

424075W0023 2.8363 BLACKSTOCK

010

Report on a Magnetic & VLF - EM Survey

Carried Out on the

MELROSE RESOURCES LTD. Blackstock Property

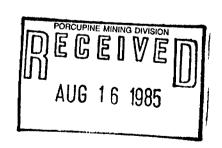
RECEIVED

AUG 2 () 1985

MINING LANDS SECTION

by

R.Bruce Durham



P.O. Box 1637

R.S. Middleton Exploration Services Inc. Timmins, Ontario August 14, 1985

P4N 7W8

...



010C

TABLE OF CONTENTS

										•													P	age	
INIRO	DUC	rio	N.	•	•	•	•	•	.•	•	•	•	•	•	•	•	•	•	•	٠	•	•	•	1	
LOCAT	ION	AN	D A	ła	CES	SS	•	•	٠	•	•	•	•	•	•	•	•	•	•	•	•	•	•	1	
PROPE	RTY	••	•	•	•	٠	•	•	•	•	•	•	•	٠	•	•	•	•	•	•	•	•	•	2	
PREVIC	SUS	WO	RK	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	2	
GENER	AL (GEO	l	łΥ	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	4	
SURVE	Y PJ	ROCI	ÐU	ЛRE	2,	IN	IS.	IRI	M	EN	[A]	ГIC	N	&	SI	CA'I	ri s	STI		5.	•	•	•	4	
INTERI	PREI	TAT	101	1																					
N	Magr	net	ic	Su	ırv	ey	7.		•		•				•		•				•	•		6	
	VLF																			•	•	•	•	7	
SUMMAJ	RY A	AND	α	NC	Ľ	ISI	0	٩S	•	•	•	•	•	•	٠	٠	•	•	•	•	•	•	•	8	
REFERI	ENCI	es.	•	•	•	•	•	•	•	•	•	•	•	٠	•	•	•	•	•	•	•	•		9	

LIST OF FIGURES

Figure 1	General Location Map 1:10,000,000
Figure 2	Claim Location Map 1"= 1/2 mile
Figure 3	Contoured Magnetic Data 1:4800
Figure 4	VLF - EM Profile Map 1:4800
Figure 5	Fraser Filter VLF - EM Data 1:4800

Specifications

Geometrics Proton Magnetometer Model G-816 Geonics Limited EM 16

INTRODUCTION

Magnetic and VLF-EM surveying were carried out by Mid Canada Exploration Services Ltd. on behalf of 502095 Ontario Ltd. between December 1, 1984 and May 30, 1985 over a group of 47 unpatented mining claims in Blackstock, Fasken, Fallon, and Langmuir Townships as a preliminary phase of exploration to determine the bedrock source of gold mineralized float discovered in the northeast portion of claim P 783315 by prospector W. Dallaire, in 1983.

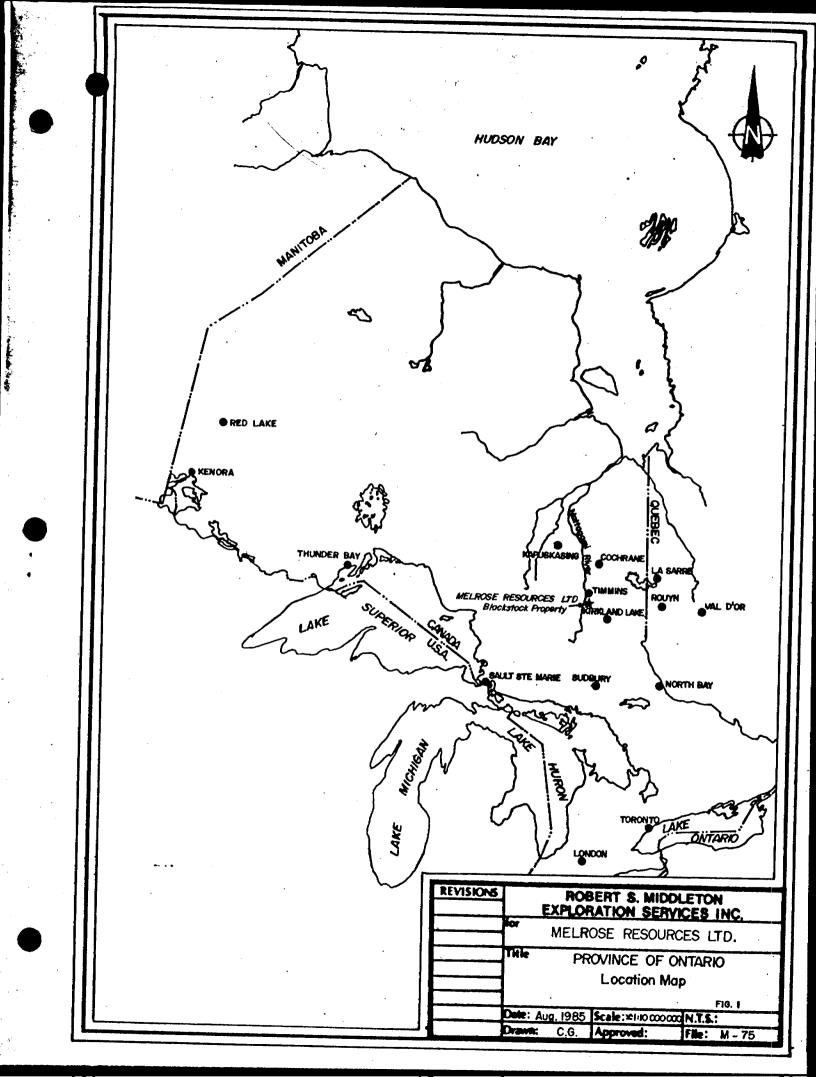
- 1 -

LOCATION AND ACCESS

The property, which consists of considerably more than the 47 claims covered by these surveys, is located in the southwestern portion of Blackstock Township, with small parts of the property extending into Fasken, Fallon and Langmuir Townships.

The property is located approximately 22 air miles southeast of Timmins, Ontario and is accessible via a network of logging roads that connect with both the Langmuir Mine road and the Gibson Lake Road. The Langmuir mine road leaves South Porcupine in a southerly direction, and the Gibson Lake road leaves highway 101 just east of the junction with highway 67 some 22 miles east of Timmins.

One of the roads extends northeasterly across the southern



part of the survey area.

PROPERTY

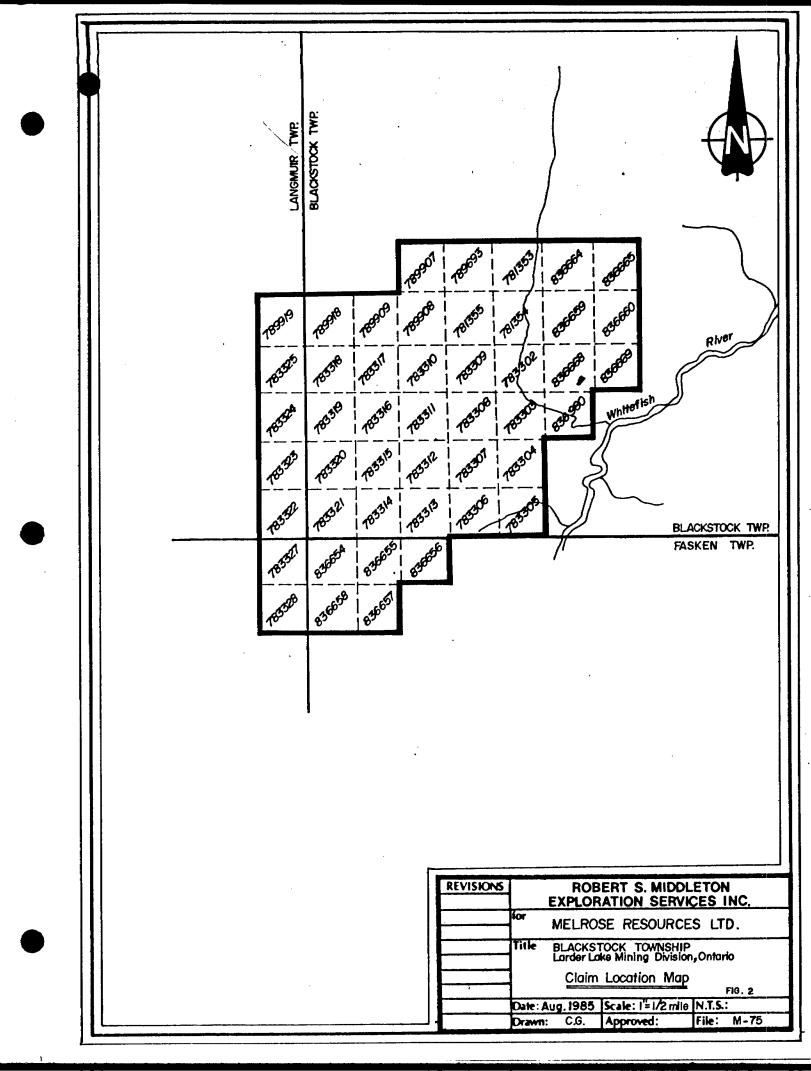
The part of the property covered by subject survey consists of the following 47 unpatented mining claims in the Porcupine Mining Division:

P 783 302 P 783 325 incl. -P 783 327 P 783 328 and P 781 353 P 781 355 incl. P 836 654 P 836 658 incl. ----P 789 693 and P 836 660 P 836 659 P 836 668 and P 836 669 P 836 980 P 836 664 and P 836 665 P 789 918 P 789 919 and P 789 907 P 789 909 incl. -

All claims are registered in the name of 502095 Ontario Ltd., holder of corporate prospector licence T-1268.

PREVIOUS WORK

The only work recorded on claims which covered the subject survey area consisted of magnetic and EM surveying carried out over a group of claims in Langmuir Township in 1966. Part of the survey covered the area now encompassed by claims P 789 919, P 783 325, and P 783 325. An oval shaped magnetic high more or less centered in Langmuir Lake probably reflects the presence of an ultramafic body. The work, which is covered in Assessment File T-1323 in the MNR Timmins Assessment files, indicates the



work was carried out by Lake Kozak Mines Ltd. and that no further work was done on the property.

McPhar Geophysics Ltd. carried out magnetic and vertical loop EM surveys on behalf of International Kenville Gold Mines Ltd. during 1965 on a group of claims in southwest Langmuir Township. Four drill holes were put down on targets defined by the survey. The magnetic survey shows the general strikes in the area covered by the survey to be slightly east of north. The drilling failed to detect any mineralization or structures to explain the conductive zones and no further work was reported to the Ministry of Natural Resources.

INCO carried out magnetic and EM surveying, and undertook considerable drilling on its holdings, mostly in Langmuir Township in search of economic nickel sulfide mineralization in 1971 (MNR File T-1386). The magnetic survey shows general trends in the area north and west of the subject survey area to be generally north-south but varying to northeast-southwest and northwest-southeast.

L. Hill prospected, trenched, and drilled 2 drill holes to test a molybdenite showing hosted within a "feldspar granite", located southeast of the survey area. The small property was located just east of the Whitefish River, the northwest corner of which would be more or less contiguous with the #2 post of current claim P 836 669. The best values obtained in the

- 3 -

drilling appear to be .05% molybdenite.

Sutherland Engineering carried out magnetic and Sharpe SE-200 EM surveys during August, 1965 on behalf of Kidd Mining Co. Ltd. over a block of claims approximately 1 mile north of the subject survey area.

- 4 -

No outcrops were found on the property but a tenative geologic interpretation was arrived at based upon the geophysical data and the numerous boulders located on the property. The SE-200 EM survey showed only weak discontinuous conductive features and no further work was recommended.

GENERAL GEOLOGY

The property lies in a little explored and poorly understood area just east of the Shaw Dome southeast of Timmins.

Previous ground work and interpretation of geophysical data indicates that the property covers the contact between hornblende granite and a suite of mafic and ultramafic rocks which strike more or less northerly.

Gold mineralization was discovered in 1983 by W. Dallaire in what appears to be large boulders of carbonate altered and pyritized ultramafic rocks (probably flows).

SURVEY PROCEDURE, INSTRUMENTATION & STATISTICS

A detailed grid with east-west picket lines at 400 foot

intervals was established over all 47 claims. Baseline 0, line 0 was started at the location of the gold mineralized float found by prospector W. Dallaire.

A total of 47.65 miles of line was cut and chained.

The surveys were carried out between December 1, 1984 and May 30, 1985 by D. Baird, D. Rochon, P.Cameron, and R. Rochon. Magnetic readings were taken at 100 foot intervals along all lines using a Geometrics G-816 proton precession magnetometer. Regular tieins were done to minimize the diurnal drift problems and the data was corrected for diurnal drift assuming a linear change with time.

A total of 2,474 stations were read in the course of the survey.

The VLF - EM survey was carried out using the Annapolis, Maryland remote transmitter station. If, as indicated on ODM Map P.445, the strike of bedrock units in the area are north-westerly, Seattle, Washington may have been a better transmitter station to provide better coupling with stratabound conductive sources.

Some 2475 stations were read in the course of the survey.

All data was plotted at a scale of 1"=400' and the magnetic data was contoured at 100 gamma intervals. The VLF - EM data is presented in profile form and a fraser filter contour plot of the data also accompanies the report.

- 5 -

INTERPRETATION

Magnetic Survey

The most prominent feature outlined by the magnetic survey is a magnetic high caused by a large, regionally extensive late Precambrian olivene diabase dike which traverses the southern part of the survey area at 050°.

An apparent left hand offset of up to 1400 fet appears evident along a 340° azimuth near the east extremities of lines 0, 400N and 800N.

The faulted extension of the dike is evident along a similar azimuth (050°) across lines 2400N through 4400N.

An apparent diabase dike, striking approximately 340°, was delineated from the south boundary of the survey area on line 4400S at 300 to 600W to at least line 0 at 2600 to 2900 west. A due north striking narrow magnetic feature may be the northward extension of the dike.

The strong magnetic feature defined on lines 2800N, 3200N, 3600N from roughly 600E to 1900W is interpreted to be caused by the presence of ultramafic rocks containing appreciable magnetite.

Similarly, ultramafic rocks are thought to be the cause of the magnetic high defined in the area east of the baseline on lines 4800N to 6400N.

VLF - EM SurveY

Numerous weak to very weak crossovers were defined throughout the property but only the more continuous and/or stronger zones are commented on, and have been designated with letters from A through L.

- Zone "A" Moderate amplitude crossover across lines 4400, 4000 and 3600S which shows up well on the Fraser Filter plan map.
- Zone "B" While generally weak to very weak in amplitude of response this anomaly is traceable over some 5,200 feet from line 2000S to line 3200N.
- Zone "C" As in the case of anomaly "B" this zone is weak but traceable for considerable strike length (L1200N to L4400N).
- Zone "D" is a weakly conductive zone which roughly parallels the contact of the regional diabase dike.
- Zone "E" which parallels the contact of a north trending diabase near Line 0, is discernible only on Lines 4400, 4000 and 3600S. This zone is weakly defined on the Fraser Filter Plan map.
- Zone "F" is a 1200' long zone of good amplitude which appears to correspond with a break in the magnetic pattern within the olivene diabase dike. This feature may represent either deepening overburden or a cross fracture within the dike.
- Zone "G" is a weakly conductive zone which was defined over a length of 1200'.
- Zone "H" parallels Zone "G" and is also a weakly conductive feature.

- $\frac{\text{Zone "I"}}{\text{fault which offsets the large regional diabase dike.}}$
 - zone is well defined on the Fraser Filter Plan.

Zone "J" and

Zone "K" are weak north trending zones of uncertain origin.

Zone "L" roughly parallels one contact of the regional diabase dike and may be caused by deepening or more conductive

overburden.

The lack of outcrop, uncertain geology and unknown overburden conductivity makes any interpretation of the VLF-EM data somewhat tentative. .

SUMMARY AND CONCLUSIONS

The subject surveys have been successful in aiding in the interpretation of the bedrock geology and consequently in trying to identify the bedrock source of the mineralized float discovered by Mr. W. Dallaire.

Since the main interest in the property has been generated by the discovery of mineralized float and little outcrop occurs on the property, it is recommended that the entire property be mapped in detail with a definite emphasis on the pleistocene deposits; their type, boulder type, lithologic concentration, boulder angularity, etc.

Areas defined to be of interest should then be followed up on using a combination of overburden sampling techniques and Induced Polarization surveying to define areas of anomalous gold content (in the ovrburden) and areas of suspected concentration of disseminated pyrite which typifies the mineralized float.

Respectfully Submitted,

Bruce Aburha

R.Bruce Durham, Consulting Geologist

MNR Assessment Files

Kidd Mining Co. Ltd. T-1260 International Kenville Gold Mines Ltd. T-1205 Inco T-1386 L. Hill Property T-1482 Lake Kozak Mines Ltd. T-1323

Maps

ODM Preliminary Map 2205 1" = 4 miles ODM Preliminary Map P 445 1" = 1/4 mi. ODM Preliminary Map P 119 1" = 1mi. GSC Aeromagnetic Sheet 294G 1:50,000 ODM Preliminary Map P 444, Langmuir Township 1"=1/4 mi. ODM Preliminary Map P 497, Fasken Township 1"=1/4 mi. ODM Preliminary Map P 496, Fallon Township 1"=1/4 mi.

CERTIFICATION

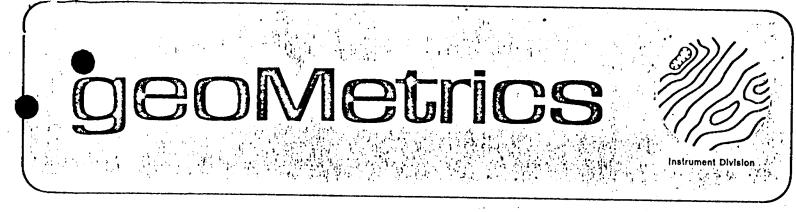
1, R.Bruce Durham of Timmins, Ontario certify concerning my report on the Melrose Resources Ltd. property that:

- 1. I am a graduate of the University of Western Ontario having obtained a Bachelor of Science degree in Geology in 1976.
- 2. I am a Fellow of the Geological Association of Canada.
- 3. I have been practising my profession primarily in Canada since 1976.

Dated this August 14, 1985, at Timmins, Ontario.

Bruce Abunka

R.Bruce Durham, B.Sc.



PORTABLE PROTON MAGNETOMETER MODEL G-816



- 1 gamma sensitivity and repeatability
- Very small size and weight: less than 12 lbs complete with batteries and sensor
- Over 10,000 readings per set of alkaline "D" cell (flashlight) batteries
- Provision to attach sensor to carrying harness for use without staff
- Pushbutton operation numeric display directly in gammas
- Total field measurements independent of orientation—no calibration—no leveling

The Model G-816 is a complete portable magnetometer for all man-carry field applications. As an accurate yet simple to operate instrument, it features an outstanding combination of one gamma sensitivity and repeatability, compact size and weight, operation on standard universally available flashlight batteries, ruggedized packaging and very low price.

The G-816 magnetometer allows precise mapping of very small or large amplitude anomalies for ground geophysical surveys, or for detail follow-up to aeromagnetic reconnaissance surveys. It is a rugged, light-weight, and versatile instrument, equally well suited for field studies in geophysics, research programs or other magnetic mapping application where low cost, dependable operation and accurate measurements are required.

For marine, airborne or ground recording systems consider GeoMetrics Models G-801, G-803, and G-826A.



"Hands-free" Back Pack Sensor

Based upon the principle of nuclear precession (proton) the G-816 offers absolute drift-free measurements of the total field directly in gammas. (The proton precession method is the officially recognized standard for measurement of the earth's magnetic field.) Operation is worldwide with one gamma sensitivity and repeatability maintained throughout the range. There is no temperature drift, no set-up or leveling required, and no adjustment for orientation, field polarity, or arbitrary reference levels. Operation is very simple with no prior training required. Only 6 seconds are required to obtain a measurement which is always correct to one gamma, regardless of operator experience. Only the Proton Magnetometer offers such repeatability—an important consideration even for 10 gamma survey resolution.



Complete Field Portable System

The Model G-816 comes complete, ready for portable field operation and consists of:

- 1. Electronics console with internally mounted and easily replaced "D" cell battery pack.
- 2. Proton sensor and signal cable for attachment to carrying harness or staff.
- 3. Adjustable carrying harness.
- 4. 8 foot collapsible aluminum staff.
- 5. Instruction manual, complete set of spare batteries, applications manual, and rugged field suitcase.

Price and lease rates on the G-816 magnetometer are available upon request.

SPECIFICATIONS ·

Sensitivity:	± 1 gamma throughout range
Range:	20,000 to 100,000 gammas (worldwide)
Tuning:	Multi-position switch with signal amplitude indi- cator light on display
Gradlent Tolerance:	Exceeds 800 gammas/ft
Sampling Rate:	Manual push-button, one reading each 6 seconds
Output:	5 digit numeric display with readout directly in gammas
Power Requirements:	Twelve self-contained 1.5 volt "D" cell, univer- sally available flashlight-type batteries. Charge state or replacement signified by flashing Indi- cator light on display.
	Battery TypeNumber of ReadingsAlkalineover10,000Premium Carbon Zincover4,000Standard Rashlightover1,500NOTE: Battery life decreases with low temper- ature operation.1000000000000000000000000000000000000
Temperature Range:	Console and sensor: -40° to +85°C Battery Pack: 0° to +50°C (limited use to -15°C; lower tempera- ture battery belt opera- tion-optional)
Accura cy (Total Field):	± 1 gamma through 0° to $+50^{\circ}$ C temperature range
Sensor:	High signal, noise cancelling, interchangeably mounted on separate staff or attached to carry-ing harness
Size:	Console: $3.5 \times 7 \times 10.5$ inches ($9 \times 18 \times 27$ cm) Sensor: 3.5×5 inches (9×13 cm) Staff: 1 inch diameter x 8 ft length (3 cm x 2.44 m)
Weight:	Lbs.Kgs.Console (w/batteries):5.52.5Sensor & signal cable:41.8Aluminum staff:20.9Total:11.55.2

All magnetometers and parts are covered by a one year warranty beginning with the date of receipt but not to exceed fifteen months from the shipping date.

geoMetric	S,INC. 395 JAVA DRIVE SUNNYVALE CA 94086 U.S.A. TEL (408) 734 4616 CABLE: GEOMETRICS" TELEX NO 357-435 TELEX NO 357-435
WORLD-WIDE AGENTS:	EUROPE • SCANDINAVIA • UNITED KINGDOM • JAPAN • SO. AFRICA • SO. AMERICA



GEONICS LIMITED

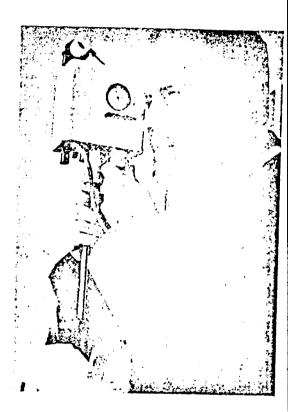
2 Thorncliffe Park Drive, Toronto 17, Ontario, Canada. Tel. (416) 425-1821, Cables: Geonics

EM16 VLF ELECTROMAGNETIC UNIT

Pioneered exclusively by Geonics Limited the VLF-method of electromagnetic surveying by utilization of the uniform horizontal fields generated by an existing network of reliable, fully operational Very Low Frequency transmitting stations has proved to be a major advance in geophysical exploration.

Very extensive world-wide experience since the beginning of 1965 by a large and rapidly increasing number of users, including a high proportion of major mining and exploration companies, has provided conclusive evidence of the effectiveness of the technique and the EM 16 has gained general acceptance as a basic electromagnetic tool. This evidence has also indicated the response of disseminated bodies. to the VLF-method.

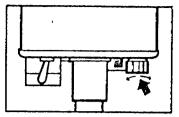
The unique self-contained EM 16 offers the unrivalled combination of LIGHT WEIGHT, ONE-MAN OPERATION and DEEP PENETRATION allowing rapid, economical surveys. Assessing the data is simplified due to the use of the uniform horizontal primary field. The patented design feature of the measurement of both the in-phase and out-of-phase (quadrature) component of the vertical field provides the information necessary for comprehensive interpretation of the field results.



SPECIFICATIONS

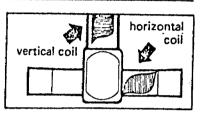
Transmitting stations used:Any desired station frequency supplied with the instrument in the form of plug-in tuning units. Two tuning units can be plugged in at one time. A switch selects either station.Readability:± 1%Operating frequency range:About 15 - 25 kHzReading time:10 - 40 seconds depending on signal strength.Operating frequency range:About 15 - 25 kHzOperating temperature range:-40 to 50°CParameters measured:(1) The vertical in-phase component (tangent of the tilt angle of the polarization ellipsoid).Dimensions:16 x 5.5 x 3.5 in (42 x 14 x 9 cm(2) The vertical out-of-phase (quadrature) component the short axis of the polarization ellipsoid compared to the long axis).Dimensions:16 x 5.5 x 3.5 in (42 x 14 x 9 cmMethod of speakies:to the long axis).Instrument supplied with:Monotonic speaker, carrying case, manual of operation, 3 station selector plug-in tuning units	Source of primary field:	VLF transmitting stations.	Scale range:	In-phase ± 150%; Out-of-phase
one time. A switch selects either station. Operating frequency range: About 15 - 25 kHz Operating temperature range: -40 to 50°C Parameters measured: (1) The vertical in-phase component (tangent of the tilt angle of the polarization ellipsoid). Dimensions: 16 x 5.5 x 3.5 in (42 x 14 x 9 cm) (2) The vertical out-of-phase (quadrature) component the short axis of .the polarization ellipsoid compared to the tong axis). Dimensions: 16 x 5.5 x 3.5 in (42 x 14 x 9 cm) Method of reading: In-phase from a mechanical in-clinometer; out-of-phase from a In-phase from a mechanical in-clinometer; out-of-phase from a In-phase from a mechanical in-clinometer; out-of-phase from a	Transmitting stations used:	supplied with the instrument in the form of plug-in tuning units. Two	Readability:	± 40%. ± 1%
Operating frequency range: About 15 – 25 kHz Power Supply: 6 size AA (penlight) alkaline cells Life about 200 hours. Parameters measured: (1) The vertical in-phase component (tangent of the tilt angle of the polarization ellipsoid). Dimensions: 16 x 5.5 x 3.5 in (42 x 14 x 9 cm (2) The vertical out-of-phase (quadrature) component the short axis of the polarization ellipsoid compared to the long axis). Dimensions: 16 x 5.5 x 3.5 in (42 x 14 x 9 cm Method of reading: In-phase from a mechanical in- clinometer; out-of-phase from a Instrument supplied with: (additional frequencies are option set of batteries.		one time. A switch selects either	Reading time:	
Parameters measured: (1) The vertical in-phase component (tangent of the tilt angle of the polarization ellipsoid). Life about 200 hours. (2) The vertical out-of-phase (quadrature) component the ellipsoid compared to the long axis). Dimensions: 16 x 5.5 x 3.5 in (42 x 14 x 9 cm) Method of reading: In-phase from a mechanical in- clinometer; out-of-phase from a Instrument supplied with: (additional frequencies are option (additional frequencies are option) (additional frequencies are option)	Operating frequency range:	About 15 – 25 kHz	Operating temperature range:	-40 to 50° C
(2) The vertical out-of-phase IO × DO ×	Parameters measured:		Power Supply:	6 size AA (penlight) alkaline cells. Life about 200 hours.
(quadrature) component the short axis of the polarization ellipsoid compared to the long axis). Weight: 2.5 lbs (1.1 kg) Method of reading: In-phase from a mechanical in- clinometer; out-of-phase from a Instrument supplied with: selector plug-in tuning units (additional frequencies are option set of-batteries.			Dimensions:	16 x 5.5 x 3.5 in (42 x 14 x 9 cm)
axis). manual of operation, 3 station Method of reading: In-phase from a mechanical in- clinometer; out-of-phase from a from a		(quadrature) component the	Weight:	2.5 lbs (1.1 kg)
Method of reading: In-phase from a mechanical in- clinometer; out-of-phase from a set of batteries.			Instrument supplied with:	
	Method of reading:	clinometer; out-of-phase from a		(additional frequencies are optional),
tone. Shipping weight: 10 lbs (4.5 kg)		tone.	Shipping weight:	10 lbs (4.5 kg)

SHIPLE ONE-MAN OPERATION



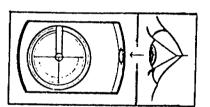
STATION SELECTOR

after selection of 2 VLF stations and insertion of proper plug-in units, knob rotation allows switching.



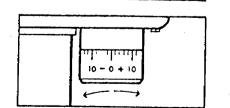
RECEIVING COILS

vertical receiving coil circuit in instrument picks up any vertical signal present. Horizontal receiving coil circuit, after automatic 90° signal phase shift, feeds signal into out-of-phase dial in series with the receiving coil.



IN-PHASE DIAL

shows the tilt-angle of the instrument for minimum signal. This angle is the measure of the vertical in-phase signal expressed in percentage when compared to the horizontal field.

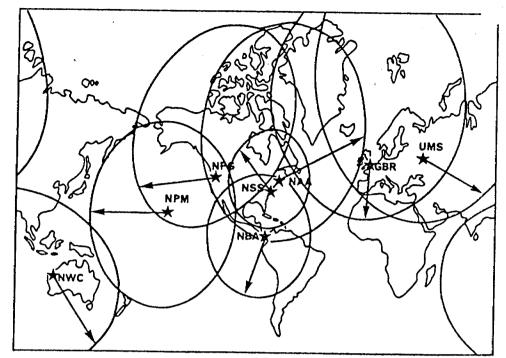


OUT-OF-PHASE DIAL

is calibrated in percentage markings and nulls the vertical quadrature signal in the vertical coil circuit.

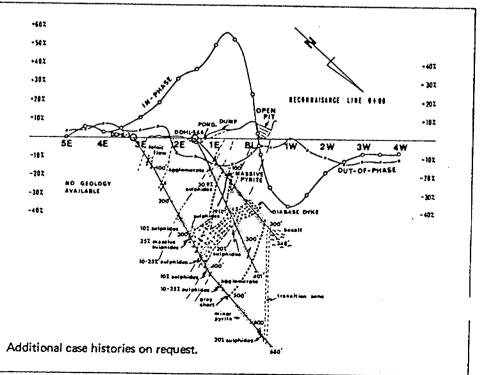
AUTHORIZED AGENT:

AREAS OF VLF SIGNALS



△ Coverage shown only for well-known stations. Other reliable, fully operational stations exist. For full information regarding VLF signals in your area consult Geonics Limited. Extensive field experience has proved that the above circles of coverage are very conservative and are actually much larger in extent.

EM16 PROFILE over Lockport Mine property, Newfoundland



		WE	\$ 26-					Nue	7
Natural (Ge	eport of Work eophysical, Geological, ochemical and Expendi	itures)	526- #212		975W0023 2.83				
of Survey(s)			Mining	Act V	Township		STOCK		90
eophysical Surv	ey					tock,La	angmuir,Fall	lon, Fas	ken
Hoider(s)	+ · · · · ·	110 1	•				or's Licence No.		Ĩ
02095 Untario L [.] ress	td1 Danie	CLKDC1	ron M	-18456	,	T-12	268		
ey Company id-Canada Explo:	et, Timmins, On- ration Services	*		Date of Survey 01 12 Day Mo.	84 30	05 85 Mo. Yr.	Total Miles of line 48.27	• Cut	
	(of Geo-Technical report)	Comico	- T	106 Codon	Ο Ρ Ο	Day 1		- ^-+	Í
SDEPT 5. MILULLE	ton Exploration Claim in Columns at ri	ight		136 Cedar S laims Traversed (I				is, Unt.:	
sat frovisions	Geophysical	Days per i Claim	The second se	lining Claim Number	Expend. Days Cr.		Mining Claim Number	Expension Data Ct.	
n: first survey:	- Electromagnetic	40	P	783302	0013 011	Pretix			
Enter 40 days. (This includes line cutting)	- Magnetometer	20			11	<u> </u>	783327		ļ
	Baciomotria		1 ÷	783303	+		783328		
or each additional survey: ung the same grid:	- Other			783304	+		781353		
Enter 20 days (for each))			783305	4		781,354		
	Geological			783306	_		_781355		
	Geochemical	4		783307	ļ		836654		
Days	Geophysical	Days per Claim		783308			836655		
omplete reverse side od enter total(s) here	Electromagnetic			783309			836656	1	
	- Magnetometer			783310					
	- Radiometric						836657		
	- Other			783311		a san	836658		
				783312			789693	·····	1
	Geological			783313			836659		
	Geochemical			783314			836660		
orne Credits	l r	Days per Claim		783315			836668		
lote: Special provisions	Electromagnetic			783316	T I.	REC	EBB9969 D		1
credits do not apply to Airborne Surveys.							836980		
	Badiometric			783317	11	JUN ;	8 8 1995		
enditures Englides pov		ل	1	-783318			030009		1
of Work Fuller meth			-	783319	<u> ип</u> кі	ING LAN	836665 DS SECTION		
prmed on Q airb(s)				783320	·		P9855510N		ļ
JUN	18 1985			783321	<u> </u>		789919		
				783322			789907		
ulation of Expenditure Da	Invs Credits			783323			789908		
Total Experimental	T Davs	Total s Credits		783324			789909		
s HEC	$\Theta P_{15} P_{15} P_{15}$		L <u></u>	783325		Total nu	mber of mining		
							overed by this	47	
otal Days Gredits may be	apportioned at the claim h ays credits for claim selecte		ſ	For Office Use O	Dnly	٦	γ		
columns a right NO.		20		Cr. Date Recorded	- 0.1	MIDIR	oer la la	2	
L	Recorded Holder or Ament 15	Sinnatural		, Jure	18 185	1 mil	ancer		
June 17/85		Signatures	2,820	\$5-08	-22	TK.	That	\mathbf{a}	
itication Verifying Rep	port of Work					${\times}$;
	a personal and intimate kr nd/or after its completion a erson Certifying				of Work anne:	xed hereto,	having performed	the work	
Orville E. H	licks, 189 Presto	on Stree	t, Timm	ins, Ontario	0 P4N 3		<u>_</u>		1
and the second				Date Certified June 17,	1985	Catilities	& Hicks		
19						Orvill	le E. Hicks	n Managana na serien a serien de	



GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL TECHNICAL DATA STATEMENT

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

Type of Survey(s)Magnetic	and VLF-EM	
Township or Area Blackstor	k, Fasken, Fallon, Langmui	MINING CLAIMS TRAVERSED
Claim Holder(s) 502095 (ontario Ltd.	List numerically
<u>189 Pres</u>	ton St., Timmins, Ontario	
	da Exploration Services Lt	d(see attached list)
Author of Report		(prefix) (number)
Address of Author Box 1637		
Covering Dates of Survey_01/		•••••
Total Miles of Line Cut 48.		•••••••••••••••••••••••••••••••••••••••
SPECIAL PROVISIONS CREDITS REQUESTED	DAYS per claim	
<u>akibits kigolstib</u>	Geophysical	RECEIVED
ENTER 40 days (includes	-Electromagnetic 40	
line cutting) for first	-Magnetometer 20	
survey.	-Radiometric	
ENTER 20 days for each		MINING LANDS SECTION
additional survey using	Geological	
same grid.	Geochemical	
AIRBORNE CREDITS (Special pr	ovision credits do not apply to airborne surveys)	
MagnetometerElectrom		······
	er days per claim)	
DATE: August 16/85 SIG	NATURE Course the has	
	Author of Report or Agent	
	difference 24980	
Res. GeolQua	lifications 29980	DECELVEM
Previous Surveys		
File No. Type Date	Claim Holder	
		AUG 1 6 1985
· · · · · · · · · · · · · · · · · · ·		
	/ /	
		TOTAL CLAIMS47
37 (5/79)		

837 (5/79)

GEOPHYSICAL TECHNICAL DATA

<u>GROUND SURVEYS</u> – If more than one surve	ey, specify data for each type of survey
--	--

٩	Number of Stations	2475		s2475_	
S	tation interval	100 feet	Line spacing	400 f	eet
	rofile scale				
C	Contour interval	100 gammas			
g	Instrument				
MAGNETIC	Accuracy - Scale constant.				
AG	Diurnal correction method.				
M	Base Station check-in interv				
	Base Station location and va	1 = 0 + 00, BL 0	58,500 gammas		
ELECTROMAGNETIC	Instrument <u>Geonic</u> Coil configuration <u></u> Coil separation <u></u> Accuracy <u>+</u> 1% Method: X Frequency <u>2</u> Parameters measured <u>I</u>	Fixed transmitter (1.4 KH Annapolis z (spe	Shoot back In <u>Maryland (NSS)</u> cify V.L.F. station)	line	Parallel line
	Instrument	•			
	Scale constant			/	
VEI	Corrections made			<u> </u>	
<u>GRAVITY</u>	Base station value and locat	ion	· · · · · · · · · · · · · · · · · · ·		
	Elevation accuracy	9-49-40-1			
1	Instrument Method [] Time Domain				
	Parameters – On time		• •		
- -			Range		
RESISTIVITY					
	•	me			
ESIS	Power				
2	Electrode array				
	Electrode spacing				ata
4					
	7 E				

INDUCED POLARIZATION



SELF POTENTIAL

Instrument	
Survey Method	
Corrections made	

.

RADIOMETRIC

Instrument	
Values measured	·
Energy windows (levels)	
Height of instrument	Background Count
Size of detector	
Overburden	
	(type, depth – include outcrop map)
OTHERS (SEISMIC, DRILL WELL LOGG	ING ETC.)
Type of survey	
Instrument	
Accuracy	
Parameters measured	
Additional information (for understanding	results)
<u>AIRBORNE ŞURVEYS</u>	
Type of survey(s)	
Instrument(s)	
Accuracy	(specify for each type of survey)
	(specify for each type of survey)
Aircraft used	
	· · · · · · · · · · · · · · · · · · ·
Navigation and flight path recovery method	
	Line Spacing
Miles flown over total area	Over claims only

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken_____

.

Total Number of Samples	- <u>ANALYTICA</u>	I. METHOD	s
Type of Sample(Nature of Material)	Values expressed in	nercent	2
(Nature of Material) Average Sample Weight	an Cinda – glea a garlânda. S	p. p. m. p. p. b.	
method of Conection	Cu, Pb, Zn, Ni, Co,	Ag, Mo,	As,-(circle)
Soil Horizon Sampled	Others		
Horizon Development	Field Analysis (tests)
Sample Depth	Extraction Method		
Terrain	Analytical Method		
	Reagents Used		
Drainage Development	Field Laboratory Analysis		
Estimated Range of Overburden Thickness	No. (tests)
	Extraction Method	·	
	Analytical Method		
	Reagents Used		
SAMPLE PREPARATION	Commercial Laboratory (tests
(Includes drying, screening, crushing, ashing)	Name of Laboratory		
Mesh size of fraction used for analysis	Extraction Method		
	Analytical Method		
:	Reagents Used		
General	General		
	······································		
	enter de la constante de		
·			·····

x

- Alexandre

į

Pretix	Aining Claim	Expensi Days Cr	Mining Cia - Line
	783302		P 783327
	783303		. 78332P
	783304		781353
	783305		781354
	783306		7 B1355 ;
	783307		836654
	783308		836655
	783309	·	836656
•• • • •	783310		836657
	783311		B36658
	783312		7.89693
· · · · ·	783313		
			836660
anti- anti- Alata di Santi-			836668
	783316		836669
 .	-783317		836980
	783318	· · · · · ·	836664
	783319		836665
	783320		789918
47	783321		789919
	783322		789907
	783323		789908
<u></u>	783324		789909
	783325		Total number of mining claims covered by this report of work. 47

1

۰,

REGISTERED

August 7, 1985

Report of Work #212

502095 Ontario Ltd and Daniel Rochon 89 Preston Street Timmins, Ontario P4N 3N4

Dear Sirs:

RE: Mining Claims P 783302, et al, in the Townships of Blackstock, Langmuir, Fallon and Fasken

I have not received the reports and maps (in duplicate) for Geophysical (Electromagnetic & Magnetometer) Surveys on the above-mentioned claims.

As the assessment "Report of Work" was recorded by the Mining Recorder on June 18, 1985 the 60 day period allowed by Section 77 of the Mining Act for the submission of the technical reports and maps to this office will expire on August 17, 1985.

If the material is not submitted to this office by August 17, 18285I will have no alternative but to instruct the Mining Recorder to delete the work credits from the claim record sheets.

For further information, please contact Mr. Arthur Barr at (416)965-4888.

Yours sincerely,

S.E. Yundt Director Land Management Branch

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

A. Barr:mc cc: Mining Recorder Timmins, Ontario

do Ed Paghuolsky a

cc: Robert S. Middleton Exploration Services Inc 136 Cedar South P.O. Box 1637 Timmins, Ontario P4N 3N4

Encl.

	MAN REAL PROPERTY	COPY
		Instructions: - Please type or print.
	Grological,	#2128
~ ~ <i>[</i>	Grologicultures)	"Expenditures" section may be enter "Expenditures" section may be enter in the "Expend. Days Cr." column
se s	•	Mining Act - Do not use shaded areas below Township or Area
L		Hard Act Constructions: - Please type or print. - If number of mining claims traverses exceeds space on this form, attach a mining exceeds space on this form, attach a mining in the "Expenditures" section may be call in the "Expendence. Days C: " count - Do not use shaded areas below Township or Area Blackstock, Langmuir, Fallon, Fasken Prospector's Licence No.
Startes-	- Daniel Rock	T-1268
in inte	-1 Janielis	
- reet	Timmins, Ontario	Date of Survey (from & to)
Autor Autor	Somvice	es Inc., 136 Cedar S., P. O. Box 1637, Timmins, Ont. Mining Claims Traversed (List in numerical sequence)
Kiddleton	aim in Columns at right	Mining Claim My Experior Number Multimeter
Jestea Del	Claim	Prefix Number Days of
, survey:	- Electromagnetic 40	F TOODOZ
40 days. (This upes line cutting)	- Magnetometer 20	703000
additional survey:	- Radiometric	783304
the same grid: 	• Other	783303
	Geological	183000
	Geochemical	783307
	Geophysical Days per Claim	- 783308
mete reverse side	- Electromagnetic	783309
enter total(s) here	- Magnetometer	783310836657
	- Radiometric	783311
	- Other	783312 789693
	Geological	783313 836659 836660
	Geochemical	783314
ine Credits	Days pe Claim	783315
ote: Special provisions	Electromagnetic	783316
credits do not apply to Airborne Surveys.		783317 836980
to Airporne Surveys.	Radiometric	783318
nditures (Frindes po	werstripp.ng	783319 836665
of Work Fridames		783320 (789918
ormed on Quimis)	10 :005	783321 789919
JUN	1 8 1985	783322
		783323
utation of Expenditure D	Davs Credit	783324 2 789909
S S		783325 Total number of mining claims covered by this report of work. 47
Notions III	e apportioned at the claim holder's	For Office Use Only
noice. Entit number of	Bays creating and the	Total Days Cr. Date Recorded
columns a right in		
	Recorder Holor, or Anent (Signati	Urei 2820 Dr. Approveo as Recorded Branch Director
June 17/85	leport of Work	
hereby certify that I ha	ave a personal and intimate knowle g and/or after its completion and th	dge of the facts set forth in the Report of Work annexed hereto, having performed the work, he annexed report is true.
 witnessea same outing 	g and/or brea	
Orville E.	Hicks, 189 Preston	Street, I Innutris, Continue Continue of Storfluit
		June 17, 1985 Orville E. Hicks
	······································	

(

Mining Lands Section

File No 28363

Control Sheet

TYPE OF SURVEY _____ GEOPHYSICAL _____ GEOLOGICAL _____ GEOCHEMICAL _____ EXPENDITURE

MINING LANDS COMMENTS:

< Black Stock, Langmuir, Fallon, Fasker

.

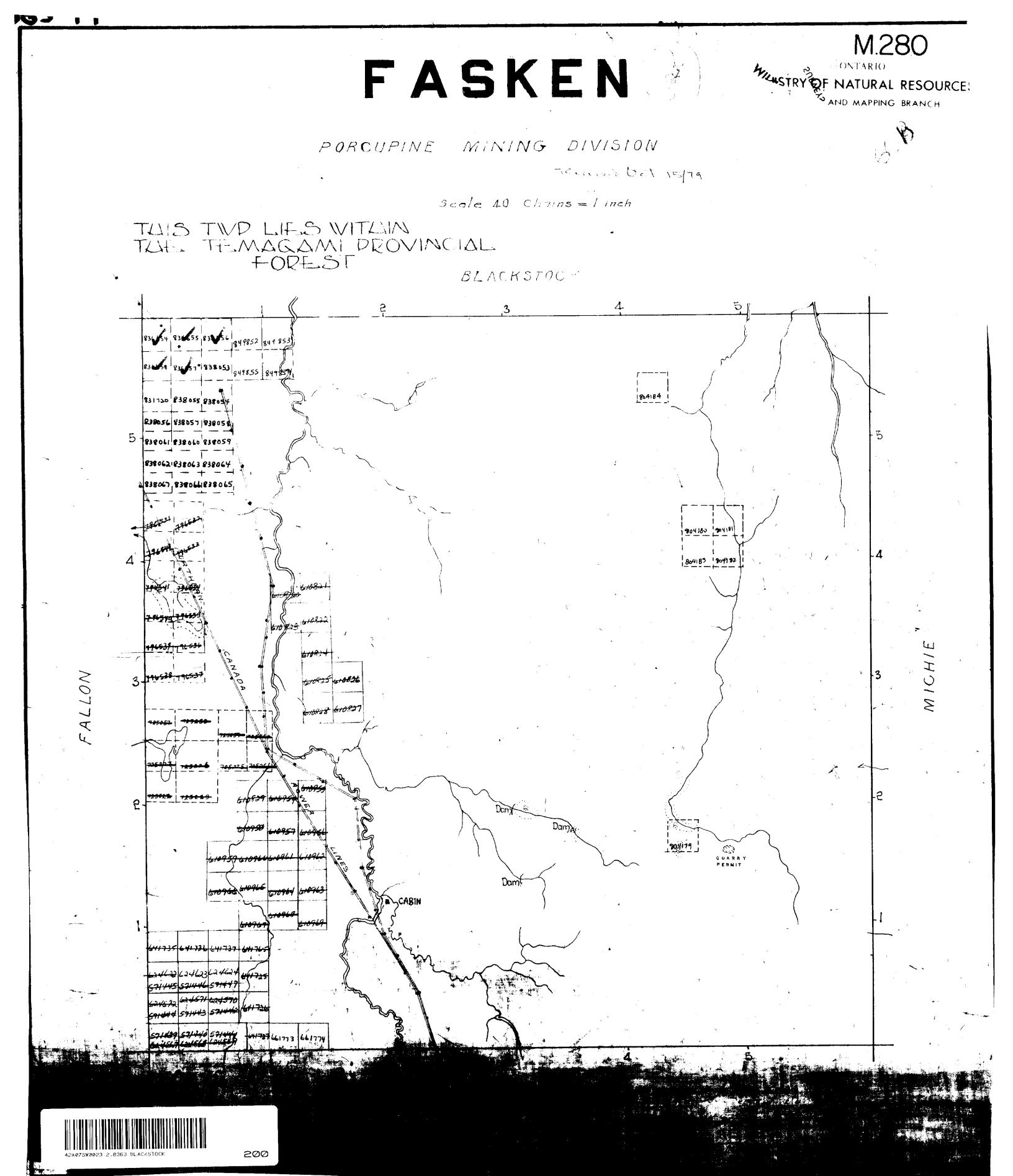


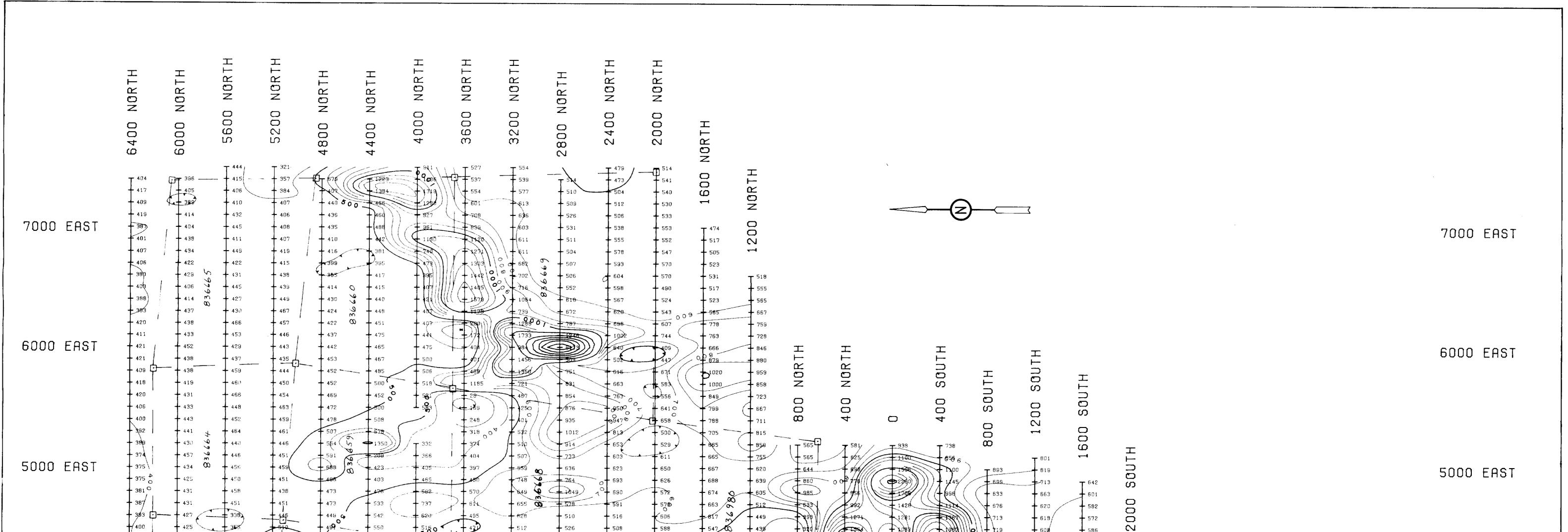
misk.

Signature of Assessor

Aug. 23/85

Date

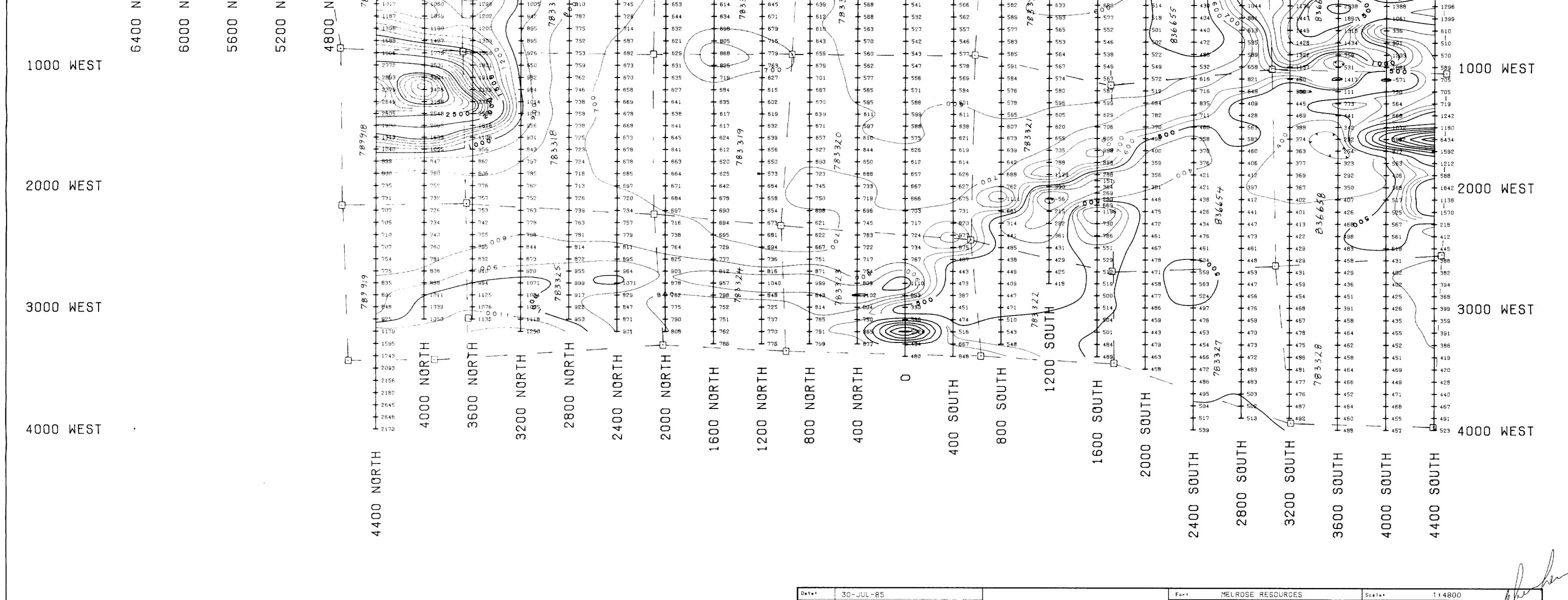




re 🔸 🥜 reconstruction

a a construction of the second s

4000 EAST	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	4000 EAST
3000 EAST	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	3000 EAST
2000 EAST	674 910 177 693 775 674 517 475 431 402 485 386 1045 648 688 681 681 681 551 556 552 553 643 643 653 653 659 HI DOS 664 659 HI DOS 669 449 644	2000 EAST
1000 EAST	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	HINOS 1000 EAST
BASE LINE	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c} 582 \\ 643 \\ 661 \\ 703 \\ 763 \\ 763 \\ BASE LINE \\ 780 \\ 800 \\ 821 \\ 877 \\ 1094 \\ 1094 \\ 1006 \\ \end{array} $



Scale#

		BASE STATION 0+00 - 58500 GAMMAS	File lacs	
Chk'd by	EXPLORATION SERVICES LTD	Survey type: MAGNETIC	Dwg no*	KOU
Drw'n by NORTHERN GEOTECH		C.I. = 100 gammas		$K \downarrow^{\sim}$



والمعاد المحال محاجر المحرات

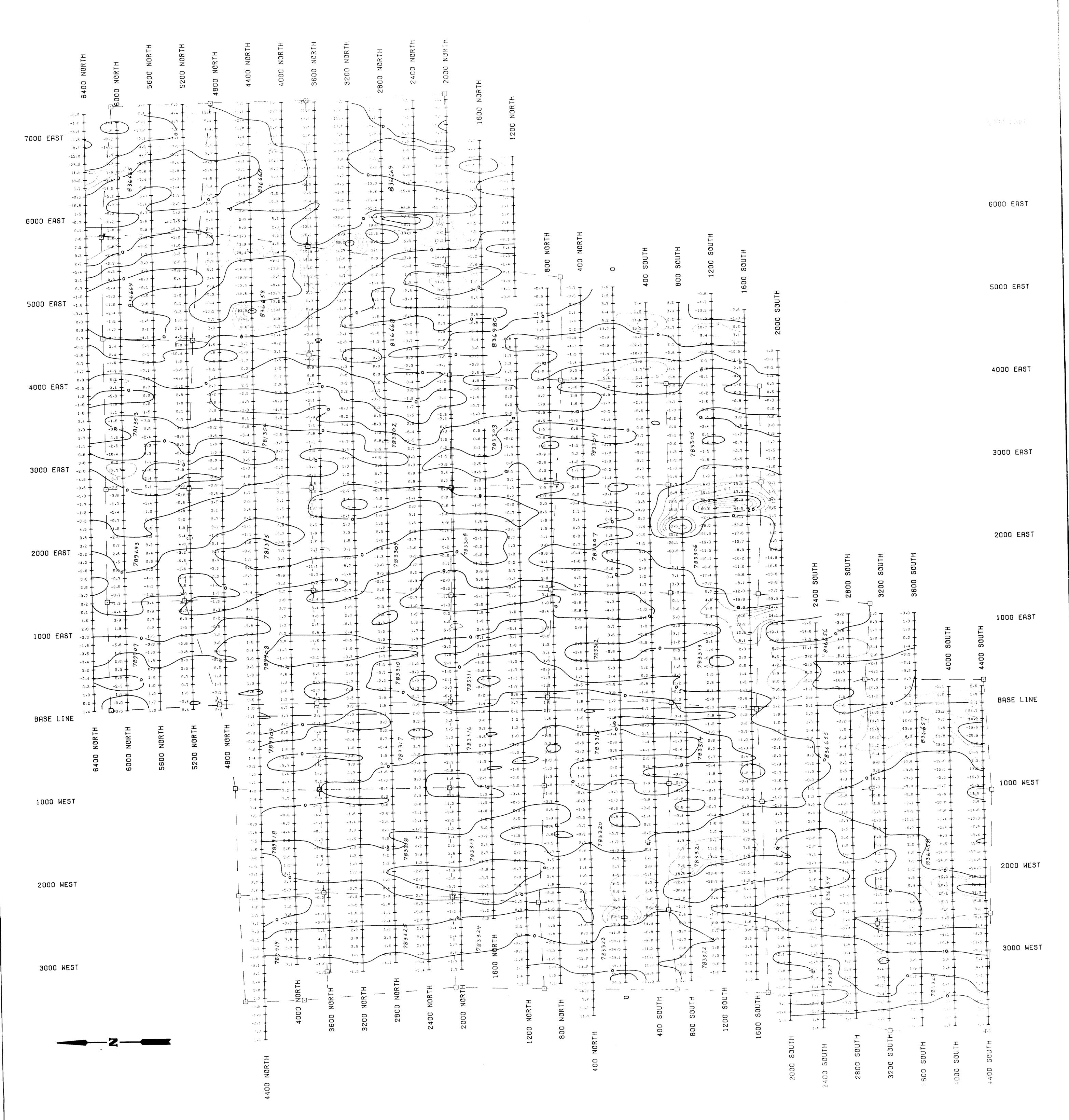
	400	00 8	200	1000 W	BAS	100	200	300	4000	5000	1
	0 WEST	O WEST	O WEST	OWEST	ELINE	DEAST	DEAST	DEAST	DEAST	DEAST	
64+00 N						+			<u>v v v v v v v v v v v v v v v v v v v </u>		++++++++++++++++++++++++++++++++++++++
60+00 N						89907			2007 - + + + + + + + + + + + + + + + + + +	B36667	
56+00~								h i to o to t			~ ~ ~ ~ ~ ~
52+00N										- + · · · · · · · · · · · · · · · · · ·	+ + + + !
48+00N 44+00N	r 0 6 6 4	789919	7899/8	78990 78900 78900 78900 78900 78900 78900 78900 78900 78900 78900 78900 78900 78900 780000 780000 780000 780000 780000 7800000000 780000000000	9	789908	78/355	78/354		936664	8 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
40+00N	1000 H									1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	+12 +13 +14 +8 +13 +14 +8 +13 +14 +4 +16 +17
36+00~			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					t t o o o t t o t o to to to to to to to			
32+00~		× · · · · · · · · · · · · · · · · · · ·		18 7833/	+- +	783310	783309	7833Q2	*	836668 836668	17+ 0/
28+00 N			<u>4</u> <u>4</u> <u>4</u> <u>4</u> <u>4</u> <u>4</u> <u>4</u> <u>6</u>								
24+00~							in a lin a la state o	6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			
20+00N 16+00N											0)+ 7E+ 1E+ 1E+ 1E+ 1E+ 1E+ 1E+ 1E+ 1E+ 1E+ 1
		783324	78:		16	7833// 	783308	783303		836980 1-4 4 7 4 4 22200 9 7 1 4 4	
8+00 N	 						N 1 1 0 0 0 7 7 7 7				
4+00N	-21 +10	0 0 1 1 1 1 1 1 1 1 1 1 1 1 1	78332	0 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7		783312	783307	783304			
0+00		67-1-0 67-1-0 67-1-0 67-1-0 67-1-0 67-1-0 67-1-0 67-1-0 67-1-0 67-1-0 67-1-0 67-1-0 67-1-0 67-1-0 67-1-0 67-1-0 67-1-0 7-0 7-0 7-0 7-0 7-0 7-0 7-0 7									
4+00 S 8+00 S		++++++++++++++++++++++++++++++++++++++									
12+005		4 4 4 4 4 4 4 4 4 4 4 4 4 4					- 3 - 37 + 15 - 36 + 15 - 36 + 15 - 36 + 10 + 16 + 16 + 16 + 16 + 16 + 16 + 16 + 16				
16+005		783322 5 9	······································		7833/3 		783306 06+ 10 - 22, 72 - 11 - 12 - 22 - 22 - 22 - 22 - 22 -	183305 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1		+ + 0, + + + 0, + >-000	
20+005	4 N 0 0 1						E		2-0-0-+		
24+005		783327 7 m t b-b t m	B36654	836655 N 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		21 + + + + + + + + + + + + + + + + + + +	814 1064 1111 1111 1111 1111				
28+005 	·/ *				+ + 0 + + 0 + + + 0 + + + 0 + + + 0 + + + + 0 + + + + + 0 +	$\begin{array}{c} + + + + + + + + + + + + + + + + + + +$					
36+005				1 + + + + + + + + + + + + + + + + + + +							
4.0+005	· /	3328 C	836658 91+ 17 12 12 12 12 12 12 12 12 12 12 12 12 12	836557 836557 836557	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1						
44+00S											

				•						
	4000	0006	2000	1000	BASE	1000	2000	3000	4000	5000
	VEST	IEST	IEST	E S T	INE	EAST	EAST	EAST	EAST	EAST
,										





•



and a second second

____ __



230

.

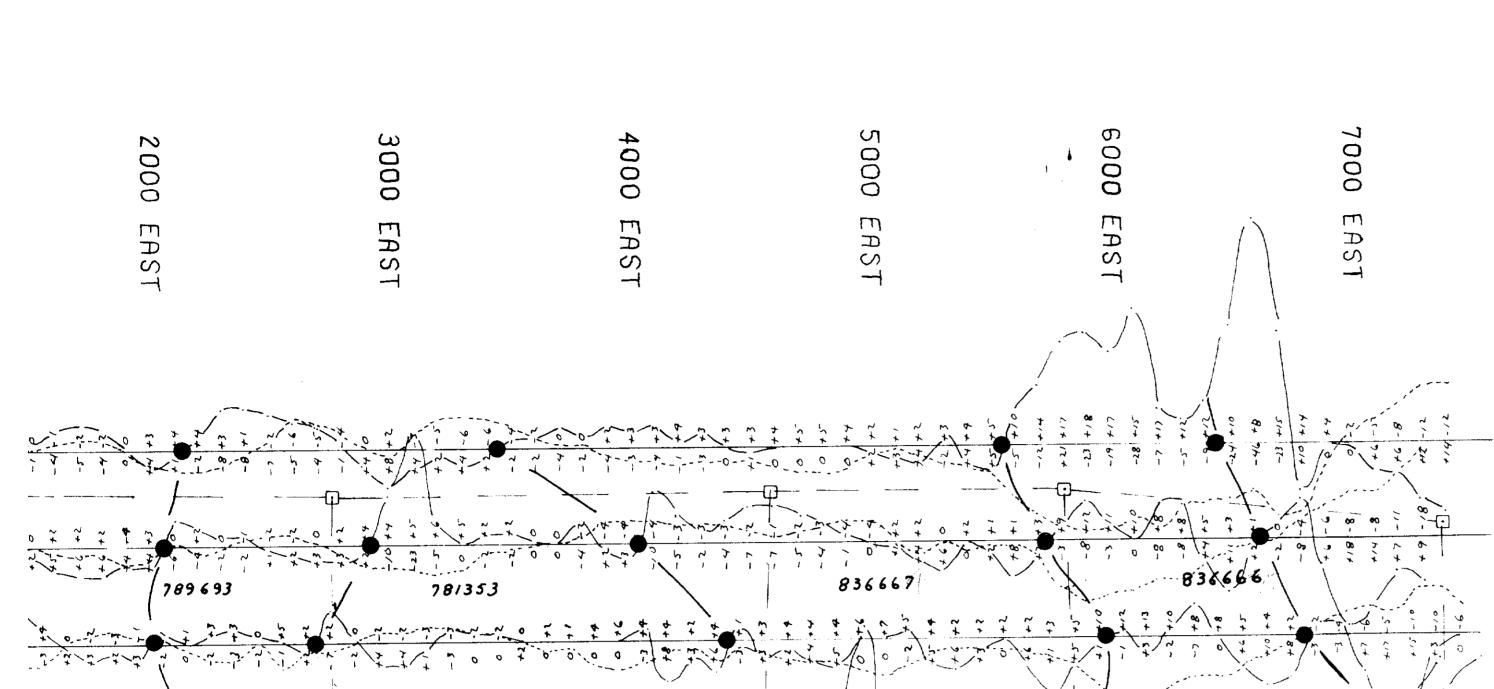
1 ≱ +(_{6 1} = − ⁵ + − 7 j

State And State .

and the second second

والمعاد المراجع

28363 Rauce Manha



7 2 2 2 7 0

1 836664 122 836665 78/354 78/355

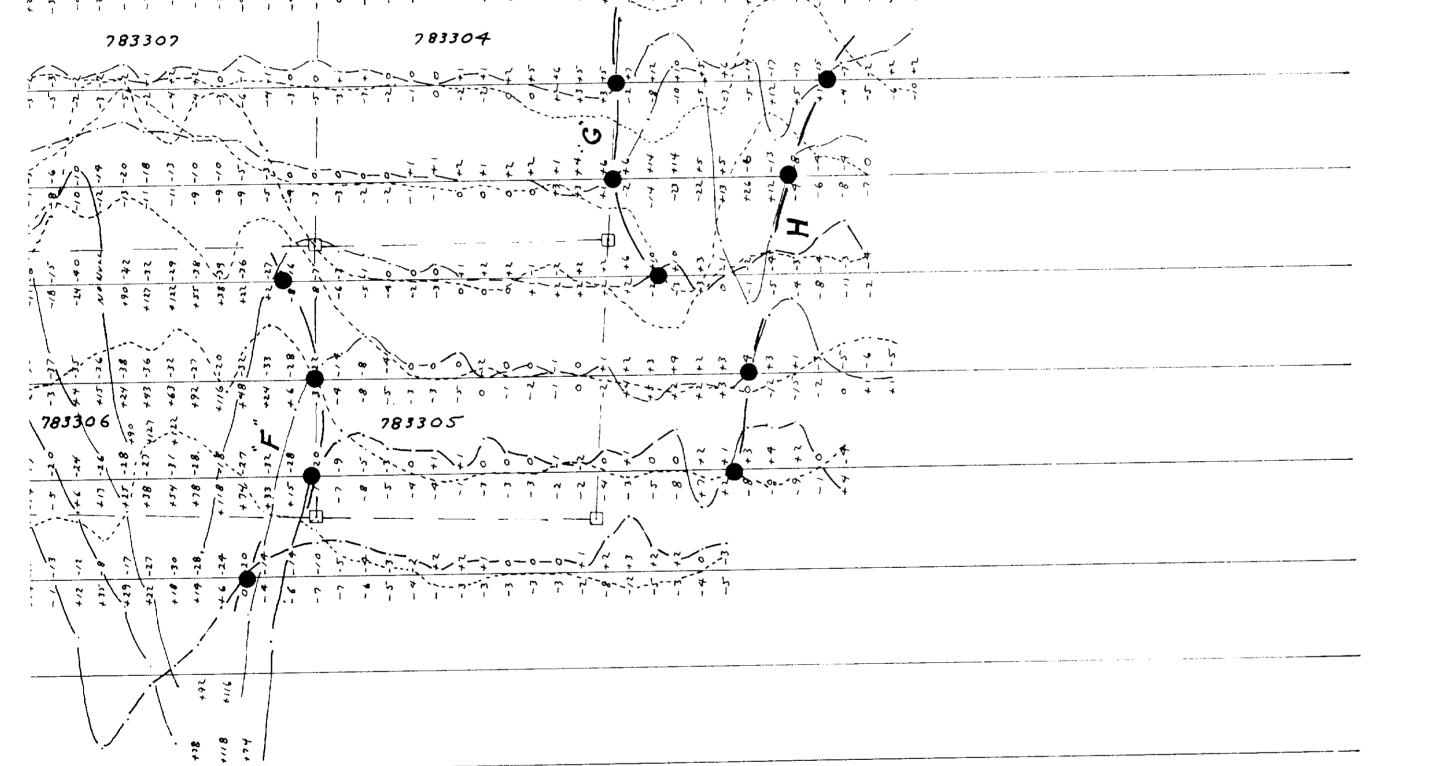
83,6669----836668 7833/Q2 783309

 $\boldsymbol{\prec}$

836980 7*83303* 783308

V.L.F. CONDUCTOR

* /	1 0 0 0 0 0			 +
				Ja
		0	~ ~ ~ ~ ~ ~	
				,



836980 CLAIM NUMBER

		28363 And Manhar	RESNUE
			SCALE
1000 EAST			MELROSE RESOURCES U.L.F. E.M.16 20% I INCH
5000 EAST			CANADA DN SERVICES LTD
5000 EAST			
4000 EAST			AUG-15-85 By O. HICKS
3000 EAST			Dare Daw w
2000 EAST			
	-		