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TITAN PROJECT

Report on Progress of Exploration
No. 3
by A.E. Aho **August 30, 1963**

TO: L. Adie - Canex Aerial Exploration Ltd.
B.O. Brynelsen - Noranda Exploration Company Ltd.
D.C. Sharpstone - Homestake Mining Company
Wm. Sirola - Kerr-Addison Gold Mines Ltd. (2 copies)
A.E. Aho - Silver Titan Mines Ltd.

Gentlemen:

I visited the Titan Project on August 10 and 11, examined the May Creek area on August 21, 22, and 23, and discussed progress of exploration with the staff on August 24.

Geochemical silt sampling of streams on both sides of McQuesten river as far west as the North McQuesten was essentially completed, and geologic mapping of select areas is nearing completion. Testing of the geochemical samples is progressing well after some delay in arrival of chemicals for heavy metals tests.

Work on the Shanghai prospect adit in Trench No. 1 was progressing reasonably with an advance of 35 feet, and is encountering promising mineralized float, but with a low silver-lead ratio.

GALENA HILL PROPERTY

Soil sampling of the select area "A" on the Galena Hill property has been completed and Dave Seymour was preparing to run through the samples with the mercury detector.

Since the overburden consists of up to 20 to 40 feet of glacial till it appeared doubtful to me that geochemistry could detect an underlying mineralized zone. However, D.R. Glew was reported by Seymour to have expressed the opinion that it could, but that a fusion rather than cold extractable methods would be necessary for heavy metals detection under the prevailing conditions. It may thus seem advisable to send the samples to the Noranda or U.B.C. laboratories for the fusion methods. Feasibility of the mercury method will have been determined by Seymour.

Whether the geochemical methods used give positive results or not, the ore-finding possibilities of a vein-fault system of the type suggested by geophysics and drill hole, geologic, and test pit data to date are such that further test pit work and/or drilling are well warranted in my opinion. It is hoped, however, that the geochemical results would narrow down the target zone from that indicated by the other data.

Since the above writing, Seymour has reported by telephone (Sept. 2) that strong mercury anomalies have been confirmed in a zone about 1000 feet long and about 50 feet northwest (up dip) from the zone of resistivity highs (see attached plans of Area "A"). Heavy metals results are reported to partly confirm and partly contradict the above; they should probably be run by fusion methods to avoid transported leachable material. The anomaly will have to be detailed by closer sampling, but even from the above evidence this would appear to be the most promising prime target for exploration, using prospect pits sunk on the peaks of mercury anomalies.

More detailed magnetometer readings were also taken along the same lines that were surveyed before, but the results of this check survey were completely erratic with no correlation with the previous readings. It appears that either the instrument sensitivity is insufficient and magnetic surveys are not applicable for indicating structure, or that the instrument was not functioning properly. The same instrument had shown previous malfunction, and several days later when used by Ray McKamey of Canex, it was again not functioning at all. It would appear that the first survey done may be reliable but that the detailed check survey may not be.

NORTH LION PROPERTIES

Main Shanghai Area

I did not examine the Shanghai property since I was delayed an extra day at Hay Creek and Shonseng and Ball were coming out on the only day that I could have gone in (August 23). Seymour had visited the prospect adit a couple of days before and reported that it had encountered what appeared to be the northwest wall of the vein-fault zone and had been turned to follow that wall northeast into the hill until bedrock would be encountered in the vein zone itself. More float of gossan with galena and sphalerite was being encountered and Dave Seymour sent two samples out for assay.

Upon returning on August 25, Shonseng and Ball reported finding one angular piece of vein float up to 14 inches across from which specimens showed about 50% sugary white vein quartz and about 50% sulfides consisting of sphalerite, galena, and pyrite. More weathered gossan float was also reported and one piece of massive sphalerite with chalcopyrite was brought back.

Assays from the float are as follows.

Seymour:	Ag oz/ton	Pb %
Galena, minor sphalerite, pyrite in quartzite and quartz breccia	25.8	24.7
Sphalerite and galena with gossan	2.20	3.7

Also:	Ag oz/ton	Pb %
Chips of lower grade from 14-inch float of quartz, sphalerite, galena, pyrite, minor chalcopyrite	6.96	5.4

Although silver content is low, as expected from appearance and previous assays, the float suggests a definite strong vein zone. Since a higher silver-lead ratio has been reported from float found by Poli about 100 feet to the west and high grade material exists in a stringer in trench No. 2 and elsewhere, it is anticipated that high grade sections occur somewhere along this northeast vein-fault zone and that this adit might encounter such material in place in this part of the zone.

No other work is presently being done on the main Shanghai area but trench No. 2 and several of the other trenches should now be sufficiently thawed to enable trenching to bedrock with a D-6 or D-7 bulldozer that had been tentatively arranged for this area and for the Lundquist area.

Kavanagh and Sirola of Kerr-Addison Gold Mines visited the Shanghai and Lundquist areas at the end of August and have recommended that the adit and bulldozer work be suspended due partly to indefinite knowledge of distance to bedrock in the adit and unknown significance of the bulldozer targets.

Lundquist Area (Western Shanghai Claims)

Soil samples re-run and checked with the mercury detector showed definite moderately anomalous zones which appear to be related to northeast vein-fault breaks mapped in the area by Dirk Tempelman-Kluit and myself.

Since galena float has also been reported from this area by the old timers (Lundquists), the indicated zones should be exposed by bulldozer trenching when a bulldozer is next in the area.

UR Claims

Geochemical sampling has been completed and the soil samples from the UR 1-8 claims were being run with the mercury detector. On September 2 Seymour reported that no significant results appeared in this zone.

Before the end of the season a "showing" reported by Jack Gillis, one of the line cutters employed last year, will be searched for on the eastern part of the UR property. Soil sampling of a wild cat bulldozer trench on this slope is reported (Sept. 2) to show a high mercury anomaly.

A check of the "spring" area along the northeast projection of the UR 1-8 vein-fault zone with the Jalander magnetometer showed erratic readings the same as those on the detailed check survey on the Galena Hill property (see enclosed plan). It is therefore not known if any magnetic

method would be useful. However, heavy metals anomalies in the silts of Poli Creek increase to a strong high up to the rusty spring and then drop back to background so this area along the NE projection of the main break is a promising target for more soil sampling especially since it lies within the favourable quartzite section.

RECONNAISSANCE

Silt Sampling

Silt sampling of all the significant streams as far west as the North McQuesten river is now essentially completed and, after a long delay, chemicals have finally arrived for testing the silts for total cold extractable heavy metals (mostly Cu and Zn). Silts from the more critical areas such as Ross-Seattle Creek, Rodin Creek, and others will be tested first so that detailed followup soil sampling can be done immediately.

McQuesten Lake

Prospecting by John French has revealed only low grade, lenny lead-zinc mineralization on the east side of the 8-mile Creek pass near McQuesten Lake. Although a few days mapping of this area by Dirk Tempelman-Kluit showed the presence of a previously unknown Keno Hill quartzite section, the area is of no economic interest because of the bedding-plane type mineralization and its low silver content. Width of mineralization was only a few inches scattered in lenses over a distance of a few hundred feet. Two assays gave 4.68 oz/ton silver and 20.0% lead and 5.22 oz/ton silver and 22.6% lead respectively.

Haldane-Seattle Creek Area

Geologic mapping by Dirk Tempelman-Kluit and Dr. L.H. Green of the Geological Survey of Canada in the last three weeks has revealed an important new stretch of massive, competent Keno Hill quartzite about 3000 feet thick extending some 7 to 8 miles westward from the vicinity of Ross Creek across Seattle Creek on the south limb of the McQuesten "anticline". Significant faulting or structural breaks were found on the Ewing property on Mt. Haldane and about a mile west of Ross Creek.

Earlier in August Poli and Smith had staked 24 claims covering this quartzite west of Ross Creek and have been prospecting it with a bulldozer. Only traces of galena mineralization have been found so far but their property may prove important if significant results are turned up.

John French has been prospecting westward along these quartzites around Seattle Creek, had discovered only minor copper stain at the end of August but was reported by wire (Sept. 4) to have made a discovery since that time. The significance of this new discovery in this new quartzite

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vicinity is not yet known. Several poorly defined air photo linears in the area may reflect vein faults, and silt samples may locate stream sources of mineralization. This new quartzite area is typical of the "new" sections being sought by the Titan Project.

A traverse of Mt. Haldane by Green and Tempelman-Kluit also showed that the vein-fault system on which Ewing's silver lead property on Bighorn Gulch is situated, shows a large fault displacement which was previously not recognized. A detailed examination had been made of the property by John McAndrew of Silver Titan Mines in 1962, which showed some good mineralization, but did not indicate how strong the structure was. A sizeable portion of the property is difficult to explore because of extensive blocky talus. I have arranged to re-examine the property about September 10 to 12 with Tempelman-Kluit to determine exploration possibilities in view of this new structural picture.