



STATE OF
COLORADO

Girardi - DNR, Chris <chris.girardi@state.co.us>

Mesita Hill Pit M1977227- Inspection Report & Cost Estimate

1 message

Girardi - DNR, Chris <chris.girardi@state.co.us>

Mon, Sep 29, 2025 at 12:28 PM

To: bill@superexmining.com, shantel@superexmining.com

Cc: Jared Ebert - DNR <jared.ebert@state.co.us>, Lucas West - DNR <lucas.west@state.co.us>

Hello Mr. Tezak,

Attached to this email is a pdf of the Division's inspection report for the inspection conducted back in April of this year for the Mesita Hill Pit, permit number M-1977-227.

Also attached to this email is a pdf of the Division's Cost Estimate to complete reclamation. Please contact me within 14 days of this email if you have any questions regarding the estimate.

Hard copies will not be delivered unless requested. Please feel free to contact me if you have any questions.

Thanks,

Chris Girardi

Environmental Protection Specialist



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

P: (720) 793-3041

Physical: 1313 Sherman Street, Room 215, Denver, CO 80203

Mailing: DRMS Room 215, 1001 E 62nd Ave, Denver, CO 80216

chris.girardi@state.co.us | <https://drms.colorado.gov/>

2 attachments



MesitaHillPit_April2025_InspectionReport.pdf
3036K



MesitaHillPit_2025CostEstimate.pdf
297K



MINERALS PROGRAM INSPECTION REPORT
PHONE: (303) 866-3567

The Division of Reclamation, Mining and Safety has conducted an inspection of the mining operation noted below. This report documents observations concerning compliance with the terms of the permit and applicable rules and regulations of the Mined Land Reclamation Board.

MINE NAME: Mesita Hill Pit	MINE/PROSPECTING ID#: M-1977-227	MINERAL: Volcanic materials	COUNTY: Costilla
INSPECTION TYPE: Monitoring	WEATHER: Clear	INSP. DATE: April 22, 2025	INSP. TIME: 12:00pm
OPERATOR: Super Ex., LLC	OPERATOR REPRESENTATIVE: Bill Tezak	TYPE OF OPERATION: 112c - Construction Regular Operation	
REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: Complete Bond	BOND AMOUNT: \$109,487	
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None	
INSPECTOR(S): Chris Girardi	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: September 29, 2025	

GENERAL INSPECTION TOPICS

This list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each. No problems or possible violations were noted during the inspection. The mine operation was found to be in full compliance with Mineral Rules and Regulations of the Colorado Mined Land Reclamation Board for the Extraction of Construction Materials and/or for Hard Rock, Metal and Designated Mining Operations. Any person engaged in any mining operation shall notify the office of any failure or imminent failure, as soon as reasonably practicable after such person has knowledge of such condition or of any impoundment, embankment, or slope that poses a reasonable potential for danger to any persons or property or to the environment; or any environmental protection facility designed to contain or control chemicals or waste which are acid or toxic-forming, as identified in the permit.

(AR) RECORDS----- <u>N</u>	(FN) FINANCIAL WARRANTY----- <u>Y</u>	(RD) ROADS----- <u>N</u>
(HB) HYDROLOGIC BALANCE----- <u>N</u>	(BG) BACKFILL & GRADING----- <u>N</u>	(EX) EXPLOSIVES----- <u>N</u>
(PW) PROCESSING WASTE/TAILING---- <u>N</u>	(SF) PROCESSING FACILITIES----- <u>N</u>	(TS) TOPSOIL----- <u>Y</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>Y</u>	(FW) FISH & WILDLIFE----- <u>N</u>	(RV) REVEGETATION---- <u>Y</u>
(SM) SIGNS AND MARKERS----- <u>Y</u>	(SP) STORM WATER MGT PLAN---- <u>N</u>	(RS) RECL PLAN/COMP-- <u>Y</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>N</u>	(SC) EROSION/SEDIMENTATION--- <u>Y</u>	(ST) STIPULATIONS----- <u>N</u>
(AT) ACID OR TOXIC MATERIALS----- <u>Y</u>	(OD) OFF-SITE DAMAGE----- <u>N</u>	

Y = Inspected / N = Not inspected / NA = Not applicable to this operation / PB = Problem cited / PV = Possible violation cited

OBSERVATIONS

The Mesita Hill Pit was inspected on April 22, 2025 at by Chris Girardi with the Division of Reclamation, Mining, and Safety (DRMS). The inspection was completed as part of the DRMS's routine monitoring inspection program. The site was last inspected on October 6, 2016, as part of a routine monitoring inspection. Bill Tezak represented Super Ex., LLC (Operator) during the inspection. The weather was clear.

The Mesita Hill Pit is a 112c permit for the mining of scoria volcanic rock that consists of 200.91 acres and is located approximately 2 miles west of Mesita, CO. The approved post-mining land use is rangeland. The current land use surrounding the site is rangeland.

A mine identification sign was located at the entrance to the site in compliance with Rule 3.1.12 (see Photo 1). The site is accessed from the south using a gate. The affected area is delineated with a t-posts (see Photo 2).

General Compliance With Mine Plan:

The site is a flat area that slopes towards the mountains towards the San Juan Mountains. At the time of the inspection, the operation was inactive. Approximately 15 acres have been disturbed in small pockets. Much of what appears to be surface disturbance from mining is the surficial expression of a cinder cone the Operator is mining. The site consists of a primary pit, a few smaller pits, several material stockpiles (see Photos 5-6), topsoil berms along the southern permit boundary, and overburden stockpiles along the northern permit boundary. Vegetation is only present in extremely thin patches throughout the site, consisting predominantly of Rubber rabbitbrush and Sand dropseed (see Photo 7). A minor amount of Russian thistle was also observed (see Photo 7), however not to the extent where weed mitigation is necessary. The site also contains a concrete pad with containment bins in the southern portion near the entrance road (see Photos 3-4). Only small stockpiles of boulders were located on the pad, no equipment was observed. The site was in good condition, with no trash observed.

The primary pit was approximately fifty (50) feet in depth, and maintains slopes at 3H:1V configuration or less, with the exception of the toe of the pit slopes slightly exceeding 3H:1V configuration (see Photos 8-9). There was minimal erosion observed along the pit slopes. The pit is located in Mine Phase Areas 1 and 3. According to the Operator, they intend to start backfilling pit excavations soon, as well as resume seeding the western portion of the permit area, which has not been mined or reclaimed since the Succession of Operators (SO) in 2016. Technical Revision (TR) #2, which was approved by the Division in 2011, allows for slopes steeper than 3H:1V configuration to remain in some areas due to being nesting areas for birds. In addition, the Operator is considering submitting an amendment application to add three (3) additional acres to the northeast side of the permit.

Financial Warranty:

The Division currently holds a reclamation bond in the amount of \$69,493. for this operation. The Division has estimated the reclamation liability at the site, and found it to be \$109,487. This is an increase of \$39,994 from the bond currently held. The Operator will have 14 days (October 13, 2025), from the issuance of this report to submit any questions regarding the updated cost estimate. If no questions are received, the Division may issue a Surety Increase notice for the difference. The Operator will have 60 days from the date of the notice to submit and obtain acceptance of the increase in financial warranty from the Division in accordance with Rule 4.2.1(2).

This concludes the DRMS' inspection report; a subset of photographs was taken during the time of the inspection are included below. If you need additional information or have any questions, please contact me at the Division of Reclamation, Mining, and Safety, 1313 Sherman Street, Room 215, Denver, CO 80203, by telephone at 720-793-3041 or by email at chris.girardi@state.co.us.

PHOTOGRAPHS



Photo 1: Mine entrance sign, facing north.



Photo 2: T-post delineating affected area boundary in the north portion of permit.



Photo 3: View of concrete slab with no equipment present, facing south.



Photo 4: View of concrete containment bins nearby the concrete pad, facing south.



Photo 5: View of stockpiled material, facing west.



Photo 6: View of more stockpiled material and wheel loader, facing east.



Photo 7: View of sparse vegetation within permit area, facing southeast.

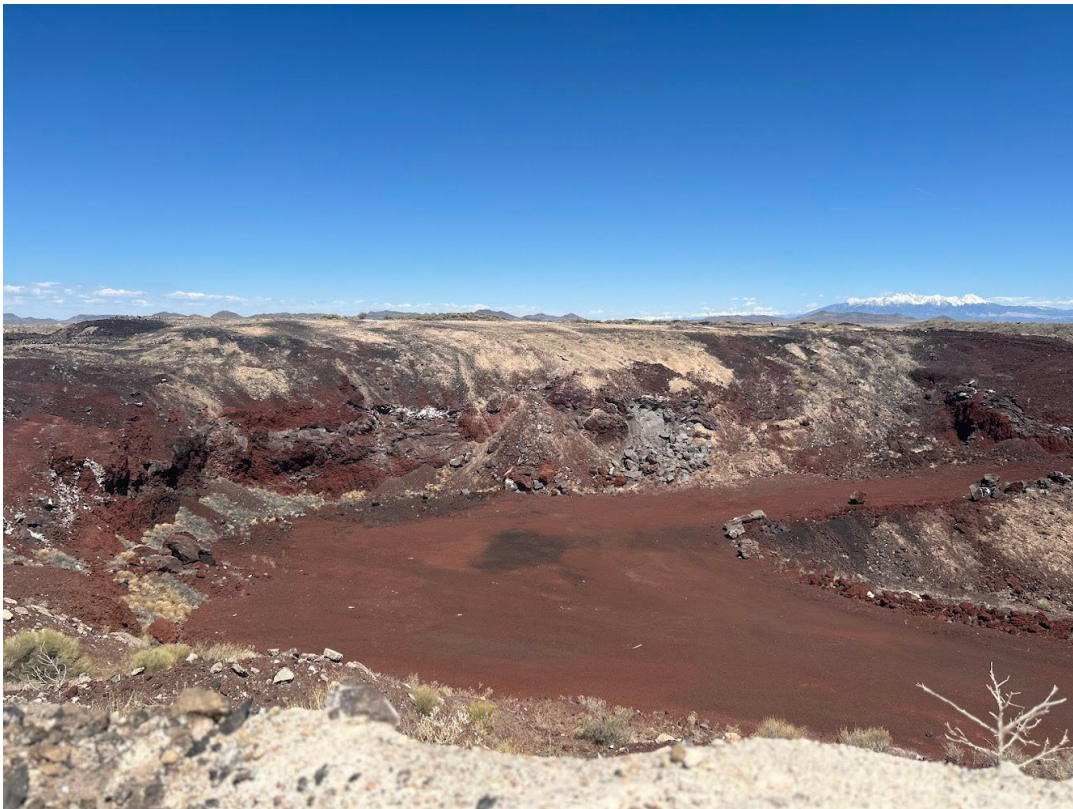


Photo 8: View of primary pit and steep slopes, facing north.



Photo 9: Alternate view of primary pit, facing north.

Inspection Contact Address

Bill Tezak
Super Ex., LLC
270 S. 15th Street
Canon City, CO 81212

Enclosure: DRMS Reclamation Cost Estimate

CC:
Jared Ebert, DRMS
Lucas West, DRMS

COST SUMMARY WORK

Task description: Reclamation of site

Site: Mesita Hill Pit Permit Action: 2025 Update Permit/Job#: M1977227

PROJECT IDENTIFICATION

Task #: 000 State: Colorado Abbreviation: None
Date: 9/29/2025 County: Costilla Filename: M227-001
User: CMG

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Reduce slopes in pit	DOZER	1	3.73	\$1,969
002	Load and carry overburden to next phase	TRUCK1	1	65.92	\$19,343
003	Spread overburden at next phase	DOZER	1	17.14	\$9,039
004	Load and carry "topsoil" to next phase	TRUCK1	1	65.92	\$19,343
005	Spread "topsoil" at next phase	DOZER	1	17.14	\$9,039
006	demolish concrete structures, bury onsite	DEMOLISH	1	8.00	\$2,306
007	Revegetation costs	REVEGE	1	15.00	\$12,622
008	Mob/ Demob	MOBILIZE	1	6.80	\$7,934
<u>SUBTOTALS:</u>				199.65	\$81,595

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	\$1,648
Performance bond:	1.05	Total =	\$857
Job superintendent:	99.83	Total =	\$7,500
Profit:	10.00	Total =	\$8,160
TOTAL O & P =			\$18,164
CONTRACT AMOUNT (direct + O & P) =			\$99,759

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	\$500	Total =	\$500
Engineering work and/or contract/bid preparation:	4.25	Total =	\$4,240
Reclamation management and/or administration:	5.00		\$4,988

CONTINGENCY: 0.00 Total = \$0

TOTAL INDIRECT COST = \$27,892

TOTAL BOND AMOUNT (direct + indirect) = \$109,487

BULLDOZER WORK

Task description: Reduce slopes in pit

Site: Mesita Hill Pit Permit Action: 2025 Update Permit/Job#: M1977227

PROJECT IDENTIFICATION

Task #: 001 State: Colorado Abbreviation: None
Date: 9/29/2025 County: Costilla Filename: M227-000
User: CMG

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D10T - 10SU
Horsepower: 574
Blade Type: Semi-Universal
Attachment: 3-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$266.69</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$196.65</u>	<u>100</u>
Ripper own. Cost/Hour:	<u>\$25.88</u>	<u>NA</u>
Ripper op. Cost/Hour:	<u>\$0.00</u>	<u>0</u>
Operator Cost/Hour:	<u>\$38.02</u>	<u>NA</u>
Total unit Cost/Hour:	<u>\$527.24</u>	
Total Fleet Cost/Hour:	<u>\$527.24</u>	

MATERIAL QUANTITIES

Initial Volume: 2,383
Swell factor: 1.215
Loose volume: **2,895** LCY

Source of estimated volume: Based on dimensions of primary pit
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: Compacted fill or embankment 0.9

Average push
gradient: 5 %
Average site altitude: 7,750 feet

Material weight: 3,300 lbs/LCY

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

<u>Job Condition</u>	<u>Correction Factor</u>	<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.697	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.2821

Adjusted unit
production: 775.41 LCY/hr
Adjusted fleet
production: **775.41** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.680/LCY

Total job time: **3.73** Hours
Total job cost: **\$1,969**

TRUCK/LOADER TEAM WORK

Task description: Load and carry overburden to next phase

Site: Mesita Hill Pit Permit Action: 2025 Update Permit/Job#: M1977227

PROJECT IDENTIFICATION

Task #: 002 State: Colorado Abbreviation: None
Date: 9/29/2025 County: Costilla Filename: M227-002
User: CMG

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:	\$23.56	\$39.04	NA	NA	NA	NA
Operating cost/hour:	\$55.85	\$36.06	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	\$59.52	NA	NA	NA	NA
Unit Subtotals:	\$79.41	\$134.62	NA	NA	NA	NA
Number of Units:	2	1	0	0	0	0
Group Subtotals:	Work:	\$293.44	Support:	\$0.00	Maint:	\$0.00

Total work team cost/hour: \$293.44

MATERIAL QUANTITIES

Initial volume: 24,200 CCY Swell factor: 1.125
Loose volume: 27,225 LCY

Source of estimated volume: Division of Reclamation, Mining & Safety
Source of estimated swell factor: Cat Handbook
Material Purchase Cost: \$0.00
Total Cost: \$0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight:	2,550	Pounds/LCY
Description:	Earth - Dry packed	
Rated Payload:	35,400	Pounds
Payload Capacity:	13.88	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: 9.46 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	4.300	LCY (heaped)
Bucket Fill Factor:	1.100	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	4.730	LCY

Job Condition Corrections: Site Altitude (ft.): 7750 feet

	Truck	Loader	Source
Altitude Adj:	0.970	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.805	0.830	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 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:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders - 0.04	-0.040	(Cat HB)

Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
	Net Cycle Time Adjustment:	-0.060	minutes
	Adjusted Loader Cycle Time:	0.440	minutes
	Net Load Time per Truck:	0.540	minutes

Truck Cycle Time:

Truck Exchange Time:	0.50	Minutes	Adjusted for site altitude:	0.515	Minutes
Truck Load Time:	0.540	Minutes	Adjusted for site altitude:	0.540	Minutes
Truck Maneuver and Dump Time:	0.90	Minutes	Adjusted for site altitude:	0.928	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Rutted dirt, little maintenance, no water, 1" tire penetration 4.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	240.00	0.00	4.00	4.00	2665	0.188

Haul Time: **0.188** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	240.00	0.00	4.00	4.00	2849	0.110

Return Time: **0.110** minutes
Total Truck Cycle Time: **2.281** minutes

Loading Tool unit

Production	537.77	LCY/Hour	Adjusted for job efficiency:	446.35	LCY/Hour
Truck Unit Production	248.81	LCY/Hour	Adjusted for job efficiency:	206.51	LCY/Hour

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

Adjusted hourly truck team production:	413.02	LCY/Hour
Adjusted single truck/loader team production:	413.02	LCY/Hour
Adjusted multiple truck/loader team production:	413.02	LCY/Hour

JOB TIME AND COST

Fleet size:	<u>1</u>	Team(s)	Total job time:	65.92	Hours
Unit cost:	<u>\$0.710</u>	/LCY	Total job cost:	\$19,343	

BULLDOZER WORK

Task description: Spread overburden at next phase

Site: Mesita Hill Pit Permit Action: 2025 Update Permit/Job#: M1977227

PROJECT IDENTIFICATION

Task #: 003 State: Colorado Abbreviation: None
Date: 9/29/2025 County: Costilla Filename: M227-003
User: CMG

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D10T - 10SU
Horsepower: 574
Blade Type: Semi-Universal
Attachment: 3-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$266.69</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$196.65</u>	<u>100</u>
Ripper own. Cost/Hour:	<u>\$25.88</u>	<u>NA</u>
Ripper op. Cost/Hour:	<u>\$0.00</u>	<u>0</u>
Operator Cost/Hour:	<u>\$38.02</u>	<u>NA</u>
Total unit Cost/Hour:	<u>\$527.24</u>	
Total Fleet Cost/Hour:	<u>\$527.24</u>	

MATERIAL QUANTITIES

Initial Volume: 24,200
Swell factor: 1.115
Loose volume: **26,983** LCY

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

HOURLY PRODUCTION

Average push distance: 50 feet
Unadjusted hourly
production: 2,748.7 LCY/hr

Materials consistency
description: Loose stockpile 1.2

Average push
gradient: 0 %
Average site altitude: 7,750 feet

Material weight: 2,100 lbs/LCY

Weight description: Earth - Loam

<u>Job Condition</u>	<u>Correction Factor</u>	<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.700	(FND-MF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.095	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5726

Adjusted unit
production: 1,573.91 LCY/hr

Adjusted fleet
production: **1573.91** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.335/LCY

Total job time: **17.14** Hours

Total job cost: **\$9,039**

TRUCK/LOADER TEAM WORK

Task description: Load and carry "topsoil" to next phase

Site: Mesita Hill Pit Permit Action: 2025 Update Permit/Job#: M1977227

PROJECT IDENTIFICATION

Task #: 004 State: Colorado Abbreviation: None
Date: 9/29/2025 County: Costilla Filename: M227-004
User: CMG

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:	\$23.56	\$39.04	NA	NA	NA	NA
Operating cost/hour:	\$55.85	\$36.06	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	\$59.52	NA	NA	NA	NA
Unit Subtotals:	\$79.41	\$134.62	NA	NA	NA	NA
Number of Units:	2	1	0	0	0	0
Group Subtotals:	Work: \$293.44	Support: \$0.00	Maint: \$0.00			

Total work team cost/hour: \$293.44

MATERIAL QUANTITIES

Initial volume: 24,200 CCY Swell factor: 1.125
Loose volume: 27,225 LCY

Source of estimated volume: Division of Reclamation, Mining & Safety
Source of estimated swell factor: Cat Handbook
Material Purchase Cost: \$0.00
Total Cost: \$0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: 2,550 Pounds/LCY
Description: Earth - Dry packed

Rated Payload:	<u>35,400</u>	Pounds
Payload Capacity:	<u>13.88</u>	LCY

Truck Bed (volume) Basis:

Struck Volume:	<u>10.00</u>	LCY
Heaped Volume:	<u>12.00</u>	LCY
Average Volume:	<u>11.00</u>	LCY
Adjusted Volume:	<u>12.00</u>	LCY

Final Truck Volume Based on Number of Loader Passes: 9.46 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	<u>4.300</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.100</u>	Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity:	<u>4.730</u>	LCY

Job Condition Corrections: Site Altitude (ft.): 7750 feet

	Truck	Loader	Source
Altitude Adj:	0.970	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.805	0.830	

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

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating:	<u>NA</u>
Selected Value within this Basic Rating:	<u>NA</u>

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:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders - 0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
	Net Cycle Time Adjustment:	<u>-0.060</u>	minutes
	Adjusted Loader Cycle Time:	<u>0.440</u>	minutes
	Net Load Time per Truck:	<u>0.540</u>	minutes

Truck Cycle Time:

Truck Exchange Time:	<u>0.50</u>	Minutes	Adjusted for site altitude:	<u>0.515</u>	Minutes
Truck Load Time:	<u>0.540</u>	Minutes	Adjusted for site altitude:	<u>0.540</u>	Minutes
Truck Maneuver and Dump Time:	<u>0.90</u>	Minutes	Adjusted for site altitude:	<u>0.928</u>	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Rutted dirt, little maintenance, no water, 1" tire penetration 4.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	240.00	0.00	4.00	4.00	2665	0.188

Haul Time: **0.188** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	240.00	0.00	4.00	4.00	2849	0.110

Return Time: **0.110** minutes

Total Truck Cycle Time: **2.281** minutes

Loading Tool unit

Production 537.77 LCY/Hour Adjusted for job efficiency: 446.35 LCY/Hour

Truck Unit Production 248.81 LCY/Hour Adjusted for job efficiency: 206.51 LCY/Hour

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

Adjusted hourly truck team production: 413.02 LCY/Hour

Adjusted single truck/loader team production: 413.02 LCY/Hour

Adjusted multiple truck/loader team production: **413.02** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **65.92** Hours

Unit cost: \$0.710 /LCY Total job cost: **\$19,343**

BULLDOZER WORK

Task description: Spread "topsoil" at next phase

Site: Mesita Hill Pit Permit Action: 2025 Update Permit/Job#: M1977227

PROJECT IDENTIFICATION

Task #: 005 State: Colorado Abbreviation: None
Date: 9/29/2025 County: Costilla Filename: M227-005
User: CMG

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D10T - 10SU
Horsepower: 574
Blade Type: Semi-Universal
Attachment: 3-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$266.69</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$196.65</u>	<u>100</u>
Ripper own. Cost/Hour:	<u>\$25.88</u>	<u>NA</u>
Ripper op. Cost/Hour:	<u>\$0.00</u>	<u>0</u>
Operator Cost/Hour:	<u>\$38.02</u>	<u>NA</u>
Total unit Cost/Hour:	<u>\$527.24</u>	
Total Fleet Cost/Hour:	<u>\$527.24</u>	

MATERIAL QUANTITIES

Initial Volume: 24,200
Swell factor: 1.115
Loose volume: 26,983 LCY

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

HOURLY PRODUCTION

Average push distance: 50 feet
Unadjusted hourly production: 2,748.7 LCY/hr

Materials consistency description: Loose stockpile 1.2

Average push gradient: 0 %
Average site altitude: 7,750 feet

Material weight: 2,100 lbs/LCY

Weight description: Earth - Loam

<u>Job Condition Correction Factor</u>	<u>Source</u>	
Operator Skill:	<u>0.750</u>	<u>(AVG.)</u>
Material consistency:	<u>1.200</u>	<u>(CAT HB)</u>
Dozing method:	<u>1.000</u>	<u>(GEN.)</u>

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.700	(FND-MF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.095	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5726

Adjusted unit production: 1,573.91 LCY/hr

Adjusted fleet production: **1573.91** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.335/LCY

Total job time: **17.14** Hours

Total job cost: **\$9,039**

DEMOLITION WORK

Task description: Demolish concrete structures, bury onsite

Site: Mesita Hill Pit Permit Action: 2025 Update Permit/Job#: M1977227

PROJECT IDENTIFICATION

Task #: 006 State: Colorado Abbreviation: None
Date: 9/29/2025 County: Costilla Filename: M227-006
User: CMG

Agency or organization name: DRMS

UNIT COSTS **Location adjustment: 89.00 %**

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Concrete slab	30 X 50 X .5	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 50 ft. push	1,500.00	SF	\$1.21	\$1,816.05
Break concrete bin walls	80' X 12'	Demo. and on-site disposal in existing pit, 4 in. thick - Max. 50 ft. push	960.00	SF	\$0.81	\$774.82

Job Hours:	<u>8.00</u>	Subtotal (unadjusted):	<u>\$2,590.87</u>	Total Cost (adjusted for location):	<u>\$2,305.87</u>
------------	-------------	------------------------	-------------------	-------------------------------------	-------------------

REVEGETATION WORK

Task description: Revegetation costs

Site: Mesita Hill Pit Permit Action: 2025 Update Permit/Job#: M1977227

PROJECT IDENTIFICATION

Task #: 007 State: Colorado Abbreviation: None
Date: 9/29/2025 County: Costilla Filename: M227-007
User: CMG

Agency or organization name: DRMS

FERTILIZING

Materials

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

Application

Description	Cost /Acre
	\$
Total Fertilizer Application Cost/Acre	\$0.00

TILLING

Description	Cost /Acre
	\$
Total Tilling Cost/Acre	\$0.00

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Native	0.20	3.26	\$4.37
Indian Ricegrass - Native	0.40	1.29	\$7.08
Sand Dropseed	0.50	59.69	\$6.66
Rabbitbrush, Rubber	1.00	14.90	\$85.39
Western Wheatgrass - Native	1.20	3.03	\$11.07
Saltbush, Four Wing	0.80	1.10	\$16.28
Winter Fat	0.20	0.51	\$9.57
Totals Seed Mix	4.30	83.79	\$140.41

Application

Description	Cost /Acre
Broadcast seeding [DMG]	\$279.08
Total Seed Application Cost/Acre	\$279.08

MULCHING and MISCELLANEOUS**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - Glyphosate (Journey)@ 1.0 pt/ac	2.00	ACRE	\$5.22	\$10.45
Total Mulch Materials Cost/Acre				\$10.45

Application

Description	Cost /Acre
Weed spray, hand, non-aquatic area, nox. [DMG]	\$243.21
Total Mulch Application Cost/Acre	\$243.21

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres:	15	Cost /Acre:	\$673.15
Estimated Failure Rate:	25%	Cost /Acre*:	\$673.15
*Selected Replanting Work Items:	SEEDING, MULCHING		

Initial Job Cost:	\$10,097.25
Reseeding Job Cost:	\$2,524.31
Total Job Cost:	\$12,622
Job Hours:	15.00

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: **Mob/ Demob**

Site: **Mesita Hill Pit** Permit Action: 2025 Update Permit/Job#: M1977227

PROJECT IDENTIFICATION

Task #: 008 State: Colorado Abbreviation: None
Date: 9/29/2025 County: Costilla Filename: M227-008
User: CMG

Agency or organization name: DRMS

EQUIPMENT TRANSPORT RIG COST

Shift basis: 1 per day
Cost Data Source: CRG Data

Truck Tractor Description: GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED, 400 HP (2ND HALF, 2006)

Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT TRAILER (25T, 50T, AND 100T)

Cost Breakdown:

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$21.47	\$38.32	\$48.96
Operating Cost/Hour:	\$31.47	\$60.11	\$65.86
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$22.25	\$22.25
Total Unit Cost/Hour:	\$75.46	\$143.20	\$159.59

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	\$266.69	\$159.59	1	\$426.28	\$159.59	\$250.00
Cat 319D L 8'-10" Stick	21.50	\$56.65	\$75.46	1	\$132.11	\$75.46	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$5.99	\$75.46	2	\$162.90	\$150.92	\$500.00
CAT 950H	20.13	\$39.04	\$75.46	1	\$114.50	\$75.46	\$250.00

Subtotals:

\$835.79	\$461.43	\$1,250.00
-----------------	-----------------	-------------------

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Generic 8-10 cy, 6x4	\$88.15	2	\$176.30	\$176.30
Light Duty Pickup, 4x2, 1/2 T.	\$20.11	1	\$20.11	\$20.11

Subtotals:

\$196.41	\$196.41
-----------------	-----------------

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:

ANTONITO

Total one-way travel distance:

35.00

miles

Average Travel Speed:

50.00

mph

Total Non-Roadable Mob/Demob Cost *

\$7,659.27

* two round trips with haul rig:

Total Roadable Mob/Demob Cost **

\$274.97

** one round trip, no haul rig:

Transportation Cycle Time:

	Non- Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.70	0.70
Return Time (Hours):	0.70	0.70
Loading Time (Hours):	1.00	NA
Unloading Time (Hours):	1.00	NA
Subtotals:	3.40	1.40

JOB TIME AND COSTTotal job time: **6.80** HoursTotal job cost: **\$7,934**