

0021

To: Jim Kohler

From: Stan Perkes and Jeff McKenzie

Subject: Shaft Inspection at Crandall Canyon on Federal Coal Lease UTU-071737

An inspection was held at the shaft located up Crandall Canyon on January 22, 2002. Personnel that were in attendance were Stan Perkes (BLM), Jeff McKenzie (BLM), and Steve Rigby (Cyprus/AMWEST).

**BACKGROUND:**

The inspection was conducted based on the fact that the Federal Coal Lease UTU-071737 was terminated by fact of law because the lease did not meet diligence under the Federal Coal Leasing Amendments Act of 1976. This Federal Coal Lease is on private surface that is owned by Cyprus Plateau and the coal estate is owned by the Federal Government. The bond liability period on the lease has not been terminated because the lease terms and conditions have not been met for protection of the coal resource according to the 43 CFR 3480 regulations. BLM's concern is based on the fact that the White River Oil Shale mine located outside of Vernal, Utah has had a methane explosion when it was being capped in December 1995 and the second time it exploded without a cap due to a suspected lightening strike in August 2001. The Soldier Creek Coal mine near Price, Utah had an explosion which blew a cap off of a 50 foot deep shaft that was caused by a lightening strike in July 2000. In order to properly seal the Soldier Canyon shaft, MSHA made the company fill the shaft with sand and use water sprays to decrease the chance of an explosion. Consol Coal Company has had numerous shaft caps blown off because of apparent lightening strikes in their eastern coal operations. Utah Coal Company stated that they thought that there were shaft stations located in each of the 3 seams. The intake shaft was 26 feet in diameter and approximately 1450 feet deep. The exhaust shaft was 22 feet in diameter and 1400 feet deep. The mine was know to contain methane gas and it was not known by the attendee's if all the coal seams had been mined. It appears at the present time that there are 2 coal seams out of a possible 7 coal seams that were mined via the shafts. They were the Sub-3 seam which Castle Gate #3 mine was located in, and the "D" seam, which Castle Gate #5 mine was mining.

The shafts are located approximately 1 mile off the main highway 60 on a dirt roads that ascends up Crandall Canyon. The road has a gate at the intersection of highway 60 that can be locked. The Division of Oil Gas and Mining has recently issued a change in the post mining land use for continued access up the canyon. The road will remain in-place to allow a private land owner access to his private property further up the canyon. As a side note, BLM owns the oil and gas rights in entire section where the shafts are located.

**INSPECTION:** We arrived up the canyon in the afternoon. We first went to the hoist house and looked at the hoist. The hoist house was unsecured and all we had to do to gain entrance was to push the door further open.

**Intake Shaft:** We then went to the intake shaft. Access was easily obtained by pushing the door

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to the head frame enclosure open. Methane measurements were taken and no gas was detected. The seal over the shaft looked to be in good shape. The cage guide rails were protruding through the cap and the cage was blocked up on top of the cap. We then went outside and looked at the caps on where the fans had been located on the intake shaft. There apparently were slopes driven from the fan foundations down into the shaft. The temporary caps did not seal the slopes well. On the north slope methane was checked from a gap in the shaft cap and 0.5% methane was recorded. The wind was blowing very hard so it is unknown what the true reading was from the air going from the shaft to the atmosphere. It is also unknown what the methane concentration is inside the shaft. At the cap over the south slope we could not detect methane coming out. It was interesting that the in-take shaft was exhausting at the north slope. It is unknown why this is the case. No barometric pressures were recorded nor was any data analyzed. The return shaft was in the sun light at the time of the measurements.

Exhaust Shaft: We then went down the canyon to the exhaust shaft. This cap has had a hole drilled through the cap in the past. No methane readings were taken because the wind was blowing so hard up the canyon. The center of the cap had the snow melted away from it. This could be from the sun or from warm air inside the shaft.

#### Conclusions:

1. There is easy access to these shafts. The caps are temporary and are not solid. There was methane gas coming out of the north slope entry of the intake shaft. We are not sure of the concentration because of outside conditions at the time the measurements were taken. We are also unsure why the north slope of the intake shaft was exhausting. The concrete caps appear to be adequately designed and constructed to support personnel. However, they are accessible to vehicles and it is not known if they would support such a live load. We feel that there should be a fence with a locked gate around each of the shafts and the slopes. This would limit access danger to the public and liability from potential problems from the shaft. **This should be done immediately.**
2. Because the Federal Leases are terminated these shafts should be reclaimed immediately because there is no legal access to the coal. The company should be bonded for reclamation of the shaft and protection of the coal and other resources as per 43 CFR 3484.2 regulations. We feel that the company should present a plan to reclaim the shafts. However, we feel that the only long term solution to the issue is to fill the shafts after and removing as much of the material in the shaft as necessary. Capping the shafts only puts off the liability to a later date. It is true that this limits the ease of re-entry into the shaft, but there is no one ready to access the coal for the foreseeable future. Also, the fill material could be removed later if necessary.



Exhaust Shaft



Exhaust Shaft Escape



Exhaust Shaft Cap



Exhaust Shaft Thickness



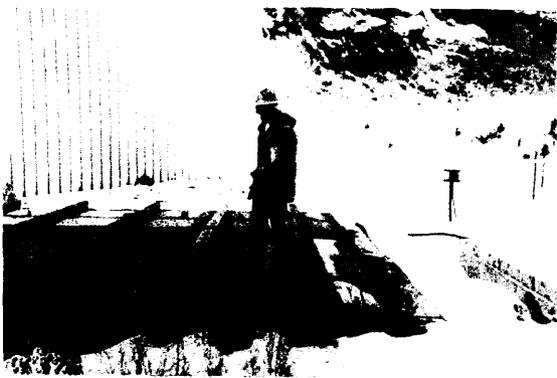
Intake Shaft Head Frame



Muck Storage



North Fan Slope Methane Measurement



South Fan Slope