REPORT ON DRILL HOLE & SURFACE IP SURVEYS

THREE DUCK LAKE PROPERTY
CHESTER TOWNSHIP - GOGAMA - ONTARIO
NTS: 41 P/12

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GEOSCIENCE ASSESSMENT

JVX Ref: 5-55

December, 2005

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INTRODUCTION

Incorporated in 1932, Young-Shannon Gold Mines, Limited holds a large group of patented and unpatented claims within Chester Township located west of Highway 144, midway between Sudbury and Timmins, Ontario.To-date, 695,000 tons grading 0.344 oz/ton gold has been outlined through previous drilling programs on this property. The deposit has potential for additional reserves with depth and along strike.

Borehole IP/Resistivity logging was proposed as a means to image conductive sulphide mineralization in the region around the drill holes. The goal of this work was to model the spatial distribution of ore zone sulphides with 1) a field program that included borehole pole dipole and gradient induced polarization and resistivity measurements, and 2) three-dimensional inversion processing of the data.

DHIP Surveys

Directional and detection Borehole IP/Resistivity surveys were executed by **JVX Ltd** between August 17 and August 22 and between September 12 and September 24, 2005. Each hole was surveyed with a pole dipole "Detection Log" with electrode separations of 10 and 25 m and East and West gradient "Direction Logs" with 15 and 30 m dipoles

Surface Pole-Dipole and Gradient Surveys

Three surface lines were pole dipole surveyed to provide detailed near-surface data for the inversion and to calibrate the IP/Resistivity data in the 0-100 m range where many drill holes are available for comparison. The three lines were then extended and re-surveyed using a gradient technique to obtain deeper penetration. Four dipole lengths were used for the gradient work: 100m, 200m, 400m, and 800m. Only the centre of the lines could be surveyed with the 800 m dipole.

Personnel

JVX provided six persons to carry out the survey: Mr. Dennis Palos (Party Chief-Geophysicist), Mr. Tim Charlebois (Operator), and four assistants: Mr. C. Blake, Mr. Richard Daoust, Mr. E. Gauthier and Mr. David Lukey.

The survey was supervised by Dr C. J. Hale who maintained contact with the field crew throughout the survey by telephone and Email.

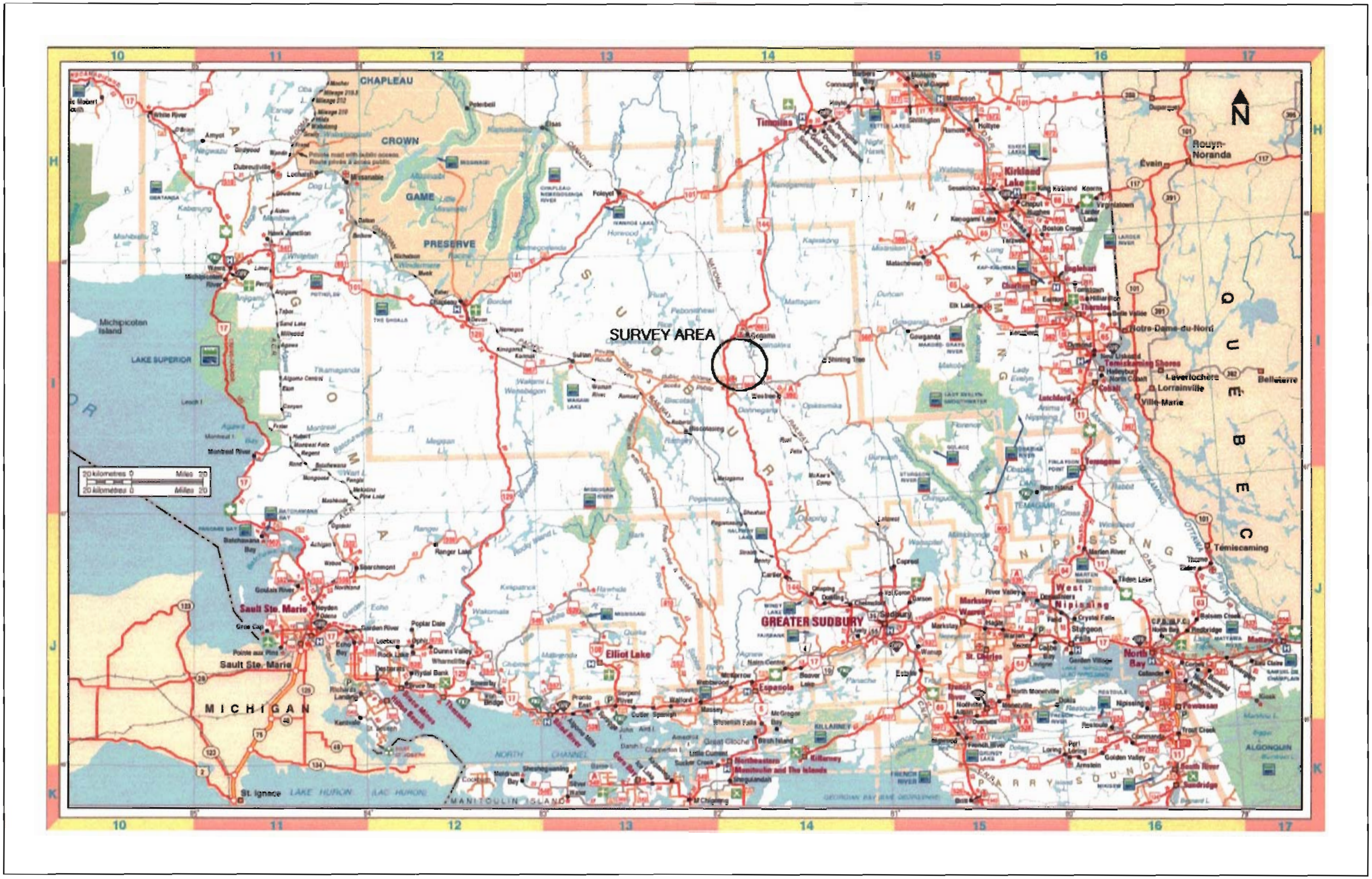

Figure 1

LOCATION MAP

YOUNG SHANNON GOLD MINES LTD.

THREE DUCK LAKE - CHESTER TWP.

GOGAMA - NTS: 41 P/12

DRILL HOLE & SURFACE IP / RESISTIVITY SURVEY

Surveyed by: JVX LTD.
Aug. - Sep. 2005
JVX ref. no. 5-55

Arre Verweerd inverted the Vp and Mx data at **JVX's** office in Richmond Hill.

GEOPHYSICAL INSTRUMENTATION

JVX supplied the following geophysical instruments and accessories:

Spectral time domain Induced Polarization

- One (1) **Scintrex IPR-12 receiver**
- One (1) **Huntec M-4 2.5 kW transmitter**
- Cables, **JVX** winches, accessories etc.

Data Processing System

- Laptop computer(s) and printer with **Microsoft Excel®** for preliminary plots
- **GEOSOFT Oasis Montage® Map and Processing System** for generating profile and/or plan maps
- **UBC DCIP3D** and **JVX Proprietary Software** for inversion modeling on a dedicated high-speed computer system at **JVX**'s office.

GEOPHYSICAL PROCESSING

In the following section a short description of the inversion routine and parameters used in the processing of the data is provided.

The electrical properties of structures in the subsurface give rise to anomalous measurements that can be recognized in the data of a survey. In order to retrieve information on these electrical properties from the data **JVX Ltd.** applies a processing tool called inversion. In this process the measured data are used to constrain a three-dimensional model of the electrical properties according to certain criteria chosen by the geophysicist. These choices are necessary to overcome problems like the contamination of real data by noise and the large difference between the number of grid cells in the model and number of data points.

Inversion routines (**DCIP3D**) developed by the Geophysical Inversion Facility of the University of British Columbia are used by **JVX Ltd.** to determine the model. These routines allow 3D modeling of the electrical properties of the subsurface iteratively, according to the Gauss-Newton method in which a smoothness constraint is used to stabilize the inversion. The output model is a trade-off between fitting of the measured data and the smoothness of the model. In the **DCIP3D** routines a pure DC electrical conductivity model is calculated first. This conductivity structure is used subsequently in the inversion of the IP data to obtain the chargeability model.

Due to the nature of electrical properties, as current flows through the subsurface farther from a certain location less information is provided about the electrical properties at that location. This is represented in the inversion by a loss in sensitivity in areas farther away (both vertically and horizontally) from the locations of the current source and the receivers. The final model therefore has to be interpreted with care. Structures at a distance from the source or the receiver location cannot be accepted with the same level of confidence as structures close to the source and receiver locations.

In the inversion results presented in this report the following parameters have been used to obtain the model.

Inversion Parameters				
	Chi factor[1]	**Lambda**[2]	**Core grid cell size**[3]	**Final model misfit**[4]
DC inversion	0.1	-	25x25x25 m	4.4067E+04
IP inversion	-	0.05	25x25x25 m	3.61090E+07

Table 1: The DC and IP inversion parameters

RESULTS

Representative profiles from the boreholes are presented as Excel spreadsheets (with profile plots) in the Appendix D. Both resistivity (as VP/I) and Chargeability (as Mx) data are presented and the results from the holes are summarized individually below.

[1] The Chi factor determines the trade-off between the best fitting model and a smooth model, the higher this value is the more the inversion is pushed in the smooth model direction.
[2] The factor Lambda is known as the Lagrange multiplier and also is a measure of the trade-off between best fitting model and a smooth model. A low value pushes the fitting routine in the direction of the best fitting model.
[3] The grid used in the inversion consisted of a relatively highly resolved core of grid cells (spanning the area of investigation) and several padding grid cells surrounding this core. This is done in order to simulate an infinite extension (lateral and in depth) of the model, which allows the inversion algorithm to include favourable boundary conditions.
[4] The final model misfit is a measure of how well the model fits the real data. The misfit is calculated according to the L2 norm and weighted with the data error.

Plan maps (Appendix E) show the contoured resistivity and chargeability data from the Pole Dipole and Surface Gradient surveys of three northwest-trending lines.

Individual Borehole Profiles

YS-04-03

Pole Dipole 10m

The 10 m pole dipole data are noisy with no clear conductor and elevated resistivity from 195 m to the end of the hole (EOH). A low resistivity zone is indicated between 155 and 175 m with a resistivity minimum at 175 m. The surface dipole indicates that the low resistivity extends off-hole, and VP inverts 165-170 m. Mx peaks (86 mV/V) at 190 m and there is a second chargeability maximum (53 mV/V) at 175 m corresponding with the resistivity low. Mx is elevated (>24 mV/V) from 165 m to EOH.

Pole Dipole 25 m

The 25 m pole dipole data indicate a minor conductor 185-190 m. VP inverts polarity between 165 and 170 m. The surface dipole indicating off-hole response is noisy with no conductor indicated.

West Gradient

West gradient data show a polarity inversion at 110 m and reduced resistivity 110-140 m. Mx peaks off-hole (-49 mV/V) at 120 m and at 115 m (19 mV/V) and 210 m (33 mV/V) on-hole.

East gradient data show a resistivity low 120-140 m with a minimum resistivity at 135 m. The surface dipole is flat 105-160 m with a gentle rise in resistivity from 165m to EOH. Mx peaks (-41.8 mV/V) at 120 m, -92.6 mV/V at 160 m, -45 mV/V at 180 m and >20 mV/V from 235 m to EOH.

YS-04-04

Pole Dipole 10m

The 10 m VP/I plot shows high overall resistivity with peaks at 80m, 150m, 180m, and EOH. The lowest resistivities are at 55-60 m and 230 m. Mx peaks at 55 m (46 mV/V), 105 m (28.5 mV/V), 150 m (26.1 mV/V), 190 m (29.6 mV/V) and 230 m (28.4 mV/V).

Pole Dipole 25 m

A weak resistivity low occurs at 75-85 m and 185-190 m. Mx is elevated over the entire hole reaching a maximum at EOH. The surface dipole shows an Mx peak 80-180 m with a maximum of 19.8 mV/V at 110 m.

West Gradient

West gradient data show a low resistivity across the hole with no distinct conductor. Mx15 maximum is reached (24.6 mV/V) at 200 m. Mx30 reaches a maximum of 140 mV/V at 120 m and 20 mV/V at 210 m. MxSurf remains at 11 mV/V from 0-180 m and then decreases through background values to EOH.

East Gradient

East gradient data indicate conductors 130-135 m, 150-171 m, and at 189 m. Off-hole resistivity lows occur at 140 m, 174 m, and 190-200 m. Mx30 peaks very strongly (191.5 mV/V) at 140 m, (-182 mV/V) at 172 m and (37.9 mV/V) at 185 m. Mx15 peaks at 135 m (46 mV/V), 155 m (-33mV/V), 169 m (164 mV/V) and 230 m (35 mV/V) with an Mx polarity inversion from 230 m to 235 m.

YS-04-05

Pole Dipole 10 m

VP10/I resistivity is low 255-270 m and 140-165 m. Mx10 peaks at 175 m (43.6 mV/V), 215 m (56 mV/V), 240 m (44 mV/V), 270-280 m (30 mV/V) and 310-335 m (29 mV/V). MxSurf shows that chargeability peaks at 210 m and 310 m extend off-hole.

Pole Dipole 25 m

25 m pole dipole data show a high resistivity zone 180-220 m and 290 m to EOH. Mx25 peaks at 170 m (26.6 mV/V), 210 m (27.6 mV/V), and 310 m (23.5 mV/V). Off-hole the response is much weaker with a maximum of 20.3 mV/V at 125 m and 19.7 mV/V at 165 m.

West Gradient

VP15/I is a minimum indicating a conductor at 260-270 m and this conductor is shown (265-275 m) on VP30/I as well. Mx15 peaks (-30.8 mV/V) at 190 m and (38.2 mV/V) at 340 m. Mx30 shows an extreme peak (400.9 mV/V) at 275 m. MxSurf peaks at the EOH and also shows a very strong response (-223 mV/V) at 325 m, indicating an off-hole source.

East Gradient

East gradient data indicate conductors 145-160 m, 180 m, 235 m, 275-280 m and 345-360 m. Mx15 peaks very strongly (144 mV/V) at 155 m, 66.7 mV/V at 185 m, 87.9 mV/V at 235 m, 118 mV/V at 275 m and 45 mV/V at 345 m. Mx30 peaks (–163 mV/V) at 155m, 25.9 mV/V at 185 m, 63.1 mV/V at 300 m and –95 mV/V at 345 m showing that the major zones of chargeability extend off the hole to the east. The response is generally stronger to the east than to the west of this hole.

YS-04-06

Pole Dipole 10 m

Pole dipole data show no conductor. Mx peaks (318 mV/V) at 100 m, and 435 mV/V at 110 m. Both are off-hole responses.

Pole Dipole 25 m

Resistivity increases with depth both near and off the hole. Mx peaks weakly (21.5 mV/V) at 115 m with lower off-hole values.

Borehole Profile Inferences

The borehole resistivity data indicate a series of conductive zones that extend to the east of the borehole collar position, under the lake. In general, both conductivity and chargeability are stronger to the east or northeast from the borehole collar position than to the west.

Surface Line Surveys

Pole Dipole Survey

Pole dipole chargeability data indicate a concentration in chargeability that trends northeast, across all three lines surveyed. The maximum chargeability (21 mV/V) occurs on line 1100E on the n=2 plan map, corresponding to a near-surface depth, ~25m. This part of the property has been drilled extensively and there is a close association of the chargeability anomaly with the known gold-bearing zone. Because the depth penetration of the pole dipole array is limited to less than about 150 m, this mineralization was surveyed to the south east of the n=2 anomaly (down dip) using a gradient array that provides greater penetration.

Gradient Survey

Current electrodes were placed (grid) north and south of the lines, separated by more than 1 km to ensure penetration of the transmitted current to depths greater than 500m. Potential dipoles of 100, 200, 400, and 800 m were used to survey the three lines, with the lines extended to (grid) south to accommodate the larger potential electrode array required for sampling at depths up to 400 m.

100 m Gradient Array

Chargeability reaches a maximum (>19 mV/V) on Line 1100E at the baseline. The chargeability anomaly trends East-West, crossing Line 1500E at 50S and Line 1900E near 125S.

Resistivity is enhanced across all of the lines, north of the baseline and a second resistivity high is located on Line 1500E, at 50 S. A major resistivity gradient occurs across all lines from 350S to 400S where the apparent resistivity indicated on the 100 m dipole decreases from >20K Ohms to less than 15K Ohms, marking a geological boundary that can be interpreted as a NE-SW trending fault.

200 m Gradient Array

The 200 m array chargeability reaches a maximum (18 mV/V) at 40-50 mS on Line 1100E. On Line 1500E the maximum (15.2 mV/V) occurs at 100S. In general, the chargeability maximum trend parallels the 100 m data but it is shifted about 100 m toward grid south at the approximately 100 m depth sampled by the 200m potential dipole. This is consistent with the near surface gold-bearing zone dipping (grid) south at ~ 45 degrees.

The 200 m resistivity data indicate a maximum resistivity at 20S on Line 1900E, continuing the east-west resistivity trend from the pole dipole and 100 m gradient surveys. The resistivity high extends to grid south along Line 1500E, reaching a maximum of 24.6 K Ohms at 100S.

400 m Gradient Array

The maximum chargeability (15.1 mV/V) occurs on Line 1100E at 125S and this anomaly extends across to Line 1500E at 175S and broadens from 175S to 280S on Line 1900E. A higher chargeability gradient between 400 and 500S may support the interpretation of a NE-SW trending fault.

Resistivity data from the 400 m survey indicate a resistivity high associated with the mineralized zone south of the baseline but the resistivity maximum extends to ~200S on Line 1500E. The resistivity gradient increases near 400S (consistent with the interpreted fault) and a resistivity low occurs across lines 1500E and 1900E near 525S.

800 m Gradient Array

The maximum chargeability occurs near 350-400S on Line 1500E and a comparatively steep chargeability gradient marks the southern limit of this anomaly near 400S. Because the 800 m dipole samples to a depth of ~400 m the chargeability gradient southeast of the maximum can be interpreted as either the dip limit of the mineralized zone or simply the maximum depth that is sampled by the 800 m gradient array. The maximum chargeability at a depth of ~400m at 400S is consistent with extension of the mineralization down an approximately 45 degree dip from the surface to the maximum depth surveyed.

The 800 m resistivity data indicate a resistivity low that crosses from Line 1500E at 350 S to Line 1900E at 325 S. This resistivity low may mark the position of the inferred fault. Higher resistivities are present to the southeast of this resistivity low. These may represent the continuation of the high resistivity zone at a different elevation on the south side of the interpreted fault.

The progression from pole dipole (N=2, depth~25 m) to 800 m gradient data (depth ~400 m) follows the mineralized zone from its drill-tested top near the base line down a moderate (~45 degree) dip to the maximum depth surveyed. The tendency of the anomaly to attenuate with depth, from 20 mV/V near the surface to only 11 mV/V at the maximum depth is an artefact that occurs because of the larger volume sampled by the longer dipoles used for depth penetration. This imposes a smoothing on the anomalies such that the position of the maximum is maintained but the amplitude of the anomaly is reduced. A chargeability target may therefore be indicated by a comparatively subtle anomaly in an 800 m survey.

DC and IP inversion results

The two models obtained by the inversion of the DC and IP data are described in the following section. Several anomalies are discussed as well as obvious artefacts arising from the inversion routine or the field measurement setup.

Conductivity model interpretation

Apparently conductive features are concentrated in the NE corner of the model. Some features can be related to the measurement setup while others result from the presence of surface features (e.g. the lake).

The lake that is present in the far northeastern corner of the model can be linked to the near-surface conductive body, roughly between 431360 - 430980E and 5267660-5268060N, with resistivities ranging from 1000 Ohm-m to 300 Ohm-m.

Artifacts due to the measurement setup can also be discerned: the shallow conductor running from the boreholes to the current electrodes c1 and c2 can be attributed to current channeling in the vicinity of the infinity or gradient electrodes. Similarly the conductive features at the ends of the surface lines can be attributed to current channeling toward the remote electrodes used for the surface gradient survey.

The presence of the lake can explain the near-surface conductive body in the northeast corner but the large extent of this anomaly in depth probably must be attributed to a geological structure. The highly conductive body (4 Ohm-m) at 430925E, 5267675N and 80 m depth dips eastward at approximately 45 degrees East. This structure can roughly be identified as running from (430690E, 5267675N) at the surface to 439890E, 5267650N at 240 m depth as a northern boundary, and 430610E, 5267575N at the surface to (439890E, 5267575N) at 211 m depth as a southern boundary with resistivity values ranging between 500 and 1000 Ohm-m.

A triangular, resistive structure can be identified in the middle of the surface lines, located between 430470E, 5267360N, 430990E, 5267360N and 430780E, 5266820N with resistivity values ranging from (20 kOhm-m to 200 kOhm-m). The depth extent of this structure is hard to establish since most of the contribution to this structure is due to the surface data (which offers less depth resolution than a borehole survey) but these data show that the anomaly extends at least to 150m below the surface.

Chargeability model interpretation

As in the case of the conductivity, the most striking features are located in the northeastern corner of the model. Here several large chargeable anomalies can be picked (ranging from 10 mV/V to as large as 180 mV/V). Both models show a concentration in the NE corner mainly due to the presence of the borehole data in that corner, causing the sensitivity of the model to be concentrated in this area.

In addition to artifacts due to the inversion and the measurement setup several anomalies due to geology are present. At the surface a chargeable area can be identified, related to the resistive triangular structure.

At depth the (roughly 45 degrees) southeast dipping structure can at several locations be identified as a weakly chargeable zone (around 2.5 mV/V) roughly located between (431220E, 5266910N) and (430740E, 5267220N), extending to a depth of 400 m below the surface. This structure is distorted by the chargeability low around the boreholes, which due to its location must be interpreted with care and possibly may be an artifact of the borehole geometry. This structure correlates with the top of the dipping conductive layer, described in the conductivity model interpretation.

A large, spherical, chargeable structure (20-40 mV/V) can be seen at a depth of ~200 m near (430970E, 5267720N). This spherical structure is imbedded in a slightly less chargeable, dike-like structure with an almost vertical dip, running from (430990E, 5267800N) to (430990E, 5267670N) where it breaks into a scattering of small features that can not be followed any farther. The scattered chargeability zone itself can be traced to the south. This zone splits up in two main chargeable structures. The first one (with chargeability values up to 30 mV/V) is located to the west of the dike-like structure and is roughly concentrated around (430720E, 5267600N) at a depth of 160 m below the surface. The second structure is located to the east and much deeper: (431130E, 5267450N) and at over 300 m depth. This structure is also more chargeable, with values close to 40 mV/V.

Conclusions: Drill Hole Recommendations

Drilling is recommended to test the extension of the mineralization down dip as discussed with respect to the surface and borehole surveys and the inversion model. Here follows a summary of the recommended drill holes, prepared in consultation with Mr. Greg Lipton, whom we thank for the benefit of his geological input.

DDH 1

Objective: To test IP chargeability high occurring within a resistivity high (2 highs) located approximately 100 m south of the baseline on Line 15 E, commencing at a depth of approximately 100 m and continuing to approximately 400 m depth from surface. The IP anomaly is approximately parallel to the base line and extends westward to Line 11 E.

Collar:

L15 E, 760 ft. (230 m) S
Azim. = 335° (grid north)
Incl. = -50°

Total depth = 204 m

DDH 2

Objective: To test same IP feature as DDH 1 (above) but its westward extension on Line 11 E.

Collar:

L11 E, 760 ft. (230 m) S
Azim. = 335° (grid north)
Incl. = -50°

Total depth = 204 m

DDH 3

Objective: To test IP chargeability high located approximately 140 m south of the baseline on Line 11 E, 180 m south of the baseline on Line 15 E, and 180 m south of the baseline on Line 19 E, commencing at a depth of approximately 200 m from surface and continuing deeper.

Collar:

L15 E, 1190 ft. (362 m) S
Azim. = 335° (grid north)
Incl. = -50°

Total depth = 350 m

Note: The geophysical and topographic data indicate that this collar may be very close to a vertically dipping fault zone. If so, a suitably extended hole could be collared farther south.

DDH 4

Objective: To test the same IP feature as DDH 3 (above) but its westward and slightly northward extension, on Line 11 E.

Collar:

L11 E, 1056 ft. (322 m) S
Azim. = 335° (grid north)
Incl. = -50°

Total depth = 350 m

The total recommended drilling is thus **1,108 m.**

A subtle but possibly significant IP chargeability anomaly was found at depth on the south end of Line 15 E, however, it is not apparent at shallower depths. This anomaly could conceivably be the fault offset of the IP anomalies being drilled in DDHs 1&2 and/or 3&4 (above).

The results of the 3D modelling provide a clear picture of the distribution of liberalization in the vicinity of the boreholes. Overall the chargeability and resistivity profiles are consistent with the 3D inversion. Additional drilling might be considered in a future program to test the extension of the mineralization toward the northeast from the YS-04-0X collar position, where both conductivity and chargeability models suggest a prospective environment.

Respectfully submitted,

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Geophysicist

C. J. Hale Ph. D., FGAC
Senior Geophysicist

Appendix A
JVX Ltd.

Technical Description of the IPR-12 Time Domain Induced Polarization/Resistivity Receiver

SCINTREX

222 Snidercroft Road
Concord,Ontario,Canada
L4K 1B5

Telephone: (416) 669-2280
Telefax: (416) 669-6403
Telex: 06-964570

Inputs
1 to 8 dipoles are measured simultaneously

Input Impedance
16 megohms

SP Bucking
±10 volt range. Automatic linear correction operating on a cycle by cycle basis

Input Voltage (Vp) Range
50 microvolt to 14 volt

Chargeability (M) Range
0 to 300 millivolt/volt

Tau Range
1 millisecond to 1000 seconds

Reading Resolution of Vp, SP and M
Vp, 10 microvolt; SP, 1 millivolt; M, 0.01 millivolt/volt

Absolute Accuracy of Vp, SP and M
Better than 1%

Common Mode Rejection
At input more than 100 db

Vp Integration Time
10% to 80% of the current on time.

IP Transient Program
Total measuring time keyboard selectable at 1, 2, 4, 8, 16 or 32 seconds. Normally 14 windows except that the first four are not measured on the 1 second timing, the first three are not measured on the 2 second timing and the first is not measured on the 4 second timing. See diagram. An additional transient slice of minimum 10 ms width, and 10 ms steps, with delay of at least 40 ms is keyboard selectable.

Transmitter Timing
Equal on and off times with polarity change each half cycle. On/off times of 1, 2, 4, 8, 16 or 32 seconds. Timing accuracy of ±100 ppm or better is required.

External Circuit Test
All dipoles are measured individually in sequence, using a 10 Hz square wave. The range is 0 to 2 Mohm with 0.1 kohm resolution. Circuit resistances are displayed and recorded.

Synchronization
Self synchronizes on the signal received at a keyboard selectable dipole. Limited to avoid mistriggering.

Filtering
RF filter, 10 Hz 6 pole low pass filter, statistical noise spike removal.

Internal Test Generator
1200 mV of SP; 807 mV of Vp and 30.28 mV/V of M.

Analog Meter
For monitoring input signals; switchable to any dipole via keyboard.

Keyboard
17 key keypad with direct one key access to the most frequently used functions.

Display
16 lines by 42 characters, 128 x 256 dots, Liquid Crystal Display. Displays instrument status and data during and after reading. Alphanumeric and graphic displays.

Display Heater
Used in below -10°C operation. Thermostatically controlled. Requires the Ancilliary Rechargeable Batteries.

Memory Capacity
Stores approximately 400 dipoles of information when 8 dipoles are measured simultaneously.

Real Time Clock
Data is recorded with year, month, day, hour, minute and second.

Digital Data Output
Formatted serial data output for printer and computer etc. Data output in 7 or 8 bit ASCII, one start, one stop bit, no parity format. Baud rate is keyboard selectable for standard rates between 300 baud and 115.2 kBaud. Selectable carriage return delay to accommodate slow peripherals. Handshaking is done by X-on/X-off.

Standard Rechargeable Batteries
Eight rechargeable Ni-Cad D cells. Supplied with a charger, suitable for 110/230V, 50 to 60 Hz, l0W. More than 20 hours service at +25°C, more than 8 hours at -30°C.

Ancilliary Rechargeable Batteries
An additional eight rechargeable Ni-Cad D cells may be installed in the console along with the Standard Rechargeable Batteries. Used to power the Display Heater or as back up power. Supplied with a second charger. More than 6 hours service at -30°C.

Use of Non-Rechargeable Batteries
Can be powered by D size Alcaline batteries, but rechargeable batteries are recommended for longer life and lower cost over time.

Field Wire Terminator
Used to custom make cables for up to eight dipoles, using ordinary field wire.

Optional Multiconductor Cable Adaptor
When installed on the binding posts, permits connection of Multidipole Potential Cables.

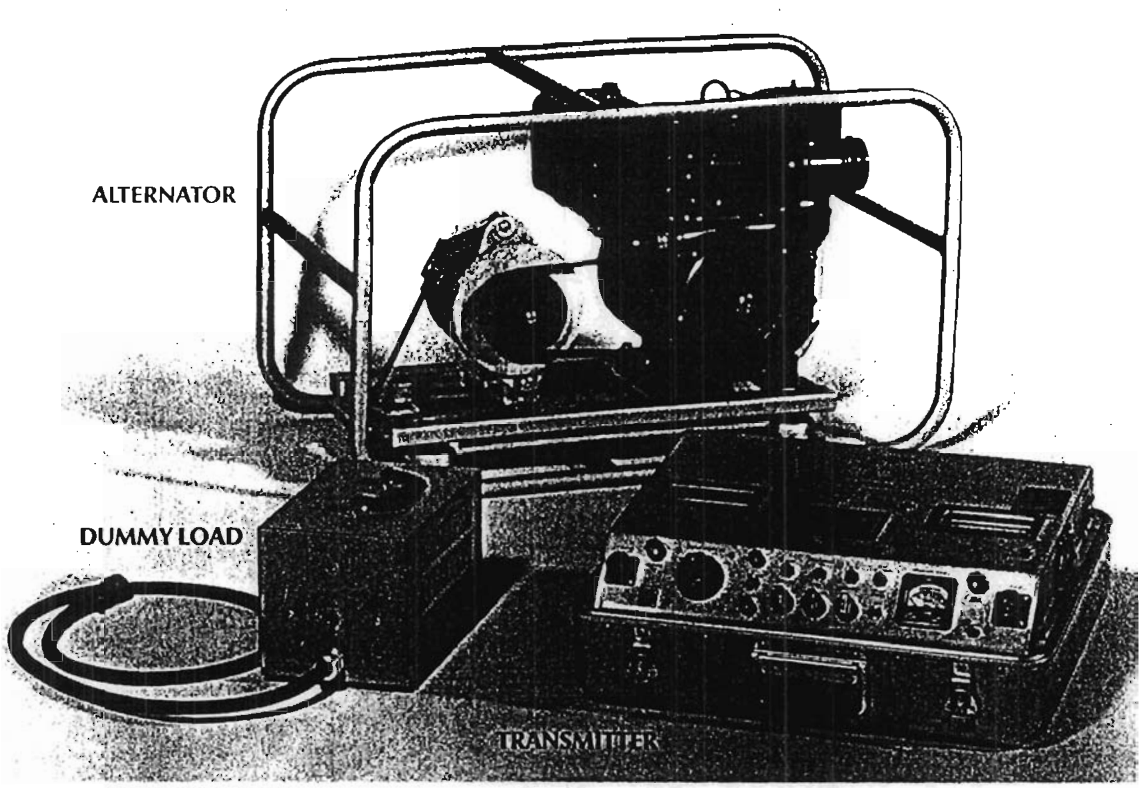
Optional Multiconductor Cables
Specially manufactured in dipole lengths, terminated with plugs and takeouts for electrodes. Connects up to 6 dipoles.

Operating Temperature Range
-30°C to +50°C

Storage Temperature Range
-30°C to +50°C

Dimensions
Console; 355 x 270 x 165 mm
Charger; 120 x 95 x 55 mm

Weights
Console; 5.8 kg.
Standard or Ancilliary Rechargeable Batteries; 1.3 kg.
Charger; 1.1 kg.



SPECIFICATIONS
M-4 2.5 kW Transmitter

Power input:	96 — 144 V line to line 3 phase, 400 Hz (from Huntec generator set)
Output:	Voltage: 150 — 2200 V dc in 8 steps Current: 0.2 — 7 A regulated**
Current regulation:	Less than ±0.1% change for ±10% load change
Output frequency:	0.0625 Hz to 1 Hz (time domain, complex resistivity) 0.0625 Hz to 4 Hz (frequency domain) selectable from front panel An additional range of frequencies between 0.78 and 5.0 Hz is available and can be selected by an internal switch.
Frequency accuracy:	±50 ppm −30°C to +60°C
Output duty cycle: $T_{on}/(T_{on} + T_{off})$	0.5 to 0.9375 in increments of 0.0625 (time domain) 0.9375 (complex resistivity) 0.75 (frequency domain)
Output current meter:	Two ranges: 0-5 A and 0-10 A
Ground resistance meter:	Two ranges: 0-10 kΩ, 0-100 kΩ
Input voltage meter:	0-150 V
Dummy load:	Two levels: 500 kW and 1.75 kW
Temperature range:	−34°C to +50°C
Size:	53 cm x 43 cm x 29 cm
Weight:	26 kg

***Smaller currents are obtainable, but outside the current regulation range the transmitter voltage is regulated, not the current*

SPECIFICATIONS
M-4 2.5 kW Engine Driven Alternator

Output:	120V ac 400 Hz 3.5 kVA maximum
Engine	Honda 5.5 HP air cooled, Single cylinder four cycle piston Engine with manual start.
Fuel:	Regular grade gasoline,tank capacity 3.8L to give 4 h duration
Alternator:	Delta connected heavy duty automobile Type, belt driven, air cooled
Construction:	Backpack style carrying frame with mounted engine and alternator
Size:	35 cm x 31 cm x 61 cm
Weight(dry):	40 kg

Appendix B

JVX Ltd.

JVX Ltd.
Field IP Production Report

Project No.: 5-55	Client: Young Shannon	Area: Gogama, Ont. (Chester Twp.)	Week Ending: Aug/20/05

Day	Description of Work	Grid	Line	From (m)	To (m)	Length (m)	Office Use
Sun 14							
Mon 15							
Tue 16							
Wed 17	Mob. to Young Shannon property. Drop tents off in Gowganda.						
Thu 18	Rain and setup. Grid too small for Gradient. Have to do I.P.	Three Duck Lake					
Fri 19	Set out Infinity. Receiver not collecting data. Went to Webbwood to get new receiver.	Three Duck Lake					
Sat 20	I.P Survey N=6 A=50m	Three Duck Lake	L11+00E L15+00E	6+50S 6+50S	1+00N 5+00S	750m 150m	

X=Survey M=Mobilization

Name	Position	S	M	T	W	T	F	S
	Geophysicist							
Tim Charlebois	Operator				M	X	X	X
Dave Lukey	Assistant				M	X	X	X
Richard Daoust	Assistant				M	X	X	X
Chris Blake	Assistant				M	X	X	X
Ed Gauthier	Assistant				M	X	X	X
	Assistant							
	Assistant							

Submitted by: Tim Charlebois

Signed by party chief: Tim Charlebois

JVX Ltd.
Field IP Production Report

Project No.: 5-55	Client: Young Shannon	Area: Gogama, Ont. (Chester Twp.)	Week Ending: Aug/27/05

Day	Description of Work	Grid	Line	From (m)	To (m)	Length (m)	Office Use
Sun 21	I.P Survey	Three Duck Lake	L1500E L1900E	4+50S 4+50S	1+00N 1+50N	550m 600m	
Mon 22	Demob.	Three Duck Lake					
Tue 23							
Wed 24							
Thu 25							
Fri 26							
Sat 27							

X= Survey D=Demobilization

Name	Position	S	M	T	W	T	F	S
	Geophysicist							
Tim Charlebois	Operator	X	D					
	Operator							
Dave Lukey	Assistant	X	D					
Richard Daoust	Assistant	X	D					
Chris Blake	Assistant	X	D					
Ed Gauthier	Assistant	X	D					
	Assistant							

Submitted by: Tim Charlebois

Signed by party chief: Tim Charlebois

JVX Ltd.
Field Production Report

Project No 5-55	Client: **Young Shannon**	Area: Chester Twps.	Week Ending: Sept. 17

Day	Description of Work	Grid	Line	From	To	Length	Office Use
Sun							
Mon 12	Mob to The Watershed. Find access to the grid, (the bridge over Lake Mesomikenda was being taken out). Find collars, lay out the NW infinity.						
Tue 13	Lay out the SW infinity, start gradient IP. Extent lines to chase down anomalies.		1100E	125N	975S	1100	
Wed 14	Gradient IP. Extent lines to chase down anomalies.		1500E	100N	1000S	1100	
Thu 15	Gradient IP. Extent lines to chase down anomalies. At night drove to Gowganda to pick up the DHIP equipment.		1900E	175N	925S	1100	
Fri 16	Set up NE and SE infinities. Dummy probe the holes. D. Daoust went home at night						
Sat 17	DHIP hole 04-06		PDP 10 PDP 25	P1:60m P1:185	185m 90		

Name	Position	S	M	T	W	T	F	S
D. Palos	Geophysicist		x	x	x	x	x	x
T. Charlebois	Operator						x	x
	Operator							
Dave Lukey	Assistant		x	x	x	x	x	x
Leo Villamor	Assistant		x	x	x	x	x	x
D. Daoust	Assistant		x	x	x	x	x	
	Assistant							
	Assistant							

Submitted by:
Dennis Palos

Signed by party chief: DP

JVX Ltd.
Field Production Report

Project No 5-55	Client: Young Shannon	Area: Chester Twp.	Week Ending: Sept. 24

Day	Description of Work	Grid	Line	From	To	Length	Office Use
Sun 18	Today hole 04-06 was blocked at 65 m, and it was abandoned. DHIP hole 04-03. We started the East gradient but the data were very noisy and we stopped		PDP 10 PDP 25 Grad-W	P1:50m P1:225 P1:75	240m 55 234		
Mon 19	DHIP 04-04 Rain, but no thunder		Grad-E PDP 10 PDP 25	75 35 240	250 225 20		
Tue 20	DHIP 04-05 The C3-C4 West gradient was not done today, even though we thought so. The electrodes that were connected were C1-C3		PDP 10 PDP 25 Grad-E Grad-Cross	30 350 70 375	365 50 375 60		
Wed 21	DHIP 04-03 Some rain. Note: Leo left at night, and he took the midnight bus from Sudbury to London		Grad-E Grad-W PDP 10 PDP 25	60 250 30 225	250 60 240 35		
Thu 22	DHIP 04-06		Grad-W	60	370		
Fri 23	Pick up all of the wire and remove the infinity electrodes. Dave demobilized in the late afternoon.						
Sat 24	Crew demobilized.						

Name	Position	S	M	T	W	T	F	S
D. Palos	Geophysicist	x	x	x	x	x	x	m
T. Charlebois	Operator	x	x	x	x	x	x	m
	Operator							
Dave Lukey	Assistant	x	x	x	x	x	x	
Leo Villamor	Assistant	x	x	x	x	m		
	Assistant							
	Assistant							

x: production m:demobilization

Submitted by:
Dennis Palos

Signed by party chief: DP

Appendix C
JVX Ltd.

COLLAR POSITIONS AND SOURCE LOCATIONS
Datum: NAD83, Zone 17

Collar Positions

Hole-ID	Collar Easting	Collar Northing	Elevation (m)	Dip (Deg.)	Azimuth (Deg.)	Hole Length (m)
YS-04-03	430973	5267532	409.4	-80	0	392
YS-04-04	430973	5267532	409.4	-80	20	259
YS-04-05	430973	5267532	409.4	-80	40	259
Ys-04-06	430973	5267532	409.4	-55	335	198

The current source locations are listed in the following table.

Source (Current) Locations

Description	Easting	Northing	Elevation (m)
C1	431336	5268077	292
C2	431467	5267027	388.7
C3	431239	5266274	385.3
C4	430282	5267910	381.9

Appendix D
JVX Ltd.

Young-Shannon - YS-04-03 - Pole-Dipole 25 m.
Chargeability
JVX Ltd. Ref. 5-55 Chester
Depth Scale 1:1250

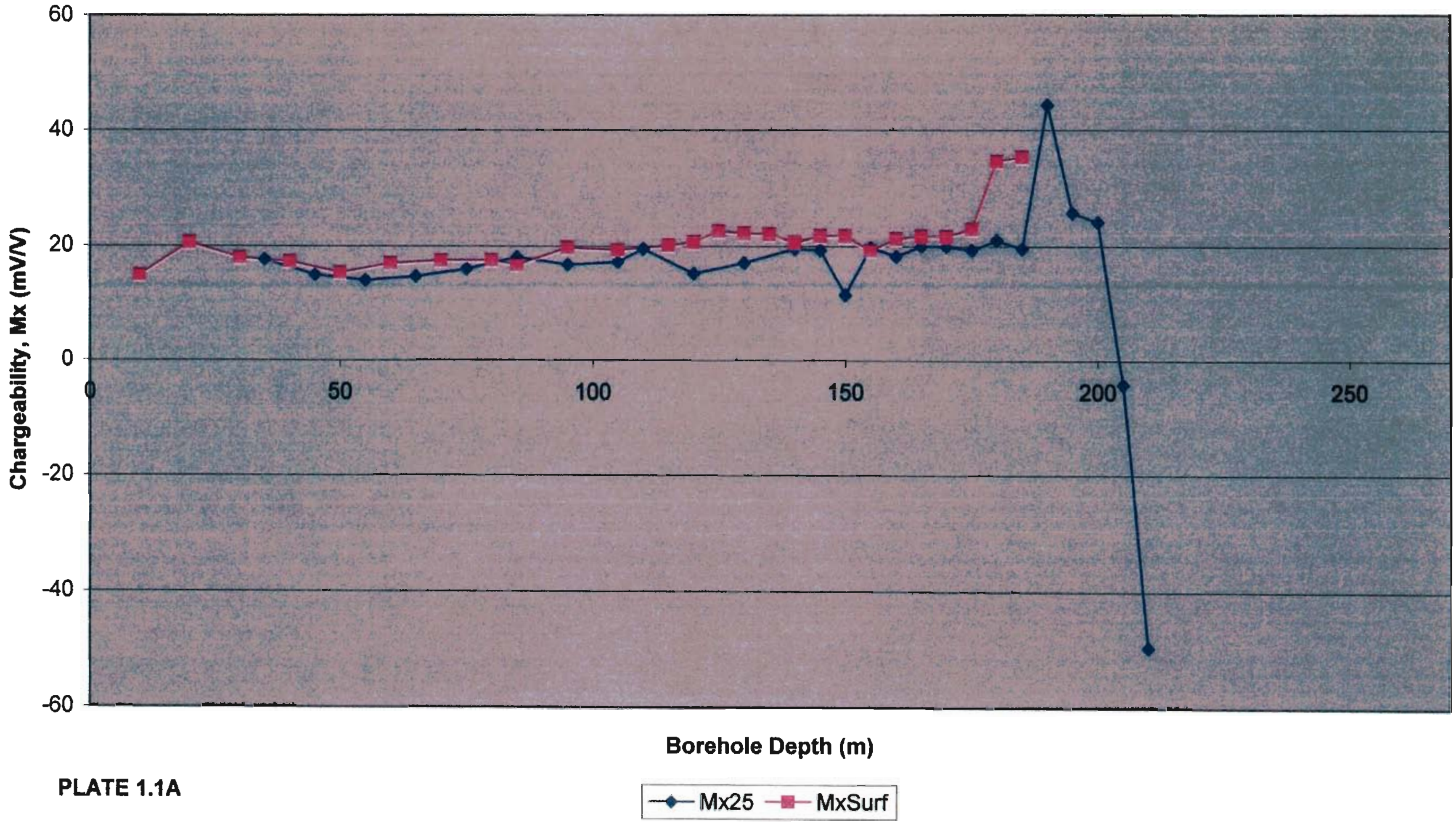


PLATE 1.1A

Young-Shannon - YS-04-03 - Pole-Dipole 25 m.
Resistivity
JVX Ltd. Ref. 5-55 Chester
Depth Scale 1:1250

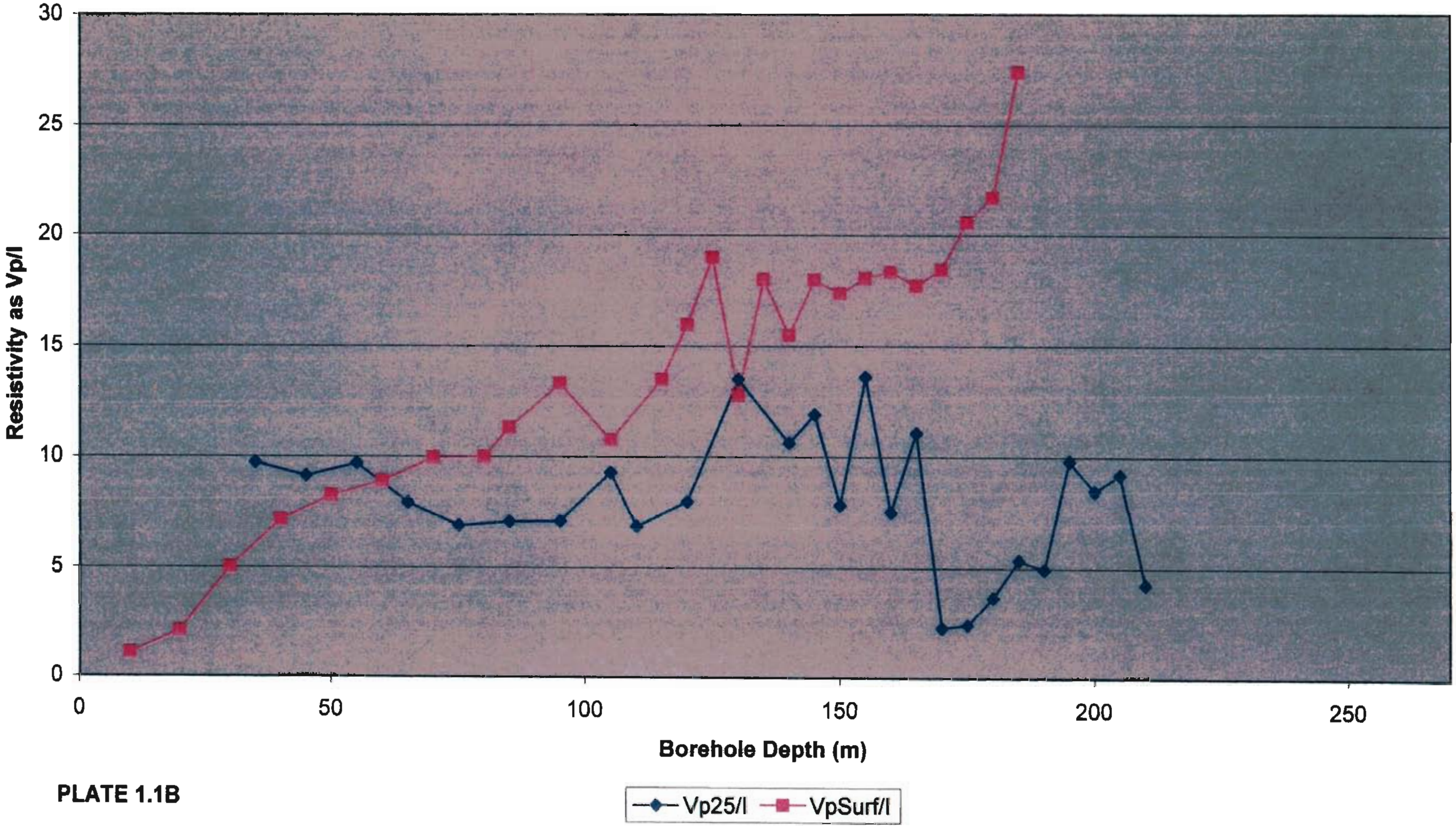


PLATE 1.1B

Young-Shannon - YS-04-03 - Pole-Dipole 10 m.
Chargeability
JVX Ltd. Ref. 5-55 Chester
Depth Scale 1:1250

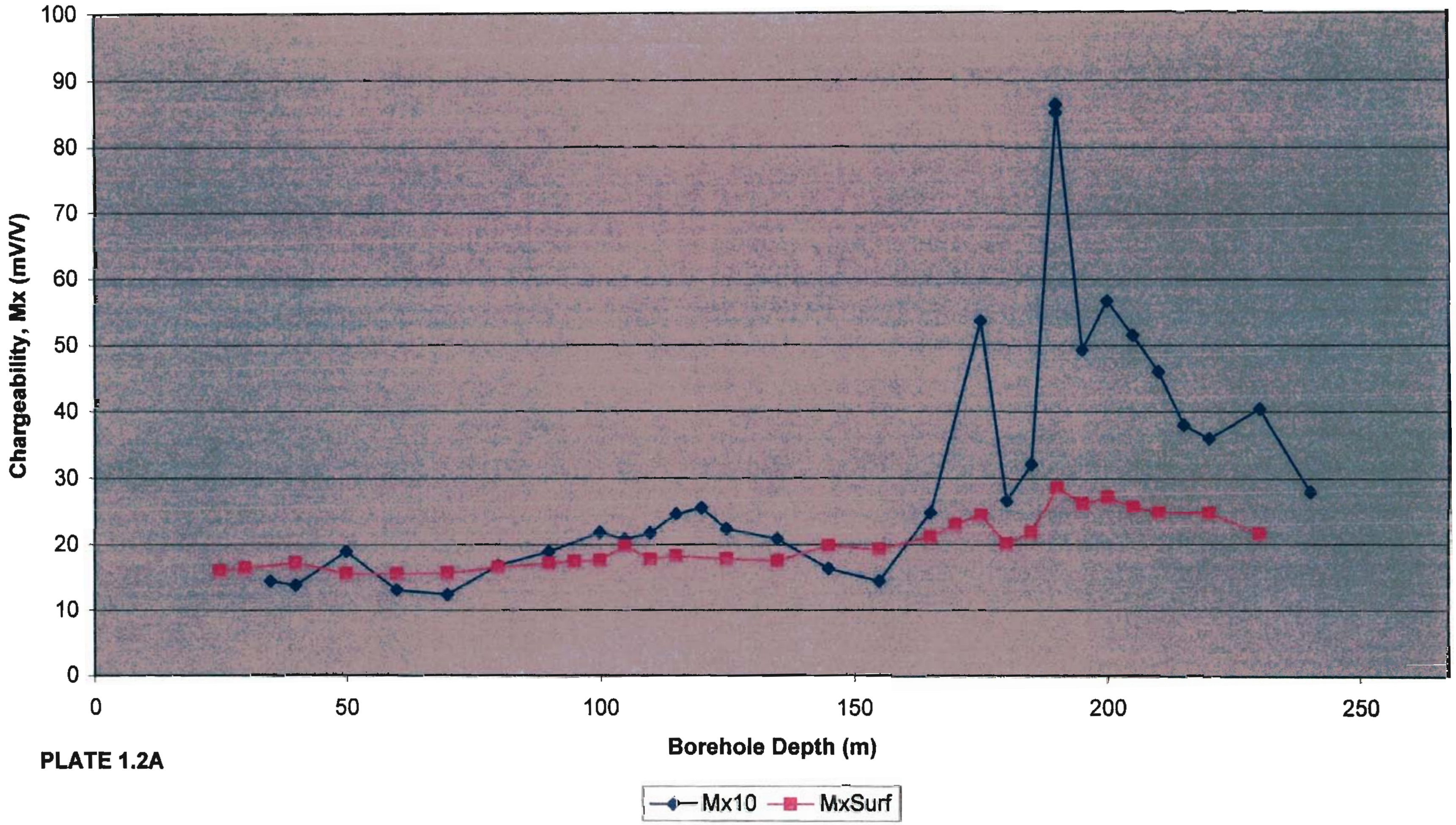


PLATE 1.2A

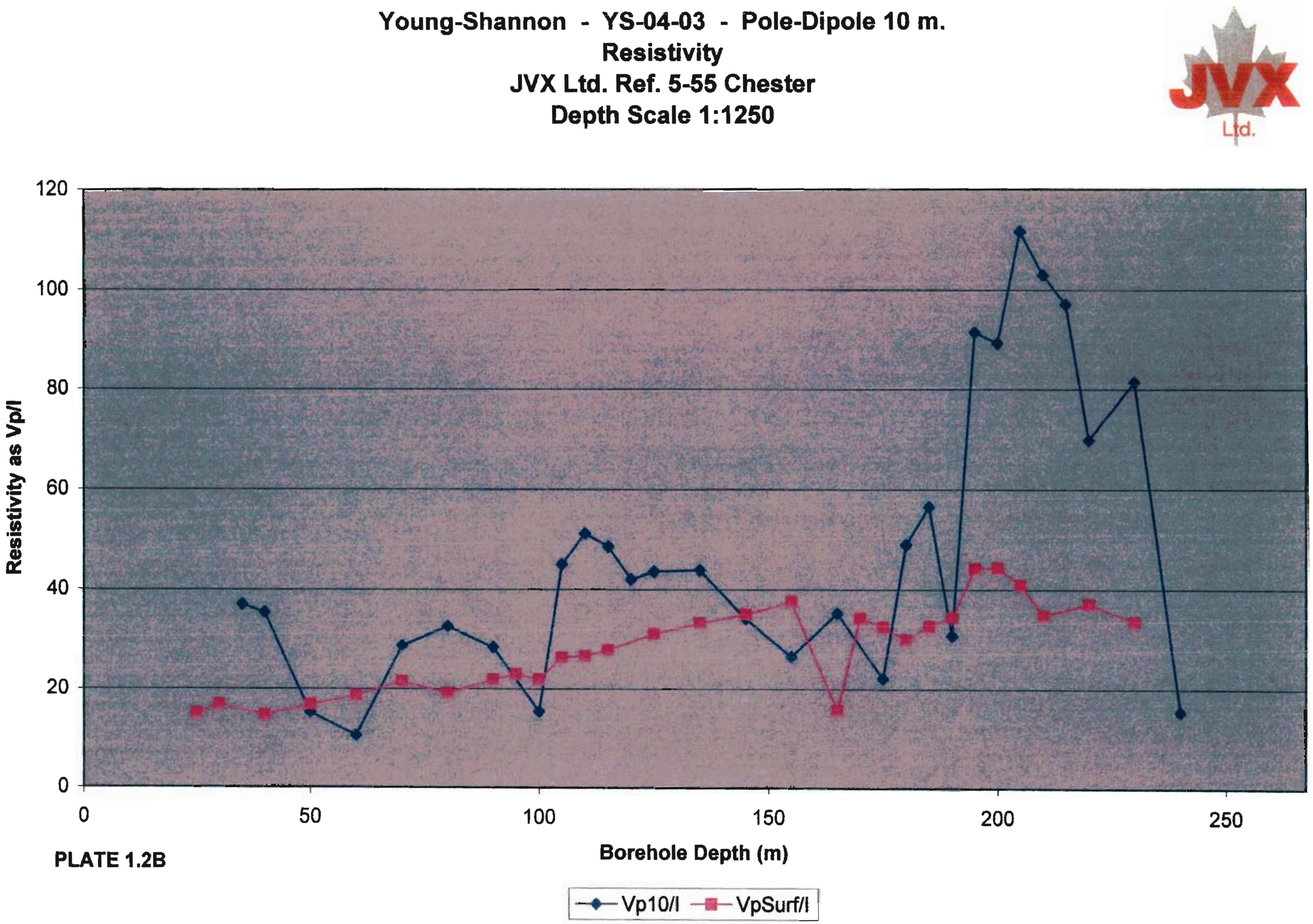

Young-Shannon - YS-04-03 - Pole-Dipole 10 m.
Resistivity
JVX Ltd. Ref. 5-55 Chester
Depth Scale 1:1250
JVX
Ltd.
120
100
80
60
40
20
0
Resistivity as Vp/I
0
50
100
150
200
250
Borehole Depth (m)
Vp10/I
VpSurf/I

PLATE 1.2B

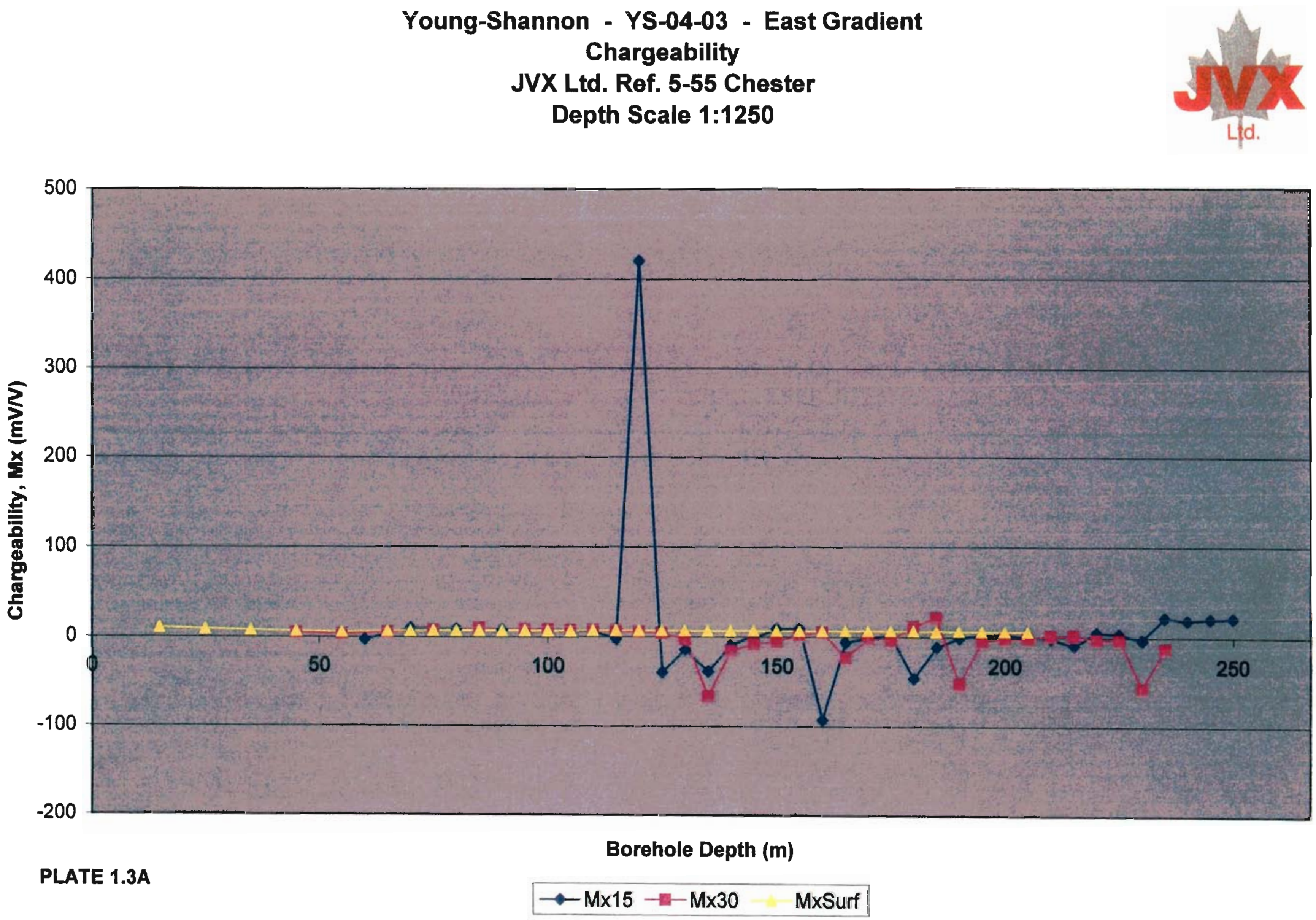

Young-Shannon - YS-04-03 - East Gradient
Chargeability
JVX Ltd. Ref. 5-55 Chester
Depth Scale 1:1250
Chargeability, Mx (mV/V)
500
400
300
200
100
0
-100
-200
0
50
100
150
200
250
Borehole Depth (m)
Mx15
Mx30
MxSurf

PLATE 1.3A

Young-Shannon - YS-04-03 - East Gradient
Resistivity
JVX Ltd. Ref. 5-55 Chester
Depth Scale 1:1250

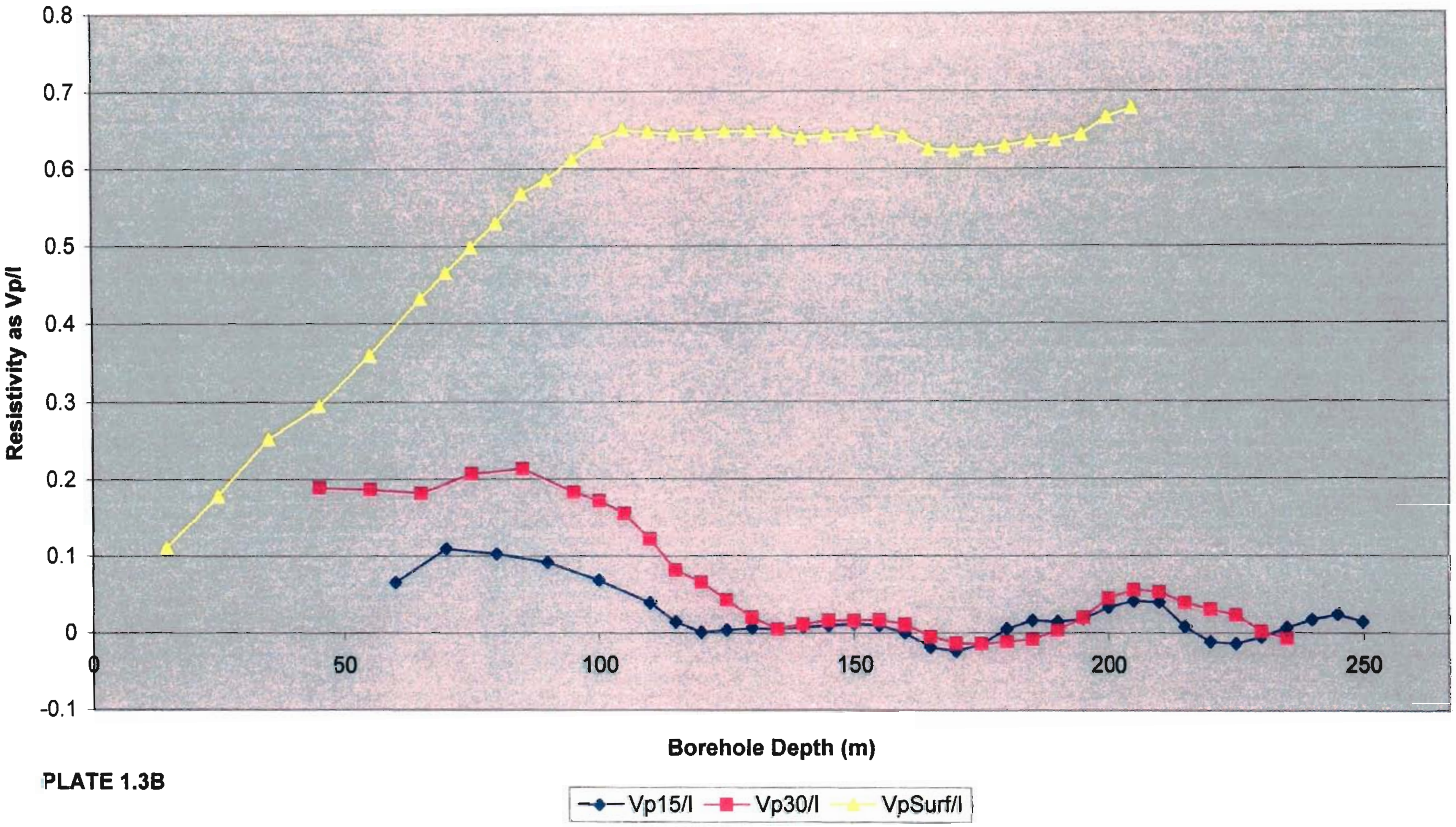


PLATE 1.3B

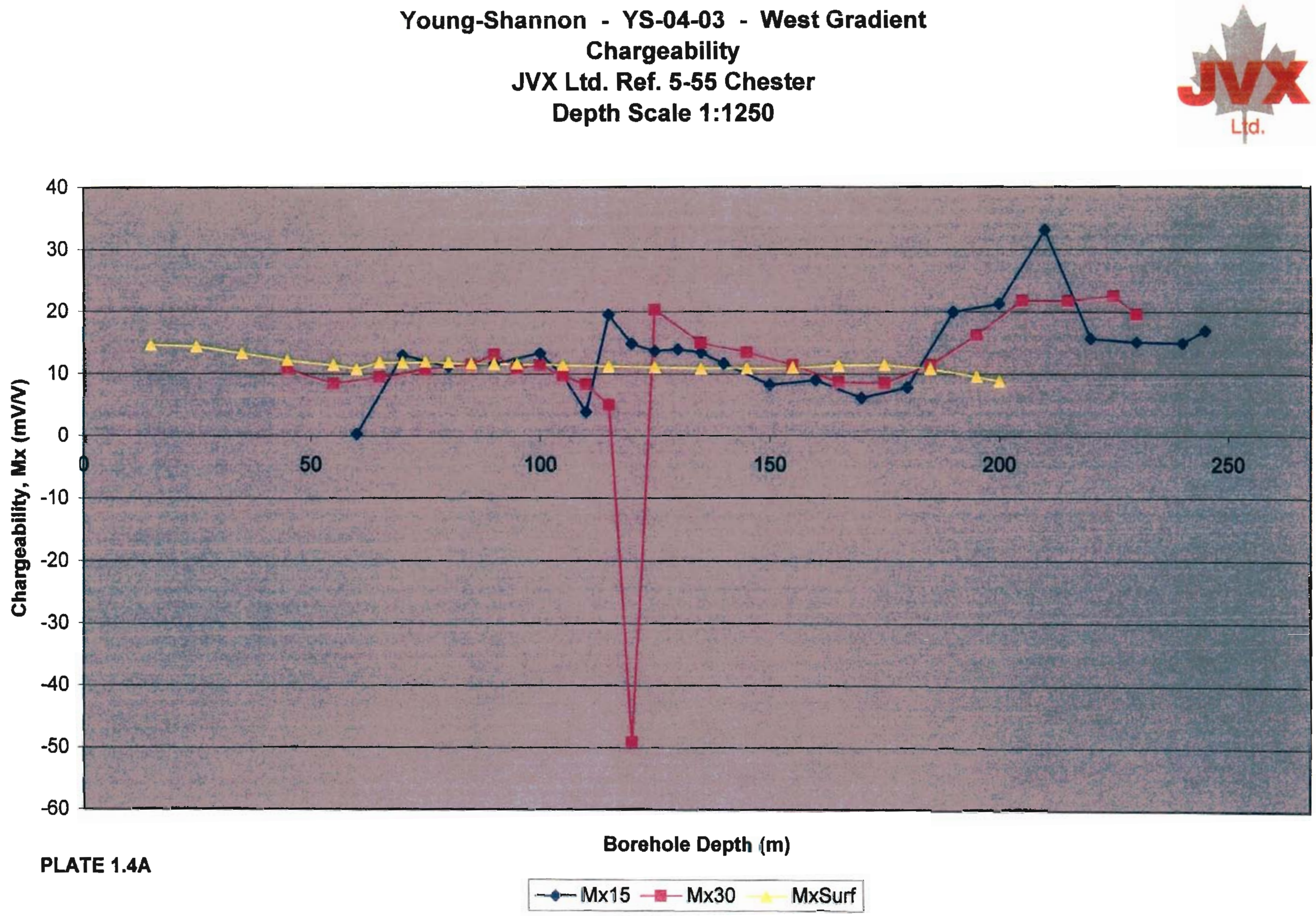

Young-Shannon - YS-04-03 - West Gradient
Chargeability
JVX Ltd. Ref. 5-55 Chester
Depth Scale 1:1250
Chargeability, Mx (mV/V)
40
30
20
10
0
-10
-20
-30
-40
-50
-60
0
50
100
150
200
250
Borehole Depth (m)
Mx15
Mx30
MxSurf

PLATE 1.4A

Young-Shannon - YS-04-03 - West Gradient
Resistivity
JVX Ltd. Ref. 5-55 Chester
Depth Scale 1:1250

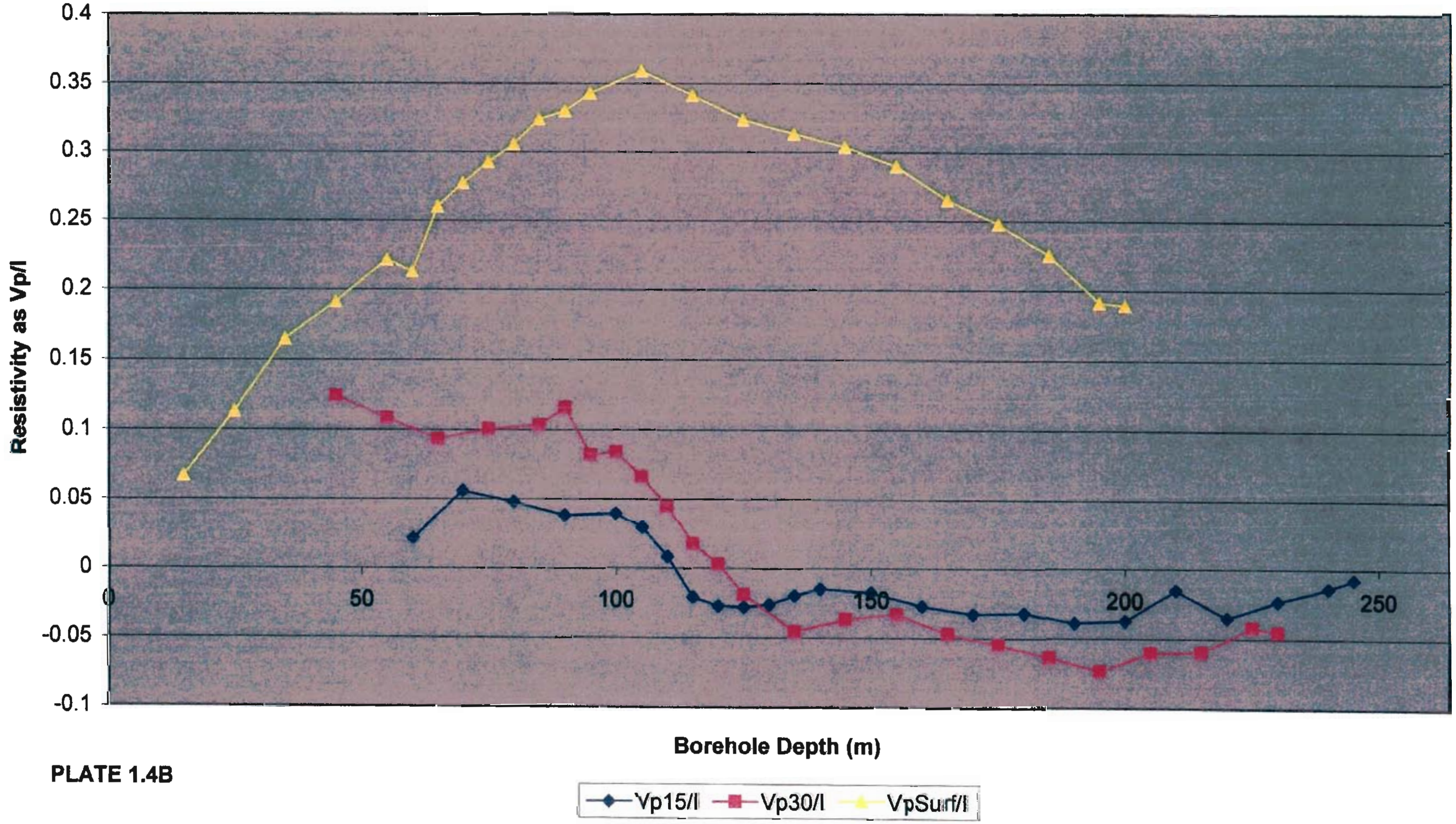


PLATE 1.4B

Young-Shannon - YS-04-04 - Pole-Dipole 25 m.
Chargeability
JVX Ltd. Ref. 5-55 Chester
Depth Scale 1:1250

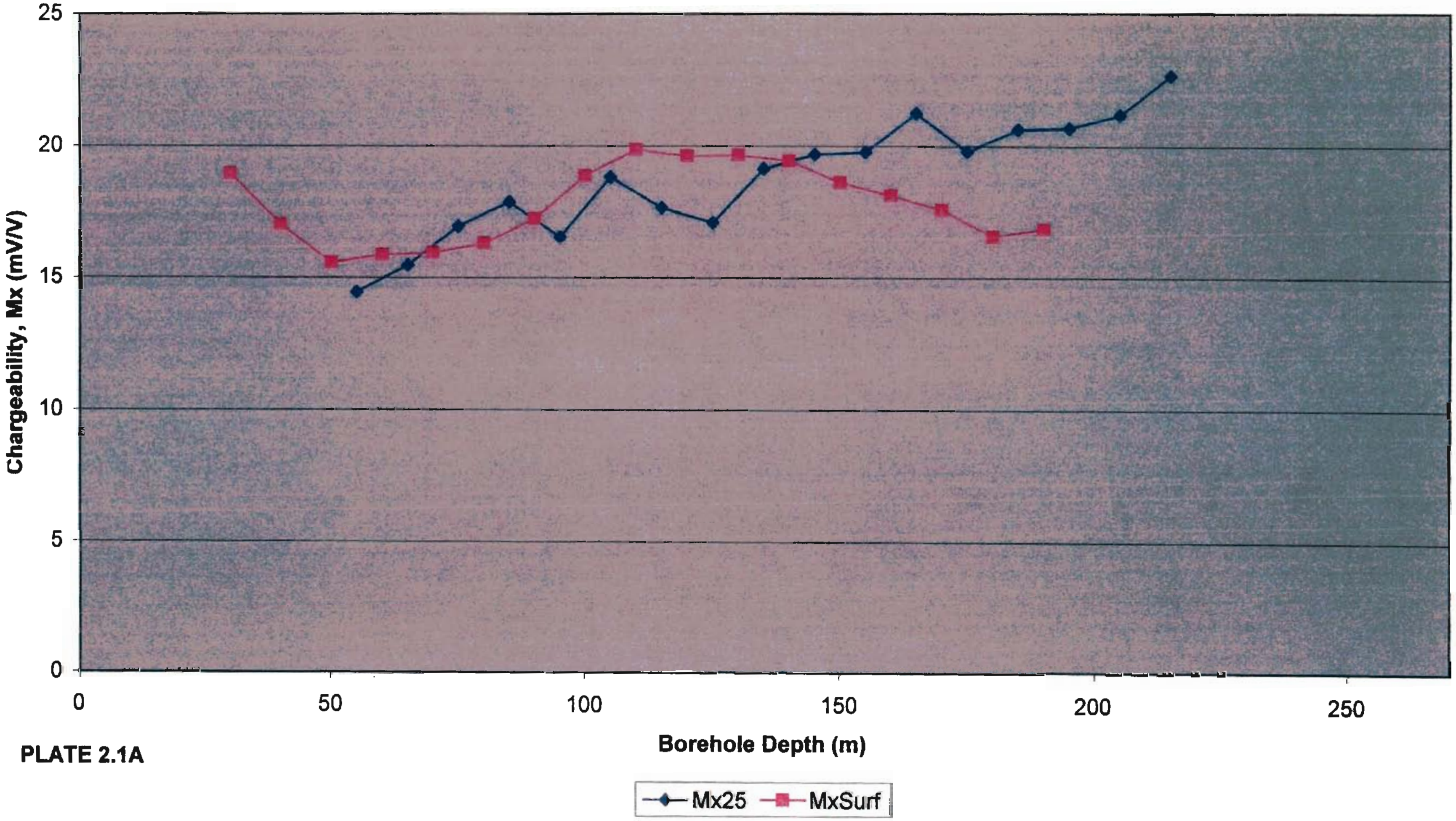


PLATE 2.1A

Young-Shannon - YS-04-04 - Pole-Dipole 25 m.
Resistivity
JVX Ltd. Ref. 5-55 Chester
Depth Scale 1:1250

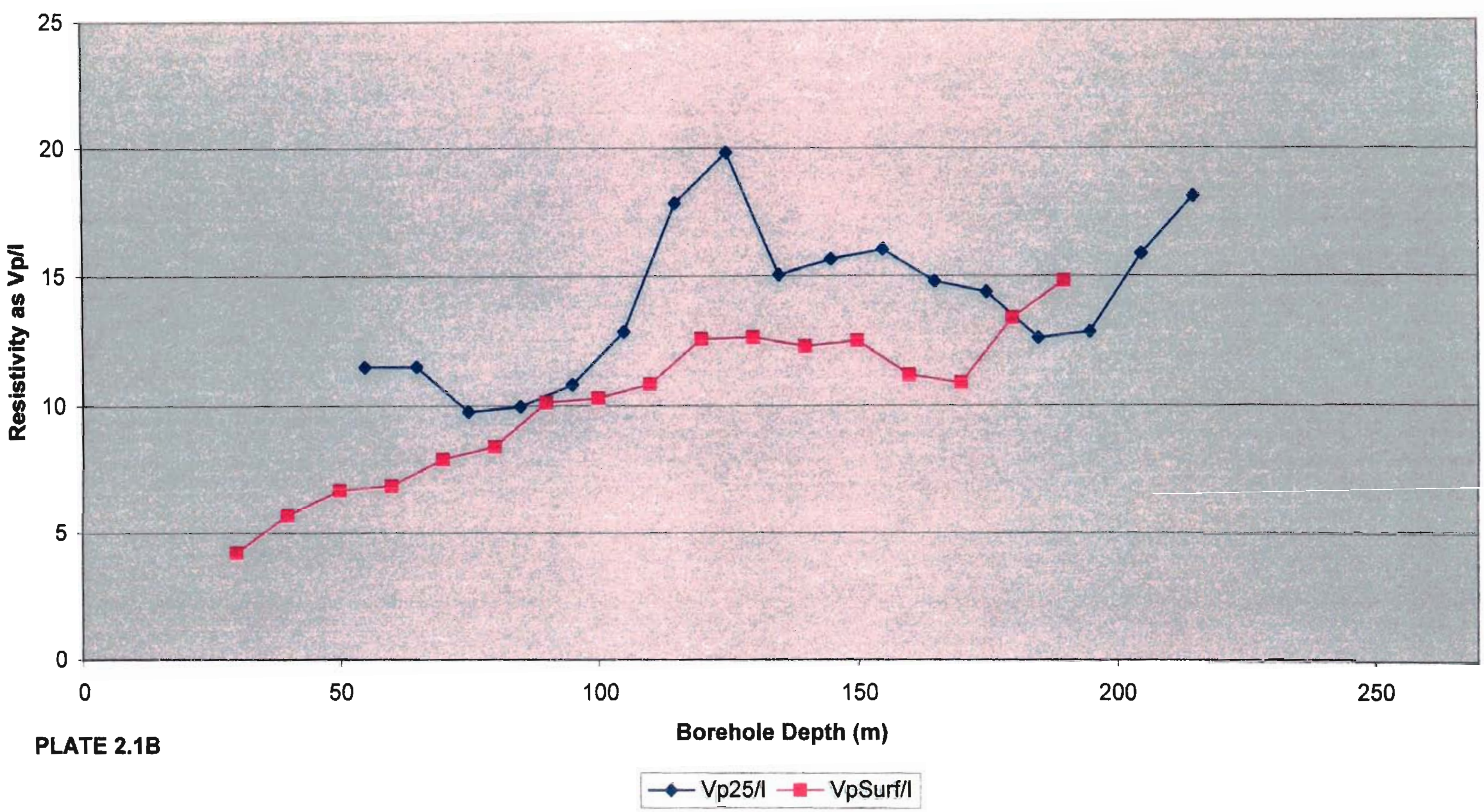
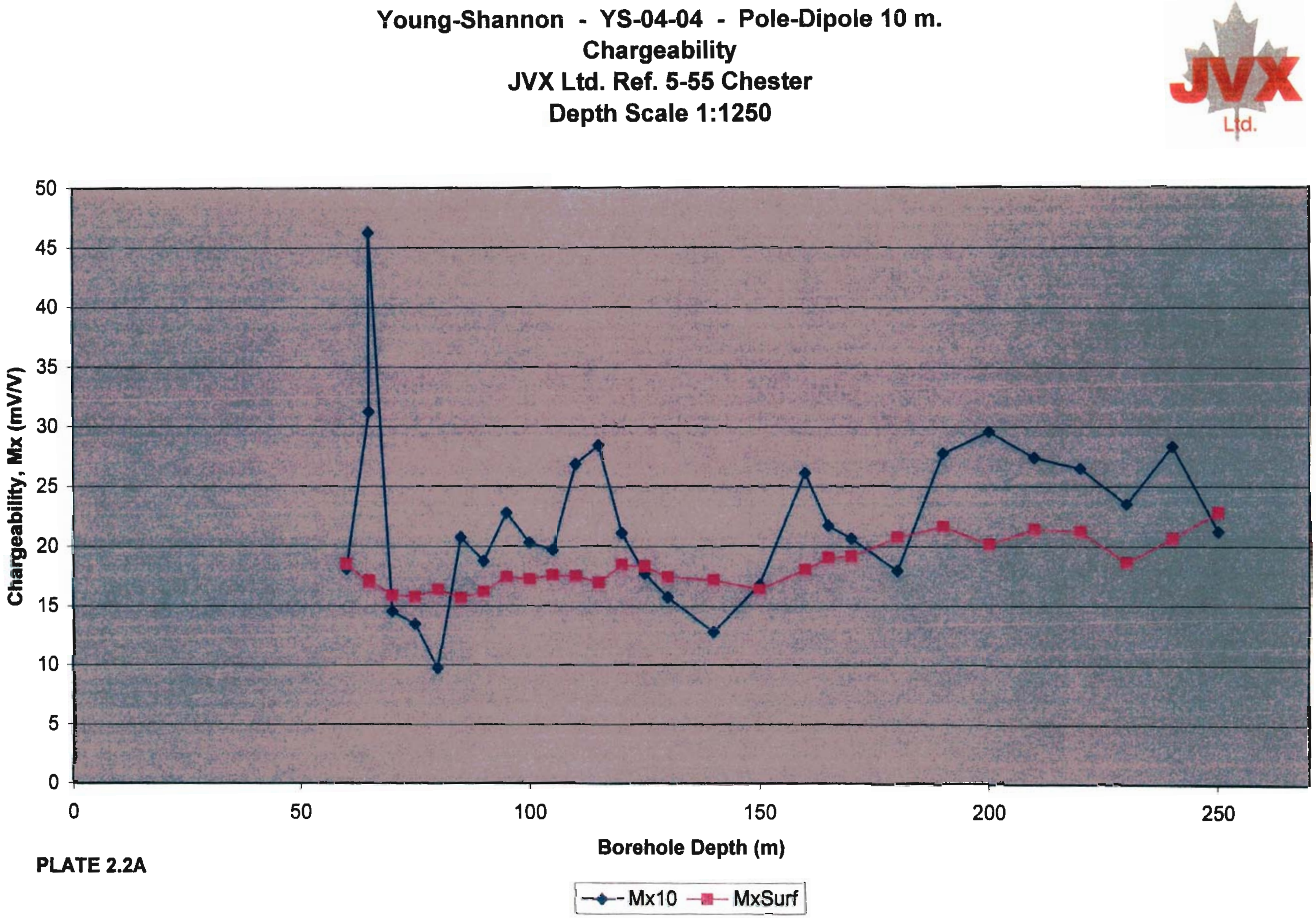


PLATE 2.1B



Young-Shannon - YS-04-04 - Pole-Dipole 10 m.
Chargeability
JVX Ltd. Ref. 5-55 Chester
Depth Scale 1:1250
Chargeability, Mx (mV/V)
50
45
40
35
30
25
20
15
10
5
0
0
50
100
150
200
250
Borehole Depth (m)
Mx10
MxSurf

PLATE 2.2A

Young-Shannon - YS-04-04 - Pole-Dipole 10 m.
Resistivity
JVX Ltd. Ref. 5-55 Chester
Depth Scale 1:1250

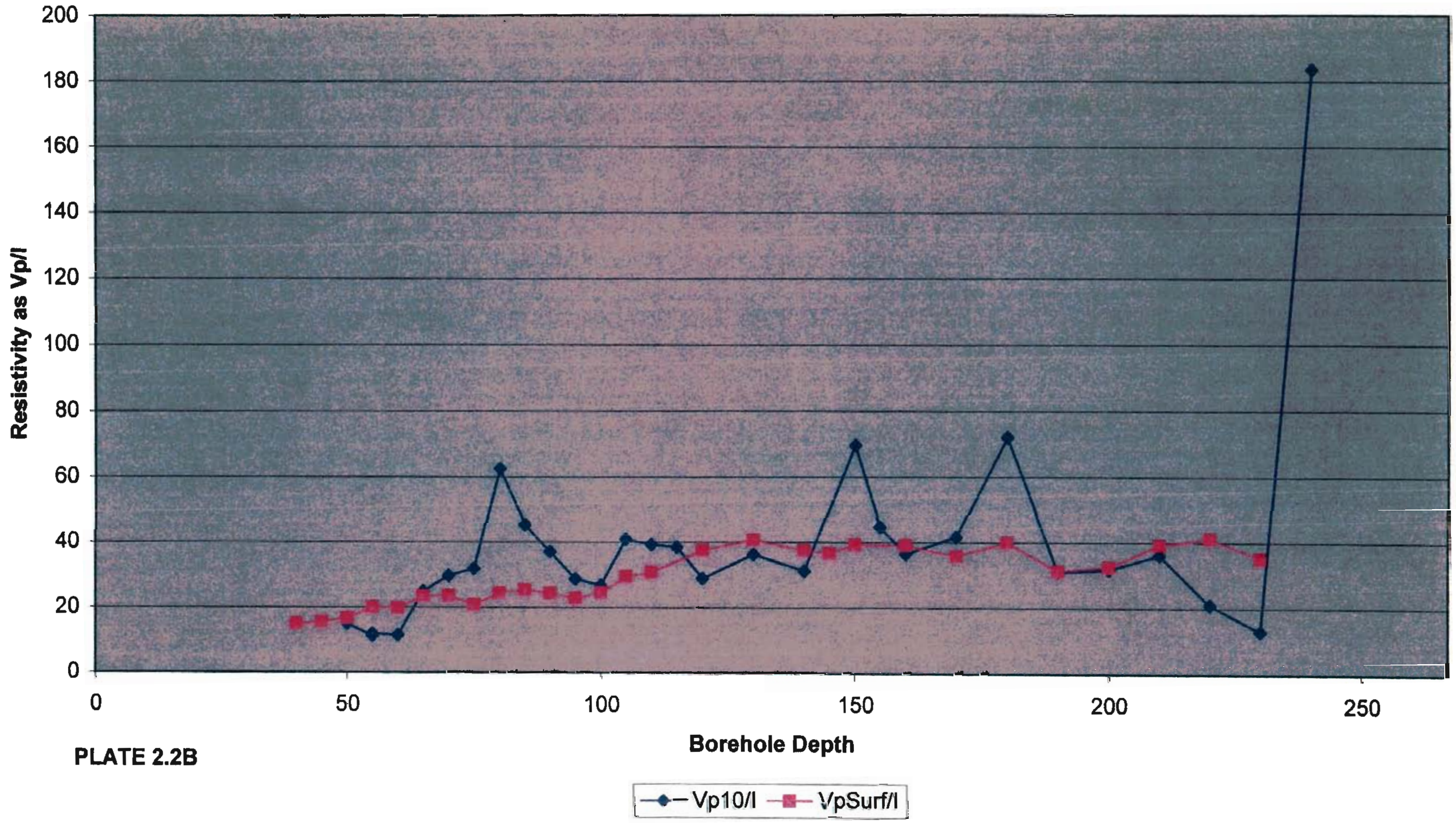


PLATE 2.2B

Young-Shannon - YS-04-04 - East Gradient
Chargeability
JVX Ltd. Ref. 5-55 Chester
Depth Scale 1:1250

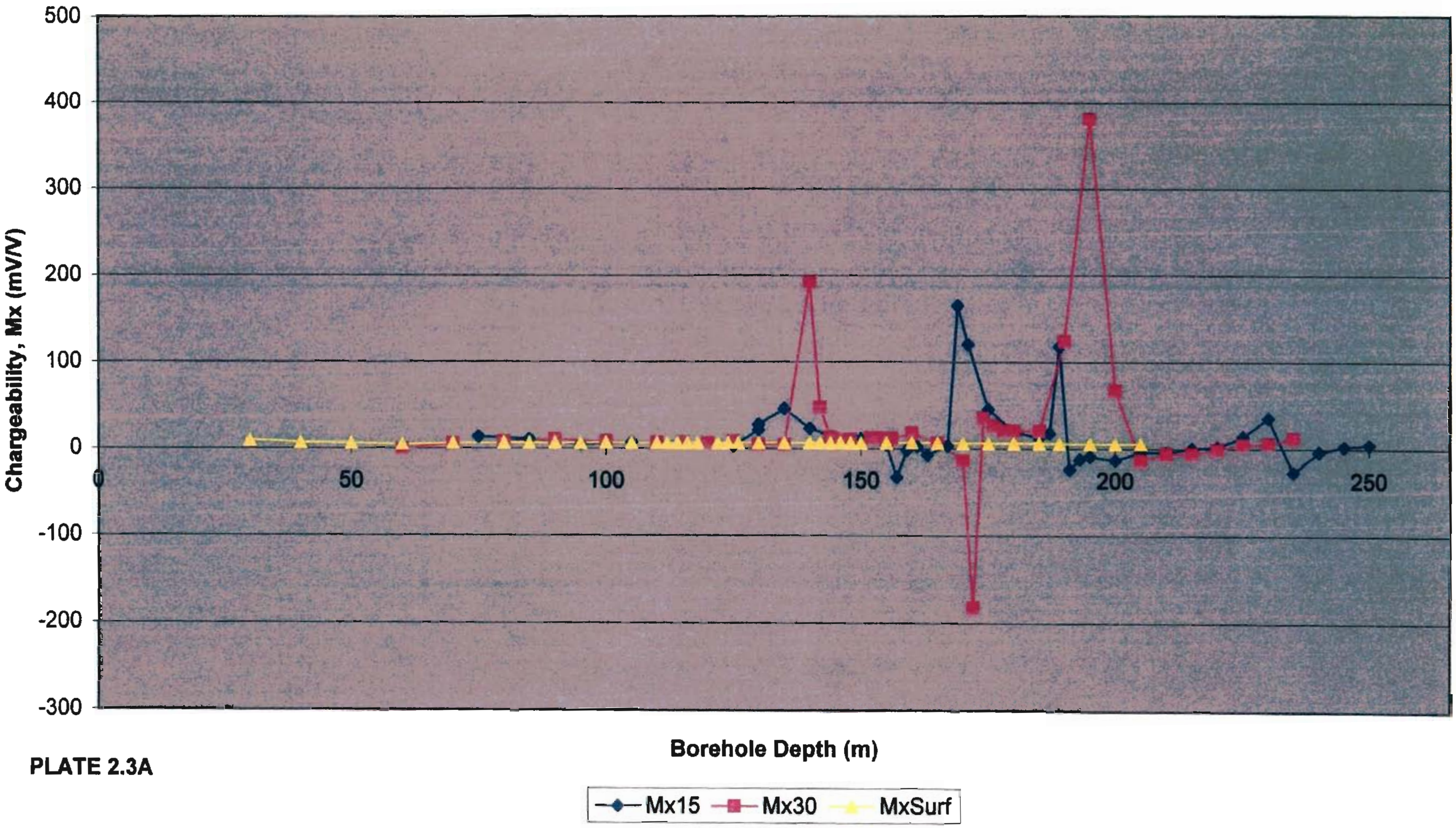


PLATE 2.3A

Young-Shannon - YS-04-04 - East Gradient Resistivity
JVX Ltd. Ref. 5-55 Chester
Depth Scale 1:1250

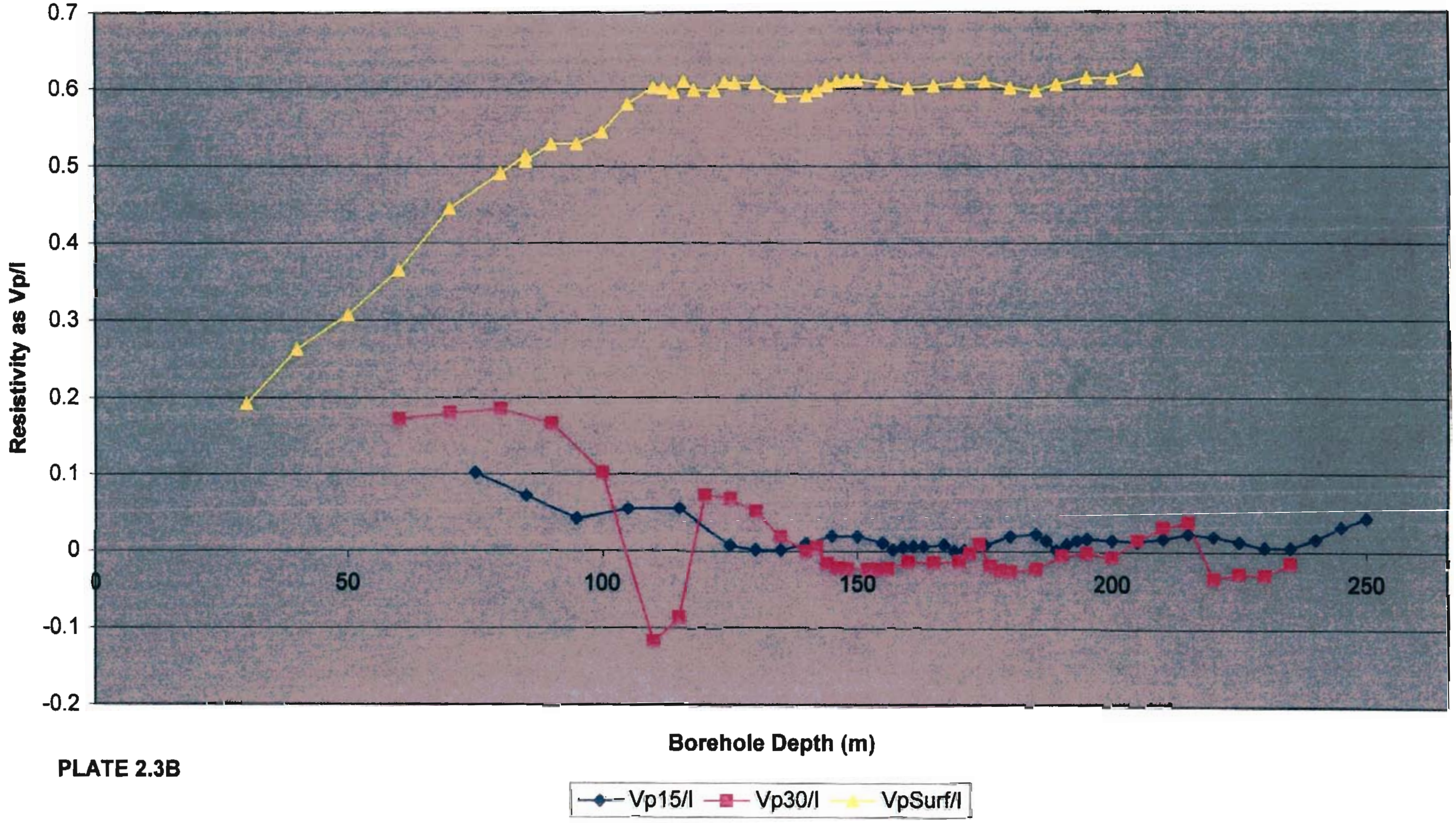


PLATE 2.3B

Young-Shannon - YS-04-04 - West Gradient
Chargeability
JVX Ltd. Ref. 5-55 Chester
Depth Scale 1:1250

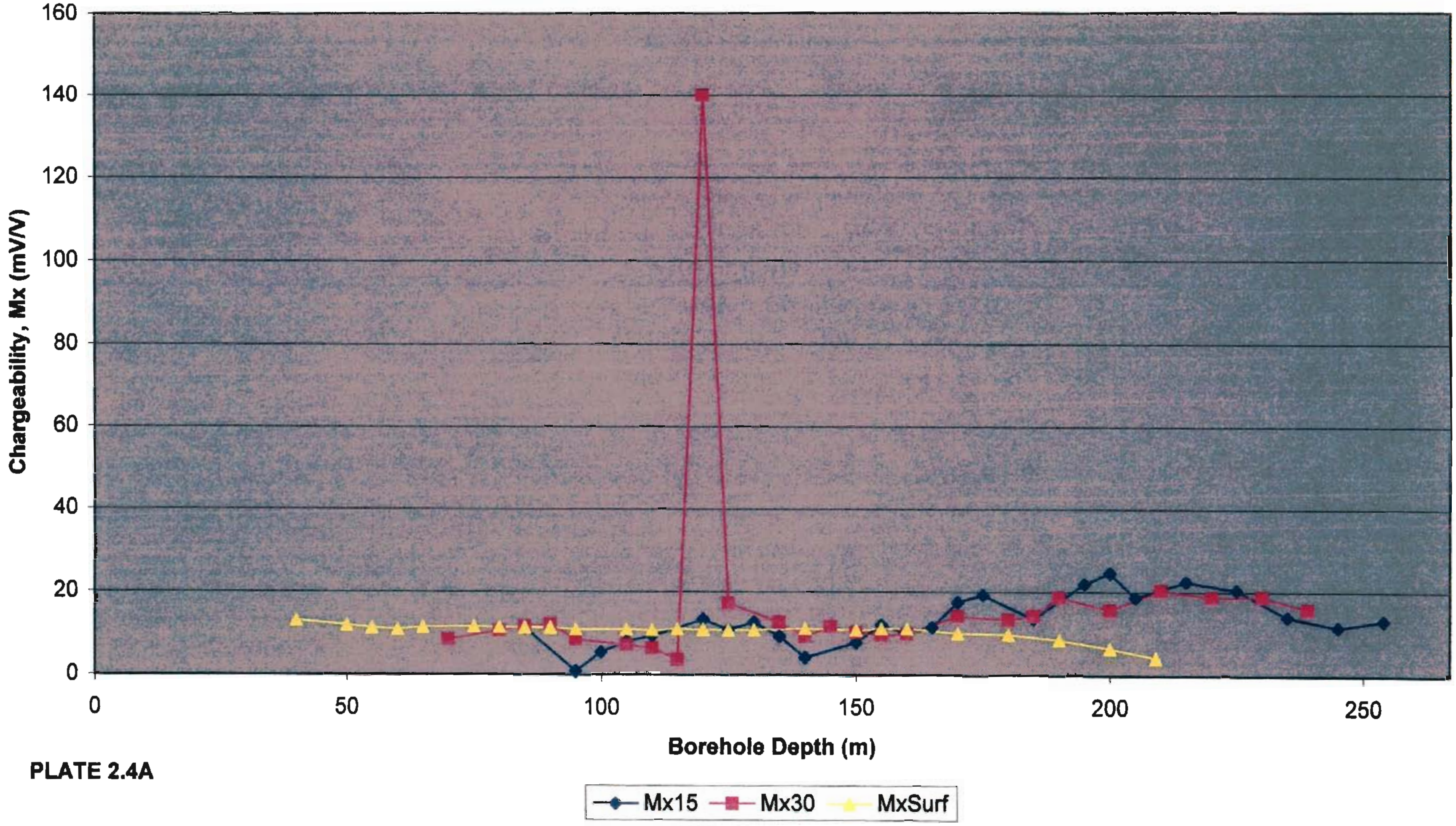


PLATE 2.4A

Young-Shannon - YS-04-04 - West Gradient
Resistivity
JVX Ltd. Ref. 5-55 Chester
Depth Scale 1:1250

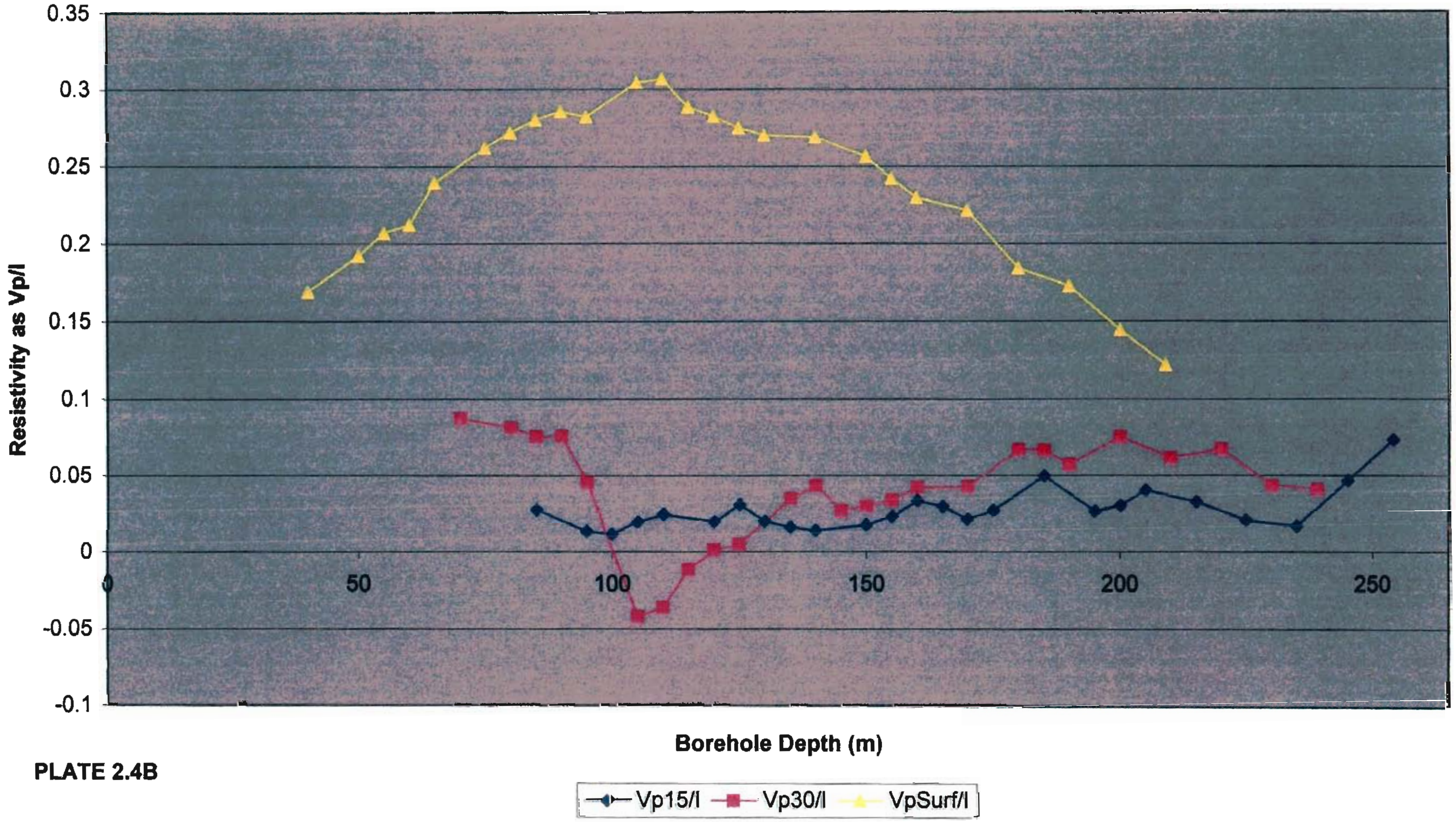


PLATE 2.4B

Young-Shannon - YS-04-05 - Pole-Dipole 25 m.
Chargeability
JVX Ltd. Ref. 5-55 Chester
Depth Scale 1:2000

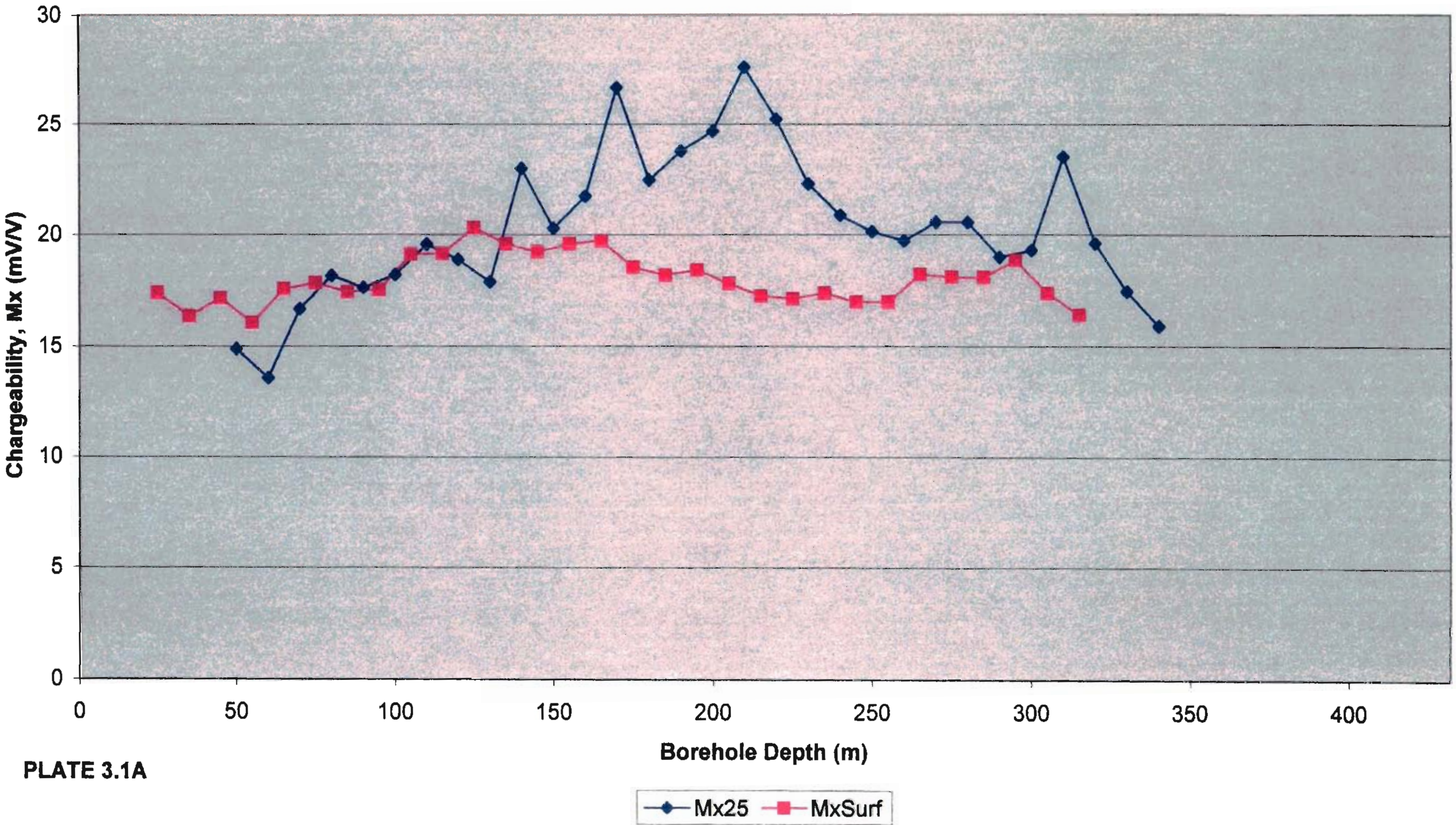


PLATE 3.1A

Young-Shannon - YS-04-05 - Pole-Dipole 25 m.
Resistivity
JVX Ltd. Ref. 5-55 Chester
Depth Scale 1:2000

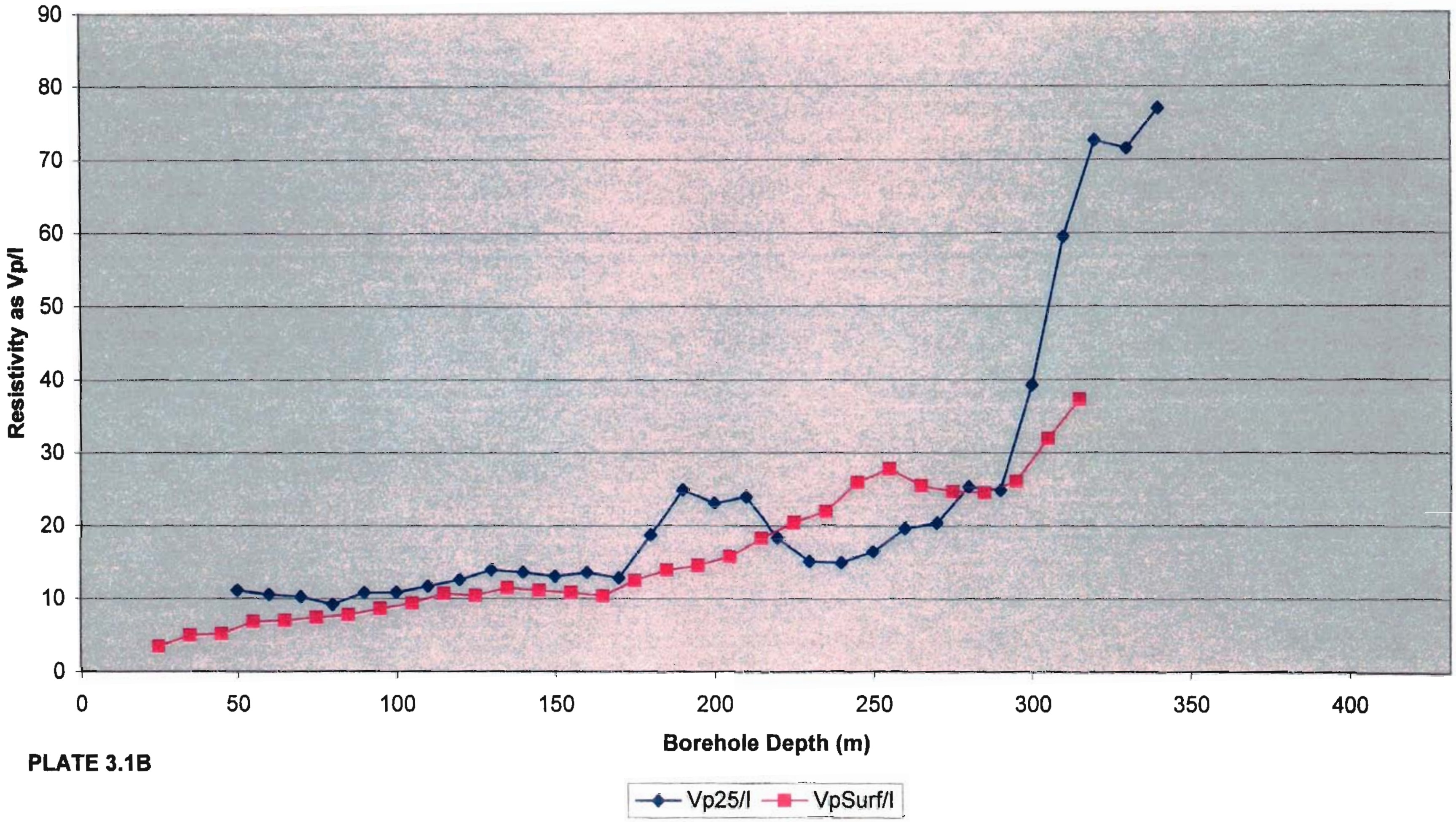


PLATE 3.1B

Young-Shannon - YS-04-05 - Pole-Dipole 10 m.
Chargeability
JVX Ltd. Ref. 5-55 Chester
Depth Scale 1:2000

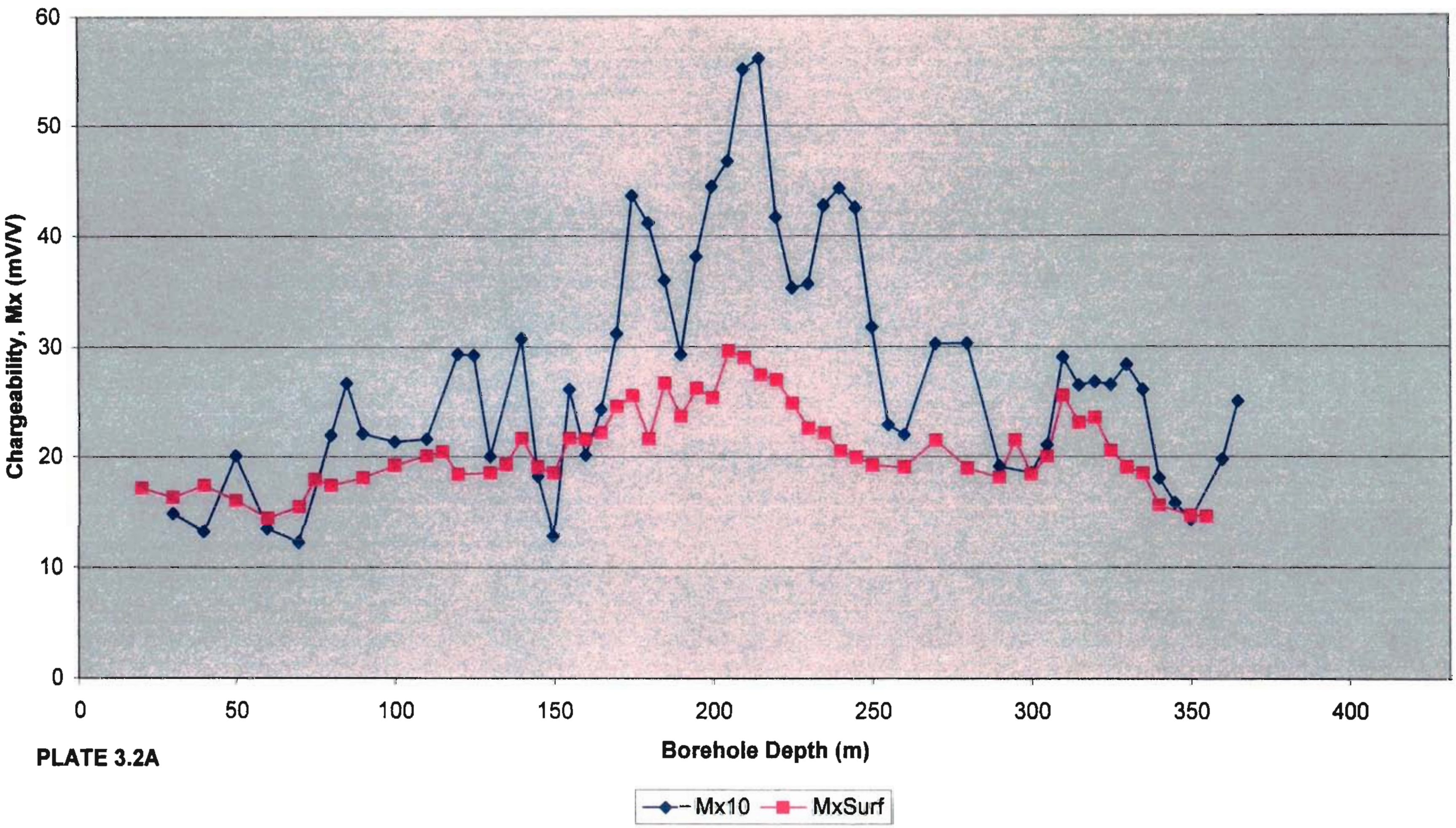


PLATE 3.2A

Young-Shannon - YS-04-05 - Pole-Dipole 10 m.
Resistivity
JVX Ltd. Ref. 5-55 Chester
Depth Scale 1:2000

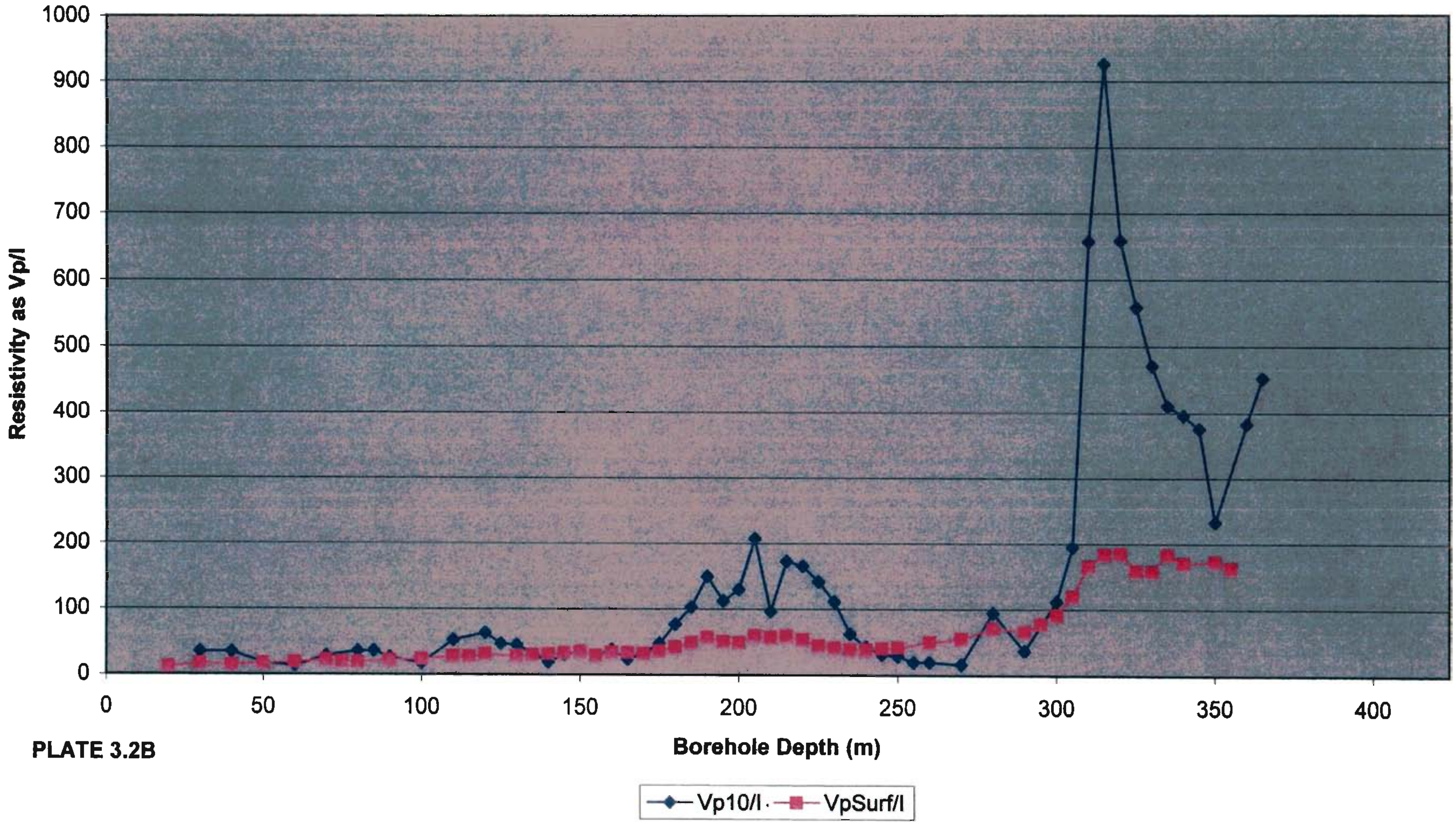


PLATE 3.2B

Yooung-Shannon - YS-04-05 - East Gradient
Chargeability
JVX Ltd. Ref. 5-55 Chester
Depth Scale 1:2000

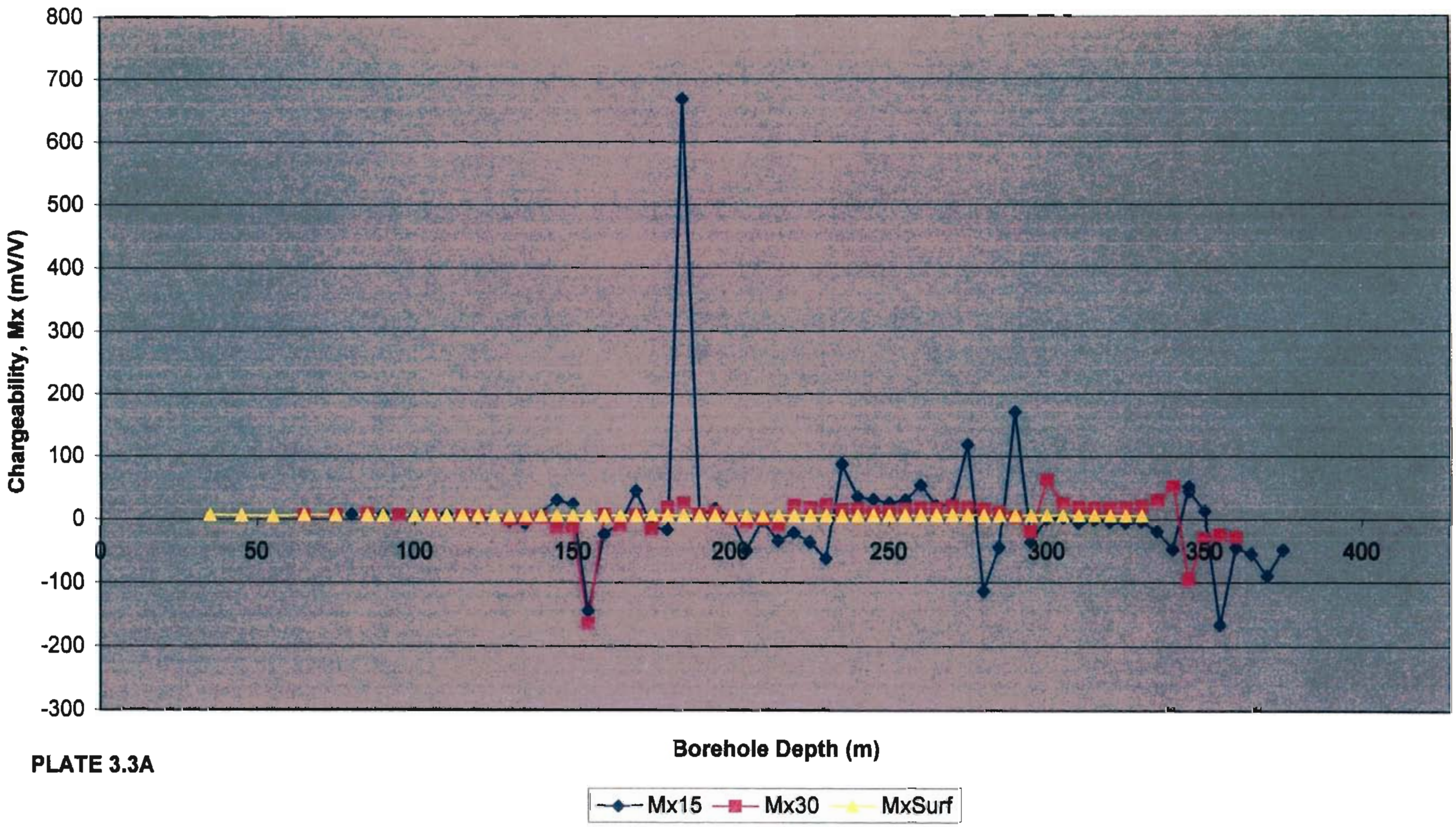


PLATE 3.3A

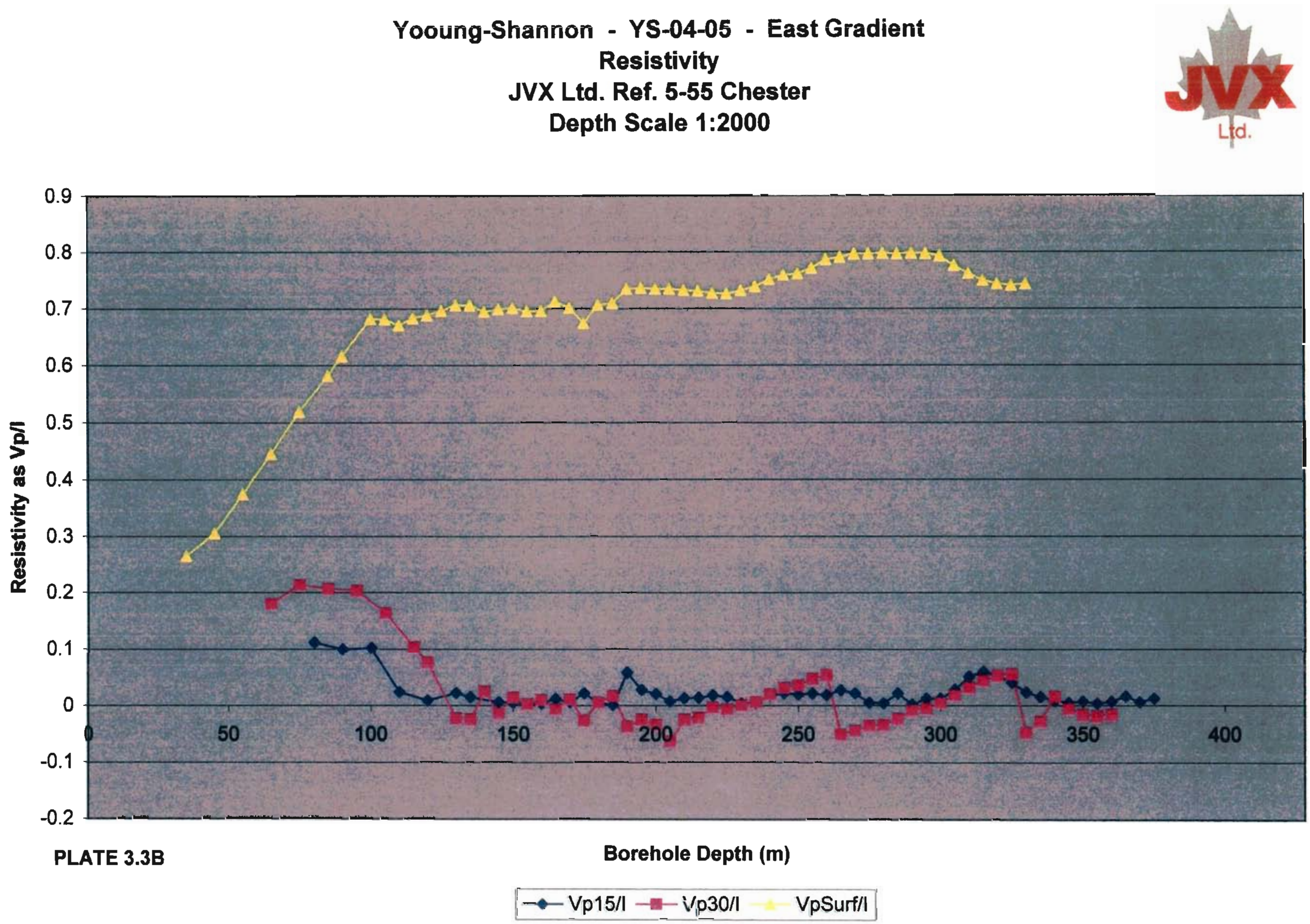

Yooung-Shannon - YS-04-05 - East Gradient
Resistivity
JVX Ltd. Ref. 5-55 Chester
Depth Scale 1:2000
JVX Ltd.
Resistivity as Vp/I
Borehole Depth (m)
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
-0.1
-0.2
0
50
100
150
200
250
300
350
400
Vp15/I
Vp30/I
VpSurf/I

PLATE 3.3B

Young-Shannon - YS-04-05 - West Gradient
Chargeability
JVX Ltd. Ref. 5-55 Chester
Depth Scale 1:2000

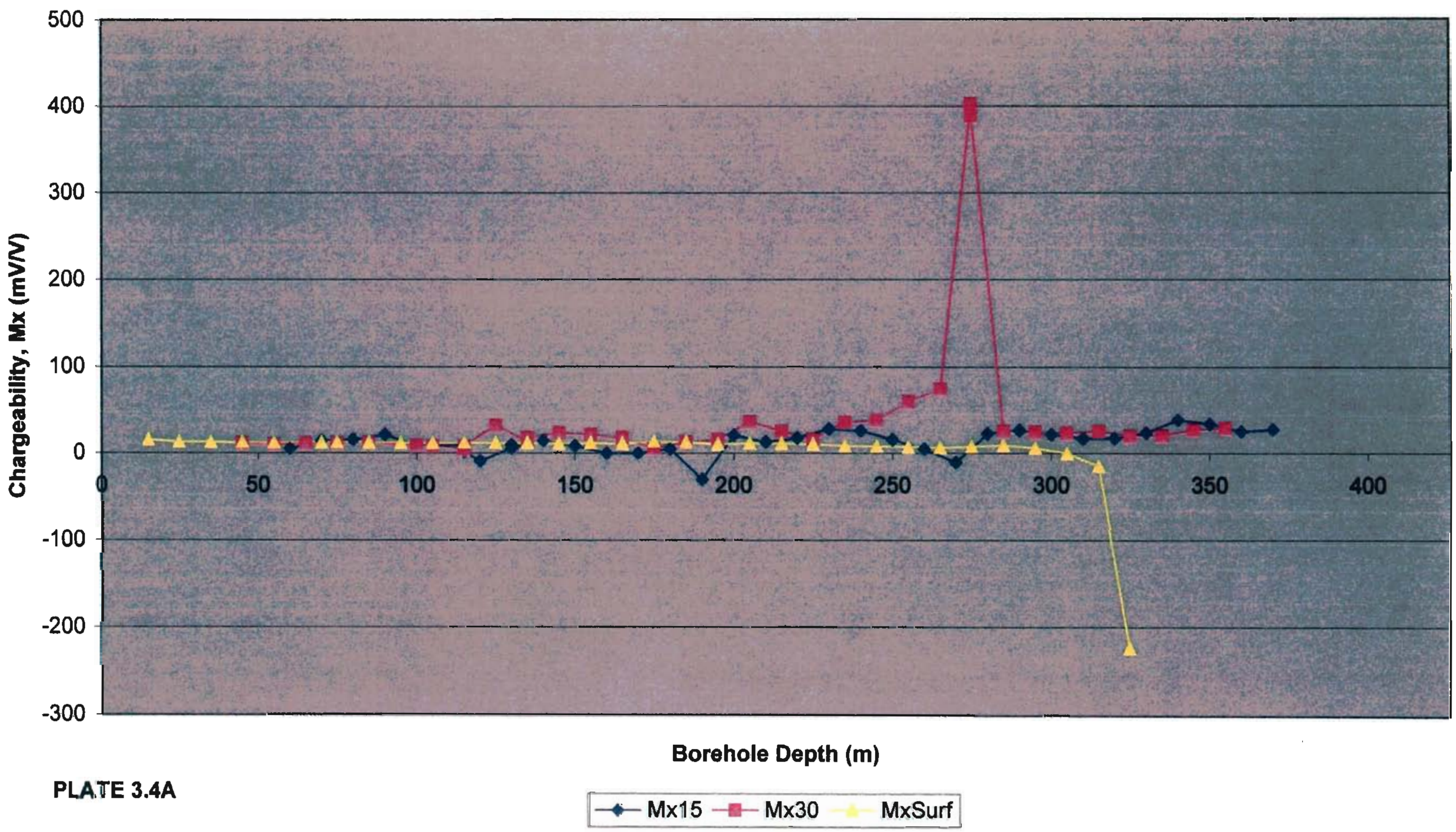


PLATE 3.4A

Young-Shannon - YS-04-05 - West Gradient
Resistivity
JVX Ltd. Ref. 5-55 Chester
Depth Scale 1:2000

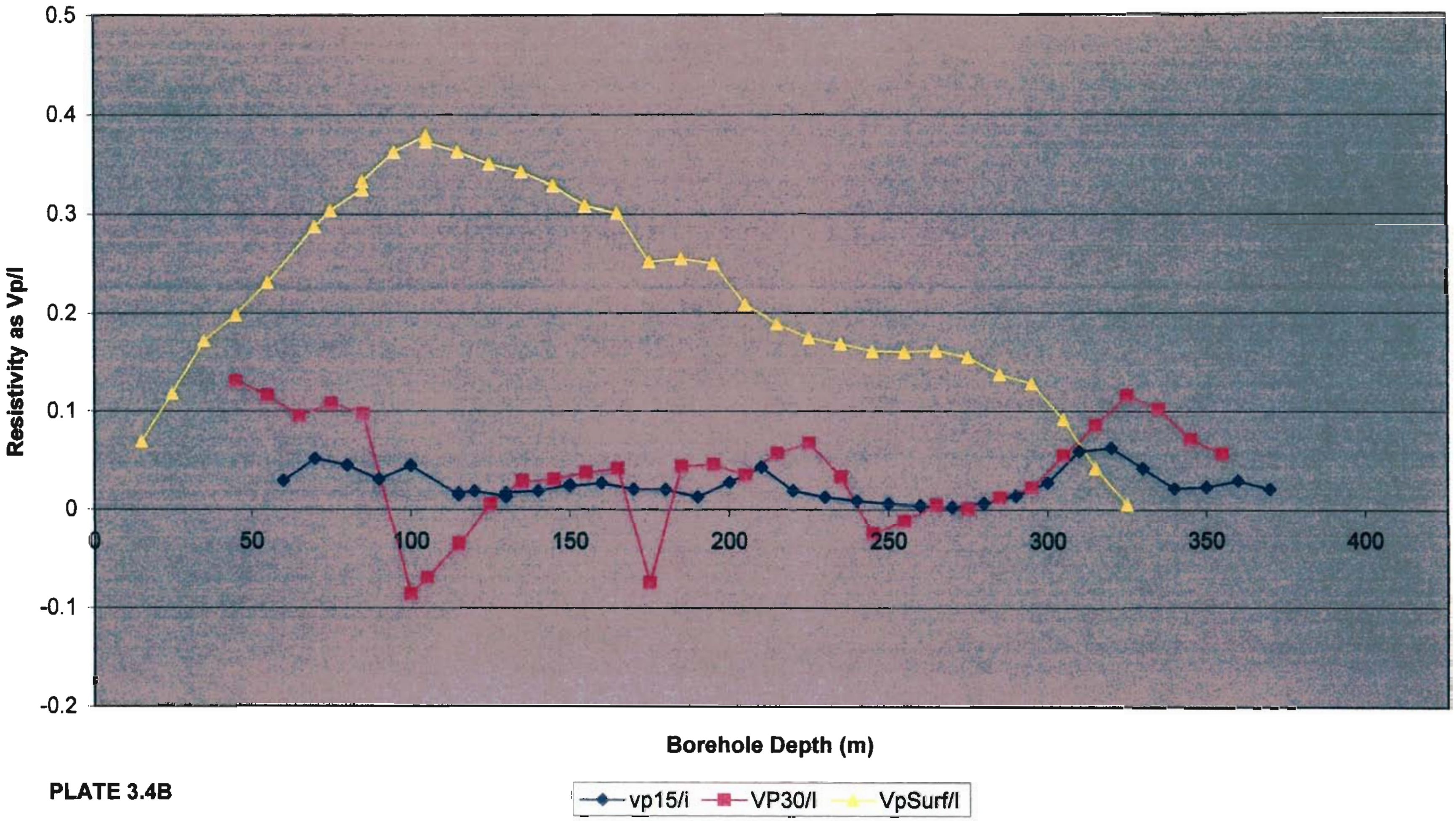


PLATE 3.4B

Young-Shannon - YS-04-06 - Pole-Dipole 25 m.
Chargeability
JVX Ltd. Ref. 5-55 Chester
Depth Scale 1:1000

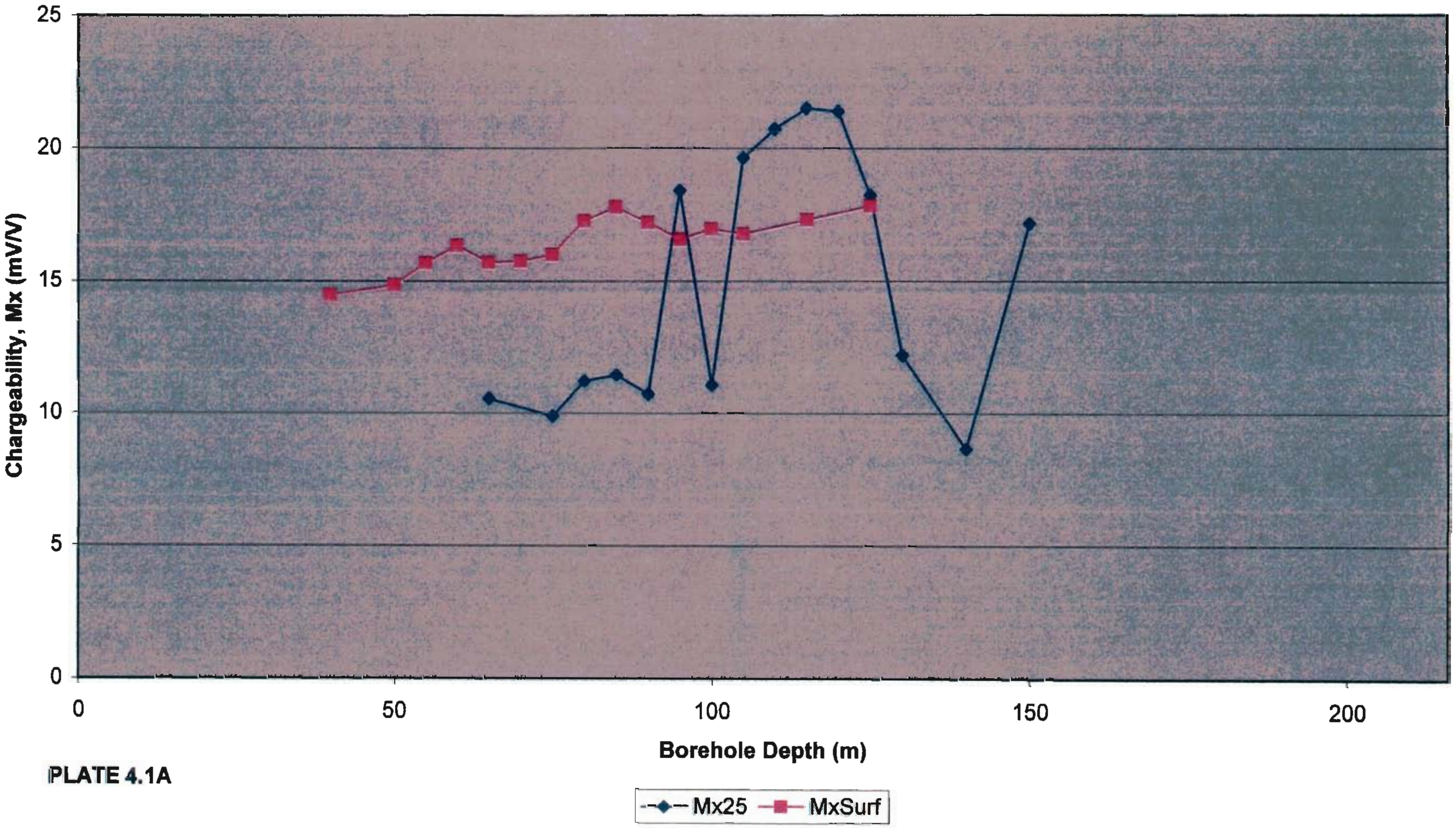
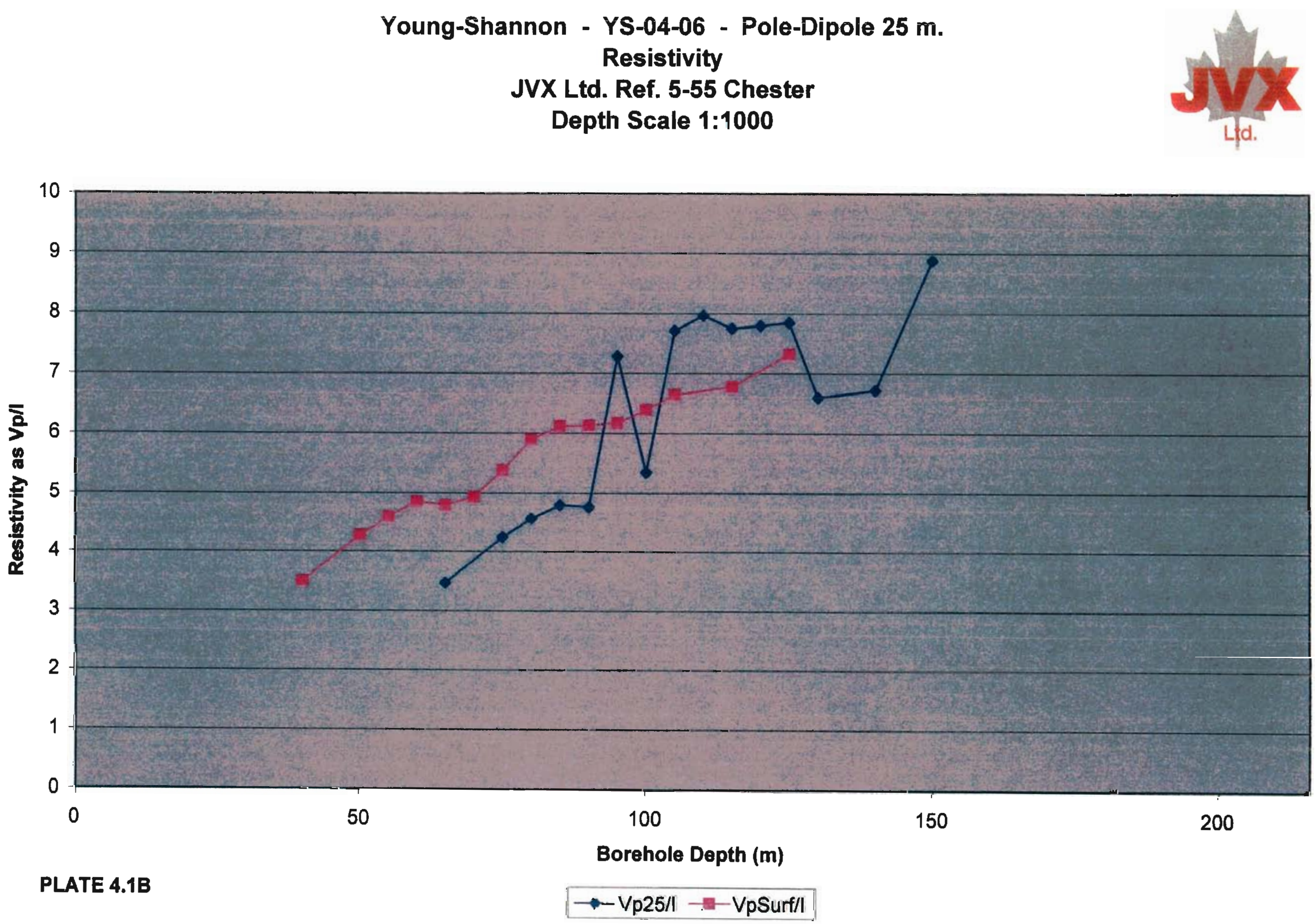


PLATE 4.1A



Young-Shannon - YS-04-06 - Pole-Dipole 25 m.
Resistivity
JVX Ltd. Ref. 5-55 Chester
Depth Scale 1:1000
JVX
Ltd.
Resistivity as Vp/I
10
9
8
7
6
5
4
3
2
1
0
0
50
100
150
200
Borehole Depth (m)
Vp25/I
VpSurf/I

PLATE 4.1B

Young-Shannon - YS-04-06 - Pole-Dipole 10m.
Chargeability
JVX Ltd. Ref. 5-55 Chester
Depth Scale 1:1000

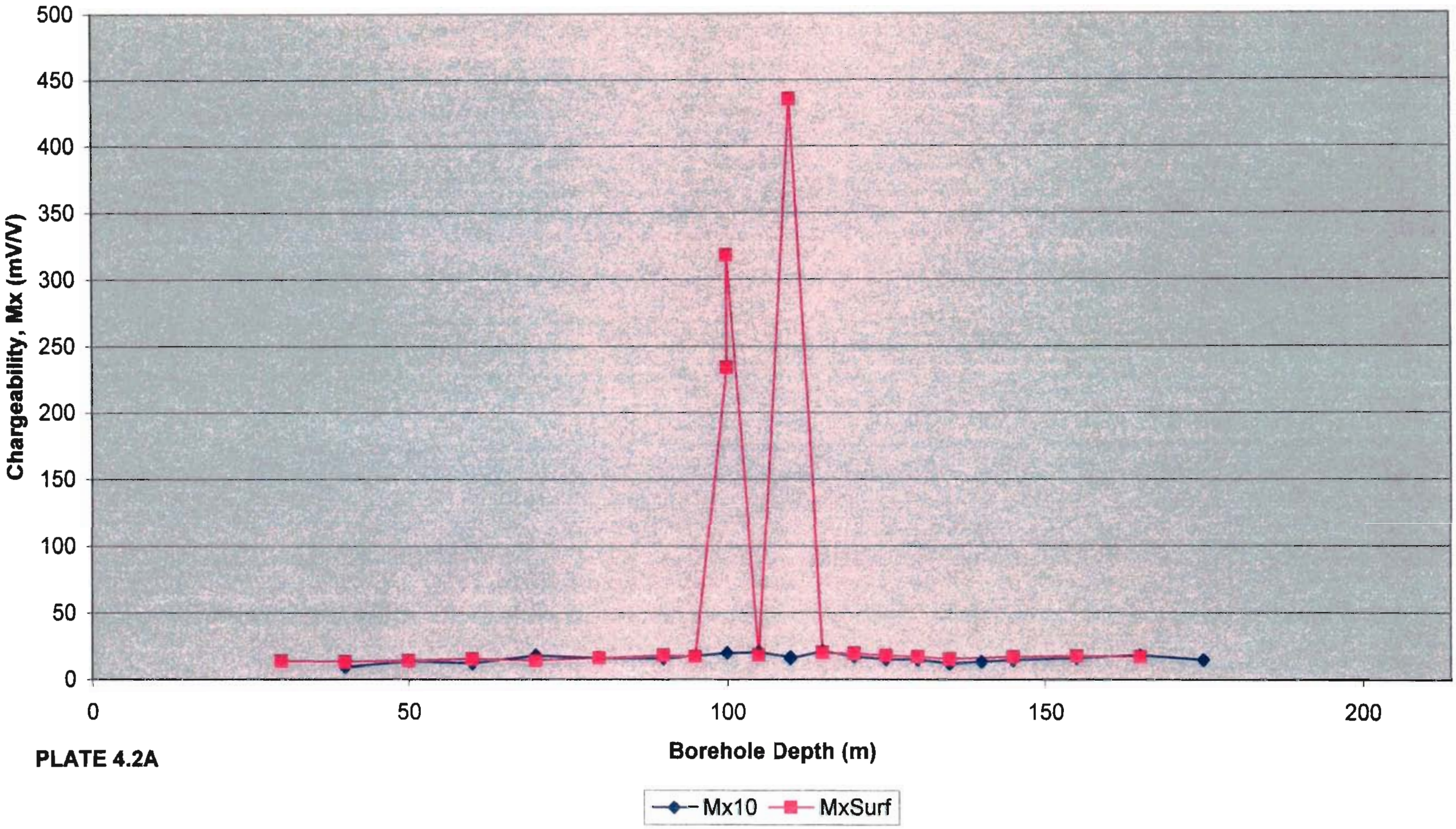


PLATE 4.2A

Young-Shannon - YS-04-06 - Pole-Dipole 10 m.
Resistivity
JVX Ltd. Ref. 5-55 Chester
Depth Scale 1:000

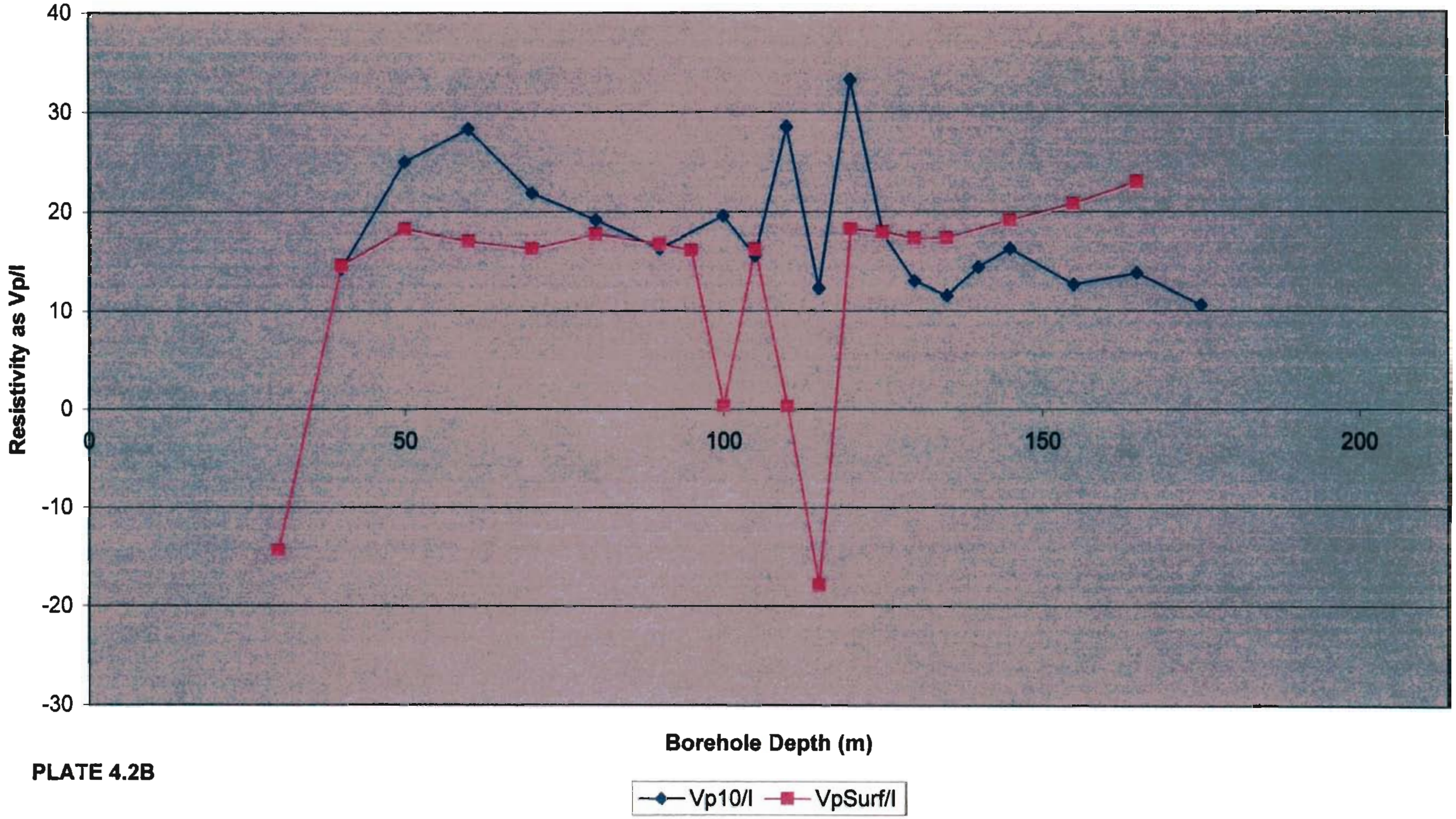
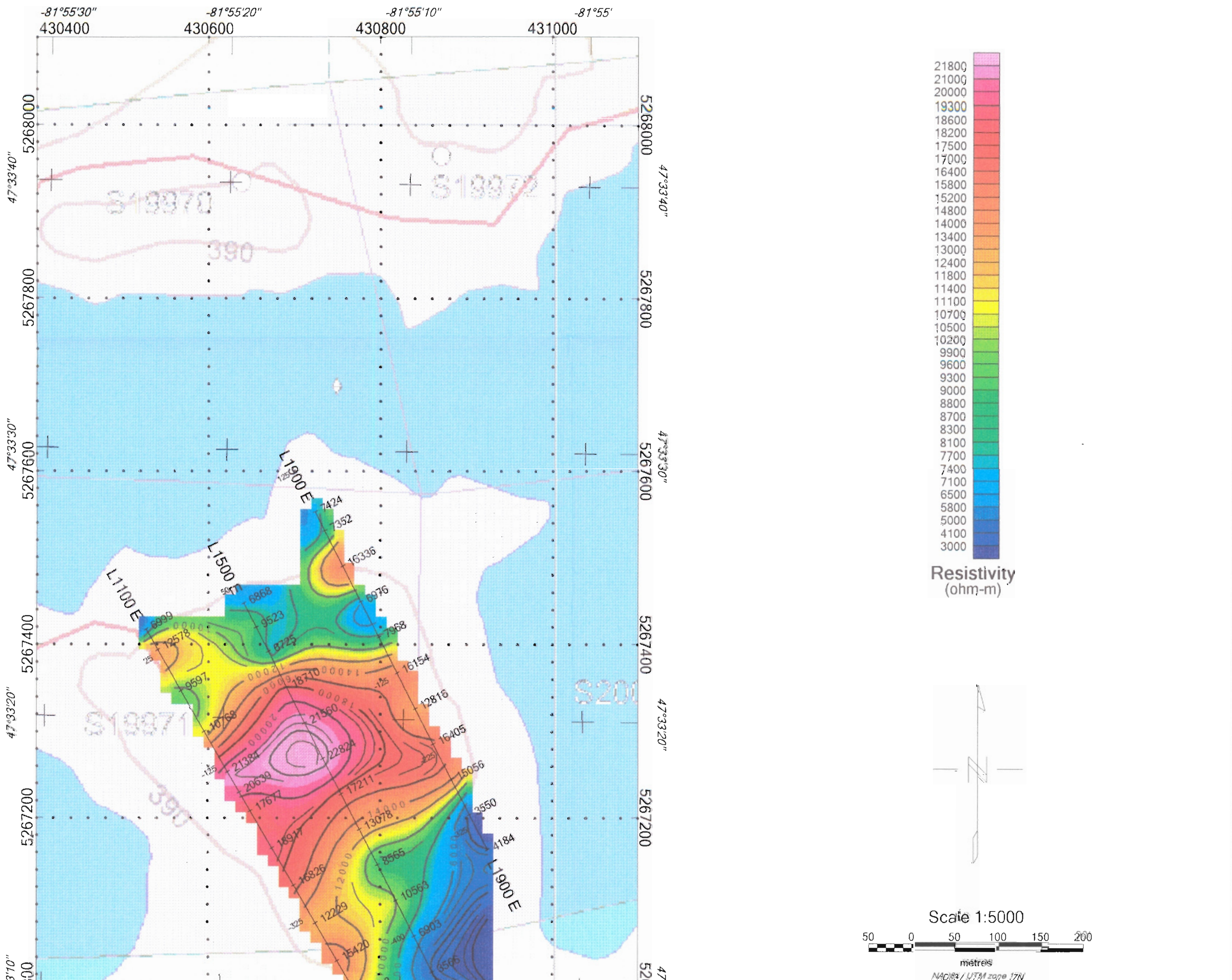


PLATE 4.2B

Appendix E

JVX Ltd.



PALTE 5B

YOUNG SHANNON GOLD MINES LIMITED

SPECTRAL IP / RESISTIVITY SURVEY
THREE DUCK LAKE - CHESTER TWP.
GOGAMA - NTS: 41 P/12

RESISTIVITY (n=2)
Contour Interval: 100, 500 & 2000 ohm-m
RES. posted: Right, Stations posted: Left
Array: Pole Dipole, a=50 m
Inst: Scintrex IPR12 Rx(2 sec) & IPC-7 Tx(2 sec)

JVX LTD. ref. no. 5-55, September 2005

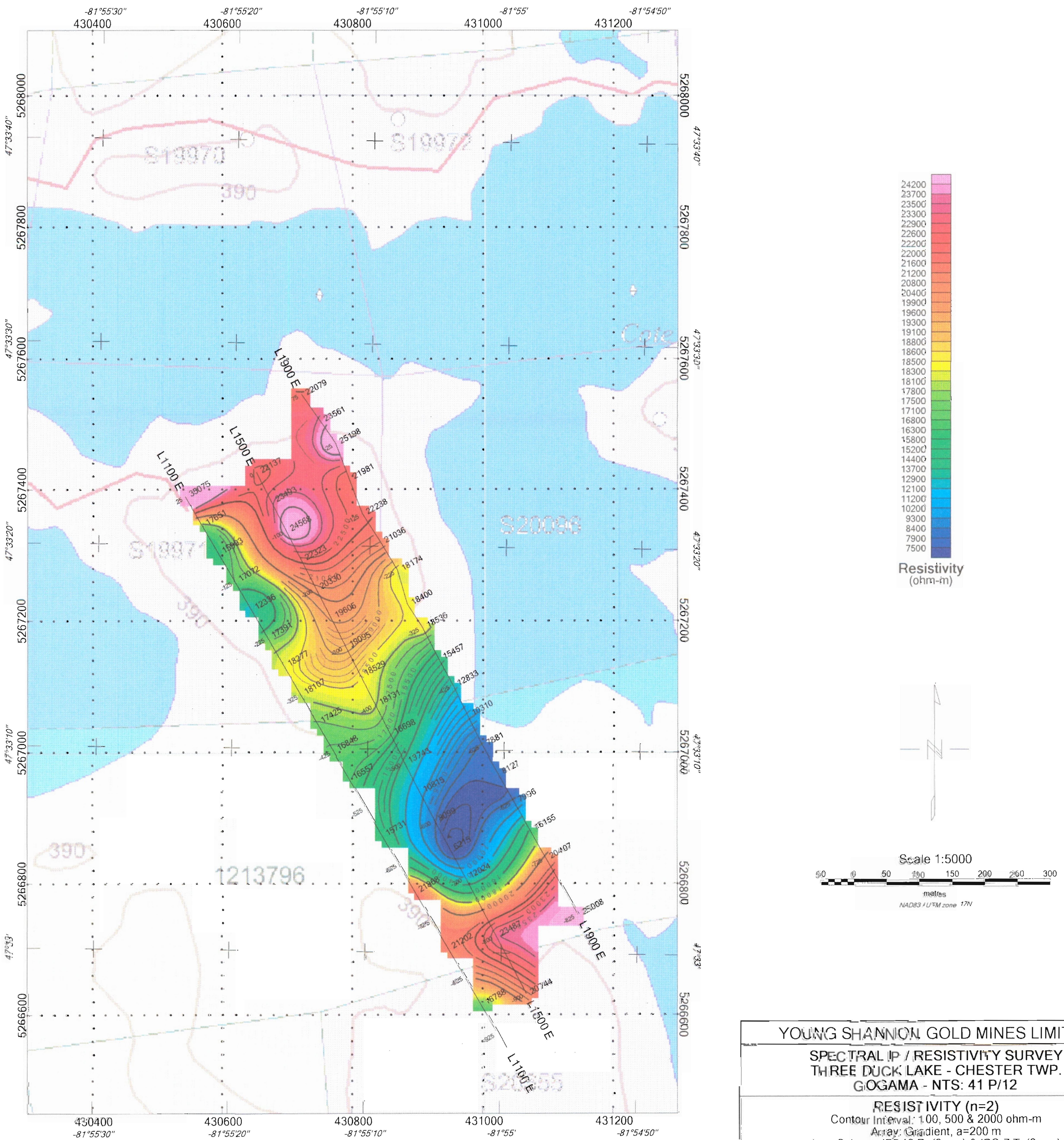


PLATE 7B

YOUNG SHANNON GOLD MINES LIMITED

SPECTRAL IP / RESISTIVITY SURVEY
THREE DUCK LAKE - CHESTER TWP.
GOGAMA - NTS: 41 P/12

RESISTIVITY (n=2)
Contour Interval: 100, 500 & 2000 ohm-m
Array: Gradient, a=200 m
Inst: Scintrex IPR12 Rx(2 sec) & IPC-7 Tx(2 sec)

JVX LTD. ref. no. 5-55, September 2005

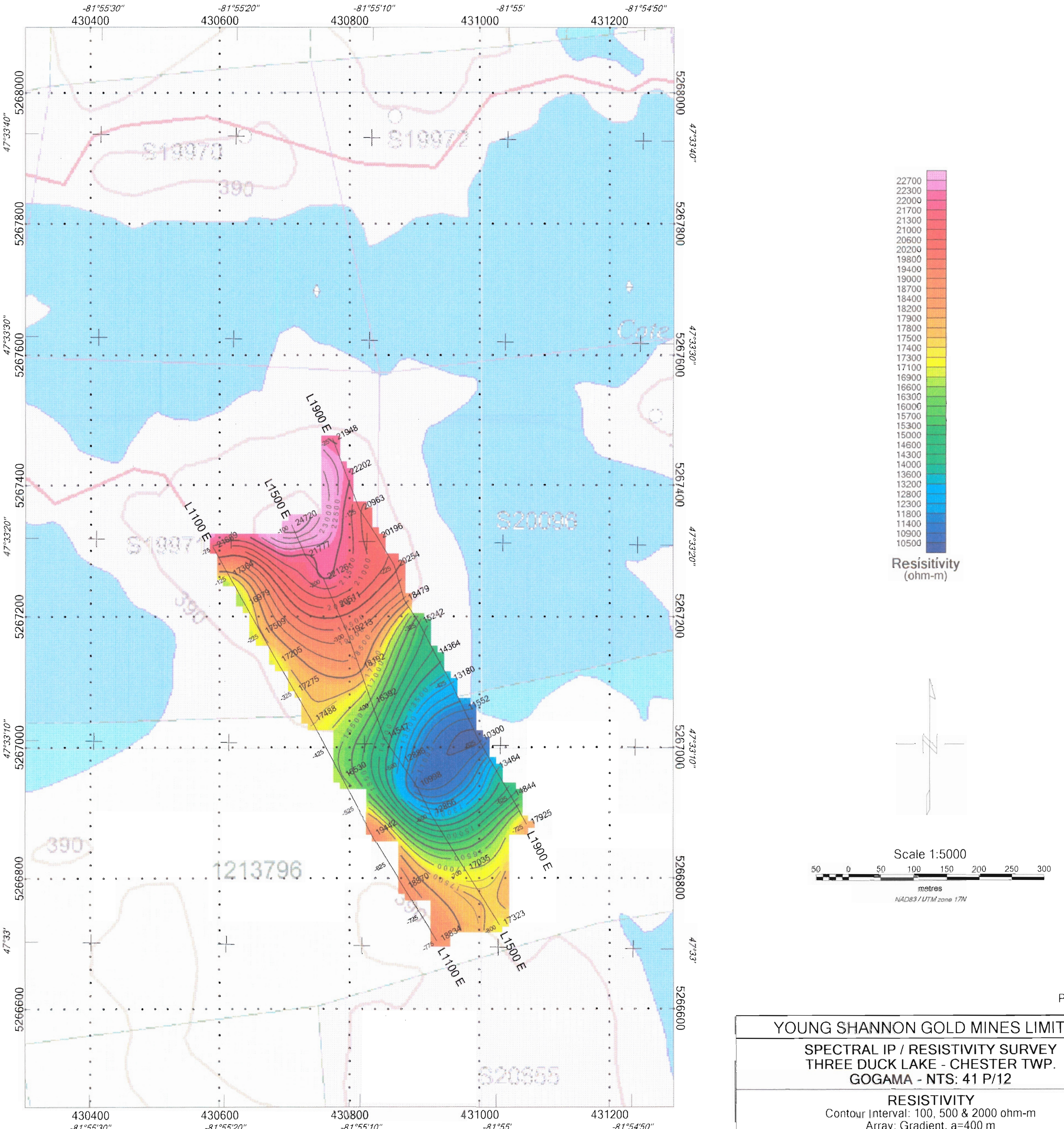


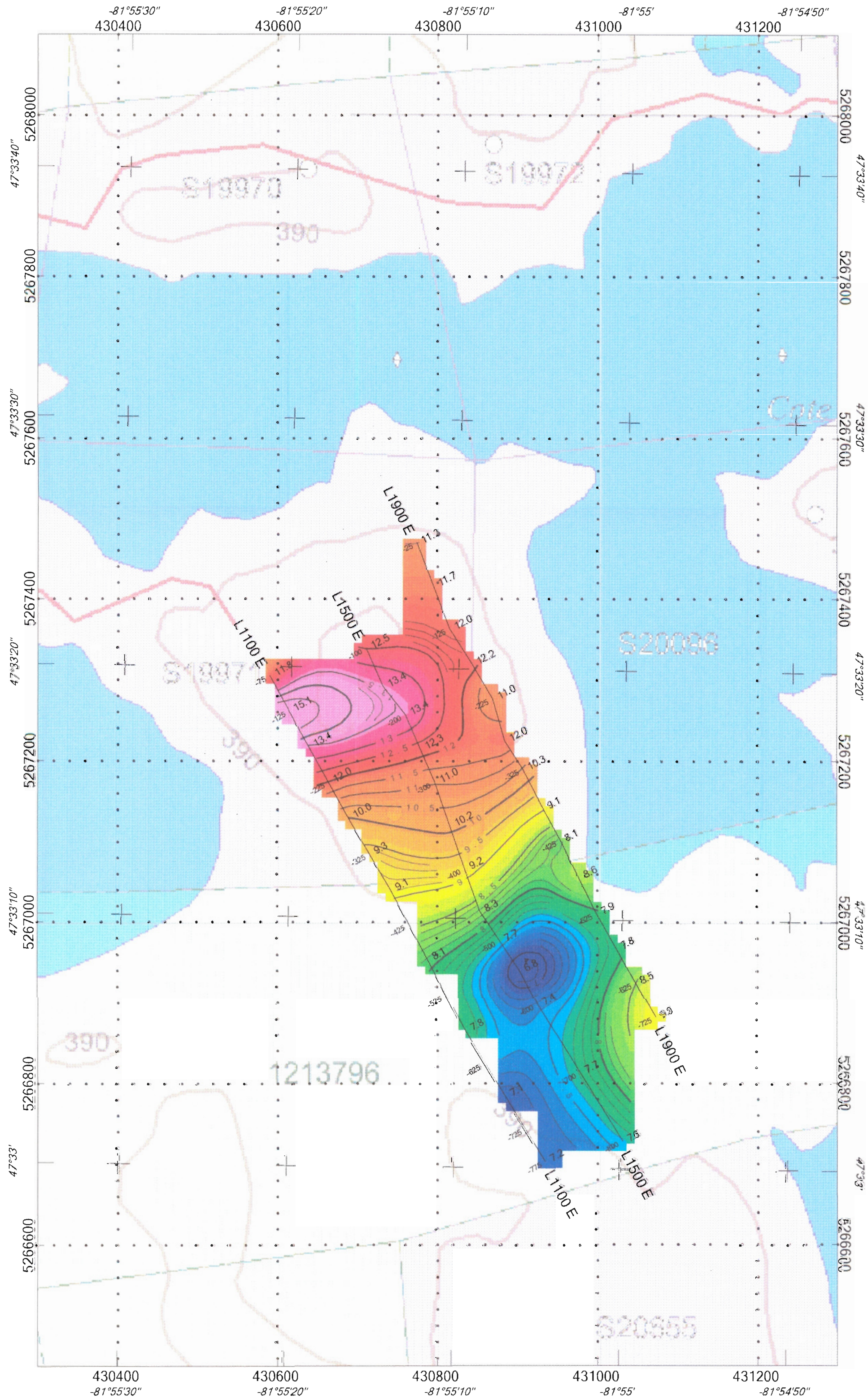
PLATE 8B

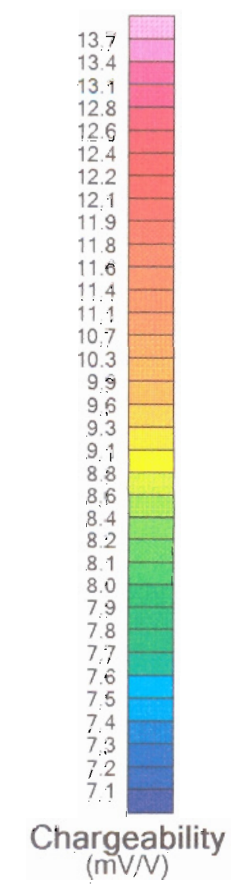
YOUNG SHANNON GOLD MINES LIMITED

SPECTRAL IP / RESISTIVITY SURVEY
THREE DUCK LAKE - CHESTER TWP.
GOGAMA - NTS: 41 P/12

RESISTIVITY
Contour Interval: 100, 500 & 2000 ohm-m
Array: Gradient, a=400 m
Inst: Scintrex IPR12 Rx(2 sec) & IPC-7 Tx(2 sec)

JVX LTD. ref. no. 5-55, September 2005





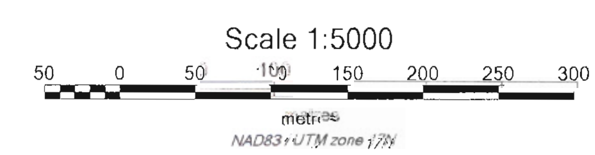


PLATE 8A

YOUNG SHANNON GOLD MINES LIMITED

SPECTRAL IP / RESISTIVITY SURVEY
THREE DUCK LAKE - CHESTER TWP.
GOGAMA - NTS: 41 P/12

CHARGEABILITY

Contour Interval: 0.1, 0.5 & 2.0 mV/V
MX posted: Right, Stations posted: Left
Array: Gradient, a=400 m
Inst: Scintrex IP-R12 Rx(2 sec) & IPC-7 Tx(2 sec)

JVX LTD. ref. no. 5-55, September 2005

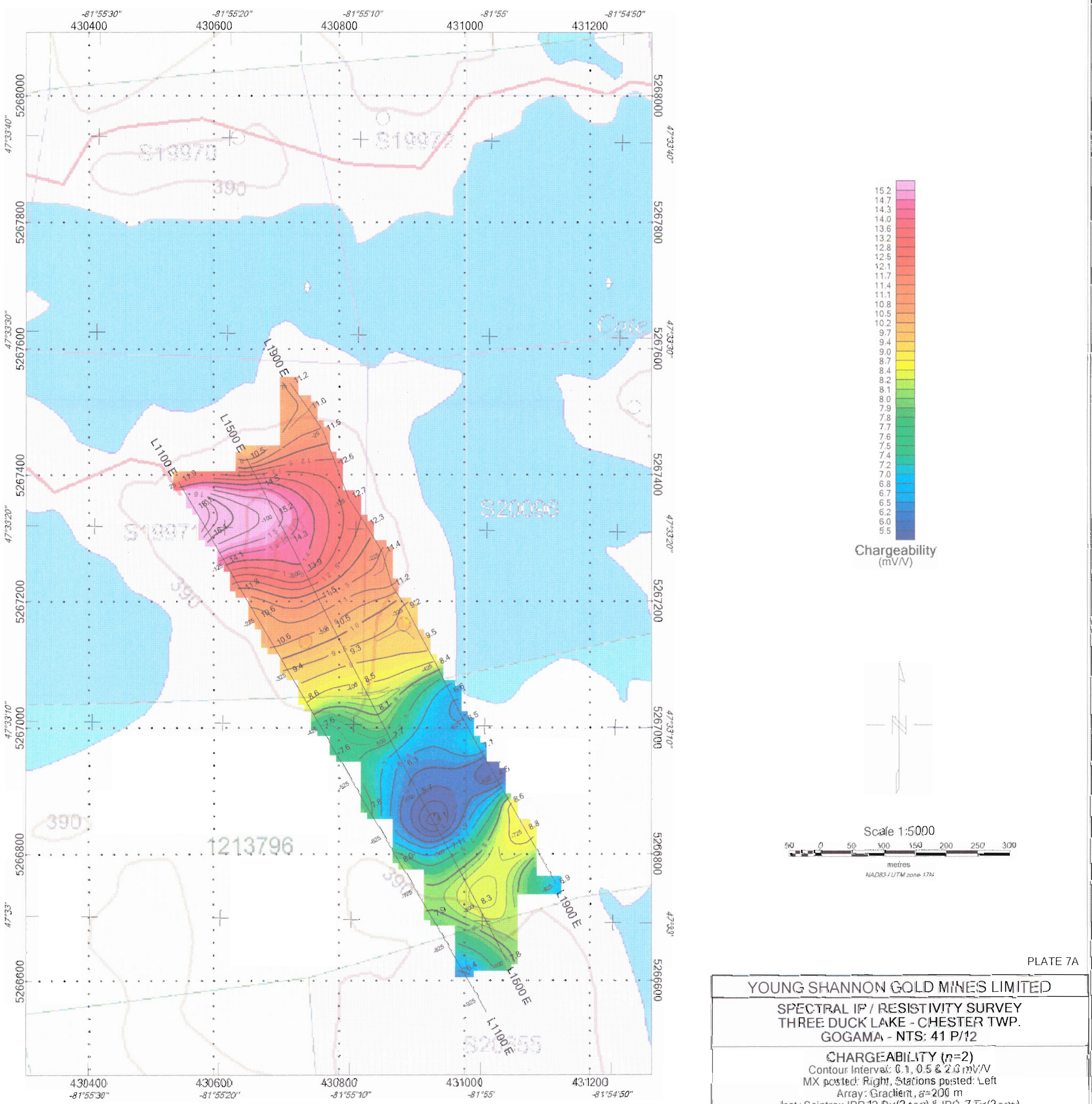


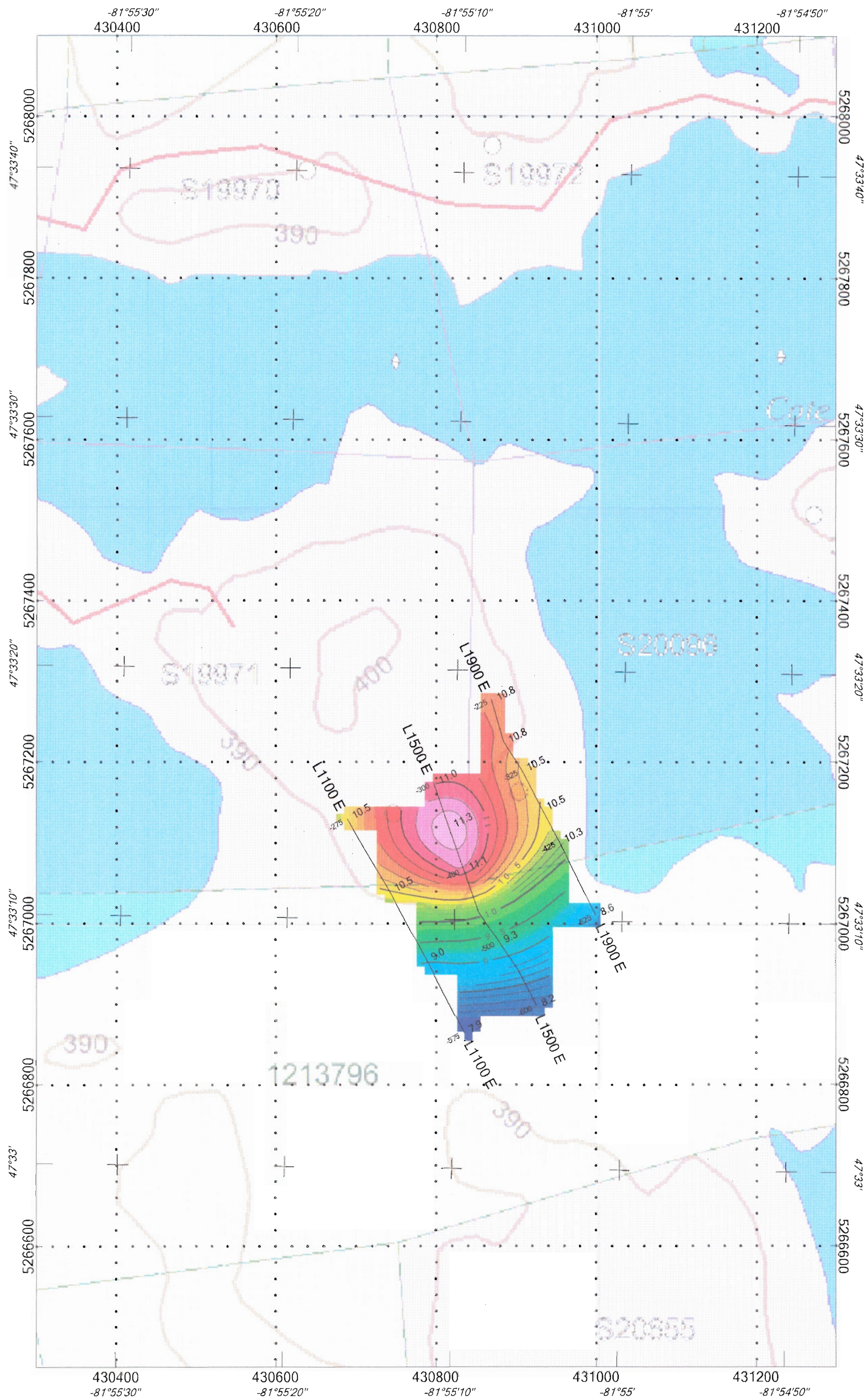
PLATE 7A

YOUNG SHANNON GOLD MINES LIMITED

SPECTRAL IP / RESISTIVITY SURVEY
THREE DUCK LAKE - CHESTER TWP.
GOGAMA - NTS: 41 P/12

CHARGEABILITY (n=2)
Contour Interval: 0.1, 0.5 & 2.0 mV/V
MX posted: Right, Stations posted: Left
Array: Gradient, a=200 m
Inst: Scintrex IPR 12 Rx(2 sec) & IPC-7 Tx(2 sec)

JVX LTD. ref. no. 5-55, September 2005



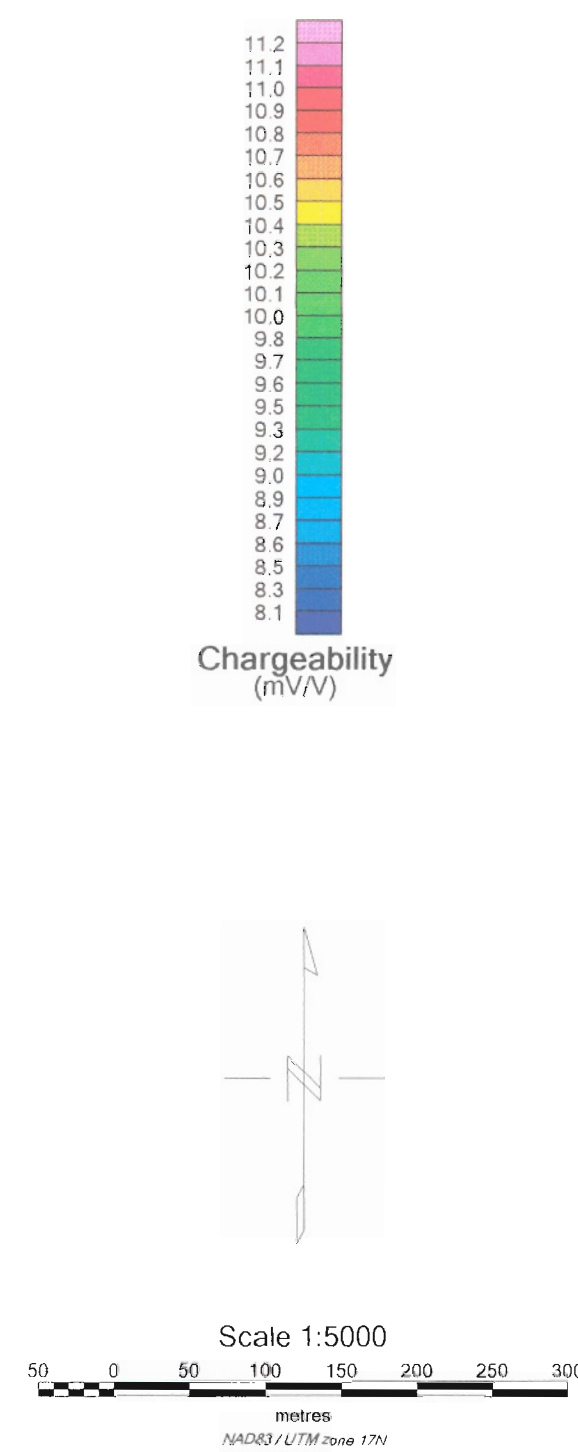


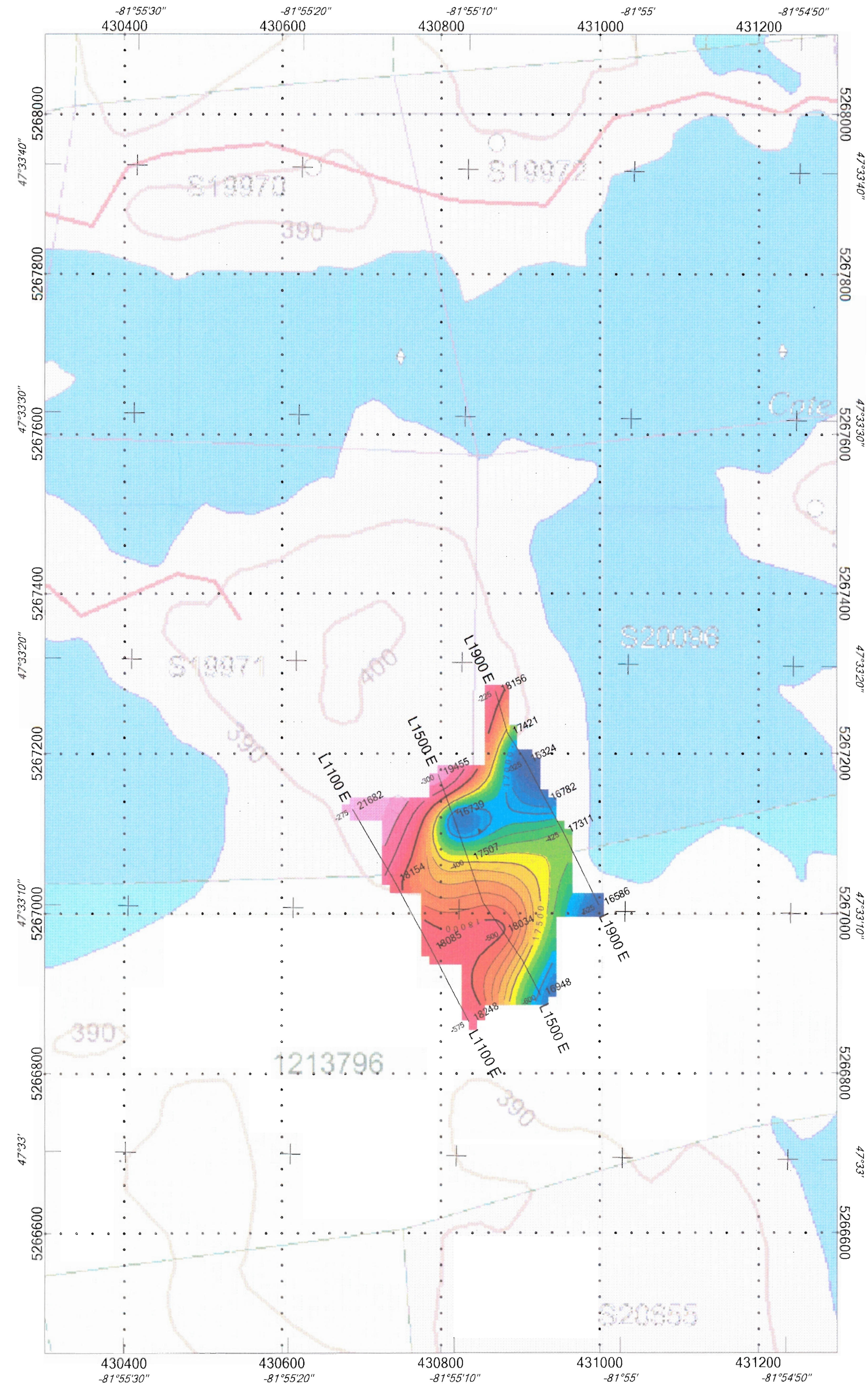
PLATE 9A

YOUNG SHANNON GOLD MINES LIMITED

SPECTRAL IP / RESISTIVITY SURVEY
THREE DUCK LAKE - CHESTER TWP.
GOGAMA - NTS: 41 P/12

CHARGEABILITY
Contour Interval: 0.1, 0.5 & 2.0 mV/V
MX posted: Right, Stations posted: Left
Array: Gradient, a=800 m
Inst: Scintrex IPR12 Rx(2 sec) & IPC-7 Tx(2 sec)

JVX LTD. ref. no. 5-55, September 2005



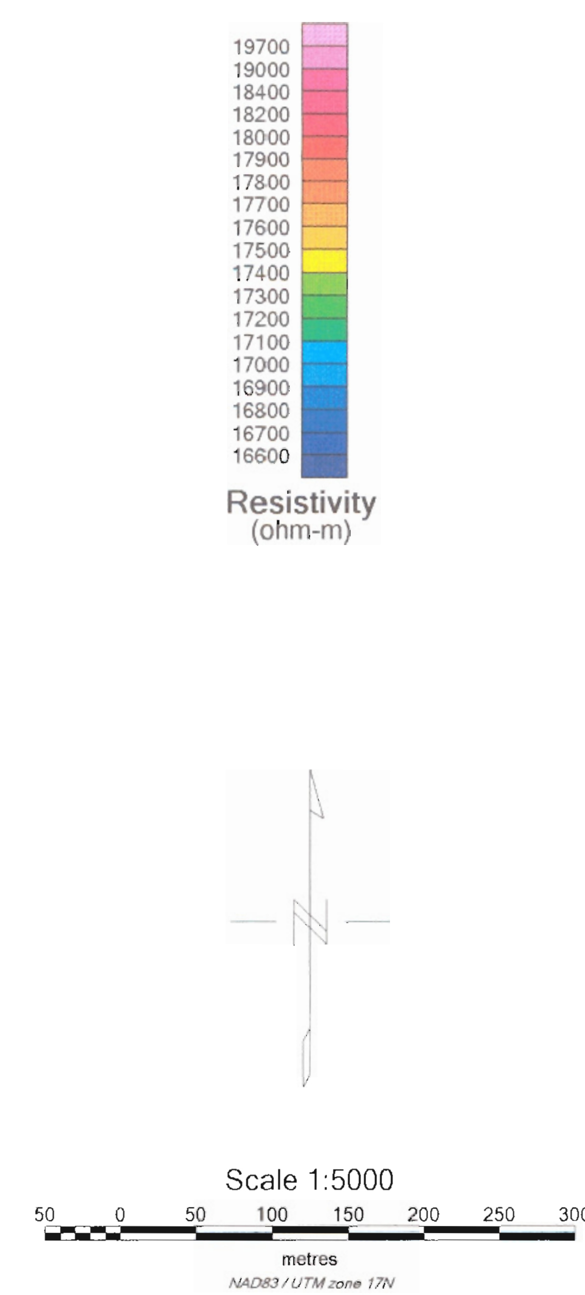


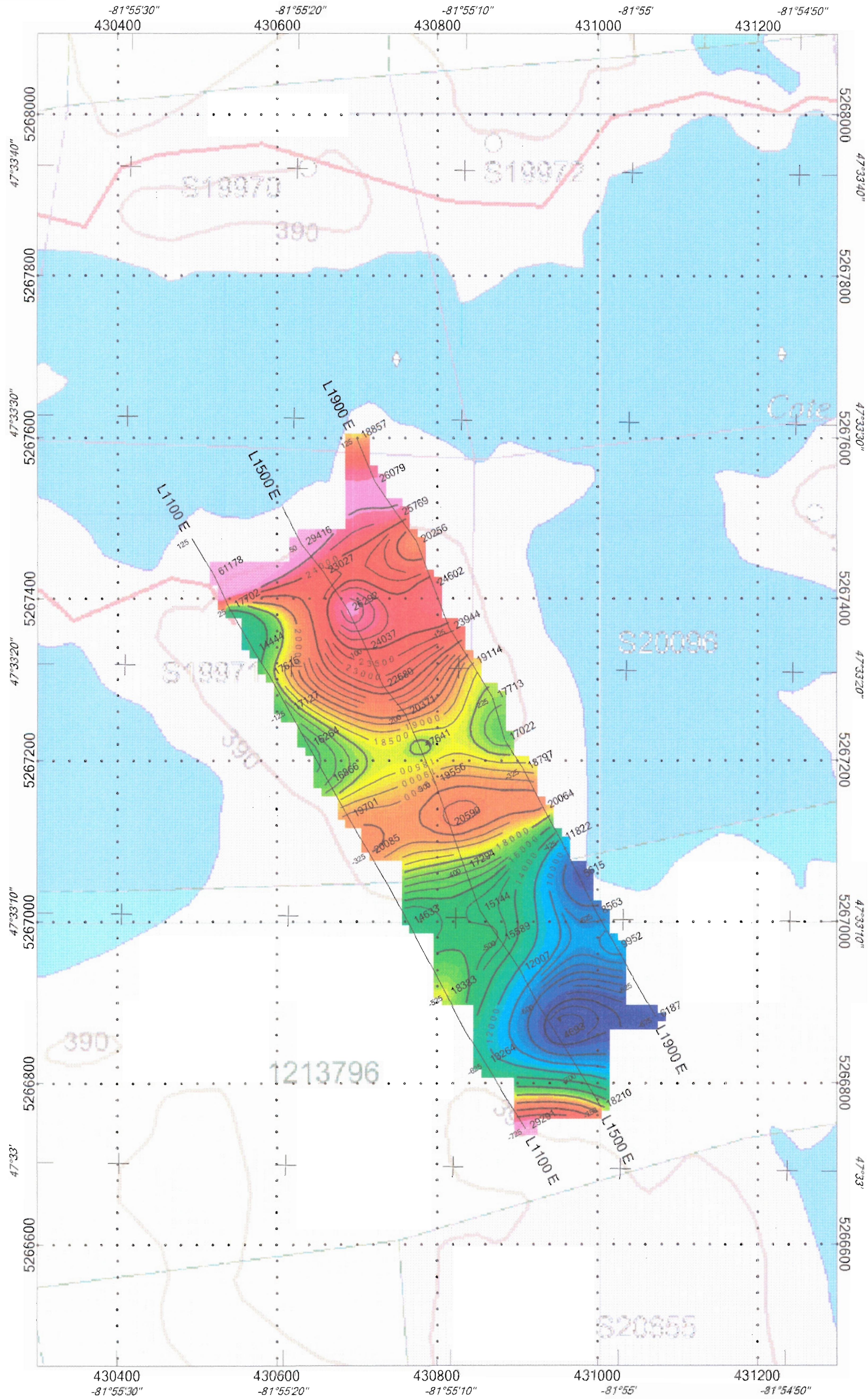
PLATE 9B

YOUNG SHANNON GOLD MINES LIMITED

SPECTRAL IP / RESISTIVITY SURVEY
THREE DUCK LAKE - CHESTER TWP.
GOGAMA - NTS: 41 P/12

RESISTIVITY
Contour Interval: 100, 500 & 2000 ohm-m
Array: Gradient, a=800 m
Inst: Scintrex IPR12 Rx(2 sec) & IPC-7 Tx(2 sec)

JVX LTD. ref. no. 5-55, September 2005



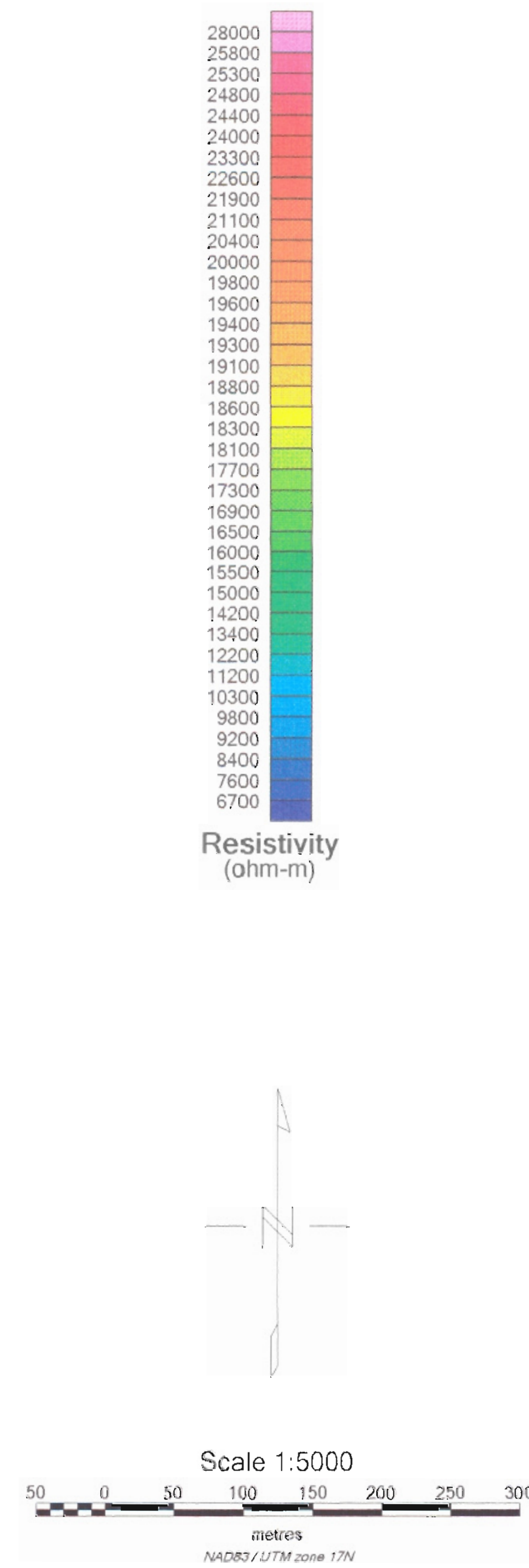


PLATE 6B

YOUNG SHANNON GOLD MINES LIMITED

SPECTRAL IP / RESISTIVITY SURVEY
THREE DUCK LAKE - CHESTER TWP.
GOGAMA - NTS: 41 P/12

RESISTIVITY

Contour Interval: 100, 500 & 2000 ohm-m
Array: Gradient, a=100 m
Inst: Scintrex IPR12 Rx(2 sec) & IPC-7 Tx(2 sec)

JVX LTD. ref. no. 5-55, September 2005

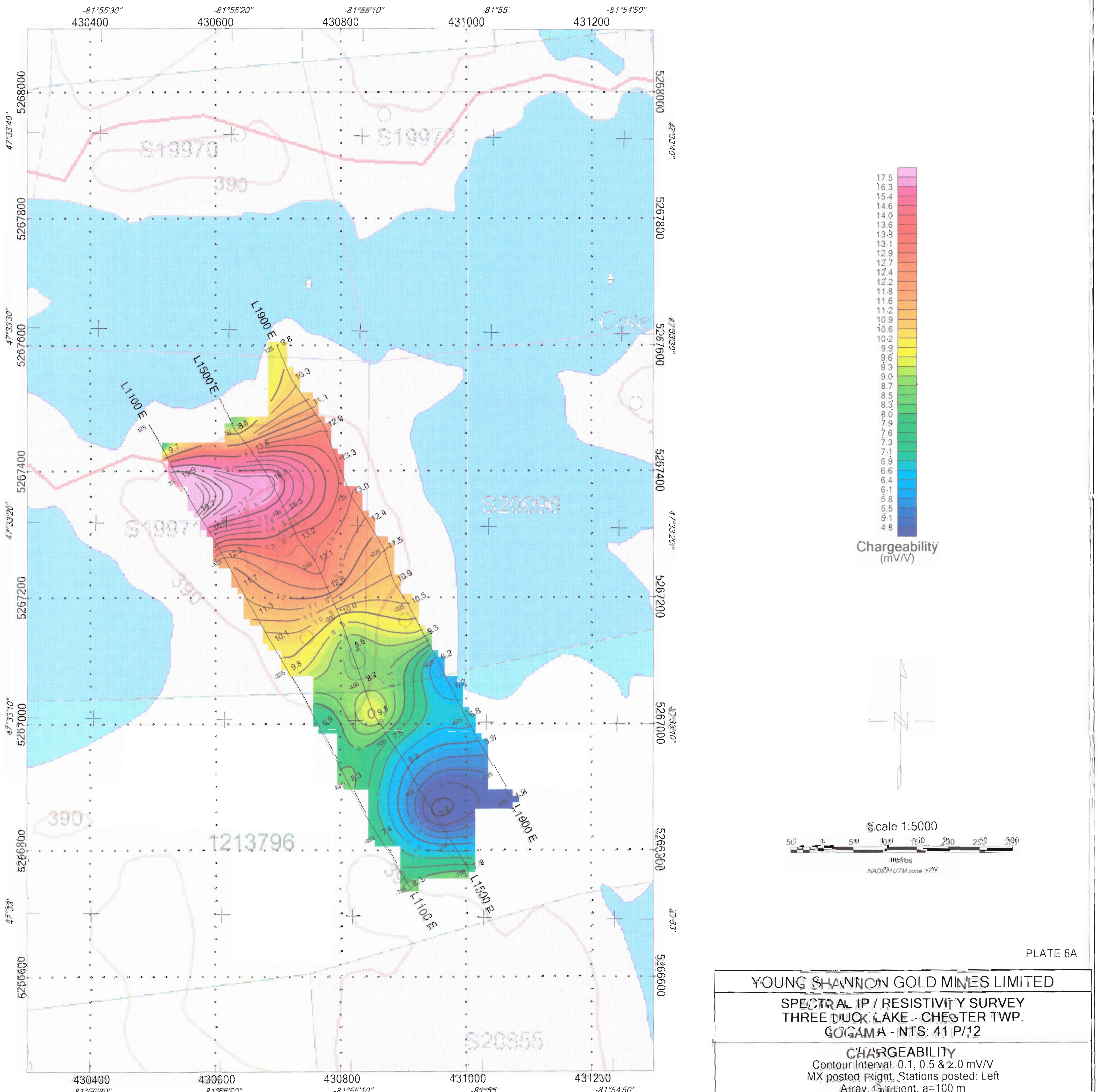


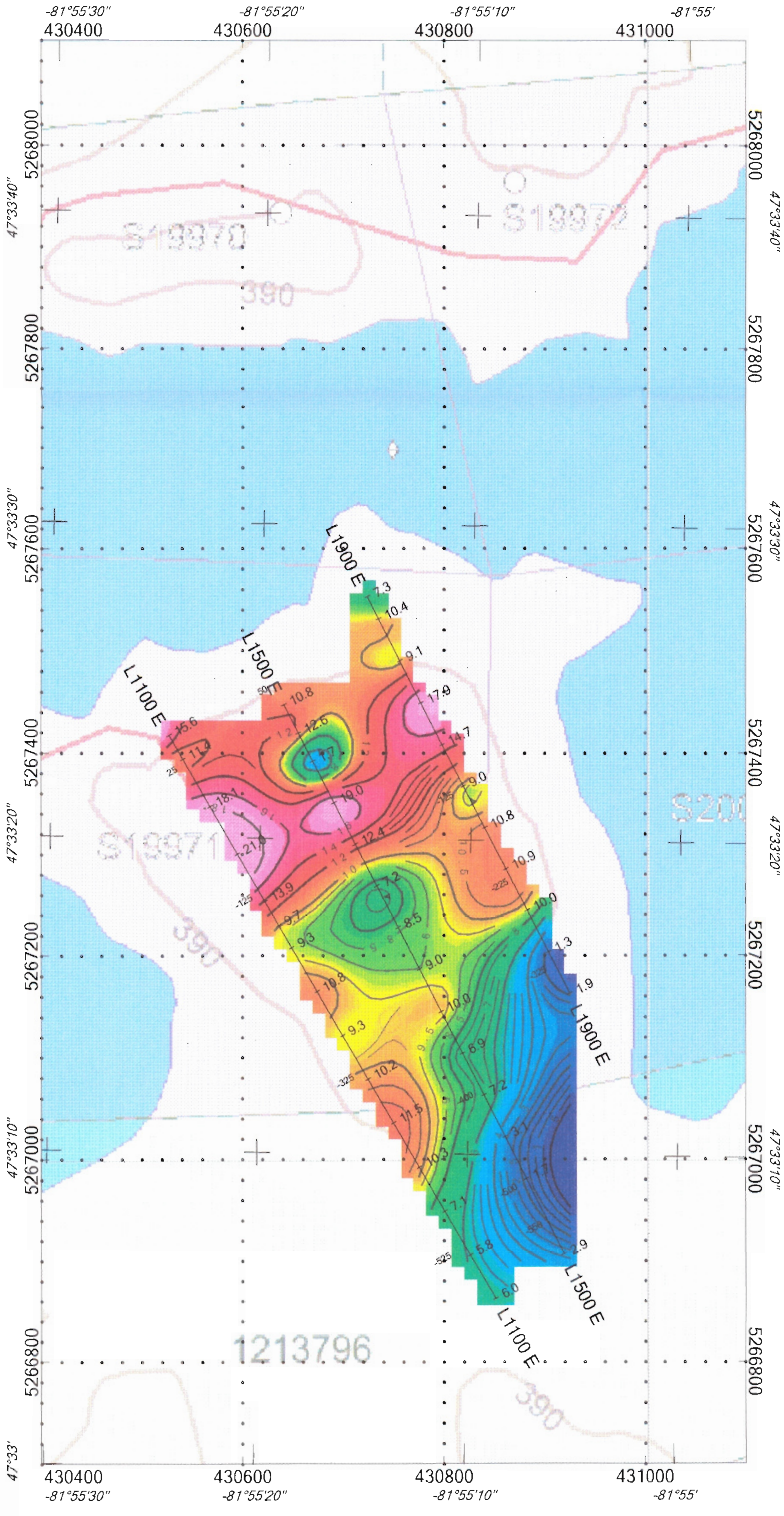
PLATE 6A

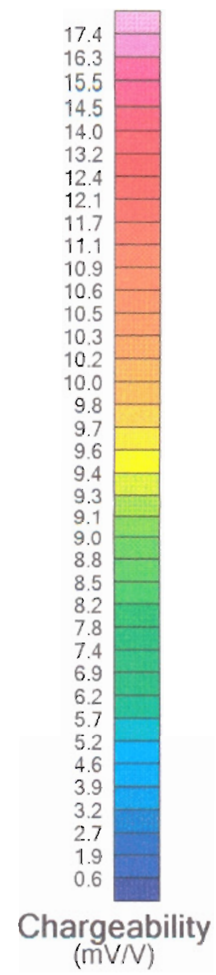
YOUNG SHANNON GOLD MINES LIMITED

SPECTRAL IP / RESISTIVITY SURVEY
THREE DUCK LAKE - CHESTER TWP.
GOGAMA - NTS: 41 P/12

CHARGEABILITY
Contour Interval: 0.1, 0.5 & 2.0 mV/V
MX posted Right, Stations posted: Left
Array: Gradient, a=100 m
Inst: Scintrex: IPR12 Rx(2 sec) & IPC-7 Tx(2 sec)

JVX LTD. ref. no. 5-55, September 2005





Scale 1:5000

50 0 50 100 150 200

metres

NAD83 / UTM zone 17N

PLATE 5A

YOUNG SHANNON GOLD MINES LIMITED

SPECTRAL IP / RESISTIVITY SURVEY
THREE DUCK LAKE - CHESTER TWP.
GOGAMA - NTS: 41 P/12

CHARGEABILITY (n=2)
Contour Interval: 0.1, 0.5 & 2.0 mV/V
MX posted: Right, Stations posted: Left
Array: Pole Dipole, a=50 m
Inst: Scintrex IPR12 Rx(2 sec) & IPC-7 Tx(2 sec)

JVX LTD. ref. no. 5-55, September 2005