

GEOLOGICAL AND GEOCHEMICAL REPORT

- on the -

SNOW CLAIMS

- for -

DENISON MINES LTD.,

Box 11575, 650 West Georgia Street,  
VANCOUVER, B. C. V6B 4N7.

Covering: Snow #100 (20 units); Snow #400 (20 units);  
Snow #200 (20 units); Snow Claim (2 units);  
Snow #300 (20 units);

Work Performed: July 7 to September 30, 1980.

Location: (1). 50°35.7' North Latitude.  
122°12.7' West Longitude.  
(2). NTS 92J/8E.  
(3). 34 km. S34°W. of Lillooet, B. C.

PREPARED BY:

KERR, DAWSON AND ASSOCIATES LTD.  
#1-219 Victoria Street,  
KAMLOOPS, B. C.

W. Gruenwald, B. Sc.,  
October 1, 1980.

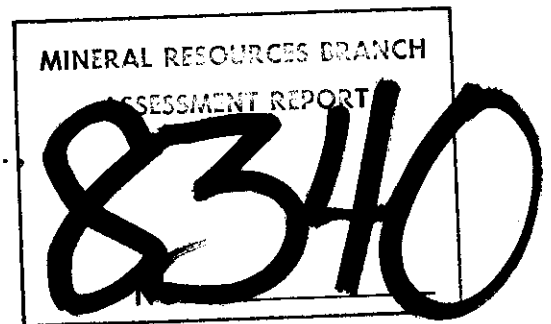


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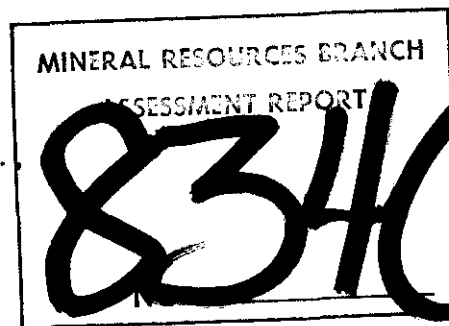


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## INTRODUCTION

During July, 1980, the writer and an assistant carried out a programme of geochemical sampling and geological mapping on the Snow claim group that at present is under option to Denison Mines Ltd. The property is situated in the Duffey Lake area of the Lillooet Mining Division, B. C.

The claim block covers part of a granitic pluton that locally is altered, rusty, and contains fractures, quartz veinlets and felsic dykes mineralized with molybdenum.

This report along with the appended maps, describes the results of the above surveys.

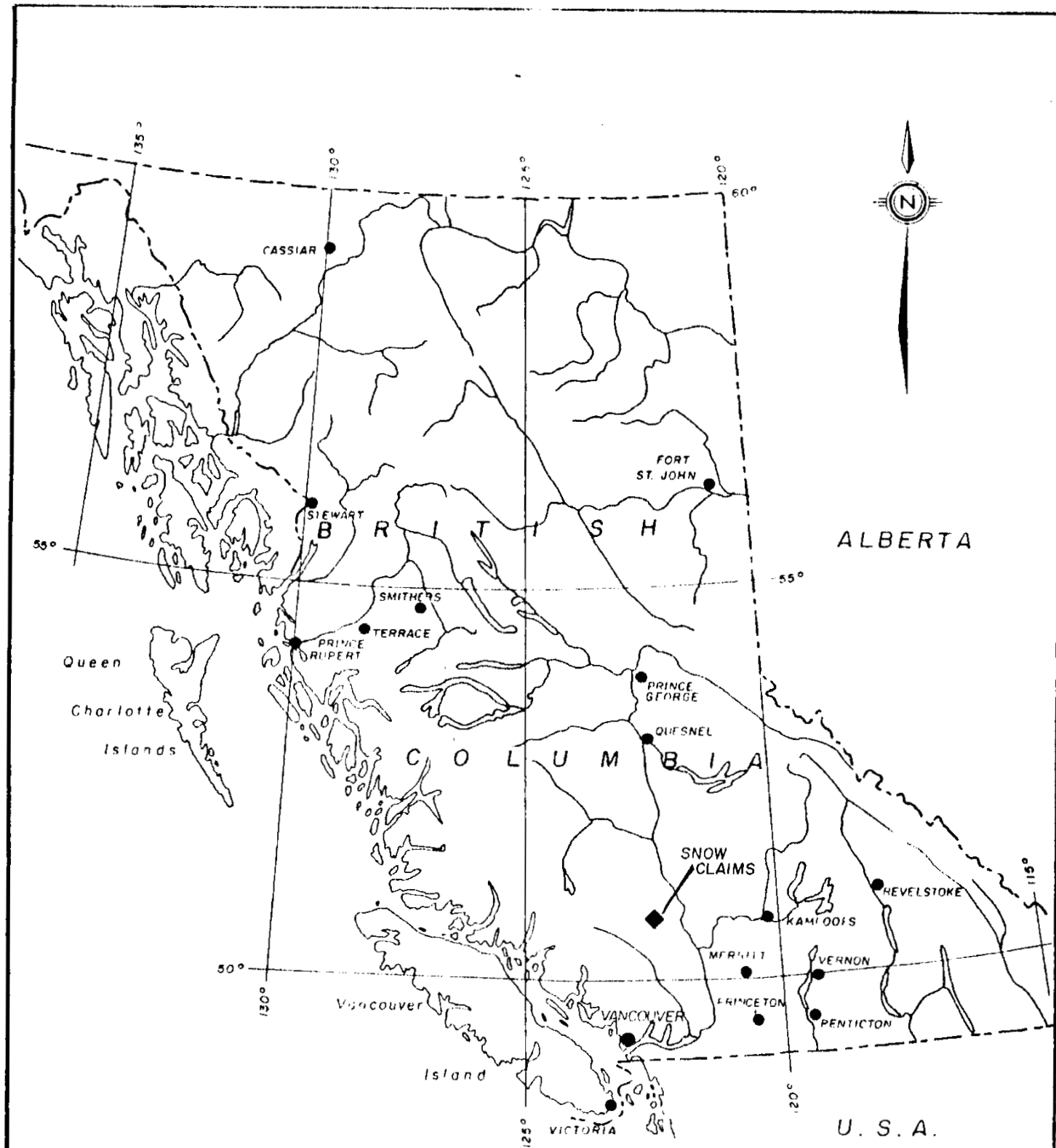
SUMMARY AND CONCLUSIONS

- (1). The Snow claim group is comprised of 5 modified grid claims totalling 82 units. The property is located approximately 34 km. southwest of Lillooet, B. C. and 4 km. east of Duffey Lake in the east flank of the Coast Mountains.
- (2). The first documented work in the area was in 1975 when Mr. Earl Cook staked a claim to cover molybdenite mineralization found in a granitic pluton of the Coast Range Intrusive complex.
- (3). Disseminated molybdenite is found in quartz + sericite veinlets, felsic (aplitic) dykes and on limonitic fractures in a variably altered granodiorite. The area of mineralized and/or rusty granodiorite, based on geological mapping and sampling is at least 300m x 500 m and spans a vertical distance of over 200 meters. Enlargement to the dimensions given are conceivable since moraine-talus debris and ice and snow are found at the periphery of the known mineralization. Numerous basic dykes were found on



the property and represent the most recent intrusive activity in the area. These dykes outlined a north-northwesterly trending "linear" that transects the main showing and may have played an important role in the localization of  $\text{MoS}_2$  mineralization.

- (4). Geochemical sampling of the mineralized zone indicated values in excess of 0.2% Mo. Possibly to definitely anomalous values were found over several areas of the property. A good majority of these "highs" correspond to the known "linear" structure and possibly to sub-parallel features. Copper mineralization though seen in the mineralized zone would not appear to be of any great significance at present. The geochemistry of copper over the property would seem to indicate this. Tungsten as well as the limited lead and silver geochemistry indicates that these metals are present in amounts too small and too scattered to be of any significance.

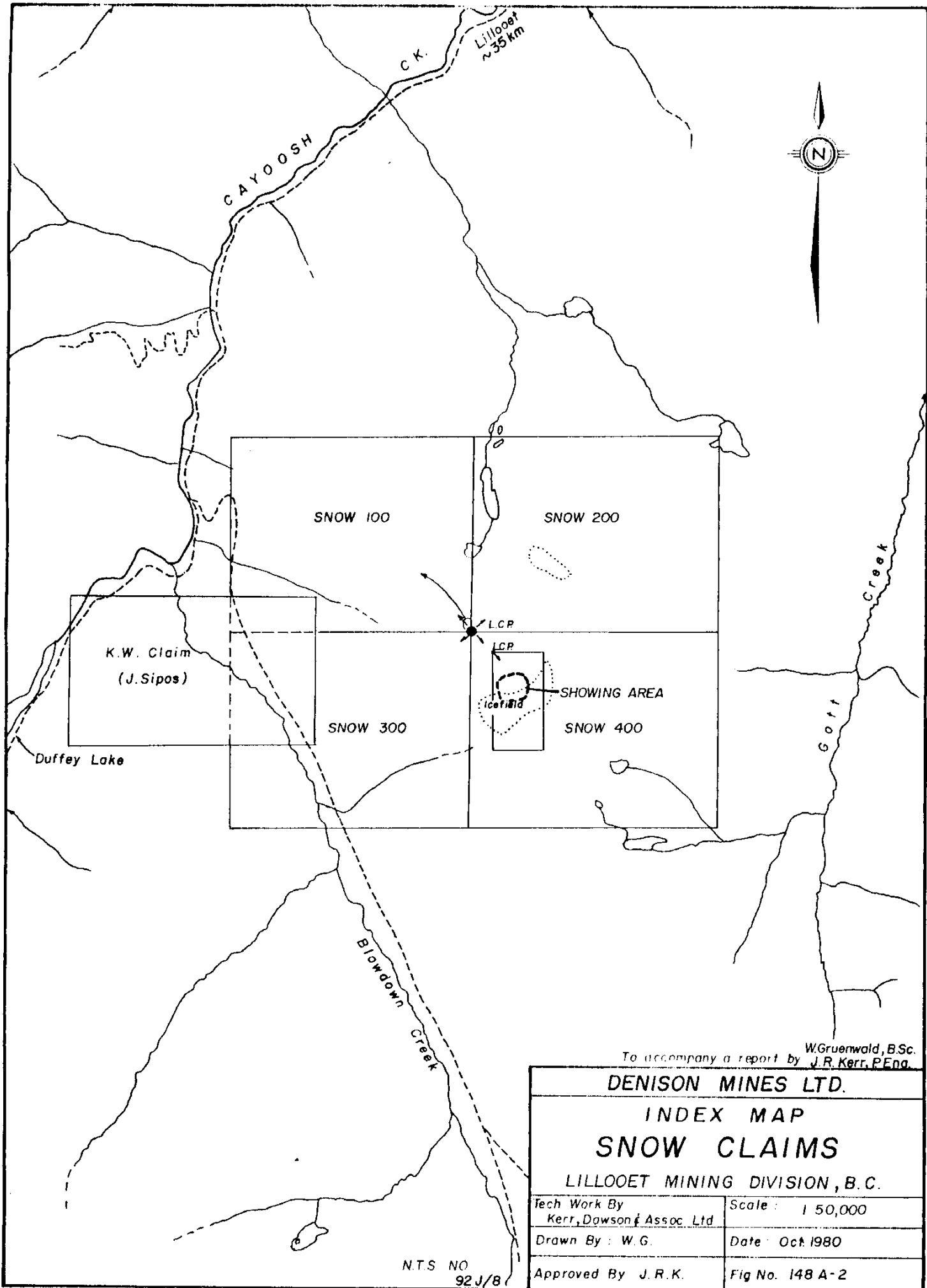


<b>DENISON MINES LTD.</b>	
LOCATION MAP	
<b>SNOW CLAIMS</b>	
LILLOOET MINING DIVISION, B.C.	
Technical Work by Kerr, Dawson & Assoc. Ltd.	Date : Oct., 1980.
Scale : 1cm = 87 km	Dwg No. 148-A-1

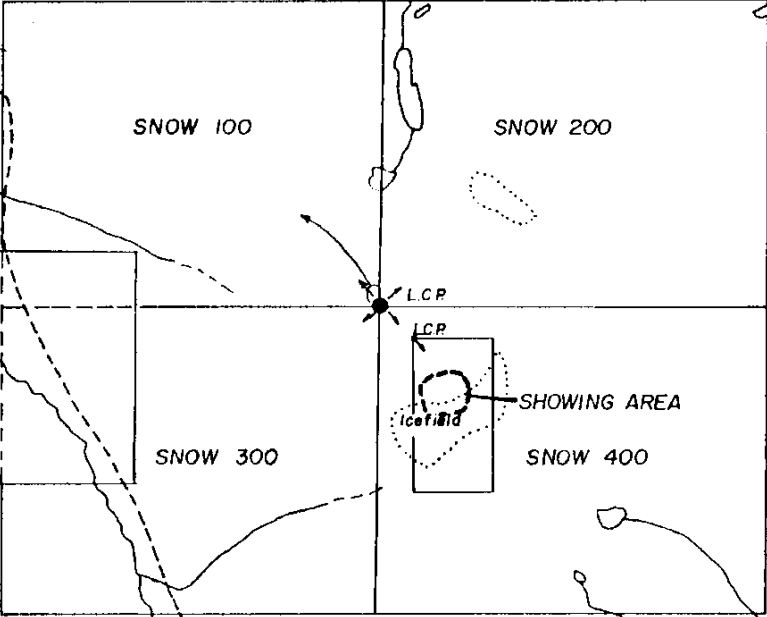
LOCATION AND ACCESS

The Snow claims are located at the headwaters of two small creeks approximately 4 kilometers east of Duffey Lake in the rugged east flank of the Coast Mountains. (See Figure #215 - 2,3). Geographic co-ordinates for the Legal Corner Post of the Snow Claims are  $50^{\circ}25.7'$  North latitude and  $122^{\circ}12.7'$  West longitude.

A recently logged area along the east flank of Cayoosh Creek is located within 4 kilometers of the Snow claims. Any road to the property would undoubtedly be built from this logged area.



K.W. Claim  
(J. Sipos)



To accompany a report by W. Gruenwald, B.Sc.  
J.R. Kerr, P. Eng.

<b>DENISON MINES LTD.</b>	
<b>INDEX MAP</b>	
<b>SNOW CLAIMS</b>	
<b>LILLOOET MINING DIVISION, B.C.</b>	
Tech Work By Kerr, Dawson & Assoc. Ltd.	Scale : 1 50,000
Drawn By : W.G.	Date : Oct. 1980
Approved By J.R.K.	Fig No. 148 A-2

N.T.S. NO  
92J/B

PROPERTY

The Snow claims consist of four 20 unit claims and one 2 unit claim all of which are contiguous. Claim details are as follows:

<u>Claim Name</u>	<u>Record No.</u>	<u>Expiry Date</u>
Snow claim	583	November, 1980
Snow #100 claim	1223	February 8, 1981
Snow #200 claim	1224	February 8, 1981
Snow #300 claim	1225	February 8, 1981
Snow #400 claim	1226	February 8, 1981

The registered owners of the above claims are Earl Cook of Lillooet, B. C. and Kerr-Dawson and Associates of Kamloops, B. C. All of the above claims are presently under option to Denison Mines Ltd. of Vancouver, B. C.

## HISTORY

The granitic plutons east of Cayoosh Creek are known to host several occurrences of molybdenite mineralization. Probably the oldest and most well known is the Index property located at the headwaters of Molybdenite Creek, a tributary of Texas Creek. The Index property, presently owned by Brican Resources consists of a small altered granitic stock locally containing "high grade" lenses of molybdenite. These "high grade" lenses have been subjected to very small scale mining operations over the past 50 years.

Another occurrence is the Spray Creek-Towinock Creek molybdenite showings that were discovered by Mr. W. A. Cook in 1966. The showings consist of finely disseminated  $\text{MoS}_2$  in quartz veinlets and fractures in a body of highly altered gneissic granodiorite.

A road cut on the Duffey Lake road approximately 4 miles northwest of the Snow claim showing contains  $\text{MoS}_2$  in quartz veins and fractures of thermally altered sediments.

The Snow claim showing has probably been known for at least 10-15 years, based on old claim posts and an old camp site found within the present claim block. The earliest documented prospecting of the showing was in 1975 by Mr. Earl Cook of Lillooet, B. C. who traced molybdenite float in morainal and talus material to the main mineralized zone presently under investigation. Limited geological mapping and sampling was carried out by John R. Kerr, P. Eng. in 1976 and 1978.

PHYSIOGRAPHY AND VEGETATION

The Snow claims are situated in the rugged east flank of the Coast Mountains immediately west of the Fraser River. The western half of the claim block generally slopes steeply to the southwest and west, toward the Cayoosh Creek drainage. The eastern portion (especially the northeast corner) is an extremely rugged area with slopes being primarily to the north and west.

The showing itself is found on a steep northerly facing slope, the upper reaches of which contain a small icefield, that represents the last remnant of an alpine glacier. The southeast corner of the claim block is by far the most gently sloped area within the claims. This relatively flat alpine area is part of the headwaters of Gott Creek.

Found in the middle of the claim block from the northern claim boundary to the Legal Corner Post are a series of seven small lakes. The northernmost and largest lakes are drained by a north to northwesterly flowing creek. The uppermost (southern) lakes as well as the icefield and snow melt-water drain into a creek that flows to the northwest.



The topographic relief over the entire claim block is approximately 5,000 feet or 1,500 meters, from the northwest corner of Snow #100 (3,700') to the highest peak in the Snow #200 claim (8,700'+). Relief in the MoS<sub>2</sub> showing area, however, is only in the order of 1,000 ft. (300 meters) between the 7,000' and 8,000' elevations.

Vegetation is generally scarce above the 6,500' (2,000 m) elevation and when found consists of alpine grasses, related ground cover and patches of stunted balsams. Below the 6,500' elevation, sub-alpine forests of spruce and balsam are quite common.

GEOLOGY

Regionally the Snow claims are situated in a transitional area between the Coast Range granitic complex and a northwest-southeast trending mass of Mesozoic sedimentary metasedimentary rocks along with lesser volcanic flows, and pyroclastics. This transitional area contains numerous (Mesozoic to early Tertiary) plutons comprised primarily of quartz diorite and granodiorite (G.S.C. mapping). It is one such pluton of quartz diorite that is host to the Snow claim molybdenite ( $\text{MoS}_2$ ) occurrence.

On a local scale, the Snow claim geology consists of at least four distinct rock types, some of which may be sub-divided.

The most abundant rock type (> 95% of property) on the claims by far is a grayish weathering, pale grey to whitish medium grained biotite quartz diorite(?). Locally the grain size may vary from fine to coarse grained. The quartz content of the intrusive is always greater than 10%; therefore, justifying the quartz rich classification. The mafic content of the rock is generally around 5% to 15% with biotite always being the dominant mafic mineral.

The feldspars are most often white (seldom buff to pink) and from approx. 60 to 70% of the rock. Plagioclase appears to form at most half of the feldspars. For these reasons, the writer would prefer to call the above rock type a granodiorite.

Alteration of the granodiorite appears to generally be absent except in the area of the  $\text{MoS}_2$  occurrence which will be discussed later in this report. Jointing of the intrusive is often well developed. Some of the more common joints strike  $140^\circ$  to  $165^\circ$  and dip from  $70^\circ$  to  $85^\circ$  easterly. A second fairly common set of joints strike from  $070^\circ$  to  $090^\circ$  and dip from  $15^\circ$  to  $35^\circ$  southerly (see figure #215 - 3). This latter joint set is very well developed in the cirque wall east of the main showing area where "sheets" of these joints can be observed on the cliff faces.

Another rock type found over much of the claim block is a basic, fine grained dark green-brown to black dyke rock. This rock type is found as numerous elongate narrow dykes that cut the granodiorite as well as felsic dykes and quartz veins, making this the youngest rock type on the property. These dykes are usually too fine grained to determine the mineralogy; however, it would appear

that the mafic content is quite high while quartz is probably quite subordinate. The dyke contacts are generally very sharp and some evidence of chill borders is usually seen. Dyke contacts can be very straight and sharp or highly irregular with blocks of dislodged granodiorite being surrounded by dyke material.

Dykes can vary in width from several centimeters to as wide as 2 or 3 meters, the average, however, is generally around a meter wide. Quite often these dykes are found in swarms of three or more parallel dykes, some of which have been traced for over 500 meters in length.

Almost without exception, these dykes have a strike that varies from  $140^{\circ}$  to  $165^{\circ}$ , with the vast majority striking  $160^{\circ}$  to  $165^{\circ}$ . Dips are almost always near vertical.

When observed on the geological plan (Figure #215-3), these dykes appear to suggest the presence of a large and strong north-northwest south-southeast trending structure that corresponds to known linears on air photographs of the area. These dykes and the "linear" transect the main mineralized zone and therefore may have a distinct impact in the interpretation of the genesis of the mineralization in the area.

Found scattered over much of the central area of the Snow claims are white to pinkish generally fine grained (aplitic) dykes. These dykes generally contain few if any mafic minerals and are invariably quartz rich (ie  $> 10\%$ ). Pink orthoclase feldspar and plagioclase form the bulk of this particular dyke rock. Locally these rocks are very coarse grained and may contain very small amounts of pyrite. The greatest abundance of such dykes is in the main mineralized zone where they occasionally contain minor amounts of disseminated molybdenite.

Since quartz veins, both barren and unmineralized cut these dykes it would appear that these dykes were emplaced soon after the granodiorite and very near the time of alteration and molybdenite mineralization in the main showing area.

These dykes vary from several centimeters to 30 cm in width, the average being under 15 cm. wide. No preferred attitude of these dykes was observed except possibly in the main mineralized zone where several attitudes indicated strikes from  $042^\circ$  to  $075^\circ$  and dips from  $40^\circ$  to  $70^\circ$  to the south.

The fourth and final rock type noted in the Snow claim area was observed on the north-south trending ridge, a short distance north of the northernmost claim boundary. Here the granodiorite is in contact with a dark gray to black, hornfelsic, medium grained biotite schist. This schist is part of the Bridge River group, a mid Triassic (or older) sequence of sedimentary rocks and their metamorphosed equivalents. The schistosity in this area strikes approximately  $075^{\circ}$  and dips  $80^{\circ}$  southerly. This rock is suspected about 1 km. to the east-southeast of here as possible roof pendants and xenoliths in the granodiorite.

Faulting was observed in several areas, all of which are east of the main north-northwesterly trending linear structure. Three of the known faults strike north to north-northwest while one strikes north-northeast. The two faults found northeast of the camp area dip  $35^{\circ}$  and  $75^{\circ}$  toward the east while the two large faults on the cirque wall east of the main showing dip  $30^{\circ}$  and  $50^{\circ}$  to the west. Displacement along these faults is thought to be minimal.

MINERALIZATION

The main showing ( $\text{MoS}_2$ ), covering an area of at least 150 m x 150 m is found at the foot of an icefield in the northwest corner of the Snow #400 claim. Surrounding the main showing on all sides is a large area of altered, rusty, fractured and variably mineralized biotite granodiorite. Based on the geochemical and geological evidence to date, this rusty, altered and minealized zone around the main showing area measures in excess of 500 x 300 meters and is found over a vertical distance of nearly 300 meters. The dimensions of this zone may be considerably larger since it is bounded to the southeast by the icefield and to the north and northwest by morainal and talus debris. It was in this large area of morainal and talus debris, that molybdenite float was first encountered by Mr. Earl Cook in 1975.

Molybdenite is found as small flakes and disseminations in and along the margins of quartz + sericite veinlets as well as on rusty fractures in the granodiorite. Occasionally molybdenite is found associated with some of the felsic (aplitic) dykes. In some areas, ferri - molybdite is found

especially where molybdenite is quite concentrated and weathered. Chalcopyrite though noted in several small quartz veins along with  $\text{MoS}_2$  (near SR-46) would appear to be of minor significance at present.

Pyrite is generally observed in the larger quartz veins as small crystals or patches and is undoubtedly the cause of all the limonitic staining found over the mineralized and/or altered zone.

Silicification in the form of quartz veinlets, veins and fracture linings is found throughout the main showing and surrounding area. These veins are often rusty due to the weathering of pyrite and often contain varying amounts of sericite, especially along their margins. The granodiorite surrounding the quartz veins is usually weakly hydrothermally altered with the plagioclase feldspars and mafic minerals being most affected.

Associated with some of the thicker and more highly mineralized quartz veins are large, often deformed plates of black biotite that is most likely a secondary biotite and a product of hydrothermal alteration.



The quartz veins in the mineralized zone area have many attitudes. Some of the most common attitudes have a strike from  $040^{\circ}$  to  $060^{\circ}$  and dip from  $25^{\circ}$  to  $60^{\circ}$  southerly.

The core of the mineralized zone (main showing area) is marked by the greatest density of quartz veins, mineralized and rusty fractures and felsic dykes and thus could be hypothesized as a possible mineralizing core from which  $\text{MoS}_2$  rich fluids emanated both laterally and vertically. This would seem to suggest that the "mineralized core" may extend to a considerable depth.

The major north-northwest trending linear mentioned previously appears to transect the mineralized zone as evidenced by the presence of basic dykes in the main showing area. This structure possibly combined with another yet unidentified structure(?) may have played a significant role in the formation of the mineralized zone. Therefore, any future work (ie drilling) and interpretation should take such information into account.

Molybdenite mineralization was found in quartz veinlets and occasionally on fractures in granodiorite outside

of the main zone (Figure #215-3); however, it appears to be too scattered to be of any economic significance at present. It is interesting to note, however, that the bulk of these small  $\text{MoS}_2$  occurrences (ie SR-1, 21, 25, 31, SS-8 areas) are found along or paralleling the major north-northwesterly trending linear structure already discussed. Subparallel and less significant linears (faults?) may be responsible for the few  $\text{MoS}_2$  occurrences in such areas as SR-6, 9, 19, and 34.

GEOCHEMISTRY

During July, 1980, the writer carried out geochemical sampling of rocks, stream sediments and soils over accessible portions of the Snow claims to better determine the extent of mineralization in the area. Compass bearings, air photos, and altimeter readings were used for sample location control. A total of 22 silts, 43 soil and 71 rock samples were collected.

All samples were placed in waterproof kraft envelopes and labelled with an appropriate code number. The samples were then shipped to Rossbacher Laboratories Ltd. in Burnaby, B. C. for analysis.

After drying the soil and silt samples were sieved to obtain an aliquot of -80 mesh material. Rock samples were crushed to -100 mesh size. All samples were analyzed for Molybdenum, Copper, and Tungsten. Rock samples SR-53 to 71 were analyzed in addition to the above for Lead as well while SR-57 to SR-59 were analyzed for silver as well. Analysis for the above elements were as follows:

	<u>Digestion</u>	<u>Method of Analysis</u>
Molybdenum Copper Lead Silver	A 0.5 gm sample is digested with dilute aqua regia.	Atomic Absorption
Tungsten	A 1.0 gm sample is fused with KCl, KNO <sub>3</sub> , & Na <sub>2</sub> CO <sub>3</sub> flux in a test tube, and leached with 10 m/s water. An aliquot is used to develop a complex with SnCl <sub>2</sub> , KSCN and HCl which is extracted by n-tributyl phosphate and carbon tetrachloride.	Colorimetric

The results for all of the above metals was stated in parts per million (PPM). A statistical analysis was done for each element in each category (ie silt, soil rock) and stated as follows:

#### SOILS

	<u>Molybdenum</u>	<u>Copper</u>	<u>Tungsten</u>
Mean ( $\bar{x}$ )	5.9 ppm	24.4 ppm	8.1 ppm
Standard Deviation(s)	7.6 ppm	15.6 ppm	7.7 ppm
Background	< 5.9 ppm	< 24.4 ppm	< 8.1 ppm
Possibly Anomalous	5.9-13.5 ppm	24.4-40 ppm	8.1-15.8 ppm
Probably Anomalous	13.6-21.1 ppm	41-57.6 ppm	15.9-23.5 ppm
Definitely Anomalous	> 21.1 ppm	> 57.6 ppm	> 23.5 ppm

#### SILTS

	<u>Molybdenum</u>	<u>Copper</u>	<u>Tungsten</u>
Mean ( $\bar{x}$ )	< 5.7 ppm	< 14.3 ppm	< 4.0 ppm
Standard Deviation(s)	8.0 ppm	11.1 ppm	6.2 ppm
Background	5.7 ppm	14.3 ppm	4.0 ppm
Possibly Anomalous	5.7-13.7 ppm	14.3-25.4 ppm	4.0-10.2 ppm
Probably Anomalous	13.8-17.7 ppm	25.5-36.5 ppm	10.3-16.4 ppm
Definitely Anomalous	> 17.7 ppm	> 36.5 ppm	> 16.4 ppm

	<u>ROCKS</u>		
	<u>Molybdenum</u>	<u>Copper</u>	<u>Tungsten</u>
Mean ( $\bar{x}$ )	5.9 ppm	9.5 ppm	4.7 ppm
Standard Deviation(s)	8.3 ppm	14.2 ppm	9.1 ppm
Background	< 5.9 ppm	< 9.5 ppm	< 4.7 ppm
Possibly Anomalous	5.9-14.2 ppm	9.5-23.7 ppm	4.7-13.8 ppm
Probably Anomalous	14.3-22.5 ppm	23.7-37.9 ppm	13.9-22.9 ppm
Definitely Anomalous	> 22.5 ppm	> 37.9 ppm	> 33.9 ppm

In these calculations, the extremely "high" values - especially molybdenum were omitted to avoid "unrealistically high" geochemical categories.

Molybdenum is by far the most geochemically active metal on the property with values ranging from 1 ppm (barren granodiorite) to 2,270 ppm in the rusty, altered, mineralized zone. (See figure #215-4). It is interesting to note that the mean values for molybdenum in soils silts, and rocks are very similar, implying that any one of these types of samples are accurate indicators of molybdenum concentration in a particular area. The few samples taken in the outlined mineralized zone almost without exception returned highly anomalous values.

The north-northwesterly trending linear and the immediately adjacent areas contain the bulk of the anomalous molybdenum values found outside of the mineralized zone.

The few anomalous values to the east of the main "linear" may reflect a subparallel linear as discussed in the geology section of this report. The perimeter of the sampled area returned only a few possibly anomalous molybdenum values which would seem to suggest that scattered small occurrences of  $\text{MoS}_2$  exist in these areas.

Copper seems to be slightly less active geochemically with values ranging from 2 ppm in barren granodiorite to a high of 130 ppm in an area of granodiorite that returned only a background value for molybdenum. There appears to be only a partial co-incidence between anomalous copper and molybdenum values and little or no coincidence with the north-northwesterly trending linear structure. This would seem to suggest that copper was next to absent in the mineralizing fluids that were active at the time that  $\text{MoS}_2$  was introduced.

Tungsten is the least active metal, geochemically speaking with values ranging from 2 ppm in barren granodiorite etc. to 60 ppm. The highest value was returned from a piece of rusty talus emanating from the cirque wall "gossan" east of the main showing area (Figure #215 - 3 & 6). Tungsten values in the  $\text{MoS}_2$  mineralized zone were entirely negative

and in the area of the linear structure were totally negative except for several possibly anomalous values (ie SS-5,6,7,8).

The bulk of the anomalous tungsten values are found in two distinct areas. One area is situated southeast to east-northeast of the campsite from sample numbers SSL-22 to SR-59 (See figure #215-6), where ten rock, two silt and four soil samples returned possibly to definitely anomalous values. This area is immediately east of the north-northwesterly trending linear and may reflect a sub-parallel linear structure and/or a slight variation in rock type. One sample of interest was SR-5 (assayed 25 ppm tungsten) which was taken from a basic dyke in granodiorite (~ 350 m ENE of camp). In general, the correspondence between tungsten, copper and molybdenum was poor.

The second area of possibly anomalous to definitely anomalous tungsten values was along the north-south trending ridge in the northeast corner of Snow #100. This area is near the granodiorite - biotite schist contact and thus the values may reflect very weak mineralization in a contact metamorphic environment. There was generally poor correspondence between tungsten and copper-molybdenum in this area as well.

In addition to molybdenum, copper and tungsten, analysis for lead was carried out on sample numbers SR-53 to SR-71 and silver was analyzed for in SR-57 to SR-59. No anomalous values for lead were encountered except for SR-67 which returned a value of 680 ppm lead. This sample was taken from a narrow, crumbly quartz vein (~40 cm) in granodiorite that probably contained minor galena mineralization.

Of the three samples assayed for silver, sample numbers SR-59 returned a value of 1.0 ppm which could be considered possibly anomalous. This sample came from a piece of rusty, siliceous gossan material on the cirque wall east of the main MoS<sub>2</sub> showing. It was this sample that yielded a value of 60 ppm tungsten, the highest encountered on the property to date.



RECOMMENDATIONS

Based on the information to date, the following is recommended:

- (1). Drill at least two or more "BQ" diamond drill holes to a minimum of 1000' each on the main showing.
- (2). Carry out further detailed mapping and sampling in the immediate area of the mineralized zone.

Respectfully Submitted By:

KERR, DAWSON AND ASSOCIATES LTD.,



*Werner Gruenwald*

Werner Gruenwald, B. Sc.,  
GEOLOGIST

KAMLOOPS, B. C.,

October 1, 1980.

APPENDIX A

GEOCHEMICAL RESULTS

# Rossbacher Laboratory

GEOCHEMICAL ANALYSTS & ASSAYERS

BURNABY, B. C.  
CANADA  
TELEPHONE: 299-6910

## CERTIFICATE OF ANALYSIS

TO: **HEER DAWSON & ASSOC. LTD**  
**219 VICTORIA ST.**  
**KIAMLOOPS, B.C.**

CERTIFICATE NO. **80374-1**  
INVOICE NO.  
DATE ANALYSED **AUG, 1980**  
PROJECT **W GRUENWALD**

No.	Sample	pH	Mo	Cu	W	*							No.
01	SSL 1		1	14	0								01
02	2		2	16	20								02
03	3		1	10	20								03
04	4		1	27	0								04
05	5		6	71	0								05
06	6		24	14	0								06
07	7		14	8	0								07
08	8		8	30	15								08
09	9		9	18	0								09
10	SSL 10		10	54	0								10
11	11		3	4	0								11
12	12		5	18	0								12
13	13		4	14	0								13
14	14		3	4	0								14
15	15		15	16	0								15
16	16		1	8	5								16
17	17		1	6	0								17
18	18		1	8	2								18
19	19		2	6	0								19
20	20		1	8	0								20
21	21		2	6	0								21
22	SSL 22		11	10	10								22
23	SS 1		1	24	20								23
24	2		1	20	20								24
25	3		4	8	0								25
26	4		4	30	0								26
27	5		19	24	10								27
28	6		22	12	15								28
29	7		3	44	10								29
30	8		4	60	10								30
31	SS 9		1	48	0								31
32	10		9	44	0								32
33	11		4	18	0								33
34	12		4	8	10								34
35	13		3	14	0								35
36	14		5	20	5								36
37	15		2	18	0								37
38	16		2	16	0								38
39	SS 17		8	10	0								39
40	GI 18		9	3	-								40

\* 0 = < 2 ppm W.

Certified by Rossbacher

# Rossbacher Laboratory

GEOCHEMICAL ANALYSTS & ASSAYERS

BURNABY, B. C.  
CANADA  
TELEPHONE: 299-6910

## CERTIFICATE OF ANALYSIS

TO: KERR, DAWSON & ASSOC LTD  
219 VICTORIA ST.  
KAMICOOPS, B.C.

CERTIFICATE NO. 80374-2  
INVOICE NO.  
DATE ANALYSED AUG, 1980  
PROJECT W. GRUENWALD

No.	Sample	pH	Mo	Cu	Wt, *							No.
01	SS 18		8	20	0							01
02	19		6	18	0							02
03	20		14	16	0							03
04	21		8	40								04
05	22		11	36	20							05
06	23		12	70	0							06
07	24		42	18	0							07
08	25		6	8	20							08
09	26		13	12	10							09
10	SS 27		14	6	0							10
11	28		1	10	15							11
12	29		1	8	10							12
13	30		1	10	0							13
14	31		1	4	5							14
15	32		3	20	20							15
16	33		3	20	15							16
17	34		2	20	10							17
18	35		1	10	0							18
19	36		2	22	20							19
20	SS 37		1	22	20							20
21	38		1	22	5							21
22	39		1	20	10							22
23	40		2	64	15							23
24	41		1	66	25							24
25	42		1	22	0							25
26	SS 43		3	22	10							26
27	SR 1		540*	12	0							27
28	2		2	2	15							28
29	3		2	2	0							29
30	4		1	4	0							30
31	5		1	58	25							31
32	6		142*	6	2							32
33	7		4	6	15							33
34	8		3	2	2							34
35	9		21	6	2							35
36	10		1	6	0							36
37	11		1	40	0							37
38	12		3	22	0							38
39	SR 13		1	4	0							39
40	G.I. 14		6	40	-							40

\* 0 = < 2 PPM W

Certified by

*Rossbacher*

# Rossbacher Laboratory

GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S. SPRINGER AVE.,  
 BURNABY, B. C.  
 CANADA  
 TELEPHONE: 299-6910

## CERTIFICATE OF ANALYSIS

TO: KERR-DAWSON & ASSOC. LTD.  
 219 VICTORIA STREET,  
 KAMLOOPS, B.C.

CERTIFICATE NO. 80374-3  
 INVOICE NO.  
 DATE ANALYSED AUG. 1980  
 PROJECT W. GRUENWALD

No.	Sample	pH	Mo	Cu	W						No.
01	SR 14		6	6	0						01
02	15		2	2	0						02
03	16		3	2	0						03
04	17		3	4	0						04
05	18		2	4	0						05
06	19		125*	2	0						06
07	20		3	2	0						07
08	21		34	6	0						08
09	22		1	2	0						09
10	SR 23		4	6	0						10
11	24		10	2	0						11
12	25		1620*	4	0						12
13	26		13	2	0						13
14	27		13	2	0						14
15	28		7	2	0						15
16	29		2	4	0						16
17	30		26	20	0						17
18	31		10	2	0						18
19	32		2	4	0						19
20	SR 33		7	2	0						20
21	34		12	14	0						21
22	35		1	130*	0						22
23	36		1	16	20						23
24	37		3	2	0						24
25	38		2	2	0						25
26	39		1	10	0						26
27	40		2	6	0						27
28	41		1	2	10						28
29	42		1	2	0						29
30	SR 43		1	4	0						30
31	44		94*	42	0						31
32	45		3	2	0						32
33	46		2270*	40	0						33
34	47		40	4	0						34
35	48		1660*	6	0						35
36	49		32	2	0						36
37	50		5	4	0						37
38	51		7	6	15						38
39	SR 52		4	2	15						39
40	GI		6	40	-						40

Certified by J. Rossbacher

# Rossbacher Laboratory

GEOCHEMICAL ANALYSTS & ASSAYERS

2275 S SPRINGER AVE.,  
 BURNABY, B. C.  
 CANADA  
 TELEPHONE: 299-6910  
 AREA CODE: 604  
 CERTIFICATE NO. 80374-1

## CERTIFICATE OF ANALYSIS

TO: KERR. DAWSON & ASSOC. LTD  
 219 VICTORIA STREET  
 KAMLOOPS, B.C.

INVOICE NO. \_\_\_\_\_  
 DATE ANALYSED AUG, 1980  
 PROJECT W. GRUENWILD

No.	Sample	pH	Mo	Cu	Ag	Pb	W					No.
01	SR 53		2	10		48	2					01
02	SR 54		1	2		6	2					02
03	SR 55		1	2		22	2					03
04	SR 56		2	2		10	8					04
05	SR 57		2	2	0.4	22	8					05
06	SR 58		1	2	0.2	16	5					06
07	SR 59		2	4	1.0	30	60					07
08	SR 60		192	2		8	5					08
09	SR 61		6	2		8	0					09
10	SR 62		1420	54		8	2					10
11	SR 63		16	6		4	2					11
12	SR 64		8	1		12	2					12
13	SR 65		9	4		4	0					13
14	SR 66		4	8		4	8					14
15	SR 67		3	32		680	12					15
16	SR 68		3	68		12	8					16
17	SR 69		3	4		6	5					17
18	SR 70		2	10		2	2					18
19	SR 71		4	26		4	2					19
20												20
21												21
22												22
23												23
24												24
25												25
26												26
27												27
28												28
29												29
30												30
31												31
32												32
33												33
34												34
35												35
36												36
37												37
38												38
39												39
40												40

*R. Rossbacher*

APPENDIX B

PERSONNEL

PERSONNEL

FIELD:

J. R. Kerr, P. Eng.	Geologist	July 7, 8, 1980	- 2 days
W. Gruenwald, B. Sc.	Geologist	July 9-17, 1980	- 8 1/2 days
B. Linger	Assistant	July 9-16, 1980	- 8 1/2 days

OFFICE:

J. R. Kerr, P. Eng.	Geologist	Aug. 2,6,18,21, Sept. 25,26, 1980	- 3 1/2 days
W. Gruenwald, B. Sc.	Geologist	May 12, 13, Aug. 2,13, Sept. 5,15,18-20, Sept. 22-26, 29, Sept. 30, 1980.	- 11 days



APPENDIX C

STATEMENT OF EXPENDITURES

STATEMENT OF EXPENDITURES

(1). LABOUR:

J. R. Kerr, P. Eng., Geologist, 5 1/2 days @ \$200.00/day . . . . .	\$ 1,100.00	
W. Gruenwald, B. Sc., Geologist, 19 1/2 days @ \$150.00/day . . . . .	2,925.00	
B. Linger, Assistant, 8 1/2 days @ \$110.00/day . . . . .	<u>935.00</u>	\$ 4,960.00

(2). EXPENSES AND DISBURSEMENTS:

(a). Geochemical Analyses . . . . .	\$ 879.75	
(b). *Prorated programme Preparation Charges . . . . .	1,500.00	
(c). Helicopter Transportation . . . . .	3,468.42	
(d). Truck Rental: 10 days @ \$30.00/day \$300.00 630 mi. @ 30¢/mi. <u>189.00</u>	489.00	
(e). Camp Rental. . . . .	250.00	
(f). Groceries and Supplies (Field Camp) . . . . .	232.58	
(g). Equipment Rental 10 days @ \$12.00/day . . . . .	120.00	
(h). Map enlargements, printing, xeroxing, misc. supplies, secretarial, telephone . . . . .	<u>194.50</u>	<u>7,134.25</u>

TOTAL HEREIN . . . . . \$12,094.25

APPENDIX D

REFERENCES



APPENDIX E

WRITER'S CERTIFICATE

CERTIFICATE

I, WERNER GRUENWALD, OF KAMLOOPS, BRITISH COLUMBIA,  
DO HEREBY CERTIFY THAT:

- (1). I am a geologist residing at 45 West Battle Street, Kamloops, British Columbia, and employed by Kerr, Dawson and Associates Ltd. of Suite #1 - 219 Victoria Street, Kamloops, B. C.
- (2). I am a graduate of the University of British Columbia, B. Sc. (1972), and a fellow of the Geological Association of Canada. I have practised my profession for 8 1/2 years.
- (3). I am the author of this report which describes the results of a geological and geochemical exploration programme carried out by myself under the supervision of John R. Kerr, P. Eng., on the Snow claims, Lillooet Mining Division, British Columbia.

KERR, DAWSON AND ASSOCIATES LTD.,



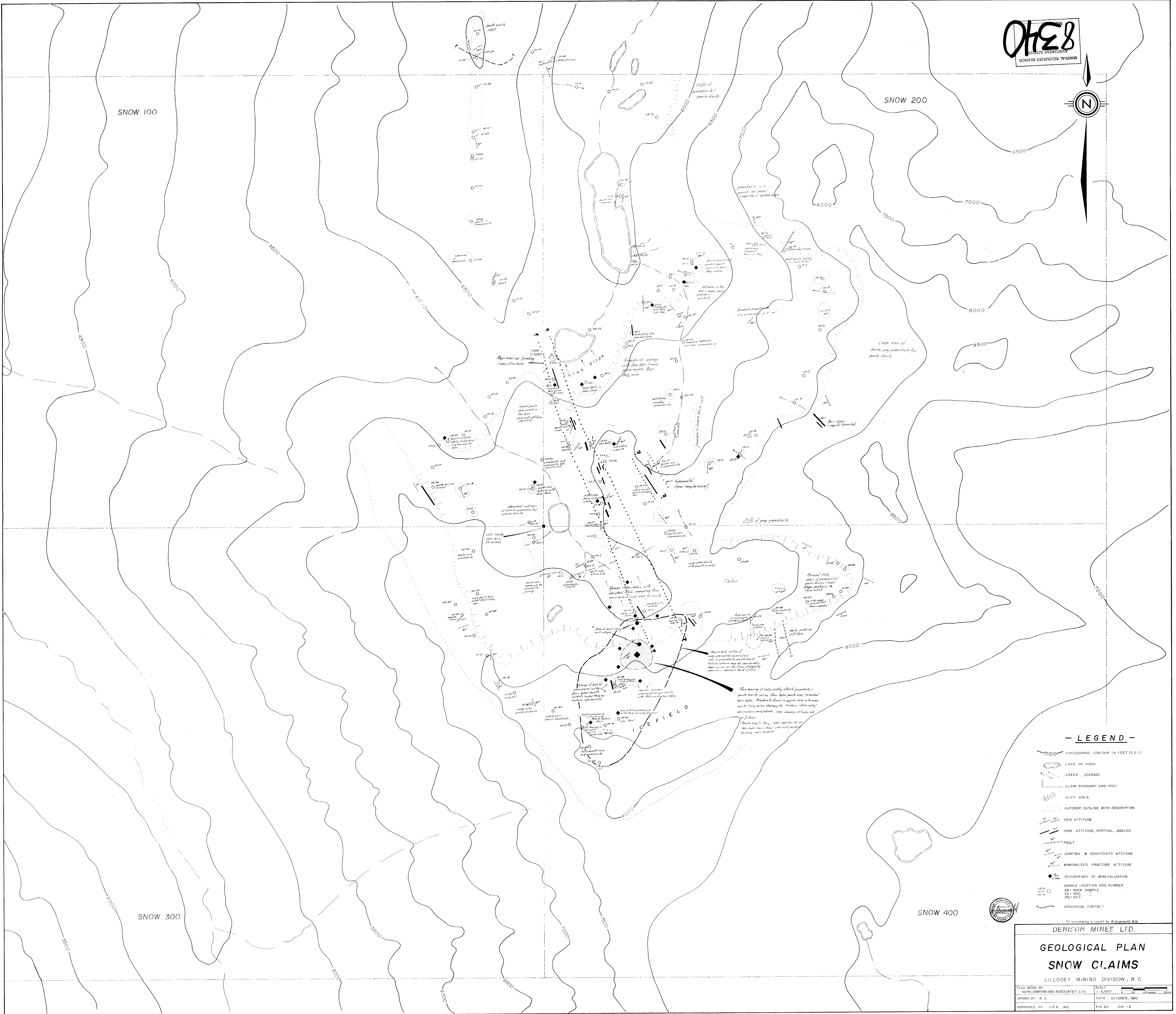
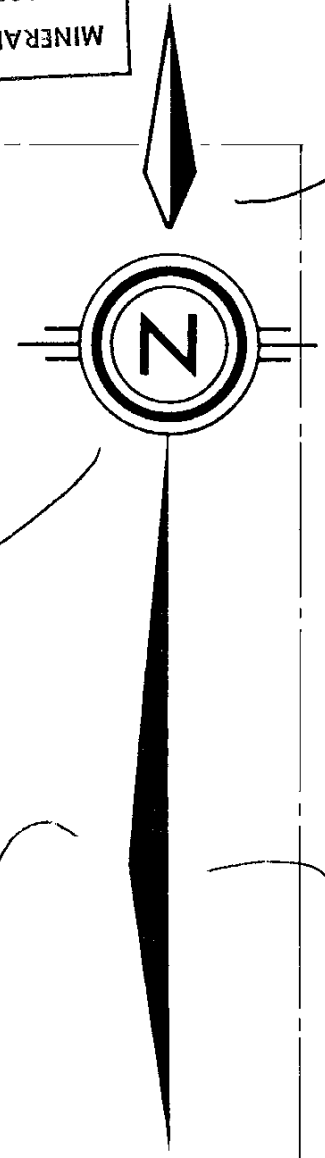
*W. Gruenwald,*  
\_\_\_\_\_  
W. Gruenwald, B. Sc.,  
GEOLOGIST

October 1, 1980,  
KAMLOOPS, B. C.

APPENDIX F

MAPS

8310  
MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT



**— LEGEND —**

- 7000 TOPOGRAPHIC CONTOUR IN FEET (A.S.L.)
- LAKE OR POND
- CREEK / SEEPAGE
- CLAIM BOUNDARY AND POST
- CLIFF AREA
- OUTCROP OUTLINE WITH DESCRIPTION
- VEIN ATTITUDE
- DYKE ATTITUDE, VERTICAL, ANGLED
- FAULT
- JOINTING & SCHISTOSITY ATTITUDE
- MINERALIZED FRACTURE ATTITUDE
- OCCURRENCE OF MINERALIZATION
- SAMPLE LOCATION AND NUMBER
- SR1 ROCK SAMPLE
- SS1 SOIL
- SL1 SILT
- GEOLOGICAL CONTACT



To accompany a report by W. G. Gwynne, B.Sc.

**DEMISON MINES LTD.**

**GEOLOGICAL PLAN**

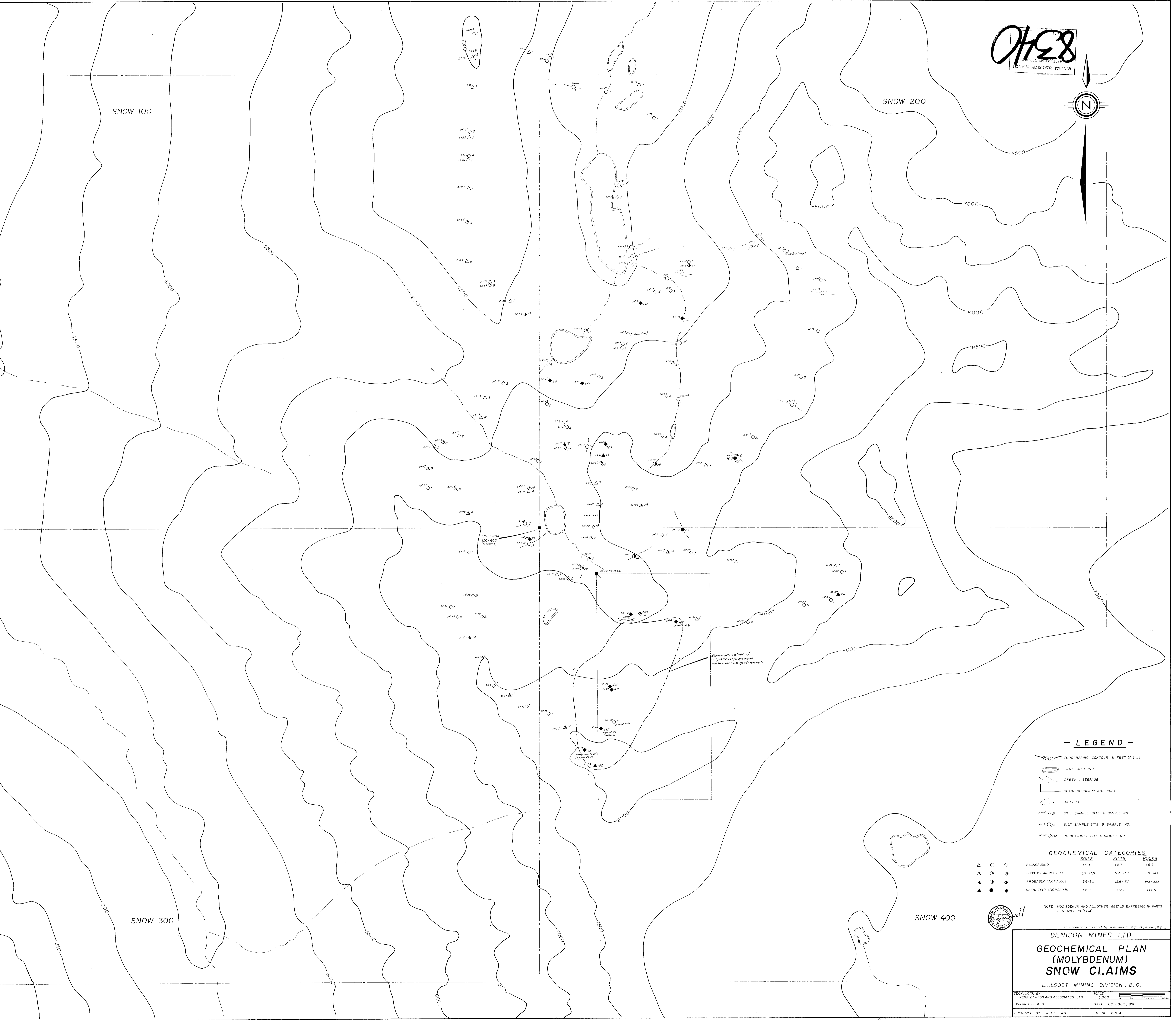
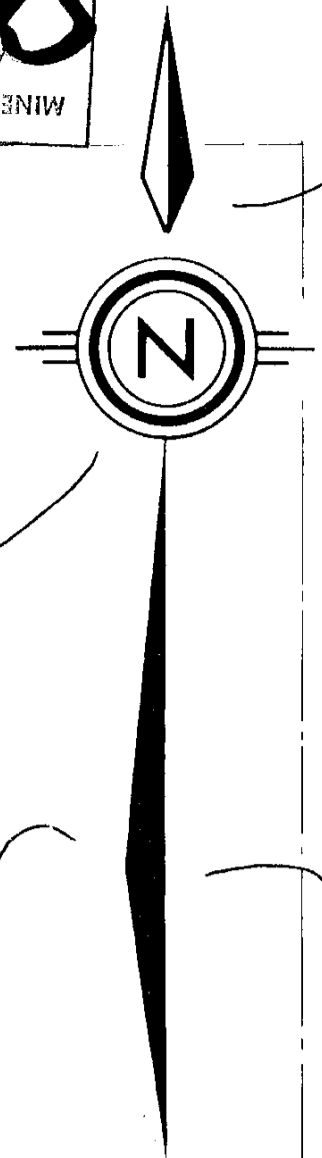
**SNOW CLAIMS**

LILLOOET MINING DIVISION, B. C.

TECH. WORK BY: ALAN DAMEN AND ASSOCIATES LTD.	SCALE: 1:5,000
DRAWN BY: W. G.	DATE: OCTOBER, 1980
APPROVED BY: J. R. K., M.D.	FIG. NO. 215-3



8348  
MINERAL RESOURCES DIVISION  
RESEARCH REPORT



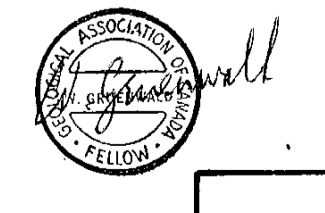
**- LEGEND -**

- TOPOGRAPHIC CONTOUR IN FEET (A.S.L.)
- LAKE OR POND
- CREEK, SEEPAGE
- CLAIM BOUNDARY AND POST
- ICEFIELD
- SOIL SAMPLE SITE & SAMPLE NO.
- SILT SAMPLE SITE & SAMPLE NO.
- ROCK SAMPLE SITE & SAMPLE NO.

**GEOCHEMICAL CATEGORIES**

	SOILS	SILTS	ROCKS
BACKGROUND	<5.9	<5.7	<5.9
POSSIBLY ANOMALOUS	5.9-13.5	5.7-13.7	5.9-14.2
PROBABLY ANOMALOUS	13.6-21.1	13.8-17.7	14.3-22.5
DEFINITELY ANOMALOUS	>21.1	>17.7	>22.5

NOTE: MOLYBDENUM AND ALL OTHER METALS EXPRESSED IN PARTS PER MILLION (PPM)



To accompany a report by W. G. Gorman, B.Sc. & J.R. Kerr, C.Eng.

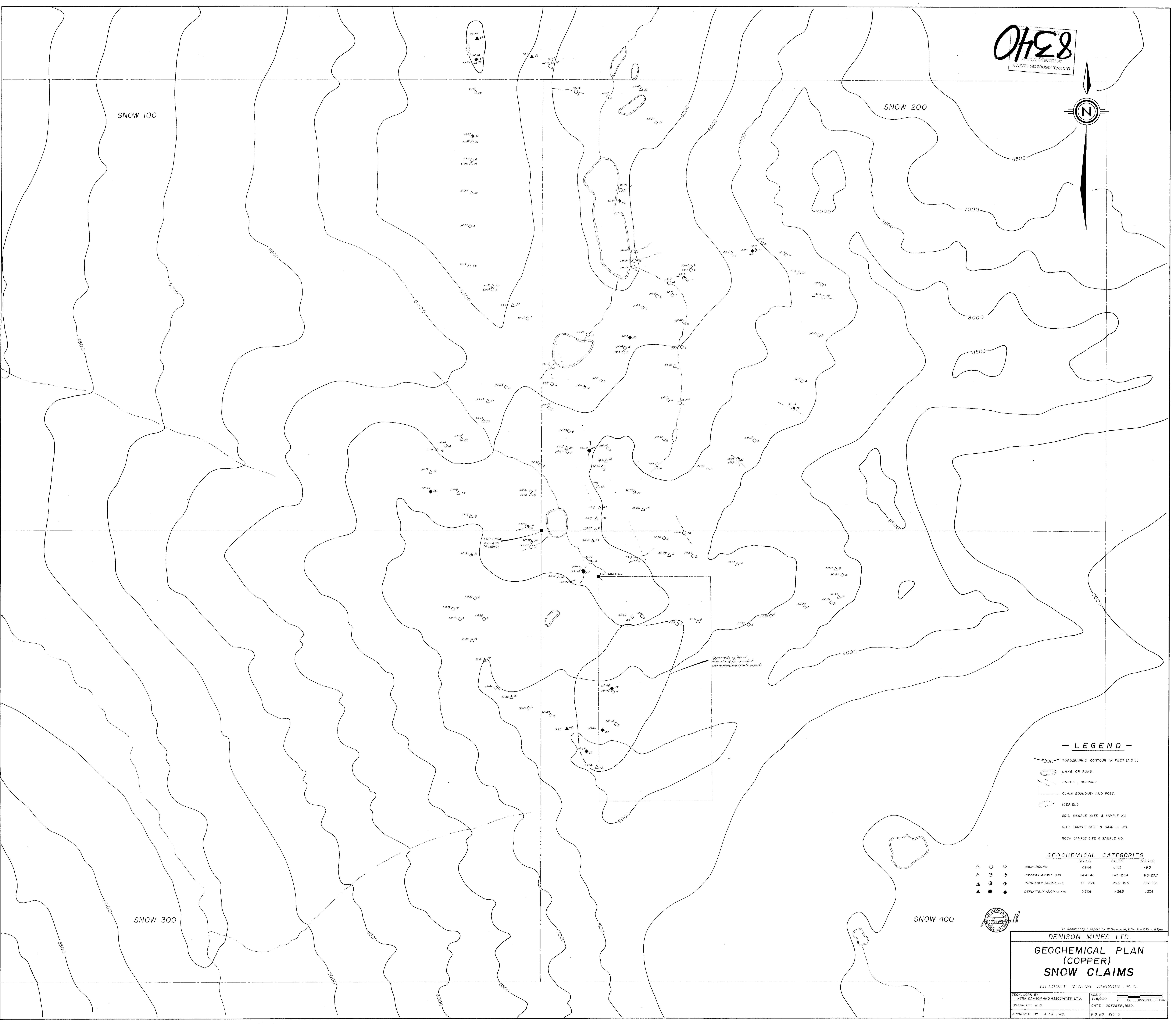
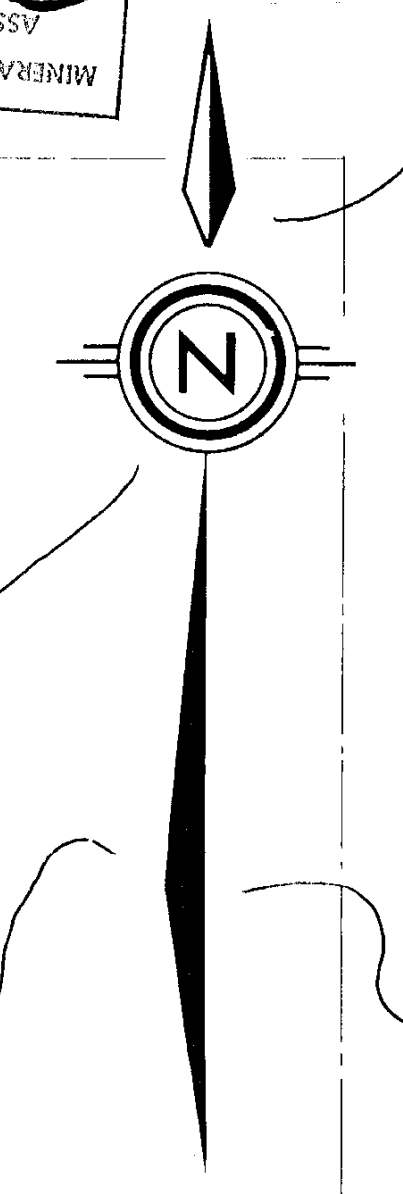
**DENISON MINES LTD.**

**GEOCHEMICAL PLAN  
(MOLYBDENUM)  
SNOW CLAIMS**

LILLOET MINING DIVISION, B. C.

TECH. WORK BY: KLEIN, DAWSON AND ASSOCIATES LTD.	SCALE: 1:5,000
DRAWN BY: W. G.	DATE: OCTOBER, 1980
APPROVED BY: J.R.K., W.G.	FIG. NO. 215-4

0458  
MINERAL RESOURCES EXPLORATION



**- LEGEND -**

- 7000 TOPOGRAPHIC CONTOUR IN FEET (AS L)
- LAKE OR POND
- CREEK, SEEPAGE
- CLAIM BOUNDARY AND POST
- ICEFIELD
- SOIL SAMPLE SITE & SAMPLE NO.
- SILT SAMPLE SITE & SAMPLE NO.
- ROCK SAMPLE SITE & SAMPLE NO.

**GEOCHEMICAL CATEGORIES**

	SOILS	SILTS	ROCKS
	BACKGROUND	< 244	< 43
	POSSIBLY ANOMALOUS	244 - 40	43 - 254
	PROBABLY ANOMALOUS	41 - 576	255 - 305
	DEFINITELY ANOMALOUS	> 576	> 305



To accompany a report by W. Gramstad, B.Sc. & J. J. Kerr, B.Eng.

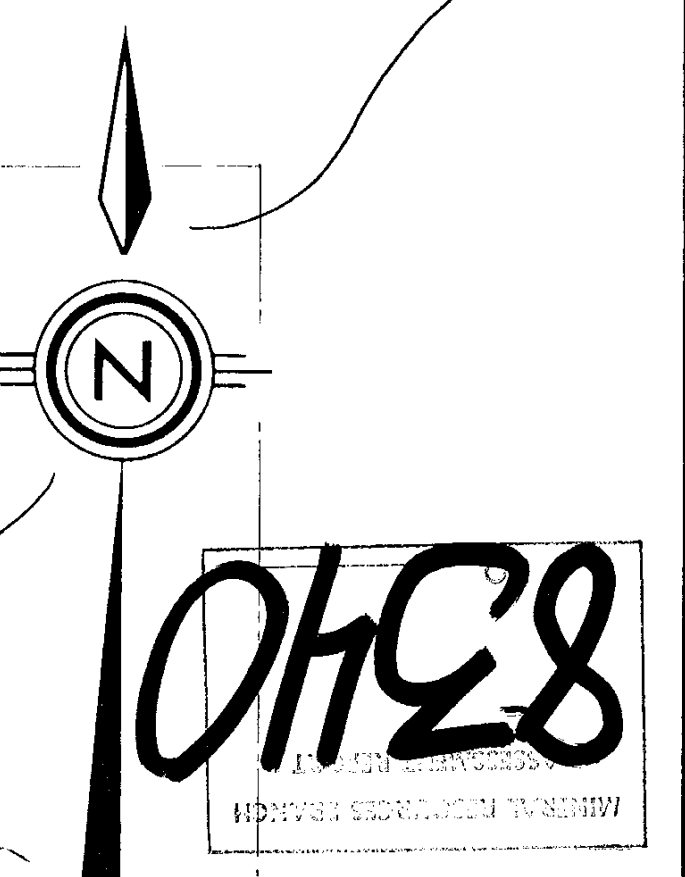
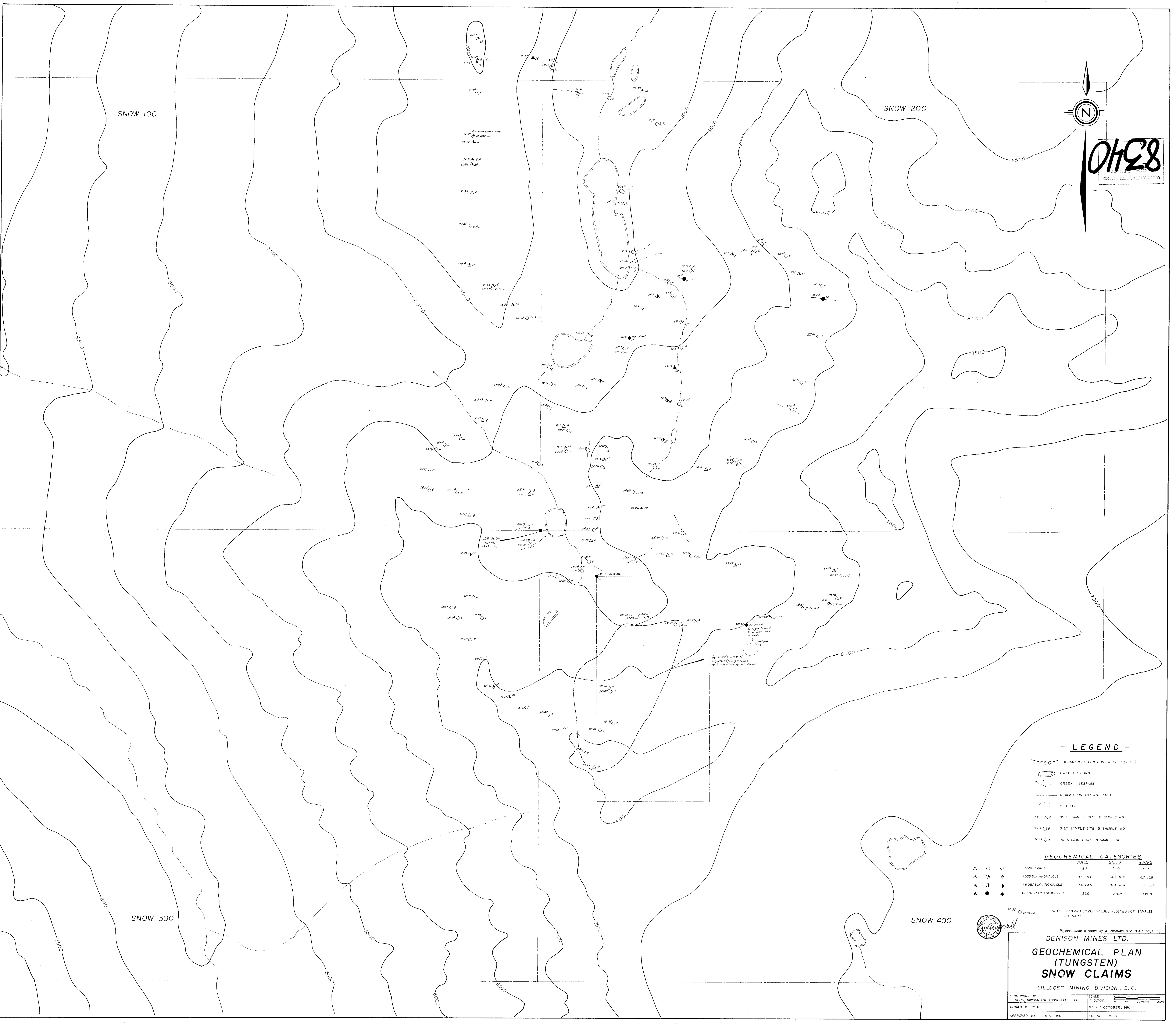
**DENISON MINES LTD.**

**GEOCHEMICAL PLAN (COPPER)**

**SNOW CLAIMS**

LILLOEET MINING DIVISION, B.C.

TEST WORK BY: NERRY, DANSON AND ASSOCIATES LTD.	SCALE: 1:5,000
DRAWN BY: W. G.	DATE: OCTOBER, 1990
APPROVED BY: J.R.K., M.G.	FIG. NO. 218-5



**- LEGEND -**

- 7000 TOPOGRAPHIC CONTOUR IN FEET (A.S.L.)
- LAKE OR POND
- CREEK, SEEPAGE
- CLAIM BOUNDARY AND POST
- 1/2-ACRE FIELD
- SOIL SAMPLE SITE & SAMPLE NO.
- SILT SAMPLE SITE & SAMPLE NO.
- ROCK SAMPLE SITE & SAMPLE NO.

**GEOCHEMICAL CATEGORIES**

	SOILS	SILTS	ROCKS
△ ○ ◇	BACKGROUND	< 8.1	< 4.0
△ ○ ◇	POSSIBLY ANOMALOUS	8.1 - 15.8	4.0 - 10.2
△ ○ ◇	PROBABLY ANOMALOUS	15.9 - 25.5	10.3 - 16.4
△ ○ ◇	DEFINITELY ANOMALOUS	> 25.5	> 16.4

NOTE: LEAD AND SILVER VALUES PLOTTED FOR SAMPLES SR-53-71



To accompany a report by W. Spence, B.Sc. & J.R. Kerr, P.Eng.

**DENISON MINES LTD.**

**GEOCHEMICAL PLAN (TUNGSTEN) SNOW CLAIMS**

LILLOOET MINING DIVISION, B.C.

TECH. WORK BY: KENNEDY AND ASSOCIATES LTD.	SCALE: 1:5,000
DRAWN BY: W.G.	DATE: OCTOBER, 1980.
APPROVED BY: J.R.K., W.G.	FIG. NO. 215-6