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STATE OF UTAH
NATURAL RESOURCES & ENERGY
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
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4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

August 23, 1982

Mr. Rob Wiley
Price River Coal Company
P.O. Box 629
Helper, Utah 84526

RE. AVF DETERMINATION
PRICE RIVER COMPLEX
ACT/007/004
CARBON COUNTY, UTAH

Dear Rob:

Enclosed is the Division determination of the existence and status of alluvial valley floors on and adjacent to Price River Coal Company's mine plan. These determinations were made as a result of the investigation conducted on August 9, 1982.

If you have any questions or comments, please contact me, Tom Tetting or Dave Darby.

Sincerely,

JAMES W. SMITH, JR.
COORDINATOR OF MINED
LAND DEVELOPMENT

cc. Allen Klein, OSM, DENVER
David Darby, DOGM
Tom Tetting, DOGM

JWS/DD/mn

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ALLUVIAL VALLEY FLOOR DETERMINATION

OF PRICE RIVER COAL COMPANY'S

MINE PLAN AND ADJACENT AREAS

Introduction

In response to OSM's comments pertaining to alluvial valley floors in the Apparent Completeness Review dated May 29, 1982, Price River Coal Company requested that a field determination be made of their project and adjacent areas by a regulatory agency to evaluate the existence of any alluvial valley floor.

On August 9, 1982, personnel from the Division of Oil, Gas and Mining representing various disciplines toured Price River Coal Company's mine permit area and areas adjacent to the mining project specifically to determine the existence of any alluvial valley floors and if existent, to what extent mining could affect the alluvial valley floors.

Federal and State regulations provide for the protection of alluvial valley floors from mining activities. No coal mining operation can materially damage the quantity or quality of surface or groundwater systems which supply alluvial valley floors, and mining operations may not interupt, discontinue, or preclude forming an alluvial valley floor. By definition alluvial valley floors are:

> "...the unconsolidated stream laid deposits holding streams with water available sufficient for subirrigation or flood irrigation agricultural activities but does not include upland areas which are generally overlain by thin veneer of colluvial deposits composed chiefly of debris from sheet erosion, deposits formed by unconcentrated runoff or slope wash, together with talus, or other mass-movement accumulations, and windblown deposits"

In a general sense, alluvial valley floors are those areas which are located in topographic valleys, which are underlain aby unconsolidated deposits which usually have a landform appearance of floodplains or terraces, which have an agricultural importance derived from the availability of surface or groundwater.

Applicants are required to make initial identifications of alluvial valley floors based on readily or easily obtainable data, and conduct detailed studies only on specific problem areas.

Findings

Tom Tetting, Engineering Geologist, Everett Hooper, Soils Specialist, Lynn Kunzler, Biologist and David Darby, Hydrologist, from the Division of Oil, Gas and Mining met with Rob Wiley, Environmental Engineer, and Don Stevens, Geologist, representatives of Price River Coal Company.

Preliminary discussions took place at Price River Coal Company's office in Helper, Utah. Maps were examined which depicted historic, present and future mining areas as well as topographic and geomorphic features. Potential AVF sites along Willow Creek, the Price River, Spring Canyon and Kennilworth, Utah, were chosen for investigation.

The conditions along Willow Creek and the Price River within the mine plan area are limited with respect to the existence of AVFs. State highways, railroad tracks, precipitous slopes, river width and narrow canyon walls account for only a few areas that qualify as AVF under the specified size criteria of an area 50 feet wide or 10 acres in size. Such areas have been utilized already for a sewage treatment facility, an electrical power plant and the coal loadout for Price River Coal Company which were there prior to the passage of SMCRA. Several areas up Willow Creek have been used as coal waste dumps during earlier mining times.

Historically there has not been any farming along the Price River or Willow Creek. Price River Coal Company presently owns all surface rights along the rivers and during the process of mining foresees no change in that status.

Outside the mine plan area three sites were investigated for their potential as an AVF. The area surrounding the town of Martin, two miles downstream from the eastern edge of the mine plan area along the Price River, showed good conditions for an AVF. The area lies on a pediment formed by stream laiden deposits of the Price River and include several small parcels of land developed (approximately 41 acres) for agriculture (corn and alfalfa and one orchard) by several individuals. Upon further examination it was learned that irrigation waters for farming are supplied via canal diverted from the Price River. No springs or wells occur near the town of Martin for irrigation or culinary purposes.

Spring Canyon was another area examined where a small orchard (approximately 2 acres) exists. Communications with the owner revealed that the orchard has been abandoned for 11 or 12 years. Water from two springs about 150 yards above the orchard was used for irrigation. The flow rate at the present time is approximately 35 to 40 gpm. The owner stated that the flow had decreased in the last 20 years although no records or data of flow exist. The most significant decrease took place after several mines closed down.

The area surrounding the town of Kenilworth was investigated due to its location adjacent to the mine plan area. The investigation revealed that it is located on a pediment of the Manchos shale. Although flora exists amidst the residential section, there is no farming. Water is supplied through a public water system. The stream channels are ephemeral in nature and do not contribute to irrigation.

Determination

Alluvial valley floor investigations within and adjacent to the proposed Price River Coal Company's permit area has resulted in the determination that the criteria necessary to establish an alluvial valley floor does exist to a small extent within the river channels of the permit area, and to a greater extent near the suburbs of Martin immediately south of the mine plan area and in Spring Canyon.

In view of information presented during the tour it was determined that:

1. The Price River is monitored above and below the coal processing plant to access changes in water quality.

2. Historic mining in 30 to 40 mines has existed in and ajacent to the mine plan area along the escarpment which lies above Kenilworth, Spring Canyon, Martin and Helper. Also, the Price River has been mined under several times. It is speculated that any groundwater that could supply those areas has already been affected. Since present mining occurs farther down dip and away from the AVF there is less chance that mining will have any effect on the AVFs.

3. No farming or agricultural activity takes place on the mine plan area, and therefore the small areas along the river channels that could be classified by definition as AVFs are insignificant due to their isolation and size.

4. There was no finding near the town of Kenilworth that indicated an AVF exists.

5. There are no wells used in and adjacent to the mine plan area. The springs up Spring Canyon are used by one family to water their lawn. All other irrigation uses water supplied via canal by the Price River which in turn is regulated from Scofield Reservoir. All culinary water is supplied from springs near Scofield Reservior and from the waste water treatment plant north of the coal processing facility which takes water from the Price River.

The Division has made the determination that present and future mining will not change the status or condition of the water resources, soils or geology relating to alluvial valley floors in or adjacent to the mine plan area.Mining will not interrupt or cause diminution of the existing ground water or irrigation waters in a significant manner.

August 16, 1982

Memo to Coal File:

RE: AVF Determination
Price River Complex
ACT/007/004
Carbon County, Utah

On August 9, 1982, Tom Tetting, Ev Hooper, Dave Darby, and Lynn Kunzler toured the Price River Mine Complex and adjacent areas to determine the existence (or non-existence) of Alluvial Valley floors.

It was determined that an AVF did not occur in the mine plan area in the vicinity of the surface facilities. However, a positive determination was made for the adjacent area along the Price River ca. 2 miles downstream from the Castlegate facilities and is being used primarily for residential and small plot farming.

LYNN KUNZLER
RECLAMATION BIOLOGIST

cc: John Montgomery, OSM
Tom Tetting, DOGM
Dave Darby, DOGM
Ev Hooper, DOGM

Statistics:

Vehicle EX 45424 - 307 miles
Per diem: 2 people @ 11.5 hrs and 2 people @ 22.5 hrs = $97.00
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