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Thorne
104K

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August 2, 1983

Mr. J.E. Wallis, P. Eng.
Arctic Engineering Services Ltd.
P.O. Box 59
Atlin, B.C. V0W 1A0

Dear Tim:

Re: Progress Report on Exploration of the Thorne Property,
Atlin Mining Division, British Columbia

INTRODUCTION

Infante Recovery Group Ltd. of Vancouver, B.C. has acquired two ^{comprising the Thorne property} leased mineral claims in the Gullakine River area, northwestern British Columbia. At the request of J.R. Woodcock Consultants Ltd. of Vancouver, B.C. the writer supervised a combined geological, geochemical and geophysical exploration programme on the ~~Thorne~~ subject claim group. This work was carried out between July 11th and August 1st, 1983, and employed four exploration personnel.

The subject property is situated approximately 12 kilometres northwest of Trapper Lake or approximately 130 kilometres north-northwest of Atlin, B.C. Its geographic coordinates are ^{approximately} 58° 54' N. latitude by 132° 48' W. longitude (N.T.S. 104K/104W). The centre of the area of interest within the claim group lies at the junction of La Taune Creek, a northwesterly flowing tributary of the Gullakine River, with a ~~with~~ southwesterly flowing tributary called Curry Creek.

Access to the property was possible via fixed wing aircraft or floats from either Whitehorse, Y.T. or Atlin, B.C.; thence by helicopter to the property. After August 15th, 1983 access would require direct

helicopter support from Allin, B.C. or bringing in a helicopter to Trapper Lake in addition to fixed wing support.

The property is situated regionally within the eastern portion of the Coast Plutonic Complex and as such has very high relief from steep canyons to high mountains. Elevations range from 2,500 to 5,000 feet A.M.S.L. &

Most of the claims are ~~and~~ covered by heavy forest and ~~very~~ undergrowth, notably thick slide alder, devil's club and scrub conifers.

Precipitations are typical of the Coast Plutonic Complex. Bedrock exposures are commonly limited to steep canyon slopes at ^{small} ~~small~~ ~~damages~~ ~~damages~~.

The property is comprised of the Daisy 1 and Daisy 2 located mineral claims. Data on the claims is as follows:

Claim Name	Units	Record No.	Record Date	Expiry Date
Daisy 1	20	1302	Apr. 24, 1981	April 24, 1985
Daisy 2	10	1317	June 15, 1981	June 15, 1984

The claims were staked by Phil Timpany of Allin, B.C. as agent for J.R. Woodcock of Vancouver, B.C. J.R. Woodcock has since sold or optioned the claims to Inland Recovery Group Ltd.

The subject property has a relatively long, though speculative, exploration history. The original Thorne showing was discovered ~~by~~ in 1959 by D. Barr and J.R. Woodcock, then working for Keneco Exploration Western Ltd. Followup work in 1959 and later on a highly anomalous, jarosite gossan zone discovered local sphalerite and base metal mineralization. Keneco subsequently allowed their claims to lapse.

Between 1963 and 1965 Julian Mining Company Ltd. (an Anaconda subsidiary) prospected, soil sampled, mapped, and tested the Thorne area with a ^{a limited} I.P. survey.

and one x-ray diamond drill hole (X.D.H. B-1). Results of their work showed that although the subject property might have some precious-metal potential there did not seem to be sufficient local base-metal potential to support a viable mining operation, given its location and accessibility.

In 1969 Cadillan Engineering Ltd. conducted additional prospecting, sampling, geochemistry, and geophysics (magnetometer survey) for the American Uranium Ltd. Results of this work, although preliminary in nature, were generally negative despite discovering additional tetrahedrite mineralization. At that time gold metal prices for gold and silver were \$42.50 and \$.80 per ounce, respectively.

In the subsequent years the property was infrequently staked by Barry Watson and Noranda but their claims received little attention and were allowed to lapse.

The Tussequah area has been mapped by Dr. J.G. Southey and his work is well documented in G.S.C. Memoir 362, 1971. Briefly, the eastern contact of the Coast Plutonic Complex trends northwesterly through the map area. Locally along the northeastern contact of the Complex with Mesozoic strata there are a number of Early Tertiary-age acid to intermediate intrusions with associated rhyolite flows and pyroclastics. One such intrusion occurs within the property and, like the other intrusions, there is widespread pyritization and silicification associated with it.

1985 EXPLORATION PROGRAMME

On July 11, 1985, Mr. M. Kilby of Vancouver, B.C., a contract geophysical operator, and the writer travelled to Whitehorse, Y.T. Freighted equipment and supplies were assembled that

day and on July 12 these two men flew to Thapper Lake via Atlin, B.C. were ^{an} additional two line-cutters and equipment were on loaded. This mobilization utilized an ~~single~~ ^{from Whitehorse} Office on floats, and a Casara 185 from Atlin. A Hughes 500D helicopter temporarily based at Thapper Lake mobilized the crew and equipment to the Thapper campsite.

During the subsequent 20 days the field personnel geologically mapped the central portion of the claims; established a blazed and flagged grid over the B, D, and C zones (totaling 10 km); conducted Variable VLF-EM over the entire grid; and collected 478 rock, soil and silt samples and 21 rock assay samples. The geochemical and assay samples were sent to Bondar-Clegg and Company Ltd. in Whitehorse, Y.T. for analysis. The results of the entire sampling program are pending; however, the geophysical survey results are plotted and a brief report by K. Kilby is attached accompanies this report.

Although all costs for the programme are not yet in the white estimates a total cost of approximately \$45,000. This figure should be fairly close to the final cost providing there is not ~~any~~ ^{any} additional analytical work ~~and~~ required. It should be noted that the original estimate for this programme was \$61,500, not including additional analyses and an engineering report.

DISCUSSION OF RESULTS

Pending receipt of the geochemical results and a consultant's interpretation of the geophysical results, the 1983 exploration programme was successful in defining a very favourable geological target.

The original objectives of the 1983 programme

were to ~~define~~ discover and define the cause of known tetrahedrite and enargite-bearing float in an area known as the "D" zone, define and evaluate the "B" zone, investigate the "F" zone, and evaluate the "C" zone (see report by R. Adamson, 1964).

Geological mapping, prospecting, sampling and evaluation of these the aforementioned zones showed the known "B" zone to be the most interesting ~~target~~ target. The "B" zone is underlain by an elongate quartz-feldspar porphyry intrusions, well mapped and documented by Adamson, 1964 and Garquineti, 1969. A part of this intrusion is saundersitized and/or sericitized to a light to dark green colour. Fresh, cubic pyrite disseminations (1 to 3%) are common within most of the intrusion. At the junction of Camp and La-Tourne Creeks the quartz-feldspar intrusion has been ^{intensely} silicified and pyritized to a buff to light brown colour. Taraxitic and hematitic gossans are very prominent locally, particularly in cliff faces. ~~The~~

The quartz-pyrite zone extends from approximately 200 m northwest of camp to 300 m southeast of camp and in a northwest-southeast direction for approximately 200 m on either side of camp. Within this zone there is an east-west trending quartz-pyrite barren zone ~~extending~~ extending from 102 N + 9650 E to 9925 N + 102 E, a distance of approximately 600 m. This zone varies in width from 250 m on the west side of La-Tourne creek to 5 to 9 m on the east side, now called "B" zone West and "B" zone East respectively. Intermittently along this zone tetrahedrite and ~~enargite~~ enargite mineralization was noted (see Detailed Geological Plan), particularly at geological stations 21 (~~102 N + 9680 E~~ # 102 N + 9680 E) and 11 (9925 N + 102 E). At station 21 Cordilleran Engineering had discovered a 6" tetrahedrite vein but the writer identified

a 7 m - zone of enckeleson tetrahedrite, enargite, and pyrite and quartz varying with zone varying in width from 1 to 15 cm. Although the ~~mineral~~^{veins} filled shears oriented $104^{\circ}/-83^{\circ}$ and were separated by barren, altered rock this is a significant discovery. From $10025N + 9950E$ (station 14) to $9925N + 102E$ (station 11) tetrahedrite and enargite mineralization occurred locally within a prominent quartz-pyrite breccia structure. There is no apparent structural explanation why the zone narrows west to east across La-Tourne Creek other than La-Tourne obviously reflects a northwesterly trending fault structure which has been episodically active prior to, during and since the mineralizing event.

Tetrahedrite-bearing float was found in a drainage above the "D" zone and geological, geochemical and geophysical works have covered the possible source area. It seems apparent this source area will be an easterly projection of the simple mineralization found at $102N + 9680E$.

The "F" zone was found to be of little economic interest since the mineralization is apparent fault controlled and exposed in very steep, inaccessible cliffs along Camp Creek.

Evaluation of the "C" zone will largely depend on results of soil and rock geochemical samples collected in the area.

RECOMMENDATIONS

Pending the geochemical results this property has one very interesting exploration target, the quartz-pyrite zone within the recently enlarged "B" zone. This target now

Further testing will require a helicopter-supported diamond drill programme. The writer has laid out a tentative drill pattern to initially test the "B" zone. Drilling will require an easily transportable drill rig with BQ capabilities. Initially ~~drilling~~ testing should be on the order of 400 m ~~drilling~~ of BQ diamond drilling. The following sites are recommended (see enclosed plans):

Hole No	Coordinates		Azimuth	Dip	Length
	N	E			
DDH 83-1	10075	96	000°	-45°	100m.
83-2	10125	97	000°	-45°	100m.
83-3	10150	9775	000°	-45°	100m.
83-4	10035	9975	180°	-45°	60m.
83-5	9975	10025	000°	-45°	60m.
					<u>400m.</u>

Respectfully submitted,

MINCOP CONSULTING LTD.

J.D. Blanchflower

J.D. BLANCHFLOWER, F.G.A.C.
Consulting Geologist