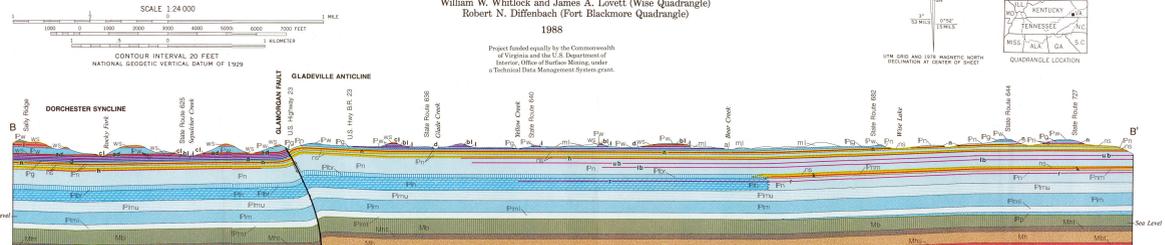


GEOLOGY OF THE WISE QUADRANGLE AND THE COAL-BEARING PORTION OF THE FORT BLACKMORE QUADRANGLE, VIRGINIA

William W. Whitlock and James A. Lovett (Wise Quadrangle)
Robert N. Dittenber (Fort Blackmore Quadrangle)



CROSS SECTION DESIGN

1. No vertical exaggeration.

2. Surface elevations are from the 1929 National Geodetic Vertical Datum of 1929.

3. Thickness of coal beds and surface horizons are diagrammatic.

INTRODUCTION

Wise and Fort Blackmore quadrangles are located in central Virginia and northern West Virginia. The geological map was prepared from the 1957 geologic map of the Wise and Fort Blackmore quadrangles. The map shows the distribution of various geological formations and the locations of faults and folds. The map is a detailed representation of the geology of the area, showing the relationships between different geological units and the structural features that have shaped the landscape.

STRUCTURE

The structure of the area is characterized by several major faults and folds. The Stone Mountain Syncline is a large-scale fold that trends north-south. The Powell Valley Anticline is a smaller-scale fold that trends east-west. The Henter Valley Fault is a major fault that trends north-south and separates the Stone Mountain Syncline from the Hinton Valley Fault. The Dorchester Syncline is another large-scale fold that trends north-south. The Gladeville Anticline is a smaller-scale fold that trends east-west. The map shows the locations of these faults and folds and the relationships between them.

ECONOMIC GEOLOGY

The primary mineral resource in the area is coal. The coal is found in several geological formations, including the lower Norton Formation, the Wise Formation, and the Lee Formation. The coal is of varying grades and is used for power generation and other industrial purposes. The map shows the locations of coal fields and the thickness of coal beds. The map also shows the locations of other mineral resources, such as limestone and sandstone.

FORMATION	THICKNESS (FEET)	DESCRIPTION
Quaternary	0-10	Alluvium, colluvium, terrace deposits
Lower Norton Formation	10-100	Interbedded siltstone and sandstone, unconsolidated
Wise Formation	10-100	Interbedded siltstone and sandstone, unconsolidated
Gladeville Sandstone	10-100	Blocky sandstone, unconsolidated
Norton Formation	10-100	Interbedded siltstone and sandstone, unconsolidated
Lee Formation	10-100	Interbedded siltstone and sandstone, unconsolidated
Bluefield Formation	10-100	Blocky sandstone, unconsolidated
Greiner Limestone	10-100	Blocky limestone, unconsolidated
Hinton Formation	10-100	Blocky limestone, unconsolidated
Chattanooga Shale	10-100	Blocky shale, unconsolidated
Devonian	10-100	Blocky sandstone, unconsolidated
Silurian	10-100	Blocky sandstone, unconsolidated

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