# NEW ELK MINE Permit No. C-1981-012

# **QUARTERLY COAL WASTE BANK INSPECTION REPORT**June 12, 2024

The three coal waste banks at the New Elk Mine were inspected on June 12, 2024. The weather was clear with the temperature around 90°. Vegetation is generally good throughout the mine site. The slopes of DWDA #1 have excellent vegetation. The vegetation on the RDA exhibited good vegetative growth. New Elk Coal Company idled the project on May 9, 2023 and the only work on the RDA is for care and maintenance, no new material is being deposited on the waste bank.

Sediment Control Pond #4 is situated west of DWDA#1. This pond has never discharged and was holding water that NECC has pumped into it at the time of inspection. DWDA#2 run-off reports to Pond #7 via a series of ditches and culverts. Run-off from the RDA reports to Pond 8 located at the base of the waste bank just north of Highway 12.

Note that the NPDES permit for the New Elk Mine was renewed effective May 31, 2015. NECC submitted a renewal application before May 31, 2020 and is still awaiting approval. The most significant change was the sampling of discharge from Pond 4 is no longer required as the DWDA#1 has been reclaimed and vegetation is becoming well established. Continuous recording flow meters have been installed on both Ponds 7 and 8. Full clean-out of pond 7 was completed in early 2017 and maintanice of the pond is ongoing. Pond 8 was cleaned-out in the spring of 2018.

## DEVELOPMENT WASTE DISPOSAL AREA No. 1

#### GENERAL DESCRIPTION OR REFERENCE TO SITE PLAN:

This Development Waste Disposal Area is located south of State Highway 12 and west of the main facility Access Road. It is adjacent to and north of the Middle Fork of the Purgatoire River. The area is permitted for disposal of waste rock from underground mining and disposal of sediment collected from ponds and ditches located within the mine permit area. Since mine closure in 1989, the area has been used for disposal of sediment removed from ponds and ditches lactated within the mine permit area. In 2004 the area was closed and reclaimed. The area received Phase I bond release in 2005.

#### **Activity during Inspection:**

Removal	of Topsoil and Organic Matter
Placemen	t of Under-drains
Installatio	n of Surface Drainage System
Construct	ion of Fill
Placemen	t of Topsoil
Seeding	•
X Other	Facility in Final Reclamation-Phase I Bond Released

**Drainage:** (Discussing of springs, seeps, overland and channel flow, underdrain constructions and/or discharge, integrity of 100-year 24-hour drainage structures, and evidence of positive drainage)

Positive Drainage is maintained on the surface of the DWDA. No evidence of springs nor seeps were observed.

**Observation of Fill Construction:** (Description of material, compaction, left thickness, slopes, and construction methods)

Fill construction and reclamation of the surface has been completed. The site was seeded in 2005 and is eligible for both Phase II & III reclamation subject to a successful vegetation assessment.

#### **Indications of Potential Failure or Instability:**

Surface and out slopes of the pile were inspected for visible signs of potential failure or instability. None were observed.

### **Threat to Human Life or Property:**

Failure could impact persons or equipment on or adjacent to the disposal area. No threat was observed and with final reclamation is unlikely to occur.

#### Potential Harm to Land, Air, and Resources:

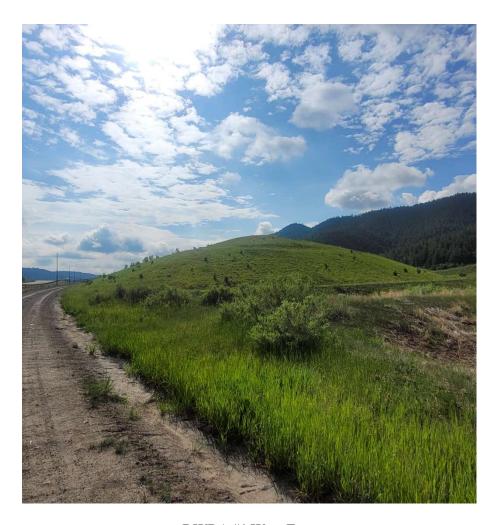
Failure could impact the Purgatoire River or areas adjacent to the disposal area. No adverse conditions were observed.

#### DOCUMENTATION AND OTHER OBSERVATIONS

Overall the disposal area is in good condition.

#### **Maintenance Required:**

Ditch along base of DWDA 1 has been cleaned from the South West Corner around the western face to allow for positive drainage around the area and into Pond 4.



**DWDA #1 West Face** 

## DEVELOPMENT WASTE DISPOSAL AREA No. 2

#### GENERAL DESCRIPTION OR REFERENCE TO SITE PLAN:

This Development Waste Disposal Area is located south of State Highway 12 and east of the main facility Access Road. It is adjacent to and north of the Middle Fork of the Purgatoire River. The area is permitted for disposal of waste rock from underground mining and disposal of sediment collected from ponds and ditches located within the mine permit area.

Removal of Topsoil and Organic Matter	
Placement of Under-drains	
Installation of Surface Drainage System	

\_\_\_\_ Installation of Surface Drainage System

Construction of Fill

\_\_\_ Construction of Fill Placement of Topsoil

**Activity during Inspection:** 

Seeding

X\_Other Facility was idle at the time of inspection

Refuse placement has been completed and the operator has trucked excess waste to the RDA so that finished slopes can be brought to approved grade. The excess storage space on the west end of the pile is used as a sediment drying area.

**Drainage:** (Discussing of springs, seeps, overland and channel flow, underdrain constructions and/or discharge, integrity of 100-year 24-hour drainage structures, and evidence of positive drainage)

Positive Drainage is maintained on the surface of the DWDA. Sump on East end of pile was being cleaned at tome of inspection. Rills on the disposal area are being monitored. No evidence of springs nor seeps were observed.

**Observation of Fill Construction:** (Description of material, compaction, left thickness, slopes, and construction methods)

Coarse to fine-grained development waste rock has been placed and compacted according to approved plans. Compaction testing was done by CTL-Thompson on May 28, 2012 demonstrating that refuse placement has been conducted in accordance with plan requirements. No refuse placement has occurred since the May 2012 compaction testing.

#### **Indications of Potential Failure or Instability:**

Surface and out slopes of the pile were inspected for visible signs of potential failure or instability. There was some surface erosion but not enough to make the area unstable. In all no signs of failure or instability were observed.

#### **Threat to Human Life or Property:**

Failure could impact persons or equipment on or adjacent to the disposal area. No threat was observed.

#### Potential Harm to Land, Air, and Resources:

Failure could impact the Purgatoire River or areas adjacent to the disposal area. No adverse conditions were observed.

#### DOCUMENTATION AND OTHER OBSERVATIONS

Overall the disposal area is in good condition. The ditch around the southern and western toe was cleaned and the banks between the pile and the river buffer area was cleaned and had standard maintenance done to keep water flowing to the sediment pond on the eastern end of pile.



**DWDA #2 North Face** 

#### **Maintenance Required:**

The Rills are being monitored and have not gotten any bigger and there is no sediment loading. Operator is evaluating either reclamation of the area or permitting alternative uses of the land north of the Purgatoire River and south of Highway 12. The ditch along the southern face has been cleaned and the berm between DWDA #2 and the river has been reinforced to prevent any run off to reach the river.

# **REUSE DISPOSAL AREA (RDA)**

#### GENERAL DESCRIPTION OR REFERENCE TO SITE PLAN:

The Primary Refuse Disposal Area is located north of State Highway 12 and the Middle Fork of the Purgatoire River. Refuse is transported by conveyor belt to the RDA from the coal preparation plant located south of the river. The plant has been in operation since June of 2021 and the RDA has been active since the start of the plant. The approved procedure for laying waste material has been followed since activities have begun.

# **Activity during Inspection:**

	Removal of	f Topsoil and Organic Matter
	Placement	of Under-drains
	Installation	of Surface Drainage System
	Construction	on of Fill
	Placement	of Topsoil
	Seeding	
X	Other	Facility was idle at the time of inspection since May 8, 2022

**Drainage:** (Discussing of springs, seeps, overland and channel flow, underdrain constructions and/or discharge, integrity of 100-year 24-hour drainage structures, and evidence of positive drainage)

Positive Drainage is maintained on the surface of the RDA. Sumps on top of the RDA have been recently cleaned. There is no ponding on the top of the pile. No evidence of springs nor seeps were observed.

**Observation of Fill Construction:** (Description of material, compaction, left thickness, slopes, and construction methods)

Refuse is placed in 1-2 foot lifts, allowed to dry and then compacted. Periodically CTL-Thompson, a geotechnical engineering firm, evaluates refuse compaction. The permit requires and testing has demonstrated that the operation has achieved in excess of the required 90% compaction.

#### **Indications of Potential Failure or Instability:**

None observed.

#### **Threat to Human Life or Property:**

None observed. Location and placement minimize potential impacts to life or property.

#### Potential Harm to Land, Air, and Resources:

None observed. Location of the waste bank minimizes potential impacts to land and water resources, but failure could impact State Highway 12 and the Purgatoire River.

#### DOCUMENTATION AND OTHER OBSERVATIONS

Overall the site is in good condition.

Depth to water in water level monitoring wells taken: March 20, 2023

Well	Depth	Elevation
TH-1	42.8 ft	7442.5
TH-2	70.3 ft	7470.5
TH-3	93.4 ft	7499.2



**Face of Refuse Disposal Area** 

## **Maintenance Required:**

Work on the Clean Water Ditch above the RDA Area was finished in May of 2024. Cleaning of the ditch, was to help prevent the clean water from flowing on the RDA Area. Ditch Around the back North west corner was cleaned out of sediment and re-established the positive drainage to Pond 8 (Work completed May 2024).

#### Certification

This inspection was conducted by John Terry, a qualified professional and MSHA certified inspector of earth and rock-fill embankments, waste banks and impoundments, under the direction a registered professional engineer licensed in the State of Colorado.

This is to certify, to the best of my knowledge and belief, that maintenance, since the previous certification and as determined during this inspection and discussions with mine personnel, is in accordance with designs as approved by the Division of Reclamation, Mining and Safety.

Yoha Com				
	8/12/24			
Inspector	Date	Professional Engineer	Date	

Inspections completed in compliance with Rule 4.09.1(11)(b) must be submitted to the Division within two weeks of completion.