



42B01SE0053 2.4890 HORWOOD

010

REPORT ON
GROUND VLF AND GROUND MAGNETICS

PINECONE POINT
FOLEYET, ONTARIO

BY
JOSE LUIS SEARA

GOLD FIELDS MINING CORPORATION
MISSISSAUGA, ONTARIO.

RECEIVED

JUN 25 1982

MINING LANDS SECTION

REPORT ON
GROUND VLF AND GROUND MAGNETICS

Pinecone Point
Foleyet, Ontario

By
Jose Luis Seara

1. INTRODUCTION:

In March 1982 line cutting and ground geophysics were carried out by Gold Fields Canadian Mining Ltd. A total of 39.16 km of grid were cut and chained. Geophysical follow up consisted of 32.7 km of ground VLF data acquired on 24 lines, with station intervals of 25 m. Ground magnetics consisted of 39.16 km of magnetics data required on 24 lines at a station interval of 25m.

2. SURVEY LOCATION:

The survey location is located in the Foleyet region (Northeastern Ontario), about 60 miles from Timmins on Highway 101. Palimar Road is located 21 km from Foleyet, 300 m from Highway 101 on Palimar Road is Horwood Dam Road (left turn). Horwood Lake is approx. 20 km from this point. Pinecone Point grid is 18 km south on Horwood Lake.

3. DESCRIPTION OF GRID:

Main base line 0+00 was turned of Azimuth of 121 degrees from the Number 4 post of claim KRL 597722. Lines were turned off every 125 meters and chained at 25 m. station intervals.

4. GEOLOGY:

The Pinecone Point property is underlain by a NE-SW trending sequence of mafic volcanics. Two parallel shear zones trend NW-SE across the property. Dikes of feldspar porphyry and a system of quartz-ankerite veins intrude the shear zones.

5. TOPOGRAPHY:

Gently rolling forested area 1/5 of eastern side of grid is on Horwood Lake.

6. SURVEY PERSONNEL:

Magnetics: Phil Hembruff Dave Glidden

VLF: Gayle Fox Bryan Strapp

7. EQUIPMENT:

7.1 Ground VLF:

The equipment used during the survey was the Phoenix VLF-2. This receiver measures the orientation and magnitude of the major and minor axis of the ellipse of polarization, by means of the parameter dip angle (in degrees) and resultant field strength, RFS (in percent).

7.2 Ground Magnetics:

The measurement of earth's total field were taken with the EDA total field magnetometer Model PPM-300 providing a 0.1nT sensitivity. Diurnal change was monitored by a total field base station EDA Model PPM-400.

8. METHOD AND PROCEDURE:

8.1 Ground VLF:

The VLF method uses powerful radio transmitters that induce electric currents in conductive bodies. The direction of the flux of lines is horizontal and perpendicular to the VLF transmitter.

The Cutler, Maine station (NAA, 17.8 KHz) was selected.

Dip-angle and field strength readings were taken every 25 meters, making a total of 1255 readings.

8.2 Ground Magnetics:

Measurement of the total field were taken every 25 meters. All magnetometers used in the survey are programmable, automatically recording field readings, time of readings, line and station co-ordinates, a qualitative measurement of the gradient imposed on the sensor and signal strength or orientation of the sensor. Thus, the diurnal corrections are accomplished automatically by cable connecting each field unit in turn to the base station recorder and activating a pre-programmed correction program.

The base station recorder will interpolate and apply the diurnal correction, subtract the reference field and pass the survey data to a DCU-400 printer.

Base Station was located on O+70N at 6+15E. Base station interval was 20 seconds, with a value of 59,488 gammas. (A total of 1573 field stations were recorded).

9. DATA PRESENTATION:

9.1 Ground Magnetics:

Total field is presented on maps MAG-1 and MAG-2. (Scale 1:2500).

9.2 Ground VLF:

Two methods of presentation are utilized:

a) Profiles plots of true dip angle in degrees (1 cm = 10 degrees) together with the field strength in contour format, presented in maps VLF-1 and VLF-2.

b) A contour plan section of the convolution of the Fraser Filter and the dip angle is presented in Maps FF-1 and FF-2.

9.3 Interpretation overlay map INT-1.

10. RESULTS AND INTERPRETATION:

On the basis of magnetic background two domains have been identified, see maps 4a and 4b. Mainly mafic and felsic volcanics.

Several faults have been depicted from magnetics and VLF. Other VLF lineations (shear zones) have been marked. The most important feature is the fault running N-S in the central part of the property. Since this fault intersects the two domains it could be a potential feature for gold deposition. Other possible faults have been marked as questionable.

The VLF data profiles show two clear anomaly axes (E-W). Most of the profiles present a low amplitude anomalous events that are enhanced somewhat by the Frazer filter.

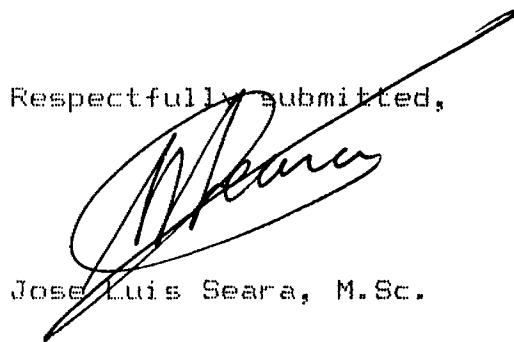
11. CONCLUSIONS AND RECOMMENDATIONS:

The magnetics and VLF surveys have been able to delineate some clues about the geology of there claims.

A major N-S fault was located that offers possibilities for gold deposition.

It is recommended to carry out some detail I.P. surveys over some of the areas mentioned above, if soil geochemistry gives positive results.

Respectfully submitted,


Jose Luis Seara, M.Sc.

Senior Geophysicist

GOLD FIELDS Mining Corporation



42B01SE0053 2.4890 HORWOOD

900

1983 08 11

2.4890

Mr. William L. Good
 Mining Recorder
 Ministry of Natural Resources
 60 Wilson Avenue
 Timmins, Ontario
 P4N 2S7

Dear Sir:

1/8500 7 max
 RE: Geophysical (Electromagnetic and Magnetometer) Survey
 on Mining Claims P 597722 et al in the Township of
 Horwood

42B/1SW

The Geophysical (Electromagnetic and Magnetometer) Survey
 assessment work credits as listed with my Notice of Intent
 dated July 18, 1983 have been approved as of the above date.

Please inform the recorded holder of these mining claims
 and so indicate on your records.

Yours very truly,

29 d.

E.F. Anderson
 Director
 Land Management Branch

Whitney Block, Room 6450
 Queen's Park
 Toronto, Ontario
 M7A 1W3
 Phone: (416)965-1380

R. Pichette:mc

cc: Goldfields Resources Canada Ltd
 Mississauga, Ontario

J L SEARA

cc: Resident Geologist
 Timmins, Ontario



Ministry of
Natural
Resources

**Technical Assessment
Work Credits**

File

2.4890

AMENDED

1983 07 18

Recorded Holder

GOLD FIELDS RESOURCES CANADA LIMITED

Township or Area

HORWOOD TOWNSHIP

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	
Electromagnetic _____ 20 days	P 597722-23 597726 to 30 inclusive 597734 to 36 inclusive 625930 to 33 inclusive 628067 628069 to 76 inclusive 597732-33
Magnetometer _____ 40 days	
Radiometric _____ days	
Induced polarization _____ days	
Section 77(19) 86(18)X _____ days	
Geological _____ days	
Geochemical _____ days	
Man days <input type="checkbox"/>	Airborne <input type="checkbox"/>
Special provision <input checked="" type="checkbox"/>	Ground <input checked="" type="checkbox"/>
<input type="checkbox"/> Credits have been reduced because of partial coverage of claims.	
<input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	
77(16)	

Special credits under section 86(15)X for the following mining claims

10 DAYS ELECTROMAGNETIC

P 628068

20 DAYS MAGNETOMETER

No credits have been allowed for the following mining claims

not sufficiently covered by the survey

Insufficient technical data filed

P 597724-25
597731

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical — 80; Geological — 40; Geochemical — 40; Section 86(15)X 77(19)



Ministry of
Natural
Resources

Aug 9/83

AMENDED

Your file:

1983 07 18

Our file: 2.4890

Mr. William L. Good
Mining Recorder
Ministry of Natural Resources
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

Dear Sir:

Enclosed are two copies of a Notice of Intent with statements listing a reduced rate of assessment work credits to be allowed for a technical survey. Please forward one copy to the recorded holder of the claims and retain the other. In approximately fifteen days from the above date, a final letter of approval of these credits will be sent to you. On receipt of the approval letter, you may then change the work entries on the claim record sheets.

For further information, if required, please contact
Mr. F.W. Matthews at 416/965-1380.

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-1316

Encls:



Ministry of
Natural
Resources

AMENDED

Notice of Intent
for Technical Reports

1983 07 18

2.4890

An examination of your survey report indicates that the requirements of The Ontario Mining Act have not been fully met to warrant maximum assessment work credits. This notice is merely a warning that you will not be allowed the number of assessment work days credits that you expected and also that in approximately 15 days from the above date, the mining recorder will be authorized to change the entries on his record sheets to agree with the enclosed statement. Please note that until such time as the recorder actually changes the entry on the record sheet, the status of the claim remains unchanged.

If you are of the opinion that these changes by the mining recorder will jeopardize your claims, you may during the next fifteen days apply to the Mining and Lands Commissioner for an extension of time. Abstracts should be sent with your application.

If the reduced rate of credits does not jeopardize the status of the claims then you need not seek relief from the Mining and Lands Commissioner and this Notice of Intent may be disregarded.

If your survey was submitted and assessed under the "Special Provision-Performance and Coverage" method and you are of the opinion that a re-appraisal under the "Man-days" method would result in the approval of a greater number of days credit per claim, you may, within the said fifteen day period, submit assessment work breakdowns listing the employees names, addresses and the dates and hours they worked. The new work breakdowns should be submitted direct to the Lands Management Branch, Toronto. The report will be re-assessed and a new statement of credits based on actual days worked will be issued.

1983 07 18

2.4890

Mr. William L. Good
Mining Recorder
Ministry of Natural Resources
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

Dear Sir:

RE: Geophysical (Electromagnetic and Magnetometer) Survey
submitted on mining claims P 597722 et al in the Township
of Horwood

Please disregard my Notice of Intent dated June 30, 1983 and
replace it with the attached amended Notice of Intent.

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: (416)965-1380

R. Pichette:mc

Attach:

cc: Goldfields Resources Canada Ltd
Mississauga, Ontario

cc: Mr. G.H. Ferguson
Mining & Lands Commissioner
Toronto, Ontario



Ministry of
Natural
Resources

July 22/83

Your file:

1983 06 30

Our file: 2.4890

Mr. William L. Good
Mining Recorder
Ministry of Natural Resources
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

Dear Sir:

Enclosed are two copies of a Notice of Intent with statements listing a reduced rate of assessment work credits to be allowed for a technical survey. Please forward one copy to the recorded holder of the claims and retain the other. In approximately fifteen days from the above date, a final letter of approval of these credits will be sent to you. On receipt of the approval letter, you may then change the work entries on the claim record sheets.

For further information, if required, please contact
Mr. F.W. Matthews at 416/965-1380.

Yours very truly,


E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-1316

RP R. Pichette:mc

cc: Gold Fields Resources Canada Limited
Mississauga, Ontario

cc: Mr. G.H. Ferguson
Mining & Lands Commissioner
Toronto, Ontario

Encls:



Ministry of
Natural
Resources

Notice of Intent
for Technical Reports

1983 06 30

2.4890

An examination of your survey report indicates that the requirements of The Ontario Mining Act have not been fully met to warrant maximum assessment work credits. This notice is merely a warning that you will not be allowed the number of assessment work days credits that you expected and also that in approximately 15 days from the above date, the mining recorder will be authorized to change the entries on his record sheets to agree with the enclosed statement. Please note that until such time as the recorder actually changes the entry on the record sheet, the status of the claim remains unchanged.

If you are of the opinion that these changes by the mining recorder will jeopardize your claims, you may during the next fifteen days apply to the Mining and Lands Commissioner for an extension of time. Abstracts should be sent with your application.

If the reduced rate of credits does not jeopardize the status of the claims then you need not seek relief from the Mining and Lands Commissioner and this Notice of Intent may be disregarded.

If your survey was submitted and assessed under the "Special Provision-Performance and Coverage" method and you are of the opinion that a re-appraisal under the "Man-days" method would result in the approval of a greater number of days credit per claim, you may, within the said fifteen day period, submit assessment work breakdowns listing the employees names, addresses and the dates and hours they worked. The new work breakdowns should be submitted direct to the Lands Management Branch, Toronto. The report will be re-assessed and a new statement of credits based on actual days worked will be issued.



Ministry of
Natural
Resources

**Technical Assessment
Work Credits**

File

2.4890

1983 06 30

Recorded Holder

GOLD FIELDS RESOURCES CANADA LIMITED

Township or Area

HORWOOD TOWNSHIP

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical 20	P 597722 - 23
Electromagnetic _____ days	P 597726 to 30 inclusive
40	P 597734 to 36 inclusive
Magnetometer _____ days	P 625930 to 33 inclusive
Radiometric _____ days	P 628067
Induced polarization _____ days	P 628069 to 76 inclusive
Section 86 (18) _____ days	
Geological _____ days	
Geochemical _____ days	
Man days <input type="checkbox"/>	Airborne <input type="checkbox"/>
Special provision <input checked="" type="checkbox"/>	Ground <input checked="" type="checkbox"/>
<input type="checkbox"/> Credits have been reduced because of partial coverage of claims.	
<input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	
77(16)	

Special credits under section 86(18)(a) for the following mining claims

10 Days Electromagnetic

20 days Magnetometer

P628068

No credits have been allowed for the following mining claims

not sufficiently covered by the survey

Insufficient technical data filed

P 597724 - 25
P 597731 to 33 inclusive

(320 83)



Ministry of
Natural
Resources

Geotechnical Report Approval

File 2.4890
4890

Mining Lands Comments

To: Geophysics Mr. Barkow

Comments	Date	Signature
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Approved Wish to see again with corrections

Date
April 9/83

Signature

To: Geology - Expenditures

Comments

Approved Wish to see again with corrections

Date

Signature

To: Geochemistry

Comments
WD

Approved Wish to see again with corrections

(T-1-5-1000)

1982 07 05

2.4890

Mining Recorder
Ministry of Natural Resources
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

Dear Sir:

We have received reports and maps for a Geophysical (Electromagnetic and Magnetometer) survey submitted under Special Provisions (credit for Performance and Coverage) on mining claims P 597734 et al in the Township of Horwood.

This material will be examined and assessed and a statement of assessment work credits will be issued.

Yours very truly,

E.P. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-1316

J. Skura/sc

c.c. Gold Fields Resources Canada Limited
Mississauga, Ontario
Att: Jose L. Gears.



Ministry of
Natural
Resources

Report of Work
(Geophysical, Geological,
Geochemical and Expenditures)

R-597122

#187

The Mining Act

Instructions: — Please type or print.

— If number of mining claims traversed exceeds space on this form, attach a list.

Note: — Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.

— Do not use shaded areas below.

Type of Survey(s)

Magnetometer & Electromagnetic - VLF

Township or Area

Horwood Township

Claim Holder(s)

Gold Fields Resources Canada Limited

Prospector's Licence No.
T-1028

Survey Company

Gold Fields Resources Canada Limited

Survey Dates (linecutting to office)

March 1982

Day | Mo.

Total Miles of line Cut
42.5 Km.

Name and Address of Author (of Geo-Technical report)

#335-230 Lakeshore Road East, Mississauga, Ontario L5G 1G8

Special Provisions Credits Requested

Instructions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	20
	- Magnetometer	40
	- Radiometric	
	- Other	
	Geological	
	Geochemical	

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.	Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
P	597722		P	628074	
	597723			628075	
	597724			628076	
	597725			599729	
	597726			597729	
	597727				
	597728				
	597730				
	597731				
	597732				
	597733				
	597734				
	597735				
	597736				
	625930				
	625931				
	625932				
	625933				
	628067				
	628068				
	628069				
	628070				
	628071				
	628072				
	628073				

RECEIVED

May 20 1982

MINING LANDS SECTION

RECORDED

MAY 20 1982

Receipt No.

See previous page

Total number of mining claims covered by this report of work.

29

Expenditures (excludes power stripping)

Type of Work Performed	PONCUPINE MINING DIVISION		
Performed on Claim(s)	# 597722		
	MAY 20 1982		
A.M.			

Calculation of Expenditure Days Credits

Total Expenditures \$ 12,123.81 Total Days Credits 1740

\$ + 15 =

Instructions

Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Report Completed

Date of Report **May 19/82** Recorded Holder or Agent (Signature) *William R. Troup*

For Office Use Only		
Total Days Cr. Recorded	Date Recorded	Miner Recorder
1740	May 20/82	<i>John J. Troup</i>
	Date Approved as Recorded	Regional/Branch Director Regional Mining Recorder

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying

W. Troup

#335-230 Lakeshore Road E. Mississauga

Date Certified **May 19/82**

Certified by (Signature) *William R. Troup*



Ministry of Natural Resources

File _____

GEOPHYSICAL - GEOLOGICAL - GEOCHEMICAL
TECHNICAL DATA STATEMENT

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
 FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
 TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) Magnetometer & Electromagnetic - VLF (Pinecone Point)

Township or Area Horwood Township

Claim Holder(s) Gold Fields Resources Canada Limited

#335-230 Lakeshore Rd. E. Mississauga, L5G 1G8

Survey Company Gold Fields Resources

Author of Report Jose L. Seara

Address of Author #335-230 Lakeshore Rd. East.

Covering Dates of Survey March 18 - June 1982
(linecutting to office)

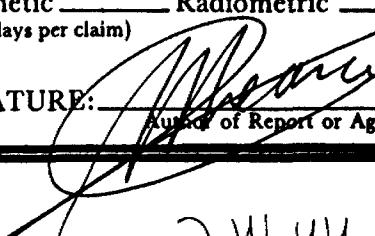
Total Miles of Line Cut 39.16 Km

<u>SPECIAL PROVISIONS</u>	
<u>CREDITS REQUESTED</u>	
ENTER 40 days (includes line cutting) for first survey.	Geophysical DAYS per claim
ENTER 20 days for each additional survey using same grid.	-Electromagnetic 20
	-Magnetometer 40
	-Radiometric
	-Other
	Geological
	Geochemical

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: June 23/82

SIGNATURE: 
Author of Report or Agent

Res. Geol. _____ Qualifications 2.4644

Previous Surveys

File No.	Type	Date	Claim Holder
.....
.....
.....
.....
.....

MINING CLAIMS TRAVERSED
List numerically

P 597734	P 597727
(prefix) 597735	(number) 597728
597736	597729
625930	597730
625931	597731
625932	597732
625933	597733
628067 .....	.....
628068 .....	.....
628069 .....	.....
628070 .....	.....
628071 .....	.....
628072 .....	.....
628073 .....	.....
628074 .....	.....
628075 .....	.....
628076 .....	.....
597722 .....	.....
597723 .....	.....
597724 .....	.....
597725 .....	.....
597726 .....	.....
TOTAL CLAIMS 29	.....

If space insufficient, attach list

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS – If more than one survey, specify data for each type of survey

Number of Stations	1255	Number of Readings	VLF - 1255 Mag - 1573
Station interval	25 metres	Line spacing	125 metres
Profile scale	1"=20° (dip angle)	1"=100° (horizontal field)	
Contour interval	25 gammas		

MAGNETIC

Instrument	Proton Precession Total Field		
Accuracy – Scale constant	.1 NT		
Diurnal correction method	automatic programmable		
Base Station check-in interval (hours)	20 seconds		
Base Station location and value	0+70 N at 6+15 E		

ELECTROMAGNETIC

Instrument	Phoeni VLF - 2		
Coil configuration	N/A		
Coil separation	N/A		
Accuracy	±1° (dip angle)	20° (horizontal field strength)	
Method:	<input checked="" type="checkbox"/> Fixed transmitter	<input type="checkbox"/> Shoot back	<input type="checkbox"/> In line
Frequency	17.6 Khz Cutler, Maine <small>(specify V.L.F. station)</small>		
Parameters measured	Horizontal Field Strength; Dip Angle		

GRAVITY

Instrument			
Scale constant			
Corrections made			
Base station value and location			
Elevation accuracy			

INDUCED POLARIZATION

RESISTIVITY

Instrument			
Method	<input type="checkbox"/> Time Domain	<input type="checkbox"/> Frequency Domain	
Parameters – On time	Frequency _____		
– Off time	Range _____		
– Delay time			
– Integration time			
Power			
Electrode array			
Electrode spacing			
Type of electrode			

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

Corrections made _____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth – include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

Additional information (for understanding results) _____

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____ (specify for each type of survey)

Accuracy _____ (specify for each type of survey)

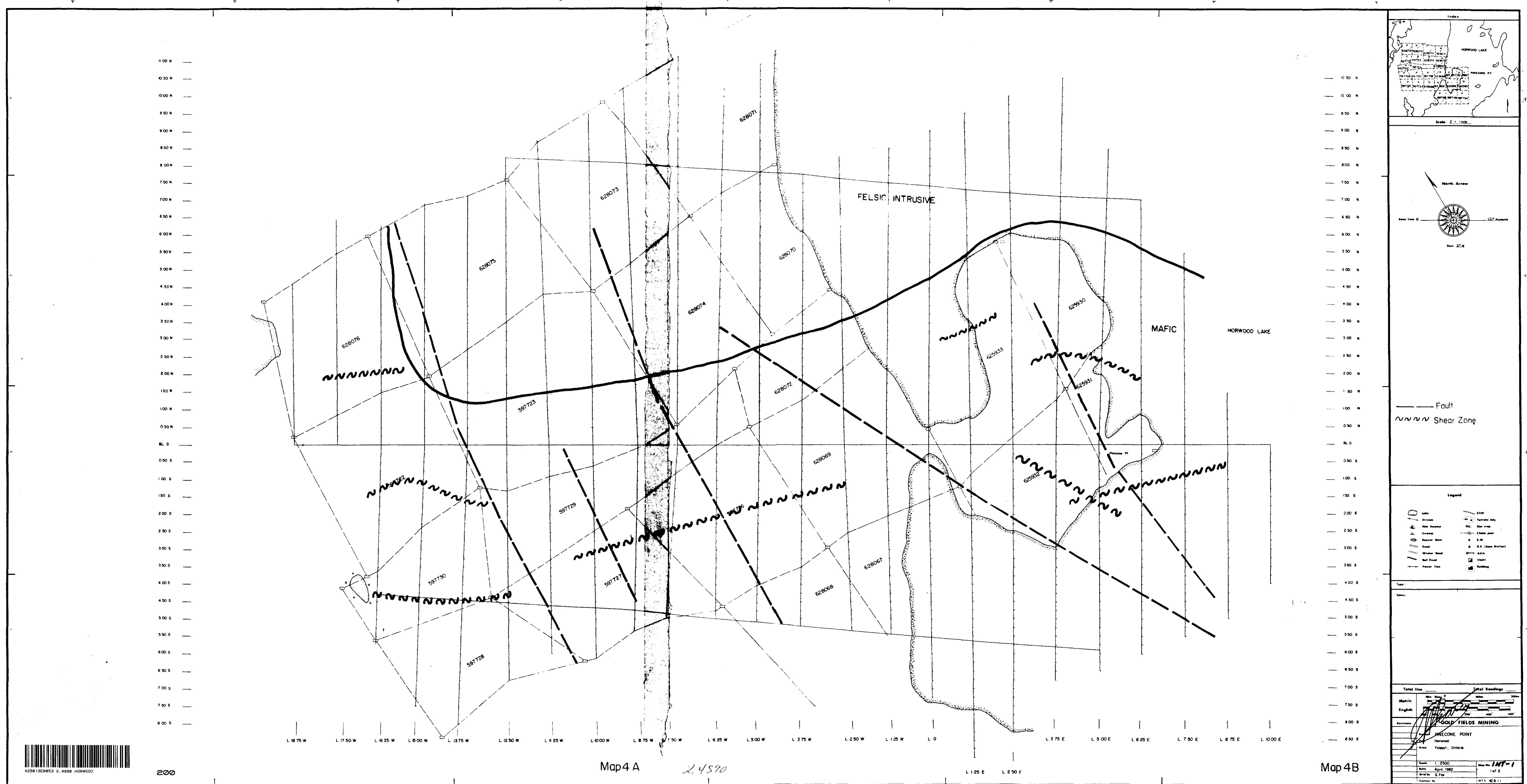
Aircraft used _____


Sensor altitude _____

Navigation and flight path recovery method _____


Aircraft altitude _____ Line Spacing _____

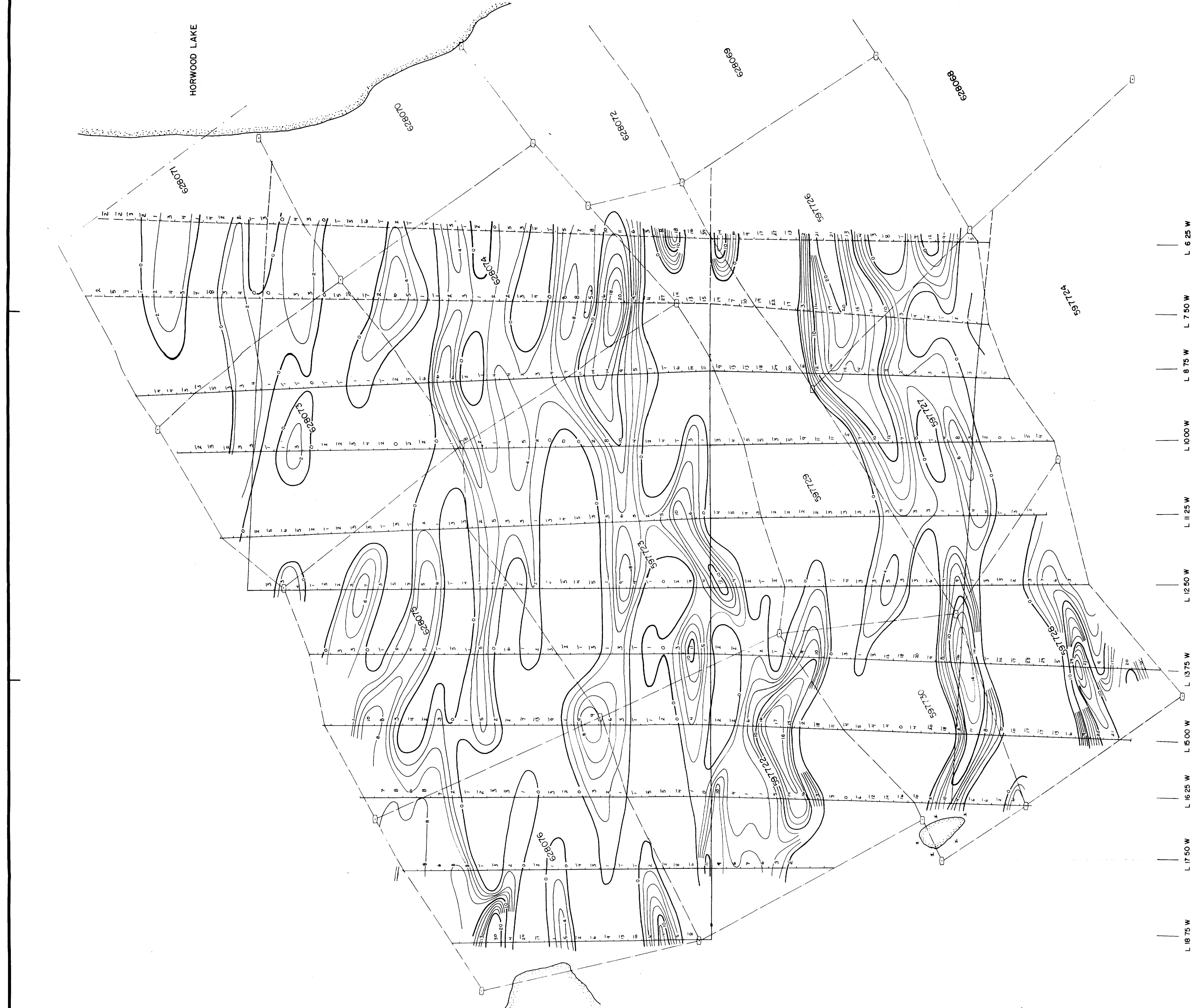
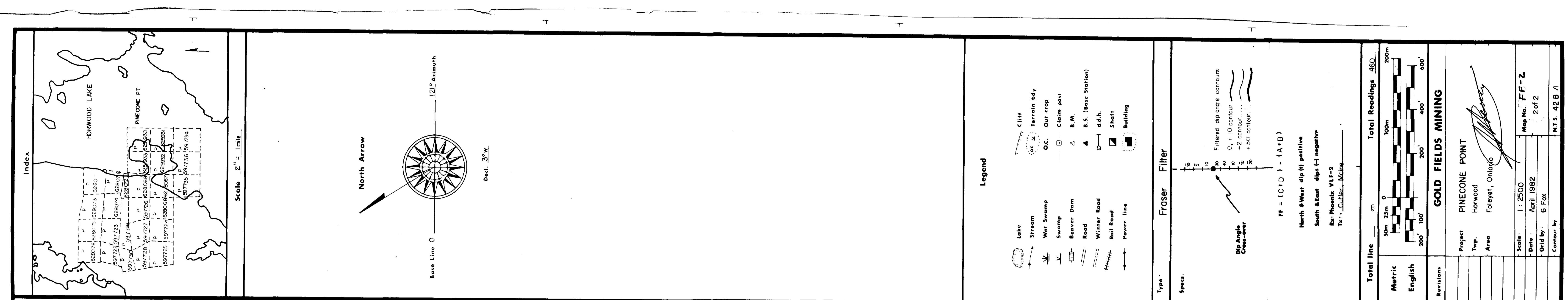
Miles flown over total area _____ Over claims only _____











Map No. FF-2
Date: April 1982
Grid by: G. Fox
Contour by: NTS 42 B /I

