

Report on an
Airborne Magnetometer Survey
of the

~~XXXXXXXXXXXXXXXXXXXX~~, OP ~~XXXXXX~~ Groups
of Mineral Claims
near Ross River, Y.T.

GEOLOGICAL SURVEY
[Signature]
JAN 18 1967
Resident Geologist
Whitehorse, Y. T.

This report has been examined by
the Geological Evaluation Unit
and approved as to technical worth by
D. C. Fridley
GEOLOGICAL SURVEY
The amount received as to cost in the amount
of \$481.10
R. G. Redden
For *[Signature]*
GEOLOGICAL SURVEY
Approved as representation work
under Section 53(4) Yukon Quartz
Mining Act.
[Signature]
COMMISSIONER OF YUKON

Report on an
Airborne Magnetometer Survey
of the
~~Canada, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 00~~, OP ~~Groups~~ Groups
of Mineral Claims
near Ross River, Y.T.

for
Golden Gate Explorations Ltd. (N.P.L.)
714 West Hastings Street
Vancouver, B.C.

Survey by
Husky Industries and Services Ltd.
97 - 845 Hornby Street,
Vancouver, B.C.

Interpretation by
Joseph Sullivan, P.Eng.,
201 - 525 Seymour Street
Vancouver, B.C.

September 29, 1966

Introduction:

This report is on the airborne magnetometer surveys of five separate claim groups, all in the same general locality. Husky Industries and Services Ltd., 97 - 845 Hornby Street, Vancouver, B.C. conducted each survey on September 3, 1966. The client, and owner, for each group was the same, namely: Golden Gate Explorations Ltd., 714 W. Hastings Street, Vancouver, B.C.

Properties:

The five group total 60 located mineral claims:

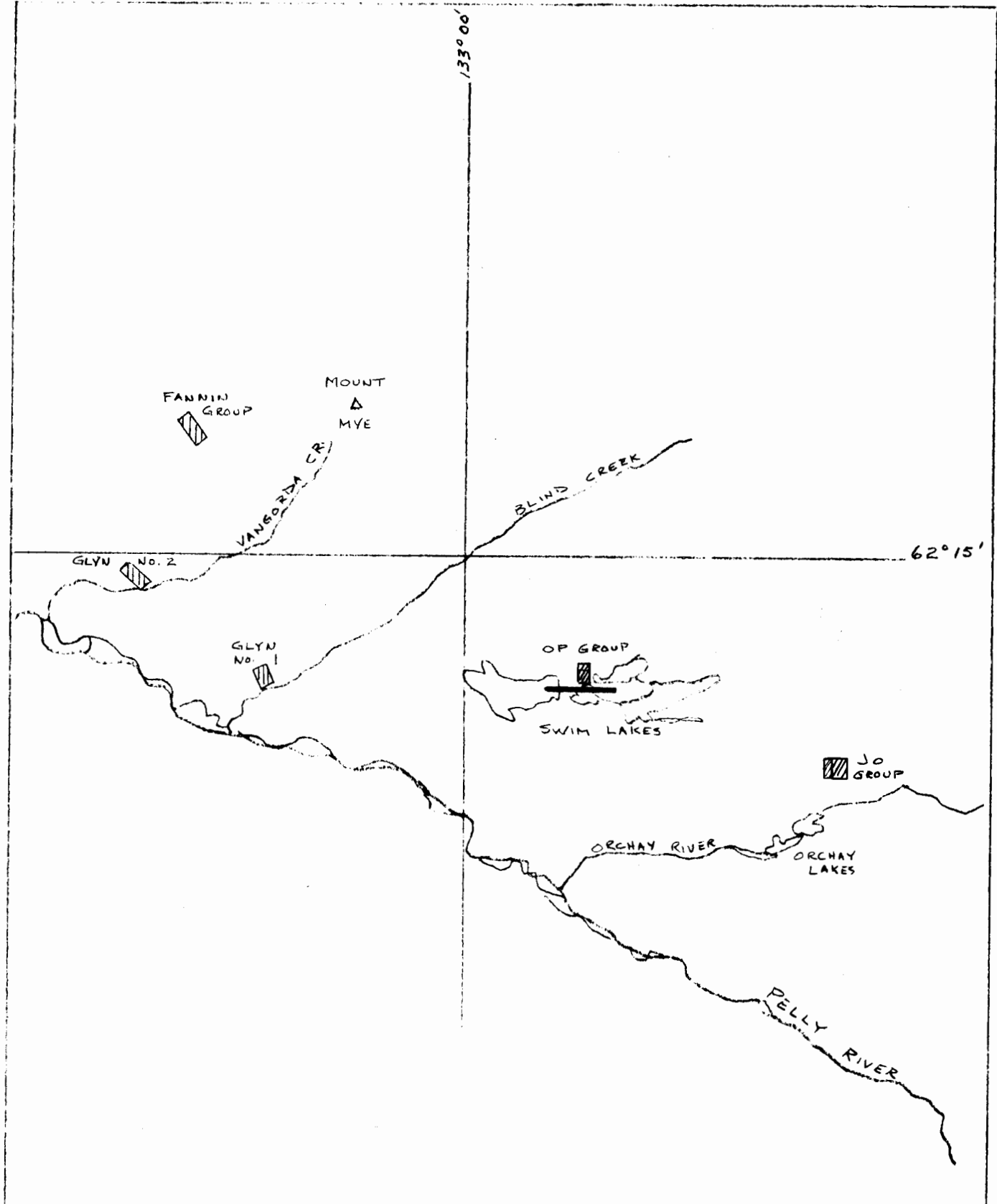
Fannin Group	No's. 1 to 16 (16)
Glyn Group No. 1	No's. 1 to 8 (8)
Glyn Group No. 2	No's. 65 to 80 (16)
<u>OP Group</u>	<u>No's. 17 to 24 (8)</u>
JO Group	No's. 19 to 24, + 43 to 48 (12)

A claim sketch for each grouping has been included at the back of this report.

Location: (Lat. 62° 00', Long. 132° 00' N.W.)

All the claims are in the Whitehorse Mining Division of the Yukon Territory. They lie on the north side of the Pelly River, west of the Ross River townsite, east of Rose Mountain, and south of Mount Mye.

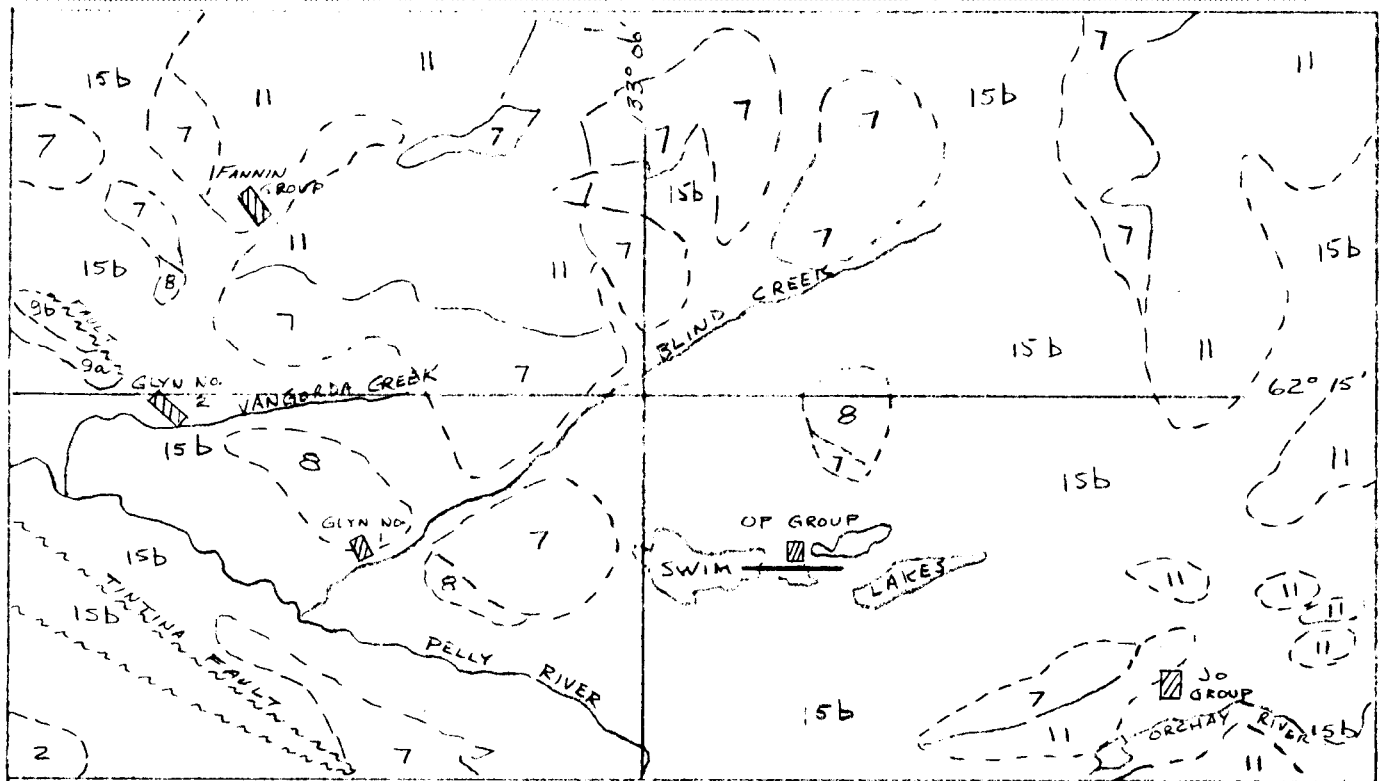
The following location sketch shows group located with respect to its closest topographical feature.



LOCATION SKETCH

Geological Summary: (G.S.C. Map Sheet 13 - 1961)

As might be expected, with so widespread an array of claims, there is considerable variation in the general geology. On the northwest, the Fannin group appears to be underlain by Cretaceous intrusives, classified in the accompanying legend as formations (11). For the area of both the Glyn groups there is a great variety of altered volcanics and sediments of Mississippian age, formations (7), (8), and (9). The OP group in on flatter ground, covered chiefly by glacial deposits. The most likely underlying formations is (7), an altered volcanic-sedimentary complex. The same Cretaceous intrusives associated here with the Fannin group, appear also in the locality of the JO claims and are the most likely underlying rocks, since no other formations are indicated here.



LEGEND

- 2 Buff-and grey-weathering, grey, green, and black shales, slates, and phyllites; silty limestone and siltstone.
- 7 Banded quartzose granulite, green and purplish banded skarn, quartz-sericite schist, hornfels and phyllite; chlorite schist and thin altered andesite (8) common in upper part; minor crystalline limestone.
- 8 Altered, dark green andesite and basalt flows and tuffs, commonly schistose, rarely porphyritic; minor phyllite, dark argillite, and light grey quartzite.
- 9 9a, greenish grey quartzite, commonly thin-bedded; micaceous and silvery graphitic schists; minor dark grey siliceous slate, silty limestone, and grey micaceous quartzite; 9b, conglomerate with pebbles of chert, andesite, quartzite, chlorite schist, and limestone.
- 11 Medium-to coarse-grained quartz monzonite and granodiorite, commonly porphyritic; minor diorite and gneiss.
- 15b Unconsolidated glacial and alluvial deposits.

GEOLOGY

Method of Survey:

A magnetometer built to record the vertical component of the earth's magnetic field was mounted in a Hiller 12E helicopter. The readings were directed through an electric chart recorder, so that a continuous record of the gamma changes was inscribed on the paper charts.

These surveys covered a total of 36.2 line miles at approximately 1,000 foot spacings. Each group had a ground marker, visible from the air, on a claim corner, so that the automatic camera on the helicopter could relate each traverse or flight to a known point.

The operator's field records are included as Appendix 1 at the back of this report.

Interpretation: (See also accompanying recorder charts)

(1) Fannin

All the flights recorded considerable range in the gamma count, with many of the readings beyond the limits of the chart paper. The most pronounced trend noted was a parallel set of magnetic ridges lying east west across the southerly portion of the claims. If the claims are underlain entirely by intrusive rocks, as is suggested in the geological summary, then these magnetic ridges could indicate a relatively more basic intrusive phase with a greater magnetic content, or perhaps a zone of alteration controlled by a wide east-west shear.

(2) Glyn Group No. 1

The trend marked as No. 1 is a drop in the gamma count from a high range into a pronounced magnetic depression. This suggests a rock contact with a more basic unit on the west. The indicated trend No. 2 is a magnet on the northerly ends of lines 2 and 3. There may be no relation between the lines, but the presence of one or more magnetic bodies is indicated.

(3) Glyn Group No. 2

On flight-line 4 is an isolated magnetic high, the only signature of note on the charts. Perhaps the rope-like fashion in which the runs were made explains the unrelated appearance of one chart to the next.

(4) OP Group

An eastwest magnetic high zone predominates over a magnetic gradient, which increases from west to east. This high zone appears on lines 1 and 2, and because it is well pronounced, and does not continue through the survey, is one of the most attractive trends in all of the five projects.

(5) JO Group

Trend No. 1 crossing lines 3, 4, and 5 is a narrow break in the gradients, often caused by a fault or a rise in the topography. However, this trend is normal to the topographic trends, and has a dipole type signature, making it a truly anomalous condition worthy of further investigation.

Recommendations:

(1) Fannin Group:

Investigate the magnetic ridges on the ground by prospecting with a dip-needle.

(2) Glyn Group No. 1:

Prospect the area marked "Trend No. 2" by visual inspection and a dip-needle.

(3) Glyn Group No. 2:

The magnetic peak may not extend into the claims. This can be determined by the use of a dip-needle.

(4) OP Group:

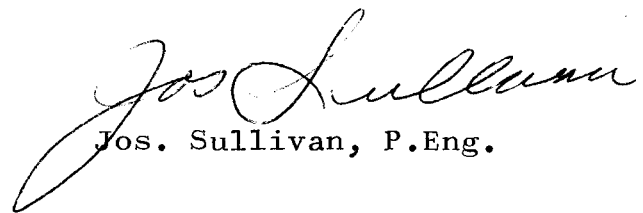
The magnetic zone marked "Trend No. 1" should be outlined on the ground by a magnetometer survey and geological mapping.

(5) JO Group:

The magnetic zone marked "Trend No. 1" should be outlined on the ground by a magnetometer survey and geological mapping.

The various trends discussed are plotted on the flight-line sketches located herein after the claim outlines. Because of the ground markings and camera control, each trend, as plotted, should be a reasonably good starting point for the recommended ground investigations.

Respectfully submitted,


Jos. Sullivan, P.Eng.

September 29, 1966.

Appendix 1
 Airborne Magnetic Survey
 For Golden Gate Exploration Ltd.
OP Group #17 - 24 (8)

<u>Line No.</u>	<u>Direction Flown</u>	<u>No. Pictures</u>	<u>Tape Length</u>	<u>Milage</u>
1	S - N	17	6.3"	1.26
2	S - N	15	6.5"	1.30
3	S - N	14	6.2"	1.24
4	S - N	<u>15</u>	6.4"	<u>1.28</u>
Totals		61		5.08

Date Flown - September 3, 1966.

Line Bearings - Approximately North

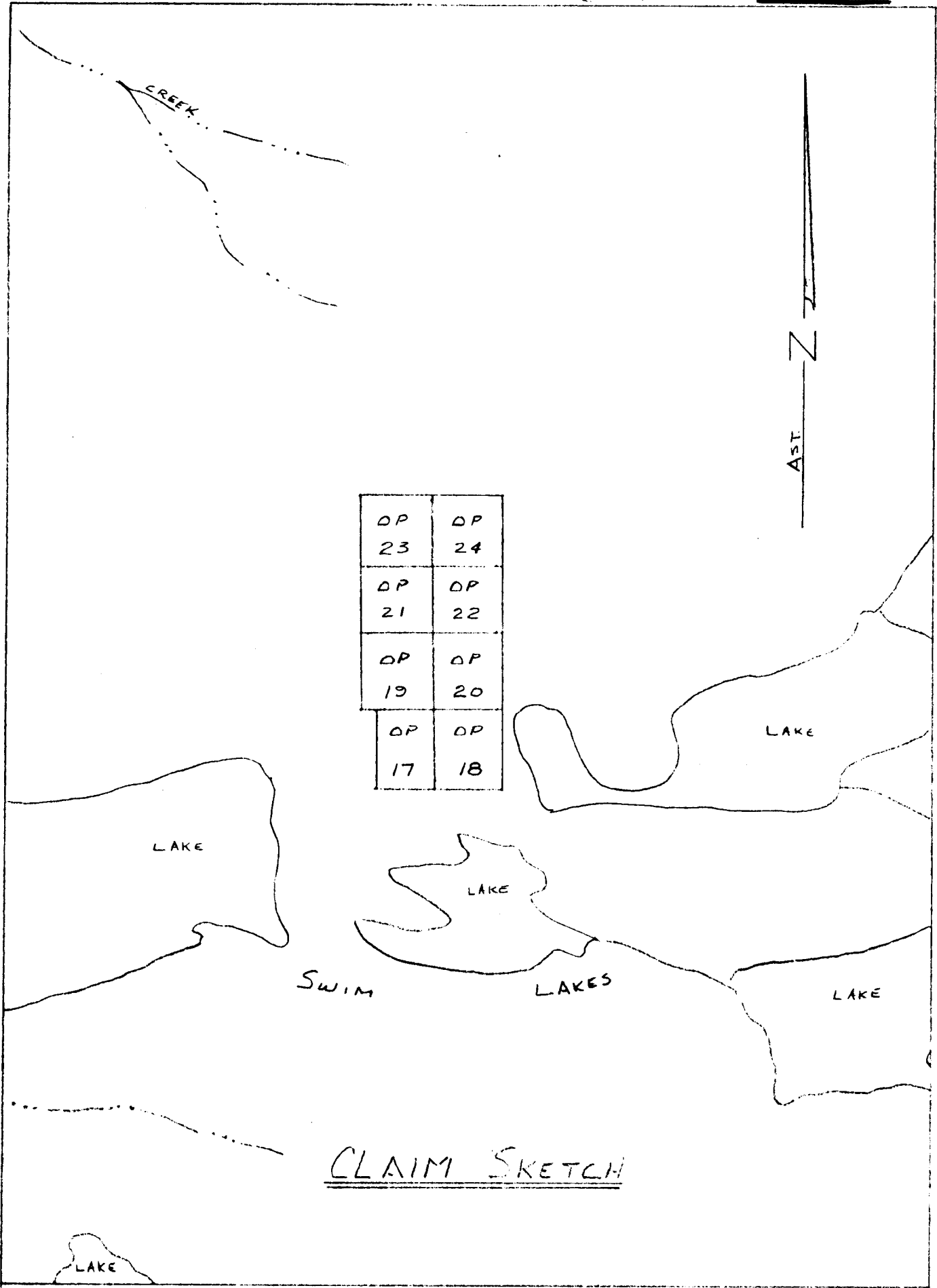
Altitude - 700'

Air Speed - 60 M.P.H.

Sensitivity - 1000 gammas full scale

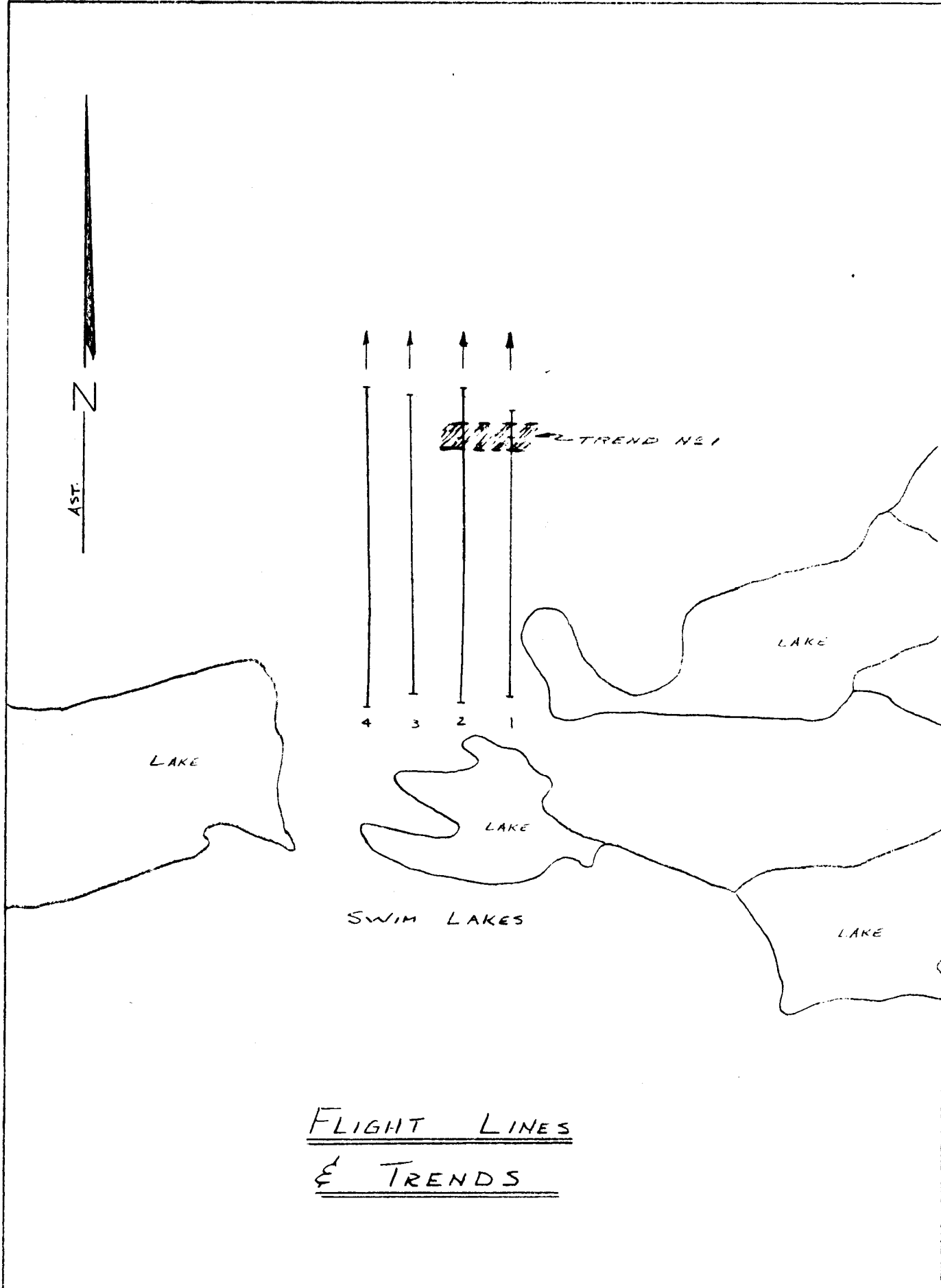
Lines - 1000' apart

Operator - R. Robillard

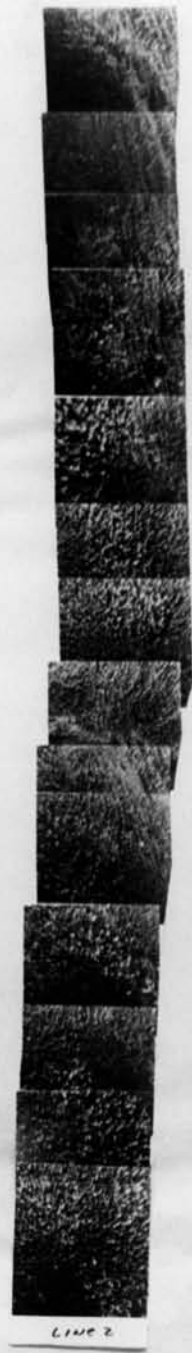
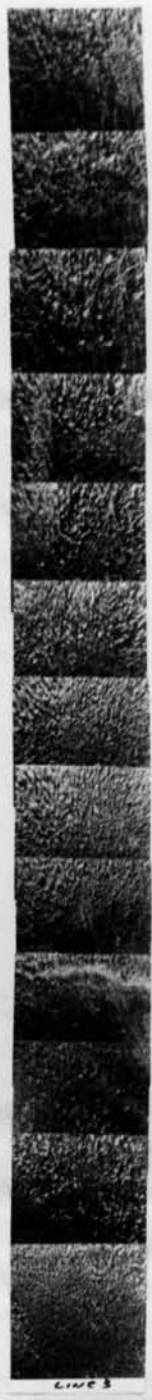


DP 23	DP 24
DP 21	DP 22
DP 19	DP 20
DP 17	DP 18

CLAIM SKETCH



FLIGHT LINES
& TRENDS



2

OP GROUP

