

THE CONSOLIDATED MINING AND SMELTING COMPANY OF CANADA LIMITED
TRAIL, B.C.

KINGFISHER NO. 1 AND NO. 2 GROUPS AND BRIGHT STAR TRIO
NO. 3 GROUP - VERNON M.D.

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- Statement of Expenditures.
- Statutory Declaration relating to Expenditures.
- Statement of Operator's Qualifications.

82 L/10E

HGG:grc
Trail Expl'n Office, Western District
November 17, 1964

Department of Mines and Petroleum Resources ASSESSMENT REPORT NO. <u>578</u> MAP

**THE CONSOLIDATED MINING AND SMELTING COMPANY OF CANADA LIMITED
TRAIL, B.C.**

**GEOPHYSICAL REPORT ON
KINGFISHER NO. 1 AND NO. 2 GROUPS AND BRIGHT STAR TRIO
NO. 3 GROUP - VERNON M.D.**

1. SUMMARY

This report details a magnetic survey undertaken on the Kingfisher No. 1 and No. 2 Groups and Bright Star Trio No. 3 Group during the period October 1 to October 31, 1964. As a result of geophysical work performed it is requested that two (2) years' assessment credit be applied to each of the following four (4) located claims in the Bright Star Trio No. 3 Group (revised):

<u>Claim</u>	<u>Record No.</u>	<u>Date Recorded</u>	<u>Recorded Owner</u>
Bright Star Trio No. 1	7041	July 30, 1963	W.C. Retar
" " " " 2	7042	" "	" "
King No. 9	7489	Sept. 28, 1964	The Cons. Mining and Smelting Co.
" No. 10	7490	" "	" " "

It is further requested that one (1) year assessment credit be applied to each of the following ten (10) located claims in the Kingfisher No. 1 Group:

<u>Claim</u>	<u>Record No.</u>	<u>Date Recorded</u>	<u>Recorded Owner</u>
Kingfisher No. 106	7177	Nov. 25, 1963	D.M. Hills
" No. 107	7178	" "	" "
" No. 109	7180	" "	" "
" No. 120	7141	Nov. 19, 1963	John Ens
" No. 121	7142	" "	"
" No. 123	7144	" "	"
" No. 144	7376	May 29, 1964	"
" No. 145	7373	" "	"
" No. 146	7372	" "	"
" No. 147	7371	" "	"

It is further requested that one (1) year assessment credit be applied to each of the following eight (8) located claims in the Kingfisher No. 2 Group:

<u>Claim</u>	<u>Record No.</u>	<u>Date Recorded</u>	<u>Recorded Owner</u>
Kingfisher No. 125	7146	November 19/63	John Ens
" No. 126	7147	" "	"
" No. 127	7148	" "	"
" No. 128	7149	" "	"
" No. 129	7150	" "	"

<u>Claim</u>	<u>Record No.</u>	<u>Date Recorded</u>	<u>Recorded Owner</u>
Kingfisher No. 130	7151	November 19/63	John Eas
" No. 131	7152	" "	"
" No. 132	7153	" "	"

The total value of assessment credit requested and the total cost of geophysical work performed on each of the above three claim groups is distributed as below:

<u>Group</u>	<u>Value of assessment Credit Requested</u>	<u>Value of geophysical work performed</u>
Bright Star Trio No. 3	\$ 800	\$ 970
Kingfisher No. 1	1,000	1,180
Kingfisher No. 2	800	1,090

This report, with accompanying maps and statement of expenditures, is hereby submitted to record the required assessment work.

2. INTRODUCTION

A reconnaissance magnetic survey was carried out over the Bright Star Trio No. 3 Group, the Kingfisher No. 1 Group, and the Kingfisher No. 2 Group to search for base metal deposits associated with massive pyrrhotite. The survey was conducted during the period October 1 to October 31, 1964, by R.G. Gifford (Geological Engineer, University British Columbia, 1961) under the supervision of J. Richardson (Geological Engineer, Univ. Toronto, 1940). Capable field assistance was given by A.B. Mawer and G.D. Jones.

The above three claim groups are located 31 miles by gravel road east of Enderby in the Vernon Mining Division, $50^{\circ} 118^{\circ}$ N.W. The claims lie on the east fork of Kingfisher Creek at elevation 2,600'. The terrain is moderate in relief and heavily forested. Overburden appears to be not more than a few tens of feet deep.

The survey was made with a Sharpe MF-1 magnetometer. This instrument measures the vertical component of the magnetic field and reads directly in gammas with a resolution of five gammas in the most sensitive range. Maximum sensitivity is 20 gammas per scale division.

Survey control was provided by a cut and chained picket base line for Kingfisher No. 1 Group and by chain and compass base line along the main logging road for Bright Star Trio No. 3 Group. Traverse lines were run in a magnetic east and west direction from the base lines of these two groups.

A network of chain and compass surveyed traverse lines following logging skid roads was utilized for the magnetic survey of Kingfisher No. 2 Group.

Readings were normally taken at 50-foot intervals along traverse lines spaced 400' apart. A close spacing between readings was used since the known pyrrhotite bodies in the region occur in narrow sheet-like or rod-like forms. The narrow width (5 to 20') of these bodies in general lies across the traverse direction while their long axis trends normal to the traverse lines.

Base values of magnetic intensity were determined at convenient points in the survey area. Check readings were made at base stations at two-hour intervals or less to establish the diurnal correction curve.

The value of the vertical magnetic field at each station, cor-

rected to ± 50 gammas, is shown on accompanying maps I to IV inclusive. To simplify interpretation only areas of significant values were detailed by magnetic contours.

3. GEOLOGY

High grade metamorphic rocks of the Monashsee Group underlie the area. The assemblage strikes northeasterly, dips moderately east, and includes gneiss, quartzite, marble, and pegmatite. Isoclinal folding and local variations in bedding trends are common.

Dykes of diorite and feldspar porphyry intrude the metamorphics. A large body of syenite underlies the northernmost part of the surveyed area.

Sulfide mineralization occurs within the quartzite and marble members. The mineralization, chiefly pyrrhotite and sphalerite, appears to be conformable with the bedding.

4. RESULTS

Five general areas of higher than normal magnetic intensity are indicated by the survey. They are designated "A" to "E" on accompanying maps I to IV. Readings above 400 gammas are considered as significant in the surveyed area. Background readings in the area are in the order of 100 to 300 gammas.

Anomalous area "A" appears to not contain any anomalies of interest. The magnetic highs in this region appear to result from bands of pegmatite and gneiss containing minor amounts of magnetite. No base metal mineralization was observed in the area.

Area "B" is in the vicinity of known sulfide mineralization. The region is also intruded by a number of dykes. Field observations indicate that these anomalies could result from either a sulfide or intrusive body, the latter case appears the most likely possibility. However, the presence of good base metal mineralization as well as a strong anomaly suggests that the area also warrants further attention.

"C" is a long, narrow anomalous area with values well above background. Intermittent outcrop shows this magnetic high to be coincident with a north-trending basic dyke. The anomaly is of no economic interest.

Area "D" contains numerous erratic high readings. Much of the area appears to be underlain by syenite, particularly in the northernmost part. It appears that the magnetic highs result from basic dykes, basic phases within the main intrusive, and local magnetite-rich sections of metamorphic and intrusive rock. Weak base metal mineralization is present. The area is of doubtful interest.

5. CONCLUSIONS

Background values of 100 to 300 gammas are obtained over a variety of rock types. These include quartz-feldspar-biotite gneiss, hornblende gneiss, quartzite, marble, pegmatite, feldspar porphyry, and syenite.

Basic dykes, basic phases of the syenite body, and magnetite-rich sections in metamorphic and intrusive rocks appear to be the chief factors causing higher than normal values of magnetic intensity.

The anomalous area "B" is perhaps associated with base metal mineralization and therefore merits further investigation. Exploration of this area should first comprise a detailed magnetic survey coupled with geological mapping in order to better guide any follow-up physical work that may be undertaken.

ATTACHMENTS:

- (1) Plan of Magnetic Survey of Kingfisher No. 1 and No. 2 Groups and Bright Star Trio No. 3 Group, Plates I to IV inclusive.
- (2) Statement of Expenditures.
- (3) Statutory Declaration relating to Expenditures.
- (4) Statement of Operator's Qualifications.

Report by:

R. Gifford
R.G. Gifford
Geological Engineer

Endorsed by:

J. Richardson
J. Richardson
Professional Engineer

RCG:gmc

Trail Exploration Office, Western District
November 17, 1964

Distribution:	Mining Recorder (Vernon)	(2)
	Exploration Div., Montreal	(1)
	Records Engr., Trail	(1)
	Western Exploration, Trail	(2)

THE CONSOLIDATED MINING AND SMELTING COMPANY OF CANADA LIMITED
TRAIL, B.C.

1964 GEOPHYSICAL EXPENDITURES - KINGFISHER NO. 1 AND NO.
2 GROUPS AND BRIGHT STAR TRIO NO. 3 GROUP - VERNON M.D.

BRIGHT STAR TRIO NO. 3 GROUP:

Salaries

J. Richardson, Exploration Superintendent; 2 days (October 1 - November 17) at \$50 per day	\$ 100
R.G. Gifford, Exploration Geologist; 14 days (October 1 - November 17) at \$35 per day	490
A.B. Mawer, Exploration Technician; 5 days (October 1 - October 31) at \$30 per day	150
G.D. Jones, Field Assistant; 9 days (October 1 - October 31) at \$20 per day	<u>180</u>
	\$ 920

Instrument Rental

Sharpe MF-1 magnetometer; 10 days at \$150 per month	<u>50</u>
TOTAL:	\$ 970

KINGFISHER NO. 1 GROUP:

Salaries

J. Richardson, Exploration Superintendent; 2 days (October 1 - November 17) at \$50 per day	\$ 100
R.G. Gifford, Exploration Geologist; 18 days (October 1 - November 17) at \$35 per day	630
A.B. Mawer, Exploration Technician; 6 days (October 1 - October 31) at \$30 per day	180
G.D. Jones, Field Assistant; 11 days (October 1 - October 31) at \$20 per day	<u>220</u>
	\$ 1,130

Instrument Rental

Sharpe MF-1 magnetometer; 10 days at \$150 per month	<u>50</u>
TOTAL:	\$ 1,180

(1964 Geophysical Expenditures -
Kingfisher No. 1 and No. 2 Groups and
Bright Star Trio No. 3 Group - Vernon
M.D. - cont'd.)

KINGFISHER NO. 2 GROUP:

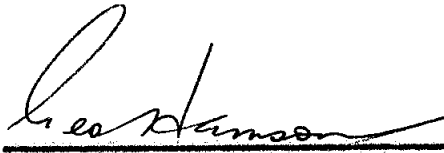
Salaries

J. Richardson, Exploration Superintendent; 2 days (October 1 - November 17) at \$50 per day	\$ 100
R.G. Gifford, Exploration Geologist; 16 days (October 1 - November 17) at \$35 per day	560
A.B. Mawer, Exploration Technician; 6 days (October 1 - October 31) at \$30 per day	180
G.D. Jones, Field Assistant; 10 days (October 1 - October 31) at \$20 per day	<u>200</u>
	<u>\$ 1,040</u>

Instrument Rental

Sharpe MF-1 magnetometer; 10 days at \$150 per month	<u>50</u>
TOTAL:	<u>\$ 1,090</u>


Endorsed by:



 G. Hanson
 Branch Accountant

This is Exhibit "A" to the Statutory Declaration of James Richardson, declared before me the ...15... day of ...November... A.D. 1964.






 A Commissioner for taking Affidavits
 for the Province of British Columbia.

THE CONSOLIDATED MINING AND SMELTING COMPANY OF CANADA LIMITED
TRAIL, B.C.

STATEMENT OF OPERATOR'S QUALIFICATIONS

R.G. Gifford was responsible for operating the geophysical instrument used in the magnetic survey described herein. Gifford is a graduate Geological Engineer of U.B.C. and has been employed in geological field work since 1951. During this time he has operated magnetic and electromagnetic instruments for various periods. I consider him a competent and experienced operator.


J. Richardson
Professional Engineer

JR:mc
Trail Expl'n Office, Western District
November 16, 1964

CANADA
PROVINCE OF BRITISH COLUMBIA
TO WIT:


} STATUTORY DECLARATION RELATING TO EX-
} PENDITURES ON A GEOPHYSICAL SURVEY OF
} CERTAIN MINERAL CLAIMS UNDER OPTION TO
} THE CONSOLIDATED MINING AND SMELTING
} COMPANY OF CANADA LIMITED

I, JAMES RICHARDSON, Professional Engineer, of the
City of Trail, in the Province of British Columbia, DO SOLEMNLY DECLARE:

1. That I am the person who endorsed a geophysical report as the result of surveys carried out of certain mineral claims, under option to The Consolidated Mining and Smelting Company of Canada Limited, situated in Vernon Mining Division.
2. That copies of the said report are being filed with the Mining Recorder in Vernon.
3. That attached hereto and marked with the letter "A", upon which I have signed my name at the time of declaring hereof, is a statement of expenditures incurred in connection with the geophysical survey of the said claims showing in addition the dates during which those making the said survey performed their work.

AND I MAKE this solemn declaration conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath and by virtue of the Canada Evidence Act.

DECLARED before me at the
Municipality of Tadamae, in
Province of British Columbia,
this 18th day of November
A.D. 1964.


A Commissioner for taking Affidavits for British Columbia


J. Richardson

AST NORTH

BARBIE

RODNEY

KF 107

KF 0

KF 11

KF 104

KF 106

KF 12

KF 7

KF 8

KF 10

KF 05

KF 120

(See map III)

(I show map)

BST 1

BST 2

BST 4

BST 3

TO ACCOMPANY SURVEY REPORT BY
KING & COMPANY ENGINEERS, LTD.
115 UNIVERSITY AVENUE, TORONTO, ONT.
DATE: NOV. 17, 1954

578

The Consolidated Mining and Smelting Company of Canada Limited

DRAWN BY:		CHECKED BY:	
REVISED BY	DATE	REVISED BY	DATE

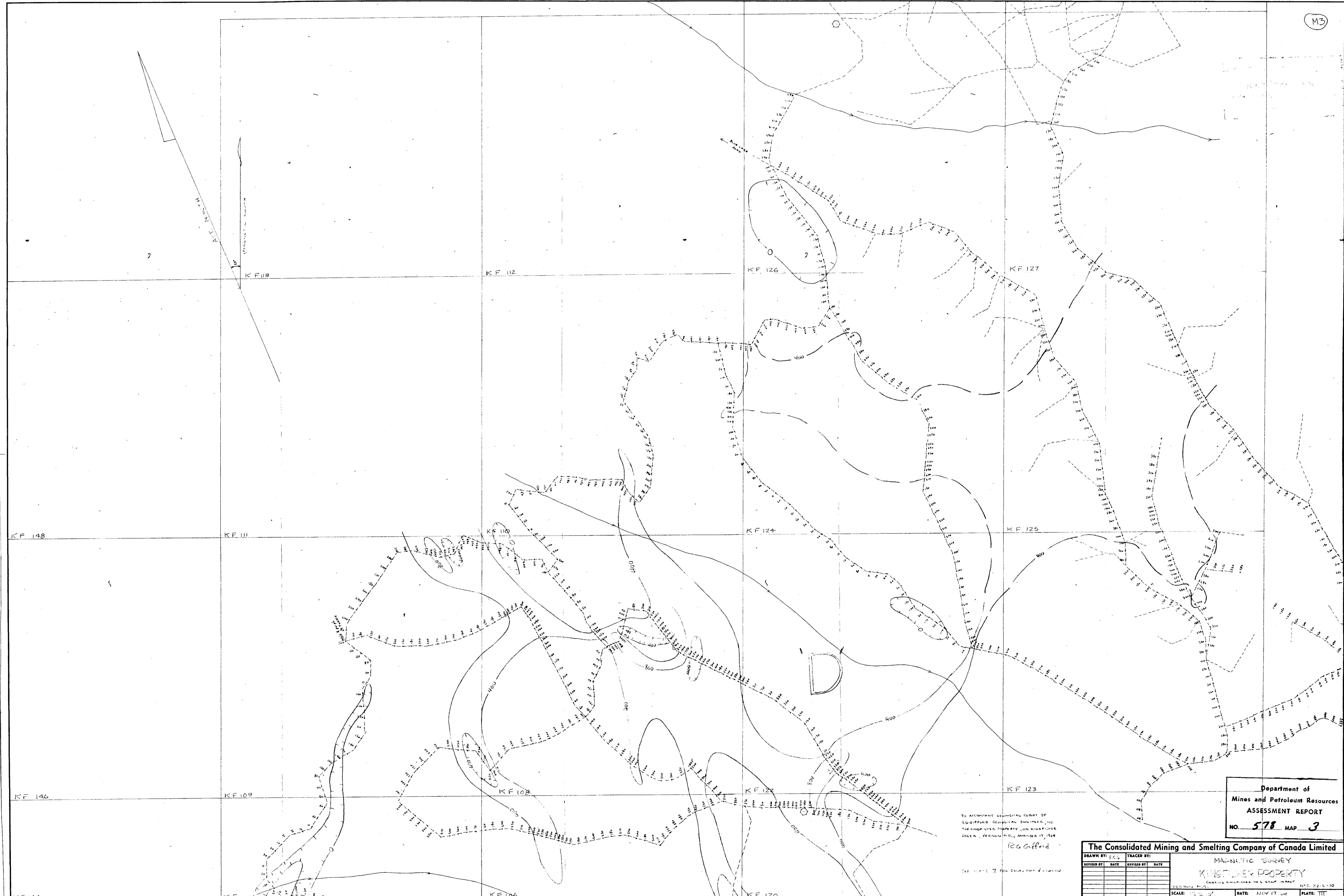
W. H. GURBY
KING & COMPANY PROPERTY
DATE: NOV. 17, 1954
SCALE: AS SHOWN
PLATE: II

KF 122

COMING 210/050

(See map IV)

M3



(See map II)

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 578 MAP 3

TO ACCOMPANY GEOPHYSICAL SURVEY OF
KINGROSS PROPERTY, KINROSS, ONTARIO,
KINGROSS PROPERTY, ON KINROSS, ONTARIO,
SOUTH, VERMONT, NOV. 17, 1944
R.G. Gifford

See plate 2 for index map of survey

The Consolidated Mining and Smelting Company of Canada Limited

DRAWN BY: 142		TRACED BY:	
REVISED BY:	DATE	REVISED BY:	DATE

MAGNETIC SURVEY
KINGROSS PROPERTY
KINGROSS PROPERTY, ONTARIO, CANADA
SCALE: 1:25,000 DATE: NOV 17, 1944 PLATE III
MINES 22-6-10
COMING 210-0670

KF 113

KF 112

KF 126

KF 127

KF 128

KF 129

KF 130

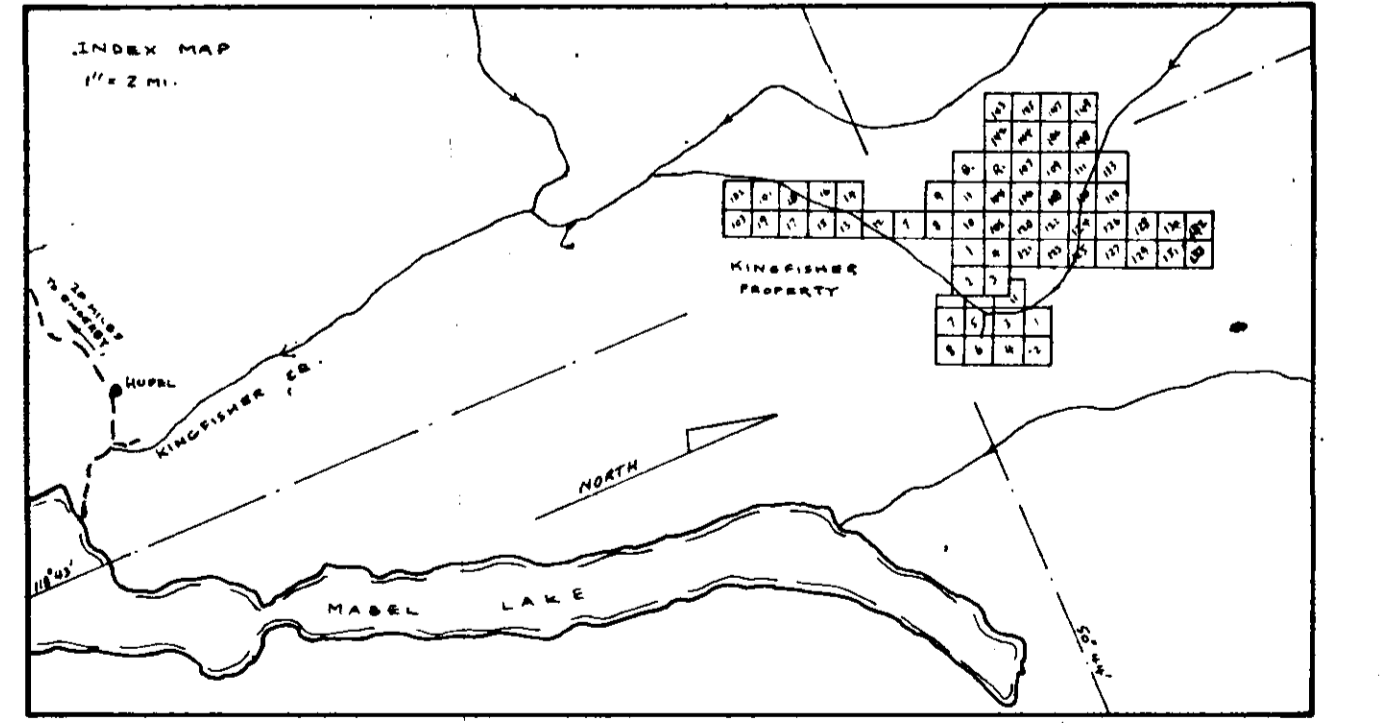
KF 131

KF 122

KF 125

1ST. NORTH

LEGEND
 INSTRUMENT: SHARPE MF-1
 CONTOURS:
 DEFINED 400
 APPROX. ZONE 400
 DEPRESSION 400
 TRANSIT STATION
 BOUNDARY
 REFERENCE POINT
 ABNORMALITIES
 KINGFISHER - KF
 QUANT. STARTED - BST



Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. 578 MAP 4

TECHNICAL GEOLOGICAL REPORT BY
 D. J. HARRIS, GEOLOGICAL ENGINEER, C.M.A.
 THE KINGFISHER PROPERTY, QUANT. STARTED
 (See map III.)

The Consolidated Mining and Smelting Company of Canada Limited

DRAWN BY: EGG		TRACED BY:	
REVISED BY	DATE	REVISED BY	DATE

MAGNETIC SURVEY
 KINGFISHER PROPERTY
 SCALE: 1" = 200'
 DATE: NOV 17 1964
 PLATE: 4
 E.T.C. 21-1-19
 COMING 2106870