

TR2-14-15

URANIUM AT CASTLE CAREY CREEK (Second Report)

by **TERENCE D. HUGHES**

Last year a report was prepared on this prospect and a recommendation made to the effect that although it was doubtful if the deposit would reach economic grade, it was sufficiently encouraging to warrant further trenching.

The lessees have carried out this trenching about one chain south of the original trench. A bulldozer cleared overburden and cut a trench with a maximum depth of 15 feet, mainly in detrital granite and arkose. In the base of this trench a shaft was sunk for six feet in black shales and bottomed on a hard grey silicified mudstone carrying pyrite. This is the same stratum as was sampled in the creek bed; it lies between the granite below and the black shale above, and assayed 0.014% U_3O_8 .

A Section of the strata exposed in the trench and shaft is as follows:—

	ft. in.	
Overburden	10 0	
Clear Coaly Shale	9 6	
Arkose	7 6	
Black Shale	6 0	
Arkose	5 0	Top of Shaft
Softer Black Shale	3 6	} 1500-2000 c.p.m. on Philips Geiger Counter
Black Shale with Pyrite	2 6	
Black Shale		
Hard grey Silicified Mudstone with pyrite		Bottom of Shaft

Unfortunately, the shaft is located in a water seep and, from day to day, half fills with water. After bailing, a sample was taken from the bottom of the shaft over four feet of the black shales. A chemical assay of this sample showed 0.06% U_3O_8 .

Although some of the uranium bearing material may have been removed from these carbonaceous, pyritic shales, the appearance of the beds themselves does not suggest extensive leaching and it would appear that the grade is not sufficient, at this stage, for commercial exploitation. It may be that greater concentrations of uranium occur at other places in the shales but it is not recommended that further blind trenching be attempted to look for richer values. A scintillometer survey would be of limited use, as the amount of overburden increases rapidly as the hill rises.

During this last visit, I inspected a further area underlain by these black shales. This is located about half a mile to the west and at a higher elevation. The shales again show appreciable readings on a geiger-counter and occupy the base of a similar down-faulted Permian block.