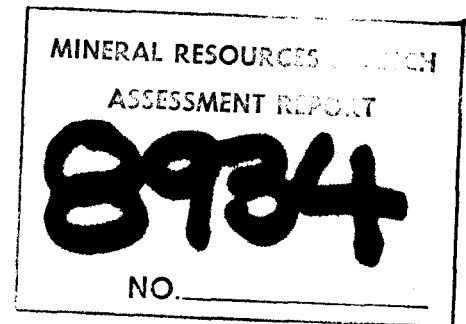


GEOCHEMICAL REPORT

- on the -

CASCADE CLAIM

Slocan Mining Division



PREPARED FOR

JOHN R. KERR,

#1-219 Victoria Street,
KAMLOOPS, B. C.

LOCATION: 50°18'N; 117°13'W.

NTS 82 K/6E.

36 km. NNE of New Denver, B. C.

PREPARED BY:

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

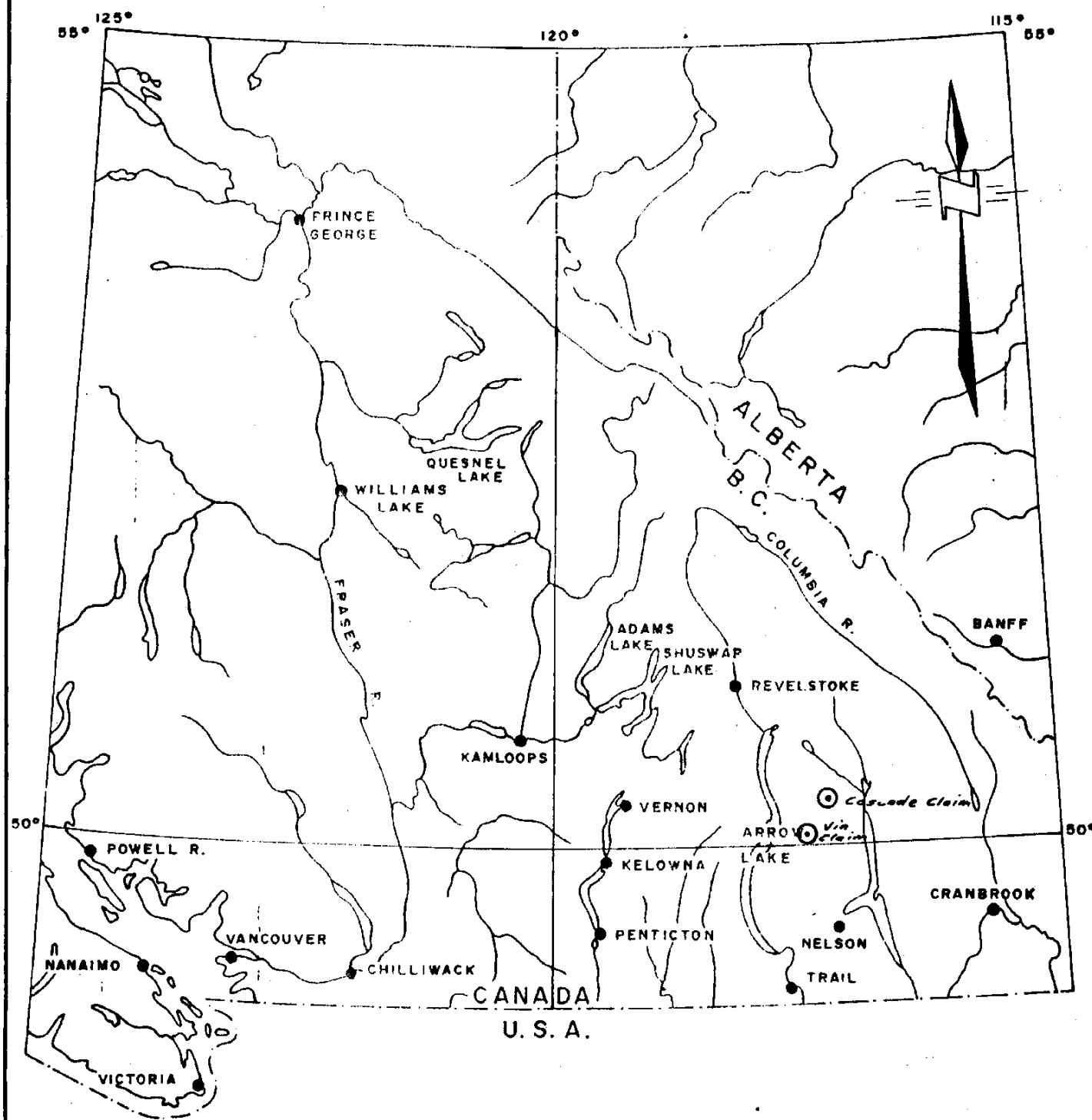
John R. Kerr, P. Eng.,
March 17, 1981.

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Distribution in Silt and Rocks



LOCATION MAP

CASCADE & VIN CLAIMS
Slocan M.D.

Date: Jan. 1980	Scale: 1" = 64 Miles
Dwn by: J.R.K.	Dwg no. 194-1

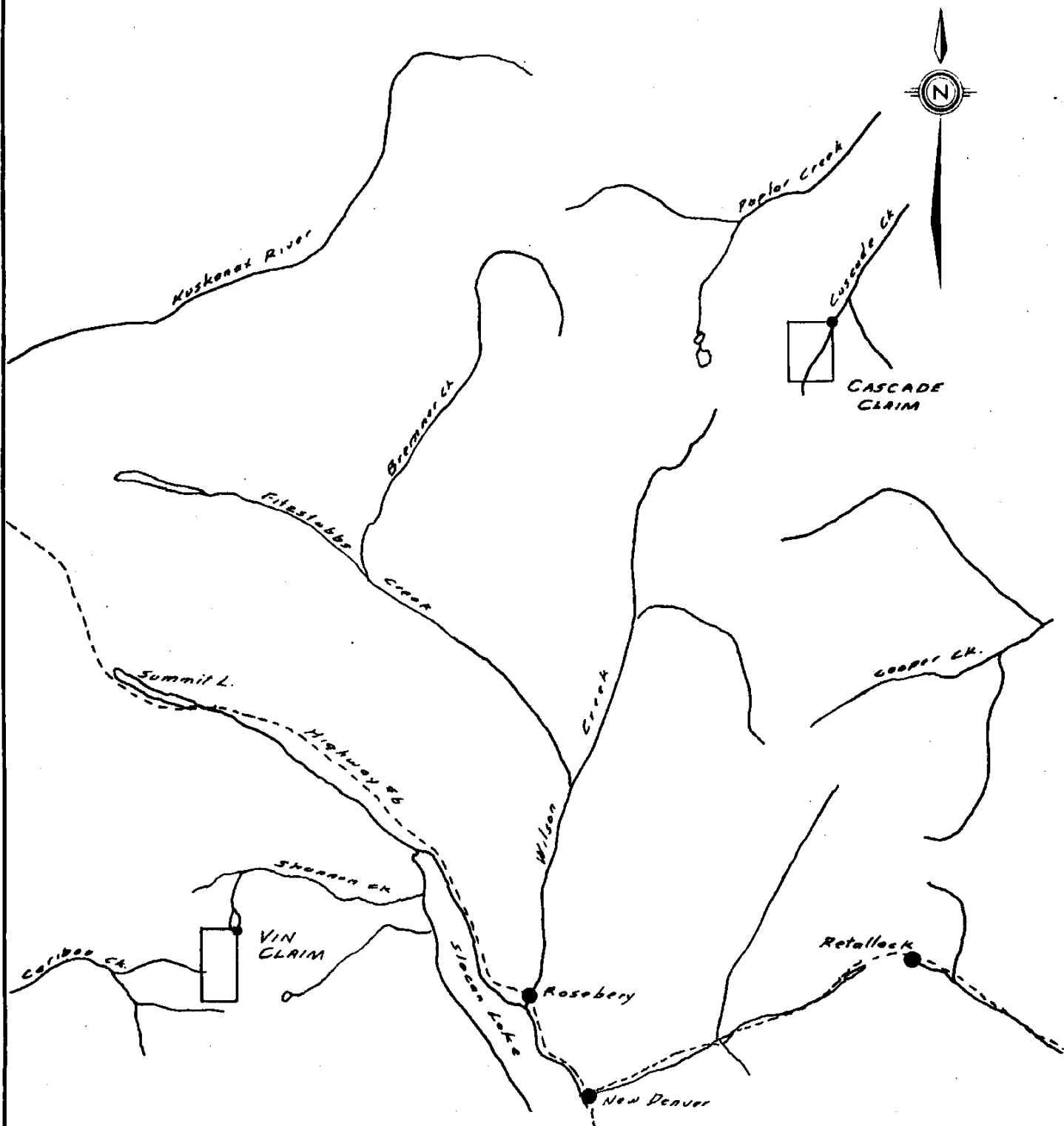
INTRODUCTION

The Cascade claim was located in February, 1979, to cover a Mo geochemical anomaly, discovered during a regional exploration completed during 1970 and 1971. The geological environment is similar to that of the Trout Lake MoS₂ deposit, located 45 km. to the northwest. During 1979, the writer completed some detailed geochemistry in the area of known MoS₂ mineralization. This work is summarized in a report entitled "Geological and Geochemical Report on the Vin and Cascade Claims, Slocan Mining Division". During August, 1980, the writer and crews of Noranda Exploration Ltd. completed a three day reconnaissance geochemical survey over accessible portions of the claim. This report summarizes the results of the 1980 programme. As the introductory remarks were detailed in last year's report, they are summarized below.

The Cascade claim is located at the headwaters of Cascade Creek, 36 km. NNE of New Denver, B. C. Geographic coordinates of the L.C.P. are 50°03'N; 117°35'W (NTS 82 K/4E). Access to the claims is best gained

by helicopter. The claim is located in very steep terrain of the Selkirk Mountains. Total relief is in excess of 1,000 m.

The property consists of one twenty unit claim, record no. 1076, and is located in the Slocan Mining Division. Expiry date of the claim is February 5, 1983, provided that expenses as documented in this report are accepted. Recorded owner of the claim is John R. Kerr.



To accompany a report by J.R. Kerr

INDEX MAP CASCADE & VIN CLAIMS Slocan M.D.	
Tech. Work By: Kerr, Dawson & Assoc. Ltd.	Scale: 1:250,000
Drawn By: J.R.K.	Date: Jan. 1980
Approved By: J.R.K.	Fig No. 194-2

N.T.S NO. 82K

GEOLOGY

The general geology of the Lardeau River Valley is well documented on Open File Map Sheet #288, Geology of the Lardeau West Half by P.B. Read (Scale 1:125,000).

In summary, the Lardeau area is comprised of intrusive rocks of the Kuskanax batholith, and related satellite stocks, sills, dykes and veins, intruding Palaeozoic sediments of the Lardeau Group, Milford Group and Hamill Group.

The dominant rock-types underlying the Cascade claim are thermally and regionally metamorphosed phyllite, argillite, limestone and quartzite of the Pennsylvanian Milford Group. A granodiorite or quartz-monzonite stock, approximately 1,500 meters long by 500 meters wide occupies the north-central portion of the claim. The contact of the Kuskanax batholith crosses the northwest corner of the claim.

Numerous dykes, sills, and veins intrude the sediments, and in general are quite conformable with bedding and foliation attitudes. At least three various

types of dike rock are identified:

- (1). Fine-grained, white aplite containing disseminated pyrite, galena, and molybdenite. Alteration of the rock is secondary silicification and sericitization. Two dikes of this description were examined in the southeastern portion of the claim.
- (2). Grey-white-pink, highly altered and rusty, fine-medium grained, quartz monzonite or quartz dacite containing a high content of disseminated pyrite. Chemical analysis of this rock revealed only low content of molybdenum. Several dykes of this nature are recognized in place and as float.
- (3). Light grey, massive, dense, fresh, medium grained quartz diorite, containing minor disseminated pyrite. This variety appears to be the youngest rock-type on the claim.

GEOCHEMISTRY

The 1980 field programme consisted of detailed rock chip sampling in the area of the known showing, and reconnaissance silt sampling in all areas of the claims. A total of 16 rock chip samples of all various rock types were collected by the writer. A total of 28 silt samples were collected by the staff of Noranda Exploration Ltd. Samples collected by the writer were submitted to Bondar-Clegg and Co. Ltd. in Vancouver for Mo and W determinations. Two of the samples were analyzed for Pb, Zn, Ag, and Au. Samples collected by Noranda were submitted to their own in-house laboratory in Vancouver for Mo, Cu, and Ag determinations.

Sample locations are plotted on the accompanying 1:5,000 scale map sheet, Figure #194-3. An anomalous limit of 40 ppm Mo for rock chip samples, and 6 ppm Mo for each silt sample was chosen to indicate anomalous samples. These values were based on the calculated mean for each type of sample, as shown below.

Rock - Chip Sample	Mean (ppm)
Mo (3 hand selected samples)	30
W	2.7

Silt Samples

Mean (ppm)

Mo	5
Cu	43
Ag	0.4

DISCUSSION OF RESULTS

The Cascade claim lies along the same belt of intrusive and sedimentary rocks as the Trout Lake MoS_2 deposit currently being developed by Newmont and Esso. The geological setting is considered favourable for the discovery of a similar deposit.

Results of silt sampling over the entire claim block indicate only one anomalous zone (Mo) in the area of the known mineralized dykes. The interpreted zone is approximately 600 meters by 600 meters, and occupies the valley floor of Cascade Creek. Rock chip sampling indicates a general enrichment of Mo in all rock-types.

Although economic mineralization is not exposed in outcrop, molybdenum enrichment in the rocks may indicate the presence of a mineralized stock located at depth, or beneath the talus and glacial filled Cascade River valley. Further exploration for such a deposit is warranted.

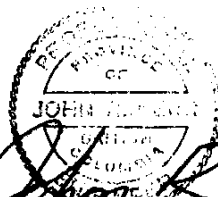
RECOMMENDATIONS

Recommendations for further work on the property are as follows:

- (1). Geological mapping of the claim area, detailed in the area of MoS_2 mineralization and geochemical anomaly.
- (2). Reconnaissance I. P. traverses over accessible portions of the Cascade Creek valley and geochemical anomaly.
- (3). Diamond drilling would be contingent upon results of the above programme.

Respectfully Submitted By:

KERR, DAWSON & ASSOCIATES LTD.,



John R. Kerr

John R. Kerr, P. Eng.,
GEOLOGIST

KAMLOOPS, B. C.,
March 17, 1981.

APPENDIX A

COST STATEMENT

COST STATEMENT

LABOUR: August 12 - 28, 1981.

John R. Kerr, P. Eng., 1 1/2 days @ \$250.00/day	\$ 375.00	
T. D. Lewis, Geologist, 1 day @ \$150.00/day	150.00	
N. Matheson, Jr. Geologist 1 day @ \$120.00/day	120.00	
I. Saunders, Sr. Assistant 2 days @ \$120.00/day	240.00	
R. Foreman, Jr. Assistant 2 days @ \$100.00/day	<u>200.00</u>	\$1,085.00

TRAVEL:

Helicopter Charter 4 1/2 hrs. @ \$380.00/hr.	\$1,710.00	
Truck Rental 3 days @ \$30.00/day	\$90.00	
320 mi. @ 30¢/mile	<u>96.00</u>	<u>186.00</u>
		1,896.00

GEOCHEMICAL COSTS: 188.60

ROOM AND BOARD:

8 man days @ \$30.00/man/day	240.00
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REPORT PREPARATION:

J. R. Kerr, P. Eng., 2 days @ \$250.00/day	\$ 500.00	
Drafting	120.00	
Secretarial, Photo copying, Reproduction, and Report Binding	<u>136.80</u>	<u>756.80</u>

TOTAL HEREIN \$4,166.40

APPENDIX B

GEOCHEMICAL DATA



BONDAR-CLEGG & COMPANY LTD.

130 PEMBERTON AVE., NORTH VANCOUVER, B.C. PHONE: 985-0681 TELEX: 04-352667

Geochemical Lab Report

Extraction _____ Report No. 20 - 1793 PROJECT: J. KERR
 Method _____ From Kerr-Dawson & Associates
 Fraction Used _____ Date August 22, 1980

SAMPLE NO.	Cu ppm	Pb ppm	Zn ppm	Mo ppm	Ag ppm	W ppm	Au ppb	REMARKS
B - 53	39	-	172	10	0.8	2	-	
54	40	-	67	3	0.6	2	-	
55	45	-	61	5	0.6	4	-	
56	64	-	75	1	0.6	4	-	
57	47	-	93	2	1.1	4	-	
58	37	-	56	3	0.6	3	-	
59	-	-	-	2	-	-	-	
60	-	-	-	4	-	-	-	
61	-	-	-	1	-	-	-	
63	-	-	-	15	-	-	-	
CL-113	-	-	-	19	-	4	-	
BR- 62 ROCKS	55	-	99	-	0.4	2	-	
CR-101	-	-	-	11	-	2	-	
102	-	-	-	70	-	2	-	
103	-	-	-	171	-	2	-	
104	-	-	-	2	-	3	-	
105	-	-	-	7	-	2	-	
106	-	1870	1770	296	9.1	2	10	
107	-	780	127	82	5.8	2	5	
108	-	-	-	192	-	3	-	
109	-	-	-	50	-	3	-	
110	-	-	-	86	-	4	-	
111	-	-	-	26	-	2	-	
112	-	-	-	41	-	4	-	
114	-	-	-	-	-	-	-	

*Rock chip
 samples
 Cascade
 Claim*

NOTE:

Samples collected by Noranda Exploration Ltd. were analyzed by their in-house laboratory in Vancouver, and results are not available at this time. They will, however, be supplied to you upon request.

APPENDIX C

WRITER'S CERTIFICATE

JOHN R. KERR, P. ENG.

Geological Engineer

#1-219 VICTORIA STREET • KAMLOOPS, B.C. V2C 2A1 • TELEPHONE (604) 374-0544

CERTIFICATE

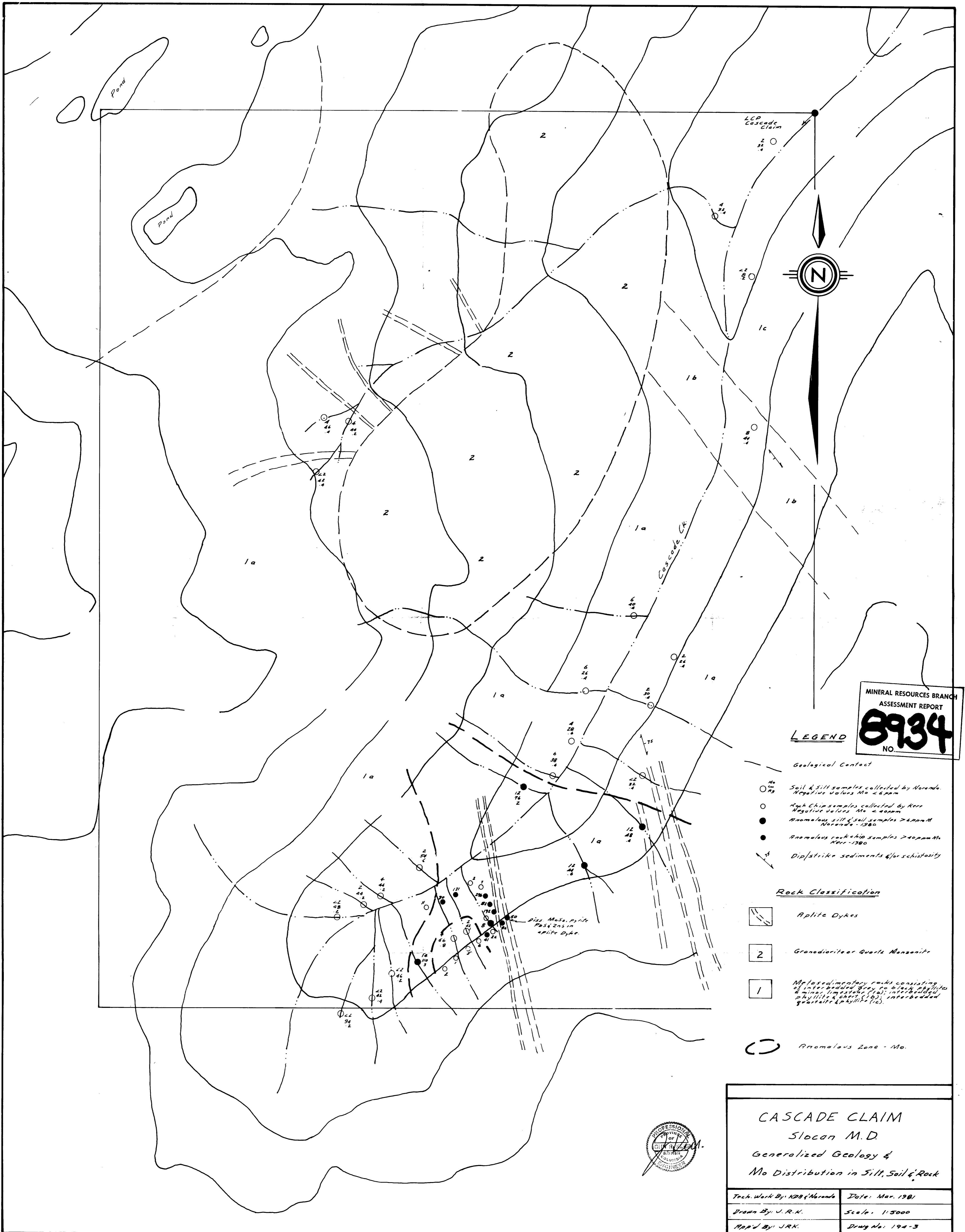
I, JOHN R. KERR, OF KAMLOOPS, BRITISH COLUMBIA, DO HEREBY CERTIFY
THAT:

- (1). I am a member of the Association of Professional Engineers of British Columbia, and a Fellow of the Geological Association of Canada.
- (2). I am a geologist, employed by Kerr, Dawson and Associates Ltd., of #1-219 Victoria Street, Kamloops, B. C.
- (3). I am a graduate of the University of British Columbia, with a B.A. Sc. in Geological Engineering and have practised my profession continuously since graduation.
- (4). I supervised and assisted with the collection of data as compiled in this report. I am the author of this report which is based on literature reserach and collected data.



John R. Kerr
John R. Kerr, P. Eng.,
GEOLOGIST

Kamloops, B. C.,
March 17, 1981.



MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
8934
NO.

LEGEND

- - - Geological Contact
- No. Mo Mg
Soil & silt samples collected by Noranda.
Negative values Mo < 6 ppm
- Rock chip samples collected by Kerr
Negative values Mo < 40 ppm
- Anomalous silt & soil samples > 40 ppm Mo
Noranda - 1980
- Anomalous rock chip samples > 40 ppm Mo
Kerr - 1980
- ↖ Dip/strike sediments &/or schistosity
- Rock Classification**
- ▨ Aplite Dykes
- 2 Granodiorite or Quartz Monzonite
- 1 Metasedimentary rocks consisting
of interbedded grey to black phyllites
& minor limestone (l.a); interbedded
phyllite & chert (l.c); interbedded
granite & gabbro (l.g)
- Anomalous Zone - Mo.



CASCADE CLAIM	
Slovan M.D.	
Generalized Geology & Mo Distribution in Silt, Soil & Rock	
Tech. Work By: KDB & Noranda	Date: Mar. 1981
Drawn By: J.R.K.	Scale: 1:5000
Map'd By: J.R.K.	Drawg No: 194-3