


**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: Yoder	MINE/PROSPECTING ID#: M-1980-189	MINERAL: Sand and gravel	COUNTY: El Paso
INSPECTION TYPE: Monitoring	INSPECTOR(S): Timothy A. Cazier	INSP. DATE: October 11, 2016	INSP. TIME: 11:30
OPERATOR: Rocky Mountain Materials and Asphalt, Inc.	OPERATOR REPRESENTATIVE: Dave Bieber & Rusty Cochrane	TYPE OF OPERATION: 110c - Construction Limited Impact	
REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: Complete Bond	BOND AMOUNT: \$18,955.00	
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None	
WEATHER: Cloudy	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: November 8, 2017	

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: Financial Warranty

PROBLEM/POSSIBLE VIOLATION: Problem: 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 submit adequate financial warranty, as determined by the Division. 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: 1/08/18

OBSERVATIONS

This inspection was conducted as part of the regular monitoring program. The Permittee, Rocky Mountain Materials and Asphalt (RMMA) was represented by Messrs. Dave Bieber and Rusty Cochrane during the inspection. The Yoder Pit is accessed from Yoder Road and is located approximately 9 miles HWY 94 and the town of Yoder. This is a 110c sand and gravel mine. It was not operating at the time of the inspection.

Availability of Records: Annual fees are paid through October 2017. The previous inspection was on March 14, 2012. The approved post-mine land use is rangeland. There are no open infractions.

Backfilling and Grading: Sufficient backfill material appeared to be available to achieve the required 3H:1V final slopes.

Excess Spoil and Dev. Waste: No overburden piles were observed.

Financial Warranty: The \$18,955 bond held by the Division has not been updated since the permit transfer to RMMA in 2007. **The current bond is considered inadequate and is cited as a problem on page 1 of this report.** A revised bond estimate for a total of \$28,820 is attached. A surety increase letter will be sent within a few days of this report.

Fish and Wildlife: No impacts to fish or wildlife were observed.

Hydrologic Balance: Some stormwater was observed in the pit. It did not appear to be exposed groundwater.

Gen. Compliance with Mine Plan: The operation appeared to be in compliance with the approved mine plan. Google Earth was used to measure the disturbed area, which was estimated to be 7 acres, more or less. Highwalls were estimated to vary between 20 and 30 feet in height and were showing signs of erosion (see **Photo 1**). Site representatives indicated they are looking to transfer the mine reclamation permit to the landowner, or complete reclamation.

Off-site Damage: The operation was confined to the permit boundary, based on the boundary marker posts.

Roads: Haul and access roads did not appear to be a source of sediment that could be tracked offsite.

Reclamation Success: Reclamation efforts had begun on the east side. The east side highwalls had been graded to approximately 3H:1V. The east side had been topsoiled and seeded as well. Site representatives indicated slope regrading would mostly be accomplished by pushing material down from the crest of the highwalls, but admit some material may need to be pushed up from the bottom.

Revegetation: Some revegetation had been initiated on the east side of the pit (see **Photo 2**). No noxious weeds were observed.

Sediment Control: Erosion rills and gullies were observed on most of the sloped area (see **Photos 3, 4 and 5**). Best management practices (BMPs) for erosion control should be implanted.

Support Facilities On-site: No equipment was observed on site.

Signs and Markers: The permit sign was properly posted (see **Photo 6**) and wooden post boundary markers

were observed to delineate the permit boundary (see **Photo 7**).

Permit Stipulations: There are no permit stipulations.

Storm Water MGT Plan: Site representatives indicated a stormwater management plan is not required for this site. No oil or fuel spills observed. Representatives stated stormwater drains to the pit and infiltrates.

Topsoil: Topsoil was observed stockpiled on the north side at the crest of the highwall (see **Photo 8**).

Please contact Tim Cazier (303)866-3567 ext. 8169 or email at tim.cazier@state.co.us if you have any questions regarding this report.

PHOTOGRAPHS



Photo 1. Highwalls estimated to vary between 20 and 30 feet in height (looking north).

PHOTOGRAPHS (cont.)



Photo 2. Revegetation on the east side of the pit (looking SE).



Photo 3. Erosion rills and gullies (1 of 3 - NW corner).

PHOTOGRAPHS (cont.)



Photo 4. Erosion rills and gullies (2 of 3 – North central, looking north).



Photo 5. Erosion rills and gullies (3 of 3 - NE corner, adjacent to haul road).

PHOTOGRAPHS (cont.)



Photo 6. Permit sign (at entrance).



Photo 7. Typical wood post boundary marker (looking south).

PHOTOGRAPHS (cont.)



Photo 8. Topsoil stockpile on north end (looking SW).

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----- PB	(RD) ROADS----- <u>Y</u>
(HB) HYDROLOGIC BALANCE----- <u>Y</u>	(BG) BACKFILL & GRADING----- <u>Y</u>	(EX) EXPLOSIVES----- <u>NA</u>
(PW) PROCESSING WASTE/TAILING---- <u>NA</u>	(SF) PROCESSING FACILITIES----- <u>NA</u>	(TS) TOPSOIL----- <u>N</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-- <u>Y</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>Y</u>	(SC) EROSION/SEDIMENTATION--- <u>Y</u>	(ST) STIPULATIONS----- <u>N</u>
(AT) ACID OR TOXIC MATERIALS----- <u>NA</u>	(OD) OFF-SITE DAMAGE----- <u>Y</u>	

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

Inspection Contact Address

Mr. David Bieber
Rocky Mountain Materials and Asphalt, Inc.
C/O Martin Marietta Materials, Inc.
1627 Cole Boulevard, Suite 200
Lakewood, CO 80401

Enclosure

EC: DRMS file

COST SUMMARY WORK

Task description: Cost Summary

Site: Yoder

Permit Action: 2017 Update

Permit/Job#: M1980189

PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 11/6/2017

County: El Paso

Filename: M189-000

User: TC1

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Backfill and Grading	DOZER	1	18.54	\$3,858.00
002	Apply 6 inches of topsoil	DOZER	1	21.87	\$4,551.00
003	Reveg 7 acres	REVEGE	1	3.50	\$11,406.00
004	Mob / Demob	MOBILIZE	1	5.22	\$2,453.00
0A3	Yucca Seed (\$60/acre) @ 3lbs (PLS)/acre for 7 acres	NA	7	0.00	\$420.00
<u>SUBTOTALS:</u>				49.13	\$22,688

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02

Total = \$458.30

Performance bond: 1.05

Total = \$238.22

Job superintendent: 24.57

Total = \$1,794.47

Profit: 10.00

Total = \$2,268.80

TOTAL O & P = \$4,759.79

CONTRACT AMOUNT (direct + O & P) = \$27,447.79

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): 0.00

Total = 0.00

Engineering work and/or contract/bid preparation: 0.00

Total = \$0.00

Reclamation management and/or administration: 5.00

\$1,372.39

CONTINGENCY: 0.00

Total = \$0.00

TOTAL INDIRECT COST = \$6,132.18

TOTAL BOND AMOUNT (direct + indirect) = \$28,820.18

TOTAL BOND AMOUNT – ROUNDED (direct + indirect) = \$28,820.00

BULLDOZER WORKTask description: **Backfill and Grading**Site: **Yoder** Permit Action: **2017 Update** Permit/Job#: **M1980189****PROJECT IDENTIFICATION**

Task #: **001** State: **Colorado** Abbreviation: **None**
 Date: **11/6/2017** County: **El Paso** Filename: **M189-001**
 User: **TC1**

Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**

Basic Machine: **Cat D8T - 8SU**
 Horsepower: **310**
 Blade Type: **Semi-Universal**
 Attachment: **1-shank ripper**
 Shift Basis: **1 per day**
 Data Source: **(CRG)**

Cost Breakdown:

		<u>Utilization %</u>
Ownership Cost/Hour:	\$83.81	NA
Operating Cost/Hour:	\$66.17	100
Ripper own. Cost/Hour:	\$10.94	NA
Ripper op. Cost/Hour:	\$6.62	100
Operator Cost/Hour:	\$40.52	NA

Total unit Cost/Hour: **\$208.06**
 Total Fleet Cost/Hour: **\$208.06**

MATERIAL QUANTITIES

Initial Volume: **4,787**
 Swell factor: **1.125**
 Loose volume: **5,385 LCY**

Source of estimated volume: **Exhibit L**
 Source of estimated swell factor: **Cat Handbook**

HOURLY PRODUCTION

Average push distance: **250 feet**
 Unadjusted hourly production: **377.8 LCY/hr**

Materials consistency description: **Consolidated stockpile 1.0**

Average push gradient: **-20 %**
 Average site altitude: **5,300 feet**

Material weight: **2,550 lbs/LCY**Weight description: **Earth - Dry packed****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.600	(POOR)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.200	(S-BY-S)
Visibility:	0.800	(POOR)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.426	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4919

Adjusted unit production: 185.84 LCY/hr

Adjusted fleet production: **185.84** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$1.120/LCY

Total job time: **28.98** Hours

Total job cost: **\$6,029**

BULLDOZER WORKTask description: Apply 6 inches of topsoilSite: Yoder Permit Action: 2017 Update Permit/Job#: M1980189**PROJECT IDENTIFICATION**

Task #: 002 State: Colorado Abbreviation: None
 Date: 11/6/2017 County: El Paso Filename: M189-002
 User: TC1

Agency or organization name: DRMS**HOURLY EQUIPMENT COST**

Basic Machine: Cat D8T - 8SU
 Horsepower: 310
 Blade Type: Semi-Universal
 Attachment: 1-shank ripper
 Shift Basis: 1 per day
 Data Source: (CRG)

Cost Breakdown:

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$83.81</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$66.17</u>	<u>100</u>
Ripper own. Cost/Hour:	<u>\$10.94</u>	<u>NA</u>
Ripper op. Cost/Hour:	<u>\$6.62</u>	<u>100</u>
Operator Cost/Hour:	<u>\$40.52</u>	<u>NA</u>

Total unit Cost/Hour: \$208.06
 Total Fleet Cost/Hour: **\$208.06**

MATERIAL QUANTITIES

Initial Volume: 5,646
 Swell factor: 1.125
 Loose volume: **6,352 LCY**

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

HOURLY PRODUCTION

Average push distance: 250 feet
 Unadjusted hourly production: 377.8 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: -20 %
 Average site altitude: 5,300 feet

Material weight: 2,550 lbs/LCYWeight description: Earth - Dry packed**Job Condition Correction Factor**

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

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.426	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.7687

Adjusted unit production: 290.41 LCY/hr

Adjusted fleet production: **290.41** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.716/LCY

Total job time: **21.87** Hours

Total job cost: **\$4,551**

REVEGETATION WORKTask description: Reveg 7 acresSite: YoderPermit Action: 2017 UpdatePermit/Job#: M1980189**PROJECT IDENTIFICATION**Task #: 003State: ColoradoAbbreviation: NoneDate: 11/6/2017County: El PasoFilename: M189-003User: TC1Agency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Ammonium nitrate, 33-0-0	10.00	pound	\$0.34	\$3.40
Superphosphate, 0-20-0 with 12% S	40.00	pound	\$0.24	\$9.60
			Total Fertilizer Materials Cost/Acre	\$13.00

Application

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	\$144.62
Total Fertilizer Application Cost/Acre	\$144.62

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$106.29
Total Tilling Cost/Acre	\$106.29

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Hachita	2.70	44.07	\$43.93
Sideoats Grama - Butte	2.30	7.55	\$22.24
Western Wheatgrass - Arriba	1.70	4.29	\$13.74
Totals Seed Mix	6.70	55.91	\$79.91

Application

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

Total Seed Application Cost/Acre	\$232.00
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MULCHING and MISCELLANEOUS**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$261.00	\$522.00
Total Mulch Materials Cost/Acre				\$522.00

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$66.02
Total Mulch Application Cost/Acre	\$66.02

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:	7	Cost /Acre:	\$1,163.84
Estimated Failure Rate:	40%	Cost /Acre*:	\$1,163.84
*Selected Replanting Work Items:	FERTILIZING,TILLING,SEEDING,MULCHING		
Initial Job Cost:	\$8,146.88		
Reseeding Job Cost:	\$3,258.75		
Total Job Cost:	\$11,406		
Job Hours:	3.50		

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Mob / Demob**Site: **Yoder**Permit Action: **2017 Update**Permit/Job#: **M1980189****PROJECT IDENTIFICATION**Task #: **004**State: **Colorado**Abbreviation: **None**Date: **11/6/2017**County: **El Paso**Filename: **M189-004**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:	\$16.63	\$18.37	\$22.33
Operating Cost/Hour:	\$44.38	\$46.13	\$50.07
Operator Cost/Hour:	\$27.66	\$27.66	\$27.66
Helper Cost/Hour:	\$0.00	\$25.39	\$25.39
Total Unit Cost/Hour:	\$88.67	\$117.55	\$125.45

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 D8T - 8SU	52.21	\$94.75	\$125.45	1	\$220.20	\$125.45	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$12.22	\$88.67	1	\$100.89	\$88.67	\$250.00
Subtotals:					\$321.09	\$214.12	\$500.00

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Subtotals:			\$0.00	\$0.00

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>FALCON</u>	
Total one-way travel distance:	<u>37.00</u>	miles
Average Travel Speed:	<u>35.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$2,452.68</u>
'* two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$0.00</u>
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>1.06</u>	<u>1.06</u>
Return Time (Hours):	<u>1.06</u>	<u>1.06</u>
Loading Time (Hours):	<u>0.25</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.25</u>	<u>NA</u>
Subtotals:	<u>2.61</u>	<u>2.11</u>

JOB TIME AND COST

Total job time: 5.23 Hours

Total job cost: \$2,453