COLORADO DIVISION OF RECLAMATION, MINING AND SAFETY
COAL PROGRAM INSPECTION REPORT

PERMIT INFORMATION

Permit Number: C-1996-084 **Mine Name:** Lorencito Canyon Mine **Operator:** New Elk Coal Company, LLC **Operator Address:** Mr Ron Thompson 12250 Highway 12 Weston, CO 81091	**County:** Las Animas **Operation Type:** Surface **Permit Status:** Permanent Cessation **Ownership:** Private
	Operator Representative Present: RonThompson
Operator Representative Signature: (Field Issuance Only)	

INSPECTION INFORMATION

Inspection Start Date: April 29, 2013 **Inspection Start Time:** 13:00 **Inspection End Date:** April 30, 2013 **Inspection End Time:** 17:00	**Inspection Type:** Coal Complete Inspection **Inspection Reason:** Normal I&E Program **Weather:** Clear
Joint Inspection Agency: None	**Joint Inspection Contacts:**
Post Inspection Agency: None	**Post Inspection Contacts:**

Inspector(s):	**Inspector's Signature:**	**Signature Date:**
Leigh D. Simmons Daniel I. Hernandez		5/10/2013

Inspection Topic Summary
NOTE: **Y**=Inspected **N**=Not Inspected **R**=Comments Noted **V**=Violation Issued **NA**=Not Applicable

NA - Air Resource Protection
R - Availability of Records
NA - Backfill & Grading
R - Excess Spoil and Dev. Waste
NA - Explosives
Y - Fish & Wildlife
R - Hydrologic Balance
R - Gen. Compliance With Mine Plan
NA - Other
NA - Processing Waste
R - Roads
R - Reclamation Success
R - Revegetation
NA - Subsidence
NA - Slides and Other Damage
NA - Support Facilities On-site
Y - Signs and Markers
NA - Support Facilities Not On-site
NA - Special Categories Of Mining
Y - Topsoil

COMMENTS

This was a complete inspection carried out by Leigh Simmons and Dan Hernandez of Colorado Division for Reclamation, Mining and Safety (the Division). Ron Thompson of New Elk Coal Company (NECC) accompanied the inspection thoughout. The weather was clear and warm.

AVAILABILITY OF RECORDS – Rule 5.02.4(1):

Work on the digital record database, described in the October 16, 2012 inspection report, was on-going. In the meantime, NECC continues to maintain paper records. The records were in compliance, in Mr Thompson's office (see attached checklist).

EXCESS SPOIL and DEVELOPMENT WASTE – Rule 4.09

Placement; Drainage Control; Surface Stabilization:

Fills 7, 8 and 9 were inspected. They appeared well drained and stable. All the fills were dry with some green vegetation beginning to appear on the benches.

HYDROLOGIC BALANCE - Rule 4.05

Drainage Control 4.05.1, 4.05.2, 4.05.3; Siltation Structures 4.05.5, 4.05.6; Discharge Structures 4.05.7, 4.05.10; Diversions 4.05.4; Effluent Limits 4.05.2; Ground Water Monitoring 4.05.13; Surface Water Monitoring 4.05.13; Drainage – Acid and Toxic Materials 4.05.8; Impoundments 4.05.6, 4.05.9; Stream Buffer Zones 4.05.18:

The culverts under the haul roads were all clear, with the exception of the 48" concrete culvert. It was partially blocked with tightly compacted sediment. The culvert should be cleaned out.

Culverts under the road to pond 9 were clear. Pond 9 was dry. The embankments and emergency spillway appeared stable. The primary spillway was intact, but sediment has accumulated to a point in excess of the design specification. Figure Ex 15-14 from the permit provides a summary of the sedimentation pond designs. It specifies that there should be a minimum of 1.1' between the elevation of the sediment and the lowest weepholes. **Sediment should be cleared from around the primary spillway riser; the riser should then be checked against the design specifications in Figure Ex 15-14.**

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Some rills on fill 9 were inspected. There was some vegetation growing in them, so unless erosion develops further attempts to repair them at present may cause more harm than good.

At the SAE immediately east of fill 9, the bales appear to have been an effective control measure, but are ready to be replenished.

Pond 9a was dry. The embankments and spillways were sound. The weepholes in the primary riser and the elevation of accumulated sediment should be checked against the specifications in Figure Ex 15-14.

Pond 7 was dry. No problems were observed with the embankments or spillways. **Some non-coal waste should be cleared from the site.** The weepholes in the primary spillway riser were in accordance with the design in Figure Ex 15-14, with some minor modifications - these field modifications were PE certified elsewhere in Exhibit 15. A gully on the east side of fill 7 has been stable since ~2006 according to Mr Thompson. It is currently ~6' wide and ~3' deep. If further erosion is observed it will be necessary to repair the gully, despite the difficult access. Across the road from fill 7 one of the ditches is stable, but the other has eroded and washed out some bales. **The bales should be replaced with rock dams.**

The down-drain to pond 6 had been repaired with rock dams and bales. Pond 6 was dry. The gully beside the emergency spillway had been repaired, and the pond embankment between the spillways had been regraded following the repairs. The primary spillway was in accordance with the design specification.

At the topsoil borrow area straw bales have been effective, but will need to be replaced soon.

The down-drain on fill 8 was in good condition, but some cutting had occurred on the cross-drain. Although it did not look recent, the resulting gully was barely vegetated. **The gully should be repaired and rills on the face below also need some maintenance. Outside of the fill was an erosive area with very little vegetation; bales or wattles should be used to reduce the effective slope length and minimise the potential for further damage.**

Pond 8 was dry, the embankments and spillways were sound. The weepholes in the primary spillway riser were in accordance with the design in Figure Ex 15-14, with some minor modifications - these field modifications were PE certified elsewhere in Exhibit 15. The first three culverts going back up the road were all clear. **The fourth was partially blocked and should be flushed.** The ditch at the outlet had been reinforced. The low spot will continue to act as a sump - it was not clear without a level whether or not the ponded water would back up to fill the culvert.

New rock armoring at the top of the drainage above pond 5 looked excellent. Bales had been added to prevent gullying around the sides. Before the area can be permitted as an SAE it will be necessary to demonstrate that runoff will meet effluent limits, or add some additional control structure. All the culverts on the road to pond 5 were clear. Pond 5 was dry. The embankments and spillways were in good condition. The primary spillway was in accordance with the design specification.

Rills of the north side of the "nob" are a constant concern however no problems requiring immediate attention were identified.

Culvert diameters around the site were measured and will be checked against the design specifications when the map identifying culverts is available.

GENERAL MINE PLAN COMPLANCE:

Non-coal waste around the site, in particular near fill 9 and around pond 7, should be cleared.

As noted in previous inspection reports, identification of the important features at the Lorencito Canyon site is a difficult task, exacerbated by the lack of a complete map or maps. This problem is to be addressed during

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the permit renewal process.
The map(s) must clearly identify all features, but in particular:

- Roads and culverts that NECC is responsible for, and those that are maintained by third parties.
- Ponds, as identified on the NPDES permit (what has been referred to as "pond 9" in the DRMS permit is apparently "pond 9b" in the NPDES permit)

Until the permit renewal process is completed, map 1 from the 2008 Annual Reclamation Report will be used for reference.

Technical Revision 18 is in progress. The revision seeks to reduce the permit area to coincide more closely with the actual disturbed area.

ROADS – Rule 4.03
Construction 4.03.1(3)/4.03.2(3)
Drainage 4.03.1(4)/4.03.2(4)
Surfacing and Maintenance4.03.1(5) and (6)/4.03.2(5) and (6)
Reclamation 4.03.1(7)/4.03.2(7):

The roads around the mine site were all in good condition.

RECLAMATION SUCCESS - Rule 4.15, Rule 3:

A large gully on a north facing slope in the area between pond 8 and pond 9b, near the top of the drainage had been repaired, and is due to be hydromulched soon.

A gully was repaired on fill 7 about three years ago, but still looks fresh from a distance. Although growing vegetation is more obvious up close, this illustrates some of the challenges of reclamation at this site.

REVEGETATION – Rule 4.15
Vegetative Cover; Timing:

Vegetation across the site was beginning to show signs of new growth. New alfalfa growth was already being cropped by elk. Rubber rabbit brush, 4 wing saltbrush, winterfat and Wood's rose were observed. No noxious weeds were observed (in particular, no white top was observed).

Leucocrinum montanum, or sand lily, was observed near pond 7.

Mr Thompson intends to plant new shrub transplants in May; some will go into the fenced area and others on the benches of the fills.

DOCUMENTS RECEIVED
N/A

OTHER (SPECIFY)
N/A

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ENFORCEMENT ACTIONS/COMPLIANCE

No enforcement actions are necessary at this time.

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PHOTOGRAPHS

Photo 1: Repaired gully between ponds 8 and 9/9b, to be hydromulched

Photo 2: Vegetated rills on fill 9 to be monitored

Photo 3: Primary spillway riser, pond 9/9b

Photo 4: Non-coal waste at pond 7

Photo 5: *Leucocrinum montanum*

Photo 6: Non-coal waste

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Photo 7: Concrete culvert

Photo 8: Ditch near fill 7 needing flow control

Photo 9: Gully and rills on fill 9 needing repair

Photo 10: Improvements made to drainage above pond 5

Photo 11: The “nob”

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AVAILABILITY OF RECORDS

PERMIT RECORDS		HYDROLOGIC RECORDS	
DRMS Permit	Expires 11/7/2012	NPDES Permit	Exhibit 21, COG850044
Permit Application w/Revisions	Binder 1	NPDES Records	Q1 2013
Findings Document	MT3, 2010	Stormwater Management Plan	2007 (part of NPDES permit)
Insurance Certificate	Expires 9/23/2013	SPCC Plan	n/a
Bond Document	$927,121.00	MSHA Pond Inspections	n/a
Phased Bond Release Documents/Findings	SL2	State Engineer's Pond Inspection	n/a
Air Emission Permits	01PO0896	Quarterly Pond Inspections	Q1 2013
County Special Use Permits	SUP-01-020	Annual Hydrology Reports	Terminated
UG Mining Landowner Notification	n/a	• Ground Water Monitoring	
Subsidence Monitoring Reports	n/a	• Surface Water Monitoring	
Subsidence Monitoring Data	n/a	• Spring & Seep Monitoring	
Rill & Gully Survey	n/a	• Mine Water Discharge Monitoring	
Vegetation Monitoring Data		• Mine Inflow Study	
Specific Variance Approvals	n/a	• Water Consumption Records	
Annual Reclamation Reports	2012		201451, 201453-201476
		Well Permits	(compliance file)
Midterm Review Documents	5/7/2010		
DRMS/OSM Inspection Reports/Enforcement Actions (3 Years)	Through 3/13/2013	**BLASTING RECORDS**	
Transfers/Succession of Operator	Binder 1, 4/8/2008	Blasting Publication	n/a
Temporary Cessation Notification	n/a	Blasting Records (3 years)	n/a
Reclamation Cost Estimate	MT3, 2010	ATFE Explosives Permit	n/a
CERTIFICATIONS		Blasting Variances	n/a
Pond Certifications	Exhibit 15	Pre-Blast Surveys	n/a
Annual Certifications for Impoundments	2010 *1		
Fill Certifications for Excess Spoil or Underground Development Waste		**ADDITIONAL RECORDS (specify)**	
• Quarterly Inspections	Q1 2013		
• Compaction Testing			
• Final Certification			
Coal Processing Waste Banks	n/a		
Haul Road Certifications	n/a		
Access Road Certifications	n/a		

COMMENTS:

*1 2011/12 certifications are still pending. Mr Thompson has Arcadis recalculating the design specifications for two of the ponds.

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