REPORT ON A HELICOPTER-BORNE MAGNETIC AND ELECTROMAGNETIC SURVEY

"featuring the AeroQuest AeroTEM© System"

Powell Property
Powell Township, Matachewan Area, Ontario

for

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MAPS

The results of the survey are presented in a series of black line and colour maps at a scale of 1:10,000. Map products are as follows:

- Plate 1. Flight path with EM anomaly centres.
- Plate 2. Total Magnetic Intensity (TMI) colour grid w/line contours and anomaly centres.
- Plate 3. Z1 On-time, Z5 On-time,, and Z0 Off-time EM profiles and anomaly centres.
- Plate 4. Z0 Off-time EM colour grid w/line contours and anomaly centres.

All the maps show the flight path, claims fabric, and skeletal topography, and EM anomalies represented by conductance classified symbols. An anomaly identifier label, the estimated conductance in siemens, and the number of off-time channels of response are posted alongside the anomaly symbol. Colour contour maps show colour fill plus superimposed line contours.

DIGITAL DATA on CD-ROM

The results of the survey are archived on a single CD-ROM as Geosoft GDB (binary) database(s) as well as Geosoft maps and magnetic grids. A *readme.txt* file may be found on the CD which describes the contents in more detail.

For the reader's convenience, a copy of Geosoft's Oasis Montaj Ver 6.0 Free Interface is included on the CD. To install the interface, unzip the two files and follow the instructions in the PDF format (Adobe Reader) guide.

The CD also contains a digital version of this report in PDF (Adobe Acrobat) format including the technical paper by Balch, et al, which is re-printed in the appendix of this report. Adobe Acrobat Reader Ver 5.0 has been included on the CD.

REPORT ON A HELICOPTER-BORNE MAGNETIC AND ELECTROMAGNETIC SURVEY

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1. INTRODUCTION

This report describes a helicopter-borne geophysical survey carried out on behalf of Mustang Minerals Corp. on the Powell property, in Powell and BannockTownship, in the Matachewan area of Ontario.

Principal geophysical sensors included AeroQuest's exclusive AeroTEM© time domain helicopter electromagnetic system and a high sensitivity cesium vapour magnetometer. Ancillary equipment included a GPS navigation system with GPS base station, radar altimeter, video recorder, and a base station magnetometer. Raw streaming EM data, consisting of 126 channels of Z and X component sampled at 300 times per second during both on-current and off-current times, was recorded. A second RMS "analogue" acquisition system recorded 6 Z-component and one X-component channels of semi-processed EM data at 7.5 times per second, in addition to recording GPS position, magnetic field, and terrain clearance.

Appendix 1 lists the UTM corner co-ordinates for the survey area as well as for the claim block outline. The total line kilometres (unwindowed) flown was 179.0 km. The survey flying described in this report took place between April 24 and May 5, 2004.

Bedrock EM anomalies were interpreted and graded according to the estimated conductance. This report describes the survey, the data processing and presentation and includes an interpretation report, prepared separately by Mr. S. Balch, in the appendix.

2. SURVEY AREA

The Powell survey block straddles the Powell-Bannockburn Townships boundary, west of Mistinikon Lake, approximately 71 km southeast of the city of Timmins and 10 km west-southwest of the village of Matachewan (Figure 1). Provincial Hwy 566, which joins Matachewan, lies 1.5 km north of the block. The property is centred at 47°59'N latitude, 80°47'W longitude.

The Powell property consists of 3 unpatented mining claims covering 653.1 hectares lying entirely within Powell Township within the Larder Lake Mining Division. The claim block may be located on NTS 1:50,000 map sheet 41P/15 as well as Ontario claim Map G-3218.

Figure 1 Regional Setting in Ontario

Powell Property Claims

Claim #	Township	Due Dates
L 3005404	Powell (G-3218)	2005-JUN-26
L 3005405	Powell (G-3218)	2005-JUN-26
L 3005406	Powell (G-3218)	2005-JUN-26

The survey crew was accommodated at the Camp Matachewan Fishing Lodge in Matachewan, Ontario. Survey specification details may be found in the next section of the report.

3. SURVEY SPECIFICATIONS AND PROCEDURES

The survey specifications are summarised in the following table:

Area Name	Line Spacing (m)	Line Direction	Unwindowed Total Survey (km)	Windowed Total Survey (km)	Dates Flown (2004)
Powell Survey	100	N-S	179.0	72.6	April 24, May 4,5

The unwindowed kilometres flown is calculated by adding up the survey and control (tie) line lengths as presented in the database. The windowed kilometres is determined in the same manner but after masking the database with an outline of the claims boundary. All the survey lines were flown in the UTM grid North/South direction. The control (tie) lines were flown perpendicular to the survey lines.

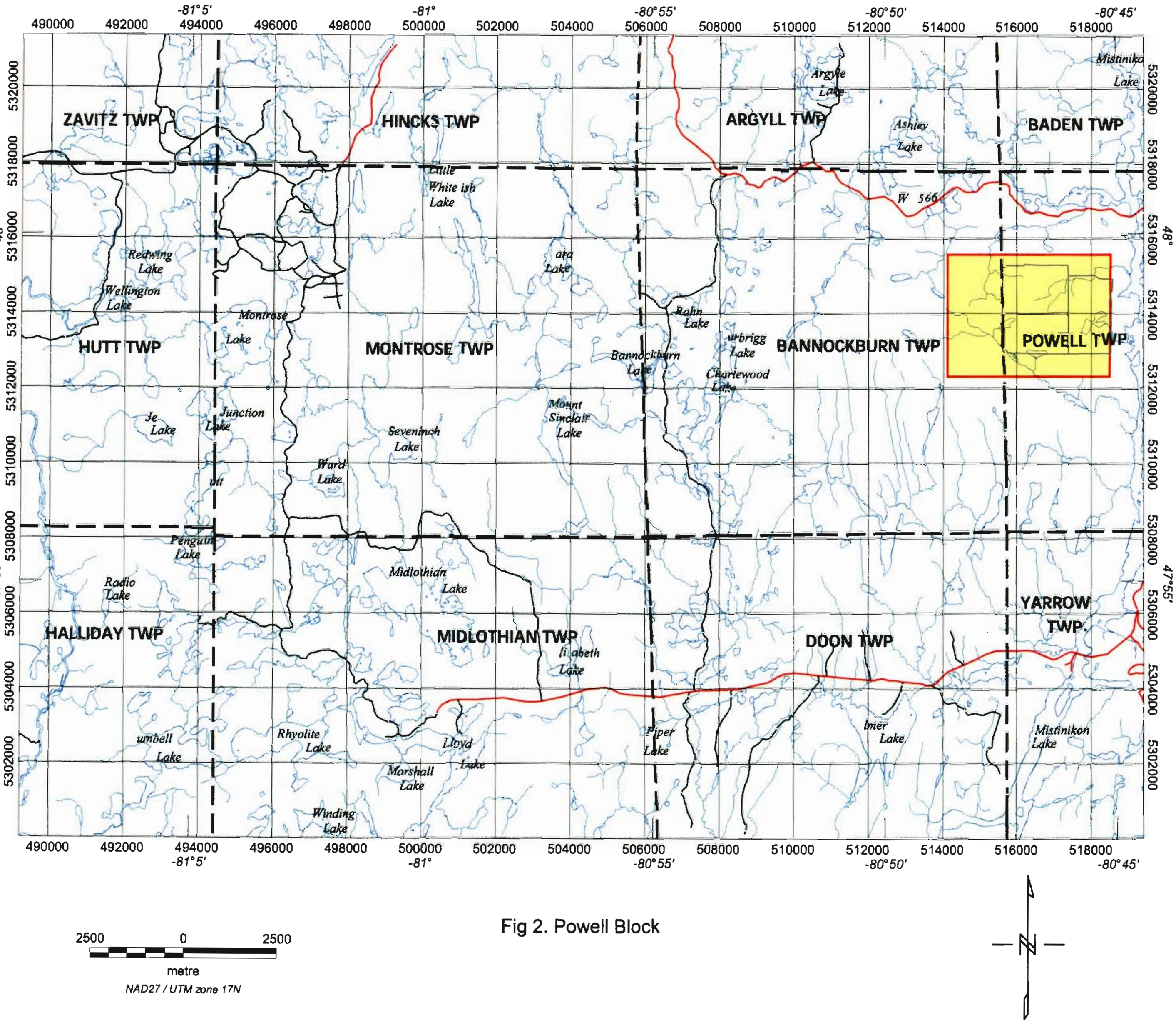


Fig 2. Powell Block

Nominal EM bird terrain clearance was ~30m (100 ft). The magnetometer sensor was mounted in a smaller bird connected to the tow rope 21 metres above the EM bird and 17 metres below the helicopter. Nominal survey speed was 75 km/hr. Scan rates for data acquisition was 0.1 second for the magnetometer, electromagnetics and altimeter and 0.2 second for the GPS determined position. This translates to a geophysical reading about every 2-3 metres along flight track.

Navigation was assisted by a GPS receiver and the RMS data acquisition system which reports GPS co-ordinates as NAD83 latitude/longitude and directs the pilot over a pre-programmed survey grid. The x-y-z position of the aircraft, as reported by the GPS, is recorded at 0.2 second intervals.

Unlike frequency domain electromagnetic systems, the AeroTEM© system has negligible drift due to thermal expansion. The system static offset is removed by high altitude zero calibration lines and employing local levelling lines.

The operator was responsible for ensuring the instrument was properly warmed up prior to departure and that the instruments operated properly throughout the flight. He also maintained a detailed flight log during the survey noting the times of the flight as well as any unusual geophysical or topographic features.

On return of the aircrew to the base camp, the RMS acquisition system survey data on FlashCard was downloaded to the data processing work station. The MDAS recorded data, on removable hard-drive, was also downloaded to the processing station and archived onto DVD. In-field processing included flight preparation, transfer of the RMS acquired data to Geosoft GDB database format and production of preliminary EM, magnetic contour, and flight path maps. Survey lines which showed excessive deviation from the intended flight path were re-flown.

4. AIRCRAFT AND EQUIPMENT

4.1 Aircraft

Fig.3 The mag bird (foreground) and EM bird

A Eurocopter (Aerospatiale) AS350B2 "A-Star" helicopter - registration C-FAVI was used as survey platform. The helicopters was owned and operated by Abitibi Helicopters Ltd., LaSarre, P.Q. Installation of the geophysical and ancillary equipment was carried out by AeroQuest Limited at the Gateway Helicopters Base in North Bay, Ont. then ferried to the survey area. The survey aircraft was flown at a nominal terrain clearance of 220 ft (70 m).

4.2 Magnetometer

The AeroQuest airborne survey system employed the Geometrics G-823A cesium vapour magnetometer sensor installed in a two metre towed bird airfoil attached to the main tow line, 17 metres below the helicopter. The sensitivity of the magnetometer is 0.001 nanoTesla at a 0.1 second sampling rate. The nominal ground clearance of the magnetometer bird was 51 metres (170 ft.). The magnetics data is recorded at 10Hz by the RMS DGR-33.

4.3 Electromagnetic System

Fig.4 Instrument Rack

The electromagnetic system employed was an AeroQuest AeroTEM© Time Domain towed bird system. A triangular transmitter on-time pulse of 1.150 millisecond is employed, at a base frequency of 150 Hz. During every tx on-off cycle (300 per second), 126 contiguous channels of raw x and z component (as well as a transmitter current monitor, itx) of the received waveform are measured. Each channel width is 26.455 microsec starting at the beginning of the Tx pulse on. This 126 channel data is referred to as the raw streaming data.

The AeroTEM system has two separate EM data recording streams, the conventional RMS DGR-33 and the MDAS system.

RMS DGR-33 Acquisition System

In addition to the magnetics, altimeter and position data, six time channels of on-board real time processed off-time EM decay in the Z direction and one in the X direction are recorded by the RMS DGR-33 acquisition system at 7.5 samples per second. These channels are derived by a real-time binning, stacking and filtering procedure on the raw streaming data. The RMS data (Z1 to Z6, X1) is also sent to the analogue chart recorder and is often referred to as the analogue data. The channel window timing of the RMS DGR-33 6 channel system is described in the table below.

RMS Channel	Start time (microsec)	End time (microsec)	Width (microsec)	Streaming Channels	Noise tolerance
Z1, X1	1269.8	1322.8	52.9	48-50	20 ppb
Z2	1322.8	1455.0	132.2	50-54	20 ppb
Z3	1428.6	1587.3	158.7	54-59	15 ppb
Z4	1587.3	1746.0	158.7	60-65	15 ppb
Z5	1746.0	2063.5	317.5	66-77	10 ppb
Z6	2063.5	2698.4	634.9	78-101	10 ppb

MDAS Acquisition System

The 126 channels of raw streaming are recorded by the MDAS acquisition system onto a removable hard drive. The streaming data may undergo post-survey processing to yield 33 stacked and binned on-time and off-time channels at a 10 Hz sample rate. The timing of those reduced streaming channels is described in the following table.

Processed Channel	Measured Channels	Start (microsec)	Stop (microsec)	Mid (microsec)	Width (microsec)
1 ON	24	634.9	661.4	648.1	26.5
2 ON	25	661.4	687.8	674.6	26.5
3 ON	26	687.8	714.3	701.1	26.5
4 ON	27	714.3	740.7	727.5	26.5
5 ON	28	740.7	767.2	754.0	26.5
6 ON	29	767.2	793.7	780.4	26.5
7 ON	30	793.7	820.1	806.9	26.5
8 ON	31	820.1	846.6	833.3	26.5
9 ON	32	846.6	873.0	859.8	26.5
10 ON	33	873.0	899.5	886.2	26.5
11 ON	34	899.5	925.9	912.7	26.5
12 ON	35	925.9	952.4	939.2	26.5
13 ON	36	952.4	978.8	965.6	26.5
14 ON	37	978.8	1005.3	992.1	26.5
15 ON	38	1005.3	1031.7	1018.5	26.5
16 ON	39	1031.7	1058.2	1045.0	26.5
0 OFF	44	1164.0	1190.5	1177.2	26.5
1 OFF	45	1190.5	1216.9	1203.7	26.5
2 OFF	46	1216.9	1243.4	1230.2	26.5
3 OFF	47	1243.4	1269.8	1256.6	26.5
4 OFF	48	1269.8	1296.3	1283.1	26.5
5 OFF	49	1296.3	1322.8	1309.5	26.5
6 OFF	50	1322.8	1349.2	1336.0	26.5
7 OFF	51	1349.2	1375.7	1362.4	26.5
8 OFF	52	1375.7	1402.1	1388.9	26.5
9 OFF	53	1402.1	1428.6	1415.3	26.5
10 OFF	54	1428.6	1455.0	1441.8	26.5
11 OFF	55	1455.0	1481.5	1468.3	26.5
12 OFF	56	1481.5	1507.9	1494.7	26.5
13 OFF	57-60	1507.9	1640.2	1574.1	132.3
14 OFF	61-68	1613.8	1825.4	1719.6	211.6
15 OFF	69-84	1825.4	2248.7	2037.0	423.3
16 OFF	85-116	2248.7	3095.2	2672.0	846.6

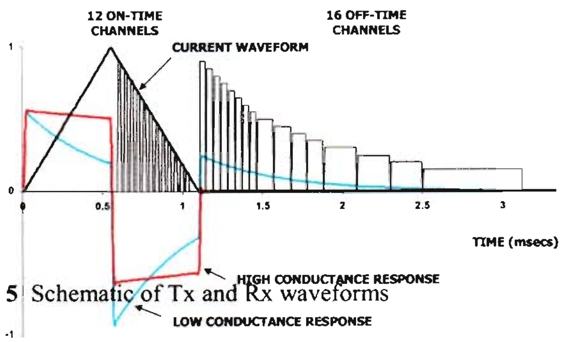


Fig. 5 Schematic of Tx and Rx waveforms

The picked EM anomalies plotted on the survey maps were generated from the streaming EM channel data logged by the MDAS acquisition system.

The current AeroTEM© Transmitter Dipole moment is 38.8 kNIA. The AeroTEM© bird was towed 38 metres (125 ft) below the helicopter. More technical details of the system may be found in the technical paper in the Appendix.

4.4 Ancillary Systems

Magnetometer and GPS Base Station

An integrated GPS and magnetometer base station was set up to monitor the static position GPS errors to permit differential post-processing and to record the diurnal variations of the earth's magnetic field. Each sensor, GPS and magnetic, receiver/signal processor was attached to a dedicated laptop computer for purposes of instrument control and/or data display and recording. The laptops were, in turn, linked together to provide a common recording time reference using the GPS clock.

The base magnetometer was a Scintrex CS-2 cesium precession magnetometer coupled with a Picodas MEP-710 frequency counter/decoupler. Data logging and magnetometer control was provided by the Picodas *basemag.exe* software. The logging was configured to measure at 1.0 second intervals. Digital recording resolution was 0.1 nT. The sensor was placed on a tripod away from potential noise sources near the Lodge. A continuously updated profile plot of the base station values was available for viewing on the base station display.

The GPS base station employed a Leica Mx9212 12 channel GPS receiver with external antenna mounted near the magnetometer sensor. Although the GPS receiver was controlled by the Picodas *cdu510.exe* software, logging was not engaged as the aircraft employed a real-time differential GPS receiver. The base GPS was used only for the GPS clock for synchronisation purposes

Radar Altimeter

A Terra TRA 3500/TRI-30 radar altimeter was used to record terrain clearance. The antenna was mounted on the outside of the helicopter beneath the cockpit. The recorded data represented the height of the antenna, i.e. helicopter, above the ground. The Terra altimeter has an altitude accuracy of +/- 1.5 metres.

Video Tracking and Recording System

A high resolution colour VHS/8mm video camera was used to record the helicopter ground flight path along the survey lines. The video is digitally annotated with GPS position and time and can be used to verify ground positioning information and cultural causes of anomalous geophysical data.

GPS Navigation System

The navigation system consisted of an Ag-Nav Inc. AG-NAV2 GPS navigation system comprising a PC based acquisition system, navigation software, a deviation indicator in front of the aircraft pilot to direct the flight, a full screen display with controls in front of the operator, a Trimble AgGPS132 WAAS enabled GPS receiver mounted on the instrument rack and a Trimble antenna mounted on the magnetometer bird.

WAAS (Wide Area Augmentation System) consists of approximately 25 ground reference stations positioned across the United States that monitor GPS satellite data. Two master stations, located on either coast, collect data from the reference stations and create a GPS correction message. This correction accounts for GPS satellite orbit and clock drift plus signal delays caused by the atmosphere and ionosphere. The corrected differential message is then broadcast through one of two geostationary satellites, or satellites with a fixed position over the equator. The corrected position has a published accuracy of under 3 metres. A recent static ground test of the Trimble WAAS GPS yielded a standard deviation in x and y of under 0.6 metres and for z under 1.5 metres over a two hour period.

Survey co-ordinates are set-up prior to survey and the information is fed into the airborne navigation system. The co-ordinate system employed in the survey design was NAD27 Canada Mean UTM. The real-time differentially corrected GPS positional data was recorded by the RMS DGR-33 in NAD27 latitude and longitude at 0.2 second intervals directly in the analogue geophysical data file. The datum of the recorded latitude/longitude depended on the datum defined in the navigation file used to guide the survey aircraft.

Digital Acquisition System

The RMS Instruments DGR33A data acquisition system was used to collect and record the analogue data stream, i.e. the geophysical and positional data, including processed 6 channel EM, magnetic, radar altimeter, GPS position, and time. The data was recorded on 128Mb capacity FlashCard. The RMS output was also directed to a thermal chart recorder.

The AeroTEM received waveform sampled during on and off-time at 126 channels per decay, 300 times per second, was logged in parallel by the proprietary MDAS data acquisition system. The channel sampling commences at start of the Tx cycle and the width of each channel is 26.445 microseconds. The streaming data was recorded on a removable hard-drive and was later backed-up onto DVD-ROM on the field-processing computer.

5. PERSONNEL

The following AeroQuest personnel were involved in the project

Field -

Party Chief: Bert Simon   Data Processor: Chris Balch

Operator: Marcus Watson/Chris Kozak

Office-

Data Processing and Report: Neil Fiset/Chris Balch/Steve Balch
Interpretation: Steve Balch

The survey pilot, Kevin Jackson, was employed directly by the helicopter operator - Abitibi Helicopters Ltd.

6. DELIVERABLES

The report includes a set of four geophysical maps plotted at 1:10,000 scale. The map types are as follows:

- Plate 1. Flight path with EM anomaly centres.
- Plate 2. Total Magnetic Intensity (TMI) colour grid w/line contours and anomaly centres.
- Plate 3. Z1 On-time, Z5 On-time,, and Z0 Off-time EM profiles and anomaly centres.
- Plate 4. Z0 Off-time EM colour grid w/line contours and anomaly centres.

The basic map coordinate/projection system used to create the maps was NAD27 Canada Mean Universal Transverse Mercator Zone 17. For reference, the latitude and longitude are also noted on the maps.

All the maps show flight path trace with time reference fiducials marked at a 10 second interval, skeletal topography, claims fabric, and conductor picks represented by an anomaly symbol classified according to estimated conductance. The anomaly symbol is accompanied by postings denoting the conductance, an anomaly identifier label and the number of off-time channels of response. The anomaly symbol legend may be found in the margin of the maps. Colour contour maps show colour fill plus superimposed line contours.

The geophysical profile data is archived digitally in a Geosoft GDB binary format database. The binary database contains both the processed streaming data and the RMS data.

The Geosoft database included is as follows (filename extension is "gdb"):

Area	RMS & Streaming (.gdb)
Powell	Powell.gdb

A description of the various channels found in this database may be found in the appendices of this report.

An archive CD complements the hard copy report and maps. It contains the digital database as well as the geophysical maps and grids in Geosoft format.

7. DATA PROCESSING AND PRESENTATION

All in-field and post-field data processing was carried out using Geosoft Montaj as well as AeroQuest proprietary data processing software. Plotting was on a 36 inch wide HP650C ink-jet plotter.

7.1 Base Map

The geophysical maps accompanying this report are based on positioning in the datum of NAD27 Canada Mean. The survey geodetic GPS positions have been map projected using the Universal Transverse Mercator projection in Zone 17.

A summary of the map datum and projection specifications are as follows:
Ellipse: Clark 1866
Ellipse major axis: 6378206.4m eccentricity: 0.082271854
Datum: North American 1927 - Canada Mean
Datum Shifts (x,y,z) : 10, -158, -187 metres
Map Projection: Universal Transverse Mercator Zone 17 (Central Meridian 81°W)
Central Scale Factor: 0.9996
False Easting, Northing: 500,000m, 0m

The skeletal topography, provided by Mustang Minerals Corp., was derived from the digital Ontario Base Map (OBM) 1:20,000 map series. The claims fabric was downloded from the MNDM website in NAD83 then reprojected to NAD27 Canada Mean before merging with the topographic data.

7.2 Flight Path & Terrain Clearance

The position of the survey helicopter was directed by use of the Global Positioning System (GPS). Positions were updated five times per second (5Hz) and expressed as NAD27 latitude and longitude calculated from the raw pseudorange derived from the C/A code signal.

The instantaneous GPS flight path, after conversion to UTM co-ordinates, is drawn using linear interpolation between the x/y positions. The time reference fiducials are drawn on the map at appropriate intervals and are used to reference the digital data files to the plan map.

The raw Digital Terrain Model (DTM) was derived by simply taking the satellite position altitude and subtracting the radar altimeter. The calculated values are relative and are not tied into to surveyed geodetic heights.

7.3 Electromagnetic Data

The raw streaming data, sampled at a rate of 38,400 Hz (126 channels, 300 times per second) was reprocessed using a proprietary software algorithm developed by Mr. Steve Balch. Processing began with a segmenting and synchronisation procedure that isolates the relevant portion of the flight and pre-processes the time series to ensure data synchronisation is maintained. The pre-processed segment was then partially stacked and tested for high noise events, including sferics, which are skipped during the main stacking procedure. The coefficients for the waveform deconvolution process were also determined.

During the main processing algorithm, data were stacked for 40 full-cycles or 0.2 seconds. Deconvolution of the system waveform, primary field removal during the on-time, and system transient removal during the off-time were performed ahead of the stacking. The data were then binned into the 16 On-time and 17 Off-time channels and their base levels corrected. The resulting profiles were then filtered using a filter with 11 coefficients. An overburden stripped response was generated by subtracting the off-time response from the on-time response for the X1 to X16 and Z1 to Z16 channels.

The final processing step was to merge the processed EM data back into a Geosoft GDB file with the GPS position, altimeter, levelled magnetics, etc. data. The EM fiducial is used to synchronise the two datasets. The processed channels are labelled in the database as ZOn1 to ZOn16, ZOff0 to ZOff16, XOn1 to XOn16, and XOff0 to XOff16. The overburden stripped channels are labelled Z1Obr to Z16Obr and X1Obr to X16Obr. In the database the processed AeroTEM EM channels are expressed as nT/sec. To convert to parts per billion (ppb), multiply by 6.96.

Conductors were interpreted based on a close visual examination of the EM profiles and taking into account the magnetic data along with geological and geochemical data provided by the client. A report of that interpretation may be found in the Appendices.

At each conductor pick, the on-time and off-time conductance have been calculated based on a conventional vertical thin sheet model and where the channel response satisfies a threshold of 5.0 nT/s on-time and 2.5 nT/s off-time. From these calculated values, an interpreted conductance (COND) value has been assigned to each anomaly. The assigned value is determined from the off-time response, unless there are 16 off-time channels with nT/s >2.0 in the response. In that event the assigned value is taken from the on-time because of the higher conductance. In the case of conductors marked by a double peak type response (thin, shallow sources) where the EM coupling is a minima over or near the conductor axis, the conductance value (COND) is derived from the higher response area adjacent to the axis. For each interpreted conductor, the number of off-time channels of response (from channels ZOff1-ZOff16) above the threshold is also noted.

Each conductor pick has been given an identification letter label and has also been classified according to a set of seven ranges of conductance values. The anomalies were then plotted on the plan maps with one of seven symbols reflecting that classification level. Adjacent to the map symbol is posted the identifier label as well as the interpreted conductance values in siemens, and the number of off-time channels of response above 2.5nT/sec. The maximum possible number of off-time channels is 16 given the first channel of the 17 processed channels is not included.

With regard to the six channel off-time data recorded by the RMS DGR-33, after a lag correction then a two stage digital filtering process was used to remove any residual short wavelength noise. Sharp large amplitude events were removed with a 0.4 sec 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 1.0 seconds or 30 metres. This filter is referred to as a 1.0 sec linear filter. The raw channels are denoted in the database with the suffix "raw", e.g. z1raw, x1raw, etc. The filtered channels are indicated by the "f" suffix, e.g.. z1f, x1f, etc.

During the high elevation checks, an internal 5 second wide calibration pulse in all EM channels was generated in order to ensure that the gain of the system remained constant and within specifications.

7.4 Magnetic Data

Prior to any levelling the magnetic data was subjected to a lag correction of -0.1 seconds and a spike removal filter. The filtered aeromagnetic data were then corrected for diurnal variations using the magnetic base station and the intersections of the tie lines. No corrections for the regional reference field (IGRF) were applied. The corrected profile data were interpolated on to a grid using a random grid technique with a grid cell size of 25 metres. The final levelled grid provided the basis for threading the presented contours which have a minimum contour interval of 20 nT.

The property is underlain by a complex sequence of proterozoic calc-alkaline intermediate to felsic volcanic rocks, mafic volcanic rocks, komatiitic basalts to dunites, silicate to sulphide iron formations, gabbro intrusions, and a series of diamictites, arkoses, and conglomerates. The intensely folded nickel bearing komatiitic rocks have given rise to a very strong magnetic feature which dominates the central part of the survey block.

Respectfully submitted,

Neil Fiset, B.Sc.,
AeroQuest Limited
August 15, 2004

APPENDIX 1

Interpretation Report by S. Balch

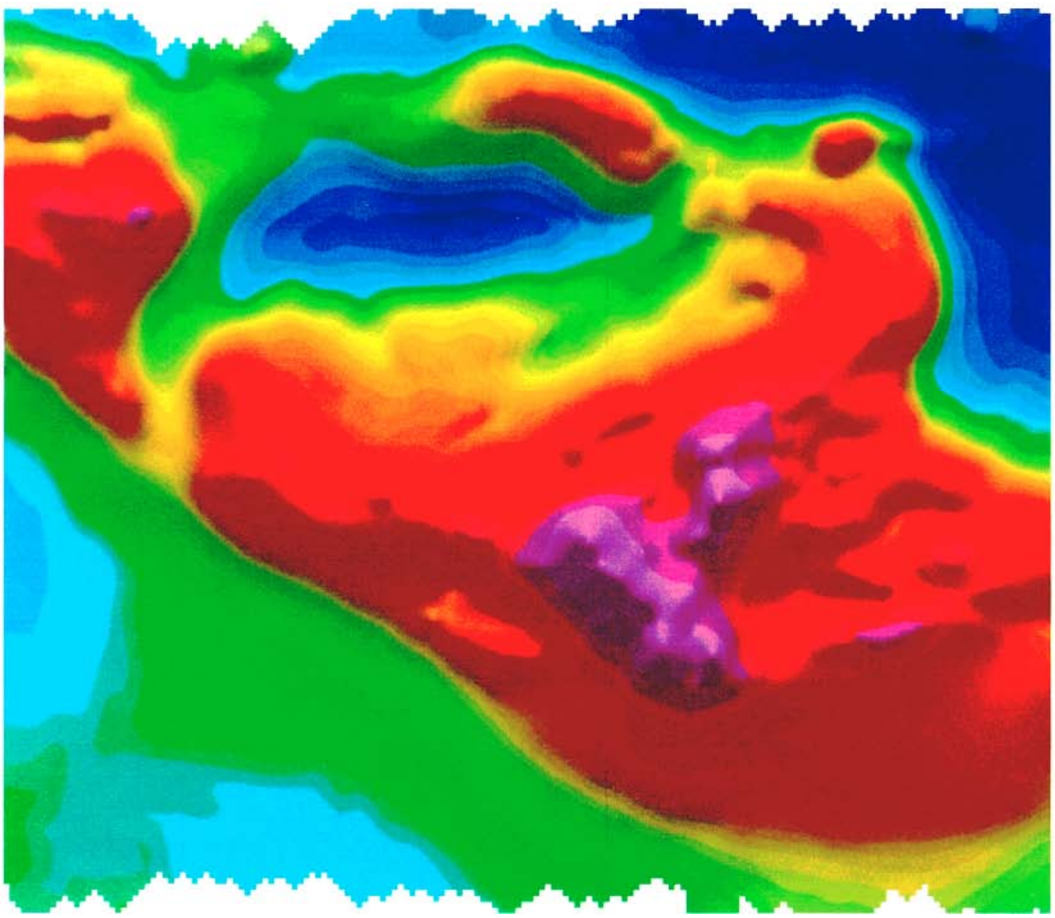
INTERPRETATION REPORT

Summary of an AeroTEM Airborne Geophysical Survey

On the Powell Property

For

Mustang Minerals Corp



By

S.J. Balch

August 1, 2004

Introduction

Aeroquest Limited flew an AeroTEM helicopter electromagnetic and magnetometer survey over the Powell Property owned by Mustang Minerals Corp during May and June of 2004. The main purpose of the survey was to detect new Ni-Cu-PGM mineralization associated with possible ultramafic units. The second purpose of the survey was to identify other conductive targets that have the potential to be a mineralizing system and to characterize these targets as well. The AeroTEM survey comprised a total of 178 line kilometres using a flight line spacing of 100 m. Conductor picks are listed in Appendix A.

Results

The Powell Property is characterized by a main magnetic high (Figure 1) that is trending east to southeast and covers much of the property. Within the magnetic high are two conductive trends, both oriented east to west. The conductance range of these trends is low for nickel sulphide, between 1-5 S for the western trend and 1-3 S for the eastern trend. The conductance of the western trend is highest on the eastern most edge where the trend intersects the highest amplitude portion of the magnetic response.

Further to the northeast portion of the property are two additional conductive trends, neither of which is consistent with nickel sulphide mineralization within ultramafic. Although the easternmost trend has high conductance, (20 to 40 S) neither trend has a correlating magnetic response.

The Powell Property does not contain EM responses that are normally associated with nickel sulphide within an ultramafic host. The two conductive trends located to the northeast of the main magnetic trend should be reviewed for possible VMS style mineralization (in the case of the line 430-450 trend) and gold mineralization (in the case of the line 360-420 trend). These trends could also be associated with graphite and/or barren pyrrhotite.

Respectfully submitted,

S.J. Balch
Aeroquest Limited

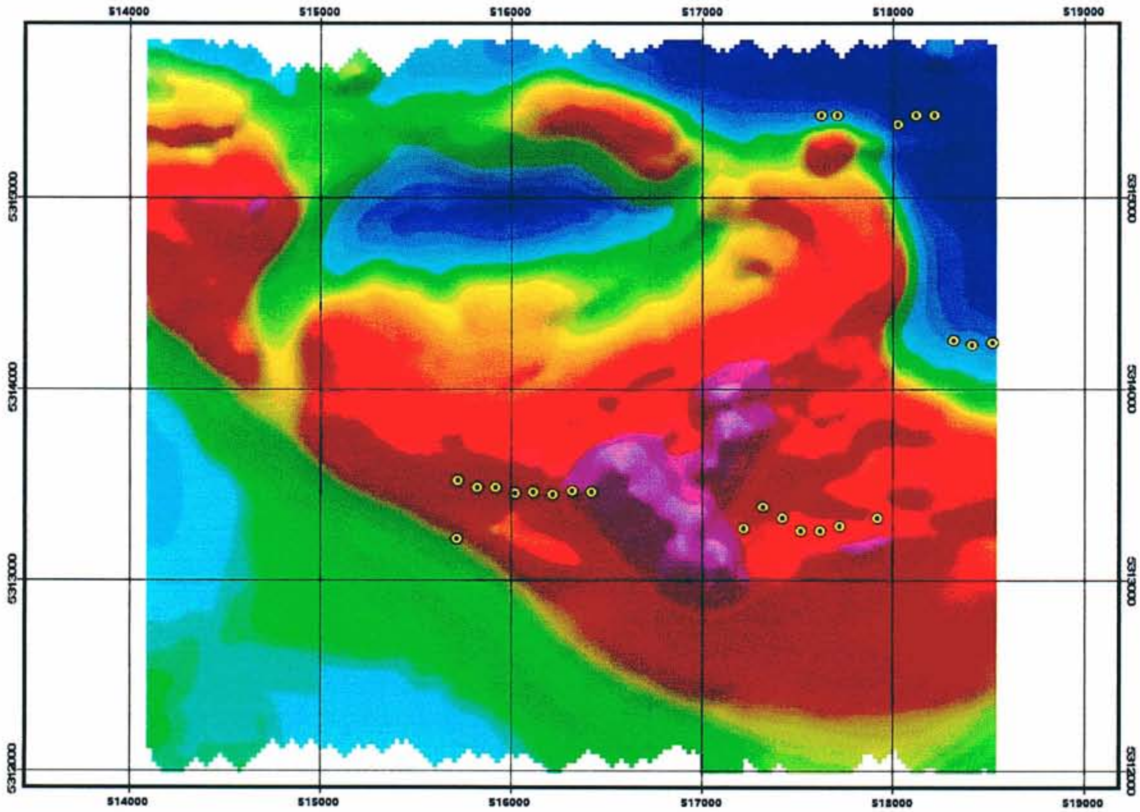


Figure 1. The Powell Property, shown here with conductor picks, is defined by an east to southeast trending magnetic high with some anomalous conductivity. The conductance of the targets is generally too low for nickel-sulphide mineralization. The high conductance trend in the east central portion of the survey has no correlating magnetic response.

APPENDIX A – Powell Area AeroTEM Conductor Picks

Line	Cond. (S)	East (m)	North (m)	Comments
170	0.77	515712	5313211	Low conductance, near surface, possible south dip, no magnetic association.
170	1.52	515718	5313520	Low conductance, possibly deep (>100 m), located on southern edge of magnetic feature.
180	1.58	515818	5313483	Low conductance, near surface, sub-vertical, on southern edge of east-trending magnetic response.
190	2.54	515915	5313483	Moderate conductance, near surface, sub-vertical with possible north dip, located on southern edge of east-west trending magnetic response.
200	5.99	516015	5313455	Moderate to good conductance, near surface, sub-vertical, located on southern edge of east-west trending magnetic response.
210	2.60	516114	5313459	Moderate conductance, very low amplitude suggesting small size, located on southern edge of east-west trending magnetic response.
220	1.81	516214	5313444	Low conductance, near surface, low amplitude suggesting small size, located on southern edge of east-west trending magnetic response.
230	3.39	516315	5313465	Moderate conductance, near surface, low amplitude suggesting small size, located on southern edge of east-west trending magnetic response.
240	4.19	516415	5313457	Moderate conductance, near surface, low amplitude suggesting small size, located on southern edge of east-west trending magnetic response.
320	0.72	517214	5313267	Low conductance, thin and dipping to the north, with no direct magnetic association.
330	0.28	517313	5313382	Low conductance, thin and sub-vertical, with no direct magnetic association.
340	1.52	517415	5313323	Low conductance, very small target, no magnetic association.
350	2.00	517512	5313255	Low conductance, small target, north dipping, located just beyond the northern limit of a magnetic response.
360	0.71	517613	5313253	Low conductance, north dipping and thin, located just beyond the northern limit of a magnetic response.
360	1.49	517618	5315432	Low conductance, thin and dipping to the north, just beyond the northern limit of a magnetic response.
370	1.06	517716	5313280	Low conductance, thin and dipping to the north, just beyond the northern limit of a magnetic response.
370	1.49	517705	5315433	Low conductance, sub-vertical, located within magnetic low.

390	2.92	517912	5313324	Low conductance, very small size and close to surface, located on northern edge of magnetic response.
400	0.95	518019	5315386	Low conductance, north dipping at a fairly shallow angle, no magnetic association.
410	1.25	518116	5315432	Low conductance, north dipping at a fairly shallow angle, no magnetic association, probably two closely spaced conductors.
420	1.31	518214	5315436	Low conductance, north dipping at a fairly shallow angle, no magnetic association, probably two closely spaced conductors.
430	23.2	518315	5314255	High conductance, good size, close to surface, no magnetic association.
440	42.7	518411	5314232	High conductance, good size, close to surface, no magnetic association.
450	1.82	518520	5314241	Low conductance, two closely spaced conductors, no magnetic association.

APPENDIX 2

Block corner co-ordinates (UTM Zone 17 - NAD27 Canada Mean)

Powell Survey Block Outline	
514116mE	5312297mN
514116mE	5315557mN
518524mE	5315557mN
518493mE	5312297mN
514116mE	5312297mN

Powell Claim Block Outline

517381.4mE	5314991.1mN	515685.0mE	5313001.5mN
518086.8mE	5315008.1mN	515680.0mE	5313001.5mN
518195.9mE	5314906.6mN	515669.0mE	5313002.5mN
518569.5mE	5314890.6mN	515660.0mE	5313002.5mN
518554.8mE	5314583.2mN	515651.0mE	5313004.5mN
518534.8mE	5314554.6mN	515639.0mE	5313015.5mN
518520.0mE	5314523.0mN	515635.0mE	5313025.5mN
518513.7mE	5314502.5mN	515621.0mE	5313039.5mN
518506.0mE	5314438.6mN	515615.0mE	5313066.5mN
518509.0mE	5314403.9mN	515615.0mE	5313076.5mN
518518.0mE	5314370.2mN	515613.0mE	5313083.5mN
518531.1mE	5314341.5mN	515616.0mE	5313111.5mN
518523.9mE	5312915.9mN	515607.0mE	5313124.5mN
517381.5mE	5312904.4mN	515591.0mE	5313132.5mN
516795.0mE	5312898.7mN	515606.5mE	5313992.9mN
515722.0mE	5312934.6mN	515618.5mE	5314659.1mN
515721.0mE	5312948.6mN	515606.3mE	5315255.6mN
515726.0mE	5312963.6mN	516189.1mE	5315251.6mN
515731.0mE	5312965.6mN	516189.4mE	5315280.6mN
515723.0mE	5312985.6mN	516543.7mE	5315275.6mN
515714.0mE	5312996.6mN	517373.1mE	5315264.6mN
		517381.4mE	5314991.1mN

APPENDIX 3 Description of Database Fields (Geosoft GDB database)

Column	Description
x	Zone 17 UTM Easting in metres (NAD27-Canada Mean)
y	Zone 17 UTM Northing in metres (NAD27-Canada Mean)
x83	Zone 17 UTM Easting in metres (NAD83)
y83	Zone 17 UTM Northing in metres (NAD83)
lat	Latitude in decimal degrees (NAD27-Canada Mean)
long	Longitude in decimal degrees (NAD27-Canada Mean)
lat83	Latitude in decimal degrees (NAD83)
long83	Longitude in decimal degrees (NAD83)
fiducial	Time reference fiducial in seconds
manfid	Manual Fiducial
chartfid	Chart Recorder Fiducial
emfid	Fiducial counter for streaming data synchronisation
utctime	UTC Time in seconds of the day
rtctime	Local (System) time in HH:MM:SS
fltno	Flight number
date	Date in YY/MM/DD format
galtf	GPS Altitude in metres
ralt	Radar Altimeter in metres
bheight	Terrain clearance of EM bird in feet
dtm	Raw Digital Terrain Model in metres
basemag	Base Station magnetic field in nT
rawmag	Raw total magnetic intensity in nT
mag	Diurnally corrected Total Magnetic Intensity in nT
magtie	Final levelled Total Magnetic Intensity in nT
x1	Raw RMS Off-Time EM-X component of channel 1 in ppb
z1raw-z6raw	Raw RMS Off-Time EM-Z component of channels 1 to 6 in ppb
x1f	Smoothed RMS Off-Time EM-X component of channel 1 in ppb
z1f-z6f	Smoothed RMS Off-Time EM-Z component of channels 1 to 6 in ppb
ZOn1-ZOn16	Processed Streaming On-Time Z component Channels 1-16 in nT/sec
ZOff0-ZOff16	Processed Streaming Off-Time Z component Channels 0-16 in nT/sec
XOn1-XOn16	Processed Streaming On-Time X component Channels 1-16 in nT/sec
XOff0-XOff16	Processed Streaming Off-Time X component Channels 0-16 in nT/sec
Z1Obr-ZObr16	Overburden stripped Z component response Channels 1-16 in nT/sec
X1Obr-XObr16	Overburden stripped X component response Channels 1-16 in nT/sec
ZOff17-ZOff22	Special weighted combination channels in nT/sec (see note below)
anum	Index number of conductor pick
anomlabel	Letter label of conductor pick

nchan	No of off-time (or on-time) channels with response over 2.5nT/sec
on_con	On-time conductance in siemens
off_con	Off-time conductance in siemens
Aclass	Classification from 1-7 based on conductance of pick
cond	Interpreted conductance in siemens

Weighted channels:

ZOff17: 0.25*ch44 + 0.50*ch45 + 0.25*ch46
ZOff18 : (ch46+ch47)/2
ZOff19 : (ch48+ch49+ch50+ch51)/4
ZOff20 : (ch52..ch59)/8
ZOff21 : (ch60..ch75)/16
ZOff22 : (ch76..ch107)/32

In the databases the Survey lines, Tie Lines, and High Altitude/Internal Q coil lines are prefixed with an "L" or "Line", "T" or "Tie", and "S" or "Test", respectively.

APPENDIX 4: Technical Paper

Mineral Exploration with the AeroTEM System

S.J. Balch, W.P. Boyko, G. Black, and R.N. Pedersen, AeroQuest Limited, Presented at the SEG Int'l Exposition and 72nd Annual Meeting, Salt Lake City, Utah, October 6-11, 2002

Mineral Exploration with the AeroTEM System

S.J. Balch, W.P. Boyko, G. Black, and R.N. Pedersen, AeroQuest Limited.*

Summary

AeroTEM is a concentric-loop time-domain EM system designed for mineral exploration and geologic mapping. The high dipole moment of the transmitter in combination with the unique *superimposed dipole* coil geometry allows the system to achieve a depth of exploration similar to fixed-wing systems, but with the resolution and target response symmetry that is typical of conventional helicopter-towed EM systems. AeroTEM has flown over 20,000 line-km since its introduction in 1999. Ground follow-up geophysical surveys and drilling programs have confirmed the depth of exploration to be in excess of 200 m with high spatial resolution of target conductors confirmed. The compact, rigid system geometry should provide for a true on-time measurement of secondary fields from highly conductive sources often associated with Ni-Cu-PGE mineralization, thereby gaining a considerable advantage over all towed-receiver fixed-wing airborne EM systems, which are known to be blind to such targets (Hanneson, 1998).

Introduction

Airborne EM systems, as they have evolved since the 1940's generally fall into one of two categories, namely, (1) the loosely coupled towed-bird systems on fixed-wing aircraft, and (2) the rigid transmitter-receiver configuration towed by helicopters (e.g., Fountain, 1998). The fixed-wing systems operate in the time domain and are characterized by a wideband high-moment transmitter to maximize depth penetration, especially in a resistive environment. The rigid helicopter systems operate in the frequency domain and are characterized by multiple narrow-band low-moment transmitters and closely spaced receivers to maximize spatial resolution and provide moderate depth penetration. Thus one system seeks to maximize signal while the other strives to minimize noise, both attempting to increase the signal-to-noise-ratio...this being the *only* determining factor of an EM system's level of performance.

The AeroTEM system is a wide-band time-domain EM design that draws on the rigid design of the frequency-domain systems and the high-moment transmitter design of the fixed-wing platforms. The system attempts to both maximize signal and minimize noise by incorporating the two major advantages of airborne EM systems – transmitter power and rigid coil geometry. As Duckworth (1993) so succinctly states, the optimum coupling to a target by a transmitter-receiver coil pair is achieved by only two possible coil configurations. The first optimum coupling is achieved when the coil separation is 0.6 times the distance to the target; the second optimum coupling is achieved when the coils are coincident. Because target depth cannot be known a priori, the coincident coil geometry is obviously preferred.

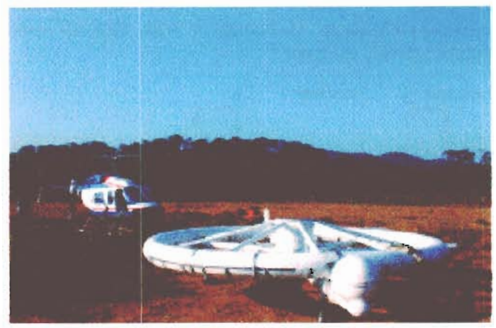


Figure 1. The AeroTEM airborne electromagnetic system.

Method

The system (Figure 1) consists of a 3-axis receiver coil mounted centrally within a large 5-m diameter transmitter loop. The transmitter waveform is a triangular current pulse of 1.15 ms duration at a base frequency of 150 Hz with a peak current of 260 A for a total transmitter moment of 40,000 Am^2. The mutually orthogonal receiver coils are mounted with the X-axis along the flight line, Y transverse, and Z vertical. System waveforms and typical conductor responses are shown in Figure 2.

The system is towed 40 m below the helicopter at a nominal terrain clearance of 30 m. The present transmitter produces a peak primary field of 300 nT vertically below the transmitter at ground level. Because ***both*** the transmitter and receiver are located close to the ground, AeroTEM produces a stronger target response in the upper 50 m of the earth compared to a fixed-wing aircraft with a peak dipole moment of 500,000 Am^2 and a peak primary field of 55 nT at ground surface.

The strength of the primary field from an EM transmitter decreases rapidly with distance from the transmitter location. High moment transmitters on fixed-wing aircraft, such as GEOTEM, tend to have better depth penetration because the strength of the primary field – even at 300 m –

is sufficiently high to energize a conductor and produce a measurable secondary field. Large loop ground EM systems have even greater depth penetration, owing to the lower rate at which the primary field falls off with distance from the transmitter for distances on the order of the loop dimensions. The strength of the primary field from the AeroTEM transmitter is compared with that of some common systems in Figure 3.

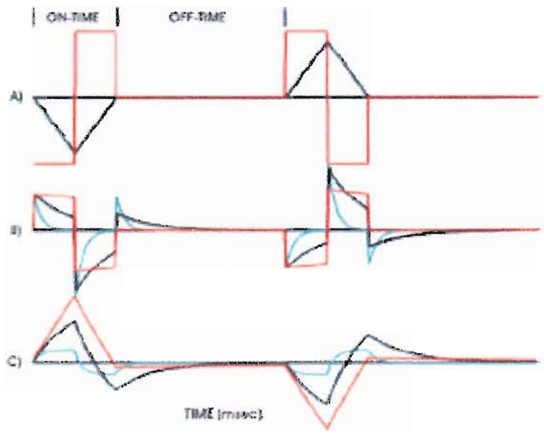


Figure 2. The AeroTEM system is characterized by a) a triangular current pulse at the transmitter and a step response at the receiver. The *dB dt* response in b) and the B-field in c) are shown for conductor time constants of 0.1 ms (blue), 0.5 ms (black) and 5 ms (red).

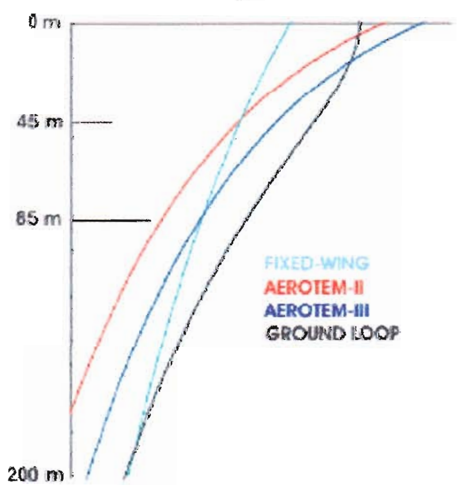


Figure 3: Primary field strength versus depth is compared for fixed-wing (500,000Am^2), AeroTEM-II (40,000Am^2), AeroTEM-III (80,000 Am^2) and ground moving-loop (diameter 100 m, 15 A current, single turn) surface to 200 m.

Although the fixed-wing and ground EM systems gain an advantage in primary field at depth, this energy is diffused over a larger volume, thus reducing their effectiveness in energizing smaller conductors. For large loop ground EM systems, this is especially a problem where large regional conductors can mask the more subtle responses of smaller isolated targets.

Example One: Spatial Resolution

The vertical (Z-axis) component produces responses that are independent of the flight line direction. The close proximity of the transmitter and receiver coils produces very sharp anomaly edges. These two factors combine to produce images of the Z component channels that have high spatial resolution.

In the following example, the amplitude of the earliest off-time channel for the Z component receiver coil is shown in Figure 4. The survey was conducted for Nuinsco Resources in the Lac Rocher area of Quebec during an exploration program for Ni-Cu-PGE deposits.

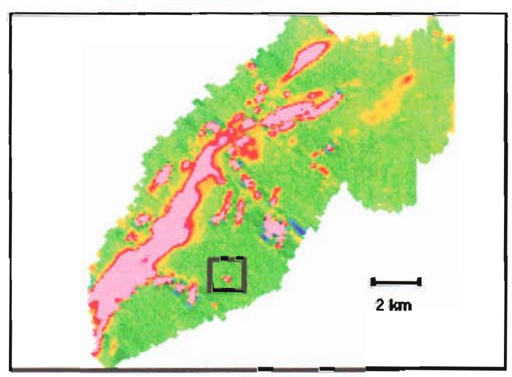


Figure 4. Color image of the earliest time channel, AeroTEM Z component. The black outline represents a conductor response from a near-surface target of limited strike extent.

One discrete anomaly detected from the Lac Rocher survey, and represented by the black outline in Figure 4, is shown in profile format in Figure 5. The approximate lateral extent of the conductor response is 50 m on the earliest time channel (width at half-maximum). The narrow response of this isolated conductor compares favorably with the spatial resolution achieved with conventional HEM systems.

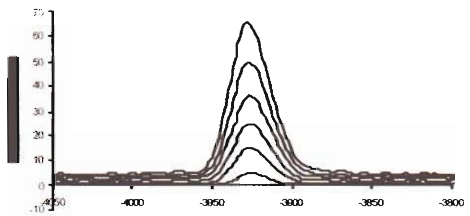


Figure 5: The high spatial resolution of AeroTEM is demonstrated by the EM response of an isolated conductor. The width of the response is less than 50 m on the earliest time channel (peak amplitude at half-maximum).

Example Two: Airborne - Ground Comparison

Aurogin Resources, in joint venture with Heron Mines, flew an 800 line-km AeroTEM survey over the Belledune Property in New Brunswick in the search for Cu-Zn-Pb deposits. Several AeroTEM airborne EM conductors were identified from that survey over two separate areas.

A ground follow-up program of Crone Pulse EM was conducted over one selected target in Area Two. The AeroTEM early-time Z component response is shown in Figure 6. The anomaly subjected to the ground follow-up program is outlined in black (Figure 6).

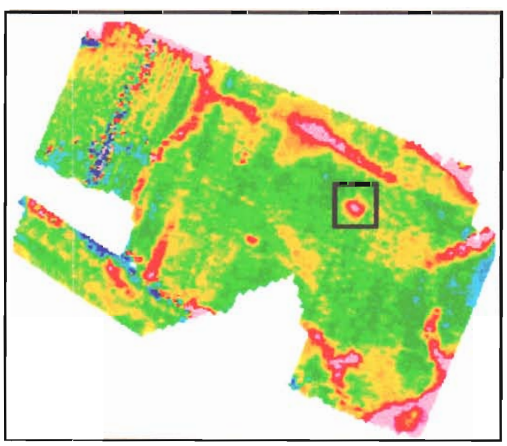


Figure 6: Early-time Z component AeroTEM response over the Belledune Survey Area Two. A detailed ground follow-up survey was centered over the response outlined in black.

An expanded view of the airborne response is shown in Figure 7. The Crone early-time response is shown in Figure 8. The conductor was located within an area of favorable geology. Modeling of the Crone response suggested a sub-horizontal conductor dipping at –25° below the horizontal and located approximately 100 m below surface. The AeroTEM response also suggested a flat-lying conductor because of the symmetric Z component response.

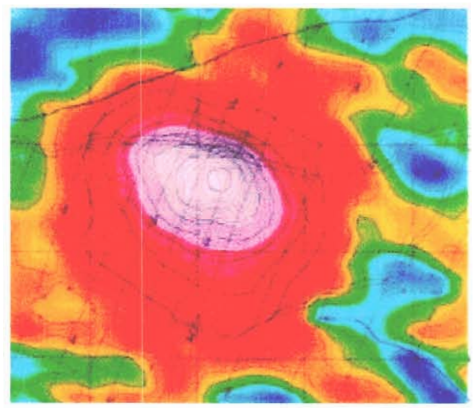


Figure 7. AeroTEM earliest time-channel Z component response, Belledune Property, New Brunswick. The survey was flown with a line spacing of 100 m.

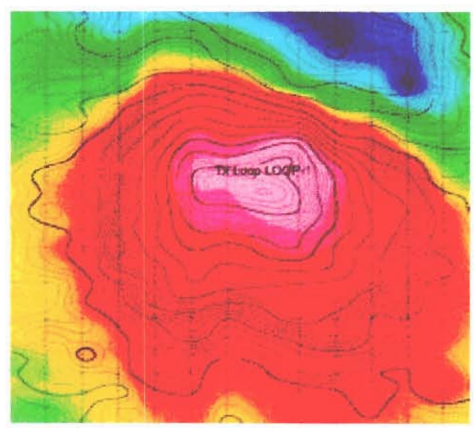


Figure 8: Crone Pulse EM vertical component, ampltide of time channel 10, from the Belledune Property, New Brunswick. The survey was performed in-loop with a 100 m line spacing.

Two boreholes were drilled to then evaluate the EM responses and both intersected up to 15% sulphide containing significant Au-Ag-Cu within a volcanic rhyolite. Downhole Pulse EM surveys confirmed the intersection of a conductor approximately 170 m downhole, coincident with the intersected mineralization, and corresponding to a vertical depth of 145 m. The peak response in the earliest AeroTEM time channel was 90 ppb, or roughly 200 times above the system noise level. The peak response in the Crone survey was 110 nT/s, about 200 times above the system noise level. This is an example of a drilling program that could have proceeded directly from the airborne survey without the added expense of ground geophysics.

Example Three: Airborne – Airborne Comparison

Nuinsco Resources conducted GEOTEM and AeroTEM surveys over the Lac Rocher property covering both the known mineralized area and a larger area of unexplored claims. In one area of the survey both GEOTEM (Figure 9) and AeroTEM (Figure 10) recorded responses that were coincident with a large magnetic anomaly.

Both systems clearly show a distinct, multi-channel anomaly. Nuinsco drilled the conductor in 1999 and intersected 2.2 m of massive sulphide at a depth of 200 m below surface. The AeroTEM peak response was 3 ppb or 10 times the system noise level, while the GEOTEM peak response was 400 ppm or 40 times system noise level. While noise levels are dependent upon the level of filtering, the higher apparent signal-to-noise-ratio of the GEOTEM response can be attributed to its higher moment transmitter and the depth of the conductor.

Conclusions

AeroTEM shows a high spatial resolution, due to its unique coil configuration. The system produces responses that compare well with existing ground and airborne systems. The present depth of exploration is estimated to be up to 250 m with a typical noise level of +/-0.5 ppb.

Improvements to the system will come in the form of larger transmitter moments, decreased noise levels and the development of true on-time measurements through full waveform recording. There are numerous advantages of using helicopter-towed time-domain systems with a depth penetration approaching that of the fixed-wing platforms. The success of these systems will no doubt be dictated by the perceived needs of the mineral exploration industry for such techniques.

Figure 9: GEOTEM Z component response over a deep conductor at Lac Rocher.

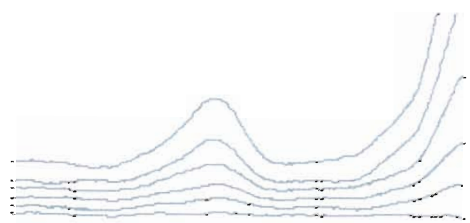


Figure 10: AeroTEM Z component response over a deep conductor at Lac Rocher.

References

Boyko, W., Paterson, N.R., and Kwan, K., 2001 AeroTEM characteristics and field results. The Leading Edge, Vol. 20, No 10, pp 1130-1138.

D.K. Fountain, 1998. Airborne electromagnetic systems - 50 years of development. Paper presented at AEM '98 Conference, Sydney, Australia.

K. Duckworth, E.S. Krebes, J. Juigalli, A. Rogozinski, and H.T. Calvert, 1993. A coincident-coil frequency-domain electromagnetic prospecting system. Canadian Journal of Exploration Geophysics, Vol 29. No 2. P 411-418.

J.E. Hanneson, 1998. The effectiveness of airborne EM in Australian mineral exploration; a client perspective. Paper presented at AEM '98 Conference, Sydney, Australia.

Acknowledgments

AeroQuest wishes to thank Nuinsco Resources and Aurogin Resources for permission to publish the survey data from their respective properties.

APPENDIX 4: Instrumentation Specification Sheets

AEROQUEST LIMITED

Tel: +1 905 878-5616. Fax: +1 905 876-0193. Email: sales@aeroquestsurveys.com

AEROTEM Helicopter Electromagnetic System

System Characteristics

Transmitter: Triangular Pulse Shape Base Frequency 30 or 150 Hz.
Tx On Time - 5,750 (30Hz) or 1,150 (150Hz) microsec.
Tx Off Time - 10,915 (30Hz) or 2,183 (150Hz) microsec.
Loop Diameter - 5 m.
Peak Current - 250 A.
Peak Moment - 38,800 NIA.
Typical Z Axis Noise at Survey Speed = 8 ppb peak.
Sling Weight: 270 Kg.
Length of Tow Cable: 40 m.
Bird Survey Height: 30 m or less nominal.

Receiver

Three Axis Receiver Coils (x, y, z) positioned at centre of transmitter loop.
Selectable Time Delay to start of first channel 21.3 , 42.7, or 64.0 msec.

Analogue Display & Acquisition

Six Channels per Axis.
Analogue (RMS) Channel Widths: 52.9,132.3, 158.7, 158.7, 317.5, 634.9 microsec.
Recording & Display Rate = 10 readings per second.
MDAS Digital recording at 126 sample per decay curve at a maximum of 300 curves per second (26.455 microsec channel width).

System Considerations

Comparing a fixed wing time domain transmitter with a typical moment of 500,000 NIA flying at an altitude of 120 m with a Helicopter TDEM at 30 m, notwithstanding, the substantial moment loss in the airframe of the fixed wing, the same penetration by the lower flying helicopter system would only require a sixty-fourth of the moment. Clearly the AeroTEM system with nearly 40,000 NIA has more than sufficient moment.

The airframe of the fixed wing presents a response to the towed bird, which must be compensated for dynamically. This problem is non-existent for AeroTEM since transmitter and receiver positions are fixed. The AeroTEM system is completely portable, and can be assembled at the survey site within half a day.

NEIL FISET
Consulting Geophysicist

Author's Statement of Qualifications

I, Neil Fiset, of 15 Valley Ridge St., Nepean, Ont., do hereby certify that :

1. I hold a Bachelor of Science degree in Geology(1976) from the University of New Brunswick, Fredericton, New Brunswick.

2. I am a member of the Canadian Exploration Geophysicists Society.

3. Since 1976 I have been an employee of Scintrex Limited, Noranda Exploration Co. Ltd., JVX Ltd. and the United Nations.

5. I have been a self-employed consultant since 1996.

4. I am presently a consulting Geophysicist, practising in Canada and overseas.

5. Permission is granted to Mustang Minerals Corp. to use this report in a prospectus or other financial offering.

6. I have not received, directly or indirectly, nor do I expect to receive any interest, direct or indirect, in the properties of Mustang Minerals Corp. or any affiliate thereof, nor do I beneficially own, directly or indirectly, any securities in Mustang Minerals Corp. or any affiliate thereof

Signed on this 18th day of August, 2004 at Nepean, Ont.

Neil Fiset, BSc.
Consulting Geophysicist

15 Valley Ridge St., Nepean, Ont., CANADA, K2E 7W1
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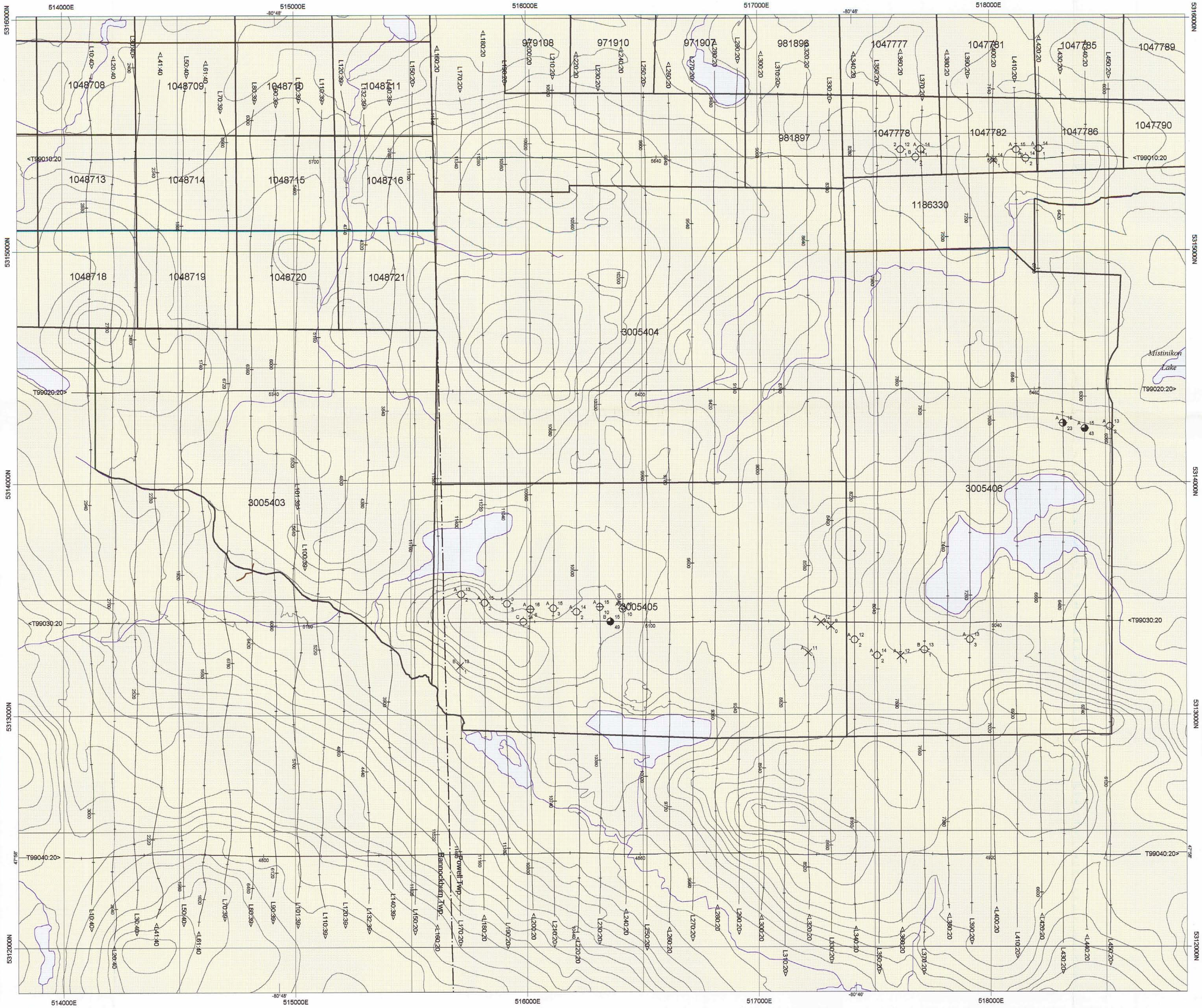


Grid North

NAD27-UTM Zone 17

The topographic base was derived from the 1:20,000 OBM Digital Topographic Data Base

This map accompanies the technical report entitled 'Report on a Helicopter-Borne Magnetic and Electromagnetic Survey, Powell Property' by AeroQuest Limited, May/2004.

AEROTEM Conductance Symbols:

- >50 S
- 35-50 S
- 20-35 S
- 10-20 S
- 5-10 S
- 1-5 S
- <1 S

Interpretation by S. Balch and J. Rudd

Anomaly Letter A — Off-Time Channels of Response (1-16) 12 — Conductance (S) 33 (0 indicates <1S)

SURVEY SPECIFICATIONS:

Survey flown: Apr. 24, May 4 & 5, 2004
Traverse line spacing: 100 metres
Traverse line direction: N-S
Nominal EM bird height: 30 metres
Aircraft: Aerospatiale AStar 350B2 (C-FAVI)

INSTRUMENTATION:

Data acquisition: MDAS2 & RMS DGR-33
Magnetometer: Geometrics G-823A cesium vapour
Installation: Towed bird 21 m above EM bird
Resolution: .001 nanoTesla
Electromagnetics: AEROTEM Mk-II System
Configuration: Towed bird

NAVIGATION:

Navigation: Global Positioning System (DGPS)
Navigation equipment: Trimble AgGPS132
Radar Altimeter: Terra TRA3000/TRI-30

DATA PROCESSING

Magnetics: Base station/Tie line levelling applied
EM smoothing: Non-linear-4pt, 5pt boxcar

POSITIONING

Ellipsoid: NAD27
Major Axis: 6378206.400
Eccentricity: 0.082271854
Projection: Universal Transverse Mercator
Central Meridian: 81°W (Zone 17)
Central Scale Factor: 0.9996
False Easting/Northing: 500,000m/0m

scale 1:10,000

200 0 200 400 600
metre
<utm17_27.pg>

Mustang Minerals Corp.

Powell Twp., Matachewan Area, Ontario

FLIGHT PATH

Powell Block

NTS 41P/15

2.29869

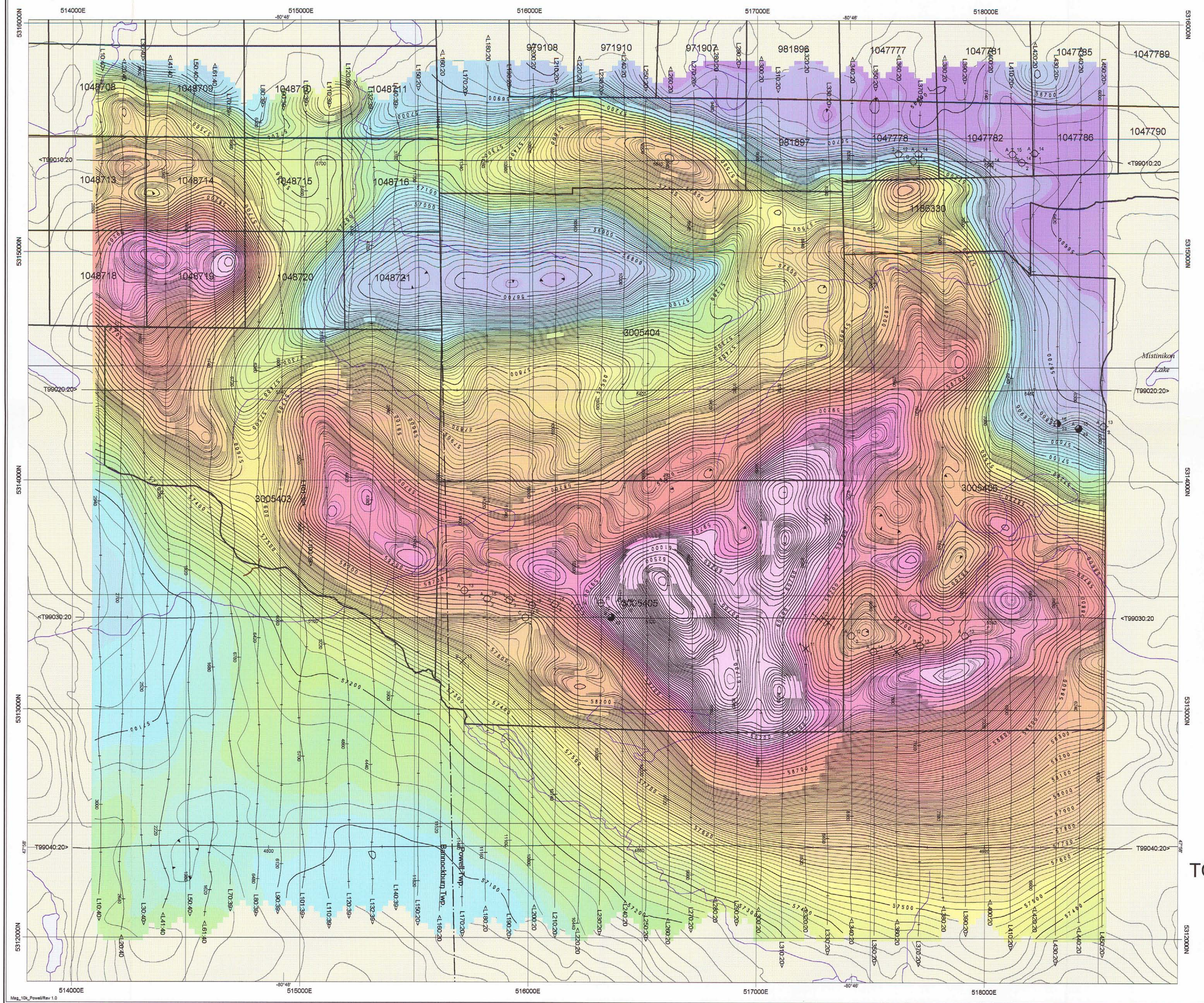
Survey flown by:

AEROQUEST LIMITED
4-845 Main St. East
Milton, Ont., CANADA L9T 3Z3
Tel: (905) 693-9129 Fax: (905) 693-9128
www.aeroquestsurveys.com

May, 2004

Plate 1

FP_10k_Powell/Rev 1.0



Grid North

NAD27-UTM Zone 17

The topographic base was derived from the 1:20,000 OBM Digital Topographic Data Base

This map accompanies the technical report entitled 'Report on a Helicopter-Borne Magnetic and Electromagnetic Survey, Powell Property' by AeroQuest Limited, May/2004.

TMI nT
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57094
57055
56952
56841
56736
56663
56627

AEROTEM Conductance Symbols:

- >50 S ....
- 35-50 S ....
- 20-35 S ....
- 10-20 S ....
- 5-10 S ....
- 1-5 S ....
- <1 S ....

Interpretation by S. Balch and J. Rudd

Anomaly Letter A — 12 Off-Time Channels of Response (1-16) — 33 Conductance (S) (0 indicates <1S)

SURVEY SPECIFICATIONS:
- Survey flown: Apr. 24, May 4 & 5, 2004
- Traverse line spacing: 100 metres
- Traverse line direction: N-S
- Nominal EM bird height: 30 metres
- Aircraft: Aerospatiale AStar 350B2 (C-FAVI)

INSTRUMENTATION:
- Data acquisition: MDAS2 & RMS DGR-33
- Magnetometer: Geometrics G-823A cesium vapour
  - Installation: Towed bird 21 m above EM bird
  - Resolution: .001 nanoTesla
- Electromagnetics: AEROTEM Mk-II System
  - Configuration: Towed bird

NAVIGATION:
- Navigation: Global Positioning System (DGPS)
- Navigation equipment: Trimble AgGPS132
- Radar Altimeter: Terra TRA3000/TRI-30

DATA PROCESSING
- Magnetics: Base station/Tie line levelling applied
- EM smoothing: Non-linear-4pt, 5pt boxcar

POSITIONING
- Ellipsoid: NAD27
  - Major Axis: 6378206.400
  - Eccentricity: 0.082271854
- Projection: Universal Transverse Mercator
- Central Meridian: 81°W (Zone 17)
- Central Scale Factor: 0.9996
- False Easting/Northing: 500,000m/0m

Contour interval: 20, 100 & 500 nT

scale 1:10,000

200 0 200 400 600
metre
<utm17_27.prj>

Mustang Minerals Corp.

Powell Twp., Matachewan Area, Ontario

TOTAL MAGNETIC INTENSITY

Powell Block

NTS 41P/15

2.28869

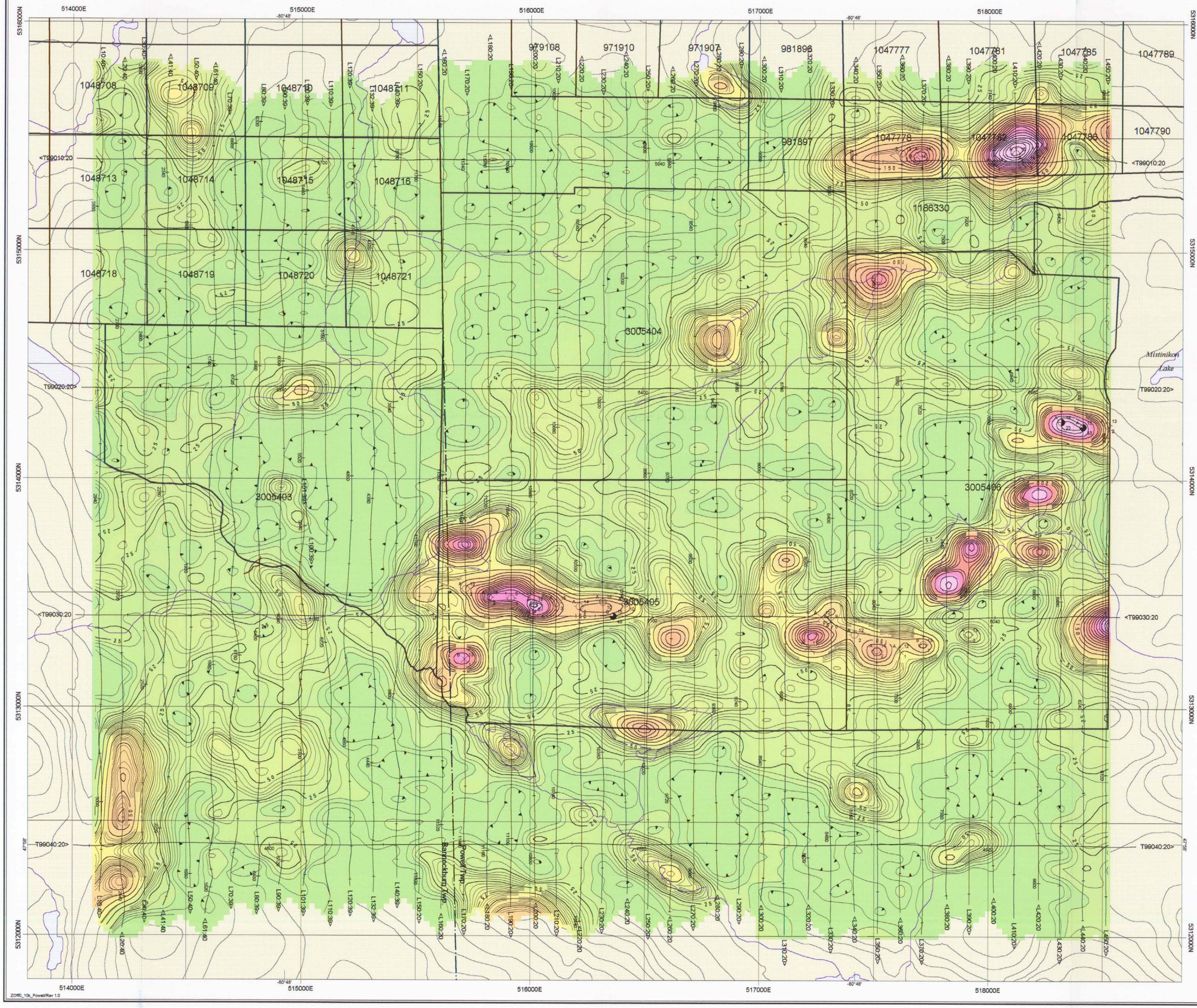
Survey flown by:

AEROQUEST LIMITED

4-845 Main St. East
Milton, Ont., CANADA L9T 3Z3
Tel: (905) 693-9129 Fax: (905) 693-9128
www.aeroquestsurveys.com

May, 2004

Plate 2



Grid North
NAD27-UTM Zone 17

The topographic base was derived from the 1:20,000 OBM Digital Topographic Data Base

This map accompanies the technical report entitled 'Report on a Helicopter-Borne Magnetic and Electromagnetic Survey, Powell Property' by AeroQuest Limited, May/2004.

ZOff5 nT/sec

449, 393, 354, 321, 298, 277, 259, 243, 227, 213, 199, 183, 170, 158, 146, 134, 123, 111, 100, 86, 74, 63, 51, 40, 27, 15, 2

AEROTEM Conductance Symbols:

- >50 S
- 35-50 S
- 20-35 S
- 10-20 S
- 5-10 S
- 1-5 S
- <1 S

Interpretation by S. Balch and J. Rudd

Anomaly Letter (A) — Off-Time Channels of Response (1-16) (12) — Conductance (S) (33) (0 indicates <1S)

SURVEY SPECIFICATIONS:
Survey flown: Apr. 24, May 4 & 5, 2004
Traverse line spacing: 100 metres
Traverse line direction: N-S
Nominal EM bird height: 30 metres
Aircraft: Aerospatiale AStar 350B2 (C-FAVI)

INSTRUMENTATION:
Data acquisition: MDAS2 & RMS DGR-33
Magnetometer: Geometrics G-823A cesium vapour
Installation: Towed bird 21 m above EM bird
Resolution: .001 nanoTesla
Electromagnetics: AEROTEM Mk-II System
Configuration: Towed bird

NAVIGATION:
Navigation: Global Positioning System (DGPS)
Navigation equipment: Trimble AgGPS132
Radar Altimeter: Terra TRA3000/TRI-30

DATA PROCESSING
Magnetics: Base station/Tie line levelling applied
EM smoothing: Non-linear-4pt, 5pt boxcar

POSITIONING
Ellipsoid: NAD27
Major Axis: 6378206.400
Eccentricity: 0.082271854
Projection: Universal Transverse Mercator
Central Meridian: 81°W (Zone 17)
Central Scale Factor: 0.9996
False Easting/Northing: 500,000m/0m

Contour interval: 5, 25 & 100 nT/sec

scale 1:10,000

200 0 200 400 600
metre
<utm17_27.prj>

Mustang Minerals Corp.

Powell Twp., Matachewan Area, Ontario

AEROTEM Z0 Off-Time

Powell Block

NTS 41P/15

2.29869

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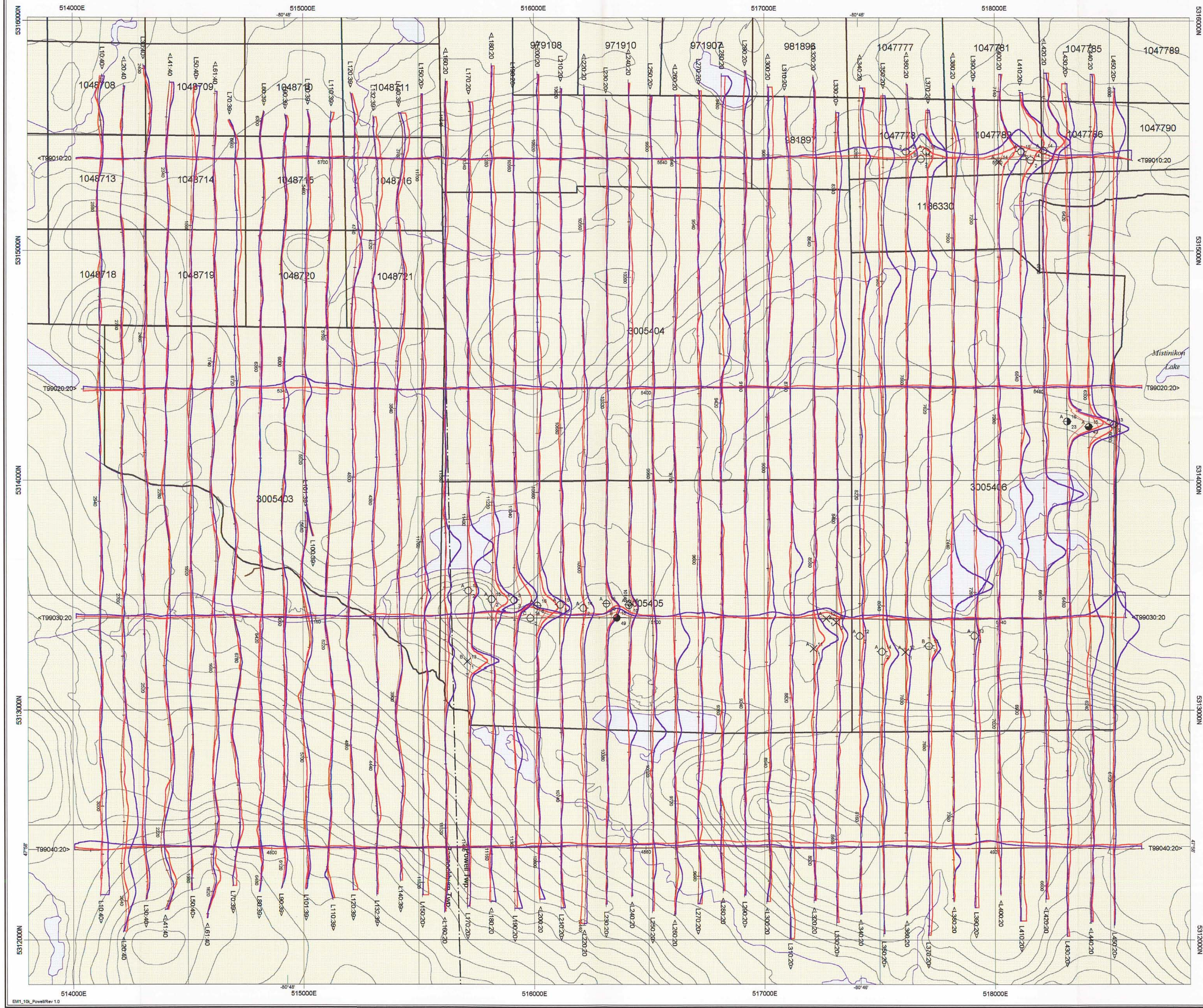
May, 2004

Plate 4



Grid North
NAD27-UTM Zone 17

The topographic base was derived from the 1:20,000 OBM Digital Topographic Data Base

This map accompanies the technical report entitled 'Report on a Helicopter-Borne Magnetic and Electromagnetic Survey, Powell Property' by AeroQuest Limited, May/2004.

Positive EM Profile excursion to the right and top

- On-Time Z1 channel, 1mm=40nT/sec
- On-Time Z5 channel, 1mm=40nT/sec
- Off-Time Z0 channel, 1mm=40nT/sec

AEROTEM Conductance Symbols:

>50 S ....
35-50 S ....
20-35 S ....
10-20 S ....
5-10 S ....
1-5 S ....
<1 S ....

Interpretation by S. Balch and J. Rudd

Anomaly Letter A; 12 Off-Time Channels of Response (1-16); 33 Conductance (S) (0 indicates <1S)

SURVEY SPECIFICATIONS:
Survey flown: Apr. 24, May 4 & 5, 2004
Traverse line spacing: 100 metres
Traverse line direction: N-S
Nominal EM bird height: 30 metres
Aircraft: Aerospatiale AStar 350B2 (C-FAVI)

INSTRUMENTATION:
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Installation: Towed bird 21 m above EM bird
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Electromagnetics: AEROTEM Mk-II System
Configuration: Towed bird

NAVIGATION:
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Navigation equipment: Trimble AgGPS132
Radar Altimeter: Terra TRA3000/TRI-30

DATA PROCESSING
Magnetics: Base station/Tie line levelling applied
EM smoothing: Non-linear-4pt, 5pt boxcar

POSITIONING
Ellipsoid: NAD27
Major Axis: 6378206.400
Eccentricity: 0.082271854
Projection: Universal Transverse Mercator
Central Meridian: 81°W (Zone 17)
Central Scale Factor: 0.9996
False Easting/Northing: 500,000m/0m

scale 1:10,000

200 0 200 400 600
metre
<utm17_27.prj>

Mustang Minerals Corp.
Powell Twp., Matachewan Area, Ontario

AEROTEM Z0 OFF-TIME Z1 & Z5 ON-TIME

Powell Block

2.29869

NTS 41P/15

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May, 2004

Plate 3