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Consultation et génie-conseil en géophysique.

KNICK EXPLORATION

Knick Exploration inc.

Ogden Property

Timmins area, N.E. Ontario
Ogden Township

N.T.S. 42A/6

Report on Phase-Domain Induced Polarization Surveys

St-André-Avellin, Québec
October 26th, 2010

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Introduction

During the month of June 2010, ground geophysical investigations, consisting namely in Phase-Domain Induced Polarization (Phase-I.P.) surveys, were carried out over the eastern portion of the **Ogden property** in the Timmins area, Ont., for Knick Exploration inc.

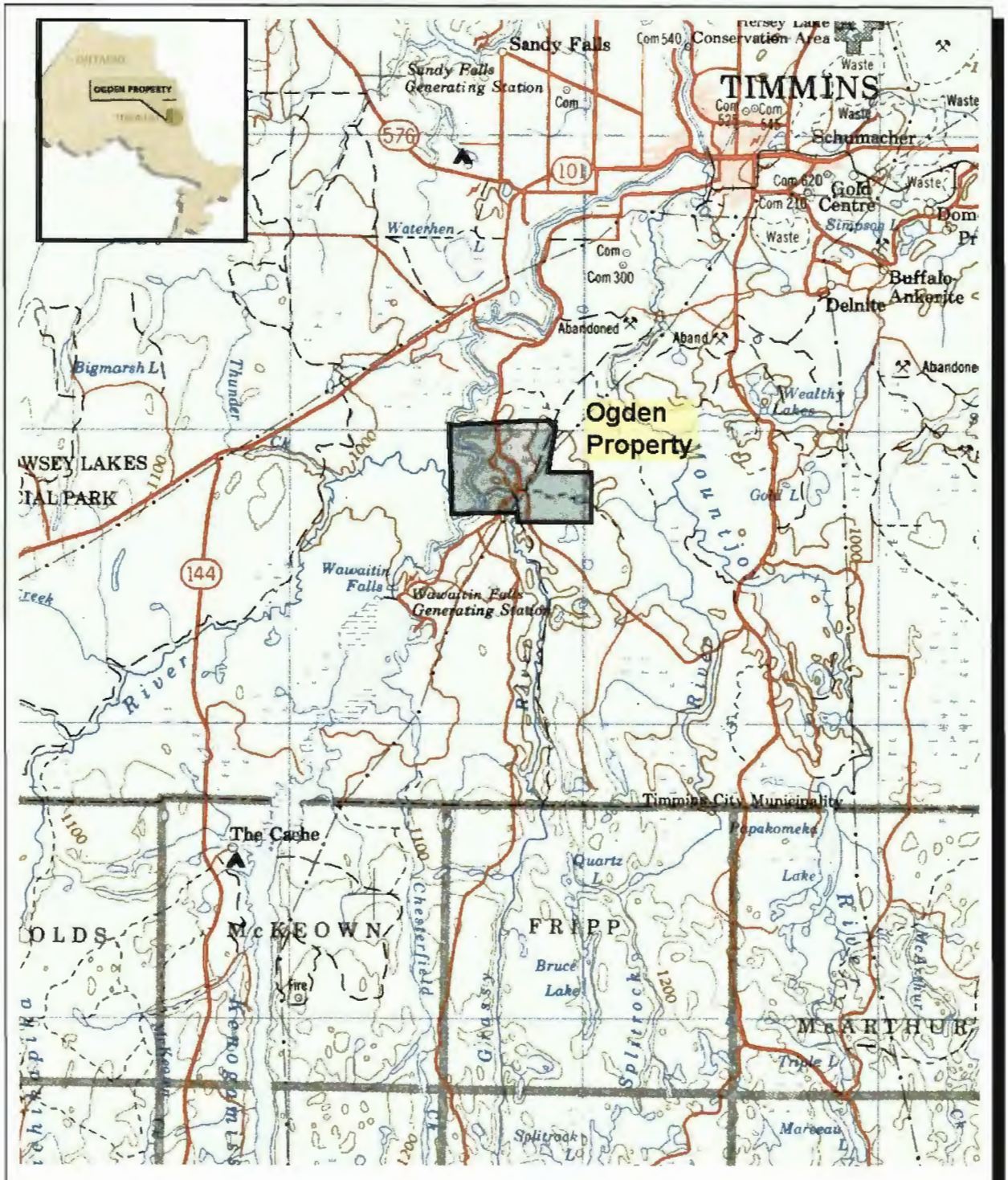
The purpose of these surveys was to map the lithologies, geological units and structural features underlying the property, to investigate favourable zones of alteration and also to map with a better accuracy the distribution of disseminated and stringer sulfides in the bedrock, these sulfides being potentially of economic interest if they are found to carry significant concentrations of base and/or precious metals. Considering the paucity of reliable ground geophysical data on the property, the present I.P. surveys were thus meant to complement the geophysical understanding about the property's metallogenic and economic potential.

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

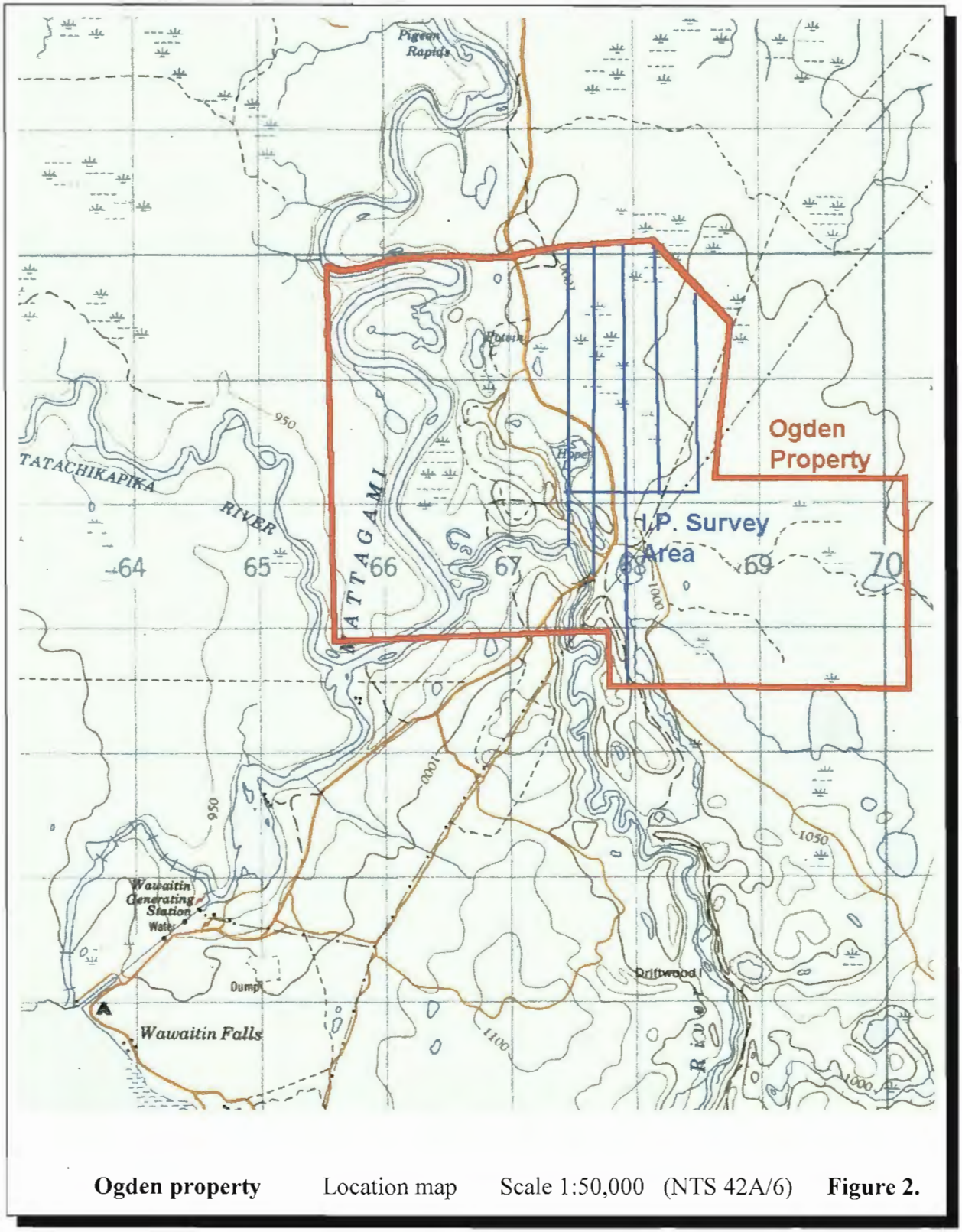
The geophysical surveys were carried out between April 20th 2010 and June 16th 2010 by crews of Rémy Bélanger Geophysics, of Rouyn-Noranda, Qué.

Property description, location and access

The **Ogden** property area is located in **Ogden** township, in northeastern Ontario. The survey area is situated at about 13 km (as the crow flies) to the southwest of **Timmins**. The survey area is easily accessible by vehicle via the Wawaitin Falls hydro dam access road leading south from Timmins. Several other ATV trails and forestry roads allow easy access to most of the property. Please refer to figures 1 and 2, showing location maps of the survey area (scale 1:250,000 for Figure 1, NTS 42A, and scale 1:50,000 for Figure 2, NTS 42A/6).



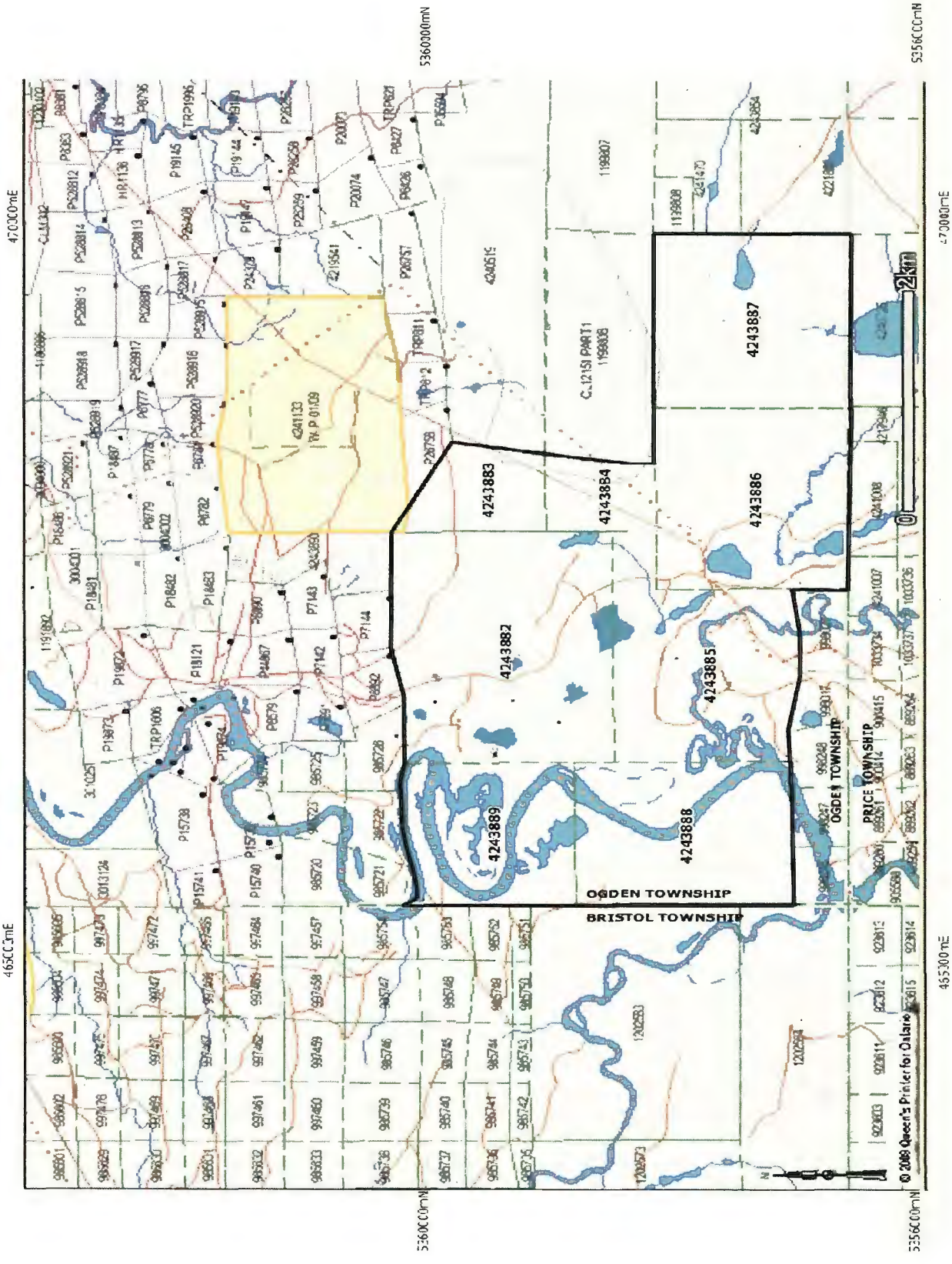
Ogden property Location map Scale 1:250,000 (NTS 42A) **Figure 1.**



Ogden property Location map Scale 1:50,000 (NTS 42A/6) **Figure 2.**

The **Ogden** property consists of eight (8) contiguous mining claims totaling 70 claim units covering 1,120 hectares (2,767 acres), located in the southwest corner of Ogden township. The I.P. survey area covers an area in the eastern portion of the property, as shown on page 4. A claim sketch of the property is shown on figure 3, next page.

Since 1909 the Timmins Mining Camp has produced over 70 million ounces of gold (The Hollinger-McIntyre Mines with about 30 million ounces of combined production and the Dome mine with approximately 15 million ounces production).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OGDEN TOWNSHIP
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OGDEN TOWNSHIP
PRICE TOWNSHIP
C.1215) PART1
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Figure 3.

Description of the geophysical surveys

Linecutting

The geophysical surveys were carried out along lines spaced every 100 meters that were cut, chained and picketed every 25 meters. The 12 grid lines (L-675000E to L-686000E) were oriented N-S (about 000°) and turned-off from base line 58400N, itself oriented E-W (090°). The survey lines run from about 57000N to about 60200N. A number of G.P.S. control points (UTM Nad-83, zone 17) were established in order to help locating the grid lines in the UTM coordinate system. The final maps appended to this report are believed to represent as faithfully as possible the relationship existing between the position of the grid lines and the claims, but no guarantee can be expressed about the absolute accuracy of the various survey points and of some topographic features. A total of approximately **26.5** line-km of linecutting was performed, including the base line.

I.P. / Resistivity surveys

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 **25.4** line-km of I.P. data was thus gathered over lines 675000E to 686000E incl., by operator Rémy Bélanger and his crew.

The I.P. equipment used for the survey consisted of 1°) a **Phoenix IPT-1** transmitter operating at 1.0 Hz, powered by a 2.5 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.

The results of the I.P. surveys are presented in the appendix, namely in the form of **pseudo-sections** of the apparent resistivities and of the measured phase angles, at the scale 1:5,000 as well as on plan maps 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 and postulated I.P. trends, using symbols which are explained in the accompanying legend.

Results and interpretation

The Induced Polarization technique probably constitutes the best geophysical tool when prospecting for gold and base metals in geological, lithological and structural environments such as found on and around the Ogden property and in the Timmins gold mining camp in general. For geological mapping applications, the resistivity data can assist in extrapolating known lithologies in areas of unexposed bedrock, identify geological contacts and it can also help to identify hydrothermally-altered corridors and regional tectonic structures.

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 and in addition to its ability for mapping massive to semi-massive sulphides, 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 (producing a recognizable I.P. effect).

Referring to the I.P. pseudo-sections and the N=3 Phase 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 (increasing, decreasing, or neutral).

Conductive, semi-massive and massive metallic mineralization (graphite and/or massive sulfides) would typically cause a marked decrease in the measured apparent resistivity, in addition to causing a strong I.P. anomaly. So would a mineralized, water-saturated porous shear corridor carrying heavily disseminated or stringer sulfides. This type of I.P. anomaly would be illustrated as filled squares on the interpretation maps (■ symbols). One individual anomaly of this category was mapped on this grid, mainly along what appears to be a mineralized trend .

As the concentration and electrical interconnection of these metallic materials decreases, the drop in the resistivity becomes more negligible and the material becomes less conductive but the I.P. effect still remains. This type of I.P. anomaly is illustrated as thick-walled squares on the interpretation maps (□ symbols). Nearly 50 individual anomalies of this category were mapped, the majority of them located in areas of relatively medium-high resistivity zones.

The performance of the I.P. method can occasionally be hampered, when present, by unusually conductive (such as lacustrine clays) or resistive (such as dry or frozen glacial gravel and sand in eskers) overburden cover, and various sources of man-made cultural noise (grounded power lines, metallic fences, railroads, metallic debris, etc.). In the present case, the presence of two power lines has made the characterization of I.P. anomalies in the south quite difficult and uncertain. One major power line, originating at the nearby Wawaitin Fall hydro-electric plant, passes near the south and east portions of the survey lines. This power line extends toward the northeast and has grounded steel towers. The other power line is a distribution line that follows the access road and has grounded posts at regular intervals. This situation complicates the I.P. interpretation, but does not necessarily obliterate the bedrock responses of interest, and where the data is not affected by electrical noise, the overall quality of the acquired data is very good.

In this particular case, a 50-meter dipole dimension was selected because of its superior depth penetration and its ability to detect large or wide zones of sulphide mineralization at depth. The overburden layer thickness appears to be quite thick and moderately resistive (glacial

sand/gravel) within the survey area (probably in the range 50 to 75 meters), so that the increased depth penetration of the 50-meter configuration (compared with say, a 25-meter dipole configuration) is considered a necessity in this situation, at the cost of some loss in lateral resolution in the case of narrow mineralized targets (e.g. quartz veins and narrow stringer zones).

a) Resistivity measurements

As a very useful by-product of an I.P. survey is the data set consisting of apparent resistivity measurements, which can often help in better characterizing the physical parameters of selected targets. The apparent resistivity measurements, studied in both pseudo-sections and plan views, allow one 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 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**.

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 swamps and 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, chalcopyrite and pyrrhotite, most commonly). These materials are good **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 and low apparent resistivities are normally found to occur with these materials.

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

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 but also of some bedrock lithologies. The low-resistivity zones (<300 ohm-meters at N=3) are distributed according to the colour resistivity contour map (see shades of blue on the resistivity maps in the appendix). These low-resistivity zones occur where wet and deep overburden occurs, mainly in the central portion and northern half of the grid, in combination with water-saturated surficial cover (swamps and drainage).

The higher resistivity (> 2,000 ohm-meters at N=3) areas, representing a small fraction of the survey area (see shades of reds on the resistivity maps in the appendix) are most probably associated with gravel eskers and unlikely bedrock ridges (there is slightly higher ground at the south portions of the grid) and a possibly thinner overburden layer in the northern portion of lines 679E to 686E. Shallower (sub-cropping?) bedrock might be expected to exist where the resistivities are particularly high in that area, like at about 59550N on L-686E. Quite often also, the definition of higher resistivity zones may provide helping guides in delineating harder lithologies (due to siliceous hydrothermal alteration), sometimes a good tracer tool for metal-enriched environments.

b) Phase shift (I.P. effect) measurements

The results of the Phase I.P. measurements have allowed the identification of several (over 50 individual responses) anomalous increases of the measured Phase (I.P. effect). These anomalies can be grouped into roughly four clusters.

Cluster #1 is located in the southern portion of the grid, between L-677E and L-680E and between about 57500N and 57900N. It consists of about 9 individual I.P. anomalies and includes a number of I.P. anomalies that are believed to be of cultural origin, given the proximity of two power lines with grounded wires in that area. However the following anomaly is to be considered of probable bedrock origins: L-680E at about 57650N, far enough from any cultural sources so as to be considered legitimate. Reasonable amplitude on the phase and even possibly a slight decrease in resistivity. Depth to top at about 75m.

Cluster #2 is located in the central-west portion of the grid, between L-676E and L-680E and between about 58400N and 58600N. It consists of about 9 to 10 individual I.P. anomalies and includes a number of I.P. anomalies that are believed to be of cultural origin, given the proximity of one power line with grounded wires, along the access road leading to the hydro-electric plant to the south. However the following anomalies are to be considered of probable bedrock origins: (a) L-676E at about 58575N, far enough from any cultural sources so as to be considered legitimate. Nice amplitude on the phase, and even possibly a slight decrease in resistivity. Depth to top at about 50m. (b) L-677E at about 58500N, far enough from cultural sources so as to be considered legitimate. Reasonable amplitude on the phase. Depth to top at about 75m. (c) L-679E at about 58450N, maybe not far enough from any cultural sources so as to be considered legitimate, but a very well-defined anomaly. Depth to top at about 80m.

Cluster #3 is located in the central-east portion of the grid, between L-682E and L-686E and between about 58800N and 59000N. It consists of about 8 individual I.P. anomalies and includes a number of I.P. anomalies that are believed to be of cultural origin, given the proximity

of one power line with grounded steel towers and wires. However the following anomalies are to be considered of probable bedrock origins: (a) L-682E at about 58625N, far enough from any cultural sources so as to be considered legitimate. Well defined anomaly, nice amplitude on the phase, with a slight increase in resistivity. Depth to top at about 30m. (b) L-683E at about 59020N and L-684E at about 59000N. Somewhat weak but mainly because it is deep, located in what appears to be a bedrock depression through at maybe 70m depth. (c) L-685E at about 58850N and 58910N and L-686E at about 58825N. Two closely spaced responses near a bedrock depression, depth to top of about 30m with Phase getting definitely stronger at N-5 and N-6 (therefore at depth). An attractive target.

Cluster #4 is located in the northern portion of the grid, and is fairly broad and extensive, covering an area between L-676E and L-686E (one kilometer-long) and between about 594N and 600N (600 meters-wide). It is believed that no cultural contributions are present within this cluster. At least 24 anomalies can be recognized within this cluster. Some of them are deep (as on L-677E at 59400N, 59525N and 59800N) whereas a few are a little shallower (as on L-679E at 59675N). A few anomalies are associated with higher resistivity environment (as on L-682E and L-683E, from 59700N to 59900N). The northernmost anomaly on L-684E, near 59900N is quite nice.

The I.P. anomalies listed above probably originate from metallic accumulations in the form of disseminated to stringer sulphides at relatively substantial depths (30m-80m) in the bedrock. For the time being, it is believed that they occur in the form of sub-vertical tabular mineralized zones. It is my opinion that they constitute defendable exploration target on the property, at least from a geophysical point of view. It is quite unlikely that any of the anomalies will be within reach of surface prospecting and/or trenching.

Other less significant I.P. responses (see □ symbols on the maps and sections) could be the result of minor sulphide contents in the bedrock or to the presence of other polarizable minerals such as phyllosilicates (micas, particularly biotite), or crystalline magnetite.

So, considering the presence of numerous good individual I.P. features on this project, it is not difficult to recommend direct exploration targets on the basis of these geophysical results,

despite the limited geoscientific data at hand at this writing. A geology compilation map and a magnetic map would be of help in determining the geological environment or the metallogenic background of some of the anomalous I.P. features. Existing drill hole data, inferred geology and known mineralized zones should also be used as calibration bases for the I.P. signatures, before proceeding with testing any exploration targets.

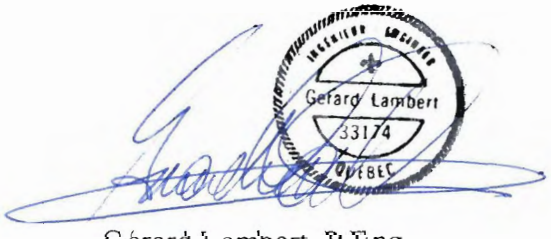
Conclusion and recommendations

The Phase-Domain Induced Polarization surveys which were recently completed over the **Ogden** property in the Timmins area for Knick Exploration inc. have successfully delineated a series of significant and attractive I.P. anomalies, originating from generally deep sources for the majority, in addition to a number of more isolated, weaker I.P. anomalies.

Despite the presence of two electrical power lines in the southern portion of the grid, at least four clusters of individual I.P. features were recognized on the property. Most of the valid I.P. anomalies within these clusters originate from metallic accumulations in the form of sub-vertical tabular mineralized zones containing disseminated to stringer sulphides at substantial depths (30m-80m)in the bedrock. They constitute excellent exploration targets from a geophysical point of view.

With only a limited knowledge of the detailed geology of property area at this point, it is difficult from a geophysical point of view alone, to rate the I.P. anomalies in terms of their **economic** potential, particularly if one is looking for gold, but it is expected that they could be due to the presence of metallic mineralization located at depths varying between about 30 to 80 meters.

Recommending further work on this property, I think that it would be worthwhile to assemble a compilation of past exploration work in this area, to see if the interpretation of the I.P. signatures can be used to "calibrate" certain known mineralized zones and therefore allow for some extrapolations. Considering that none of the I.P. features shown on the maps and pseudo-sections will be within reach of surface prospecting, then a number of inclined diamond drill holes should be planned, aiming at testing the selected I.P. responses discussed in pages 12 and 13 at vertical depths of about 60m (for the shallower ones) to 100m (for the deeper ones) below the interpreted positions. Contingent drilling would of course be warranted if economic grades of precious or base metals are encountered in any of these holes. It is also recommended to eventually extend the I.P. survey coverage so that the whole property will be covered.



St-André-Avellin, Québec
October 26th, 2010

Gérard Lambert, P.Eng.
Consulting Geophysicist

GÉRARD LAMBERT
GÉOSCIENCES
Consultation et génie-conseil en géophysique.

STATEMENT OF QUALIFICATION

I, the undersigned Gerard Lambert, P.Eng, consulting geophysicist, declare the following:

1- I am an independent geophysical consultant, and have been practicing as such since 1987.

2- I have graduated from Laval University in Quebec City, Qué., in 1978, earning a degree in Geological Engineering (B.A.Sc.), specializing in Mining Geophysics.

3- I have been working in Mining Geophysics since 1973 and I have been employed and have practiced as a professional engineer continually since 1978.

4- I am a member in good standing of Quebec's Order of Engineers since 1978.

5- I have reviewed and interpreted the Induced Polarization geophysical data on Knick Exploration's Ogden project using industry-standard practice and I have done so with the best of my knowledge and expertise.

6- I have no direct nor indirect interest and do not intend to acquire any such interest in Knick Exploration inc., or any of it affiliated companies.

St-André-Avellin, Qué., Canada, October 26th, 2010

Gérard Lambert, P.Eng.
Consulting Geophysicist

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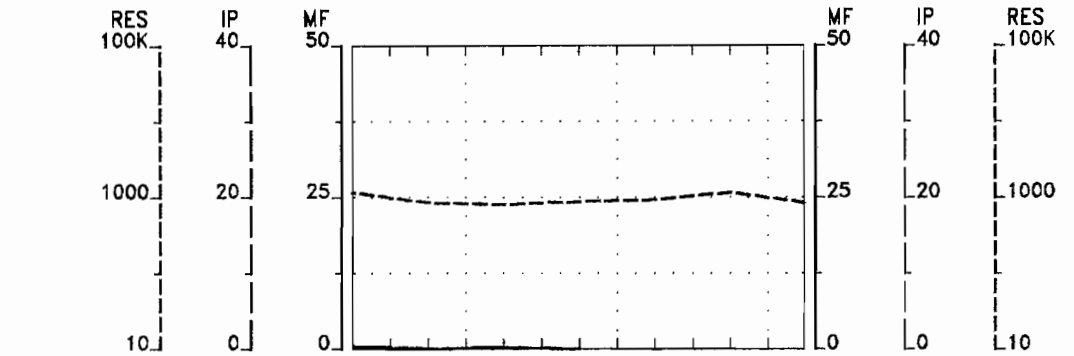

INTERPRETATION

INTERPRETATION

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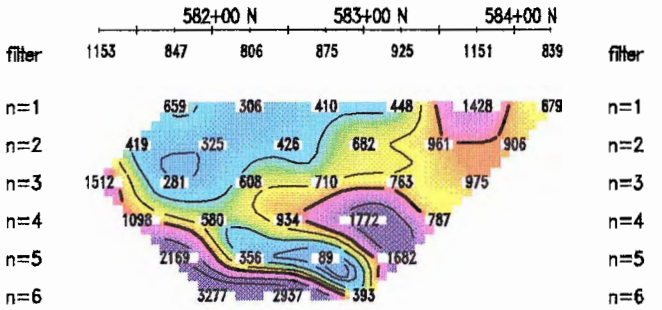

Resistivity
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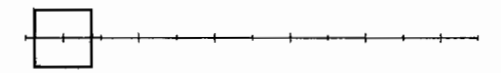
INTERPRETATION



INTERPRETATION

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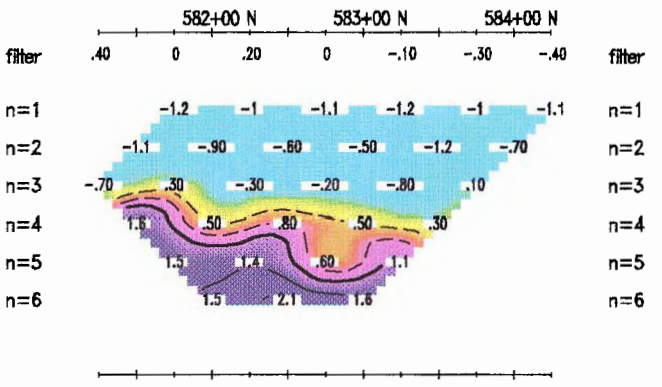

Phase
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Metal Factor
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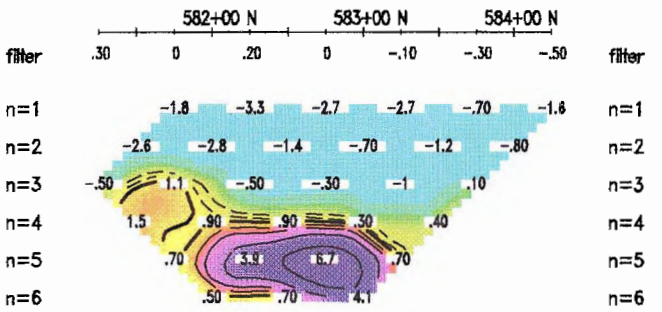

Metal Factor
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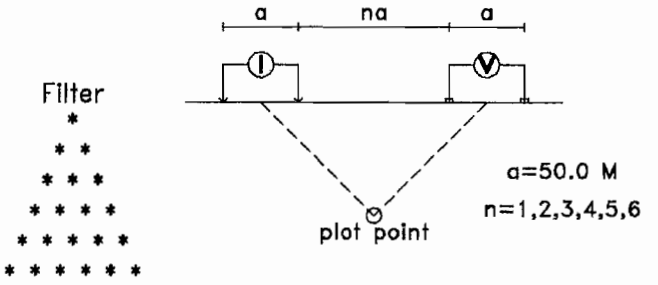
Line 67500 E

Dipole-Dipole Array



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Frequency: 1.0 Hz
Operator: Remy Belanger

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

INTERPRETATION

■ Polarization increase, accompanied by a significant decrease of the apparent resistivity.

◘ Polarization increase without a marked decrease of the resistivity.

□ Poorly defined or noisy polarization anomaly, no resistivity signature.

Scale 1:5000

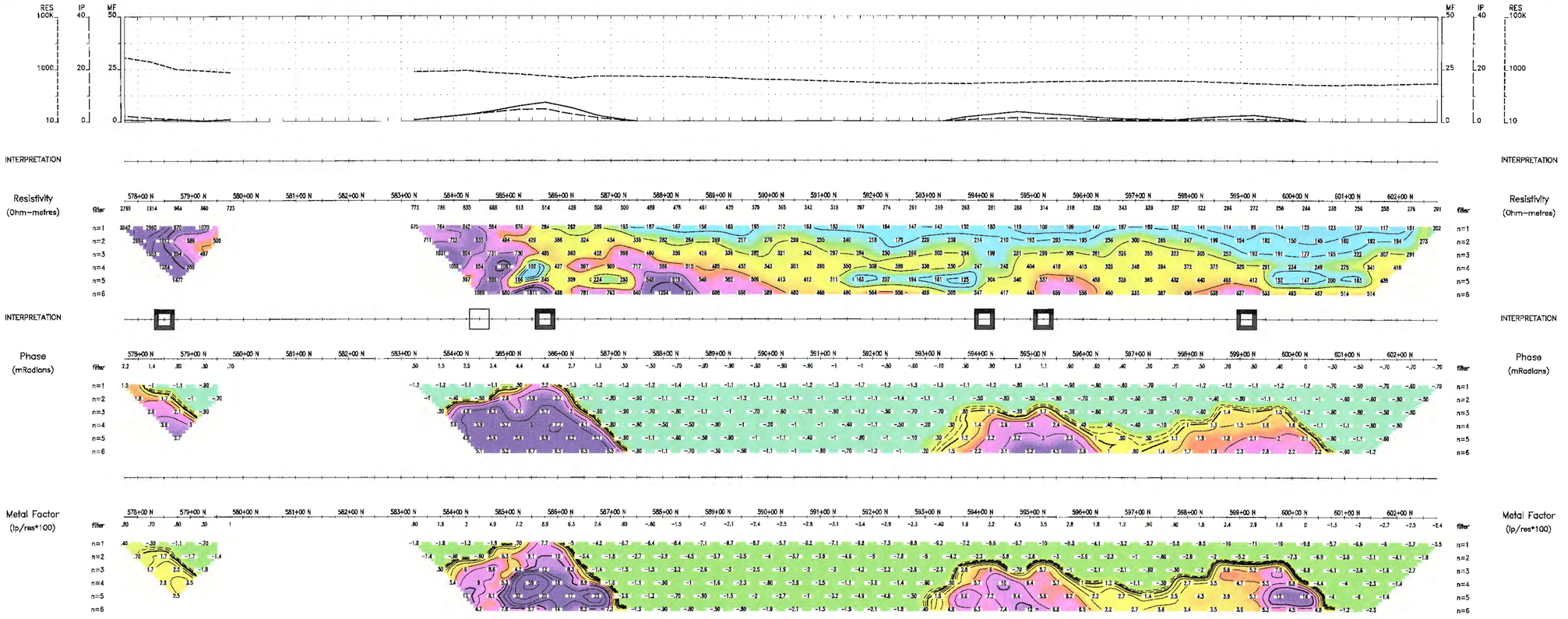
50 0 50 100 150 200 250
(metres)

KNICK EXPLORATION Inc.

INDUCED POLARIZATION SURVEY
OGDEN TWP PROPERTY
Ogden Twp., (NTS 42A/6), Ontario

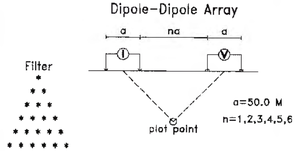
Date: 10/10/22
Interpretation by: G. Lambert, P.Eng.

Rémy Bélanger Geophysics



Line 67600 E

Dipole-Dipole Array



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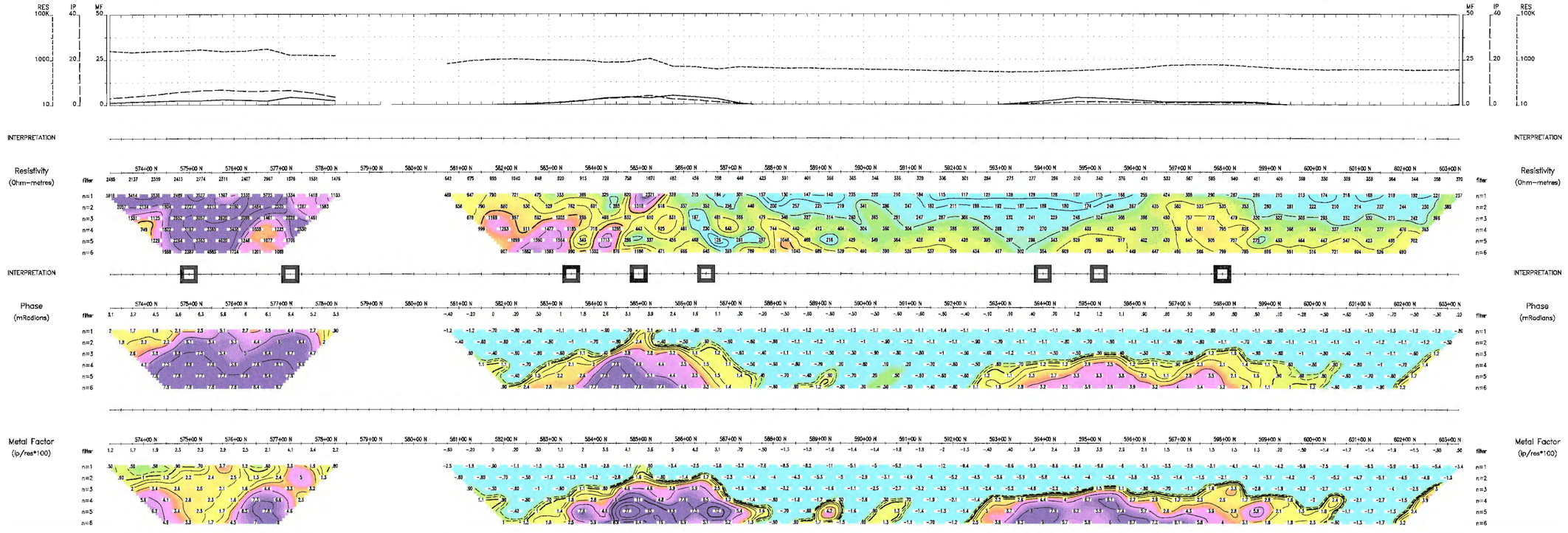
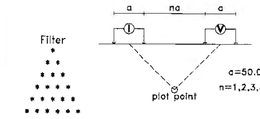


Line 67700 E

Dipole-Dipole Array



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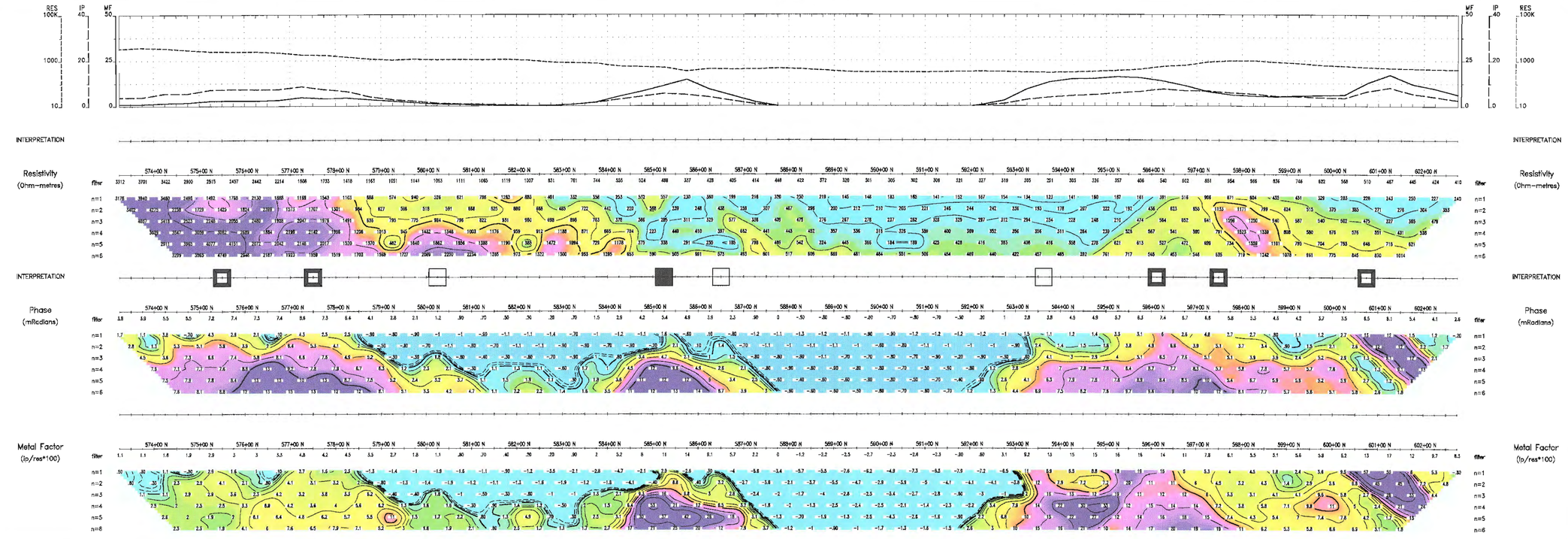
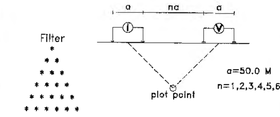
Interpretation by: G. Lambert, P.Eng.

Rémy Bélanger Geophysics



Line 67800 E

Dipole-Dipole Array



Instrument: Phoenix IPT-1 Tx, Turbo V-5 Rx
Frequency: 1.0 Hz
Operator: Remy Bélanger

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

INTERPRETATION

- ■ Polarization increase, accompanied by a significant decrease of the apparent resistivity.
- ◘ Polarization increase without a marked decrease of the resistivity.
- □ Poorly defined or noisy polarization anomaly, no resistivity signature.

Scale 1:5000

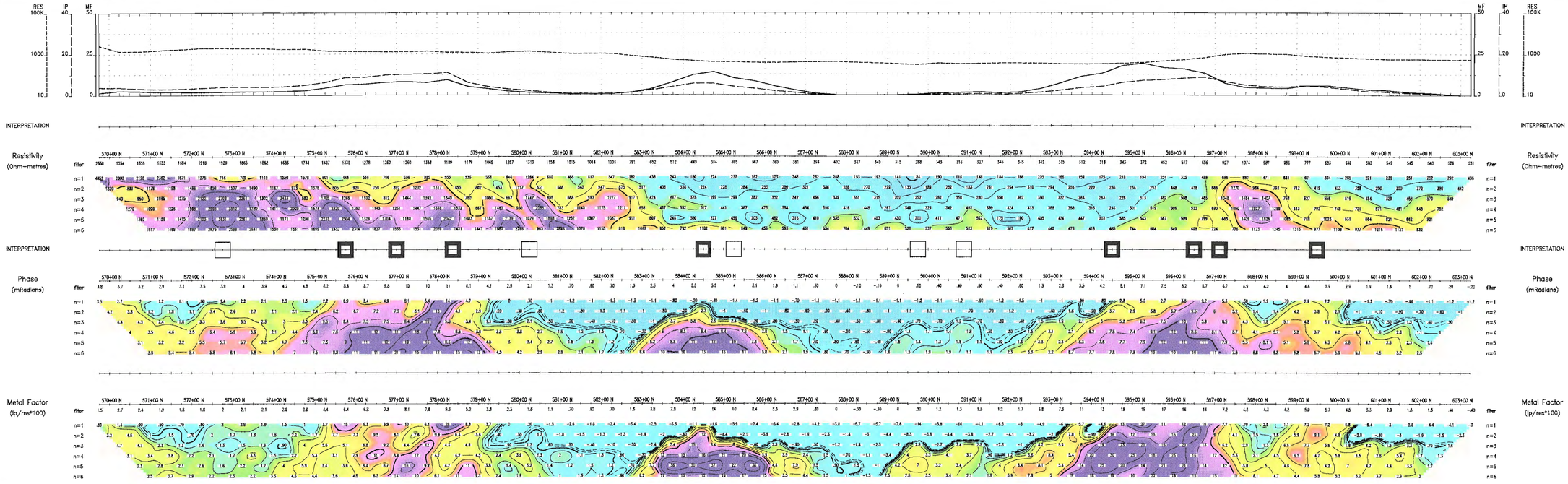
50 0 50 100 150 200 250
(metres)

KNICK EXPLORATION Inc.

INDUCED POLARIZATION SURVEY
OGDEN TWP PROPERTY
Ogden Twp., (NTS 42A/6), Ontario

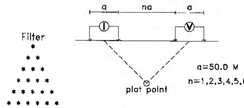
Date: 10/10/22
Interpretation by: G. Lambert, P.Eng.

Rémy Bélanger Geophysics



Line 67900 E

Dipole-Dipole Array



Instrument: Phoenix IPT-1 Tx, Turbo V-5 Rx
Frequency: 1.0 Hz
Operator: Remy Belanger

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

INTERPRETATION

- ■ Polarization increase, accompanied by a significant decrease of the apparent resistivity.
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- □ Poorly defined or noisy polarization anomaly, no resistivity signature.

Scale 1:5000

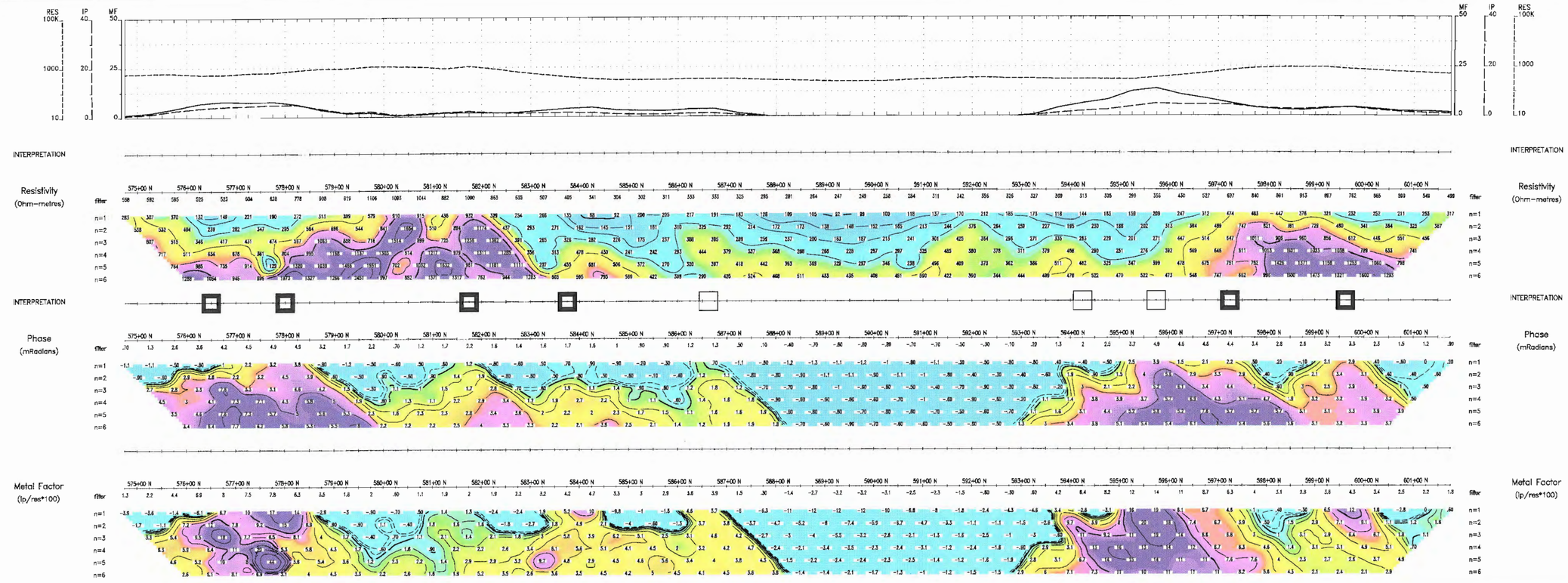
50 0 50 100 150 200 250 (metres)

KNICK EXPLORATION Inc.

INDUCED POLARIZATION SURVEY
OGDEN TWP PROPERTY
Ogden Twp., (NTS 42A/6), Ontario

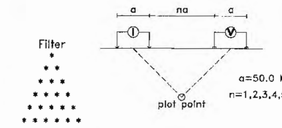
Date: 10/10/22
Interpretation by: G. Lambert, P.Eng.

Rémy Bélanger Geophysics



Line 68000 E

Dipole-Dipole Array



Instrument: Phoenix IPT-1 Tx, Turbo V-5 Rx
Frequency: 1.0 Hz
Operator: Remy Belanger

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

INTERPRETATION

- ■ Polarization increase, accompanied by a significant decrease of the apparent resistivity.
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Scale 1:5000

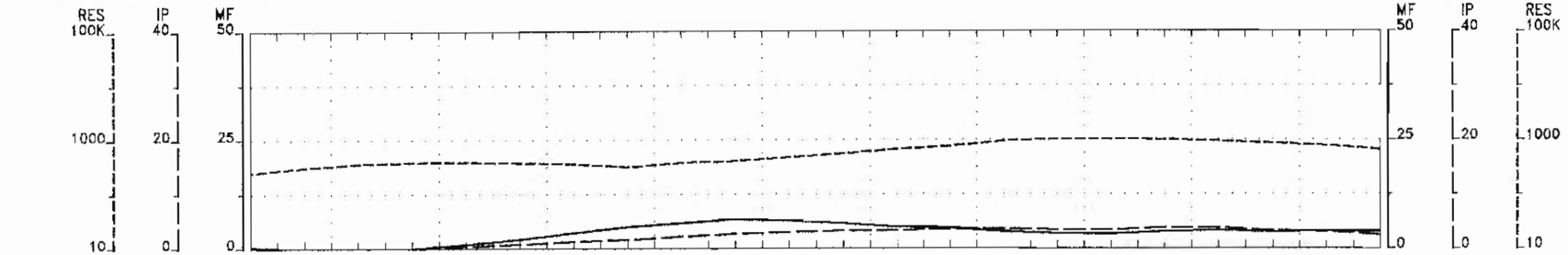
50 0 50 100 150 200 250
(metres)

KNICK EXPLORATION Inc.

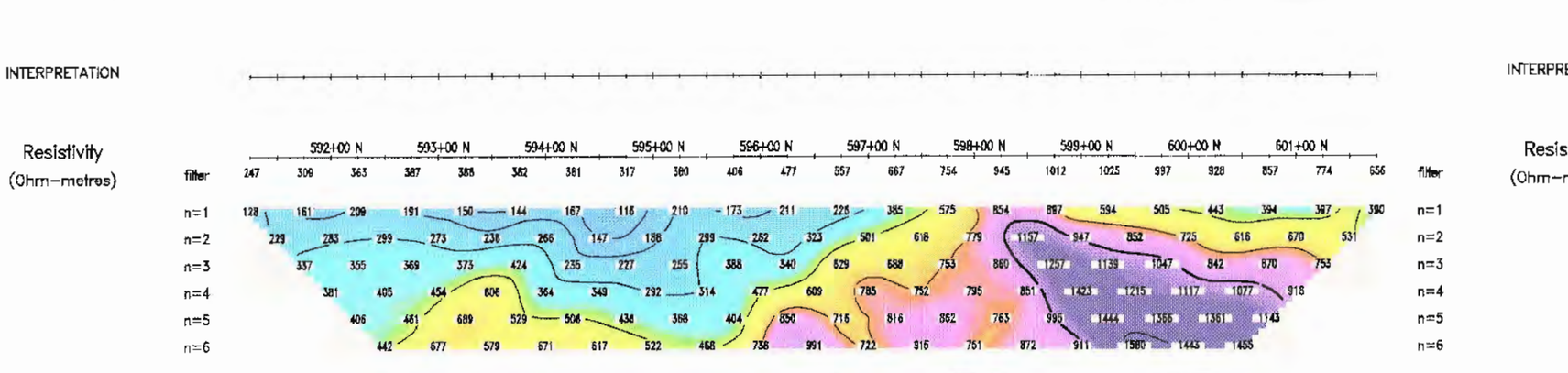
INDUCED POLARIZATION SURVEY
OGDEN TWP PROPERTY
Ogden Twp., (NTS 42A/6), Ontario

Date: 10/10/22
Interpretation by: G. Lambert, P.Eng.

Rémy Bélanger Geophysics

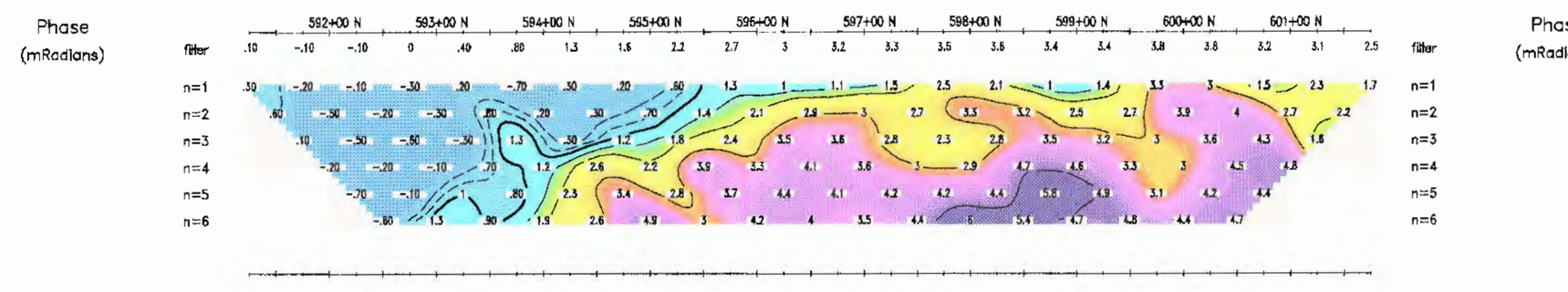


INTERPRETATION

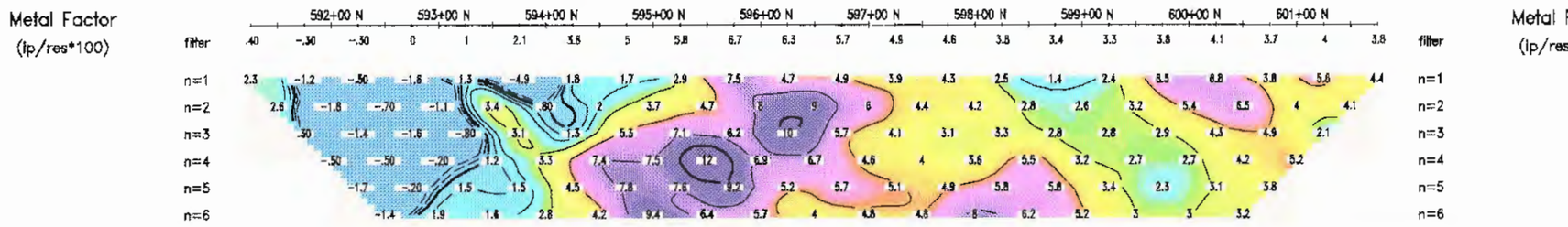


Resistivity
(Ohm-metres)

INTERPRETATION



Phase
(mRadians)



Metal Factor
(ip/res*100)

INTERPRETATION

Resistivity
(Ohm-metres)

INTERPRETATION

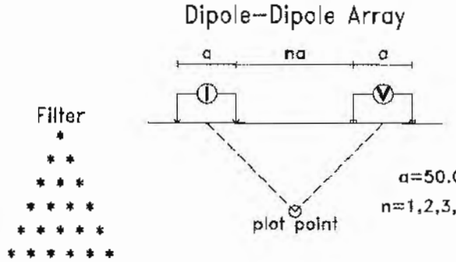
Phase
(mRadians)

INTERPRETATION

Metal Factor
(ip/res*100)

Line 68100 E

Dipole-Dipole Array



Instrument: Phoenix IPT-1 Tx, Turbo V-5 Rx
Frequency: 1.0 Hz
Operator: Remy Belanger

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

INTERPRETATION

- ■ Polarization increase, accompanied by a significant decrease of the apparent resistivity.
- ◘ Polarization increase without a marked decrease of the resistivity.
- □ Poorly defined or noisy polarization anomaly, no resistivity signature.

Scale 1:5000

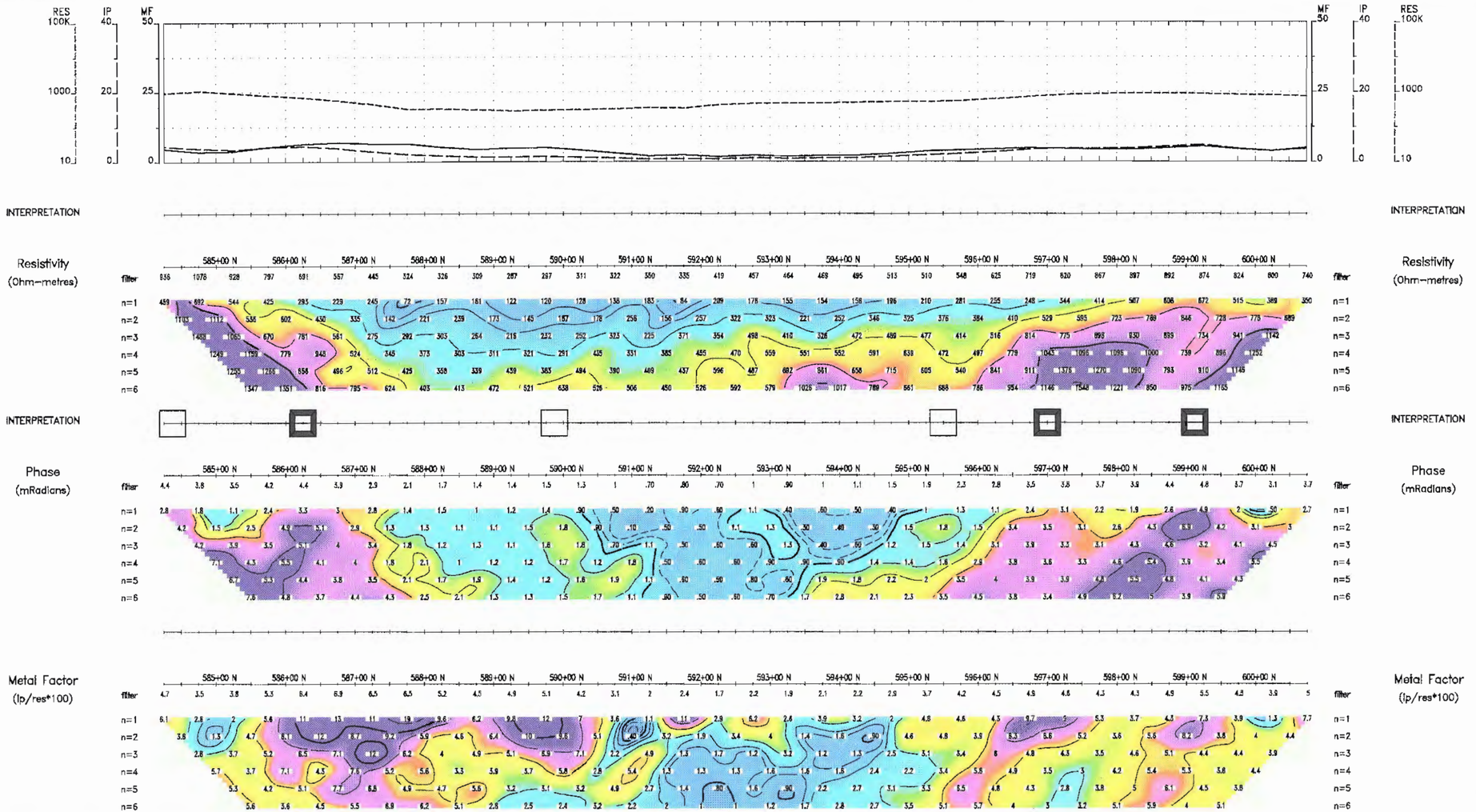
50 0 50 100 150 200 250
(metres)

KNICK EXPLORATION Inc.

INDUCED POLARIZATION SURVEY
OGDEN TWP PROPERTY
Ogden Twp., (NTS 42A/6), Ontario

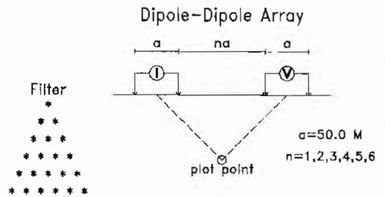
Date: 10/10/22
Interpretation by: G. Lambert, P.Eng.

Rémy Bélanger Geophysics



Line 68200 E

Dipole-Dipole Array



Instrument: Phoenix IPT-1 Tx, Turbo V-5 Rx
Frequency: 1.0 Hz
Operator: Remy Belanger

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

INTERPRETATION

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Scale 1:5000

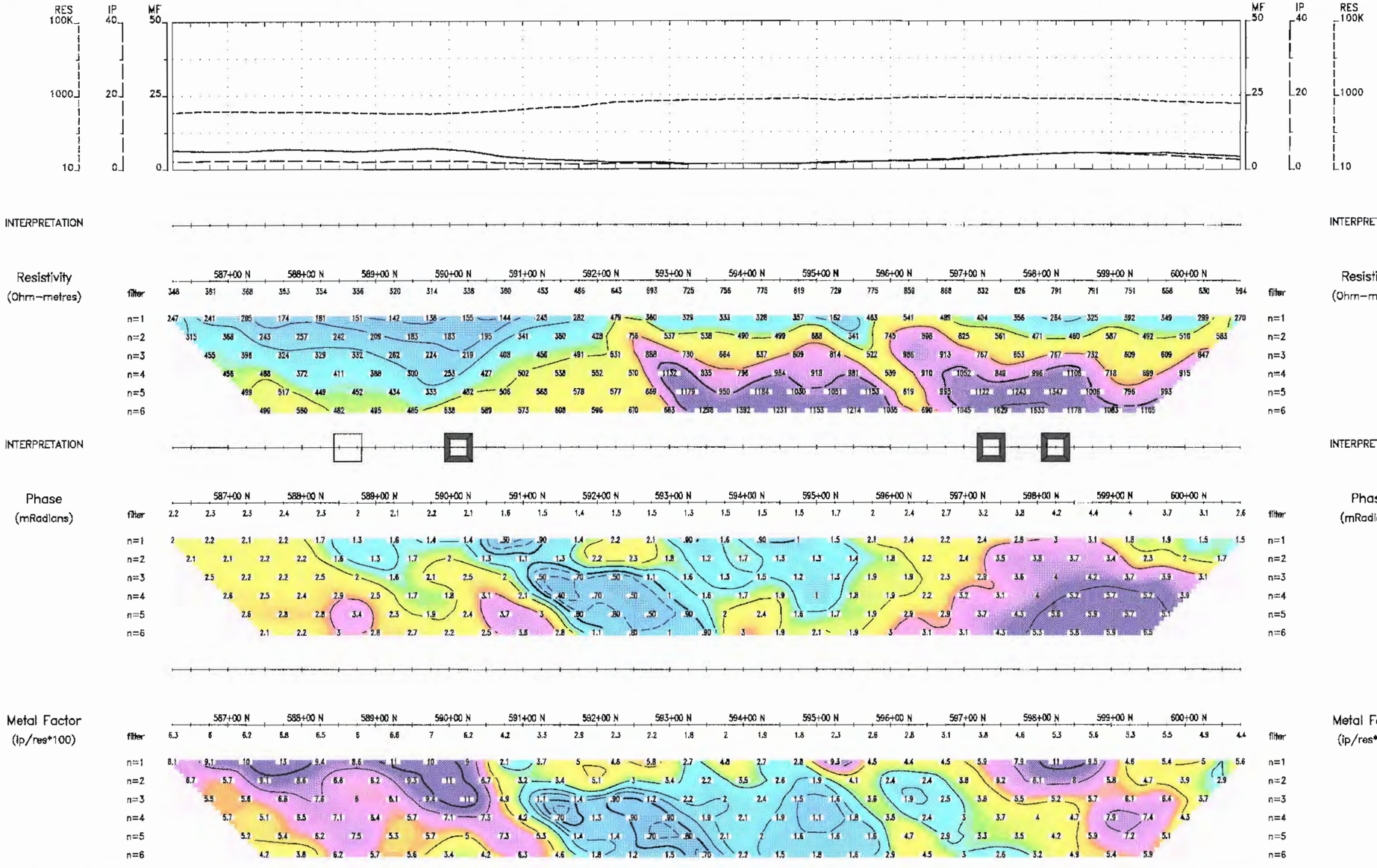
50 0 50 100 150 200 250
(metres)

KNICK EXPLORATION Inc.

INDUCED POLARIZATION SURVEY
OGDEN TWP PROPERTY
Ogden Twp., (NTS 42A/6), Ontario

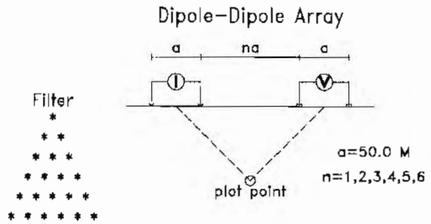
Date: 10/10/22
Interpretation by: G. Lambert, P.Eng.

Rémy Bélanger Geophysics



Line 68300 E

Dipole-Dipole Array



Instrument: Phoenix IPT-1 Tx, Turbo V-5 Rx
Frequency: 1.0 Hz
Operator: Remy Belanger

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

INTERPRETATION

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Scale 1:5000

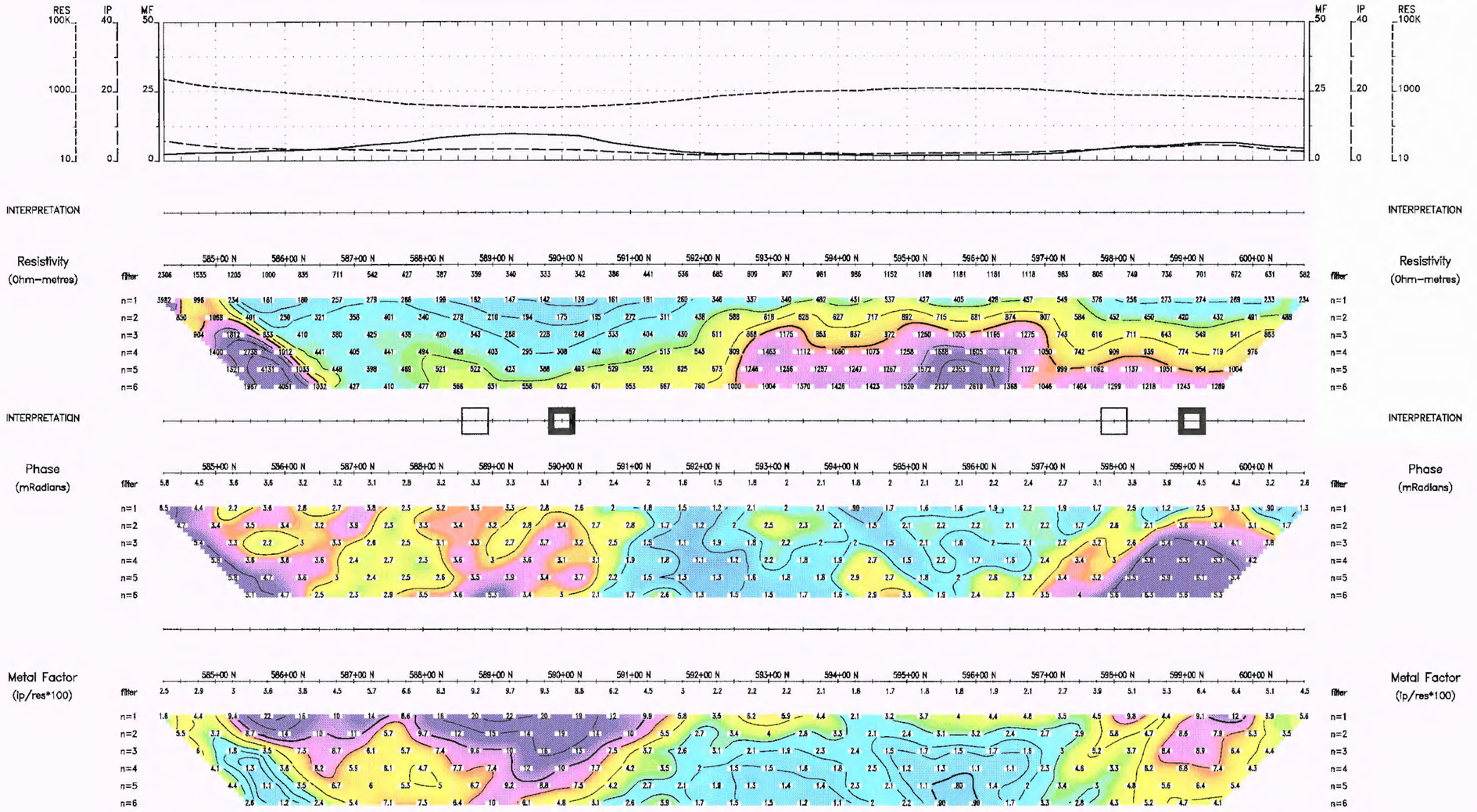
50 0 50 100 150 200 250
(metres)

KNICK EXPLORATION Inc.

INDUCED POLARIZATION SURVEY
OGDEN TWP PROPERTY
Ogden Twp., (NTS 42A/6), Ontario

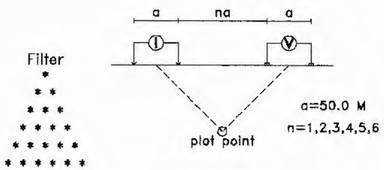
Date: 10/10/22
Interpretation by: G. Lambert, P.Eng.

Rémy Bélanger Geophysics



Line 68400 E

Dipole-Dipole Array



Instrument: Phoenix IPT-1 Tx, Turbo V-5 Rx
Frequency: 1.0 Hz
Operator: Remy Belanger

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

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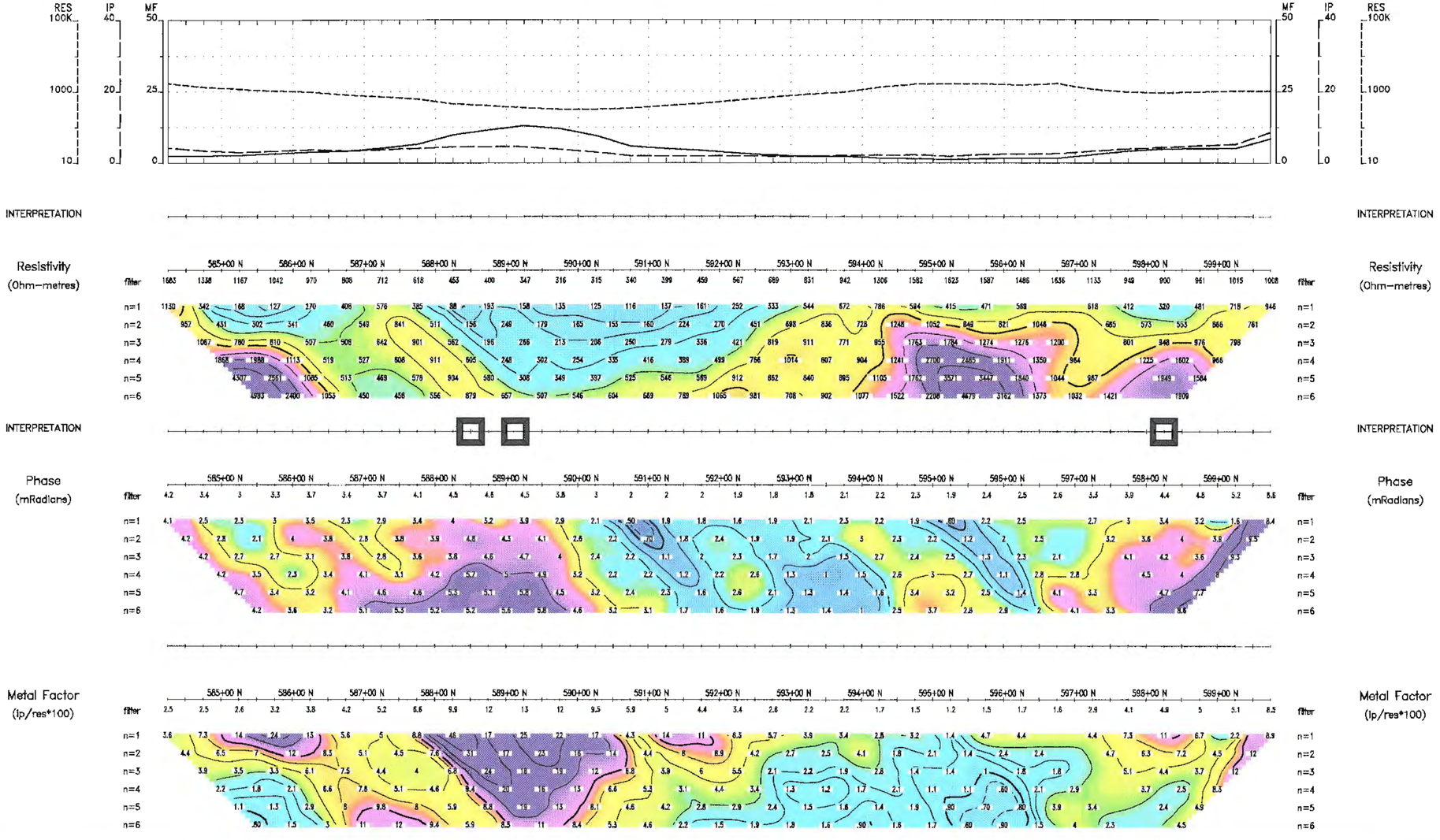
(metres)

KNICK EXPLORATION Inc.

INDUCED POLARIZATION SURVEY
OGDEN TWP PROPERTY
Ogden Twp., (NTS 42A/6), Ontario

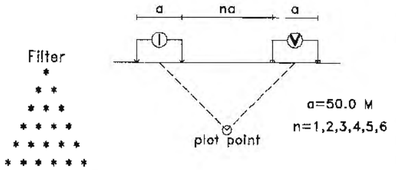
Date: 10/10/22
Interpretation by: G. Lambert, P.Eng.

Rémy Bélanger Geophysics



Line 68500 E

Dipole-Dipole Array



Instrument: Phoenix IPT-1 Tx, Turbo V-5 Rx
Frequency: 1.0 Hz
Operator: Remy Belanger

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

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(metres)

KNICK EXPLORATION Inc.

INDUCED POLARIZATION SURVEY
OGDEN TWP PROPERTY
Ogden Twp., (NTS 42A/6), Ontario

Date: 10/10/22
Interpretation by: G. Lambert, P.Eng.

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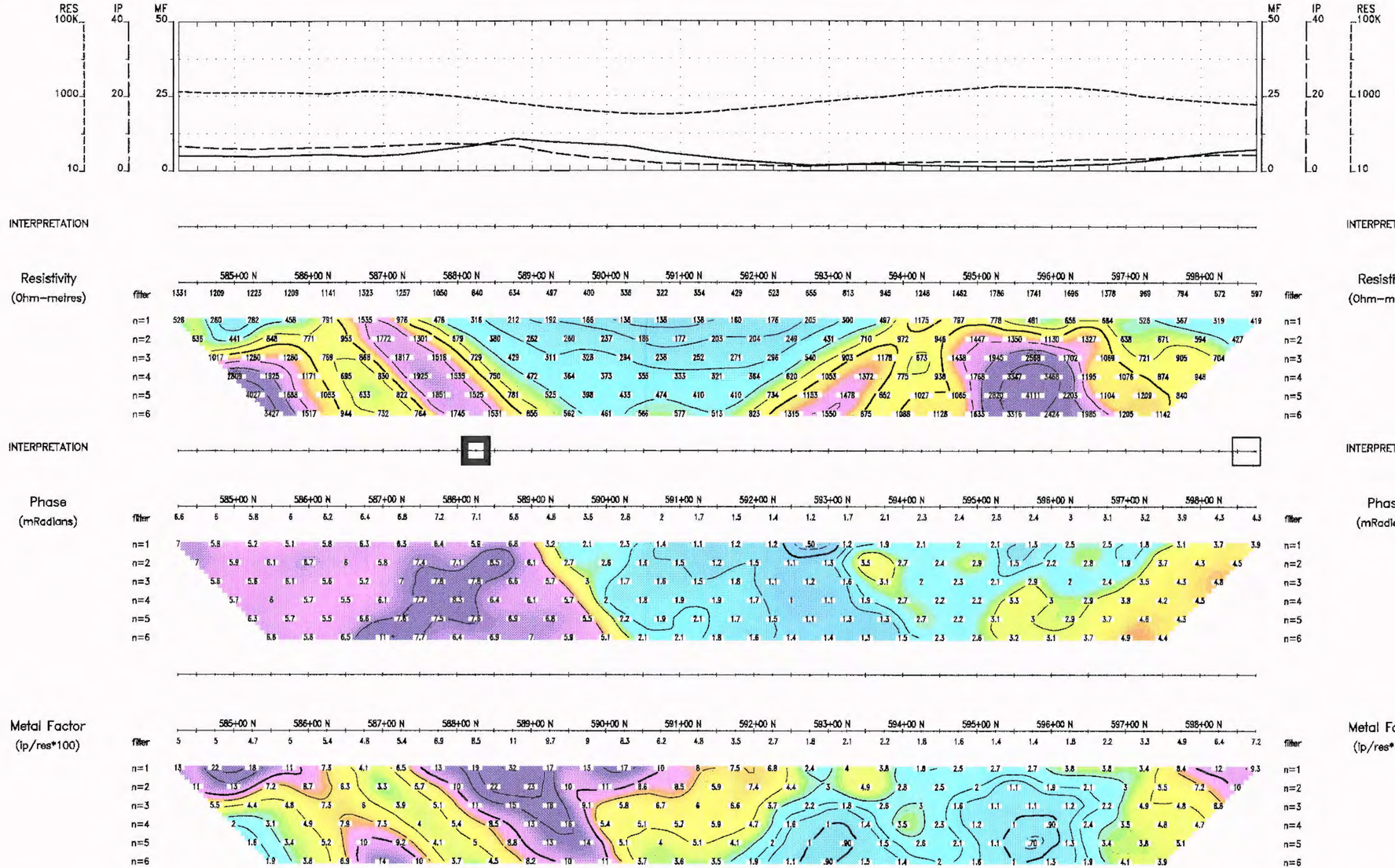
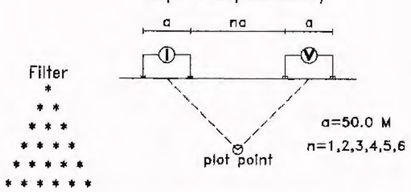


Line 68600 E

Dipole-Dipole Array



Instrument: Phoenix IPT-1 Tx, Turbo V-5 Rx
Frequency: 1.0 Hz
Operator: Remy Belanger

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

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(metres)

KNICK EXPLORATION Inc.

INDUCED POLARIZATION SURVEY
OGDEN TWP PROPERTY
Ogden Twp., (NTS 42A/6), Ontario

Date: 10/10/22
Interpretation by: G. Lambert, P.Eng.

Rémy Bélanger Geophysics

Timmins →

Potvin Lake

Hope Lake

Power Line

Steel tower

L 67600 E
L 67700 E
L 67800 E
L 67900 E
L 68000 E
L 68100 E
L 68200 E
L 68300 E
L 68400 E
L 68500 E
L 68600 E
L 67500 E

60200N
60000N
59800N
59600N
59400N
59200N
59000N
58800N
58600N
58400N
58200N
58000N
57800N
57600N
57400N
57200N
57000N

5360000mN
5358000mN
5356000mN

468000mE
470000mE

N

I.P. SURVEY LEGEND

DIPOLE–DIPOLE ARRAY

Filter

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

PILOT POINT

Instruments: Phoenix IPT–1 Tx, Turbo V–5 Rx
Frequency: 1.0 Hertz
Operator: Remy Belanger
June 2010

Apparent Resistivity (Ohm–metres)

231 8.6
318 4.2
377 1.6
418 0.1
467 0.1
472 0.5

Phase Shift (I.P. effect) (milliradians)

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.

□ 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.

5.4
4.5
4.0
3.6
3.2
2.8
2.4
2.1
1.8
1.4
1.0
0.6
0.2
−0.3
−1.2
−3.0

Apparent Phase Shift (I.P. effect) at N=3 (milliradians)

NOTE: All geographical positions are approximate

Scale 1:5,000

100m 0 200m 400m

UTM Nad–83 coordinates, Zone 17

INGENIEUR–ENGINEER GERARD LAMBERT 33174 QUEBEC

KNICK EXPLORATION Inc.

OGDEN TWP PROPERTY

Phase–Domain Induced Polarization survey

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

Data processing and interpretation by:
G. Lambert, P.Eng.
LAMBERT GEOSCIENCES Ltée.
October 2010

Ogden Township,
Timmins district area, Ont.
N.T.S. 42A/6 Scale 1:5,000
Remy Belanger Geophysics, Rouyn–Noranda, Que.

Timmins -->

Potvin Lake

Hope Lake

Power Line

Steel tower

468000mE

470000mE

5360000mN

5358000mN

5356000mN

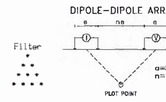
L 67600 E
L 67700 E
L 67800 E
L 67900 E
L 68000 E
L 68100 E
L 68200 E
L 68300 E
L 68400 E
L 68500 E
L 68600 E

60200N
60000N
59800N
59600N
59400N
59200N
59000N
58800N
58600N
58400N
58200N
58000N
57800N
57600N
57400N
57200N
57000N

N

I.P. SURVEY LEGEND

DIPOLE-DIPOLE ARRAY



Instruments: Phoenix IPT-1 Tx, Turbo V-5 Rx
Frequency: 1.0 Hertz
Operator: Remy Belanger
June 2010

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.

Polarisation increase without any significant decrease of the apparent resistivity.
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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

Apparent Resistivity at N=3 (Ohm-meters)
1322
1051
905
800
717
643
585
533
485
441
396
355
313
270
215
128

Scale 1:5,000

100m 0 200m 400m

UTM Nad-83 coordinates, Zone 17

NOTE: All geographical positions are approximate

KNICK EXPLORATION Inc.

OGDEN TWP PROPERTY

Phase-Domain Induced Polarization survey

Contours of the apparent resistivity

Data processing and interpretation by:
G. Lambert, P.Eng.
LAMBERT GÉOSCIENCES Ltée.
October 2010

Ogden Township,
Timmins district area, Ont.

N.T.S. 42A/6 Scale 1:5,000

Remy Belanger Geophysics, Rouyn-Noranda, Que.