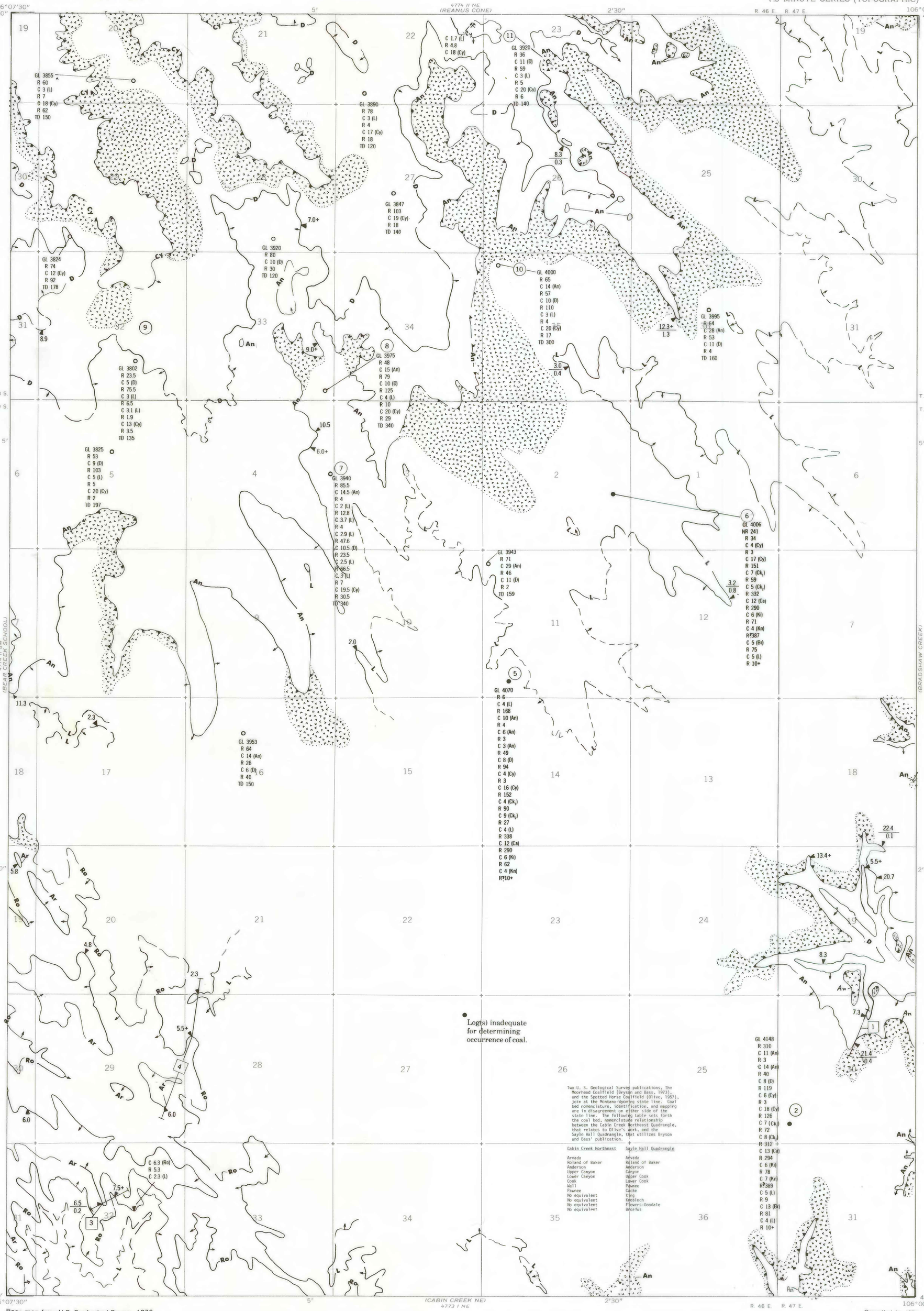
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SAYLE HALL QUADRANGLE
MONTANA—POWDER RIVER CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)



Base map from U.S. Geological Survey, 1972

Compiled in 1977

SCALE 1:24 000

1 MILE — 7000 FEET — 1 KILOMETRE

UTM GRID AND 1972 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

QUADRANGLE LOCATION

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

EXPLANATION

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.

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

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
R?— Rock, occurrence of coal undeterminable
TD— Total depth

DRILL-HOLE DATA SYMBOLS

Ar—Arvada
Ro—Roland
L—Local
An—Anderson
D—Dietz
Cy—Canyon
Ck_1—Upper Cook
Ck_2—Lower Cook
Ca—Cache
Ki—King
Kn—Knobloch
Br—Broadus

COAL BED SYMBOLS AND NAMES

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. Where a thickness fraction is shown, it indicates the net coal thickness (upper number) and net partings thickness (lower number). Letters designate the name of the coal bed as listed above. Arrows point toward coal-bearing area. Trace of coal outcrop has been modified from Bryson, R.P. and Bass, N.W. (1973, pl. 1), Matson, R.E. and Blumer, J.W. (1973, pls. 10A, 10B, and 10C) to fit modern topographic map.

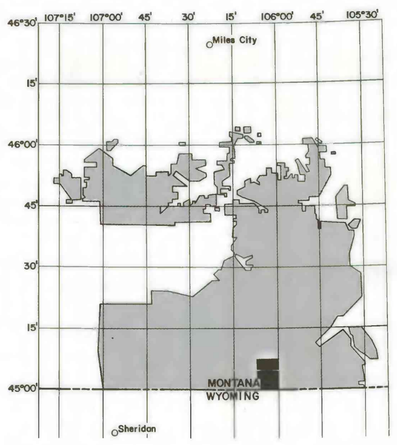
BURNED AND CLINKERED COAL BED—Showing area of baked and fused rock (v symbol). Dotted line indicates the inferred limit of burning.

COAL MINE—Showing thickness of coal bed, in feet.

To convert feet to meters, multiply feet by 0.3048.

REFERENCES FOR NONINDEXED DATA POINTS

Bryson, R.P. and Bass, N.W., 1973, Geology of Moorhead coal field, Powder River, Big Horn, and Rosebud Counties, Montana: U. S. Geol. Survey Bull. 1338, 116 p.
Matson, R.E., and Blumer, J.W., 1973, Quality and reserves of strippable coal, selected deposits, southeastern Montana: Montana Bur. Mines and Geol. Bull. 91, 135 p.



INDEX MAP—Showing location of the Sayle Hall quadrangle and the Northern Powder River Basin Known Recoverable Coal Resource Area (stippled), Montana

PLATE 1
COAL DATA MAP

COAL RESOURCE OCCURRENCE MAP OF THE SAYLE HALL QUADRANGLE, POWDER RIVER COUNTY, MONTANA

BY

COLORADO SCHOOL OF MINES RESEARCH INSTITUTE

1979