

P E R T E M U A N P E R S A T U A N
(M E E T I N G S O F T H E S O C I E T Y)

TECHNICAL TALK

A. MILLER: Geology of the Proterozoic basins in Central Keewatin and non-time bound character of uranium deposits in these basins.

The above technical talk which was earlier scheduled to be held in Kuching, Sarawak, was finally presented by Dr. Allan Miller to a crowd of 50 at the Geology Department, University of Malaya, Kuala Lumpur, on Monday 22 October at 5.30 p.m.

Dr. Miller who is with the Economic Geology Division, Geological Survey of Canada, briefed the audience on the geological setting of the Proterozoic Basins of the District of Keewatin, the rock types present, the ages and uranium mineralization.

On the NE Thelan Basin, the sandstone is red from oxidation and is mineralised while the siltstone and mudstone are basin. The mineralised zones are 10-20 cm wide, $\frac{1}{2}$ km in strike and contain uraninite coffinite and pitchblende. The mineralisation is early diagenetic.

The Baker Lake Basin consists of the Christopher Island Formation of trachybasalt and trachyandesite, with 15-20 ppm uranium, together with rhyolite and hot granites. There are various episodes of magmatism and the rapakivi granite of 1.8 Ma appears to be the last in the area. Uranium is found in every formation in the Baker Lake Basin together with a variety of mineralisation which includes Cu, Ag, Se and Mo.

Essentially uranium mineralisation in the Lower Proterozoic metasediments are in polydeformed quartzite. The Lone Gull Deposit, an unconformity-type deposit, is one of retrograde greenschist metasediments. The quartz-illite-Mg chloride rock is porous and contains coffinite with multicyclic remobilisation of pitchblende and tellurides, Selenides and Ni-arsenides.

During question time, members who are directly involved in one way or another with uranium or radioactivity were ready with various points for discussion.



G.H. TEH

Dr. A. Miller