

**REPORT ON A HELICOPTER-BORNE
TIME DOMAIN ELECTROMAGNETIC
GEOPHYSICAL SURVEY**

Pele and Burchell-2 blocks

Ontario, Canada

for

East West Resource Corporation

By

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Survey flown in May - June 2005

Project 532

July, 2005

REPORT ON A HELICOPTER-BORNE TIME DOMAIN ELECTROMAGNETIC SURVEY

Pele and Burchell-2 blocks, Ontario, Canada

Executive Summary

During the period of May 20th to June 7th, 2005, Geotech Limited carried out a helicopter-borne geophysical survey for East West Resource Corporation over two (2) blocks near Kashabowie, Ontario, Canada.

Principal geophysical sensors included a time domain electromagnetic system (VTEM) and a cesium magnetometer. Ancillary equipment included a GPS navigation system and a radar altimeter. A total of 1676 line-km were flown.

In-field data processing involved quality control and compilation of data collected during the acquisition stage, using the in-field processing centre established at Kashabowie, Ontario.

Preliminary and final data processing, including generation of final digital data products were done at the office of Geotech Limited in Aurora, Ontario.

The processed survey results are presented as total magnetic field, electromagnetic stacked profiles and resistivity - depth sections, for each survey block

Digital data includes all electromagnetic and magnetic products plus positional, altitude and raw data.

1. INTRODUCTION

1.1 *General Considerations*

These services are the result of the Agreement made on April 28th, 2005 between Geotech Limited and East West Resource Corporation, to perform a helicopter-borne geophysical survey over two (2) blocks near Kashabowie, Ontario, Canada.

1676 line-km of geophysical data were acquired during the survey.

Mr. Robert Middleton acted on behalf of East West Resource Corporation during data acquisition and processing phases of this project.

Survey blocks are as shown in Appendix A. The crew was based in Kashabowie, Ontario for the acquisition phase of the survey, as shown in Section 2 of this report.

The helicopter was based at the Hotel parking lot in Kashabowie for the duration of the survey. Survey flying was completed by June 7th, 2005. Preliminary data processing was carried out daily during the acquisition phase of the project. Final data presentation and data archiving was completed in the Aurora office of Geotech Limited by July, 2005.

1.2. *Survey and System Specifications*

Survey blocks were flown at nominal traverse line spacing of 100 metres and 200 metres. Tie lines were flown perpendicular to traverse lines.

Where possible, the helicopter maintained a mean terrain clearance of 85 metres, which translated into an average height of 30 meters above ground for the bird-mounted VTEM system and 70 meters above ground for the magnetic sensor.

The two survey blocks were flown using an Astar B+ helicopter, registration C-GCYE, operated by Expedition Helicopters Inc. Details of the survey specifications are found in Section 2 of this report.

1.3. *Data Processing and Final Products*

Data compilation and processing were carried out by the application of Geosoft OASIS Montaj and programs proprietary to Geotech Limited. Maps, grids and databases of final products were presented to East West Resource Corporation.

The survey report describes the procedures for data acquisition, processing, final image presentation and the specifications for the digital data set.

1.4. Topographic Relief

The survey blocks are located approximately 15 kilometres south-west of Kashabowie.

Topographically, the blocks exhibit a complex relief, with elevation range from 400 metres to 550 metres above sea level. The blocks intersect several rivers and lakes. Wetlands are also observed.

Due to building areas surrounding Burchell Lake, the flight path was not properly cover as planned. The properties have road access.

2. DATA ACQUISITION

2.1. Survey Area

Survey blocks and general flight specifications are as follows:

Survey blocks	Line spacing (m)	Area (Km ²)	Line-km	Flight direction	Line number
Pele	100 1500	115.0	1183.4 89.3	N140°E N57°E	L4010 - 6230 T6900 - 6960
Burchell-2	200 2800	73.0	373.1 30.9	N140°E N50°E	L7000 - 7480 T7900 - 7930

Table 1 – Survey blocks

2.2. Survey Operations

Survey operations were based in Kashabowie, Ontario for the acquisition phase of the survey. The crew was housed at Kashabowie Lodging for the survey period.

2.3. Flight Specifications

The nominal EM sensor terrain clearance was 30 m (EM bird height above ground, i.e. helicopter is maintained 85 m above ground). Nominal survey speed was 80 km/hour. The data recording rates of the data acquisition was 0.1 second for electromagnetics and magnetometer, 0.2 second for altimeter and GPS. This translates to a geophysical reading about every 2 metres along flight track. Navigation was assisted by a GPS receiver and data acquisition system, which reports GPS co-ordinates as latitude/longitude and directs the pilot over a pre-programmed survey grid.

The operator was responsible for monitoring of the system integrity. He also maintained a detailed flight log during the survey, tracking the times of the flight as well as any unusual geophysical or topographic feature.

On return of the aircrew to the base camp the survey data was transferred from a compact flash card (PCMCIA) to the data processing computer.

2.4. Aircraft and Equipment

2.4.1. Survey Aircraft

An Astar B+ helicopter, registration C-GCYE - owned and operated by Expedition Helicopters Inc. was used for the survey. Installation of the geophysical and ancillary equipment was carried out by Geotech Ltd.

2.4.2. Electromagnetic System

The electromagnetic system was a Geotech Time Domain EM (VTEM) system. The layout is as indicated in Figure 1 below.

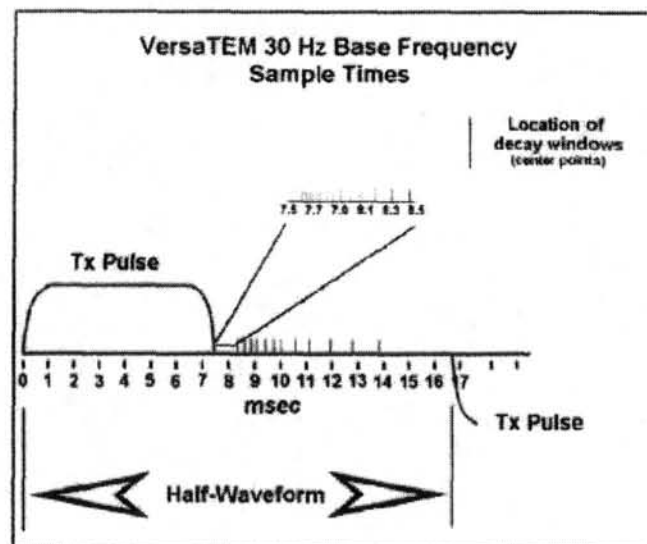
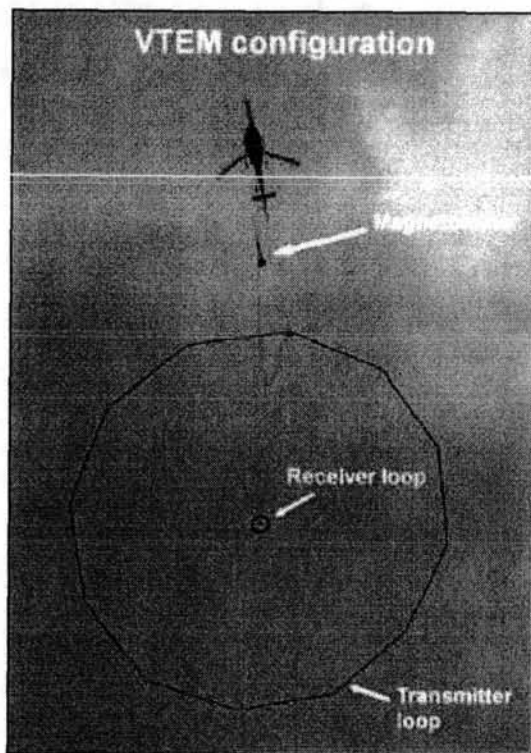


Figure 1 Figure 2

Receiver and transmitter coils were concentric and Z-direction oriented. The EM bird was towed 45 m below the helicopter. Transmitter coil diameter was 26 metres, the number of turns was 4. Transmitter pulse repetition rate was 30 Hz. Peak current was 200 Amp. Receiver coil diameter was 1.1 metre, the number of turns was 100. Duty cycle was 40%. Peak dipole moment was 424,800 NIA. Wave form – trapezoid. Twenty-five measurement gates were used in the range from 130 μ s to 6340 μ s. The transmitter wave form and the receiver decay recording scheme is shown diagrammatically in Figure 2. Recording sampling rate was 10 samples per second.

2.4.3. Airborne magnetometer

The magnetic sensor utilized for the survey was a Geometrics optically pumped cesium vapor magnetic field sensor, mounted in a separate bird towed 15 m below the helicopter. The sensitivity of the magnetic sensor is 0.02 nanoTesla (nT) at a sampling interval of

0.1 seconds. The magnetometer sends the measured magnetic field strength as nanoTeslas to the data acquisition system via the RS-232 port.

2.4.4. Ancillary Systems

2.4.4.1. Radar Altimeter

A Terra TRA 3000/TRI 30 radar altimeter was used to record terrain clearance. The antenna was mounted beneath the bubble of the helicopter cockpit.

2.4.4.2. GPS Navigation System

The navigation system used was a Geotech PC based navigation system utilizing a NovAtel's WAAS enable OEM4-G2-3151W GPS receiver, Geotech navigate software, a full screen display with controls in front of the pilot to direct the flight and an NovAtel GPS antenna mounted on the helicopter tail.

The co-ordinates of the block were set-up prior to the survey and the information was fed into the airborne navigation system.

2.4.4.3. Digital Acquisition System

A Geotech data acquisition system recorded the digital survey data on an internal compact flash card. Data is displayed on an LCD screen as traces to allow the operator to monitor the integrity of the system. Contents and update rates were as follows:

DATA TYPE	SAMPLING
TDEM	0.1 sec
Magnetometer	0.1 sec
GPS Position	0.2 sec
RadarAltimeter	0.2 sec

Table 3 - Sampling Rates

2.4.5. Base Station

A combine magnetometer/GPS base station was utilized on this project. A Geometrics Cesium vapour magnetometer was used as a magnetic sensor with a sensitivity of 0.001 nT. The base station was recording the magnetic field together with the GPS time at 1 Hz on a base station computer.

The base station magnetometer sensor was installed in the motel where the crew was housed in Kashabowie, away from electric transmission lines and moving ferrous objects such as motor vehicles.

The magnetometer base station's data was backed-up to the data processing computer at the end of each survey day.

4. DATA PROCESSING AND PRESENTATION

4.1. Flight Path

The flight path, recorded by the acquisition program as WGS 84 latitude/longitude, was converted into the UTM coordinate system in Oasis Montaj.

The flight path was drawn using linear interpolation between x,y positions from the navigation system. Positions are updated every second and expressed as UTM eastings (x) and UTM northings (y).

4.2. Electromagnetic Data

A three stage digital filtering process was used to reject major spheric events and to reduce system noise. Local spheric activity can produce sharp, large amplitude events that cannot be removed by conventional filtering procedures. Smoothing or stacking will reduce their amplitude but leave a broader residual response that can be confused with geological phenomena. To avoid this possibility, a computer algorithm searches out and rejects the major spheric events. The filter used was a 16 point non-linear filter.

The signal to noise ratio was further improved by the application of a low pass linear digital filter. This filter has zero phase shift which prevents any lag or peak displacement from occurring, and it suppresses only variations with a wavelength less than about 1 second or 20 metres. This filter is a symmetrical 1 sec linear filter.

The results are presented as stacked profiles of EM voltages for the gate times, in logarithmic scale.

4.2.1 Resistivity – Depth sections

Lines were subjected to Resistivity – Depth calculation using Geotech proprietary software. Time domain geophysical data from 0.13 milisecond to 6.34 milisecond were used in the calculation.

Two hundred fifty six (256) traverse lines were presented as Resistivity - Depth sections.

4.3. Magnetic Data

The processing of the magnetic data involved the correction for diurnal variations by using the digitally recorded ground base station magnetic values. The base station magnetometer data was edited and merged into the Geosoft GDB database on a daily basis. The aero magnetic data was corrected for diurnal variations by subtracting the observed magnetic base station deviations.

Tie line levelling was carried out by adjusting intersection points along the traverse lines. A micro-levelling procedure is then applied. This technique is designed to remove persistent low-amplitude components of flight-line noise remaining after tie line levelling.

The corrected magnetic line data from the survey was interpolated between survey lines using a random point gridding method to yield x-y grid values for a standard grid cell size of approximately 0.2 cm at the mapping scale. The Minimum Curvature algorithm was used to interpolate values onto a rectangular regular spaced grid.

5. GEOPHYSICAL INTERPRETATION

5.1. *Pele block*

The Pele block is composed of numerous tabular, “plate-like” conductors with moderate to strong conductance. The conductors are grouped in conductive trends but individually appear as numerous interrupted segments with varying strike lengths (200 to 600 metres in length).

The conductive trend is associated with the northwest side of a mafic complex that trends north east through the map area. The EM anomalies are coincident with or flank the second derivative magnetic anomalies.

The conductive trend to the north does not have any coincident magnetic response. The EM anomaly to the south lies on the south flank of the second derivative magnetic anomaly.

6.1. *Survey Report*

The survey report describes the data acquisition, processing, and final presentation of the survey results.

6.2. *Maps*

Final maps were produced at a scale of 1:20,000. The coordinate/projection system used was WGS84, UTM zone 15 north. For reference the latitude and longitude are also noted on the maps. All maps show the flight path trace and topographic base data.

The following maps are presented to East West Resource Corporation on paper as results of the helicopter-borne geophysical survey carried out over the two blocks.

- Total Magnetic Field contours and colour image
- Logarithmic scale Time Gates 0.22 – 6.34 profiles

7. CONCLUSIONS

A time domain electromagnetic helicopter-borne geophysical survey has been completed over two survey blocks near Kashabowie, Ontario, Canada.

The total area coverage is 188 km². Total survey line coverage is 1676 line kilometres. The principal sensors included a Time Domain EM system and a magnetometer. Results have been presented as colour contour maps and stacked profiles at a scale of 1:20,000.

Final data processing at the office of Geotech Limited in Aurora, Ontario was carried out under the supervision of Andrei Bagrianski, Data Processing Manager.

Geophysical interpretation was made by Roger Barlow, Geophysicist.

A number of EM anomaly groupings were identified. Ground follow-up of those anomalies should be carried out if favourably supported by other geoscientific data.

Respectfully submitted,

Marta Orta,
Geotech Limited

Date / Time of Issue: Sun Feb 19 19:50:40 EST 2006

TOWNSHIP / AREA
MOSS

PLAN
G-0676

ADMINISTRATIVE DISTRICTS / DIVISIONS

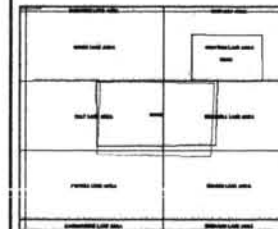
Mining Division: Thunder Bay
Land Titles/Registry Division: THUNDER BAY
Ministry of Natural Resources District: THUNDER BAY

TOPOGRAPHIC

- ▭ Administrative Boundaries
- ▭ Township
- ▭ Commission Lot
- ▭ Provincial Park
- ▭ Indian Reserve
- ▭ C&P & P&C
- ▭ Centreline
- ▭ Mine Shaft
- ▭ Mine Headframe
- ▭ Railway
- ▭ Road
- ▭ Trail
- ▭ Natural Gas Pipeline
- ▭ Utilities
- ▭ Tower

Land Tenure

- Freehold Patent**
 - ▭ Surface And Mining Rights
 - ▭ Surface Rights Only
 - ▭ Mining Rights Only
- Leasehold Patent**
 - ▭ Surface And Mining Rights
 - ▭ Surface Rights Only
 - ▭ Mining Rights Only
- License of Occupation**
 - ▭ Uses Not Specified
 - ▭ Surface And Mining Rights
 - ▭ Surface Rights Only
 - ▭ Mining Rights Only
- Land Use Permit**
 - ▭ Order in Council (Not open for mining)
 - ▭ Water Power Lease Agreement
- Mining Claims**
 - ▭ Mining Claims
 - ▭ Flood City Mining Claims

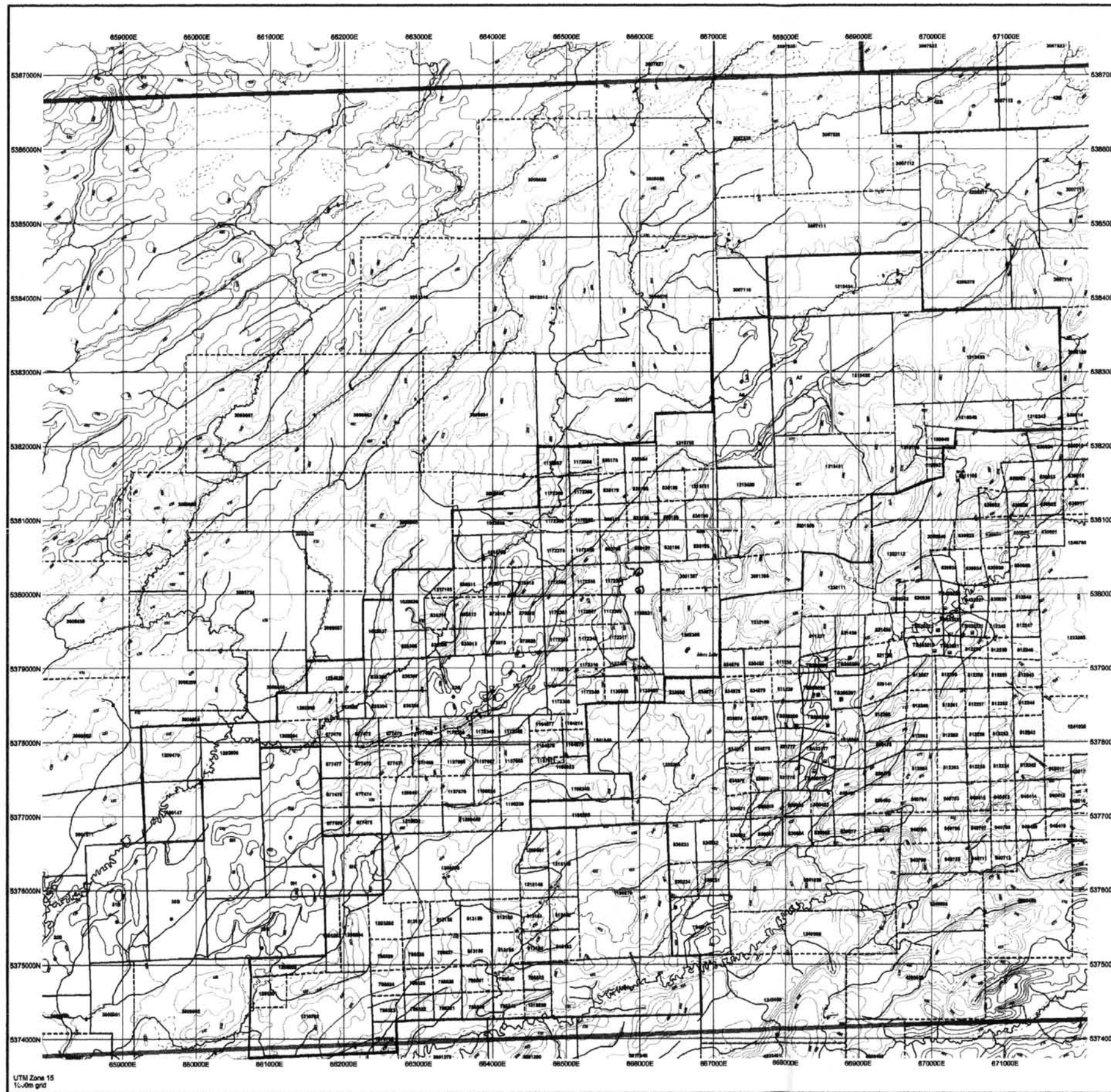


- LAND TENURE WITHDRAWALS**
- ▭ Mining Act Withdrawal Types
 - ▭ Surface And Mining Rights Withdrawal
 - ▭ Surface Rights Only Withdrawal
 - ▭ Mining Rights Only Withdrawal
 - ▭ Order in Council Withdrawal Types
 - ▭ Surface And Mining Rights Withdrawal
 - ▭ Surface Rights Only Withdrawal
 - ▭ Mining Rights Only Withdrawal

Scale 1:40,000
Scale 1:25,000
Pele Gold Block

LAND TENURE WITHDRAWAL DESCRIPTIONS

Withdrawal	Type	Date	Description
0188	Min	Jan 1, 2005	P. 301-19
0189	Min	Jan 1, 2005	UPIC NO. 88191 P. 302-11
0190	Min	Jan 1, 2005	S.A.O. WITHDRAWN



UTM Zone 15
100m grid

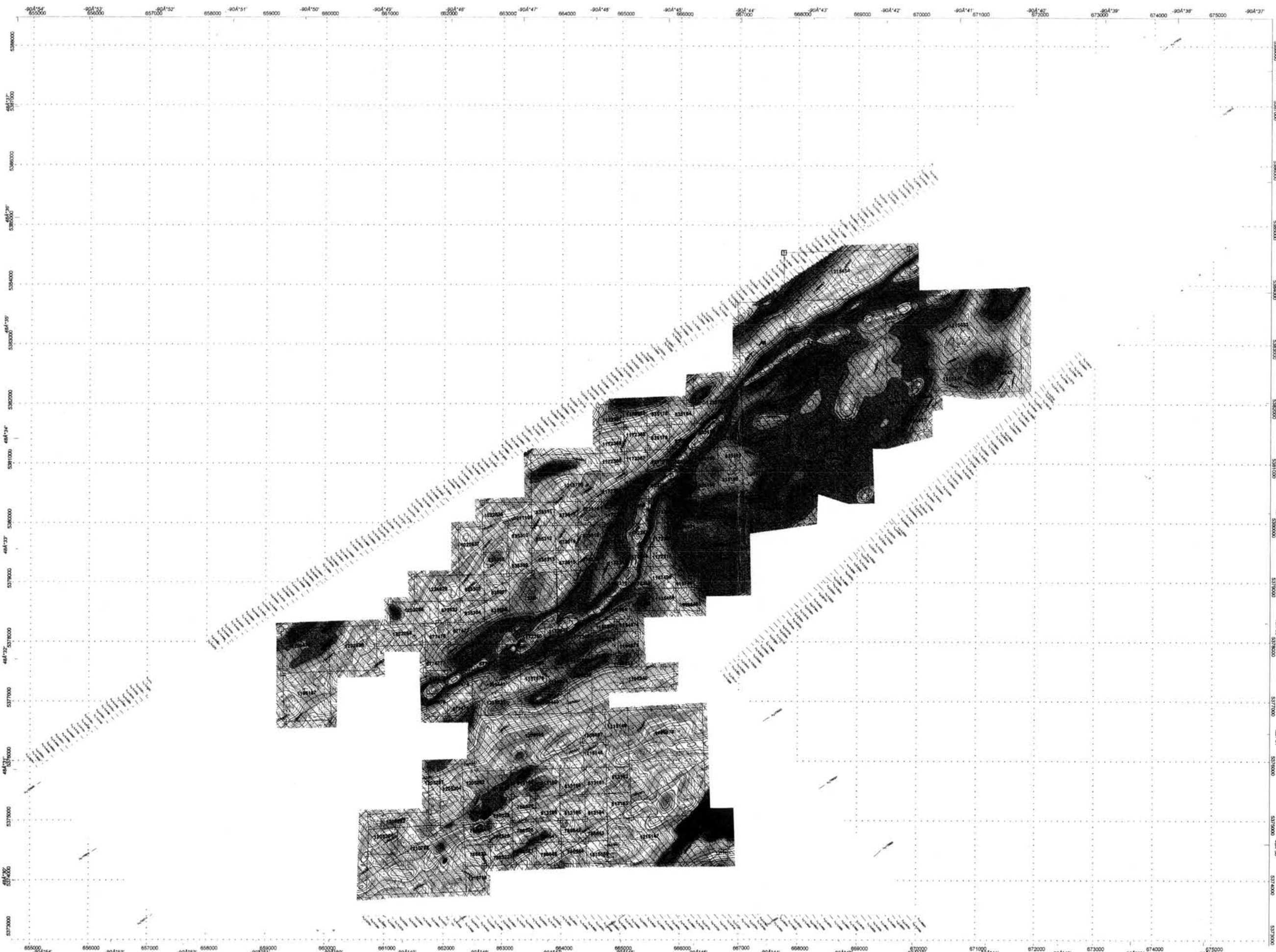
General Information and Limitations

These drawings show mining claims as filed with the Provincial Mining Records Office of the Ministry of Northern Development and Mines for additional information on the status of the lands shown herein. This map is not intended for navigation, survey, or any other determination purposes as the information shown on this map is compiled from various sources. Coordinates and accuracy are not guaranteed. Additional information may be obtained through the Land Titles and Registry Office, or the Ministry of Natural Resources.

Ontario Information: Provincial Mining Records Office, 400 Queen Street West, Toronto, Ontario M5H 2M2, Tel: (416) 326-6666 ext. 6742 (toll-free: 1-800-387-3444), Fax: (416) 326-6666, Home Page: www.mdn.gov.on.ca/mnr/PROVINCIAL_MINING_RECORDS_OFFICE.html

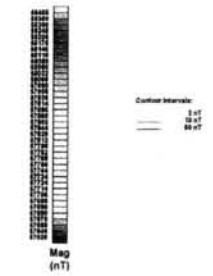
This map may not show unpermitted and known or unknown land including certain patents, leases, easements, right of way, flooding rights, licences, or other forms of acquisition of rights and interests from the Crown. Also shown are known and unknown mineral rights and interests in land which may be affected by the mining claims shown on this map.

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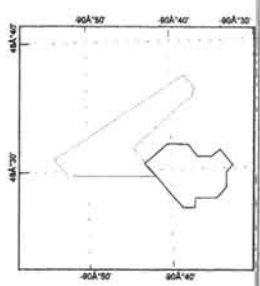


Survey Specifications:
 Aerial Photo for magnetic interpretation G-016
 Flight Line Spacing: 100 metres
 Aerial Photo Resolution: 0.5 metres
 EM Loop: 60 metres under helicopter
 Magnetic Anomaly: 10 metres under helicopter

Instrumentation:
 Geotek Time Domain Electromagnetic System (TDEM)
 48 channels, 300 ft. primary
 Transmitter Line Current: 20 A, Base Frequency: 80 Hz
 Data Interval: 0.250 sec
 Transmitter Pulse Length: 1.000 sec, Pulse Width: 7.5 ms
 Geometric Correction: none
 High Resolution: 0.001 mT
 Map Resolution: 0.01 mT @ 10 m resolution



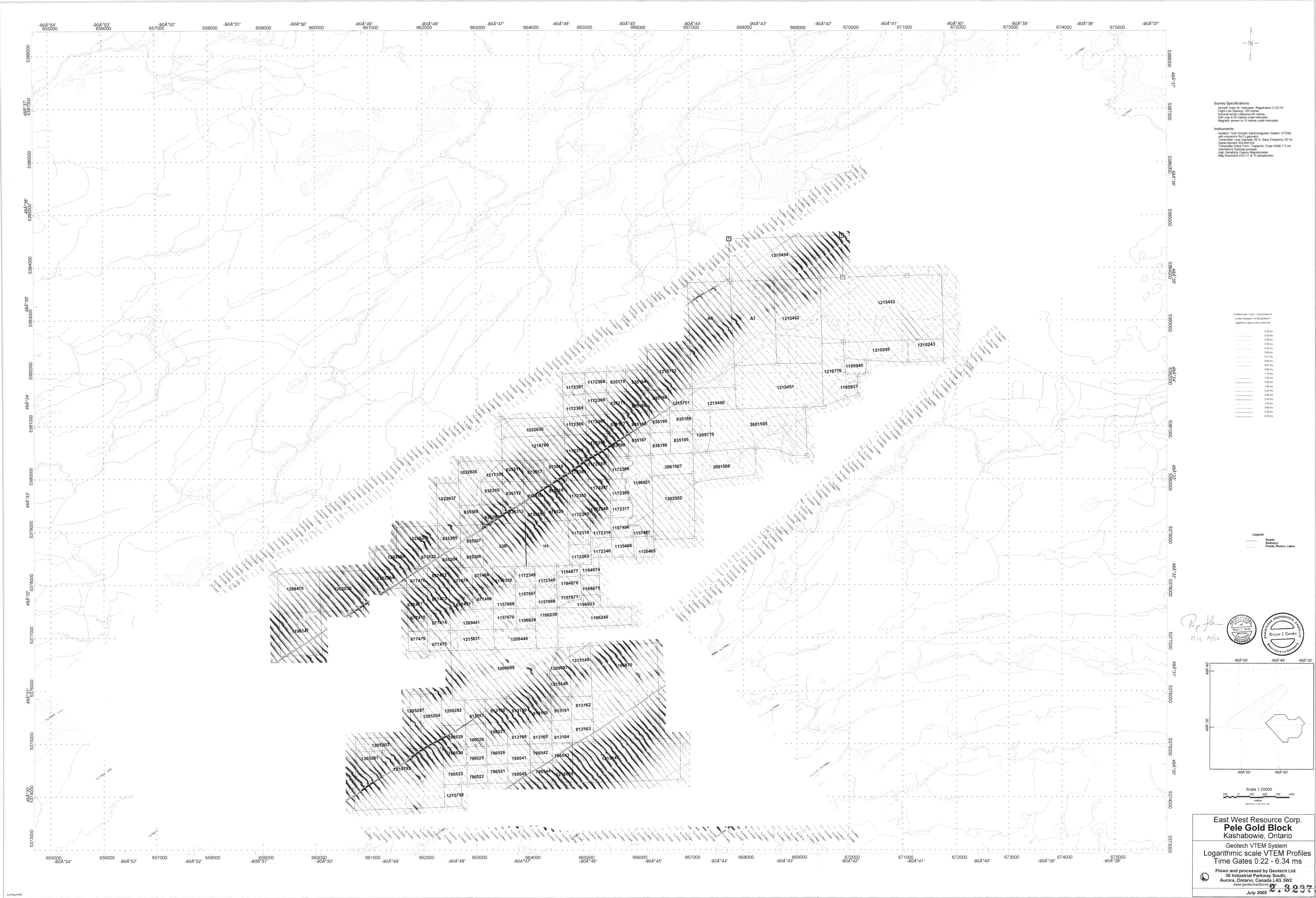
Legend
 Road
 Pipeline
 Pond, River, Lake



Scale 1:20000
 0 100 200 300 400 500 metres

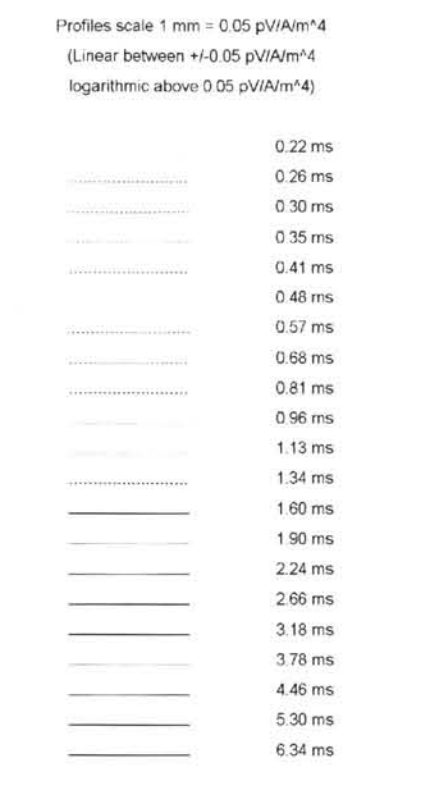
East West Resource Corp.
Pele Gol: Block
Kashabowie, Ontario
 Geotech VTEM System
Total Magnetic Field Map
 Flown and processed by Geotech Ltd.
 30 Industrial Parkway South,
 Aurora, Ontario, Canada L4G 3W2
 www.geotechdata.com
 July 2006

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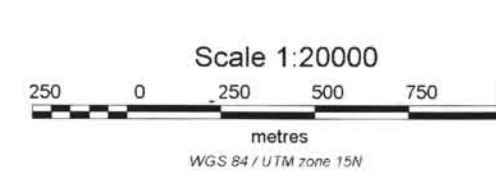
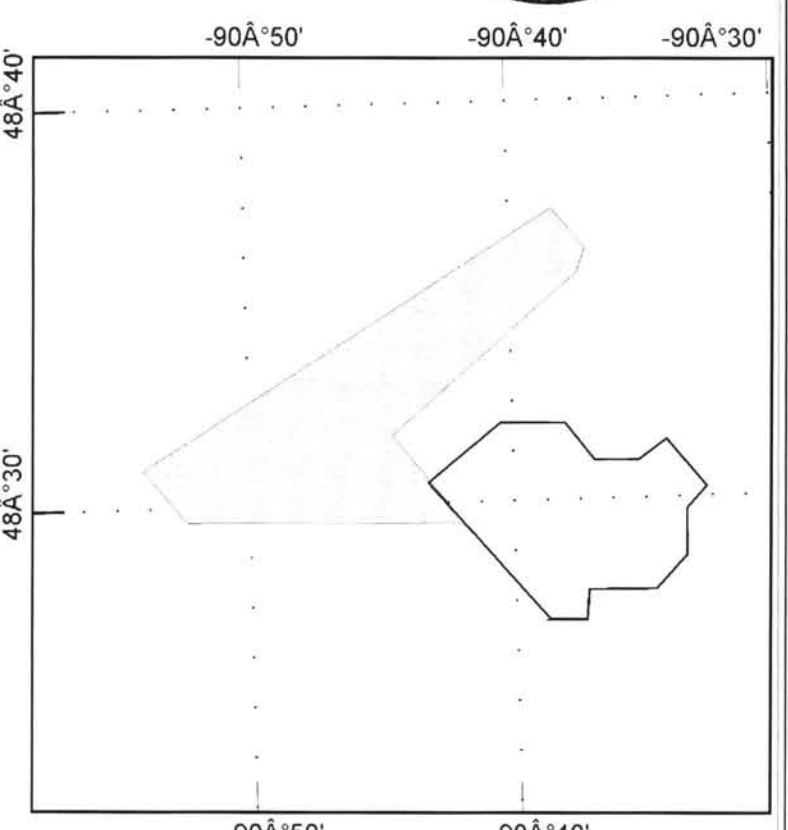
Survey Specifications:
 Aircraft: Ashtech B6 helicopter, Registration C-GCYE
 Flight Line Spacing: 100 metres
 Normal terrain clearance: 60 metres
 500 m/s to 50 metres under helicopter
 Magnetic sensor is 15 metres under helicopter

Instruments:
 System: Time Domain Electromagnetic System (VTEM) with concrete fly-tile geometry
 Transmitter Loop Diameter: 20 m, Base Frequency: 30 Hz
 Dipole Moment: 42,500 NA
 Transmitter Wave Form: Triangular, Pulse Width: 7.5 ms
 Geometrics: Optically pumped
 High Sensitivity Custom Magnetometer
 Mag Resolution: 0.02 nT at 10 samples/sec



Legend:
 Roads
 Railways
 Ponds, Rivers, Lakes

Roger J. Caven
 May 19/00

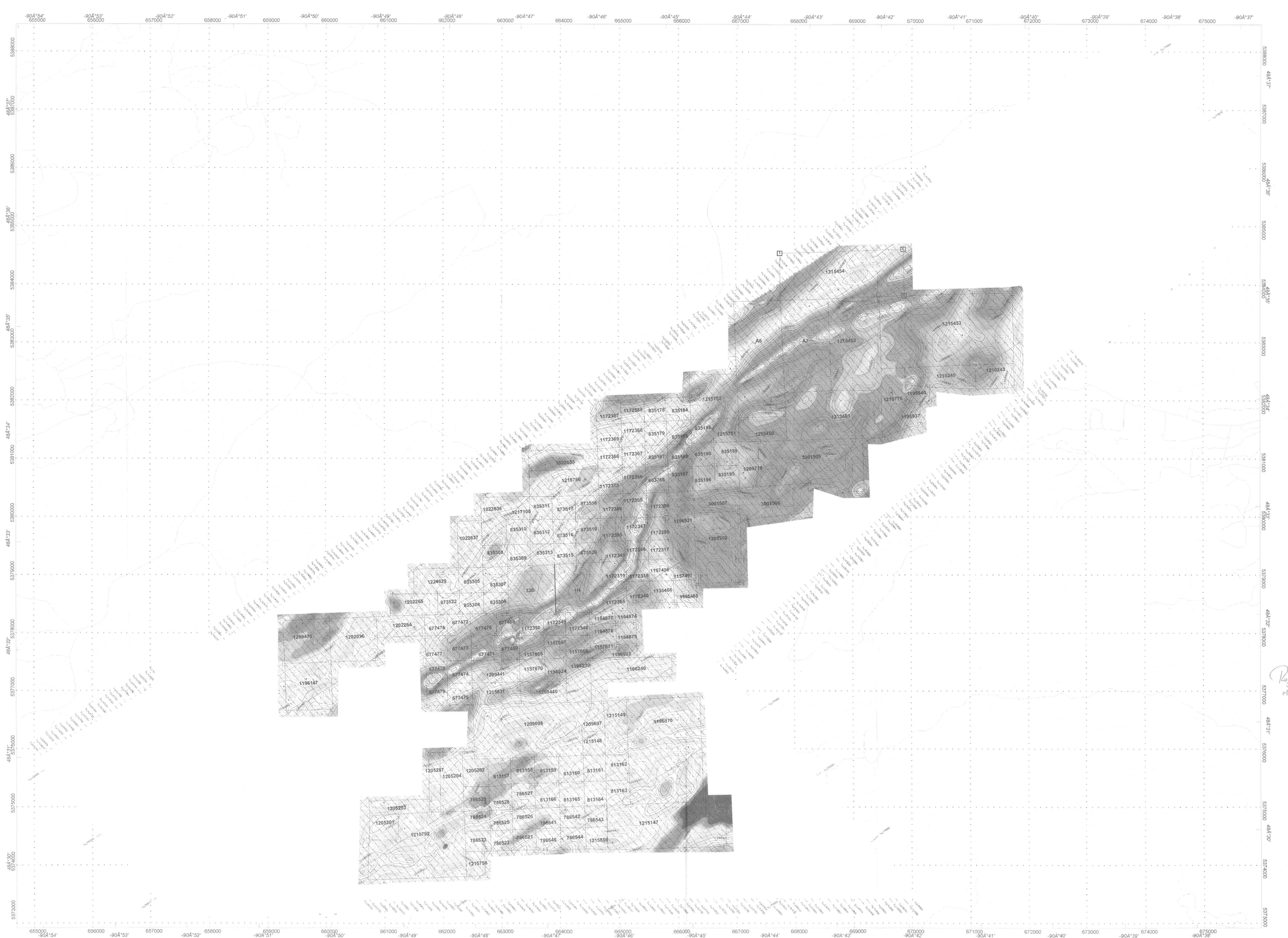


East West Resource Corp.
Pele Gold Block
 Kashabowie, Ontario

Geotech VTEM System
 Logarithmic scale VTEM Profiles
 Time Gates 0.22 - 6.34 ms

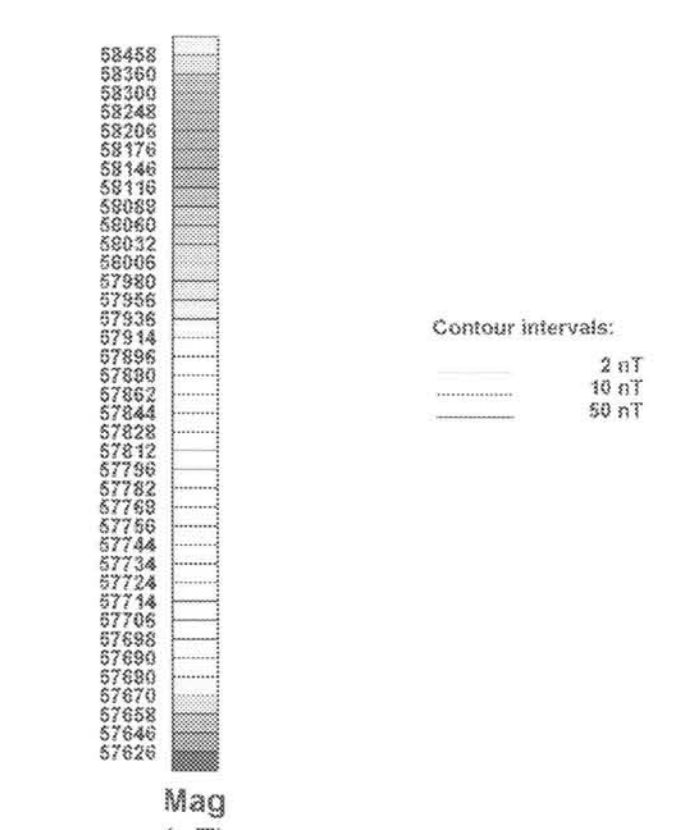
Flown and processed by Geotech Ltd.
 30 Industrial Parkway South
 Aurora, Ontario, Canada L4G 3W2
 www.geotechairborne.com

July 2005 **8.82373**



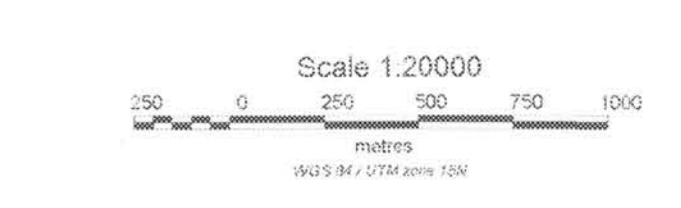
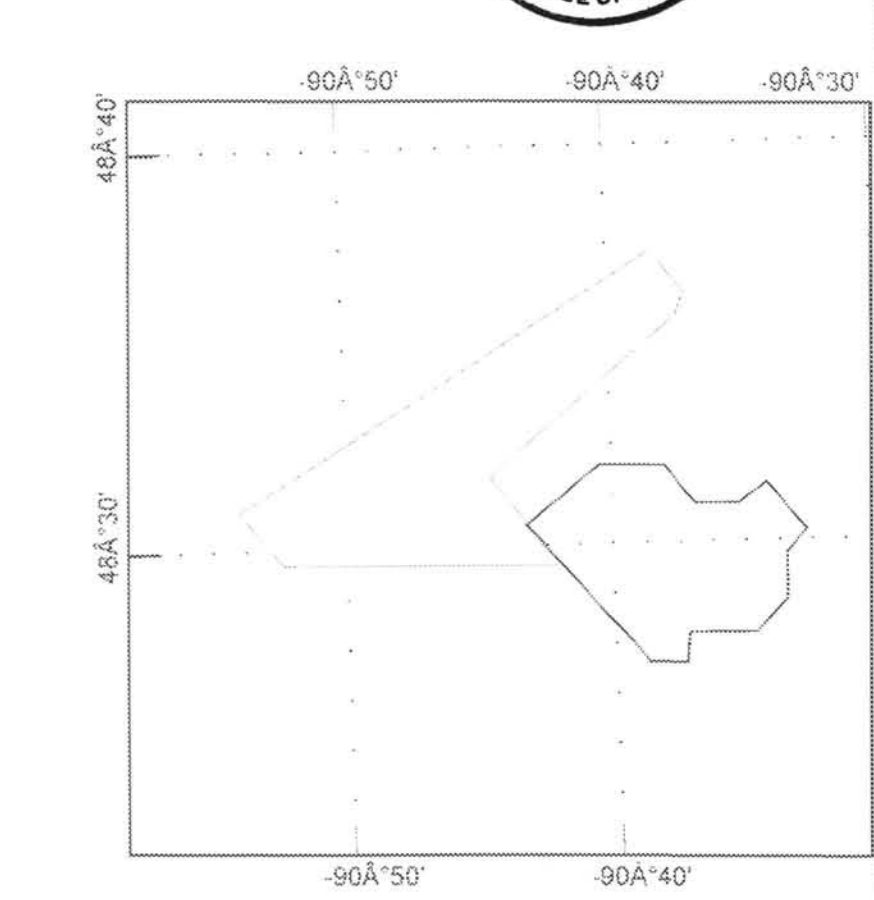
Survey Specifications:
 Aircraft: Axiom 8+ Helicopter Registration: C-GCYE
 Flight Line Spacing: 100 metres
 Horizontal sensor clearance: 65 metres
 500 cycles @ 50 metres under helicopter
 Magnetic sensor @ 15 metres under helicopter

Instrumentation:
 Geospatial Time Domain Electromagnetic System (GTEM) with concrete RTU assembly
 Transmitter Line: Quarter 30 m. Same Frequency 30 Hz
 Dipole Moment: 42,800 IA
 Transmitter Wave Form: Triangular, Pulse Width 7.5 ms
 Geometrically Optically pumped
 High Sensitivity Current Magnetometer
 Mag Resolution 0.02 nT @ 10 samples/sec



Legend:
 Roads
 Railways
 Ponds, Rivers, Lakes

Roger J. Cavén
 May 10/16



East West Resource Corp.
Pele Gold Block
 Kashabowie, Ontario

Geotech VTEM System
 Total Magnetic Field Map

Flown and processed by Geotech Ltd.
 30 Industrial Parkway South,
 Aurora, Ontario, Canada L4G 3W2
 www.geotechint.com

July 2005 **2.3237**