

EXPLANATION

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

ISOPACH - Showing thickness of coal, in feet. Arrow points toward area where coal bed is 5 feet or more thick.

MGG[15] - Middle Coal Group, zone G, coal bed [15]

COAL BED SYMBOL AND NAME - Coal bed identified by bracketed numbers is not formally named, but is numbered for identification purposes in this quadrangle only.

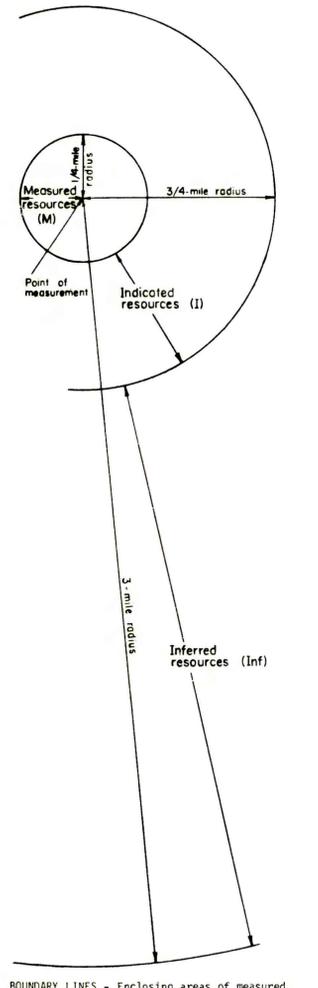
TRACE OF COAL BED OUTCROP - Showing symbol of name of coal bed as listed above. Arrow points toward coal-bearing area. Short dashed where projected by present authors.

STRIPPING-LIMIT LINE - Boundary for surface mining (in this quadrangle, the 200-foot-overburden isopach). Arrow points toward the area suitable for surface mining where the recovery factor is 85 percent, and away from the area suitable for subsurface mining (down dip to the 3,000-foot-overburden isopach) where the recovery factor is 50 percent.

SUBSURFACE MINING LIMIT - Showing areas where dips of coal beds are greater than 15° and subsurface mining by conventional methods is not considered feasible. Reserve Base tonnages are calculated beyond limit; Reserve tonnages are not. Arrow points toward area where dips are greater than 15°.

RB	R(85%)	RB	R(50%)
0.05	0.04	0.13	0.06
0.11	0.09	2.77	1.38
—	—	1.01	0.50

IDENTIFIED COAL RESOURCES - Showing totals for Reserve Base (RB) and Reserves (R), in millions of short tons, for each section or part of section of non-leased Federal coal land, both within and beyond the stripping-limit line. Reserve (R) tonnage is calculated by multiplying the Reserve Base (RB) tonnage by the appropriate recovery factor. Dash indicates no resource in that category. Underground Reserves have been calculated for only that part of the Reserve Base that is suitable for underground mining, and do not include Reserves for areas where the dip of the coal bed exceeds 15°. Therefore, in some instances, underground Reserves may be less than 50 percent of the Reserve Base.



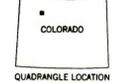
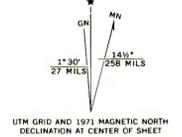
BOUNDARY LINES - Enclosing areas of measured (M), indicated (I), and inferred (Inf) coal resources.

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 1.6093.

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



COAL RESOURCE OCCURRENCE MAP OF THE HAYDEN GULCH QUADRANGLE, ROUTT COUNTY, COLORADO

BY
DAMES & MOORE
1979