

4913

B.C.

104K/16E

104K/16E
A GEOPHYSICAL REPORT ON THE

TSETA CREEK CHRYSOTILE OCCURRENCE

MENATATULINE RANGE

ATLIN MINING DIVISION

BRITISH COLUMBIA

FOR

CANADIAN JOHNS-MANVILLE CO., LTD.

P.O. BOX 1500

ASBESTOS, QUEBEC, CANADA

COVERING MINERAL CLAIMS:

ACE NO. 1 TO 12 (RECORD NOS. 5318 - 5329)

" 13 TO 14 (RECORD NOS. 5370 - 5371)

LOCATED:

- 1) 58°53'N, 132°06'W
- 2) NTS. MAP TULSEQUAH - 104K
- 3) ON TSETA CREEK, 77 MILES SOUTHEAST OF ATLIN, B.C.

DATE OF SURVEY: AUGUST 25 TO SEPTEMBER 15, 1973

DATE OF REPORT: DECEMBER 1, 1973

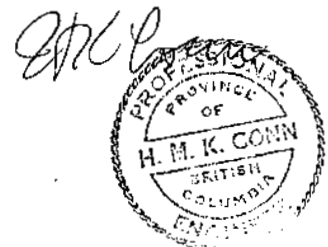
Clive Aspinal
CLIVE ASPINALL

SUPERVISOR: H.K. CONN

Department of
Mines and Petroleum Resources

ASSESSMENT REPORT

NO. **4913** MAP



Expiry Date: Jan. 29, 1975

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C. Aspinall H.K. Conn

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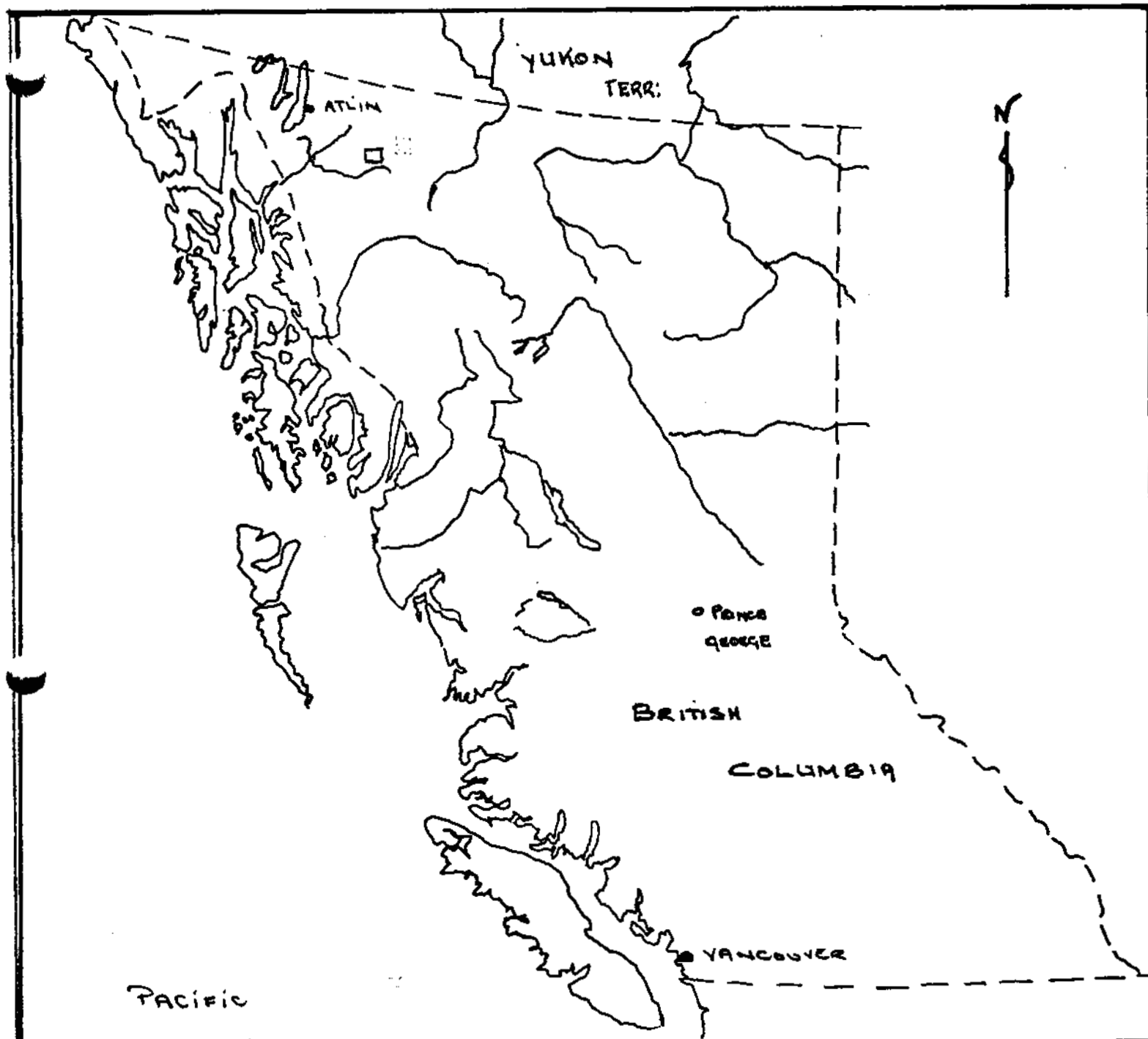
#1 Location of Tseta Creek Asbestos Property

#2 Location ACE 1-14 Mineral Claims

#3

#4 TSETA CREEK AREA, MENATATULINE RANGE, 1973 GRID

1" = 1,500'
1" = 1/2 mile
1" = 400'



PACIFIC
OCEAN

CANADIAN JOHNS-MANVILLE
ATLIN M.D. B.C.

Department of
Mines and Technical Resources
ASSESSMENT REPORT

NO. **4913** MAP **#1**

LOCATION OF TSETA
CREEK ASBESTOS
PROPERTY = □

8	7
6	5
4	3
2	1
10	9
12	11
14	13

CAMP CREEK



Department of
 Mineral and Technical Resources
 ASSESSMENT REPORT
 NO. **4913** MAP **#2**

CANADIAN JOHNS-MANVILLE
 LOCATION ACEH14
 MINERAL CLAIMS
 SCALE 1"=1500'

INTRODUCTION:

During the period August 25 to September 15, 1973 a ground magnetometer survey was carried out over a grid located on the Ace 1-14 mineral claims located in the Menatatuline Range near Nahlin Mountain and Tseta Creek, Atlin Mining Division. These claims are owned by Canadian Johns-Manville Co., Ltd., Box 1500, Asbestos, Quebec.

These claims were staked for the Company in July and August 1963. They were geologically mapped and evaluated for the Company in 1966 by Company geologists Clive Aspinall and Carl Stadler (Reference: Internal Report Menatatuline Range, Tseta Creek Chrysotile Occurrence, Atlin Mining Division, B.C., March 1967 by Clive Aspinall).

The magnetometer survey covered in this report was to:

- (1) Correlate the magnetic properties of chrysotile-bearing serpentized peridotites and non-chrysotile-bearing serpentized peridotites
- (2) Trace chrysotile-bearing rocks underlying overburden.

LOCATION AND ACCESS:

The chrysotile fibre occurrence is situated in the Menatatuline Range near Camp Creek, a tributary of Tseta Creek. It is approximately 77 miles southeast of Atlin, 12 miles southeast of Victoria Lake, and seven miles north of Luklin River. Its geographical location is Latitude $58^{\circ}53'$: Longitude $132^{\circ}06'$. The occurrence lies between the 4,500 and 5,500 foot elevation.

The property is accessible by float plane from Atlin to Victoria Lake. A helicopter is then necessary to transport men and supplies from Victoria Lake to the occurrence.

PHYSIOGRAPHY AND CLIMATE:

The Menatatuline Range dominates the Taku Plateau and is essentially 2,000 feet above the surrounding area. In the Tseta Creek area, the range is partially flat-topped, with broad U-shaped valleys and cirques. The country is not rugged, and moving about is not difficult provided routes are planned from aerial photographs beforehand.

The climate is Arctic-Alpine.

The average annual rainfall	15" to 20"
The average mean daily temperature - January	0 to 10°F
- July	55°F
Frost-free days	50

The area is snow-free for the approximate period between mid-June to mid-September. Vegetation consists of alpine grass, moss, and an abundance of wild flowers.

GENERAL GEOLOGY:

TABLE OF FORMATIONS

<u>ERA</u>	<u>PERIOD</u>	<u>LITHOLOGY</u>
Cenozoic	Recent	Alluvium, talus, minor glacial deposits
	Pleistocene	Glacial deposits -
Paleozoic	Pennsylvanian and Permian	Peridotite and dunite serpentinization. Acidic dykes - Diabase sills (Rodingites)

The fibre occurrence lies within the ultramafic Menatatuline Range complex. A Pennsylvanian age has been assigned to these rocks. The fresh ultramafic rocks of the intrusion range in composition from dunite, recognized by its smooth to semi-smooth light brown weathered colored surface to peridotites containing up to 40% pyroxene, recognized by their orange-brown to chocolate brown through to grey-brown weathered surfaces.

GENERAL GEOLOGY: (Cont'd)

Acidic to diabasic dykes cut through the ultramafic rocks. All the ultramafic rocks are well-jointed.

The main fibre zone occurs between Lines 48+00 North and 76+00 North on the baseline. The fibre zone apparently widens from 400, narrows to 200 feet wide, between 48+00 North and 56+00 North, and then widens to 1,150 feet wide at the point 72+00 North. It then abruptly terminates at 80+00 North.

An intensive shear zone, essentially 1,000 feet long, 100 feet wide, has serpentized the rocks in the immediate area. There are three major shears which branch off to the northwest which also have serpentized the rocks in the immediate area. The fibre occurs in two rock types:

- i) As stockworks in these serpentized zones
- ii) As lenses within serpentized peridotite which are, in turn, situated in the peridotite.

The latter type of fiberization forms outside of these serpentized shear zones, as in a halo.

MAGNETOMETER SURVEY:

A grid system was established over the old 1966 grid formerly used during the geological mapping program. The base line has a length of 8,000 feet and offset lines were established at intervals of 400 foot intervals. Readings were taken at 100 foot intervals along the offset lines.

Instrumentation and Method:

The instrument used for this survey was a Jalander Fluxgate magnetometer. This three-pound instrument is carried by means of a leather sling around the neck and held in front of the body so that the operator looks down upon the plastic dome top which protects the bull's eye level and scale.

Instrumentation and Method: (Cont'd)

The scale of the instrument is divided into 50 scale divisions, each of which may be estimated to 1/5 of a scale division, so that the full scale is from 0 to 250 pars (5 pars = 1 scale division). The gammas per pars are given below:

Range	1	2	3	4	5
Average gammas per unit	11.2	33.1	121.3	344.7	1091.0

MAGNETIC-GEOLOGICAL CORRELATION:

There is very little correlation between the geology and the magnetic susceptibility of the rocks in the survey area. The magnetic highs are on the west side of the base line, with the highest zone increasing to the southwest.

The northwest magnetic high is 14,000 feet long and approximately 200 feet wide. It is located between 64+00N and extends north of 80+00N. This may correlate with the fibre zone north of 58+00N to 80+00N, and suggesting that the fibre zone dips to the west and is a shallow deposit. This last assumption is based on the fact that the contours in the anomalous area are very closely spaced.

The southwest magnetic high is not closed, but is much larger than the northerly one. It covers an area of widespread overburden, and no fibre was found in this zone. No dykes and shears show up in the magnetic interpretation.

CONCLUSIONS:

The following is recommended:

- 1) A limited bulk sample program to ascertain the quality of the fibre and grade, etc.
- 2) A small drill program (Winkie type drill) to ascertain the depth of the fibre zone.

STATEMENT OF QUALIFICATIONS

I, Nicholas Clive Aspinall, hereby certify:

I am a Geologist employed by Canadian Johns-Manville Company, Limited, Box 1500, Asbestos, Quebec, Canada.

I am a graduate of McGill University, Montreal, Canada, with a Bachelor of Science degree, 1964.

I am a Fellow of the Geological Association of Canada and a Member of the Canadian Institute of Mining and Metallurgy.

Clive Aspinall

December 1, 1973

STATEMENT OF QUALIFICATIONS

I, Herbert Keith Conn, of the town of Asbestos, do hereby declare that:

1. I am a mining geological engineer employed as Exploration Manager for Canadian Johns-Manville Company, Limited, P.O. Box 1500, Asbestos, Quebec.

2. I have practised in the geological profession since 1948 and specialized in economic geology and exploration procedures since 1951.

3. I am a graduate of the University of Toronto, Toronto, Ontario, with a degree of B.A. Sc. (Mining Geology), 1948.

4. I am a member of the following professional associations:

- (a) Corporation of Engineers of Quebec
- (b) Non-resident member of the Association of Professional Engineers of the Province of British Columbia
- (c) Fellow of the Geological Association of Canada
- (d) Fellow of the Society of Economic Geologists
- (e) Member of the Canadian Institute of Mining and Metallurgy
- (f) Member of the American Institute of Mining Engineers

5. This report is based on published and unpublished information.



December 1973

H.K. Conn, P.Eng., Exploration Manager
Canadian Johns-Manville Company, Limited

STATEMENT OF COSTSCost of Establishing Grid System:

Two men for four days @ \$64 per day \$ 256

Cost of Magnetometer Survey:

Two men for eight days @ \$64 per day 512

Field Costs, Etc.:

Two men @ \$20 per day for 12 days 240

Transportation:

Fix-Wing Aircraft from Atlin 1,200

Helicopter Service 1,500

Supervision & Interpretation of Results -
Report Writing, Etc.:

Six days by Geologist @ \$50 per day 300

T O T A L \$ 4,008



DEPARTMENT OF MINES AND PETROLEUM RESOURCES

MINERAL ACT

(Section 51)

FORM B

Affidavit on Application for Certificate of Work

1. I, Dr. E.L. Mann Agent for Canadian Johns-Manville Co. Ltd. Canadian Johns-Manville Co. Ltd. P.O. Box 1500 - Asbestos, Quebec P.O. Box 1500 - Asbestos, Quebec

Free miner's Certificate No. 125581 Free Miner's Certificate No. 125580

Date issued March 9, 1973 Date issued March 9, 1973

make oath and say:—

2. I have done, or caused to be done, work on the ACE 1-12, ACE 13-14

Mineral Claim(s)

Record No.(s) (5318 - 5329) (5370 - 5371)

situate at Tseta Creek in the Atlin Mining Division,

to the value of at least \$4,000 dollars. Work was done from the 25th day

of August, 1973, to the 25th day of August, 1974.

3. The following is a detailed statement of such work:—

(Set out full particulars of the work done in the twelve months in which such work is required to be done. There are three types of work: (1) Physical (trenching, drilling, tunnelling, and overburden removal); (2) road or trail work; (3) geological, geochemical, geophysical (includes line-cutting). The total value of each type of work and the number of years' work and type to be applied to each claim must be shown below.)

Blank lines for detailed statement of work.

4. That I have not and will not use the work declared herein in any way for the purposes of obtaining tax exemption on a Crown-granted mineral claim under the terms of the Taxation Act.

SWORN and subscribed to at this day of 19, before me

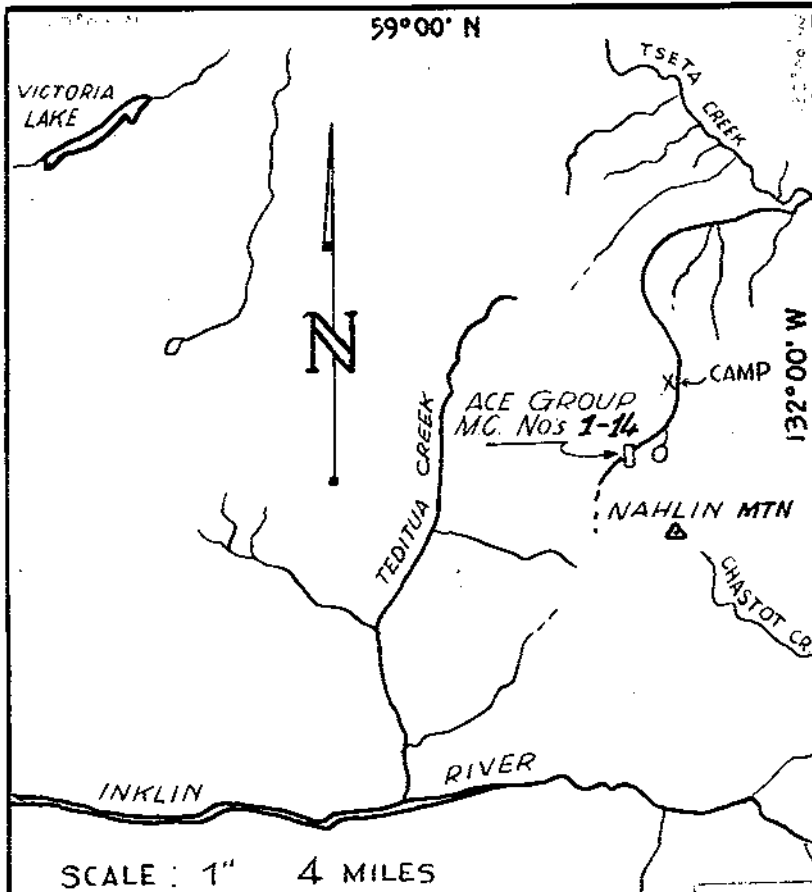
COST

A Geophysical Report on the Tseta Creek Chrysotile occurrence,
Menatatuline Range, Atlin Mining Division, B.C. for Canadian
Johns-Manville Co. Ltd., Box 1500, Asbestos, Quebec, by Clive
Aspinall

TOTAL \$ 4,000

I wish to apply \$4,000 of this work to the claims listed below.
(State number of years to be applied to each claim.)

ACE 1 - 1 year	ACE 6 - 2 years	ACE 11 - 1 year
ACE 2 - 1 year	ACE 7 - 2 years	ACE 12 - 1 year
ACE 3 - 2 years	ACE 8 - 2 years	ACE 13 - 1 year
ACE 4 - 2 years	ACE 9 - 1 year	ACE 14 - 1 year
ACE 5 - 2 years	ACE 10 - 1 year	



SKETCH SHOWING ACE GROUP MC NOS 1 TO 14 LOCATED APPROXIMATELY 12 MILES SOUTH EAST OF VICTORIA LAKE AND 7 MILES NORTH OF INKLIN RIVER.

LEGEND

- ULTRABASIC
- FIBRE ZONE
- DYKE

ACE 1 to 12 — RECORD NUMBERS 5318 - 5329.

ACE 13 to 14 — 5370 - 1.

LA - 11449
254

SCALE: 1" = 1/2 MILE
AIR PHOTO: B.C.

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. **4913** MAP **#3**

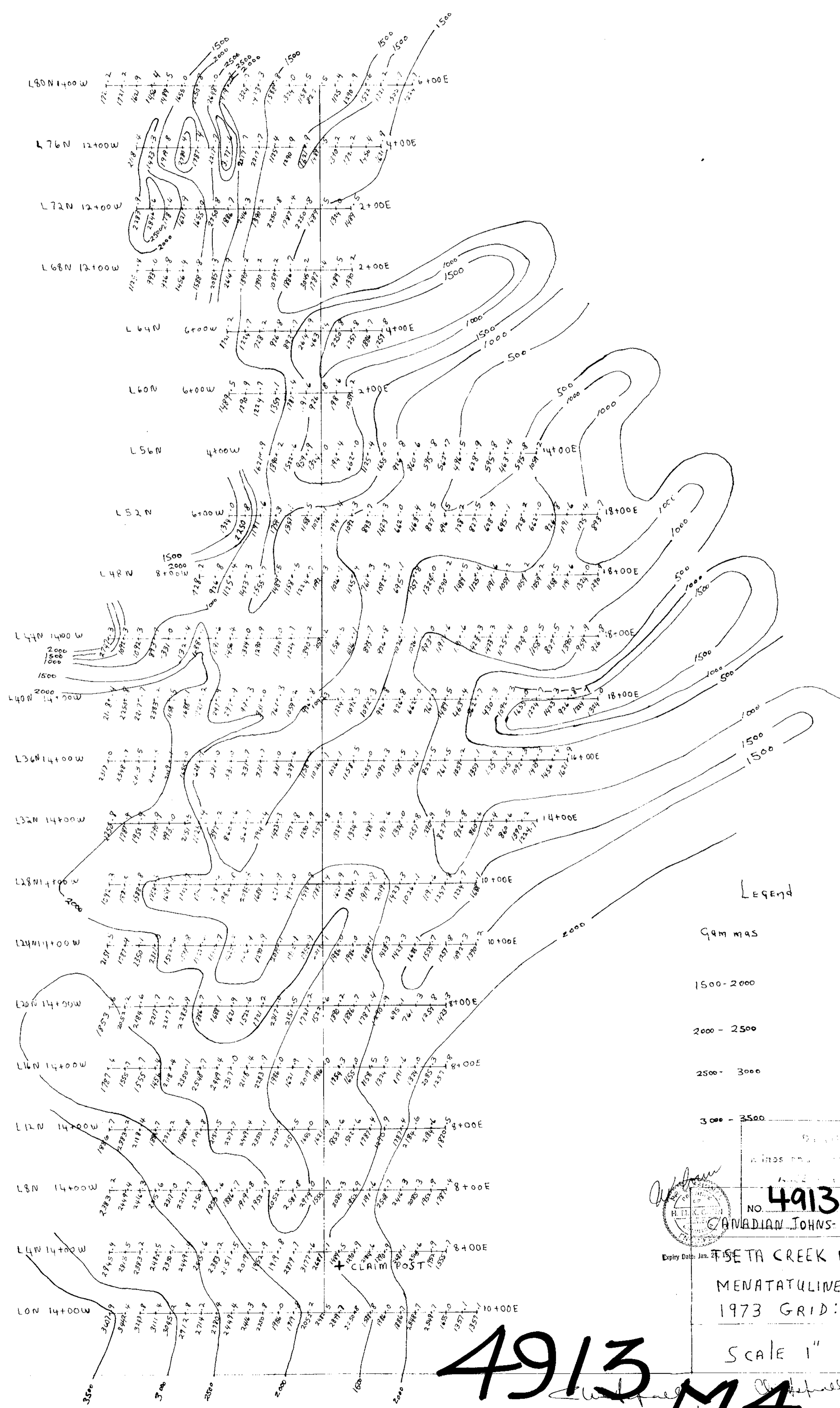
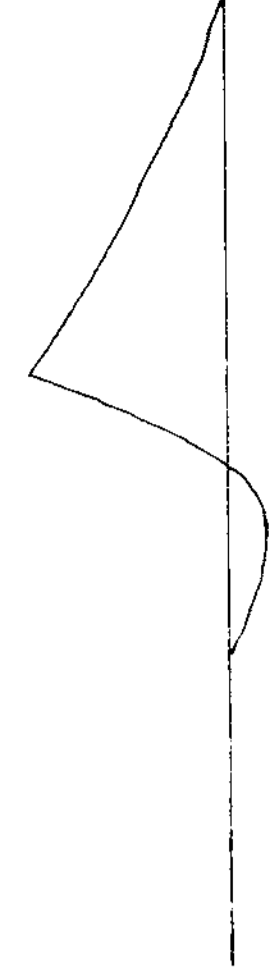
ACE 8	ACE 7
ACE 6	ACE 5
ACE 4	ACE 3
ACE 2	ACE 1
ACE 10	ACE 9
ACE 12	ACE 11
A 14	A 13

CONTINUOUS FIBRE ZONE - 400' X 200'
PERCENT FIBRE > 5%
LENGHT UP TO 3/4"

POSSIBLE FIBRE ZONE

TSETA CREEK
NAHLIN MTN, B.C.
C.J.M. EXPLORATION DEPT 1963
REVISED - 1974 - AT.

N



TO ACCOMPANY
REPORT ON THE TSETA CREEK
CHRYSOTILE OCCURRENCE, MENATATULINE RANGE,
ATLIN MINING DIVISION, BRITISH COLUMBIA

By: Clive Aspinall December 1st, 1973

Legend

- 999 mas
- 1500-2000
- 2000-2500
- 2500-3000
- 3000-3500

NO **4913** #4
CANADIAN JOHN-S-MANVILLE

SETA CREEK AREA
MENATATULINE RANGE
1973 GRID:

Scale 1" = 400'

4913 M4