



REPORTS OF DISTRICT GEOLOGISTS

MINERAL PROPERTY EXAMINATIONS

SOUTHEAST BRITISH COLUMBIA

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CHINA CREEK URANIUM-BEARING MIGMATITES (82F/4E)

The China Creek uranium prospect is situated approximately 7 kilometres south of Castlegar on Highway 3A. The original property named MOTA was located in 1967 and was examined by Norex Uranium Ltd. Seven diamond-drill holes were completed, the deepest being 152 metres, and the claims were subsequently allowed to lapse. In 1975 the U3 and U308 claims were restaked by Peter Leontowicz. Since then a considerable number of units have been located, 78 of these belong to the 'China Creek consortium' composed of: Groundstar Resources Limited, Tandem Resources Ltd., Golden Granite Mines Ltd., Nevex Mines Ltd., and Nomad Mines Ltd. This consortium is financed by Stampede International Resources Ltd. and Northwest Ventures Ltd.

Country rocks in the area comprise a layered succession of mixed gneisses with medium-grained granite gneiss and medium to coarse-grained granite augen gneiss forming the bulk of this gently folded unit. No Nelson granite has been identified on the property. Agmatitic migmatite consisting of amphibolite and massive leucocratic pegmatite lenses transgress the country rock gneisses in arcuate zones. The field relationships indicate that of these main rock units the gneisses are oldest and have been injected and cut in turn by sill-like amphibolite dykes and then by pegmatite along extensive fracture zones which largely follow the amphibolite. A number of younger granitic dykes and small plutons cut the migmatites and are in turn cut by swarms of basalt dykes.

The main uranium mineral is uraninite. It is possible that this is in solid solution with a small amount of thorianite. A secondary uranium mineral with bright green fluorescence originally thought to be autunite has been X-rayed and found to be an amorphous uranium silicate. This mineral is ubiquitous and relatively non-radioactive. It cannot be identified by radiometric surveys, but is readily detected using an ultraviolet lamp. The uraninite has been found to have a 'nugget' effect in sampling. Thus a large sample (approximately 1 kilogram) yields better grades than small samples from the same place. The leachability and grade of the uranium are the two critical factors in the economic evaluation of this deposit.

JACKASS URANIUM CLAIMS (82F/5E)

These claims, owned by S. Patszty and A. Terekoff, are accessible by way of a powerline road west from South Slocan and are at an elevation of 1 000 metres.

Host rocks are quartz feldspar pegmatite 'sills,' approximately 15 metres thick, which are identical to those at China Creek 29 kilometres to the south-southwest. The 'sills' strike approximately east-west and dip 24 degrees south. The strike length has been examined over 2 kilometres and is open at both ends.

The general geology of migmatites in this area is best described by Reesor in Bulletin 129, *Structural Evolution and Plutonism in Valhalla Gneiss Complex, British Columbia*. In this area the 'Hybrid gneiss,' as described by Reesor, is the dominant rock type.

An amorphous uranium silicate is ubiquitous but is probably not very thick, that is, in the order of 1 millimetre. The primary mineral is probably uraninite, as at China Creek, and best values seem to be associated with biotite.

Highest grades found so far are in the order of 0.03 per cent U_3O_8 .

ALEXANDRIA NO. 2 MINE (CHIEF) (82F/11W)

The CHIEF claim is accessible by a good logging road up Lemon Creek and Crusader Creek for 20 kilometres, thence by an old logging road on Branch 5 for 3.5 kilometres to an elevation of 1 600 metres on Tagart (Tiger) Creek and a foot trail for 2 kilometres to the mine on the south slope of Mount Rappel at an elevation of 2 100 metres.

The host rock for the mineralization is granite to granodiorite of the Nelson batholith. In the mine the vein is generally measured in centimetres, but in several locations widths of 0.6 metre were seen. Economic mineralization consists of galena, argentite, and chalcopyrite. The owner also reports native silver.

Massive galena occurs on the eastern side of the first stope. The shaft probably was raised on the vein and galena is present on the west wall. Here the galena forms the matrix of a breccia as compared to the rest of the vein which is normal vein filling. The production from the last two years has all come from a surface cut at an elevation of 2 100 metres.