0015

Inspection Report

State of Utah

Department of Natural Resources

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas & Mining

JOHN R. BAZA
Division Director

JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

Representatives Present During the Inspection:		
OGM	Jim Smith	Environmental Scientist III
OGM	Daron R. Haddock	Environmental Manager
OGM	Dave Darby	Environmental Scientist III
OGM	Joe Helfrich	Environmental Scientist III
OGM	Wayne Western	Environmental Scientist III
OGM	Priscilla Burton	Environmental Scientist III

Permit Number:	C0250005
Inspection Type:	COURTESY
Inspection Date:	Wednesday, October 01, 2008
Start Date/Time:	10/1/2008 7:30:00 AM
End Date/Time:	10/2/2008 3:00:00 PM
Last Inspection:	Wednesday, September 06, 2006

Inspector: Priscilla Burton, Environmental Scientist III

Weather: sun 65

InspectionID Report Number: 1789

Accepted by: jhelfric
10/7/2008

Permitee: **ALTON COAL DEVELOPMENT LLC**
Operator: **ALTON COAL DEVELOPMENT LLC**
Site: **COAL HOLLOW**
Address: **PO BOX 1230, HUNTINGTON UT 84528-1230**
County: **KANE**
Permit Type: **PERMANENT COAL PROGRAM**
Permit Status: **PROPOSED**

Current Acreages

	Total Permitted
	Total Disturbed
	Phase I
	Phase II
	Phase III

Mineral Ownership

- [x] Federal
- [ ] State
- [ ] County
- [x] Fee
- [ ] Other

Types of Operations

- [ ] Underground
- [x] Surface
- [ ] Loadout
- [ ] Processing
- [ ] Reprocessing

Report summary and status for pending enforcement actions, permit conditions, Division Orders, and amendments:

Following two Salt Lake office meetings with the Applicant on August 2nd and September 8th, 2008, this on-site meeting was arranged to resolve several issues identified as deficiencies during the Division's review.
In addition to those listed above, the following persons were in attendance: Neil Perry and Dustin Schaible from UDWR, Cedar City; Steve Alder and Kevin Bolander, Assistant Attorney General representatives for DOGM; and representing the company were Chris McCourt and attorney Denise Dragoo, and consultants Patrick Collins, Bob Long, and Eric Petersen. Many photographs were taken during this site visit and can be found in the 10/1/08 images folder for the proposed mine site. Some inconsistencies with Dwg 7-7 were noted during this site visit.

Inspector's Signature: Priscilla Burton **Date** Monday, October 06, 2008

Priscilla Burton, Environmental Scientist III
Inspector ID Number: 37

Note: This inspection report does not constitute an affidavit of compliance with the regulatory program of the Division of Oil, Gas and Mining.

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REVIEW OF PERMIT, PERFORMANCE STANDARDS ,PERMIT CONDITION REQUIREMENTS

1. *Substantiate the elements on this inspection by checking the appropriate performance standard.*
   a. *For COMPLETE inspections provide narrative justification for any elements not fully inspected unless element is not appropriate to the site, in which case check Not Applicable.*
   b. *For PARTIAL inspections check only the elements evaluated.*
2. *Document any noncompliance situation by reference the NOV issued at the appropriate performance standard listed below.*
3. *Reference any narratives written in conjunction with this inspection at the appropriate performace standard listed below.*
4. *Provide a brief status report for all pending enforcement actions, permit conditions, Divison Orders, and amendments.*

	Evaluated	Not Applicable	Comment	Enforcement
1. Permits, Change, Transfer, Renewal, Sale	☑	☐	☑	☐
2. Signs and Markers	☐	☑	☐	☐
3. Topsoil	☐	☐	☐	☐
4.a Hydrologic Balance: Diversions	☑	☐	☑	☐
4.b Hydrologic Balance: Sediment Ponds and Impoundments	☐	☐	☐	☐
4.c Hydrologic Balance: Other Sediment Control Measures	☐	☐	☐	☐
4.d Hydrologic Balance: Water Monitoring	☑	☐	☑	☐
4.e Hydrologic Balance: Effluent Limitations	☐	☐	☐	☐
5. Explosives	☐	☐	☐	☐
6. Disposal of Excess Spoil, Fills, Benches	☑	☐	☑	☐
7. Coal Mine Waste, Refuse Piles, Impoundments	☐	☐	☐	☐
8. Noncoal Waste	☐	☐	☐	☐
9. Protection of Fish, Wildlife and Related Environmental Issues	☑	☐	☑	☐
10. Slides and Other Damage	☐	☐	☐	☐
11. Contemporaneous Reclamation	☐	☐	☐	☐
12. Backfilling And Grading	☐	☐	☐	☐
13. Revegetation	☐	☐	☐	☐
14. Subsidence Control	☐	☐	☐	☐
15. Cessation of Operations	☐	☐	☐	☐
16.a Roads: Construction, Maintenance, Surfacing	☑	☐	☑	☐
16.b Roads: Drainage Controls	☐	☐	☐	☐
17. Other Transportation Facilities	☐	☐	☐	☐
18. Support Facilities, Utility Installations	☐	☐	☐	☐
19. AVS Check	☐	☐	☐	☐
20. Air Quality Permit	☐	☐	☐	☐
21. Bonding and Insurance	☐	☐	☐	☐
22. Other	☑	☐	☑	☐

1. Permits, Change, Transfer, Renewal, Sale

Permit application is dated January 24, 2008. DOGM's deficiency letter is dated August 4, 2008. The Technical Analysis is dated August 26, 2008. Following two Salt Lake office meetings with the Applicant on August 2nd and September 8th, 2008, this on-site meeting was arranged to resolve several issues identified as deficiencies during the Division's review.

4.a Hydrologic Balance: Diversions

DOGM, DWR and Alton Coal Resources representatives walked the proposed Robinson Creek relocation site and discussed final reclamation plans shown on Dwg. 5-20 and 5-21. The Division suggested manipulating the final reclaimed channel design to increase its sinuosity for greater stability. Ms. Dragoo suggested a joint meeting with the US Army Corps, and DOGM to discuss the final reclamation plans. The channel was photographed in this location. At the downstream point of re-alignment, the channel banks rise twenty feet from the channel floor. The visable coal seam at this location is a narrow band, approximately 3 feet just above the creek bed; the upper part of the seam at this outcrop location has been removerd by erosion and the upper surface of the coal is an angular unconformity with the overlying alluvium. Farther updip(west), the coal has been eroded away completely. Water was seeping from the base of the coal seam, probably because of the impermiable shale layer just below the coal seam. Flow in the channel near monitoring site BLM1 was estimated by Mr. Peterson to be 5 gpm. The channel bottom was sinuous and within the channel banks, the flood plain extended approximately 10 to 15 feet on either side of the creek. This flat plain was well vegetated with grasses and rushes and evidently was heavily used by cattle. A cattle trail served as our access to the channel bottom. The group visited the confluence of Robinson Creek with Kanab Creek. Both channels contained flow (not measured).

4.d Hydrologic Balance: Water Monitoring

Robinson Creek is monitored at RID-1, along the USFS fenceline (see location on Dwg 7-2). The group walked upstream of RID-1 on USFS lands to follow the source of the water monitored at RID-1. The RID-1 water originates in natural channel in Water Canyon, estimated flow (25 gpm). Below water canyon, the water escapes the stream channel and courses over the sloping ground, adjacent to the dry stream bed. Consequently, RID-1 is not located in either stream channel shown on Dwg. 7-2 but in what appears to be an artifical channel or irrigation ditch, which is maintained in spite USFS prohibitions.

6. Disposal of Excess Spoil, Fills, Benches

The group assembled at the site of the proposed 68 acre excess spoil pile and discussed the extent of the pile and final reclamation plans shown on Dwg 5-35 and 5-36. The Division described suggested irregularity of the final configuration, such that the spoil pile would blend with the surroundings and such that the top surface of the pile would not be a flat plane. In addition, the opportunity to create an irregular polygon shape during operations was discussed. The Applicant indicated the operations plan for year 1 (shown on Dwg 5-10) limited the abiliity to place spoil in an irregular shape, since that would delay contemporaneous reclamation of pits 1 - 4 in the first year of operation.

Only Division representatives climbed to the top of the adjacent pinyon/juniper covered hill (approximately 100 feet higher in elevation, to assess the visibility from the town of Alton. From this vantage point, the town of Alton was visible, indicating that from the town of Alton, the spoil pile would be visible. Photographs of the agricultural fields and visible buildings were taken from this vantage point. Interestingly, several sage grouse fluttered out from the pinyon trees on this high ground.

9. Protection of Fish, Wildlife and Related Environmental Issues

Several large piles of dead wood have been left from the recent chaining of the pinyon/juniper on Pugh lands in the SW1/4 Sec. 20. DWR staff commented that the stacked deadwood still left roosts for predators of sagegrouse and so, the effort to increase habitat for the grouse would not be completed until the piles of brush were diminished in size. Several options were discussed. The LEK for the birds was visited and the mitigation plan was discussed with Pat Collins, Neil Perry and Dustin Schaible. A follow up meeting for October 30th in Cedar City was scheduled to discus tha Applicants proposed mitigation plan for the Sage Grouse with Chris McCourt, Neil Perry, Dr. Steven Petersen, Susan White and Pat Collins. Dustin Schaible noted that although 40% of the Paunsagaunt deer herd would migrate towards the proposed surface mine they would not be impacted by the proposed mining project.

The group walked the aeras within and adjacent to the proposed area to be mined for the purposes of determining the presence of an AVF. The deficiencies noted in the review of the Biology section of the application were reviewed with Pat Collins. One of the deficiencies dealing with the analysis of color aerial photography during the AVF evaluation was resolved on site. It was concluded that the information in the application had met the requirements of this section of the regulations.

The group walked a portion of the proposed County road realignment in order to assess the value of the habitat for wildlife. Although this road re-alignment would not be included in the mine permit area, the alignment area is considered adjacent area for vegetation and wildlife issues.

16.a Roads: Construction, Maintenance, Surfacing

Road construction for the purpose of coal hauling around Alton has not yet been proposed. If proposed, the location of such a road should be evaluated for Alluvial Valley Floor criteria.

22. Other

The status of agriculture on Pugh lands:
A 4-inch pipe diversion line from RID-1 shown on Dwg. 7-7 was carrying water from RID-1, but was rusted and split in several locations. This diversion pipe was disconnected before reaching Pond 20-1; consequently Pond 20-1 was dry.

Pond 20-1 was a deep structure outfitted with a control valve at its outlet. According to Mr. Peterson, the Pugh family has not used this pond for irrigation since the 1980's. Thirty five cattle were grazing on meadows reliant upon subirrigation and sagebrush/grass lands (Dwg. 7-7 and Dwg 3-1). Eight large apple trees bearing fruit and a willow thicket in Section 29 coincide with the location of Springs 14, 15, 16, and 35 and 36 shown on Dwg 7-1 and Figure 8. This area is circled as the probable location of domestic irrigation on Dwg. 7-7. Without irrigation, soil sampling records indicate that water depth in the vicinity of these springs is approximately 30 inches (Table 2 and Figure 5) and falls within the subirrigated lands shown on Dwg. 7-7 The western edge of these sub-irrigated lands coincides with the shale ridge (shown on Figure 8), which is most noticeable from the County Rd. No water was encountered in soil pits 50, 28 and 36 west of the shale ridge.

As shown on Dwg 7-10, approximately 600 feet south of Pond 20-1, water was flowing from a spigot at well Y 102, creating a wet area accessible to cows. A couple hundred feet farther south, Spring 22 flows down the fenceline between the Pugh and Dame properties (Dwg 7-1). According to Mr. Peterson, this spring was the source of water for the old Pugh homestead. According to Mr. Peterson, today SP-22 runs at 1-2 gpm. Figure 5 and Table 2 of Appendix 7-3 state that the ground water depth in the location of SP22 is 14 inches.

The springs described in the above two paragraphs are part of the alluvial groundwater discharge area A shown on Dwg. 7-4. Water Rights Dwg.. 7-3 shows water rights locations on springs 1 through 8 in this groundwater discharge area on Pugh, Dame and Sorensen lands.

Agriculture on Darlynn and Arlene Sorensen lands:
A dozen or so horses grazed in a dry pasture of rabbitbrush northwest of the Sorensen ranch house. No cattle were noted on the Sorensen property at this time. The Sorensen's are increasing their cultivated lands in Swapp Hollow (NE 1/4 Section 29 and S1/2SE1/4 Sec 20). Approximately 40 acres surrounding Pond 29-1 have been cleared of brush and ripped. These slopes were not yet seeded. Pond 29-1 is an incised pond with steep embankments. The pond is shown on Figure 19 to be approximately 500 ft. long. X 200 ft. wide (100,000 sq. ft.). Currently the depth of water in Pond 29-1 is 6 - 8 inches. Water was flowing into Pond 29-1 from the Swapp Hollow ditch shown on Dwg 7-7. By comparison with flows observed at the RID-1 and BLM1 sites, the rate of flow was estimated to be above 5 gpm. At the time of the inspection, Swapp Hollow Creek flow was completely captured by this diversion. The uncultivated ground south of the diversion showed evidence of erosion from sheet flow that may occur during spring runoff. Several structures and dwellings were noted at the head of Swapp Hollow. The ditch leading from Pond 29-1 towards the

Sorenson ranch house was dry and overgrown with large weeds.

Most of the group walked Sink Valley Wash, from the south boundary of Section 20 to SP-33, to determine the character and continuity of the channel. Un-named ponds in Upper Sink Valley Wash were observed just as portrayed on Dwg. 7-7, just east of the permit boundary. These ponds were dry. Dwg 7-3 indicates SD-1 may divert water to the Sorensen ranch house. At the Sorenson ranch house, the natural drainage has been interrupted and intercepted by a diversion that is capable of carrying water to the ranch house area; the diversion was dry and overgrown with weeds. Pond 29-2 was hidden from our view by the house. According to Mr. Petersen, Pond 29-2 is used for domestic irrigation. Pond 29-2 may also be used to irrigate the field south of the Sorensen ranch house, as an irrigation pipe was seen in the field south of the house.

The series of ponds 29-6, 29-4, and 29-7 were created by semi-circle dams. At Ponds 29-6 through 29-9, water is retained behind the embankments placed across the channel. These ponds were all dry during this visit; sediment has almost filled some of them and grasses are well established in the flat bottoms. Several surface diversions are shown on Dwg. 7-3 in the same location as these semi-circle dams, but no structures were noted between ponds, aside from overland flow.

South of Pond 29-9 there is no stream channel; surface flow has percolated into the alluvium or evaporated, leaving a broad, relatively flat area. A similar loss of channelized flow was seen at the mouth of Swapp Hollow.

South of the Dame property, on Sorensen land between Ponds 29-9 and 32-1, the Sink Valley lowland is lush with grass and rush species. Cattails grow around Pond 32-1. This meadow is noted as subirrigated. The southern limit of the sub-irrigation was not included on Dwg. 7-7, but probably continues down to the James Lloyd and Julie Johnson property, where we observed Pond 32-3 was full and fed by Johnson Spring SP-33 (Dwg 7-2 and Figure 8). This area is designated Alluvial Groundwater Discharge Area B on Dwg. 7-4. Water rights at SP 9, 10A and 10B are located in this area south of the permit boundary (Dwg. 7-3). The adjacent area information requested should describe the agricultural activity on the Johnson property.

Agriculture on Dame lands:
No grazing animals were observed. Pond 29-3 on Dame property was observed in September 2006, but not during this visit. Dame acreage is a fenced and a road runs parallel to the fence. The location of the fenceline and road were contrary to that shown on Dwg 7-7. Land within the Dame fence is shown on Dwg 7-7 as either subirrigated or not irrigated. The meadow that we observed directly east of the ranch house was irrigated and it appeared that the lines denoting subirrigation and/or irrigation on Dwg 7-7 were incorrect in relation to the layout of the Dame fields. In fact, this irrigation line follows the Dame/Sorensen property boundary and implies that Sorensen land is irrigated, but this was not the case.

We then drove south as far as SP-4 (shown on Dwg 7-2). It is not evident on the

ground, but aerial photos clearly show that county 136 road crosses Sink Valley Wash at a boundary between the alluvial fan deposits to the north and the meandering stream with terraces and flood plains to the south.

SP-4 is not connected to the Sink Valley flow. Mr. Petersen explained that SP-4 probably flows from the coal seam. Water was seeping from the hillside at the SP-4 monitoring point.

According to Mr. Petersen, gravel pits shown on Dwg 7-7 and other topographic drawings are located on upland areas where shale rock and clinker fragments are recovered, not alluvial deposits of gravel.

Adjacent agricultural activity on Kanab Creek:
We observed the Lamb diversion on Kanab Creek to Pond 24-1 (Dwg 7-7). Pond 24-1 is excised and deep, but was dry at this time. Cattle were grazing on pasture lands irrigated with water from Ponds 24-1 and 25-1. We observed the confluence of Robinson Creek and Kanab Creek. According to Mr. Petersen, Kanab Creek is a text book example of an alluvial valley floor, with terraces, floodplains and irrigated lands. Lands adjacent to Kanab Creek in the W1/2 Section 25 and the SW1/4SE1/4 of Sec. 24 were not included in the adjacent Lease by Application illustrated on Dwg 1-2. These areas should be described as adjacent alluvial valley floors in the application.