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July 7, 1966.

Mr. F. A. McGonigle, President,
Consolidated Skeena Mines Ltd.,
716 - 602 West Hastings Street,
Vancouver 2, B.C.

Dear Mr. McGonigle:

Summary Report

Surface Diamond Drilling Program
Central Zeballos - Sonny M.C.'s Prospect,
Bibb Creek, Zeballos Area, V.I., B.C.

General

The surface diamond drilling program was terminated by the writer on the completion of ddh #11 - the third, and westerly hole from the lower set-up. Had results from this drill station warranted the drilling of additional deep holes, the crew would have been required to find a new source of water. This would have entailed the installation of a supply pump and considerable water line. Also, the camp water supply was becoming critical at this time.

Following completion of logging and sampling of ddh #11, the writer concluded that the ore structure and mineralization had weakened considerably between the saddle-no. 3 drill-hole horizon and that at the lower set-up, and that this situation might continue to additional depths which could not be tested decisively from the final set-up. Furthermore, the cost of providing lower-level heliport-drill stations along the precipitous hill slope would be prohibitive.

Mr. H. Clements advised Okanagan Helicopters, Campbell River that the drill camp and equipment should be moved out; Mr. Souter accomplished this over last week-end, under arrangements that were most favourable, with respect to speed and economy, to the client.

General Exploration Progress

The reader is referred to the following maps submitted with this report:

Drawing No. 1-B; "Geological, Geochemical and Magnetometer Surveys", 1" = 50'.
"Final Surface Sample Plan-B"; 1" = 50'.
Plan D-1; "Bibb Creek - Nomash River Exploration"; 1" = 400'.

(1) The initial surface trench-sampling project, accomplished prior to Consolidated Skeena's acquisition of the ground indicated the following mineral zones:

(a) Upper East Zone

Block E-1; 310' x 5.6' @ 2.39 % copper
Block E-2; 285' x 5.7 @ 2.43 % copper
Block E-3; 165' x 6.9' @ 1.71 % copper

Total, excluding pillars: 660' x 6.1' @ 2.19% copper
or, with dilution: 660' x 6.5' @ approx. 2% copper

(b) Lower East Zone

225' x 7.1' @ 2.44 % copper

(c) West Zone

No estimate possible, by reason of the highly-oxidized nature of the pyrrhotite-bornite-chalcopyrite mineralization exposed within the relatively few trenches along this more complexly-dispersed section of the structure.

In addition to the quoted copper content, supplementary gold-silver is estimated at $2.00 - $3.00 per ton.

(2) Geochemical investigations carried out during 1965 indicated the general presence of copper along the West Zone, and a general lower-grade anomaly within the altered volcanics to the south of the saddle and ore structure. Other anomalous areas, closely related to the inferred tuff-quartz diorite contact

post-mineral, so contact not significant.

traversing both Skeena's and O. Skogland's property were disclosed. Follow-up investigations of these resulted in the discovery of three exposures of copper-bearing Skarn and Skarny tuffs.

(3) Magnetometer Surveys

These were conducted over the accessible westerly part of the Saddle-West Zone section of the structure - on the basis of the general pyrrhotite-copper association. This resulted in the delineation of two significantly-anomalous areas, of which the larger was subsequently drilled via holes #4 - #8 inclusive. This drill-hole fan disclosed appreciable pyrrhotite-magnetite mineralization, but only erratically-distributed narrow stringers of chalcopyrite-bornite.

(4) Geological Surveys

Details of this work are presented on Drawing No. 1-B and supplementary sheets pertaining to general reconnaissance on maps in the writer's files.

The principal Central Zeballos-Sonny zone has been rather positively delimited over a strike-length of 4,000 feet and dip-length of 800 feet. A fairly well-indicated 1,500-foot depth is indicated by East zone exposures. There is also a very fair possibility that the West Zone structure will project to the C.Z. No. 2 Tunnel - or 1,350-foot horizon, or some 1,400 feet vertically below the saddle. – last drilling from face No. 2 C all in gg. di.

(5) Diamond Drilling

A total of 3,578 lineal feet of AX wire-line core-drilling was carried out from five set-ups. The 11 drill-holes, with geologically and economically significant intersections, are plotted on Drawings 1-B and plan B.

The drilling to date shows that mineralization is structurally-controlled by warping, crumpling, and associated fracturing within the panel of limey-tuffaceous sediments bordering the Central Zeballos granodiorite body (sill). In more detail, the optimum lithologic control is the local "marble-line" - a zone within which the highly-metamorphosed rocks grade into the recrystallized, but only very slightly-metamorphosed limestones. This lime band is situated between the general garnetite-lime silicate zone on the south, and the granodiorite body

on the north. Additional, and locally significant mineralization - generally in the form of finely-disseminated chalcopyrite, with pyrrhotite and/or magnetite - occurs within the irregular "band" of less-metamorphosed (andesitic) tuffs situated between the Skarn-silicate zone and the post-mineral quartz-diorite body on the south. Drilling accomplished over the current, upper 600' (indicated 800') vertical range of the structure shows no marked invasion of the general ore structure by the younger quartz diorites. However it must be pointed out that this could occur, locally or generally, at depths below that currently tested (2160' El. @ bottom of ddh #10).

CONCLUSIONS:

The writer's present inferences concerning geological-mineral relationships, as based on the rather restricted (depth) investigations carried out to date are:

(1) The C. Z. - Sonny contact structure is sufficiently strong and extensive to carry to considerably greater depths than have been currently tested. In particular, the chances of continuity to the No. 2 tunnel elevation appear reasonably good.

(2) There is considerable structural potential within the currently-untested parts of the structure for the localization of mineralization of mineable grades and tonnages.

(3) The near ore-grade mineralization disclosed within the saddle-east zone intervals by earlier trenching has a very limited depth extent - at least within drill-tested upper section. Superficially, the higher ore segments appear to have been controlled by a relatively near-surface dip-roll or flexure. Deeper exploration is warranted on the grounds that similar flexures- both on strike and dip will occur at deeper horizons.

(4) In view of the presently-indicated ore potential within certain restricted sections of the zone so far tested, and the possibly larger residual potential within untested parts, some further exploration involving the deeper, westerly extensions of the zone is justified.

RECOMMENDATIONS & COSTS

1. Examine the reported chalcopyrite-pyrrhotite outcrops of the zone on the upper west fork of Bibb Creek. At the same time locate (survey) these with respect to the portal of No. 2 tunnel.

2. Inspect No. 2 tunnel. If fully accessible, survey these from the same datum.

3. If the dip projection of the West Fork showings is within reasonable (400' - 500') range of No. 2 tunnel, do sufficient underground diamond drilling of the structure to prove, or disprove it at this horizon and general strike interval.

If this exploration is successful, the zone could be further investigated by extensions of No. 2 tunnel, or by similar drilling from the face of No. 9 cross-cut.

A tentative estimate of the cost of doing the presently indicated 1,500 l.f. of AX core drilling from No. 2 level is:

1. Provision for minor interim supply via road & trail from Zeballos to No. 2 portal site	... ...	2,500.00
2. General provision for camp	... ...	1,000.00
3. Provision for supply & installationof 1000 l.f. each of 2" ϕ air line & 1" ϕ water line	... ...	500.00
4. Compressor rental & freight	... ...	700.00
5. Helicopter move-in-out, etc.	... ...	1,000.00
6. Contract drilling 1,500 l.f. @ 7./l.f.	... ...	10,500.00
7. General freight	... ...	500.00
8. Local supervision, 1 mo.	... ...	700.00
9. General engineering	... ...	700.00
CARRIED FORWARD		$ 18,100.00

	BROUGHT FORWARD	$ 18,100.00
10.	Camp supplies & vehicle operation	1,000.00
11.	Provision for omissions & contingencies	4,000.00
	TOTAL:-	$ 23,100.00

Respectfully submitted,

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W. M. Sharp, P. Eng.

WMS/jm