PE-049-12

REPORT ON THE EXAMINATION OF THE DANIELL PROSPECT, RUTH CREEK, LIVENGOOD QUADRANGLE

In the early part of June 1954, Ray Daniell brought to the College Field Office a weakly radioactive sample from a mineral deposit that he found while prospecting with a Geiger counter in the vicinity of Livengood. On June 8, 1954, I examined his prospect in conjunction with other field investigations in the Livengood area.

The Daniell prospect is on the right limit side of Ruth Creek, tributary to Livengood Creek, and about 50 feet north of a cabin owned by Ben Falls. There is a tractor trail that leaves the Elliot Highway on the right limit side of Lillian Creek, goes to the head of Ruth Creek, and goes down the valley of Ruth Creek to rejoin the highway in the valley of Livengood Creek; a pit that has been dug on the prospect is in this tractor trail.

Two lode claims have been staked on the prospect; they are owned jointly by Ray Deniell and Ben Falls.

The bedrock at the prospect is part of a series of metamorphosed sedimentary rocks that have been ascribed by Mertie [1] to the Middle Devonian age. The radioactive material is in a shear zone that strikes about northeast and dips nearly vertically. The shear zone is exposed in a hand-dug pit about four feet deep. Field tests with a Geiger counter indicated that the most radioactive part of the shear zone is a black gouge that occurs along some of the fractures.

Ray Daniell said that when he first began to dig the pit he obtained higher readings on his Geiger counter than he has been able to obtain since. He explained this to John Matzco of the U. S. Geological Survey, who attributed the apparent differences in radioactivity to the fact that the ground was wetter when digging began than it has been since the pit was dug.

One sample of the black gouge was taken from the pit during this examination; it was tested by the USGS Radioactivity Testing Laboratory at College, and it was found to contain 0.005 per cent equivalent uranium. Two other samples were taken from the pit by Ray Daniell, and they were found to contain 0.007 and 0.015 per cent equivalent uranium. A qualitative test on the highest grade sample indicated that no uranium is present.

At the time of the examination, Ray Daniell was undecided as to whether or not he should do more work on the prospect. I recommended that he delay making a decision until he obtained the result of a qualitative test for uranium. After he obtained the result of the test, he apparently abandoned the prospect and left the Livengood area.

Respectfully submitted,

Robert H. Saunders
Associate Mining Engineer