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DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

October 20, 2014

Jay Marshall, Resident Agent
Genwal Resources, Inc.
P.O. Box 910
East Carbon, Utah 84520-0910

Subject: Approval of Isotopic Information, Crandall Canyon Mine, C/015/0032, Task ID #4697

Dear Mr. Marshall:

The above-referenced amendment has been approved. I very much appreciate the timely manner in which you responded to this issue.

A stamped incorporated copy of the approved plans has been attached to this letter for you to insert into your copy of the Mining and Reclamation Plan (MRP). The modification does not necessitate an update to the Technical Analysis.

If you have questions, please call me at (801) 538-5350.

Sincerely,

Steve Christensen
Permit Supervisor

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TABLE 7-4(A)

Mine-Water Discharge Analysis List

Field Measurements:

Ferrous iron
pH
Dissolved oxygen
Conductivity
Temperature
Flow

Laboratory Measurements:

Calcium (dissolved)
Potassium (dissolved)
Sodium (dissolved)
Magnesium (dissolved)
Silica
Chloride
Hot acidity by Standard Method 2310B4(a)
Aluminum (total and dissolved)
Iron (total and dissolved)
Manganese (total and dissolved)
Sulfate
Alkalinity (total, carbonate, and bicarbonate)
TDS
Suspended solids

Isotopic Laboratory Measurements:

Tritium
Carbon-14
Deuterium
Oxygen-18

INCORPORATED

OCT 20 2014

Div. of Oil, Gas & Mining

Note: All Mine-Water Discharge monitoring data will be submitted to the Division monthly. Water chemistry and field measurement data will be submitted electronically using the Division's water monitoring database EDI system. Isotopic laboratory measurement data will be submitted when the results become available from the laboratories. Mine-water discharge rate data will be provided in spreadsheet format.

Note: A test for carry over of treatment chemicals will be done if Flocculent is being used in the treatment process. If flocculent is not used a carry over of treatment test is not required.