




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: Argo Gravel Pit	MINE/PROSPECTING ID#: M-1978-267	MINERAL: Sand and gravel	COUNTY: Otero
INSPECTION TYPE: Monitoring	INSPECTOR(S): Amy Eschberger	INSP. DATE: September 13, 2018	INSP. TIME: 10:20
OPERATOR: Otero County	OPERATOR REPRESENTATIVE: Lex Nichols	TYPE OF OPERATION: 112c - Construction Regular Operation	
REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: None	BOND AMOUNT: \$0.00	
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None	
WEATHER: Clear	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: October 9, 2018	

GENERAL INSPECTION TOPICS

This list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each. No problems or possible violations were noted during the inspection. The mine operation was found to be in full compliance with Mineral Rules and Regulations of the Colorado Mined Land Reclamation Board for the Extraction of Construction Materials and/or for Hard Rock, Metal and Designated Mining Operations. Any person engaged in any mining operation shall notify the office of any failure or imminent failure, as soon as reasonably practicable after such person has knowledge of such condition or of any impoundment, embankment, or slope that poses a reasonable potential for danger to any persons or property or to the environment; or any environmental protection facility designed to contain or control chemicals or waste which are acid or toxic-forming, as identified in the permit.

(AR) RECORDS----- <u>Y</u>	(FN) FINANCIAL WARRANTY----- <u>NA</u>	(RD) ROADS----- <u>Y</u>
(HB) HYDROLOGIC BALANCE----- <u>N</u>	(BG) BACKFILL & GRADING----- <u>Y</u>	(EX) EXPLOSIVES----- <u>N</u>
(PW) PROCESSING WASTE/TAILING---- <u>N</u>	(SF) PROCESSING FACILITIES----- <u>N</u>	(TS) TOPSOIL----- <u>N</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>Y</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>N</u>	

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

OBSERVATIONS

This inspection of the Argo Gravel Pit (Permit No. M-1978-267) was conducted by Amy Eschberger of the Division of Reclamation, Mining and Safety (Division) at the request of the operator to assess the reclamation completed at the site. Mr. Lex Nichols represented the operator during the inspection. The site is located approximately 2.25 miles southwest of Manzanola, Colorado in Otero County. The main site entrance is off of Co Rd JJ.5. Both surface and subsurface rights of the affected land are owned by the operator. The approved post-mining land use for the site is rangeland.

This is a 112c operation permitted for 177 acres to mine sand and gravel for use in road construction and maintenance (see enclosed Google Earth images of site). The site is situated in the High Plains Area of the Arkansas River Valley, between the Smith Arroyo and Apishapa River. The operation mines approximately 10-15 feet off the tops of the terrace ridges. The permit area is bisected by the Rocky Ford Highline Canal which runs northwest-southeast across the middle of the site. This is a phased operation that began mining Phase 1 east of the canal and Co Rd 9. The operator has completed mining in this area, and portions of it have been released through acreage reductions approved in 2007 and 2015. Currently, 17 acres remain in the eastern mining area. Phases 2 and 3 (comprised of 160 acres) are located west of the canal and Co Rd 9, and have not yet been disturbed by the operation. According to the approved mining plan, a temporary haul road will be constructed across the canal to access Phases 2 and 3 when the time comes.

After the Division's last inspection of the site on September 29, 2015, the Division indicated two areas (referred to in this report as west ridge and east ridge) that required additional revegetation efforts. At the time, the Division noted the revegetation was off to a great start on the west ridge, but there were areas where vegetative cover was sparse. The Division estimated approximately 2.8 acres on the west ridge may require additional revegetation efforts. The Division noted the east ridge had some patches of grass, but vegetative cover in this area was much sparser and included mainly weeds. The Division estimated approximately 5 acres on the east ridge may require additional revegetation efforts. During the last inspection, the operator indicated the site was last seeded in the fall of 2014. According to recent annual reports submitted by the operator, approximately 6.8 acres were reseeded in 2017.

During the current inspection, the Division observed the west ridge to have much better vegetative cover than observed three years ago (**Photos 1-6**). Vegetation in this area consists of native grasses, forbs, shrubs, a few trees, and some annual weeds. The majority of the west ridge has been successfully reclaimed. However, the Division observed an area approximately 0.3 acre in size located near the central portion of the west ridge to have very little to no vegetative cover (**Photos 7 and 8**). Mr. Nichols indicated they will scarify the soil, add more topsoil if needed, and reseed and mulch this area, potentially this fall.

The Division observed the eastern portion of the east ridge to be well vegetated with native grasses, forbs, shrubs, and some annual weeds (**Photos 9 and 10**). The western portion is now utilized as a permanent chip storage area (**Photo 11**), as approved in 2016 with Technical Revision No. 1. This area will not be revegetated for reclamation. The southern slope (just east of the chip storage area), had very little to no vegetative cover (**Photos 12-14**). This slope had some erosional damage in the form of rilling and a few gullies. Mr. Nichols indicated they will repair the erosional damage, add more topsoil if needed, and reseed and mulch (possibly hydroseed) this slope. The operator will work to control erosion on this slope possibly by tracking and placing straw wattles along contour.

This concludes the report.

PHOTOGRAPHS



Photo 1. View looking northwest across southeastern portion of west ridge, showing vegetative cover present in this area.



Photo 2. View looking west across southwestern portion of west ridge, showing vegetative cover present in this area.



Photo 3. View looking northeast across northern edge of west ridge, showing vegetative cover present in this area.



Photo 4. View looking southwest across southwestern portion of west ridge, showing vegetative cover present in this area.



Photo 5. View looking east across southern portion of west ridge, showing vegetative cover present in this area.



Photo 6. View looking south across area between west ridge and access road, showing vegetative cover present in this area.



Photo 7. View looking south across central portion of west ridge, showing area with little to no vegetative cover.



Photo 8. View looking west across central portion of west ridge, showing area with little to no vegetative cover.



Photo 9. View looking west across eastern portion of east ridge, showing vegetative cover present in this area.



Photo 10. View looking north across eastern portion of east ridge, showing vegetative cover present in this area.



Photo 11. View looking west across chip storage area located in western portion of east ridge. This storage area will remain as-is for county use without revegetation.



Photo 12. View looking southwest across southern slope of east ridge requiring erosion repair and additional revegetation efforts. The slope is flatter than the required 3H:1V gradient; however, it may require additional measures such as tracking along contour to help control erosion and retain moisture for planted seed.



Photo 13. Closer view of southern slope of east ridge requiring erosion repair and additional revegetation efforts.



Photo 14. Closer view of southern slope of east ridge requiring erosion repair and additional revegetation efforts, showing erosion gully (indicated) present at approximately mid-slope.

Inspection Contact Address

Lex Nichols
Otero County
13 West 3rd St., Room 208
La Junta, CO 81050

Enclosure: Google Earth image of site showing entire permit area
Google Earth image of site showing eastern portion of permit area

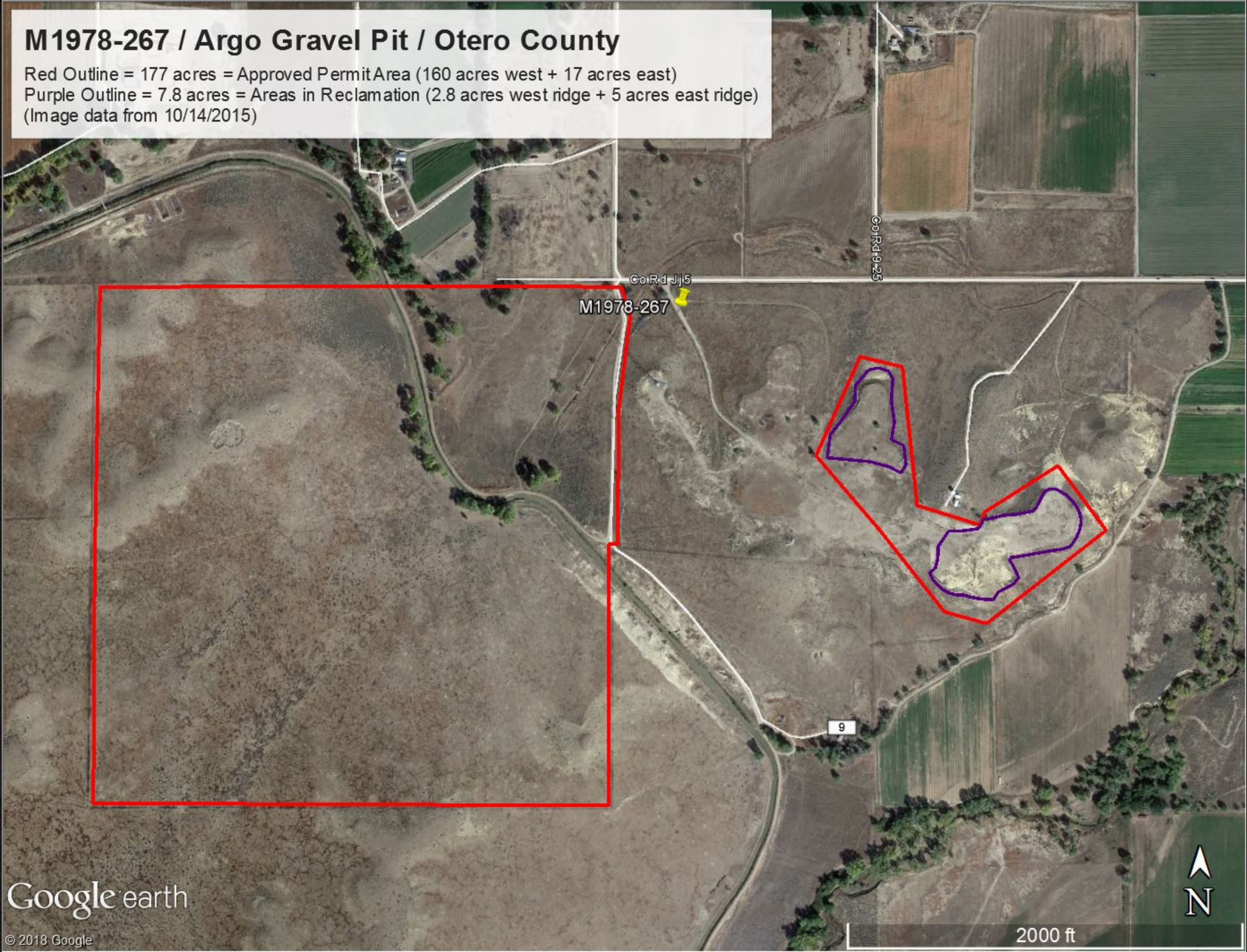
CC: Michael Cunningham, DRMS

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Red Outline = 177 acres = Approved Permit Area (160 acres west + 17 acres east)

Purple Outline = 7.8 acres = Areas in Reclamation (2.8 acres west ridge + 5 acres east ridge)

(Image data from 10/14/2015)



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Closer view of East Permit Area

Red Outline = 17 acres = Approved East Permit Area

Purple Outline = 7.8 acres = Areas in reclamation (2.8 acres west ridge + 5 acres east ridge)

Yellow Outline = Approximate location of chip storage area to remain as-is for continued County use
(Image data from 10/14/2015)

