

**REPORT ON
GROUND GEOPHYSICAL SURVEYS
PERFORMED ON THE
TENORIBA PROJECT
CHIHUAHUA STATE, MEXICO
SUBMITTED TO
MAMMOTH RESOURCES CORPORATION
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MAGNETIC SURVEY

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INDUCED POLARIZATION SURVEY

IP Pseudo Sections (1/2500 or 1/5000 Scale): Twenty-one (21) interpreted apparent resistivity (R) and chargeability (C) color IP sections with 2-D inversion models of R and C plotted along the topography.

Map C144_2A:	Apparent Resistivity, True Depth Model at 100 meters
Map C144_2B:	Apparent Chargeability, True Depth Model at 100 meters

INTERPRETATION

Map C144_3:	Geophysical Interpretation
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1. INTRODUCTION

In the fall of 2013 and according to contract CHI-113, Mammoth Resources Corporation (MRC) requested that Geofisica TMC SA de CV carry out ground geophysical surveys on their Tenoriba property. The project area is located in the heart of the Mexican Sierra Madre, 290 km as the crow flies, SW of the city of Chihuahua, in the state of Chihuahua, in Mexico (figure 1). The geophysical campaign was completed between October 8 and November 14, 2013 and consisted of 32.2 line-km of magnetics and pole-dipole induced polarisation (see section 3.1).

The central region of Mexico, which includes the states of San Luis Potosi, Zacatecas, Durango and Chihuahua, contains many former and active mines. The known mineralisations consist of polymetallic Ag-Pb-Zn deposits that are very often rich in copper and gold. These are most often associated with epithermal, CRD (carbonate Replacement Deposits) or porphyry skarn deposits, usually related with calc-alkaline intrusions indicated at surface by magnetic anomalies of variable intensities.

The known mineralisations at Tenoriba are gold and silver bearing associated with mesothermal to epithermal veins. For the time being, the main exploration targets were delineated following surface sampling and stream geochemistry surveys done by Masuparia Gold in 2007 and 2008 (see section 4.1). For the current exploration program, three distinct exploration areas encompassing historic mining works and known veins were selected. The objective being to map the sulphide rich veins or beds based on their MAG and/or IP signature, whilst assuming that the delineated structures will host gold and silver bearing mineralisations.

The first part of this report details the technical specifications of the surveys whereas the second part presents a semi qualitative interpretation of the data as well as recommendations for further exploration work on the Tenoriba Project.

2. THE TENORIBA PROJECT

2.1 Location and Access

The Tenoriba project is located in the Mexican Central Sierra Madre, 290 km as the crow flies SW of the capital city of Chihuahua, in the state of Chihuahua in Mexico (figure 1). Access to this very rugged area is done by the south through mountain tracks that can be used to access the village of Baborigame fifteen km as the crow flies towards the east. From this location, Chihuahua can be reached by taking a road towards the SE until National Highway 24 and then towards the north for a total distance of more than 550 km.

Figure 1 General Location



2.2 Description & Survey Grids

The Tenoriba project covers a total area of 9950 hectares and is located within the confines of four contiguous mining claims named Mapy, Mapy 2, Mapy 3 and Fernanda. The geophysical surveys covered the El Moreno, Masuparia and Los Carneritos prospects located in the center of the property (figure 2). These three closely spaced exploration areas are located within the confines of a broad NE/SW trending geochemical anomalous corridor, 2.0 to 3.0 km wide by 5.0 to 7.0 km long.

Three IP grids were implemented by the Customer. Each of these grids consists of N/S lines every 100 m which were positioned and surveyed by using a GPS receiver (figure

3). The El Moreno grid towards the west consists of three (3) lines; the Masuparia grid in the center of seven (7) lines; and the Los Carneritos grid towards the east of ten (10) lines. The magnetometer survey was done in the GPS assisted navigation mode, along the approximate position of the IP lines of the same numbering (see also section 3.2). The Masuparia and Los Carneritos grids are crossed by an ENE striking ridge with very steep slopes, culminating to an elevation of more than 2000 m towards the east; which considerably slowed the progress of the surveys in this area (figure 3).

Figure 2 Fieldwork location on the Tenoriba Project

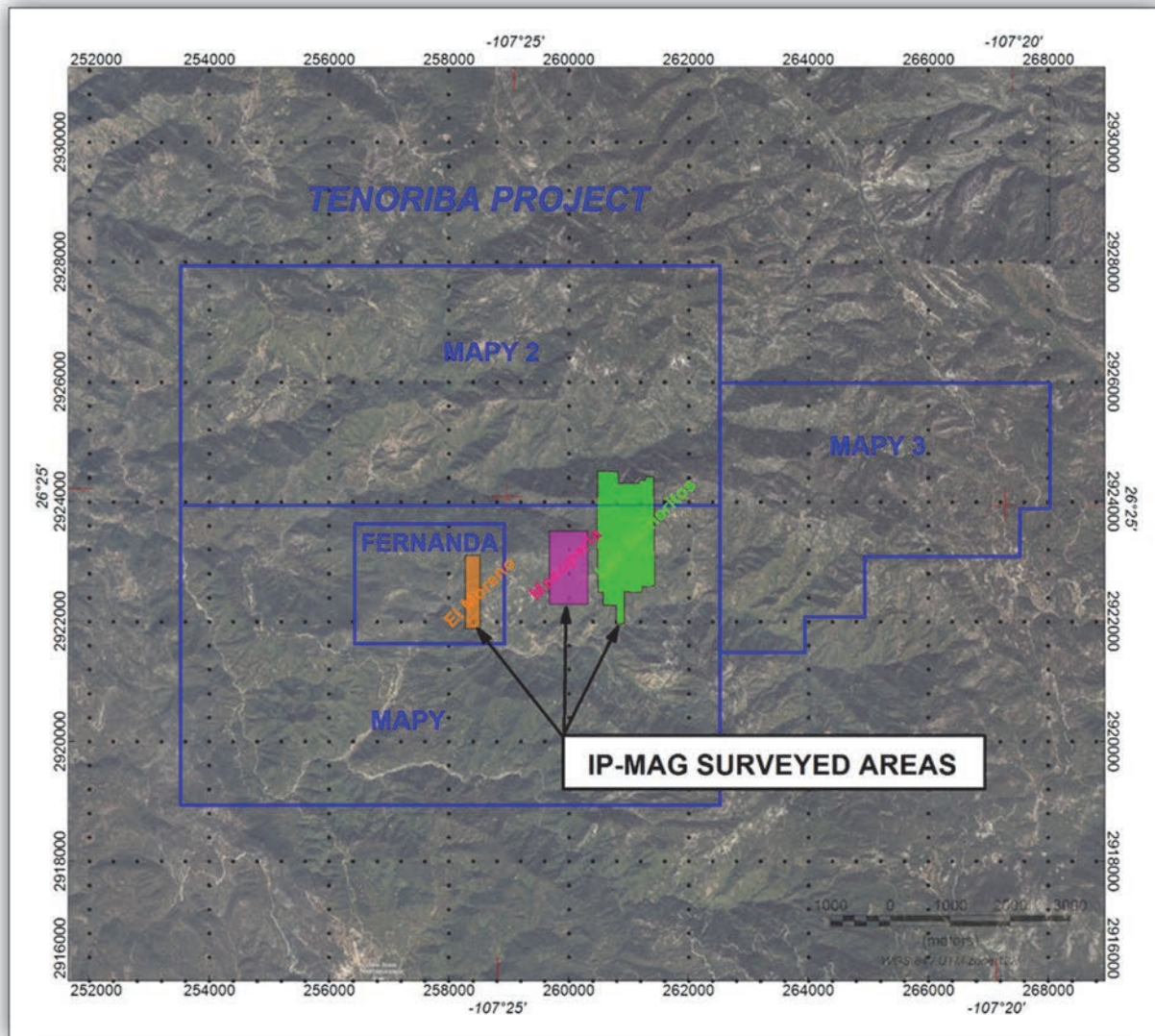
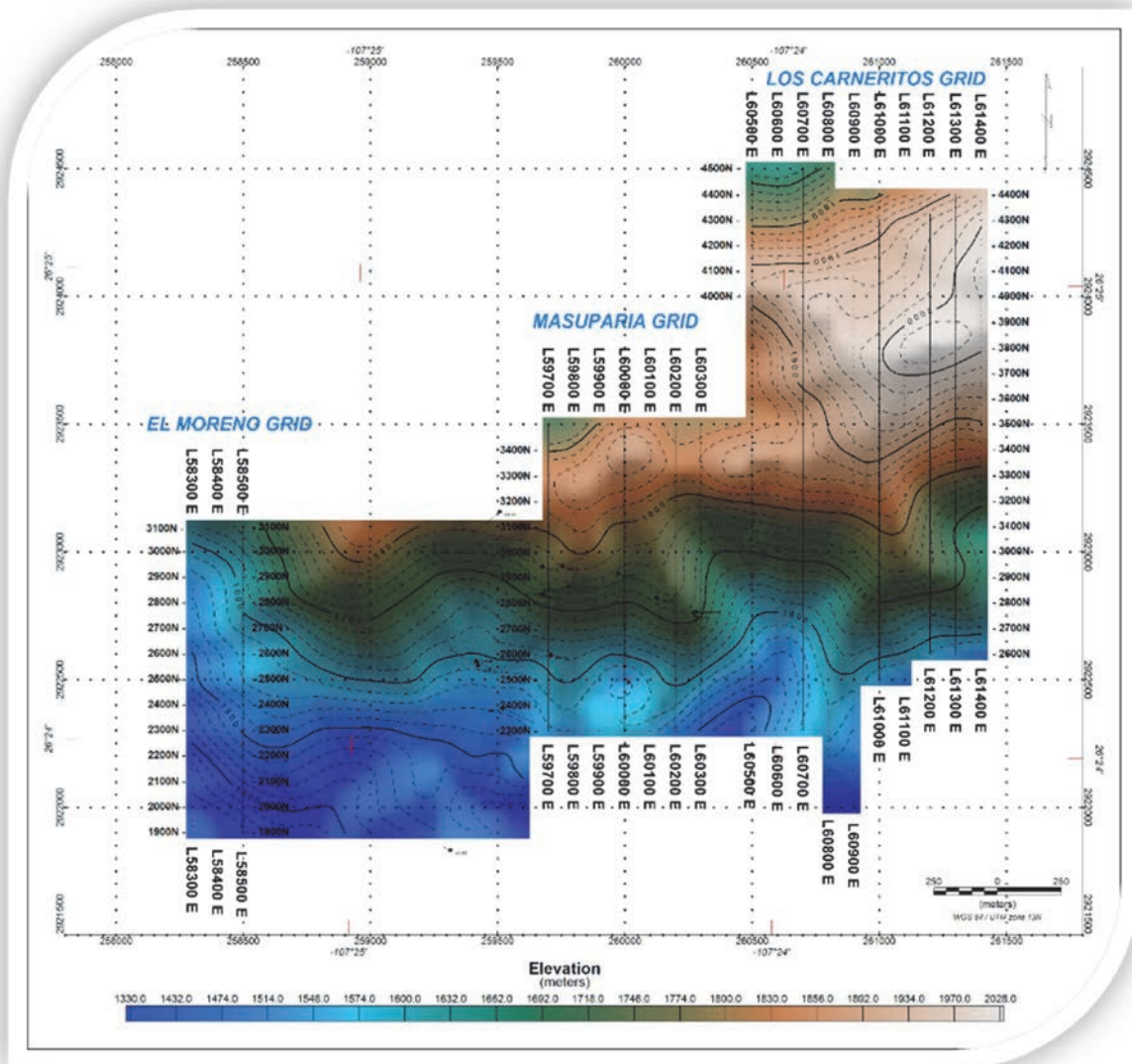


Figure 3 IP-MAG Survey Grids & Local DEM (SRTM90)



3. TECHNICAL SPECIFICATIONS OF THE SURVEYS

3.1 Overview

The crew chief of the induced polarisation survey was Mr. Gerardo Del Val, who was also involved in the magnetic survey with Mr. Pedro Vargas. The survey was done between October 8 and November 14, 2013 under the technical supervision of Mr. Simon McCrory, field work coordinator with Geofisica TMC (table 1).

Table 1 **Field Work Schedule and Particulars of Ground Covered**

SURVEY GRID	TYPE OF WORK	TIME FRAME	PRODUCTION
EL MORENO	Mag-GPS Induced Polarization	Oct.8 to Nov 14, 2013	3.6 km
MASUPARIA	Mag-GPS Induced Polarization		8.4 km
LOS CARNERITOS	Mag-GPS Induced Polarization		20.2 km

3.2 Magnetometer Survey

Two (2) operators were involved in the ground magnetic survey. One of them was using a GEM systems GSM-19W Overhauser effect magnetometer, whereas the other one used a Scintrex ENVI Cs Caesium Vapour magnetometer (Table 2). Total magnetic field readings were continuously taken with a sampling rate of 0.5 Hz (every 2.0 s). The location of the readings was done in real time by using GPS receivers that were part of the magnetometer consoles. The diurnal corrections were done by using a GSM-19 Base Station that recorded values of the total magnetic field every 10 seconds throughout the day. The final database was geo-referenced to the WGS-84, UTM-Zone13N datum (Table 3).

Table 2 **Magnetic Survey Equipment**

MAGNETOMETERS	SPECIFICATIONS	GPS POSITIONING
ROVING UNITS	GEM GSM19-W V 7.0 . Overhauser Effect Proton Precession . Sampling Rate: 2.0 s . Resolution: 0.01 nT . Absolute Accuracy: 0.2 nT . Gradient Tolerance: 10 000 nT/m . Sensor Height: ≈1.8 m	NOVATEL OEMV-1 - Compatibility: (CDGPS, SBAS, DGPS, OMNISTAR) - L1 –Lband & SBAS signal tracking - X, Y Precision: ≈ 1 m
	SCINTREX ENVI Cs . Self-oscillating split-beam caesium vapour . Sampling rate: 2.0 s . Resolution: 0.01 nT . Sensitivity: < 0.003 nT/√Hz RMS . Gradient Tolerance: 40 000 nT/m . Sensor Height: ≈1.8 m	WI-SYS WS5012 - Compatibility (SBAS, WAAS, EGNOS) - 16 channels parallel ST Teseo GPS - X, Y Precision: ≈ 2 m (autonomous) < 1.0 m (SBAS)
BASE STATION	GEM GSM19 . Overhauser Effect Proton Precession . Resolution: 0.1 nT . Absolute Accuracy: 0.2 nT . Reading Interval: 10 s	-

Table 3 Local Projection Parameters

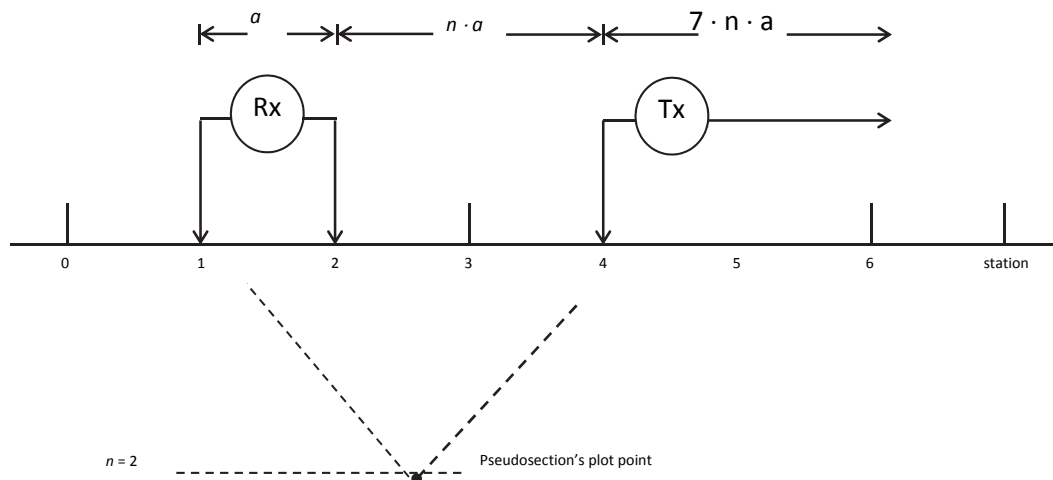
Datum	WGS84
Name	UTM, Zone 13N
Ellipsoid	WGS84
Maj. Axis	6 378 137.00
Inverse flattening	298.25722
Type	Transverse Mercator
Central meridian	105° W
Latitude of origin	0° N
False Easting	500 000 m
False Northing	0 m
Scale factor	0.9996

3.3 Induced Polarization Survey

3.3.1 Electrode array

The induced polarisation survey was done by using the pole-dipole electrode array (figure 4), with separations varying between 1 to 10 ($n= 1$ to 10). The nominal “a” spacing between the electrodes was set to 50 m, except on line 58300E where a spacing of 25 m was also tested at the beginning of the survey (see section 4.3.2).

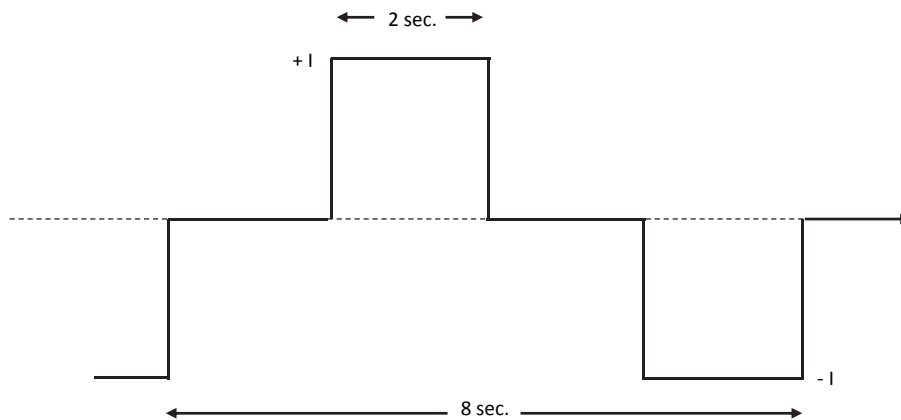
Figure 4 The pole-dipole electrode array



3.3.2 Equipment used

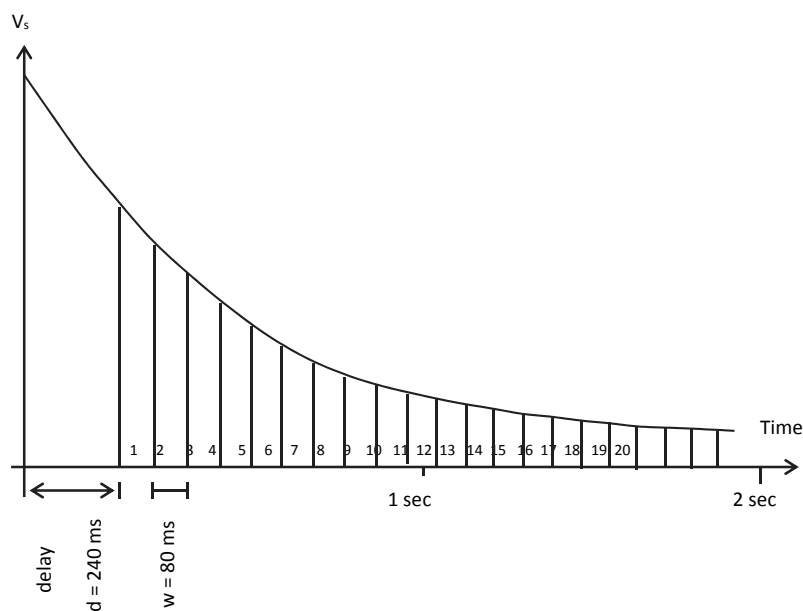
The induced polarization equipment consisted of a transmitting and receiving apparatus using a commuted signal. A motor generator drove the TX 9000 Walcer Geophysics transmitter capable of supplying 9.0 kW of continuous power. Stainless steel electrodes were used to inject a stable current. The bipolar current waveform had an 8-second period with a 50% duty cycle (figure 5).

Figure 5 Transmitted signal at C1-C2



The primary voltage, denoted V_p and chargeability, denoted M were measured every 25 or 50 metres using an Iris Instrument Elrec Pro Time Domain Receiver. The decay curve was separated into 20 pre-programmed slices (figure 6). Slices M_1 to M_{20} were then normalized to a standard decay curve representing a pure electrode effect.

Figure 6 Decay Curve Integration Windows at P1-P2



3.3.3 Calculation of ρ_a and M_a

Apparent resistivity was calculated according to the following formula:

Pole-dipole array: $\rho_a = 2\pi n (n+1) a V_p/I$ (in ohm-m)

where:

a = dipole separation ($a = 25$ or 50 meters)

n = multiple of dipoles ($n = 1$ to 10)

V_p = Primary Voltage (mV)

I = Transmitted Current (mA)

Chargeability M is the average of the twenty (20) normalized windows, expressed in mV/V.

4. SURVEY DATA

4.1 Project review & Survey Objectives

The gold and silver bearing mineralisations at Tenoriba have been mined in an artisanal fashion using trenches and shallow troughs. These mineralisations are either associated with slightly enriched sulphide bearing ENE, E/W or NW striking veins (structures) or vuggy silicified beds along breccia zones. The underlying formations consist of strongly altered Tertiary age felsic volcanics intruded by diorites or monzonites.

Between 2007 and 2008, surface sampling and stream geochemistry surveys done by Masuparia Gold delineated several new exploration targets on the property. They are mostly located within the confines of an ENE anomalous corridor, 2.5 km wide by 5.0 to 7.0 km long, encompassing the El Moreno, Masuparia and Los Carneritos prospects where the geophysical surveys were done. The MAG and IP data will be used to delineate anomalies likely indicative of sulphide rich veins or beds, whilst assuming that the delineated structures are gold and silver bearing.

4.2 Magnetometer Survey

4.2.1 Magnetic Data and Processing

Δ **Total Magnetic Field:** The daily-recorded values of the total magnetic field taken by the roving units were corrected for diurnal drift and then checked for quality control before being merged into the final database. Gridding of the values was based on a non-directional kriging algorithm, where each grid cell is given a weight and preferential interpolation direction based on a geo statistical analysis of the entire dataset; the objective being to highlight the different strikes and structural trends that are to be found in the survey area. The grid cell size was set to 12.5 m and the maximum interpolation distance to 250 m. The results are presented as a colour contour map at a 1/5000 scale (Map C144-1A).

Δ **Total Magnetic Field Reduced to Pole (Figure 7):** The shape of a magnetic anomaly profile is a direct function of the inclination and declination of the ambient magnetic field at any given point on Earth. The reduction to pole is used in order to alleviate the shortcomings of the variation of inclination and declination as one gets farther from the magnetic poles: 90° inclination and zero declination at the magnetic poles as well as 0° inclination and variable declination at the magnetic equator. In order to simplify the interpretation of the magnetic data, the total magnetic field values were reduced to pole, whilst using inclination and declination values of 53.60°N and 8.30°E respectively for the Tenoriba area (Map C144-1B). This type of processing is more efficient for E/W striking structures and/or spherical *orebodies*.

Δ First Vertical Derivative (Figure 8): The first order vertical derivative quantifies the variation of the magnetic field as a function of height. It is equivalent to what would be obtained if we measured the magnetic field with separate magnetometers vertically spaced apart and by dividing the measurement difference by the distance between the two sensors.

The purpose of this type of filter is to eliminate the long wavelength signatures and thus facilitate the discrimination of close or even superimposed anomalies. This filter also increases the noise level, which limits the use of higher order derivatives ($n=2$ for example). The vertical derivative is used to delineate the contacts between large-scale magnetic domains because its value is zero over vertical contacts (Map C144-1C).

Figure 7 Magnetometer Survey, Total Field Reduced to Pole

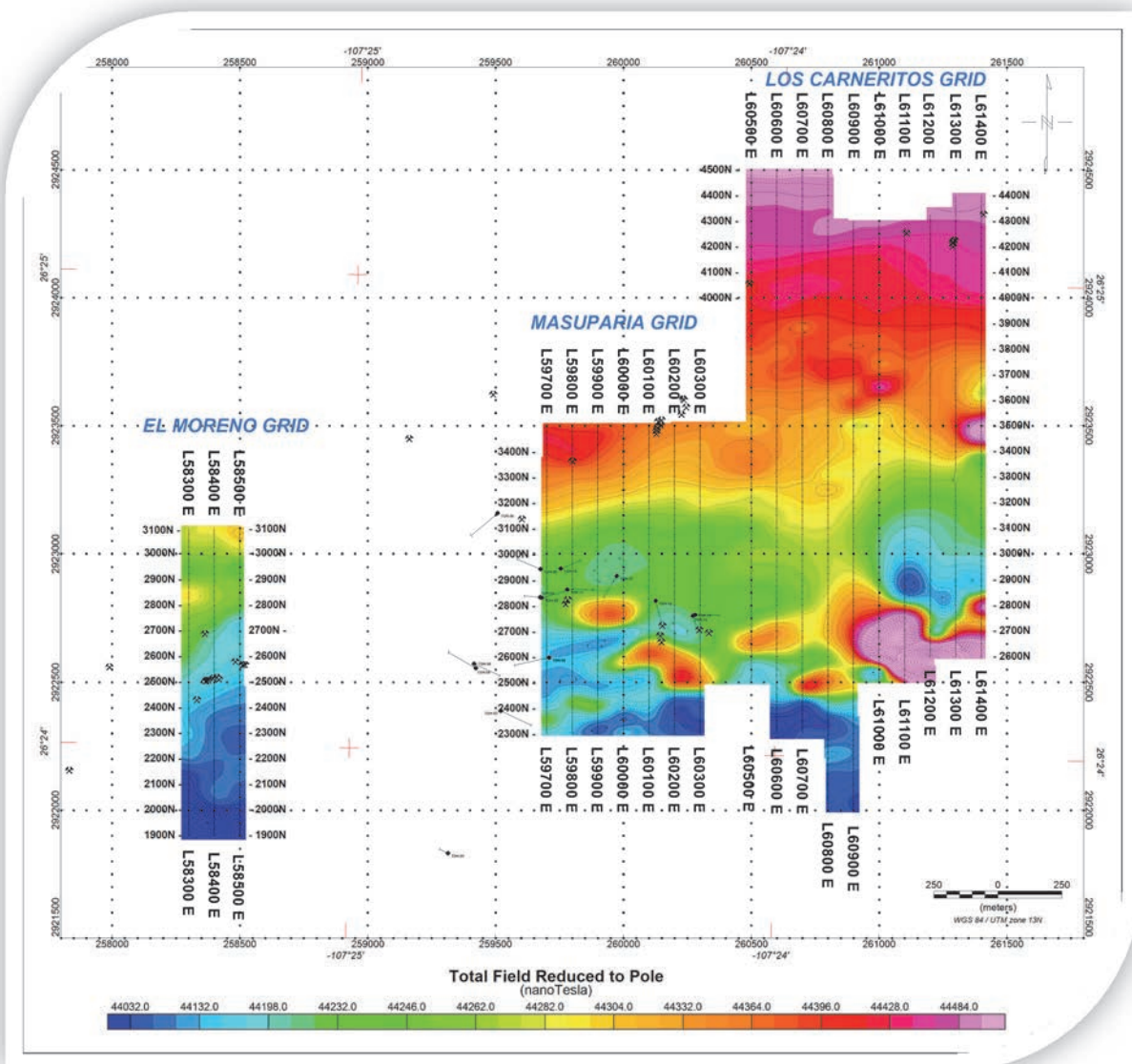
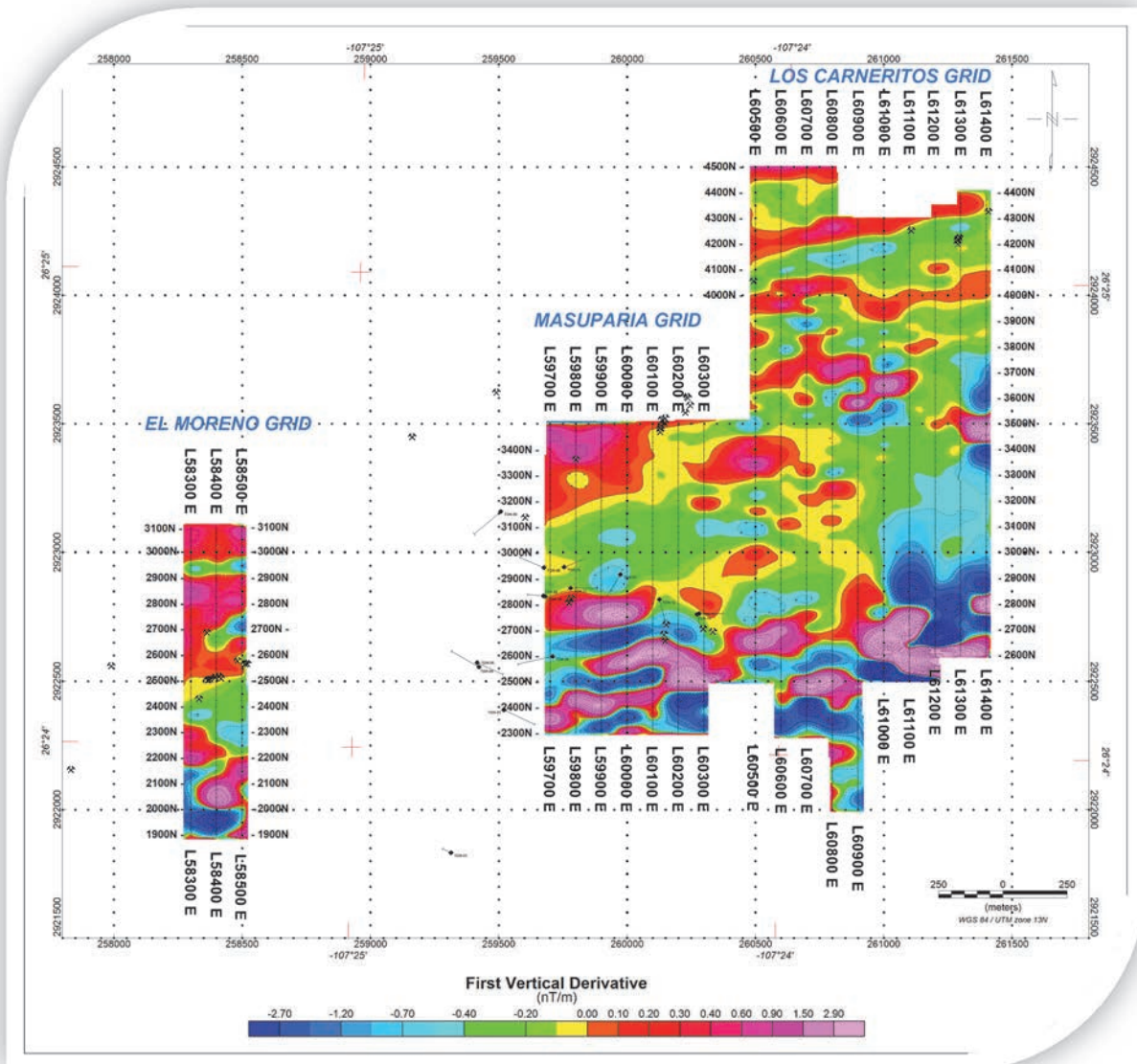


Figure 8 Magnetometer Survey, First Vertical Derivative

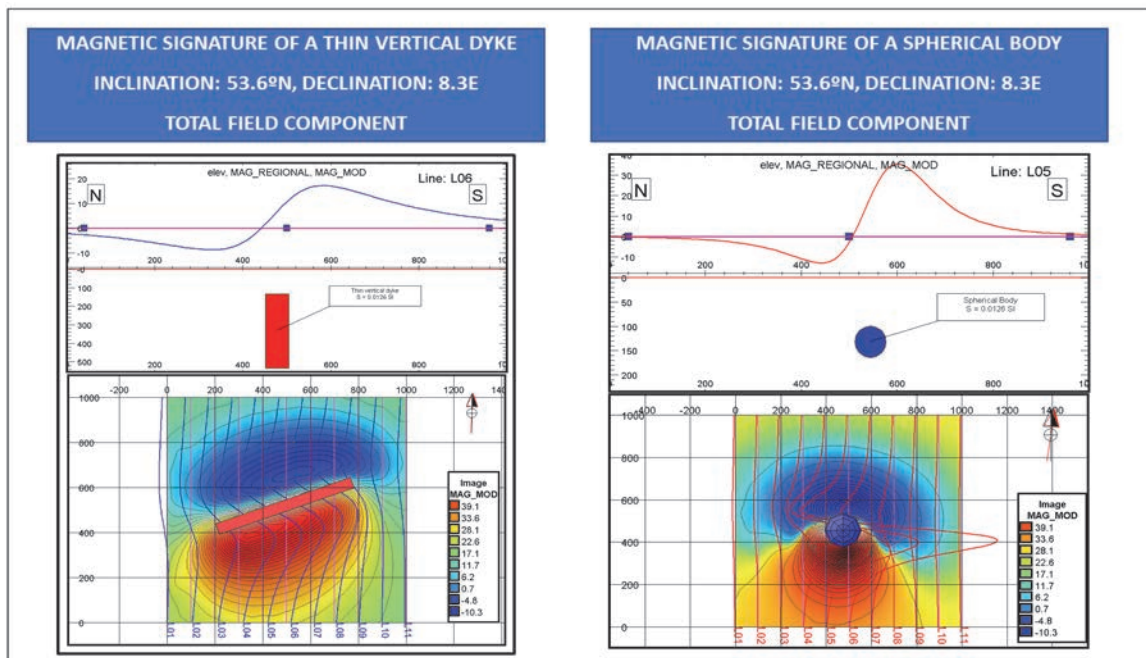


4.2.2 Interpretation

The magnetometer survey was done in the continuous acquisition mode along twenty (20) N/S lines every 100 m on the Moreno, Masuparia and Los Carneritos grids. Based on the sampling rate that was used, the total field intensity readings were taken approximately every 0.8 m along the survey lines, and consequently the magnetic database contains more than 41,000 readings. Such an information density allows us to produce high resolution maps; thus enabling us to better delineate weak as well as short wavelength anomalies.

Prior to the review of any magnetic data, one should keep in mind the shape of an anomalous source in the total field component over the area of interest. To illustrate this point, the typical total magnetic field response of a thin vertical dyke as well as a spherical ore body were calculated for the Tenoriba area (see figure 9). In both cases, the magnetic response was characterised by a bi-polar (+/-) anomaly, and the anomalous source more or less centered on the inflexion point between the two poles. The total field reduced to pole and first vertical derivative maps are recommended to precisely locate the magnetic anomalies.

Figure 9 Magnetic signatures of thin vertical & spherical bodies



The underlying formations in the southern, central and far northern parts of the Masuparia and Los Carneritos grids are interpreted to be more or less distinct. The transition between the lithological and magnetic domains is along ENE to E/W striking contacts. A major NW/SE contact is also interpreted between the Masuparia and Los Carneritos grids, which is more obvious on the IP maps (see section 4.3.2). The Moreno grid is not tied to the other ones and quite small but the transition between the magnetic domains also appears along ENE to E/W contacts.

The reduced to pole total field map is affected by a regional gradient that increases towards the north. This effect is abated in the first vertical derivative map, and consequently the magnetic anomalies are more easily delineated. Therefore, this map was used to circumscribe the anomalies and their outlines were transposed onto the interpretation maps and successively labelled AM-1 to AM-16 (see Map C144-3 and figure 14). The anomalies are generally elliptically shaped with an E/W to ENE strike; more locally NW striking. Their lateral extent is approximately a few hundreds of meters but

can reach almost a kilometer in the northern part of the Los Carneritos grid. The wavelengths associated with these anomalies indicate that there are indicative of shallow or sub-outcropping targets that can be followed up by mapping on the ground.

More particularly, the strongest anomalies (≈ 100 to 500 nT) are mostly located in the southern parts of the Masuparia and Los Carneritos grids, where their origin is interpreted to be mostly lithological (anomalies AM-8, AM-9, AM-10 & AM-11). The other anomalies never exceed more than a few tens of nT, and are only easily delineated based on the first vertical gradient map. Based on the transposition of the known and interpreted structures on the magnetic maps, some of these anomalies could be indicative of faults or altered beds weakly enriched with ferromagnesian minerals (Po/Mg). We recommend that this hypothesis be substantiated by carrying out magnetic susceptibility readings on mineralised and barren samples. This approach should also include susceptibility readings on the hostrock in order to enhance the value of the magnetic maps.

4.3 Induced Polarization Survey

4.3.1 IP Data and Processing

On a daily basis, the data quality was initially checked and related information saved in separate database for each of the survey lines in Geosoft Oasis Montaj format. In order to help with the quality control as well as the flagging of erroneous data, most of the readings were in fact repeated 3 times in the field. Part of the information contained in these databases was subsequently exported to RES2DINV compatible file formats in order to carry out the inversions with the software developed by M.H. Loke. The 2D models used by the inversion process, consists of a number of blocks having their distribution and size automatically generated by the program using the distribution of the points in the pseudo sections, which is a function of the electrode array. The depth of the bottom row of blocks is set to be approximately equal to equivalent depth of investigation (Edwards 1977). During the initial loading of the files, a correction is applied on the RES/IP data for surface topography effects. The inversion routine itself basically used a non-linear least-squares optimisation technique and most parameters are automatically fixed by the software.

Δ IP Pseudo Sections: The results of the IP measurements taken along each of the (21) IP lines that were surveyed were initially shown as interpreted colour pseudo-sections at a scale of 1/5000, or 1/2500 for the line completed with a 25 m electrode spacing. On each of these pseudo-sections, a 2D inversion model illustrating the resistivity and chargeability values with the surface topography and vertical depth in metres is shown. The RES2DINV program, by Geotomo, was used to carry out the inversion models.

Δ IP Contours Maps: The inversion values of resistivity/chargeability extracted at 100 meters of vertical depth were used to create maps. As well as for the magnetic data,

gridding of the IP-RES values was based on the non-directional kriging algorithm. The grid cell was set to 12.5 m and the maximum interpolation distance to 250 m. The results are presented as colour contours maps at a 1/5000 scale (Maps C144-2A & C144-2B). The reader will find a reduced-scale colour version of these maps in figures 10 and 11.

Figure 10 IP Survey, Apparent Resistivity, True depth model at 100 m

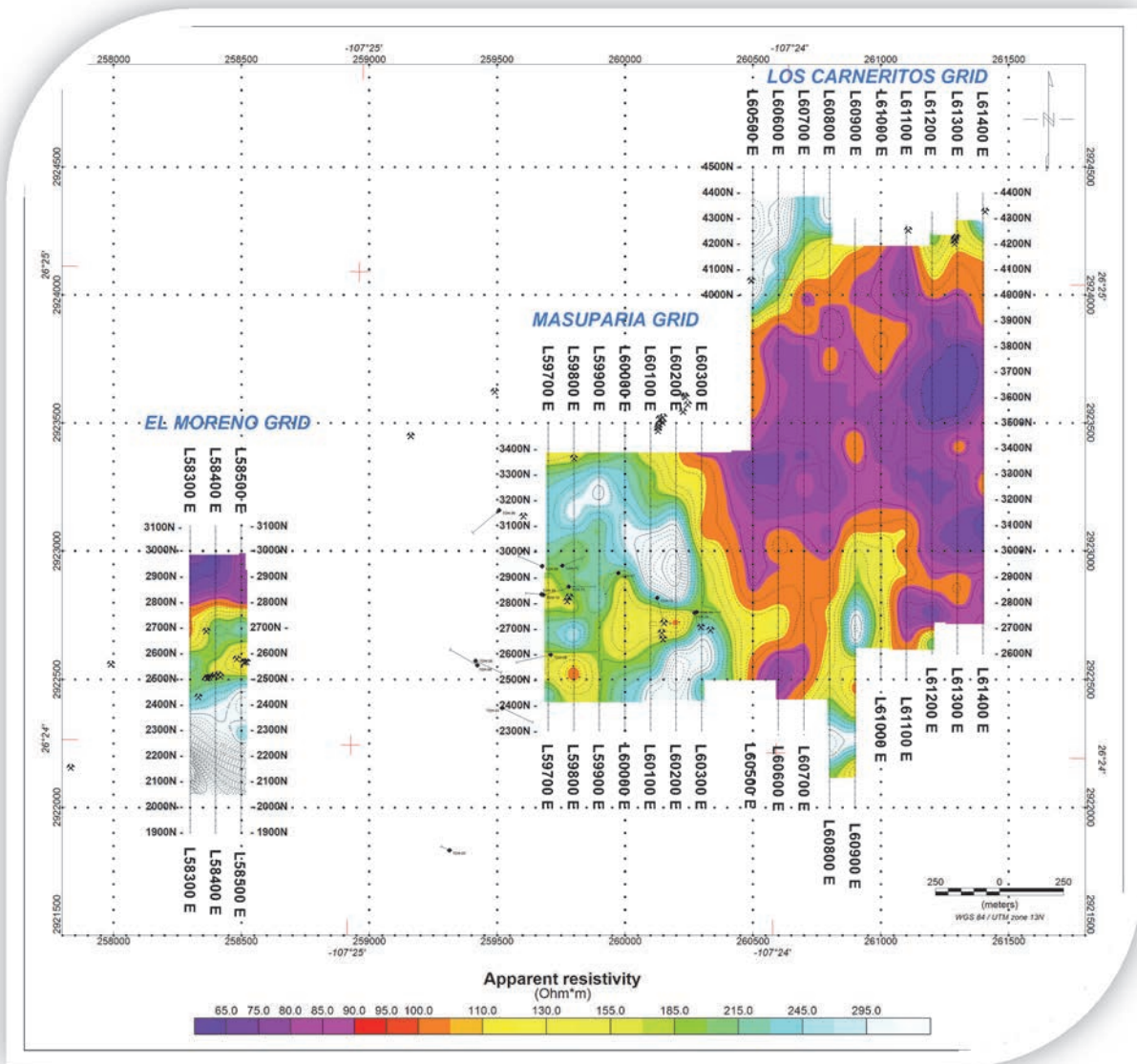
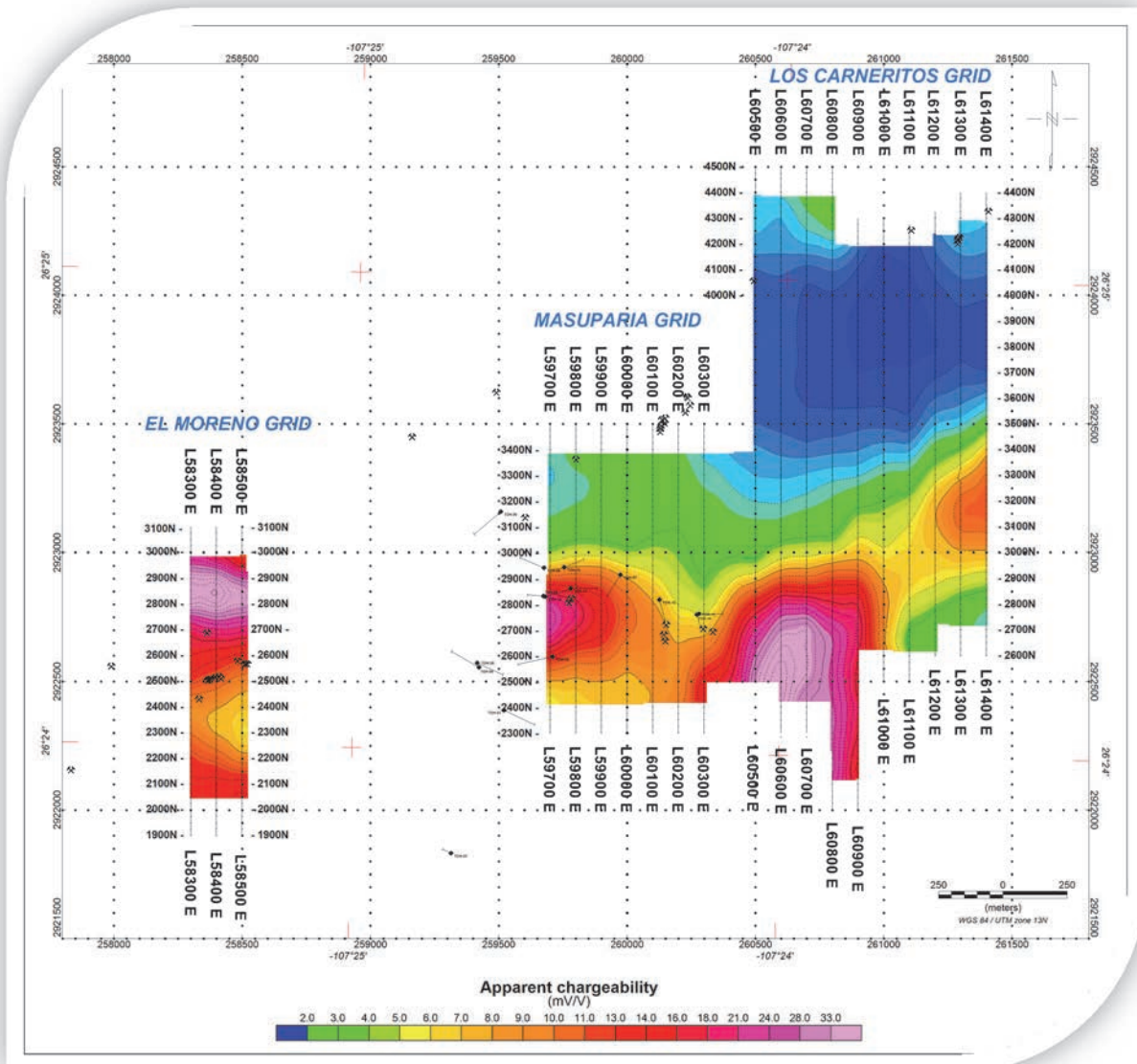


Figure 11 IP Survey, Apparent chargeability, True depth model at 100 m



Δ **Voxel Models of Resistivity and Chargeability:** The resistivity and chargeability values, obtained from the 2D inversion of the IP resistivity and chargeability data, were inserted into two separate database matrix where each value is associated with its X, Y and Z coordinate. The three-dimensional gridding of the data was subsequently done by using an algorithm called «kriging». This algorithm determines the weight of each cell, and ultimately the preferential interpolation direction, based on a geo statistical analysis of all data. The 3D voxel images that were obtained, contain the information associated with each cell along with its coordinates. The resolution of the images is a function of the grid cell size, which has been set during this process to 25.0 m (figures 12 and 13).

4.3.2 Interpretation

Insofar that the known mineralised structures or beds are relatively thin, line 58300E of the Moreno grid was initially done with an “a” spacing of 25 m, which was then switched to 50 m. A smaller “a” spacing allows us to obtain a better resolution of the anomalies, especially if these are indicative of shallow and thin structures. Furthermore, this smaller “a” spacing allows us to delineate structures that have a lower sulphide content, but at the cost of 50% less depth of penetration.

The comparison of the IP sections for each separation indicates that the resistivity/chargeability signatures are similar in terms of amplitude or contrast. The smaller “a” spacing is otherwise slightly better to resolve anomalies caused by closely spaced bodies. In terms of relative amplitude, the IP signature is less well defined on the first electrode separations indicating that the anomalous sources are rather deep, see poorly mineralised at surface (?). Therefore, the 50m “a” spacing was chosen (n= 1 to 10) allowing us a theoretical depth of investigation of 250 m.

Δ Review of Maps and 2D Inversion Models

The maps illustrate broad geophysical or lithological domains that are apparently bordered by ENE and NW striking faults; those more evident having been transposed onto the interpretation map. The most obvious transition between these geophysical domains occurs along NW striking fault (f2) located between the Masuparia and Los Carneritos grids. To the east of this fault, the underlying formations located in the center of the Los Carneritos grid are clearly more conductive and less polarisable. The 2D and 3D inversions indicate that these signatures are less clearly defined at depth suggesting a limited vertical continuity of these formations. The main anomalous chargeability areas are ENE to E/W trending and concentrated in the El Moreno grid, as well as the south-central part of the Masuparia grid and the southern part of the Los Carneritos grid. On the 2D inversion models, the chargeability anomalies appear better defined at depth (>50 m) where they are almost always correlated with resistivity highs.

Δ Main IP Axes

Based on the available information, the signature of the gold bearing structures will be a function of their percentage content of certain accessory minerals such as pyrite (1-5%) or clays. Otherwise the percentage contents of other minerals such as pyrrhotite, arsenopyrite or magnetite if presents, will also help in the indirect delineation of the mineralised structures, layers or bodies (see Table 4). The percentage content of sulphides, thickness as well as lateral and depth extent of the mineralised structures will ultimately determine the strength of the anomaly. Based on the fact that the mineralisations will be found in altered and silicified rocks, the chargeability anomalies indicative of these mineralisations should also be associated with resistivity highs.

Table 4 **Handbook chargeability values of certain minerals**

Minerals	Chargeability (ms*)
Pyrite	13.4
Chalcocite	13.2
Copper	12.3
Chalcopyrite	9.4
Bornite	6.3
Magnetite	2.2

* The duration of the square wave was 3s and the decay was integrated over 1s (1% vol. concentration)

The inversion models, as illustrated on the IP pseudo sections, allow us to estimate the location and, to a certain point, the shape of the anomalous targets. However, these models are always more extensive than the targets that created them in the first place. The chargeability and resistivity anomalies have been indicated on the IP sections and then graded according to their relative strength. Those chargeability anomalies that are deemed to be caused by the same anomalous target are grouped together in what is called a polarisable axis, and then transposed onto the interpretation map (Map C144-3 and figure 14). Distributed over the three surveyed grids investigated during this campaign, fourteen polarisable axes have been delineated and fully described in Table 5 at the end of this section.

- Transposing the interpreted/mapped structures as well as the small-scale mine sites tends to enhance the mineral potential of IP axis IPEM-3 located on the El Moreno grid, as well as axes IPM-1, IPM-2 and IPM-4 located on the Masuparia grid. We believe that these axes are indicative of an ENE trending faulted and altered broad horizon which appears to be best defined (more mineralised?) at the intersection with NE and/or NW striking faults. The shape of the alteration envelopes is expected to be complex.
- The strongest chargeability anomalies are located in the southern parts of the Masuparia and Los Carneritos grids, as indicated by IP axes IPM-5, IPLC-1, IPLC-2 and IPLC-3. Their origin is interpreted to be mostly lithological, indicative of units having a higher sulphides content but whose economic potential remains to be ascertained (distinct exploration target).
- A few weak chargeability responses have been interpreted in the central and northern parts of the Los Carneritos grid but cannot be easily joined together to form an axis. In the east-central part of this grid, we recommend that attention be paid to closely spaced IP axes IPLC-4 and IPLC-5. However, we believe that the local geological setting will be distinct from that one of the known mineralisations at Masuparia and El Moreno.

Figure 12 IP Inversion Results, 3D Wireframe Resistivity Model

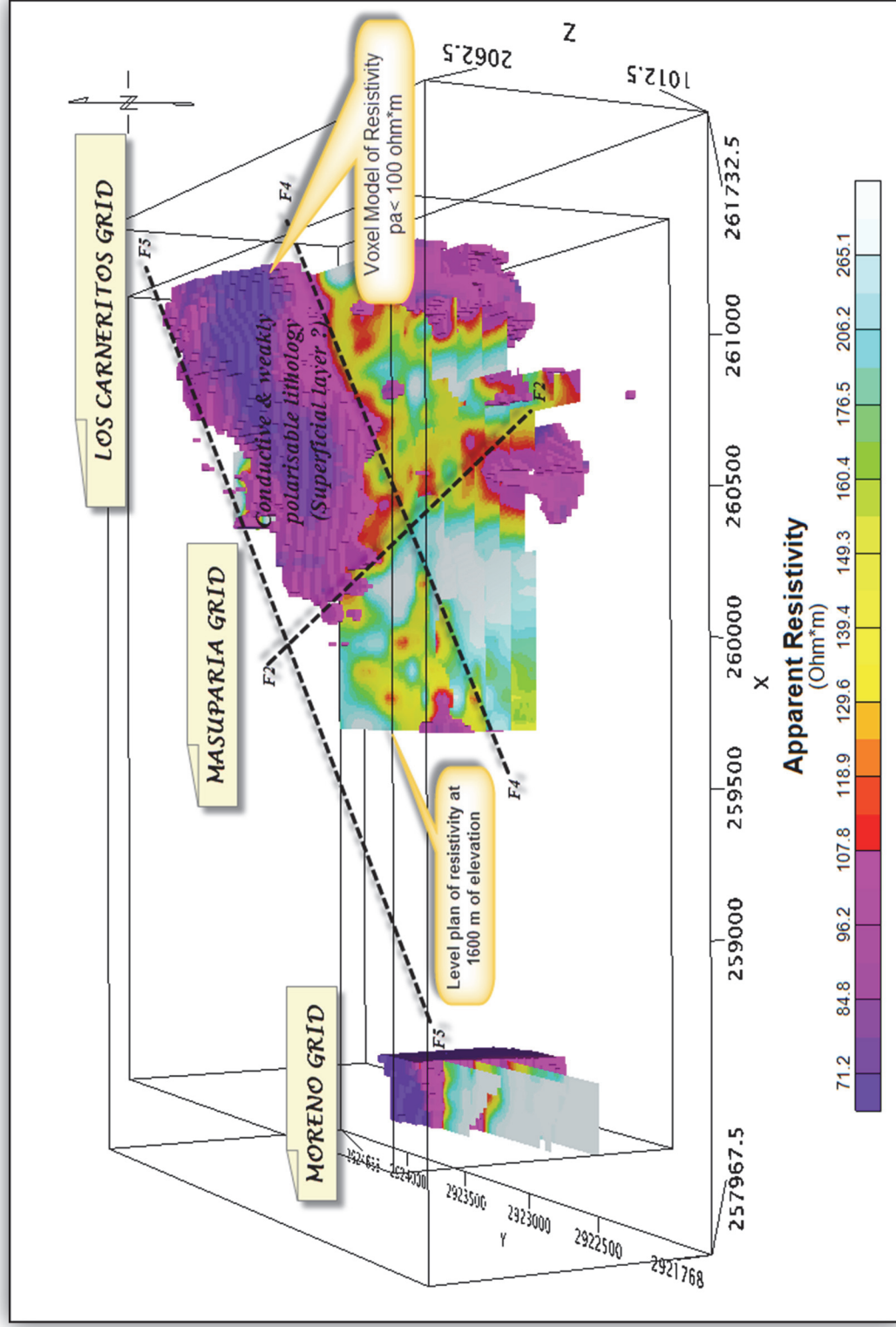


Figure 13 IP Inversion Results, 3D Wireframe Chargeability Model

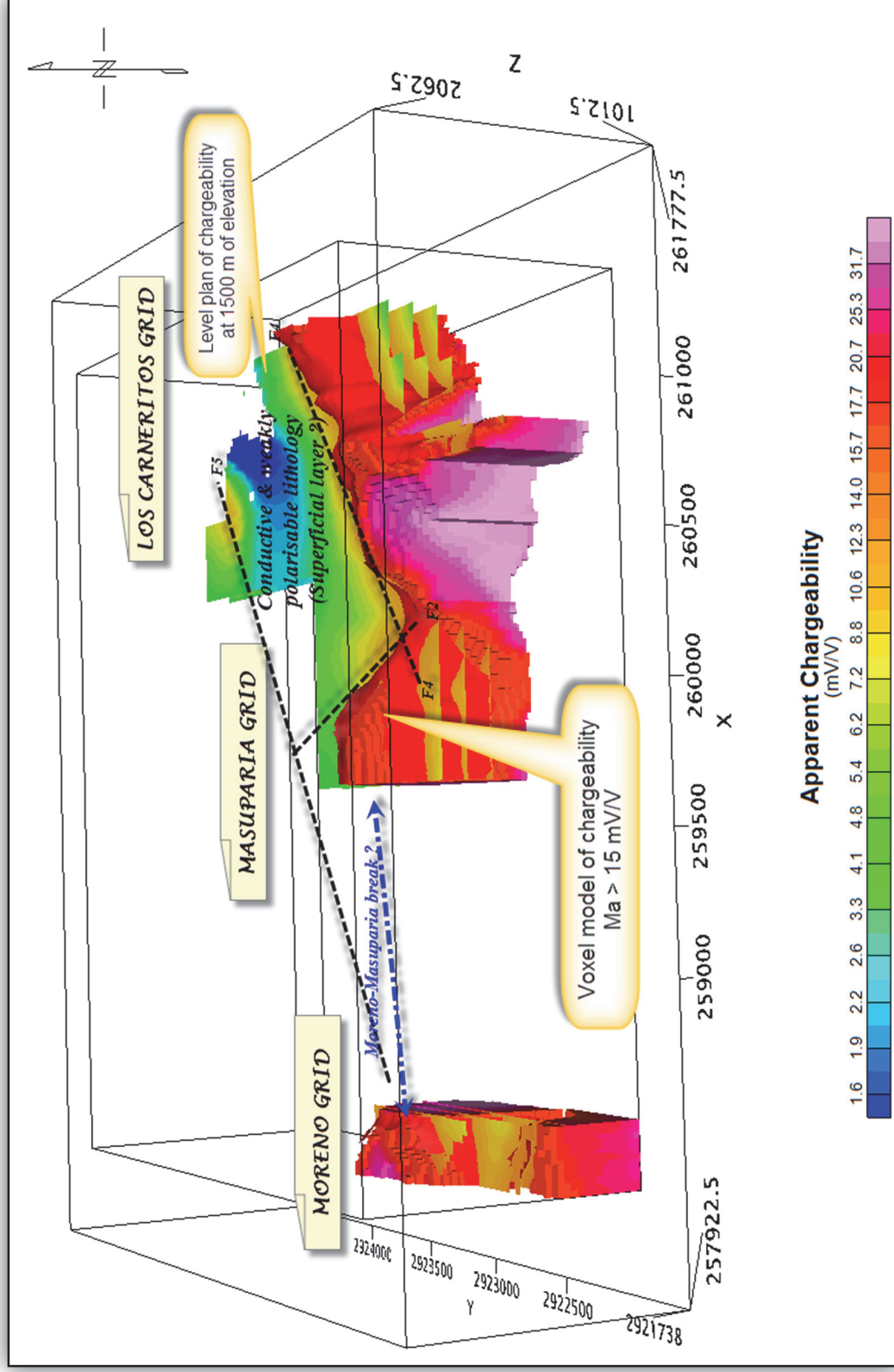


Figure 14 Geophysical Interpretation

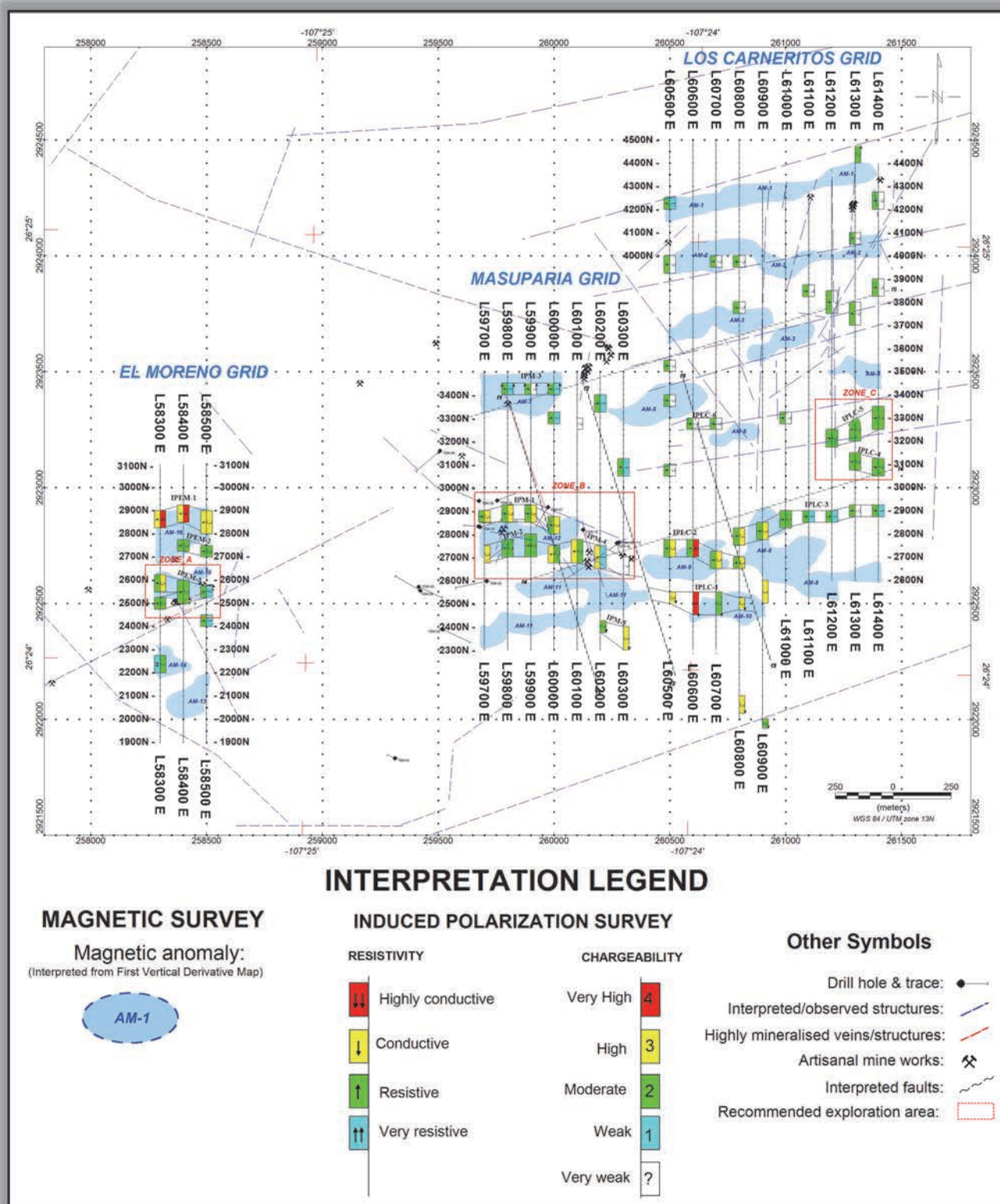


Table 5 Description of the IP Anomalies

ANOMALY	LOCATION		CONTRAST		COMMENTS/RECOMMENDATIONS	PRIORITY (1 to 5)
	LINE	STATION	Charg.	Res.		
IPEM-1 (El Moreno)	58300E	28+63N	4	↓	<ul style="list-style-type: none"> - Strong chargeability anomaly correlated with a resistivity low, extends over a distance of 200 m and open at both ends; - Deep anomalous target (≈150 m), potentially indicative of sulphide rich mineralisations located close to a geological contact? 	3
	58400E	28+88N	4	↓		
	58500E	28+50N	3	↓		
IPEM-2 (El Moreno)	58400E	27+50N	2	↑	<ul style="list-style-type: none"> - Located immediately to the south of axis IPEM-1 and associated with a resistivity high; - Indicative of an altered/silicified zone with sulphide remobilisation? 	4
	58500E	27+25N	2	↑		
IPEM-3 (El Moreno)	58300E	25+00N	2	↑	<ul style="list-style-type: none"> - Included in priority exploration zone A on El Moreno (see figure 14), the anomaly is partially indicative of an ENE trending previously mined structure; - Poorly defined MAG association (AM-15); - Follow-up drilling or trenching recommended on lines 58300E or 58400E (see section 5.0) 	1
	58300E	25+88N	3	↑		
	58400E	25+25N	2	↑		
	58500E	25+50N	1	↑		
IPM-1 (Masuparia)	59700E	28+75N	3	↑	<ul style="list-style-type: none"> - Included in priority exploration zone B on Masuparia (see figure 14), which also includes closely spaced axes IPM-2 towards the south and IPM-4 towards the SE; - Either intersects or is close to structures of variable strike that had been mined in the past; - Drill tested by TDH-07? - To be re-ascertained based on available data and/or complimentary drilling on line 59900E (see section 5.0) 	1
	59800E	28+88N	3	↑		
	59900E	28+88N	3	↑		
	60000E	28+38N	3	↑		

ANOMALY	LOCATION		CONTRAST		COMMENTS/RECOMMENDATIONS	PRIORITY (1 to 5)
	LINE	STATION	Charg.	Res.		
IPM-2 (Masuparia)	59700E	27+13N	3	-	<ul style="list-style-type: none"> - Included in priority exploration zone B on Masuparia and located 100 m south of axis IPM-1; - Probable MAG association (Anomaly AM-12); - Prioritise the western segment between lines 59700E and 59800E close to formerly mined areas (see section 5.0). 	1
	59800E	27+38N	2	↑		
	59900E	27+50N	2	↑		
IPM-3 (Masuparia)	59800E	34+25N (?)	1	↑	<ul style="list-style-type: none"> - Weak chargeability signature as well as anomalous pattern to be ascertained towards the north; - Probable MAG association (AM-7). 	5
	59900E	34+25N (?)	?	↑		
	60000E	34+25N (?)	1	↑		
IPM-4 (Masuparia)	60000E	27+13N	2	↓	<ul style="list-style-type: none"> - Included in priority exploration zone B and probably the extension of axis IPM-2 east of a NNW striking fault (f1); - Either intersects or is close to structures of variable strike that had been worked (mined?) on a small scale in the past; - Drill tested by TDH-12 and/or TDH-14 - Additional drill target to be ascertained after review of available data (see section 5.0) 	1
	60100E	27+25N	2	↓		
	60200E	27+00N	1	↓		
	60300E	26+63N	?	-		
IPM-5 (Masuparia)	60200E	24+00N (?)	2	-	<ul style="list-style-type: none"> - Strong chargeability anomaly partially defined towards the south; - See also axes IPLC-1, IPLC-2 and IPLC-3 	-
	60300E	23+50N (?)	3	-		
IPLC-1 (L. Carneritos)	60500E	25+25N (?)	3	-	<ul style="list-style-type: none"> - Located within the confines of a broad chargeability anomalous horizon that passes towards the south of the Masuparia and Los Carneritos grids, with which we could associate axes IPM-5, IPLC-2 and IPLC-3; - Origin is probably lithological (?); prioritise axes IPCL-2 or IPCL-3 who are best defined. 	4-5
	60600E	25+00N (?)	4	-		
	60700E	25+00N (?)	2	-		
	60800E	25+00N (?)	3	-		
IPLC-2	60500E	27+38N	3	↑	- Anomaly interpreted over a distance of 300 m, abuts against a NNW striking fault in the east and west (f2 and f3)	

ANOMALY	LOCATION		CONTRAST		COMMENTS/RECOMMENDATIONS	PRIORITY (1 to 5)
	LINE	STATION	Charg.	Res.		
(L. Carneritos)	60600E	27+38N	4	↑	<ul style="list-style-type: none"> - Probable MAG association (AM-8 and AM-9); - Origin believed to be likely lithological; - Geological mapping initially recommended on lines 60500E and 60600E. 	4
	60700E	26+88N	3	↑		
	60800E	26+75N	3	↑		
IPLC-3 (L. Carneritos)	60800E	27+88N	3	↑	<ul style="list-style-type: none"> - Extends over a distance of more than 600 m in the SE of the Los Carneritos grid and open towards the east; - Similar setting to axes IPLC-1, IPLC-2 and IPM-5; - Follow-up geological mapping recommended on line 60900E. 	4
	60900E	28+13N	3	↑		
	61000E	28+63N	2	↑		
	61100E	28+75N	1	↑		
	61200E	28+75N	1	↑		
	61300E	29+00N	?	↑		
IPLC-4 (L. Carneritos)	61400E	29+00N	1	↑	<ul style="list-style-type: none"> - Included in priority exploration zone C at Los Carneritos, which also includes axis IPLC-5 located immediately to the north; - Probably indicative of shallow disseminated sulphides mineralisations, to be checked in the field (see section 5.0) 	3-4
	61300E	31+13N	2	↑		
	61400E	30+88N	2	↑		
IPLC-5 (L. Carneritos)	61200E	32+13N	2	↑	<ul style="list-style-type: none"> - Similar setting to IPLC-4, partially overlaps towards the south a known structure of the same strike; - Prioritise axis IPLC-4 first. 	4
	61300E	32+50N	2	↑		
	61400E	33+00N	2	↑		
IPLC-6 (L. Carneritos)	60600E	32+75N	?	↑	<ul style="list-style-type: none"> - Very weak anomaly with limited lateral extent; - Locally indicative of a known structure/vein. 	5
	60700E	32+75N	?	↑		

IP-RES Qualitative Interpretation: Chargeability contrast : ?= Marginal, 1= Weak, 2= Moderate, 3= High, 4= Very High
Resistivity contrast: ↑= Resistive, ↑↑= Highly resistive, ↓= Conductive, ↓↓= Highly conductive

5. CONCLUSION

Within the framework of the current exploration program, 32.2 line-km of magnetics and induced polarisation were done on the Tenoriba project between October 8 and November 14, 2013. Based on the survey objectives and after having reviewed the geophysical results, the following can be concluded:

Δ The MAG and IP maps indicate the presence of broad geophysical (lithological) domains likely delineated by faults that may have served as conduits for feeder fluids. The geophysical signature of the underlying formations at Masuparia and El Moreno is otherwise quite similar. The main mineralisations that have been mapped on each of these grids are, in our opinion, part of the same ENE striking anomalous horizon (shear zone corridor) whose extent remains to be ascertained in between the two prospects. The mineralising events in this corridor are potentially enhanced by NE and NW striking faults.

Δ Overlaying the interpreted/mapped structures as well as the small-scale mine sites on the geophysical maps tends to enhance the mineral potential of IP axis IPeM-3 on the El Moreno grid as well as that one of axes IPM-1, IPM-2 and IPM-4 on the Masuparia grid. In the east-central part of the Los Carneritos grid, we also recommend to focus on closely spaced IP axes IPLC-4 and IPLC-5. The geological setting at Carneritos is however expected to be partially different from that one observed at Masuparia and El Moreno (see also section 4.3.2).

Δ Encompassing the most favourable IP axes, three priority exploration areas denoted A, B and C have been delineated on the interpretation map (Map C144-3). The mineral potential of each of these axes should be initially re-ascertained based on available geological data and follow-up work in the field (see also Table 6).

The interpretation of the geophysical data embodied in this report is essentially a geophysical appraisal of the surveys completed on the Tenoriba Project. As such, it incorporates only as much geo-scientific information as the author has on hand at this time. Mammoth Resources geologists thoroughly familiar with this area are in a better position to assess the geological significance of the various geophysical signatures. Moreover, as time passes by and information provided by follow-up exploration programs is compiled, the exploration targets recognized in this study might be down-graded or up-graded.

Respectfully submitted,

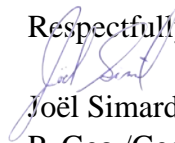

Joël Simard
P. Geo./Geoph.



Table 6 Recommended Follow-up Work

SURVEY GRID	IP ANOMALY	RECOMMENDED WORK
EL MORENO (Zone_A)	IPEM-3	1-Trenching: L-58300E and L-58400E and/or 2-Drilling (target to be reached and not the collar location) L-58400E, St: 25+25N, Depth: -100/150 m
MASUPARIA (Zone_B)	IPM-1	1- Review of available data including the log of hole TDH-07; and/or 2- Drilling (target to be reached and not the collar location) L-59900E, St: 28+88N, Depth: -100/150 m
	IPM-2	1- Review of available data/field mapping 2- Trenching: L-59700E and L-59800E
	IPM-4	1- Review of available data including the log of holes TDH-12 & TDH-14; 2- Complementary drill hole (target to be confirmed)
L. CARNERITOS (Zone_C)	IPLC-4	1- Field mapping/sampling (61300E or 61400E) 2- Trenching on line L-61300E or L-61400E

Qualification Certificate

I am a consulting geophysicist residing at 103 chemin du Lac Blanc, St-Donat, Québec, Canada, J0T 2C0;


I graduated with a degree in Geology from the University of Montréal in 1988;

I have been continuously involved in mineral exploration for 25 years; i.e. since 1988;

I am a professional geologist in good standing with the Ordre des Géologues du Québec (member #1350);

I hereby certify that, to the best of my knowledge, the information delivered in this report provides a correct overview of the magnetometer and induced polarization surveys carried out by Geofisica TMC on the Tenoriba Project from October 8 to November 14, 2013;

I do not hold any interest in the Tenoriba Project.


Joël Simard
P. Geo./Geoph.



APPENDICES

LIST OF MAPS

MAGNETIC SURVEY MAPS:

Map C144_1A: Total Field

Map C144_1B: Total Field Reduced to Pole

Map C144_1C: First Vertical Derivative

INDUCED POLARIZATION SURVEY MAPS:

Twenty one IP Pseudo Sections (1/2500 or 1/5000 Scale): Interpreted apparent resistivity (R) and chargeability (C) color IP sections with 2-D inversion models of R and C plotted along the topography.

1. a) Section 58300E (1/5000)
1. b) Section 58300E (1/2500)
2. Section 58400E (1/5000)
3. Section 58500E (1/5000)
4. Section 59700E (1/5000)
5. Section 59800E (1/5000)
6. Section 59900E (1/5000)
7. Section 60000E (1/5000)
8. Section 60100E (1/5000)
9. Section 60200E (1/5000)
10. Section 60300E (1/5000)
11. Section 60400E (1/5000)
12. Section 60500E (1/5000)
13. Section 60600E (1/5000)
14. Section 60700E (1/5000)
15. Section 60800E (1/5000)
16. Section 60900E (1/5000)
17. Section 61000E (1/5000)
18. Section 61100E (1/5000)
19. Section 61200E (1/5000)
20. Section 61300E (1/5000)
21. Section 61400E (1/5000)

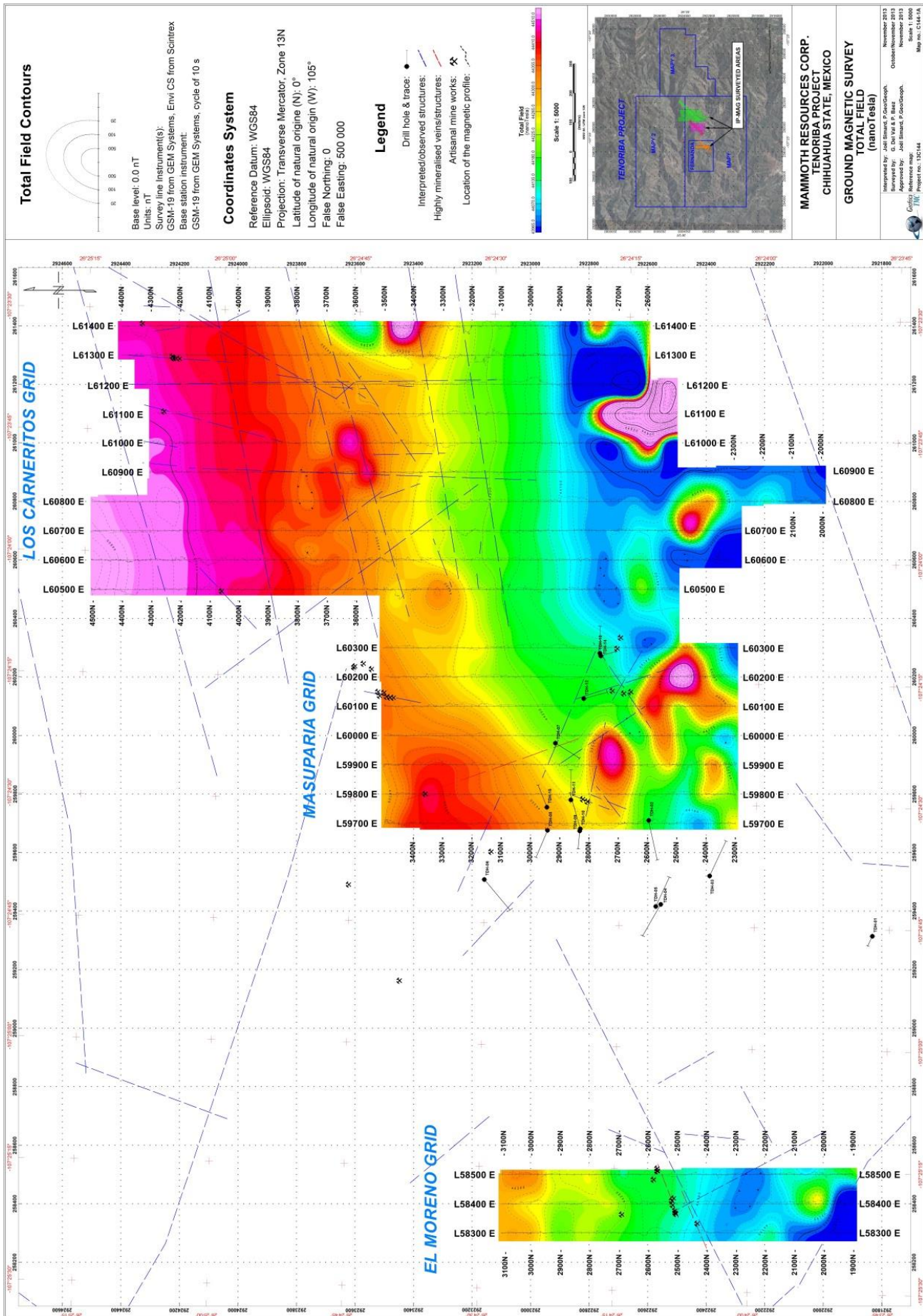
Map C144_2A: Apparent Resistivity, True Depth Model at 100 metres

Map C144_2B: Apparent Chargeability, True Depth Model at 100 metres

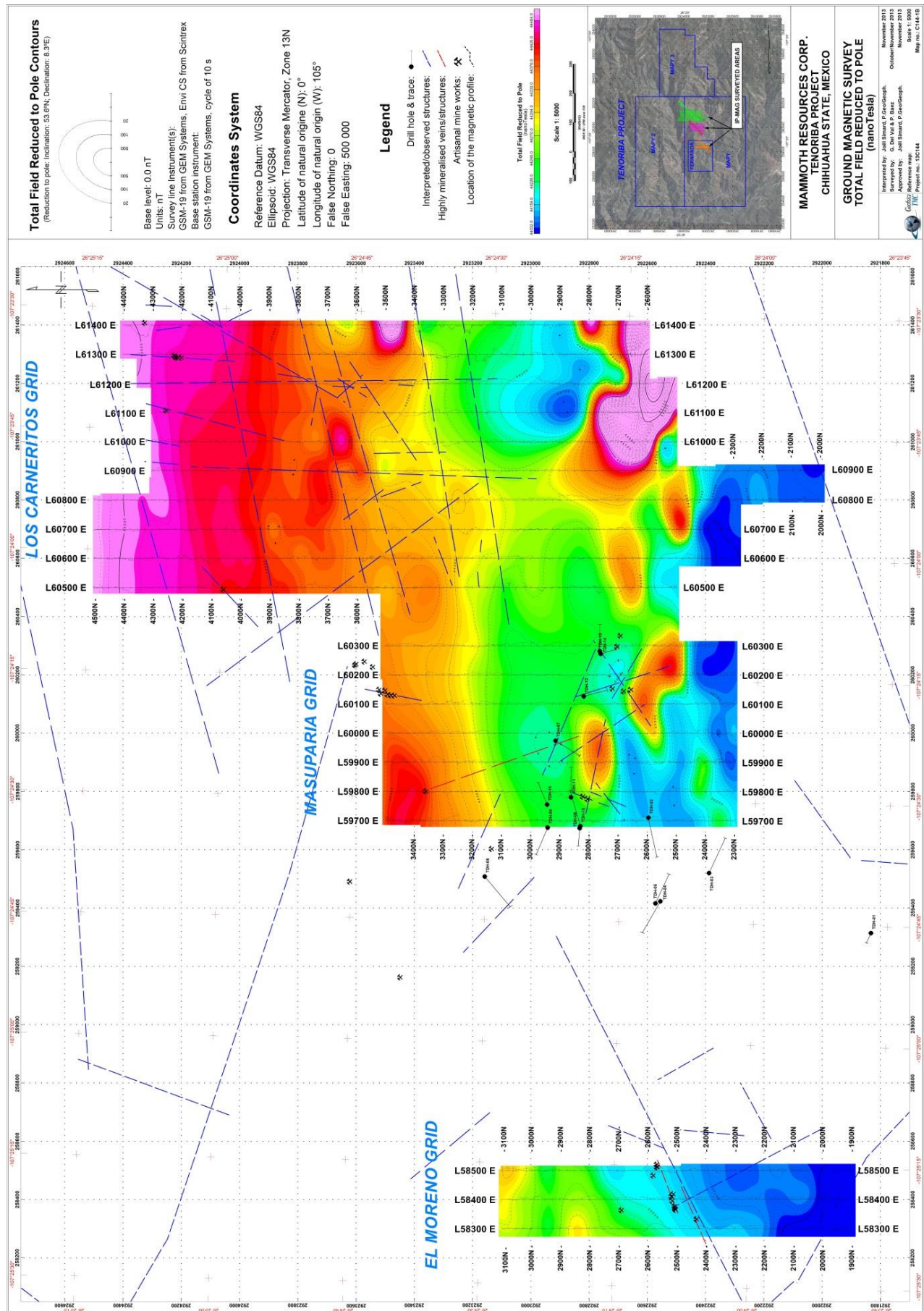
GEOPHYSICAL INTERPRETATION MAP:

Map C144_3: GEOPHYSICAL INTERPRETATION

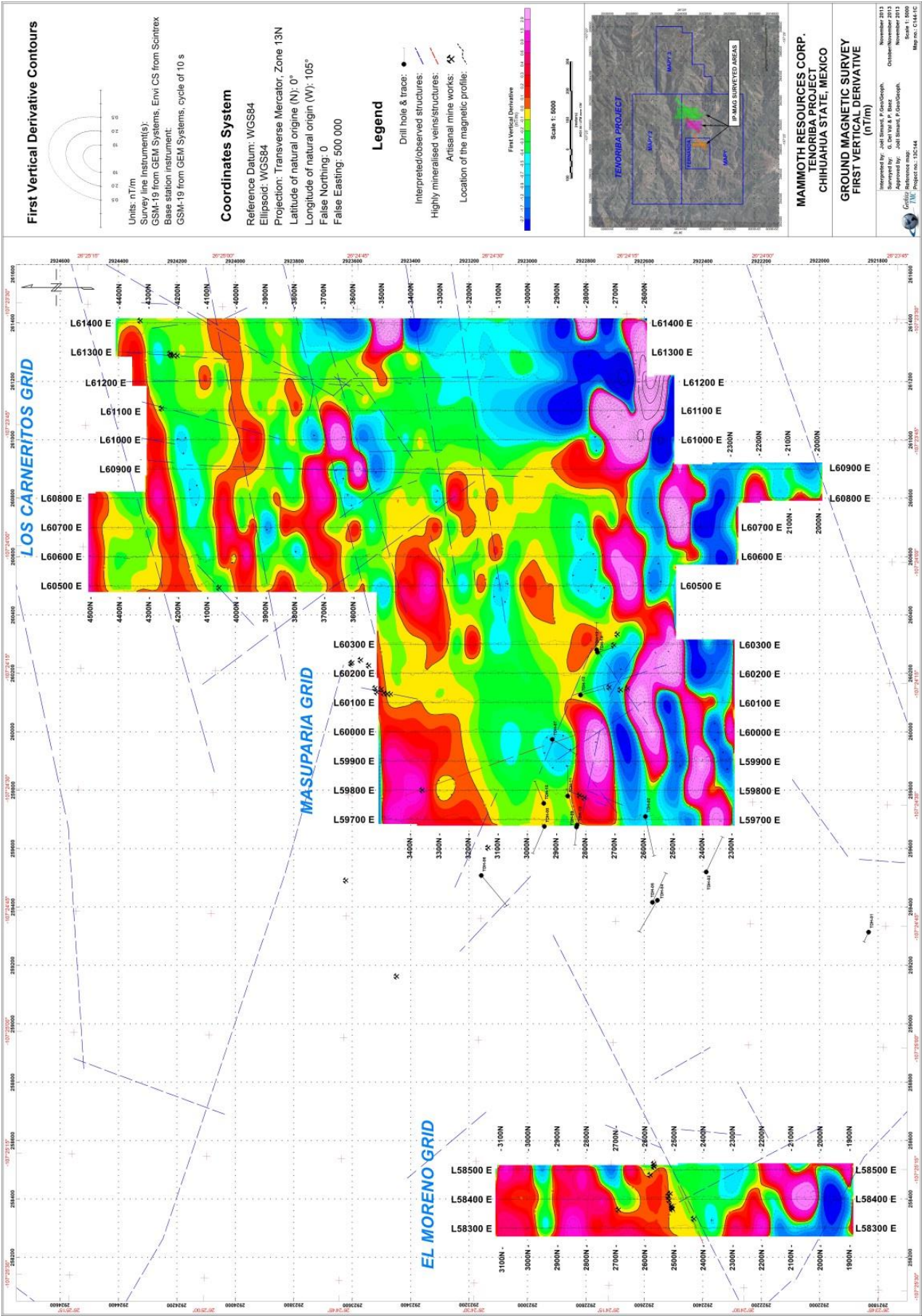
MAGNETIC SURVEY MAP, Map C144_1A: Total Field



MAGNETIC SURVEY MAP, Map C144_1B: Total Field Reduced to Pole



MAGNETIC SURVEY MAP, Map C144_1C: First Vertical Derivative

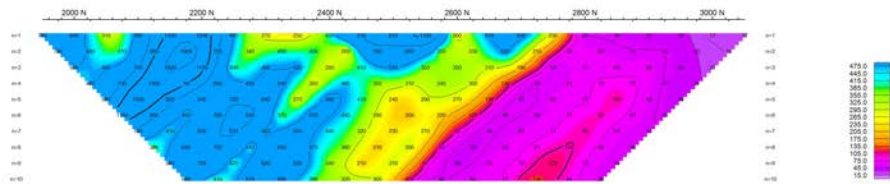


INDUCED POLARIZATION SURVEY SECTIONS

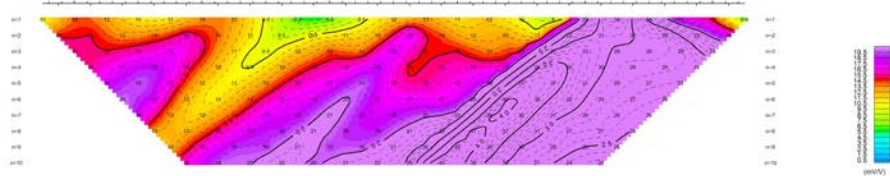
Twenty one IP Pseudo Sections (1/2500 or 1/5000 Scale): Interpreted apparent resistivity (R) and chargeability (C) color IP sections with 2-D inversion models of R and C plotted along the topography.

(Sections 58300E through 61400E, some sections not surveyed).

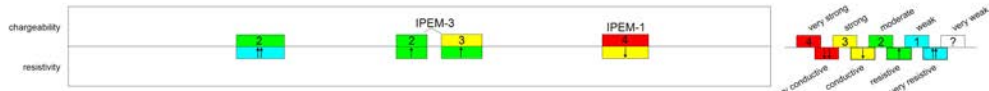
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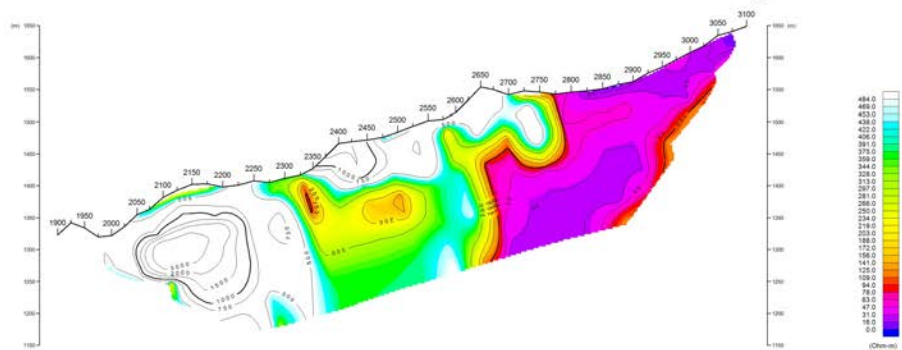
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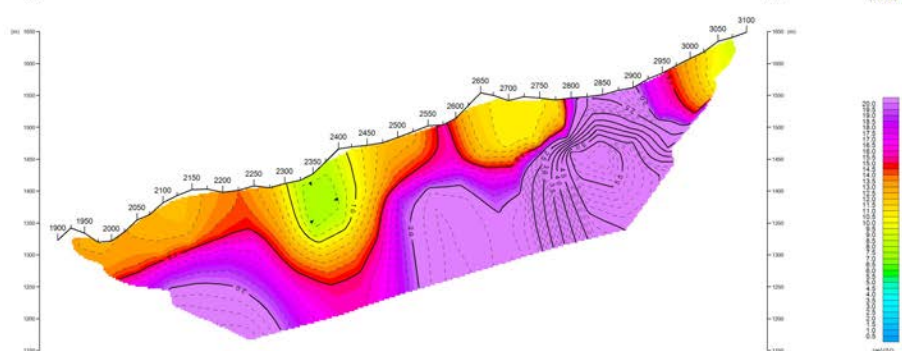
INTERPRETATION



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DEPTH SECTION

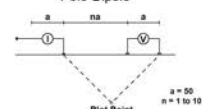


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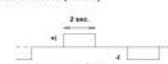


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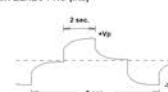
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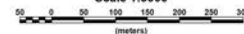


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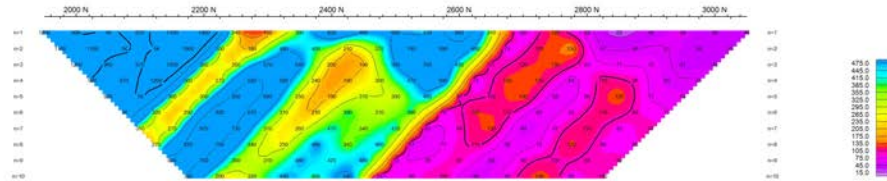
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EL MORENO GRID
CHIHUAHUA STATE, MEXICO

Line 58300E

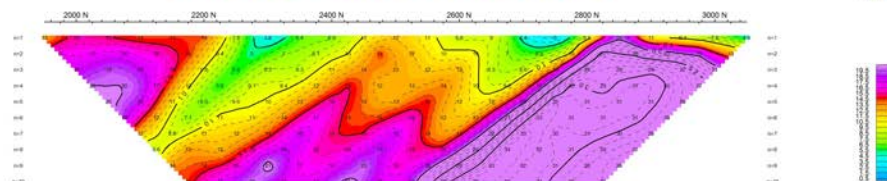
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Verified by: Joël Simard, P. Geo./Geoph.
Surveyed by: Gerardo Del Val
Date: Oct/Nov. 2013
Ref: 13C144



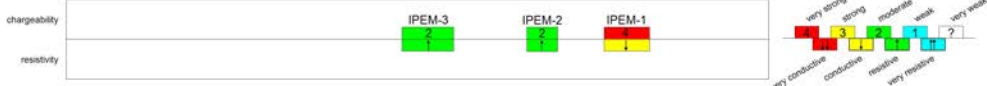
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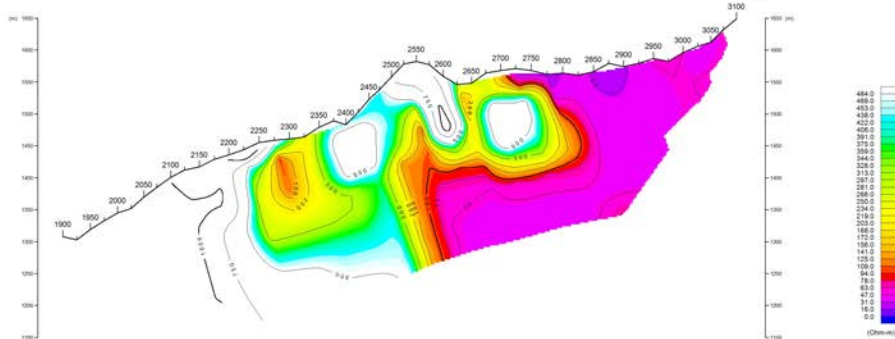
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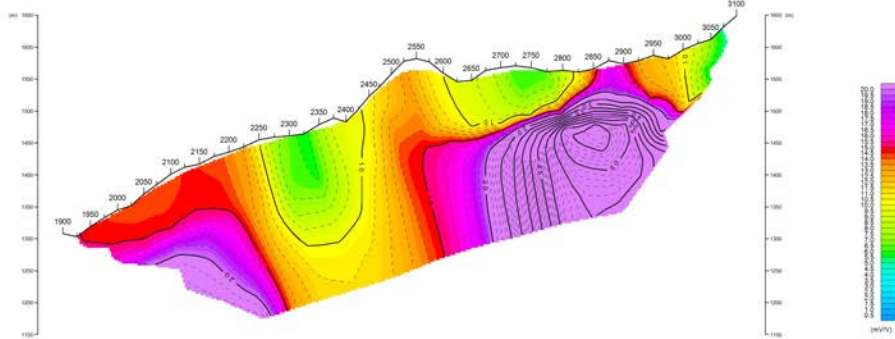
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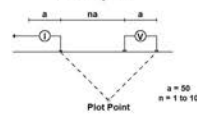


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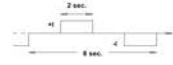


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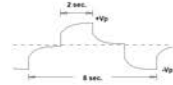
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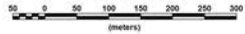


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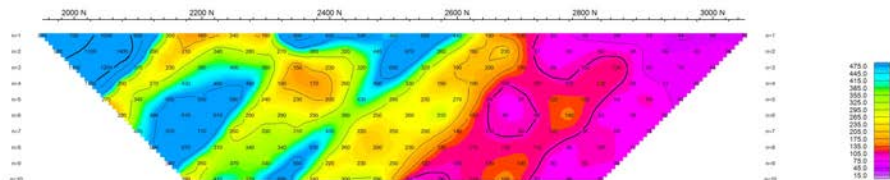
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EL MORENO GRID
CHIHUAHUA STATE, MEXICO

Line 58400E

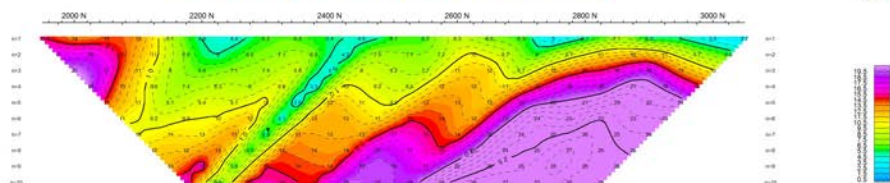
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Surveyed by: Gerardo Del Val
Date: Oct/Nov. 2013
Ref: ISC144



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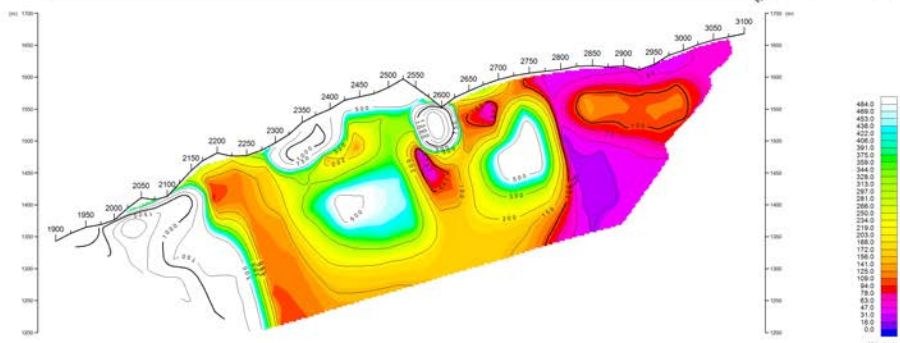
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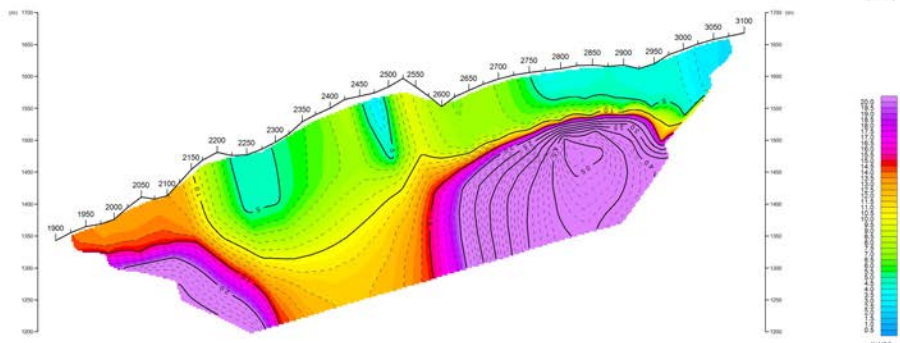
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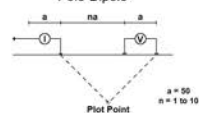


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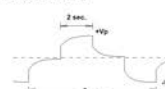
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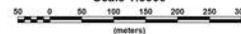


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MAMMOTH RESOURCES CORP.

TENORIBA PROJECT
EL MORENO GRID
CHIHUAHUA STATE, MEXICO

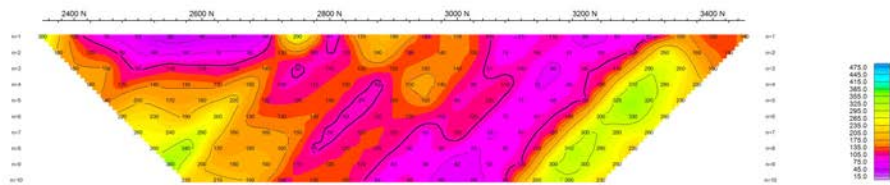
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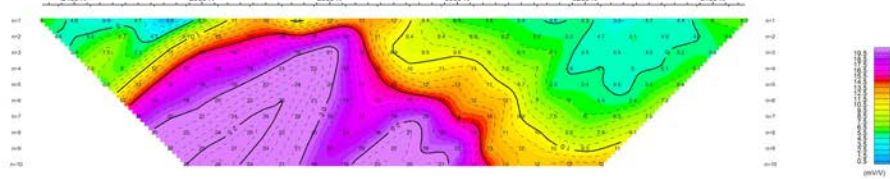
Joel Simard, P. Geo./Geoph.
Joel Simard, P. Geo./Geoph.
Gerardo Qui Val
Oct/Nov. 2013
13C144



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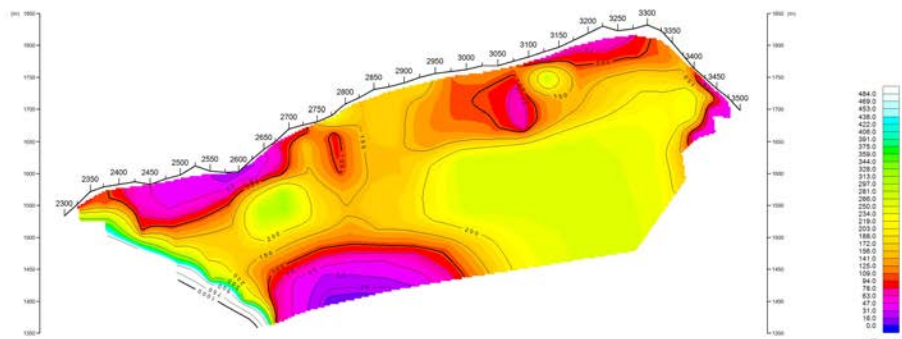
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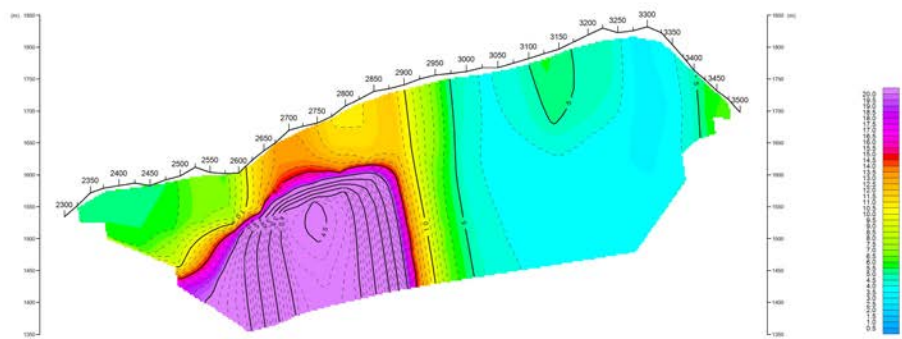
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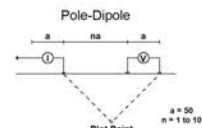
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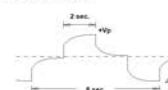
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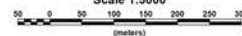


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inversion **RES2DINV™**

Scale 1:5000



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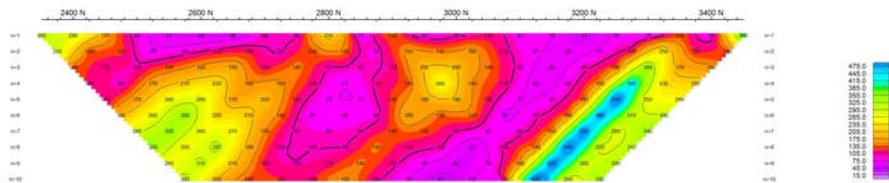
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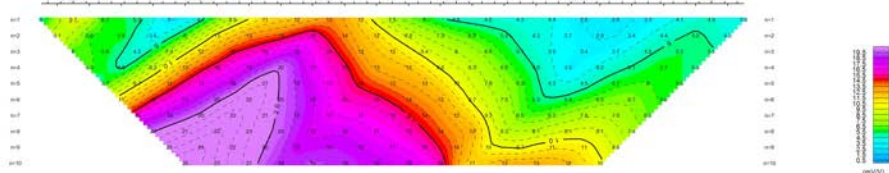
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Verified by: Joli Simard, P. Geo./Geoph.
Surveyed by: Gerardo Del Val
Date: Oct/Nov. 2013
Ref: 13C144



APPARENT
RESISTIVITY
PSEUDO SECTION



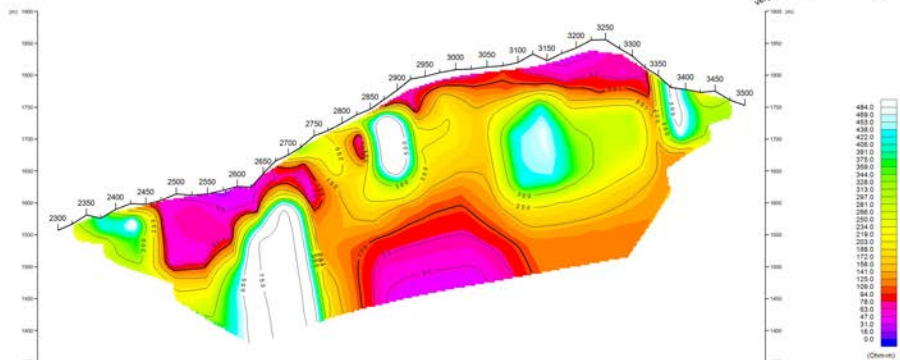
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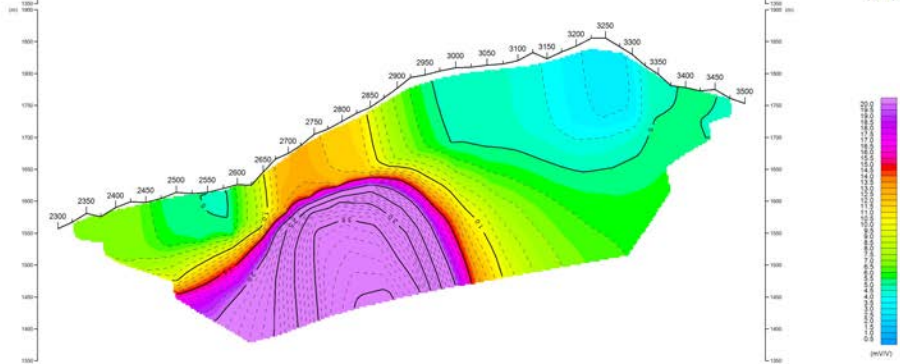
INTERPRETATION



RESISTIVITY TRUE
DEPTH SECTION

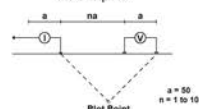


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INDUCED POLARIZATION SURVEY

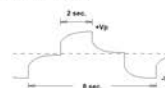
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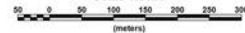


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inversion **RES2DINV™**

Scale 1:5000



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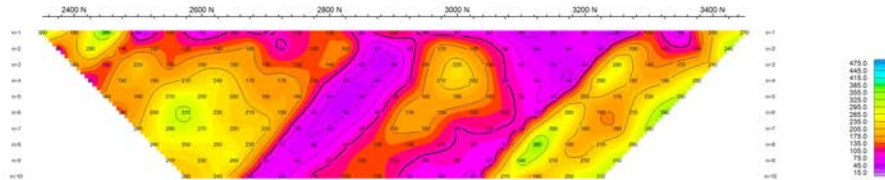
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MASUPARIA GRID
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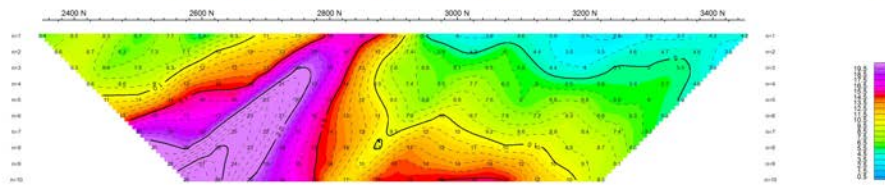
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APPARENT
RESISTIVITY
PSEUDO SECTION



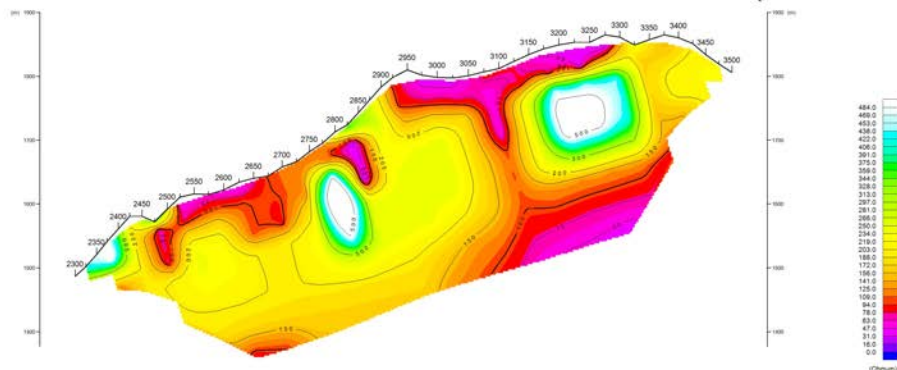
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CHARGEABILITY
PSEUDO SECTION



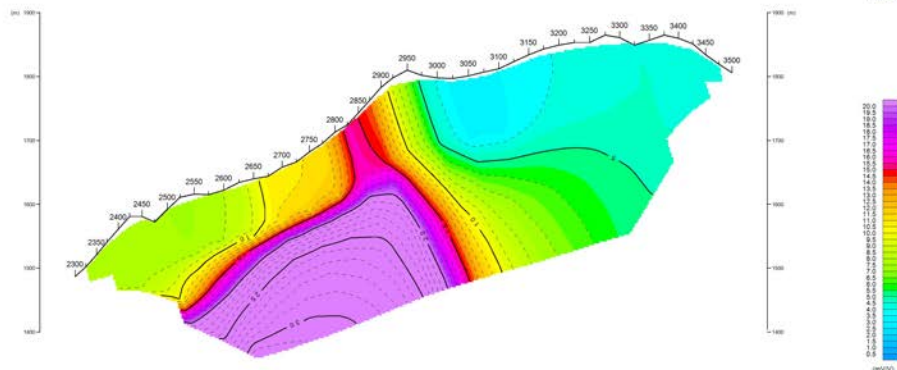
INTERPRETATION



RESISTIVITY TRUE
DEPTH SECTION

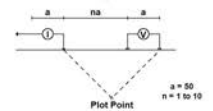


CHARGEABILITY TRUE
DEPTH SECTION



INDUCED POLARIZATION SURVEY

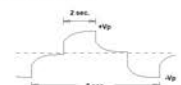
Pole-Dipole



Transmitter: TX-0000 (Walcer)



Receiver: ELREC-PRO (Iris)



inversion **RES2DINV™**

Scale 1:5000



MAMMOTH RESOURCES CORP.

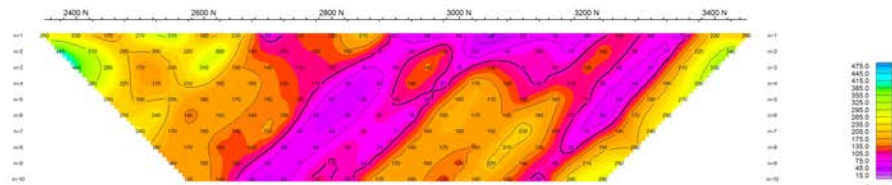
TENORIBA PROJECT
MASUPARIA GRID
CHIHUAHUA STATE, MEXICO

Line 59900E

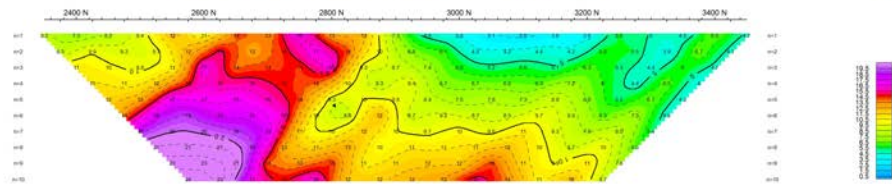
Interpreted by: Joel Simand, P. Geo./Geoph.
Verified by: Joel Simand, P. Geo./Geoph.
Surveyed by: Gerardo Del Val
Date: Oct/Nov. 2013
Ref: 13C144



APPARENT
RESISTIVITY
PSEUDO SECTION



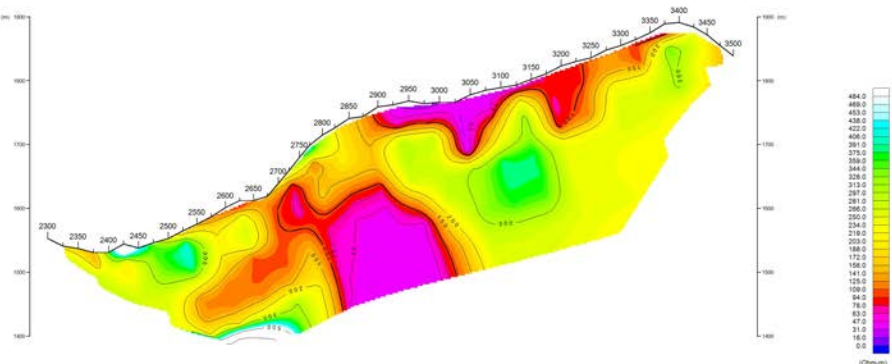
APPARENT
CHARGEABILITY
PSEUDO SECTION



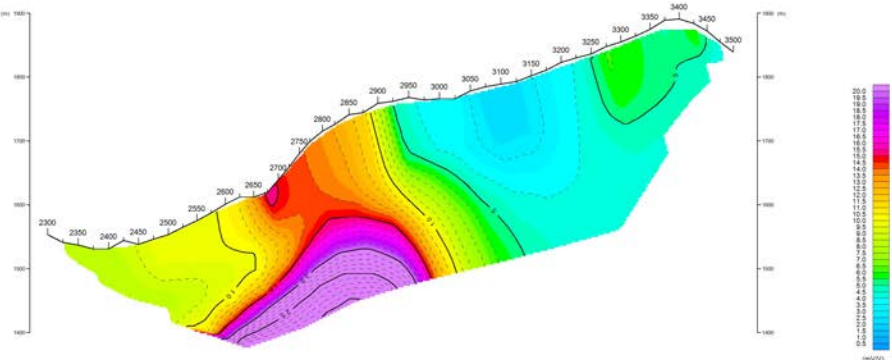
INTERPRETATION



RESISTIVITY TRUE
DEPTH SECTION

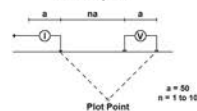


CHARGEABILITY TRUE
DEPTH SECTION

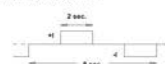


INDUCED POLARIZATION SURVEY

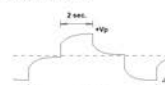
Pole-Dipole



Transmitter: TX-9000 (Walcer)

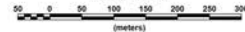


Receiver: ELREC-PRO (Iris)



inversion **RES2DINV™**

Scale 1:5000



MAMMOTH RESOURCES CORP.

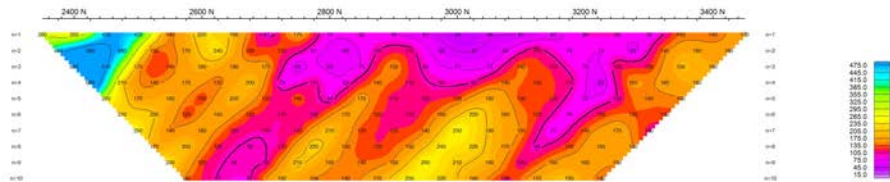
TENORIBA PROJECT
MASUPARIA GRID
CHIHUAHUA STATE, MEXICO

Line 60000E

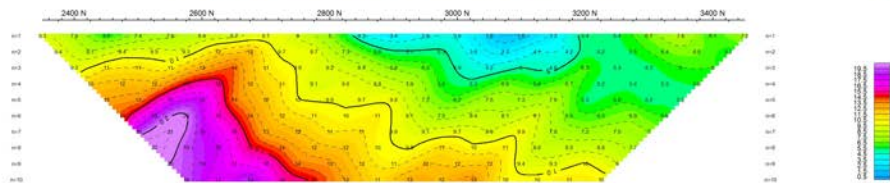
Interpreted by: Joël Simard, P. Geo./Geoph.
Verified by: Joël Simard, P. Geo./Geoph.
Surveyed by: Gerardo Del Val
Date: Oct/Nov. 2013
Ref: 10C144



APPARENT
RESISTIVITY
PSEUDO SECTION



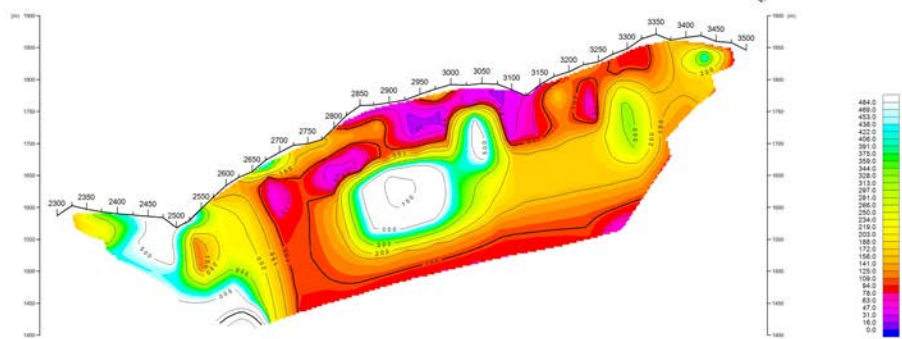
APPARENT
CHARGEABILITY
PSEUDO SECTION



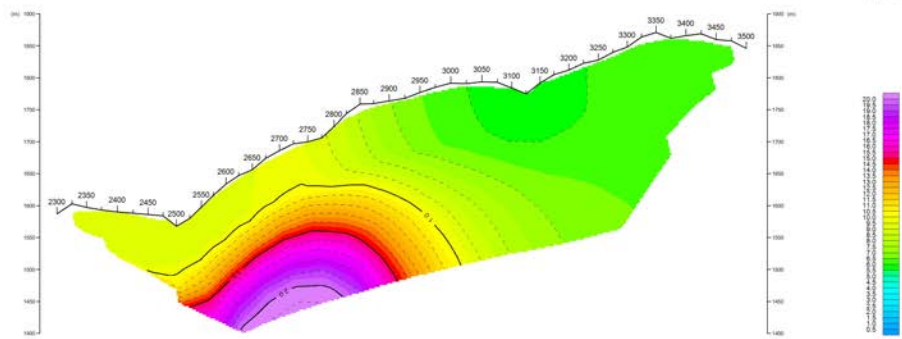
INTERPRETATION



RESISTIVITY TRUE
DEPTH SECTION

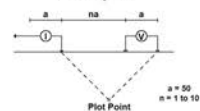


CHARGEABILITY TRUE
DEPTH SECTION

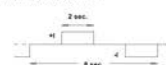


INDUCED POLARIZATION SURVEY

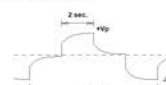
Pole-Dipole



Transmitter: TX-9000 (Walcer)

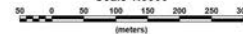


Receiver: ELREC-PRO (Iris)



inversion **RES2DINV™**

Scale 1:5000



MAMMOTH RESOURCES CORP.

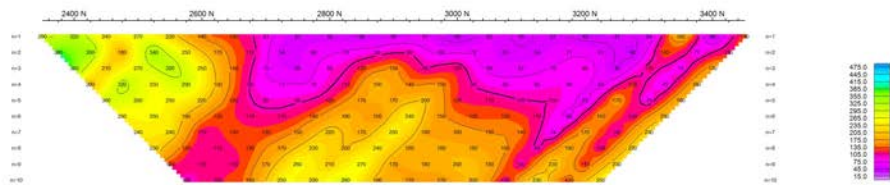
TENORIBA PROJECT
MASUPARIA GRID
CHIHUAHUA STATE, MEXICO

Line 60100E

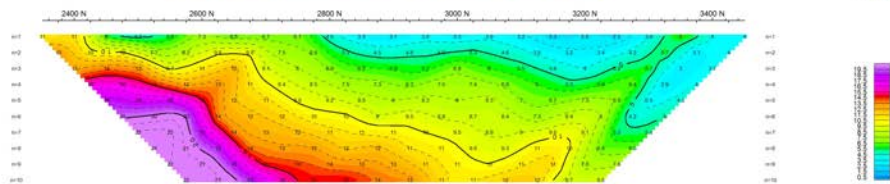
Interpreted by: Joël Simard, P. Geo./Geoph.
Verified by: Joël Simard, P. Geo./Geoph.
Surveyed by: Gerardo Del Val
Date: Oct/Nov. 2013
Ref: 13C144



APPARENT
RESISTIVITY
PSEUDO SECTION



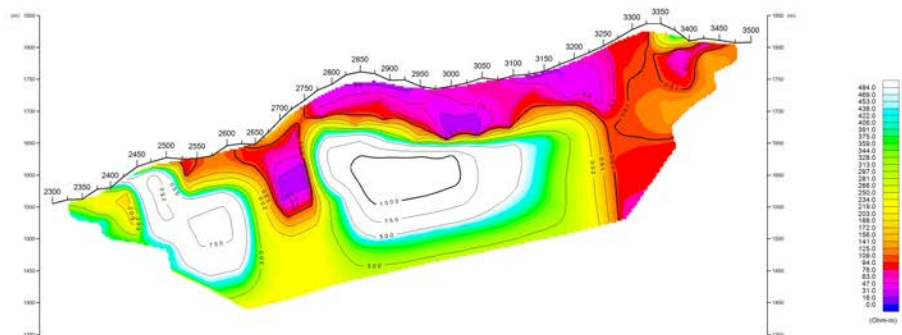
APPARENT
CHARGEABILITY
PSEUDO SECTION



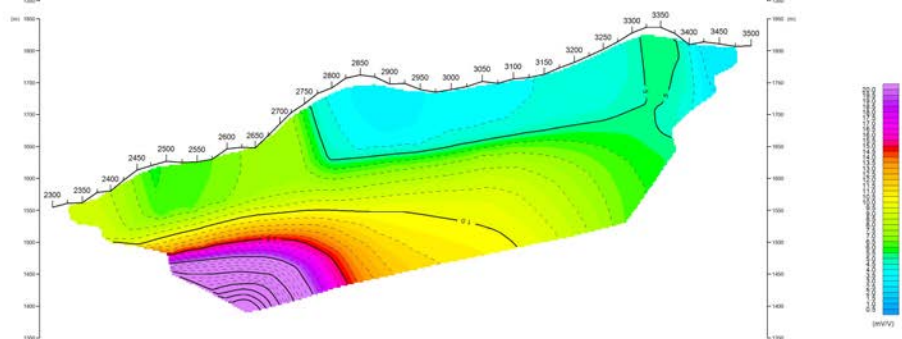
INTERPRETATION



RESISTIVITY TRUE
DEPTH SECTION

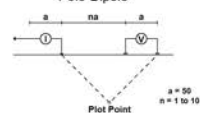


CHARGEABILITY TRUE
DEPTH SECTION



INDUCED POLARIZATION SURVEY

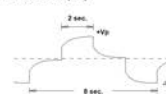
Pole-Dipole



Transmitter: TX-9000 (Walcer)



Receiver: ELREC-PRO (Iris)



inversion **RES2DINV™**

Scale 1:5000



MAMMOTH RESOURCES CORP.

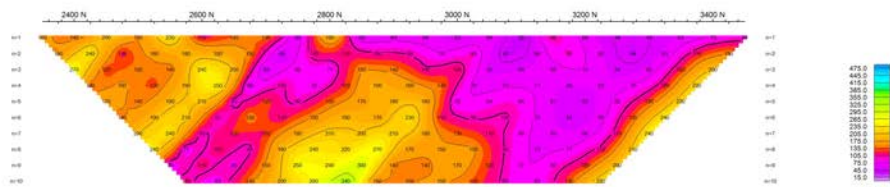
TENORIBA PROJECT
MASUPARIA GRID
CHIHUAHUA STATE, MEXICO

Line 60200E

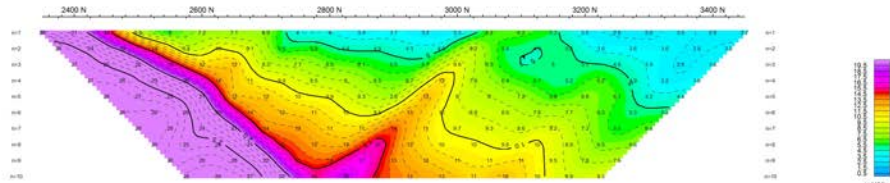
Interpreted by: Joel Simard, P. Geo./Geoph.
Verified by: Joel Simard, P. Geo./Geoph.
Surveyed by: Gerardo Del Val
Date: Oct/Nov. 2013
Ref: 13C144



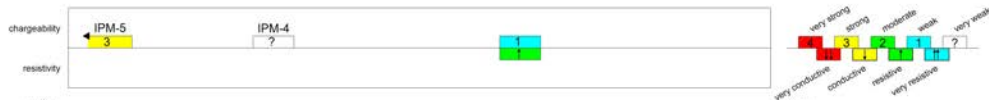
APPARENT
RESISTIVITY
PSEUDO SECTION



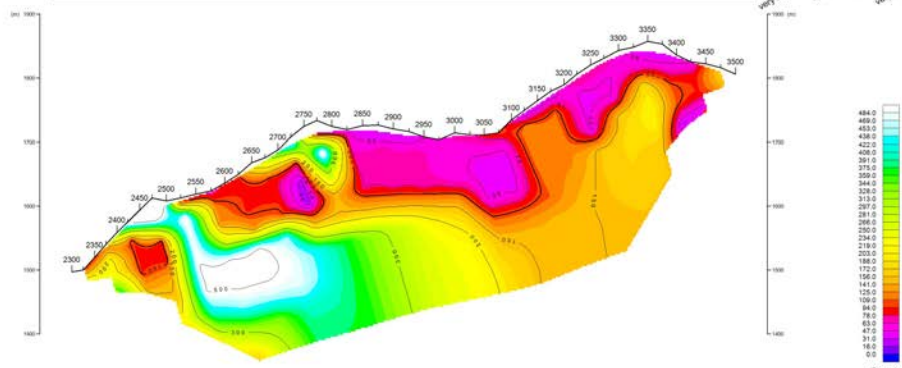
APPARENT
CHARGEABILITY
PSEUDO SECTION



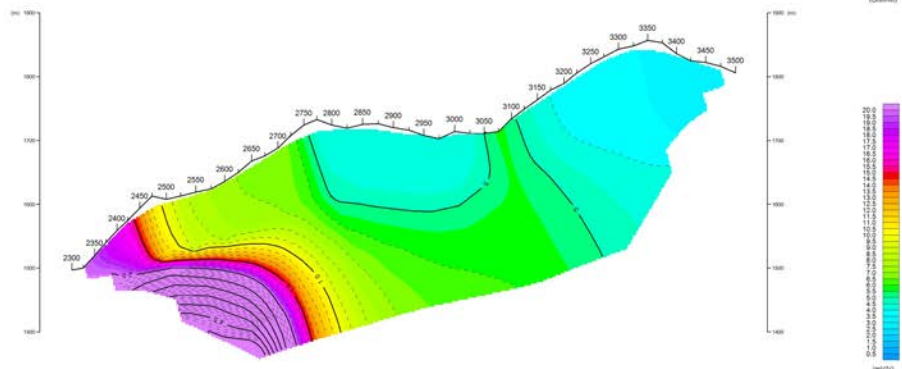
INTERPRETATION



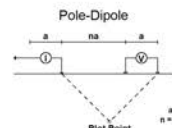
RESISTIVITY TRUE
DEPTH SECTION



CHARGEABILITY TRUE
DEPTH SECTION



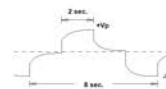
INDUCED POLARIZATION SURVEY



Transmitter: TX-9000 (Walcer)

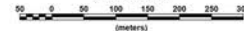


Receiver: ELREC-PRO (Iris)



inversion **RES2DINV™**

Scale 1:5000



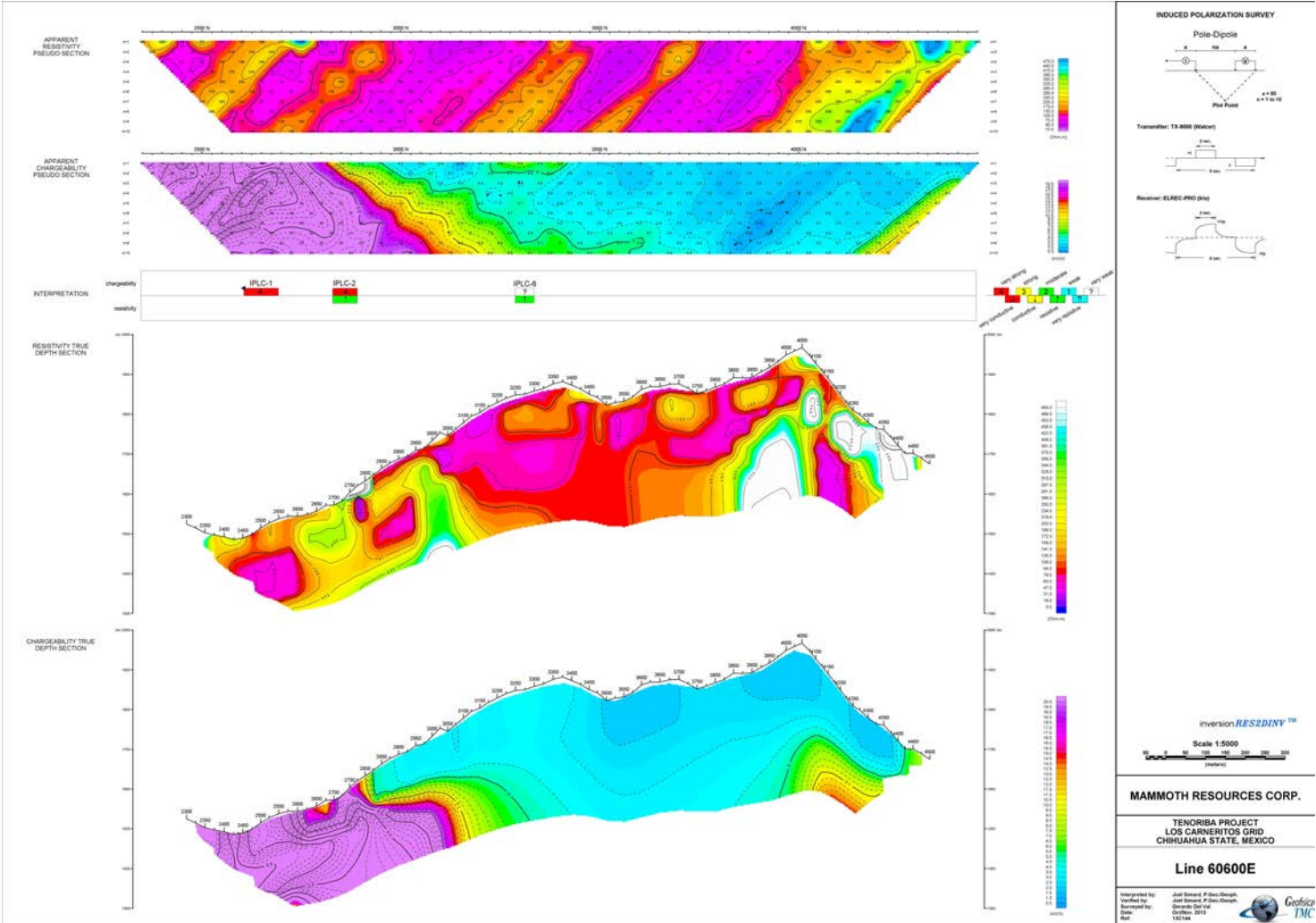
MAMMOTH RESOURCES CORP.

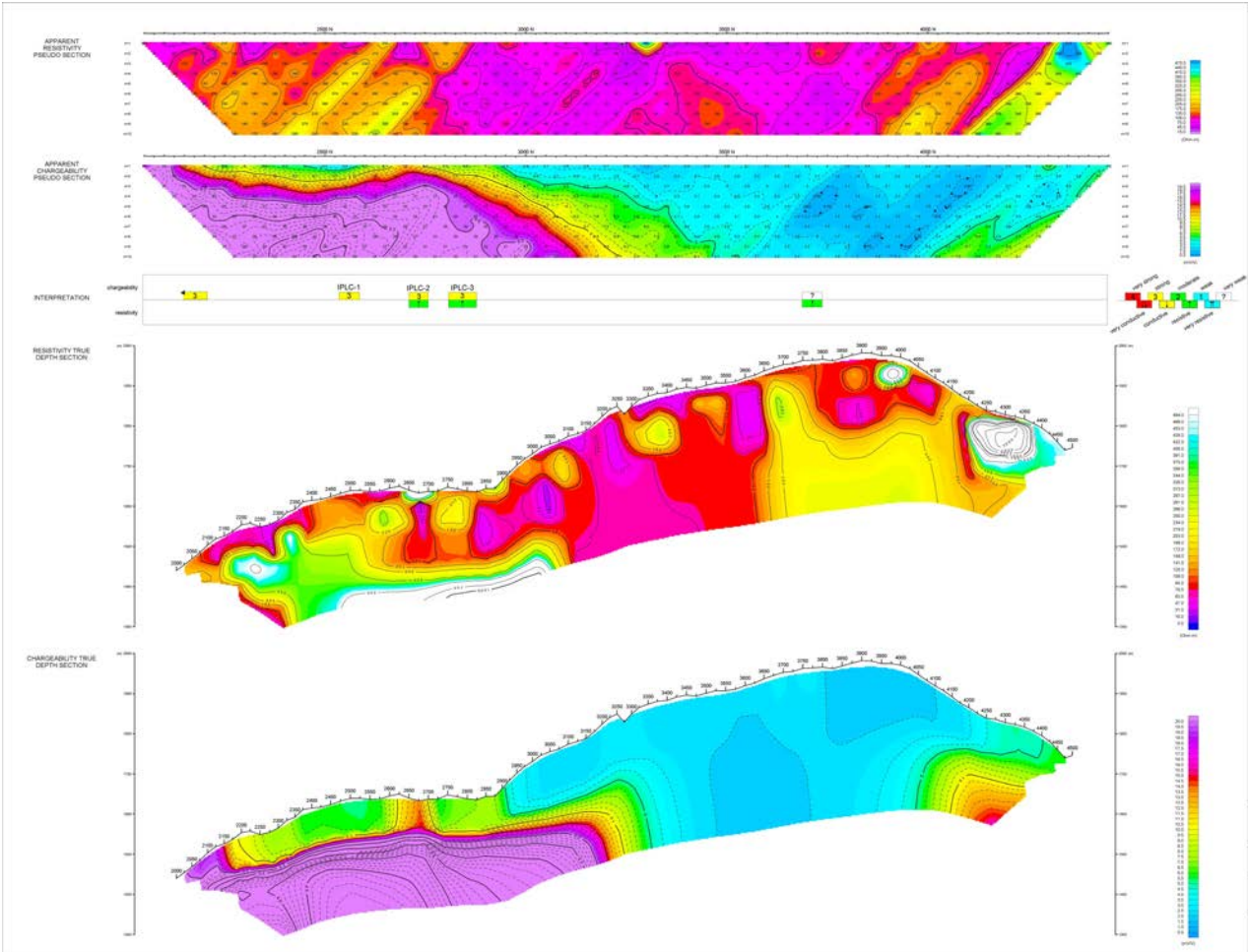
TENORIBA PROJECT
MASUPARIA GRID
CHIHUAHUA STATE, MEXICO

Line 60300E

Interpreted by: Joel Simard, P. Geo./Geoph.
Verified by: Joel Simard, P. Geo./Geoph.
Surveyed by: Gerardo Del Val
Date: Oct/Nov. 2013
Ref: 13C144







INDUCED POLARIZATION SURVEY

Pole-Dipole

Transmitter: TX-6000 (Stable)

Receiver: GREG PRO (2m)

Inversion RES2DINV™

Scale 1:5000

MAMMOTH RESOURCES CORP.

TENORIBA PROJECT
LOS CARNERITOS GRID
CHIHUAHUA STATE, MEXICO

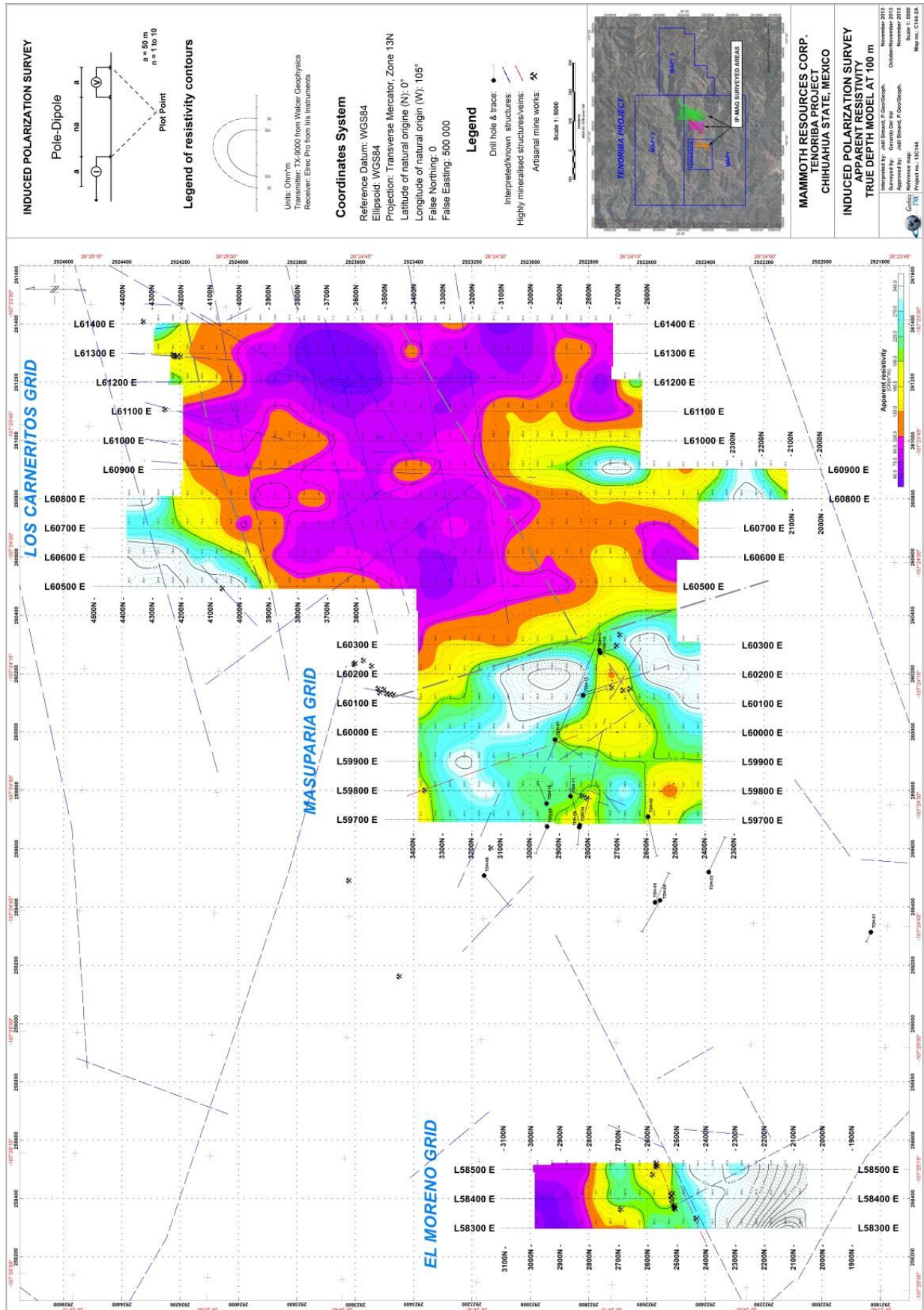
Line 60800E

Interpreted by: Jeff Rowland, P. Eng. (Geophysics)
 Designed by: Jeff Rowland, P. Eng. (Geophysics)
 Reviewed by: Jeff Rowland, P. Eng. (Geophysics)
 Date: October 2014

Geosoft TMC

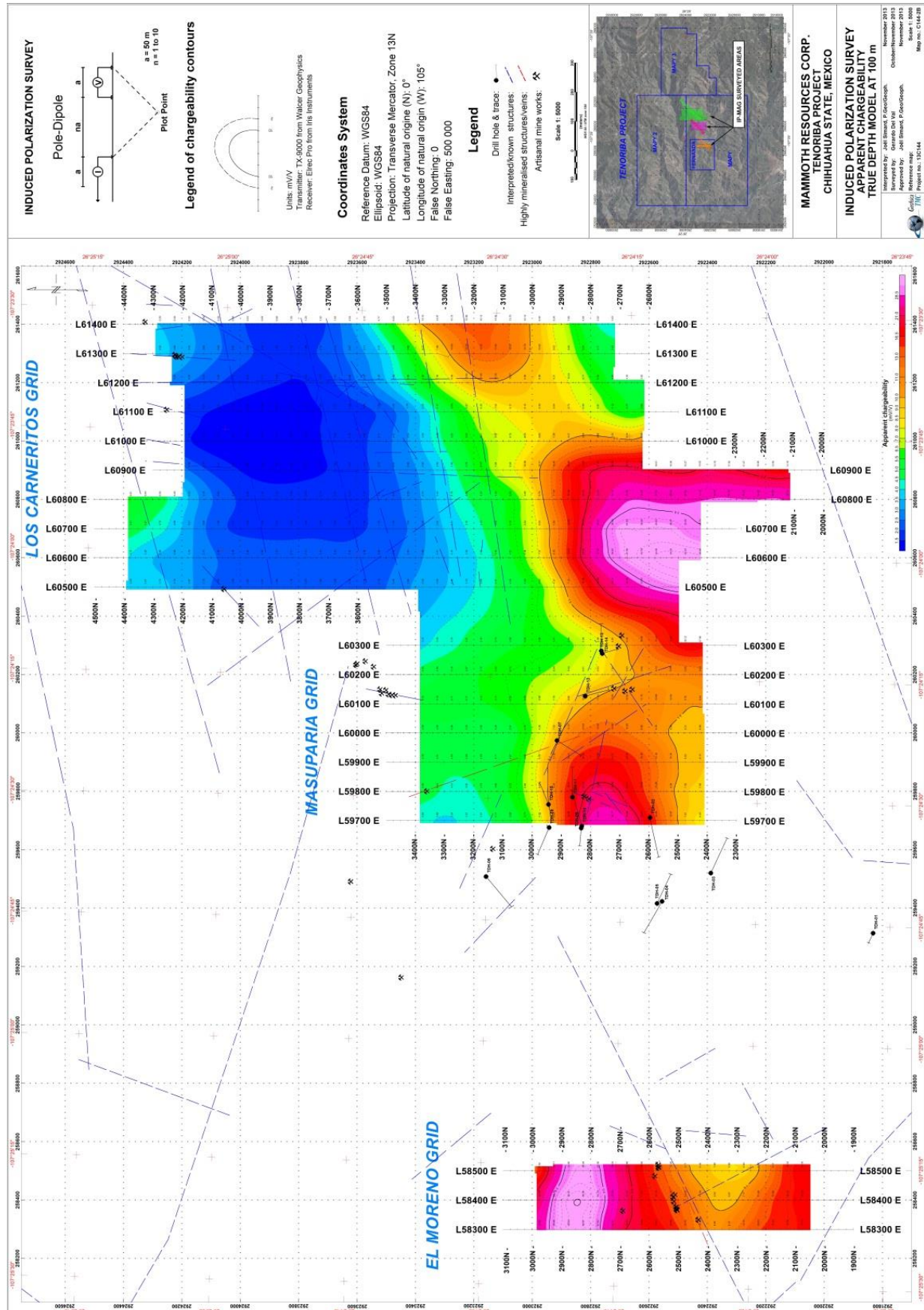
INDUCED POLARIZATION SURVEY MAP

Map C144_2A: Apparent Resistivity, True Depth Model at 100 metres



INDUCED POLARIZATION SURVEY MAP

Map C144_2B: Apparent Chargeability, True Depth Model at 100 metres



Map C144_3: GEOPHYSICAL INTERPRETATION

