

GENWAL MINE

015/032

MINING AND RECLAMATION PLAN

for the
CRANDALL CANYON #1 MINE
and the
SOUTH CRANDALL MINE

GENWAL RESOURCES, INC.
PO BOX 1077
PRICE, UTAH 84501

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**State of Utah****Department of
Natural Resources**

MICHAEL R. STYLER
Executive Director

**Division of
Oil, Gas & Mining**

MARY ANN WRIGHT
Acting Division Director

JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

February 28, 2005

Gary Gray, Resident Agent
Genwal Resources, Inc.
P.O. Box 1077
Price, Utah 84501

Subject: 120-Acre IBC Lease Modification Approval (# U-68082) & New Permit,
Genwal Resources, Inc., Crandall Canyon Mine, C/015/0032, Task #
2154, Outgoing File

Dear Mr. Gray:

The 120-acre IBC Lease Modification (U-68082) has been determined complete and technically adequate. The Division hereby grants its final approval of this application effective February 28, 2005. Please submit seven clean copies of the final IBC amendment by March 11, 2005.

A new permit has also been prepared because of the increased acreage to the approved MRP permit boundary. Please have both copies signed by the authorized representative and return one signed copy to the Division.

If you have any questions, please call Wayne Hedberg at (801) 538-5286 or Joe Helfrich at (801) 538-5290.

Sincerely,

Mary Ann Wright
Acting Director

an
Enclosures - new permit
cc: Price Field Office
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EXPLANATION (continued)

QUATERNARY

Qal Alluvium
Stratified clay, silt, sand, gravel and some unsorted flood deposits.

Ql Landslide Deposits
Mixed rubble and blocks of material slumped from formations at higher elevations.

Qg Gravel Deposits
Partly consolidated poorly sorted and stratified deposits of rock fragments of local origin, pediments or terrace, up to 75 feet thick.

TERTIARY

Tv Volcanic Flows
Bullion Canyon Series, volcanic flows.

Tg Green River Formation
Chiefly greenish lacustrine shale and siltstone.

Tc Colton Formation
Varicolored shale with sandstone and limestone lenses, thickest to the north. 300-1,500 feet.

Tf Flagstaff Formation
Dark yellow-gray to cream limestone, evenly bedded with minor amounts of sandstone, shale and volcanic ash, ledge former. 200-1,500 feet.

TERTIARY CRETACEOUS

Tw North Horn Formation
Variogated shales with subordinate sandstone, conglomerate and freshwater limestone, thickens to north, slope former. 500-2,500 feet.

Kp Price River Formation
Gray to white gritty sandstone interbedded with subordinate shale and conglomerate, ledge and slope former. 200-1,000 feet.

Kc Castlegate Sandstone
White to gray, coarse-grained often conglomeratic sandstone, cliff former, weathers to shades of brown. 150-500 feet.

-Unconformity-

Kb Blackhawk Formation
Yellow to gray, fine- to medium-grained sandstone, interbedded with subordinate gray and carbonaceous shale, several thick coal seams. 600-1,500 feet.

Ksp Star Point Sandstone
Yellow-gray massive cliff-forming sandstone, often in several tongues separated by Masuk Shale, thickens westward. 90-1,000 feet.

Km Masuk Shale
Yellow to blue-gray sandy shale, slope former, thick in north and central plateau area thins southward. 300-1,300 feet.

Ke Emery Sandstone
Yellow-gray friable sandstone tongue or tongues, cliff former, may contain coal (?) in south part of plateau if mapping is correct, thickens to west and south. Coal may be present in subsurface to west. 50-800 feet.

Kbg Blue Gate Shale
Pale blue-gray, nodular and irregularly bedded marine mudstone and siltstone with several arenaceous beds, weathers into low rolling hills and badlands, thickens northerly. 1,500-2,800 feet.

Kf Ferron Sandstone
Alternating yellow-gray sandstone, sandy shale and gray shale with important coal beds of Emery coal field, resistant cliff former, thickens to the south. 50-950 feet.

Kt Tununk Shale
Blue-gray to black sandy marine slope forming mudstone. 400-650 feet.

GENWAL COAL COMPANY
PLATE 6-1A

KEY FOR PLATE 6-1