INTRODUCTION

The Juliaetta quadrangle, located in southeastern Idaho, is traversed by the Columbia River Basalt Group and includes parts of the Lower and Upper Basalt Formations. The Columbia River Basalt Group is a major volcanic province that includes a variety of volcanic rocks, including basalt, rhyolite, and andesite. The group is composed of several distinct units, each with its own petrographic and textural characteristics. The Lower Basalt Formation is a sequence of thick, extrusive basalts that were erupted during the Miocene period. The Upper Basalt Formation is a sequence of thin, extrusive basalts that were erupted during the Pleistocene period. The Columbia River Basalt Group is important to the geology of the region because it provides a record of the tectonic and volcanic history of the area, and because it is a significant source of volcaniclastic sediments that have been deposited in nearby alluvial basins.

The Juliaetta quadrangle includes several key geological features, including a fossilized river channel, a pyroclastic flow deposit, and a distinct basalt flow. These features provide important insights into the tectonic and volcanic history of the area, and they have implications for the development of landforms and the potential for future volcanic activity.

CONCLUSIONS

The study of the Juliaetta quadrangle provides important insights into the tectonic and volcanic history of the region. The presence of the Columbia River Basalt Group, along with other volcanic and sedimentary units, suggests that the area has undergone significant tectonic and volcanic activity over the past several million years. The study also highlights the importance of integrating field observations with other geological data, such as geophysical surveys and drilling, to better understand the geology of the area.

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