

ASSESSMENT REPORT
on a
MAGNETOMETER SURVEY
on the
HOOK and KENNY CLAIMS
QUEEN CHARLOTTE ISLANDS, B.C.
SKEENA M.D.

N. LAT. 53° 32.5'

W. LONG. 132° 15'

NTS 103 F/9W & 9E

FOR

CALABRIGO, MORROW & ASSOCIATES
VANCOUVER, BRITISH COLUMBIA

BY

R.J. ENGLUND, B.Sc.
STRATO GEOLOGICAL ENGINEERING LTD.
VANCOUVER, BRITISH COLUMBIA
OCTOBER 30, 1981.

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SUMMARY

A recently completed magnetic survey has indicated considerable variation of magnetic susceptibility within the host rocks underlying the survey area over the HOOK and KENNY claims. These results suggest a variation of rock types, possibly the basalt and rhyolite variations of the MASSET formation. Previous VLF electromagnetic survey results have also indicated possible geological contacts and/or minor faults which correlate well with magnetic results.

Although no association of gold-magnetite mineralization has been established for this area, the observed variation of magnetic response suggests the properties warrant further investigation. A reconnaissance geochemical soil sampling survey is therefore recommended for these claim groups.

Respectfully submitted,

STRATO GEOLOGICAL ENGINEERING LTD.

Ralph J. Englund, B.Sc.
Geophysicist

30 October 1981.

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INTRODUCTION

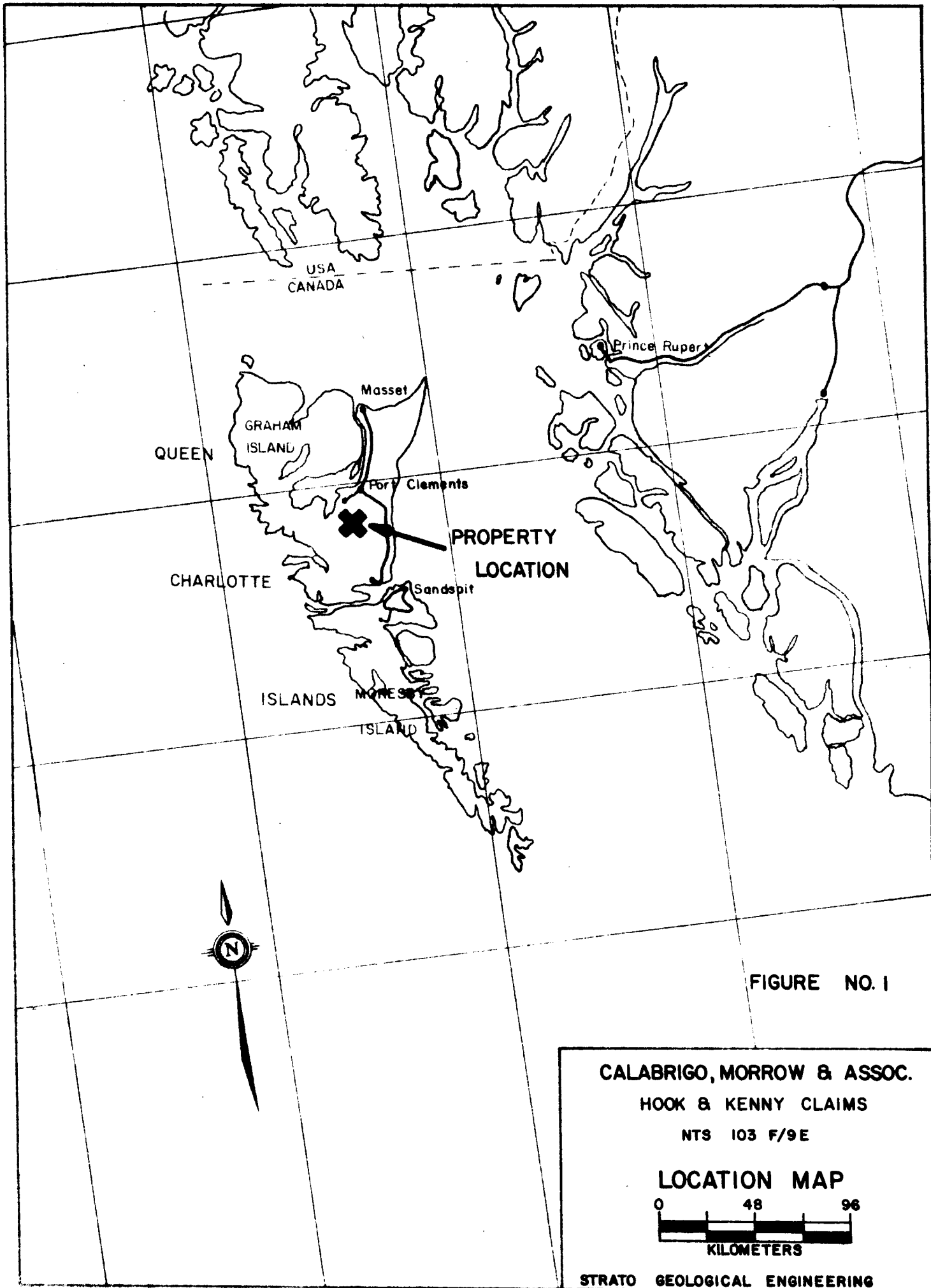
Pursuant to a request by Mr. R. Calibrigo, a magnetometer survey was carried out over the HOOK and KENNY claim groups during July and August 1981.

The purpose of the survey was to delineate any geological structure such as faults and/or contacts. The results of 27.5 kilometers of survey data are presented in this report.

LOCATION, ACCESS, TOPOGRAPHY

The properties lie some 25 kilometers south and east of Juskatla and is accessible by MacMillan-Bloedel logging roads where Branch No. 4 goes into the northern edge of the HOOK claim, and new logging roads also provide access to the central portion of the claim groups (Figures 1 and 2).

Florence Creek cuts through the northwest corner of the KENNY group and continues southerly through the eastern part of the HOOK claims and Canoe Creek cuts through the southwest corner of the KENNY claims. Both creeks are quite deeply incised



in most areas. Most of the claim group is covered by virgin timber except in the northern areas where active logging was being done during the survey period.

In general, the area is one of low relief, with elevations ranging from some 120 meters to 300 meters in the northwest portion of the HOOK claim. The slopes are comparatively gentle with some steep ground in creek ravines.

CLAIMS

The properties comprise twenty-eight contiguous mineral claim units located in the Skeena Mining Division, about 25 kilometers southeasterly of Juskatla, Queen Charlotte Islands, B.C.

The claims are recorded as follows:

<u>Claim Name</u>	<u>No. Units</u>	<u>Record No.</u>	<u>Expiry Date</u>
HOOK	10	799	16 Oct. 1981
KENNY	18	1,772	28 Sept. 1981

Assessment work has been filed, this report being part of the work to maintain the claims in good standing until 1982. The claim units are shown on B.C. Department of Mines and Petroleum Resources Mineral Titles Reference Map 103 F/9W and 9E.

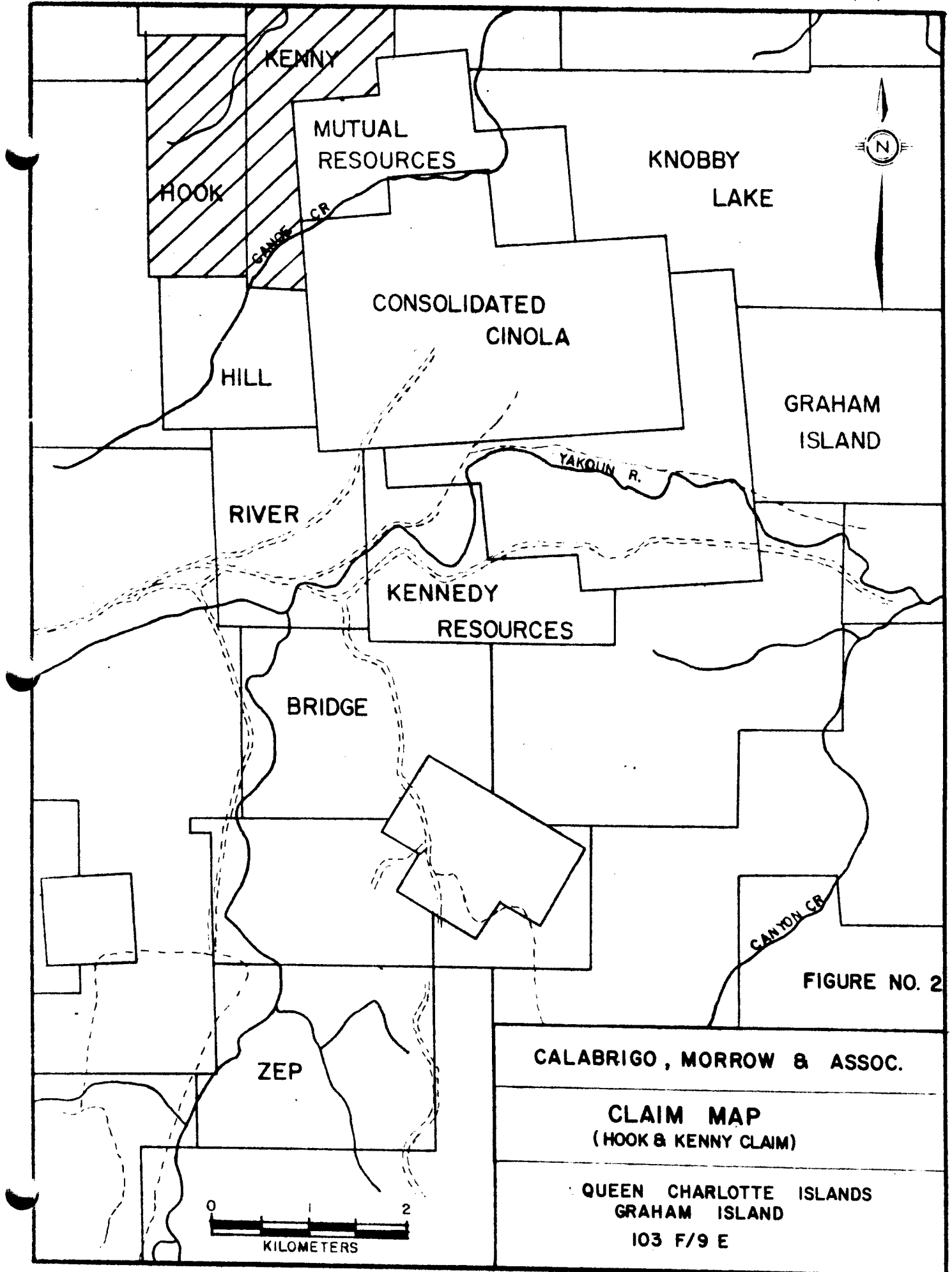


FIGURE NO. 2

CALABRIGO, MORROW & ASSOC.

CLAIM MAP
(HOOK & KENNY CLAIM)

QUEEN CHARLOTTE ISLANDS
GRAHAM ISLAND
103 F/9 E

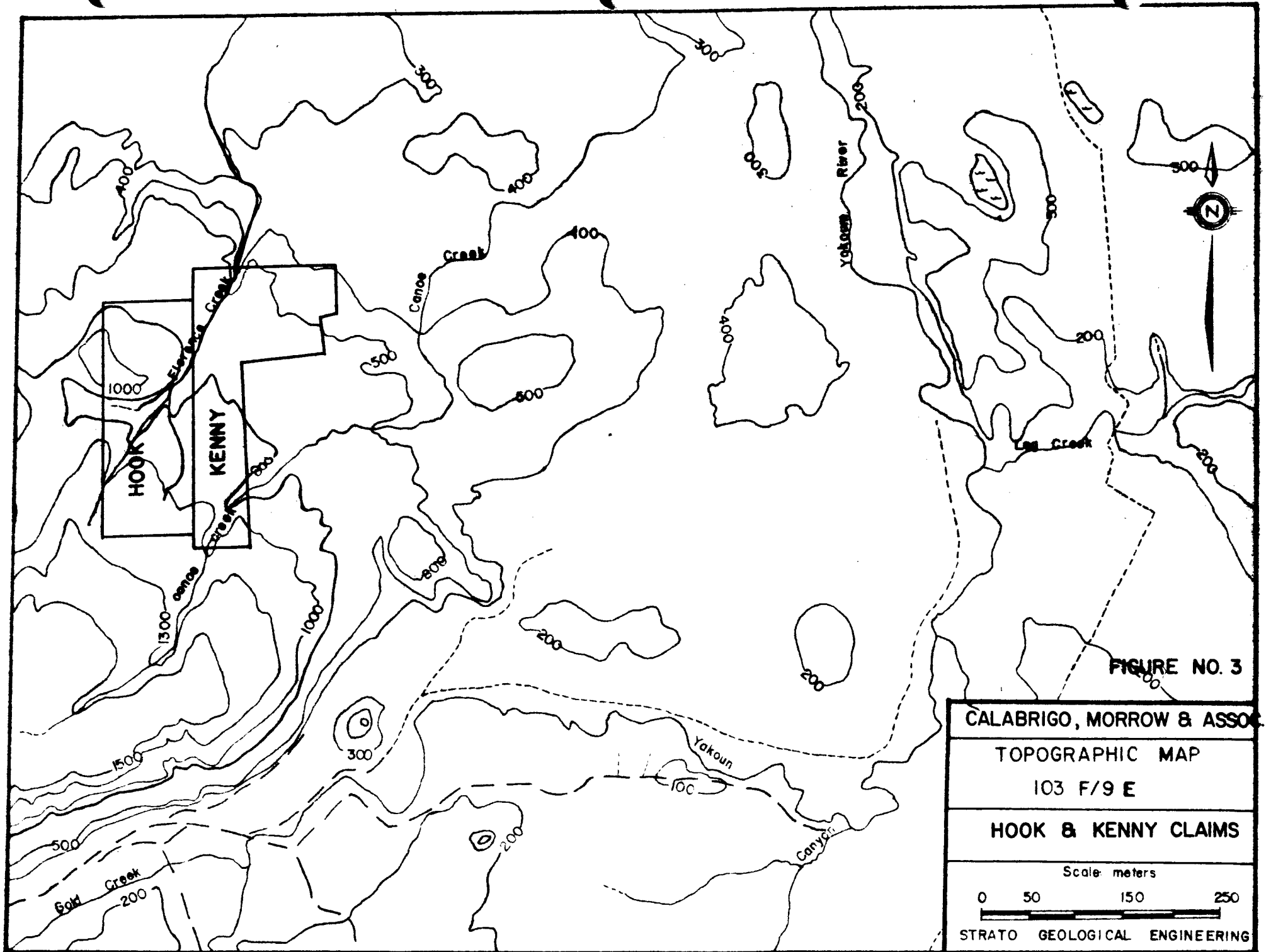


FIGURE NO. 3

CALABRIGO, MORROW & ASSOC.
TOPOGRAPHIC MAP 103 F/9 E
HOOK & KENNY CLAIMS
Scale: meters
0 50 150 250
STRATO GEOLOGICAL ENGINEERING

GENERAL GEOLOGY

The area is mapped by A. Sutherland Brown, Bulletin No. 54, as being underlain by the Masset Formation consisting of sub-aerial basalt flows and breccias, rhyolite ash flows, and some dacite. A small outcrop, located in the southwest corner of the KENNY claim near Canoe Creek, falls within this description of the sodic rhyolites of the Masset Formation.

INSTRUMENTATION and SURVEY PROCEDURE

The survey grid was established from the legal corner-post in the northwest corner of the HOOK claim. East-west lines were compassed and chained at generally 200 meter line separation and 25 meter station interval from north-south baselines on the west boundary of the HOOK claim and the common boundary of the HOOK and KENNY claims.

The magnetic survey was conducted with a Sabre Electronics, Model M100, Fluxgate Magnetometer measuring the vertical component of the earth's magnetic field. All survey data was tied to an established base station and all lines were "looped" at frequent intervals to allow for correction of diurnal variations in accordance with standard practice. The methods are well known and fully described in the literature.

THE MAGNETIC MAP

Magnetic relief in the survey area is quite variable, but shows a generally lower magnetic central zone flanked by higher magnetic response to the southwest and northeast as shown in Figure 4.

The magnetic variation within the Masset formation is unknown to the writer, but the magnetic relief seen in the survey results indicates two rock units within the survey area, the lower magnetic susceptibility unit covering a broad central portion of the HOOK claims and the west central area of the KENNY claims. This unit extends north as two narrow zones through the north central portion of the KENNY claim group, around 4+00E and 6+50E. The extension of this zone is open southeast of the surveyed area. The higher magnetic features, in the southwest, north and northeast areas of the survey area, may well be representative of the rhyolite ash flows, both described as units of the Masset formation.

The possibility that the central low magnetic feature is caused by a much greater overburden depth in this area must also be considered since Florence Creek flows through this area. However, the lower magnetic results in the western area of the HOOK claims, lines 2+00S to 10+00S, are associated with higher topography and thus are more likely indicative of a lower magnetic susceptibility rhyolite ash flow in this area.

The variable magnetic feature in the southeast portion of the survey area, around Canoe Creek, would be indicative of a mix of the units of the Masset formation, possibly basalt and rhyolite flows, or a variation in concentration of magnetite mineralization within the sodic rhyolites found in this area.

PREVIOUS WORK

Previous geophysical work on the properties included VLF electromagnetic surveys completed during the summer of 1980. Within the HOOK claim group two parallel, near north-south trending, weak conductors are indicated in the vicinity of a magnetic gradient (a possible contact) from approximately line 21+50S, 5+00E to line 15+25S, 3+50E. In the northwest portion of the KENNY claim group a series of weak, near parallel, and near north-south trending conductors tend to again follow magnetic trends in this area, indicating possible contacts and/or minor faults in the area.

CONCLUSIONS

The magnetic survey has mapped variations in magnetite mineralization within the Masset volcanic flows. The results indicate considerable variations of mineralization or a variation of flows, possibly basalts and rhyolites, within the survey area.

The areas of variable magnetic response, and contacts, should be further investigated to establish mineralization occurrences in these areas. A geochemical soil sampling program would be useful in establishing areas of interest for further exploration.

RECOMMENDATIONS

A reconnaissance geochemical soil sampling program is recommended for this area. The initial areas of interest would be the southern portion of the survey area, lines 17+00S through 24+00S, and the northern portion of the KENNY claim, lines 4+00N to 6+50S, 0+00E to 12+00E.

Respectfully submitted,

STRATO GEOLOGICAL ENGINEERING LTD.



Ralph J. Englund, B.Sc.
Geophysicist

30 October 1981.

TIME - COST DISTRIBUTION

The claim group toward which work is being applied with this report consists of the following mineral claims:

<u>Mineral Claim</u>	<u>Record No.</u>
River	797 (10)
Hill	798 (10)
Hook	799 (10)
Kenny	1772 (10)

This report describes the magnetometer data on the Hook and Kenny claims. The magnetometer surveys were done by STRATO GEOLOGICAL ENGINEERING LTD. during the period June 21 to August 18, 1981.

A listing of personnel and distribution of costs is as follows:

Personnel:

Gordon Hackett	Geophysical Operator & Field Supervisor
A. Unda	Geophysical Operator
P. Andexer	Field Assistant

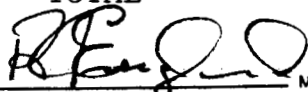
Cost Distribution:

Labour	5,247.50
Room & Board	1,310.00
Transportation	866.17
Instrument Rental	220.00
Camp & Field Supplies	612.40
Drafting & Misc.	645.00
Report	900.00

TOTAL

\$ 8,801.07

Signed



MINERAL EXPLORERS

TIME -COST DISTRIBUTION

The work described in this report is being applied toward the Bridge Mineral Claim , Record NO, 792 (10) which consists of a total of 20 units.

This report describes magnetometer data on the Bridge Mineral claim . The magnetometer survey was conducted by STRATO GEOLOGICAL ENGINEERING LTD. during the period June 21 to August 18, 1981.

A listing of personnel and distribution of costs is as follows:

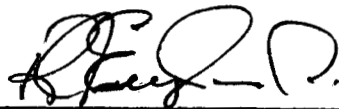
Personnel:

Gordon Hackett	Geophysical Operator & Field Supervisor
A. Unda	Geophysical Operator
P. Andexer	Field Assistant

Cost Distribution:

Labour	1875.00
Room & Board	109.00
Transportation	478.00
Instrument Rental	110.00
Camp & Field Supplies	313.00
Drafting & Misc.	215.00
Report	900.00
	<hr/>
TOTAL	\$ 4000.00

Signed



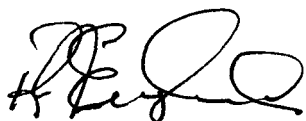
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CERTIFICATE OF QUALIFICATIONS

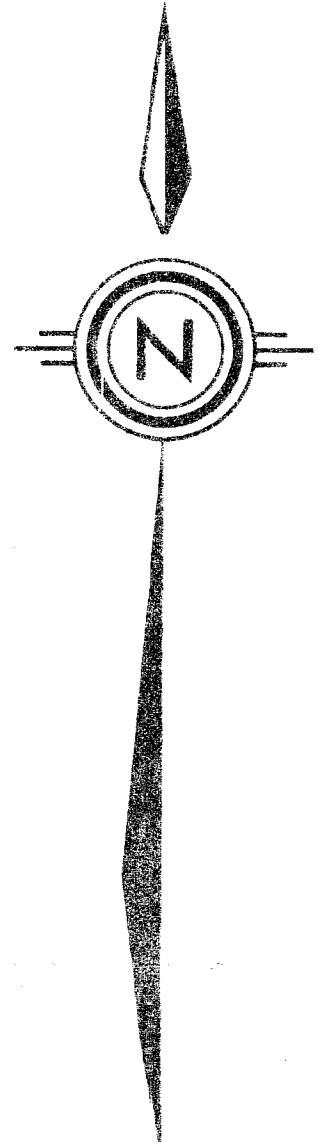
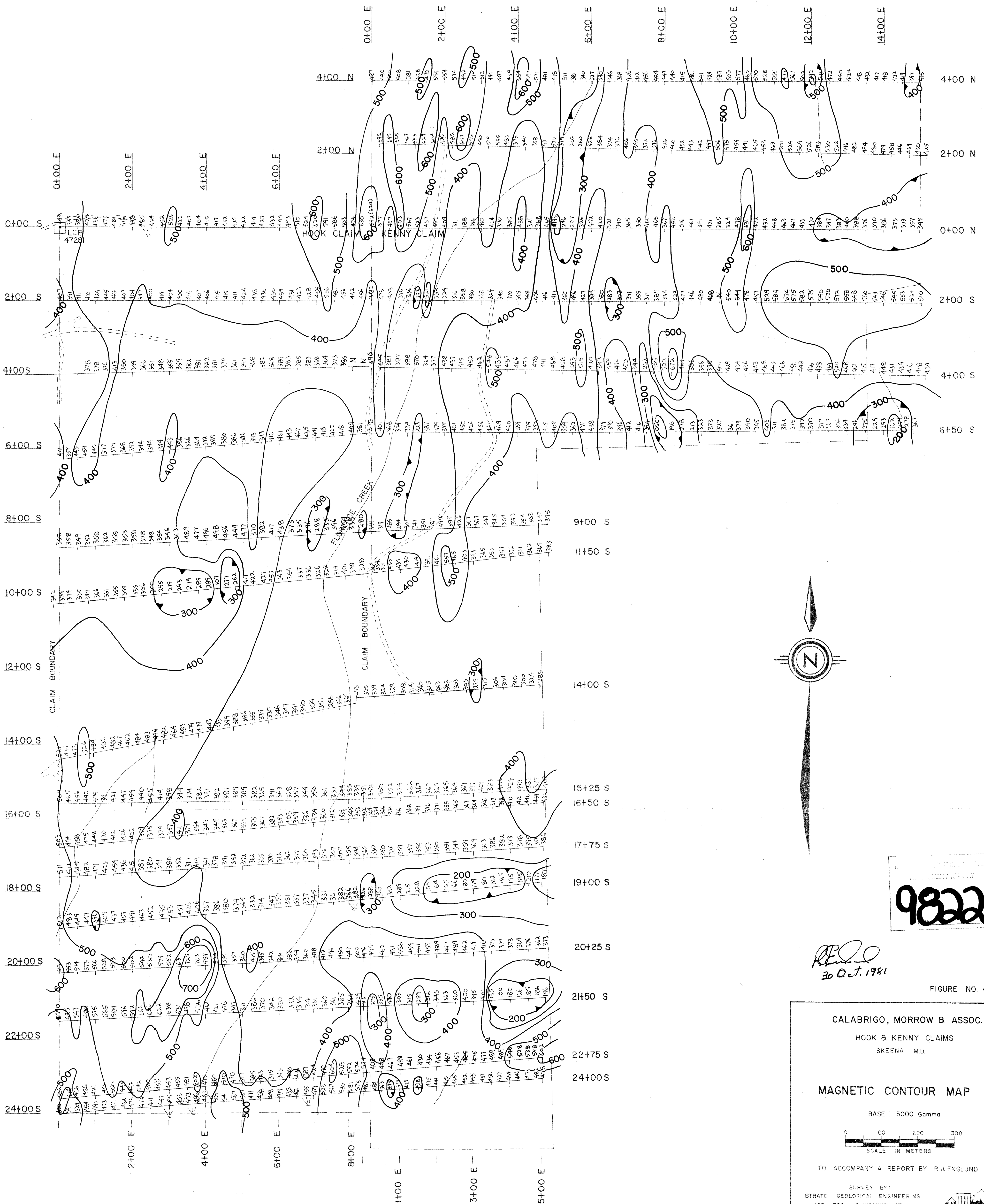
I, Ralph J. Englund, do hereby certify that:

- (1) I am a practising geophysicist with offices at 103, 709
Dunsmuir Street, Vancouver, B.C., Canada V6C 1M9.
- (2) I am a graduate of U.B.C. where I obtained my B.Sc. (Physics)
in 1971.
- (3) I am a member in good standing of the following professional
organization:
 - (a) B.C. GEOPHYSICAL SOCIETY
- (4) I have been engaged in the study, teaching, and practice of
exploration geophysics continuously for 9 years. I have worked
as a geophysical consultant on numerous projects in Western
North America since 1972.
- (5) The Geophysical field work and the interpretation of the
results in this report were done under my direct supervision.
- (6) I have no direct, indirect or contingent interest in the
HOOK or KENNY Claim Groups, nor do I expect to receive any
such interest.

Dated In Vancouver, B.C., this 30th day of October, 1981.



Ralph J. Englund, B.Sc.
Geophysicist



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R.J. Englund
30 Oct. 1981

FIGURE NO. 4

CALABRIGO, MORROW & ASSOC.
 HOOK & KENNY CLAIMS
 SKEENA M.D.
MAGNETIC CONTOUR MAP
 BASE : 5000 Gamma

 SCALE IN METERS
 TO ACCOMPANY A REPORT BY R.J. ENGLUND
 SURVEY BY:
 STRATO GEOLOGICAL ENGINEERING
 103 - 709 DUNSMUIR ST.
 VANCOUVER B.C.

