

Wetherby Station - Mt Molloy Geology

The Mt Molloy area has four geological units underlying the landscape.

Sedimentary and Volcanic Rocks

Some 360-440 million years ago, the North Queensland region was situated on the northern edge of the Gondwanan supercontinent, and facing a deep ocean basin. Sediment from the continental interior and lavas and ash from volcanoes was deposited in this deep basin. Later movement of the Earth's crust 320-280 million years ago then compressed these deposits to form folded sequences. The units have been so tightly folded that bedding is almost vertical.

These rocks are called the Hodgkinson Formation, and they extend from the coast, forming much of the Dividing Range between Mt Molloy and Port Douglas, and then extend west for over 120km towards Wrotham.

Sedimentary Rocks of the Molloy Beds

The Molloy Beds lie within a narrow faulted area extending some 5km south of Mt Molloy. These sedimentary rocks are similar to the Hodgkinson Formation, but less steeply folded and appear to be a late stage of sediment infill of the Hodgkinson basin.

Granite

The Mt Carbine Granite extends northwest of Mt Molloy, forming the southern end of the Mount Carbine Tableland. Mount Fraser is part of this granite body. Similar large granite bodies form the elevated areas of the Hanns Tableland to the south and the Windsor Tableland further north. To the north of Molloy, the Peninsula Development Rd turns west to skirt this high country and then resumes its northwesterly trend towards Maryfarms. The granite was emplaced 280 million years ago, in the early Permian.

Alluvium

Extensive river and soil deposits extend northwest from Mareeba, underlying and surrounding the Lake Mitchell dam. Much of this alluvium dates back a million years or more when basalts of the Atherton Tablelands were being erupted. Some is clearly younger, and still forming along the main streams, especially in the Rifle Creek area

Copper was discovered at Mount Molloy in 1883 and small scale mining of the copper oxide mineralisation was undertaken until 1902. From 1905 to 1909 the Mount Molloy Mining Syndicate undertook more systematic mining and the mine was briefly worked again by tributers in 1918. The deepest shaft reached a vertical depth of 143m with ore zones, up to 3.6m wide, assaying up to 20% Cu. Recorded production is 44,000t of ore averaging 8.7% Cu and although significant reportedly high grade zinc was present, it was not recovered due to the depressed zinc market at the time. When the mine closed in 1909, about 20,000t averaging 3% Cu was reported as remaining within the mine. Modern day exploration began in about the mid 1960s and continued until approximately 1990. Little exploration has been conducted at this mining camp since then. The present Mount Molloy base metal (Axiom Mining) project is located approximately 3km south of the village of Mount Molloy.

References

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