

GEOLOGICAL REPORT

- on the -

JOSEE #2 CLAIM
NICOLA MINING DIVISION
BRITISH COLUMBIA

- for -

JOSEPH M. MURPHY
1119 LYNN VALLEY ROAD
NORTH VANCOUVER, B.C. V7J 2A1

Covering: Josee #2 (20 units)

Work Performed: May 28 to June 8, 1984.

Location: (1) $49^{\circ} 50'N$, $120^{\circ} 34'W$
(2) NTS Map 92H/15E
(3) 2 km. north of Missezula Lake

Prepared by:

KERR, DAWSON & ASSOCIATES LTD.,
#210 - 310 NICOLA STREET,
KAMLOOPS, B.C. V2C 2P5

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

* * * * *

D.A. Leishman, B. Sc.,

12,351

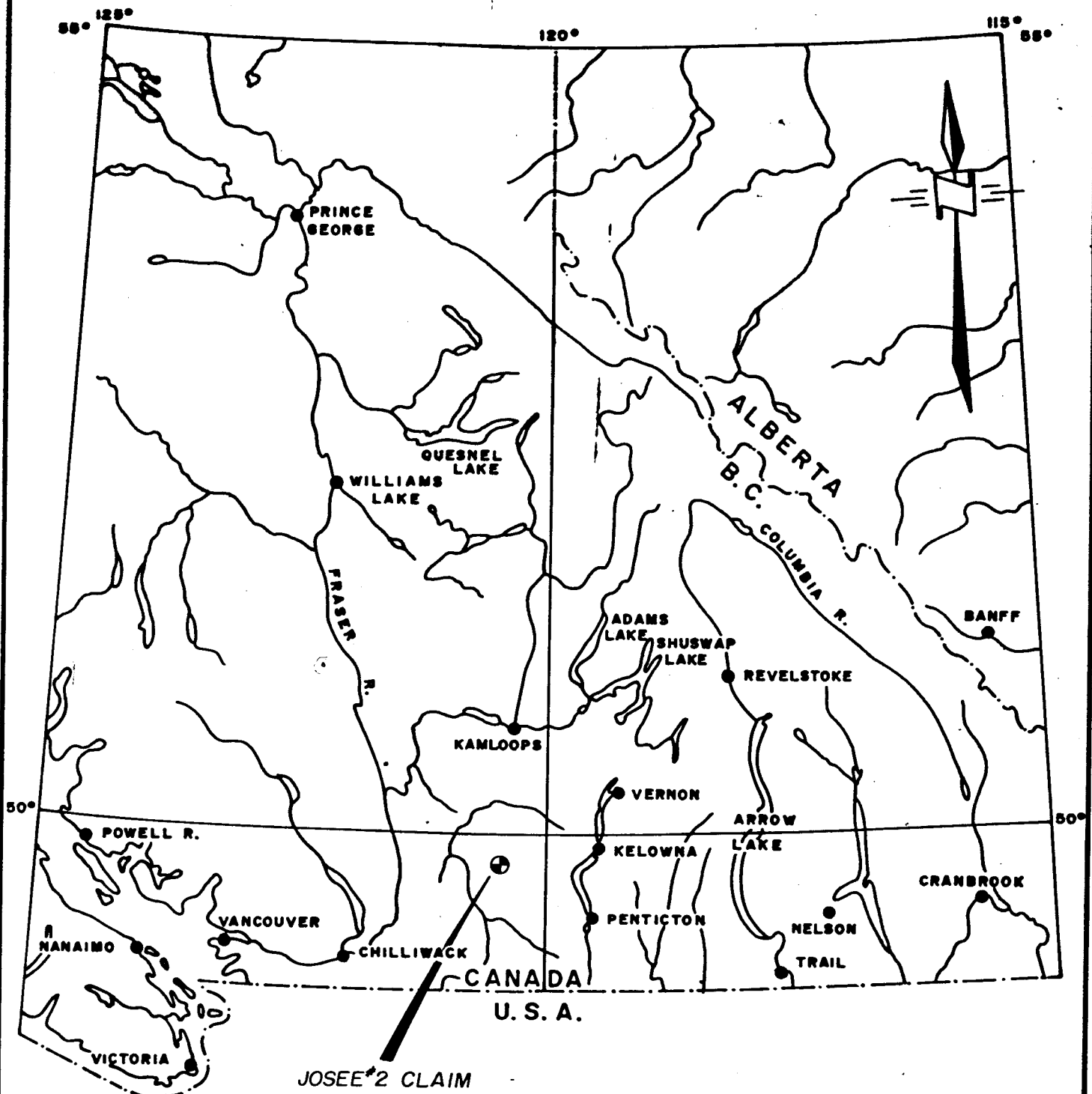
June 8, 1984.

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LOCATION MAP JOSEE #2 CLAIM NICOLA MINING DIVISION, B.C.	
Date: June, 1983.	Scale: 1" = 64 Miles
Dwn by: W.G.	Dwg no. 273-1

INTRODUCTION:

This report describes the results of a programme of geological mapping and prospect examination carried out on the Josee #2 claim.

A series of maps showing the claim location and property geology are included with this report.

SUMMARY AND CONCLUSIONS:

1. The subject property consists of one 20 unit metric claim located in moderate terrain near the south end of the Aspen Grove copper camp in south central British Columbia. It is easily accessible by road from Merritt or Princeton.
2. The Aspen Grove camp has been prospected since the early 1900's and the Daisy prospect located in the northern part of the subject claim was first worked on in 1915. Sporadic small scale work has probably been carried out over the years but the first modern exploration was carried out by Noranda in 1972-3. This company performed geological mapping, airborne and ground geophysics and limited drilling on a large block of ground of which the present property was a small part.
3. The property is underlain by a north to north-northwesterly trending succession of andesitic and basaltic flows, fragmentals and associated sediments of the Triassic Nicola group. A narrow, elongate body of diorite or quartz diorite is found in the center of the claim. Two splays of the regional Summers Creek Fault pass through the center of the claim.

4. There are several copper occurrences on the property. All are located within the Central Belt volcanics of the Triassic Nicola group. The most significant occurrence is the Daisy Prospect located near the Summers Creek Fault. Copper mineralization is widespread but very erratic and non continuous. Precious metal values are very low.

The other copper occurrences consist of malachite along fractures within volcanic flows and tuffs. There does not appear to be any continuity of these occurrences.

PROPERTY:

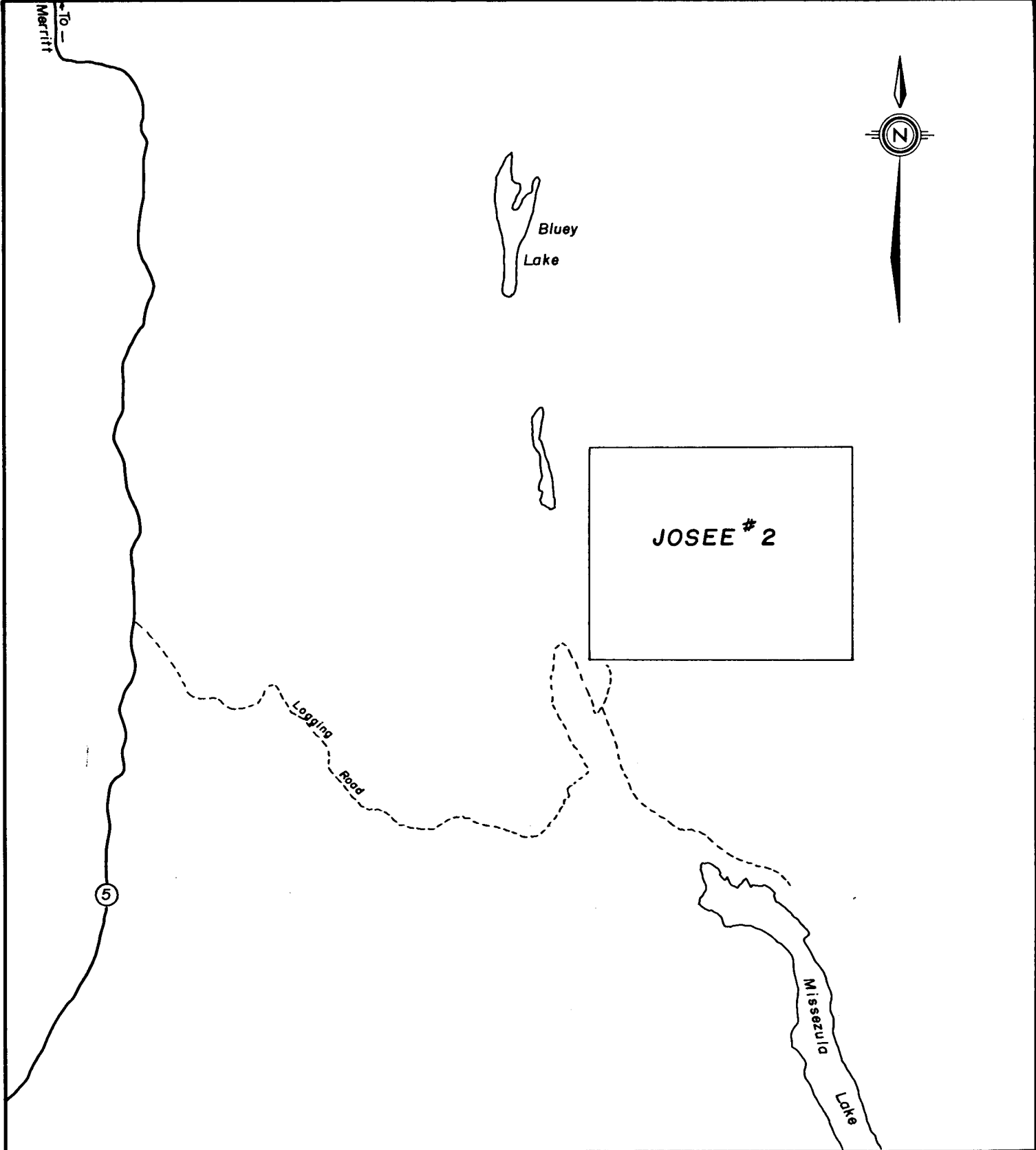
The property consists of one 20 unit metric claim as follows:

<u>Claim Name</u>	<u>Record No.</u>	<u>Tag No.</u>	<u>Expiry Date</u>
Josee #2	1252	66811	June 9, 1984.

LOCATION AND ACCESS:

The property is located in south-central British Columbia about 13 km. southeast of Aspen Grove and approximately 5 km. east of the Merritt-Princeton highway.

Access is gained via a logging road which leads easterly from Provincial Highway No. 5, about 15 road km. south of Aspen Grove. This logging road leads easterly for about 9 km. to the prominent valley containing Missezula Lake.



CLAIM MAP
JOSEE #2 CLAIM

NICOLA MINING DIVISION, B.C.

Tech. Work By: Kerr, Dawson & Assoc. Ltd.	Scale: 1:50,000
Drawn By: W.G.	Date: June, 1983.
Approved By: J.M. Dawson, P. Eng.	Fig. No. 273-2

An access road from the 9 kilometre marker on this road leads northward for about 1.2 kilometres where it crosses the southern claim boundary. This road leads directly to the Daisy Prospect. At present the southern boundary may be reached by 4 x 4 vehicle. One or two man days of work would make the prospect itself accessible by 4 x 4 vehicle.

PHYSIOGRAPHY AND VEGETATION:

The claim covers the southern part of a northerly-trending ridge which extends north from Missezula Lake for about 7 km. The central part of the claim lies in rolling upland country but the east and west margins drop off rapidly to deep fault-controlled valleys. Relief is in the order of 800 feet; the crest of the ridge being at about 4,500 feet a.s.l. and the east and west boundaries of the claim lying at between 3,500 to 3,800 feet a.s.l.

The property is lightly to moderately timbered with mature pine, spruce and fir. On south facing slopes the vegetation is less dense with occasional grassy meadows and openings here and along the ridgetop.

HISTORY:

The subject claim covers the old Daisy showing which is first mentioned in the Annual Report of the B.C. Minister of Mines for 1915. At that time there were three open cuts about 30 feet long and a 10 foot long adit.

In 1928, the showing was reported to be in a shear zone 80 feet wide in dacite or latite. A sample taken across 30 feet of oxidized copper minerals assayed Gold-trace, Silver-0.1 oz/ton and Copper-0.8%.

The next reported work was carried out by Noranda Exploration Company Ltd. in 1972 and 1973. Noranda did detailed work on a large block of claims which encompassed the present property and a large area to the north and west. This work included geological mapping, ground and airborne magnetometer and electromagnetic surveys, and limited diamond drilling. It is not known how much of this work was actually done on the present claim block.

Evidence of trenching and drilling (probably by Noranda) was found by the writer at the time of the prospect examination.

GEOLOGY AND MINERALIZATION:

A total of 4 man days were spent on the property mapping on a 1:5,000 scale, locating and sampling the Daisy prospect, locating other occurrences of mineralization and tying the grid into topographic features.

The accompanying map (figure 3) is a composite of Preto's and observations made by the writer.

The property is underlain by volcanic flows, fragmentals and lesser intercalated sediments of the Nicola Group, intruded by a linear body of diorite or quartz diorite. Several splays of prominent regional faults also cut through the property.

The property is bisected by the north-northwesterly trending Summers Creek Fault which separates facies of the Central Belt of the Nicola Group on the western half of the property from facies of the Eastern Belt in the east half.

On the Josee #2 claim the Central Belt rocks consist of reddish to green augite-plagioclase andesite and basalt flows as well as crystal and lithic tuffs, and red volcanic breccia and lahar deposits. The eastern belt facies of the Nicola rocks consists of purple and gray trachyandesite and trachybasalt porphyry flows; crystal, lithic and lapilli tuff; volcanic sandstone and siltstone; and massive to crudely layered lahar deposits.

A narrow linear body of diorite or quartz diorite is said to be located just east of the eastern splay of the Summer's Creek Fault as it passes through the north central part of the claim. Small plugs of finely crystalline diorite were located closer to the Daisy prospect, (figure 3). The larger body mapped by Preto was not located in the field.

The Central Belt volcanics generally show a north to north westerly strike direction with shallow dips. A feature of these volcanic units near the Summers Creek Fault is their distinctive red colours. North to northwesterly trending gullys (sometimes swampy) and ridges are quite prominent in the mapped area. Those features are probably topographic expressions of ancillary faulting parallel to the main Summers Creek fault direction. Slickensides were rarely noted but always indicated vertical displacement.

The Eastern Belt volcanics outcrop exclusively east of the Summers Creek Fault. Distinctive units of grey green Trachyandesite and Trachybasalt flows, massive red green crudely layered Lahar deposits and greenish grey crystal, lithic and lapilli tuff characterize this eastern unit.

The Eastern Belt volcanics often are as distinctively green as the Central Belt volcanics are red. There was no copper mineralization observed within units of the Eastern Belt volcanics.

Mineralization on the property seems to be concentrated in the units of the Central Belt volcanics with the more important mineralization concentrated near the Summers Creek Fault system.

The Daisy prospect is located near 17 + 00N, 8 + 00E near a splay of the Summers Creek fault. Mineralization is found sporadically over a strike length of 350 metres. Mineralization appears to be limited to the zone of shearing (north-northwesterly strike, steep westerly dip). The most prominent mineralization is in the form of carbonates along fracture surfaces. Minor amounts of sulphides (bornite and chalcocite) were also noted smeared along fracture planes. Small intrusive (diorite) plugs occur southeast of the shearing along the western splay of the Summers Creek fault. The predominant host rock for the mineralization appears to be a massive green andesitic flow underlain by coarse red volcanic breccia (minor mineralization) and overlain by a massive (non fractured) bedded, volcanic sandstone. These units have a strike of approximately 320° but dip shallowly (35°) to the northeast. The hanging wall bedded sandstone is not mineralized.

Two selected grab samples over 4 metres (T2, T2A) across the shear returned values up to .32 oz/ton Ag. and 1.07% copper but only trace gold. One sample (T5), a selected grab sample within the volcanic breccia returned a value of 0.010 oz/ton Au and low values in silver and copper. The width of the shear zone is 20 to 30 metres, however, mineralization does not appear to be of a continuous or consistent nature across or along its strike.

A substantial amount of trenching has been done by Noranda in the past. The more prominent ones are located on figure 3. A former drill site was also located (figure 3). The hole was collared in the upper part of the shear and finished in the volcanic breccia, (as seen in drill core). Trace amounts of copper carbonate were seen in the upper section of the core. The hole bottomed in a coarse volcanic breccia and was unsampled beyond 100 feet.

A second copper occurrence (sulphides and carbonates) smeared along fractures was located 600 metres south east of the Daisy prospect. Again mineralization was very localized (one or two fracture surfaces) and there seemed to be no evidence of continuity. There was only a trace value in gold.

Two other bedrock occurrences of copper occur in the south western portion of the claim group but again consist of malachite along fractures with no obvious continuity. There is some epidote alteration associated with these occurrences. Malachite and native copper in float has been found on the lower most western sections of the property.

Preto has indicated 2 other copper occurrences on his map other than the Daisy prospect in or near the Josee #2 claim group. The occurrence northwest of the Daisy prospect was not searched for as it appears to be outside the claim boundary. The second occurrence indicated near 3 + OON, 17 + OOE was searched for but not located.

The economic potential of the Daisy prospect appears to be very limited. It is assumed the copper values obtained by Noranda in the trenches were not of significant grade to warrant bulk mining methods, in times of higher copper prices, (1972-1973). Precious metal values in silver appear to be very low. Gold appears to be even lower. It should be noted the samples sent in for assay for this report were selected for having visible copper mineralization, and are not indicative of true grades over the width of the shear.

APPENDIX A

REFERENCES

REFERENCES:

Rice, H.M.A. (1960): Geology and Mineral Deposits of the Princeton Map Area; GSC Memoir 243.

Preto, V.A. (1979): Geology of the Nicola Group between Merritt and Princeton; B.C. Ministry of Energy, Mines and Petroleum Resources, Bulletin 69.

Dawson, J.M. (1983): Geochemical Report on the Josee #2 claim, Nicola Mining Division, British Columbia.

Annual Reports of B.C. Minister of Mines for 1915, 1928, 1972 and 1973.

APPENDIX B

PERSONNEL

PERSONNEL:

J.M. Dawson, P. Eng.

Geologist

May 22, 1984.

D.A. Leishman B. Sc (Hons.)

Geologist

May 28, 29, 30, 31
June 6, 7, 1984.

APPENDIX C

STATEMENT OF EXPENDITURES

STATEMENT OF EXPENDITURES:

Labour:

J.M. Dawson, P. Eng. 1/2 day @ \$400/day	\$200.00
D.A. Leishman, B. Sc. 6 days @ \$250/day	<u>1,500.00</u>

\$1,700.00

Expenses and Disbursements:

Room and Board	203.84
Truck Rental	311.77
Geochemical Analyses	71.25
Base Map Preparation and Drafting	176.00
Freight, telephone, flagging, secretarial and field equip.	<u>118.27</u>

881.13

TOTAL COSTS

\$2,581.13

APPENDIX D
CERTIFICATE

C E R T I F I C A T E

I, DOUGLAS A. LEISHMAN of Kamloops, British Columbia, Do Hereby
Certify That:

1. I am a geologist employed by Kerr, Dawson and Associates Ltd.
of Suite 206, 310 Nicola Street, in the City of Kamloops, in
the Province of British Columbia.
2. I am a graduate of the Northern Alberta Institute of Technology,
Exploration Technology (Minerals Option) 1971, Edmonton, Alberta.
3. I am a graduate of the Imperial College of Science and Technology,
Royal School of Mines, London, England, B. Sc. (Hons) Mining
Geology 1981. I have been actively involved in mineral exploration
since 1971.
4. I am the author of this report which is based on an exploration
programme carried out by myself.

KERR, DAWSON AND ASSOCIATES LTD.,

Doug Leishman

Doug Leishman, B. Sc. (Hons.)

GEOLOGIST

June 8, 1984.

Kamloops, B.C.

JAMES M. DAWSON, P. ENG.

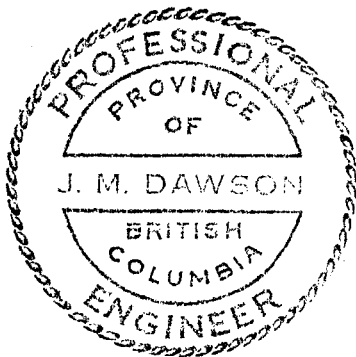
Geological Engineer

#206 - 310 NICOLA STREET • KAMLOOPS, B.C. V2C 2P5 • TELEPHONE (604) 374-0544

C E R T I F I C A T E

I, JAMES M. DAWSON of Kamloops, British Columbia, Do Hereby Certify That:

- (1). I am a geologist employed by Kerr, Dawson and Associates Ltd., of Suite 206, 310 Nicola Street, in the City of Kamloops, in the Province of British Columbia.
- (2). I am a graduate of the Memorial University of Newfoundland-B.Sc. (1960), M.Sc. (1963), a fellow of the Geological Association of Canada and a Member of the Association of Professional Engineers of British Columbia. I have practised my profession for 20 years.
- (3). The work on this exploration programme was carried out under my supervision.



KERR, DAWSON AND ASSOCIATES LTD.,

James M Dawson
James M. Dawson, P. Eng.

GEOLOGIST

June 8, 1984.

Kamloops, B.C.

APPENDIX E

ASSAY CERTIFICATE

&

DESCRIPTION OF ROCK SAMPLES



Member
Canadian Testing
Association

KAMLOOPS RESEARCH & ASSAY LABORATORY LTD.

912 - 1 LAVAL CRESCENT — KAMLOOPS, B.C.
V2C 5P5

PHONE: (604) 372-2784 — TELEX: 048-8320

CERTIFICATE OF ASSAY

B.C. LICENSED ASSAYERS
GEOCHEMICAL ANALYSTS
METALLURGISTS

TO Kerr Dawson & Associates

206-310 Nicola St.,

Kamloops, B.C. V2C 2P5 Attn: Mr. D. Leishman

Certificate No. K 6372

Date June 6, 1984.

I hereby certify that the following are the results of assays made by us upon the herein described _____ samples

Kral No.	Marked	Au	Ag	Cu					
		ozs/ton	ozs/ton	percent					
1	31-1	L.001	.29	.76					
2	31-2	L.001	.44	.60					
3	T-2	L.001	.12	.40					
4	T-2A	L.001	.32	1.05					
5	T-5	.010	.15	.57					

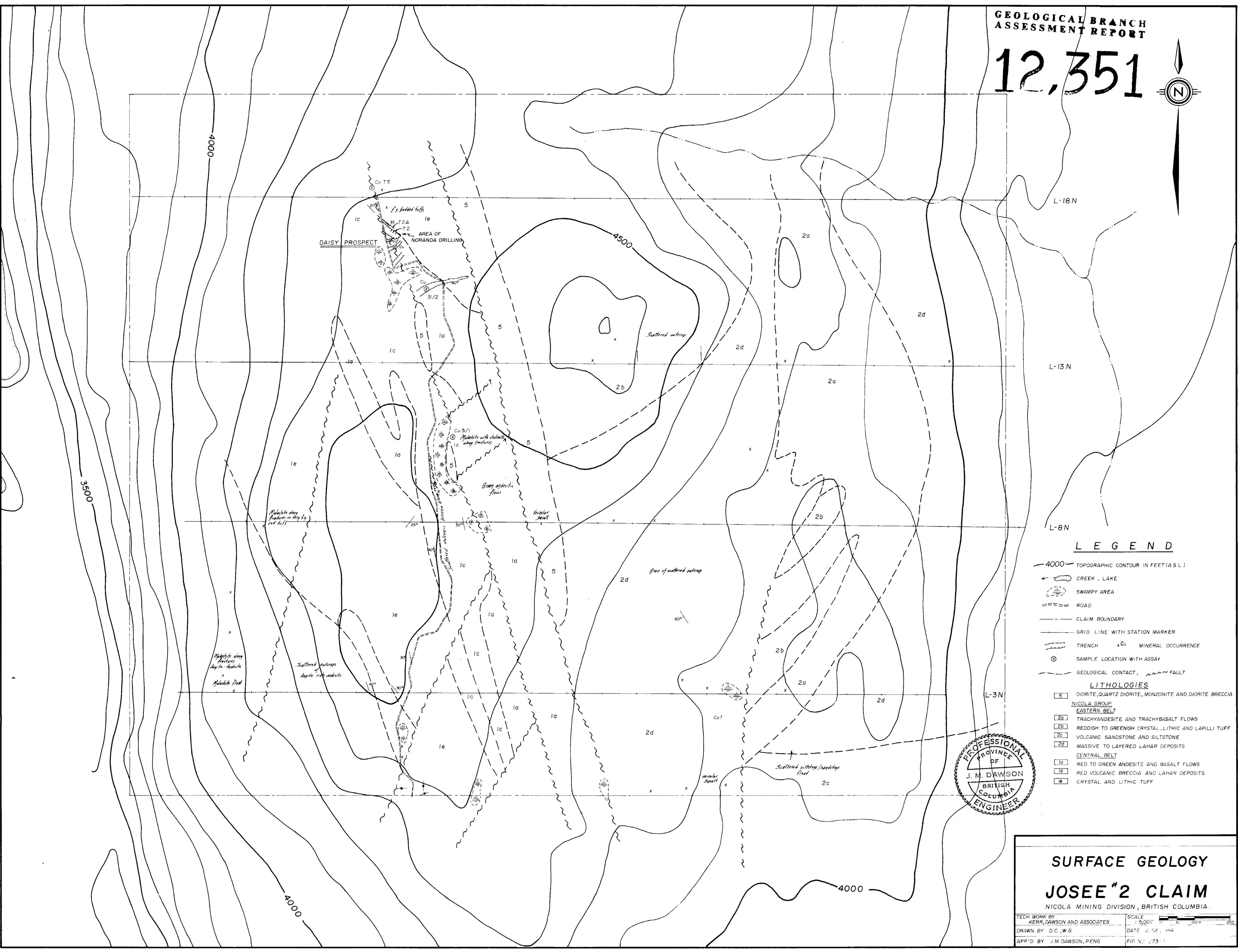
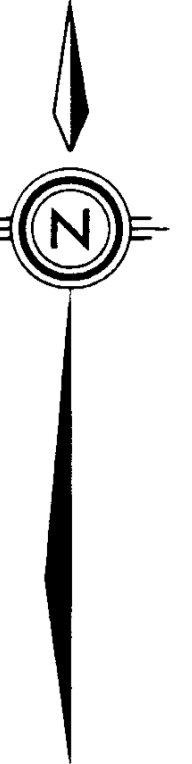
L means "less than"

NOTE:
Rejects retained three weeks.
Pulps retained three months
unless otherwise arranged.

Registered Assayer, Province of British Columbia

TABLE I

<u>Rock Sample</u>	<u>Description</u>
31/1	Finely crystalline massive andesitic flow, trace disseminated bornite and chalcocite with sulphides and malachite smeared along fracture planes. - Grab Sample
31/2	Very fine crystalline dark grey green Andesite. Oxidized - along fracture surfaces. Malachite - along fractures - Grab Sample
T2	Very fine grained highly fractured grey green Andesitic flow, highly oxidized with visible malachite on all chips. Selected chip sample over 4 metres across main zone of Daisy Prospect.
T2A	-As above - 12 metres to north west of sample T2 -Across the most mineralized section of the Daisy Prospect.
T5	Grab Sample - Very coarse volcanic breccia, footwall (stratigraphic) of Daisy Prospect, highly fractured with visible malachite along fractures, much more mineralized than surrounding unit.



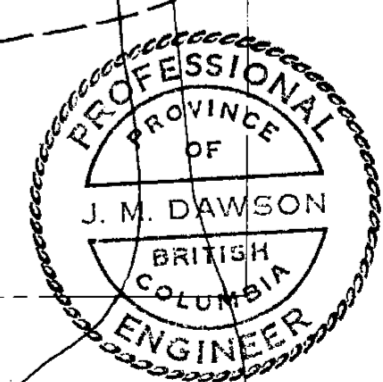
L-18 N
L-13 N
L-8 N
L-3 N

LEGEND

- 4000 — TOPOGRAPHIC CONTOUR IN FEET (A.S.L.)
- CREEK, LAKE
- SWAMPY AREA
- ROAD
- CLAIM BOUNDARY
- GRID LINE WITH STATION MARKER
- TRENCH x Cu MINERAL OCCURRENCE
- ⊙ SAMPLE LOCATION WITH ASSAY
- GEOLOGICAL CONTACT, ~~~~~ FAULT

LITHOLOGIES

- 5 DIORITE, QUARTZ DIORITE, MONZONITE AND DIORITE BRECCIA
- NICOLA GROUP
- EASTERN BELT
 - 2a TRACHYANDESITE AND TRACHYBASALT FLOWS
 - 2b REDDISH TO GREENISH CRYSTALLINE LITHIC AND LAPILLI TUFF
 - 2c VOLCANIC SANDSTONE AND SILTSTONE
 - 2d MASSIVE TO LAYERED LAHAR DEPOSITS
- CENTRAL BELT
 - 1a RED TO GREEN ANDESITE AND BASALT FLOWS
 - 1c RED VOLCANIC BRECCIA AND LAHAR DEPOSITS
 - 1e CRYSTALLINE AND LITHIC TUFF



SURFACE GEOLOGY
JOSEE #2 CLAIM
NICOLA MINING DIVISION, BRITISH COLUMBIA.

TECH WORK BY: KERR, DAWSON AND ASSOCIATES
DRAWN BY: D.C.W.G.
APP'D BY: J.M. DAWSON, P.ENG.

SCALE: 1" = 5000'
DATE: JUNE, 1962
FIG. NO. L73-1