



41P12SE0508 2.6904 GROVES

010

SEAWAY BASE METALS LIMITED
(TROUTFLY RESOURCES INC.)
ASSESSMENT REPORT
GROVES TOWNSHIP
ONTARIO

BY

NEIL NOVAK B.Sc.

JUNE 15, 1984

RECEIVED
JUN 26 1984
MINING LANDS SECTION

PROPERTY DESCRIPTION

These properties are located in Groves Township of the Porcupine Mining Division of the District of Sudbury in the province of Ontario. They consist of two separate groups of claims, the most northerly is comprised of six claims while the southern group is comprised of four claims totalling ten in number.

Northern group consists of claims numbered:

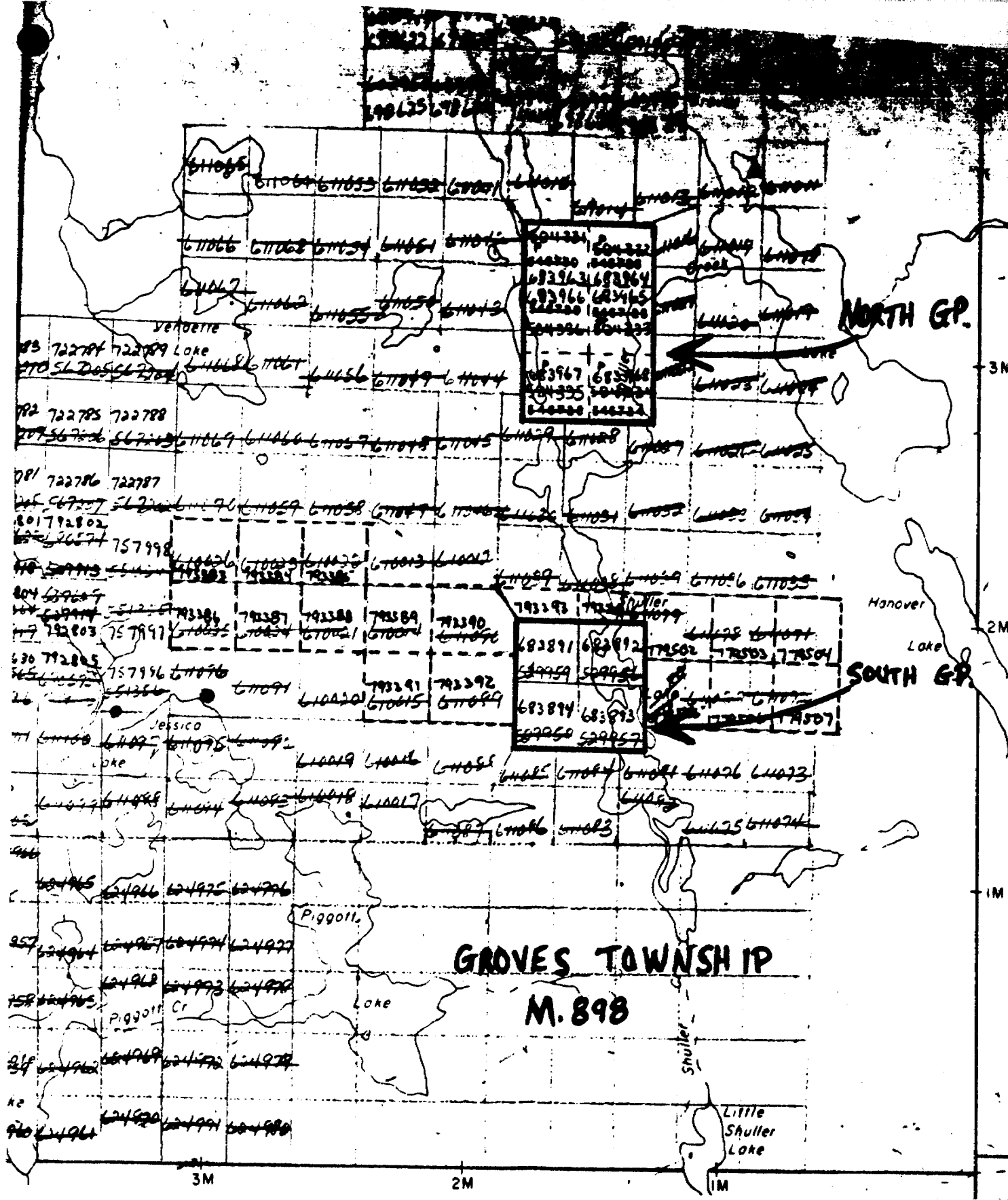
P-683963 to P-683968 inclusive (6)

Southern group consist of claims numbered:

P-683891 to P-683894 inclusive (4)

These ten claims cover an area of approximately four hundred acres.

The property is currently in good standing with the provincial mining recorder and is currently held by Troutfly Resources Inc. (a wholly owned subsidiary of Seaway Base Metals Limited ,) with head office located at 1585-B Britannia Road East, Suites 11 & 12, Mississauga, Ontario, L4W 2M4.



49625 6786

611066 611067 611068 611069 611070
611071 611072 611073 611074 611075
611076 611077 611078 611079 611080
611081 611082 611083 611084 611085
611086 611087 611088 611089 611090
611091 611092 611093 611094 611095
611096 611097 611098 611099 611100

NORTH GP.

722784 722789 Lake
722790 722795 722798

722785 722788

722786 722787

722788 722789

722790 722791

722792 722793

722794 722795

722796 722797

722798 722799

722799 722800

722801 722802

722803 722804

722805 722806

722807 722808

722809 722810

722811 722812

722813 722814

682891 682892
682893 682894
682895 682896
682897 682898
682899 682900
682901 682902
682903 682904
682905 682906
682907 682908
682909 682910

793291 793292
793293 793294
793295 793296
793297 793298
793299 793300
793301 793302
793303 793304
793305 793306
793307 793308
793309 793310

SOUTH GP.

GROVES TOWNSHIP
M. 898

3M

2M

1M

LOCATION, ACCESS AND FACILITIES

These properties are located in west-central Groves Township at the southeastern tip of Geoffrion Lake and the central portion of Shuller Lake (see O.M.N.R. plan M.898.)

Access to the property is gained by float planes based at Gogama, Ontario some 5.0 miles northwest of the property. Access may also be gained by canoe by travelling from Gogama eastward along Minnisisakwa River to Duckbreast Lake, then south to Groves Lake, two portages are required to get to Groves Lake which, when reached is about a $\frac{1}{4}$ mile east of the northern group, requiring another portage. The float plane option is highly recommended in this situation.

The crew involved in this survey established a small tent camp on the north shore of Shuller Lake for the duration of the surveys. No facilities were left after the completion of the survey.

HISTORY OF EXPLORATION

This general area was the focus of much exploration activity in the search for gold and related base metals.

In 1933 exploration was carried out in the Pensyl Lake area by the Tasmijopen Syndicate. They did a few short diamond drill holes, along with surface trenching and stripping exposing a "rudely banded sugary or cherty quartz vein." This vein, when sampled yielded 0.15 o.p.t. Au and 0.15 Ag o.p.t. drilled to a depth of 20 feet. About 500 feet east of this zone iron formation was encountered which was heavily gossaned and yielded selected samples of up to 0.5 o.p.t. Au plus silver. Another zone was encountered 100 feet north of this zone, which consisted of a 1 foot wide quartz vein with grab samples of up to 0.5 o.p.t. Au.

In 1934 Flintoba Mines acquired a group of claims on Shuller Lake (south group) which saw little exploration to save the opening of a few small test pits on what they report as being "rusty shear zones in sediments."

In 1953 Falconbridge Nickel Mines entered the area and did a number of short diamond drill holes and opened up several test pits in the vicinity of Geoffrion Lake (currently the north group). They had interesting results, but let the property drop due to the poor nickel-copper-gold prices.

Groves Township saw little, if any exploration until the early 1980's when a consortium of private and public companies pooled their resources and flew an airborne geophysical survey over the entire southeast extension of the Swayze Syncline. The "iron formation" of Pensyl Lake was picked up in this EM portion of the survey and the magnetics indicate it to be continuous from Pensyl Lake through to Shuller Lake.

SURVEY PERSONNEL

An EM 16 (VLF) and ground magnetic survey was carried out on these properties in May 1984. Personnel involved in these surveys included John Daley and William Dickinson, both of Thornloe, Ontario, under the auspices of this author. All personnel were in the employ of Blue Falcon Mines Limited of Mississauga, Ontario, on contract with Seaway Base Metals Limited (Troutfly Resources Inc.)

SURVEY PROCEDURE

An east-west base line was established on both groups following the centrally located claim line. This base line was cut out approximately four feet wide. Offsets were established every ^{four}~~two~~ hundred feet in the north and south directions perpendicular to the base lines with stations every one hundred feet each station being clearly flagged. Readings in the EM survey were recorded at every station, being read in the northerly direction in each instance. A magnetic reading was recorded at each station location, with time variables, base station check-ins whenever possible. Total number of feet surveyed in each survey was 44300 feet.

ELECTROMAGNETIC (VLF) SURVEY

The very low frequency (VLF) electromagnetic survey is a passive electromagnetic technique utilizing electromagnetic radio waves transmitted world wide for marine navigational purposes. The signal used in this survey originated in Cutler, Maine, U.S.A., some 1240 kilometres to the east at a azimuth of 104° , the station code is NAA, transmitted at a frequency of 17.8 khz, at a radiated power of 1000 kw.

The Geonics EM-16 hand held receiver used in this survey is capable of measuring the variations in the tilt angle of the electromagnetic polarization ellipse resultant from the distortions from the normal caused by irregular conductive bodies acted upon the transmitted signal. This unit measures the in-phase component as a percentage of the horizontal normal field (real component) as well as measuring the amplitude of the minor axis of the polarization ellipse (quadrature response).

As the real component decreases and approaches zero percent, the receiver is approaching a conductive target, and as the real component becomes negative the receiver passes the conductor. The quadrature response to the conductor is a semi-quantitative measurement of the interference caused by overburden inconsistencies and other geologic related quirks.

Measurements were taken along lines facing in the north (azimuth 0°) in all instances. The values were recorded and plotted on the accompanying geophysical plan. The results were then profiled at a scale of one inch equals 50%, and plot on the accompanying geophysical plan.

MAGNETIC SURVEY

Proton magnetometers accurately measure variations of the total intensity of the earth's magnetic field over any given area. The resultant variations and rate of variations of this field reflect changes in rock type, rock constituents, as well as geologic structures and depth of magnetic bodies. All measurements are quantitative in nature with the interpretation being qualitative.

The Geometrics Model G-816 Portable Proton Magnetometer was used during these surveys. This unit measures the total intensity of the earth's magnetic field based upon an atomic constant (Proton Gyromagnetic Ratio equal to $(2.67513 \pm 0.00002) \times 10^4$ radian / Gauss sec.). This measurement is independent of temperature, humidity and sensor orientation. The unit is capable of providing one gamma accuracy, when the staff is used on the sensor, but when the back pack mount is used accuracy is only ± 10 gammas which is sufficient for surveys at the reconnaissance level.

A total of three readings were taken at each station, with the sensor held at shoulder level. The readings were averaged, then entered into the field book, with the time recorded at each station location.

A magnetic base station was established at line 0 base line station on both the north and south properties. This station was checked into at approximately one hour intervals during the course of the surveys.

Diurnal variations were therefore monitored within the survey periods and corrections were made accordingly. This method, although not as accurate as is possible, provides an acceptable observance of any micro-pulsations during the survey period. All data was processed manually taking into consideration all recorded drift measurements with respect to time and reduced to a final quantitative measurement, which was plotted on the accompanying geophysical plans.

SURVEY RESULTS

Numerous short electromagnetic conductors were encountered during the course of these two surveys. Nearly all conductors have a general azimuthal direction of $090^{\circ} \pm 20^{\circ}$. The magnetic pattern appears to follow the overall trend of the conductive bodies with only a few minor exceptions, where the magnetic pattern transects the electromagnetic pattern. This occurs in the extreme southeast corner of the north group, and in the southwest corner of the south group.

INTERPRETATION

"NORTH GROUP"

Several short electromagnetic conductors exist in this group of claims. High magnetics are commonly associated with these short conductive zones. A large east-west trending conductor exists, extending from the southern extremity of Watershed Lake to the southeast corner near Shuller Creek. About 1000' north two short conductors parallel this major conductor, which show a very distinct magnetic high expression. Sulphides have been located in this zone and were previously tested by diamond drilling in the late 1950's with encouraging results with respect to Copper, Nickel and Gold. The rocks in this area have been described as hybrid meta-tuffs of intermediate affinities. The broken up appearance of the conductive zones is thought to reflect isolated conductive bodies, syngenetic with the volcanic accumulations, displaying an en-echelon concordant pattern. The isolated magnetic highs reflect volcanics of more mafic components with or without magnetic minerals.

"SOUTH GROUP"

An east-west electromagnetic pattern is also evident in this group. Two parallel conductive bodies exist about 500° apart in the northern half of the group of claims. These two zones have little magnetic expression and are thought to be reflecting a zone of felsic accumulations. Geologic mapping and sampling of an area on strike to the west about three quarters of a mile indicate that this zone is of volcanic-sedimentary origin with economic to sub-economic accumulations of gold in a cherty iron formation interbedded with felsic tuffs. It is therefore felt that this situation exists within this claim group.

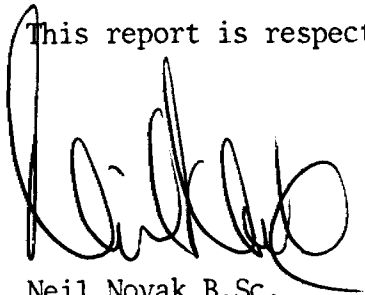
CONCLUSIONS

These EM and Mag surveys have suggested several areas of exciting geologic and possibly economic situations. The area is typical of the region in that several short en-echelon sulphide accumulations exist which are syngenetic with the volcanic stratigraphy. The longer conductors in the south group are attributable to an intra-formational cherty iron formation within felsic tuffs, while the longer conductors in the south group are attributable to sulphide accumulations within a mafic suite of volcanics. Both series of conductors (north and south) contain economic concentrations of metals. The northern series contains base metals Cu, Ni as well as gold and platinum. The southern series contains primarily gold with minor amounts of silver.

RECOMMENDATIONS

Detail geologic mapping and sampling is highly recommended to cover both claim blocks. Several conductive bodies have been located and their economic importance assessed by surface trenching and sampling. Diamond drilling is recommended in both groups, to follow up the geologic mapping and sampling whenever favourable results are obtained.

This report is respectfully submitted by:



Neil Novak B.Sc.

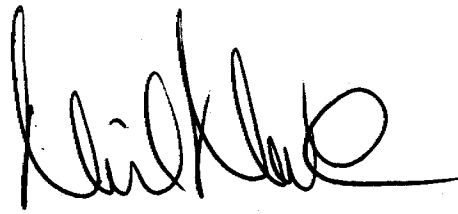
Geologist

June 15, 1984

CERTIFICATE

I, NEIL D. NOVAK, do hereby certify:

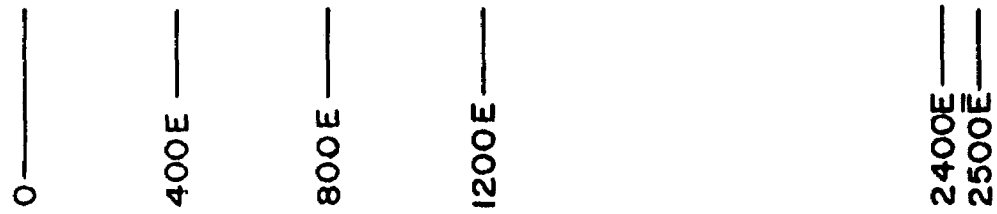
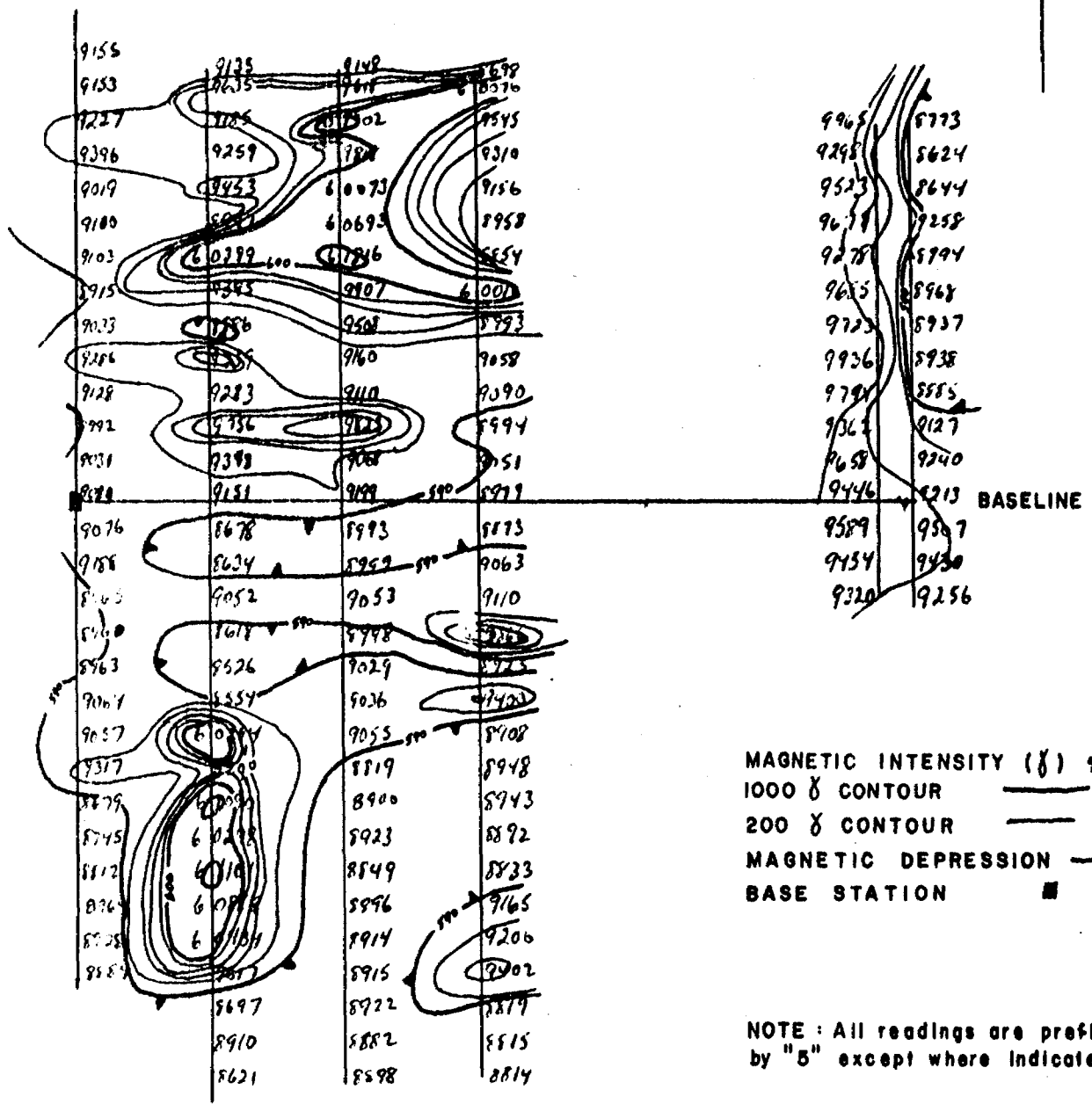
- 1) that I am an exploration geologist residing at lot 7, Trillium Crt., Heidelberg, Ontario;
- 2) that I am a graduate of the University of Waterloo, Waterloo, Ontario, and hold a Bachelor of Science degree as an Earth Scientist, dated 1977;
- 3) that I have been engaged in the practice of this profession since graduating;
- 4) that I have no interest, direct or indirect in the properties or securities of SEAWAY BASE METALS LIMITED.



NEIL D. NOVAK, B. Sc.

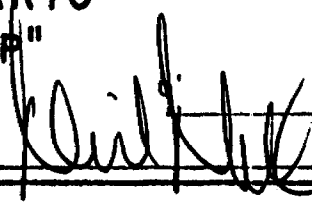
Geologist

June 15, 1984



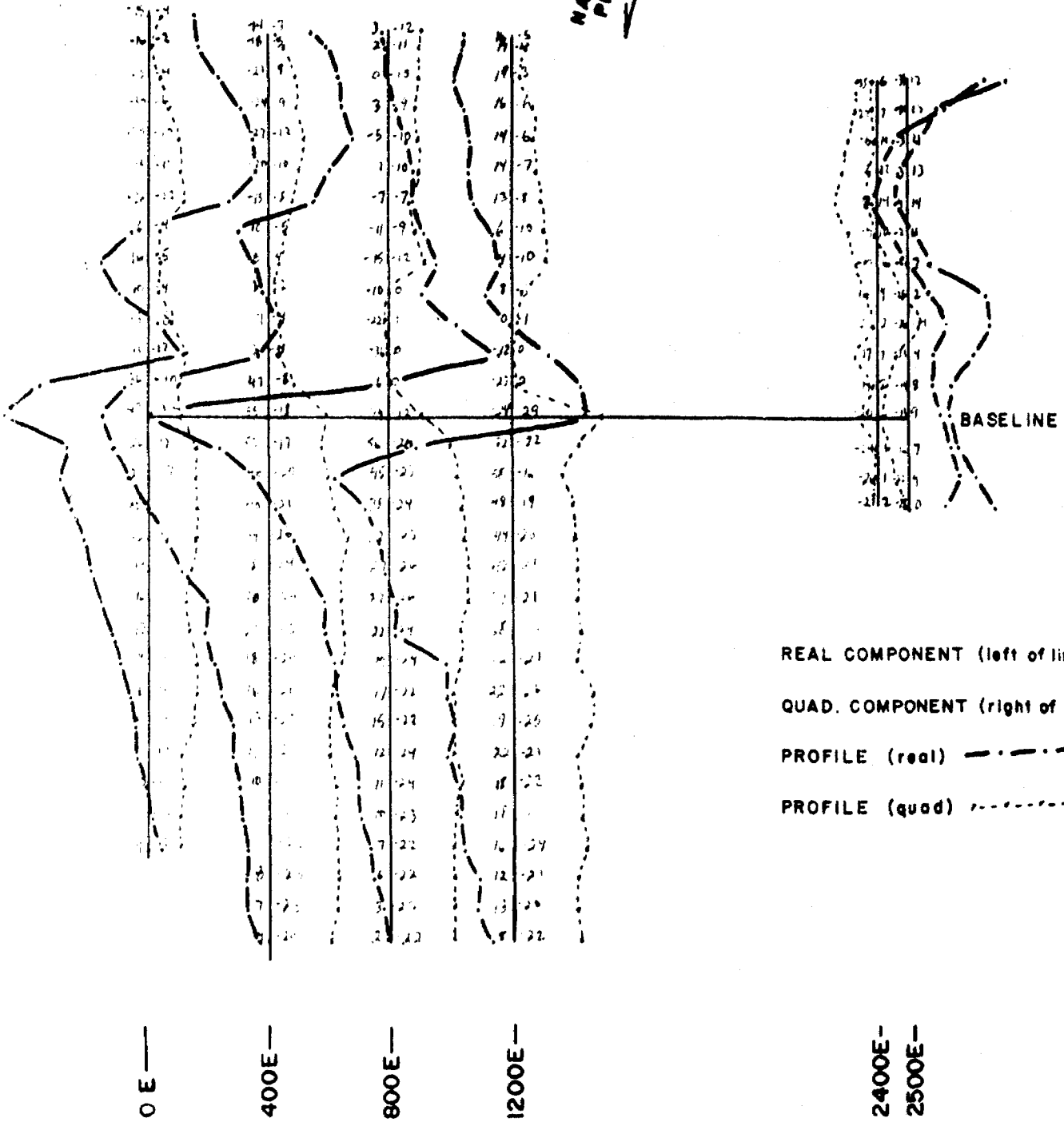
SEAWAY BASE METALS LTD.
MAGNETOMETER SURVEY
GROVES TWP. ONTARIO
"SOUTH GROUP"

2.6904

APPROVED  500' 1000'

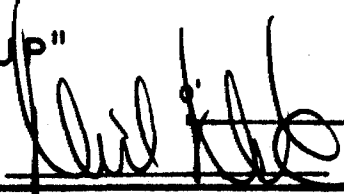


NAA CUTLER
PRIMARY

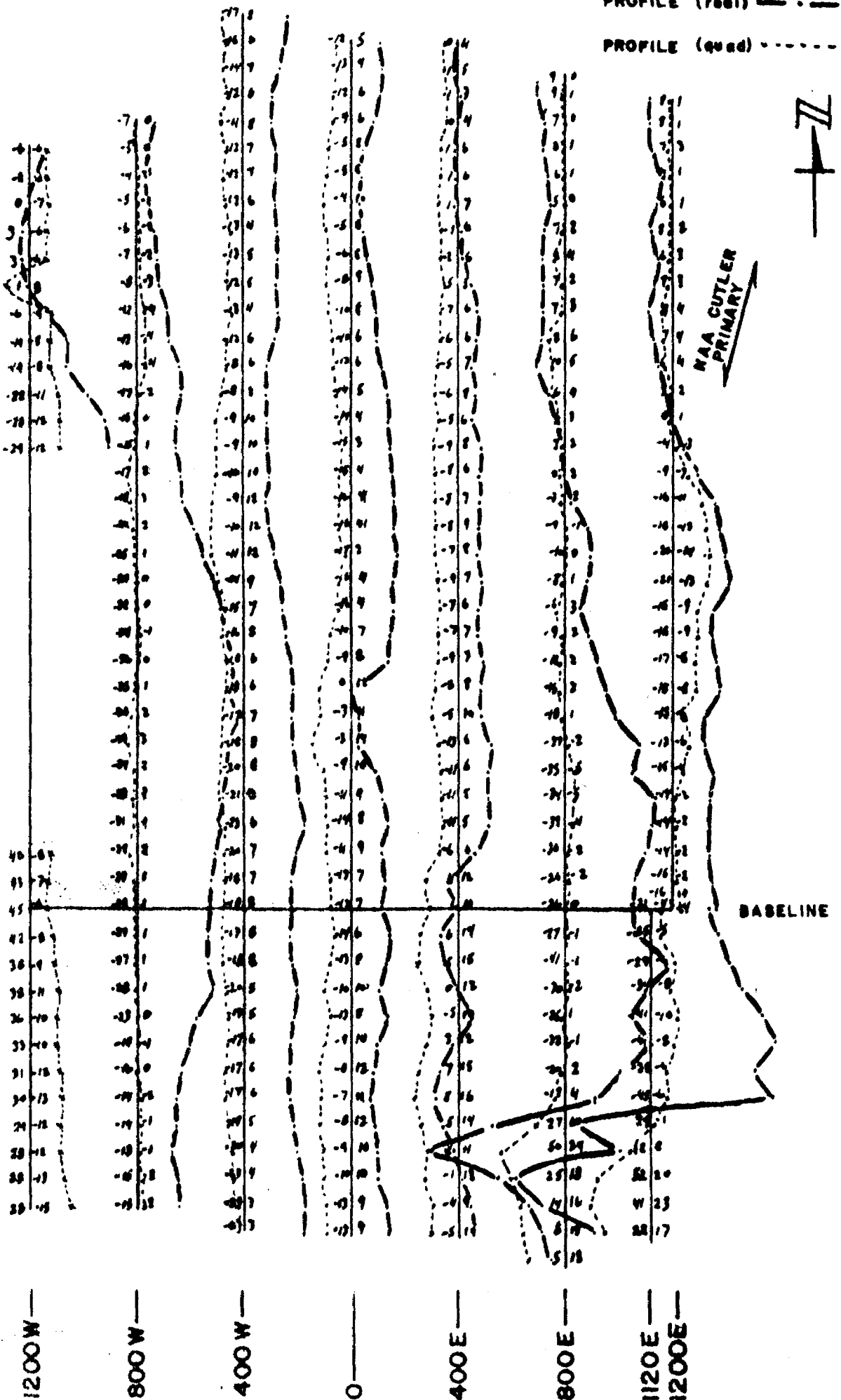


SEAWAY BASE METALS LTD.
 ELECTROMAGNETIC (EMI6) V.L.F. SURVEY
 GROVES TWP. ONTARIO
 "SOUTH GROUP"

2.6904

PROVED  500' 1000'

REAL COMPONENT (left of line)
 QUAD. COMPONENT (right of line)
 PROFILE (real) — — — — —
 PROFILE (quad) - - - - -

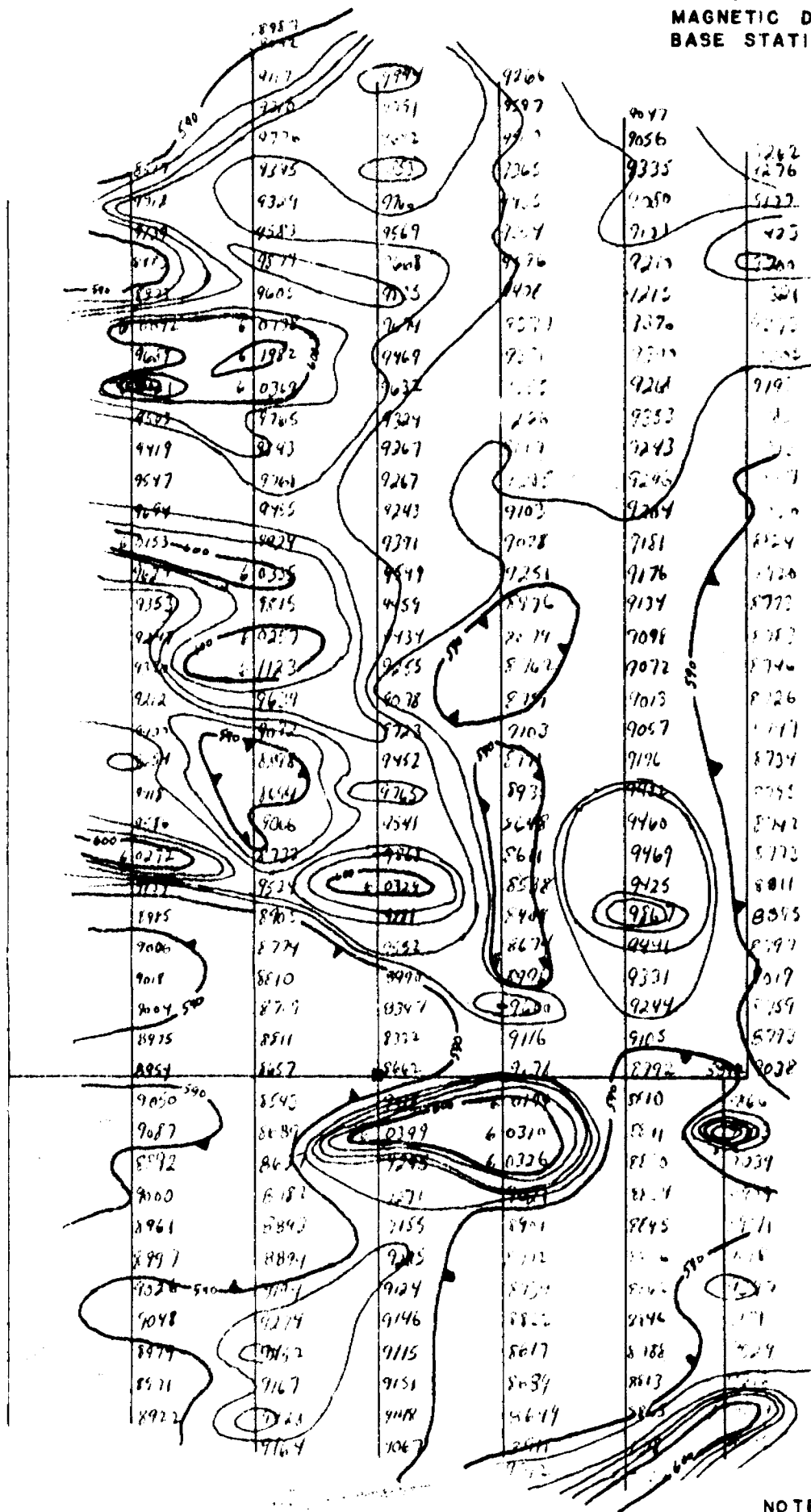


SEAWAY BASE METALS LTD.
ELECTROMAGNETIC (EM16) V.L.F. SURVEY
GROVES TWP. ONTARIO
"NORTH GROUP"

26904

APPROVED *[Signature]* 0' 500' 1000'

MAGNETIC INTENSITY (T) 1987
 1000 γ CONTOUR ———
 200 γ CONTOUR ———
 MAGNETIC DEPRESSION ↙
 BASE STATION ■

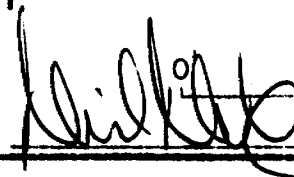


NOTE: All readings are prefixed with "5" except where indicated

1200W ———
 800W ———
 400W ———
 0 ———
 400E ———
 800E ———
 1120E ———
 1200E ———

SEAWAY BASE METALS LTD.
MAGNETOMETER SURVEY
GROVES TWP. ONTARIO
"NORTH GROUP"

26904

APPROVED  0' 500' 1000'



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) MAGNETIC, ELECTROMAGNETIC (V.L.F.)
Township or Area GROVES TWP. M.898
Claim Holder(s) SEAWAY BASE METALS.
(TROUTFLY RESOURCES)
Survey Company BLUE FALCON MINES LTD.
Author of Report NEIL D. NOVAK
Address of Author Stes 11-12 1585B Britannia Rd E. Mississauga
Covering Dates of Survey MAY 10/84 - JUNE 10/84
(linecutting to office)
Total Miles of Line Cut 9.1 miles

MINING CLAIMS TRAVERSED
List numerically

P 683891
(prefix) (number)
P 683892
P 683893
P 683894
P 683963
P 683964
P 683965
P 683966
P 683967
P 683968

If space insufficient, attach list

SPECIAL PROVISIONS
CREDITS REQUESTED

	DAYS per claim
Geophysical	
-Electromagnetic	<u>40</u>
-Magnetometer	<u>20</u>
-Radiometric	_____
-Other	_____
Geological	_____
Geochemical	_____

ENTER 40 days (includes
line cutting) for first
survey.

ENTER 20 days for each
additional survey using
same grid.

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

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

DATE: June 26 SIGNATURE: [Signature]
Author of Report or Agent

Res. Geol. _____ Qualifications 2,4227

Previous Surveys

File No.	Type	Date	Claim Holder

RECEIVED

JUN 26 1984

MINING LANDS SECTION

TOTAL CLAIMS 10

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations 443 Number of Readings 443
 Station interval 100' Line spacing 400'
 Profile scale 1" = 50% (EM)
 Contour interval 200 gammas (Magnetics)

MAGNETIC

Instrument G-816 Portable Proton Magnetometer
 Accuracy – Scale constant ± 1 gamma (Proton Gyromagnetic Ratio $2.67513 \times 10^{-5} \times 10^4$ Rad/sec)
 Diurnal correction method Base Station checks along base line
 Base Station check-in interval (hours) 1 hour
 Base Station location and value NORTH GRID B.L. 0+00 value 58662
SOUTH GRID B.L. 0+00 value 59084

ELECTROMAGNETIC

Instrument Geonics EM 16 V.L.F. portable hand held receiver
 Coil configuration vertical - horizontal
 Coil separation -
 Accuracy -
 Method: Fixed transmitter Shoot back In line Parallel line
 Frequency 21.3 Hz NAA (Cutler)
(specify V.L.F. station)
 Parameters measured real component (in phase) quadrature component (out phase)

GRAVITY

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

INDUCED POLARIZATION
RESISTIVITY

Instrument _____
 Method Time Domain 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 _____

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken _____

Total Number of Samples _____

Type of Sample _____
(Nature of Material)

Average Sample Weight _____

Method of Collection _____

Soil Horizon Sampled _____

Horizon Development _____

Sample Depth _____

Terrain _____

Drainage Development _____

Estimated Range of Overburden Thickness _____

SAMPLE PREPARATION

(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis _____

General _____

ANALYTICAL METHODS

Values expressed in: per cent
p. p. m.
p. p. b.

Cu, Pb, Zn, Ni, Co, Ag, Mo, As, -(circle)

Others _____

Field Analysis (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Field Laboratory Analysis

No. (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Commercial Laboratory (_____ tests)

Name of Laboratory _____

Extraction Method _____

Analytical Method _____

Reagents Used _____

General _____



Ontario

Ministry of
Natural
Resources

Technical Assessment Work Credits

File
2.6904

Date
1984 08 07

Mining Recorder's Report of
Work No. 235-84

Recorded Holder

TROUTFLY RESOURCES INC

Township or Area

GROVES TOWNSHIP

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical 40	P 683891-94 683963-64-65-67-68
Electromagnetic _____ days	
20 Magnetometer _____ days	
Radiometric _____ days	
Induced polarization _____ days	
Other _____ days	
Section 77 (19) See "Mining Claims Assessed" column	
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.	

Special credits under section 77 (16) for the following mining claims

<u>30 DAYS ELECTROMAGNETIC</u>	<u>20 DAYS ELECTROMAGNETIC</u>
<u>15 DAYS MAGNETOMETER</u>	<u>10 DAYS MAGNETOMETER</u>
P 683966	P 683892-93

No credits have been allowed for the following mining claims

not sufficiently covered by the survey Insufficient technical data filed

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 77 (19)—60;

1984 07 11

Your File: 235
Our File: 2.6904

Mr. Bruce Hanley
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 583891 et al in the Township of Groves.

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

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: (416) 965-1380

A. Barr:sc

cc: Troutfly Resources Inc
1585 - B Britannia Rd E
Suites 11 & 12
Mississauga, Ontario
L4W 2M4
Attn: Neil D. Novak



Aug 23/84

1984 08 07

Your File: 235-84
Our File: 2.6904

Bruce W. Hanley
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. R.J. Pichette at 416/965-4888.

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3

S. Hurst:mc

Encls.

cc: Troutfly Resources Inc
Suites 11 & 12
1505-B Britannia Road East
Mississauga, Ontario
L4W 2M4

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



Ministry of
Natural
Resources

Notice of Intent
for Technical Reports

1984 08 07

2.6904/235-84

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 Land Management Branch, Toronto. The report will be re-assessed and a new statement of credits based on actual days worked will be issued.

1984 08 31

Your File: 235-84
Our File: 2.6904

Bruce W. Hanley
Mining Recorder
Ministry of Natural Resources
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

Dear Sir:

RE: Notice of Intent dated August 7, 1984
Geophysical (Electromagnetic and
Magnetometer) Survey on Mining Claims
P 683891 et al in the Township of Groves

The assessment work credits, as listed with the
above-mentioned Notice of Intent, have been
approved as of the above date.

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

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: (416)965-4888

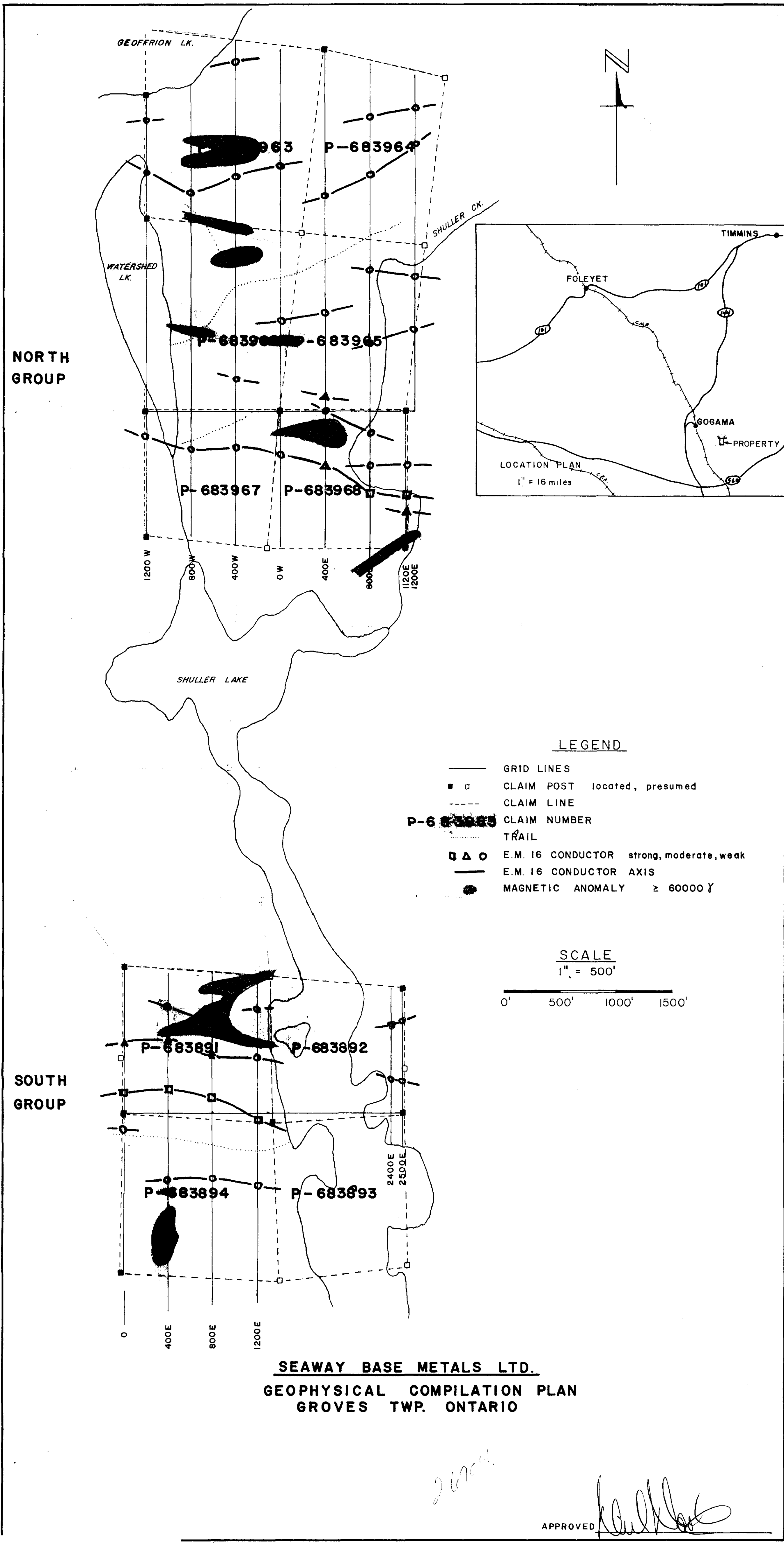
S. Hurst:mc

cc: Troutfly Resources Inc
Suites 11 & 12
1505-B Britannia Road East
Mississauga, Ontario
L4W 2M4

cc: Resident Geologist
Timmins, Ontario

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

Encl.



267004

APPROVED *[Signature]*