

72 # 1. 1

REPORT ON  
MAGNETOMETER SURVEY

TIK-1 CLAIM

92-I-14 e&f

KAMLOOPS MINING DIVISION

lat. 50°57'12" long. 121°23'37"

OWNER: ST. JOSEPH EXPLORATIONS LIMITED

OPERATOR: ST. JOSEPH EXPLORATIONS LIMITED

by

D. Hendry

D. C. MILLER

February 3, 1978

for

ST. JOSEPH EXPLORATIONS LIMITED  
970 Laval Crescent  
Kamloops, B.C.  
V2C 5P5

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
6662
NO. _____

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## SUMMARY

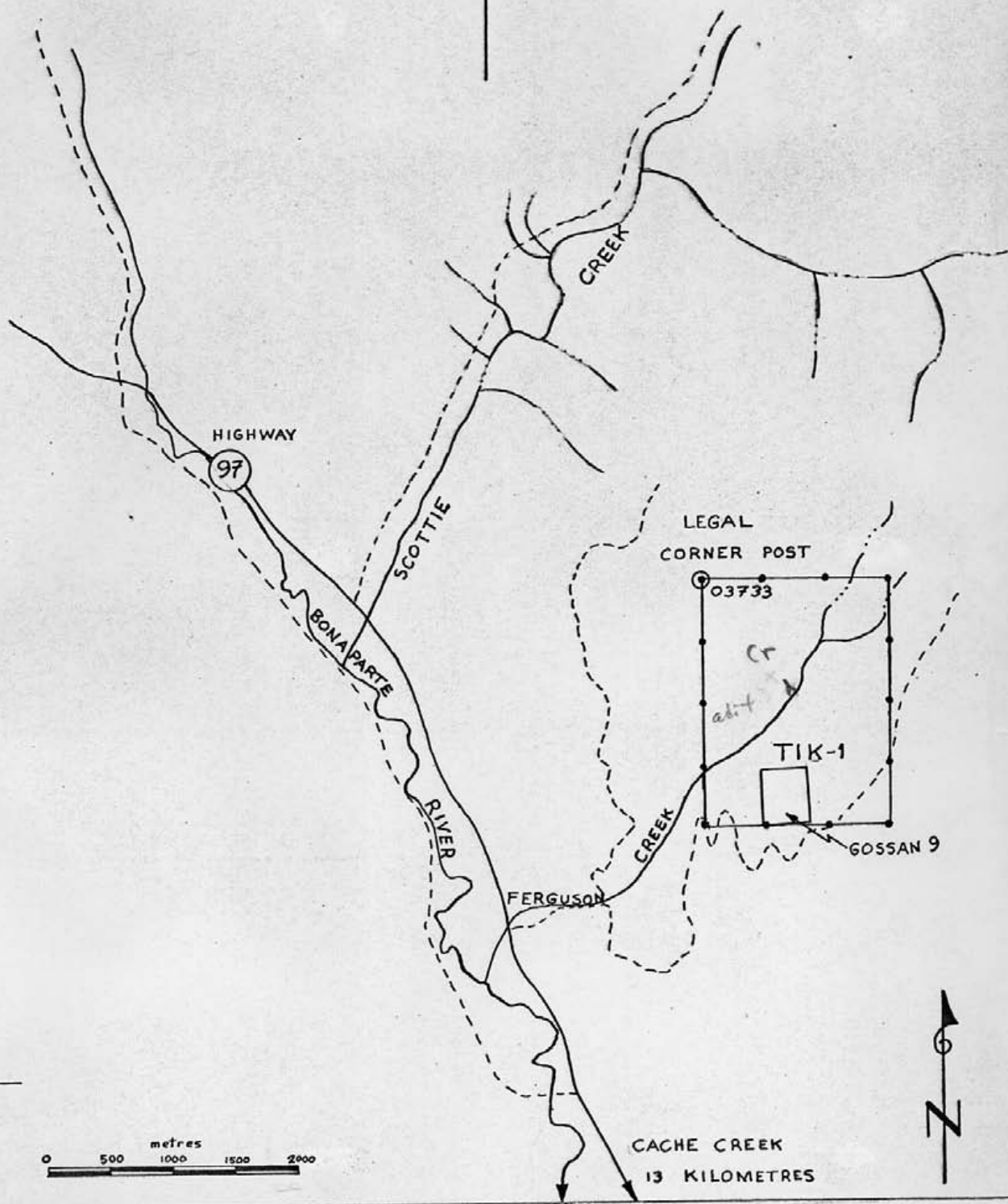
A magnetometer survey was conducted by St. Joseph Explorations Limited over the Tik-1 claim, 92I-14e&f, Kamloops Mining Division, during November, 1977. The purpose was to attempt to trace chromite-magnetite mineralization under Tertiary volcanic cover rocks.

A McPhar, M700, vertical field flux gate magnetometer was used. Readings directly displayed in gammas were taken at 25 metre intervals on lines 200 metres apart. Drift and diurnal variations were corrected by conventional methods. Values were plotted at 1:5000 and contoured at 200 gamma intervals.

## CONCLUSION

The results of this survey were inconclusive. The magnetic anomaly associated with the chromite-magnetite horizon was not strong enough to be distinguished from the remnant magnetism of the Tertiary volcanics.

121° 25' 00"



50° 55' 00"



CACHE CREEK  
13 KILOMETRES

APPROX. LAT. & LONG. OF  
LOWER RT. COR. OF DWG.  
50° 55' 00" LATITUDE  
121° 22' 00" LONGITUDE

PROJECT NO. 263  
REPORT NO. 1

SHEET NO. \_\_\_\_\_  
OF \_\_\_\_\_  
N.T.S. 92I 14 e&f

TIK-1 CLAIM  
LOCATION MAP  
92-I-14 e&f

**ST. JOSEPH EXPLORATIONS LIMITED**  
TORONTO, CANADA

Scale 1:50,000

Figure 1

#### PROPERTY

The Tik-1 claim, metal tag number 03733, was staked on April 18 and 19, 1977 by D. Miller and recorded May 13, 1977, record number 803, Kamloops Mining Division, 92-I-14 e&f. The claim consists of 12 contiguous units. Approximately one unit was overstaked on the Gossan 9 claim and registration was refused for that portion affected. (Figure 1) St. Joseph Explorations Ltd. is the owner and operator of the claim.

#### LOCATION AND ACCESS

The property is located at latitude  $50^{\circ}57'12''$  and longitude  $121^{\circ}23'37''$ . Access to the property at its southwest corner is by an old logging road that leaves Highway 97, 14.5 kilometres north of Cache Creek. It travels west up the south side of Ferguson Creek approximately 3 kilometres to the claim. (Figure 1)

#### PHYSIOGRAPHY

The claim straddles Ferguson Creek at a point 2700 metres upstream (east) of the confluence of Ferguson Creek and Bonaparte River. Relief in Ferguson Creek is approximately 250 metres. Valley walls are composed of steeply eroded glacial till and Tertiary sediments. Outcrop is very rare on the property occurring only as cliffs in the canyon walls.

## PREVIOUS WORK (Duffell &amp; McTaggart, 1952)

Chromite was first found in 1901 on Scottie Creek 3 kilometers north of the TiklClaim. In 1918 Stewart and Calvert of Oroville, Washington mined 454 tonnes of ore, but none was shipped. In 1927 the Consolidated Mining and Smelting Company of Canada Limited controlled ground on Scottie and Ferguson Creeks and drove test adits. Work was suspended in 1931 due to unpromising results. Eight claims were Crown granted on Scottie Creek. Since 1931 both areas have been repeatedly staked by various groups but very little work has been performed.

H.M.A. Rice of the Geological Survey of Canada examined the Ferguson Creek showing in 1942. He concluded that there were 18,140 tonnes of 15 percent  $\text{Cr}_2\text{O}_3$  reasonably assured. Concentration test on the Ferguson West showing by the Bureau of Mines, Ottawa showed that the ore concentrated readily on a Wilfley table to 50 percent  $\text{Cr}_2\text{O}_3$  and 15 percent Fe at grinds of from 28 to 35 mesh yielding chrome-iron ratios of 2.25 to 1.

## PRESENT WORK

All work was performed by St. Joseph Explorations Limited personnel, D. Miller and D. Hendry. A 2000 metre, cut and picketed baseline, and blazed and flagged crosslines at 200 metre intervals were laid out by compass and chain methods.

The magnetometer survey covered 14.5 line kilometers.

A McPhar, M700, vertical field, flux gate magnetometer (serial number 7169) was rented from Bruce Briede of Vancouver for this survey. The instrument is self leveling and a latitude cancelling dial sets the total magnetic field effect to zero at a prime base station. Direct readings of the variation in the vertical component of the magnetic field in gammas are displayed.

Base stations were established along the baseline by standard looping methods. Readings were taken at 25 metre intervals along lines 200 metres apart. The instrument was zeroed at the prime base station each day to delete diurnal variations from the readings. A linear drift gradient was calculated from closed traverse loops and drift corrections applied to each reading.

Gamma values representing the variation in the vertical component of the magnetic field, with respect to the prime base station, were plotted at 1:5000 scale and contoured at 200 gamma intervals. (Figure 2)

The results of this survey were inconclusive. The magnetic anomaly associated with the chromite-magnetite horizon was not strong enough to be distinguished from the remnant magnetism of the Tertiary volcanics.



References

Duffell, S. and McTaggart, K.C.

1952: Ashcroft Map Area, British Columbia;  
Geological Survey of Canada, Memoir 262,  
p. 98-99.

## STATEMENT OF COSTS

Labour: D.C. Miller, P. Eng. (November 8-10, 14-18, 22) 9 days @ \$120.00/day	1,080.00
D. Hendry, Geologist (November 8-10, 14-18, 21-23, 28-30; January 30,31; February 2) 17 days @ \$85.00/day	1,445.00
Food and Accomodation: Cache Creek, Sandman Inn (November 8,9,14-17) 6 days @ \$22.05/day	132.30
Food for 16 man days (Cache Creek, Sandman Inn	153.50
Transportation: Kamloops to Cache Creek (November 8,14,22) 3 x 90 km. @ .15/km. return to Kamloops (November 10,18,22) 3 x 90 km. @ .15/km.	40.50 40.50
Cache Creek to Tik claim and return (November 9,10,15,16,17,18,22) 7 x 42 km. @ .15/km.	44.10
Tire Chains	74.66
Rental: McPhar M700 Magnetometer (Flat rate - two weeks)	60.00
Batteries for Magnetometer:	8.11
Report Preparation:	60.00
	<hr/> 3,138.67

*David Hendry*

David Hendry  
D.C. Miller

*D.C. Miller*  
February 3, 1978

STATEMENT OF QUALIFICATIONS

I, David Albert Russell Hendry of 1225 Highridge Drive, Kamloops, B. C., graduated from the University of British Columbia in 1974 with a degree in Geological Engineering. I have forty-one months experience in mineral exploration including twenty-one months with my present employer, St. Joseph Explorations Limited of 90 Eglinton Avenue, Toronto, Ontario.

I was physically involved in all the work on this property and in the writing of this report.

*David Hendry*  
David Hendry

ST. JOSEPH EXPLORATIONS LIMITED

STATEMENT OF QUALIFICATIONS

I, David C. Miller, of 769 Fraser Street, Kamloops, B. C. do hereby certify that:

- (1) I am a graduate of the University of British Columbia and obtained a B.A.Sc. degree in Geological Engineering in 1959.
- (2) I have had 19 years experience in mining geology and mineral exploration.
- (3) I am a registered Professional Engineer in the province of British Columbia.
- (4) I have examined the property discussed in this report.
- (5) I have no interest, directly or indirectly, in the property.



D. C. Miller, P. Eng.

February 3, 1978



LEGEND

- LOGGING ROAD
- STREAM
- BOUNDARY POST
- BASELINE STATION
- GRID POINT
- OUTCROP
- PRIME BASE STATION
- +324 GAMMAS

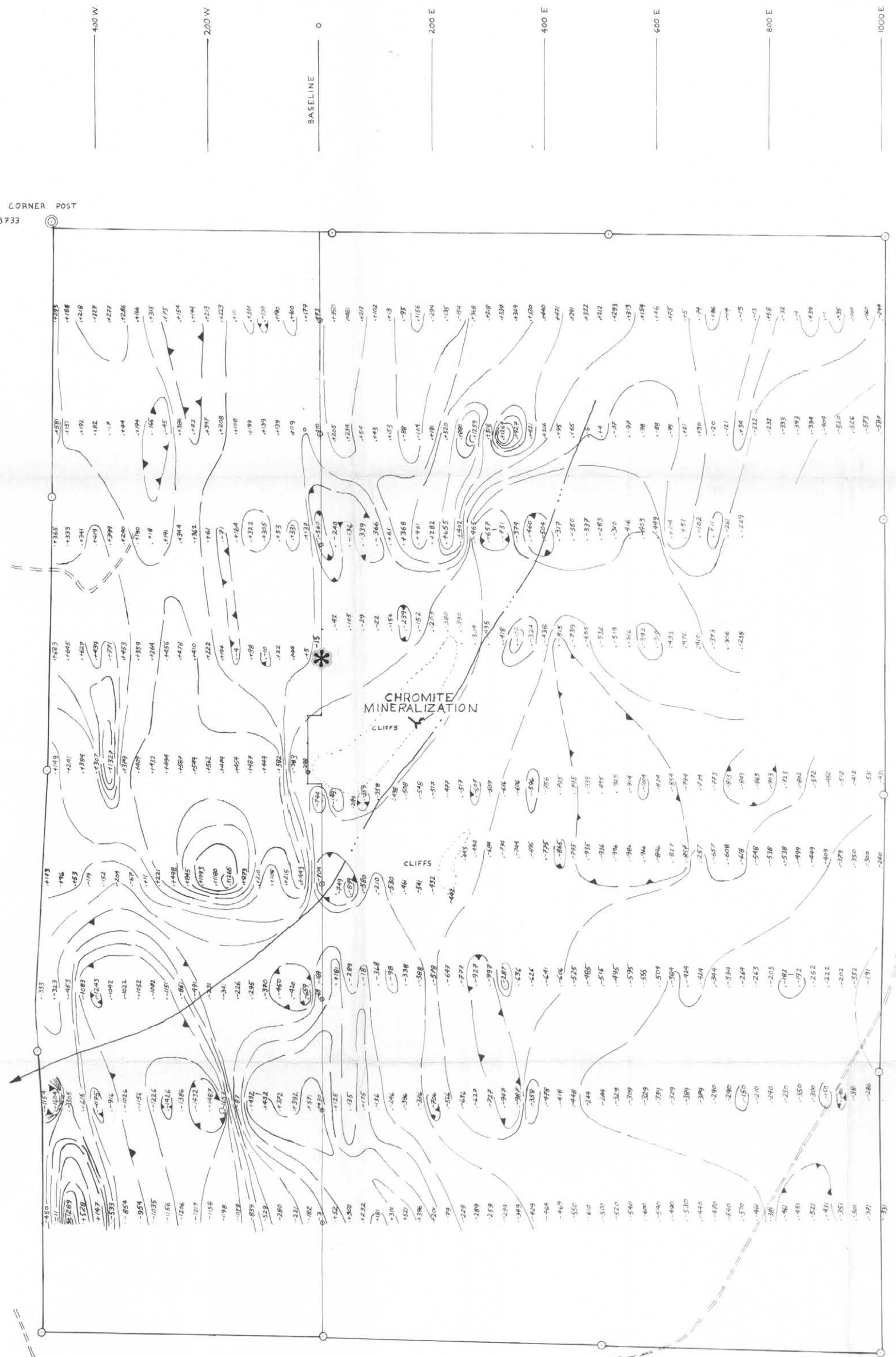
INSTRUMENT: McPhar M700, vertical field, flux gate Magnetometer

READINGS: Variation in vertical component of magnetic field, with respect to prime base station, in gammas

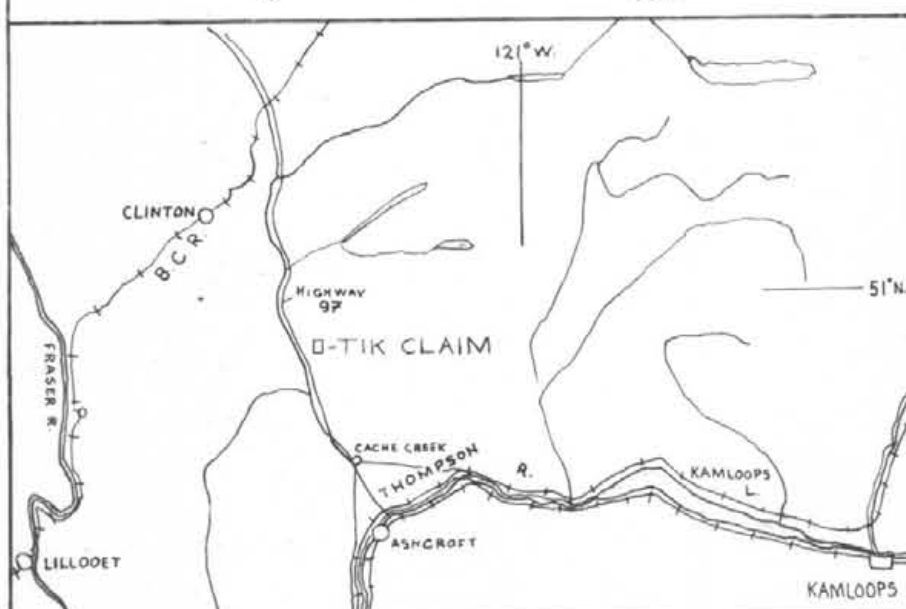
CONTOUR INTERVAL: 200 gammas

OPERATORS: D. Hendry & D. C. Miller

LEGAL CORNER POST  
03733



LOCATION MAP  
1:1,000,000



MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
**6662**  
NO.

0 100 200 300 metres

ST. JOSEPH EXPLORATIONS LIMITED  
TORONTO, CANADA

TIK-1 CLAIM  
MAGNETOMETER SURVEY

SCALE 1:5000	Figure 2
APPROX LAT & LONG OF LOWER RT COR OF DWG 121° 22' 00" WEST 50° 56' 20" NORTH	PROJECT NO. 263 REPORT NO. 7
	SHEET NO. 1 OF 1 N.T. 32E 44W



To accompany a Report by D. Hendry & D. C. Miller dated February 3, 1978