

810972

Sultana Silver Mines Ltd.
Progress Report
SULTANA SILVER PROPERTY
Hazelton, B.C.
January 15, 1969

C.R. Saunders D.D. Campbell

Dolmage, Campbell & Associates

93-M-4

Sult. Depos. / Bull. 35/
46.

Ed Carlson.
P.G. 563 ~~563~~
563-2497

DOLMAGE, CAMPBELL & ASSOCIATES
CONSULTING GEOLOGICAL & MINING ENGINEERS
808 BANK OF CANADA BUILDING
VANCOUVER I. B. C.

5683 9304 493

Sultana Silver Mines Ltd.

Summary Report

SULTANA SILVER PROPERTY

Hazelton, B. C.

Sept. 10, 1968

Douglas D. Campbell.

Consultant

Vancouver, Canada

TO:


 PHONE (4) 876-1111
 TELE 450353
 CABLE ADDRESS
 ELDRICO

Dolmage Campbell & Associates

808 - 900 West Hastings Street

Vancouver, B. C.

Certificate of Assay

COAST ELDRIDGE

 PROFESSIONAL SERVICES DIVISION
 WARNOCK HERSEY INTERNATIONAL LIMITED
 125 EAST 4TH AVE. VANCOUVER 10, B.C., CANADA

FILE NO. A.3-D.1-69-3878

DATE January 11, 1969

 We Hereby Certify that the following are the results of assays made by us upon submitted Drill Core samples

MARKED	GOLD		SILVER	Copper (Cu)	Total Molybdenum	PER CENT	PER CENT	PER CENT	PER CENT
	OUNCES PER TON	VALUE PER TON	OUNCES PER TON	PER CENT.	CENT.				
		1			(Mo)				
401 52 50-55				0.23	0.025				
402 55-60				0.22	0.005				
403 60-65				0.16	0.015				
404 51 44-47	0.02	0.70	5.8	0.64					
405 39-44	0.01	0.35	0.5	0.18					
406 47-53	0.01	0.35	Trace	0.10	0.005				
407 53-60	0.01	0.35	2.0	0.68					
408 60-62	0.03	1.05	18.6	9.06					
409 62-66	0.01	0.35	0.4	0.14					
410 66-71	0.02	0.70	1.0	0.48					
411 514 79-85	0.01	0.35	0.6	0.25					
412 16-23	0.01	0.35	-	0.47					
413 102-113				0.09	0.05				
414 127-132				0.07	0.02				
415 411 187-192				0.15					

/jm

Gold calculated at \$ per ounce

Note. Rejects retained one week.
 Pulps retained one month.
 Pulps and rejects may be stored for a maximum of one year by special arrangement.

Unless it is specifically stated otherwise, gold and silver values reported on these sheets have not been adjusted to compensate for losses and gains inherent in the fire assay process.

Provincial Assayer

TO:

Dolmage Campbell & Associates


 PHONE 876-4111
 TELE 50353
 CABLE ADDRESS
 ELDRICO

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	OUNCES PER TON	VALUE PER TON	OUNCES PER TON	Copper (Cu) PER CENT	Molybdenum (Mo) PER CENT				
416 M1 192-197		\$		0.02					
417 197-202				0.10					
418 211-216				0.03	0.02				
419 216-221				0.02					
420 221-226				0.07					
421 226-231				0.03					
422 231-236				0.04					
423 236-241				0.02					
424 241-246				0.04					
425 246-251				0.02					
426 251-256				0.02					
427 256-261				0.02					
428 261-266				0.03					
429 S14 69-72				0.38					
430 M1 100-111				0.03					
431 S4 80-83				0.08					

Gold calculated at \$ per ounce

Note. Rejects retained one week.
 Pulps retained one month.
 Pulps and rejects may be stored for a maximum of one year by special arrangement.

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Provincial Assayer

TO:

Dolmage Campbell & Associates Ltd.,
 808 - 900 West Hastings Street
 Vancouver 1, B.C.



PHONE 876-4111
 TELE 50353
 CABLE ADDRESS
 ELDRICO

Certificate of Assay
COAST ELDRIDGE
 PROFESSIONAL SERVICES DIVISION
 WARNOCK HERSEY INTERNATIONAL LIMITED
 125 EAST 4TH AVE. VANCOUVER 10, B.C. CANADA

FILE NO. A.3-D.1-69-3974

DATE January 13, 1969

We Hereby Certify that the following are the results of assays made by us upon submitted Drill Core samples

MARKED	GOLD		SILVER	Copper (Cu)	Total Molybdenum	PER CENT.	PER CENT.	PER CENT.	PER CENT.
	OUNCES PER TON	VALUE PER TON	OUNCES PER TON	PER CENT.	PER CENT (Mo)				
		\$							
432 314 74-75			0.04	0.19					
433 75-78			1.7	1.21					
434 85-90			Trace	0.10					
435 90-93			0.04	0.10	0.01				
436 95-100			Trace	0.10	0.01				

/jp Gold calculated at \$ _____ per ounce

Note. Rejects retained one week.
 Pulps retained one month.
 Pulps and rejects may be stored for a maximum of one year by special arrangement.

Unless it is specifically stated otherwise, gold and silver values reported on these sheets have not been adjusted to compensate for losses and gains inherent in the fire assay process.

H. Shantz

Provincial Assayer

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CONSULTING GEOLOGICAL & MINING ENGINEERS
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VANCOUVER I. B. C.

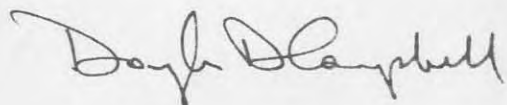
September 10, 1968.

CERTIFICATE

I, Douglas D. Campbell, with business and residential addresses in Vancouver, British Columbia, do hereby certify that:

1. I am a consulting geological engineer.
2. I am a graduate of the University of British Columbia, (B.A. Sc., Geological Engineering, 1946), and of the California Institute of Technology, (Ph.D., Economic Geology and Geophysics, 1955).
3. I am a registered Professional Engineer of the Province of British Columbia and of the Yukon Territory.
4. From 1946 until 1957 I was engaged in mining and mineral exploration in Canada and the United States as geologist for a number of companies. In 1957 I retired as chief geologist for Eldorado Mining & Refining Co. Ltd. to begin private practice as a consulting engineer.
5. On Aug. 21, 1968, I personally examined the showings on the Silver Tip property of Sultana Silver Mines Ltd., and in addition have had access to all data and reports, both private and public, available on the property.
6. I have not received, nor do I expect to receive, any interest, directly or indirectly, in the properties or securities of Sultana Silver Mines Ltd., or any associated companies.

Respectfully submitted,



Douglas D. Campbell, P.Eng., Ph.D.

DOLMAGE, CAMPBELL & ASSOCIATES

CONSULTING GEOLOGICAL & MINING ENGINEERS

808 BANK OF CANADA BUILDING

VANCOUVER I. B. C.

- 1 -

INTRODUCTION

On Aug. 21, 1968, the writer examined the surface showings of a silver-bearing vein and of disseminated chalcopyrite mineralization on the Silver Tip group of claims owned by Sultana Silver Mines Ltd. on Rocher Deboule Mountain, 10 miles south of Hazelton, B.C. Mr. Ed Carlson, officer of Sultana Silver Mines Ltd., accompanied the writer on the property examination.

LOCATION: (55° 06'N, 127° 32'W)

The Silver Tip group of claims is located at the headwaters of Boulder Creek, above timberline at an elevation of approximately 5500 feet, 2 miles southsoutheast of Tiltusha Peak and 6 miles southeast of the old Red Rose Mine.

The property is reached by 7 miles of dirt road built by Sultana Silver Mines Ltd. up the valley of Boulder Creek from Highway 16, 6 miles north of Moricetown on the Canadian National Railway. The claims occupy the south shelf of an extensive cirque at the headwaters of Boulder Creek. Most of the mineralized area is overlain by deep boulder morrainal deposits.

PROPERTY:

Sultana Silver Mines Ltd. owns a total of 50 mineral claims and fractions, designated Silver Tip Nos. 1 to 50, with 24, 25, 26, 30 and 34 as fractions, which were surveyed by the firm of McWilliam, Whyte, Gable and Associates in 1967. The claim group is L-shaped, with the known areas of mineralization occurring on Silver Tip No. 6 at the western end of the claim group.

The present expiry dates of the claims are:

Silver Tip 1-6 - July 6, 1969	Record No's. 41038-43 incl.
7-17 - Jan. 11, 1968	47227-37 "
18-25 - Feb. 6, 1969)	47843-59 "
27-29 - " ")	
31-34 - " ")	
26,30 - Mar. 15, 1970)	
35-50 - Apr. 18, 1970	Record No's. 48748-63

On Silver Tip No. 6 M.C., in an area of 300 x 1000 feet, eleven bulldozer trenches have been excavated by Sultana Silver Mines Ltd. in 1967 to expose a silver-bearing vein for a length of 60 feet and an area of fractured granodiorite mineralized with chalcopyrite. There are no other workings on the property.

HISTORY:

Two vein-type deposits on Rocher Deboule Mountain have produced about \$8 million worth of tungsten and copper ores, mostly during the period 1942-1954 but also on a smaller scale from 1915 to 1919. These two producers were the Red Rose Mine, tungsten-copper, and the Rocher Deboule Mine, copper, located 3 miles and 5 miles, respectively, northwest of the Sultana Silver property. About 10 other properties on the mountain range have been variously developed but none reached a significant production stage. There is negligible prospecting activity in the area at the present time except for the program of Sultana Silver Mines Ltd. on the Silvertip Group.

SUMMARY AND RECOMMENDATIONS

Sultana Silver Mines Ltd. own a block of 50 mineral claims and fractions on Rocher Deboile Mountain, 10 miles south of Hazelton, B.C., at the headwaters of Boulder Creek. This claim group, the Silver Tip, is reached by tote road from Highway 16 near Moricetown, B.C., and lies just above timberline.

The property covers a portion of the eastern contact of the Rocher Deboile Intrusive granodiorite stock, with about half the property underlain by granodiorite and the other (eastern) half underlain by volcanic rocks of the Hazelton Group. The Red Rose Mine, a notable tungsten-copper producer is located 3 miles northwest of the Sultana property, near the western contact of the Intrusive granodiorite stock.

Near the western edge of the claim block, entirely within the granodiorite, bulldozer trenches in the rock rubble of a cirque floor have exposed two types of mineralization that may have economic potential, a silver-bearing vein and an occurrence of disseminated copper-molybdenum mineralization.

The silver-bearing vein is exposed for a length of about 100 feet and averages approximately 20 oz. Ag/ton across 10 feet, for a gross value of \$46/ton in silver. Branches of it occur beside it but its extensions to the east and west are covered in deep overburden. Vein float has been traced for 200 feet to the west and 200 feet to the east. The tonnage potential of this rich vein, and its branches, should be investigated by drilling in view of its good grade across an excellent mining width.

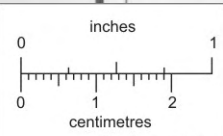
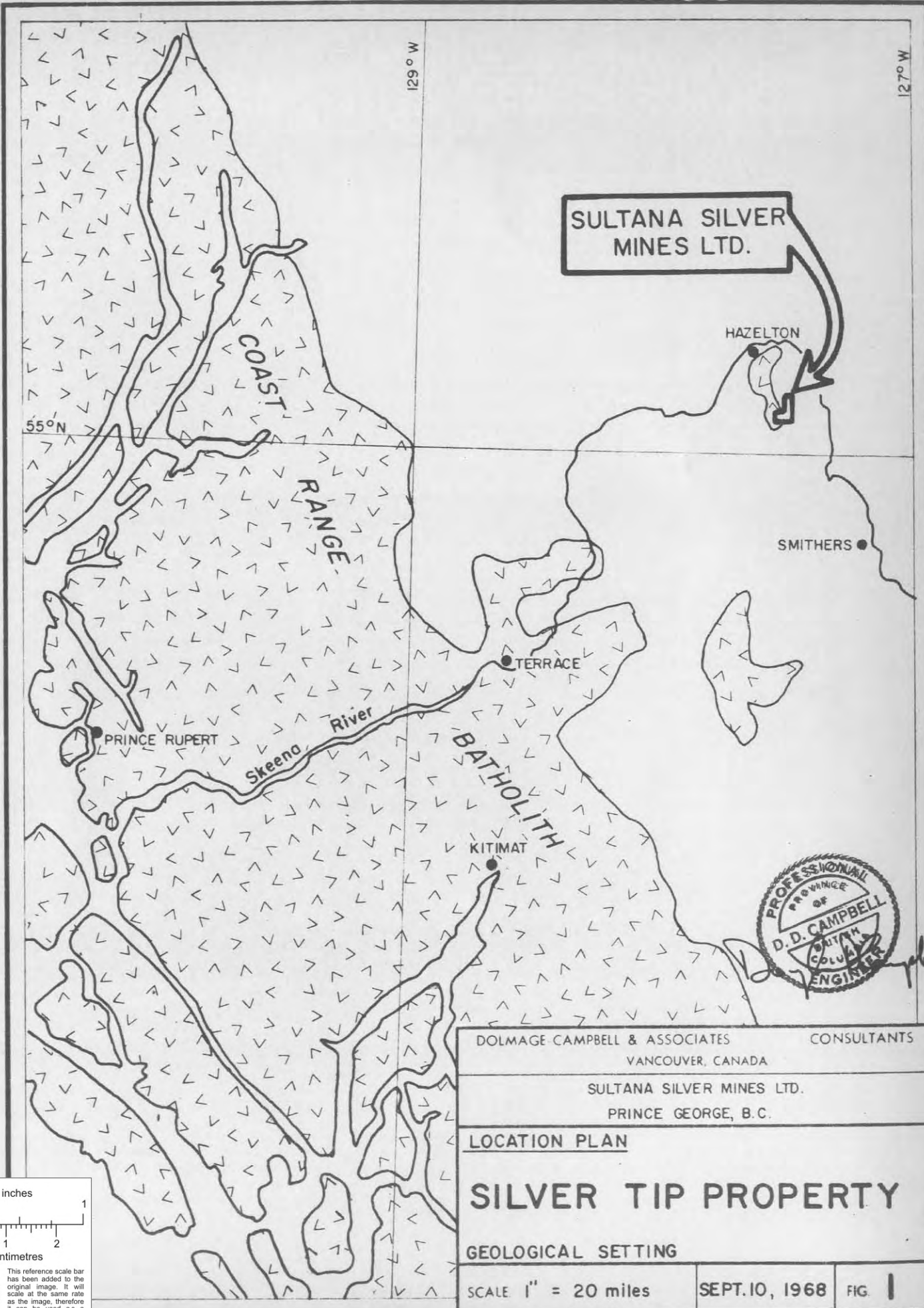
The copper-molybdenum mineralization occurs as fine fracture fillings as well as disseminations of chalcopyrite and molybdenite within fractured, rusty granodiorite over an area measuring 500 x 300 feet and open in all directions. The grade for a lowgrade openpit type of orebody appears to be good; the tonnage potential remains to be explored. A reconnaissance diamond drill program is recommended for this occurrence.

RECOMMENDATIONS:

Preliminary diamond drill programs are recommended for both showings to determine if they warrant further, more comprehensive investigation. Since the tonnage potential of both ore occurrences could be very large any subsequent exploration programs will be correspondingly extensive.

1. Preliminary drilling of silver vein.	\$ 25,000.
2. Preliminary drilling of copper-molybdenum mineralization.	\$ 30,000.
3. Support costs.	<u>\$ 50,000.</u>
TOTAL:-	<u>\$105,000.</u>

It is probable that in any eventuality there will be enough high grade silver ore easily mineable from the vein to warrant some profitable shipping.



This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.



DOLMAGE CAMPBELL & ASSOCIATES		CONSULTANTS
VANCOUVER, CANADA		
SULTANA SILVER MINES LTD.		
PRINCE GEORGE, B.C.		
<u>LOCATION PLAN</u>		
SILVER TIP PROPERTY		
GEOLOGICAL SETTING		
SCALE 1" = 20 miles	SEPT. 10, 1968	FIG. 1

GEOLOGICAL SETTING

REGIONAL:

The Rocher Deboule Range has been geologically mapped by Dr. A. Sutherland Brown of the B.C. Dept. of Mines and Petroleum Resources. The results of this work are comprehensively presented in Bulletin 43 (1960) of the Department; "Geology of the Rocher Deboule Range".

According to Dr. Sutherland Brown's mapping, the mountain range is dominated geologically by a stock of granodiorite-monzonite that forms a north-south core of the range, underlying the highest peaks. The outcrop of this stock is 3-6 miles in width and 10 miles in north-south length, extending from Hagwiget Peak, (6700'), at the north end of the range, to Brian Boru Peak, (8200'), at the south end. The property of Sultana Silver Mines Ltd. lies at the southern end of the granodiorite stock, 2 miles northeast of Brian Boru Peak. (Fig. 2). The Rocher Deboule granodiorite stock is an eastern outlier of the Coast Range Batholith, the eastern edge of which crops out 60 miles to the west. (Fig. 1)

The intruded formations that underlie most of the Rocher Deboule range around the stock belong to the Hazelton Group of sedimentary and volcanic rocks of Jura-Cretaceous age. These formations strike northward and dip gently to the east, but they have been considerably dislocated by north-trending regional block faults.

Another dominant geological feature of the Rocher Deboule Range is the fact that the range is bounded by steeply-dipping, major, block faults; the Cap Fault to the west and the Pangea Fault to the east, with the block between them being upthrust. Almost midway between these two faults is a comparable parallel one, the Chicago Fault, that forms the west flank of all the peaks in the range.

Of the 16 recorded mineral properties on the Rocher Deboule Range, one is located on the Pangea Fault, three on or near the Chicago Creek Fault, (including the Red Rose), one on the Cap Fault, and most of the remainder are located along the east and west edges of the northern half of the granodiorite stock. It is thus evident that the range is mineralized over a wide area and that this hydrothermal mineralization is largely confined to the vicinity of the intrusive stock and the regional block faults.

PROPERTY GEOLOGY:

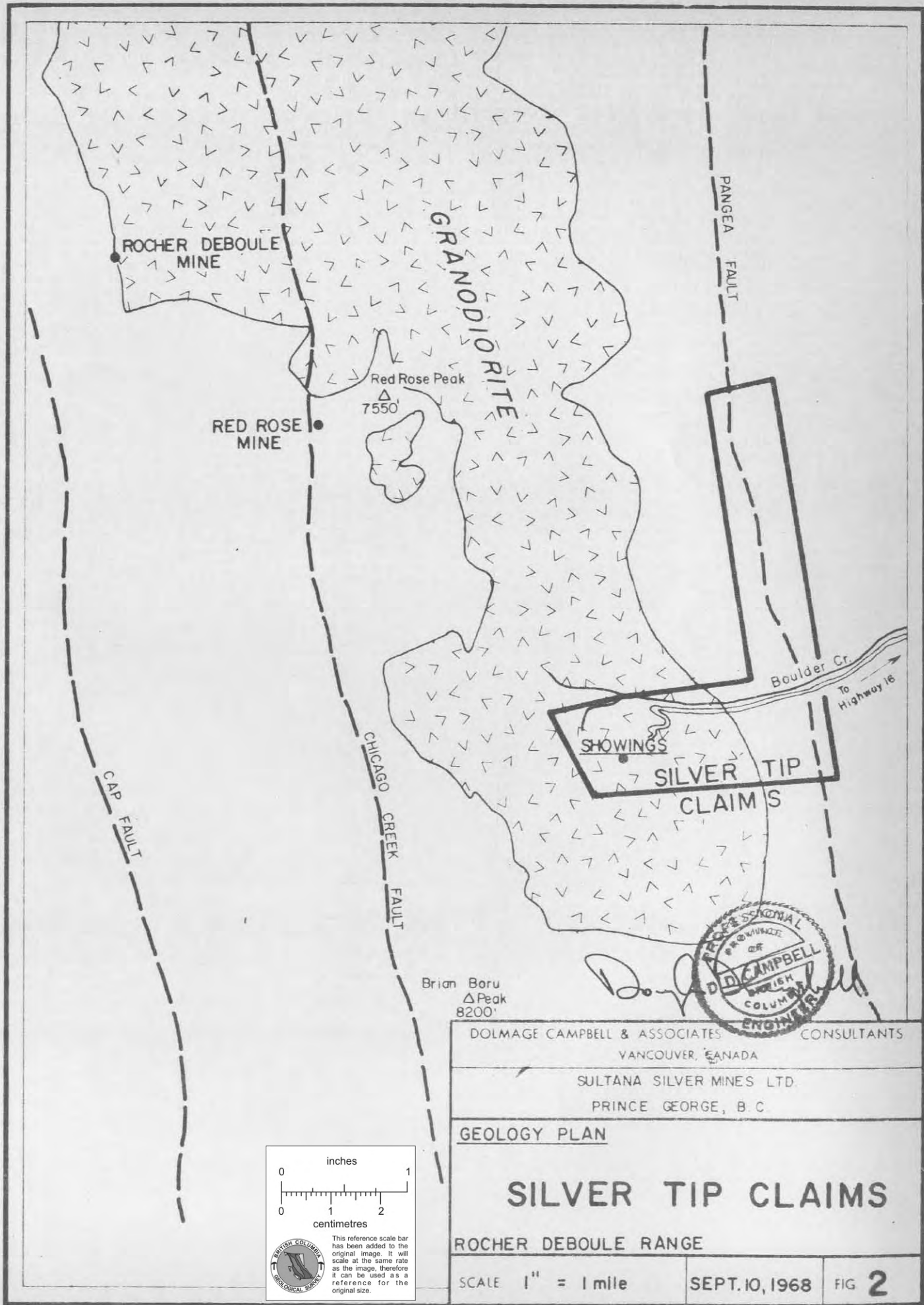
The Silver Tip claims are underlain by only two formations; the granodiorite stock in the southwestern block and the volcanic rocks of the Hazelton Group in the northeastern block along the Pangea Fault. The volcanic rocks are andesitic flows, breccias and tuffs of the Brian Boru Formation.

Outcrops are confined to the ridges and bluffs on the property with most of the southwestern claims deeply covered in talus, frost-heaved rock soil, or glacial moraine.

Structure: The main geological structure underlying the Silver Tip claims is the Pangea Fault, (Fig. 2), but it is largely concealed by forested overburden cover. In view of the known widespread occurrences of economic minerals on the Rocher Deboule Range it would be a worthwhile project to conduct a reconnaissance soils geochemical survey on the Sultana Silver Mines Ltd. claims along the Pangea Fault.

ECONOMIC GEOLOGY:

The two mineral occurrences of economic interest on the property of Sultana Silver Mines Ltd. consist of a vein stockwork and a dissemination of chalcopyrite-molybdenite mineralization as fine fracture fillings etc. in the granodiorite bedrock. The vein is rich in silver and may comprise a deposit of sufficient size to warrant either a mill or a shipping of highgrade. The chalcopyrite-molybdenite mineralization is poorly exposed but it may be of sufficient size and grade to comprise a large openpit operation.

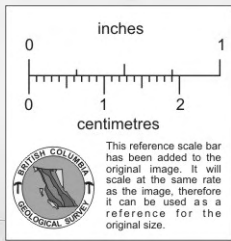


Brian Boru
 Δ Peak
 8200'

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 SULTANA SILVER MINES LTD.
 PRINCE GEORGE, B. C.

GEOLOGY PLAN
SILVER TIP CLAIMS
 ROCHER DEBOULE RANGE

SCALE 1" = 1 mile SEPT. 10, 1968 FIG 2



ORE OCCURRENCES

SILVER VEIN:

As shown in Figure 3 accompanying this report, a wide vein is exposed between Trenches 5 and 6 on the Silver Tip showings. This vein ranges in width from 6 to 12 feet and is comprised of comb and massive quartz liberally intermixed with pyrite, tetrahedrite and possibly arsenopyrite. The iron sulphides have oxidized intensely on the exposed portions of the vein so that it is difficult to cut a sample of completely fresh material from it. The granodiorite country rock is considerably sheared and altered in the vicinity of the vein.

The vein as revealed in the bulldozer trenches appears to dip vertically to steeply southward. In Trench No. 5 the vein either pinches out or is sliced off by a fault, the exposures are not clear. To the west, in Trench No. 6, the vein appears to branch and change strike. Further south in Trench 5 two veins are exposed in the west wall, (Fig. 3); these could be new veins or faulted portions of the main vein.

TONNAGE POTENTIAL: Where exposed, the vein attains excellent mining widths that would promise good tonnage potential if the vein persists on strike and dip. Bedrock was not reached in adjacent trenches, 4 and 7, nor are there any other outcrop exposures of the vein to indicate its continuity; however, east and west of the outcrop massive pieces of oxidized sulphide-vein float have been turned up in trenches 2, 3, 9 and 10, giving a spread of some 500 feet of vein material along strike. In his report of 1960 Dr. Sutherland Brown reports the occurrence of vein material "several hundred feet east" of the showings; however, this was not seen by the writer.

GRADE: The Sultana vein has been thoroughly sampled by many geologists and engineers, mainly because of its excellent exposure between trenches 5 and 6. The most definitive sample results are as follows: (Many grab and specimen sample results are not included here.)

	<u>Approx. location</u>	<u>Width (ft.)</u>	<u>Au (oz.)</u>	<u>Ag (oz.)</u>	<u>Cu (%)</u>
1. B.C. Dept. of Mines, 1921	Trench 5	8	0.02	29.0	1.7
2. " " " " "	Trench 6				
	20' east	10	0.06	59.0	5.2
3. " " " " , 1922	Trench 6	6	0.04	34.0	5.8
4. " " " " " ,	E. of Tr. 6	9	0.22	60.0	0.5
5. Sutherland Brown , 1960	Trench 5	12	0.01	18.1	1.93
6. " " " " " ,	Trench 5	12	0.01	14.0	2.20
7. D.D. Campbell , 1968	Trench 5	6	0.02	19.0	0.01

Considering the consistency of the silver values in the above sampling, together with the leaching of the outcrop by oxidation of the sulphides, it is evident that the Sultana Vein warrants further exploration to determine its tonnage potential. If a rough average grade of 20 oz. Ag/ton across 10 feet is assumed, then at the present price of silver the gross value of the ore would be \$46 per ton, an excellent grade considering the mineable width.

LOW GRADE COPPER-MOLYBDENUM:

The bulldozer trenching done by Sultana Silver Mines Ltd. to explore the silver vein was largely unsuccessful in its primary purpose because of deep bouldery overburden which could not be excavated by the machine available; however, in the course of the trenching it was found that the granodiorite southeast of the silver vein was host to disseminated mineralization by chalcopyrite and molybdenite. This mineralization occurs primarily as fillings on very fine fractures that cut the rock at intervals of 1-3 fractures per foot. Fine grained disseminations within the rock are also fairly common. This rock is characteristically rusty-weathering, and closely fractured, unlike the massive, grey, blocky character of the granodiorite up the cirque wall to the south.

West of the trenched area there are few outcrops for nearly 1000 feet and more mineralized granodiorite could underlie that part of the property. More interestingly, southwest of the trenched area a high knob about 700 feet in diameter exposes highly oxidized rusty granodiorite. A few pieces of talus from this hill exhibited chalcopyrite on fracture faces; however, the surface rock exposures on the hill are so frost-heaved and leached that the true extent of any such mineralization could not be determined.

The exposed mineralized granodiorite in the trenches is too broken to lend itself to sensible sampling but the writer estimates that the copper at least might attain about 1% in the trenches. Because of the large area available for exploration for more such low grade mineralization on this claim this occurrence becomes of considerable economic interest and should be explored. Bulldozer trenching is not productive enough in this ground to be employed further for this type of exploration, therefore future exploration should be by diamond drilling.

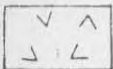
LEGEND



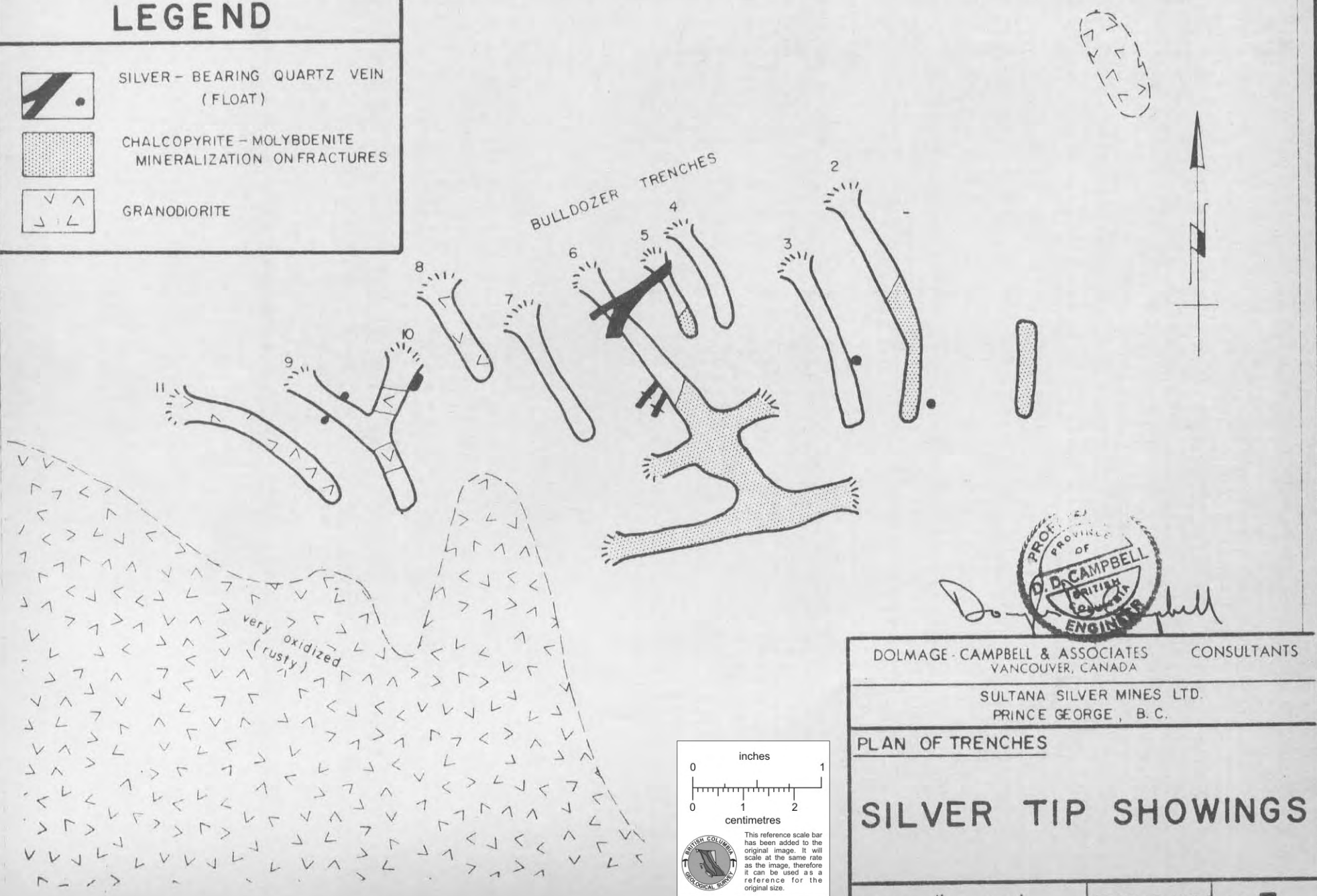
SILVER-BEARING QUARTZ VEIN
(FLOAT)



CHALCOPYRITE-MOLYBDENITE
MINERALIZATION ON FRACTURES



GRANODIORITE



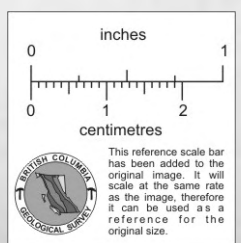
D. D. Campbell

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VANCOUVER, CANADA

SULTANA SILVER MINES LTD.
PRINCE GEORGE, B. C.

PLAN OF TRENCHES

SILVER TIP SHOWINGS



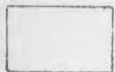
SCALE: 1" = 100'

SEPT. 10, 1968 FIG. 3

LEGEND



SILVER-BEARING QUARTZ VEIN
(FLOAT)

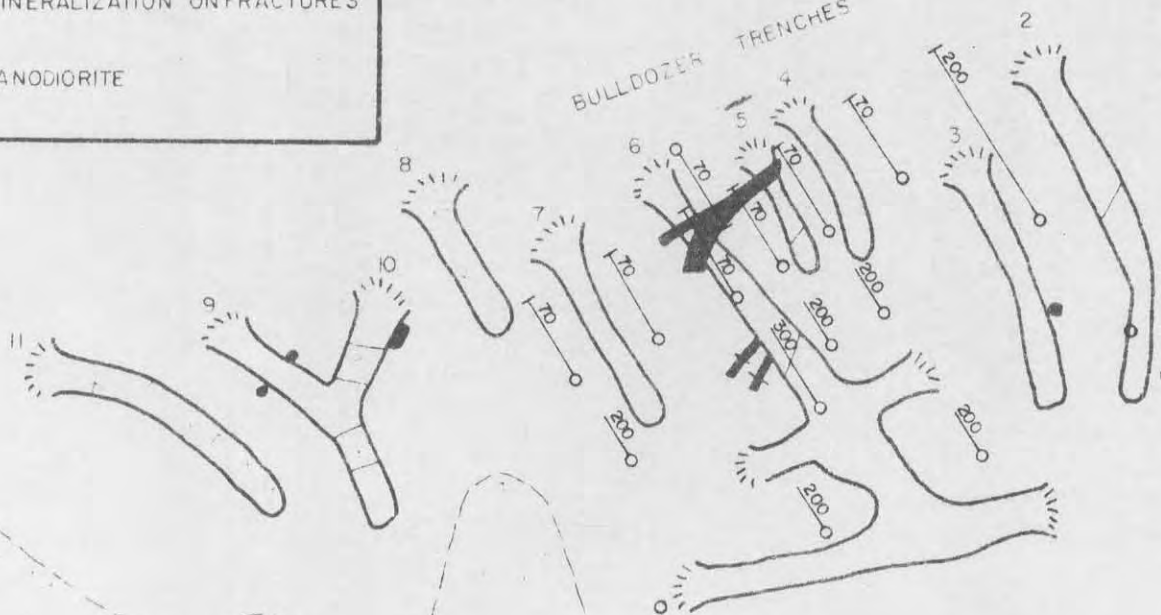


CHALCOPYRITE-MOLYBDENITE
MINERALIZATION ON FRACTURES



GRANODIORITE

BULLDOZER TRENCHES



very oxidized
(rusty)

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VANCOUVER, CANADA

SULTANA SILVER MINES LTD.
PRINCE GEORGE, B.C.

DIAMOND DRILL HOLES

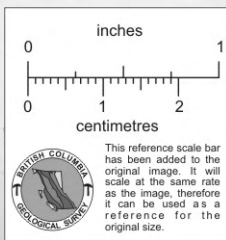
- Vertical holes (300')
- 45° hole with depth.

RECOMMENDED DRILL PLAN

SILVER TIP SHOWINGS

SCALE 1" = 100'

SEPT. 10, 1968 NO. 4



CONCLUSIONS

The Silver Tip property at the headwaters of Boulder Creek on Rocher Deboile Mountain encompasses an area along the contact of the granodiorite stock that is a favourable geological environment for commercial mineralization. The silver-bearing quartz vein that is exposed for a length of about 100 feet, over a width of 8-12 feet, is of sufficient grade to warrant further exploration to determine its tonnage potential. This can best be done by a diamond drill program using BQ wireline coring to ensure maximum core recovery. The first holes should be drilled from the south side of the vein outcrop and be designed to intersect the outcrop at a relatively shallow depth; subsequent holes should test the vein at greater depth and lateral extent. A suggested layout of holes is shown in Figure 4 of this report.

The occurrence of scattered, lowgrade chalcopyrite-molybdenite mineralization in the granodiorite in the area of the vein exposure could be evidence of a large low grade orebody. This potential should be investigated by a reconnaissance drill program, which if successful would be followed by a more comprehensive program. The suggested reconnaissance drill holes are shown as vertical holes on Figure 4.

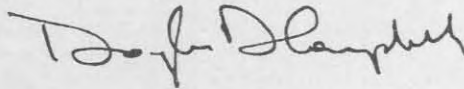
RECOMMENDATIONS:

1. Preliminary drilling of silver vein and branches.
17 holes @ 45°, total 2500' @ \$10./ft. \$ 25,000.
2. Subsequent drilling of vein if preliminary drilling
is successful. 2500' @ \$10. (\$ 25,000.)
3. Preliminary drilling of low grade copper-molybdenum
mineralization. 10 holes to 300 ft. @ \$10. \$ 30,000.
4. Subsequent drill program contingent on results of (3)
50 holes to 500 ft. @ \$10. (\$250,000.)
5. Road repair and construction \$ 10,000.
6. Camp, water haulage, maintenance \$ 20,000.

7. Engineering, consulting, assays, overhead	\$ 10,000.
8. Contingencies on primary program (10%)	\$ <u>10,000.</u>
TOTAL:	\$ <u>105,000.</u>
Contingent program (drilling only)	(\$275,000.)

It is possible to accomplish the primary program this year if a start can be made before the end of October, particularly in view of the fact that the road is presently being repaired and the camp installed.

Respectfully submitted,



Douglas D. Campbell, P.Eng., Ph.D.

DOLMAGE, CAMPBELL & ASSOCIATES
CONSULTING GEOLOGICAL & MINING ENGINEERS
808 BANK OF CANADA BUILDING
VANCOUVER I. B. C.

Sultana Silver Mines Ltd. ,

Progress Report

SULTANA SILVER PROPERTY

Hazelton, B. C.

January 15, 1969

C. R. Saunders Dolmage, Campbell & Associates Ltd.
D. D. Campbell

Vancouver Canada

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VANCOUVER I. B. C.

INTRODUCTION

In late autumn, 1968, Sultana Mines Ltd., built a tent and plywood camp near the head of Boulder Creek, approximately 13 miles northwest of Moricetown, B. C. This semi-permanent camp is at about 5000 feet elevation and 3/4 of a mile from the Sultana silver-copper showing on Silver Tip No. 6 M. C. The camp was built in preparation for a proposed drilling programme on the silver-copper showing. A contract was let to Inspiration Ltd. and in late November, 1968, a BQ wireline drill was moved to the property and drilling commenced. Mr. Peter Coxall, of Dolmage-Campbell & Associates was resident engineer at the site.

DRILLING PROGRAMME

Drilling of the silver-copper veins and the nearby disseminated copper-molybdenum mineralization was done as proposed in Dr. D. D. Campbell's summary report of September 10, 1968. Five drill holes were completed and one hole partially drilled before snow conditions and difficulty in obtaining drilling water forced a halt to the drilling programme on December 18, 1968. The drill was stored at the site in preparation for continuing the programme when weather conditions permit in the spring of 1969. A summary of the completed drill footage follows:

<u>Hole No:</u>	<u>Location</u>	<u>Azimuth</u>	<u>Dip</u>	<u>Length</u>	<u>Remarks</u>
S1	1013N-1080E	328 ^o	-45 ^o	89.5	Locations and azimuths of all holes are approximate. More exact locations will be determined when the area is free of snow.
S2	1023N-1130E	328 ^o	-45 ^o	96	
S4	1023N-1180E	328 ^o	-45 ^o	90	
S6	1010N-1012E	335 ^o	-50 ^o	68	
S14	1115N-1040E	148 ^o	-45 ^o	137	
M1	900N-1400E	-	-90 ^o	267	

This progress report presents the information derived from this drilling and discusses its significance to the property and the remainder of the programme.

RESULTS OF INITIAL DRILLING

VEIN (S1, S2, S4, S6, S14) - The accompanying map shows the approximate location of these holes with respect to the surface trenching and the silver-copper vein as it appears on surface. Suspected small errors in hole location could not be checked because of the heavy snow conditions. Two holes appear to have intersected the vein but only one of these returned economic grade assays. Core loss from grinding in weak, fractured ground may have contributed to the lack of more intersections. Some pertinent remarks, regarding each hole drilled, follows:

DDH S-1 Two veins intersected at 44-47 ft and 53 1/2-71 ft. The veins consist of milky quartz containing some kaolinized granodiorite and locally coarsely crystalline pyrite with some chalcopyrite and masses of tetrahedrite. The sulphides occur as sporadic, irregular masses within the quartz. The best assay for each vein was as follows:

44-47	.02 Au, 5.8 Ag, .64 Cu
60-62	.03 Au, 18.6 Ag, 9.06 Cu

(Core recovery for these two intersections was approximately 95%)

DDH S-2 Apparently this hole did not intersect the vein. It passed continuously through somewhat kaolinized granodiorite that is randomly fractured throughout with some fractures containing thin coatings of pyrite, chalcopyrite and occasionally molybdenite. A few random quartz stringers cut the granodiorite and appear to be related to the sulphide mineralization. The precise hole location is in some doubt.

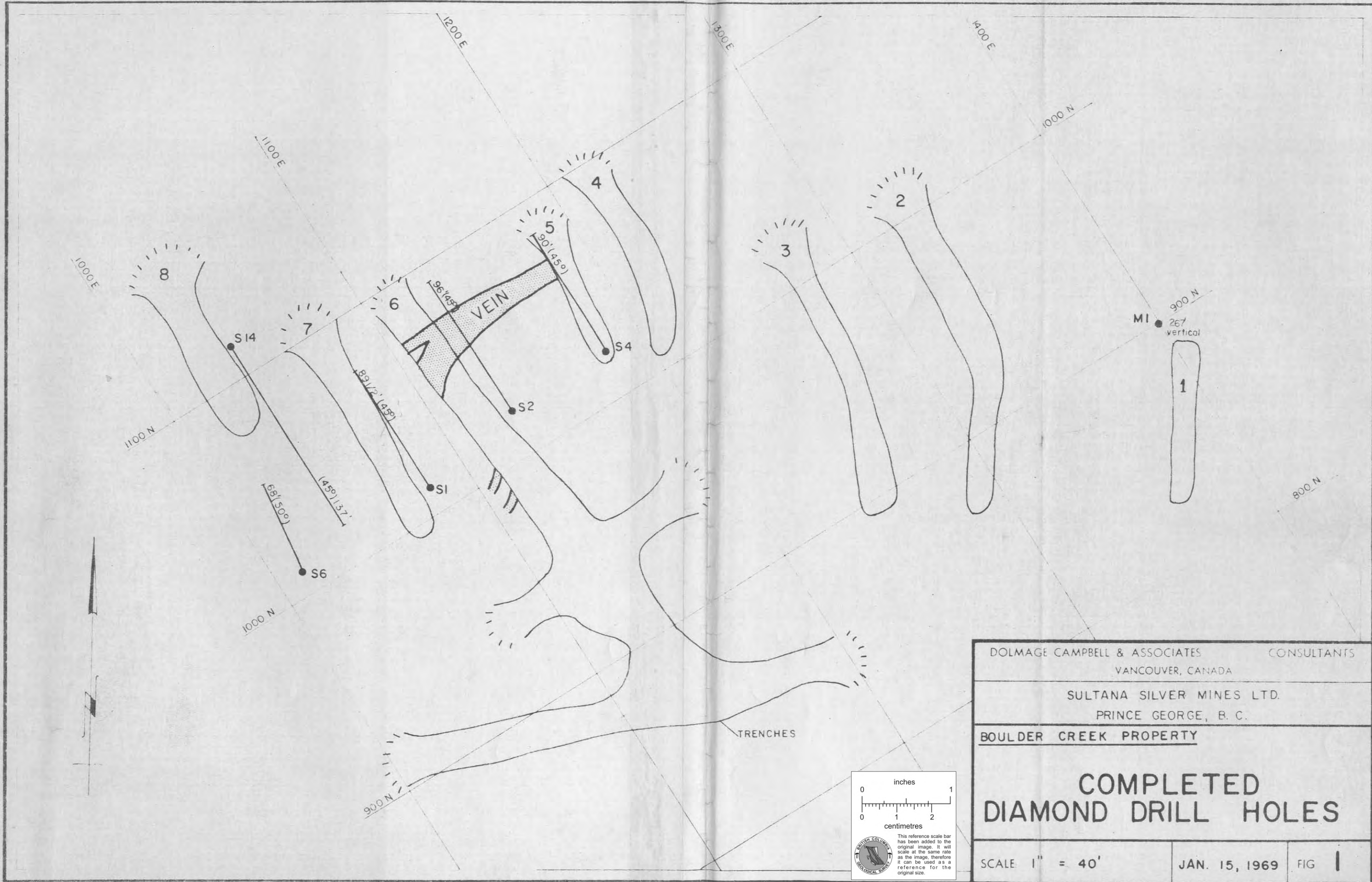
DDH S-4 Very similar to S-2

DDH S-6 This hole was not completed to its proposed depth and consequently may not have reached the vein.

DDH S-14 The hole appears to have intersected two veins at 75-78 ft and 79-85 ft. Unfortunately most of the core from 75 to 78 feet was ground during drilling and only two small pieces

of quartz containing some pyrite and tetrahedrite were recovered. These two pieces assayed 1.7 oz Ag and 1.21% Cu. The core recovery was about 3%. The section, 79-85 feet, is primarily quartz with only minor sulphides. The assays reflect this low sulphide concentration: .01 Au, 0.6 Ag, .25 Cu.

DISSEMINATED MINERALIZATION (M1) There was time to drill only one hole in the area where copper-molybdenum mineralization was noted on surface and consequently very little weight can be put on the results of this hole. All of the assays obtained were very low grade with the highest being 0.15% Cu. However, copper mineralization was noted sporadically throughout.



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BOULDER CREEK PROPERTY		
COMPLETED DIAMOND DRILL HOLES		
SCALE 1" = 40'	JAN. 15, 1969	FIG 1

CONCLUSIONS AND RECOMMENDATIONS


Considering the very adverse drilling and hole location conditions it is very encouraging to have intersected the silver-copper vein in two drill holes and to have obtained one very good assay intersection. More definitive results should be obtainable under better weather conditions.

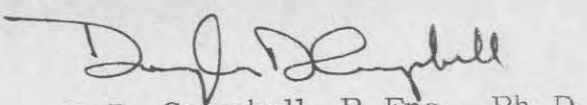
Results from the single vertical hole drilled in the area of the disseminated mineralization do indicate the existence of disseminated copper-molybdenum mineralization although in this hole it is of sub-ore grade.

It is recommended that the original programme as proposed by Dr. Campbell be continued in the spring of 1969 when weather conditions will be more amenable. At that time, location of the holes with respect to the trenches and to the surface exposures will be more precise, the drilling will be done much faster and the total cost per foot of drilling will be lower. The original targets, i. e. the silver vein and the copper-molybdenum low grade mineralization have been verified and warrant thorough exploration.

If the next drill holes into the high grade vein continue to return less than acceptable core recovery then it may be advisable to collar an exploration adit to evaluate the vein at about 50 feet below surface now that its position and existence has been established at that depth.

Respectfully submitted,


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