

0045



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Norman H. Bangarter
Governor

Dee C. Hansen
Executive Director

Dianne R. Nielson, Ph.D.
Division Director

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340

September 24, 1992

Mr. James Semborski
Project Manager
BXG, Inc.
The Registry 1113 Spruce Street
Suite 301
Boulder, Colorado 80302

Dear Mr. Semborski:

Re: Exploration Plan for Proposed Monitoring Wells, in Whitmore Canyon, Sunnyside Coal Company, Sunnyside Mine, ACT/007/007-92H, Folder #2, and Exploration Folder for BXG, Carbon County, Utah

Enclosed please find the technical reviews for the above-noted exploration. Please respond to these deficiencies in a complete and adequate manner. Due to the fact that both of these drill holes are located within the Sunnyside Mine permit area, a bond must be posted prior to drilling, including any disturbances related to this exploration activity.

If you have any questions, please call me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Pamela Grubaugh-Littig'.

Pamela Grubaugh-Littig
Permit Supervisor

Enclosure

cc: Joe Fielder, SCC



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11 September 1992

TO: Pamela Grubaugh-Littig, Permit Supervisor ✓

FROM: Hugh Klein, Geologist/Hydrologist *hk*

RE: Exploration Plan For Proposed Monitoring Well In Whitmore Canyon, Sunnyside Coal Company, Sunnyside Mine, ACT/007/007, Folder 3, Carbon County, Utah

SUMMARY

A proposal to drill two water monitoring wells in Whitmore Canyon was received by the Division on 18 August 1992. The initial review was conducted by Tom Munson (see memorandum to Pam Grubaugh-Littig dated 28 August 1992). As per Tom Munson's memorandum, additional information was submitted to the Division. The following analysis relates to both submittals.

ANALYSIS

The plan calls for the two drill holes "to extend approximately 30 feet into the uppermost saturated zone beneath the Sunnyside Seam, within the Blackhawk Formation." It is unclear as to whether or not this is the Upper or Lower Sunnyside Seam. In addition, this statement is vague in regard to whether the holes will penetrate 30 feet into a saturated zone only if it is in the Blackhawk Formation, or if the holes will be drilled until water is encountered below the coal seam. Also of concern is the plan to size screen slots based on the "fine grained nature of the Star Point Sandstone." As the PAP does not show Star Point Sandstone in the area, it is difficult to understand why the openings will be sized for that formation.

RECOMMENDATIONS

The plan must clarify whether or not the Sunnyside Seam is the Lower Sunnyside Seam noted in the PAP.

Utah rules state, "Ground-water quantity descriptions will include, at a minimum, approximate rates of discharge or usage and depth to the water in the coal seam, and each water-bearing stratum above and potentially impacted stratum below the coal seam" (see R645-301-724.100). In order to accomplish this, the holes must penetrate the **entire** saturated interval below the lowest seam to be mined. Documentation of an aquitard, or other confining feature, below the saturated interval must be provided in order to demonstrate there is/are no additional aquifers below those monitored which might be affected by mining.

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Aperture sizing for the monitoring wells' slotted screens must be based on the formation in which the wells are completed. Lithologic characteristics used in screen size calculations must be derived from those stratum within the area.

c: Tom Munson
Ken Wyatt



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September 18, 1992

TO: Pamela Grubaugh-Littig, Permit Supervisor

FROM: Jess Kelley, Reclamation Engineer *JK*

RE: Proposal to Drill Monitoring Wells in Whitmore Canyon, Sunnyside Coal Company, Sunnyside Mine, ACT/007/007-92H, Folder #2, Carbon County, Utah

SYNOPSIS

On August 28, 1992, the Division received proposed Amendment 92H. In this amendment, the permittee proposes to drill two 6¼-inch diameter wells adjacent to the main road in Whitmore Canyon for the purpose of monitoring water levels above the Star Point sandstone. The holes will be from 1800 to 2300 feet deep, will be cased throughout their entire length, and will be screened in the saturation zones above and below the coal seam. The permittee proposes to drill all but the last 150 feet of each hole with an air rotary drill and then core the last 150 feet, including the coal seam.

ANALYSIS

The proposed amendment has two deficiencies:

1. The proposal contains no estimate of the cost of reclaiming the drill holes and their associated surface disturbance, nor are these costs included in the reclamation bond (see R645-301-820.112 and R645-301-830.410).
2. The surface areas to be affected by the drilling of the holes are not included as part of the disturbed area (see R645-301-521.160).

RECOMMENDATIONS

The permittee must correct the deficiencies outlined above before the proposed amendment can be approved.

jbe
BXG.MEM



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September 21, 1992

TO: Pamela Grubaugh-Littig, Permit Supervisor ✓

FROM: Henry Sauer, Senior Reclamation Soils Specialist *HS*

RE: Groundwater Inflow Monitoring Wells and Exploration, Amendment ACT/007/007-92H, Sunnyside Coal Company, Sunnyside Mine, ACT/007/007, Folder #2, Carbon County, Utah

SYNOPSIS

The Division received (August 20, 1992) a drill plan proposal from BXG, Inc. to drill two monitoring wells within the Sunnyside Coal Mine permit area. The estimated disturbance for the drill pads is approximately 0.42 acres.

The proposal is technically deficient and will therefore require the submission of additional information prior to approval of Amendment ACT/007/007-92H.

ANALYSIS

The applicant has not submitted adequate soil survey information for the proposed activity. A finding of technical adequacy for the proposed soil removal operations cannot be made at this time.

The applicant must correlate the antiquated soil map unit designations in the Sunnyside Coal Mine permit to the recognized soil series and map unit(s) currently accepted by the National Cooperative Soil Survey (R645-302-314.100). The Riv(e)ra Series has been replaced by the Shupert-Winetti Complex. The Repp-Doney Complex which encompasses drill site MW-3 is erroneously designated in the proposed amendment as the Riv(e)ra Series. The Repp-Doney Complex is now recognized as the Pathead Series (personal communication with Leland Sasser U.S.D.A./Soil Conservation Service).

In accordance with the Soil Survey of Carbon Area, Utah, 1980, the Shupert-Winetti Complex is comprised of 40 percent Shupert gravelly loam (A-horizon = 0-3 inches), 35 percent Winetti bouldery sandy loam (A-horizon = 0-6 inches), 15 percent Haverdad loam (A-horizon = 0-3 inches), 5 percent Glenberg family very fine sandy loam (A-horizon = 0-4 inches and A1b at 10-14 inches) and 5 percent soils similar to Winetti. In addition, the Pathead Series consists of approximately 75 percent Pathead extremely bouldery fine sandy loam (A-horizon = 0-3 inches), 15 percent Perma family very stony sandy loam (A-horizon = 0-15 inches), 10 percent Comodore very stony fine sandy loam (A-horizon 0-6 inches). Based on the large variations allowed within each map unit, the general soil survey intensity (i.e. Order III) and the proposed topsoil excavation depth of six inches, the applicant must conduct, prior to topsoil removal, an Order I soil survey for those lands to be disturbed. The survey must verify topsoil depth(s) throughout the proposed disturbance. Sample sites must be delineated on an appropriately scaled map.

The survey must present current description of the predisturbance soil resource as follows:

- R645-301-222. Soil Survey. The applicant will provide adequate soil survey information for those portions of the permit area to be affected by surface operations incident to UNDERGROUND COAL MINING and RECLAMATION ACTIVITIES and for the permit area of SURFACE COAL MINING and RECLAMATION ACTIVITIES consisting of the following:
- 222.100. A map delineating different soils;
 - 222.200. Soil identification;
 - 222.300. Soil description; and
 - 222.400. Present and potential productivity of existing soils.
223. Soil Characterization. The survey will meet the standards of the National Cooperative Soil Survey as incorporated by reference in R645-302-314.100.

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RECOMMENDATION

The aforementioned deficiencies must be adequately addressed prior to approval of amendment ACT/007/007-92H.

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September 22, 1992

TO: Pamela Grubaugh-Littig, Permit Supervisor

FROM: Susan M. White, Senior Reclamation Biologist *SMW*

RE: Proposal to Drill Monitoring Wells in Whitmore Canyon, Sunnyside Coal Company, Sunnyside Mine, ACT/007/007-92H, Folder #2, Carbon County, Utah

SYNOPSIS

The Division received a proposal to conduct exploration activities within the Sunnyside Mine permit area. The drilling of two monitoring wells will require a Minor Coal Exploration Permit.

ANALYSIS

The proposal is deficient as described below:

- 1) The proposal has not described or referenced any archeological studies or inspections for the two proposed drill sites.
- 2) The proposal states the U.S. Fish & Wildlife clearance has been sought. Until studies or clearances have been documented in the proposal, a permit cannot be issued.
- 3) No revegetation methods are discussed such as: seeding methods; mulch; raking seed; surface roughness; or redistribution of slash/organic matter.
- 4) Contingency such as an annual grain seeding must be discussed for interim site protection if the site is regraded and topsoiled prior to the fall seeding window.

RECOMMENDATION

A minor coal exploration permit cannot be issued until the above noted deficiencies are satisfied.

jbe
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