

13,714

RECONNAISSANCE GEOLOGICAL AND GEOCHEMICAL SURVEY
AND
MAGNETOMETER SURVEY
SNOWFLAKE A AND B GROUPS

PART
1 OF 2

Snowflake A Group: Snowflake; Snowflake 3, 6, 10, Tule 10, Pot 4, 5
Snowflake B Group: Snowflake 2, 4, 5, 7; Pot 1, 2, 3 and 6

Nicola Mining Division - Aspen Grove Area, B.C.
Latitude 49°58'N Longitude 120°35'W NTS 92H/15E

for

J. M. Dawson, 206-310 Nicola Street, Kamloops, B.C.
and

Laramide Resources Ltd., 904-675 West Hastings Street, Vancouver, B.C.

by

I. M. Watson, P. Eng.
I. M. Watson and Associates Ltd.

Vancouver, B.C.

April 1985

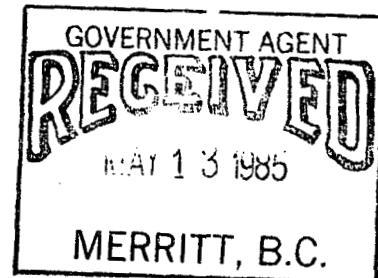


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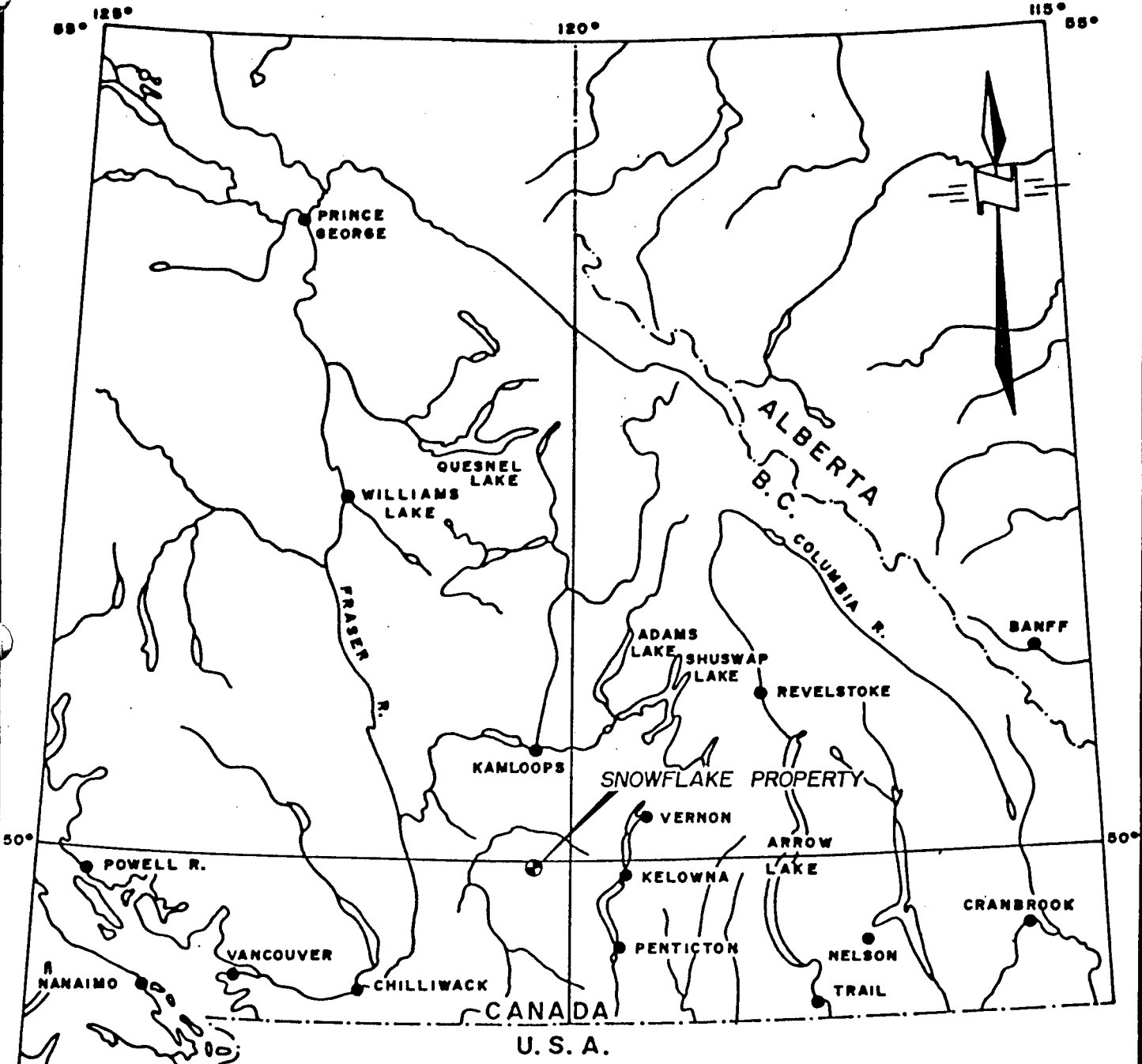
Plan 1

Reconnaissance Geochemical Rock Sampling

Plan 2

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Plan 3



LARAMIDE RESOURCES LTD.

LOCATION MAP

SNOWFLAKE - POT CLAIMS

NICOLA MINING DIVISION, B.C.

Date: Feb., 1984.

Scale: 1" = 64 Miles

Drawn by: W.G.

Dwg no. 1

INTRODUCTION

This report summarises the results of exploration work carried out on the Snowflake A and B Groups of Laramide Resources Limited and J. M. Dawson during the period October 1984 to January 1985.

Reconnaissance geological investigations, geochemical rock sampling, magnetometer and induced polarisation surveys comprise the latest phase of an exploration programme instigated by Laramide in 1983 to investigate interesting gold and copper assays resulting from a 1967 drill programme by Vananda Exploration and Merritt Copper Company. Laramide's earlier work, consisting of preliminary magnetic and induced polarisation surveys, and reconnaissance diamond drilling, confirmed the presence of gold associated with sulphides in fracture controlled veins within a volcano-sedimentary sequence (Dawson 1984).

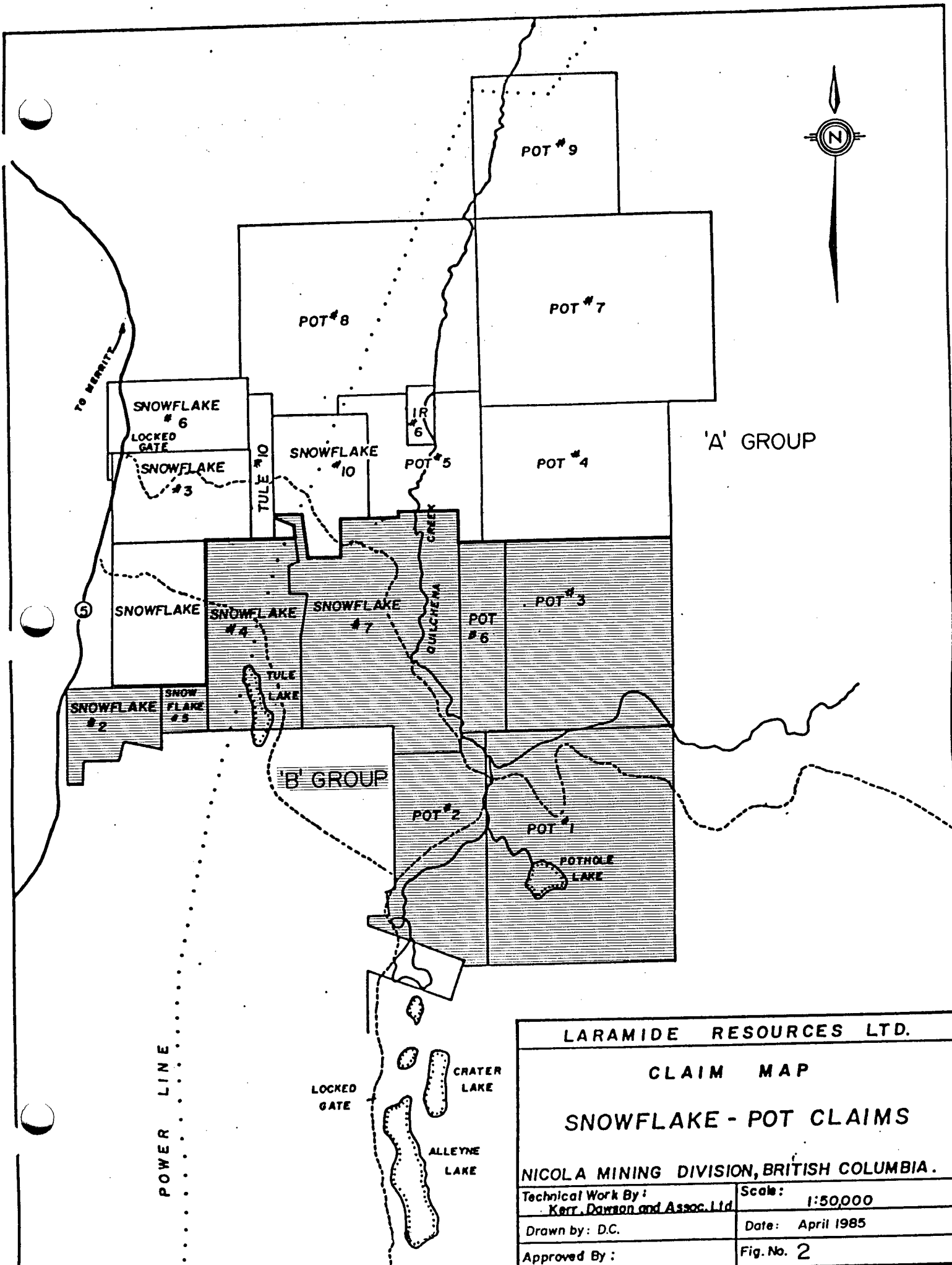
The latest geological, geochemical and geophysical work attempted to establish extensions and/or repetitions of the gold bearing zone(s).

LOCATION, ACCESS & PHYSIOGRAPHY

The Snowflake property is situated about 20 kms. southeast of Merritt, and 58 kms. north of Princeton, in the Nicola Mining Division, B.C. The property is centred at $49^{\circ}58'N$ $120^{\circ}35'W$. The NTS reference is 92H/15E.

The Princeton-Merritt road, Highway 5, skirts the western boundary of the claims. Good access is available by logging/ranching roads which cross the property. Entrance is via the Douglas Lake Cattle Company gate, approximately 25 kms. by road from Merritt.

The property covers an area of gently rolling open range land with scattered clusters of pine and deciduous trees. The Quilchena River occupies a major north-trending valley which bisects the property, and is the expression of a major fault.



LARAMIDE RESOURCES LTD.	
CLAIM MAP	
SNOWFLAKE - POT CLAIMS	
NICOLA MINING DIVISION, BRITISH COLUMBIA.	
Technical Work By: Kerr Dawson and Assoc. Ltd.	Scale: 1:50,000
Drawn by: D.C.	Date: April 1985
Approved By:	Fig. No. 2

Maximum relief on the property is about 300 metres, ranging from 900 metres along Quilchena Creek to approximately 1200 metres on the ridges west of Tule Lake. Apart from a few small, swampy ponds, Quilchena Creek and Tule Lake are the only sources of water.

Bedrock is abundant along the ridge tops, becomes less common along thinly mantled valley slopes, and is deeply buried by thick glaciofluvial deposits in the Quilchena River valley.

CLAIMS

The Snowflake Property consists of 18 claims containing a total of 192 units, allocated to two groups, the Snowflake A and B Groups, as follows:

<u>Claim Name</u>	<u>No. of Units</u>	<u>Record No.</u>	<u>Recording Date</u>
<u>Snowflake A Group</u>			
Snowflake	6	8	May 13, 1975
Snowflake 3	6	167	August 20, 1976
Snowflake 6	6	321	September 16, 1977
Snowflake 10	6	514	October 25, 1978
Tule 10	4	322	September 16, 1977
Pot 4	12	1537	August 3, 1984
Pot 5	9	1300	October 20, 1984
Pot 7	20	1519	July 19, 1984
Pot 8	20	1520	July 19, 1984
Pot 9	<u>9</u>	1521	July 19, 1984
Total	98		
<u>Snowflake B Group</u>			
Snowflake 2	4	93	April 14, 1976
Snowflake 4	8	211	February 11, 1977
Snowflake 5	2	212	February 11, 1977
Snowflake 7	20	470	June 15, 1978
Pot 1	20	1516	July 19, 1984
Pot 2	15	1517	July 19, 1984
Pot 3	20	1536	August 3, 1984
Pot 6	<u>5</u>	1518	July 19, 1984
Total	94		

At the time of filing the Statement of Exploration and Development (February 8, 1985), all but the POT 1, 2, 3 and 4 claims were owned by Laramide Resources Limited, 904- 675 West Hastings Street, Vancouver, B.C.; the POT 1-4 claims were registered in the name of J. M. Dawson of 206 - 310 Nicola Street, Kamloops, B.C.

HISTORY

The Snowflake property lies within what was the most active part of the old Aspen Grove copper camp. Mineral exploration in the Snowflake property area dates back to the turn of the century. Early Minister of Mines reports refer to several copper occurrences in the 9 km. X 3 km. area between Tule and Kentucky Lakes. A number of old adits and shafts were completed on some of these zones, and at least two (Copper Star; Big Sioux) produced small tonnages.

More detailed accounts of work in the area date from 1958, when assessment work files were started by the government. The most intensive period of exploration occurred during the 60's and 70's, when attention was focussed on the search for porphyry copper deposits.

The following is a summary of the most pertinent data culled from the B.C. government Minfile, annual reports, and available assessment reports.

1958	Granby Mines	Magnetometer survey (AR 250)
	Harry Nesbitt	Staked 'Blue Jay' claims (western portion of present Snowflake property)
1959	Noranda Mines	EM and magnetometer surveys between Courtney Lake and Tule Lake, followed by diamond drilling, trenching and stripping
1963	Utica Mines Ltd.	50 claims at the junction of Pothole and Quilchena Creeks. Stripping, trenching and mapping.
1964	Harry Nesbitt	Blue Jay 1-4 claims. Surface stripping and 5 drill holes encountered sparse copper mineralisation.

- 1965 ? CM claims staked (northern part of present Snowflake property)
- 1966 Vananda Explorations Ltd. Acquired CM claims
Drilled 9 percussion holes, totalling 620'
- 1967 Vananda/Merritt Copper Co. Joint venture - CM claims
I.P. and magnetometer surveys
3 diamond drill holes (1438') and 1 percussion hole (420') completed in southwest corner of claim #CM1

DDH 1:

Au	Ag	Cu	Width
0.13 ozs	1.15 ozs	0.70%	165'-175' (10')
0.15 ozs	0.48 ozs	0.20%	210'-270' (60')
0.115 ozs	1.68 ozs	0.26%	310'-320' (10')

- 1968 Ashland Oil Optioned Blue Jay claims
Magnetometer survey (40 line miles)
- 1969 Vananda Exploration Topographic survey of CM claims
- 1970 Bethlehem Copper DUD claims, at south boundary of present Snowflake property
Percussion drilling, 10 holes totalling 2700'
Geological mapping
- 1971 Rio Tinto Acquired Blue Jay claims
- 1972 Amax Exploration Halo and Broatch claims at southern boundary of present Snowflake property
Geological mapping; magnetometer survey (28 miles); I.P. survey (6.3 miles); geochemical soil survey (1,099 samples); percussion drilling 22 holes (6407').
- Craigmont Mines Optioned Blue Jay claims
Percussion drilling 19 holes (4000')
- 1975 F. Gingell & R. W. Yorke-Hardy Staked the Snowflake claims
Geochemical and VLF-EM surveys (1976)
- Harry Nesbitt Diamond drilling - 2 holes (86.4 m.) on the Au Pyramid 20-unit claim, near Pothole Lake at the eastern boundary of the present Snowflake property
- 1976 E. Bomford & M. Weinstein Acquired the Ted and Chief claims (covering area formerly covered the CM claims)

1977	Gingell & Yorke-Hardy	Snowflake claims Geological mapping
1978	Cominco Ltd.	Optioned Snowflake property Percussion drilling: 14 holes (1280 m.)
1979	Cominco Ltd.	Magnetometer, I.P. surveys Percussion drilling 20 holes (1643 m.)
1983	Laramide Resources Ltd.	Optioned Snowflake property I.P. and magnetometer surveys Diamond drilling 12 holes (995.7 m.)

GEOLOGY

1. Regional

The Snowflake property lies in the central part of the Nicola Belt, a northwesterly trending 30-60 kms. wide assemblage of Upper Triassic volcanic and sedimentary rocks, extending from the International Boundary in the south to Kamloops Lake in the north.

The volcanics of the Nicola Belt form a mixed alkaline and calc-alkaline sequence of basalts and derived volcanoclastic monolithic and polyolithic breccias and tuffs, and minor sediments.

The volcanic rocks are intruded by comagmatic alkaline plutons, ranging in composition from syenogabbro to alkali syenite. The intrusions appear to be structure related and occur in belts along major lineaments and faults. They vary in size from plugs to small batholiths, and have been emplaced into the volcanic centres which produced the abundance of volcanic material (Barr et al, 1976).

In the Aspen Grove area, Preto (1979) has delineated three assemblages - a Western Belt of easterly dipping calc-alkaline flows, pyroclastics and sediments; a Central Belt of alkaline and calc-alkaline volcanics and intrusions, and minor sediments; and an Eastern Belt of westerly dipping

volcanic sediments, tuffs and alkaline flows associated with small monzonite porphyry stocks. The belts are separated by major north-striking faults.

Numerous copper deposits occur throughout the Nicola Belt, ranging from small occurrences to major porphyry copper type deposits (e.g. Afton, Similkameen). The greatest concentration of these occurrences is in the Central Belt rocks of the Aspen Grove area, the old Aspen Grove Copper camp. The majority of copper showings occur in propylitically altered, fractured volcanics and sediments adjacent to diorite and monzonite stocks, along the major north-trending fault system. Characteristic mineral assemblages are chalcopyrite, bornite, pyrite, chalcocite, locally with cuprite and/or native copper (Preto, 1979).

2. Snowflake Property

The Snowflake claims lie mainly within Preto's Central Belt, and straddle the major fault zone. The claims are underlain by northerly striking intermediate to basic flows, maroon and green polyolithic volcanic breccias, tuffs, and minor argillites and limestones. These rocks have been intruded by several irregular small plugs ranging in composition from gabbro to monzonite to syenite. Volcanics and sediments marginal to the intrusions have been propylitised (epidote-pyrite-chlorite-carbonate) and host erratically distributed patchy copper-pyrite zones of the type described above.

Laramide's current exploration programme has been focussed on the gold-bearing volcano-sedimentary sequence tested by drilling in late 1983 (Snowflake Gold Zone). Here a succession of northerly striking, westerly dipping andesitic flows and pyroclastic rocks are overlain by dark grey to black pyritic calcareous argillites/limestone. Gold occurs in zones of alteration (silicification, pyritisation accompanied by bleaching) in the footwall of the calcareous argillite and in the immediately underlying andesitic flows, tuffs and breccia. The gold appears to be

associated with sulphides (pyrite, chalcopyrite) in fracture controlled quartz-carbonate veins. Insufficient drilling has been done to define the extent of the mineralised zone.

GEOLOGICAL/GEOCHEMICAL RECONNAISSANCE (October 13th-23rd, 1984)

1. Description

The reconnaissance programme was carried out by J. H. Randa and I. M. Watson. The main objectives of the programme were as follows:

1. To search for, identify, and sample environments similar to that hosting the 'Snowflake Gold Zone'.
2. To look for possible strike extensions of the 'Snowflake Gold Zone'.
3. To sample all known mineralised zones/showings on the property to test for precious metal content.

V. A. Preto's 1" = $\frac{1}{4}$ mile preliminary geological map of the Aspen Grove area (Preto, 1973) shows outcrop distribution and provided excellent control and a plotting base for the field work. Using Preto's map as a first guide, all areas underlain by sediments were examined, sampled and mapped on a preliminary basis. In addition, traverses were made across outcrop areas closest to and on strike with the 'Snowflake Gold Zone'. In general, samples were taken at 100-150 metre intervals, depending on the availability of outcrop; in any case, all argillite and limey units and showings were sampled, regardless of spacing. Samples consisted of chips taken from a roughly 10-metre square panel, wherever feasible. A minimum of 2 kgs. was collected from each site. Finally, all showings were sampled; usually representative grab samples were taken - if necessary, several samples were taken from each site to differentiate between various types of mineralised rock and/or alterations.

A total of 103 rock chip samples were collected. All were analysed for gold (AA) and silver (ICP) by Acme Analytical Laboratories in Vancouver.

2. Discussion of Results

Results of the geological/geochemical programme are plotted on the accompanying plan. Although the number of samples is too small to permit reliable statistical analysis, threshold values of 20ppb for Au and 0.7ppm for Ag are indicated by the histograms.

Four areas of interest, containing anomalous gold and/or silver, have been designated for more detailed investigation (Plan 2).

Area 1 - Western contact of dioritic intrusives (Snowflake and Snowflake 3 claims)

Area 2 - Quilchena River - altered andesites (Snowflake 7 claim)

Area 3 - Pothole area - altered andesites (Pot 1 claim)

Area 4 - Mineralised sediments/tuffs (Snowflake 7 claim)

Area 1

Anomalous gold and silver analyses were obtained from samples of highly altered and fractured, copper bearing volcanics along the western contact of the dioritic intrusion underlying the western part of the property. This is the most heavily explored area within the claim group. Numerous trenches and drill holes attest to work by Cominco, Craigmont and others during the porphyry copper exploration boom of the 60's and 70's.

LARAMIDE - SNOWFLAKE PROPERTY - ROCK GEOCHEMISTRY 1984

Au Threshold 20 ppb

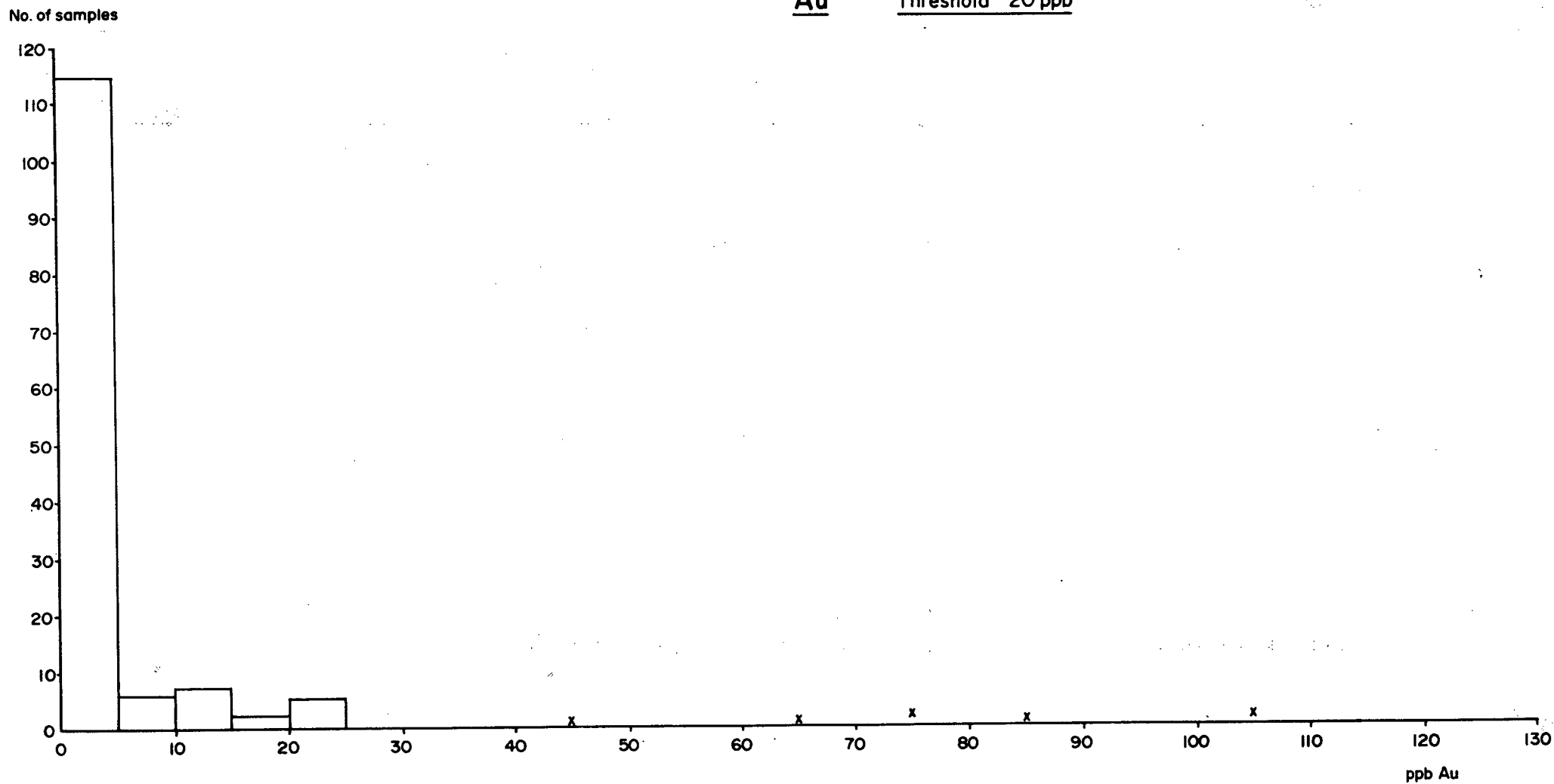


FIG. 3
LARAMIDE RESOURCES LTD.
GEOCHEMICAL RECONNAISSANCE
Histogram - Au

LARAMIDE - SNOWFLAKE PROPERTY - ROCK GEOCHEMISTRY 1984

Ag

Threshold 0.7 ppm

No. of samples

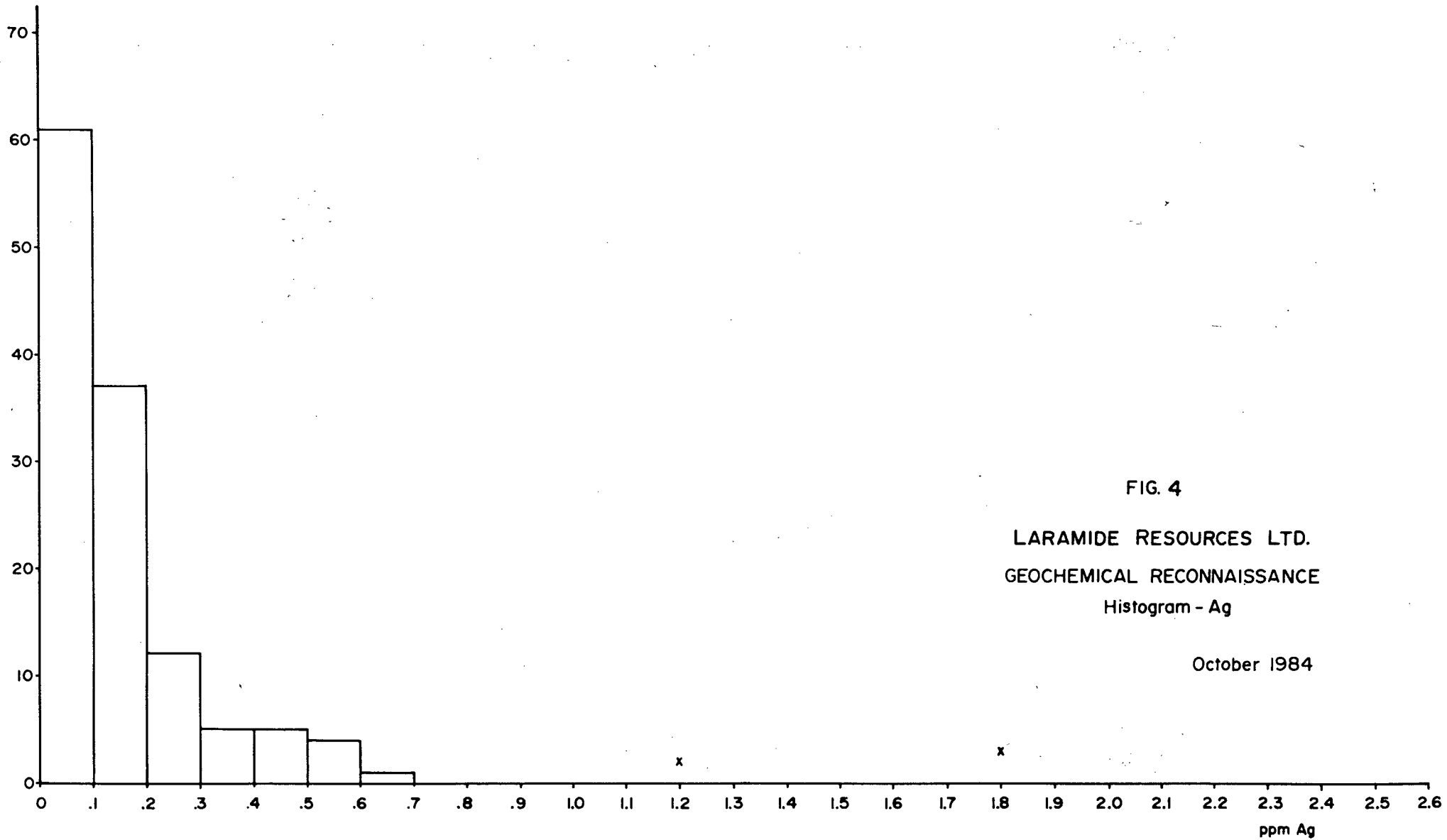


FIG. 4

LARAMIDE RESOURCES LTD.
GEOCHEMICAL RECONNAISSANCE
Histogram - Ag

October 1984

Bulldozer trenches, old pits and adits have exposed highly altered and fractured green andesites and andesitic breccias. Erratically disseminated copper minerals (malachite, minor chalcopyrite) and epidote alteration are related to fracturing. Samples of this material contain gold ranging from 135 to 595 ppb, and low silver (up to 1.8 ppm). Precious metal and copper content appear to be related to intensity of fracturing and alteration arising from the adjacent dioritic intrusion.

Area 2

Altered, fractured and brecciated andesitic volcanics containing porphyry type copper mineralisation are exposed in trenches along both banks of the Quilchena River (Snowflake 7 claim).

The rocks and mineralisation are similar to those in Area 1, along the western contact of the dioritic intrusion, and here too gold content appears to relate to degree of mineralisation/alteration. Gold analyses range from 15 to 225 ppb, and silver from .4 to 3.6 ppm.

Area 3

The 'Pothole Area' is situated at the eastern boundary of the Pot #1 claim in the south-eastern corner of the claim group.

The zone of interest is partially exposed in an area of rubbly outcrop bared by shallow bulldozer 'scrapings'. Dark, highly altered (epidote, quartz carbonate veins) and fractured andesites, contain erratically disseminated chalcopyrite, malachite, azurite, and pyrite. The copper minerals occur in narrow zones striking southwest across the regional trend. As in Areas 1 and 2, gold and silver appear to relate

to copper content and degree of alteration, but in higher quantity (950 - 2550 ppb Au, and 1.9 - 4.8 ppm Ag).

Prominent northwesterly striking granitic dykes outcrop within a few hundred feet to the southeast of the showings.

Area 4

Geological reconnaissance and sampling traverses suggest that there is a continuous sedimentary unit extending north along the upper westerly slopes of the Quilchena River valley through the Snowflake 7 claim. This is contrary to Preto's interpretation, which shows sediments striking north-east in the central part of the claim. Examination of the outcrops in this area clearly indicates a northerly strike and westerly dip of finely bedded volcanic and argillaceous sediments. The northerly extrapolation of these sediments projects close to those intersected by the Laramide 1983 drill programme (Dawson, 1984). The magnetic and I.P. surveys tend to support this interpretation (Cartwright 1985 and 'Magnetometer Survey', this report).

Sampling traverses were made across the sediments at points approximately 800, 1500, and 2500 metres south of the 'Snowflake Gold Zone'. Analyses indicate an apparent increase in gold contents from south to north, ranging from 10-105 ppb Au. The higher gold contents occur in thin, finely bedded cherty and argillaceous sediments within a broader sequence of andesitic tuffs. The sediments contain pyrite and pyrrohotite as fine disseminations and as near massive lensoid segregations up to a third of a metre across. Malachite occurs along narrow fracture controlled quartz carbonate veins.

LINECUTTING/MAGNETOMETER SURVEY (January 11th-30th, 1985)

During January 1985 Laramide extended the picket-line grid which had been used to control the 1983 geophysical surveys, and carried out further magnetometer and I.P. surveys. The object of the programme was to define more closely and to establish the full extent of the gold bearing pyritic calcareous argillite unit intersected by the 1983 drilling. The I.P. survey was carried out by Phoenix Geophysics Ltd., and is described in a report by P. Cartwright (1985),

Access to the survey area was blocked by two to three feet of powdery snow, and a small cat was hired to clear seven kilometres of road to and across the survey grid. Four-by-four trucks and a snowmobile were used to transport crews on the property.

1. Linecutting (January 11th-30th, 1985)

A three to four man crew re-established the 1983 base line and extended the survey grid north and south of the 'old' grid. A total of 4.2 kms. of base line and 33.7 kms. of survey line was cut and/or picketed through mixed open range and bush. Lines, 100 metres apart, were compass and chain controlled, with stations at 25 m. intervals indicated by laths/pickets. Two inch by two inch posts were also used to mark 100 m. stations to assist in line retrieval in the future. The survey grid is shown on Plan 3; previously cut/surveyed 1983 lines are shown as broken traces.

2. Magnetometer Survey (January 16th-30th, 1985)

(a) Description

The survey instrument was a Portable Proton Magnetometer System, Model GN 122, manufactured by Barringer Research Ltd. This magnetometer measures the total magnetic field with an accuracy of ± 1 gamma. Readings were taken at 25 metre intervals along grid lines. 'Fill in' lines provided uniform coverage of the area of the 1983 magnetometer survey, so that all but the south central part of the area, where survey lines are 200 metres apart, has now been surveyed over a 100 metre x 25 metre grid.

Base level and diurnal corrections were made by means of regularly spaced based stations along the lines.

The 1983 data (also a total field proton magnetometer survey) was adjusted to the current survey, and combined with it to produce the magnetic contour Plan #3.

(b) Discussion of Results

The most prominent feature of the magnetic survey is a broad, relatively smooth, north-trending high, extending from the south western end of line 188N to the western end of line 202N. This area is underlain by variably altered, locally dioritised, andesitic volcanics, containing erratic, fracture controlled copper mineralisation. The southern end of the anomaly, marked by a pronounced magnetic dipole, is coincident with outcrops of diorite. The anomaly also appears to

be crosscutting; measured attitudes and the regional trend are almost due north. All this evidence suggests that the anomaly is caused by a partially concealed dioritic intrusion, thinly overlain by andesitic volcanics.

Smaller magnetic highs coincide with or flank diorite intrusions along the western side of the survey grid at 194N and 212-214N, and outcrops of andesitic volcanics correlate with zones of variable magnetic relief at the south-western and north-eastern corners of the grid.

A broad, ill-defined, magnetic low strikes northerly through the central part of the grid, an area of limited exposure, containing a few outcrops of sediments/volcanic tuffs. The trough of this low is roughly coincident with the trace of the pyritic calcareous argillites, as indicated by the 1983 drill programme and by the I.P. anomalies detected by the 1983 and 1984 Phoenix surveys (Cartwright).

Easterly striking cross faults, interpreted by Preto, appear to be verified by termination of magnetic trends, at approximately latitudes 188N and 193N on the grid.

SUMMARY

The geochemical/geological reconnaissance programme during October, 1984 indicated four areas of geochemical and geological interest which will require further detailed investigation.

Area 1, on the western part of the property - anomalous gold and silver in rock samples, occur along the western contact zone of the diorite intrusion, in fractured and altered volcanics.

Area 2, along the Quilchena River - anomalous gold and silver occurs in similar altered andesites.

Area 3, in the south-eastern corner of the property, just east of Pothole Lake; high gold and silver analyses were obtained from fractured, altered andesites.

In each of these areas, gold and silver accompanies copper minerals.

Area 4 contains the postulated southern strike extension of the calcareous pyritic argillite encountered by the 1983 Laramide drilling programme. This interpretation is supported by geological observation, by the 1983 and 1985 I.P. survey results (Cartwright) and by the magnetometer survey.

Magnetics and observed alteration suggest the presence of a partially concealed dioritic? intrusion, striking north along the west side of Quilchena River.

Further work in this area will be dictated by a consideration of these results in conjunction with those of the I.P. survey (Cartwright 1985).

I. M. WATSON AND ASSOCIATES LTD.

I. M. Watson, P. Eng.
April 30th, 1985

STATEMENT OF QUALIFICATIONS

I, Ivor M. Watson hereby certify that:

1. I am a consulting geologist, resident at 584 East Braemar Road, North Vancouver, B.C. with offices at 816 - 675 West Hastings Street, Vancouver, B.C.
2. I am a graduate of the University of St. Andrews, Scotland (B.Sc. Geology 1955).
3. I am a Professional Engineer registered with the Association of Professional Engineers of British Columbia, and a Fellow of the Geological Association of Canada.
4. I have practised my profession continuously since graduation.
5. Work on the Snowflake A and B Groups was carried out during the period 13th October to 30th January 1985 by the following people working under my direct supervision.
 - J. Randa - Foreman
 - R. Gibbs - Linecutter
 - D. McDonald - Linecutter
 - B. Dent - Linecutter

April 30, 1985

I. M. Watson
I. M. Watson, B.Sc.



COST STATEMENT - SNOWFLAKE A AND B GROUPS

A Group - Snowflake; Snowflake 3, 6, 10; Tule 10; Pot 4, 5, 7, 8, 9

B Group - Snowflake 2, 4, 5, 7; Pot 1, 2, 3, 6

1. GEOLOGICAL/GEOCHEMICAL RECONNAISSANCE: Period October 13th-23rd, 1984. Pro rata distribution of costs, based on man-days worked on each group: 40% Group A; 60% Group B.

		<u>Cost Distribution</u>		
			<u>Group A</u>	<u>Group B</u>
<u>Salaries and Fees:</u>				
I. M. Watson (geologist)	9 days @ \$400/day	\$ 3,600.00		
J. Randa (prospector/sampler)	9 days @ \$185/day	<u>1,665.00</u>		
		\$ 5,265.00	\$ 2,106.00	\$ 3,159.00
<u>Food and Accomodation:</u>				
	18 Man days @ \$44.23/day	796.07	318.41	477.66
<u>Telepnone and Freight:</u>				
		66.92	26.77	40.15
<u>Vehicle Rental and Fuel:</u>				
	11 days @ \$67.41/day	741.49	296.60	444.89
<u>Equipment Purchase:</u>				
		113.15	45.26	67.89
<u>Geochemical Analyses:</u>				
	103 rock chip samples @ 8.50/sample (Au, Ag, AA/ICP)	875.00	350.00	525.00
<u>Reproduction and Maps:</u>				
		69.69	27.38	41.81
<u>Draughting:</u>				
		<u>204.00</u>	<u>81.60</u>	<u>122.40</u>
	TOTALS	\$ <u>8,131.32</u>	\$ <u>3,252.52</u>	\$ <u>4,878.80</u>

2. LINECUTTING: Period January 11th-30th, 1985. Pro Rata distribution of costs, based primarily on man-days worked on each group:
 26% Group A; 74% Group B

		<u>Cost Distribution</u>		
		<u>Group A</u>	<u>Group B</u>	
<u>Salaries and Fees:</u>				
B. Dent	(11-27 Jan)	17 days @ \$115/day	\$1,955.00	
R. Gibbs	(11-30 Jan)	20 days @ \$115/day	2,300.00	
J. McDonald	(11-27 Jan)	17 days @ \$115/day	1,955.00	
J. Randa, Supervisor	(11-15 Jan)			
	(20-29 Jan)	8 days @ \$185/day	1,480.00	
I. Watson (Prj. Mgr)		.5 days @ \$400/day	<u>200.00</u>	
			\$ 7,890.00	\$ 2,031.40 \$ 5,858.60
<u>Food and Accomodation:</u>				
		62.5 man days @ \$42.56/day	2,666.00	690.16 1,975.84
<u>*Telephone and Freight:</u>				
			79.48	20.66 58.82
<u>*Vehicle Rentals and Expenses:</u>				
		4 x 4 trucks (2)	1,274.22	321.00 952.92
<u>Equipment Purchases:</u>				
		Laths (pickets), posts and misc.	700.00	181.05 518.95
<u>*Equipment Rental:</u>				
		Snowmobile & trailer	360.00	
		Cat Rental (Beaupre Drilling)	<u>400.00</u>	
			760.00	197.60 562.40
<u>Reproductions and Maps:</u>				
			76.00	19.76 56.24
<u>*Draughting:</u>				
		D. L. Phillips Draughting	50.00	13.00 37.00
		<u>TOTALS</u>	<u>\$13,495.70</u>	\$ <u>3,474.93</u> \$ <u>10,020.77</u>
		*Costs pro rated with Magnetometer Survey	=====	=====

3. MAGNETOMETER SURVEY: Period January 16th-30th, 1985. Pro rata distribution, based primarily on line kms. surveyed on each group;
 7.5 kms. (25%) Group A; 22.6 kms. (75%) Group B.

		<u>Cost Distribution</u>		
		<u>Group A</u>	<u>Group B</u>	
<u>Salaries and Fees:</u>				
J. Randa (operator - 16-19 Jan)				
(23-30 Jan)	12 days @ \$185/day			
		\$ 2,220.00		
I. Watson (Prj.Mgr)	1.5 days @ \$400/day	<u>600.00</u>		
			\$ 2,820.00	\$ 705.00
				\$ 2,115.00
<u>Food and Accomodation:</u>				
	12 man days @ \$42.56/day		522.63	130.66
				391.97
<u>*Telephone and Freight:</u>				
			70.52	17.63
				52.89
<u>*Vehicle Rentals and Expenses:</u>				
	4 x 4 truck		1,240.12	310.13
				930.09
<u>*Equipment Rental:</u>				
	Snowmobile and trailer	325.00		
	Magnetometer rental @ \$475/month	450.00		
	Cat Rental (Beaupre Drilling)	<u>400.00</u>		
			1,175.00	293.75
				881.25
<u>Reproductions and Maps:</u>				
			100.00	25.00
				75.00
<u>*Draughting:</u>				
	D. L. Phillips Draughting		<u>300.00</u>	<u>75.00</u>
				<u>225.00</u>
			\$ <u>6,331.06</u>	\$ <u>1,582.77</u>
				\$ <u>4,748.29</u>
	TOTALS			

* Costs pro rated with Linecutting.

REFERENCES.

Barr, D.A., Fox, P.E., Northcote, K.E., and Preto, V.A., 1976. The Alkaline Porphyry Deposits. A Summary in CIM Special Vol. No. 15.

Cartwright, P.A., 1985. Report on The Induced Polarisation and Resistivity Survey on the Snowflake Claims.

Dawson, J.M., 1984. Report on The Diamond Drilling Programme on the Snowflake Property.

Preto, V.A., 1973. Preliminary Map No. 15, Geology of Aspen Grove Area. British Columbia Mines and Petroleum Resources.

— 1979. Geology of The Nicola Group Between Merritt and Princeton. Bulletin No. 69. British Columbia Mines Energy and Petroleum Resources.

APPENDIX.

Geochemical Analysis Certificates.

ME ANALYTICAL LABORATORIES LTD.
12 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE 253-3158 DATA LINE 251-1011

DATE RECEIVED: OCT 26 1984

DATE REPORT MAILED: *Oct 31/84*

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-3 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR Mn, Fe, Ca, P, Cr, Mg, Ba, Ti, B, Al, Na, K, W, Si, Zr, Ce, Sn, Y, Nb and Ta. Au DETECTION LIMIT BY ICP IS 3 ppm.
- SAMPLE TYPE: ROCK CHIPS Au ANALYSIS BY AA FROM 10 GRAM SAMPLE.

ASSAYER: *McT...* DEAN TOYE. CERTIFIED B.C. ASSAYER

I.M. WATSON PROJECT # B. SNOWFLAKE FILE # 84-3151 PAGE 1

SAMPLE#	Ag ppm	Au* ppb
---------	-----------	------------

W211	.6	5
W212	.7	15
W213	3.7	5
W214	.6	5

W215	.2	5
W216	.2	5

R001	.1	5
R002	.2	5

R010	.2	5
R011	5.7	10
R012	3.9	5
R013	1.2	5
R014	4.6	5
R014A	12.2	10
R015	.1	5

STD C/AU 0.5	6.6	505
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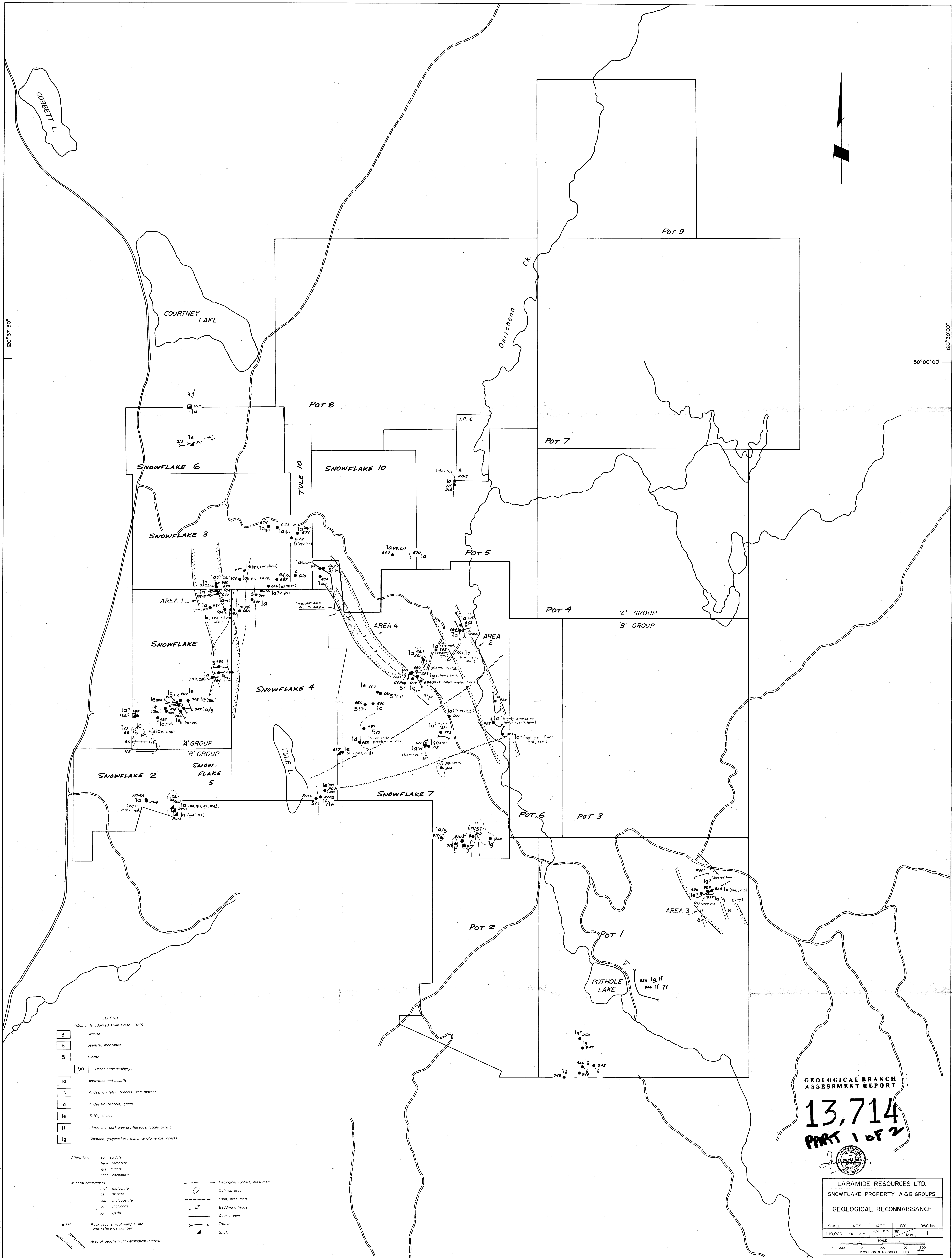
SAMPLE#	Ag ppm	Au* ppb
88653	.1	5
88654	.1	10
88655	.1	5
88656	.1	5
88657	.1	5
88658	.2	5
88659	.5	25
88660	.3	25
88661	.5	20
88662	.3	5
88663	3.6	15
88664	.6	5
88665	.2	5
88666	.2	5
88667	.1	5
88668	.1	5
88669	.2	5
88670	1.5	255
88671	.1	5
88672	.1	5
88673	.2	5
88674	.2	5
88675	.1	5
88676	.2	5
88677	.1	5
88678	.1	275
88679	.1	135
88680	.2	315
88681	.1	10
88682	8.1	5
88683	.1	5
STD C/AU 0.5	6.5	480

SAMPLE#	Ag ppm	Au* ppb
88684	1.8	75
88685	3.9	25
88686	.3	5
88687	.5	5
88688	.1	15
88689	.3	5
88690	.1	5
88691	.1	5
88692	.1	5
88693	.1	5
88694	.2	105
88695	2.5	85
88696	1.8	595
88697	.6	515
88698	.2	5
88699	.2	5
88700	.1	5
88904	.4	5
88905	2.1	5
88906	1.2	5
88907	.1	5
88908	.5	5
88909	.1	5
88910	.3	5
88911	1.4	5
88912	.6	25
88913	.2	5
88914	.2	5
88915	.1	5
88916	.1	5
88917	.1	15
88918	.4	10
88919	.1	15
88920	.1	5
88921	.1	5
88922	.3	20
88923	.4	15
STD C/AU 0.5	6.3	515

SAMPLE#	Ag ppm	Au* ppb
88924	2.5	140
88925	.4	90
88926	.2	5
88927	3.4	980
88928	4.8	950
88929	.1	5
88930	.3	5
88931	1.8	345

88944	.3	5
88945	.1	5
88946	.1	5
88947	.1	5
88948	.2	5
88948A	.2	5
88949	.1	5
88950	.1	5
BJ35	.1	5
8S 1+50E	.1	5
8S 2+50E	.1	5
8S 1+20W	.1	5
5S 7.5W	.1	5
8S 35E	.2	5
5S 550E	.1	5
8S 4E	.1	5
8S 5+25E	.1	5
STD C/AU 0.5	6.4	495

SAMPLE#	Ag ppm	Au* ppb
11S 0+00	.1	5
11S 1+50E	.2	5
11S 3+00E	.2	5
11S 5+50E	.2	5
11S 410E	.2	5
ELL ADLEA	.1	5
TTCLALMARE	.1	5
66S+100MN	.4	5
POTHOLE CU ZONE	1.9	2550



- LEGEND**
(Map units adapted from Preto, 1979)
- 8 Granite
 - 6 Syenite, monzonite
 - 5 Diorite
 - 5a Hornblende porphyry
 - 1a Andesites and basalts
 - 1c Andesitic - felsic breccia, red-maroon
 - 1d Andesitic-breccia, green
 - 1e Turfs, cherts
 - 1f Limestone, dark grey argillaceous, locally pyritic
 - 1g Siltstone, greywackes, minor conglomerates, cherts.

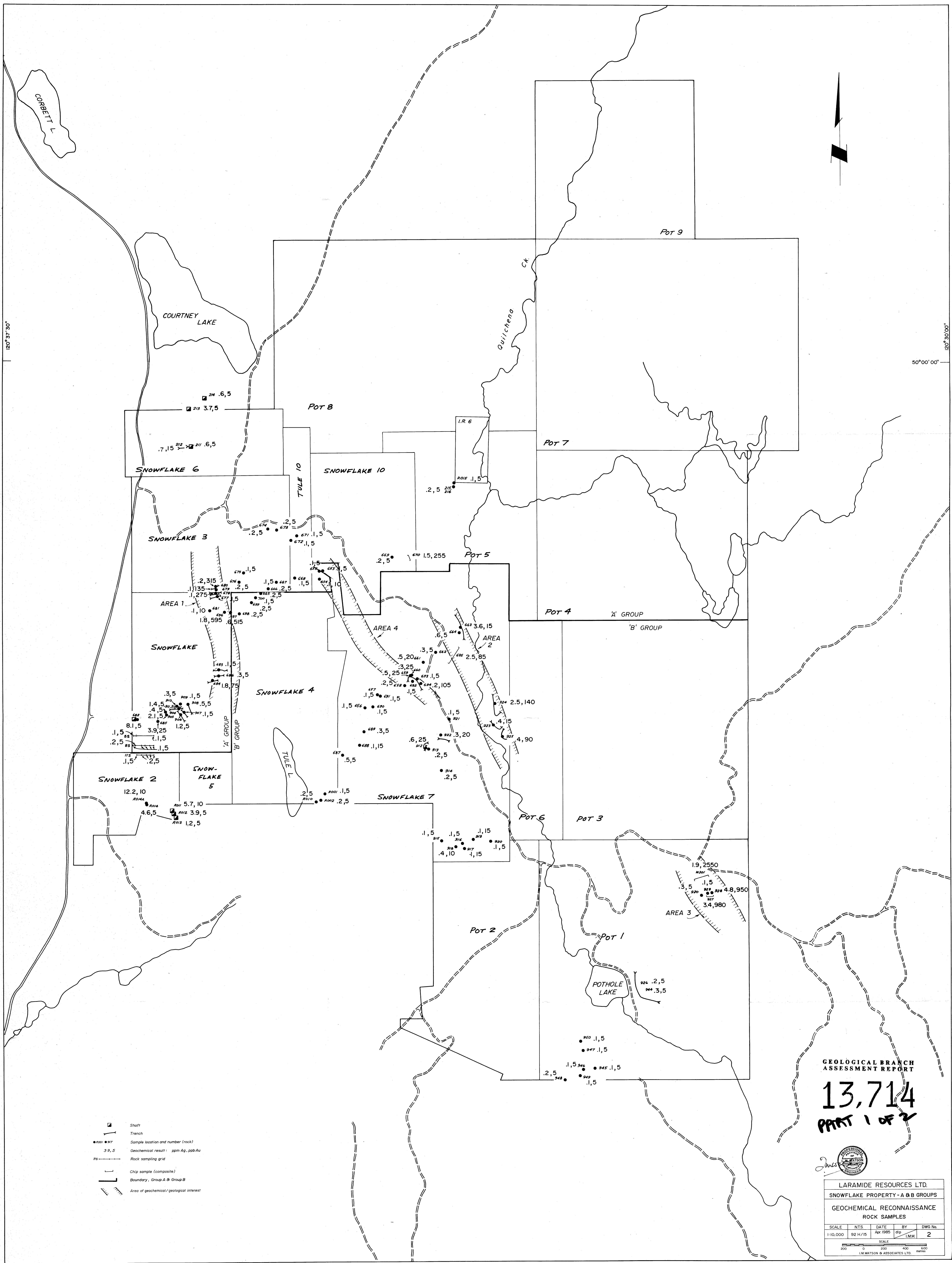
- Alteration:**
- ep epidote
 - hem hematite
 - qtz quartz
 - carb carbonate
- Mineral occurrence:**
- mal malachite
 - az azurite
 - ccp chalcocopyrite
 - cc chalcocite
 - py pyrite
- Rock geochemical sample site and reference number
- Area of geochemical/geological interest

- Geological contact, presumed
- Outcrop area
- - - Fault, presumed
- Bedding attitude
- Quartz vein
- Trench
- Shaft

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

13,714
PART 1 OF 2

LARAMIDE RESOURCES LTD.				
SNOWFLAKE PROPERTY - A & B GROUPS				
GEOLOGICAL RECONNAISSANCE				
SCALE	N.T.S.	DATE	BY	DWS No.
1:10,000	92 H/15	April 1985	ISP	1
SCALE 1:10,000				
L.M. WATSON & ASSOCIATES LTD.				

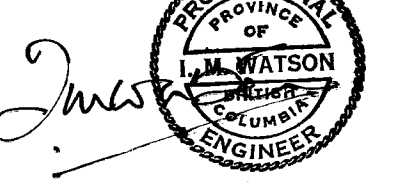


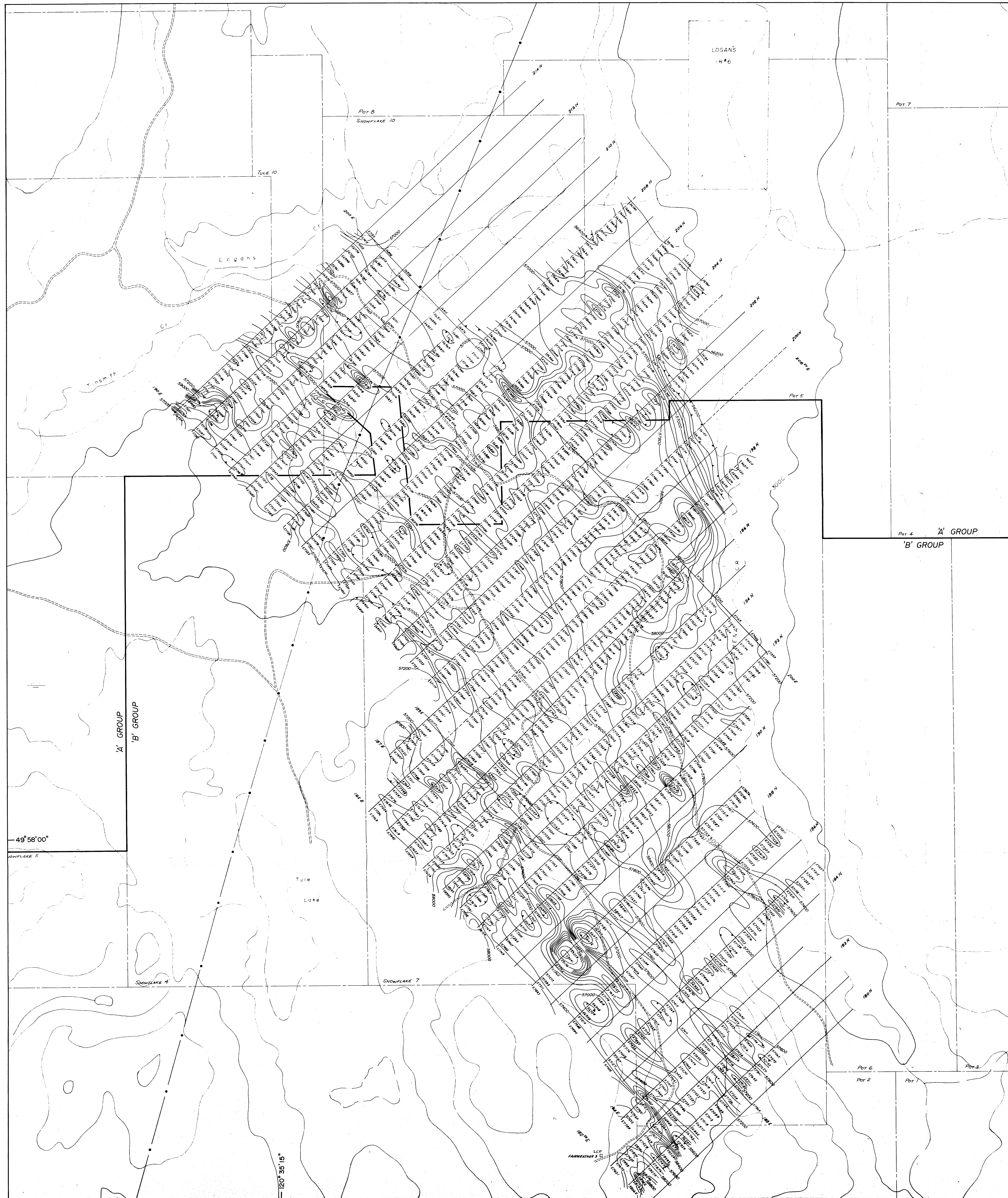
- Shaft
- Trench
- 317 Sample location and number (rock)
- 3, 5 Geochemical result: ppm Ag, ppb Au
- Rock sampling grid
- Chip sample (composite)
- Boundary, Group A & Group B
- Area of geochemical/geological interest

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

13,714

PART 1 OF 2

																							
LARAMIDE RESOURCES LTD. SNOWFLAKE PROPERTY - A & B GROUPS GEOCHEMICAL RECONNAISSANCE ROCK SAMPLES																							
SCALE	NTS	DATE	BY	DWG No.																			
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SCALE																							
0	200	400	600																				
F.M. WATSON & ASSOCIATES LTD.																							



-49° 58' 00"

'A' GROUP
'B' GROUP

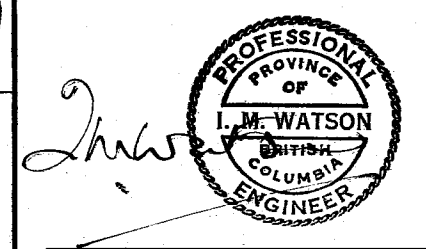
Part 4
'A' GROUP
'B' GROUP

— Boundary, 'A' Group & 'B' Group
 - - - Lines surveyed in 1984: 198N, 200N,
 203-206N, 208N

Instrument used
 Barringer Research Ltd. GM122
 portable proton magnetometer.
 Ser. no. 6375

**GEOLOGICAL BRANCH
 ASSESSMENT REPORT**

13,714
 PART 1 OF 2



LARAMIDE RESOURCES LTD.				
SNOWFLAKE PROPERTY - A & B GROUPS				
MAGNETOMETER SURVEY				
TOTAL VERTICAL FIELD				
SCALE	NTS	DATE	BY	DWG No.
1:5000	92 H/15	Apr 1985	dip I.M.W.	3
SCALE				
100 0 100 200 300 metres				
I.M. WATSON & ASSOCIATES LTD.				

See adjoining sheet for legend

See adjoining map for legend