



R. Somerville Geolc



42A06NE0347 2.12705 SHAW

010

Ste. 103 - 255 West 1st Street • North Vancouver, B.C., Canada V7M 3G8 • Telephone (604) 986-5766

VOLUME I

A GEOPHYSICAL REPORT
(Magnetic Total Field, Gradient,
and Two VLF-EM Surveys)

on

THE SHAW #1 PROPERTY

SHAW TOWNSHIP

ONTARIO

2.12705

by

R. Somerville, B.Sc.(hon), P. Eng.

dated August 1, 1989.

RECEIVED

AUG 30 1989

MINING LANDS SECTION



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● POCKETS

Maps A, A14, A17, A18, A24 (a,b,c,d,e,f,g)

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- (a) Magnetic Profiles and Post Map
- (b) Magnetic Contour Map
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- (g) VLF-EM Profiles - Annapolis

40 maps total

APPENDIX I

Report of Work

APPENDIX II

Certificate

doc/shgeophys

RSGM R. Somerville Geological & Mining Engineering Ltd.

Ste. 103 - 255 West 1st Street • North Vancouver, B.C., Canada V7M 3G8 • Telephone (604) 986-5766

INTRODUCTION

This is a report on the results of a geophysical survey conducted over 25 claims. The survey was conducted by personnel from R. Somerville Geological and Mining Engineering Ltd., whose address is 103 - 255 West 1st Street, North Vancouver, B.C., V7M 3G8, and from Timmins Geophysics Ltd. for a subsidiary company of Total Energold Corporation (AJM Metals Ltd.) who are the registered holders of the claims. Their address is 1500 - 700 West Pender Street, Vancouver, British Columbia, V6C 1G8.

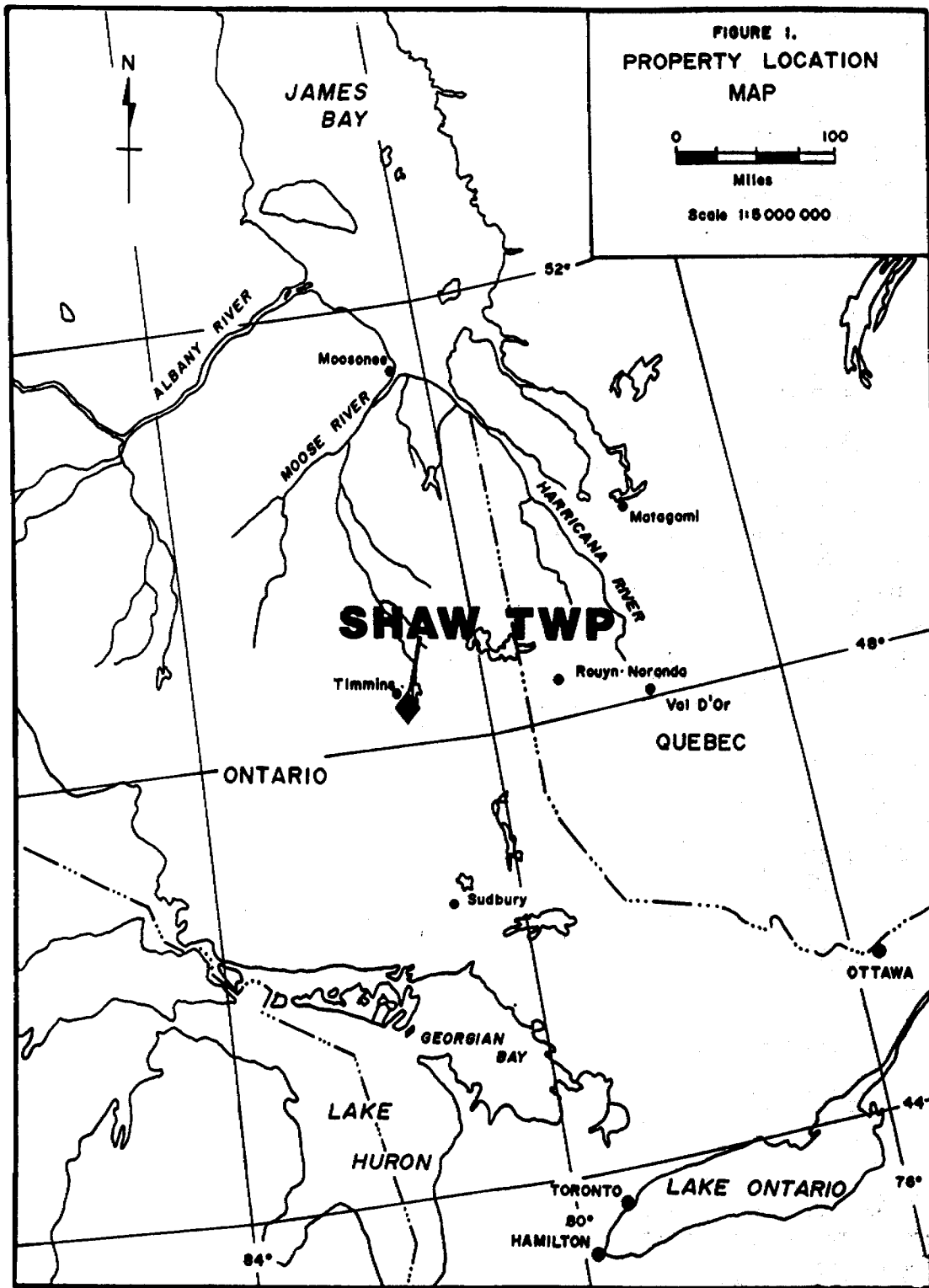
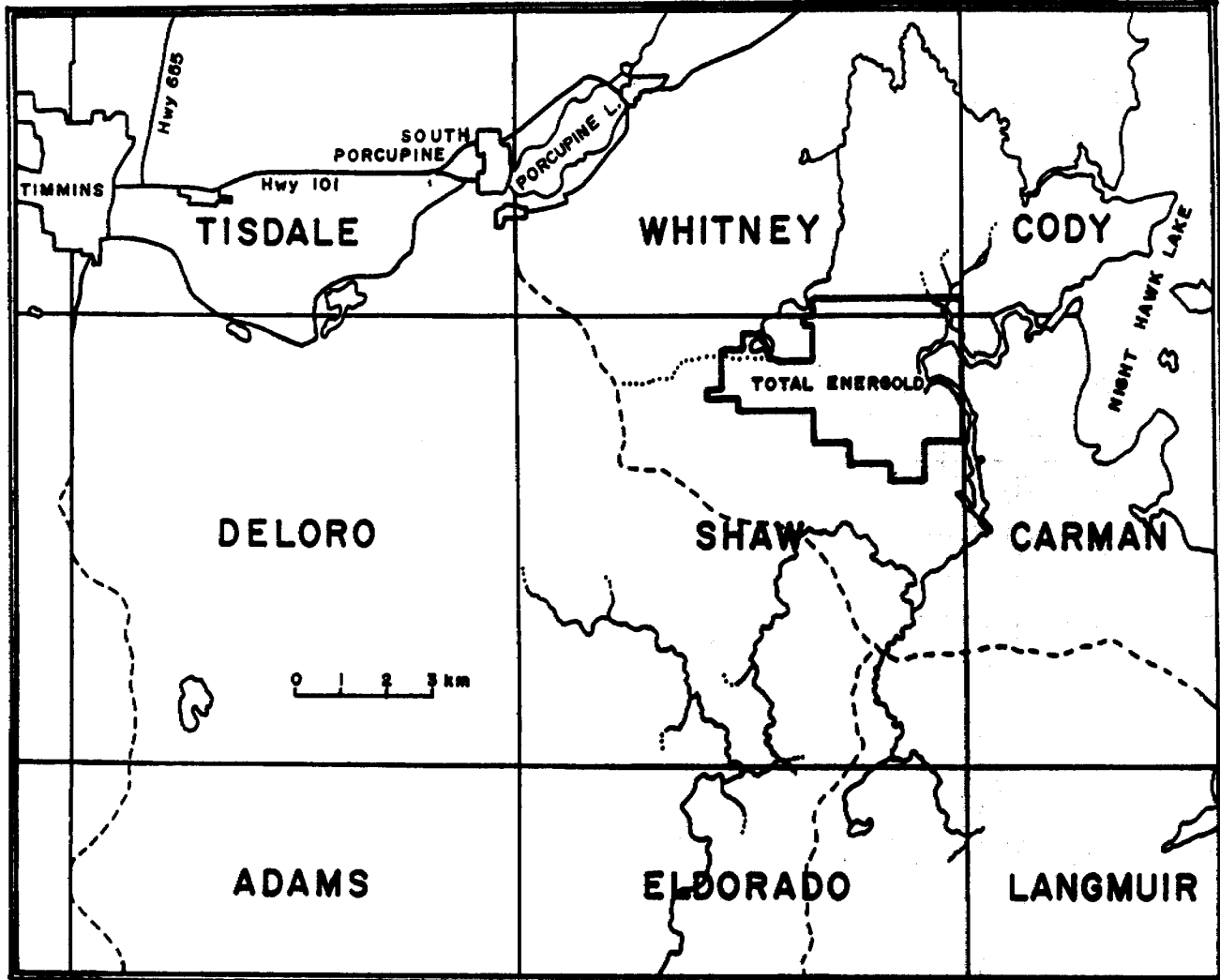


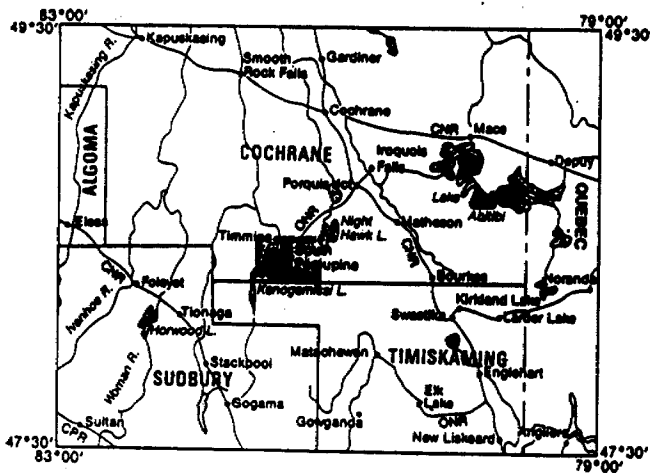
FIGURE 1.
PROPERTY LOCATION
MAP

0 100
Miles
Scale 1:5 000 000

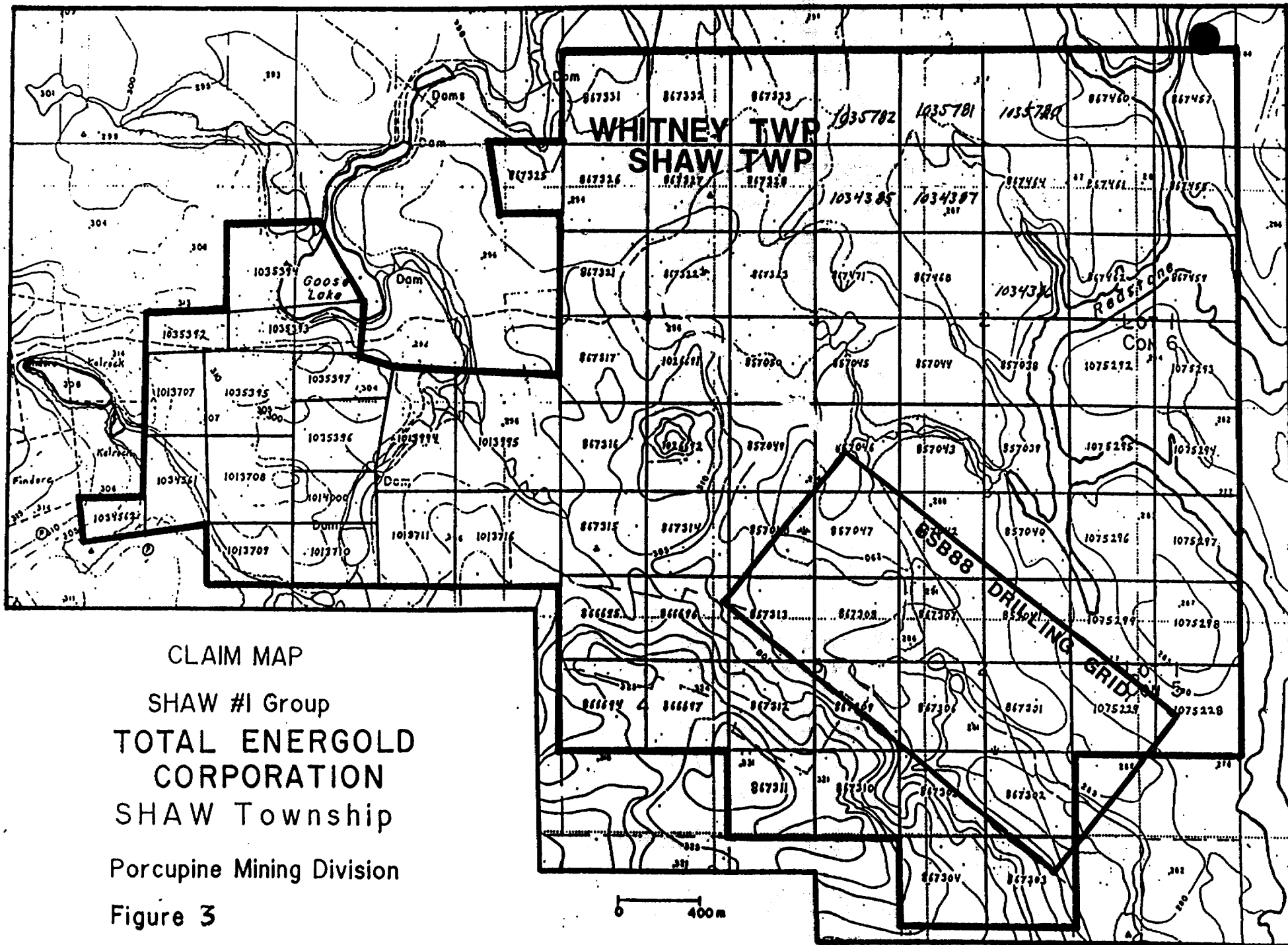


LOCATION MAP

SHAW #1 Group
TOTAL ENERGOLD
CORPORATION
 SHAW Township
 Porcupine Mining Division
 Ontario



Aeromagnetic reference 293G
 N.T.S. reference 42A/6



CLAIM MAP
 SHAW #1 Group
 TOTAL ENERGOLD
 CORPORATION
 SHAW Township
 Porcupine Mining Division
 Figure 3

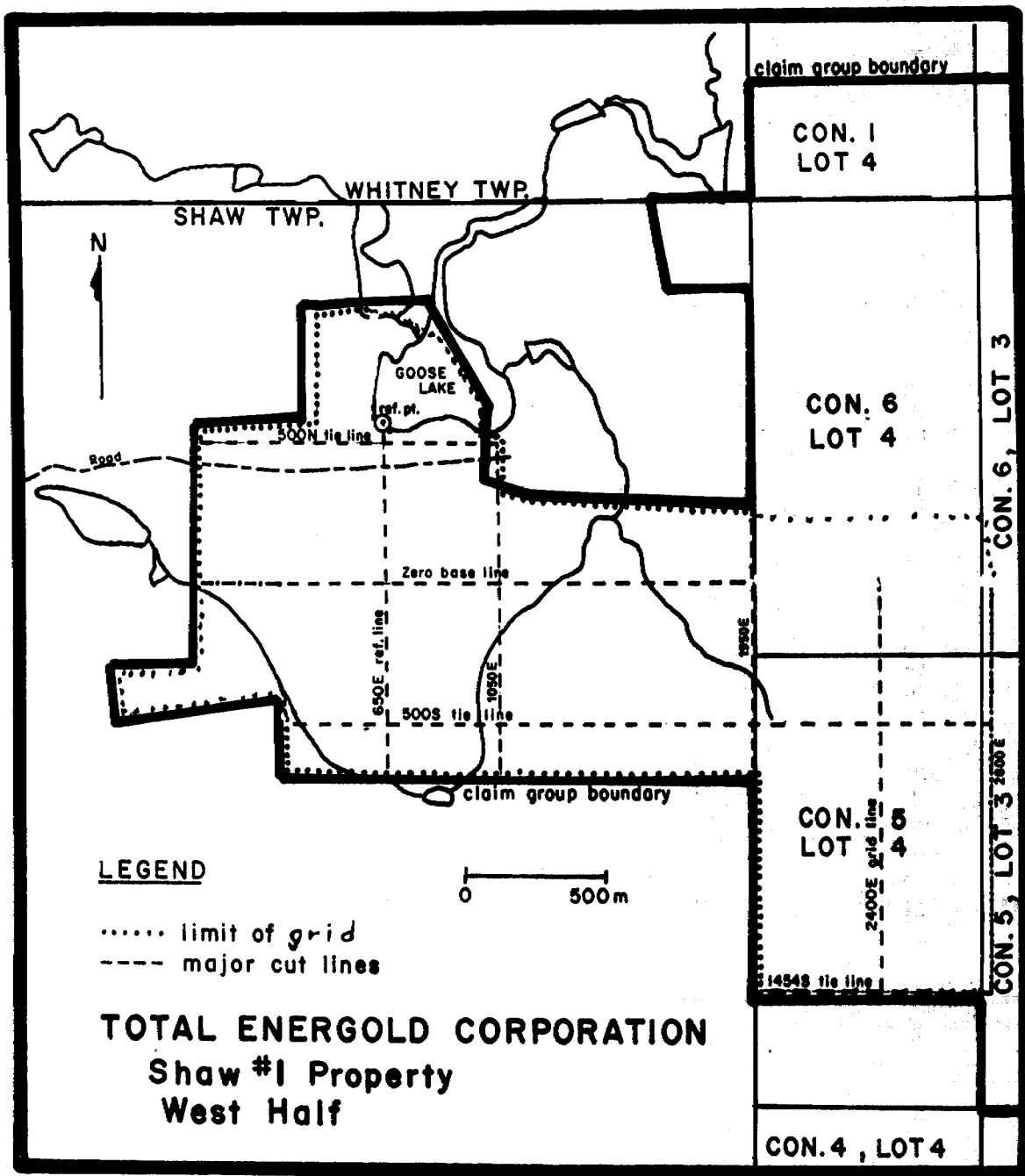


Figure 3a - Area covered by cutline grid

PROPERTY, LOCATION AND ACCESS

Total Energold Corporation's Shaw #1 group consists of 88 contiguous unpatented mining claims. The property is located in Shaw Township some 5 km south of South Porcupine. These are recorded in the Porcupine Mining Division in the name of AJM Metals Ltd. The geophysical survey actually covers the following 25 claims:

The claims are numbered:

P-866694 to P-866697
P-867314 to P-867316
P-1013707 to P-1013711
P-1013716
P-1013994 & P-1013995
P-1014000
P-1026692
P-1034561 & P-1034562
P-1035392 to P-1035397

They form a block covering portions of Lots 4 to 7, Concessions 5 and 6, Shaw Township. All these claims are in a contiguous block as can be seen on Figure 3.

Access to the property is by two rough roads, one heading east from the Langmuir Mine Road, 5km southeast of South Porcupine, and the other heading north from the same road 11 km southeast of South Porcupine. See Figures 1 and 2.

PHYSIOGRAPHY

The Shaw property is generally flat with a total relief of less than 50 metres. A high area of outcrop in the centre of the property, called Mt. Logano (elevation 325 metres), forms an east-west divide. From here the land gently slopes to the east, reaching an elevation of 281 metres at the Redstone River, and northwest to Goose Lake at an elevation of 290 metres. Drainage is into Goose Lake and the Redstone River.

Vegetation on the property consists of 75 percent forest cover, mainly spruce and poplar with some pine, birch, and fir. Of this 15 percent has been clear cut. The remaining 25 percent is covered by bog, alder swamp, and grass.

Approximately 10 percent of the Shaw #1 property is outcrop, nearly all of it in the western third. Overburden is thickest in the east, reaching a depth of 109 metres.

PREVIOUS WORK

Previous work done on the property is summarized below:

- 1910 - A.G. Burrows studied and mapped the Porcupine Gold Camp, including Shaw Township.
- 1915 - A.G. Burrows 3rd ed. of this report, including Shaw Township, map 24d.
- 1924 - A.G. Burrows 4th ed. of his report, including detailed field studies of Whitney Township and the north half of Shaw Township, map 33a.
- 1938 - M.E. Hurst mapped Shaw and Whitney Townships (1935-1937) and published a geological map (Map 47a)
Erie Canadian also known as Ester Porcupine Gold Mines Ltd., mapped one claim.
- 1945 - Blackhawk Porcupine Mines Limited drilled two diamond drill holes totalling 1,047' on claim #857040 near the Redstone River.
 - Conwest Exploration Company Limited drilled three near the Whitney - Shaw township line between 1945 and 1946.
 - Ella Jay Prospecting Syndicate drilled a 873' hole near the Whitney Shaw Township line on claim #867458. This company was later known as Lloyd Gold Mines Ltd.
- 1946 - Kensull Gold Mines Limited conducted a ground magnetometer survey over 3 claims.
 - Belcher drilled two diamond drill holes totalling 1,207' on claim #867305 in Whitney Township.
- 1947 - Amshaw Porcupine Mines Limited held 3 claims within the Shaw #1 group and between 1962 and 1963 conducted a ground magnetometer survey on the claims.
- 1966 - Richards drilled 2 diamond drillholes totalling 1,107' on claim #867305.
- 1967 - H.D. Carlson mapped and produced an open file report (5012) based on field work done in Shaw Township (1964 to 1965)

- 1969 - Dillon investigated the area from 1961 to 1969. In 1969 they drilled 9 diamond-drill holes, one on claim #1013994 and 8 on claim #1013716, for a total of 1,434'.
- 1971 - Hollinger Mines Limited explored 20 claims in the area by ground magnetometer.
 - Economic Mineral Investigations Limited carried out a geological survey of 5 claims and an electromagnetic survey on one of these.
- 1974 - Pac Exploration mapped the geology and conducted a ground magnetometer survey over 16 claims, and resistivity and induced polarity surveys over 2 of these.
- 1980 - Hollinger-Argus Mines Limited explored 16 claims by means of ground magnetometer and VLF.
 - Rosario Resources Ltd. conducted geological, ground magnetometer, and electromagnetic surveys on 30 claims. They also drilled a 598' diamond-drill hole on claim #1013995 to investigate a carbonate alteration zone.
- 1987 - Chevron investigated the area in 1986 and 1987. A ground electromagnetic survey was carried out on 13 claims, overburden sampling on 10 claims, and trenching on claims #867315 and #866696.

For more detail see Appendix A, Table 1.

- 1988 - Total Energold Corporation filed a report on the geology of a portion of the claim block and a geochemical report on a two claim portion of the property.

GENERAL GEOLOGY

The description of the geology is partially excerpted from a report on the property by R. Mielke dated December 31, 1988.

The Timmins district is underlain by volcanic, sedimentary, and intrusive rocks of the Abitibi greenstone belt. For a summary of the geology of the Abitibi greenstone belt, the reader is referred to Goodwin and Ridler (1970, 1977), Pyke (1980), and Jensen and Langford (1983).

The geology and stratigraphy of the Timmins district (Figure 3), has been recently described by Pyke (1982), and the following description is taken largely from his work.

Stratigraphy

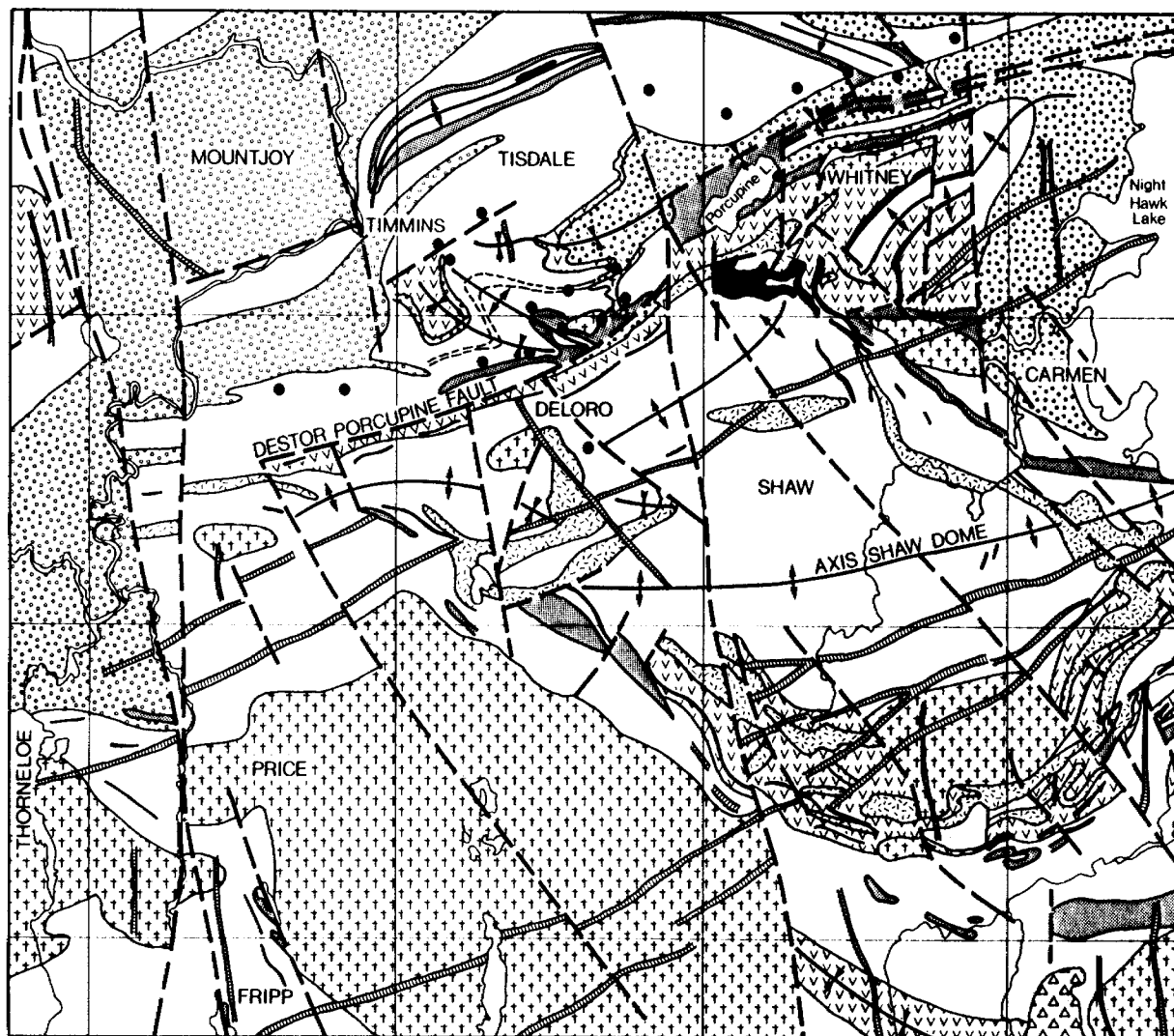
Pyke divided the Archean volcanic and sedimentary rocks of the district into three groups, the Deloro, Tisdale, and Porcupine Groups. The volcanic rocks are divided into the Deloro and Tisdale Groups, and the sedimentary rocks are assigned to the Porcupine Group (Figure 4).

The two volcanic groups are cut by a major east-west fault, the Destor-Porcupine fault. South of this fault, the rocks of the Deloro Group (the older group) occupy the Shaw Dome, and north of the fault rocks of the Tisdale Group form a series of

anticlines and synclines trending northeast-southwest and northwest-southeast. Major blocks of the Tisdale Group reappear south of the Destor-Porcupine fault around the flanks of the Shaw Dome, apparently unconformably overlying the older Deloro Group.

The sedimentary rocks of the Porcupine Group occur in close proximity to the Destor-Porcupine fault and within folded sequences in the northwest part of the district. According to Pyke, these sedimentary rocks are time equivalent with the upper volcanic rocks of the Deloro Group and the entire sequence of the Tisdale Group.

The sequence of metavolcanic rocks that constitute the Deloro and Tisdale Groups is subdivided into six formations. Formations I to III fall within the Deloro Group, and Formations IV to VI the Tisdale Group.



LEGEND

MIDDLE PRECAMBRIAN

- ▴▴▴ Cobalt Formation
greywacke, arkose, argillite, conglomerate
unconformity

EARLY PRECAMBRIAN

- ▬ Diabase *
- ▬ Intrusive Contact
- ▬ Granitic intrusive rocks
Intrusive Contact
- ▬ Ultramafic intrusive rocks
Intrusive Contact
- ▬ Sediments (dominantly turbidites)
- ▬ Iron formation
- ▬ Felsic to intermediate volcanics
- ▬ Mafic volcanics
- ▬ Ultramafic volcanics

* Some diabase dikes are Middle to Late Precambrian age

● Location of gold mines (present and past producers)

- - - Fault
- + + Anticlinal axis
- × × Synclinal axis

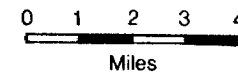


Figure 4 - Geology of the Timmins district (after Pyke 82)

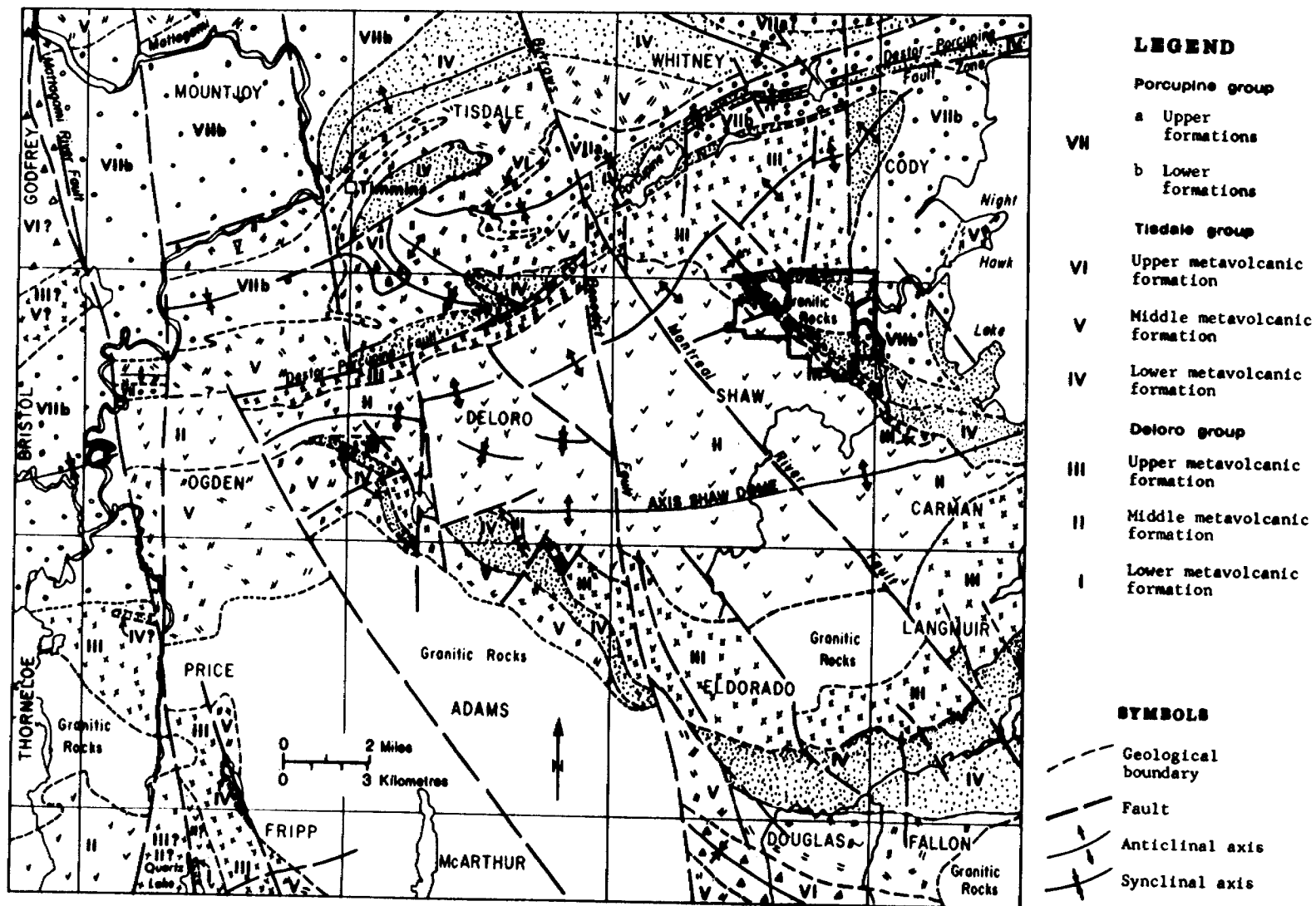


Figure 5 - Stratigraphic map of the Timmins district (after Pyke 82)

Intrusive Igneous Rocks

Large sill-like bodies of dunite and peridotite were emplaced into the upper formation of the Deloro Group in the vicinity of the Shaw Dome. Pyke (1982) suggests that these may have acted as feeders or reservoirs for the ultramafic rocks at the base of the Tisdale Group.

Numerous felsic stocks outcrop in the southern part of the district. These include a small felsic quartz porphyry stock which underlies much of Mt. Logano.

Many small quartz-feldspar porphyry intrusions of probable subvolcanic origin occur within the metavolcanic rocks of the Tisdale Township. Some of these intrusive bodies contain gold-bearing quartz veins.

The volcanic and sedimentary rocks of the area are traversed by a series of north and northeast-trending diabase dykes. At least three ages of diabase intrusive activity have been established (Pyke 1982).

North-trending dykes (approximately 2480 Ma) cut the granitic rocks associated with the Kenoran orogeny and are unconformably overlain by Proterozoic sedimentary rocks.

North-northeast-trending diabase sills (2170 Ma), and east-northeast or northwest-trending diabase dykes (1230 Ma) intrude both the Archean and Proterozoic rocks.

Structural Geology

Two structural domains, separated by the Porcupine-Destor fault, are recognized in the district (Pyke 1982). The Shaw Dome, underlain by rocks of the Deloro Group, occurs to the south of the fault. North of the fault the rocks of the Tisdale Group have been folded into a sequence of anticlines and synclines. Basal rocks of the Tisdale Group are also found on the flank of the Shaw Dome south of the Porcupine-Destor fault.

The axis of the Shaw Dome trends east-west across the southern part of Shaw Township. The origin of this domal structure is probably the result of the diapiric effect of an underlying granitic body. Middleton (1976) inferred the existence of such a body from a negative bouguer anomaly coincident with the Dome.

Metamorphism

The Archean rocks of the Timmins district have been subjected to greenschist facies metamorphism. A strong mineral foliation, defined by the preferred orientation of sericite and chlorite, is locally developed throughout the area. For the most part however, original textures are preserved in sedimentary and volcanic rocks.

GEOLOGY OF THE PROPERTY

Summary

The Shaw #1 Property is situated between a northeast-trending anticlinal structure to the north, and an east-trending linear dome called the Shaw Dome to the south (Figure 4).

The Shaw Dome is underlain by mafic calc-alkalic volcanics of the Deloro Group, Formation II, and the northern anticline is predominantly iron formation bearing felsic calc-alkalic volcanics, Formation III (Pyke 1982). The upper part of the Shaw Dome volcanics also contain iron formations, some of which are exposed in the southern part of the property.

The central and eastern part of the property is underlain by komatiitic and tholeiitic volcanic rocks of the Tisdale Group (Formation IV and V). These form a small southwest-plunging syncline which is intruded by quartz porphyry. This porphyry forms a large body in the centre of the property which is known as the Mt. Logano porphyry (Figure 6).

All of these rocks are cut by later intrusives. A large east-trending, differentiated, diabase dyke cuts across the centre of the property; and a large gabbro body exists in the extreme south. Several other smaller intrusives have also been noted. Among these are narrow north-trending diabase dykes, small gabbro plugs and dykes, and mafic intrusives.

Sedimentary rocks are thought to occur in the extreme eastern part of the property (Pyke 1982, map 2455), but the extent of these is currently unknown.

LINECUTTING AND SURVEY METHODS

Linecutting

A grid Reference Point called 650E, 575N was established on the south shore of Goose Lake (Figure 5). This point was accurately located by triangulating three points on Goose Lake. From this station, an azimuth was established and a line was cut south, and at 575 meters along the north-south line a 2800 metre E-W zero baseline was established.

From this zero baseline, lines were cut north and south at 50 metre intervals from OE to 1950E, and south at 100 metre intervals from 2000E to 2800E.

Lines OE to 1050E are tied together in the north by a 500N tie line and in the south by a 500S tie line. Lines 1100E to 2800E are connected by a tie line at 500S, and lines 2000E to 2800E end at a tie line at 1454S. See Figure 3a.

Magnetic Survey

The total field ground magnetic survey was conducted along the grid of cut lines from Line 0+00 to Line 2800 E, using a model GSM-8 proton precession magnetometer from GEM Systems, Inc. The readings were taken during June and July 1988 at 12.5 m intervals at all points except those few where flooded conditions upstream from beaver dams made it impossible and over Goose Lake. Corrections for diurnal variations were made by the

interpolation of recorded changes at baseline stations whose values had been previously determined by having been read in a series of closed loops. During the survey a base station was read at least every half hour, and all the secondary base stations were tied to a main base station at 600W,100N, whose total field magnetic value was determined to be 58,235 gammas.

All the diurnally corrected readings from this section of the grid were recorded manually, and later transferred to a computer disk.

The magnetic gradient for each station was determined by the comparison of a second reading taken with the sensor extended about 1.5 m above the first.

During December 1988 and January 1989, lines were picketed over Goose Lake and the grid was extended to the property boundary to the north and south over the newly acquired claims P1034561 and P1034562. At this point Timmins Geophysics was contracted to complete the magnetic survey in these areas.

The survey was run using two Scintrex magnetometers. One unit was used as a base station, and at the end of each day, the readings were automatically corrected for the diurnal effect by connecting the two instruments. The resultant corrected total field ground magnetic results were transferred from the instrument to a computer disk. This portion of the survey was conducted by Timmins Geophysics Ltd., P.O. Box 1783, South Porcupine, Ontario, and the work was directly supervised by D. Londry, B. Sc. (Geophysicist).

The two surveys were tied together by applying a correction factor after repeated readings on the zero baseline and the 650 E reference line.

The survey was conducted in January of 1989. The results of the survey were turned over to Sheldrake and Associates Ltd. of 1500 - 409 Granville St., Vancouver, B.C., V6C 1T2. The grid was digitized and the results were contoured and printed by a computer and an associated plotter and subsequently interpreted..

The results are presented on Maps A, A14, A17, A18, A24, A19 (a,b,c,d) in the pockets of this report (a total of 24 maps).

Including those of the tie lines, 4884 stations had the total field measured during the course of the survey.

Electromagnetic Survey

One VLF electromagnetic survey was conducted along the same grid lines by means of a Model EM-16 electromagnetic receiver manufactured by Geonics Ltd. of Toronto, Canada. Measurements of the in-phase (dip) and quad-phase (quadrature) components were made from a 17.8 kilohertz electromagnetic field transmitted from a naval communications station located near Cutler in the State of Maine. In the Timmins area, the direction of Cutler is 95 degrees from true north, thus providing good coupling with the grid lines and suspected bedrock formations.

The readings were taken at 25 m intervals at all points except those few where flooded conditions upstream from beaver dams made

it impossible, and over Goose Lake. On some lines where -EM activity was noticeable, readings were taken at 12.5 m intervals.

The survey was conducted during July and August 1988. The results of the survey were transferred to a computer disk and turned over to Sheldrake and Associates Ltd., 1500 - 409 Granville Street, Vancouver, B.C., V6C 1T2. The grid was digitized and the results were contoured and printed by a computer and an associated plotter and subsequently interpreted. The results are presented in Maps A, A14, A17, A18, A19, A24 (e, f) in the pockets of this report (a total of 12 maps).

A second VLF survey was conducted in the same fashion over the same grid with the same instrument. This survey was conducted by Timmins Geophysics, reading measurements made from the Annapolis station. This survey was conducted in January of 1989 and the data was also plotted and contoured by Sheldrake and Associates Ltd. and subsequently interpreted.

Also during January while the Timmins crew was in the field, additional stations were read for the Cutler survey, thereby extending the survey a few stations north and south to the property line, and to the west over claims #P103456 and #P1034562. In total, 2072 stations utilizing the Cutler frequency (NAA) and 1128 stations tuned to Annapolis (NSS) were read during this survey.

SURVEY RESULTS

Magnetic Survey Results

The total field magnetic results are plotted on the 6 maps marked "a" and the results are contoured on the "b" maps.

Maps A and A17 are dominated by a strong magnetic feature which coincides with a mapped outcrop area of magnetite-rich iron formation striking approximately 140 . The formation actually passes through the common corner of the 4 maps A, A18, A14, and A17.

In Map A the iron formation is either folded or has been subjected to bedding plane faults because the spacial distribution of the magnetic high is approximately three times that of its exposure on Map A17.

Other features which are exposed in outcrop and interpretable in the contoured results are two dykes, one diabase northeasterly-trending (060) and one north-trending (360). Both these dykes cross the iron formation at the common corner of the four maps A, A18, A14, and A17 where a certain structural complexity occurs. Several northeasterly-trending faults (040) are suggested by the magnetic field maps and shown on the maps A and A18.

Again in the easterly corner of Map A17, the iron formation is offset by northeasterly and northerly faulting, and possibly cut by another north trending diabase dyke. Furthermore, the strike appears to change locally to an east-west direction.

Magnetic Gradient Survey Results

The magnetic gradient data is plotted on the 5 maps marked "c" and the results are contoured on the "d" maps.

To a large extent the gradient survey reflects the iron formation and the diabase dykes as the dominant magnetic features in the amp area; however, some smaller gradient anomalies, both negative and positive, are worth further examination.

Anomaly W

A negative anomaly located on map A18 approximately 600S on lines 750, 800, and 800E, this anomaly is located in an area possibly underlain by an ultramafic flow or intrusive. An anomalous 150 ppb gold rock geochemical sample was located nearby.

Anomaly X

A strong negative anomaly located on Map A18 approximately 125 south on lines 850 and 900 E, this anomaly is probably bounded by faults and could reflect hydrothermal alteration.

Anomaly Y

A series of strong positive anomalies located on Map A approximately on the 500 N tieline, and on line 750E at 350 N, these areas should be underlain by an ultramafic flow which is correlative to the Tisdale Cycle IV volcanics. The stratigraphic positioning is good, and some low anomalous gold, rock geochemical samples have been identified in the area.

Anomaly Z

This linear high anomaly parallels the iron formation trend. It is located at approximately 400 S on lines 1650 E to 1800 E.

Anomalies A and B

These are both weak positive anomalies that have no obvious explanation. They are both located on Map 24, lines 2200 E to 2800E at approximately 1100 S.

VLF-EM Survey Results

A series of weak to moderate conductors is present in the claim area. These are interpreted on Maps "f" and "g" as dark lines. On the lines are a number of individual conductive anomalies, variously indicated as "S" (strong), "M" (moderate), and "W" (weak), depending upon their relative strength.

Most of the conductors are either conductive overburden or bedrock/overburden irregularities. However, some of the anomalies appear to have correlations in the magnetic survey, and the geological mapping.

VLF-EM ANOMALIES

MAP #	VLF-EM ANOMALY	FREQUENCY
A	S3	NAA only
	S2	NAA & NSS
A18	M2	NAA & NSS
	M3	NAA & NSS
	M7	NSS only
	S1	NAA only
A17	M4	NAA only
	M1	NAA & NSS
	W2	NAA only
	W3	NAA & NSS
A14	M5	NAA & NSS
	W1	NAA & NSS
A24	W6	NAA only
	W4	NSS only
	W5	NAA & NSS

Discussion of VLF-EM Results

1. W3, W4, W5 - These anomalies flank a magnetic high and could represent steep tear faults.
2. W2 also parallels a magnetic trend, but more likely is indicative of bedding conductivity.
3. M1 and M5 - Technically both these anomalies are reasonable conductors, yet they appear to cross a diabase dyke without deviation, suggesting that they probably represent a drainage anomaly.
4. W1 - Although this is a fairly weak anomaly, since it parallels a magnetic trend and crosses drainage, it is probably a genuine weak conductor.
5. W6, W7 - Possibly drainage

6. M4, M2 - These two are very significant anomalies, paralleling magnetic features and probably crossing drainage.
7. S1 and M3 - Both these anomalies occur adjacent to a diabase dyke. They could be the same conductive feature displaced by a diabase dyke.
8. S3 - A very good anomaly representing a strong conductor. This anomaly also falls in an area of strongly carbonatized rocks associated with elevated gold values in a rock geochemical survey.
9. S2 - The conductor which gives rise to this very good anomaly appears to lie in Tisdale ultramafic Cycle IV volcanics and is associated with a strong magnetic response. It is possible that this anomaly represents a sulphide phase iron formation underlying a thin skin of Tisdale ultramafics.

CONCLUSIONS

The magnetic survey has been extremely useful in mapping the geological features on the property. Some fault/vein(?) structures may also be interpreted from this data.

The magnetic gradient survey appears to be indicating zones of "alteration" adjacent to interesting structural complications. It is hoped that some of these magnetic gradient anomalies truly represent hydrothermal alteration zones.

Finally, the electromagnetic VLF-EM survey has revealed 15 very interesting anomalies. There are 8 anomalies in the strong

to moderate category, 3 of which are almost certainly sulphide-bearing structures. The response from the Cutler station was far superior to the Annapolis response.

APPENDIX I
REPORT OF WORK

APPENDIX II

CERTIFICATE OF QUALIFICATIONS

CERTIFICATE

I, Richard D. Somerville, residing at 1052 Esquimalt Avenue, West Vancouver, British Columbia, V7T 1J8 certify that:

1. I am a practicing Consulting Geologist with offices at 103 - 255 W 1st Street, North Vancouver, B.C., V7M 3G8.
2. I am President of R. Somerville Geological and Mining Engineering Ltd.
3. I am a Registered Professional Engineer of the Province of Ontario and British Columbia.
4. I am a Fellow of the Geological Association of Canada and a member of the Canadian Institute of Mining & Metallurgy.
5. I am a graduate of Queen's University at Kingston, Ontario, having received a B. Sc. (hon) degree majoring in Geology, and a B.A. degree majoring in physics and mathematics.
6. This survey was conducted under my direction. I have visited the property, and I am satisfied that the survey was conducted in a proper and professional manner.

West Vancouver, British Columbia
August 1, 1989



R. Somerville, P. Eng.

2.11829





Ontario



42A06NE0347 2.12705 SHAW

900

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

December 19, 1989

Mining Lands Section
880 Bay Street, 3rd Floor
Toronto, Ontario
M5S 1Z8

Telephone: (416) 965-4888

Your File: W8906-396

Our File: 2.12705

Mining Recorder
Ministry of Northern Development and Mines
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

ONTARIO GEOLOGICAL SURVEY
ASSESSMENT FILES
OFFICE

DEC 28 1989

RECEIVED

Dear Sir:

Re: Notice of Intent dated November 08, 1989 for Geophysical (Electromagnetic) Survey submitted on Mining Claims P 866696 et al in Shaw Township.

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,

W.R. Cowan
Provincial Manager, Mining Lands
Mines & Minerals Division

RM
RM:eb
Enclosure

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

Resident Geologist
Timmins, Ontario

AJM Metals/R. Somerville
103-255 West 1st Street
North Vancouver, B.C.
V7M 3G8



Recorded Holder
AJM METALS LTD. / R. SOMERVILLE

Township or Area
SHAW TOWNSHIP.

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical Electromagnetic _____ days 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 type="checkbox"/> Ground <input 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

No credits have been allowed for the following mining claims

not sufficiently covered by the survey insufficient technical data filed

Note: No gradiometer credits allowed as considered one survey performed in conjunction with magnetic survey. Please see approval for Report of Work W8906-280

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.



Recorded Holder
AFM METALS LTD./R. SOMERVILLE

Township or Area
SHAW TOWNSHIP.

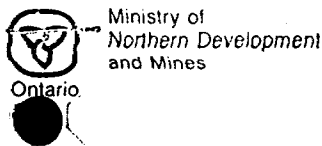
Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical Electromagnetic <u>15</u> days Magnetometer _____ days Radiometric _____ days Induced polarization _____ days Other _____ days Section 77 (19) See "Mining Claims Assessed" column Geological _____ days Geochemical _____ 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.	P 866696-697 1013710-711 1013716 1013994-995 1014000 1035393-394 1035396-397 1034561-562

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

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.



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

DOCUMENT No.
W 8906-280

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.

June 28

Mining Act

Type of Survey(s) GEOPHYSICAL EM & MAG	Township or Area SHAW TWP.
Claim Holder(s) AJM METALS LTD.	Prospector's Licence No. T-4857
Address 1500-700 WEST PENDER STREET, VANCOUVER B.C. V6C-1G8	
Survey Company R. SOMERVILLE GEOLOGICAL & MINING ENGINEERING LTD.	Date of Survey (from & to) Day Mo. Yr. Day Mo. Yr. 1 7 89 3 89
Name and Address of Author (of Geo-Technical report) R. SOMERVILLE 1052 ESQUIMALT AVE, WEST VANCOUVER B.C.	

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	20
	- Magnetometer	20
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
Man Days Complete reverse side and enter total(s) here	Geological	
	Geochemical	
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Prefix	Mining Claim Number	Expend. Days Cr.
P	866694	
	866695	
	866696	
	866697	
	867314	
	867315	
	867316	
	1013707	
	1013708	
	1013709	
	1013710	
	1013711	
	1013716	
	1013994	
	1013995	
	1014000	
	1026692	
	1034561	
	1034562	
	1035392	
	1035393	
	1035394	

Prefix	Mining Claim Number	Expend. Days Cr.
P	1035395	
	1035396	
	1035397	

RECEIVED
MAY 19 1989
MINING LANDS SECTION
MAY 9 1989
9:31 a.m.

RECORDED
MAY - 9 1989

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures ÷ 15 = Total Days Credits

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.

Total number of mining claims covered by this report of work: **25**

For Office Use Only

Total Days Cr. Recorded: **920**

Date Recorded: **MAY 9 1989**

Date Approved as Recorded: **Dec 19/89**

Mining Recorder: **[Signature]**

Branch Director: **[Signature]**

Date: **May 9, 1989**

Recorded/Checked by (Name/Signature): **[Signature]**

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
H. Z. TITTEL RR1 AUMER, TILLYMANS ONTARIO P4M 7G2

Date Certified: **MAY 8, 1989**

Certification (Signature): **[Signature]**

DOCUMENT No. **W8906-282**

Instructions: -- Please type or print. *July 5.*
-- If number of mining claims traversed exceeds space on this form, attach 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.

Mining Act

Type of Survey(s) **GEOPHYSICAL 19AG & EM** Township or Area **SHAW TWP**
 Claim Holder(s) **AJH METALS LTD.** Prospector's Licence No. **T-4857**
 Address **1500-700 WEST PENDER STREET VANCOUVER B.C.**
 Survey Company **R. SOMMERVILLE GEOLOGICAL & MINING ENGINEERING LTD.** Date of Survey (from & to) **20** Day **11** Mo. **EE** Yr. Total Miles of Line Cut **2.8 km**
 Name and Address of Author (of Geo-Technical report) **R. Somerville 1052 ESQUIMONT AVENUE WEST VANCOUVER B.C.**

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	20
	- Magnetometer	20
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	
Man Days Complete reverse side and enter total(s) here	Geophysical	Days per Claim
	- Electromagnetic	
	- Magnetometer	
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.	Geophysical	Days per Claim
	- Electromagnetic	
	- Magnetometer	

Mining Claims Traversed (List in numerical sequence)

Mining Claim		Expend. Days Cr.	Mining Claim		Expend. Days Cr.
Prefix	Number		Prefix	Number	
P	1034561				
	1034562				

RECEIVED
MAY 19 1989
MINING LANDS SECTION

RECORDED
MAY 16 1989

Expenditures (excludes power stripping)

Type of Work Performed **DIAGNOSTIC**

Performed on Claim(s) **MAY 16 1989**

Calculation of Expenditure Days Credits

Total Expenditures **S** ÷ **15** = **Days Credits**

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.

Date **May 8, 1989** Recorder **[Signature]**

Total number of mining claims covered by this report **2**

For Office Use Only

Total Days Cr. Recorded **80** Date Recorded **MAY 16/89** Mining Recorder **[Signature]**
 Date Approved as Recorded **Dec 19/89** Branch Director **[Signature]**

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 **H. Z. Tittley RR 1 ANSON TILMANS ONTARIO P4N 7E2**

Date Certified **May 8, 1989** Certified by **[Signature]**

Oct 20

(V)

MINING ACT REGULATIONS MIN. DIV. 101415 522 4138

SEP 6 1989

Geophysical Exploration
Geophysical and Exploration

WBYUJ 315
395

Mining Act

(Amended)

Geophysical (Electromagnetic VLF-EM)

Show Two Mining Lic

RSC Metals Ltd. / Somerville

T-11857

190 RSCM Engineering Ltd

103-255 West 1st St North Vancouver V7M 3G8 B.C.

Thomas Geophysics / RSEM Engineering 01 01 83 01 04 89

R. Somerville 103-255 West 1st St North Vancouver B.C. V7M 3G8

Rate Hereafter for Each Class in Column at Right

Mining Claims Transferred (List Transferred in Appendix)

Class	Description	Days per Class
1	Geophysical VLF-EM Electromagnetic Roughness Very Rough	20
2	Geophysical VLF-EM Electromagnetic Smooth	
3	Geophysical VLF-EM Electromagnetic Very Smooth	
4	Geophysical VLF-EM Electromagnetic Very Very Smooth	
5	Geophysical VLF-EM Electromagnetic Very Very Very Smooth	
6	Geophysical VLF-EM Electromagnetic Very Very Very Very Smooth	
7	Geophysical VLF-EM Electromagnetic Very Very Very Very Very Smooth	
8	Geophysical VLF-EM Electromagnetic Very Very Very Very Very Very Smooth	
9	Geophysical VLF-EM Electromagnetic Very Very Very Very Very Very Very Smooth	
10	Geophysical VLF-EM Electromagnetic Very Very Very Very Very Very Very Very Smooth	

Claim No.	Class
866696	P
866637	
1013710	
1013711	
1013716	
1013994	
1013995	
1014000	
1035393	
1035394	
1035396	
1035397	
1034561	
1034562	

RECEIVED
SEP 07 1989

MINING LANDS SECTION

RECEIVED
AUG 31 1989

RECEIVED
AUG 31 1989

August 28/89

15

see report attached

R. Somerville 103-255 West 1st St North Vancouver
B.C. V7M 3G8

Aug 28/89

Geophysical, Geological,
Geochemical and Expeditionary

W/8906-396
396

Mining Act

ROMAN R. FERDINAND M. D.I.N.
103-255 West 15th St North Vancouver, B.C. V7M 3G8
Tel: 416 925 4125
Fax: 416 925 4125
Geophysical/Engineering Ltd
103-255 West 15th St North Vancouver, B.C. V7M 3G8
R. Somerville 103-255 West 15th St North Vancouver, B.C. V7M 3G8

Credits Requested for Each Claim in Columns at right

Minimum Claim Traversal (List in chronological order)

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days (30 days for the first 1000 ft)	- Electromagnetic - Gradient - Magnetometer	20
For each additional survey using the same grid: Enter 20 days for each	- Radiometric - Other	
For days	Geological Geochemical	Days per Claim
Complete reverse side and enter for left side	- Electromagnetic - Magnetometer - Radiometric - Other	
Minimum Credits	Geological Geochemical	Days per Claim
Note: Special provisions apply to all surveys	- Electromagnetic - Magnetometer - Radiometric	

Index	Claim Number
P	866634
	866635
	866636
	866637
	867314 *
	867315 *
	867316
	1013707
	1013708
	1013709
	1013710
	1013716
	1013934
	1013935
	1014000
	1026682 *
	1035392
	1035393
	1035394
	1035395
	1035396
	1035397

RECEIVED
SEP 07 1989
MINING LANDS SECTION
AUG 31 1989
AUG 31 1989

Expected to be completed by 31/10/89
Type of work performed
Total Days Credits
15 = 75 =

MAX REQUESTED - NOT ALLOWED

August 28/89 [Signature]

380 AUG 31/89 [Signature] See revised statement

R. Somerville 103-255 West 15th St North Vancouver, B.C. V7M 3G8
Aug 28/89 [Signature]

Sept
Sept
28

FROM: M.R. PORCUPINE MIN. DIV. TO: 416 922 4128

AUG 11, 1989 9:14AM P.06

Ontario
and-Mines

(Geophysical, Geological,
Geochemical and Expenditures)

Note: - exceeds space on this form, attach a separate sheet
- Only days credits calculated in the "Expenditures" section may be entered in the "Total Days Cr." column
- Do not use shaded areas below

Mining Act

Type of Survey(s) **2, 12, 0** **Dimecations** **Electromagnetic** Township or Area **SHAW/WHITNEY TWP.**
 Claim Holder(s) **AJM Metals LTD** Province's License No. **T4857**
 Address **Suite 1500 - 700 W. Pender St. Vancouver B.C.**
 Survey Company **R Somerville Geological & Mining Eng. Ltd** Date of Survey (from & to) **01 01 89 01 04 89** Total Miles of the Claim **19**
 Name and Address of Author (of Geo-Technical report) **R. Somerville Ste 103 - 255 W 1st St. N Vancouver V7M3G8**

Credits Requested per Each Claim in Columns at right Mining Claims Traversed (List in numerical sequence)

Special Provisions	Geophysical	Days per Claim	Mining Claim		Expend. Days Cr.	Mining Claim		Expend. Days Cr.
			Prefix	Number		Prefix	Number	
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	40	A	867.331				
	- Magnetometer	20		867.332				
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric			867.333				
	- Other			1035.780				
Man Days Complete reverse side and enter total(s) here	Geological			867.325				
	Geochemical			867.326				
	- Electromagnetic			867.327				
	- Magnetometer			867.470				
Airborne Credits	- Radiometric			867.328				
	- Other							
Note: Special provisions credits do not apply to Airborne Surveys.	Geological							
	Geochemical							

AMENDED

RECORDED
AUG - 9 1989

RECEIVED

MINING LANDS SECTION

Expenditures (excludes power stripping)
 Type of Work Performed
 Performed on Claim(s)
 Calculation of Expenditure Days Credits
 Total Expenditures \$ ÷ 16 = Total Days Credits
 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.

Stamp: AUG 9 1989

Date **Aug 9/89** Received for or Agent's Signature *[Signature]*

For Office Use Only
 Total Days Cr. Recorded **480** Date Recorded **Aug 9 89**
 Date approved as Recorded *[Signature]*

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 **R. Somerville 103 - 255 W. 1st St. North Vancouver B.C. V7M3G8**
 Date Certified **Aug 4/89** Certified Signature *[Signature]*



Ministry of
Northern Development
and Mines

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

DOCUMENT NO.
W 8906-280

- 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." column.
- Do not use shaded areas below.

Mining Act

Type of Survey(s): GEOPHYSICAL EM & MAG Township or Area: SH/AN Twp.
 Claim Holder(s): AJM METALS LTD. Prospector's Licence No.: T-4857
 Address: 1500-700 WEST PENDER STREET, VANCOUVER B.C.
 Survey Company: R. SOMERVILLE GEOLOGICAL & MINING ENGINEERING LTD. Date of Survey (from & to):
 Day | Mo. | Yr. | Day | Mo. | Yr. | Total Miles of Line Cut: 74.6
 Name and Address of Author (of Geo-Technical report):
R. SOMERVILLE 1052 ESQUIMALT AVE, WEST VANCOUVER B.C.

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days (This includes line cutting)	Electromagnetic	20
	Magnetometer	20
For each additional survey: using the same grid: Enter 20 days for each	Radiometric	
	Other	
	Geological	
	Geochemical	
Man Days	Geophysical	Days per Claim
Complete reverse side and enter totals here	Electromagnetic	
	Magnetometer	
	Radiometric	
	Other	
	Geological	
	Geochemical	
Airborne Credits	Geophysical	Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys	Electromagnetic	
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Mining Claim		Expend. Days Cr.	Mining Claim		Expend. Days Cr.
Prefix	Number		Prefix	Number	
P	866694		P	1035395	
	866695			1035396	
	866696			1035397	
	866697				
	867314				
	867315				
	867316				
	1013707				
	1013708				
	1013709				
	1013710				
	1013711				
	1013716				
	1013994				
	1013995				
	1014000				
	1026692				
	1034561				
	1034562				
	1035392				
	1035393				
	1035394				

MAY 9 1989
10:31 AM

RECORDED
MAY - 9 1989

Expenditures (excludes power stripping)
 Type of Work Performed:
 Performed on Claim(s):
 Calculation of Expenditure Days Credit:
 Total Expenditures ÷ 15 = Total Days Credits
 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.

For Office Use Only
 Total Days Cr. Recorded: 920
 Date Recorded: MAY 9 1989
 Mining Recorder: [Signature]
 Date Approved as Recorded:
 Branch Director:

Date: 19th & 1989
 Recorder: [Signature]
 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. T. TAY RRI AUNOR, TIERPINS ONTARIO, PHN 766
 Date Certified: 19th & 1989

Total number of mining claims covered by this report of work: 25



Mining Act

Type of Survey(s) GEOPHYSICAL 2 MAGNETIC GRADIENT	Township or Area SHAW TWP PORCUPINE MINING DIST
Claim Holder(s) ASM Metals LTD / R. Somerville	Prospector's Licence No. T-4857
Address 40 RSEM Engineering LTD 103-255 West 1st St North Vancouver V7M 3G8 B.C.	
Survey Company Timmins Geophysics / Engineering LTD RSEM	Date of Survey (from & to) 01 01 89 01 04 89 Day Mo. Yr. Day Mo. Yr.
Name and Address of Author (of Geo-Technical report) R. Somerville 103-255 West 1st St North Vancouver B.C. V7M 3G8.	

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic Gradient - Magnetometer	20
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric - Other	
	Geological	
	Geochemical	
Man Days	Geophysical	Days per Claim
Complete reverse side and enter total(s) here	- Electromagnetic - Magnetometer - Radiometric - Other	
	Geological	
	Geochemical	
Airborne Credits	Geophysical	Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic Magnetometer Radiometric	

Mining Claims Traversed (List in numerical sequence)

Mining Claim		Expend. Days Cr.	Mining Claim		Expend. Days Cr.
Prefix	Number		Prefix	Number	
P	866634				
	866635				
	866636				
	866637				
	867314				
	867315				
	867316				
	1013707				
	1013708				
	1013709				
	1013710				
	1013716				
	1013994				
	1013995				
	1014000				
	1026692				
	1035392				
	1035393				
	1035394				
	1035395				
	1035396				
	1035397				

Expenditures (excludes power stripping)

Type of Work Performed
Performed on Claim(s)
Calculation of Expenditure Days Credits
Total Expenditures \$ <input type="text"/> + 15 = <input type="text"/>
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.

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

For Office Use Only			
Total Days Cr. Recorded	Date Recorded	Mining Recorder	
	Date Approved as Recorded	Branch Director	

Date August 28 / 89	Recorded Holder or Agent (Signature)
-------------------------------	--

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 R. Somerville 103-255 West 1st St North Vancouver B.C. V7M 3G8		Date Certified Aug 28 / 89	Certified by (Signature)



Report of Work

(Geophysical, Geological, Geochemical and Expenditures)

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.

2. 12705 Mining Act

Type of Survey(s) Geophysical (Electromagnetic VLF-EM)	Township or Area Porcupine Shaw Twp Mining Div
Claim Holder(s) AJM Metals LTD. / Somerville	Prospector's Licence No. T-4857
Address 40 RSGM Engineering LTD 103-255 West 1st St North Vancouver V7M3G8 B.C.	
Survey Company Timmins Geophysics / RSGM Engineering	Date of Survey (from & to) 01 01 89 01 04 89
Name and Address of Author (of Geo-Technical report) R. Somerville 103-255 West 1st St North Vancouver B.C. V7M3G8	

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	VLF-EM - Electromagnetic Annapolis - Magnetometer	20
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric - Other	
	Geological	
	Geochemical	
Man Days	Geophysical	Days per Claim
Complete reverse side and enter total(s) here	- Electromagnetic - Magnetometer - Radiometric - Other	
	Geological	
	Geochemical	
Airborne Credits	Geophysical	Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic Magnetometer Radiometric	

Mining Claims Traversed (List in numerical sequence)

Mining Claim		Expend. Days Cr.	Mining Claim		Expend. Days Cr.
Prefix	Number		Prefix	Number	
P	866696				
	866697				
	1013710				
	1013711				
	1013716				
	1013994				
	1013995				
	1014000				
	1035393				
	1035394				
	1035396				
	1035397				
	1034561				
	1034562				

Expenditures (excludes power stripping)

Type of Work Performed
Performed on Claim(s)
Calculation of Expenditure Days Credits
Total Expenditures \$ <input type="text"/> + 15 = <input type="text"/> Total Days Credits
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.

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

For Office Use Only		
Total Days Cr. Recorded	Date Recorded	Mining Recorder
	Date Approved as Recorded	Branch Director

Date August 28/89	Recorded Holder or Agent (Signature) <i>[Signature]</i>
-----------------------------	--

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 R. Somerville 103-255 West 1st St North Vancouver B.C. V7M3G8	Date Certified Aug 28/89	Certified by (Signature) <i>[Signature]</i>
--	------------------------------------	--



Ministry of
Northern Development
and Mines
Ontario

Report of Work

(Geophysical, Geological,
Geochemical and Expenditures)

DOCUMENT NO. Instructions: -- Please type or print.
W 8906-395
395

Note: -- If number of mining claims traversed exceeds space on this form, attach a list.
Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." column. Do not use shaded areas below.

Mining Act

Type of Survey(s) *(Annapolis)*
Geophysical (Electromagnetic VLF-EM)
Claim Holder(s) *AJM Metals Ltd. / Somerville*
Address *40 RSGM Engineering Ltd*
103-255 West 1st St North Vancouver V7M3G8 B.C.
Survey Company *Timmins Geophysics / RSGM Engineering*
Date of Survey (begin & to) *01 01 89 01 04 89*
Township or Area *Porcupine*
Shaw Twp Mining Div
Prospector's Licence No. *T-4857*
Name and Address of Author (of Geo Technical report)
R. Somerville 103-255 West 1st St North Vancouver B.C. V7M3G8

Credits Requested per Each Claim in Columns at right

Mining Claims Traversed (List in numerical sequence)

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	VLF-EM - Electromagnetic <i>Annapolis</i> - Magnetometer	20
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric - Other	
Man Days Complete reverse side and enter total(s) here	Geological - Electromagnetic - Magnetometer - Radiometric - Other	Days per Claim
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.	Geological Geochemical Electromagnetic Magnetometer Radiometric	Days per Claim

Prefix	Mining Claim Number	Expend Days Cr.	Prefix	Mining Claim Number	Expend Days Cr.
P	866696				
	866697				
	1013710				
	1013711				
	1013716				
	1013994				
	1013995				
	1014000				
	1035393				
	1035394				
	1035396				
	1035397				
	1034561				
	1034562				

RECORDED
AUG 31 1989

RECEIVED
AUG 31 1989

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures \$ ÷ 15 = Total Days Credits

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.

For Office Use Only

Total Days Credits **280**

Date **Aug 31 / 89**

Total number of mining claims covered by this report 1

St Whit

Date **August 28/89**

Recorded by *[Signature]*

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 and that I have 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
R. Somerville 103-255 West 1st St North Vancouver B.C. V7M3G8

Date Certified **Aug 28 / 89**

[Signature]



Type of Survey(s) **GEOPHYSICAL MAGNETIC GRADIENT** Township or Area **POPCOINNA MINING DIST**
 Claim Holder(s) **AJM Metals LTD / R. Somerville** Prospect's Licence No. **T-4857**
 Address **40 RSGM Engineering LTD**
103-255 West 1st St North Vancouver V7M 3G8 B.C.
 Survey Company **RSGM** Date of Survey (Month & Day) **01 01 89** Total Miles of Line Cut
Trinnis Geophysics / Engineers LTD Day | Mo. | Yr. | Day | Mo. | Yr. **01 04 89**
 Name and Address of Author (of Geo-Technical report) **R. Somerville 103-255 West 1st St North Vancouver B.C. V7M 3G8.**

Credits Requested per Each Claim in Columns at right

Mining Claims Traversed (List in numerical sequence)

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic <i>Gradient</i> - Magnetometer	20
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric - Other	
Man Days Complete reverse side and enter total(s) here	Geological	
	Geochemical	
	Geophysical	Days per Claim
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

Prefix	Mining Claim Number	Expend. Days Cr.
P	866634	
	866635	
	866636	
	866637	
	867344 *	
	867345 *	
	867316	
	1013707	
	1013708	
	1013709	
	1013710	
	1013716	
	1013934	
	1013995	
	1014000	
	1026682 *	
	1035392	
	1035393	
	1035394	
	1035395	
	1035396	
	1035397	

RECEIVED
AUG 31 1989

RECEIVED
AUG 31 1989

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures \$ ÷ 15 = Total Days Credits

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.

* MAX REACHED - NOT ALLOWED.

Total number of mining claims traversed by this report: **19**

Date **August 28/89** Received by *[Signature]* or Agent (Print Name)

For Office Use Only

Total Days Credits Recorded **380** Date Reported **AUG 31 / 89**

[Signature]

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 and that I have personally 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
R. Somerville 103-255 West 1st St North Vancouver B.C. V7M 3G8

Date Certified **Aug 28/89** Certified by *[Signature]*

MAP SYMBOLOLOGY

Aerial Cableway	Pipeline (above ground)
Boundary	Railroad
International	Single Track
Interprovincial	Double Track
District, Township	Abandoned
Interior Reserve	Terrace
Approach	Road
Lot, Acquisition	Highway, County
Acquisition	Township
Path Boundary	Access (area of essential accessibility of significant driveway)
Bridge	Trail, Back Road (average width)
Base, Railroad	Rapids
Building	Double line river with multiple rapids
Chimney	Double line river with multiple rapids
Cliff, Pit, Pile	Reservoir
Contours	River, Stream, Canal
Interpretation	Approximate (seasonal) character of flow
Approximate	Spot Elevation (near elevations) 300.0
Depression	Tower
Control Points	Transmission Line
Horizontal	Point
Vertical	Stone
Culvert	Tunnel
Falls	Utility Poles
Double line river	Wharf, Dock, Pier
Fence, Hedge, Wall	Wooded Area
Feature Outline (Construction Features, etc.)	
Flooded Land	
Lock	
Marsh or Swamp	
Mast	
Mine Head Frame	
Outcrop	

AREAS WITHDRAWN FROM DISPOSITION

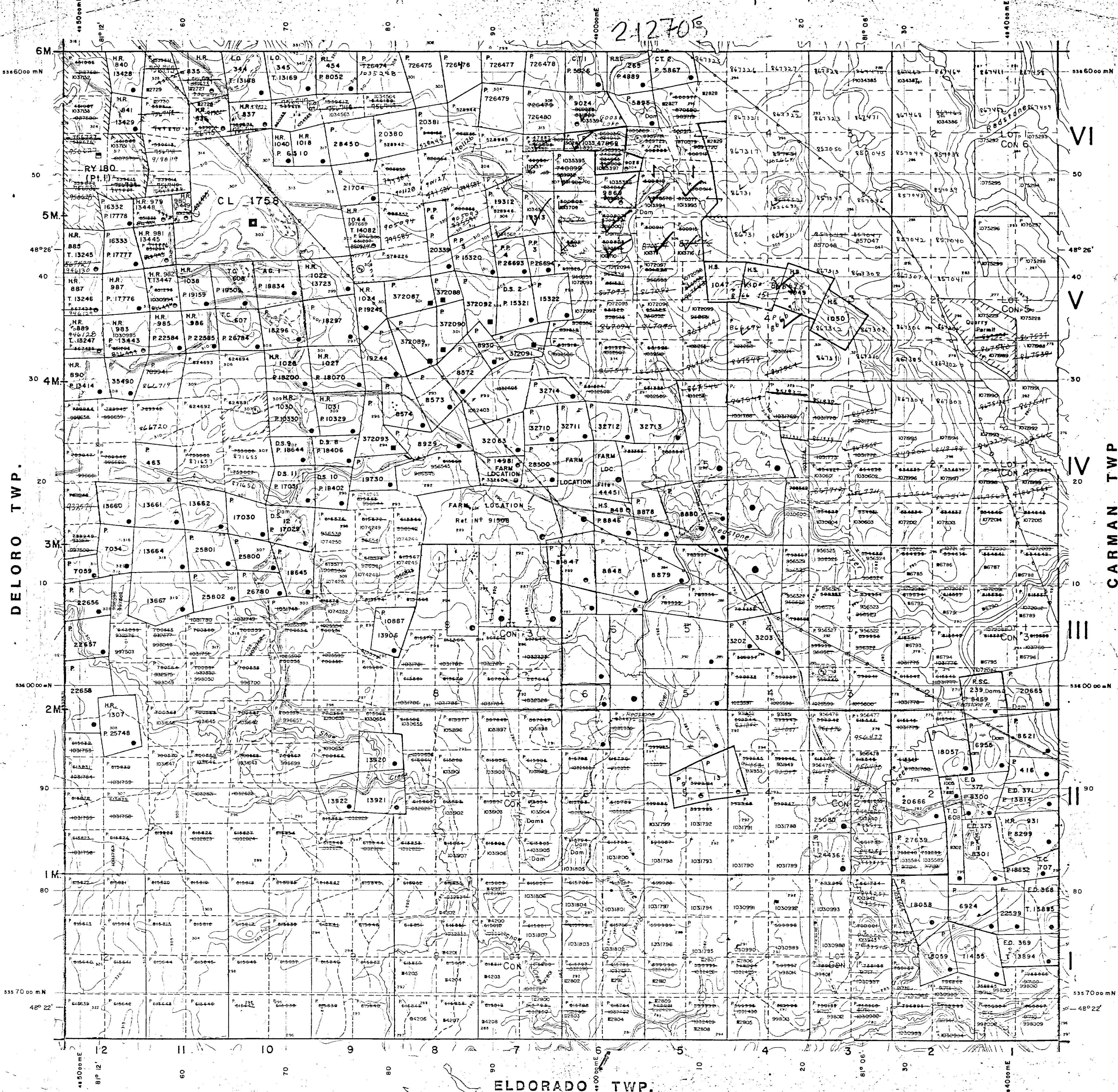
- M.R.O. - MINING RIGHTS ONLY
- S.R.D. - SURFACE RIGHTS ONLY
- M.+S. - MINING AND SURFACE RIGHTS

Description	Order No.	Date	Disposition	File
Rec. Part.	Sec. 3 PLA	18/12/77	SRO	188543
		W. 97/77	SRO	86555
Respond NRO #40/85				

SAND AND GRAVEL

GRAVEL	55666
GRAVEL	68760

WHITNEY TWP.



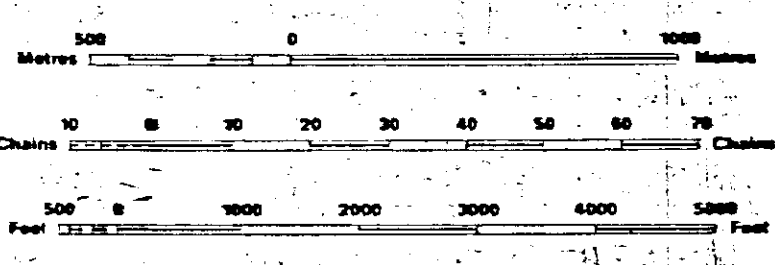
LEGEND

HIGHWAY AND ROUTE NO.	
OTHER ROADS	
TRAILS	
SURVEYED LINES	
TOWNSHIP, BASE LINES, ETC.	
LOTS, MINING CLAIMS, PARCELS, ETC.	
UNSURVEYED LINES:	
LOT LINES	
PARCEL BOUNDARY	
MINING CLAIMS ETC.	
RAILWAY AND RIGHT OF WAY	
UTILITY LINES	
NON-PERMANENT STREAM	
FLOODING OR FLOODING RIGHTS	
SUBDIVISION OR COMPOSITE PLAN	
RESERVATIONS	
ORIGINAL SHORELINE	
MARSH OR MUSKIEG	
MINES	
TRAVERSE MONUMENT	

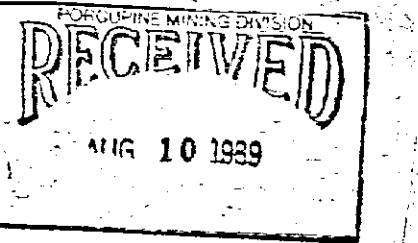
DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	●
- SURFACE RIGHTS ONLY	○
- MINING RIGHTS ONLY	◐
LEASE, SURFACE & MINING RIGHTS	◑
- SURFACE RIGHTS ONLY	◒
- MINING RIGHTS ONLY	◓
LICENCE OF OCCUPATION	◔
ORDER-IN-COUNCIL	◕
RESERVATION	◖
CANCELLED	◗
SAND & GRAVEL	◘

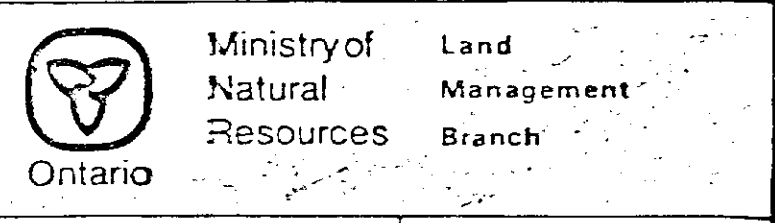
NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1973, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 300, SEC. 43, SUBSEC. 1.



SCALE 1:20 000
GRID ZONE 17

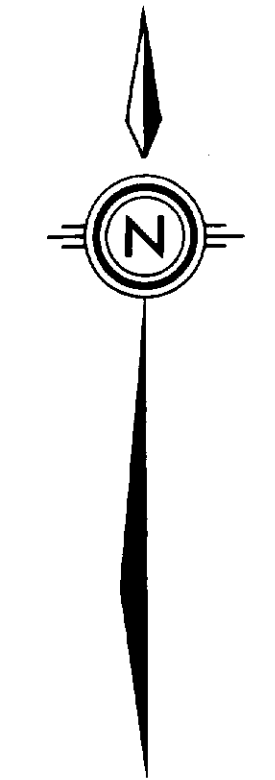
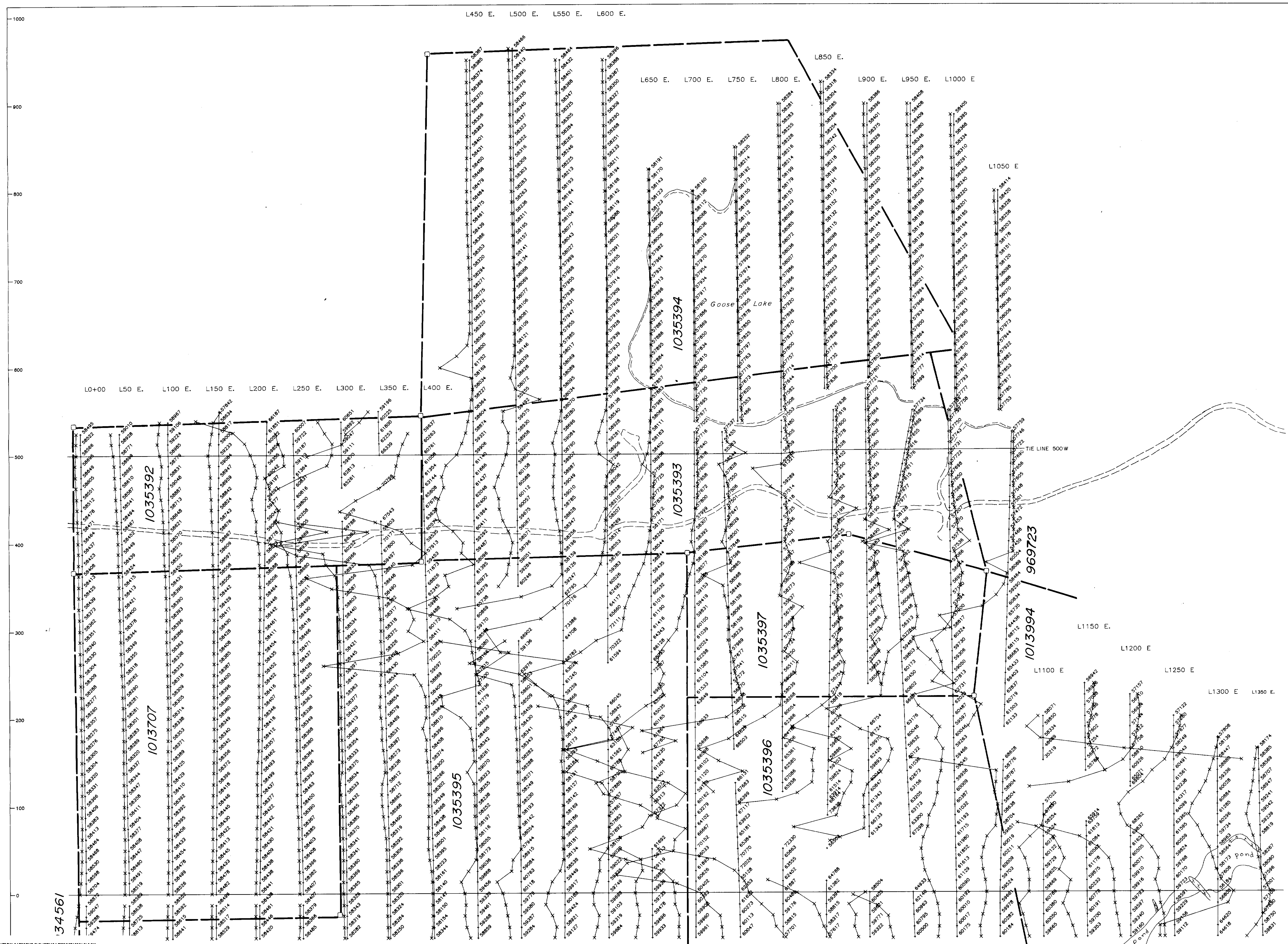


TOWNSHIP
SHAW
M.N.R. ADMINISTRATIVE DISTRICT
TIMMINS
MINING DIVISION
PORCUPINE
LAND TITLES / REGISTRY DIVISION
COCHRANE



ORIGINAL COMPILATION JULY 1984
REVISED
G-3999



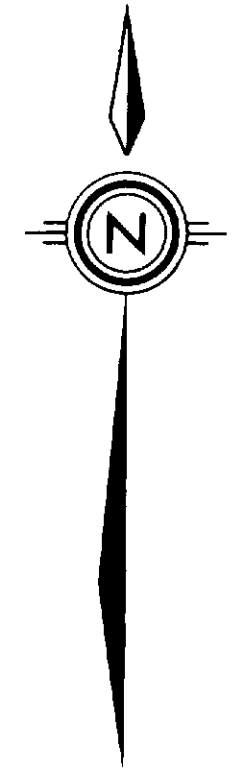
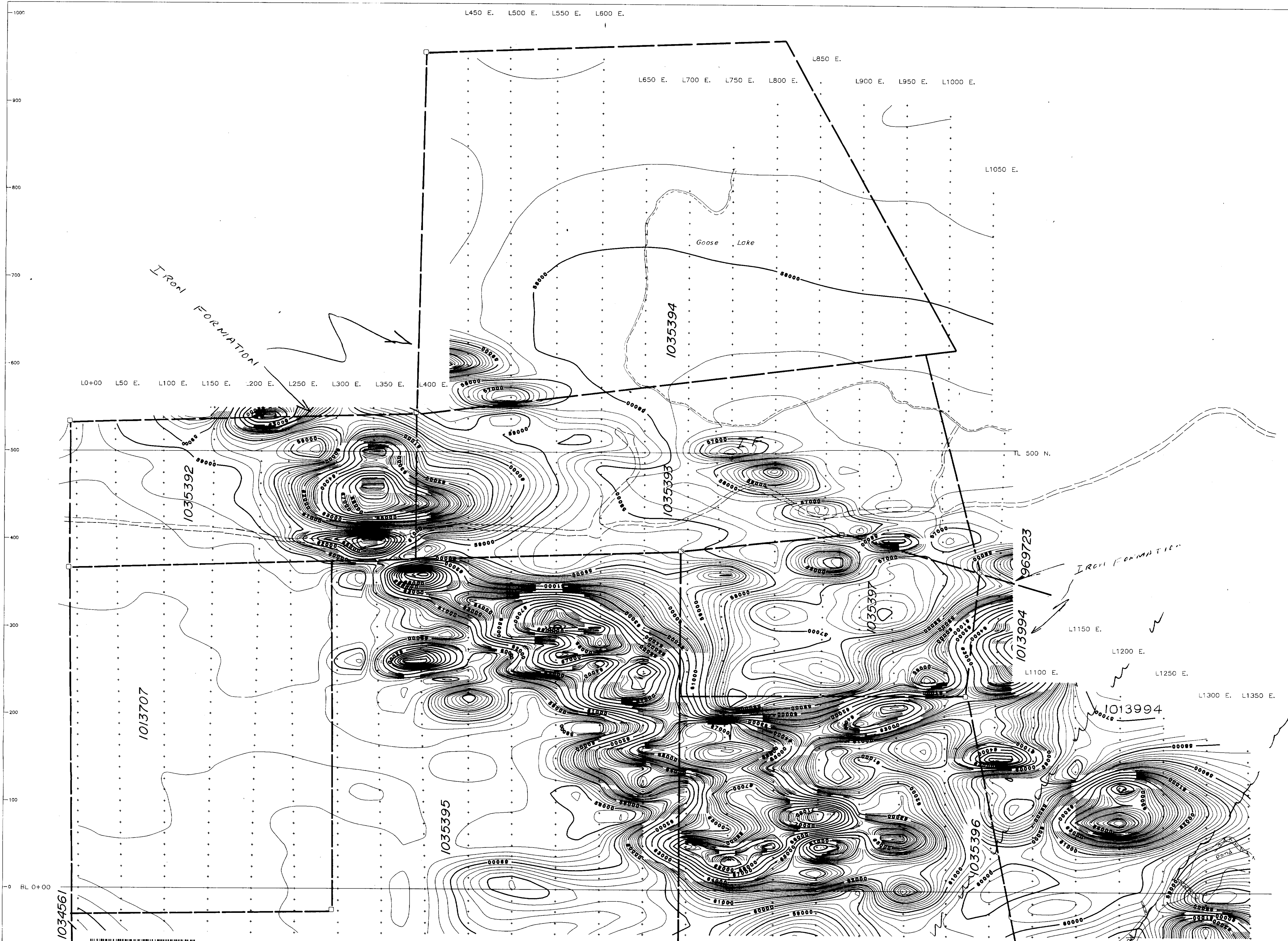


	A19	A18	A17	A14
				A24

× Magnetic Value

[Signature]
 R. D. SOMERVILLE
 ENGINEER
 PROVINCE OF ONTARIO

TOTAL ENERGOLD CORPORATION
 Shaw # 1 Group - Shaw Township
 Porcupine Mining Division
 MAGNETIC PROFILES AND POST MAP
 2000 Gammas/Cm - Base Value 58,000 Gammas
 SOUTH WEST GRID
 2.12.05
 NTS Ref.: Map A a INSTRUMENTATION
 Data Units: Gammas Model: I.G.S. System
 Scale: 1:2000 Resolution: 1.0 Gammas
 Date: March 1989 Manufacturer: Scintrex Ltd.
 R. SOMERVILLE ENGINEERING LTD.



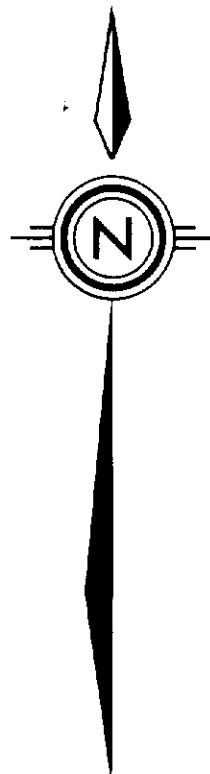
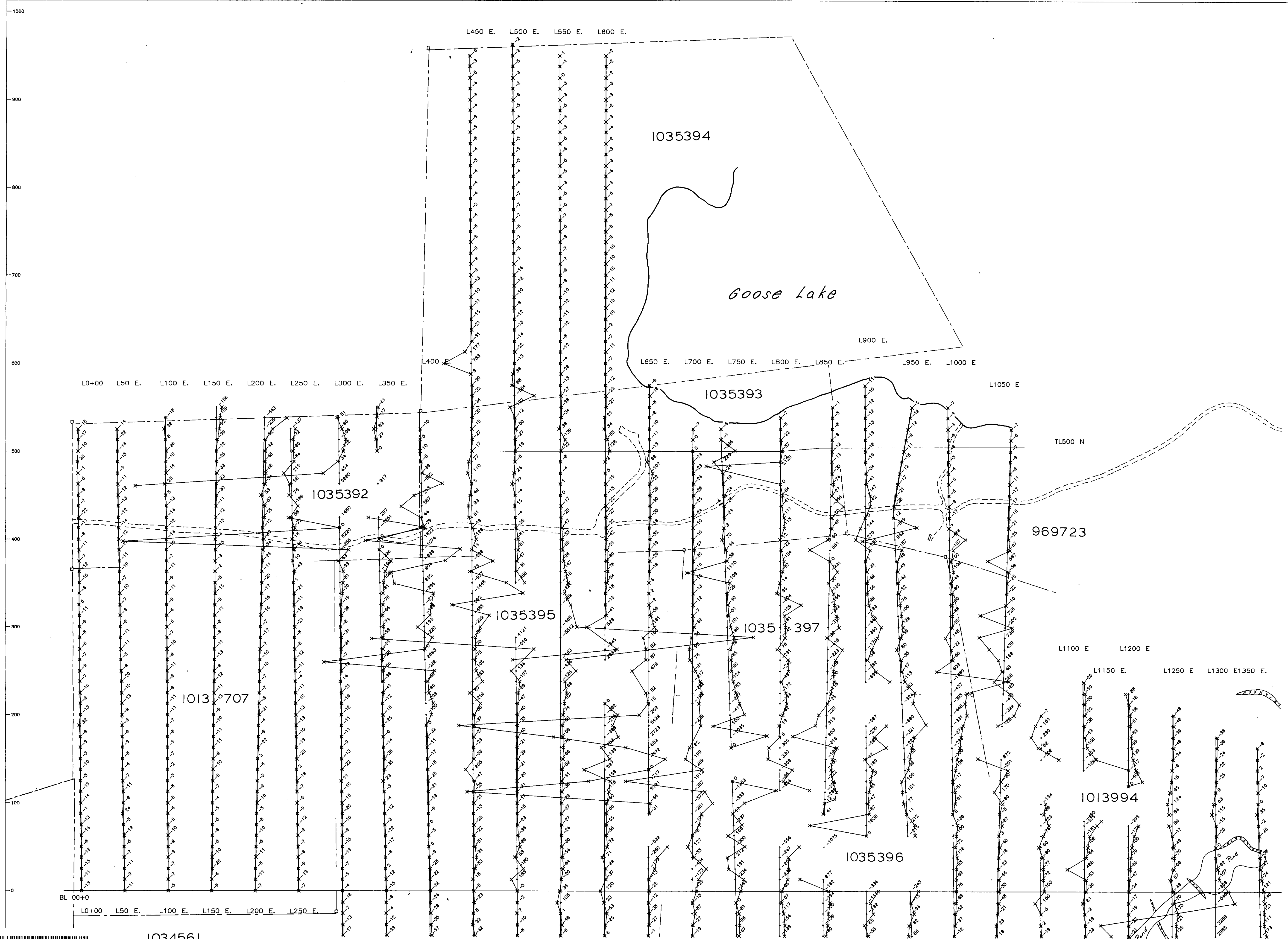
	A	A14
A19	A18	A17
		A24

TOTAL ENERGOLD CORPORATION
 Shaw # 1 Group - Shaw Township
 Porcupine Mining Division
MAGNETIC CONTOUR MAP
 Contour Interval 200 Gammas
 SOUTH WEST GRID

NTS Ref.:	MAP NO. A 6	INSTRUMENTATION	
Date Units:	Gammas	Model :	I.G.S. System
Scale:	1:2000	Resolution :	1.0 Gamma
Date :	March 1989	Manufacturer :	Soltrac Ltd.

R. SOMERVILLE ENGINEERING LTD.





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A18	A17
	A24

X Magnetic Value



R. D. Somerville

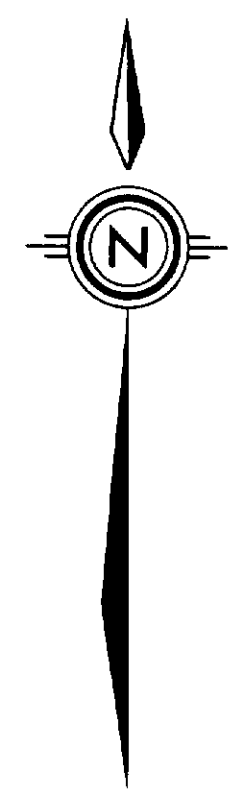
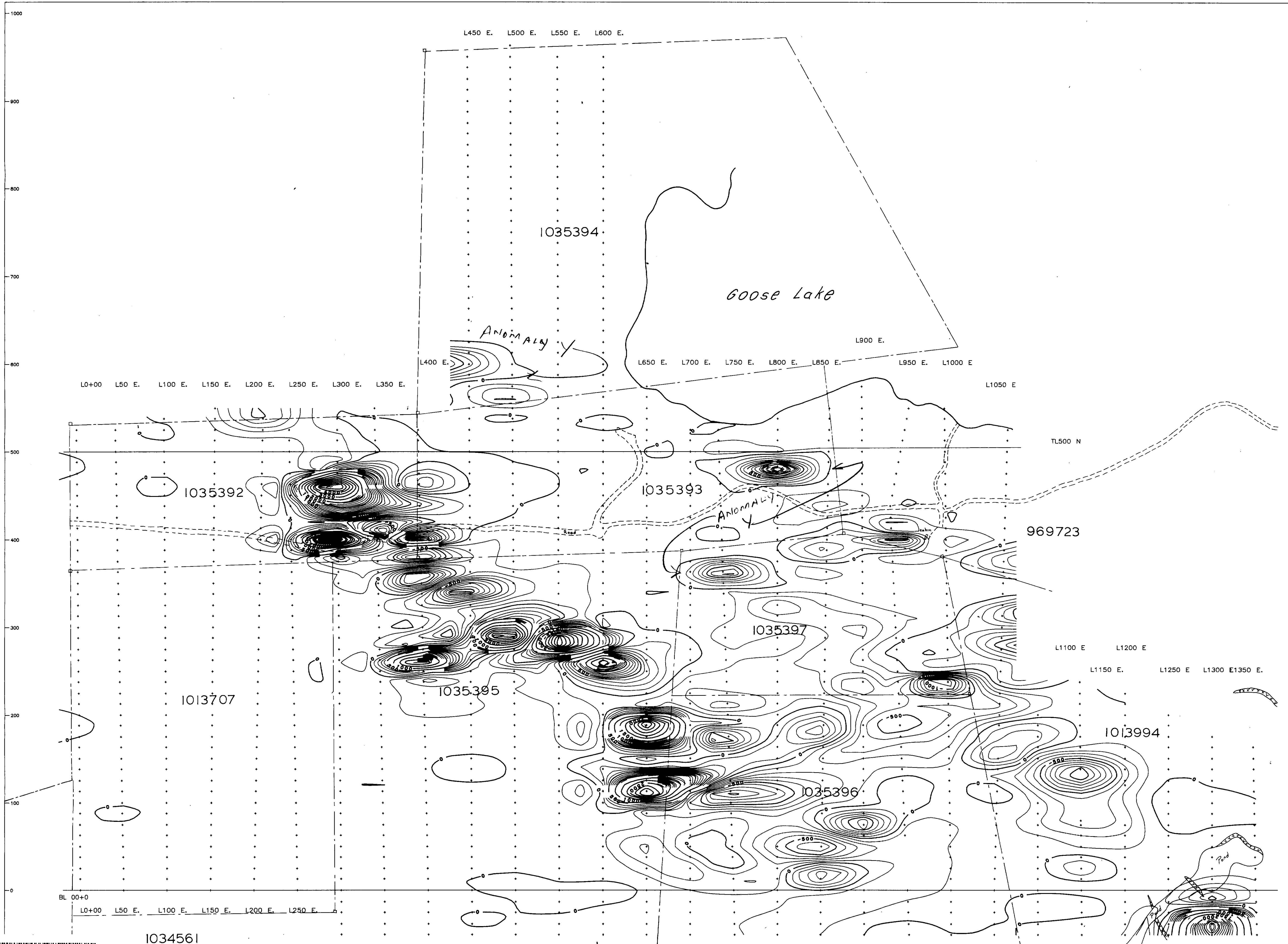
TOTAL ENERGOLD CORPORATION
 Shaw # 1 Group - Shaw Township
 Porcupine Mining Division
 MAGNETIC GRADIENT PROFILES AND POST MAP

500 Gammas/Metre per Cm - Base Value 0.00 Gammas/Metre
 SOUTH WEST GRID

NTS Ref.: Map A C	INSTRUMENTATION
Data Units: Gammas/Metre	Model: I.G.S. System
Scale: 1:2000	Resolution: 0.1 Gammas/Metre
Date: March 1989	Manufacturer: Scintrex Ltd.
R. SOMERVILLE ENGINEERING LTD.	

1034561



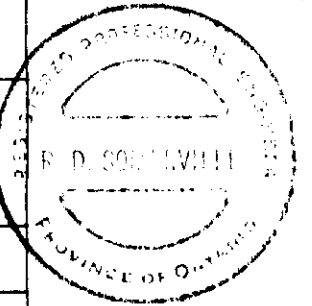


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	A24

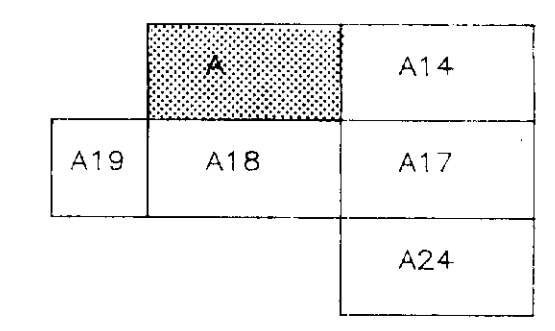
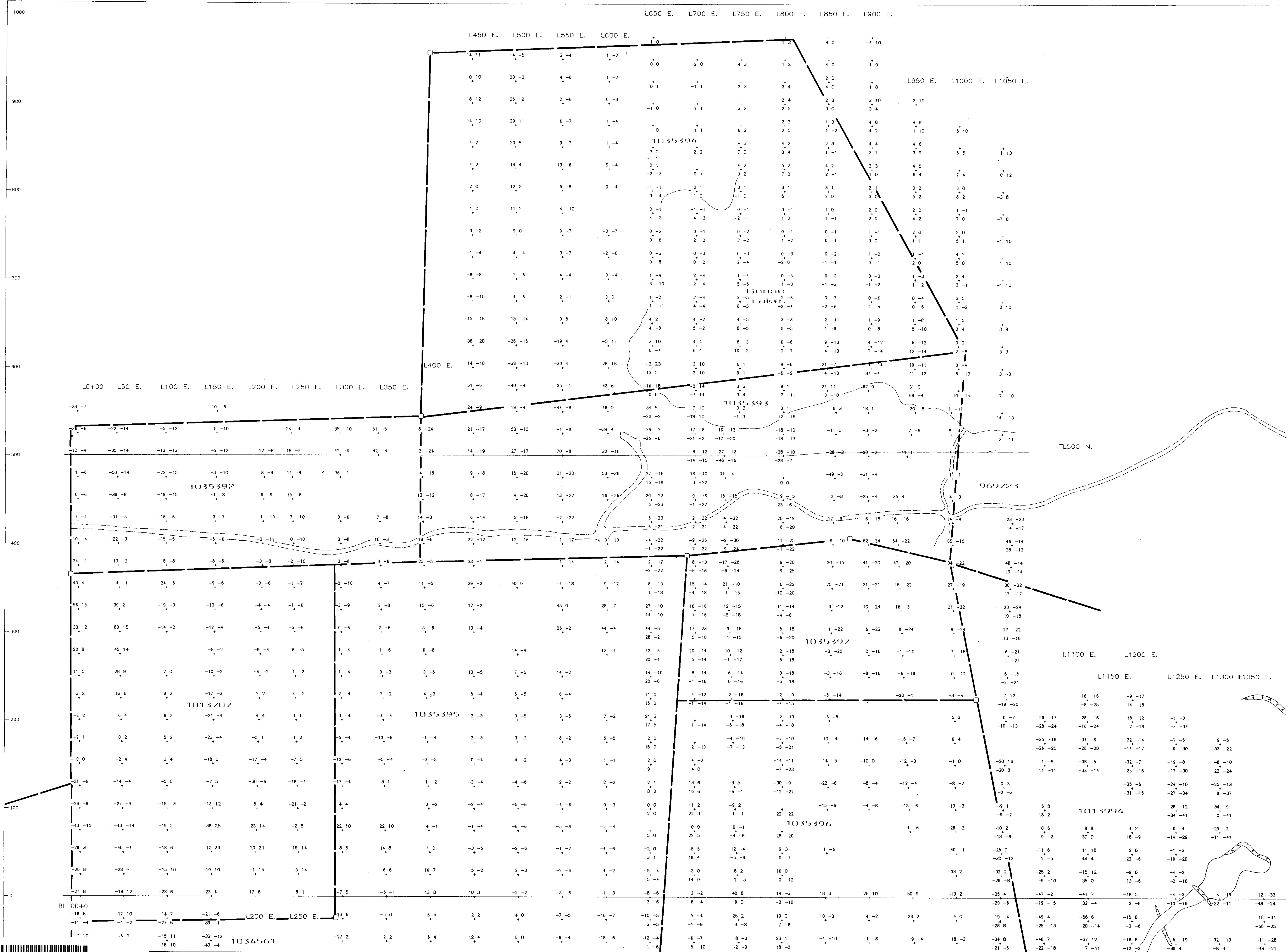
TOTAL ENERGOLD CORPORATION
 Shaw # 1 Group - Shaw Township
 Porcupine Mining Division
 MAGNETIC GRADIENT CONTOUR MAP

Contour Interval 100 Gammas/Metre
 SOUTH WEST GRID
 2-12705

NTS Ref.:	MAP NO. A d	INSTRUMENTATION
Data Units:	Gammas/Metre	Model: I.G.S. System
Scale:	1:2000	Resolution: 0.1 Gammas/Metre
Date:	March 1989	Manufacturer: Schlumberger Ltd.

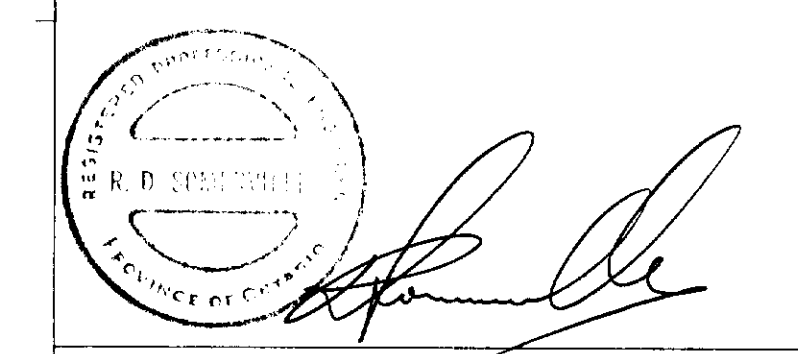


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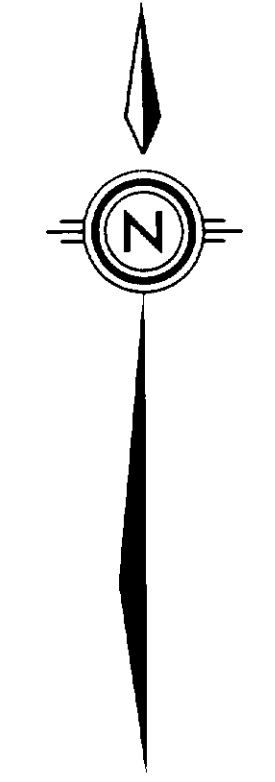
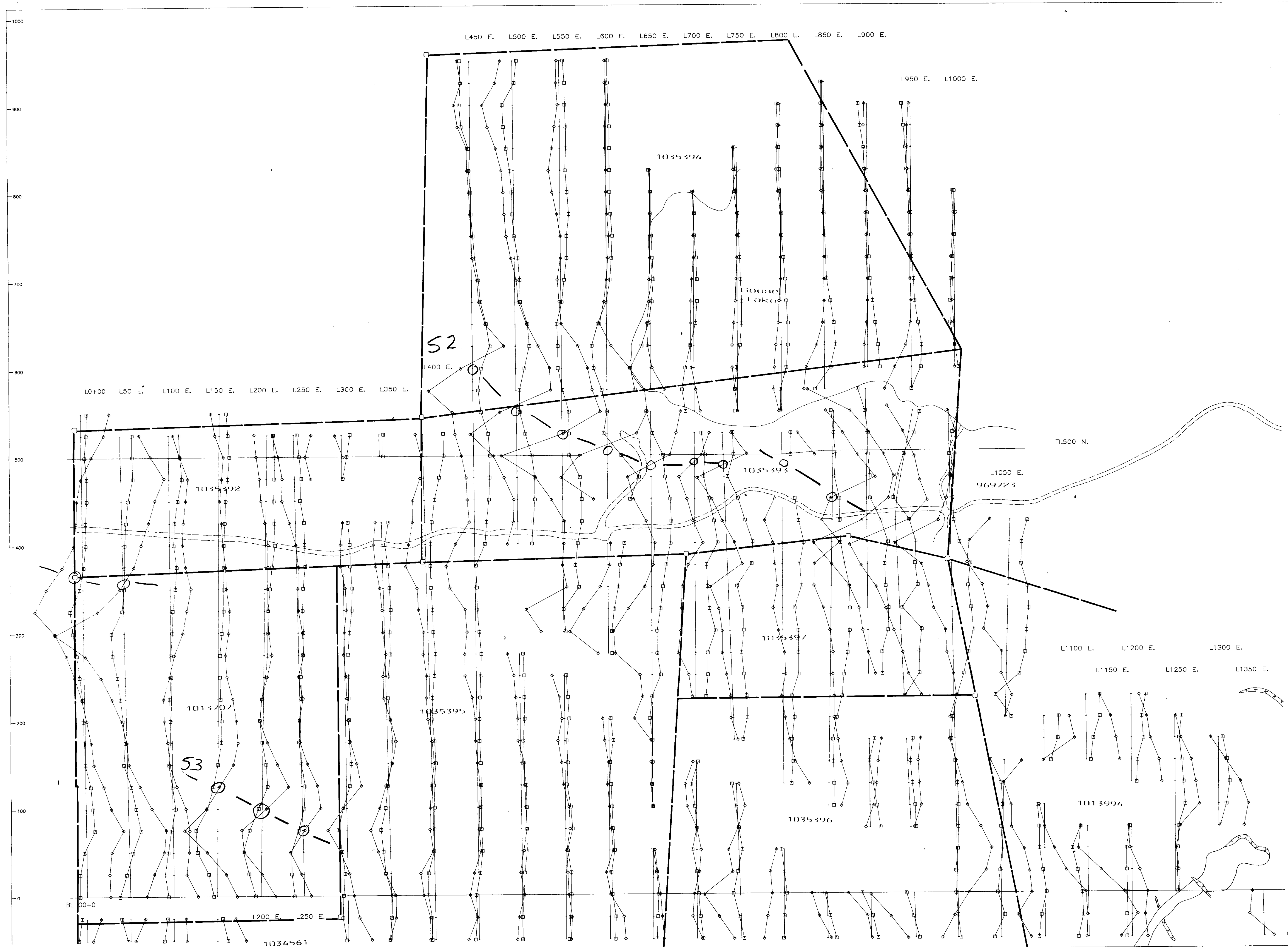


LEGEND :

NAA—Tilt, NAA—Quod.
 +
 NSS—Tilt, NSS—Quod.

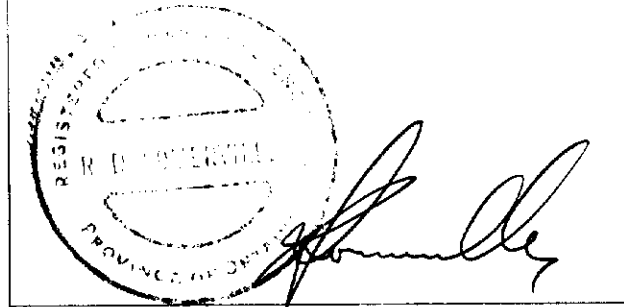


TOTAL ENERGOLD CORPORATION
 Shaw # 1 Group - Shaw Township
 Porcupine Mining Division
VLF E.M. POST MAP
 Annapolis, Maryland (NSS) and Cutler, Maine (NAA)
SOUTH WEST GRID
 2.12.05
 NTS Ref.: MAP NO. A E INSTRUMENTATION
 Data Units: Percent Model: E.M. 16
 Scales: 1:2000 Resolution: 1.0 Percent
 Date: March 1989 Manufacturer: Geonics Ltd.
 R. SOMERVILLE ENGINEERING LTD.



	A14
A19	A17
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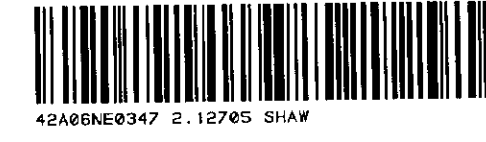
◇ Tilt Angle Value - NAA
 □ Quadrature Value - NAA



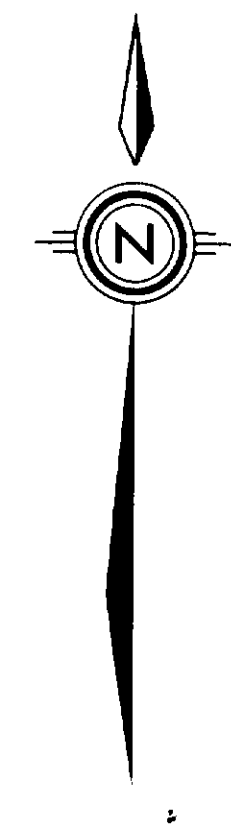
TOTAL ENERGOLD CORPORATION
 Shaw # 1 Group - Shaw Township
 Percupine Mining Division
VLF-EM PROFILES MAP
 20 Percent/Cm - Base Value 0.0 Percent
 SOUTH WEST GRID
 CUTLER TRANSMITTER

NTS Ref.:	Map A f	INSTRUMENTATION	
Data Units:	Percent	Model:	E.M.-16
Scale:	1:2000	Resolution:	±1.0 Percent
Date:	March 1989	Manufacturer:	Geonics Ltd.

R. SOMERVILLE ENGINEERING LTD.



2705



	A	A14
A19	A18	A17
		A24

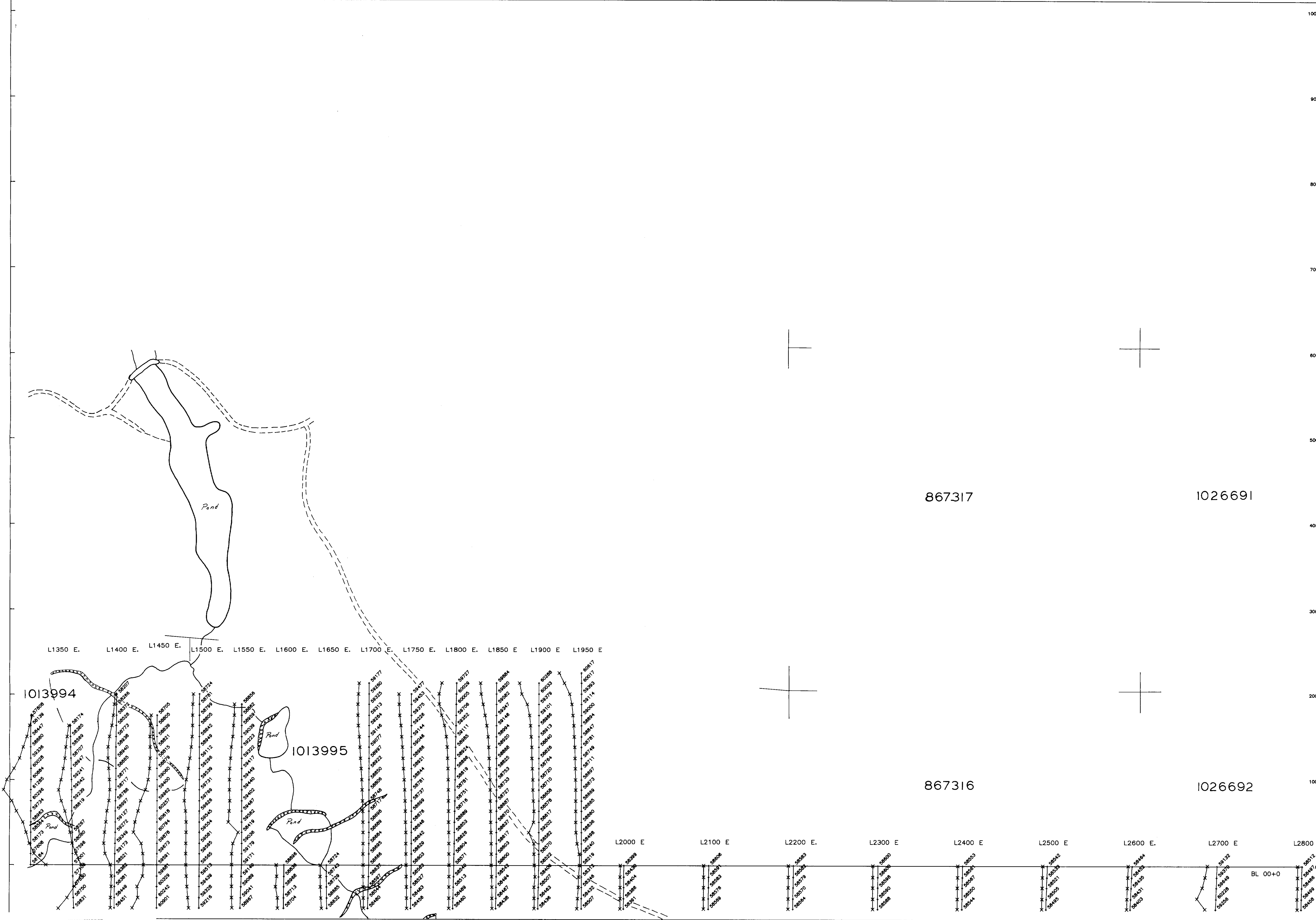
+ Tilt Angle Value - NSS
 X Quadrature Value - NSS


 TOTAL ENERGOLD CORPORATION
 Shaw # 1 Group - Shaw Township
 Porcupine Mining Division

VLF-EM PROFILES MAP
 20 Percent/Cm - Base Value 0.0 Percent
 SOUTH WEST GRID 2. 12705
 ANNAPOLIS TRANSMITTER

NTS Ref.:	Map A 9	INSTRUMENTATION
Data Units:	Percent	Model: E.M.-16
Scale:	1:2000	Resolution: 1.0 Percent
Date:	March 1989	Manufacturer: Geonics Ltd.
R. SOMERVILLE ENGINEERING LTD.		



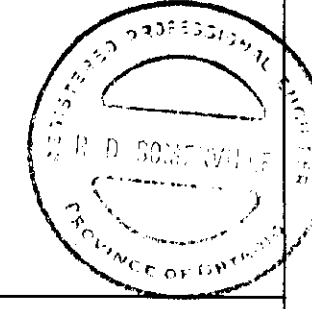


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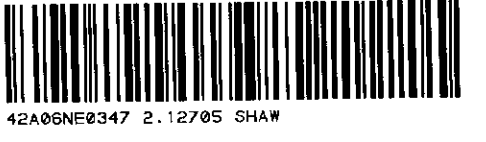


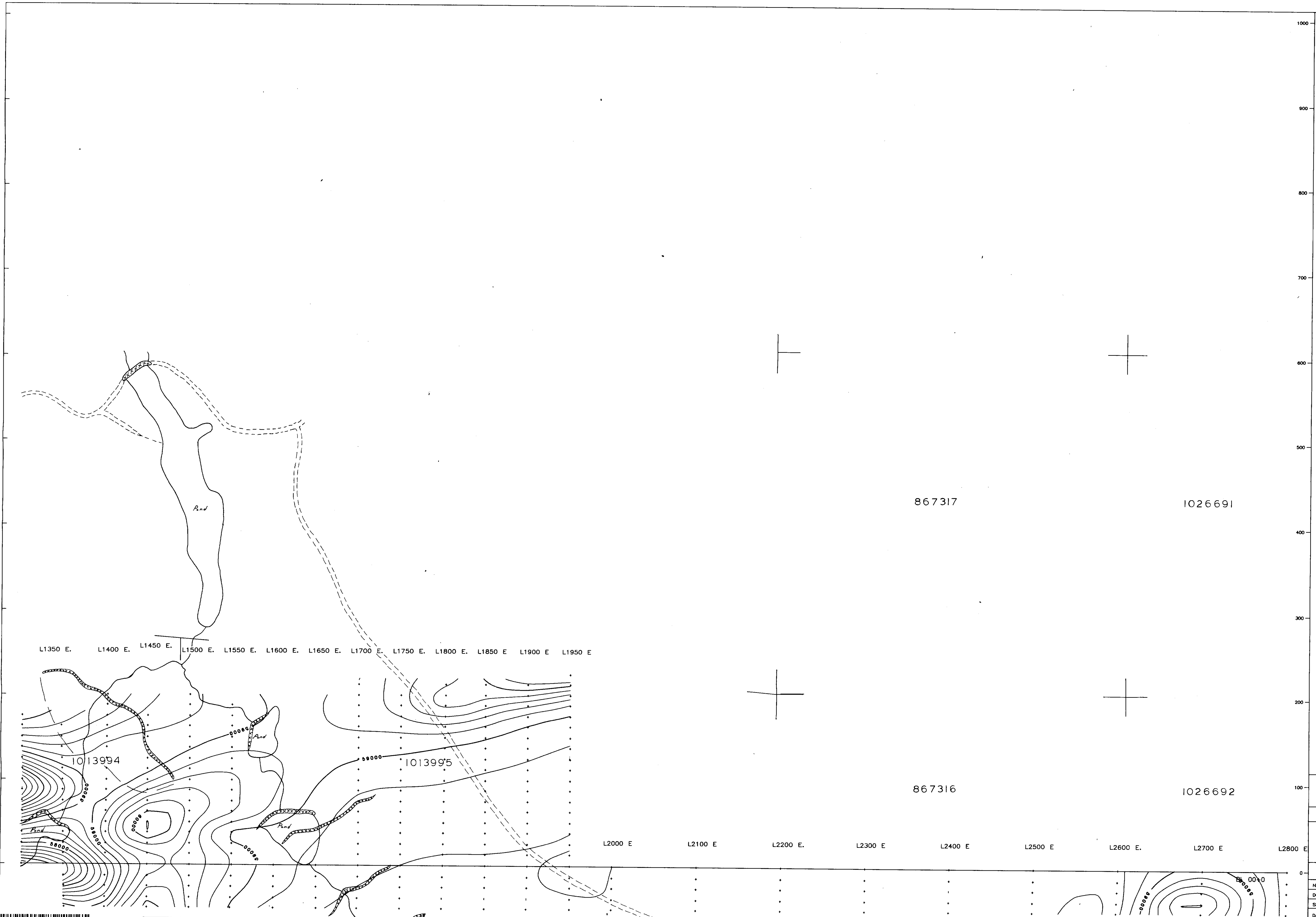
A	A14
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x Magnetic Value

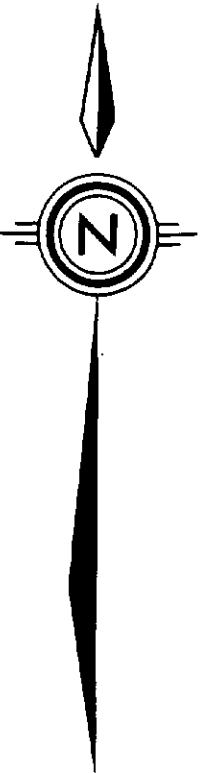
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TOTAL ENERGOLD CORPORATION	
Shaw # 1 Group - Shaw Township Porcupine Mining Division	
MAGNETIC PROFILES AND POST MAP	
2000 Gammas/Cm - Base Value 58,000 Gammas	
SOUTH WEST GRID	
2.12705	
NTS Ref.: Map A14	INSTRUMENTATION
Data Units: Gammas	Model: I.G.S. System
Scale: 1:2000	Resolution: 1.0 Gammas
Date: March 1989	Manufacturer: Schlumberger Ltd.
R. SOMERVILLE ENGINEERING LTD.	





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L1350 E. L1400 E. L1450 E. L1500 E. L1550 E. L1600 E. L1650 E. L1700 E. L1750 E. L1800 E. L1850 E. L1900 E. L1950 E.

L2000 E. L2100 E. L2200 E. L2300 E. L2400 E. L2500 E. L2600 E. L2700 E. L2800 E.

R. D. Somerville

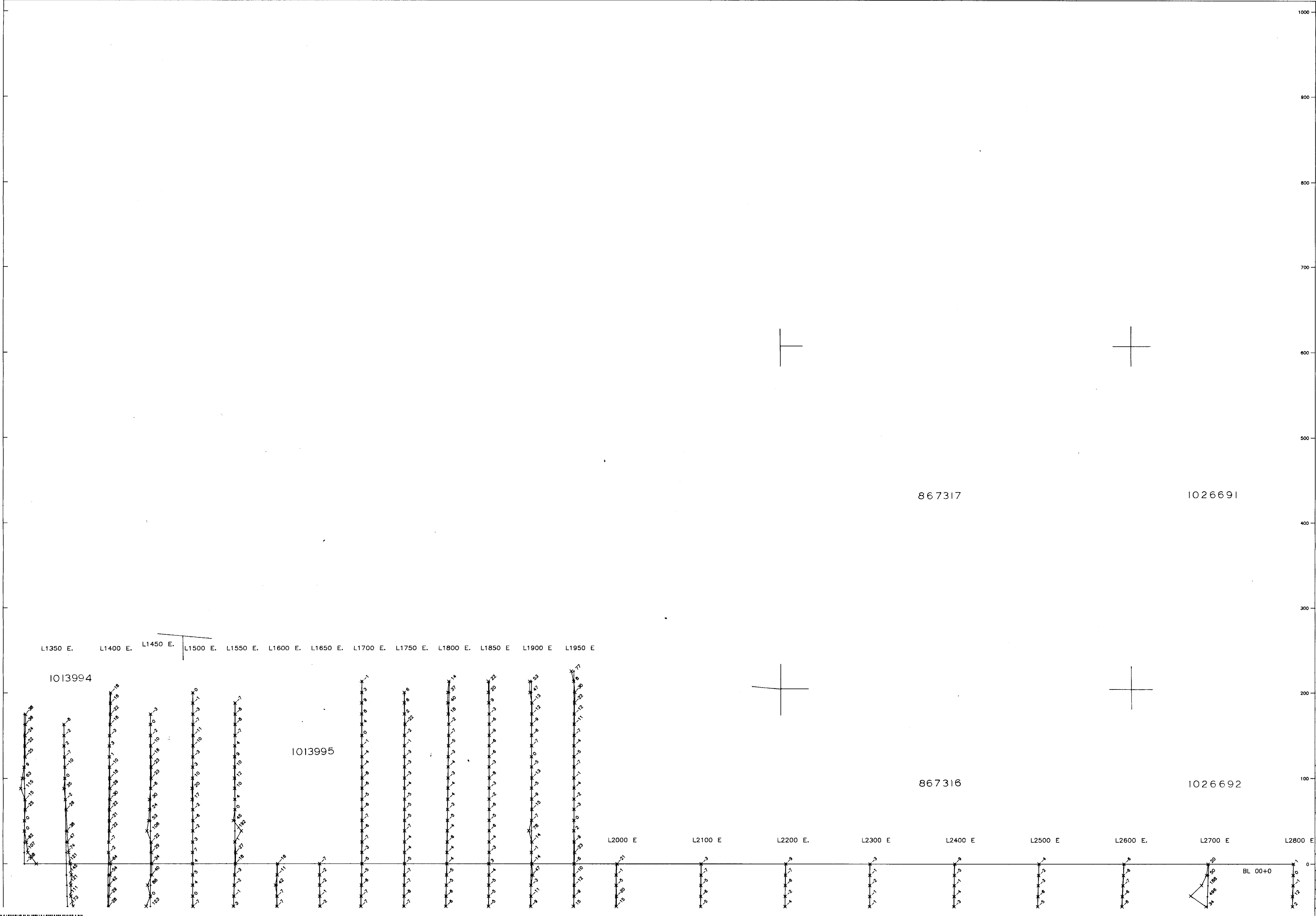
TOTAL ENERGOLD CORPORATION
 Shaw # 1 Group - Shaw Township
 Porcupine Mining Division
MAGNETIC CONTOUR MAP
 Contour Interval 200 Gammas
 SOUTH WEST GRID

2145 87005

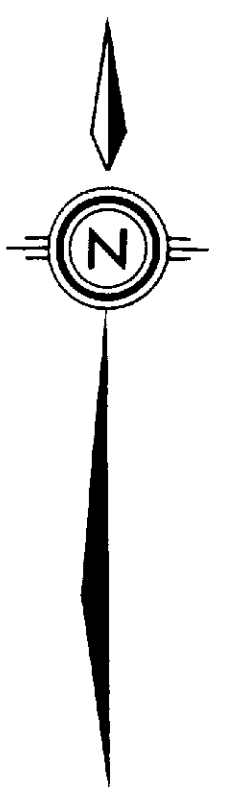
NTS Ref.: MAP NO. A14	INSTRUMENTATION
Date Units: Gammas	Model: I.G.S. System
Scale: 1:2000	Resolution: 1.0 Gamma
Date: March 1989	Manufacturer: Scintrex Ltd.

R. SOMERVILLE ENGINEERING LTD.





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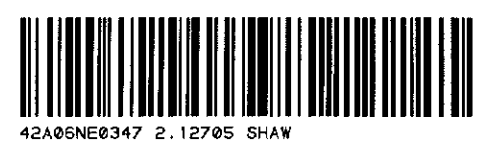
A	A14
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	A24

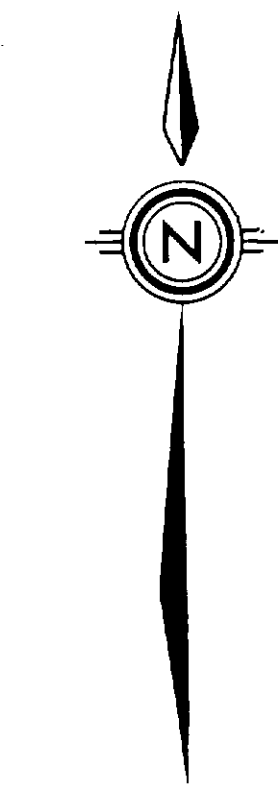
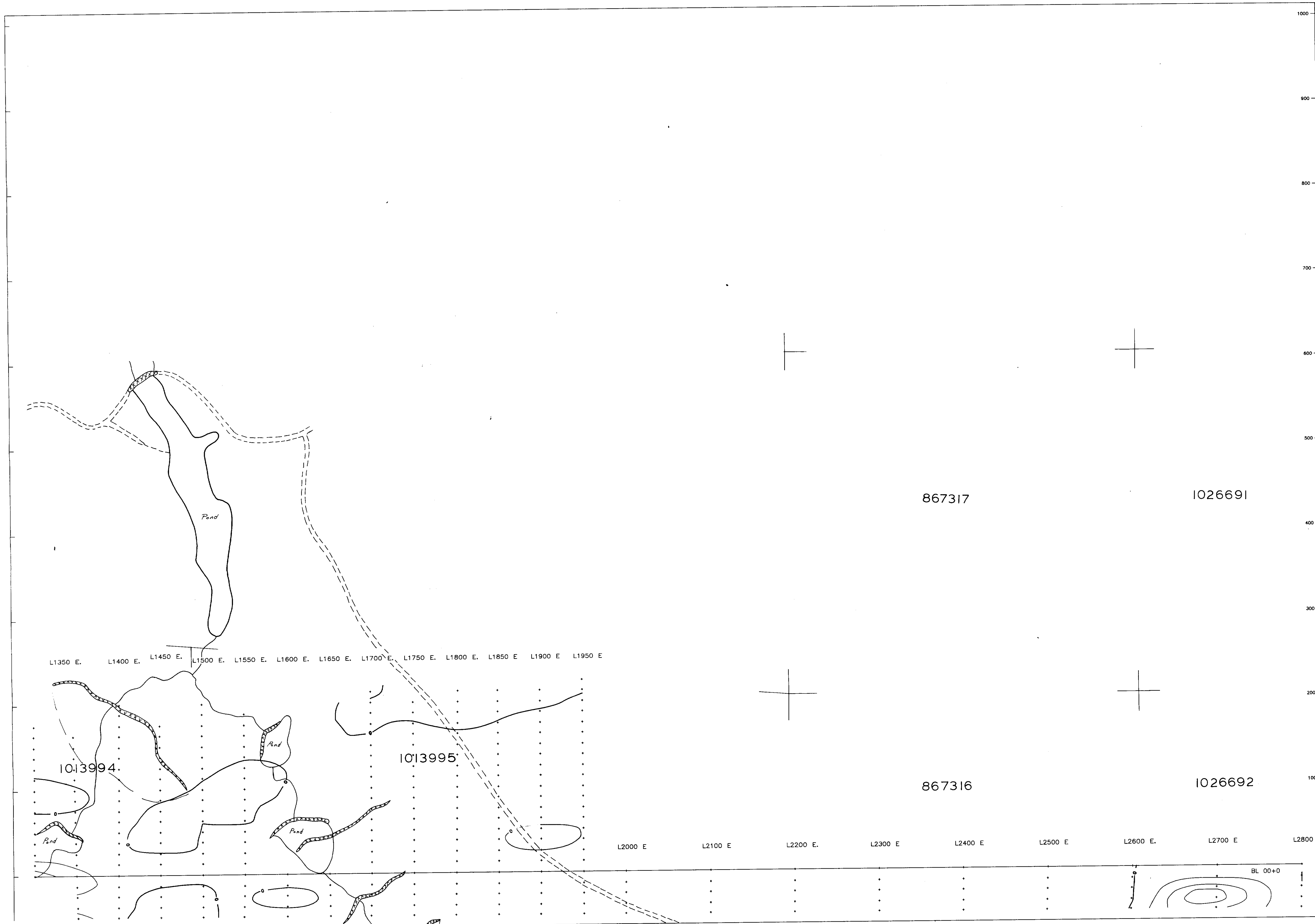
x Magnetic Value



[Signature]

TOTAL ENERGOLD CORPORATION	
Shaw # 1 Group - Shaw Township Porcupine Mining Division	
MAGNETIC GRADIENT PROFILES AND POST MAP	
200 Gammas/Metre per Cm - Base Value 0.00 Gammas/Metre	
SOUTH WEST GRID	
1026692	
NTS Ref.: Map A14	INSTRUMENTATION
Date Units: Gammas/Metre	Model: I.G.S. System
Scale: 1:2000	Resolution: 0.1 Gammas/Metre
Date: March 1989	Manufacturer: Scintrex Ltd.
R. SOMERVILLE ENGINEERING LTD.	

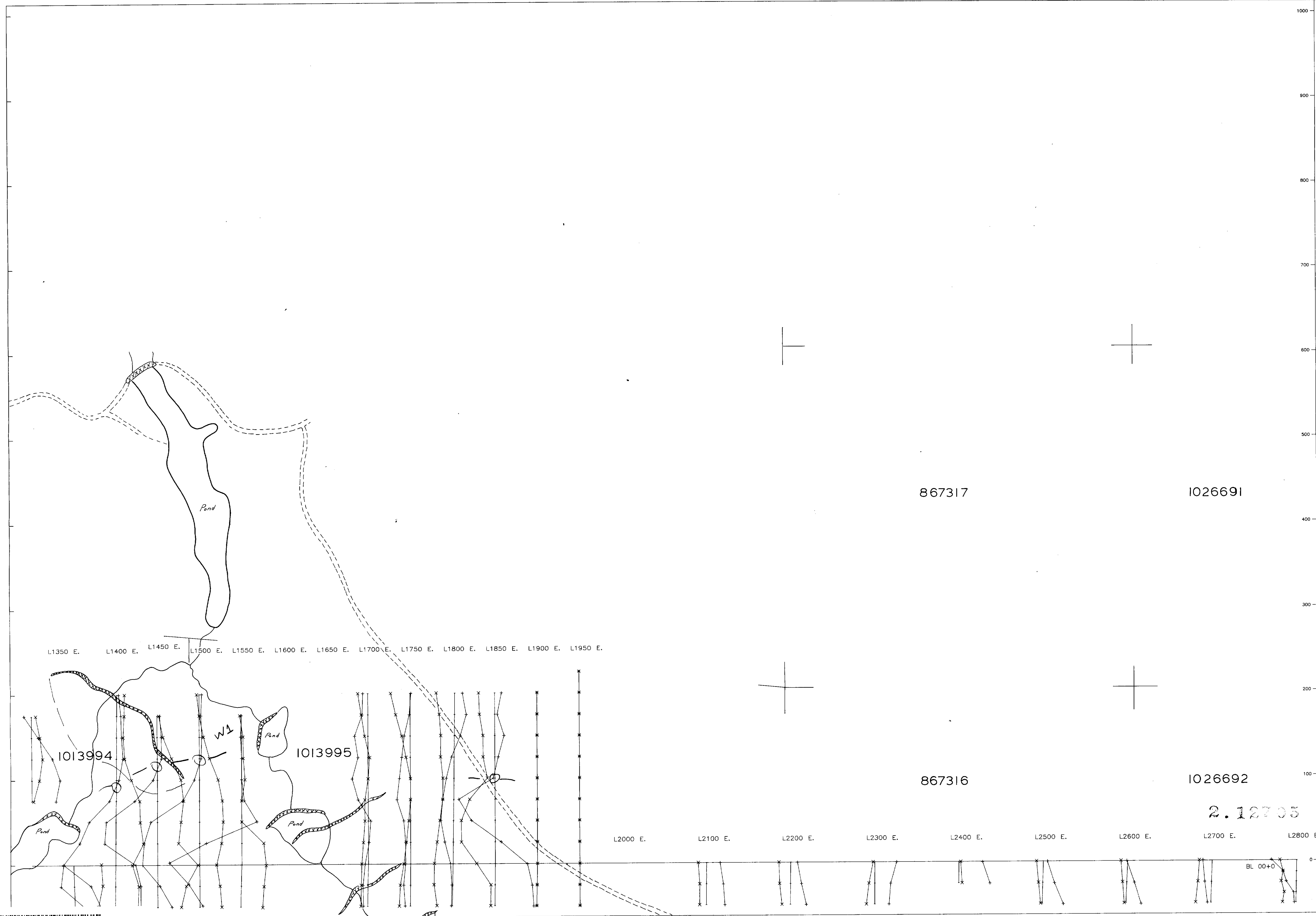




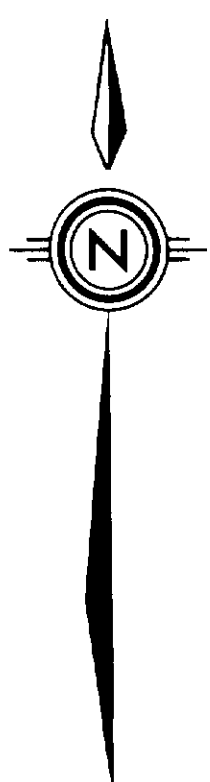
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A18	A17
	A24

[Signature]
 P. D. SOMERVILLE
 R. SOMERVILLE ENGINEERING LTD.

TOTAL ENERGOLD CORPORATION	
Shaw # 1 Group - Shaw Township Porcupine Mining Division	
MAGNETIC GRADIENT CONTOUR MAP	
Contour Interval 100 Gammas SOUTH WEST GRID	
A14	
NTS Ref.: MAP NO. A14	INSTRUMENTATION
Data Units: Gammas/Metre	Model: I.G.S. System
Scale: 1:2000	Resolution: 0.1 Gammas/Metre
Date: March 1989	Manufacturer: Schlöter Ltd.
R. SOMERVILLE ENGINEERING LTD.	



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A16	A17
	A24

+ Tilt Angle Value - NSS
x Quadrature Value - NSS

867317

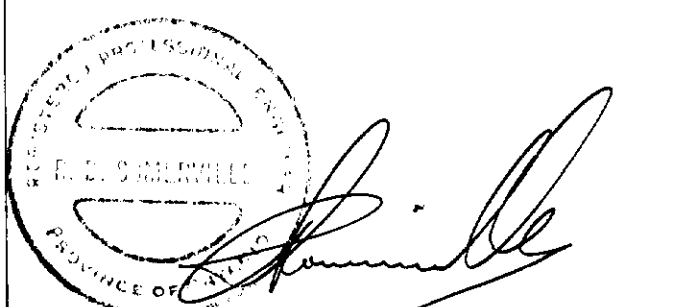
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867316

1026692

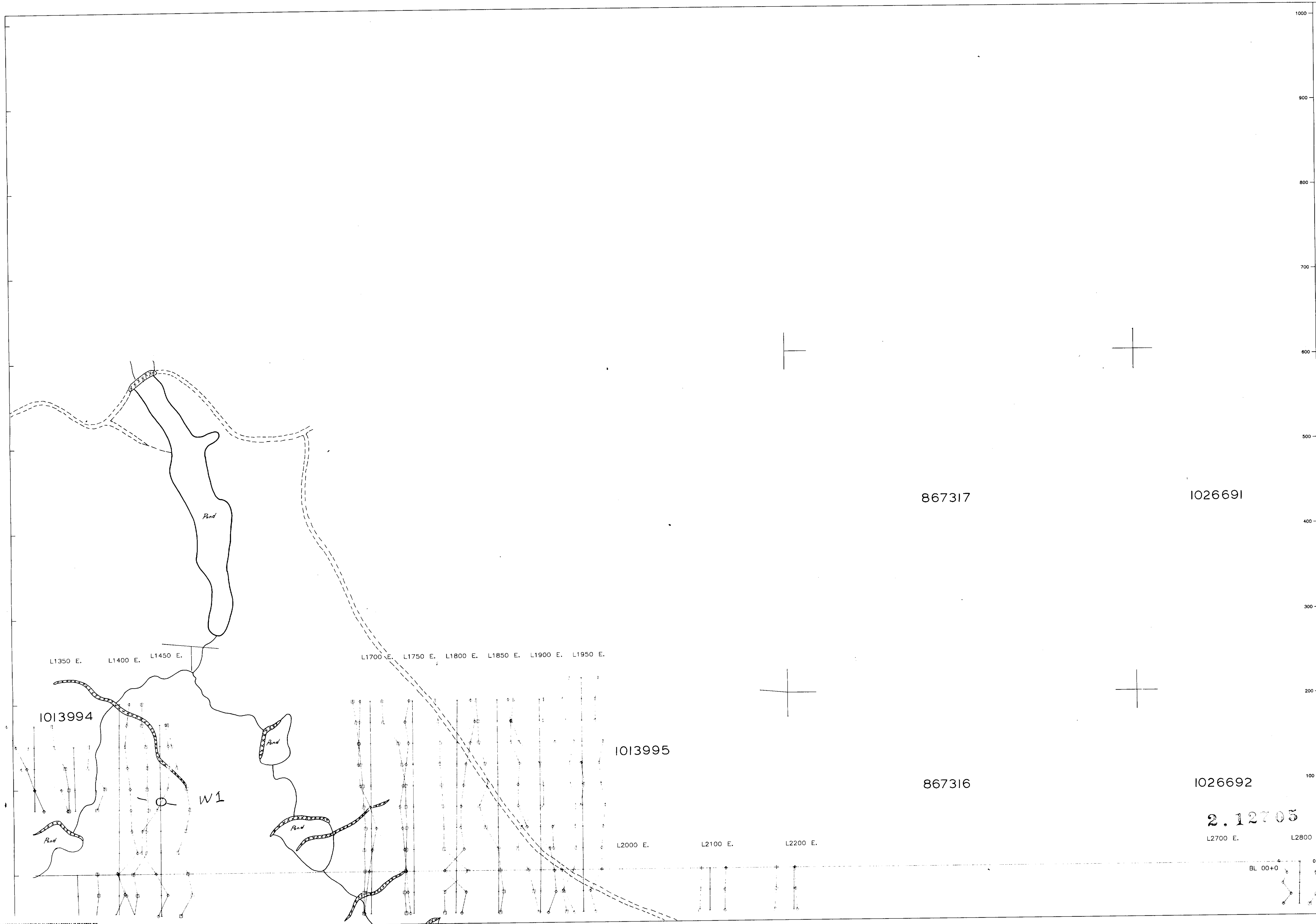
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L2000 E. L2100 E. L2200 E. L2300 E. L2400 E. L2500 E. L2600 E. L2700 E. L2800 E.



TOTAL ENERGOLD CORPORATION
Shaw # 1 Group - Shaw Township
Porcupine Mining Division
VLF-EM PROFILES MAP
20 Percent/Cm - Base Value 0.0 Percent
SOUTH WEST GRID
CUTLER TRANSMITTER

NTS Ref.: Map A14	INSTRUMENTATION
Data Units: Percent	Model: E.M. 16
Scale: 1:2000	Resolution: 1.0 Percent
Date: March 1989	Manufacturer: Geonics Ltd.
R. SOMERVILLE ENGINEERING LTD.	



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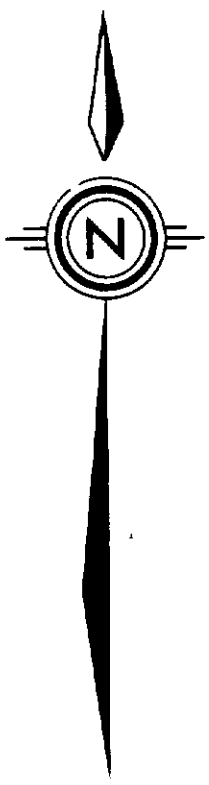
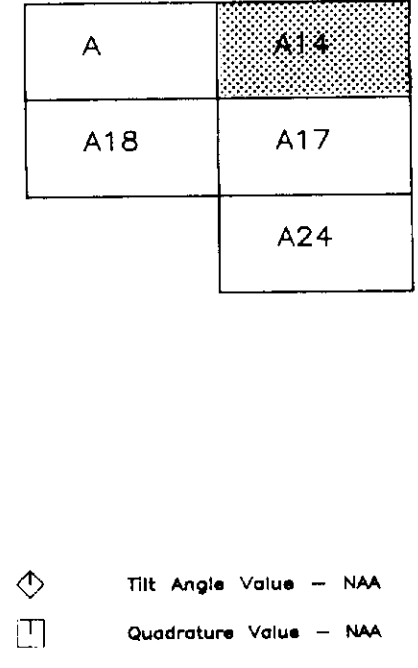
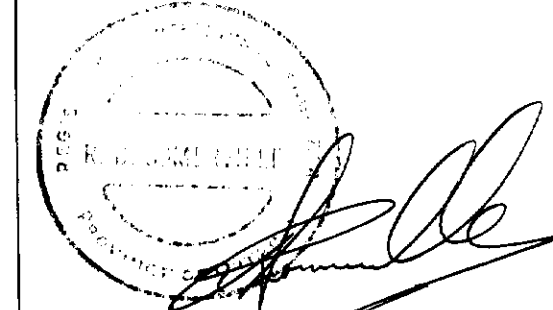
867317 1026691

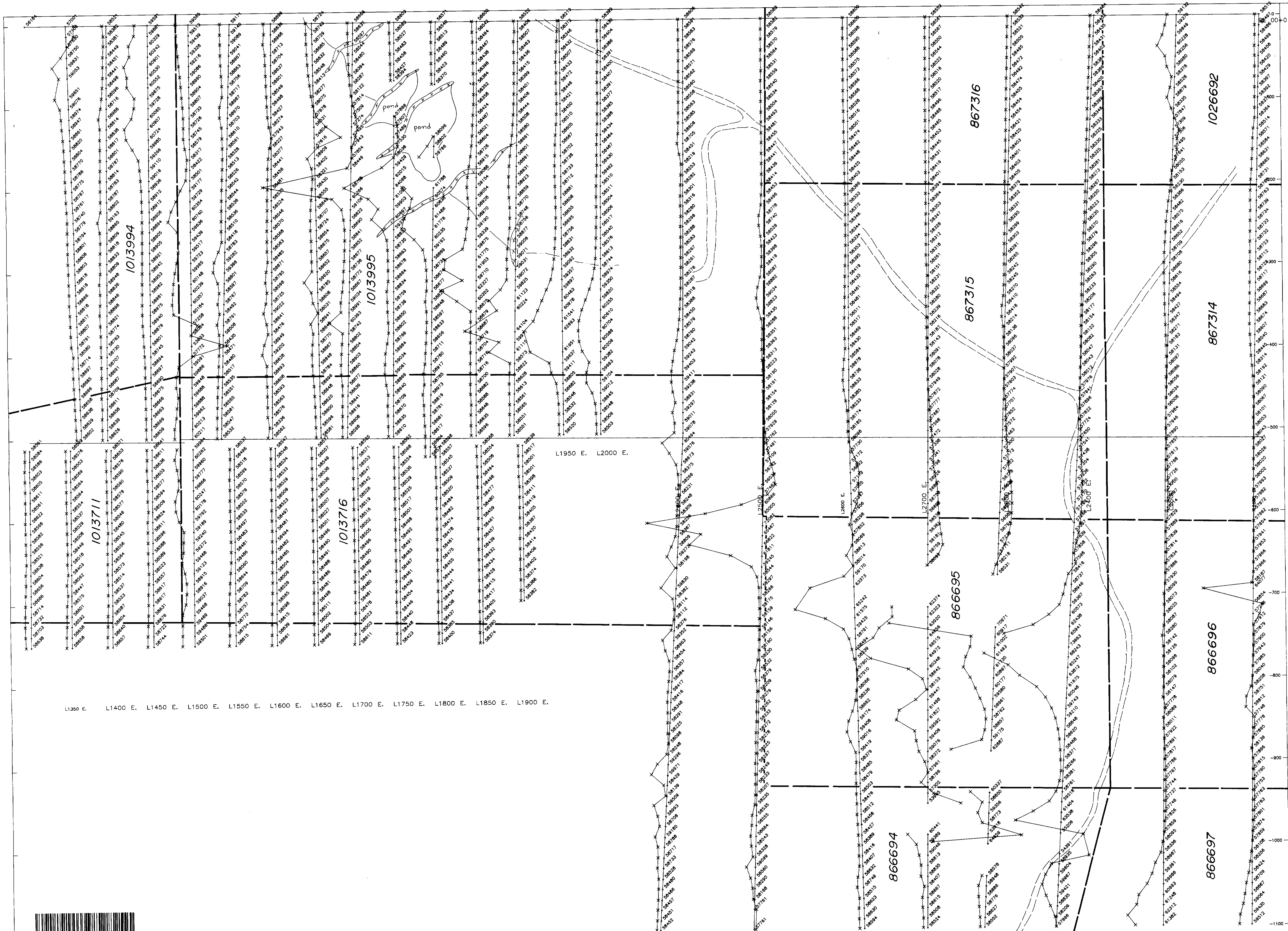
1013994 867316 1026692

2.12705

L2700 E. L2800 E.

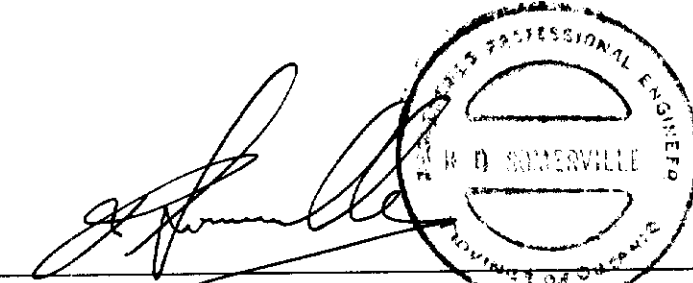
BL 00+0




TOTAL ENERGO GOLD CORPORATION
 Shaw # 1 Group - Shaw Township
 Porcupine Mining Division
VLF-EM PROFILES MAP
 20 Percent/Cm - Base Value 0.0 Percent
 SOUTH WEST GRID
 ANNAPOLIS TRANSMITTER
 NTS Ref.: Map A14 g INSTRUMENTATION
 Data Units: Percent Model: E.M. 16
 Scale: 1:2000 Resolution: 1.0 Percent
 Date: March 1989 Manufacturer: Geonics Ltd.
 R. SOMERVILLE ENGINEERING LTD.



	A	A14
A19	A18	A17
		A24

x Magnetic Value



TOTAL ENERGOLD CORPORATION
 Shaw # 1 Group - Shaw Township
 Porcupine Mining Division
 MAGNETIC PROFILES AND POST MAP

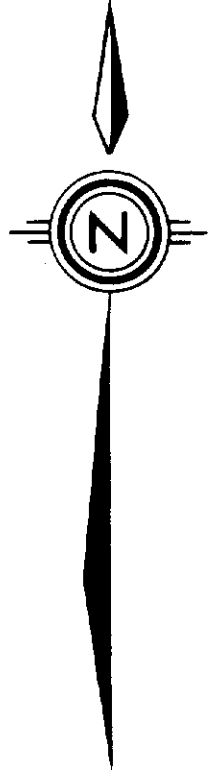
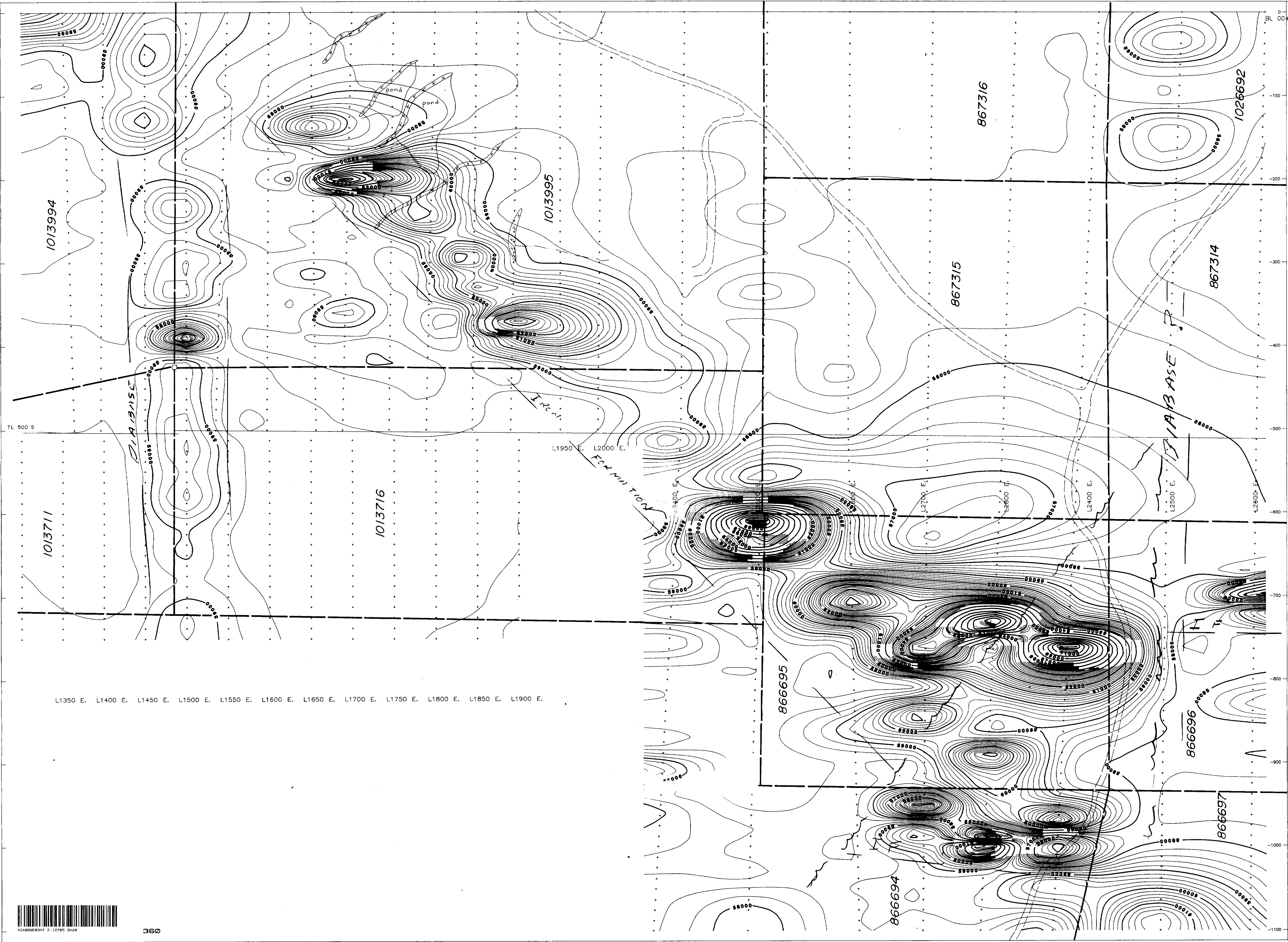
2000 Gammas/Cm - Base Value 58,000 Gammas
 SOUTH WEST GRID

Map A17

NTS Ref.: Map A17	INSTRUMENTATION
Data Units: Gammas	Model: I.G.S. System
Scale: 1:2000	Resolution: 1.0 Gammas
Date: March 1989	Manufacturer: Scintrex Ltd.

R. SOMERVILLE ENGINEERING LTD.





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A19	A18	A17
		A24

L1350 E. L1400 E. L1450 E. L1500 E. L1550 E. L1600 E. L1650 E. L1700 E. L1750 E. L1800 E. L1850 E. L1900 E.

TOTAL ENERGOLD CORPORATION
 Shaw # 1 Group - Shaw Township
 Porcupine Mining Division
MAGNETIC CONTOUR MAP
 Contour Interval 200 Gammas
 SOUTH WEST GRID

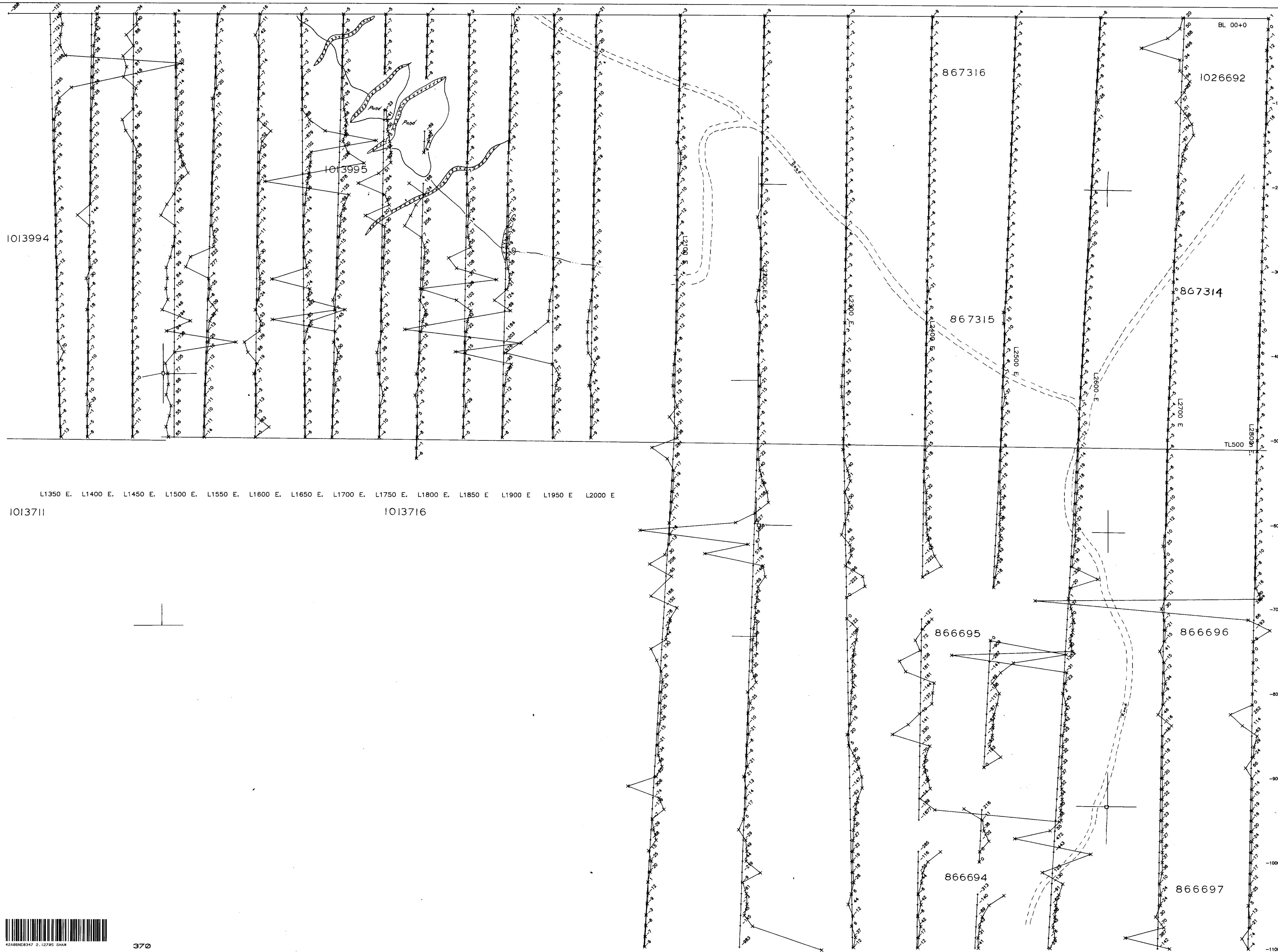
NTS Ref.: MAP NO. A17	INSTRUMENTATION
Data Units: Gammas	Model: I.G.S. System
Scale: 1:2000	Resolution: 1.0 Gamma
Date: March 1989	Manufacturer: Scintrex Ltd.

R. SOMERVILLE ENGINEERING LTD.



360

A17B



A	A14
A18	A17
	A24

X Magnetic Value



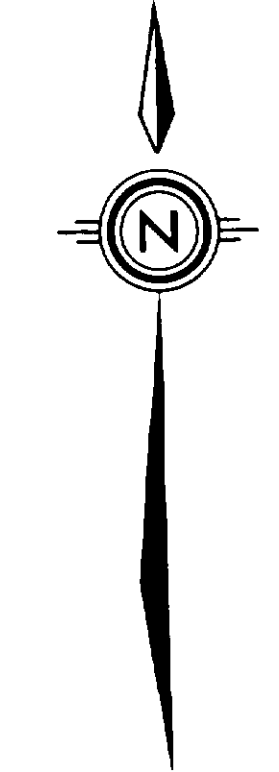
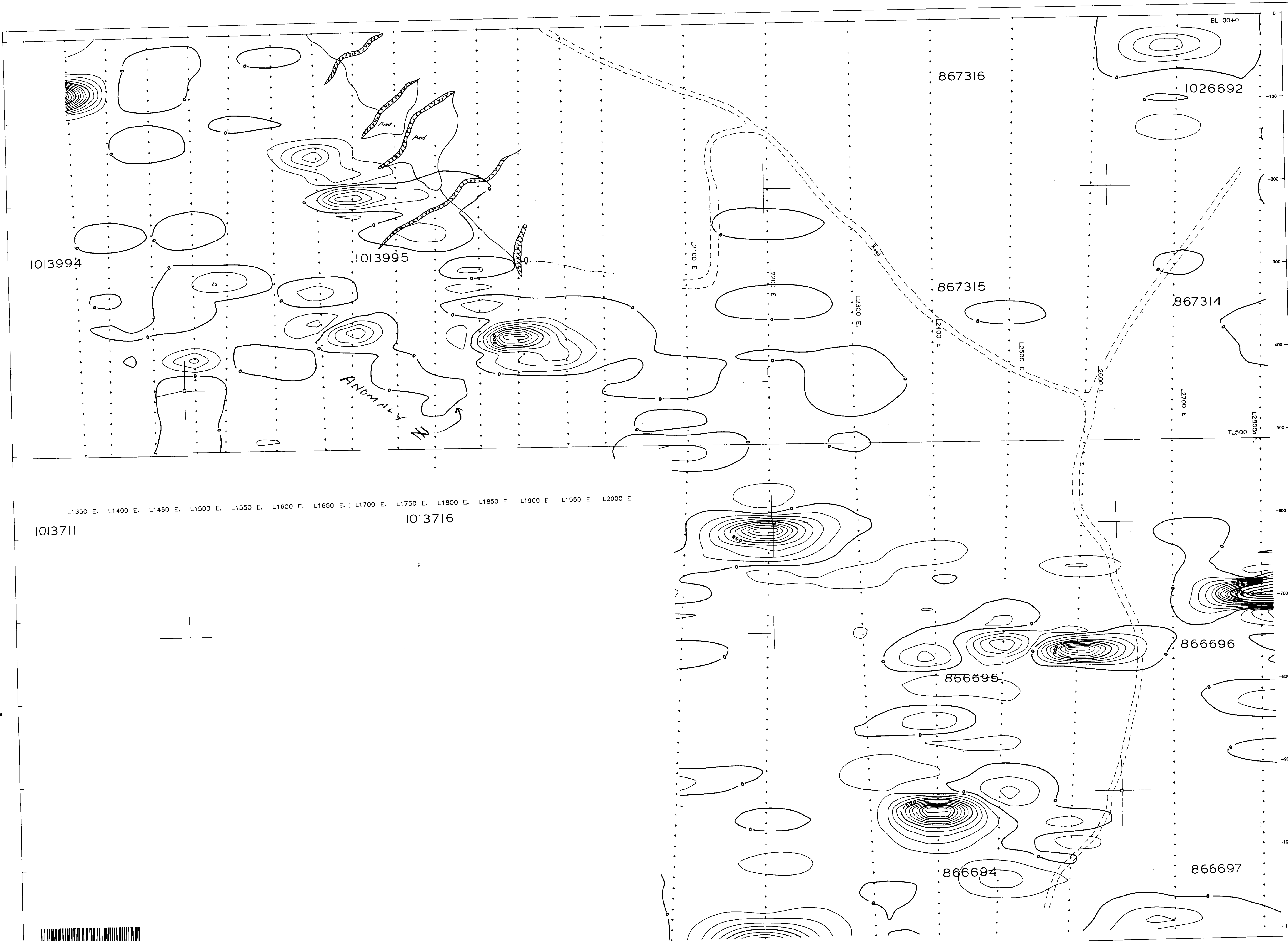
[Signature]

TOTAL ENERGOLD CORPORATION
 Shaw # 1 Group - Shaw Township
 Porcupine Mining Division
 MAGNETIC GRADIENT PROFILES AND POST MAP
 200 Gammas/Metre per Cm - Base Value 0.00 Gammas
 SOUTH WEST GRID

NTS Ref.: Map A17 C	INSTRUMENTATION
Data Units: Gammas/Metre	Model: I.G.S. System
Scale: 1:2000	Resolution: 0.1 Gammas/Metre
Date: March 1989	Manufacturer: Schlöter Ltd.

R. SOMERVILLE ENGINEERING LTD.





A	A14
A18	A17
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[Signature]

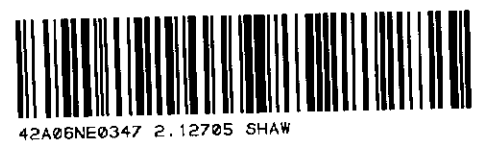
TOTAL ENERGOLD CORPORATION
 Shaw # 1 Group - Shaw Township
 Porcupine Mining Division
MAGNETIC GRADIENT CONTOUR MAP

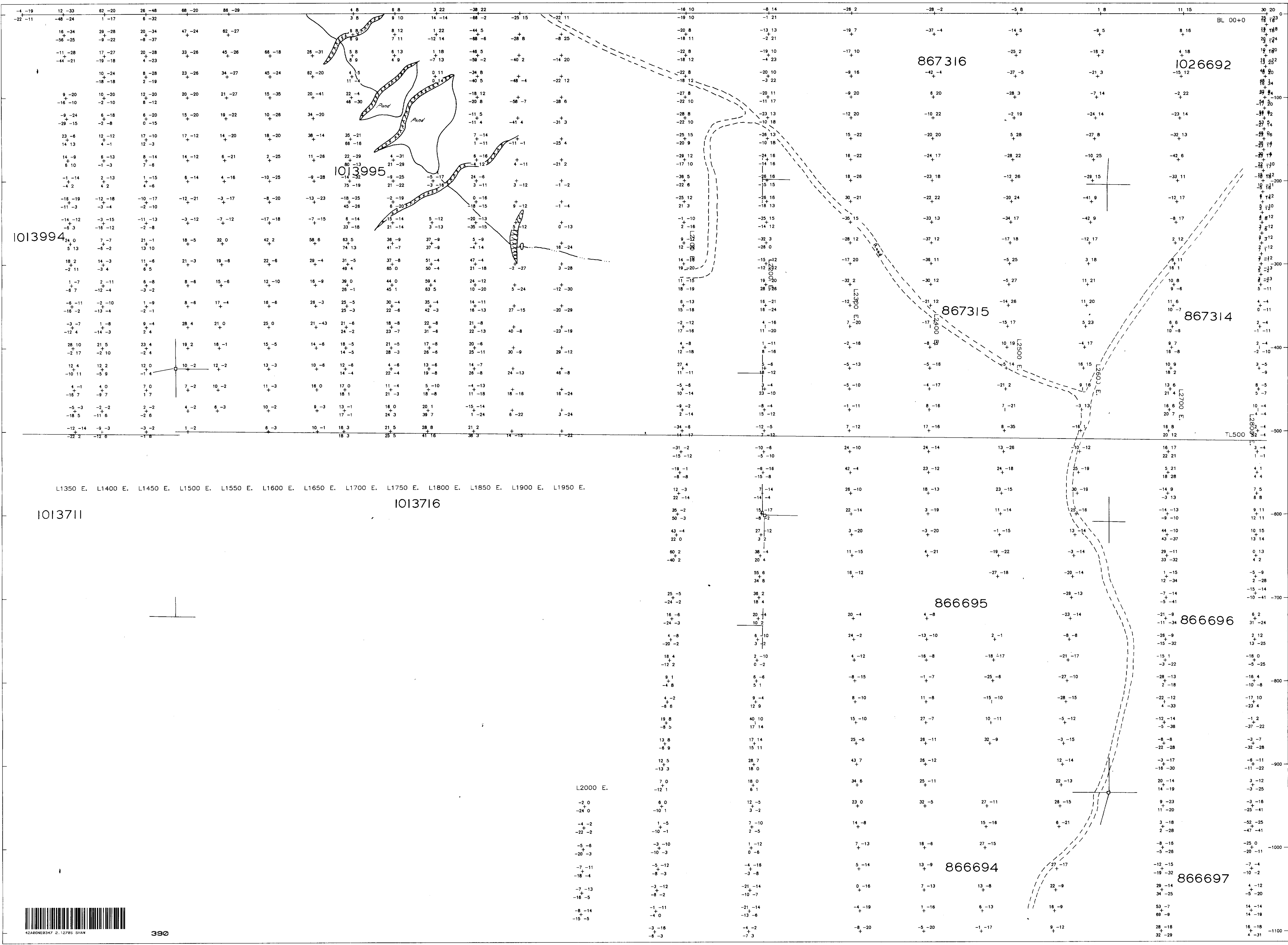
Contour Interval 100 Gammas
 SOUTH WEST GRID

2.12A17d

NTS Ref.: MAP NO. A17	INSTRUMENTATION
Date Units: Gammas/Metre	Model: I.G.S. System
Scale: 1:2000	Resolution: ±0.1 Gammas/Metre
Date: March 1989	Manufacturer: Scintrex Ltd.

R. SOMERVILLE ENGINEERING LTD.





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	A24

LEGEND :

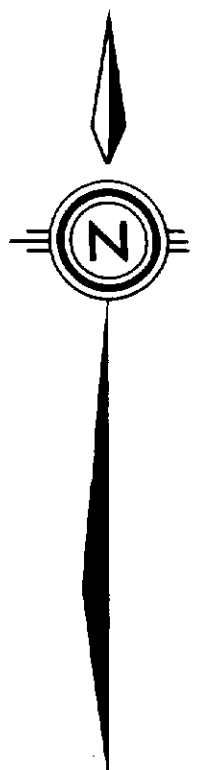
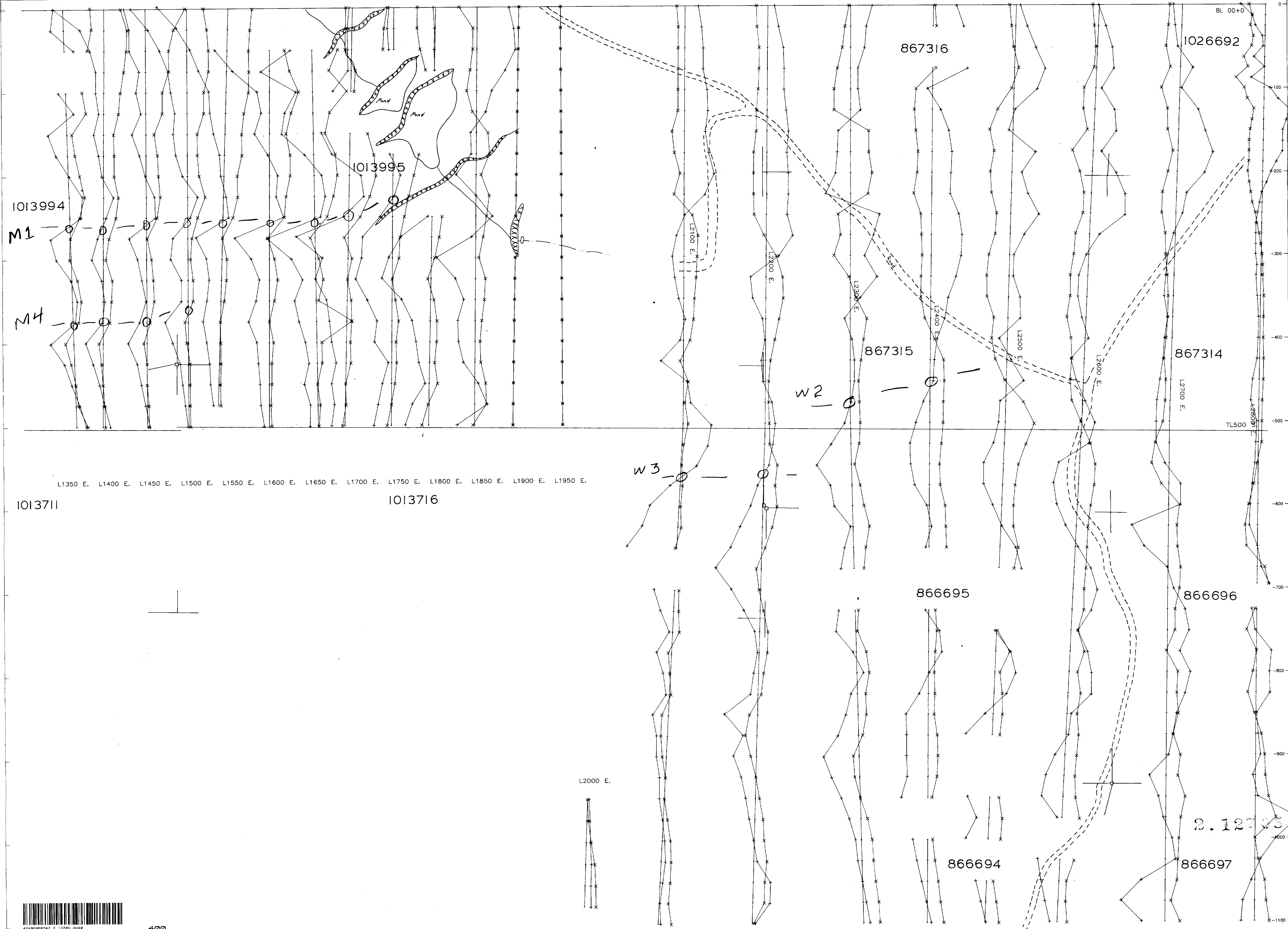
NAA - Tilt NAA - Quad
 +
 VSS - Tilt VSS - Quad

TOTAL ENERGOLD CORPORATION
 Show # 1 Group - Shaw Township
 Parcupine Mining Division
VLF E.M. POST MAP
 Annapolis, Maryland (NSS) and Cutler, Maine (NAA)

SOUTH WEST GRID

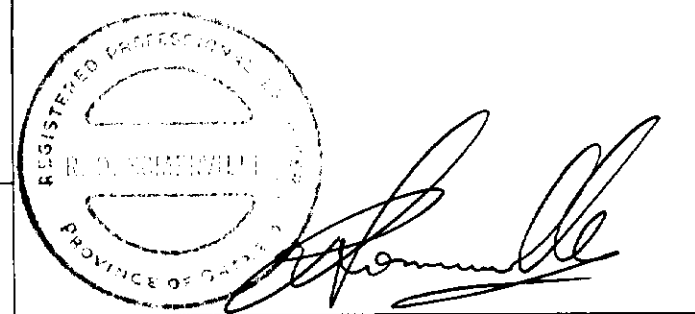
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 Data Units: Percent Model: E.M. 16
 Scale: 1:2000 Resolution: 1.0 Percent
 Date: March 1989 Manufacturer: Geonics Ltd.
 R. SOMERVILLE ENGINEERING LTD.





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A18	A17
	A24

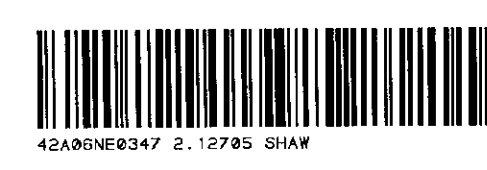
+ Tilt Angle Value - NSS
 X Quadrature Value - NSS



TOTAL ENERGOLD CORPORATION
 Shaw # 1 Group - Shaw Township
 Porcupine Mining Division
VLF-EM PROFILES MAP
 20 Percent/Cm - Base Value 0.0 Percent
 SOUTH WEST GRID
 CUTLER TRANSMITTER

NTS Ref.: Map A17
 Date Unit: Percent
 Scale: 1:2000
 Date: March 1989

INSTRUMENTATION
 Model: E.M. 16
 Resolution: 1.0 Percent
 Manufacturer: Geonics Ltd.
 R. SOMERVILLE ENGINEERING LTD.



1013994

1013995

M1

867316

1026692

867315

867314

L1350 E. L1400 E. L1450 E.

L1700 E. L1750 E. L1800 E. L1850 E. L1900 E. L1950 E.

1013711

1013716

w3

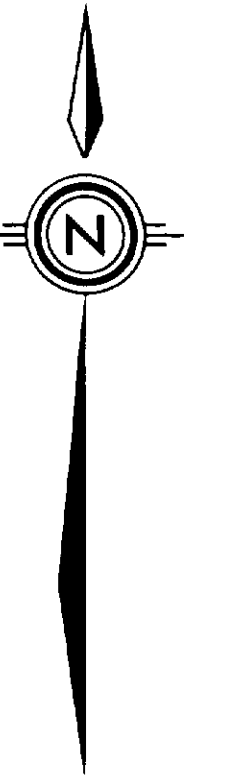
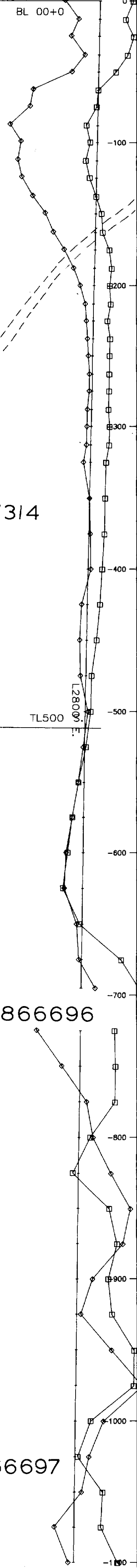
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866696

L2000 E.

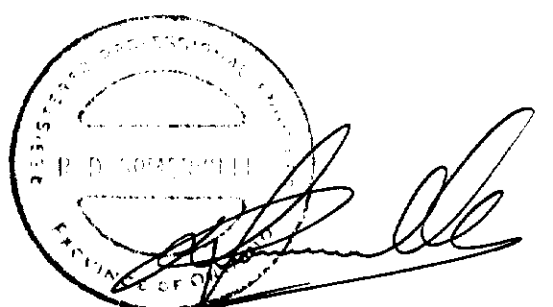
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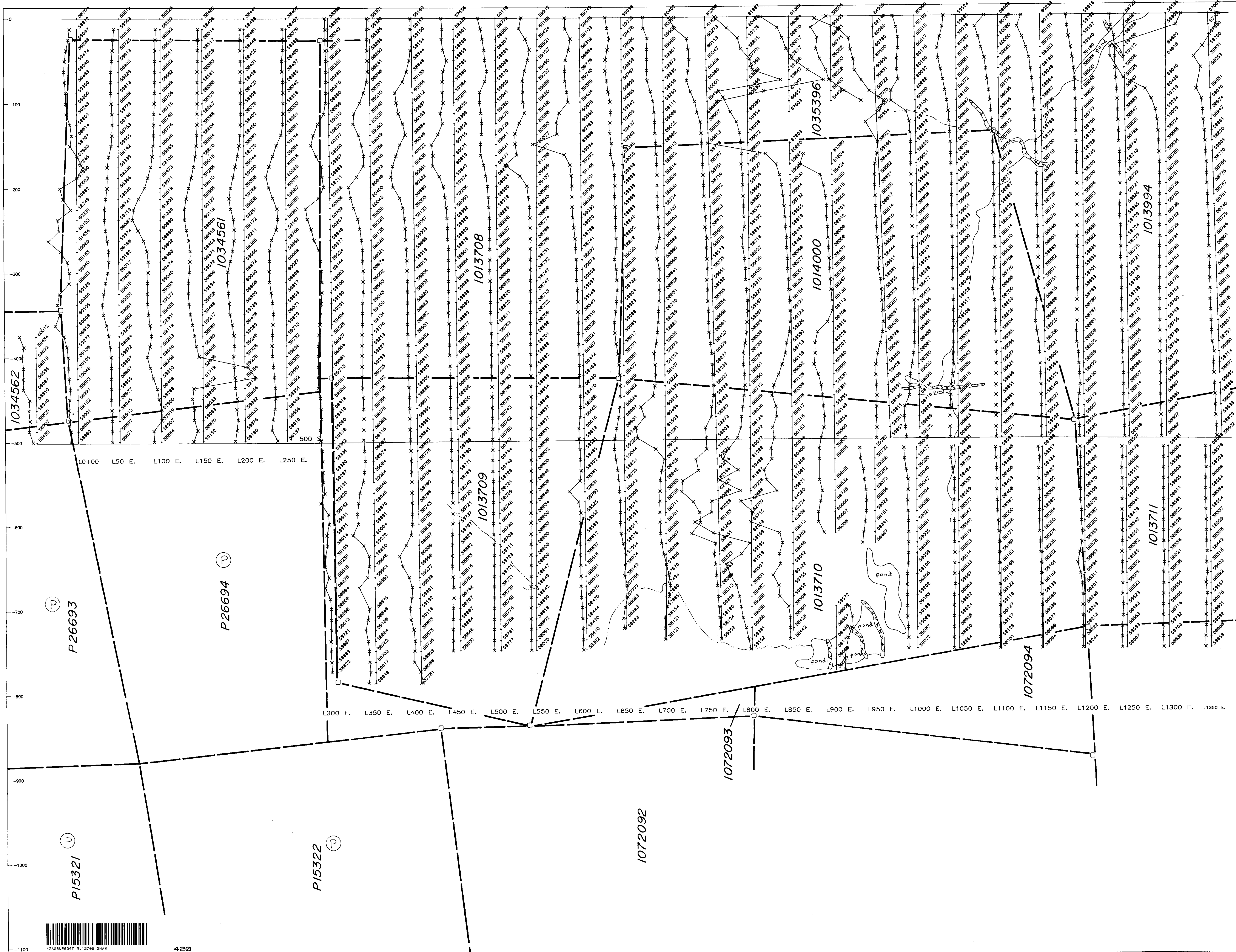
A	A14
A18	A17
	A24

◇ Tilt Angle Value - N/A
 □ Quadrature Value - N/A



TOTAL ENERGOLD CORPORATION
 Shaw # 1 Group - Shaw Township
 Porcupine Mining Division
VLF-EM PROFILES MAP
 20 Percent/Cm - Base Value 0.0 Percent
 SOUTH WEST GRID
 ANNAPOLIS TRANSMITTER
2.12705
 NTS Ref.: Map A17 g INSTRUMENTATION
 Data Units: Percent Model: E.M. 16
 Scale: 1:2000 Resolution: 1.0 Percent
 Date: March 1989 Manufacturer: Geonics Ltd.
 R. SOMERVILLE ENGINEERING LTD.





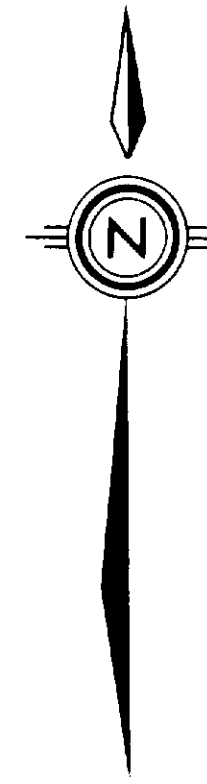
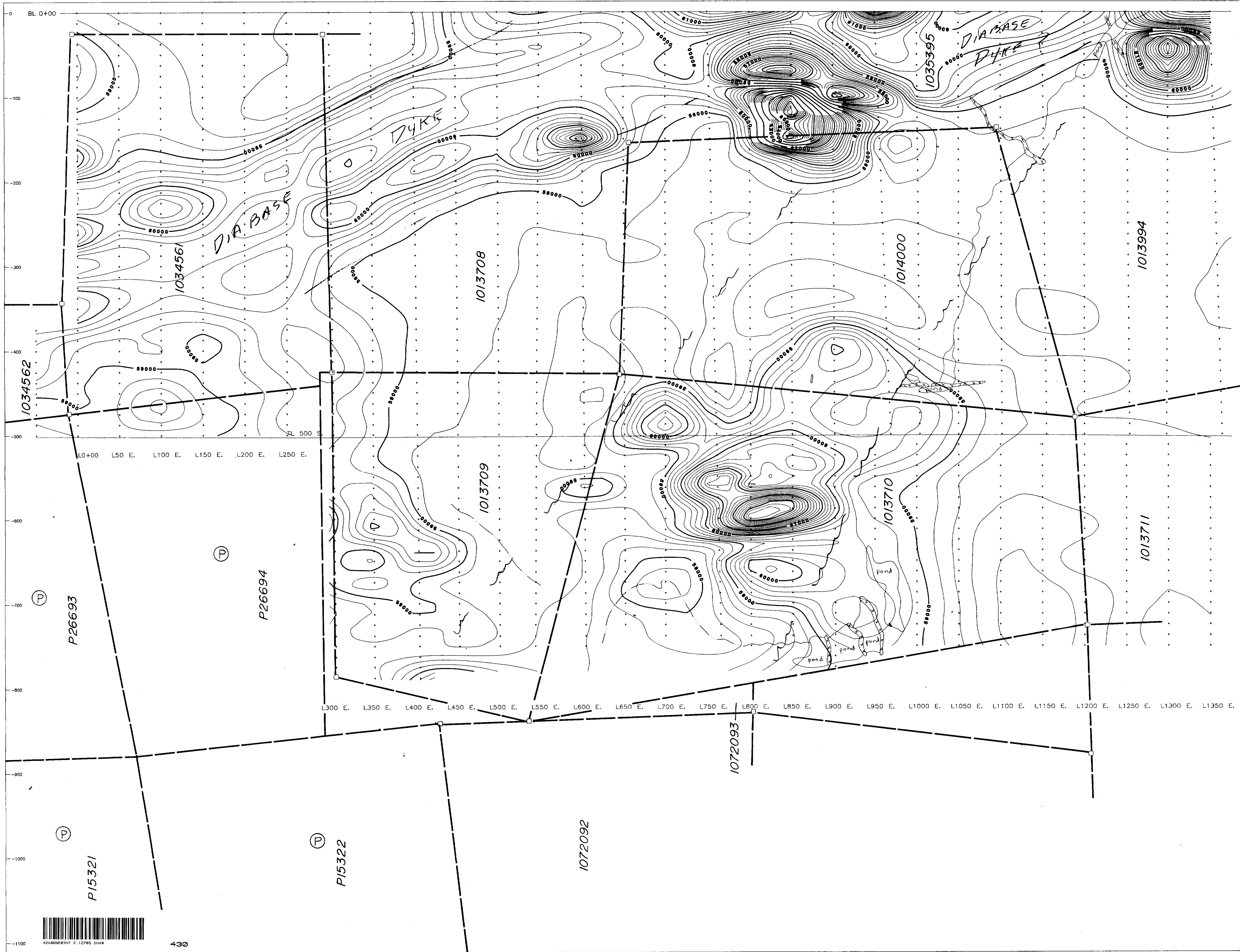
A19	A	A14
	A18	A17
		A24

X Magnetic Value

[Signature]
 TOTAL ENERGO GOLD CORPORATION
 Shaw # 1 Group - Shaw Township
 Porcupine Mining Division
 MAGNETIC PROFILES AND POST MAP

2000 Gammas/Cm - Base Value 58,000 Gammas	
SOUTH WEST GRID	
2.12705	
NTS Ref.: Map A18 a	INSTRUMENTATION
Data Units: Gammas	Model: L.G.S. System
Scale: 1:2000	Resolution: 1.0 Gammas
Date: March 1989	Manufacturer: Scintrex Ltd.
R. SOMERVILLE ENGINEERING LTD.	





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A19	A18	A17
		A24

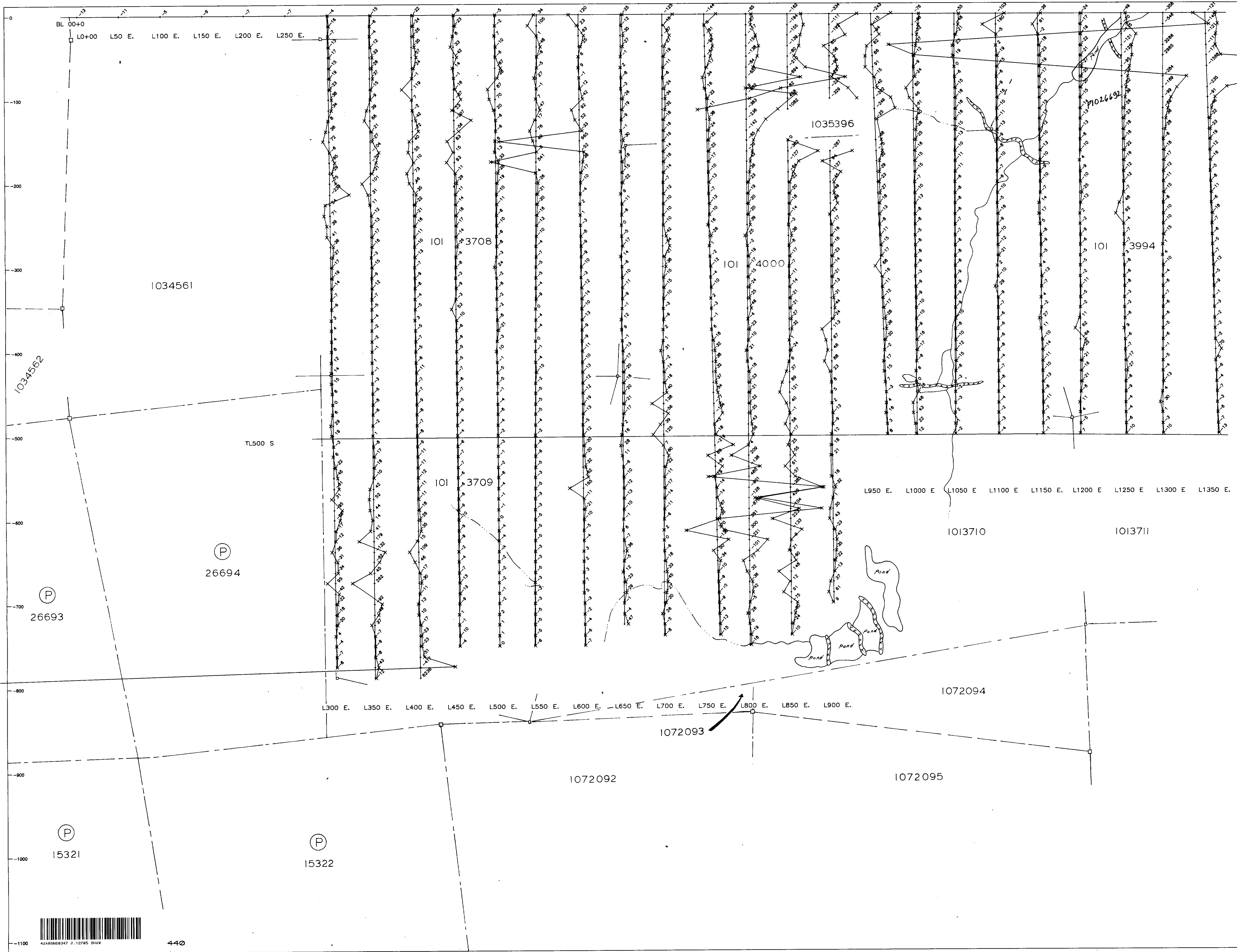
[Signature]
 REGISTERED PROFESSIONAL ENGINEER
 R. D. SOMERVILLE
 PROVINCE OF ONTARIO

TOTAL ENERGOLD CORPORATION
 Shaw # 1 Group - Shaw Township
 Porcupine Mining Division
MAGNETIC CONTOUR MAP
 Contour Interval 200 Gammas
 SOUTH WEST GRID

A18 b

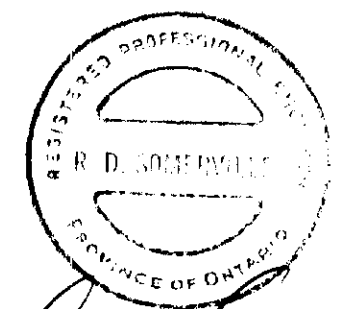
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Data Units: Gammas	Model: I.G.S. System
Scale: 1:2000	Resolution: 1.0 Gamma
Date: March 1989	Manufacturer: Sintrex Ltd.
R. SOMERVILLE ENGINEERING LTD.	





A	A14
A18	A17
	A24

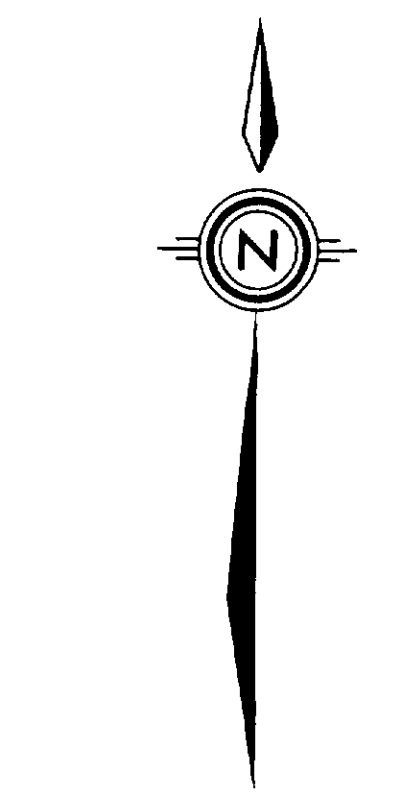
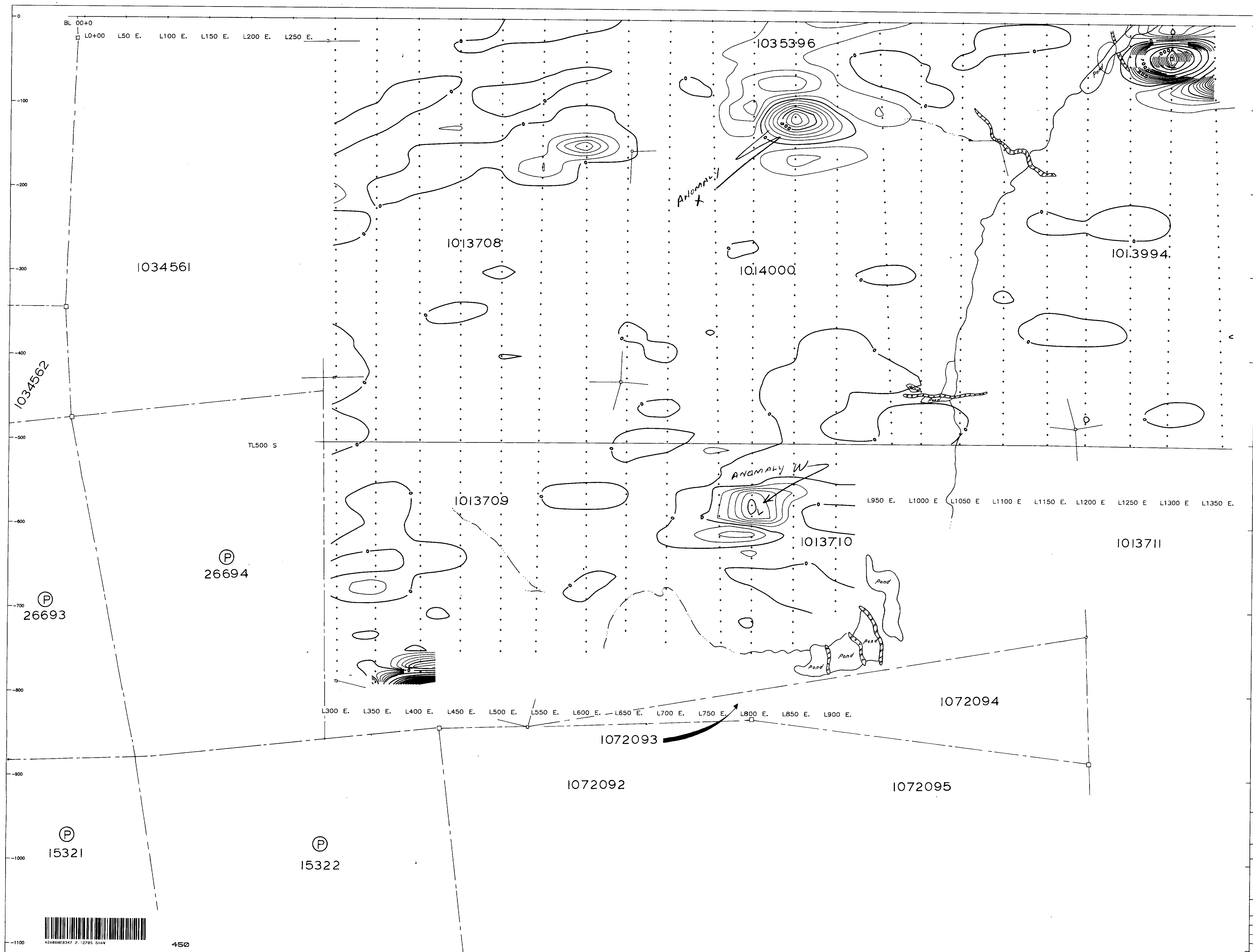
× Magnetic Value



R. D. Somerville

TOTAL ENERGOLD CORPORATION	
Shaw # 1 Group - Shaw Township Porcupine Mining Division	
MAGNETIC GRADIENT PROFILES AND POST MAP	
200 Gammas/Metre per Cm - Base Value 0.00 Gammas	
SOUTH WEST GRID	
NTS Ref.: Map A18 C	INSTRUMENTATION
Data Units: Gammas/Metre	Model: I.G.S. System
Scale: 1:2000	Resolution: 0.1 Gammas/Metre
Date: March 1989	Manufacturer: Scintrex Ltd.
R. SOMERVILLE ENGINEERING LTD.	





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A18	A17
	A24

R. Somerville

REGISTERED PROFESSIONAL ENGINEER
R. D. SOMERVILLE
PROVINCE OF ONTARIO

TOTAL ENERGOLD CORPORATION
Shaw # 1 Group - Shaw Township
Porcupine Mining Division
MAGNETIC GRADIENT CONTOUR MAP

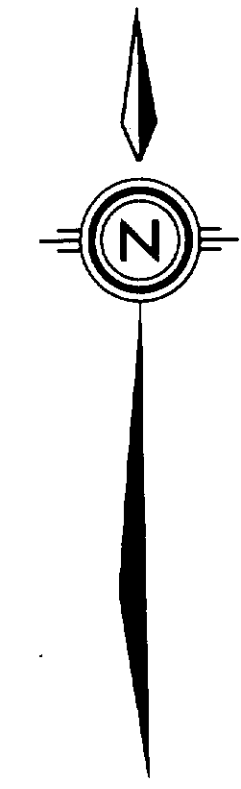
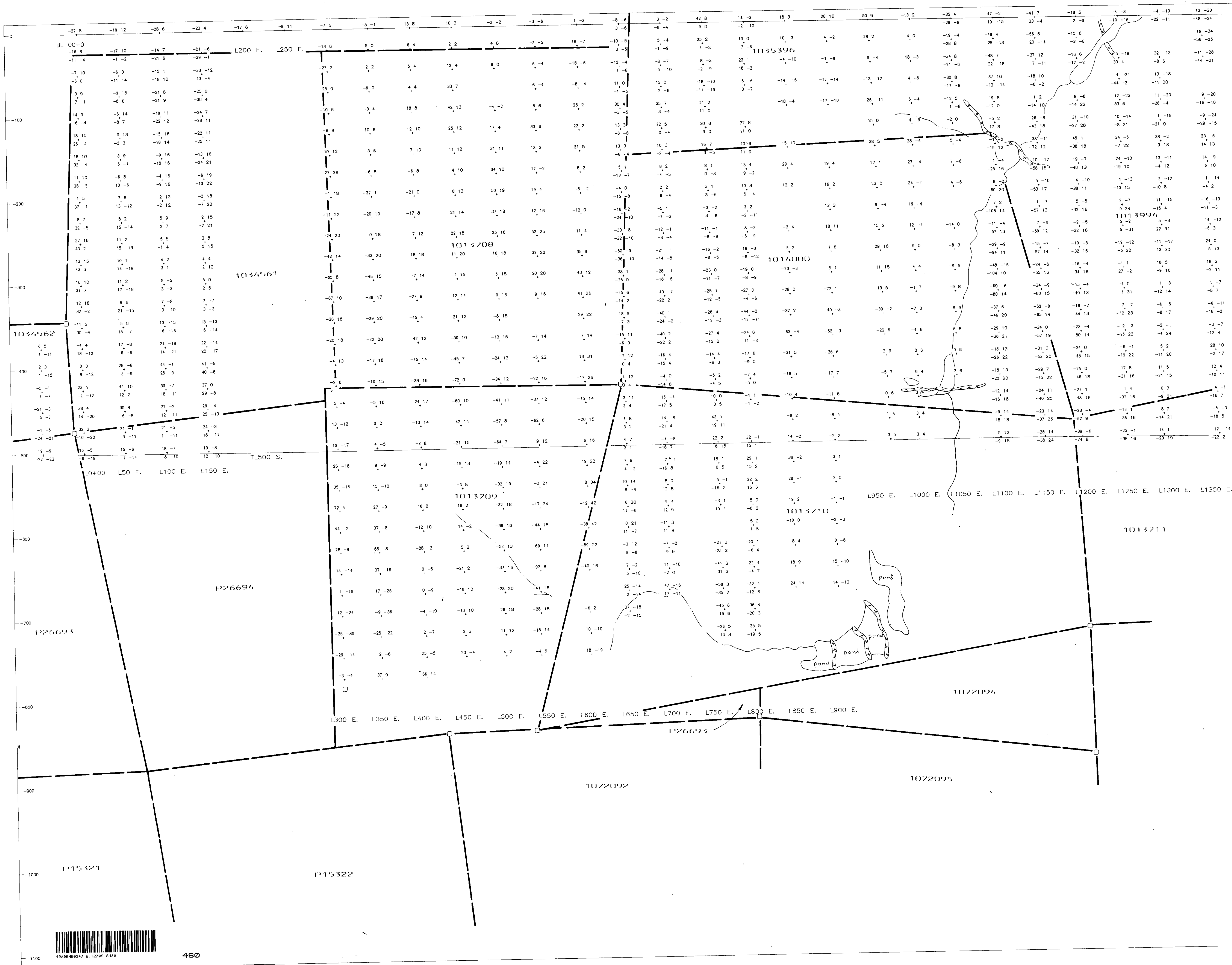
Contour Interval 100 Gammas
SOUTH WEST GRID

R. 178d

NTS Ref.: MAP NO. A18	INSTRUMENTATION
Data Units: Gammas/Metre	Model: I.G.S. System
Scale: 1:2000	Resolution: 0.1 Gammas/Metre
Date: March 1989	Manufacturer: Scintrex Ltd.

R. SOMERVILLE ENGINEERING LTD.

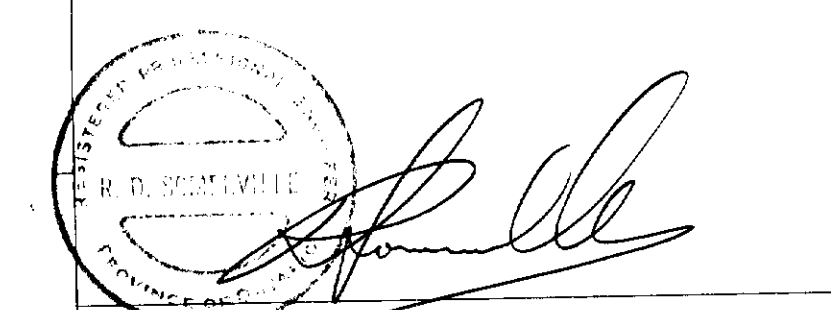




A	A14
A19	A17
	A24

LEGEND :

NAA--Titl. NAA--Quad.
 +
 NSS--Titl. NSS--Quad.

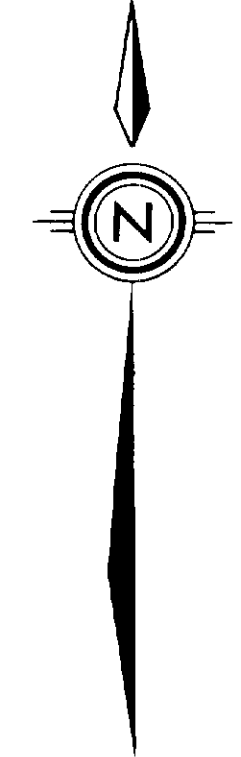


TOTAL ENERGOLD CORPORATION
 Shaw # 1 Group - Shaw Township
 Porcupine Mining Division
 VLF E.M. POST MAP
 Annapolis, Maryland (NSS) and Cutler, Maine (NAA)

SOUTH WEST GRID
 2.12705

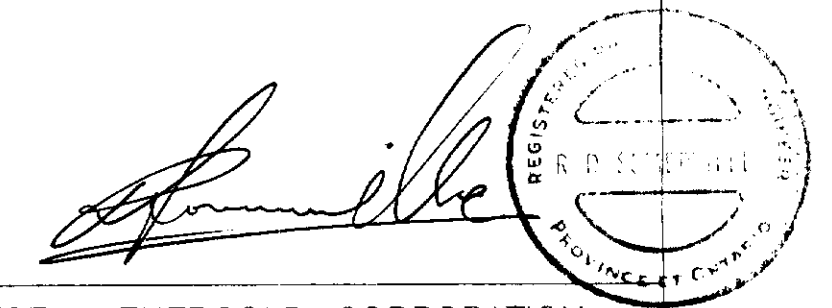
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Date Unit:	Percent	Model: E.M. 16
Scale:	1:2000	Resolution: 1.0 Percent
Date:	March 1989	Manufacturer: Geonics Ltd.
R. SOMERVILLE ENGINEERING LTD.		





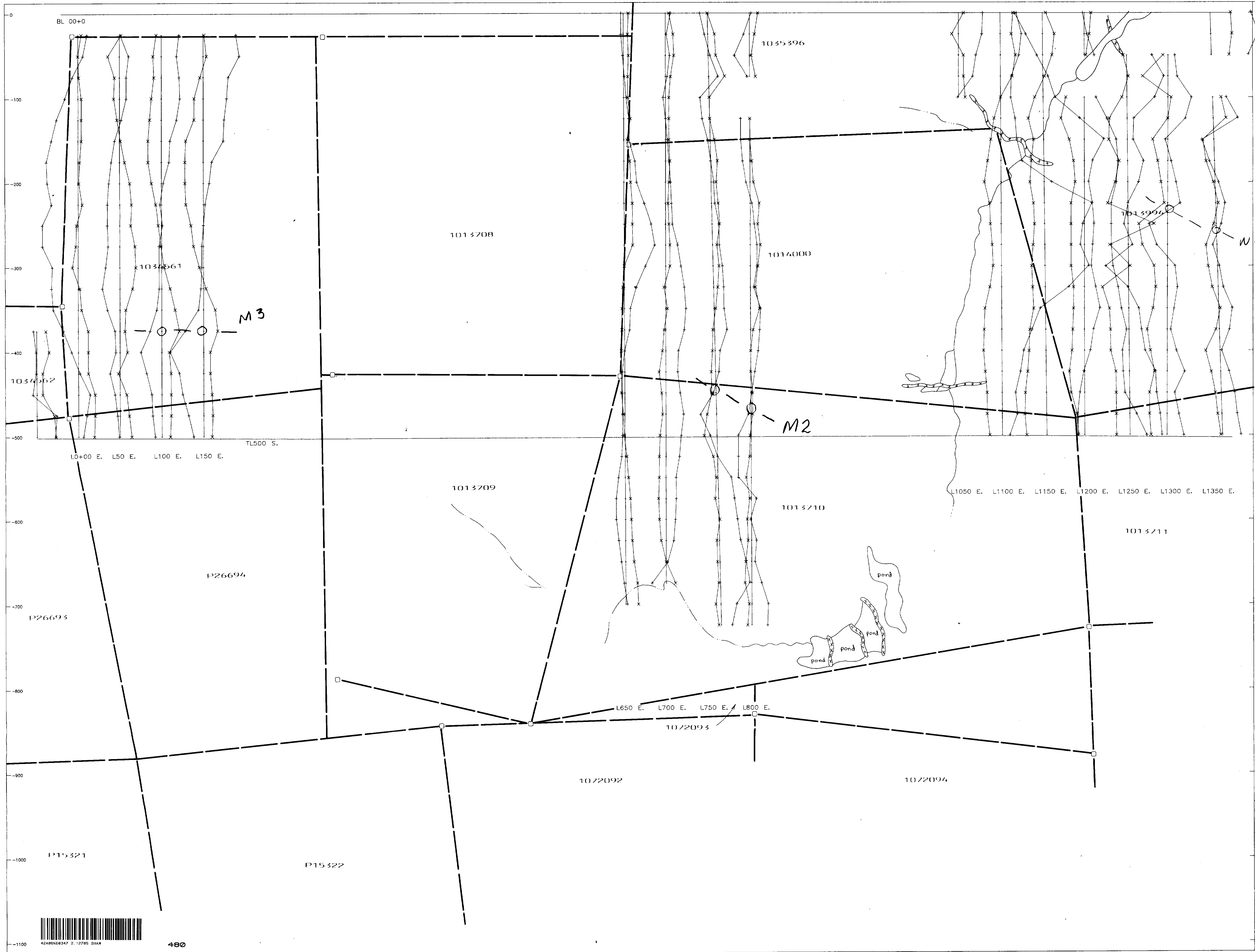
	A	A14
A19	A18	A17
		A24

○ Tilt Angle Value - NAA
 □ Quadrature Value - NAA



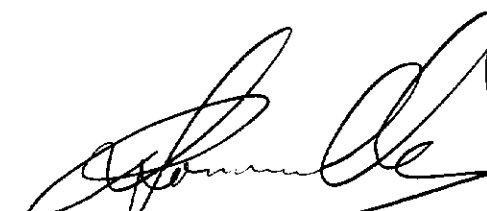
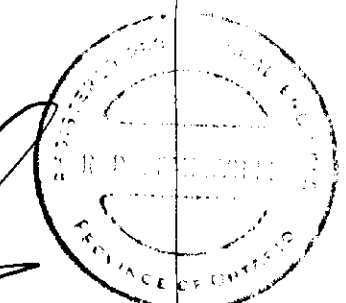
TOTAL ENERGOLD CORPORATION
 Shaw # 1 Group - Shaw Township
 Porcupine Mining Division
VLF-EM PROFILES MAP
 20 Percent/Cm - Base Value 0.0 Percent
 SOUTH WEST GRID
 CUTLER TRANSMITTER
 NTS Ref.: Map A18 # 1 INSTRUMENTATION
 Data Unit: Percent Model: E.M. 16
 Scale: 1:2000 Resolution: 1.0 Percent
 Date: March 1989 Manufacturer: Geonics Ltd.
 R. SOMERVILLE ENGINEERING LTD.





	A	A14
A19	A18	A17
		A24

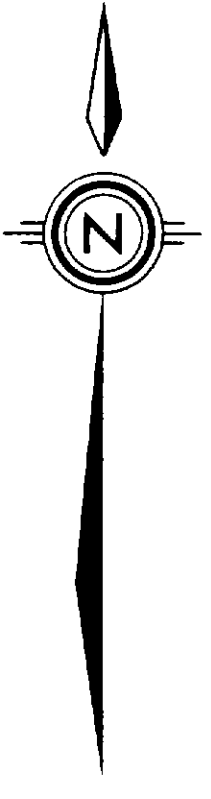
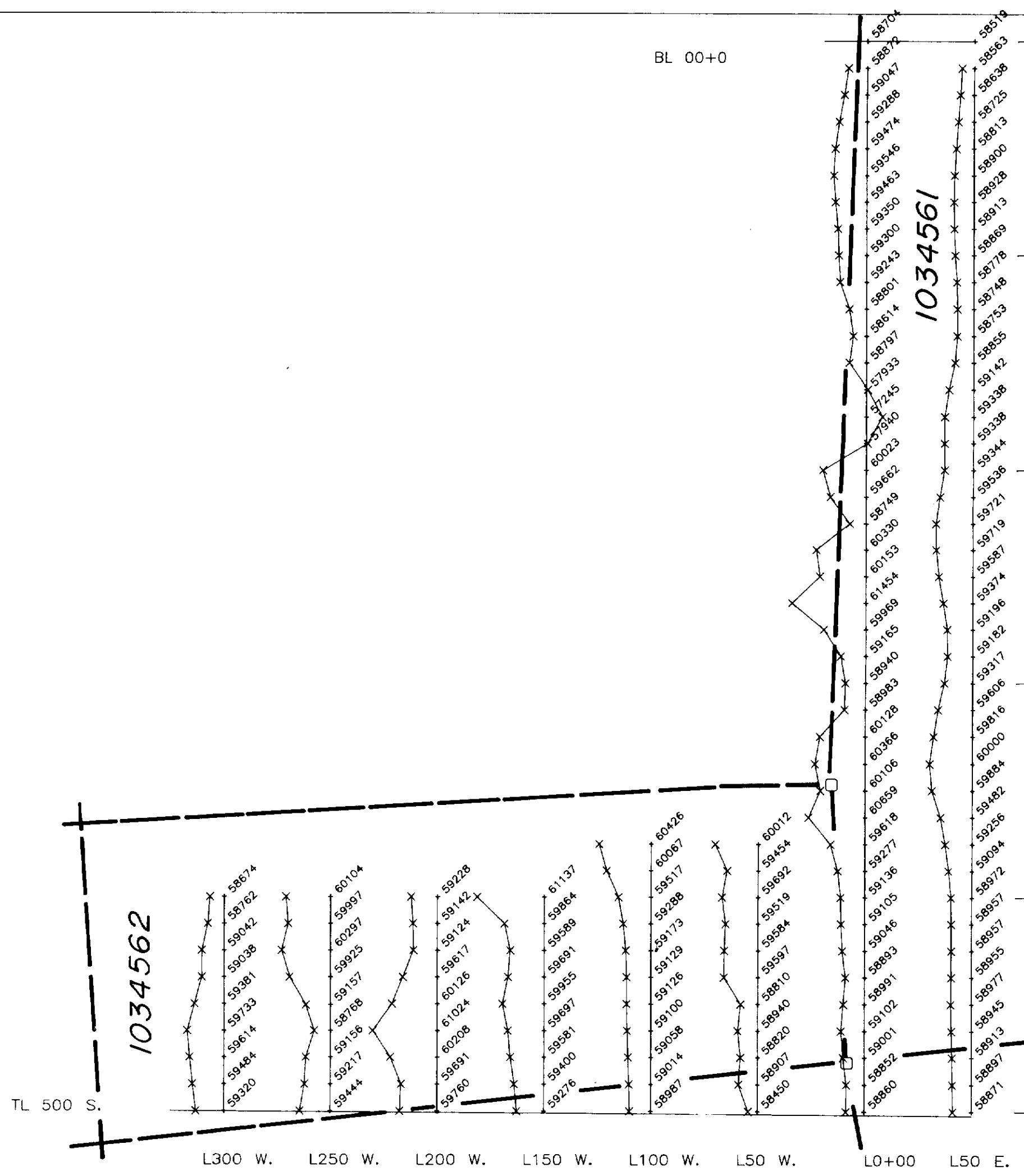
+ Tilt Angle Value - NSS
 X Quadrature Value - NSS

TOTAL ENERGOLD CORPORATION
 Shaw # 1 Group - Shaw Township
 Porcupine Mining Division
 VLF-EM PROFILES MAP
 20 Percent/Cm - Base Value 0.0 Percent
 SOUTH WEST GRID 2. 12705
 ANNAPOLIS TRANSMITTER

NTS Ref.: Map A18 g	INSTRUMENTATION
Data Units: Percent	Model: E.M. 16
Scale: 1:2000	Resolution: 1.0 Percent
Date: March 1989	Manufacturer: Geonics Ltd.
R. SOMERVILLE ENGINEERING LTD.	





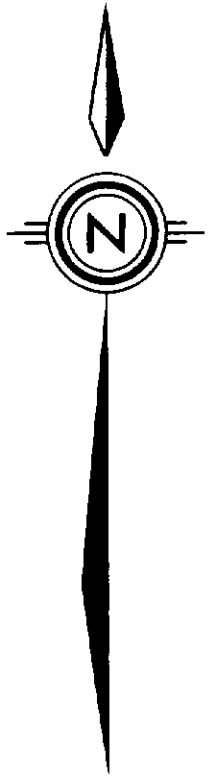
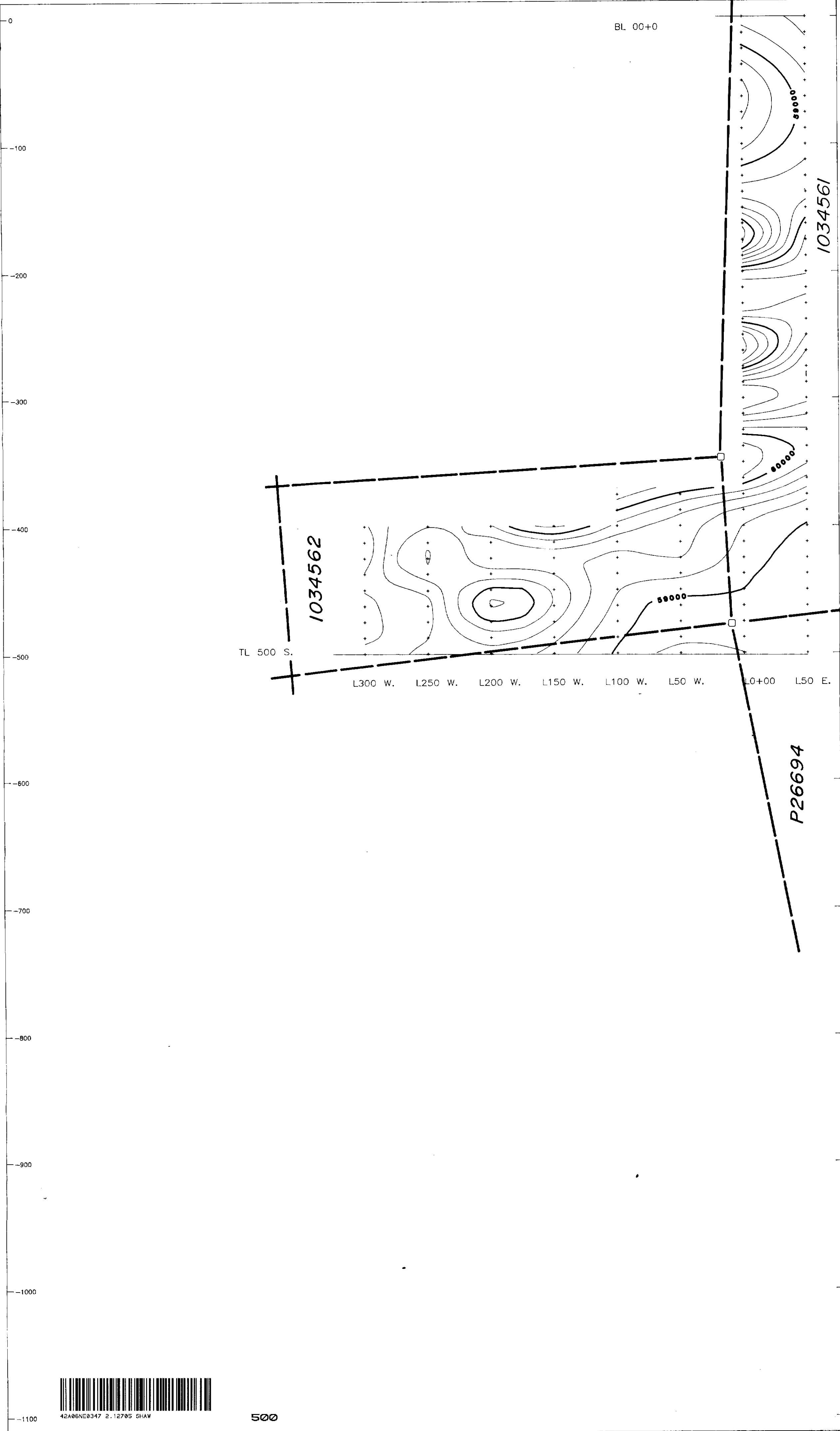
	A	A14
A19	A18	A17
		A24

× Magnetic Value

[Signature]
 R. D. SOMERVILLE
 REGISTERED PROFESSIONAL ENGINEER
 PROVINCE OF ONTARIO

TOTAL ENERGOLD CORPORATION	
Shaw # 1 Group - Shaw Township Percupine Mining Division	
MAGNETIC PROFILES AND POST MAP	
2000 Gammas/Cm - Base Value 58,000 Gammas	
SOUTH WEST GRID	
2.12.88	
NTS Ref.:	Map A19a INSTRUMENTATION
Data Units:	Gammas Model: I.G.S. System
Scale:	1:2000 Resolution: 1.0 Gammas
Date:	March 1989 Manufacturer: Scintrex Ltd.
R. SOMERVILLE ENGINEERING LTD.	





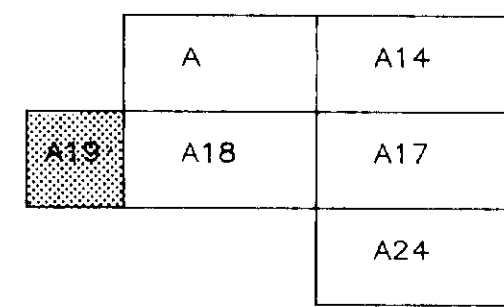
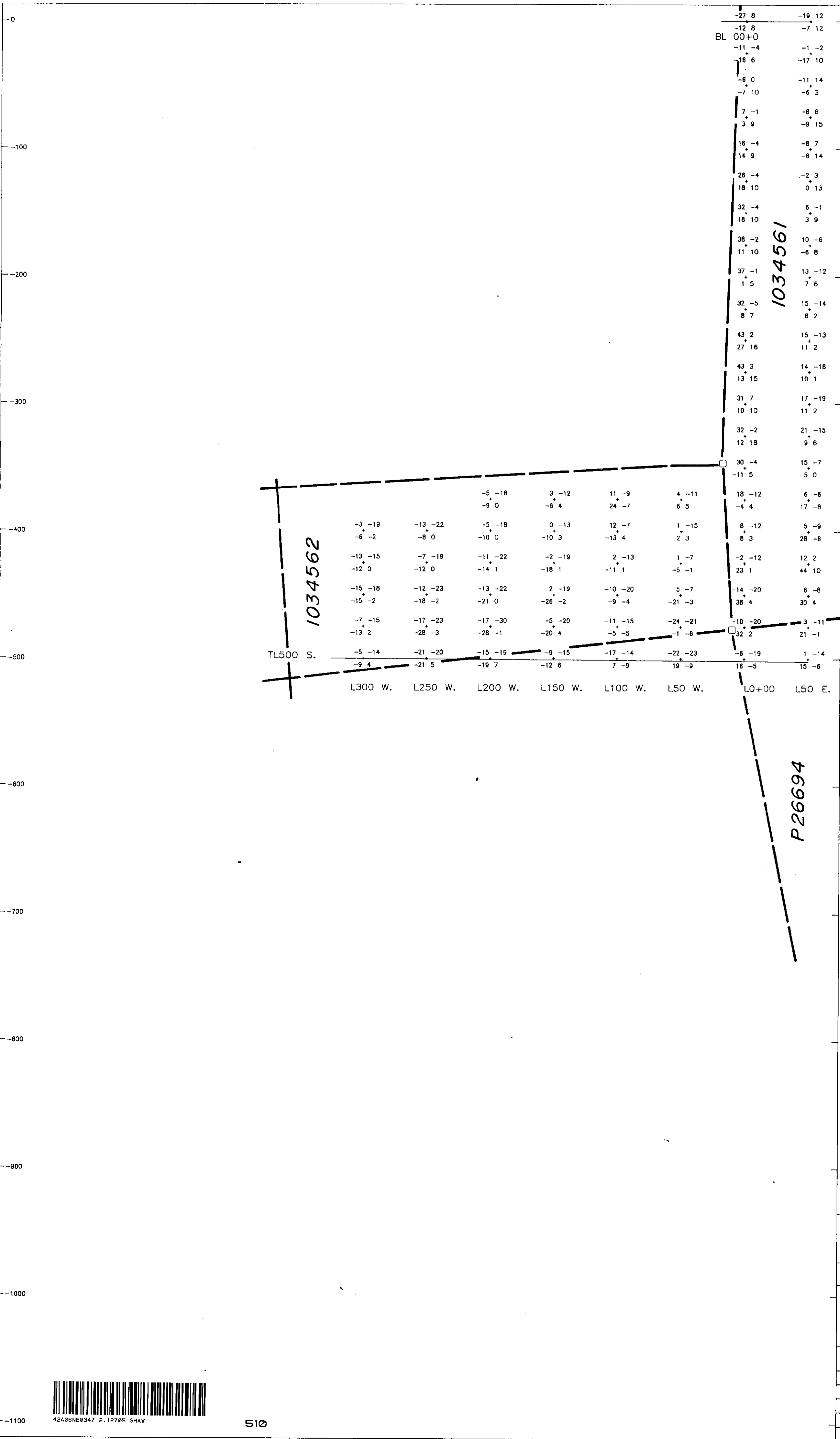
	A	A14
A19	A18	A17
		A24

[Signature]
 REGISTERED PROFESSIONAL ENGINEER
 R. D. SOMERVILLE
 PROFESSIONAL ENGINEERING

TOTAL ENERGOLD CORPORATION	
Shaw # 1 Group - Shaw Township Porcupine Mining Division	
MAGNETIC CONTOUR MAP	
Contour Interval 200 Gammas SOUTH WEST GRID	
2.12705	
NTS Ref.: MAP NO. A19	INSTRUMENTATION
Data Units: Gammas	Model: I.G.S. System
Scale: 1:2000	Resolution: 1.0 Gamma
Date: March 1989	Manufacturer: Scintrex Ltd.
R. SOMERVILLE ENGINEERING LTD.	

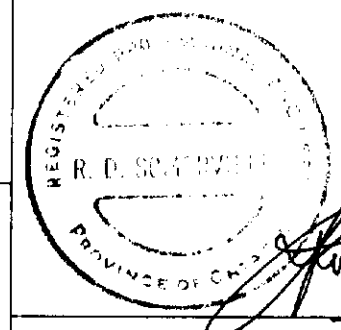


500



LEGEND :

NSS—Tit. NSS—Quad.
+
NAA—Tit. NAA—Quad.



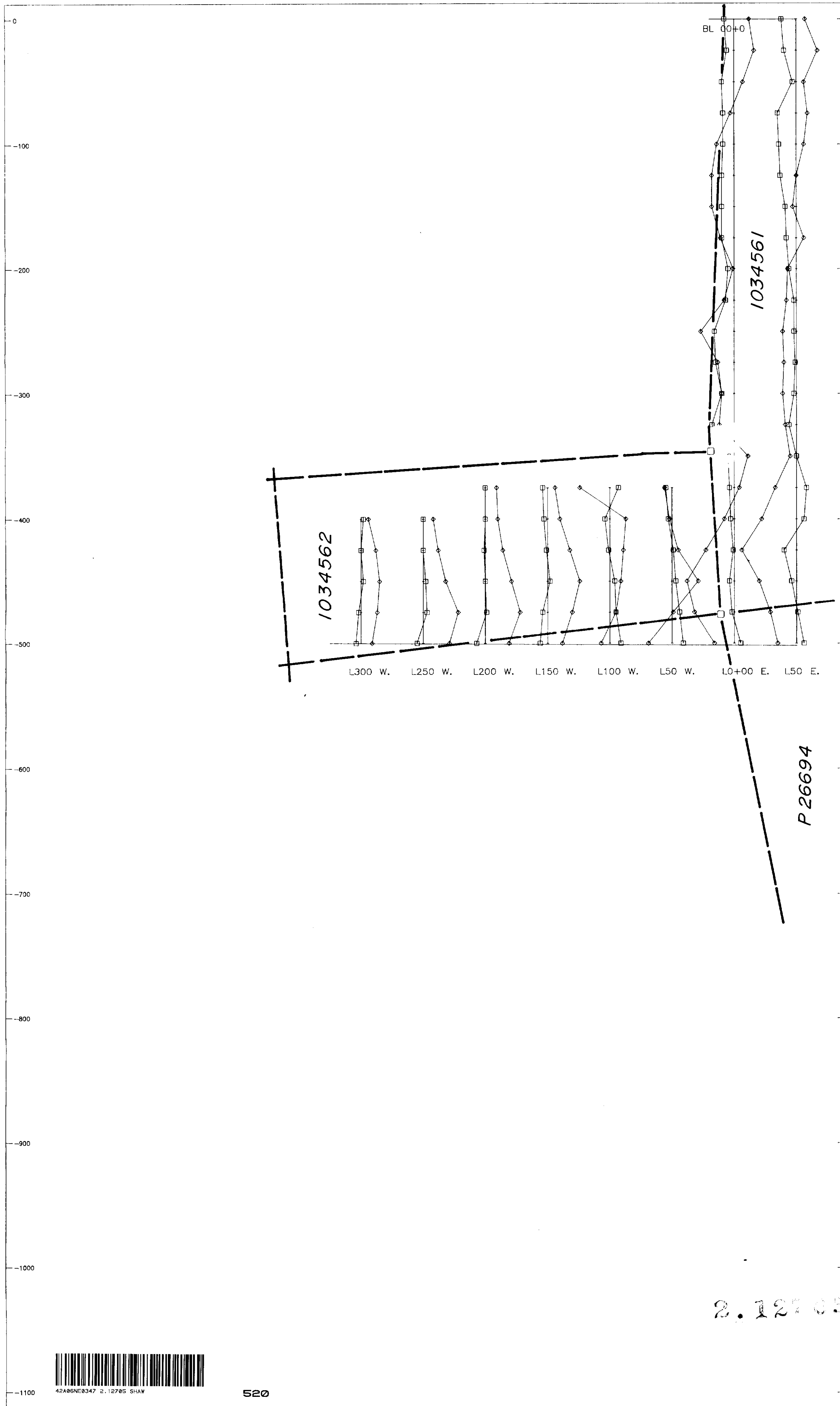
TOTAL ENERGOLD CORPORATION
Shaw # 1 Group - Shaw Township
Porcupine Mining Division
VLF E.M. POST MAP

Annapolis, Maryland (NSS) and Cutler, Maine (NAA)
SOUTH WEST GRID

2. 12705

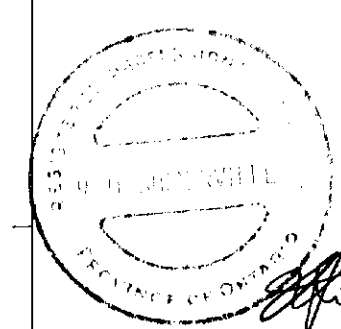
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Data Units:	Percent	Model : E.M. 16
Scale:	1:2000	Resolution : 1.0 Percent
Date :	March 1989	Manufacturer : Geonics Ltd.
R. SOMERVILLE ENGINEERING LTD.		





	A	A14
A19	A18	A17
		A24

◇ Tilt Angle Value - NAA
 □ Quadrature Value - NAA



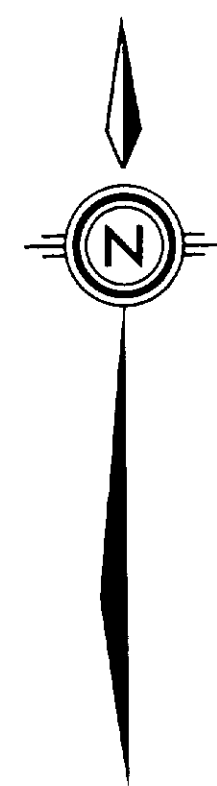
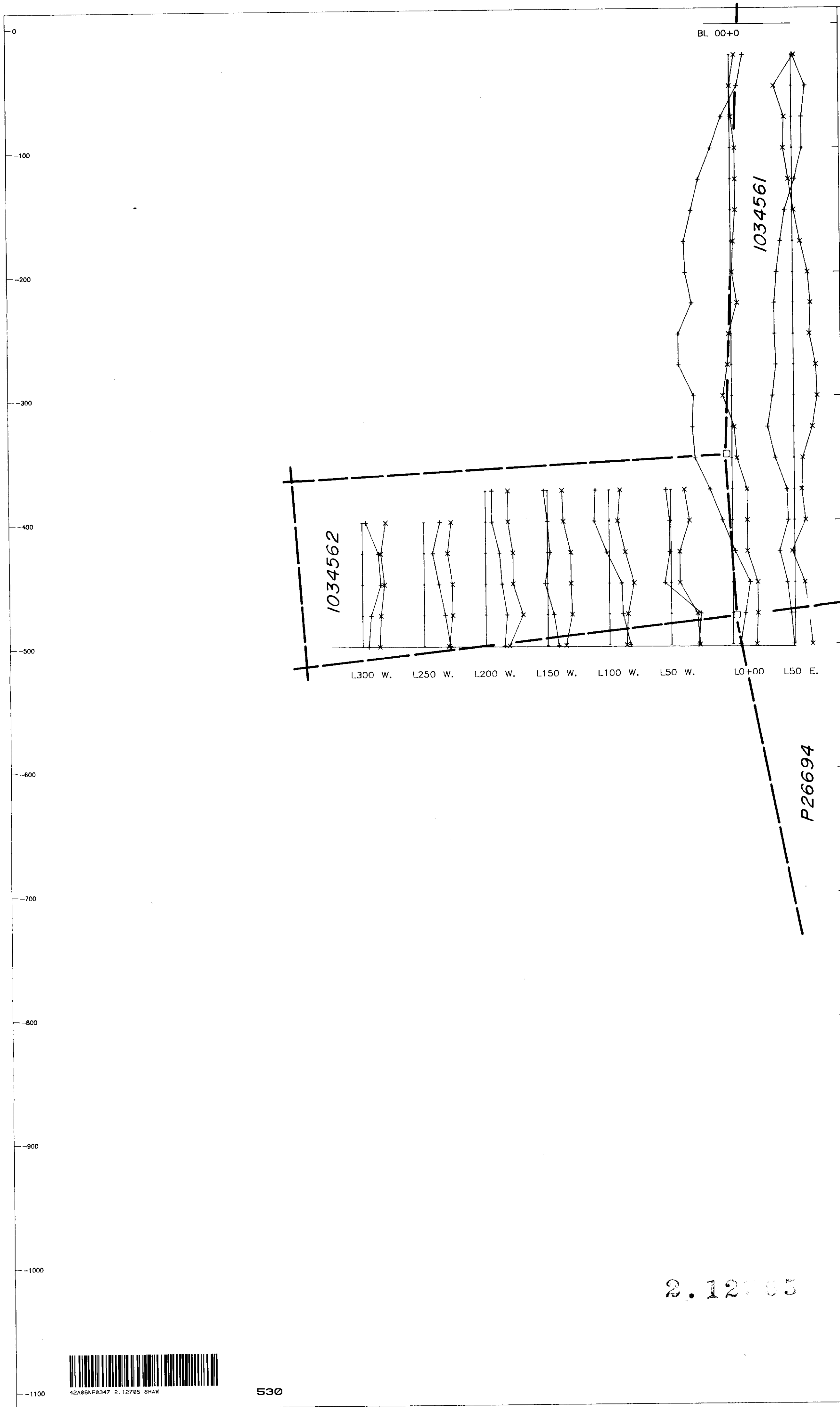
R. Somerville

TOTAL ENERGO GOLD CORPORATION
 Shaw # 1 Group - Shaw Township
 Porcupine Mining Division
 VLF-EM PROFILES MAP
 20 Percent/Cm - Base Value 0.0 Percent
 SOUTH WEST GRID
 CUTLER TRANSMITTER

2.12705

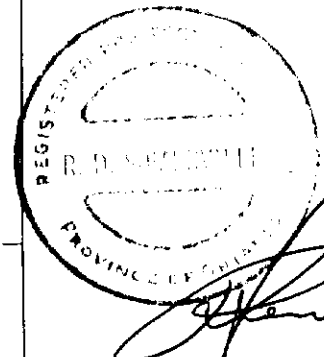
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Scale:	1:2000	Resolution : 1.0 Percent
Date :	March 1989	Manufacturer : Geonics Ltd.
R. SOMERVILLE ENGINEERING LTD.		





	A	A14
A19	A18	A17
		A24

+ Tilt Angle Value - NSS
 X Quadrature Value - NSS

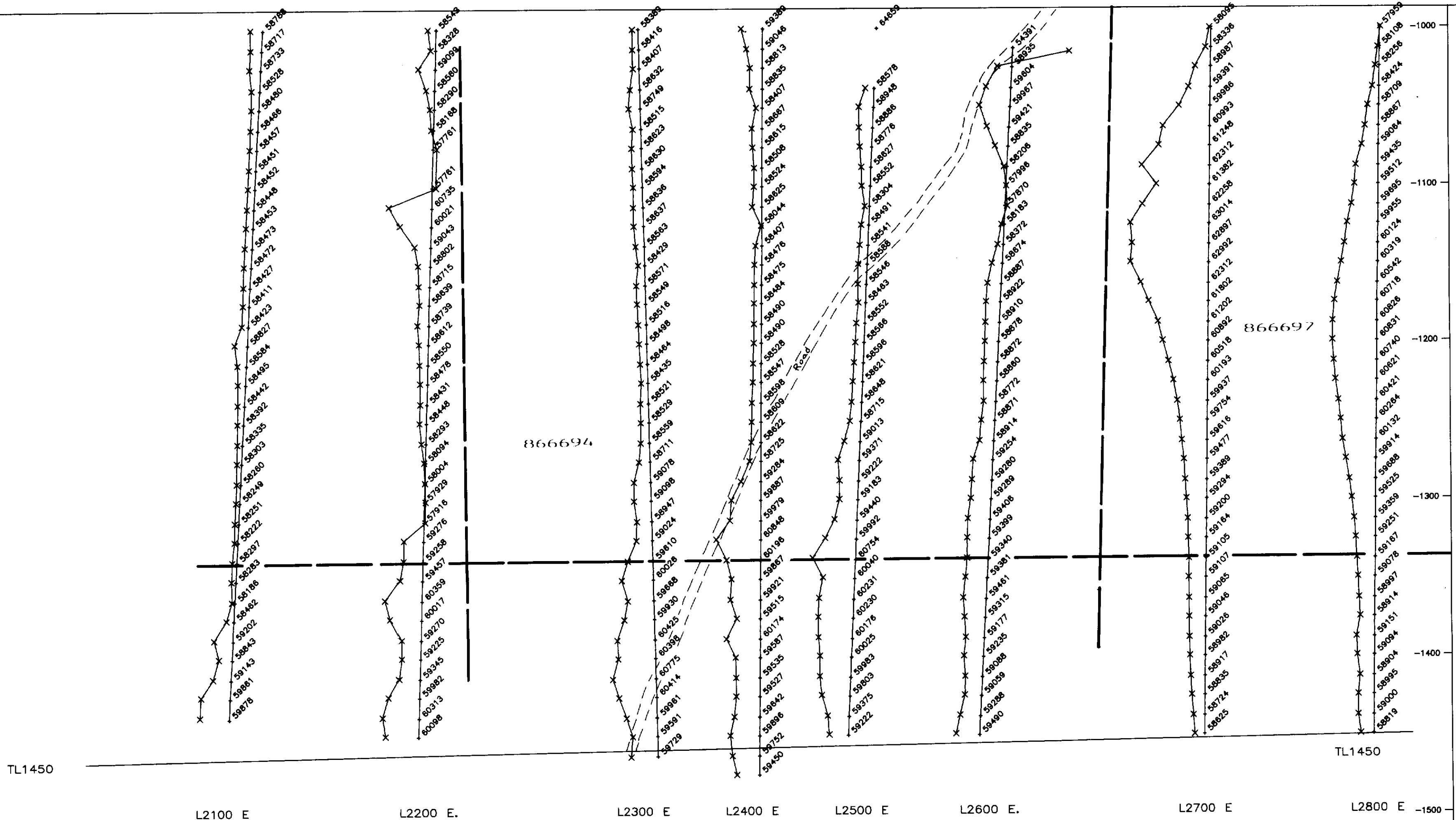


TOTAL ENERGOLD CORPORATION
 Shaw # 1 Group - Shaw Township
 Porcupine Mining Division
VLF-EM PROFILES MAP
 20 Percent/Cm - Base Value 0.0 Percent
 SOUTH WEST GRID
 ANNAPOLIS TRANSMITTER

2.12785

NTS Ref.:	Map A19 g	INSTRUMENTATION
Data Units:	Percent	Model: E.M. 16
Scale:	1:2000	Resolution: 1.0 Percent
Date:	March 1989	Manufacturer: Geonics Ltd.
R. SOMERVILLE ENGINEERING LTD.		





A	A14
A18	A17
	A24

x Magnetic Value



R. D. Somerville

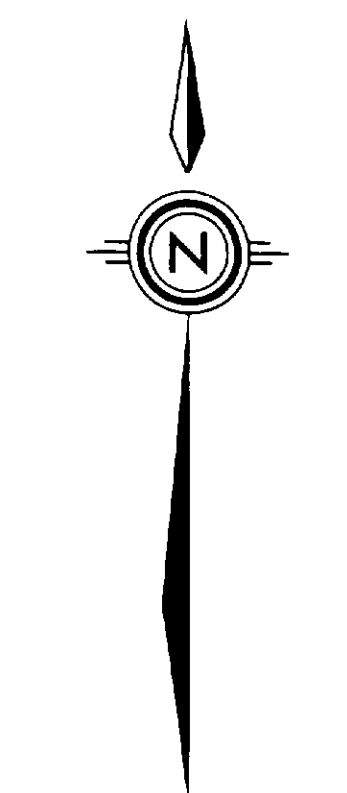
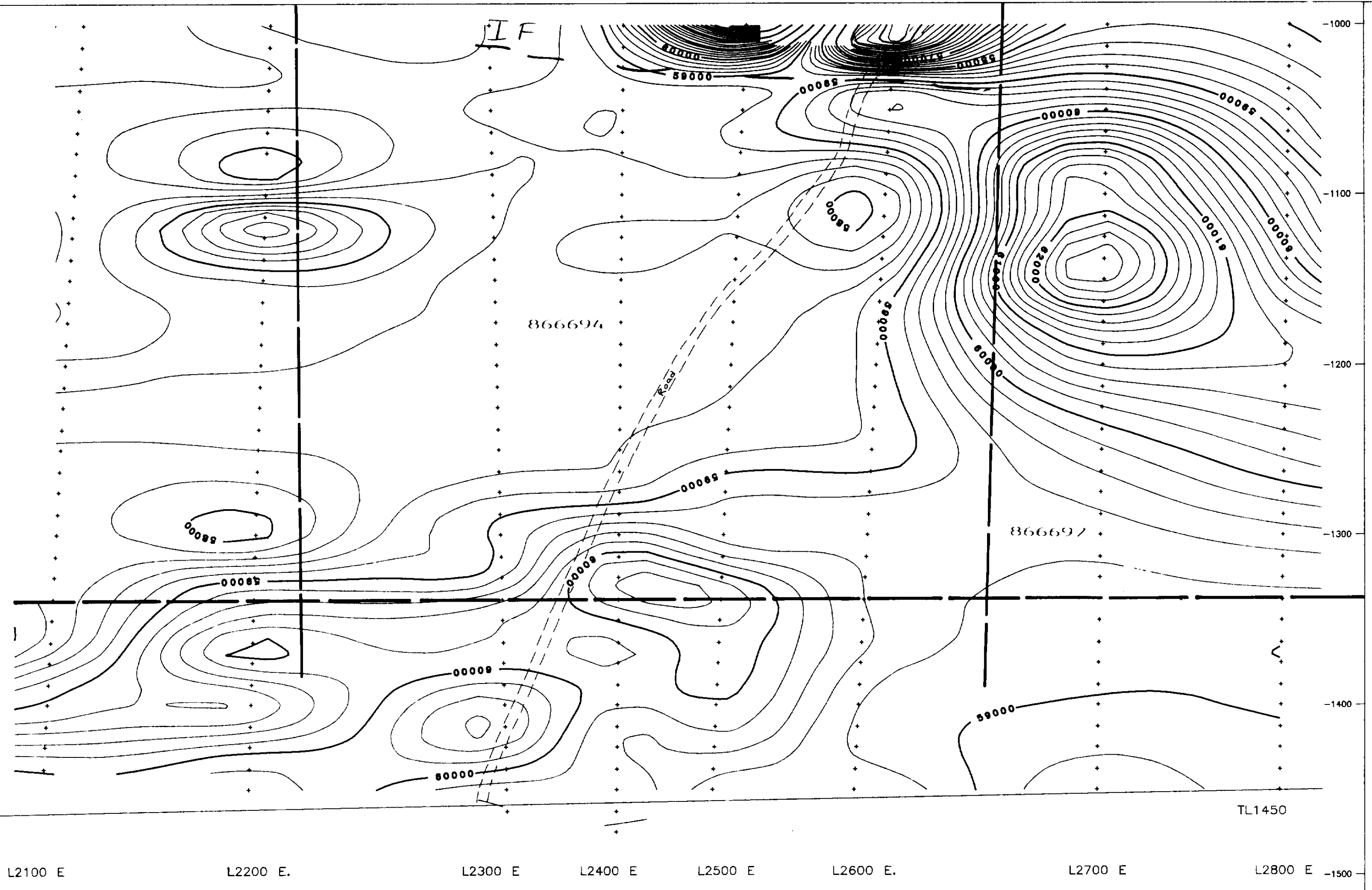
TOTAL ENERGOLD CORPORATION
 Shaw # 1 Group - Shaw Township
 Porcupine Mining Division
 MAGNETIC PROFILES AND POST MAP
 2000 Gammas/Cm - Base Value 58,000 Gammas
 SOUTH WEST GRID

2.12705

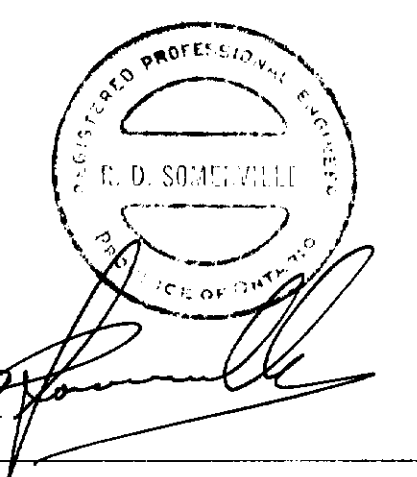
NTS Ref.:	Map A24 A	INSTRUMENTATION
Date Units:	Gammas	Model: I.G.S. System
Scale:	1:2000	Resolution: 1.0 Gammas
Date:	March 1989	Manufacturer: Scintrex Ltd.

R. SOMERVILLE ENGINEERING LTD.





A	A14
A18	A17
	A24

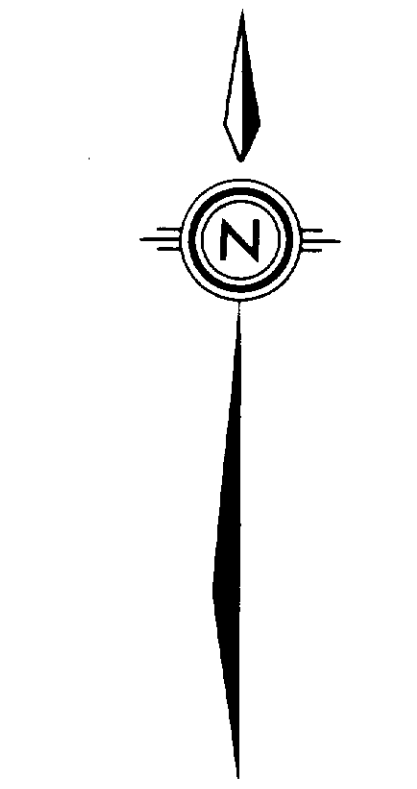
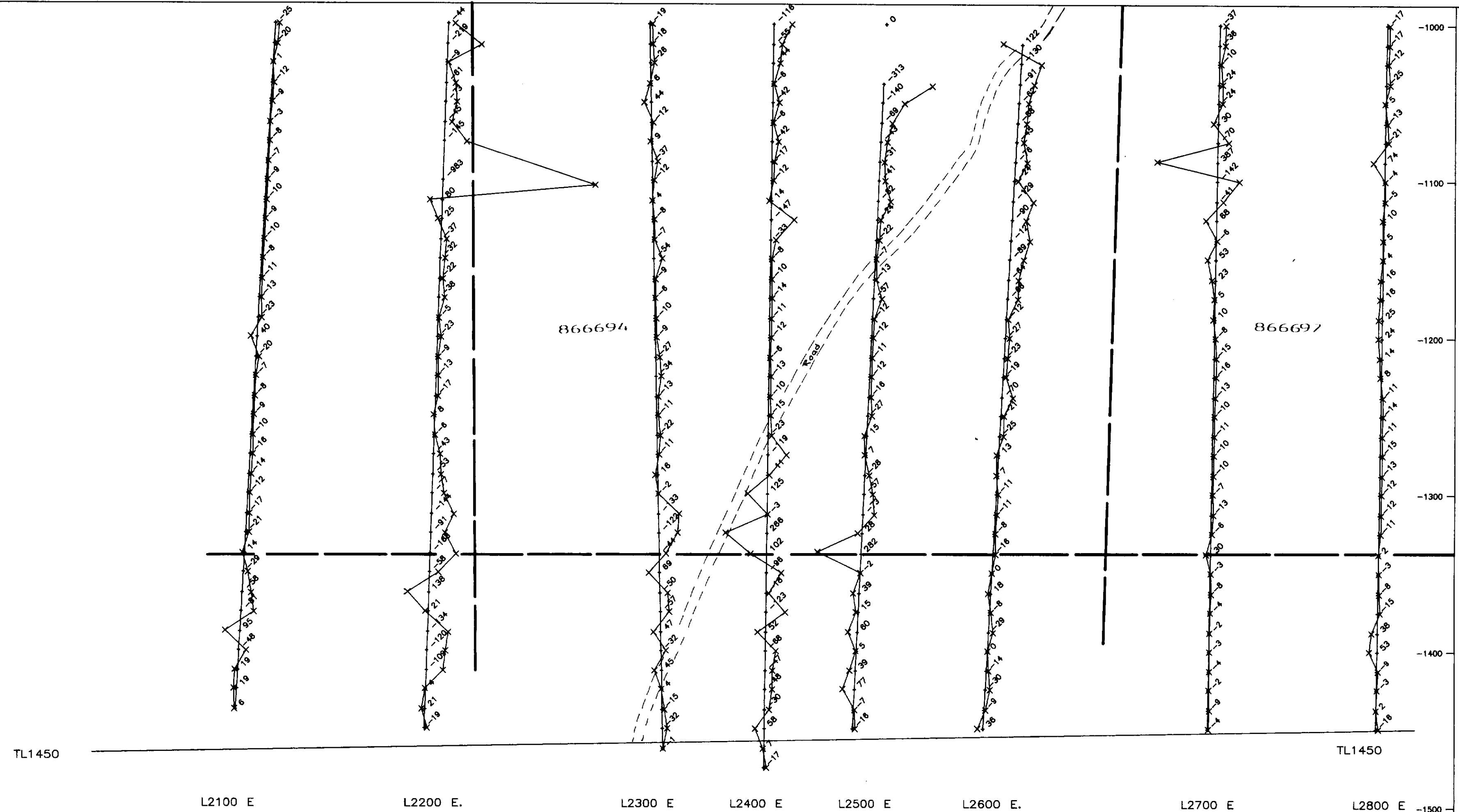


TOTAL ENERGOLD CORPORATION
 Shaw # 1 Group - Shaw Township
 Porcupine Mining Division
MAGNETIC CONTOUR MAP
 Contour Interval 200 Gammas
 SOUTH WEST GRID

A24 12705

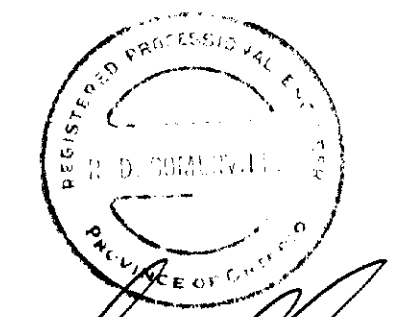
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Data Units: Gammas	Model: I.G.S. System
Scale: 1:2000	Resolution: 1.0 Gamma
Date: March 1989	Manufacturer: Scintrex Ltd.
R. SOMERVILLE ENGINEERING LTD.	





A	A14
A18	A17
	A24

× Magnetic Value



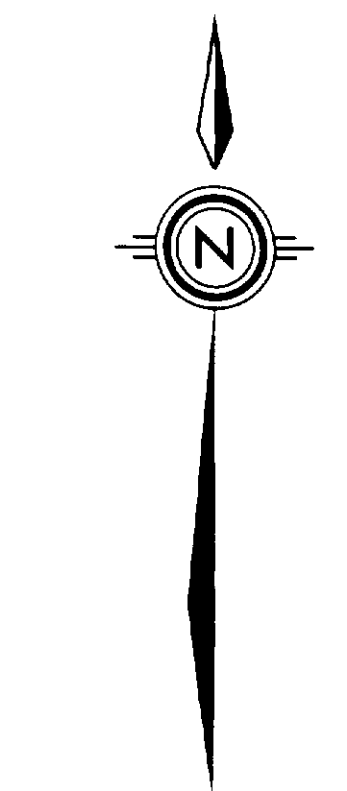
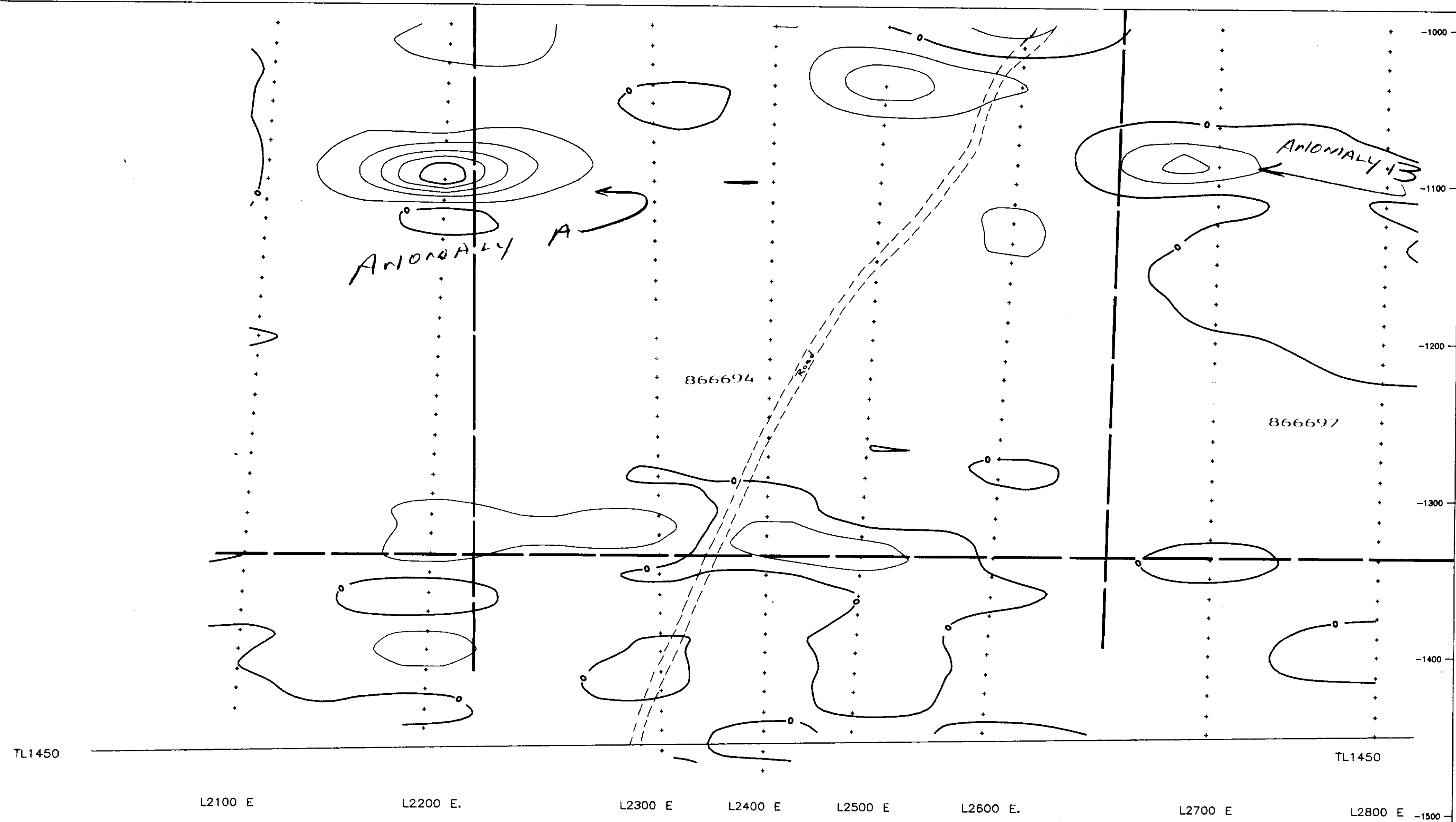
TOTAL ENERGOLD CORPORATION
 Shaw # 1 Group - Shaw Township
 Porcupine Mining Division
 MAGNETIC GRADIENT PROFILES AND POST MAP

200 Gammas/Metre per Cm - Base Value 0.00 Gammas/Metre
 SOUTH WEST GRID
 2.12705

NTS Ref.: Map A24 C	INSTRUMENTATION
Data Units: Gammas/Metre	Model: I.G.S. System
Scale: 1:2000	Resolution: 0.1 Gammas/Metre
Date: March 1989	Manufacturer: Scintrex Ltd.

R. SOMERVILLE ENGINEERING LTD.





A	A14
A18	A17
	A24

[Handwritten Signature]

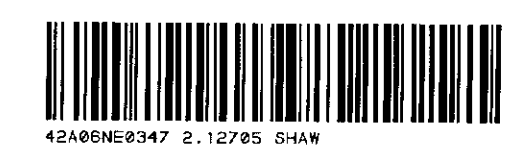


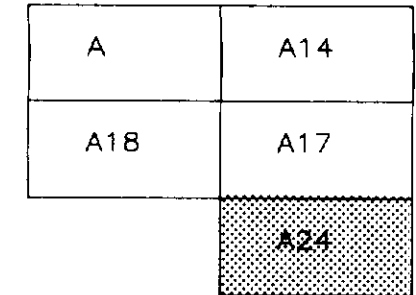
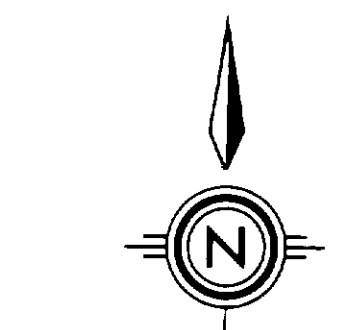
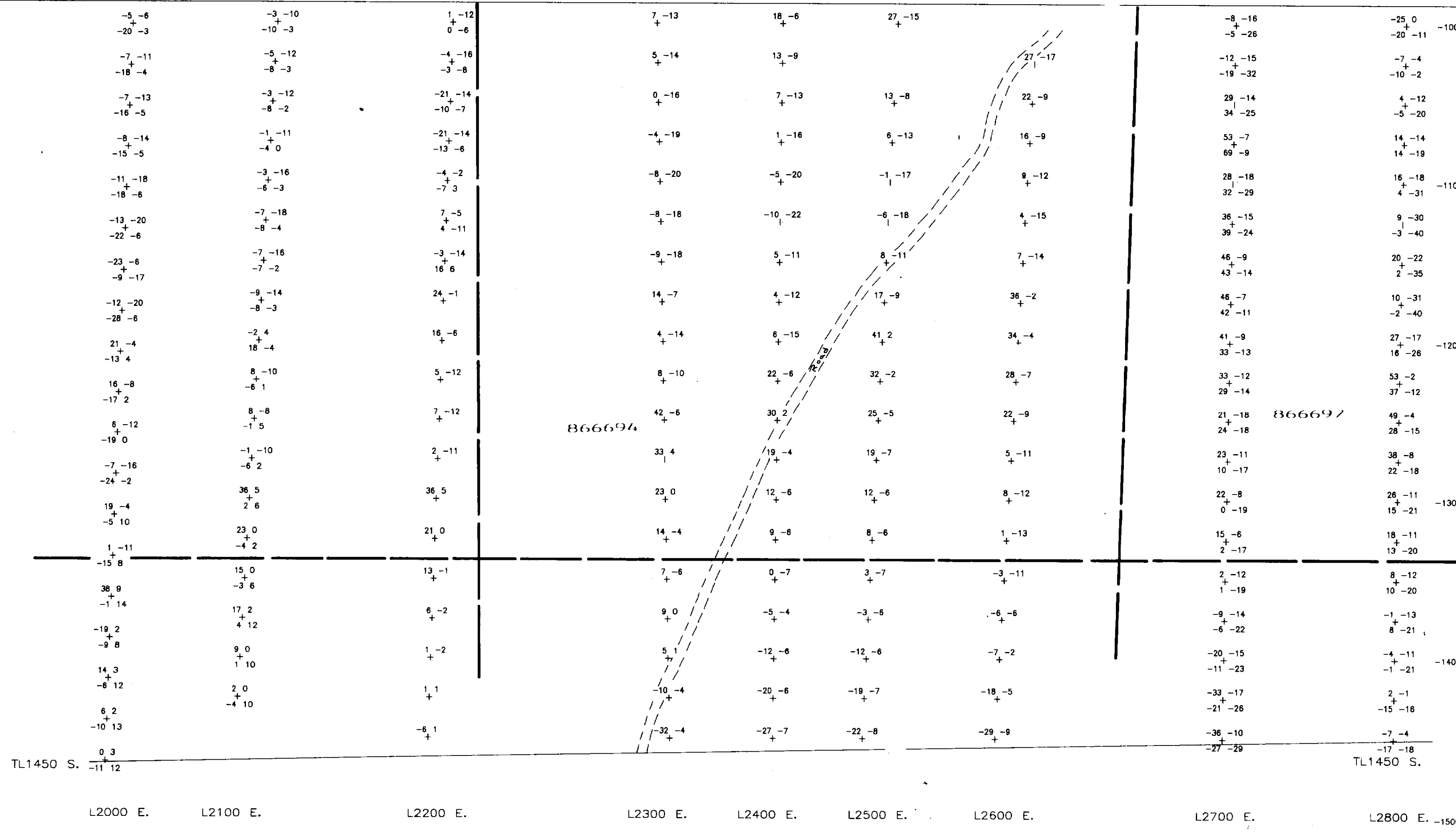
TOTAL ENERGOLD CORPORATION
 Shaw # 1 Group - Shaw Township
 Porcupine Mining Division
 MAGNETIC GRADIENT CONTOUR MAP
 Contour Interval 100 Gammas
 SOUTH WEST GRID

A 24 d 1 1 1 1

NTS Ref.: MAP NO. A24	INSTRUMENTATION
Data Units: Gammas/Metre	Model : I.G.S. System
Scale: 1:2000	Resolution : 0.1 Gammas/Metre
Date : March 1989	Manufacturer : Scintrex Ltd.

R. SOMERVILLE ENGINEERING LTD.





LEGEND :

NAA - Hill NAA - Quad
 +
 NSS - Hill NSS - Quad

[Signature]

REGISTERED PROFESSIONAL ENGINEER
 N. D. SOMERVILLE
 ENGINEERING LTD.

TOTAL ENERGOLD CORPORATION
 Shaw # 1 Group - Shaw Township
 Porcupine Mining Division
 VLF E.M. POST MAP

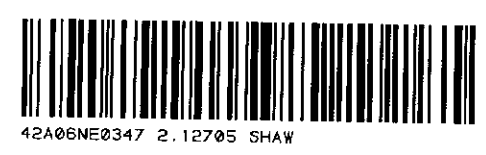
Annapolis, Maryland (NSS) and Cutler, Maine (NAA)

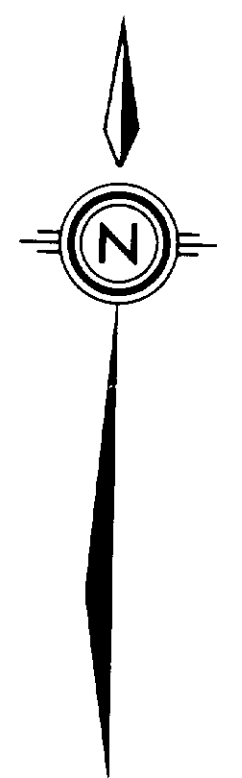
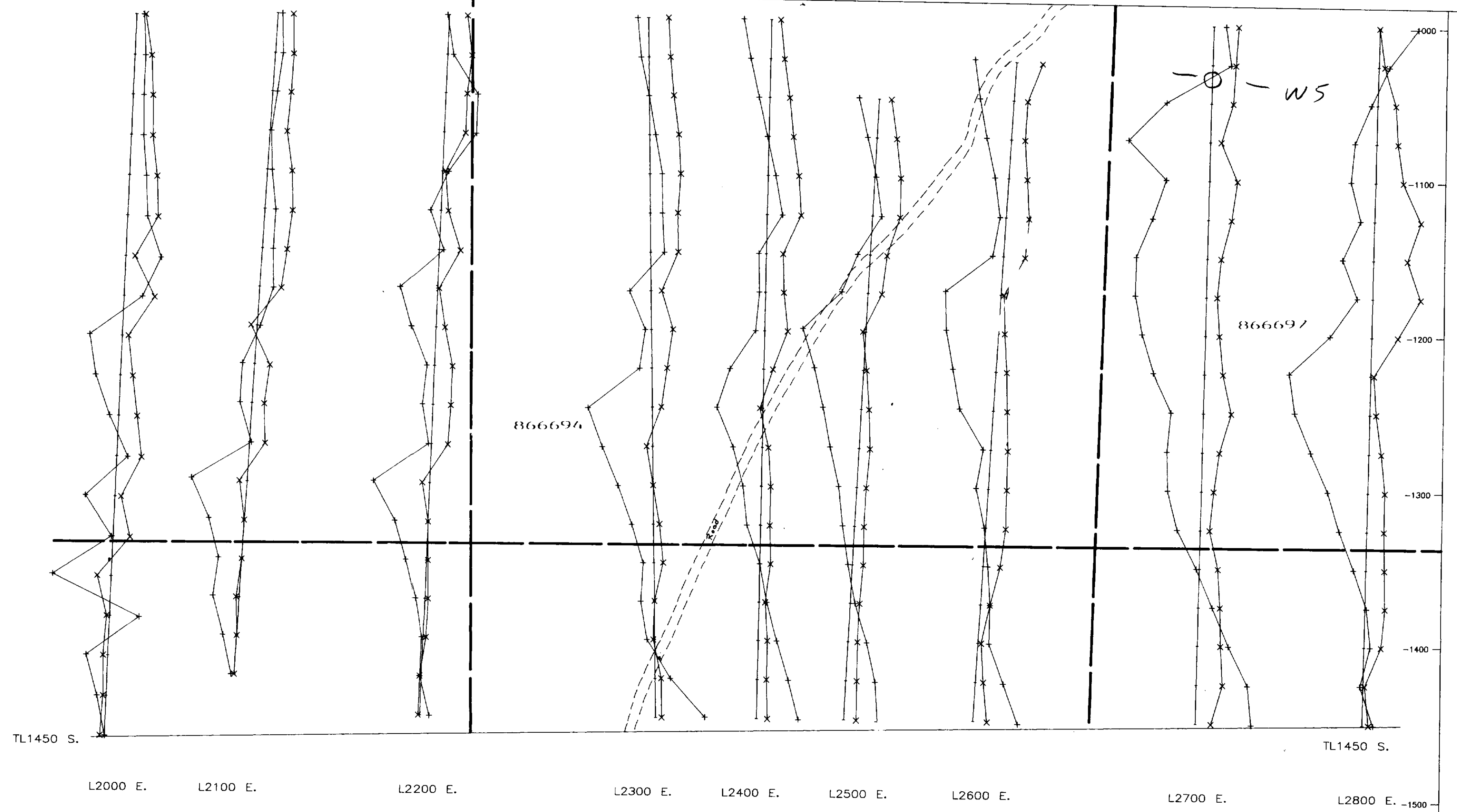
SOUTH WEST GRID

A24e

NTS Ref.:	MAP NO. A24	INSTRUMENTATION
Data Units:	Percent	Model : E.M. 16
Scale:	1:2000	Resolution : 1.0 Percent
Date :	March 1989	Manufacturer : Geonics Ltd.

R. SOMERVILLE ENGINEERING LTD.

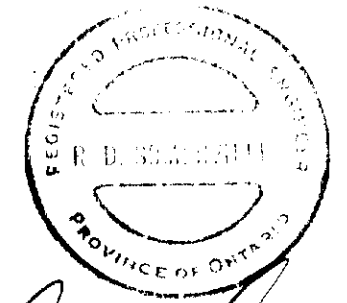




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+ Tilt Angle Value - NAA
 x Quadrature Value - NAA

2.12705



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TOTAL ENERGOLD CORPORATION

Shaw # 1 Group - Shaw Township
 Porcupine Mining Division

VLF-EM PROFILES MAP

20 Percent/Cm - Base Value 0.0 Gammas

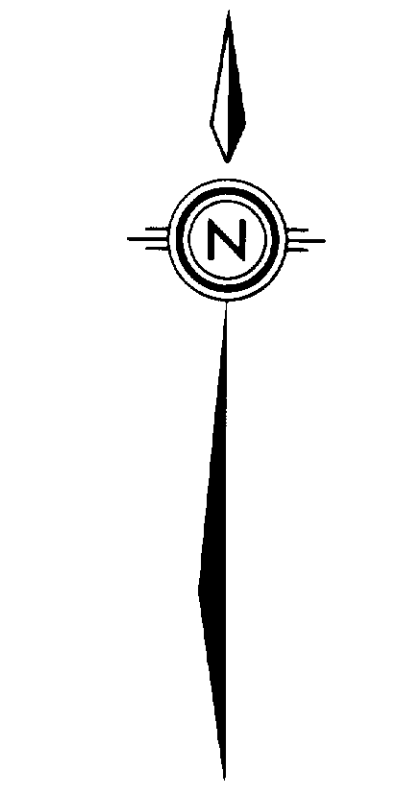
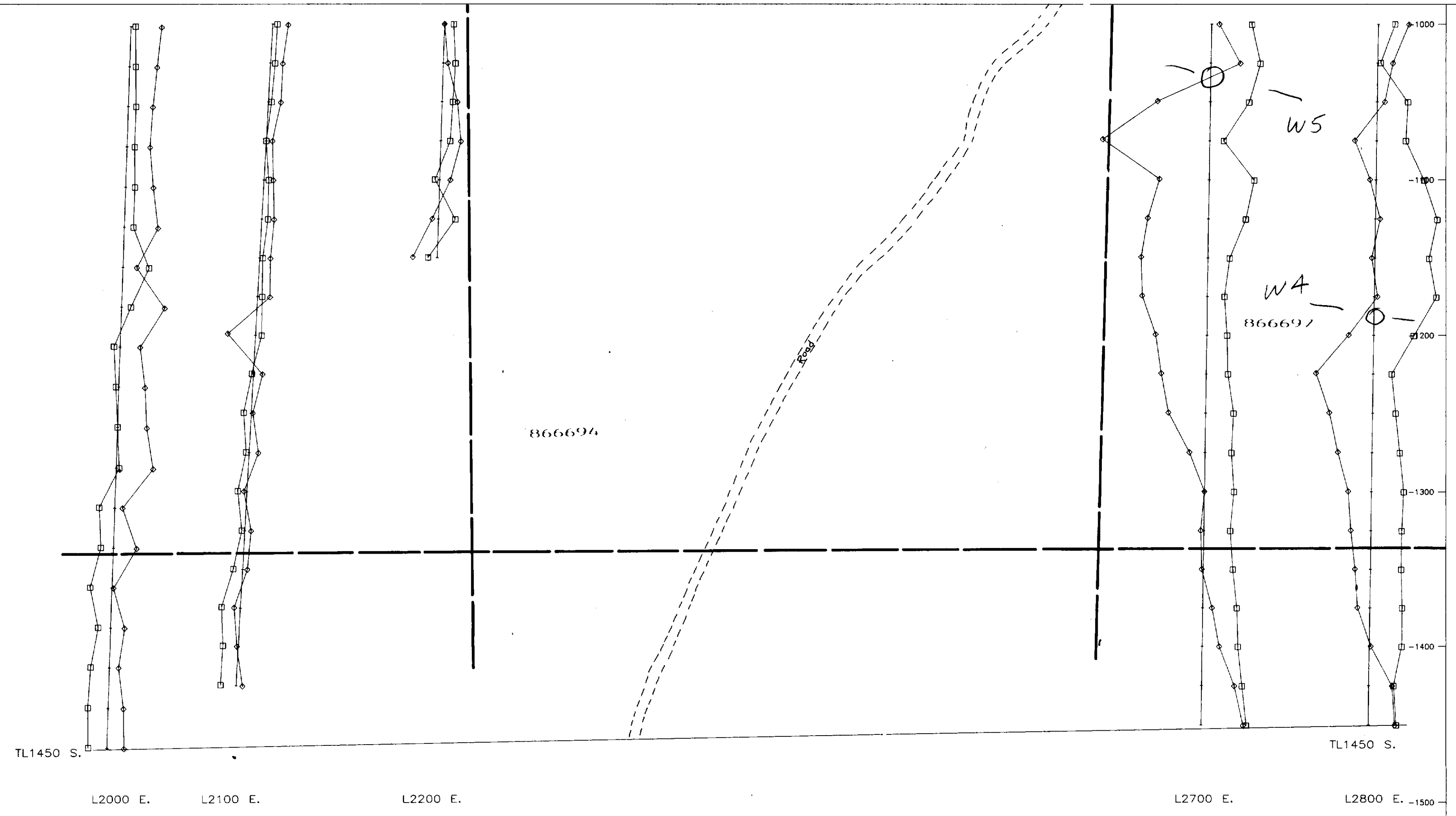
SOUTH WEST GRID
 CUTLER TRANSMITTER

A24F

NTS Ref.: Map A24	INSTRUMENTATION
Date Units: Percent	Model: E.M. 16
Scale: 1:2000	Resolution: 1.0 Percent
Date: March 1989	Manufacturer: Geonics Ltd.

R. SOMERVILLE ENGINEERING LTD.

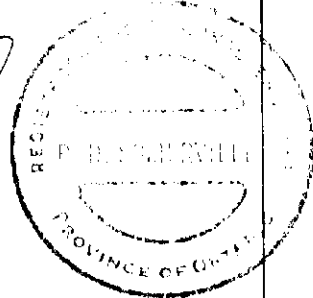




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◇ Tilt Angle Value - NSS
 □ Quadrature Value - NSS

2.12705

[Signature]


TOTAL ENERGOLD CORPORATION
 Shaw # 1 Group - Shaw Township
 Porcupine Mining Division
 VLF-EM PROFILES MAP
 20 Percent/Cm - Base Value 0.0 Gammas
 SOUTH WEST GRID
 ANNAPOLIS TRANSMITTER

A24g

NTS Ref.: Map A24	INSTRUMENTATION
Date Units: Percent	Model: E.M. 16
Scale: 1:2000	Resolution: 1.0 Percent
Date: March 1989	Manufacturer: Geonics Ltd.

R. SOMERVILLE ENGINEERING LTD.

