

85-261-13643

Geological and Geochemical Assessment Report
on the ATLIN 3, 17, 18, 19, 23, TEXAS FR Claims

ATLIN MINING DIVISION

N.T.S. 104-N-11/W and 104-N-12/E

59°40'N, 133°30'W

D. B. Petersen

20 March, 1985

Owner: Daiwan Engineering Ltd.
Operator: Acheron Resources Ltd., and
Trident Resources Inc.

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

13,643

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1. Introduction

This report describes the work that was done on the ATLIN 3, 17, 18, 19, 23 and TEXAS FR claims between the 21st August and 21st September, 1984.

Grad. geol., U of T, 1981; Lornex, Brinco...

G. Lohman and H. Lougheed conducted a partial first-phase exploration program of the claims that included line flagging, reconnaissance soil geochemistry, mapping and prospecting, and trenching and rock sampling on two quartz veins.

Overall supervision of the field work was carried out by G. Lohman. Trident Resources Inc. and Acheron Resources Ltd. were the operators of the program.

2. Location and Access

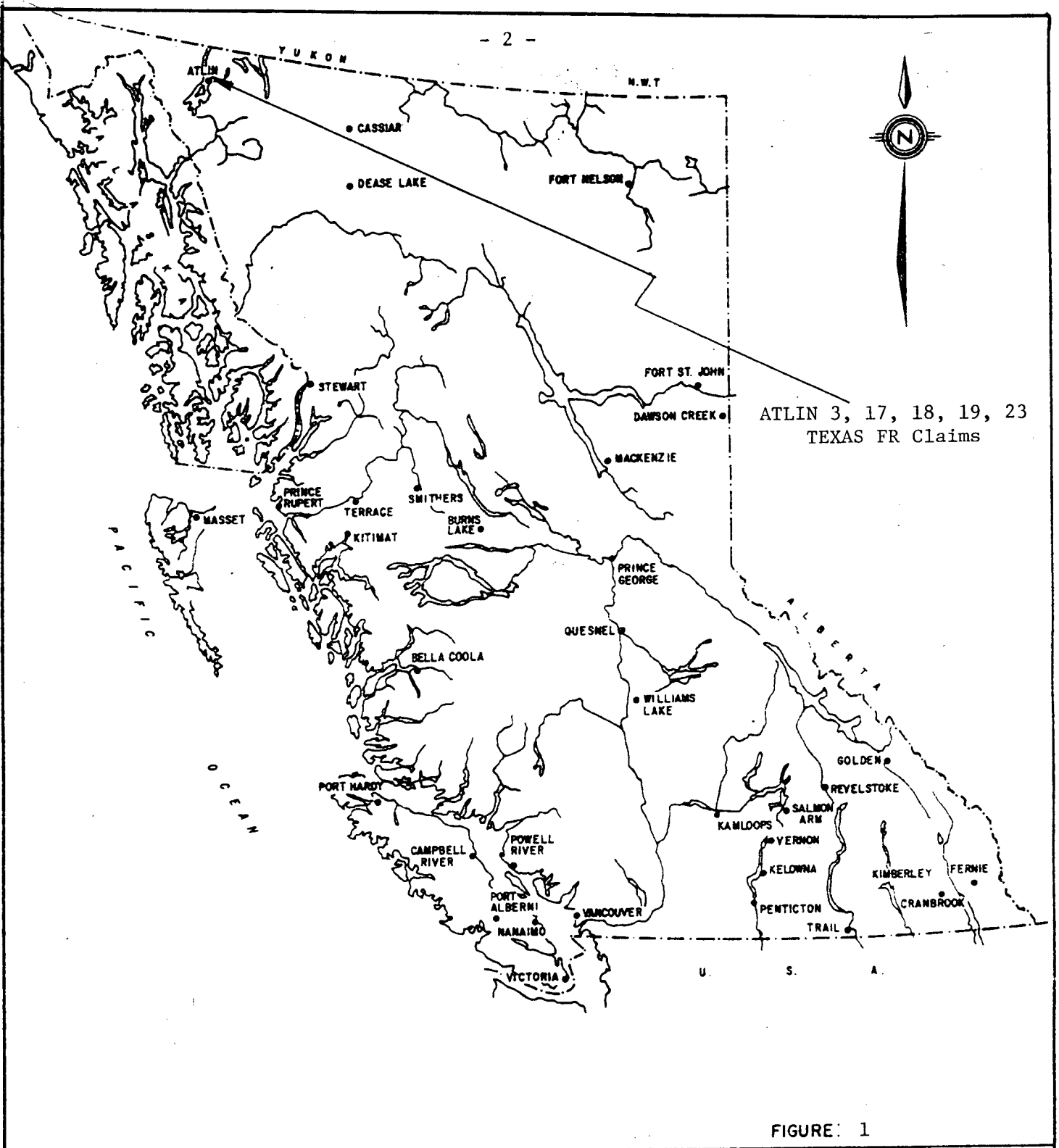
The subject claims are located in the Atlin Mining Division, approximately 15km Northeast of the town of Atlin. Geographic co-ordinates are $59^{\circ}40'N$, $133^{\circ}30'W$. N.T.S. is 104-N-11/W and 104-N-12/E. See Fig. 1, "Location Map".

Access is by the dirt road that leads from Atlin to Surprise Lake, and then following a branch road that leads up to the head of Birch Creek.

3. Topography and Vegetation

The claims straddle the North-South trending height of land that lies between Mount Vaughan to the North, and Mount Monro to the Southwest. Elevations vary from 1,350m to 1,700m a.s.l.

Vegetation is very sparse and consists of brush and willow.



ATLIN 3, 17, 18, 19, 23
TEXAS FR Claims

FIGURE: 1

Daiwan Engineering Ltd.

ATLIN 3, 17, 18, 19, 23,
TEXAS FR Claims

LOCATION MAP



1:8,000,000

BBP/amen

4. General Geology

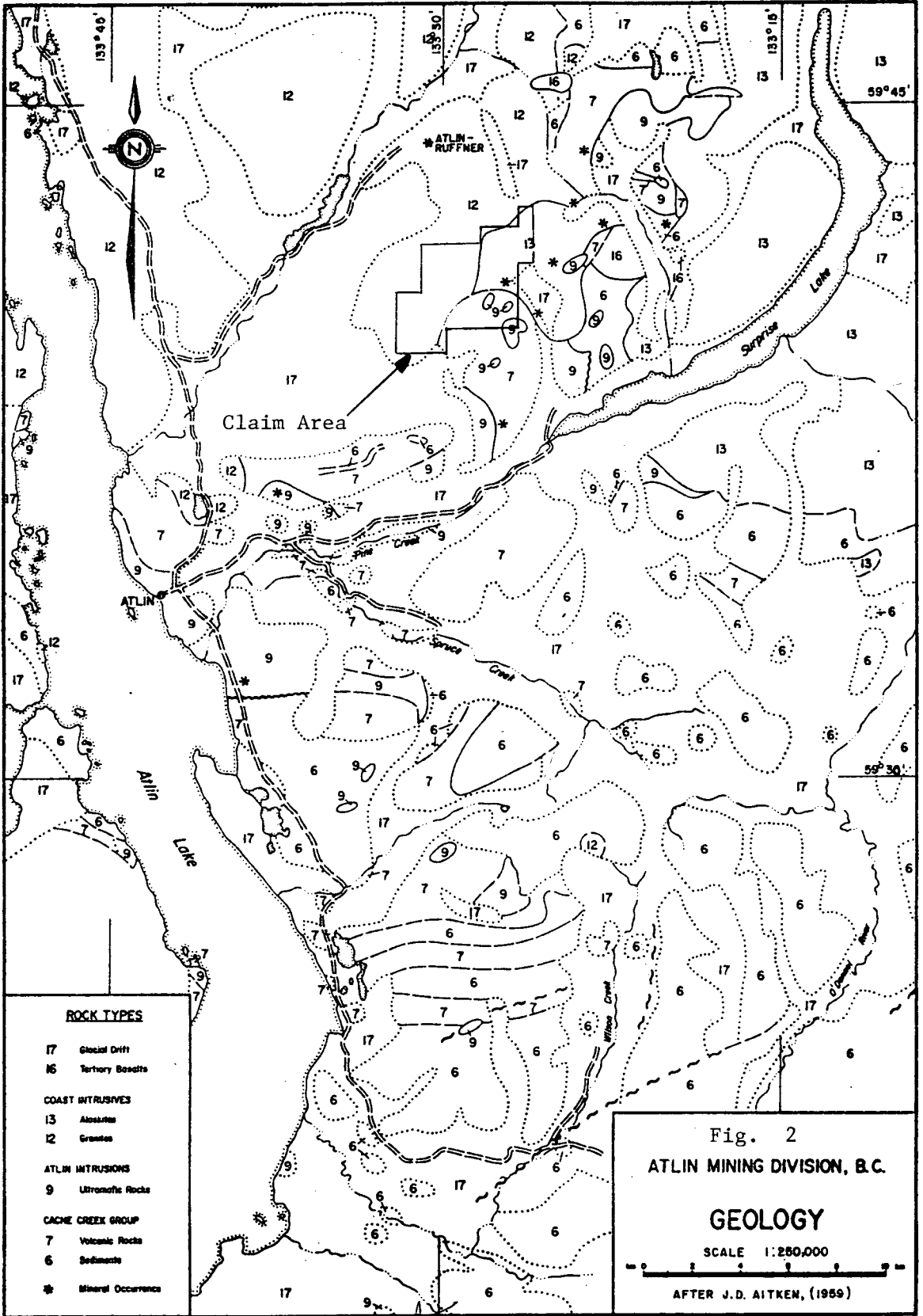
According to Aitken (1959), see Fig. 2, "Atlin Area Geology", the oldest rocks in the area are pre-Permian schists and gneisses that are known as the Yukon Group which were followed by sedimentary and volcanic rocks of the Cache Creek Group in Permian times. These rocks were intruded by the Atlin intrusives, a group of rocks that are ultramafic in composition and consist principally of serpentized peridotites and dunites. In the Jurassic period, the Laberge group of marine sedimentary rocks were laid down which, in turn, were followed by emplacement of the siliceous Coast intrusives consisting of granodiorites, quartz monzonites, granites and alaskites. Tertiary rocks include olivine basalts, minor sediments and various intrusive rocks.

Mineralization is of four main types:

1. a porphyry type stockwork molybdenum deposit located near the centre of an alaskitic intrusive, the Ruby Creek deposit, 24km Northeast of Atlin.
2. placer gold deposits whose origin is thought by Aitken to be eroded quartz vein systems and lodes.
3. silver-lead-gold lode deposits in lamprophyre dykes, such as the Atlin-Ruffner mine.
4. wolframite showings in comb quartz in sericitized alaskite.

5. Local Geology

According to Aitken (1959), the claims are underlain by volcanic rocks of the Cache Creek Group, by ultramafic rocks of the Atlin intrusions, and by intrusive rocks of the Coast Intrusive Complex. The latter are present as granites and alaskites of the zoned Fourth of July Creek batholith.



W.P. Palmer

5. Local Geology (Cont'd)

Both the Ruby Creek molybdenum deposit and the Atlin-Ruffner silver deposit are located within the granodioritic phase of this batholith.

6. Work Done in 1984

G. Lohman and H. Loughheed, between 21st August and 21st September, spent a total of 30 man-days performing the following work:

1. Line Flagging

A total of 3.75km of East-West baseline and 38,850m of North-South grid line was flagged. Lines were a nominal 250m apart. Station spacing was 50m along the lines.

2. Prospecting and Reconnaissance Mapping

Prospecting and reconnaissance mapping was conducted along the lines during the course of the gridding and on ridges where the chance of finding outcrop was thought to be good.

3. Geochemical Soil Sampling

During the course of the gridding and the prospecting, a total of 538 soil samples were taken. Because the property is predominantly covered by talus and by till, soil development is poor and sampling consisted mainly of taking material from the 'C' horizon. Samples were taken by placing approximately 200g of soil in a Kraft paper bag numbered with the station co-ordinates and sending these to Acme Analytical Laboratories Ltd. in Vancouver where they were dried, sieved to -80 mesh and a 0.5g sample of the residue digested in 3ml of aqua regia at 95°C for 1 hour. After diluting to 10ml with demineralized water, the Ag, As, Cu, Pb, and Zn content was determined by ICP analysis.

(~15cm depth)

6. Work Done in 1984 (Cont'd)

3. Geochemical Soil Sampling (Cont'd)

The results are shown plotted in Fig's. 3, 4, 5, 6, and 7, "ppm Ag", "ppm As", "ppm Cu", "ppm Pb", and "ppm Zn", respectively.

In addition, 54 samples from lines OE, 250E and 500E were analyzed for Au. 10g of pulp was digested with hot dilute aqua regia and the clear solution obtained extracted with Methyl Isobutyl Ketone. Au was determined in the MIBK extract by atomic absorption using background correction to 5 ppb detection limit. See Fig. 8, "ppb Au".

4. Trenching

Two man-days were spent trenching and sampling the zone of quartz veining that was found on the ATLIN 17 claim. Eight rock chip samples were taken and assayed by standard methods for Ag, Au, Cu, Pb, and Zn at Acme Analytical Laboratories in Vancouver.

7. Results of Work Done in 1984

The results of the work done in 1984 are as follows:

1. Geological Mapping

Mapping showed that the property is underlain predominantly by glacial till and by talus interspersed with small outcrops of granite and amphibolitized volcanic rocks. On the ATLIN 3 claim, Northeasterly striking lamprophyre dykes were noted. See Fig. 9, "Geology".

Two areas of geological interest were found during the course of the mapping, at co-ordinates 1,300S 500E, and at 750N 600E. The former area consists of 3 quartz-calcite veins that cut volcanic rock and crop out against the bank of Birch Creek. The Southernmost

7. Results of Work Done in 1984 (Cont'd)

1. Geological Mapping (Cont'd)

(No. 1) vein contains visible galena, chalcopyrite, pyrite, arsenopyrite, and sphalerite, and is approximately $\frac{1}{2}$ cm wide. The central and Northern veins (No's. 2 and 3) contain visible pyrite and consist of a series of sub-parallel $2\frac{1}{2}$ cm wide quartz veinlets. Chip sampling gave the following results:

<u>Vein No.</u>	<u>Sample No.</u>	<u>Ag oz/t</u>	<u>Au oz/t</u>	<u>Cu %</u>	<u>Pb %</u>	<u>Zn %</u>	<u>Sample Length</u>	<u>Remarks</u>
1	8400502	15.70	0.002	0.01	0.96	0.14	grab	vein
1	8400503	8.98	0.002	0.01	0.96	0.14	40cm	vein
1	8400504	1.56	0.001	0.03	0.10	0.09	40cm	footwall
1	8400505	2.03	0.01	0.00	0.08	0.01	20cm	vein
1	8400506	5.32	0.001	0.02	0.34	0.39	75cm	vein
1	8400507	1.10	0.01	0.02	0.08	0.11	50cm	footwall
1	8400508	0.07	0.01	0.01	0.01	0.04	50cm	handing wall
1	8400509	1.11	0.01	0.03	0.11	0.10	10cm	fault zone
2	8400510	0.23	0.04	0.02	0.02	0.02	20cm	vein
3	8400511	1.06	0.001	0.01	0.02	0.01	grab	vein

The second area of interest consists of a zone of frost-heaved quartz veinlets. A grab sample assayed 5.89 oz/t Ag, 0.001 oz/t Au, 0.01% Cu, 0.31% Pb, 0.02% Zn.

7. Results of Work Done in 1984 (Cont'd)

2. Geochemical Sampling

The results show that background values are approximately 0.3ppm Ag, 7ppm As, 5ppb Au, 20ppm Cu, 8ppm Pb, and 30ppm Zn.

Eight areas of high values exist as follows:

Area 1	(Ag, Cu (spotty), Pb (spotty))
Area 2	(Ag, Cu (spotty), Pb, Zn)
Area 3	(Ag, Cu)
Area 4	(Ag, Zn)
Area 5	(Ag, As, Pb, Zn)
Area 6	(Ag, Pb, Zn)
Area 7	(As, Au, Cu, Pb, Zn)
Area 8	(As, Pb, Zn)

8. Discussion

Of the geochemically anomalous areas, it is suggested that those with high Pb values be given priority because of their probable proximity to source. Rating is given as follows:

Area 1	because of its size and high Ag values
Area 2	because of its continuity and high Ag values
Area 7	because of its continuity
Area 8	because of its size

The No. 1 showing that was discovered strikes, and is on line with, the anomalous area 7. Probably they are the same zone. See Fig. 9, "Geology".

9. Conclusions

It is concluded that:

1. the program has outlined 8 areas of anomalous geochemical values.
2. the four zones that rate highest priority (areas 1, 2, 8 and 7) deserve follow-up.

10. Recommendations

It is recommended that:

1. follow-up exploration be conducted on the 4 areas of interest.
2. this follow-up is suggested to be close-spaced soil geochemistry (100m x 20m spacing), and detailed mapping, where possible.
3. this is expected to cost:

<u>Area</u>	<u>Size of Grid</u>	<u>Anticipated Cost</u>
1	800m x 400m	160 samples @ \$20 = \$ 3,200
2	1,000m x 200m	100 samples @ \$20 = \$ 2,000
3	500m x 200m	50 samples @ \$20 = \$ 1,000
4	600m x 200m	60 samples @ \$20 = <u>\$ 1,200</u>
		TOTAL: <u>\$ 7,400</u>

11. Statement of Costs

The following costs were incurred in the program:

Salaries

G. Lohman, Geologist	21, 30, 31 August, 1, 3, 4, 5, 7, 10-12, 15, 19-22, 26 September 17 days @ \$175	\$ 2,975	
H. Loughheed, Sampler/Prospector	21, 30, 31 August, 3, 4, 5, 7, 10-12, 15, 20, 21 September 13 days @ \$126	<u>1,638</u>	\$ 4,613

Field Costs

Analyses and Freight	538 samples @ \$7.56	\$ 4,067	
Transport		580	
Supplies		150	
Meals and Accommodation		<u>390</u>	\$ 5,187

Reporting

G. Lohman, Geologist	1 day @ \$175	\$ 175	
D. Petersen, Geologist	4 days @ \$275	1,100	
S. Wheat, Typist	6 hours @ \$15	90	
Drafting & Printing		<u>80</u>	\$ 1,445
			<u>\$11,245</u>

TOTAL:

\$11,245

12. Title

Particulars of the claims are as follows:

<u>Name of Claim</u>	<u>No. of Units</u>	<u>Record No.</u>	<u>Owner</u>	<u>Date of Record</u>
ATLIN 3	20	2244	Daiwan Engineering Ltd.	28 March, 1984
ATLIN 17	18	2272	Daiwan Engineering Ltd.	11 April, 1984
ATLIN 18	20	2273	Daiwan Engineering Ltd.	11 April, 1984
ATLIN 19	18	2274	Daiwan Engineering Ltd.	11 April, 1984
ATLIN 23	5	2287	Daiwan Engineering Ltd.	5 June, 1984
TEXAS FR	1	2441	Daiwan Engineering Ltd.	9 Nov., 1984

13. References

Aitken, J.D., 1959, Atlin Map-Area, British Columbia; GSC Mem 307.

W. Peterson

DOMINION OF CANADA:

PROVINCE OF BRITISH COLUMBIA.

To Wit:

In the Matter of the geological and geochemical surveys on the ATLIN 3, 17, 18, 19, 23 and TEXAS FR claims:

I, David B. Petersen

of Daiwan Engineering Ltd.

#1010 - 409 Granville Street, Vancouver, B. C. V6C 1W9

in the Province of British Columbia, do solemnly declare that the following costs were incurred conducting the surveys:

SALARIES

G. Lohman, Geologist	17 days @ \$175	\$ 2,975	
H. Lougheed, Sampler/Prospector	13 days @ \$126	1,638	\$ 4,613

FIELD COSTS

Analyses and Freight	\$ 4,067	
Transport and Travel	580	
Supplies	150	
Meals and Accommodation	<u>390</u>	5,187

REPORTING

G. Lohman, Geologist	1 day @ \$175	\$ 175	
D. Petersen, Geologist	4 days @ \$275	1,100	
Typing, S. Wheat	6 hours @ \$15	90	
Drafting and Printing		<u>80</u>	<u>1,445</u>

TOTAL: \$11,245

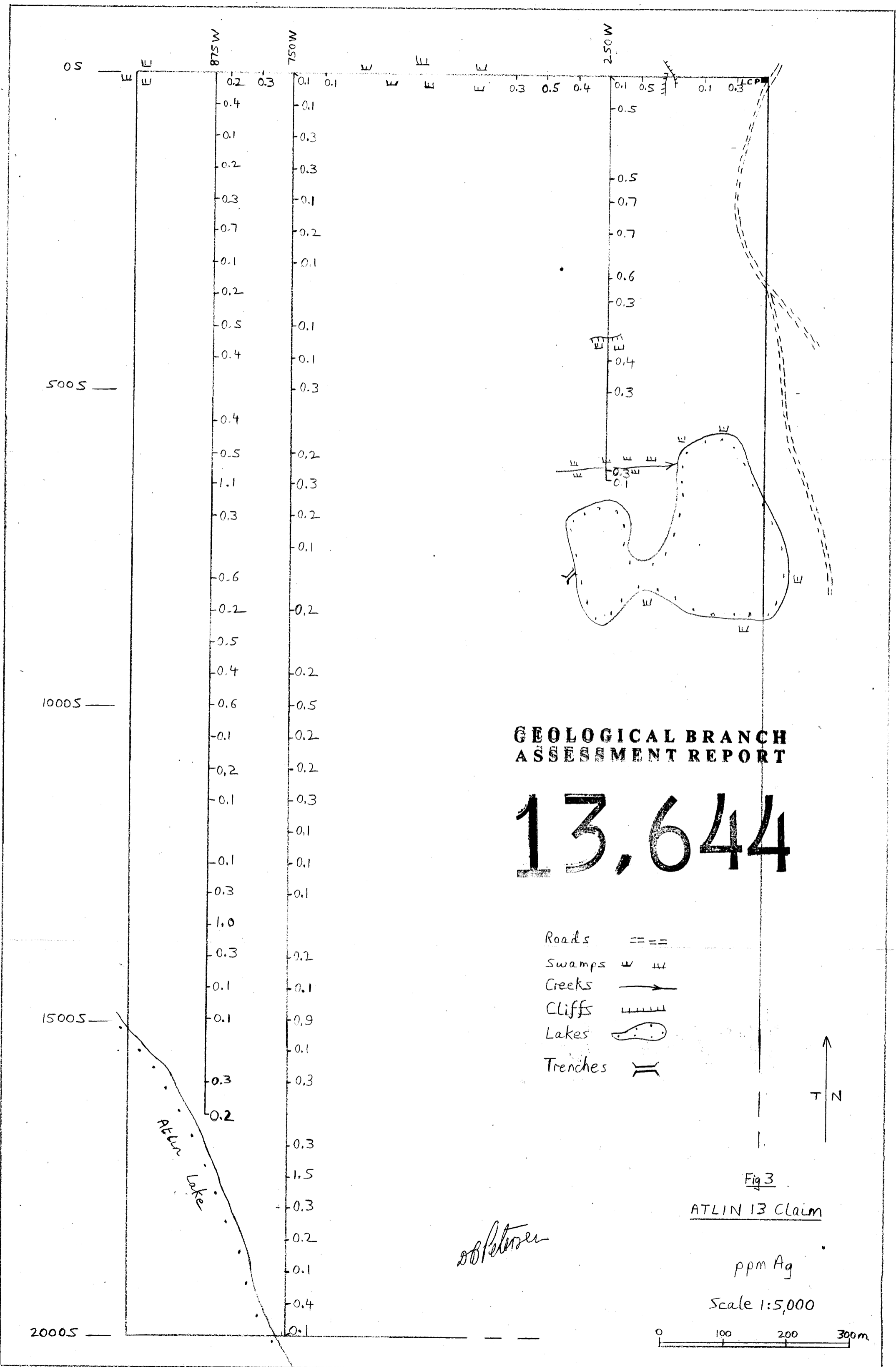
And I make this solemn declaration conscientiously believing it to be true, and knowing that it is the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

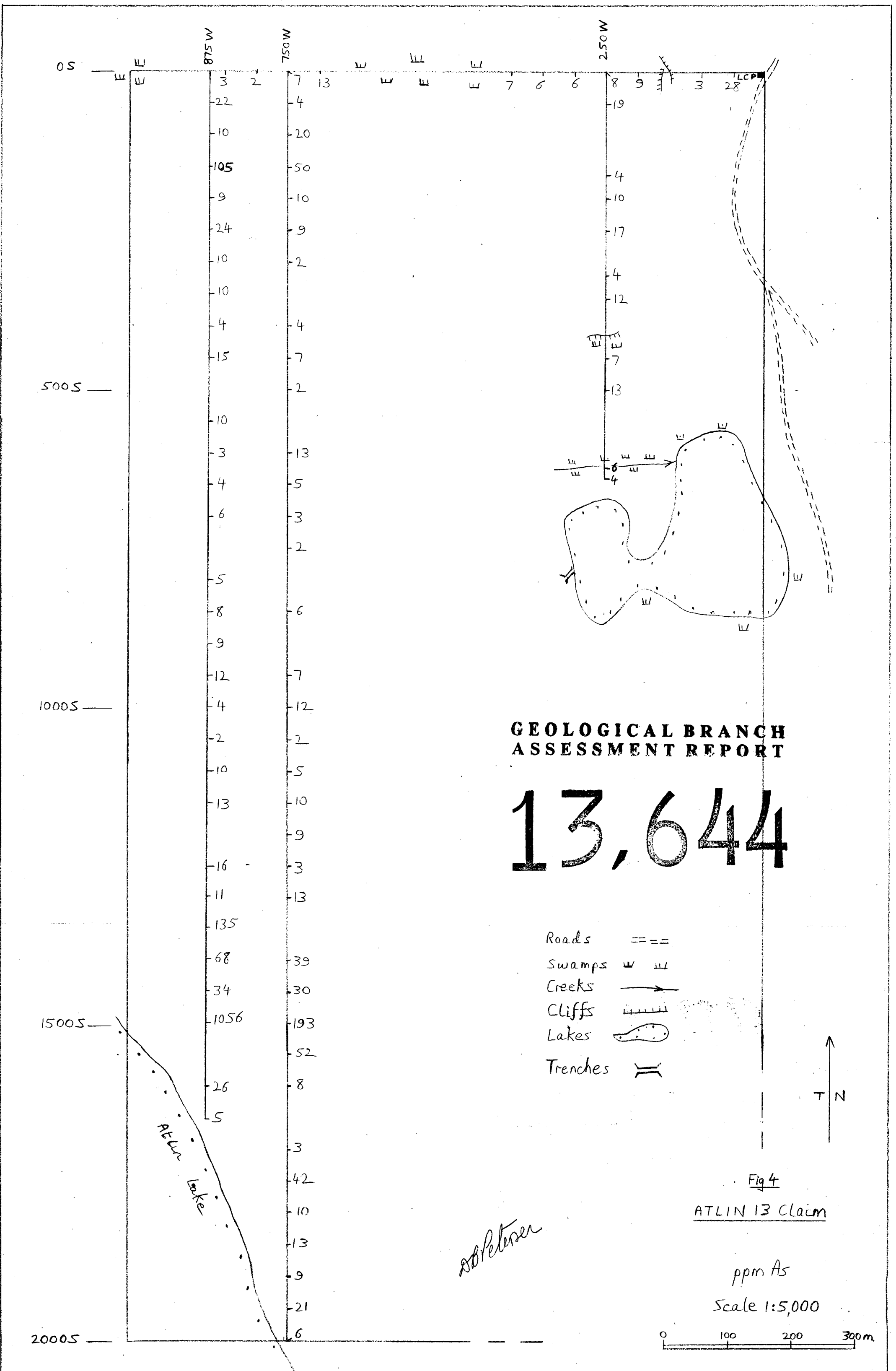
Declared before me at the City
of Vancouver, in the
Province of British Columbia, this 18th
day of April 1985, A.D.

DB Petersen

C Day (C DAY)

A Commissioner for taking Affidavits for British Columbia or
A Notary Public in and for the Province of British Columbia.





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ASSESSMENT REPORT

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- Roads - - - -
- Swamps w w w
- Creeks ->
- Cliffs [stippled area]
- Lakes [dotted area]
- Trenches ≡ ≡

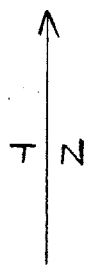
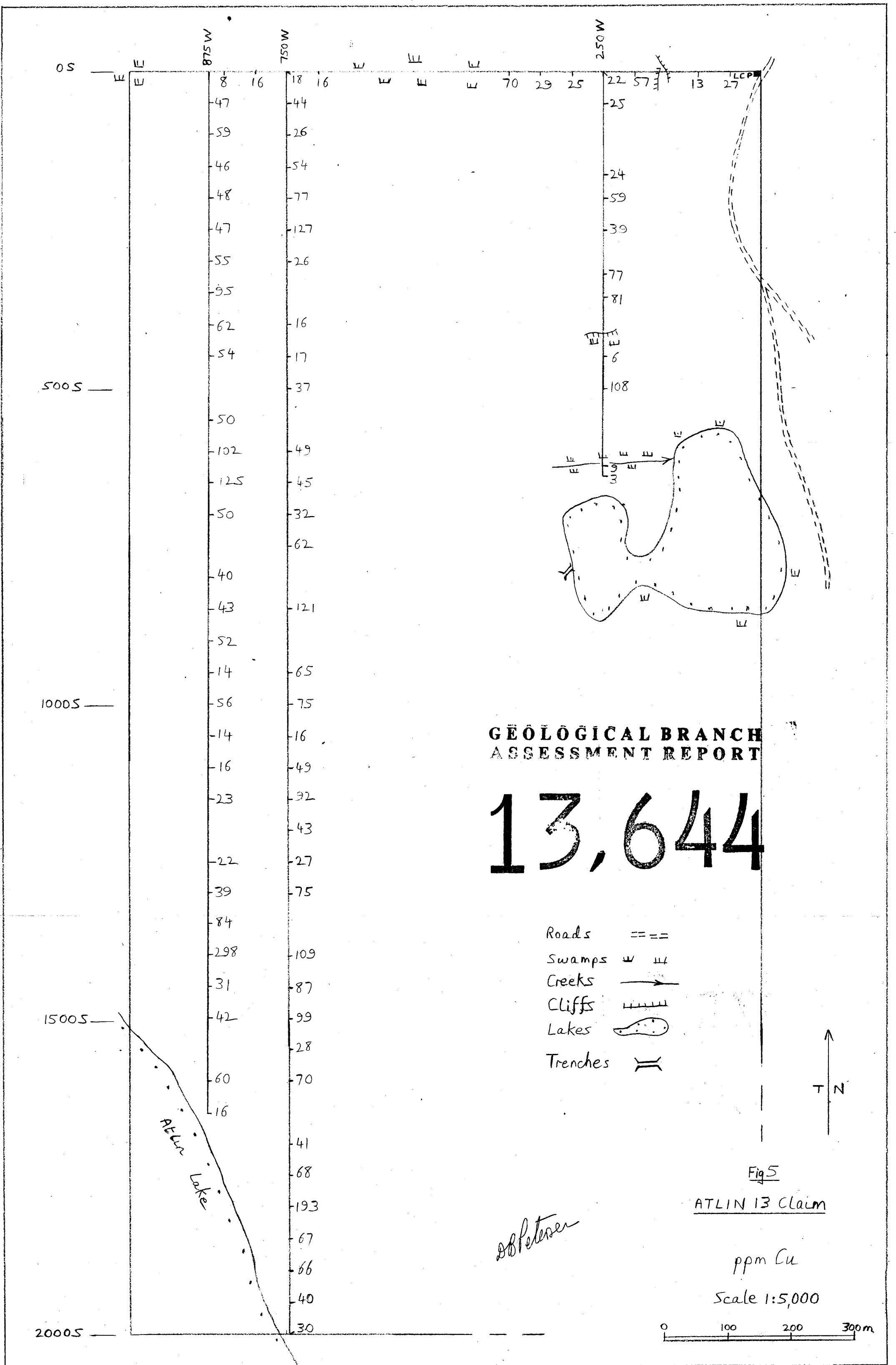


Fig 4
ATLIN 13 Claim

ppm As
Scale 1:5,000



J.P. Petersen



0S

E E

875W

750W

250W

8 16 18 16 22 57 13 27
 47 44 25
 59 26
 46 54
 48 77
 47 127
 55 26
 95
 62 16
 54 17
 50 37
 102 49
 125 45
 50 32
 62
 40
 43 121
 52
 14 65
 56 75
 14 16
 16 49
 23 32
 43
 22 27
 39 75
 84
 298 109
 31 87
 42 99
 28
 60 70
 16
 41
 68
 193
 67
 66
 40
 30

500S

1000S

1500S

2000S

**GEOLOGICAL BRANCH
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- Roads ==
- Swamps W W
- Creeks —→
- Cliffs ———
- Lakes (lake symbol)
- Trenches (trench symbol)



Fig 5

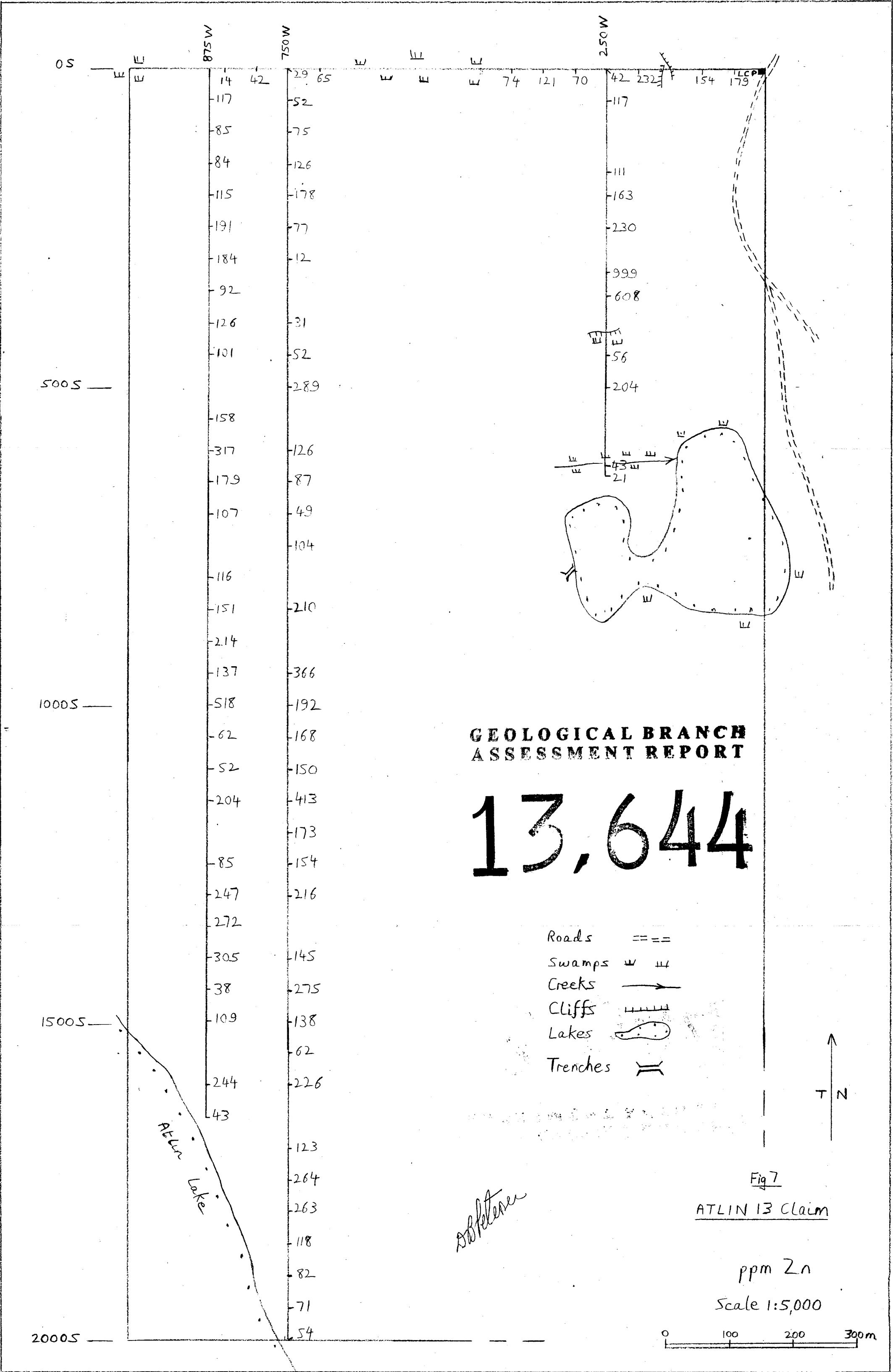
ATLIN 13 Claim

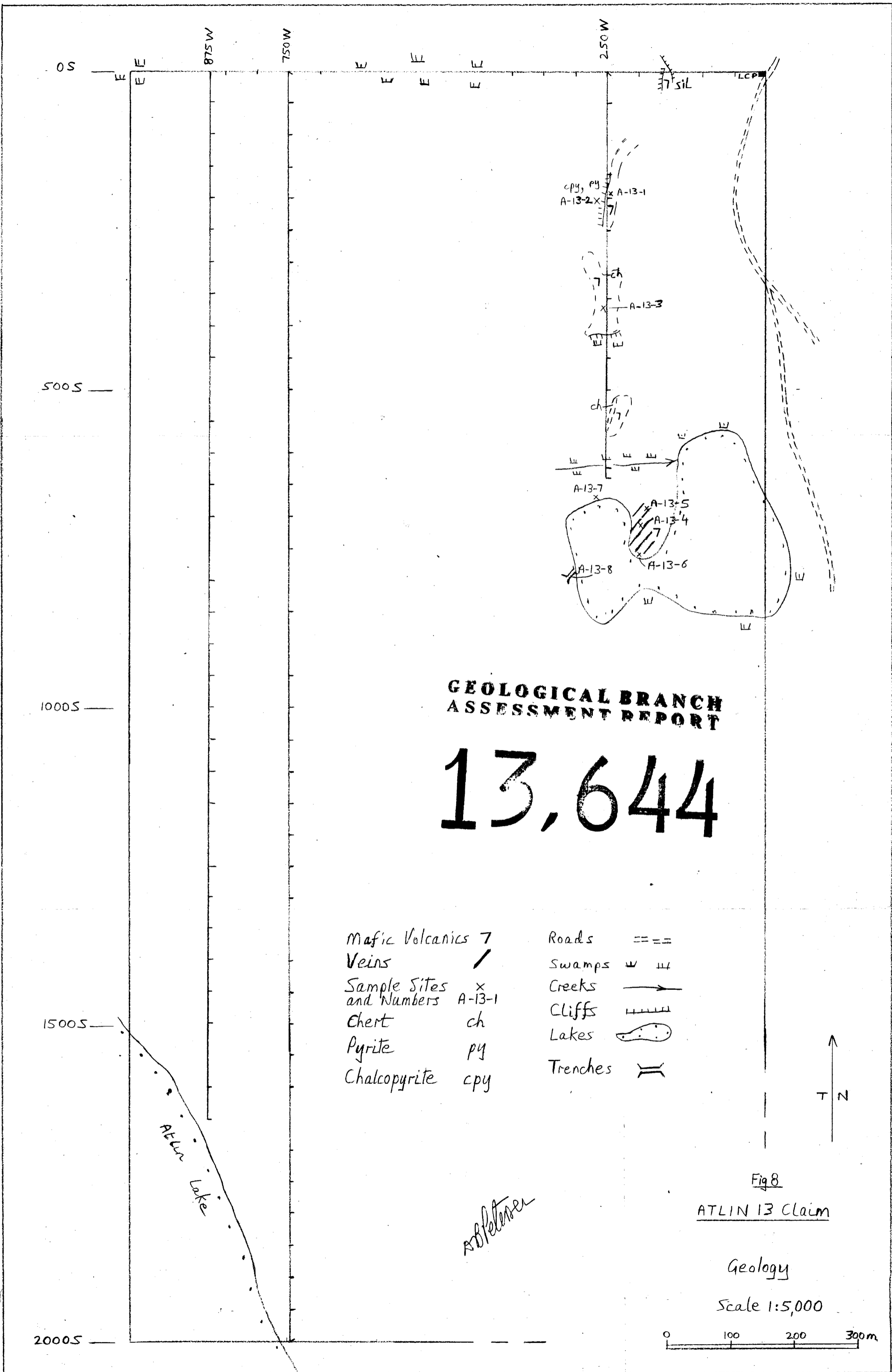
S.P. Petersen

ppm Cu

Scale 1:5,000







**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

13,644

Mafic Volcanics	7	Roads	== ==
Veins	/	Swamps	W W
Sample Sites and Numbers	x A-13-1	Creeks	→
Chert	ch	Cliffs	
Pyrite	py	Lakes	⊖
Chalcopyrite	cpy	Trenches	≡

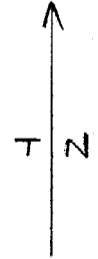
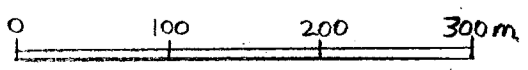


Fig 8
ATLIN 13 Claim

Geology
Scale 1:5,000



Aspetown

500S

1000S

1500S

2000S

0S

E E

875W

750W

E E E E

E E

E E

E E

250W

SIL

LCP

cpy, py
A-13-2 x

A-13-1

ch

A-13-3

ch

A-13-7

A-13-5

A-13-4

A-13-6

A-13-8

Atlin Lake