

GEOCHEMICAL EXPLORATION

OF



THE WOLF GROUP OF MINERAL CLAIMS

Located on Claim Map No. 115I-2

62 14'N 136 56'E

by

R. A. Granger



June 1966 to February 1987

091905

This report has been examined by  
the Geological Evaluation Unit  
under Section 53 (4) Yukon Quartz  
Mining Act and is allowed as  
reproduction work in the amount  
of \$ 3200.00 .

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

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INTRODUCTION:

This report is based on a program of geochemical surveying carried out by Ron A. Granger on a group of 32 mineral claims in the Mt. Freegold area of Yukon Territory during 1986.

The report has been compiled and written by R.A. Granger for submission to the Mining Recorder of the Whitehorse Mining District to satisfy assessment work requirements for claims Wolf 1 to 32 inclusive for a period of one year each.

The work was carried out during the period June 1986 to Feb. 1987 by the following persons:

- Granger, R.A.-----prospector-----48 Tamarack Drive,  
Whitehorse, Yukon. Y1A 4Y6.
- Voisin, R.-----contractor-----Eastern Associates,  
Box 4152,  
Whitehorse, Yukon. Y1A 3S9.

WORK DONE:

- 1) Orientation: local geology, prospecting and layout of lines for the sampled grid.
- 2) Sampling: grid lines, marking, sample method, sample handling. Nine kilometers of line were sampled.
- 3) Sample Analysis. 102 samples were analysed for Au & As.
- 4) Report and maps.

PROPERTY:

The property consists of thirty-two Quartz Mining Claims named Wolf 1 to 32 incl. and numbered YA94829 to YA94860 incl. The claims all have the common record date of 6 June 1986. The claims were tagged during the course of this survey.

All of the claims are held by R.A. Granger, Whitehorse, Yukon.

LOCATION:

The claims are located surrounding Wolf Lakes, which are the headwaters to westerly-flowing Seymour Creek and easterly-flowing Crossing Creek. The Carmacks to Mt. Freegold Road passes through the claims from mileposts 31 Mile to 33 Mile putting the village of Carmacks that distance easterly, with Mt. Freegold about ten miles westerly. Co-ordinates are 64°14'N, 136°56'W.

ACCESS:

The claims are accessed by the Mt. Fraegold road which traverses the northerly half of the claim group. This is an all-weather graveled road maintained annually by the Government of Yukon. Carmacks lies about 110 miles north of Whitehorse by paved highway.

TOPOGRAPHY:

The bulk of the claim area lies in the valley bottom and the portion adjacent to the lakes and streams is deeply covered by overburden which appears to be largely frozen. There are some small drumlinoid hills and some morainal material toward the mountain slopes. Only the most northerly claims contain any steep slopes and some of this area is marked by small cliffs of outcrop.

REGIONAL GEOLOGY:

The geology of the Carmacks map sheet 1151 is most recently revised by D.J. Templeman-Kluit in Open File 1101.

The structural and stratigraphic relationships of the various rock units are described as follows:

Table of Formations:

Upper Cretaceous	- Basalt flows of the Carmacks Group.
	- Volcanic sandstone and conglomerate.
	- unconformity
Mid-Cretaceous	- Andesitic plagioclase porphyry and andesite breccia as plugs, pipes and dykes.
	- Rhyolite to dacite, quartz feldspar porphyry; innumerable dykes and small plugs
	- intrusive contact
	- Casino Granodiorite; biotite, hornblende granodiorite.
	- intrusive contact
Jurassic	- Hornblende Syenite, porphyritic.
	- intrusive contact
Upper Triassic	- Foliated biotite-hornblende granodiorite
Permian ?	- Hornblende-biotite-chlorite gneiss

LOCAL GEOLOGY:

Very little geological examination has been carried out on the Wolf claims to this point but the author has made some prospecting observations in 1986 and earlier in 1967, 68 AND 1969 while familiarizing himself with the local features.

Table of Formations:

- 1) Unconsolidated gravel deposits formed during the last glacial advance which terminated at this point .
- 2) Thin, discontinuous remnants of gravel, Pre-Reid?
- 3) Basalt flows, Carmacks Group.
- 4) Quartz vein matter & rhyolite floats and included sulphide mineralization.
- 5) Foliated biotite granodiorite
- 6) Altered, mineralized diorite ?, as float.
- 7) Quartz-biotite gneiss.

REGIONAL GEOCHEMISTRY:

An Open File on the silt geochemistry of 115I was released during 1986 and this indicated the presence of antimony in all of the tributary streams in, and adjacent to, the Wolf Group of claims. One sample was strongly anomalous in five elements. The samples follow by order of their numbers:

#1827 (SE of claims) Sb 0.2 ppm  
 #1828 ( E of claims) Sb 1.1 ppm  
 #1829 ( E of claims) Sb 1.8 ppm  
 #1830 ( on claims ) Sb 4.0 ppm  
 #1831 (NW of claims) Sb 0.9 ppm, Hg 192 ppb, As 350 ppm,  
 Zn 120 ppm, Au 12/12 ppb

LOCAL GEOCHEMISTRY:

The author has been prospecting along what Templeman-Kluit calls the "Big Creek Fault" since 1967, and has been using mercury, arsenic, antimony and gold geochemistry to locate gold mineralization. It worked successfully at Revenue Creek in 1967 to 1974, at Mt. Freegold in 1968 to 1972, at Emmon's Hill in 1985 & 1986 and near Bow Creek in 1985 & 1986. The intervening years saw lesser but still useful results. Mercury was used to help select a location to work in, antimony was used as a higher elevation marker along with arsenic, while arsenic and gold are used to locate trenches.

The Wolf Group was located to cover the "Big Creek Fault" projection in a location marked by floats of rhyolite, altered mineralized diorite and quartz vein matter. Due to the extensive cover of recent gravel it was decided that soil geochemistry might help provide direction. This was carried out before the presence of anomalous amounts of antimony and mercury in silts was known to the author.

#### GEOCHEMICAL SURVEY:

Lines were marked out at 200 metre intervals along the Mt. Freegold Road. Lines 4W, 8W, 14W, 16W, 18W, 20W, 22W, 24W, 26W, 28W, 30W and 32W were turned in both directions and selected for sampling. The lines were run by compass and marked with flags at 50 metre spacings. Samples were dug with a soil auger at 100 metre intervals and placed in Kraft paper bags. The samples were rough dried at camp and strung in order before delivery to the Bondar-Clegg office in Whitehorse for arsenic and gold analysis to the following standards:

- 1) As    Arsenic    102 analyses, 2ppm lower detection limit,  
nitric perchlor digest., colourimetric method.
- 2) Au    Gold        102 analyses, 5ppb lower detection limit,  
fire assay, fire assay AA

Samples were sized to -80 mesh after drying in preparation for analysing.

During the collection of the samples the soil auger was utilized to penetrate the organic and ash layers in order to get clean C horizon material. The soils in the Wolf Group of claims are notably less mature than those found only a short distance to the west where pre-Reid soils are found.

#### RESULTS:

The soil geochemistry anomalies found by this survey are not as well marked as results on claims to the west but are located in the areas identified as most promising by conventional prospecting for mineralized floats.

Although mild the anomalous zones contour well and the gold results fit the arsenic results to a favourable degree.

The background level for arsenic averages 5 ppm so arsenic contours are drawn at 10 ppm and 50 ppm with 4 analyses at, or exceeding, 100 ppm As.

The background level for gold is clearly <5 ppb and any assays exceeding this are marked. Only 4 analyses were at, or above, 10 ppb Au, and 2 were 30 ppb and 35 ppb.

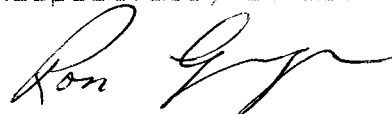
CONCLUSIONS:

There is some degree of gold-arsenic mineralization on this portion of the claims and regional geochemistry indicates a potential for mineralization south of the test grid and perhaps over, or on the opposite side of, the postulated fault.

The well marked presence of antimony-rich silts in this area should be traceable to antimony-rich soils and there is a strong likelihood that gold will also be found with the antimony, or nearby.

Since strongly altered granitic floats were seen to the south of the lakes in 1969 by the author it may be possible to locate outcrop in this area.

Respectfully submitted,



Ron A. Granger.

February 1987.

APPENDIX  
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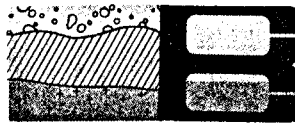
COST OF GEOCHEMICAL INVESTIGATIONS  
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WOLF CLAIMS

1986-1987

1) Soil sampling (contracted)	\$ 710.00
2) Assaying	1162.80
3) Orientation	600.00
4) Camp and supplies	185.00
5) Vehicles (2)	262.50
6) Office, report and maps	410.00
7) Receiver General, maps	93.00
	-----
Total Cost of Survey:	\$ 3423.30

This work has been applied for and distributed.



REPORT: 126-4182

PROJECT: NONE GIVEN

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	As PPM	Au PPB	SAMPLE NUMBER	ELEMENT UNITS	As PPM	Au PPB
S1 L4 200N		4	<5	S1 L18 0+0		11	<5
S1 L4 100N		3	<5	S1 L18 100S		6	<5
S1 L4 0+0		6	<5	S1 L18 200S		48	<5
S1 L4 100S		4	<5	S1 L18 300S		91	<5
S1 L4 200S		4	<5	S1 L18 400S		12	<5
S1 L4 300S		6	<5	S1 L18 500S		28	30 L
S1 L4 400S		6	<5	S1 L20 200N		6	<5
S1 L4 500S		12	<5	S1 L20 100N		2	<5
S1 L4 600S		2	<5	S1 L20 0+0		6	<5
S1 L4 700S		6	<5	S1 L20 100S		11	<5
S1 L4 800S		4	<5	S1 L20 200S		28	<5
S1 L8 200N		4	<5	S1 L20 300S		28	<5
S1 L8 100N		6	<5	S1 L20 400S		60	<5
S1 L8 0+0		6	<5	S1 L20 500S		11	<5
S1 L8 100S		2	<5	S1 L22 200N		6	<5
S1 L8 200S		2	<5	S1 L22 100N		6	<5
S1 L8 300S		2	<5	S1 L22 0+0		6	<5
S1 L8 400S		6	<5	S1 L22 100S		2	<5
S1 L8 500S		6	<5	S1 L22 200S		3	<5
S1 L8 600S		11	5	S1 L22 300S		3	<5
S1 L8 700S		6	<5	S1 L22 400S		6	<5
S1 L8 800S		65	<5	S1 L22 500S		3	<5
S1 L14 200N		6	<5	S1 L24 200N		50	<5
S1 L14 100N		24	<5	S1 L24 100N		31	<5
S1 L14 0+0		6	<5	S1 L24 0+0		28	<5
S1 L14 100S		6	<5	S1 L24 100S		2	<5
S1 L14 200S		4	<5	S1 L24 200S		3	<5
S1 L14 300S		11	<5	S1 L24 300S		3	<5
S1 L14 400S		4	<5	S1 L24 400S		11	<5
S1 L14 500S		11	<5	S1 L24 500S		2	<5
S1 L16 200N		6	<5	S1 L26 200N		10	<5
S1 L16 100N		11	<5	S1 L26 100N		6	<5
S1 L16 0+0		110	<5	S1 L26 0+0		100	<5
S1 L16 100S		6	<5	S1 L26 100S		12	10 L
S1 L16 200S		4	<5	S1 L26 200S		100	<5
S1 L16 300S		4	<5	S1 L26 300S		15	35 L
S1 L16 400S		6	<5	S1 L26 400S		12	<5
S1 L16 500S		18	<5	S1 L26 500S		110	10 L
S1 L18 200N		12	<5	S1 L28 200N		11	<5
S1 L18 100N		6	<5	S1 L28 100N		11	5 -



REPORT: 126-4182

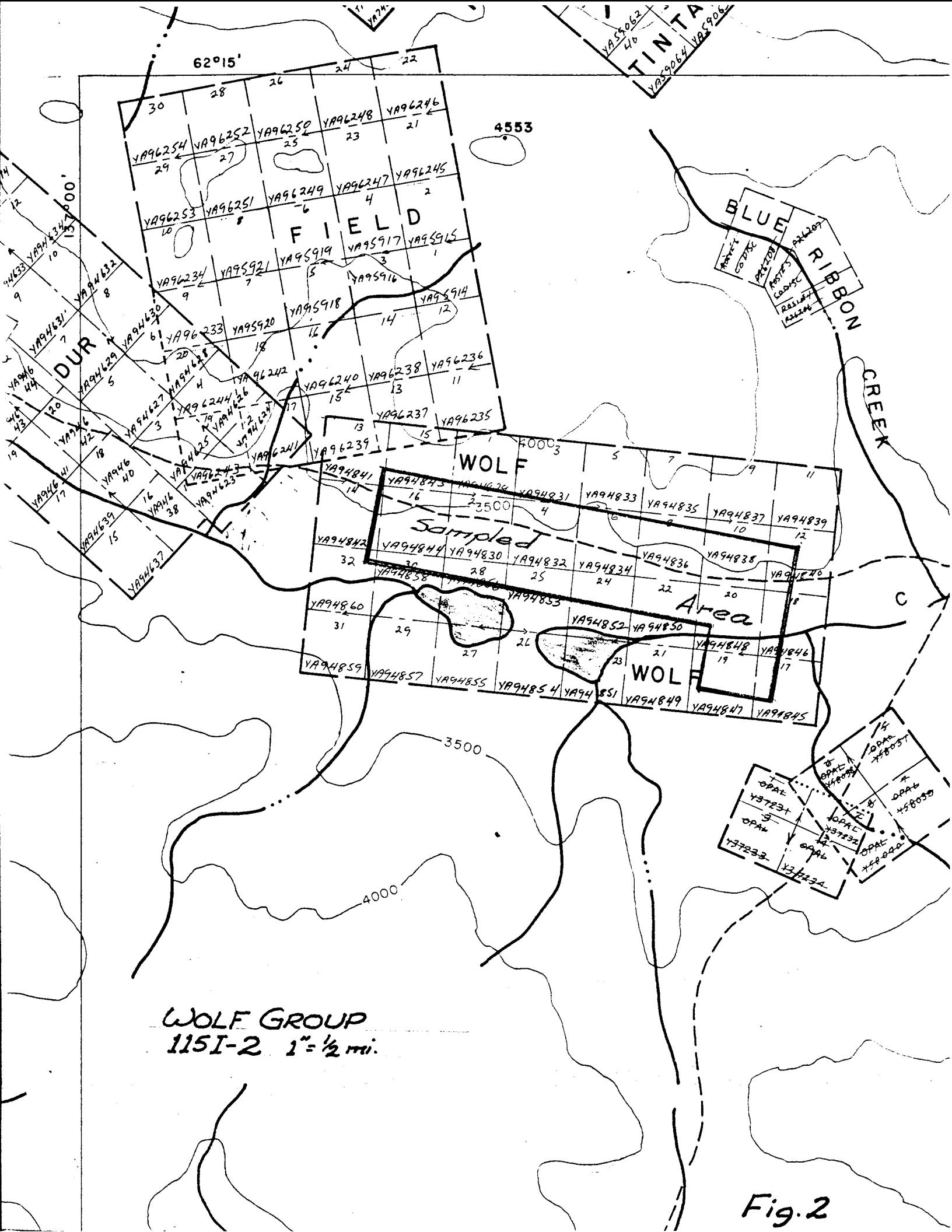
PROJECT: NONE GIVEN

PAGE 2

SAMPLE NUMBER	ELEMENT UNITS	As PPM	Au PPB	SAMPLE NUMBER	ELEMENT UNITS	As PPM	Au PPB
S1 L28 0+0		31	<5				
S1 L28 100S		6	<5				
S1 L28 200S		6	<5				
S1 L28 300S		2	<5				
S1 L28 400S		<2	<5				
S1 L28 500S		2	<5				
S1 L30 200N		6	<5				
S1 L30 100N		6	<5				
S1 L30 0+0		11	<5				
S1 L30 100S		35	<5				
S1 L30 200S		65	<5				
S1 L30 300S		28	<5				
S1 L30 400S		11	<5				
S1 L30 500S		6	<5				
S1 L32 200N		6	<5				
S1 L32 100N		6	<5				
S1 L32 0+0		7	<5				
S1 L32 100S		6	<5				
S1 L32 200S		6	<5				
S1 L32 300S		2	<5				
S1 L32 400S		6	<5				
S1 L32 500S		6	<5				



Fig. 1



WOLF GROUP  
115I-2 1" = 1/2 mi.

Fig. 2

Preliminary Soil Geochem Survey  
 Arsenic ~ Gold  
 Wolf Claims 115I-2  
 Scale 1:10,000  
 Arsenic, left, ppm. Gold, right, ppb. RAG.  
 Oct. 1986

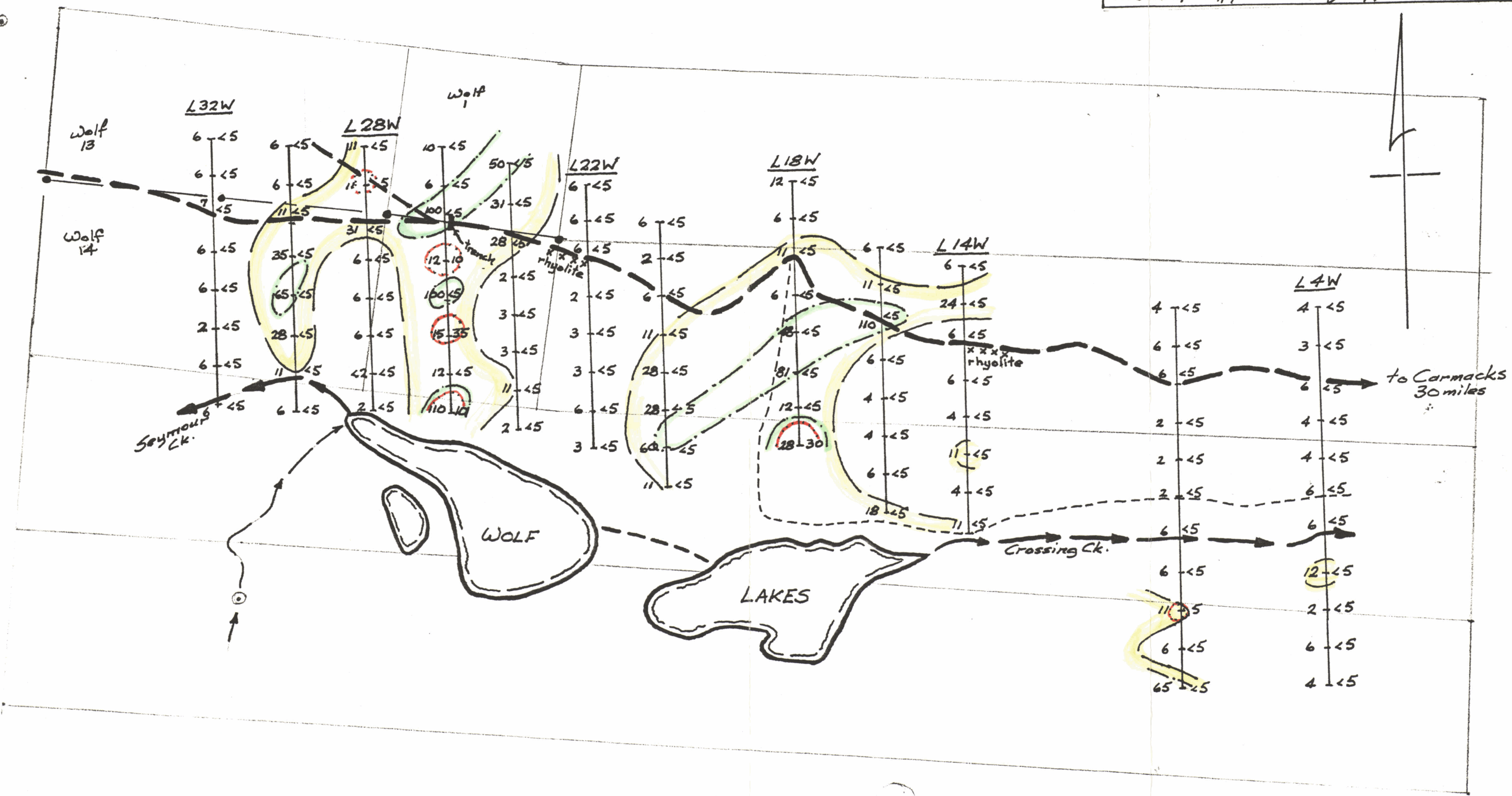
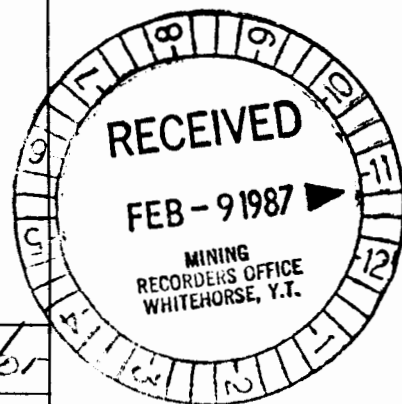


Fig. 3



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



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

I (Name) <u>R. A. Granger</u>	Occupation <u>prospector</u>
(Postal Address) <u>48 Tamarack Dr Whitehorse</u> <u>Y1A 4Y6</u>	

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)

YA 94829-32 WOLF 1-4  
YA 94841-44 WOLF 13-16  
YA 94853 WOLF 25  
" 56 " 28  
" 58 " 30  
" 60 " 32

situated at WOLF LAKES Claim Sheet No. 1151-2

in the Whitehorse Mining District, to the value of at least \$1600.00

dollars, since the 1st day of JUNE 19 86

to represent the following mineral claims under the authority of Grouping Certificate No. 9750

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

WOLF 1-4 YA 94829-32 1 year renewal  
WOLF 13-16 YA 94841-44 " renewal  
WOLF 25-32 YA 94853-60 " renewal

*16 claim years.*

- 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.)

*Geochemical Survey June/86 to Feb 8/87*

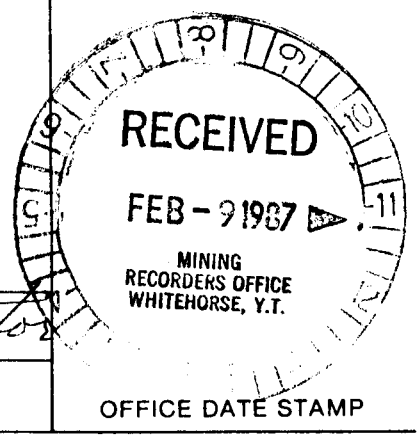
Sworn before me at Whitehorse  
this 9 day of February 19 87  
[Signature]  
Notary Public

[Signature]  
Owner or Authorized Agent



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

091903



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

I (Name) R. A. Granger Occupation prospector  
(Postal Address) 48 Tamarack Dr. Whitehorse  
Y1A 4Y6

TAKE 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)  
A94833-40 WOLF 5-12 incl  
A94845-52 WOLF 17-24 incl.

located at Wolf Lakes Claim Sheet No. 115I-2  
the Whitehorse Mining District, to the value of at least \$1600.00  
dollars, since the 15<sup>th</sup> day of June 19 86.

represent the following mineral claims under the authority of Grouping Certificate No. 9760

(Here list claims to be renewed in numerical order, by grant number and claim name, showing renewal period requested).  
A94833-40 WOLF 5-12 incl 1 year ea  
A94845-52 WOLF 17-24 incl. " "  
16 claim years.

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.)

Geochemical Survey

Witnessed before me at Whitehorse  
this 9 day of February 1987.

A. S. Scrimbeck  
Notary Public

[Signature]  
Owner or Authorized Agent