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During road construction, chert beds in the Misty Valley area were unearthed which appeared very similar to the Red Rock Member at Renison Bell. It was thus decided to cut an 8 line grid over this area, with lines spaced at 200m. intervals, and to then undertake such geological, geochemical and geophysical surveys on this grid as thought necessary.

8.2. Geology

Geological mapping over the grid indicated a sequence of siltstones, shales, and cherts, dipping 50-80° E and striking approximately north-south. The rocks are probably more intensely folded and faulted than indicated - no accurate detailed structural interpretation is possible due to the poor outcrop.

The oldest sediments outcrop over the western section of the grid, and consist of a sequence of thickly bedded quartzites with minor interbedded siltstones and shales. The sequence becomes finer grained towards the top, and consists mainly of slumped shales and minor siltstones. These rocks lie to the west of the main area of interest.

Overlying the quartzites are grey-green to grey-black soft well bedded siltstones, with minor interbedded grey-black shales and black oolitic cherts. The thickness of this sequence is of the order of 200m. Outcrops of the oolitic chert occur along the Mt. Lindsay road near the Misty Valley camp track. Oolitic chert scree occurs along the Chert Creek Road.

In other areas - namely along the Mt. Lindsay road near Salmon Creek, the cherts are concentrated close to the top of the sequence. The origin of the oolitic cherts is unknown, but it may be primary deposition of chert nodules on the sea floor; or secondary - silicification of oolitic carbonate beds.

In the Chert Creek area, the cherts are overlain by 50m. of black shales and minor siltstones. These sediments are contorted in places and known to contain graphite (graphitic shale along shear on M.V.I./650ME).

A red nodular chert bed (Lower Chert) overlies the shales and is well exposed along the Mt. Lindsay Road, and on several bulldozer tracks between lines M.V.I. and M.V.2. This bed has been traced 5 kms north-west to the western