010

REPORT ON THE OWL LAKE PROPERTY MAGNETOMETER AND VLF-EM GEOPHYSICAL SURVEYS FOR GOLDPAC INVESTMENTS LTD. AGUASABON LAKE AREA DISTRICT OF THUNDER BAY ONTARIO

George Cavey
March 25, 1985

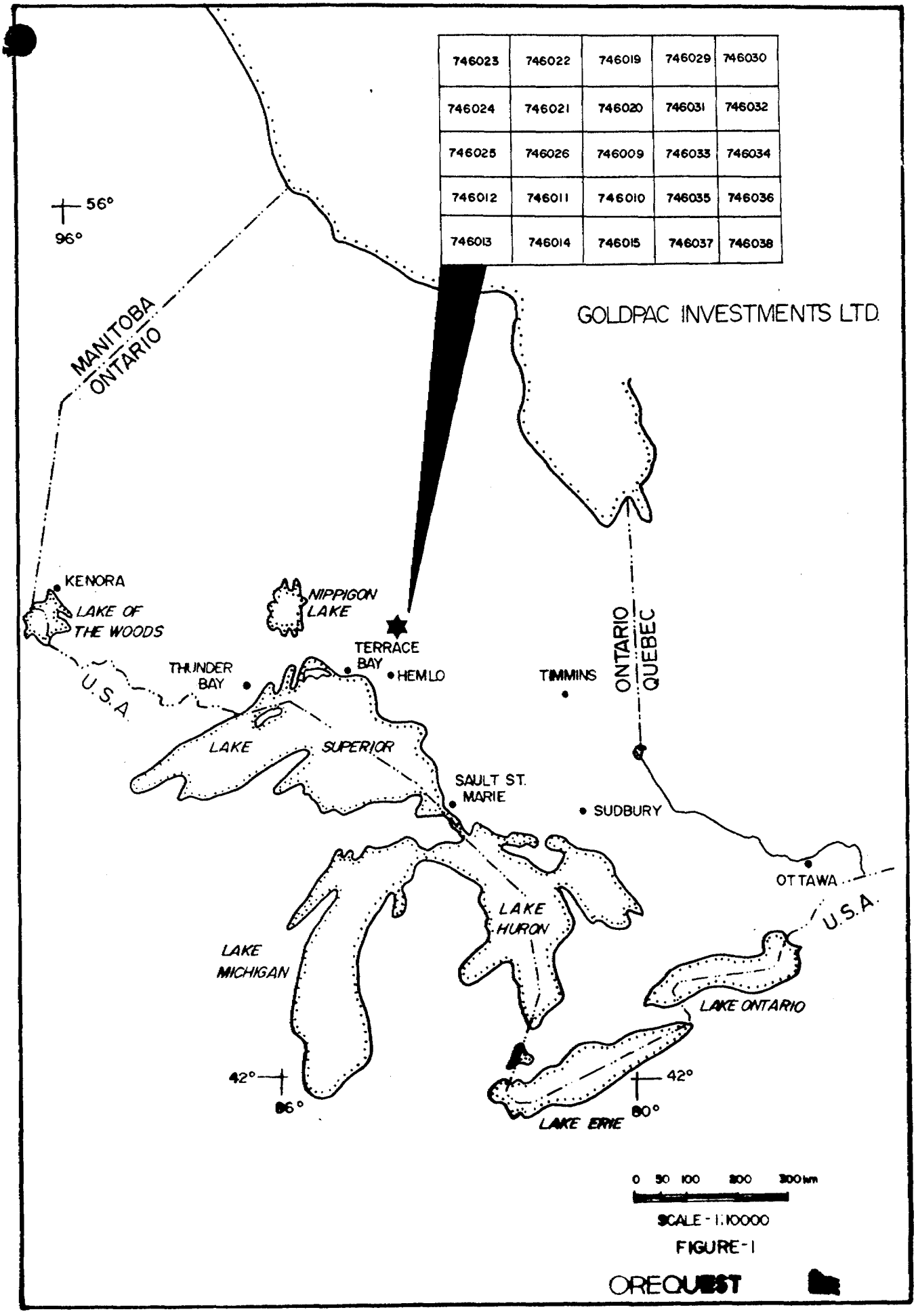
OREQUEST

OREQUEST CONSULTANTS LTD. 404 - 595 Howe Street, Vancouver, B.C., Canada, V6C 2T5 Telephone: (604) 688-6788

SUMMARY

The Goldpac Investments Ltd. Owl Lake property is located in the Terrace Bay, Ontario area which contains several gold and base metal deposits and occurrences. It is felt there is potential to discover potentially economic mineralization on the property.

Preliminary work consisting of magnetometer and very low frequency electromagnetic surveys has been completed on the Owl Lake property. Results of these surveys are weak and inconclusive, however, further work consisting of geological mapping, geochemical sampling and an induced polarization survey are recommended to fully test the property.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GOLDPAC INVESTMENTS LTD.
56°
96°
MANITOBA
ONTARIO
KENORA
LAKE OF THE WOODS
NIPPIGON LAKE
TERRACE BAY
THUNDER BAY
HEMLO
TIMMINS
ONTARIO
QUEBEC
U.S.A.
LAKE SUPERIOR
SAULT ST. MARIE
SUDBURY
OTTAWA
U.S.A.
LAKE HURON
LAKE MICHIGAN
LAKE ONTARIO
42°
86°
42°
80°
LAKE ERIE
0 50 100 200 300 km
SCALE - 1:10000
FIGURE-1
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George Cavey, Consulting Geologist

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1.0 INTRODUCTION

This report presents the results of geophysical surveys conducted on the 25 unpatented claim Owl Lake property owned by Goldpac Investtments Ltd. Magnetometer and very low frequency electromagnetic (VLF-EM) surveys were conducted over the property from January 23 to February 2, 1985.

The geophysical surveys were aimed at delineating potential contact zones, shears and faults which could then be explored in further detail by geological mapping and geochemical sampling. In particular the VLF-EM is useful in aiding geological mapping.

2.0 PROPERTY

2.1 LOCATION and ACCESS

The Owl Lake property is located approximately 5 kilometers east of Aguasabon Lake on the west side of Owl Lake. The nearest town is Terrace Bay which is 22 kilometers southwest of the claims.

Easiest access is by float plane or helicopter from Terrace Bay. The claims are centred at 48°59'N Latitude and 87°01'W Longitude.

2.2 CLAIM STATUS

The Owl Lake property consists of 25 contiguous unpatented mineral claims which encompass approximately 1,000 acres. The claims, staked in compliance of the Ontario Mineral Act, are held in good standing according to the records with the Ministry of Natural Resources and have an expiry date of August 2, 1985.

pending government approval of this geophysical report.

The claim block is shown on the Lower Aguasabon Lake (G-599), Ontario Ministry of Natural Resources claim sheet, in the Thunder Bay Mining Division of Ontario (Figure 2).

The Goldpac Investments claims are as follows:

Claim Number	Number of Claims	Assessment Work Due Date
TB 746009-746015	(7)	August 2, 1985
TB 746019-746026	(8)	August 2, 1985
TB 746029-746038	(10)	August 2, 1985

2.3 PHYSIOGRAPHY and VEGETATION

The subject claims are located within the Canadian Shield Physiographic belt which typically consists of low rolling hills separated by marshes, bogs and slow moving creeks. Relief on the property is approximately 140 metres with approximately 60% rock exposure. The western shoreline of Owl Lake rises steeply as a set of cliffs from lake level to the central part of the claims which is undulating and typical of the Terrace Bay topography.

Water is readily available from Owl Lake and from several ponds in the central portion of the property.

A thick secondary growth of white birch, balsam, fir, black spruce, red cedar, some jackpine and poplar cover the claim block. The undergrowth, which can be very dense, consists of intergrowths of maple, alder and hazel.

3.0 HISTORY and PREVIOUS WORK

No known previous exploration work has been conducted directly on the Owl Lake property, however, there has been a full scale exploration program immediately north of the claim block. Recently Goldpac Investments Ltd. acquired this property by staking an additional 13 claims contiguous to the north border of the Owl Lake property. This newly acquired property referred to as the Martin Hunt property, has had magnetometer, self potential and horizontal loop EM geophysical surveys conducted over the old claims. A moderate to strong northeast trending conductor was delineated. Three short diamond drill holes totalling 343 feet tested this zone in 1965 and resulted in discovery of massive and disseminated pyrite and pyrrhotite in silicified intermediate tuffs. Assays are not reported, however, at the time the target was molybdenite mineralization in granites which crosscut the tuffs. No molybdenite was encountered in the drilling, and it is not known if samples were assayed for gold as the program was aimed towards delineating molybdenum showings.

The second major showing is another molybdenite property called the Fenmac property. It is located one mile south of the southwest corner of Owl Lake. Molybdenum mineralization has been known here since at least 1937 when Ontario Department of Mines Geologist M.W. Bartley visited the property and reported that trenching, pitting and diamond drilling had been done. The next report of work on the property is a 1958 report (Checklin) which states that stripping, rehabilitating pits, sampling and geological mapping were conducted. In 1966, four diamond drill holes tested the "north showing" and the "main showing". Some good grades were reported, but there does not appear to be enough volume to

make the showing economic. Follow up work in 1969 consisted of magnetometer and soil surveys. Another soil survey was done in 1983.

In 1971, Kennco Explorations Ltd. employed the Lochwood Survey Corporation to conduct an airborne electromagnetic survey over the Schreiber-Terrace Bay area; 850 line miles were flown south of the subject claims. Several conductors were delineated, but the majority of them were not tested on the ground, possibly because two other anomalies, which were located elsewhere, had been interpreted as being small lenses of iron formation.

4.0 GEOLOGY

4.1 REGIONAL GEOLOGY

The general geology of the Santoy Lake area is shown on Map 2107, "Jackfish-Middleton Area", published in 1967 at a scale of 1"=1/2 mile. This map accompanies Ontario Geological Survey Geological Report 50 by J.W.R. Walker.

The oldest rock in the area comprise a system of nearly conformable early Precambrain volcanic and sedimentary rocks, intruded by basic rocks. The area has undergone folding, regional metamorphism and intrusion by early Precambrian granitic to syenitic bodies. Late Precambrian intrusive rocks of probable Keweenawan age include the Coldwell Syenitic Complex to the east and numerous diabase dikes (Figure 3).

The early Precambrian volcanic rocks in Santoy Lake range from basic to felsic in composition. The basic volcanics include massive pillowed lavas,

fragmental volcanics and tuffs which have been metamorphosed up to lower amphibolite facies grade. The felsic volcanics occur in a wide band in the northern half of the township and consist of lapilli tuff, agglomerate, crystal tuff and flows of porphyritic lava.

The sedimentary rocks include greywacke, shale, laminated siltstone, minor impure quartzite, chert and graphitic sulphide bearing schist. The greywackes appear to volcanically derived, as some of the greywacke beds are described as containing subangular fragments of volcanic rock. Chert and iron formation are described as occurring along the main volcanic sedimentary interface and contain moderate amounts of sulphides.

Tabular bodies of gabbroic and dioritic rocks occur subconformably within the volcanic sedimentary sequence. These may represent coarser grained phases of the basic volcanics with which they are most closely associated.

Diabase dikes are common in the area and crosscut the stratigraphy. Most dip nearly vertically and are thought to be late Precambrian (Keweenawan) in age.

The structure of the area is moderately complex. The volcanic-sedimentary sequence has been folded and intruded by irregular bodies of diorite. Transverse faulting is probably related to Keweenawan downwarping of the Lake Superior Syncline.

4.2 PROPERTY GEOLOGY

The property is mainly underlain by a package of basic to intermediate metavolcanic rocks. Two narrow, possibly economically important, bands of felsic metavolcanic and pyroclastic rocks cross the northern part of the property. Two diabase dikes cut through the northern and western regions of the claim group, while the southeastern corner of the claims is underlain by medium to coarse grained amphibolite.

5.0 GEOPHYSICAL SURVEYS

Magnetic and very low frequency electromagnetic (VLF-EM) surveys were carried out from January 23 to February 2, 1985. The surveys covered a total of 30 kilometers on lines spaced 100 metres apart. The lines were chained and flagged in a north-south direction with station spacing at 50 metre intervals. The surveys were conducted in the winter so that the eastern portion of the claims, which overlie Owl Lake, could be included in the grid area.

5.1 VLF-EM SURVEY

The very low frequency electromagnetic (VLF-EM) survey was conducted with a Geonics EM-16 receiver tuned to the transmitter, designated NAA, in Cutler, Maine. Readings were taken facing south.

Mr. L. LeBel, Geophysicist of M.P.H. Consultants, reviewed the data and the following is a summary of his observations:

> The VLF-EM survey recorded a few scattered, weak anomalies with in-phase amplitudes of less than 20%. The peak to peak width of the anomalies varies from 50 metres to 100 metres.
>
> Note that the readings were taken every 50 metres. The usual station spacing for a VLF-EM survey is 25 metres and it is common practice to employ 12.5 metre intervals to detail any anomalies that are recorded. This relatively dense station spacing assures that no anomalies are overlooked and also assures that their character (amplitude and width) are accurately defined.
>
> The best anomaly (31% in-phase amplitude) reflects a north dipping conductor located at 8+00E, 6+25N. The strike of this conductor must be short (100 metres or less) because no anomalies were recorded on lines adjacent to line 8+00E. This feature correlates with a small lake and is probably caused by a surficial (overburden) effect.
>
> Some of the other anomalies recorded by the survey, for example those located at 6+00E, 4+75N; 2+00E, 4+25N; 3+00E, 6+25S and 7+25S and 0+00, 6+00S, also coincide with lakes and/or swamps and therefore, probably also reflect surficial features.
>
> The series of anomalies recorded along the central portion of line 15+00E occurs in the vicinity of cliffs which border on Owl Lake and therefore, may be caused by topographic effects rather than bedrock conductors.
>
> In conclusion, the VLF-EM survey recorded a few weak anomalies on the Owl Lake property. The anomalies reflect a number of short, poor quality conductors, most of which can be attributed to surficial and/or topographic effects. The existence of up to 60% outcrop on the property reported by the survey operators, suggests that overburden cover is not extensive and that the VLF-EM survey should have been effective in outlining any conductive sulphides present.

5.2 MAGNETIC SURVEY

The magnetic survey was carried out using a Scintrex MP-2 proton precession magnetometer. Readings were taken in closed loops and data was corrected linearly for time to correct diurnal variations.

Mr. L. LeBel reviewed the magnetic data and assesses it as follows:

> The results of the magnetic survey conducted on the property appear to be noisy. The noise is manifested by contour lines which trend parallel to the grid lines and a number of spot highs and lows.
>
> The most significant anomalies recorded by the survey consist of a series of discontinuous highs with amplitudes of up to 1,000 gammas located along the south side of the grid. These features appear to reflect mafic intrusive rocks that are shown on the regional geology map of the area. The conductors located by the VLF-EM survey do not appear to exhibit a unique magnetic signature.
>
> The magnetic survey recorded a series of variable amplitude highs along the south side of the property which probably reflect mafic intrusive rocks.

6.0 CONCLUSIONS and RECOMMENDATIONS

The Goldpac claims lie in an area favourable to hosting economic mineralization as demonstrated by numerous gold and base metal occurrences found in the Terrace Bay area. The occurrence of massive sulphides on the newly acquired claims contiguous to the north show that mineralizing events have occurred in the immediate area and alludes to the possibility of mineralization continuing onto the original Goldpac claims. Geological mapping by the Ontario Department of Mines shows the occurrence of key felsic volcanic assemblages on the property. These felsic volcanics are an important host rock for disseminated gold deposits similar to those found at Hemlo.

Further work recommended should entail geological mapping and prospecting of the original claims and the newly acquired claims, soil geochemical surveys of selected sites and an induced polarization survey. The geological mapping and prospecting will provide a detailed geological map and locate mineralization. The soil sampling should follow the mapping and be restricted to areas that either the geology or geophysics have outlined as being interesting and needing further testing. The induced polarization survey would be helpful in discovering sulphide mineralization similar to that discovered on the claims to the north.

If results are encouraging the next phase of exploration consisting of detailed geophysics, soil sampling and trenching should be considered.

COST ESTIMATES

PHASE II

Linecutting - 30 km x $250/km	$ 7,500
Geological Mapping	5,000
Induced Polarization Survey	10,000
Geochemical Sampling	3,000
Analysis	5,000
Helicopter and Float Plane	4,000
Camp Costs	4,000
Report and Supervision	4,000
Contingencies @ 15%	6,400
	$48,900

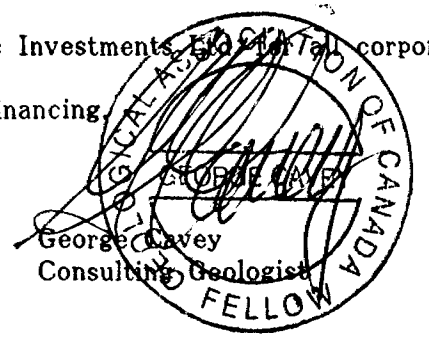
PHASE III

Trenching	$ 5,000
Detailed I.P.	10,000
Follow up sampling	5,000
Detailed Mapping	4,000
Helicopter and Float Plane	5,000
Camp Costs	5,000
Report and Supervision	4,500
Contingencies	5,800
	$44,300

QUALIFICATIONS

I, George Cavey, of 6891 Wiltshire Street, Vancouver, British Columbia hereby certify:

1. I am a graduate of the University of British Columbia (1976) and hold a BSc. degree in geology.
2. I am presently employed as a consulting geologist with OreQuest Consultants Ltd. of 404-595 Howe Street, Vancouver, British Columbia.
3. I have been employed in my profession by various mining companies for the past nine years.
4. I am a Fellow of the Geological Association of Canada.
5. I am a member of the Canadian Institute of Mining and Metallurgy.
6. The information contained in this report was obtained from data collected by OreQuest Consultants in January, 1985 as well as from government reports and private reports listed in the Bibliography.
7. Neither OreQuest Consultants Ltd. nor myself have direct or indirect interest in the property nor in the securities of Goldpac Investments Ltd.
8. This report may be used by Goldpac Investments Ltd. for [illegible] corporate purposes and including any public financing.



George Cavey
Consulting Geologist

DATED at Vancouver, British Columbia, this 25th day of March, 1985.

BIBLIOGRAPHY

BARTLEY, M.W.
1938: The Northeastern Part of the Schreiber Area, Ontario. Department of Mines 47th Annual Report, Part IX.

CAVEY, G.
1984: Report on the Santoy lake Property for Golden Dreams Resources Ltd., District of Thunder Bay, Ontario.

HAWKINS, T.G. and LEBEL, J.L.
1984: Preliminary Assessment and Recommended Work Program, Aguasabon Lake and Owl Lake Properties, Thunder Bay Mining Division, Ontario for Goldpac Investments Ltd.

LEBEL, J.L.
1985: Review of the VLF-EM and Magnetic Surveys for Goldpac Investments Ltd., M.P.H. Consulting Limited. Private letter.

WALKER, J.W.R.
1967: Geology of the Jackfish-Middleton Area, Geological Report 50, Ontario Department of Mines.

EM16

VLF Electromagnetic Unit

Pioneered and patented exclusively by Geonics Limited, the VLF method of electromagnetic surveying has been proven to be a major advance in exploration geophysical instrumentation.

Since the beginning of 1965 a large number of mining companies have found the EM16 system to meet the need for a simple, light and effective exploration tool for mining geophysics.

The VLF method uses the military and time standard VLF transmissions as primary field. Only a receiver is then used to measure the secondary fields radiating from the local conductive targets. This allows a very light, one-man instrument to do the job. Because of the almost uniform primary field, good response from deeper targets is obtained.

The EM16 system provides the *in-phase* and *quadrature* components of the secondary field *with the polarities indicated*.

Interpretation technique has been highly developed particularly to differentiate deeper targets from the many surface indications.

Principle of Operation
The VLF transmitters have vertical antennas. The magnetic signal component is then horizontal and concentric around the transmitter location.

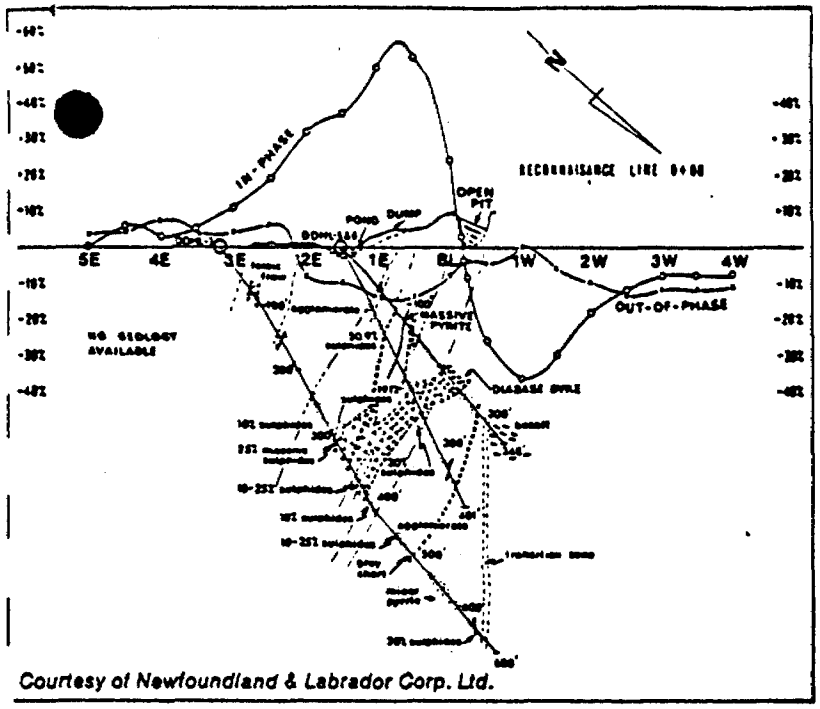
Specifications

Source of primary field	VLF transmitting stations.
Transmitting stations used	Any desired station frequency can be 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.
Operating frequency range	About 15-25 kHz.
Parameters measured	(1) The vertical in-phase component (tangent of the tilt angle of the polarization ellipsoid). (2) The vertical out-of-phase (quadrature) component (the short axis of the polarization ellipsoid compared to the long axis).
Method of reading	In-phase from a mechanical inclinometer and quadrature from a calibrated dial. Nulling by audio tone.
Scale range	In-phase ± 150%; quadrature ± 40%.
Readability	± 1%.
Reading time	10-40 seconds depending on signal strength.
Operating temperature range	—40 to 50° C.
Operating controls	ON-OFF switch, battery testing push button, station selector, switch, volume control, quadrature, dial ± 40%, inclinometer dial ± 150%.
Power Supply	6 size AA (penlight) alkaline cells. Life about 200 hours.
Dimensions	42 x 14 x 9 cm (16 x 5.5 x 3.5 in.)
Weight	1.6 kg (3.5 lbs.)
Instrument supplied with	Monotonic speaker, carrying case, manual of operation, 3 station selectc plug-in tuning units (additional frequencies are optional), set of batterie
Shipping weight	4.5 kg (10 lbs.)

GEONICS LIMITED
Designers & manufacturers of geophysical instruments

subsidiary of
Deering Milliken Inc.

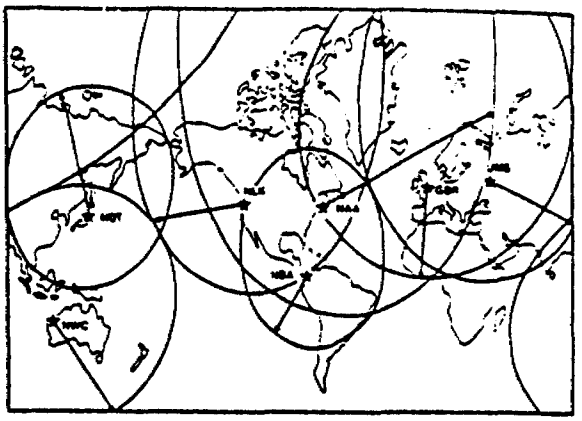
2 Thorncliffe Park Drive,
Toronto/Ontario/Canada
M4H 1H2
Tel: 425-1824
Cables: Geonics



Courtesy of Newfoundland & Labrador Corp. Ltd.

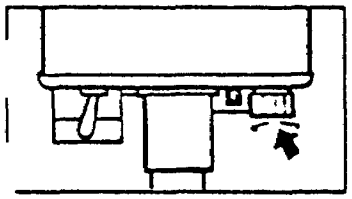
EM 16 Profile over Lockport Mine Property, Newfoundland

Additional case histories on request.



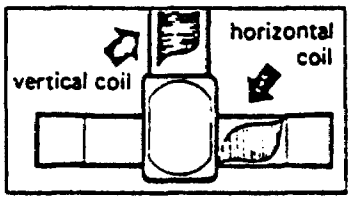
Areas of VLF Signals

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 circles of coverage shown are very conservative and are actually much larger in extent.



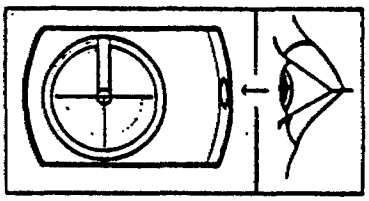
Station Selector

Two tuning units can be plugged in at one time. A switch selects either station.



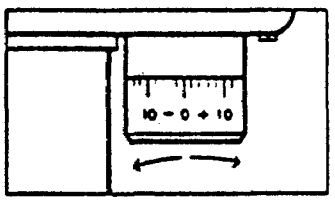
Receiving Coils

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 quadrature 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.



Quadrature Dial

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

By selecting a suitable transmitter station as a source, the EM 16 user can survey with the most suitable primary field azimuth.

The EM 16 has two receiving coils, one for the pick-up of the horizontal (primary) field and the other for detecting any anomalous vertical secondary field. The coils are thus orthogonal, and are mounted inside the instrument "handle".

The actual measurement is done by first tilting the coil assembly to minimize the signal in the vertical (signal) coil and then further sharpening the null by using the reference signal to buck out the remaining signal. This is done by a calibrated "quadrature" dial.

The tangent of the tilt angle is the measure of the vertical in-phase component and the quadrature reading is the signal at right angles to the total field. All readings are obtained in per centages and do not depend on the absolute amplitude of the primary signals present.

The "null" condition of the measurement is detected by the drop in the audio signal emitted from the patented resonance loudspeaker. A jack is provided for those preferring the use of an earphone instead.

The power for the instrument is from 6 penlight cells. A battery tester is provided.

SCINTREX MP-2 Portable Proton Precession Magnetometer

Function

The MP-2 is a portable one gamma proton precession magnetometer for field survey or base station use. The optimized design of sensor and circuitry using the latest COS/MOS components has resulted in a very light weight, low power consumption, rugged and reliable magnetometer.

Light emitting diodes coupled with an ingenious optically polarized reflector combine solid state reliability with easy reading even in bright sunlight.

Coupled with a module into which the MP-2 is easily inserted, the magnetometer can be used as a base station unit for analogue or digital recording. Full details of the MBS-2 Magnetic Base Station are available on another Scintrex specification sheet.

The noise-cancelling dual-coil sensor and electronics have been so designed as to effectively eliminate reading problems due to virtually all magnetic gradients which may be encountered in field survey conditions.

Features

1 gamma sensitivity and accuracy over range of 20,000 to 100,000 gammas.

Operates in very high gradients, to 5000 gammas per meter.

Ultra small size and weight.

Up to 25,000 readings from only 8 D cells.

Battery pack isolated from electronics for corrosion protection.

Battery pack easily extended for winter use.

Light emitting diode digital display, with complete test feature.

Unique no-glare polarized reflector permits easy reading in bright sunlight.

Indicator light warning of excessive gradient, ambient noise or electronic failure.

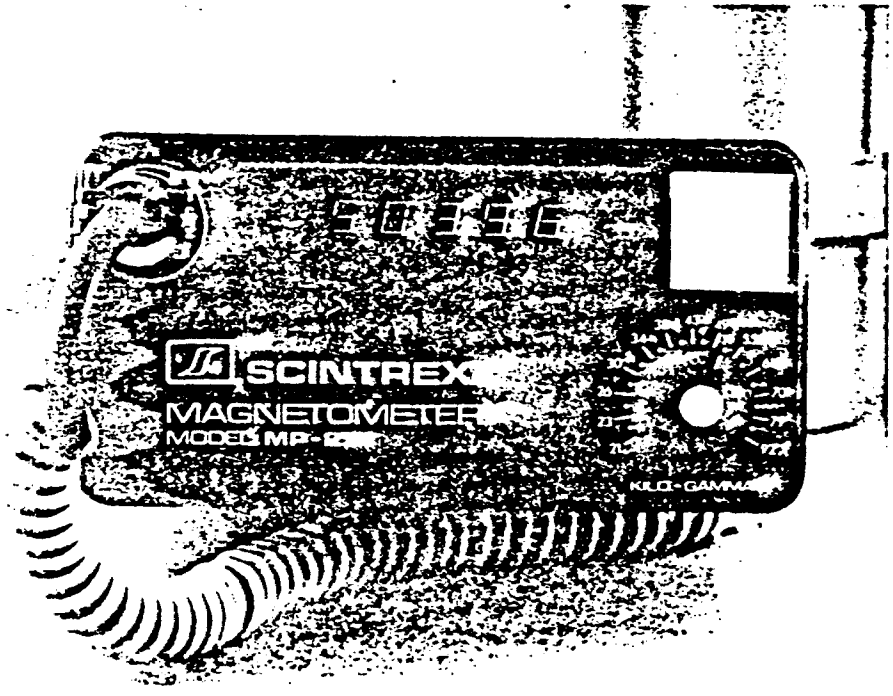
Digital readout of battery voltage.

Rugged all metal housing for rough field use at all temperatures.

Automatic recycling or external trigger features permit ready conversion to base station use.

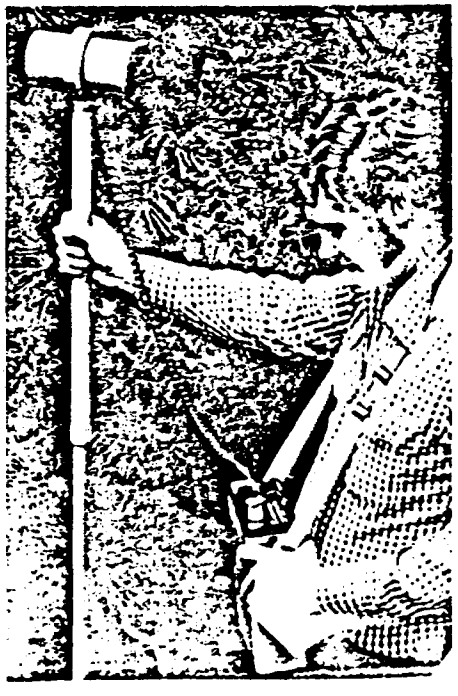
Short reading time.

Broad operating temperature range.

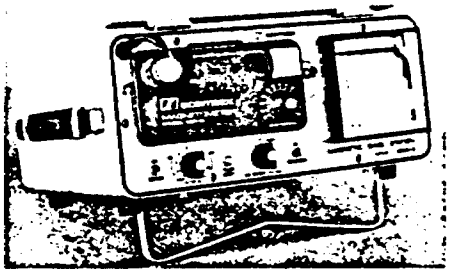


MP-2 Console

MP-2 in Operation with Staff Sensor



Technical Description of MP-2 Portable Proton Precession Magnetometer



MBS-2 Magnetic Base Station

MP-2 in Operation with Back Pack Sensor

Resolution	1 Gamma
Total Field Accuracy	±1 Gamma over full operating range
Range	20,000 to 100,000 gammas in 25 overlapping steps
Internal Measuring Program	Single reading—3.7 seconds. Recycling feature permits automatic repetitive readings at 3.7 second intervals
External Trigger	External trigger input permits use of sampling intervals longer than 3.7 seconds
Readout	5 digit LED (Light Emitting Diode) readout displaying total magnetic field in gammas or normalized battery voltage
Digital Output	Multiplied precession frequency and gate times
Base Station Mode	MP-2 console slips into a base station module which provides external triggering as well as digital and analogue outputs. The complete unit is called the MBS-2 Magnetic Base Station
Gradient Tolerance	Up to 5000 gammas/meter
Power Source	8 alkaline "D" cells provide up to 25,000 readings at 25°C under reasonable signal/noise conditions (less at lower temperatures). Premium carbon-zinc cells provide about 40% of this number
Sensor	Omnidirectional, shielded, noise-cancelling dual coil, optimized for high gradient tolerance
Harness	Complete for operation with staff or back pack sensor
Operating Temperature Range	−35°C to +60°C
Size	Console, with batteries: 80 x 160 x 250mm Sensor: 80 x 150mm Staff: 30 x 1550mm (extended) 30 x 600 mm. (collapsed)
Weights	Console, with batteries: 1.8 kg Sensor: 1.3 kg Staff: 0.6 kg
Standard Accessories	Sensor, Staff, Cable, Harness, Carrying Case, Manual
Shipping Weight	Approximately 9.5 kg

Scintrex Limited
222 Snidercroft Road
Concord (Toronto) Ontario
Canada L4K 1B5
Tel: (416) 669-2280
Telex: 06-964570
Cable: Scintrex Toronto

Complete Geophysical Instrumentation and Services

LAND MANAGEMENT

Ministry of Natural Resources
Ontario

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

#72

File Mir

42D14NE0022 2.7965 LOWER AGUASABON LAKE

900

– Do not use shaded areas below.

(G-599)

Type of Survey(s)	Township or Area
VLF-EM and Magnetometer	Lower Aguasabon Lake Area
Claim Holder(s)	**Prospector's Licence No.**
Goldpack Investment Ltd	T1628
Address	
215-744 West Hastings St. Vancouver, B.C. V6C 1A5	
Survey Company	**Date of Survey (from & to)** / **Total Miles of line Cut**
Donegal Developments Ltd	23 / 1 / 85 (Day / Mo. / Yr.) — 2 / 2 / 85 (Day / Mo. / Yr.)
Name and Address of Author (of Geo-Technical report)	
OreQuest Consultants Ltd. 404-595 Howe St. Vancouver B.C.	

Credits Requested per Each Claim in Columns at right

Special Provisions		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		Days per Claim
Complete reverse side and enter total(s) here	Geophysical	
	· Electromagnetic	
	· Magnetometer	
	· Radiometric	
	· Other	
	Geological	
	Geochemical	

Airborne Credits		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 Prefix	Mining Claim Number	Expend. Days Cr.
TB	746009	
	746010	
	746011	
	746012	
	746013	
	746014	
	746015	
	746019	
	746020	
	746021	
	746022	
	746023	
	746024	
	746025	
	746026	
	746029	
	746030	
	746031	
	746032	
	746033	
	746034	
	746035	
	746036	

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
	746037	
	746038	

RECEIVED
FEB 07 1985
MINERAL LANDS SECTION

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

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 Cr. Recorded	Date Recorded	Mining Recorder
11000	Feb. 11, 1985	Ludwig M. Kuzmich
	Date Approved as Recorded	Branch Director
	See reserved statement	

Date	Recorded Holder or Agent (Signature)
Feb 4 - 1985	

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

Dennis Young 216-744 W. Hastings St. Vancouver B.C. V6C-1A5

Date Certified	Certified by (Signature)
Feb 4-1985	

1362 (81/9)

Ontario

Ministry of Natural Resources

File _____

GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL TECHNICAL DATA STATEMENT

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

Type of Survey(s) VLF-EM & MAGNETOMETER SURVEYS.

Township or Area LOWER AQUASABON LAKE AREA.

Claim Holder(s) GOLD PAC INVESTMENTS LTD

Survey Company DOMINION DEVELOPMENTS LTD

Author of Report G. CASEY c/o ORBQUEST CONSULTANTS.

Address of Author 404 - 595 HOWE ST. VANCOUVER B.C.

Covering Dates of Survey 23/01/85 - 02/02/85
(linecutting to office)

Total Miles of Line Cut _____

SPECIAL PROVISIONS CREDITS REQUESTED

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

ENTER 20 days for each additional survey using same grid.

	DAYS per claim.
Geophysical	
–Electromagnetic	20
–Magnetometer	20
–Radiometric	
–Other	
Geological	
Geochemical	

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

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

DATE: D. HOWE SIGNATURE: April 1/85
Author of Report or (Agent)

Res. Geol. _____ Qualifications 26938

Previous Surveys

File No.	Type	Date	Claim Holder

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
- SEE ATTACHED LIST -	

If space insufficient, attach list

TOTAL CLAIMS 25

OFFICE USE ONLY

837 (5/79)

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations _____ Number of Readings _____

Station interval _____ Line spacing _____

Profile scale _____

Contour interval _____

MAGNETIC

Instrument SCINTREX MP-2 PROTON PRECESSION MAGNETOMETER (see report)

Accuracy – Scale constant _____

Diurnal correction method _____

Base Station check-in interval (hours) _____

Base Station location and value _____

_____

ELECTROMAGNETIC

Instrument GEONICS EM-16 (see report)

Coil configuration _____

Coil separation _____

Accuracy _____

Method: ☑ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line

Frequency CUTLER, MAINE
(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 Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
	746009	
	746010	
	746011	
	746012	
	746013	
	746014	
	746015	
	746019	
	746020	
	746021	
	746022	
	746023	
	746024	
	746025	
	746026	
	746029	
	746030	
	746031	
	746032	
	746033	
	746034	
	746035	
	746036	

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
	746037	
	746038	

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

Mining Lands Section

File No 2.7965

Control Sheet

TYPE OF SURVEY

✓ GEOPHYSICAL

____ GEOLOGICAL

____ GEOCHEMICAL

____ EXPENDITURE

MINING LANDS COMMENTS:

Average of 23 readings/claim ⇒ 11 days/claim.

Lpd

LD

Signature of Assessor

16/4/85

Date

1985 05 21

Your File:72
Our File:2.7965

Mining Recorder
Ministry of Natural Resources
P.O. Box 5000
Thunder Bay, Ontario
P7C 5G6

Dear Madam:

RE: Notice of Intent dated April 26, 1985
Geophysical (Electromagnetic & Magnetometer)
on Mining Claims TB 746009, et al,
in Lower Aguasabon Lake Area

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

D. Isherwood:mc

cc: Goldpack Investment Ltd
Vancouver, B.C.
Attention: S. Young
cc: OreQuest Consultants Ltd
Vancouver, B.C.
Attention: D. Howe
Encl.

cc: Mr. G.H. Ferguson
Mining & Lands Commissioner
Toronto, Ontario
cc: Resident Geologist
Thunder Bay, Ontario

Ministry of Natural Resources
Ontario

Technical Assessment Work Credits

File 2.7965

Date 1985 04 26

Mining Recorder's Report of Work No. 72

Recorded Holder: GOLDPACK INVESTMENT LTD

Township or Area: LOWER AGUASABON LAKE AREA

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	TB 746009 to 015 inclusive 746019 to 026 inclusive 746029 to 038 inclusive
Electromagnetic 11 days	
Magnetometer 11 days	
Radiometric ____ days	
Induced polarization ____ days	
Other ____ days	
Section 77 (19) See "Mining Claims Assessed" column	
Geological ____ days	
Geochemical ____ days	
Man days ☐ Airborne ☐	
Special provision ☒ Ground ☒	
☒ Credits have been reduced because of partial coverage of claims.	
☐ 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

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

Ontario

May 13/85

1985 04 26

Your File: 72
Our File: 2.7965

Mining Recorder
Ministry of Natural Resources
P.O. Box 5000
Thunder Bay, Ontario
P7C 5G6

Dear Madam:

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

For further information, if required, please contact Mr. R.J. Pichette at 416/965-4888.

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

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

RD D. Isherwood:mc

Encls.

cc: Goldpack Investment Ltd
Suite 215
744 West Hastings Street
Vancouver, B.C.
V6C 1A5 Attn: S. Young

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

cc: OreQuest Consultants Ltd
Suite 404
595 Howe Street
Vancouver, B.C.
V6C 2T5
Attn: D. Howe

Ministry of
Natural
Resources

Ontario

Notice of Intent

for Technical Reports

1985 04 26

2.7965/72

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.

2.7965

REGISTERED

1985 04 03 Report of Work7872

Goldpack Investment Ltd
Suite 215
744 West Hastings Street
Vancouver, B.C.
V6C 1A5

Dear Sirs:

Enclosed is a copy of a Report of Work for Electromagnetic and Magnetometer assessment work credits that was recorded by the Mining Recorder on February 4, 1985 on Mining Claims TB 746009, et al, in the Area of Lower Aguasabon Lake.

We have no record that you provided the full reports and maps to the Minister within the sixty day period provided by Section 77 of the Mining Act.

If the material is not submitted to this office by April 12, 1985, I will have no alternative but to instruct the Mining Recorder to delete the work credits from the claim record sheets.

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

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

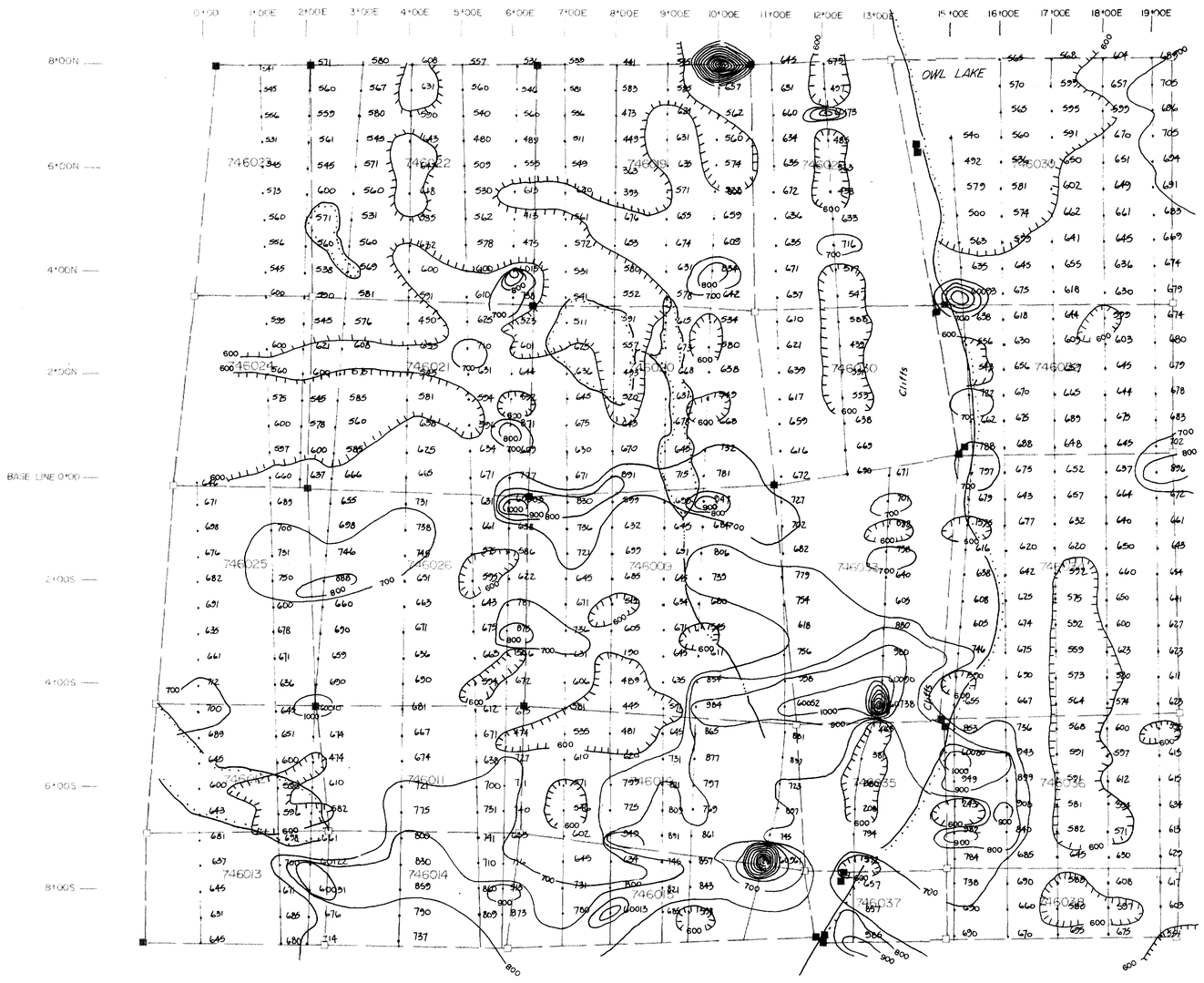
Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone:(416)965-4888

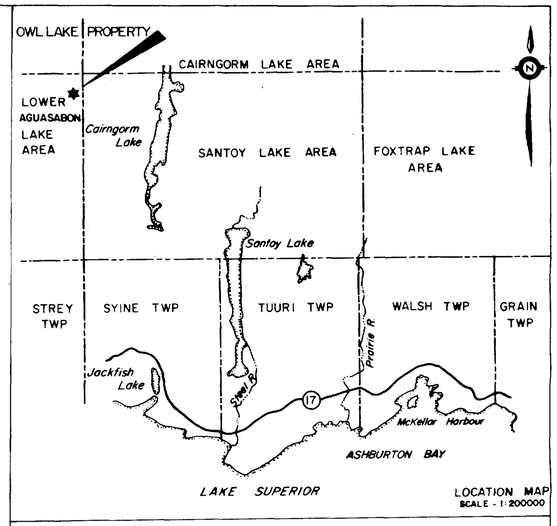
A. Barr:mc
cc: Mining Recorder
Thunder Bay, Ontario
cc: Seamus Young
Suite 215
744 West Hastings Street
Vancouver, B.C.

cc: OreQuest Consultants Ltd
Suite 404
595 Howe Street
Vancouver, B.C.
V6C 2T5

Encl.

	em	mag			em	mag
746009		30	746029			19
010		27	030			14
011		15	031			60
012		15 S	032			30
013		15 S	033			13
014		13 S	034			50
015		20 S	035			6 S
746019		36	036			30
020		28	037			3 S
021		28	038			15 S
022		24				574 = 22.96 ⇒ 11 days
023		17				
024		17				
025		16				
026		32				





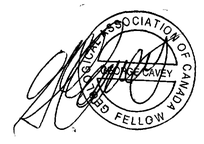
LEGEND

- Magnetic contour (100gammas)
- Magnetic depression
- Grid line and station

All values preceded by 59 except as noted

SYMBOLS

- Claim post and boundaries
- Assumed claim post and boundaries
- Lake
- Creek



0 100 200 400 metres

Scale - 1:5000

FIGURE 4

MAGNETIC CONTOURS 2.7965

GOLDPAC INVESTMENTS LTD.

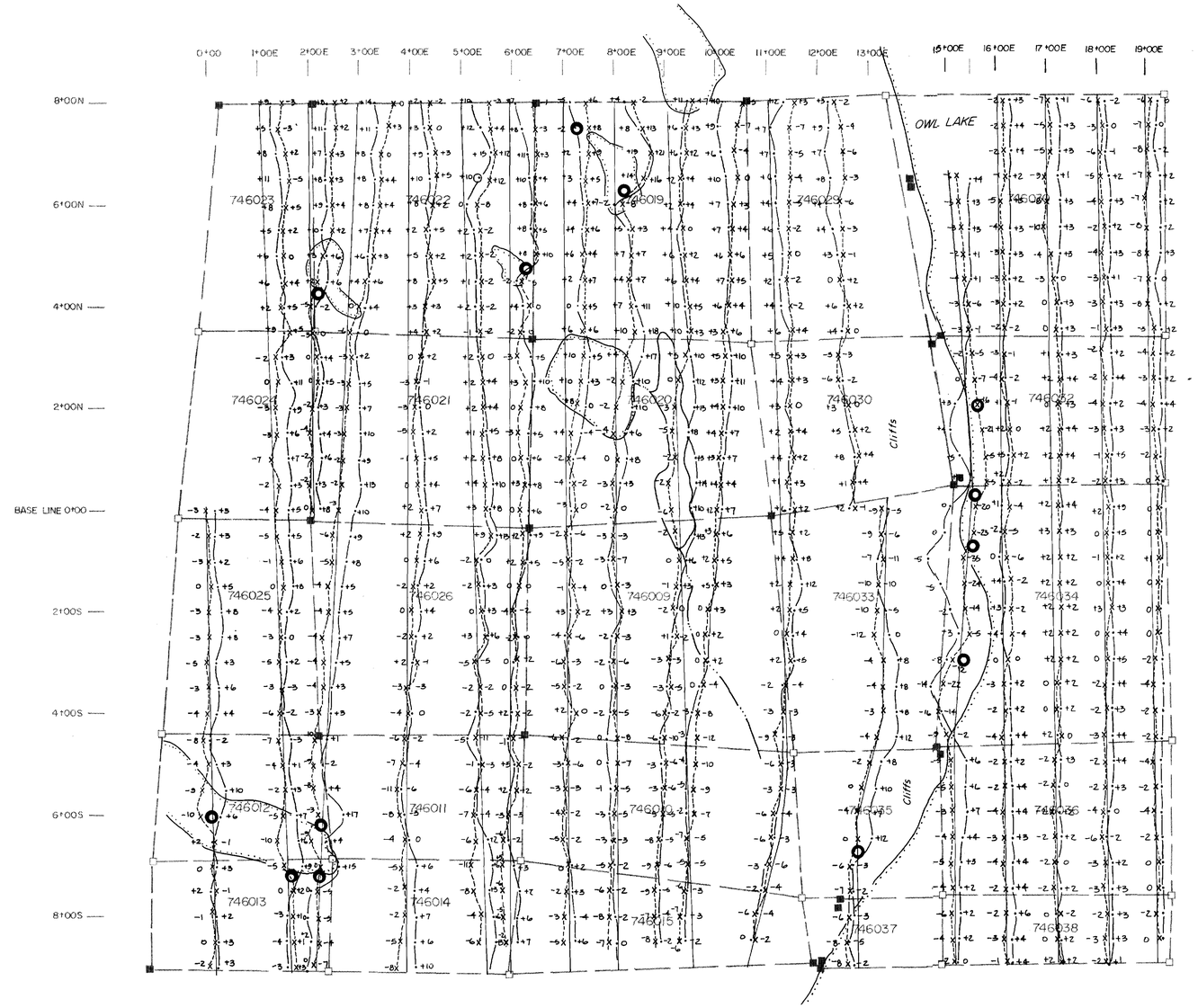
(OWL LAKE PROPERTY)

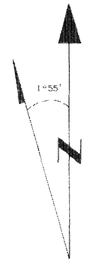
AGUASABON LAKE AREA THUNDER BAY MINING DIVISION ONT.

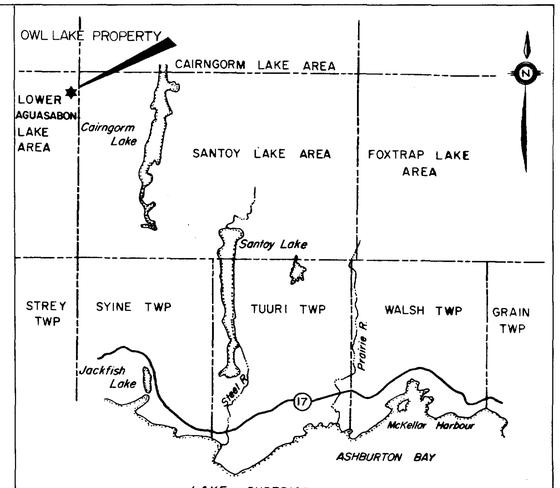
OREQUEST

KW MAR 85

42D14NE0022 2.7965 LOWER AGUASABON LAKE



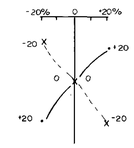




LEGEND

In Phase

Quadrature



SYMBOLS

Claim post and boundaries

Assumed claim post and boundaries

Conductor location

Lake

Stream

Transmitter station Cutter Maine

Reading direction south

ASSOCIATION OF CANADA GEOPHYSICAL SURVEY FELLOW

0 100 200 400 metres

Scale - 1:5000

2.7965

FIGURE 2

VLF SURVEY

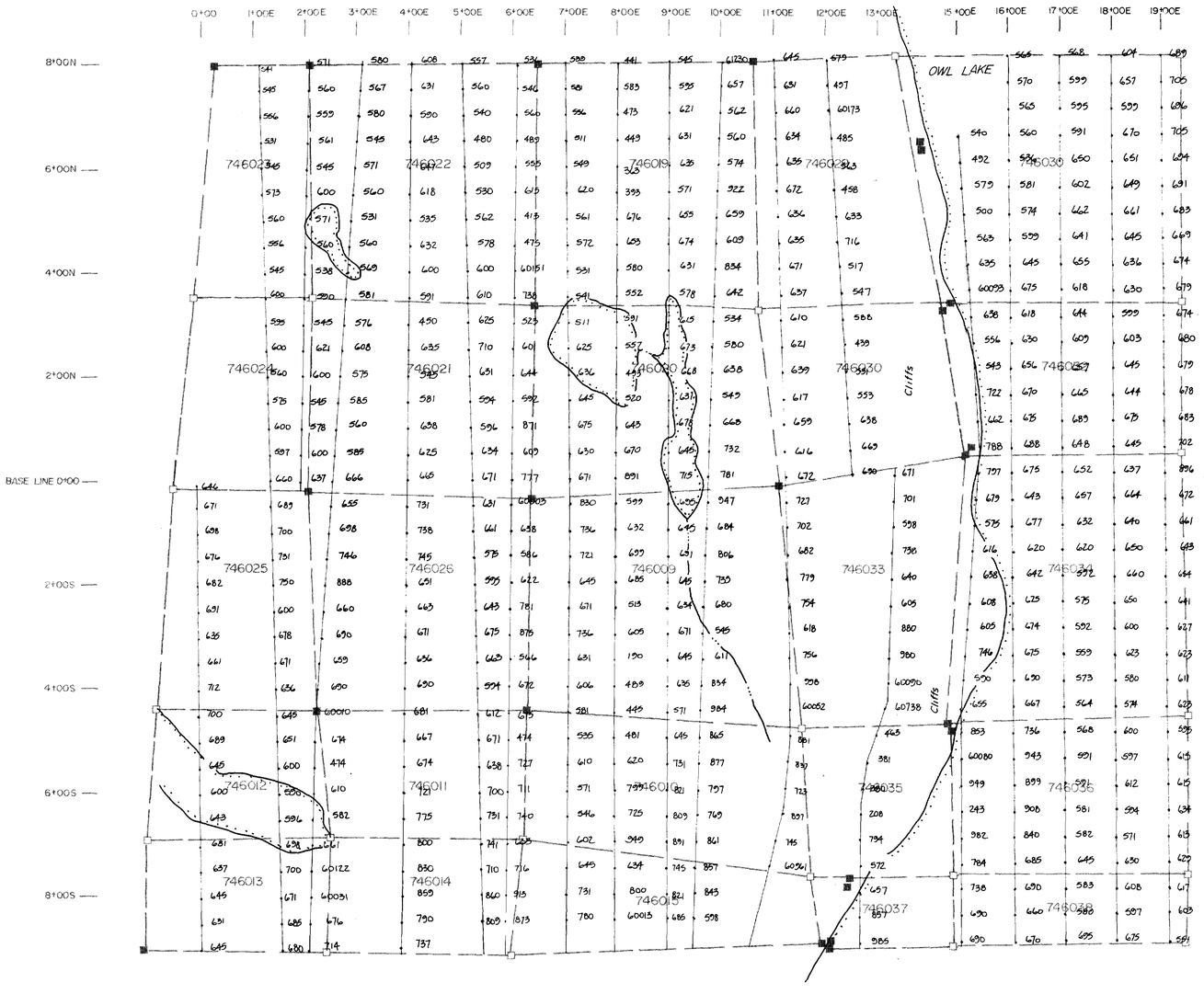
GOLDPAC INVESTMENTS LTD.

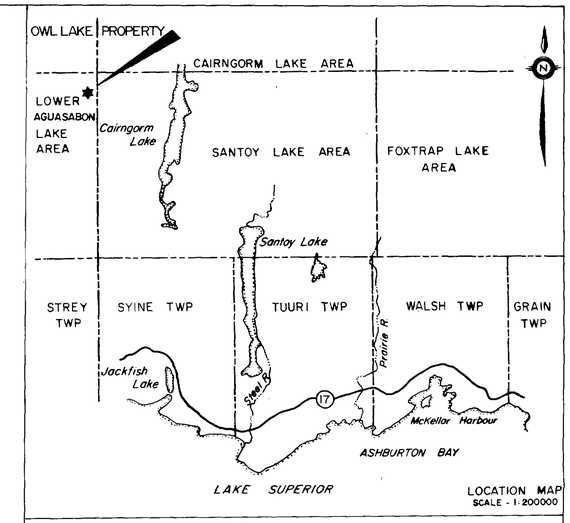
(OWL LAKE PROPERTY)

AGUASABON LAKE AREA THUNDER BAY MINING DIVISION ONT.

OREQUEST

KW MAR 85





Grid line and station

All values preceded by 59 except as noted

SYMBOLS

- Claim post and boundaries
- Assumed claim post and boundaries
- Lake
- Creek

GEOLOGICAL ASSOCIATION OF CANADA
GEORGE FAIRY
FELLOW

0 100 200 400 metres
Scale - 1:5000

FIGURE 3

27965

MAGNETIC MAP

GOLDPAC INVESTMENTS LTD.

(OWL LAKE PROPERTY)

AGUASABON LAKE AREA THUNDER BAY MINING DIVISION ONT.

OREQUEST

KW MAR 85