005644

TITAN PROJECT

Geochemical Soil Sampling Grid over UR Claim No's 3 - 8

Reasons for Present Investigations:

The mapping of the Ur group of claims by A. E. Aho in lage 1961 indicated the existence of a strong N23°E - trending fault zone which had brought Upper Schist into fault contact with the Central Quartzite. At least three north-northwest - trending cross-faults of lesser magnitude were mapped.

An electromagnetic survey in the summer of 1962 confirmed the existence of a strongly anomalous zone trending north-northeast and displaced by northwest cross-faults.

Test-pitting in the fault zone uncovered much black manganese-stained brecciated material from which minor amounts of galena were panned.

In June, 1963, a number of bulldozer trenches were started but progress was slow due to frozen ground. In trench No's 1 and 2 (see Location Map, 4th July 1963) a zone of black manganese-stained fault brecciated material was exposed. It was composed mainly of schist and quartzite fragments and gouge with some highly limonitic inclusions. Assays of this limonitic material ran only trace silver and lead.

However, it was decided to run a grid of soil samples over the zone to check for the possible existence of mercury anomalies.

Field Techniques Employed:

The lines cut at 200-foot intervals for the EM survey were used as sample lines. The sample interval along these lines was 100 feet. The sampling tool was a light-weight "Grubhoe". Whenever possible, "B" horizon soils were collected; but, as the accompanying map illustrates, numerous sample locations were underlain by "G" horizon soils which often contained considerable quantities of fine organic matter. The samples were dried, seived to minus 80 mesh, and run with a Lemaire Mercury Detector.

Results:

The results are greatly complicated by the contrasting soil types encountered in this area. The difference in mercury background between "B" horizon soils (25 - 30 ppb) and "G" horizon soils (75^{+} ppb) is sufficiently great to develop sharp peaks in the mercury profiles when a "G" horizon sample is taken between two "B" horizon samples. A good example of this is the peak

developed on line 26 at the baseline. However, the peak is higher than the "normal" background and does suggest the presence of some weak source of mercury near the baseline on lines 24, 26 and 28.

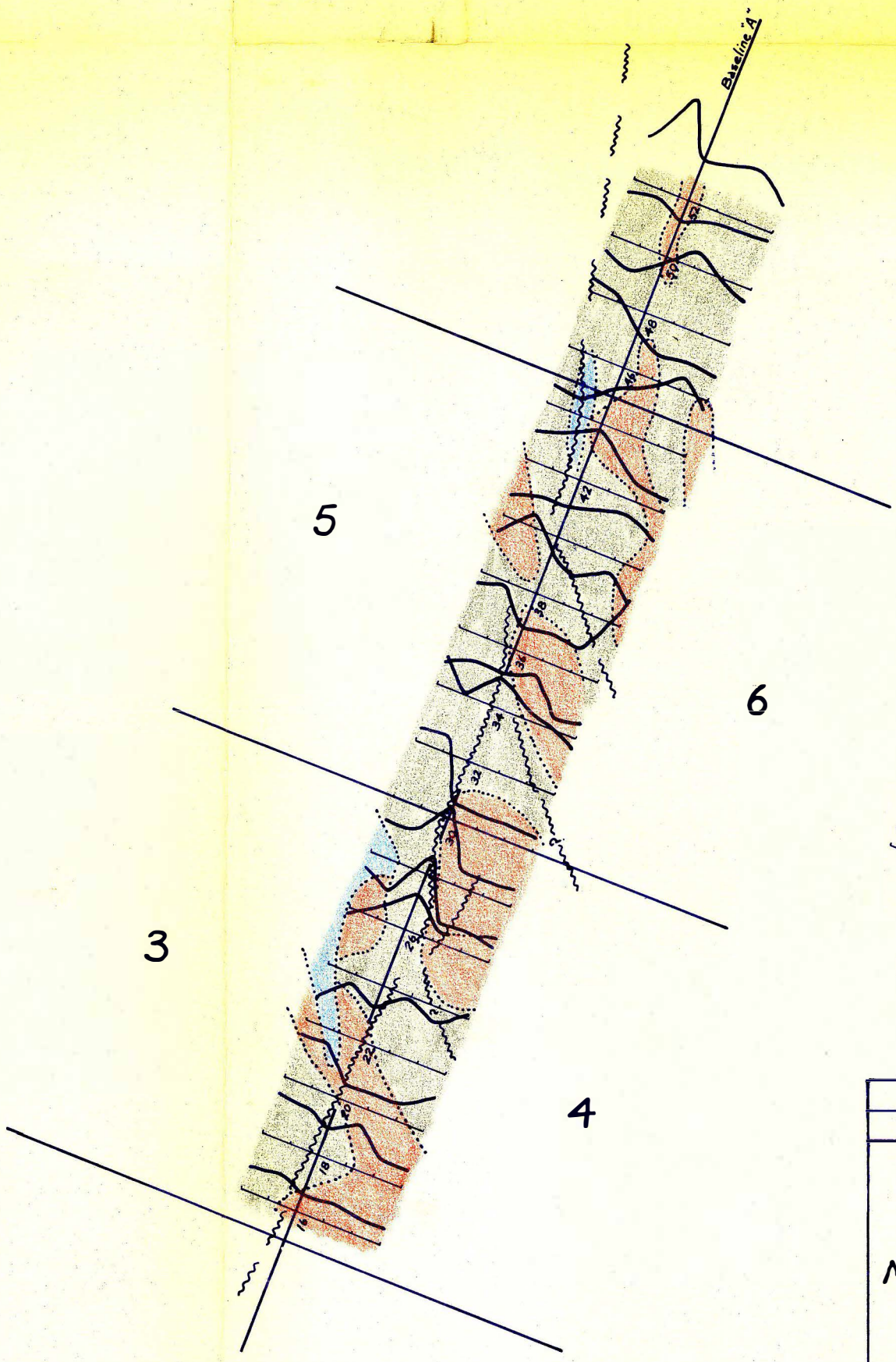
The only other area of possible interest lies along lines 36 and 38 where somewhat anomalous peaks develop both over a minor northwest break and the major north-northeast break.

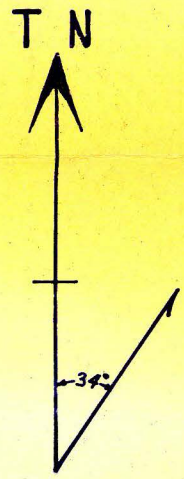
Conclusions and Recommendations:

The results are, in their present form, not very encouraging, but it should be remembered that neither the sampling technique nor the analytical procedure were as efficient and reliable as they are now. Statistical methods have since been devised for the removal of the organic contamination effects, and the results of later sampling grids have a higher degree of reliability.

Rather than run the complete grid again, it is recommended that selected areas, such as the two mentioned above, be resampled at an interval of 50 feet or less. It is felt that the 100 foot sample interval is too great for the type of narrow orebodies one hopes to find in this district.

David L. Seymour:d
Vancouver, B.C.
October 8, 1963.





EXPLANATION

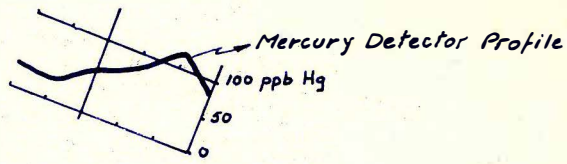
"B" horizon - freely-drained, essentially residual soil.

"G" horizon - poorly-drained, often very organic soil.

mixture of above types, rich in schist fragments.

soil contact (approximate)

fault zone



SCALE

1 inch to 500 feet

500 0 500 1000 1500 feet

SILVER TITAN PROJECT

MAYO YUKON

North Limb Properties

UR Group

MERCURY DETECTOR PROFILES AND MAP OF SOIL SAMPLE TYPES

Sampled by	J.S. Brock and D.L. Seymour
Compiled by	J.S. Brock and D.L. Seymour
Analyzed by	D.L. Seymour
Drafted by	D.L. Seymour
Date	8th September, 1963