

004071

CANADIAN SUPERIOR EXPLORATION LIMITED

EXPLORATION REPORT
on the
LARDEAU PROJECT (P-171)

SOUTHEASTERN BRITISH COLUMBIA

N.T.S. 82 F and 82 K

January 31, 1979

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SUMMARY AND RECOMMENDATIONS

In June the Ahab, Oasis, Fish, Nelson and Kubin mineral properties were staked for the Lardeau project (P-171) in the Nelson and Lardeau map-areas of southeastern British Columbia. These properties covered four geochemical anomalies discovered by the 1977 G.S.C. regional geochemical survey. In addition to the staked properties, eleven other mineral occurrences were examined and evaluated by the writer during the 1978 field season.

Each property or mineral occurrence was investigated by geological mapping, prospecting and/or silt and rock geochemical sampling. A BGS-ISL non-discriminating scintillometer was utilized while prospecting all mineral properties.

Results from the Ahab, Oasis, Fish, Nelson and Kubin properties were not sufficiently encouraging to warrant further work. Exploration work on the Stewart, Mammoth, Kena and Double B properties indicated that although the individual properties should not be acquired, the Nelson-Rossland-Creston quadrangle requires a more thorough and detailed examination.

There appears to be little potential for major discoveries within the Ahab, Oasis, Fish, Nelson and Kubin properties. It is recommended that these properties be allowed to lapse in June, 1979 and not be re-staked.

Exploration efforts in the 1979 season should be concentrated on molybdenum-tungsten exploration in the southwestern portion of the Nelson map area - the area bounded by Nelson, Rossland, Creston and the Canada-U.S.A. border. Preliminary data compilation should be carried out in the pre-season with field follow-up and examination of all mineral occurrences being conducted in early summer.

Estimated budget for this exploration work is \$70,000.

On June 8th the Geological Survey of Canada released geochemical data from a 1977 regional survey covering the Nelson, Lardeau and Seymour Arm map-areas. Acting on these geochemical results C.S.E. staked five anomalous areas of interest. The Ahab (Mo, U), Oasis (Mo, U), Gill (Mo), Nelson (U) and Kubin (U) properties totalling 207 units were staked between June 8th and 11th, 1978.

These properties and eleven other mineral occurrences were subsequently examined and evaluated by prospecting, mapping and geochemical surveying.

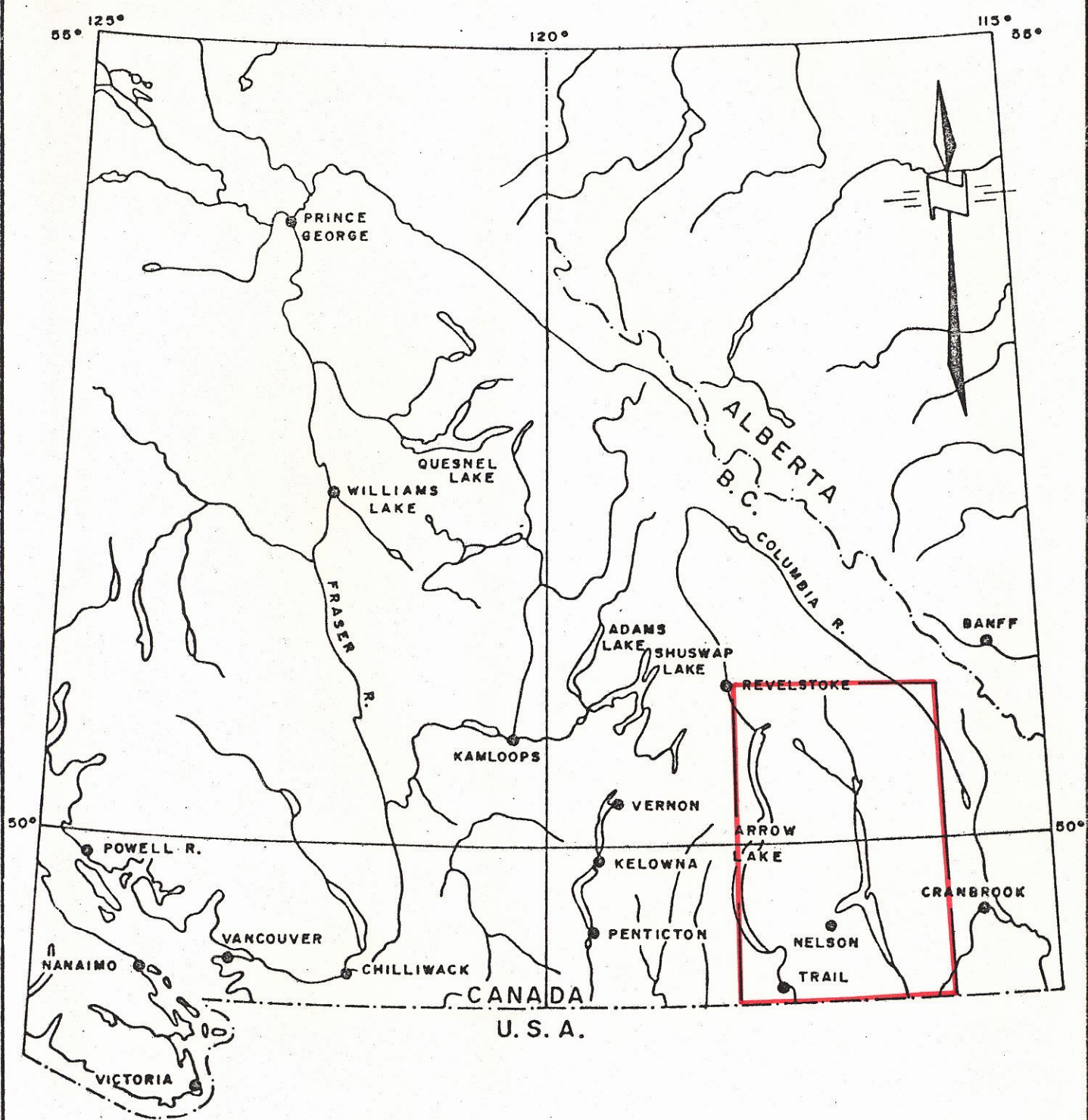
This report is submitted as a summary of the results of all data collected during the 1978 exploration program.

PHYSIOGRAPHY

The Nelson-Lardeau project area consists of approximately 12,400 square miles of mountainous terrain in the Kootenay district of southeastern British Columbia (see Figure 1). It is bounded by latitudes 49° and 51° North, and by longitudes 116° and 118° West. This area includes the southern and central portions of the Purcell and Selkirk Mountains, and the eastern slopes of the Monashee Mountains west of the Arrow Lakes.

Small portions of this area are accessible by paved roads along the valleys of the Kootenay-Columbia Rivers, Kootenay Lake and Arrow Lakes, and by gravel roads that extend part way up most of the main tributary streams. However, access to most of the area is dependent on helicopter support due to heavily timbered valley sides and bottoms, and to high, serrate mountain ridges.

While access may be difficult during the initial phases of exploration, most of the properties are situated near existing access and infra-structures which would be important factors in the viability of any future mining operation.



CANADIAN SUPERIOR EXPL. LTD

LOCATION MAP
of the
NELSON/LARDEAU AREA
82F&82K

Date: 23/6/78

Scale: 1" = 64 Miles

Dwn by: jdb

Dwg no. 1

CLAIMS

- 3 -

Claim information on those properties staked for C.S.E. in the Nelson-Lardeau project area is as follows:

(1) AHAB 1-4 (82 K/14W) - Slocan M.D., B.C.

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 (20 units) - #13936
72 units
- staked by R. Marini (Amex) for C.S.E.
- Expiry Date: June 8, 1979

(2) OASIS 1 & 2 (82 K/14W) - Slocan M.D., B.C.

Claims: Oasis 1 (W): 5N x 4W (20 units) - #13937 Start: June 8/78
Oasis 2 (E): 5N x 4E (20 units) - #13938 Comp'd: June 8/78
40 units
- staked by R. Marini (Amex) for C.S.E.
- Expiry Date: June 8, 1979

(3) FISH 1 & 2 (82 K/3E) - Slocan M.D., B.C.

Claims: Fish 1 (W): 5S x 3W (15 units) - #40297 Start: June 8/78
Fish 2 (E): 5S x 4E (20 units) - #40299 Comp'd: June 9/78
35 units
- staked by P. Cox (Amex) for C.S.E.
- Expiry Date: June 9, 1979

(4) NELSON 1 & 2 (82 F/11W) - Nelson M.D., B.C.

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.
- Expiry Date: June 11/79

(5) KUBIN 1 (82 F/11W) - Slocan M.D., B.C.

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.

- Expiry Date: June 11, 1979

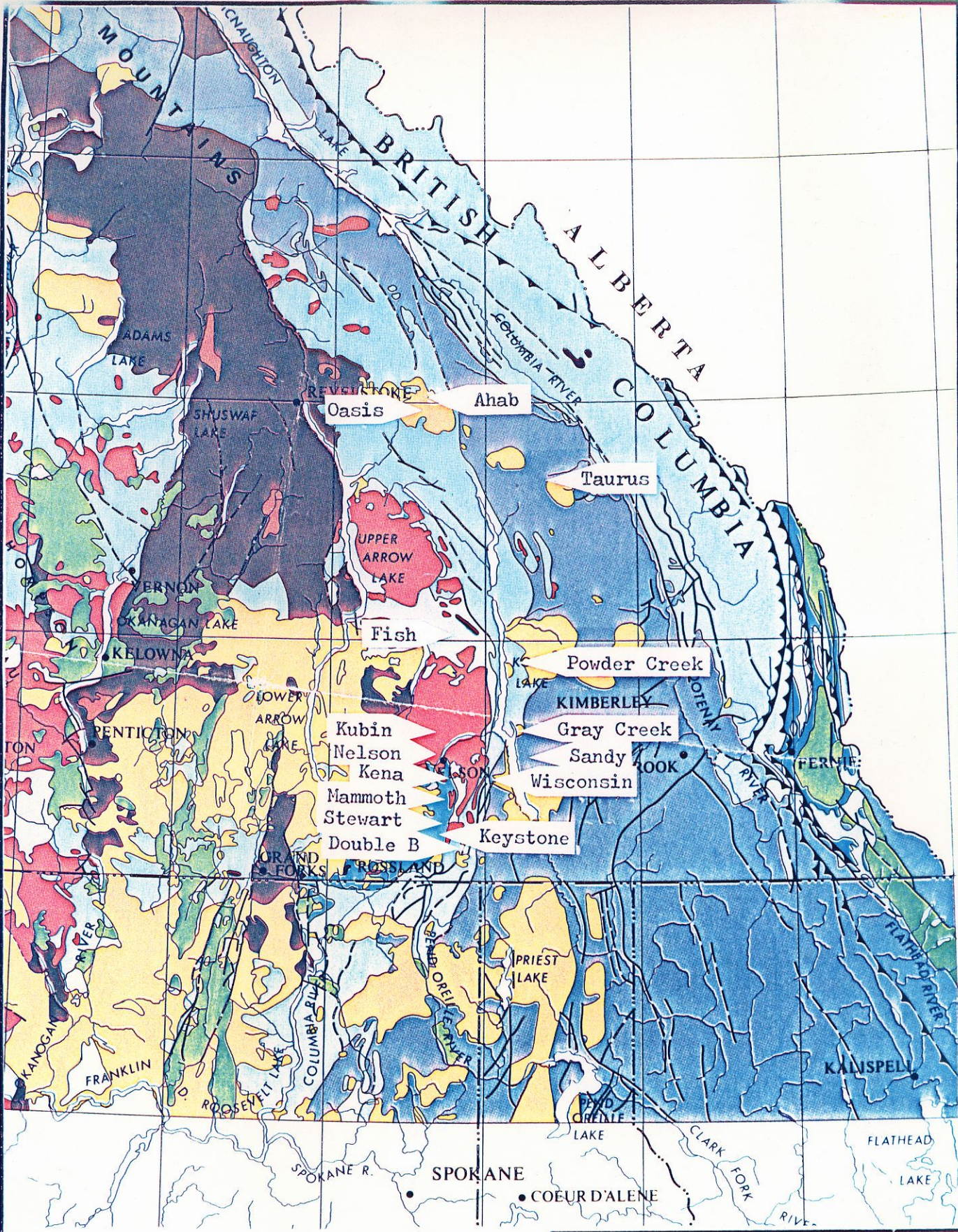
HISTORY

The mining industry of this area is notable not only for past production (from such famous mining camps as Rossland, Slocan, Nelson, Ymir, Sheep Creek, Salmo, Sullivan, Ainsworth and Riodel) but also for present and potential production. Gold, silver, copper, lead, zinc, and tungsten ores have been mined from various camps. Relatively minor amount of cadmium, antimony and molybdenum have also been produced. The Sullivan mine is presently the only major operating mine in this district.

Mineral exploration interests have been renewed recently with the publication of results from Newmount's molybdenum discovery near Trout Lake. Combined with the continued uranium exploration in the adjacent Hydraulic Lakes area and escalating metal prices for gold, silver and molybdenum, an exploration boom occurred here during this last field season.

REGIONAL GEOLOGY

The geology and tectonic history of the southeastern tectonic belt of the western Cordillera are extremely complex. Work by Wheeler and Read (1975), Reesor (1973), Little (1960), and Rice (1941) has helped to interpret this area. For the purposes of this brief and regional overview a very generalized geologic plan (Jackson, 1976) has been utilized to show the basic sequences of layered, metamorphic and intrusive rocks (see Figure 2).



* After C.I.M.M., Special Vol. 15, 1976
 Scale: 1:2,500,000

CANADIAN SUPERIOR EXPLORATION LIMITED SMITHERS REGIONAL OFFICE		
Geologic Plan of the Nelson-Lardeau Area Southeastern British Columbia		
DRAWN BY: DR. AUGHTSMAN: JDB	SCALE:	DATE: Dec. 1978

For simplicity four sequences of layered rocks occur within the Nelson-Lardeau project area. They are: Proterozoic, Paleozoic, Triassic, and Jurassic. Each of the sequences is bounded by a major unconformity. According to Wheeler (1966) the lithologies constituting the sequences in the southeastern belt indicate deposition at various times within diverse and changing tectonic realms. Purcell quartz arenites, argillites and carbonates were deposited in a miogeosynclinal environment. Impure and calcareous clastic sediments of Windemere and lower Paleozoic age were accumulated in an eugeosynclinal realm. During the Triassic sequence sediments derived from the emerging land to the west were deposited, accompanied at intervals by volcanic and possibly attendant ultramafic intrusion. By late Jurassic time marine waters were expelled from the southeastern belt and at various times subsequently until the late Tertiary when this region was subjected to deformation, plutonism, and several pulsatory uplifts. Non-marine clastics and sub-aerial volcanics occur within local, late tectonic basins.

Plutonic rocks of the southeastern belt fall into three categories: granitic rocks, metamorphic complexes, and regionally metamorphosed rocks. Granitic rocks were emplaced at various times, often repetitively, from the late Proterozoic to the early Tertiary. Metamorphic complexes, such as the Shuswap Complex, are marked by abundant granitized rocks ranging in age from Proterozoic to as young as upper Paleozoic. Medium-grade metamorphic rocks occur in the Kootenay Arc (Wheeler, 1966).

The structural pattern of the southeastern belt is dominated by three major elements: Purcell anticlinorium, Shuswap Metamorphic Complex, and the intervening, intensely deformed Kootenay Arc. Structural trends are arcuate, convex to the east and more or less parallel with the Arc. Structural trends within the Shuswap Complex are variable and are largely disposed around gneiss domes (Wheeler, 1966).

Layered rocks of this area, exclusive of the Purcell anticlinorium and Shuswap Complex, are marked by extremely tight folds, locally isoclinal and refolded, and by steep normal faults and variably dipping thrust faults. The Purcell anticlinorium, in contrast, is a broad structure which contains smaller, tighter folds on its limbs and is probably underlain by one or more thrust sheets that extend eastwards into the Rockies (Wheeler, 1966). It is cut by several transverse faults, one of which was probably established in the Cambrian.

Lead-zinc ores, especially those of the Sullivan mine, dominate the Purcell sequence. Lead-zinc and tungsten mineralization may occur within Precambrian to Cretaceous-age rocks, but the Kootenay Arc is noted for these ores. Molybdenum and uranium occurrences appear most closely related to Early to Middle Cretaceous plutonism.

C.S.E.'S EXPLORATION CONCEPT AND PROGRAM

The objectives of the 1978 program were firstly, to stake any obvious anomalies based on the results of the 1977 G.S.C. geochemical survey and, secondly, to systematically examine each property.

The staking was contracted to Amex Exploration Services Ltd. of Kamloops, B.C. and supervised by the writer. A Jet Ranger 206 helicopter based in Nelson, B.C. was used to move the staking crew. It took four days to stake and secure the five areas of interest.

Property examinations were carried out during the summer and early autumn. A reconnaissance survey which included geological mapping, prospecting, and silt, soil and/or rock geochemical sampling was carried out on each property. This preliminary exploration program took an average of three days per property and was used to assess the economic potential of each.

A Scintrex BGS-ISL non-discriminating scintillometer was utilized during the examination of every property.

Geochemical samples were shipped to Acme Analytical Laboratories Ltd. in Vancouver, B.C. for analysis. Atomic absorption methods were used to analyze the samples.

EXAMINATION REPORTS ON C.S.E. PROPERTIES

The following reports summarize the examinations of those properties staked for C.S.E. and include the writer's appraisal of each property's economic potential.

AHAB and OASIS (N.T.S. 82 K/14W)

CLAIM NAMES: Ahab 1 (16 units), Ahab 2 (16 units), Ahab 3 (20 units), Ahab 4 (20 units), Oasis 1 (20 units) and Oasis 2 (20 units)

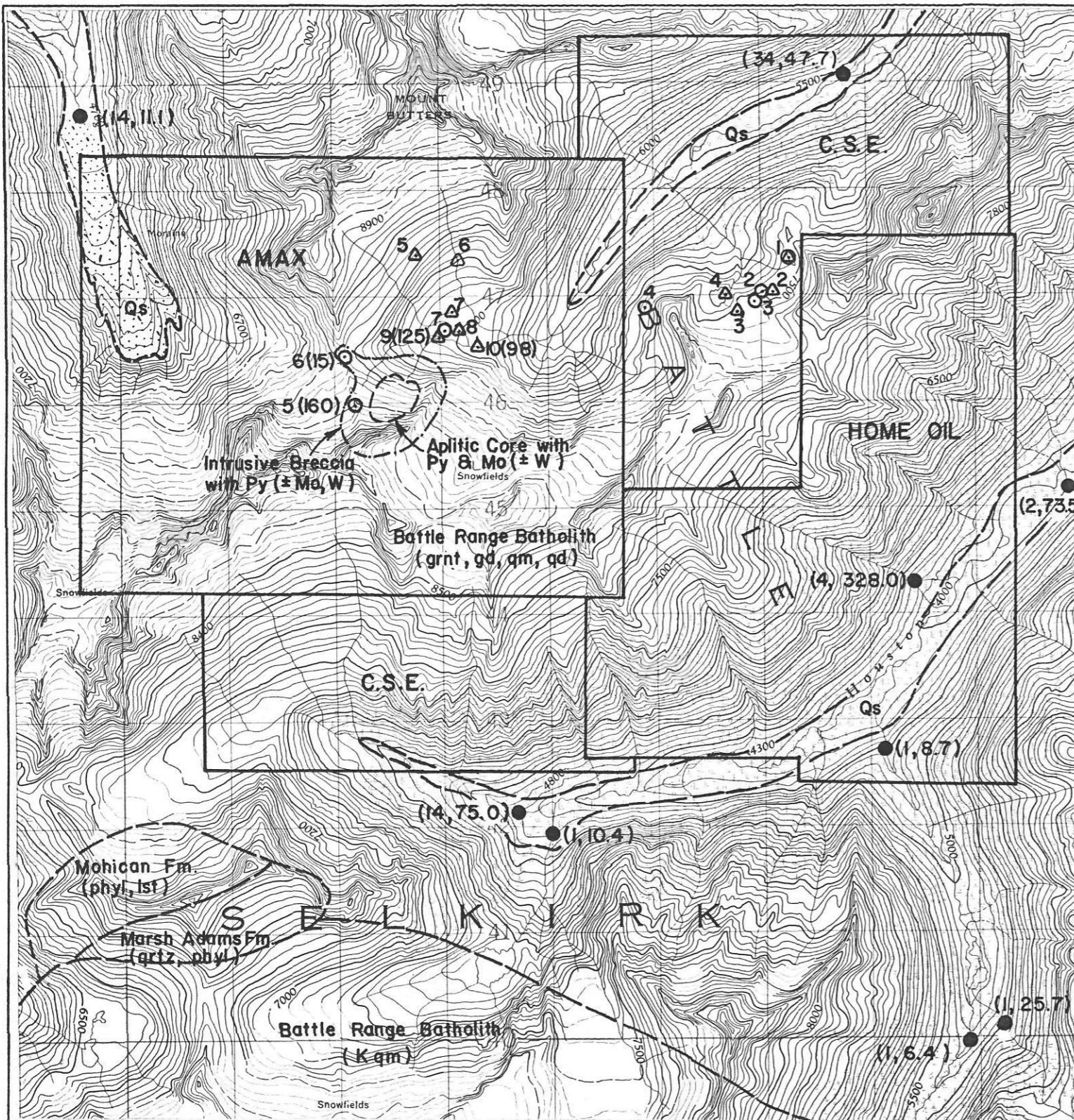
EXPIRY DATE: June 8, 1979

MINING DIVISION: Slocan

LOCATION AND ACCESS: $50^{\circ} 58'$ N. by $117^{\circ} 22'$ W.; 38 kilometers northeast of Beaton, B.C. or 4 kilometers southeast of Mt. Butters between Butters and Houston Creeks. Access via helicopter from Golden, B.C.

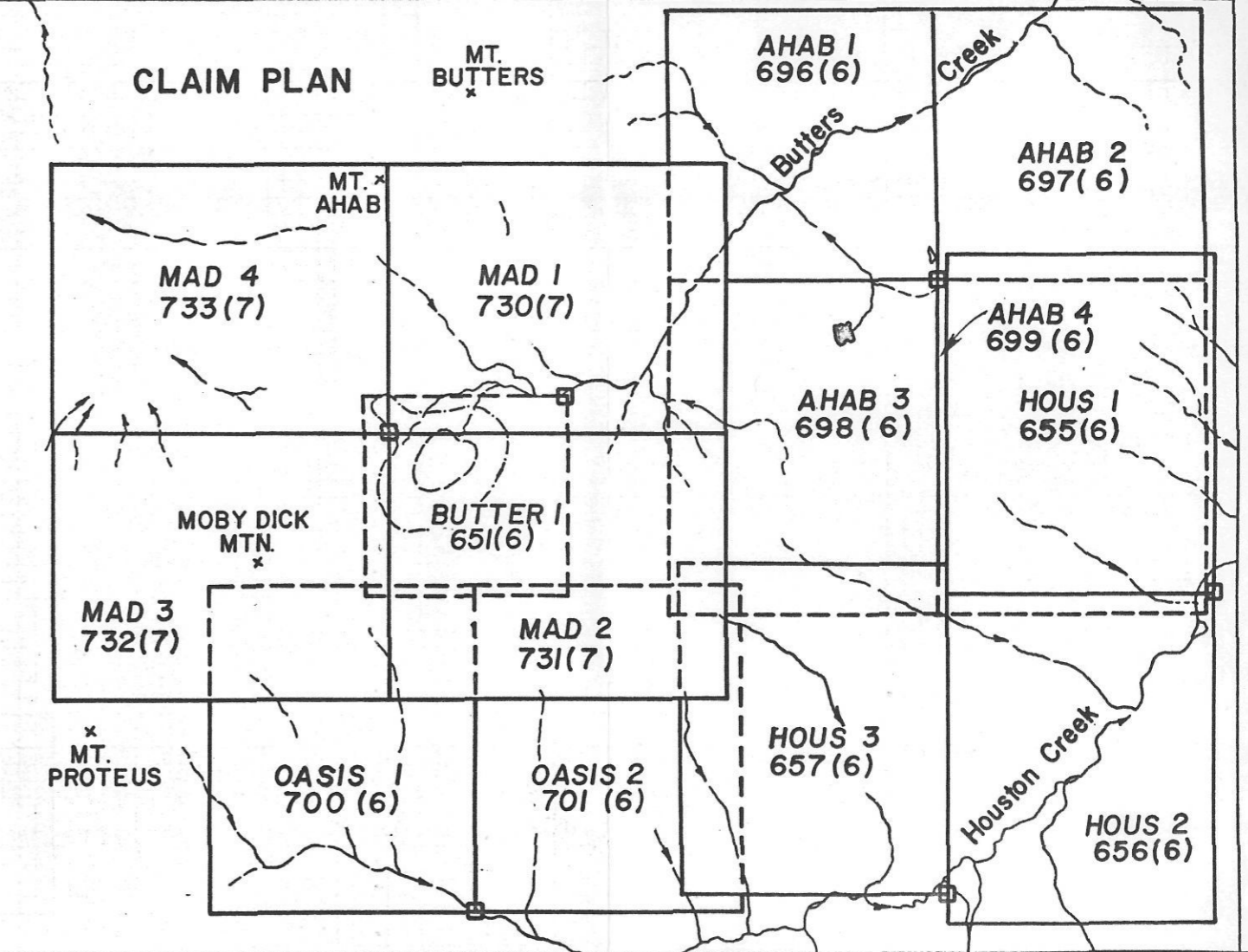
OWNER: C.S.E.

PREVIOUS WORK: G.S.C. (1977) - Reconnaissance silt geochemical survey (Open File #515).



SILT GEOCHEMICAL RESULTS (p.p.m.)

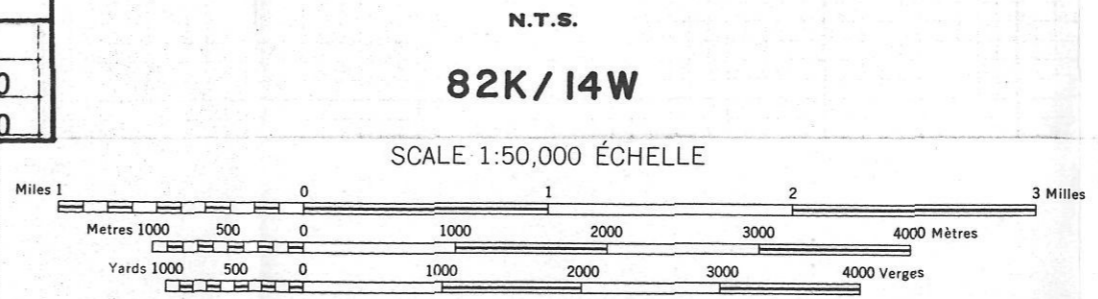
Sample	Mo	Cu	Pb	Ni	Zn	Ag	Au	U	W	F
AS 78 - 1	4	9	16	7	54	.3	.005	140.0	0	600
2	1	3	15	6	33	.1	.005	23.0	0	390
3	1	3	10	5	60	.2	.005	8.3	0	960
4	1	5	12	5	42	.2	.005	12.5	0	615
5	1	6	58	4	45	.1	.005	11.5	0	500
6	1	5	23	8	43	.1	.005	12.0	0	890
7	6	4	27	6	42	.1	.005	13.5	0	615
8	2	3	13	1	23	.1	.005	9.7	0	450
9	125	10	20	1	28	.1	.005	31.0	10	570
AS 78 - 10	98	11	20	4	27	.1	.005	20.5	5	520



ROCK GEOCHEMICAL RESULTS (p.p.m.)

	Mo	Cu	Pb	Ni	Zn	Ag	Au	U	W	F
AR 78 - 5R	160	8	19	4	46	.1	.005	9.1	0	640
AR 78 - 6R	15	4	14	2	23	.2	.005	5.2	0	360

- △ 1978 Silt Sample Location (Mo p.p.m.)
- 1978 Rock Sample Location (Mo p.p.m.)
- G.S.C. Silt Sample Location (Mo & U p.p.m.)



CANADIAN SUPERIOR EXPLORATION LIMITED
KAMLOOPS REGIONAL OFFICE
**COMPOSITE PLAN
of the
AHAB & OASIS PROPERTIES**
Drwn.by: JDB Date: Jan., 1979 DWG. 3

DESCRIPTION: These claim groups were staked to cover the possible source of highly anomalous molybdenum (34 p.p.m. Mo) and uranium (75 p.p.m. U) silt values in the Butters and Houston Creek drainages. When the properties were examined in July it was found that the Butters showing staked by Noranda and Amax was, in fact, the only obvious source of the high geochemical results. This showing was investigated during the examination of the Ahab property.

The Ahab and Oasis properties are underlain by relatively massive and poorly altered granites of the Early to Middle Cretaceous-age Battle Range batholith. These rocks are very well crystallized with abundant zoned plagioclase crystals up to 10 cm. long. Within the Ahab claim group local dykelets of diabase composition cut the granites at 116° and dip steeply (-80°) to the north. Local joint fractures are sporadically infilled by quartz-sericite-pyrite as "dry" veinlets. No molybdenite was discovered within the Ahab or Oasis claim groups.

The Butters molybdenum showing was staked by Noranda and Amax on June 8th, 1978. Situated entirely within Noranda's "BUTTERS" (9 unit) and Amax's "MAD" (80 unit) claim block at an elevation of 8,000 feet A.M.S.L. a late stage stock of aplite has intruded the Battle Range granites. The stock and peripheral intrusive breccia zone are "doughnut-shaped" measuring 1 kilometer in diameter. The peripheral intrusive breccia zone is very siliceous and pyritic, resulting in the zone which appears as a prominent topographic feature and gossan. Within the stock a glacier has eroded the softer core of aplite. This complex is surrounded on three sides by alpine glaciers.

The intrusive breccia zone appears composed of at least three acid intrusives usually biotite-rich quartz diorites, granodiorites and granites plus several phases of aplite and diabase dykes. Veins of quartz-sericite-pyrite cut or surround the brecciated fragments.

Pyrite with minor molybdenite occurs within veins of quartz or as fine to medium-grained disseminations. Magnetite is quite common as disseminations or hair-line fracture fillings. Most of this zone has been sericitized and feldspathized by orthoclase flooding. Tourmaline crystals up to 2 cm. long occur within vuggy veins of quartz.

The aplitic core consists of aphanitic to fine-grained, pink aplite. It is very siliceous and feldspathized by orthoclase. Molybdenite and pyrite mineralization occur within hair-line to 10 cm. veins of quartz-orthoclase-sericite, or as fine-grained disseminations within the wall rock. Molybdenite disseminations appear as 1/16" to 1/4" spheroidal rosettes. Local molybdenite mineralization may range up to 1% of the whole rock.

An aerial survey was made of the Butters and Houston Creek drainages for similar gossans. However no other gossans were observed.

Assay results of the silt and rock samples collected during the examination appear to confirm that:

- a) The Butters showing (see Figure 3) is the source of the molybdenum anomaly within the Butters and Houston Creek drainages.
- b) The Battle Range granites have a high uranium geochemical background. Apparent uranium anomalies within the Butters and Houston Creek drainages are within the geochemical ranges expected from these high background host-rocks.

RECOMMENDATIONS: The negative results from both property examinations suggest that no further work should be undertaken. Future exploration work by Amax on the Butters showing should be followed closely.

REFERENCES: G.S.C. Open File #515; samples 5182-5188, 5193 and 5194.

EXAMINED BY: J.D. Blanchflower

EXAMINATION DATE: July 28th to 31st, 1978

FISH (N.T.S. 82 K/3E)

CLAIM NAMES: Fish 1 (15 units) and Fish 2 (20 units).

EXPIRY DATE: June 9, 1979

MINING DIVISION: Slocan

LOCATION AND ACCESS: 50° 02' N. by 117° 09' W.' approximately 1 kilometer west-southwest of Retallack, B.C. near the confluence of Stenson Creek with the Kaslo River. Access provided by numerous logging roads joining the Kaslo-New Denver road at Retallack.

OWNER: C.S.E.

PREVIOUS WORK: G.S.C. (1977) - Reconnaissance silt geochemical survey (Open Files #515 and #514).

DESCRIPTION: The "Fish" claim block is underlain by phyllites, argillites, quartzites and limestones of the Triassic-age Slocan Group. These rocks have been intruded by sills of feldspar porphyry composition. Both sediments and intrusives have subsequently undergone deformation by folding and faulting. Minor disseminations of pyrite and narrow veins of quartz occur locally associated with the feldspar porphyries. Geological mapping did not discover any evidence of hornfelsing, or increased fracturing and alteration which might indicate an unexposed granitic intrusion with associated sulphide mineralization. No sulphide mineralization, other than minor pyrite, was discovered during the examination.

Assay results of silt and rock samples collected during the examination were quite low. It appears that the old lead-zinc mine dumps at the head of Stenson Creek have contaminated the Stenson Creek drainage.

ASSAY RESULTS (p.p.m)

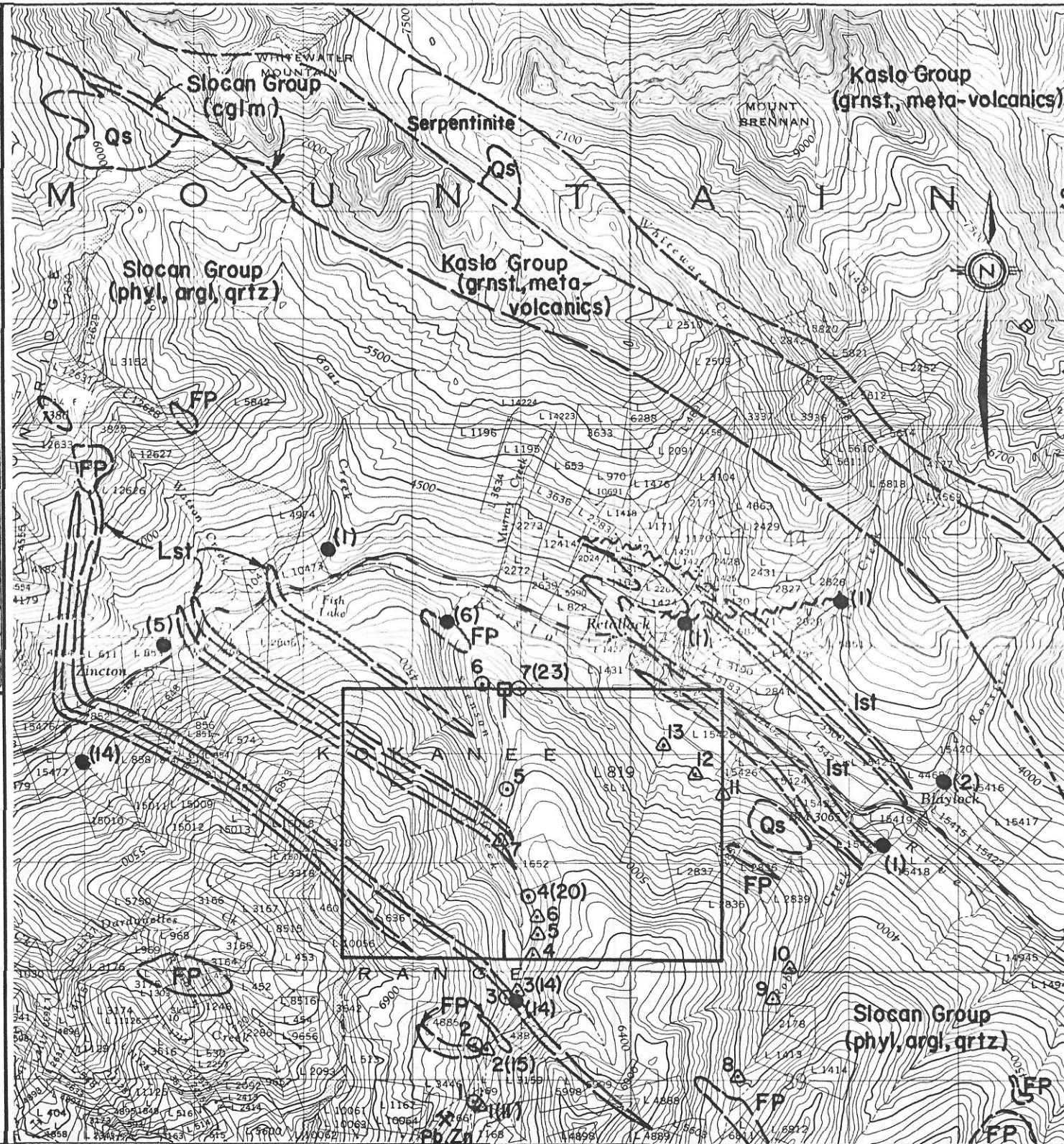
Sample		Mo	F	WO ₃
37001	R	4	1500	0
37002		8	620	0
37003		7	560	0
37004		20	250	0
37005		8	940	0
37006		8	1700	0
37007	R	23	330	0
FS 78 1	S	11	580	0
2		15	680	0
3		14	610	0
4		3	890	0
5		2	520	0
6		3	480	0
7		3	410	0
8		2	470	0
9		4	490	0
10		2	525	0
11		1	530	0
12		1	580	0
FS 78 13	S	2	595	0

37001 to 7 Rock Sample

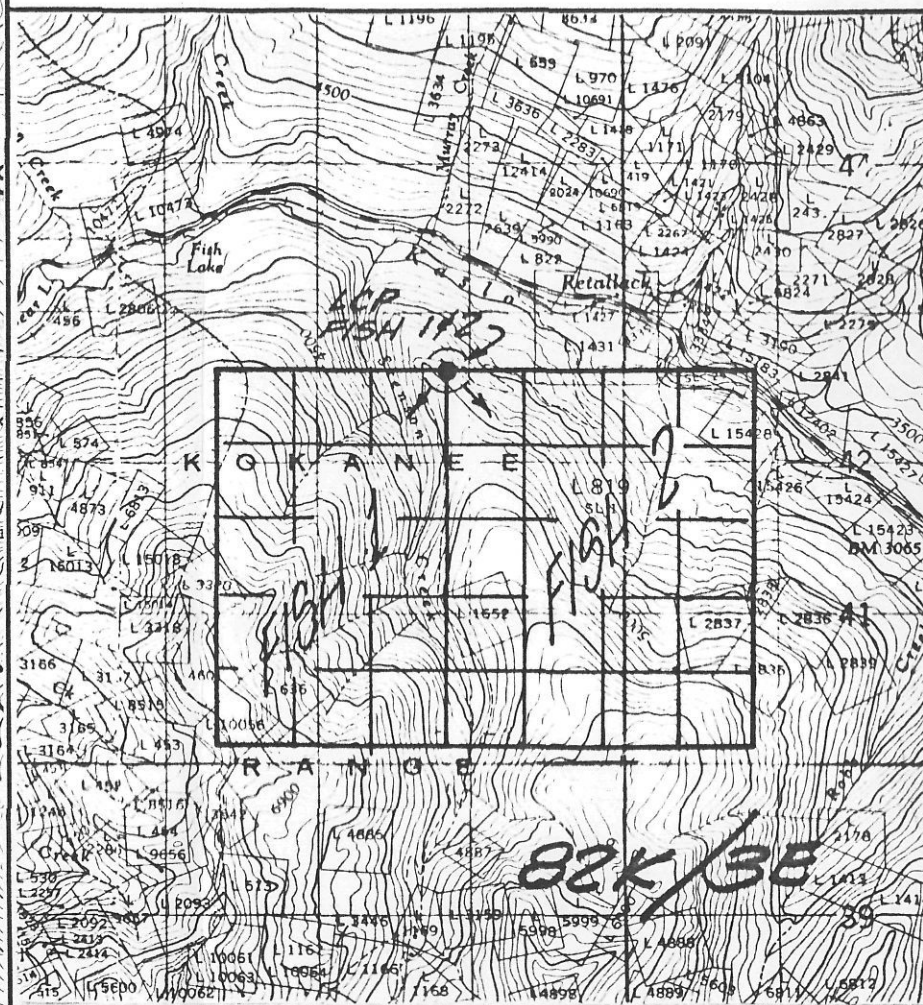
FS 78-1 to 13 Silt Sample

Note: FP - Feldspar porphyry intrusives of unknown age.

Lst - Limestone units belonging to the Slovan Group.



CLAIM PLAN



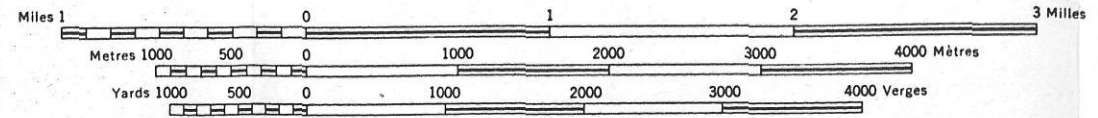
- LEGEND -

- 3(14) 1978 Silt Sample Location (p.p.m. Mo)
- 4(20) 1978 Rock Sample Location (p.p.m. Mo)
- (14) G.S.C. Silt Sample Location (p.p.m. Mo)
- Geological Contact
- Claim Boundary

N.T.S.

82K/3W

SCALE 1:50,000 ÉCHELLE



CANADIAN SUPERIOR EXPLORATION LIMITED

KAMLOOPS REGIONAL OFFICE

COMPOSITE PLAN
of the
FISH PROPERTY

Drwn by: JDB Date: Jan., 1979 DWG. 4

RECOMMENDATIONS: Negative geological and assay results precluded further exploration.

REFERENCES: G.S.C. Open File #514 (sample 9202) and #515 (samples 7009 and 7015).

EXAMINED BY: J.D. Blanchflower

EXAMINATION DATE: July 1st and 2nd, 1978

NELSON (N.T.S. 82 F/11W)

CLAIM NAMES: Nelson 1 (20 units) and Nelson 2 (20 units)

EXPIRY DATE: June 11, 1979

MINING DIVISION: Nelson

LOCATION AND ACCESS: $49^{\circ} 34'$ N. by $117^{\circ} 18'$ W.; 7 kilometers north-northwest of Nelson, B.C., immediately north of the Mt. Nelson radio tower. Access via helicopter from Nelson, B.C.

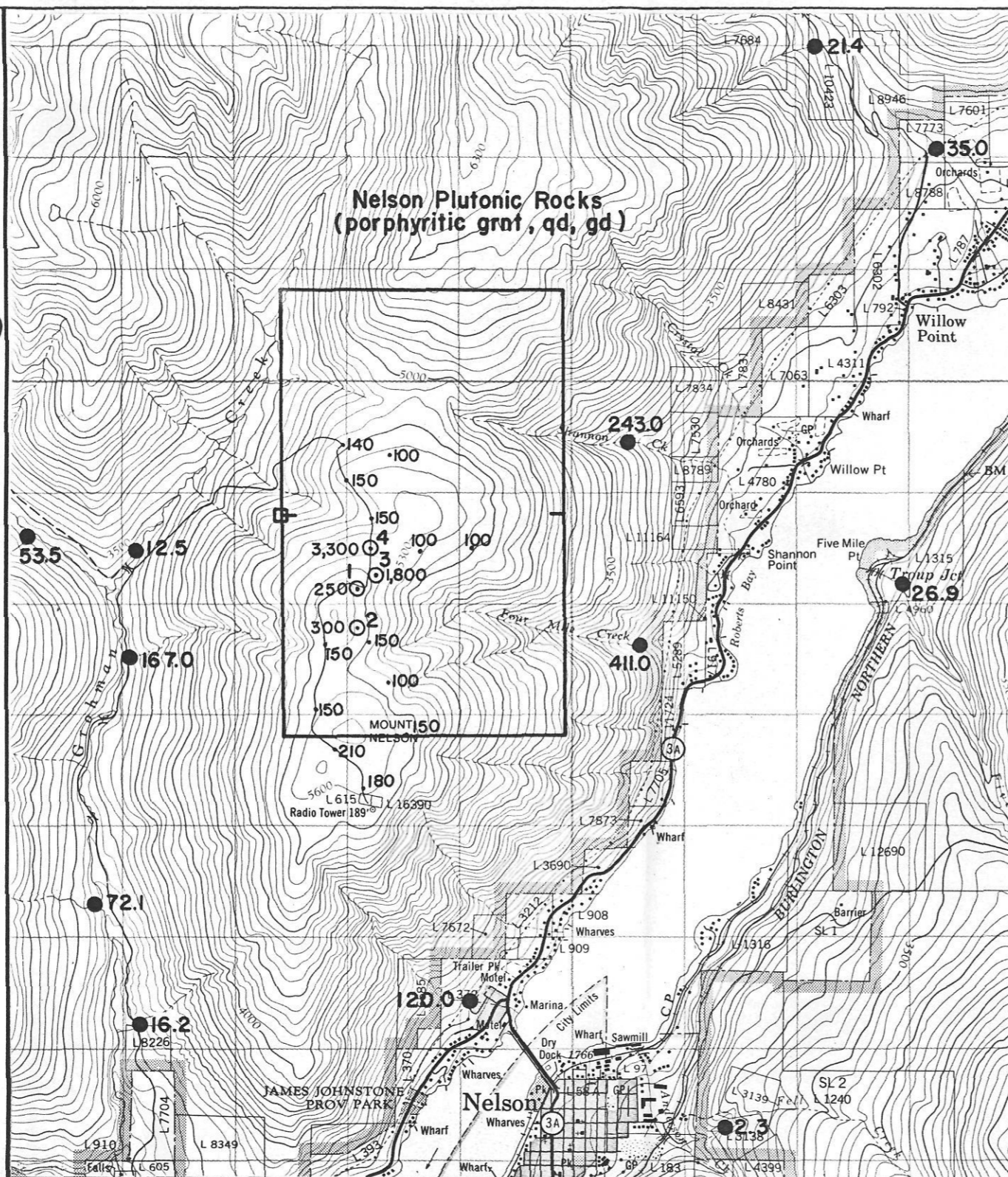
OWNER: C.S.E.

PREVIOUS WORK: Numerous test pits on quartz veins (silica flux for the Trail smelter), G.S.C. (1977) - Reconnaissance silt geochemical survey (Open File #514).

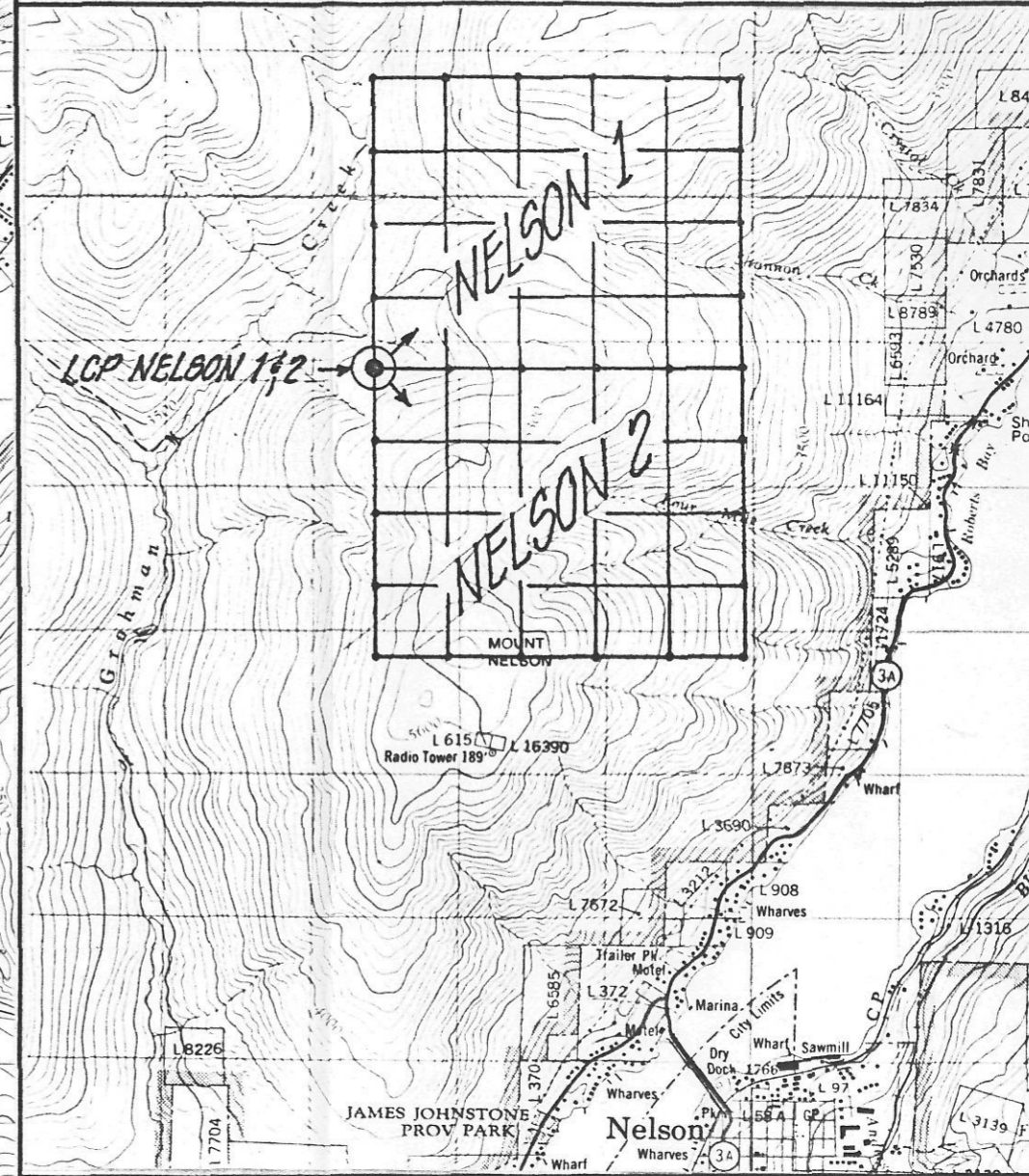
DESCRIPTION: The claim group is entirely underlain by granitic rocks of the Middle to Late Jurassic-age Nelson batholith. Within the units 1S + 2W and 2S + 2W of the Nelson 2 claim (see Figure 5) dykes of aplite and associated veins of quartz intrude the country rocks. These dykes are well fractured ($049^{\circ}/-90^{\circ}$ and $165^{\circ}/-85^{\circ}$ E) with veins of quartz up to 3 meters wide associated with the 160° - 165° fracturing.

- LEGEND -

- ⊙ 1978 Rock Sample Location
- G.S.C. Silt Sample Location
- 150 Radiometric Reading(cps)
- ~ Geological Contact
- ┌ Claim Boundary



CLAIM PLAN

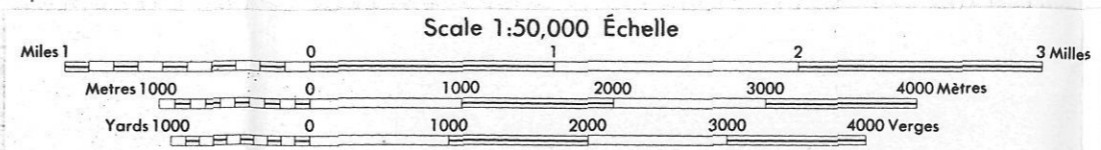


ASSAY RESULTS (p.p.m.)

Sample	Mo	Cu	Ag	F	U	Radioactivity (c.p.s.)
NR 78 - 1	1	2	.1	105	.3	250
NR 78 - 2	14	5	.1	82	.4	300
NR 78 - 4	5	3	.1	170	2.6	3,300

N.T.S.

82F/IIW



CANADIAN SUPERIOR EXPLORATION LIMITED
 KAMLOOPS REGIONAL OFFICE
COMPOSITE PLAN
 of the
NELSON PROPERTY
 Drwn. by: JDB Date: Jan., 1979 DWG. 5

Minor pyrite and magnetite mineralization is associated with the veining. Granitic wall-rocks have undergone very low grade propylitic alteration as a result of these intrusions and veining. North and south of this area host rocks are relatively fresh and barren. East and west of this immediate area no outcrop is exposed. The best bedrock exposures occur along the CBC access road and within old trenches excavated during the exploration of the quartz veins.

Background radiometry for the area was established at 150 c.p.s. Within the area of aplite and quartz intrusions two localities gave readings of 1,800 and 3,300 c.p.s. The first area was in the northeastern corner of unit 2S + 2E of the Nelson 2 claim. One piece of float approximately 5 cm. in diameter was found to be the source of this reading. It was a piece of quartz with a selvage of sericite and several black prismatic crystals. No other bedrock or float samples in the immediate area were radioactive. The other location was in the roadcut in the southeastern quadrant of unit 1S + 2E of the Nelson 2 claim. Within a one square meter area readings of 1,500 to 3,300 c.p.s. were recorded. Sub-outcrop samples of quartz vein material with sericitic selvages were collected and assayed. Assay results were less than 2.6 p.p.m. U (see figure 5).

RECOMMENDATION: Results of the examination indicate that this area has a higher than average uranium background with very local "hot" spots. The geologic setting, however, does not appear to have the potential for the development of a significant uranium deposit. The writer recommends that no further work should be carried out on this claim group.

REFERENCES: G.S.C. Open File #514, samples 7202, 7235, 7236 and 7197 to 7199.

EXAMINED BY: J.D. Blanchflower

EXAMINATION DATE: August 18th, 1978

KUBIN (N.T.S. 82 F/11W)

CLAIM NAMES: Kubin 1 (20 units)

EXPIRY DATE: June 11, 1979

MINING DIVISION: Slocan

LOCATION AND ACCESS: $49^{\circ} 40'$ N. by $117^{\circ} 18'$ W.; 20 kilometers north of Nelson, B.C. between the drainages of Duhamel and Monumental Creeks to the east and west, and Lemon Creek to the north. Several gravel roads up Monumental and Duhamel Creeks provide dry-weather access.

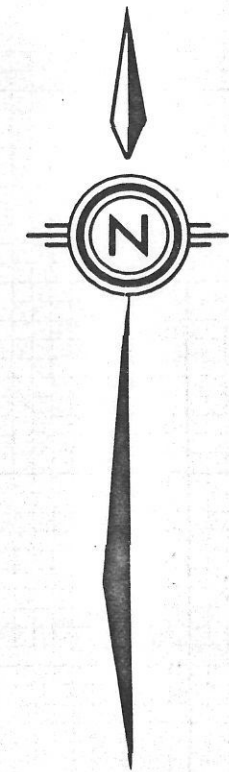
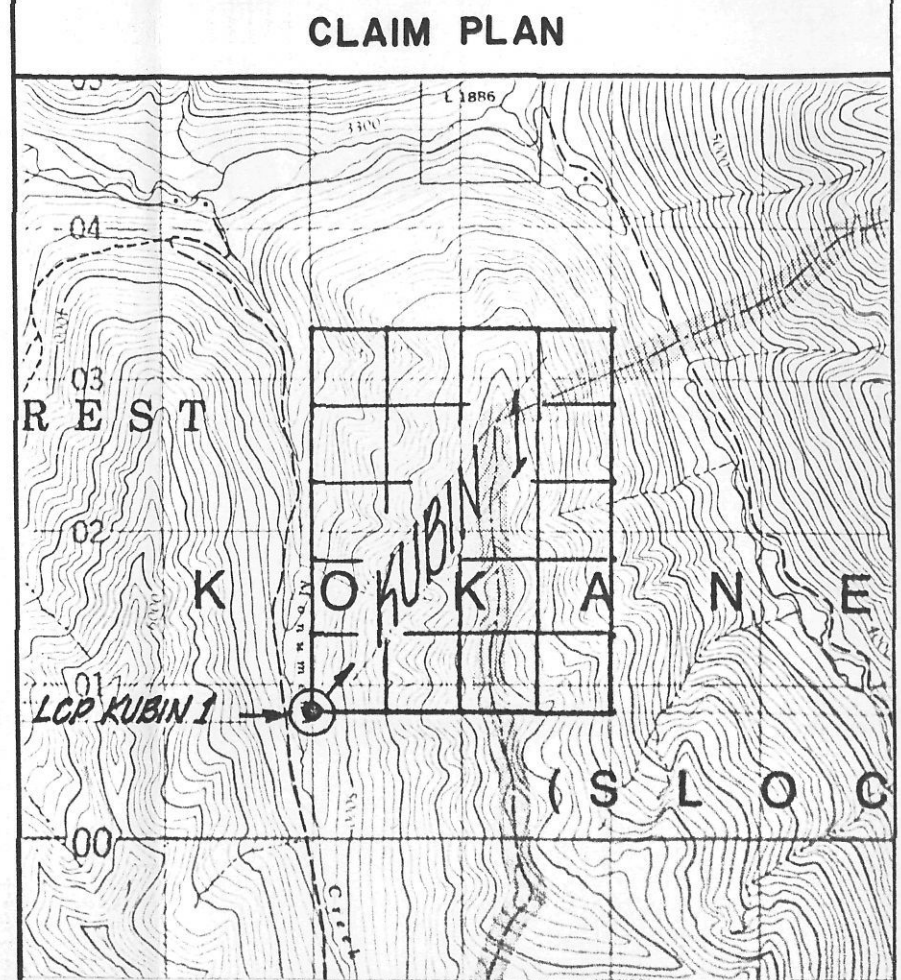
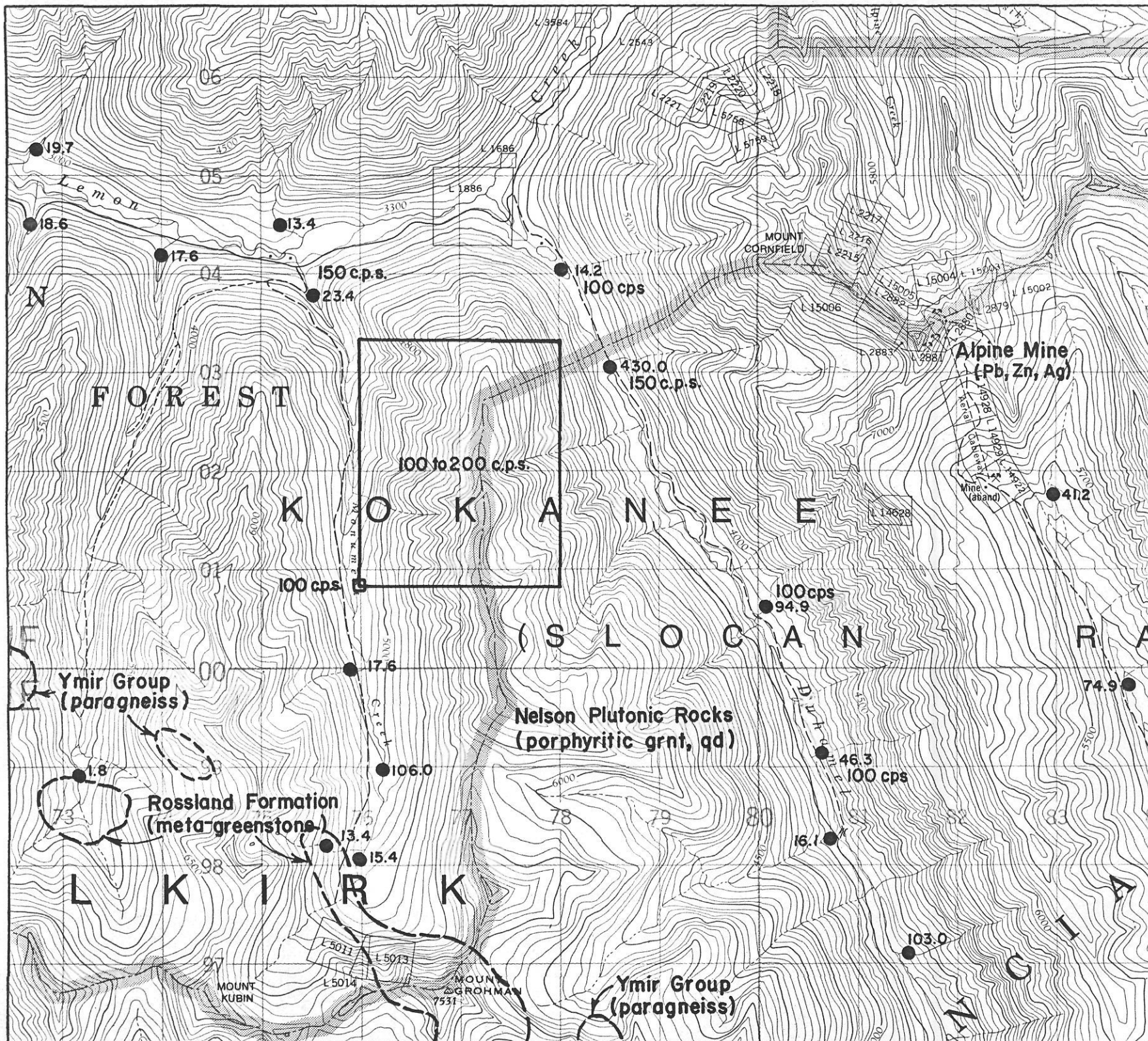
OWNER: C.S.E.

PREVIOUS WORK: G.S.C. (1977) - Reconnaissance silt geochemical survey (Open File #514).

DESCRIPTION: This claim group is underlain entirely by porphyritic granites of the Nelson pluton. Massive granites are cut occasionally by local quartz veins infilling joint fractures.

Recorded scintillometer readings ranged from 100 to 200 c.p.s. Background values for this area are between 100 and 150 c.p.s. All radiometric readings were consistently less than twice background.

A possible source of the anomalous G.S.C. silt samples collected along Duhamel Creek might be the abandoned Alpine (Au, Ag, Pb, Zn) mine workings on Mt. Cornfield. This property was developed in the early 1900's to mine gold, silver, lead and zinc mineralization associated with a "bull" quartz vein. As with the Nelson property, "bull" quartz veins occur locally within the Nelson pluton and appear to have trace to very minor uranium values associated with them.



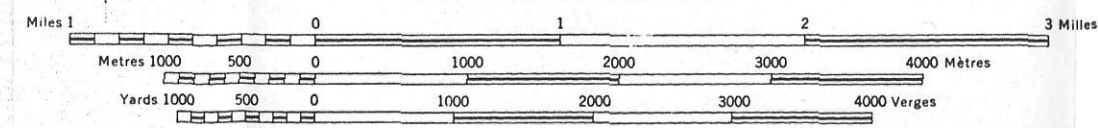
-LEGEND-

- G. S.C. Silt Sample Location (p.p.m. U)
- ~ Geological Contact
- Claim Boundary
- 150 cps. Radiometry in counts per second

N.T.S.

82F/IIW

SCALE 1:50,000 ÉCHELLE



CANADIAN SUPERIOR EXPLORATION LIMITED

KAMLOOPS REGIONAL OFFICE

**COMPOSITE PLAN
of the
KUBIN PROPERTY**

Drwn. by: JDB Date: Jan., 1979 DWG. 6

RECOMMENDATIONS: The writer recommends no further work should be undertaken on this property.

REFERENCES: G.S.C. Open File #514; samples 1242-1247 and 7217.

EXAMINED BY: J.D. Blanchflower

EXAMINATION DATE: August 7th, 1978

EXAMINATION REPORTS ON OTHER PROPERTIES

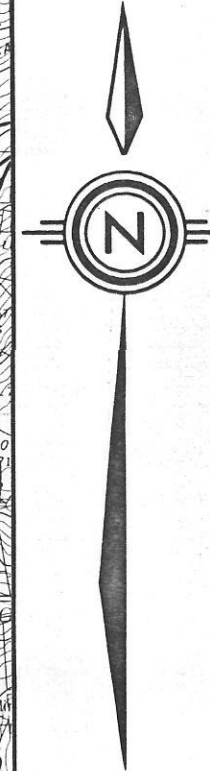
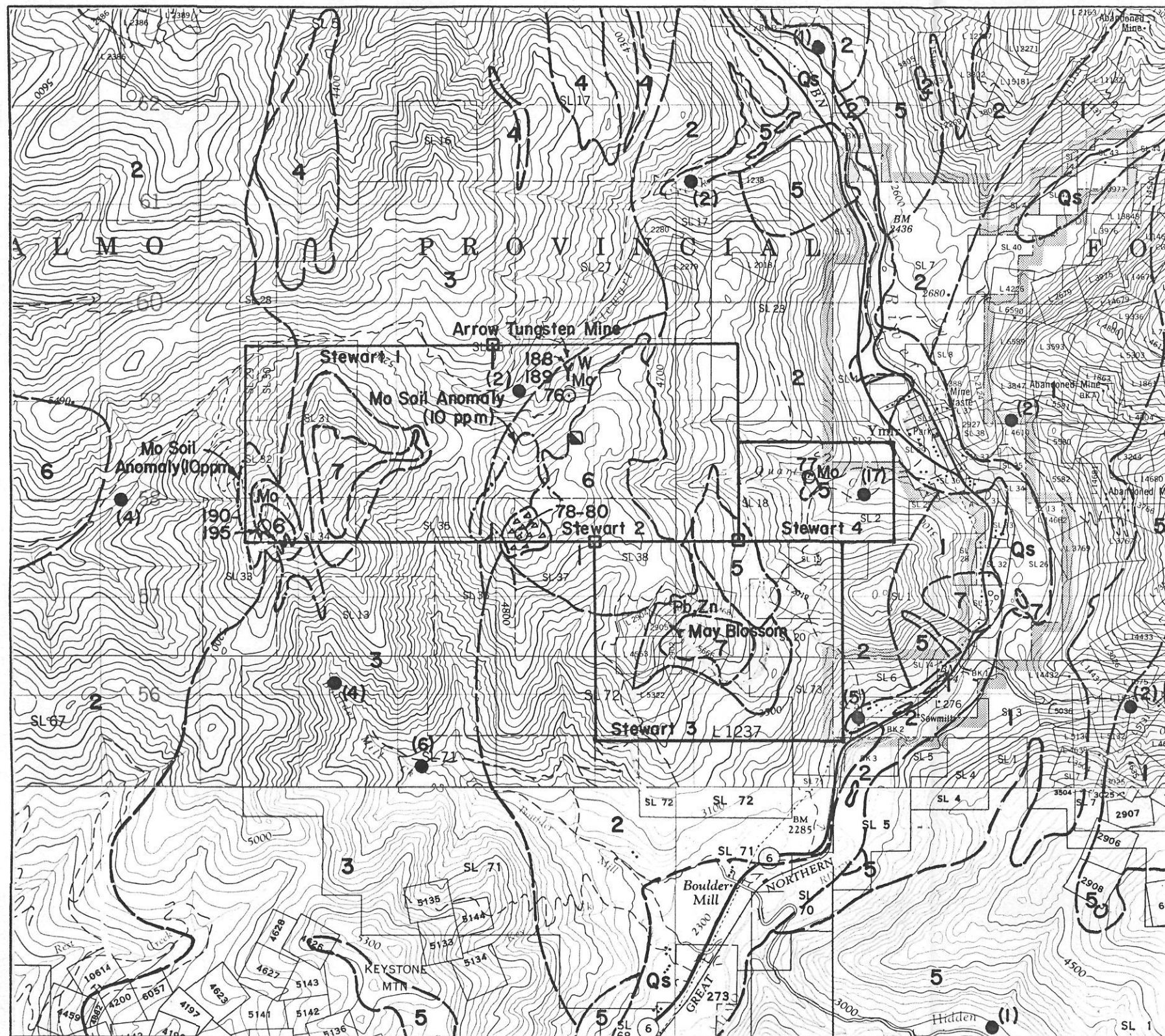
The following reports summarize the results from other mineral occurrences examined and evaluated within the Nelson-Lardeau project area.

Stewart Property - 82 F/6E & W (Lat. $49^{\circ} 16'$ N., Long. $117^{\circ} 15'$ W.)

The Stewart property is situated between Stewart and Boulder Creeks approximately 4 kilometers southwest of Ymir, B.C. The property owner Eric Denny of Nelson, B.C. submitted the Stewart 1 - 4 mineral claims and three reverted Crown Grants to C.S.E. for examination.

This property was examined on August 31st, and again on September 2nd and 4th. The examination included reconnaissance mapping, prospecting and rock sampling. Six known zones of tungsten, molybdenum, and/or lead-zinc mineralization were investigated.

The claims are underlain by a sequence of folded sediments and volcanics intruded by plutonic rocks of acid to intermediate composition. Both folding and intrusion resulted in metamorphic effects of varying degrees of intensity. Molybdenum, tungsten, copper, lead, and zinc mineralization are known to occur here in association with acid intrusive stocks.



ROCK GEOCHEMICAL RESULTS (p.p.m.)

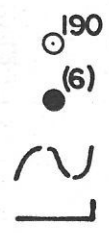
Sample	Cu	Pb	Zn	Ag	Au	Mo	W
37076	40	12	2100	.1	.005	52	900
37077	43	8	24	.1	.005	122	5
37078	61	12	51	.1	.050	54	10
37079	40	10	32	.1	.005	80	5
37080	80	12	44	.1	.010	68	5
37190	94	91	100	.1	.005	72	0
37191	38	25	10	1.7	.005	31	0
37192	22	9	11	.2	.005	8	0
37193	22	9	11	.2	.005	22	0
37194	29	58	200	3.8	.910	14	0
37195	64	6	23	.2	.005	210	0

ROCK ASSAY RESULTS (%)

Sample	MoS ₂ %	Cu%	Pb%	Zn%	Ag ^{oz} /T	Au ^{oz} /T	W%
37188	.008	.01	.01	.08	.01	.001	.08
37189	.130	.02	.04	.01	.34	.001	.11

- LEGEND -

- Eocene**
 - 7** Coryell Plutonic Rocks: porphyritic augite monzonite
 - Early to Middle Cretaceous**
 - 6** Cretaceous Intrusions: porphyritic quartz monzonite
 - Middle to Upper Jurassic**
 - 5** Nelson Plutonic Rocks: granite, granodiorite, quartz diorite
 - Middle Jurassic**
 - 3** Hall Formation: argillite, sandstone, conglomerate
 - Lower Jurassic**
 - 2** Rosland (Elise) Formation: andesite, latite, basalt, flow breccia, agglomerate
 - Permian to Lower Jurassic**
 - 1** Ymir Group: argillite, slate, quartzite, minor limestone
- Zone of Contact Metamorphism**
 - Feldspar Porphyry Intrusions**

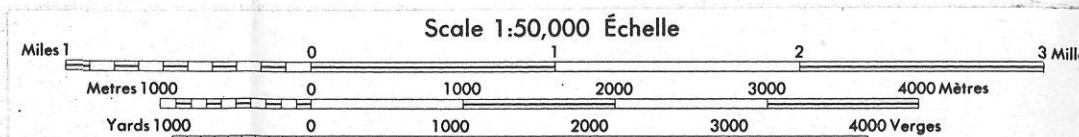


190 1978 Rock Sample Location (76-80 & 90-95)
 6 G.S.C. Silt Sample Location (Mo p.p.m.)
 Geological Contact
 Claim Boundary

Note: Assayed rock samples from the Arrow Tungsten drift

N.T.S.

82F/6E & W



CANADIAN SUPERIOR EXPLORATION LIMITED

KAMLOOPS REGIONAL OFFICE

**COMPOSITE PLAN
of the
STEWART PROPERTY**

Drwn. by: JDB Date: Jan., 1979 dwg. 7

The oldest country rocks are argillites, shales, argillaceous quartzites and minor limestones belonging to the Triassic-age Ymir Group. These sediments are exposed within the Stewart 3 mineral claim which covers the Mayblossom and Free Silver reverted Crown Grants. In the vicinity of the Crown Grants Ymir sediments host scattered lead/zinc mineralization. Sphalerite and galena mineralization occurs locally associated with narrow, fracture-filling veins of quartz and calcite, or sporadically filling "dry" shear fractures related to minor folding. Molybdenite, scheelite and powellite mineralization has been reported in this area.

The two major country rock units are the Elise (Rosslund) and Hall Formations. The Elise (Rosslund) Formation is a series of andesitic to basaltic flows, agglomerates and tuffs with some interbedded sediments of Lower Jurassic age. Overlying this volcanic series and occupying a northerly trending synformal structure through the middle of the property is a series of interbedded argillites, siltstones, wackes, and conglomerates. These sediments belong to the Hall Formation of Middle to Late Jurassic age. Some beds are pyritic and others are calcareous. Adjacent to the intrusive bodies some of the sediments are thermally metamorphosed resulting in the development of diopside-epidote-garnet skarn zones.

The oldest intrusives crop out north of Stewart Creek just outside the Stewart claims. This unit occurs as irregular dykes and sills of feldspar porphyry. The sediments in contact with feldspar porphyry intrusions display no metamorphism or alteration. No economic mineralization appears associated with these intrusions.

Subsequent intrusive activity included the emplacement of, at least, two stocks of porphyritic quartz monzonite composition and one of granodiorite composition. These intrusions appear related to plutonism in Upper Jurassic to Cretaceous time. Porphyritic quartz monzonite intrusions occur within the Stewart 1 and 2 claims near the two heights

of land. The granodiorite intrusion is exposed within the Quartz Creek drainage. Intense fracturing and quartz flooding with associated minor molybdenite occur locally within these stocks. These intrusions have thermally metamorphosed the calcareous country rocks.

The youngest intrusives are of augite monzonite composition. These rocks belong to the Eocene-age Coryell plutonic event. Augite monzonite stocks crop out within the Stewart 1 and 3 mineral claims. Skarnification is apparent adjacent to these intrusions.

Structurally the Stewart property is centered on the axis of a syncline with the axial trace oriented approximately due north-south and plunging gently to the south. The Elise and Hall Formations were regionally folded during Mesozoic time. The feldspar porphyry dykes and sills could have been emplaced immediately prior to or coincident with this deformation due to their north-south orientation and their close association with the surrounding country rocks. Subsequent intrusive activity appears related to regional fracturing and block faulting. Silicification with associated molybdenum and tungsten mineralization appears related to northerly trending, pre-Tertiary deformation coincident with or immediately following acid intrusion.

Results of the geologic mapping indicate that the Stewart property overlies an excellent geologic environment for molybdenum and tungsten deposition. However, the examination and sampling found only scattered and uneconomic mineralization exposed. Within the two molybdenum soil anomalies (Quintana, 1970) only minor molybdenite (no powellite) was seen. Unfortunately the low soil geochemical values (35 p.p.m. Mo maximum) appear to reflect the visible molybdenum content. Generally within this area there is no apparent increase in quartz stockwork, molybdenum mineralization, alteration or micro fracturing which would indicate a subsurface hydrothermal system. Based on these negative results the writer did not proceed further with property negotiations.

The writer recommends that C.S.E. watch closely and assess any future developments on this property.

Mammoth Property - 82 F/6W (Lat. $49^{\circ} 21'$ N., Long. $117^{\circ} 17'$ W.)

The Mammoth property is situated at an elevation of 5,000 feet near the head waters of Keno Creek, approximately 15 kilometers due south of Nelson, B.C. The property is accessible from the south via logging roads along Barrett Creek. Eight Crown Grants comprise this property which is leased by Eric Denny of Nelson, B.C. The property was examined on September 2nd. Significant molybdenum, copper, silver and gold mineralization was reported to be associated with an intrusive stock of augite porphyry composition.

The property has been known since 1919. Exploration work by various owners, most recently being Pechiney Developments Ltd., included: 118 feet of underground workings, trenching, a soil geochemical and magnetometer survey, and diamond drilling.

The property is partially underlain by volcanic and sedimentary rocks of the Elise and Hall Formations (see Stewart property report). Metamorphosed rocks within the area of interest strike $350^{\circ} - 010^{\circ}$ and dip $70^{\circ} - 90^{\circ}$ to the west. Several small stocks of augite porphyry composition have intruded this volcano-sedimentary sequence in the vicinity. Hornfelsing in the volcanics and skarnification in the calcareous sediments are apparent adjacent to intrusive contact.

Near the ridge top, extensive trenching has exposed one of the intrusions. This stock is pipe-like in plan measuring approximately 50 meters in diameter. Cutting the intrusion and its contact aureole are numerous fracture-filling veins of aplite. Sporadic molybdenite and chalcocopyrite are associated with these veins and their vein envelopes (1-3 cm.).

Results of the examination indicate that within the augite porphyry intrusion molybdenum-copper mineralization may grade an estimated 0.1 to 0.4% Cu equivalent. It appears though that the sulphide mineralization does not extend more than 30 meters from the intrusive core. Scheelite mineralization was noted in some calcareous skarns but it was not economically significant.

Based on the uneconomic grades and limited extent of the sulphide mineralization no further work was carried out.

Gray Creek Property - 82 F/10W (Lat. $49^{\circ} 35'$ N., Long. $116^{\circ} 45'$ W.)

The Gray Creek property is situated approximately 3.5 kilometers south-southeast of Gray Creek on the east side of Kootenay Lake. The claim block (4 units) is owned by Eric Denny of Nelson, B.C. and is readily accessible via logging roads east and then south from the Gray Creek Post Office. The purpose of this examination was to investigate several molybdenite showings hosted by an unmapped intrusive stock. Prospecting and rock sampling within and adjacent to the underground workings were conducted on September 1, 1978.

The property has been explored from 1916 to 1919 and then again in 1966 and 1967. Exploration work has included two adits totalling 200 feet, soil sampling, trenching, an E.M. survey and some diamond drilling. Various operators, including Kamalta Exploration Ltd. and United New Fortune Mines Ltd., have held the property.

The property is underlain by an elliptical-shaped intrusive stock of quartz dioritic to granitic composition. This intrusion appears related to Early to Middle Cretaceous plutonism. The surrounding metasedimentary country rocks belong to the Horsethief Creek Series of Late Precambrian age.

Results of the examination were negative. Prospecting revealed that local silicification occurs as several 15 centimeter to 1 meter wide quartz veins trending 062° to 088° and dipping within 5° of vertical. Veins are spaced approximately 30 meters apart. Scattered concentrations of pyrite, muscovite and minor molybdenite are associated with these quartz veins. The two largest veins have been adequately explored by upper and lower adits, roadcuts and trenches. Host rocks between veins are well exposed and fresh in appearance. There are no zones of increased fracturing or silicification.

No further work was carried out.

Powder Creek (Mo) Property - 82 F/15E & W (Lat. $49^{\circ} 53'$ N., Long $116^{\circ} 45'$ W.)

The Powder Creek (Mo) property is situated 9 kilometers from Kootenay Lake due east of Kaslo, B.C. The property is owned by Bill Carter of Nelson, B.C. Access is possible via helicopter from Nelson or by driving a logging road 25 kilometers north from Riodel and then hiking in from Powder Creek. The writer examined the claim block on September 12th and 16th. The purpose of the examination was to investigate a reported molybdenum-bearing skarn zone near the contact of an unmapped acid intrusion.

The property is underlain by tightly-folded metasedimentary rocks of the Hamill, Badshot and Lardeau Series. Within the area of interest beds of quartzite, dolomite, micaceous and chloritic schists strike 138° and dip 32° to the southwest. This sequence of metasediments is exposed for more than 1 kilometer and represents one limb of a recumbent anticlinal fold. The Powder Creek stock of quartz dioritic to granitic composition has intruded these country rocks and is exposed from the claims north to Powder Creek. This stock and the Loki intrusion to the south are of Early to Middle Cretaceous age.

Minor molybdenite mineralization occurs locally within a 0.3 to 1 meter thick skarn band. This band occurs between a Badshot limestone bed and a sill of granite within the metasedimentary sequence. It is exposed

down dip for 500 meters from elevations 6,600 to 6,150 feet. The "main" showing is located at an elevation of 6,150 feet. It is an eight-foot surface on the side of a possible boulder. Molybdenite crusts the surface in local concentrations but it does not appear disseminated within the actinolite-epidote skarn host.

Further down the hill at an elevation of 5,200 feet a pyrrhotite-rich bed of argillite is exposed by a logging road. This bed was sampled for base metal content. Assay results indicated very minor copper and zinc values.

Results of the examination were disappointingly negative. No further work was undertaken.

Double B Property - 82 F/3E (Lat. $49^{\circ} 9'$ N., Long. $117^{\circ} 10'$ W.)

The Double B property is situated approximately 8 kilometers southeast of Salmo, B.C. near Hedgehog Creek, a tributary of Sheep Creek. The property is owned by F.W. Cartwright of Nelson, B.C. The examination on August 16th included prospecting and rock sampling of the "Tungsten Zone".

The property is underlain by argillites and limestones of the Ordovician-age Active Formation. These sediments are intruded to the west by the Sheep Creek stock, a pluton related to Early to Middle Cretaceous plutonism. Within the "Tungsten Zone" dolomitic limestones have been thermally metamorphosed along the north-striking intrusive contact. The strata appears to strike northerly and dip eastwards toward the intrusive contact. Scattered scheelite mineralization is associated with siliceous and actinolite-rich bands within the skarn zone. Minor scheelite was observed with the use of a U/V lamp in two of the four rock samples collected. Assay results of the samples were less than 0.02% W.

Since the scheelite mineralization was very low grade and scattered no further work was undertaken on the property.

Kena Property (P-45) - 82 F/8W (Lat. $49^{\circ} 26'$ N., Long. $117^{\circ} 16'$ W.)

The Kena property is situated 7 kilometers south of Nelson, B.C. at an elevation of 5,000 feet. The claim group consists of approximately 30 claims owned by Otto Janout of Whiterock, B.C. This property has been explored for gold and copper by Ducanex and recently by Quintana Minerals.

The property is underlain by chloritic and sericitic schists of the Rossland Formation. Several intrusions of quartz diorite related to the Upper Jurassic Nelson plutonism are exposed in the western portions of the property. Dykes of dioritic composition intrude the schists near the intrusive contacts.

The Kena gold showing is situated within the Kena 7 mineral claim near the reported site of the old Cottonwood Mine (G.M. Dawson, 1889). The local host-rocks are chloritic and sericitic schists. The chloritic schists are dark grey to green in colour and contain up to 10% pyrite. Sericitic schists are orange to light-grey in colour, have quartz and feldspar porphyroblasts, and contain up to 5% pyrite. Within the area silicification is quite intense, commonly occurring as quartz veining and flooding, particularly in the sericite-rich variety. According to drill records silicification parallels the foliation approximately 310° to 320° and dips 50° to 65° SW. Assay results of chip and grab sampling undertaken by Ducanex showed gold values ranging from trace to 0.21 oz/T Au (averaging 0.03 oz/T Au) within a 40 foot wide quartz-rich zone. This zone parallels the foliation for a projected strike length of 250 meters.

The siliceous zone was examined and samples were cut from trenches with indicated gold values. Results suggested that the showing is

geologically interesting and may be economically significant. However, if the previous work is correct this zone would be very difficult to develop by open cast mining and of too low grade to be mined by selective underground methods. If this zone had a shallower or steeper dip it would be more interesting. No further work was carried out on this property.

Sandy (La France Creek) Property - 82 F/10E (Lat. $49^{\circ} 32'$ N.,
Long. $116^{\circ} 39'$ W.)

The Sandy property (2 claims - 2 units) is situated 7 kilometers up La France Creek which flows westward into Kootenay Lake. This property is owned by Dave Wiklund of Boswell, B.C. A logging road leaving the Gray Creek-Boswell Highway provides good access to most of the area. The writer examined the property on September 13th. According to released assessment data high soil geochemical values in lead and zinc were reported in an area underlain by Dutch Creek dolomites.

An examination of the area revealed scattered mineralized float but no mineralized bedrock exposures. Sphalerite and galena mineralization in the float are associated with fracture-filling quartz veins. The writer suspects that the minor lead-zinc mineralization may be associated with a large north-trending fracture system paralleling the Dutch Creek-Toby Formation unconformity. No further work was carried out.

Keystone Property - 82 F/3W (Lat. $49^{\circ} 13'$ N., Long. $117^{\circ} 18'$ W.)

This property is situated on Keystone Mountain, 4 kilometers north-northeast of Salmo, B.C. The property is one-third owned by Bill Powell of Spokane, Wa. The purpose of the visit was to examine reported gold, silver, lead and zinc mineralization associated with shallow dipping veins of quartz. This property had been developed in 1913 but has since been abandoned.

This property is underlain by graphitic slates of the Middle to Upper Jurassic Hall Formation. These country rocks are intruded by buff-coloured sills of rhyolite and by veins of quartz in the vicinity of the mine site. Both sills and vein material appear to be concordant with the folded and faulted bedding planes.

The mine dump contained scattered samples of sphalerite, galena and pyrite mineralization associated with the vein material. Radiometric readings of the sill rock gave values of up to 200 c.p.s. with a background of 100 c.p.s.

Results indicate that no further work should be undertaken.

Wisconsin Mine Property - 82 F/7W (Lat. $49^{\circ} 24'$ N., Long $116^{\circ} 58'$ W.)

On August 9th the writer examined this property accompanied by the owner, Bill Powell of Spokane, Wa. The Wisconsin mine is situated on the ridge between Seeman and Hughes Creeks, approximately 21 kilometers southeast of Nelson, B.C. The writer examined the underground and surface workings of the abandoned mine site and cut eight rock samples from the main sulphide-bearing vein.

The mine area is underlain by thinly-bedded schists intercalated with laminae of quartzite and beds of marbilized limestone, up to twenty feet in thickness. Originally these rocks were probably interbedded argillaceous to calcareous argillites with quartzose and limey units. These metasediments belong to the Horsethief Creek Series of late Precambrian age. The metasediments strike within a few degrees of north and dip -55° west to vertical, with an average of approximately -80° west.

Numerous dykes and sills of quartz diorite composition intrude the metasediments in the vicinity of the mine site. These intrusives are probably of Early to Middle Cretaceous age. Contemporaneous and

post-intrusive shearing have controlled the emplacement of the intrusions and subsequent mineralization.

Pyrite mineralization is weak but pervasive. It is, however, locally intense near intrusive contacts. The "Wisconsin Vein", the largest of five indicated veins, strikes 030° for an exposed length of 300 meters and dips from 55° to 70° westerly. On inspection this "vein" appears to be an irregular siliceous and brecciated zone along an intrusive contact. Due to later shearing widths of this zone are highly variable from less than one meter to twelve meters. Within this zone massive sulphides occur as shoots and irregular lenses. They consist primarily of arsenopyrite, pyrite, chalcopyrite, galena and sphalerite. According to the published data significant gold and silver values are associated with this sulphide mineralization.

The main purpose of the visit was to examine the gold and tungsten potential of the property. Minor scheelite mineralization was observed underground and sampled. Assay results of the sampling were less than 50 p.p.m. W. Gold values are significant, however, they are dominantly associated with arsenic-rich sulphide mineralization.

Negative factors such as access (via helicopter), topography, water and land status (surface rights owned by Darkwood Forestry Ltd.) would make mineral exploration here very difficult. In addition the "vein" widths, attitudes and densities do not have sufficient potential to be developed by open cast mining. For these reasons Bill Powell was notified that C.S.E. was not interested in the property.

Taurus Property - 82 K/10E (Lat. $50^{\circ} 33'$ N., Long. $116^{\circ} 36'$ W.)

The Taurus property is situated immediately east of Mount Harmon in the Starbird Ridge area, approximately 38 kilometers due west of Radium, B.C. The claim block which totals four claims (56 units) was staked by Westley Mines Limited of Calgary, Alta. Westley Mines submitted the property to C.S.E. for examination. The writer examined

the claims on September 18th.

The property is situated between elevations of 5,000 and 8,000 feet and covers the area south of Taurus Mountain and west of Mount Harmon, near the headwaters of Howser Creek. Access is only possible via helicopter from Nelson or Golden, B.C.

The claim block has been located along an intrusive contact between metasediments of the Hadrynian-age Horsethief Creek Group and an acid intrusion of Early to Middle Cretaceous age. Local country rocks include meta-argillites, grits, quartzites and pebble conglomerates. All metasedimentary units have been regionally metamorphosed to varying degrees of intensity. Locally the metasediments have been thermally metamorphosed and pyritized by the intrusion of quartz monzonitic to granodioritic composition. A prominent gossan zone occurs along the intrusive contact.

The premise for staking the Taurus property was its similarity in geologic setting with that of the Midnight Mine near Spokane, Washington.

Due to the extremely poor weather conditions at the time only the Whirlpool Lake and southwestern portion of the claim block were examined. However, these were the main areas of interest. Results of the radio-metric survey with a BGS-ISL scintillometer were:

- (a) Radioactivity in the Horsethief Creek metasediments ranged from 100 to 150 c.p.s.
- (b) Radioactivity in the intrusion ranged from 150 to 800 c.p.s.

Two rock and three silt geochemical samples were collected in the area of high radioactivity (600 - 800 c.p.s.). Assay results were well within the normal limits for these intrusives with high uranium backgrounds. It should be noted that a molybdenum geochemical value of 31 p.p.m. Mo was found in silt collected between Whirlpool and Thunderwater Lakes. This area has been unsuccessfully explored for

molybdenum in the past. As with the Battle Range batholithic rocks, high molybdenum and uranium geochemical values are not unusual.

Results of the geologic mapping indicate that above background (2 to 4 x) radioactivity is associated with the intrusives, especially with the pegmatitic selvages associated with dykes of aplite composition. However radiometric zones are very limited (1-3 meters), local and very scattered. Unlike at the Midnight Mine, metasediments are not radioactive.

Based on the negative results no further work was undertaken.

RESULTS

Results of the Ahab and Oasis examinations were negative. An aerial and ground reconnaissance of these claim groups did not discover any evidence of another Butters molybdenum showing within their boundaries. It appears that this showing staked by Noranda and Amax is the source of the anomalous molybdenum silt values in the Butters and Houston Creek drainages.

A property examination of the Fish property found no evidence of molybdenum-bearing mineralization or any geological features indicative of sub-surface economic mineralization. Abandoned mine dumps at the head of Stenson Creek appear to have contaminated this drainage and resulted in erroneously high molybdenum silt values.

A scintillometer survey of the Nelson property discovered two zones of anomalous radioactivity. These zones were, however, very local, distant, and associated with the selvages of two siliceous aplite dykes. These occurrences, though geologically interesting, did not have the potential to be economic.

An examination and scintillometer survey of the Kubin property discovered no evidence of uranium-bearing mineralization. It appears that the high silt geochemical values encountered by the G.S.C. in Duhamel Creek may have come from the abandoned mine dumps on Mt. Cornfield to the east. Lead-zinc mineralization at this mine site is hosted by "bull" quartz veins which commonly carry trace to very minor uranium values.

Of the other properties examined during the field season, the Stewart, Mammoth, Kena and Double B properties were the most interesting. Although the results from each individual examination were generally negative, work within the Nelson, Rossland, Creston and Canada-U.S.A. border quadrangle (N.T.S. 82 F/SW) indicated that this area may have economic potential. This quadrangle has many of the geological features favourable to the deposition of economic molybdenum-tungsten deposits, besides encompassing the majority of the known molybdenum-tungsten showings of the Nelson-Lardeau project area.

The 1978 program did not discover an economic molybdenum or tungsten deposit, however, preliminary results do indicate several factors that should be considered in future exploration work. It appears that Early to Middle Cretaceous granitic intrusives of the Omineca Belt carry high background values in molybdenum and uranium. With the exception of the Butters molybdenum showing, these geochemical values are well dispersed throughout the host-rocks. Future exploration work on these intrusions should not depend solely on regional silt geochemical results, but also should be directed towards determining specific localities where concentrating geological features exist. In the case of the Butters molybdenum showing, sulphide mineralization is associated with a late-stage intrusion of aplite and its peripheral breccia zone. The economic potential of the Fry Creek and White Creek batholiths appears to be within the intrusive contact zone in areas of skarnification and pneumatolytic intrusive activity.

The granitic intrusions of Middle to Late Jurassic, such as the Nelson plutonic rocks, respond positively to silt geochemical surveys with high-background uranium values. Past exploration work has shown that although the Nelson and Valhalla plutonic rocks provide an excellent source for Tertiary stream-channel uranium deposits, showings hosted by these intrusives are commonly associated with local and well scattered dykes of aplite composition. Uranium exploration would have a greater potential for success in non-glaciated areas or in areas where Tertiary basalts have preserved the uranium-bearing placer deposits away from these intrusives.

PROPOSED 1979 EXPLORATION PROGRAM

Proposed mineral exploration in the Nelson-Lardeau project area should be concentrated within the southwestern portion of the Nelson map area (N.T.S. 82 F/2 to 7) - the area bounded by Nelson, Rossland, Creston and the Canada-U.S.A. border.

The 1979 program should include: preliminary data compilation on a scale of 1:50,000, reconnaissance field followup by examining all mineral occurrences, and a third stage involving possible property acquisition with detailed exploration. The data compilation phase would be undertaken in January and February while field investigations could be carried out in June and July.

The pre-season research program could be extended to cover the White Creek batholith and adjacent areas, an excellent second-priority target area. All available data would, of course, be compiled on every molybdenum, tungsten and tin showing in the project area.

The cost of this exploration program, excluding detailed work on acquired properties, is estimated to be \$70,000.

CONCLUSIONS

The 1978 Lardeau project failed to discover an economic molybdenum, tungsten or uranium deposit. Results, though intangible, do indicate that this project area does have the potential for developing into a major molybdenum producing area and that a continuation of this project is warranted.

Future exploration efforts, instead of being dissipated over the whole area, should be concentrated in the southwestern portion of the Nelson map area. Although the Ymir, Salmo and Rossland mining camps of this region have undergone extensive exploration in the past, this area is still the best exploration target.

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