CANADIAN SUPERIOR EXPLORATION LIMITED

82KSE025 BARN

PRELIMINARY EXPLORATION REPORT

on the

BARN MOUNTAIN MOLYBDENUM PROSPECT

Golden Mining Division, Southeastern British Columbia

Lat. 50° 11' N. Long. 116° 17' W.

N.T.S. 82 K/1W

August 3, 1979

J.D. Blanchflower

CANADIAN SUPERIOR EXPLORATION LIMITED

TO: R. Dujardin LOCATION: Vancouver DATE: Aug. 3, 1979
J. Baker Smithers
FROM: D. Blanchflower LOCATION: Kamloops

SUBJECT: PRELIMINARY EXPLORATION REPORT on the
BARN MOUNTAIN MOLYBDENUM PROSPECT, GOLDEN M.D.

SUMMARY and RECOMMENDATIONS

The Barn Mountain molybdenum prospect is situated 40 kilometres south-southwest of Invermere, B.C.; just inside the eastern boundary of the Purcell Wilderness Conservancy. Due to the current moratorium on exploration and claim staking within the Conservancy this showing is conspicuously undeveloped. Cominco has staked along the eastern periphery of the Conservancy boundary. However, results indicate that the majority of the prospect occurs to the west and is consequently worthy of serious consideration.

Results of a one-day examination including reconnaissance mapping, prospecting and geochemical sampling indicate that a 2,000 by 1,000 metre griesen zone occurs along the northern periphery of the Early to Middle Cretaceous Frying Pan stock. Associated with the more intensely fractured and altered portions of this zone is significant molybdenum-bearing sulphide mineralization with lead, silver, tin and tungsten values. Based on known models within similar geologic environments the economic potential of this prospect is excellent.

The writer recommends that C.S.E. lobby, by direct communication with the B.C. Ministry of Energy, Mines and Petroleum Resources, to have this showing and adjacent area excluded from the Purcell Wilderness Conservancy. In the interim it is further recommended that Cominco be approached to see if they might consider a joint venture with C.S.E. on the BARN 1 to 4 mineral claims.

INTRODUCTION

The Barn Mountain molybdenum prospect is situated 40 kilometres south-southwest of Invermere, B.C.; just inside the eastern boundary of the Purcell Wilderness Conservancy. Exploration interest in this area was generated in June, 1978 with the release of highly-anomalous molybdenum and silver silt geochemical results published in the G.S.C. Open File #515. However, due solely to the moratorium on mineral exploration and claim staking within the Purcell Wilderness Conservancy most of the major companies consequently avoided this area.

As a sideline to the Salmo project the writer prospected and sampled this target area on July 19th. This report is a summary of the results.

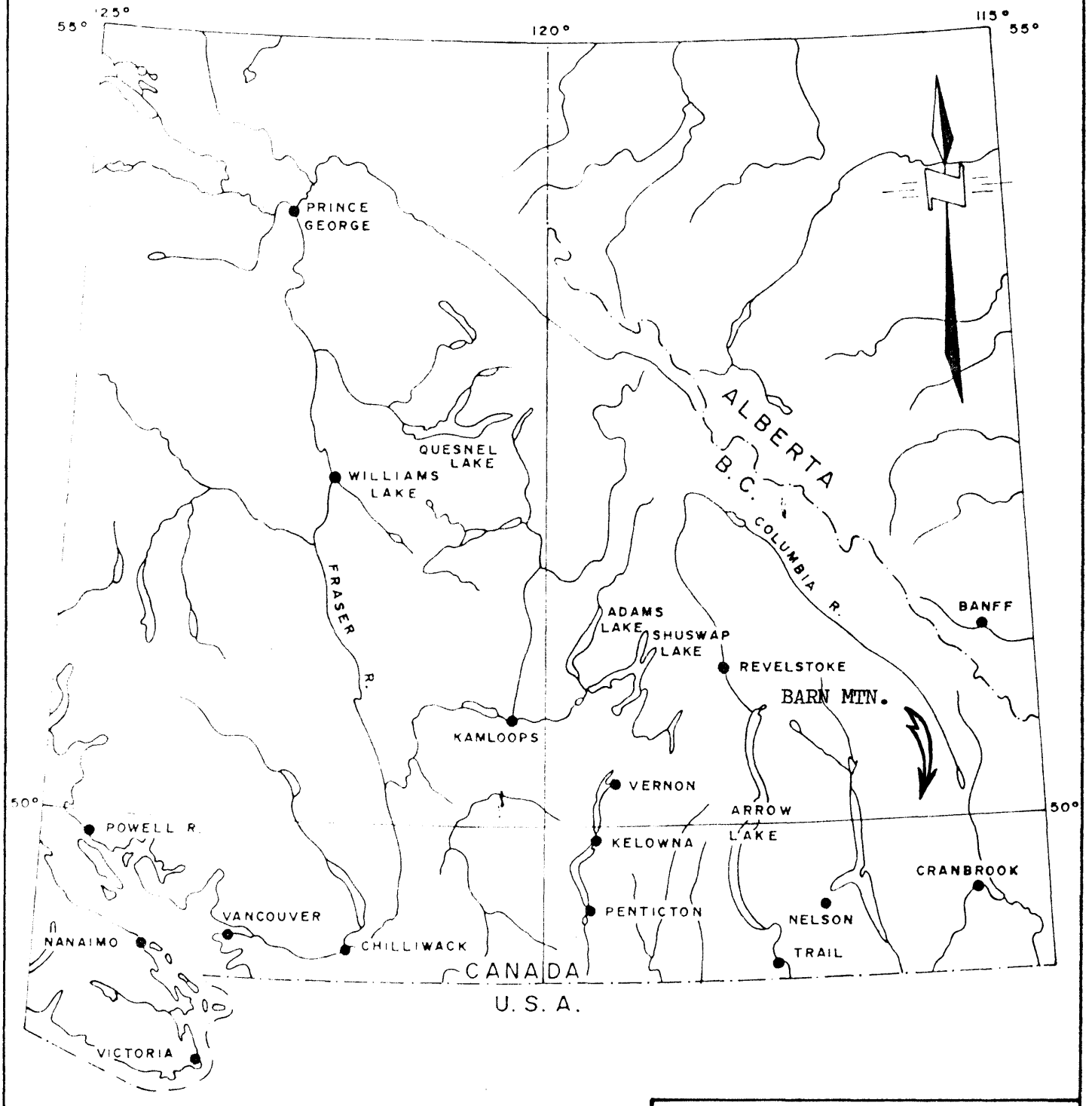
LOCATION AND ACCESS

The Barn Mountain area is located at coordinates 50° 11' N. latitude by 116° 17' W. longitude (N.T.S. 82 K/1W) in the Golden Mining Division, Southeastern British Columbia. The area of express interest lies immediately west of the eastern boundary of the Purcell Wilderness Conservancy; approximately 1 kilometre southwest of Barn Mountain.

The best access to the area is possible via helicopter from Nelson, B.C.

CLAIM STATUS

Due to the current moratorium no mineral claims completely cover this prospect. The major concern to C.S.E. if the moratorium is lifted or if the boundaries are redesignated is Cominco's BARN 1 to 4 M.G.S. mineral claims (69 units) located along the eastern periphery of the Conservancy. These claims were staked in June, 1978 and according to current records Cominco has applied for assessment credit on them. Based on results from the writer's work the valid portions of the BARN 1 and 2 claims, east of the Conservancy boundary, may cover extensions of the molybdenum-bearing griesen zone. However, the majority of this zone appears to occur to the west.



CANADIAN SUPERIOR EXPLORATION LTD.	
LOCATION MAP BARN MOUNTAIN MOLYBDENUM PROSPECT Golden M.D., Southeastern B.C. N.T.S. 82 K/1W	
Date: August/79	Scale: 1" = 64 Miles
Dwn by: J.D.B.	Dwg no. 1

As a followup to the examination an attempt was made to contact Mr. K. Northcote of the B.C. Ministry of Energy, Mines and Petroleum Resources. Northcote handles the evaluation of parks and those other areas excluded from mineral exploration. At the time Northcote was on vacation so Mr. N. Carter was contacted. Carter mentioned that the moratorium on the Purcell Wilderness Conservancy was reviewed annually with the next review taking place in January, 1980. In addition, consideration would be given to the exclusion of selected portions of the Conservancy. It was suggested that a letter in favour of mineral exploration and exploitation in that portion of the Conservancy be sent to Jim Hewlett with copies to Sutherland-Brown and Northcote. Also, that such a letter should be somewhat vague without direct reference to any specific mineral showing.

ECONOMIC GEOLOGY

Results of reconnaissance mapping indicate that economic sulphide mineralization occurs within a 2,000 by 1,000 metre griesen zone hosted by the Frying Pan stock of Early to Middle Cretaceous age. This stock has a granodiorite to quartz monzonite composition. Aplite dykes occur locally probably related to late-stage pneumatolytic activity.

Surrounding country rocks include quartzites and argillites of the Creston Formation, and dolomitic and calcareous argillites and quartzites of the Kitchener-Siyeh Formation; units of the Purcell Supergroup. These metasediments have been regionally metamorphosed and folded along north-south axies paralleling the Purcell Anticlinorium. Results indicate that, besides these rocks appearing to be deformed along the intrusive contact, thermal metamorphism and skarnification has occurred locally to varying degrees.

There appears to be, at least, three dominant premineral structures: northerly trending - related to Middle Jurassic regional folding, northwesterly trending - reflected by the northwest-southeast elongation of the stock, and ring fracturing - subparalleling the intrusive contact.

Contemporaneous or post-mineral fracturing has occurred paralleling the northerly trend and in a northeasterly direction ($045^{\circ}/-45$ SE) - reflected by late-stage dyking, post-mineral shearing, and local drainage patterns.

Pervasive hydrothermal alteration occurs along the northern and northeastern portions of the Frying Pan stock. Outside the mineralized zone widely-spaced quartz-muscovite fracture fillings host pyrite and minor magnetite mineralization. Within zones of moderate to intense fracturing (1 m. to less than 0.1 m. apart) alteration increases from saussuritization to sericitization, biotitization, feldspathization, and silicification. Intensely fractured and altered zones are griesenose in appearance with abundant quartz-orthoclase-muscovite veinlets hosting molybdenite-pyrite-galena mineralization surrounded by less than 1 to 10 cm. vein envelopes altered to sericite.

Pyrite is the most dominant sulphide mineral. It is generally pervasive within the alteration halo as fine-grained disseminations (1-3%) or associated with quartz $\pm$ orthoclase $\pm$ muscovite fracture fillings and veinlets within the griesen zone. Only minor pyrite disseminations and microveinlets occur within the dykes indicating a very late stage or post-mineral age for the aplitic intrusions. Molybdenite occurs dominantly within the well fractured griesen zone. Molybdenum mineralization appears associated with the quartz $\pm$ orthoclase $\pm$ muscovite fracture fillings and veining, or as very fine-grained disseminations within the vein envelope.

Galena mineralization occurs within the wider quartz-orthoclase-muscovite veins associated with both pyrite and molybdenite.

Chalcopyrite in minor amounts was identified in several, scattered float boulders.

Based on the silt and rock geochemical results silver, tungsten and tin mineralization are present in significant quantities. Silver values (up to 45.2 p.p.m. Ag in Silts) are probably associated with the galena mineralization. While tungsten and particularly the tin-bearing mineralization appear to be associated with the griesen zone. Tungsten mineralization could occur within the skarnified metasediments to the east, however, prospecting could not be extended at the time much beyond that area underlain by the intrusion.

RESULTS OF THE GEOCHEMICAL SAMPLING

Silt samples were collected from two small streams draining the area north of the griesen zone. Five additional silt samples were collected west of the showing from the main, north-draining tributary to Dutch Creek. Several bags of rock samples were collected during the examination. However, only seven samples, unmineralized and representative of the major lithologic units, were analyzed.

ACME ANALYTICAL LABORATORIES LTD.
Assaying & Trace Analysis
852 E. Hastings St., Vancouver, B.C. V6A 1R6
phone:253 - 3158

To:
Canadian Superior Exploration Ltd.
#5 - 465 Victoria St.,
Kamloops, B. C. V2C 2A9

File No. 0294
Type of Samples Rocks & Soils
Disposition

GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE No.		Mo	Cu	Pb	Zn	Ag	Sn	W					
0099K	S	335	210	3100	670	45.2	102	20					1
0102K	S	260	122	910	530	16.8	115	40					2
0106K	S	1	8	16	104	.3	1	2					3
0107K	S	5	7	21	94	.1	1	0					4
0108K	S	4	7	26	90	.2	1	0					5
0109K	S	1	10	18	76	.1	1	0					6
0110K	S	5	5	12	56	.1	1	0					7
0097K	R	22	10	10	520	.1	1	0					8
0098K	R	5	11	4900	340	18.0	31	0					9
0100	R	1	3	54	72	.1	1	0					10
0101	R	1	62	58	31	.6	1	0					11
0103	R	1	2	7	64	.1	1	0					12
0104	R	4	6	33	13	.4	1	0					13
0105 K	R	175	16	9	33	.2	1	0					14
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All results are in PPM.

DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED July 24, 1979

DATE REPORTS MAILED July 30, 1979

ASSAYER

DEAN TOYE, B.Sc.
CHIEF CHEMIST
CERTIFIED B.C. ASSAYER

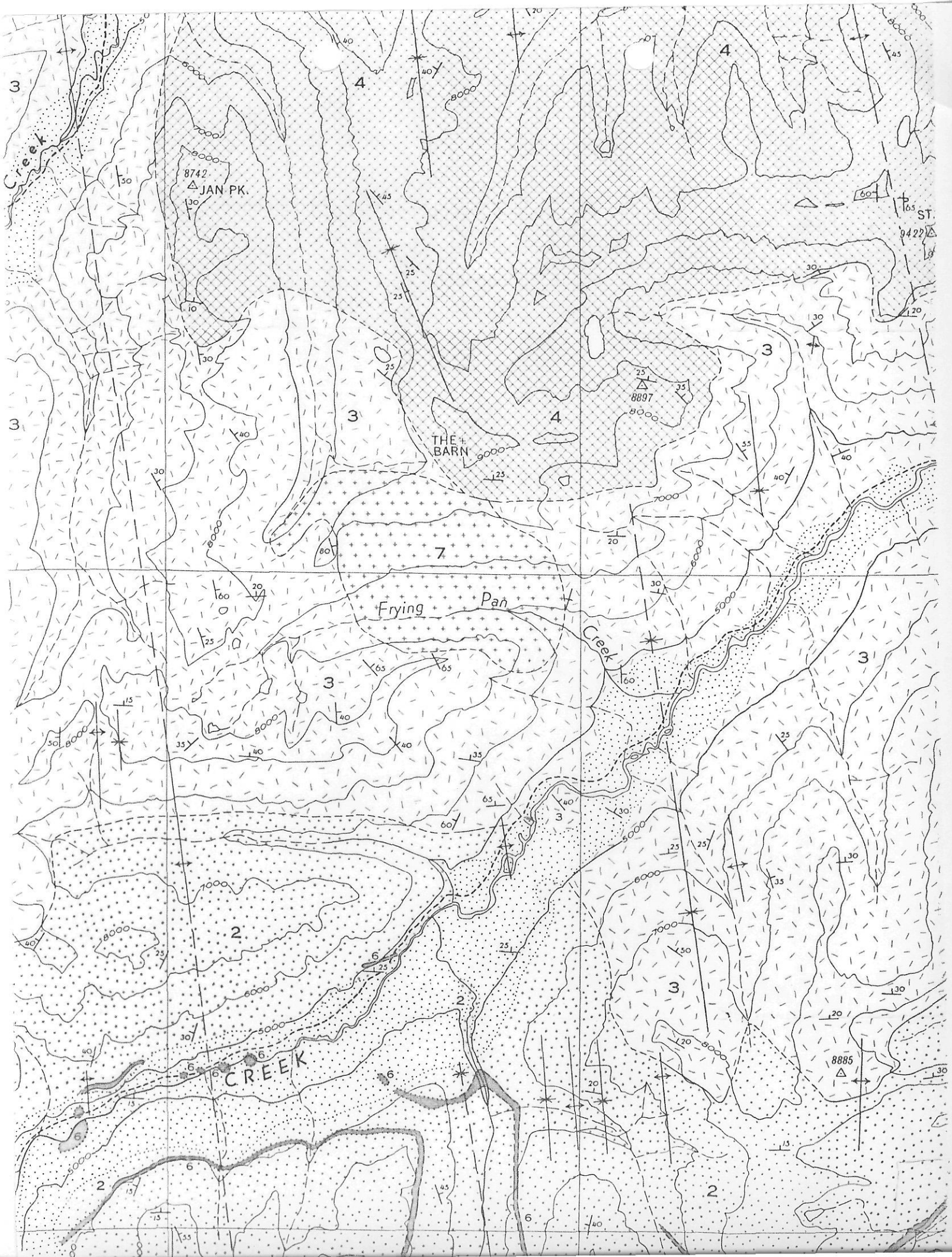
Results of the silt sampling immediately north of the griesen zone indicate highly anomalous values in molybdenum, lead, silver, tin and tungsten. Furthermore, these values are not apparently present west of the showing (silt samples #0106K to 0110K) around the western contact of the intrusion.

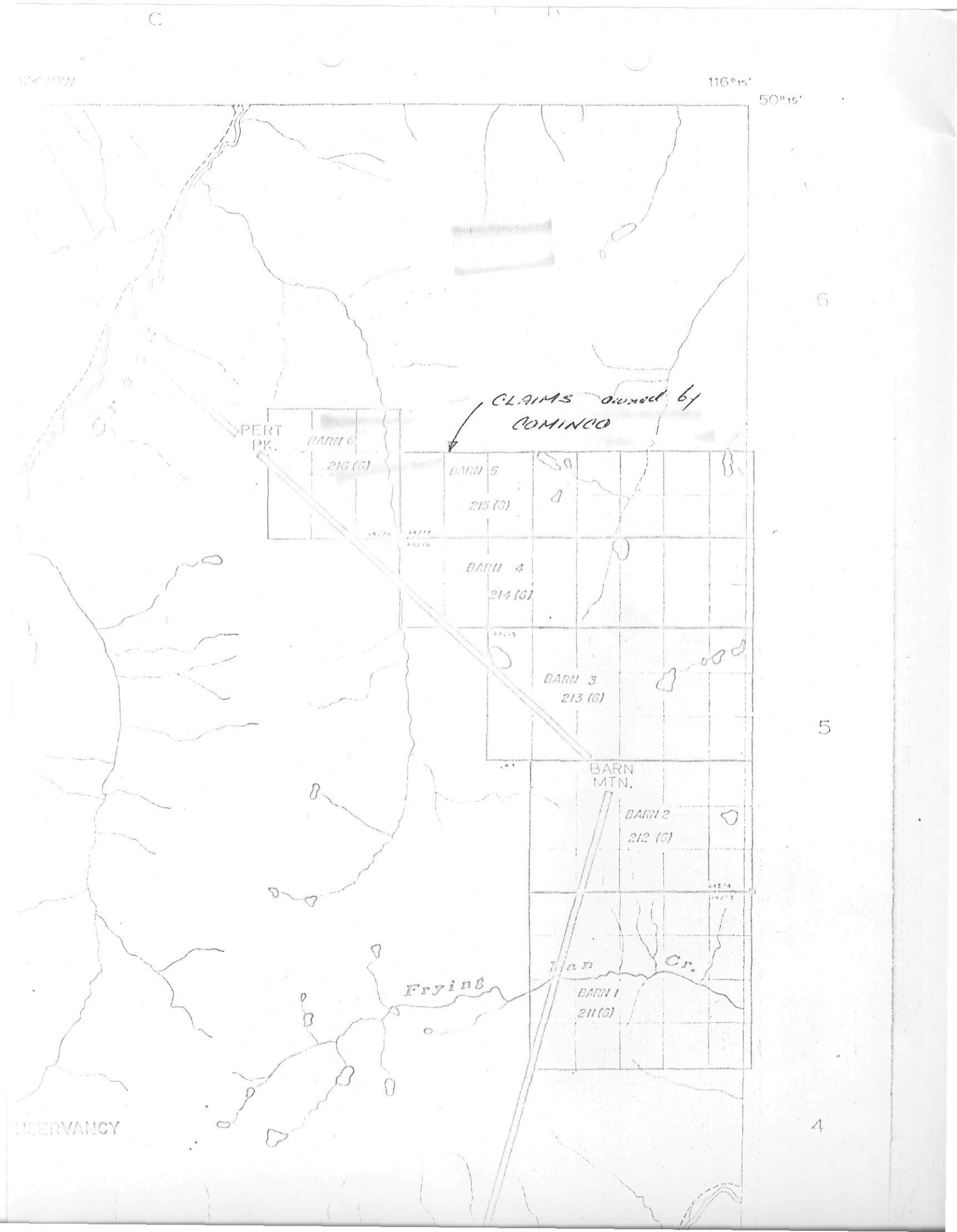
Geochemical values in the unmineralized rock specimens were not that notable except for sample #0098K. This sample was of intensely sericitized granodiorite hosting pyrite and galena mineralization as fine fracture-fillings. Values from this sample were anomalous in lead (4,900 p.p.m. Pb), silver (18.0 p.p.m. Ag) and tin (31 p.p.m. Sn).

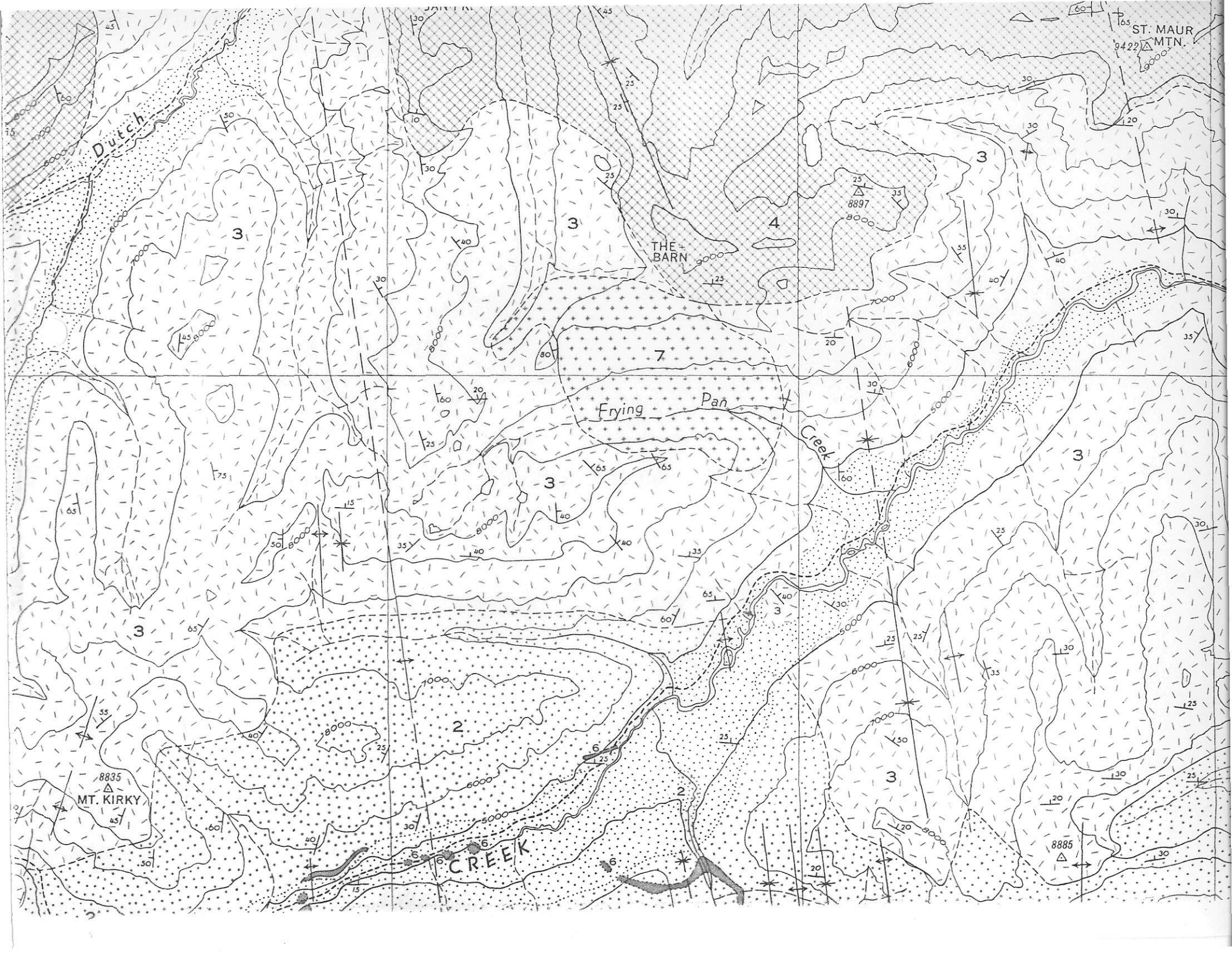
CONCLUSION

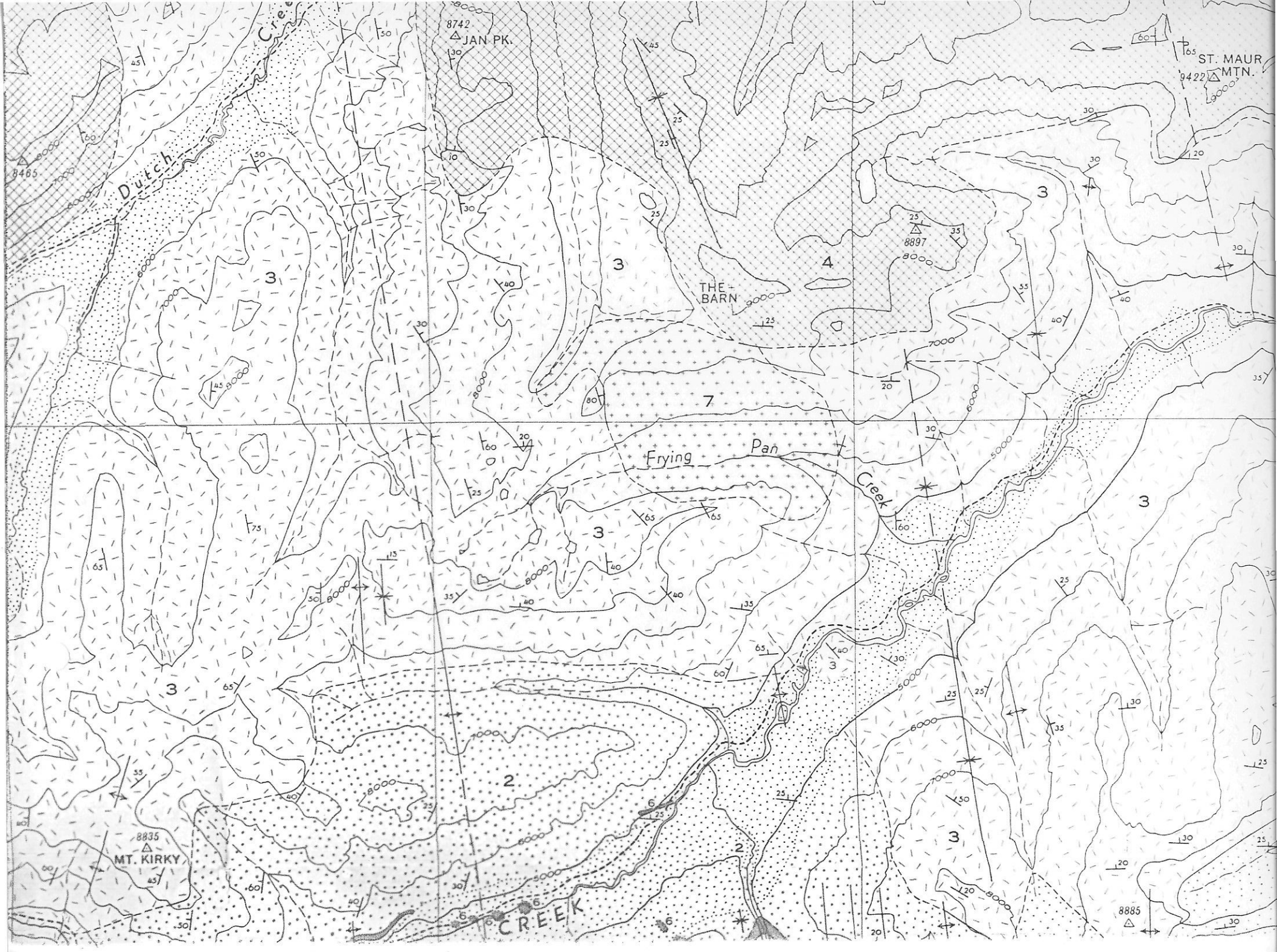
A large, very significant and, as yet, unexplored griesen zone occurs along the northern periphery of the Frying Pan stock. Preliminary results from the geochemical sampling and prospecting indicate, at least, one large zone of molybdenum-bearing mineralization with significant lead, silver, tungsten and tin values associated. This showing has obvious economic potential.

Despite its current land status all aspects for any possible future acquisition and exploration of this prospect by C.S.E. should be thoroughly investigated and pursued.


8742
JAN PK.
THE BARN
8897
9422
ST.
Frying Pan Creek
CREEK
8885


116°15'
50°15'
CLAIMS owned by COMINCO
PERT PK.
BARN 6
216 (6)
BARN 5
215 (6)
BARN 4
214 (6)
BARN 3
213 (6)
BARN MTN.
BARN 2
212 (6)
Man Cr.
Frying
BARN 1
211 (6)
6
5
4


ST. MAUR
MTN.
9422
Dutch
8897
THE
BARN
Frying
Pan
Creek
8835
MT. KIRKY
CREEK
8885


8742
JAN PK.
ST. MAUR
MTN.
9422
8465
Dutch
8897
THE
BARN
Frying
Pan
Creek
8835
MT. KIRKY
CREEK
8885