

A zone of poor core recovery in strongly oxidised rocks between 46m and 57m may represent a fault zone, but the details of the sequence suggest that the conglomerates below 88m are not direct fault repetitions of the conglomerates above 29m. The definition of the S.C. unit is confined to polymict fuchsite bearing conglomerate. The mixed lithology sequence between 29 and 97m is probably best assigned to the W.A. This sequence may represent a transition zone from W.A. to S.C. related to fluctuating sea levels.

Below 97m, the W.A. is present as a sequence of dominantly grey mudstones, - siltstones and minor sandstones with thinly interbedded limestones and interbedded felsic tuffaceous wackes. The sequence is intruded by a strongly altered granitoid between 144.5m and 160m. Between 180.5 and 203.2 the sequence contains distinctive green siltstones and mudstones with mafic to intermediate tuffs and tuffaceous wackes intruded by a thin microgabbro. This unit is very similar in appearance to the more mafic of the Colebrook Ridge Wackes described above. This variety of lithology is far greater than that exposed on surface where the W.A. is marked by strongly oxidised orange weathering mudstones covered by orange-brown clay rich soils. These are replaced westwards by pale grey sandy soils above white quartz wacke and siltstone with black mudstone of the M.C.S. In the drill hole at 217.6m there is a sharp contact with laminated mudstone-siltstone and fine grained quartz wacke of typical M.C.S. type. Between 225m and 243m the rocks are strongly sheared, brecciated and faulted, and variably mineralised, but are comprised entirely of M.C.S. lithotypes.

The contact relationships and the facing evidence indicate that the W.A. conformably overlies the M.C.S. in this area. Lithologically and geochemically the W.A. has strong similarities with the C.R.W. which are believed, from the arguments presented above, to underlie the M.C.S. A thin section from the W.A. in CHP 264 (Appx. 2) describes detrital chromite which strongly supports a post-ultramafic, Dundas Group age for the W.A. This sample is contrasted in the petrology report with all the other thin sections from the C.R.W. which contain no chromite. The favoured interpretation therefore is that the W.A. is not equivalent to the C.R.W. The C.R.W. is a Crimson Creek correlate which underlies the M.C.S. and the W.A. is a Dundas Group correlate which overlies the M.C.S.

4.2. Geochemistry

All geochemical data from DDH CHP 263, 264, 266, 267, 268 are presented on the log sheets in Appx 1. Much of this data has been referred to in the discussion of the geology in the above section.