

2. Wopus Claims - Boswell River

The Wopus claims are on the north side of the Boswell River opposite Red Mountain Creek approximately 50 miles northeast of Whitehorse. The exact location is $61^{\circ}02'$ north, $133^{\circ}40'$ west. The writer visited the property from July 19 to July 24 with Gerry Leverman of Whitehorse. Access to the property was by helicopter from Quiet Lake on the Canol Road. Another route is by float plane to the mouth of the Boswell on the Teslin River and then by trail to the property, a distance of 25 miles.

The initial discovery of mineralization in the area was as early as 1915. In 1929 an adit was driven 120 feet. Little work was done on the ground between 1931 and 1951 when the property was restaked by John Mohagen of Whitehorse. Since then numerous hand trenches have been pit in. At present Mohagen and two partners hold 24 claims.

The dominant rocks underlying the upper Boswell River are quartz-biotite schist, chlorite schist, schistose quartzite and lesser amounts of crystalline limestone of pre-Middle Mississippian Age. These metamorphic rocks are confined to a northwest trending belt between the Quiet Lake Batholith on the northeast and a stock of quartz diorite on the southwest. Smaller bodies of granite porphyry and felsite, usually a few hundred to a few thousand feet wide and elongated in the plane of foliation of the schists are widely distributed throughout the metamorphic section. The Quiet Lake Batholith, when observed, is coarse-grained porphyritic granite, often pegmatitic at its borders with the older rocks. Two bodies of serpentine are reported in the vicinity of the claims near the granite contact. Only one of these bodies was encountered by the writer. It is circular in plan, 220 feet across, reddish-grey weathering, green to black on fresh surfaces. The schist adjacent to the serpentine is pyritic and weathered rusty to black.

Quartz veins, mostly in the foliation of the schist are found in a northwesterly striking belt near the granite contact. Individual veins may be persistent for over one thousand feet with widths varying from a few feet to twenty feet; the average widths would be in the order of 5 to 8 feet. Smaller, less persistent, veins occupy cross-structures striking northeasterly with steep dips. The veins of the western part of the claim group seem to be spatially related to quartz and feldspar porphyry bodies and felsite removed by as much as 3000 or 4000 feet from the contact of the Quiet Lake Batholith. Galena as blebs and

stringers filling fractures with very little replacement is irregularly distributed through most of the veins that were investigated. At lower levels in the vein near the old portal pyrrhotite, pyrite, chalcopyrite and molybdenite are also present but in no significant quantity although this may indicate some mineral zoning at depth. The best mineralization occurs in cross-structures within the northwesterly trending veins. The best widths observed would be from 6 inches to 2 feet of 20 to 40 percent galena. These zones are sharply limited in length by the width of the main vein and continuity to depth could only be investigated by re-opening the old adit or by drilling. From a few inches to two or three feet of the wall-rock outside the veins may be mineralized by finely disseminated pyrite.

The best assay reported is 131.5 oz/ton silver with 66.3 percent lead. The silver-lead ratios varies from 2.0 to 3.3 with 2.4 average. G.H. Noel of Northwestern Explorations obtained one section 2.5 feet wide assaying 102.5 oz/ton silver and 45.2 percent lead. Gold values very from a trace to 0.02 oz/ton. No other metals appear to be of any significance.

The distribution of quartz veins indicates a close relationship, particularly with the contact of the granite batholith and to a lesser extent with the minor intrusive bodies. This is also true of barren quartz veins outside the claim group to the southeast across the Boswell River. The persistent vein systems lie in shear fractures along the northwesterly trending, steeply southwest dipping foliation of the schist. The sulphide mineralization appears to be controlled to a large extent by northeasterly striking fractures severely limited in strike length. An effort was made to outline more competent beds of quartzite or limestone within the section. More siliceous rocks are present in thickness of a few tens of feet but in general the schists themselves are siliceous and competent. Where quartz veins were enclosed by more quartzose rock no significant difference in vein widths or continuity could be proven. Crystalline limestone, very irregular in thickness, sometimes up to 50 feet thick is present in a few places but no idea of the effect of this rock on the nature of the vein systems was obtained.

The small size potential of any of the mineralized sections in the veins makes the present showings uneconomic. Any further work on the claim group and the adjacent area should be in the form of detailed prospecting.

In addition to the mapping of the claim group and adjacent areas a brief helicopter reconnaissance of the granite body on top of Red Mountain, 4 miles to the southwest, was carried out. This body and the surrounding slates and argillites are conspicuously rusty. Fresh specimens of the granite were found to contain up to 5 or 10 percent pyrite. The porphyry body itself was not accurately outlined but appeared to be a few thousand feet wide and at least 2 or 3 miles long. The general environment suggested to the writer the circumstances under which porphyry copper mineralization might be found although no copper minerals were identified. More detailed prospecting of the Red Mountain area using geochemical methods should be considered.

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References

G.H. Noel (1955) - Summary Report on Mobs Group - Boswell River Area. Private report for Northwestern Exploration Ltd. supplied by Mr. Leverman

E.J. Lees (1963) - Geology of Teslin - Quiet Lake Area, Yukon; Geol. Surv. of Canada, Memoir 203.