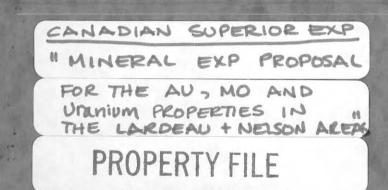
# 82K GENERAL-07



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CANADIAN SUPERIOR EXPLORATION LIMITED

# **PROPERTY FILE**

MINERAL EXPLORATION PROPOSAL

### for the

GOLD, MOLYBDENUM, and URANIUM PROPERTIES

in the

LARDEAU and NELSON AREAS, SOUTHEASTERN B.C.

June 23, 1978

J.D. Blanchflower

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### SUMMARY

Between June 4th and 12th, 1978, C.S.E. carried out an extensive property acquisition program within the Nelson (82 F) and Lardeau (82 K) map areas in southeastern British Columbia. Nine properties were staked, four for the Union Carbide/C.S.E. Joint Venture (P-148) and five for the C.S.E. 1978 Lardeau/Nelson project (P-171).

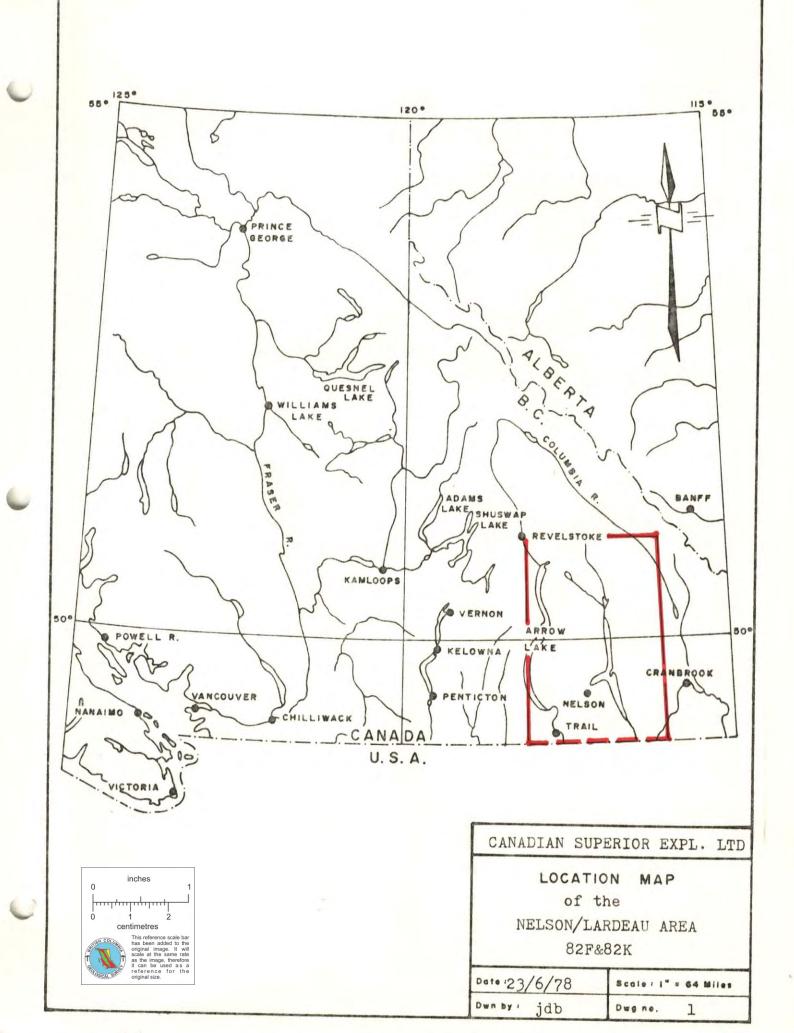
Preliminary property examinations including reconnaissance geological and geochemical surveys will be conducted on the nine properties from June 26th to mid-July.

In addition to the staked properties several geochemical anomalies in the project area require field examination and possible staking. The most important of these being the Ymir area in NTS 82 F, and the Howser Ridge/Jubilee Point, Barn Mountain and Vermont Creek areas in NTS 82 K.

This initial phase of exploration including some possible further staking is estimated to cost \$60,000. Recommendations for further exploration work will depend on the results of this program.

### INTRODUCTION

Between June 4th and 12th, 1978, C.S.E. carried out an extensive property acquisition program within the Nelson (82 F) and Lardeau (82 K) map areas in southeastern British Columbia. This program was initiated primarily to stake the Union Carbide/C.S.E. Joint Venture geochemical anomalies prior to the release of the G.S.C. Open Files 514 and 515. In addition, C.S.E. planned to stake any obvious exploration targets resulting from the release of this regional geochemical reconnaissance data.



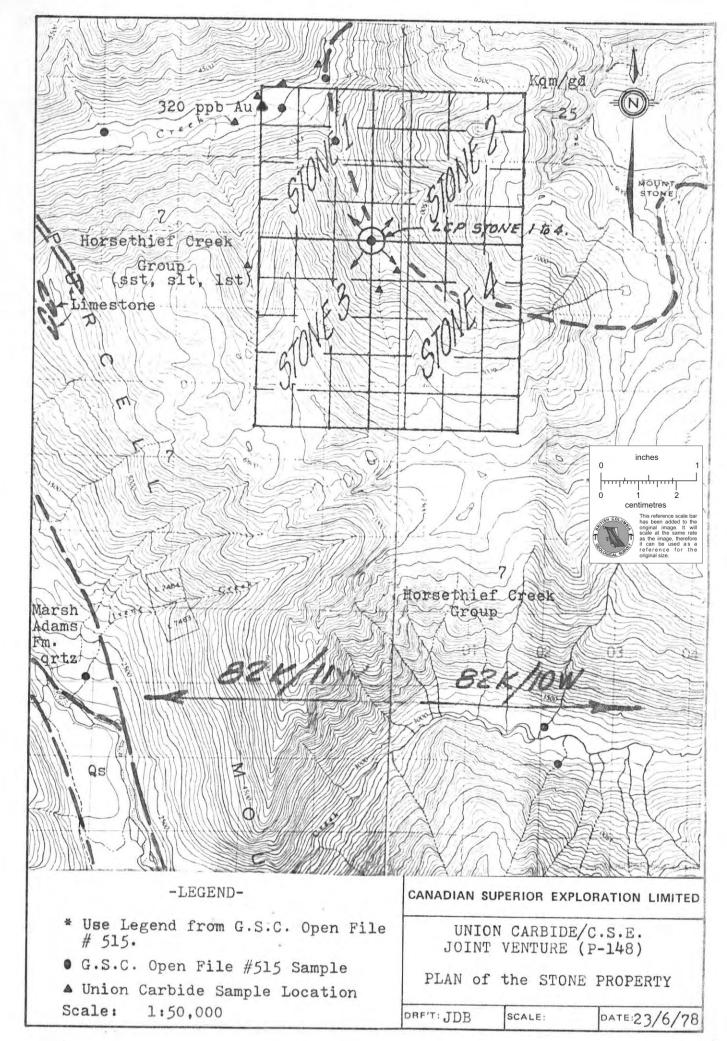
Nine properties were staked during this program, four for the U.C./ C.S.E. Joint Venture (P-148) and five for the C.S.E. 1978 Lardeau/ Nelson exploration program (P-171). One gold, five molybdenum and three uranium exploration targets were acquired.

This report describes these nine properties and proposes a preliminary regional exploration program.

### PROPERTY DESCRIPTIONS

- (a) Properties Acquired for the Union Carbide/C.S.E. Joint Venture
- (1) <u>STONE 1-4</u> (NTS 82 K/11E & 10W) Slocan M.D., B.C.
  - Class: Gold prospect
  - Claims: Stone 1 (NW): 4N x 3W (12 units) #31901 Stone 2 (NE): 4N x 4E (16 units) - #31902 Start: June 5/78 Stone 3 (SW): 5S x 3W (15 units) - #31903 Comp'd: June 5/78 Stone 4 (SE): 5S x 4E (<u>20 units</u>) - #31904 63 units - staked by: P. Cox (Amex) for C.S.E./U.C.
  - Location: 34 km. east of the town of Ferguson, B.C. or immediately west of Mt. Stone. The geographic coordinates are  $50^{\circ}$  44' N by 117° 00' W.
  - Access: Helicopter from Revelstoke, B.C. An all-weather logging road is presently being constructed beside the Duncan River and is 7.5 km. west of the property.

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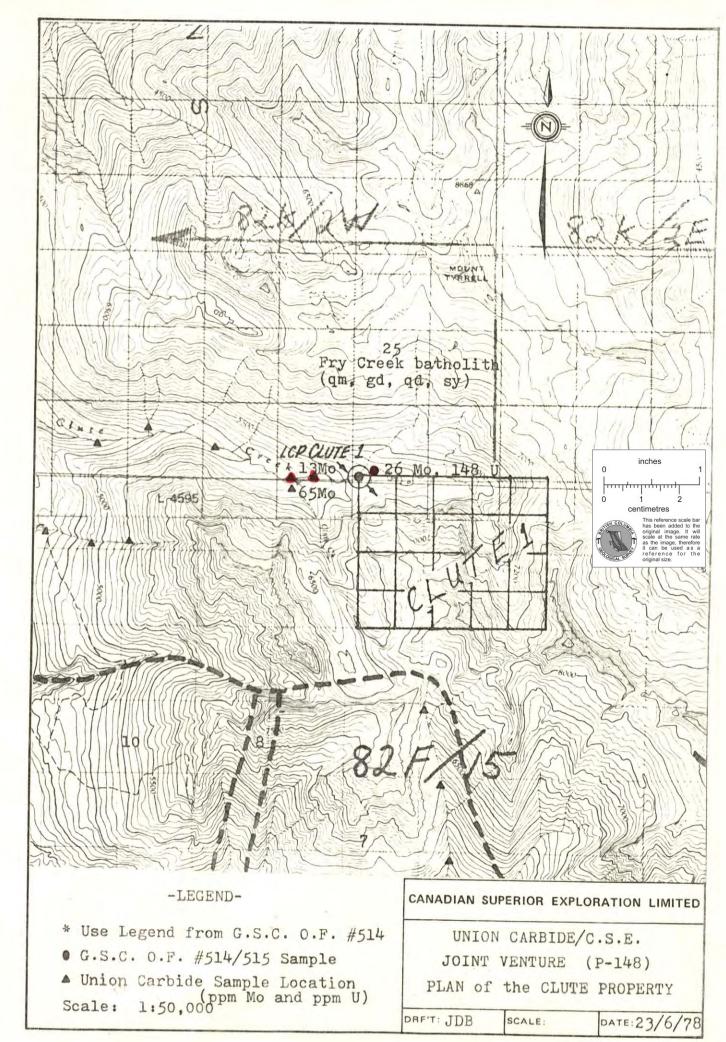


Description: The property covers the southern tributary of Giegerich Creek. A silt sample (U.C.) from the junction of this drainage with Giegerich Creek had an anomalous 320 p.p.b. Au value. This creek drains an area underlain by the contact of the Proterozoic Lower Horsethief Creek Group of metasediments with a Cretaceous granodioritic intrusive.

Reference: Morrow, J.J. and Rae, D., 1976; p. 5.

(2) <u>CLUTE 1</u> (NTS 82 K/2W, 2E & 82 F/15) - Slocan M.D., B.C.

Class:	Molybdenum prospect				
Claims:	Clute 1: 4S x 5E (20 units) - #31905 Start: June 5/78				
	Comp'd: June 5/78 - staked by R. Marini (Amex) for C.S.E./U.C.				
Location:	12.5 km. northeast of Kaslo, B.C. or 3 km. south of Mt. Tyrrell. The geographic coordinates are $50^{\circ}$ 00' N by 116° 46' W.				
Access:	Helicopter from Nelson, B.C. The Johnsons Landing road ends 12 km. northwest of the property.				
Description:	The property covers the eastern tributary of Clute Creek. Silt samples from this drainage had anomalous 65 (U.C.) and 26 (G.S.C.) p.p.m. Mo values. The claim is underlain by intrusive rocks of the Fry Creek batholith.				
Reference:	Morrow, J.J. and Rae, D., 1976; p. 3.				



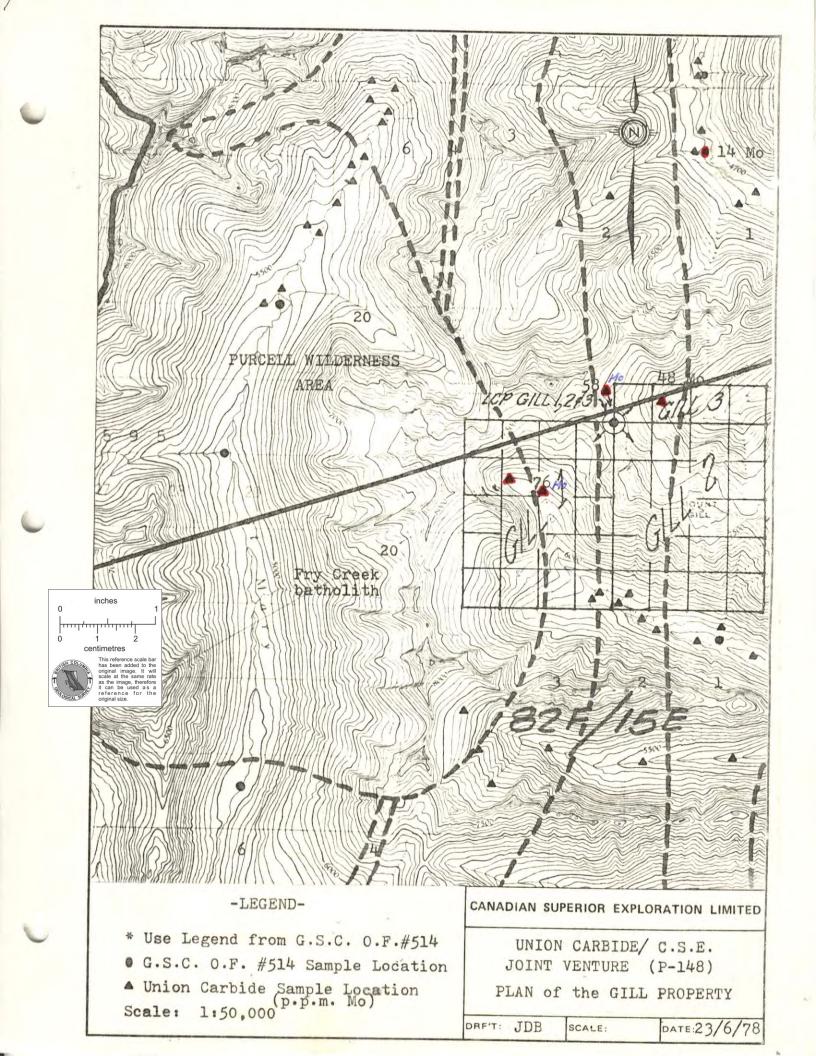
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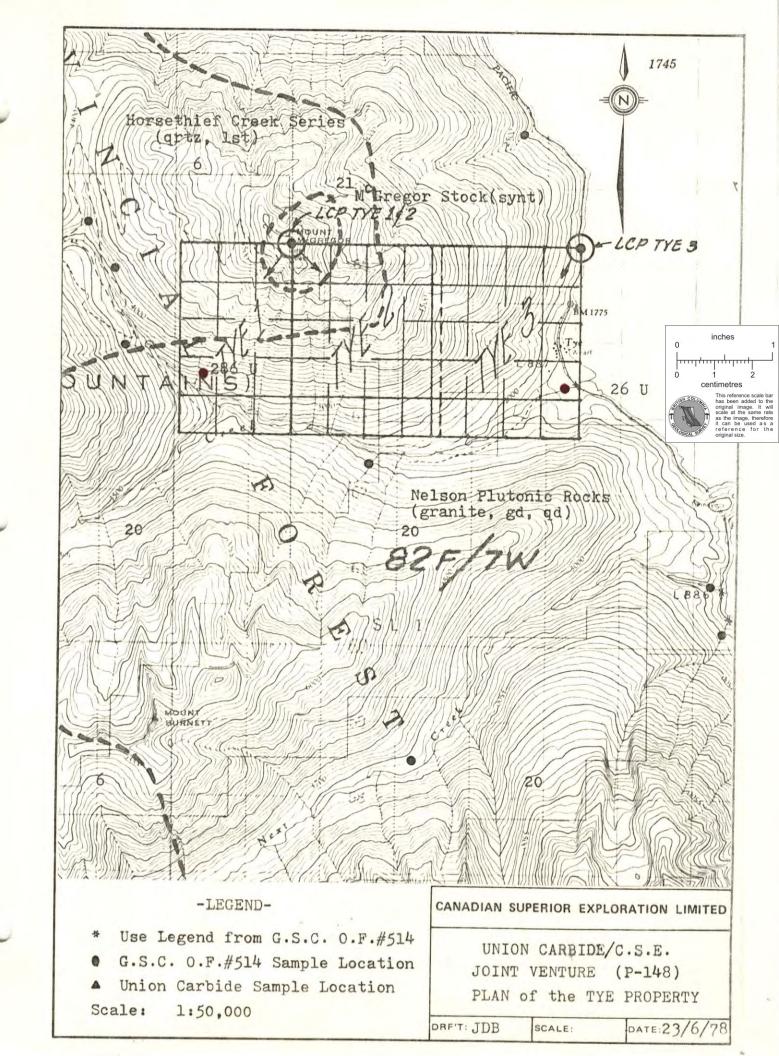
(3) <u>GILL 1-3</u> (NTS 82 F/15E) - Slocan M.D., B.C.

Class: Molybdenum prospect

- Claims: Gill 1 (SW): 5S x 4W (20 units) #31906 Gill 2 (SE): 5S x 4E (20 units) - #31907 Start: June 6/78 Gill 3 (NE): 1N x 4E (<u>4 units</u>) - #31908 Comp'd: June 6/78 <u>44 units</u> - staked by P. Cox (Amex) for C.S.E./U.C.
- Location: 27.5 km. east of Kaslo, B.C. or immediately adjacent to Mt. Gill. The geographic coordinates are 49° 52' N by 116° 31' W.
- Access: Helicopter from Nelson, B.C. A gravel logging road extends up the St. Mary River approximately 5 km. west of the claim group.
- Description: The claim group covers the area west of Mt. Gill and south of the Purcell Wilderness Area. Three silt samples from this area had values of 48, 56 and 76 p.p.m. Mo (U.C.). This claim group is underlain by Helikian Toby, Mt. Nelson and Dutch Creek metasediments near the contact with the Cretaceous Fry batholith.
- Reference: Morrow, J.J. and Rae, D., 1976; p. 7.
- (4) <u>TYE 1-3</u> (NTS 82 F/7W) Nelson M.D., B.C.

Class: Uranium prospect



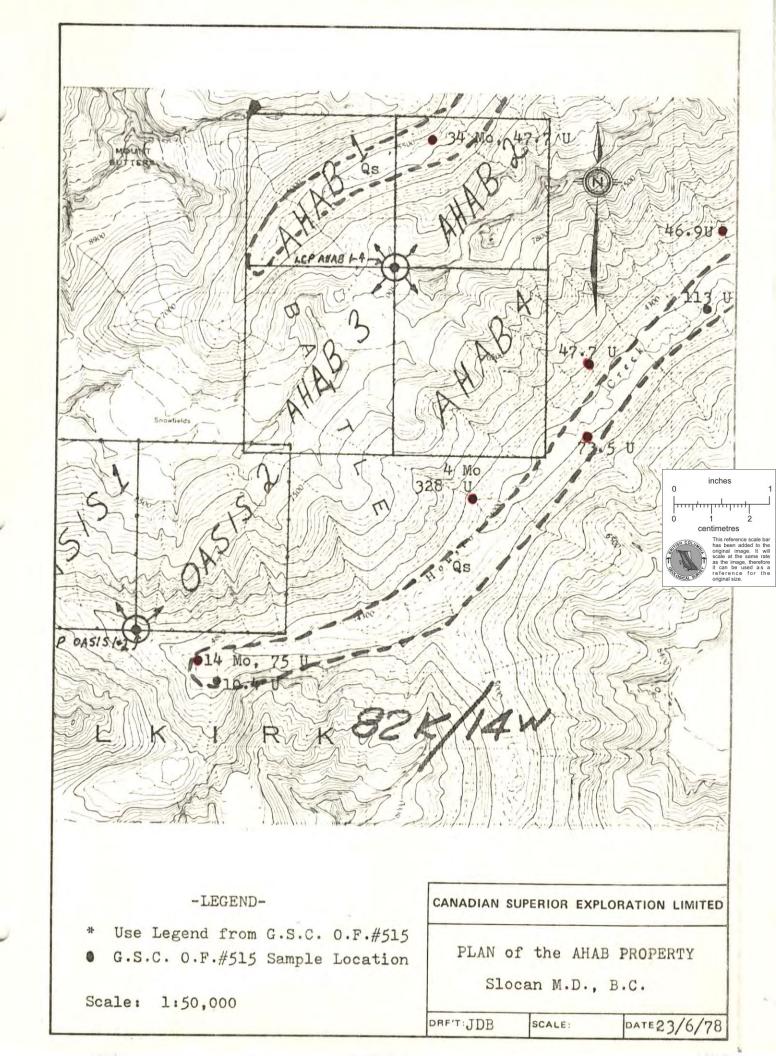


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- Claims: Tye 1: 5S x 3W (15 units) #40293 Tye 2: 5S x 4E (20 units) - #40294 Start: June 7/78 Tye 3: 4W x 5S (20 units) - #40296 Comp'd: June 8/78 55 units - staked by P. Cox and R. Marini (Amex) for C.S.E./U.C.
- Location: 38 km. southeast of Nelson, B.C. or immediately south of Mt. McGregor near Tye, B.C. The geographic coordinates are 49° 20' N by 116° 50' W.
- Access: A gravel, dry-weather road which services the Mt. McGregor fire look-out provides access to the western and southern portions of the claim group.
- Description: The property covers the southern slopes of Mt. McGregor where Union Carbide has discovered uranium-rich pegmatite dykes. Regionally the claim group is underlain by metasediments of the Proterozoic Horsethief Creek Group in contact with Cretaceous-age Nelson granites, and syenites of the Tertiary-age McGregor stock.
- Reference: Union Carbide uranium geochemical results.
- (b) Properties Acquired for the C.S.E. Lardeau Project
- (1) <u>AHAB 1-4</u> (82 K/14W) Slocan M.D., B.C.

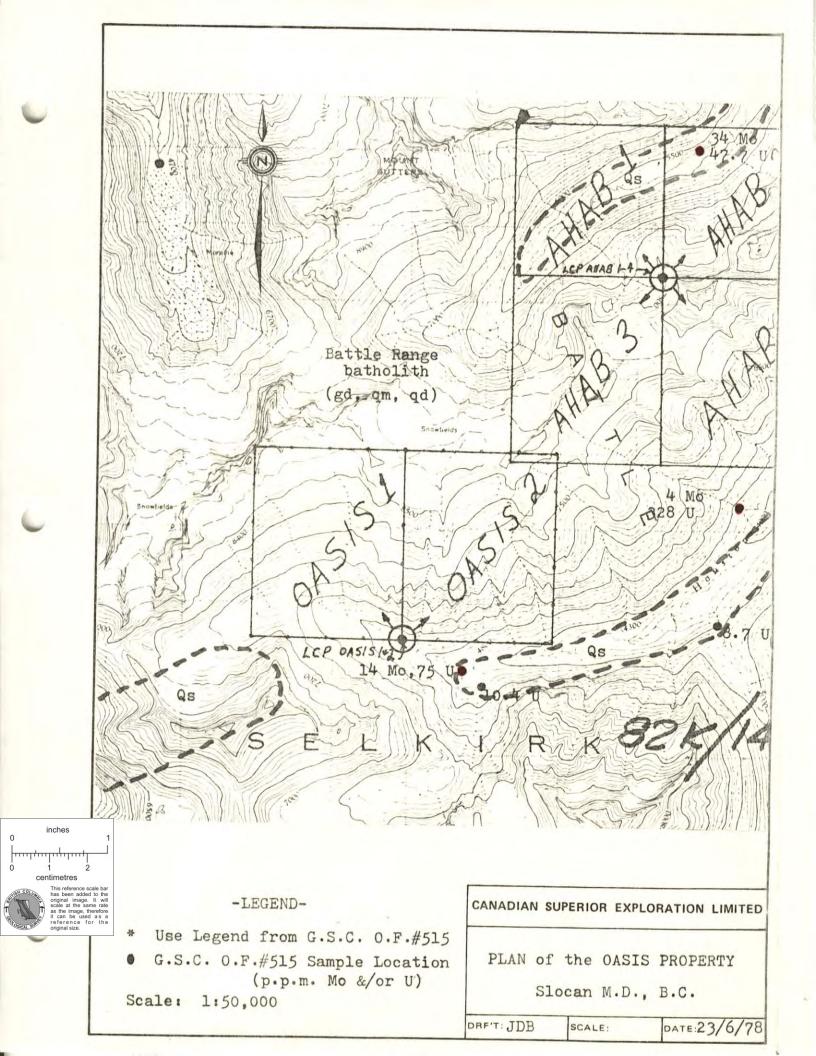
Class: Molybdenum and Uranium prospect

Claims: Ahab 1: 4N x 4W (16 units) - #13933 Ahab 2: 4N x 4E (16 units) - #13934 Start: June 8/78 Ahab 3: 5S x 4W (20 units) - #13935 Comp'd: June 8/78 Ahab 4: 5S x 4E (<u>20 units</u>) - #13936 72 units



- staked by R. Marini (Amex) for C.S.E.

- Location: 38 km. northeast of Beaton, B.C. or 4 km. southeast of Mt. Butters between Butters and Houston Creeks. The geographic coordinates are 50° 58' N by 117° 22' W.
- Access: Helicopter from Revelstoke or Golden, B.C.
- Description: The claim group is located centrally between the two main drainages in the area to cover the anomalous Mo and U silt values (G.S.C. O.F. #515). The claim group is underlain by intrusive rocks of the Cretaceousage Battle Range batholith.
- Reference: G.S.C. Open File #515; samples 5182-5188.
- (2) OASIS 1 & 2 (82 K/14W) Slocan M.D., B.C.
  - Class: Molybdenum prospect
  - Claims: Oasis 1 (W): 5N x 4W (20 units) #13937 Start: June 8/78 Oasis 2 (E): 5N x 4E (<u>20 units</u>) - #13938 Comp'd: June 8/78 40 units - staked by R. Marini (Amex) for C.S.E.
  - Location: 32 km. northeast of Beaton, B.C. or immediately northeast of the Houston Glacier, the source of Houston Creek. The geographic coordinates are 50° 56' N ' by 117° 24' W.
  - Access: Helicopter from Revelstoke or Golden, B.C.



- Description: The claim group is located immediately south of the anomalous Butters Creek drainage with high Mo values. The property is underlain by intrusive rocks of the Battle Range batholith.
- Reference: G.S.C. Open File #515; samples 5187, 5188, 5193 and 5194.
- (3) FISH 1 & 2 (82 K/3E) Slocan M.D., B.C.
  - Class: Molybdenum prospect
  - Claims: Fish 1 (W): 5S x 3W (15 units) #40297 Start: June 8/78 Fish 2 (E): 5S x 4E (<u>20 units</u>) - #40299 Comp'd: June 9/78 35 units - staked by P. Cox (Amex) for C.S.E.
  - Location: Approximately 1 km. WSW of Retallack, B.C. near the junction of Stenson Creek with the Kaslo River. The geographic coordinates are 50° 02' N by 117° 09' W.
  - Access: Excellent access provided by numerous logging roads which join the Kaslo-New Denver road at Retallack.
  - Description: The claim group is situated centrally within the Zincton-Retallack Pb/Zn/Ag mining district. Three silt samples collected along the Stenson Creek drainage had values of 12 to 14 p.p.m. Mo (12-14 times background). The property is underlain by Triassic-age metasediments of the Slocan Group intruded by feldspar porphyry stocks of possibly Cretaceous age. The zonation of peripheral Pb-Zn-Ag showings and abundance of intrusive stocks suggest that a major unroofed intrusion may underlie the property.

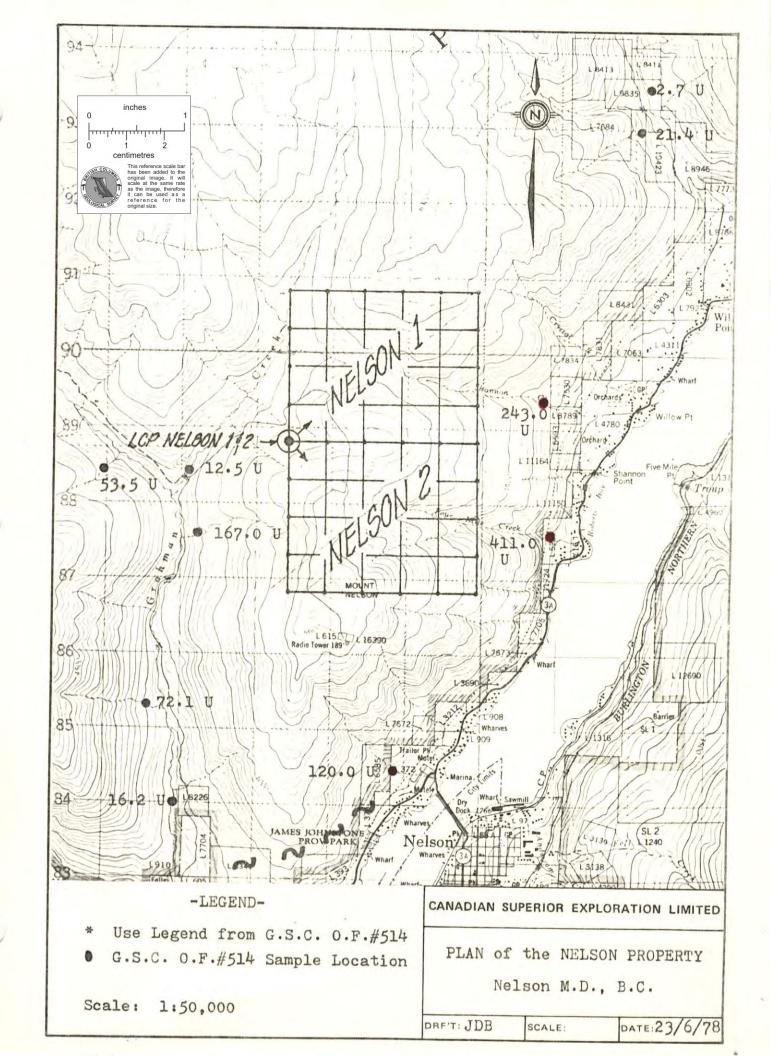


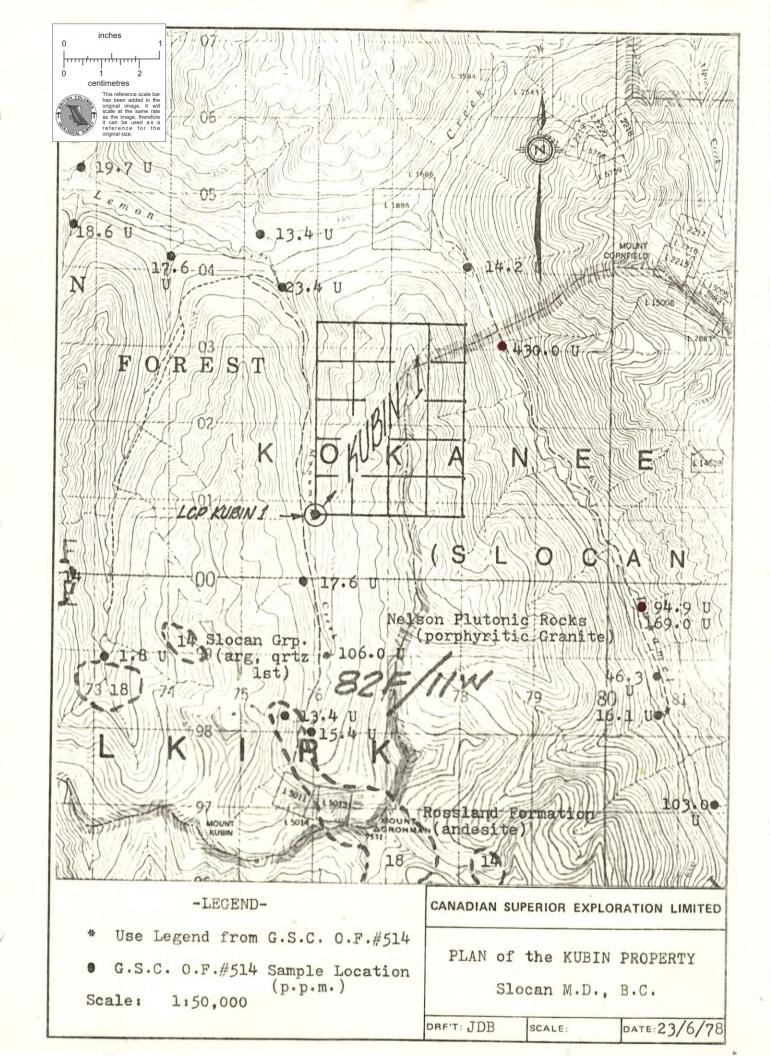
Reference: G.S.C. Open File #514; sample 9202. G.S.C. Open File #515; samples 7009 and 7015.

- (4) <u>NELSON 1 & 2</u> (82 F/11W) Nelson M.D., B.C.
  - Class: Uranium prospect Claims: Nelson 1 (N): 4N x 5E (20 units) - #31909 Start: June 9/78 Nelson 2 (S): 4S x 5E (20 units) - #31910 Comp'd: June 11/78 40 units - staked by P. Cox (Amex) for C.S.E.
  - Location: 7 km. NNW of Nelson, B.C., immediately north of the Mt. Nelson radio tower. The geographic coordinates are 49° 34' N by 117° 18' W.
  - Access: The gravel road servicing the Mt. Nelson radio tower provides access to the western portion of the claim group.
  - Description: The claim group is underlain by granitic rocks of the Nelson batholith. The property was located to cover the source of anomalous uranium-rich sediments from the Mt. Nelson area.
  - Reference: G.S.C. Open File #514; samples 7202, 7235, 7236 and 7197 to 7199.
- (5) <u>KUBIN 1</u> (82 F/11W) Slocan M.D., B.C.

Class: Uranium prospect

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- Claim: Kubin 1: 5N x 4E (20 units) #43627 Start: June 11/78 Comp'd: June 11/78 - staked by R. Marini (Amex) for C.S.E.
- Location: 20 km. north of Nelson, B.C. between the drainages of Duhamel and Monumental Creeks with Lemon Creek. The geographic coordinates are 49° 40' N by 117° 18' W.
- Access: Several gravel roads up Monumental and Duhamel Creeks provide dry-weather access.
- Description: The claim is underlain by granites and granodiorites of the Nelson batholith. Silt samples collected in the area were anomalously high in uranium (approximately 4 times background).
- Reference: G.S.C. Open File #514; samples 1242-1247 and 7217.

### PROPOSED EXPLORATION ON ACQUIRED PROPERTIES

Preliminary exploration work on the nine staked properties will involve a two to three day property examination of each. The purpose of this program is to briefly assess each property without undertaking more detailed and time consuming surveys. These examinations will be carried out between June 26th and mid-July and will include a geological reconnaissance with coincident rock and silt sample collection.

Pending the results of this reconnaissance program the writer will recommend further and more detailed exploration work for those properties which warrant it. A review of the G.S.C. Open Files 514 and 515 was undertaken in Kamloops subsequent to the staking program. Results of this review indicate several areas of interest which should be investigated as soon as possible.

In the Nelson map area (NTS 82 F) there are four geological/geochemical exploration targets:

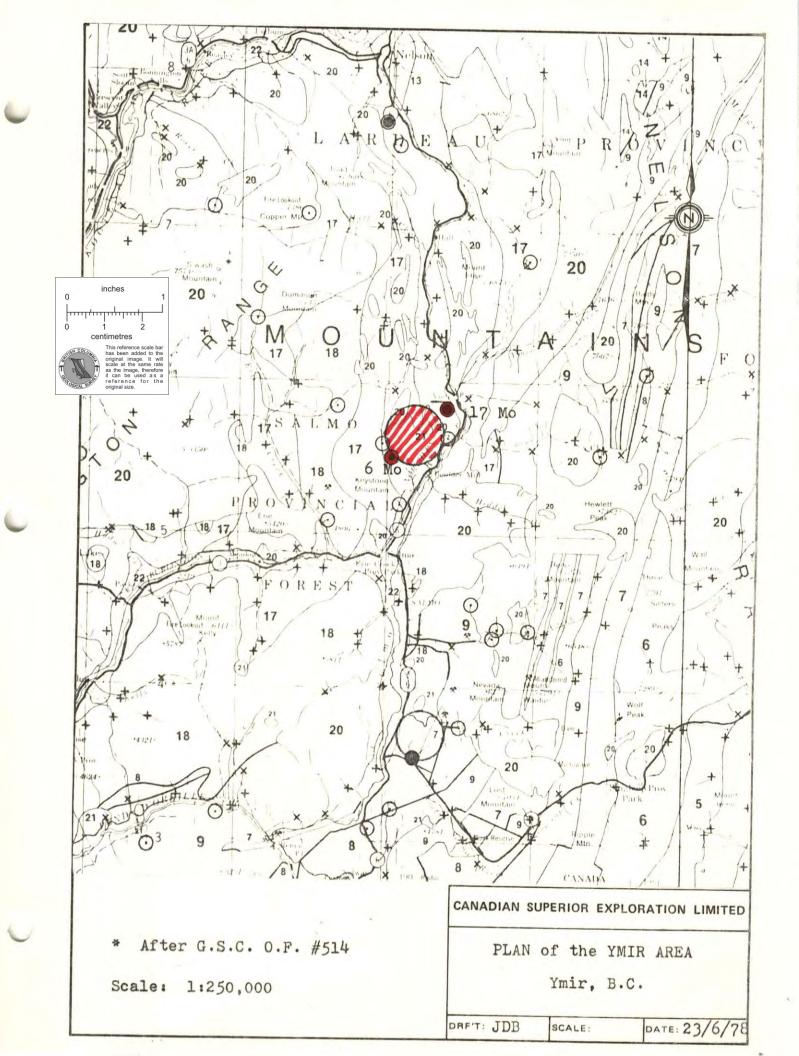
(1) <u>YMIR AREA</u> (Mo) - 82 F/3E & W; Lat. 49<sup>°</sup> 17' N, Long. 117<sup>°</sup> 15' W.

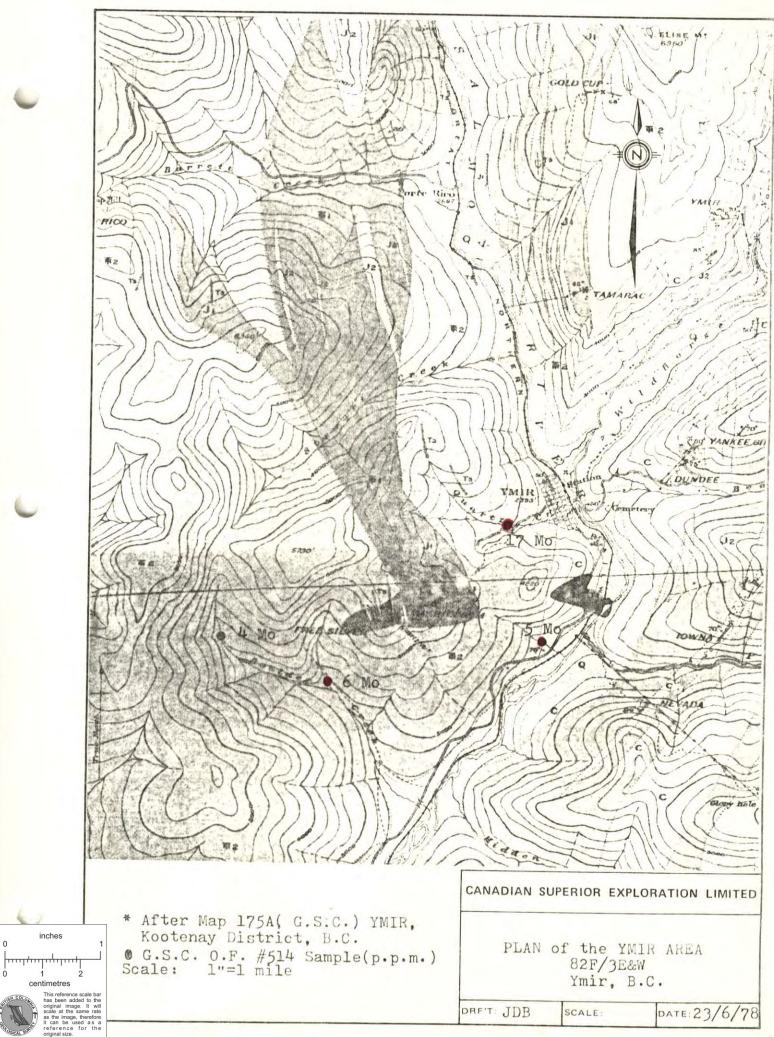
The "Ymir" anomaly is located between Stewart and Boulder Creeks approximately four kilometers SW of Ymir, B.C. Silt samples (G.S.C. O.F. #514, samples 1095, 1096, 1099, 1100 and 1102) from these two drainages were anomalous in Mo (6 & 17 p.p.m.), F in  $H_0O$  (54 to 140 p.p.b.) and Cu (52 to 166 p.p.m.).

This area is underlain by the Lower Jurassic-age Rossland and Hall Formations which are intruded by Nelson plutonic rocks and younger Tertiary-age monzonites and pegmatites. There are two old showings in the area, the May Blossom and Free Silver. Little is known about them.

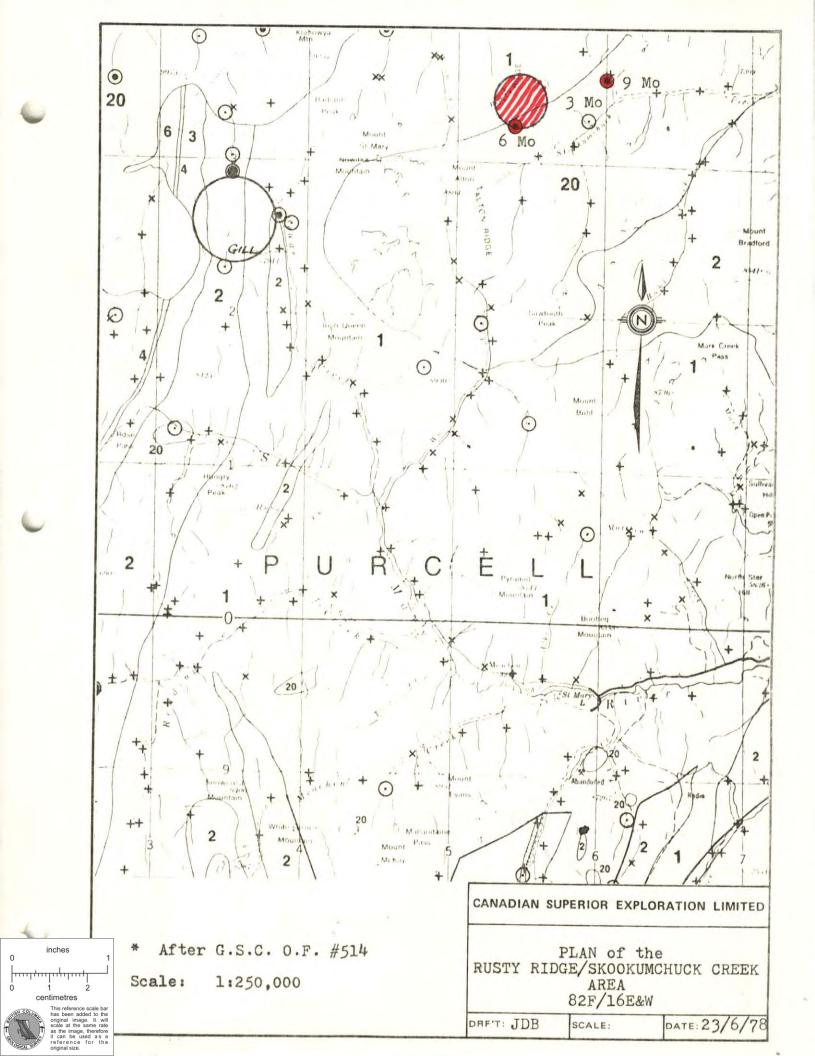
The complexity of igneous activity, geochemical anomaly and quartz veining noted in the area suggest that the "Ymir" anomaly requires a field examination.

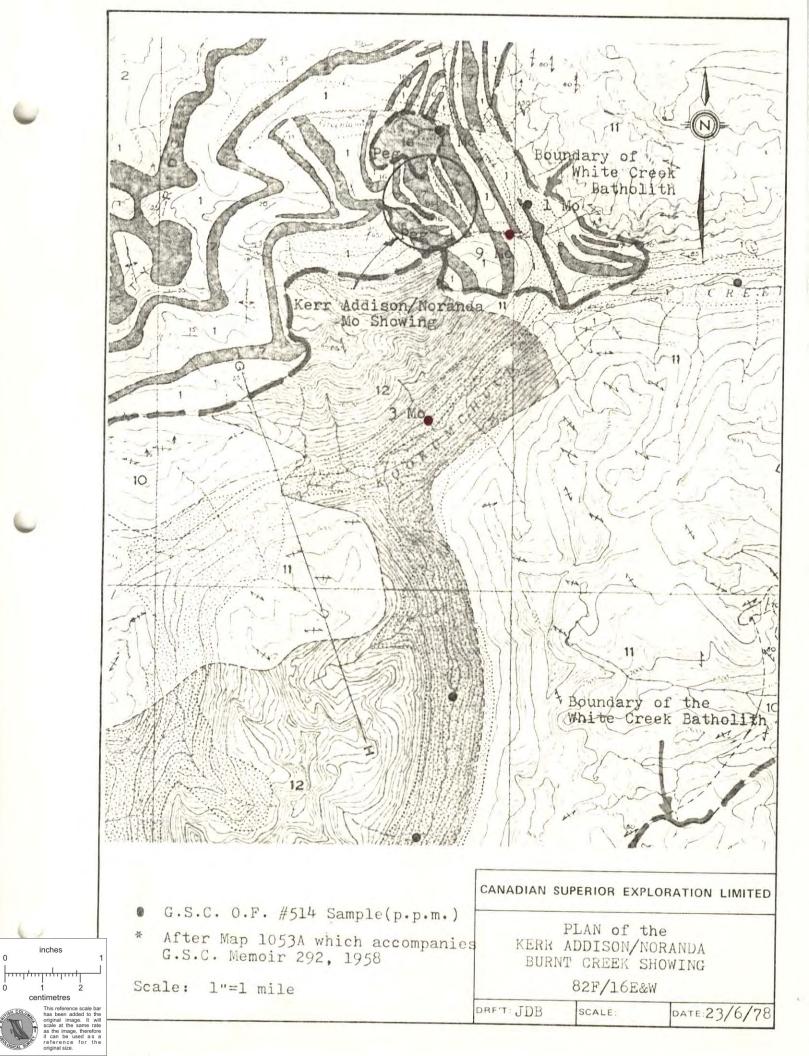
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(2) <u>RUSTY RIDGE/SKOOKUMCHUCK CREEK AREA</u> (Mo) - 82 F/16E & W,
Lat. 49<sup>o</sup> 48'N, Long. 116<sup>o</sup> 15' W.
During the review a subtle molybdenum geochemical anomaly was
identified in the Rusty Ridge/Skookumchuck Creek area (G.S.C. O.F.
#514; samples 5225, 5229 and 5231). The writer has since discovered
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that Kerr Addison/Noranda own a molybdenum showing on Greenland Creek. This showing seems to be the source of this anomaly.

The geology of the area is excellent for the emplacement of a stock-work or skarn molybdenum deposit. North of the composite White Creek batholith, dykes of pegmatite intrude the Upper Aldridge Formation. Molybdenite mineralization is reported within the pegmatite (Reesor, G.S.C. Memoir 292, 1956).

Although the geochemical anomaly appears to be staked this area should be thoroughly investigated.

### (3) OTHER AREAS OF LOWER PRIORITY

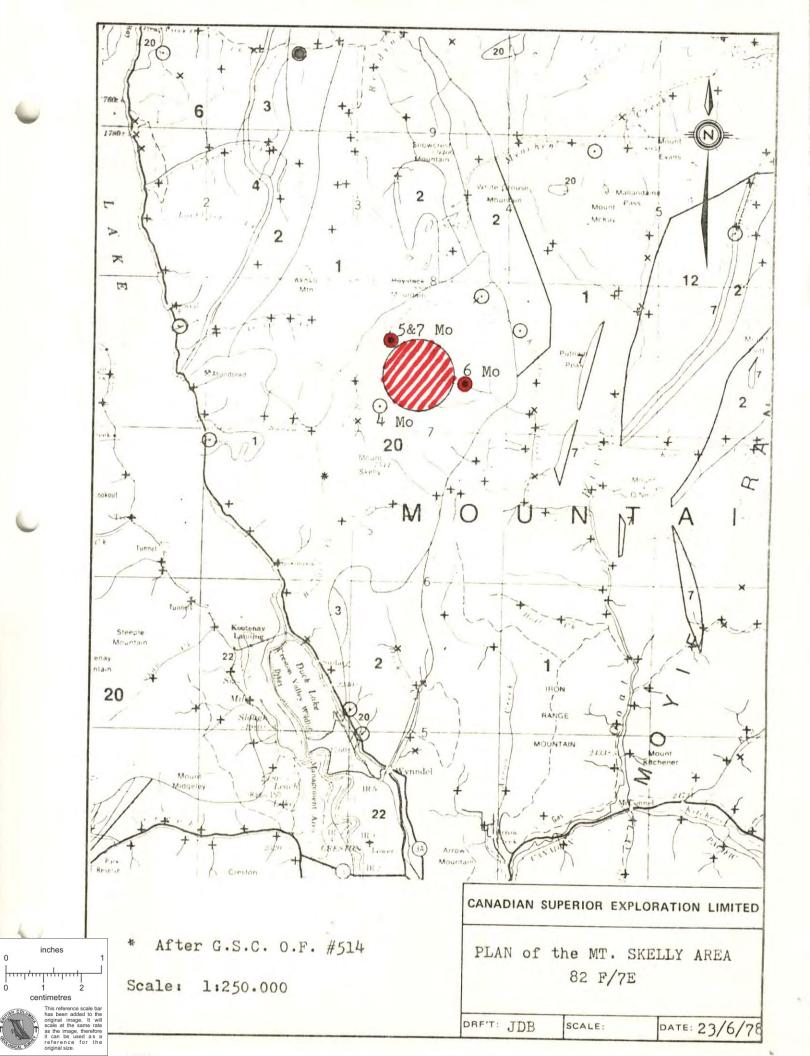
- (a) Mt. Skelly area (Mo) 82 F/7E; Lat. 49° 25' N, Long 116° 32' W.
   Mo, F, U anomaly 6 km. NE of Mt. Skelly. (G.S.C. 0.F. #514, samples 3184, 5383, 1179 and 1180)
- (b) Jersey Area (Mo) 82 F/3E; Lat. 49° 05' N, Long. 117° 15' W.
   Mo anomaly from the area west of the Jersey Mine.
  - Mo mineralization possibly related to the Nelson or Coryell intrusions of the Laib and Reno Formations.

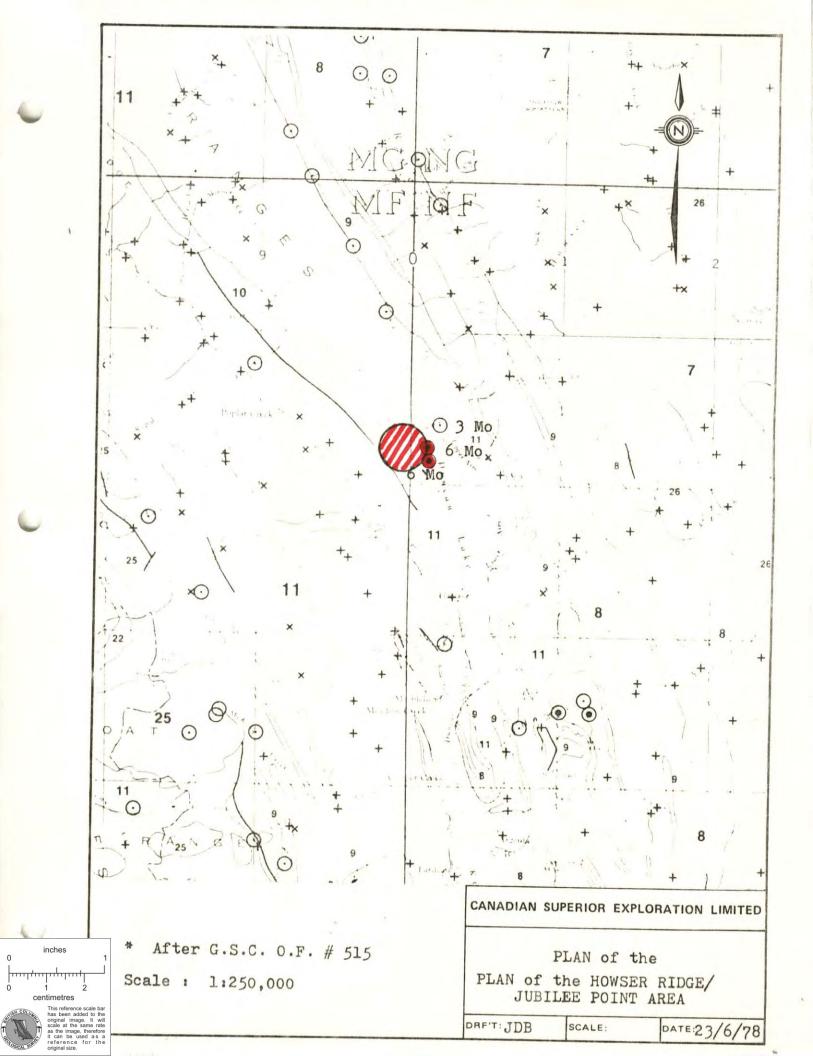
In the Lardeau map area (NTS 82 K) there are four geological/geochemical exploration targets:

(1) HOWSER RIDGE/JUBILEE POINT AREA (Mo) - 82 K/6E & 7W

Lat. 50° 24' N, Long. 117° 00' W.

A Mo, F, Ni, and Cu anomaly is situated between Howser Ridge and Jubilee Point approximately 10 km. NNW of Howser, B.C. This anomaly is not particuarly high in molybdenum (6 p.p.m. Mo).





However, due to its location within the Trout Lake area and the very low Mo values from Newmont's Trout Lake deposit this area is worth investigation.

The anomaly is underlain by limestones and phyllites of the Jubilee and Lardeau Formations. An examination of this anomaly would be directed towards discovering any evidence of intrusive activity in the area (Mo - W skarn deposit).

# (2) BARN MOUNTAIN AREA (Mo, Ag) - 82 K/1W; Lat. 50° 11' N, Long. 116° 18' W.

This Mo, Ag anomaly situated immediately SW of Barn Mountain was originally scheduled for staking by C.S.E. However, it was found to occur within the Purcell Wilderness Area.

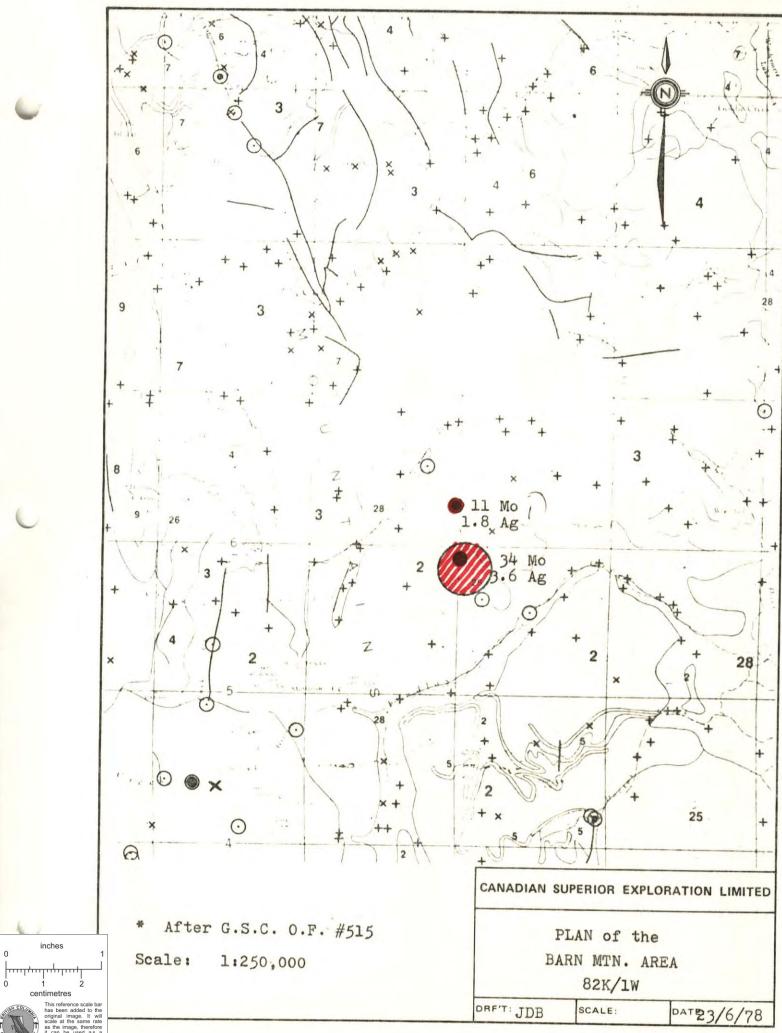
Within the area of interest a Cretaceous-age stock of granodiorite intrudes argillites, dolomites and quartzites of the Aldridge and Dutch Creek Formations.

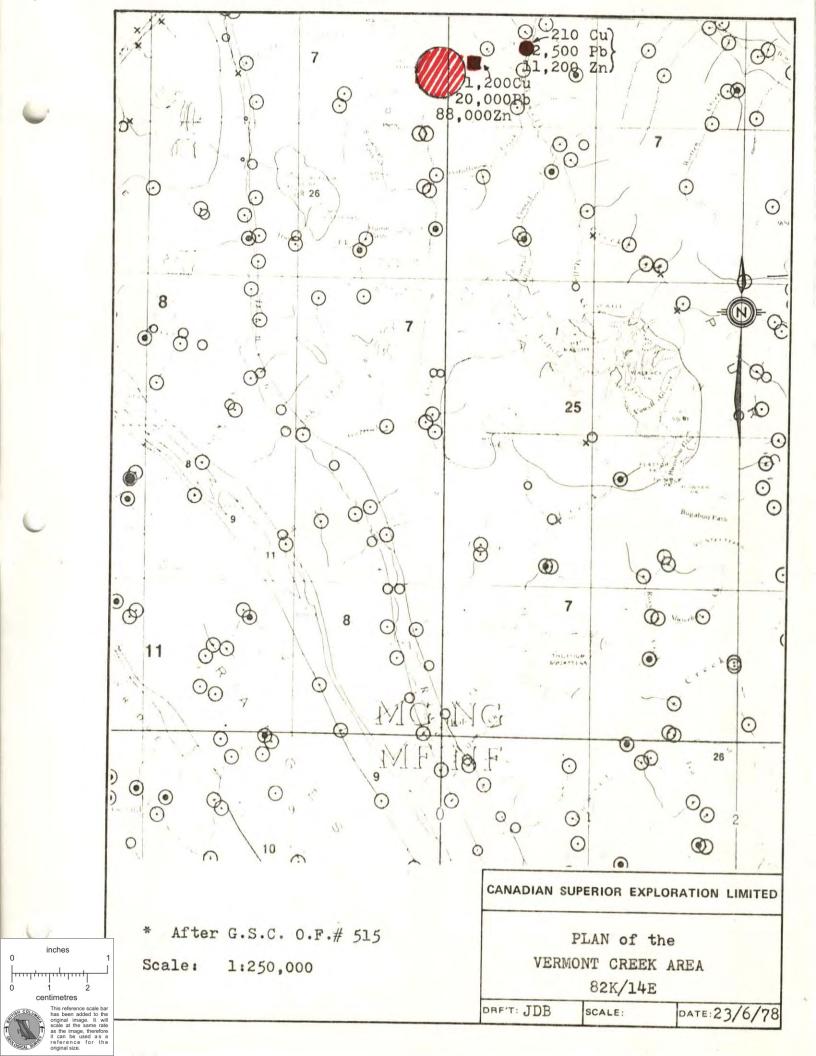
Although this geochemical anomaly cannot be staked at this time, the writer recommends that C.S.E. investigate this area to see if it is worth pursuing in the future.

## (3) <u>VERMONT CREEK AREA</u> (Cu, Zn, Pb, massive sulphide) - 82 K/14E & 15W; Lat. 50<sup>°</sup> 56' N, Long. 117<sup>°</sup> 00' W.

Several silt samples collected in the Vermont and Vowell Creek drainages were highly anomalous in copper (210 & 1,200 p.p.m. Cu), zinc (11,200 & 80,000 p.p.m. Zn) and lead (2,500 & 20,000 p.p.m. Pb).

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This area is underlain by metasediments of the Horsethief Creek Group. The dispersion of silt sample results and host-rock lithology indicate a possible distal-type of massive sulphide environment worth investigating.

It should be noted when evaluating the G.S.C. Open File #515 Newmont's Trout Lake deposit on Wilkie Creek responded very poorly to the reconnaissance silt and water geochemical program. The anomalous Mo, Ni, and Cu values near Staubert Lake (8 km. NW of Trout Lake) appear to have been dispersed from Noranda's Marlow Creek Mo showing and not from the Trout Lake deposit.

### RECOMMENDATIONS

It is recommended that C.S.E. carry out reconnaissance property examinations on the nine staked properties. The Ymir, Howser Ridge and Vermont Creek areas should be examined and staked if it is warranted.

The estimated budget for this initial reconnaissance program is as follows:

Period Covered by Estimate: June 1 - December 31, 1978

Fixed Costs are Proportion of: \$33,000.

	Variable	Fixed Co	osts	Total	
	<u>Costs \$</u>	Am't \$	%	\$	
Salaries and Benefits	3,000	10,000	50	13,000	
Outside Services (claim staking)	7,000				
Aircraft Charter (helicopter)	15,000				
Assaying and Geochemical	5,000				
Equipment Rental	1,500				
Automotive		1,000			
Travel	1,000				
Camp Equipment	500				
Board and Lodging	3,500				
Legal Expense	1,000				
Office Rent and Expenses		5,500			
Miscellaneous	4,000	2,000			
Totals	\$41,500	\$18,500	50%	\$60,000	

Recommendations for further work on selected properties will be contingent on the results of this initial phase of exploration.

### CONCLUSIONS

Recent published results on Newmont's Trout Lake molybdenum deposit serve to confirm that the Nelson/Lardeau map areas have the potential for developing into a major molybdenum producing region. The existing infrastructure, availability of hydroelectric power, reasonable access, and the mineral/surface land status of the area are positive considerations to an accelerated mineral exploration program. By utilizing the Union Carbide/C.S.E. and G.S.C. regional geochemical data, C.S.E. staked nine mineral properties and selected an additional five areas of interest for field examination.

Following a systematic examination of all areas of interest a detailed schedule of exploration will be submitted.

Submitted by,

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J.D. Blanchflower

Geologist

June 23, 1978