

G. HARRIS
KITCHENER (SEYMOUR) CREEK
1983

Placer
115 I 6
62 22'N, 137 08'W
Whitehorse M.D.

Reference:

Claims: Placer Lease 6628

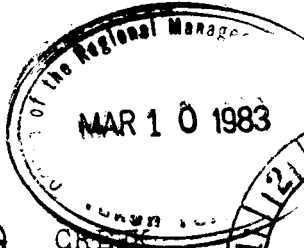
Source: Summary by T. Bremner of assessment report
120014 by G.C. Lee.

Description:

Kitchener (Seymour) Creek flows north into Big Creek 35 miles northwest of Carmacks, and drains the north slope of Mt Freegold. Placer lease 6628 is located at mile 48 on the Freegold Road and extends upstream 2 miles from the Kitchener-Big Creek junction. The survey area covered low-level forested benches 200-300 metres wide, immediately upstream of a canyon. Overburden had previously been stripped from the north part of the lease. Bedrock consists of hornblende-biotite-chlorite gneiss of possible Permian age. Gold-bearing quartz veins outcrop upstream on the north slope of Mt Freegold.

Current Work and Results:

Following a successful 1982 survey upstream which showed a good correlation between magnetic anomalies and commercially significant buried gold-magnetite placers, a detailed magnetometer survey was carried out on the Harris property in 1983. The baseline was tied in the 1982 baseline and cross-lines were run at 50-metre intervals. Readings were made on the cross-lines every 5 metres. The anomalies detected by this survey were subdued compared to those measured upstream in 1982. Despite the lesser amplitude, however, the anomalies showed a similar character to those which were trenched in 1982, and a pattern of elongate highs was shown to run roughly parallel to the creek beneath the bench gravels, defining a number of possible targets for further investigation.

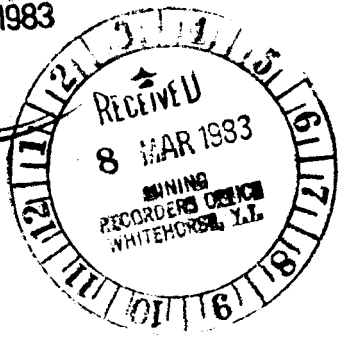


120014

SEYMOUR (KITCHENER) CREEK

MAGNETOMETER SURVEY

Lines 4850N - 5400N



Whitehorse Mining District, Yukon Territory
Placer Lease No. 6628
Map N.T.S. 115-I-6

by

Gary C. Lee P.Eng.

Field work conducted in Feb. 1983

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INTRODUCTION

General

Between Feb. 12 and Feb 20, 1983 myself and Ron Granger conducted a Magnetometer Survey on the lower part of Seymour(Kitchener) Creek. The purpose of the survey was to locate magnetic anomalies which might be related to above background concentrations of magnetically susceptible minerals synonymous with placer gold deposition possibly in old buried channels.

Also, in Dec., 1982 I conducted a magnetometer survey on Seymour Creek in an area where known commercial deposits of placer gold had been discovered in a trenching program a few months previously. Being upstream from the area covered by this report, it is important in regard to supporting the viability of magnetometer surveys as a significant tool in placer prospecting in this area.

Placer Lease

Placer Lease #6628(2 Mile) granted to Glen Harris on Nov. 4, 1982, covers the lower 2 miles of Seymour(Kitchener) Creek. Myself, Ron Granger and Larry Lebedoff have a verbal exploration agreement with Mr. Harris. We in turn, have a verbal exploration agreement regarding a portion of the Two Mile Lease in which ~~Main Street Mining Ltd. (a Yukon Co.)~~ has agreed to assume part of the geophysical cost.

W. J. Alvan Jacobsen & Graham Turner

Location and Access

The location of the area surveyed is shown on the enclosed Location Map(Pg. 6). It is located Northwest of Carmacks Yukon on approximately Mile 48 of the Freegold Road of which the last 3 miles is on the old winter road terminating at Yukon Revenue's camp and air strip on Big Creek at approx. Mile 52. Access to the property via this road is good with the possible exception of the last mile(approx. Mile 47-48) in which a few sections may have a thawing black muck or volcanic ash base which may require some work for summer passage. Of course, there will be periods during spring break-up when the road will be impassable.

ECONOMIC GEOLOGY AND TOPOGRAPHY

The geology map(340A) contained in G.S.C. Memoir 189 and compiled by H.S. Bostock(1956) show the rock type in the surveyed area to be granite-gneiss. In the map compiled by Tempelman-Kluit(1974), this unit has been called Pelly Gneiss and described as strongly foliated muscovite chlorite biotite granodiorite gneiss; minor augen gneiss; aplite and pegmatite - dykes common. From a magnetic point of view the pegmatite dykes should be watched for. All rock samples collected during this

survey were non magnetic with one exception. The narrow (<1cm.) foliation band in the Granite-Gneiss was found to be magnetic (Rd. 4875N). However, with the snow cover, only two areas were noted out-cropping, that to the northeast in the cannon area and in the road cut on the extreme southwest part of the grid. The most significant comments are made in G.S.C. Memoir 214 "Geology and Mineral Deposits of Freegold Mountain, Carmacks District, Yukon by Johnston (1963)". It is stated that magnetite deposits associated with gold occurrences are at the northwest end (drains into the Seymour basin) and on the east side of Freegold Mountain. It is also stated that "A number of Quartz veins containing sulphides and gold have been discovered on claims situated around the heads of Liberty, Cabin, and Guder Creeks." In any event, the geology seems to support the theory that any economic occurrences of placer gold that may occur should be accompanied by above background concentrations of placer magnetite.

The general direction of the Seymour (Kitchener) Creek drainage is to the north and northeast. The area of the survey contains relatively low level, flat lying spruce, buckbrush, alder and poplar benches ranging from 200-300 meters wide. There is considerable evidence of relatively recent channel diversions within the low level benches. The valley is contained by steeply sloped valley walls. The creek drains into a cannon with vertical rock walls immediately to the northeast of the area surveyed. Of further importance, a portion of the north part of the area surveyed has been stripped (see map in pocket). Who was responsible for this stripping program and when are both unknown.

CORRELATION OF MAG. SURVEY WITH TRENCHING

Test pitting and sampling was conducted on Seymour Creek approximately one kilometer upstream from the mouth of Bow Creek on placer claim P23029. A backhoe was used to excavate to bedrock. The location of the pits is shown on the general Location Plan (Page 6) and the magnetic profiles (Page 7). Commercial quantities of gold closely or directly associated with coarse grained magnetite in significant quantities was encountered in all but one pit. In fact, coarse grained placer magnetite "balls" up to 5 cm. in diameter were actually visible immediately above bedrock in one or two pits. The total depth to bedrock was less than or about two meters. Bedrock consisted of a fractured pink feldspar porphyry which seems to have a low magnetic susceptibility. The best concentrations of placer gold and magnetite occurred within one half a meter from bedrock.

Two mag. lines (L930 & L980) were established crossing at right angles to the valley so as to intersect the tested area in the best possible manner while at the same time avoiding disturbed ground (spill piles etc.) as much as possible. The magnetic profiles are shown on page 7 along with the approx. test pit location. The profiles show an erratic up and down anomalous pattern ranging between 250 and 350 gammas in the area where commercial quantities of placer gold and magnetite association were encountered. Equally as important the pit

located upstream of L980 between 0+403 and 0+503 encountered no significant gold or placer magnetite which correlates with a rather quiet even mag. response in the 250 gamma range. It is interesting to note that there are anomalies immediately to the south of the baseline and at the north end, half way between the toe of the hill and the Freegold road, which have not as yet been tested. Anyway, it is reasonable to assume the magnetometer is picking up the gold associated placer magnetite, hence making it a useful exploration tool in shallow ground with a similiar geological and depositional environment in the Seymour valley basin.

FIELD PROCEDURE

A baseline coincident with the road on the northeast side of the survey area was established. Baseline chainages were tied in to a previous mag. survey conducted upstream, with 575N (meters) being the mouth of Bow Creek. The lines were run in at 50 meter spacing with the stations being marked at 10 meter spacing. Both lines and baseline were marked with felt pens on flagging and written on blazed spruce trees at reasonable intervals, so as to give some permanency to the grid. The Location Plan(Fg. 6) show the general location of the grid while the magnetic contour map(in pocket) shows the grid in detail.

A Sharpe's M.F.-1 fluxgate magnetometer was used and readings were taken to the nearest 10 gammas, occassionally at 5 gammas. The instrument reads the vertical component of the earth's magnetic field.

Readings were taken at 5 meter intervals, with a few sections at 2½ meter intervals. Visual estimates were made of topographical changes and surface features along the lines with these noted on the accompanying profile sheets(Pages 8-10). The location of stripping and any outcrops were noted with their locations shown on the magnetite contour map(pocket).

Magnetometer readings were taken along the baseline in short loops and corrected for diurnal. Similarly, each set of two lines was surveyed in a loop checking into the baseline readings for each loop and subsequently corrected. It is important to note that the baseline readings were tied in to the main base station located near the mouth of Bow Creek.

INTERPRETATION AND CONCLUSIONS

For a discussion of the mag. survey refer to the magnetic profiles included as pages 8 to 10 and the magnetic contour map contained in the pocket. Comparing these magnetics with the mag. profiles over the area successfully trenched(approx. 4 miles upstream), one can see that the magnetic highs and lows are much less extreme in most cases. Abrupt changes in the thirty to fifty gamma range are the rule as apposed to seventy to one hundred gamma anomalies over the trenched area. This is not

attributed to increased depth to the anomaly source since the slope of the anomaly profile are often the same as that over the upstream trenching. Hence, it is assumed that the quantity of placer magnetite in the material overlying the bedrock is less and probably finer grained. However, in order for this survey to reach a successful conclusion, it must be assumed that any old gold bearing channels that may exist would have correspondingly higher than background concentrations of placer magnetite. As already discussed in the geology section all bedrock samples were found to have a low magnetic susceptibility with the exception of one sample taken along the baseline between L4850N and L4900N. Hence, for the most part, the effect of bedrock magnetics should be minimized especially, since most of the anomalous areas have that "choppy up and down" pattern which has been found to be placer in origin upstream. It should be noted that for practical testing or trenching, any anomalies which occur in the present Seymour(Kitchener) Creek channel will not be recommended as targets.

On examination of Lines 5400 to 5250N, it can be seen there is considerable amount of erratic up and down magnetics(see profiles). The best of these are developed into an anomaly pattern(see pocket-Contour map-^{anomaly}marked "A" and "B") occurring on both sides of the creek in or near the areas already stripped. These should be tested(trenched) in at least two locations on each side of the creek(see recommendations for exact locations). Of lower priority, L5300N, 0+20W is weakly anomalous(marked"H") and should be examined. Also, the anomaly marked "I" between L5250N and L5350N to the northeast of the grid should be tested.

The large anomalous area between Lines 4900N and 5100N marked "C"(see map in pocket) on the right limit(looking downstream) should be tested in at least three places. The anomalous area marked "D" between Lines 4900N and 5000N on the southeast side of the grid occurs in very gently sloping fan or slide material near the toe of the eastern valley wall. Its anomaly source is unknown and should be test pitted or trenched in one location.

An anomalous situation occurs on or closely paralleling the right limit of the creek throughout the survey area(marked "E") and is most intense on L4900N and L4950N between the creek and a narrow "ditch like" side drainage. It should be tested in at least one location.

Similarly, the anomaly on the immediate left limit marked "F" should be tested in one location.

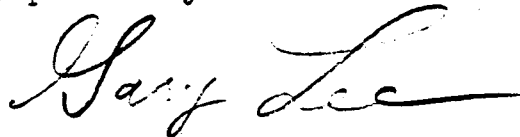
The flat spruce bench west of the road on Lines 5050N and 5100N and 2-3 meters in elevation above the creek is anomalous and should be tested.

RECOMMENDATIONS

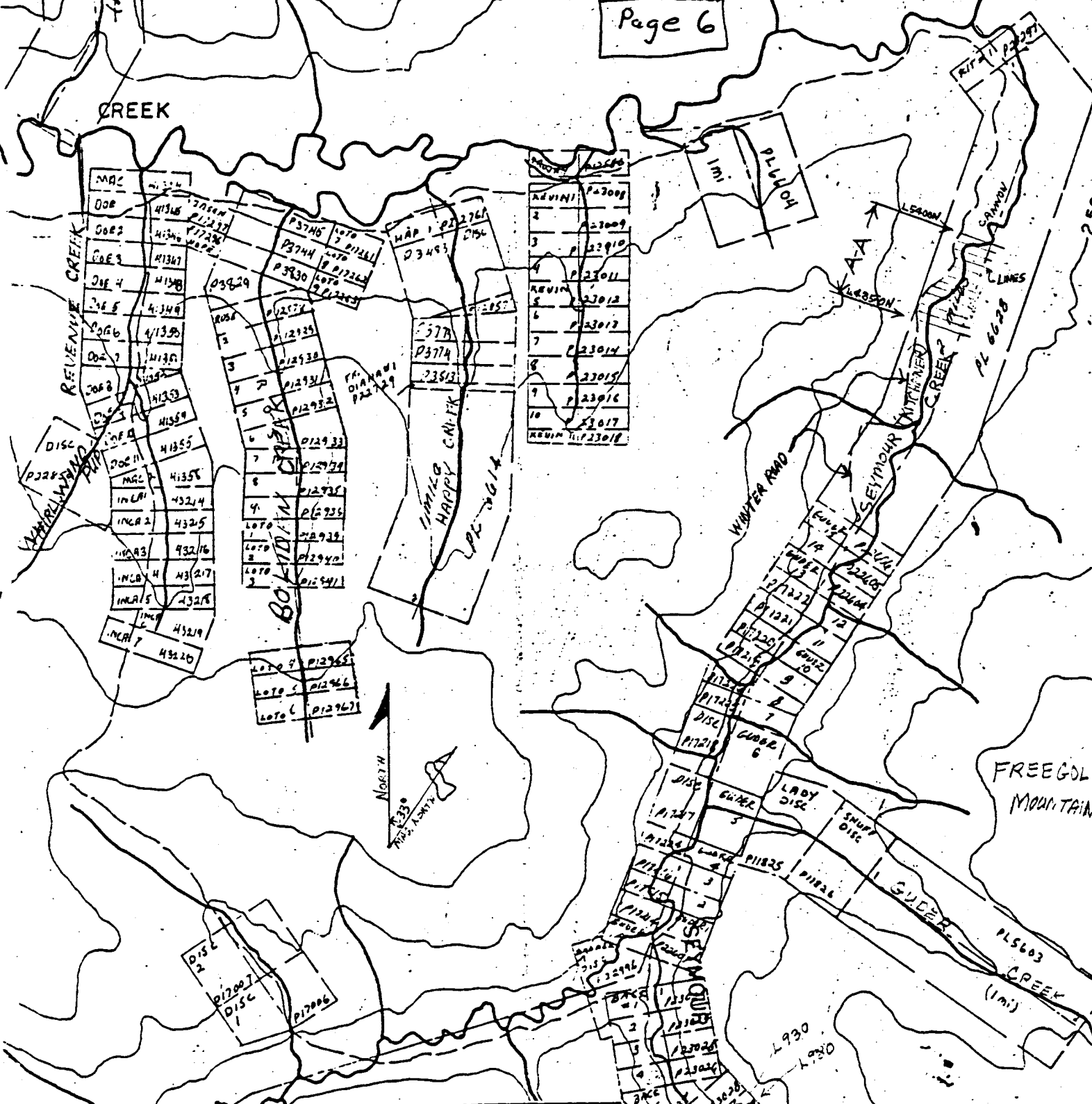
Test pits or trenches should be excavated to bedrock and the gravels checked for placer gold at some or all of the following locations:

<u>Area</u>	<u>Line</u>	<u>Station</u>
A	L5300N	1+47E
A	L5250N	1+85E
B	L5300N	0+30E
B	L5400N	0+67E
C	L5000N	1+66E
C	L4950N	1+22E
C	L5100N	1+70E
C	L4900N	2+15E
D	L4950N	2+27E
E	L4950N	0+40E
E	L5050N	1+15E
F	L5000N	0+32E
F	or L5100N	0+62E
G	L5100N	0+15W
G	L5100N	0+45W
H	L5300N	0+20W
I	L5350N	2+30E

Respectfully submitted:



Gary C. Lee, P.Eng.



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SEYMOUR (KITCHENER) CREEK MAGNETOMETER SURVEY LOCATION PLAN

PLACER LEASE #6628 MAP 115-I-6

SECTION A-A - LOCATION OF MAG. SURVEY
SECTION B-B - CORRELATION OF MAG.
SURVEY WITH TRENCHING

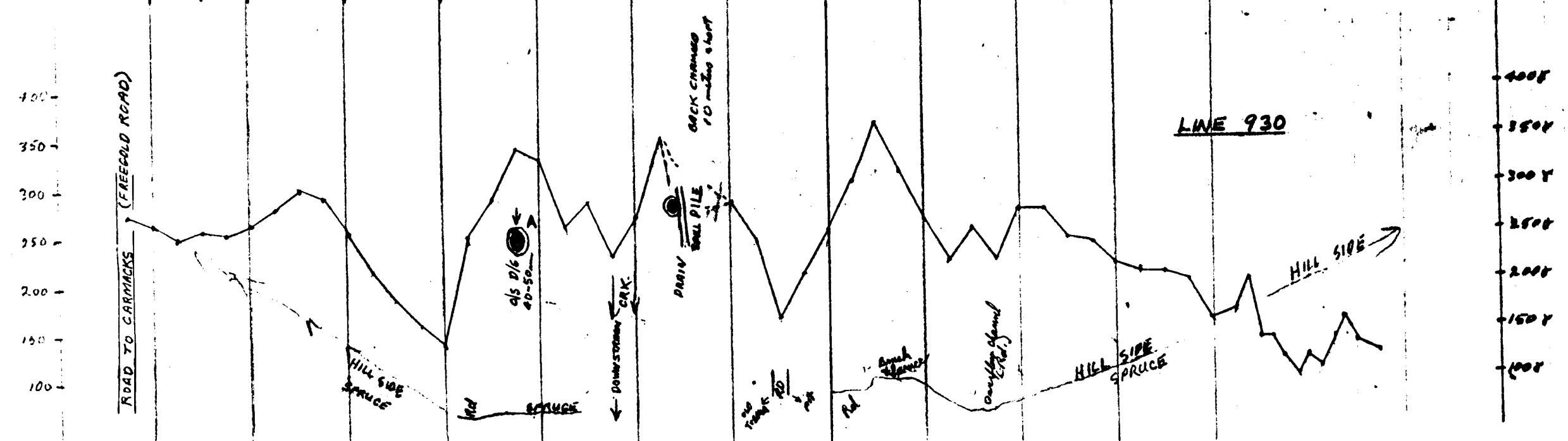
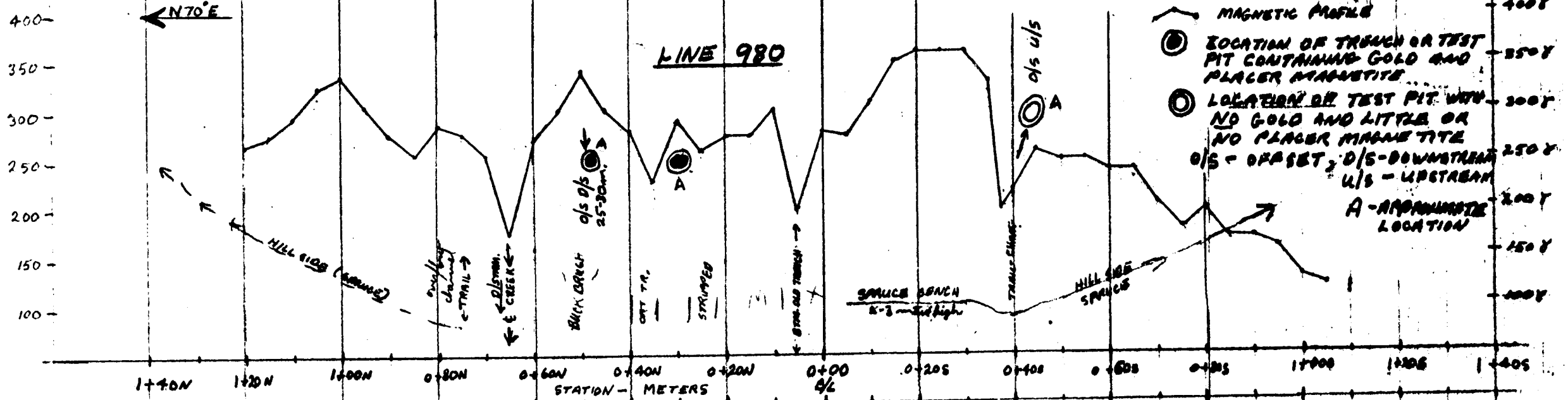
SCALE 1/2 MILE = 1 INCH (approx.)

62° 22' N
137° 08' W

CORRELATION OF MAG. SURVEY WITH TRENCHING
SEYMOUR CREEK - MAP 11516 P. CLAIM P. 23029
MAGNETIC PROFILES
SCALE: HORIZ - 1cm. = 10 meters / VERTICAL 1cm. = 50'

LEGEND

- MAGNETIC PROFILE
- LOCATION OF TRENCH OR TEST PIT CONTAINING GOLD AND PLACER MAGNETITE
- LOCATION OF TEST PIT WITH NO GOLD AND LITTLE OR NO PLACER MAGNETITE
- O/S - OFFSET; D/S - DOWNSTREAM; U/S - UPSTREAM
- A - APPROXIMATE LOCATION



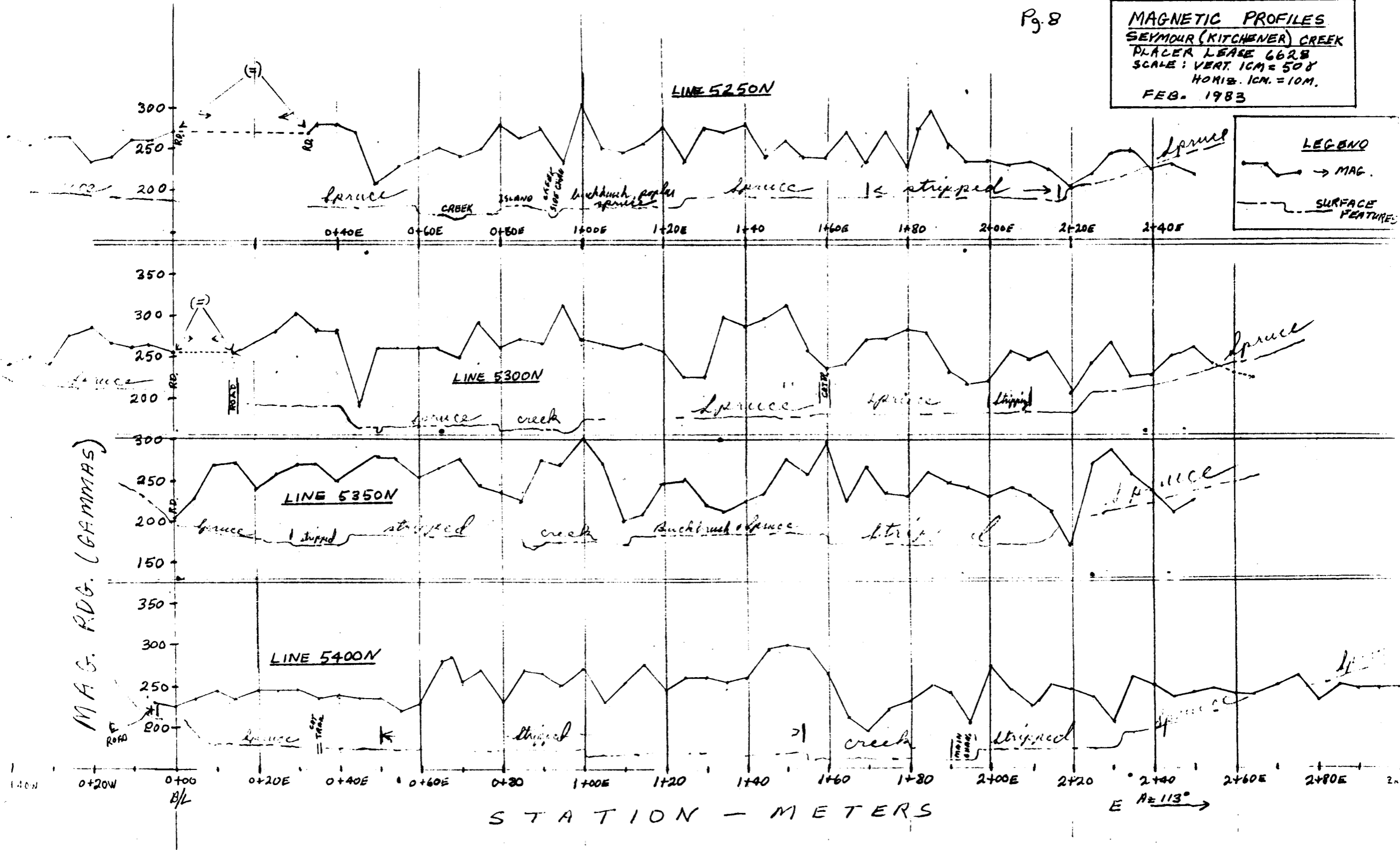
MAG ROGS - GAMMAS

MAGNETIC PROFILES
SEYMOUR (KITCHENER) CREEK
 PLACER LEASE 6628
 SCALE: VERT. 1CM = 50γ
 HORIZ. 1CM = 10M.
 FEB. 1983

LEGEND

→ MAG.

— SURFACE FEATURES



MAG. RDG. (GAMMAS)

STATION - METERS

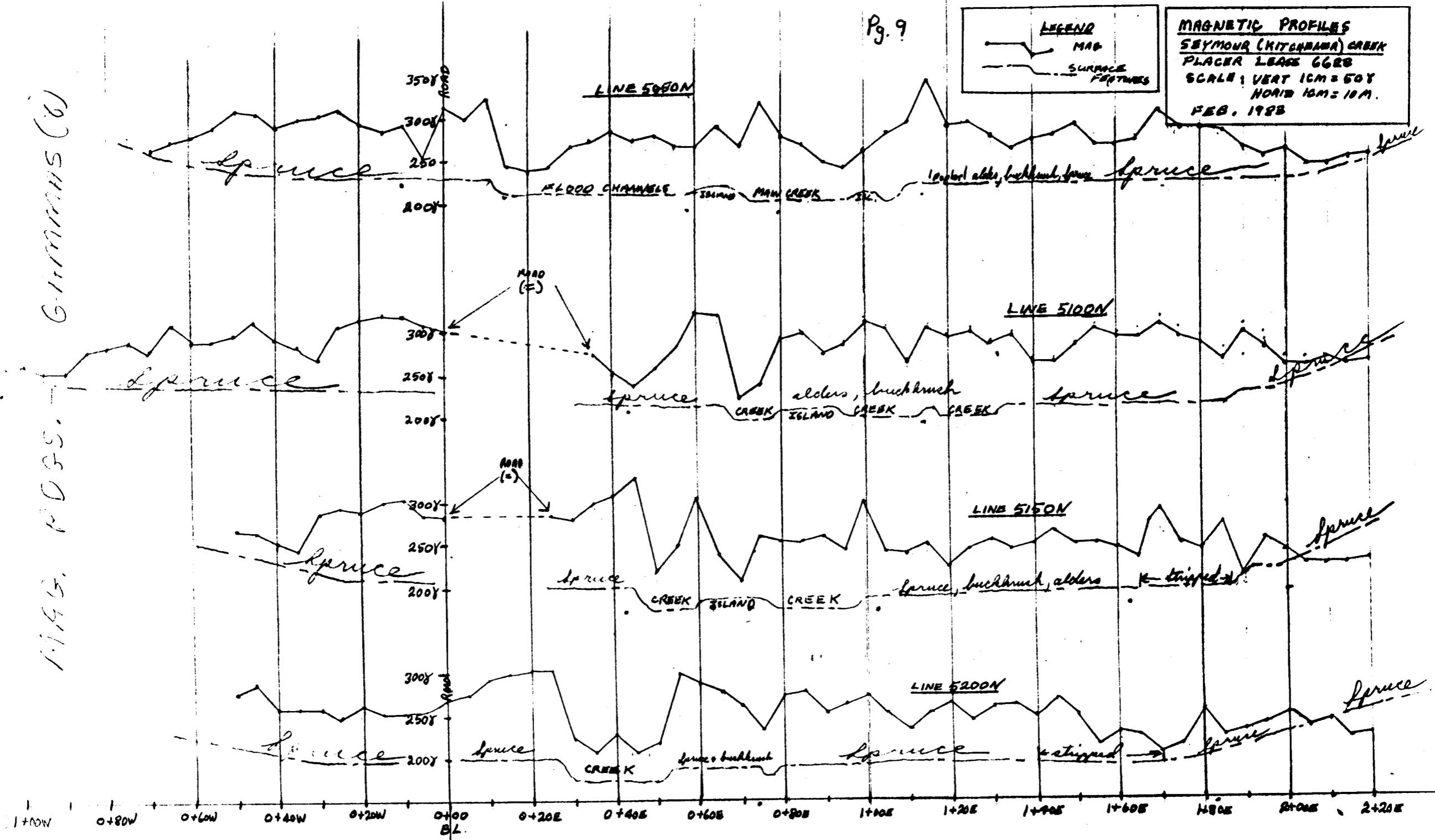
E $\Delta = 113^\circ$

1145 P.D.S. - GIMMINS (6)

LEGEND

 MAP
 SURFACE FEATURES

MAGNETIC PROFILES
 SEYMOUR (KITANAWA) CREEK
 PLACER LEASE 6628
 SCALE: VERT 1CM = 50Y
 HORIZ 1CM = 10M.
 FEB. 1988



STATION - METERS

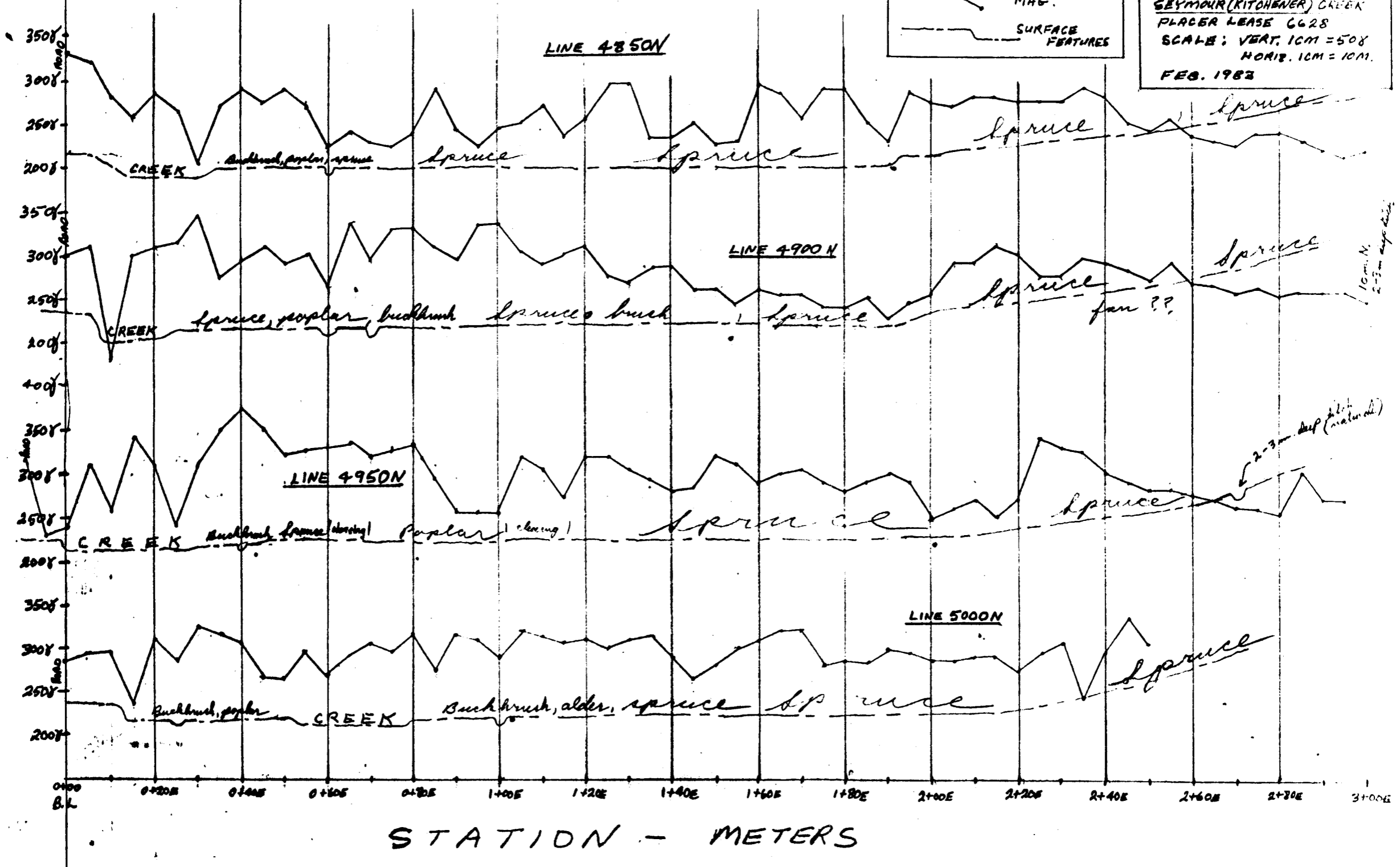
MAG. RDGS. - GAMMAS (γ)

LEGEND

— MAG.

- - - SURFACE FEATURES

MAGNETIC PROFILES
SEYMOUR (KITCHENER) CREEK
 PLACER LEASE 6628
 SCALE: VERT. 1CM = 50γ
 HORIZ. 1CM = 10M.
 FEB. 1983



STATION - METERS

Jaymour (Kitchener) Creek
Magnetometer Survey
Lines 4850N-5400N

Placer Lease No. 6628 Map 115-I-6



STATEMENT

Field Work

Feb. 12 - Feb. 20, 1983 (including mobilization and demobilization)

	<u>\$</u> <u>Amount</u>
Engineer Gary Lee 7 days \$200/day	1400.00
Prospector Ron Granger 4½ days \$175/day	787.50
Standby (very cold) 2½ days (5 man days) \$75/day	375.00
Truck (4x4)	270.00
Gas, propane, naptha etc.	205.20
Grub	245.70
Misc. supplies (hip chain thread, flagging, batteries etc.)	75.00
Meals (Carmacks restaurant)	21.05
Magnetometer rental	130.00
<u>Geophysical Report</u>	
Engineer Gary Lee 4 days \$200/day	800.00
Typing, copying, drafting supplies	75.00
Total	<u><u>\$4384.45</u></u>

Ivan Jacobsen and Graham Turner \$2400.00

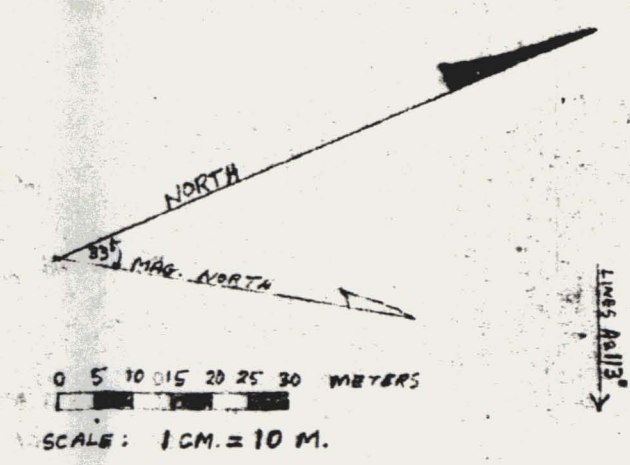
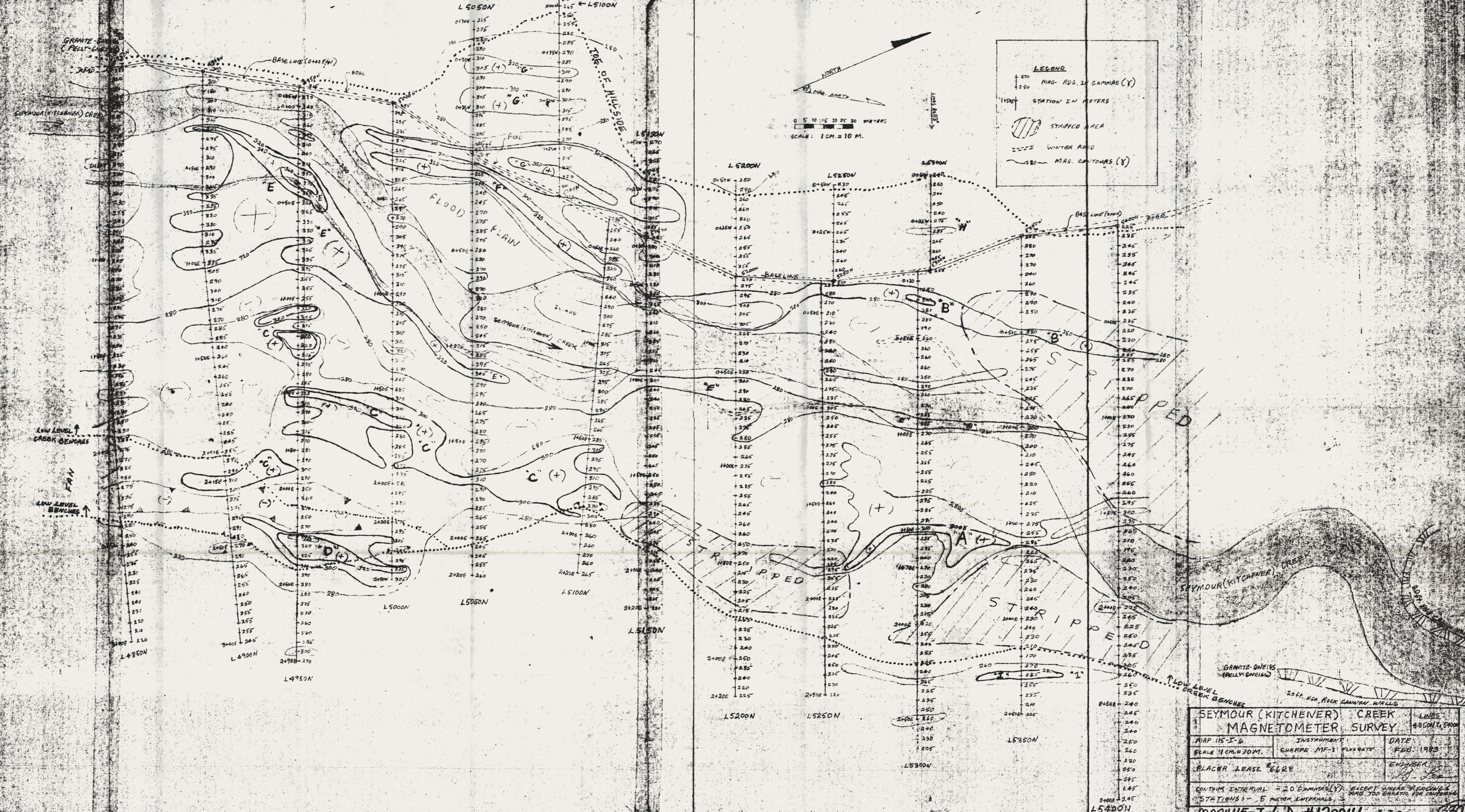
Claim Owners \$1984.45

*Feb/83
Received \$2400.00
from Ivan Jacobsen
Gary Lee*

Yours Sincerely

Gary Lee
Gary Lee P. Eng.

120014



LEGEND

- MAG. RUG. IN GAMMAS (Y)
- STATION IN METERS
- STRIPPED AREA
- WINTER ROAD
- MAG. CONTOURS (Y)

SEYMOUR (KITCHENER) CREEK			LINES
MAGNETOMETER SURVEY			4850N, 4900N
MAP 115-I-6	INSTRUMENT	DATE	
SCALE 1 CM. = 10 M.	SHARPE MF-1 FLUXGATE	FEB. 1983	
PLACER LEASE #6628	ENGINEER		
CONTOUR INTERVAL = 20 GAMMAS (Y) EXCEPT WHERE READING'S ARE TOO ERRATIC FOR CONTOURING			
STATION INTERVALS = 5 METER INTERVALS			
MAP 115-I-6 Doc #120014			30