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POCKETS CONTAIN

- #1. Gamma-Ray Anomaly Map - 1" = 1/4 mile
- #2. Aeromagnetic Contour Map - 1" = 1/4 mile

AIRBORNE GEOPHYSICAL SURVEYS ON
REXSPAR PROPERTY, BIRCH ISLAND
KAMLOOPS MINING DIVISION
BRITISH COLUMBIA

SUMMARY

Two new areas of anomalous gamma ray activity were located. The gamma ray response around the Rexspar workings was outlined. The aeromagnetic map reflected the regional attitude of the gneisses. No new areas of granodiorite intrusion were interpreted from the magnetics.

It was recommended that two new areas of anomalous gamma ray activity be explored.

I INTRODUCTION

In order to explore the radio-active mineral potential of the Rexspar area in general, and the north and south group of claims in particular, airborne gamma ray and magnetic surveys were carried out with a helicopter.

Uraninite and thorite mineralization is known around the area, but the wooded slopes are sparse in outcrop and are difficult in access. The helicopter provided easy access. The magnetic survey results were used as an aid in interpreting the gamma ray survey.

II. GENERAL GEOLOGY

A series of metamorphosed sedimentary and volcanic rocks, believed to be Pre-Cambrian age, underlie the Rexspar area. These rocks are gently folded and frequently faulted, and are intruded by younger granodiorites lying in Granite Mountain area. Near the Rexspar property the rock sequence is, from top down:

1. quartz sericite schist
2. argillite and some andesite
3. fragmental trachyte and trachyte
4. quartz sericite schist

All of the significant mineralization is in the trachyte formation, as replacement lenses. The trachyte formation is exposed at surface over a large part of Rexspar area. Its lower contact with the argillite is exposed on the ridge near Foghorn Creek, a short distance above the main camp. The thickness of the trachyte varies up to 500 feet or more, and the mineralized zones are, in general, localized near its upper limits.

The fluospar deposit lies in the centre of a flat-topped knob, (elevation 4,000 feet), that forms the end of a long ridge extending northerly from Granite Mountain. The uranium-bearing deposits are ringed around the fluospar body on the sides and frontal slope of the ridge. All the mineral deposits are lenticular in form and follow the general strike of the formations at about North 30° East, dipping about 30° to the Northwest.

III. PURPOSE OF THE SURVEY

The Gamma Ray and Magnetometer Surveys were carried out over the Rexspar area in order to outline areas of radio-active minerals and intrusive granodiorites. In an area where access on foot is difficult, this airborne work would lead to areas of prime interest, quickly.

IV. SURVEY PROCEDURE

The Barringer, 4-channel gamma ray spectrometer was used. This equipment provides a high sensitivity spectrum analysis of the energy levels in natural radiation from the ground. The outputs of the spectrum analyzer are fed to an analogue

computer which reduces the data and generates four outputs, one each, representing the activity level of potassium, uranium, and thorium, and the fourth giving an output proportional to the total radio-activity.

The helicopter also contained Barringer AM-101A, nuclear precession magnetometer. This provides an analogue record on the strip chart.

The navigation was maintained by 35mm frame camera, Bonzer radio altimeter, (maintaining 400 feet elevation above the ground), intervalometer, and standard navigation instruments.

The results are presented on two maps (enclosed in pockets of the report).

- (a) Gamma Ray Survey Map, 1" = 1,320 feet, showing the width and peak values of the uranium and thorium, and Claim Group outlines.
- (b) Magnetic Survey Map, 1" = 1,320 feet, contour map at 50 interval, and Claim Group outlines.

V. DISCUSSION OF RESULTS

The gamma ray results indicate a broad area of activity on the downhill slope around the Rexspar mining operation; some of this may be from contamination, (dust, water, erosion). Two new and quite limited areas were located,

- (a) Thorium anomalies lines L18E; L22E
- (b) Uranium anomaly line L55W

The magnetic contour map shows the magnetic variations of the gneisses on the north side of the river, and a relatively flat magnetic picture on the dip slopes of the south side of the river.

None of the granodiorite intrusions show recognizable magnetic patterns, except in the area of Granite Mountain (L74E).

VI. CONCLUSIONS & RECOMMENDATIONS

Two new small gamma ray anomalies were located. They lie outside the claim groups being surveyed. The main radio-active anomaly was outlined. Further work on the Rexspar property may be implied from this anomaly, but the extent of the work to date, in this area is not known to the writer.


The magnetic survey did not outline any new areas of granodiorite.

It is recommended that the two new gamma ray anomalies be prospected.

Respectfully submitted,

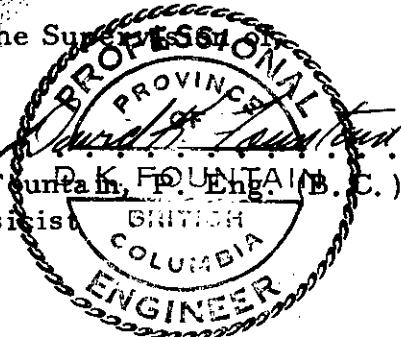
Dated December 13, 1968.

Tom Gledhill
Tom Gledhill, P. Eng. (Ont.)
Geophysicist



Under the Supervision of

D. K. Fountain
D. K. Fountain, P. Eng. (B. C.)
Geophysicist



Expiry Date: April 25, 1969

DECLARATION OF FACTS

(a)	<u>NAME</u>	<u>DAYS</u>	<u>DATES</u>
	J. Schultz	10 days	Nov. 4 - 14, 1968
	J. Kreke	10 days	Nov. 4 - 14, 1968
	W. Saszniak	10 days	Nov. 4 - 14, 1968
	Tom Gledhill	15 days	Nov. 15 - Dec. 12, 1968
	Vito Clementi	15 days	Nov. 15 - Dec. 12, 1968

(b) Total Salary, Wage or Fee: See Note #1

(c) DIRECT COSTS

Rental of Equipment - Magnetometer, Gamma Ray

Materials - - - - -

Aircraft Charter - Jet Ranger - - - - -

Re Above: See Note #1

NOTE # I - Included in Contractor's price @ \$25.00/line mile
 For further particulars contact:
 Interprovincial Helicopters Limited
 220 Bay St., Suite 202,
 Toronto 1, Ontario

Line Miles Surveyed	651.75 miles
Cost of the Surveys	\$16,293.75
Number of Claims	164
Square Miles Surveyed	80

TG:mh
 December 13, 1968

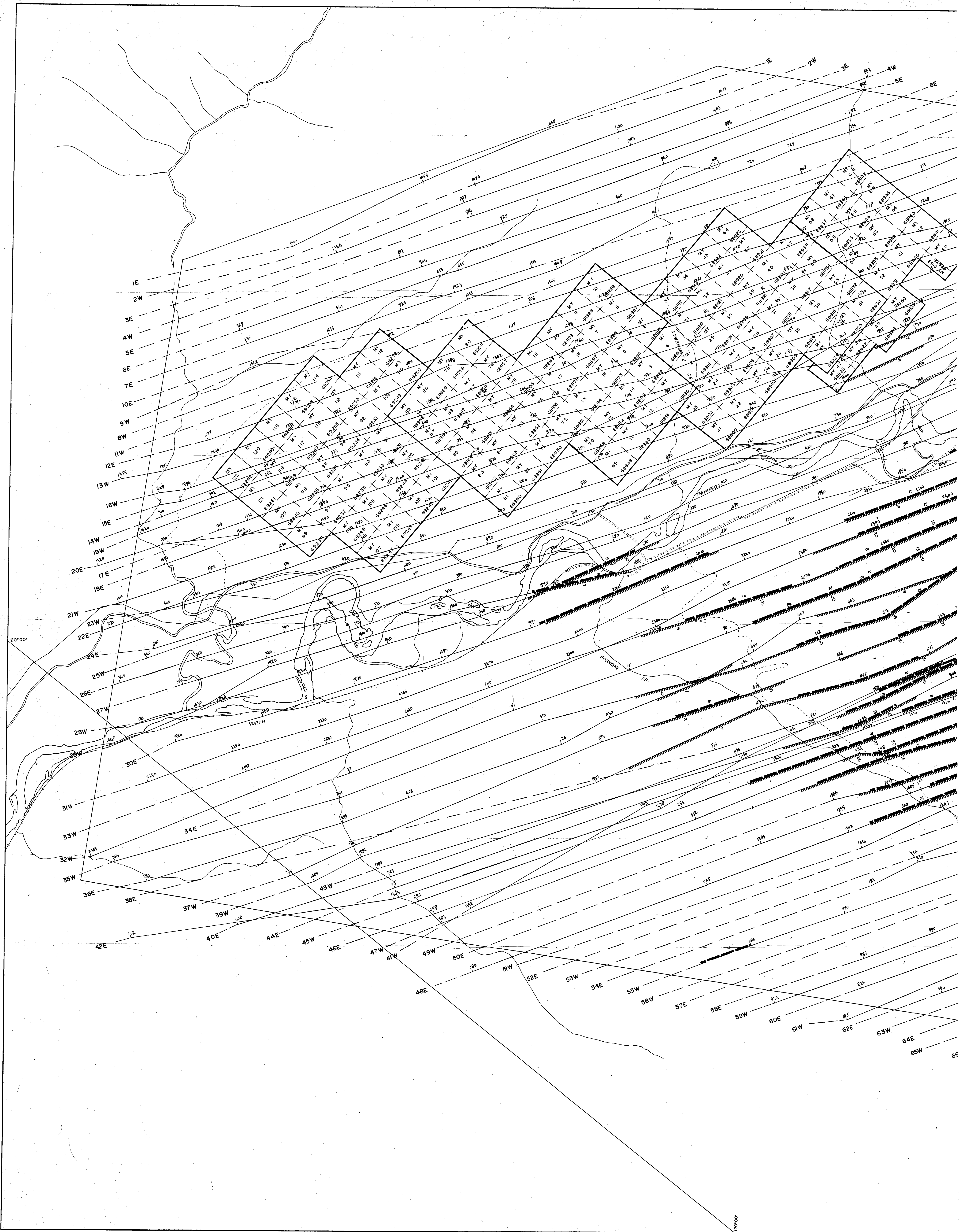
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Province of B.C. Columbia, this *23*
Dec. *1968*, A.D.

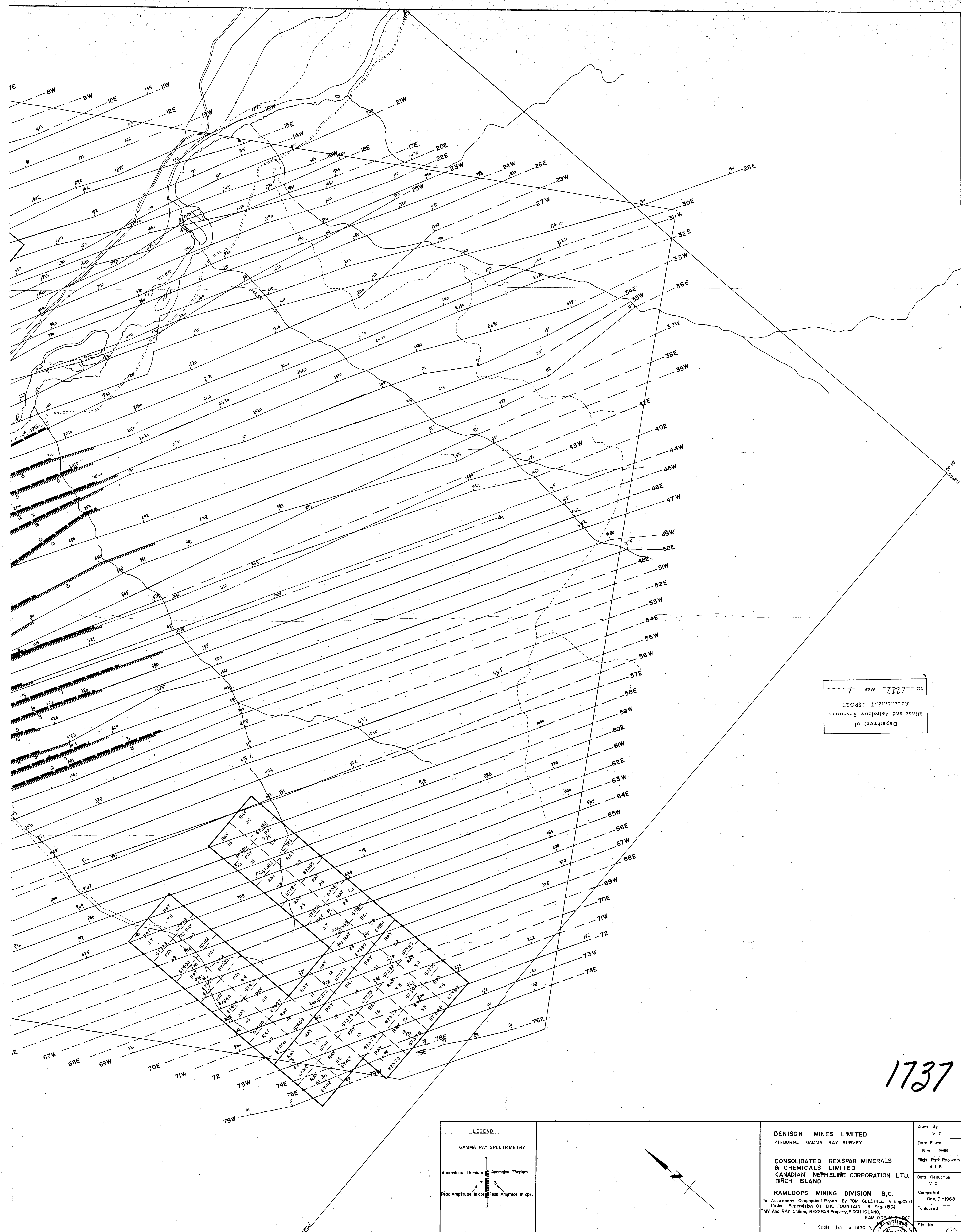
Mr. [Signature]

Jill Suran

A Commissioner for taking Affidavits within British Columbia or
A Notary Public in and for the Province of British Columbia.

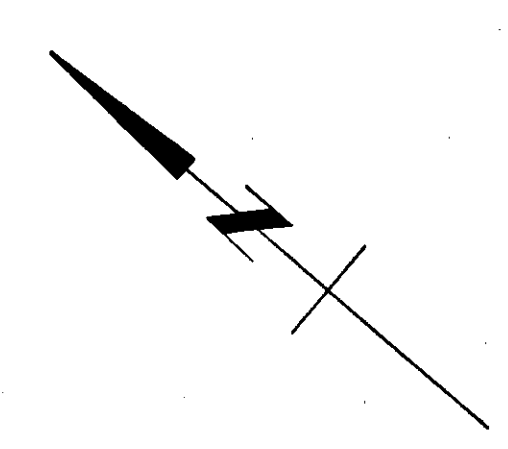
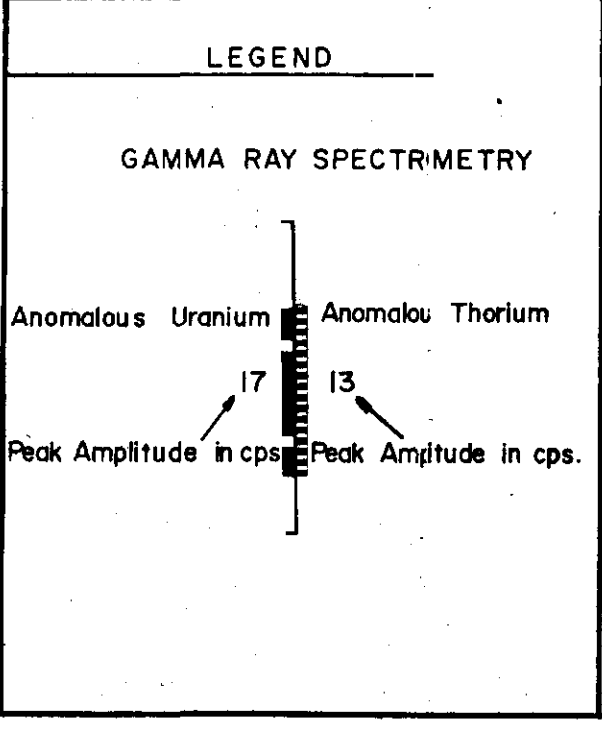
SUB-MINING RECORDER





Map 1
 1737
 Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT

1737



DENISON MINES LIMITED
 AIRBORNE GAMMA RAY SURVEY

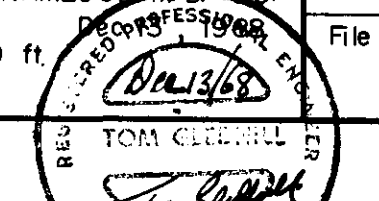
**CONSOLIDATED REXSPAR MINERALS
 & CHEMICALS LIMITED**
 CANADIAN NEPHELINE CORPORATION LTD.
 BIRCH ISLAND

KAMLOOPS MINING DIVISION B.C.
 To Accompany Geophysical Report By TOM GLEDHILL P. Eng (Cns)
 Under Supervision Of D.K. FOUNTAIN P. Eng (BC)
 *M.Y. And Ray Claims, REXSPAR Property, BIRCH ISLAND,
 KAMLOOPS B.C.

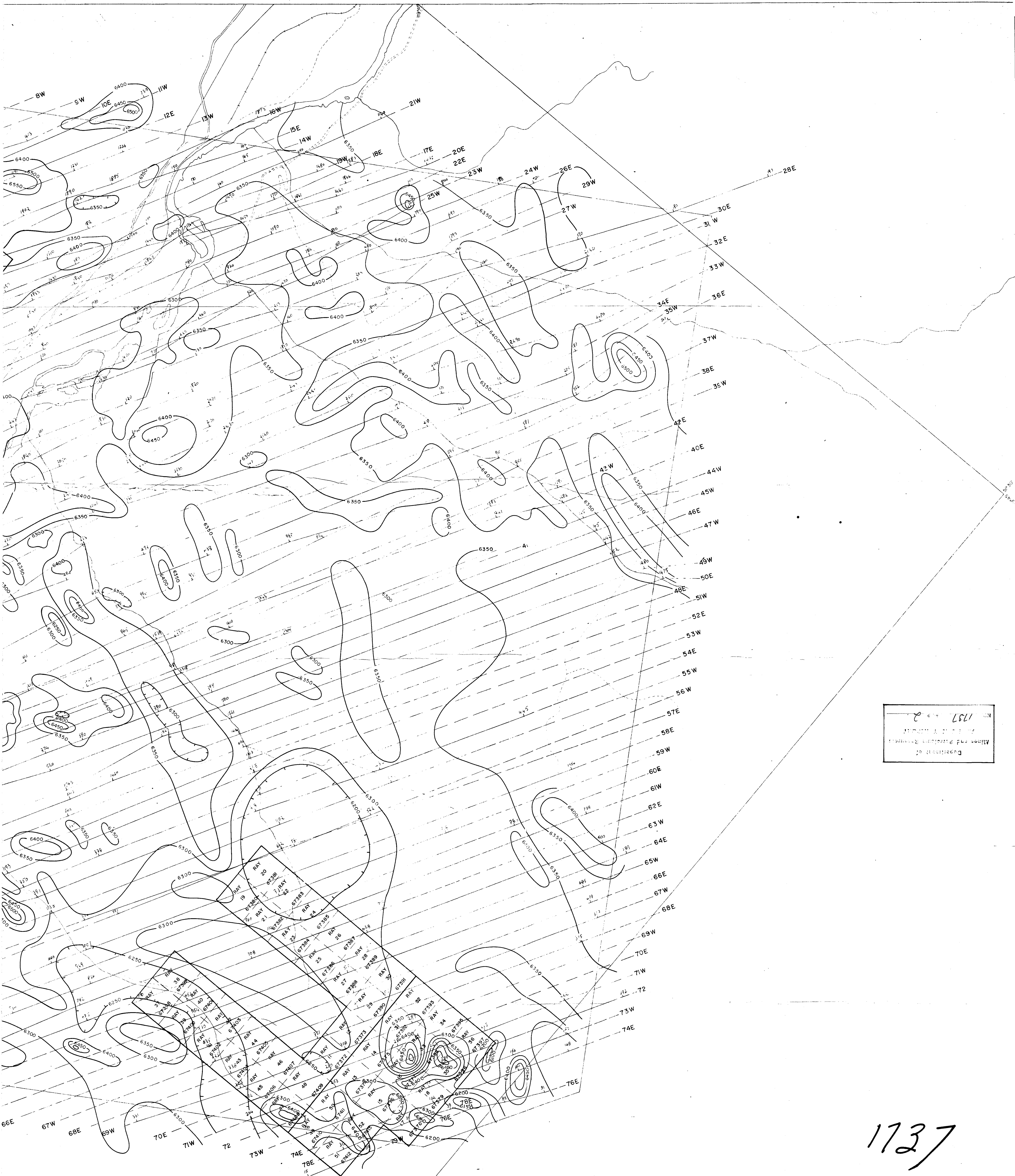
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Brown By V.C.
 Date Flown Nov. 1968
 Flight Path Recovery A.L.B.
 Data Reduction V.C.
 Completed Dec. 9-1968
 Contoured

File No. 1







Department of
 Mines and Technical Surveys
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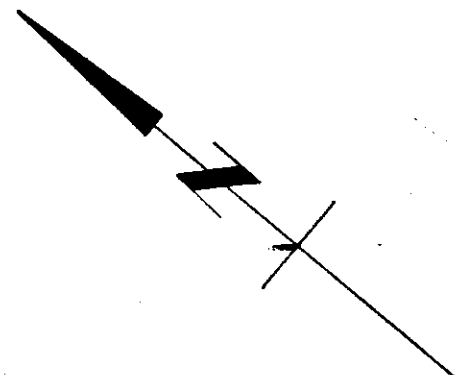
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LEGEND

6250

Magnetic Contour Line,
 Value of total magnetic
 intensity in gammas
 above arbitrary base level

Contour interval 50 gammas



DENISON MINES LIMITED
 AIRBORNE MAGNETOMETER SURVEY

**CONSOLIDATED REXSPAR MINERALS
 & CHEMICALS LIMITED**
 CANADIAN NEPHELINE CORPORATION LTD.
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 *My And RAY Claims, REXSPAR Property, BIRCH ISLAND,
 KAMLOOPS, B.C.

Scale 1 in. to 1320 ft.

Drawn By
 V. C.

Date Plotted
 Nov. 1968

Flight Path Recovery
 A. L. B.

Data Reduction
 V. C.

Completed
 Dec. 9 - 1968

Contoured
 A. L. B.

File No.

