



February 24, 2025

Basil Bear  
Bowie Resources, LLC  
P.O. Box 1488  
Paonia, CO 81428

**RE: Bowie No. 2 Mine, C-1996-083, Proposed Bond Adjustment, SI-03,  
Response to BRL Letter “MT-06 Request for RCE Revisions,” January 15, 2025**

Dear Mr. Bear:

Per Rule 2.08.3 of the Rules and Regulations of the Colorado Mined Land Reclamation Board for Coal Mining (Rules), the Division of Reclamation, Mining and Safety (Division) performed a midterm review (MT-06) of the Bowie No. 2 permit last year, and we published a document related to this review on October 3, 2024. Attached to this document was an updated reclamation cost estimate (RCE). The reclamation liability for the Bowie No. 2 Mine was determined to be \$15,253,596.00.

This revised liability was a significant increase from the previous amount of \$11,448,977.00, which was determined during Permit Renewal No. 5 (RN-05) in February 2023. The Division issued a Proposed Bond Adjustment and Informal Conference Notice to the Operator, Bowie Resources, LLC (BRL) on October 4, 2024, formally notifying BRL of the proposed bond increase amount of \$3,804,619.00 and providing them the opportunity to request an informal conference to discuss the adjustment. BRL requested an informal conference on October 28, 2024, which took place at the Division’s office in Denver on November 20, 2024. During the conference, BRL agreed to provide a response letter outlining their specific concerns with the Division’s RCE no later than January 15, 2025. This letter was submitted by BRL (via Wolverine Fuels, LLC) on January 15, 2025.

The Division has completed its review of BRL’s response letter, in which, significant details were provided to support several proposed adjustments to the RCE. We appreciate the amount of time and effort that went into preparing this response.

In response to BRL’s concerns regarding the general cost data sources and methodologies/assumptions used by the Division’s cost estimating software (CIRCES), please refer to the enclosed Memorandum prepared by Amy Yeldell, the Division’s reclamation cost estimating specialist (**Enclosure 1**). In summary, Ms. Yeldell’s major points include the following:

1. At this time, the Division does not plan to change our source for equipment ownership and operating costs. The Division cannot choose its data sources on a case-by-case basis and must use nationally recognized data that is applicable statewide.
2. The Division’s unit costs (in CIRCES) are updated every July, so it would be inappropriate to implement any systemwide changes outside of our normal update.
3. The Division would need to ensure that Mine and Mill Cost (mentioned by BRL) could provide cost data for the entire fleet of equipment utilized in the CIRCES database so that sources are



- consistent throughout the entire system before considering a switch to this source.
4. Regarding seeding costs, the Division uses a standardized system that has fixed costs which are applicable across the State. It is clearly too onerous of a process to obtain individual quotes for each mine site. The Division would have to continually ensure their adequacy and validity. The Division will continue to use the seeding rates and revegetation costs last updated in 2024. The Division may conduct another survey in 2025, after which, any changes to costs would go into effect after the July 2025 CIRCES update.
  5. While CIRCES includes a robust list of over 450 species, it cannot include all plant species and varieties potentially used for reclamation around the State. In the instance where a species is not available in CIRCES, a specialist may occasionally substitute an ecologically appropriate alternative.
  6. The OSMRE Handbook for Calculation of Reclamation Bond Amounts calculates the mobilization and demobilization cost as a percentage of the direct cost based on type and number of equipment to be hauled to the site. The cost estimate lists out each piece of equipment used for the project and the individual cost associated with mobilizing that piece of equipment from the nearest major city or town within the project area region.

In addition to the items addressed by Ms. Yeldell's Memorandum, the Division has updated several tasks in the RCE per specific requests made in the BRL letter. We have also revised other tasks in the RCE that contained obsolete input parameters or otherwise needed to be updated to meet current Division policy. These revisions to tasks are described below in the body of this letter, under the applicable heading. A summary table of these revisions is provided after the discussion. The Division is enclosing a revised Cost Summary sheet and the specific task sheets that were recently revised (**Enclosure 2**). Enclosure 2 also includes three additional tasks that were erroneously omitted or did not print correctly in the MT-06 RCE: Task 027, Task 106cq, and Task 106gs.

### **Choices of Equipment**

Regarding Task 014, the Division agrees with BRL: a CAT 988H loader should not be used for this task, because it was not selected for any other tasks. The Division has revised this task, using a CAT 950H loader (it appears to be more economical than a CAT 365CL). We also updated the trucks for this task, using the Generic 10-12 CY selection.

The Division identified a similar situation with Task 040, for which, the selected loader was a CAT 345L. That equipment was replaced with a CAT 950H loader, to be consistent with other tasks.

The mobilization/demobilization costs in Tasks 180 and 181 were updated to remove or change equipment, as appropriate.

### **Push/Haul Distances**

Regarding Task 011, the Division agrees with BRL: the distance was reduced from 200 feet to 50 feet.

Regarding Task 045A, the Division agrees with BRL: the distance was reduced from 200 feet to 150 feet. The Division also updated this task to account for the downhill push.

Regarding Task 110, the Division agrees with BRL: the distance was reduced from 8,000 feet to 6,700 feet.

### **Bulldozer Ripping Work**

The Division agrees with BRL that several ripping tasks are not necessary, as these areas will be covered with material from backfilling, prior to topsoiling and seeding. Therefore, Tasks 060, 061, 062, 064, and 065 were deleted from the RCE.

Task 063 was not deleted from the RCE, but the area to be ripped was decreased substantially from the previous area of 169 acres. Per correspondence with BRL, the areas that should remain in this task are the conveyor corridor and soil piles (Topsoil Stockpile A, the coverfill pile next to Gob Pile #2, and the soil piles beside Gob Pile #3), for a total of 15.6 acres.

Task 070 was revised to not include adverse conditions.

### **Revegetation Costs**

Task 150 was not revised. It is the Division's policy to include mulching during reseeding, if mulch is used during the initial seeding operation.

Task 154 was updated to include the pasture seed mix specified in the Permit Application Package (Seed Mix 7). Also, the costs for mulching were removed from this task, and the hours were reduced to one hour per acre. Tilling was added to this task, per Division policy.

Task 157 (weed control) was revised to address an error identified in the MT-06 RCE. No weed control chemicals were previously selected, but they were added for the updated estimate.

### **Demolition**

Task 165 was revised to replace obsolete selections for conveyors with currently available selections. As part of this update, it was assumed that the scrap metal from the demolished conveyors would be hauled to a landfill. The Division determined that a likely landfill to use is near Orchard City, located approximately 30 miles west of the mine.

### **Indirect Costs**

The updated Cost Summary sheet includes the following revisions:

- The job superintendent costs were updated based on the revised total hours and set at 50 percent of this value, per Division policy.
- The Division agrees with BRL that 4 percent for Engineering Work and/or Contract/Bid

- Preparation is appropriate, and the value was set accordingly.
- The Division agrees with BRL that 3.13 percent for Reclamation Management and/or Administration is appropriate, and the value was set accordingly.

BRL suggested that the Engineering Work and Reclamation Management rates be based on the direct costs only and not the direct costs plus overhead and profit. However, the specialist performing the cost estimate in CIRCES is not able to adjust how these costs are calculated, other than selecting the specific percentage to be applied for each of these tasks. The order in which these costs are added is integrated into CIRCES, and thus, applied in the same manner for all cost estimates.

### **Summary of Changes in Costs**

A summary of changes made to individual tasks from the MT-06 RCE is presented in the table below. The revisions resulted in a reduction in the total reclamation liability from \$15,253,596.00 to \$13,847,985.00, a reduction of \$1,405,611.00 from the MT-06 RCE.

### Summary of Revisions to Individual Tasks

Task	Description	MT-06 Cost, October 2024	Revised Cost, February 2025
000	Total Indirect Costs	\$3,300,726	\$2,814,356
011	Regrade Train LO Facilities and Railbed Benches	\$338,250	\$116,411
014	Haul Fill fr Adj. Mat'l Storg to B-Seam Portal Bnch	\$69,635	\$48,270
040	Haul refuse fr Gob Pile 2/3 dry areas for plcemnt	\$621,398	\$265,706
045A	Distribute Gob Pile #2 cover hauled by T/L	\$184,970	\$70,100
060	Rip Utility Bench	\$ 656	Deleted
061	Rip D-Portal Bench	\$7,870	Deleted
062	Rip Truck LO and Coal Stockpile Area	\$4,372	Deleted
063	Rip convyr coridr, soil pile areas befor TS replcmt	\$125,198	\$11,557
064	Rip Train LO and railbed benches	\$16,298	Deleted
065	Rip B-Portal Bench	\$7,870	Deleted
070	Rip Haul Roads (Portion to Reclaim), Old Truck LO	\$244,890	\$131,967
110	Replace TS from Stockpile A to Portal/Utility Bench	\$692,450	\$595,530
154	Broadcast Seed Mix 3 on Gob Pile #3	\$198,658	\$19,887
157	Weed Control Over 10-Year Liability Period	\$66,847	\$205,679
165	Demolish and Remove all Structures	\$2,233,883	\$2,313,614
180	Mob/Demob Equipment for 1st Construction Season	\$61,331	\$63,389
181	Mob/Demob Equipment for 2nd Construction Season	\$61,331	\$60,784

*Note: The MT-06 value for Task 040 is based on the individual task sheet, because the value in the Cost Summary generated incorrectly when MT-06 RCE was sent to BRL.*

The current bond held for this site is \$11,448,977.58, which is \$2,399,007.42 less than our revised cost estimate of \$13,847,985.00. Per the agreement made during the informal conference, the Division will initiate the Surety Increase process within 30 days of the date of this letter to ensure that the Bowie No. 2 Mine is sufficiently bonded. Therefore, any comments or questions that BRL might have regarding the Division's revised RCE should be submitted by this date.

BRL can contact me at [rob.zuber@state.co.us](mailto:rob.zuber@state.co.us) or 720.601.2276.

Sincerely,

A handwritten signature in blue ink, appearing to read "Rob Zuber".

Rob Zuber, P.E.  
Environmental Protection Specialist

EC: Ryan Wilson, Bowie Resources, LLC  
Tamme Bishop, Stover & Associates  
Amy Yeldell, DRMS  
Amy Eschberger, DRMS  
Jason Musick, DRMS

Enclosure 1: Memorandum from Amy Yeldell, DRMS; MT-06 Reclamation Cost Estimate for  
Bowie No. 2 Mine (C-1996-083), Response to Operator Letter of 15 January 2025

Enclosure 2: Revised Cost Summary sheet and specific task sheets

## **Enclosure 1**

Memorandum from Amy Yeldell, DRMS;  
MT-06 Reclamation Cost Estimate for Bowie No. 2 Mine (C-1996-083),  
Response to Operator Letter of 15 January 2025



## Memorandum

Date: February 12, 2025  
To: Rob Zuber  
From: Amy Yeldell – Cost Estimating Task Force  
Cc: Zach Trujillo, Jason Musick, Amy Eschberger, and Travis Marshall  
RE: MT-06 Reclamation Cost Estimate for Bowie No. 2 Mine (C-1996-083),  
Response to Operator Letter of 15 January 2025

Hi Rob,

On January 22, 2025, you sent a request for my assistance addressing the five items which were identified in the January 15, 2025, letter from Bowie No. 2 Mine regarding the Division of Reclamation, Mining and Safety's (Division's) MT-06 cost estimate. I have also reviewed the response letter from Wolverine and will try to address any other concerns.

First, I have reiterated and expanded upon the Division's general methodology regarding reclamation cost estimates which we discussed during the November 20, 2024, informal conference.

### Regulatory Requirements:

The State of Colorado (State) has the obligation to evaluate the adequacy of a bond at the time of permit renewal<sup>1</sup> (CRS 34-33-113(1)). Additionally, evaluation of the bond is discretionary based on a reasonable interpretation<sup>2</sup>, meaning the state has the responsibility to determine the adequacy and adjust accordingly during the mid-term review (CRS 34-33-113(5)). The amount of the bond shall be sufficient to assure the completion of the reclamation plan if the work had to be performed by the Board, through independent contractors, in the event of forfeiture<sup>3</sup> per Coal Rule 3.02.2(1).

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<sup>1</sup> 30 CFR 774.15(b)(2)(iii) and (c)(1)(v))

<sup>2</sup> 30 CFR 774.15(c)(1)(i)

<sup>3</sup> 30 CFR 800.14





### General Cost Data Sources:

In order to ensure that the CIRCES cost estimating software contains accurate, reliable and up-to-date cost data for mine reclamation work, the Division acquires cost data from several nationwide publications and local or regional data sources each year and incorporates the data into the software's customized menus and data tables. Data from numerous sources is needed because of the diverse nature of mine reclamation work and the relatively specialized nature of most published cost data. Each July, the CIRCES cost estimating software is updated with the current year's pricing. These updates include equipment, production, and non-equipment costs.

The Equipment Cost update includes the ownership and operating cost for all equipment used in CIRCES ranging from Air tools to Scrapers. The primary source for equipment costs is EquipmentWatch. EquipmentWatch is a nationally recognized standard for obtaining equipment ownership and operating costs. This is the program used by the Office of Surface Mining Reclamation and Enforcement (OSMRE) and referenced in the Handbook for Calculations of Reclamation Bond Amounts.

The Production cost of equipment is generally only slightly tweaked each year unless there is a change in the equipment used. In that case, the manufacture data and the productivity of each piece of equipment in CIRCES can be updated as necessary. The Caterpillar handbook is used to estimate the efficiency of each piece of equipment based on the variables affecting the productivity, and ultimately determine the earthmoving cost. Also covered under Production data is Equipment Operator Wage Rates, Tax Rates (Sales tax, FICA and un-employment) and Location Adjustment. The Division utilizes labor rate, fringe benefits, and employer burden (unemployment, FICA, worker's comp.) data from the Colorado Department of Transportation (CDOT"). The Division recognizes that costs differ based on specific locations but as an agency we need to ensure estimates are equitable across the State for all operators. CIRCES does this by using a site location adjustment and survey data from multiple sources across that state. In general, Colorado has two basic wage agreements for construction work, urbanized counties and Colorado's remaining counties. Note that the Operator Wage Rates are based on Davis-Bacon Wages.

Non-equipment Costs are updated from a variety of sources. This update includes all other costs not directly tied to a piece of equipment (Demolition, Mineseal, Borehole and Revegetation). The CIRCES software utilizes published unit cost data from the RSMeans Data (RSMeans/MEANS). The Divisions uses the RSMeans Site Work and Landscaping, Building and Construction Costs and Heavy Construction Cost Manuals. The RSMeans manuals contain an extensive array of line-item costs which are also updated annually from a nation-wide survey.

For those items not covered under RSMeans or where Colorado has specialized costs, the Non-equipment cost is sourced from the Inactive Mine Reclamation Program (IMRP) based on actual closure data from around the State. In addition to the published cost data sources described above, the Division has acquired more specialized cost data by conducting periodic surveys over the years from local contractors, obtaining written or telephone quotes, and reviewing cost data provided by mining companies.

In some cases, current cost data may be unavailable for various work items included on the CIRCES estimating menus. In such cases, a reasonable approximation of the current cost can be obtained by applying a historical cost index to out-of-date data.

#### Methodology / Assumptions:

All bonds are calculated based on the following assumptions. This is in alignment with the OSMRE's Handbook for Calculations of Reclamation Bond Amounts.

- The bond amount will reflect the cost of engaging a third-party contractor to complete the reclamation plan in the event that the state or federal regulatory authority must complete the reclamation.
- None of the mining equipment is available on site for conducting reclamation activities.
- The bond amount will reflect the "worst-case scenario;" i.e., the cost of reclaiming the site if the permittee forfeits the bond at the point of maximum reclamation cost liability, under the reclamation and operation plans approved as part of the permit. Calculating the bond amount in this manner should ensure the availability of adequate reclamation funds at all times during the life of the operation.
- The bond amount shall not account for credit resulting from the salvage value of building materials or abandoned equipment and supplies.
- The permittee will be in compliance with the approved reclamation and operation plans, permit conditions, and performance standards at all times.

#### Specific Concerns Raised in RDZ request for assistance 1/22/2025:

1. Provide a detailed discussion supporting the Division's use of equipment costs, including our use of values from EquipmentWatch. In Ryan's letter, this is discussed in the first two pages, and there is a related table (Appendix 1) on the last page. In your discussion, I want you to address his comment (at the bottom of the first page) that the use of rental equipment would "render a contractor's bid uncompetitive."

“Bowie respectfully requests that the Division use the more industry standard approach of Mine and Mill Cost Models for equipment costs throughout the RCE. A full table showing the Mine and Mill Costs is attached as Appendix 1.”

Response: As stated above, EquipmentWatch is the subscription-based program utilized by both the Division and the OSMRE for determining equipment ownership and operating costs. The Division cannot choose its data sources on a case-by-case basis and must use nationally recognized data that is applicable statewide. In the event of forfeiture, the bonds should be sufficient to cover the cost for the State to hire a third-party contractor. Furthermore, the Division’s unit costs are updated each July, so it would be inappropriate to implement such a change outside of our normal update. The Division would need to ensure that Mine and Mill Cost could provide cost data for the entire fleet of equipment utilized in the CIRCES database so that sources are consistent throughout the entire system before considering such a switch. In general, suggesting that the Division switch its system-wide cost sources in direct response to an unfavorable cost estimate for one permit is unreasonable. This type of discussion should occur independent of a single permit revision. At this time, the Division does not plan to change our source for equipment ownership and operating costs.

2. Provide a detailed discussion supporting the Division’s costs for revegetation, including the costs for seed and mulch. In Ryan’s letter, the discussion of revegetation costs starts on page 3, and he includes supporting information in the exhibits (Exhibits 2 – 5).

Response: Included within response for item #3

3. Provide an explanation as to why broadcast seeding is more expensive than other methods.

“Bowie asks that the Division revises the seed mix and cost to match the price quoted by its supplier at \$1,075 per acre. Bowie also requests the division revise the mulch material costs to \$350/acre.”

Response:

With regards to seeding costs, these prices are updated in CIRCES every 3-4 years. The last update occurred in 2024, and before that, in 2021. While some revegetation costs are available in RSMeans it is the Division's practice to use survey data. The Division contacts several seed vendors across the State and then averages the provided quotes per species. In the even that data cannot be obtained for a specific species, the cost is indexed (16.95% inflation from May of 2021 to March of 2024). Additionally, if there are less than three quotes for a species, the indexed cost is averaged to determine the new cost. Attached is a spreadsheet which includes all seed species in the CIRCES database, quoted prices, and the 2024 PLS Cost Per Pound used in CIRCES.

For seeding method and materials the Division uses a combination of RSMeans and indexed survey cost. Note that some unit costs are no longer offered through RSMeans, those costs have also been indexed (16.95% inflation from May of 2021 to March of 2024). For seeding application, this price includes labor only since the materials are dependent on the seed being applied. Likewise, material costs do not include any labor or equipment. The specific sources for each item are as follows:

- Drill seeding (MEANS 32 92 19.13 0020)
- Broadcast seeding (DRMS survey price indexed)
- Power mulcher (MEANS 32 91 13.16 0350)
- Crimping, with tractor (DRMS survey price indexed)
- Straw, delivered (MEANS 31 25 14.16 1200, price indexed, no longer available)

For similar reasons mentioned above, the Division uses a standardized system that has fixed costs which are applicable across the State. Based on the seed list provided, it is clearly too onerous of a process to obtain individual quotes for each site. The Division would have to continually ensure their adequacy and validity. The Division will continue to use the seeding rates and revegetation costs last updated in 2024. The Division is looking into conducting another survey for reclamation materials and applications where items have been indexed. These numbers would go into effect during the 2025 cost update. The Operator is encouraged to do their own reclamation work at the site utilizing their vendor(s) of choice, then apply for a bond release, as applicable.

4. Respond to the request that we reduce the total job hours for Task 154. This request is near the top of page 5 in the letter from Ryan.

“Bowie does not agree that it would take double the amount of time simply because the seed rate is doubled to allow for broadcast seeding. Bowie requests the total job hours for this task be reduced to 30.63 (1 hr/acre).”

Response: Job hours for revegetation are typically based on the methods employed over the total area receiving them. It is an industry standard to estimate the typical treatments (disc, drill seed, and mulch) can be implemented at a rate of 1 hour/acre. If nursery stock or hand broadcast seeding/mulching is utilized, the revegetation job time should be increased. Also, additional time should be allocated for non-contiguous seeding areas or odd shapes that require the tractor to frequently reset and drive in an inefficient pattern. The job hours should also include any secondary seeding acres. For example: a 20-acre initial seeding with a 45% failure rate should take roughly 29 hrs. All revegetation job hours should be adjusted to follow this methodology.

5. Under Indirect Costs on page 5 of the letter, the operator requests that the Engineering and Project Management rates be based on the direct costs only and not based on the direct costs plus overhead and profit. Please let me know if we can comply with this request.

“Pursuant to the OSMRE Handbook for Calculation of Reclamation Bond Amounts (Rev October 2020), “engineering redesign costs are calculated as a percentage of the total direct cost” (pg. 28) and the “project management fee is calculated as a percentage of direct cost” (pg. 28). Bowie requests that the Engineering and Project Management rates be based on the direct costs only and not the direct costs plus overhead and profit.”

Response: CIRCES is programmed to automatically apply both the Engineering and Project Management costs to the contract amount (Direct Costs + Overhead and Profit), this is not up to the discretion of the specialist performing the cost estimate. The only input the specialist has control over is the percentage that is applied. For coal sites, the percentage is typically based on the total cost of the job, (% of Contract Amount).

For the Engineering work and/or contract/bid prep cost, this data comes from the RSMeans Site Work & Landscape Cost Data, General Requirements Section – Professional Consultant – Engineering Fees. RSMeans provides a range of values expressed as a percentage of the contract amount.

Similarly, the Reclamation management and/or administration cost for coal sites comes from the RSMeans Site Work & Landscape Cost Data, Section – Professional Consultant – Engineering Fees. RSMeans provides a range of values expressed as a percentage of the contract amount.

The indirect percentage applied for Engineering work and/or contract/bid prep is the average range of percentages in the RSMeans book, 4.25%, which is the standard amount applied to all Minerals sites. Likewise, the percentage used for Reclamation management and/or administration was based on the Minerals Program statutory requirement of 5%. The Contract Amount for the MT-06 cost estimate is \$13,961,644. Using RSMeans Construction Cost Data, Engineering work and/or contract/bid prep should be 4% of the Contract Amount and Reclamation management and/or administration should be 3.13% of the Contract Amount.

Potential Additional Concerns Identified in Bowie letter 1/15/2025:

- “The seed mix provided in the RCE uses some alternative species and an additional PLS lb. Bowie”

Response: While CIRCES includes a robust list of 450+ species, it cannot include all plant species and varieties potentially used for reclamation around the State. In the instance where a species is not available in CIRCES, a specialist may occasionally substitute for an alternative species. In general, if alternative species are included in the reclamation seed mix, those should be used. In lieu of an approved alternative species, the specialist selects an ecologically appropriate alternative.

- Mobilization/Demobilization:

Response: The OSMRE Handbook for Calculation of Reclamation Bond Amounts calculates the mobilization and demobilization cost as a percentage of the direct cost based on type and number of equipment to be hauled to the site. This methodology allows for some discretion by the specialist performing the cost estimate. For this reason, the cost estimate

lists out each piece of equipment used for the project and the individual cost associated with mobilizing that piece of equipment from the nearest major city of town within the project area region.

I hope that I have addressed the concerns raised by the operator. Please let me know if you require clarification on any items or if additional points of concern arise.

Sincerely,

A handwritten signature in blue ink that reads "Amy Yeldell". The signature is written in a cursive, flowing style.

Amy Yeldell  
EPS III – Bonding

Enclosures:  
Divisions CIRCES Seed List Updated 2024

Type	Common Name	Scientific	PLS Cost Per Pound	Granite	Buffalo	Southwest	Pawnee	Colorado Seed	2021+ Inflation	2021	Source
Alfalfa	Alfalfa - Common	Medicago sativa	\$3.99	\$5.00		-			\$2.98	\$2.55	Survey
	Alfalfa - Forager	Medicago sativa	\$3.99	\$5.00		-			\$2.98	\$2.55	Survey
	Alfalfa - Golden West Blend	Medicago sativa	\$2.98			-			\$2.98	\$2.55	Index
	Alfalfa - GP-Cimarron	Medicago sativa	\$2.98			-			\$2.98	\$2.55	Index
	Alfalfa - GP-Haygrazer	Medicago sativa	\$2.98			-			\$2.98	\$2.55	Index
	Alfalfa - GP-Rio	Medicago sativa	\$2.98			-			\$2.98	\$2.55	Index
	Alfalfa - Ladak (inoculated)	Medicago sativa	\$3.98	\$5.00	\$3.75	-	\$3.75	\$4.40	\$2.98	\$2.55	Survey
	Alfalfa - NK-1019	Medicago sativa	\$2.98			-			\$2.98	\$2.55	Index
	Alfalfa - NK Spredor 3 (creeping)	Medicago sativa	\$2.98			-			\$2.98	\$2.55	Index
	Alfalfa - Ogallala (coated)	Medicago sativa	\$2.98			-			\$2.98	\$2.55	Index
	Alfalfa - Ranger (inoculated)	Medicago sativa	\$3.87	\$5.00	\$3.75	\$3.95	\$3.75	\$3.80	\$2.98	\$2.55	Survey
	Alfalfa - Vernal	Medicago sativa	\$3.72	\$5.00	\$3.49	-	\$3.40		\$2.98	\$2.55	Survey
	Alfalfa - WL-252HQ, (coated)	Medicago sativa	\$4.49			-	\$6.00		\$2.98	\$2.55	Survey
	Alfalfa - WL-322HQ (coated)	Medicago sativa	\$4.49			-	\$6.00		\$2.98	\$2.55	Survey
	Alfalfa - WL-323 (coated)	Medicago sativa	\$4.49			-	\$6.00		\$2.98	\$2.55	Survey
	Alfalfa - WL-324 (coated)	Medicago sativa	\$4.49			-	\$6.00		\$2.98	\$2.55	Survey
	Alfalfa - WL-325HQ (coated)	Medicago sativa	\$4.49			-	\$6.00		\$2.98	\$2.55	Survey
	Alfalfa - WL-326GZ (coated)	Medicago sativa	\$4.49			-	\$6.00		\$2.98	\$2.55	Survey
	Alfalfa - WL-414	Medicago sativa	\$4.49			-	\$6.00		\$2.98	\$2.55	Survey
	Alfalfa - Travois (Yellow Alfalfa)	Medicago sativa	\$8.30	\$20.00		\$4.20	\$6.00		\$2.98	\$2.55	Survey
	Alsike Clover	Trifolium hybridum	\$5.25	\$10.00	\$4.15	-	\$3.25	\$4.40	\$4.47	\$3.83	Survey
	Kura Clover (coated)	Trifolium sp.	\$13.13			-			\$13.13	\$11.23	Index
	Ladino or White Clover - Regal	Trifolium repens	\$6.20		\$7.75	\$6.30	\$6.00	\$6.55	\$4.41	\$3.78	Survey
	Prairie Clover or Dalea, James	Dalea jamesii	\$25.73			-			\$25.73	\$22.00	Index
	Prairie Clover, Purple - Kaneb	Dalea purpurea	\$44.90	\$35.00		\$33.60			\$66.11	\$56.53	Survey
	Prairie Clover, Silky	Dalea villosa	\$12.48			-			\$12.48	\$10.68	Index
	Prairie Clover, White	Dalea candida	\$38.83	\$40.00		-	\$30.00		\$46.49	\$39.75	Survey
	Red Clover - Medium	Trifolium pratense	\$7.04	\$10.00	\$3.99	\$4.65	\$3.50	\$4.50	\$15.58	\$13.33	Survey
	Strawberry Clover (coated)	Trifolium fragiferum	\$9.84	\$10.00	\$15.19	\$12.00	\$7.50	\$7.00	\$7.34	\$6.28	Survey
	White Clover - New Zealand	Trifolium repens	\$5.63			\$6.30	\$6.00		\$4.59	\$3.93	Survey
	White Dutch Clover - Alice	Trifolium repens	\$6.96			\$6.30	\$6.75		\$7.83	\$6.70	Survey
	White Dutch Clover - VNS	Trifolium repens	\$6.80	\$6.00	\$6.59	\$6.30	\$6.75	\$8.50	\$6.66	\$5.70	Survey
	White Sweet Clover	Melilotus officinalis	\$5.67	\$8.00	\$4.59	\$4.95	\$6.00		\$4.82	\$4.13	Survey
	Yellow Sweet Clover - Madrid	Melilotus officinalis	\$4.53		\$4.59	\$4.95	\$4.90	\$4.90	\$3.30	\$2.83	Survey
	Birdsfoot Trefoil - Empire	Lotus corniculatus	\$9.47		\$8.99	\$8.30	\$8.50		\$12.10	\$10.35	Survey
	Birdsfoot Trefoil - Norcen/Viking	Lotus corniculatus	\$10.90		Ask		\$8.50		\$13.30	\$11.38	Survey
	Crown Vetch - Chemung	Coronilla varia	\$14.59		Ask				\$14.59	\$12.48	Index
	Crown Vetch - Emerald	Coronilla varia	\$15.19						\$15.19	\$12.99	Index
	Field Peas - Maple	Unknown	\$1.43						\$1.43	\$1.23	Index
	Golden Banner, Foothills	Thermopsis divaricarpa	\$81.95						\$81.95	\$70.08	Index
	Golden Banner	Thermopsis montanus	\$109.09						\$109.09	\$93.28	Index
	Golden Banner, Arroyo	Thermopsis rhombifolia	\$94.76						\$94.76	\$81.03	Index
	Lespedeza, Roundhead	Lespedeza capitata	\$264.75				\$160.00		\$369.51	\$315.96	Survey
	Lupine, Annual	Lupinus pusillus	\$36.79			\$31.50			\$42.07	\$35.98	Survey
	Lupine, Arroyo	Lupinus succulentus	\$30.40						\$30.40	\$26.00	Index



Type		Common Name	Scientific	PLS Cost Per Pound	Granite	Buffalo	Southwest	Pawnee	Colorado Seed	2021+ Inflation	2021	Source
Forbs	Legumes	Lupine, Dense Spike	Lupinus densiflorus	\$35.00						\$35.00	\$29.93	Index
		Lupine, Mountain	Lupinus alpestris	\$155.27			\$152.25	\$220.00		\$93.56	\$80.00	Survey
		Lupine, Silky	Lupinus sericeus	\$160.70				\$240.00		\$81.40	\$69.60	Survey
		Lupine, Silver	Lupinus argenteus	\$119.56	\$100.00		\$96.40	\$200.00		\$81.84	\$69.98	Survey
		Locoweed, Showy	Oxytropis lambertii	\$81.28						\$81.28	\$69.50	Index
		Locoweed, Silky	Oxytropis sericea	\$81.28						\$81.28	\$69.50	Index
		Milk Vetch, Cicer - Lutana	Astragalus cicer	\$9.79	\$10.00	\$8.35	\$10.50	\$10.50		\$9.59	\$8.20	Survey
		Milk Vetch, Cicer - Monarch	Astragalus cicer	\$9.56	\$10.00	\$9.69	\$10.50	\$8.00		\$9.59	\$8.20	Survey
		Sainfoin - Eski	Onobrychis viciaefolia	\$3.26		Ask	\$3.05			\$3.48	\$2.98	Survey
		Sainfoin - Remont	Onobrychis viciaefolia	\$3.70		Ask				\$3.70	\$3.16	Index
		Sainfoin - Renumex	Onobrychis viciaefolia	\$4.32						\$4.32	\$3.70	Index
		Sweetvetch, Utah or Northern	Hedysarum boreale ssp.	\$89.53	\$100.00		\$50.40	\$120.00		\$87.71	\$75.00	Survey
		Vetch, American	Vicia americana	\$123.12	\$120.00		\$75.60	\$180.00		\$116.86	\$99.93	Survey
		Vetch, Hairy	Vicia villosa	\$3.07			\$2.85	\$2.50	\$3.00	\$3.95	\$3.38	Survey
		Lupine, Tailcup	Lupinus caudatus	\$92.03	\$100.00		\$91.90			\$84.20	\$72.00	Survey
		Sainfoin - Shoshone	Onobrychis viciifolia	\$3.25	\$6.00			\$2.25	\$2.75	\$1.99	\$1.70	Survey
		Arrowleaf Balsamroot	Balsamorhiza sagittata	\$99.52	\$100.00		\$86.00	\$130.00		\$82.10	\$70.20	Survey
		Aster, Azure	Aster azureus	\$94.03						\$94.03	\$80.40	Index
		Aster, Engleman's	Aster engelmannii	\$226.88						\$226.88	\$194.00	Index
		Aster, New England	Aster novae-angliae	\$439.85	\$600.00			\$350.00		\$369.56	\$316.00	Survey
		Aster, Smooth	Aster laevis	\$310.44	\$600.00			\$160.00		\$171.33	\$146.50	Survey
		Beeplant, Golden	Cleome lutea	\$70.83	\$75.00					\$66.66	\$57.00	Survey
		Beeplant, Rocky Mountain	Cleome serrulata	\$40.44	\$35.00		\$35.20	\$60.00		\$31.58	\$27.00	Survey
		Black-eyed Susan	Rudbeckia hirta	\$31.35	\$35.00		\$27.55	\$26.00		\$36.84	\$31.50	Survey
		Blanketflower, Adobe	Gaillardia pinnatifida	\$47.03			\$36.75			\$57.31	\$49.00	Survey
		Blanketflower, Perennial	Gaillardia aristata	\$58.00	\$40.00		\$38.85	\$90.00		\$63.15	\$54.00	Survey
		Bundleflower, Illinois	Desmanthus illinoensis	\$13.32	\$6.00			\$10.00		\$23.97	\$20.50	Survey
		Burnett, Small (or Little) - Delar	Sanguisorba minor	\$4.46	\$5.00		\$2.90	\$7.00		\$2.92	\$2.50	Survey
		Butterwort, Golden	Senecio atratus	\$221.04						\$221.04	\$189.00	Index
		Columbine, Colorado	Aquilegia coerulea	\$234.51	\$300.00		\$246.75	\$210.00		\$181.27	\$155.00	Survey
		Coneflower, Greyheaded	Ratibida pinnata	\$64.59				\$90.00		\$39.18	\$33.50	Survey
		Coneflower, Pale Purple	Echinacea pallida	\$94.61				\$60.00		\$129.23	\$110.50	Survey
		Coneflower, Prairie	Ratibida columnifera	\$35.61	\$35.00		\$32.85	\$36.00		\$38.59	\$33.00	Survey
		Coneflower, Purple	Echinacea purpurea	\$38.36	\$45.00		\$35.70	\$40.00		\$32.75	\$28.00	Survey
		Coneflower, Western	Rudbeckia occidentalis	\$39.76						\$39.76	\$34.00	Index
		Coneflower, Yellow	Echinacea paradoxa	\$173.67						\$173.67	\$148.50	Index
		Coreopsis, Lance Leafed	Coreopsis lanceolata	\$31.69	\$30.00					\$33.39	\$28.55	Survey
		Coreopsis, Plains	Coreopsis tinctoria	\$64.16	\$30.00		\$29.15	\$30.00		\$167.47	\$143.20	Survey
		Daisy, Black Footed	Melampodium leucanthum	\$826.84						\$826.84	\$707.00	Index
		Daisy, Englemann's	Englemannia pinnatifida	\$148.99						\$148.99	\$127.40	Index
		Daisy, Goldenglow	Rudbeckia ampla	\$280.68						\$280.68	\$240.00	Index
		Daisy or Sunflower, Maximillians	Helianthus maxmilianii	\$56.83	\$75.00			\$30.00		\$65.49	\$56.00	Survey
		Daisy, Orange Mountain	Helinium hoopesii	\$66.43						\$66.43	\$56.80	Index
		Elephant Head	Pedicularis groenlandica	\$570.13						\$570.13	\$487.50	Index

Type		Common Name	Scientific	PLS Cost Per Pound	Granite	Buffalo	Southwest	Pawnee	Colorado Seed	2021+ Inflation	2021	Source
Wildflowers		Fireweed	Epilobium angustifolium	\$207.40	\$85.00					\$329.80	\$282.00	Survey
		Flax, Lewis Blue	Linum lewisii	\$42.30	\$45.00		\$39.90	\$65.00		\$19.30	\$16.50	Survey
		Gayfeather, Dotted	Liatris punctata	\$325.14	\$100.00			\$700.00		\$175.43	\$150.00	Survey
		Gentian, Fringed or Parry's	Gentiana parryi	\$853.74						\$853.74	\$730.00	Index
		Gentian, Tulip	Eustoma grandiflora	\$1,460.71						\$1,460.71	\$1,249.00	Index
		Gilia, Scarlet	Ipomopsis aggregata	\$276.00						\$276.00	\$236.00	Index
		Globemallow, Scarlet (or copper)	Sphaeralcea coccinea	\$185.55	\$150.00		\$183.75	\$250.00		\$158.47	\$135.50	Survey
		Lily, Mariposa	Calochortus gunnisonii	\$235.07						\$235.07	\$201.00	Index
		Larkspur, Showy	Delphinium ramosum	\$53.80						\$53.80	\$46.00	Index
		Lousewort, Parry's	Pedicularis parryi	\$222.21						\$222.21	\$190.00	Index
		Lousewort, Purple	Pedicularis crenulata	\$223.96						\$223.96	\$191.50	Index
		Marigold, Desert	Baileya multiradiata	\$94.44	\$100.00					\$88.88	\$76.00	Survey
		Marigold, Marsh	Caltha palustris	\$2,453.61						\$2,453.61	\$2,098.00	Index
		Milkweed, Butterfly	Asclepias tuberosa	\$351.35	\$200.00			\$450.00		\$404.06	\$345.50	Survey
		Milkweed, Swamp	Asclepias incarnata	\$219.97	\$150.00			\$160.00		\$349.91	\$299.20	Survey
		Monkey Flower	Mimulus lewisii	\$170.75						\$170.75	\$146.00	Index
		Old Man of the Mountain	Hymenoxys grandiflora	\$55.84						\$55.84	\$47.75	Index
		Paintbrush, Indian	Castilleja integra	\$198.58						\$198.58	\$169.80	Index
		Parsnip, Cow	Heracleum sphondylium	\$41.22						\$41.22	\$35.25	Index
		Penstemon, Firecracker	Penstemon eatonii	\$107.63	\$100.00		\$102.90	\$120.00		\$7,354.99	\$6,289.00	Survey
		Penstemon, Four Corners	Penstemon lentus	\$44.21						\$44.21	\$37.80	Index
		Penstemon, Palmer	Penstemon palmeri	\$77.93	\$85.00		\$63.00	\$100.00		\$63.74	\$54.50	Survey
		Penstemon, Rocky Mountain	Penstemon strictus	\$61.41	\$75.00		\$66.15	\$70.00		\$34.50	\$29.50	Survey
		Penstemon, Sand	Penstemon ambiguus	\$177.18						\$177.18	\$151.50	Index
		Poppy, California	Eschscholtzia californica	\$33.48	\$45.00		\$32.55	\$40.00		\$16.37	\$14.00	Survey
		Primrose, Missouri Evening	Oenothera macrocarpa	\$65.55	\$100.00			\$30.00		\$66.66	\$57.00	Survey
		Primrose, Pale Evening	Oenothera pallida	\$106.45	\$100.00			\$110.00		\$109.35	\$93.50	Survey
		Primrose, Prairie	Oenothera villosa	\$66.08						\$66.08	\$56.50	Index
		Primrose, Riparian	Oenothera elata	\$64.32						\$64.32	\$55.00	Index
		Prince's Plume	Stanleya pinnata	\$84.20						\$84.20	\$72.00	Index
		Shooting Star	Dodecatheon pulchellum	\$1,637.30						\$1,637.30	\$1,400.00	Index
		Sunflower (or daisy), Oxe-eye	Heliopsis helianthoides	\$39.76						\$39.76	\$34.00	Index
		Sulphur Flower (or Buckwheat)	Eriogonum umbellatum	\$181.29	\$150.00		\$174.30	\$250.00		\$150.87	\$129.00	Survey
		Vervain, Blue	Verbena hastata	\$101.27	\$125.00			\$80.00		\$98.82	\$84.50	Survey
		Yarrow, Western	Achillea lanulosa	\$48.25			\$35.85	\$60.00		\$48.89	\$41.80	Survey
		Yarrow, White	Achillea millefolium	\$73.39	\$100.00					\$46.78	\$40.00	Survey
		Golden Banner	Thermopsis montanus	\$97.07						\$97.07	\$83.00	Index
		Globemallow, Gooseberry Leaf	Sphaeralcea grossularifolia	\$135.06	\$150.00		\$141.75			\$113.44	\$97.00	Survey
		Globemallow, Munro	Sphaeralcea munroana	\$128.91	\$150.00		\$134.40			\$102.33	\$87.50	Survey
		Aster, Pacific	Aster chilense	\$139.76						\$139.76	\$119.50	Index
		Goldeneye - Showy	Viguiera multiflora, Heliomeris mu	\$114.18	\$100.00		\$126.55	\$160.00		\$70.17	\$60.00	Survey
		Bentgrass - Cato/Crenshaw Blend	Agrostis sp.	\$19.74						\$19.74	\$16.88	Index
		Bentgrass - Nu Penn Blend	Agrostis sp.	\$14.74						\$14.74	\$12.60	Index
		Bentgrass - Penn A-1	Agrostis sp.	\$18.80						\$18.80	\$16.08	Index

Type		Common Name	Scientific	PLS Cost Per Pound	Granite	Buffalo	Southwest	Pawnee	Colorado Seed	2021+ Inflation	2021	Source
	Bentgrass	Bentgrass - Penn A-4	Agrostis sp.	\$32.77						\$32.77	\$28.02	Index
		Bentgrass - Penncross	Agrostis sp.	\$12.29						\$12.29	\$10.51	Index
		Bentgrass - Penneagle	Agrostis sp.	\$13.27						\$13.27	\$11.35	Index
		Bentgrass - Penntrio	Agrostis sp.	\$16.14						\$16.14	\$13.80	Index
		Bentgrass - Putter	Agrostis sp.	\$13.89						\$13.89	\$11.88	Index
		Bentgrass - Seaside II	Agrostis sp.	\$15.17						\$15.17	\$12.98	Index
		Bentgrass - Redtop	Agrostis sp.	\$9.30						\$9.30	\$7.95	Index
	Bluegrass	Alpine Bluegrass	Poa alpina	\$23.93	\$30.00	\$20.09	\$28.90	\$24.00		\$16.67	\$14.25	Survey
		Big Bluegrass - Sherman	Poa sucunda, ampla	\$15.85	\$25.00	\$15.19	\$15.75	\$15.00	\$14.25	\$9.91	\$8.48	Survey
		Canada Bluegrass - Talon	Poa compressa	\$8.13	\$15.00	\$7.79	\$8.75	\$5.50	\$7.75	\$3.98	\$3.40	Survey
		Canby Bluegrass - Canbar	Poa canbyi	\$14.99	\$20.00	\$17.49	\$12.48	\$15.00	\$13.00	\$11.99	\$10.25	Survey
		Inland Bluegrass - Native	P.nemoralis ssp.interior	\$6.96						\$6.96	\$5.95	Index
		Kentucky Bluegrass - Ginger	Poa pratensis	\$4.15	\$5.00	Ask	\$4.60		\$3.25	\$3.74	\$3.20	Survey
		Kentucky Bluegrass - Lato	Poa pratensis	\$3.69		\$2.99	\$4.60		\$3.25	\$3.92	\$3.35	Survey
		Sandberg Bluegrass - VNS	Poa sandbergii	\$14.45	\$20.00	\$14.59	\$13.52	\$15.00	\$13.75	\$9.82	\$8.40	Survey
		Swamp (or Fowl) Bluegrass - Native	Poa palustrus	\$22.73	\$30.00	\$15.09	\$35.70			\$10.15	\$8.68	Survey
		Canada Bluegrass - Reubens	Poa compressa	\$10.12	\$15.00	Ask			\$7.75	\$7.60	\$6.50	Survey
	Bluestem	Big Bluestem - Kaw	Andropogon gerardii	\$15.69	\$18.00	\$12.00	\$17.85	\$15.00		\$15.61	\$13.35	Survey
		Big Bluestem - Native	Andropogon gerardii	\$15.61	\$18.00	Ask		\$15.00		\$13.82	\$11.82	Survey
		Little Bluestem - Camper	Schizachyrium scoparius	\$13.58	\$18.00	\$8.50	\$14.70	\$12.00		\$14.72	\$12.58	Survey
		Little Bluestem - Cimarron	Schizachyrium scoparius	\$13.56	\$18.00	\$8.50	\$14.70	\$12.00		\$14.60	\$12.48	Survey
		Little Bluestem - Native	Schizachyrium scoparius	\$15.39	\$18.00		\$14.70	\$13.00		\$15.87	\$13.57	Survey
		Little Bluestem - Pastura	Schizachyrium scoparius	\$15.87	\$18.00	Ask	\$14.70	\$15.00		\$15.77	\$13.48	Survey
		Sand Bluestem - Garden Co.	Andropogon hallii	\$24.23	\$20.00	Ask		\$24.00		\$28.68	\$24.53	Survey
		Sand Bluestem - Woodward	Andropogon hallii	\$22.92	\$20.00	Ask		\$24.00		\$24.75	\$21.17	Survey
		Yellow Bluestem - Ganada	Andropogon ischaemum	\$30.61				\$50.00		\$11.23	\$9.60	Survey
		Yellow Bluestem - Plains	Andropogon ischaemum	\$33.89				\$50.00		\$17.78	\$15.20	Survey
		Yellow Bluestem - W.W. Spar	Andropogon ischaemum	\$29.52				\$41.00		\$18.05	\$15.43	Survey
	Brome	Fringed Brome - Native	Bromus ciliatus	\$17.21	\$10.00	\$20.00	\$24.15	\$12.00		\$19.88	\$17.00	Survey
		Meadow Brome - Fleet	Bromus biebersteinii	\$5.22	\$8.00	\$3.85	\$5.35	\$4.50	\$5.00	\$4.65	\$3.98	Survey
		Meadow Brome - Paddock	Bromus biebersteinii	\$5.64	\$8.00		\$5.40	\$4.50		\$4.65	\$3.98	Survey
		Meadow Brome - Regar	Bromus biebersteinii	\$5.62	\$8.00	Ask	\$5.35	\$4.50		\$4.65	\$3.98	Survey
		Mountain Brome - Bromar	Bromus marginatus	\$6.02	\$8.00	\$5.95	\$6.46	\$4.75	\$6.50	\$4.44	\$3.80	Survey
		Nodding Brome	Bromus porteri, anomalus	\$21.48			\$31.50	\$23.00		\$9.94	\$8.50	Survey
		Prairiegrass - Matua	NA	\$3.95			-			\$3.95	\$3.38	Index
		Smooth Brome - Lincoln	Bromus inermis	\$4.86	\$8.00	\$4.15	\$4.50	\$4.50	\$4.10	\$3.89	\$3.33	Survey
		Smooth Brome - Manchar	Bromus inermis	\$5.22	\$8.00	\$4.73	\$5.20	\$4.50	\$5.00	\$3.89	\$3.33	Survey
	Buffalograss	Buffalograss - Bison	Buchloe dactyloides	\$23.06	\$35.00					\$11.11	\$9.50	Survey
		Buffalograss - Cody	Buchloe dactyloides	\$28.59	\$35.00	\$30.00		\$30.00	\$36.75	\$11.19	\$9.57	Survey
		Buffalograss - Texoka	Buchloe dactyloides	\$28.90	\$30.00	\$27.50	\$36.75	\$34.00	\$32.00	\$13.14	\$11.23	Survey
		Buffalograss - Native/Plains	Buchloe dactyloides	\$28.50	\$30.00	Ask	\$39.90	\$30.00		\$14.11	\$12.07	Survey
	Dropseed	Giant Dropseed	Sporobolus giganteus	\$46.20						\$46.20	\$39.50	Index
		Mesa Dropseed	Sporobolus flexuosus	\$188.29						\$188.29	\$161.00	Index
		Priarie Dropseed	Sporobolus heterolepis	\$131.57	\$100.00					\$163.15	\$139.50	Survey

Type		Common Name	Scientific	PLS Cost Per Pound	Granite	Buffalo	Southwest	Pawnee	Colorado Seed	2021+ Inflation	2021	Source
	Dr	Sand Dropseed	Sporobolus cryptandrus	\$13.01	\$15.00	\$13.00	\$9.65	\$15.00	\$14.00	\$11.40	\$9.75	Survey
		Alpine Fescue	Festuca brachyphylla	\$18.08	\$15.00		-			\$21.17	\$18.10	Survey
	Fescue	Arizona Fescue - Redondo	Festuca arizonica	\$15.06	\$20.00	\$11.50	\$16.50	\$16.50	Ask	\$10.82	\$9.25	Survey
		Chewings Fescue - Tiffany	F. rubra v. commutata	\$4.74	\$8.00	2.99\$/lb	-	\$3.00		\$3.22	\$2.75	Survey
		Creeping Red Fescue - Cindy	Festuca rubra	\$2.22			-			\$2.22	\$1.90	Index
		Creeping Red Fescue - Claudia	Festuca rubra	\$2.40			-			\$2.40	\$2.05	Index
		Creeping Red Fescue - Shademaster II	Festuca rubra	\$2.40			-			\$2.40	\$2.05	Index
		Creeping Red Fescue, Slender	Festuca rubra v. unknown	\$2.40			-			\$2.40	\$2.05	Index
		Hard Fescue - Brigade	F. ovina v. duriuscula	\$4.58		\$4.45	\$5.68	\$4.20		\$4.01	\$3.43	Survey
		Hard Fescue - Discovery	F. ovina v. duriuscula	\$4.44		\$4.45	\$5.68	\$4.20		\$3.42	\$2.93	Survey
		Hard Fescue - Durar	F. ovina v. duriuscula	\$5.73	\$10.00	\$4.79	\$5.68	\$6.00	\$4.50	\$3.42	\$2.93	Survey
		Idaho Fescue	Festuca idahoensis	\$14.25	\$20.00	\$11.50	\$14.40	\$14.00	\$14.50	\$11.08	\$9.48	Survey
		Rocky Mountain Fescue	Festuca saximontana	\$10.79	\$20.00	\$7.75	\$9.70	\$8.00		\$8.48	\$7.25	Survey
		Rough Fescue	Festuca sp.	\$29.71			-			\$29.71	\$25.40	Index
		Sheep Fescue - Azay	Festuca ovina	\$4.83			\$5.70	\$4.50		\$4.30	\$3.68	Survey
		Sheep Fescue - Bighorn	Festuca ovina	\$4.96			\$5.70	\$4.50	\$4.50	\$5.15	\$4.40	Survey
		Sheep Fescue - Covar	Festuca ovina	\$6.16	\$10.00	\$5.15	\$5.70	\$4.50	\$4.50	\$7.13	\$6.10	Survey
		Tall Fescue - Fawn E.F.	Festuca arundinacea	\$2.34		\$2.09	\$2.60	\$2.50	\$2.25	\$2.25	\$1.93	Survey
		Tall Fescue - Festorina	Festuca arundinacea	\$2.35			\$2.60			\$2.11	\$1.80	Survey
		Tall Fescue - KY 31	Festuca arundinacea	\$2.45		Ask	\$2.60	\$2.50	\$2.40	\$2.31	\$1.98	Survey
		Tall Fescue - Maxim Blend (Dwarf)	Festuca arundinacea	\$2.35			\$2.60			\$2.11	\$1.80	Survey
		Tall Fescue - Seine E.F.	Festuca arundinacea	\$2.35			\$2.60			\$2.11	\$1.80	Survey
		Thurber's Fescue	Festuca thurberi	\$78.49			\$84.00			\$72.98	\$62.40	Survey
	Grama	Blue Grama - Hachita	Bouteloua gracilis	\$28.65	\$40.00	\$27.00	\$28.35	\$30.00	\$27.85	\$18.68	\$15.98	Survey
		Blue Grama - Lovington	Bouteloua gracilis	\$27.76	\$40.00	\$27.00	\$28.35	\$30.00	\$22.50	\$18.68	\$15.98	Survey
		Blue Grama - Native	Bouteloua gracilis	\$21.33	\$25.00	\$19.00	\$18.90	\$30.00	\$19.00	\$16.05	\$13.73	Survey
		Hairy Grama	Bouteloua hirsuta	\$43.03	\$65.00					\$21.05	\$18.00	Survey
		Sideoats Grama - Butte	Bouteloua curtipendula	\$24.16	\$30.00	\$24.00	\$26.25	\$30.00		\$10.53	\$9.00	Survey
		Sideoats Grama - El Reno	Bouteloua curtipendula	\$24.42	\$30.00	\$24.00	\$26.25	\$30.00	\$26.50	\$9.79	\$8.38	Survey
		Sideoats Grama - Vaughn	Bouteloua curtipendula	\$24.59	\$30.00	\$24.00	\$26.25	\$30.00	\$27.50	\$9.79	\$8.38	Survey
	Indian grass	Indiangrass - Cheyenne	Sorghastrum nutans	\$12.30	\$15.00	\$9.00		\$12.00		\$13.22	\$11.30	Survey
		Indiangrass - Holt	Sorghastrum nutans	\$12.67		Ask		\$12.00		\$13.33	\$11.40	Survey
	Lovegrass	Lehman Lovegrass - VNS/Native	Eragrostis lehmanniana	\$14.91				\$18.00		\$11.81	\$10.10	Survey
		Sand Lovegrass - Bend	Eragrostis trichodes	\$17.42	\$20.00	\$15.00		\$18.00		\$16.67	\$14.25	Survey
		Weeping Lovegrass - Ermelo	Eragrostis curvula	\$14.98		Ask		\$18.00		\$11.96	\$10.23	Survey
		Weeping Lovegrass - Morpha	Eragrostis curvula	\$15.93		Ask		\$18.00		\$13.85	\$11.85	Survey
		Alkali Sacaton	Sporobolus airoides	\$29.08	\$25.00	\$22.75	\$31.50	\$33.00	\$28.95	\$33.30	\$28.48	Survey
		Alkaligrass, Fult's	Puccinellia distans	\$7.35	\$20.00	\$3.75		\$4.50	\$4.25	\$4.24	\$3.63	Survey
		Alkaligrass, Nuttall's	Puccinellia nuttalliana	\$13.95	\$20.00	Ask				\$7.89	\$6.75	Survey
		Alpine Foxtail	Alopecurus alpinus	\$54.24						\$54.24	\$46.38	Index
		Arrowgrass	Triglochin maritima	\$110.30				\$100.00		\$120.60	\$103.13	Survey
		Blue Panicgrass	Panicum antidotale	\$20.00						\$20.00	\$17.10	Index
		Bottlebrush Squirreltail	Sitanion hystrix	\$25.41	\$35.00	\$25.00	\$22.05	\$26.00		\$18.98	\$16.23	Survey
		Bristlegrass, Plains	Setaria leucopila	\$22.75						\$22.75	\$19.45	Index



Type		Common Name	Scientific	PLS Cost Per Pound	Granite	Buffalo	Southwest	Pawnee	Colorado Seed	2021+ Inflation	2021	Source
Grass	Misc.	Brookgrass	Catabrosa aquatica	\$657.25						\$657.25	\$562.00	Index
		Bur Reed, Giant	Sparganium eurycarpum	\$66.91						\$66.91	\$57.22	Index
		Cordgrass, Prairie	Spartina pectinata	\$92.85	\$85.00			\$100.00		\$93.56	\$80.00	Survey
		Cordgrass, Slender or Alkali	Spartina gracilis	\$313.19						\$313.19	\$267.80	Index
		Feathergrass, New Mexican	Stipa neomexicana	\$121.98						\$121.98	\$104.30	Index
		Foxtail Barley	Hordeum jubatum	\$251.44						\$251.44	\$215.00	Index
		Galleta	Hilaria jamesii	\$55.44	\$60.00	\$55.00	\$85.05	\$51.00		\$26.14	\$22.35	Survey
		Green Sprangletop	Leptochloa dubia	\$27.98	\$60.00			\$12.00		\$11.93	\$10.21	Survey
		Kleingrass - Select 75	Panicum coloratum	\$11.55						\$11.55	\$9.88	Index
		Meadow Barley	Hordeum brachyantherum	\$45.46	\$50.00					\$40.91	\$34.99	Survey
		Meadow Foxtail - Garrison	Alopecurus pratensis	\$8.53						\$8.53	\$7.29	Index
		Mannagrass, Fowl	Glyceria striata	\$163.34	\$125.00			\$200.00		\$165.02	\$141.10	Survey
		Mannagrass, Giant	Glyceria grandis	\$123.83	\$125.00			\$150.00		\$96.48	\$82.50	Survey
		Muttongrass	Poa fendleriana	\$47.66	\$55.00	Ask	\$50.40	\$45.00		\$40.23	\$34.40	Survey
		Mannagrass, Northwest	Glyceria occidentalis	\$15.50						\$15.50	\$13.25	Index
		Needle and Thread	Stipa comata	\$81.43	\$100.00	\$85.00	\$88.20	\$85.00		\$48.94	\$41.85	Survey
		Needlegrass, Green - Lodorm	Stipa viridula	\$8.65	\$10.00	\$5.25	\$11.30	\$6.00	\$5.55	\$13.77	\$11.78	Survey
		Needlegrass, Letterman's	Stipa lettermanii	\$119.46						\$119.46	\$102.15	Index
		Parry's Oatgrass	Danthonia parryi	\$25.73						\$25.73	\$22.00	Index
		Prairie Sandreed - Goshen	Calamovilfa longifolia	\$17.03	\$20.00	\$18.00		\$18.00		\$12.10	\$10.35	Survey
		Prairie Junegrass	Koeleria cristata,macantha	\$48.74	\$60.00	\$55.00	\$48.30	\$50.00		\$30.41	\$26.00	Survey
		Red Top	Agrostis alba, gigantea	\$10.46		\$10.85	\$11.30	\$10.50		\$9.21	\$7.88	Survey
		Reed Canarygrass - Palaton	Phalaris arundinacea	\$10.82		Ask	\$14.60	\$11.00		\$6.87	\$5.88	Survey
		Reed Canarygrass - VNS	Phalaris arundinacea	\$12.77	\$20.00	\$10.69	\$14.60			\$5.79	\$4.95	Survey
		Reedgrass, Canadian (or Blue Joint)	Calamagrostis canadensis	\$412.57	\$400.00			\$600.00		\$237.70	\$203.25	Survey
		Reedgrass, Northern - Native	Calamagrostis stricta	\$159.81						\$159.81	\$136.65	Index
		Regreen Hybrid	Triticum-Agropyron cross	\$5.47						\$5.47	\$4.68	Index
		Saltgrass, Inland	Distichlis stricta	\$49.84	\$50.00		\$48.30	\$51.00		\$50.05	\$42.80	Survey
		Sleepygrass	Stipa robusta	\$37.07						\$37.07	\$31.70	Index
		Slough Grass	Beckmannia syzigachne	\$33.31	\$30.00			\$40.00		\$29.94	\$25.60	Survey
		Spike Muhly	Muhlenbergia wrightii	\$11.34		Ask				\$11.34	\$9.70	Index
		Ticklegrass	Agrostis scabra	\$38.58				\$45.00		\$32.16	\$27.50	Survey
		Timothy, Alpine - Native	Phleum alpinum	\$39.18	\$50.00					\$28.36	\$24.25	Survey
		Timothy - Climax	Phleum pratense	\$4.15	\$10.00	\$2.90	\$3.80	\$3.00	\$3.35	\$1.87	\$1.60	Survey
		Tufted Hairgrass	Deschampsia caespitosa	\$28.48	\$30.00	\$35.00	\$31.50	\$33.00		\$12.89	\$11.03	Survey
		Water Foxtail	Alopecurus aequalis	\$5.94						\$5.94	\$5.08	Index
		Creeping Foxtail	Alopecurus arundinaceus	\$7.52		\$9.99	\$4.50	\$11.50	\$5.80	\$5.79	\$4.95	Survey
		Purple Three-Awn	Aristida purpurea	\$85.38	\$75.00			\$150.00		\$31.13	\$26.62	Survey
	Orchardgrass	Orchardgrass - Elsie	Dactylis glomerata	\$3.63						\$3.63	\$3.10	Index
		Orchardgrass - Latar	Dactylis glomerata	\$4.68	\$8.00	\$3.49	\$3.75	\$3.30		\$4.88	\$4.18	Survey
		Orchardgrass - Megabyte	Dactylis glomerata	\$3.98						\$3.98	\$3.40	Index
		Orchardgrass - Paiute	Dactylis glomerata	\$4.59	\$8.00	\$3.65	\$3.65	\$3.50	\$3.95	\$4.77	\$4.08	Survey
		Orchardgrass - Potomac	Dactylis glomerata	\$4.38	\$8.00	\$3.49	\$3.65	\$2.85	\$3.30	\$4.99	\$4.27	Survey
		Orchardgrass - Shawnee	Dactylis glomerata	\$3.63						\$3.63	\$3.10	Index

Type		Common Name	Scientific	PLS Cost Per Pound	Granite	Buffalo	Southwest	Pawnee	Colorado Seed	2021+ Inflation	2021	Source
	Ricegrasses	Indian Ricegrass - Nespar	Oryzopsis hymenoides	\$17.22	\$20.00	\$14.50	\$19.45	\$18.00	\$21.00	\$10.38	\$8.88	Survey
		Indian Ricegrass - Paloma	Oryzopsis hymenoides	\$20.53	\$20.00	Ask	\$24.15	\$26.00	\$19.50	\$13.01	\$11.13	Survey
		Indian Ricegrass - Native	Oryzopsis hymenoides	\$17.29	\$20.00	\$14.50	\$24.15	\$18.00	\$19.50	\$7.60	\$6.50	Survey
	Ryegrass	Rye, Annual Tetraploid - Barmultra	Lolium sp.	\$1.93						\$1.93	\$1.65	Index
		Rye, Perennial Tetraploid - Aubisque	Lolium sp.	\$2.28		\$2.29			\$2.45	\$2.11	\$1.80	Survey
		Rye, Perennial Tetraploid - Elgon	Lolium sp.	\$2.28					\$2.45	\$2.11	\$1.80	Survey
		Rye, Perennial Tetraploid - Tetra-Plus	Lolium sp.	\$2.28					\$2.45	\$2.11	\$1.80	Survey
		Ryegrass, Annual/Gulf	Lolium multiflorum	\$1.33	\$1.50	\$1.19	\$0.95		\$1.10	\$1.93	\$1.65	Survey
		Ryegrass, Perennial - Belramo	Lolium perenne	\$2.58			\$3.05			\$2.11	\$1.80	Survey
		Ryegrass, Perennial, - BG-34	Lolium perenne	\$2.58			\$3.05			\$2.11	\$1.80	Survey
		Ryegrass, Perennial - Herbie	Lolium perenne	\$2.58			\$3.05			\$2.11	\$1.80	Survey
		Ryegrass, Perennial - Linn	Lolium perenne	\$2.24	\$1.50		\$3.05		\$2.30	\$2.11	\$1.80	Survey
		Ryegrass, Perennial - Zero Nui	Lolium perenne	\$2.58			\$3.05			\$2.11	\$1.80	Survey
		Ryegrass, Perennial - Forage-Fusta	Lolium sp.	\$1.99						\$1.99	\$1.70	Index
	Small Grains	Barley - Beardless	Hordeum vulgare	\$0.76	\$1.20		\$0.80	\$0.64		\$0.39	\$0.34	Survey
		Barley - Otis	Hordeum vulgare	\$0.62			\$0.80	\$0.64		\$0.42	\$0.36	Survey
		Barley - Steptoe	Hordeum vulgare	\$0.73			\$0.80	\$0.64		\$0.74	\$0.63	Survey
		Millet, Foxtail - German R		\$7.91	\$2.00	\$35.00		\$0.60	\$0.85	\$1.11	\$0.95	Survey
		Millet, Pearl - Hybrid CC102M		\$1.43					\$2.10	\$0.76	\$0.65	Survey
		Oats - Ajay	Avena sativa	\$0.65	\$0.75		\$0.80			\$0.39	\$0.33	Survey
		Oats - Hytest	Avena sativa	\$0.59			\$0.80			\$0.39	\$0.33	Survey
		Oats - Monida	Avena sativa	\$0.57	\$0.75	\$0.42	\$0.80	\$0.50	\$0.55	\$0.39	\$0.33	Survey
		Oats - Otana	Avena sativa	\$0.65	\$0.75		\$0.80			\$0.39	\$0.33	Survey
		Oats - Russel	Avena sativa	\$0.59			\$0.80			\$0.39	\$0.33	Survey
		Oats - Walken	Avena sativa	\$0.56			\$0.70			\$0.42	\$0.36	Survey
		Rye, Winter - VNS	Secale cereale	\$0.63	\$0.75	\$0.40	\$0.85	\$0.70	\$0.47	\$0.63	\$0.54	Survey
		Sorghum, Hybr. Frg. - Bundle King IV	Sorghum vulgare	\$1.10				\$1.35		\$0.85	\$0.73	Survey
		Sorghum, Hybr. Frg. - Dairy Master	Sorghum vulgare	\$0.85						\$0.85	\$0.73	Index
		Sorghum, Sudan - Arapahoe	Sorghum vulgare	\$1.08				\$1.35		\$0.82	\$0.70	Survey
		Sorghum, Sudan - Arikaree	Sorghum vulgare	\$1.00				\$1.15		\$0.85	\$0.73	Survey
		Sorghum, Sudan - Sweeter-N-Honey	Sorghum vulgare	\$0.91						\$0.91	\$0.78	Index
		Sudangrass, Sweet - VNS	Sorghum vulgare	\$1.45	\$2.00					\$0.91	\$0.78	Survey
		Triticale	T. triticale	\$2.50	\$0.75	\$3.85	\$3.15	\$3.00	\$3.40	\$0.88	\$0.75	Survey
		Wheat - Brooks (Westbred H.R.)	Triticum aestivum	\$0.47						\$0.47	\$0.40	Index
		Wheat - Express (Westbred H.R.)	Triticum aestivum	\$0.32						\$0.32	\$0.28	Index
		Wheat - Pennewawa (soft white)	Triticum aestivum	\$0.32						\$0.32	\$0.28	Index
		Wheat - Rick (H.R.)	Triticum aestivum	\$0.32						\$0.32	\$0.28	Index
		Wheat, Spring - Westbred 926	Triticum aestivum	\$0.45		\$0.44		\$0.60		\$0.32	\$0.28	Survey
		Wheat, Winter - Tam 107	Triticum aestivum	\$0.54		\$0.50		\$0.80		\$0.32	\$0.28	Survey
		Wondergraze (SxS)		\$0.43						\$0.43	\$0.37	Index
	Switch Grass	Switchgrass - Blackwell	Panicum virgatum	\$13.22	\$15.00	\$12.00	\$13.65	\$12.00		\$13.45	\$11.50	Survey
		Switchgrass - Nebraska 28	Panicum virgatum	\$11.13		\$5.60		\$12.00		\$15.79	\$13.50	Survey
		Switchgrass - Pathfinder	Panicum virgatum	\$13.46				\$12.00		\$14.91	\$12.75	Survey
		Beardless Wheatgrass - Whitmar	Agropyron inerme	\$13.84	\$20.00	\$8.50	\$13.15			\$13.71	\$11.73	Survey

Type		Common Name	Scientific	PLS Cost	Granite	Buffalo	Southwest	Pawnee	Colorado	2021+	2021	Source
				Per Pound					Seed	Inflation		
Wheatgrass		Bluebunch Wheatgrass - Secar	Agropyron spicatum	\$10.51	\$10.00	\$8.75	\$12.10	\$9.00		\$12.72	\$10.88	Survey
		Crested Wheatgrass - Ephraim	Agropyron cristatum	\$5.49	\$8.00	\$3.79	\$5.90	\$5.20	\$5.00	\$5.06	\$4.33	Survey
		Crested Wheatgrass - Fairway	Agropyron cristatum	\$5.83	\$8.00	Ask	\$5.40	\$5.20		\$4.71	\$4.03	Survey
		Crested Wheatgrass - Hy-Crest	Agropyron cristatum	\$5.05	\$8.00	\$4.29	\$4.05	\$4.30	\$5.00	\$4.65	\$3.98	Survey
		Crested Wheatgrass - Nordan	Agropyron desertorum	\$5.31	\$8.00	\$3.69		\$5.00		\$4.56	\$3.90	Survey
		Crested Wheatgrass - Standard	Agropyron desertorum	\$5.39	\$8.00	\$3.69		\$5.00		\$4.85	\$4.15	Survey
		Intermediate Wheatgrass - Oahe	Agropyron intermedium	\$4.65	\$8.00	\$3.15	\$4.35	\$4.50	\$4.60	\$3.27	\$2.80	Survey
		Intermediate Wheatgrass - Rush	Agropyron intermedium	\$4.73	\$8.00	\$3.15		\$4.50		\$3.27	\$2.80	Survey
		Intermediate Wheatgrass - Tegmar	Agropyron intermedium	\$4.00				\$4.50		\$3.51	\$3.00	Survey
		Pubescent Wheatgrass - Greenleaf	Agropyron trichophorum	\$4.76				\$5.25		\$4.27	\$3.65	Survey
		Pubescent Wheatgrass - Luna	Agropyron trichophorum	\$5.00	\$8.00	\$3.35	\$4.85	\$5.25	\$4.60	\$3.98	\$3.40	Survey
		Pubescent Wheatgrass - Mandan	Agropyron trichophorum	\$4.67				\$5.25		\$4.09	\$3.50	Survey
		Pubescent Wheatgrass - Manska	Agropyron trichophorum	\$5.04	\$8.00	\$3.35		\$5.25	\$4.60	\$3.98	\$3.40	Survey
		Pubescent Wheatgrass - VNS	Agropyron trichophorum	\$5.64	\$8.00			\$5.25		\$3.68	\$3.15	Survey
		Slender Wheatgrass - Native	Agropyron trachycaulum	\$7.06	\$10.00		\$6.85	\$6.00		\$5.41	\$4.63	Survey
		Slender Wheatgrass - Pryor	Agropyron trachycaulum	\$6.18	\$10.00	\$3.75		\$6.00		\$4.97	\$4.25	Survey
		Slender Wheatgrass - San Luis	Agropyron trachycaulum	\$6.04	\$10.00	\$3.95	\$6.05	\$6.00	\$5.25	\$4.97	\$4.25	Survey
		Streambank Wheatgrass - Sodar	Agropyron riparium	\$8.30	\$10.00	\$5.95	\$9.45	\$9.00	\$8.75	\$6.67	\$5.70	Survey
		Tall Wheatgrass - Jose	Agropyron elongatum	\$5.75	\$15.00	\$4.09	\$4.95	\$3.00	\$3.50	\$3.95	\$3.38	Survey
		Thickspike Wheatgrass - Critana	Agropyron dasystachyum	\$8.15	\$10.00	\$5.75	\$9.25	\$8.00	\$7.85	\$8.04	\$6.88	Survey
		Western Wheatgrass - Arriba	Agropyron smithii	\$9.03	\$10.00	\$8.50	\$9.45	\$10.00	\$8.65	\$7.60	\$6.50	Survey
		Western Wheatgrass - Barton	Agropyron smithii	\$9.40	\$10.00	Ask		\$10.00		\$8.19	\$7.00	Survey
		Western Wheatgrass - Native	Agropyron smithii	\$9.01	\$10.00	Ask		\$10.00		\$7.02	\$6.00	Survey
		Western Wheatgrass - Rosanna	Agropyron smithii	\$8.77	\$10.00	\$8.50		\$10.00	\$8.65	\$6.72	\$5.75	Survey
		Desert Wheatgrass	Agropyron desertorum	\$6.92	\$8.00					\$5.85	\$5.00	Survey
		Siberian Wheatgrass	Agropyron sibericum	\$6.62	\$16.00	\$2.65	\$5.50	\$4.50	\$4.40	\$6.70	\$5.73	Survey
		Pubescent Wheatgrass - Topar	Agropyron trichophorum	\$4.55				\$5.25		\$3.86	\$3.30	Survey
		Bluebunch Wheatgrass - Goldar	Agropyron spicatum	\$11.46	\$20.00			\$9.00		\$5.38	\$4.60	Survey
		AC Saltlander Wheatgrass	Elymus hoffmannii	\$14.01	\$16.00			\$12.00	ask	\$14.03	\$12.00	Survey
	Wildrye	Altai Wildrye - Prairieland	Elymus angustus	\$17.27						\$17.27	\$14.77	Index
		Beardless (Creeping) Wildrye - Shoshone	Elymus triticoides	\$24.46		\$24.00		\$22.00		\$27.39	\$23.42	Survey
		Blue Wildrye - Arlington or Elkton	Elymus glaucus	\$11.23		Ask	\$10.90	\$15.00		\$7.79	\$6.66	Survey
		Canada Wildrye	Elymus canadensis	\$10.23	\$10.00	\$9.50	\$9.45	\$10.50	\$9.25	\$12.68	\$10.84	Survey
		Great Basin Wildrye - Magnar	Elymus cinereus	\$11.69	\$10.00	\$11.50			\$11.75	\$13.51	\$11.55	Survey
		Russian Wildrye - Bozoisky	Elymus junceus	\$11.07	\$15.00	\$6.57	\$11.35	\$18.00	\$7.95	\$7.58	\$6.48	Survey
		Russian Wildrye - Vinal	Elymus junceus	\$7.23						\$7.23	\$6.18	Index
		Russian Wildrye - VNS	Elymus junceus	\$11.59	\$15.00	Ask		\$16.50	\$7.95	\$6.92	\$5.92	Survey
		Basin Wildrye - Trailhead	Elymus cinereus	\$13.01	\$10.00		\$12.60	\$13.50	\$10.95	\$18.02	\$15.41	Survey
		Dahurian Wildrye	Elymus dahuricus	\$5.50	\$10.00	\$4.95		\$4.40	\$3.45	\$4.72	\$4.04	Survey
Rush		Baltic Rush	Juncus balticus	\$188.53	\$150.00		\$115.50	\$160.00		\$328.63	\$281.00	Survey
		Common Rush (soft)	Juncus effusus	\$208.89	\$250.00			\$180.00		\$196.67	\$168.17	Survey
		Dagger Leaf Rush	Juncus ensifolius	\$242.83	\$250.00					\$235.65	\$201.50	Survey
		Knotted Rush	Juncus nodosus	\$508.01	\$250.00					\$766.02	\$655.00	Survey
		Meadow Rush	Juncus longistylis	\$306.27	\$250.00					\$362.55	\$310.00	Survey

Type		Common Name	Scientific	PLS Cost Per Pound	Granite	Buffalo	Southwest	Pawnee	Colorado Seed	2021+ Inflation	2021	Source
		Merten's Rush	Juncus mertensianus	\$163.73						\$163.73	\$140.00	Index
		Path Rush	Juncus tenuis	\$189.03				\$150.00		\$228.05	\$195.00	Survey
		Torrey's Rush	Juncus torreyi	\$276.89	\$300.00			\$250.00		\$280.68	\$240.00	Survey
		Wiregrass	Juncus arcticus	\$397.63						\$397.63	\$340.00	Index
	Bulrush	Alkali Bulrush	Scirpus maritimus	\$64.04	\$150.00		\$20.80	\$38.00		\$47.36	\$40.50	Survey
		Common Three Square	Scirpus pungens	\$176.02	\$150.00					\$202.03	\$172.75	Survey
		Dark Green Bulrush	Scirpus atrovirens	\$55.84						\$55.84	\$47.75	Index
		Softstem Bulrush	Scirpus validus	\$117.69			\$79.80	\$120.00		\$153.26	\$131.05	Survey
		Hardstem Bulrush	Scirpus acutus	\$161.69	\$150.00			\$160.00		\$175.07	\$149.70	Survey
		River Bulrush	Scirpus fluviatilis	\$95.84						\$95.84	\$81.95	Index
		Small Fruit Bulrush	Scirpus microcarpus	\$118.06	\$150.00		\$88.20	\$120.00		\$114.03	\$97.50	Survey
		Three Square Bulrush	Scirpus americanus	\$152.40	\$150.00		\$78.75	\$180.00		\$200.86	\$171.75	Survey
	Sedge	Aquatic Sedge	Carex aquatilis	\$281.55	\$200.00			\$440.00		\$204.66	\$175.00	Survey
		Beaked Sedge	Carex rostrata	\$271.10	\$200.00			\$356.00		\$257.29	\$220.00	Survey
		Bebb's Sedge	Carex bebbii	\$218.12	\$200.00					\$236.24	\$202.00	Survey
		Bladder Sedge	Carex vesicaria	\$271.91						\$271.91	\$232.50	Index
		Black Sedge	Carex atrata	\$505.81						\$505.81	\$432.50	Index
		Bottlebrush Sedge	Carex hystericina	\$211.68						\$211.68	\$181.00	Index
		Douglas Sedge	Carex douglasii	\$505.81						\$505.81	\$432.50	Index
		Elk Sedge	Carex geyeri	\$504.05						\$504.05	\$431.00	Index
		Fox Sedge	Carex vulpinoidea	\$85.37						\$85.37	\$73.00	Index
		Meadow Sedge	Carex praegracilis	\$168.14	\$250.00		\$136.50	\$170.00		\$116.07	\$99.25	Survey
		Nebraska Sedge	Carex nebrascensis	\$146.72	\$150.00		\$92.15	\$150.00		\$194.72	\$166.50	Survey
		Popcorn Sedge	Carex microptera	\$178.93						\$178.93	\$153.00	Index
		Slender Sedge	Carex praegracilis	\$170.90	\$250.00					\$91.81	\$78.50	Survey
		Woolly Sedge	Carex lanuginosa	\$213.59	\$250.00					\$177.18	\$151.50	Survey
	Spike Sedg	Creeping Spike Rush	Eleocharis palustris	\$145.61	\$150.00		\$120.75	\$100.00		\$211.68	\$181.00	Survey
		Needle Spike Rush	Eleocharis acicularis	\$265.48						\$265.48	\$227.00	Index
		Apache Plume	Fallugia paradoxa	\$45.92	\$55.00					\$36.84	\$31.50	Survey
		Bitterbrush, Antelope	Purshia tridentata	\$56.51	\$65.00		\$68.25	\$70.00		\$22.81	\$19.50	Survey
		Buffaloberry, Russet	Shepherdia canadensis	\$224.54						\$224.54	\$192.00	Index
		Buffaloberry, Silver	Shepherdia argentea	\$238.58						\$238.58	\$204.00	Index
		Bunchberry or Dwarf Cornel	Cornus canadensis	\$476.57						\$476.57	\$407.50	Index
		Ceanothus, Snowbrush	Ceanothus velutinus	\$124.55						\$124.55	\$106.50	Index
		Chokecherry	Prunus virginiana	\$49.46	\$65.00					\$33.92	\$29.00	Survey
		Cinquefoil, Slender	Potentilla gracilis	\$490.61						\$490.61	\$419.50	Index
		Cliffrose	Cowania mexicana	\$61.82			\$75.10			\$48.53	\$41.50	Survey
		Currant, Golden or Alpine	Ribes aureum	\$163.23						\$163.23	\$139.58	Index
		Currant, Wax	Ribes cereum	\$69.36						\$69.36	\$59.31	Index
		Elderberry, Blue	Sambucus coerulea	\$86.84						\$86.84	\$74.25	Index
		Elderberry, Red	Sambucus racemosa	\$66.37						\$66.37	\$56.75	Index
		Holly or Oregon Grape	Mahonia repens	\$177.64				\$150.00		\$205.27	\$175.52	Survey
		Indigo Bush	Amorpha fruticosa	\$46.08						\$46.08	\$39.41	Index



Type	Common Name	Scientific	PLS Cost Per Pound	Granite	Buffalo	Southwest	Pawnee	Colorado Seed	2021+ Inflation	2021	Source
Shrub Seed Stock	Kinnikinnik or Bearberry	Arctostaphylos uva-ursi	\$102.20						\$102.20	\$87.39	Index
	Lead Plant	Amorpha canescens	\$109.00				\$120.00		\$97.99	\$83.79	Survey
	Mahogany, Curleaf Mountain	Cercocarpus ledifolius	\$88.31	\$65.00			\$120.00		\$79.92	\$68.34	Survey
	Mahogany, Mountain	Cercocarpus montanus	\$100.95	\$100.00		\$120.75	\$140.00		\$43.04	\$36.81	Survey
	Ninebark	Physocarpus opulifolius	\$72.22						\$72.22	\$61.75	Index
	Oak, Gambel's	Quercus gambelii	\$42.69						\$42.69	\$36.50	Index
	Rabbitbrush, Rubber	Chrysothamnus nauseosus	\$83.40	\$75.00			\$100.00		\$75.19	\$64.30	Survey
	Rabbitbrush, Parry's	Chrysothamnus parryi	\$9.91						\$9.91	\$8.48	Index
	Rose, Meadow	Rosa blanda	\$29.24						\$29.24	\$25.00	Index
	Rose, Wood's	Rosa woodsii	\$53.37			\$66.15	\$70.00		\$23.97	\$20.50	Survey
	Sage, Fringed	Artemisia frigida	\$99.22	\$125.00		\$103.95	\$120.00		\$47.95	\$41.00	Survey
	Sagebrush, Louisiana or Prairie	Artemisia ludoviciana	\$184.91	\$125.00		\$178.50	\$280.00		\$156.13	\$133.50	Survey
	Sagebrush, Mountain or Big	Artemisia tridentata	\$82.70	\$75.00			\$150.00		\$23.10	\$19.75	Survey
	Sagebrush, Sand	Artemisia filifolia	\$60.89	\$75.00					\$46.78	\$40.00	Survey
	Sagebrush, Silver	Artemisia cana	\$68.13	\$100.00					\$36.25	\$31.00	Survey
	Sagebrush, Wyoming Big	A.tridentata v. wyomingensis	\$78.80	\$75.00		\$63.00	\$150.00		\$27.19	\$23.25	Survey
	Saltbush, Four Wing - Dewinged	Atriplex canescens	\$22.82				\$24.00		\$21.64	\$18.50	Survey
	Saltbush, Four Wing	Atriplex canescens	\$19.87	\$25.00			\$20.00		\$14.62	\$12.50	Survey
	Saltbush, Gardner	Atriplex gardneri	\$21.38	\$25.00		\$25.20	\$22.00		\$13.30	\$11.38	Survey
	Saltbush, Shadscale	Atriplex confertifolia	\$18.09	\$25.00		\$13.65	\$22.00		\$11.70	\$10.00	Survey
	Serviceberry	Amelanchier alnifolia	\$109.04	\$75.00		\$89.25	\$200.00		\$71.92	\$61.50	Survey
	Serviceberry, Utah	Amelanchier utahensis	\$76.97	\$75.00					\$78.94	\$67.50	Survey
	Snowberry, Mountain	Symphoricarpos rotundifolius	\$59.06						\$59.06	\$50.50	Index
	Snowberry, Western	Symphoricarpos occidentalis	\$74.63	\$75.00					\$74.26	\$63.50	Survey
	Sumac, Skunkbrush	Rhus aromatica var. trilobata	\$45.13	\$55.00		\$40.95	\$60.00		\$24.56	\$21.00	Survey
	Sumac, Smooth	Rhus glabra	\$34.50						\$34.50	\$29.50	Index
	Twinberry	Distegia involucrata	\$514.00						\$514.00	\$439.50	Index
	Virgin's Bower	Clematis ligusticifolia	\$473.65						\$473.65	\$405.00	Index
	Winter Fat	Ceratoides lanata	\$46.72			\$46.20	\$70.00		\$23.97	\$20.50	Survey
	Greasewood, Black	Sarcobatus vermiculatis	\$39.07	\$55.00			\$40.00		\$22.22	\$19.00	Survey
	Kochia, Forage (Prostrate)	Kochis prostrata	\$20.82			\$19.95	\$32.00		\$10.50	\$8.98	Survey
	Rabbitbrush, Douglas	Chrysothamnus viscidiflorus	\$40.98	\$65.00					\$16.96	\$14.50	Survey
	Green Mormon Tea	Ephedra Viridis	\$45.22	\$75.00		\$39.70			\$20.96	\$17.92	Survey
	Fir, Corkbark	Abies lasiocarpa var. arizonica	\$250.23						\$250.23	\$213.96	Index
	Fir, Douglas	Pseudotsuga menziesii	\$115.30						\$115.30	\$98.59	Index
	Fir, Subalpine	Abies lasiocarpa	\$195.54						\$195.54	\$167.20	Index
	Fir, White	Abies concolor	\$77.98						\$77.98	\$66.68	Index
	Juniper, Single Seed	Juniperus monosperma	\$88.10						\$88.10	\$75.33	Index
	Juniper, Rocky Mountain	Juniperus scopulorum	\$94.26						\$94.26	\$80.60	Index
	Juniper, Utah	Juniperus osteosperma	\$78.88						\$78.88	\$67.45	Index
	Pine, Bristlecone	Pinus aristata	\$150.29						\$150.29	\$128.51	Index
	Pine, Limber	Pinus flexilis	\$224.15						\$224.15	\$191.67	Index
	Pine, Lodgepole	Pinus contorta	\$111.45						\$111.45	\$95.30	Index

Type	Common Name	Scientific	PLS Cost Per Pound	Granite	Buffalo	Southwest	Pawnee	Colorado Seed	2021+ Inflation	2021	Source
Tree Seed Stock	Pine, Pinyon	Pinus edulis	\$34.50						\$34.50	\$29.50	Index
	Pine, Ponderosa	Pinus ponderosa	\$74.85						\$74.85	\$64.00	Index
	Pine, Southwestern White	Pinus strobiformis	\$57.98						\$57.98	\$49.57	Index
	Spruce, Blue	Picea pungens var. glauca	\$100.75						\$100.75	\$86.15	Index
	Spruce, Englemann	Picea engelmannii	\$277.17						\$277.17	\$237.00	Index
	Alder, Thin Leaf	Alnus tenuifolia ssp. incana	\$346.72						\$346.72	\$296.47	Index
	Ash, Mountain	Sorbus scopulina	\$188.11						\$188.11	\$160.85	Index
	Aspen, Quaking	Populus tremuloides	\$332.72						\$332.72	\$284.50	Index
	Birch, Bog	Betula glandulosa	\$1,065.41						\$1,065.41	\$911.00	Index
	Birch, River	Betula fontinalis	\$116.37						\$116.37	\$99.50	Index
	Box Elder	Acer negundo	\$32.16						\$32.16	\$27.50	Index
	Cottonwood, Narrowleaf	Populus angustifolia	\$88.87						\$88.87	\$75.99	Index
	Cottonwood, Plains	Populus sargentii	\$29.23						\$29.23	\$24.99	Index
	Dogwood, Red Osier	Cornus sericea	\$104.67						\$104.67	\$89.50	Index
	Hackberry, Common	Celtis occidentalis	\$34.50						\$34.50	\$29.50	Index
	Hackberry, Net Leaf	Celtis reticulata	\$179.46						\$179.46	\$153.45	Index
	Hawthorn, Willow Leaf	Crataegus slaigna	\$116.94						\$116.94	\$99.99	Index
	Hop Tree, Western	Ptelea trifoliata	\$35.07						\$35.07	\$29.99	Index
	Maple, Rocky Mountain	Acer glabrum	\$63.68						\$63.68	\$54.45	Index
	Maple, Big Tooth	Acer grandidentatum	\$87.70						\$87.70	\$74.99	Index
	Mockorange	Philadelphus lewisii	\$81.28						\$81.28	\$69.50	Index
	Oak, Desert Scrub	Quercus turbinella	\$24.35						\$24.35	\$20.82	Index
	Oak, Wavy Leaf	Quercus undulata	\$24.35						\$24.35	\$20.82	Index
	Plum, American	Prunus americana	\$46.20						\$46.20	\$39.50	Index
	Willow, Sandbar	Salix exigua	\$99.26						\$99.26	\$84.87	Index

## **Enclosure 2**

Revised Cost Summary sheet and specific task sheets

## COST SUMMARY WORK

Task description: COST SUMMARY

Site: Bowie No. 2 Mine

Permit Action: MT6

Permit/Job#: C1996083

### PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 2/21/2025

County: Delta

Filename: C083-000

User: RDZ

Agency or organization name: DRMS

### TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Pull back and Haul Portal Bench Fill Material to Cut Slope	TRUCK1	1	609.56	\$614,393
002	Regrade D-Portal Bench	DOZER	4	158.03	\$311,584
002A	Regrade Utility Bench	DOZER	2	7.81	\$7,701
005	Rip and Regrade Material Storage Area at Gob Pile	DOZER	4	1.73	\$3,412
006	Pull Back Material @ Old Truck Loadout Material Storage Area	EXCAVATE	2	21.27	\$21,129
007	Regrade Old Truck Loadout Material Storage Area	DOZER	4	8.21	\$16,185
008	Pull Back Material at Truck Loadout/Coal Stockpile	EXCAVATE	2	147.57	\$146,588
009	Regrade New Truck Loadout and Coal Stockpile	DOZER	4	32.38	\$63,844
010	Pull Material Back onto Train L/O Facil. and Railbed Benches	EXCAVATE	2	431.74	\$428,860
011	REVISED Regrade Train LO Facilities and Railbed Benches	DOZER	4	59.04	\$116,411
012	Backfill and Regrade Train L/O Overland Conveyor Corridor	DOZER	4	5.62	\$11,071
013	Haul Fill from Upper Mat'l Strge Area to B-Seam Portal Bench	SCRAPER1	1	60.63	\$64,356
014	REVISED. Haul Fill fr Adj. Mat'l Storg to B-Seam Portal Bnch	TRUCK1	1	175.75	\$48,270
015	Backfill and Regrade B-Seam Portal Bench	DOZER	4	38.70	\$81,996
019	Regrade Drill Pads from MRs and TRs	DOZER	4	8.01	\$15,796
020	Regrade Material Storage Area from TR-29	DOZER	4	0.48	\$946
021	Backfill and Regrade New Prep Plant Bench	DOZER	4	36.99	\$72,936
022	Replace Fill from Material Storage Area to Water Tank Bench	SCRAPER1	1	1.51	\$1,604
023	Regrade Borrow Area	DOZER	4	19.14	\$37,743
025	Regrade Upper Parking Lot Expansion Area	EXCAVATE	1	3.65	\$1,817
027	Haul Rock to Vent Shafts for Disposal	TRUCK1	1	18.81	\$8,285
036	Spread Uncompacted Refuse on Gob Pile #2	DOZER	4	89.54	\$176,536
037	Spread Uncompacted Refuse at Gob Pile #3	DOZER	4	100.73	\$198,603
038	Compact Material Hauled to Gob Pile #1	COMPACT	1	11.85	\$4,165
039	Compact Refuse on Gob Pile #2	COMPACT	1	135.94	\$47,764
040	REVISED. Haul refuse fr Gob Pile 2/3 dry areas for plcemnt	TRUCK1	1	967.44	\$265,706
041	Compact Refuse at Gob Pile #3	COMPACT	1	147.84	\$51,943
042	Haul Topsoil from Stockpile Area to Gob Pile #1	SCRAPER1	1	2.18	\$2,318
043	Place 3.5' of Coverfill on Gob Pile #1	SCRAPER1	1	15.80	\$16,775

044	Place Coverfill from Stockpiles on Gob Pile #2	SCRAPER1	1	173.74	\$184,413
045	Haul Cover Material from Gob Pile #3 to Gob Pile #2	TRUCK1	1	235.64	\$103,780
045A	REVISED, Distribute Gob Pile #2 cover hauled by T/L	DOZER	1	142.22	\$70,100
045B	Haul Cover Material from Borrow Area #1 to Gob Pile #2	TRUCK1	1	50.03	\$9,594
045C	Haul Cover Material from Borrow Area #2 to Gob Pile #2	TRUCK1	1	228.88	\$43,892
045D	Haul Cover Material from Borrow Area #3 to Gob Pile #2	TRUCK1	1	41.55	\$7,968
045E	Haul Cover Material from B Portal Storage to Gob Pile #2	TRUCK1	1	108.83	\$47,930
046	Place 2.5' of Coverfill on Gob Pile #3, from stockpile	SCRAPER1	1	196.56	\$208,626
047	Push temp coverfill mat. to face of Gob pile #3	DOZER	1	13.42	\$6,121
050	Compact Backfilled D-Portal Bench, Roads, & Utility Corridor	COMPACT	1	511.43	\$179,686
051	Compact Backfilled Material at Truck Loadout/Coal Stockpile	COMPACT	1	56.10	\$19,713
052	Compact Backfilled Train Loadout	COMPACT	1	191.23	\$67,187
053	Compact B-Seam Portal Bench	COMPACT	1	113.99	\$40,052
063	REVISED. Rip conveyer coridr, soil pile areas befor TS replcmt	RIPPER	4	5.45	\$11,557
066	Rip Rock Laydown Pad Topsoil	RIPPER	1	0.43	\$228
070	REVISED. Rip Haul Roads (Portion to Reclaim), Old Truck LO	RIPPER	4	62.76	\$131,967
071	Remove Haul Road Subbase and Place on Gob Pile #1	SCRAPER1	1	30.02	\$31,859
072	Rip Truck Loadout Road	RIPPER	4	2.14	\$4,513
073	Haul Truck Loadout Subbase to Gob Pile #1	SCRAPER1	1	12.75	\$13,529
074	Rip Upper Haul Road Asphalt Prior to Road Narrowing	RIPPER	4	2.95	\$6,205
075	Pull Back/Haul Fill Mat'l from Upper Haul Rd Narrowing	TRUCK1	1	141.47	\$142,593
076	Regrade Narrowed Section of Haul Road	DOZER	4	26.11	\$51,478
077	Rip Gob Pile #1 Road	RIPPER	4	2.35	\$4,961
078	Regrade Gob Pile #1 Road	DOZER	4	5.17	\$10,944
079	Rip Access Road	RIPPER	4	0.73	\$1,549
080	Haul Access Road Surface to Gob Pile #1	SCRAPER1	1	4.86	\$5,157
081	Regrade Access Road	DOZER	4	1.79	\$3,537
083	Backfill and Regrade Haul Road to Gob Pile #2	DOZER	4	0.44	\$928
084	Rip Lower Haul Road	RIPPER	4	0.95	\$2,022
085	Regrade Lower Haul Road	DOZER	4	36.46	\$77,236
086	Regrade Light Use Roads from MRs and TRs	DOZER	4	60.96	\$129,157
090	Finish Grade Disturbed Mine Area	GRADER	1	129.92	\$32,799
091	Finish Grade Train Loadout	GRADER	1	16.91	\$4,270
092	Finish Grade B-Seam Portal Bench	GRADER	1	6.91	\$1,747
093	Finish Grade Gob Piles #1, #2, #3, and #4	GRADER	1	60.42	\$15,255
095	Backfill and Regrade Pond B	DOZER	1	7.63	\$4,039
096	Backfill and Regrade Pond C	DOZER	1	11.61	\$6,015
097	Backfill and Regrade Gob Pile Pond D	DOZER	1	8.18	\$4,239
098	Backfill and Regrade Pond F	DOZER	1	10.87	\$5,630
099	Backfill and Regrade Pond J	DOZER	1	24.64	\$12,764
100	Backfill and Regrade Pond K	DOZER	1	1.52	\$789

101	Excavate for Post-mining Channel at B-Seam Portals	EXCAVATE	2	0.63	\$626
101A	Haul riprap 800' to B Portal area for channel construction	TRUCK1	1	1.77	\$1,787
102	Install Riprap, Gravel, and Geotextile in B-Seam Channel	POSTMININ G	1	43.66	\$10,694
106ag	Plug and seal AW-15	BOREHOLE	1	6.00	\$1,433
106ah	Plug and seal AW16	BOREHOLE	1	6.00	\$1,423
106ai	Plug and seal AW-17	BOREHOLE	1	6.00	\$1,411
106aj	Plug and seal BD-101	BOREHOLE	1	4.00	\$925
106ak	Plug and seal BD-103	BOREHOLE	1	6.00	\$1,377
106al	Plug and seal BD-105	BOREHOLE	1	7.00	\$1,617
106am	Plug and seal BD-105A	BOREHOLE	1	6.00	\$1,371
106an	Plug and seal BD-102	BOREHOLE	1	6.00	\$1,367
106ao	Plug and seal BL-101A	BOREHOLE	1	6.00	\$1,367
106ap	Plug and seal BL-102	BOREHOLE	1	6.00	\$1,369
106aq	Plug and seal BL-102A	BOREHOLE	1	6.00	\$1,367
106bb	Plug and seal GVB-6A	BOREHOLE	1	11.00	\$6,677
106cn	Plug and seal MR133 Utility Hole #1	BOREHOLE	1	10.00	\$7,643
106co	Plug and seal MR133 Utility Hole #2	BOREHOLE	1	10.00	\$7,643
106cp	Plug and seal MR133 Utility Hole #3	BOREHOLE	1	10.00	\$7,643
106cq	Plug and seal MR133 Utility Hole #4	BOREHOLE	1	10.00	\$7,643
106cy	Plug and seal GVB-D-3A (aka GVB-D3-A)	BOREHOLE	1	12.00	\$5,695
106db	Plug and seal GVB-D-7A (aka GVB-D7-A)	BOREHOLE	1	10.00	\$3,726
106dd	Plug and seal GVB-D-5A	BOREHOLE	1	9.00	\$3,099
106do	Plug and seal GVB-D-6A (aka GVB-D6-A)	BOREHOLE	1	10.00	\$3,713
106dp	Plug and seal GVB-D-6B (aka GVB-D6-B)	BOREHOLE	1	6.00	\$5,500
106dq	Plug and seal GVB-D-7B (aka GVB-D7-B)	BOREHOLE	1	11.00	\$4,728
106du	Plug and seal GVB-D-8C (aka GVB-D8-C)	BOREHOLE	1	12.00	\$5,807
106ed	Plug and seal P-TC-03-01 (aka TC-03-01)	BOREHOLE	1	10.00	\$4,418
106ee	Plug and seal P-TC-03-02 (aka TC-03-02)	BOREHOLE	1	10.00	\$4,418
106gb	Plug and seal GVB-17C (aka GVB-B17C)	BOREHOLE	1	12.00	\$12,499
106gc	Plug and seal GVB-17D (aka GVB-B17D)	BOREHOLE	1	12.00	\$14,410
106gd	Plug and seal GVB-17E (aka GVB-B17E)	BOREHOLE	1	12.00	\$17,270
106gi	Plug and seal GVB-17F (aka GVB-B17F)	BOREHOLE	1	12.00	\$17,628
106gn	Plug and seal AW-1	BOREHOLE	1	7.00	\$1,770
106go	Plug and seal AW-2	BOREHOLE	1	6.00	\$1,454
106gp	Plug and seal AW-3	BOREHOLE	1	7.00	\$1,819
106gq	Plug and seal AW-4	BOREHOLE	1	6.00	\$1,454
106gr	Plug and seal AW-5	BOREHOLE	1	6.00	\$1,520
106gs	Plug and seal AW-6	BOREHOLE	1	7.00	\$1,757
106gt	Plug and seal AW-7	BOREHOLE	1	8.00	\$1,914
106gu	Plug and seal AW-8	BOREHOLE	1	6.00	\$1,393
106gv	Plug and seal AW-9	BOREHOLE	1	6.00	\$1,406
106gw	Plug and seal AW-11	BOREHOLE	1	6.00	\$1,388
106gx	Plug and seal AW-12	BOREHOLE	1	6.00	\$1,380
106gy	Plug and seal AW-13	BOREHOLE	1	6.00	\$1,388
106gz	Plug and seal AW-14	BOREHOLE	1	6.00	\$1,367
106hd	Plug and seal DH-13	BOREHOLE	1	12.00	\$4,327
106he	Plug and seal DH-15	BOREHOLE	1	8.00	\$2,144
106hf	Plug and seal DH-15	BOREHOLE	1	9.00	\$2,689
106hg	Plug and seal DH-25	BOREHOLE	1	9.00	\$2,588

106hq	Plug and seal DH-34C	BOREHOLE	1	7.00	\$1,812
106hr	Plug and seal DH-38	BOREHOLE	1	10.00	\$2,967
106hs	Plug and seal DH-39	BOREHOLE	1	8.00	\$2,085
106hv	Plug and seal CWI-DH-47	BOREHOLE	1	12.00	\$5,593
106h w	Plug and seal CWI-DH-48	BOREHOLE	1	12.00	\$6,244
106hx	Plug and seal DH-49	BOREHOLE	1	9.00	\$2,536
106if	Plug and seal DH-57B (aka 98-57B)	BOREHOLE	1	12.00	\$4,083
106ij	Plug and seal CWI-DH-60 (aka Mon Well)	BOREHOLE	1	12.00	\$3,099
106ip	Plug and seal DH-67B	BOREHOLE	1	10.00	\$2,684
106iq	Plug and seal DH-67-D	BOREHOLE	1	9.00	\$2,259
106ir	Plug and seal DH-67-Abv	BOREHOLE	1	8.00	\$1,939
106it	Plug and seal CWI-DH-69 (aka B-1 Mon Well)	BOREHOLE	1	12.00	\$3,456
106iu	Plug and seal CWI-DH-70 (aka B-1 Mon Well)	BOREHOLE	1	11.00	\$3,577
106iy	Plug and seal 2010-1B	BOREHOLE	1	12.00	\$4,649
106iz	Plug and seal 2010-1SS	BOREHOLE	1	12.00	\$4,519
110	REVISE. Replace TS from Stockpile A to Portal/Utility Bench	SCRAPER1	1	561.08	\$595,530
111	Replace Topsoil from Stockpile A to Truck Loadout/Coal Stkpl	SCRAPER1	1	45.95	\$48,768
112	Replace Topsoil from Stockpile F to Train Loadout	SCRAPER1	1	39.98	\$42,434
113	Replace Topsoil from Stockpile A to B-Seam Portal Bench	SCRAPER1	1	87.66	\$93,042
115	Replace Topsoil from Stockpile D to Pond C and Pond D	SCRAPER1	1	13.12	\$13,922
115A	Replace Topsoil from Stockpile F to Pond B	SCRAPER1	1	14.48	\$15,371
116	Replace topsoil from Stockpile to Pond J	DOZER	1	3.95	\$2,095
117	Replace topsoil from Stockpile E to Pond F	SCRAPER1	1	2.15	\$2,286
118	Replace topsoil from Stockpile F to Pond K	SCRAPER1	1	1.92	\$2,035
119	Replace topsoil fm stockpile to MR/TR Light-Use Roads	DOZER	4	25.96	\$54,995
120	Replace topsoil from stockpiles to MR/TR drill pads	DOZER	4	27.04	\$56,027
121	Replace topsoil from Stockpile A to Prep Plant Bench	SCRAPER1	1	22.41	\$23,787
122	Replace topsoil from stockpile to Material Storage Area	DOZER	4	0.18	\$388
123	Replace topsoil from Stockpile E to Gob Pile #2	SCRAPER1	1	83.69	\$88,833
124	Replace Topsoil from Stockpile D to Gob Pile #4	SCRAPER1	1	7.01	\$7,443
125	Replace topsoil from stockpile to Gob Pile #3	SCRAPER1	1	85.33	\$90,572
126	Replace topsoil from stockpile to Haul Road	DOZER	4	0.17	\$355
127	Replace topsoil from stockpile to Water Tank Bench	SCRAPER1	1	1.71	\$1,816
128	Replace topsoil from Stockpile G to TR35 road/pad	SCRAPER1	1	5.01	\$5,321
129	Replace topsoil from stockpile to Borrow Area	DOZER	4	5.44	\$11,529
130	Replace topsoil fm stockpile to Upper Parking Lot Expansion	DOZER	1	0.46	\$228
140	Seal Portals and Shafts - Bulkhead Removed from Costs	MINESEAL	1	0.00	\$55,200
150	Drill Seed Mix 3 on Disturbed Area	REVEGE	1	225.02	\$970,858
151	Drill Seed Drill Pads	REVEGE	1	82.97	\$200,547
152	Drill Seed Lt-Use Roads to Drill Pads and Terror Creek	REVEGE	1	62.01	\$149,885
154	REVISED. Broadcast Seed Mix 3 on Gob Pile #3	REVEGE	1	45.00	\$19,887

155	Drill seed Hubbard Creek Vent Shaft Pad	REVEGE	1	1.20	\$2,901
156	Drill Seed Rock Laydown Area	REVEGE	1	0.50	\$483
157	Weed Control Over 10-Year Liability Period	REVEGE	1	400.00	\$205,679
165	REVISED. Demolish and Remove all Structures	DEMOLISH	1	160.00	\$2,313,614
165A	Additional demolition added with MT-06	DEMOLISH	1	160.00	\$103,403
170	Proctor Testing of Backfill (5 tests)	SITEMAINT ENANCE	1	0.00	\$702
171	Nuclear Density Testing of Backfill	SITEMAINT ENANCE	1	0.00	\$133,901
172	Water Truck for Moisture Augmentation of Backfill Material	MISCTRUK	1	1,437.02	\$176,811
173	Site Maintenance - Ten Years	SITEMAINT ENANCE	1	292.00	\$255,335
174	Support Equipment for Scraper Hauling	SITEMAINT ENANCE	1	449.16	\$169,552
180	REVISED. Mob/Demob Equipment for 1st Construction Season	MOBILIZE	1	12.00	\$63,389
181	REVISED. Mob/Demob Equipment for 2nd Construction Season	MOBILIZE	1	12.00	\$60,784
182	Mobilize/Demoblize Equipment for Pond Removal	MOBILIZE	1	6.50	\$5,980
183	Mobilize/Demobilize Equipment for Yearly Site Maintenance	MOBILIZE	1	14.00	\$31,605
241	Regrade Terror Creek Light-Use Road	DOZER	1	29.73	\$13,560
242	Replace Topsoil from Stockpile to Terror Creek Lt-Use Road	DOZER	1	22.45	\$10,239
261	Concrete Plug and Backfill Terror Creek Vent Shaft	MINESEAL	1	40.00	\$92,335
301	Reseed Add'l Disturbance from Utility Boreholes at Fan Bench	REVEGE	1	1.00	\$943
302	Regrade Fan Bench - Utility Borehole Mudpit Add'l Dist.	DOZER	1	4.06	\$1,850
352	Re-topsoil Pitkin Mesa Pipeline corridor	DOZER	1	10.60	\$4,836
353	Reseed Pitkin Mesa Pipeline Corridor	REVEGE	1	2.00	\$4,834
369	Seal Well DH-67blw	BOREHOLE	1	12.00	\$9,167
374	Seal CWI-DH-58A	BOREHOLE	1	12.00	\$10,503
379	Regrade Section 5 Road	DOZER	1	12.88	\$5,873
380	Re-topsoil Section 5 Road	DOZER	1	5.46	\$2,492
381	Reseed Section 5 road	REVEGE	1	2.00	\$2,949
390	Remove Culvert C27 (from TR-119)	DEMOLISH	1	0.25	\$435
<b><u>SUBTOTALS:</u></b>				<b>11183.54</b>	<b>\$11,033,629</b>

**INDIRECT COSTS****OVERHEAD AND PROFIT:**

Liability insurance: 2.02  
 Performance bond: 1.05  
 Job superintendent: 5,678.64  
 Profit: 10.00

Total = \$222,879  
 Total = \$115,853  
 Total = \$450,146  
 Total = \$1,103,363

TOTAL O & P = \$1,892,241

CONTRACT AMOUNT (direct + O & P) = \$12,925,870

LEGAL - ENGINEERING - PROJECT MANAGEMENT:



Financial warranty processing (legal/related costs):	<u>\$500</u>	Total =	<u>\$500</u>
Engineering work and/or contract/bid preparation:	<u>4.00</u>	Total =	<u>\$517,035</u>
Reclamation management and/or administration:	<u>3.13</u>		<u>\$404,580</u>
CONTINGENCY:	0.00	Total =	<u>\$0</u>
		TOTAL INDIRECT COST =	<u>\$2,814,356</u>
		<b>TOTAL BOND AMOUNT (direct + indirect) =</b>	<b><u>\$13,847,985</u></b>

**BULLDOZER WORK**Task description: **REVISED Regrade Train LO Facilities and Railbed Benches**Site: **Bowie No. 2 Mine**Permit Action: **MT6**Permit/Job#: **C1996083****PROJECT IDENTIFICATION**Task #: **011**State: **Colorado**Abbreviation: **None**Date: **2/10/2025**County: **Delta**Filename: **C083-011**User: **RDZ**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D10T - 10SU**Horsepower: **574**Blade Type: **Semi-Universal**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$257.39	NA
Operating Cost/Hour:	\$196.93	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$38.59	NA

Total unit Cost/Hour: **\$492.91**Total Fleet Cost/Hour: **\$1,971.62****MATERIAL QUANTITIES**Initial Volume: **231,495**Swell factor: **1.000**Loose volume: **231,495 LCY**Source of estimated volume: **Operator Estimate**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: **Consolidated stockpile 1.0**Average push gradient: **5 %**Average site altitude: **5,900 feet**Material weight: **2,900 lbs/LCY**Weight description: **Decomposed rock - 50% Rock, 50% Earth****Job Condition Correction Factor**

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

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

Net correction: 0.3566

Adjusted unit production: 980.19 LCY/hr

Adjusted fleet production: **3920.76** LCY/hr

### **JOB TIME AND COST**

Fleet size: 4 Dozer(s)

Unit cost: \$0.503/LCY

Total job time: **59.04** Hours

Total job cost: **\$116,411**

**TRUCK/LOADER TEAM WORK**Task description: **REVISED. Haul Fill fr Adj. Mat'l Storg to B-Seam Portal Bnch**Site: **Bowie No. 2 Mine**Permit Action: MT6Permit/Job#: C1996083**PROJECT IDENTIFICATION**Task #: 014State: ColoradoAbbreviation: NoneDate: 2/10/2025County: DeltaFilename: C083-014User: RDZAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

		Equipment Description
Truck Loader Team -Truck:		Generic 10-12 cy, 6x4
-Loader:		CAT 950H
Support Equipment -Load Area:		NA
-Dump Area:		NA
Road Maintenance -Motor Grader:		NA
-Water Truck:		NA

**Cost Breakdown:****Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	NA	NA	NA	NA
Ownership cost/hour:	\$22.44	\$36.61	NA	NA	NA	NA
Operating cost/hour:	\$60.44	\$35.43	NA	NA	NA	NA
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	NA	NA	NA	NA
Ripper op. cost/hour:	NA	\$0.00	NA	NA	NA	NA
Operator cost/hour:	\$0.00	\$36.85	NA	NA	NA	NA
Unit Subtotals:	\$82.88	\$108.89	NA	NA	NA	NA
Number of Units:	2	1	0	0	0	0
Group Subtotals:	Work: \$274.65		Support: \$0.00		Maint: \$0.00	

Total work team cost/hour: **\$274.65****MATERIAL QUANTITIES**Initial volume: 53,000

CCY

Swell factor: 1.165Loose volume: **61,745**

LCY

Source of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 2,900 Pounds/LCYDescription: Decomposed rock - 50% Rock, 50% EarthRated Payload: 35,400 PoundsPayload Capacity: 12.21 LCY

**Truck Bed (volume) Basis:**

Struck Volume:	10.00	LCY
Heaped Volume:	12.00	LCY
Average Volume:	11.00	LCY
Adjusted Volume:	12.00	LCY

Final Truck Volume Based on Number of Loader Passes: 11.29 LCY

**Loading Tool Capacity**

Bucket Size Class: NA

Rated Capacity:	4.300	LCY (heaped)
Bucket Fill Factor:	0.875	Loose material - 1" and over (85 - 90%) 0.875
Adjusted Capacity:	3.763	LCY

**Job Condition Corrections:**

Site Altitude (ft.): 6900 feet

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

**Loading Tool Cycle Time:** Number of Loading Tool Passes Required to Fill Truck: 3 passes

**Excavators and Front Shovels:**

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

Track Loaders – Material Description: \_\_\_\_\_

**Cycle Time Elements (min.):**

Load: NA Maneuver: NA Dump: 0.100

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

Cycle Time Factors		Factor (min.)	Source
Material:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Operation:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Dump Target:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		0.000	minutes
Adjusted Loader Cycle Time:		0.500	minutes
Net Load Time per Truck:		1.100	minutes

**Truck Cycle Time:**

Truck Exchange Time:	0.50	Minutes	Adjusted for site altitude:	0.500	Minutes
Truck Load Time:	1.100	Minutes	Adjusted for site altitude:	1.100	Minutes
Truck Maneuver and Dump Time:	0.90	Minutes	Adjusted for site altitude:	0.900	Minutes

Truck Travel (Haul & Return) Time:  
maintained 3.0

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

## Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	600.00	0.00	3.00	3.00	2824	0.314

Haul Time: **0.314** minutes

## Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	600.00	0.00	3.00	3.00	2874	0.234

Return Time: **0.234** minutesTotal Truck Cycle Time: **3.048** minutes

Loading Tool unit  
 Production 423.28 LCY/Hour      Adjusted for job efficiency: 351.32 LCY/Hour  
 Truck Unit Production  
222.19 LCY/Hour      Adjusted for job efficiency: 184.42 LCY/Hour  
 Optimal No. of Trucks: 2 Truck(s)      Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 368.84 LCY/Hour  
 Adjusted single truck/loader team production: 351.32 LCY/Hour  
 Adjusted multiple truck/loader team production: **351.32** LCY/Hour

**JOB TIME AND COST**Fleet size: 1 Team(s)      Total job time: **175.75** HoursUnit cost: \$0.782 /LCY      Total job cost: **\$48,270**

**TRUCK/LOADER TEAM WORK**Task description: **Haul Rock to Vent Shafts for Disposal**Site: **Bowie No. 2 Mine**Permit Action: **MT6**Permit/Job#: **C1996083****PROJECT IDENTIFICATION**Task #: **027**State: **Colorado**Abbreviation: **None**Date: **9/24/2024**County: **Delta**Filename: **C083-027**User: **RDZ**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Shift basis: **1 per day**

		Equipment Description
Truck Loader Team -Truck:		Generic 10-12 cy, 6x4
-Loader:		CAT 950H
Support Equipment -Load Area:		NA
-Dump Area:		NA
Road Maintenance -Motor Grader:		NA
-Water Truck:		NA

**Cost Breakdown:****Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	NA	NA	NA	NA
Ownership cost/hour:	\$22.44	\$36.61	NA	NA	NA	NA
Operating cost/hour:	\$60.44	\$35.43	NA	NA	NA	NA
%Utilization-ripper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	NA	NA	NA	NA
Ripper op. cost/hour:	NA	\$0.00	NA	NA	NA	NA
Operator cost/hour:	\$0.00	\$36.85	NA	NA	NA	NA
Unit Subtotals:	\$82.88	\$108.89	NA	NA	NA	NA
Number of Units:	4	1	0	0	0	0
Group Subtotals:	Work: \$440.41		Support: \$0.00		Maint: \$0.00	

Total work team cost/hour: **\$440.41****MATERIAL QUANTITIES**Initial volume: **2,000**

CCY

Swell factor: **1.000**Loose volume: **2,000**

LCY

Source of estimated volume: **Operator Estimate**Source of estimated swell factor: **Cat Handbook**Material Purchase Cost: **\$0.00**Total Cost: **\$0.00****HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: **2,950**

Pounds/LCY

Description: **Traprock - broken**Rated Payload: **35,400**

Pounds

Payload Capacity: **12.00**

LCY

**Truck Bed (volume) Basis:**

Struck Volume:	10.00	LCY
Heaped Volume:	12.00	LCY
Average Volume:	11.00	LCY
Adjusted Volume:	12.00	LCY

Final Truck Volume Based on Number of Loader Passes: **11.61** LCY

**Loading Tool Capacity**

Bucket Size Class: NA

Rated Capacity:	4.300	LCY (heaped)
Bucket Fill Factor:	0.675	Blasted rock - poorly blasted (60 - 75%) 0.675
Adjusted Capacity:	<b>2.903</b>	LCY

**Job Condition Corrections:**

Site Altitude (ft.): 7100 feet

	<b>Truck</b>	<b>Loader</b>	<b>Source</b>
Altitude Adj:	1.000	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	<b>0.830</b>	<b>0.830</b>	

**Loading Tool Cycle Time:** Number of Loading Tool Passes Required to Fill Truck: 4 passes

**Excavators and Front Shovels:**

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

Track Loaders – Material Description: \_\_\_\_\_

**Cycle Time Elements (min.):**

Load: NA Maneuver: NA Dump: 0.100

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

Cycle Time Factors		Factor (min.)	Source
Material:	Bank or broken material 0.04	0.040	(Cat HB)
Stockpile:	Dumped by truck 0.02	0.020	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Fragile target 0.05	0.050	(Cat HB)
Net Cycle Time Adjustment:		0.030	minutes
Adjusted Loader Cycle Time:		<b>0.530</b>	minutes
Net Load Time per Truck:		<b>1.690</b>	minutes

**Truck Cycle Time:**

Truck Exchange Time:	0.50	Minutes	Adjusted for site altitude:	0.500	Minutes
Truck Load Time:	1.690	Minutes	Adjusted for site altitude:	1.690	Minutes
Truck Maneuver and Dump Time:	0.90	Minutes	Adjusted for site altitude:	0.900	Minutes

Truck Travel (Haul & Return) Time:

Road Condition: Very soft, muddy, rutted, not maintained, 12" tire

penetration 20



## Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	5280.00	10.00	20.00	30.00	337	15.668

Haul Time: **15.668** minutes

## Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	5280.00	-10.00	20.00	10.00	1768	2.996

Return Time: **2.996** minutesTotal Truck Cycle Time: **21.754** minutes

## Loading Tool unit

Production 318.08 LCY/Hour      Adjusted for job efficiency: 264.01 LCY/Hour  
 Truck Unit Production 32.02 LCY/Hour      Adjusted for job efficiency: 26.58 LCY/Hour

Optimal No. of Trucks: 10 Truck(s)      Selected Number of Trucks: 4 Truck(s)

Adjusted hourly truck team production: 106.31 LCY/Hour  
 Adjusted single truck/loader team production: 106.31 LCY/Hour  
 Adjusted multiple truck/loader team production: **106.31** LCY/Hour

**JOB TIME AND COST**Fleet size: 1 Team(s)      Total job time: **18.81** HoursUnit cost: \$4.143 /LCY      Total job cost: **\$8,285**

**TRUCK/LOADER TEAM WORK**Task description: **REVISED. Haul refuse fr Gob Pile 2/3 dry areas for plcemnt**Site: **Bowie No. 2 Mine**Permit Action: MT6Permit/Job#: C1996083**PROJECT IDENTIFICATION**Task #: 040State: ColoradoAbbreviation: NoneDate: 2/10/2025County: DeltaFilename: C083-040User: RDZAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

		Equipment Description
Truck Loader Team -Truck:		Generic 10-12 cy, 6x4
-Loader:		CAT 950H
Support Equipment -Load Area:		NA
-Dump Area:		NA
Road Maintenance -Motor Grader:		NA
-Water Truck:		NA

**Cost Breakdown:****Truck/Loader Team****Support Equipment****Maintenance Equipment**

	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	NA	NA	NA	NA
Ownership cost/hour:	\$22.44	\$36.61	NA	NA	NA	NA
Operating cost/hour:	\$60.44	\$35.43	NA	NA	NA	NA
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	NA	NA	NA	NA
Ripper op. cost/hour:	NA	\$0.00	NA	NA	NA	NA
Operator cost/hour:	\$0.00	\$36.85	NA	NA	NA	NA
Unit Subtotals:	\$82.88	\$108.89	NA	NA	NA	NA
Number of Units:	2	1	0	0	0	0
Group Subtotals:	Work: \$274.65		Support: \$0.00		Maint: \$0.00	

Total work team cost/hour: **\$274.65****MATERIAL QUANTITIES**Initial volume: 325,000

CCY

Swell factor: 1.000Loose volume: **325,000**

LCY

Source of estimated volume: Vol XI, p. 4a, Vol IX p 12-all 225k yds @ #3, 100k yds @ #2Source of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:****Truck Payload (weight) Basis:**Material weight: 1,600

Pounds/LCY

Description: Coal - Bituminous, RawRated Payload: 35,400

Pounds

Payload Capacity: 22.13

LCY

**Truck Bed (volume) Basis:**

Struck Volume:	10.00	LCY
Heaped Volume:	12.00	LCY
Average Volume:	11.00	LCY
Adjusted Volume:	12.00	LCY

Final Truck Volume Based on Number of Loader Passes: **8.39** LCY

**Loading Tool Capacity**

Bucket Size Class: NA

Rated Capacity:	4.300	LCY (heaped)
Bucket Fill Factor:	0.975	Loose material - mixed moist aggregates (95-100%) 0.975
Adjusted Capacity:	<b>4.193</b>	LCY

**Job Condition Corrections:**

Site Altitude (ft.): 6900 feet

	<b>Truck</b>	<b>Loader</b>	<b>Source</b>
Altitude Adj:	1.000	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	<b>0.830</b>	<b>0.830</b>	

**Loading Tool Cycle Time:** Number of Loading Tool Passes Required to Fill Truck: 2 passes

**Excavators and Front Shovels:**

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

Track Loaders – Material Description: \_\_\_\_\_

**Cycle Time Elements (min.):**

Load: NA      Maneuver: NA      Dump: 0.100

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

Cycle Time Factors		Factor (min.)	Source
Material:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Operation:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Dump Target:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		0.000	minutes
Adjusted Loader Cycle Time:		<b>0.500</b>	minutes
Net Load Time per Truck:		<b>0.600</b>	minutes

**Truck Cycle Time:**

Truck Exchange Time:	0.50	Minutes	Adjusted for site altitude:	0.500	Minutes
Truck Load Time:	0.600	Minutes	Adjusted for site altitude:	0.600	Minutes
Truck Maneuver and Dump Time:	0.90	Minutes	Adjusted for site altitude:	0.900	Minutes

**Truck Travel (Haul & Return) Time:**  
penetration 4.0

Road Condition: Rutted dirt, little maintenance, no water, 1" tire

## Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	500.00	0.00	4.00	4.00	2665	0.285

Haul Time: **0.285** minutes

## Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	500.00	0.00	4.00	4.00	2849	0.201

Return Time: **0.201** minutesTotal Truck Cycle Time: **2.486** minutes

Loading Tool unit  
 Production 457.36 LCY/Hour      Adjusted for job efficiency: 379.61 LCY/Hour  
 Truck Unit Production  
202.37 LCY/Hour      Adjusted for job efficiency: 167.97 LCY/Hour  
 Optimal No. of Trucks: 2 Truck(s)      Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 335.94 LCY/Hour  
 Adjusted single truck/loader team production: 335.94 LCY/Hour  
 Adjusted multiple truck/loader team production: **335.94** LCY/Hour

**JOB TIME AND COST**Fleet size: 1 Team(s)      Total job time: **967.44** HoursUnit cost: \$0.818 /LCY      Total job cost: **\$265,706**

**BULLDOZER WORK**Task description: **REVISED, Distribute Gob Pile #2 cover hauled by T/L**Site: **Bowie No. 2 Mine**Permit Action: **MT6**Permit/Job#: **C1996083****PROJECT IDENTIFICATION**Task #: **045A**State: **Colorado**Abbreviation: **None**Date: **2/10/2025**County: **Delta**Filename: **C083-045A**User: **RDZ**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D10T - 10SU**Horsepower: **574**Blade Type: **Semi-Universal**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<b><u>Utilization %</u></b>
Ownership Cost/Hour:	<b>\$257.39</b>	<b>NA</b>
Operating Cost/Hour:	<b>\$196.93</b>	<b>100</b>
Ripper own. Cost/Hour:	<b>\$0.00</b>	<b>NA</b>
Ripper op. Cost/Hour:	<b>\$0.00</b>	<b>0</b>
Operator Cost/Hour:	<b>\$38.59</b>	<b>NA</b>

Total unit Cost/Hour: **\$492.91**Total Fleet Cost/Hour: **\$492.91****MATERIAL QUANTITIES**Initial Volume: **134,142**Swell factor: **1.000**Loose volume: **134,142 LCY**Source of estimated volume: **Volume IX, Appendix A**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **150 feet**Unadjusted hourly production: **1,243.2 LCY/hr**Materials consistency description: **Loose stockpile 1.2**Average push gradient: **-30 %**Average site altitude: **6,300 feet**Material weight: **2,900 lbs/LCY**Weight description: **Decomposed rock - 50% Rock, 50% Earth****Job Condition Correction Factor**

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

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.7587

Adjusted unit production: 943.22 LCY/hr

Adjusted fleet production: **943.22** LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)

Unit cost: \$0.523/LCY

Total job time: **142.22** Hours

Total job cost: **\$70,100**

## BULLDOZER RIPPING WORK

Task description: REVISED. Rip convyr coridr, soil pile areas befor TS replcmt

Site: Bowie No. 2 Mine Permit Action: MT6 Permit/Job#: C1996083

### PROJECT IDENTIFICATION

Task #: 063 State: Colorado Abbreviation: None  
Date: 2/21/2025 County: Delta Filename: C083-063  
User: RDZ

Agency or organization name: DRMS

### HOURLY EQUIPMENT COST

Basic Machine: Cat D10T - 10SU Horsepower: 574  
Ripper Attachment: 3-Shank Ripper Shift Basis: 1 per day  
Data Source: (CRG)

#### Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$257.39	NA
Operating Cost/Hour:	\$196.93	100
Ripper Ownership Cost/Hour:	\$25.02	NA
Ripper Operating Cost/Hour:	\$11.73	100
Operator Cost/Hour:	\$38.59	NA
Total Unit Cost/Hour:	\$529.66	
Total Fleet Cost/Hour:	<b>\$2,118.62</b>	

### MATERIAL QUANTITIES

Selected estimating method: Area

#### Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA  
Area: 15.60 acres Rip Depth (ft): 2.63 Volume: 66,192 BCY or CCY

Source of estimated quantity: Correspondence with operator

### HOURLY PRODUCTION

#### Seismic:

Seismic Velocity: NA feet/second

#### Area:

Average Ripping Depth: 2.88 feet/pass  
Average Ripping Width: 8.67 feet/pass  
Average Ripping Length: 100.00 feet/pass  
Average Dozer Speed: 88.00 feet/minute  
Average Maneuver Time: 0.25 minutes/pass  
Production per unit area: 0.861 acres/hour

#### Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.861 Acres/hr  
Site Altitude: 6,500 feet  
Altitude Adj: 1.00 (CAT HB)  
Job Efficiency: 0.83 (1 shift/day)  
Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.71 Acres/hr  
Adjusted Hourly Fleet Production: **2.86** Acres/hr

### JOB TIME AND COST

Fleet size: 4 Grader(s) Total job time: **5.45** Hours

Unit cost: \$740.822 Per acre Total job cost: **\$11,557**

## BULLDOZER RIPPING WORK

Task description: REVISED. Rip Haul Roads (Portion to Reclaim), Old Truck LO

Site: Bowie No. 2 Mine

Permit Action: MT6

Permit/Job#: C1996083

### PROJECT IDENTIFICATION

Task #: 070

State: Colorado

Abbreviation: None

Date: 2/21/2025

County: Delta

Filename: C083-070

User: RDZ

Agency or organization name: DRMS

### HOURLY EQUIPMENT COST

Basic Machine: Cat D10T - 10SU

Horsepower: 574

Ripper Attachment: 1-Shank Ripper

Shift Basis: 1 per day

Data Source: (CRG)

#### Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$257.39	NA
Operating Cost/Hour:	\$196.93	100
Ripper Ownership Cost/Hour:	\$20.05	NA
Ripper Operating Cost/Hour:	\$12.67	100
Operator Cost/Hour:	\$38.59	NA
Total Unit Cost/Hour:	\$525.63	
Total Fleet Cost/Hour:	<b>\$2,102.50</b>	

### MATERIAL QUANTITIES

Selected estimating method: Seismic

#### Alternate Methods:

Seismic: 260,481 BCY      Bank Volume: 260,481 BCY      Midrange  
Area: NA acres      Rip Depth (ft): NA      Volume: NA BCY or CCY

Source of estimated quantity: Operator Estimate

### HOURLY PRODUCTION

#### Seismic:

Seismic Velocity: 5,000 feet/second

#### Area:

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

#### Job Condition Correction Factors

Unadjusted Hourly Unit Production: 1,250.00 Cu. yds./hr

Site Altitude: 6,500 feet

Altitude Adj: 1.00 (CAT HB)

Job Efficiency: 0.83 (1 shift/day)

Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 1,037.50 Cu. yds./hr

Adjusted Hourly Fleet Production: **4,150.00** Cu. yds./hr

### JOB TIME AND COST

Fleet size: 4 Grader(s)      Total job time: **62.77** Hours

Unit cost: \$0.507 Per cu. yd.      Total job cost: **\$131,967**



## BOREHOLE SEALING WORK

Task description: Plug and seal MR133 Utility Hole #4

Site: Bowie No. 2 Mine

Permit Action: MT6

Permit/Job#: C1996083

### PROJECT IDENTIFICATION

Task #: 106CQ

State: Colorado

Abbreviation: None

Date: 9/24/2024

County: Delta

Filename: C083-106cq

User: RDZ

Agency or organization name: DRMS

### UNIT COSTS

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Bottom Plug	PVC plug - 10 in. diameter borehole	10	NA	1.00	EA	\$122.34	\$122.34
Fill holes with cement	Portland cement grout ( Bag, material cost only...94 lb. bag)	10	520	240.35	bag	\$22.00	\$5,287.70
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	10	NA	2.50	LF	\$3.23	\$8.08
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$46.00	\$46.00
Drill Rig time	Truck Mounted - 3.0 in. - 1,700 ft. capy.	NA	NA	10.00	EA	\$142.90	\$1,429.00
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	10.00	EA	\$75.02	\$750.20

Job Hours: 10.00

Total Cost: \$7,643.00

## BOREHOLE SEALING WORK

Task description: Plug and seal AW-6

Site: Bowie No. 2 Mine

Permit Action: MT6

Permit/Job#: C1996083

### PROJECT IDENTIFICATION

Task #: 106GS

State: Colorado

Abbreviation: None

Date: 9/24/2024

County: Delta

Filename: C083-106gs

User: RDZ

Agency or organization name: DRMS

### UNIT COSTS

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Fill holes with cement	Portland cement grout ( Bag, material cost only...94 lb. bag)	4	112	8.28	bag	\$22.00	\$182.16
Cut casings	Exposed casing removal - Calculate Circumference in Linear Feet	4	NA	1.00	LF	\$3.23	\$3.23
Borehole markers	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$46.00	\$46.00
Drill Rig time	Truck Mounted - 3.0 in. - 1,700 ft. capy.	NA	NA	7.00	EA	\$142.90	\$1,000.30
WaterTruck	Water Tanker, 3,500 Gal.	NA	NA	7.00	EA	\$75.02	\$525.14

Job Hours: 7.00

Total Cost: \$1,757.00

**SCRAPER TEAM WORK**Task description: **REVISE. Replace TS from Stockpile A to Portal/Utility Bench**Site: **Bowie No. 2 Mine**Permit Action: MT6Permit/Job#: C1996083**PROJECT IDENTIFICATION**Task #: 110State: ColoradoAbbreviation: NoneDate: 2/10/2025County: DeltaFilename: C083-110User: RDZAgency or organization name: DRMS**HOURLY EQUIPMENT**COSTShift basis: 1 per day

Equipment Description	
-Scraper:	Cat 627G w/push-pull
-Dozer:	NA
Support Equipment -Load Area:	NA
-Dump Area:	NA
Road Maintenance -Motor Grader:	NA
-Water Truck:	NA

**Cost Breakdown:**

## Scraper Work Team

## Support Equipment

## Maintenance Equipment

	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	NA	NA	NA	NA	NA
Ownership cost/hour:	\$234.09	NA	NA	NA	NA	NA
Operating cost/hour:	\$265.71	NA	NA	NA	NA	NA
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	NA	NA	NA	NA
Ripper op. cost/hour:	NA	NA	NA	NA	NA	NA
Operator cost/hour:	\$30.90	NA	NA	NA	NA	NA
Unit Subtotals:	\$530.70	NA	NA	NA	NA	NA
Number of Units:	2	0	0	0	0	0
Group Subtotals:	Work: \$1,061.40		Support:	\$0.00	Maint:	\$0.00

Total work team cost/hour: **\$1,061.40****MATERIAL QUANTITIES**Initial volume: 91,800

CCY

Swell factor: 1.125Loose volume: **103,275**

LCY

Source of estimated volume: Page 2.05-35Source of estimated swell factor: Cat Handbook**HOURLY PRODUCTION****Scraper Bowl (volume) Basis:**

Material weight:	<u>2,550 lbs/LCY</u>	Struck Volume:	<u>15.70</u>	LCY
Material description:	<u>Earth - Dry packed</u>	Heaped Volume:	<u>22.00</u>	LCY
Rated Payload:	<u>52,800 pounds</u>	Average Volume:	<u>18.85</u>	LCY
Payload Capacity:	<u>20.71 LCY</u>	Adjusted Capacity:	<b><u>18.85</u></b>	LCY

Cycle Time:Scraper Loading Time: 0.90 MinutesManeuver and Spread Time: 0.60 MinutesJob Condition Correction:

Site Altitude: 6750 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: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	6700.00	5.00	5.00	10.00	1068	6.31

Haul Time: 6.31 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	6700.00	-5.00	5.00	0.00	2921	2.39

Return Time: 2.39 minutesTotal Scraper team cycle time: 10.20 minutesAdjusted for job conditions: 184.06 LCY/HourSelected Number of Scrapers: 2 Scraper(s)Adjusted single scraper team (unit) hourly production: 184.06 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 184.06 LCY/HourUnadjusted unit production/hour: 221.76 LCY/Hour

Optimal Number of Scrapers per push dozer: \_\_\_\_\_

**JOB TIME AND COST**Fleet size: 1 Team(s)Total job time: 561.08 HoursUnit cost: \$5.766 /LCYTotal job cost: \$595,530

**REVEGETATION WORK**Task description: **REVISED. Broadcast Seed Mix 3 on Gob Pile #3**Site: **Bowie No. 2 Mine**Permit Action: MT6Permit/Job#: C1996083**PROJECT IDENTIFICATION**Task #: 154State: ColoradoAbbreviation: NoneDate: 2/10/2025County: DeltaFilename: C083-154User: RDZAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
			<b>Total Fertilizer Materials Cost/Acre</b>	<b>\$0.00</b>

**Application**

Description	Cost /Acre
	\$
<b>Total Fertilizer Application Cost/Acre</b>	<b>\$0.00</b>

**TILLING**

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$117.61
<b>Total Tilling Cost/Acre</b>	<b>\$117.61</b>

**SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Orchardgrass - Elsie	3.00	37.19	\$10.88
Kentucky Bluegrass - Ginger	0.25	12.34	\$1.04
Red Clover - Medium	1.00	6.20	\$7.04
Alfalfa - Ranger (inoculated)	2.00	9.64	\$7.74
Rocky Mountain Fescue	3.00	48.21	\$32.36
Slender Wheatgrass - Native	1.50	5.48	\$10.60
Thickspike Wheatgrass - Critana	1.50	5.30	\$12.22
<b>Totals Seed Mix</b>	<b>12.25</b>	<b>124.36</b>	<b>\$81.87</b>

**Application**

Description	Cost /Acre
Broadcast seeding [DMG]	\$272.56
<b>Total Seed Application Cost/Acre</b>	<b>\$272.56</b>

**MULCHING and MISCELLANEOUS****Materials**

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

**Application**

Description	Cost /Acre
	\$
<b>Total Mulch Application Cost/Acre</b>	<b>\$0.00</b>

**NURSERY STOCK PLANTING**

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

**JOB TIME AND COST**

No. of Acres:	30.63	Cost /Acre:	\$472.04
Estimated Failure Rate:	50%	Cost /Acre*:	\$354.43
*Selected Replanting Work Items:	SEEDING		

Initial Job Cost:	<b>\$14,458.59</b>
Reseeding Job Cost:	<b>\$5,428.10</b>
Total Job Cost:	<b>\$19,887</b>
Job Hours:	<b>45.00</b>

**REVEGETATION WORK**Task description: **REVISED. Weed Control Over 10-Year Liability Period**Site: **Bowie No. 2 Mine**Permit Action: MT6Permit/Job#: C1996083**PROJECT IDENTIFICATION**Task #: 157State: ColoradoAbbreviation: NoneDate: 2/21/2025County: DeltaFilename: C083-157User: RDZAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
			<b>Total Fertilizer Materials Cost/Acre</b>	<b>\$0.00</b>

**Application**

Description	Cost /Acre
	\$
<b>Total Fertilizer Application Cost/Acre</b>	<b>\$0.00</b>

**TILLING**

Description	Cost /Acre
	\$
<b>Total Tilling Cost/Acre</b>	<b>\$0.00</b>

**SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
			\$
<b>Totals Seed Mix</b>	<b>0.00</b>	<b>0.00</b>	<b>\$0.00</b>

**Application**

Description	Cost /Acre
	\$

<b>Total Seed Application Cost/Acre</b>	<b>\$0.00</b>
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**MULCHING and MISCELLANEOUS****Materials**

<b>Description</b>	<b>Units / Acre</b>	<b>Unit</b>	<b>Cost / Unit</b>	<b>Cost /Acre</b>
Herbicide - 2,4D @ 1.0 pt/ac	2.00	ACRE	\$4.13	\$8.25
Herbicide - Escort @ 1.0 pt/ac	2.00	ACRE	\$76.96	\$153.92
<b>Total Mulch Materials Cost/Acre</b>				<b>\$162.18</b>

**Application**

<b>Description</b>	<b>Cost /Acre</b>
Weed spray, truck, non-aquatic area, nox. [DMG]	\$83.26
<b>Total Mulch Application Cost/Acre</b>	<b>\$83.26</b>

**NURSERY STOCK PLANTING**

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

**JOB TIME AND COST**

No. of Acres: 838  
 Estimated Failure Rate: 0%  
 \*Selected Replanting Work Items: MULCHING

Cost /Acre: \$245.44  
 Cost /Acre\*: \$245.44

Initial Job Cost: **\$205,678.72**  
 Reseeding Job Cost: **\$0.00**  
 Total Job Cost: **\$205,679**  
 Job Hours: **400.00**



## DEMOLITION WORK

Task description: **REVISED. Demolish and Remove all Structures**

Site: **Bowie No. 2 Mine**

Permit Action: **MT6**

Permit/Job#: **C1996083**

### PROJECT IDENTIFICATION

Task #: **165**

State: **Colorado**

Abbreviation: **None**

Date: **2/13/2025**

County: **Delta**

Filename: **C083-165**

User: **RDZ**

Agency or organization name: **DRMS**

### UNIT COSTS

Location adjustment: 102.20 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Office and Bath House Superstructure	120'x50'x24'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	144,000.00	CF	\$0.35	\$50,054.40
floor	120'x50'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	6,000.00	SF	\$1.24	\$7,438.20
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft. - Max. 200 ft. push	340.00	LF	\$7.44	\$2,529.09
Shop Superstructure	100'x60'x24'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	144,000.00	CF	\$0.35	\$50,054.40
floor	100'x50'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	5,000.00	SF	\$1.24	\$6,198.50
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft. - Max. 200 ft. push	300.00	LF	\$7.44	\$2,231.55
Warehouse Superstructure	50'x60'x24'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	72,000.00	CF	\$0.35	\$25,027.20
floor	50'x60'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	3,000.00	SF	\$1.24	\$3,719.10
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft. - Max. 200 ft. push	220.00	LF	\$7.44	\$1,636.47
Wash Bay Superstructure	50'x25'x24'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	30,000.00	CF	\$0.35	\$10,428.00
floor	50'x25'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	1,250.00	SF	\$1.24	\$1,549.63

footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft. - Max. 200 ft. push	150.00	LF	\$7.44	\$1,115.78
MCC Building Superstructure D-Seam Portal	18'x42'x11'	Bldg. (SC) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	8,316.00	CF	\$0.31	\$2,550.52
floor	18'x42'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	756.00	SF	\$1.24	\$937.21
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft. - Max. 200 ft. push	120.00	LF	\$7.44	\$892.62
MCC Building Superstructure Hubbard Creek	15'x25'x12'	Bldg. (SC) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	4,500.00	CF	\$0.31	\$1,380.15
floor	15'x25'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	375.00	SF	\$1.24	\$464.89
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft. - Max. 200 ft. push	80.00	LF	\$7.44	\$595.08
Covered Storage Superstructure - D Seam Portal	30'x80'x20'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	48,000.00	CF	\$0.35	\$16,684.80
floor	30'x80'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	2,400.00	SF	\$1.24	\$2,975.28
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft. - Max. 200 ft. push	220.00	LF	\$7.44	\$1,636.47
Covered Storage Superstructure B Seam	27'x55'x15'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	22,275.00	CF	\$0.35	\$7,742.79
floor	40'x15'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	600.00	SF	\$1.24	\$743.82
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft. - Max. 200 ft. push	110.00	LF	\$7.44	\$818.24
Covered Storage Superstructure B Seam	50'x25'x20'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	25,000.00	CF	\$0.35	\$8,690.00
floor	50'x25'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max.	1,250.00	SF	\$1.24	\$1,549.63

		200 ft. push				
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft. - Max. 200 ft. push	150.00	LF	\$7.44	\$1,115.78
Covered Storage Superstructure Stockpile Level	30'x110'x15'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	49,500.00	CF	\$0.35	\$17,206.20
floor	30'x110'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	3,300.00	SF	\$1.24	\$4,091.01
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft. - Max. 200 ft. push	280.00	LF	\$7.44	\$2,082.78
Covered Storage Superstructure Stockpile Level	40'x15'x15'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	9,000.00	CF	\$0.35	\$3,128.40
floor	40'x15'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	600.00	SF	\$1.24	\$743.82
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft. - Max. 200 ft. push	110.00	LF	\$7.44	\$818.24
Water Treatment Building Superstructure	40'x21'x12'	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	10,080.00	CF	\$0.24	\$2,453.47
floor	14'x20'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	840.00	SF	\$1.24	\$1,041.35
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft. - Max. 200 ft. push	122.00	LF	\$7.44	\$907.50
Fueling Station Superstructure	20'x30'x20'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	12,000.00	CF	\$0.35	\$4,171.20
Fueling Station Containment Structure	20'x30'x4'	Demo. and on-site disposal in excavated pit, 8 in. thick - Max. 200 ft. push	280.00	SF	\$1.73	\$483.00
-floor	20'x30'x8"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	600.00	SF	\$1.24	\$743.82
10k gal diesel tank remove/haul	NA	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	1.00	EA	\$1,050.00	\$1,050.00
sludge removal	NA	Remove sludge, water, and rem. product from tank - 9,000 to 12,000	1.00	EA	\$432.00	\$432.00

		gal.				
sludge disposal	NA	Dispose of tank sludge off-site - Average	150.00	GAL	\$6.80	\$1,020.00
insert CO2	NA	Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	150.00	LB	\$2.11	\$316.50
500 gal DOTdiesel tank remove/haul	NA	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$760.00	\$760.00
sludge removal	NA	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	\$259.50	\$259.50
sludge disposal	NA	Dispose of tank sludge off-site - Average	50.00	GAL	\$6.80	\$340.00
insert CO2	NA	Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	7.50	LB	\$2.11	\$15.83
2k gal oil tank remove/haul	NA	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$760.00	\$760.00
sludge removal	NA	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	\$259.50	\$259.50
sludge disposal	NA	Dispose of tank sludge off-site - Average	200.00	GAL	\$6.80	\$1,360.00
insert CO2	NA	Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	30.00	LB	\$2.11	\$63.30
2.5k gal gas tank remove/haul	NA	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$760.00	\$760.00
sludge removal	NA	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	\$259.50	\$259.50
sludge disposal	NA	Dispose of tank sludge off-site - Average	250.00	GAL	\$6.80	\$1,700.00
insert CO2	NA	Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	37.00	LB	\$2.11	\$78.07
1k gal motor oil tank remove/haul	NA	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$760.00	\$760.00
sludge removal	NA	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	\$259.50	\$259.50
sludge disposal	NA	Dispose of tank sludge off-site - Average	100.00	GAL	\$6.80	\$680.00
insert CO2	NA	Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	15.00	LB	\$2.11	\$31.65

Sewage Treatment Plant Superstructure	20'x30'x10'	Bldg. (SC) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	6,000.00	CF	\$0.31	\$1,840.20
floor	20'x30'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	600.00	SF	\$1.24	\$743.82
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft. - Max. 200 ft. push	100.00	LF	\$7.44	\$743.85
Substation Superstructure	50'x100'x20'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	50,000.00	CF	\$0.35	\$17,380.00
floor	50'x100'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	5,000.00	SF	\$1.24	\$6,198.50
transformers	3 each	NON-PCB Transformer Removal	3.00	EA	\$2,397.20	\$7,191.60
Mine Ventilation Fan Superstructure	20'x20'x8'	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	3,200.00	CF	\$0.24	\$778.88
floor	20'x20'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	400.00	SF	\$1.24	\$495.88
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft. - Max. 200 ft. push	80.00	LF	\$7.44	\$595.08
Non-Coal Waste Storage Structures (3)	20'x30'x6'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	10,800.00	CF	\$0.36	\$3,881.52
Rock Dust Storage Area Superstructure	30'x20'x8'	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	4,800.00	CF	\$0.24	\$1,168.32
floor	30'x20'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	600.00	SF	\$1.24	\$743.82
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft. - Max. 200 ft. push	100.00	LF	\$7.44	\$743.85
silo	50'x8'd	Bldg. (MC) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	2,513.00	CF	\$0.45	\$1,140.65
silo pad	25'x20'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	100.00	SF	\$1.24	\$123.97
Pump House	18'x12'x8'	Bldg. (SN) demo./on-	1,728.00	CF	\$0.24	\$420.60

Superstructure		site disposal in excavated pit - Max. 10,000 ft. haul				
floor	18'x12'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	216.00	SF	\$1.24	\$267.78
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft. - Max. 200 ft. push	60.00	LF	\$7.44	\$446.31
Portal Conveyor Transfer Building Superstructure	20'x24'x45'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	21,600.00	CF	\$0.35	\$7,508.16
floor	20'x24'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	480.00	SF	\$1.24	\$595.06
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft. - Max. 200 ft. push	88.00	LF	\$7.44	\$654.59
Screening and Crushing Building	40'x21'x52'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	43,680.00	CF	\$0.35	\$15,183.17
floor	40'x21'x6"	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	840.00	SF	\$1.24	\$1,041.35
footing	1.5'x2'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft. - Max. 200 ft. push	122.00	LF	\$7.44	\$907.50
Clean Gob Pile Material Storage Area	NA	Loading and 5 mile haul, salvage allowed - Wood frame structures	968.00	CY	\$23.95	\$23,183.60
Clean Haul Road Storage Piles (2)	NA	Loading and 5 mile haul, salvage allowed - Wood frame structures	484.00	CY	\$23.95	\$11,591.80
Clean Topsoil Stockpile A Storage Pile	NA	Loading and 5 mile haul, salvage allowed - Wood frame structures	1,839.00	CY	\$23.95	\$44,044.05
Clean Portal Bench/Light Use Rd Piles (2)	NA	Loading and 5 mile haul, salvage allowed - Wood frame structures	1,670.00	CY	\$23.95	\$39,996.50
Portal Conveyor (D and B Seams)	140'x72"	Conveyor, demolition, off-site disposal in approved landfill, 30 mile haul	11,200.00	CF	\$0.96	\$10,752.00
footing	2'x3'	Demo. and on-site disposal in excavated pit, 2.0 ft. x 3 ft. - Max. 200 ft. push	5.00	LF	\$14.88	\$74.38
Gob Belt Conveyor	81'x48"	Conveyor, demolition, off-site disposal in approved landfill, 30 mile haul	2,430.00	CF	\$0.96	\$2,332.80

footing	2'x3'	Demo. and on-site disposal in excavated pit, 2.0 ft. x 3 ft. - Max. 200 ft. push	2.00	LF	\$14.88	\$29.75
Stockpile Conveyor	393'x72"	Conveyor, demolition, off-site disposal in approved landfill, 30 mile haul	31,440.00	CF	\$0.96	\$30,182.40
footing	2'x3'	Demo. and on-site disposal in excavated pit, 2.0 ft. x 3 ft. - Max. 200 ft. push	16.00	LF	\$14.88	\$238.03
Reclaim Conveyor	402'x48"	Conveyor, demolition, off-site disposal in approved landfill, 30 mile haul	12,060.00	CF	\$0.96	\$11,577.60
footing	2'x3'	Demo. and on-site disposal in excavated pit, 2.0 ft. x 3 ft. - Max. 200 ft. push	18.00	LF	\$14.88	\$267.78
Off-Spec Coal Conveyor	111'x72"	Conveyor, demolition, off-site disposal in approved landfill, 30 mile haul	8,880.00	CF	\$0.96	\$8,524.80
footing	2'x3'	Demo. and on-site disposal in excavated pit, 2.0 ft. x 3 ft. - Max. 200 ft. push	4.00	LF	\$14.88	\$59.51
Radial Stacker #1 Conveyor	150'x36"	Conveyor, demolition, off-site disposal in approved landfill, 30 mile haul	4,500.00	CF	\$0.96	\$4,320.00
footing	2'x3'	Demo. and on-site disposal in excavated pit, 2.0 ft. x 3 ft. - Max. 200 ft. push	6.00	LF	\$14.88	\$89.26
Radial Stacker #2 Conveyor	80' x 36"	Conveyor, demolition, off-site disposal in approved landfill, 30 mile haul	2,400.00	CF	\$0.96	\$2,304.00
footing	2'x3'	Demo. and on-site disposal in excavated pit, 2.0 ft. x 3 ft. - Max. 200 ft. push	1.00	LF	\$14.88	\$14.88
Stoker Collecting Conveyor	29' x 36"	Conveyor, demolition, off-site disposal in approved landfill, 30 mile haul	870.00	CF	\$0.96	\$835.20
concrete runway	29' x 48"	Demo. and on-site disposal in excavated pit, 4 in. thick - Max. 200 ft. push	116.00	SF	\$0.83	\$95.87
Stacking Tube	12' diam x 100'	Demo. and on-site disposal in excavated pit, 12 in. thick - Max. 200 ft. push	3,770.00	SF	\$2.59	\$9,754.88
foundation	2'x3'	Demo. and on-site disposal in excavated pit, 2.0 ft. x 3 ft. - Max.	38.00	LF	\$14.88	\$565.32

		200 ft. push				
Stacking Tube	12' diam x 120'	Demo. and on-site disposal in excavated pit, 12 in. thick - Max. 200 ft. push	4,524.00	SF	\$2.59	\$11,705.85
foundation	2'x3'	Demo. and on-site disposal in excavated pit, 2.0 ft. x 3 ft. - Max. 200 ft. push	38.00	LF	\$14.88	\$565.32
Stacking Tube	12' diam x 130'	Demo. and on-site disposal in excavated pit, 12 in. thick - Max. 200 ft. push	4,901.00	SF	\$2.59	\$12,681.34
Reclaim Tunnel Part 1	13' diam x 350'	USER PROVIDED ITEM	9,065.00	SF	\$7.77	\$70,435.05
Reclaim Tunnel Part 2	13' diam x 200'	USER PROVIDED ITEM	1,481.00	SF	\$7.77	\$11,507.37
Escape Tube	42" x 160'&150'	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	3,797.00	CF	\$0.24	\$924.19
Concrete Fan Housing	6'x6'x8'	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	288.00	CF	\$0.24	\$70.10
10k gal hydraulic oil tank	NA	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	1.00	EA	\$1,050.00	\$1,050.00
remove sludge	NA	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	1.00	EA	\$432.00	\$432.00
sludge disposal	NA	Dispose of tank sludge off-site - Average	1,000.00	GAL	\$6.80	\$6,800.00
insert CO2	NA	Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	150.00	LB	\$2.11	\$316.50
500 gal antifreeze tank	NA	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$760.00	\$760.00
sludge removal	NA	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	\$259.50	\$259.50
sludge disposal	NA	Dispose of tank sludge off-site - Average	50.00	GAL	\$6.80	\$340.00
insert CO2	NA	Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	7.50	LB	\$2.11	\$15.83
Power line removal	6350' lin.ft.	Disposal of utility pole and hardware surplus material	6,350.00	LF	\$0.02	\$127.00
Portal Bench to Transfer Tower on grade conveyor	36" x 800'	Conveyor, demolition, off-site disposal in approved landfill, 30 mile haul	24,000.00	CF	\$0.96	\$23,040.00
Portal Bench to	36" x 120'	Conveyor, demolition,	3,600.00	CF	\$0.96	\$3,456.00



Transfer Tower elevated conveyor		off-site disposal in approved landfill, 30 mile haul				
footing	2'x3'	Demo. and on-site disposal in excavated pit, 2.0 ft. x 3 ft. - Max. 200 ft. push	38.00	LF	\$14.88	\$565.32
tunnel structure	100 lin.ft.	USER PROVIDED ITEM	100.00	LF	\$58.19	\$5,819.00
Transfer Tower to Stockpile overland	36" x 2280'	Conveyor, demolition, off-site disposal in approved landfill, 30 mile haul	68,400.00	CF	\$0.96	\$65,664.00
Transfer Tower to Stockpile elevated	36" x 475'	Conveyor, demolition, off-site disposal in approved landfill, 30 mile haul	14,250.00	CF	\$0.96	\$13,680.00
footing	2'x3'	Demo. and on-site disposal in excavated pit, 2.0 ft. x 3 ft. - Max. 200 ft. push	112.00	LF	\$14.88	\$1,666.21
tunnel	80 lin.ft.	USER PROVIDED ITEM	80.00	LF	\$58.19	\$4,655.20
Downhill Conveyor Transfer Tower Structure	16'x16'x25'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	6,400.00	CF	\$0.36	\$2,300.16
concrete pad	16'x16'	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	256.00	SF	\$1.24	\$317.36
footing	2'x3'	Demo. and on-site disposal in excavated pit, 2.0 ft. x 3 ft. - Max. 200 ft. push	65.00	LF	\$14.88	\$967.00
Wildlife Structures	300 lin.ft.	USER PROVIDED ITEM	300.00	LF	\$58.19	\$17,457.00
Reclaim Conveyor overland	36" x 395'	Conveyor, demolition, off-site disposal in approved landfill, 30 mile haul	11,850.00	CF	\$0.96	\$11,376.00
Reclaim Conveyor elevated	36" x 180'	Conveyor, demolition, off-site disposal in approved landfill, 30 mile haul	5,400.00	CF	\$0.96	\$5,184.00
Coal Loadout Bin	NA	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	46,875.00	CF	\$0.36	\$16,846.88
footing	2'x3'	Demo. and on-site disposal in existing pit, 2.0 ft. x 3 ft. - Max. 200 ft. push	100.00	LF	\$14.26	\$1,426.04
Coal Reclaim Tunnel	42" x 160'	USER PROVIDED ITEM	160.00	LF	\$58.19	\$9,310.40
escapeway	42" x 160'	USER PROVIDED ITEM	160.00	LF	\$17.70	\$2,832.00
fan housing building	NA	Bldg. (MN) demo./on-site disposal in	288.00	CF	\$0.36	\$103.51

		excavated pit - Max. 200 ft. push				
Loadout Substation	20'x20'x10'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	4,000.00	CF	\$0.36	\$1,437.60
floor	20'x20'	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	400.00	SF	\$1.24	\$495.88
transformer	NA	NON-PCB Transformer Removal	1.00	EA	\$2,397.20	\$2,397.20
fencing	100 lin.ft.	Fencing, chain link, including posts and fabric - 8 ft. to 10 ft. high	100.00	LF	\$3.53	\$353.00
Structure at Vent Shaft - Lap Slab	576 sq.ft.	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	576.00	SF	\$1.24	\$714.07
wing and stem walls	1408 sq.ft.	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 200 ft. push	1,408.00	SF	\$1.24	\$1,749.30
wing wall footing	100 lin. ft.	Demo. and on-site disposal in excavated pit, 1.5 ft. x 3 ft. - Max. 200 ft. push	100.00	LF	\$11.16	\$1,115.77
fan and evase	NA	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	22,032.00	CF	\$0.36	\$7,918.30
shaft house	NA	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	10,788.00	CF	\$0.36	\$3,877.21
Haul road pavement removal	NA	Pavement, bituminous, demolition only - 3 in. thick	33,367.00	SY	\$5.28	\$176,177.76
disposal	NA	Loading and 2 mile haul, no salvage - Machine loading	5,578.00	CY	\$21.15	\$117,974.70
guardrail removal	NA	Railing, roadside guiderail and posts (posts on 20 ft. centers)	7,545.00	LF	\$18.79	\$141,770.55
Storage Shed at Topsoil Stockpile	NA	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	76,500.00	CF	\$0.36	\$27,494.10
floor	NA	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	5,100.00	SF	\$1.24	\$6,322.47
Wood fencing from TR-11	NA	Fencing, wood, all types - 4 ft. to 6 ft. high	140.00	LF	\$1.81	\$253.40
12" PVC Pipe from TR-11	NA	Pipe, corrugated metal (CMP) - 8 in. diameter pipe	42.00	LF	\$4.51	\$189.29
Misc Steel Pipe from	NA	Pipe, steel, welded	18.00	LF	\$2.03	\$36.54

TR-11		connections - 4 in. diameter pipe				
Reclaim Conveyor Transfer Building	20'x20'x45'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	18,000.00	CF	\$0.36	\$6,469.20
floor	20'x20'	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	400.00	SF	\$1.24	\$495.88
footing	2'x3'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft. - Max. 200 ft. push	80.00	LF	\$7.44	\$595.08
Railroad Track	NA	Railroad track - Ties and track	7,630.00	LF	\$16.15	\$123,224.50
Storage Track	NA	Railroad track - Ties and track	3,880.00	LF	\$16.15	\$62,662.00
Bypass Track	NA	Railroad track - Ties and track	615.00	LF	\$16.15	\$9,932.25
ballast	NA	Railroad track - Ballast	1,347.00	CY	\$5.52	\$7,435.44
Reclaim Conveyor Transfer Building	NA	Conveyor, demolition, off-site disposal in approved landfill, 30 mile haul	10,200.00	CF	\$0.96	\$9,792.00
elevated portion	NA	Conveyor, demolition, off-site disposal in approved landfill, 30 mile haul	7,950.00	CF	\$0.96	\$7,632.00
elevated to batch weigh	NA	Conveyor, demolition, off-site disposal in approved landfill, 30 mile haul	36,000.00	CF	\$0.96	\$34,560.00
footing	NA	Demo. and on-site disposal in excavated pit, 2.0 ft. x 3 ft. - Max. 200 ft. push	7.00	LF	\$14.88	\$104.14
Hazardous Waste Removal	NA	Hazardous waste removal - Drum solids/liquids, per drum, (7+ drum job)	20.00	DRUM	\$360.98	\$7,219.57
test	NA	Hazardous waste sampling and analysis, per sample	20.00	EA	\$224.65	\$4,493.00
transport to dump	NA	Solid transport, large truck (max. 80 drums, 25 cy, or 18 tons) - Maximum	150.00	MI	\$7.25	\$1,087.50
dump charges	NA	Dumpsite disposal charge - Average	6.00	TON	\$277.50	\$1,665.00
TR24 Fan Structure	NA	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	12,923.00	CF	\$0.36	\$4,644.53
floor	NA	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	20.00	SF	\$1.24	\$24.79
footing	NA	Demo. and on-site	12.00	LF	\$7.44	\$89.26

		disposal in excavated pit, 1.5 ft. x 2 ft. - Max. 200 ft. push				
Conveyor Overpass Retaining Wall	NA	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	3,400.00	CF	\$0.36	\$1,221.96
concrete halfwall	NA	Demo. and on-site disposal in existing pit, 8 in. thick - Max. 200 ft. push	480.00	SF	\$1.66	\$795.12
floor	NA	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	120.00	SF	\$1.24	\$148.76
footing	NA	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft. - Max. 200 ft. push	360.00	LF	\$7.44	\$2,677.86
multiplate structure	5.5' dia x 4'	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 200 ft. push	64.00	CF	\$0.24	\$15.12
140k gal water tank	NA	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	64,700.00	CF	\$0.36	\$23,253.18
Transfer Building	20'x24'x45'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	21,600.00	CF	\$0.36	\$7,763.04
floor	20'x35'	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	700.00	SF	\$1.24	\$867.79
footing	2'x3'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft. - Max. 200 ft. push	106.00	LF	\$7.44	\$788.48
MCC Building	NA	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	1,000.00	CF	\$0.36	\$359.40
floor	NA	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	100.00	SF	\$1.24	\$123.97
Substation	NA	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	25,000.00	CF	\$0.36	\$8,985.00
transformer	NA	NON-PCB Transformer Removal	2.00	EA	\$2,397.20	\$4,794.40
Water tank 50k gal	NA	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	6,720.00	CF	\$0.36	\$2,415.17
Mine vent fan	NA	Bldg. (MN) demo./on-site disposal in	67,500.00	CF	\$0.36	\$24,259.50

		excavated pit - Max. 200 ft. push				
floor	NA	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	40.00	SF	\$1.24	\$49.59
footing	NA	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft. - Max. 200 ft. push	116.00	LF	\$7.44	\$862.87
Powerlines	NA	Disposal of utility pole and hardware surplus material	200.00	LF	\$0.02	\$4.00
Rock Dust Tank	NA	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 200 ft. push	2,513.00	CF	\$0.36	\$903.17
compressor house	NA	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 200 ft. push	4,800.00	CF	\$0.36	\$1,725.12
Portal Conveyor	NA	Conveyor, demolition, off-site disposal in approved landfill, 30 mile haul	4,440.00	CF	\$0.96	\$4,262.40
Gob Conveyor	NA	Conveyor, demolition, off-site disposal in approved landfill, 30 mile haul	3,000.00	CF	\$0.96	\$2,880.00
Radial Stacker Conveyor	NA	Conveyor, demolition, off-site disposal in approved landfill, 30 mile haul	1,260.00	CF	\$0.96	\$1,209.60
Wash Plant	55'x70'x80'	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 200 ft. push	308,000.00	CF	\$0.36	\$110,695.20
floor	55'x70'	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	3,850.00	SF	\$1.24	\$4,772.85
footing	55'x70'	Demo. and on-site disposal in existing pit, 1.5 ft. x 2 ft. - Max. 200 ft. push	250.00	LF	\$7.13	\$1,782.55
MCC Room	NA	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 200 ft. push	5,760.00	CF	\$0.36	\$2,070.14
floor	NA	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	480.00	SF	\$1.24	\$595.06
Transfer Bldg - Reclaim to Plant	NA	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 200 ft. push	10,240.00	CF	\$0.36	\$3,680.26
Reclaim Tunnel Multiplate	5.5' dia x 4'	Bldg. (SN) demo./on- site disposal in existing	64.00	CF	\$0.24	\$15.12

		pit or cut - Max. 200 ft. push				
Stacking Tube	NA	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	4,900.00	CF	\$0.36	\$1,761.06
structure	NA	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	8,000.00	SF	\$1.29	\$10,349.60
footing	NA	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft. - Max. 200 ft. push	38.00	LF	\$7.44	\$282.66
Clarifier Tank/Thickener	70'd x 10'h x 10" th	Demo. and on-site disposal in excavated pit, 10 in. thick - Max. 200 ft. push	2,199.00	SF	\$2.07	\$4,543.57
base	NA	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	3,848.00	SF	\$1.24	\$4,770.37
sludge removal	NA	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	10.00	EA	\$432.00	\$4,320.00
Transfer Building - Plant Feed	NA	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	8,192.00	CF	\$0.36	\$2,944.20
Transfer Building - Clean Coal	NA	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	4,096.00	CF	\$0.36	\$1,472.10
Reclaim Conveyor	NA	Conveyor, demolition, off-site disposal in approved landfill, 30 mile haul	20,000.00	CF	\$0.96	\$19,200.00
Plant Feed Conveyor	NA	Conveyor, demolition, off-site disposal in approved landfill, 30 mile haul	24,000.00	CF	\$0.96	\$23,040.00
Stoker Stockpile Conveyor	NA	Conveyor, demolition, off-site disposal in approved landfill, 30 mile haul	10,000.00	CF	\$0.96	\$9,600.00
Clean Coal Transfer Conveyor	NA	Conveyor, demolition, off-site disposal in approved landfill, 30 mile haul	2,000.00	CF	\$0.96	\$1,920.00
Clean Coal Stockpile Conveyor	NA	Conveyor, demolition, off-site disposal in approved landfill, 30 mile haul	44,000.00	CF	\$0.96	\$42,240.00
Synfuel Plant	NA	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	84,000.00	CF	\$0.36	\$30,189.60
floor	NA	Demo. and on-site	28,000.00	SF	\$1.24	\$34,711.60

		disposal in excavated pit, 6 in. thick - Max. 200 ft. push				
footing	NA	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft. - Max. 200 ft. push	220.00	LF	\$7.44	\$1,636.47
Feed Belt Conveyor	NA	Conveyor, demolition, off-site disposal in approved landfill, 30 mile haul	1,500.00	CF	\$0.96	\$1,440.00
Product Belt Conveyor	NA	Conveyor, demolition, off-site disposal in approved landfill, 30 mile haul	2,550.00	CF	\$0.96	\$2,448.00
Return Belt Conveyor	NA	Conveyor, demolition, off-site disposal in approved landfill, 30 mile haul	2,400.00	CF	\$0.96	\$2,304.00
Fan and Duct Work TR62	NA	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	31,752.00	CF	\$0.36	\$11,411.67
footings	NA	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft. - Max. 200 ft. push	108.00	LF	\$7.44	\$803.36
MCC Building TR62	NA	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	4,500.00	CF	\$0.36	\$1,617.30
motor foundation	NA	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 200 ft. push	100.00	SF	\$1.19	\$118.84
floor	NA	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	375.00	SF	\$1.24	\$464.89
footing	NA	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft. - Max. 200 ft. push	80.00	LF	\$7.44	\$595.08
Water Line TR53	NA	Pipe, sewer/water - 12 in. diameter pipe	400.00	LF	\$5.24	\$2,096.00
Upper Parking Area Retaining Wall TR50	NA	Demo. and on-site disposal in excavated pit, 12 in. thick - Max. 200 ft. push	1,305.00	SF	\$2.59	\$3,376.69
footing	NA	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft. - Max. 200 ft. push	150.00	LF	\$7.44	\$1,115.78
10k gal fuel tank TR47	NA	Excavate and load tank onto trailer, non-leaking - 9,000 gal. to 12,000 gal.	1.00	EA	\$1,645.00	\$1,645.00
remove sludge	NA	Remove sludge, water, and rem. product from	1.00	EA	\$432.00	\$432.00

		tank - 9,000 to 12,000 gal.				
dispose of sludge	NA	Dispose of tank sludge off-site - Average	1,000.00	GAL	\$6.80	\$6,800.00
insert CO2	NA	Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	150.00	LB	\$2.11	\$316.50
haul tank to certified dump	NA	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	1.00	EA	\$1,050.00	\$1,050.00
Trailers (3)	NA	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	3,000.00	CF	\$0.36	\$1,078.20
Quonset Hut MR108	25'x60'x12.5'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	18,750.00	CF	\$0.36	\$6,738.75
floor	25'x60'	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	1,500.00	SF	\$1.24	\$1,859.55
Hoist Structure MR97	NA	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	1,440.00	CF	\$0.36	\$517.54
footing	NA	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft. - Max. 200 ft. push	9.00	LF	\$7.44	\$66.95
piers	NA	USER PROVIDED ITEM	2.00	CY	\$89.00	\$178.00
head frame	NA	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	5,886.00	CF	\$0.36	\$2,115.43
Collecting Conveyor	NA	Conveyor, demolition, off-site disposal in approved landfill, 30 mile haul	2,280.00	CF	\$0.96	\$2,188.80
footing	NA	Demo. and on-site disposal in excavated pit, 2.0 ft. x 3 ft. - Max. 200 ft. push	2.00	LF	\$14.88	\$29.75
Batch Weigh @ Loadout	30' x 40' x 120'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	144,000.00	CF	\$0.36	\$51,753.60
Fuel Station floor	20' x 30'	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	600.00	SF	\$1.24	\$743.82
footing	2'x3'	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft. - Max. 200 ft. push	100.00	LF	\$7.44	\$743.85
Loadout Storage Stacker	NA	Bldg. (MN) demo./on-site disposal in	8,000.00	CF	\$0.36	\$2,875.20



		excavated pit - Max. 200 ft. push				
tube	NA	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	3,678.00	SF	\$1.24	\$4,559.62
footing	NA	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft. - Max. 200 ft. push	44.00	LF	\$7.44	\$327.29
Filter Building MR 125	40'x16'x8'	Bldg. (SC) demo./on- site disposal in excavated pit - Max. 200 ft. push	5,120.00	CF	\$0.32	\$1,630.72
floor	40'x16'x4"	Demo. and on-site disposal in excavated pit, 4 in. thick - Max. 200 ft. push	640.00	SF	\$0.83	\$528.96
footing	112 LF	Demo. and on-site disposal in excavated pit, 1.5 ft. x 2 ft. - Max. 200 ft. push	112.00	LF	\$7.44	\$833.11
Shower Facility Expansion MR 126	16' x 50' x 12'	Bldg. (MN) demo./on- site disposal in excavated pit - Max. 200 ft. push	9,600.00	CF	\$0.36	\$3,450.24
floor	16'x50'x4"	Demo. and on-site disposal in excavated pit, 4 in. thick - Max. 200 ft. push	800.00	SF	\$0.83	\$661.20
footing	82 LF	Demo. and on-site disposal in excavated pit, 1.0 ft. x 2 ft. - Max. 200 ft. push	82.00	LF	\$4.96	\$406.64
Terror Creek Vent Shaft Collar	30'x30'x12"	Demo. and on-site disposal in excavated pit, 12 in. thick - Max. 200 ft. push	900.00	SF	\$2.48	\$2,231.55
Terror Creek Vent Shaft Quonset Hut	NA	Bldg. (SN) demo./on- site disposal in excavated pit - Max. 10,000 ft. haul	14,720.00	CF	\$0.24	\$3,582.85
pad	NA	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	1,500.00	SF	\$1.24	\$1,859.55
Temporary Culvert T-F1	24" x 300'	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	300.00	LF	\$10.60	\$3,178.53
Temporary Culvert T-F2	12" x 20'	Pipe, corrugated metal (CMP) - 12 in. diameter pipe	20.00	LF	\$5.91	\$118.17
Half Culvert C-J11	30" x 500'	USER PROVIDED ITEM	500.00	LF	\$3.42	\$1,710.00
Culvert C-G5	36" x 95'	Pipe, corrugated metal (CMP) - 36 in. diameter pipe	95.00	LF	\$16.96	\$1,611.23
Culvert C-G6	12" x 87'	Pipe, corrugated metal (CMP) - 12 in.	87.00	LF	\$5.91	\$514.05

		diameter pipe				
Culvert C-G2	12" x 40'	Pipe, corrugated metal (CMP) - 12 in. diameter pipe	40.00	LF	\$5.91	\$236.34
Concrete Box Structure at Pond D	4' x 4'	Wall, concrete, demolition only, average reinforcing - 4 in. thick	80.00	SF	\$0.95	\$76.33
Temporary Culvert T-F3	24" x 20'	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	20.00	LF	\$10.60	\$211.90
Temporary Culvert T-F4	30" x 40'	Pipe, corrugated metal (CMP) - 30 in. diameter pipe	40.00	LF	\$13.98	\$559.19
Temporary Culvert T-F5	30" x 80'	Pipe, corrugated metal (CMP) - 30 in. diameter pipe	80.00	LF	\$13.98	\$1,118.38
Temporary Culvert C-J10	24" x 30'	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	30.00	LF	\$10.60	\$317.85
Culvert C22 drop inlet structure	44 - 16" x 8" x 6" blocks	Wall, block, demolition only, 6 in. thick - Vertical reinforcing	39.06	SF	\$0.79	\$30.94
Trailer Mounted Filter Press	8' x 8' x 40'	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 200 ft. push	2,560.00	CF	\$0.24	\$604.67
West Terror Creek Flume Anchors	1' x 1.5' x 4'	Footing, concrete, 1.0 ft. x 2 ft. - Average reinforcing	8.00	LF	\$4.03	\$32.21
W Ter Crk Flume walls - 2 walls/2 flumes	2' x 4' x 4" (2)	Footing, concrete, 1.5 ft. x 2 ft. - Average reinforcing	16.00	LF	\$4.83	\$77.26
Flume rubble disposal	NA	Loading and 5 mile haul, salvage allowed - Concrete frame structures	2.80	CY	\$16.20	\$45.36
Rock Bin on D Portal Bench - side walls	7' x 15' (2)	Wall, concrete, demolition only, average reinforcing - 12 in. thick	210.00	SF	\$1.75	\$367.29
Rock Bin on D Portal Bench - back wall	8' x 23'	Wall, concrete, demolition only, average reinforcing - 18 in. thick	184.00	SF	\$3.50	\$643.63
Rock Bin on D Portal Bench - floor	16.5' x 23' x 12"	Floor, concrete, demolition only, average reinforcing - 12 in. thick	379.50	SF	\$2.21	\$836.87
Rock Bin on D Bench rubble disposal	NA	Push demolished materials/rubble/debris into pit - Max. 200 ft. push	32.00	CY	\$3.32	\$106.30
Concrete patch @haul road intersection	50' x 18' x 8"	Pavement, concrete, demolition only, 7 in. to 24 in. thick - Reinforced	7.40	CY	\$151.50	\$1,121.10
Culverts B1(50), B3(100), B7(220)	12"	Pipe, corrugated metal (CMP) - 12 in. diameter pipe	370.00	LF	\$5.91	\$2,186.18

Culverts B8(110), B9(140)	12"	Pipe, corrugated metal (CMP) - 12 in. diameter pipe	250.00	LF	\$5.91	\$1,477.15
Culverts B13(110), B18(110), B24(60)	12"	Pipe, corrugated metal (CMP) - 12 in. diameter pipe	280.00	LF	\$5.91	\$1,654.41
Culverts B25(160), B26(70)	12"	Pipe, corrugated metal (CMP) - 12 in. diameter pipe	230.00	LF	\$5.91	\$1,358.98
Culvert B11(60) and B29 (40)	18"	Pipe, corrugated metal (CMP) - 18 in. diameter pipe	100.00	LF	\$8.10	\$809.72
Culverts B12(170), B14(70), B22(40)	18"	Pipe, corrugated metal (CMP) - 18 in. diameter pipe	280.00	LF	\$8.10	\$2,267.22
Culvert B23(40)	18"	Pipe, corrugated metal (CMP) - 18 in. diameter pipe	40.00	LF	\$8.10	\$323.89
Culverts B15(80), B16(60), B17(90)	24"	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	230.00	LF	\$10.60	\$2,436.87
Culverts B19(60), B27(100)	24"	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	160.00	LF	\$10.60	\$1,695.22
Culvert B28(120)	30"	Pipe, corrugated metal (CMP) - 30 in. diameter pipe	120.00	LF	\$13.98	\$1,677.56
Culvert B21(40)	36"	Pipe, corrugated metal (CMP) - 36 in. diameter pipe	40.00	LF	\$16.96	\$678.41
Culverts C1(110), C2(30), C3(40), C8(30)	12"	Pipe, corrugated metal (CMP) - 12 in. diameter pipe	210.00	LF	\$5.91	\$1,240.81
Culverts C10(100) and C17(100)	12"	Pipe, corrugated metal (CMP) - 12 in. diameter pipe	200.00	LF	\$5.91	\$1,181.72
Culverts C19(60), C21(170), C22(150)	12"	Pipe, corrugated metal (CMP) - 12 in. diameter pipe	380.00	LF	\$5.91	\$2,245.27
Culverts C23(30), C24(30), C25(30)	12"	Pipe, corrugated metal (CMP) - 12 in. diameter pipe	90.00	LF	\$5.91	\$531.77
Culverts C4(300) and C11(90)	24"	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	390.00	LF	\$10.60	\$4,132.09
Culverts C12(65), C13(120), C14(170)	24"	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	355.00	LF	\$10.60	\$3,761.26
Culverts C15(25), C16(90), C18(30)	24"	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	145.00	LF	\$10.60	\$1,536.29
Culvert C5(260)	30"	Pipe, corrugated metal (CMP) - 30 in. diameter pipe	260.00	LF	\$13.98	\$3,634.72
Culverts C7(400), C20(25), C26(40)	36"	Pipe, corrugated metal (CMP) - 36 in. diameter pipe	465.00	LF	\$16.96	\$7,886.54
Culverts D1(40), D2(30)	24"	Pipe, corrugated metal (CMP) - 24 in.	70.00	LF	\$10.60	\$741.66

		diameter pipe				
Culvert E1(40)	12"	Pipe, corrugated metal (CMP) - 12 in. diameter pipe	40.00	LF	\$5.91	\$236.34
Culvert F2(40) and F4(60)	30"	Pipe, corrugated metal (CMP) - 30 in. diameter pipe	100.00	LF	\$13.98	\$1,397.97
Culverts G2(40) and G4(25)	12"	Pipe, corrugated metal (CMP) - 12 in. diameter pipe	65.00	LF	\$5.91	\$384.06
Culvert G3(50)	24"	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	50.00	LF	\$10.60	\$529.76
Culvert H1(175)	36"	Pipe, corrugated metal (CMP) - 36 in. diameter pipe	175.00	LF	\$16.96	\$2,968.05
Culverts J3(60), J5(50), J6(60)	12"	Pipe, corrugated metal (CMP) - 12 in. diameter pipe	170.00	LF	\$5.91	\$1,004.46
Culverts J7(60), J12(50), J13(50)	12"	Pipe, corrugated metal (CMP) - 12 in. diameter pipe	160.00	LF	\$5.91	\$945.38
Culvert J14(175)	12"	Pipe, corrugated metal (CMP) - 12 in. diameter pipe	175.00	LF	\$5.91	\$1,034.01
Culverts J1(65), J2(100), J4(50)	24"	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	215.00	LF	\$10.60	\$2,277.95
Culverts J8(50), J9(90-2), J10(40)	24"	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	270.00	LF	\$10.60	\$2,860.68
Culverts K1(40), K2(130)	12"	Pipe, corrugated metal (CMP) - 12 in. diameter pipe	170.00	LF	\$5.91	\$1,004.46
Culvert K3(75)	24	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	75.00	LF	\$10.60	\$794.63
Refuse Bin	20' x 20' x 60'	Bldg. (MN) demo./on-site disposal in excavated pit - Max. 200 ft. push	24,000.00	CF	\$0.36	\$8,625.60
- slab	20' x 20'	Demo. and on-site disposal in excavated pit, 6 in. thick - Max. 200 ft. push	400.00	SF	\$1.24	\$495.88
- footing	20' x 20'	Demo. and on-site disposal in existing pit, 1.5 ft. x 2 ft. - Max. 200 ft. push	80.00	LF	\$7.13	\$570.42
Refuse Bin Fender Walls	4' x 40' x 12" (2)	Wall, concrete, demolition only, average reinforcing - 12 in. thick	320.00	SF	\$1.75	\$559.68
- footing (10' either side of bin)	20' (2)	Demo. and on-site disposal in existing pit, 1.5 ft. x 3 ft. - Max. 10,000 ft. haul	40.00	LF	\$10.41	\$416.35
Refuse Bin Bollards (2)	12"diam	USER PROVIDED ITEM	2.00	EA	\$23.50	\$47.00

- footing	1' x 2'	Demo. and on-site disposal in existing pit, 1.0 ft. x 2 ft. - Max. 10,000 ft. haul	2.00	LF	\$4.63	\$9.25
Mine Entrance Security Gate	6' x 40'	USER PROVIDED ITEM	40.00	LF	\$16.62	\$664.80
- motor assembly	NA	USER PROVIDED ITEM	1.00	EA	\$755.00	\$755.00
- actuator	NA	USER PROVIDED ITEM	1.00	EA	\$50.50	\$50.50
Culvert G5	36" x 150'	Pipe, corrugated metal (CMP) - 36 in. diameter pipe	150.00	LF	\$16.96	\$2,544.05
Culvert G6	12" x 100'	Pipe, corrugated metal (CMP) - 12 in. diameter pipe	100.00	LF	\$5.91	\$590.86
Fire Mountain Canal Storage Bldg	100' x 20' x 20'	Bldg. (MN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	40,000.00	CF	\$0.33	\$13,144.00
- slab	100' x 20'	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 10,000 ft. haul	2,000.00	SF	\$1.16	\$2,313.00
- footing	100' x 20'	Demo. and on-site disposal in existing pit, 1.0 ft. x 2 ft. - Max. 10,000 ft. haul	240.00	LF	\$4.63	\$1,110.26
Culvert C9 (replaced by Ditch D-C14)	36" x 500'	Pipe, corrugated metal (CMP) - 36 in. diameter pipe	500.00	LF	\$16.96	\$8,480.15
Smart Ditch T-F6	24"X 50'	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	50.00	LF	\$10.60	\$529.76
Bowie Rd Intersection Asphalt Removal	620 SY	Pavement, bituminous, demolition only - 3 in. thick	620.00	SY	\$5.28	\$3,273.60
Temporary Culvert T6	36"X40'	Pipe, corrugated metal (CMP) - 36 in. diameter pipe	40.00	LF	\$16.96	\$678.41
Methane Flare Stack (MR200)	6' dia x 50'	USER PROVIDED ITEM	1,414.00	CF	\$0.22	\$311.08
- Skid	17' x 10' x 6'	USER PROVIDED ITEM	1,020.00	CF	\$0.22	\$224.40
- Interconnecting Piping	40'	USER PROVIDED ITEM	40.00	LF	\$2.30	\$92.00
- Remove Fence	350'	Fencing, chain link, including posts and fabric - to 6 ft. high	350.00	LF	\$3.02	\$1,057.00
- Concrete Foundation for Oxidizer	8' dia	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 200 ft. push	50.00	SF	\$1.19	\$59.42
- Footing	25'	Demo. and on-site disposal in existing pit, 2.0 ft. x 3 ft. - Max. 200 ft. push	25.00	LF	\$14.26	\$356.51

Job Hours: 160.00Subtotal \$2,263,810.28Total Cost \$2,313,614.11

(unadjusted):

(adjusted for location):

**EQUIPMENT MOBILIZATION/DEMOBILIZATION**Task description: **REVISED. Mob/Demob Equipment for 1st Construction Season**Site: **Bowie No. 2 Mine**Permit Action: MT6Permit/Job#: C1996083**PROJECT IDENTIFICATION**Task #: 180State: ColoradoAbbreviation: NoneDate: 9/26/2024County: DeltaFilename: C083-180User: RDZAgency or organization name: DRMS**EQUIPMENT TRANSPORT RIG COST**Shift basis: 1 per dayCost Data Source: CRG DataTruck Tractor Description: GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED,  
400 HP (2ND HALF, 2006)Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT  
TRAILER (25T, 50T, AND 100T)**Cost Breakdown:**

<b>Available Rig Capacities</b>	<b>0-25 Tons</b>	<b>26-50 Tons</b>	<b>51+ Tons</b>
Ownership Cost/Hour:	\$10.44	\$22.18	\$23.94
Operating Cost/Hour:	\$26.48	\$54.55	\$55.65
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$59.44	\$122.78	\$125.64

**NON ROADABLE EQUIPMENT:**

Machine Description	Weight/ Unit (TONS)	Owner ship Cost/hr/ unit	Haul Rig Cost/hr/unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet	DOT Permit Cost/ fleet
Cat D10T - 10SU	84.53	\$257.39	\$125.64	4	\$1,532.12	\$502.56	\$1,000.00
Cat 365C L 13'-7" Stick	77.56	\$244.29	\$125.64	2	\$739.86	\$251.28	\$500.00
CAT 825H	36.08	\$164.53	\$122.78	1	\$287.31	\$122.78	\$250.00
CAT 14M	23.57	\$129.81	\$59.44	1	\$189.25	\$59.44	\$250.00
CAT 950H high lift	20.13	\$36.61	\$59.44	1	\$96.05	\$59.44	\$250.00
Cat 773F	49.74	\$128.28	\$122.78	3	\$753.18	\$368.34	\$750.00
Cat 627G w/push-pull	43.48	\$234.09	\$122.78	4	\$1,427.48	\$491.12	\$1,000.00
Water Tanker, 5,000 Gal.	15.00	\$51.70	\$59.44	1	\$111.14	\$59.44	\$250.00
ATLAS COPCO ROC D7-11,4.0 in.	1.25	\$204.01	\$59.44	1	\$263.45	\$59.44	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$41.02	\$59.44	1	\$100.46	\$59.44	\$250.00
Cat D7R DS XR Series II	32.01	\$90.24	\$122.78	1	\$213.02	\$122.78	\$250.00

Subtotals: **\$5,713.32** **\$2,156.06** **\$5,000.00**

**ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Fuel Tanker, 6x4, 210 HP	\$75.02	1	\$75.02	\$75.02
Lube Truck, 6x4, 250 HP	\$75.02	1	\$75.02	\$75.02
Flatbed Truck, 6x4, 45K GVW	\$110.06	1	\$110.06	\$110.06
Light Duty Pickup, 4x4, 1 T. Crew	\$46.67	1	\$46.67	\$46.67
Generic 10-12 cy, 6x4	\$108.12	2	\$216.24	\$216.24

Subtotals:	<b>\$523.01</b>	<b>\$523.01</b>
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**EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region:	<u>GRAND JUNCTION</u>	
Total one-way travel distance:	<u>100.00</u>	miles
Average Travel Speed:	<u>40.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$60,773.54</u>
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$2,615.05</u>
** one round trip, no haul rig:	

**Transportation Cycle Time:**

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>2.50</u>	<u>2.50</u>
Return Time (Hours):	<u>2.50</u>	<u>2.50</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>6.00</u>	<u>5.00</u>

**JOB TIME AND COST**

Total job time:	<u>12.00</u>	Hours
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Total job cost:	<u>\$63,389</u>
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**EQUIPMENT MOBILIZATION/DEMOBILIZATION**Task description: **REVISED. Mob/Demob Equipment for 2nd Construction Season**Site: **Bowie No. 2 Mine**Permit Action: MT6Permit/Job#: C1996083**PROJECT IDENTIFICATION**Task #: 181State: ColoradoAbbreviation: NoneDate: 9/26/2024County: DeltaFilename: C083-181User: RDZAgency or organization name: DRMS**EQUIPMENT TRANSPORT RIG COST**Shift basis: 1 per dayCost Data Source: CRG DataTruck Tractor Description: GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED,  
400 HP (2ND HALF, 2006)Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT  
TRAILER (25T, 50T, AND 100T)**Cost Breakdown:**

<b>Available Rig Capacities</b>	<b>0-25 Tons</b>	<b>26-50 Tons</b>	<b>51+ Tons</b>
Ownership Cost/Hour:	\$10.44	\$22.18	\$23.94
Operating Cost/Hour:	\$26.48	\$54.55	\$55.65
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$59.44	\$122.78	\$125.64

**NON ROADABLE EQUIPMENT:**

Machine Description	Weight/ Unit (TONS)	Owner ship Cost/hr/ unit	Haul Rig Cost/hr/unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet	DOT Permit Cost/ fleet
Cat D10T - 10SU	84.53	\$257.39	\$125.64	4	\$1,532.12	\$502.56	\$1,000.00
Cat 365C L 13'-7" Stick	77.56	\$244.29	\$125.64	2	\$739.86	\$251.28	\$500.00
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CAT 950H high lift	20.13	\$36.61	\$59.44	1	\$96.05	\$59.44	\$250.00
Cat 773F	49.74	\$128.28	\$122.78	3	\$753.18	\$368.34	\$750.00
Cat 627G w/push- pull	43.48	\$234.09	\$122.78	4	\$1,427.48	\$491.12	\$1,000.00
Water Tanker, 5,000 Gal.	15.00	\$51.70	\$59.44	1	\$111.14	\$59.44	\$250.00
ATLAS COPCO ROC D7-11,4.0 in.	1.25	\$204.01	\$59.44	1	\$263.45	\$59.44	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$41.02	\$59.44	1	\$100.46	\$59.44	\$250.00

Subtotals: **\$5,500.30** **\$2,033.28** **\$4,750.00****ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Fuel Tanker, 6x4, 210 HP	\$75.02	1	\$75.02	\$75.02
Lube Truck, 6x4, 250 HP	\$75.02	1	\$75.02	\$75.02
Flatbed Truck, 6x4, 45K GVW	\$110.06	1	\$110.06	\$110.06
Light Duty Pickup, 4x4, 1 T. Crew	\$46.67	1	\$46.67	\$46.67
Generic 10-12 cy, 6x4	\$108.12	2	\$216.24	\$216.24

Subtotals:

**\$523.01****\$523.01**

**EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region:	<u>GRAND JUNCTION</u>	
Total one-way travel distance:	<u>100.00</u>	miles
Average Travel Speed:	<u>40.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$58,168.50</u>
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$2,615.05</u>
** one round trip, no haul rig:	

**Transportation Cycle Time:**

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>2.50</u>	<u>2.50</u>
Return Time (Hours):	<u>2.50</u>	<u>2.50</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>6.00</u>	<u>5.00</u>

**JOB TIME AND COST**

Total job time:	<u>12.00</u>	Hours
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Total job cost:	<u>\$60,784</u>
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