KENNCO EXPLORATIONS, (WESTERN) LIMITED

REPORT

ON

GEOLOGICAL & GEOCHEMICAL SURVEYS

PCW 1 and 2 Claims
Slocan Mining Division,
British Columbia

Situated 8 miles due east of Kaslo, B.C.
Latitude: 49°55'N Longitude 116°44'W

NTS 82F/15

by

C.F. Staargaard, Geol.
C.J. Westerman, Sr.Geol.

Fieldwork done between August 7 & 13, 1980

Vancouver, B.C. September 18, 1980

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REPORT ON GEOLOGICAL & GEOCHEMICAL SURVEYS

PCW 1 and 2 Mineral Claims

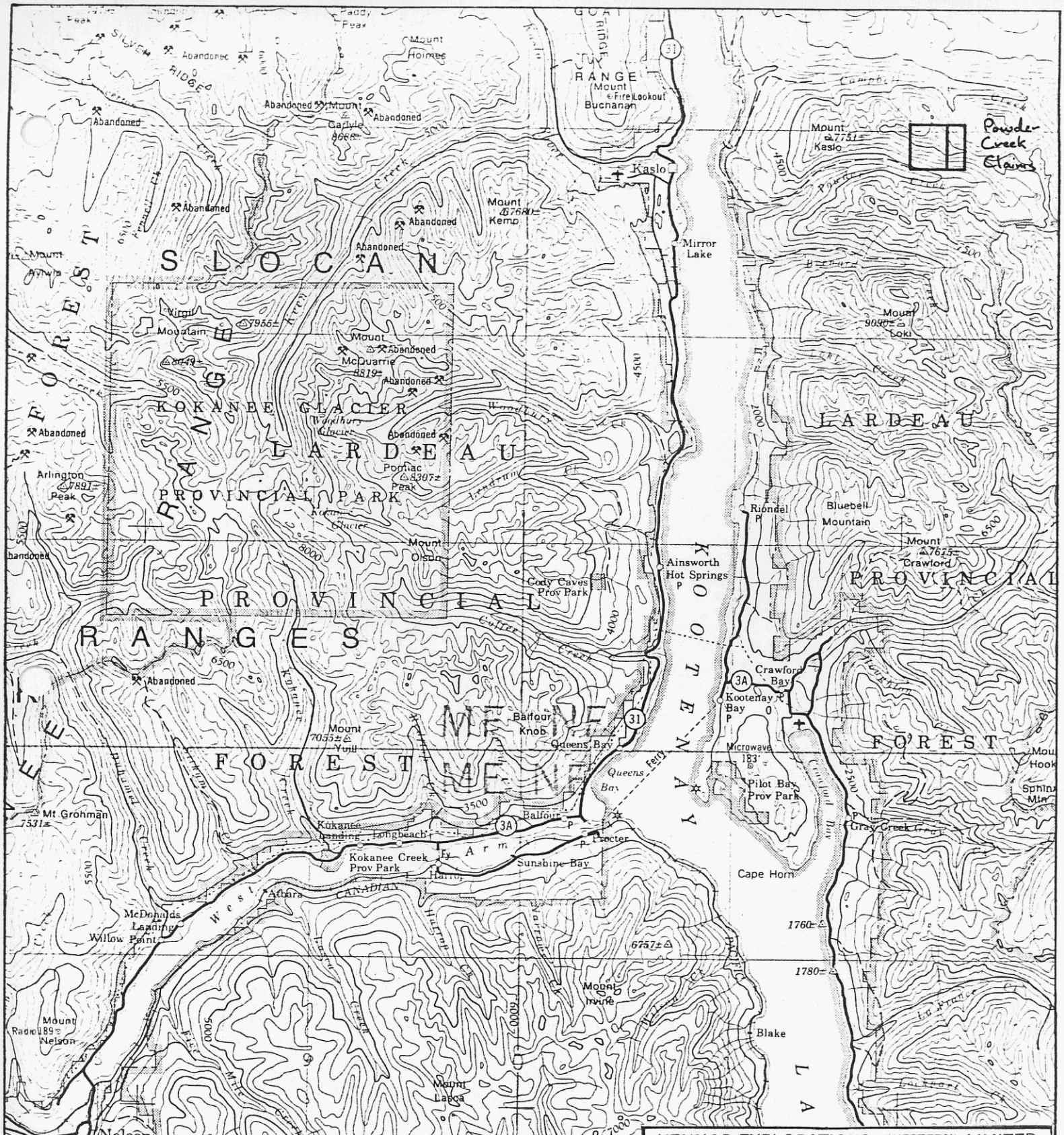
INTRODUCTION

Kennco Explorations, (Western) Limited is the holder of two unsurveyed mineral claims located in the Kootenay Lake area of southeastern British Columbia. The claims were staked on the basis of several moderately anomalous tungsten-in-silt values for samples taken in 1979. Work in 1980 was intended to evaluate the potential of this ground for economical mineralization through geological mapping, prospecting and geochemical sampling.

LOCATION AND ACCESS

The PCW claims are located in the Slocan Mining Division, approximately 8 miles due east from Kaslo, B. C., at Latitude 49°55'N, Longitude 116°44'W. The terrain is extremely rugged, with elevations ranging from 4500 to 9000 feet above sea level. The applicable map sheet is KASLO; NTS 82F/15.

Access to the area is by dirt road from Riondel, B.C. which extends along the eastern shore of Kootenay Lake to the mouth of Powder Creek. A dirt road suitable for four-wheel drive runs parallel to Powder Creek and intersects the claim group at a distance of 7.5 miles.



KENNCO EXPLORATIONS, (WESTERN) LIMITED

CLAIM LOCATION MAP

Powder Creek, B.C.

Slocan M.D.

fig. 1

DATE 11/79 | DRAWN BY: C.F.S.

REVISED BY | DATE | SCALE: 0 miles 5

GEOLOGY

The Powder Creek area is underlain mainly by metasediments of Late Precambrian to Early or Middle Paleozoic age. The oldest rocks and those underlying the claims, are those of the Hamill Group, generally comprised of white to grey quartzites and micaceous quartzites with variable amounts of dark slates and phyllites. These rocks are intruded by stocks of Cretaceous granodiorite.

The claims are underlain mainly by fresh granodiorite, probably related to the larger granodiorite intrusives to the north and east. In the eastern portion of the property, the granodiorite is in contact with fine-grained biotite-muscovite schists and gneisses and micaceous quartzite having a relatively steep westerly dip. A number of randomly oriented, generally small quartz veins are found in the quartzite underlying the easternmost portions of the property.

The biotite-muscovite schists and gneisses underlying the western portion of PCW 2 have been intruded by what appears to be a large dyke of fine-grained quartz monzonite or granodiorite. Steep terrain made it impossible to establish with certainty the exact relationship of the quartz monzonite to the metasediments.

Glacial till and talus have obscured the contact between the main granodiorite intrusive and the metasediments in the southern portion of PCW 1.

Detailed geological examination of the central portions of the property was not possible due to the extremely rugged topography, but metasedimentary rock in talus indicated at least some exposure of this material at higher elevations.

One day was spent prospecting and mapping a cirque in the northwestern portion of the property. Exposure here consisted of biotite-muscovite schist which had been intruded by fine-grained granodiorite, or possibly quartz monzonite, dykes and sills. Coarse-grained quartz monzonite porphyry was found in talus but was not seen in outcrop. Contact between either the granodiorite or the quartz monzonite and a number of thin beds of marble in the host rocks have resulted in the formation of garnet-epidote skarn.

Detailed prospecting by ultraviolet light over the accessible ground on the claims revealed no tungsten mineralization. Steep topography as well as overburden at lower elevations prevented adequate geological mapping over a large part of the claims.

GEOCHEMISTRY

Sample Procedure and Sample Preparation

Twenty-six stream sediment, three soil, and four rock samples were collected on the property.

Most of the stream sediment samples were taken from dry gullies as few active streams existed on the property. Care was taken to obtain material from near the bottom of the stream bed, as the high density of scheelite generally results in settling of the grains. Because of this, the standard silt sample is not always representative of true tungsten levels.

A number of soil samples were taken where a stream sediment sample was not possible and several rock samples were taken from float.

All stream sediment and soil samples were packaged in wet-strength Kraft paper bags and shipped to Min-En Laboratories in North Vancouver. The minus 80 mesh fraction of each was then analyzed for Mo, Cu, Pb, and Zn by atomic absorbtion analysis following a nitric-perchloric digestion, and for W and Sn by colorimetry following a fusion method. Rock samples were ground to minus 80 mesh and analyzed for Cu, Mo, Sn and W by the above method. Fluorine contents were determined by specific ion meter.

Results

Copper, lead and zinc values are generally in background ranges with only two samples slightly anomalous in zinc (206, 206 ppm) and two samples slightly anomalous in lead (80, 100 ppm).

Molybdenum values are generally background with only two samples returning slightly anomalous values of 10 and 11 ppm respectively. Tin behaviour was similar with only two random samples returning moderately anomalous values of 12 and 27 ppm respectively.

Tungsten values were almost all below detection limit. Four silt samples returned anomalous values of up to 22 ppm W. All four of these samples, however, were taken near the valley floor in portions of the tributaries underlain by glacial till. Contamination of stream silt by this till has almost certainly taken place. Tungsten in the glacial material is derived from an unknown and possibly distant source.

Samples taken from areas upslope from the till without exception returned background tungsten levels.

Conclusions

Several factors contributed in the evaluation of this property having little or no potential for economic tungsten mineralization:

(i) anomalous tungsten contents in silt appear to be related to transported glacial rather than residual material,

(ii) detailed prospecting, including ultraviolet light, on the accessible portions of the claims revealed no scheelite or other tungsten mineralization,

(iii) except for a very few random elevated values, other elements analyzed were at background levels.

Vancouver, B.C.

September 18, 1980

C. J. Westerman.Sr.Geologist

C. F. Staargaard, Geologist

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ONE BENTALL CENTRE
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ITEMIZED STATEMENT OF COSTS

PCW CLAIM GROUP
Slocan Mining Division, NTW 82F/15E

Geological and Geochemical Surveys : Work completed July 2 to July 10, 1980

Salaries:

C.F. Staargaard	9 days	July 2-10	at	$ 84.00/day	= $756.00
D. Philip	9 days	July 2-10	at	$ 42.00/day	= 378.00
C.J.Westerman	2 days	July 9-10	at	$140.00/day	= 280.00

Sub-Total $1,414.00

Transportation:

Vehicle Rental 9 days @ $25.00/day	= $225.00
Vehicle Gas	= 93.20
Helicopter 2.5 hrs @ $380/hr	= 950.00
Helicopter Gas & Oil	= 69.78
One (1) air fare Castlegar-Vancouver	= 62.65

Sub-Total $1,400.63

Analyses:

29 Soil Samples: Mo,Cu,Pb,Zn,W,Sn	@ $12.35	= $358.15
5 Rock Samples: Cu,Mo,W,Sn,F	@ $16.50	= 82.50

Sub-Total ..... $ 440.65

Food: 20 mandays @ $20.00 per manday $ 400.00

Accommodation: 2 nights, July 2-July 9 @ $25/night $ 50.00

Report Preparation: Salaries, Reproduction $ 250.00

TOTAL $3,955.28

C. J. Westerman, PhD
Senior Geologist-Western Canada

August 19, 1980

AUTHORS' QUALIFICATIONS

I, Christopher J. Westerman of Vancouver, Province of British Columbia, do certify that I have graduated in Geological Sciences with the Degree of Bachelor of Sciences at London University, United Kingdom in 1967; Master of Sciences at the University of British Columbia in 1970; Ph.D. at McMaster University in 1978. I have been employed as a geologist since initial graduation and am currently employed as Senior Geologist-Western Canada by Kennco Explorations, (Western) Limited. I am a Fellow of the Geological Association of Canada and a member of the Canadian Institute of Mining and Metallurgy.

C. J. Westerman

I, Christiaan F. Staargaard of Vancouver, Province of British Columbia, do certify that I graduated in the Geological Sciences from The Pennsylvania State University in 1977 with the Degree of Bachelor of Science and will graduate in Geochemistry from Queen's University with the Degree of Master of Science in 1980.

C. F. Staargaard

CLAIM BOUNDARY

CL088 CL087 CL085,86 CL089 CL084 CL082 CL081 CL090 CL083 CL079 CL078 CL091 CL092 CL093 CL077 CL080 CL076 CS034 CS035 CL094 CL095 CL096 CS036 CL097 CL098 CL099 CL100 CL101

PCW PCW 2

Powder Creek

6500 7000 7500 8000 9000 5500 6000 5000

LEGEND

X CL092 · · · · Stream Sediment Sample Location and Number

● CS034 · · · · Soil Sample Location and Number

SCALE 1:10,000

200 100 0 200 400 600 800 Metres

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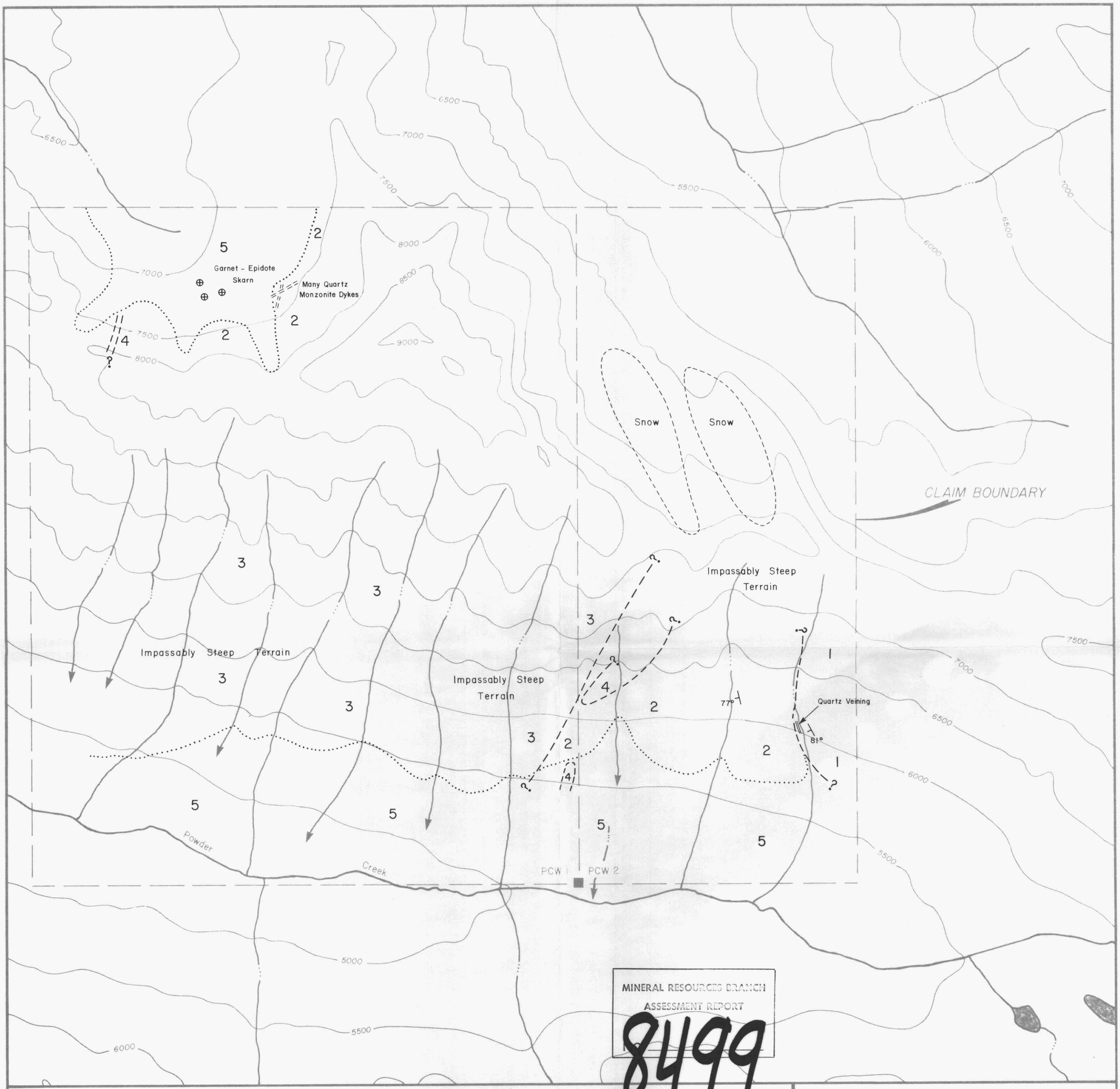
PCW PROPERTY SLOCAN M.D.

SAMPLE LOCATION

Fig. 2

DATA BY: C.F.S.		N.T.S. 82F/15E	PL. NO.:
DRAWN BY: Y.M.	DATE: 9/9/80	SCALE: 1:10,000	
TRACED BY:	DATE:		
REVISIONS:			



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ASSESSMENT REPORT
8499

LEGEND

- 5 · · · · Glacial Till ; Recent Colluvium , Alluvium
- 4 · · · · Quartz Monzonite to Granodiorite
- 3 · · · · Biotite Hornblende Granodiorite
- 2 · · · · Muscovite Biotite Gneiss
- 1 · · · · Metasandstone

- ····· · · · · Limit of Outcrop
- ------ · · · · Geologic Contact , Approximate
- 90° · · · · Bedding Attitude
- ⊕ · · · · Float

SCALE 1:10,000

200 100 0 200 400 600 800 Metres

KENNCO EXPLORATIONS (WESTERN) LIMITED

PCW PROPERTY SLOCAN M.D.

GEOLOGY

Fig. 3

DATA BY: C.F.S.		N.T.S. 82F/15E.	PL. NO.:
DRAWN BY: Y.M.	DATE: 9/9/80	SCALE: 1:10,000	
TRACED BY:	DATE:		
REVISIONS:			

LEGEND

X 2 · · · · ppm W (Stream)

● 2 · · · · ppm W (Soil)

PCW PROPERTY SLOCAN M.D.

SCALE 1:10,000

200 100 0 200 400 600 800 Metres

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STREAM and SOIL SAMPLING RESULTS PPM W

Fig. 4

DATA BY: C.F.S.		N.T.S. 82F/15E.	PL. NO.:
DRAWN BY: Y.M.	DATE: 9/9/80	SCALE: 1:10,000	
TRACED BY:	DATE:		
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CLAIM BOUNDARY

Powder Creek

PCW 1 PCW 2

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
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LEGEND

X 4 · · · · ppm Mo (Stream)

● 3 · · · · ppm Mo (Soil)

PCW PROPERTY SLOCAN M.D.

SCALE 1:10,000

200 100 0 200 400 600 800 Metres

KENNCO EXPLORATIONS (WESTERN) LIMITED

STREAM and SOIL SAMPLING RESULTS
PPM Mo

Fig. 5

DATA BY: C.F.S.		N.T.S. 82F/15E.	PL. NO.:
DRAWN BY: Y.M.	DATE: 9/9/80	SCALE: 1:10,000	
TRACED BY:	DATE:		
REVISIONS:			

LEGEND

X 2 · · · · ppm Sn (Stream)

● 3 · · · · ppm Sn (Soil)

PCW PROPERTY SLOCAN M.D.

SCALE 1:10,000

200 100 0 200 400 600 800 Metres

KENNCO EXPLORATIONS (WESTERN) LIMITED

STREAM and SOIL SAMPLING RESULTS PPM Sn

Fig. 6

DATA BY: C.F.S.		N.T.S. 82F/15E.	PL. NO.:
DRAWN BY: Y.M.	DATE: 9/9/80	SCALE: 1:10,000	
TRACED BY:	DATE:		
REVISIONS:			

CLAIM BOUNDARY

Powder Creek

PCW 1 PCW 2

LEGEND

X 27 · · · · ppm Cu (Stream)

● 16 · · · · ppm Cu (Soil)

PCW PROPERTY SLOCAN M.D.

SCALE 1:10,000

200 100 0 200 400 600 800 Metres

KENNCO EXPLORATIONS (WESTERN) LIMITED

STREAM and SOIL SAMPLING RESULTS
PPM Cu

Fig. 7

DATA BY: C. F. S.		N.T.S. 82F/15E.	PL. NO.:
DRAWN BY: Y. M.	DATE: 9/9/80	SCALE: 1:10,000	
TRACED BY:	DATE:		
REVISIONS:			

LEGEND

X36 · · · · ppm Pb (Stream)

●18 · · · · ppm Pb (Soil)

PCW PROPERTY SLOCAN M.D.

SCALE 1:10,000

200 100 0 200 400 600 800 Metres

KENNCO EXPLORATIONS (WESTERN) LIMITED

STREAM and SOIL SAMPLING RESULTS
PPM Pb

Fig. 8

DATA BY: C. F. S.		N.T.S. 82F/15E.	PL. NO.:
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TRACED BY:	DATE:		
REVISIONS:			

CLAIM BOUNDARY

Powder Creek

PCW 1 PCW 2

6500 7000 7500 5500 8000 8500 9000 6000 5000

X 103 X 77 X 67, 96 X 101 X 92 X 87 X 80 X 106 X 97 X 85 X 96 X 126 X 132 X 108 ● 80 ● 137 X 104 ● 87 ● 104 X 71 X 206 X 206 ● 65 ● 184 X 70 X 131 X 65 X 85

LEGEND

X65 · · · · ppm Zn (Stream)

●70 · · · · ppm Zn (Soil)

PCW PROPERTY SLOCAN M.D.

SCALE 1:10,000

200 100 0 200 400 600 800 Metres

KENNCO EXPLORATIONS (WESTERN) LIMITED

STREAM and SOIL SAMPLING RESULTS PPM Zn

Fig. 9

DATA BY: C.F.S.		N.T.S. 82F/15E.	PL. NO.:
DRAWN BY: Y.M.	DATE: 9/9/80	SCALE: 1:10,000	
TRACED BY:	DATE:		
REVISIONS:			