

065

REPORT CMS 84/5/22

Twenty-four drill core samples from drill holes GP 7 and GP 8 (Grand Prize), were received for petrological examination. Representative thin-sections were prepared and examined together with their respective offcuts. Attached tabulated descriptions summarise the microscopic data, incorporate results of carbonate stain tests, where warranted, and include interpretative comments. Two polished sections were prepared; one from Grand Prize mineralised zones to confirm the opaque assemblages, and mineragraphic notes are appended.

Summary

The Grand Prize sequence, as intersected in GP 7, and as sampled comprises an impure limestone (samples 238.0 m, 259.2 m) overlying a polymict conglomerate (370.2 m), mineralised fault breccia (390.0 m), and a basal unit of basic igneous rocks and breccias (390.8 m, 398.6 m, 400.7 m, 403.0 m, 409.0 m, 432.9 m).

Limestones are impure (carbonaceous, argillaceous, "pyritic") types and could be correlated with Gordon Limestone on petrological grounds, although interpretation will be dependant on field evidence. These rocks are mildly altered with 259.2 m carrying carbonate vein-hosted sphalerite disseminations.

The conglomerate at 370.2 m exhibits Dundas Group-type characteristics partly obscured by marginal (phlogopite-tremolite) contact effects. The "basal" basic igneous rocks exhibit saussurite-uralite (+ schorl) alteration assemblages of contact character, complexed to varying degrees by fracture-related quartz-carbonate-chlorite-clay alteration with minor associated traces of sphalerite. These rocks may exhibit accessory chromiferous magnetite and conceivably grade into picritic or strictly ultramafic types.

The mineralised breccia (390.0 m) exhibits a polymetallic opaque assemblage with pyrite, pyritised pyrrhotite and arsenopyrite accompanied by conspicuous galena, sphalerite, chalcopyrite and cassiterite. Conspicuous tetrahedrite inclusions in galena suggest this ore is argentiferous, and traces of cobaltite are present. Grainsizes are widely variable, largely a reflection of post-mineralisation stress and granulation effects, but consistent with normal flotation milling criteria. Gangue comprises chlorite and sideritic carbonate.

D. Cowan, B. Sc.