821832

July 23/71

Granite Mountain:-

NORTH AREA

(1.) 2 Drill holes (core) completed - #1 - 32E 22N, -90°. Completed to depth 464'. Est 0.3% Cu 75'-90' (15')

- #2 32E 22N, -35° N. Completed to depth 442'±. Est 0.3% Cu 130-141' (11') Cpy in fine fractures, and 322-330 (8.0') Qtz vein with heavy Cpy.

- #3 400' South of above location. In progress as of July 21/71.

Rock in this area, which encompasses early trenching area, is quartz chlorite schist.

(2) SOUTH AREA

Three percussion holes drilled at 8E, 14S; 16E, 6S; and 4E, 20S. These have intersected Py and Cpy in amounts estimated to contain 0.3% Cu over widths from 130' to 150'. The 0.6 millisecond contour extending South and west indicates the zone to be 3000 4000 feet long. This drilling is continuing. Rock in this area is a sericitic and kaolinitized qtz diorite.

93 B.

Granite Mountain Property
McLeese Lake Area.
Williams Lake B.C.

April 23 1971

93B

JUL - 2 1971

KERR ADDISON MINES LIMITED

(FOR INTER-OFFICE USE ONLY)

attach to Previous of April.

J.H.S. ✓
M.K. ✓
G.M.H. ✓
R.D.S.
B.C.B.
I.D.B.
M.D.R.
J.H.F.
E.C.J.

To G.M. Hogg **From** W.M. Sirola

Subject GRANITE MOUNTAIN PROPERTY, McLeese Lake Area, Williams Lake, B.C. **Date** June 29, 1971.

I made another pilgrimage to this property on June 16. Purpose of the visit was to determine if possible the meaning of a large I.P. anomaly and to examine any new trenching which might have been excavated since my last visit in April.

The I.P. anomaly is an arcuate shaped structure approximately 4,000' long and 400' to 800' wide. The core of this anomaly is approximately east-west but the trend becomes northwesterly at the west end and northeasterly at the east end. The anomaly has been trenched on line 28 east at 800 north and the trench reveals approximately 100' of graphitic schist dipping 35° south.

An effort was made to extend No. 1 trench (which had had the 18' of 0.90 copper) southward, but the southern extension did not reach bedrock and, consequently, little additional information was gleaned from this work.

My prime concern regarding the potential of this property lies in the fact that the potentially productive area is hemmed in on the north and east by the Innsbruck claims and by the Cache Creek rocks on the west. This limits the target area to approximately 1,000' X 1,400', or less than one mineral claim.

It might be argued that since the east half of the claims may well be underlain by quartz-diorite, there may still be the possibility of mineralization in that rock type. However, the quartz-diorite thus far shows little promise in the sense that there is no good I.P. or geochemical response in that rock type and it is comparatively lacking in alteration.

Granite Mountain is now listed on the Vancouver Stock Exchange, and I believe they will now conduct a drilling programme as quickly as possible. I will try to keep posted on the results thereof.

WMS/jm

I agree that Granite Mountain does not appear to be too promising a situation. Results do not warrant negotiating option if open pit area limited as noted.

Bill

W.M. Sirola.

Fred July 2/71

INNSBRUCK

Highway

AREA OF POTENTIAL MINERALIZATION
APPROX: 1200 x 1200'

GRANITE MT. NORTH BOUNDARY

INNSBRUCK

GRANITE MT. EAST BOUNDARY

Tcl

Tcl

Graphite Schist

CRINE CR ?

Rx

To England

Lilooet Rd

- Fine grained Diorite (Alt → chl, ser)
- med. grained quartz diorite (Gneissic?)
- Cache Creek Group

Granite Mt
1" = 400'
Geology By W. Meyer.
June, 1971.

MAY - 4 1971

KERR ADDISON MINES LIMITED

(FOR INTER-OFFICE USE ONLY)

93B

To G.M. Hogg From W.M. Sirola

Subject GRANITE MOUNTAIN PROPERTY, McLeese Lake Area, Williams Lake, B.C. Date April 23, 1971.

J.H.S.
P.M.K. ✓
G.M.H. ✓
R.D.S.
B.C.B.
I.D.B.
M.D.R.
J.H.F.
E.C.J.

On information received from prospector Max Martin and a telephone discussion with George Cross, I examined the property of Granite Mountain Mines, located approximately 25 miles north of Williams Lake and approximately 5 miles south of the Gibraltar deposits which are being developed by Placer. The property is located on the south-west side of the Granite Mountain Batholith and consists of 87 mineral claims, most of which were staked by Max Martin. The claims are actually in the name of Sheridan Copper Mines Limited but apparently will be transferred to Granite Mountain on a share for share basis. At the moment Granite Mountain is attempting to obtain a listing on the Vancouver Stock Exchange.

There are three trenches on the property which have been recently excavated but which have already sloughed and water-filled to a point where bedrock is difficult to see. It is, however, evident that chalcopyrite and malachite occur in sheared foliated diorite which has been cut by north-south trending faults filled with gouge. The exposures were mapped by Bill Myer, who worked for Gibraltar when it was a prospect, and Myer reports 18' of 0.90% copper in trench No. 1. This copper mineralization appears to be shear controlled and the rocks in the trenches west of the showing become massive and unmineralized very quickly. There is no other good exposure of intrusive rock on the property as far as we know at the moment, and the mineralization in itself is not important. It is however, according to Myer, one of the best exposures in the Gibraltar camp, and it is the intent of Granite Mountain to do approximately 20 miles of I.P. survey on the claim block. They have just finished collecting 500 soil samples and are awaiting results.

Because of its proximity to the Gibraltar deposits, I have told Pat Bowes, who is President of Granite Mountain, that we are definitely interested and would like to stay as close to this picture as possible. In the meantime I will try to get some geologic data on the Gibraltar deposits from Placer Development. This may not be easy but it is worth a try.

Ref. this could be of interest, and as Bill notes - we will stay close to it.
Ltd. May 4/71.

WMS/jm
Encl.

W.M. Sirola.

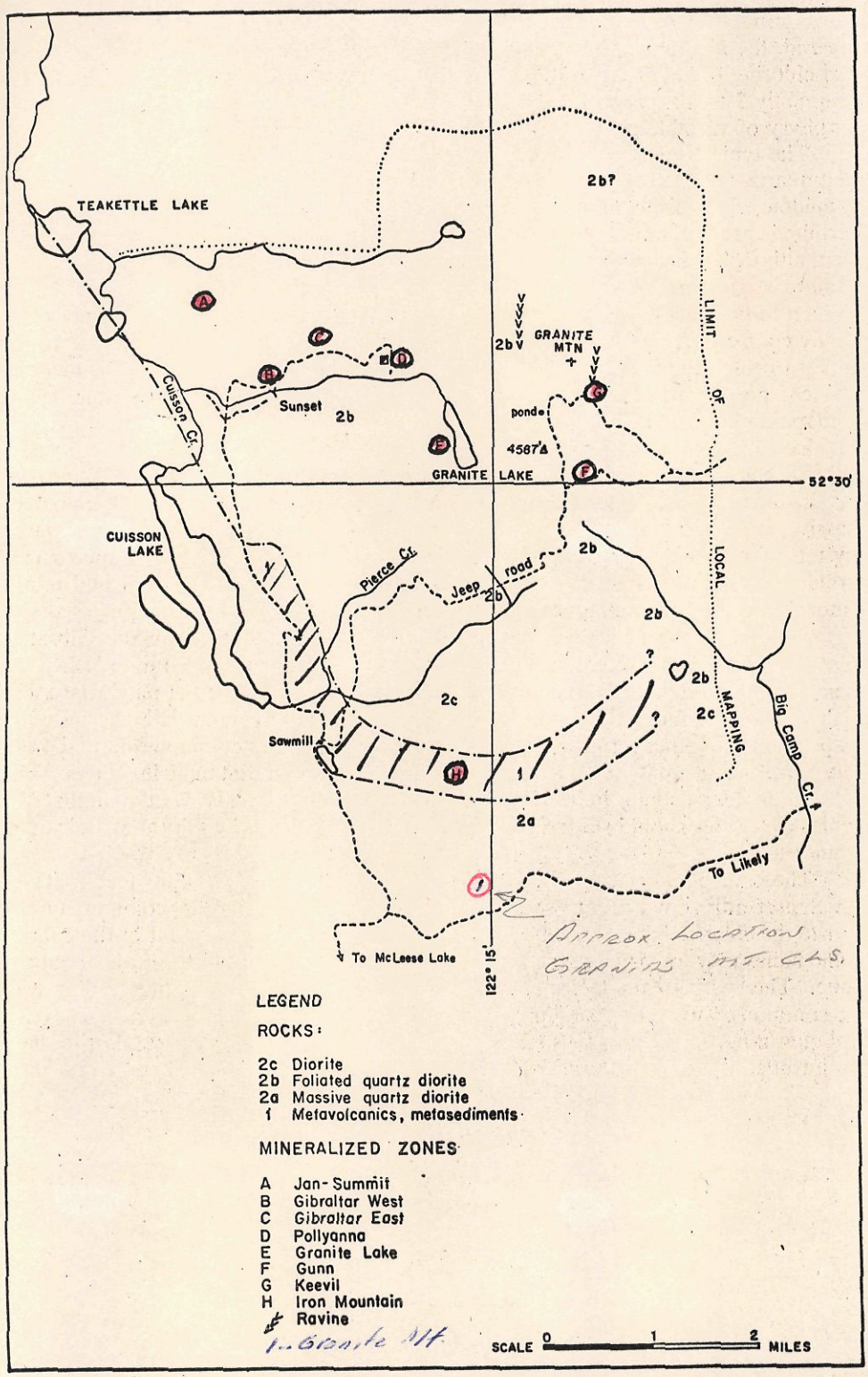

Figure 32. Sketch of Granite Mountain area, Cariboo district.

REPORT ON

"MCLEESE", "TOR" AND "BOB" CLAIMS

MCLEESE LAKE AREA, B. C.

CARIBOO MINING DIVISION

PREPARED FOR

SHERIDAN COPPER MINES LTD. (N.P.L.)

BY

W. MEYER, B.Sc.

APRIL 15, 1971

VANCOUVER, B.C.

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April 15, 1971 Vancouver, B. C.

SUMMARY AND CONCLUSIONS

The McLeese claims are located near the southeast contact of the Granite Mountain Batholith. Copper mineralization of potentially economic significance is exposed in a number of cuts on McLeese #5 M.C. The areal extent of the mineralization has not been determined by the most recent trenching. An aggressive programme of continued exploration on the claim group is warranted. An expenditure of $81,000.00 is recommended for the first stage.

INTRODUCTION

The following report is prepared at the request of Mr. T. P. Bowes of Sheridan Copper Mines Ltd. (N.P.L.) and is based on a physical examination of the claim area March 10th to 11th, 1971 and April 7th to 8th, 1971 as well as a review of previous technical data.

During March 1971 bulldozer trenching was carried out by Sheridan with the object of:

1) extending and deepening existing (1970) cuts
2) extending the trenching to new areas to the north to check bedrock geology and mineralization
3) fulfill assessment requirements

Due to snow cover at the time of this work, observations and comments in this report are based only on bedrock geology of the trenches and the regional data available.

Four chip samples of representative mineralization were taken in the northern trenches.

An orientation geochemical survey was carried out by examining the trace element content of the various soil horizons in 2 of the trenches.

CLAIMS

The present group of 87 claims held by joint venture agreement between Sheridan Copper Mines Ltd. (N.P.L.) and Argonaut Mines Ltd. (N.P.L.) consists of the following claims:

CLAIM	RECORD NO.	EXPIRY DATE
McLeese 1-9	49662-49670 incl.	Mar. 20, 1972
McLeese 10-23	56591-56604 incl.	Mar. 24, 1972

CLAIM		RECORD NO.	EXPIRY DATE
Bob	1-46	57781-57826 incl.	May 12, 1971
Tor	1-10	57771-57780 incl.	May 12, 1971
Tor	11-18	51004-51011 incl.	May 6, 1971

Part of the 'McLeese' group was checked by chain and compass surveys between and along claim lines and these appear to be staked in accordance with the Mineral Act. Further surveying will be required to establish more accurately their location relative to earlier adjacent claims.

LOCATION AND ACCESS

The claims are located approximately 3 miles south of the ore bodies being developed by Gibraltar Mines Ltd. east of the Fraser River between Williams Lake and Quesnel. Access to the area is by the Likely road which leaves Highway 97 at McLeese Lake. The group straddles Sheridan Creek and the Likely road approximately 2 miles east of the Gibraltar Mines turn-off.

HISTORY

The area now covered by the McLeese #1-9 claims was originally staked in 1966 and held by various individuals and companies, since. Previous technical work was largely extensions of surveys intended to explore the Iron Mountain copper occurrences to the north-west. Two small magnetic 'anomalies' in the north-west part of the group were tested by drilling with discouraging results. The mineralization in the trenches on McLeese #5 are original discoveries resulting from the activities of Sheridan Copper Mines Ltd. (N.P.L.) and have no previous history of physical work.

GEOLOGY

General

In the general claim area, Permian and Triassic rocks of the Cache Creek group are intruded by a batholith sized body of quartz diorite. Near the west contact of the intrusive, both units are covered by Tertiary basaltic flows. The intrusive rocks are the principal host rocks for mineralization in the area. Approximately 3 miles to the North and near the centre of the batholith, Gibraltar Mines Ltd. is preparing for production a number of large ore bodies aggregating more than 300,000,000 tons of 0.39% Cu.

The intrusive is known to be a composite batholith but the areal extent of the various phases and their relationship to mineralization has not been determined due in part to the lack of outcrop and sufficient regional mapping. The main mass of the batholith consists of at least 3 major phases and several dyke forms. The north part of the Sheridan claims (McLeese claims) are underlain by the outer 'diorite' phase and the southern part of the group (Bob and Tor claims) by the 'Granite Mountain' phase (a unit approximately equivalent to the light green quartz diorite or 'leuco' phase east of Granite Mountain near the centre of the batholith).

McLeese Claims

Lithology

The general geology of the trenched area is shown in Fig. 1. The intrusive

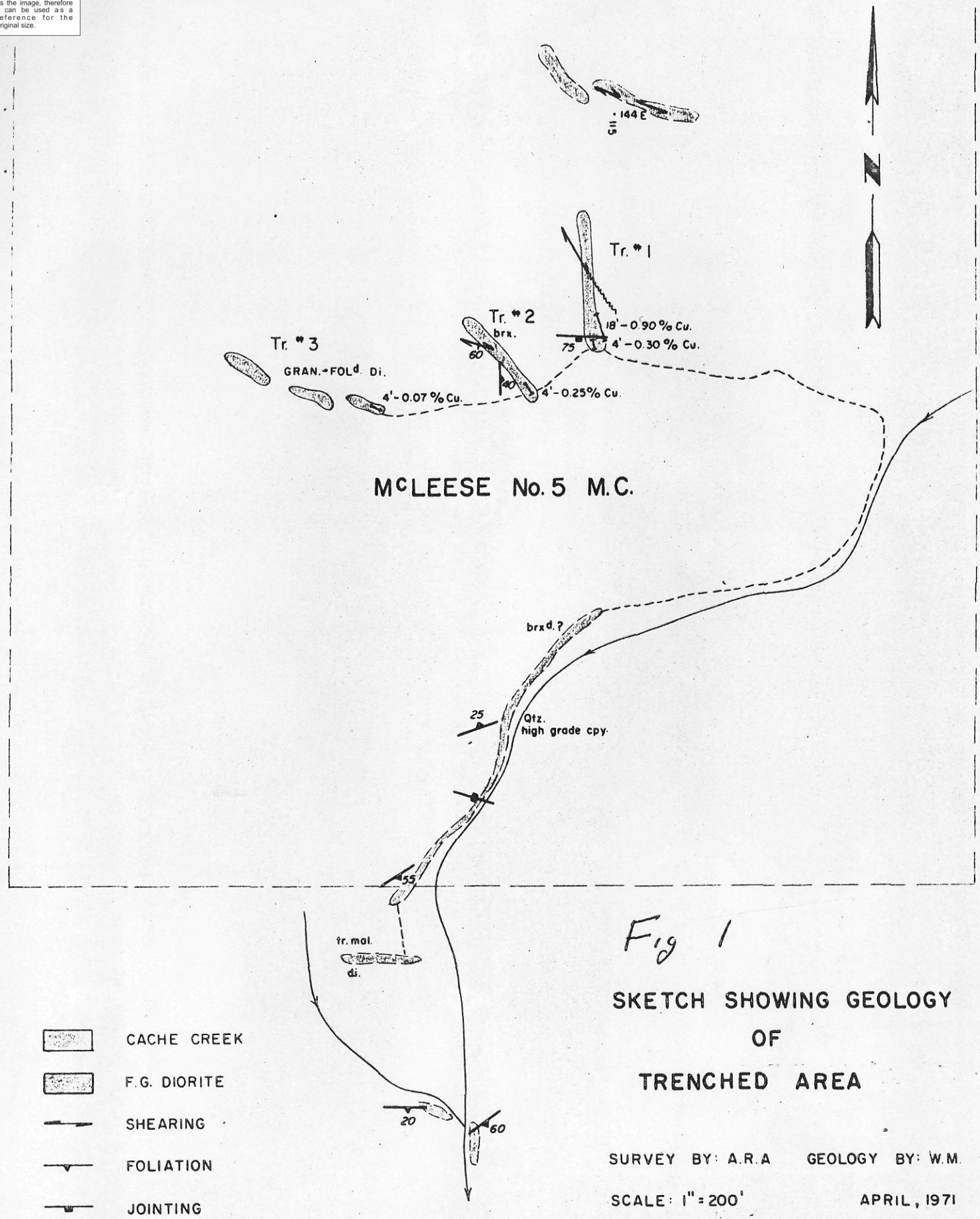


Fig 1

SKETCH SHOWING GEOLOGY
OF
TRENCHED AREA

CACHE CREEK
F.G. DIORITE
SHEARING
FOLIATION
JOINTING

SURVEY BY: A.R.A GEOLOGY BY: W.M.

SCALE: 1" = 200' APRIL, 1971

rocks consist of fine grained green diorite composed of 30% chlorite after mafics (biotite ?), 60% feldspar (plagioclase) altered to epidote and sericite and 10% quartz. 3 thin sections were prepared from specimens of the diorite in varying degrees of alteration. Appendix 1 is a report prepared by P.M. McAndless & Associates on the sections. The south part of the trenched area is underlain by chlorite-sericite schists tentatively identified as being part of the Cache Creek formation. There is , however, some doubt as to their field classification due to the intensity of the shearing, alteration and lack of exposures except near the creek which occupies a fault zone.

Approximately 800' south of the trenched area, 2 exposures of relatively fresh quartz diorite occur along the road. This unit is similar to the medium grained light coloured quartz diorite on the east side of the Granite Mountain batholith, and consists of approximately 10% mafics (biotite greater than hornblende ?) altered to chlorite, 60% plagioclase altered to epidote and 30% quartz.

STRUCTURES

The most prominant structural features in the area are the two fault zones that occur along the two major creeks in the trenched area. These appear to post-date the intrusive rocks and may account for the irregular shaped blocks of Cache Creek rocks in this part of the contact zone.

Limonitic gouge related to shears striking N20°W is exposed in the northern trenches. A strong E-W joint system appears to pre-date the mineralization and is one of its' controls.

MINERALIZATION

In the southern part of the trenched area chalcopyrite, malachite, azurite and minor pyrite occurs with lenses of quartz along a few small shallow dipping shears in both the Cache Creek (?) and intrusive rocks. In one location (see Fig. 1) the quartz lenses out to approximately 5' and contains erratic large blebs of massive chalcopyrite. In the northern trenches, chalcopyrite, malachite and minor pyrite occur as disseminations along the foliation and in fracture fillings in the intensely altered and brecciated diorite. Four chip samples were taken by J. Buccholz and the writer of Western Geological Services Ltd. in three of the trenches are shown in Fig. 1 and tabulated below:

Sample	Location	Length	%Cu.
22401	Tr #1	4'	0.30
22402	Tr #1	18'	0.90
3801	Tr #3	4'	0.07
3802	Tr #2	4'	0.25

The mineralization is exposed by the trenches over approximately 600' but its' total extent and geometry has not been determined by the work to date.

RECOMMENDATIONS

It is important initially to complete a chain and compass survey of the northern claims and determine their location relative to the adjacent groups.

This should be followed by a technical and physical programme which would include soil geochemical and I.P. surveys, geological mapping and bulldozer stripping.

This work is estimated to cost:

Claim survey	$	1000.00
Line cutting (northern claims 40 mi.@$100/mi.		4000.00
Geochemical survey @ $100/mi.		4000.00
I.P. survey @ $500/mi.		20,000.00
Geological mapping		3000.00
Consulting, engineering, drafting		5000.00
Board and lodging		4000.00
Transportation and Communication		1500.00
Vehicle rentals		1500.00
Field tools and hardware		500.00
Bulldozer trenching		5000.00
2000 feet diamond drilling @ $12/ft.		24,000.00
	$	73,500.00
Contingencies		7500. 00
	$	81,000.00

The above programme is intended to provide data of reasonable

RECOMMENDATIONS (continued)

detail in the northern claim area and data of a reconnaisance nature in the south. This expenditure does not take into account detailed follow-up in the south since the specific nature and extent of the work would be contingent on the results of the initial surveys.

The estimate for diamond drilling includes only the minimum required to test the grade in the area of trenches 1 - 3. The ultimate size of the initial drill programme in this area will be contingent on the outcome of the technical surveys.

Respectfully submitted

W. Meyer, B.Sc.

CERTIFICATE

I, William Meyer, do hereby certify that:

1. I am a geologist with residence at 555 Cochrane Ave., Coquitlam, B. C.
2. I am a graduate of the University of British Columbia (B.Sc., Physics and Geology, 1961).
3. I have worked as an exploration geologist for nine years for the following companies: Phelps Dodge Corporation of Canada Ltd. (4 years), Gibraltar Mines Ltd. (1-1/2 years) and Associated Geological Services Ltd. (1/2 year). From April, 1968 to the present, I have been a senior partner in Western Geological Services Ltd.
4. This report is based on examinations of the trenches made by the writer on March 10th to 11th, 1971 and April 7th to 8th, 1971 and on other available regional data.
5. I have no interest, direct or indirect in the properties or securities of Sheridan Copper Mines Ltd. (N.P.L.) or any of its affiliates nor do I anticipate receiving any.

Wm Meyer

W. Meyer, B.Sc.

April 15, 1971

P. M. McANDLESS & ASSOCIATES
#327 - 470 Granville Street
Vancouver 2, B.C.

PETROGRAPHIC REPORT

WESTERN GEOLOGICAL SERVICES LTD.

Rock Number: Hand specimen #1 and T.S. #1

Megascopic Description:

Weathered, dark green, chloritic-sericitic schistose rock, weathered surfaces, malachite staining cut-surface, disseminated sulphides [< 1%], some chalcopyrite, malachite along fractions.

Microscopic Description:

Mineralogy:

Quartz: > 12%, subhedral to anhedral crystals and fragments, interstial and as inclusions, strained, foliated quartz, healing and secondary growths.

Plagioclase: > 50%, subhedral to anhedral crystals and fragments, ragged edges, some poikiolitic; sericite-epidote inclusions, moderate to strong sericite-clay alteration, crystals zoning absent, preferred orientation.

Epidote: > 5%, subhedral to anhedral aggregates and crystals, interstial and fracture fillings.

Chlorite: > 20%, massive to fibrous; interstial, biotite, pseudomorphs, as inclusions.

Sericite: > 10%, moderate to strong alteration of feldspars; throughout sections as inclusions and interstial material and veinlets.

Accessories: Carbonate, apatite, hornblende.

Opaques: 2-3%, interstial with chlorite-sericite, silica, and epidote, also as inclusions in feldspars as irregular grains and blebs; associated limonitic halos, some subhedral crystals; generally disseminated.

Clay: Moderate to strong alteration throughout.

Rock Texture: Medium grained, schistose fabric, micro fracturing generally cross cutting schistosity.

Discussion: The rock has undergone shearing to produce schistose fabric as well as chlorite-sericite alteration of feldspars and biotites and epidote replacement of ferro-magnesium minerals. Occurring with and/or following shearing. Iron rich solutions were possibly introduced along zones of weakness. Clay alteration and copper carbonates resulted from a weathering process.

Rock Name: Shear intermediate intrusive.

Rock Number: Hand specimen #2 and T.S. #2.

Megascopic Description: Altered buff, schistose chloritic feldspar rock; sulphides, sparse.

Microscopic Description:

Quartz: > 20%, subhedral to anhedral crystals and fragments, interstial as inclusions in feldspars, veinlets; strained, healing and secondary growths, foliated quartz grains.

Feldspars: > 55%, subhedral crystals; fragments, strong clay alteration, weak sericite development, silica replacement; evidence of zoning absent.

Hornblende: 5%, subhedral to anhedral crystals, ragged edges, interstial and as inclusions in feldspars, slightly chloritic.

Chlorite: > 10%, fibrous, interstial biotite pseudomorphs.

Sericite: > 5%, slight alteration of feldspars, inclusions, along fractures.

Epidote: < 3%, veinlets and inclusions in feldspars.

Clay: Strong alteration throughout.

Accessories: Apatite.

Opaques: 2-3%, interstial with chlorite sericite epidote-hornblende and quartz; inclusion in feldspars.

Rock Texture: Fine to coarse grained, schistose fabric.

Discussion: The history of shearing in T.S. #2 is not as advanced as T.S. #1 and T.S. #3 as noted by the fine to coarse gradation of feldspar fragments. Consequently, the alteration of hornblendes in T.S. #2 to epidote has not progressed as far as in T.S. #1 and T.S. #3. Iron rich solutions were introduced as in T.S. #1 and #3. Clay alteration is strong but there is an absence of copper carbonate development.

Rock Name: Sheared intermediate intrusive.

Rock Number: Hand specimen #3 and T.S. #3.

Megascopic Description: Weathered, greenish, chloritic-sericitic, schistose rock; weathered surface, malachite staining; cut-surface, minor sulphides, malachite along fractures.

Microscopic Description:

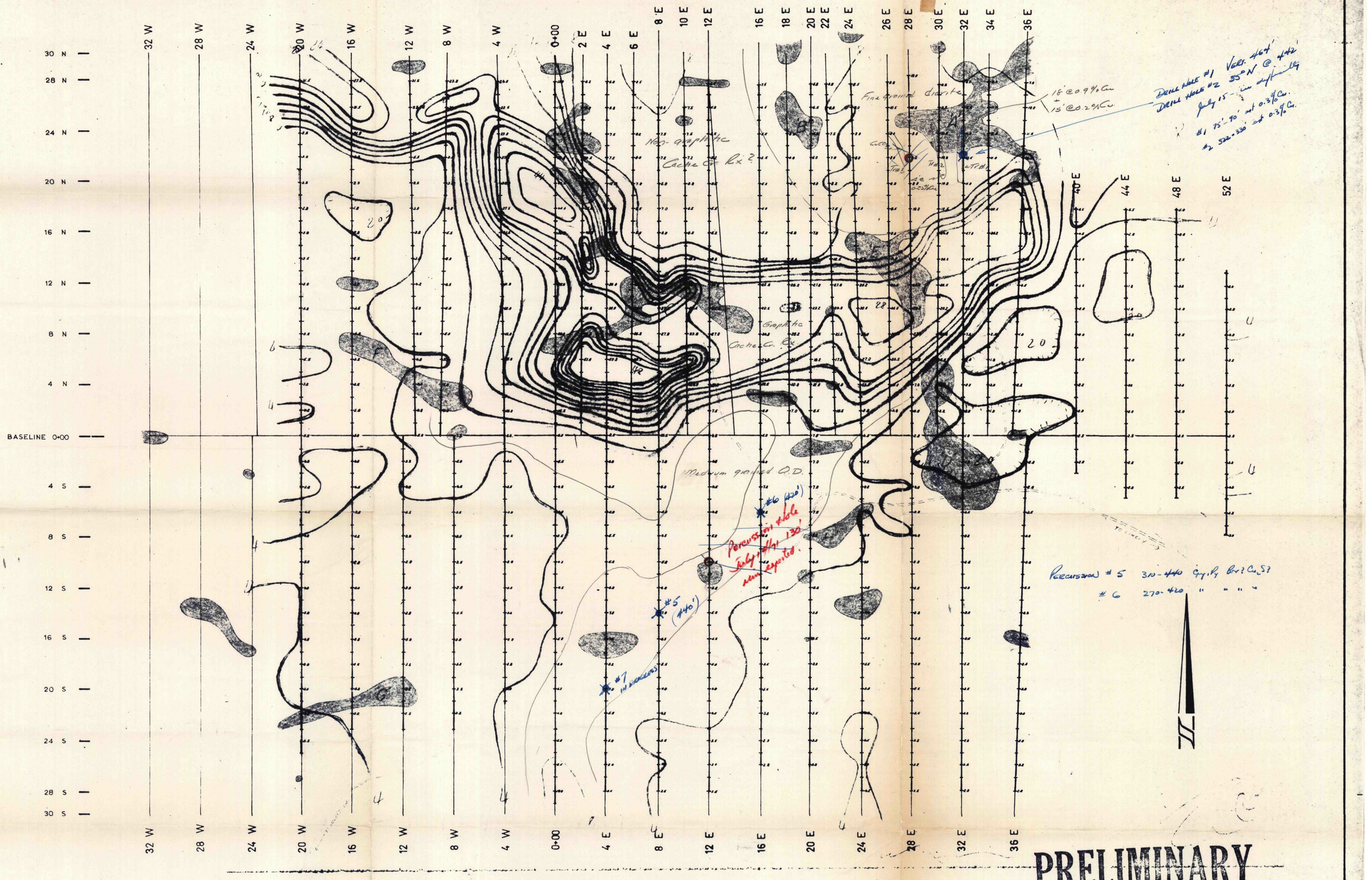
Mineralogy:

Quartz:	>15%, subhedral to anhedral crystals and fragments, interstial and as inclusions, strained, fractured, foliated quartz, healing and secondary growths.
Plagioclase:	>50%, subhedral to anhedral crystals and fragments, ragged edges, some myrmkitic; sericite-epidote inclusions; moderate to strong; sericite-clay alteration; albitization.
Hornblende:	1% , small subhedral crystals, particle chlorite and epidote replacement, zoning absent.
Epidote:	7%, subhedral to anhedral aggregates and crystals interstial and fracture fillings.
Chlorite:	>15%, massive to fibrous, interstial, biotite pseudomorphs, as inclusions.
Sericite:	>10%, moderate alteration of feldspars; interstial, inclusions and in veinlets.
Clay:	Moderate alteration throughout.
Accessories:	Apatite, carbonate.
Opaques:	2-3%, interstial with chlorite-sericite, silica and epidote, as inclusions in feldspars; irregular grains and blebs; associated limonitic halos, some subhedral crystals, generally disseminated.
Rock Texture:	Medium grained, schistose fabric, micro-fracturing generally cross cutting and also conforming to schistosity.

Discussion: History same as T.S. #1.

Rock Type Sheared intermediate intrusive.

Respectfully submitted,
P. M. McANDLESS & ASSOCIATES
PER: L. W. Saleken
L. W. Saleken



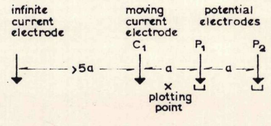
PRELIMINARY

LEGEND

NOTES

SCINTREX MK VII INDUCED POLARIZATION INSTRUMENTATION

THREE ELECTRODE ARRAY



TO ACCOMPANY A GEOPHYSICAL REPORT
BY P.J. FOMINOFF AND R.O. CROSBY DATED

PLATE

SHERIDAN COPPER MINES LIMITED
McLEESE LAKE AREA BRITISH COLUMBIA

INDUCED POLARIZATION SURVEY

CLAIM EAST 1 and 2

SCALE 1 inch = 400 feet

400 feet 0 400 feet

SURVEY BY SEIGEL ASSOCIATES LIMITED MAY 1971