

The
Ground 017756105K-6

REPORT
ON GEOPHYSICAL INVESTIGATIONS ON ROSE CREEK GROUP
BY MEANS OF A MAGNETOMETER RECONNAISSANCE SURVEY

by
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WHITEHORSE, Y.T.

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REPORT ON

GEOPHYSICAL INVESTIGATION ON THE ROSE CREEK GROUP

PELLY RIVER DISTRICT, YUKON TERRITORY

INTRODUCTION

A reconnaissance magnetometer survey was carried out over 32 claims in the group during the 1955 field season. The purpose of the survey being to delineate areas covered by overburden, or, to outline anomalous areas found during the survey as a guide to further investigation. In addition to the magnetometer survey, water testing using the dithizone titration method was carried out wherever practical.

The survey was carried out over the following mineral claims; at the east end of the group; the Mill 2-8 incl., tag no's 67092-67099, the Andy 5-8 incl., tag no's 67068-67075, the Baron I-4 incl., tag no's 67084-67087 and the Ron I, tag no. 67116. At the west end of the claims work was completed on the following; Hew I-8 incl., tag no's 67100-67107, Vin 4-8 incl., tag no's 67063-67067, and the Irish 6-8 incl., tag no's 67081-67083.

Work carried out on the remaining 19 claims consisted of extensive trenching and blasting sufficient to maintain the claims in good standing until 1957.

SUMMARY & CONCLUSIONS:

The variation in magnetic intensity as measured on the east group with the greatest variation only 350 gammas above the normal for the area, outlined no anomalies whatsoever. The irregular nature of the contours fails to give any indication of the subsurface structure with the exception of the extreme southern area on the claims. The 1600 gamma contour may reflect gentle folding in the underlying schists with a southerly plunge along the fold axes, lack of outcrops and geological information seriously hinders any attempt at interpretation of the significance of the contour pattern. This area can best be described as underlain by schist and minor limestone, the whole intruded by irregular masses of granite.

On the westerly group the contour pattern is much more idealistic, the southerly plunging folds are outlined fairly clearly, on the basis of the observed attitudes on the outcrops mapped during 1954 it is reasonable to assume that the interpretation of the subsurface structure is correct.

Two anomalous areas were outlined during the course of the investigation, the most significant of which is the one occurring on the Hew 5 & 6 M.C.'s. The sharpness of the anomaly coupled with only modest intensity, 2000 gammas, indicates other than a change of rock type. Water tests in the vicinity indicated as high as 14 parts per million soluble metallics, in addition, an outcrop on the Hew 3 immediately north-east of the anomaly contained very finely disseminated chalcopyrite and pyrrhotite in a silicated and silicified limestone. On the basis of the above information //

It is believed that the anomaly is due to the presence of mineral-
underlying rocks.

information it is believed that the anomaly is due to the presence of mineralization in the underlying rocks.

The anomaly shown on the Irish 8 M.G. has the same general characteristics as the Hew with the pattern reversed. It is quite possible that this high area reflects underlying mineralization. The actual difference between the high readings on the two anomalies is only in the range of 150 gammas.

RECOMMENDATIONS:

1. That the work be recorded for the full two year period.
2. That work on the easterly group of claims be shelved during 1956.
3. That additional work be carried out by means of diamond drilling on the Hew and Irish anomalies. A light drill is recommended for preliminary testing with a minimum footage of 1500' on each zone. The flat dips in the area indicate that vertical drill holes would be most suitable.
4. That arrangements be made to continue the geophysical survey over the remaining 19 claims. This work could be shelved until initial drilling on the Hew anomaly was completed.

HISTORY:

The claims were staked as part of the original Prospectors Airways holdings adjoining the Vangorda creek claims along the strike of the ore zone. The 51 claim group was acquired from Prospectors Airways by Belly River Mines Ltd in 1954.

Geological mapping and prospecting was carried out over the entire group during the 1954 field season. This work failed to uncover any mineralization of note, and only limited areas of outcrop were mapped.

LOCATION & ACCESS:

The claims extend in a north-west south-east direction along the Rose creek valley and adjoin Prospectors Airways claims to the southeast. The property is about 6 miles distant from the rough airstrip at the P.A. camp and 7 miles due north of the confluence of Vangorda creek and the Belly river.

A rough bulldozer road exists between Prospectors Airways camp and the property, the road extends entirely across the claims. In addition there is a poor packhorse trail from Dickson lake to the property a distance of about 4 miles.

Supply to the camps in the area is entirely by air, although heavy equipment was moved into the P.A. camp via the Canal road to Ross river and thence by boat to the road terminus at Blind creek. During the past season supplies were flown in to Blind creek, Jackknife lake or Dickson lake and transported by pack horse to the property.

TOPOGRAPHY:

The claims lie along the bottom of the broad U shaped valley of Rose creek at an elevation of approximately 4000'. The terrain slopes moderately upward to the north on a very even grade to the base of the mountains. Rose creek meanders through the bottom of the valley in a north-westerly direction to empty into the Pelly river. The southerly portion of the claims is covered with swampy ground and low buckbrush, here and there on the claims small stands of spruce exist. Dickson lake to the east is entirely above timberline.

GEOLOGY:

The claims are underlain by schist, limestone, quartzite and granite, from the abundance of granite boulders on the eastern portion of the claims it is reasonable to assume that the intrusive is much more widespread in this area than is indicated by the outcrops. In the vicinity of Canyon creek numerous dykes of composition ranging from andesite to felsite were mapped during 1954. Lack of outcrops prohibits any great speculation as to the structure of the underlying sedimentary rocks, however, changes in the observed attitudes on the outcrops would indicate gentle folding.

Survey Method:

A baseline was established across the claims surveyed, stations were established at 500' intervals and picket lines cut out at right angles to the baseline. Magnetometer stations were surveyed along the picket lines at 200' intervals with provision for intermediate stations if necessary. Readings were taken initially with a Radore magnetometer, extreme drift of this instrument and eventual breakdown rendered this portion of the work useless. An Askania model magnetometer no. 1556 was procured and the entire operation rerun, all stations were reoccupied to assure proper correlation of the results.

The readings thus obtained were averaged, corrected for drift, calculated on the scale constant for the instrument and plotted on the map on a scale of 400' to the inch. Contours were constructed through points of equal magnetic intensity. In one instance the location of the actual stations is plotted on the map but on the westerly group it was decided to abandon this procedure to avoid cluttering up the map.

GENERAL:

A crew of 5 men were employed for a total of 10 weeks carrying out the survey under the direct supervision of Mr. A. Allan, geologist. Chief of the field party was Mr. C.D. Guss. Two pack horses were retained to move the camps and to transport supplies from the nearest airfield or suitable lake. Very poor weather conditions through most of the field season added to the difficulties of the field crew. One camp was wrecked by bears during the course of the work.

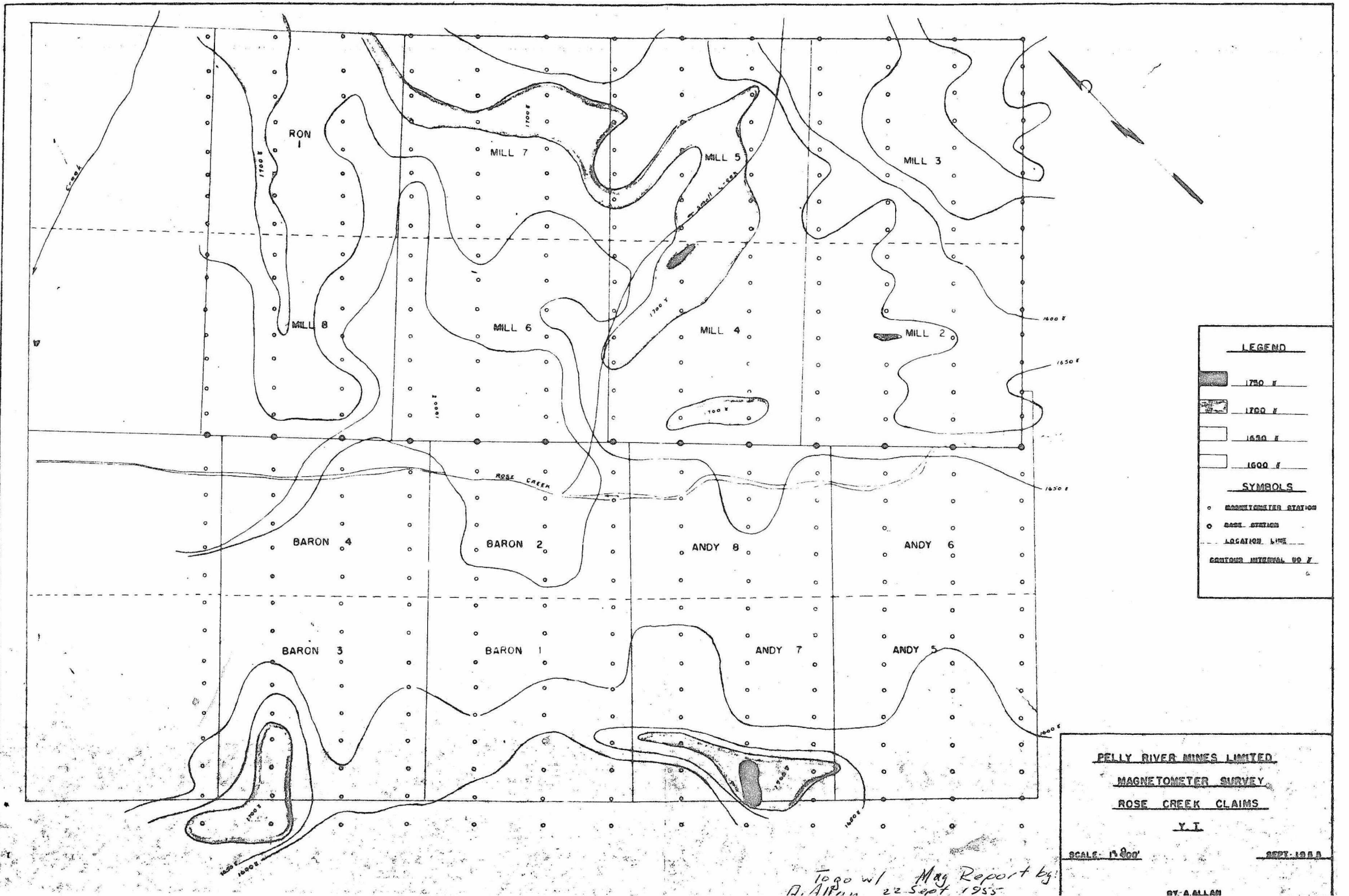
ACKNOWLEDGEMENT:

The writer wishes to acknowledge the friendly assistance of Prospectors Airways staff members during the season, they willingly transmitted radio messages and were of considerable assistance in calibration of the magnetometer.

The field crew is to be commended for the excellent manner in which their work was carried out, at times their work was carried out under rather difficult conditions.

Respectfully submitted,

A. Allan (Geologist)
EXPLORATION SERVICES LTD.



LEGEND

- 1750 ft
- 1700 ft
- 1650 ft
- 1600 ft

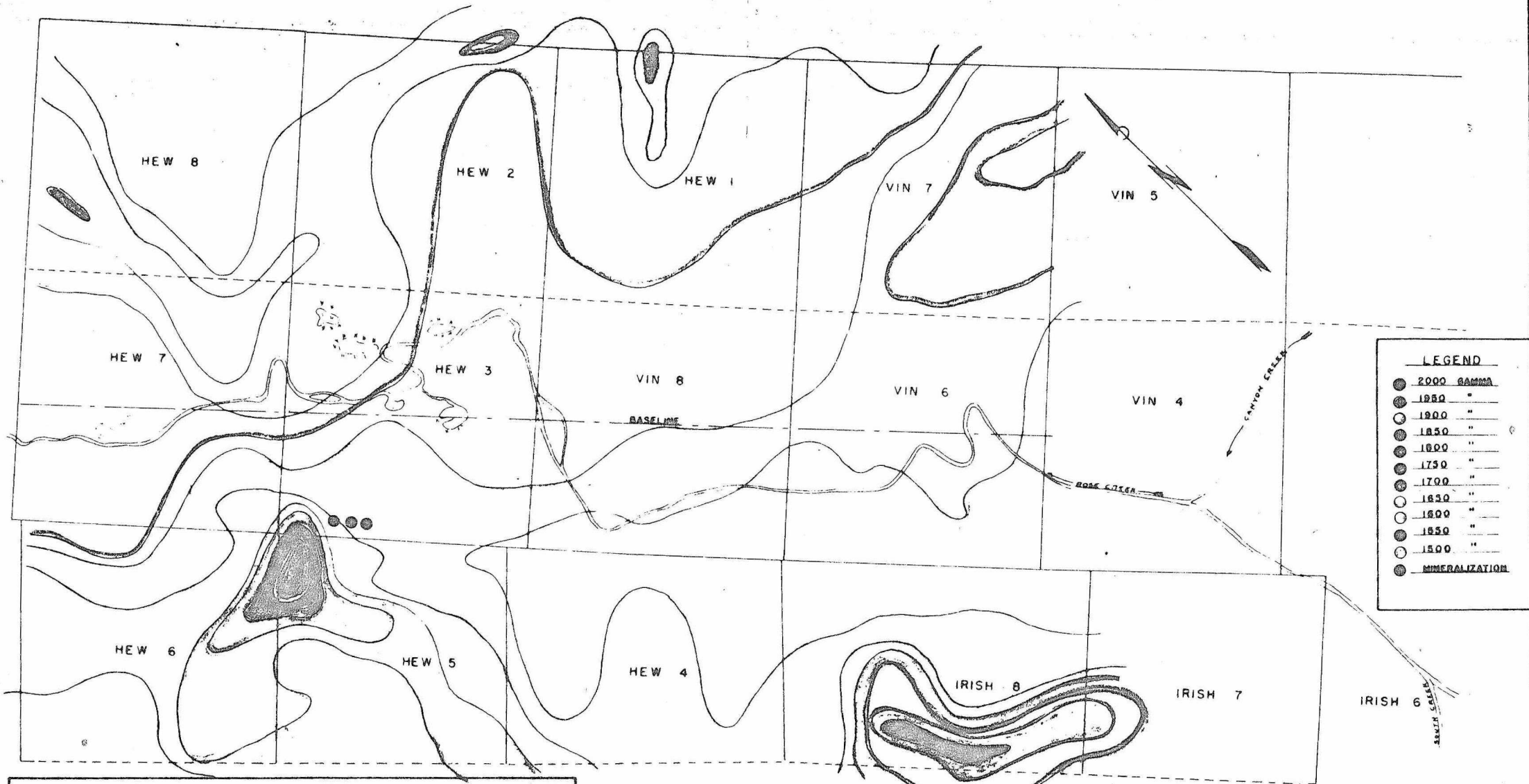
SYMBOLS

- MAGNETOMETER STATION
- BASE STATION
- LOCATION LINE
- CONTOUR INTERVAL 50 ft

PELLY RIVER MINES LIMITED
MAGNETOMETER SURVEY
ROSE CREEK CLAIMS
Y.T.

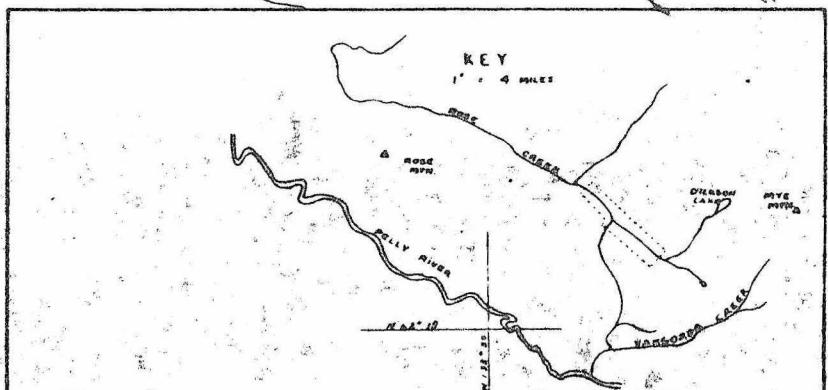
SCALE: 1" = 500'
 SEPT. 1955
 BY: A. ALLAN

To go w/ May Report by
 D. Allan 22 Sept. 1955



LEGEND	
●	2000 GAMMA
○	1950 "
○	1900 "
○	1850 "
○	1800 "
○	1750 "
○	1700 "
○	1650 "
○	1600 "
○	1550 "
○	1500 "
●	MINERALIZATION

CONTOUR INTERVAL
50 GAMMAS



PELLY RIVER MINES LTD.
 * MAGNETOMETER SURVEY
 ROSE CREEK CLAIMS
 Y.T.
 SCALE 1" = 800'
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 BY A. ALLAN

To Accompany Ground Mag Report by
 A. Allan 22 Sept. 1955