

ASSESSMENT REPORT

GEOLOGICAL AND GEOCHEMICAL REPORT

ON THE

SOURCE 1 - 24 MINERAL CLAIMS

WATSON LAKE MINING DISTRICT

YUKON TERRITORY

60°37' N 131°10' W
N.T.S. 105B/11

FOR
SEREM LTD.

REPORT BY: M.A. STAMMERS, GEOLOGIST

WORK PERFORMED BETWEEN: June 4, 1982 and August 5, 1982

DATE OF REPORT: AUGUST 1982

~~091073~~
091074

This report has been examined by
the Geological Evaluation Unit
under Section 53 (4) Yukon Quartz
Mining Act and is allowed as
representation work in the amount
of \$ 4800-.

R. Watson

for Regional Manager, Exploration and
Geological Services for Commissioner
of Yukon Territory.



DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
YUKON QUARTZ MINING ACT
FORM "C" - APPLICATION FOR A CERTIFICATE OF WORK

001074



(This form required in duplicate with sketch showing location of work.)

I (Name)	MICHAEL STAMMERS	Occupation	GEOLOGIST
(Postal Address)	300-535 THURLOW ST., VANCOUVER, BC. V6E 3L2		

OFFICE DATE STAMP

MAKE OATH AND SAY, THAT:

- I am the owner, or agent of the owner, of the mineral claim(s) to which reference is made herein.
- I have done, or caused to be done, work on the following mineral claim(s):
(Here list claims on which work was actually done by number and name)

SOURCE 1-24 (incl.) YA67272 - YA67295 (incl.)

situated at 5 kms northeast of IRVINE LAKE Claim Sheet No. 105 B 11
in the WATSON LAKE Mining District, to the value of at least \$4800.00
dollars, since the 1 day of JUNE 19 82.

to represent the following mineral claims under the authority of Grouping Certificate No. —

(Here list claims to be renewed in numerical order, by grant number and claim name, showing renewal period requested).

SOURCE 1-24 incl. YA67272 - YA67295 incl. 2 years each claim
to September 21 1983/4

- The following is a detailed statement of such work: (Set out full particulars of the work done indicating dates work commenced and ended in the twelve months in which such work is required to be done as shown by Section 53.)

Geological mapping, hammer prospecting, night ultra-violet surveys and rock outcrop and geochemical silt sampling were carried out on the property between June 1, 1982 and August 7, 1982 on the SOURCE mineral claims. A total cost of \$5258.60 was incurred during the program.

Sworn before me at Watson Lake, Yukon
this 18th day of August 19 82
Pat Cameron
Notary Public

Michael Stammers
Applicant

TABLE OF CONTENTS

	<u>Page</u>
1. INTRODUCTION	1
2. LIST OF CLAIMS	1
3. LOCATION AND ACCESS	4
4. PHYSIOGRAPHY AND CLIMATE	4
5. EXPLORATION HISTORY	5
6. REGIONAL GEOLOGY	5
7. PROPERTY GEOLOGY	6
8. MINERALIZATION	8
9. GEOCHEMISTRY	8
10. CONCLUSIONS	9
11. RECOMMENDATIONS	10

LIST OF FIGURES

Figure 1. Yukon Location Map	2
Figure 2. Claim Location Map - Source 1-24 Claims	3
Figure 3. Preliminary Geology, Geochemistry and Selected Assay Results	7

APPENDIX 1	List of Personnel
APPENDIX 2	Statement of Costs
APPENDIX 3	Geochemical Methods and Analysis
APPENDIX 4	Statement of Qualifications

1. INTRODUCTION

The Source 1-24 mineral claims were staked in the upper Gravel Creek area, south-central Yukon, in September 1981 by Serem Ltd. to cover favourable tungsten-skarn showings discovered by prospector E. DeBock. Acquisition of this property is considered part of Serem's Cabin Creek Regional project in the Wolf Lake map area.

The property is underlain by metamorphic rocks of Upper Hadrynian to Lower Cambrian age and granitic rocks of the Cassiar batholith.

Disseminated and fracture controlled scheelite mineralization occurs in narrow garnet skarn beds that lie in close proximity to the intrusive rocks. A grab sample from a richly mineralized skarn bed assayed 8.258% WO_3 . Minor amounts of galena, sphalerite, chalcopyrite, fluorite and magnetite have also been found on the property.

Property evaluation during the 1982 field season was limited. Assessment work for the Source 1-24 claims included night ultra-violet lamping, outcrop sampling, silt sampling, and preliminary geological mapping.

2. LIST OF CLAIMS (Figure 2)

<u>Claim Name</u>	<u>Grant Numbers</u>	<u>Expiry Date</u>
Source 1-24 (incl)	YA67272-YA67295 (incl.)	21 Sept. 1982

SEREM LTD.

SELWYN BASIN, Y.T.

PROJECT LOCATION MAP

JAN 82

SCALE IN MILES

80 60 40 20 0 20 40 60 80

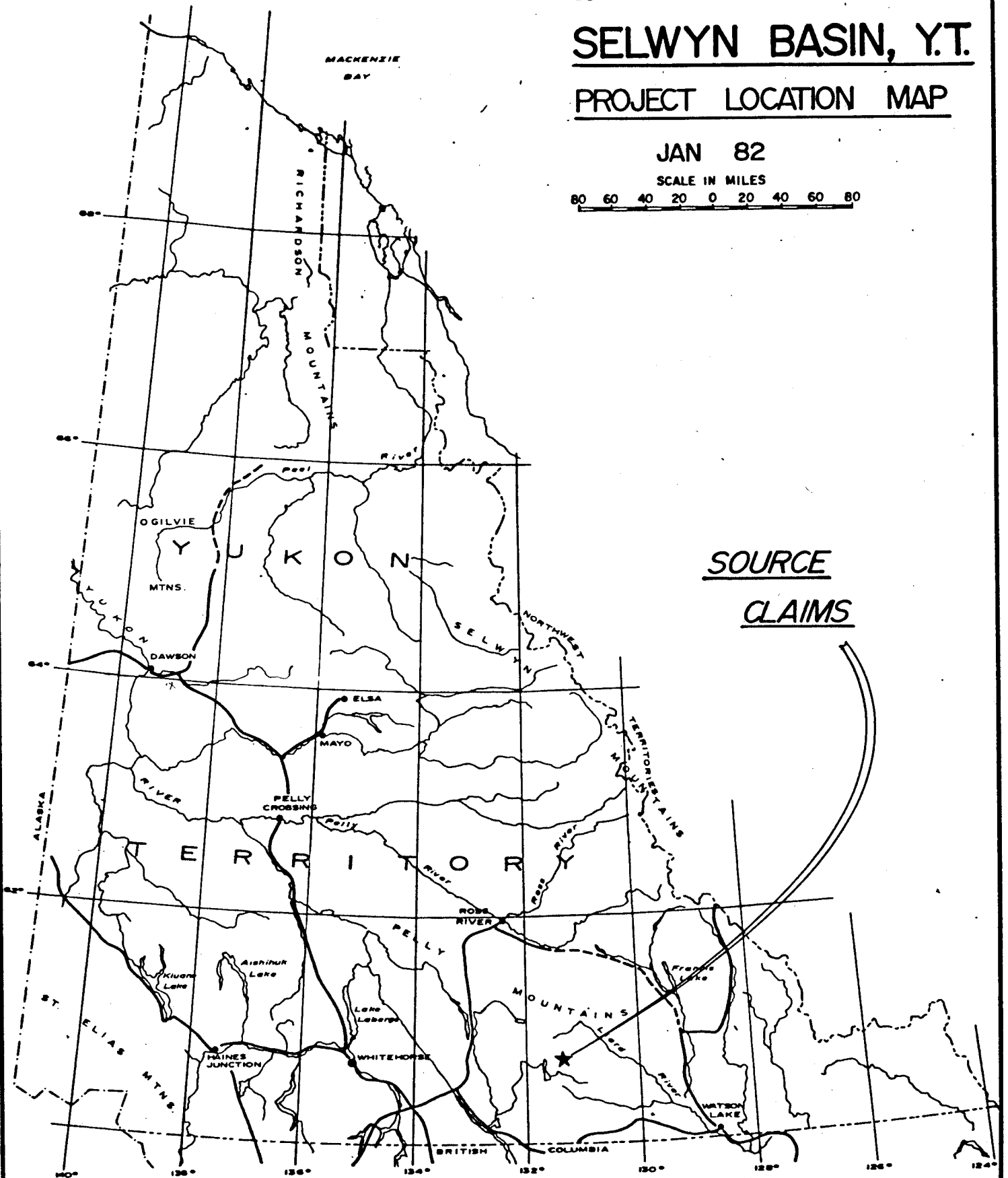
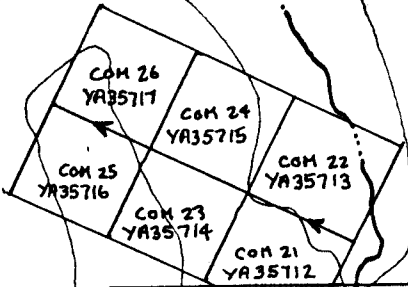
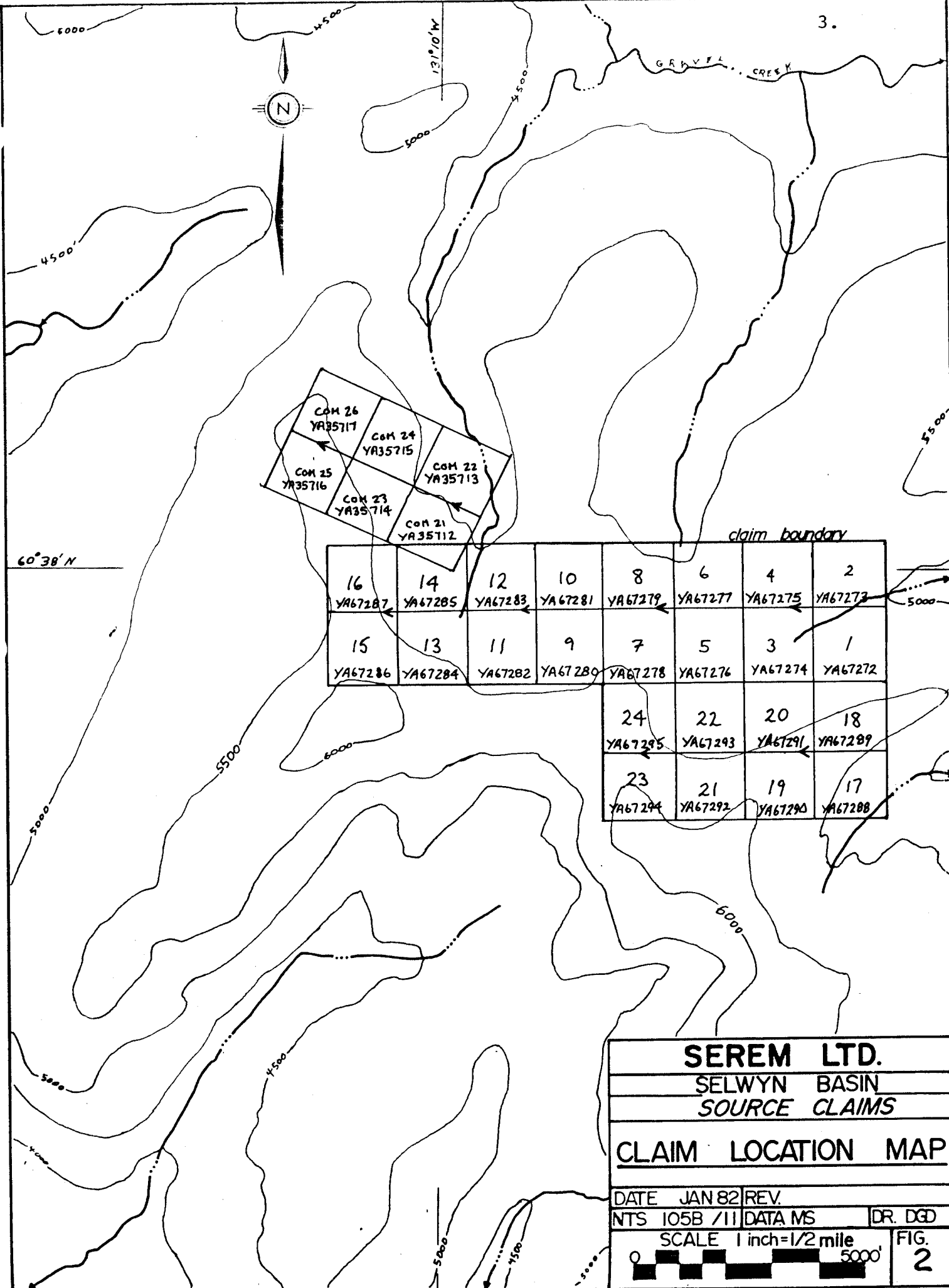


FIGURE ONE



16 YA67287	14 YA67285	12 YA67283	10 YA67281	8 YA67279	6 YA67277	4 YA67275	2 YA67273
15 YA67286	13 YA67284	11 YA67282	9 YA67280	7 YA67278	5 YA67276	3 YA67274	1 YA67272
				24 YA67295	22 YA67293	20 YA67291	18 YA67289
				23 YA67294	21 YA67292	19 YA67290	17 YA67288

SEREM LTD.		
SELWYN BASIN		
SOURCE CLAIMS		
CLAIM LOCATION MAP		
DATE JAN 82	REV.	
NTS 105B /11	DATA MS	DR. DGD
SCALE 1 inch=1/2 mile		FIG. 2
0 5000'		

3. LOCATION AND ACCESS

The Source 1-24 mineral claims are located 153 kilometres northwest of Watson Lake, Yukon and 5 kilometres northeast of Irvine Lake at latitude $60^{\circ}37'$ N and longitude $131^{\circ}10'$ W.

Access during the 1982 field season was provided by helicopter direct from Watson Lake to the Source property.

4. PHYSIOGRAPHY AND CLIMATE

Elevations on the Source 1-24 mineral claims range between 1585 and 1890 metres (5200' and 6200') above sea level. The property lies above tree line and vegetation is restricted to scrub alpine classification.

Outcrop in the area is generally fair with additional geological information provided by talus and felsenmeer rubble on slopes and ridge crests.

Climate in the Source claims area is characterized by very short, warm summers and long, cold winters. The high elevations with the resultant heavy snowpack restrict the best exploration season to July, August and early September.

Wildlife in the upper Gravel Creek area is abundant and crews have spotted caribou, wolf and grizzly bear.

5. EXPLORATION HISTORY

The Source claims are located immediately south of Dayton Creek Silver Mining Limited's COM 21-26 mineral claims and occupy ground formerly owned by Dayton Creek Silver, Hudson Bay Mining, and Comaplex Resources International Limited.

The Geological Survey of Canada first drew attention to the area by reporting minor occurrences of galena and sphalerite occurring with quartz and fluorite in veinlets and disseminations in diopside-magnetite skarn.

Hudson Bay Mining first explored the area with geological mapping, geochemical sampling, IP survey, trenching and 806 metres (2646') of drilling in 1974 and 1975.

In 1981, Serem Ltd. actively explored a large part of the Cabin Creek region from the Team claims base camp located 20 kilometres northeast of the Source claims.

In 1982, a brief property evaluation program was carried out on the Source claims by a Serem field crew.

6. REGIONAL GEOLOGY

The regional geology is based on mapping (G.S.C. Map 10-1960) by Poole 1951-1955 and by Roddick and Green in 1950.

The Source 1-24 mineral claims are situated over the contact between a folded and metamorphosed belt of Late Proterozoic to Early Cambrian sedimentary rocks and the Jurassic or Cretaceous-aged biotite-quartz monzonite to granodiorite Cassiar batholith. The northern outcrop limit of the Cassiar batholith is found on the Source claims and

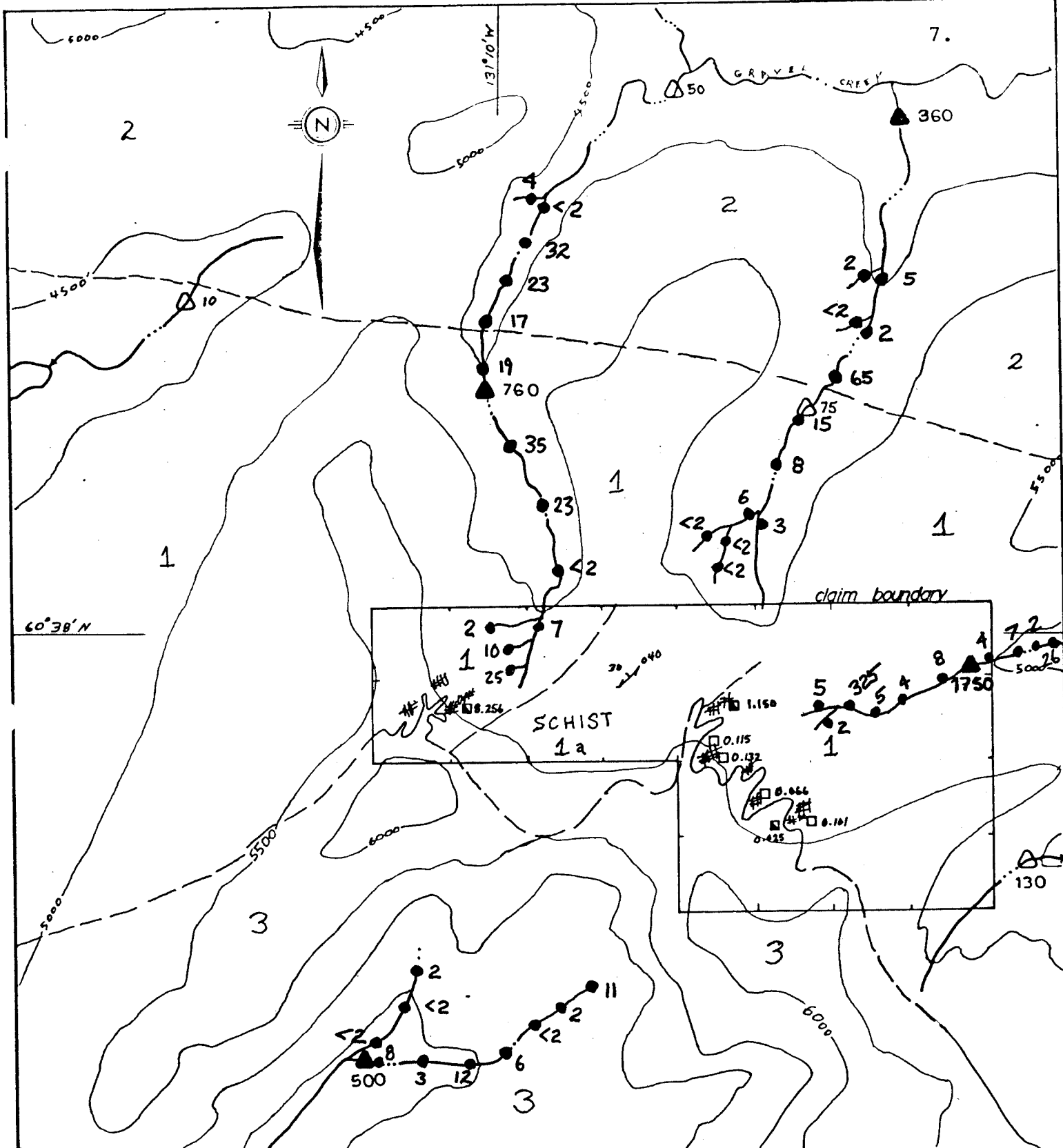
is characterized by abundant dike and sill swarms at the metasediment contact. The batholith appears to occupy a large anticlinal area characterized by mainly metamorphosed Precambrian-age clastic and carbonate strata. Outward from the batholith and overlying the probable Precambrian strata are thick units of Lower Cambrian limestone and other sedimentary rocks. This particular sedimentary environment gives rise to the assigned paleogeographic name to the region: the Cassiar Platform.

7. PROPERTY GEOLOGY

A preliminary geological sketch map of the claims is discussed below and displayed in Figure 3.

The metasedimentary rocks on the property are mainly quartz biotite schist, recrystallized limestone and garnet-diopside skarn. The schistosity and bedding trend is north-easterly and dips are moderate to the west. Skarn lithologies occur as thin beds, lenses and masses within regular and repeated limestone horizons that are part of an interbedded clastic and limestone sedimentary package. The limestone units are generally less than 5 metres thick and to date best mineralization in skarn is found across only 1 or 2 metres.

Rocks of the batholith and emanating dikes and sills are mapped as biotite quartz monzonite to granodiorite. The contact between the intrusive and metasediments is irregular and at most locations on the property it is perpendicular or oblique to strike. Southwest of the claims area, the contact turns sharply and parallels the bedding.



LITHOLOGY

3 CRETACEOUS-JURASSIC CASSIAR BATHOLITH
granodiorite to quartz monzonite

2 LOWER CAMBRIAN OR OLDER
phyllite, minor slate

1 HADRYNIAN TO LOWER CAMBRIAN
undivided metamorphic rocks: schist, quartzite, skarn #

1a quartz-biotite schist; rare skarn/limestone lenses

LEGEND

△ Heavy-metal sieved-silt sample, ppm Tungsten
(anomalous locations blackened)

□ 0.01 Continuous chip sample, % WO₃

□ 0.150 Grab sample, % WO₃

— Schistosity, dip direction

--- Inferred geological contact

● SILT SAMPLE
ppm W

SEREM LTD.

SELWYN BASIN
SOURCE CLAIMS

PRELIMINARY GEOLOGY with
TUNGSTEN MINERALIZATION
and GEOCHEMISTRY

DATE AUG 82 REV.

NTS 105B / 11 DATA MS, GSC DR. DGD

SCALE 1 inch = 1/2 mile

0 5000'

FIG. 3

8. MINERALIZATION

Mineralization found to date on the property includes scheelite, galena, sphalerite, magnetite, and chalcocpyrite in skarn and fluorite in quartz carbonate veins.

Economic importance is placed on tungsten skarn mineralization by virtue of its greater abundance over other minerals present. Scheelite occurs as medium to very coarse grained crystals along fractures and bedding and is irregularly disseminated through the skarn rock. Scheelite has been identified in sub-economic quantities in neighbouring schist and intrusive lithologies (up to .025% WO_3).

Tungsten assay values range from 0.001% to 8.258% WO_3 from controlled and random samples. Table 1 lists assay results from the Source claims. Selected results are plotted on Figure 3.

9. GEOCHEMISTRY

Sieved, heavy-metal stream silt samples were taken from creeks draining the property prior to staking. The results appearing in figure 3 are only a few of many taken in the region. These results are considered anomalous for the region and range from 130 to 1750 ppm tungsten.

Forty-six silt samples taken over the claims area returned several values anomalous in tungsten. The best result of 325 ppm W is located 750 metres northeast of scheelite showings exposed along the ridge crest.

TABLE 1. Source Claims
Assay Results

Sample No.	Type	Length	WO ₃ %	Zn %	Ag Oz/T	Au Oz/T	Sn %
17006	Grab	—	8.258	.04	.11	.010	.01
16571	Grab	—	0.058	.01	.01	—	—
16578	Grab	—	0.060	.02	.04	—	—
16579	Grab	—	0.001	.02	.01	—	—
16580	Grab	—	1.250	.04	.01	—	—
16581	Grab	—	1.065	.08	.30	—	—
16582	Grab	—	1.450	.02	.02	—	—
16583	Grab	—	1.200	.07	.01	—	—
16584	Grab	—	0.201	.02	.01	—	—
17007	Grab	—	1.115	.01	.01	—	—
17008	Grab-Intrusive	—	0.025	—	—	—	—
17001	Chip	1 m	0.001	—	—	—	—
17002	Chip	1 m	0.066	—	—	—	—
17003	Chip	1 m	0.101	—	—	—	—
17004	Chip	1.5 m	0.132	—	—	—	—
17005	Chip	1.5 m	0.115	—	—	—	—

10. CONCLUSIONS

Evaluation of the property is incomplete to date and a proper assessment of the Source claims will come after further detailed geological mapping and sampling. Some of the current assay results indicate the possibility for a high grade limited tonnage tungsten deposit exists on the property.

11. RECOMMENDATIONS

The recommended program for the 1983 field season is as follows:

1. Controlled geological mapping of the property with emphasis on the skarn-contact zones.
2. Follow-up night ultraviolet lamping and subsequent delineation of scheelite mineralization.
3. Controlled outcrop sampling in zones of mineralization.
4. Hand-trenching in areas where overburden or talus restricts showing evaluation.

Paul Stammers

APPENDIX 1

LIST OF PERSONNEL

SOURCE 1 - 24 MINERAL CLAIMS

<u>Name/Position</u>	<u>Residence</u>	<u>Dates Worked (1982)</u>
Michael Cullen, Junior Geologist	North Vancouver, B.C.	June 27 - July 1 (incl.)
Daniel MacIsaac, Prospector	Nanaimo, B.C.	June 27 - July 1 (incl.)
Michael Stammers, Geologist	Port Coquitlam, B.C.	June 4, August 2-4 (incl.)

APPENDIX 2

STATEMENT OF COSTS

SOURCE 1-24 MINERAL CLAIMS

WAGES

Field:

Geologist	1 day @ \$137.50/day x 1.55	\$ 213.12	
Prospector	5 days @ \$ 66.00/day x 1.35	445.50	
Junior Geologist	5 days @ \$ 58.00/day x 1.35	391.50	

Office:

Geologist	3 days @ \$137.50/day x 1.35	556.88	
Secretarial/Drafting		<u>150.00</u>	
			\$1,757.00

TRANSPORTATION

Helicopter	5.5 hr. @ \$400/hr.	\$2,200.00	
Fuel	5.5 hr. x 30 gal/hr. x \$2.75	453.75	
Truck (Rental and gas)		<u>50.00</u>	2,703.75

FIELD EXPENSES

	10 man/days @ \$30/day		300.00
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ANALYSIS AND ASSAYS

Analysis	46 samples @ \$4.85/sample	\$ 223.10	
Assays	10 samples @ \$15/sample	150.00	
	1 sample @ \$49.75	49.75	
Freight	150 lb. x \$.50/lb	<u>75.00</u>	
			497.85

TOTAL SOURCE 1-24 \$5,258.60

APPENDIX 3

GEOCHEMICAL METHODS AND ANALYSIS

Silt samples were collected from the active sections of streams on the property and placed in Kraft sample bags and sent to Min-En Laboratories Ltd., North Vancouver, B.C. Those samples were dried and sieved to -80 mesh. A portion of the -80 mesh material was then analysed for tungsten using fusion and colorimetric methods.

Rock assay samples were ground to -100 mesh and then analysed for W_0_3 using acid digestion and regular chemical analysis.

APPENDIX 4

STATEMENT OF QUALIFICATIONS

1, MICHAEL STAMMERS, of Port Coquitlam, British Columbia, hereby certify that:

1. I am a geologist employed by Serem Ltd. of 300 - 535 Thurlow Street, Vancouver, B.C.
2. I hold a B.A. degree in geology and geography from McMaster University, Hamilton, Ontario.
3. I have worked in geology and mineral exploration for 9 years.
4. I am the author of this report and the field work described in this report was carried out under my supervision.
5. I have no financial interest in the claims covered by this report or in Serem Ltd.



Michael Stammers,
Geologist

Vancouver, B.C.
August 1982

AFFIDAVIT

IN THE MATTER OF APPLICATION FOR CERTIFICATE OF WORK
FOR THE SOURCE 1-24 MINERAL CLAIMS, WATSON LAKE MINING
DISTRICT, YUKON TERRITORY, SUBMITTED ON BEHALF OF
SEREM LTD.

I. Michael Stammers, geologist of Serem Ltd., Suite 300,
535 Thurlow Street, Vancouver, British Columbia, HEREBY CERTIFY
THAT:

The preceding SUMMARY OF COSTS totalling \$5,258.60
which is submitted in support of the Application for
Certificate of Work, is the actual amount incurred by
SEREM Ltd., in conducting a geological and geochemical
program on the Source 1-24 Mineral Claims, Watson
Lake Mining District, during the 1982 field season.

AND THAT Application for Certificate of Work is attached for
the following Representation Work:

<u>MINERAL CLAIMS</u>	<u>GRANT NUMBERS</u>	<u>AMOUNT APPLIED</u>
SOURCE 1-24	YA67272-295 incl.	\$4,800.00
	Total applied	\$4,800.00
	Balance of Cost Unapplied	\$ 458.60

SWORN BEFORE ME at **WATSON LAKE Y.T.**
, this day)
of **11th 10 1982** , 19)

Pat Jameson)
Notary Public)

Michael Stammers
Michael Stammers