

HESS REGION REPORT

No. 69-2

Detailed Work in the Vicinity

of

Geochemical Anomaly #166

N.T.S. 105-J-13

Work done in the period

June 7 - 11, 1969

by

G.R. Sanford

Report on Anomaly # 166

105-J-13

June 7-11

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Anomaly # 166 is located on the southern side of a westerly trending ridge, two miles southwest of Spearhead Mountain, Peak 6923, Sheldon Lake Map Sheet. This geochemical lead-zinc anomaly was discovered near the end of the 1968 field season and was examined in early June 1969. During the examination two two mile lines of contour soil samples were taken along the southern face of the ridge. Snow conditions prevented the taking of samples along the northern face. Some unsampled streams were sampled. Reconnaissance mapping and prospecting was also done. One day was spent in examining the anomaly, and four days were spent in examining the area to the south of the anomaly, near the South MacMillan River.

The rocks in the area are mainly Mississippian-Devonian black cherts and argillites. About one-half mile south of the anomaly, Proterozoic gneisses have been thrust over the Mississippian-Devonian rocks. Near the anomaly itself a small plug of granodiorite has intruded the cherts and argillites. This ^{intrusion} ~~plug~~ is at most $\frac{1}{4}$ mile in diameter, but it has thermally altered the intruded rocks for several hundred feet outward from the ~~intrusion~~ contact. Close to the contact the rocks are quite hornfelsic. Pyrite in the intrusive rock and surrounding sediments has weathered and the whole area is quite rusty. Several fingers of dioritic ~~material~~ material branch out from the intrusion. About 300 feet from one of these fingers, and 20 feet below the ridge top is found a small (5x5 feet) outcrop of massive pyrrhotite. This showing is well weathered and it is very difficult to obtain fresh specimens. Fair amounts of light colored pyritic dacite dyke rock are found around this showing but none could be found in place.

In four sediment samples taken over one half mile along the ridge lead values ranged from 1500 to 7050 ppm. Lead values in the soil samples were virtually non-existent. No lead minerals were seen.

It is recommended that a soil sample line be run about 100 feet below the ridge top as the lead does not appear to migrate down the hill to any extent. Two sample lines should also be run along the northern face of the ridge. One of these ~~shd~~ should be near the ridge top also

Geoch

Geo!



