

ARIS SUMMARY SHEET

District Geologist, Victoria

Off Confidential: 89.08.25

ASSESSMENT REPORT 18024

MINING DIVISION: Kamloops

PROPERTY: Rawhide  
LOCATION: LAT 50 10 00 LONG 121 50 00  
UTM 10 5557594 583323  
NTS 092I04W

CLAIM(S): Rawhide 1-4  
OPERATOR(S): Cardinal, D.G.  
AUTHOR(S): Cardinal, D.G.  
REPORT YEAR: 1988, 23 Pages

COMMODITIES

SEARCHED FOR: Talc

GEOLOGICAL

SUMMARY: Phyllite, argillite and greenschist are in fault-contact with serpentine-ultramafic rocks. Some of the serpentine is altered to talc. The structural trend is northwest, dipping steeply to the northeast.

KEYWORDS: Argillite, Greenstone, Serpentine, Talc

WORK

DONE: Geological, Physical, Geochemical

GEOL 150.0 ha  
SAMP 4 sample(s) ;ME  
TREN 52.0 m 3 trench(es)

RELATED

REPORTS: 06854, 07455, 09542, 10680, 14715, 15311, 16545

MINFILE: 092ISW051, 092ISW053

LOG NO: 0310	RD. 4
ACTION: Date received report back from amendments 23 p.	
FILE NO:	

LOG NO: 1124	RD.
ACTION:	
19 p.	
FILE NO:	

Assessment Report

on the

RAWHIDE CLAIM GROUP

(Rawhide 1 - 4)

Latitude 50° 10' N; Longitude 120° 50' W

Kamloops Mining Division

NTS 92I/4

FILMED

(Field work between June 2nd to Aug. 18th, 1988)

## GEOLOGICAL BRANCH ASSESSMENT REPORT

Report by:

D.G. Cardinal, P.Geol.

P.O. Box 594

Hope, B.C. VOX 1L0

October 24, 1988

18-024

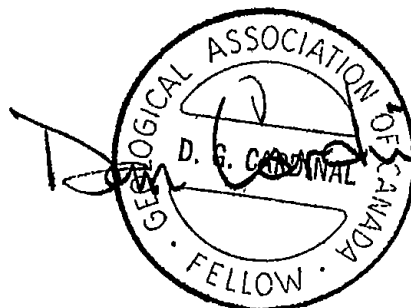


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FIGURES:

1. Location Map
2. Claim Map
3. Regional Geology Map
4. Property Geology Map
5. Trenching Area
6. Prospecting Area

APPENDICES:

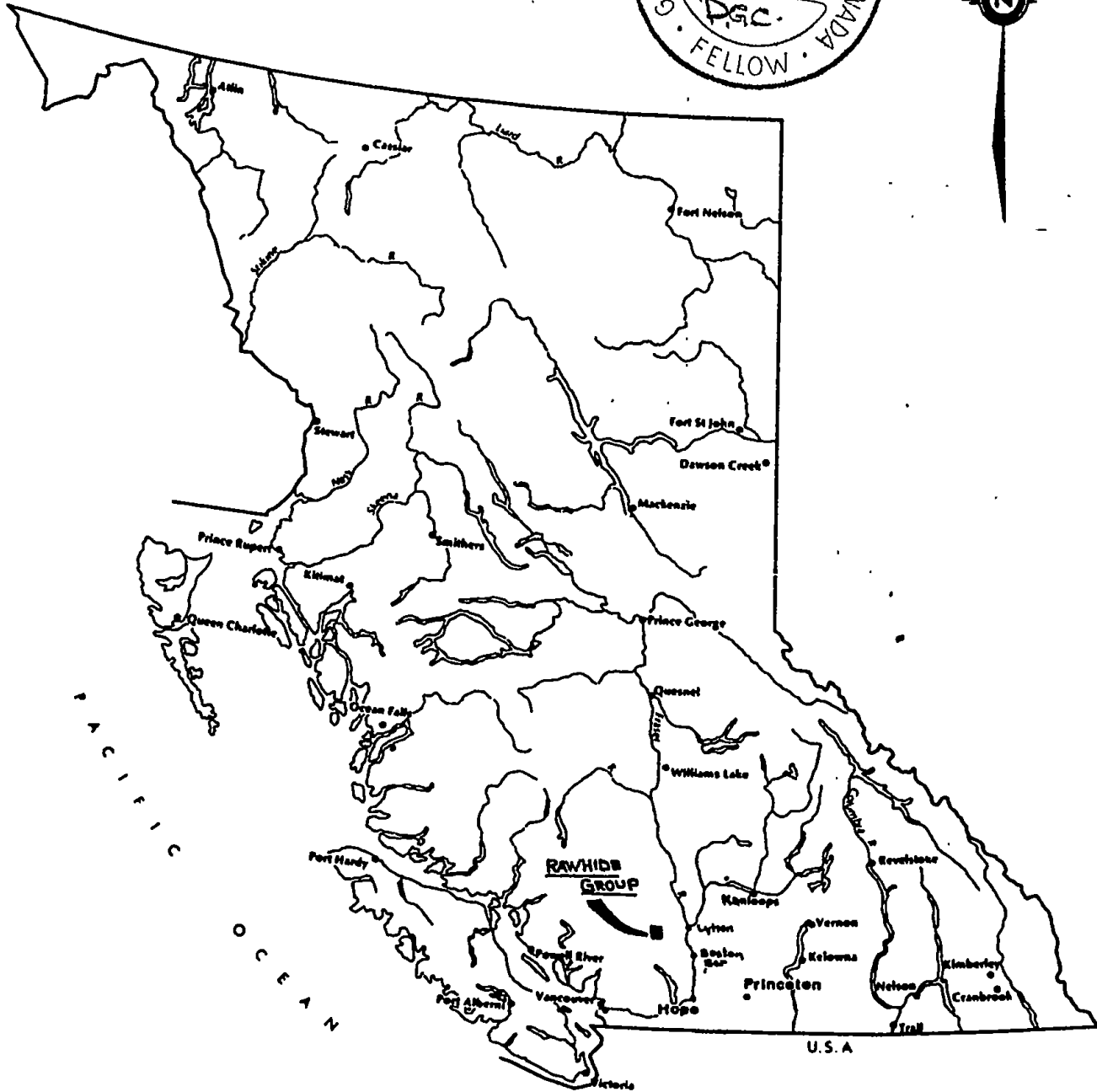
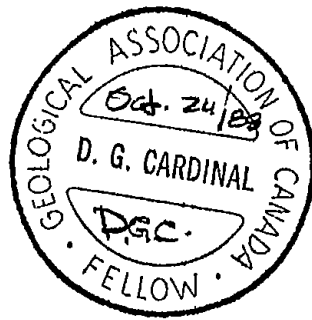
- I. Professional Certificate
- II. Bibliography
- III. Assay Certificate

## A. INTRODUCTION

Field work was conducted on the Rawhide Claim Group between June 2nd and August 18th, 1988. The field work was conducted under the supervision of the writer, D.G. Cardinal.

The work consisted mostly of trenching with some detail geology around the trenched area and regional prospecting along strike of the mineralized fault structures.

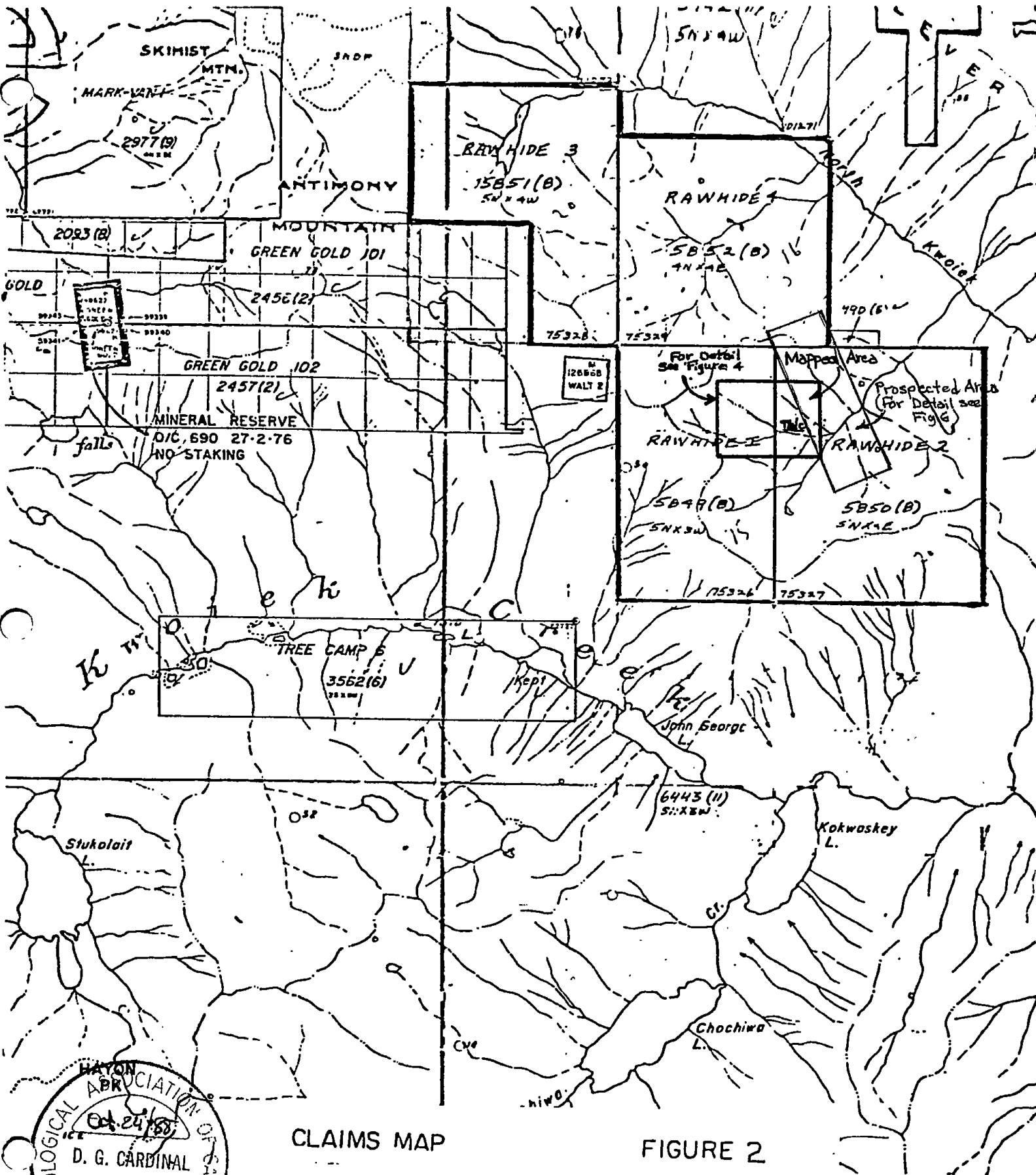
Both gold and silver occur on the claim group but last seasons work (July-Aug., 1987) by the writer, outlined potential talc mineralization. Follow-up work this season was concentrated on delineating and identifying the talc occurrence.



**RAWHIDE CLAIM GROUP**

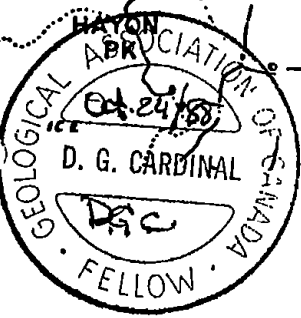
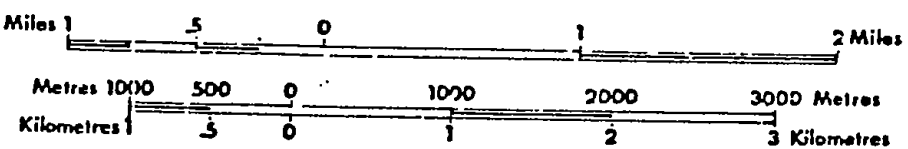
**Figure 1**

**- Location map**



CLAIMS MAP

FIGURE 2



## B. LOCATION AND ACCESS

The Rawhide Claim Group is located 40km north-northwest of Boston Bar, B.C.. Boston Bar is on the Trans Canada Highway some 45km north of the town of Hope. The Claims can be reached from Boston Bar by crossing the Fraser River bridge and travelling for 25km north along the west side of the river to the confluence of Kwoiek Creek. From the creek, the traveller heads westerly for 15km along a well maintained gravel road and then turning right at Kowaskey Lake and heading northerly for an additional 3km. The road ends near the southern end of the Claims.

The Claims can best be reached from Hope by helicopter, some 30 minutes of ferry time.

The Claim Group is on mapsheet NTS 92I/4W, co-ordinates: Lat.  $50^{\circ} 10'N$  and Long.  $121^{\circ} 50'W$ .

## C. CLAIMS INFORMATION

The Rawhide Claim Group consists of 71 contiguous claim units and covers 1,775 hectares. They are located in the Kamloops Mining Division and the Claims are currently held by Westerra Resources Ltd. of Hope, B.C.. The ownership records can be examined at the Government

Agent's Office in Kamloops or at the Sub-Recorder's Office in Vancouver.

The pertinent claims data is as follows:

CLAIM NAME	RECORD NO.	NO. OF UNITS	RECORDED DATE	EXPIRY DATE
Rawhide 1	5849	15	08/28/84	08/28/89
Rawhide 2	5850	20	08/28/84	08/28/89
Rawhide 3	5851	20	08/28/84	08/28/89
Rawhide 4	5852	16	08/28/84	08/28/89



#### D. HISTORY OF PROPERTY

The Rawhide Claims cover several old gold and silver workings which were first recorded in 1929 in the B.C. Minister of Mines Report. The work was also documented in 1935 by the Geological Survey of Canada by H.C. Horwood - Preliminary Report on the Nahatlatch Region, G.S.C. Paper 36-7. The B.C. Minister of Mines reports that in 1929 a 13m adit and numerous open-cuts had already been completed.

In 1970, an area immediately east of the old workings noted above was examined by Magnetron Mining Ltd. for the potential of asbestos. The surveys instead delineated high quality talc and tremolite mineralization.

In 1984, claims in this area formerly held by Aquarius Resources Ltd. expired and the area restaked as the Rawhide Claims. The claims were subsequently transferred to the writer and in February, 1988, transferred to Westerra Resources Ltd.

In 1987, preliminary surveys by the writer, located talc mineralization along a small creek. A 1.5kg selected sample returned a combined geochemical analysis of 94.48% talc (MgO, 34.33%; SiO<sub>2</sub>, 56.16%; H<sub>2</sub>O, approx. 4%). This season (1988), limited follow-up surveys were conducted to further determine the potential for talc in the area.

## E. REGIONAL GEOLOGY

A northwest-southeast trending, steeply dipping belt approximately 30km in length and composed of metasediments and serpentized ultramafics, forms the regional geological setting of the Rawhide Claims.

The metasedimentary units are metamorphosed to a lower greenschist facies and predominately consist of phyllite, argillite, lesser greenstone and quartzite and minor limestone. The metasediments are in fault-contact with a band of ultramafic rocks that are variously altered to serpentine. The fault-contact is represented by a series of sub-parallelising shear zones in which the serpentine has been locally altered to talc and talcose schist.

The metamorphic complex is tentatively dated as Triassic or earlier. The complex has subsequently been intruded by coast range granodiorite of Lower Cretaceous age.

A number of mineral occurrences are spatially associated with the serpentine-ultramafic belt noted above. The mineral occurrences sporadically occur along the length of belt which include a number of gold, silver, copper, chromite and talc prospects.

# REGIONAL GEOLOGY

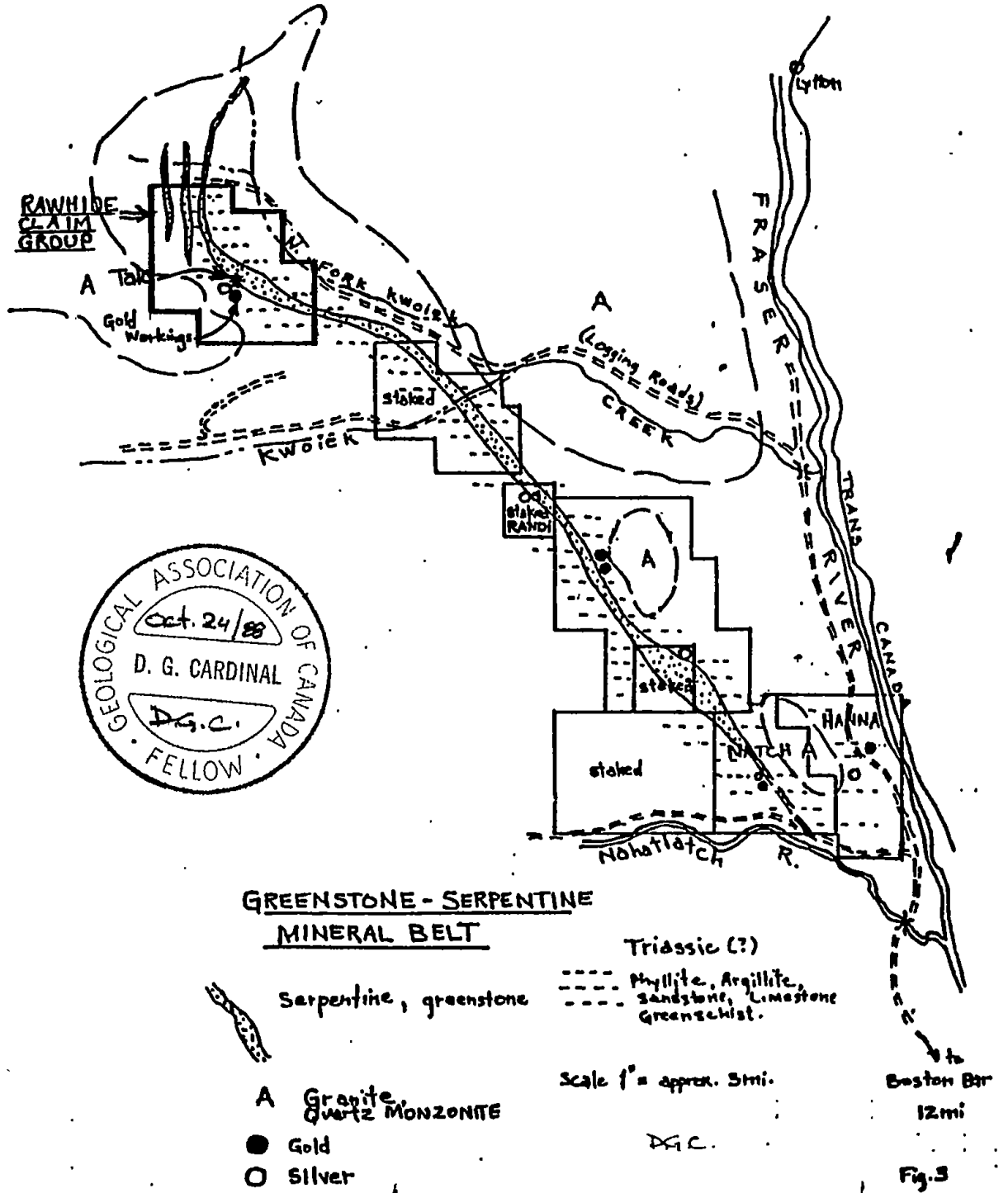


Fig. 3

## F. PROPERTY GEOLOGY - TALC ZONE

The Claims are underlain by steeply dipping phyllite, argillite and greenschist in fault-contact with the serpentine-ultramafic belt.

Mapping conducted was centered around the trenched areas (fig.4). The exposed rock was tied to a grid system. At least 4 different rock types were identified. Argillites and greenstone volcanics are in contact with talc and serpentine. Rocks trend northwesterly and dip steeply to the northeast. Two (2) fault zones also trending northwesterly cut the above rock types.

Talc in the map area can be traced for at least 400m north-northwest along strike with widths of up to 100m. Talc exposed in the trenches appears to vary in quality based on its physical properties: colour, softness and feel. Samples collected range from greenish-white to light green with a very soft, soapy feel to a more harder gritty texture.

Lenses of serpentine are incorporated in the talc zone and also vary from hard, massive dark-green serpentine to lighter green talcose serpentine. The writer believes the talc in the map area and along strike is derived from altered serpentine.

Prospecting carried out 1km to the northwest and 2km to the southeast of the map area, along the serpentine belt, has outlined other large bodies of talc and talcose schist.

## G. PROCEDURES AND RESULTS

The area selected for trenching, sampling and mapping is an area where previous prospecting and reconnaissance work had outlined interesting talc.

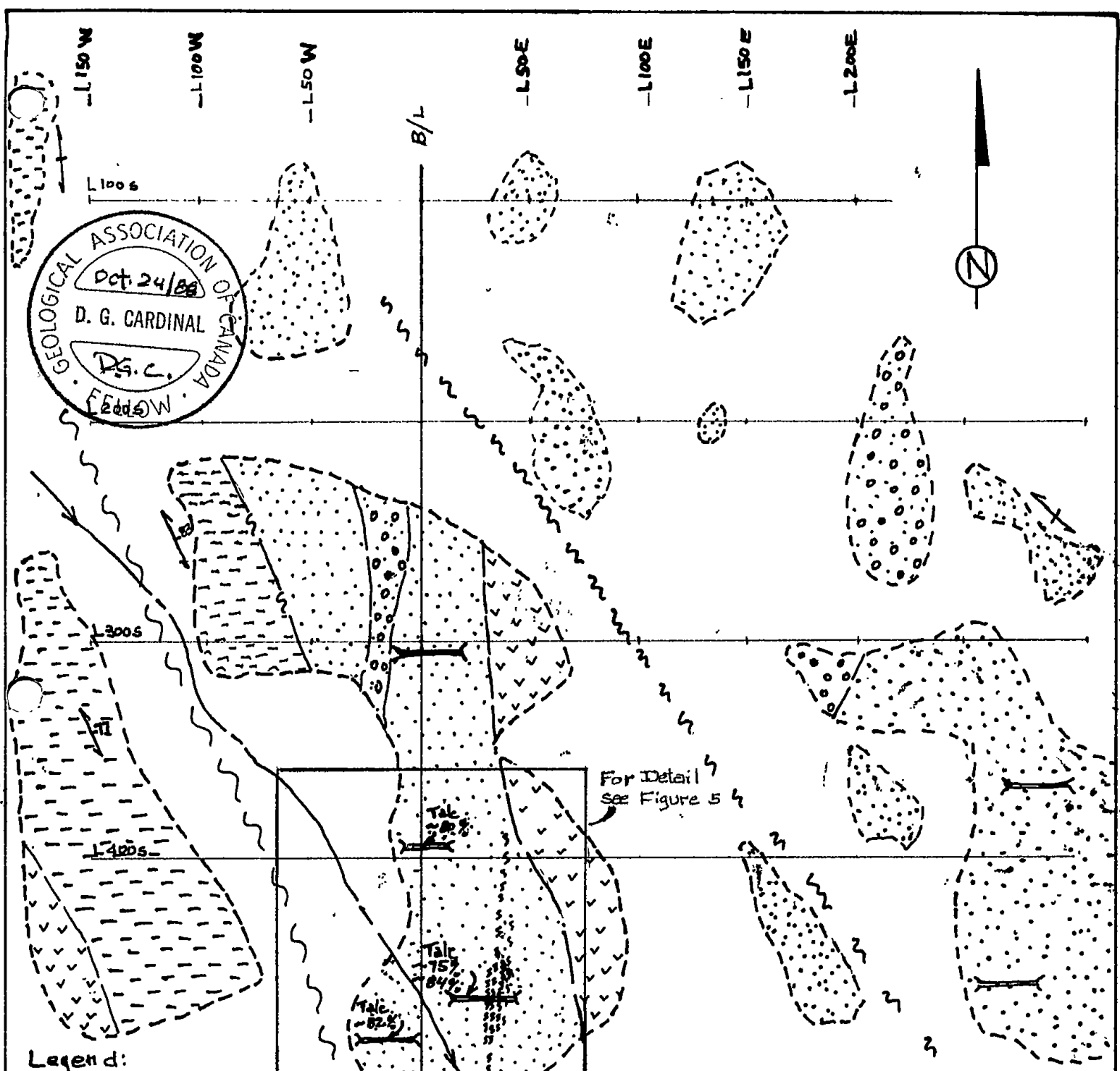
A north-south baseline was established (fig.4) for 500m along strike and crosslines surveyed at every 100m with stations at every 50m intervals. All rock outcrops were tied to the grid along with the 6 trenches. The trenches are 15m to 30m long and 1.0m to 1.5m wide.

A portable Atlas Copco percussion drill was flown to the site and drill-blaster and helper were employed to trench selected sites. Some 75kg of samples were collected from the trenches and flown by helicopter to the nearest road.

Four (4) samples collected from 3 trenches, each weighing 2.5kg - 3.0kg were sent to a Vancouver lab for whole rock analysis. Talc is primarily composed of Magnesium Oxide (MgO), Silica (SiO<sub>2</sub>) and H<sub>2</sub>O with other minor elements.

Based on the preliminary whole rock results, by combining MgO and SiO<sub>2</sub> including some of the LOI (Loss On Ignition) which is believed to be mostly H<sub>2</sub>O, the talc appears to assay in the 70-80% range.

More detail procedures and control lab tests are planned during this winter in order that talc results have a higher degree of confidence.



GEOLOGICAL ASSOCIATION OF CANADA  
 Oct. 24/88  
 D. G. CARDINAL  
 D.G.C.  
 EDDSW

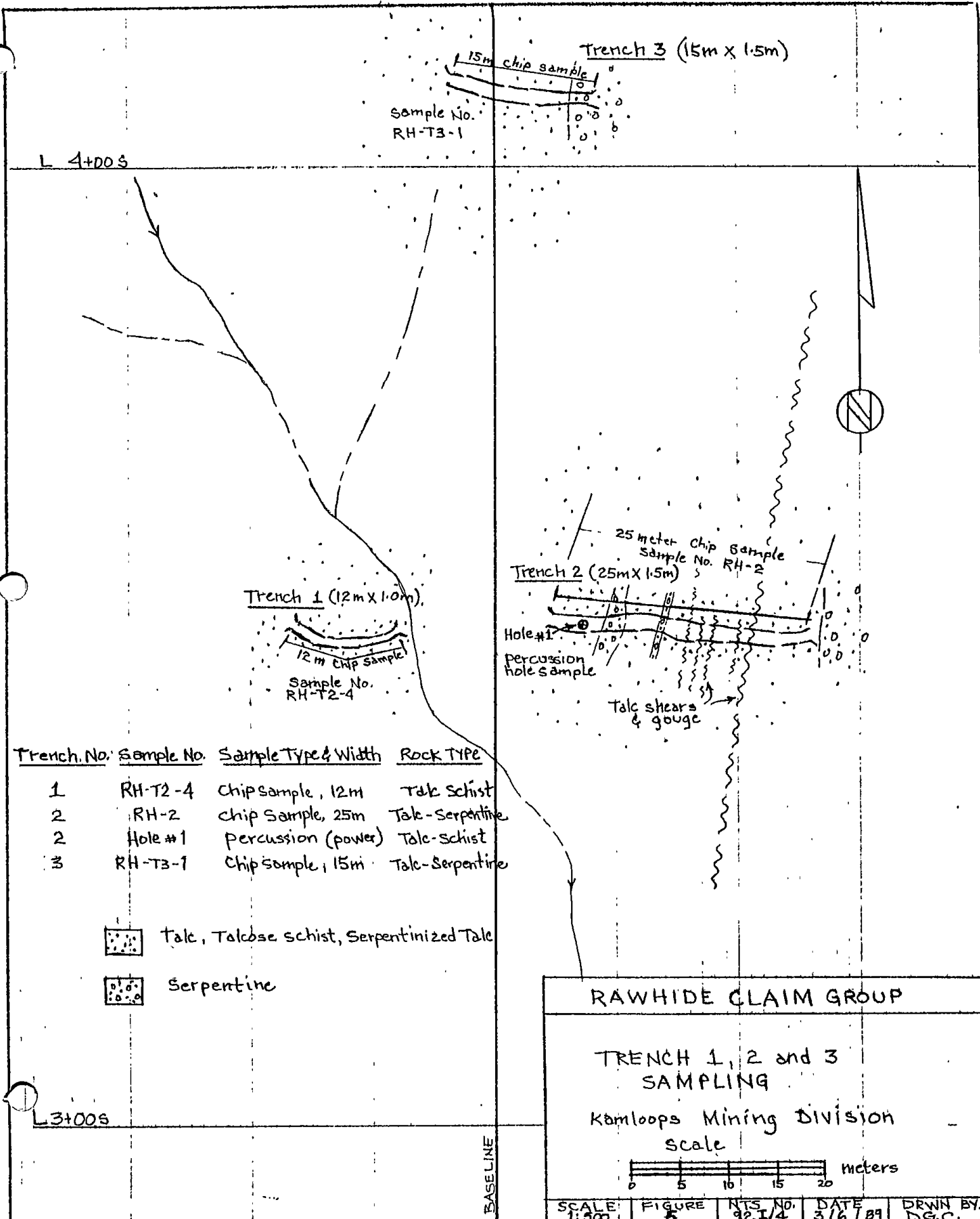
Legend:

- Argillite, shale
- Greenstone Volcanics
- Talc, Talcose shist
- Minor Serpentinized Talc
- Serpentine, Serpentinized ultramafic
- Fault/Shear
- Trench
- Rock Exposure
- Fault Contact



For Detail See Figure 5

**RAWHIDE CLAIM GROUP**  
**PROPERTY GEOLOGY**  
 Kamloops Mining Division

SCALE 1:2,500    FIGURE 4    NTS No. 92 I/4    DATE 10/24/88    DRWN BY D.G.C.



Trench. No.	Sample No.	Sample Type & Width	Rock Type
1	RH-T2-4	chip sample, 12m	Talc Schist
2	RH-2	chip sample, 25m	Talc-Serpentine
2	Hole #1	percussion (power)	Talc-schist
3	RH-T3-1	chip sample, 15m	Talc-Serpentine

-  Talc, Talcose schist, Serpentinized Talc
-  Serpentine

**RAWHIDE CLAIM GROUP**

**TRENCH 1, 2 and 3 SAMPLING**

Kamloops Mining Division  
Scale

0 5 10 15 20 meters

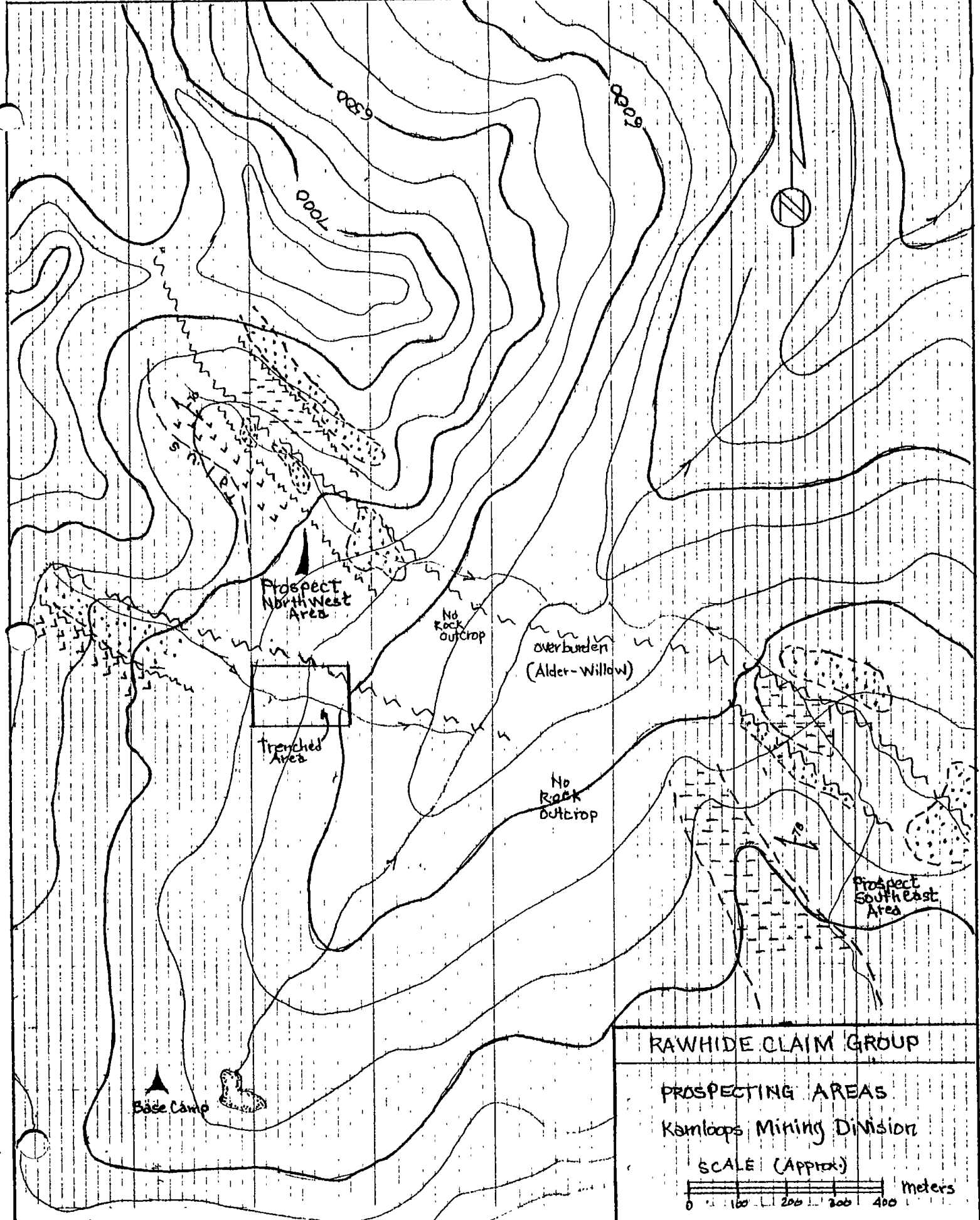
SCALE: 1:500	FIGURE 5	NTS NO. 92.1/4	DATE 3/6/89	DRWN BY. D.G.C.
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## Trenching:

Three trenches numbered 1, 2, and 3 were sampled (fig.5) and analysed for talc content.

- Trench 1 cuts a a body of talcose schist just west of small stream (fig.5). The dimensions of the trench is approximately 12m long by 1.0m wide. A representative chip sample was collected across the length of the trench.
- Trench 2, it's dimensions being approximately 25m by 1.5m was also chip sampled across it's length. The trench exposes mostly talcose schist with narrow lenses of serpentine. A powdered sample from percussion Hole #1 was also collected for talc analysis. Trench 2 is located some 30m east of trench 1.
- Trench 3 is 15m long by 1.5m wide and cuts across an outcrop of talcose schist. A 15m chip sample was collected from the trench. Trench 3 is located about 60m north of trench 1 and 2.

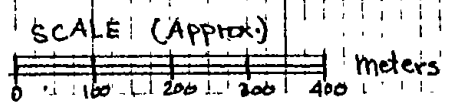




RAWHIDE CLAIM GROUP

PROSPECTING AREAS

Kamloops Mining Division



SCALE	FIGURE	NTS No.	DATE	DRAWN BY
1: 30,000 (Approx.)	6	92I/4	3/6/89	D.G.C.

## Prospecting Notes

### Northwest Area:

-A small stream flowing from the northwest and partly following a fault structure, was prospected to it's headwaters (fig.6). The stream originates from a small cirque-like basin. Lenses of serpentine with narrow seams of talc and tremolite were encountered. Both the talc and tremolite occur along fault-shears. The serpentine lenses are bounded by altered sediments and volcanics. The rocks trend northwesterly and dip steeply to the northeast.

### Southeast Area:

-Traverses were also carried out at least 1km southeasterly and on strike of the above-noted area. Similar rock types and structures were noted. The structure of the northwest prospected area and the southeast area appear to be the same. A stream flowing northeast forms a valley which covers a portion of this structure. Both areas probably form a semi-continous belt of faulted serptine and talc lenses.

For prospecting and mapping control, a topographic map, compass and an altimeter were used.

## H. CONCLUSION

The Rawhide Claim Group covers known gold and silver prospects which were worked during the early 1900s. Recent surveys also outlined an industrial mineral called talc, primarily used in the pulp and paper industry.

The talc mineralization is closely associated with a northwest-southeast trending serpentized ultramafic belt which cuts through the Claims. This season (June-Aug.1988) some limited work consisting of trenching, sampling, mapping and prospecting were carried out to further delineate the talc zone. Samples obtained from the trenches show talc, based on rock analyses to assay between 70-80%.

Market for talc in B.C. appears to be strong. At present there are no producing talc mines in B.C.. Currently all of the province's talc is imported mostly from the state of Montana.

## I. COST BREAKDOWN

## Trenching:

Drill/Blast Contractor, 12 days @ \$350/d	\$ 4,200.00
(includes - percussion drill and explosives)	
Helper, 12 days @ \$150/d	1,800.00

## Prospecting:

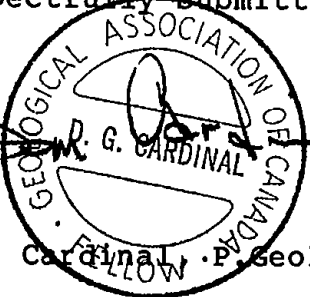
Prospector/Field Assistant, 15 days @ \$200/d	3,000.00
(includes - field camp expenses)	

## Geology:

Geologist/Supervisor, 16 days @ \$250/d	4,000.00
(includes - mapping, sampling & camp expenses)	
Report	<u>1,200.00</u>

Total	<u><u>\$14,200.00</u></u>
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Respectfully Submitted;



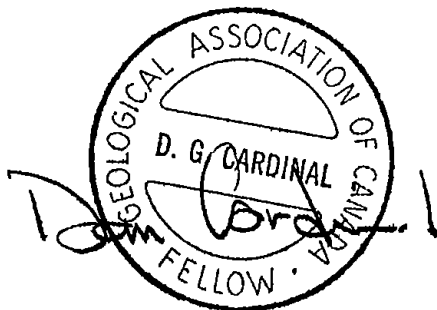
D.G. Cardinal, P. Geol.

APPENIX I

PROFESSIONAL CERTIFICATE

I, Daniel G. Cardinal of the Municipality of Hope, B.C., do hereby certify that:

1. I'am a graduate of the University of Alberta (1975) and hold a BSc. degree in Geology.
2. I'am registered as a Fellow of the Geological Association of Canada; a member in good standing with the Association of Professional Engineers, Geologists and Geophysicists of Alberta, (P.Geol.) and, a member of the Yukon Professional Geoscientists Society.
3. I have been practising my profession for the past 12 years.
4. The findings in this report are from a personal property examination conducted by me and work supervised by me between June 2nd and August 18th, 1988.
5. My address is, P.O. Box 594, Hope, B.C., VOX 1L0.



D.G. Cardinal, P.Geol.

## APPENDIX II

### BIBLIOGRAPHY

Report of the Minister of Mines 1929  
p. C236

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threshold values in geochemical data  
using probability graphs, J. Geochem.  
Exploration 3: 129-149

Appendix III

Assay Certificate

WHOLE ROCK ICP ANALYSIS

A .1000 GRAM SAMPLE IS PULSED WITH .60 GRAM OF LITHIUM AND IS DISSOLVED IN 50 MLS 3% HNO<sub>3</sub>.  
 - SAMPLE TYPE: CUTTING/ROCK

DATE RECEIVED: AUG 9 1988 DATE REPORT MAILED: *Aug 19/88* SIGNED BY: *C. King* .D. FORT, C. LONG, B. CHAN, J. HANG, CERTIFIED B.C. ASSAYERS

CARDINAL GEOCONSULTING LTD. File # 88-5424

SAMPLE#	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba PPM	LOI %	SUM %
HOLE #1 TRENCH 2	37.30	.61	6.30	31.57	.33	.05	.07	.02	.04	.05	.32	5	23.2	99.86
RH-2 TRENCH 2	44.19	1.08	6.09	30.36	.43	.05	.14	.02	.05	.08	.30	5	16.9	99.69
RH-T2-4	43.85	1.20	6.23	30.78	.52	.05	.12	.06	.05	.07	.31	5	16.6	99.84
RH-T3-1	39.23	1.07	5.75	32.13	.10	.05	.05	.02	.04	.09	.26	19	21.0	99.79