



42A08NW0281 2.6400 COOK

010

Report on Magnetometer Survey
on the Black River Claim Group
in Benoit and Cook Townships

of

AFE Management Limited

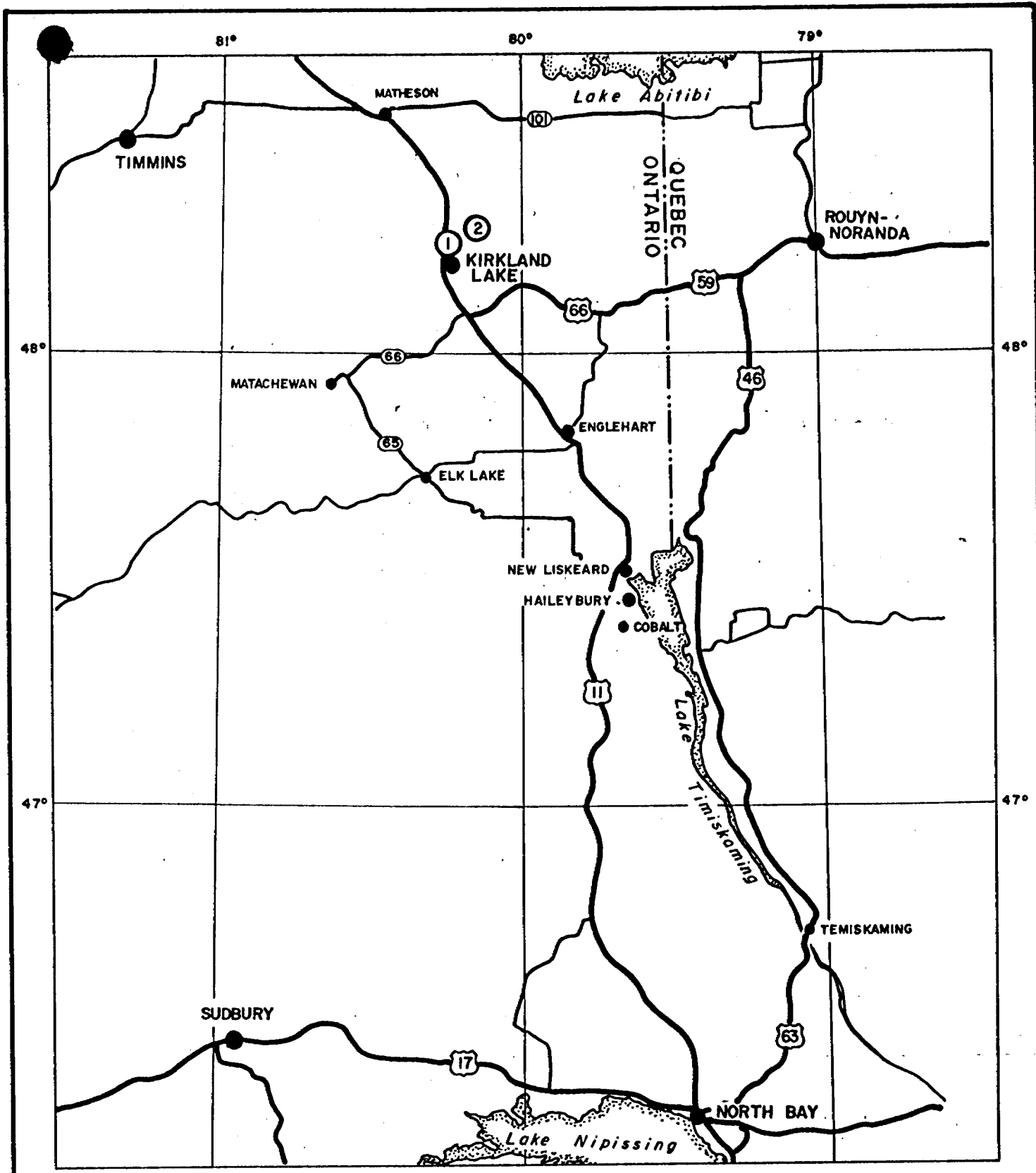
for

Golden Cradle Resources Ltd.

Toronto, Ontario
February 13, 1984

J. L. Tindale, P. Eng.
Geologist

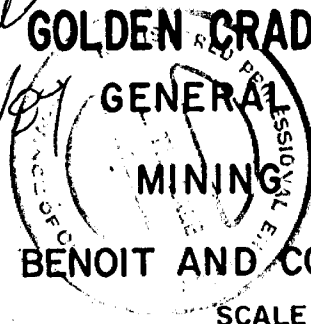
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FEB 21 1984
MINING LANDS SECTION



- ① "HIGHWAY 11" GROUP
- ② "BLACK RIVER" GROUP

*J. V. Smith
Feb 13/81*

GOLDEN CRADLE RESOURCES LTD.
GENERAL LOCATION MAP
 OF
MINING PROPERTIES
 IN
BENOIT AND COOK TOWNSHIPS, ONTARIO



SCALE : 1" = 20 MILES

INTRODUCTION

The Black River Group of 30 claims has been subjected to various exploration efforts over the past few years.

In 1972-73, Noranda followed airborne work by a ground VEM survey which outlined two long east-trending conductors. Noranda diamond drilled Hole B-73-1 to test the east end of the southern or "A" conductor. The conductor was explained by graphite but Hole B-73-1 also contained significant traces of zinc. The ground became open and was restaked by Lacana following release of Input Map P2250. Subsequent Lacana EM work using the Crone CEM confirmed Noranda's ground EM anomalies and added a new north-trending conductor called the "B" conductor. Lacana decided not to drill and the claims lapsed. In 1980-81 glacial drift studies were conducted in Benoit Township by the Ontario Geological Survey (O.G.S.) who drilled two reverse circulation holes in the neighbourhood of the Noranda EM conductors. Hole #80-04, located on the Range V to VI boundary line, lies due south and down glaciation from the EM conductors. Anomalous gold and zinc values were found in some of the drift fractions of hole 80-04. Hole 81-21, located on the Benoit-Cook township line, contained all the gold indicator minerals and some anomalous gold value. The source area could lie immediately north of hole 81-21. The ground covering the EM conductors and a possible gold source area for 81-21 was staked by the current holders in January of 1983.

PROPERTY OWNERSHIP, CLAIMS AND ACCESS

The claim block consists of thirty contiguous claims straddling the boundary of Benoit and Cook Townships in the Larder Lake Mining Division.

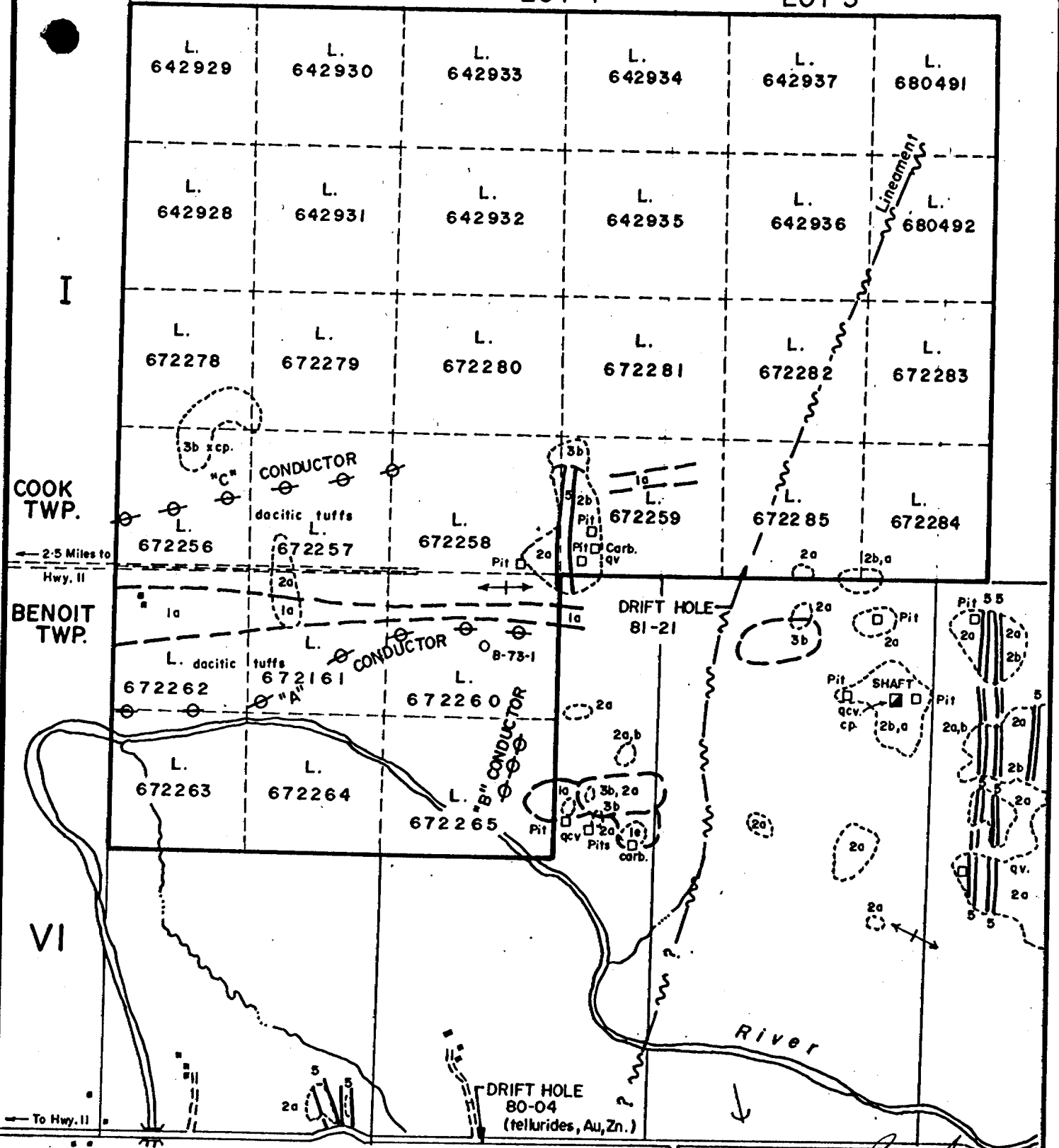
Access to the property is gained by a secondary road branching off of Highway No. 11 some 6.5 miles south of the village of Ramore. The secondary road travels easterly along the Benoit-Cook township boundaries

LOT 6

LOT 5

LOT 4

LOT 3



GOLDEN CRADLE RESOURCES LTD.

"BLACK RIVER" CLAIM GROUP

BENOIT AND COOK TOWNSHIPS

LARDER LAKE MINING DIVISION, ONTARIO

SCALE : 1" = 1/4 MILE

NOTE: Geology after Ontario Geological Survey Map P-329

J. J. [Signature]
 Feb 13/89
 PROFESSIONAL ENGINEER
 TINDALE

for 2.5 miles to the eastern boundary of the claim group.

The claims are described as follows:

<u>Claim No.</u>	<u>Location</u>	<u>Township</u>
L672260	NW/4 N/2 Lot 4 Con. VI	Benoit
L672261	NE/4 N/2 Lot 5 Con. VI	Benoit
L672262	NE/4 N/2 Lot 5 Con. VI	Benoit
L672263	SW/4 N/2 Lot 5 Con. VI	Benoit
L672264	SE/4 N/2 Lot 5 Con. VI	Benoit
L672265	SW/4 N/2 Lot 4 Con. VI	Benoit
L672256	SW/4 S/2 Lot 5 Con. I	Cook
L672257	SE/4 S/2 Lot 5 Con. I	Cook
L672258	SW/4 S/2 Lot 4 Con. I	Cook
L672259	SE/4 S/2 Lot 4 Con. I	Cook
L672278	NW/4 S/2 Lot 5 Con. I	Cook
L672279	NE/4 S/2 Lot 5 Con. I	Cook
L672280	NW/4 S/2 Lot 4 Con. I	Cook
L672281	NE/4 S/2 Lot 4 Con. I	Cook
L672282	NW/4 S/2 Lot 3 Con. I	Cook
L672283	NE/4 S/2 Lot 3 Con. I	Cook
L672284	SE/4 S/2 Lot 3 Con. I	Cook
L672285	SW/4 S/2 Lot 3 Con. I	Cook
L642928	SW/4 N/2 Lot 5 Con. I	Cook
L642929	NW/4 N/2 Lot 5 Con. I	Cook
L642930	NE/4 N/2 Lot 5 Con. I	Cook
L642931	SE/4 N/2 Lot 5 Con. I	Cook
L642932	SW/4 N/2 Lot 4 Con. I	Cook
L642933	NW/4 N/2 Lot 4 Con. I	Cook
L642934	NE/4 N/2 Lot 4 Con. I	Cook
L642935	SE/4 N/2 Lot 4 Con. I	Cook
L642936	SW/4 N/2 Lot 3 Con. I	Cook
L642937	NW/4 N/2 Lot 3 Con. I	Cook
L680491	NE/4 N/2 Lot 3 Con. I	Cook
L680492	SE/4 N/2 Lot 3 Con. I	Cook

SURVEY METHOD

A central east-west base line was cut and picketed along the road forming the boundary between Benoit and Cook Townships. From this baseline lines were turned off to the north and south at 400 foot intervals over the western portion of the property and at 800 foot intervals over the eastern part of the property.

Along the north south picketed lines magnetometer readings were taken at 100 foot intervals utilizing a GEM Systems Model GSM 8 proton magnetometer. A base station continuously recording (GEM Systems Model GSM 18 Magnetometer was set up on claim 672262. Field readings were corrected nightly for

diurnal variations and plotted on a base map at 1"=500 feet.

OBSERVATIONS

1. Magnetically the property is flat over the southern portion of the property.

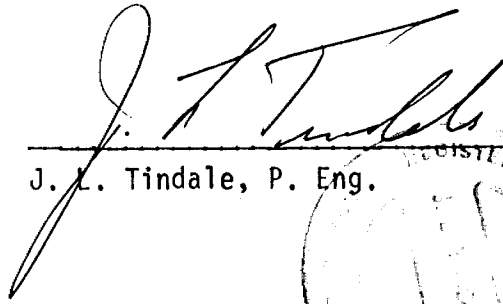
2. Across the northern row of claims in Cook Township magnetic intensity increases to a maximum of 5,000 gammas over background of 800 gammas along an east-west trending zone. This is probably a contact zone between felsic volcanics mapped on the more southerly claims and mafic rocks.

3. A portion of the northeasterly section of the property was covered with water due to flooding from beaver dams making traverses difficult in that sector.

CONCLUSIONS

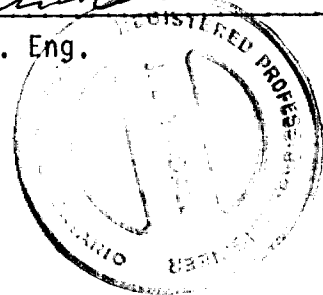
The magnetic component of the property is relatively flat and featureless except for an easterly trending feature cutting through the most northerly claims in the group. This is interpreted as a probable contact zone between mafic and less basic rock types. Examination of this area of higher than normal magnetics for rock type differentiation is warranted.

Respectfully submitted,



J. L. Tindale, P. Eng.

February 13, 1984



CERTIFICATE OF QUALIFICATIONS

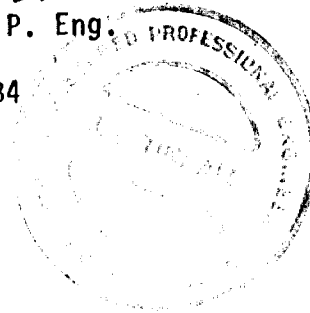
I, J. L. Tindale, of the city of Toronto in the Province of Ontario,

HEREBY CERTIFY

- (1) THAT, I am a registered Professional Engineer in the Province of Ontario;
- (2) THAT, I hold a Bachelor of Science degree Honours Geology from McMaster University; graduating in 1956, and have continuously practised as a geologist since that time;
- (3) THAT, I was present on the ground prior to and during the survey in the Benoit Township property;
- (4) THAT, the field work which formed the basis for this report was performed under my personal supervision.


J. L. Tindale, P. Eng.

February 13, 1984





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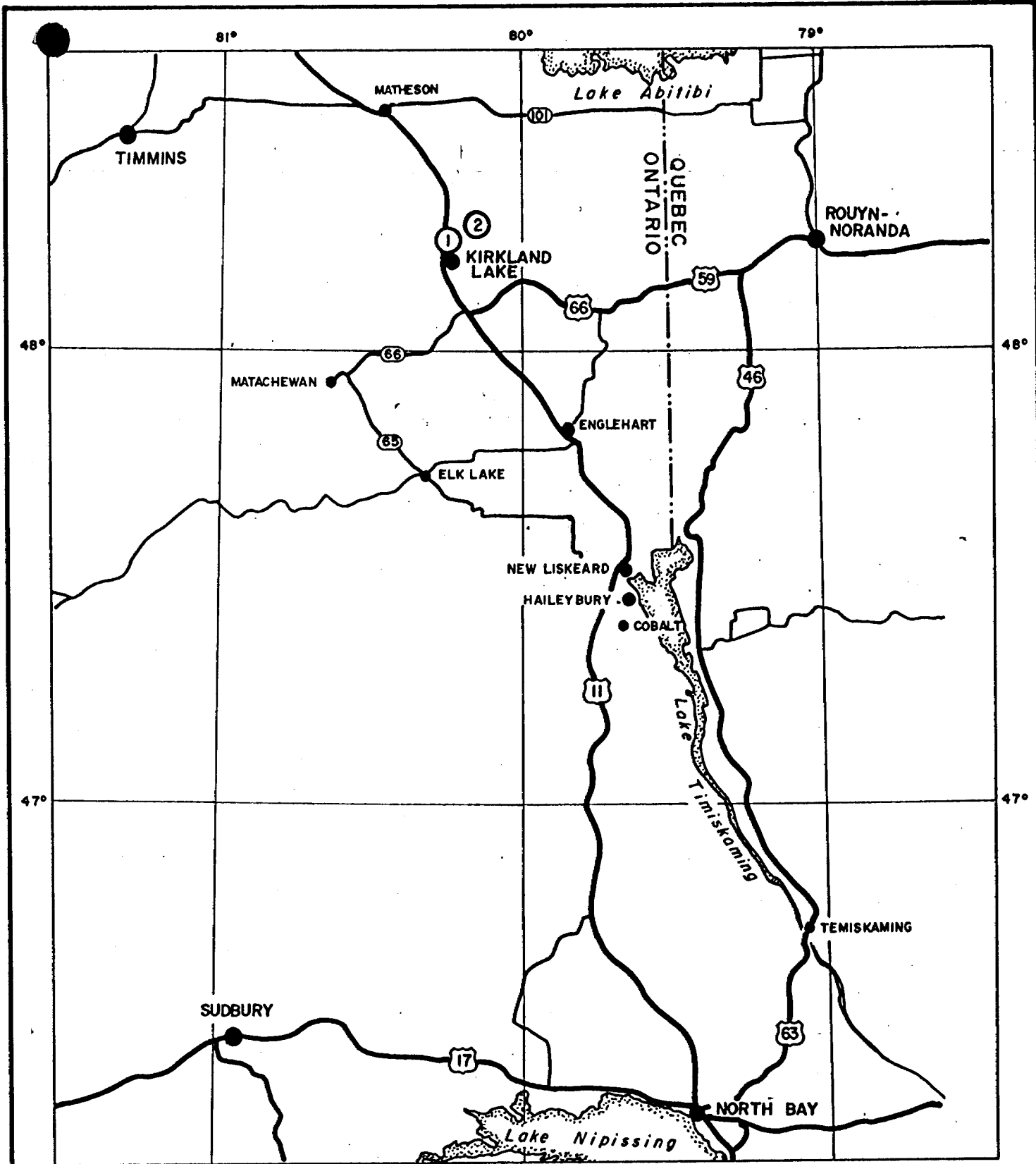
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LOT 6

LOT 5

LOT 4

LOT 3

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672256

L.
672257

L.
672258

L.
672259

L.
672285

L.
672284

COOK
TWP.

← 2.5 Miles to
Hwy. 11

BENOIT
TWP.

L. dacitic
672262

L. dacitic
672161

L.
672260

L.
672263

L.
672264

L.
672265

DRIFT HOLE
81-21

SHAFT
Pit
qcv
cp

DRIFT HOLE
80-04
(tellurides, Au, Zn.)

River



GOLDEN CRADLE RESOURCES LTD.

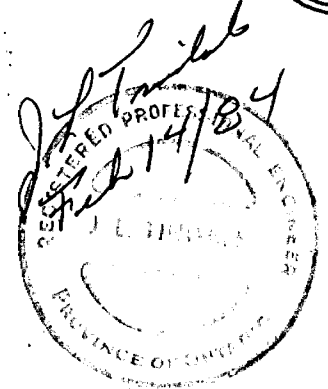
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L680492	Se/4 N/2 Lot 3 Con. I	Cook

SURVEY METHOD

North-south cut and chained picket lines were turned off of a central base line located along the boundary between Benoit and Cook Townships. Lines are 400 feet apart over the western sector of the property and 800 feet apart over the eastern sector. Picket placement is every 100 feet along the north-south lines.

Utilizing a Geonics Model EM-16 tuned to NAA (Cutler, Maine) at a frequency of 17.8 kHz readings were taken at 100 foot picket stations facing southwest in the in phase and quadrature mode.

Readings were plotted from the null point for both the in phase and quadrature on field base maps and subsequently profiled upon the same map. The inphase data were later filtered utilizing the Fraser Method and contoured as an assist in interpretations.

OBSERVATIONS

1. There is a good deal of VLF anomaly on the property, some of which is quite strong but usually not in good quality.

2. It would appear that the Input feature on line 44620 S and tie line 49010 W is the same event as that located on VLF survey L36E at 2+50S. Also it would appear to be the same anomaly tested by the Noranda 1973 drill hole which encountered a lot of broken core, shearing and carbonatization throughout the 300' hole, plus disseminations of sulphides: pyrrhotite, pyrite, mainly. Grading the VLF features present this anomaly is considerably weaker than other features apparent.

3. The strongest anomaly present on the grid strikes east west across claims 642931, 642932 and 642935. It appears to be a zone of shearing on the south side of the magnetic feature picked up in the survey over the grid.

4. Several anomalies are apparent in the central portion of the grid which have same magnetic, albeit weak, expression associations with them.

5. South of the base line are a number of weaker anomalies which have been partially tested by other companies, ie. Lacana, Noranda. None of these have any magnetic expression of note.

CONCLUSIONS AND RECOMMENDATIONS

There is plenty of VLF anomaly present on the grid. When taken in conjunction with the amount of shearing and carbonatization present in the Noranda hole it is interpreted as a good environment for gold mineralization.

A comprehensive interpretation of all available data should be one of the first prerequisites for any new investigations leading to drilling on the claims. Geological mapping, sampling and if overburden is not prohibitive trenching of the conductor areas should be undertaken during summer conditions.

Respectfully submitted,

J. L. Tindale
J. L. Tindale, P. Eng.
Geologist

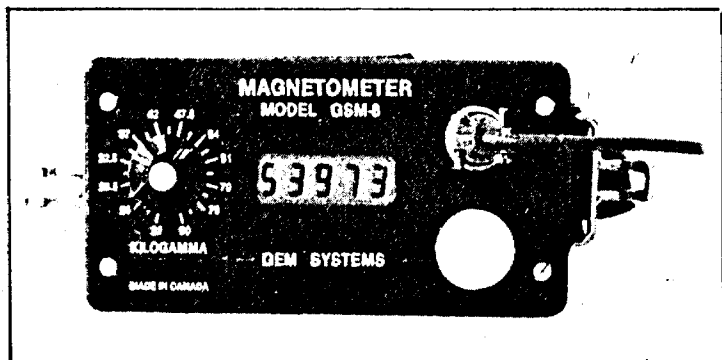


Toronto, Ontario
February 14, 1984

GEM SYSTEMS

GSM-8 PROTON MAGNETOMETER

FEATURES



- 1 gamma resolution and accuracy, 0.5 gamma optional
- Worldwide range
- High gradient tolerance
- Excellent visibility of the display in any ambient light
- Display stays active between readings
- WORLD'S LIGHTEST AND MOST COMPACT 1 GAMMA PROTON PRECESSION MAGNETOMETER
- External trigger and digital output standard, analog output optional
- Rugged, all-metal package
- No-lock indication
- Polarize indication

The GSM-8 is a lightweight one gamma proton precession magnetometer designed primarily for hand held and base station operations, but adaptable for other Earth's magnetic field measurements like airborne/marine surveys, pipe and cable detection and tracking, treasure hunting etc.

The instruments power consumption, size and weight have been minimized to make it the World's lightest and most compact one gamma proton precession magnetometer.

Rugged, wide temperature range liquid Crystal Display allows for easy reading in bright sunlight and an all-metal package ensures lasting use in rough field conditions.

Flexible design of electronics enables a wide selection of cycling speeds and other necessary features for almost universal Earth's field measurements, and complete selftest feature ensures reliable operation and early warning of instrument malfunction due to interferences like excessive field gradient, power line or other electromagnetic radiation, or internal breakdown.



- Shoulder and/or belt strap for easy carrying
- Sensor back-pack for hand-free operation optional
- Nonmagnetic battery pack optional
- Custom modifications available

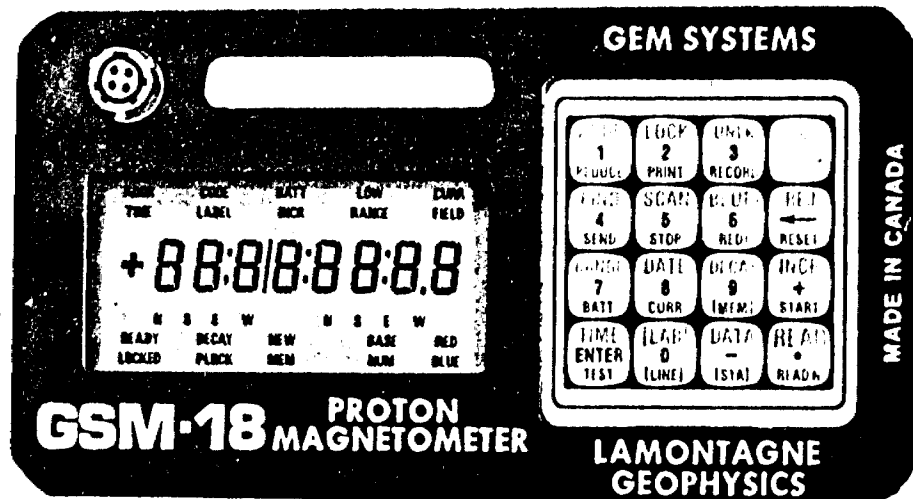
GEM SYSTEMS, INC.
105 Scarsdale Road
Don Mills (Metro Toronto), Ontario
Canada M3B 2R5
Telephone: (416) 441-3210
Telex: 06-966566

SPECIFICATIONS

RESOLUTION:	1 gamma or 0.5 gamma optional
ACCURACY:	± 1 gamma over operating range
RANGE:	20,000 - 100,000 gamma in 23 overlapping steps
GRADIENT TOLERANCE:	Up to 5000 gamma/meter
OPERATING MODES:	MANUAL PUSHBUTTON, new reading every 1.85 sec., display active between readings CYCLING, pushbutton initiated, 1.85 sec. period SELFTEST cycle, pushbutton controlled, 7 sec. period
OUTPUT:	VISUAL: 5 digit 1 cm (0.4") high Liquid Crystal Display, visible in any ambient light DIGITAL: Multiplied precession frequency and gating pulse ANALOG: 0-99 gamma (optional)
EXTERNAL TRIGGER:	Permits externally triggered cycling with periods longer than 1.85 sec. (cycling faster than once per sec. optional)
POWER REQUIREMENTS:	10-18V DC 8Ws per reading
POWER SOURCE:	INTERNAL: 12 V 0.75 Ah NiCd rechargeable battery, 3,000 readings from fully charged battery EXTERNAL: 12-18V
BATTERY CHARGER:	Input: 120/220 V 50/60 Hz, Output 75 mA DC constant current
OPERATING TEMPERATURE:	-40 to +55 C
DIMENSIONS:	CONSOLE: 15 x 8 x 15 cm (6 X 3¼ x 6") SENSOR: 14 x 7 cm dia (5¼ x 2¾" dia) STAFF: 175 cm (70") extended, 53 cm (21") collapsed or sectional 45 cm (18") each section
WEIGHT:	2.7 kg (6 lb) complete, 2.3 kg (5 lb) in back-pack mode
STANDARD PACKAGE:	CONSOLE, with batteries, carrying harness SENSOR, with cable STAFF, collapsible, or sectional
STANDARD ACCESSORIES:	BATTERY CHARGER, MANUAL, CARRYING CASE
GUARANTEE:	15 Months from the date of shipping

GSM-18

MEMORY STORAGE PROTON PRECESSION MAGNETOMETER



The GSM-18 is a lightweight 0.1 nT proton precession magnetometer with built-in microprocessor and memory to allow for automatic data collection and storage in internal memory, correction of diurnal variations and subsequent printouts or archiving on tape.

The GSM-18 is made with the operator in mind: it is compact, lightweight, it allows for full data labelling (actual coordinates can be stored) and it takes and stores the reading with a depression of a single key, synchronously with the base station. It then automatically updates the label for the next reading.

The operator can quickly and easily examine collected data at any time. A unique locking feature protects the data from accidents or misuse. The GSM-18 communicates with the operator via a large number of annunciators revealing the status of the instrument and confirming operators actions. Vital parameters like battery voltage, polarising current and proton precession decay constant are monitored and labelled if outside of normal limits.

The GSM-18 can operate as a field magnetometer or a base station with identical hardware and software. In base station mode the rate of reading is fully programmable from once per 2 sec to once per hour. The capacity of the internal memory is sufficient for 13 hour operation at maximum rate of reading. In a hand held mode it can store 3000 fully labelled readings with standard memory size, expandable to 6000 or 9000 readings.

The SCAN and FIND functions allow the operator to search through and examine the stored data.

The 16 key keyboard with tactile feedback has three modes of operation for a quick and easy set-up and use of the magnetometer. Communications between the GSM-18 units and a variety of peripherals (printers, tape decks or other computers) or other GSM-18s is insured via a parallel 37 pin connector.-

By interconnecting the GSM-18 and an identical base station and selecting the REDUCE function the data are corrected for diurnal variations and ready for printing or storage on tape within minutes.

FEATURES:

- Hand held or base station operation
- Data collection and storage by depressing a single key
- Labelling allows for real coordinates with cardinal points of compass
- Automatic label updating
- Automatic synchronization with base station readings
- Storage capacity: 3120 readings standard, 6300 or 9480 optional
- Base station capacity: 23,400 readings (13 hr. operation at 2 sec. intervals)
- Automatic correction of diurnal variations
- Data print-outs or optional archiving on computer compatible tape
- In-field data recall
- Full diagnostics
- Automatic tuning
- Adaptable tolerance to high gradients
- Very compact and light - 4.5 kg. total weight with batteries, sensor and staff, 3.6 kg in back-pack mode
- Compatible with Lamontagne Geophysics Field Computer GFC-1
- Memory expandable to 32k or 48k bytes
- Low cost cassette recorder, reader and interface unit optional

SPECIFICATIONS:

Resolution: 0.1 nT (0.1 gamma)

Absolute Accuracy: 0.5 nT

Range: 20,000-100,000 nT, automatic tuning

Gradient Tolerance: up to 5000 nT/m

Operating Modes:

Manual: automatic storage of label, time, magnetic field, error code

Base station: 2 sec to 60 min intervals, automatic storage of time and magnetic field

Storage capacity:

Manual operation: 3120 readings standard, 6300 or 9480 optional

Base station: 7700 readings stand. 15,500 or 23,400 optional (13 hr operation at 2 sec intervals)

Power consumption: 8Ws per reading 300 mW idle, 30mW stand-by

Power source: 12V, 2Ah Nicad rechargeable batteries standard, others optional

Operating temperature: -40 to +60C

Dimensions:

Console: 16 x 8.5 x 19 cm.
(6.3 x 3.3 x 7.5")

Sensor: 14 x 7 cm dia.
(5³/₄" x 2³/₄" dia.)

Staff: 4 sections 45 cm (18") ea.

Standard package:

Console with batteries, harness

Sensor with cable and connector

Staff

Standard Accessories:

Battery charger, manual, carrying case.

GEM SYSTEMS, INC.

105 Scarsdale Road
Don Mills (Toronto), Ontario

Canada M2K 1W9

Telephone: (416) 441-3210, Telex: 06-966566

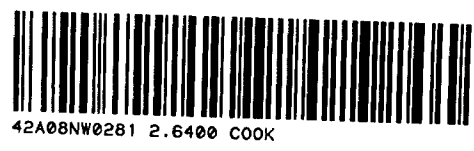
LAMONTAGNE GEOPHYSICS LTD.

740 Spadina Avenue

Toronto, Ontario

Canada M5S 2J2

Telephone: (416) 968-0520



File # 672256) W8408.11 The

Type of Survey(s) MAGNETOMETER & VLF (EM-16)		Township or Area COOK & BENOIT TWSP.
Claim Holder(s) APE MANAGEMENT LIMITED		Prospector's Licence No. T1304
Address 208 - 372 BAY STREET, TORONTO, ONTARIO M5H 2W9		
Survey Company STEVE WILLIAMS	Date of Survey (from & to) 7 Day 11 Mo. 83 Yr. 20 Day 11 Mo. 83 Yr.	Total Miles of line Cut 20.22
Name and Address of Author (of Geo-Technical report) J. L. TINDALE, P. ENG. 208 - 372 BAY STREET, TORONTO, ONTARIO M5H 2W9		

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

Mining Claims Traversed (List in numerical sequence)

Mining Claim		Expend. Days Cr.	Mining Claim		Expend. Days Cr.
Prefix	Number		Prefix	Number	
L	672256		L	642933	
	672257			642934	
	672258			642935	
	672259			642936	
	672260			642937	
	672261			680491	
	672262			680492	
	672263				
	672264				
	672265				
	672278				
	672279				
	672280				
	672281				
	672282				
	672283				
	672284				
	672285				
	642928				
	642929				
	642930				
	642931				
	642932				

LARDER LAKE MINING DIV.
RECEIVED
 JAN 12 1984
 AM PM
 7 8 9 10 11 12 1 2 3 4 5 6

Expenditures (excludes power stripping) **JAN 23 1984**

Type of Work Performed
MINING LA...

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. **30**

For Office Use Only

Total Days Cr. Recorded **1800** | Date Recorded **JAN 12 1984** | Mining Recorded *[Signature]*

Date Approved as Recorded | Branch Director *[Signature]*

Date **JAN. 10/84** | Recorded Holder or Agent (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



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) Electromagnetic (VLF)
Township or Area Benoit and Cook
Claim Holder(s) AFE Management Limited
208 - 372 Bay St., Toronto, Ont. M5H 2W9
Survey Company _____
Author of Report J. L. Tindale
Address of Author 208 - 372 Bay St. Toronto, Ont. M5H 2W9
Covering Dates of Survey Oct. 15/83 - Nov. 20/83
(linecutting to office)
Total Miles of Line Cut 20.22

MINING CLAIMS TRAVERSED
List numerically

see attached
(prefix) (number)

SPECIAL PROVISIONS
CREDITS REQUESTED

DAYS
per claim

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

ENTER 20 days for each
additional survey using
same grid.

Geophysical
-Electromagnetic 20
-Magnetometer _____
-Radiometric _____
-Other _____
Geological _____
Geochemical _____

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

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

DATE: Feb. 14/84 SIGNATURE: J. L. Tindale
Author of Report or Agent

Res. Geol. _____ Qualifications 63, 2846

Previous Surveys

File No.	Type	Date	Claim Holder

TOTAL CLAIMS 30

If space insufficient, attach list

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations 887 Number of Readings 887
Station interval 100' Line spacing 400', 800'
Profile scale 1"=20%
Contour interval 5, 10, 50, on filtered data.

MAGNETIC

Instrument
Accuracy - Scale constant
Diurnal correction method
Base Station check-in interval (hours)
Base Station location and value

ELECTROMAGNETIC

Instrument Geonics EM-16
Coil configuration
Coil separation
Accuracy +/- 1%
Method: Fixed transmitter Shoot back In line Parallel line
Frequency 17.8 kHz, NAA Cutler Maine (specify V.L.F. station)
Parameters measured Inphase and Quadrature

GRAVITY

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

INDUCED POLARIZATION RESISTIVITY

Instrument
Method Time Domain Frequency Domain
Parameters - On time Frequency
- Off time Range
- Delay time
- Integration time
Power
Electrode array
Electrode spacing
Type of electrode

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

Corrections made _____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth -- include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

Additional information (for understanding results) _____

AIRBORNE SURVEYS

Type of survey(s) _____

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

Accuracy _____
(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

<u>Claim No.</u>	<u>Location</u>	<u>Township</u>
L672260	NW/4 N/2 Lot 4 Con. VI	Benoit
L672261	NE/4 N/2 Lot 5 Con. VI	Benoit
L672262	NE/4 N/2 Lot 5 Con. VI	Benoit
L672263	SW/4 N/2 Lot 5 Con. VI	Benoit
L672264	SE/4 N/2 Lot 5 Con. VI	Benoit
L672265	SW/4 N/2 Lot 4 Con. VI	Benoit
L672256	SW/4 N/2 Lot 5 Con. I	Cook
L672257	SE/4 S/2 Lot 5 Con. I	Cook
L672258	SW/4 S/2 Lot 4 Con. I	Cook
L672259	SE/4 S/2 Lot 4 Con. I	Cook
L672278	NW/4 S/2 Lot 5 Con. I	Cook
L672279	NE/4 S/2 Lot 5 Con. I	Cook
L672280	NW/4 S/2 Lot 4 Con. I	Cook
L672281	NE/4 S/2 Lot 4 Con. I	Cook
L672282	NW/4 S/2 Lot 3 Con. I	Cook
L672283	NE/4 S/2 Lot 3 Con. I	Cook
L672284	SE/4 S/2 Lot 3 Con. I	Cook
L672285	SW/4 S/2 Lot 3 Con. I	Cook
L642928	SW/4 N/2 Lot 5 Con. I	Cook
L642929	NW/4 N/2 Lot 5 Con. I	Cook
L642930	NE/4 N/2 Lot 5 Con. I	Cook
L642931	SE/4 N/2 Lot 5 Con. I	Cook
L642932	SW/4 N/2 Lot 4 Con. I	Cook
L642933	NW/4 N/2 Lot 4 Con. I	Cook
L642934	NE/4 N/2 Lot 4 Con. I	Cook
L642935	SE/4 N/2 Lot 4 Con. I	Cook
L642936	SW/4 N/2 Lot 3 Con. I	Cook
L642937	NW/4 N/2 Lot 3 Con. I	Cook
L680491	NE/4 N/2 Lot 3 Con. I	Cook
L680492	Se/4 N/2 Lot 3 Con. I	Cook

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations _____ Number of Readings 876
Station interval 100' Line spacing 400' and 800'
Profile scale _____
Contour interval 100, 500, 1000 gammas

MAGNETIC

Instrument GSM - 8 Proton Precision Magnetometer
Accuracy - Scale constant + 1 gamma
Diurnal correction method Continuous recording base station
Base Station check-in interval (hours) _____
Base Station location and value Claim L672262; GSM-18 base station recorder, set @ 58,000 gammas.

ELECTROMAGNETIC

Instrument _____
Coil configuration _____
Coil separation _____
Accuracy _____
Method: [] Fixed transmitter [] Shoot back [] In line [] Parallel line
Frequency _____ (specify V.L.F. station)
Parameters measured _____

GRAVITY

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

INDUCED POLARIZATION RESISTIVITY

Instrument _____
Method [] Time Domain [] Frequency Domain
Parameters - On time _____ Frequency _____
- Off time _____ Range _____
- Delay time _____
- Integration time _____
Power _____
Electrode array _____
Electrode spacing _____
Type of electrode _____

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

Corrections made _____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____
(type, depth -- include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

Additional information (for understanding results) _____

AIRBORNE SURVEYS

Type of survey(s) _____

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

Accuracy _____
(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

GEOCHEMICAL SURVEY - PROCEDURE RECORD

Numbers of claims from which samples taken _____

Total Number of Samples _____

Type of Sample _____
(Nature of Material)

Average Sample Weight _____

Method of Collection _____

Soil Horizon Sampled _____

Horizon Development _____

Sample Depth _____

Terrain _____

Drainage Development _____

Estimated Range of Overburden Thickness _____

SAMPLE PREPARATION
(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis _____

General _____

ANALYTICAL METHODS

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

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

Others _____

Field Analysis (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Field Laboratory Analysis

No. (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Commercial Laboratory (_____ tests)

Name of Laboratory _____

Extraction Method _____

Analytical Method _____

Reagents Used _____

General _____

Mining Lands Comments

To: Geophysics *Mr. Barlow.*

Comments

Approved Wish to see again with corrections

Date *April 19/89*

Signature *RRL*

To: Geology - Expenditures

Comments

Approved Wish to see again with corrections

Date

Signature

To: Geochemistry

Comments

LGD

Approved Wish to see again with corrections

Date

Signature

To: Mining Lands Section, Room 6462, Whitney Block. (Tel: 5-1380)

2.6400

1984 07 16

Your File: 11
Our File: 2.6400

Mr. George J. Koleszar
Mining Recorder
Ministry of Natural Resources
4 Government Road East
Kirkland Lake, Ontario
P2N 1A2

Dear Sir:

RE: Notice of Intent dated June 6, 1984
Geophysical (Electromagnetic and Magnetometer)
Survey on Mining Claims L 672256 et al in
the Townships of Cook and Benoit

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

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

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

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

S. Hurst:mc

cc: A.F.E. Management Ltd
Suite 208
372 Bay Street
Toronto, Ontario
M5H 2W9

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

cc: Resident Geologist
Kirkland Lake, Ontario

Encl.

Recorded Holder	AFE MANAGEMENT
Township or Area	COOK AND BENOIT TOWNSHIPS

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical Electromagnetic _____ 20 days Magnetometer _____ 40 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.	L 672256 to 62 inclusive 672265 672278 to 285 inclusive 642928 to 935 inclusive 680492

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

<u>10 DAYS ELECTROMAGNETIC</u> <u>20 DAYS MAGNETOMETER</u> L 672264 642936 642937 680491	<u>5 DAYS ELECTROMAGNETIC</u> <u>10 DAYS MAGNETOMETER</u> L 672263
---	--

No credits have been allowed for the following mining claims

<input type="checkbox"/> not sufficiently covered by the survey	<input type="checkbox"/> 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:



Ministry of
Natural
Resources

June 21/84

Your file: 11

1984 06 06

Our file: 2.6400

Mr. George J. Koleszar
Mining Recorder
Ministry of Natural Resources
4 Government Road East
Kirkland Lake, Ontario
P2N 1A2

Dear Sir:

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

For further information, if required, please contact Mr. F.W. Matthews at 416/965-6918.

Yours very truly,



S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-1316

R¹² S. Hurst:mc
Encls.

cc: AFE Management Limited
Suite 208
372 Bay Street
Toronto, Ontario
M5H 2W9

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



Ministry of
Natural
Resources

Notice of Intent
for Technical Reports

1984 06 06

2.6400/11

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

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

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

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

1984 03 14

Y
Our File: 2.6400
Your File: 11

Mining Recorder
Ministry of Natural Resources
4 Government Road East
P.O. Box 984
Kirkland Lake, Ontario
P2N 1A2

Dear Sir:

We have received reports and maps for a Geophysical
(Electromagnetic and Magnetometer) survey submitted under
Special Provisions (credit for Performance and Coverage)
on mining claims L 672256 et al in the Townships of Cook
& Benoit.

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

Yours sincerely,

B.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-6918

A. Barr:dg

cc: A.F.E. Management Ltd.
208 - 372 Bay Street
Toronto, Ont.
M5H 2W9
Attn: J.L. Tindale, P.Egg.

A F E management limited

372 BAY STREET, SUITE 208
TORONTO, ONTARIO M5H 2W9
(416) 366-4257

February 15, 1984

Ministry of Natural Resources
Mining Lands Section
Rm. 6610, Whitney Block
99 Wellesley Street West
Toronto, Ontario
M7A 1W3

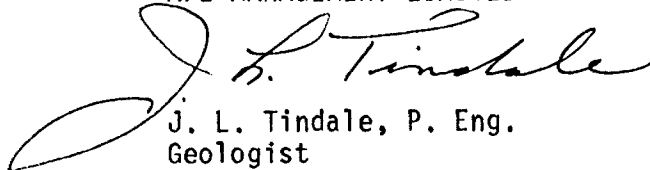
Gentlemen:

RE: Assessment work on Properties (2)
in Benoit and Cook Townships
Larder Lake Mining Division

Enclosed please find duplicate reports on assessment work carried out in the above captioned area during 1983. Report of work forms have been filed previously with the Mining Recorder in Kirkland Lake.

Yours very truly,

AFE MANAGEMENT LIMITED


J. L. Tindale, P. Eng.
Geologist

JLT:acp

Enclosures

RECEIVED	
Land Management Branch	
CIRCULATE	<input type="checkbox"/>
COMMENTS PLEASE	<input type="checkbox"/>
M	
FEB 21 1984	
E. P. ANDERSON	
J. R. MORTON	
J. C. SMITH	
W. L. GOOD	
J. M. SMALL	
RETURN TO R. 6643	

RECEIVED

FEB 21 1984

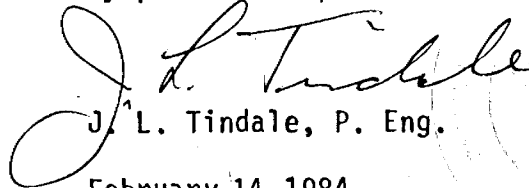
MINING LANDS SECTION

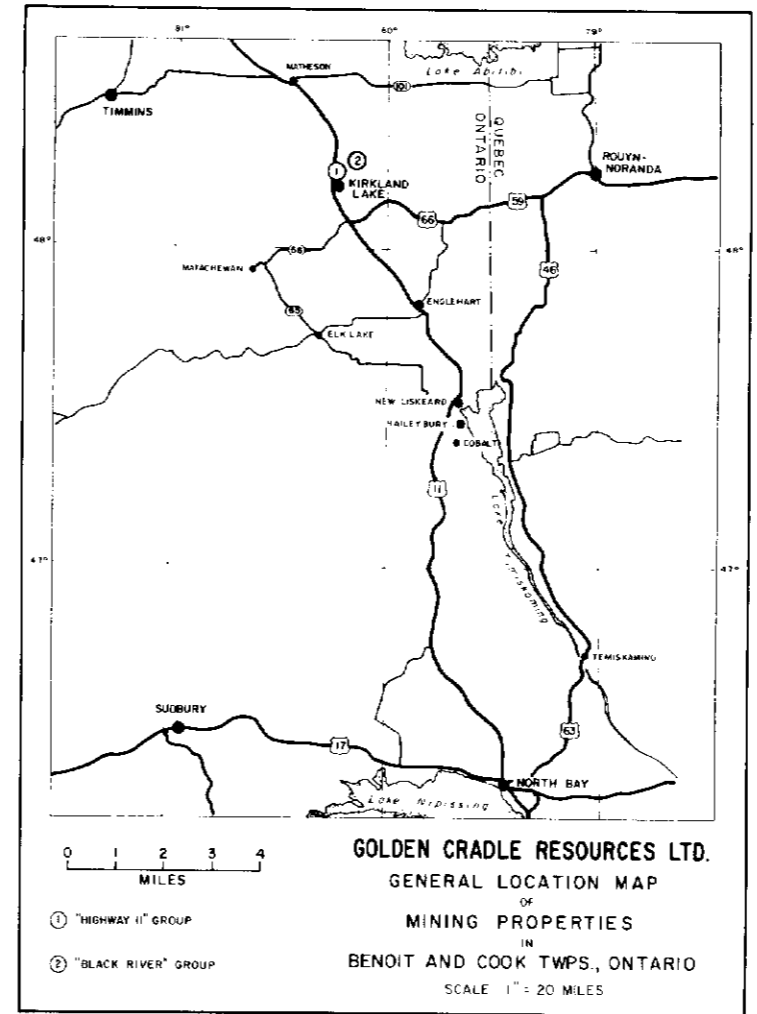
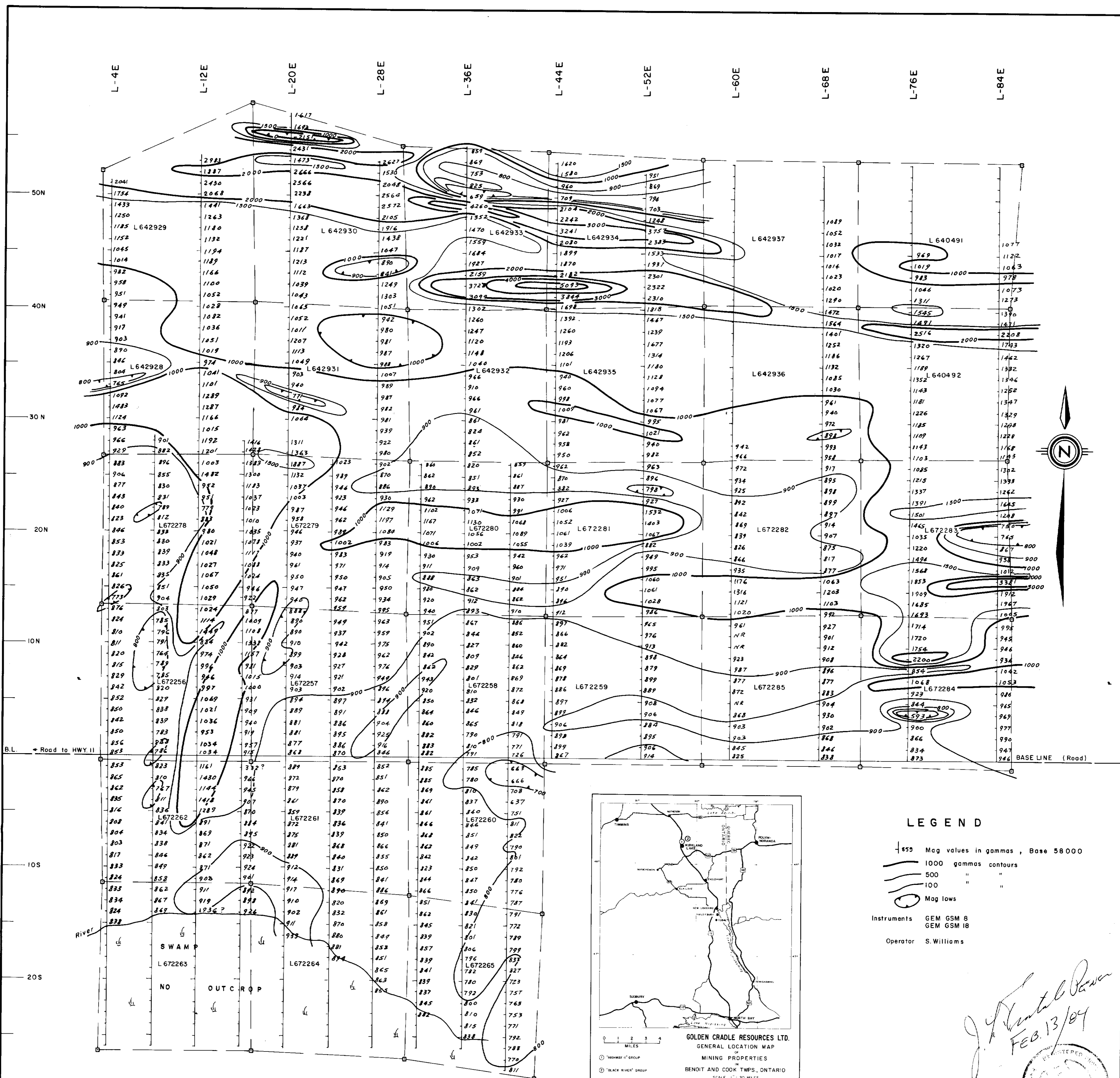
CERTIFICATE OF QUALIFICATIONS

I, J. L. Tindale, of the city of Toronto in the Province of Ontario,

HEREBY CERTIFY

- (1) THAT, I am a registered Professional Engineer in the Province of Ontario;
- (2) THAT, I hold a Bachelor of Science degree Honours Geology from McMaster University; graduating in 1956, and have continuously practised as a geologist since that time;
- (3) THAT, I was present on the ground prior to and during the survey in the Benoit Township property;
- (4) THAT, the field work which formed the basis for this report was performed under my personal supervision.


J. L. Tindale, P. Eng.
February 14, 1984



LEGEND

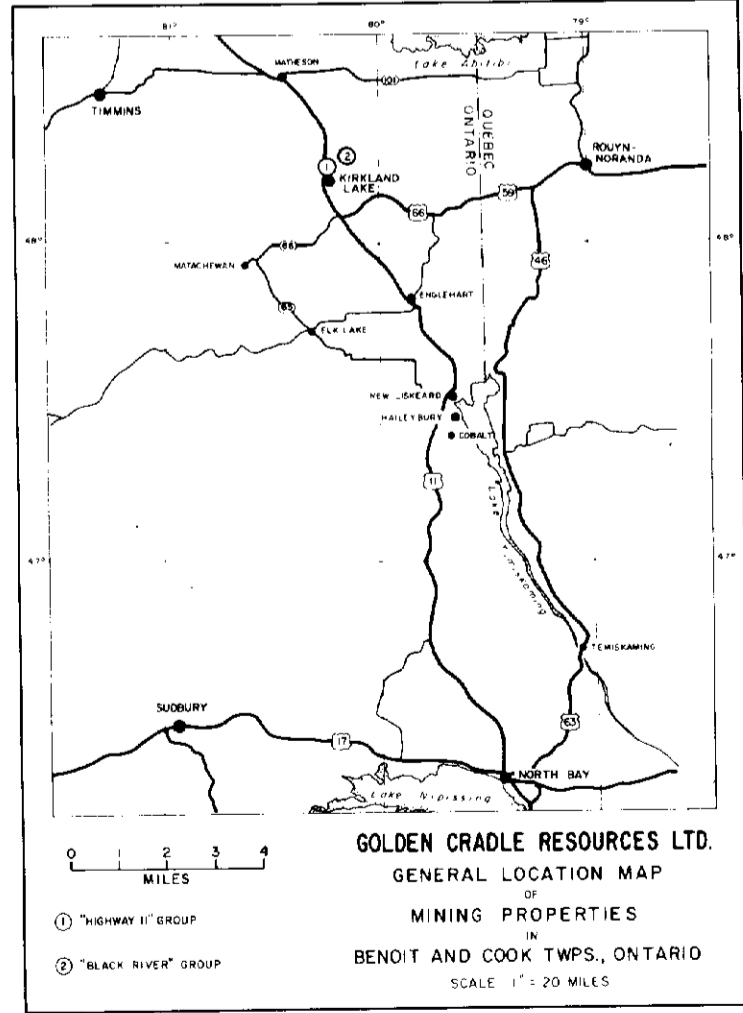
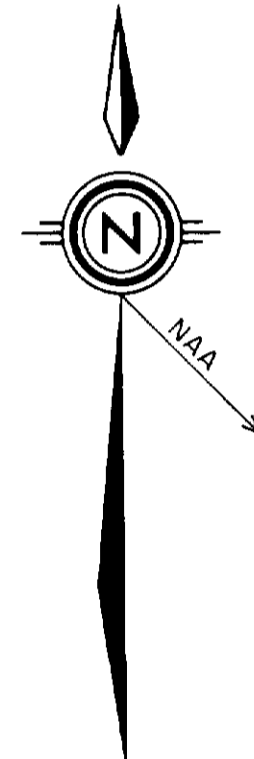
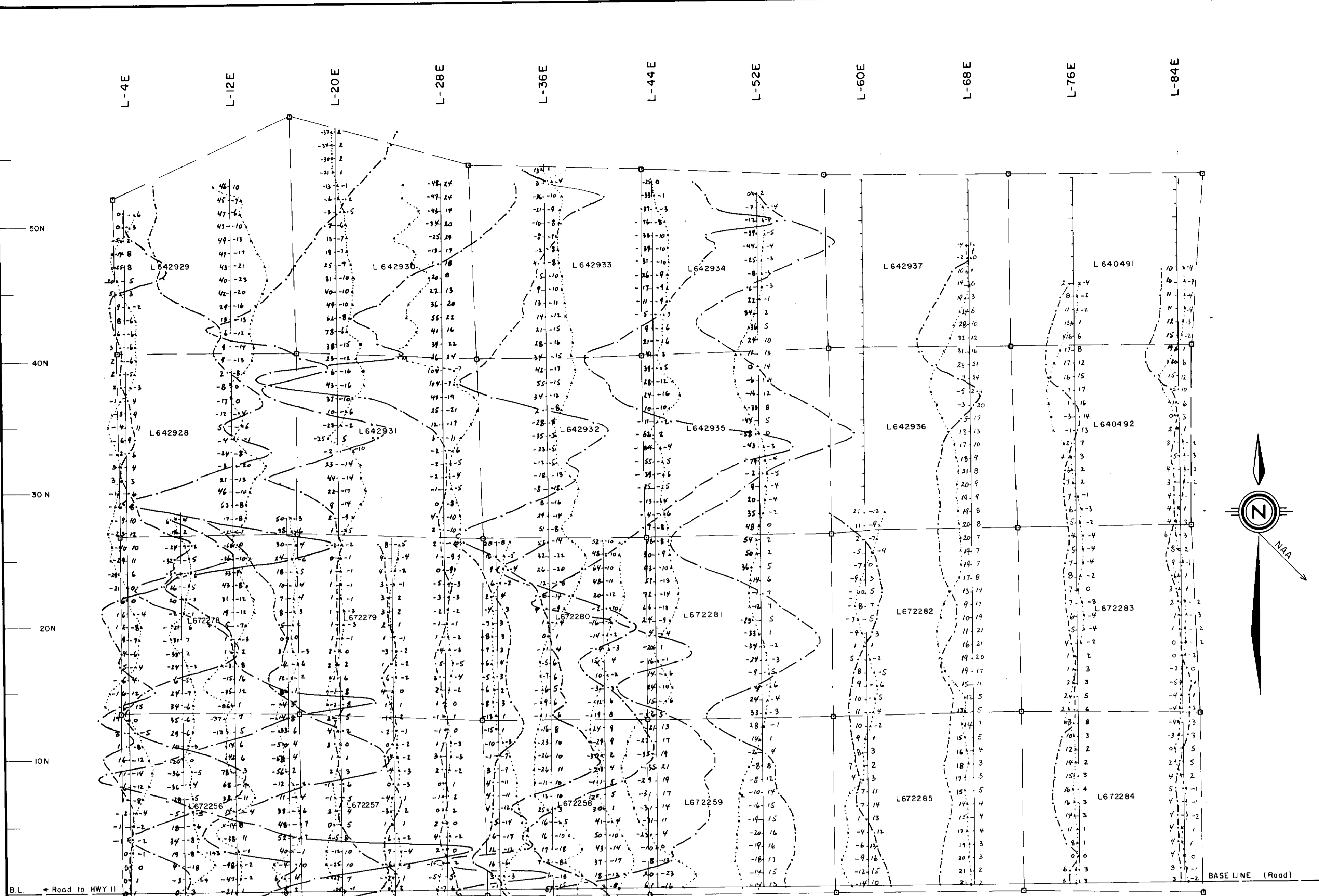
- ±55 Mag values in gammas, Base 58000
- 1000 gammas contours
- 500 " "
- 100 " "
- Mag lows

Instruments: GEM GSM 8, GEM GSM 18
 Operator: S. Williams

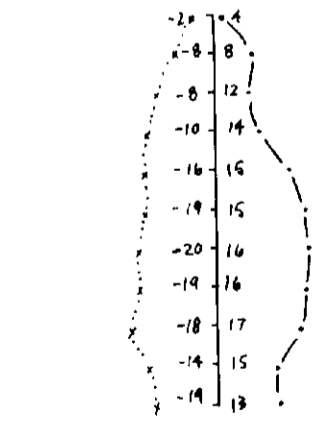
J. A. ...
 FEB. 13/84
 REGISTERED

GOLDEN CRADLE RESOURCES LTD.
 "BLACK RIVER" CLAIM GROUP
 MAGNETOMETER SURVEY
 BENOIT AND COOK TOWNSHIPS
 LARDER LAKE MINING DIVISION, ONTARIO
 SCALE: 1" = 500'





LEGEND
 In Phase Quadrature
 +40% 0 -40%



Instrument: Geonics EM16
 Station: NAA Cutler, Maine 17.8 kHz
 Readings taken facing south-west

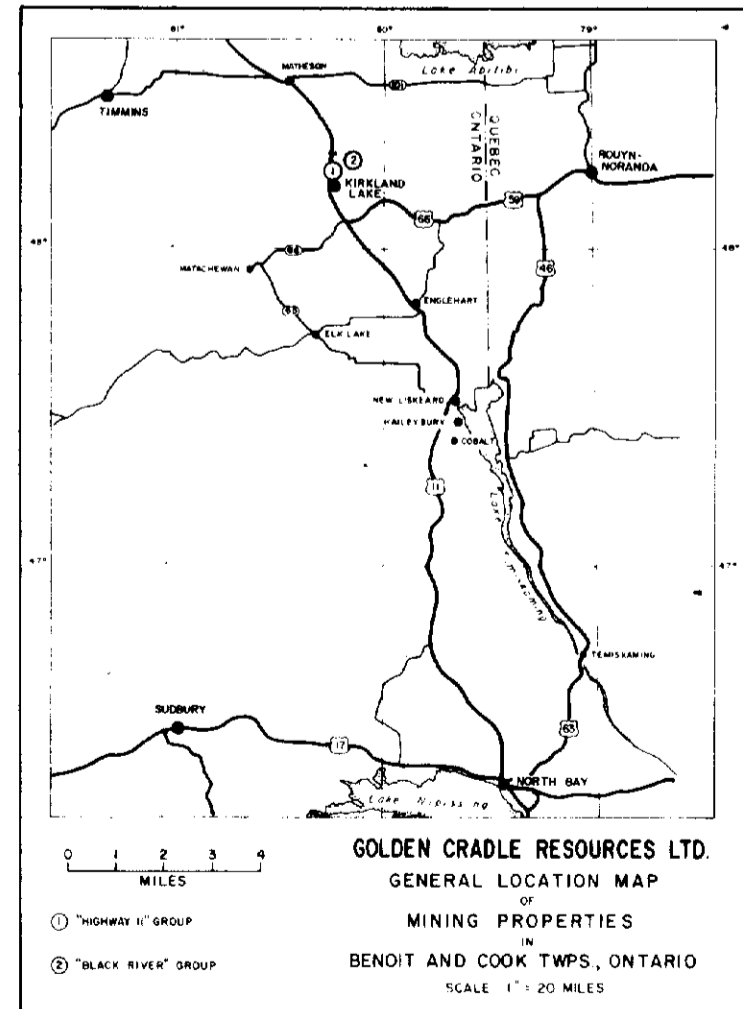
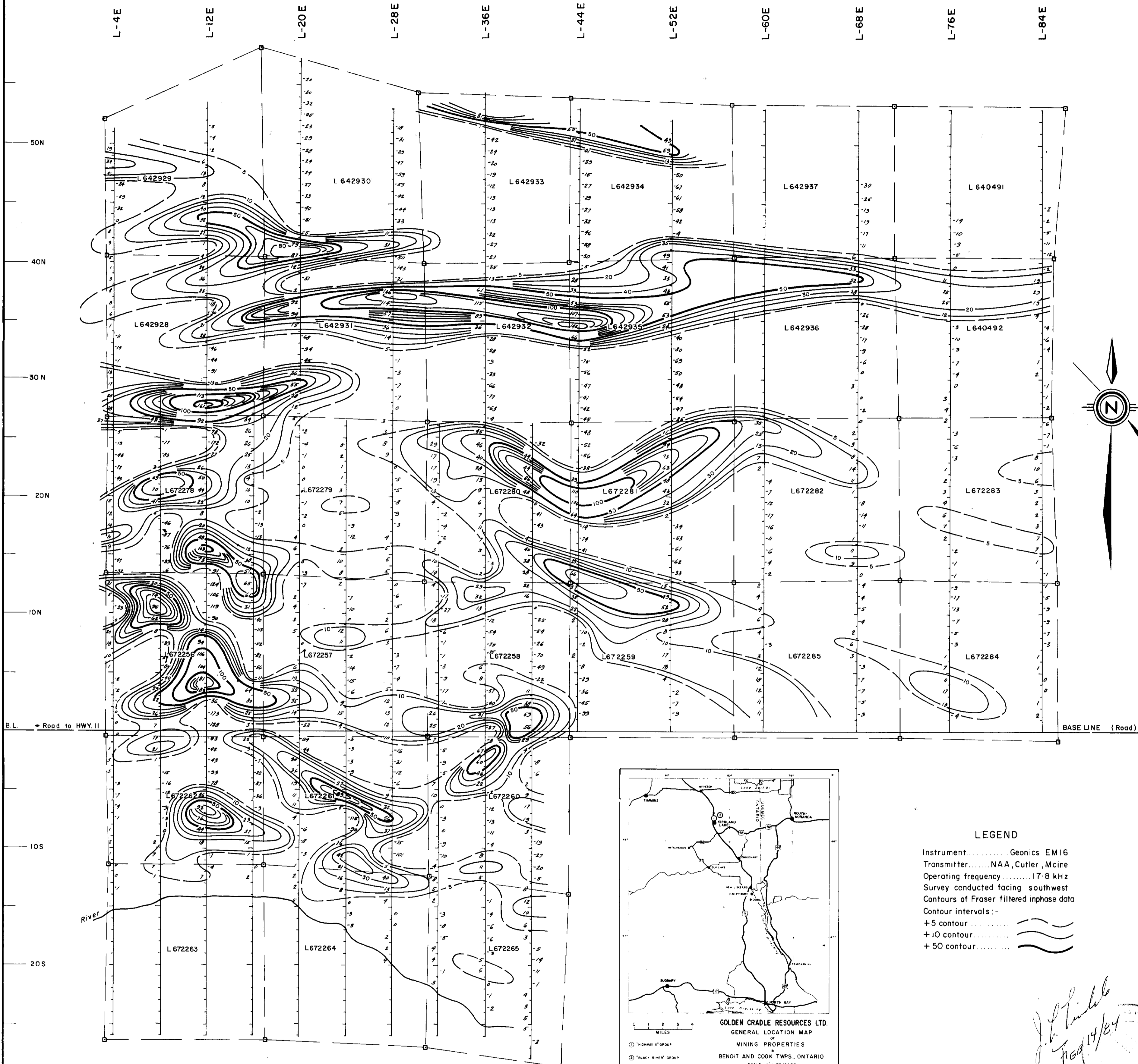
J. J. Hill
 Feb 14/04






GOLDEN CRADLE RESOURCES LTD.
 "BLACK RIVER" CLAIM GROUP
 VLF-EM 16 SURVEY
 BENOIT AND COOK TOWNSHIPS
 LARDER LAKE MINING DIVISION, ONTARIO
 SCALE: 1" = 500'

26,400





LEGEND

Instrument..... Geonics EM16
 Transmitter..... NAA, Cutler, Maine
 Operating frequency..... 17.8 kHz
 Survey conducted facing southwest
 Contours of Fraser filtered inphase data
 Contour intervals:-
 +5 contour..... 
 +10 contour..... 
 +50 contour..... 

J.P. ...
 FEB 14/84

GOLDEN CRADLE RESOURCES LTD.
"BLACK RIVER" CLAIM GROUP
FILTERED VLF EM CONTOURS
 BENOIT AND COOK TOWNSHIPS
 LARDER LAKE MINING DIVISION, ONTARIO

26400

SCALE: 1" = 500'

Dwg No. E.I.C.-1433

Prepared by:
EXCALIBUR INTERNATIONAL
 CONSULTANTS LIMITED
 Toronto, Canada

