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

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: Coaldale Quarry	**MINE/PROSPECTING ID#:** M-1977-247	**MINERAL:** Anhydrite, gypsum	**COUNTY:** Fremont
INSPECTION TYPE: Monitoring	**WEATHER:** Clear	**INSP. DATE:** January 29, 2025	**INSP. TIME:** 08:30
OPERATOR: Holcim (US) Inc.	**OPERATOR REPRESENTATIVE:** Mr. Josh Pierce & Mr. Eddy Senecal	**TYPE OF OPERATION:** 112c - Construction Regular Operation	

REASON FOR INSPECTION: Normal I&E Program	**BOND CALCULATION TYPE:** Complete Bond	**BOND AMOUNT:** $1,632,938.00
DATE OF COMPLAINT: NA	**POST INSP. CONTACTS:** None	**JOINT INSP. AGENCY:** None
INSPECTOR(S): Jocelyn Carter	**INSPECTOR'S SIGNATURE:** 	**SIGNATURE DATE:** March 4, 2025

The following inspection topics were identified as having Problems or Possible Violations. OPERATORS SHOULD READ THE FOLLOWING PAGES CAREFULLY IN ORDER TO ASSURE COMPLIANCE WITH THE TERMS OF THE PERMIT AND APPLICABLE RULES AND REGULATIONS. If a Possible Violation is indicated, you will be notified under separate cover as to when the Mined Land Reclamation Board will consider possible enforcement action.

INSPECTION TOPIC: Acid And Toxic Materials
PROBLEM #1: A fuel leak/spill has occurred at the site which has impacted soils.
CORRECTIVE ACTIONS: The operator shall immediately remediate the spill and submit a final report to the Division containing at least the following information:
1.) A description of how the spill was cleaned up containing at a minimum - the appropriate maps, volumes removed, sample locations, analytical data, and photo documentation.
2.) Evidence in the form of a receipt that the contaminated soil was disposed of by an approved method (such as sent to an approved landfill, land farming, recycling center, etc.).
CORRECTIVE ACTION DUE DATE: 4/03/25

INSPECTION TOPIC: Financial Warranty
PROBLEM #2: The financial warranty is not adequate to reclaim the site in accordance with the approved reclamation plan. This is a failure to maintain the proper financial warranty amount to complete reclamation of the affected lands pursuant to C.R.S. 34-32.5-117(4)(b) of the Act.
CORRECTIVE ACTIONS: The operator shall review the Division's calculated required financial warranty attached to this report. Comments and/or proof of completed reclamation activities shall be provided to theDivision by the corrective action date. At that time, if no comments have been received, the Division will be sending a separate surety increase notice to the operator regarding the increase of the financial warranty. The operator will have 60 days from the date on the surety increase notice to post the additional financial warranty.

CORRECTIVE ACTION DUE DATE: 3/21/25

INSPECTION TOPIC: Signs & Markers
PROBLEM #3: The mine identification sign posted at the entrance of the mine site did not contain complete information required by Rule 3.1.12(1). The sign should contain the following information: the name of the Operator, a statement that a reclamation permit for the operation has been issued by the Colorado Mined Land Reclamation Board; and the permit number. The mine identification sign posted did not have a statement that a reclamation permit for the operation has been issued by the Colorado Mined Land Board or the permit number.
CORRECTIVE ACTIONS: The operator shall, at the entrance of the mine site, post a sign which shall be clearly visible from the access road with the following: the name of the operator, a statement that a reclamation permit for the operation has been issued by the Colorado Mined Land Reclamation Board; and the permit number. The operator shall submit photo documentation that a proper sign has been posted by the corrective action date.
CORRECTIVE ACTION DUE DATE: 4/03/25

OBSERVATIONS

The Coaldale Quarry was inspected by me, Jocelyn Carter, on behalf of the Division or Reclamation, Mining, and Safety (Division/DRMS). Mr. Josh Peirce and Mr. Eddy Senecal were present during the inspection, representing Holcim (US) Inc. The weather was clear with cold temperatures around freezing.

Coaldale Quarry is permitted for 194.20 acres and is located about 17 miles southeast of the town of Salida in Fremont County. The mine entrance is located on the west side of County Road 6/Hayden Creek Road, about 1 mile to the southwest of the intersection with U.S. Highway 50.

Gypsum is the mined material at the Coaldale Quarry. Mining first started in 1907, and the gypsum extracted had been used for production of cement and for drywall boards over the past. Currently, Holcim (US) Inc uses the extracted gypsum for cement production. Depending on product demands, the quarry mines between 70,000 to 100,000 metric tons of raw material per year. Mining activities were not occurring at the time of the inspection; however, some loads of processed material were hauled off the site by a third-party hauling company.

Three problems are being cited in this inspection report, information about the corrective action(s) required for each problem are provided above. Problem #1 is being cited because of an issue with fuel leaking from a storage tank on site that has led to a small spill; Rule 3.1.13 outlines requirements for procedures in the case of a spill of petroleum. Problem #2 is being cited because it was found that the current financial warranty is no longer adequate in accordance with Rule 4.2.5(3). Problem #3 is being cited because of the mine sign missing required information as outlined by Rule 3.1.12(1).

Photos taken during the inspection are provided in this report along with the reclamation cost estimate. Questions regarding this inspection report should be directed to me, Jocelyn Carter, by email at Jocelyn.carter@state.co.us or by phone at (720) 666-1065.

Records

The annual report, map, and fee were received April 26, 2024. There are no open enforcement or minor infractions items for the permit. The last DRMS inspection was conducted July 16, 2020. Post mining land use

is for wildlife habitat for the permitted area and the land and mineral rights are both privately owned.

Hydrological Balance
There did not appear to be any disturbance to the hydrologic balance in the area.

General Mine Plan Compliance
The mining plan utilizes drilling and blasting methods, with each blasting events going about 30 feet down. Blasted material is then transported to a portable crushing and screening system located in the central area of the permit area. Processed material are then loaded and hauled by a third party to the Portland Plant, also in Fremont County, about 55 miles east of the Coaldale Quarry. There are three buildings and shop area located on the east side of the permit area, see Photos #10 and #11.

At the time of the inspection, Quarry North had three benches with each bench 30 feet or less in height. There was a pile of last season's blasted material observed at the foot of the highwall on the quarry floor in Quarry North and Quarry South; see Photos #4 and #5. At least two loads of processed materials had been loaded and hauled off site during the duration of the inspection.

The operation is broken down into three primary areas of mining: Quarry North, Quarry South, and Titanium Hill. In the Amendment application approved January 14, 2021 (AM-3), it was stated that exploration activities of Titanium Hill needed to be completed to verify details of the gypsum deposit before mining could be conducted in the area. The exploration bore holes had not been drilled at the time of the inspection and no expected start date of the exploration activities was provided.

Signs and Markers
The mine site sign is not in compliance with Rule 3.1.12(1) as it was missing the MLRB permit number, see Photo #1. This is cited as a problem, see Problem #3 above for information about the corrective action(s) required. Permit boundary markers were in place and marked with white PVC tubes placed over t-post, see Photo #2.

Overburden/Developed Waste
The overburden stockpiles for Quarry North and Quarry South are situated to the northeast of each respective area. Both stockpiles appeared to be stable with decent vegetation established and in adequate volumes for reclamation purposes.

Acid or Toxic Materials
Fuel tanks with secondary containers were located near the building on the east side of the permit area, see Photo #12. There was also a fuel tank on a fifth wheel trailer stored on in the same area. According to Mr. Peirce and Mr. Senecal, the fuel tank was brought in by a third-party contractor. A pump system with a gauge and fuel/water separator is installed on the fuel tank and a five-gallon bucket placed at the foot of the post for the nozzle, assumed to be used to catch any dripping fuel. The pump system was leaking in several areas, primarily the fuel separator and the nozzle attachment. The ground around the area has been affected and the spill needs to be cleaned up and the leaks addressed, see Photos #13 and #14. This is cited as a problem, see Problem #1 above for details on the corrective action(s) required.

Financial Warranty
The financial warranty held by the Division for this permit is $1,632,938. A complete bond calculation was completed as part of this inspection and the updated required financial warranty is calculated to be $2,695,166. This amount is $1,062,228 higher than the amount currently being held. The calculation is done using the tasks developed for the reclamation cost estimate (RCE) during the AM-3 application process with consideration of

the areas that have been reclaimed as reported on the most recent annual map. A copy of the complete RCE is attached with this report. A problem is being cited in this report for an inadequate financial warranty, see Problem #2 above for information about the corrective action(s) required.

Processing Facilities
The processing facility, located in the central portion of the permitted area, appeared to be in good order. Processing was not occurring at the time of the inspection. The operation will start up processing again in March of 2025. There were no issues observed with the crushing and screening system setup. Water supplied for processing was sourced from a portable water tank, see Photos #6 - #8.

Fish & Wildlife
There were no negative impacts on wildlife observed.

Erosion/Sedimentation
There did not appear to be an erosional or sedimentation issue on site at the time of the inspection.

Roads
The roads appeared to be in good condition with no erosional issues, see Photo #1.

Explosives
Blasting is done on site; it is contracted with Southwest Energy. The Explosive plan for the operation is kept at the Portland Plant.

Topsoil
Topsoil for Quarry North and Quarry South are stockpiled adjacent to the overburden stockpiles. The stockpiles appeared to be stable with decent vegetation established and in adequate volumes for reclamation purposes.

Revegetation
There did not appear to be a noxious weed issue on site at the time of the inspection.

Reclamation Plan/ Compliance
Reclamation activities have not yet begun on site, as reported in the annual report. According to Exhibit D: Reclamation Plan submitted with the AM-3 application, reclamation activities will begin in the Quarry North and South areas and is estimated to begin in 2032.

PHOTOGRAPHS

Photo #1: Mine sign located on the north side of the entrance road, the operation name and operator's name are provided, but the MLRB permit number is not given. Entrance road is also seen to the left of the sign, looking west.

Photo #2: Example of a permit boundary marker, located east of the overburden and topsoil stockpile of the Quarry South area; looking east.

Photo #3: Topsoil stockpile for the Quarry South area, looking to the west.

Photo #4: Quarry North, blasted material is stockpiled at the foot of the highwall on the pit floor. The three benches can be seen. Looking west-northwest.

Photo #5: Quarry South, blasted material is at the foot of the highwall on the pit floor, looking to the southeast.

Photo #6: Processing facility.

Photo #7: Processing facility.

Photo #8: Portable water tank for the processing facility.

Photo #9: Product stockpile, tracks and freshly disturbance can be seen in the photo where material was loaded and hauled to the Portland Plant.

Photo #10: The three buildings located on the east side of the permit area.

Photo #11: The shop located on the east side of the permit area.

Photo #12: Fuel tanks with secondary storage.

Photo #13: The portable fuel tank, the pump system and the post for the nozzle can be seen. At the base of the 5-gallon bucket, the discoloration of the ground indicates that the leak has been ongoing for some time and has spread.

Photo #14: A closer look at the pump system on the fuel tank. The leak from the fuel/water separator can be seen on the separator and the ground below.

GENERAL INSPECTION TOPICS

The following list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each

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

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

Inspection Contact Address
Mr. Josh Pierce & Mr. Eddy Senecal
Holcim (US) Inc.
3500 Highway 120
Florence, CO 81226

Enclosure Division's Reclamation Cost Estimation

CC: Amy Eschberger, DRMS

COST SUMMARY WORK

Task description: **000**

Site: **Coaldale Quarry** Permit Action: 2025 Inspection Permit/Job#: M1977247

PROJECT IDENTIFICATION

Task #: 000 State: Colorado Abbreviation: None
Date: 2/27/2025 County: Fremont Filename: M247-000
User: JLC

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Backfill pit w/ Scrapers	SCRAPER1	1	249.85	$1,347,958
002	Pit Wall Blasting (280000 T @ $0.57/T)	NA	1	40.00	$159,600
003	North Pit Wall (North Side) Removal Contouring	DOZER	2	47.93	$19,916
004	Structure Demolition	DEMOLISH	1	80.00	$99,028
005	North Pit (South Side) Bench Backfill	SCRAPER1	1	14.70	$63,646
006	Rip 5.9 acres of Haul Road & Building sites	RIPPER	1	9.41	$2,093
007	Titanium Hill Pit Bench Backfill	SCRAPER1	1	6.42	$14,577
008	Haul & Spread Growth Media	SCRAPER1	1	21.51	$96,391
009	Contour Overburden Stockpiles	DOZER	1	212.03	$44,055
010	Revegetate 101 Acres	REVEGE	1	202.00	$236,567
012	Mob/Demob from Canon City	MOBILIZE	1	14.08	$66,097
		SUBTOTALS:		**897.93**	**$2,149,928**

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	$43,429
Performance bond:	1.05	Total =	$22,574
Job superintendent:	448.97	Total =	$35,589
Profit:	10.00	Total =	$214,993
		TOTAL O & P =	$316,585
		CONTRACT AMOUNT (direct + O & P) =	$2,466,513

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	$500	Total =	$500
Engineering work and/or contract/bid preparation:	4.25	Total =	$104,827
Reclamation management and/or administration:	5.00		$123,326
CONTINGENCY:	0.00	Total =	$0
		TOTAL INDIRECT COST =	$545,238
		TOTAL BOND AMOUNT (direct + indirect) =	**$2,695,166**

SCRAPER TEAM WORK

Task description: **Backfill pit w/ Scrapers**

Site: **Coaldale Quarry** Permit Action: 2025 Inspection Permit/Job#: M1977247

PROJECT IDENTIFICATION

Task #: 001 State: Colorado Abbreviation: None
Date: 2/27/2025 County: Fremont Filename: 001
User: JLC

Agency or organization name: DRMS

HOURLY EQUIPMENT

COSTShift basis: 1 per day

	Equipment Description
-Scraper:	Cat 657G
-Dozer:	NA
Support Equipment -Load Area:	NA
-Dump Area:	Cat D7R DS Series II LGP
Road Maintenance –Motor Grader:	NA
-Water Truck:	Water Tanker, 2,500 Gal.

Cost Breakdown:

	Scraper Work Team		Support Equipment		Maintenance Equipment	
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	NA	NA	100	NA	100
Ownership cost/hour:	$578.04	NA	NA	$90.24	NA	$11.65
Operating cost/hour:	$421.68	NA	NA	$78.95	NA	$22.45
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	NA	$0.00	NA	$0.00
Ripper op. cost/hour:	NA	NA	NA	$0.00	NA	$0.00
Operator cost/hour:	$30.90	NA	NA	$38.59	NA	$0.00
Unit Subtotals:	$1,030.62	NA	NA	$207.78	NA	$34.10
Number of Units:	5	0	0	1	0	1
Group Subtotals:	Work:	$5,153.10	Support:	$207.78	Maint:	$34.10

Total work team cost/hour: **$5,394.98**

MATERIAL QUANTITIES

Initial volume: 627,907 CCY Swell factor: 1.165
Loose volume: **731,512** LCY

Source of estimated volume: Exhibit L, task 001B
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Material weight: 2,900 lbs/LCY
Material description: Decomposed rock - 50% Rock, 50% Earth
Rated Payload: 104,000 pounds
Payload Capacity: 35.86 LCY

Scraper Bowl (volume) Basis:

Struck Volume: 32.00 LCY
Heaped Volume: 44.00 LCY
Average Volume: 38.00 LCY
Adjusted Capacity: **35.86** LCY

Cycle Time:

Scraper Loading Time: 1.00 Minutes
Maneuver and Spread Time: 0.60 Minutes

Job Condition Correction: Site Altitude: 6800 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, 1" tire penetration 4.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1200.00	0.00	4.00	4.00	2725	0.86

Haul Time: **0.86** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1200.00	0.00	4.00	4.00	2920	0.59

Return Time: **0.59** minutes

Total Scraper team cycle time: **3.05** minutes
Adjusted for job conditions: 585.55 LCY/Hour
Selected Number of Scrapers: 5 Scraper(s)
Adjusted single scraper team (unit) hourly production: 2,927.76 LCY/Hour
Adjusted multiple scraper team (fleet) hourly production: **2,927.76** LCY/Hour

Unadjusted unit production/hour: 705.48 LCY/Hour
Optimal Number of Scrapers per push dozer:

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **249.85** Hours

Unit cost: $1.843 /LCY Total job cost: **$1,347,958**

BULLDOZER WORK

Task description: **North Pit Wall (North Side) Removal Contouring**

Site: **Coaldale Quarry** Permit Action: 2025 Inspection Permit/Job#: M1977247

PROJECT IDENTIFICATION

Task #: 003 State: Colorado Abbreviation: None
Date: 2/27/2025 County: Fremont Filename: 003
User: JLC

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D7R DS Series II LGP
Horsepower: 240
Blade Type: Straight
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$90.24	NA
Operating Cost/Hour:	$78.95	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: $207.78
Total Fleet Cost/Hour: **$415.55**

MATERIAL QUANTITIES

Initial Volume: 31,733
Swell factor: 1.000
Loose volume: **31,733** LCY

Source of estimated volume: Exhibit F-2b [9/21/20]
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 100 feet
Unadjusted hourly production: 496.4 LCY/hr

Materials consistency description: Rock, well ripped or blasted 0.8

Average push gradient: -30 %
Average site altitude: 6,800 feet

Material weight: 3,300 lbs/LCY

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

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.800	(CAT HB)
Dozing method:	1.200	(S-BY-S)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.697	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.6669

Adjusted unit production: 331.05 LCY/hr
Adjusted fleet production: **662.1** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: $0.628/LCY

Total job time: **47.93** Hours
Total job cost: **$19,916**

DEMOLITION WORK

Task description: **Structure Demolition**

Site: **Coaldale Quarry** Permit Action: 2025 Inspection Permit/Job#: M1977247

PROJECT IDENTIFICATION

Task #: 004 State: Colorado Abbreviation: None
Date: 2/27/2025 County: Fremont Filename: 004
User: JLC

Agency or organization name: DRMS

UNIT COSTS **Location adjustment: 88.00 %**

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Metal shop building	100 x 66 x 15	Bldg. (SN) demo./off-site disposal in approved landfill - Max. 30 mile haul	99,000.00	CF	$0.53	$52,875.90
concrete slab	100 x 66 x 0.5	Floor, concrete, demolition only, average reinforcing - 6 in. thick	6,600.00	SF	$1.10	$7,277.16
Metal Bldg #1	56 x 33 x 15	Bldg. (SN) demo./off-site disposal in approved landfill - Max. 30 mile haul	27,720.00	CF	$0.53	$14,805.25
concrete slab	56 x 33 x 0.5	Floor, concrete, demolition only, average reinforcing - 6 in. thick	1,848.00	SF	$1.10	$2,037.60
Metal Bldg #2	52 x 28 x 15	Bldg. (SN) demo./off-site disposal in approved landfill - Max. 30 mile haul	21,840.00	CF	$0.53	$11,664.74
concrete slab	52 x 28 x 0.5	Floor, concrete, demolition only, average reinforcing - 6 in. thick	1,456.00	SF	$1.10	$1,605.39
Metal Bldg #3	48 x 33 x 15	Bldg. (SN) demo./off-site disposal in approved landfill - Max. 30 mile haul	23,760.00	CF	$0.53	$12,690.22
concrete slab	48 x 33 x 0.5	Floor, concrete, demolition only, average reinforcing - 6 in. thick	1,584.00	SF	$1.10	$1,746.52
Concrete loading (4 slabs above, broken)	5,744 CF	Loading only, open areas (unconfined) - Track loader	213.00	CY	$0.87	$186.16
Concrete hauling (4 slabs above, broken)	14 60-mile round trips	Hauling only, per mile, 12-18 CY truck - 50 mph average speed	850.00	MI	$4.43	$3,768.48
Tank	13 ft x 24 ft	Bldg. (SN) demo./off-site disposal in approved landfill - Max. 30 mile haul	3,185.00	CF	$0.53	$1,701.11
Tanks (2)	12 ft x 18 ft each	Bldg. (SN) demo./off-site disposal in approved landfill - Max. 30 mile haul	4,070.00	CF	$0.53	$2,173.79

Job Hours:	**80.00**	**Subtotal (unadjusted)**:	**$112,532.32**	**Total Cost (adjusted for location)**:	**$99,028.44**

SCRAPER TEAM WORK

Task description: **North Pit (South Side) Bench Backfill**

Site: **Coaldale Quarry** Permit Action: 2025 Inspection Permit/Job#: M1977247

PROJECT IDENTIFICATION

Task #: 005 State: Colorado Abbreviation: None
Date: 2/27/2025 County: Fremont Filename: 005
User: JLC

Agency or organization name: DRMS

HOURLY EQUIPMENT

COSTShift basis: 1 per day

Equipment Description	
-Scraper:	Cat 657G
-Dozer:	NA
Support Equipment -Load Area:	NA
-Dump Area:	Cat D7R DS Series II LGP
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	100	NA	NA
Ownership cost/hour:	$578.04	NA	NA	$90.24	NA	NA
Operating cost/hour:	$421.68	NA	NA	$78.95	NA	NA
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	NA	$0.00	NA	NA
Ripper op. cost/hour:	NA	NA	NA	$0.00	NA	NA
Operator cost/hour:	$30.90	NA	NA	$38.59	NA	NA
Unit Subtotals:	$1,030.62	NA	NA	$207.78	NA	NA
Number of Units:	4	0	0	1	0	0
Group Subtotals:	Work:	$4,122.48	Support:	$207.78	Maint:	$0.00

Total work team cost/hour: **$4,330.26**

MATERIAL QUANTITIES

Initial volume: 22,645 CCY Swell factor: 1.165
Loose volume: **26,381** LCY

Source of estimated volume: Exhibit F-2b [9/21/20], Exhibit E [10/2/20]/Task 005.1
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Scraper Bowl (volume) Basis:

Material weight: 2,900 lbs/LCY
Material description: Decomposed rock - 50% Rock, 50% Earth
Rated Payload: 104,000 pounds
Payload Capacity: 35.86 LCY

Struck Volume: 32.00 LCY
Heaped Volume: 44.00 LCY
Average Volume: 38.00 LCY
Adjusted Capacity: **35.86** LCY

Cycle Time:

Scraper Loading Time: 1.00 Minutes
Maneuver and Spread Time: 0.60 Minutes

Job Condition Correction: Site Altitude: 6800 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, 1" tire penetration 4.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2500.00	0.00	4.00	4.00	2725	1.34

Haul Time: **1.34** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2500.00	0.00	4.00	4.00	2920	1.04

Return Time: **1.04** minutes

Total Scraper team cycle time: **3.98** minutes
Adjusted for job conditions: 448.73 LCY/Hour
Selected Number of Scrapers: 4 Scraper(s)
Adjusted single scraper team (unit) hourly production: 1,794.91 LCY/Hour
Adjusted multiple scraper team (fleet) hourly production: **1,794.91** LCY/Hour

Unadjusted unit production/hour: 540.63 LCY/Hour
Optimal Number of Scrapers per push dozer:

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **14.70** Hours

Unit cost: $2.413 /LCY Total job cost: **$63,646**

BULLDOZER RIPPING WORK

Task description: **Rip 5.9 acres of Haul Road & Building sites**

Site: **Coaldale Quarry** Permit Action: 2025 Inspection Permit/Job#: M1977247

PROJECT IDENTIFICATION

Task #: 006 State: Colorado Abbreviation: None
Date: 2/27/2025 County: Fremont Filename: 006
User: JLC

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D7R DS Series II LGP Horsepower: 240
Ripper Attachment: 3-Shank Ripper Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$90.24	NA
Operating Cost/Hour:	$78.95	100
Ripper Ownership Cost/Hour:	$9.25	NA
Ripper Operating Cost/Hour:	$5.20	100
Operator Cost/Hour:	$38.59	NA
Total Unit Cost/Hour:	$222.23	

Total Fleet Cost/Hour: **$222.23**

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 5.90 acres Rip Depth (ft): 1.00 Volume: 9,519 BCY or CCY

Source of estimated quantity: EXHIBIT F-1, dated 9/21/20

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	2.45	feet/pass
Average Ripping Width:	6.50	feet/pass
Average Ripping Length:	500.00	feet/pass
Average Dozer Speed:	88.00	feet/minute
Average Maneuver Time:	0.25	minutes/pass
Production per unit area:	0.755	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.755 Acres/hr

Site Altitude:	6,800	feet
Altitude Adj:	1.00	(CAT HB)
Job Efficiency:	0.83	(1 shift/day)
Net Correction:	0.83	multiplier

Adjusted Hourly Unit Production: 0.63 Acres/hr
Adjusted Hourly Fleet Production: **0.63** Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: **9.42** Hours

Unit cost: $354.785 Per acre Total job cost: **$2,093**

SCRAPER TEAM WORK

Task description: **Titanium Hill Pit Bench Backfill**

Site: **Coaldale Quarry** Permit Action: 2025 Inspection Permit/Job#: M1977247

PROJECT IDENTIFICATION

Task #: 007 State: Colorado Abbreviation: None
Date: 2/27/2025 County: Fremont Filename: 007
User: JLC

Agency or organization name: DRMS

HOURLY EQUIPMENT

COSTShift basis: 1 per day

	Equipment Description
-Scraper:	Cat 657G
-Dozer:	NA
Support Equipment -Load Area:	NA
-Dump Area:	Cat D7R DS Series II LGP
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	100	NA	NA
Ownership cost/hour:	$578.04	NA	NA	$90.24	NA	NA
Operating cost/hour:	$421.68	NA	NA	$78.95	NA	NA
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	NA	$0.00	NA	NA
Ripper op. cost/hour:	NA	NA	NA	$0.00	NA	NA
Operator cost/hour:	$30.90	NA	NA	$38.59	NA	NA
Unit Subtotals:	$1,030.62	NA	NA	$207.78	NA	NA
Number of Units:	2	0	0	1	0	0
Group Subtotals:	Work:	$2,061.24	Support:	$207.78	Maint:	$0.00

Total work team cost/hour: **$2,269.02**

MATERIAL QUANTITIES

Initial volume: 6,005 CCY Swell factor: 1.165
Loose volume: **6,996** LCY

Source of estimated volume: Exhibit F-2b [9/21/20], Exhibit E [10/2/20]/Task 007.1
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Scraper Bowl (volume) Basis:

Material weight: 2,900 lbs/LCY
Material description: Decomposed rock - 50% Rock, 50% Earth
Rated Payload: 104,000 pounds
Payload Capacity: 35.86 LCY

Struck Volume: 32.00 LCY
Heaped Volume: 44.00 LCY
Average Volume: 38.00 LCY
Adjusted Capacity: **35.86** LCY

Cycle Time:

Scraper Loading Time: 1.00 Minutes
Maneuver and Spread Time: 0.60 Minutes

Job Condition Correction: Site Altitude: 6800 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, 1" tire penetration 4.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1500.00	0.00	4.00	4.00	2725	0.98

Haul Time: **0.98** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1500.00	0.00	4.00	4.00	2920	0.70

Return Time: **0.70** minutes

Total Scraper team cycle time: **3.28** minutes
Adjusted for job conditions: 544.49 LCY/Hour
Selected Number of Scrapers: 2 Scraper(s)
Adjusted single scraper team (unit) hourly production: 1,088.98 LCY/Hour
Adjusted multiple scraper team (fleet) hourly production: **1,088.98** LCY/Hour

Unadjusted unit production/hour: 656.01 LCY/Hour
Optimal Number of Scrapers per push dozer:

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **6.42** Hours

Unit cost: $2.084 /LCY Total job cost: **$14,577**

SCRAPER TEAM WORK

Task description: **Haul & Spread Growth Media**

Site: **Coaldale Quarry** Permit Action: 2025 Inspection Permit/Job#: M1977247

PROJECT IDENTIFICATION

Task #: 008 State: Colorado Abbreviation: None
Date: 2/27/2025 County: Fremont Filename: 008
User: JLC

Agency or organization name: DRMS

HOURLY EQUIPMENT

COSTShift basis: 1 per day

	Equipment Description
-Scraper:	Cat 657G
-Dozer:	NA
Support Equipment -Load Area:	NA
-Dump Area:	Cat D7R DS Series II LGP
Road Maintenance –Motor Grader:	CAT 12M
-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	100	100	NA
Ownership cost/hour:	$578.04	NA	NA	$90.24	$69.16	NA
Operating cost/hour:	$421.68	NA	NA	$78.95	$54.74	NA
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	NA	$0.00	$0.00	NA
Ripper op. cost/hour:	NA	NA	NA	$0.00	$0.00	NA
Operator cost/hour:	$30.90	NA	NA	$38.59	$27.76	NA
Unit Subtotals:	$1,030.62	NA	NA	$207.78	$151.66	NA
Number of Units:	4	0	0	1	1	0
Group Subtotals:	Work:	$4,122.48	Support:	$207.78	Maint:	$151.66

Total work team cost/hour: **$4,481.92**

MATERIAL QUANTITIES

Initial volume: 44,367 CCY Swell factor: 1.215
Loose volume: **53,906** LCY

Source of estimated volume: Exhibit L [55 acres @ 6-inch depth]
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Material weight: 1,600 lbs/LCY
Material description: Top Soil
Rated Payload: 104,000 pounds
Payload Capacity: 65.00 LCY

Scraper Bowl (volume) Basis:

Struck Volume: 32.00 LCY
Heaped Volume: 44.00 LCY
Average Volume: 38.00 LCY
Adjusted Capacity: **38.00** LCY

Cycle Time:

Scraper Loading Time: 1.00 Minutes
Maneuver and Spread Time: 0.60 Minutes

Job Condition Correction: Site Altitude: 6800 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, 1" tire penetration 4.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1200.00	0.00	4.00	4.00	2725	0.72

Haul Time: **0.72** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1500.00	0.00	4.00	4.00	2920	0.70

Return Time: **0.70** minutes

Total Scraper team cycle time: **3.02** minutes
Adjusted for job conditions: 626.62 LCY/Hour
Selected Number of Scrapers: 4 Scraper(s)
Adjusted single scraper team (unit) hourly production: 2,506.49 LCY/Hour
Adjusted multiple scraper team (fleet) hourly production: **2,506.49** LCY/Hour

Unadjusted unit production/hour: 754.97 LCY/Hour
Optimal Number of Scrapers per push dozer:

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **21.51** Hours

Unit cost: $1.788 /LCY Total job cost: **$96,391**

BULLDOZER WORK

Task description: **Contour Overburden Stockpiles**

Site: **Coaldale Quarry** Permit Action: 2025 Inspection Permit/Job#: M1977247

PROJECT IDENTIFICATION

Task #:	009	State:	Colorado	Abbreviation:	None
Date:	2/27/2025	County:	Fremont	Filename:	009
User:	JLC				

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine:	Cat D7R DS Series II LGP
Horsepower:	240
Blade Type:	Straight
Attachment:	NA
Shift Basis:	1 per day
Data Source:	(CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$90.24	NA
Operating Cost/Hour:	$78.95	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: $207.78
Total Fleet Cost/Hour: **$207.78**

MATERIAL QUANTITIES

Initial Volume:	59,814
Swell factor:	1.000
Loose volume:	**59,814** LCY

Source of estimated volume: Exhibit L task 003
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 100 feet
Unadjusted hourly production: 496.4 LCY/hr

Materials consistency description: Rock, well ripped or blasted 0.8

Average push gradient: -25 %
Average site altitude: 6,800 feet

Material weight: 3,300 lbs/LCY

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

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.800	(CAT HB)
Dozing method:	1.200	(SLOT)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	1.516	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.697	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5683

Adjusted unit production: 282.10 LCY/hr
Adjusted fleet production: **282.1** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.737/LCY

Total job time: **212.03** Hours
Total job cost: **$44,055**

REVEGETATION WORK

Task description: **Revegetate 101 Acres**

Site: **Coaldale Quarry** Permit Action: 2025 Inspection Permit/Job#: M1977247

PROJECT IDENTIFICATION

Task #: 010 State: Colorado Abbreviation: None
Date: 2/27/2025 County: Fremont Filename: 010
User: JLC

Agency or organization name: DRMS

FERTILIZING

Materials

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

Application

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

TILLING

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

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Hachita	0.38	6.20	$10.89
Indiangrass - Cheyenne	1.39	4.24	$17.10
Sideoats Grama - Vaughn	2.28	7.48	$56.07
Streambank Wheatgrass - Sodar	1.12	3.65	$9.30
Western Wheatgrass - Arriba	3.20	8.08	$28.91
Needlegrass, Green - Lodorm	0.96	3.99	$8.30
Daisy or Sunflower, Maximillians	3.72	21.08	$211.41
Flax, Lewis Blue	0.61	4.05	$25.80
		58.77	**$367.77**

Totals Seed Mix	13.66		

Application

Description	**Cost /Acre**
Broadcast seeding [DMG]	$272.56
Total Seed Application Cost/Acre	**$272.56**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	$492.78	$985.56
Total Mulch Materials Cost/Acre				**$985.56**

Application

Description	**Cost /Acre**
Crimping, with tractor {DMG survey data}	$85.37
Total Mulch Application Cost/Acre	**$85.37**

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: 101
Estimated Failure Rate: 30%
*Selected Replanting Work Items: SEEDING,MULCHING

Cost /Acre: $1,828.87
Cost /Acre*: $1,711.26

Initial Job Cost: **$184,715.87**
Reseeding Job Cost: **$51,851.18**
Total Job Cost: **$236,567**
Job Hours: **202.00**

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: **Mob/Demob from Canon City**

Site: **Coaldale Quarry** Permit Action: 2025 Inspection Permit/Job#: M1977247

PROJECT IDENTIFICATION

Task #: 012 State: Colorado Abbreviation: None
Date: 2/27/2025 County: Fremont Filename: 012
User: JLC

Agency or organization name: DRMS

EQUIPMENT TRANSPORT RIG COST

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

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

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

Cost Breakdown:

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

NON ROADABLE EQUIPMENT:

Machine Description	Weight/ Unit (TONS)	Owner ship Cost/hr/ unit	Haul Rig Cost/hr/unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet	DOT Permit Cost/ fleet
Cat 657G	78.88	$578.04	$125.64	5	$3,518.40	$628.20	$1,250.00
Cat D7R DS Series II LGP	38.49	$99.49	$122.78	2	$444.54	$245.56	$500.00
ATLAS COPCO ROC D7-11,4.0 in.	0.00	$191.64	$59.44	1	$251.08	$59.44	$250.00
Drill/Broadcast Seeder with Tractor	25.00	$41.02	$59.44	2	$200.92	$118.88	$250.00
CAT 12M	16.01	$69.16	$59.44	1	$128.60	$59.44	$250.00
CAT 924H	12.69	$26.01	$59.44	1	$85.45	$59.44	$250.00
Cat 312D L 9'-2" Stick	14.83	$281.20	$59.44	1	$340.64	$59.44	$250.00
Subtotals:					**$4,969.63**	**$1,230.40**	**$3,000.00**

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Water Tanker, 2,500 Gal.	$34.10	1	$34.10	$34.10
ANFO Bulk Delivery Truck	$272.76	1	$272.76	$272.76
Fuel Tanker, 4x2, 170 HP	$34.10	1	$34.10	$34.10

Lube Truck, 4x2, 190 HP	$41.41	1	$41.41	$41.41
Light Duty Pickup, 4x4, 1 T. Crew	$108.47	1	$108.47	$108.47
Subtotals:			**$490.84**	**$490.84**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	CANON CITY	
Total one-way travel distance:	76.00	miles
Average Travel Speed:	50.00	mph

Total Non-Roadable Mob/Demob Cost * '* two round trips with haul rig:	$64,605.13
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	$1,492.15

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	1.52	1.52
Return Time (Hours):	1.52	1.52
Loading Time (Hours):	2.00	NA
Unloading Time (Hours):	2.00	NA
Subtotals:	7.04	3.04

JOB TIME AND COST

Total job time:	**14.08**	Hours
Total job cost:	**$66,097**	