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R. H. SERAPHIM ENGINEERING LIMITED  
Geological Engineering

## TANZILLA PROPERTY

427 - 470 GRANVILLE STREET  
VANCOUVER 2, B.C.

Memo to Silver Standard  
re Tanzilla Property - Dease Lake Area - B.C.

Some geologic mapping of this property was completed Aug 30 and Sept 3, 4, and 5 to provide control for the bulldozer trenching in progress. This memo compiles the information gained with data supplied by W. Dunn, who made the initial examination, and guided most of the subsequent work.

The property was optioned from Tournagain Explorations, and two bulldozers had been walked in from the Dease Lake - Telegraph Creek road which is about three miles to the north. The bulldozer route involved crossing the Tanzilla River and switch-backing up a steep north-facing-slope on permafrozen ground. This route is not suitable for permanent access, without a long bridge and much road work to control the permafrost. The property was thus supplied in part by helicopter from a base only twelve miles distant, at Dease Lake.

The property lies within the broad belt of Triassic volcanics intruded by igneous rocks ranging from granite to serpentine. The syenitic rocks in the district, and particularly at or near their contacts with Triassic

volcanics, host many major copper deposits including those at Galore Creek, Schaft Creek, and Gnat Lakes.

A copper-mineralized zone is exposed on the Tanzilla property near the contact between syenite and volcanics. The mineralization was originally exposed in two creeks, West Branch Creek and Stain Creek, which are shown on the accompanying 400 ft to the inch map. The two creeks are approximately three miles apart, and the parts of the contact zone that were suitable for bulldozer trenching within this interval are now trenched. Permafrost on the north slopes, and muskeg on the more level sections seriously hindered or prevented bulldozing to bedrock in most places.

The volcanics exposed on the property are of several types. Most of the exposures are fine-grained green to grey andesite to diorite, some are very dark green, soft, chloritic, and basaltic, and some are cherty-looking creamy-green, and probably rhyolitic. The syenite exposures are in most places pink to brick red to grey, and medium to fine-grained. The south most syenitic exposures appear darker-colored, and appear to grade into dark grey fine-grained dioritic rock (meta-diorite) which may be only a phase of the syenite, or alternatively may be a recrystallized volcanic. The syenite in lower Stain Creek is however, observed to intrude some of the dioritic rock, and the volcanics. The syenite is brecciated in one exposure near

the 'dozer road to Stain Creek. The volcanics show evidence of bedding in only one location, where bedding appeared to trend 110 deg.

Faulting is intense along and near the north contact of the syenite. A strong lineament, trending N 70 Deg E, parallel to the Tanzilla Valley, is apparent on the aerial photographs. Several fault strands with this trend are exposed in the outcrops on Stain Creek.

Both pyrite and chalcopyrite mineralization follow fractures and faults with the above-described trend. The exposed mineralization is sparse (see assays on the map) and appears limited to fractures with feldspathic alteration in the volcanics. Samples obtained previously, at initial examination, are as follows:

<u>Location</u>	<u>Width</u>	<u>Au</u>	<u>Ag</u>	<u>Cu</u>
Stain Creek - fractured syenitized volcanics	10'	Tr	0.1	0.02
Stain Creek - talus at bottom of chimney	--	Tr	Tr	0.06
Stain Creek - near contact of syenite with volcanics	6'	Tr	0.1	0.56
Stain Creek - south of chimney	5'	Tr	0.1	0.23
Stain Creek - gossan with pyrite	10'	Tr	Tr	0.03
Stain Creek - massive pyrite in fracture	2'	Tr	Tr	0.02

These assays are all sub-economic, however, the general geologic conditions are particularly attractive, thus some

further exploration is recommended to give the property a more widespread test.

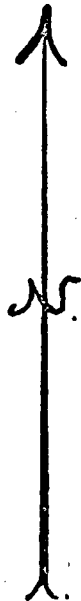
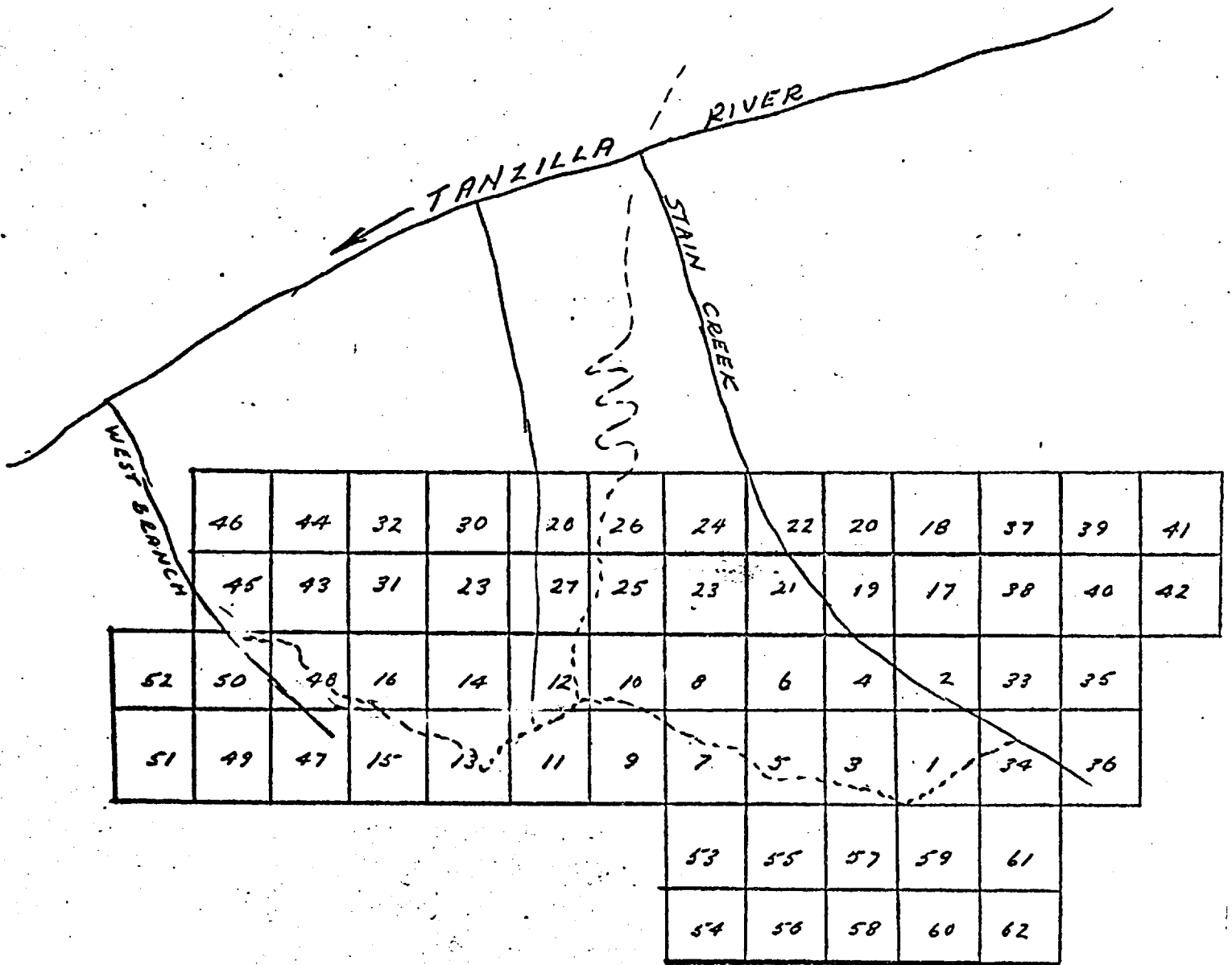
The north contact of the syenite is obscured in many places by swampy meadows and permafrozen north slopes which did not permit bulldozing to bedrock, but which should be tested with geochemistry. All the local drainages should be silt sampled, and a widespaced grid should be soil sampled.

The south contact of the syenitic rock is not exposed, in fact the syenites appear to grade into meta-volcanics. Another northeast trending topographic break is evident on the aerial photographs in the neighborhood of the westmost of the Hluey Lakes, and may mark the south contact of the intrusive meta-volcanic complex. Some geochemical testing in the vicinity of this break should also be completed.

October 2, 1969.



R.H. Seraphim.



HUGH CLAIMS  
TANZILLA RIVER  
B.C.

3000 ft = 1 in

Oct/69

RHS  
W.D.



TANIZILLA

HOTAILUH PLATEAU  
STIKINE Canyon of the Sikine

KLAMATH PLATEAU

GALORE

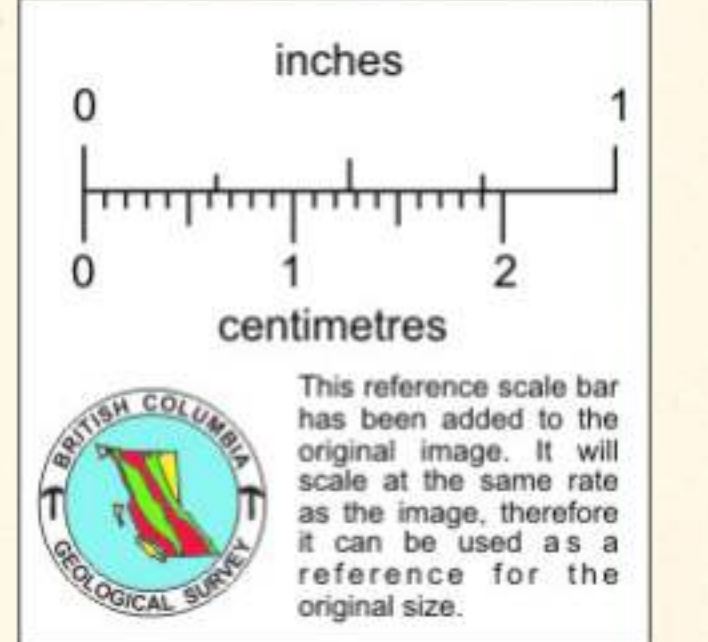
1" = 10 miles

Sample No.	Width	Au	Ag	Cu
⑩ 36536	100'±	0.02	0.2	0.06
⑪ 36537	100'±	0.01	0.2	0.03
⑫ 36538	100'±	Tr	Tr	0.03

Sample No.	Width	Au	Ag	Cu
① 5313	15'	0.05	0.2	0.03
② 5314	6'	0.01	0.1	0.04
③ 5315	6'	0.01	0.1	0.04
④ 5316	10'	0.01	0.1	0.03
⑤ 5317	5'	0.01	0.1	0.05
⑥ 5318	10'	Tr	Tr	0.02
⑦ 5319	20'	0.01	0.1	0.14
⑧ 5320	10'	Tr	0.2	0.02
⑨ 5321	?	0.01	0.2	0.29



	copper mineralization
	pyrite
	syenite (intrusive)
	metavolcanics
	meta diorite
	fracture
	fault



TANZILLA  
Dease Lake B.L.  
400 ft = 1 in.  
Sept/69  
RHF  
ND.

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