

Interpretation Report
for a
**Geotech
VTEM and Magnetic
Helicopter Geophysical Survey**
of the
**Lizar Property
Ontario**
on behalf of
Rencore Resources Ltd.



SCOTT HOGG & ASSOCIATES LTD

February 2011

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1 INTRODUCTION

Rencore Resources Ltd. carried out a helicopter electromagnetic and magnetic survey over their Lizar Property that lies between White River and Hornepayne Ontario. The survey was flown by Geotech, using the VTEM transient electromagnetic system, during the period of January 16 to 23, 2011. A total of 831 line kilometers of data were collected, of which 626 kilometers lie over the Rencore claim group. The geophysical survey data was provided to Scott Hogg & Associates Ltd. for analysis and interpretation. The interpretation process and ensuing recommendations are included in this report.

2 SURVEY AREA

The survey consists of a single survey block. The map below 1 illustrates the survey location.

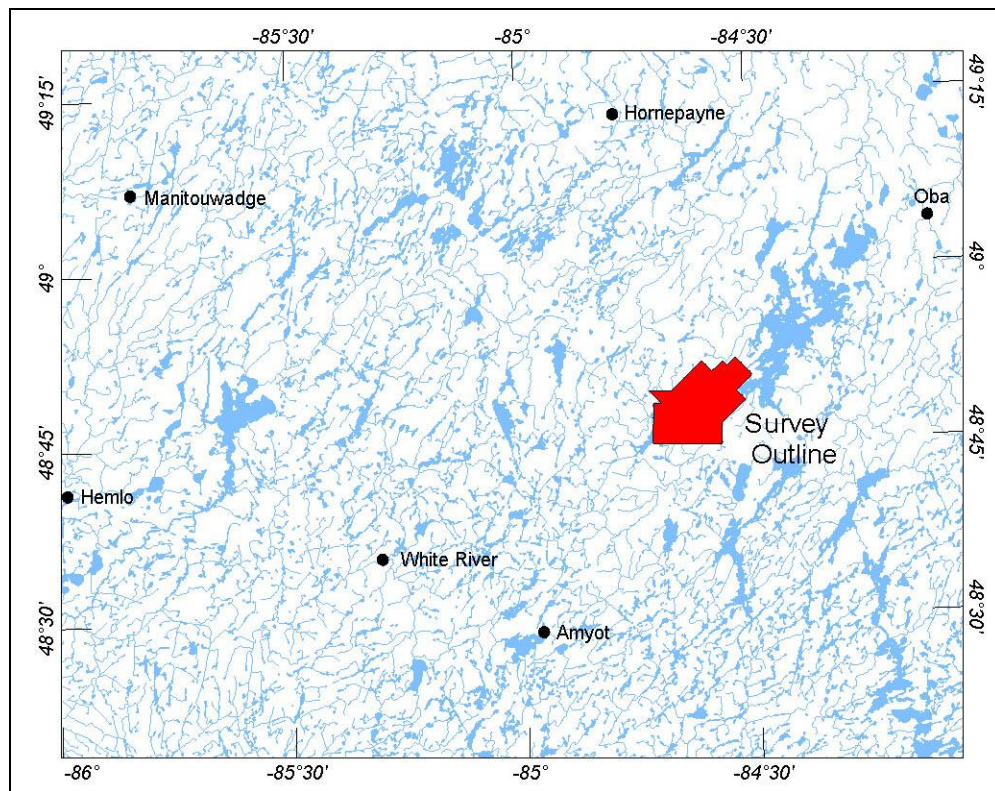


Figure 1 – Survey Location Map

3 MINERAL CLAIMS

The following mineral claims were covered by the airborne survey:

1166901, 1166902, 1166903, 1215489, 1218138, 1218139, 1237578, 1237579
1237584, 1239714, 1239724, 1239725, 1246613, 1246614, 1246615, 1246616
1246617, 1246618, 1246619, 1246620, 1246621, 1246622, 1246623, 1246627
1246628, 1246629, 1246630, 1246631, 1246632, 3004629, 3010826, 3010827
3010828, 3013494, 4218151, 4218152, 4242133, 4242134, 4242135, 4242136
4259818, 4259825, 4259826, 4259830, 4259840, 4260722, 4260723, 4260724
4260725, 4260726, 4260727, 4260728, 4260729, 4260730, 4260731, 4260732

The claims are all registered within the Sault Ste. Marie Mining District. Figure 2 below shows the claim layout and survey flight path.

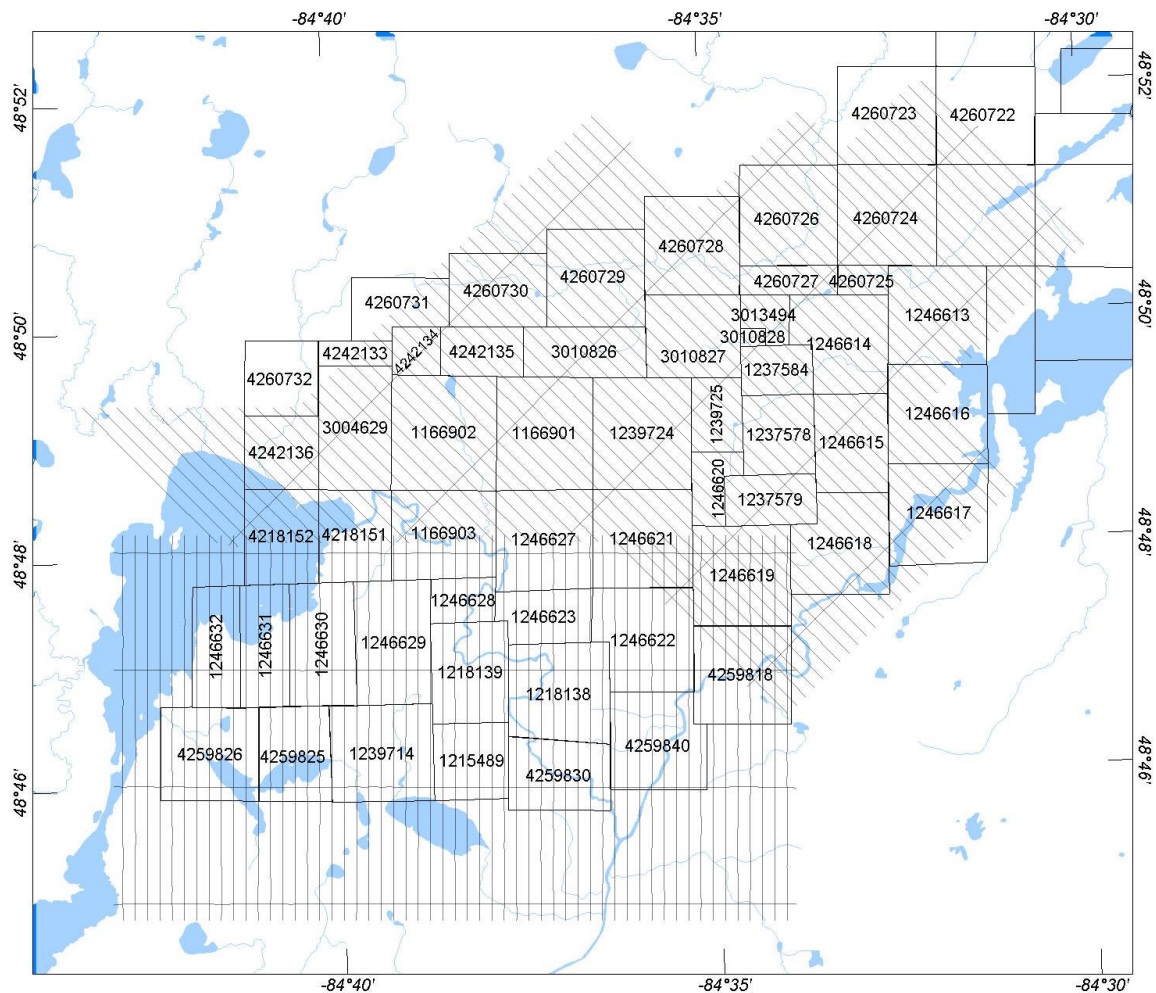


Figure 2 – Survey Flight Path and Claim Group

4 AIRBORNE SURVEY DATA

The survey was carried out by Geotech. The helicopter towed geophysical system included electromagnetic and magnetic instrumentation as follows:

4.1 Magnetometer

An optically pumped cesium sensor recorded the total magnetic field. The sensor was towed 13 metres below the helicopter at a nominal terrain clearance of 61 metres. Diurnal corrections were carried out by Geotech. Grids of total magnetic field were provided.

4.2 VTEM Electromagnetic System

The VTEM system uses a superimposed dipole configuration with the receiver located within the transmitter loop. The transmitter axis is vertical (Z). The receiver has a single vertical axis. The transmitter current waveform is a triangular ramp, repeated with reversing polarity, a base frequency of 30 Hz. The receiver measures the secondary field at intervals after the termination of the transmitter current pulse. The system was towed 35 metres below the helicopter at a nominal terrain clearance of 30 metres.

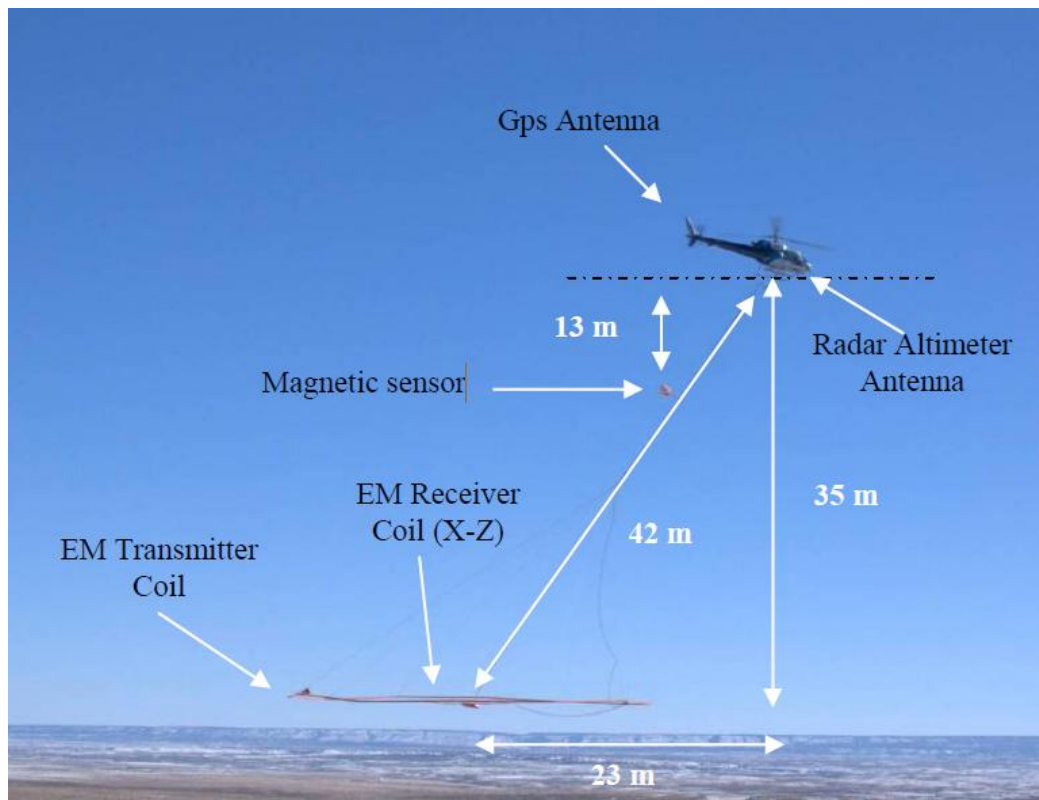


Figure 3 – Geotech VTEM System Layout

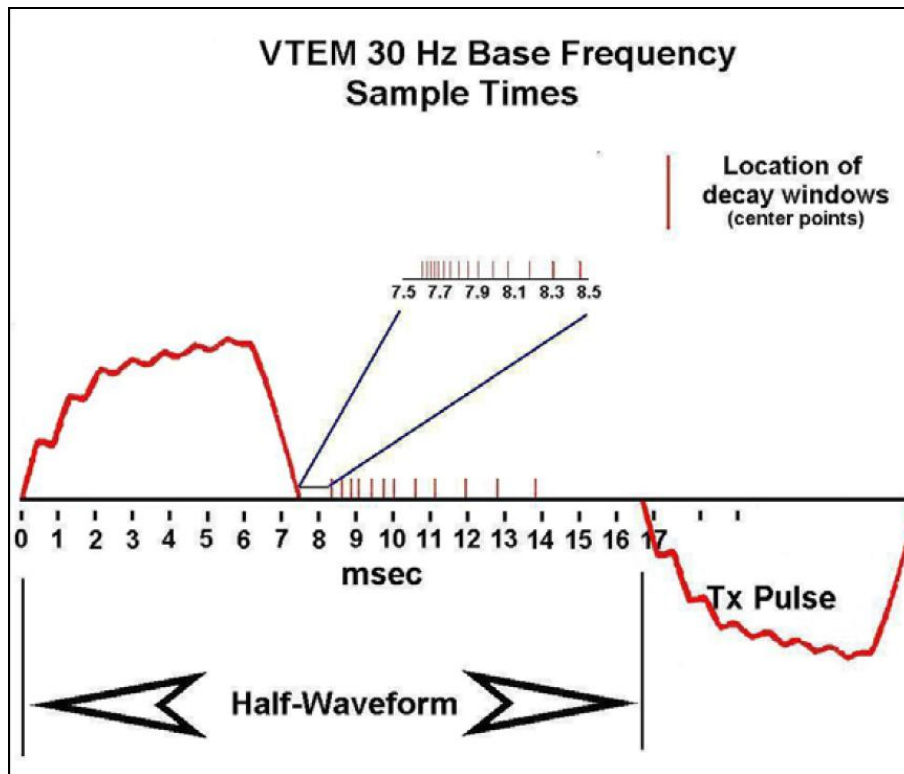


Figure 4 – Geotech VTEM 30 Hz waveform and sample times

The units of measurement for electromagnetic systems must be scaled to the primary field. The method adopted by Geotech for the VTEM system conveniently provides for changes in hardware for both the transmitter and receiver. The strength of the primary field, as generated by the transmitter, is accommodated by transmitted dipole moment which is the product of the number of coil turns, the current and the coil area. The effectiveness or natural gain of the receiver is a function of its area and number of turns. The scaling factor for the system is the product of these two terms

The units of the secondary field recorded by the system are defined relative to this system scale factor in units of picoVolts / Amperes*m⁴. By this means the VTEM units of measurement are made independent of transmitter current as well as the size and number of turns of both the transmitter and receiver antennae.

VTEM Decal Sampling Scheme (microseconds)				
Index (Channel)	Middle	Start	End	Window Width
14	96	90	103	13
15	110	103	118	15
16	126	118	136	18
17	145	136	156	20
18	167	156	179	23
19	192	179	206	27
20	220	206	236	30
21	253	236	271	35
22	290	271	312	40
23	333	312	358	46
24	383	358	411	53
25	440	411	472	61
26	505	472	543	70
27	580	543	623	81
28	667	623	716	93
29	766	716	823	107
30	880	823	945	122
31	1010	945	1086	141
32	1161	1086	1247	161
33	1333	1247	1432	185
34	1531	1432	1646	214
35	1760	1646	1891	245
36	2021	1891	2172	281
37	2323	2172	2495	323
38	2667	2495	2865	370
39	3063	2865	3292	427
40	3521	3292	3781	490
41	4042	3781	4341	560
42	4641	4341	4987	646
43	5333	4987	5729	742
44	6125	5729	6581	852
45	7036	6581	7560	979

4.3 B-Field and dB/dt Profiles

A primary electromagnetic field is created by the current flowing in the transmitter loop. It induces current flow in the underlying ground, which in turn, creates a secondary electromagnetic field. This secondary magnetic field "B" induces a voltage in the receiver which is proportional to dB/dt, the rate of change of the secondary field passing through the coil. Geotech does not elaborate but the B field is derived by either digital or electronic integration of the directly measured signal dB/dt.

The basis time-domain electromagnetic anomaly can be expressed as an exponential.

$$B = ke^{-t/\tau}$$

where **B** is the amplitude of the B-field signal, **k** is a constant related to the size, shape and depth of the source, **t** is time in microseconds and **τ** is the time-constant Tau. A large conductive body will have a large Tau and thus the signal will decay slowly. A small poor conductor will have a small Tau and thus decay quickly.

$$dB/dt = (k / \tau) e^{-t/\tau}$$

The **dB/dt** signal decays in the same fashion as **B** but its amplitude is modified by **1/τ**. As a result the amplitude of the early time channels associated with poorer conductors is exaggerated but the rate of change Tau remains the same.

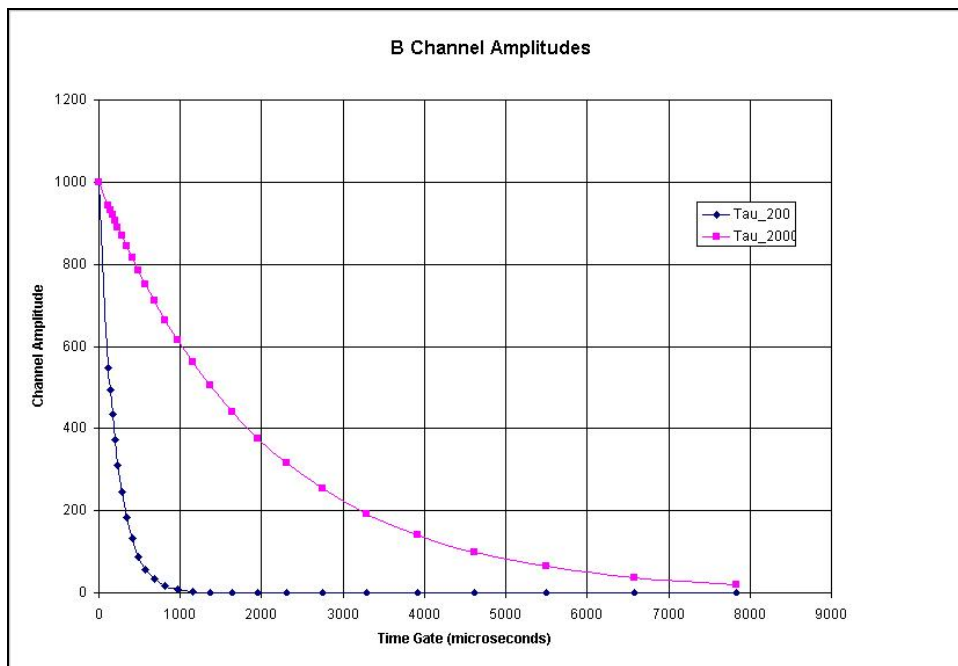


Figure 5a – B Field Response

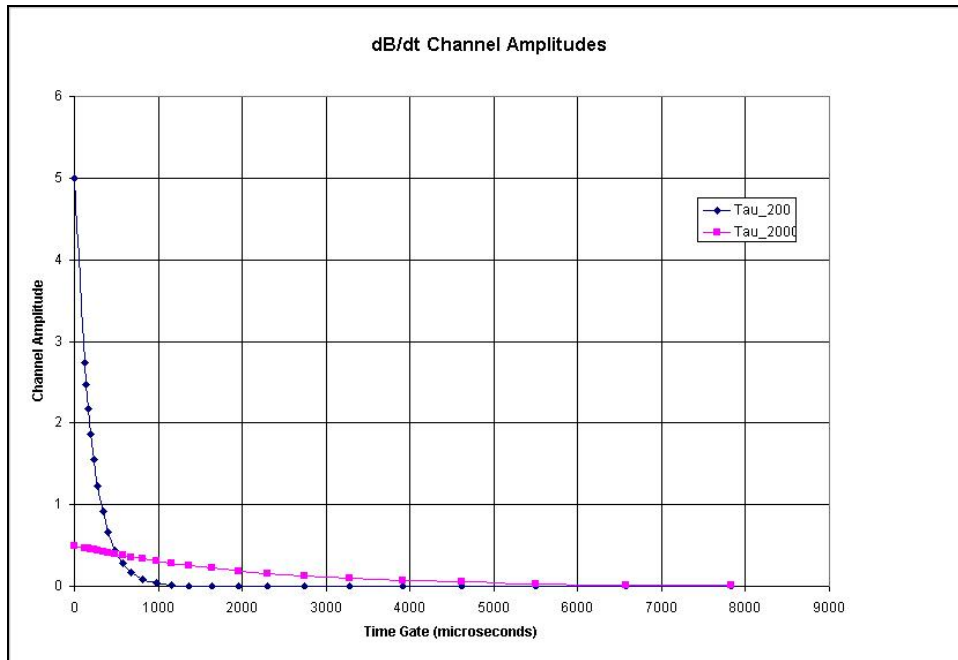


Figure 5b – dB/dt Response

4.4 VTEM System Geometry and Response Shape

The system geometry, as defined by the relative orientation and position of the transmitter and receiver, influences the shape of response for a given geologic conductor or target. This response shape is sensitive to the form of the target but is largely independent of the conductivity of the target. The figure below presents the response shape for a thin sheet conductor in various orientations for a generalized superimposed dipole system. In the case of the VTEM system only the Tz-Rz combination is relevant.

The Tz-Rz configuration is minimum coupled with a vertical thin sheet when the system is directly overhead. This results in an "M" shaped response. As the horizontal thickness of the conductor increases, induced currents can flow across the sheet and the central null is reduced. When the width is of the same order as the other dimensions, like a sphere, the null disappears completely and a simple broad peak over the conductor results. As the dip of the sheet decreases an asymmetry of the side lobes becomes evident with the greater amplitude on the down dip side. This asymmetry is most notable between about 60 and 30 degrees. With shallower dip the smaller lobe is relatively very weak response and a slightly asymmetric single peak is the dominant signature. In the case of near horizontal conducting layers the response amplitude stabilizes within the unit but if the edges are sharply defined, edge effects will be noted.

The Tz-Rx configuration has been added to the newer VTEM systems. Over a steeply dipping, thick or thin conductor, the profile shape is a crossover response near the

center of the body. As the dip of the source becomes shallower the dominant lobe of the response, positive or negative, reflects the up-dip direction.

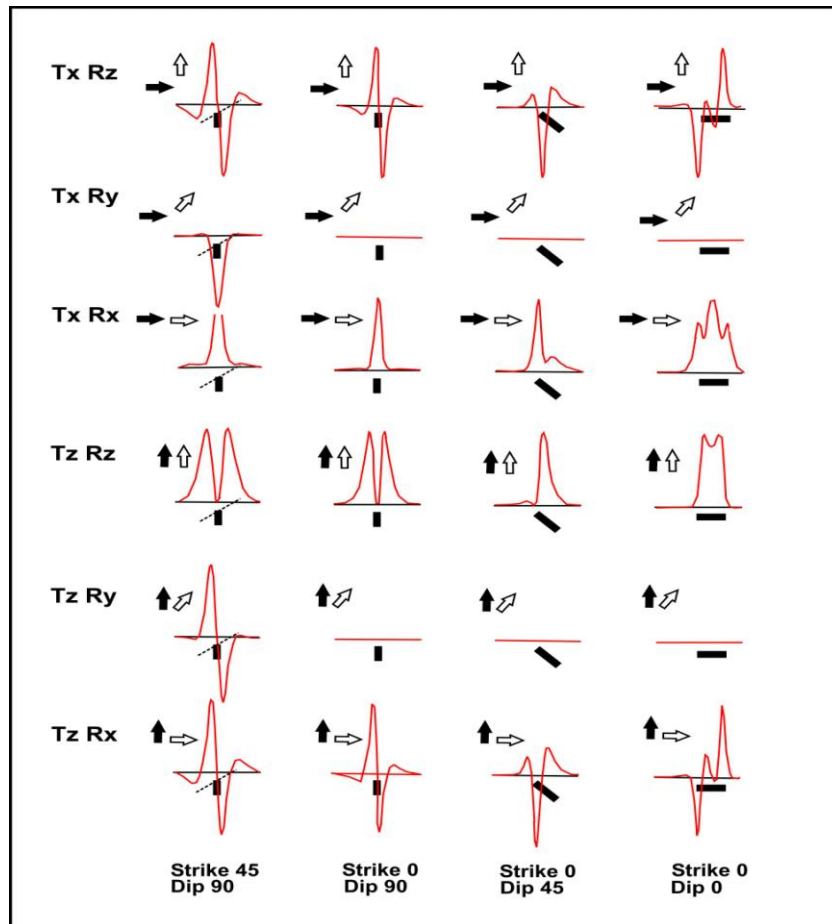


Figure 6: Response shapes for a superimposed dipole electromagnetic system. A thin rectangular plate, 300 m in strike extent, 150 m in depth extent, 50 m below sensor with a conductance of 60 S was modelled with the University of Toronto Plate program. Strike and dip are indicated as are the axis of the transmitter and receiver antennae dipoles. The response amplitude has been normalized. **Only TzRz and TzRx apply to the VTEM system used on this survey**

5 COMPILATION AND PRESENTATION

Maps of the collected geophysical data were provided with the survey. The electromagnetic data (dB/dt and B field) was presented in profile map form with a logarithmic vertical scale and the levelled magnetic data was presented as total magnetic field.

To aid the interpretation additional processing of the electromagnetic and magnetic data was carried out.

5.1 Time Constant Tau Calculation

A value for the apparent time constant Tau can be calculated using any two channels.

$$\text{Tau} = -(t_1 - t_2) / \log(\text{Amplitude1} / \text{Amplitude2})$$

The actual signal measured is a sum of exponentials. A time constant calculated using early channels will predominantly reflect the shorter time constants and one based on late channels will predominantly reflect the longer time constants.

Scott Hogg & Associates have developed a method to analyze all of the available time gates in SFz that define the secondary field. For each of the recorded time gates, starting with the earliest channel, the time constant is calculated with respect to the subsequent channel. For a calculation to be valid the channels must exceed a set noise threshold. As well, the difference in the channel amplitudes must also be significant with respect to the noise threshold. If the difference in amplitude is too small, later channels are evaluated for use in the calculation. An array channel SHA_Tau presents the sequence of time constant calculations and the longest time constant in the sequence is recorded in the last array entry. This maximum time constant is also recorded in the channel SHA_TauMax in microseconds.

5.2 Conductance Calculation

The conductance was calculated from the time constant assuming a thin plate source with a maximum dimension in the order of 500 m. The values were recorded in the channel SHA_cond in units of Siemen. Thin steeply dipping conductors have a diminished response amplitude over the conductor and thus there may be insufficient response amplitude to calculate time constant or conductance directly over the conductor axis. In such an instance the anomaly side-lobes reflect the time constant or conductance of the anomaly.

5.3 Pole Reduced Vertical Magnetic Gradient

The anomaly shape associated with a vertically dipping magnetic source varies with the inclination of the earth's magnetic field. At the north and south magnetic pole, the inclination is vertical and the anomaly is positive, symmetrical and centered directly over

the source. At the equator, with a horizontal inducing field, the anomaly is negative, symmetrical and centered directly over the source. Between 0 and 90 degrees of inclination the anomaly is asymmetric, with a positive and negative component. The pole reduction process reshapes the anomaly measured at intermediate inclinations to resemble the shape that would have been measured at vertical inclination. Thus a steeply dipping source, without remanent magnetization, would be transformed to a simple positive peak above the source. Asymmetries evident on a pole reduced map are thus a good indication of a dipping magnetic source or remanent magnetization. The assumed magnetic inclination for the survey area was 78 degrees and the declination - 10 degrees. This inclination is relatively steep and the transformation provided by the pole reduction process is relatively minor, but significant.

The measured or calculated vertical magnetic gradient sharpens the magnetic signature from relatively shallow sources and attenuates the signature from deeper sources including regional gradients. The horizontal width of the vertical gradient anomaly is about one half of that of the total field anomaly. This enhancement of anomalies associated with near surface sources resolves detail that may not be evident in the total field presentation. If the width of the magnetic source is significant, greater than the sensor height above the source, the zero contour of the vertical gradient reflects the location of the magnetic contact.

These two magnetic transformations have been combined using a two-dimensional Fourier Transform, frequency domain filter. The pole reduced, vertical gradient map emphasizes the shallow detail and the response peaks will lie directly above the steeply dipping sources.

5.4 Apparent Magnetic Susceptibility Map

The apparent magnetic susceptibility process assumes that the ground beneath the survey can be represented by a grid of vertical prisms, each with a surface corresponding to the cell size of the magnetic grid. The tops of the prisms are assumed to be at ground surface and the bottoms at great depth. The process calculates the susceptibility for each prism that would reconstitute the measured total magnetic field.

If the tops of the prisms are not near surface, or they do not have significant depth extent, the true susceptibility will be underestimated. Nevertheless, the process does recognize that smaller magnetic sources require a higher susceptibility to produce the same anomaly amplitude as a larger source with lower susceptibility. The resolution at best can not be finer than the cell size of the magnetic grid. A narrower, more concentrated magnetic source will not be assigned its true susceptibility but be attributed to a larger volume of lower susceptibility that would produce the same net effect.

6 INTERPRETATION AND RECOMMENDATIONS

The Lizar Property lies within the Kabinakagami portion of the Dayohessarah-Kabinakagami greenstone belt, part of the Abitibi-Wawa Subprovince of the Archean Shield. The Abitibi-Wawa greenstone Belt in the Lake Superior region hosts significant volcanogenic massive sulphide and gold deposits.

The map of the total magnetic field is dominated by stronger magnetic features that trend SW-NE. Superimposed are linear anomalies associated with dykes aligned SE-NW. The 200 m. flight line spacing does not provide adequate spatial resolution to map the complex magnetic detail of the area. Continuous magnetic formations at shallow angle to the flight line direction are very poorly represented in the total field and derived magnetic map products.

The pole reduced vertical magnetic gradient map has highlighted the anomalies from the weaker magnetic formations. Magnetic lineaments that delineate the axes of the anomalies are presented on the interpretation map. Several faults, that are suggested by termination and offset of the magnetic lineaments, have also been indicated.

Typically the more mafic metavolcanic rocks will be associated with the higher magnetic susceptibility anomalies. The intermediate metavolcanic rocks will typically be associated with lower susceptibility anomalies and the zones with little apparent magnetic expression may reflect felsic metavolcanic or metasedimentary rock.

The VTEM response profiles have been reviewed line by line and responses deemed to be of bedrock, as opposed to overburden, were identified. Conductive axes have been interpreted and indicated on the interpretation map. In many cases the anomaly was reflected on only one flight line and the indicated strike axis is arbitrary. The conductors with higher conductance and response amplitudes are delineated with a more prominent axis and labelled EM-## for reference purposes. The numerical order is not significant. Since the area has known gold potential, very weak, low conductance anomalies have been included on the interpretation map when their profile attributes suggested a bedrock, as opposed to conductive overburden, source.

All of the conductor axes identified are considered to be of bedrock origin. The source of the low conductance anomalies may simply be electrolytic conduction in faults or shears. Higher conductance levels are normally associated with conductive sulphides or graphite. The table below provides the conductivity of a variety of minerals.

Mineral		Conductivity (mhos/m)	Resistivity (ohm-m)
Millerite	NiS	3333333	3.00E-07
Niccolite	NiAs	50000	2.00E-05
Pyrrhotite	FeS	10000	1.00E-04
Arsenopyrite	FeAsS	1000	1.00E-03
Galena	PbS	500	2.00E-03
Chalcopyrite	CuFeS ₂	250	4.00E-03
Graphite	C	100	1.00E-02

Cassiterite	SnO ₂	5	2.00E-01
Pyrite	FeS ₂	3	3.00E-01
Magnetite	Fe ₃ O ₄	3	3.00E-01
Hematite	Fe ₂ O ₃	0.10	1.00E+01
Sphalerite	ZnS	0.01	1.00E+02

The conductance in Siemens (mhos) is the product of conductivity and thickness. In a particular formation the mineral grains may be poorly connected with the result that the bulk conductivity is much less than that of the individual mineral. It is also possible for good continuity of say pyrrhotite to enhance the apparent conductivity of a formation that may be predominantly sphalerite. In general a high conductance is often an indication of significant mineralization but it is not a reliable indicator of the economic significance of the mineralization.

Gold is an excellent conductor but does not occur in sufficient concentration to create a measurable conductivity anomaly. If present, accessory mineralization such as pyrite may produce an anomaly that can indirectly identify a gold bearing formation. Such an indirect association can assist in following a known gold horizon but the existence of such a conductor does not imply a gold association.

Where possible the profile shape has been used to assess the nature of the conductor in terms of width and dip. A discussion of the characteristics of the more prominent conductors follows.

- EM-1 This anomaly axis trends NW-SE and is best defined and most conductive along the margin of the magnetic unit that lies to the northeast. The shape of the profile response, towards the southeast end of the axis, suggests a thin conductor with a northeast dip. The estimated conductance is about 40 S., a level typical of sulphide mineralization.
- EM-2 This weak response appears to trend NW-SE at some distance from the margin of a magnetic unit. The shape of the profile response suggests a thin conductor with a northeast dip. The estimated conductance is about 15 S., a level typical of electrolytic conduction or minor sulphide mineralization.
- EM-3 This weak response is of uncertain strike direction. The shape of the profile response suggests a thin conductor with steep dip. The estimated conductance is about 10 S., a level typical of electrolytic conduction or minor sulphide mineralization.
- EM-4 This response on Line 2290 is not apparent on the adjacent Line 2280 but may be related to the response on the following Line 2270. The profile shape with a simple peak suggests the possibility of a thicker, steeply dipping source. The estimated conductance is about 45 S., a level typical of sulphide mineralization.
- EM-5 This weak response has tentatively been associated with another weak response on the control line to reflect an axis coincident with the local

magnetic trend. The estimated conductance is about 10 S., a level typical of electrolytic conduction or minor sulphide mineralization.

- EM-6 This conductor axis follows a magnetic trend. The profile shape towards the northeast end infers a thin steeply dipping source. The estimated conductance is about 10 S., a level typical of electrolytic conduction or minor sulphide mineralization.
- EM-7 This conductor axis follows a magnetic trend. The estimated conductance is a low 1 S., a level typical of electrolytic conduction or very minor sulphide mineralization.
- EM-8 This conductor axis follows a magnetic trend. The profile shape infers a thin steeply dipping source. The estimated conductance is about 12 S., a level typical of electrolytic conduction or minor sulphide mineralization.
- EM-9 This conductor axis is best defined on Lines 1250 and 1330. On line 1250 the profile shape suggests a thin source with southeastern dip. The axis lies between two magnetic formations trending SW-NE. The estimated conductance on line 1250 is about 20 S and on Line 1230 about 40 S. a level typical of sulphide mineralization.
- EM-10 This conductor is reflected on Line 1070 as well as control Line 1920. axis follows a magnetic trend. The profile shape on Line 1070 suggests a thin source with southeastern dip. There is a weak magnetic anomaly associated with the conductor. The estimated conductance is about 25 S., a level typical of sulphide mineralization.
- EM-11 This conductor axis follows the flank of a magnetic lineament. The profile shape infers a thin source dipping to the southeast. The estimated conductance on Line 1040 is about 40 S., a level typical of sulphide mineralization.
- EM-12 This conductor axis lies on a magnetic linear that trends SW-NE. The profile shape infers a thin steeply dipping source. The estimated conductance is about 7 S., a level typical of electrolytic conduction or minor sulphide mineralization.
- EM-13 This isolated response has a profile shape that suggests a thin source, dipping to the southeast. The estimated conductance is about 8 S., a level typical of electrolytic conduction or minor sulphide mineralization.
- EM-14 This conductor axis follows the northern flank of a magnetic lineament. The profile shape infers a thin source dipping to the southeast. The estimated conductance is about 13 S., a level typical of electrolytic conduction or minor sulphide mineralization.
- EM-15 This conductor axis follows the magnetic lineament associated with EM-14. The profile shape infers a thin source dipping steeply to the southeast. The estimated conductance is about 18 S., a level typical of minor sulphide mineralization.

- EM-16 This conductor axis lies between magnetic units trending SW-NE, On Line 1380 the profile shape infers a thin source dipping to the southeast. The estimated conductance is about 25 S., a level typical of sulphide mineralization.
- EM-17 This isolated response lies to the northwest side of a magnetic unit trending SW-NE. The profile shape infers a thin source dipping to the southeast. The estimated conductance is about 8 S., a level typical of electrolytic conduction or minor sulphide mineralization.
- EM-18 Two profile anomalies on Lines 2080 and 2090 are similar in shape and have been connected as an axis that is at odds with the local N-S magnetic trend. The profile shape on Line 2090 could be attributed to a source with shallow southern dip. On line 2080 the response is more complex. It is possible that the conductor axis is aligned N-S and lies between the flight lines. The estimated conductance is about 6 S., a level typical of electrolytic conduction or very minor sulphide mineralization.

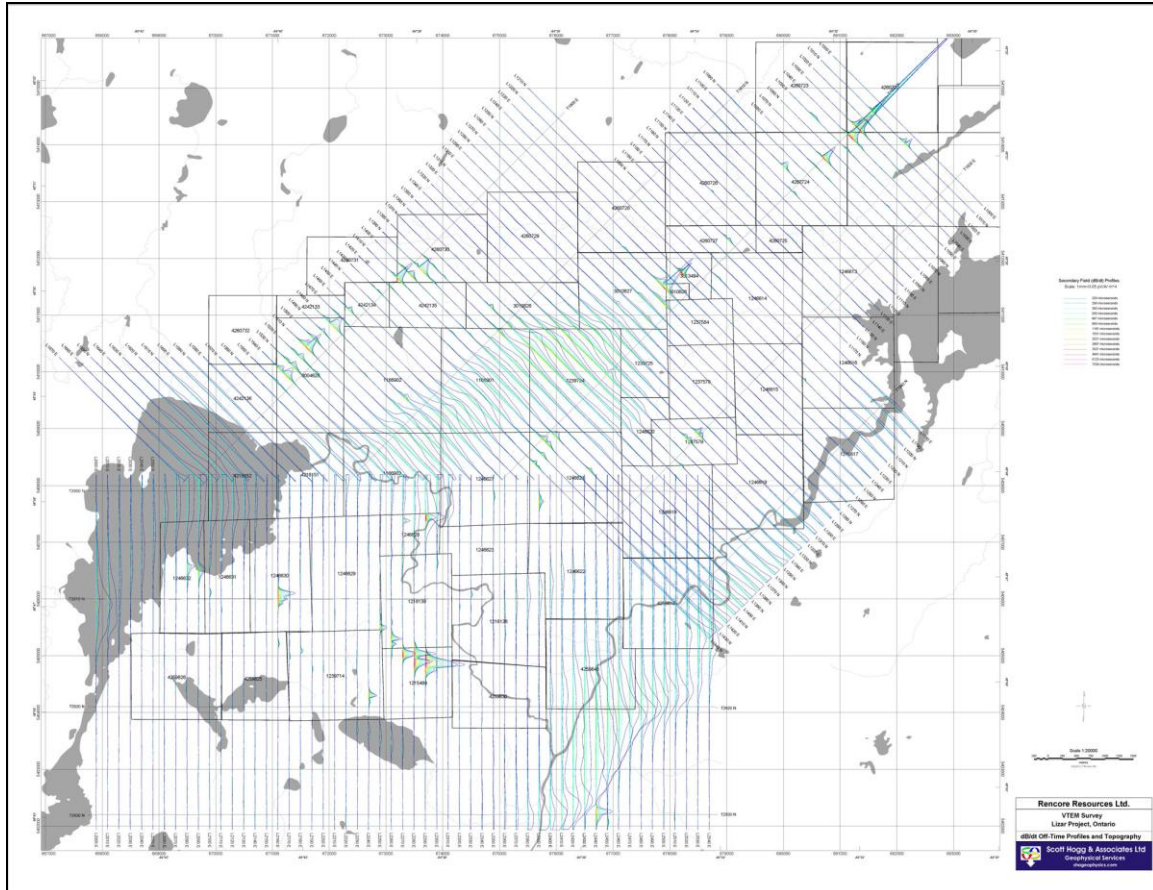
Anomalies EM-1, 4, 9, 10, 11 and 16 have associated conductance values in the range of 25 to 45 S. These are the anomalies most likely to reflect a sulphide source and thus most warrant follow-up consideration. This area is one that has been explored in the past and it is recommended that those most familiar with the geology and mineralization of the area evaluate these geophysical results. Prior drilling, sampling and mapping information would be valuable for the planning and prioritization of anomaly investigation. In light of the apparent complexity of the geology and limited spatial resolution of the airborne survey, ground magnetic and electromagnetic surveys are recommended to correctly resolve the location and strike of the conductors, prior to drilling.

Respectfully submitted,

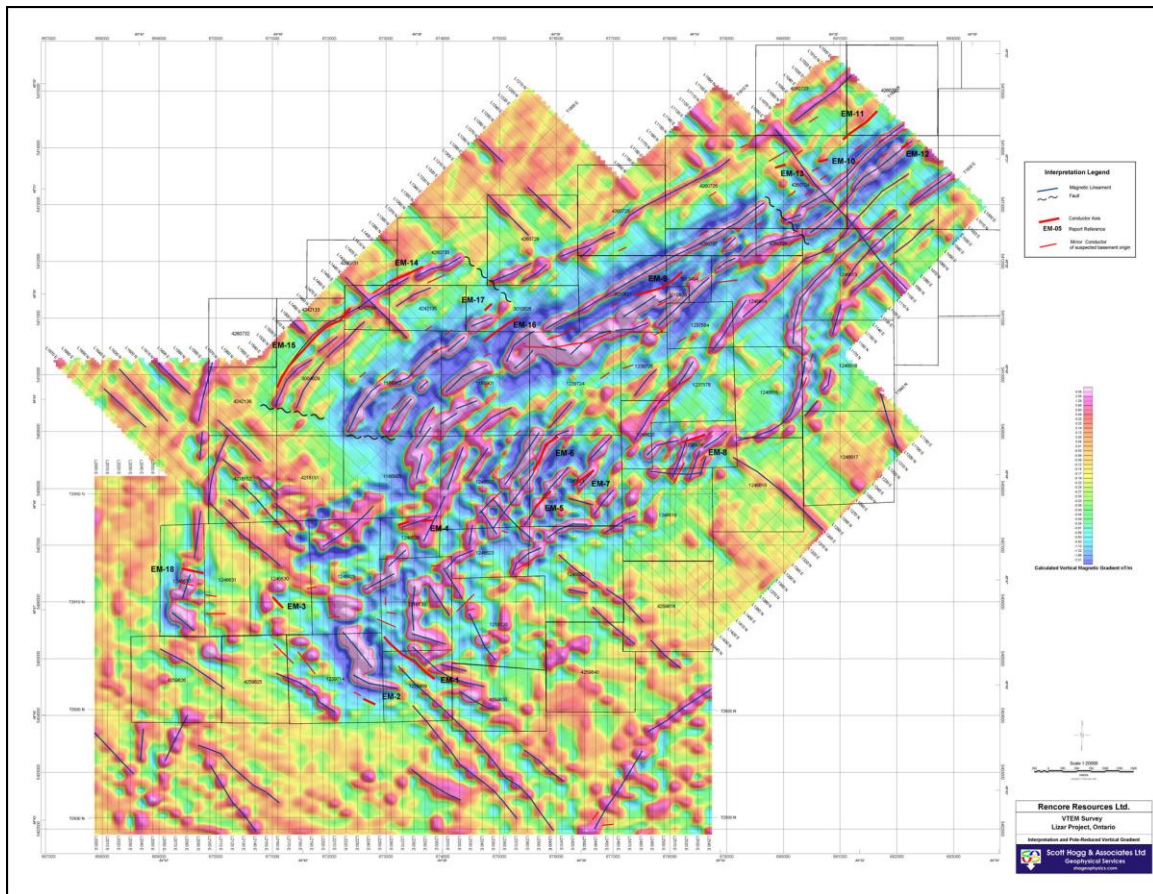
R.L. Scott Hogg B.A.Sc., P. Eng.
Scott Hogg & Associates Ltd.
Toronto, Canada
February 4, 2011

APPENDIX I – MAP IMAGES

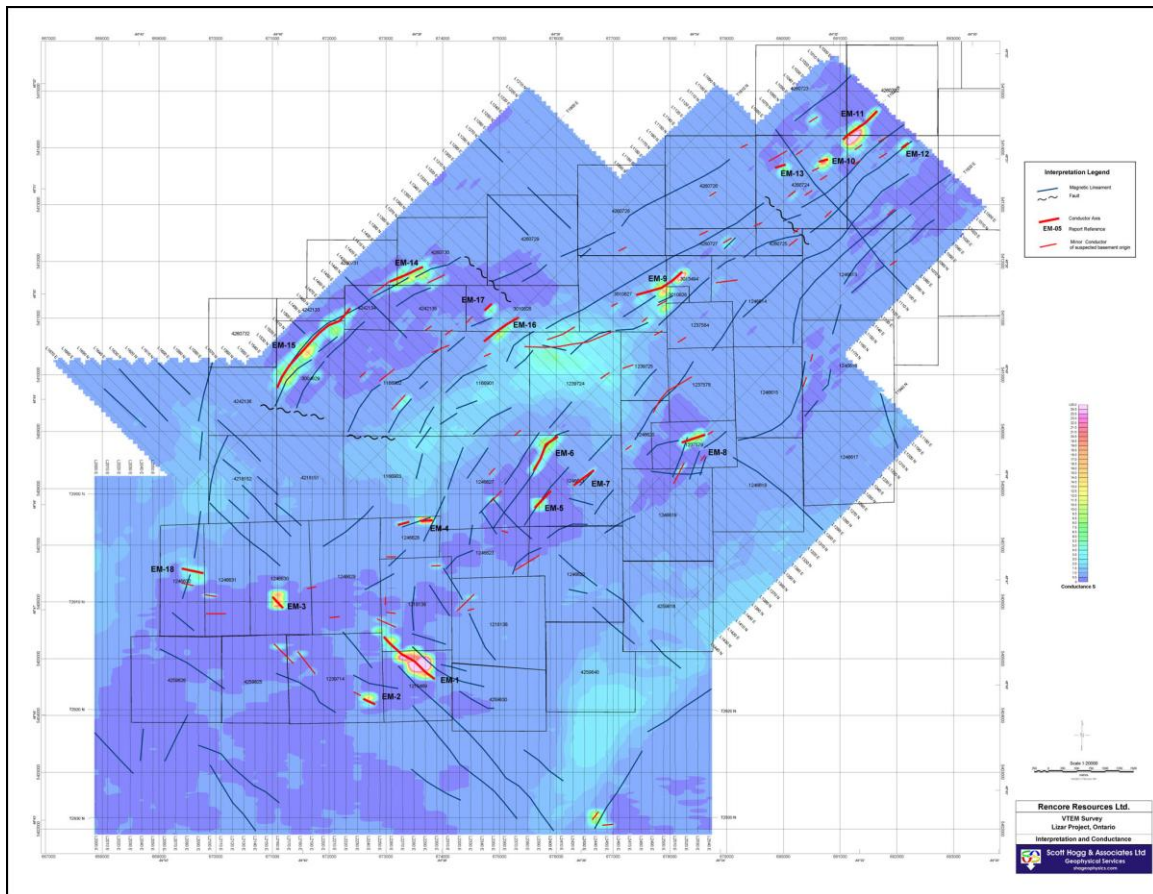
The map images in this appendix are representative of full-size 1:20,000 scale maps that accompany this report.



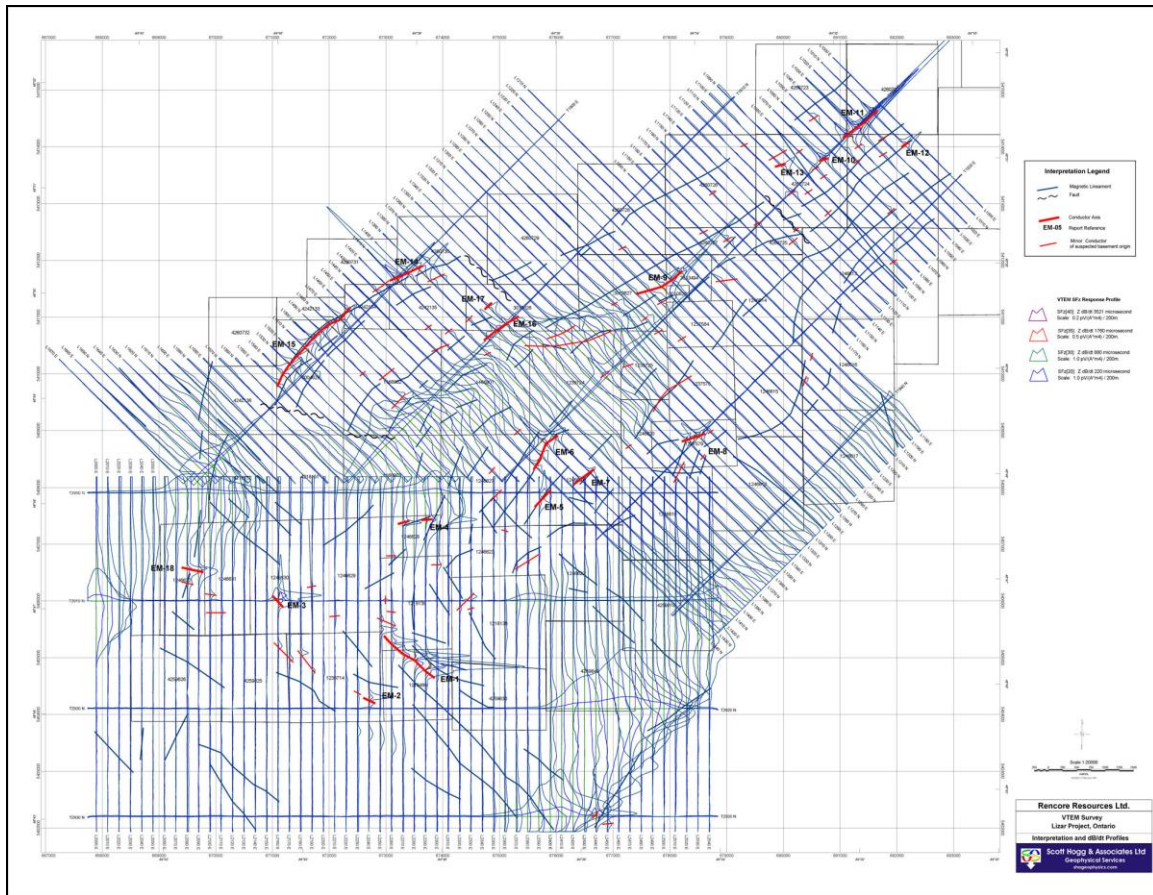
dB/dt Profiles and Topography



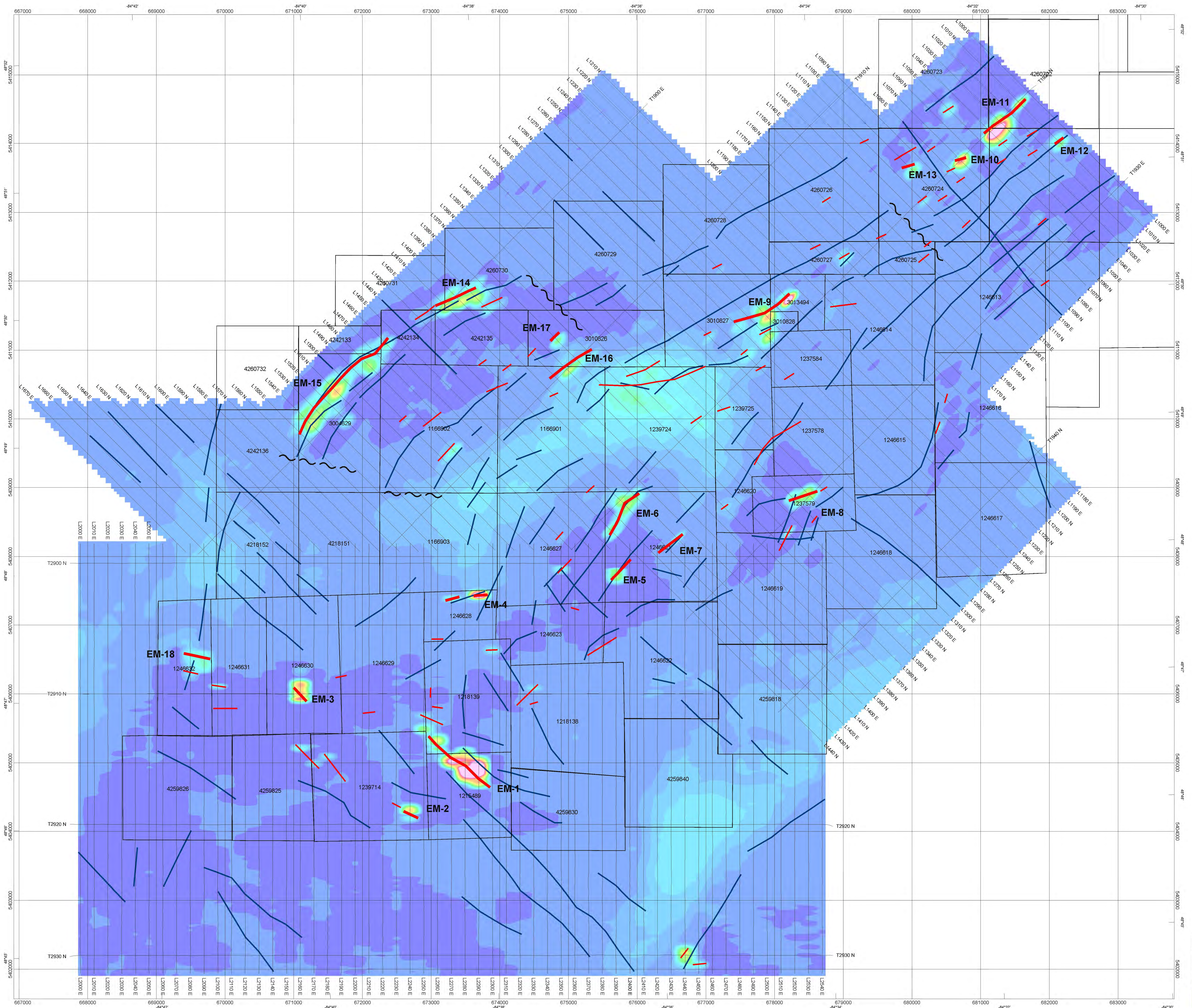
Interpretation with Pole Reduced Vertical Magnetic Gradient



Interpretation with Conductance

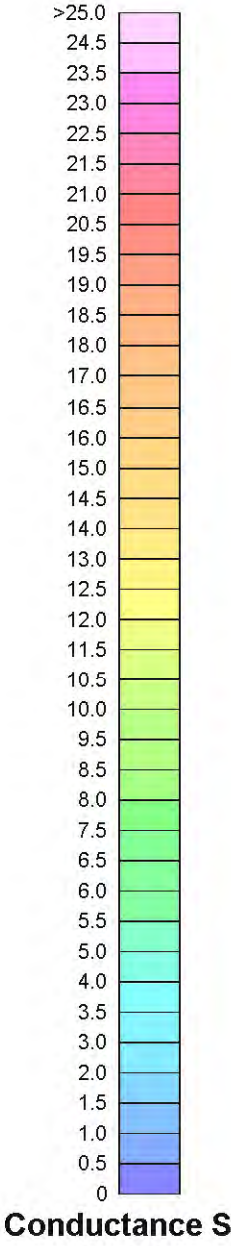


Interpretation with VTEM profiles



Interpretation Legend

- Magnetic Lineament
- Fault
- Conductor Axis
- Report Reference
- Minor Conductor of suspected basement origin



Scale 1:20000

metres

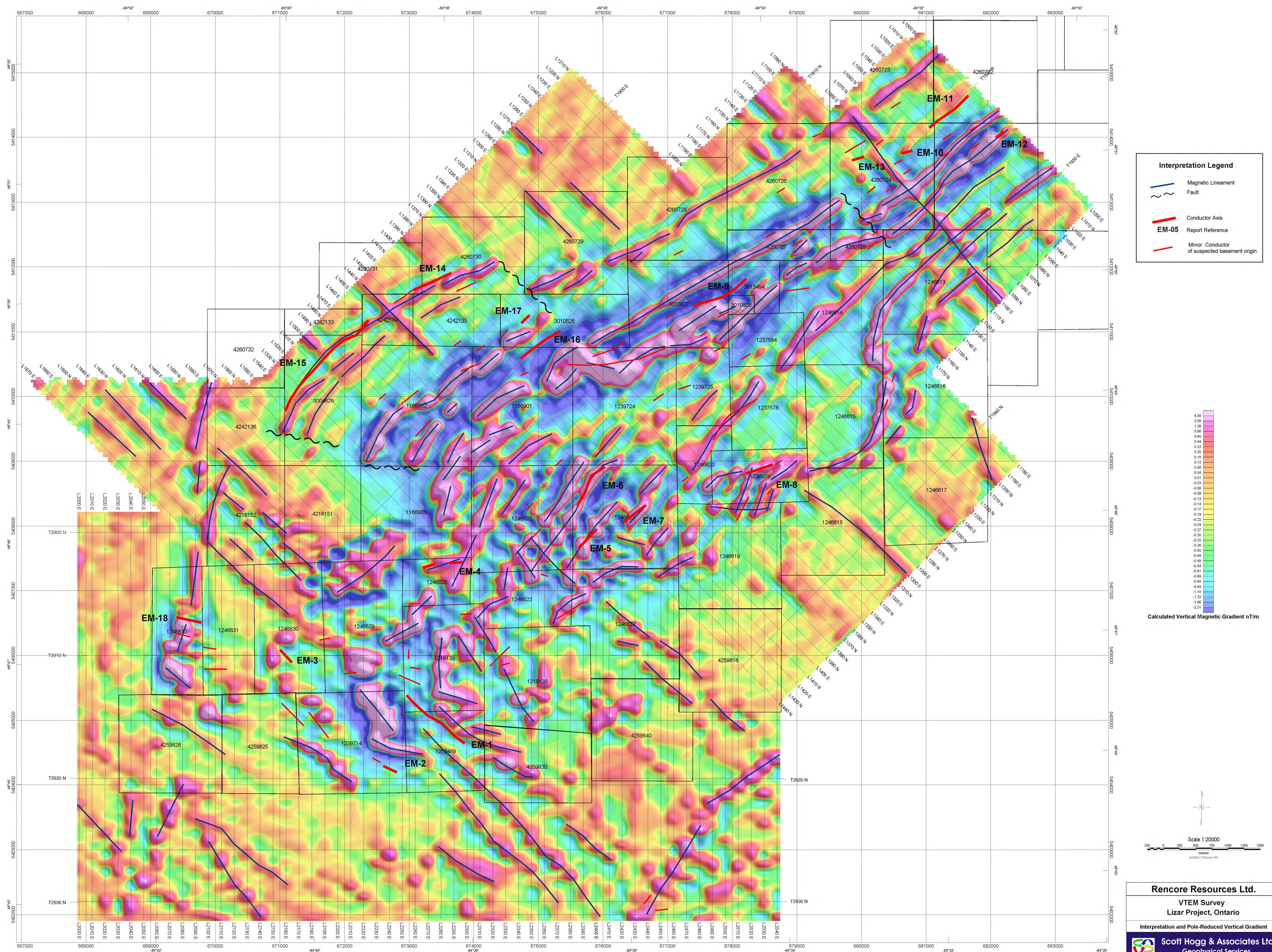
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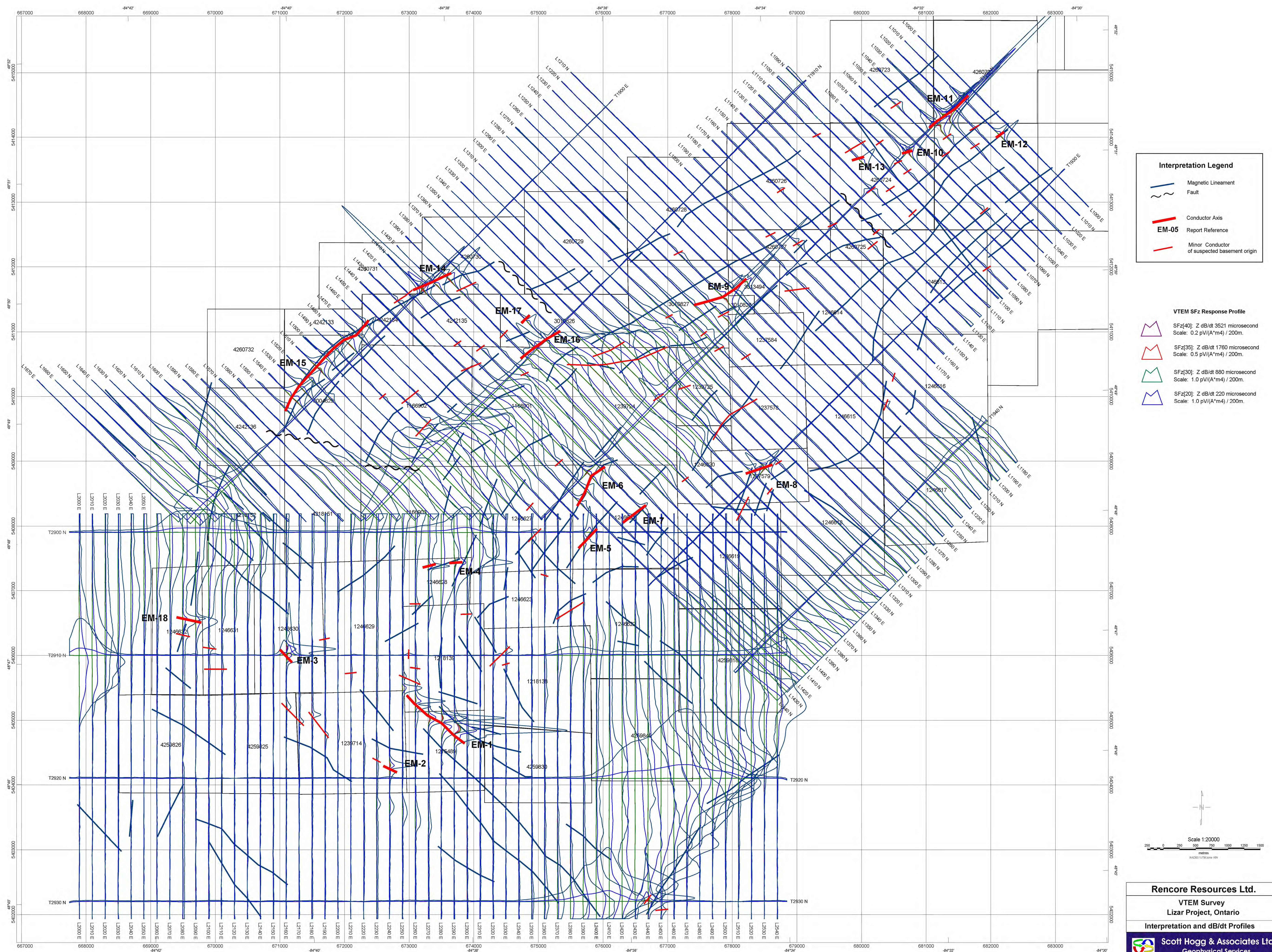
Rencore Resources Ltd.

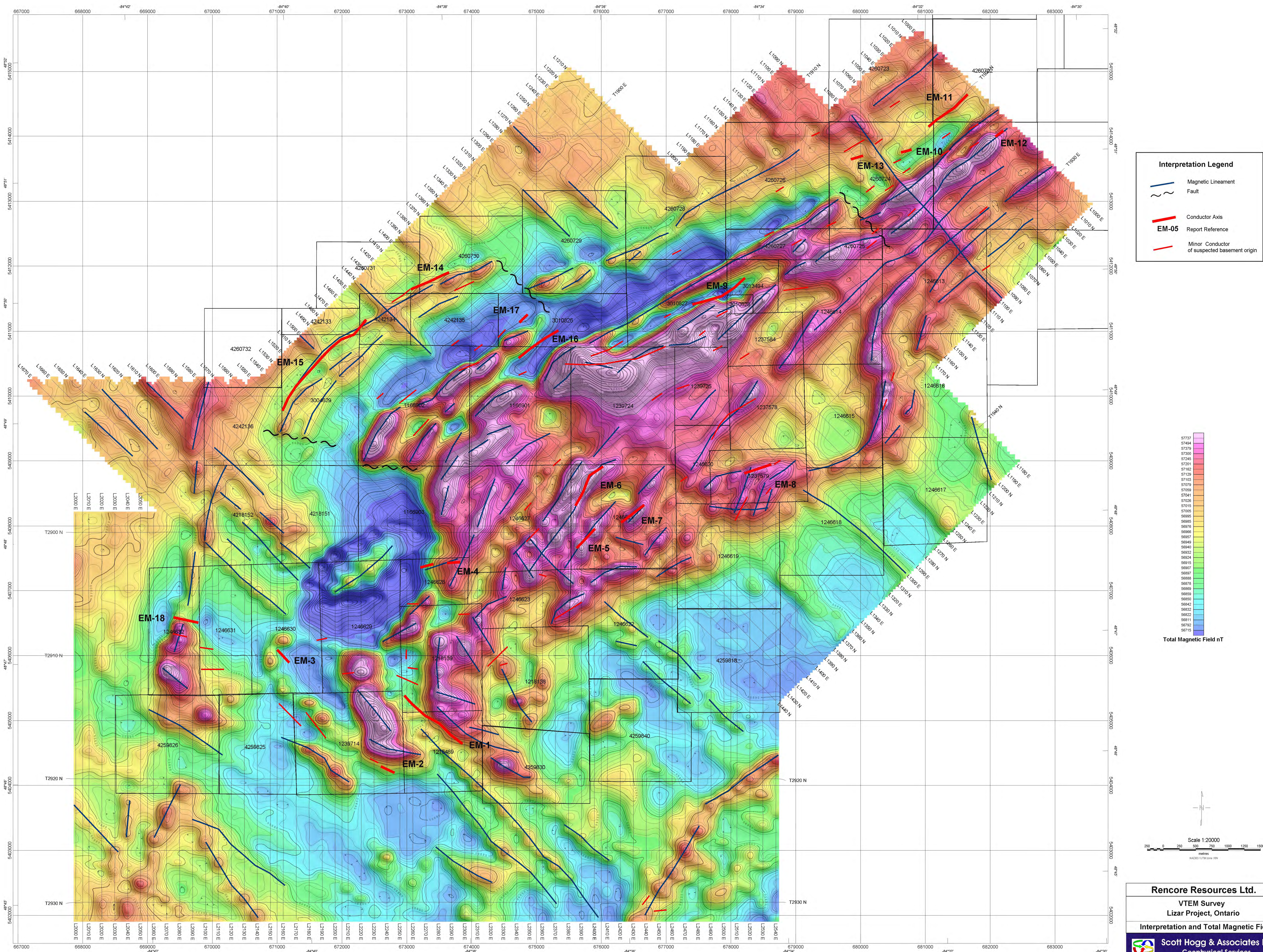
VTEM Survey
Lizar Project, Ontario

Interpretation and Conductance

Scott Hogg & Associates Ltd
Geophysical Services
shogeophysics.com

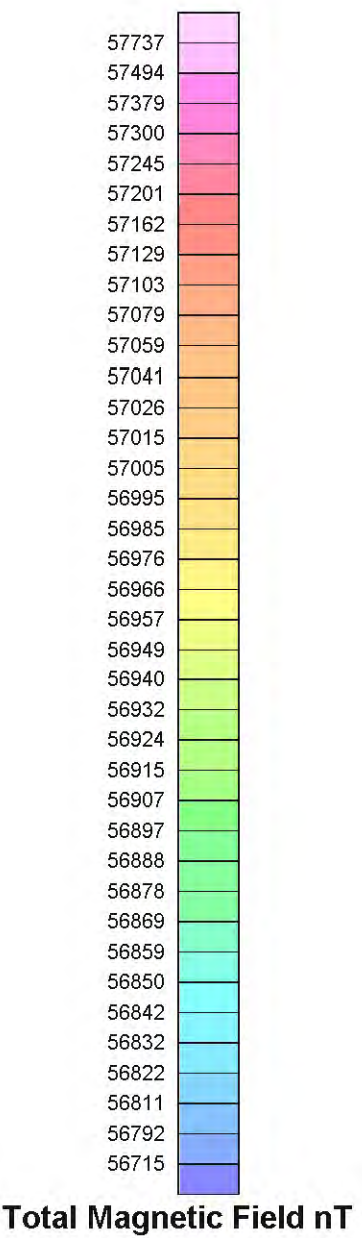




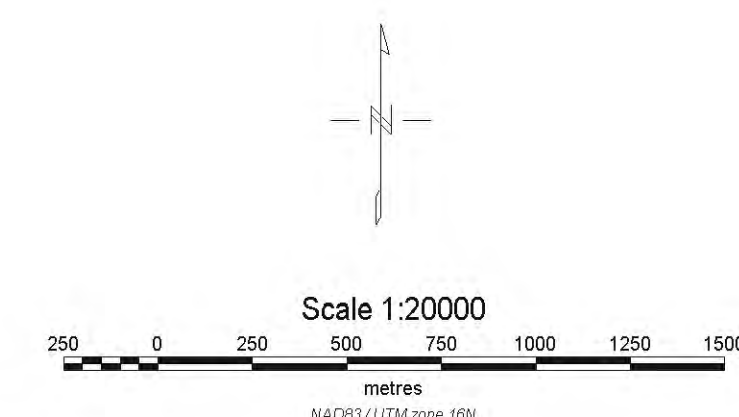


Interpretation Legend

- Magnetic Lineament
- Fault
- Conductor Axis
- Report Reference
- Minor Conductor of suspected basement origin



Total Magnetic Field nT



Rencore Resources Ltd.

VTEM Survey
Lizar Project, Ontario

Interpretation and Total Magnetic Field

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shogeophysics.com