GOVT

'80-#616-#8385

DETAIL GEOLOGY

I AM 51 and 53 CLAIMS

WEAVER LAKE AREA

N.T.S. 92H/5W

49°22'N 121°52 W

Owner: I. and D. Miller

Operator: Chevron Standard Limited

Author: D. Arscott

M493

October, 1980

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INTRODUCTION

A detailed geological examination was carried out on two claims in the Weaver Lake area on the 6th and 7th October 1980. The known presence of felsic pyroclastics, marine sediments, and nearby mineralization indicated that the two claims would be a worthwhile study area as it relates to the massive sulphide potential of the Harrison Lake volcanic belt.

The area mapped is 3 km N of the W end of Weaver Lake, 15 km NNE of Harrison Mills, and 100 km E of Vancouver, B. C. It is accessible via the Hemlock Valley ski resort access road from Harrison Mills and thence via either of two logging roads leading easterly a 1 km and 4 km distance respectively S of the ski lodge.

The claims worked on, I AM 53 and 56, have record nos. 480 and 483, and are owned by Isaac and Dorothy Miller of White Rock, B. C. They comprise a part of the 37 claim (56 unit) block comprising the "Weaver" property.

Known previous work on these two claims consists of:

1. A gravity survey carried out by previous operators in 1977, the results of which are not known by the writer.
2. A soil sampling survey by Chevron Standard Limited in 1979 during which Cu, Pb, and Zn analyses on a 50 x 100 m grid yielded good anomalies just S of the two claims, and

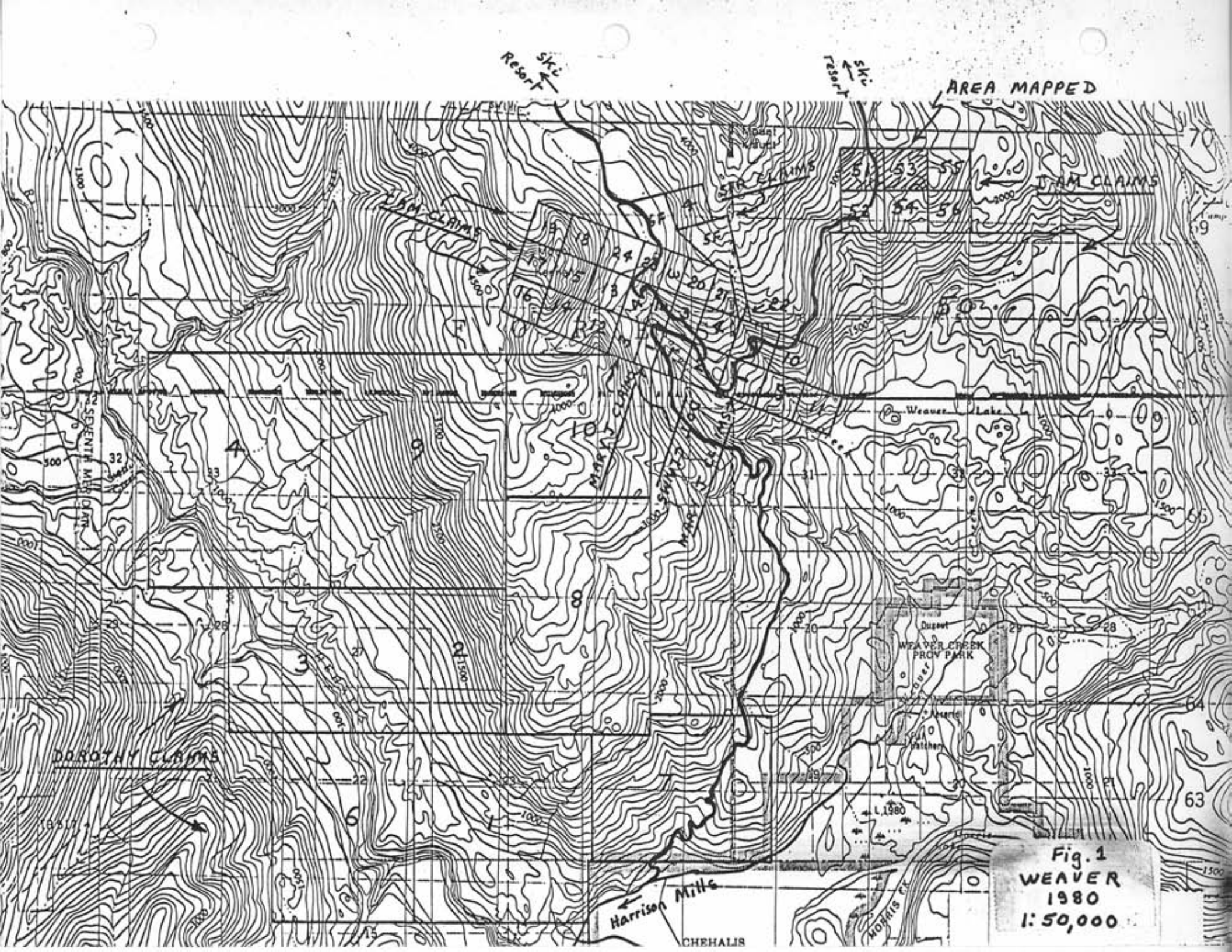

Fig. 1
WEAVER
1980
1:50,000

3. A Pulse Electromagnetic survey, also in 1979, which yielded no conductive responses of significance in the immediate vicinity.

GEOLOGY

The area mapped (see Fig. 2) proved to be extremely complex, as is typical for many parts of the Jurassic Harrison Lake volcanic complex.

The main mapping problem involved distinction of subtle variations of lithology versus alteration, and in some cases pyroclastic versus massive textures. An additional (structural) difficulty arose during interpretation.

Although a reliable stratigraphic column cannot be assembled, an overall view of the area mapped indicates a package of rhyolitic to rhyodacitic pyroclastics, 75 m or more in thickness, overlain by a similar thickness of generally well bedded fine grained sediments. These are both cut by massive rhyodacitic rocks of probably dyke-like form.

Three quarters of the rocks mapped were pyrite rich, usually in disseminated form up to 5 or more %, and locally with massive veinlets up to 1 cm across. Occasionally chalcopyrite was observed in these veinlets. The spotty nature of the Cu mineralization is corroborated by the earlier soil geochemical survey covering this area.

The most common obvious alteration had the form of strong silicification indistinguishable from rhyolitic composition in many of the pyroclastics. Where strong, this silicification was accompanied by local patches of fine anastomosing quartz stringers. Very local chloritization and sericitization was also observed.

The structure proved to be very interesting. It was possible to discern relative movements on two faults with a fair degree of confidence, including the major NS fault through the centre of the area. This fault is part of a clear km long lineament, and has been subject to a left lateral and/or E side down movement.

Bedding (NW/30SW) is relatively consistent on the E side of the property. An obvious reversal is indicated by one observation on the W side, however. This, and the apparent disposition of lithologies are suggestive of synclinal axis trending NW-SE trough the area. Such a hypothesis helps to explain the disappearance of the thickest section of sediments N of one EW striking fault. An alternative explanation would be the presence of a strong angular unconformity and this does not seem likely.

DISCUSSION

Several of the necessary elements of a Kuroko-type geological setting are present here. These include:

(a) Felsic, and often coarse, pyroclastics

(b) Bedded, (probable marine) sediments overlying the pyroclastics, and

(c) Suitable footwall alteration (silicification) with local mineralized stringer systems.

Thus, a favourable target horizon for massive sulphides is present, though of limited areal extent, i.e. much of it has been eroded away. Further, it would appear that this accessible portion of the favourable horizon is not, based on the quantity and size of breccia fragments as well as the erraticness of footwall alteration, highly proximal to a volcanic centre. The potential of this specific area is therefore

(a) limited in size

(b) dependent on the possible accumulation of massive sulphides in a sedimentary trough now represented by the sediments. Such a trough could have been a pre-curser to the postulated syncline.

The direction to a volcanic centre is ambiguous. Strong sulphide veining and alteration in a large intermediate to felsic sub-volcanic intrusive a km to the S suggest that it lies that way. On the othr hand the volume of coarse rhyolitic pyroclastic is known to increase northwards from the area mapped.

CONCLUSION

The area mapped is one of considerable geological interest but does not in itself constitute a priority drill target.

D. Arscott

COSTS

1980 MAPPING

WEAVER PROPERTY

Labour charge

D. Arscott, 3 days @$150.		$ 450.00

Expenses

Analyses - 13 rocks for Cu, Zn, Au, Ag @$9.00	117.00	
Truck - 2 days @$35.	70.00	
Food - 2 days @$18.	36.00	
Field Supplies	15.00	
Miscellaneous	20.00	
	258.00	258.00

TOTAL COST $708.00

D. Arscott

D. ARSCOTT

CERTIFICATE

I, David Philip Arscott, am a Professional Engineer, registered in British Columbia with office address at 901 - 355 Burrard Street, Vancouver, B. C. V6C 2G8.

I have 14 years' experience in various phases of mineral exploration, of which 10 years have been spent in B. C. and the Canadian Cordillera.

The 1980 mapping on the Weaver project was carried out by me.

David Arscott

David Arscott, P.Eng.
October, 1980

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AREA CODE: 604

• *Specialising in Trace Elements Analyses* •

Certificate of Geochemical Analyses

–IN ACCOUNT WITH–

Chevron Standard Ltd.
#901 - 355 Burrard St.
Vancouver, B C V6C 2G8
Attention:

Report No: 80 - 30 - 021 Page 1 of 1
Samples Arrived: Oct. 16, 1980
Report Completed: Nov. 4, 1980
For Project: M 493
Analyst: E.T. & VGC Staff
Invoice #5956 Job #80 365

Sample Marking	Cu ppm	Zn ppm	Ag * ppm	Au ppb		
SE - DO - 1	2	34	0.2	nd		
2	17	56	0.3	nd		
3	66	125	1.0	20		
4	42	25	1.4	570 #		
5	70	158	nd	nd		
6	5100	122	0.5	nd		
7	45	74	0.6	nd		
8	720	58	0.7	nd		
9	18	170	nd	nd		
10	90	174	nd	nd		
11	22	57	nd	nd		
12	900	40	2.5	nd		
SE - DO - 13	101	55	0.5	nd		

REMARKS:

Ag* = Ag backgroung corrected
Au# = Au analysis repeated.

Signed:

% Mo x 1.6683 = % MoS_2 1 Troy oz./ton = 34.28 ppm 1 ppm = 0.0001% nd = none detected ppm = parts per million

All values are believed to be correct to the best knowledge of the analyst based on the method and instruments used.

BCIL 6762AZ - C C

I AM 51

I AM 53

20E Base — Line

54 N

53 N

R-RD b

2r

12

RDf

RDb

Rb

Rm

30 ?

Possible syncline axis

Rm (to Sc)

40

C.P. Cloud #1 3W

old gravity station G8-77-12

R-RDm

RD lt (b)

Rb

Rash

Ap

D-RDt

Dt

RDt

r

(to Sc?)

D-RDlt

flecks chl.

45

RDt

Rtb

RD lt

55

5

qv

8

Sc

40

St

s

lt-t

r

2

RD

R m-lt

RD l(b)

1

f

flecks chl

t(b)

3

R-RDb (some S clasts) minor & sphalerite cp py vein 163°/50°E

13

35

10

25

St

RDlt

6 minor

cp

RDl + qr

20

St (argillaceous)

7

RDm

RDlt

85

St,c

50

Dt(St) & minor rottenstone

90

RDl(l)r

30

RDlt?

r.

py vein 132°/90°

70

60

40

strong sericite

11

some S clasts

4

R-RD s,qv,r

RD

lt

f

5

St

WEAVER LEGEND

- BEDDING
- LINEATION
- SHEARING
- OUTCROP
- SMALL FAULT
- LARGE
- POSSIBLE FAULT MOVEMENTS (UP or NE)
- GLACIAL GROOVING

Sc	Sediment grey cherty, medium bedded
St	Sediment, tuffaceous, green, medium bedded
A	Andesite
D	Dacite
RD	Rhyodacite
R	Rhyolite
m	massive
l	lapilli
t	tuff
b	breccia
f	friable
g	rottenstone
p	porphyry
r	unusually rusty
s	silicitied
qv	quartz stringers
py	pyrite
cp	chalcopyrite
chl	chlorite
(13)	Rock sample SE-DO-series

0 50 metres

D. Arscott

Chevron Standard Limited
Minerals Staff

DETAIL MAPPING.
I AM 51 and 53 CLAIMS
WEAVER PROPERTY.

FIGURE No. 2		PROJECT No. 493	
DATE OCT 1980.	REVISIONS		SCALE
NTS No. 92H 5W			FILE NO.
COMPILED BY D. A.			