

OPEN-FILE REPORT  
This report has not been edited for conformity with  
U.S. Geological Survey editorial standards or  
stratigraphic nomenclature.

EXPLANATION

(21) INDEX NUMBER OF MEASURED SECTION SHOWN ON PLATE 3 OF CRO MAP—Coal section measured at point of triangle.

(22) LINE OF COMPOSITE SECTION—Showing index number of section shown on plate 3 of CRO map. Composite section is based on nearby coal bed thickness measurements.

(20) OIL AND GAS TEST HOLE—Showing index number of hole shown on plate 3 of CRO map and drill-hole data, in feet.

Log(s) inadequate for determining occurrence of coal.

OIL AND GAS TEST HOLE—Showing drill-hole data, in feet.

COAL TEST HOLE—Showing index number of hole shown on plate 3 of CRO map, and drill-hole data, in feet.

GL—Ground elevation  
NR—No Record  
R—Rock interval  
C—Coal interval  
TD—Total depth

DRILL-HOLE DATA SYMBOLS

Fe—Ferry  
Ck<sub>1</sub>—Upper Cook  
Ck<sub>2</sub>—Lower Cook  
Pa—Pawnee (E bed)  
X—X bed  
L—Local  
Sa—Sawyer  
Sa<sub>1</sub>—Upper Sawyer  
Sa<sub>2</sub>—Lower Sawyer  
Kn—Knobloch  
Br—Broadbent

COAL BED SYMBOLS AND NAMES

C 38 (R)  
R 30  
C 20 (R)

TRACE OF COAL BED OUTCROP—Dashed where approximately located; short dashed where inferred. Showing thickness of coal, or coal-rock intervals, in feet, measured at triangle. Letters designate the name of the coal bed as listed above. Arrow points toward coal-bearing area. Trace of coal outcrop has been modified from Bass (1932, pl. 3), Brown and others (1954, pl. 25), Matson and Blumer (1973, pl. 15) and Warren (1959, pl. 19) to fit modern topographic map.

BURNED AND CLINKERED COAL BED—Showing area of baked and fused rock (v symbol). Dotted line indicates the inferred limit of burning.

FAULT—Dashed where approximately located. U, up-thrown side; D, downthrown side.

BRINSKEY MINE 38  
COAL MINE—Showing thickness of coal bed, in feet. To convert feet to meters, multiply feet by 0.3048.

REFERENCES FOR NONINDEXED DATA POINTS  
AYLER, M.F., SMITH, J.B., and DEUTMAN, G.M., 1969, Strippable coal reserves of Montana: U.S. Bur. Mines Preliminary Report 172, 68 p.

BASS, N.W., 1932, The Ashland coal field, Rosebud, Powder River, and Custer Counties, Montana: U.S. Geol. Survey Bull. 831-B, p. 19-105.

BROWN, A., and others, 1954, Strippable coal in Custer and Powder River Counties, Montana: U.S. Geol. Survey Bull. 995-E, p. 151-199.

MATSON, R.E., and BLUMER, J.W., 1973, Quality and reserves of strippable coal, selected deposits, southeastern Montana: Mont. Bur. Mines and Geol. Bull. 91, 135 p.

WARREN, W.C., 1959, Reconnaissance geology of the Birney-Broadbent coal field, Rosebud and Powder River Counties, Montana: U.S. Geol. Survey Bull. 1072-J, p. 561-585.

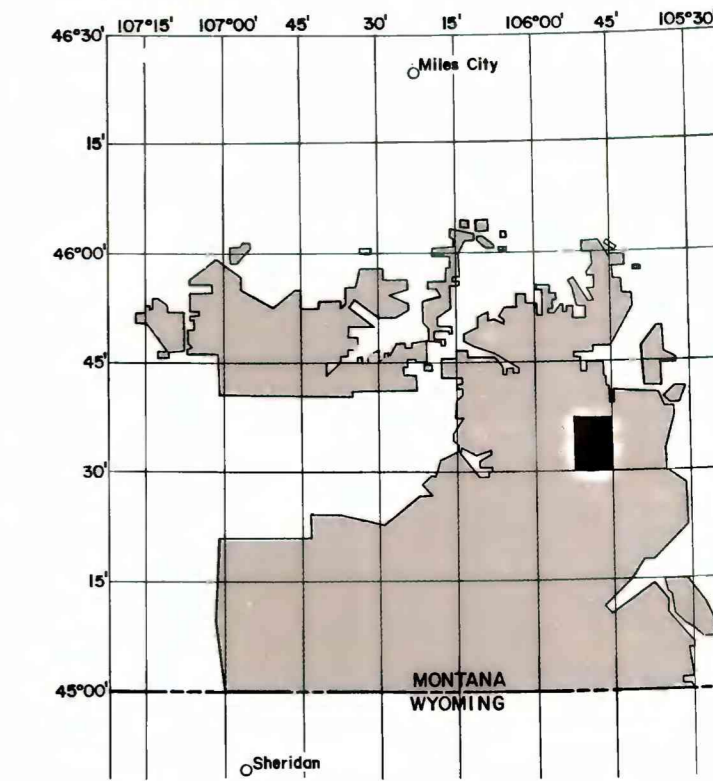
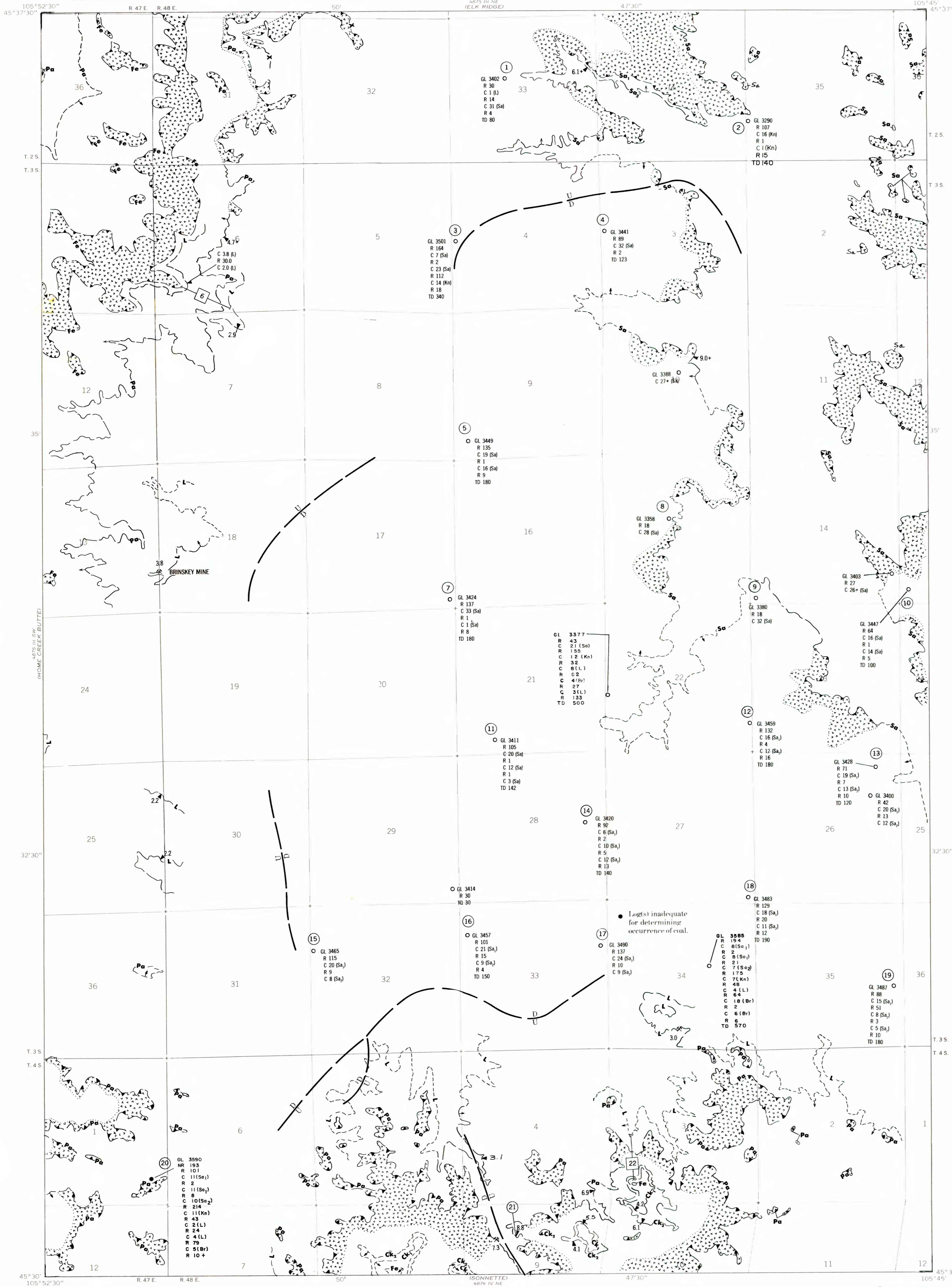


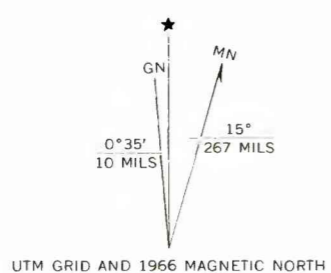
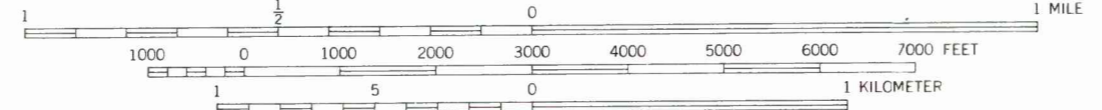
PLATE 1  
COAL DATA MAP



Base map from U.S. Geological Survey, 1966

SCALE 1:24,000

Compiled in 1977



**COAL RESOURCE OCCURRENCE MAP OF THE SAMUELSON RANCH QUADRANGLE,  
POWDER RIVER COUNTY, MONTANA**  
BY  
**COLORADO SCHOOL OF MINES RESEARCH INSTITUTE**  
1979