

Report of Trenching, Geological Mapping  
and Magnetometer Surveys, May claim Group  
Simpson Tower Area, Southeastern Yukon.

Sheet 105-H-6  
129°30' West long; 61°25' North lat.

Mount Billings Venture

July to August, 1965

Erik A. Ostensoe

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## INTRODUCTION

This report summarizes representation work performed during July and August 1965 by Mount Billings Venture, on claims of the May group, southeastern Yukon. Details of magnetometer surveys, trenching and geological mapping are included.

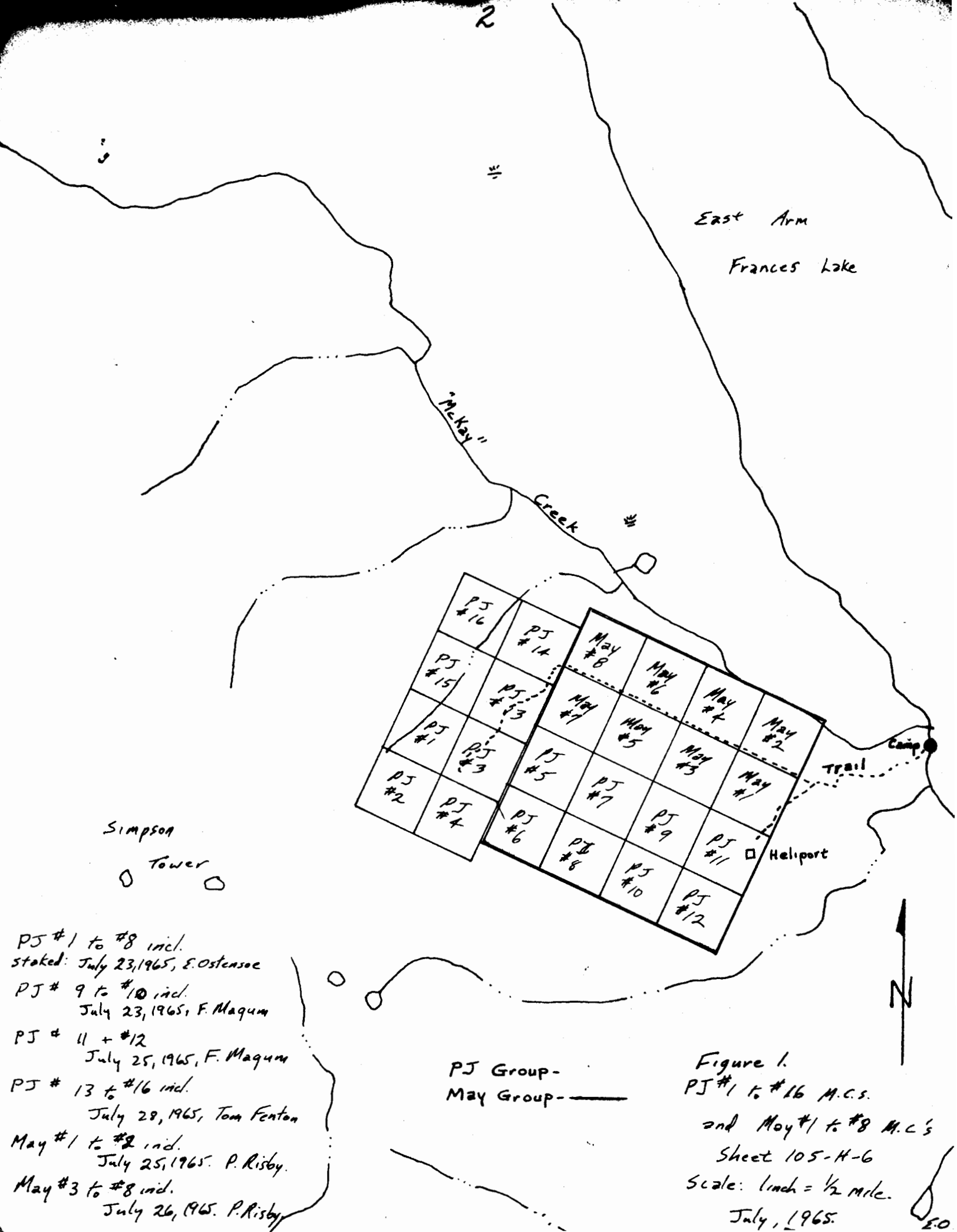
## LOCATION

Figure 1 indicates the location of claims of the May group. The area is at  $129^{\circ}30'$  west longitude,  $61^{\circ}25'$  north latitude, about eighty-five miles north-northwest of Watson Lake, Yukon. It is on the east side of a range of hills that forms a peninsula between the East Arm and main reach of Frances Lake. The claims appear on map 105-H-6.

The May group of claims is located on moderately steep to gently sloping terrain on the east side of Simpson Tower, the highest part of the peninsula. The very thick ground cover consists almost entirely of tangled bushes and vines and small trees, of which birch, willow and poplar are the most abundant species. This growth has developed in a burned-over area and windfall debris in various stages of decay litters the ground, forming, in places, mats of interwoven logs several feet deep.

## CLAIMS

The May claim group is comprised of the following sixteen full-sized mineral claims: May No. 1 to No. 8 inclusive and PJ No. 5 to No. 12 inclusive.



PJ #1 to #8 incl.  
 staked: July 23, 1965, E. Ostensoe  
 PJ # 9 to #10 incl.  
 July 23, 1965, F. Magum  
 PJ # 11 + #12  
 July 25, 1965, F. Magum  
 PJ # 13 to #16 incl.  
 July 29, 1965, Tom Fenton  
 May #1 to #2 incl.  
 July 25, 1965, P. Risby.  
 May #3 to #8 incl.  
 July 26, 1965, P. Risby

PJ Group - \_\_\_\_\_  
 May Group - \_\_\_\_\_

Figure 1.  
 PJ #1 to #16 M.C.s.  
 and May #1 to #8 M.C.'s  
 Sheet 105-H-6  
 Scale: 1 inch = 1/2 mile.  
 July, 1965.

These claims were staked in July 1965 by Peter Risby, Francis Magun and Erik Ostensoe and have been grouped in accordance with Section 53(4) of the Yukon Quartz Mining Act for the purpose of applying assessment work.

#### CAMPS AND SERVICING

A tent camp established on the shore of the East Arm of Frances Lake about one mile east of the claims served as a base from which all work on the May claim group was carried out. Access to the working area was via a foot trail (figure 1). A helicopter landing site was prepared on PJ No. 11 claim but was seldom used. Personnel and supplies were transported from Watson Lake to the East Arm of Frances Lake by aircraft.

#### PERSONNEL

Peter Risby, John McKay and Francis Magun of Watson Lake, Yukon, were employed by Mount Billings Venture to trench claims and to assist in geophysical surveys. Erik Ostensoe, geologist, supervised the trenching work, did the magnetometer and dip needle surveys, sampled mineralized exposures and prepared reports. Ronald P. McBean, fiddl manager of Mount Billings Venture, organized the program and expedited supplies. Gavin Dirom, P. Eng. visited the area on behalf of Mount Billings Venture and recommended various procedures. Funds for the work were provided by Mount Billings Venture, a syndicated prospecting organization managed by A. W. T. Freakes, P. Eng.

## TRENCHING

Figure 2 indicates the relative positions of trenches on May No. 1 and PJ No. 11 claims and figures 3, 4 and 5 are more detailed sketches of the trenches. These trenches were dug on the only outcrops known in the area and no geological interpretation was possible. Rocks encountered were mostly massive quartz and massive sulfides but siliceous hornfels located in the south end of the main trench (figure 3) may be indicative of the host rock. Assays obtained from various parts of the trenched area are listed on the appropriate figures. Analyses were done by Whitehorse Assay Office and Coast Eldridge.

## DIP NEEDLE SURVEY

A dip needle survey was carried along the western and part of the eastern claim location lines of the May claim group. Observations were taken at 200 foot intervals and usually two or more "swings" of the needle were recorded. The averages of the readings taken at each observation point are plotted on figure 6.

## MAGNETOMETER SURVEYS

A magnetometer survey was carried from the westernmost claim location line to the eastern line; along the western line for 1500 feet and along the length of the eastern line (6000 feet). Observations were taken at spacings that varied from 50 to 200 feet (figure 7). "May", a base station, for a detailed magnetometer survey was established near the mineralized area of PJ No. 11 claim. From this point a series of 400 to 600 foot long lines were slashed to

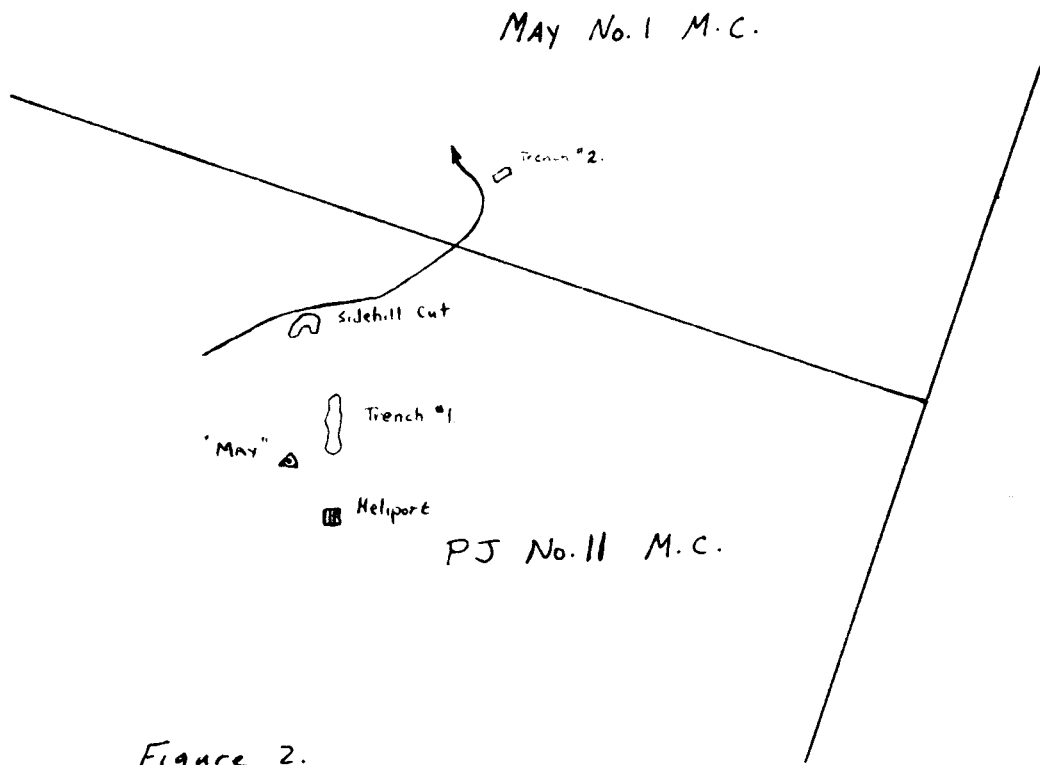
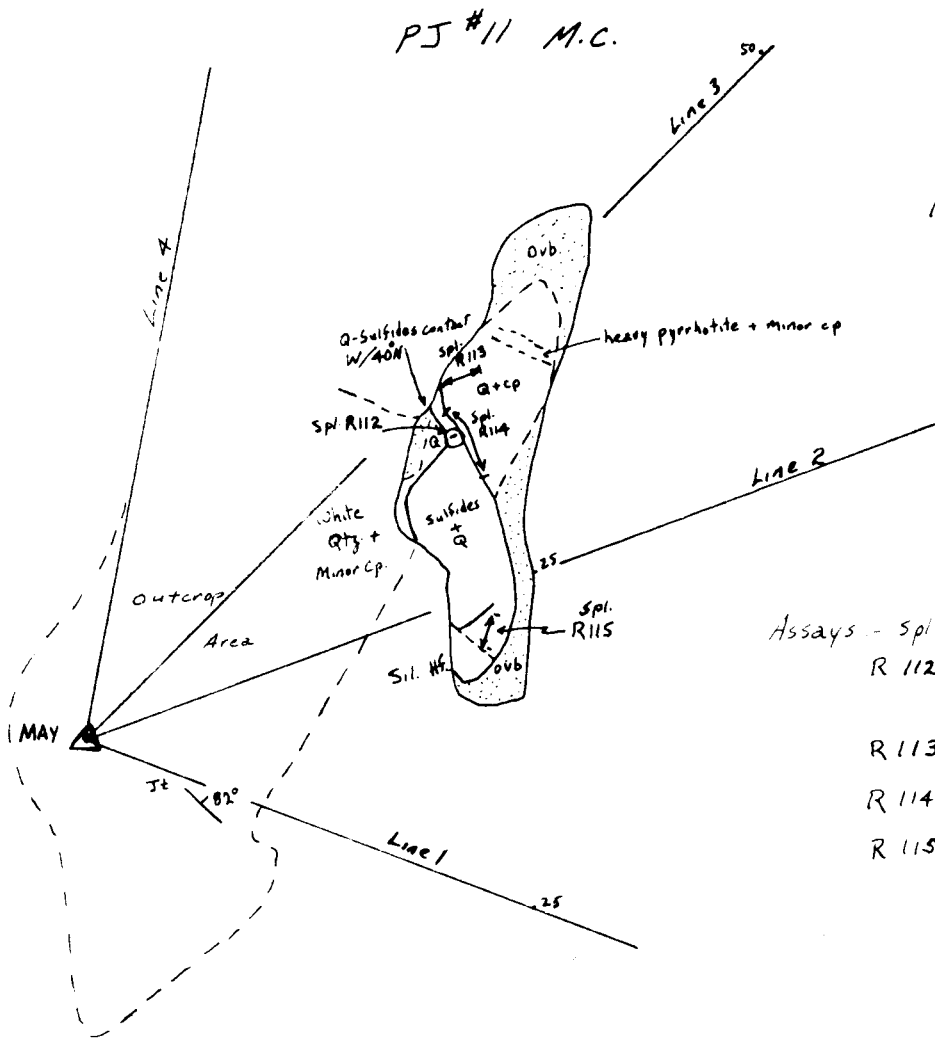


Figure 2.  
Relative Positions of Trenches  
May Claim Group  
Scale 1 inch = 100 feet.

Fig. 3. Main Trench

6.  
Lower May Showings

Mt. Billings Venture. Aug. 1965



Plan  
1" = 10'

Assays - Spl No

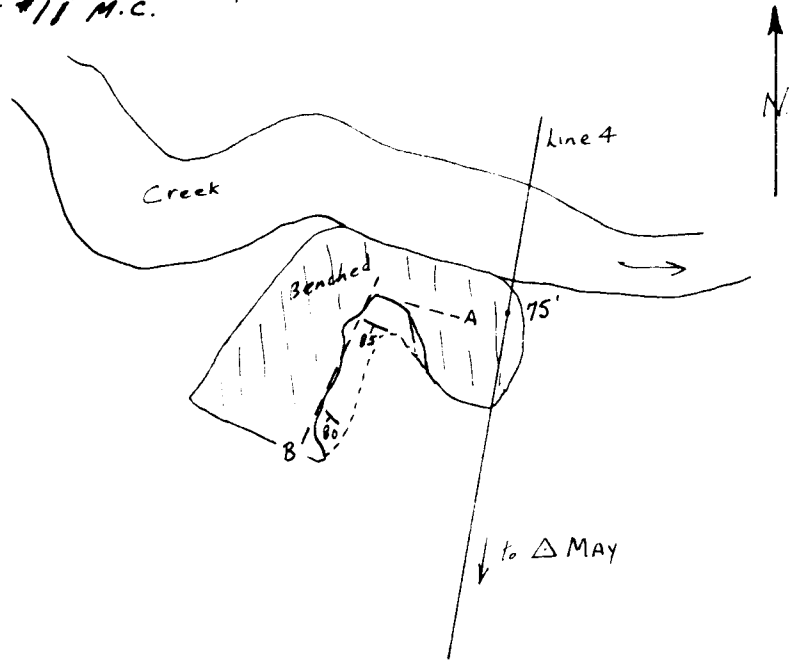
Spl No	Width	Cu	Ni	Co	Mo
R 112	48" (Vertical face)	0.20	0.18	0.19	Tr.
R 113	36"	0.05			
R 114	54"	0.27	0.23		Tr.
R 115	24"	0.15	0.58		Tr.

Helicopter  
Landing  
Pad

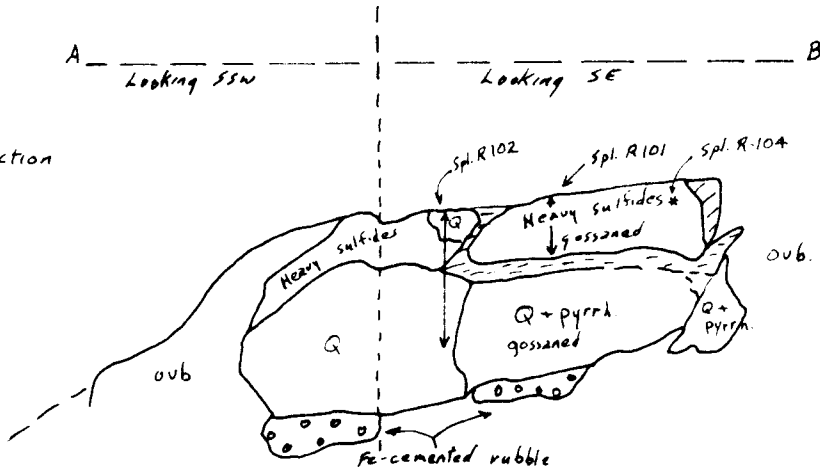
Fig. 4. Sidehill Cut - Lower May showings  
PJ #11 M.C.

Mt. Billings Venture. Aug. 1965.

(2) Plan  
1" = 10'



(i) Vertical section  
1" = 5'



Assays :-

Spl. No.	Width	Au	Ag	Cu	Zn	Ni
R-101	16"	Tr	0.12		13	Tr
R-102	42"	Tr	0.14	0.17		
R-104	Grab	Spectrographically analysed				

Fig. 5. Trench #2

8.  
Lower May Showings

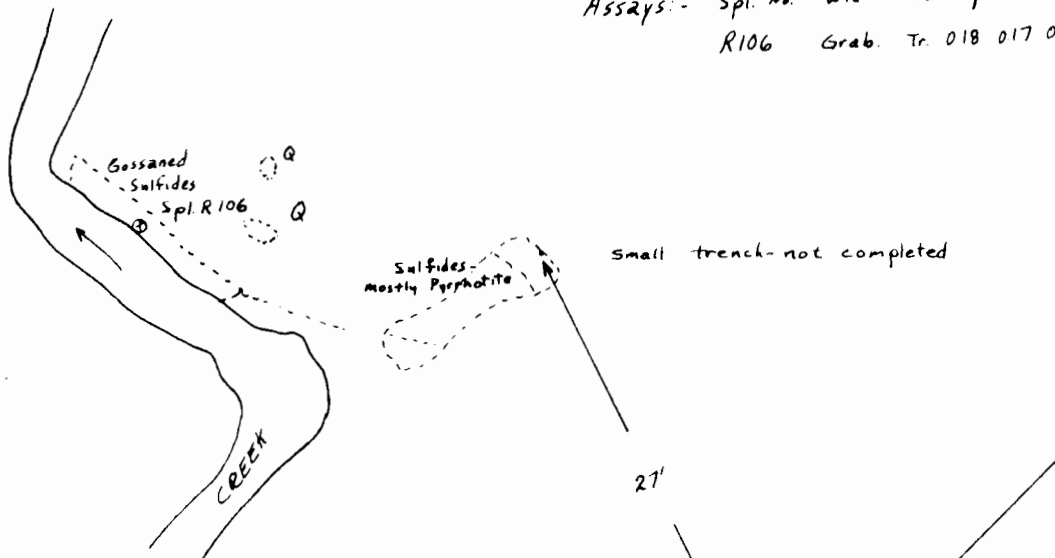
Mt. Billings Venture. Aug. 1965.



Plan.  
1" = 10'

Assays:-

Spl. No.	Width	Au.	Ag.	Cu.	Zn.	Mo.
R106	Grab.	Tr.	0.18	0.17	0.1	0.06



MAY #1 M.C.

PJ #11 M.C.

150  
To Δ May

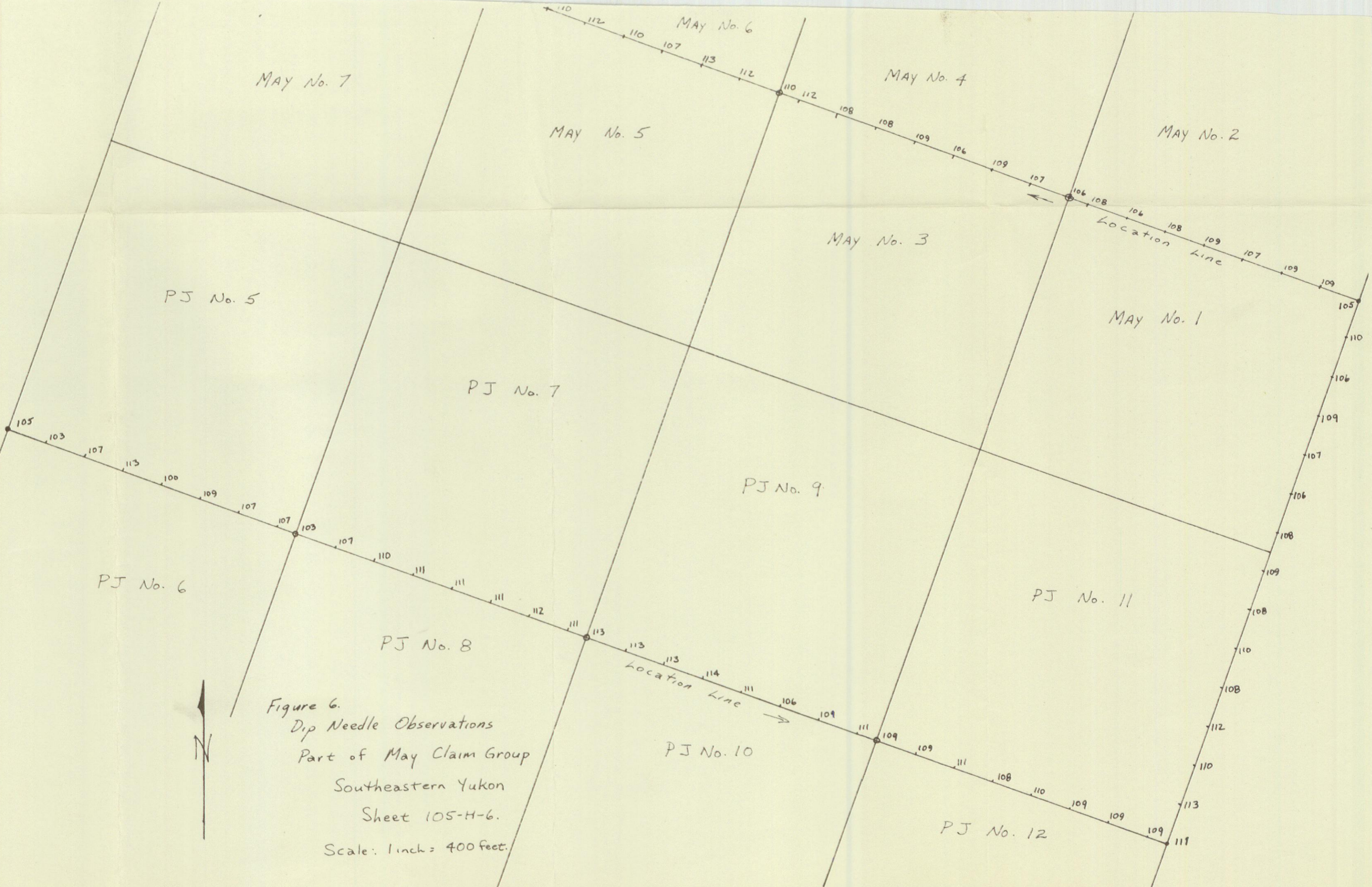


Figure 6.  
 Dip Needle Observations  
 Part of May Claim Group  
 Southeastern Yukon  
 Sheet 105-H-6.  
 Scale: 1 inch = 400 feet.

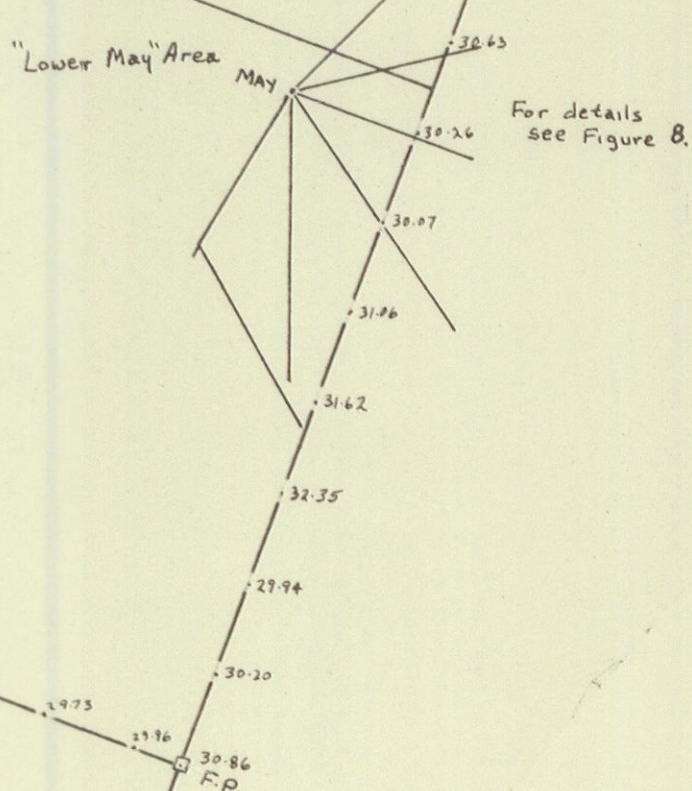
Figure 7.  
Magnetometer Survey  
May Claim Group  
Southeastern Yukon.  
Sheet 105-H-6.

Scale: 1 inch = 400ft.

N.B.  
Readings in degrees.  
Add 100.00 to each reading  
before converting to  
gammas.  
 $1^\circ = 218.1 \text{ gammas.}$



- 130.65
- 130.30
- 130.55
- 129.92
- 128.65
- 128.52
- 128.12
- 127.60
- 127.16
- 128.56
- 128.90
- 128.90
- 128.55
- 129.00
- 129.48
- 129.20
- 128.55
- 128.50
- 128.50
- 128.45





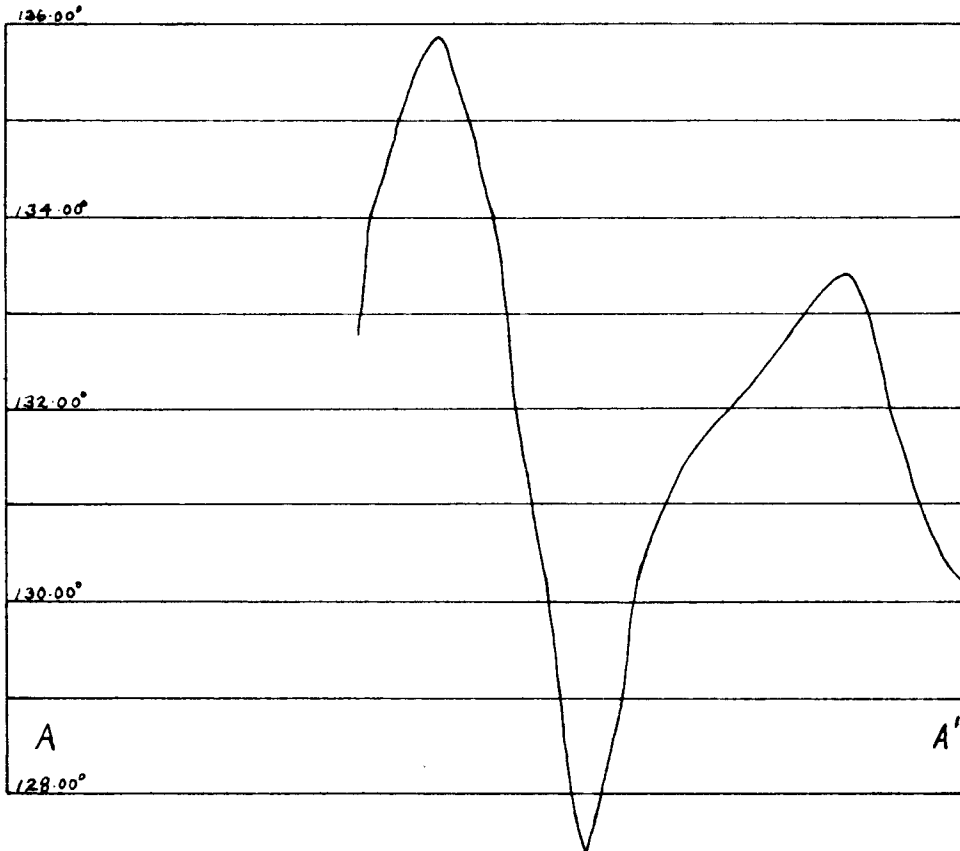


Figure 9(a). Profile on A-A' of Figure 8.  
 Horizontal Scale: 1" = 100'  
 Vertical Scale: 1" = 2° = 436%.

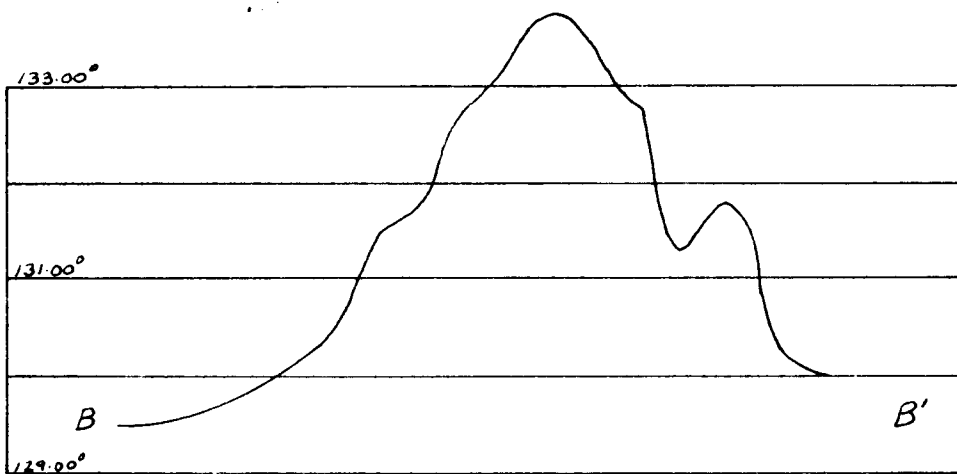


Figure 9(b). Profile on B-B' of Figure 8.  
 Horizontal Scale: 1" = 100'  
 Vertical Scale: 1" = 2° = 436%.

form a radial pattern. Observations were taken at 25 foot intervals (figures 8 and 9).

### CONCLUSIONS

The magnetometer survey indicated that the mineralization found on May No. 1 claim parallels the trend of a large anomalously magnetic zone associated with the mineralized outcrops found on PJ no. 11 claim.

Assays obtained from various outcrops and trenches on the May group claims indicate marginal grade values in base metals.

### STATEMENT OF EXPENSES APPLICABLE AS REPRESENTATION WORK

Branch trail from trail to PJ claim group to PJ No. 11 claim - one man, one day @ \$15/day	\$ 15.00
Helicopter - 2 men, one day	30.00
Trenching - 3 men, 8 days; 2 men, 4 days 32 man days	480.00
Line cutting - 2 men, 3 days - 6 man days	90.00
Establishing stations along claim location lines for dip needle and magnetometer surveys - 2 men, 2 days - 4 man days	60.00
Assays - Whitehorse Assay Office- one half of total cost	39.25
Coast Eldridge - spectrographic analysis	15.00
Geologist's assistant - one man, 5 days	75.00
Geologist - in field, 15 days; reports 4 days @ \$650 + 15%	480.70
Camp expenses - 65 man days @ \$5/man day	<u>325.00</u>

*AFFIDAVIT OF ABOVE COSTS  
SWORN & SUBSCRIBED BEFORE  
ME AT VANCOUVER THIS 8TH  
DAY OF DECEMBER, 1966*

Total	\$ 1609.95
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*[Signature]*  
COMMISSIONER FOR OATHS  
IN AND FOR THE YUKON TERR.

*[Signature]*  
Erik A. Ostensoe.

DECLARATION

I, Erik A. Ostensoe, geologist, hereby declare that

1. I am a qualified geologist, presently residing at 4323 West 14th Avenue, Vancouver 8, B. C.

2. I am a 1960 graduate in geology of the Honours Bachelor of Science course of the University of British Columbia

3. I practiced geology as my full-time occupation from May 1960 until September 1964 under the supervision of qualified and experienced geologists and engineers

4. at the time of examination of the property herein reported on, I was employed as a geologist by Mount Billings Venture

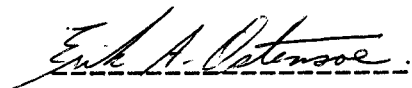
5. I have no interest, either directly or indirectly, in the property hereing reported on

6. Work on the May claim group was carried out under the direction of Mr. Gavin Dirom, P. Eng., who offered advise at various times and who visited the property in August 1965.

Signed at Vancouver, B. C., this 8th day of December, 1966, in the presence of



Commissioner for oaths  
in and for Yukon Territory.



017578

(2 volumes)

Report of Geological Mapping, Dip  
Needle and Magnetometer Surveys,  
PJ Claim Group, Southeastern Yukon  
Sheet 105-H-6  
129°30' West long; 61°25' North lat.  
Mount Billings Venture  
July to August 1965 E. Ostensoe

017578



Department of Indian Affairs and  
of Northern Affairs Northern Development  
and National Resources - Resource Development  
Branch

Ministère  
du Nord canadien et  
des Ressources nationales - Direction du développement  
des ressources

Box 1767,  
Whitehorse, Y.T.,  
October 12, 1966.

RESTRICTED

Mr. J. A. C. McKenzie  
Mining Recorder  
Watson Lake Mining District  
WATSON LAKE, Y.T.

our file / notre dossier  
your file / votre dossier

M.I. M-252

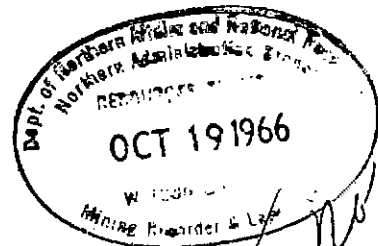
Report of Geological Mapping, Dip Needle  
and Magnetometer Surveys  
P J Claim Group - S.E. Yukon Sheet 105 H-6  
Mount Billings Venture  
by E. Ostensoe

On the recommendation of the Resident Geologist and Mining Inspector I accept this report as representation work under Section 53, Sub-section 4 of the Yukon Quartz Mining Act in the amount of \$833.50 but subject to the following conditions:

1. The reports be signed by the author
  2. Affidavits supporting Expenditures are received (3 copies) and
  3. Statements of Professional <sup>Services</sup> are received (3 copies)
- before the Certificates of Work are issued.

*[Handwritten Signature]*  
F. B. England  
Administrator.

cc: Chief, Resource Management Division  
Attention: Geological Evaluation Unit  
Central Mining Records, Whitehorse, Y.T.



*[Handwritten signature]*  
*[Handwritten signature]*  
*[Handwritten signature]*  
*[Handwritten signature]*

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*[Handwritten signature]*  
*[Handwritten signature]*



Department of Indian Affairs and  
of Northern Affairs. Northern Development  
and National Resources. Resource Development  
Branch

Ministère  
du Nord canadien et  
des Ressources nationales Direction du développement  
des ressources

Box 1767,  
Whitehorse, Y.T.,  
October 12, 1966.

RESTRICTED

COMMISSIONER  
WHITEHORSE, Y.T.


our file / notre dossier  
your file / votre dossier

M.I. M-252

Report of Geological Mapping, Dip Needle and  
Magnetometer Surveys  
P J Claim Group - S.E. Yukon Sheet 105 H-6  
Mount Billings Venture  
by E. Ostensoe

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I would recommend this report be accepted as representation work in the amount of \$833.50 but would suggest before the Mining Recorder issues Certificates of Work he have the author sign the reports and obtain 3 copies each of "Statements of Professional Supervision" and "Affidavits supporting Expenditures".

  
for A. D. Oliver  
Resident Mining Inspector

cc: Chief, Resource Management Division  
Attention: Geological Evaluation Unit

Central Mining Records, Whitehorse, Y.T.

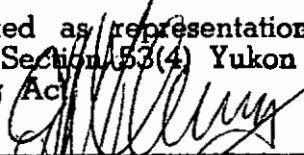
This report has been examined by  
the Geological Evaluation Unit.  
Approved as to technical worth by:

  
RESIDENT GEOLOGIST

Approved as to cost in the amount  
of: \$8,335.<sup>50</sup>

  
RESIDENT MINING ENGINEER

Accepted as representation work  
under Section 53(4) Yukon Quartz  
Mining Act

  
COMMISSIONER OF YUKON

017578<sup>2</sup>

Report of Geological Mapping, Dip Needle and  
Magnetometer Surveys, PJ claim group, Simpson  
Tower Area, Southeastern Yukon.

Sheet 105-H-6

129°30' West long.; 61°25' North lat.

Mount Billings Venture  
July to August, 1965

Erik A. Ostensoe.

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## INTRODUCTION

This report summarizes representation work performed during July and August 1965 by Mount Billings Venture on claims of the PJ group, southeastern Yukon. Details of trail cutting, dip needle and magnetometer surveys, geological mapping are included.

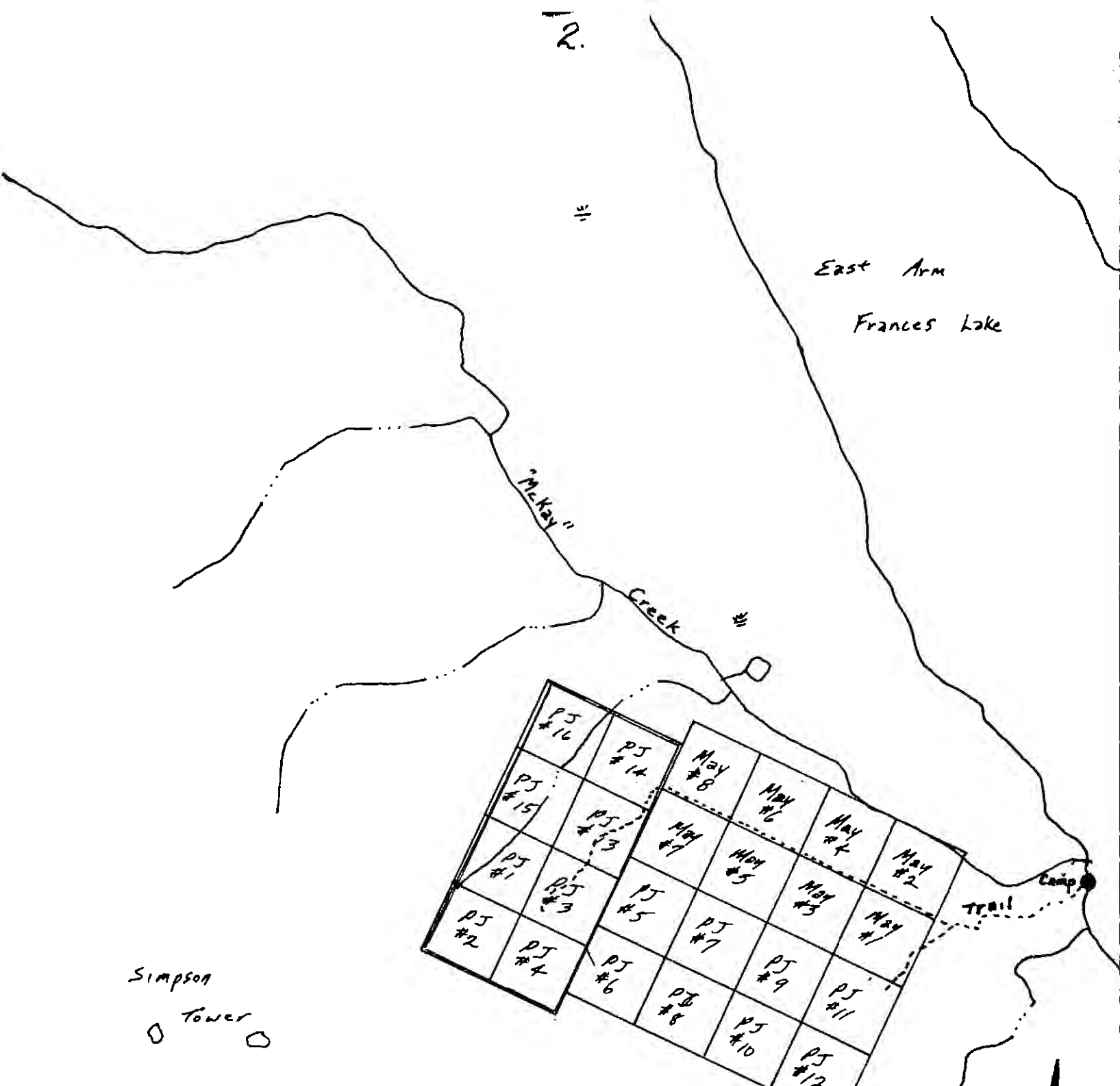
## LOCATION

Figure 1 indicates the location of claims of the PJ group. The area is at 129°30' west longitude, 61° 25' north latitude, about eighty-five miles north-northwest of Watson Lake, Yukon. It is on the east side of a range of hills that forms a peninsula between the East Arm and main reach of Frances Lake. The claims appear on map 105-H-6.

The claims are located on moderately steep to gently sloping terrain on the east side of Simpson Tower, the highest part of the peninsula. The very thick ground cover consists almost entirely of tangled bushes and vines and small trees, of which birch, willow and poplar are the most abundant species. This growth has developed in a burned-over area and windfall debris in various stages of decay litters the ground, forming, in places, mats of interwoven logs several feet deep.

## CLAIMS

The PJ claim group is comprised of the following full-sized mineral claims: PJ No. 1 to No. 4 inclusive and PJ No. 13 to No. 16 inclusive.



PJ #1 to #8 incl.  
 staked: July 23, 1965, E. Ostensoe

PJ # 9 to #10 incl.  
 July 23, 1965, F. Magum

PJ # 11 + #12  
 July 25, 1965, F. Magum

PJ # 13 to #16 incl.  
 July 28, 1965, Tom Fenton

May #1 to #2 incl.  
 July 25, 1965, P. Risby.

May #3 to #8 incl.  
 July 26, 1965, P. Risby

PJ Group ———  
 May Group - - - -

Figure 1.  
 PJ #1 to #16 M.C.s.  
 and May #1 to #8 M.C.'s  
 Sheet 105-H-6  
 Scale: 1 inch = 1/2 mile  
 July, 1965.

These claims were staked in July 1965 by Erik Ostensoe and Tom Fenton and have been grouped in accordance with Section 53(4) of the Yukon Quartz Mining Act for the purpose of applying assessment work.

#### CAMPS AND SERVICING

A tent camp established on the shore of the East Arm of Frances Lake about three miles from the claims served as a base from which all work on the PJ claim group was carried out. Access to the working area was via a foot trail (figure 1). Personnel and supplies were transported from Watson Lake to the camp by aircraft.

#### PERSONNEL

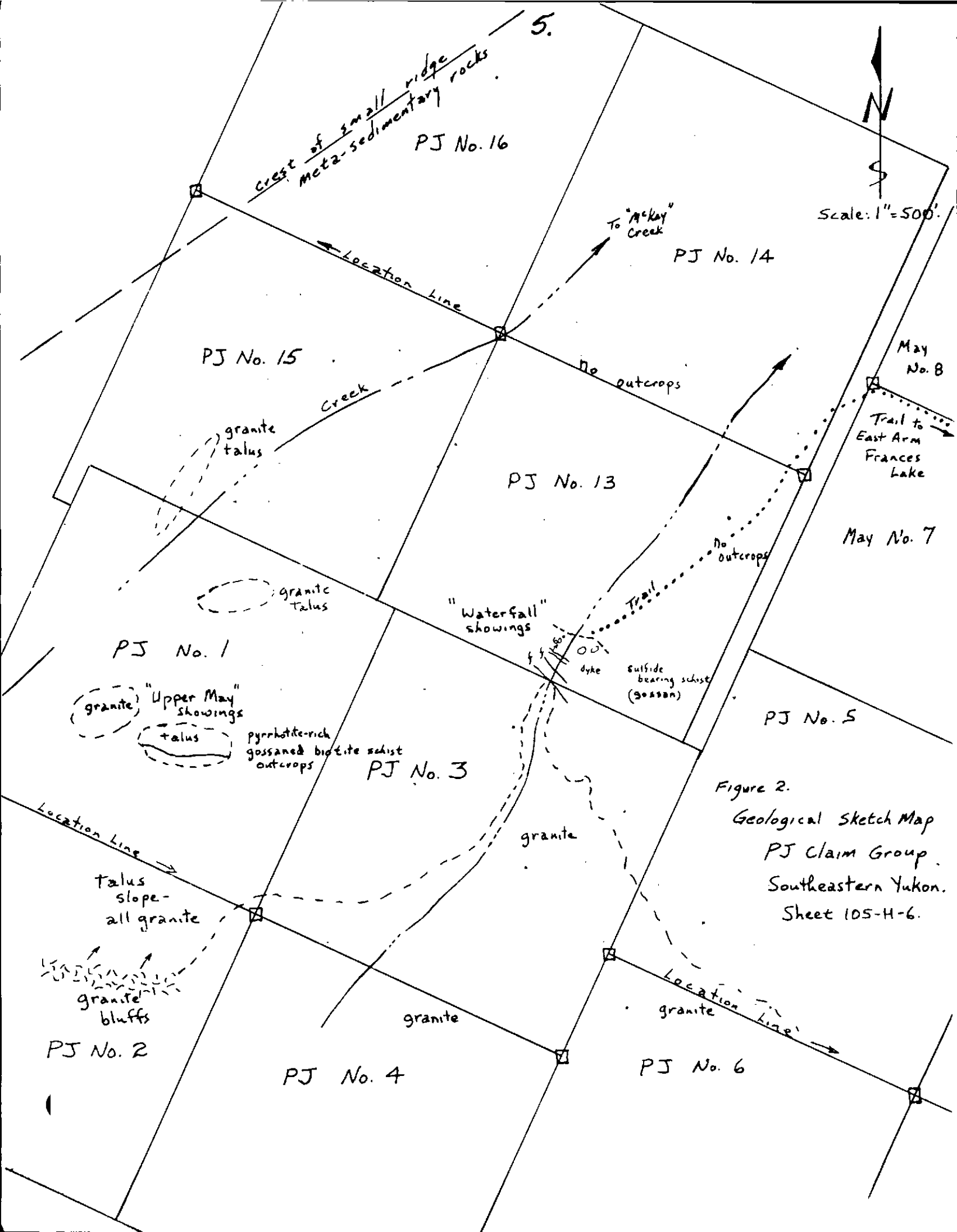
Peter Risby, John McKay and Francis Magun of Watson Lake, Yukon, were employed by Mount Billings Venture to cut trails and lines and to assist in geophysical surveys. Erik Ostensoe, geologist, directed line cutting, did the geophysical surveys and a geological reconnaissance and prepared reports. Ronald P. McBean, field manager of Mount Billings Venture, organized the exploration program and expedited supplies. Gavin Dirom, P. Eng. visited the area, provided professional supervision and advice. B. F. Kern, P. Eng., assisted by F. Magun, mapped the geology of part of the PJ No. 3 claim. Funds for the work were provided by Mount Billings Venture, a syndicated prospecting organization managed by A. W. T. Freakes, P. Eng.

## GEOLOGICAL NOTES

Good exposures of bedrock were found in the western part of the claims where soil cover is very thin and the deposits of Quaternary age clays, sands and gravels that mask the rock at lower elevations are lacking. Medium grained biotitic granite, related to small stock that forms the east side of Simpson Tower, occupies the whole of claims PJ No. 2 and No. 4 (figure 2). In part the granite is stained dark reddish-brown by the weathering of sulfides that occur in small shears in the granite and on contacts of the granite with metasedimentary rocks. In a stream bed near the claim location line that forms the boundary between claims PJ No. 3 and No. 4, quantities of a zeolite, tentatively identified as stilbite, occur in a heavily altered, partly decomposed zone in the granite.

Metasedimentary rocks, most of which can be classified as biotite schists, occur as xenoliths and roof pendants in the granite and at granite contacts. The color of the schist varies from whitish to purplish and on PJ No. 1 claim it contains abundant pyrrhotite. Chalcopyrite is present but irregularly distributed and seldom comprises more than 1 per cent of the rock. Foliation strikes northerly and dips gently variously to the east and the west.

On the PJ No. 1 and No. 3 granite contains rather large roof pendants of siliceous biotite schist which in turn contains concentrations of sulfide minerals. The eastern and northern limit of the granite body is not known but metasedimentary rocks outcrop on a ridge just west of the claims. Granite talus was noted on PJ No. 1 and PJ No. 15



claims on the west side of the small creek that traverses these claims and it may be assumed that the granite extends at least to the vicinity of the west limit of the PJ claim group.

#### SULFIDE MINERALIZATION

Sulfide mineralization found in schists on PJ No. 1 claim is predominantly pyrrhotite with only small amounts of disseminated chalcopyrite. The occurrence, called for convenience the "Upper May", is thought to be a typical contact aureole in which the sulfides are derived from the intrusive rocks. On PJ No. 3 and No. 13 claims massive sulfides occur in biotite schist near a faulted contact with granite. The occurrence, called the "Waterfall" showing, is exposed in a narrow canyon and is accessible only when the stream is dry or nearly dry. Heavily gossaned very siliceous outcrops were located within one hundred feet of the canyon and although magnetite and partly decomposed pyrite and pyrrhotite were recognized, the nature of the host rock in these outcrops was not determined.

#### GEOPHYSICAL SURVEYS

As part of a larger project, dip needle readings were taken at 200 foot intervals along the PJ No. 1 to No. 4 inclusive claim location line. Results were inconclusive, in large part because of the reconnaissance nature of the exercise. Several anomalous readings were recorded (figure 3).

Figure 4 is a record of magnetometer readings taken on part of the PJ claim group. An Askania Schmidt-type

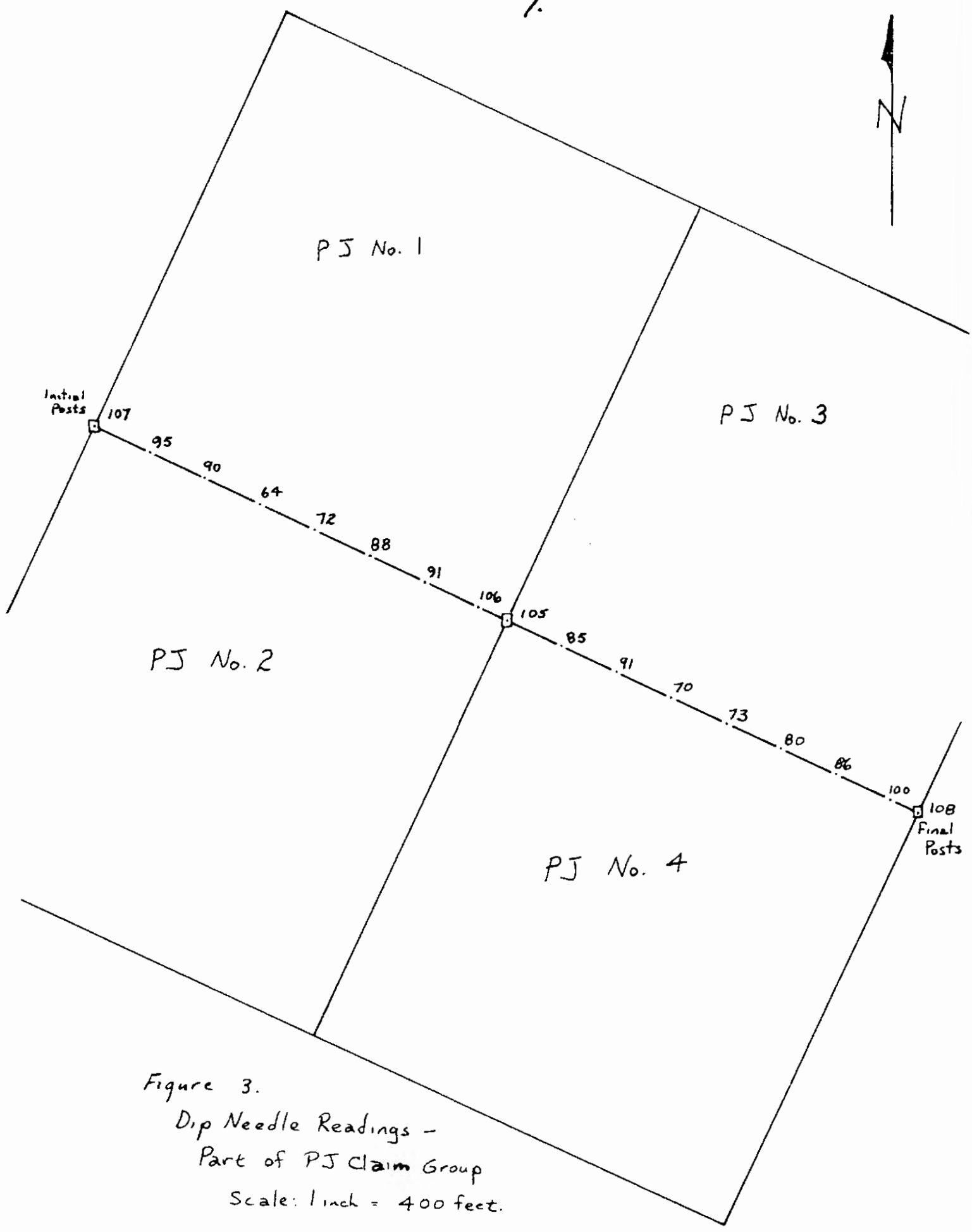


Figure 3.  
 Dip Needle Readings -  
 Part of PJ Claim Group  
 Scale: 1 inch = 400 feet.

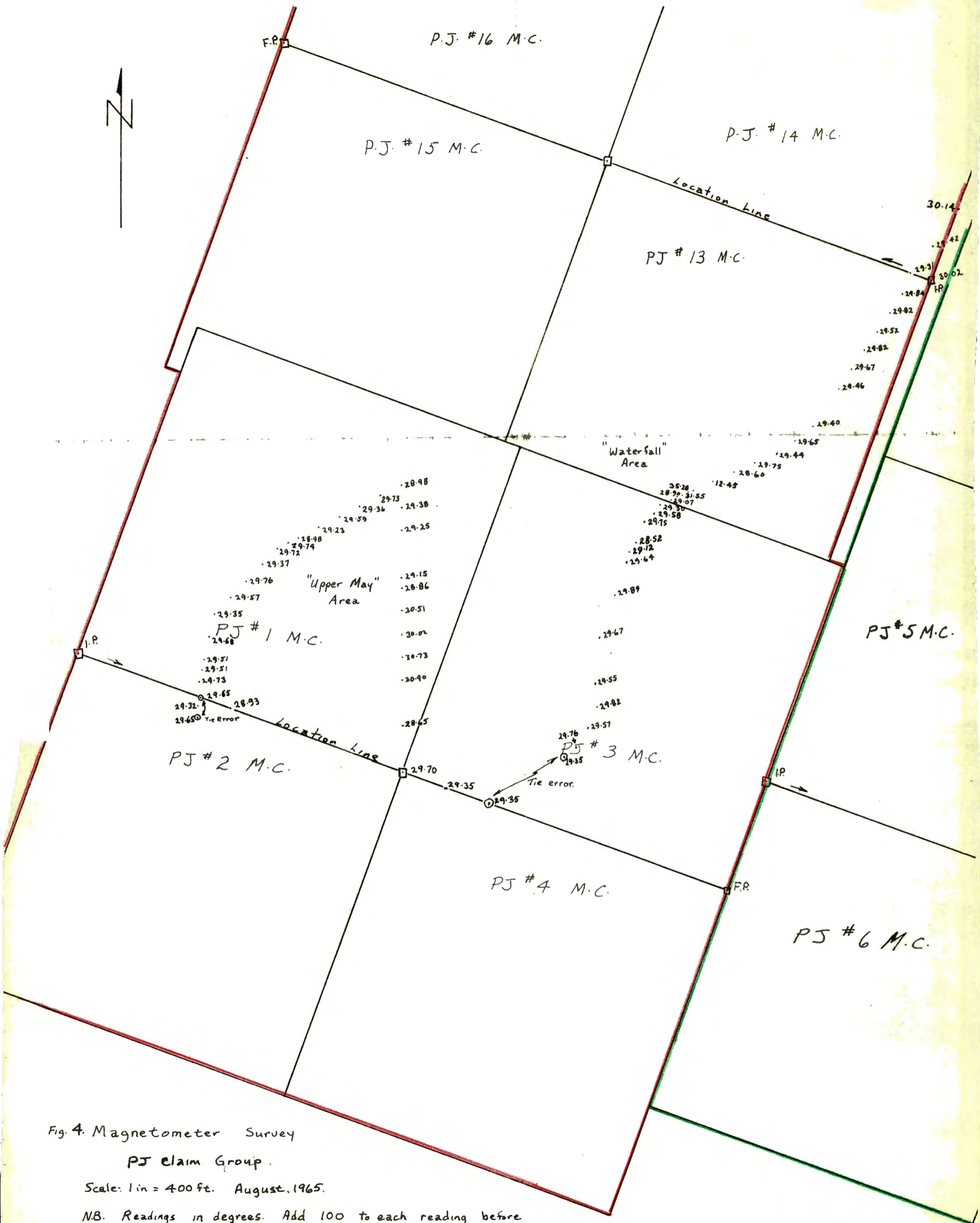


Fig. 4. Magnetometer Survey  
PJ Claim Group.

Scale: 1 in = 400 ft. August, 1965.

NB. Readings in degrees. Add 100 to each reading before converting to gammas.

1° = 218.1 gammas.

PJ Group Outline - —  
MAY Group Outline - —

vertical-balance magnetometer was used. The observations are recorded on the figure in degrees and the relative intensity in gammas of the magnetic field at each station may be determined by adding 100 to each reading and multiplying by 218.1. Readings were taken at various spacings, depending upon the terrain and the range of intensity at different parts of the area. A total of 6500 feet of line was cut and 63 observations recorded.

In the "Waterfall" area near the border between PJ No. 3 and No. 13 claims the magnetometer technique detected the area of heavy sulfide mineralization referred to above as the Waterfall showing. Anomalously high readings recorded just east of the previously discovered showings led to the discovery of several outcrops heavily mineralized with magnetite and sulfides in an area of heavy brush growth.

The zig-zag design of the cut line on PJ No. 1 and No. 3 claims was designed to permit a traverse of the limits of the "Upper May" area of pyrrhotite gossaned talus and outcrops in order to determine if it and the Waterfall showings were continuous. Although the Upper May showings were circled by observations no anomalous pattern developed.

#### CONCLUSIONS

It was concluded that the Upper May showings were distinct from the Waterfall showings. The latter responded well to the magnetometer survey and because of the difficulties encountered in cutting lines on steep brushy slopes it was recommended that airborne techniques be applied to determine if a sufficiently large anomalous area exists to warrant further ground work.

The geology of the PJ claims as determinable from the few outcrops that were examined is dominated by the granite and its contact aureole. It seems probable that all the sulfides examined formed as metasomatic replacements of siliceous schists near a granite contact.

Insufficient work has been done on these showings to permit even speculation of their size or metals content.

STATEMENT OF EXPENSES APPLICABLE AS REPRESENTATION WORK

A. Labour

Trail cutting - lakeshore to PJ No. 3 claim - about three miles - three men, three and one-half days

Line cutting - where trail could not be used for magnetometer survey line and beyond end of trail - about one mile - three men, one day

Geologist's assistant - one man, five days

B. F. Kern's assistant - one man, one day

Total labour - nineteen and one-half man days at \$15/man-day \$ 292.50

B. Camp Expenses

Total of twenty-five man days at \$5/man day 125.00

C. Geologist - in the field - five days at \$650/month + 15%; preparation of reports two days at \$650/month + 15%

124.00  
50.00

D. Transportation - Cessna aircraft - July 27th - 2 hours @ \$40/hour

80.00

Helicopter - August 7th - total 1½ hours @ \$108/hr.

162.00

Total \$ 833.50

*Affidavit of above  
Csts. sworn before me  
this 8th day of December  
1966 at Whitehorse BC*

*[Signature]*  
Commissioner for  
Outdoors & for the Yukon  
Territory.

*[Signature]*  
Erik A. Gustafson

Declara tion

I, Erik A. Ostensoe, geologist, hereby decla re  
that

1. I am a qualified geologist, presently residing at  
4323 West 14th Avenue, Vancouver 8, B.C.
2. I am a 1960 graduate in geology in the Honours Bachelor  
of Science course of the University of British Columbia
3. I practiced geology as my full-time occupation from  
Ma y 1960 until September 1964 under the supervision of  
qualified and experienced geologists and engineers
4. at the time of examination of the property herein  
reported on, I was employed as a geologist by Mount Billings  
Venture
5. I have no interest, either directly or indirectly, in  
the property herein reported on
6. Work on the PJ claim group was carried out under the  
direction of Mr. Gavin Dirom, P. Eng. who offered advice at  
various times and who visited the property in August 1965.

Signed at Vancouver, B. C., this 8th day of December, 1966,  
in the presence of



Commissioner for oaths  
in and for Yukon Territory.



Report of Trail Building, Dip Needle  
Survey, Geochemical Sampling and  
Trenching, Mapel Claim Group,  
Southeastern Yukon. Sheet 105-H-6.  
129°30' West long; 61°25' North lat.  
Mount Billings Venture  
July 1965 E. Ostensoe

07578



CANADA

Department of Indian Affairs and  
of Northern Affairs Northern Development  
and National Resources Resource Development  
Branch

Ministère  
du Nord canadien et  
des Ressources nationales Direction du développement  
des ressources

Box 1767,  
Whitehorse, Y.T.,  
October 12, 1966.

Mr. J. A. C. McKenzie  
Mining Recorder  
Watson Lake Mining District  
WATSON LAKE, Y.T.


our file / notre dossier  
your file / votre dossier

M.I. M-252

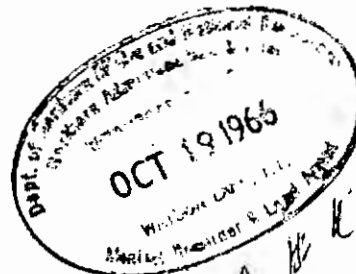
Report of Trail Building, Dip Needle Survey,  
Geochemical Sampling and Trenching  
Mapel Claim Group, S.E. Yukon 105H-6  
Mount Billings Venture  
by E. Ostensoe

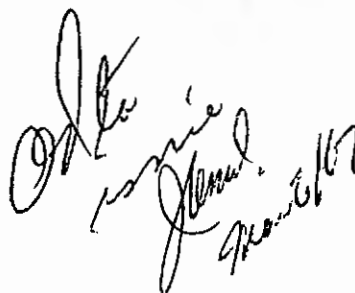
On the recommendation of the Resident Geologist and Resident Mining Inspector I accept this report as representation work under Section 53, Subsection 4 of the Yukon Quartz Mining Act in the amount of \$1,629.00 subject to the following conditions.

1. The author sign the reports
  2. Statements of Professional Supervision are received (3 copies), and
  3. Affidavits supporting Expenditures are received (3 copies)
- before the Certificates of Work are issued.

  
F. B. Finland  
Administrator

cc: Chief, Resource Management Division  
Attention: Geological Evaluation Unit  
  
Central Mining Records, Whitehorse, Y.T.



  
J. A. C. McKenzie  
Mining Recorder

Mapel # K  
89212



Department of Indian Affairs and  
~~of Northern Affairs~~ Northern Development  
and National Resources Resource Development  
-Branch

Ministère  
~~du Nord canadien et~~  
~~des Ressources nationales~~ Direction du développement  
des ressources

Box 1767,  
Whitehorse, Y.T.,  
October 12, 1966.

COMMISSIONER  
WHITEHORSE, Y.T.


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M.I. M-252

Report of Trail Building, Dip Needle Survey,  
Geochemical Sampling and Trenching Mapel Claim Group  
S. E. Yukon 105H-6 - Mount Billings Venture  
by E. Ostenso

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I would recommend this report be accepted as representation work in the amount of \$1,629.00 but would suggest the Mining Recorder have the reports signed by the author and obtain 3 copies each of 'Statements of Professional Supervision' and 'Affidavits supporting Expenditures' before he issues Certificates of Work.

  
for A. D. Oliver,  
Resident Mining Inspector.

cc: Chief, Resource Management Division  
Attention: Geological Evaluation Unit

Central Records - Mining, Whitehorse, Y.T.

This report has been examined by  
the Geological Evaluation Unit.  
Approved as to technical worth by:

*D. C. Findlay*

RESIDENT GEOLOGIST

Approved as to cost in the amount  
of: \$1629.00

*R. S. Redman*

RESIDENT MINING ENGINEER

Accepted as representation work  
under Section 53(4) Yukon Quartz  
Mining Act.

*[Signature]*  
COMMISSIONER OF YUKON

017578

Report of Trail Building, Dip Needle Survey,  
Geochemical Sampling and Trenching, Mapel Claim Group,  
Simpson Tower Area, Southeastern Yukon.

Sheet 105-H-6

129°30' West long; 61°25' North lat.

Mount Billings Venture  
July 1965

*Erik A. Ostensoe*  
Erik A. Ostensoe.

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## INTRODUCTION

This report summarizes representation work performed by Mount Billings Venture on claims of the Mapel claim group in southeastern Yukon. Details of trail-building, dip needle survey; geochemical sampling and trenching operations are included. This work was done during July 1965.

## LOCATION

Figure 1 indicates the location of claims of the Mapel group at 129°30' West longitude, 61°25' North latitude, about four miles north of Simpson Tower between the East Arm and main reach of Frances Lake. The location line of Mapel No. 1 to No. 4 inclusive claims and Abe No. 1 to No. 6 inclusive claims follows the valley of a small stream that is referred to in this report as "McKay" Creek. The claims are on an east-facing slope in a terrain of moderately steep to gentle slopes. The northern part of the area is heavily wooded but the remainder was burned over several decades ago and has grown up to thick deciduous cover.

## CLAIMS

The Mapel claim group is comprised of the following full-sized mineral claims (figure 1):

Claim Name	Record Number	Claim Name	Record Number
Mapel No. 1	89212	Abe No. 5	89220
2	89213	6	89221
3	89214	7	89222
4	89215	8	89223
Abe No. 1	89216	9	89224
2	89217	10	89225
3	89218	11	89226
4	89219	12	89227

61° 30'

129° 30'

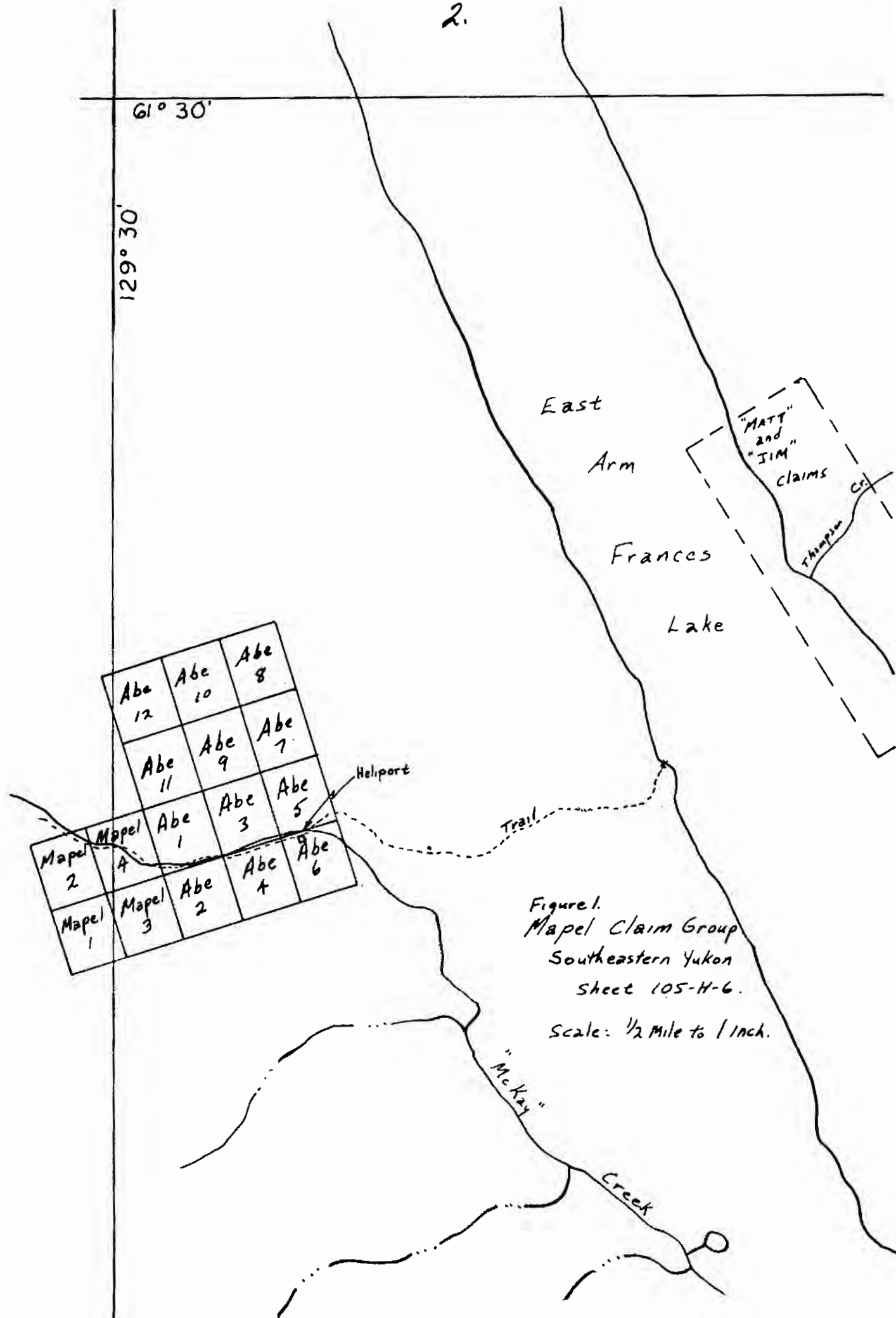


Figure 1.  
 Mapel Claim Group  
 Southeastern Yukon  
 Sheet 105-H-6.

Scale: 1/2 Mile to 1 Inch.

These claims were staked in July 1965 by Arthur Lake, John McKay and Francis Magun of Watson Lake, Y. T. and have been grouped for the purpose of applying assessment work, in accordance with Section 53(4) of the Yukon Quartz Mining Act.

#### CAMPS AND SERVICING

A tent camp was established on Abe No. 6 claim as a base for all work on claims of the Mapel group. Supplies and personnel were transported by fixed-wing aircraft from Watson Lake, Yukon to the shore of the East Arm of Frances Lake, about two miles east of the campsite. Most supplies and tools were backpacked to the working areas over a trail built for that purpose (figure 1). A helicopter landing site was prepared on Abe No. 6 claim.

#### PERSONNEL

Arthur Lake, prospector, assisted in line cutting and geochemical silt and soil sampling projects. Peter Risby, John McKay and Francis Magun, labourers, built the trail and helicopter landing site, packed supplies and trenched Abe No. 6 claim. Erik Ostensoe, geologist, provided supervision in the field, did geological reconnaissance, a limited dip needle survey and sampled the trenches. Gavin Dirom, P. Eng., directed the work and visited the area. Funds for the work were provided by Mount Billings Venture, a syndicated prospecting group managed by Ronald P. McBean and A. W. T. Freakes, P. Eng.

## GEOLOGICAL NOTES

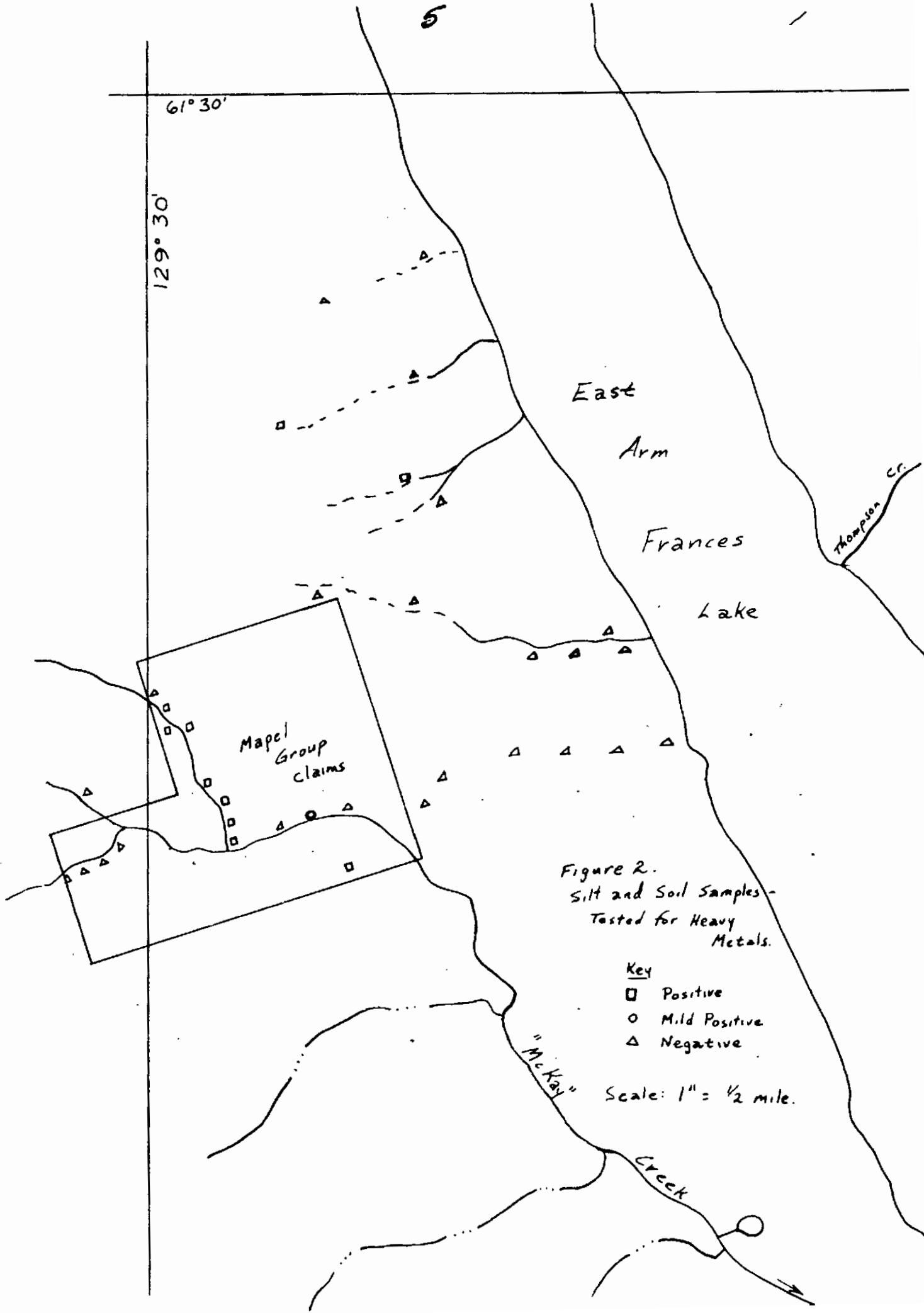
The Mapel area has not been geologically mapped. On the basis of his 1965 work in the area, the writer can only state that the main north-south ridge that separates the arms of Frances Lake consists of argillic and calcareous sedimentary rocks that have been intruded by one or more granitic stocks. The whole area is overlain by Quaternary age deposits of sands and gravels, in part morainal and in part stream-deposited.

On the mapel claims black limestones and argillites are virtually unmetamorphosed. They strike approximately north-south and dip gently (up to  $25^{\circ}$ ) westerly. Some deviation from this attitude was noted but details of structure were not determined. Limestone forms prominent cliffs up to 100 feet high on the south side of McKay Creek.

On the Abe claims various slightly metamorphosed argillic rocks were observed. Heavily iron-stained siliceous phyllites and schists occupy the southern half of Abe no. 6 claim. Pyrrhotite is abundant throughout this area as disseminations, in veinlets and in clusters of coarse grains. Small amounts of chalcopyrite occur in association with the pyrrhotite. Graphitic shear zones were noted in some outcrops.

## GEOCHEMICAL SAMPLING

Thirty-one soil and silt samples were analysed in the field for the presence of heavy metals. Results of this survey are shown in Figure 2. Almost all positive tests were from samples collected within the limits of the Mapel



group claims. Only one sample (mild positive) was related to known mineralization. Elsewhere drift cover precluded such comparisons.

#### DIP NEEDLE SURVEY

A dip needle survey of a total of 5000 line-feet on parts of Abe No. 3, 4, 5 and 6 claims proved to be of little value. Readings, in degrees, are given in figure 3. An area of low readings coincides with a mineralized zone.

#### TRENCHING

A small portion of Abe No. 6 claim was explored by trenching. A three man crew using hand tools and dynamite dug four trenches and a side-hill cut. Permafrost conditions were encountered, particularly in the north-facing slope where the sidehill cut was excavated.

Sulfide mineralization first discovered in outcrop close to McKay Creek was traced by trenches for a distance of 100 feet in a southeasterly direction. The sulfides, jame-sonite(?), galena, sphalerite, arsenopyrite, pyrrhotite and pyrite, occur in siderite and calcite gangue in meta-argillite. Mineralization appears to follow sheared zones.

The locations of trenches and of assay samples are shown in figure 4.

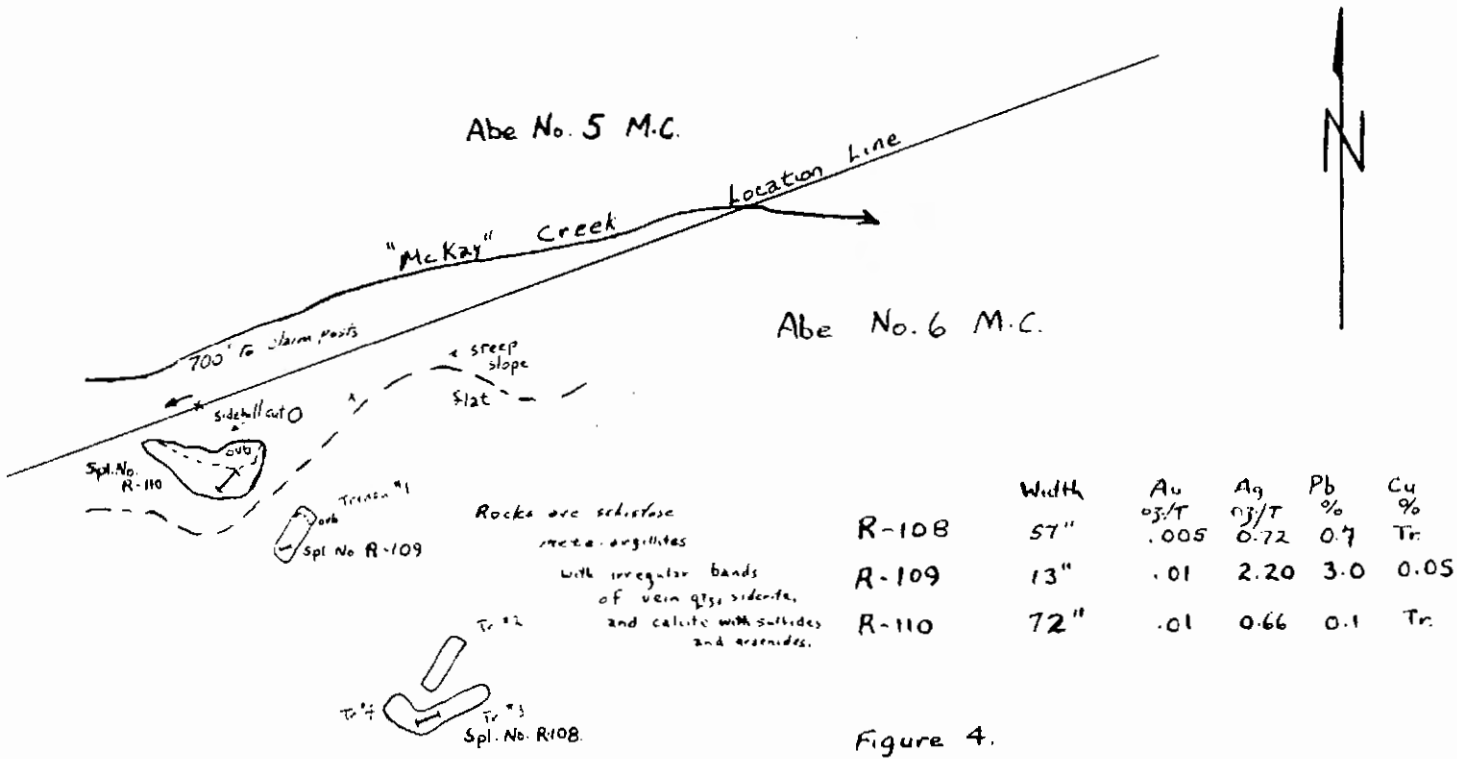


Figure 4.  
 Trenching and Sampling  
 Maple Claim Gp.  
 Southeastern Yukon.  
 sheet 105-H-6.  
 Scale: 1 inch = 50 feet.

## ASSAYS

The following assays were obtained from trenches on Abe No. 6 claim:

Sample No.	Width	Au (oz.)	Ag (oz.)	Pb (%)	Cu (%)
R-108	57"	0.005	0.72	0.7	Tr.
R-109	13"	0.01	2.20	3.0	0.05
R-110	72"	0.01	0.66	0.1	Tr.

Assaying was done by the Whitehorse Assay Office and one-half the cost of each assay was paid by the government.

## CONCLUSIONS

1. The geology of the Mapel claims is virtually unknown. North-striking, westerly dipping calcareous rocks and meta-argillites grading to graphitic schists appear to dominate the area.
2. Geochemical sampling indicated the presence of anomalously high amounts of heavy metals in silts and soils in areas of little or no outcrop.
3. The dip needle survey suggested that there is no significant magnetic pattern associated with the sulfide mineralization found on Abe No. 6 claim. The area surveyed may have been too small and the instrument used too insensitive for the results to be meaningful.
4. Trenching demonstrated the continuity of one mineralized zone for a distance of 100 feet.
5. Metal content is erratically distributed, narrow and of low value.
6. The work herein described did not demonstrate the presence of a deposit with economic potential.

## STATEMENT OF COSTS APPLICABLE AS REPRESENTATION WORK

## A. Labour

1. trail cutting - from East Arm of Frances Lake to west limit of Mapel claim group - three men, three days
2. preparation of heliport - three men, one day
3. line cutting for dip needle survey - two men, one day
4. silt and soil sampling - one man, two days
5. trenching - July 12th to July 22nd 1965 - three men, eleven days
6. packing supplies - 2 men, four days

Total labour - 57 man days at \$15/ man-day \$ 855.00

## B. Equipment

1. Hand tools - shovels, picks, axes, etc. 40.00
2. Dynamite - four cases at \$7/case 28.00

C. Supervision in the field - Geologist - 11 days  
at \$650/month + 15% 278.00

D. Preparation of reports - Geologist - four days  
at \$650/month 88.00

E. Ca mp Expenses - 68 man days at \$5/man day 340.00

Total Expenses claimed as costs of representation work \$1629.00

Statement of Costs Applicable as Representation Work  
on the Mapel Claim Group, Southeastern Yukon. Sheet 105/6

AFFIDAVIT

I, Erik E. Ostensoe make oath and say that I have done, or caused to be done, work on the caption noted mineral claims as set out below to the value of at least \$1629.00

A. Labour:

1. trail cutting from east arm of Frances Lake to west limit of Mapel Claims group: 3 men - 3 days
2. preparation of heliport: 3 men - 1 day
3. line cutting for dip-needle survey: 2 men - 1 day
4. silt and soil sampling: 1 man - 2 days
5. trenching: July 12th - 22nd, 1965: 3 men - 11 days
6. back-packing supplies: 2 men - 4 days

Total Labour - 57 man days at \$ 15.00      \$ 855.00

B. Equipment:

1. Expendable hand tools, shovels, picks, etc 40.00
2. Powder - 4 cases at \$ 7.00 each      28.00

C. Supervision in field - Geologist \*  
11 days at \$ 650 per month + 15%      278.00

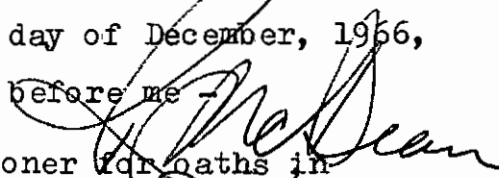
D. Preparation of reports - Geologist - 4 days  
at \$ 650.00 per month      88.00

E. Camp Expenses - 68 man days at \$ 5.00      340.00

Total expenses claimed as costs of  
representation work      \$ 1629.00

Sworn and subscribed at  
Vancouver B.C. this 8th  
day of December, 1966,

before me -



*Erik E. Ostensoe*

DECLARATION

I, Erik A. Ostensoe, geologist, hereby declare that

1. I am a qualified geologist, presently residing at 4323 West 14th Avenue, Vancouver 8, B. C.

2. I am a 1960 graduate in geology of the Honours Bachelor of Science course of the University of British Columbia

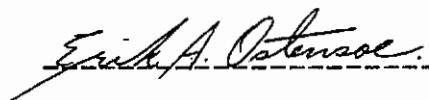
3. I practiced geology as my full-time occupation from May 1960 until September 1964 under the supervision of qualified and experienced geologists and engineers

4. at the time of examination of the property herein reported on, I was employed as a geologist by Mount Billings Venture

5. I have no interest, either directly or indirectly, in the property herein reported on

6. Work on the Mapel claim group was carried out under the direction of Mr. Gavin Dirom, P. Eng., who offered advice at various times and who visited the property in August 1965.

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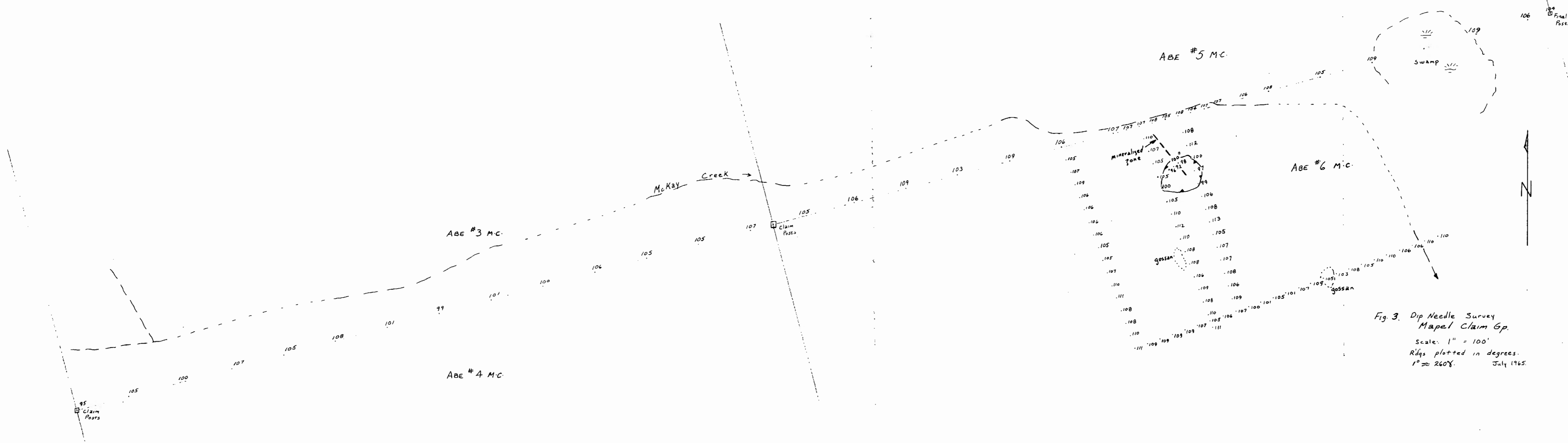


Fig. 3. Dip Needle Survey  
Maple Claim Gp.  
Scale: 1" = 100'  
Rdg's plotted in degrees.  
1° ≈ 260'. July 1965.