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APPENDIX "D" (xviii)

(7) MOUNT MCCLENNAN ZINC DEPOSIT (cont'd.)

Crowpat Mines Ltd. bored a number of diamond drill holes in late 1966.

This area is occupied by metasedimentary rocks of late Paleozoic age. (Cache Creek group); consisting of sericitic phyllites, minor quartzite and limestone. A batholithic mass of granite and granodiorite occurs about one mile to the north.

Iron, zinc and lead sulphides are emplaced concordantly in the sedimentary sequence, favouring more siliceous horizons, on the north limb of an anticline which plunges gently eastward. A number of lamprophyre dikes and barren guartz veins cut the sediments.

The "Red Top" showing consists of galena, sphalerite and pyrite in quartzite.

At the "Snowbird", sphalerite, pyrite and traces of chalcopyrite occur as coarse streaks and disseminations in grey crystaline quartzite. The mineralized beds are 5' to 15' thick and are estimated to contain 1% to 5% zinc.

The Sunrise showings are on the axis of the suggested anticlinal structure. The mineralized beds consist of coarse submassive pyrrhotite 2' - 5' thick containing variable amounts of sphalerite.

(7) MOUNT MCCLENNAN ZINC DEPOSIT (cont'd.)

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None of the sections observed are economically significant and the immediate area appears to have been explored in detail. However, this may represent an important type of zinc environment for the following reasons:

- The emplacement of Pb Zn sulphide appears to be stratigraphically controlled. This type of setting is one which is capable of accommodating large volume zinc deposits.
- 2. The geological environment is similar in some respects to that in which large zinc deposits have been recently discovered in the Anvil Range, Yukon Territory. The similarities are as follows:
 - a) Roughly equivalent age of host rocks late
 Paleozoic.
 - b) Similar lithology phyllitic and schistose sedimentary rocks with occasional bands of carbonate and siliceous beds.
 - c) Approximately equal degree of regional metamorphism - spotted slate range.
 - d) A siliceous horizon is favored by lead zinc mineralization.

(7) MOUNT MCCLENNAN ZINC DEPOSIT (cont'd.)

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The Mt. McClennan zinc prospect as it is presently known does not appear to be economically important. Its geological setting, however, suggests certain very rough guides which could be used for zinc prospecting both locally and in other parts of the Cordillera.

