

EARLY MIDDLE CAMBRIAN (GLOSSOPLEURA BIOZONE) TRILOBITES IN A STEPTOE SURROUNDED BY COLUMBIA RIVER BASALT NEAR SPOKANE, WASHINGTON

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The basement under the Columbia River Basalt Group is exposed in a number of steptoes in west-central Spokane County, Washington. The rocks within these steptoes consist mostly of sedimentary strata, which have been locally metamorphosed to calc silicates by late Mesozoic granites. The affinity of these rocks in the various steptoes is still largely unknown, although they had previously been assigned to the Ravalli Group or the Wallace Formation of the Proterozoic Belt Supergroup, as these formational groups occurred to the east in Idaho and to the north in northeastern Washington. Alternatively, the quartzites and calc silicates may be part of the Proterozoic Deer Trail Group, which crops out 50 km northwest of Spokane.

One small steptoe on the east side of Clear Lake, which is 10 km west-northwest of the city of Cheney, Washington and 25 km southwest of Spokane, is an exposure of relatively unmetamorphosed rock, beginning with a calcareous quartz arenite (quartzite), overlain by shale containing minor limestones beds and then a reddish mudrock facies. From the reddish mudrock, which had been exposed during construction activity completed several years ago, we discovered an early Middle Cambrian trilobite fauna consisting of inarticulate brachiopods, hyolithids, and trilobite genera including *Amecephalus*, *Glossopleura*, and *Zacanthoides*. This is the first reported occurrence of a *Glossopleura* Biozone fauna in Washington and the only report of fossiliferous strata of Paleozoic age within this region of the Columbia plateau. The nearest known occurrence of this age fauna is from the upper Rennie Shale and basal Lakeview Limestone, located some 100 km to the northeast on the southern flank of Packsaddle Mountain, near Lakeview, Idaho. The rocks and fauna of this small steptoe have a closer affinity to this Idaho location than to the more extensive upper Proterozoic and Cambrian facies exposed in northeastern Washington.

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