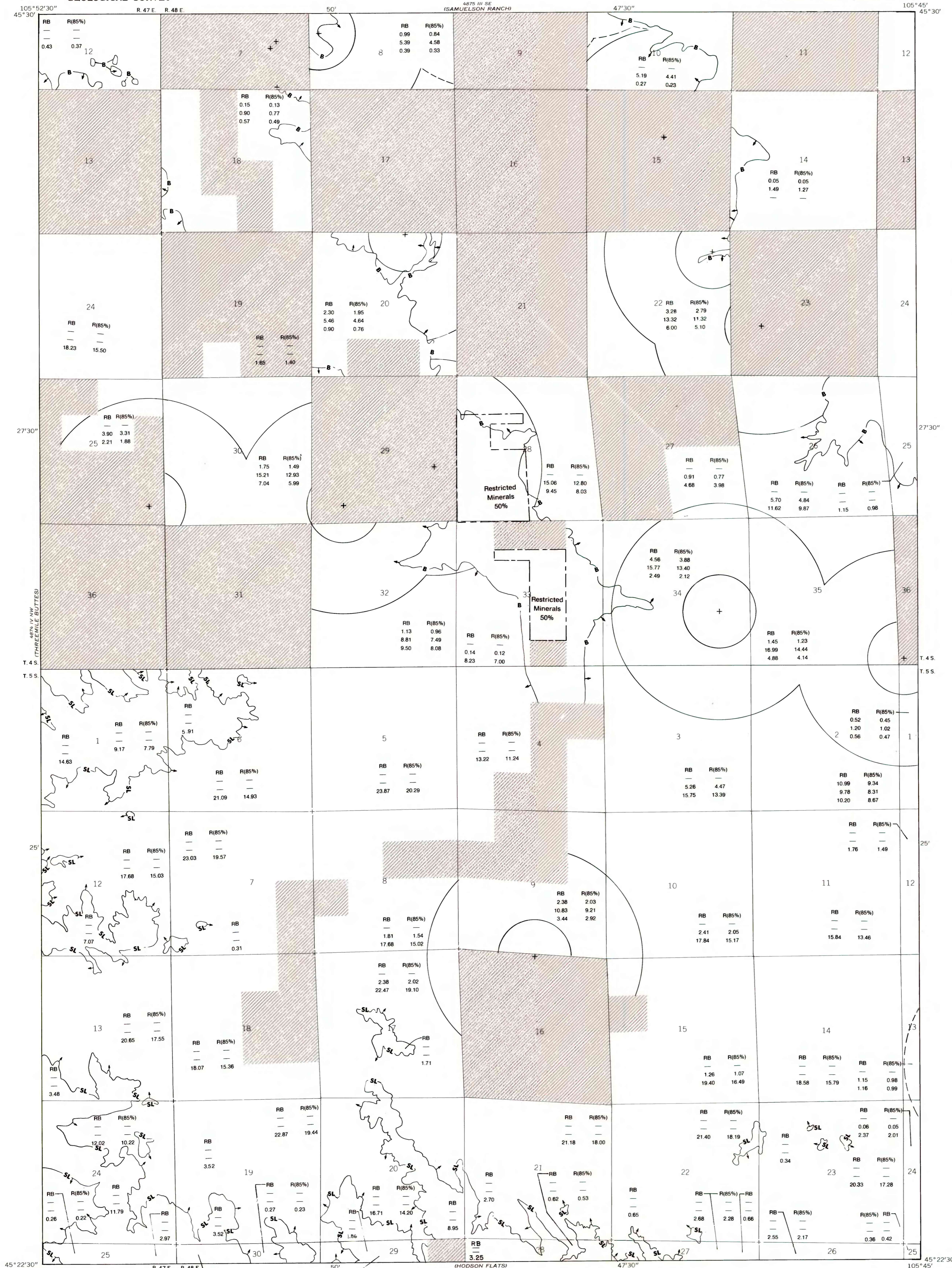


OPEN-FILE REPORT  
This report has not been edited for conformity with  
U.S. Geological Survey editorial standards or  
stratigraphic nomenclature.



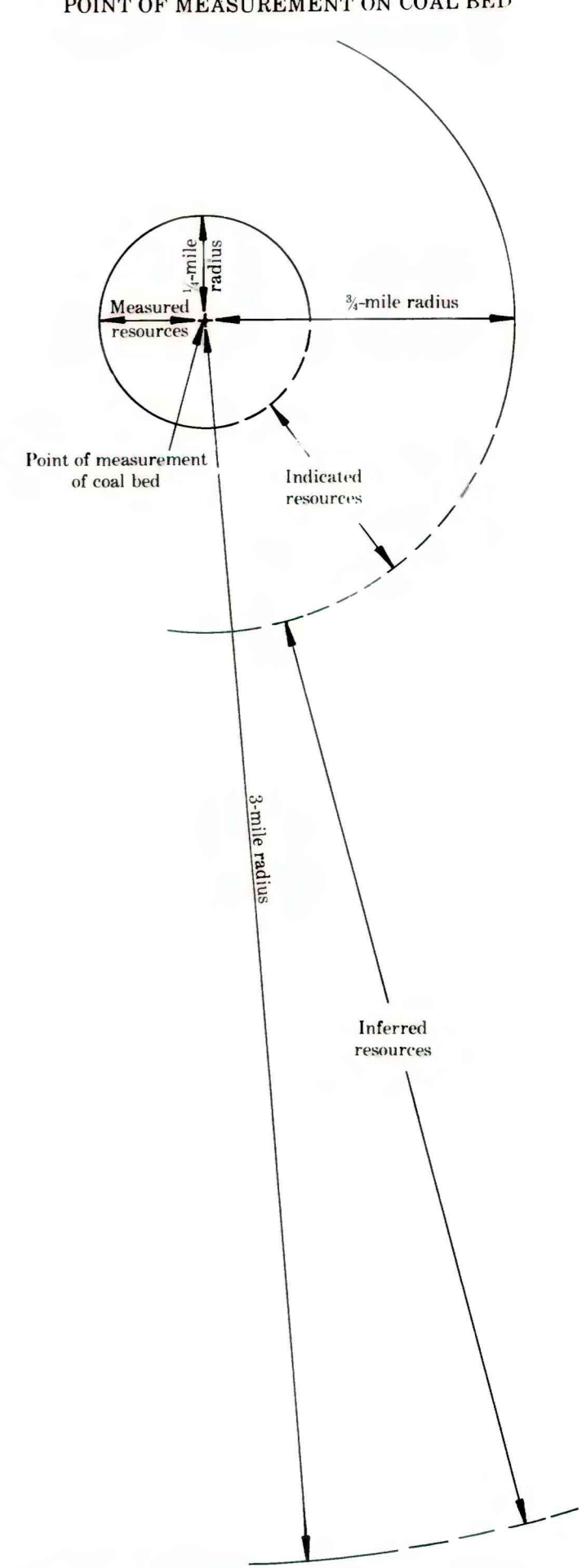
**EXPLANATION**

**STRIPPING-LIMIT LINE**—Boundary for surface mining of the coal bed (in this quadrangle, the 500-foot overburden isopach). Arrows point toward the area suitable for surface mining. Recovery factor of 85 percent within that area of this quadrangle.

**NON-FEDERAL COAL LAND**—Land for which the Federal Government does not own the coal rights.

**BOUNDARY OF COAL 5 FEET OR MORE THICK**—Drawn along the outcrop of coal bed and/or the inferred contact between burned and unburned coal, and/or the 5-foot coal isopach. Arrows point toward area of coal 5 feet or more thick.

**POINT OF MEASUREMENT ON COAL BED**



**DIAGRAM SHOWING COMPONENT AREAS OF IDENTIFIED COAL RESOURCES**—Shows arcuate boundary lines enclosing areas of measured, indicated, and inferred coal resources. Boundaries of areas are dashed where projected from an adjacent quadrangle. Areas of measured, indicated, or inferred resources may be present on this map without their outer boundaries being shown. Coal resources beyond the inferred category are hypothetical resources.

RB	R(85%)	Category
10.99	9.34	(Measured resources)
9.78	8.31	(Indicated resources)
0.20	8.67	(Inferred resources)

**IDENTIFIED COAL RESOURCES**—Showing totals for Reserve Base (RB) and Reserves (R), in millions of short tons, for each section or part(s) of a section of Federal coal land within the stripping-limit line. Dash indicates no resources in that category. Reserve Base (RB) X the Recovery Factor (85 percent) = Reserves (R).

RB	R(85%)	Category
17.1	—	(Measured resources)
—	—	(Indicated resources)
17.1	—	(Inferred resources)

**IDENTIFIED COAL RESOURCES**—Showing totals for Reserve Base (RB), in millions of short tons, for each section or part(s) of a section of Federal coal land outside the stripping-limit line. Dash indicates no resources in that category.

RB	R(85%)	Category
20.33	17.28	(Measured resources)
—	—	(Indicated resources)
—	—	(Inferred resources)

**NOTE:** Recovery factors have not been established for underground development of coal in this quadrangle. Therefore, Reserves (R) were not calculated for the coal bed in areas outside the stripping-limit line.

To convert short tons to metric tons, multiply short tons by 0.9072.

To convert feet to meters, multiply feet by 0.3048.

To convert miles to kilometers, multiply miles by 1.61.

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