
MATERIAL QUANT Initial Volume: 6,414 Swell factor: 1.000 Loose volume: 6,414 Source of estimated volur Source of estimated volur Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average site altitude: Material weight: Weight description:	TTIES 4 0 4 LCY me: A-7.2 1 factor: Cat Hand TION ction: $\frac{70 \text{ feet}}{2,253.9 \text{ LCY}}$ scription: Compa 0 % 7,500 feet 2,550 lbs/LCY Earth - Dry packed Factor Factor	Y/hr cted fill or er 			
MATERIAL QUANT Initial Volume: 6,414 Swell factor: 1.000 Loose volume: 6,414 Source of estimated volur Source of estimated volur Source of estimated volur Materials consistency des Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator S	TTIES 4 0 4 LCY ne: A-7.2 1 factor: Cat Hand TION ction: $\frac{70 \text{ feet}}{2,253.9 \text{ LC}}$ scription: Compa $\frac{0 \%}{7,500 \text{ feet}}$ 2,550 lbs/LCY Earth - Dry packed Factor Skill: 0.	Y/hr cted fill or er 	Source (AVG.)		
MATERIAL QUANT Initial Volume: 6,414 Swell factor: 1.000 Loose volume: 6,414 Source of estimated volur Source of estimated volur Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction	TTIES 4 0 4 LCY ne: A-7.2 1 factor: Cat Hand CION ction: $\frac{70 \text{ feet}}{2,253.9 \text{ LC}}$ ccription: Compa 0 % $\frac{7,500 \text{ feet}}{7,500 \text{ feet}}$ 2,550 lbs/LCY Earth - Dry packed Factor Skill: 0. ency: 0.	Y/hr cted fill or er I 750	Source		

0.830	(1 SHIFT/DAY)
0.800	(FND-RF)
1.000	(CAT HB)
1.000	(CAT HB)
0.902	(CAT HB)
1.000	(PAT)
0.4043	
1.25 LCY/hr	
1.25 LCY/hr	
	0.800 1.000 1.000 0.902 1.000 0.4043 1.25 LCY/hr

Fleet size:	1 Dozer(s)
Unit cost:	\$0.428/LCY

Total job time:	7.04 Hours
Total job cost:	\$2,747

	Regrade Diversi	ons			
: Trapper Mine	Per	mit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENTI	FICATION				
Task #: 089	State:	Colorado		Abbreviation:	None
Date: $11/28/202$		Moffat		Filename:	C010-89
User: ZTT				-	
Agency or org	ganization name:	RMS			
HOURLY EQUIPM	IENT COST				
	Cat D8T - 8SU				
	10 Semi-Universal				
	-shank ripper				
	per day				
	CRG)				
<u> </u>	*				
Cost Breakdown:			Utilization %		
Ownership Cost/Hour		\$124.85	NA		
Operating Cost/Hour		\$97.63	100		
Ripper own. Cost/Hour		\$13.10	NA		
Ripper op. Cost/Hour	:	\$3.65	50		
Operator Cost/Hour	:	\$41.30	NA		
MATERIAL QUAN					
Swell factor: 1.0	3,374 000				
Swell factor: 1.0					
Swell factor: 1.0	000 9,374 LCY				
Swell factor:1.0Loose volume:33	000 3,374 LCY lume: <u>A-8.2</u>	 lbook			
Swell factor: 1.0 Loose volume: 33 Source of estimated vol sw Source of estimated sw sw	000 3,374 LCY lume: <u>A-8.2</u> cat Hand	lbook			
Swell factor:1.0Loose volume:33Source of estimated vol	000 3,374 LCY lume: <u>A-8.2</u> cat Hand	lbook			
Swell factor: 1.0 Loose volume: 33 Source of estimated vol sw Source of estimated sw sw	000 3,374 LCY lume: <u>A-8.2</u> cat Hand <u>CTION</u>	lbook			
Swell factor: 1.0 Loose volume: 33 Source of estimated vol Source of estimated sw HOURLY PRODUC	000 3,374 LCY lume: <u>A-8.2</u> cat Hand <u>CTION</u> 50 feet				
Swell factor: 1.0 Loose volume: 33 Source of estimated vol Source of estimated sw HOURLY PRODUC Average push distance:	000 3,374 LCY lume: A-8.2 ell factor: Cat Hand CTION tuction: 50 feet duction: 1,400.0 LC	Y/hr	 mbankment 0.9		
Swell factor: 1.0 Loose volume: 33 Source of estimated vol Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly proc Materials consistency d	000 a,374 LCY lume: <u>A-8.2</u> cat Hand CTION function: <u>50 feet</u> luction: <u>1,400.0 LC</u> lescription: <u>Compa</u>	Y/hr	 mbankment 0.9		
Swell factor: 1.0 Loose volume: 33 Source of estimated vol Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly prod	000 a,374 LCY lume: <u>A-8.2</u> cat Hand CTION function: <u>50 feet</u> luction: <u>1,400.0 LC</u> lescription: <u>Compa</u>	Y/hr	mbankment 0.9		
Swell factor: 1.0 Loose volume: 33 Source of estimated vol Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly proc Materials consistency d Average push gradient:	000 a ,374 LCY lume: A-8.2 cat Hand CTION State 50 feet duction: 1,400.0 LC lescription: Compa 0 % Compa	Y/hr	 mbankment 0.9		
Swell factor: 1.0 Loose volume: 33 Source of estimated vol Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly proc Materials consistency d Average push gradient: Average site altitude:	000 3,374 LCY lume: A-8.2 Cat Hand Cat Hand CTION 50 feet duction: 50 feet lescription: Compa 0 % 7,500 feet	Y/hr heted fill or e	 mbankment 0.9		
Swell factor:1.0Loose volume:33Source of estimated volSource of estimated swHOURLY PRODUCAverage push distance:Unadjusted hourly procMaterials consistency dAverage push gradient:Average site altitude:Material weight:Weight description:Job Condition Correction	000 3,374 LCY lume: A-8.2 rell factor: Cat Hand CTION i 50 feet duction: 1,400.0 LC lescription: Compa 0 % 7,500 feet 2,550 lbs/LCY Earth - Dry packed on Factor Earth - Dry packed	Y/hr heted fill or e	Source		
Swell factor: 1.0 Loose volume: 33 Source of estimated vol Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly proc Materials consistency d Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operato	000 3,374 LCY lume: A-8.2 rell factor: Cat Hand CTION CTION is 50 feet duction: 1,400.0 LC lescription: Compa 0 % 7,500 feet 2,550 lbs/LCY Earth - Dry packed on Factor 0,500 feet or Skill: 0,000 feet	Y/hr icted fill or e	Source (AVG.)		
Swell factor: 1.0 Loose volume: 33 Source of estimated vol Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly proc Materials consistency d Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consi	000 3,374 LCY lume: A-8.2 cat Hand CTION Solution: 50 feet duction: 1,400.0 LC lescription: Compa 0 % 7,500 feet 2,550 lbs/LCY Earth - Dry packed on Factor 0, 0 or Skill: 0, 0 on Skill: 0, 0	Y/hr icted fill or e	Source (AVG.) (CAT HB))		
Swell factor: 1.0 Loose volume: 33 Source of estimated vol Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency d Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consi Dozing m	000 3,374 LCY lume: A-8.2 ell factor: Cat Hand CTION 50 feet duction: 1,400.0 LC lescription: Compa 0 % 7,500 feet 2,550 lbs/LCY Earth - Dry packed on Factor 0, istency: 0, istency: nethod: 1, istency: 0, istency:	Y/hr icted fill or e	Source (AVG.)		

Job efficience	cy: 0.830	(1 SHIFT/DAY)
Spoil pi	le: 0.800	(SSD-AC)
Push gradie	nt: 1.000	(CAT HB)
Altitud	le: 1.000	(CAT HB)
Material Weig	ht: 0.902	(CAT HB)
Blade typ	pe: 1.000	(PAT)
Net correction	on: 0.3881	
Adjusted unit production:	543.34 LCY/hr	
Adjusted fleet production:		

Fleet size:	1 Dozer(s)
Unit cost:	\$0.516/LCY

Total job time:	61.42 Hours
Total job cost:	\$17,231

SCRAPER TEAM WORK

Site: Trapper Mine		Permi	t Action:	PR11	Perr	nit/Job#: <u>C198</u>	1010
PROJECT IDEN	FIFICATION						
Task #: 090	S	tate:	Colorado		Abbrey	viation: None	
Date: $11/28/2$			Moffat			ename: C010-0)90
User: ZTT		J					
Agency or o	organization name:	DRM	IS				
HOURLY EQUIE	MENT			COSTSh	ift basis: <u>1 per d</u>	<u>ay</u>	
			Equipme	ent Description			
		craper:		/G w/push-pull			
Suppo	- rt Equipment -Load	Dozer:	NA Cat D1	0T - 10SU			
Suppo	-Dump			0T - 10SU			
Road Ma	intenance – Motor C		CAT 1				
	-Water	Truck:	Water	Fanker, 2,500 Gal.			
Cost Breakdown:	Scraper Wor	k Team		Support Equip	oment	Maintenance	Equipment
	Scraper	Do	zer	Load Area	Dump Area	Motor Grader	Water Tr
%Utilization-machine:	100		NA	50	50	50	
Ownership cost/hour:	\$287.19		NA	\$153.67	\$153.67	\$163.86	\$1
Operating cost/hour:	\$277.83		NA	\$83.47	\$83.47	\$54.93	\$1
%Utilization-ripper:	NA		NA	NA	NA	NA	
Ripper own. cost/hour:	NA		NA	\$0.00	\$0.00	\$0.00	\$
Ripper op. cost/hour:	NA		NA	\$0.00	\$0.00	\$0.00	\$
Operator cost/hour:	\$30.90		NA	\$41.30	\$41.30	\$28.56	\$2
Unit Subtotals:	\$595.92		NA	\$278.44	\$278.44	\$247.35	\$4
Number of Units:	8		0	1	1	1	
Group Subtotals:	Work:	\$4,76	67.36	Support:	\$556.88	Maint:	\$290.9
Total work team cost <u>MATERIAL QUA</u> Initial volume: Loose volume:	<u>ANTITIES</u> 		CCY LCY	Swell facto	or: <u>1.000</u>		
	rce of estimated vol of estimated swell fa		Appendi Cat Hand	x A, Table A-9.1 dbook			
HOURLY PROD	UCTION	_					_
				Scraper Bo	owl (volume) Basi	is:	
Material weight:	1,600 lbs/LCY			Struck V			CY
Material description:	Top Soil		;	Heaped V			CY
Rated Payload:	81,600 pounds			Average V	Volume: 29.00	L	CY
Payload Capacity:	51.00 LCY			Adjusted C	apacity: 29.00	L	CY

<u>1.00</u> Minutes

<u>0.60</u> Minutes

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6400 feet

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	NA	(CAT HB)
Job Efficiency:	0.830	NA	(CAT HB)
Net Correction:	0.830	NA	

Travel Time:

Road Condition: <u>Rutted dirt, little maintenance, no water, 1" tire penetration 4.0</u>

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1978.00	10.00	4.00	14.00	657	3.02

Haul Time: **3.02** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1978.00	-10.00	4.00	-6.00	2972	0.72
				Return Time:	0.72 1	ninutes
			Total Scrap	er team cycle time:	5.34	minutes
			Adjusted	for job conditions:	540.90	LCY/Hour
			Selected N	umber of Scrapers:	8	Scraper(s)
	Adjuste	d single scrap	per team (unit)	hourly production:	2,163.60	LCY/Hour
	Adjusted m	nultiple scrap	er team (fleet)	hourly production:	2,163.60	LCY/Hour
Optima	Unadjusted unit pro al Number of Scrapers pe		-	LCY/Hour		_

Fleet size:	1	Team(s)	Total job time:	5.20	Hours
Unit cost:	\$2.595	/LCY	Total job cost:	\$29,208	

SCRAPER TEAM WORK

Site: Trapper Mine		Permit	Action:	PR11	Peri	mit/Job#: <u>C198</u>	1010
PROJECT IDEN	FIFICATION						
Task #: 090A	St	tate: (Colorado		Abbrey	viation: None	
Date: 11/28/2			Moffat			ename: C010-	090A
User: ZTT							
Agency or o	organization name:	DRM	S				
HOURLY EQUIP	MENT_			COSTSI	nift basis: <u>1 per d</u>	<u>ay</u>	
			Equipm	ent Description			
		craper: Dozer:	Cat 63' NA	7G w/push-pull			
Suppo	rt Equipment -Load			0T - 10SU			
	-Dump	Area:		0T - 10SU			
Road Ma	intenance –Motor C -Water		CAT 1 Water	6M Tanker, 2,500 Gal.			
				i			
Cost Breakdown:	Scraper Worl	k Team Doz	70r	Support Equip Load Area	Dump Area	Maintenance Motor Grader	Equipment Water Tru
	-	D02			-		Water IIt
%Utilization-machine:	100		NA	\$152.67	\$152.67	50 \$1(2.9)	¢1(
Ownership cost/hour: Operating cost/hour:	\$287.19 \$277.83		NA NA	\$153.67 \$83.47	\$153.67 \$83.47	\$163.86 \$54.93	\$10
%Utilization-ripper:	\$277.85 NA		NA	۵۵۶.۹۷ NA	NA	NA	ψ12
Ripper own. cost/hour:	NA		NA	\$0.00	\$0.00	\$0.00	\$0
Ripper op. cost/hour:	NA		NA	\$0.00	\$0.00	\$0.00	\$0
Operator cost/hour:	\$30.90		NA	\$41.30	\$41.30	\$28.56	\$21
Unit Subtotals:	\$595.92		NA	\$278.44	\$278.44	\$247.35	\$43
Number of Units:	8		0	1	1	1	
Group Subtotals:	Work:	\$4,76	57.36	Support:	\$556.88	Maint:	\$290.95
Total work team cost	/hour: \$5,615.19						
MATERIAL QUA	ANTITIES						
Initial volume:	60,000		CCY	Swell fact	or: <u>1.000</u>		
Loose volume:	60,000		LCY				
	rce of estimated vol of estimated swell fa		Appendi Cat Han	ix A, Table A-10.1			
Source	frestimated swen h	<u></u>	Cat Han	dbook			
HOURLY PROD	<u>UCTION</u>						
				Scraper Bo	owl (volume) Bas	is:	
Material weight:	1,600 lbs/LCY			Struck `	Volume: 24.00	Ι	.CY
Material description:	Top Soil			Heaped			LCY
Rated Payload:	81,600 pounds			Average			LCY CV
Payload Capacity:	51.00 LCY			Adjusted C	Capacity: 29.00	I	LCY

<u>1.00</u> Minutes

<u>0.60</u> Minutes

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6400 feet

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	NA	(CAT HB)
Job Efficiency:	0.830	NA	(CAT HB)
Net Correction:	0.830	NA	

Travel Time:

Road Condition: <u>Rutted dirt, little maintenance, no water, 1" tire penetration 4.0</u>

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	711.00	-12.00	4.00	-8.00	1628	0.56

Haul Time: **0.56** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	711.00	-12.00	4.00	-8.00	2972	0.30
				Return Time:	0.30	minutes

Total Scraper team cycle time:	2.46	minutes
Adjusted for job conditions:	1,174.15	LCY/Hour
Selected Number of Scrapers:	8	Scraper(s)
Adjusted single scraper team (unit) hourly production:	4,696.59	LCY/Hour
Adjusted multiple scraper team (fleet) hourly production:	4,696.59	LCY/Hour

Unadjusted unit production/hour: <u>1,414.63</u> LCY/Hour Optimal Number of Scrapers per push dozer: _____

Fleet size:	1	Team(s)	Total job time:	12.78	Hours
Unit cost:	\$1.196	/LCY	Total job cost:	\$71,735	

TRUCK/LOADER TEAM WORK

Site: Trapper Mine		Permit Action	on: PR11	Permit/Job#: <u>C1981010</u>			
PROJECT IDEN Task #: 090B Date: 11/28/ User: ZTT		State: <u>Color</u> County: <u>Moffa</u>		Ab	breviation: <u>No</u> Filename: <u>C0</u>	ne 10-090B	
Agency or	organization nan	ne: DRMS					
HOURLY EQUI	PMENT COST	<u>[</u>		Shift bas	is: <u>1 per day</u>		
T	ruck Loader Tea		Equipment Descri 777F	ption			
1	ruck Loader Tea		385C L 18'-1" S	tick			
Suppo	ort Equipment -L	oad Area: Cat	D10T - 10SU				
Dood Ma	-Du aintenance –Moto		D10T - 10SU T 16M				
Koau Ma			ter Tanker, 2,500	Gal.			
<u>Cost Breakdown</u> :	Truck/Loa Truck	der Team Excavator	Support Load Area	Equipment Dump Area	Maintenan Motor Grader	ce Equipment Water Truck	
				-			
%Utilization-machine:	100	100	25	25	25	5	
Ownership cost/hour:	\$156.75	\$195.53	\$153.67	\$153.67	\$163.86	\$10.2	
Operating cost/hour: %Utilization-riper:	\$133.38 NA	\$148.85	\$41.74	\$41.74 NA	\$27.47 NA	\$10.1 NA	
Ripper own. cost/hour:	NA	\$0.00	\$24.69	\$0.00	\$0.00	\$0.0	
Ripper op. cost/hour:	NA	\$0.00	\$1.81	\$0.00	\$0.00	\$0.0	
Operator cost/hour:	\$33.71	\$37.32	\$41.30	\$41.30	\$28.56	\$27.6	
Unit Subtotals:	\$323.84	\$381.70	\$238.52	\$236.71	\$219.88	\$48.1	
Number of Units:	4	1	1	1	1		
Group Subtotals:	Work:	\$1,677.06	Support:	\$475.23	Maint:	\$268.00	
Total work team cos		29					
Initial volume:	115,215	ССҮ		factor: <u>1.000</u>			
Loose volume:	115,21	LCY					
	of estimated of estimated swe Material Purcha To	ell factor: Cat H		able A-3.1			
HOURLY PRO	DUCTION						
Truck Capacity:							
Truck Payload (weig Material w			Pounds/LCY				
			I Junus/LC I				
Descri	ption: Top So	oil					

Struck Volume:						
	60.60	LCY				
Heaped Volume:	78.80	LCY				
Average Volume:	69.70	LCY				
Adjusted Volume:	78.80	LCY				
T '1	T. 1 V.1	Deciden Martine CI	1. D.	55 50	LOV	
	Iruck Volume	Based on Number of L	oader Passes:	77.72	LCY	
Loading Tool Capacity						
			Buck	et Size Class: L	arge	_
Rated Capacity:	7.850	LCY (heaped)				
Bucket Fill Factor:	1.100	Other - rock/dirt n	nixtures (100-	-120%) 1.100		
Adjusted Capacity:	8.635	LCY				
Job Condition Corrections:	_	Site	Altitude (ft.): <u>6</u>	400 feet		
	Truck	Loader	Source			
Altitude Adj:	1.000	1.000	(CAT HB)		
Job Efficiency:	0.830	0.830	(CAT HB	,		
Net Correction:	0.830	0.830				
Net Conection.	0.830	0.830				
Loading Tool Cycle Time:	Number	of Loading Tool Passe	es Required to H	Fill Truck:	<u> 9 </u>	asses
Excavators and Front Shovels	s:					
Machine Cycle Time vs Selected Value w						
Track Loaders – I	Material Descri	iption:				
Cycle Time Elements (min.):						
Cycle Thie Elements (IIIII.):						
Load: NA	М	aneuver: NA		Dump: 0.100)	
Load: NA	_			·		
Load: NA Wheel and Track Loaders -	_		(load, dump, n	naneuver):	NA minu	ites
Load: NA Wheel and Track Loaders - Cycle Time Factors	– Unadjusted Ba		(load, dump, n	naneuver):] Factor (min.)	NA minu Source	ites
Load: NA Wheel and Track Loaders - Cycle Time Factors Material:	Unadjusted Ba		(load, dump, n	naneuver): Factor (min.) NA	NA minu Source (Cat HB)	ites
Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile:	Unadjusted Ba NA NA		(load, dump, n	naneuver): Factor (min.) NA NA	NA minu Source (Cat HB) (Cat HB)	ites
Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership:	Unadjusted Ba NA NA NA		(load, dump, n	naneuver):] Factor (min.) NA NA NA NA	NA minu Source (Cat HB) (Cat HB) (Cat HB)	ites
Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	- Unadjusted Ba NA NA NA NA		(load, dump, n	naneuver):] Factor (min.) NA NA NA NA NA	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	ites
Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership:	Unadjusted Ba NA NA NA	sic Loader Cycle Time		naneuver):] Factor (min.) NA NA NA NA NA NA NA	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	ites
Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	- Unadjusted Ba NA NA NA NA	sic Loader Cycle Time	Adjustment:	naneuver): Factor (min.) NA NA NA NA NA NA NA NA	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	ites
Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	- Unadjusted Ba NA NA NA NA	sic Loader Cycle Time Net Cycle Time Adjusted Loader	Adjustment: _ Cycle Time: _	naneuver): Factor (min.) NA NA NA NA NA NA O.302	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	ites
Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	- Unadjusted Ba NA NA NA NA	sic Loader Cycle Time	Adjustment: _ Cycle Time: _	naneuver): Factor (min.) NA NA NA NA NA NA NA NA	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	ites
Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	- Unadjusted Ba NA NA NA NA	sic Loader Cycle Time Net Cycle Time Adjusted Loader	Adjustment: _ Cycle Time: _	naneuver): Factor (min.) NA NA NA NA NA NA O.302	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	ites
Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	Unadjusted Ba NA NA NA NA NA	sic Loader Cycle Time Net Cycle Time Adjusted Loader	Adjustment: Cycle Time: e per Truck:	naneuver): Factor (min.) NA NA NA NA NA NA O.302	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	-
Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time:	Unadjusted Ba NA NA NA NA NA 0.80	sic Loader Cycle Time Net Cycle Time Adjusted Loader Net Load Tim	Adjustment: Cycle Time: e per Truck: Adjusted	naneuver): Factor (min.) NA NA NA NA NA O.302 2.516	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	
Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Exchange Time:	Unadjusted Ba NA NA NA NA NA NA 0.80 2.516	sic Loader Cycle Time Net Cycle Time Adjusted Loader Net Load Tim Minutes	Adjustment: Cycle Time: e per Truck: Adjusted Adjusted	haneuver): Factor (min.) NA NA NA NA NA 0.302 2.516	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes 0.800	- - - - Minute
Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Exchange Time: Truck Load Time:	Unadjusted Ba NA NA NA NA NA NA 0.80 2.516	sic Loader Cycle Time Net Cycle Time Adjusted Loader Net Load Tim Minutes Minutes	Adjustment: Cycle Time: e per Truck: Adjusted Adjusted	haneuver): Factor (min.) NA NA NA NA NA O.302 2.516 for site altitude: for site altitude:	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes 0.800 2.516	Minute Minute Minute
Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Exchange Time: Truck Load Time:	Unadjusted Ba NA NA NA NA 0.80 2.516 1.20	sic Loader Cycle Time Net Cycle Time Adjusted Loader Net Load Tim Minutes Minutes	Adjustment: Cycle Time: e per Truck: Adjusted Adjusted Adjusted	haneuver): Factor (min.) NA NA NA NA NA O.302 2.516 for site altitude: for site altitude: for site altitude:	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) 0.800 2.516 1.200	- - - - Minute

	Haul Rou	ite:							
	Seg #		Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
		(Ft)			(%)	(%)	(fpm)	Time (min)	
-	1	5147	.00	10.00	3.00	13.00	620	8.345	
_						Haul Time:	8.345	minutes	
	Return Re	oute:				-			
	Seg #		Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
		(Ft)			(%)	(%)	(fpm)	Time (min)	
	1	5147	.00	-10.00	3.00	-7.00	3450	1.538	
						Return Time:	1.538	minute	28
					Total True	ck Cycle Time:	14.399	minute	es
L	oading Too	ol unit							
	0	uction	1,406.18	LCY/Hour		Adjusted for j	ob efficiency:	1,167.13	LCY/Hour
Truck	Unit Produ	uction						2 60 7 0	
			323.83	LCY/Hour		Adjusted for j	ob efficiency:	268.78	LCY/Hour
Optima	al No. of T	rucks:	4	Truck(s)		Selected Num	ber of Trucks:	4	Truck(s)
				Adjuste	ed hourly truck	k team production	on: 1,07	5.13 LCY	ſ/Hour
						er team production			//Hour
				Adjusted multip	le truck/loade	er team production	on: 1,07	5.13 LCY	Y/Hour
	JOB TI	ME AN	ND COST						
	Fleet	size:	1	Team(s)]	Fotal job time:	107.1	6 H	ours
	Unit	cost:	\$2.251	/LCY	r	Total job cost:	\$259,3	67	

TRUCK/LOADER TEAM WORK

Site: Trapper Mine			Permit/Job#: <u>C1981010</u>			
		r				
PROJECT IDEN	TIFICATION	State: Colora				
Task #: 091 Date: 11/28/2	breviation: <u>No</u> Filename: <u>C0</u>	ne 10-091				
User: ZTT	2022	County: Moffa	l		Filename: <u>Co</u>	10-091
	organization nor	ne: DRMS				
Agency or o	organization nan	ne. DRMS				
HOURLY EQUI	PMENT COST	<u>r</u>		Shift bas	is: <u>1 per day</u>	
			Equipment Descri	ption		
T	ruck Loader Tea		777F 385C L 18'-1" S	tick		
Suppo	ort Equipment -L		D10T - 10SU	иск		
			D10T - 10SU			
Road Ma	intenance – Mot		Г 16М			
	-Wa	ter Truck: Wat	ter Tanker, 2,500	Gal.		
Cost Breakdown:	Truck/Loa	ader Team	Support 1	Equipment	Maintenar	ce Equipment
	Truck	Excavator	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	25	25	25	50
Ownership cost/hour:	\$156.75	\$195.53	\$153.67	\$153.67	\$163.86	\$10.28
Operating cost/hour:	\$130.75	\$148.85	\$41.74	\$41.74	\$27.47	\$10.26
%Utilization-riper:	\$155.58 NA	\$140.0J 0	15	541.74 NA	\$27.47 NA	\$10.10 NA
Ripper own. cost/hour:	NA	\$0.00	\$24.69	\$0.00	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$1.81	\$0.00	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$37.32	\$41.30	\$41.30	\$28.56	\$27.68
Unit Subtotals:	\$323.84	\$381.70	\$238.52	\$236.71	\$219.88	\$48.12
Number of Units:	3	1	+ <u>1</u>	1	1	¢.0.12
Group Subtotals:	Work:	\$1,353.22	Support:	\$475.23	Maint:	\$268.00
I			I II			
Total work team cost	t/hour: <u>\$2,096.</u> 4	45				
MATERIAL QUA	ANTITIES					
Initial volume:		CCY	Swall	factory 1000		
Loose volume:	470,723 470,723			factor: <u>1.000</u>		
	rce of estimated		24 Appendix A Ta	$bl_{2} \wedge 2 \downarrow$		
	of estimated swe		Iandbook	101e A-3.1		
	Material Purch					
	То	otal Cost: \$0.00)			
HOURLY PRO	DUCTION					
<u>Truck Capacity:</u> Truck Payload (weig	tht) Basis					
Material w			Pounds/LCY			
Descri		oil				
Rated Pay			Pounds			
Payload Cap	acity: 125.00		LCY			

TT 1 T7 1	60.60	LCY				
Heaped Volume:	78.80	LCY				
Average Volume:	69.70	LCY				
Adjusted Volume:	78.80	LCY				
F ' 1	T 1 X/ 1				LOV	
	Iruck Volum	e Based on Number of Los	ader Passes:	77.72	LCY	
Loading Tool Capacity			Buck	tet Size Class: I	Large	
Rated Capacity:	7.850	LCY (heaped)	2441			_
Bucket Fill Factor:	1.100	Other - rock/dirt mi	xtures (100-	-120%) 1.100		_
Adjusted Capacity:	8.635	LCY	(100	12070) 1.100		-
Job Condition Corrections:		Site A	ltitude (ft.): <u>6</u>	400 feet		
	Truck	Loader	Source			
Altitude Adj:	1.000	1.000	(CAT HB)		
Job Efficiency:	0.830	0.830	(CAT HB			
Net Correction:	0.830	0.830				
		1				
Loading Tool Cycle Time:		er of Loading Tool Passes	Required to I	Fill Truck:	9 1	passes
Excavators and Front Shovel	<u>s:</u>					
Machine Cycle Time vs	Joh Conditi					
		on Rating · ABOVE AV	'ERAGE			
			'ERAGE			
Selected Value w	vithin this Bas	sic Rating: AVERAGE	'ERAGE			
Selected Value w Track Loaders – I	vithin this Bas	sic Rating: AVERAGE	'ERAGE			
Selected Value w Track Loaders – I Cycle Time Elements (min.):	vithin this Bas Material Desc	ic Rating: <u>AVERAGE</u>	'ERAGE			
Selected Value w Track Loaders – I	vithin this Bas Material Desc	sic Rating: AVERAGE	<u>'ERAGE</u>	 Dump:0.10	0	
Selected Value w Track Loaders – I Cycle Time Elements (min.):	vithin this Bas Material Desc -	tic Rating: <u>AVERAGE</u> ription: Maneuver: <u>NA</u>		I	0 min	utes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: <u>NA</u>	vithin this Bas Material Desc -	tic Rating: <u>AVERAGE</u> ription: Maneuver: <u>NA</u>		I		utes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: <u>NA</u> Wheel and Track Loaders -	vithin this Bas Material Desc 	tic Rating: <u>AVERAGE</u> ription: Maneuver: <u>NA</u>		naneuver):	NA min	utes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: <u>NA</u> Wheel and Track Loaders - Cycle Time Factors	vithin this Bas Material Desc - Unadjusted B	tic Rating: <u>AVERAGE</u> ription: Maneuver: <u>NA</u>		naneuver): Factor (min.)	NA min	utes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership:	vithin this Bas Material Desc 	tic Rating: <u>AVERAGE</u> ription: Maneuver: <u>NA</u>		naneuver): Factor (min.) NA	NA min Source (Cat HB)	utes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	vithin this Bas Material Desc 	tic Rating: <u>AVERAGE</u> ription: Maneuver: <u>NA</u>		naneuver): Factor (min.) NA NA	NA minu Source (Cat HB) (Cat HB)	utes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership:	vithin this Bas Material Desc 	tic Rating: <u>AVERAGE</u> ription: Maneuver: <u>NA</u> asic Loader Cycle Time (1	load, dump, n	naneuver): Factor (min.) NA NA NA NA NA NA	NA minu Source (Cat HB) (Cat HB) (Cat HB)	utes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	vithin this Bas Material Desc Unadjusted B NA NA NA NA NA	ic Rating: <u>AVERAGE</u> ription: Maneuver: <u>NA</u> asic Loader Cycle Time () Net Cycle Time A	load, dump, n	naneuver): Factor (min.) NA NA NA NA NA NA NA	NA min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	vithin this Bas Material Desc Unadjusted B NA NA NA NA NA	ic Rating: AVERAGE ription:	load, dump, n djustment: _ ycle Time: _	naneuver): Factor (min.) NA NA NA NA NA NA O.302	NA mine Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	vithin this Bas Material Desc Unadjusted B NA NA NA NA NA	ic Rating: <u>AVERAGE</u> ription: Maneuver: <u>NA</u> asic Loader Cycle Time () Net Cycle Time A	load, dump, n djustment: _ ycle Time: _	naneuver): Factor (min.) NA NA NA NA NA NA NA	NA minutes	utes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	vithin this Bas Material Desc Unadjusted B NA NA NA NA NA	ic Rating: AVERAGE ription:	load, dump, n djustment: _ ycle Time: _	naneuver): Factor (min.) NA NA NA NA NA NA O.302	NA minutes	utes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	vithin this Bas Material Desc Unadjusted B NA NA NA NA NA NA	ic Rating: AVERAGE ription:	djustment: ycle Time: per Truck:	naneuver): Factor (min.) NA NA NA NA NA NA O.302	NA minutes	
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time:	vithin this Bas Material Desc Unadjusted B NA NA NA NA NA NA NA O.80	ic Rating: AVERAGE ription:	 load, dump, n djustment: ycle Time: per Truck:	naneuver): Factor (min.) NA NA NA NA NA 0.302 2.516	NA minutes Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Exchange Time:	vithin this Bas Material Desc Unadjusted B NA NA NA NA NA NA NA O.80 2.516	ic Rating: AVERAGE ription: Maneuver: NA asic Loader Cycle Time (Net Cycle Time A Adjusted Loader C Net Load Time Minutes	load, dump, n djustment: ycle Time: per Truck: Adjusted Adjusted	haneuver): Factor (min.) NA NA NA NA NA 0.302 2.516 for site altitude:	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	utes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Exchange Time: Truck Load Time:	vithin this Bas Material Desc Unadjusted B NA NA NA NA NA NA NA O.80 2.516 1.20	sic Rating: AVERAGE ription: Maneuver: NA asic Loader Cycle Time (Net Cycle Time A Adjusted Loader C Net Load Time Minutes Minutes Minutes	djustment: ycle Time: per Truck: Adjusted Adjusted Adjusted	naneuver): Factor (min.) NA NA NA NA 0.302 2.516 for site altitude: for site altitude: for site altitude:	NA minutes Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) 0.800 0.800 2.516 1.200	 Minute

Haul Rout	te:							
Seg #		Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
	(Ft)			(%)	(%)	(fpm)	Time (min)	
1	4788.0	00	-8.60	3.00	-5.60	1870	2.695	
					Haul Time:	2.695	minutes	
Return Ro	oute:							
Seg #	Haul I	Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
	(Ft)			(%)	(%)	(fpm)	Time (min)	
1	4788.0	00	8.60	3.00	11.60	1628	3.064	
					Return Time:	3.064	minutes	
				Total True	ck Cycle Time:	10.275	minutes	
Loading Too	l unit							
Produ		1,406.18	LCY/Hour		Adjusted for j	ob efficiency:	1,167.13	LCY/Hour
Truck Unit Produ	ction							
	-	453.81	LCY/Hour		Adjusted for j	ob efficiency:	376.66	_ LCY/Hour
Optimal No. of Tr	ucks:	3	Truck(s)		Selected Num	ber of Trucks:	3	Truck(s)
			Adjuste	ed hourly true	k team production	on: 1,129	9.99 LCY/I	Hour
			Adjusted sing	le truck/loade	er team production	on: 1,129	9.99 LCY/H	Hour
			Adjusted multip	le truck/loade	er team production	on: 1,12	9.99 LCY/H	Hour
		DCOST						
JOB III		D COST						
Fleet	size:	1	Team(s)	Т	Fotal job time:	416.5	Hou	rs
Unit c	cost:	\$1.855	/LCY	r	Total job cost:	\$873,3	326	
Site: Trapper Mine		Permit Action:	PR11	Peri	mit/Job#: <u>C198</u>	1010		
----------------------------------	---------------------------------	----------------	-------------------	----------------------------	-----------------------	--------		
PROJECT IDEN	<u>TIFICATION</u>							
Task #: 091A	Stat	e: Colorado)	Abbre	viation: None			
Date: 11/28/2					ename: C010-9	91A		
User: ZTT								
Agency or	organization name:	DRMS						
HOURLY EQUIE	MENT		COSTS	hift basis: <u>1 per d</u>	ay			
		Equipm	ent Description					
	-Scra		7G w/push-pull					
Suppo	-Do- rt Equipment -Load A	ozer: NA	10T - 10SU					
Suppo	-Dump A		LETE - Cat D10T	- 10U				
Road Ma	intenance – Motor Gra	ader: CAT 1						
. <u></u>	-Water Tr	uck: Water	Tanker, 2,500 Gal					
Cost Breakdown:	Scraper Work	Team	Support Equip	oment	Maintenance	Fauinm		
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Wate		
%Utilization-machine:	100	NA	50	50	50			
Ownership cost/hour:	\$287.19	NA	\$153.67	\$10.00	\$163.86			
Operating cost/hour:	\$277.83	NA	\$83.47	\$5.00	\$54.93			
%Utilization-ripper:	NA	NA	NA	NA	NA			
Ripper own. cost/hour:	NA	NA	\$0.00	\$0.00	\$0.00			
Ripper op. cost/hour:	NA	NA	\$0.00	\$0.00	\$0.00			
Operator cost/hour:	\$30.90	NA	\$41.30	\$41.30	\$28.56			
Unit Subtotals:	\$595.92	NA	\$278.44	\$56.30	\$247.35			
Number of Units:	8	0	1	1	1			
Group Subtotals:	Work:	\$4,767.36	Support:	\$334.74	Maint:	\$20		
Total work team cost	ANTITIES	_						
Initial volume: Loose volume:	62,216 62,216	CCY LCY	Swell fact	or: <u>1.000</u>				
	rce of estimated volu		ix A, Table 1.4-9					
	of estimated swell fact	1 1						
HOURLY PROD	UCTION							
			Scraper Bo	owl (volume) Bas	is:			
Material weight:	1,600 lbs/LCY			Volume: 24.00		CY		
Material description:	Top Soil		Heaped			CY		
Rated Payload:	81,600 pounds		Average	Volume: 29.00	•	CY		

<u>0.60</u> Minutes

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6400 feet

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	NA	(CAT HB)
Job Efficiency:	0.830	NA	(CAT HB)
Net Correction:	0.830	NA	

Travel Time:

Road Condition: <u>Rutted dirt, little maintenance, no water, 1" tire penetration 4.0</u>

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1496.00	0.00	4.00	4.00	2394	0.79

Haul Time: **0.79** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	700.00	-3.00	4.00	1.00	2963	0.35
				Return Time:	0.35	minutes
			Total Scrape	er team cycle time:	2.74	minutes
			Adjusted	for job conditions:	1,054.16	LCY/Hour
			Selected N	umber of Scrapers:	8	Scraper(s)
	Adjuste	d single scra	per team (unit)	hourly production:	4,216.64	LCY/Hour
	Adjusted n	ultiple scra	per team (fleet)	hourly production:	4,216.64	LCY/Hour
Optima	Unadjusted unit pro al Number of Scrapers pe			LCY/Hour		
JOB T	IME AND COST					
Flee	t size: 1	Team(s)	7	Fotal job time:	14.75	Hours

Unit cost: _____\$1.274 /LCY

Total job cost: **\$79,262**

HOURLY EQUIPM	S 22 Con ganization name: <u>AENT</u> Equipment -Load	DRM DRM Craper: Dozer: d Area: p Area:	Equipme Cat 637 NA	COSTSh ent Description 'G w/push-pull		viation: <u>None</u> ename: <u>C010-09</u> <u>ay</u>	91B
Date: 11/28/20 User: ZTT Agency or org HOURLY EQUIPM	22 Cou ganization name: <u>AENT</u> -S -S 	DRM DRM Craper: Dozer: d Area: p Area:	Moffat IS Equipme Cat 637 NA	ent Description	Fil	ename: <u>C010-09</u>	91B
User: ZTT Agency or org HOURLY EQUIPM Support	ganization name: <u>IENT</u> -S - Equipment -Load -Dumj tenance –Motor (DRM DRM Craper: Dozer: d Area: p Area:	Equipme Cat 637 NA	ent Description			91B
Agency or org HOURLY EQUIPM Support	-S -S -S Equipment -Load -Dumj tenance –Motor (craper: Dozer: d Area: p Area:	Equipme Cat 637 NA	ent Description	ift basis: <u>1 per d</u>	ay	
Support	-S - Equipment -Loa -Dumj tenance –Motor (Dozer: d Area: p Area:	Cat 637 NA	ent Description	ift basis: <u>1 per d</u>	<u>ay</u>	
	- Equipment -Load -Dumj tenance –Motor (Dozer: d Area: p Area:	Cat 637 NA				
	- Equipment -Load -Dumj tenance –Motor (Dozer: d Area: p Area:	Cat 637 NA				
	Equipment -Load -Dumj tenance –Motor (d Area: p Area:					
	-Dumj tenance –Motor (p Area:	L Lat DI	0T - 10SU			
Road Main		Grader:	OBSOI	LETE - Cat D10T	- 10U		
			CAT 16 Water 7	5M Fanker, 2,500 Gal.			
		TTUCK.	Water	<u>uiikei, 2,300 Gui.</u>			
Cost Breakdown:	Scraper Wor			Support Equip		Maintenance I	Equipmer Water
	Scraper	Doz	zer	Load Area	Dump Area	Motor Grader	water
%Utilization-machine:	100		NA	50	50	50	
Ownership cost/hour:	\$287.19		NA	\$153.67	\$10.00	\$163.86	ŝ
Operating cost/hour:	\$277.83		NA	\$83.47	\$5.00	\$54.93	5
%Utilization-ripper:	NA		NA	NA ¢0.00	NA	NA ¢0.00	
Ripper own. cost/hour:	NA		NA	\$0.00	\$0.00	\$0.00	
Ripper op. cost/hour:	NA		NA	\$0.00	\$0.00	\$0.00	
Operator cost/hour:	\$30.90		NA	\$41.30	\$41.30	\$28.56	
Unit Subtotals:	\$595.92		NA	\$278.44	\$56.30	\$247.35	5
Number of Units:	8		0	1	1	1	
Group Subtotals:	Work:	\$4,76	57.36	Support:	\$334.74	Maint:	\$269
Total work team cost/h <u>MATERIAL QUAN</u>	NTITIES		COV	0.116	1.000		
Initial volume: Loose volume:	7,476 7,476		CCY LCY	Swell facto	or: <u>1.000</u>		
_	e of estimated vo	lume		x A, Table 1.4-9			
	estimated swell f		Cat Hand				
HOURLY PRODU	<u>CTION</u>						
				Scraper Bo	wl (volume) Basi	<u>IS:</u>	
Material weight:	1,600 lbs/LCY			Struck V	Volume: 24.00	LC	CY
Material description:	Top Soil			Heaped V			CY
	81,600 pounds 51.00 LCY			Average V Adjusted C			CY CY

<u>0.60</u> Minutes

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6400 feet

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	NA	(CAT HB)
Job Efficiency:	0.830	NA	(CAT HB)
Net Correction:	0.830	NA	

Travel Time:

Road Condition: <u>Rutted dirt, little maintenance, no water, 1" tire penetration 4.0</u>

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1221.00	3.00	4.00	7.00	1362	0.95

Haul Time: **0.95** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1221.00	-3.00	4.00	1.00	2963	0.53
				Return Time:	0.53	minutes
			Total Scrape	er team cycle time:	3.08	minutes
			Adjusted	for job conditions:	937.79	LCY/Hour
			Selected N	umber of Scrapers:	8	Scraper(s)
	Adjuste	d single scra	per team (unit)	hourly production:	3,751.17	LCY/Hour
	Adjusted n	nultiple scrap	per team (fleet)	hourly production:	3,751.17	LCY/Hour
	Unadjusted unit pro	duction/hou	r: 1,129.87	LCY/Hour		

Fleet size:	1	Team(s)	Total job time:	1.99	Hours
Unit cost:	\$1.432	/LCY	Total job cost:	\$10,706	-

Site: Trapper Mine		Permit	Action:	PR11	Perr	nit/Job#: <u>C1981</u>	010
PROJECT IDEN	TIFICATION						
Task #: 092	S	tate:	Colorado		Abbrev	viation: None	
Date: $11/28/2$	2022 Cou	inty:	Moffat		Fil	ename: C010-0	92
User: <u>ZTT</u>							
Agency or o	organization name:	DRM	S				
HOURLY EQUIP	MENT_			COSTSI	nift basis: <u>1 per d</u>	<u>ay</u>	
				ent Description			
		craper: Dozer:	Cat 637 NA	'G w/push-pull			
Suppo	rt Equipment -Load			0T - 10SU			
	1	Area:		0T - 10SU			
Road Ma	intenance –Motor C -Water		CAT 16 Water 7	5M Fanker, 2,500 Gal.			
		1100111		<u>, , , , , , , , , , , , , , , , , , , </u>			
Cost Breakdown:	Scraper Wor			Support Equip		Maintenance l	
	Scraper	Do	zer	Load Area	Dump Area	Motor Grader	Water True
%Utilization-machine:	100		NA	50	50	50	
Ownership cost/hour:	\$287.19		NA	\$153.67	\$153.67	\$163.86	\$10.
Operating cost/hour:	\$277.83		NA	\$83.47	\$83.47	\$54.93	\$12.
%Utilization-ripper:	NA		NA	NA	NA	NA	1
Ripper own. cost/hour:	NA		NA	\$0.00	\$0.00	\$0.00	\$0.
Ripper op. cost/hour:	NA		NA	\$0.00	\$0.00	\$0.00	\$0.
Operator cost/hour: Unit Subtotals:	\$30.90		NA	\$41.30	\$41.30	\$28.56	\$21.
Number of Units:	\$595.92 8		NA 0	\$278.44	\$278.44	\$247.35 1	\$43.
Group Subtotals:	Work:	\$4,76	÷	Support:	\$556.88	Maint:	\$290.95
•		4, 70	7.50	Support.	\$550.88	ivianit.	\$290.95
Total work team cost	/hour: <u>\$5,615.19</u>						
MATERIAL QUA	NTITIES						
Initial volume:	304,836		CCY	Swell fact	or: 1.000		
Loose volume:	304,836		LCY	5 Went fuet			
Sou	rce of estimated vo	lume:	Appendi	x A, Table A-10.1			
	of estimated swell f		Cat Hand				
HOURLY PROD	UCTION						
				Scraper Bo	owl (volume) Basi	is:	
Material weight:	1,600 lbs/LCY				Volume: 24.00	LC	
						T (1 . 7
Material description: Rated Payload:	Top Soil 81,600 pounds			Heaped V Average V		LC LC	

<u>0.60</u> Minutes

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6400 feet

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	NA	(CAT HB)
Job Efficiency:	0.830	NA	(CAT HB)
Net Correction:	0.830	NA	

Travel Time:

Road Condition: <u>Rutted dirt, little maintenance, no water, 1" tire penetration 4.0</u>

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2000.00	-4.50	4.00	-0.50	2972	0.72

Haul Time: **0.72** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2000.00	4.50	4.00	8.50	1931	1.13
				Return Time:	1.13	minutes
			Total Scrape	er team cycle time:	3.45	minutes
			Adjusted	for job conditions:	837.22	LCY/Hour
			Selected N	umber of Scrapers:	8	Scraper(s)
	Adjuste	d single scra	per team (unit)	hourly production:	3,348.87	LCY/Hour
	Adjusted n	nultiple scra	per team (fleet)	hourly production:	3,348.87	LCY/Hour
Optima	Unadjusted unit pro al Number of Scrapers pe			LCY/Hour		
JOB T	IME AND COST					
Flee	t size: 1	Team(s)	Т	Total job time:	91.03	Hours

Unit cost: \$1.677 /LCY

Total job cost: \$511,131

Site: Trapper Mine	P	ermit Action:	PR11	Perm	nit/Job#: <u>C198</u>	1010
PROJECT IDENT	TIFICATION					
Task #: 096	State		I	Abbrev		
Date: 12/9/20	County	: Moffat		File	ename: <u>C010-</u>)96
User: ZTT						
Agency or o	rganization name: <u>I</u>	DRMS				
HOURLY EQUIP	<u>MENT</u>		COSTS	hift basis: <u>1 per da</u>	ay	
		Equipm	ent Description			
	-Scrap		7G w/push-pull			
	-Doz					
Suppor	rt Equipment -Load Ar		0T - 10SU			
Road Mai	-Dump Ar intenance –Motor Grad		0T - 10SU			
Road Ma	-Water Tru		Tanker, 2,500 Gal			
		I				
<u>Cost Breakdown</u> :	Scraper Work T		Support Equip		Maintenance	
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water True
%Utilization-machine:	100	NA	50	50	50	
Ownership cost/hour:	\$287.19	NA	\$153.67	\$153.67	\$163.86	\$10.
Operating cost/hour:	\$277.83	NA	\$83.47	\$83.47	\$54.93	\$12.
%Utilization-ripper:	NA	NA	NA	NA	NA	N
Ripper own. cost/hour:	NA	NA	\$0.00	\$0.00	\$0.00	\$0.
Ripper op. cost/hour:	NA	NA	\$0.00	\$0.00	\$0.00	\$0.
Operator cost/hour:	\$30.90	NA	\$41.30	\$41.30	\$28.56	\$21.
Unit Subtotals:	\$595.92	NA	\$278.44	\$278.44	\$247.35	\$43.
Number of Units:	8	0	1	1	1	
Group Subtotals:	Work: S	54,767.36	Support:	\$556.88	Maint:	\$290.95
Total work team cost	/hour: \$5,615.19	_				
MATERIAL QUA	NTITIES					
Initial volume: Loose volume:	<u>66,713</u>	CCY LCY	Swell fact	tor: <u>1.000</u>		
	rce of estimated volum of estimated swell facto		dbook			
HOURLY PRODU	UCTION					
			Scraper Bo	owl (volume) Basi	<u>s:</u>	
Material weight:	1,600 lbs/LCY		Struck	Volume: 24.00	L	CY
Material description:	Top Soil		Heaped			CY
Rated Payload:	81,600 pounds		Average	Volume: 29.00	L	CY
Payload Capacity:	51.00 LCY		Adjusted C	Capacity: 29.00		CY

<u>0.60</u> Minutes

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6400 feet

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	NA	(CAT HB)
Job Efficiency:	0.830	NA	(CAT HB)
Net Correction:	0.830	NA	

Travel Time:

Road Condition: <u>Rutted dirt, little maintenance, no water, 1" tire penetration 4.0</u>

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	498.00	1.00	4.00	5.00	1867	0.37

Haul Time: **0.37** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	498.00	-1.00	4.00	3.00	2949	0.32
				Return Time:	0.32	minutes
			Total Scrap	er team cycle time:	2.29	minutes
			Adjusted	for job conditions:	1,261.31	LCY/Hour
			Selected N	umber of Scrapers:	8	Scraper(s)
	Adjuste	d single scra	per team (unit)	hourly production:	5,045.24	LCY/Hour
	Adjusted n	nultiple scrap	per team (fleet)	hourly production:	5,045.24	LCY/Hour
	Unadjusted unit pro	duction/hour		LCY/Hour		

Fleet size:	1	Team(s)	Total job time:	13.22	Hours
Unit cost:	\$1.113	/LCY	Total job cost:	\$74,249	_

TRUCK/LOADER TEAM WORK

Site: Trapper Mine		Permit Action	on: PR11		Permit/Job#: <u>C1</u>	981010
PROJECT IDEN	TIFICATION	<u>[</u>				
Task #: 096A		State: Colora		Ab	breviation: No	
Date: <u>12/9/2</u>	2022	County: Moffa	t		Filename: C0	10-096A
User: <u>ZTT</u>						
Agency or	organization nat	ne: DRMS				
HOURLY EQUI	PMENT COS				is: <u>1 per day</u>	
			Equipment Descri 777F	ption		
1	Truck Loader Tea		385C L 18'-1" S	tick		
Supp	ort Equipment -I		D10T - 10SU			
	-D	ump Area: Cat	D10T - 10SU			
Road M	aintenance – Mot		T 16M	0.1		
	- W 8	ter Truck: Wa	ter Tanker, 2,500	Gal.		<u> </u>
Cost Breakdown:	Truck/Lo	ader Team	Support	Equipment	Maintenan	ce Equipment
Cost Dicundo mit	Truck	Excavator	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	25	25	25	50
Ownership cost/hour:	\$156.75	\$195.53	\$153.67	\$153.67	\$163.86	\$10.28
Operating cost/hour:	\$133.38	\$195.55	\$41.74	\$41.74	\$105.80	\$10.20
%Utilization-riper:	NA	0	15	NA	NA	NA NA
Ripper own. cost/hour:	NA	\$0.00	\$24.69	\$0.00	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$1.81	\$0.00	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$37.32	\$41.30	\$41.30	\$28.56	\$27.68
Unit Subtotals:	\$323.84	\$381.70	\$238.52	\$236.71	\$219.88	\$48.12
Number of Units:	3	1	1	1	1	
Group Subtotals:	Work:	\$1,353.22	Support:	\$475.23	Maint:	\$268.00
Total work team cos	st/hour: <u>\$2,096.</u>	45			1	
MATERIAL QU		CCN		fastar 1000		
Initial volume Loose volume		25 CCY LCY		factor: <u>1.000</u>		
So	urce of estimated		24 Appendix A Ta	ble $\Lambda 3.1$		
	of estimated swe		Handbook	1010 A-5.1		
	Material Purch					
	Te	otal Cost: \$0.00)			
HOURLY PRO	DUCTION					
Truck Capacity:						
Truck Payload (wei						
Material v		••	Pounds/LCY			
	iption: Top So yload: 200,00					
Rated Pa	VIO30 JUNIO	()	Pounds			

Struck Volume:						
		LCY				
Heaped Volume:		LCY				
Average Volume:		LCY				
Adjusted Volume:	78.80	LCY				
Final	Truck Volume	Based on Number of	of Loader Passes:	77.72	LCY	
Loading Tool Capacity						
			Buck	ket Size Class: <u>I</u>	Large	
Rated Capacity:	7.850	LCY (heaped)				
Bucket Fill Factor:	1.100	Other - rock/di	rt mixtures (100-	-120%) 1.100		_
Adjusted Capacity:	8.635	LCY				_
Job Condition Connections		S	te Altitude (ft.).	5400 fast		
Job Condition Corrections:			tite Altitude (ft.): <u>6</u>	<u>1400</u> leet		
	Truck	Loader	Source			
Altitude Adj:	1.000	1.000	(CAT HB	·		
Job Efficiency:	0.830	0.830	(CAT HB			
Net Correction:	0.830	0.830				
	U					
Loading Tool Cycle Time:	Number	of Loading Tool Pa	asses Required to I	Fill Truck:	9 1	basses
Excavators and Front Shovel	s:					
Machina (Yuala Tima yu	Loh Condition	n Doting: ADOV	EAVEDACE			
Machine Cycle Time vs Selected Value v			E AVERAGE AGE			
Selected Value v	vithin this Basi	c Rating: AVERA				
Selected Value v Track Loaders –	vithin this Basi	c Rating: AVERA				
Selected Value v	vithin this Basi	c Rating: AVERA				
Selected Value v Track Loaders –	vithin this Basi Material Descr	c Rating: AVERA		 Dump:0.10	0	
Selected Value v Track Loaders – 2 Cycle Time Elements (min.): Load: <u>NA</u>	vithin this Basi Material Descr M	c Rating: AVERA	AGE			ites
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: <u>NA</u> Wheel and Track Loaders -	vithin this Basi Material Descr M	c Rating: AVERA	AGE	naneuver):	NA min	ıtes
Selected Value v Track Loaders – 2 Cycle Time Elements (min.): Load: <u>NA</u> Wheel and Track Loaders - Cycle Time Factors	vithin this Basi Material Descr M – Unadjusted Ba	c Rating: AVERA	AGE	naneuver): Factor (min.)	NA min	ites
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: <u>NA</u> Wheel and Track Loaders - <u>Cycle Time Factors</u> Material:	vithin this Basi Material Descr M Unadjusted Ba NA	c Rating: AVERA	AGE	naneuver): Factor (min.) NA	NA mine Source (Cat HB)	utes
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile:	vithin this Basi Material Descr M Unadjusted Ba NA NA	c Rating: AVERA	AGE	naneuver): Factor (min.) NA NA	NA minu Source (Cat HB) (Cat HB)	utes
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership:	vithin this Basi Material Descr – M Unadjusted Ba <u>NA</u> NA NA	c Rating: AVERA	AGE	naneuver): Factor (min.) NA NA NA	NA min Source (Cat HB) (Cat HB) (Cat HB)	ites
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	vithin this Basi Material Descr Unadjusted Ba NA NA NA NA NA	c Rating: AVERA	AGE	naneuver): Factor (min.) NA NA NA NA	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)	ites
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership:	vithin this Basi Material Descr – M Unadjusted Ba <u>NA</u> NA NA	c Rating: <u>AVERA</u> iption: laneuver: <u>NA</u> sic Loader Cycle Ti	AGE	naneuver): Factor (min.) NA NA NA NA NA NA	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	ites
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	vithin this Basi Material Descr Unadjusted Ba NA NA NA NA NA	c Rating: AVERA	AGE	naneuver): Factor (min.) NA NA NA NA NA NA NA	NA minutes	Ites
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	vithin this Basi Material Descr Unadjusted Ba NA NA NA NA NA	c Rating: AVERA iption: laneuver: NA usic Loader Cycle Ti sic Loader Cycle Ti Adjusted Load	AGE me (load, dump, n me Adjustment: der Cycle Time:	naneuver): Factor (min.) NA NA NA NA NA NA O.302	NA minutes Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	vithin this Basi Material Descr Unadjusted Ba NA NA NA NA NA	c Rating: AVERA iption: laneuver: NA usic Loader Cycle Ti sic Loader Cycle Ti Adjusted Load	AGE	naneuver): Factor (min.) NA NA NA NA NA NA NA	NA minutes	ites
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	vithin this Basi Material Descr Unadjusted Ba NA NA NA NA NA	c Rating: AVERA iption: laneuver: NA usic Loader Cycle Ti sic Loader Cycle Ti Adjusted Load	AGE me (load, dump, n me Adjustment: der Cycle Time:	naneuver): Factor (min.) NA NA NA NA NA NA O.302	NA minutes Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)	ites
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time:	vithin this Basi Material Descr Unadjusted Ba NA NA NA NA NA NA	c Rating: AVERA iption: laneuver: NA usic Loader Cycle Ti sic Loader Cycle Ti Adjusted Load Net Load T	AGE ime (load, dump, n me Adjustment: der Cycle Time: Fime per Truck:	naneuver): Factor (min.) NA NA NA NA NA O.302 2.516	NA minutes Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Exchange Time:	vithin this Basi Material Descr M Unadjusted Ba NA NA NA NA NA NA NA	c Rating: AVERA iption:	AGE	naneuver): Factor (min.) NA NA NA NA NA 0.302 2.516 for site altitude:	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Exchange Time: Truck Load Time:	vithin this Basi Material Descr Unadjusted Ba NA NA NA NA NA NA O.80 2.516	c Rating: AVERA iption:	AGE me (load, dump, n me Adjustment: der Cycle Time: Fime per Truck: Adjusted Adjusted	naneuver): Factor (min.) NA NA NA NA O.302 2.516 for site altitude: for site altitude:	NA minutes Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) 0.800 2.516	 Minute
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Exchange Time:	vithin this Basi Material Descr Unadjusted Ba NA NA NA NA NA NA O.80 2.516	c Rating: AVERA iption:	AGE me (load, dump, n me Adjustment: der Cycle Time: Fime per Truck: Adjusted Adjusted	naneuver): Factor (min.) NA NA NA NA NA 0.302 2.516 for site altitude:	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	 Minute
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Exchange Time: Truck Load Time:	vithin this Basi Material Descr Unadjusted Ba NA NA NA NA NA NA O.80 2.516	c Rating: AVERA iption:	AGE me (load, dump, n me Adjustment: der Cycle Time: Fime per Truck: Adjusted Adjusted	naneuver): Factor (min.) NA NA NA NA O.302 2.516 for site altitude: for site altitude:	NA minutes Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) 0.800 2.516	utes
Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Exchange Time: Truck Load Time:	vithin this Basi Material Descr Unadjusted Ba NA NA NA NA NA NA NA O.80 2.516 1.20	c Rating: AVERA	AGE me (load, dump, n me Adjustment: der Cycle Time: Fime per Truck: Adjusted Adjusted Adjusted	naneuver): Factor (min.) NA NA NA NA O.302 2.516 for site altitude: for site altitude:	NA minutes Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) 0.800 0.800 2.516 1.200	 Minute

	Haul Rou	te:							
	Seg #		Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel Time	
		(Ft)			(%)	(%)	(fpm)	(min)	
	1	7375.	.00	-1.00	3.00	2.00	3328	2.961	
						Haul Time:	2.961	minutes	
-	Return Re	oute:							
	Seg #	Haul	Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
-		(Ft)			(%)	(%)	(fpm)	Time (min)	
	1	7375	.00	1.00	3.00	4.00	3411	2.477	
						Return Time:	2.477	minute	s
					Total True	ck Cycle Time:	9.954	minute	s
L	oading Too	ol unit							
_	U	uction	1,406.18	LCY/Hour		Adjusted for j	ob efficiency:	1,167.13	LCY/Hour
Truck	Unit Produ	uction							
			468.44	LCY/Hour		Adjusted for j	ob efficiency:	388.81	LCY/Hour
Optima	al No. of Ti	rucks:	3	Truck(s)		Selected Num	ber of Trucks:	3	Truck(s)
				Adjuste	ed hourly truck	k team producti	on: 1,160	5.43 LCY	//Hour
						r team producti			//Hour
				Adjusted multip	le truck/loade	er team production	on: 1,16	6.43 LCY	//Hour
	JOB TI	ME AN	ND COST						
	Fleet	size:	1	Team(s)	1	Fotal job time:	147.1	4 He	ours
	Unit	cost: _	\$1.797	/LCY	-	Total job cost:	\$308,4	66	

Site: Trapper Mine		Permit	t Action:	PR11	Perr	nit/Job#: <u>C19</u>	81010	
PROJECT IDENT Task #: 097 Date: 11/28/2	S		Colorado Moffat		Abbrev	viation: <u>None</u> ename: C010		
User: ZTT		inty. <u>1</u>	vionat		1 11		-077	
Agency or o	organization name:	DRM	IS					
HOURLY EQUIP	MENT			COSTSh	ift basis: <u>1 per d</u> a	ay		
			Equipme	ent Description	<u> </u>			
	-S(craper:	Cat 637	G w/push-pull				
		Dozer:	NA Cat D10	0T - 10SU				
Suppo	rt Equipment -Load Dump-			0T - 10SU 0T - 10SU				
Road Ma	intenance – Motor C	Grader:	CAT 16	5M				
	-Water	Truck:	Water 7	Fanker, 2,500 Gal.				
Cost Breakdown:	Scraper Wor	k Team		Support Equip	ment	Maintenand	ce Equipr	nent
	Scraper	Doz	zer	Load Area	Dump Area	Motor Grader	Wat	er Trucl
%Utilization-machine:	100		NA	50	50	50)	e
Ownership cost/hour:	\$287.19		NA	\$153.67	\$153.67	\$163.86	5	\$10.2
Operating cost/hour:	\$277.83		NA	\$83.47	\$83.47	\$54.93	3	\$12.1
%Utilization-ripper:	NA		NA	NA	NA	NA		N
Ripper own. cost/hour:	NA		NA	\$0.00	\$0.00	\$0.00		\$0.0
Ripper op. cost/hour:	NA		NA	\$0.00	\$0.00	\$0.00		\$0.0
Operator cost/hour:	\$30.90		NA	\$41.30	\$41.30	\$28.56		\$21.1
Unit Subtotals:	\$595.92		NA	\$278.44	\$278.44	\$247.35		\$43.6
Number of Units:	8	¢ 4 7 4	0	1	1		1	00.05
Group Subtotals:	Work:	\$4,76	67.36	Support:	\$556.88	Maint	: \$2	290.95
Total work team cost	/hour: \$5,615.19							
MATERIAL QUA	NTITIES							
			COV	0 11 6	1 000			
Initial volume: Loose volume:	<u>114,647</u> 114,647		CCY LCY	Swell facto	or: <u>1.000</u>			
	rce of estimated vol			\mathbf{r} A Table 1.4.0				
	of estimated swell fa		Cat Hand	x A, Table 1.4-9 lbook				
HOURLY PROD	UCTION							
				Scraper Bo	wl (volume) Basi	s:		
Material weight:	1,600 lbs/LCY			Struck V	/olume: 24.00		LCY	
Material description:	Top Soil			Heaped V	/olume: 34.00		LCY	
Rated Payload:	81,600 pounds			Average V			LCY	

<u>0.60</u> Minutes

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6400 feet

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	NA	(CAT HB)
Job Efficiency:	0.830	NA	(CAT HB)
Net Correction:	0.830	NA	

Travel 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	390.00	-5.50	3.00	-2.50	2972	0.18

Haul Time: **0.18** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	390.00	5.50	3.00	8.50	1931	0.30
				Return Time:	0.30	minutes
		2.08	minutes			
			Adjusted	for job conditions:	1,388.65	LCY/Hour
			Selected Nu	umber of Scrapers:	8	Scraper(s)
	Adjusted	d single scra	per team (unit)	hourly production:	5,554.62	LCY/Hour
	Adjusted m	ultiple scrap	per team (fleet)	hourly production:	5,554.62	LCY/Hour
Optim	Unadjusted unit pro al Number of Scrapers pe			_ LCY/Hour		

JOB TIME AND COST

Fleet size:	1	Team(s)	Total job time:	20.64	Hours
Unit cost:	\$1.011	/LCY	Total job cost:	\$115,897	

TRUCK/LOADER TEAM WORK

Task descri	-	Replace		Panel Ponds, A F			
Site: Trapper	·Mine		Permit Act	ion: PR11		Permit/Job#:	C1981010
PROJEC ⁷	<u>T IDENT</u>	IFICATION	[
Task #: Date: User:	097A 1/30/202 ZTT	23	State: Color County: Moff		Ab		None C010-097A
		ganization nar	ne: DRMS				
		MENT COST			Shift bas	is: <u>1 per day</u>	
<u>HOURL1</u>			<u> </u>	Equipment Descri		15. <u>1 per uuy</u>	
	Tru	ick Loader Tea		t 777F	•		
	0			t 385C L 18'-1" S	tick		
	Support	t Equipment -L		t D10T - 10SU t D10T - 10SU			
	Road Main	ntenance – Mot		T 16M			
		-Wa	ter Truck: Wa	ater Tanker, 2,500	Gal.		
Cost Break	kdown:	Truck/Loa	ader Team	Support]	Equipment	Mainter	nance Equipment
		Truck	Excavator	Load Area	Dump Area	Motor Grade	
%Utilization-mad	chine:	100	100	25	25	2	25 50
Ownership cost	/hour:	\$156.75	\$195.53	\$153.67	\$153.67	\$163.8	\$10.28
Operating cost	/hour:	\$133.38	\$148.85	\$41.74	\$41.74	\$27.4	\$10.16
%Utilization-	-	NA	0	15	NA	N	A NA
Ripper own. cost/		NA	\$0.00	\$24.69	\$0.00	\$0.0	
Ripper op. cost		NA	\$0.00	\$1.81	\$0.00	\$0.0	
Operator cost		\$33.71	\$37.32	\$41.30	\$41.30	\$28.5	
Unit Subt		\$323.84	\$381.70	\$238.52	\$236.71	\$219.8	
Number of V		3	1	1	1		1
Group Subt	totals:	Work:	\$1,353.22	Support:	\$475.23	Main	t: \$268.00
Total work	team cost/l	hour: <u>\$2,096.</u>	45				
MATEDI		NTITIC					
MATERI			~ ~ ~				
	volume:	244,270 244,2'			factor: <u>1.000</u>		
20000	-	ce of estimated		24 Appendix A Ta	blo A = 1		
		f estimated swe		Handbook	1010 A-3.1		
		Material Purch	ase Cost: \$0.0	00			
		То	otal Cost: \$0.0	00			
HOURL	Y PROD	UCTION					
Truck Cap							
Truck Paylo				D			
М	laterial wei Descript		xil	Pounds/LCY			
1	Rated Payl			Pounds			
	vload Capa			LCY			

Truck Bed (volume) Basis:						
Struck Volume:	60.60 L	CY				
Heaped Volume:	78.80 L	CY				
Average Volume:	69.70 L	CY				
Adjusted Volume:	78.80 L	CY				
Final 7	Truck Volume B	ased on Number of I	Loader Passes:	77.72	LCY	
Loading Tool Capacity						
			Buck	tet Size Class: L	arge	
Rated Capacity:	7.850	LCY (heaped)				-
Bucket Fill Factor:	1.100	Other - rock/dirt 1	nixtures (100	-120%) 1.100		-
Adjusted Capacity:	8.635	LCY	(-
Job Condition Corrections:	-		Altitude (ft.): 6	6400 feet		
	Truck	Loader	Source			
Altitude Adj:	1.000	1.000	(CAT HB	,		
Job Efficiency:	0.830	0.830	(CAT HB			
Net Correction:	0.830	0.830				
Leading Teal Coult Th	N7 1	flasding To 1D	D' 1 (- 1	Cill Tree also	0	
Loading Tool Cycle Time:		of Loading Tool Pass	es Required to I	-111 I ruck:	<u> 9 </u>	asses
Excavators and Front Shovels	<u>s:</u>					
Machine Cycle Time vs Selected Value w			AVERAGE			
Track Loaders – N		<u> </u>				
Cycle Time Elements (min.):	material Desemp					
Load: NA	Ma	neuver: NA		Dump: 0.100	0	
	=					
Wheel and Track Loaders -	Unadjusted Basi	c Loader Cycle Time	e (load, dump, n		NA minu	ites
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		NA	minutes	
		Adjusted Loader	Cycle Time:	0.302	minutes	_
		•	Cycle Time:		_	_
Truck Cycle Time:		Adjusted Loader	Cycle Time:	0.302	minutes	_
<u>Truck Cycle Time:</u> Truck Exchange Time:	0.80	Adjusted Loader Net Load Tin	Cycle Time:	0.302 2.516	minutes minutes	- Minute
Truck Exchange Time:		Adjusted Loader Net Load Tin Minutes	Cycle Time:	0.302 2.516 for site altitude:	minutes minutes 0.800	-
Truck Exchange Time: Truck Load Time:	2.516	Adjusted Loader Net Load Tin Minutes Minutes	Cycle Time: he per Truck: Adjusted Adjusted	0.302 2.516 for site altitude: for site altitude:	minutes 	Minute
Truck Exchange Time:	2.516	Adjusted Loader Net Load Tin Minutes	Cycle Time: he per Truck: Adjusted Adjusted	0.302 2.516 for site altitude:	minutes minutes 0.800	Minute Minute Minute
Truck Exchange Time: Truck Load Time:	2.516 1.20	Adjusted Loader Net Load Tin Minutes Minutes	Cycle Time: he per Truck: Adjusted Adjusted Adjusted	0.302 2.516 for site altitude: for site altitude: for site altitude:	minutes 	Minute

Haul R	oute:							
Seg #		Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel Time	
	(Ft)			(%)	(%)	(fpm)	(min)	
1	4345	.00	-1.00	3.00	2.00	3328	2.050	
					Haul Time:	2.050	minutes	
Return	Route:							
Seg #	Haul	Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
	(Ft)			(%)	(%)	(fpm)	Time (min)	
1	7375	.00	1.00	3.00	4.00	3411	2.477	
					Return Time:	2.477	minute	es
				Total True	ck Cycle Time:	9.043	minute	es
Loading T	ool unit							
Pro	oduction	1,406.18	LCY/Hour		Adjusted for j	ob efficiency:	1,167.13	LCY/Hour
Truck Unit Pro	oduction				Adjusted for job efficiency:			
		515.64	LCY/Hour		Adjusted for j	ob efficiency:	427.98	LCY/Hour
Optimal No. of	Trucks:	3	Truck(s)		Selected Num	ber of Trucks:	3	Truck(s)
			Adjuste	d hourly truc	k team production	on: 1,283	3.93 LCY	//Hour
					er team production			//Hour
			Adjusted multip	le truck/loade	er team production	on: 1,16	7.13 LCY	7/Hour
JOB 1	TIME AN	ND COST						
Fle	et size:	1	Team(s)	7	Fotal job time:	209.2	9 H	ours
Un	it cost:	\$1.796	/LCY	-	Total job cost:	\$438,7	68	

Site: Trapper Mine		Permi	t Action:	PR11	Perr	nit/Job#: <u>C198</u>	1010
PROJECT IDEN	FIFICATION						
Task #: 098	S	State: (Colorado		Abbrev	viation: None	
Date: 11/28/2			Moffat			ename: C010-	098
User: ZTT							
Agency or o	organization name:	DRM	IS				
HOURLY EQUIP	MENT			COSTSI	nift basis: <u>1 per d</u>	ay	
			Equipme	ent Description			
		Scraper:		7G w/push-pull			
Suppo	rt Equipment -Loa	-Dozer: d Area:	NA Cat D1	0T - 10SU			
	-Dum	p Area:	Cat D1	0T - 10SU			
Road Ma	intenance – Motor	Grader: Truck:	CAT 10	6M Fanker, 2,500 Gal.			
	- water	TTUCK.	water	<u>1 alikel, 2,300 Gal.</u>			
Cost Breakdown:	Scraper Wo			Support Equip		Maintenance	
	Scraper	Do	zer	Load Area	Dump Area	Motor Grader	Water Tru
%Utilization-machine:	100		NA	50	50	50	
Ownership cost/hour:	\$287.19		NA	\$153.67	\$153.67	\$163.86	\$10
Operating cost/hour:	\$277.83		NA	\$83.47	\$83.47	\$54.93	\$12
%Utilization-ripper:	NA		NA	NA	NA	NA	
Ripper own. cost/hour:	NA		NA	\$0.00	\$0.00	\$0.00	\$0
Ripper op. cost/hour:	NA		NA	\$0.00	\$0.00	\$0.00	\$(
Operator cost/hour:	\$30.90		NA	\$41.30	\$41.30	\$28.56	\$2
Unit Subtotals:	\$595.92		NA	\$278.44	\$278.44	\$247.35	\$43
Number of Units: Group Subtotals:	8 Work:	\$4,76	0	1 Support:	\$556.88	1 Maint:	\$290.95
1		94,70	07.30	Support.	\$350.88	Ivianit.	\$290.9.
Total work team cost	/hour: <u>\$5,615.19</u>						
MATERIAL QUA	NTITIES						
Initial volume:	20,360		CCY	Swell fact	or: 1.000		
Loose volume:	20,360		LCY	5 wen nee	1.000		
Sou	olume:	Division	Estimate				
Source of	of estimated swell	factor:	Cat Hand				
HOURLY PROD	UCTION						
				Scraper Bo	owl (volume) Basi	<u>s:</u>	
Material weight:	1,600 lbs/LCY				Volume: 24.00		.CY
Material description: Top Soil			Heaped Volume: 34.00 LCY				
Rated Payload:	81,600 pounds			Avorage	Volume: 29.00	т	.CY

<u>0.60</u> Minutes

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6400 feet

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	NA	(CAT HB)
Job Efficiency:	0.830	NA	(CAT HB)
Net Correction:	0.830	NA	

Travel 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	625.00	3.20	3.00	6.20	1477	0.48

Haul Time: **0.48** minutes

Return Route:

Total Scraper team cycle time:2.Adjusted for job conditions:1,22Selected Number of Scrapers:2Adjusted single scraper team (unit) hourly production:4,91	(fpm) Travel Time (min)	Velocity (fpm)	Total Res (%)	Roll. Res (%)	Grade (%)	Haul Distance (Ft)	Seg #			
Total Scraper team cycle time: 2. Adjusted for job conditions: 1,22 Selected Number of Scrapers: 4,91 Adjusted single scraper team (unit) hourly production: 4,91 Adjusted multiple scraper team (fleet) hourly production: 4,91 Unadjusted unit production/hour: 1,480.85 LCY/Hour Optimal Number of Scrapers per push dozer:	0.27	2972	-0.20	3.00	-3.20	625.00	1			
Adjusted for job conditions: 1,22 Selected Number of Scrapers: 4,91 Adjusted single scraper team (unit) hourly production: 4,91 Adjusted multiple scraper team (fleet) hourly production: 4,91 Unadjusted unit production/hour: 1,480.85 LCY/Hour Optimal Number of Scrapers per push dozer:	minutes	0.27	Return Time:							
Selected Number of Scrapers: 4,91 Adjusted single scraper team (unit) hourly production: 4,91 Adjusted multiple scraper team (fleet) hourly production: 4,91 Unadjusted unit production/hour: 1,480.85 LCY/Hour Optimal Number of Scrapers per push dozer:	35 minutes	2.35	er team cycle time	Total Scrap						
Adjusted single scraper team (unit) hourly production: 4,91 Adjusted multiple scraper team (fleet) hourly production: 4,91 Unadjusted unit production/hour: 1,480.85 LCY/Hour Optimal Number of Scrapers per push dozer:	9.11 LCY/Hour	1,229.11	Adjusted for job conditions:							
Adjusted multiple scraper team (fleet) hourly production: 4,91 Unadjusted unit production/hour: 1,480.85 LCY/Hour Optimal Number of Scrapers per push dozer:	3 Scraper(s)	8	Selected Number of Scrapers:							
Unadjusted unit production/hour: 1,480.85 LCY/Hour Optimal Number of Scrapers per push dozer:	6.43 LCY/Hour	4,916.43	Adjusted single scraper team (unit) hourly production:							
Optimal Number of Scrapers per push dozer:	6.43 LCY/Hour	4,916.43	hourly productior	er team (fleet)	ultiple scrap	Adjusted m				
JOB TIME AND COST			LCY/Hour			v 1	Optima			
						ME AND COST	<u>JOB TI</u>			
Fleet size: 1 Team(s) Total job time: 4.1	4 Hours	4.14	Total job time:	7	Team(s)	size: 1	Fleet			

Unit cost: \$1.142 /LCY

Total job cost: \$23,254

TRUCK/LOADER TEAM WORK

Task description:	Replace	Topsoil at Drag				
Site: Trapper Mine		Permit Action	on: PR11		Permit/Job#: <u>C1</u>	981010
PROJECT IDEN Task #: 099		State: Colora		Ab	breviation: Nor	
Date: <u>11/28</u> User: ZTT	/2022	County: Moffa	t		Filename: C0	10-099
	organization nar					
HOURLY EQUI	PMENT COS	<u>r</u>		Shift bas	sis: <u>1 per day</u>	
r	Carala I a a dan Tara		Equipment Descri 777F	ption		
	Fruck Loader Tea		<u>385CL</u> 18'-1" S	tick		
Supp	ort Equipment -L	Load Area: Cat	D10T - 10SU			
DeadM	-Di aintenance –Mot		D10T - 10SU			
Koad M			T 16M ter Tanker, 2,500	Gal.		
			<u>, , , , , , , , , , , , , , , , , , , </u>			
Cost Breakdown:		ader Team	**	Equipment	÷	ce Equipment
	Truck	Excavator	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	25	25	25	50
Ownership cost/hour:	\$156.75	\$195.53	\$153.67	\$153.67	\$163.86	\$10.28
Operating cost/hour:	\$133.38	\$148.85	\$41.74	\$41.74	\$27.47	\$10.16
%Utilization-riper:	NA	0	15	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$24.69	\$0.00	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$1.81	\$0.00	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$37.32	\$41.30	\$41.30	\$28.56	\$27.68
Unit Subtotals:	\$323.84	\$381.70	\$238.52	\$236.71	\$219.88	\$48.12
Number of Units:	2	1	1	1	1	1
Group Subtotals:	Work:	\$1,029.38	Support:	\$475.23	Maint:	\$268.00
Total work team co	st/hour: <u>\$1,772.</u>	61				
MATERIAL QU	ANTITIES					
		COV		6 / 1 000		
Initial volume Loose volume		CCY 5 LCY		factor: <u>1.000</u>		
				11 4 2 1		
	ource of estimated		24 Appendix A Ta Iandbook	able A-3.1		
Source	Material Purch					
	То	otal Cost: \$0.00)			
HOURLY PRO	DUCTION					
Truck Capacity:						
Truck Payload (wei						
Material		.'1	Pounds/LCY			
Desci Rated Pa	ription: Top So ayload: 200,00		Pounds			
Payload Ca	•		LCY			

Struck Volume:	60.60 I	LCY				
Heaped Volume:		LCY				
Average Volume:		LCY				
Adjusted Volume:		LCY				
Aujusted volume.	/ 0.00					
Final	Truck Volume I	Based on Number of Loade	er Passes:	77.72	LCY	
Loading Tool Capacity						
			Buck	et Size Class: La	arge	_
Rated Capacity:	7.850	LCY (heaped)				
Bucket Fill Factor:	1.100	Other - rock/dirt mixtu	ares (100-	120%) 1.100		
Adjusted Capacity:	8.635	LCY				
Job Condition Corrections:	-	Site Alti	tude (ft.): <u>6</u>	<u>400</u> feet		
	Truck	Loader	Source			
Altitude Adj:	1.000	1.000	(CAT HB))		
Job Efficiency:	0.830	0.830	(CAT HB)			
Net Correction:	0.830	0.830				
Loading Tool Cycle Time:		of Loading Tool Passes Re	equired to F	ill Truck:	<u> 9 </u>	asses
Excavators and Front Shovel	<u>s:</u>					
Machine Cycle Time vs			RAGE			
Selected Value v		<u> </u>				
Track Loaders – Track Loaders	Material Descrip	ption:				
Load: NA	M	aneuver: NA		Dump: 0.100		
			-	Dump		
Wheel and Track Loaders -	Unadjusted Bas	sic Loader Cycle Time (loa	id, dump, m	aneuver): <u>N</u>	VA minu	ites
Wheel and Track Loaders - Cycle Time Factors	Unadjusted Bas	sic Loader Cycle Time (loa	id, dump, m	aneuver): <u>N</u> Factor (min.)	VA minu Source	ites
	Unadjusted Bas	sic Loader Cycle Time (loa	ld, dump, m	·		ites _
Cycle Time Factors	-	sic Loader Cycle Time (loa	ld, dump, m	Factor (min.)	Source	ites
Cycle Time Factors Material:	NA	sic Loader Cycle Time (loa	ld, dump, m	Factor (min.) NA	Source (Cat HB)	ites
Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	NA NA NA NA	sic Loader Cycle Time (loa	id, dump, m	Factor (min.) NA NA NA NA	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)	ites
Cycle Time Factors Material: Stockpile: Truck Ownership:	NA NA NA			Factor (min.) NA NA NA NA NA NA	Source (Cat HB) (Cat HB) (Cat HB)	ites
Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	NA NA NA NA	Net Cycle Time Adju	ustment:	Factor (min.) NA NA NA NA NA NA	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	utes
Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	NA NA NA NA	Net Cycle Time Adju Adjusted Loader Cyc	ustment:	Factor (min.) NA NA NA NA NA NA 0.302	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	utes
Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	NA NA NA NA	Net Cycle Time Adju	ustment:	Factor (min.) NA NA NA NA NA NA	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	ntes
Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	NA NA NA NA	Net Cycle Time Adju Adjusted Loader Cyc	ustment:	Factor (min.) NA NA NA NA NA NA 0.302	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	ntes
Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	NA NA NA NA NA	Net Cycle Time Adju Adjusted Loader Cyc	ustment: le Time: r Truck:	Factor (min.) NA NA NA NA NA NA 0.302	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	-
Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time:	NA NA NA NA NA	Net Cycle Time Adju Adjusted Loader Cyc Net Load Time pe	ustment:	Factor (min.) NA NA NA NA NA 0.302 2.516	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	
Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time: Truck Exchange Time: Truck Load Time:	NA NA NA NA NA NA 0.80 2.516	Net Cycle Time Adju Adjusted Loader Cyc Net Load Time pe Minutes	ustment: le Time: r Truck: Adjusted t	Factor (min.) NA NA NA NA NA 0.302 2.516	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes 0.800	Minute Minute Minute
Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time: Truck Exchange Time:	NA NA NA NA NA NA 0.80 2.516 1.20	Net Cycle Time Adju Adjusted Loader Cyc Net Load Time pe Minutes Minutes	ustment: le Time: r Truck: Adjusted f Adjusted f	Factor (min.) NA NA NA NA NA O.302 2.516	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes 0.800 2.516 1.200	- - - - Minute

Haul Route:

	Seg #	Haul	Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel Time]	
		(Ft)			(%)	(%)	(fpm)	(min)		
	1	2288	.00	2.80	3.00	5.80	1266	1.932	_	
						Haul Time:	1.932	minute	S	
1	Return R		Distance	C as d_{2} (0()	Dall Daa	Tatal Das	Vala sites	Travel	7	
	Seg #	Haul Distance		Grade (%)	Roll. Res	Total Res	Velocity (frm)	Time		
	(Ft)				(%)	(%)	(fpm)	(min)		
	1	2288	.00	-2.80	3.00	0.20	3503	0.826	_	
						Return Time:	0.826	minu	tes	
					Total True	ck Cycle Time:	7.274	minu		
	oading To. Prod Unit Prod	uction	1,406.18	LCY/Hour		Adjusted for j	ob efficiency:	1,167.13	LCY/Hour	
Truck	Cont Prod	uction	641.04	LCY/Hour	Adjusted for job efficiency:532.			532.06	LCY/Hour	
Optim	al No. of T	rucks:	2	Truck(s)	Selected Number of Trucks:		ber of Trucks:	2	Truck(s)	
				Adjuste	d hourly truc	k team production	on: 1,064	4.12 LC	Y/Hour	
				Adjusted sing	le truck/loade	er team production	on: 1,064	4.12 LC	Y/Hour	
				Adjusted multip	le truck/loade	r team production	on: 1,06 4	4.12 LC	Y/Hour	
	JOB TIME AND COST									
	Fleet	size:	1	Team(s)]	Fotal job time:	8.17	I	Hours	
	Unit	cost:	\$1.666	/LCY	-	Total job cost:	\$14,48	84		

TRUCK/LOADER TEAM WORK

Task description:	Replace	Topsoil at Dragl	ine Walk Road ((ASH1)		
Site: Trapper Mine		Permit Actio	on: PR11		Permit/Job#: <u>C1</u>	981010
PROJECT IDENTask #:099ADate:11/28User:ZTT		State: <u>Colora</u> County: <u>Moffa</u>		Ab	breviation: <u>No</u> Filename: <u>C0</u>	ne 10-099A
Agency of	organization nam	ne: DRMS				
HOURLY EQU	PMENT COST	<u>r</u>		Shift bas	is: <u>1 per day</u>	
			Equipment Descri	ption		
r	Fruck Loader Tea		777F 385C L 18'-1" S	tials		
Supr	ort Equipment -L		$\frac{585CL}{D10T} - 10SU$	иск		
	-Du	Imp Area: Cat	D10T - 10SU			
Road M	laintenance – Mot		Γ 16M	Cal		
	- w a	ter Truck: Wat	er Tanker, 2,500	Gal.		
Cost Breakdown:	Truck/Loa	ader Team	Support l	Equipment	Maintenan	ce Equipment
	Truck	Excavator	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	25	25	25	50
Ownership cost/hour:	\$156.75	\$195.53	\$153.67	\$153.67	\$163.86	\$10.28
Operating cost/hour:	\$133.38	\$148.85	\$41.74	\$41.74	\$27.47	\$10.16
%Utilization-riper:	NA	0	15	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$24.69	\$0.00	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$1.81	\$0.00	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$37.32	\$41.30	\$41.30	\$28.56	\$27.68
Unit Subtotals:	\$323.84	\$381.70	\$238.52	\$236.71	\$219.88	\$48.12
Number of Units:	2	1	1	1	1	1
Group Subtotals:	Work:	\$1,029.38	Support:	\$475.23	Maint:	\$268.00
Total work team co	st/hour: <u>\$1,772.</u>	61				
<u>MATERIAL QU</u>	ANTITIES					
Initial volume	,	CCY		factor: <u>1.000</u>		
Loose volume						
	ource of estimated		24 Appendix A Ta	able A-3.1		
Source	e of estimated swe Material Purch		landbook)			
		otal Cost: \$0.00				
HOURLY PRO	DUCTION					
Truck Capacity:						
Truck Payload (wei	ght) Basis:					
Material	weight: 1,600	••	Pounds/LCY			
Desci Rated Pa	ription: Top Sc ayload: 200,00		Pounds			
Payload Ca	•		Pounds LCY			

Struck Volume:						
Suuck volume.	60.60	LCY				
Heaped Volume:	78.80	LCY				
Average Volume:	69.70	LCY				
Adjusted Volume:	78.80	LCY				
Final '	Truck Volum	e Based on Number	of Loader Passes:	77.72	LCY	
Loading Tool Capacity						
<u>t</u>			Buch	ket Size Class: I	Large	
Rated Capacity:	7.850	LCY (heaped			Large	_
Bucket Fill Factor:	1.100	Other - rock/		-120%) 1.100		_
Adjusted Capacity:	8.635		unt mixtures (100	-120/0) 1.100		_
	01000					
Job Condition Corrections:	-		Site Altitude (ft.): 6	5400 feet		
	Truck	Loader	Source			
Altitude Adj:	1.000	1.000	(CAT HB			
Job Efficiency:	0.830	0.830	(CAT HB	5)		
Net Correction:	0.830	0.830				
	0.030	0.030				
Loading Tool Cycle Time:	Numbe	er of Loading Tool	Passes Required to 1	Fill Truck:	9 1	passes
Excavators and Front Shovels		C	1			L
Machine Cycle Time vs	. Job Condition	on Rating: ABO	VE AVERAGE			
Selected Value w	vithin this Ras					
Selected Value w		sic Rating: AVE	RAGE			
Track Loaders – N		sic Rating: AVE				
		sic Rating: AVE				
Track Loaders – N	Material Desc	sic Rating: AVE		 Dump: 0.10	0	
Track Loaders – M Cycle Time Elements (min.): Load: <u>NA</u>	Material Desc N	sic Rating: <u>AVE</u> cription: Maneuver: <u>NA</u>	RAGE	·		
Track Loaders – N Cycle Time Elements (min.): Load: <u>NA</u> Wheel and Track Loaders -	Material Desc N	sic Rating: <u>AVE</u> cription: Maneuver: <u>NA</u>	RAGE	naneuver):	NA min	utes
Track Loaders – M Cycle Time Elements (min.): Load: <u>NA</u> Wheel and Track Loaders - Cycle Time Factors	Material Desc Unadjusted B	sic Rating: <u>AVE</u> cription: Maneuver: <u>NA</u>	RAGE	naneuver): Factor (min.)	NA min	utes
Track Loaders – M Cycle Time Elements (min.): Load: <u>NA</u> Wheel and Track Loaders - <u>Cycle Time Factors</u> Material:	Material Desc N Unadjusted B NA	sic Rating: <u>AVE</u> cription: Maneuver: <u>NA</u>	RAGE	naneuver): Factor (min.) NA	NA min Source (Cat HB)	utes
Track Loaders – M Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile:	Material Desc N Unadjusted B NA NA	sic Rating: <u>AVE</u> cription: Maneuver: <u>NA</u>	RAGE	naneuver): Factor (min.) NA NA	NA min Source (Cat HB) (Cat HB)	utes
Track Loaders – M Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership:	Material Desc Nadjusted B NA NA NA	sic Rating: <u>AVE</u> cription: Maneuver: <u>NA</u>	RAGE	naneuver): Factor (min.) NA NA NA NA	NA min Source (Cat HB) (Cat HB) (Cat HB)	utes
Track Loaders – M Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Material Desc Nadjusted B NA NA NA NA NA	sic Rating: <u>AVE</u> cription: Maneuver: <u>NA</u>	RAGE	naneuver): Factor (min.) NA NA NA NA NA	NA min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Track Loaders – M Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership:	Material Desc Nadjusted B NA NA NA	sic Rating: <u>AVE</u> ription: <u></u> Maneuver: <u>NA</u> Basic Loader Cycle '	RAGE Time (load, dump, r	naneuver): Factor (min.) NA NA NA NA NA NA	NA min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Track Loaders – M Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Material Desc Nadjusted B NA NA NA NA NA	sic Rating: <u>AVE</u> cription: <u>NA</u> Maneuver: <u>NA</u> asic Loader Cycle '	RAGE Time (load, dump, r	naneuver): Factor (min.) NA NA NA NA NA NA NA NA	NA minutes Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Track Loaders – M Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Material Desc Nadjusted B NA NA NA NA NA	sic Rating: AVE cription: Maneuver: NA casic Loader Cycle ' asic Loader Cycle ' Net Cycle ' Adjusted Lo	RAGE Time (load, dump, r	naneuver): Factor (min.) NA NA NA NA NA NA O.302	NA minutes Source (Cat HB) (Cat HB) (Cat HB)	utes
Track Loaders – M Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Material Desc Nadjusted B NA NA NA NA NA	sic Rating: AVE cription: Maneuver: NA casic Loader Cycle ' asic Loader Cycle ' Net Cycle ' Adjusted Lo	RAGE Time (load, dump, r	naneuver): Factor (min.) NA NA NA NA NA NA NA NA	NA minutes Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Track Loaders – M Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	Material Desc Nadjusted B NA NA NA NA NA	sic Rating: AVE cription: Maneuver: NA casic Loader Cycle ' asic Loader Cycle ' Net Cycle ' Adjusted Lo	RAGE Time (load, dump, r	naneuver): Factor (min.) NA NA NA NA NA NA O.302	NA minutes Source (Cat HB) (Cat HB) (Cat HB)	utes
Track Loaders – M Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time:	Material Desc N Unadjusted B NA NA NA NA NA	sic Rating: AVE pription: NA Maneuver: NA Basic Loader Cycle ' Net Cycle T Adjusted Lo Net Load	RAGE Time (load, dump, r Time Adjustment: ader Cycle Time: Time per Truck:	naneuver): Factor (min.) NA NA NA NA NA O.302 2.516	NA minutes Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	
Track Loaders – M Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Exchange Time:	Material Desc Na Unadjusted B NA NA NA NA NA NA NA O.80	sic Rating: AVE cription: Maneuver: NA casic Loader Cycle ' asic Loader Cycle ' Net Cycle ' Adjusted Lo	RAGE Time (load, dump, r Time Adjustment: ader Cycle Time: Time per Truck:	naneuver): Factor (min.) NA NA NA NA NA NA O.302	NA minutes Source (Cat HB) (Cat HB) (Cat HB)	
Track Loaders – M Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time:	Material Desc Na Unadjusted B NA NA NA NA NA NA NA O.80	sic Rating: AVE pription: NA Maneuver: NA Basic Loader Cycle ' Net Cycle T Adjusted Lo Net Load	RAGE Time (load, dump, r Time Adjustment: ader Cycle Time: Time per Truck: Adjusted	naneuver): Factor (min.) NA NA NA NA NA O.302 2.516	NA minutes Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	
Track Loaders – M Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Exchange Time:	Material Desc Material Desc NA Unadjusted B NA NA NA NA NA 0.80 2.516	sic Rating: AVE ription: Maneuver: NA Basic Loader Cycle 7 Adjusted Lo Net Load Minutes	RAGE Time (load, dump, r Gime Adjustment: Control of the second s	naneuver): Factor (min.) NA NA NA NA NA 0.302 2.516 for site altitude:	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes 0.800	 Minute
Track Loaders – M Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Exchange Time: Truck Load Time:	Material Desc Material Desc NA Unadjusted B NA NA NA NA NA 0.80 2.516	sic Rating: AVE rription: Maneuver: NA Basic Loader Cycle ' Adjusted Lo Net Load Minutes Minutes Minutes	RAGE Time (load, dump, r Gime Adjustment: Control of the second s	naneuver): Factor (min.) NA NA NA NA NA 0.302 2.516 for site altitude: for site altitude:	NA minutes Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) 0.800 0.800 2.516	utes — — — — — — — — — — — — —
Track Loaders – M Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Exchange Time: Truck Load Time:	Material Desc Material Desc Unadjusted B NA NA NA NA NA NA NA NA NA NA	sic Rating: AVE rription: Maneuver: NA Basic Loader Cycle ' Adjusted Lo Net Cycle T Adjusted Lo Net Load Minutes Minutes Minutes	RAGE Time (load, dump, r Gime Adjustment: Control of the second s	naneuver): Factor (min.) NA NA NA NA NA 0.302 2.516 for site altitude: for site altitude: for site altitude:	NA minutes Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) 0.800 0.800 2.516 1.200	 Minute

	Haul Rou	te:							
	Seg #	Haul (Ft)	Distance	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time	
		. ,			(70)	(70)		(min)	
	1	2130.	00	-3.80	3.00	-0.80	3503	0.688	
						Haul Time:	0.688	minutes	
Г	Return Ro	1	~ ·	a a a b				T 1	
	Seg #		Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel Time	
-		(Ft)			(%)	(%)	(fpm)	(min)	
	1	2130.	00	3.80	3.00	6.80	2398	1.082	
					T . (. 1 T .	Return Time:	1.082	minute	
					Total True	ck Cycle Time:	6.286	minute	S
L	oading Too	ol unit							
		iction	1,406.18	LCY/Hour		Adjusted for j	ob efficiency:	1,167.13	LCY/Hour
Truck	Unit Produ	uction							
			741.79	LCY/Hour		Adjusted for j	ob efficiency:	615.69	LCY/Hour
Optima	al No. of Ti	ucks:	2	Truck(s)		Selected Numl	ber of Trucks:	2	Truck(s)
				Adjuste	d hourly true	k team production	on: 1,23	1.37 LCY	//Hour
				Adjusted sing	le truck/loade	r team production	on: 1,16	7.13 LCY	//Hour
				Adjusted multip	le truck/loade	r team production	on: 1,16	7.13 LCY	//Hour
	JOB TI	ME AN	ND COST						
	Fleet	size:	1	Team(s)	1	otal job time:	33.14	4 He	ours
	Unit	cost:	\$1.519	/LCY	r	Fotal job cost:	\$58,7	52	

REVEGETATION WORK

Task desc	ription:	Facilities Area			
ite: Trapp	er Mine	Permit Action:	PR11	Permit/Job	#: <u>C1981010</u>
PROJEC	T IDENTIFIC	CATION			
Task #	: 100	State: Colorado		Abbreviation:	None
Date	: 11/28/2022	County: Moffat		Filename:	C010-100
User	: ZTT				

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
Arrowleaf Balsamroot	0.40	0.50	\$28.08
Beardless Wheatgrass - Whitmar	0.31	1.01	\$3.63
Mountain Brome - Bromar	0.72	1.16	\$2.74
Great Basin Wildrye - Magnar	0.92	3.74	\$10.63
Kentucky Bluegrass - Ginger	0.06	2.96	\$0.19
Alfalfa - Ladak (inoculated)	0.10	0.48	\$0.26
Burnett, Small (or Little) - Delar	0.40	0.51	\$1.00
Sheep Fescue - Covar	0.15	2.34	\$0.92
Milk Vetch, Cicer - Lutana	0.30	1.00	\$2.46

Slender Wheatgrass - San Luis	0.28	1.02	\$1.19
Streambank Wheatgrass - Sodar	0.26	0.85	\$1.48
Thickspike Wheatgrass - Critana	0.28	0.99	\$1.93
Western Wheatgrass - Arriba	0.38	0.96	\$2.47
Needlegrass, Green - Lodorm	0.24	1.00	\$2.83
Flax, Lewis Blue	0.30	1.99	\$4.95
Red Top	0.02	2.29	\$0.16
Penstemon, Rocky Mountain	0.14	2.19	\$4.13
Yarrow, Western	0.07	4.26	\$2.93
Globemallow, Munro	0.08	0.91	\$7.00
Aster, Pacific	0.02	0.35	\$2.39
Goldeneye - Showy	0.08	0.92	\$4.80
Totals Seed Mix	5.51	31.41	\$86.15

Application

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

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
	\$
Total Mulch Applica	tion Cost/Acre do oo
	tion Cost/Acre \$0.00

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
		Totals	Nursery Stoc	ek Cost / Acre	\$0.00

JOB TIME AND COST

	No. of Acres:	75		Cost /Acre:	\$318.15
Estimate	ed Failure Rate:	17.5%		Cost /Acre*:	\$318.15
*Selected Replanti	ng Work Items:	TILLING,SEEI	DING		
Initial Job Cost: Reseeding Job Cost:					

Total Job Cost:	\$28,037
Job Hours:	75.00

REVEGETATION WORK

: Trapper	Mine	Permit Action:	PR11	Permit/Job	o#: <u>C1981010</u>
PROJECT	IDENTIFIC	ATION			
Task #:	100A	State: Colorado		Abbreviation:	None
Date:	11/28/2022	County: Moffat		Filename:	C010-100A
User:	ZTT				

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
Arrowleaf Balsamroot	0.40	0.50	\$28.08
Beardless Wheatgrass - Whitmar	0.31	1.01	\$3.63
Bitterbrush, Antelope	4.40	1.35	\$85.80
Mountain Brome - Bromar	0.72	1.16	\$2.74
Great Basin Wildrye - Magnar	0.92	3.74	\$10.63
Kentucky Bluegrass - Ginger	0.06	2.96	\$0.19
Alfalfa - Ladak (inoculated)	0.10	0.48	\$0.26
Chokecherry	3.00	0.21	\$87.00
Burnett, Small (or Little) - Delar	0.40	0.51	\$1.00

Sheep Fescue - Covar	0.15	2.34	\$0.92
Milk Vetch, Cicer - Lutana	0.30	1.00	\$2.46
Slender Wheatgrass - San Luis	0.28	1.02	\$1.19
Streambank Wheatgrass - Sodar	0.26	0.85	\$1.48
Thickspike Wheatgrass - Critana	0.28	0.99	\$1.93
Western Wheatgrass - Arriba	0.38	0.96	\$2.47
Rabbitbrush, Rubber	0.26	3.87	\$16.72
Needlegrass, Green - Lodorm	0.24	1.00	\$2.83
Rose, Wood's	0.96	0.00	\$19.68
Sagebrush, Mountain or Big	0.07	3.70	\$1.38
Flax, Lewis Blue	0.30	1.99	\$4.95
Red Top	0.02	2.29	\$0.16
Sagebrush, Silver	0.10	1.94	\$3.10
Saltbush, Four Wing	0.62	0.85	\$7.75
Serviceberry	0.29	0.53	\$17.84
Snowberry, Mountain	0.58	1.00	\$29.29
Penstemon, Rocky Mountain	0.14	2.19	\$4.13
Yarrow, Western	0.07	4.26	\$2.93
Globemallow, Munro	0.08	0.91	\$7.00
Aster, Pacific	0.02	0.35	\$2.39
Goldeneye - Showy	0.08	0.92	\$4.80
Totals Seed Mix	15.79	44.87	\$354.70

Application

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

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
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

Job Hours: **319.30**

	No. of Acres:	319.3		Cost /Acre:	\$586.70	
Estimate	ed Failure Rate:	17.5%		Cost /Acre*:	\$586.70	
*Selected Replanti	ng Work Items:	TILLING,SEED	DING			
Initial Job Cost:	\$187,333.31					
Reseeding Job Cost:	\$32,783.33					
Total Job Cost:	\$220,117					

REVEGETATION WORK

Task descri	ption:	Roads (including BC road) b	elow 6700'		
Site: Trapper	Mine	Permit Action:	PR11	Permit/Jol	o#: <u>C1981010</u>
	<u>IDENTIFIC</u>				N
Task #:	101	State: Colorado		Abbreviation:	None
Date:	11/28/2022	County: Moffat		Filename:	C010-101
User:	ZTT				

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
Arrowleaf Balsamroot	0.40	0.50	\$28.08
Beardless Wheatgrass - Whitmar	0.31	1.01	\$3.63
Mountain Brome - Bromar	0.72	1.16	\$2.74
Great Basin Wildrye - Magnar	0.92	3.74	\$10.63
Kentucky Bluegrass - Ginger	0.06	2.96	\$0.19
Alfalfa - Ladak (inoculated)	0.10	0.48	\$0.26
Burnett, Small (or Little) - Delar	0.40	0.51	\$1.00
Sheep Fescue - Covar	0.15	2.34	\$0.92
Milk Vetch, Cicer - Lutana	0.30	1.00	\$2.46

Slender Wheatgrass - San Luis	0.28	1.02	\$1.19
Streambank Wheatgrass - Sodar	0.26	0.85	\$1.48
Thickspike Wheatgrass - Critana	0.28	0.99	\$1.93
Western Wheatgrass - Arriba	0.38	0.96	\$2.47
Needlegrass, Green - Lodorm	0.24	1.00	\$2.83
Flax, Lewis Blue	0.30	1.99	\$4.95
Red Top	0.02	2.29	\$0.16
Penstemon, Rocky Mountain	0.14	2.19	\$4.13
Yarrow, Western	0.07	4.26	\$2.93
Globemallow, Munro	0.08	0.91	\$7.00
Aster, Pacific	0.02	0.35	\$2.39
Goldeneye - Showy	0.08	0.92	\$4.80
Totals Seed Mix	5.51	31.41	\$86.15

Application

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

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
	\$
Total Mulch Applica	tion Cost/Acre do oo
	tion Cost/Acre \$0.00

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre		
					\$		
		Totals	Nursery Stoc	ek Cost / Acre	\$0.00		

JOB TIME AND COST

	No. of Acres:	196.3		Cost /Acre:	\$318.15
Estimate	ed Failure Rate:	17.5%	(Cost /Acre*:	\$318.15
*Selected Replanti	ng Work Items:	TILLING,SEEI	DING		
Initial Job Cost:					
Reseeding Job Cost:	\$10,929.25				

Total Job Cost:	\$73,382
Job Hours:	196.00

MOTOR GRADER WORK

Trapper Mine	Permit A	Action: PR11	Pe	rmit/Job#: <u>C1981010</u>
PROJECT IDENT	IFICATION			
Task #: 102		lorado		eviation: None
Date: <u>11/28/20</u>	County: Mo	offat	ŀ	ilename: <u>C010-102</u>
User: ZTT				
Agency or or	ganization name: DRMS			
HOURLY EQUIPN	<u>AENT COST</u>			
Basic Mach	ine: CAT 16M		Horsepower:	297
Ripper Attachm			Shift Basis:	1 per day
11			Data Source:	(CRG)
			-	. ,
Cost Breakdown:			Utilization %	
$O_{\rm W}$	nership Cost/Hour:	\$163.86	NA	
	berating Cost/Hour:	\$103.80	100	
	nership Cost/Hour:	\$0.00	NA	
	perating Cost/Hour:	\$0.00	1177	
	Derator Cost/Hour:	\$28.56	NA	
	tal Unit Cost/Hour:	\$302.28		
10		<i>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</i>		
Tot	al Fleet Cost/Hour:	\$604.56		
	ea to be graded or ripped: _ urce of estimated acreage:	79.94 Appen. A; Table A-8	.2A Finish Grading	acres
HOURLY PRODU				
<u>HOURLI I KODU</u>		1.50	1	
	Average Grader Speed:		mph 1 grading (0-2.5 mp	
	Selected Application:			b) 15
	Selected Rlade Angle			h) - 1.5
	Selected Blade Angle: Effective Blade Length:	30	degrees	<u>h)</u> - 1.5
Wid	Effective Blade Length:	30 13.90	degrees feet	h) - 1.5
	Effective Blade Length: th of blade overlap per pass:	30 13.90 2.00	degrees feet feet	h) - 1.5
Net gradir	Effective Blade Length:	30 13.90	degrees feet	
Net gradir	Effective Blade Length: th of blade overlap per pass: ag or ripping width per pass: ted Hourly Unit Production:	30 13.90 2.00 11.90 2.1636	degrees feet feet feet	ur
Net gradir Unadjus	Effective Blade Length: th of blade overlap per pass: ag or ripping width per pass: ted Hourly Unit Production:	30 13.90 2.00 11.90 2.1636	degrees feet feet feet acres/ho	ur
Net gradir Unadjus	Effective Blade Length: th of blade overlap per pass: ag or ripping width per pass: ted Hourly Unit Production: <u>on Factors</u>	30 13.90 2.00 11.90 2.1636	degrees feet feet feet acres/ho	ur
Net gradir Unadjus Job Condition Correcti	Effective Blade Length: th of blade overlap per pass: ag or ripping width per pass: ted Hourly Unit Production: <u>on Factors</u> <u>1.00</u> (0	30 13.90 2.00 11.90 2.1636 Source CAT HB)	degrees feet feet feet acres/ho	ur
Net gradir Unadjus Job Condition Correcti Altitude Adj:	Effective Blade Length: th of blade overlap per pass: ag or ripping width per pass: ted Hourly Unit Production: <u>on Factors</u> <u>1.00 (0)</u>	30 13.90 2.00 11.90 2.1636 Source	degrees feet feet feet acres/ho	ur
Net gradir Unadjus Job Condition Correcti Altitude Adj: Job Efficiency:	Effective Blade Length: th of blade overlap per pass: ag or ripping width per pass: ted Hourly Unit Production: <u>on Factors</u> <u>1.00 (0 0.85 (1s)</u> 0.8500 m	30 13.90 2.00 11.90 2.1636 Source CAT HB) sh/d, mod.) ultiplier	degrees feet feet feet acres/ho Site Altitude: <u>7000</u>	ur
Net gradir Unadjus Job Condition Correcti Altitude Adj: Job Efficiency:	Effective Blade Length: th of blade overlap per pass: ag or ripping width per pass: ted Hourly Unit Production: <u>on Factors</u> <u>1.00 (0 0.85 (1s 0.8500 m</u> Adjusted Hourly Unit Prod	30 13.90 2.00 11.90 2.1636 Source CAT HB) sh/d, mod.) ultiplier uction: 1.8391	degrees feet feet feet acres/ho Site Altitude: 7000	ur
Net gradir Unadjus Job Condition Correcti Altitude Adj: Job Efficiency:	Effective Blade Length: th of blade overlap per pass: ag or ripping width per pass: ted Hourly Unit Production: <u>on Factors</u> <u>1.00 (0 0.85 (1s)</u> 0.8500 m	30 13.90 2.00 11.90 2.1636 Source CAT HB) sh/d, mod.) ultiplier uction: 1.8391	degrees feet feet feet acres/ho Site Altitude: <u>7000</u>	ur
Net gradir Unadjus <u>Job Condition Correcti</u> Altitude Adj: Job Efficiency: Net Correction:	Effective Blade Length: th of blade overlap per pass: ag or ripping width per pass: ted Hourly Unit Production: <u>on Factors</u> <u>1.00 ((0.85 (1s)</u> <u>0.8500 m</u> Adjusted Hourly Unit Prod Adjusted Hourly Fleet Prod	30 13.90 2.00 11.90 2.1636 Source CAT HB) sh/d, mod.) ultiplier uction: 1.8391	degrees feet feet feet acres/ho Site Altitude: 7000	ur
Net gradir Unadjus <u>Job Condition Correcti</u> Altitude Adj: Job Efficiency: Net Correction: JOB TIME AND C	Effective Blade Length: th of blade overlap per pass: ag or ripping width per pass: ted Hourly Unit Production: on Factors <u>1.00 ((0.85 (1s</u>) <u>0.8500 m</u> Adjusted Hourly Unit Prod Adjusted Hourly Fleet Prod OST	30 13.90 2.00 11.90 2.1636 Source CAT HB) sh/d, mod.) ultiplier uction: 1.8391 uction: 3.6782	degrees feet feet feet acres/ho Site Altitude: 7000	ur feet
Net gradir Unadjus <u>Job Condition Correcti</u> Altitude Adj: Job Efficiency: Net Correction:	Effective Blade Length: th of blade overlap per pass: ag or ripping width per pass: ted Hourly Unit Production: <u>on Factors</u> <u>1.00 ((0.85 (1s)</u> <u>0.8500 m</u> Adjusted Hourly Unit Prod Adjusted Hourly Fleet Prod	30 13.90 2.00 11.90 2.1636 Source CAT HB) sh/d, mod.) ultiplier uction: 1.8391	degrees feet feet feet acres/ho Site Altitude: 7000	ur feet
Net gradir Unadjus Job Condition Correcti Altitude Adj: Job Efficiency: Net Correction: JOB TIME AND C Fleet size:	Effective Blade Length: th of blade overlap per pass: ag or ripping width per pass: ted Hourly Unit Production: on Factors <u>1.00 ((0.85 (1s</u>) <u>0.8500 m</u> Adjusted Hourly Unit Prod Adjusted Hourly Fleet Prod OST	30 13.90 2.00 11.90 2.1636 Source CAT HB) sh/d, mod.) ultiplier uction: 1.8391 uction: 3.6782	e: degrees feet feet feet acres/ho	ur feet 6 Hours

REVEGETATION WORK

Т	ask descrip	otion:	Ponds below 6700' (Coyote	e, Sage, E Buzzar	d)	
Site:	Trapper	Mine	Permit Action	: <u>PR11</u>	Permit/Job	#: <u>C1981010</u>
<u>P</u>]	ROJECT	IDENTIFIC	ATION			
	Task #: Date:	103	State: <u>Colorado</u> County: Moffat		Abbreviation: Filename:	None C010-103
	User:	ZTT				2010 105
	Age	ency or organiz	zation 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
Arrowleaf Balsamroot	0.40	0.50	\$28.08
Beardless Wheatgrass - Whitmar	0.31	1.01	\$3.63
Mountain Brome - Bromar	0.72	1.16	\$2.74
Great Basin Wildrye - Magnar	0.92	3.74	\$10.63
Kentucky Bluegrass - Ginger	0.06	2.96	\$0.19
Alfalfa - Ladak (inoculated)	0.10	0.48	\$0.26
Burnett, Small (or Little) - Delar	0.40	0.51	\$1.00
Sheep Fescue - Covar	0.15	2.34	\$0.92
Milk Vetch, Cicer - Lutana	0.30	1.00	\$2.46

Slender Wheatgrass - San Luis	0.28	1.02	\$1.19
Streambank Wheatgrass - Sodar	0.26	0.85	\$1.48
Thickspike Wheatgrass - Critana	0.28	0.99	\$1.93
Western Wheatgrass - Arriba	0.38	0.96	\$2.47
Needlegrass, Green - Lodorm	0.24	1.00	\$2.83
Flax, Lewis Blue	0.30	1.99	\$4.95
Red Top	0.02	2.29	\$0.16
Penstemon, Rocky Mountain	0.14	2.19	\$4.13
Yarrow, Western	0.07	4.26	\$2.93
Globemallow, Munro	0.08	0.91	\$7.00
Aster, Pacific	0.02	0.35	\$2.39
Goldeneye - Showy	0.08	0.92	\$4.80
Totals Seed Mix	5.51	31.41	\$86.15

Application

Description	Cost /Acre	e
Drill Seeding (DRMS Survey Cost)	\$232.00	
Total Seed	Application Cost/Acre \$232.00	

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
	\$
Total Mulch Applica	tion Cost/Acre do oo
	tion Cost/Acre \$0.00

NURSERY STOCK PLANTING

		Cost	Pellet Cost	Cost /Acre
				\$
Totals Nursery Stock Cost / Acre				\$0.00

JOB TIME AND COST

	No. of Acres:	26		Cost /Acre:	\$318.15
Estimated Failure Rate:		17.5%		Cost /Acre*:	\$318.15
*Selected Replanti	ng Work Items:	TILLING,SEEI	DING		
Initial Job Cost: Reseeding Job Cost:	• /				
Total Job Cost:	\$9,719				
-----------------	---------				
Job Hours:	26.00				

Task des	cription:	Johnson Coal Stockpile			
Site: Trapp	er Mine	Permit Action:	PR11	Permit/Job	o#: <u>C1981010</u>
PROJE(<u>CT IDENTIFIC</u>	ATION			
Task	-	State: Colorado		Abbreviation:	None
Dat		County: Moffat		Filename:	C010-104
	er: ZTT				

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

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Arrowleaf Balsamroot	0.40	0.50	\$28.08
Beardless Wheatgrass - Whitmar	0.31	1.01	\$3.63
Mountain Brome - Bromar	0.72	1.16	\$2.74
Great Basin Wildrye - Magnar	0.92	3.74	\$10.63
Kentucky Bluegrass - Ginger	0.06	2.96	\$0.19
Alfalfa - Ladak (inoculated)	0.10	0.48	\$0.26
Burnett, Small (or Little) - Delar	0.40	0.51	\$1.00
Sheep Fescue - Covar	0.15	2.34	\$0.92
Milk Vetch, Cicer - Lutana	0.30	1.00	\$2.46

Slender Wheatgrass - San Luis	0.28	1.02	\$1.19
Streambank Wheatgrass - Sodar	0.26	0.85	\$1.48
Thickspike Wheatgrass - Critana	0.28	0.99	\$1.93
Western Wheatgrass - Arriba	0.38	0.96	\$2.47
Needlegrass, Green - Lodorm	0.24	1.00	\$2.83
Flax, Lewis Blue	0.30	1.99	\$4.95
Red Top	0.02	2.29	\$0.16
Penstemon, Rocky Mountain	0.14	2.19	\$4.13
Yarrow, Western	0.07	4.26	\$2.93
Globemallow, Munro	0.08	0.91	\$7.00
Aster, Pacific	0.02	0.35	\$2.39
Goldeneye - Showy	0.08	0.92	\$4.80
Totals Seed Mix	5.51	31.41	\$86.15

Description	Cost /Acre	e
Drill Seeding (DRMS Survey Cost)	\$232.00	
Total Seed	Application Cost/Acre \$232.00	

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
	\$
Total Mulch Application Cost/Acre	¢0.00
	\$0.00

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
		Totals	Nursery Stoc	k Cost / Acre	\$0.00

JOB TIME AND COST

No. of Acres:	12.6	Cost /Acre:	\$318.15
Estimated Failure Rate:	17.5%	Cost /Acre*:	\$318.15
*Selected Replanting Work Items:	TILLING,SEEDING		
Initial Job Cost: \$4,008.69			

Reseeding Job Cost: \$701.52

Total Job Cost:	\$4,710
Job Hours:	12.00

Task descri	ption:	Topsoil piles below 6700'			
te: Trapper Mine		Permit Action:	PR11	Permit/Job#: C198	
PROJECT Task #:	IDENTIFIC	CATION State: Colorado		Abbreviation:	None
1 ask #.				Filename:	C010-105
Date:	11/28/2022	County: Moffat		r noname.	C010-105

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

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Arrowleaf Balsamroot	0.40	0.50	\$28.08
Beardless Wheatgrass - Whitmar	0.31	1.01	\$3.63
Mountain Brome - Bromar	0.72	1.16	\$2.74
Great Basin Wildrye - Magnar	0.92	3.74	\$10.63
Kentucky Bluegrass - Ginger	0.06	2.96	\$0.19
Alfalfa - Ladak (inoculated)	0.10	0.48	\$0.26
Burnett, Small (or Little) - Delar	0.40	0.51	\$1.00
Sheep Fescue - Covar	0.15	2.34	\$0.92
Milk Vetch, Cicer - Lutana	0.30	1.00	\$2.46

Slender Wheatgrass - San Luis	0.28	1.02	\$1.19
Streambank Wheatgrass - Sodar	0.26	0.85	\$1.48
Thickspike Wheatgrass - Critana	0.28	0.99	\$1.93
Western Wheatgrass - Arriba	0.38	0.96	\$2.47
Needlegrass, Green - Lodorm	0.24	1.00	\$2.83
Flax, Lewis Blue	0.30	1.99	\$4.95
Red Top	0.02	2.29	\$0.16
Penstemon, Rocky Mountain	0.14	2.19	\$4.13
Yarrow, Western	0.07	4.26	\$2.93
Globemallow, Munro	0.08	0.91	\$7.00
Aster, Pacific	0.02	0.35	\$2.39
Goldeneye - Showy	0.08	0.92	\$4.80
Totals Seed Mix	5.51	31.41	\$86.15

Description	Cost /Acre	e
Drill Seeding (DRMS Survey Cost)	\$232.00	
Total Seed	Application Cost/Acre \$232.00	

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
	\$
Total Mulch Applica	tion Cost/Acre do oo
	tion Cost/Acre \$0.00

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
		Totals	Nursery Stoc	ek Cost / Acre	\$0.00

	No. of Acres:	27.1		Cost /Acre:	\$318.15
Estimated Failure Rate:		17.5%		Cost /Acre*:	\$318.15
*Selected Replanti	ng Work Items:	TILLING,SEEI	DING		
Initial Job Cost: Reseeding Job Cost:					

Total Job Cost:	\$10,131
Job Hours:	27.00

Task descri	ption:	Roads: >6700 ftRangeland	with Shrubs		
ite: Trapper Mine		Permit Action:	Permit Action: PR11		o#: <u>C1981010</u>
PROJECT	<u>IDENTIFIC</u>	ATION			
Task #:	107	State: Colorado		Abbreviation:	None
Date:	11/28/2022	County: Moffat		Filename:	C010-107
	ZTT				

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

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Arrowleaf Balsamroot	0.40	0.50	\$28.08
Beardless Wheatgrass - Whitmar	0.31	1.01	\$3.63
Bitterbrush, Antelope	4.40	1.35	\$85.80
Mountain Brome - Bromar	0.72	1.16	\$2.74
Great Basin Wildrye - Magnar	0.92	3.74	\$10.63
Kentucky Bluegrass - Ginger	0.06	2.96	\$0.19
Alfalfa - Ladak (inoculated)	0.10	0.48	\$0.26
Chokecherry	3.00	0.21	\$87.00
Burnett, Small (or Little) - Delar	0.40	0.51	\$1.00

Sheep Fescue - Covar	0.15	2.34	\$0.92
Milk Vetch, Cicer - Lutana	0.30	1.00	\$2.46
Slender Wheatgrass - San Luis	0.28	1.02	\$1.19
Streambank Wheatgrass - Sodar	0.26	0.85	\$1.48
Thickspike Wheatgrass - Critana	0.28	0.99	\$1.93
Western Wheatgrass - Arriba	0.38	0.96	\$2.47
Rabbitbrush, Rubber	0.26	3.87	\$16.72
Needlegrass, Green - Lodorm	0.24	1.00	\$2.83
Rose, Wood's	0.96	0.00	\$19.68
Sagebrush, Mountain or Big	0.07	3.70	\$1.38
Flax, Lewis Blue	0.30	1.99	\$4.95
Red Top	0.02	2.29	\$0.16
Sagebrush, Silver	0.10	1.94	\$3.10
Saltbush, Four Wing	0.62	0.85	\$7.75
Serviceberry	0.29	0.53	\$17.84
Snowberry, Mountain	0.58	1.00	\$29.29
Penstemon, Rocky Mountain	0.14	2.19	\$4.13
Yarrow, Western	0.07	4.26	\$2.93
Globemallow, Munro	0.08	0.91	\$7.00
Aster, Pacific	0.02	0.35	\$2.39
Goldeneye - Showy	0.08	0.92	\$4.80
Totals Seed Mix	15.79	44.87	\$354.70

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

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
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 Stoc	k Cost / Acre	\$0.00

Job Hours: **54.00**

	No. of Acres:	54.2		Cost /Acre:	\$586.70
Estimate	ed Failure Rate:	17.5%		Cost /Acre*:	\$586.70
*Selected Replanti	ng Work Items:	TILLING,SEED	DING		
Initial Job Cost:	\$31,799.14				
Reseeding Job Cost:	\$5,564.85				
Total Job Cost:	\$37,364				

Task descri	ption:	Ash pitRangeland with Shi	rubs		
te: Trapper	Mine	Permit Action:	PR11	Permit/Job	#: <u>C1981010</u>
PROJECT	IDENTIFIC	ATION			
Task #:	108	State: Colorado		Abbreviation:	None
Date:	11/28/2022	County: Moffat		Filename:	C010-108
User:	ZTT				

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

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Arrowleaf Balsamroot	0.40	0.50	\$28.08
Beardless Wheatgrass - Whitmar	0.31	1.01	\$3.63
Bitterbrush, Antelope	4.40	1.35	\$85.80
Mountain Brome - Bromar	0.72	1.16	\$2.74
Great Basin Wildrye - Magnar	0.92	3.74	\$10.63
Kentucky Bluegrass - Ginger	0.06	2.96	\$0.19
Alfalfa - Ladak (inoculated)	0.10	0.48	\$0.26
Chokecherry	3.00	0.21	\$87.00
Burnett, Small (or Little) - Delar	0.40	0.51	\$1.00

Sheep Fescue - Covar	0.15	2.34	\$0.92
Milk Vetch, Cicer - Lutana	0.30	1.00	\$2.46
Slender Wheatgrass - San Luis	0.28	1.02	\$1.19
Streambank Wheatgrass - Sodar	0.26	0.85	\$1.48
Thickspike Wheatgrass - Critana	0.28	0.99	\$1.93
Western Wheatgrass - Arriba	0.38	0.96	\$2.47
Rabbitbrush, Rubber	0.26	3.87	\$16.72
Needlegrass, Green - Lodorm	0.24	1.00	\$2.83
Rose, Wood's	0.96	0.00	\$19.68
Sagebrush, Mountain or Big	0.07	3.70	\$1.38
Flax, Lewis Blue	0.30	1.99	\$4.95
Red Top	0.02	2.29	\$0.16
Sagebrush, Silver	0.10	1.94	\$3.10
Saltbush, Four Wing	0.62	0.85	\$7.75
Serviceberry	0.29	0.53	\$17.84
Snowberry, Mountain	0.58	1.00	\$29.29
Penstemon, Rocky Mountain	0.14	2.19	\$4.13
Yarrow, Western	0.07	4.26	\$2.93
Globemallow, Munro	0.08	0.91	\$7.00
Aster, Pacific	0.02	0.35	\$2.39
Goldeneye - Showy	0.08	0.92	\$4.80
Totals Seed Mix	15.79	44.87	\$354.70

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

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
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 Stoc	k Cost / Acre	\$0.00

No. of Acres:	115.6	Cost /Acre:	\$586.70
Estimated Failure Rate:	17.5%	Cost /Acre*:	\$586.70
*Selected Replanting Work Items:	TILLING,SEEDING		
Initial Job Cost: \$67,822.52			

ψ01,022.52
\$11,868.94
\$79,691
115.00

Task description:		Seed D/E Pit Range B			
ite: Trapper Mine		Permit Action:	PR11	Permit/Job	o#: <u>C1981010</u>
	IDENTIFIC			Abbreviation:	None
		State: Colorado		Addreviation:	None
Task #: Date:	11/28/2022	County: Moffat		Filename:	C010-109

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
Beardless Wheatgrass - Whitmar	0.31	1.01	\$3.63
Crested Wheatgrass - Ephraim	25.00	114.78	\$108.13
Crested Wheatgrass - Hy-Crest	25.00	114.78	\$99.38
Great Basin Wildrye - Magnar	0.92	3.74	\$10.63
Slender Wheatgrass - San Luis	25.00	91.25	\$106.25
Totals Seed Mix	76.23	325.57	\$328.01

Application

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

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
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 Stoc	k Cost / Acre	\$0.00

No. of Acres:	15.7	Cost /Acre:	\$560.01
Estimated Failure Rate:	17.5%	Cost /Acre*:	\$560.01
*Selected Replanting Work Items:	SEEDING		

Initial Job Cost:	\$8,792.16
Reseeding Job Cost:	\$1,538.63
Total Job Cost:	\$10,331
Job Hours:	15.00

Task description:		Ponds above 6700'(Deal, Deacon, Jeffways, West Horse)			
Site: Trapper Mine		Permit Action	: PR11	Permit/Job	#: <u>C1981010</u>
	IDENTIFIC				
Task #:	111	State: Colorado		Abbreviation:	None
Date:	11/28/2022	County: Moffat		Filename:	C010-111
User:	ZTT				
Age	ency or organiz	zation 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

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Arrowleaf Balsamroot	0.40	0.50	\$28.08
Beardless Wheatgrass - Whitmar	0.31	1.01	\$3.63
Bitterbrush, Antelope	4.40	1.35	\$85.80
Mountain Brome - Bromar	0.72	1.16	\$2.74
Great Basin Wildrye - Magnar	0.92	3.74	\$10.63
Kentucky Bluegrass - Ginger	0.06	2.96	\$0.19
Alfalfa - Ladak (inoculated)	0.10	0.48	\$0.26
Chokecherry	3.00	0.21	\$87.00
Burnett, Small (or Little) - Delar	0.40	0.51	\$1.00

Sheep Fescue - Covar	0.15	2.34	\$0.92
Milk Vetch, Cicer - Lutana	0.30	1.00	\$2.46
Slender Wheatgrass - San Luis	0.28	1.02	\$1.19
Streambank Wheatgrass - Sodar	0.26	0.85	\$1.48
Thickspike Wheatgrass - Critana	0.28	0.99	\$1.93
Western Wheatgrass - Arriba	0.38	0.96	\$2.47
Rabbitbrush, Rubber	0.26	3.87	\$16.72
Needlegrass, Green - Lodorm	0.24	1.00	\$2.83
Rose, Wood's	0.96	0.00	\$19.68
Sagebrush, Mountain or Big	0.07	3.70	\$1.38
Flax, Lewis Blue	0.30	1.99	\$4.95
Red Top	0.02	2.29	\$0.16
Sagebrush, Silver	0.10	1.94	\$3.10
Saltbush, Four Wing	0.62	0.85	\$7.75
Serviceberry	0.29	0.53	\$17.84
Snowberry, Mountain	0.58	1.00	\$29.29
Penstemon, Rocky Mountain	0.14	2.19	\$4.13
Yarrow, Western	0.07	4.26	\$2.93
Globemallow, Munro	0.08	0.91	\$7.00
Aster, Pacific	0.02	0.35	\$2.39
Goldeneye - Showy	0.08	0.92	\$4.80
· · · · · · · · · · · · · · · · · · ·			
Totals Seed Mix	15.79	44.87	\$354.70

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

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
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 Stoc	k Cost / Acre	\$0.00

No. of Acres:	18.71	Cost /Acre:	\$586.70
Estimated Failure Rate:	17.5%	Cost /Acre*:	\$586.70
*Selected Replanting Work Items:	TILLING,SEEDING		
Initial Job Cost: \$10,977.16			

initial boo cost.	<i>410</i> , <i>211</i> , <i>211</i> , <i>110</i>
Reseeding Job Cost:	\$1,921.00
Total Job Cost:	\$12,898
Job Hours:	19.00

Task descri	ption:	Topsoil piles above 6700'			
ite: Trapper	Mine	Permit Action:	PR11	Permit/Job	#: <u>C1981010</u>
PROJECT Task #:	IDENTIFIC			Abbreviation:	None
Date: User:	112 11/28/2022 ZTT	State: Colorado County: Moffat		Abbreviation. Filename:	None C010-112

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

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Arrowleaf Balsamroot	0.40	0.50	\$28.08
Beardless Wheatgrass - Whitmar	0.31	1.01	\$3.63
Bitterbrush, Antelope	4.40	1.35	\$85.80
Mountain Brome - Bromar	0.72	1.16	\$2.74
Great Basin Wildrye - Magnar	0.92	3.74	\$10.63
Kentucky Bluegrass - Ginger	0.06	2.96	\$0.19
Alfalfa - Ladak (inoculated)	0.10	0.48	\$0.26
Chokecherry	3.00	0.21	\$87.00
Burnett, Small (or Little) - Delar	0.40	0.51	\$1.00

Sheep Fescue - Covar	0.15	2.34	\$0.92
Milk Vetch, Cicer - Lutana	0.30	1.00	\$2.46
Slender Wheatgrass - San Luis	0.28	1.02	\$1.19
Streambank Wheatgrass - Sodar	0.26	0.85	\$1.48
Thickspike Wheatgrass - Critana	0.28	0.99	\$1.93
Western Wheatgrass - Arriba	0.38	0.96	\$2.47
Rabbitbrush, Rubber	0.26	3.87	\$16.72
Needlegrass, Green - Lodorm	0.24	1.00	\$2.83
Rose, Wood's	0.96	0.00	\$19.68
Sagebrush, Mountain or Big	0.07	3.70	\$1.38
Flax, Lewis Blue	0.30	1.99	\$4.95
Red Top	0.02	2.29	\$0.16
Sagebrush, Silver	0.10	1.94	\$3.10
Saltbush, Four Wing	0.62	0.85	\$7.75
Serviceberry	0.29	0.53	\$17.84
Snowberry, Mountain	0.58	1.00	\$29.29
Penstemon, Rocky Mountain	0.14	2.19	\$4.13
Yarrow, Western	0.07	4.26	\$2.93
Globemallow, Munro	0.08	0.91	\$7.00
Aster, Pacific	0.02	0.35	\$2.39
Goldeneye - Showy	0.08	0.92	\$4.80
		44.07	
Totals Seed Mix	15.79	44.87	\$354.70

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

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
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 Stoc	k Cost / Acre	\$0.00

	No. of Acres:	5.1	Cost /Acre:	\$586.70
Estimate	ed Failure Rate:	17.5%	Cost /Acre*:	\$586.70
*Selected Replanti	ng Work Items:	TILLING,SEEDI	NG	
Initial Job Cost: Reseeding Job Cost:				

eseeding Job Cost:	\$523.63
Total Job Cost:	\$3,516
Job Hours:	5.00

BOREHOLE SEALING WORK

	Task description:	Seal Land	Slide Monitoring	g Stations			
Site:	Trapper Mine		Permit Action:	PR11	Permit/J	lob#: <u>C1981010</u>	
<u>PROJE</u>	CT IDENTIFICATION	<u>N</u>					
Task # Date User	: 2/1/2023	State: County:	Colorado Moffat		Abbreviation: Filename:	None C010-120	
0.501	Agency or organizat	tion name:	DRMS				
<u>UNIT</u>	<u>COSTS</u>						

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Plug and Seal Station 8	Portland cement grout - 6 in. (labor, equip, materials)	6	172	841.00	LF	\$6.32	\$5,315.12

 Job Hours:
 4.00
 Total Cost: \$5,315.00

BOREHOLE SEALING WORK

r	Task description:	Plug and Seal Exploration	Drill Holes		
Site:	Trapper Mine	Permit Action:	PR11	Permit/.	Job#: <u>C1981010</u>
PROJE	CT IDENTIFICAT	ION			
Task #: Date:		State: <u>Colorado</u> County: Moffat		Abbreviation: Filename:	None C010-121
User:	the second s				
	Agency or organ	nization name: DRMS			
UNIT (nization name: DRMS			

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Plug and Seal Boreholes	Portland cement grout - 6 in. (labor, equip, materials)	6	4000	4,000.00	LF	\$6.32	\$25,280.00

Job Hours: 80.00

Total Cost: \$25,280.00

BOREHOLE SEALING WORK

-	Task description:	Plug and Seal	Monitoring V	Vells			
Site:	Trapper Mine	Pe	ermit Action:	PR11	Permit/	Job#:	C1981010
<u>PROJE</u>	CT IDENTIFICATIO	<u>DN</u>					
Task #:	122	State:	Colorado		Abbreviation:	None	;
Date:	11/28/2022	County:	Moffat		Filename:	C010	-122
User:	ZTT						
	Agency or organiz	ation name: DF	RMS				

UNIT COSTS

Borehole	Sealing/Item Method					T I - * 4	Tatal Cast
Description		Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
81-03A	Portland cement grout - 2 in. (labor, equip, materials)	2	650	650.00	LF	\$5.29	\$3,438.50
COY-A	Portland cement grout - 2 in. (labor, equip, materials)	2	59	59.00	LF	\$5.29	\$312.11
СОҮ-В	Portland cement grout - 2 in. (labor, equip, materials)	2	49	49.00	LF	\$5.29	\$259.21
СОҮ	Portland cement grout - 4 in. (labor, equip, materials)	4	54	54.00	LF	\$5.55	\$299.70
GC1	Portland cement grout - 4 in. (labor, equip, materials)	2.5	180	180.00	LF	\$5.55	\$999.00
GC2	Portland cement grout - 4 in. (labor, equip, materials)	2.5	165	165.00	LF	\$5.55	\$915.75
GC3	Portland cement grout - 4 in. (labor, equip, materials)	2.5	64	64.00	LF	\$5.55	\$355.20
GC3A	Portland cement grout - 2 in. (labor, equip, materials)	2	50	50.00	LF	\$5.29	\$264.50
GC3B	Portland cement grout - 2 in. (labor, equip, materials)	2	67	67.00	LF	\$5.29	\$354.43
GD2	Portland cement grout - 4 in. (labor, equip, materials)	4	210	210.00	LF	\$5.55	\$1,165.50
GD3	Portland cement grout - 4 in. (labor, equip, materials)	4	198	198.00	LF	\$5.55	\$1,098.90
GF1	Portland cement grout - 4 in. (labor, equip, materials)	4	640	640.00	LF	\$5.55	\$3,552.00
GF4	Portland cement grout - 4 in. (labor, equip, materials)	4	270	270.00	LF	\$5.55	\$1,498.50
GF5	Portland cement grout - 6 in. (labor, equip, materials)	4.25	153.5	153.50	LF	\$6.32	\$970.12

				-			
GF6	Portland cement grout - 4	4	200	200.00	LF	\$5.55	\$1,110.00
	in. (labor, equip,						
	materials)						
GF7	Portland cement grout - 6	4.25	127	127.00	LF	\$6.32	\$802.64
	in. (labor, equip,						
	materials)						
GF8	Portland cement grout - 6	4.25	220	220.00	LF	\$6.32	\$1,390.40
	in. (labor, equip,						. ,
	materials)						
GP2	Portland cement grout - 4	4	307	307.00	LF	\$5.55	\$1,703.85
	in. (labor, equip,						+-,
	materials)						
GP3	Portland cement grout - 4	4	154	154.00	LF	\$5.55	\$854.70
015	in. (labor, equip,		151	15 1.00		φ5.55	φ051.70
	materials)						
GP3A	Portland cement grout - 2	2	143	143.00	LF	\$5.29	\$756.47
UI JA	in. (labor, equip,	2	145	145.00	LI	\$J.29	\$750.47
	materials)						
GP4		4	281	281.00	LE	¢ 5 5 5	¢1 550 55
GP4	Portland cement grout - 4	4	281	281.00	LF	\$5.55	\$1,559.55
	in. (labor, equip,						
	materials)	<u> </u>	204	204.00	TE	\$7.55	¢1.576.00
GP5	Portland cement grout - 4	4	284	284.00	LF	\$5.55	\$1,576.20
	in. (labor, equip,						
	materials)						
GP7	Portland cement grout - 4	4	99	99.00	LF	\$5.55	\$549.45
	in. (labor, equip,						
	materials)						
GP8	Portland cement grout - 4	4	198	198.00	LF	\$5.55	\$1,098.90
	in. (labor, equip,						
	materials)						
GP9	Portland cement grout - 4	4	202	202.00	LF	\$5.55	\$1,121.10
	in. (labor, equip,						
	materials)						
J1	Portland cement grout - 4	4	30	30.00	LF	\$5.55	\$166.50
	in. (labor, equip,						
	materials)						
P1	Portland cement grout - 4	4	21	21.00	LF	\$5.55	\$116.55
	in. (labor, equip,						+
	materials)						
P2	Portland cement grout - 4	4	21	21.00	LF	\$5.55	\$116.55
12	in. (labor, equip,		-1	21.00		<i>\$5.55</i>	\$110.55
	materials)						
P4	Portland cement grout - 4	4	80	80.00	LF	\$5.55	\$444.00
14	in. (labor, equip,	+	80	80.00		φ5.55	\$ 444 .00
	materials)						
P5	Portland cement grout - 4	4	21	21.00	LF	\$5.55	\$116.55
P3		4	21	21.00	LF	\$3.33	\$110.55
	in. (labor, equip, materials)				1		
Dć		4	51	51.00	LE	¢5 55	\$292.05
P6	Portland cement grout - 4	4	51	51.00	LF	\$5.55	\$283.05
	in. (labor, equip,	1			1		
D7	materials)	-	- 27	27.00		ф т т т	\$205.25
P7	Portland cement grout - 4	4	37	37.00	LF	\$5.55	\$205.35
	in. (labor, equip,						
	materials)	_				<u> </u>	
P8	Portland cement grout - 4	4	33	33.00	LF	\$5.55	\$183.15
	in. (labor, equip,						
	materials)	L					
GMP-1	Portland cement grout - 4	4	200	200.00	LF	\$5.55	\$1,110.00

	in. (labor, equip, materials)						
GD1	Portland cement grout - 6 in. (labor, equip, materials)	6	1132	1,132.00	LF	\$6.32	\$7,154.24
GD1(2)	Portland cement grout - 6 in. (labor, equip, materials)	6	1144	1,144.00	LF	\$6.32	\$7,230.08
GLEV-1	Portland cement grout - 6 in. (labor, equip, materials)	4.25	238	238.00	LF	\$6.32	\$1,504.16
GLEV-2	Portland cement grout - 6 in. (labor, equip, materials)	4.25	27	27.00	LF	\$6.32	\$170.64
GLEV-3	Portland cement grout - 6 in. (labor, equip, materials)	4.25	45	45.00	LF	\$6.32	\$284.40
CY-A	Portland cement grout - 6 in. (labor, equip, materials)	4.25	35	35.00	LF	\$6.32	\$221.20
CY-1	Portland cement grout - 6 in. (labor, equip, materials)	4.25	165	165.00	LF	\$6.32	\$1,042.80
CY-2	Portland cement grout - 6 in. (labor, equip, materials)	4.25	285	285.00	LF	\$6.32	\$1,801.20
CY-3	Portland cement grout - 6 in. (labor, equip, materials)	4.25	430	430.00	LF	\$6.32	\$2,717.60
GX1	Portland cement grout - 6 in. (labor, equip, materials)	4.25	318	318.00	LF	\$6.32	\$2,009.76
GW-23	Portland cement grout - 6 in. (labor, equip, materials)	4.25	280	280.00	LF	\$6.32	\$1,769.60
GW-26	Portland cement grout - 6 in. (labor, equip, materials)	4.25	321	321.00	LF	\$6.32	\$2,028.72
GW-29	Portland cement grout - 6 in. (labor, equip, materials)	4.25	320	320.00	LF	\$6.32	\$2,022.40
GW-30	Portland cement grout - 6 in. (labor, equip, materials)	4.25	320	320.00	LF	\$6.32	\$2,022.40
GW-31	Portland cement grout - 6 in. (labor, equip, materials)	4.25	320	320.00	LF	\$6.32	\$2,022.40
Ks_DW-1A	Portland cement grout - 6 in. (labor, equip, materials)	4.25	188	188.00	LF	\$6.32	\$1,188.16
NP-1	Portland cement grout - 6 in. (labor, equip, materials)	4.25	185	185.00	LF	\$6.32	\$1,169.20
NP-2	Portland cement grout - 6 in. (labor, equip, materials)	4.25	135	135.00	LF	\$6.32	\$853.20
NP-3	Portland cement grout - 6 in. (labor, equip,	4.25	299	299.00	LF	\$6.32	\$1,889.68

	materials)						
East Pyeatt Well #1	Portland cement grout - 6 in. (labor, equip, materials)	5	700	700.00	LF	\$6.32	\$4,424.00
05-LW-17	Portland cement grout - 4 in. (labor, equip, materials)	2.375	816	816.00	LF	\$5.55	\$4,528.80
05-LW-21	Portland cement grout - 4 in. (labor, equip, materials)	2.375	1325.4	1,325.40	LF	\$5.55	\$7,355.97
05-LW-25	Portland cement grout - 4 in. (labor, equip, materials)	2.375	1358	1,358.00	LF	\$5.55	\$7,536.90
05-LW-27	Portland cement grout - 4 in. (labor, equip, materials)	2.375	1594	1,594.00	LF	\$5.55	\$8,846.70
95-LW-09	Portland cement grout - 4 in. (labor, equip, materials)	4	695	995.00	LF	\$5.55	\$5,522.25

Job Hours: 185.00

Total Cost: \$108,065.00

Task descri	ption:	Reveg for 20 x .3 acres drillh	oles		
te: Trapper	Mine	Permit Action:	PR11	Permit/Job	#: <u>C1981010</u>
PROJECT	IDENTIFIC	ATION			
Task #:	128	State: Colorado		Abbreviation:	None
Date:	11/28/2022	County: Moffat		Filename:	C010-128
User:	ZTT				

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

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Arrowleaf Balsamroot	0.40	0.50	\$28.08
Beardless Wheatgrass - Whitmar	0.31	1.01	\$3.63
Bitterbrush, Antelope	4.40	1.35	\$85.80
Mountain Brome - Bromar	0.72	1.16	\$2.74
Great Basin Wildrye - Magnar	0.92	3.74	\$10.63
Kentucky Bluegrass - Ginger	0.06	2.96	\$0.19
Alfalfa - Ladak (inoculated)	0.10	0.48	\$0.26
Chokecherry	3.00	0.21	\$87.00
Burnett, Small (or Little) - Delar	0.40	0.51	\$1.00

Sheep Fescue - Covar	0.15	2.34	\$0.92
Milk Vetch, Cicer - Lutana	0.30	1.00	\$2.46
Slender Wheatgrass - San Luis	0.28	1.02	\$1.19
Streambank Wheatgrass - Sodar	0.26	0.85	\$1.48
Thickspike Wheatgrass - Critana	0.28	0.99	\$1.93
Western Wheatgrass - Arriba	0.38	0.96	\$2.47
Rabbitbrush, Rubber	0.26	3.87	\$16.72
Needlegrass, Green - Lodorm	0.24	1.00	\$2.83
Rose, Wood's	0.96	0.00	\$19.68
Sagebrush, Mountain or Big	0.07	3.70	\$1.38
Flax, Lewis Blue	0.30	1.99	\$4.95
Red Top	0.02	2.29	\$0.16
Sagebrush, Silver	0.10	1.94	\$3.10
Saltbush, Four Wing	0.62	0.85	\$7.75
Serviceberry	0.29	0.53	\$17.84
Snowberry, Mountain	0.58	1.00	\$29.29
Penstemon, Rocky Mountain	0.14	2.19	\$4.13
Yarrow, Western	0.07	4.26	\$2.93
Globemallow, Munro	0.08	0.91	\$7.00
Aster, Pacific	0.02	0.35	\$2.39
Goldeneye - Showy	0.08	0.92	\$4.80
· ·			
Totals Seed Mix	15.79	44.87	\$354.70

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

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
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 Stoc	k Cost / Acre	\$0.00

	No. of Acres:	6	Cost /Acre:	\$586.70
Estimate	ed Failure Rate:	17.5%	Cost /Acre*:	\$586.70
*Selected Replanti	ng Work Items:	TILLING,SEEDI	ING	
Initial Job Cost:	\$3,520.20			
Reseeding Job Cost:	\$616.04			
	A 4 4 4 4			

Total Job Cost:	\$4,136
Job Hours:	6.00

Page 1 of 2

BULLDOZER WORK

Task description:	Reg	rade .3acres	x 20 urm pa	us		
Trapper Mine		Perr	nit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDE	NTIFICATI	<u>ION</u>				
Task #: 129 Date: 11/2 User: ZTT	8/2022	State: County:	Colorado Moffat		Abbreviation: Filename:	None C010-129
Agency of	or organizatior	n name: DR	MS			
HOURLY EQU	IPMENT C	<u>OST</u>				
Basic Machine:	Cat D8T -	8SU				
Horsepower:	310	1				
Blade Type:	Semi-Univ					
Attachment: Shift Basis:	3-shank rij	pper				
	$\frac{1 \text{ per day}}{(CPC)}$					
Data Source:	(CRG)					
Cost Breakdown:						
				Utilization %		
Ownership Cost/			\$124.85	NA		
Operating Cost/			\$97.63	100		
Ripper own. Cost/			\$13.10	NA		
	Hour		\$3.65	50		
Ripper op. Cost/	10ui.					
Ripper op. Cost/ Operator Cost/ Total unit Cost/Ho Total Fleet Cost/H	Hour: \$280 ur: \$280 our: \$280	.53	\$41.30	NA		
Ripper op. Cost/ Operator Cost/ Total unit Cost/Ho Total Fleet Cost/H MATERIAL Q	Hour: <u>\$280</u> ur: <u>\$280</u> our: \$280 UANTITIES	.53		NA		
Ripper op. Cost/ Operator Cost/ Total unit Cost/Ho Total Fleet Cost/H <u>MATERIAL Q</u> Initial Volume:	Hour:	.53		NA		
Ripper op. Cost/ Operator Cost/ Total unit Cost/Hc Total Fleet Cost/H <u>MATERIAL Q</u> Initial Volume: Swell factor:	Hour: <u>\$280</u> our: \$280 Our: \$280 UANTITIES <u>30,000</u> 1.000	<u>.53</u>		NA		
Ripper op. Cost/ Operator Cost/ Total unit Cost/Ho Total Fleet Cost/H <u>MATERIAL Q</u> Initial Volume:	Hour:	<u>.53</u>		NA		
Ripper op. Cost/ Operator Cost/ Total unit Cost/Hc Total Fleet Cost/H <u>MATERIAL Q</u> Initial Volume: Swell factor:	Hour: ur: \$280 our: \$280 UANTITIES 30,000 1.000 30,000 LCY	<u>.53</u>		NA		
Ripper op. Cost/ Operator Cost/ Total unit Cost/Ho Total Fleet Cost/H <u>MATERIAL Q</u> Initial Volume: Swell factor: Loose volume: Source of estimate	Hour: ur: \$280 our: \$280 UANTITIES 30,000 1.000 30,000 LCY d volume:	A-7.2	\$41.30	NA		
Ripper op. Cost/ Operator Cost/ Total unit Cost/Ho Total Fleet Cost/H <u>MATERIAL Q</u> Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate	Hour: ur: <u>\$280</u> our: \$280 UANTITIES <u>30,000</u> <u>1.000</u> <u>30,000</u> LCY d volume: d swell factor	A-7.2	\$41.30	NA		
Ripper op. Cost/ Operator Cost/ Total unit Cost/Ho Total Fleet Cost/H MATERIAL Q Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate HOURLY PRO	Hour: \$280 our: \$280 UANTITIES 30,000 1.000 30,000 LCY d volume: d swell factor DUCTION	2 2 7 2 3 7 3 3 3 7 7 3 7 7 7 7 7 7 7 7	\$41.30	NA		
Ripper op. Cost/ Operator Cost/ Total unit Cost/Ho Total Fleet Cost/H <u>MATERIAL Q</u> Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate	Hour: \$280 our: \$280 Our: \$280 UANTITIES 30,000 1.000 30,000 LCY d volume: d swell factor DUCTION unce:	A-7.2	\$41.30	NA		
Ripper op. Cost/ Operator Cost/ Total unit Cost/Ho Total Fleet Cost/H MATERIAL Q Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate HOURLY PRO Average push dista	Hour: \$280 our: \$280 UANTITIES 30,000 1.000 30,000 LCY d volume: d swell factor DUCTION unce: production:	50 feet 1,400.0 LC	\$41.30 book Y/hr	 		
Ripper op. Cost/ Operator Cost/ Total unit Cost/Ho Total Fleet Cost/H MATERIAL Q Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate MOURLY PRO Average push dista Unadjusted hourly Materials consister Average push grad	Hour: \$280 our: \$280 our: \$280 UANTITIES 30,000 1.000 30,000 LCY d volume: d swell factor: DUCTION unce: production: ncy description ient: 0 %	50 feet 1,400.0 LC	\$41.30 book Y/hr			
Ripper op. Cost/ Operator Cost/ Total unit Cost/Ho Total Fleet Cost/H MATERIAL Q Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate MOURLY PRO Average push dista Unadjusted hourly Materials consister Average push grad Average site altitu	Hour: $$280$ our: $$280$ our: $$280$ UANTITIES 30,000 1.000 30,000 LCY d volume: d swell factor DUCTION unce: production: ncy description ient: 0 % de: 7,500	50 feet 1,400.0 LC Compar	\$41.30 book Y/hr			
Ripper op. Cost/ Operator Cost/ Total unit Cost/Ho Total Fleet Cost/H MATERIAL Q Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate HOURLY PRO Average push dista Unadjusted hourly Materials consister Average push grac Average site altitu Material weight:	Hour: $$280$ our: $$280$ our: $$280$ UANTITIES 30,000 1.000 30,000 LCY d volume: d swell factor: DUCTION unce: production: ncy description ient: 0% de: $7,500$	2 2 2 3 4-7.2 Cat Hand 50 feet 1,400.0 LC n: Compace 0 feet	\$41.30book Y/hr cted fill or er			
Ripper op. Cost/ Operator Cost/ Total unit Cost/Ho Total Fleet Cost/H MATERIAL Q Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate Source of estimate MOURLY PRO Average push dista Unadjusted hourly Materials consister Average push grac Average site altitu Material weight: Weight description Job Condition Cor	Hour: $$280$ our: $$280$ our: $$280$ UANTITIES 30,000 1.000 30,000 LCY d volume: d swell factor buccription icent: 0 % de: 7,500 2,550 and Earth rection Factor	.53 <u>A-7.2</u> <u>Cat Hand</u> <u>50 feet</u> <u>1,400.0 LCY</u> n: <u>Compac</u> <u>0 feet</u> <u>0 lbs/LCY</u> <u>n - Dry packed</u>	\$41.30 book Y/hr cted fill or er			
Ripper op. Cost/ Operator Cost/ Total unit Cost/Ho Total Fleet Cost/H MATERIAL Q Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate Source of estimate MOURLY PRO Average push dista Unadjusted hourly Materials consister Average push grad Average site altitu Material weight: Weight description Job Condition Cor	Hour: $$280$ our: $$280$ our: $$280$ UANTITIES 30,000 1.000 30,000 LCY d volume: d swell factor: DUCTION unce: production: ncy description ient: 0 % de: 2,550 a: Earth rection Factor erator Skill:	.53 Z A-7.2 Cat Hand 50 feet 1,400.0 LCY n: Compare 0 feet 0 lbs/LCY n - Dry packed - 0.1	\$41.30 			
Ripper op. Cost/ Operator Cost/ Total unit Cost/Ho Total Fleet Cost/H MATERIAL Q Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate Source of estimate MOURLY PRO Average push dista Unadjusted hourly Materials consister Average push grad Average site altitu Material weight: Weight description Job Condition Cor Op	Hour: $$280$ our: $$280$ our: $$280$ UANTITIES 30,000 1.000 30,000 LCY d volume: d swell factor buccrition: mce: production: mcy description ient: 0 % de: 7,500 2,550 at Earth rection Factor erator Skill: consistency:	2.53 2. 3. 4. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5	\$41.30 			
Ripper op. Cost/ Operator Cost/ Total unit Cost/Ho Total Fleet Cost/H MATERIAL Q Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate Source of estimate MOURLY PRO Average push dista Unadjusted hourly Materials consister Average push grad Average site altitu Material weight: Weight description Job Condition Cor Op	Hour: $$280$ our: $$280$ our: $$280$ UANTITIES 30,000 1.000 30,000 LCY d volume: d swell factor: DUCTION unce: production: ncy description ient: 0 % de: 2,550 a: Earth rection Factor erator Skill:	2.53 2. 3. 4. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5	\$41.30 			

Job efficiency	0.830	(1 SHIFT/DAY)
Spoil pile	0.700	(FND-MF)
Push gradient	t: 1.000	(CAT HB)
Altitude	2: 1.000	(CAT HB)
Material Weight	t: 0.902	(CAT HB)
Blade type	2: 1.000	(PAT)
Net correctior	n: 0.3537	
Adjusted unit production:	495.18 LCY/hr	
Adjusted fleet production:	495.18 LCY/hr	

Fleet size:	1 Dozer(s)
Unit cost:	\$0.567/LCY

Total job time:	60.58 Hours
Total job cost:	\$16,996

DEMOLITION WORK

Task description:		Demolish structures, remove materials and debris					
Site:	Trapper Mine		Permit Action:	PR11	Permit/.	Job#: <u>C1981010</u>	
PROJE	CT IDENTIFICATION	N					
Task #:	130	State:	Colorado		Abbreviation:	None	
Date:	11/28/2022	County:	Moffat		Filename:	C010-130	
User:	ZTT	-					
	Agency or organizat	ion name.	DRMS				

UNIT COSTS

Structure or Item **Demolition Menu** Unit **Total Cost** Unit Dimensions Quantity Description Selection Cost 31.7548 CF 317,548.00 Main office Bldg. (MN) demo./on-CF \$70,495.66 \$0.22 site disposal in existing pit or cut - Max. 10,000 ft. haul Office bldg. floor 15,288 SF Floor, concrete, 15,288.00 SF \$1.86 \$28,435.68 demolition only, average reinforcing - 10 in. thick 251 SF Demo. and on-site 251.00 SF \$2.30 \$576.55 Reinforced concrete floor office bldg. disposal in existing pit, 12 in. thick - Max. 10.000 ft. haul LF Office footers 804 SF Demo. and on-site 804.00 \$6.89 \$5,539.56 disposal in existing pit, 1.5 ft. x 2 ft. - Max. 10,000 ft. haul 700.00 LF Remove fencing 700 LF Fencing, chain link, \$3.08 \$2,156.00 including posts and fabric - 8 ft. to 10 ft. high 1.925.700 CF Bldg. (MN) demo./on-1.925,700.00 CF Shop\Warehouse \$0.22 \$427.505.40 site disposal in existing pit or cut - Max. 10,000 ft. haul Warehouse concrete 9,270 SF Floor, concrete, 9,270.00 SF \$2.23 \$20,672.10 floor demolition only, average reinforcing - 12 in. thick Warehouse 4" SF 7,925 SF Floor, concrete, 7,925.00 \$0.74 \$5.864.50 Concrete floor demolition only, average reinforcing - 4 in. thick 1,822 LF Demo. and on-site 1,822.00 LF Warehouse Footers \$6.89 \$12,553.58 disposal in existing pit, 1.5 ft. x 2 ft. - Max. 10,000 ft. haul 4,000.00 Silver storage trailer 40 X10X10 Bldg. (SN) demo./on-CF \$0.22 \$872.00 site disposal in existing pit or cut - Max. 10,000 ft. haul Ble caterpillar parts 35X10X8 Bldg. (SN) demo./on-2,800.00 CF \$0.22 \$610.40 trailer site disposal in existing pit or cut - Max. 10,000

ft. haul

Location adjustment: 91.30 %

Wash/Lube Bay	173,500 CF	Bldg. (MN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	173,500.00	CF	\$0.22	\$38,517.00
Wash bay concrete floor	9,275 SF	Floor, concrete, demolition only, average reinforcing - 6 in. thick	9,275.00	SF	\$1.11	\$10,295.25
Wash bay footers	480 LF	Demo. and on-site disposal in existing pit, 1.0 ft. x 2 ft Max. 10,000 ft. haul	480.00	LF	\$4.59	\$2,203.20
Shop concrete floor	2,400 SF	Floor, concrete, demolition only, average reinforcing - 6 in. thick	2,400.00	SF	\$1.11	\$2,664.00
Shop Footers	290 LF	Demo. and on-site disposal in existing pit, 1.0 ft. x 2 ft Max. 10,000 ft. haul	290.00	LF	\$4.59	\$1,331.10
Seed Trailer	30X10X8	Bldg. (MN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	2,400.00	CF	\$0.22	\$532.80
Pump House	4,840 CF	Bldg. (MN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	4,840.00	CF	\$0.22	\$1,074.48
Pump House floor	484 SF	Floor, concrete, demolition only, average reinforcing - 6 in. thick	484.00	SF	\$1.11	\$537.24
Pump House footers	88 LF	Demo. and on-site disposal in existing pit, 1.0 ft. x 2 ft Max. 10,000 ft. haul	88.00	LF	\$4.59	\$403.92
Old cars and equipment at water tanks	120X10X4	Bldg. (SC) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	4,800.00	CF	\$0.26	\$1,248.00
Light Duty and Electrical Shop	94,500 CF	Bldg. (SC) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	94,500.00	CF	\$0.26	\$24,570.00
Concrete floor	5,250 SF	Floor, concrete, demolition only, average reinforcing - 6 in. thick	5,250.00	SF	\$1.11	\$5,827.50
Footers	348 LF	Demo. and on-site disposal in existing pit, 1.0 ft. x 2 ft Max. 10,000 ft. haul	348.00	LF	\$4.59	\$1,597.32
Break Up and Bury Parking Lot Asphalt	2,448 SY	Pavement, bituminous, demolition only - 4 in. to 6 in. thick	2,448.00	SY	\$8.08	\$19,779.84
Water Tank	80,000 Gallons	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	10,667.00	CF	\$0.22	\$2,325.41

Water Tank	80,000 Gallons	Bldg. (SN) demo./on- site disposal in existing	10,667.00	CF	\$0.22	\$2,325.41
Diesel Tank	100,000 Gallons	pit or cut - Max. 10,000 ft. haul Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 10,000	13,333.00	CF	\$0.22	\$2,906.59
Diesel Tank	100,000 Gallons	ft. haul Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	13,333.00	CF	\$0.22	\$2,906.59
Diesel Tank	20,000 Gallons	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	2,667.00	CF	\$0.22	\$581.41
Diesel Tank	20,000 Gallons	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	2,667.00	CF	\$0.22	\$581.41
Diesel Tank	20,000 Gallons	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	2,667.00	CF	\$0.22	\$581.41
Diesel Tank Removed but onsite	20,000 Gallons	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	2,667.00	CF	\$0.22	\$581.41
Diesel Tank Removed but onsite	20,000 Gallons	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	2,667.00	CF	\$0.22	\$581.41
Gasoline Tank	15,000 Gallons	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	2,000.00	CF	\$0.22	\$436.00
Concrete Pads for Storage Tank	6,500 SF	Floor, concrete, demolition only, average reinforcing - 6 in. thick	6,500.00	SF	\$1.11	\$7,215.00
Fuel Tank Sludge Removal - 8 Tanks	6,300 Gallons	Remove sludge, water, and rem. product from tank - 6,000 to 8,000 gal.	1.00	EA	\$306.00	\$306.00
Disposal of Tank Sludge	26 Tons	Hazardous waste removal - Bulk liquids, large quantities (over 2,500 gal.)	6,300.00	GAL	\$1.88	\$11,844.00
Powerlines	75 330 LF	Utility Poles, Wood 35' - 45' high (each pole)	75.00	EA	\$297.50	\$22,312.50
Tire Shed-Skid Mounted	6,000 CF	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	6,000.00	CF	\$0.22	\$1,308.00
Main Substation	6,000 CF	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	6,000.00	CF	\$0.22	\$1,308.00
Concrete Pads	1,200 SF	Floor, concrete,	1,200.00	SF	\$1.11	\$1,332.00

		demolition only, average reinforcing - 6 in. thick				
4 Portables	4,200 CF	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	4,200.00	CF	\$0.22	\$915.60
ANFO Silos and Emolsion Tank	10,940 CF	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	10,940.00	CF	\$0.22	\$2,384.92
New 2007 Emulsion tank	15,000 gal	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	1,600.00	CF	\$0.22	\$348.80
Concrete Pad	1,642 SF	Floor, concrete, demolition only, average reinforcing - 6 in. thick	1,642.00	SF	\$1.11	\$1,822.62
Footers	52 LF	Demo. and on-site disposal in existing pit, 1.0 ft. x 2 ft Max. 10,000 ft. haul	52.00	LF	\$4.59	\$238.68
Explosive storage- 2 magazines	2 X 853.3 CF	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	1,707.00	CF	\$0.22	\$372.13
Explosive Storage Trailer	2,560 CF	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	2,560.00	CF	\$0.22	\$558.08
2 Large Explosives Magazines	2 X 22.5. 8X6	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	2,160.00	CF	\$0.22	\$470.88
Tub Pad railroad Track	2 X 312	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	624.00	CF	\$0.22	\$136.03
5 Cargo Containers	5 X 25 and 8x8	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	8,000.00	CF	\$0.22	\$1,744.00
Queen Anne Dragline Repair Pad	70'Lx70'wx.067'h	Floor, concrete, demolition only, average reinforcing - 8 in. thick	4,900.00	SF	\$1.48	\$7,252.00
Bury boneyard storage material	84,000 CF	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	84,000.00	CF	\$0.22	\$18,312.00
Waste oil and Anit- Freeze drum disposal	50 used oil, 20 Solvent	Solid pickup - 55 gal. drums	70.00	EA	\$240.00	\$16,800.00
Waterlines and Waste Solvent Lines	Shop to waste oil pad	Pipe, sewer/water - 12 in. diameter pipe	100.00	LF	\$5.05	\$505.00
Transformer Pad	225 SF	Floor, concrete, demolition only, average reinforcing - 4 in. thick	225.00	SF	\$0.74	\$166.50
4 skid mounted substations	4'x10', 8'x20'	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	6,400.00	CF	\$0.22	\$1,395.20
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East Panel RL Coverall Building	86,400CF	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	86,400.00	CF	\$0.22	\$18,835.20
East Panel RL Concrete Slabs	4,540 SF	Floor, concrete, demolition only, average reinforcing - 10 in. thick	4,540.00	SF	\$1.86	\$8,444.40
East Panel RL Footings	60 LF	Demo. and on-site disposal in existing pit, 1.5 ft. x 2 ft Max. 10,000 ft. haul	600.00	LF	\$6.89	\$4,134.00
3x50,000 Tanks	20,040 CF	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	20,040.00	CF	\$0.22	\$4,368.72
2x20,000 Tanks	5,348 CF	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	5,348.00	CF	\$0.22	\$1,165.86
MgCl Tank @ H Impoundment	10,000 gallons	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	1,005.00	CF	\$0.22	\$219.09
Red silo @ used oil storage area	15,000 gallons	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	1,600.00	CF	\$0.22	\$348.80
Blasters Equipment Building	45X85X22	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 200 ft. push	76,021.88	CF	\$0.21	\$15,584.49
-Blasters Equipment Building Foundation	146 CY	Slab on grade, concrete, demolition only - No reinforcing	106.00	СҮ	\$96.00	\$10,176.00
Radio Tower Skid Mounted	NA	USER PROVIDED ITEM	1.00	EA	\$1,500.00	\$1,500.00

				Total Cost	
		Subtotal		(adjusted for	
Job Hours:	100.00	(unadjusted):	\$863,494.63	location):	\$788,370.60

DEMOLITION WORK

r	Task description:	Culvert Rer	noval and Dispo	osal		
Site:	Trapper Mine		Permit Action:	PR11	Permit/.	lob#: <u>C1981010</u>
PROJE	CT IDENTIFICATION	N				
Task #:	131	State:	Colorado		Abbreviation:	None
Date:	11/28/2022	County:	Moffat		Filename:	C010-131
User:	ZTT					
	Agency or organizat	ion name:	DRMS			

UNIT COSTS

Structure or Item **Demolition Menu** Unit **Total Cost** Dimensions Quantity Unit Selection Description Cost Pipe, corrugated metal A-1 48" Diam 240.00 LF \$17.76 \$4,262.64 (CMP) - 48 in. diameter pipe A-2 Pipe, corrugated metal 60" Diam 240.00 LF \$23.89 \$5,733.36 (CMP) - 60 in. diameter pipe ASH-1 24" Diam Pipe, corrugated metal 190.00 LF \$7.68 \$1,458.82 (CMP) - 24 in. diameter pipe Pipe, corrugated metal A-3 48" Diam 240.00 LF \$17.76 \$4.262.64 (CMP) - 48 in. diameter pipe Pipe, corrugated metal A-4 48" Diam 210.00 LF \$17.76 \$3,729.81 (CMP) - 48 in. diameter pipe 2 @ 48" Diam Pipe, corrugated metal 480.00 LF \$17.76 \$8,525.28 A-5 (CMP) - 48 in. diameter pipe A-7 36" Diam Pipe, corrugated metal 210.00 LF \$12.24 \$2,570.82 (CMP) - 36 in. diameter pipe Pipe, corrugated metal A9 48" Diam 180.00 LF \$17.76 \$3,196.98 (CMP) - 48 in. diameter pipe 48" Diam Pipe, corrugated metal A-10 240.00 LF \$17.76 \$4,262.64 (CMP) - 48 in. diameter pipe A-11 18" Diam Pipe, corrugated metal 180.00 LF \$5.90 \$1,062.36 (CMP) - 18 in. diameter pipe Pipe, corrugated metal A-12 36"Diam 210.00 LF \$12.24 \$2.570.82 (CMP) - 36 in. diameter pipe A-14 36" Diam Pipe, corrugated metal 210.00 LF \$12.24 \$2,570.82 (CMP) - 36 in. diameter pipe Pipe, corrugated metal AE-4 24" Diam 210.00 LF \$7.68 \$1,612.38 (CMP) - 24 in. diameter pipe Pipe, corrugated metal AE-7 24" Diam 300.00 LF \$7.68 \$2.303.40 (CMP) - 24 in. diameter pipe AE-10 48" Diam Pipe, corrugated metal 240.00 LF \$17.76 \$4,262.64 (CMP) - 48 in. diameter

Location adjustment: 91.30 %

AE-11	48" Diam	pipe Pipe, corrugated metal (CMP) - 48 in. diameter pipe	240.00	LF	\$17.76	\$4,262.64
BC-1	24" Diam	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	540.00	LF	\$7.68	\$4,146.12
BC-2	60" Diam	Pipe, corrugated metal (CMP) - 60 in. diameter pipe	240.00	LF	\$23.89	\$5,733.36
BC-5	24" Diam	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	180.00	LF	\$7.68	\$1,382.04
BC-6	36"Diam	Pipe, corrugated metal (CMP) - 36 in. diameter pipe	210.00	LF	\$12.24	\$2,570.82
*FEB-1	24" Diam	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	180.00	LF	\$7.68	\$1,382.04
D-9	24" Diam	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	210.00	LF	\$7.68	\$1,612.38
D-10	18" Diam	Pipe, corrugated metal (CMP) - 18 in. diameter pipe	180.00	LF	\$5.90	\$1,062.36
D-12	18" Diam	Pipe, corrugated metal (CMP) - 18 in. diameter pipe	180.00	LF	\$5.90	\$1,062.36
D-15	36" Diam	Pipe, corrugated metal (CMP) - 36 in. diameter pipe	180.00	LF	\$12.24	\$2,203.56
D-16	2 @ 24" Diam	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	360.00	LF	\$7.68	\$2,764.08
D-17	2 @ 24" Diam	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	360.00	LF	\$7.68	\$2,764.08
FT-1	24" Diam	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	110.00	LF	\$7.68	\$844.58
EMF-1	2 @ 36"	Pipe, corrugated metal (CMP) - 36 in. diameter pipe	120.00	LF	\$12.24	\$1,469.04
GRS-1	24"Diam	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	180.00	LF	\$7.68	\$1,382.04
GRS-2	48" Diam	Pipe, corrugated metal (CMP) - 48 in. diameter pipe	240.00	LF	\$17.76	\$4,262.64
RW-1	12" Diam	Pipe, corrugated metal (CMP) - 12 in. diameter pipe	180.00	LF	\$4.34	\$781.74
SA-1	48" Diam	Pipe, corrugated metal (CMP) - 48 in. diameter pipe	240.00	LF	\$17.76	\$4,262.64
SA-7	30" Diam	Pipe, corrugated metal (CMP) - 30 in. diameter pipe	180.00	LF	\$10.15	\$1,827.18
SAH-1	24" Diam	Pipe, corrugated metal	180.00	LF	\$7.68	\$1,382.04

		(CMP) - 24 in. diameter				
AE-8	48" Diam	pipe Pipe, corrugated metal (CMP) - 48 in. diameter pipe	240.00	LF	\$17.76	\$4,262.64
AE-12	36" Diam	Pipe, corrugated metal (CMP) - 36 in. diameter pipe	130.00	LF	\$12.24	\$1,591.46
AX-3	60" Diam	Pipe, corrugated metal (CMP) - 60 in. diameter pipe	240.00	LF	\$23.89	\$5,733.36
AX-4	36" Diam	Pipe, corrugated metal (CMP) - 36 in. diameter pipe	240.00	LF	\$12.24	\$2,938.08
AX-5	36" Diam	Pipe, corrugated metal (CMP) - 36 in. diameter pipe	210.00	LF	\$12.24	\$2,570.82
IH-1	18"Diam	Pipe, corrugated metal (CMP) - 18 in. diameter pipe	180.00	LF	\$5.90	\$1,062.36
IWP-1	6" Diam	Pipe, corrugated metal (CMP) - 8 in. diameter pipe	180.00	LF	\$3.31	\$595.26
Jgag-1	24" Diam	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	180.00	LF	\$7.68	\$1,382.04
JG-2	24" Diam	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	180.00	LF	\$7.68	\$1,382.04
NN-5	24" Diam	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	180.00	LF	\$7.68	\$1,382.04
OH-3	24" Diam	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	180.00	LF	\$7.68	\$1,382.04
OH-5	24" Diam	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	180.00	LF	\$7.68	\$1,382.04
MC-1	15" Diam	Pipe, corrugated metal (CMP) - 15 in. diameter pipe	180.00	LF	\$5.09	\$916.02
MC-3	24" Diam	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	180.00	LF	\$7.68	\$1,382.04
MC-5	18"	Pipe, corrugated metal (CMP) - 18 in. diameter pipe	120.00	LF	\$5.90	\$708.24
A-15	48" Diam	Pipe, corrugated metal (CMP) - 48 in. diameter pipe	223.00	LF	\$17.76	\$3,960.70
AE-13A	24" Diam	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	175.00	LF	\$7.68	\$1,343.65
AE-13B	36" Diam	Pipe, corrugated metal (CMP) - 36 in. diameter pipe	170.00	LF	\$12.24	\$2,081.14
BC-7	36"Diam	Pipe, corrugated metal (CMP) - 36 in. diameter pipe	192.00	LF	\$12.24	\$2,350.46

Demo Worksheet Cont'd

Task # TTT

OH-6	18" Diam	Pipe, corrugated metal (CMP) - 18 in. diameter pipe	78.00	LF	\$5.90	\$460.36
A-13	24" Diam	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	210.00	LF	\$7.68	\$1,612.38

				Total Cost	
		Subtotal		(adjusted for	
Job Hours:	60.00	(unadjusted):	\$140,022.32	location):	\$127,840.38

Task description:	Regrade L Pit X-	, , , , , , , , , , , , , , , , , , , ,			
Trapper Mine	Peri	nit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENTIF	TCATION				
Task #: L01	State:	Colorado		Abbreviation:	None
Date: $\frac{11}{30/2022}$		Moffat		Filename:	L01
User: ZTT				· · · · · ·	
Agency or orga	nization name: DR	RMS			
HOURLY EQUIPMI	ENT COST				
Basic Machine: Ca	t D11T - 11U				
Horsepower: 85	0				
· · · · · · · · · · · · · · · · · · ·	niversal				
Attachment: NA					
	ber day				
Data Source: (C	RG)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:		\$257.09	NA		
Operating Cost/Hour:		\$273.21	100		
Ripper own. Cost/Hour:		\$0.00	NA		
Ripper op. Cost/Hour:		\$0.00	10		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour:	\$571.85 \$2,287.41	\$41.55	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: _93,3	\$2,287.41 <u>FITIES</u> 302	\$41.55	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: <u>93,2</u> Swell factor: <u>1.00</u>	\$2,287.41 <u>FITIES</u> 302	\$41.55 	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 93,2 Swell factor: 1.00 Loose volume: 93,2 Source of estimated volu	\$2,287.41 FITIES 302 300 302 LCY me: Table A-4		NA		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 93,3 Swell factor: 1.00 Loose volume: 93,5 Source of estimated volu Source of estimated swell	\$2,287.41 EITIES 302 00 302 LCY me: Table A-2 Il factor: Cat Hand		NA		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 93,3 Swell factor: 1.00 Loose volume: 93,3 Source of estimated volu Source of estimated swel HOURLY PRODUC	\$2,287.41 FITIES 302 00 302 LCY ame: Table A-2 Il factor: Cat Hand TION		NA		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 93,3 Swell factor: 1.00 Loose volume: 93,5 Source of estimated volu Source of estimated swell	\$2,287.41 FITIES 302 300 302 LCY me: Table A-4 Il factor: Cat Hand TION 400 feet		NA		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 93,2 Swell factor: 1.00 Loose volume: 93,2 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUCC Average push distance:	\$2,287.41 FITIES 302 00 302 LCY me: Table A-4 Il factor: Cat Hand TION action: 400 feet stl0.5 LCY/				
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 93,2 Swell factor: 1.00 Loose volume: 93,2 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUCC Average push distance: Unadjusted hourly produ	\$2,287.41 FITIES 302 00 302 LCY me: Table A-4 Il factor: Cat Hand TION action: 400 feet stl0.5 LCY/	4.3 book			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 93, Swell factor: 1.00 Loose volume: 93, Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient:	\$2,287.41 FITIES 302 302 302 302 302 302 302 302 302 302 302 302 302 302 302 302 CY me: Table A-4 Cat Hand TION action: 400 feet scription: Consolit -20 %	4.3 book			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 93,3 Swell factor: 1.00 Loose volume: 93,3 Source of estimated volu swell Source of estimated swell HOURLY PRODUCC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: 100	\$2,287.41 FITIES 302 300 302 LCY ame: Table A-4 11 factor: Cat Hand TION action: 400 feet action: 810.5 LCY/ scription: Consolid -20 % 6,950 feet	4.3 book			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 93,3 Swell factor: 1.00 Loose volume: 93,3 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average push gradient: Average site altitude: Material weight: Weight description:	\$2,287.41 FITIES 302 30300 304 LCY ame: Table A-4 11 factor: Cat Hand TION action: 400 feet action: 810.5 LCY/ scription: Consolid -20 % 6,950 feet 2,475 lbs/LCY User Provided	4.3 book	 bile 1.0		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 93,3 Swell factor: 1.00 Loose volume: 93,5 Source of estimated volu Source of estimated swell HOURLY PRODUCC Average push distance: Unadjusted hourly produ Materials consistency de Average site altitude: Material weight:	\$2,287.41 FITIES 302 303 304 Colspan="2">Table A-4 305 306 307 308 309 309 300 302 300 302 302 300 302 300 302 CO Scription: Consolid -20 %	4.3 book			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 93,3 Swell factor: 1.00 Loose volume: 93,5 Source of estimated volu Source of estimated swell HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consist Operator	\$2,287.41 ITTIES 302 303 304 305 306 307 308 309 300 301 302 302 303 304 305 306 307 308 309 300 301 302 200 400 feet 810.5 LCY/ scription:	 4.3 book hr idated stockp 750 000			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 93,5 Swell factor: 1.00 Loose volume: 93,5 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consist Dozing ma	\$2,287.41 FITIES 302302302302302CO302CYme:Table A-4I factor:Cat Hand TION action: $\frac{400 \text{ feet}}{810.5 \text{ LCY}}$ scription:Consolit-20 %6,950 feet2,475 lbs/LCYUser Provided n FactorSkill:0.tency:1.ethod:1.	hr idated stockp			

Job efficiency:	0.790	(3 SHIFTS/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.426	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.929	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.7535	
Adjusted unit production:	510.71 LCY/hr	
Adjusted fleet production:	2442.84 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$0.936/LCY

Total job time:	38.19 Hours
Total job cost:	\$87,365

	Regrade L Pit X-sec:406,700			
Trapper Mine	Permit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENTIFI	CATION			
Task #: L02	State: Colorado		Abbreviation:	None
Date: 11/30/2022	County: Moffat		Filename:	C010-L02
User: ZTT				
Agency or organ	ization name: DRMS			
HOURLY EQUIPME	NT COST			
	D11T - 11U			
Horsepower: 850				
,	versal			
Attachment: NA Shift Basis: 3 pe	un dozy			
Data Source: (CR	er day G)			
<u></u>	.0)			
Cost Breakdown:				
	***	<u>Utilization %</u>		
Ownership Cost/Hour:	\$257.09 \$273.21	<u>NA</u> 100		
Operating Cost/Hour: Ripper own. Cost/Hour:	\$273.21	 NA		
Ripper op. Cost/Hour:	\$0.00	<u>10</u>		
Operator Cost/Hour:	\$41.55	NA		
• F • • • • • • • • • • • • • • • • • •	+	1411		
Total unit Cost/Hour: Total Fleet Cost/Hour:	\$571.85 \$2,287.41			
Total Fleet Cost/Hour: <u>MATERIAL QUANT</u> Initial Volume: _222,2	\$2,287.41 <u>ITIES</u> 222			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 222,2 Swell factor: 1.000	\$2,287.41 <u>ITIES</u> 222			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 222,2 Swell factor: 1.000 Loose volume: 222,2 Source of estimated volume	\$2,287.41 <u>ITIES</u> 222 222 222 LCY ne:Table A-4.3			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 222,2 Swell factor: 1.000 Loose volume: 222,2	\$2,287.41 <u>ITIES</u> 222 222 222 LCY ne:Table A-4.3			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 222,2 Swell factor: 1.000 Loose volume: 222,2 Source of estimated volume	\$2,287.41 ITIES 222) 222 LCY ne: Table A-4.3 factor: Cat Handbook			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 222,7 Swell factor: 1.000 Loose volume: 222,7 Source of estimated volum Swell HOURLY PRODUCT Average push distance:	\$2,287.41 ITIES 222 222 222 LCY ne: Table A-4.3 factor: Cat Handbook TION 425 feet			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 222,2 Swell factor: 1.000 Loose volume: 222,2 Source of estimated volum swell HOURLY PRODUCT 1000	\$2,287.41 ITIES 222 222 222 LCY ne: Table A-4.3 factor: Cat Handbook TION 425 feet			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 222,7 Swell factor: 1.000 Loose volume: 222,7 Source of estimated volum Swell HOURLY PRODUCT Average push distance:	\$2,287.41 ITIES 222 222 222 LCY ne: Table A-4.3 factor: Table A-4.3 Cat Handbook ION 425 feet tion: 765.7 LCY/hr	 pile 1.0		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 222,2 Swell factor: 1.000 Loose volume: 222,2 Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency dest	\$2,287.41 ITIES 222 D 222 LCY ne: Table A-4.3 factor: Cat Handbook ION 425 feet tion: 425 feet tion: 765.7 LCY/hr cription: Consolidated stockp	 bile 1.0		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 222,7 Swell factor: 1.000 Loose volume: 222,7 Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product	\$2,287.41 ITIES 222 222 222 LCY ne: Table A-4.3 factor: Table A-4.3 Cat Handbook ION 425 feet tion: 765.7 LCY/hr	 bile 1.0		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 222,7 Swell factor: 1.000 Loose volume: 222,7 Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency dest Average push gradient:	\$2,287.41 ITIES 222 222 222 222 222 222 222	 bile 1.0		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 222,7 Swell factor: 1.000 Loose volume: 222,7 Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency dest Average push gradient: Average site altitude:	\$2,287.41 ITIES 222 222 222 222 222 222 222	 		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 222,7 Swell factor: 1.000 Loose volume: 222,7 Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency dest Average push gradient: Average site altitude: Material weight:	\$2,287.41 ITIES 222 222 222 222 222 222 222	 pile 1.0		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 222,7 Swell factor: 1.000 Loose volume: 222,7 Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency dest Average site altitude: Material weight: Weight description:	\$2,287.41 ITIES 222 222 222 LCY ne: Table A-4.3 factor: Cat Handbook TON $\frac{425 \text{ feet}}{765.7 \text{ LCY/hr}}$ cription: Consolidated stockp $\frac{-20 \%}{7,050 \text{ feet}}$ 2,475 lbs/LCY User Provided Factor			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 222,7 Swell factor: 1.000 Loose volume: 222,7 Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency dest Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator S Material consistency	\$2,287.41 ITIES 222 0 222 LCY ne: Table A-4.3 factor: Cat Handbook ION ION ION Consolidated stockp Consolidated stockp Consolidated stockp -20 % 7,050 feet 2,475 lbs/LCY User Provided Eactor Skill: 0.750 concy: 1.000	Source		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 222,7 Swell factor: 1.000 Loose volume: 222,7 Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency dest Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator S	\$2,287.41 ITIES 222 20% $7,050$ $2,475$ $2,475$ $2,475$ $2,475$ $2,475$ $2,475$ $2,475$ $2,475$ $2,475$ $2,475$ $2,475$ $2,50$ $2,20\%$ $2,20\%$ $2,20\%$ $2,20\%$ $2,20\%$ $2,20\%$ $2,20\%$	Source (AVG.)		

Job efficiency:	0.790	(3 SHIFTS/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.426	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.929	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.7535	
Adjusted unit production: 57	76.95 LCY/hr	
Adjusted fleet production: 23	307.8 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$0.991/LCY

Total job time:	96.29 Hours
Total job cost:	\$220,258

*	Regrade L Pit X	-sec:406,200			
Trapper Mine	Per	mit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENTIF	TICATION				
Task #: L03	State:	Colorado		Abbreviation:	None
Date: $\frac{11/30}{202}$		Moffat		Filename:	L03
User: ZTT					
Agency or orga	nization name: DF	RMS			
HOURLY EQUIPM	ENT COST				
	tt D11T - 11U				
Horsepower: 85					
21	niversal				
Attachment: NA					
	per day RG)				
	KG)		<u> </u>		
Cost Breakdown:					
		MA 57 00	<u>Utilization %</u>		
Ownership Cost/Hour:		\$257.09 \$273.21	<u>NA</u> 100		
Operating Cost/Hour: Ripper own. Cost/Hour:		\$275.21	100 NA		
Ripper op. Cost/Hour:		\$0.00	10		
Operator Cost/Hour:		\$41.55	NA		
	,481				
Swell factor: 1.00					
Loosa voluma: 1/1	181 I CV				
	, 481 LCY				
Source of estimated volu	ime: Table A-4				
	ime:Table A-4				
Source of estimated volu	Ime: Table A-4 Il factor: Cat Hand				
Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance:	Il factor: Table A-4 Cat Hand TION 400 feet	book			
Source of estimated volu Source of estimated swell HOURLY PRODUC	Il factor: Table A-4 Cat Hand	book			
Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance:	Ime: <u>Table A-4</u> Il factor: <u>Cat Hand</u> TION Add feet Inction: <u>810.5 LCY</u>	book	 pile 1.0		
Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ	Ime: <u>Table A-4</u> Il factor: <u>Cat Hand</u> TION Add feet Inction: <u>810.5 LCY</u>	book			
Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient:	Ime:	book			
Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude:	Table A-4 Il factor: Table A-4 Cat Hand TION action: $\frac{400 \text{ feet}}{810.5 \text{ LCY}}$ escription: Consol -25 % 7,050 feet	book	 bile 1.0		
Source of estimated volu Source of estimated swell HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction	Ime: <u>Table A-4</u> Il factor: <u>Cat Hand</u> TION Action: <u>400 feet</u> 10.5 LCY/ Escription: <u>Consol</u> <u>-25 %</u> 7,050 feet <u>2,475 lbs/LCY</u> <u>User Provided</u> <u>n Factor</u>	book			
Source of estimated volu Source of estimated swell HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator	Image: Image	book //hr idated stockp	Source (AVG.)		
Source of estimated volu Source of estimated swell HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consis	Image: Image	book /hr idated stockp	Source (AVG.) (CAT HB)		
Source of estimated volu Source of estimated swell HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consis Dozing ma	Table A-4 Il factor: Table A-4 Cat Hand TION action: $\frac{400 \text{ feet}}{810.5 \text{ LCY}}$ escription: Consol -25 % 7,050 feet 2,475 lbs/LCY User Provided m Factor Skill: 0. tency: 1. ethod: 1.	book //hr idated stockp	Source (AVG.)		

Job efficienc	y: 0.790	(3 SHIFTS/DAY)
Spoil pil	e: 1.000	(DOZ-OC)
Push gradier	nt: 1.516	(CAT HB)
Altitud	e: 1.000	(CAT HB)
Material Weigh	nt: 0.929	(CAT HB)
Blade typ	e: 1.000	(PAT)
Net correctio	n:0.8011	
Adjusted unit production:	649.29 LCY/hr	
Adjusted fleet production:	2597.16 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$0.881/LCY

Total job time:	54.48 Hours
Total job cost:	\$124,607

Task description:	Regrade L P	it X-sec:405700			
Trapper Mine		Permit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENTI	FICATION				
Task #: L04	Sta	ate: Colorado		Abbreviation:	None
Date: $\frac{11}{30/20}$				Filename:	C010-L04
User: ZTT					
Agency or org	ganization name:	DRMS			
HOURLY EQUIPM	IENT COST				
Basic Machine:	Cat D11T - 11U				
	50				
JI	Jniversal				
	IA .				
	per day				
Data Source:(CRG)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour		\$257.09	NA		
Operating Cost/Hour		\$273.21	100 NA		
Ripper own. Cost/Hour		\$0.00 \$0.00	NA 10		
Dinner on Cost/Hour	•	\$0.00	10		
Ripper op. Cost/Hour Operator Cost/Hour	:	\$41.55	NA		
	\$571.85 \$2,287.41	\$41.55	NA		
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u>	\$571.85 \$2,287.41	\$41.55	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume:14	\$571.85 \$2,287.41 VTITIES 8,574	\$41.55	NA		
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: <u>14</u> Swell factor: <u>1.0</u>	\$571.85 \$2,287.41 \$TITIES 8,574 000	\$41.55	NA		
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: <u>14</u> Swell factor: <u>1.0</u>	\$571.85 \$2,287.41 VTITIES 8,574	\$41.55	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: <u>14</u> Swell factor: <u>14</u> Loose volume: <u>14</u> Source of estimated vol	\$571.85 \$2,287.41 XTITIES 8,574 000 8,574 LCY lume:Table	e A-4.3	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: 14 Swell factor: 1.0 Loose volume: 14	\$571.85 \$2,287.41 XTITIES 8,574 000 8,574 LCY lume:Table		NA		
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: 14 Swell factor: 1.0 Loose volume: 14 Source of estimated vol Source of estimated sw	\$571.85 \$2,287.41 XTITIES 8,574 000 8,574 LCY lume: Table ell factor: Cat H	e A-4.3	NA		
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 14 Swell factor: 14 Loose volume: 14 Source of estimated vol Source of estimated sw HOURLY PRODUC	\$571.85 \$2,287.41 XTITIES 8,574 000 8,574 LCY lume: Table ell factor: Cat H CTION 500 fee	e A-4.3 Handbook			
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 14 Swell factor: 1.0 Loose volume: 14 Source of estimated vol Source of estimated sw HOURLY PRODUC	\$571.85 \$2,287.41 XTITIES 8,574 000 8,574 LCY lume: Table ell factor: Cat H CTION 500 fee	e A-4.3 Handbook	NA		
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 14 Swell factor: 1.0 Loose volume: 14 Source of estimated vol Source of estimated vol Source of estimated sw HOURLY PRODUC	\$571.85 \$2,287.41 XTITIES 8,574 000 8,574 LCY lume: Table ell factor: Cat H CTION luction: 500 fee 650.0 I	e A-4.3 Handbook			
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 14 Swell factor: 14 Loose volume: 14 Source of estimated vol Source of estimated vol Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly proc	\$571.85 \$2,287.41 XTITIES 8,574 000 8,574 LCY lume: Table ell factor: Cat H <u>CTION</u> function: 500 fee function: 650.0 I lescription: Co	e A-4.3 Handbook			
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 14 Swell factor: 1.0 Loose volume: 14 Source of estimated vol Source of estimated vol Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly proc Materials consistency d Average push gradient: Average site altitude:	\$571.85 \$2,287.41 XTITIES 8,574 000 8,574 LCY lume: Table ell factor: Cat H CTION luction: 500 fee 650.0 I lescription: Co 25 %	e A-4.3 Handbook			
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 14 Swell factor: 1.0 Loose volume: 14 Source of estimated vol Source of estimated vol Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly proc Materials consistency d Average push gradient: Average site altitude:	\$571.85 \$2,287.41 XTITIES 8,574 2000 8,574 LCY lume: Table ell factor: Cat F CTION luction: 500 fee factor: Co <u>-25 %</u> 7,000 feet	e A-4.3 Handbook			
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 14 Swell factor: 14 Loose volume: 14 Source of estimated vol Source of estimated vol Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly proc Materials consistency d Average push gradient: Average site altitude: Material weight:	\$571.85 \$2,287.41 XTITIES 8,574 2000 8,574 LCY lume: Table ell factor: Cat H CTION luction: 500 feet 650.0 I lescription: Co -25 % 7,000 feet 2,475 lbs/LCY User Provideo	e A-4.3 Handbook			
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 14 Swell factor: 14 Swell factor: 14 Loose volume: 14 Source of estimated vol Source of estimated vol Average push distance: Materials consistency d Average site altitude: Material weight: Weight description: Job Condition Correction Operator	\$571.85 \$2,287.41 XTITIES 8,574 2000 8,574 LCY lume: Table 8,574 LCY lume: Table Cat H Cat H C	e A-4.3 Handbook	pile 1.0 Source (AVG.)		
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume:4 Swell factor:1.4 Loose volume:4 Source of estimated vol Source of estimated vol Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Naterial consi	\$571.85 \$2,287.41 XTITIES 8,574 2000 8,574 LCY lume: Table ell factor: Cat H CTION Lescription: Co -25 % 7,000 feet 2,475 lbs/LCY User Provideo On Factor or Skill:	e A-4.3 Handbook t t t t t t t t t t t t t t t t	pile 1.0		
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 14 Swell factor: 1.4 Loose volume: 14 Source of estimated vol Source of estimated vol Average push distance: Materials consistency do Material consi Dozing r	\$571.85 \$2,287.41 XTITIES 8,574 2000 8,574 LCY lume: Table ell factor: Cat H CTION Lescription: Co -25 % 7,000 feet 2,475 lbs/LCY User Provideo On Factor or Skill:	e A-4.3 Handbook	pile 1.0 Source (AVG.)		

Job efficiency:		0.790	(3 SHIFTS/DAY)
Spoil pi	Spoil pile:		(DOZ-OC)
Push gradie	Push gradient:		(CAT HB)
Altitud	de:	1.000	(CAT HB)
Material Weig	Material Weight:		(CAT HB)
Blade typ	pe:	1.000	(PAT)
Net correction	on:	0.8011	
Adjusted unit production:	52	0.72 LCY/hr	
· · ·		82.88 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$1.098/LCY

Total job time:	71.33 Hours
Total job cost:	\$163,163

Task description:	Regrade L Pit X-sec:405,200			
Trapper Mine	Permit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENTIFI	ICATION			
Task #: L05	State: Colorado		Abbreviation:	None
Date: 11/30/2022	County: Moffat		Filename:	L05
User: ZTT			-	
Agency or organ	nization name: DRMS			
HOURLY EQUIPME	NT COST			
	D11T - 11U			
Horsepower: 850				
<i>•</i> • • • • • • • • • • • • • • • • • •	versal			
Attachment: NA				
	er day			
Data Source: (CR	(G)	_		
Cost Breakdown:				
		Utilization %		
Ownership Cost/Hour:	\$257.09	NA		
Operating Cost/Hour:	\$273.21	100		
Ripper own. Cost/Hour:	\$0.00	NA		
Ripper op. Cost/Hour:	\$0.00	10		
Operator Cost/Hour:	\$41.55	NA		
MATERIAL QUANT Initial Volume: 402, Swell factor: 1.000	666			
	666 LCY			
Source of estimated volur	ne: Table A-4.3			
Source of estimated volu				
HOURLY PRODUCT				
Average push distance:	520 feet			
Unadjusted hourly produc				
Materials consistency des		bile 1.0		
- -				
Average push gradient: Average site altitude:	10 % 7,150 feet			
Material weight:	2,475 lbs/LCY		_	
Weight description:	User Provided			
Job Condition Correction		Source		
Operator S		(AVG.)		
Material consiste		(CAT HB)		
Dozing met		(S-BY-S)		
Visib	ility: 0.800	(POOR)		

Job efficienc	y: 0.790	(3 SHIFTS/DAY)
Spoil pi	le: 1.000	(DOZ-OC)
Push gradier	nt: 0.786	(CAT HB)
Altitud	le: 1.000	(CAT HB)
Material Weigl	nt: 0.929	(CAT HB)
Blade typ	e: 1.000	(PAT)
Net correctio	n: 0.4153	
Adjusted unit production:	260.73 LCY/hr	
Adjusted fleet production:	1042.92 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$2.193/LCY

Total job time:	386.09 Hours
Total job cost:	\$883,157

m	Regrade D I II A	-sec:404,700			
Trapper Mine	Per	mit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENTIF	TICATION				
Task #: L06	State:	Colorado		Abbreviation:	None
Date: $\frac{100}{11/30/2022}$		Moffat		Filename:	L06
User: ZTT					
Agency or orga	nization name: DF	RMS			
HOURLY EQUIPM	ENT COST				
Basic Machine: Ca	t D11T - 11U				
Horsepower: 85					
71	niversal				
Attachment: NA					
	per day				
Data Source: (C	RG)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:		\$257.09	NA		
Operating Cost/Hour:		\$273.21	100		
Ripper own. Cost/Hour:		\$0.00	NA		
Ripper op. Cost/Hour:		\$0.00	10		
Operator Cost/Hour:		\$41.55	NA		
MATERIAL QUAN Initial Volume: 718	<u>FITIES</u> ,834				
Swell factor: 1.00 Loose volume: 718	00 ,834 LCY				
Loose volume: 718 Source of estimated volu	,834 LCY me: Table A-4				
Loose volume: 718 Source of estimated volu	,834 LCY Ime:Table A-4				
Loose volume: 718 Source of estimated volu Source of estimated swe HOURLY PRODUC	,834 LCY ime: <u>Table A-4</u> Il factor: <u>Cat Hand</u> <u>TION</u>				
Loose volume: 718 Source of estimated volu Source of estimated swe	,834 LCY Ime: Table A Il factor: Cat Hand TION 590 feet	book			
Loose volume: 718 Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ	,834 LCY Ime: Table A Il factor: Cat Hand TION action: 590 feet 556.8 LCY/	book	 bile 1.0		
Loose volume: 718 Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient:	,834 LCY Ime: <u>Table A-4</u> Il factor: <u>Cat Hand</u> TION action: <u>590 feet</u> <u>556.8 LCY</u> escription: <u>Consol</u> <u>-20 %</u>	book			
Loose volume: 718 Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude:	,834 LCY Ime: Table A-4 Il factor: Cat Hand TION Inction: 590 feet 556.8 LCY/ Inscription: Consol -20 % 7,050 feet	book	 		
Loose volume: 718 Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight:	,834 LCY Imme: Table A-4 Il factor: Cat Hand TION 590 feet action: 556.8 LCY/ escription: Consol -20 % 7,050 feet 2,475 lbs/LCY	book	 bile 1.0		
Loose volume: 718 Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude:	,834 LCY Ime: Table A-4 Il factor: Cat Hand TION Inction: 590 feet 556.8 LCY/ Inscription: Consol -20 % 7,050 feet	book	 pile 1.0		
Loose volume: 718 Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction	Jame: Table A-4 Il factor: Cat Hand TION 590 feet action: 556.8 LCY/ escription: Consol -20 % 7,050 feet 2,475 lbs/LCY User Provided n Factor Factor	book /hr idated stockp	Source		
Loose volume: 718 Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator	,834 LCY Table A4 Il factor: Table A4 Cat Hand TION station: 590 feet oscription: Consol -20 % Consol -20 % Consol 2,475 lbs/LCY User Provided n Factor Skill: 0.	book //hr idated stockp	Source (AVG.)		
Loose volume: 718 Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consis	,834 LCY Table A-4 Cat Hand TION Section: 590 feet oscription: Consol -20 % -20 % 2,475 lbs/LCY User Provided n Factor 0. Skill: 0. tency: 1.	book /hr idated stockp	Source (AVG.) (CAT HB)		
Loose volume: 718 Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consis Dozing mo	,834 LCY Table A-4 Table A-4 Cat Hand TION Secreption: $556.8 LCY/$ consol -20 % 7,050 feet 2,475 lbs/LCY User Provided Mathematical Skill: 0. consol -20 % 7,050 feet 2,475 lbs/LCY User Provided Iskill: 0. tency:1. 1.	book //hr idated stockp	Source (AVG.)		

Job efficiency	: 0.790	(3 SHIFTS/DAY)
Spoil pile	: 1.000	(DOZ-OC)
Push gradient	: 1.426	(CAT HB)
Altitude	: 1.000	(CAT HB)
Material Weight	: 0.929	(CAT HB)
Blade type	: 1.000	(PAT)
Net correction	: 0.7535	
Adjusted unit production:	419.55 LCY/hr	
Adjusted fleet production:	1678.2 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$1.363/LCY

Total job time:	428.34 Hours
Total job cost:	\$979,780

Task description:	Regrade L Pit X-	-sec:404,200			
Trapper Mine	Peri	mit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENTIF	ICATION				
Task #: L07	State:	Colorado		Abbreviation:	None
Date: $\frac{11}{30/2022}$		Moffat		Filename:	L07
User: ZTT				-	
Agency or organ	nization name: DR	RMS			
HOURLY EQUIPME	ENT COST				
	t D11T - 11U				
Horsepower: 850					
Blade Type: Un Attachment: NA	iversal				
	er day				
1	RG)				
	(0)				
Cost Breakdown:		I	TT . 11		
Ormanshin Cast/IIa		\$257.00	Utilization %		
Ownership Cost/Hour: Operating Cost/Hour:		\$257.09 \$273.21	NA 100		
Ripper own. Cost/Hour:		\$273.21	NA		
Ripper op. Cost/Hour:		\$0.00	10		
		\$41.55	NA		
Operator Cost/Hour:		$\phi = 1.55$	INA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour:	\$571.85 \$2,287.41	Ψ1.35			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT	\$2,287.41	ψ11.55			
Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUANT</u> Initial Volume: <u>475</u> , Swell factor: <u>1.00</u>	\$2,287.41 FITIES 815				
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 475, Swell factor: 1.00 Loose volume: 475,	\$2,287.41 FITIES ,815 00 ,815 LCY				
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 475, Swell factor: 1.00 Loose volume: 475, Source of estimated volume	\$2,287.41 <u>SITIES</u> 815 0 815 LCY me: <u>Table A-4</u>	4.5			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 475, Swell factor: 1.00 Loose volume: 475,	\$2,287.41 <u>SITIES</u> 815 0 815 LCY me: <u>Table A-4</u>	4.5			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 475, Swell factor: 1.00 Loose volume: 475, Source of estimated volu Source of estimated swell	\$2,287.41 EITIES 815 00 815 LCY me: Table A-2 1 factor: Cat Hand	4.5			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 475, Swell factor: 1.00 Loose volume: 475, Source of estimated volu Source of estimated swell HOURLY PRODUCT	\$2,287.41 EITIES 815 00 815 LCY me: Table A-2 1 factor: Cat Hand FION	4.5			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 475, Swell factor: 1.00 Loose volume: 475, Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance:	\$2,287.41 EITIES 815 00 815 LCY me: Table A-4 1 factor: Cat Hand FION 560 feet	4.5 book			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 475, Swell factor: 1.00 Loose volume: 475, Source of estimated volut Source of estimated swell HOURLY PRODUCT 100	\$2,287.41 EITIES 815 00 815 LCY me: Table A-4 1 factor: Cat Hand FION 560 feet	4.5 book			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 475, Swell factor: 1.00 Loose volume: 475, Source of estimated volu Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product 400	\$2,287.41 CITIES ,815 ,00 ,815 LCY me: Table A-4 1 factor: Cat Hand TION 560 feet ction: 585.9 LCY/	4.5 book			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 475, Swell factor: 1.00 Loose volume: 475, Source of estimated volu Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency dest Average push gradient: 100	\$2,287.41 CITIES ,815 ,815 ,815 ,815 ,815 ,815 ,815 ,815 ,815 ,815 ,815 ,815 ,815 ,815 ,815 ,815 ,815 ,815 ,815 LCY me: Table A-2 1 factor: Cat Hand FION ction: 560 feet 585.9 LCY/ scription: Consoli 20 %	4.5 book			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 475, Swell factor: 1.00 Loose volume: 475, Source of estimated volum 5000000000000000000000000000000000000	\$2,287.41 CITIES ,815 10 815 LCY me: Table A-4 1 factor: Cat Hand FION ction: 560 feet 585.9 LCY/ scription: Consoli	4.5 book			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 475, Swell factor: 1.00 Loose volume: 475, Source of estimated volum 5000000000000000000000000000000000000	\$2,287.41 CITIES ,815 ,815 ,00 ,815 LCY me: Table A-4 1 factor: Cat Hand Cat Hand FION ction: 560 feet scription: Consoli -20 % 7,200 feet	4.5 book			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 475, Swell factor: 1.00 Loose volume: 475, Source of estimated volum 5000000000000000000000000000000000000	\$2,287.41 CITIES 815 90 815 LCY me: Table A-2 1 factor: Cat Hand TION ction: 560 feet ction: 585.9 LCY/ scription: Consolid -20 % 7,200 feet 2,475 lbs/LCY User Provided	4.5 book			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 475, Swell factor: 1.00 Loose volume: 475, Source of estimated volut Source of estimated volut Source of estimated volut Source of estimated volut Materials consistency des Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Job Condition Correction	\$2,287.41 CITIES ,815 ,815 ,00 ,815	 4.5 book /hr idated stockr			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 475, Swell factor: 1.00 Loose volume: 475, Source of estimated volum 5000000000000000000000000000000000000	\$2,287.41 CITIES ,815 ,815 ,00 ,815 ,00 ,815 ,815 ,815 ,815 ,815 ,815 ,815 ,815 ,815 ,815 ,815 ,815 ,815 ,815 ,815 ,815 ,815 ,0 ,0 ,0	4.5 book			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 475, Swell factor: 1.00 Loose volume: 475, Source of estimated volut Source of estimated volut Source of estimated volut Source of estimated volut Materials consistency des Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator	\$2,287.41 CITIES .815 .00 .815 LCY me: Table A-4 1 factor: Cat Hand TION ction: 560 feet 585.9 LCY/ scription: Consoli -20 % 7,200 feet 2,475 lbs/LCY User Provided Factor Skill: 0. ency: 1.				

Job efficiency:	0.790	(3 SHIFTS/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.426	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.929	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.7535	
Adjusted unit production: 44	41.48 LCY/hr	
Adjusted fleet production: 17	765.92 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$1.295/LCY

Total job time:	269.44 Hours
Total job cost:	\$616,327

Task description:	Regr	ade L Pit X-sec:403,700			
Trapper Mine		Permit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDEN	TIFICATI	<u>ON</u>			
Task #: L08		State: Colorado		Abbreviation:	None
Date: 11/30	/2022	County: Moffat		Filename:	C010-L08
User: ZTT		·			
Agency or	organization	name: DRMS			
HOURLY EQUI	PMENT CO	<u>DST</u>			
Basic Machine:	Cat D11T -	11U			
Horsepower:	850				
Blade Type:	Universal				
Attachment:	NA				
Shift Basis:	3 per day				
Data Source:	(CRG)				
Cost Breakdown:					
_			Utilization %		
Ownership Cost/H		\$257.09	NA		
Operating Cost/H		\$273.21	100		
Ripper own. Cost/H		\$0.00 \$0.00	<u>NA</u> 10		
Ripper op. Cost/H					
Operator Cost/H	our:	\$41.55	NA		
MATERIAL QU Initial Volume:	ANTITIES 102,185				
Swell factor:	1.000				
Loose volume:	102,185 LC	Y			
Source of estimated	volume:	Table A-4.3			
Source of estimated Source of estimated		Table A-4.3Cat Handbook			
Source of estimated	swell factor:				
Source of estimated	swell factor: DUCTION	Cat Handbook			
Source of estimated	swell factor: DUCTION				
Source of estimated HOURLY PROD Average push distant	swell factor: DUCTION ace: production:	Cat Handbook 600 feet 546.0 LCY/hr			
Source of estimated HOURLY PROD Average push distant Unadjusted hourly p Materials consistence Average push gradie	swell factor: DUCTION ace: production: cy description ent:25 %	Cat Handbook 600 feet 546.0 LCY/hr :Consolidated stockp	 		
Source of estimated HOURLY PROD Average push distan Unadjusted hourly p Materials consistence	swell factor: DUCTION ace: production: cy description ent:25 %	Cat Handbook 600 feet 546.0 LCY/hr :Consolidated stockp	 pile 1.0		
Source of estimated HOURLY PROD Average push distant Unadjusted hourly p Materials consistence Average push gradie	swell factor: DUCTION ace: production: cy description ent: -25 % c: 7,250	Cat Handbook 600 feet 546.0 LCY/hr :Consolidated stockp	 pile 1.0		
Source of estimated HOURLY PROD Average push distant Unadjusted hourly p Materials consistence Average push gradie Average site altitude	swell factor: DUCTION ace: production: cy description ent: -25% c; -25% c; $-2,250$ 2,475	Cat Handbook 600 feet 546.0 LCY/hr : _Consolidated stockp feet	 		
Source of estimated HOURLY PROD Average push distant Unadjusted hourly p Materials consistence Average push gradie Average site altitude Material weight: Weight description: Job Condition Correct	swell factor: DUCTION ace: production: cy description ent: <u>-25 %</u> 7,250 <u>2,475</u> <u>User 1</u> ection Factor	Cat Handbook 600 feet 546.0 LCY/hr Consolidated stockp feet lbs/LCY Provided	Source		
Source of estimated HOURLY PROD Average push distant Unadjusted hourly p Materials consistence Average push gradie Average site altitude Material weight: Weight description: Job Condition Correc Oper	swell factor: DUCTION ace: production: cy description ent: <u>-25 %</u> 7,250 <u>2,475</u> <u>User 1</u> ection Factor rator Skill:	Cat Handbook 600 feet 546.0 LCY/hr : Consolidated stockp feet lbs/LCY Provided 0.750	Source (AVG.)		
Source of estimated HOURLY PROD Average push distant Unadjusted hourly p Materials consistence Average push gradie Average site altitude Material weight: Weight description: Job Condition Correc Oper Material co	swell factor: DUCTION ace: production: cy description ent: <u>-25 %</u> 7,250 <u>2,475</u> <u>User</u> ection Factor rator Skill: possistency:	Cat Handbook 600 feet 546.0 LCY/hr : Consolidated stockp feet lbs/LCY Provided 0.750 1.000	Source (AVG.) (CAT HB)		
Source of estimated HOURLY PROD Average push distant Unadjusted hourly p Materials consistence Average push gradie Average site altitude Material weight: Weight description: Job Condition Correc Oper Material co	swell factor: DUCTION ace: production: cy description ent: <u>-25 %</u> 7,250 <u>2,475</u> <u>User 1</u> ection Factor rator Skill:	Cat Handbook 600 feet 546.0 LCY/hr : Consolidated stockp feet lbs/LCY Provided 0.750	Source (AVG.)		

Job efficiency	0.790	(3 SHIFTS/DAY)
Spoil pile	e: 1.000	(DOZ-OC)
Push gradien	t: 1.516	(CAT HB)
Altitude	e: 1.000	(CAT HB)
Material Weight	t: 0.929	(CAT HB)
Blade type	e: 1.000	(PAT)
Net correction	n: 0.8011	
Adjusted unit production:	437.40 LCY/hr	
Adjusted fleet production:	1749.6 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$1.307/LCY

Total job time:	58.40 Hours
Total job cost:	\$133,596

Task description:	Regrade L Pit X-sec:403,200			
Trapper Mine	Permit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENTIFI	CATION			
Task #: L09 Date: 11/30/2022 User: ZTT	State: Colorado County: Moffat		Abbreviation: Filename:	None L09
Agency or organi	ization name: DRMS			
HOURLY EQUIPME	NT COST			
	D11T - 11U			
Horsepower: 850				
21	versal			
Attachment: NA	4	_		
	r day	_		
Data Source: (CR	G)	_		
Cost Breakdown:				
		Utilization %		
Ownership Cost/Hour:	\$257.09	NA		
Operating Cost/Hour:	\$273.21	100		
Ripper own. Cost/Hour:	\$0.00	NA		
Ripper op. Cost/Hour:	\$0.00	10		
Operator Cost/Hour:	\$41.55	NA		
MATERIAL QUANTI Initial Volume: 101,9 Swell factor: 1.000 Initial Volume: 1.000	45			
Loose volume: 101,9	45 LCY			
Source of estimated volum				
Source of estimated swell	factor: Cat Handbook			
HOURLY PRODUCT	ION			
Average push distance:	550 feet			
Unadjusted hourly product				
Materials consistency desc	cription: Consolidated stockp	oile 1.0		
A 1 1	15.0/			
Average push gradient: Average site altitude:	-15 % 7,250 feet			
Material weight:				
-	2,475 lbs/LCY			
Weight description:	2,475 lbs/LCY User Provided			
Job Condition Correction 1	User Provided Factor	Source		
Job Condition Correction 1 Operator S	User Provided Factor kill:0.750	(AVG.)		
Job Condition Correction I Operator S Material consister	User Provided Factor kill: 0.750 ncy: 1.000	(AVG.) (CAT HB)		
Job Condition Correction 1 Operator S	User Provided <u>Factor</u> kill: 0.750 ncy: 1.000 hod: 1.200	(AVG.)		

cy: 0.790	(3 SHIFTS/DAY)
le: 1.000	(DOZ-OC)
nt: 1.329	(CAT HB)
le: 1.000	(CAT HB)
ht: 0.929	(CAT HB)
be: 1.000	(PAT)
on: 0.7023	
417.59 LCY/hr	
1670.36 LCY/hr	
	le: 1.000 nt: 1.329 le: 1.000 ht: 0.929 pe: 1.000 ph: 0.7023 417.59 LCY/hr

Fleet size:	4 Dozer(s)
Unit cost:	\$1.369/LCY

Total job time:	61.03 Hours
Total job cost:	\$139,605

Task description:	Regrade L Pit X-sec:402,700			
Trapper Mine	Permit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENTIFI	ICATION			
Task #: L10	State: Colorado		Abbreviation:	None
Date: 11/30/2022	County: Moffat		Filename:	L10
User: ZTT				
Agency or organ	nization name: DRMS			
HOURLY EQUIPME	NT COST			
Basic Machine: Cat	D11T - 11U			
Horsepower: 850				
71	versal			
Attachment: NA				
	er day			
Data Source: (CR	(G)			
Cost Breakdown:				
		<u>Utilization %</u>		
Ownership Cost/Hour:	\$257.09	NA 100		
Operating Cost/Hour: Ripper own. Cost/Hour:	\$273.21 \$0.00	100 NA		
Ripper op. Cost/Hour:	\$0.00	10		
$\mathbf{K}_{\mathbf{D}}$	ψ0.00	10		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour:	\$41.55 \$571.85 \$2,287.41	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUANT</u>	\$571.85 \$2,287.41 ITIES	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume:430,;	\$571.85 \$2,287.41 ITIES 259	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 430, Swell factor: 1.000	\$571.85 \$2,287.41 ITIES 259	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 430,, Swell factor: 1.000 Loose volume: 430,	\$571.85 \$2,287.41 ITIES 259 0 259 LCY	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUANT</u> Initial Volume: 430, Swell factor: 1.000 Loose volume: 430, Source of estimated volur	\$571.85 \$2,287.41 ITIES 259 0 259 LCY ne: Table A-4.5	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUANT</u> Initial Volume: 430,, Swell factor: 1.000 Loose volume: 430, Source of estimated volur Source of estimated swell	\$571.85 \$2,287.41 ITIES 259 0 259 LCY ne: Table A-4.5 factor: Cat Handbook	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 430,, Swell factor: 1.000 Loose volume: 430, Source of estimated volur Source of estimated swell HOURLY PRODUCT	\$571.85 \$2,287.41 ITIES 259 0 259 LCY ne: Table A-4.5 factor: Cat Handbook	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 430, Swell factor: 1.000 Loose volume: 430, Source of estimated volur Source of estimated volur Source of estimated swell HOURLY PRODUCT Average push distance:	\$571.85 \$2,287.41 ITIES 259 0 259 LCY ne: Table A-4.5 factor: Cat Handbook CION 405 feet	NA		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 430,, Swell factor: 1.000 Loose volume: 430, Source of estimated volur Source of estimated swell HOURLY PRODUCT	\$571.85 \$2,287.41 ITIES 259 0 259 LCY ne: Table A-4.5 factor: Cat Handbook CION 405 feet ction: 801.6 LCY/hr			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 430, Swell factor: 1.000 Loose volume: 430, Source of estimated volur Source of estimated volur Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly produc	\$571.85 \$2,287.41 ITIES 259 0 259 LCY ne: Table A-4.5 factor: Cat Handbook CION 405 feet etion: 801.6 LCY/hr cription: Consolidated stockp			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 430,, Swell factor: 1.000 Loose volume: 430, Source of estimated volur Source of estimated volur Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly produc	\$571.85 \$2,287.41 ITIES 259 0 259 LCY ne: Table A-4.5 factor: Cat Handbook CION 405 feet ction: 801.6 LCY/hr			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 430,7 Swell factor: 1.000 Loose volume: 430,7 Source of estimated volur Source of estimated volur Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly produc Materials consistency des Average push gradient: Average site altitude:	\$571.85 \$2,287.41 ITIES 259 0 259 259 259 259 259 259 259 Cat Handbook CION 405 feet etion: 405 feet 801.6 LCY/hr cription: Consolidated stockp -20 %			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 430,7 Swell factor: 1.000 Loose volume: 430,7 Source of estimated volur Source of estimated volur Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly produc Materials consistency des Average push gradient: Average site altitude:	\$571.85 \$2,287.41 ITIES 259 0 259 0 259 0 259 0 259 0 259 0 259 0 259 0 259 0 259 0 259 0 259 0 259 0 259 0 259 10 405 feet cription: 405 feet cription: Consolidated stockp -20 % 7,350 feet			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 430, Swell factor: 1.000 Loose volume: 430, Source of estimated volur Source of estimated volur Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly produc Materials consistency des Average push gradient: Average site altitude: Material weight:	\$571.85 \$2,287.41 ITIES 259 0 259 259 0 259 0 259 0 259 0 259 0 259 0 259 0 259 0 259 0 259 0 259 0 259 0 259 10 405 feet 20 % 7,350 feet 2,475 lbs/LCY User Provided			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 430, Swell factor: 1.000 Loose volume: 430, Source of estimated volur Source of estimated volur Source of estimated volur Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator S	$\frac{\$571.85}{\$2,287.41}$ $\frac{ITIES}{259}$ $\frac{259}{259}$ $\frac{259}{259}$ $\frac{259}{259}$ $\frac{259}{259}$ $\frac{259}{259}$ $\frac{259}{259}$ $\frac{259}{259}$ $\frac{259}{259}$ $\frac{100}{259}$ $\frac{405 \text{ feet}}{801.6 \text{ LCY/hr}}$ $\frac{405 \text{ feet}}{801.6 \text{ LCY/hr}}$ $\frac{-20 \%}{7,350 \text{ feet}}$ $\frac{-20 \%}{7,350 \text{ feet}}$ $\frac{2,475 \text{ lbs/LCY}}{2,475 \text{ lbs/LCY}}$ $\frac{100}{2,475}$ $\frac{100}{2,100}$ $\frac{100}{2,100}$			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 430, Swell factor: 1.000 Loose volume: 430, Source of estimated volur Source of estimated volur Source of estimated volur Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly produc Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator S Material consistency	$\frac{\$571.85}{\$2,287.41}$ $ITIES$ $\frac{259}{259}$ $\frac{259}{259}$ $\frac{259}{259}$ $\frac{259}{259}$ $\frac{259}{259}$ $\frac{259}{259}$ $\frac{259}{259}$ $\frac{259}{259}$ $\frac{259}{259}$ $\frac{405}{2}$ $\frac{10}{2}$ $$			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 430, Swell factor: 1.000 Loose volume: 430, Source of estimated volur Source of estimated volur Source of estimated volur Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator S	\$571.85 \$2,287.41 ITIES 259 259 259 259 259 259 259 259 259 259 259 259 259 259 259 259 259 259 20 405 feet 20% $7,350$ $2,475$ 100 $2,475$ 1.200			

Job efficiency:	0.790	(3 SHIFTS/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.426	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.929	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.7535	
Adjusted unit production: 60	4.01 LCY/hr	

Adjusted fleet production:	2416.04 LCY/hr

Fleet size:	4 Dozer(s)
Unit cost:	\$0.947/LCY

Total job time:	178.08 Hours
Total job cost:	\$407,352

Task description:	Regrade L	Pit X-sec:402,200)		
Trapper Mine		Permit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENTI	FICATION				
Task #: L11	S	tate: Colorado		Abbreviation:	None
Date: 11/30/20		nty: Moffat		Filename:	L11
User: ZTT		J		-	
Agency or org	ganization name:	DRMS			
HOURLY EQUIPM	IENT COST				
	Cat D11T - 11U				
1 <u> </u>	350				
VI	Jniversal				
	NA				
	B per day				
<u></u>	CRG)				
Cost Breakdown:			1		
		<i>*</i>	Utilization %		
Ownership Cost/Hour		\$257.09	NA		
Operating Cost/Hour		\$273.21	100		
Ripper own. Cost/Hour		\$0.00	NA		
Ripper op. Cost/Hour		\$0.00	10		
Operator Cost/Hour	r:	\$41.55	NA		
	72,536				
	000 7 2,536 LCY				
Source of estimated vo	lume: Tab	le A-4.3			
Source of estimated vo		Handbook			
HOURLY PRODU	CHON				
		-			
Average push distance:					
Unadjusted hourly prod	duction: 622.2	LCY/hr			
Unadjusted hourly proc Materials consistency of	duction: <u>622.2</u> lescription: <u>C</u>		mbankment 0.9		
Unadjusted hourly prod	duction: <u>622.2</u> lescription: <u>C</u>	LCY/hr	mbankment 0.9		
Unadjusted hourly proc Materials consistency of Average push gradient:	duction: 622.2 description: _C : -20 %	LCY/hr ompacted fill or e	mbankment 0.9		
Unadjusted hourly proc Materials consistency of Average push gradients Average site altitude:	duction: 622.2 description: _C : -20 % 7,400 feet	LCY/hr	mbankment 0.9		
Unadjusted hourly proc Materials consistency of Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correcti	duction: 622.2 description: C : -20 % 7,400 feet 2,475 lbs/LC User Provide on Factor	LCY/hr	Source		
Unadjusted hourly proc Materials consistency of Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correcti Operato	duction: <u>622.2</u> description: <u>C</u> : <u>-20 %</u> <u>7,400 feet</u> <u>2,475 lbs/LC</u> <u>User Provide</u> <u>on Factor</u> or Skill:	LCY/hr ompacted fill or e Y Y od 0.750	Source (AVG.)		
Unadjusted hourly proc Materials consistency of Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correcti Operato Material consi	duction: <u>622.2</u> description: <u>C</u> : <u>-20 %</u> <u>7,400 feet</u> <u>2,475 lbs/LC</u> <u>User Provide</u> <u>on Factor</u> or Skill: <u></u> istency: <u></u>	LCY/hr compacted fill or e Y Y ed 0.750 0.900	Source (AVG.) (CAT HB))		
Unadjusted hourly proc Materials consistency of Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correcti Operato Material const Dozing r	duction: <u>622.2</u> description: <u>C</u> : <u>-20 %</u> <u>7,400 feet</u> <u>2,475 lbs/LC</u> <u>User Provide</u> <u>on Factor</u> or Skill: <u></u> istency: <u></u>	LCY/hr ompacted fill or e Y Y od 0.750	Source (AVG.)		

Job efficiency:	0.790	(3 SHIFTS/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.426	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.929	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.6782	
Adjusted unit production: 42	21.98 LCY/hr	
Adjusted fleet production: 16	587.92 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$1.355/LCY

Total job time:	339.20 Hours
Total job cost:	\$775,880

Task description:	Regra	de L Pit X-se	0.401,700			
Trapper Mine		Permit	Action:	PR11	Permit/Job#:	C1981010
PROJECT IDEN	<u> TIFICATIO</u>	N				
Task #: L12		State: 0	Colorado		Abbreviation:	None
Date: $\frac{11/30/2}{11/30/2}$	2022		Moffat		Filename:	L12
User: ZTT			lonat		<u> </u>	
Agency or o	organization n	ame: DRM	S			
HOURLY EQUIP	MENT CO	<u>ST</u>				
Basic Machine:	Cat D11T - 1	1U				
Horsepower:	850					
Blade Type:	Universal					
Attachment:	NA					
Shift Basis:	3 per day					
Data Source:	(CRG)					
Cost Breakdown:						
				Utilization %		
Ownership Cost/Ho			\$257.09	NA		
Operating Cost/Ho			\$273.21	100		
Ripper own. Cost/Ho			\$0.00	NA		
	our:		\$0.00	10		
Ripper op. Cost/Ho						
Operator Cost/Ho Total unit Cost/Hour Total Fleet Cost/Hou	sur: \$571.8: r: \$2,287 .		\$41.55	NA		
Operator Cost/Ho Total unit Cost/Hour Total Fleet Cost/Hou MATERIAL QUA	our: \$571.8: r: \$2,287 ANTITIES		\$41.55	NA		
Operator Cost/Ho Total unit Cost/Hou Total Fleet Cost/Hou <u>MATERIAL QUA</u> Initial Volume:	our: \$571.8: r: \$2,287 NTITIES 173,389		\$41.55	NA		
Operator Cost/Ho Total unit Cost/Hou Total Fleet Cost/Hou <u>MATERIAL QUA</u> Initial Volume: Swell factor:	our: \$571.8: r: \$2,287 NTITIES 173,389 1.000		\$41.55	NA		
Operator Cost/Ho Total unit Cost/Hou Total Fleet Cost/Hou <u>MATERIAL QUA</u> Initial Volume: Swell factor:	our: \$571.8: r: \$2,287 NTITIES 173,389		\$41.55	NA		
Operator Cost/Ho Total unit Cost/Hou Total Fleet Cost/Hou <u>MATERIAL QUA</u> Initial Volume: Swell factor: Loose volume:	sur: \$571.8: r: \$2,287. NTITIES 173,389 1.000 173,389 LCY volume: 1000	41 Table A-4.3		NA		
Operator Cost/Ho Total unit Cost/Hou Total Fleet Cost/Hou <u>MATERIAL QUA</u> Initial Volume: Swell factor: Loose volume:	sur: \$571.8: r: \$2,287. NTITIES 173,389 1.000 173,389 LCY volume: 1000	41		NA		
Operator Cost/Hour Total unit Cost/Hour Total Fleet Cost/Hour MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated v Source of estimated v	\$571.8: r: \$2,287. NTITIES 173,389 1.000 173,389 LCY volume: well factor:	41 Table A-4.3		NA		
Operator Cost/Ho Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated y Source of estimated y	wur: \$571.8; r: \$2,287; ANTITIES 173,389 1.000 173,389 LCY volume: well factor: UCTION	41 Table A-4.3 Cat Handbo		NA		
Operator Cost/Hou Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated v Source of estimated v Source of estimated s	wur: \$571.8: r: \$2,287. ANTITIES 173,389 1.000 173,389 LCY volume: well factor: UCTION ce: 2	41 Table A-4.3 Cat Handbo	ok	NA		
Operator Cost/Ho Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated y Source of estimated y	wur: \$571.8: r: \$2,287. ANTITIES 173,389 1.000 173,389 LCY volume: well factor: UCTION ce: 2	41 Table A-4.3 Cat Handbo	ok	NA		
Operator Cost/Hou Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated v Source of estimated v Source of estimated s	wur: \$571.8: r: \$2,287. NTITIES \$173,389 1.000 173,389 1.000 \$173,389 LCY well factor: well factor: \$2,287. UCTION \$2,287. well factor: \$2,287.	41 Table A-4.3 Cat Handbo 450 feet 725.7 LCY/hr	ok	 		
Operator Cost/Hor Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated v Source of estimated s HOURLY PRODI Average push distance Unadjusted hourly pr	wur: \$571.8: r: \$2,287. ANTITIES 173,389 1.000 173,389 LCY volume: well factor: WCTION ee: 2 oduction: 2 v description: nt: -20 %	41 Table A-4.3 Cat Handbo 450 feet 725.7 LCY/hr Compacte	ok			
Operator Cost/Hor Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated v Source of estimated s HOURLY PRODU Average push distance Unadjusted hourly pr Materials consistency	\$ wur: \$571.8; $$$ x mail for the second state st	41 Table A-4.3 Cat Handbo 450 feet 725.7 LCY/hr Compacte	ok			
Operator Cost/Ho Total unit Cost/Hour Total Fleet Cost/Hour MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated v Source of estimated v Source of estimated s HOURLY PRODI Average push distance Unadjusted hourly pr Materials consistency Average push gradier Average site altitude:	\$ wur: \$571.8; $$$ x mail for the second state st	41 Table A-4.3 Cat Handbo 450 feet 725.7 LCY/hr Compacte eet bs/LCY	ok			
Operator Cost/Ho Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated v Source of estimated v Source of estimated v Source of estimated s HOURLY PRODU Average push distance Unadjusted hourly pr Materials consistency Average push gradier Average site altitude: Material weight: Weight description: Job Condition Correct	\$571.8 r: \$2,287. ANTITIES 173,389 1000 173,389 1000 173,389 LCY volume: swell factor: UCTION ee: 4 oduction: 7 v description: nt: -20 % 7,400 f 2,475 l' User Prestion Factor	41 Table A-4.3 Cat Handbo 450 feet 725.7 LCY/hr Compacte eet bs/LCY rovided	ok ed fill or en			
Operator Cost/Hor Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated v Source of estima	wur: \$571.8; r: \$2,287. ANTITIES 173,389 173,389 1.000 173,389 LCY volume:	41 Table A-4.3 Cat Handbo 450 feet 725.7 LCY/hr Compacte eet bs/LCY rovided 0.75	ok ed fill or en - - 0			
Operator Cost/Hor Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated v Source of estimated v Source of estimated s HOURLY PRODU Average push distance Unadjusted hourly pr Materials consistency Average push gradier Average site altitude: Material weight: Weight description: Job Condition Correct Opera Material con	\$ $$$	41 Table A-4.3 Cat Handbo 450 feet 725.7 LCY/hr Compacte eet bs/LCY :ovided 0.75 0.90	ok ed fill or en 			
Operator Cost/Hor Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated v Source of estimate	wur: \$571.8; r: \$2,287. ANTITIES 173,389 173,389 1.000 173,389 LCY volume:	41 Table A-4.3 Cat Handbo 450 feet 725.7 LCY/hr Compacte eet bs/LCY rovided 0.75	ok ed fill or en 			

Job efficiency	y: 0.790	(3 SHIFTS/DAY)
Spoil pil	e: 1.000	(DOZ-OC)
Push gradien	nt: 1.426	(CAT HB)
Altitud	e: 1.000	(CAT HB)
Material Weigh	it: 0.929	(CAT HB)
Blade typ	e: 1.000	(PAT)
Net correction	n:0.6782	
Adjusted unit production:	492.17 LCY/hr	
Adjusted fleet production:	1968.68 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$1.162/LCY

Total job time:	88.07 Hours
Total job cost:	\$201,461

Task description:	Regrade L Pit X-	·Sec. 401,200)		
: Trapper Mine	Perr	nit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENTI	FICATION				
Task #: L13	State:	Colorado		Abbreviation:	None
Date: $\frac{11/30}{202}$		Moffat		Filename:	C010-L13
User: ZTT			_		
Agency or org	anization name: DR	MS			
HOURLY EQUIPM	ENT COST				
Basic Machine: C	at D11T - 11U				
	50				
	niversal				
Attachment: N					
	per day				
Data Source: (C	CRG)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:		\$257.09	NA		
Operating Cost/Hour:		\$273.21	100		
Ripper own. Cost/Hour:		\$0.00	NA		
Ripper op. Cost/Hour:		\$0.00	10		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL OUAN	\$571.85 \$2,287.41	\$41.55	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 27: Swell factor: 1.0	\$571.85 \$2,287.41 TITIES 3,425 00	\$41.55	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 27: Swell factor: 1.0	\$571.85 \$2,287.41 TITIES 3,425	\$41.55	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 273 Swell factor: 1.0 Loose volume: 273	\$571.85 \$2,287.41 TITIES 3,425 000 3,425 LCY				
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 27: Swell factor: 1.0	\$571.85 \$2,287.41 TITIES 3,425 00 3,425 LCY ume:Table A-4	 			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 273 Swell factor: 1.0 Loose volume: 273 Source of estimated voltage 273	\$571.85 \$2,287.41 TITIES 3,425 00 3,425 LCY ume: Table A-4	 			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 273 Swell factor: 1.0 Loose volume: 273 Source of estimated voltage 273	\$571.85 \$2,287.41 TITIES 3,425 00 3,425 LCY ume: Table A-4 ell factor: Cat Handl	 			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 27. Swell factor: 1.0 Loose volume: 27. Source of estimated vol Source of estimated sweet HOURLY PRODUCE 10	\$571.85 \$2,287.41 TITIES 3,425 00 3,425 LCY ume: Table A-4 ell factor: Cat Handle CTION	 			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 273 Swell factor: 1.0 Loose volume: 273 Source of estimated volto Source of estimated sweet	\$571.85 \$2,287.41 TITIES 3,425 00 3,425 LCY ume: Table A-4 ell factor: Cat Handl CTION 205 feet				
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 27. Swell factor: 1.0 Loose volume: 27. Source of estimated vol Source of estimated vol Source of estimated sweet HOURLY PRODUCE Average push distance: 1	\$571.85 \$2,287.41 TITIES 3,425 00 3,425 LCY ume: Table A-4 cat Handle CTION 205 feet uction: 1,529.1 LCY	L.5 book	 		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 27. Swell factor: 1.0 Loose volume: 27. Source of estimated volt 27. Source of estimated volt Source of estimated sweet HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency detection	\$571.85 \$2,287.41 TITIES 3,425 00 3,425 LCY ume: Table A-4 ell factor: Cat Handle CTION uction: 205 feet 1,529.1 LCY escription: Compare	L.5 book			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 273 Swell factor: 1.0 Loose volume: 273 Source of estimated volto 274 Source of estimated volto 300 MOURLY PRODUC Average push distance: Unadjusted hourly prod	\$571.85 \$2,287.41 TITIES 3,425 00 3,425 LCY ume: Table A-4 cat Handle CTION 205 feet uction: 1,529.1 LCY	L.5 book			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 273 Swell factor: 1.0 Loose volume: 273 Source of estimated volto 273 Source of estimated volto 300 HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency de Average push gradient: 300	\$571.85 \$2,287.41 TITIES 3,425 00 3,425 LCY ume: Table A-4 ell factor: Cat Handle CTION uction: 205 feet 1,529.1 LCY escription: Compare -25 %	L.5 book			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 27. Swell factor: 1.0 Loose volume: 27. Source of estimated vol 27. Source of estimated vol 27. Source of estimated vol 27. MATERIAL QUAN 27. Materials consistency de 27. Materials consistency de 27. Average push distance: 27. Materials consistency de 27. Materials consistency de 27. Materials consistency de 27.	\$571.85 \$2,287.41 TITIES 3,425 00 3,425 LCY ume: Table A-4 Cat Handle CTION uction: 205 feet 1,529.1 LCY escription: Compare -25 % 7,500 feet	L.5 book			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 27. Swell factor: 1.0 Loose volume: 27. Source of estimated vol Source of estimated vol Source of estimated swell HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency de Average site altitude: Material weight: Weight description: Job Condition Correction Source constant	\$571.85 \$2,287.41 TITIES 3,425 00 3,425 00 3,425 00 3,425 00 3,425 00 3,425 00 3,425 00 3,425 00 3,425 LCY ume: Table A-4 Cat Handle CTION uction: 205 feet 1,529.1 LCY escription: Compace -25 % 7,500 feet 2,475 lbs/LCY User Provided on Factor State	Y/hr cted fill or en			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 27. Swell factor: 1.0 Loose volume: 27. Source of estimated vol Source of estimated vol Source of estimated swell HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Operator					
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 27. Swell factor: 1.0 Loose volume: 27. Source of estimated volto Source of estimated volto Source of estimated volto Source of estimated swell HOURLY PRODUCE Average push distance: Unadjusted hourly prod Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operato Material consist Operato	\$571.85 \$2,287.41 TITIES $3,425$ 00 $3,425$ 00 $3,425$ 00 $3,425$ 00 $3,425$ ume: Table A-4 cat Handle CTION uction: 205 feet 1,529.1 LCY escription: Compare -25% 7,500 feet 2,475 lbs/LCY User Provided on Factor 0.' r Skill: 0.' stency: 0.'				
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 27. Swell factor: 1.0 Loose volume: 27. Source of estimated volt Source of estimated sweet HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consistency de Dozing m	\$571.85 \$2,287.41 TITIES $3,425$ 000 $3,425$ 000 $3,425$ 000 $3,425$ 000 $3,425$ 000 $3,425$ 000 $3,425$ 000 $3,425$ 000 $3,425$ 000 $3,425$ 000 $3,425$ 000 $3,425$ 000 $3,425$ 000 0.5				

Job efficiency:	0.790	(3 SHIFTS/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.516	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.929	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.7210	
Adjusted unit production: 1	,102.48 LCY/hr	
Adjusted fleet production: 4	409.92 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$0.519/LCY

Total job time:	62.00 Hours
Total job cost:	\$141,825

Task description:	Regrade L Pit X-secs:400,700 and 400,200					
Trapper Mine	Per	mit Action:	PR11	Permit/Job#:	C1981010	
PROJECT IDENTIE	FICATION					
Task #: L14	State:	Colorado		Abbreviation:	None	
Date: $\frac{11/30}{202}$		Moffat		Filename:	L14	
User: ZTT						
Agency or orga	anization name:	RMS				
HOURLY EQUIPM	<u>ENT COST</u>					
	at D11T - 11U					
Horsepower: 85	niversal					
Blade Type: Un Attachment: NA						
	per day					
	RG)					
Cost Breakdown:		1				
		4057 00	<u>Utilization %</u>			
Ownership Cost/Hour:		\$257.09	NA 100			
Operating Cost/Hour:		\$273.21	100			
Ripper own. Cost/Hour: Ripper op. Cost/Hour:		\$0.00 \$0.00	<u>NA</u> 10			
Kipper op. Cost/nour.						
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour:	\$571.85 \$2,287.41	\$41.55	NA			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN	\$2,287.41 <u>FITIES</u>	\$41.55	NA			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: 271 Swell factor: 1.00	\$2,287.41 FITIES ,815	\$41.55	NA			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: 271 Swell factor: 1.00 Loose volume: 271	\$2,287.41 FITIES ,815 00 ,815 LCY		NA			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN'</u> Initial Volume: 271 Swell factor: 1.00 Loose volume: 271 Source of estimated volu	\$2,287.41 FITIES ,815 00 ,815 LCY Ime:Table A-4	 4.3				
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: 271 Swell factor: 1.00 Loose volume: 271	\$2,287.41 FITIES ,815 00 ,815 LCY Ime:Table A-4	 4.3	NA			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: 271 Swell factor: 1.00 Loose volume: 271 Source of estimated volu Source of estimated swe	\$2,287.41 <u>FITIES</u> ,815 00 ,815 LCY Ime: <u>Table A-4</u> Il factor: <u>Cat Hand</u>	 4.3				
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 271 Swell factor: 1.00 Loose volume: 271 Source of estimated volu Source of estimated swe HOURLY PRODUC	\$2,287.41 <u>FITIES</u> ,815 00 ,815 LCY Ime: Table A4 Il factor: Cat Hand <u>TION</u>	 4.3				
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: 271 Swell factor: 1.00 Loose volume: 271 Source of estimated volu Source of estimated volu Source of estimated swe <u>HOURLY PRODUC</u> Average push distance:	\$2,287.41 <u>FITIES</u> ,815 00 ,815 LCY ume: Table A-4 Il factor: Cat Hand <u>TION</u> 150 feet	4.3 Ibook				
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 271 Swell factor: 1.00 Loose volume: 271 Source of estimated volu Source of estimated swe HOURLY PRODUC	\$2,287.41 <u>FITIES</u> ,815 00 ,815 LCY ume: Table A-4 Il factor: Cat Hand <u>TION</u> 150 feet	4.3 Ibook				
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: 271 Swell factor: 1.00 Loose volume: 271 Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ	\$2,287.41 FITHES ,815 00 ,815 LCY ime: Table A-4 Il factor: Cat Hand TION inction: 2,036.8 LC	4.3 book Y/hr				
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: 271 Swell factor: 1.00 Loose volume: 271 Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient:	\$2,287.41 FITHES ,815 00 ,815 LCY ime: Table A-4 Il factor: Cat Hand TION inction: 2,036.8 LC	4.3 book Y/hr				
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: 271 Swell factor: 1.00 Loose volume: 271 Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude:	\$2,287.41 FITIES ,815 00 ,815 LCY ime: Table A4 Il factor: Cat Hand TION iction: 150 feet iction: 2,036.8 LC escription: Compa -30 %	4.3 book Y/hr				
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: 271 Swell factor: 1.00 Loose volume: 271 Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude:	\$2,287.41 FITIES ,815 00 ,815 00 ,815 00 ,815 00 ,815 00 ,815 00 ,815 D0 ,815 LCY Ime: Table A-4 If factor: Cat Hand TION action: 2,036.8 LC escription: Compa -30 % 7,550 feet	4.3 book Y/hr				
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 271 Swell factor: 1.00 Loose volume: 271 Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description:	\$2,287.41 FITIES ,815 00 ,815 00 ,815 00 ,815 00 ,815 00 ,815 00 ,815 00 ,815 DO ,815 LCY Ime: Table A-4 Cat Hand TION action: 2,036.8 LC escription: Compa -30 % 7,550 feet 2,475 lbs/LCY User Provided	4.3 book Y/hr	 mbankment 0.9			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 271 Swell factor: 1.00 Loose volume: 271 Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correctio	\$2,287.41 FITIES ,815 00 ,815 00 ,815 00 ,815 00 ,815 00 ,815 00 ,815 00 ,815 DO ,815 LCY ume: Table A-4 Cat Hand TION action: 2,036.8 LC escription: Compa -30 % 7,550 feet 2,475 lbs/LCY User Provided n Factor	4.3 Hook Y/hr icted fill or en				
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: 271 Swell factor: 1.00 Loose volume: 271 Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator	\$2,287.41 FITIES ,815 00 ,815 00 ,815 00 ,815 00 ,815 00 ,815 00 ,815 00 ,815 00 ,815 DO ,815 LCY ume: 150 Cat Hand TION action: 150 feet 2,036.8 LC escription: Compa -30 % 7,550 feet 2,475 lbs/LCY User Provided n Factor Skill: 0.	 4.3 lbook Y/hr .cted fill or en 				
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 271 Swell factor: 1.00 Loose volume: 271 Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correctio	\$2,287.41 FITIES ,815 00 ,815 00 ,815 00 ,815 00 ,815 00 ,815 00 ,815 00 ,815 D0 ,815 LCY une: Table A-4 TION action: 20 feet 2,036.8 LC escription: Compa -30 %	4.3 Hook Y/hr icted fill or en				

Job efficienc	y: 0.790	(3 SHIFTS/DAY)
Spoil pil	e: 1.000	(DOZ-OC)
Push gradier	nt: 1.601	(CAT HB)
Altitud	e: 0.930	(CAT HB)
Material Weigh	nt: 0.929	(CAT HB)
Blade typ	e: 1.000	(PAT)
Net correctio	n: 0.7081	
Adjusted unit production:	1,442.26 LCY/hr	
Adjusted fleet production:	5769.04 LCY/hr	

Fleet size:	4 Dozer(s)
Unit cost:	\$0.396/LCY

Total job time:	47.12 Hours
Total job cost:	\$107,774

TRUCK/LOADER TEAM WORK

Site: Trapper Mine		Permit Action: PR11 Permit/Job#: C19							
PROJECT IDENTask #:L15Date:11/30User:ZTT		I State: Colorado County: Moffat			Abbreviation: None Filename: C010-L15				
Agency or	organization nar	ne: DRMS							
HOURLY EQUIPMENT COST Shift basis: <u>1 per day</u>									
			Equipment Descri	ption					
J	Truck Loader Tea		MATSU 830E T 6090						
Supp	ort Equipment -L		D10T - 10SU						
			D10T - 10SU						
Road M	aintenance – Mot		T 16M ter Tanker, 14,000) Gal					
		der Huek. Wa	ter Tunker, 14,000	, Oui.					
Cost Breakdown:	Truck/Los	ader Team	Support l	Equipment		ce Equipment			
	Truck	Shovel	Load Area	Dump Area	Motor Grader	Water Truck			
%Utilization-machine:	100	100	25	25	25	50			
Ownership cost/hour:	\$179.05	\$23.07	\$153.67	\$153.67	\$163.86	\$105.66			
Operating cost/hour:	\$247.93	\$930.15	\$41.74	\$41.74	\$27.47	\$76.75			
%Utilization-riper:	NA	0	15	NA	NA	NA			
Ripper own. cost/hour:	NA	\$0.00	\$24.69	\$0.00	\$0.00	\$0.00			
Ripper op. cost/hour:	NA	\$0.00	\$1.81	\$0.00	\$0.00	\$0.00			
Operator cost/hour:	\$34.42	\$37.32	\$41.30	\$41.30	\$28.56	\$0.00			
Unit Subtotals:	\$461.40	\$990.54	\$238.52	\$236.71	\$219.88	\$182.41			
Number of Units:	3	1	1	1	1	1			
Group Subtotals:	Work:	\$2,374.74	Support:	\$475.23	Maint:	\$402.29			
Total work team cos MATERIAL QU		26							
Initial volume Loose volume		ССҮ 275 LCY		factor: <u>1.000</u>					
	urce of estimated of estimated swe Material Purch To	ell factor: Cat H		ible A-3.1					
HOURLY PRO	DUCTION								
<u>Truck Capacity:</u> <u>Truck Payload (wei</u> Matarial y			Dounds/I CV						
Material v Descr		posed rock - 75%	Pounds/LCY Rock, 25% Earth						
Rated Pa	yload: 492,20	*	Pounds	-					
Payload Capacity: 149.15 LCY									

Struck Volume: Heaped Volume: Average Volume:	153.00	LCY				
		LUI				
Average Volume:	192.00	LCY				
	172.50	LCY				
Adjusted Volume:	149.15	LCY				
Final	Truck Volume	Based on Number of	of Loader Passes:	129.58	LCY	
Loading Tool Capacity						
Louding roor cupucity			Buck	tet Size Class: N	JA	
Data d Cara aitan	59,000	LCV (heared)		et Size Class	NA	_
Rated Capacity:	58.900 1.100	LCY (heaped) Other - rock/di		-120%) 1.100		-
Adjusted Capacity:	64.790	LCY	In Inixtures (100-	-120%) 1.100		-
Aujusicu Capacity.	04.770					
Job Condition Corrections:	_	S	Site Altitude (ft.): <u>6</u>	400 feet		
	Truck	Loader	Source			
Altitude Adj:	1.000	1.000	(CAT HB)		
Job Efficiency:	0.830	0.830	(CAT HB			
~			· · · · ·	,		
Net Correction:	0.830	0.830				
Loading Tool Cycle Time:	Number	of Loading Tool Pa	asses Required to I	Fill Truck:	2	asses
Excavators and Front Shovel	s:					
Excavators and Front Shovel						
Machine Cycle Time vs	s. Job Condition		E AVERAGE			
Machine Cycle Time vs Selected Value w	s. Job Condition within this Basic	c Rating: AVER				
Machine Cycle Time vs	s. Job Condition within this Basic	c Rating: AVER				
Machine Cycle Time vs Selected Value w	s. Job Condition within this Basic	c Rating: AVER				
Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.):	s. Job Condition vithin this Basio Material Descri	c Rating: AVERA		0.100	0	
Machine Cycle Time vs Selected Value w Track Loaders – I	s. Job Condition vithin this Basio Material Descri	c Rating: AVER		 Dump:0.100	0	
Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: <u>NA</u>	s. Job Condition vithin this Basic Material Descri	c Rating: AVERA	AGE	·		ites
Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: <u>NA</u> Wheel and Track Loaders -	s. Job Condition vithin this Basic Material Descri	c Rating: AVERA	AGE	naneuver):	NA min	Ites
Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: <u>NA</u> Wheel and Track Loaders - Cycle Time Factors	s. Job Condition vithin this Basic Material Descri M – Unadjusted Ba	c Rating: AVERA	AGE	naneuver): Factor (min.)	NA min Source	ites
Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: <u>NA</u> Wheel and Track Loaders - <u>Cycle Time Factors</u> Material:	s. Job Condition vithin this Basic Material Descri — M — Unadjusted Ba — NA	c Rating: AVERA	AGE	naneuver): Factor (min.) NA	NA mine Source (Cat HB)	ites
Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile:	s. Job Condition vithin this Basic Material Descri — M — Unadjusted Ba — NA _ NA	c Rating: AVERA	AGE	naneuver): Factor (min.) NA NA	NA minu Source (Cat HB) (Cat HB)	ites
Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership:	s. Job Condition vithin this Basic Material Descri Unadjusted Ba NA NA NA	c Rating: AVERA	AGE	naneuver): Factor (min.) NA NA NA NA	NA minute Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	ites
Machine Cycle Time vs Selected Value w Track Loaders – 1 Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	s. Job Condition vithin this Basic Material Descri Unadjusted Ba NA NA NA NA	c Rating: AVERA	AGE	naneuver): Factor (min.) NA NA NA NA NA	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	Ites
Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership:	s. Job Condition vithin this Basic Material Descri Unadjusted Ba NA NA NA	c Rating: <u>AVER</u> iption: laneuver: <u>NA</u> sic Loader Cycle Ti	AGE ime (load, dump, n	naneuver): Factor (min.) NA NA NA NA NA NA NA	NAminSource(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)	ites
Machine Cycle Time vs Selected Value w Track Loaders – 1 Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	s. Job Condition vithin this Basic Material Descri Unadjusted Ba NA NA NA NA	c Rating: AVERA	AGE ime (load, dump, n me Adjustment:	naneuver): Factor (min.) NA NA NA NA NA	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	ites
Machine Cycle Time vs Selected Value w Track Loaders – 1 Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	s. Job Condition vithin this Basic Material Descri Unadjusted Ba NA NA NA NA	c Rating: AVERA	AGE ime (load, dump, n	naneuver): Factor (min.) NA NA NA NA NA NA NA	NA minutes Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	ites
Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	s. Job Condition vithin this Basic Material Descri Unadjusted Ba NA NA NA NA	c Rating: AVERA	AGE ime (load, dump, n me Adjustment: der Cycle Time:	naneuver): Factor (min.) NA NA NA NA NA NA O.498	NA minutes Source (Cat HB) (Cat HB) (Cat HB)	Ites
Machine Cycle Time vs Selected Value w Track Loaders – 1 Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	s. Job Condition vithin this Basic Material Descri Unadjusted Ba NA NA NA NA	c Rating: AVERA	AGE ime (load, dump, n me Adjustment: der Cycle Time:	naneuver): Factor (min.) NA NA NA NA NA NA O.498	NA minutes Source (Cat HB) (Cat HB) (Cat HB)	Ites
Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	s. Job Condition vithin this Basic Material Descri M Unadjusted Ba NA NA NA NA NA NA	c Rating: AVERA	AGE ime (load, dump, n me Adjustment: der Cycle Time: Time per Truck:	naneuver): Factor (min.) NA NA NA NA NA NA O.498	NA minutes Source (Cat HB) (Cat HB) (Cat HB)	
Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	s. Job Condition vithin this Basic Material Descri M Unadjusted Ba NA NA NA NA NA NA NA 	c Rating: AVERA iption: laneuver: NA usic Loader Cycle Ti sic Loader Cycle Ti Adjusted Load Net Load T	AGE ime (load, dump, n me Adjustment: der Cycle Time: Time per Truck:	naneuver): Factor (min.) NA NA NA NA NA 0.498 0.996	NA minutes Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	
Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Exchange Time:	s. Job Condition vithin this Basic Material Descri 	c Rating: AVERA	AGE ime (load, dump, n me Adjustment: der Cycle Time: Time per Truck: Adjusted Adjusted	haneuver): Factor (min.) NA NA NA NA NA 0.498 0.996	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes 0.800	ntes

Haul Rou			~				TT 1	
Seg #		Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel Time	
	(Ft)			(%)	(%)	(fpm)	(min)	
1	1841.	00	-8.00	3.00	-5.00	1870	1.139	
					Haul Time:	1.139	minutes	
Return Re							T 1	
Seg #		Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel Time	
	(Ft)			(%)	(%)	(fpm)	(min)	
1	1502.	00	8.00	3.00	11.00	1734	1.269	
					Return Time:	1.269	minutes	
				Total Tru	ck Cycle Time:	5.404	minutes	
Loading Too	ol unit							
Ų	uction	4,328.95	LCY/Hour		Adjusted for j	ob efficiency:	3,593.03	LCY/Hour
Truck Unit Produ	uction							
	=	1,438.71	LCY/Hour		Adjusted for j	ob efficiency:	1,194.13	LCY/Hour
Optimal No. of T	rucks:	3	Truck(s)		Selected Num	ber of Trucks:	3	Truck(s)
			Adjuste	ed hourly true	k team production	on: 3,582	2.39 LCY/	Hour
			Adjusted sing	le truck/loade	er team production	on: 3,582	2.39 LCY/	Hour
			Adjusted multip	le truck/loade	er team production	on: 3,58 2	2.39 LCY/	Hour
JOB TI	ME AN	D COST						
		<u>1 0001</u>	T ()	-	n	450.0		
Fleet	size:	1	Team(s)	· _	Fotal job time:	459.8	ВЗ Нот	urs
Unit	cost:	\$0.908	/LCY	,	Total job cost:	\$1,495,	471	
REVEGETATION WORK

Task descri	ption:	Seed L Pit: Rangeland with	Shrubs		
te: Trapper	Mine	Permit Action:	PR11	Permit/Job	#: <u>C1981010</u>
PROJECT	IDENTIFIC	CATION			
Task #:	L16	State: Colorado		Abbreviation:	None
Date:	11/30/2022	County: Moffat		Filename:	C010-L16
User:	ZTT				

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
Arrowleaf Balsamroot	0.40	0.50	\$28.08
Beardless Wheatgrass - Whitmar	0.31	1.01	\$3.63
Bitterbrush, Antelope	4.40	1.35	\$85.80
Mountain Brome - Bromar	0.72	1.16	\$2.74
Great Basin Wildrye - Magnar	0.92	3.74	\$10.63
Kentucky Bluegrass - Ginger	0.06	2.96	\$0.19
Alfalfa - Ladak (inoculated)	0.10	0.48	\$0.26
Chokecherry	3.00	0.21	\$87.00
Burnett, Small (or Little) - Delar	0.40	0.51	\$1.00

Sheep Fescue - Covar	0.15	2.34	\$0.92
Milk Vetch, Cicer - Lutana	0.30	1.00	\$2.46
Slender Wheatgrass - San Luis	0.28	1.02	\$1.19
Streambank Wheatgrass - Sodar	0.26	0.85	\$1.48
Thickspike Wheatgrass - Critana	0.28	0.99	\$1.93
Western Wheatgrass - Arriba	0.38	0.96	\$2.47
Rabbitbrush, Rubber	0.26	3.87	\$16.72
Needlegrass, Green - Lodorm	0.24	1.00	\$2.83
Rose, Wood's	0.96	0.00	\$19.68
Sagebrush, Mountain or Big	0.07	3.70	\$1.38
Flax, Lewis Blue	0.30	1.99	\$4.95
Red Top	0.02	2.29	\$0.16
Sagebrush, Silver	0.10	1.94	\$3.10
Saltbush, Four Wing	0.62	0.85	\$7.75
Serviceberry	0.29	0.53	\$17.84
Snowberry, Mountain	0.58	1.00	\$29.29
Penstemon, Rocky Mountain	0.14	2.19	\$4.13
Yarrow, Western	0.07	4.26	\$2.93
Globemallow, Munro	0.08	0.91	\$7.00
Aster, Pacific	0.02	0.35	\$2.39
Goldeneye - Showy	0.08	0.92	\$4.80
· · ·			
Totals Seed Mix	15.79	44.87	\$354.70

Application

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

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

¢	
<u>ې</u>	
Application Cost/Acra	
ŀ	Application Cost/Acre \$0.00

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
		Totals	Nursery Stoc	k Cost / Acre	\$0.00

JOB TIME AND COST

Job Hours: 804.00

	No. of Acres:	803.9		Cost /Acre:	\$586.70
Estimate	ed Failure Rate:	17.5%		Cost /Acre*:	\$586.70
*Selected Replanti	ng Work Items:	TILLING,SEED	DING		
Initial Job Cost:	\$471,648.13				
Reseeding Job Cost:	\$82,538.42				
Total Job Cost:	\$554,187				

Task # L17

Page 1 of 2

BULLDOZER WORK

Fask description:	Regrate LTR 1	North Haur I	oad.6.5 ac X 9 ft th.		
Trapper Mine	Per	mit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDENTIF	ICATION				
Task #: L17	State:	Colorado		Abbreviation:	None
Date: 11/30/2022		Moffat		Filename:	C010-L17
User: ZTT					
Agency or orga	nization name: D	RMS			
HOURLY EQUIPMI	ENT COST				
	t D11T - 11U				
Horsepower: 850					
	iversal				
Attachment: NA					
	ber day				
Data Source: (C	RG)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:		\$257.09	NA		
Operating Cost/Hour:		\$273.21	100		
Ripper own. Cost/Hour:		\$0.00	NA		
Ripper op. Cost/Hour:		\$0.00	10		
Operator Cost/Hour:		\$41.30	NA		
Fotal unit Cost/Hour: Fotal Fleet Cost/Hour: MATERIAL QUAN	\$571.60 \$1,143.20				
	\$1,143.20 FITIES 772				
Fotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 94,7 Swell factor: 1.15	\$1,143.20 FITIES 772				
Fotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 94,7 Swell factor: 1.15	\$1,143.20 FITIES 772 50 588 LCY				
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 94,7 Swell factor: 1.15 Loose volume: 108	\$1,143.20 <u>FITIES</u> 772 50 ,988 LCY me:Map M9				
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 94,7 Swell factor: 1.15 Loose volume: 108 Source of estimated volu Source of estimated swel	\$1,143.20 <u>FITIES</u> 772 50 ,988 LCY me: <u>Map M9</u> Il factor: <u>Cat Hanc</u>				
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 94,7 Swell factor: 1.15 Loose volume: 108 Source of estimated volu	\$1,143.20 <u>FITIES</u> 772 50 ,988 LCY me: <u>Map M9</u> Il factor: <u>Cat Hanc</u>				
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 94,7 Swell factor: 1.15 Loose volume: 108 Source of estimated volu Source of estimated swel HOURLY PRODUCC Average push distance:	\$1,143.20 EITIES 772 50 988 LCY me: Map M9 11 factor: Cat Hance TION 75 feet	lbook			
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 94,7 Swell factor: 1.15 Loose volume: 108 Source of estimated volu swel HOURLY PRODUCT 101	\$1,143.20 FITIES 772 50 988 LCY me: <u>Map M9</u> 11 factor: <u>Cat Hanc</u> TION 75 feet	lbook			
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 94,7 Swell factor: 1.15 Loose volume: 108 Source of estimated volu Source of estimated swel HOURLY PRODUCC Average push distance:	\$1,143.20 CITIES 772 50 ,988 LCY me: Map M9 Il factor: Cat Hance TION action: 3,584.2 LC	lbook Y/hr			
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 94,7 Swell factor: 1.15 Loose volume: 108 Source of estimated volu 94 Source of estimated swel 94 HOURLY PRODUC 108 Average push distance: 101 Unadjusted hourly produ 104 Materials consistency de 104	\$1,143.20 CITTIES 772 50 ,988 LCY me: Map M9 Il factor: Cat Hand TION action: 75 feet 3,584.2 LC scription: Compare	lbook Y/hr			
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 94,7 Swell factor: 1.15 Loose volume: 108 Source of estimated volu Source of estimated swel HOURLY PRODUCC Average push distance: Unadjusted hourly produ	\$1,143.20 CITIES 772 50 ,988 LCY me: Map M9 Il factor: Cat Hance TION action: 3,584.2 LC	lbook Y/hr			
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 94,7 Swell factor: 1.15 Loose volume: 108 Source of estimated volu Source of estimated swel HOURLY PRODUC' Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient:	\$1,143.20 FITIES 772 50 988 LCY me: <u>Map M9</u> 1 factor: <u>Cat Hanc</u> FION FION action: 75 feet 3,584.2 LC scription: <u>Compa</u> 5 %	lbook Y/hr			
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 94,7 Swell factor: 1.15 Loose volume: 108 Source of estimated volu Source of estimated swel HOURLY PRODUC' Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude:	\$1,143.20 FITIES 772 50 ,988 LCY Ime: Map M9 Il factor: Cat Hance TION action: 3,584.2 LCC scription: Compa 5 % 7,000 feet	lbook Y/hr			
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 94,7 Swell factor: 1.15 Loose volume: 108 Source of estimated volu 50 Source of estimated swell 94,7 HOURLY PRODUCC 108 Average push distance: 108 Unadjusted hourly produ 94,7 Materials consistency de 108 Average site altitude: 108 Material weight: 108	\$1,143.20 FITIES 772 50 ,988 LCY ime: Map M9 Il factor: Cat Hance TION action: 75 feet action: 3,584.2 LCC scription: Compa 5 % 7,000 feet 2,475 lbs/LCY User Provided	lbook Y/hr			
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 94,7 Swell factor: 1.15 Loose volume: 108 Source of estimated volu Source of estimated swel HOURLY PRODUCC Average push distance: Unadjusted hourly produce Materials consistency de Average site altitude: Material weight: Weight description: Iob Condition Correction Operator	\$1,143.20 FITIES 772 50 988 LCY me: Map M9 Il factor: Cat Hance TION action: 75 feet action: 3,584.2 LCC scription: Compa 5 % 7,000 feet 2,475 lbs/LCY User Provided 1 Factor 0	lbook Y/hr acted fill or en	 mbankment 0.9		
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 94,7 Swell factor: 1.15 Loose volume: 108 Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly product Materials consistency de Average site altitude: Material weight: Weight description: Iob Condition Correction Operator Material consist	\$1,143.20 ITTIES 772 50 ,988 LCY me: Map M9 Il factor: Cat Hand TION action: 75 feet action: 75 feet action: Compare 5 % 7,000 feet 2,475 lbs/LCY User Provided h Factor Skill: 0 tency: 0	lbook Y/hr acted fill or en			
Fotal Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 94,7 Swell factor: 1.15 Loose volume: 108 Source of estimated volu 50 Source of estimated swell 60 HOURLY PRODUC 60 Average push distance: 10 Unadjusted hourly produce 60 Average push gradient: 60 Average site altitude: 10 Material weight: 10 Weight description: 10 Iob Condition Correction 10 Operator 10 Material consist 10 Dozing me 10	\$1,143.20 ITTIES 772 50 ,988 LCY me: Map M9 Il factor: Cat Hand TION action: 75 feet action: 75 feet action: Compare 5 % 7,000 feet 2,475 lbs/LCY User Provided b Factor Skill: 0 tency: 0 0 ethod: 1 1	lbook Y/hr acted fill or en			

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.929	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.4700	
Adjusted unit production: 1	,684.57 LCY/hr	
Adjusted fleet production: 3		

JOB TIME AND COST

Fleet size:	2 Dozer(s)
Unit cost:	\$0.339/LCY

Total job time:	32.35 Hours
Total job cost:	\$36,981

SCRAPER TEAM WORK

Site: T	rapper Mine		Permit	t Action:	PR11	Perr	nit/Job#: <u>C1</u>	981010	
PR	OJECT IDENT	TIFICATION							
Т	ask #: <u>L18</u>			Colorado		Abbrev			
	Date: <u>11/30/2</u> User: ZTT	2022 Cou	inty: _]	Moffat		File	ename: <u>C01</u>	0-L18	
	Agency or o	organization name:	DRM	IS					
HO	URLY EQUIP	MENT			COSTSh	ift basis: <u>1 per da</u>	<u>iy</u>		
				Equipme	ent Description				
			craper: Dozer:	Cat 637 NA	'G w/push-pull				
	Suppo	- rt Equipment -Load		Cat D1	0T - 10SU				_
	D1 M_		Area:		0T - 10SU				_
	Koad Ma	intenance –Motor C -Water		CAT 10 Water 7	5M Fanker, 2,500 Gal.				_
									_
Cost	t Breakdown:	Scraper Wor Scraper	k Team Do:	zor	Support Equip Load Area	Dump Area	Maintenar Motor Grade		ipment Vater Tri
		-	D0.			•			
	ation-machine:	100		NA NA	\$152.67	\$152.67		50	¢1(
	rship cost/hour: ating cost/hour:	\$287.19 \$277.83		NA	\$153.67 \$83.47	\$153.67 \$83.47	\$163.8 \$54.9		\$10 \$12
-	lization-ripper:	\$277.85 NA		NA	\$03.47 NA	\$63.47 NA			Φ 12
	own. cost/hour:	NA		NA	\$0.00	\$0.00	\$0.0		\$(
	r op. cost/hour:	NA		NA	\$0.00	\$0.00	\$0.0		\$(
Ope	rator cost/hour:	\$30.90		NA	\$41.30	\$41.30	\$28.5	56	\$2
	Unit Subtotals:	\$595.92		NA	\$278.44	\$278.44	\$247.3	35	\$43
Nı	umber of Units:	8		0	1	1		1	
G	roup Subtotals:	Work:	\$4,76	57.36	Support:	\$556.88	Mair	nt:	\$290.95
	TERIAL QUA				2				
	Initial volume: Loose volume:	470,247 470,247		CCY LCY	Swell facto	or: <u>1.000</u>			
		rce of estimated vo of estimated swell f		A-9.1 Cat Hand	lbook				_
HO	URLY PROD	UCTION							
					Scraper Bo	wl (volume) Basi	<u>s:</u>		
	Material weight:	2,550 lbs/LCY	1		Struck V			LCY	
Mate	rial description: Rated Payload:	Earth - Dry packe 81,600 pounds	d		Heaped V Average V			LCY LCY	
	KAIPU PAVIDAD				Алегиое ч	volume. Jain		14 1	

<u>1.00</u> Minutes

<u>0.60</u> Minutes

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6400 feet

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	NA	(CAT HB)
Job Efficiency:	0.830	NA	(CAT HB)
Net Correction:	0.830	NA	

Travel 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	2334.00	4.20	2.00	6.20	1477	1.66

Haul Time: **1.66** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2334.00	-4.20	2.00	-2.20	2972	0.83
				Return Time:	0.83	minutes
			Total Scra	per team cycle time:	4.09	minutes
			Adjusted	for job conditions:	706.21	LCY/Hour
			Selected N	Number of Scrapers:	8	Scraper(s)
	Adjuste	d single scra	per team (unit)) hourly production:	2,824.84	LCY/Hour
	Adjusted n	nultiple scrap	per team (fleet)) hourly production:	2,824.84	LCY/Hour
Optim	Unadjusted unit pro al Number of Scrapers pe			LCY/Hour		
JOB T	IME AND COST					
Flee	t size: 1	Team(s)		Total job time:	166.47	Hours
Uni	t cost:\$1.988	/LCY		Total job cost:	\$934,752	

CIRCES Cost Estimating Software

Site: Trapper Mine		Permit Action	on: <u>PR11</u>		Permit/Job#: <u>C</u>	1981010
PROJECT IDEN Task #: L19 Date: 11/30/ User: ZTT		I State: <u>Colora</u> County: <u>Moffa</u>		Ab		one)10-L19
Agency or	organization nai	ne: DRMS				
HOURLY EQUI	PMENT COS	<u>Γ</u>		Shift bas	sis: <u>1 per day</u>	
		_	Equipment Descri			
Т	ruck Loader Tea		777F	-		
Supp	ort Equipment -I		385C L 18'-1" S D10T - 10SU	tick		
Supp			D10T - 10SU			
Road Ma	aintenance – Mot	or Grader: CA	Т 16М			
	-Wa	ater Truck: Wat	ter Tanker, 2,500	Gal.		
Cost Breakdown:	Truck/Lo	ader Team	Support	Equipment	Maintena	nce Equipment
<u>COSt Dicardown</u> .	Truck	Excavator	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	25	25	25	50
Ownership cost/hour:	\$156.75	\$195.53	\$153.67	\$153.67	\$163.86	\$10.28
Operating cost/hour:	\$130.73	\$195.55	\$41.74	\$41.74	\$27.47	\$10.16
%Utilization-riper:	NA	0	15	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$24.69	\$0.00	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$1.81	\$0.00	\$0.00	\$0.00
Operator cost/hour:	\$33.71	\$37.32	\$41.30	\$41.30	\$28.56	\$27.68
Unit Subtotals:	\$323.84	\$381.70	\$238.52	\$236.71	\$219.88	\$48.12
Number of Units:	4	1	1	1	1	1
Group Subtotals:	Work:	\$1,677.06	Support:	\$475.23	Maint:	\$268.00
Total work team cos MATERIAL QU.		29				
Initial volume:		CCY	Swell	factor: 1.000		
Loose volume:						
Sou	arce of estimated	l volume: TR12	24 Appendix A Ta	able A-3.1		
Source	of estimated swe	ell factor: Cat H	Handbook			
	Material Purch	ase Cost: \$0.00 otal Cost: \$0.00				
	1	5tul Cost	,			
HOURLY PRO	DUCTION					
Truck Capacity:						
<u>Truck Payload (weig</u> Material w	veight: 1,600		Pounds/LCY			
Descri Rated Pa	· ·		Pounds			
Payload Car			Pounds LCY			

Truck Bed (volume) Basis:	60.60 T					
Struck Volume:		CY				
Heaped Volume:		CY				
Average Volume:		CY				
Adjusted Volume:	78.80 L	CY				
Final ²	Truck Volume E	Based on Number of I	Loader Passes:	77.72	LCY	
Loading Tool Capacity			Buck	et Size Class: L	9700	
Rated Capacity:	7.850	LCY (heaped)	Duck		arge	_
Bucket Fill Factor:	1.100	Other - rock/dirt	nixtures (100-	120%) 1.100		-
Adjusted Capacity:	8.635	LCY				-
Job Condition Corrections:		Site	Altitude (ft.): 6	<u>400</u> feet		
	Truck	Loader	Source			
Altitude Adj:	1.000	1.000	(CAT HB))		
Job Efficiency:	0.830	0.830	(CAT HB)			
Net Correction:	0.830	0.830				
Loading Tool Cycle Time:	Number	of Loading Tool Pass	os Poquirad to F	ill Truck	9 г	96606
Excavators and Front Shovels		of Loading 1001 Pass	es Required to I		ŀ	asses
Excavators and From Shoven	<u>s.</u>					
Machine Cycle Time vs Selected Value w			AVERAGE			
Track Loaders – I		<u> </u>				
Cycle Time Elements (min.):						
Load: NA	Ma	neuver: NA		Dump: 0.100	0	
Wheel and Track Loaders -	Unadjusted Basi	ic Loader Cycle Time	e (load, dump, m	aneuver):	NA minu	ites
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)	_
1 0 1		Net Cycle Time	Adjustment:	NA	minutes	_
		Adjusted Loader		0.302	minutes	
		Net Load Tin		2.516	minutes	
Truck Cycle Time:						
Truck Exchange Time:	0.80	Minutes	Adjusted	for site altitude:	0.800	Minute
Truck Load Time:	2.516	Minutes	Adjusted	for site altitude:	2.516	Minute
ck Maneuver and Dump Time:	1.20	Minutes	Adjusted i	for site altitude:	1.200	Minute

Haul Rout	te:							
Seg #		Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel Time	
	(Ft)			(%)	(%)	(fpm)	(min)	
1	5925.0	0	4.40	3.00	7.40	1160	5.267	
					Haul Time:	5.267	minutes	
Return Ro	oute:				=			
Seg #		Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
	(Ft)			(%)	(%)	(fpm)	Time (min)	
1	4788.0	0	8.60	3.00	11.60	1628	3.064	
					Return Time:	3.064	minutes	3
				Total Tru	ck Cycle Time:	12.847	minutes	5
Loading Too	l unit							
Produ	ction	1,406.18	LCY/Hour		Adjusted for j	ob efficiency:	1,167.13	LCY/Hour
Truck Unit Produ	ction							
	—	362.96	LCY/Hour		Adjusted for j	ob efficiency:	301.25	LCY/Hour
Optimal No. of Tr	ucks:	4	Truck(s)		Selected Num	ber of Trucks:	4	Truck(s)
			Adjuste	d hourly true	k team production	on: 1,205	5.02 LCY	/Hour
					er team production			/Hour
			Adjusted multip	le truck/loade	er team production	on: 1,16 7	7.13 LCY	/Hour
JOB TIN	ME AN	D COST						
Fleet s	size:	1	Team(s)]	Fotal job time:	708.3	8 Ho	urs
Unit c	cost:	\$2.074	/LCY	,	Total job cost:	\$1,714,	488	

SITE MAINTENANCE

Т	ask description:	Site Mainte	nance; Rill and	Gully Repair	and Pond Cleaning	
Site:	Trapper Mine		Permit Action:	PR11	Permit/.	ob#: <u>C1981010</u>
PROJEC	CT IDENTIFICATION	N				
Task #:	LN20	State:	Colorado		Abbreviation:	None
Date:	11/30/2022	County:	Moffat		Filename:	C010-LN20
User:	ZTT					
	Agency or organiza	tion name:	DRMS			

UNIT COSTS

Maintenance Item	Hours per Year	Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Rill/Gully Repair 32hrs/year for 1st 5 years	32.00	Cat D7R DS Series II LGP	160.00	EA	\$213.41	\$34,145.60
Rill/Gully Repair32hrs/year for 1st 5 years	32.00	Cat 324D L 9'-8" Stick	160.00	EA	\$179.56	\$28,729.60
Rill/Gully Repair 16hrs/year for last 5 years	15.00	Cat D3K XL - 3P	80.00	EA	\$96.39	\$7,711.20
Pond Cleaning 1st Year, 8 Weeks	320.00	Cat 324D L 9'-8" Stick	320.00	EA	\$179.56	\$57,459.20
Pond Cleaning 2nd Year, 3 Weeks	120.00	Cat 324D L 9'-8" Stick	120.00	EA	\$179.56	\$21,547.20
Haul Truck Cleaning 1st Year	320.00	Cat 725	320.00	EA	\$206.52	\$66,086.40
Haul Truck Cleaning 2nd Year	320.00	Cat 725	120.00	EA	\$206.52	\$24,782.40

Job Hours: <u>600.00</u>

Total Cost: \$240,461.60

BULLDOZER WORK

Task description:	Regr	uuc 1 (1 1				
Trapper Mine		Peri	mit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDEN	NTIFICATI	<u>ON</u>				
Task #: N01		State:	Colorado		Abbreviation:	None
	/2022	County:	Moffat		Filename:	N01
User: ZTT						
Agency of	rorganization	name: DR	RMS			
HOURLY EQU	PMENT CO	<u>DST</u>				
Basic Machine:	Cat D11T -	11U				
Horsepower:	850					
Blade Type:	Universal					
Attachment:	NA					
Shift Basis:	3 per day					
Data Source:	(CRG)					
Cost Breakdown:						
	-		***	<u>Utilization %</u>		
Ownership Cost/H			\$257.09	NA		
Operating Cost/H			\$273.21	100		
Ripper own. Cost/H			\$0.00	NA		
Ripper op. Cost/H	lour:		\$0.00	10		
	_					
Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Ho	ur: <u>\$571.</u> our: \$1,14		\$41.55	NA		
Operator Cost/H Total unit Cost/Hou	ur: <u>\$571.</u> our: \$1,14		\$41.55	NA		
Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL OU Initial Volume:	ur: <u>\$571.</u> our: \$1,14 J ANTITIES 1,364,789	3.70	\$41.55 	NA		
Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor:	ur: \$571. pur: \$1,14 JANTITIES 1,364,789 1.000 1,364,789 L l volume:	3.70	4.5	NA		
Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL OU Initial Volume: Swell factor: Loose volume: Source of estimated	ur: \$571. pur: \$1,14 UANTITIES 1,364,789 1.000 1,364,789 Louo 1,364,789 1.000 1,364,789 Louo 1,364,789 1.000 1,364,789 Louo 1,364,789 1.000 1,364,789 Louo 1,364,789 1.000 1.0000 1.000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.00000 1.0000 1.0000 1.0000 1.0000 1.000000 1.00000 1.00000	3.70 <u>CY</u> <u>Table A-4</u>	4.5	NA		
Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROI Average push distant	ur: \$571. pur: \$1,14 JANTITIES 1,364,789 1.000 1,364,789 L 1 volume: 1 swell factor: DUCTION nce:	3.70 CY Table A-2 Cat Hand 325 feet	4.5 book	NA		
Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROI Average push distan Unadjusted hourly p	ur: \$571. pur: \$1,14 JANTITIES 1,364,789 1.000 1,364,789 L 1 volume: 1 swell factor: DUCTION nce: production:	3.70 <u>CY</u> <u>Table A-4</u> <u>Cat Hand</u> <u>325 feet</u> <u>984.2 LCY</u> /	4.5 book			
Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROI Average push distan Unadjusted hourly p	ur: \$571. pur: \$1,14 JANTITIES 1,364,789 1.000 1,364,789 L 1 volume: 1 swell factor: DUCTION nce: production:	3.70 <u>CY</u> <u>Table A-4</u> <u>Cat Hand</u> <u>325 feet</u> <u>984.2 LCY</u> /	4.5 book			
Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Hou Total Fleet Cost/Hou Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROI Average push distan Unadjusted hourly p Materials consisten Average push gradi	ur: \$571. pur: \$1,14 JANTITIES 1,364,789 1.000 1,364,789 1.000 1,364,789 L l volume: l swell factor: DUCTION nce: production: cy description ent:10 %	3.70 CY Table A Cat Hand 325 feet 984.2 LCY/ : Consol	4.5 book			
Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROI Average push distan Unadjusted hourly p	ur: \$571. pur: \$1,14 JANTITIES 1,364,789 1.000 1,364,789 1.364,789 1.000 1,000 1.000 1,000 1.000 1,000 1.000 1,000 1.000 1,000 1.	3.70 CY Table A Cat Hand 325 feet 984.2 LCY/ : Consol	4.5 book			
Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Hou Total Fleet Cost/Hou Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROI Average push distan Unadjusted hourly p Materials consisten Average push gradi Average site altitud	Ir: $$571.$ Dur: $$1,14$ UANTITIES 1,364,789 1.000 1,364,789 1.000 1,364,789 Looo 1,364,78	3.70 CY Table A-2 Cat Hand 325 feet 984.2 LCY/ : Consol feet	4.5 book			
Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Hou Total Fleet Cost/Hou Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROI Average push distan Unadjusted hourly p Materials consisten Average push gradi Average site altitud Material weight: Weight description:	xr: \$571. yur: \$1,14 yur: \$1,364,789 1.000 1,364,789 1.000 1,364,789 Lood 1,364,789 DUCTION 1 nce: -10 % e: -10 % e: -10 % e: -10 % guest -10 %	3.70 CY Table A-4 Cat Hand 325 feet 984.2 LCY/ : Consol feet lbs/LCY	4.5 book			
Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Hou Total Fleet Cost/Hou Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROI Average push distan Unadjusted hourly p Materials consisten Average push gradi Average push gradi Average site altitud Material weight: Weight description: Job Condition Corr	xr: \$571. yur: \$1,14 yur: \$1,364,789 1.000 1,364,789 1.000 1,364,789 Lood 1,364,789 DUCTION 1 nce: -10 % e: -10 % <td>3.70 CY Table A-4 Cat Hand 325 feet 984.2 LCY/ : Consol feet lbs/LCY Provided</td> <td>hr idated stockp</td> <td></td> <td></td> <td></td>	3.70 CY Table A-4 Cat Hand 325 feet 984.2 LCY/ : Consol feet lbs/LCY Provided	hr idated stockp			
Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated Mource of estimated HOURLY PROI Average push distan Unadjusted hourly p Materials consisten Average push gradi Average site altitud Material weight: Weight description: Job Condition Corre	Ir: \$571. pur: \$1,14 JANTITIES 1,364,789 1.000 1,364,789 1.364,789 1.000 1,364,789 1.000 1,364,789 1.000 1,364,789 1.000 1,364,789 1.000 1,364,789 1.000 1,364,789 1.000 1,364,789 1.000 1,364,789 1.000 1,364,789 1.000 1,364,789 1.000 1,364,789 1.000 1,364,789 1.000 1,364,789 1.000 1,364,789 1.000 1,364,789 1.000 1,364,789 1.000 1,364,789 1.000 nce: production: production: - cy description - ent: -10 % e. - 0,700 - 2,475 - ection Factor - erator Skill: -	3.70 CY Table A-4 Cat Hand 325 feet 984.2 LCY/ : Consol feet lbs/LCY Provided 0.	hr 	pile 1.0 <u>Source</u> (AVG.)		
Operator Cost/H Total unit Cost/Hou Total Fleet Cost/Hou Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated Mource of estimated HOURLY PROI Average push distan Unadjusted hourly p Materials consisten Average push gradi Average site altitud Material weight: Weight description: Job Condition Corrr Ope Material c	xr: \$571. yur: \$1,14 yur: \$1,364,789 1.000 1,364,789 1.000 1,364,789 Lood 1,364,789 DUCTION 1 nce: -10 % e: -10 % <td>3.70 CY Table A Cat Hand 325 feet 984.2 LCY/ : Consol feet lbs/LCY Provided 0. 1.</td> <td>hr idated stockp</td> <td></td> <td></td> <td></td>	3.70 CY Table A Cat Hand 325 feet 984.2 LCY/ : Consol feet lbs/LCY Provided 0. 1.	hr idated stockp			

Job efficiency:	0.790	(3 SHIFTS/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.929	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.6473	
Adjusted unit production: 63	37.07 LCY/hr	
Adjusted fleet production: 12	274.14 LCY/hr	

JOB TIME AND COST

Fleet size:	2 Dozer(s)
Unit cost:	\$0.898/LCY

Total job time:	1,071.15 Hours
Total job cost:	\$1,225,074

Task description:	Backfill	and Grading N	Pit			
Site: Trapper Mine		Permit Actio	on: PR11		Permit/Job#: <u>C1</u>	981010
PROJECT IDEN Task #: N02 Date: 11/30 User: ZTT		State: <u>Colora</u> County: <u>Moffa</u>		Ab	breviation: No Filename: C0	ne 10-N02
	·	DDMC				
Agency or HOURLY EQUI	organization nan			Shift bas	sis: <u>1 per day</u>	
<u>HOURLI LQUI</u>		_	Equipment Descri		<u>15. <u>1 per day</u></u>	
	Fruck Loader Tea	m -Truck: KO -Loader: CA Load Area: Cat	MATSU 830E T 6090 D10T - 10SU	puon		
Road M	-Du aintenance –Mot		D10T - 10SU T 16M			
Koad W			ter Tanker, 14,000) Gal.		
~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~			~			
<u>Cost Breakdown</u> :	Truck/Loa Truck	ader Team Shovel	Support I Load Area	Equipment Dump Area	Maintenan Motor Grader	ce Equipment Water Truck
				-		
%Utilization-machine: Ownership cost/hour:	100 \$179.05	100 \$23.07	25 \$153.67	25 \$153.67	25 \$163.86	50 \$105.66
Operating cost/hour:	\$179.03	\$23.07	\$133.07	\$133.67	\$103.80	\$103.00
%Utilization-riper:	\$247.95 NA	^{\$950.15}	15	541.74 NA	\$27.47 NA	\$70.73 NA
Ripper own. cost/hour:	NA	\$0.00	\$24.69	\$0.00	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$1.81	\$0.00	\$0.00	\$0.00
Operator cost/hour:	\$34.42	\$37.32	\$41.30	\$41.30	\$28.56	\$0.00
Unit Subtotals:	\$461.40	\$990.54	\$238.52	\$236.71	\$219.88	\$182.41
Number of Units:	4	1	1	1	1	1
Group Subtotals:	Work:	\$2,836.14	Support:	\$475.23	Maint:	\$402.29
Total work team co		66				
<u>MATERIAL QU</u>	ANTITIES					
Initial volume	, ,	CCY		factor: <u>1.000</u>		
	: 2,519,4 urce of estimated of estimated swe	volume: TR12	24 Appendix A Ta Jandbook	ble A-3.1		
Source	Material Purch)			
HOURLY PRO	DUCTION					
<u>Truck Capacity:</u> <u>Truck Payload (wei</u> Material v Descr	weight: 1	rovided	Pounds/LCY			
Rated Pa Payload Ca	ayload: 492,20	0	Pounds LCY			
Payload Ca	pacity: <u>492,20</u>	0.00				

te Altitude (ft.): <u>6</u> Source (CAT HB (CAT HB	ket Size Class: <u>N</u> 0-120%) 1.100 6400 feet 3)		sses
Buck mixtures (100- te Altitude (ft.): <u>6</u> Source (CAT HB (CAT HB (CAT HB Sees Required to H AVERAGE	ket Size Class: <u>N</u>)-120%) 1.100 <u>6400</u> feet <u>3)</u> 3)	IA	sses
Buck mixtures (100- te Altitude (ft.): <u>6</u> Source (CAT HB (CAT HB (CAT HB Sees Required to H AVERAGE	ket Size Class: <u>N</u>)-120%) 1.100 <u>6400</u> feet <u>3)</u> 3)	IA	sses
Buck mixtures (100- te Altitude (ft.): <u>6</u> Source (CAT HB (CAT HB (CAT HB Sees Required to H AVERAGE	ket Size Class: <u>N</u>)-120%) 1.100 <u>6400</u> feet <u>3)</u> 3)	IA	SSES
Buck mixtures (100- te Altitude (ft.): <u>6</u> Source (CAT HB (CAT HB (CAT HB Sees Required to H AVERAGE	ket Size Class: <u>N</u>)-120%) 1.100 <u>6400</u> feet <u>3)</u> 3)	IA	sses
Buck mixtures (100- te Altitude (ft.): <u>6</u> Source (CAT HB (CAT HB (CAT HB Sees Required to H AVERAGE	ket Size Class: <u>N</u>)-120%) 1.100 <u>6400</u> feet <u>3)</u> 3)	IA	sses
te Altitude (ft.): <u>6</u> Source (CAT HB (CAT HB (CAT HB CAT HB AVERAGE	0-120%) 1.100 6400 feet 3) 3)		sses
te Altitude (ft.): <u>6</u> Source (CAT HB (CAT HB (CAT HB CAT HB AVERAGE	0-120%) 1.100 6400 feet 3) 3)		sses
te Altitude (ft.): <u>6</u> Source (CAT HB (CAT HB (CAT HB CAT HB AVERAGE	0-120%) 1.100 6400 feet 3) 3)		SSES
e Altitude (ft.): <u>6</u> Source (CAT HB (CAT HB sees Required to H AVERAGE	6400 feet 3) 3)	pas	sses
e Altitude (ft.): <u>6</u> Source (CAT HB (CAT HB sees Required to H AVERAGE	6400 feet 3) 3)	<u>3</u> pas	sses
Source (CAT HB (CAT HB (CAT HB sees Required to I AVERAGE	3) 3)	<u>3</u> pas	SSES
Source (CAT HB (CAT HB (CAT HB sees Required to I AVERAGE	3) 3)	<u>3</u> pa	sses
(CAT HB (CAT HB sses Required to I AVERAGE	3) 3)	<u>3</u> pas	sses
(CAT HB sees Required to I AVERAGE	3)	<u>3</u> pas	sses
sses Required to I		<u>3</u> pa:	sses
AVERAGE	Fill Truck:	<u>3</u> pas	sses
AVERAGE	Fill Truck:	<u>3</u> pas	sses
AVERAGE	Fill Truck:	<u>3</u> pas	sses
GE			
	Dump. 0.100	2	
	Dump: 0.100)	
ne (load, dump, n	maneuver):	NA minute	es
	Factor (min.)	Source	
		· · ·	
		· /	
e Adjustment:			
		-	
er Cycle Time: me per Truck:	0.498 1.494	minutes	
er Cycle Time:	0.498	_	
er Cycle Time:	0.498	_	
er Cycle Time: me per Truck:	0.498	minutes	Minute
er Cycle Time: _ me per Truck: _ Adjusted	0.498 1.494	minutes0.800	
er Cycle Time: _ me per Truck: _ Adjusted Adjusted	0.498 1.494	minutes 0.800 1.494	Minute Minute Minute
		e (load, dump, maneuver): Factor (min.) NA NA NA NA NA A A A NA NA N	e (load, dump, maneuver): <u>NA</u> minute Factor (min.) Source NA (Cat HB) NA (Cat HB) NA (Cat HB) NA (Cat HB) NA (Cat HB) NA (Cat HB) A (Cat HB) NA (Cat HB) NA (Cat HB) NA (Cat HB) A (Cat HB) NA (Cat HB)

	Haul Rou	te:							
	Seg #	Haul	Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
		(Ft)			(%)	(%)	(fpm)	Time (min)	
-	1	4737.	00	-8.00	3.00	-5.00	1870	2.666	
						Haul Time:	2.666	minutes	
	Return Ro	oute:							
	Seg #	Haul	Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
		(Ft)			(%)	(%)	(fpm)	Time (min)	
	1	4737.	00	8.00	3.00	11.00	1734	3.135	
						Return Time:	3.135	minute	es
					Total True	ck Cycle Time:	9.295	minute	es
L	oading Too	ol unit							
		uction	5,083.78	LCY/Hour		Adjusted for j	ob efficiency:	4,219.54	LCY/Hour
Truck	Unit Produ	uction							
		-	1,254.67	LCY/Hour		Adjusted for j	ob efficiency:	1,041.38	LCY/Hour
Optima	al No. of Ti	rucks:	4	Truck(s)		Selected Num	ber of Trucks:	4	Truck(s)
				Adjuste	d hourly truck	k team production	on: 4,165	5.52 LCY	Y/Hour
						r team production			Y/Hour
				Adjusted multip	le truck/loade	r team production	on: 4,16	5.52 LCY	Y/Hour
	JOB TI	ME AN	ND COST						
	Fleet	size:	1	Team(s)	Т	otal job time:	604.8	4 H	ours
	Unit	cost:	\$0.892	/LCY	r	Fotal job cost:	\$2,246,	168	

Site: Trapper Mine		Permit Action	on: PR11		Permit/Job#: <u>C1</u>	981010
PROJECT IDEN	TIFICATION					
Task #: N02A		State: Colora	ado	Ab	breviation: No	ne
Date: 11/30	/2022	County: Moffa	t		Filename: N0	2a
User: ZTT						
Agency or	organization nar	ne: DRMS				
HOURLY EQUI	PMENT COST	<u>[</u>		Shift bas	is: <u>1 per day</u>	
]	Equipment Descri	ption		
Г	ruck Loader Tea	m -Truck: KO	MATSU 830E	•		
	out Equipmont I		<u>Г 6090</u> D10T - 10SU			
Supp	ort Equipment -L Dı-Dı		D101 - 10SU D10T - 10SU			
Road M	aintenance – Mot	or Grader: CA	Г 16М			
	-Wa	ter Truck: Wat	er Tanker, 14,000) Gal.		
Cost Breakdown:	Truck/Lo	ader Team	Support	Equipment	Maintenan	ce Equipment
<u>Cost Dicardown</u> .	Truck	Shovel	Load Area	Dump Area	Motor Grader	Water Truck
6 Utilization-machine:	100	100	25	25	25	5
Ownership cost/hour:	\$179.05	\$23.07	\$153.67	\$153.67	\$163.86	\$105.6
Operating cost/hour:	\$175.03	\$930.15	\$41.74	\$41.74	\$27.47	\$76.7
%Utilization-riper:	+217.55 NA	0	15	NA	NA	v o.v.
Ripper own. cost/hour:	NA	\$0.00	\$24.69	\$0.00	\$0.00	\$0.0
Ripper op. cost/hour:	NA	\$0.00	\$1.81	\$0.00	\$0.00	\$0.0
Operator cost/hour:	\$34.42	\$37.32	\$41.30	\$41.30	\$28.56	\$0.0
Unit Subtotals:	\$461.40	\$990.54	\$238.52	\$236.71	\$219.88	\$182.4
Number of Units:	3	1	1	1	1	
Group Subtotals:	Work:	\$2,374.74	Support:	\$475.23	Maint:	\$402.29
Total work team cos	st/hour: <u>\$3,252.</u>	26				
MATERIAL QU	ANTITIES					
Initial volume:		CCY	Swell	factor: 1.000		
Loose volume:						
So	urce of estimated	volume: Appe	ndix A Tables A-	3.1		
Source	of estimated swe	ell factor: Cat H	Iandbook			
	Material Purch					
	10	otal Cost: \$0.00)			
HOURLY PRO	DUCTION					
Truck Capacity:						
Truck Payload (wei			_			
Material v		posed rock 75%	Pounds/LCY Rock, 25% Earth			
Rated Pa		•	Pounds	1		

~						
Struck Volume:	153.00	LCY				
Heaped Volume:	192.00	LCY				
Average Volume:	172.50	LCY				
Adjusted Volume:	149.15	LCY				
	1					
Fina	l Truck Volum	e Based on Number	r of Loader Passes:	145.78	LCY	
Loading Tool Capacity						
			Buc	ket Size Class: N	JA	
Rotad Consister	58.900	LCY (heaped				_
Rated Capacity: Bucket Fill Factor:	0.825		- avg. blasted (75	00%) 0.825		-
Adjusted Capacity:	48.593	LCY	- avg. blasted (75	- 90%) 0.825		-
Aujusted Capacity.	40.575					
Joh Condition Compations			C_{4} A_{4} A_{4	C 400 fr at		
Job Condition Corrections	<u>):</u>		Site Altitude (ft.):	<u>6400</u> leet		
	Truck	Loader	Source			
Altitude Adj:	1.000	1.000	(CAT HE			
Job Efficiency:	0.830	0.830	(CAT HE	3)		
Net Correction:	0.830	0.830				
Loading Tool Cycle Times Excavators and Front Shove Machine Cycle Times Selected Value	<u>els:</u> vs. Job Conditi		Passes Required to VE AVERAGE RAGE	Fill Truck:	<u> 3 </u> I	basses
Excavators and Front Shove Machine Cycle Time Selected Value Track Loaders -	els: vs. Job Conditi within this Bas - Material Desc	on Rating: <u>ABO</u> sic Rating: <u>AVE</u>	VE AVERAGE	Fill Truck:	<u>3</u> F	oasses
Excavators and Front Shove Machine Cycle Time Selected Value Track Loaders -	els: vs. Job Conditi within this Bas - Material Desc v:	on Rating: <u>ABO</u> sic Rating: <u>AVE</u>	VE AVERAGE	Fill Truck:		asses
Excavators and Front Shove Machine Cycle Time Selected Value Track Loaders - Cycle Time Elements (min.)	els: vs. Job Conditi within this Bas - Material Desc v: 	on Rating: <u>ABO</u> sic Rating: <u>AVE</u> cription: Maneuver: <u>NA</u>	VE AVERAGE RAGE	Dump: 0.100		
Excavators and Front Shove Machine Cycle Time Selected Value Track Loaders - Cycle Time Elements (min.) Load: NA Wheel and Track Loaders	els: vs. Job Conditi within this Bas - Material Desc v: 	on Rating: <u>ABO</u> sic Rating: <u>AVE</u> cription: Maneuver: <u>NA</u>	VE AVERAGE RAGE	Dump: 0.100) <u>NA</u> mint	
Excavators and Front Shove Machine Cycle Time Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors	els: vs. Job Conditi within this Bas - Material Desc : : : - Unadjusted E	on Rating: <u>ABO</u> sic Rating: <u>AVE</u> cription: Maneuver: <u>NA</u>	VE AVERAGE RAGE	Dump: 0.100 maneuver): Factor (min.)) <u>NA</u> mini Source	
Excavators and Front Shove Machine Cycle Time Selected Value Track Loaders - Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material:	els: vs. Job Conditi within this Bas - Material Desc v: - Unadjusted E	on Rating: <u>ABO</u> sic Rating: <u>AVE</u> cription: Maneuver: <u>NA</u>	VE AVERAGE RAGE	Dump: 0.100 maneuver): Factor (min.) NA) NA minu Source (Cat HB)	
Excavators and Front Shove Machine Cycle Time Selected Value Track Loaders - Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile:	els: vs. Job Conditi within this Bas - Material Desc : : : - Unadjusted E	on Rating: <u>ABO</u> sic Rating: <u>AVE</u> cription: Maneuver: <u>NA</u>	VE AVERAGE RAGE	Dump: 0.100 maneuver): Factor (min.)) NA mint Source (Cat HB) (Cat HB)	
Excavators and Front Shove Machine Cycle Time Selected Value Track Loaders - Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership:	els: vs. Job Conditi within this Bas - Material Desc v: - Unadjusted E NA NA NA NA	on Rating: <u>ABO</u> sic Rating: <u>AVE</u> cription: Maneuver: <u>NA</u>	VE AVERAGE RAGE	Dump: 0.100 maneuver): Factor (min.) NA NA NA NA) <u>NA</u> minu Source (Cat HB) (Cat HB) (Cat HB)	
Excavators and Front Shove Machine Cycle Time Selected Value Track Loaders - Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile:	els: vs. Job Conditi within this Bas - Material Desc : - Unadjusted E NA NA	on Rating: <u>ABO</u> sic Rating: <u>AVE</u> cription: Maneuver: <u>NA</u>	VE AVERAGE RAGE	Dump: 0.100 maneuver): Factor (min.) NA NA) NA mint Source (Cat HB) (Cat HB)	
Excavators and Front Shove Machine Cycle Time Selected Value Track Loaders - Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	els: vs. Job Conditi within this Bas - Material Desc : - Unadjusted E NA NA NA NA NA NA	on Rating: <u>ABO</u> sic Rating: <u>AVE</u> cription: <u></u> Maneuver: <u>NA</u> Basic Loader Cycle '	VE AVERAGE RAGE	Dump: 0.100 maneuver): Factor (min.) NA NA NA NA NA NA) NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	
Excavators and Front Shove Machine Cycle Time Selected Value Track Loaders - Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	els: vs. Job Conditi within this Bas - Material Desc : - Unadjusted E NA NA NA NA NA NA	on Rating: <u>ABO</u> sic Rating: <u>AVE</u> cription: <u>NA</u> Maneuver: <u>NA</u> Basic Loader Cycle 7	VE AVERAGE RAGE Time (load, dump, 1	Dump: 0.100 maneuver): Factor (min.) NA NA NA NA NA NA NA NA) NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	
Excavators and Front Shove Machine Cycle Time Selected Value Track Loaders - Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	els: vs. Job Conditi within this Bas - Material Desc : - Unadjusted E NA NA NA NA NA NA	on Rating: <u>ABO</u> sic Rating: <u>AVE</u> cription: <u>NA</u> Maneuver: NA Basic Loader Cycle 7 Net Cycle 7 Adjusted Lo	VE AVERAGE RAGE Time (load, dump, r	Dump: 0.100 maneuver): Factor (min.) NA NA NA NA NA NA NA NA NA NA	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	
Excavators and Front Shove Machine Cycle Time Selected Value Track Loaders - Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	els: vs. Job Conditi within this Bas - Material Desc : - Unadjusted E NA NA NA NA NA NA	on Rating: <u>ABO</u> sic Rating: <u>AVE</u> cription: <u>NA</u> Maneuver: NA Basic Loader Cycle 7 Net Cycle 7 Adjusted Lo	VE AVERAGE RAGE Time (load, dump, 1	Dump: 0.100 maneuver): Factor (min.) NA NA NA NA NA NA NA O.498	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	
Excavators and Front Shove Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	els: vs. Job Conditi within this Bas - Material Desc : - Unadjusted E NA NA NA NA NA NA	on Rating: <u>ABO</u> sic Rating: <u>AVE</u> cription: <u>NA</u> Maneuver: NA Basic Loader Cycle 7 Net Cycle 7 Adjusted Lo	VE AVERAGE RAGE Time (load, dump, 1	Dump: 0.100 maneuver): Factor (min.) NA NA NA NA NA NA NA O.498	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	
Excavators and Front Shove Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	els: vs. Job Conditi within this Bas - Material Desc : - Unadjusted E NA NA NA NA NA NA	on Rating: <u>ABO</u> sic Rating: <u>AVE</u> cription: <u>NA</u> Maneuver: <u>NA</u> Basic Loader Cycle ' Net Cycle ' Adjusted Lo Net Load	VE AVERAGE RAGE Time (load, dump, r	Dump: 0.100 maneuver): Factor (min.) NA NA NA NA NA NA O.498 1.494	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes minutes minutes	ites
Excavators and Front Shove Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Exchange Time	e:	on Rating:ABO sic Rating:AVE cription: Maneuver:NA Basic Loader Cycle ' Basic Loader Cycle ' Net Cycle T Adjusted Lo Net Load	VE AVERAGE RAGE Time (load, dump, r Gime Adjustment: ader Cycle Time: 1 Time per Truck:	Dump: 0.100 maneuver): Factor (min.) NA NA NA NA NA NA NA NA A NA A A A A A	NA minutes Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) 0.800 0.800	ites
Excavators and Front Shove Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	e: 0.80	on Rating: <u>ABO</u> sic Rating: <u>AVE</u> cription: <u>NA</u> Maneuver: <u>NA</u> Basic Loader Cycle ' Net Cycle ' Adjusted Lo Net Load	VE AVERAGE RAGE Time (load, dump, r Gime Adjustment: ader Cycle Time: 1 Time per Truck: Adjusted Adjusted	Dump: 0.100 maneuver): Factor (min.) NA NA NA NA NA NA O.498 1.494	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes minutes minutes	ites

Haul Rou	ite:		-					
Seg #		Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel Time	
	(Ft)			(%)	(%)	(fpm)	(min)	
1	4063.	.00	-2.00	3.00	1.00	3503	1.751	
					Haul Time:	1.751	minutes	
Return R	oute:							
Seg #	Haul	Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
	(Ft)			(%)	(%)	(fpm)	Time (min)	
1	4063.	.00	2.00	3.00	5.00	3296	1.884	
					Return Time:	1.884	minute	28
				Total Tru	ck Cycle Time:	7.129	minute	es
Loading Too	ol unit							
Prod	uction	3,812.84	LCY/Hour		Adjusted for j	ob efficiency:	3,164.66	LCY/Hour
Truck Unit Prod	uction	1 22 4 0 4				1 000 1	1 010 01	
		1,226.91	LCY/Hour		Adjusted for j	ob efficiency:	1,018.34	LCY/Hour
Optimal No. of T	rucks:	3	Truck(s)		Selected Num	ber of Trucks:	3	Truck(s)
					k team production			//Hour
					er team production			//Hour
			Adjusted multip	le truck/loade	er team production	on: 3,05	5.01 LCY	//Hour
JOB TI	ME AN	ND COST						
Fleet	size:	1	Team(s)	ſ	Fotal job time:	156.3	99 H	ours
Unit	cost:	\$1.065	/LCY		Total job cost:	\$508,6	520	

BULLDOZER WORK

Task description:	Datkill	and Grading J Pit			
Trapper Mine		Permit Action:	PR11	Permit/Job#:	C1981010
PROJECT IDE	NTIFICATION				
Task #: N02I	В	State: Colorado		Abbreviation:	None
		County: Moffat		Filename:	C010-N02b
User: ZTT				-	
Agency o	r organization nam	ne: DRMS			
HOURLY EQU	IPMENT COST	-			
Basic Machine:	Cat D11T - 11U	J			
Horsepower:	850				
Blade Type:	Universal				
Attachment: Shift Basis:	NA 2 par day				
Data Source:	3 per day (CRG)				
	(CKU)				
Cost Breakdown:			** .*** •		
	T	Φ ΟΕΤ ΟΟ	Utilization %		
Ownership Cost/I Operating Cost/I		\$257.09 \$273.21	NA 100		
Ripper own. Cost/I		\$275.21	NA		
Ripper op. Cost/I		\$0.00	10		
Operator Cost/I	-	\$41.55	NA		
Total unit Cost/Hor		φ11.00	1177		
Total unit Cost/Ho Total Fleet Cost/Ho	ur: \$571.85 our: \$1,143.70				
Total unit Cost/Ho	ur: \$571.85 our: \$1,143.70				
Total unit Cost/Ho Total Fleet Cost/Ho	ur: \$571.85 our: \$1,143.70				
Total unit Cost/Ho Total Fleet Cost/Ho <u>MATERIAL QU</u>	ur: <u>\$571.85</u> our: \$1,143.70 J ANTITIES 668,037 1.000				
Total unit Cost/Ho Total Fleet Cost/Ho <u>MATERIAL QU</u> Initial Volume:	ur: <u>\$571.85</u> our: \$1,143.70 J ANTITIES 668,037				
Total unit Cost/Ho Total Fleet Cost/Ho <u>MATERIAL QU</u> Initial Volume: Swell factor: Loose volume:	ur: \$571.85 our: \$1,143.70 JANTITIES 668,037 1.000 668,037 LCY)			
Total unit Cost/Ho Total Fleet Cost/Ho <u>MATERIAL QU</u> Initial Volume: Swell factor: Loose volume: Source of estimated	ur: \$571.85 our: \$1,143.70 JANTITIES 668,037 1.000 668,037 LCY d volume: 7				
Total unit Cost/Ho Total Fleet Cost/Ho <u>MATERIAL QU</u> Initial Volume: Swell factor: Loose volume: Source of estimated	ur: \$571.85 our: \$1,143.70 JANTITIES 668,037 1.000 668,037 LCY d volume: 7	ρ Γable A-4.5			
Total unit Cost/Ho Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated	ur: \$571.85 our: \$1,143.70 JANTITIES 668,037 1.000 668,037 LCY d volume: 7 d swell factor: 0	ρ Γable A-4.5			
Total unit Cost/Ho Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PRO	ur: \$571.85 our: \$1,143.70 JANTITIES 668,037 1.000 668,037 LCY d volume: 7 d swell factor: 0 DUCTION	Γable A-4.5 Cat Handbook			
Total unit Cost/Ho Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PRO Average push dista	ur: \$571.85 our: \$1,143.70 JANTITIES 668,037 1.000 668,037 LCY d volume: 7 d swell factor: 0 DUCTION unce: 32:	ο Γable A-4.5 Cat Handbook 5 feet			
Total unit Cost/Ho Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PRO Average push dista Unadjusted hourly	ur: \$571.85 our: \$1,143.70 JANTITIES 668,037 1.000 668,037 LCY d volume: 7 d swell factor: 7 DUCTION unce: 32: production: 984	Γable A-4.5 Cat Handbook 5 feet 4.2 LCY/hr			
Total unit Cost/Ho Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PRO Average push dista Unadjusted hourly Materials consister	ur: \$571.85 our: \$1,143.70 JANTITIES 668,037 1.000 668,037 LCY d volume: 7 d swell factor: 0 DUCTION nnce: 322 production: 984 ncy description:	ο Γable A-4.5 Cat Handbook 5 feet			
Total unit Cost/Ho Total Fleet Cost/Ho Total Fleet Cost/Ho Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PRO Average push dista Unadjusted hourly Materials consister Average push grad	ur: \$571.85 our: \$1,143.70 JANTITIES 668,037 1.000 668,037 LCY d volume: 7 d swell factor: 0 DUCTION nnce: 32: production: 984 ncy description: ient: -20 %	Fable A-4.5 Cat Handbook 5 feet 4.2 LCY/hr Consolidated stock			
Total unit Cost/Ho Total Fleet Cost/Ho Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated MOURLY PRO Average push dista Unadjusted hourly Materials consister Average push grad Average site altitud	ur: $\$571.85$ our: $\$1,143.70$ JANTITIES 668,037 1.000 668,037 1.000 668,037 LCY d volume: T d swell factor: DUCTION ance: 32: production: 98- acy description: ient: -20 % de: 6,700 feet	Fable A-4.5 Cat Handbook 5 feet 4.2 LCY/hr Consolidated stock t			
Total unit Cost/Ho Total Fleet Cost/Ho Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated MOURLY PRO Average push dista Unadjusted hourly Materials consister Average push grad Average site altitud	ur: \$571.85 our: \$1,143.70 JANTITIES 668,037 1.000 668,037 LCY d volume: 7 d swell factor: 0 DUCTION nnce: 32: production: 984 ncy description: ient: -20 %	Fable A-4.5 Cat Handbook 5 feet 4.2 LCY/hr Consolidated stock t			
Total unit Cost/Ho Total Fleet Cost/Ho Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated MOURLY PRO Average push dista Unadjusted hourly Materials consister Average push grad Average site altitud Material weight: Weight description	ur: $\$571.85$ our: $\$1,143.70$ JANTITIES 668,037 668,037 1.000 668,037 1.000 668,037 LCY d volume: 7 d swell factor: 0 DUCTION 984 ncc: 32: production: 984 ncy description: 1 ient: -20 % le: 6,700 feet 2,475 lbs/	Fable A-4.5 Cat Handbook 5 feet 4.2 LCY/hr Consolidated stock t LCY			
Total unit Cost/Ho Total Fleet Cost/Ho Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated MOURLY PRO Average push dista Unadjusted hourly Materials consister Average push grad Average site altitud Material weight: Weight description Job Condition Corr	ur: $\$571.85$ our: $\$1,143.70$ JANTITIES 668,0371.000668,037 LCYd volume: 71 d swell factor: 0 DUCTION ance: 322 production: 984 acy description:ient: -20% le: $6,700$ feet $2,475$ lbs/:User Provrection Factor	Cable A-4.5 Cat Handbook 5 feet 4.2 LCY/hr Consolidated stock t 'LCY 'ided			
Total unit Cost/Ho Total Fleet Cost/Ho Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated MOURLY PRO Average push dista Unadjusted hourly Materials consister Average push grad Average site altitud Material weight: Weight description Job Condition Corr Ope	ur: $\$571.85$ our: $\$1,143.70$ JANTITIES 668,0371.000 668,037 LCYd volume: 71 d swell factor: 0 DUCTION ance: 32 production: 984 acy description:ient: -20 %de: $6,700$ feet $2,475$ lbs/:User Proventrection Factorerator Skill:	Fable A-4.5 Cat Handbook 5 feet 4.2 LCY/hr Consolidated stock t 'LCY 'ided 0.750			
Total unit Cost/Ho Total Fleet Cost/Ho Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated MOURLY PRO Average push dista Unadjusted hourly Materials consister Average push grad Average push grad Average site altitud Material weight: Weight description Job Condition Corr Op Material c	ur: $\$571.85$ our: $\$1,143.70$ JANTITIES 668,0371.000668,037 LCYd volume: 71 d swell factor: 0 DUCTION ance: 322 production: 984 acy description:ient: -20% le: $6,700$ feet $2,475$ lbs/:User Provrection Factor	Cable A-4.5 Cat Handbook 5 feet 4.2 LCY/hr Consolidated stock t 'LCY 'ided			

Task # N02B

Job efficience	cy:	0.790	(3 SHIFTS/DAY)
Spoil pi	le:	1.000	(DOZ-OC)
Push gradie	Push gradient:		(CAT HB)
Altitud	de:	1.000	(CAT HB)
Material Weight	ht:	0.929	(CAT HB)
Blade typ	Blade type:		(PAT)
Net correction	on:	0.7535	
Adjusted unit production:	74	1.59 LCY/hr	
Adjusted fleet production:	14	83.18 LCY/hr	

JOB TIME AND COST

Fleet size:	2 Dozer(s)
Unit cost:	\$0.771/LCY

Total job time:	450.41 Hours
Total job cost:	\$515,134

Site: Trapper Mine		Permit Acti	on: PR11]	Permit/Job#: <u>C1</u>	981010
PROJECT IDEN	FIFICATION					
Task #: N03	IIFICATION	State: Colora	ado	٨٩	breviation: No	no
Date: $\frac{11/30}{2}$	2022	County: Moffa		A0		10-N03
User: ZTT						
Agency or o	organization nan	ne: DRMS				
HOURLY EQUI	MENT COST	ח		Shift has	in 1 non dou	
HUUKLI EQUI	INIENI COSI	_	E in man and Darai		is: <u>1 per day</u>	
T	uck Loader Tea		Equipment Descri MATSU 830E	ption		
		-Loader: CA	Т 6090			
Suppo	rt Equipment -L		D10T - 10SU D10T - 10SU			
Road Ma	intenance – Moto	or Grader: CA	Т 16М			
	-Wa	ter Truck: Wa	ter Tanker, 14,000) Gal.		
Cost Breakdown:	Truck/Loa	ider Team	Support 1	Equipment	Maintenan	ce Equipment
<u>Cost Di cundo mi</u>	Truck	Shovel	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	25	25	25	5(
Ownership cost/hour:	\$179.05	\$23.07	\$153.67	\$153.67	\$163.86	\$105.66
Operating cost/hour:	\$247.93	\$930.15	\$41.74	\$41.74	\$27.47	\$76.75
%Utilization-riper:	NA	0	15	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$24.69	\$0.00	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$1.81	\$0.00	\$0.00	\$0.00
Operator cost/hour: Unit Subtotals:	\$34.42 \$461.40	\$37.32 \$990.54	\$41.30 \$238.52	\$41.30 \$236.71	\$28.56 \$219.88	\$0.00 \$182.41
Number of Units:	3	4770.54 1	4230.32	\$250.71	\$217.88	\$102.41
Group Subtotals:	Work:	\$2,374.74	Support:	\$475.23	Maint:	\$402.29
Total work team cost	/hour \$2 252 /		11		I	
Total work team cost	/110u1. <u>\$3,434.4</u>	20				
MATERIAL QUA	ANTITIES					
Initial volume:	5,960,837	CCY	Swell	factor: 1.000		
Loose volume:	5,960,8	LCY				
	rce of estimated	11	endix A Tables A-	2A-3.1		
Source	of estimated swe Material Purcha		Handbook			
		tal Cost: $\frac{$0.00}{$0.00}$				
HOURLY PRO	DUCTION					
Truck Capacity:						
Truck Payload (weig Material w			Pounds/LCY			
Descri	<u> </u>	posed rock - 75%	Rock, 25% Earth			
Rated Pay		•	Pounds			

Truck Bed (volume) Basis:						
Struck Volume:	153.00 LO	CY				
Heaped Volume:	192.00 LO	CY				
Average Volume:	172.50 LO	CY				
Adjusted Volume:	149.15 LO	CY				
Final 7	Truck Volume Ba	ased on Number of	Loader Passes:	145.78	LCY	
Loading Tool Capacity						
			Buck	et Size Class: N	ΙA	_
Rated Capacity:	58.900	LCY (heaped)				
Bucket Fill Factor:	0.825	Blasted rock - av	g. blasted (75 -	90%) 0.825		
Adjusted Capacity:	48.593	LCY				
Job Condition Corrections:		Site	e Altitude (ft.): <u>6</u>	400 feet		
	Truck	Loader	Source			
Altitude Adj:	1.000	1.000	(CAT HB))		
Job Efficiency:	0.830	0.830	(CAT HB)			
				·]		
Net Correction:	0.830	0.830				
Loading Tool Cycle Time:	Number o	f Loading Tool Pas	ses Required to F	ill Truck	3 р	asses
Excavators and Front Shovels		I Louding 10011 us	ses required to r		<u> </u>	45505
Excavators and From Shovers	<u>s.</u>					
Machine Cycle Time vs Selected Value w			AVERAGE GE			
Track Loaders – N		<u> </u>	02			
Cycle Time Elements (min.):						
Load: NA	Mar	neuver: NA		Dump: 0.100)	
	_			·		
Wheel and Track Loaders -	Unadjusted Basic	c Loader Cycle Tim	e (load, dump, m	aneuver):	NA minu	ites
Cycle Time Factors				Easter (min)		
Material:	NT A			Factor (min.)	Source	_
	NA			NA	(Cat HB)	_
Stockpile:	NA			NA NA	(Cat HB) (Cat HB)	
				NA	(Cat HB)	- -
Stockpile:	NA			NA NA	(Cat HB) (Cat HB)	- - - -
Stockpile: Truck Ownership:	NA NA			NA NA NA	(Cat HB) (Cat HB) (Cat HB)	- - - -
Stockpile: Truck Ownership: Operation:	NA NA NA	Net Cycle Time	e Adjustment:	NA NA NA NA	(Cat HB) (Cat HB) (Cat HB) (Cat HB)	- - - -
Stockpile: Truck Ownership: Operation:	NA NA NA	Net Cycle Time Adjusted Loade		NA NA NA NA NA	(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)	-
Stockpile: Truck Ownership: Operation:	NA NA NA	Adjusted Loade		NA NA NA NA NA NA	(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)minutes	-
Stockpile: Truck Ownership: Operation:	NA NA NA	Adjusted Loade	r Cycle Time:	NA NA NA NA NA NA NA 0.498	(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)minutesminutes	-
Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time:	NA NA NA NA	Adjusted Loade Net Load Tin	r Cycle Time: me per Truck:	NA NA NA NA NA 0.498 1.494	(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)minutesminutesminutes	-
Stockpile: Truck Ownership: Operation: Dump Target: <u>Truck Cycle Time:</u> Truck Exchange Time:	NA NA NA NA	Adjusted Loade Net Load Tin Minutes	r Cycle Time: me per Truck: Adjusted f	NA NA NA NA NA 0.498 1.494	(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)minutesminutesminutes0.800	
Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time: Truck Exchange Time: Truck Load Time:	NA NA NA NA 0.80 1.494	Adjusted Loade Net Load Tin Minutes Minutes	r Cycle Time: me per Truck: Adjusted f	NA NA NA NA NA 0.498 1.494 for site altitude:	(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)minutesminutesminutes0.8001.494	- - - - Minute
Stockpile: Truck Ownership: Operation: Dump Target: <u>Truck Cycle Time:</u> Truck Exchange Time:	NA NA NA NA 0.80 1.494	Adjusted Loade Net Load Tin Minutes	r Cycle Time: me per Truck: Adjusted f	NA NA NA NA NA 0.498 1.494	(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)minutesminutesminutes0.800	
Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time: Truck Exchange Time: Truck Load Time:	NA NA NA NA 0.80 1.494 1.20	Adjusted Loade Net Load Tin Minutes Minutes	r Cycle Time: me per Truck: Adjusted f Adjusted f Adjusted f	NA NA NA NA NA NA 0.498 1.494 for site altitude: for site altitude:	(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)minutesminutesminutes0.8001.4941.200	- - - - Minute

Haul Rout	te:							
Seg #	Haul Di	istance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
	(Ft)			(%)	(%)	(fpm)	Time (min)	
1	3945.00)	-5.10	3.00	-2.10	3450	1.227	
<u> </u>			l			1 227		
Return Ro	uito.				Haul Time:	1.227	minutes	
Seg #	Haul Di	istance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
565 "	(Ft)	istunee	Grade (70)	(%)	(%)	(fpm)	Time	
1		<u></u>	5.10				(min)	
1	3945.00)	5.10	3.00	8.10	2327	2.273	
					Return Time:	2.273	minutes	
				Total Tru	ck Cycle Time:	6.994	minutes	
Loading Too	l unit							
Produ		3,812.84	LCY/Hour		Adjusted for j	ob efficiency:	3,164.66	LCY/Hour
Truck Unit Produ	iction				5 5		·	
		1,250.59	LCY/Hour		Adjusted for j	ob efficiency:	1,037.99	LCY/Hour
Optimal No. of Tr	ucks:	3	Truck(s)		Selected Numl	per of Trucks:	3	Truck(s)
			Adjuste	d hourly true	k team production	on: 3,113	3.98 LCY/I	Hour
					er team production			
			Adjusted multip					
			•		-			
JOB TIN	ME ANI	O COST						
Fleets	size:	1	Team(s)]	Fotal job time:	1,914.	22 Hou	rs
Unit c	cost:	\$1.044	/LCY	,	Total job cost:	\$6,225,	540	

SCRAPER TEAM WORK

Task description:	Replace Topsoi		DD 1 1	D		
Site: Trapper Mine		rmit Action:			nit/Job#: <u>C1981</u>	1010
PROJECT IDENT Task #: N13 Date: 11/30/2 User: ZTT	State: 2022 County:	Colorado Moffat			viation: None ename: C010-N	N13
HOURLY EQUIP		RMS	COSTSI	nift basis: <u>1 per d</u>	ay	
		Equipm	ent Description			
-	-Scrape	er: Cat 63	7G w/push-pull			
Sunno	-Doze rt Equipment -Load Are		0T - 10SU			
Suppor	-Dump Are		0T - 10SU			
Road Mai	intenance – Motor Grade	er: CAT 1				
	-Water Truc	k: Water'	Tanker, 2,500 Gal.			
Cost Breakdown:	Scraper Work Te	am	Support Equip	oment	Maintenance	Equipment
		Dozer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	NA	50	50	50	60
Ownership cost/hour:	\$287.19	NA	\$153.67	\$153.67	\$163.86	\$10.28
Operating cost/hour:	\$277.83	NA	\$83.47	\$83.47	\$54.93	\$12.19
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	\$0.00	\$0.00	\$0.00	\$0.00
Ripper op. cost/hour:	NA	NA	\$0.00	\$0.00	\$0.00	\$0.00
Operator cost/hour:	\$30.90	NA	\$41.30	\$41.30	\$28.56	\$21.12
Unit Subtotals:	\$595.92	NA	\$278.44	\$278.44	\$247.35	\$43.60
Number of Units:	8	0	1	1	1	1
Group Subtotals:	Work: \$4	4,767.36	Support:	\$556.88	Maint:	\$290.95
Total work team cost	NTITIES					
Initial volume: Loose volume:	304,436 304,436	CCY LCY	Swell fact	or: <u>1.000</u>		
	rce of estimated volume of estimated swell factor		dbook			
HOURLY PRODU	UCTION					
Motorial weight:	2.550 lbs/J CV			owl (volume) Basi		CV
Material weight: Material description:	2,550 lbs/LCY Earth - Dry packed		Heaped V	Volume: 24.00 Volume: 34.00		CY CY
Rated Payload:	81,600 pounds		Average V			CY
Payload Capacity:	32.00 LCY		Adjusted C	apacity: 29.00	I	CY

<u>1.00</u> Minutes

<u>0.60</u> Minutes

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6400 feet

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	NA	(CAT HB)
Job Efficiency:	0.830	NA	(CAT HB)
Net Correction:	0.830	NA	

Travel 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	2000.00	-4.50	3.00	-1.50	2972	0.72

Haul Time: **0.72** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2000.00	4.50	3.00	7.50	1931	1.12
				Return Time:	1.12	minutes
			Total Scrape	er team cycle time:	3.44	minutes
			Adjusted	for job conditions:	839.65	LCY/Hour
			Selected N	umber of Scrapers:	8	Scraper(s)
	Adjusted	d single scrap	per team (unit)	hourly production:	3,358.60	LCY/Hour
	Adjusted m	ultiple scrap	er team (fleet)	hourly production:	3,358.60	LCY/Hour
Optima	Unadjusted unit proo al Number of Scrapers pe			_ LCY/Hour		

JOB TIME AND COST

Fleet size:	1	Team(s)	Total job time:	90.64	Hours
Unit cost:	\$1.672	/LCY	Total job cost:	\$508,981	

SCRAPER TEAM WORK

Site: Trapper Mine		Permit Action:	PR11	Perr	mit/Job#: <u>C198</u>	010
PROJECT IDEN	TIFICATION					
Task #: N14	Sta	ate: Colorado		Abbrey	viation: None	
Date: 11/30/2					ename: N14	
User: ZTT						
Agency or o	organization name:	DRMS				
μουρί ν εουμ	MENT		COSTSI	: & h : 1		
HOURLY EQUIP			COSTS	nift basis: <u>1 per d</u>	<u>ay</u>	
			ent Description			
		raper: Cat 637 Dozer: NA	G w/push-pull			
Suppo	rt Equipment -Load)T - 10SU			
	-Dump	Area: Cat D10)T - 10SU			
Road Ma	intenance –Motor G Water 7-		6M Tanker, 2,500 Gal.			
		TUCK. Water I	alikel, 2,300 Gal.			
Cost Breakdown:	Scraper Work	Team	Support Equip	oment	Maintenance	
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water T
%Utilization-machine:	100	NA	50	50	50	
Ownership cost/hour:	\$287.19	NA	\$153.67	\$153.67	\$163.86	\$
Operating cost/hour:	\$277.83	NA	\$83.47	\$83.47	\$54.93	\$
%Utilization-ripper:	NA	NA	NA	NA	NA	
Ripper own. cost/hour:	NA	NA	\$0.00	\$0.00	\$0.00	
Ripper op. cost/hour:	NA	NA	\$0.00	\$0.00	\$0.00	
Operator cost/hour:	\$30.90	NA	\$41.30	\$41.30	\$28.56	\$
Unit Subtotals:	\$595.92	NA	\$278.44	\$278.44	\$247.35	\$
Number of Units:	8	0	1	1	1	\$200
Group Subtotals:	Work:	\$4,767.36	Support:	\$556.88	Maint:	\$290.
Total work team cost	/hour: \$5,615.19					
	NUTUES					
MATERIAL QUA						
Initial volume: Loose volume:	329,830 329,830	CCY LCY	Swell fact	or: <u>1.000</u>		
	/					
	rce of estimated volu of estimated swell factorial		lbook			
Source	- ostimated swell fa		- Jon			
HOURLY PROD	UCTION					
			Scraper Bo	owl (volume) Basi	is:	
Material weight:	1,600 lbs/LCY			Volume: 24.00		CY
Material description:	Top Soil		Heaped '			CY
Rated Payload:	81,600 pounds		Average V	Volume: 29.00	L	CY
Payload Capacity:	51.00 LCY		Adjusted C	apacity: 29.00	Ť	CY

<u>1.00</u> Minutes

<u>0.60</u> Minutes

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6400 feet

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	NA	(CAT HB)
Job Efficiency:	0.830	NA	(CAT HB)
Net Correction:	0.830	NA	

Travel 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	2667.00	8.00	3.00	11.00	786	3.41

Haul Time: 3.41 minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2667.00	-8.00	3.00	-5.00	2972	0.94
				Return Time:	0.94	minutes
			Total Scrape	er team cycle time:	5.95	minutes
			Adjusted	for job conditions:	485.45	LCY/Hour
			Selected N	umber of Scrapers:	8	Scraper(s)
	Adjuste	d single scra	per team (unit)	hourly production:	1,941.78	LCY/Hour
	Adjusted n	nultiple scra	per team (fleet)	hourly production:	1,941.78	LCY/Hour
Optim	Unadjusted unit pro al Number of Scrapers pe			LCY/Hour		
JOB T	IME AND COST					
Flee	t size: 1	Team(s)	7	Fotal job time:	169.86	Hours

Fleet size:	1	Team(s)	Total job time:	169.86	Hours
Unit cost:	\$2.892	/LCY	Total job cost:	\$953,793	

Site: Trapper Mine			on: PR11		Permit/Job#: <u>C1981010</u>		
PROJECT IDENTask #:N14ADate:11/30/User:ZTT		State: <u>Colora</u> County: <u>Moffa</u>		Ab	breviation: <u>No</u> Filename: <u>C0</u>	ne 10-N14a	
	organization nam						
HOURLY EQUI	PMENT COST				is: <u>1 per day</u>		
	ruck Loader Tea		Equipment Descri 777F	ption			
1	ruck Loader Tea		385CL 18'-1" S	tick			
Suppo	ort Equipment -L	load Area: Cat	D10T - 10SU				
Dood M	-Du aintenance –Mot		D10T - 10SU T 16M				
Koau Ma			ter Tanker, 2,500	Gal.			
		I					
Cost Breakdown:	Truck/Loa Truck	ader Team Excavator	Support Load Area	Equipment Dump Area	Maintenan Motor Grader	ce Equipment Water Truck	
				-	Motor Grader		
Utilization-machine:	100	100	25	25	25	5	
Ownership cost/hour:	\$156.75	\$195.53	\$153.67	\$153.67	\$163.86	\$10.2	
Operating cost/hour: %Utilization-riper:	\$133.38 NA	\$148.85	\$41.74	\$41.74 NA	\$27.47 NA	\$10.10 NA	
ipper own. cost/hour:	NA NA	\$0.00	\$24.69	\$0.00	\$0.00	\$0.0	
Ripper op. cost/hour:	NA	\$0.00	\$1.81	\$0.00	\$0.00	\$0.0	
Operator cost/hour:	\$33.71	\$37.32	\$41.30	\$41.30	\$28.56	\$0.0	
Unit Subtotals:	\$323.84	\$381.70	\$238.52	\$236.71	\$219.88	\$20.4	
Number of Units:	3	1	1	1	1		
Group Subtotals:	Work:	\$1,353.22	Support:	\$475.23	Maint:	\$240.32	
Total work team cos	ANTITIES						
Initial volume:	/	CCY		factor: 1.000			
Loose volume:	135,50						
	arce of estimated of estimated swe		endix A Tables A- Handbook	10.8			
Source	Material Purch						
	То	otal Cost: \$0.00)				
HOURLY PRO	DUCTION						
Truck Capacity:							
<u>Truck Payload (weig</u> Material w			Dounda / CV				
	EISHE 1.000		Pounds/LCY				
Descri		oil					

Struck Volume:						
	60.60	LCY				
Heaped Volume:	78.80	LCY				
Average Volume:	69.70	LCY				
Adjusted Volume:	78.80	LCY				
Final '	Truck Volum	e Based on Number	r of Loader Passes:	77.72	LCY	
Loading Tool Capacity						
			Buck	ket Size Class: L	arge	
Rated Capacity:	7.850	LCY (heaped	1)			
Bucket Fill Factor:	0.825	Blasted rock	- avg. blasted (75 -	- 90%) 0.825		-
Adjusted Capacity:	6.476	LCY				_
Job Condition Corrections:	_		Site Altitude (ft.): 6	5400 feet		
	Truck	Loader	Source			
Altitude Adj:	1.000	1.000	(CAT HB	3)		
Job Efficiency:	0.830	0.830	(CAT HB	3)		
Net Correction:	0.830	0.830				
Loading Tool Cycle Time:	Numbe	er of Loading Tool	Passes Required to 1	Fill Truck:	12I	basses
Excavators and Front Shovel	s:					
Machine Cycle Time vs	. Job Condition	on Rating: ABO	VE AVERAGE			
Machine Cycle Time vs Selected Value w			VE AVERAGE			
Selected Value w	within this Bas	sic Rating: AVE				
Selected Value w Track Loaders – I	within this Bas	sic Rating: AVE				
Selected Value w	within this Bas	sic Rating: AVE				
Selected Value w Track Loaders – I	vithin this Bas Material Desc	sic Rating: AVE		 Dump: 0.100)	
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: <u>NA</u>	vithin this Bas Material Desc I	sic Rating: <u>AVE</u> cription: Maneuver: <u>NA</u>	RAGE	·		
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: <u>NA</u> Wheel and Track Loaders -	vithin this Bas Material Desc I	sic Rating: <u>AVE</u> cription: Maneuver: <u>NA</u>	RAGE	naneuver):	NA min	ıtes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: <u>NA</u> Wheel and Track Loaders - Cycle Time Factors	vithin this Bas Material Desc I Unadjusted B	sic Rating: <u>AVE</u> cription: Maneuver: <u>NA</u>	RAGE	naneuver): Factor (min.)	NA min Source	ites
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: <u>NA</u> Wheel and Track Loaders - <u>Cycle Time Factors</u> Material:	vithin this Bas Material Desc I Unadjusted B NA	sic Rating: <u>AVE</u> cription: Maneuver: <u>NA</u>	RAGE	naneuver): Factor (min.) NA	NA mint Source (Cat HB)	ites
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile:	vithin this Bas Material Desc 	sic Rating: <u>AVE</u> cription: Maneuver: <u>NA</u>	RAGE	naneuver): Factor (min.) NA NA	NA minu Source (Cat HB) (Cat HB)	ites
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership:	vithin this Bas Material Desc – I Unadjusted B NA NA NA	sic Rating: <u>AVE</u> cription: Maneuver: <u>NA</u>	RAGE	naneuver): Factor (min.) NA NA NA NA	NA minute Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	ites
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	vithin this Bas Material Desc Unadjusted B NA NA NA NA NA	sic Rating: <u>AVE</u> cription: Maneuver: <u>NA</u>	RAGE	naneuver): Factor (min.) NA NA NA NA NA	NA mine Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	ites
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership:	vithin this Bas Material Desc – I Unadjusted B NA NA NA	sic Rating: <u>AVE</u> cription: Maneuver: NA Basic Loader Cycle '	RAGE Time (load, dump, r	naneuver): Factor (min.) NA NA NA NA NA NA NA	NAminSource(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)(Cat HB)	ites
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	vithin this Bas Material Desc Unadjusted B NA NA NA NA NA	sic Rating: <u>AVE</u> cription: <u>NA</u> Maneuver: <u>NA</u> Basic Loader Cycle 7	RAGE Time (load, dump, r	naneuver): Factor (min.) NA NA NA NA NA NA NA	NA minutes	ites
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	vithin this Bas Material Desc Unadjusted B NA NA NA NA NA	sic Rating: AVE cription: Maneuver: NA Basic Loader Cycle ' Basic Loader Cycle ' Net Cycle T Adjusted Lo	RAGE Time (load, dump, r	naneuver): Factor (min.) NA NA NA NA NA NA 0.302	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	ites
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	vithin this Bas Material Desc Unadjusted B NA NA NA NA NA	sic Rating: AVE cription: Maneuver: NA Basic Loader Cycle ' Basic Loader Cycle ' Net Cycle T Adjusted Lo	RAGE Time (load, dump, r	naneuver): Factor (min.) NA NA NA NA NA NA NA	NA minutes	ites
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	vithin this Bas Material Desc Unadjusted B NA NA NA NA NA	sic Rating: AVE cription: Maneuver: NA Basic Loader Cycle ' Basic Loader Cycle ' Net Cycle T Adjusted Lo	RAGE Time (load, dump, r	naneuver): Factor (min.) NA NA NA NA NA NA 0.302	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	ites
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	vithin this Bas Material Desc I Unadjusted B NA NA NA NA NA	sic Rating: AVE cription: Maneuver: NA Basic Loader Cycle ' Basic Loader Cycle ' Net Cycle T Adjusted Lo	RAGE Time (load, dump, r Time Adjustment: ader Cycle Time: Time per Truck:	naneuver): Factor (min.) NA NA NA NA NA NA 0.302	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time:	vithin this Bas Material Desc Unadjusted B NA NA NA NA NA NA NA	sic Rating: AVE cription: Maneuver: NA Basic Loader Cycle ' Basic Loader Cycle ' Net Cycle T Adjusted Lo Net Load	RAGE Time (load, dump, r Time Adjustment: Time Adjustment: Time per Truck: Time per Truck: Time per Truck:	naneuver): Factor (min.) NA NA NA NA NA 0.302 3.422	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Exchange Time:	vithin this Bas Material Desc Unadjusted B NA NA NA NA NA NA NA SA O.80 3.422	sic Rating: AVE cription: Maneuver: NA Basic Loader Cycle ' Basic Loader Cycle ' Net Cycle T Adjusted Lo Net Load	RAGE Time (load, dump, r Time Adjustment: Dader Cycle Time: Time per Truck: Adjusted Adjusted	naneuver): Factor (min.) NA NA NA NA NA 0.302 3.422 for site altitude:	NA minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes 0.800	utes Minute Minute
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Exchange Time: Truck Load Time:	vithin this Bas Material Desc Unadjusted B NA NA NA NA NA NA NA SA O.80 3.422	sic Rating: AVE cription: Maneuver: NA Basic Loader Cycle ' Basic Loader Cycle ' Net Cycle T Adjusted Lo Net Load Minutes Minutes	RAGE Time (load, dump, r Time Adjustment: Dader Cycle Time: Time per Truck: Adjusted Adjusted	naneuver): Factor (min.) NA NA NA NA NA 0.302 3.422 for site altitude: for site altitude:	NA minutes (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) 0.800 3.422	 Minute
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Exchange Time: Truck Load Time:	vithin this Bas Material Desc Unadjusted B NA NA NA NA NA NA SA SA SA SA SA SA SA SA SA SA SA SA SA	sic Rating: AVE cription: Maneuver: NA Basic Loader Cycle ' Basic Loader Cycle ' Adjusted Lo Net Load Minutes Minutes Minutes Minutes	RAGE Time (load, dump, r Time Adjustment: Dader Cycle Time: Time per Truck: Adjusted Adjusted	naneuver): Factor (min.) NA NA NA NA NA 0.302 3.422 for site altitude: for site altitude:	NA minutes (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) 0.800 3.422 1.200	 Minute

Haul Rout Seg #		Distance	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time	
	(11)			(70)	(70)	(ipili)	(min)	
1	4114.	00	7.00	3.00	10.00	795	5.237	
					Haul Time:	5.237	minutes	
Return Ro	oute:				_			
Seg #	Haul	Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
	(Ft)			(%)	(%)	(fpm)	Time (min)	
1	4114.	00	-7.00	3.00	-4.00	3450	1.229	
					Return Time:	1.229	minutes	5
				Total Tru	ck Cycle Time:	11.888	minutes	8
Loading Too Produ ruck Unit Produ	iction	1,104.43	LCY/Hour		Adjusted for j	ob efficiency:	916.68	LCY/Hour
	-	392.24	LCY/Hour		Adjusted for j	ob efficiency:	325.56	LCY/Hour
otimal No. of Tr	ucks:	3	Truck(s)		Selected Num	ber of Trucks:	3	Truck(s)
					k team production			/Hour
					er team production			/Hour
			Adjusted multip	le truck/loade	er team production	on: 916.	.68 LCY	/Hour
JOB TIN	ME AN	D COST						
Fleet	size:	1	Team(s)	-	Total job time:	147.8	2 Но	urs
Fleet	51ZC.	•			5			

SCRAPER TEAM WORK

Site: Trapper Mine		Permit Action:	PR11	Perr	mit/Job#: <u>C198</u>	1010
PROJECT IDENT	TIFICATION					
Task #: N15	St	ate: Colorado		Abbrev	viation: None	
Date: <u>11/30/2</u>	.022 Cou	nty: Moffat		Fil	ename: <u>C010-1</u>	N15
User: ZTT						
Agency or o	rganization name:	DRMS				
HOURLY EQUIP	MENT		COSTSI	hift basis: 1 per d	01	
<u>HOUKLI LQUII</u>			000151	lint basis. <u>I per u</u>	ay	
			ent Description			
		Dozer: NA	G w/push-pull			
Suppor	rt Equipment -Load		0T - 10SU			
	-Dump		0T - 10SU			
Road Mai	ntenance –Motor G -Water		5M Fanker, 2,500 Gal			
	- w ater	THUCK. Water	<u>alikel, 2,300 Gal</u>	•		
Cost Breakdown:	Scraper Worl	k Team	Support Equip	oment	Maintenance	
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water
%Utilization-machine:	100	NA	50	50	50	
Ownership cost/hour:	\$287.19	NA	\$153.67	\$153.67	\$163.86	
Operating cost/hour:	\$277.83	NA	\$83.47	\$83.47	\$54.93	
%Utilization-ripper:	NA	NA	NA	NA	NA	
Ripper own. cost/hour:	NA	NA	\$0.00	\$0.00	\$0.00	
Ripper op. cost/hour:	NA	NA	\$0.00	\$0.00	\$0.00	
Operator cost/hour:	\$30.90	NA	\$41.30	\$41.30	\$28.56	
Unit Subtotals:	\$595.92	NA	\$278.44	\$278.44	\$247.35	
Number of Units:	8	0	1	1	1	
Group Subtotals:	Work:	\$4,767.36	Support:	\$556.88	Maint:	\$29
Total work team cost	/hour: \$5,615.19					
<u>MATERIAL QUA</u>	<u>NTITIES</u>					
Initial volume:	56,983	CCY	Swell fact	or: <u>1.000</u>		
Loose volume:	56,983	LCY				
	ce of estimated vol		bles A-9.1, A-10	.4and TALPACS	Summary (TMI)	
Source o	f estimated swell fa	ctor: Cat Hand	abook			
HOURLY PRODU	UCTION					
			Scrapar B	owl (volume) Basi	ie.	
						<u>av</u>
Material weight: Material description:	1,600 lbs/LCY Top Soil		Struck Heaped	Volume: 24.00 Volume: 34.00		CY CY
Rated Payload:	81,600 pounds		Average			CY CY
	51.00 LCY			Capacity: 29.00		

<u>1.00</u> Minutes

<u>0.60</u> Minutes

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6400 feet

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	NA	(CAT HB)
Job Efficiency:	0.830	NA	(CAT HB)
Net Correction:	0.830	NA	

Travel 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	958.00	2.70	3.00	5.70	1477	0.70

Haul Time: **0.70** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	958.00	-2.70	3.00	0.30	2965	0.43
				Return Time:	0.43	minutes
			Total Scrape	r team cycle time:	2.73	minutes
			Adjusted f	for job conditions:	1,058.02	LCY/Hour
			Selected Nu	mber of Scrapers:	8	Scraper(s)
	Adjuste	d single scra	per team (unit) h	nourly production:	4,232.09	LCY/Hour

Adjusted single scraper team (unit) nourly production: 4,232.09 Adjusted multiple scraper team (fleet) hourly production: 4,232.09

Unadjusted unit production/hour: <u>1,274.73</u> LCY/Hour Optimal Number of Scrapers per push dozer: _____

JOB TIME AND COST

Fleet size:	1	Team(s)	Total job time:	13.46	Hours
Unit cost:	\$1.327	/LCY	Total job cost:	\$75,606	_

LCY/Hour

Site: Trapper Mine		Permit Acti	on: <u>PR11</u>		Permit/Job#:	981010
Task #: N16 Date: 11/30/ User: ZTT	2022	State: <u>Color</u> County: <u>Moffa</u>		Ab	breviation: <u>No</u> Filename: <u>C0</u>	ne 10-N16
Agency or HOURLY EQUI	organization nan			Chift has	:	
HOUKLI EQUI	ENENT COS		E i		sis: <u>1 per day</u>	
T	ruck Loader Tea		Equipment Descri 777F	puon		
	ort Equipment -L	-Loader: Cat Load Area: Cat	385C L 18'-1" S D10T - 10SU	tick		
Road Ma	-Du aintenance –Mot		D10T - 10SU T 16M			
			ter Tanker, 2,500	Gal.		
Cost Breakdown:	Truck/Loa	ader Team	Support	Equipment	Maintenan	ce Equipment
	Truck	Excavator	Load Area	Dump Area	Motor Grader	Water Truck
6Utilization-machine:	100	100	25	25	25	5
Ownership cost/hour:	\$156.75	\$195.53	\$153.67	\$153.67	\$163.86	\$10.2
Operating cost/hour:	\$133.38	\$148.85	\$41.74	\$41.74	\$27.47	\$10.1
%Utilization-riper:	NA	0	15	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$24.69	\$0.00	\$0.00	\$0.0
Ripper op. cost/hour:	NA	\$0.00	\$1.81	\$0.00	\$0.00	\$0.0
Operator cost/hour:	\$33.71	\$37.32	\$41.30	\$41.30	\$28.56	\$0.0
Unit Subtotals:	\$323.84	\$381.70	\$238.52	\$236.71	\$219.88	\$20.4
Number of Units:	3	1	1	1	1	
Group Subtotals:	Work:	\$1,353.22	Support:	\$475.23	Maint:	\$240.32
Total work team cos		77				
Initial volume:	94,623	CCY	Swell	factor: 1.000		
Loose volume:	94,62	3 LCY	·			
	of estimated of estimated swe Material Purch To	ell factor: Cat I		-10.5A		
HOURLY PRO	DUCTION					
<u>Truck Capacity:</u> <u>Truck Payload (weig</u> Material w	eight: 1,600	.:1	Pounds/LCY			
Descri Rated Pa Payload Car	yload: 200,00	0	Pounds LCY			

Truck Bed (volume) Basis:							
Struck Volume:	60.60	LCY					
Heaped Volume:	78.80	LCY					
Average Volume:	69.70	LCY					
Adjusted Volume:	78.80	LCY					
	Truck Volume	e Based on Number of	Loader Passes:	77.72	LCY		
Loading Tool Capacity			Buck	ket Size Class: I	Large		
Rated Capacity:	7.850	LCY (heaped)				_	
Bucket Fill Factor:	0.825 6.476	0.825 Blasted rock - avg. blasted (75 - 90%) 0.825					
Job Condition Corrections:		Sit	e Altitude (ft.): <u>(</u>	5400 feet			
	Truck	Loader	Source				
Altitude Adj:	1.000	1.000	(CAT HB	5)			
Job Efficiency:	0.830	0.830	(CAT HB				
Net Correction:	0.830	0.830					
Loading Tool Cycle Time:	Numbe	er of Loading Tool Pas	ses Required to]	Fill Truck	12 t	Dasses	
Excavators and Front Shovel		i of Loading 10011 as	ses required to r		H	000000	
Machine Cycle Time vs Selected Value w			AVERAGE GE				
Track Loaders –	Material Desci	ription.					
Cycle Time Elements (min.):							
Load: NA	Ν	Maneuver: NA		Dump: 0.10	0		
Wheel and Track Loaders -	- Unadjusted B	asia Loadar Cycla Tim	na (load dump r	nonouwor):	NA minu	itos	
Cycle Time Factors	Unaujusteu Da		ie (load, duilip, l	Factor (min.)	Source	nes	
Material:	NA			NA	(Cat HB)	_	
Stockpile:	NA			NA	(Cat HB)	_	
•					· · · · · · · · · · · · · · · · · · ·	_	
Truck Ownership: Operation:	NA NA			NA NA	(Cat HB) (Cat HB)	_	
Dump Target:	NA			NA NA	(Cat HB) (Cat HB)	_	
Dump Target.	11A	Net Cycle Tim	e Adjustment:	NA	minutes	_	
		Adjusted Loade	· -	0.302	minutes		
			me per Truck:	3.422	minutes		
		THE LOAD II.	ine per fluer.	3.722	Innuco		
Truck Cycle Time:							
Truck Exchange Time:	0.80	Minutes	Adjusted	for site altitude:	0.800	Minute	
Truck Load Time:	3.422	Minutes	Adjusted	for site altitude:	3.422	Minute	
ck Maneuver and Dump Time:	Adjusted	for site altitude:	1.200	Minute			
Truck Travel (Haul & Return) maintained 3.0) Time:	Road Condition: <u>F</u>	irm, smooth, rol	ling, dirt/lt. surface	d, watered,		

Haul F	Route:							
Seg #		Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
	(Ft)			(%)	(%)	(fpm)	Time (min)	
1	7866	5.00	-3.30	3.00	-0.30	3503	2.364	
					Haul Time:	2.364	minutes	
Return	n Route:					2.304	minutes	
Seg #			Grade (%)	Roll. Res	Total Res	Velocity	Travel	
	(Ft)			(%)	(70) (ipiii)		Time (min)	
1	7866	5.00	3.30	3.00	3.00 6.30 2853 3.0		3.080	
					Return Time:	3.080	minutes	
				Total Tru	ck Cycle Time:	10.866	minutes	
Loading '	Tool unit							
Production Truck Unit Production		1,104.43	LCY/Hour		Adjusted for job efficiency:		916.68	LCY/Hour
		120,12			Adjusted for job efficiency		256 10	
		429.13	LCY/Hour		Adjusted for j	ob efficiency:	356.18	LCY/Hour
Optimal No. or	Optimal No. of Trucks:		Truck(s)	Selected Number		ber of Trucks:	3	Truck(s)
Adjusted hourly truck team production: 1,068.53 LCY/Hour								Hour
			Adjusted single truck/loader team production: 916.68 LCY/Hour					
Adjusted multiple truck/loader team production: 916.68 LCY/					Hour			
	TIME A	ND COST						
<u> </u>	I IME A	ND COST						
Fl	Fleet size: 1		Team(s) T		Total job time: 103.1		22 Hours	
Unit cost: \$2.257		\$2.257	/LCY		Total job cost:	\$213,5	47	
Page 1 of 2

SCRAPER TEAM WORK

Site: Trapper Mine		Permit Action:	PR11	Perr	nit/Job#: <u>C1981</u>	010
PROJECT IDEN	TIFICATION					
I KOJEC I IDEN	Internon					
Task #: <u>N16A</u>		tate: Colorado	1	Abbrey		
Date: 2/1/202 User: ZTT	2 <u>3</u> Cou	unty: <u>Moffat</u>		Fil	ename: <u>C010-N</u>	N16a
Agency or o	organization name:	DRMS				
HOURLY EQUIP	MENT		COSTSI	nift basis: <u>1 per d</u>	ay	
		Equipm	ent Description			
		-	7G w/push-pull			
Suppo	- rt Equipment -Load	Dozer: NA	0T - 10SU			
Suppo	1 1		0T - 10SU			
Road Ma	intenance – Motor (
	-Water	Truck: Water	Tanker, 2,500 Gal.			
Cost Breakdown:	Scraper Wor	t Toom	Support Equip	mont	Maintenance	Fauinma
Cost Dreakuowii:	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water
%Utilization-machine:	100	NA	50	50	50	
Ownership cost/hour:	\$287.19	NA	\$153.67	\$153.67	\$163.86	
Operating cost/hour:	\$277.83	NA	\$133.07	\$83.47	\$54.93	
%Utilization-ripper:	\$277.83 NA	NA	\$63.47 NA	NA	\$54.95 NA	
Ripper own. cost/hour:	NA	NA	\$0.00	\$0.00	\$0.00	
Ripper op. cost/hour:	NA	NA	\$0.00	\$0.00	\$0.00	
Operator cost/hour:	\$30.90	NA	\$41.30	\$41.30	\$28.56	
Unit Subtotals:	\$595.92	NA	\$278.44	\$278.44	\$247.35	
Number of Units:	8	0	¢270.11	4270.11	¢217.83	
Group Subtotals:	Work:	\$4,767.36	Support:	\$556.88	Maint:	\$29
Total work team cost		. ,	11			
MATERIAL QUA	NTITIES					
Initial volume: Loose volume:	11,260 11,260	CCY LCY	Swell fact	or: <u>1.000</u>		
	rce of estimated vo of estimated swell f		ables A-9.1, A-10. dbook	4and TALPACS	Summary (TMI)	
HOURLY PROD	UCTION					
			Scraper Bo	owl (volume) Basi	<u>s:</u>	
Material weight:	1,600 lbs/LCY		Struck V	Volume: 24.00	L	CY
-			TT 1.	24.00	T	CY
Material description: Rated Payload:	Top Soil 81,600 pounds		Heaped Average			CY

<u>1.00</u> Minutes

<u>0.60</u> Minutes

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6400 feet

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	NA	(CAT HB)
Job Efficiency:	0.830	NA	(CAT HB)
Net Correction:	0.830	NA	

Travel 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	2938.00	-1.50	3.00	1.50	2939	1.18

Haul Time: **1.18** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2938.00	1.50	3.00	4.50	2910	1.19
				Return Time:	1.19	minutes
			Total Scrap	er team cycle time:	3.97	minutes
			Adjusted	for job conditions:	727.56	LCY/Hour
	Selected Number of Scrapers:					Scraper(s)
	Adjusted single scraper team (unit) hourly production:					LCY/Hour
	Adjusted n	ultiple scra	per team (fleet)	hourly production:	2,910.23	LCY/Hour
Optima	Unadjusted unit pro al Number of Scrapers pe			LCY/Hour		
JOB TI	IME AND COST					
Flee	t size: 1	Team(s)]	Fotal job time:	3.87	Hours

Unit cost: \$1.929 /LCY

Total job cost: \$21,726

TRUCK/LOADER TEAM WORK

Task descriptior	: Replace	e Topsoil on I/J P	it							
Site: Trapper Min	e	Permit Action	on: PR11	Permit/Job#: C1981010						
	ENTIFICATION	-								
Task #:N17State:ColoradoAbbreviation:NoneDate:11/30/2022County:MoffatFilename:C010-N17User:ZTT </td										
Agenc	y or organization na	me: DRMS								
HOURLY EQ	UIPMENT COS	<u>Γ</u>		Shift bas	sis: <u>1 per day</u>					
			Equipment Descri	ption						
	Truck Loader Tea		777F 385C L 18'-1" S	tick						
S	upport Equipment -I		D10T - 10SU	lick						
			D10T - 10SU							
Roa	d Maintenance – Mot		T 16M ter Tanker, 2,500	Gal						
	- vv a	ater Truck: wa	ter Tanker, 2,500	Gal.						
Cost Breakdow	n: Truck/Lo	ader Team	Support I	Equipment	Maintena	nce Equipment				
	Truck	Excavator	Load Area	Dump Area	Motor Grader	Water Truck				
%Utilization-machine	: 100	100	25	25	25	50				
Ownership cost/hour		\$195.53	\$153.67	\$153.67	\$163.86					
Operating cost/hour		\$148.85	\$41.74	\$41.74	\$27.47	\$10.16				
%Utilization-riper		0	15	NA	NA	NA				
Ripper own. cost/hour	:: NA	\$0.00	\$24.69	\$0.00	\$0.00	\$0.00				
Ripper op. cost/hour	:: NA	\$0.00	\$1.81	\$0.00	\$0.00	\$0.00				
Operator cost/hour	:: \$33.71	\$37.32	\$41.30	\$41.30	\$28.56	\$0.00				
Unit Subtotals	\$323.84	\$381.70	\$238.52	\$236.71	\$219.88	\$20.44				
Number of Units	: 2	1	1	1	1	1				
Group Subtotals	Work:	\$1,029.38	Support:	\$475.23	Maint:	\$240.32				
	a cost/hour: <u>\$1,744.</u> QUANTITIES	93								
Initial volu Loose volu		CCY 38 LCY		factor: <u>1.000</u>						
Sou	Source of estimated arce of estimated swo Material Purch T	ell factor: Cat H		10.6						
HOURLY P	RODUCTION									
<u>Truck Capacity</u> <u>Truck Payload (</u> Mater			Pounds/LCY							
D	escription: Top S									
	d Payload: 200,00 Capacity: 125.00		Pounds LCY							

Truck Bed (volume) Basis:						
Struck Volume:		LCY				
Heaped Volume:		LCY				
Average Volume:	69.70	LCY				
Adjusted Volume:	78.80	LCY				
Final	Truck Voluma	Based on Number of I	onder Desses	77.72	LCY	
Loading Tool Capacity		Based on Number of I		11.12	LC1	
<u>Bound 1001 Cupuerty</u>			Buck	et Size Class: I	Large	
Rated Capacity:	7.850	LCY (heaped)	2000			_
Bucket Fill Factor:	0.825	Blasted rock - av	p. blasted (75 -	90%) 0.825		-
Adjusted Capacity:	6.476	LCY		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		-
Job Condition Corrections:		Site	Altitude (ft.): 6	400 feet		
	Truck	Loader	Source			
Altitude Adj:	1.000	1.000	(CAT HB)			
Job Efficiency:	0.830	0.830	(CAT HB)			
Job Emelency.	0.050	0.050	(Crititin)	,		
Net Correction:	0.830	0.830				
Loading Tool Cycle Time:	Number	of Loading Tool Pass	es Required to F	fill Truck:	12 r	asses
Excavators and Front Shovel		or 2000ang 10011 as			h	
Excavators and Profit Shover	<u>s.</u>					
Machine Cycle Time vs Selected Value v						
		<u> </u>				
Track Loaders – Cycle Time Elements (min.):	Material Descri	puon:				
Load: NA	М	aneuver: NA		Dump: 0.10	0	
	_					
Wheel and Track Loaders -	Unadjusted Bas	sic Loader Cycle Time	e (load, dump, m	aneuver):	<u>NA</u> minu	ites
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	•	NA	minutes	
		Adjusted Loader		0.302	minutes	
		Net Load Tir	ne per Truck:	3.422	minutes	
Truck Cycle Time:						
Truck Exchange Time:	0.80	Minutes	Adjusted	for site altitude:	0.800	Minute
Truck Load Time:	3.422	Minutes	Adjusted	for site altitude:	3.422	Minut
ck Maneuver and Dump Time:	1.20	Minutes	Adjusted	for site altitude:	1.200	Minute
) T .		., .,	-	1 . 1	_
Truck Travel (Haul & Return	<u>) 1 me:</u>	Road Condition: Fi	rm, smooth, roll	ing, airt/it. surface	a, watered,	

Haul Rou	te:							
Seg #		Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
	(Ft)			(%)	(%)	(fpm)	Time (min)	
1	3851.0	00	-4.00	3.00	-1.00	3503	1.180	
					Haul Time:	1.180	minutes	
Return Ro	oute:					1.100		
Seg #	Haul I	Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
	(Ft)			(%)	(%)	(fpm)	Time (min)	
1	3851.0)0	4.00	3.00	7.00	2398	1.809	
					Return Time:	1.809	minutes	
				Total Tru	ck Cycle Time:	8.411	minutes	
Loading Too Produ		1,104.43	LCY/Hour		Adjusted for j	ob efficiency:	916.68	LCY/Hour
Truck Unit Produ	iction _	554.38	LCY/Hour	Adjusted for job ef		ob efficiency:	460.14	_ LCY/Hour
Optimal No. of Tr	ucks:	2	Truck(s)		Selected Num	ber of Trucks:	2	Truck(s)
			Adjuste	d hourly truc	k team production	on: 920	.27 LCY/H	Iour
					er team production			
			Adjusted multip	le truck/loade	er team production	on: 916	.68 LCY/H	Iour
JOB TI	ME AN	D COST						
Fleet	size:	1	Team(s)	1	Total job time:	54.3	1 Hour	rs.
Unit	cost:	\$1.904	/LCY	,	Total job cost:	\$94,7'	73	

Task description: See		Seed N PitRangeland w/o sh	rubs (<6700 ft.)	
Site: Trapper	Mine	Permit Action:	PR11	Permit/Job#	: C1981010
PROJECT	IDENTIFIC	ATION			
Task #:	N18	State: Colorado		Abbreviation:	None
Date:	11/30/2022	County: Moffat		Filename:	C010-N18
User:	ZTT				
Ag	ency or organiz	zation 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

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Arrowleaf Balsamroot	0.40	0.50	\$28.08
Beardless Wheatgrass - Whitmar	0.31	1.01	\$3.63
Mountain Brome - Bromar	0.72	1.16	\$2.74
Great Basin Wildrye - Magnar	0.92	3.74	\$10.63
Kentucky Bluegrass - Ginger	0.06	2.96	\$0.19
Alfalfa - Ladak (inoculated)	0.10	0.48	\$0.26
Burnett, Small (or Little) - Delar	0.40	0.51	\$1.00
Sheep Fescue - Covar	0.15	2.34	\$0.92
Milk Vetch, Cicer - Lutana	0.30	1.00	\$2.46

Slender Wheatgrass - San Luis	0.28	1.02	\$1.19
Streambank Wheatgrass - Sodar	0.26	0.85	\$1.48
Thickspike Wheatgrass - Critana	0.28	0.99	\$1.93
Western Wheatgrass - Arriba	0.38	0.96	\$2.47
Needlegrass, Green - Lodorm	0.24	1.00	\$2.83
Flax, Lewis Blue	0.30	1.99	\$4.95
Red Top	0.02	2.29	\$0.16
Penstemon, Rocky Mountain	0.14	2.19	\$4.13
Yarrow, Western	0.07	4.26	\$2.93
Globemallow, Munro	0.08	0.91	\$7.00
Aster, Pacific	0.02	0.35	\$2.39
Goldeneye - Showy	0.08	0.92	\$4.80
Totals Seed Mix	5.51	31.41	\$86.15

Description	Cost /Acre	e
Drill Seeding (DRMS Survey Cost)	\$232.00	
Total Seed	Application Cost/Acre \$232.00	

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

	Cost /Acre
	\$
Total Mulch Application Cost/Acre	\$0.00
	Total Mulch Application Cost/Acre

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
		Totals	Nursery Stoc	ek Cost / Acre	\$0.00

	No. of Acres:	44.1		Cost /Acre:	\$318.15
Estimate	ed Failure Rate:	17.5%		Cost /Acre*:	\$318.15
*Selected Replanti	ng Work Items:	TILLING,SEEI	DING		
Initial Job Cost: Reseeding Job Cost:	. ,				

Total Job Cost:	\$16,486
Job Hours:	44.00

Seed N Pit: >67	0 ftRangeland with Shi	rubs	
Pe	rmit Action: PR11	Permit/Job#:	C1981010
NTIFICATION			
8A State:	Colorado	Abbreviation: N	one
30/2022 County:	Moffat	Filename: C	010-N18a
Γ			
5	NTIFICATION 8A State:	NTIFICATION 8A State: Colorado 30/2022 County: Moffat	NTIFICATION8AState:30/2022County:MoffatFilename:County:County:

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

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Arrowleaf Balsamroot	0.40	0.50	\$28.08
Beardless Wheatgrass - Whitmar	0.31	1.01	\$3.63
Bitterbrush, Antelope	4.40	1.35	\$85.80
Mountain Brome - Bromar	0.72	1.16	\$2.74
Great Basin Wildrye - Magnar	0.92	3.74	\$10.63
Kentucky Bluegrass - Ginger	0.06	2.96	\$0.19
Alfalfa - Ladak (inoculated)	0.10	0.48	\$0.26
Chokecherry	3.00	0.21	\$87.00
Burnett, Small (or Little) - Delar	0.40	0.51	\$1.00

Sheep Fescue - Covar	0.15	2.34	\$0.92
Milk Vetch, Cicer - Lutana	0.30	1.00	\$2.46
Slender Wheatgrass - San Luis	0.28	1.02	\$1.19
Streambank Wheatgrass - Sodar	0.26	0.85	\$1.48
Thickspike Wheatgrass - Critana	0.28	0.99	\$1.93
Western Wheatgrass - Arriba	0.38	0.96	\$2.47
Rabbitbrush, Rubber	0.26	3.87	\$16.72
Needlegrass, Green - Lodorm	0.24	1.00	\$2.83
Rose, Wood's	0.96	0.00	\$19.68
Sagebrush, Mountain or Big	0.07	3.70	\$1.38
Flax, Lewis Blue	0.30	1.99	\$4.95
Red Top	0.02	2.29	\$0.16
Sagebrush, Silver	0.10	1.94	\$3.10
Saltbush, Four Wing	0.62	0.85	\$7.75
Serviceberry	0.29	0.53	\$17.84
Snowberry, Mountain	0.58	1.00	\$29.29
Penstemon, Rocky Mountain	0.14	2.19	\$4.13
Yarrow, Western	0.07	4.26	\$2.93
Globemallow, Munro	0.08	0.91	\$7.00
Aster, Pacific	0.02	0.35	\$2.39
Goldeneye - Showy	0.08	0.92	\$4.80
Totals Seed Mix	15.79	44.87	\$354.70

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

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
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	

No. of Acres:	244.4	Cost /Acre:	\$586.70
Estimated Failure Rate:	17.5%	Cost /Acre*:	\$586.70
*Selected Replanting Work Items:	TILLING,SEEDING		
Initial Job Cost: \$143,389.48			

mitiai JOU COSt.	ф 1-1 5,507. -1 0
Reseeding Job Cost:	\$25,093.16
Total Job Cost:	\$168,483
Job Hours:	244.00

Task descrip	otion:	Seed J Pit without shrubs (R	ange C)		
te: Trapper	Mine	Permit Action:	PR11	Permit/Job#	: <u>C1981010</u>
PROJECT	IDENTIFIC	ATION			
Task #:	N19	State: Colorado			None
Date:	11/30/2022	County: Moffat		Filename:	C010-N19
User:	ZTT				

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

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Arrowleaf Balsamroot	0.40	0.50	\$28.08
Beardless Wheatgrass - Whitmar	0.31	1.01	\$3.63
Mountain Brome - Bromar	0.72	1.16	\$2.74
Great Basin Wildrye - Magnar	0.92	3.74	\$10.63
Kentucky Bluegrass - Ginger	0.06	2.96	\$0.19
Alfalfa - Ladak (inoculated)	0.10	0.48	\$0.26
Burnett, Small (or Little) - Delar	0.40	0.51	\$1.00
Sheep Fescue - Covar	0.15	2.34	\$0.92
Milk Vetch, Cicer - Lutana	0.30	1.00	\$2.46

Slender Wheatgrass - San Luis	0.28	1.02	\$1.19
Streambank Wheatgrass - Sodar	0.26	0.85	\$1.48
Thickspike Wheatgrass - Critana	0.28	0.99	\$1.93
Western Wheatgrass - Arriba	0.38	0.96	\$2.47
Needlegrass, Green - Lodorm	0.24	1.00	\$2.83
Flax, Lewis Blue	0.30	1.99	\$4.95
Red Top	0.02	2.29	\$0.16
Penstemon, Rocky Mountain	0.14	2.19	\$4.13
Yarrow, Western	0.07	4.26	\$2.93
Globemallow, Munro	0.08	0.91	\$7.00
Aster, Pacific	0.02	0.35	\$2.39
Goldeneye - Showy	0.08	0.92	\$4.80
Totals Seed Mix	5.51	31.41	\$86.15

Description	Cost /Acre	e
Drill Seeding (DRMS Survey Cost)	\$232.00	
Total Seed	Application Cost/Acre \$232.00	

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

	Cost /Acre
	\$
Total Mulch Application Cost/Acre	\$0.00
	Total Mulch Application Cost/Acre

NURSERY STOCK PLANTING

	Cost	Pellet Cost	Cost /Acre
			\$
Totals 1	Nursery Stoc	k Cost / Acre	\$0.00

	No. of Acres:	65.8		Cost /Acre:	\$318.15
Estimate	ed Failure Rate:	17.5%		Cost /Acre*:	\$318.15
*Selected Replanti	ng Work Items:	TILLING,SEEI	DING		
Initial Job Cost: Reseeding Job Cost:					

Total Job Cost:	\$24,598
Job Hours:	66.00

Task descrij	otion:	Seed I Pit without Shrubs			
ite: Trapper	Mine	Permit Action:	PR11	Permit/Job	o#: <u>C1981010</u>
PROJECT	IDENTIFIC	ATION			
Task #:	N20	State: Colorado		Abbreviation:	None
Date:	11/30/2022	County: Moffat		Filename:	C010-N20
User:	ZTT				

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

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Arrowleaf Balsamroot	0.40	0.50	\$28.08
Beardless Wheatgrass - Whitmar	0.31	1.01	\$3.63
Mountain Brome - Bromar	0.72	1.16	\$2.74
Great Basin Wildrye - Magnar	0.92	3.74	\$10.63
Kentucky Bluegrass - Ginger	0.06	2.96	\$0.19
Alfalfa - Ladak (inoculated)	0.10	0.48	\$0.26
Burnett, Small (or Little) - Delar	0.40	0.51	\$1.00
Sheep Fescue - Covar	0.15	2.34	\$0.92
Milk Vetch, Cicer - Lutana	0.30	1.00	\$2.46

Slender Wheatgrass - San Luis	0.28	1.02	\$1.19
Streambank Wheatgrass - Sodar	0.26	0.85	\$1.48
Thickspike Wheatgrass - Critana	0.28	0.99	\$1.93
Western Wheatgrass - Arriba	0.38	0.96	\$2.47
Needlegrass, Green - Lodorm	0.24	1.00	\$2.83
Flax, Lewis Blue	0.30	1.99	\$4.95
Red Top	0.02	2.29	\$0.16
Penstemon, Rocky Mountain	0.14	2.19	\$4.13
Yarrow, Western	0.07	4.26	\$2.93
Globemallow, Munro	0.08	0.91	\$7.00
Aster, Pacific	0.02	0.35	\$2.39
Goldeneye - Showy	0.08	0.92	\$4.80
Totals Seed Mix	5.51	31.41	\$86.15

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

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

	Cost /Acre
	\$
Total Mulch Application Cost/Acre	\$0.00
	Total Mulch Application Cost/Acre

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
		Totals	Nursery Stoc	ek Cost / Acre	\$0.00

No. of Acres:	35.3	Cost /Acre:	\$318.15
Estimated Failure Rate:	17%	Cost /Acre*:	\$318.15
*Selected Replanting Work Items:	TILLING,SEEDING		
Initial Job Cost: \$11,230.70 Reseeding Job Cost: \$1,909.22			

Total Job Cost:	\$13,140
Job Hours:	35.00

Task descrip	ption:	Seed I/J Pits no shrubs (Ran	ge C)		
Site: Trapper	Mine	Permit Action:	PR11	Permit/Job	o#: <u>C1981010</u>
PROJECT	IDENTIFIC	ATION			
Task #:	N21	State: Colorado		Abbreviation:	None
Date: User:	11/30/2022 ZTT	County: Moffat		Filename:	C010-N21

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

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Arrowleaf Balsamroot	0.40	0.50	\$28.08
Beardless Wheatgrass - Whitmar	0.31	1.01	\$3.63
Mountain Brome - Bromar	0.72	1.16	\$2.74
Great Basin Wildrye - Magnar	0.92	3.74	\$10.63
Kentucky Bluegrass - Ginger	0.06	2.96	\$0.19
Alfalfa - Ladak (inoculated)	0.10	0.48	\$0.26
Burnett, Small (or Little) - Delar	0.40	0.51	\$1.00
Sheep Fescue - Covar	0.15	2.34	\$0.92
Milk Vetch, Cicer - Lutana	0.30	1.00	\$2.46

Slender Wheatgrass - San Luis	0.28	1.02	\$1.19
Streambank Wheatgrass - Sodar	0.26	0.85	\$1.48
Thickspike Wheatgrass - Critana	0.28	0.99	\$1.93
Western Wheatgrass - Arriba	0.38	0.96	\$2.47
Needlegrass, Green - Lodorm	0.24	1.00	\$2.83
Flax, Lewis Blue	0.30	1.99	\$4.95
Red Top	0.02	2.29	\$0.16
Penstemon, Rocky Mountain	0.14	2.19	\$4.13
Yarrow, Western	0.07	4.26	\$2.93
Globemallow, Munro	0.08	0.91	\$7.00
Aster, Pacific	0.02	0.35	\$2.39
Goldeneye - Showy	0.08	0.92	\$4.80
Totals Seed Mix	5.51	31.41	\$86.15

Description	Cost /Acre	e
Drill Seeding (DRMS Survey Cost)	\$232.00	
Total Seed	Application Cost/Acre \$232.00	

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
	\$
Total Mulch Application Cost/Acre	40.00
Total Mulch Application CostActe	\$0.00

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
		Totals	Nursery Stoc	ek Cost / Acre	\$0.00

	No. of Acres:	30.9	(Cost /Acre:	\$318.15
Estimate	ed Failure Rate:	17%	Co	ost /Acre*:	\$318.15
*Selected Replanti	ng Work Items:	TILLING,SEEI	DING		
Initial Job Cost: Reseeding Job Cost:					

Total Job Cost:	\$11,502
Job Hours:	31.00

Task descri	ption:	Seed C Pit No Shrubs			
te: Trapper	Mine	Permit Action:	PR11	Permit/Job	#: <u>C1981010</u>
	IDENTIFIC			Abbrovistion	None
Task #: Date:	N22 11/30/2022	State: <u>Colorado</u> County: Moffat		Abbreviation: Filename:	None C010-N22
User:	ZTT				

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

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Arrowleaf Balsamroot	0.40	0.50	\$28.08
Beardless Wheatgrass - Whitmar	0.31	1.01	\$3.63
Mountain Brome - Bromar	0.72	1.16	\$2.74
Great Basin Wildrye - Magnar	0.92	3.74	\$10.63
Kentucky Bluegrass - Ginger	0.06	2.96	\$0.19
Alfalfa - Ladak (inoculated)	0.10	0.48	\$0.26
Burnett, Small (or Little) - Delar	0.40	0.51	\$1.00
Sheep Fescue - Covar	0.15	2.34	\$0.92
Milk Vetch, Cicer - Lutana	0.30	1.00	\$2.46

Slender Wheatgrass - San Luis	0.28	1.02	\$1.19
Streambank Wheatgrass - Sodar	0.26	0.85	\$1.48
Thickspike Wheatgrass - Critana	0.28	0.99	\$1.93
Western Wheatgrass - Arriba	0.38	0.96	\$2.47
Needlegrass, Green - Lodorm	0.24	1.00	\$2.83
Flax, Lewis Blue	0.30	1.99	\$4.95
Red Top	0.02	2.29	\$0.16
Penstemon, Rocky Mountain	0.14	2.19	\$4.13
Yarrow, Western	0.07	4.26	\$2.93
Globemallow, Munro	0.08	0.91	\$7.00
Aster, Pacific	0.02	0.35	\$2.39
Goldeneye - Showy	0.08	0.92	\$4.80
Totals Seed Mix	5.51	31.41	\$86.15

Description	Cost	t /Acre
Drill Seeding (DRMS Survey Cost)	\$232	2.00
Total Seed	Application Cost/Acre \$232	2.00

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

	Cost /Acre
	\$
Total Mulch Application Cost/Acre	\$0.00
	Total Mulch Application Cost/Acre

NURSERY STOCK PLANTING

	Cost	Pellet Cost	Cost /Acre
			\$
Totals 1	Nursery Stoc	k Cost / Acre	\$0.00

	No. of Acres:	188.7		Cost /Acre:	\$318.15
Estimate	ed Failure Rate:	17%		Cost /Acre*:	\$318.15
*Selected Replanti	ng Work Items:	TILLING,SEEI	DING		
Initial Job Cost: Reseeding Job Cost:	· · · · · ·				

Total Job Cost:	\$70,241
Job Hours:	189.00