



STATE OF
COLORADO

Simmons - DNR, Leigh <leigh.simmons@state.co.us>

M1980003, McNulty Cinder Pit, June 2022 Inspection Report

Simmons - DNR, Leigh <leigh.simmons@state.co.us>

Thu, Sep 8, 2022 at 1:24 PM

To: wendy@quartermcircle8.com

Mrs. McNulty,

Please find attached the report of the June 16 inspection of your cinder pit. I apologize for the delay.

As you'll see, I have updated the Reclamation Cost Estimate. Please review the report and the estimate and let me know if you have comments or questions.

Leigh Simmons
Environmental Protection Specialist



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

P 303.866.3567 x 8121 | C 720.220.1180 | F 303.832.8106

1313 Sherman Street, Room 215, Denver, CO 80203

leigh.simmons@state.co.us | <https://drms.colorado.gov>



INSP-REPORTMWP_M1980003_LDS_08302022021145.pdf


5250K



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: McNulty Cinder Pit	MINE/PROSPECTING ID#: M-1980-003	MINERAL: Sand and gravel and materials (ash, cinder)	COUNTY: Eagle
INSPECTION TYPE: Monitoring	INSPECTOR(S): Leigh Simmons	INSP. DATE: June 16, 2022	INSP. TIME: 12:00
OPERATOR: Quarter Circle 8 LLLPdba Cattle Creek Cinde	OPERATOR REPRESENTATIVE: Sarah McNulty	TYPE OF OPERATION: 110c - Construction Limited Impact	

REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: Complete Bond	BOND AMOUNT: \$23,000.00
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None
WEATHER: Clear	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: August 30, 2022

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: 9/30/22

OBSERVATIONS

This inspection was conducted as part of the normal monitoring program established by the Colorado Division of Reclamation, Mining and Safety (Division). The inspection was conducted by Leigh Simmons of the Division, and accompanied by Sarah McNulty of Quarter Circle 8 LLLP (permittee and operator).

The mine affects less than 10 acres making it a "Limited Impact Operation", and volcanic cinders are considered a construction material, so the 110c type permit is appropriate.

The Division currently holds a financial warranty of \$23,000 for the reclamation of the site, based on a calculation made in 2012 of the estimated cost to complete the reclamation plan. The required financial warranty was recalculated following the inspection as is discussed below.

The weather during the inspection was clear and dry. Access to the site was through a locked gate on Upper Cattle Creek Road (County Road 122), approximately 10 miles north east of Carbondale. The mine ID sign was posted at the gate.

For a 110c operation the permit boundary and affected area boundary are considered equivalent. Vertices of the boundary of the site were marked with posts.

Financial Warranty:

The RCE has been updated with this inspection, using the same tasks as the 2012 estimate but with current unit costs. The new calculation shows that the estimated cost to reclaim the site has increased to \$36,540. The detailed calculation is attached to this inspection report for your review and comment. Please provide any comments by 9/30/2022, after which the Division will initiate a Surety Increase permitting action.

Gen. Compliance With Mine Plan:

Various stockpiles of material were observed within an approximately 5.6 acre footprint. Some offsite material was observed, as was discussed in the previous inspection report.

Revegetation:

The site was adequately vegetated, however some cheatgrass (*Bromus tectorum*) was noted, particularly on the high ground at the north east corner of the site. Cheatgrass is a C-list noxious weed in the state of Colorado and in Eagle county. The area should be monitored to see that it doesn't spread further and management of the vegetation at the site to promote more desirable species should be considered. A link to a cheatgrass factsheet is provided:

<https://drive.google.com/file/d/1rzVSgQmhdYerHekDpfAvUs4x34BaPoog/view>

Topsoil:

Topsoil had been stockpiled and marked.

PHOTOGRAPHS



Figure 1: Mine entrance



Figure 2: Western edge of permit area, looking north



Figure 3: North western corner of permit area, looking south east



Figure 4: North east corner of the permit area, looking south west.



Figure 5: Stockpiled topsoil



Figure 6: South east corner of the permit area, looking north. Imported material visible in foreground.



Figure 7: South east corner of the permit area, looking west. Imported material visible in foreground.



Figure 8: Cinder pit

GENERAL INSPECTION TOPICS

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

(AR) RECORDS----- <u>N</u>	(FN) FINANCIAL WARRANTY----- <u>PB</u>	(RD) ROADS----- <u>Y</u>
(HB) HYDROLOGIC BALANCE----- <u>Y</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>N</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>N</u>	(SC) EROSION/SEDIMENTATION--- <u>N</u>	(ST) STIPULATIONS----- <u>N</u>
(AT) ACID OR TOXIC MATERIALS----- <u>N</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

Sarah McNulty
Quarter Circle 8 LLLPdba Cattle Creek Cinders LLC
7747 CR 100
Carbondale, CO 81623

Enclosure: Appendix A – Reclamation Cost Estimate

Appendix A – Reclamation Cost Estimate

COST SUMMARY WORK

Task description: Site reclamation

Site: McNulty Cinder Pit Permit Action: June 16, 2022
Inspection

Permit/Job#: M1980003

PROJECT IDENTIFICATION

Task #: 000 State: Colorado Abbreviation: None
Date: 8/26/2022 County: Eagle Filename: M003-000
User: LDS

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
01a	HW slope reduction	DOZER	1	9.26	\$2,441
02a	Rip pit floor	RIPPER	1	12.12	\$3,447
03a	Spread growth medium	DOZER	1	6.03	\$1,592
04a	Revegetate disturbed area	REVEGE	1	10.00	\$18,218
05a	Mobilize reclamation crew and equipment	MOBILIZE	1	4.28	\$3,274
<u>SUBTOTALS:</u>				41.69	\$28,972

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	\$585
Performance bond:	1.05	Total =	\$304
Job superintendent:	20.85	Total =	\$1,566
Profit:	10.00	Total =	\$2,897

TOTAL O & P = \$5,353

CONTRACT AMOUNT (direct + O & P) = \$34,325

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	<u>\$500</u>	Total =	<u>\$500</u>
Engineering work and/or contract/bid preparation:	<u>0.00</u>	Total =	<u>\$0</u>
Reclamation management and/or administration:	<u>5.00</u>		<u>\$1,716</u>

CONTINGENCY: 0.00

Total = \$0

TOTAL INDIRECT COST = \$7,569

TOTAL BOND AMOUNT (direct + indirect) = \$36,541

BULLDOZER WORKTask description: **HW slope reduction**

Site: **McNulty Cinder Pit** Permit Action: **June 16, 2022** Permit/Job#: **M1980003**
 Inspection

PROJECT IDENTIFICATION

Task #: **01A** State: **Colorado** Abbreviation: **None**
 Date: **8/26/2022** County: **Eagle** Filename: **003-01a**
 User: **LDS**

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

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

Cost Breakdown:

		<u>Utilization %</u>
Ownership Cost/Hour:	\$124.85	NA
Operating Cost/Hour:	\$97.63	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: **\$263.78**
 Total Fleet Cost/Hour: **\$263.78**

MATERIAL QUANTITIES

Initial Volume: **5,185**
 Swell factor: **1.245**
 Loose volume: **6,455 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: **1,400.0 LCY/hr**

Materials consistency description: **Compacted fill or embankment 0.9**

Average push gradient: **-15 %**
 Average site altitude: **7,400 feet**

Material weight: **3,300 lbs/LCY**Weight description: **Basalt****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(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:	1.329	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.697	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4982

Adjusted unit production: 697.48 LCY/hr

Adjusted fleet production: **697.48** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.378/LCY

Total job time: **9.26** Hours

Total job cost: **\$2,441**

BULLDOZER RIPPING WORK

Task description: Rip pit floor

Site: McNulty Cinder Pit Permit Action: June 16, 2022 Inspection Permit/Job#: M1980003

PROJECT IDENTIFICATION

Task #: 02A State: Colorado Abbreviation: None
Date: 8/26/2022 County: Eagle Filename: 003-02a
User: LDS

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D8T - 8SU Horsepower: 310
Ripper Attachment: 3-Shank Ripper Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$124.85	NA
Operating Cost/Hour:	\$97.63	100
Ripper Ownership Cost/Hour:	\$13.10	NA
Ripper Operating Cost/Hour:	\$7.30	100
Operator Cost/Hour:	\$41.30	NA
Total Unit Cost/Hour:	\$284.18	
Total Fleet Cost/Hour:	\$284.18	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 6.00 acres Rip Depth (ft): 2.00 Volume: 19,360 BCY or CCY

Source of estimated quantity: Inspection observations

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth: 2.56 feet/pass
Average Ripping Width: 7.08 feet/pass
Average Ripping Length: 50.00 feet/pass
Average Dozer Speed: 88.00 feet/minute
Average Maneuver Time: 0.25 minutes/pass
Production per unit area: 0.596 acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.596 Acres/hr
Site Altitude: 7,400 feet
Altitude Adj: 1.00 (CAT HB)
Job Efficiency: 0.83 (1 shift/day)
Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.49 Acres/hr
Adjusted Hourly Fleet Production: **0.49** Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: **12.13** Hours

Unit cost: \$574.511 Per acre Total job cost: **\$3,447**

BULLDOZER WORKTask description: Spread growth medium

Site: McNulty Cinder Pit Permit Action: June 16, 2022 Permit/Job#: M1980003
Inspection

PROJECT IDENTIFICATION

Task #: 03A State: Colorado Abbreviation: None
 Date: 8/26/2022 County: Eagle Filename: 003-03a
 User: LDS

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

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

Cost Breakdown:

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$124.85</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$97.63</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: \$263.78
 Total Fleet Cost/Hour: \$263.78

MATERIAL QUANTITIES

Initial Volume: 7,260
 Swell factor: 1.000
 Loose volume: 7,260 LCY

Source of estimated volume: 9 ac. @ 6" depth
 Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 50 feet
 Unadjusted hourly production: 1,400.0 LCY/hr

Materials consistency description: Loose stockpile 1.2

Average push gradient: 0 %
 Average site altitude: 7,400 feet

Material weight: 1,600 lbs/LCYWeight description: Top Soil**Job Condition Correction Factor**

		<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:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.8593

Adjusted unit production: 1,203.02 LCY/hr

Adjusted fleet production: **1203.02** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.219/LCY

Total job time: **6.03** Hours

Total job cost: **\$1,592**

REVEGETATION WORKTask description: Revegetate disturbed area

Site: McNulty Cinder Pit Permit Action: June 16, 2022 Permit/Job#: M1980003
Inspection

PROJECT IDENTIFICATION

Task #: 04A State: Colorado Abbreviation: None
 Date: 8/26/2022 County: Eagle Filename: 003-04a
 User: LDS

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
Chisel plowing {DMG}	\$98.43
Weed control spraying (MEANS 31 31 16.13 3100)	\$290.40
Total Tilling Cost/Acre	\$388.83

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Native	2.50	8.09	\$16.25
Sand Dropseed	0.05	5.97	\$0.49
Thickspike Wheatgrass - Critana	2.50	8.84	\$17.19
Rabbitbrush, Rubber	0.50	7.45	\$32.15
Saltbush, Four Wing	0.50	0.69	\$6.25
Sumac, Skunkbrush	0.50	0.23	\$10.50
		31.27	\$82.82

Totals Seed Mix	6.55		
------------------------	------	--	--

Application

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

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$421.36	\$842.72
Total Mulch Materials Cost/Acre				\$842.72

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$73.00
Total Mulch Application Cost/Acre	\$73.00

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:	9	Cost /Acre:	\$1,619.37
Estimated Failure Rate:	25%	Cost /Acre*:	\$1,619.37
*Selected Replanting Work Items:	TILLING,SEEDING,MULCHING		

Initial Job Cost:	\$14,574.33
Reseeding Job Cost:	\$3,643.58
Total Job Cost:	\$18,218
Job Hours:	10.00

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Mobilize reclamation crew and equipment**

Site: **McNulty Cinder Pit** Permit Action: **June 16, 2022** Inspection
 Permit/Job#: **M1980003**

PROJECT IDENTIFICATION

Task #: **05A** State: **Colorado** Abbreviation: **None**
 Date: **8/26/2022** County: **Eagle** Filename: **003-05a**
 User: **LDS**

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:	\$15.25	\$23.06	\$37.58
Operating Cost/Hour:	\$25.26	\$30.83	\$51.41
Operator Cost/Hour:	\$27.71	\$27.71	\$27.71
Helper Cost/Hour:	\$0.00	\$20.22	\$20.22
Total Unit Cost/Hour:	\$68.22	\$101.82	\$136.92

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	47.71	\$124.85	\$101.82	1	\$226.67	\$101.82	\$250.00
CAT 972H	28.00	\$53.96	\$101.82	1	\$155.78	\$101.82	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$6.25	\$68.22	1	\$74.47	\$68.22	\$250.00
Subtotals:					\$456.92	\$271.86	\$750.00

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 1 T. Crew	\$24.30	1	\$24.30	\$24.30
Subtotals:			\$24.30	\$24.30

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>GLENWOOD SPRINGS</u>	
Total one-way travel distance:	<u>20.00</u>	miles
Average Travel Speed:	<u>35.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$3,246.73</u>
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$27.77</u>
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>0.57</u>	<u>0.57</u>
Return Time (Hours):	<u>0.57</u>	<u>0.57</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>2.14</u>	<u>1.14</u>

JOB TIME AND COST

Total job time: 4.29 Hours

Total job cost: \$3,274