INTRODUCTION

The Merry Oaks 7.5-minute Quadrangle lies in the east central portion of the North Carolina Piedmont. The quadrangle includes the Merry Oaks Quadrangle. A small segment of the Deep River is present in the southwest corner of the quadrangle. The Deep and Haw rivers are prominent waterways in the quadrangle. The Deep River runs through the northeastern part of the quadrangle, while the Haw River flows through the southeastern part. The Quadrangle is also part of the Peri-Gondwanan terranes along the eastern flank of the southern Appalachians. The Merrimac River coal field of North Carolina: North Carolina Geological and Economic Survey Division, 1989, Preliminary bedrock geologic map of the Merrimac River coal field, North Carolina Geological Survey, Raleigh, North Carolina, 1:24,000-scale.

In the western portion of the Merry Oaks Quadrangle, the crystalline rocks are part of the redefined Hyco Arc and Aaron Formation (Reinemund, 1955), partially located within the quadrangle, is a constriction zone in the basin characterized by crystalline rocks overprinted by a complex history of deformation and metamorphism. The region has been subjected to a variety of geologic processes, including mountain building, erosion, and sedimentation.

Sedimentary Units

The Merry Oaks 7.5-Minute Quadrangle lies in the east central portion of the North Carolina Piedmont. The quadrangle includes the Merry Oaks Quadrangle. A small segment of the Deep River is present in the southwest corner of the quadrangle. The Deep and Haw rivers are prominent waterways in the quadrangle. The Deep River runs through the northeastern part of the quadrangle, while the Haw River flows through the southeastern part. The Quadrangle is also part of the Peri-Gondwanan terranes along the eastern flank of the southern Appalachians. The Merrimac River coal field of North Carolina: North Carolina Geological and Economic Survey Division, 1989, Preliminary bedrock geologic map of the Merrimac River coal field, North Carolina Geological Survey, Raleigh, North Carolina, 1:24,000-scale.

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