

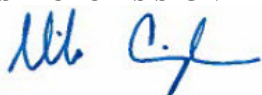
**COLORADO**Division of Reclamation,
Mining and Safety

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: Bottomless Pit	MINE/PROSPECTING ID#: M-2001-068	MINERAL: Gravel and sand	COUNTY: Las Animas
INSPECTION TYPE: Monitoring	INSPECTOR(S): Michael A. Cunningham	INSP. DATE: January 26, 2017	INSP. TIME: 13:00
OPERATOR: Tamrock Gravel LLC	OPERATOR REPRESENTATIVE: Brent Tambureli	TYPE OF OPERATION: 112c - Construction Regular Operation	

REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: Complete Bond	BOND AMOUNT: \$41,063.00
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None
WEATHER: Clear	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: February 15, 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: Gen. Compliance With Mine Plan**PROBLEM/POSSIBLE VIOLATION:** Problem: Rule 1.13.5 states, if an Operator temporarily ceases production of the mining operation for one hundred eighty (180) days or more, the Operator must file a Notice of Temporary Cessation in writing to the Office.**CORRECTIVE ACTIONS:** The Division recommends the Operator file for Temporary Cessation. The start date of the initial 5 year Temporary Cessation period is retroactive to the last date the pit was active. If that date is more than 5 years ago, the operator is required ask the Board for a 5 year extension to the Temporary Cessation period (per rule 1.13.5 (3) and 1.13.8 (b) or begin reclamation.**CORRECTIVE ACTION DUE DATE:** 3/15/17

OBSERVATIONS

The inspection was conducted by Michael Cunningham of the Division of Reclamation, Mining and Safety (Division). Brent Tamburelli was present on behalf of Tamrock Gravel LLC. The Bottomless Pit is located approximately 9 miles northeast of Trinidad, Colorado in Las Animas County. The site operates under a 112 Construction Materials Reclamation Permit. The permit area is 327 acres and the designated affected area is 100 acres. The post-mining land use is rangeland.

Financial Warranty:

The Division holds a financial warranty in the amount of \$41,063.00. The financial warranty amount is based on a maximum allowed disturbance of 10 acres, which includes areas where active mining is occurring as well as processing areas and haul roads. The financial warranty was structured so that the 10 acres of disturbance could float through the designated affected area. The Operator was to limit the amount of disturbance by performing concurrent reclamation. The Division reviewed Google Earth aerial images of the site and determined the Operator has affected 42 acres of land. The 42 acres of disturbance are comprised of active mining areas, stockpile and equipment storage areas and partially reclaimed areas.

As required by Rule 4.2.1(1), all financial warranties shall be set and maintained at a level which reflects the actual current cost of fulfilling the requirements of the Reclamation Plan. The Division recalculated the financial warranty (copy enclosed) as a part of the monitoring inspection and determined the amount required to fulfill the requirements of the Reclamation Plan is \$74,640.00. The Operator is encouraged to review the enclosed financial warranty calculation and notify the Division of any errors within two weeks of the mailing date of this inspection report. Pursuant to Rule 4.2.1(2), in the event the Division determines that the financial warranty is insufficient to perform reclamation, the Permittee shall have up to 60 days to post the additional financial warranty from the date of written notice from the Division. The Division will send written notice of the financial warranty increase two weeks from the mailing date of this inspection report.

Gen. Compliance With Mine Plan:

No mining activity was occurring during the inspection. According to the Annual Report filed on August 30, 2016, it has been over a year since mining occurred at the site. Pursuant to Rule 1.13.5, if the Operator plans to, or does, temporarily cease production of the mining operation for 180 days or more, the Operator must file a Notice of Temporary Cessation. The failure to place the site into Temporary Cessation has been cited as a problem and will require corrective action; please see the first page of this report for additional details.

The designated affected area of the Bottomless Pit is divided into 9 Phases. The 9 Phases comprise the 100 acres of affected area. Phase 1 has been fully reclaimed and has established vegetation. Phases 2-5 are currently affected and require various degrees of reclamation. Phase 2 has been graded and topsoil has been replaced. However, there is little to no vegetative growth within Phase 2 and it will be necessary to reseed this phase. Phase 3 is currently being utilized for equipment and stockpile storage and grading is complete in this phase. Active mining is occurring in portions of Phase 4 and 5, reclamation in these phases will require minor grading, topsoil replacement and revegetation.

Signs and Markers:

The permit sign was posted at the site entrance and the boundary markers were in place as required by Rule 3.1.12(1) and (2).

Topsoil:

Topsoil has been salvaged and stockpiled along the perimeter of the affected area. The topsoil stockpiles were stable and did not show any signs of erosion.

PHOTOGRAPHS



1. Active mining area, Phase 4.



2. Active mining area, Phase 5.



3. Topsoil stockpile.



4. Product stockpiles, Phase 3.



5. Product stockpiles, Phase 2.



6. Graded pit floor.

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>N</u>	(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>N</u>	(TS) TOPSOIL----- <u>Y</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>PB</u>	(FW) FISH & WILDLIFE----- <u>Y</u>	(RV) REVEGETATION---- <u>N</u>
(SM) SIGNS AND MARKERS----- <u>Y</u>	(SP) STORM WATER MGT PLAN---- <u>N</u>	(CI) COMPLETE INSP---- <u>Y</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>N</u>	(SC) EROSION/SEDIMENTATION--- <u>N</u>	(RS) RECL PLAN/COMP-- <u>Y</u>
(AT) ACID OR TOXIC MATERIALS----- <u>NA</u>	(OD) OFF-SITE DAMAGE----- <u>N</u>	(ST) STIPULATIONS----- <u>NA</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

Brent Tambureli
Tamrock Gravel LLC
137 Plum Street
Trinidad, CO 81082

Enclosures (2)

CC: Wally Erickson, DRMS

COST SUMMARY WORK

Task description: Cost Summary

Site: Bottomless Pit

Permit Action: 2017 Bond Calculation

Permit/Job#: M2001068

PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 2/15/2017

County: Las Animas

Filename: M068-000

User: MAC

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Rough grading affected areas	DOZER	1	27.04	\$5,411.00
002	Replacing topsoil	DOZER	1	54.89	\$10,985.00
003	Revegetating disturbed areas	REVEGE	1	0.00	\$44,483.00
004	Equipment Mobilization/Demobilization	MOBILIZE	1	3.33	\$1,988.00
<u>SUBTOTALS:</u>				85.26	\$62,867

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02

Total = \$1,269.91

Performance bond: 1.05

Total = \$660.10

Job superintendent: 0.00

Total = \$0.00

Profit: 10.00

Total = \$6,286.70

TOTAL O & P = \$8,216.71

CONTRACT AMOUNT (direct + O & P) = \$71,083.71

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

\$3,554.19

CONTINGENCY: 0.00

Total = \$0.00

TOTAL INDIRECT COST = \$11,770.90

TOTAL BOND AMOUNT (direct + indirect) = \$74,637.90

TOTAL BOND AMOUNT (rounded up) = \$74,640.00

BULLDOZER WORKTask description: Rough grading affected areasSite: Bottomless PitPermit Action: 2017 Bond CalculationPermit/Job#: M2001068**PROJECT IDENTIFICATION**Task #: 001State: ColoradoAbbreviation: NoneDate: 2/15/2017County: Las AnimasFilename: M068-001User: MACAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D8T - 8SUHorsepower: 310Blade Type: Semi-UniversalAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$82.01</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$79.23</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>\$38.89</u>	<u>NA</u>

Total unit Cost/Hour: \$200.13Total Fleet Cost/Hour: \$200.13**MATERIAL QUANTITIES**Initial Volume: 4,416Swell factor: 1.000Loose volume: 4,416 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 250 feetUnadjusted hourly production: 377.8 LCY/hrMaterials consistency description: Consolidated stockpile 1.0Average push gradient: 0 %Average site altitude: 5,900 feetMaterial weight: 2,650 lbs/LCYWeight description: Decomposed rock - 25% Rock, 75% Earth**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>1.000</u>	<u>(GEN.)</u>
Visibility:	<u>1.000</u>	<u>(AVG.)</u>

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4323

Adjusted unit production: 163.32 LCY/hr

Adjusted fleet production: 163.32 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$1.225/LCY

Total job time: 27.04 Hours

Total job cost: \$5,411

BULLDOZER WORKTask description: Replacing topsoilSite: Bottomless PitPermit Action: 2017 Bond CalculationPermit/Job#: M2001068**PROJECT IDENTIFICATION**Task #: 002State: ColoradoAbbreviation: NoneDate: 2/15/2017County: Las AnimasFilename: M068-002User: MACAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D8T - 8SUHorsepower: 310Blade Type: Semi-UniversalAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$82.01</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$79.23</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>\$38.89</u>	<u>NA</u>

Total unit Cost/Hour: \$200.13Total Fleet Cost/Hour: \$200.13**MATERIAL QUANTITIES**Initial Volume: 11,000Swell factor: 1.215Loose volume: 13,365 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 250 feetUnadjusted hourly production: 377.8 LCY/hrMaterials consistency description: Compacted fill or embankment 0.9Average push gradient: 0 %Average site altitude: 5,900 feetMaterial 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>0.900</u>	<u>(CAT HB))</u>
Dozing method:	<u>1.000</u>	<u>(GEN.)</u>
Visibility:	<u>1.000</u>	<u>(AVG.)</u>

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.6445

Adjusted unit production: 243.49 LCY/hr

Adjusted fleet production: 243.49 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.822/LCY

Total job time: 54.89 Hours

Total job cost: \$10,985

REVEGETATION WORKTask description: Revegetating disturbed areasSite: Bottomless PitPermit Action: 2017 Bond CalculationPermit/Job#: M2001068**PROJECT IDENTIFICATION**Task #: 003State: ColoradoAbbreviation: NoneDate: 2/15/2017County: Las AnimasFilename: M068-003User: MACAgency or organization name: DRMS**FERTILIZING****Materials**

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

Application

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

TILLING

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

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Hachita	3.00	48.97	\$32.01
Little Bluestem - Pastura	7.00	41.78	\$110.88
Sideoats Grama - El Reno	9.00	29.55	\$101.34
Western Wheatgrass - Barton	16.00	40.40	\$59.04
Totals Seed Mix	35.00	160.70	\$303.27

Application

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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}	1.00	TON	\$246.00	\$246.00
Total Mulch Materials Cost/Acre				\$246.00

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: 42
 Estimated Failure Rate: 25%
 *Selected Replanting Work Items: SEEDING,MULCHING

Cost /Acre: \$847.29

Cost /Acre*: \$847.29

Initial Job Cost: \$35,586.18
 Reseeding Job Cost: \$8,896.55
 Total Job Cost: \$44,483
 Job Hours: 0.00

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: Equipment Mobilization/DemobilizationSite: Bottomless PitPermit Action: 2017 Bond CalculationPermit/Job#: M2001068**PROJECT IDENTIFICATION**Task #: 004State: ColoradoAbbreviation: NoneDate: 2/15/2017County: Las AnimasFilename: M068-004User: MACAgency or organization name: DRMS**EQUIPMENT TRANSPORT RIG COST**Shift basis: 1 per dayCost Data Source: CRG DataTruck 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	47.71	\$82.01	\$117.55	1	\$199.56	\$117.55	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$30.65	\$88.67	1	\$119.32	\$88.67	\$250.00

Subtotals: **\$318.88** **\$206.22** **\$500.00****ROADABLE EQUIPMENT:**

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

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	TRINIDAD	
Total one-way travel distance:	15.00	miles
Average Travel Speed:	45.00	mph
Total Non-Roadable Mob/Demob Cost *		
** two round trips with haul rig:	\$1,987.83	
Total Roadable Mob/Demob Cost **		
** one round trip, no haul rig:	\$0.00	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.33	0.33
Return Time (Hours):	0.33	0.33
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	1.67	0.67

JOB TIME AND COST

Total job time:	3.33	Hours
Total job cost:	\$1,988	



COLORADO DIVISION OF RECLAMATION, MINING AND SAFETY

1313 Sherman Street, Room 215, Denver, Colorado 80203 Phone (303) 866-3567

TEMPORARY CESSATION NOTICE

(mining activities temporarily cease for more than a one-year period)

Today's date: _____

Permit number: M- _____ Site name: _____

County: _____ TC number: _____ (DRMS use only)

Permittee making request: _____

Operator (if other than permittee): _____

Date the initial five-year period of Temporary Cessation begins: _____

Reason mining activities (materials extraction, processing, hauling) have ceased:

Description of plan to resume operations:

Description of plan to meet performance standards of Rule 3.1 during temporary cessation (reclamation, weed control, monitoring, signs, markers, etc.):

Number of affected acres: _____

Amount of financial warranty (bond) on deposit with the state: \$ _____

Required fees for Temporary Cessation by permit type (please mark the correct fee and submit it with this request for Temporary Cessation):

<u>Permit type</u>	<u>Required TR fee</u>	<u>Submitted</u> (mark only one)
Construction Materials	\$144	<input type="checkbox"/>
Hard Rock/ Metal Mining	\$115	<input type="checkbox"/>

The above-referenced permit has entered Temporary Cessation. This site has reserves remaining to be mined.

Operator's signature: _____

Please note:

1. While in Temporary Cessation, the operator must continue to comply with the Rules and Act, including maintaining the site, and must continue to file an annual report and annual fee.