UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

THREE BAR RANCH QUADRANGLE
MONTANA—WYOMING
7.5 MINUTE SERIES (TOPOGRAPHIC)

OPEN FILE REPORT 79-791
PLATE 1 OF 35

EXPLANATION

⑩
INDEX NUMBER OF MEASURED SECTION SHOWN
ON PLATE 3 OF CRO MAP—Coal section measured at
point of triangle.

☐ 12 ☐
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.

⑲ GL 3771
NR 212
R 37
C 12 (Ca)
R 308
C 6 (11)
R? 10+

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

③ GL 3688
R 68
C 17 (Pa₃)
R 7
C 8 (Pa₃)
R 8
C 12 (Pa₃)
R 60
TD 180

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

An—Anderson
D—Dietz
L—Local
Cy—Canyon
Ck₁—Upper Cook
4a—Number 4a bed
5—Number 5 bed
5a—Number 5a bed
Pa₁—Upper Pawnee
Pa₂—Middle Pawnee
Pa₃—Lower Pawnee
7—Number 7 bed
8—Number 8 bed
8a—Number 8a bed
Ca—Cache
11—Number 11 bed
Br—Broadus (Number 12 bed)

COAL BED SYMBOLS AND NAMES

10.3   C 10.3 (5)
              R 7.0
              C 2.8 (L)
              0.8

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 desig-
nate the name of the coal bed as listed above. Arrows point
toward coal-bearing area. Trace of coal outcrop has been
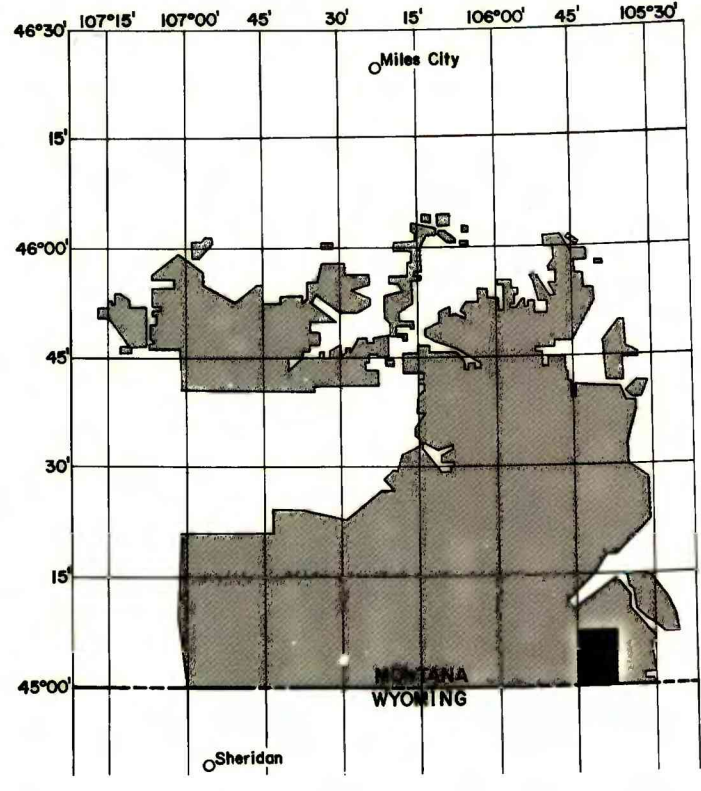modified from Bryson and Bass (1973, pl. 1) to fit modern
topographic map.

COAL MINE—Showing thickness and altitude at the top of
the coal bed, in feet.

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

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.

INDEX MAP—Showing location of the Three Bar Ranch
quadrangle and the Northern Powder River Basin Known
Recoverable Coal Resource Area (stippled), Montana and
Wyoming.

Two U. S. Geological Survey publications, The
Moorhead Coalfield (Bryson and Bass, 1973)
and the Preliminary Geologic map of the
Croton 1 NW (Corral Creek) Quadrangle
(McKay, 1973), join at the Montana-Wyoming
state line. Coal bed nomenclature,
identification, and mapping are in disagreement
on either side of the state line. The following
table sets forth the coal bed nomenclature
relationship between the Corral Creek Quadrangle,
that relates to McKay's work, and the Three Bar
Ranch Quadrangle that utilizes Bryson and Bass'
publication.

Corral Creek Quadrangle	Three Bar Ranch Quadrangle
Anderson	Dietz
Upper Canyon	Canyon
Lower Canyon	Upper Cook
Cook	# 5
Weil	No equivalent
No equivalent	Upper Pawnee
Pawnee	Cache
Cache	# 11

Log(s) inadequate
for determining
occurrence of coal.

Base map from U.S. Geological Survey, 1970

UTM GRID AND 1970 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

Compiled in 1977

MONTANA

QUADRANGLE LOCATION

COAL RESOURCE OCCURRENCE MAP OF THE THREE BAR RANCH QUADRANGLE,
POWDER RIVER COUNTY, MONTANA AND CAMPBELL COUNTY, WYOMING

BY

COLORADO SCHOOL OF MINES RESEARCH INSTITUTE

1979

PLATE 1

COAL DATA MAP