

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



## **PERMIT INFORMATION**

Permit Number: C-1981-012	County: Las Animas			
Mine Name: New Elk Mine	Operation Type: Underground			
Operator: New Elk Coal Company, LLC	Permit Status: Temporary Cessation			
Operator Address:	Ownership: Private			
Mr Mark Haywood	-			
12250 Highway 12	Operator Representative Present:			
Weston, CO 81091				
	Ron Thompson			
	_			
Operator Representative Signature: (Field Issuance Only)				

## **INSPECTION INFORMATION**

Inspection Start Date: July 23, 20 Inspection Start Time: 12:48 Inspection End Date: July 26, 201 Inspection End Time: 11:30		1	: Coal Complete Inspection on: Normal I&E Program ly
Joint Inspection Agency:		<b>Joint Inspection Conta</b>	ncts:
None			
Post Inspection Agency:		Post Inspection Contac	ets:
None			
Inspector(s):	Inspector	r's Signature:	Signature Date:
Leigh D. Simmons  Daniel I. Hernandez	L	Jis	August 22, 2013

#### **Inspection Topic Summary**

NOTE: Y=Inspected N=Not Inspected R=Comments Noted V=Violation Issued NA=Not Applicable

Y - Air Resource ProtectionR - Availability of Records

N - Backfill & Grading

R - Excess Spoil and Dev. Waste

R - ExplosivesY - Fish & WildlifeR - Hydrologic Balance

**R** - Gen. Compliance With Mine Plan

 ${\bf N}\,$  - Other

R - Processing Waste

R - Roads

N - Reclamation Success

R - RevegetationN - Subsidence

N - Slides and Other DamageY - Support Facilities On-site

**R** - Signs and Markers

R - Support Facilities Not On-siteY - Special Categories Of Mining

**R** - Topsoil

#### **COMMENTS**

This was a complete inspection by Leigh Simmons and Dan Hernandez of Colorado Division for Reclamation, Mining and Safety, (the Division). The inspectors were accompanied by Ron Thompson of New Elk Coal Company, (NECC). The weather was varied: overcast on Tuesday and Wednesday, fine for most of Thursday with rain late in the day, and fine on Friday morning. The area had received several rainstorms, on the order of the 10y/24hr event, over the preceding few weeks. A significant rain event also occurred overnight on Wednesday. The New Elk mine continues in Temporary Cessation. No coal is being produced, and virtually all stockpiled coal has been shipped in 4 train loads, to a broker, for sale as steam coal.

The parent company of NECC, Cline Mining, announced on July 9, 2013, that it had agreed a new financing arrangement with Marret Asset Management designed to ensure that Cline would be able to meet its short- to medium-term obligations, whilst continuing discussions with other potential investors. Cline voluntarily de-listed from the Toronto Stock Exchange on July 13, 2013.

Two separate groups of potential investors visited the New Elk mine during the inspection.

Several employees have left the mine, including David Stone, Rachel Ford, Wayne Schiller and Dick Tribble. The new Executive Director of Cline Mining, Mark Haywood, is acting Mine Manager at New Elk and is on-site. He took time to meet with DRMS inspectors. Ron Thompson was a NECC employee at the time of the inspection, but may continue his relationship with the mine as a consultant from August 1, 2013. Dennis Wilson, Bobby Steele, Vince Massaroti remain employed, with responsibility for surface operations. Randy Acre has been re-focused on safety (Safety Manager). Greg Smith remains as Technical Services manager, with responsibility for permitting, among other things. Mr Wilson and Mr Smith will each report to the Mine Manager. The mine currently employs 24 people.

The staff at New Elk have continued to make an effort to bring the mine into full compliance with the regulations and permit, however some issues that have been raised in previous inspection reports have not been completely addressed meaning that enforcement action has become necessary. Consistent with the format of recent inspection reports, items needing action will be highlighted using bold text. Where possible, these items should be addressed before the next inspection.

Several permitting actions are in progress, these are detailed under the heading GENERAL MINE PLAN

COMPLIANCE. More revisions to the permit are anticipated as the mine moves towards production. This context continues to lend urgency to the need to ensure that the situation on the ground is in full compliance as soon as possible. In particular, the maps should reflect the physical reality, and vice-versa.

#### AVAILABILITY OF RECORDS – Rule 5.02.4(1):

Work on the digital record database, described in the inspection reports of October 16, 2012, and April 29, 2013, 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:

The reclaimed Development Waste Pile (DWDA 1) was stable and well vegetated. Some erosion was evident on the south side of the pile. **The erosion should be repaired and reseeded**. DWDA 1 is a potential candidate for a phase II bond release application, this would then allow pond 4 to be reclaimed, upon approval of a pond removal demonstration.

The Development Waste Disposal Area (DWDA 2) appeared stable however the surface has not been reclaimed and is vulnerable to erosion. Sediment from the pile had washed off during the recent rain events and collected in the ditch surrounding the pile. The sediment level had built up to the point that the ditch was unable to convey the runoff. The ditch had breached in one place and almost breached in another (this is described in greater detail in the HYDROLOGIC BALANCE section).

The third Development Waste Disposal Area (DWDA 3), which was approved by TR65, has not yet been bonded for and construction of it has not begun.

In order to reduce potential liability, NECC could consider using the RDA to place future development waste, foregoing the need for DWDA 3. Furthermore, the waste currently stored in DWDA 2 could be moved onto the RDA (assuming that the RDA road is upgraded to a haul road, as approved by TR66), and the land currently occupied by DWDA 2 could be used for other purposes, or reclaimed.

#### EXPLOSIVES - Rule 4.08

Distance Prohibitions 4.08.4; Warnings 4.08.4; Control of Adverse Effects 4.08.4:

There were no explosives on site; NECC no longer holds an explosives permit. The area where explosives were stored previously was in good order.

#### FISH and WILDLIFE – Rule 4.18:

Several dead Ponderosa Pines were observed. Dead trees occurred on the mine site and on the neighboring hillsides. Their occurrence appeared to be slightly biased towards topographical ridges, suggesting that drought stress may be a factor. There was no reason to suspect that the dead trees were attributable to the disturbance of NECC.

#### 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:

Surface water and sediment control structures were inspected and are described by location, in keeping with the format used in recent inspection reports. NECC had done significant work on culverts. Their policy going forward is to use only thicker 12 gauge culverts when replacing old or damaged culverts.

At the western end of the mine site, from west to east:

- The water monitoring sites were inspected, no problems were observed.
- Culvert C49 is outside of the disturbance boundary, it is not NECC's responsibility.
- Culvert C21 should be cleaned at the inlet (this is a job for a shovel rather than heavy machinery)
- The "old water tank" and "old substation" SAEs showed no recent disturbance. Each could be a candidate for bond release.
- Containment 2 was fine, but is not shown on map 14. It should be included on the redrawn map. Non-coal waste should be cleared from the adjacent ditch.
- The upstream section of armored ditch D28 exists in the natural drainage beside the west fan, as drawn on map 14 dated 7/24/2012, although many of the features shown on this map don't exist on the ground since the work approved by TR66 has not been commenced. An earlier version of map 14, dated 3/12/2012, more closely reflects the physical reality on the ground in many cases, but neither version is entirely comprehensive.
- The clean water diversion ditch above the west fan exists uphill of the position shown on the 3/12/2012 map. The position of the ditch should be corrected on the redrawn map. The ditch also needs to be cleared of vegetation and reshaped in places; since this was an item that was identified in the inspection report of April 29, 2013, and is not the subject of a permitting action, the Division finds that this is a violation for failure to maintain ditches in accordance with the approved design. This is discussed further in the ENFORCEMENT ACTIONS section of this report.
- Culvert C23a does not exist, **it should be removed from the redrawn map,** (it has been removed from table 21).
- Culvert C23 had been cleaned. There was some slight damage near the outlet, but not enough to currently pose a problem.
- Clean water ditch D29 exists but becomes indistinct towards the flat area. D29b is ~50' uphill, draining to the west. The scheme works, but is not as drawn on either version of map 14. D29 currently ends in the containment; the ditch should be extended to the east, into the clean water system and the redrawn map should be corrected to show the positions of both ditches.
- Both ditches D29 and D29B need to be cleared of vegetation; since this was an item that was identified in the inspection report of April 29, 2013, and is not the subject of a permitting action, the Division finds that this is a violation for failure to maintain ditches in accordance with the approved design. This is discussed further in the ENFORCEMENT ACTIONS section of this report.
- Culverts C51, C52 and C54 do not exist; the culverts should be removed from the redrawn map and table 21.
- Although it is not clear at this stage whether the slurry injection facility will be used or not, the facility has been constructed. **Map 14 must be extended to show the facility**, which was approved via MR95 and MR102 and is shown on Map 12 (although map 12 shows two injection wells where only one exists and should be corrected). MR102 describes runoff from the well pad being treated by containment 1 (it is not

- an SAE). **Containment 1 should also be marked on the map**. There was no existing diversion from the natural drainage above, past the slurry well pad, although there was an existing short spur into ditch D29. **This should be rectified with a ditch design included in TR68**.
- No recent disturbance was observed at the core lab SAE. This area could potentially be phase 1 bond released, and the natural drainage from the south re-established.
- Culvert C27 was clear
- Ditch D34AA had been re-cut and was in good shape.
- Culvert C2 was in good shape. The updates to map 13 should show that only one section of C2 remains. On the south side of C2, a berm should be established to prevent shop area runoff from entering the clean water system; since this was an item that was identified in the inspection report of April 29, 2013, and is not the subject of a permitting action, the Division finds that this is a violation for failure to maintain disturbed area runoff control structures in accordance with the approved design. This is discussed further in the ENFORCEMENT ACTIONS section of this report.
- Above C2, Ditch D34BBB was good. Below C2, the ditch runs into a wetland. At the time of the inspection water had ponded in a low section of the ditch before the willows, which acted as an impoundment. It's not clear how best to manage the flow in this location, since it would be preferable to avoid disrupting the existing wetlands by cutting a ditch to the river.
- Ditch D5 had become ill-defined. **D5 should be re-cut, north of the shop area.**
- Culvert C9A was clear. C9 was not blocked, but sediment had accumulated at the outlet. C8 was more than half full with sediment, and the inlet was damaged. Culverts C8 and C9 should be cleaned and repaired as necessary to allow maintenance.
- The new armoring at the outlet of ditch D10 had held up well to the recent heavy rain and looked very good.
- The explosives area was clean and in good shape, but the ditch/berm around it needs to be re-shaped to ensure that disturbed area runoff does not flow into the clean water ditch. There was a clean water diversion ditch to the south that is not marked on map 13, which joins ditch D7. The ditch should be added to the redrawn map. Some timber should be cleared from it, and the ditch re-shaped in places.
- Culvert C4 does not exist, the culvert should be removed from the redrawn map.
- The cut where culvert C4 used to be should be deepened to prevent the ditch acting as an impoundment. Timber and vegetation should be cleared from ditch D7. Since these were items that were identified in the inspection report of April 29, 2013, and are not the subject of a permitting action, the Division finds that this is a violation for failure to maintain ditches in accordance with the approved design. This is discussed further in the ENFORCEMENT ACTIONS section of this report.
- Culvert C3 had been shortened and about 20' had been replaced with a new culvert. **Some material from the work needs to be cleared up**.
- Some non-coal waste and vegetation should be cleared from ditch D9 and the inlet to culvert C5.
   Since these were items that were identified in the inspection report of April 29, 2013, and are not the subject of a permitting action, the Division finds that this is a violation for failure to maintain ditches in accordance with the approved design. This is discussed further in the ENFORCEMENT

#### **ACTIONS** section of this report.

- Pond 4 was holding a small amount of water, but not discharging. The embankments and spillways were in good order.
- Clean water culvert C37 was partially blocked and should be cleaned out.
- Ditches and culverts surrounding DWDA 1 were clear and in good order.
- The "new water tank" SAE appeared to be fairly well drained and stable. The berm had not been breached, however ponded water shows where low spots should be built up. Some non-coal waste should be cleared and a low spot in the berm should be built up; since this was an item that was identified in the inspection report of April 29, 2013, and is not the subject of a permitting action, the Division finds that this is a violation for failure to maintain a Small Area Exemption site in accordance with the approved design. This is discussed further in the ENFORCEMENT ACTIONS section of this report.
- Ditch D18 was in good shape to the junction with D9
- Clean water diversion ditch D26 does not exist as shown on map 13, and may be impossible to construct without compromising the road above. The short leg of the ditch west of the natural drainage has a very small watershed and is not necessary. East of the drainage, the ditch needs to be cleaned of rocks, non-coal waste and vegetation, and should be shaped and graded to ensure it functions as designed. The old section of ditch, running south east from the lower water tank pad, should be reclaimed. Since these were items that were identified in the inspection report of April 29, 2013, and are not the subject of a permitting action, the Division finds that this is a violation for failure to maintain ditches in accordance with the approved design. This is discussed further in the ENFORCEMENT ACTIONS section of this report.
- The water pipe and an old electrical cable that were compromising ditch D26 had been removed.
- Ditch D39AA does not exist on the ground as drawn and the high-wall behind the substation has not been constructed as shown on map 13, meaning that D39A is also not as drawn. In the same area, the parking lot has not yet been added to map 13. Neither D39A nor D39AA are necessary on the ground. D39A should be converted to a light use road to access D26, with a diversion ditch alongside. The ditch should be extended to merge with ditches draining the area around the East Portal Fan. Mr Thompson suggested that a new culvert will be needed under the road to the car park, although the necessary gradient maybe difficult to achieve. Note also that the roads around the fan need to be shown on the maps. D17A will be a road ditch on the north side of the road. A new ditch will be needed to drain the water tank road and the new light use road, which will in turn drain to the new culvert. The lower section of D17B will remain, but culvert C50 and the upper section of D17B don't exist. The area around the fan should drain to a ditch on the south side and thence into the new culvert. This re-design should be handled through TR68.

On the north side of the highway:

• The upland diversion above the RDA had large puddles at 2 points; the further east puddle had breached either side of a big rock. Recent precipitation had dislodged rocks and trees into the ditch in several spots. The length of the diversion ditch should be surveyed as a starting point to investigate how this drainage issue can be resolved; since this was an item that was first identified in the inspection

report of October 16, 2012, and is not the subject of a permitting action, the Division finds that this is a violation for failure to maintain ditches in accordance with the approved design. This is discussed further in the ENFORCEMENT ACTIONS section of this report.

- At the east end of the diversion ditch, below the cell phone pad, there was evidence of clean runoff flowing through undisturbed land, into culvert C41. There was a little erosion at the top which should be addressed with some armoring. The same thing had occurred on the switchback below. Some flow control is also needed on the roads used to access the power poles.
- There was no sign of recent disturbance at the cell phone tower pad, or the lower pad located immediately to the north.
- The unlabelled culvert under the road on the east side of the RDA was partially blocked with sediment. This culvert should be identified and cleaned.
- There were some large puddles on the top of the RDA. The swales in the refuse should be extended when conditions allow, to ensure that no water is allowed to collect on the RDA.
- A culvert on the RDA, level with the highest reclaimed bench, is not shown on map 13. It was partially crushed, so needs repair. It also needs to be permitted; this should be addressed in TR68.
- The damaged section of the culvert under the conveyor, C41, had been replaced and the area around it filled and restored. Delivery of a final 30' section of culvert is holding up the completion of this project. The final section should be placed and the surrounding area backfilled around it; since this item was first identified in the inspection report of October 16, 2012, and is not the subject of a permitting action, the Division finds that this is a violation for failure to maintain culverts in accordance with the approved design. This is discussed further in the ENFORCEMENT ACTIONS section of this report.
- The gully by the junction of the conveyors was huge and had grown significantly since the April inspection. A long term solution might be to create a concrete structure, with a sump, to collect conveyor runoff and pump it up to the RDA. In the short term, spilled refuse should be cleared, the gully should be repaired, and a berm should be built up to protect it. A couple of other gullies lower down the conveyor line should be addressed in the same way.
- Along the conveyor line, spilled refuse should be shoveled back onto the belt and sent up to the RDA.
- Culverts under the haul road up the west side of the RDA were as follows: C40, good; C-B, good; C39, a little erosion at the outlet to monitor; C45, good; C-A is mis-located on map 13, and has some erosion at the outlet. The position of C-A should be corrected when the map is redrawn and the erosion should be repaired.
- Pond 8 was holding water but not discharging. The embankments and spillways of pond 8 were sound.
- Above pond 8 is an old light use road that has been used infrequently to maintain down-drains it could be a candidate for reclamation. For now, this should be added to the map.
- Containment 5 was in good condition.

#### Between the highway and the river:

• The newer Development Waste Disposal Area (DWDA 2) appeared stable, however there was some erosion of the surface. The ditches around the pile (D12, 13 and 14) receive a great deal of sediment and

need to be cleaned frequently. Culvert C13 was clear, which shows the effective design of the sump at the inlet (which was holding water). The sump should be cleaned, and the ditches should be cleaned and re-shaped, as conditions allow. Additionally, Ditch D14 had breached, near the footbridge, allowing disturbed area runoff (sediment from DWDA 2) to flow into the Purgatoire River without first passing through a treatment pond. This ditch was functional during the inspection of April, and no problems were noted in May or June; it seems likely that the breach was a result of recent heavy rain. The Division finds that this is a violation for failure to treat disturbed area runoff before leaving the permit area. This is discussed further in the ENFORCEMENT ACTIONS section of this report.

- Culvert C26 does not exist, replaced by an open channel to the river. The clean water system comprising ditches D11 and D19, and culverts C14, C14a and C30, has been re-routed so that it is not as drawn on map 13. This system should be corrected on the map when it is re-drawn.
- The open channel where culvert C26 used to be showed signs of erosion. This is a clean water diversion. The new ditch should be armored to ensure that the clean water does not collect sediment before discharging to the Purgatoire River, which would be a violation of Rule 4.05.3(4).
- The new culvert across the gateway to the highway (C14?) was partially blocked. **The culvert should be cleaned out**.
- Clean water culvert C30 was in good condition. The need for straw bales at the outlet should be evaluated. If they are deemed necessary, they should be replaced.
- The topsoil stockpile SAE had been built up at the eastern end with a berm, replacing the currently approved armored outlet and silt fence. A slight high spot towards the middle of the SAE could be graded out to ensure that water will neither drain to the east nor pond in the middle. At the western end, the silt fence was in place, but some water had piped beneath it. The silt fence should be re-keyed. The SAE design should be revised in the permit to reflect the new configuration at the east end, this should be handled as part of TR68.
- Culverts C70 and C71 do not exist. This system should be corrected on the map when it is re-drawn.
- Containments 3 and 4 were in good shape. A berm had been built up to ensure that runoff from beneath the conveyor would be directed into containment 3.

#### South of the river:

- Culvert C72 was partially blocked at the outlet; C73 was the same; C74 does not exist; ditch D15 was being excavated upstream of the outlet of culvert C13; D32 was in good shape. Culverts C72 and C73 should be cleaned. Since the cleaning of C73 was an item that was identified in the inspection report of April 29, 2013, and is not the subject of a permitting action, the Division finds that this is a violation for failure to maintain culverts in accordance with the approved design. This is discussed further in the ENFORCEMENT ACTIONS section of this report.
- Culvert C64 was functional; ditch D32A was functional, although it could be graded to improve the flow through C64; C65 was good; D32B was good, although PVC pipes in D32b should be removed if no longer needed.
- Ditch D16 had been re-cut. Culvert C16A was clear; C16B was partially blocked; C16C was clear; C16 was functional, but some trash had accumulated at the inlet; vegetation had accumulated at the inlet to C16D; drop inlet 2 was functional, but some trash had accumulated. C16B, C16, C16D and drop inlet 2

- **should all be cleared to ensure that they continue to function**. As noted in the inspection report of April 29, 2013, the C16 system of culverts is not an effective design. The system is due to be replaced; the re-design will require a technical revision.
- An unidentified culvert outlets at the outlet of C16; it was not clear where the inlet is. **The culvert should** be identified or removed.
- The ditch south of the raw coal stockpile area (D22) was ill-defined; culvert C17B does not exist; C17A was clear, but partially backed up with water; the downstream section of D22 had filled in somewhat, preventing C17A from draining; C17 had accumulated sediment it is very long and may be difficult to clean; C19 had accumulated sediment; C32 was clear. This system should be corrected on map 13 when it is redrawn. D22 should be graded, and C17 and C19 should be flushed of accumulated sediment. Since the cleaning of C19 was an item that was identified in the inspection report of April 29, 2013, and is not the subject of a permitting action, the Division finds that this is a violation for failure to maintain culverts in accordance with the approved design. This is discussed further in the ENFORCEMENT ACTIONS section of this report.
- Pond 6 had not yet been lined. No problems were observed and there was plenty of freeboard.
- Pond 7 was holding water, but not discharging, since the primary spillway gate valve was shut. The embankments and spillways were in good order. Although the level of the pond was above the height of the inlet to the primary spillway, Mr Thompson had found that water samples exceeded the Total Suspended Solids standard for the NPDES permit. Mr Thompson was waiting for the delivery of a flocculent that had been ordered; he planned to re-circulate the water in the pond, treating it with the flocculent, before testing again, and hopefully discharging. He expected to be able to discharge the pond before August 2, 2013.
- Culvert C20 was clear, but backed up with water due to the high level of pond 7.
- The berm at the eastern end of the SAE south of pond 7 was in good shape, and the silt fence was performing well. The boundary of this SAE does not match that shown on map 13. **The boundary should be corrected when the map is re-drawn.**
- The clean water ditch south of the SAE had been re-cut and was well defined between culvert C48 and the concrete buttressed "railroad culverts".
- The surface water scheme around the silos and the Bates portals is the subject of a re-design, which will be handled as part of TR68. Culvert C59 will be an important component of the design; its inlet is east of the silos and its outlet is into ditch D24A. The long-term plan is to build a concrete wall against the clean coal stockpile, to aid ditch maintenance. Steps have been taken to avoid the risk of offsite impacts while the revision is in progress and west of the silos a low spot had been filled in and a drainage ditch cut which had greatly improved conditions on the ground.
- Culvert C31 was good; drop inlet 3 could be cleaned up, but was clearly functional; C61 was partially blocked at the outlet; the ditch below was partially filled in; C12A was good; D23 was good. **C61 and the ditch below its outlet should be cleared**.
- As previously noted in the inspection report of April 29, 2013, an unidentified culvert outlets into drop inlet 3. **The culvert should be identified or removed.**
- Culvert C11 was completely obscured at the inlet; C12 was clear at the inlet. C11 should be cleared.
- Drop inlet 1 was functional, but is mis-located on map 13; in fact it is at the junction of C12 and C33. **The**

#### location of drop inlet 1 should be corrected when the map is re-drawn.

#### GENERAL MINE PLAN COMPLIANCE:

The response of NECC to the mid-term permit review (MT6, 10/29/2012) was submitted as TR68, but found incomplete. Several maps are to be redrawn as part of this response, but were not included with the original submission. Inspections continue to identify many inconsistencies with the approved maps; the Division anticipates the submission of the revised maps as soon as possible. Some examples of features that should be updated on maps 11, 13 or 14 include:

- Containments 1& 2 and nearby topsoil pile
- Ditches D6, D11,D16, D19, D26, D28, D29, D29b, D39a, D39aa
- Unlabelled clean water diversions south of west fan, south of explosives area, south of pond 7
- Culverts C2, C12, C14, C14a, C17, C23, C23a, C26, C30, C51, C52, C54, C70, C71, (C74?)
- Drop inlet 1
- The slurry injection facility
- The substation/parking lot area
- The SAE south of pond 7
- The culvert running into drop inlet 3
- The area around the silos and bates portals, including contours and the positions of the conveyors
- The contours around the RDA haul road and the explosives storage area

(Note that this list is not necessarily comprehensive – it should be viewed in conjunction with the items described in the findings document of MT6)

MR120, dealing with an extension to the bath house building, is in progress.

MR121, dealing with changes to the surface water management scheme around the silos and Bates portals, was withdrawn. Rather than re-submit the plan as a technical revision, the Division suggests that it be incorporated into TR68 which will eliminate the complications associated with making multiple changes to the same maps in concurrent revisions.

TR64, dealing with a ventilation shaft, and TR67, dealing with two de-watering wells, are both in progress. If the mine plan no longer requires that these projects are completed, the revisions should be withdrawn.

PR4, dealing with an expansion of the permit boundary to the east, is in progress.

#### PROCESSING WASTE/COAL MINE WASTE PILES - Rule 4.10 and 4.11

Drainage Control; Surface Stabilization; Placement:

A small amount of processing waste had been deposited on the RDA, since some of the stockpiled coal was passed through the wash plant prior to being shipped. A little water was pooled on the RDA. Although ponding was not extensive, it is important that the surface of the RDA is well drained. When conditions allow, the swales in the refuse should be extended to allow drainage of low spots.

The benches and faces appeared to be stable. Rock drains were in place ready for further expansion. Topsoil is to be stripped from the slopes above the RDA as the pile grows towards its planned final configuration.

A brief visual inspection of the slopes above from the clean water diversion ditch suggested that only approximately a quarter of the slopes held any significant topsoil. Depths were variable and difficult to assess. The section of the permit that deals with topsoil stripping was last updated in 1997 and estimates that 6-12 inches of topsoil will be recovered. This section is under review in TR68.

#### 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):

Roads on the mine site were generally in a good state of repair, however the road up to the water tanks will need to be regraded when conditions allow.

#### **REVEGETATION – Rule 4.15**

Vegetative Cover; Timing:

Vegetation looked very healthy around the site. Weeds were not widespread.

Common mullein, *Verbascum thapsus*, a list C species, was observed at some of the less well-travelled areas of the site (for example, near the river at the western end of the site, and along the upland diversion ditches).

Houndstongue, *Cynoglossum officinale*, a list B species, was observed at the second Apache Canyon airshaft. The plant was uprooted during the inspection, by Mr Thompson.

The seasonal spraying appears to have been very effective at controlling weeds and should be continued.

#### SIGNS AND MARKERS – Rule 4.02:

Mine ID signs are in varied states. Some of the old signs have been replaced, however the new signs do not show the phone number for the Division.

Rule 4.02 discusses signs and markers. In particular:

- 4.02.1(2) Signs and markers shall be of uniform design throughout the operation that can easily be seen and read
- 4.02.2(1) Identification signs shall be displayed at each entrance to the permit area from public roads

(This includes, but is not limited to, the small road that access pond 8 from the highway, and the gate that gives access to the topsoil SAE near to the RDA conveyor, as well as the Apache Canyon airshafts and the Jansen Loadout)

• 4.02.2(2) Signs shall show the name address, and telephone number of the person who conducts the surface coal mining operations and the identifying number of the current permit authorizing mining activities

Rule 4.30.1 discusses temporary cessation, in particular:

• 4.30.1(3) - As soon as a temporary cessation extends beyond 30 days, the operator shall modify the mine identification sign to include the name, address, and telephone number of the Division

office where the mining and reclamation permit is filed

Rule 4.02.3 discusses perimeter markers: ...in the case of underground mining activities, the perimeter of all areas affected by surface operations or facilities, shall be clearly marked before the beginning of surface coal mining operations

Rule 4.02.5 discusses Stream Buffer Zone markers: *Buffer zones established under the provisions of 4.05.18 shall be clearly marked* 

Rule 4.02.7 discusses topsoil markers: Where topsoil or other vegetation-supporting material is segregated and stockpiled as required under 4.06.3, the stockpiled material shall be clearly marked

Signs and markers have been mentioned in several recent inspection reports, NECC should ensure that all mine ID signs, disturbed area boundary markers, stream buffer zone markers and topsoil stockpile markers are in place and in full compliance.

#### OFFSITE SUPPORT FACILIITES - Rule 4.04, 4.28:

The Jansen Load-out was inspected on Wednesday, July 24, 2013. Virtually all the coal had been shipped from the site. No weeds or non-coal waste were observed. The berm was intact. Boundary markers were in place. Both sumps were clear and well defined. Some dead thistles were observed - the weed spraying program has been effective and should be continued. A little coal had spilled over the concrete retaining wall. The gate had been damaged. **The coal should be cleared up and the gate should be repaired**.

The Apache Canyon airshafts were also inspected on Wednesday, July 24, 2013. The phone number on the mine ID sign at the second airshaft was updated during the inspection, but is only a temporary solution. The hole that was identified at the base of the concrete pad, near a small tree, in the inspection report of April 29, 2013, was filled during the inspection. A single Houndstongue plant was observed and removed.

Offsite monitoring wells were also inspected on Wednesday, July 24, 2013. No recent disturbance was observed.

#### TOPSOIL - Rule 4.06

Removal 4.06.2; Substitute Materials 4.06.4(4); Storage and Protection 4.06.3; Redistribution 4.06.4:

As noted in the inspection report of April 29, 2013, the topsoil stockpile shown on the 7/25/2012 version of map 14 does not exist and may not be constructed. Also, a second topsoil stockpile, in the area of containments 1 and 2 is not shown on map 14. **The map should be updated accordingly**. **Also, the sign on the second pile should be replaced**.

A small pile of topsoil on the SAE between the highway and the river, west of the RDA conveyor, should either be marked or moved to one of the other stockpiles.

The piles in the main soil stockpile area were well defined and signposted. The piles will be hydromulched again in the autumn.

## DOCUMENTS RECEIVED

N/A

OTHER (SPECIFY)

N/A

### **ENFORCEMENT ACTIONS/COMPLIANCE**

**Infraction Number:** CV2013007

Inspection Date: July 23, 2013 Date Issued: August 22, 2013 Primary Topic: Hydrologic Balance

Description: Failure to treat surface drainage from a disturbed area before leaving the permit area,

in violation of Rule 4.05.2(1)

Abatement #: 1

Abatement Due Date: 9/16/2013

Ditch D14 should be restored to the approved design.

**Infraction Number: CV2013008** 

Inspection Date: July 23, 2013 Date Issued: August 22, 2013 Primary Topic: Hydrologic Balance

Description: Failure to maintain ditches, culverts and berms in compliance with the approved

design, in violation of Rule 2.07.7(7).

Abatement #: 1

Abatement Due Date: 9/16/2013

Clear culverts C73 and C19 of accumulated sediment to restore them to the approved design

Abatement #: 2

Abatement Due Date: 9/16/2013

Establish a berm to the south of culvert C2 that will prevent runoff from the shop area flowing

into the clean water diversion system

Abatement #: 3

Abatement Due Date: 9/16/2013

Grade the channel where culvert C4 was removed to prevent the impoundment of water

Abatement #: 4

Abatement Due Date: 9/16/2013

Restore the berm at the "new water tank" SAE to its approved design

Abatement #: 5

Abatement Due Date: 9/30/2013

Clear vegetation, rocks and non-coal waste, and reshape and grade the following ditches as necessary to restore them to the approved design: clean water diversion ditch above West Fan;

D29; D29B; D7; D9; D26

Abatement #: 6

Abatement Due Date: 9/30/2013

Restore culvert C41 to its approved design, and backfill and grade around the inlet

Abatement #: 7

Abatement Due Date: 9/30/2013

Clear the upland diversion ditch above the RDA of fallen rocks and trees

Abatement #: 8

Abatement Due Date: 9/30/2013

Survey the entire length of the upland diversion ditch above the RDA to allow comparison of

constructed ditch with the approved design

## **PHOTOGRAPHS**



Photo 1: Example of old Mine ID signs, showing temporary nature



Photo 2: Example of new Mine ID signs, missing DRMS phone number



Photo 3: Jansen Load-out



Photo 4: Spilled coal at Jansen Load-out



Photo 5: Low spot in water tank SAE berm



Photo 6: Road to water tanks



Number of <u>Partial</u> Inspection this Fiscal Year: 0 Number of <u>Complete</u> Inspections this Fiscal Year: 1



Photo 83: Water in Pond 7 backed up through C20, into D24A



Photo 74: D39A puddle – ditch to be extended



Photo 65: New drainage scheme needed around East Portal fan



Photo 56: Inlet of C5



Photo 17: D9 vegetation to be cleared



Photo 18: D7 full of willows



Photo 19: Material to be cleaned up from C3 project



Photo 20: Downstream of C2 – how to drain and maintain?



Photo 21: Inlet of C21 to be cleared



Photo 22: Containment to be shown on map



Photo 23: Topsoil stockpile to be sign-posted and shown on map



Photo 24: D5 to be re-cut



Photo 25: Ditch/berm around explosives area to be established



Photo 26: C9 to be cleared at outlet



Photo 27: C8 inlet damaged



Photo 28: C8 to be cleaned



Photo 29: Culvert under road on west side of RDA to be cleaned



Photo 30: West side of RDA – well drained





Photo 37: Unidentified and damaged culvert on east side of RDA



Photo 38: C41 (1)



Photo 39: C41 (2)



Photo 40: Large gully below conveyor, above pond 8



Photo 41: Second gully above pond 8



Photo 42: Spilled refuse to be cleaned up



Photo 43: Erosion on DWDA 1 to be repaired



Photo 44: New culvert (C14?) to be cleaned



Photo 45: Topsoil pile to be marked or moved



Photo 46: SAE showing berm and high spot to be graded out



Photo 47: Silt fence at west end of SAE



Photo 48: New section of D11 to be armored





Photo 49: Inlet to C13

Photo 50: Breach in D14 (1)





Photo 51: Breach in D14 (2)

Photo 52: Breach in D14 (3)





Photo 53: Breach in D14 (4)

Photo 54: Pond 7





Photo 55: C16B to be cleared

Photo 56: Inlet to C16





Photo 57: Outlet to C72

Photo 58: Outlet to C73





Photo 59: Ditch south of Raw Coal Stockpile to be cut

Photo 60: C17A partially backed up



Number of <u>Partial</u> Inspection this Fiscal Year: 0 Number of <u>Complete</u> Inspections this Fiscal Year: 1





Photo 67: C19 to be cleaned

Photo 68: Unidentified culvert at outlet of C16





Photo 69: Inlet to C11

Photo 70: Temporary repair to D14

## **AVAILABILITY OF RECORDS**

PERMIT RECORDS DRMS Permit	Expires 2/28/2014	HYDROLOGIC RECORDS NPDES Permit	(Bonding file) CDPS C-00906*2
Permit Application w/Revisions	(Binder)	NPDES Records	(DMR file) Through Q1 2013
Findings Document	MT6, 10/29/2012	Stormwater Management Plan	(Bonding file) COR-040192 *3
Insurance Certificate	(Bonding file) Expires 9/23/2013	Spill Prevention Containment & Control Plan	(Spiral bound) 4/5/2012 *4
Bond Document	\$4,133,137.02	MSHA Pond Inspections	(Sediment pond inspection file) Pond 8, 3/15/2013
Phased Bond Release Documents/Findings	(Box file) SL2, 12/26/2006	State Engineer's Pond Inspection	n/a
Air Emission Permits	84LA074F-1 84LA074F-2 (Bonding file) 09LA0590 (Jansen, box file)	Quarterly Pond Inspections	Through Q2 2013
County Special Use Permits	See Exhibit 5 & (Windowsill) 3/2012 application re. Bosque del Oso (PR4)	Annual Hydrology Reports	2011
UG Mining Landowner Notification	2/27/2012 *1	• Ground Water Monitoring	Y
Subsidence Monitoring Reports	n/a	<ul> <li>Surface Water Monitoring</li> </ul>	Y
Subsidence Monitoring Data	n/a	<ul> <li>Spring &amp; Seep Monitoring</li> </ul>	Y
Rill & Gully Survey	(Bonding file) 5/17/2013	<ul> <li>Mine Water Discharge Monitoring</li> </ul>	Y
Vegetation Monitoring Data	n/a	<ul> <li>Mine Inflow Study</li> </ul>	Y
Specific Variance Approvals	n/a	<ul> <li>Water Consumption Records</li> </ul>	Y
Annual Reclamation Reports	(Windowsill) 2012	Well Permits	(Windowsill)
Midterm Review Documents	(Windowsill) 10/29/2012		
DRMS/OSM Inspection Reports/Enforcement Actions (3 Years)	Complete through 6/2013	BLASTING RECORDS	
Transfers/Succession of Operator	(Binder 1, Ex. 1)	Blasting Publication	n/a
Temporary Cessation Notification	(Windowsill) 8/7/2012	Blasting Records (3 years)	n/a
Reclamation Cost Estimate	MT6, 10/29/2012	ATFE Explosives Permit	*5
CERTIFICATIONS		Blasting Variances	n/a
Pond Certifications	(Permit file)	Pre-Blast Surveys	*1
Annual Certifications for Impoundments	(Sediment pond file) 4/2/2013		

Fill Certifications for Excess Spoil or Underground Development Waste

<ul> <li>Quarterly Inspections</li> </ul>	Through Q2 2013
<ul> <li>Compaction Testing</li> </ul>	5/28/2012 in
	Q2 2013 report
<ul> <li>Final Certification</li> </ul>	DWP 1
Coal Processing Waste Banks	Through Q2 2013
Haul Road Certifications	4/18/2012,
	7/25/2012
	(Permit file)
Access Road Certifications	Maps 11 & 12

## ADDITIONAL RECORDS (specify)

#### COMMENTS:

- \*1 No permission for residence pre-subsidence surveys yet
- \*2 Expires 11/30/2013; application for renewal sent 4/29/2013
- \*3 Administratively continued
- \*4 The paper copy could not be located; a digital copy was inspected
- \*5 The explosives permit is held by the contractor TK Mining. The permit and the explosives have been removed from the New Elk mine site.