GÉRARD LAMBERT
GÉOSCIENCES
Consultation et génie-conseil en géophysique.

Western Kidd Resources Inc.

Loveland Project, Area "A"

Timmins Area, N.E. Ontario

Loveland Township, Cochrane District

N.T.S. 42A/12

Report on Induced Polarization Surveys

St-André-Avellin, Québec

January 9th, 2006

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Appended:

Introduction

During the month of December 2005, ground geophysical investigations, consisting namely in **Induced Polarization (I.P.)** surveys, were carried out over a portion of the Loveland Project in the Matheson area, Ont., for ***Western Kidd Resources Inc.***

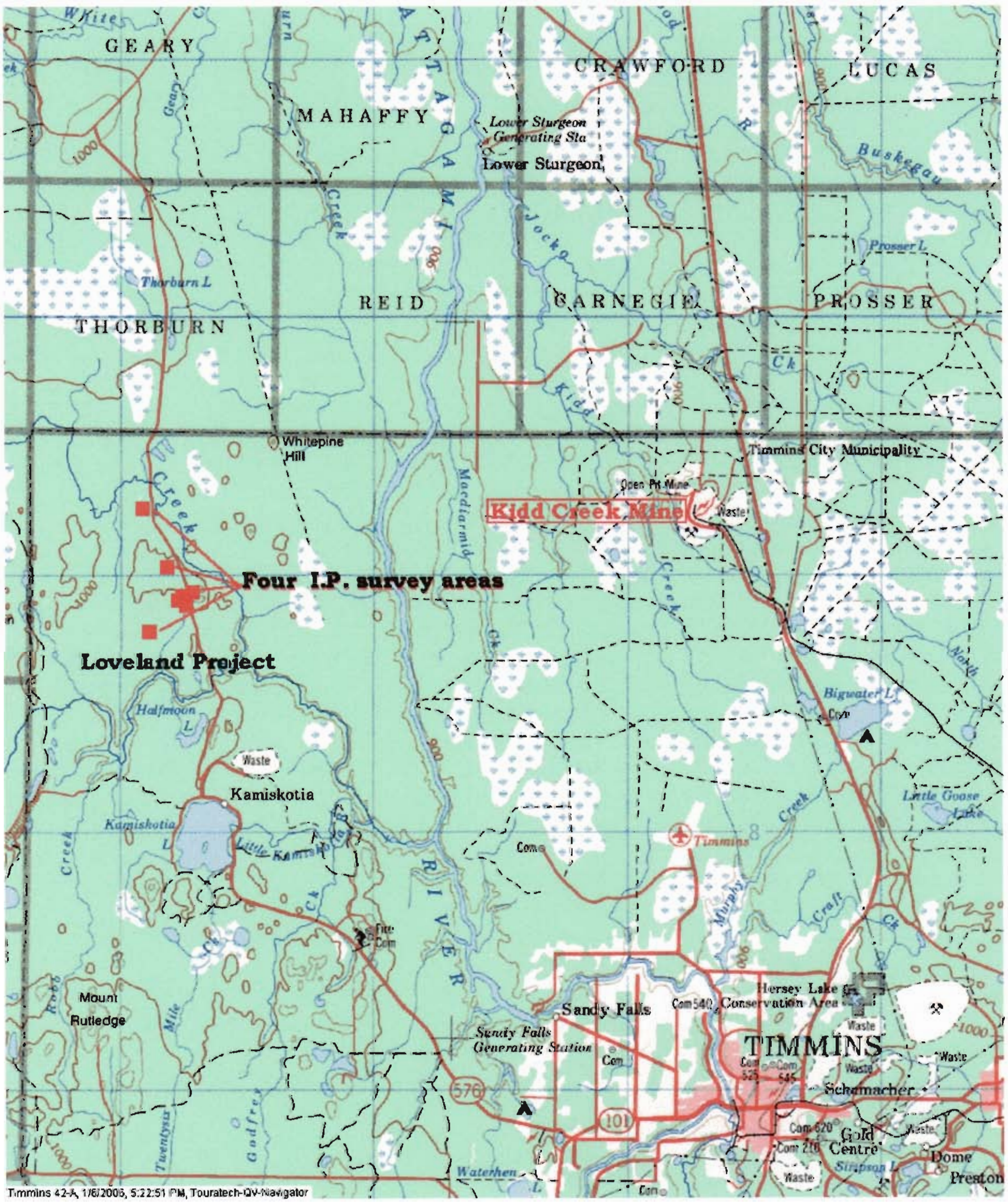
The purpose of these surveys was to provide appropriate geoscientific information about the underlying lithologies, investigate a zone of chlorite-sericite alteration and to map with a better accuracy the distribution of disseminated and stringer sulfides in the bedrock, these sulfides being potentially of economic interest if they are found to carry significant concentrations of base and/or precious metals. Considering the paucity of geophysical data on the property and the absence of bedrock outcrop within the survey area, the present I.P. surveys were thus meant to complement the geophysical coverage and understanding on the property.

This report describes the work done and discusses the results obtained and the interpretation of the data. Recommendations for any future work are presented in the conclusion.

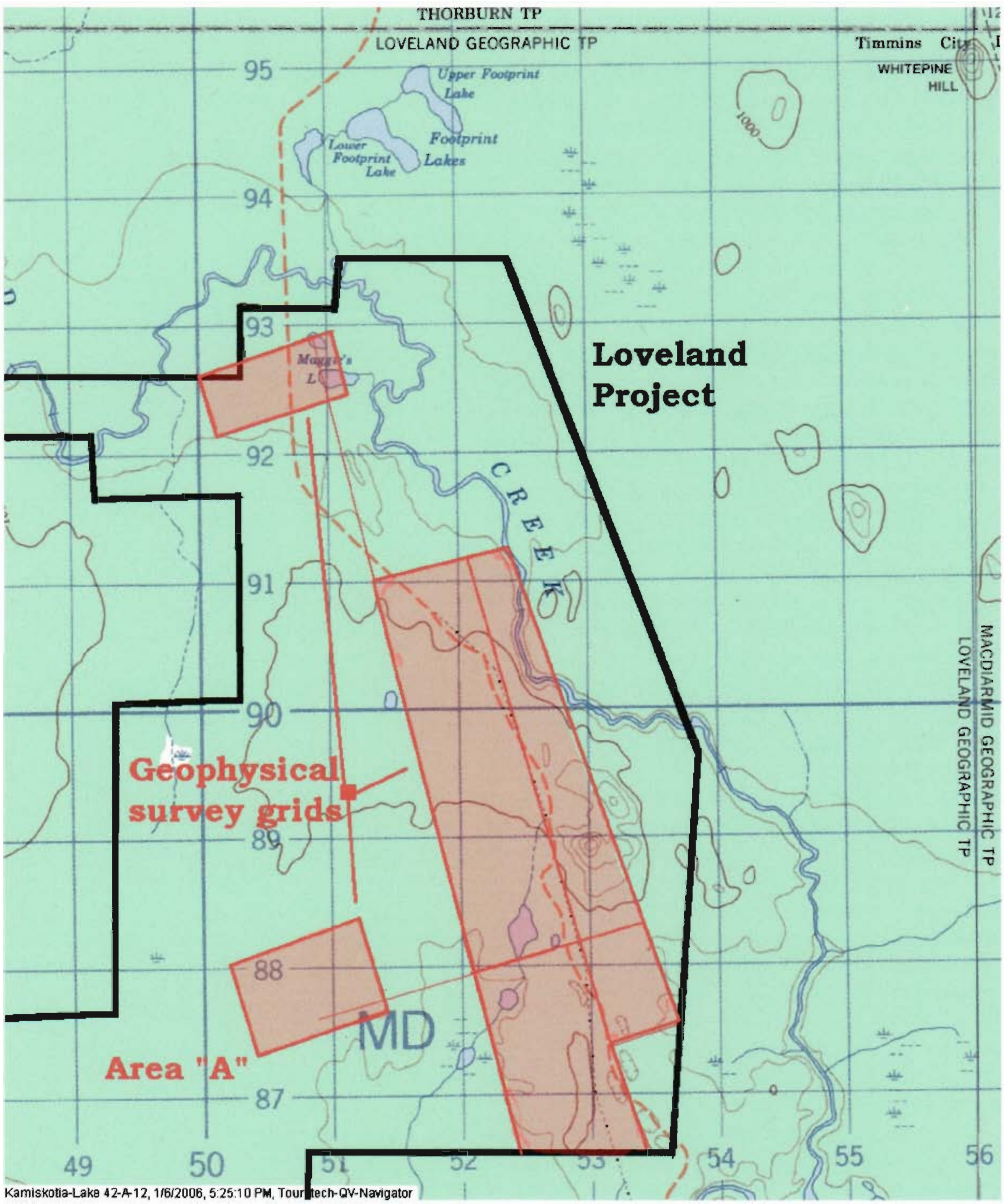
The I.P. surveys were carried out on Grid "A" between December 10th and 16th, 2005 by crews of Rémy Bélanger Geophysics of Rouyn-Noranda, Qué.

Property description, location and access

The **Loveland Project** area is located in the northwest quadrant of Loveland township, in northeastern Ontario. The Grid "A" survey area is situated at about 30 km (as the crow flies) to the northwest of **Timmins** and 23 km to the west of the **Kidd Creek Mine** and 7km NW of **Kamiskotia.** The survey area is easily accessible by vehicle via the Kamiskotia mine access road (Hwy 576) leading northwest from highway 101, then several bush roads leading west to Grid "A". Please refer to the following figures on the next pages, showing location maps of the property (scale 1:250,000 for Fig. 1, NTS 42A and scale 1:50,000 for Fig. 2, NTS 42A/12).



Loveland project, Location map Scale 1:250,000 (NTS 42A) **Figure 1.**



Loveland project, Location map Scale 1:50,000 (NTS 42A/12) **Figure 2.**

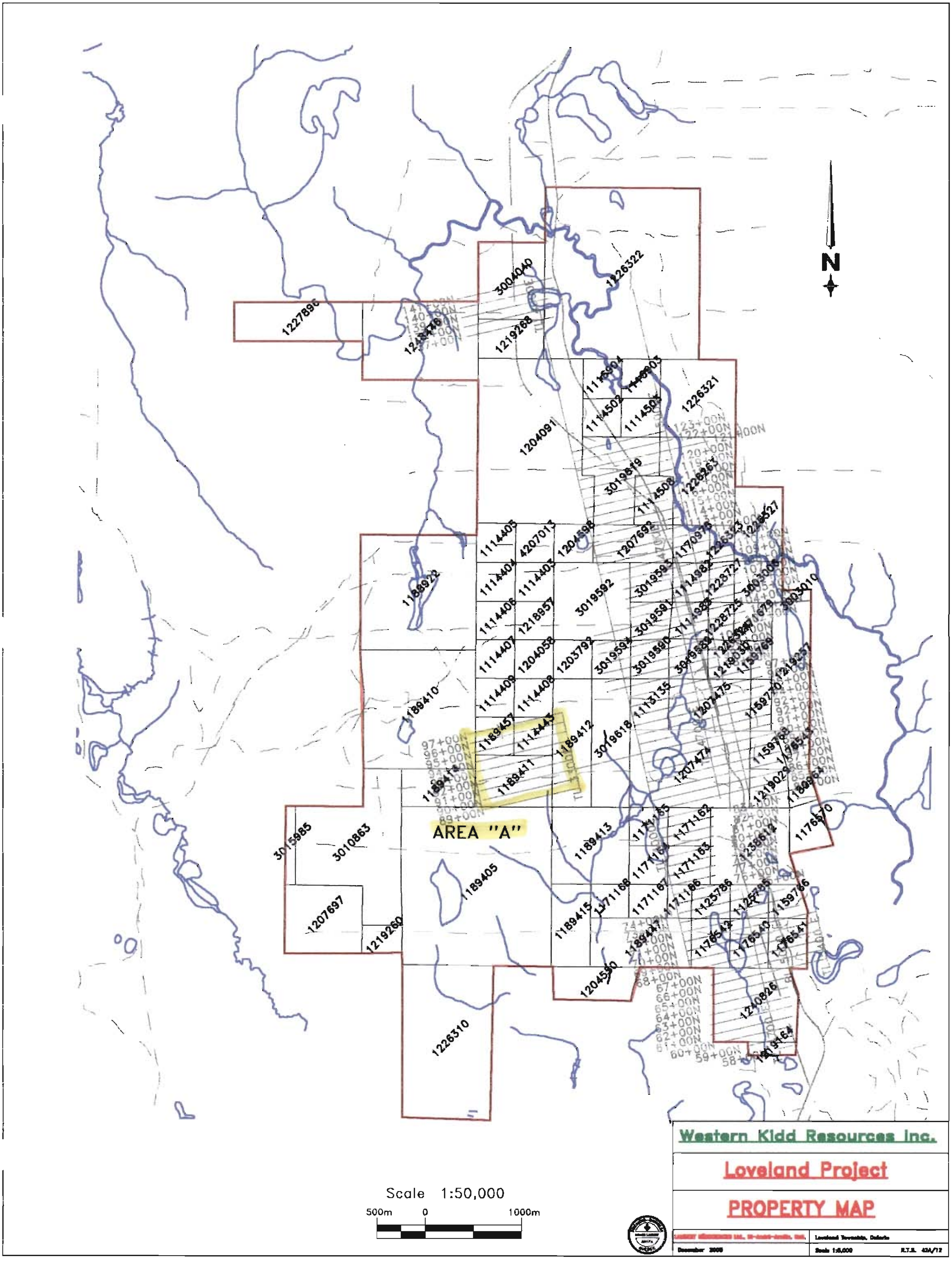
The **Loveland Project** consists of several contiguous mining claims, situated in the northwestern part of Loveland Township. The survey area for Grid "A" covers portions of claims 1189411, 1189457, 1114443 and 1189412. The map on the next page shows the claim numbers for the property. The geophysical maps appended also show the claim lines and numbers for the survey area near Grid "A".

Description of the I.P. surveys

The I.P. survey was carried out over a grid of nine lines each 1100 to 1200 meters long and spaced every 100 meters, between lines 89+00N and 97+00N and from 2150E to 3350E. A base line 33+00E was also established in order to turn the survey lines off. All the cross lines were oriented at 077°, chained/picketed at intervals of 25 meters.

The **Phase I.P.** survey was carried out using a **dipole-dipole** electrode configuration. The dipole dimension was 50 meters and successive separations at multiples of n=1,2,3,4,5 and 6 times the dipole dimensions were used, in order to investigate at depth. A total of approximately 10.3 line-km of I.P. data was thus gathered on Grid "A" by operator Rémy Bélanger and crew, during the course of the survey.

The I.P. equipment used for the survey consisted of 1°) a **Phoenix IPT-1** transmitter operating at 1.0 Hz, powered by a 2 kilowatt, model MG-2 motor generator. The phase angle (measured in milliradians) between the transmitted current and the received voltage was measured by 2°) a **Phoenix Turbo V-5** Phase I.P. receiver, measuring the phase shift (induced polarization effect) and also the apparent resistivity of the earth at each "n". The phase angle is a direct measure of the polarization or chargeability of the underlying earth.



N
AREA "A"
1227896
3004040
1226322
1219268
1226321
1204091
3019819
1189922
1189410
1189413
1189405
1226310
1207697
1219260
3015985
3010863
3019592
Scale 1:50,000
500m 0 1000m
Western Kidd Resources Inc.
Loveland Project
PROPERTY MAP
Loveland Township, Ontario
December 2000

The results of the I.P. surveys are presented in the appendix, namely in the form of **pseudo-sections** of the apparent resistivities and the measured phase angles, at the scale 1:5,000 as well as on plan maps also at 1:5,000 scale, showing respectively the contours of the apparent resistivity at n=3 and the contours of the Phase shift (I.P. effect or polarization) at n=3. These maps display the interpreted I.P. anomalies using symbols which are explained in the accompanying legend.

Results and interpretation

The Induced Polarization method is probably the best geophysical prospecting tool when investigating for base and precious metals in geological environments such as the Timmins mining camp.

The I.P. technique can map most types of metallic sulfides, even when they do not conduct, which is often the case with structure-hosted, vein-type gold mineralization associated with disseminated and stringer sulfides. Furthermore, the I.P. technique can also discriminate between "poor" E.M. conductors associated with electrolytic conductivity such as porous shear zones and overburden depressions (causing no recognizable I.P. effect), and "poor" E.M. conductors caused by low-conductivity metallic mineralization, such as stringer sulfides or sphalerite-enriched sulfides (recognizable I.P. effect).

Referring to the I.P. pseudo-sections and the N=3 Phase (I.P. effect) contour map and its accompanying legend, it will be observed that the interpreted I.P. anomalies were classified according to their "strength" (i.e. the probable "massiveness" of the causative metallic or polarizable material) and their degree of definition (a well-defined I.P. anomaly is one which displays a clear, unambiguous triangular or trapezoidal shape on a pseudo-section), as well as according to the behavior of the apparent resistivity.

Conductive, semi-massive and massive metallic mineralization (graphite and/or massive sulfides) will typically cause a marked decrease in the measured apparent resistivity, in addition to causing a strong I.P. anomaly. So will a mineralized, porous shear corridor carrying heavily disseminated or stringer sulfides. As the concentration of these metallic materials decreases, the drop in the resistivity becomes more negligible, but the I.P. effect still remains. The symbols used in the interpretation of the data are explained on the compilation maps and on the pseudo-sections.

The performance of the I.P. method can occasionally be hampered, when present, by conductive overburden cover such as lacustrine clays, and sources of man-made cultural noise (power lines, metallic fences, etc.). In the present case, no particular sources of noise appear to have affected this survey.

In this particular case, a 50-meter dipole dimension was chosen because of its penetration capability through thick overburden and its ability for outlining potentially large, deep and wide pyrite-mineralized zones having a significant depth extent. With the n=6 expanders, this 50-meter dipole-dipole I.P. survey should be able to successfully detect metallic sulphide mineralization in the bedrock to depths in excess of 100 to 125 meters.

The thickness of the overburden layer is quite variable within the survey area of Grid "A", but its largest range is not expected to exceed 30 to 50 meters, generally speaking.

• ***Resistivity measurements***

The apparent resistivity measurements, studied in both pseudo-sections and plan views, allow to evaluate the variations in thickness of the overburden layer and they also often provide very useful structural information and greatly help in mapping major lithological contacts and faults (the latter usually expressed as more or less linear resistivity lows).

The resistivity pattern, as shown on the N=3 apparent resistivity colour contour map, and also on the I.P./Resistivity pseudo-sections, provides a faithful image of the relief of the bedrock surface and of the intrinsic resistivities of the underlying sand/clay overburden and bedrock lithologies: The higher resistivity (> 2,000 ohm-meters at N=3) areas (about 20% of the survey area) in the NW portion of Grid "A" are most probably associated with bedrock ridges and related thinner overburden. See shades of reds on the resistivity map in the appendix

Quite often also, the definition of higher resistivity zones may provide helping guides in delineating harder lithologies (siliceous hydrothemal alteration), sometimes a good tracer tool for metal-enriched environments.

The resistivity of a rock is controlled by two main factors: water content and metallic sulphide content. Rocks are made in most part of silicates, which are electrically quite resistive. In fact, the vast majority of rock types are electrical insulators, i.e. they will not allow electrical current to flow.

The presence of water however, changes the resistivity of a geological material. Water will dissolve some minerals and will become a weak electrolyte. Electrolyte solutions containing dissolved ions normally have a much lower resistivity and allow some electrical current to flow. This is called the **electrolytic conductivity**. The low-resistivity zones are distributed according to the colour resistivity contour map (see shades of blue on the resistivity maps in the appendix).

Therefore the presence of interstitial water in porous or altered rocks reduces the bulk resistivity quite substantially. Typical low-resistivity rock units include: water-saturated tectonic structures (shear zones, open faults, etc), water-saturated serpentine-talc units in ultramafic geological environments, and overburden-covered bedrock depressions where meteoric water may accumulate and form surficial low-resistivity features (as lake-bottom sediments).

The other important contribution to lowering the bulk resistivity of rocks is of course the presence of carbonaceous material in the form of carbon and graphite and, more important to us, the presence of metallic sulphides (pyrite and pyrrhotite, most commonly). These materials are **electrical conductors** and even small amounts (say 5 to 10%) will lower the resistivity of rocks containing these materials. This is called **electronic conductivity**. Strong I.P. effects are normally found to occur with these materials.

Rock units such as "dirty" shales, graphitic shales and slates, as well as mineralized zones (containing disseminated or stringer sulphides) will normally produce lower bulk resistivity measurements in addition to strong chargeability responses.

• ***Phase shift (I.P. effect) measurements***

The results of the I.P. measurements have allowed the identification of only two anomalous I.P. features on line 92N. One is at about 25+75E (see the □ symbols on the maps) and appears to originate from a deep source (> 30 meters) of disseminated/stringer sulphides as it is evident starting only at N=5 on the pseudo-section probably because of the blanketing effect of the conductive overburden layer. The second anomaly is located at about 2950E on the same line and coincides partially with a slight rise in the apparent resistivity and therefore could be due to a higher I.P. background.

It is difficult at this stage to propose direct exploration targets on grid "A" on the basis of the I.P. survey results alone, given the insufficient geoscientific data at hand at this writing, particularly a ground magnetometer map. Existing drill hole data, inferred geology and known mineralized zones should be used as calibration bases for both the magnetic (if a magnetic survey is available), resistivity and I.P. signatures before identifying discrete exploration targets..

Conclusion and recommendations

The Induced Polarization surveys which were recently completed over the Loveland Project for **Western Kidd Resources** have successfully defined two zones characterized by a weak I.P. effect on line 9200N. With only a limited knowledge of the detailed geology of property area, it is difficult from a geophysical point of view alone, to rate these two I.P. anomalies in terms of their **economic** potential, but it is probable that the anomaly located at about 25+75E will be caused by disseminated metallic mineralization such as pyrite in the bedrock, at depths of no less than 30 to 40 meters below ground surface.

Recommending further work on this property, I certainly think that it would be worthwhile to check a compilation of past exploration work in that area, to see if the interpretation of the I.P. can be used to "calibrate" certain known mineralized zones and therefore allow some extrapolations. The magnetic relief from either airborne or ground surveys should also be consulted for a broader view of the regional geological/structural picture. Given the right exploration hypothesis and ingredients, the I.P. anomaly at about 25+75E on line 9200N may become an interesting exploration target.

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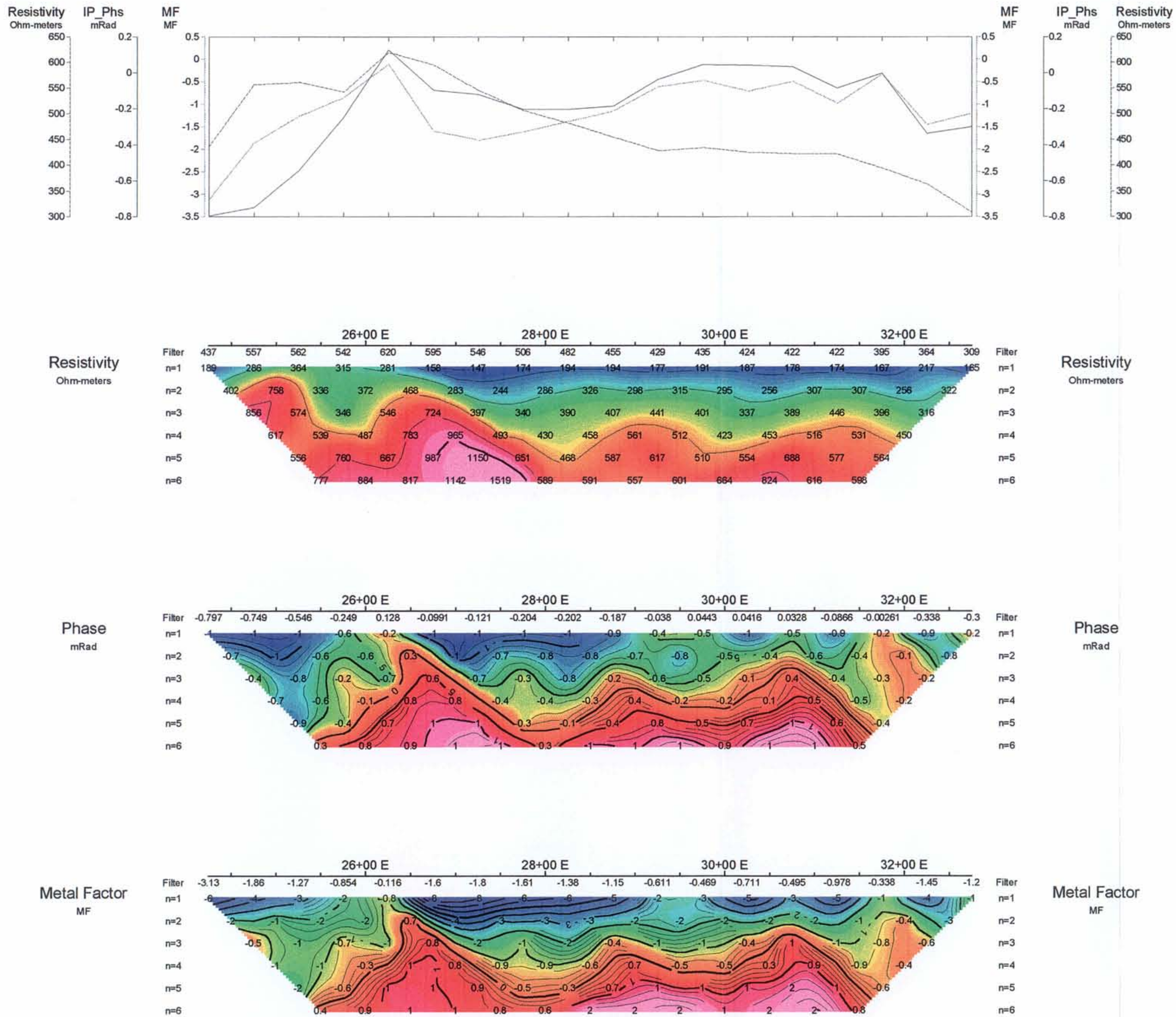
QUÉBEC

St-André-Avellin, Québec

January 9th, 2006

Gérard Lambert, P.Eng.

Consulting Geophysicist



Pseudo Section Plot

89+00 N

Dipole–Dipole Array

a na a

a = 50 m

plot point

Pyramid-top Filter

Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10, . . .

INTERPRETATION

■ Strong increase in polarization accompanied by marked decrease in resistivity.

◘ Well defined increase in polarization without marked resistivity decrease.

□ Poorly defined polarization increase with no resistivity signature.

▼ Low resistivity feature.

Scale 1:5000

50 0 50 100 150 200 250 300

meters

WESTERN KIDD RESOURCES INC.

INDUCED POLARIZATION SURVEY

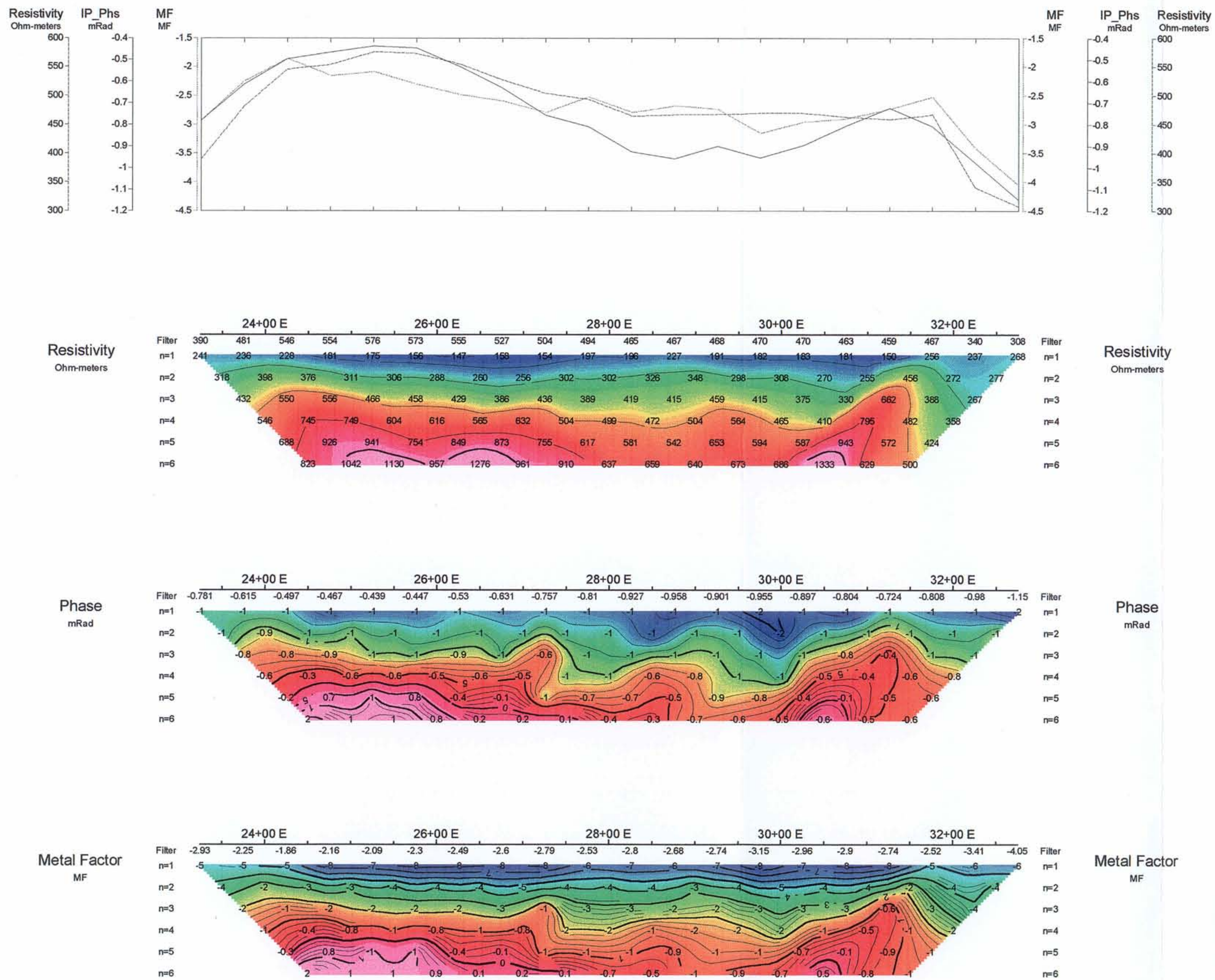
TARQUET A & B

LOVELAND TWP. ONT.

Date: 13/12/2005

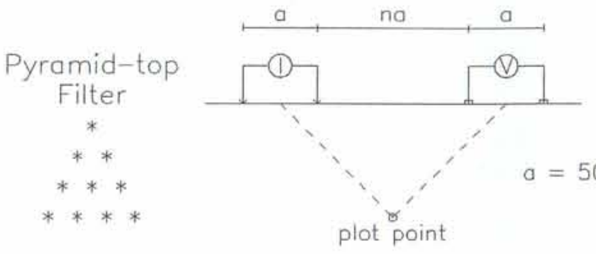
Interpretation: R. BELANGER

REMY BELANGER (CONTRACTOR)



Pseudo Section Plot
90+00 N

Dipole–Dipole Array



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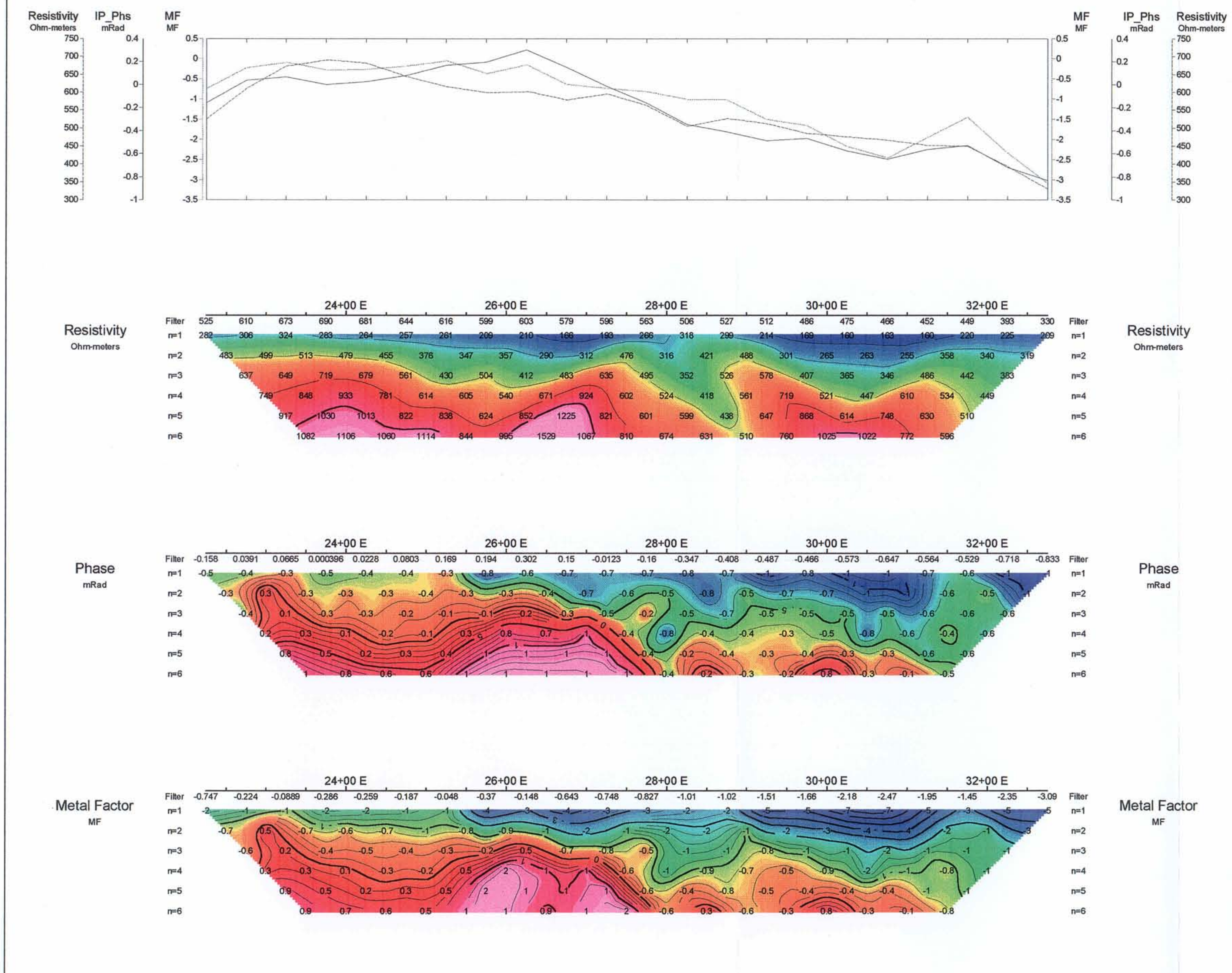
LOVELAND TWP. ONT.

Date: 13/12/2005

Interpretation: R. BELANGER

REMY BELANGER (CONTRACTOR)

Geosoft Software for the Earth Sciences

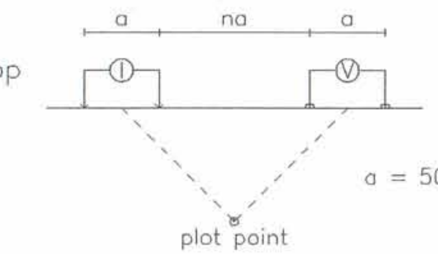


Pseudo Section Plot

91+00 N

Dipole-Dipole Array

Pyramid-top Filter



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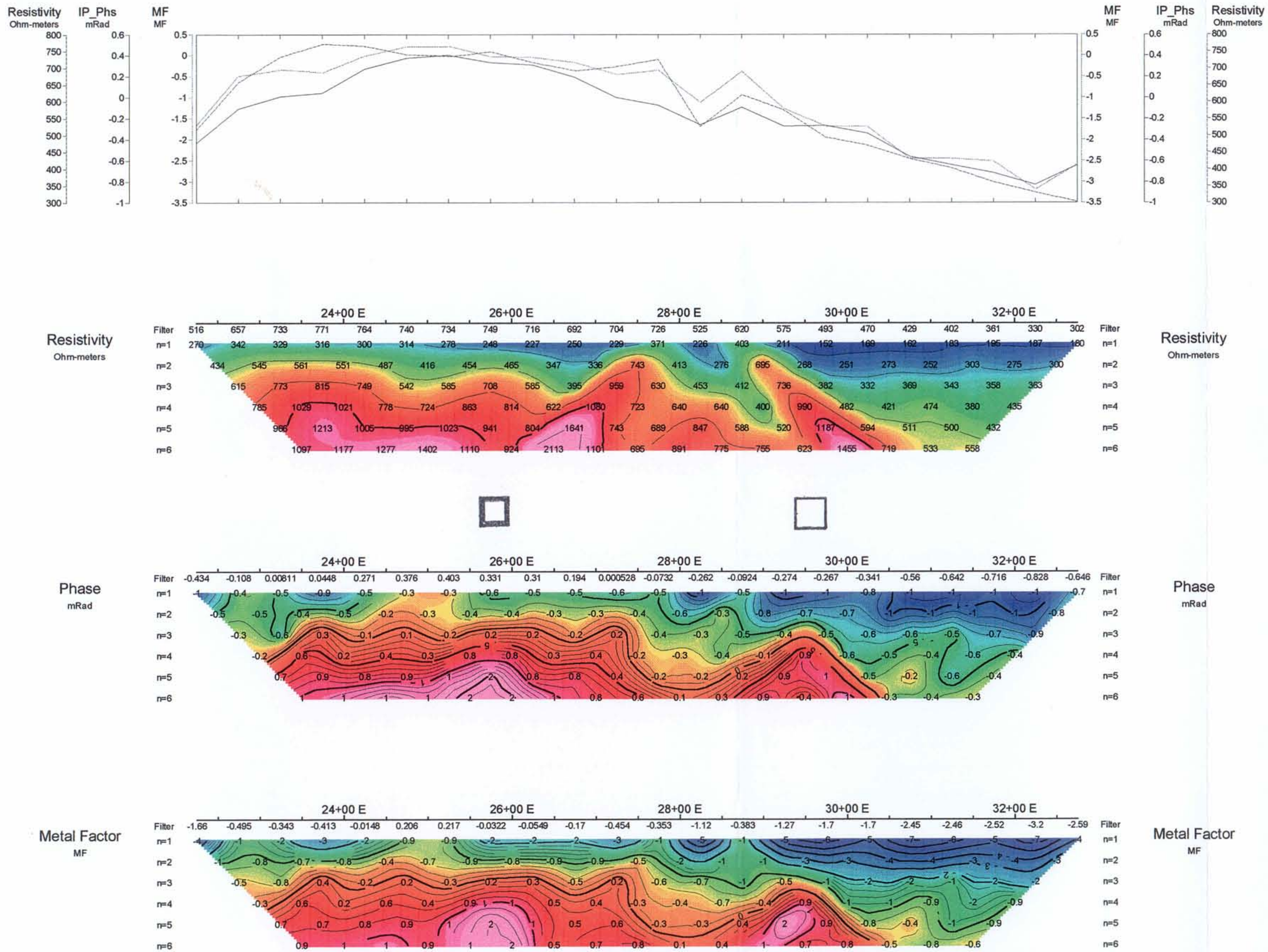
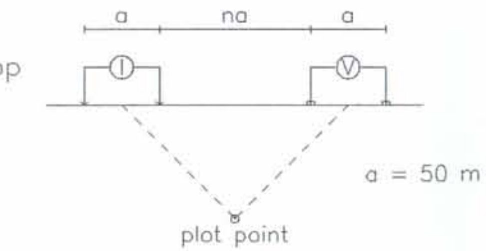


Pseudo Section Plot

92+00 N

Dipole–Dipole Array

Pyramid–top Filter



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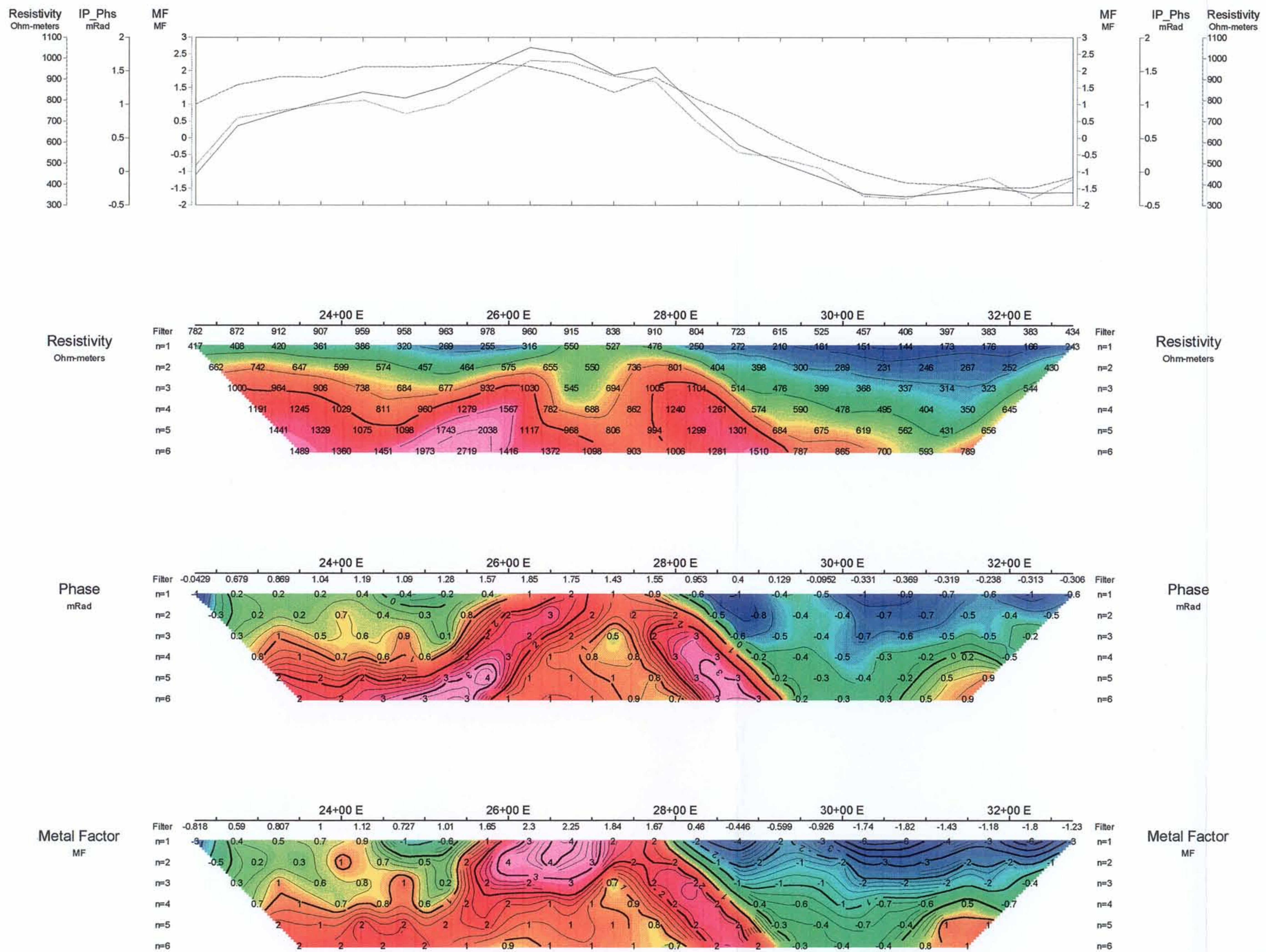
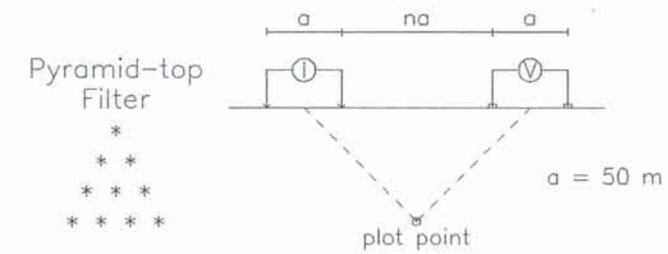


Pseudo Section Plot
93+00 N

Dipole-Dipole Array



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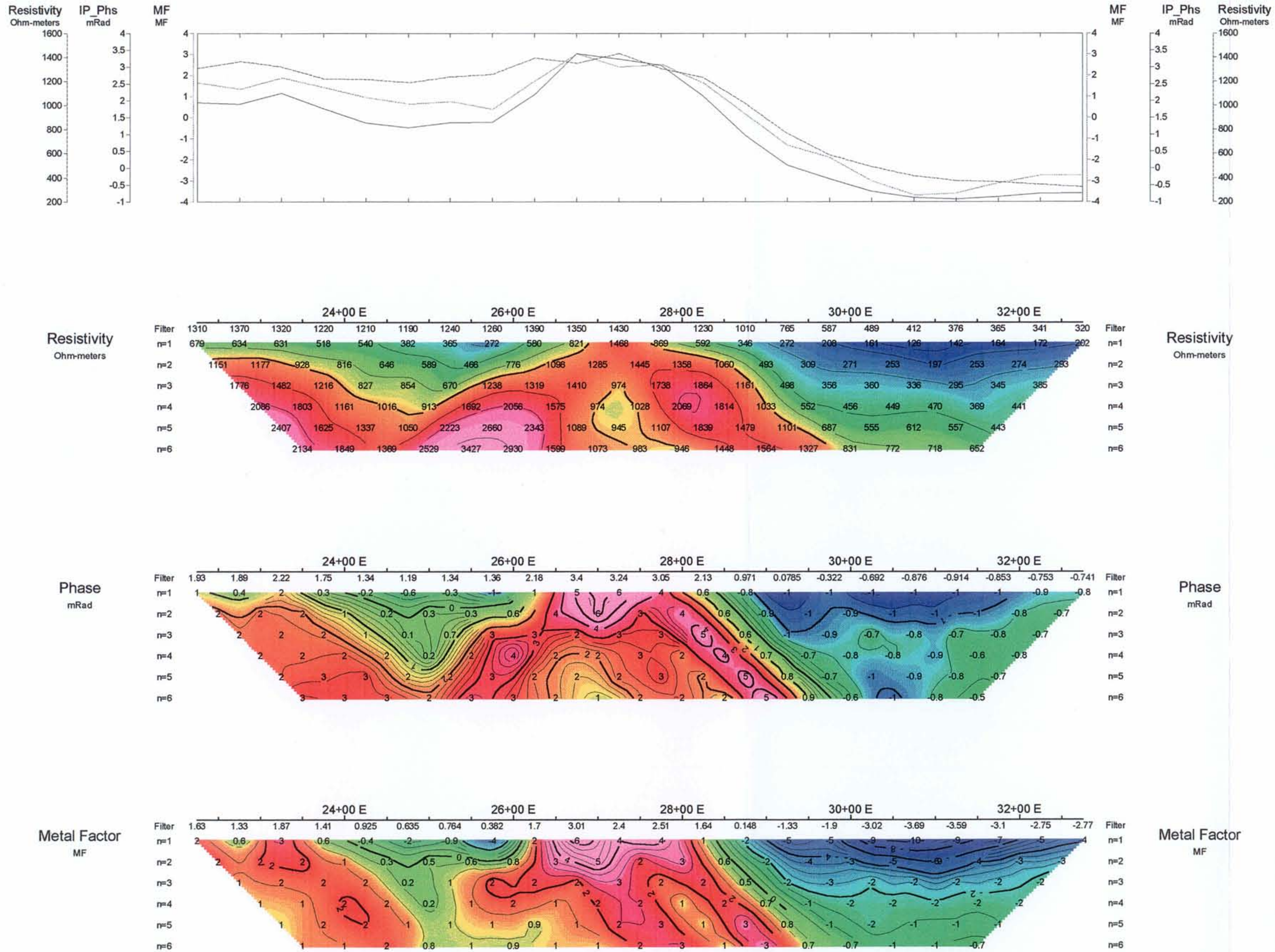
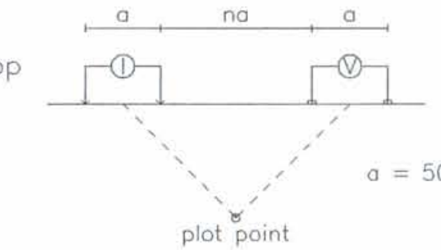
Geosoft Software for the Earth Sciences

Pseudo Section Plot
94+00 N



Dipole-Dipole Array



Pyramid-top Filter

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* * * *

Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10, . . .

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meters

WESTERN KIDD RESOURCES INC.

INDUCED POLARIZATION SURVEY

TARQUET A & B

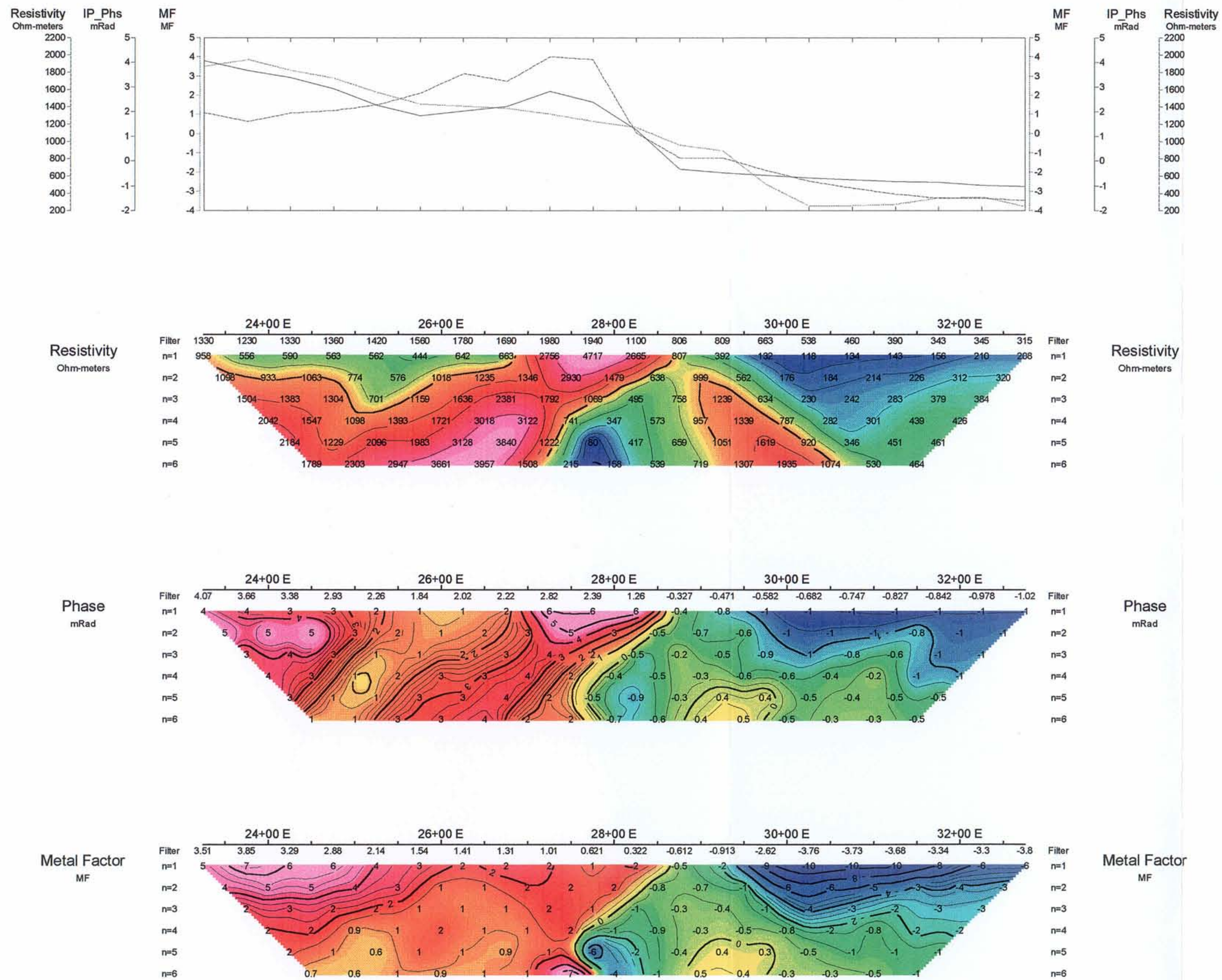
LOVELAND TWP. ONT.

Date: 14/12/2005

Interpretation: R. BELANGER

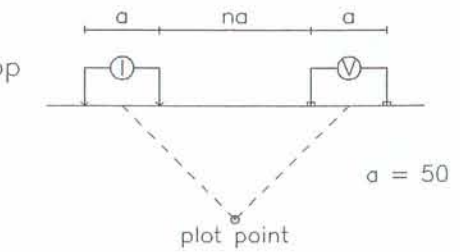
REMY BELANGER (CONTRACTOR)

Geosoft Software for the Earth Sciences



Pseudo Section Plot
95+00 N

Dipole-Dipole Array



Pyramid-top Filter

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Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10, . . .

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WESTERN KIDD RESOURCES INC.

INDUCED POLARIZATION SURVEY

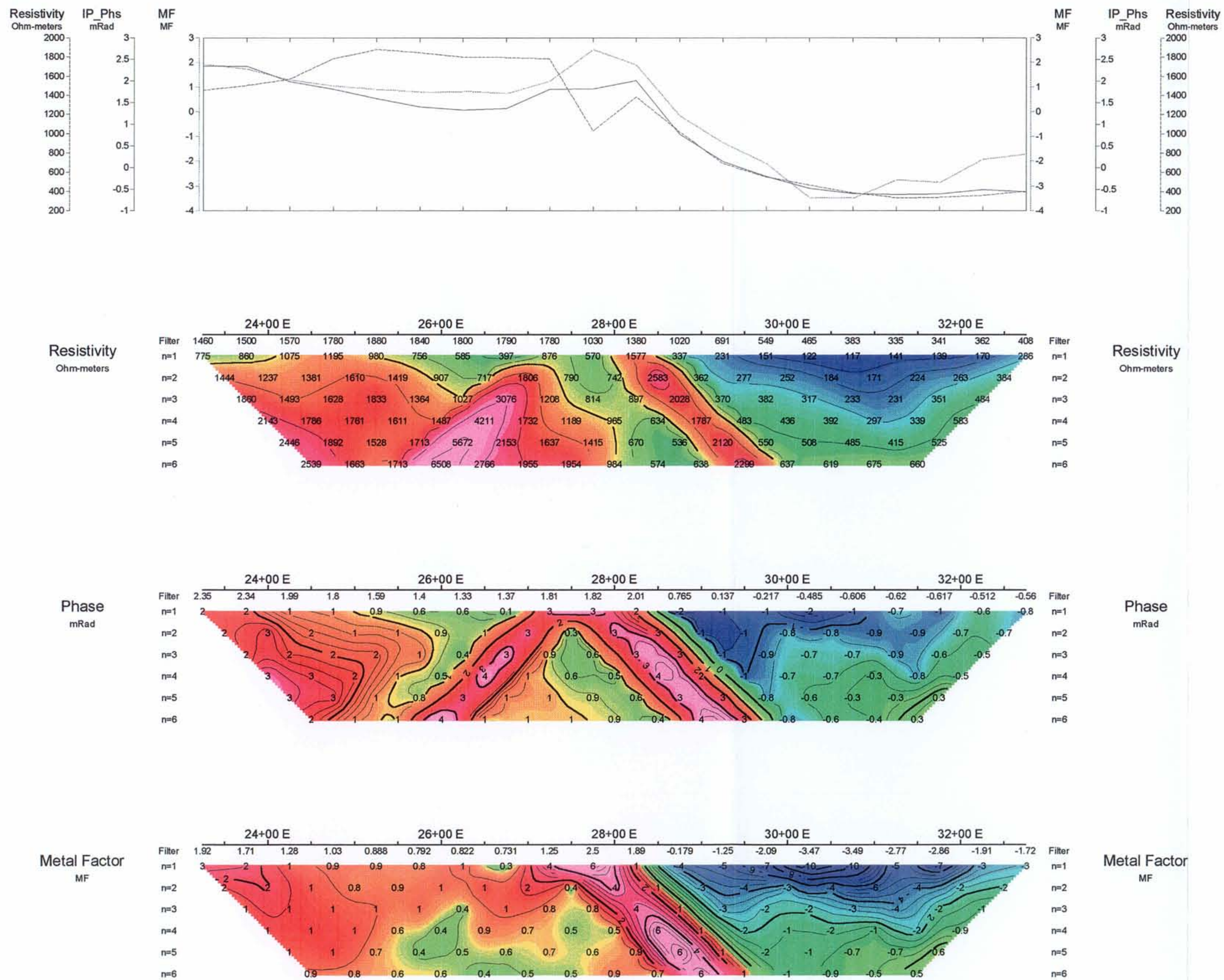
TARQUET A & B

LOVELAND TWP. ONT.

Date: 14/12/2005

Interpretation: R. BELANGER

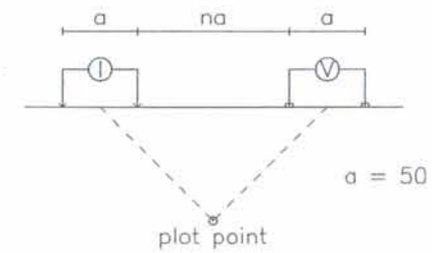
REMY BELANGER (CONTRACTOR)



Pseudo Section Plot
96+00 N

Dipole–Dipole Array

Pyramid-top Filter



Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10,...

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WESTERN KIDD RESOURCES INC.

INDUCED POLARIZATION SURVEY

TARQUET A & B

LOVELAND TWP. ONT.

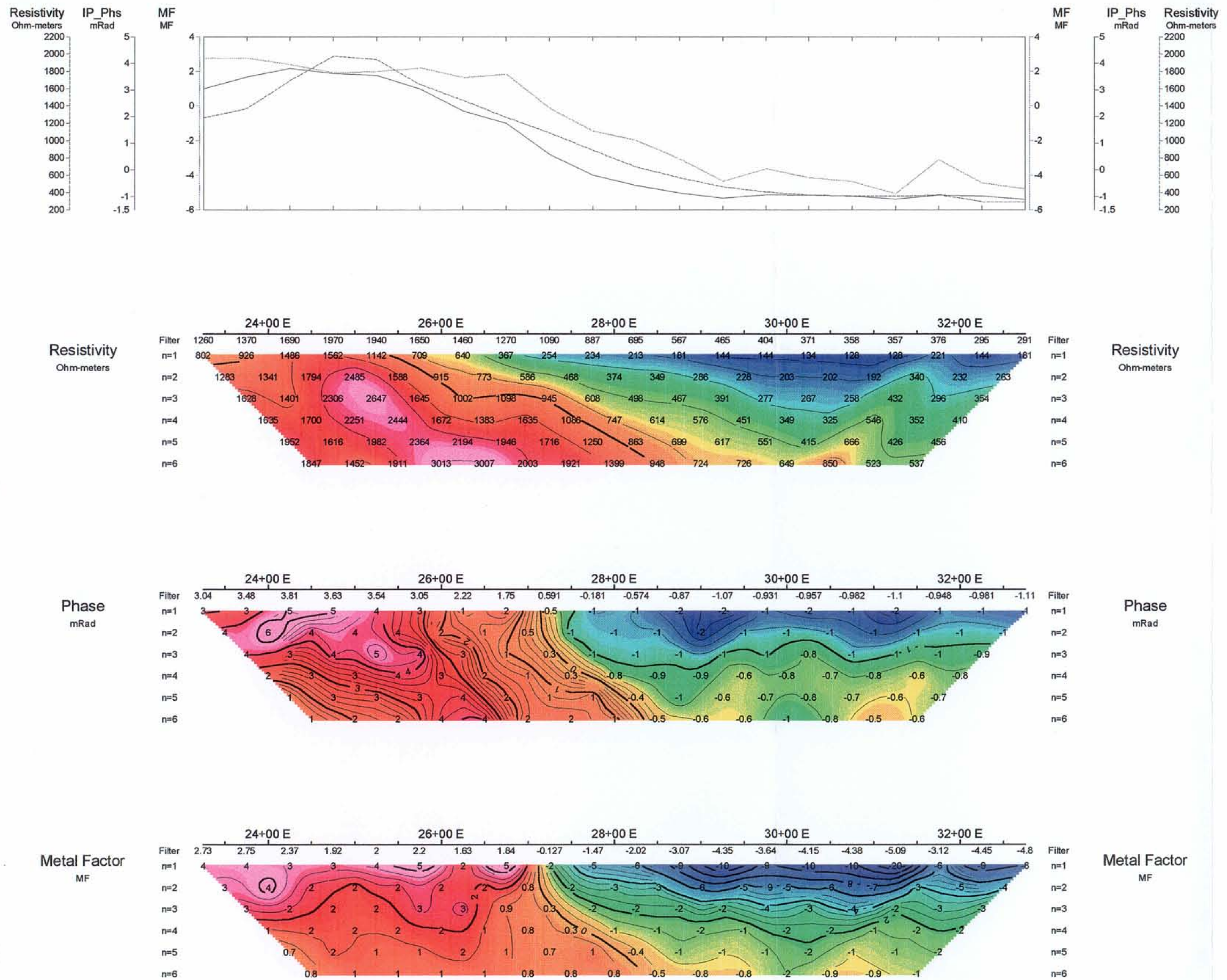
Date: 15/12/2005

Interpretation: R. BELANGER

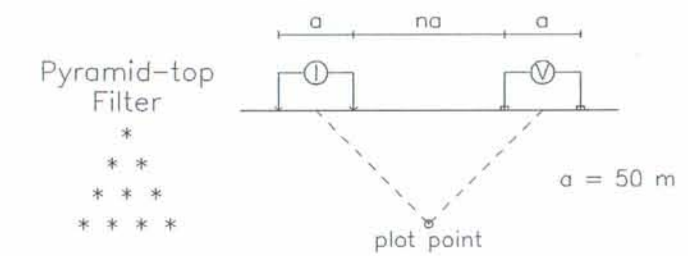
REMY BELANGER (CONTRACTOR)

Geosoft Software for the Earth Sciences

Pseudo Section Plot
97+00 N



Dipole-Dipole Array



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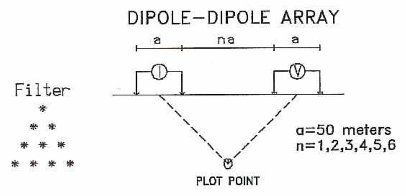
LOVELAND TWP. ONT.

Date: 15/12/2005

Interpretation: R. BELANGER

REMY BELANGER (CONTRACTOR)

I.P. LEGEND



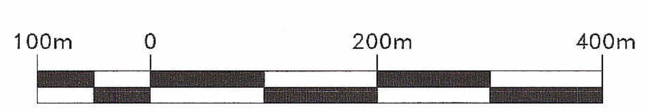
Instruments: Phoenix IPT-1 Tx, Turbo V-5 Rx
Frequency: 1.0 Hertz
Operator: Remy Belanger
December 2005

INTERPRETATION

- ■ Polarisation increase accompanied by a significant decrease of the apparent resistivity. Semi-massive to massive sulphides, graphite. Normally will cause a conductor on an E.M. survey such as MaxMin or Input.
- □ (thick outline) Polarisation increase without any significant decrease of the apparent resistivity. Disseminated to stringer to semi-massive sulphides, discontinuous graphite, sphalerite-rich sulphides. Also altered, pyritized structures. METALLIC MINERALS, MASSIVE MAGNETITE, MICACEOUS MINERALS.
- □ Poorly defined polarisation increase with no apparent resistivity signature. Small quantities of sulphides, narrow mineralized veins, sometimes noisy readings, due to contact problems. MAGNETITE, CLAY OR MICACEOUS MINERALS.

Apparent Resistivity (Ohm-metres)	Phase Shift (I.P. effect) (milliradians)
231.	8.6
318.	4.2
377.	1.6
418.	0.1
467.	0.1
472.	0.5

Scale 1:5,000



Western Kidd Resources Inc.

Loveland Project

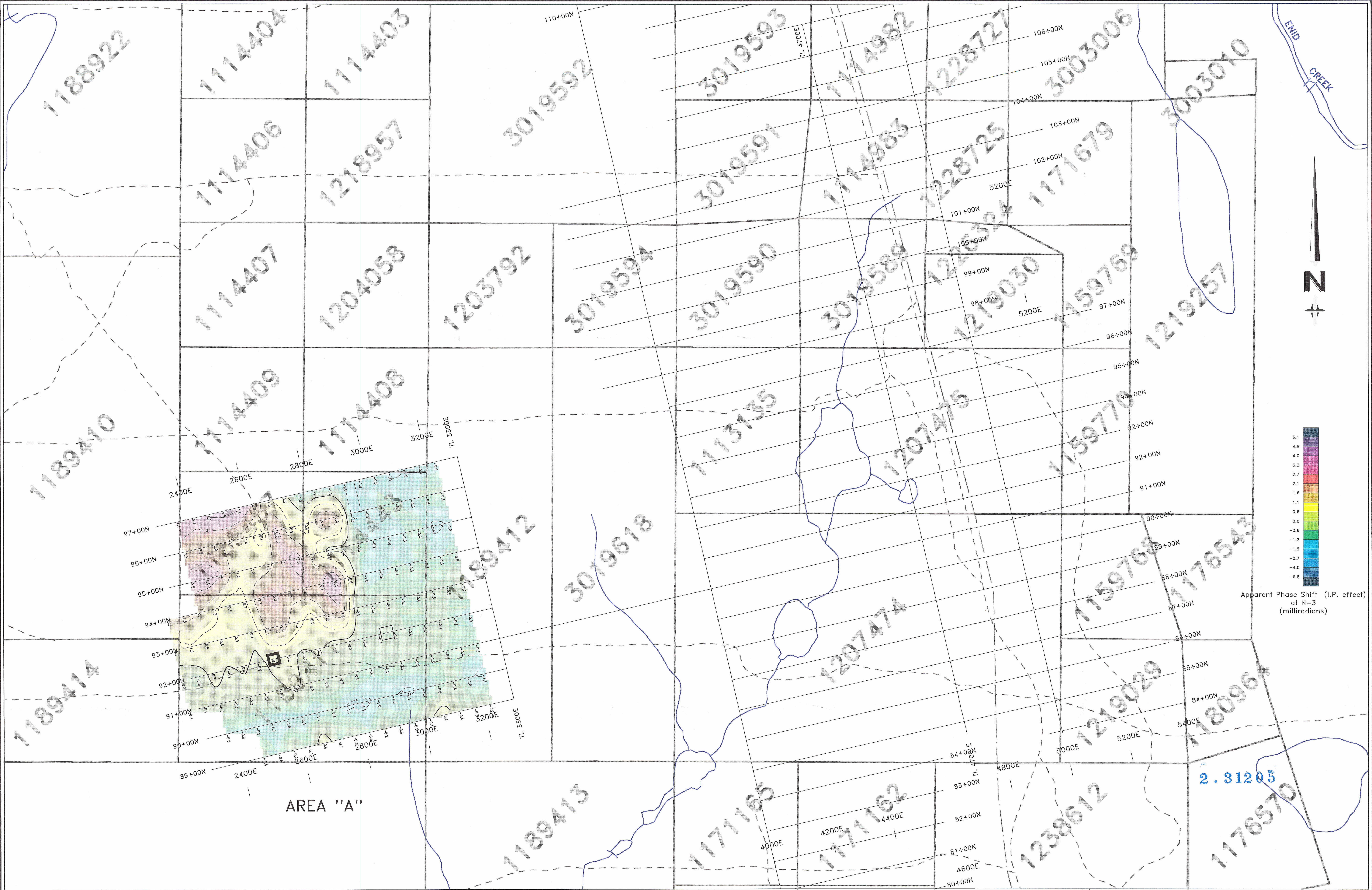
AREA "A"

Induced Polarization survey

Contours of the apparent resistivity

Data processing and interpretation by G. Lambert, P.Eng.	Loveland Township, Ontario
	Scale 1:5,000
LAMBERT GÉOSCIENCES Ltd., St-André-Avellin, Qué.	N.T.S. 42A/12
December 2005	I.P. survey by: Remy Belanger Geophysics, Rouyn-Noranda, Que.

INGENIEUR-ENGINEER GERARD LAMBERT 33174 QUEBEC



I.P. LEGEND

DIPOLE–DIPOLE ARRAY

a na a

Filter

a=50 meters
n=1,2,3,4,5,6

PLOT POINT

Instruments: Phoenix IPT–1 Tx, Turbo V–5 Rx
Frequency: 1.0 Hertz
Operator: Remy Belanger
December 2005

INTERPRETATION

■ Polarisation increase accompanied by a significant decrease of the apparent resistivity. Semi–massive to massive sulphides, graphite. Normally will cause a conductor on an E.M. survey such as MaxMin or Input.

□ (thick border) Polarisation increase without any significant decrease of the apparent resistivity. Disseminated to stringer to semi–massive sulphides, discontinuous graphite, sphalerite–rich sulphides. Also altered, pyritized structures. METALLIC MINERALS, MASSIVE MAGNETITE, MICACEOUS MINERALS.

□ Poorly defined polarisation increase with no apparent resistivity signature. Small quantities of sulphides, narrow mineralized veins, sometimes noisy readings, due to contact problems. MAGNETITE, CLAY OR MICACEOUS MINERALS.

Apparent Resistivity (Ohm–metres)	Phase Shift (I.P. effect) (milliradians)
231.	8.6
318.	4.2
377.	1.6
418.	0.1
467.	0.1
472.	0.5

Scale 1:5,000

100m 0 200m 400m

INGENIEUR–ENGINEER GERARD LAMBERT 33174 QUEBEC

Western Kidd Resources Inc.

Loveland Project

AREA "A"

Induced Polarization survey

Contours of the phase shift (I.P. effect)

Data processing and interpretation by G. Lambert, P.Eng.	Loveland Township, Ontario
	Scale 1:5,000
LAMBERT GÉOSCIENCES Ltd., St–André–Avellin, Qué.	N.T.S. 42A/12
December 2005	I.P. survey by: Remy Belanger Geophysics, Rouyn–Noranda, Que.