

of hematite in the matrix. The southern extent of this unit is masked by glacials.

Unit 8: Hematitic fine to coarse grained lithic crystal tuffs; fine to medium grained chloritic to hematitic carbonate rich sediments with variable magnetite; minor sericitised feldspar crystal lithic tuffs with variable hematite and pyrite. This unit, which hosts the silver mineralisation in D.D.H. HA3, HA4 and HA5, changes laterally to the north and south to Unit 8A.

Unit 8A: Medium to coarse grained hematitic crystal lithic tuffs with phenocrysts of feldspar and lithic fragments of hematite. There is a pronounced lack of carbonate. The partly silicified hematitic crystal lithic tuff found in D.D.H. HA5 and in outcrop in Tyndall Creek on line 19N may be an inbetween facies variation of unit 8 and unit 8A.

Unit 9: Medium grained andesitic crystal lithic tuff with phenocrysts of feldspar in a chloritic matrix; zones of grey-black shale. This unit which apparently narrows (20-40 m wide) to the south intercedes between the hematite carbonate rich unit and the Tyndall Group rocks.

Unit 10: Tyndall Group; pink green felsic, feldspar-quartz crystal lithic tuff and agglomerates. Partial albitisation of fragments and groundmass.

Unit 11: Tyndall Group; fine to coarse grained volcanoclastic sandstones and conglomerates. Possibly lenses out to the south.

Unit 12: Tyndall Group; flow banded and autobrecciated felsic lavas and fine to coarse grained felsic tuffs.

Unit 13: Tyndall Group; medium to coarse grained volcanoclastic sandstones minor chert and ash flows (acid crystal lithic tuffs).

Much of the Howard's Anomaly-East Tyndall area is partially and irregularly covered by glacial lodgement and ablation tills of a thickness varying from 5 cm to 30 m. This gives some problems in enabling complete geochemical evaluation. Areas which are covered by glacial overburden and allow little or no geochemical and geological information are shown on Figure 19.

#### 2.1.7 Conclusions

1. Work in the vicinity of the line 23.7N pit has shown that the zinc anomalies in this area are not entirely hydromorphic in origin, despite the fact that high Mn values occur in the upper part of the soil profile and that the anomalous zinc values only occur within a 200 ft. wide depression. The zinc occurs as sphalerite or wurtzite with abundant pyrite within glacial outwash(?) gravels. These are presumed to be derived locally as indicated by the unaltered sulphides. Further follow-up of this anomalous area will be carried out by soil sampling and possible costeaning to the south.
2. A zone of zinc anomalies was delineated on strike with the line 23.7N pit. Further soil sampling, on strike, on established grid lines is recommended.
3. Work during the 1980-81 season has delineated the Ag mineralisation as occurring within a hematite carbonate rich unit some 100 m wide, 1.5 km long. This unit consists of three interbedded components: An andesitic crystal tuff, hematite and carbonate. The hematite and carbonate content is extremely variable along and across strike.

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