Astro Project
672546

267.5-418
DDH 78-5
FARLEIGH LAKE

Rhyolitic Breccia complex, medium to fine grained and grayish purple matrix, with devitrified glass, locally very porous and, also locally, crowded with fragments.

The following features are highlighted by this hole:

1) Strong weathering or flow of oxidizing water at the rhyolite breccia/Springbrook Conglomerate contact. If this is, in effect, a strongly weathered surface, the rhyolitic breccia complex becomes the lowermost unit of the Yellow Lake member.

The rhyolite complex, the upper unit of the Springbrook Formation, is a porphyritic rhyolite to rhyodacite flow unit with irregular rhyolite breccia flow tops extensively altered to jasper-hematite. The rhyodacite porphyry is light brown with 10% - 2-3 mm light brown altered feldspars with 2-5% - 1 mm quartz grains in a light brown chilled aphanitic to glassy groundmass. On outcrop, the unit weathers to a bleached, highly broken rock with irregular zones of rhyolite breccia. In the main area of the grid the unit appears to be 30 - 40 metres thick and appears to thicken to the northwest to 100 metres(+).

2.1 SPRINGBROOK FORMATION; "Rhyolite Complex", Unit 4B

Sample 27; probably collected from the upper part of the "Rhyolite Complex", just below the base of the "Green Sandstone" unit.

Dense, hard, red-brown, brecciated, siliceous rock, probably rhyolite. In thin section the rock consists of fine, glassy, brecciated rock. The glassy material has probably been devitrified and the result is a felsitic texture. Scattered, fine, fragmentary feldspar euhedra and hematitic staining are also present.

DIAGENESIS

The characteristic high porosity of tuffs and the instability of their components render them prone to alteration. Vitric groundmass material consisting of shards undergoes devitrification resulting in the formation of clay minerals and zeolites with silica. The release of silica at an early diagenetic stage probably forms chalcedony which results in the formation of a dense, cherty rock. Large pores in many of the rocks have been completely or partially, infilled with quartz aggregates.

(5)

Silicification, calcification and emplacement of iron may be the result of hydrothermal flooding of the porous volcaniclastic sediments. The selective passage of fluids along channels having high porosities appears unlikely in view of the universal high primary porosity of most of the samples of the coarse volcaniclastic group. However, it seems likely that the coarsest tuff lithologies would have the highest original porosities and would therefore control a greater volume of migrating fluids.

(6)

volume of migrating fluids.

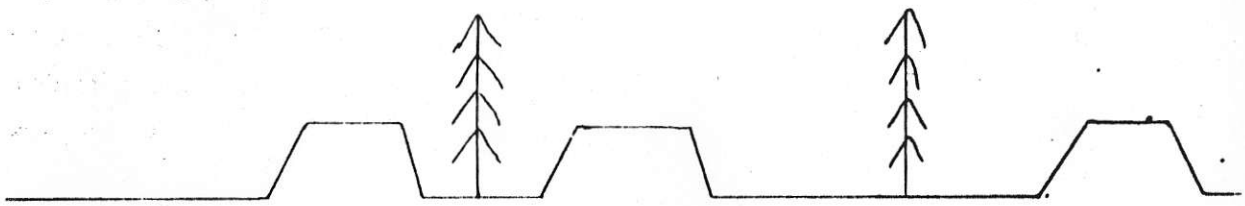
(7)

267-2675' Basaltic dyke v. vesicular & porous. Crowded feldspars w/lots Fe_2O_3

2675-418' RHYOLITE BRECCIA (Dog's breakfast!)
m to f.gr. greyish purple matrix, w/devitrified glass, locally v. porous &, also locally, crowded w/fragments, w/viscous-like flow features localized within small sections of matrix

This year, the term "Rhyolite Complex" (4B) will be restricted to the devitrified, brownish colored, shattered rhyolite described in DDH 78-5 as "Dog's Breakfast" and will not include the phase termed porphyritic rhyolite by G. Nordin. DDH 78-5 and areas within its vicinity are the only places where this rock has been observed. Outcrops are characteristically shattered and brittle, and specimens break off outcrops with knife-sharp edges. This rock may represent a dome feature and/or may be the lowermost unit of the Yellow Lake member.

The granitic boulder conglomerate outcrops on line 65+500N from 313+200E to 312+700E form sub-parallel wall-like ridges 2 m to 4 m high and appears as follows:



The significance of the ridges is not known.

2Ac - "Chert Breccia" - This unit is found in the northwest Quadrant along the east face of the chert mountain. It is composed mainly of subangular to rounded chert fragments varying in size from 1 mm to 6 cm in diameter. The breccia is cemented together by siliceous chert or quartz. Formation of the breccia could be from a north trending fault running through the centre of the Flats which B. N. Church reported in his mapping of the area.

There are two old prospecting workings within the breccia. We found blasts holes and pits approximately 3 m diameter and 6 m deep around hematized zones. A gossan sample was taken for assay. Prospecting was probably for gold.

Field observations indicate that the syenite was emplaced before the coarse grained granite. A possible xenolith of syenite was found within the granite; also the sediments are in contact with the syenite (11) in the southeast area as opposed to the granite. Bostock's proposed legend agrees with this observation. Near where the sediment/gneiss contacts with the syenite and granite, there are areas of intense silification and/or pyritization.

Several pyrite gossan zones were observed and one minor (12) serpentine occurrence was found. Radiometric background is low at around 2000 cpm.

40'- 320' SKAHA LAKE CONGLOMERATE	240'-250' - as from 200'-210' 250'-320' - plagioclase "granite" & some chert pebbles; slightly hematized in places, but very hematized 300'-305'
320'-425' OLD TOM GNEISSES (13)	320'-330' - white felsic gneiss with chlorite, magnetite, pyrite & possibly garnets 320'-330' 330'-374' - dark mafic gneiss containing biotite, hornblende & some py, plagioclase & chlorite. 374'-400' - felsic gneiss of qtz, plag, & chlorite; some matics, magnetite & pyrite. 400'-425' - mafic gneiss w/ qtz bands