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July 28, 1981

Mr. James F. Kohler  
Senior Geologist  
ARCO Coal Company  
555 Seventeenth Street  
Denver, Colorado 80202

Re: Notice of Intention to  
Commence Coal Exploration  
Huntington Canyon Area  
Emery County, Utah  
CEP/015/007

Dear Mr. Kohler:

Thank you for your July 20, 1981 letter regarding ARCO Coal Company's proposed coal exploration operations in Emery County, Utah. The plan meets the requirements of Parts 776 and 815 of the Regulations promulgated under the 1979 Act, "Regulation of Coal Mining and Reclamation Operations", Title 40-10-1 et seq., Utah Code Annotated, 1953. The Division hereby issues approval for the exploration operations as described in the exploration plans.

The Division requires no additional information at the present time. Upon completion of the exploration operations the Division will require notification of completion and a description of the plugging and reclamation activities which have taken place for each site.

Thank you for your cooperation. If any questions should arise please call me.

Sincerely,

THOMAS N. TETTING  
ENGINEERING GEOLOGIST

TNI/te

ARCO Coal Comp  
555 Seventeenth Street  
Denver, Colorado 80202  
Telephone 303 575 7500

Resource Development Group

July 20, 1981

Mr. T. N. Tetting  
Department of Natural Resources  
Division of Oil, Gas, and Mining  
1588 West North Temple  
Salt Lake City, Utah 84116

Re: CEP 10151007  
Emery County, Utah

Dear Mr. Tetting:

In your letter of July 1, 1981, you requested additional information regarding our intent to conduct coal exploration on our properties near Huntington Canyon in Emery County, Utah. ARCO has applied for and received authorization from the U. S. Geological Survey to conduct a seismic survey on Federal Exploration License U-45607, Beaver Creek Coal Company fee land and Federal coal leases U-33454 and 064903 (see the map enclosed in our letter to you dated June 24, 1981).

Our plan, as approved by the U. S. Geological Survey is summarized as follows:

#### Seismic Survey Plan

##### 1. Equipment

The project will involve the use of a standard seismic crew with:

- a. 1 recording truck - about 1½ ton
- b. 1 survey vehicle - about 1 ton
- c. 1 personnel vehicle - about 1 ton
- d. 3 line vehicles - about 1 ton
- e. 2 portable drilling rigs mounted on tandem axle or smaller trucks.

We do not anticipate the need for a caterpillar tractor or other earth moving equipment other than that needed to dress up the existing trails to assure access.

##### 2. Surface Impact

Surface impact will be minimal. The survey will be conducted parallel and close to the existing trails. Some off-road

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travel especially with the drill rig will be necessary however. No trees will be affected, but a minor amount of brush and grass will be. No pits will be dug and no fluids will be used since all drilling will be done with air.

### 3. Shot Holes

We estimate the location of 79 - 118 shot holes within Federal leases and 35 - 53 holes within the exploration license area. The holes will be on 40 - 60' spacing, 60' to 100' deep and 4" in diameter.

### 4. Explosives

We anticipate using 2 to 6 pounds of seismic explosives per hole.

### 5. Method of Plugging

All shot holes will be filled and tamped with drill cuttings.

### 6. Projected Time Frame

Our goal is to conduct the seismic survey about mid August 1981. The duration of the project will be about 2 weeks. In preparation for this survey we plan to carry out a 4 to 5 day on-site test program in mid June. The above description of the project plan also covers the test program except the latter will require only one rig and one truck.

### 7. Road Improvement

Road improvement for access would be the same as that approved for access for 1981 drilling on Federal coal lease U-33454 and Exploration License 45607.

### 8. Rehabilitation

We intend to meet all U. S. Forest Service standards of rehabilitation and erosion control.

### 9. Bonding

Bonding will be handled through Chubb & Sons, 1835 S. Colorado Blvd., Denver, Colorado.

"Special Use" applications have been filed with the Forest Service in Price.

### Geology:

The surface strata here are of Late Cretaceous Age and consist of the Wasatch and Mesaverde Groups. The Mesaverde contains the Price River Formation, Castlegate Sandstone, Blackhawk Formation, and Star Point Sandstone (youngest to oldest). The major coal seams (here considered to

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be the Hiawatha and Blind Canyon coals) are within the Blackhawk Formation. The Hiawatha lies directly on the Star Point Sandstone and the Blind Canyon lies about 40 to 110 feet above the Hiawatha (Figure 1).

This area is contained within the Huntington Creek watershed.

#### Flora and Fauna:

The major vegetative species that inhabit the area are: Douglas-fir, aspen, white-fig, subalpine fir, limber pine, pinyon-pine, Utah juniper, Rocky Mountain juniper, slender wheatgrass, small needle grass, Kentucky bluegrass, fine leaf sedge, western yarrow, big mountain sagebrush, serviceberry, and mountain mahogany.

There are no known threatened or endangered species of plants known to occur within the proposed area.

Mammals that have been observed in the immediate vicinity of the lease include: mule deer, elk, cougar, bobcat, coyote, badger, porcupine, snowshoe hare, cottontail rabbit, rock squirrel, golden mantled squirrel, Uinta ground squirrel, and kangaroo rat. Mammals not observed but probably occurring in the area include: black bear, red fox, gray fox, beaver striped skunk, mink, weasel, marmot, western pocket gopher, chipmunk, flying squirrel, and several other species of small rodents.

Many species of birds occur in the area. However, due to migration and seasonal inhabitation, only a limited number of birds were observed during field reconnaissance. The birds observed were: golden eagle, red-tailed hawk, common raven, common crow, red-shafted flicker, yellow bellied sapsucker, robin, mountain bluebird, house wren, phainopepla, gray-headed junco, Stellar's jay, mountain chickadee, vesper sparrow, Audubon warbler, and Oregon junco. Other birds that inhabit or frequent the area include rough-legged hawk, goshawk, screech owl, great horned owl, turkey vulture, pinion jay, Clark's nutcracker, nuthatches, plain titmouse, sparrows spp., band-tailed pigeon, and mourning dove.

Some of the reptiles and amphibians occurring in the vicinity include the boreal toad, leopard frog, northern sagebrush lizard, Rocky Mountain rubber boa, Great Basin gopher snake, and Great Basin rattlesnake.

There are no known threatened or endangered species of fish or wildlife known to occur within the proposed area.

#### Land Use:

The present land uses of the area are mining and wildlife grazing.

# GENERALIZED COLUMNAR SECTION MILL FORK-CRANDALL CANYON AREA

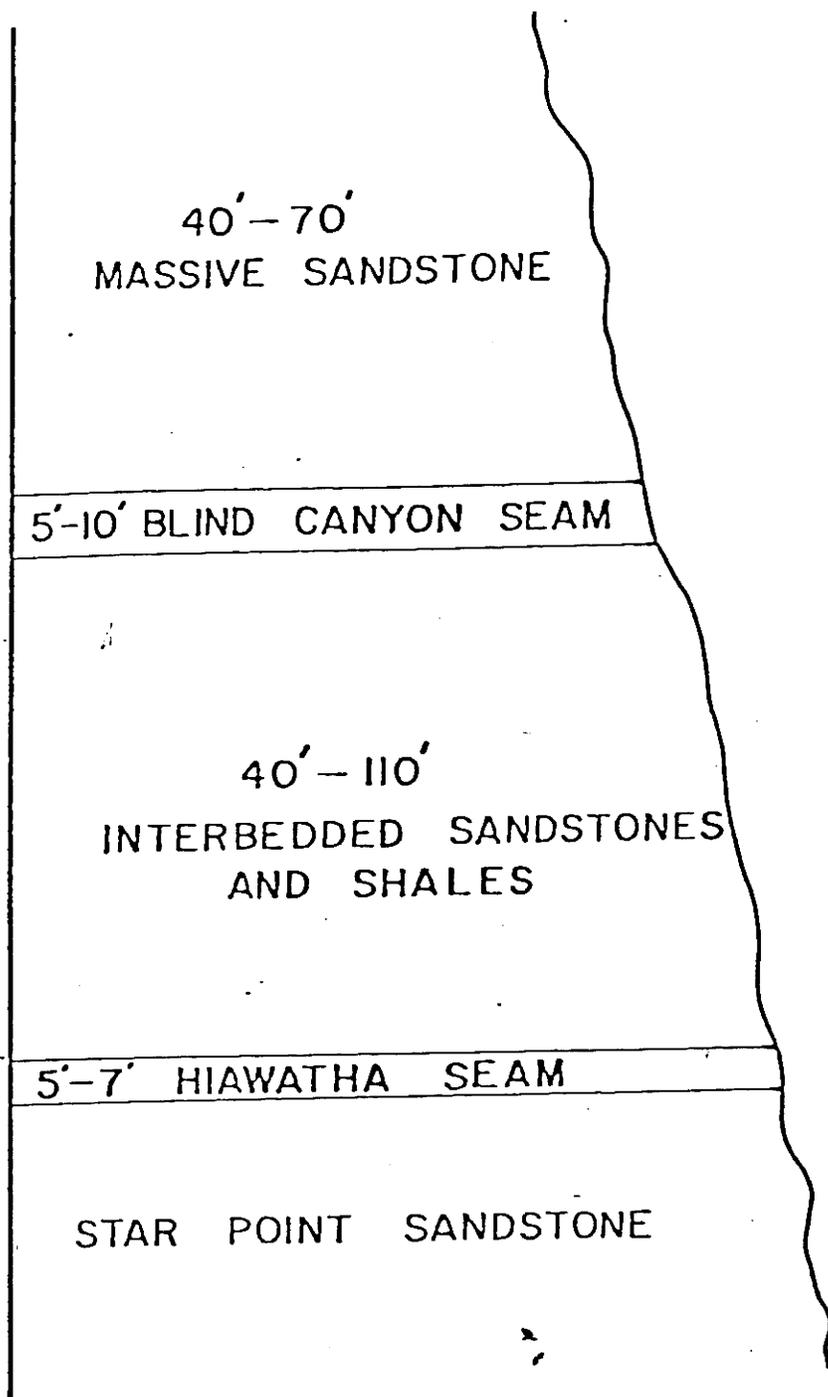


Figure 1

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The U. S. Geological Survey approved exploration plan contains stipulations for reclamation and environmental protection that meet or exceed the provisions of UMC 815.15. Consequently in those instances where the natural land surface will be substantially disturbed we will comply with the provisions of your regulations.

I trust that this information will be sufficient to meet the requirements of UMC 776.11. If you should require any additional information or have questions about the progress of this project, please contact me at (303) 575-7555.

Sincerely,



James F. Kohler  
Senior Geologist

JFK/slh