



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: Table Mountain Quarry	MINE/PROSPECTING ID#: M-1999-004	MINERAL: Silica (quartz, quartzite)	COUNTY: Fremont
INSPECTION TYPE: Surety-Related Inspection	WEATHER: Cloudy	INSP. DATE: November 9, 2023	INSP. TIME: 10:00
OPERATOR: Holcim - WCR, Inc.	OPERATOR REPRESENTATIVE: Kurt Thurmman	TYPE OF OPERATION: 112c - Construction Regular Operation	
REASON FOR INSPECTION: Surety Related	BOND CALCULATION TYPE: Complete Bond	BOND AMOUNT: \$208,171.00	
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None	
INSPECTOR(S): Timothy Cazier, P.E. Jocelyn Carter	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: February 23, 2024	

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: Reclamation Success

PROBLEM/POSSIBLE VIOLATION: Problem: Current reclamation plan needs to be updated and clarified pursuant to C.R.S. 34-32.5-116 (1). The operator must follow approved reclamation plan or provide sufficient information to describe or identify how the operator intends to conduct reclamation related to the new solar panel.

CORRECTIVE ACTIONS: The operator shall submit a Technical Revision, with the required \$216 revision fee, to update and clarify the current approved reclamation plan to include the solar panel and ancillary equipment (e.g., batteries) in the reclamation plan and cost estimate by the corrective action date.

CORRECTIVE ACTION DUE DATE: 4/08/24

OBSERVATIONS

This inspection was conducted as a surety review related to the recently approved Succession of Operator (SO-4). The Permittee (Holcim-WCR) was represented by Messrs. Kurt Thurmann and Lu Toxvard. Tim Cazier and Jocelyn Carter represented the Division. The Table Mountain Quarry is accessed from Highway 115 about 11 miles north of Penrose. The access road is approximately 3.5 miles long from Hwy 115 to the active pit area. This is a 112c silica/quartz mine. It was operating at the time of the inspection.

Availability of Records: Annual reports are current, having been filed through June 2023. The previous inspection was on March 15, 2022. The approved post-mine land use is wildlife habitat. There were no open infractions prior to the inspection. Both the surface and minerals are owned by the Colorado State Land Board (SLB).

Acid And Toxic Materials: No acid or toxic materials are involved in this operation.

Backfilling and Grading: Sufficient material appeared to be available to backfill the vertical highwall (see **Photo 1**).

Excess Spoil and Dev. Waste: A small overburden stockpile was observed (see **Photo 2**). The overburden is stripped ahead of advancing the highwall. There is no real difference between overburden and topsoil at this site.

Explosives: Blasting is performed at this site. Mr. Tuxvard indicated Buckly Powder would be starting to provide blasting service on site. Based on the previous inspection report, the nearest structure is 1.7 miles away.

Financial Warranty: The DRMS holds a \$208,171 bond, last updated in 2020 with the approval of TR-2. [A draft bond estimate of \\$273,168 was provided to Mr. Thurmann during the inspection and is attached to this report.](#) A few revisions related to reclamation equipment were discussed during the inspection. Markups reflecting those discussions are included in the attached estimate and will be reflected in a final reclamation cost estimate. The presence of a new large solar panel prompted a discussion about the disposition of the solar panel for reclamation as it does not fit with the wildlife post-mine land use. The Division agreed to postpone the surety increase notice until the Permittee submits a technical revision updating the reclamation plan to address the solar panel. Mr. Thurmann said he would review the draft bond estimate.

Fish and Wildlife: No impact to wildlife was observed.

Hydrologic Balance: No standing water was observed in the pit and no exposed groundwater was observed.

Gen. Compliance with Mine Plan: The operation appeared to be in compliance with the approved mine plan. Mining has been occurring in Area A. A previous Permittee performed some mining in Area B. The maximum allowed disturbed area is 59 acres. No new disturbance was observed in Area B (see **Photo 3**). Google Earth was used to measure the disturbed area, which was approximately 40 acres, based on older 2019 imagery. Highwalls were estimated to be 40 feet in height and appeared stable (see **Photos 1 and 4**).

Off-site Damage: The operation appeared to be confined to the permit boundary, based on Google Earth review and site observations.

Roads: Haul and access roads did not appear to be a source of sediment that could be tracked offsite. Roads were wet from the recent storm.

Right of Entry: Site representatives stated the SLB lease was current at the time of the inspection.

Reclamation Success: No new reclamation had been initiated at the time of the inspection. A large solar panel had been erected near the truck scale (see **Photo 5**) which is not included in the reclamation plan. Site representatives stated the solar panel was installed to provide power for remotely operating the scale from the office in Cañon City. **The need to include the solar panel and ancillary equipment (e.g., batteries) in the reclamation plan and cost estimate is cited as a problem on p. 1 of this report.**

Revegetation: Knapweed (see **Photo 4**) was observed along the upper access roads. Mr. Tuxvard stated they had sprayed the knapweed in the spring (2023).

Sediment Control: No significant erosion problems were observed and no BMPs were needed at the time of the inspection.

Support Facilities On-site: A screen plant, crusher, excavator, and loaders were observed on site (see **Photo 6**) in addition to the truck scale, scale house and solar panel.

Signs and Markers: The permit sign was properly posted (see **Photo 7**) and boundary markers were observed to delineate the permit boundary.

Permit Stipulations: During the AM-01 review process, a commitment was made by the Permittee to limit the highwall to less than 2,000 lineal feet in order to keep the reclamation liability in line with the posted financial warranty. The width (east-west) of the current highwall is roughly 900 feet (based on Google earth imagery) with additional north-south wrap arounds on the east and west ends being less than 300 feet each demonstrating the total highwall length to be well less than the 2,000 limit.

Storm Water MGT Plan: No oil or fuel spills observed. Standing water was observed in the sediment pond (see **Photo 8**) from the recent storm.

Structures: No structures not owned by the Permittee were observed within 200 feet of the affected area boundary.

Post Inspection Meeting: The following items were discussed that required additional actions:

- Submit a technical revision to address the reclamation plan for the new solar panel.
- Holcim was to review the draft bond estimate and provide comment.

Please contact Tim Cazier (303)328-5229 or email at tim.cazier@state.co.us if you have any questions regarding this report.

PHOTOGRAPHS



Photo 1. Area A active highwall (looking west).



Photo 2. Area A active highwall (looking north – note overburden/topsoil stockpiled on crest).

PHOTOGRAPHS (cont.)



Photo 3. Area B pit disturbed by pre-2008 Permittee (looking NE).



Photo 4. Area A active highwall (looking NE).

PHOTOGRAPHS (cont.)



Photo 5. Solar panel at truck scale.



Photo 6. Support equipment in Area A pit (looking east).

PHOTOGRAPHS (cont.)



Photo 7. Permit sign off Hwy 115 entrance (Holcim sign circled).



Photo 8. Sediment pond (near Quonset hut, looking south).

GENERAL INSPECTION TOPICS

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

(AR) RECORDS----- <u>Y</u>	(FN) FINANCIAL WARRANTY----- <u>Y</u>	(RD) ROADS----- <u>Y</u>
(HB) HYDROLOGIC BALANCE----- <u>Y</u>	(BG) BACKFILL & GRADING----- <u>Y</u>	(EX) EXPLOSIVES----- <u>Y</u>
(PW) PROCESSING WASTE/TAILING---- <u>Y</u>	(SF) PROCESSING FACILITIES----- <u>Y</u>	(TS) TOPSOIL----- <u>Y</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>Y</u>	(FW) FISH & WILDLIFE----- <u>Y</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-- PB
(ES) OVERBURDEN/DEV. WASTE----- <u>Y</u>	(SC) EROSION/SEDIMENTATION--- <u>Y</u>	(ST) STIPULATIONS----- <u>Y</u>
(AT) ACID OR TOXIC MATERIALS----- <u>Y</u>	(OD) OFF-SITE DAMAGE----- <u>Y</u>	

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

Inspection Contact Address

Kurt Thurmann
Holcim - WCR, Inc.
1687 Cole Blvd, Suite 300
Golden, CO 80401

Enclosure: Draft Bond Estimate

ec: Jocelyn Carter, DRMS
Hunter Ridley, DRMS
DRMS file
Ben Teschner, SLB

COST SUMMARY WORK

Task description: Cost Summary

Site: Table Mountain Quarry

Permit Action: 2023 SO Update

Permit/Job#: M1999004

PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 11/8/2023

County: Fremont

Filename: M004-000

User: TC1

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
010	Backfill highwall, adjusted volume for cast blasting	DOZER	1	19.25	\$8,513
011	Spread topsoil all areas	DOZER	1	32.33	\$14,300
021	Haul topsoil for all areas	TRUCK1	1	152.79	\$84,400
030	Drilling and blasting (see 030.1 worksheet) @ \$1.14/CY	NA	1	5.00	\$31,068
040	Revegetation	REVEGE	1	50.00	\$57,623
050	Demo/Haul Quonset Structure	DEMOLISH	1	12.00	\$11,968
060	Mob/Demob Equipment	MOBILIZE	1	5.00	\$5,311
<u>SUBTOTALS:</u>				276.37	\$213,183

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02

Total = \$4,306

Performance bond: 1.05

Total = \$2,238

Job superintendent: 138.19

Total = \$8,993

Profit: 10.00

Total = \$21,318

TOTAL O & P = \$36,856

CONTRACT AMOUNT (direct + O & P) = \$250,039

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): \$0

Total = \$0

Engineering work and/or contract/bid preparation: 4.25

Total = \$10,627

Reclamation management and/or administration: 5.00

\$12,502

CONTINGENCY: 0.00

Total = \$0

TOTAL INDIRECT COST = \$59,985

TOTAL BOND AMOUNT (direct + indirect) = \$273,168

BULLDOZER WORKTask description: **Backfill highwall, adjusted volume for cast blasting**Site: **Table Mountain Quarry**Permit Action: 2023 SO UpdatePermit/Job#: M1999004**PROJECT IDENTIFICATION**Task #: 010State: ColoradoAbbreviation: NoneDate: 11/8/2023County: FremontFilename: 010User: TC1Agency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D9T - 9SUHorsepower: 405Blade Type: Semi-UniversalAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$238.76</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$162.29</u>	<u>100</u>
Ripper own.		
Cost/Hour:	<u>\$0.00</u>	<u>NA</u>
Ripper op. Cost/Hour:	<u>\$0.00</u>	<u>0</u>
Operator Cost/Hour:	<u>\$41.30</u>	<u>NA</u>

Total unit Cost/Hour: \$442.35Total Fleet Cost/Hour: **\$442.35****MATERIAL QUANTITIES**Initial Volume: 29,797Swell factor: 1.000Loose volume: **29,797 LCY**Source of estimated volume: TR-2 - Assume only 2/3 cast blast volume

Source of estimated swell

factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feet

Unadjusted hourly

production: 2,110.5 LCY/hrMaterials consistency description: Consolidated stockpile 1.0

Average push

gradient: -15 %Average site altitude: 7,130 feetMaterial weight: 2,800 lbs/LCYWeight description: Granite - Broken

Job Condition Correction Factor

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(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:	1.329	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.7336

Adjusted unit
production: 1,548.26 LCY/hr
Adjusted fleet
production: **1548.26** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.286/LCY

Total job time: **19.25** Hours
Total job cost: **\$8,513**

BULLDOZER WORKTask description: Spread topsoil all areasSite: Table Mountain QuarryPermit Action: 2023 SO UpdatePermit/Job#: M1999004**PROJECT IDENTIFICATION**Task #: 011State: ColoradoAbbreviation: NoneDate: 11/8/2023County: FremontFilename: 011User: TC1Agency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D9T - 9SUHorsepower: 405Blade Type: Semi-UniversalAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$238.76	NA
Operating Cost/Hour:	\$162.29	100
Ripper own.		
Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: \$442.35Total Fleet Cost/Hour: \$442.35**MATERIAL QUANTITIES**Initial Volume: 79,005Swell factor: 1.000Loose volume: 79,005 LCYSource of estimated volume: TR-2, Exh L, topsoil for 59 ac @ 10"

Source of estimated swell

factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feetUnadjusted hourly
production: 2,110.5 LCY/hrMaterials consistency description: Partly consolidated stockpile 1.1

Average push

gradient: -10 %Average site altitude: 7,130 feetMaterial weight: 1,600 lbs/LCYWeight description: Top Soil

Job Condition Correction Factor

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.100	(CAT HB)
Dozing method:	1.200	(SLOT)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.1580

Adjusted unit
production: 2,443.96 LCY/hr
Adjusted fleet
production: **2443.96** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.181/LCY

Total job time: **32.33** Hours
Total job cost: **\$14,300**

TRUCK/LOADER TEAM WORKTask description: Haul topsoil for all areasSite: Table Mountain QuarryPermit Action: 2023 SO UpdatePermit/Job#: M1999004PROJECT IDENTIFICATIONTask #: 021State: ColoradoAbbreviation: NoneDate: 11/8/2023County: FremontFilename: 021User: TC1Agency or organization name: DRMSHOURLY EQUIPMENT COSTShift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 730
-Loader:	CAT 962H
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:	\$108.06	\$46.00	NA	NA	NA	NA
Operating cost/hour:	\$71.88	\$40.72	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:	\$32.54	\$40.71	NA	NA	NA	NA
Unit Subtotals:	\$212.48	\$127.43	NA	NA	NA	NA
Number of Units:	2	1	0	0	0	0
Group Subtotals:	Work: \$552.39		Support: \$0.00		Maint: \$0.00	

Total work team cost/hour: \$552.39MATERIAL QUANTITIESInitial volume: 70,111

CCY

Swell factor: 1.000Loose volume: 70,111

LCY

Source of estimated volume: TR-2, Exh L, pit floor and backfilled areaSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00HOURLY PRODUCTIONTruck Capacity:Truck Payload (weight) Basis:Material weight: 1,600

Pounds/LCY

Description: Top SoilRated Payload: 62,000

Pounds

Payload Capacity: 38.75

LCY

Truck Bed (volume) Basis:

Struck Volume:	17.10	LCY
Heaped Volume:	22.10	LCY
Average Volume:	19.60	LCY
Adjusted Volume:	22.10	LCY

Final Truck Volume Based on Number of Loader Passes: **18.06** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	4.300	LCY (heaped)
Bucket Fill Factor:	1.050	Other - moist loam (100-110%) 1.050
Adjusted Capacity:	4.515	LCY

Job Condition Corrections:

Site Altitude (ft.): 7130 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: 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:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Stockpile:	Conveyor or dozer piled 10 ft. high and up 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.080	minutes
Adjusted Loader Cycle Time:		0.420	minutes
Net Load Time per Truck:		1.360	minutes

Truck Cycle Time:

Truck Exchange Time:	0.60	Minutes	Adjusted for site altitude:	0.600	Minutes
Truck Load Time:	1.360	Minutes	Adjusted for site altitude:	1.360	Minutes
Truck Maneuver and Dump Time:	1.00	Minutes	Adjusted for site altitude:	1.000	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	500.00	-5.00	3.00	-2.00	3064	0.230

Haul Time: **0.230** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	500.00	5.00	3.00	8.00	1903	0.356

Return Time: **0.356** minutesTotal Truck Cycle Time: **3.546** minutes

Loading Tool unit
 Production 552.86 LCY/Hour Adjusted for job efficiency: 458.87 LCY/Hour
 Truck Unit Production
305.58 LCY/Hour Adjusted for job efficiency: 253.63 LCY/Hour
 Optimal No. of Trucks: 2 Truck(s) Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 507.27 LCY/Hour
 Adjusted single truck/loader team production: 458.87 LCY/Hour
 Adjusted multiple truck/loader team production: **458.87** LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: **152.79** HoursUnit cost: \$1.204 /LCY Total job cost: **\$84,400**

Task # 030.1 Highwall Blast to Backfill Volume Estimate

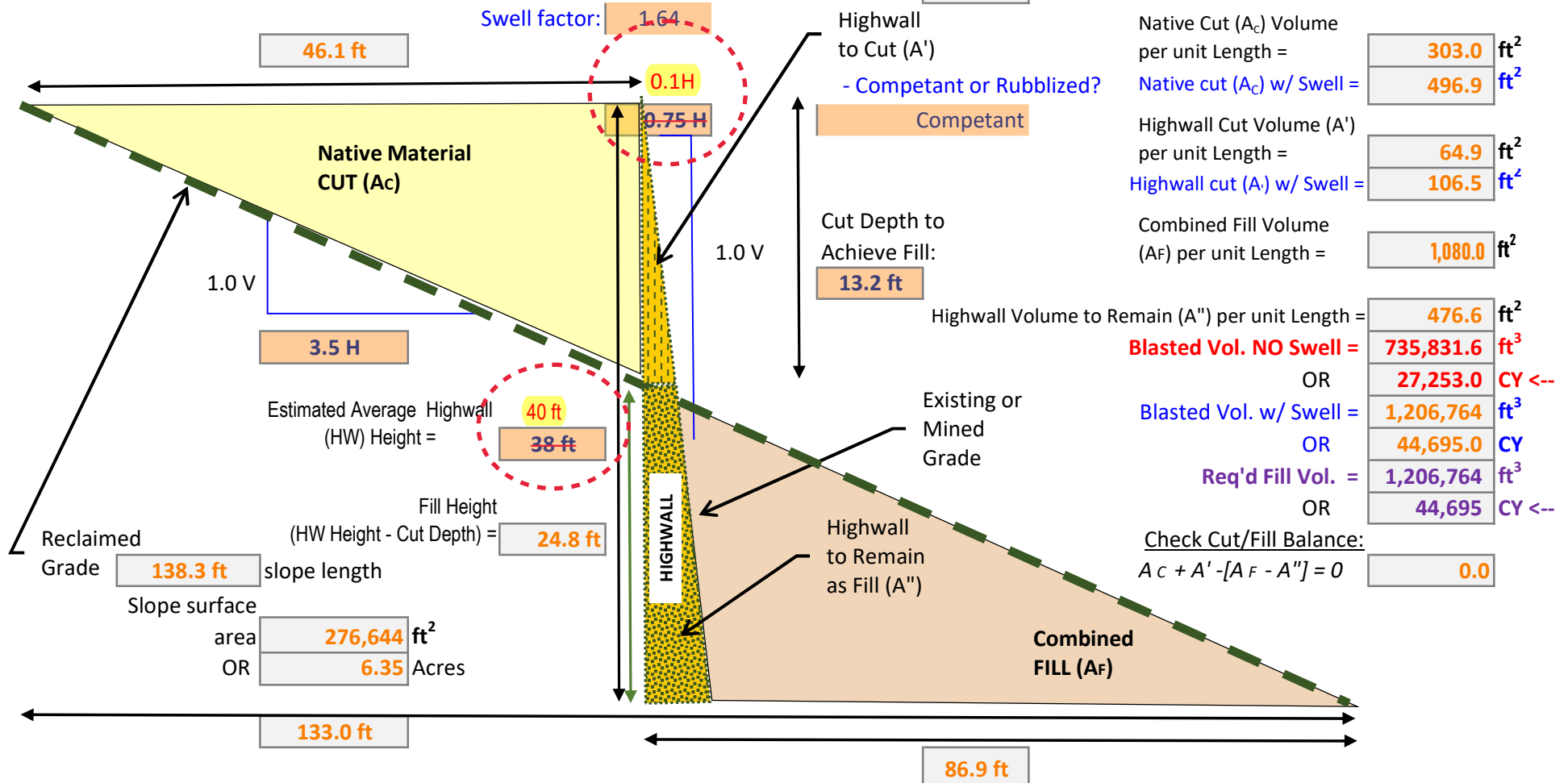
PROJECT: Table Mountain Quarry
 PERMIT No.: M-1999-004
 HIGHWALL LOCATION: Active Highwall

LEGEND

Input

Result

Highwall Length = 2000 ft



HIGHWALL CUT - FILL VOLUME ESTIMATE

REVEGETATION WORKTask description: RevegetationSite: Table Mountain QuarryPermit Action: 2023 SO UpdatePermit/Job#: M1999004PROJECT IDENTIFICATIONTask #: 040State: ColoradoAbbreviation: NoneDate: 11/8/2023County: FremontFilename: 040User: TC1Agency or organization name: DRMSFERTILIZING**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
Weed control spraying (MEANS 31 31 16.13 3100)	\$338.80
Total Tilling Cost/Acre	\$338.80

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Hachita	1.00	16.32	\$15.98
Big Bluestem - Native	4.00	11.94	\$47.27
Little Bluestem - Cimarron	2.00	11.94	\$24.97
Sideoats Grama - Vaughn	4.00	13.13	\$33.50
Pubescent Wheatgrass - Luna	6.00	12.40	\$20.40
Yellow Sweet Clover - Madrid	0.25	1.49	\$0.71
Western Wheatgrass - Arriba	5.00	12.63	\$32.50
Totals Seed Mix	22.25	79.84	\$175.31

Application

Description	Cost /Acre
Broadcast seeding [DMG]	\$267.22
Total Seed Application Cost/Acre	\$267.22

MULCHING and MISCELLANEOUS**Materials**

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

Application

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

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres: 59 Cost /Acre: \$781.33
 Estimated Failure Rate: 25% Cost /Acre*: \$781.33
 *Selected Replanting Work Items: TILLING,SEEDING

Initial Job Cost: \$46,098.47
 Reseeding Job Cost: \$11,524.62
 Total Job Cost: \$57,623
 Job Hours: 50.00

DEMOLITION WORK

Task description: Demo/Haul Quonset Structure

Site: Table Mountain Quarry

Permit Action: 2023 SO Update

Permit/Job#: M1999004

PROJECT IDENTIFICATION

Task #: 050

State: Colorado

Abbreviation: None

Date: 11/8/2023

County: Fremont

Filename: 050

User: TC1

Agency or organization name: DRMS

UNIT COSTS

Location adjustment: 91.50 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Quonset Structure (intact volume)	75'L x 40'W x ~18'H	Demo. only, small or single buildings (single story) - Steel structures	41,489.00	CF	\$0.20	\$8,173.33
Loading Demo'd Quonset Structure (Operator demo'd vol.)	25 CY	Loading only, open areas (unconfined) - Track loader	25.00	CY	\$0.89	\$22.15
Haul Away Quonset Structure	25 CY (2 x 60-mile RT)	Hauling only, per mile, 12-18 CY truck - 30 mph average speed	120.00	MI	\$9.01	\$1,081.50
Demo Quonset Floor	22' x 40' x 8"	Demo. and on-site disposal in existing pit, 8 in. thick - Max. 200 ft. push	880.00	SF	\$1.67	\$1,468.02
Demo Quonset Slab	20' x 30' x 8"	Demo. and on-site disposal in existing pit, 8 in. thick - Max. 200 ft. push	600.00	SF	\$1.67	\$1,000.92
Demo Quonset Footer	16" x 16" x 211'	Demo. and on-site disposal in existing pit, 1.0 ft. x 2 ft. - Max. 200 ft. push	211.00	LF	\$5.00	\$1,055.95
Landfill Fee for Structure	25 CY	Dump fees - Building construction materials.	25.00	CY	\$11.10	\$277.50

Solar Panel

Job Hours: 12.00

Subtotal
(unadjusted): \$13,079.37

Total Cost
(adjusted for location): \$11,967.62

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Mob/Demob Equipment**Site: **Table Mountain Quarry**Permit Action: **2023 SO Update**Permit/Job#: **M1999004****PROJECT IDENTIFICATION**Task #: **060**State: **Colorado**Abbreviation: **None**Date: **11/8/2023**County: **Fremont**Filename: **060**User: **TC1**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:	\$20.26	\$36.04	\$47.05
Operating Cost/Hour:	\$39.51	\$76.08	\$82.85
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$82.29	\$158.17	\$175.95

NON ROADABLE EQUIPMENT:

Machine Description	Weight/ Unit (TONS)	Owner ship Cost/hr/ unit	Haul Rig Cost/hr/unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet	DOT Permit Cost/ fleet
Cat D9T - 9SU	60.01	\$238.76	\$175.95	1	\$414.71	\$175.95	\$250.00
CAT 12M	16.01	\$74.98	\$82.29	1	\$157.27	\$82.29	\$250.00
Cat 623G	41.35	\$252.73	\$158.17	1	\$410.90	\$158.17	\$250.00

Subtotals: **\$982.88** **\$416.41** **\$750.00****ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Drill/Broadcast Seeder with Tractor	\$14.81	1	\$14.81	\$14.81

Subtotals: **\$14.81** **\$14.81**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	CAÑON CITY	
Total one-way travel distance:	25.00	miles
Average Travel Speed:	25.00	mph

Total Non-Roadable Mob/Demob Cost *	\$5,281.46
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	\$29.62
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	1.00	1.00
Return Time (Hours):	1.00	1.00
Loading Time (Hours):	0.25	NA
Unloading Time (Hours):	0.25	NA
Subtotals:	2.50	2.00

JOB TIME AND COST

Total job time:	5.00	Hours
-----------------	------	-------

Total job cost:	\$5,311
-----------------	---------