

GEOLOGICAL, GEOPHYSICAL & GEOCHEMICAL
REPORT ON THE
CAR 41-56 MINERAL CLAIMS
FREEGOLD MOUNTAIN AREA,
YUKON TERRITORY.

This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the amount of

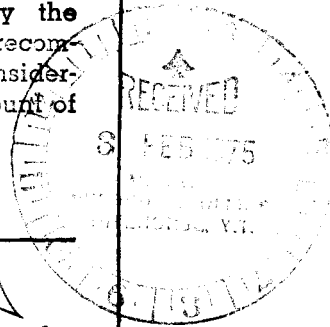
\$ 6450.82

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Resident Geologist or
Resident Mining Engineer

Considered as representation work under
Section 53 (4) Yukon Quartz Mining Act.

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Commissioner of Yukon Territory



Vancouver, B.C.
October 29, 1974

J.R. Deighton,
Geologist.

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GEOLOGICAL, GEOCHEMICAL AND GEOPHYSICAL

REPORT ON THE

CAR 41-56 MINERAL CLAIMS

LOCATED IN THE FREEGOLD MOUNTAIN AREA

WHITEHORSE MINING DISTRICT,

YUKON TERRITORY

1-00 SUMMARY

The Car 41-56 mineral claims located in the Whitehorse Mining District, Yukon Territory were optioned by Western Mines Ltd., Belmoral Mines Ltd. (NPL) and Cream Silver Mines Ltd. (NPL). The claims are located 32 miles west of Carmacks in the Freegold Mountain area. A program consisting of Geological Mapping, Line cutting, Geochemical Soil Sampling and a Magnetometer Survey were conducted over the property during the summer of 1974.

2-00 CONCLUSIONS AND RECOMMENDATIONS

The property is underlain by Yukon Group schists intruded by granodiorite that has been cut by quartz-feldspar porphyry dykes.

Magnetic trends are not apparent, although high magnetic peaks may be associated with some quartz-feldspar porphyry dykes.

None of the areas on the property can be said to be highly anomalous although there are two areas that have some anomalous samples.

The favourable local for gold mineralization, at the contact between quartz-feldspar porphyry and syenite, has not been found on the property.

The property does not warrant further investigation.

3-00 INTRODUCTION

The Car 41-56 mineral claims are located in the Whitehorse Mining District, Yukon Territory. They are situated 32 miles west of Carmacks at co-ordinates 62° 23' North Latitude, 137° 18' West Longitude.

The claims are held under option by Western Mines Ltd., Belmoral Mines Ltd. (NPL) and Cream Silver Mines Ltd. (NPL).

A program of geological mapping, line cutting, geo-chemical soil sampling and magnetometer survey were conducted over the property during the summer of 1974.

This report is based on the above work carried out by crews of Agilis Engineering Co. Ltd., under the direction of G. House.

4-00 OWNERSHIP AND TITLE

The Car 41-56 mineral claims were acquired by option, by Western Mines Ltd., Belmoral Mines Ltd. (NPL) and Cream Silver Mines Ltd. (NPL). The property consists of 16 contiguous mineral claims located in the Whitehorse Mining District, Yukon Territory.

The property consists of the following mineral claims:

<u>Claim Name</u>	<u>Record Number</u>	<u>Date Recorded</u>
CAR 41-56	Y78718-78733	May 1, 1974

5-00 LOCATION AND ACCESS

The property is located on the ridge north of Big Creek, near Freegold Mountain, approximately 32 miles west of Carmacks, Yukon Territory.

Co-ordinates of the property are 62° 23' North Latitude, 137° 18' West Longitude.

Access to the mineral claims is by gravel road from Whitehorse to Carmacks, a distance of 111 miles. Thence by dirt road to the property, a distance of 42 miles and then by foot up the hill. An alternate method of reaching the property is by helicopter from Carmacks.

6-00 PHYSIOGRAPHY AND CLIMATE

The mineral claim group lies within the central Yukon. Temperatures are extremely cold during the winter with snow cover from October to June. Summers are mild with moderate precipitation.

Topography in the area is generally of moderate relief.

Vegetation consists of spruce and balsam in lower elevations but gives way to open grasslands and tundra at higher elevations.

7-00 HISTORY

In 1946-47, considerable prospecting for hardrock gold was carried out in the general Mount Nansen-Mount Victoria area, about 30 miles west of Carmacks. This area had previously revealed interesting Placer deposits in the upper

reaches of Nansen and Victoria Creeks, mostly during the period 1910-14. The original discovery of gold was made in 1899.

In the Freegold Mountain area, in place gold occurrences were discovered in 1930, also as a result of the previous Placer-Gold discoveries on Seymour Creek.

The Nansen-Freegold Mountain area has three deposits developed by underground methods with reported reserves as follows:

	<u>Tons</u>	<u>oz/ton Au</u>	<u>oz/ton Ag</u>
Laforma (Discovery Mines)	80,000	0.70	-
Brown-McDade Mines 1968	45,670	0.50	6.0
" " " 1970	35,000	0.37	5.9
Mount Nansen Mines 1968	200,000	0.33	13.0

The Laforma operated in 1965-66 and Mount Nansen in 1968-69. The former suffered from poor ground conditions and an inadequate mill, while the latter suffered from excessive expenditures, over-estimated reserves and too large and expensive a mill.

8-00 REGIONAL GEOLOGY

The area is characterized by a great variety of intrusives now believed to range in age from Triassic to Tertiary, intruding a core of Yukon schists.

The main intrusive is a coarse grained porphyritic syenite to quartz monzonite. It extends in length some 40 miles from Victoria Mountain to 8 miles northwest of

Prospector Mountain. It is thought to be of Triassic age.

Another unique characteristic of the area, is a more or less westerly facing crescent shaped belt of Tertiary quartz-feldspar porphyries, forming dykes and masses of considerable size. The belt extends from southwest of Mount Nansen to southeast of Prospector Mountain.

Further northwest and on the flanks of the area of interest the syenite-quartz monzonite is replaced by a granodiorite.

Gold deposits are seen to be associated where quartz-feldspar porphyries and syenite occur together. Veins high in silver and lower in gold seem to prefer the granodiorite.

9-00 PROPERTY GEOLOGY

The property is underlain by Yukon Group schists intruded by granodiorite that is itself cut by dykes of quartz-feldspar porphyry.

The oldest rocks on the property are the Yukon Group of Paleozoic age. This group is made up of quartz schists, biotite schists, chlorite schists and granitic schists and gneisses. Minor skarn or marble is also present in this unit.

The main granodiorite intrusive of Triassic age varies from a coarse grained hornblende granodiorite to quartz monzonite.

Two small areas of undifferentiated granodiorite to quartz monzonite are shown to intrude the above granodiorite. This granodiorite to quartz monzonite is believed to be of Jurassic age.

Quartz-feldspar porphyry to granitic porphyry of Eocene age form dykes that cut the granodiorite in a north-south direction.

10-00

GEOCHEMISTRY

During the course of the summer six properties in the area of Freegold Mountain were soil sampled on a reconnaissance basis. Ground control was obtained by chaining and flagging a baseline and establishing crosslines at 400 to 800 foot intervals. Stations were marked and samples were taken at 200 foot intervals along these lines. A total of 1372 soil samples were collected and submitted for analysis. All samples were analyzed for copper, while some were also analyzed for antimony, gold and arsenic.

Of all samples analyzed, copper was found to give the best and widest range. All samples analyzed for gold returned values below the detectable limits of the assay machine (30 ppb). Early arsenic and antimony values showed no great range and the assay procedure was omitted from the later portion of the sampling program.

Chemex Labs. Ltd., 212 Brooksbank Avenue, North Vancouver, B.C. did the sample preparation and analysis.

A frequency distribution plot was made of the entire population to determine background and anomalous ranges

for copper and antimony. For this the accumulated percent was plotted against the range of values in parts per million on arithmetic probability paper.

	<u>No. of Samples</u>	<u>Range ppm</u>	<u>Background</u>	<u>%</u>	<u>Anomalous</u>	<u>%</u>
Cu	1372	3-995	33	92	70	4.27
Sb	691	1-19	13	96.5	not detected	

A total of 237 samples were collected from the Car 41-56 mineral claims. Samples from this claim block were analyzed for copper only.

There are no geochemical trends developed on the property. Five anomalous and thirty three threshold samples were recorded in the results of the soil sampling program.

A cluster of anomalous and threshold copper values occur at the northwest border and also in the southeastern corner of the property. The first cluster of values occur in an area where a quartz-feldspar porphyry dyke cuts the granodiorite. The latter cluster of values is found in the Yukon Group, on or near an area of skarn or marble.

The low number and limited extent of the anomalous samples, indicate that there is little possibility for economic copper mineralization to be found on the property.

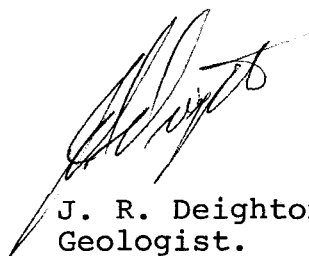
11-00

MAGNETIC SURVEY

A magnetic survey using a Sharp model MF-2 fluxgate magnetometer, was conducted over the property. Control for the survey was established by using the chained and flagged grid described in the section of Geochemistry.

The magnetometer survey showed a very flat relief with a maximum amplitude of 2000 gammas. Several weak magnetic highs have been outlined. Several of the highs may be associated with quartz-feldspar porphyry dykes, but this is not apparent in all cases of known dyking.

Respectfully submitted,



J. R. Deighton,
Geologist.

Vancouver, B.C.
October 30, 1974

CERTIFICATION

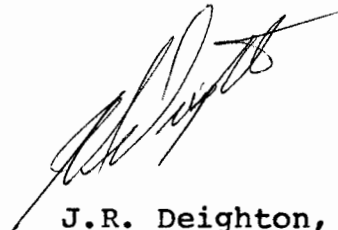
I, JOHN RAYMOND DEIGHTON, of 3250 West 33rd Avenue,
Vancouver, British Columbia, do hereby certify that:

I am a graduate of the University of British
Columbia, with a Bachelor of Science Degree in
Geology, 1965.

Since graduation I have been engaged in Mineral
Exploration in British Columbia, Yukon,
Northwest Territories, Washington, Arizona and
California.

I am a Fellow of the Geological Association of
Canada and of the Canadian Institute of Mining
and Metallurgy.

I am a Geologist.



J.R. Deighton,
Geologist

October 29, 1974.
Vancouver, B.C.

SAMPLE ANALYSIS

COPPER PPM

<u>INTERVAL</u>	<u>NO. OF SAMPLES</u>	<u>%</u>	<u>CUMULATIVE %</u>
0-10	240	17.49	17.49
11-20	679	49.48	66.97
21-30	249	18.14	85.11
31-40	81	5.90	91.01
41-50	42	3.06	94.07
51-60	17	1.23	95.30
61-70	6	.43	95.73
71-80	10	.72	96.45
81-90	4	.29	96.74
91-100	2	.14	96.88
101-110	2	.14	97.02
111-120	2	.14	97.16
+120	38	2.76	99.92

SAMPLE ANALYSIS

ANTIMONY PPM

<u>INTERVAL</u>	<u>NO. OF SAMPLES</u>	<u>%</u>	<u>CUMULATIVE %</u>
0-4	196	28.36	28.36
5-8	335	48.48	76.48
9-12	119	17.22	94.06
13-16	22	3.18	97.24
17-20	5	.72	97.96
21-24	5	.72	98.68
25-28	4	.57	99.25
29-32	1	.14	99.39
33-36	2	.28	99.67
37-40			
41-44			
45-48			
49-52			
53-56	1	.14	99.81
110	1	.14	99.95



LEGEND

- > Drainage
- +— Claim post and line
- Survey station
- Bedding: inclined, vertical
- Jointing: inclined, vertical
- Lamination: inclined, vertical
- Shearing, Faulting: inclined, vertical
- Geological boundary
- Outcrop, float boundary

GEOLOGY

- EOCENE**
- Quartz porphyry, feldspar porphyry, granite porphyry
- MID-JURASSIC**
- Granodiorite, quartz monzonite undifferentiated
- TRIASSIC**
- Hornblende, granodiorite, coarse granodiorite to quartz diorite
- PALAEOZOIC**
- Biotite quartz schist, chlorite schist, skarn or marble in part, granite gneiss

WESTERN MINES LTD.(NPL)
 CREAM SILVER MINES LTD.(NPL)
 BELMORAL MINES LTD.(NPL)

FREEGOLD MOUNTAIN AREA
 CAR 41 - 56 MINERAL CLAIMS
 Whitehorse Mining District, Y.T.

GEOLOGY & CLAIM MAP

SCALE IN FEET
 0 400 800 1200

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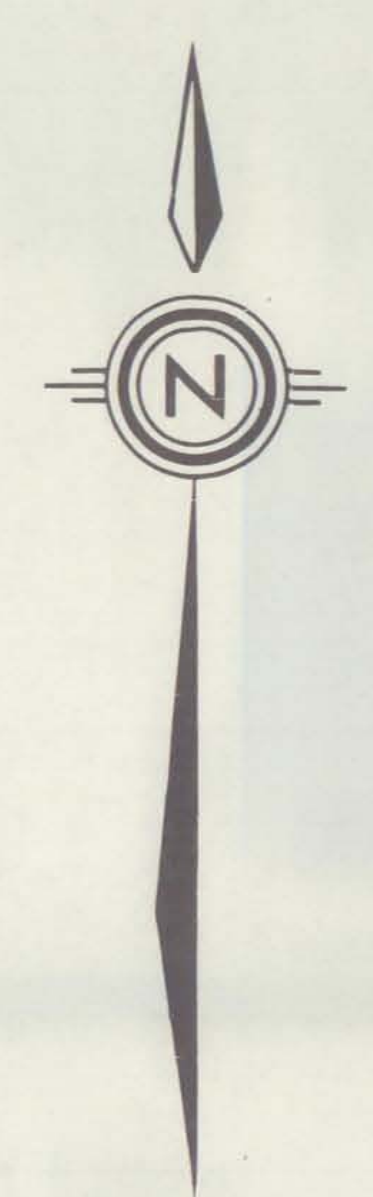
LEGEND

---> Drainage

■ Claim post

• 580 Survey station and magnetic value in gammas

— 1000— Magnetic contour lines; CONTOUR INTERVAL - 600 GAMMAS



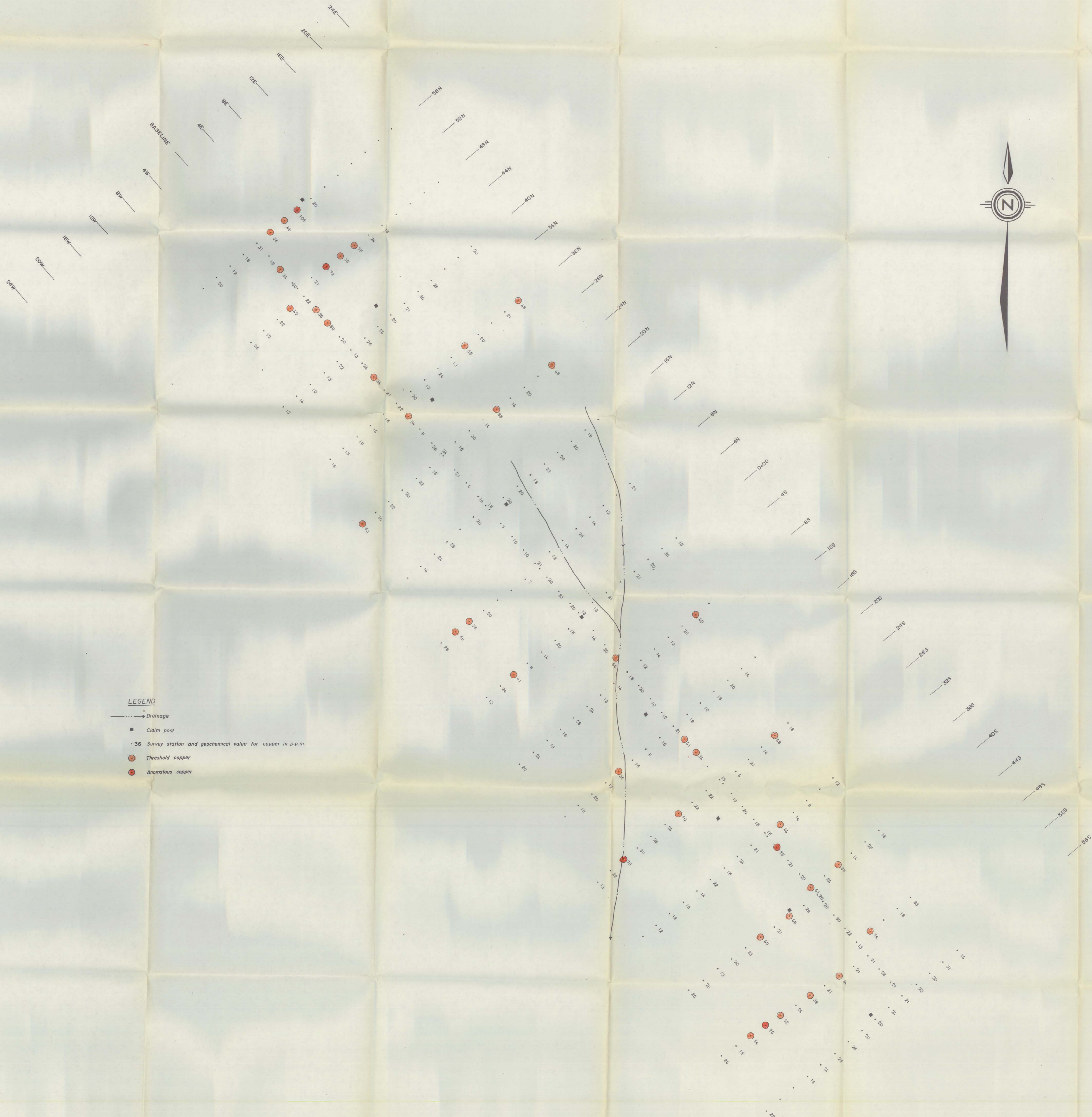
WESTERN MINES LTD.(NPL)
 CREAM SILVER MINES LTD.(NPL)
 BELMORAL MINES LTD.(NPL)

FREEGOLD MOUNTAIN AREA
 CAR 41 - 56 MINERAL CLAIMS
 Whitehorse Mining District, Y.T.

**MAGNETIC SURVEY AND
 CONTOUR MAP** IN GAMMAS

SCALE IN FEET
 0 400 800 1200

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LEGEND

- > Drainage
- Claim post
- 36 Survey station and geochemical value for copper in p.p.m.
- Threshold copper
- Anomalous copper

[Signature]

WESTERN MINES LTD.(NPL)
 CREAM SILVER MINES LTD.(NPL)
 BELMORAL MINES LTD.(NPL)

FREEGOLD MOUNTAIN AREA
 CAR 41-56 MINERAL CLAIMS
 Whitehorse Mining District, Y.T.

**GEOCHEMICAL SURVEY
 MAP FOR COPPER** IN P.P.M.

SCALE IN FEET IN P.P.M.
 400 0 400 800 1200

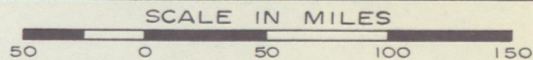
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YUKON TERRITORY

WESTERN MINES LTD. (NPL)
CREAM SILVER MINES LTD. (NPL)
BELMORAL MINES LTD. (NPL)

FREEGOLD MOUNTAIN AREA
CAR 41-56 MINERAL CLAIMS
Whitehorse Mining District, Y.T.

PROPERTY LOCATION MAP



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