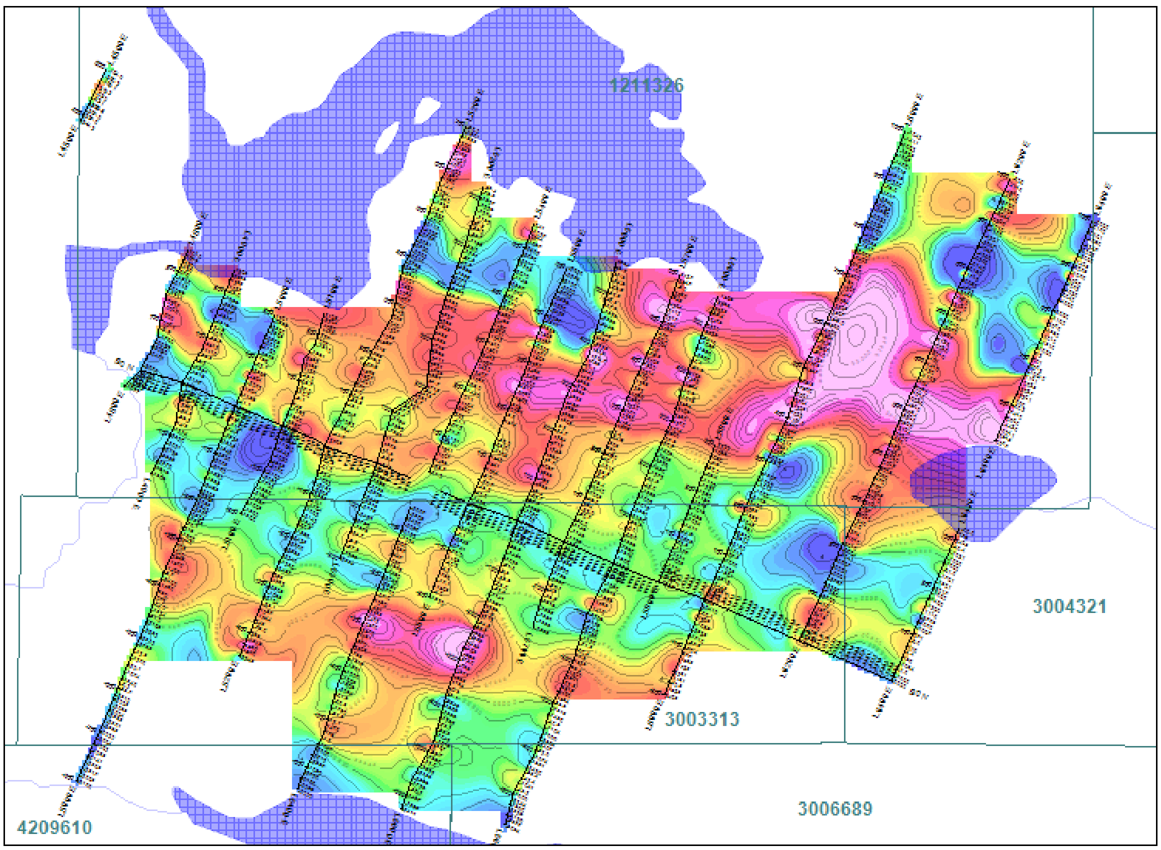
GEOPHYSICAL SURVEYS AND CONSULTING

Logistical Report on Spectral IP/Resistivity and Magnetic/VLF Surveys Huffman Lake Option, Gogama Area, Ontario Augen Gold Corp.



Ref. 9-60
September, 2010

Logistical Report on
Spectral IP/Resistivity and Magnetic/VLF Surveys
Huffman Lake Option, Gogama Area, Ontario

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Summary

Magnetic/VLF and spectral IP/resistivity surveys were done on the Huffman Lake Option grid, Gogama area, Ontario. The IP/resistivity survey was done from November 3 to 23, 2009. The magnetic/VLF survey was done from November 11 to 18, 2009. Total production was 12,175 m IP/resistivity and 14,150 m magnetics/VLF. The results have been presented on 5 plan maps at 1:5,000 and 15 stacked pseudosections at 1:2,500.

Cover page : total magnetic intensity contours, Huffman Lake Option grid

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Maps

The results of the surveys are presented in 5 plan maps at 1:5000 and 15 stacked pseudosections at 1:2500. All maps show the survey grid, claim numbers and claim boundaries, roads and drainage, a UTM grid (NAD83, Z17N) and latitude / longitude co-ordinates. Maps types are

- total magnetic intensity
- VLF offset profiles, vertical inphase and quadrature components, 24.0 kHz
- VLF offset profiles, vertical inphase and quadrature components, 25.2 kHz
- n=2 Mx chargeability
- n=2 apparent resistivity

The 15 stacked pseudosections (lines 4800E to 6400E) show colour / line contoured pseudosections of apparent resistivity, Mx chargeability and the spectral parameters MIP and tau.

Spectral IP/Resistivity and Magnetic/VLF Surveys
Huffman Lake Option, Gogama Area, Ontario
Augen Gold Corp.

Spectral IP/resistivity and magnetic/VLF surveys were done on the Huffman Lake Option grid, Gogama area, Ontario (figure 1). The work was done for Augen Gold Corp. by JVX Ltd. under JVX job number 9-60. The IP/resistivity survey was done from November 3 to 23, 2009. The magnetic/VLF survey was done from November 11 to 18, 2009. Total production was 12,175 m IP/resistivity and 14,150 m magnetics/VLF.

The Huffman Lake Option grid is largely within claims 1211326 and 3003313 (figure 2). Claim 1211326 is registered to Reginald J. Charron 50% and John G. Brady 50%. Claim 3003313 is registered to John G. Brady. These 2 claims are in Huffman Township. Gogama is 30 km east northeast of the grid. Timmins is 120 km to the northeast. The grid is made up of 16 lines at 25° east of north (4500E to 6400E) and a base line. The maximum station range is 800S to 1000N.

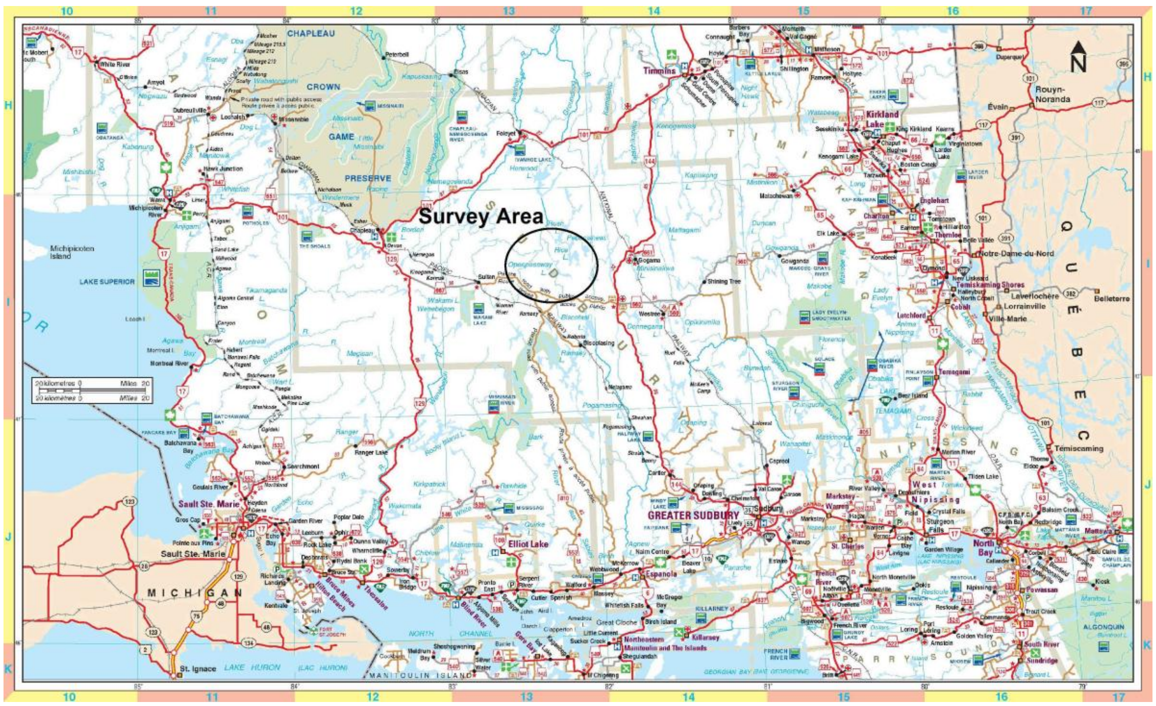


Figure 1. Regional location map

Production summaries, GPS control points, instrumentation, data processing and archives are described in appendix 1. Weekly field production reports are reproduced in appendix 2. Images of all plan maps are in appendix 3. Instrument specification sheets are attached. Paper maps and pseudosections are folded and bound with this report.

1. Personnel

Rob St. Michel, senior geophysical operator from JVX acted as party chief. He was responsible for all technical aspects of the field survey and operated the IP receiver. Assistants from JVX included Rob Raby, Dean McNichol, Brandon Martel, Ian Mazal, Andrew Umemura and Jim Corbiel. Rob Raby from JVX did the magnetic/VLF survey. Data processing was handled by Lily Manoukian at the JVX office in Richmond Hill, Ontario.

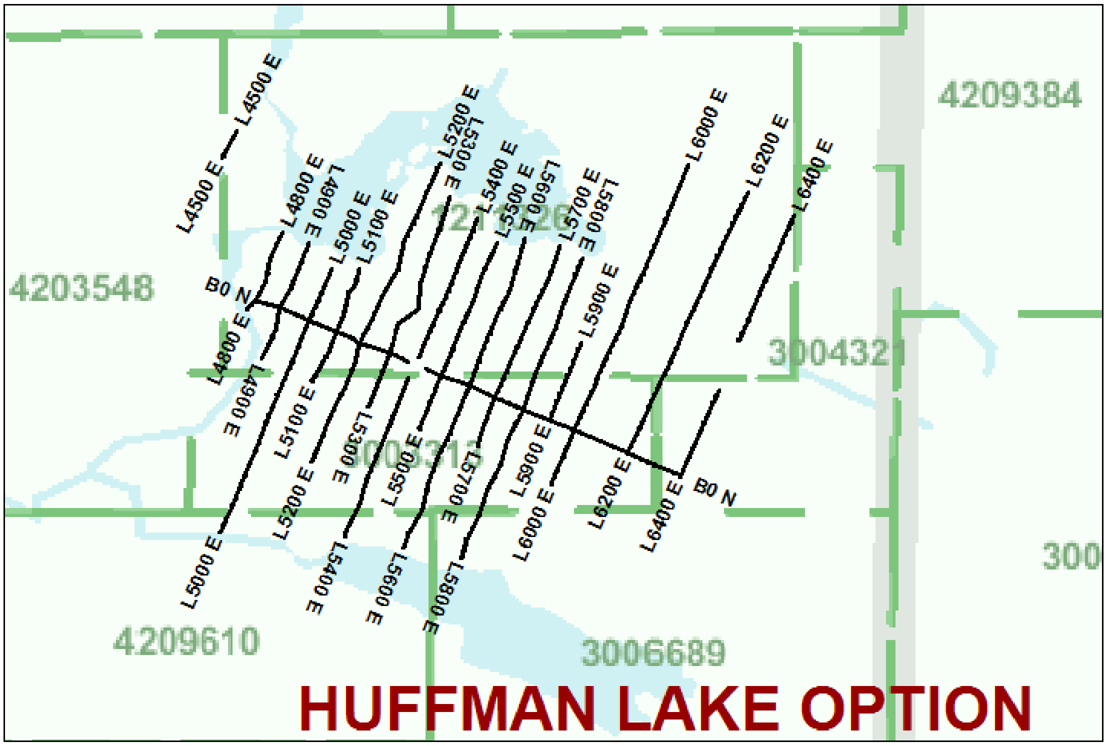


Figure 2. Grid layout with claim fabric

2. Instrumentation

Magnetometer/VLF

Gem Systems GSM-19WV, SN 7052356 (mobile)
Gem Systems GSM-19, SN 6072060 (base)

The GSM19WV magnetometer/VLF receiver has a built in GPS receiver. The GSM-19 is an earlier version of the same magnetometer without a built in GPS receiver. The GSM-19WV measures total magnetic intensity, VLF total field, vertical inphase, vertical quadrature and two horizontal VLF components. Specification sheets are attached.

IP/resistivity

Scintrex IPR12 receiver, SN 9502048
GDD TXII – 1800W-2400V time domain transmitter, SN TX332
Huntec 2.5 kVA time domain transmitter, SN 272

The IPR12 is an eight channel time domain IP receiver that measures the primary voltage and decay voltages at 11 preset windows plus a user selected window (Mx). A 2 second current pulse was used. The IP receiver and transmitter are described in appendix 1. Specification sheets are attached.

3. Surveys

The UTM coordinates of at least two well separated points on each line were collected with a hand held GPS receiver. GPS control points at line ends, at the base line and every 100 m in between is ideal. These GPS derived UTM coordinates are used to draw an interpolated grid needed to register the geophysical results. The line/station, UTM coordinates and ellipsoidal elevation of GPS control points are listed in appendix 1. UTM coordinates are NAD83, Z17N.

Total magnetic intensity and VLF readings were taken every 12.5 m. Each reading record show line, station, total magnetic intensity, time, VLF frequency, VLF vertical inphase (ip) and quadrature (op) components, two VLF horizontal field components (h1 and h2) and VLF total field (pT). UTM coordinates were not recorded. VLF readings were taken at 24.0 kHz, 25.2 kHz when 24.0 kHz was unavailable.

24.0 kHz - NAA, Cutler, Maine at 44.7° n, 67.3° w, 1000 kW

25.2 kHz – NML, LaMoure, North Dakota at 46.4° n, 98.3° w, 500 kW

The base station magnetometer was set to record the total magnetic intensity every 10 seconds.

IP/resistivity surveys were done with a pole-dipole array ('a' = 25 m, n=1,6) with the moving current electrode grid north of the potential electrodes. Weekly field production reports are reproduced in appendix 2.

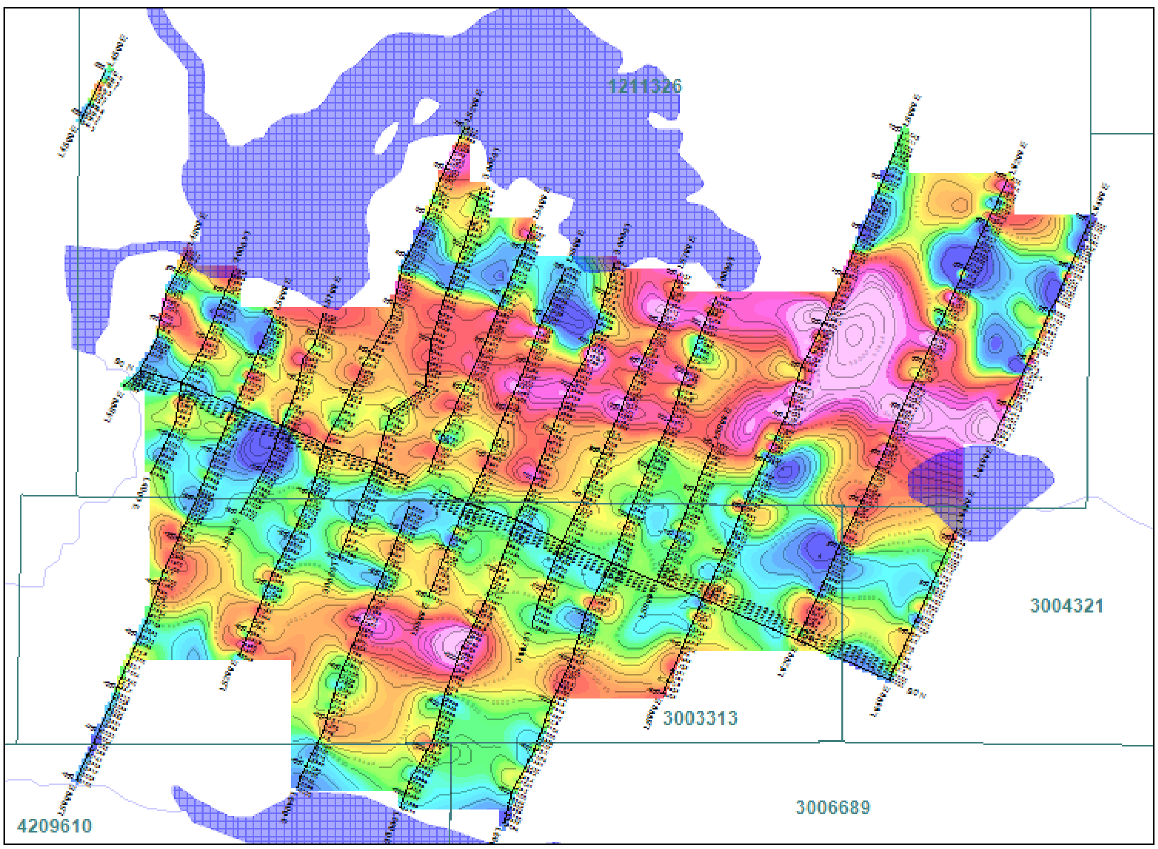


Figure 3. Total magnetic intensity, Huffman Lake Option

4. Presentation

The results of the surveys are presented on 5 plan maps at 1:5000 and 14 stacked pseudosections at 1:2500. All maps show the survey grid, claim numbers and claim boundaries, roads and drainage, a UTM grid (NAD83, Z17N) and latitude / longitude co-ordinates. Topography from MNDMF claimap3 shows little for the small map area and is not shown on final paper maps. Maps types are

- total magnetic intensity contours
- VLF offset profiles, vertical inphase and quadrature, 24.0 kHz
- VLF offset profiles, vertical inphase and quadrature, 25.2 kHz
- n=2 Mx chargeability contours
- n=2 apparent resistivity contours

Total magnetic intensity contours are shown in figure 3. n=2 Mx chargeability contours are shown in figure 4. Folded paper copies of all maps and pseudosections are bound with this report. Images of all maps are shown in appendix 3.

Each of the 15 sets of stacked pseudosections (lines 4800E to 6400E) shows colour/line pseudosections of the spectral IP time constant (tau), the spectral IP amplitude (MIP), the measured IP amplitude (Mx) and apparent resistivity.

Digital results (this report, raw and processed ASCII data files, Geosoft database and map files) are archived on CD.

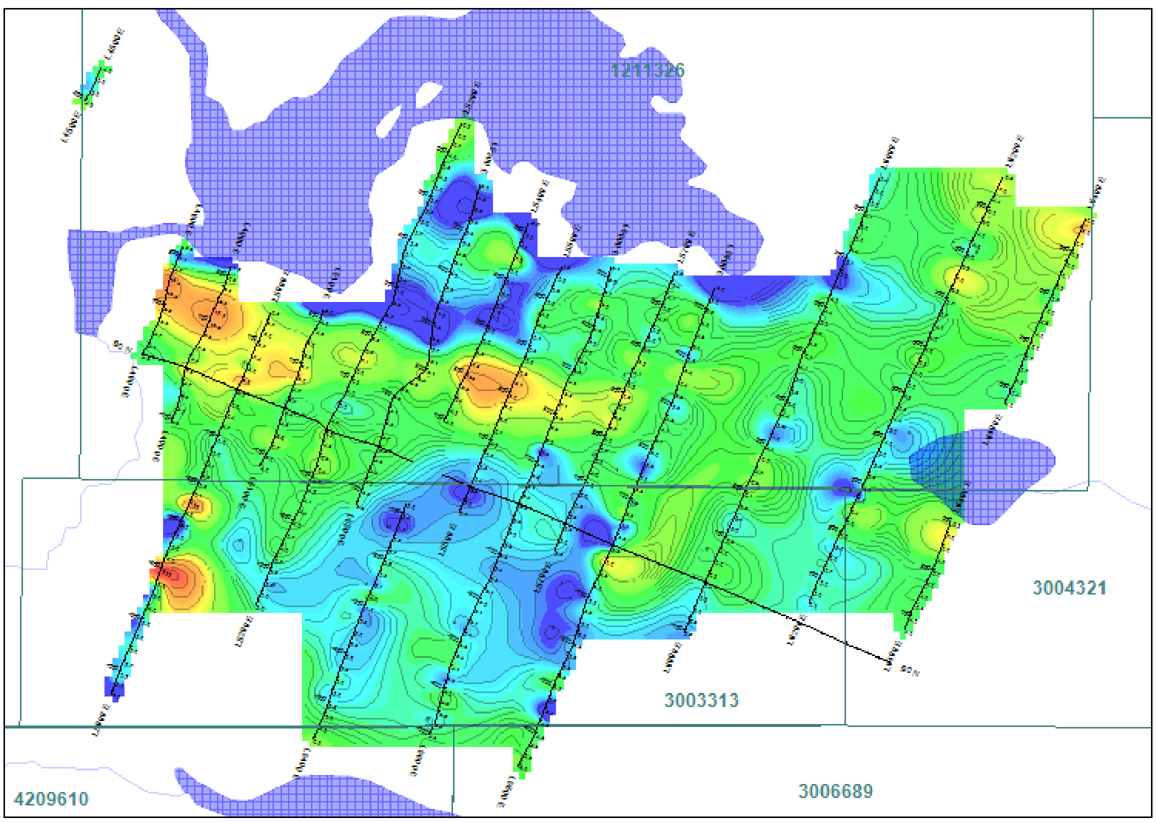


Figure 4. n=2 Mx chargeability, Huffman Lake Option

5. Conclusions

Magnetic/VLF and spectral IP/resistivity surveys were done on the Huffman Lake Option grid, Gogama area, Ontario. The IP/resistivity survey was done from November 3 to 23, 2009. The magnetic/VLF survey was done from November 11 to 18, 2009. Total production was 12,175 m IP/resistivity and 14,150 m magnetics/VLF. The results have been presented on 5 plan maps at 1:5,000 and 15 stacked pseudosections at 1:2,500.

Blaine Webster, B.Sc., P. Geo.
September 8, 2010

Certificate of Qualifications

Blaine Webster
President - JVX Ltd.,
60 West Wilmot Street, Unit 22
Richmond Hill, Ontario L4B 1M6
Tel : (905) 731-0972 Email : bwebster@jvx.ca

I, Blaine Webster, B. Sc., P. Geo., do hereby certify that

1. I graduated with a Bachelor of Science degree in Geophysics from the University of British Columbia in 1970.

2. I am a member of the Association of Professional Geoscientists of Ontario.

3. I have worked as a geophysicist for a total of 36 years since my graduation from university and have been involved in minerals exploration for base, precious and noble metals and uranium throughout much of the world.

4. I am responsible for the overall preparation of this report. Most of the technical information in this report is derived from geophysical surveys conducted by JVX Ltd. for Augen Gold Corp. and information provided by Augen Gold Corp.

____
Blaine Webster, B. Sc., P. Geo.

APPENDIX 1

Appendix 1
Production, GPS control points, Instrumentation and Data Processing

Spectral IP/resistivity and magnetic/VLF surveys were done on the Huffman Lake Option grid, Gogama area, Ontario. The work was done for Augen Gold Corp. by JVX Ltd. under JVX job number 9-60. The IP/resistivity survey was done from November 3 to 23, 2009. The magnetic/VLF survey was done from November 11 to 18, 2009. Total production was 12,175 m IP/resistivity (table 1) and 14,150 m magnetics/VLF (table 2).

Line	IP-From	IP-To	Separation	Date
4500E	500N	375N	125	November 19, 2009
4800E	250N	50S	300	November 8, 2009
4900E	250N	175S	425	November 8, 2009
5000E	200N	800S	1000	November 7, 2009
5100E	250N	200S	450	November 7, 2009
5200E	700N	475S	1175	November 6, 2009
5300E	625N	200S	825	November 5, 2009
5400E	550N	650S	1200	November 4/5, 2009
5500E	500N	175S	675	November 4, 2009
5600E	550N	625S	1175	November 3/4, 2009
5700E	600N	175S	775	November 3, 2009
5800E	575N	575S	1150	November 8, 2009
6000E	900N	200S	1100	November 21, 2009
6200E	1000N	00	1000	November 22, 2009
6400E	325N	00	325	November 22, 2009
	1000N	525N	475	November 23, 2009
		Total	**12,175 m**	

Table 1. Production summary, IP/resistivity survey, Huffman Lake Option grid

Line	Mag/VLF-From	Mag/VLF-To	VLF	Separation	Date
4500E	387.5N	500N	24	112.5	November 13, 2009
4800E	50S	250N	24	300	November 13, 2009
4900E	175S	250N	24	425	November 13, 2009
5000E	800S	200N	25.2	1000	November 12, 2009
5100E	200S	250N	25.2	450	November 12, 2009
5200E	450S	700N	25.2	1150	November 12, 2009
5300E	200S	625N	25.2	825	November 12, 2009
5400E	650S	550N	25.2	1200	November 12, 2009
5500E	200S	500N	25.2	700	November 12, 2009
5600E	625S	562.5N	24	1187.5	November 11, 2009
5700E	175S	37.5N	25.2	212.5	November 12, 2009
	50N	600N	24	550	November 11, 2009
5800E	575S	562.5N	24	1137.5	November 11, 2009
5900E	00	300N	24	300	November 18, 2009
6000E	200S	1000N	24	1200	November 17, 2009
6200E	00	1000N	24	1000	November 17, 2009
6400E	00	325N	24	325	November 18, 2009
	525N	1000N	24	475	November 17, 2009
B0N	4800E	6400E	24	1600	November 18, 2009
			Total	**14,150 m**	

Table 2. Production summary, magnetic/VLF survey, Huffman Lake Option grid

For the IP/resistivity survey, coverage is measured from the station of the first moving current electrode to the station of the last potential electrode (ideal grid). For the magnetic/VLF survey, coverage is measured from the first to last station (ideal grid).

Magnetic and VLF readings were taken every 12.5 m. IP/resistivity surveys were done in time domain with a pole-dipole array ('a' = 25 m, n=1,6). The moving current electrode was always grid north of the potential electrodes.

Grid

The Huffman Lake Option grid is largely within claims 1211326 and 3003313 (figure 1). Claim 1211326 is registered to Reginald J. Charron 50% and John G. Brady 50%. Claim 3003313 is registered to John G. Brady. These 2 claims are in Huffman Township. Gogama is 30 km east northeast of the grid. Timmins is 120 km to the northeast. The grid is made up of 15 lines at 25° east of north (4500E to 6400E) and a base line. The maximum station range is 800S to 1000N.

Grid registration is based on UTM coordinates from a hand held GPS receiver at 2 or more well separated points on each survey line (table 3). The geophysical survey results are registered with UTM coordinates interpolated or extrapolated from these GPS control points.

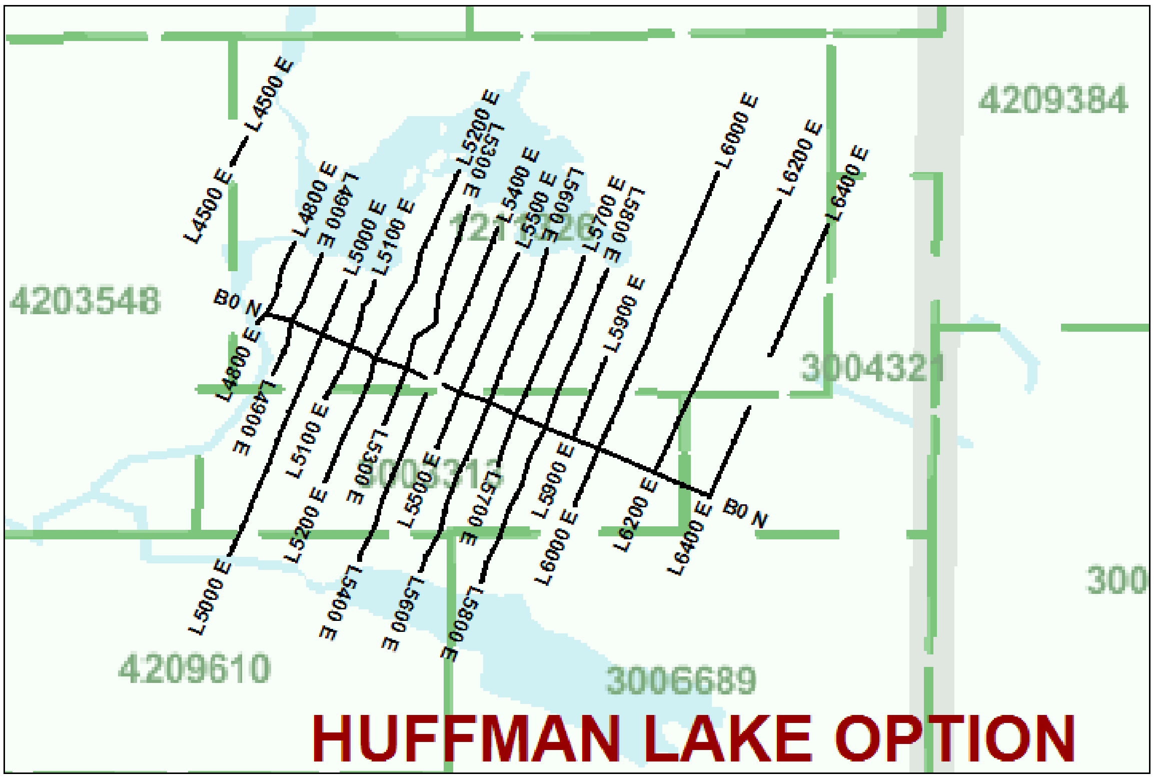


Figure 1. Huffman Lake Option grid with claim fabric from MNDM claimap3

Line	Station	UTM e	UTM n	elevation
4500E	500N	416029	5272819	421
	400N	415982	5272730	411
4800E	50S	416063	5272200	426
	00	416095	5272229	420
	75N	416129	5272299	422
	150N	416147	5272382	426
	250N	416187	5272466	405
4900E	250N	416279	5272428	401
	175N	416253	5272363	405
	75N	416216	5272272	411
	00	416177	5272205	419
	75S	416164	5272128	411

Line	Station	UTM e	UTM n	elevation
	175S	416115	5272029	418
5000E	200N	416357	5272338	404
	100N	416322	5272255	416
	00	416280	5272160	417
	75S	416251	5272093	426
	175S	416212	5271995	429
	275S	416178	5271923	428
	375S	416140	5271834	435
	475S	416105	5271737	419
	575S	416058	5271627	396
	675S	416026	5271546	425
	800S	415969	5271428	413
5100E	200S	416290	5271950	433
	75S	416349	5272054	419
	00	416373	5272122	412
	75N	416399	5272188	412
	150N	416416	5272256	413
	175N	416437	5272280	405
	250N	416455	5272341	413
5200E	700N	416733	5272708	403
	575N	416685	5272606	410
	475N	416651	5272518	408
	375N	416609	5272434	402
	275N	416588	5272337	411
	175N	416532	5272243	418
	75N	416497	5272164	424
	00	416454	5272081	418
	75S	416437	5272009	426
	175S	416402	5271928	444
	275S	416355	5271831	427
	375S	416318	5271740	428
	475S	416277	5271649	423
5300E	635N	416767	5272590	416
	625N	416767	5272590	416
	500N	416730	5272474	425
	400N	416698	5272393	429
	300N	416665	5272291	434
	200N	416654	5272198	430
	100N	416587	5272151	405
	00	416558	5272048	422
	100S	416525	5271964	430
	200S	416485	5271862	434
5400E	550N	416865	5272517	401
	375N	416798	5272355	421
	275N	416763	5272263	413
	175N	416719	5272169	407
	75N	416679	5272080	409
	25N	416659	5272032	408
	50S	416623	5271963	410
	225S	416561	5271804	413
	325S	416521	5271713	410
	425S	416483	5271619	413
	525S	416453	5271523	435
	625S	416408	5271432	422
	650S	416403	5271410	413
5500E	500N	416931	5272431	399
	375N	416878	5272316	418
	275N	416846	5272223	406
	175N	416805	5272132	407
	75N	416768	5272038	410

Line	Station	UTM e	UTM n	elevation
	00	416737	5271969	412
	75S	416707	5271901	414
	175S	416670	5271809	409
5600E	550N	417023	5272431	41
	375N	416973	5272260	415
	275N	416931	5272181	406
	175N	416896	5272090	409
	75N	416859	5271996	408
	00	416834	5271936	404
	75S	416805	5271861	412
	175S	416768	5271770	404
	275S	416727	5271687	412
	375S	416692	5271597	416
	475S	416670	5271505	438
	575S	416623	5271424	409
	625S	416606	5271373	395
5700E	600N	417151	5272419	409
	500N	417116	5272326	414
	400N	417078	5272244	414
	300N	417038	5272154	410
	200N	417001	5272069	402
	100N	416965	5271982	407
	00	416923	5271895	411
	75S	416895	5271823	417
	125S	416878	5271780	412
	175S	416864	5271727	422
5800E	575N	417232	5272388	396
	500N	417201	5272320	402
	400N	417166	5272227	415
	300N	417134	5272132	409
	200N	417093	5272044	400
	100N	417053	5271946	409
	00	417019	5271853	409
	100S	416970	5271753	422
	200S	416941	5271662	419
	300S	416902	5271581	408
	400S	416868	5271486	417
	500S	416823	5271402	414
	575S	416807	5271340	414
6000E	900N	417554	5272604	410
	800N	417515	5272510	408
	700N	417476	5272419	405
	600N	417436	5272322	413
	500N	417394	5272235	419
	400N	417361	5272139	412
	300N	417321	5272052	403
	200N	417278	5271962	414
	175N	417269	5271937	406
	100N	417240	5271871	416
	00	417199	5271781	420
	100S	417159	5271688	409
	200S	417119	5271596	413
6200E	1000N	417799	5272606	408
	900N	417756	5272517	407
	800N	417714	5272430	408
	700N	417674	5272340	407
	600N	417632	5272245	413
	500N	417589	5272154	413
	400N	417552	5272064	403
	300N	417510	5271974	400

Line	Station	UTM e	UTM n	elevation
	200N	417466	5271882	411
	100N	417425	5271789	403
	00	417384	5271701	417
6400E	1000N	417960	5272523	426
	900N	417919	5272433	413
	800N	417881	5272346	411
	725N	417849	5272275	411
	625N	417811	5272184	406
	525N	417768	5272092	410
	325N	417699	5271921	414
	300N	417685	5271904	408
	200N	417647	5271807	408
	100N	417602	5271716	390
	00	417565	5271622	414

Table 3. GPS control points (NAD83, Z17N), Huffman Lake Option grid

Instrumentation

Magnetometer/VLF

Gem Systems GSM-19WV, SN 7052356 (mobile)
Gem Systems GSM-19, SN 6072060 (base)

The GSM19WV magnetometer/VLF receiver has a built in GPS receiver and data may be recorded with line/station and UTM coordinates. GSM-19WV stands for walking Overhauser magnetometer with VLF option. The GSM-19 is an earlier version of the same magnetometer without a built in GPS receiver. Both receivers measure total magnetic intensity to 0.01 nT. The GSM-19WV measures total magnetic intensity, VLF total field, vertical inphase, vertical quadrature and two horizontal components. Specification sheets are attached.

IP/resistivity

Scintrex IPR12 receiver, SN 9502048
GDD TXII – 1800W-2400V time domain transmitter, SN TX332
Huntec 2.5 kVA time domain transmitter, SN 272

For each potential electrode pair, the IPR12 measures the primary voltage (Vp) and the ratio of secondary to primary voltages (Vs/Vp) at 11 points on the IP decay (2 second current pulse). These 11 points are labeled M4 to M14. There is the option for an additional user defined slice (Mx). Units are millivolts for Vp and milliVolts/Volt for M4 to M14 and Mx. Settings are

Vp : 200 to 1600 msec
M4 centered at 60 msec (50 to 70)
M5 centered at 90 msec (70 to 110)
M6 centered at 130 msec (110 to 150)
M7 centered at 190 msec (150 to 230)
M8 centered at 270 msec (230 to 310)
M9 centered at 380 msec (310 to 450)
M10 centered at 520 msec (450 to 590)
M11 centered at 705 msec (590 to 820)
M12 centered at 935 msec (820 to 1050)
M13 centered at 1230 msec (1050 to 1410)
M14 centered at 1590 msec (1410 to 1770)
Mx centered at 870 msec (690 to 1050)

The apparent resistivity is calculated from Vp, the transmitted current and the appropriate geometric or K factors. M4 to M14 define the IP decay curve. The M12 or Mx slice is commonly presented in contoured pseudosections.

JVX has chosen the above settings for Mx in order to better reflect an IP measurement from the older Scintrex IPR11 time domain receiver. In IPR11 surveys from the 1980s, this chargeability window was most often plotted and experience gained is based in part on this measurement.

The IPR12 also calculates the theoretical decay that best fits the measured decay. The theoretical decay is based on the Cole-Cole impedance model applied in the 1970s. The fit is based on a set of theoretical master curves with restrictions that limit the value of the calculation. JVX uses a different method to calculate impedance parameters (see below).

The Instrumentation GDD Inc. GDD TXII 1800 watt time domain IP transmitter operates off 120V output from a 2000 watt motor generator. Output is current stabilized from 150 to 2400 volt taps. The maximum current is 10 amps. Current and circuit resistance are displayed in digital form.

Data Processing and Presentation

Grid

UTM coordinates at two or more well separated stations for each line were recorded with a hand held GPS receiver. These UTM coordinate – line/station pairs are loaded into a Geosoft database (gps.gdb). The rest of the grid is registered by interpolation or extrapolation from these GPS control points. UTM coordinates from the GPS receiver built into the mobile magnetometer were not recorded.

Base Map

Claim fabric has been downloaded as *.shp files from the MNDMF claimap3 website (Copyright Queen's Printer for Ontario). A topographic base map and claim fabric are available as a *.png image from the same source. Lakes, rivers and roads, downloaded as 1:50,000 *.shp files from GeoGratis (Earth Sciences Sector of Natural Resources Canada), are also available in all maps. There are minor differences in these elements from federal and provincial sources.

Magnetics/VLF

At the end of every survey day, data from the mobile and base station magnetometers are dumped to a PC. Output from both magnetometers are text files labelled by date and 'MAG' or 'mobile' and 'base'. Data dumps from the mobile unit show line, station, total magnetic intensity (nT), time (decimal hours), the VLF frequency, total field (pT), vertical inphase and quadrature components (ip and op) and two horizontal components (h1 and h2). Data dumps for the base unit contain time and total magnetic intensity. Subsequent processing steps are

1. Apply base station corrections to the mobile data. Corrected total magnetic intensity values are appended to the mobile files and renamed as '*_cor' files. Bad data or repeat values are removed.
2. Move the contents of the files containing the corrected total magnetic intensity and VLF values into a Geosoft database (*.gdb).
3. In the database, assign UTM coordinates to each line/station using a look up procedure from gps.gdb.

Colour + line contour maps of the corrected total magnetic intensity are generated from the database using Geosoft Montaj. Random gridding with a 6.25 m grid cell is used.

IP/Resistivity

At the end of every survey day, the IP/resistivity data are dumped from the IPR12 to a PC. Output is an ASCII *.dmp file with the date as the file name. Raw data from each survey line are collected in ASCII *.i12 files with the line number as the file name. The data are checked for quality and quantity. The data are archived for transfer to JVX Ltd. in Toronto.

Office data processing is based largely on Geosoft Oasis Montaj v6.3 (www.geosoft.com). Impedance modelling software (below) is based on a suite of programs developed by JVX for the IPR11 and IPR12.

The *.i12 files are taken into a Geosoft database and merged with the position data in gps.gdb. The IP decays are analyzed for spectral content (see below).

The results are presented as plan maps of the n=2 Mx chargeability and apparent resistivity and stacked pseudosections. Stacked pseudosections show the Mx chargeability, apparent resistivity, spectral IP time constant (tau) and spectral IP amplitude (MIP). All are prepared with Geosoft Oasis Montaj. Random gridding is used in all cases. The pseudosections assume an ideal survey line. Plan maps show the interpolated grid, station numbers, posted values and line + colour contours.

Impedance Modelling

The Cole-Cole impedance model was developed in the 1970s after it became clear that chargeability is a complex property that includes amplitude (volume percent electronic conductors), grain size and grain size uniformity. In this model, the low frequency electrical impedance Z(ω) of rocks and soils is defined by 4 parameters. They are

r_0 :	DC resistivity in ohm.m
m :	true chargeability amplitude in V/V (also called MIP)
τ :	tau - time constant in seconds
c :	exponent

The form of the model is

$$Z(\omega) = r_0 \{1 - m [1 - (1+(i\omega\tau)^c)^{-1}]\} \text{ ohm.m}$$

where ω is the angular frequency (2πf).

The true chargeability (m or MIP) is a better measure of the volume percent electronic conductors - primarily pyrrhotite and graphite. The time constant is a measure of the square of the average grain size. The exponent is a measure of the uniformity of the grain size. Common or possible ranges are 0 to 1 V/V (m), .01 to 100 seconds (tau) and .1 to .5 (c).

In time domain IP surveys, impedance model parameters may be estimated using a best fit between theoretical and measured decays. The simplest approach is to use a set of master decay curves, pre-calculated for selected values of time constant and exponent. For a 2 second current pulse, the master curve set used here is for time constant values of .01, .03, .1, .3, 1, 3, 10, 30 and 100 seconds and exponent values of 0.1, 0.2, 0.3, 0.4 and 0.5. This gives a total of 45 master curves.

All decays that give an RMS fit between measured and master decay of less than 5% are judged to be of sufficient quality to yield spectral IP parameters.

Under ideal conditions, more than 90 % of the IP decays in any survey are of sufficient amplitude and quality to yield spectral parameters. 80 % is probably average for most surveys. The most common reason for the lack of spectral parameters is very low decay amplitudes – often seen in areas of thick and/or conductive overburden. Instrumentation and/or noise problems can occur over long sections of outcrop or at an abrupt boundary between outcrop and conductive ground. For this survey, 89.4% of the IP decays were of sufficient amplitude and quality to generate spectral parametetrs.

Pseudosections

The pseudosections are plotted using standard depth and position conventions. The plot point for any measured quantity for the n^{th} potential dipole pair is (n+½)a/2 m forward of and below the current electrode. Pole-dipole anomaly shapes depend on array orientation. The array sketch shown with each pseudosection shows the correct array orientation.

These plot forms have been found to give a reasonable image of target-top location, width and depth where 1) the anomalously chargeable and/or resistive body is an isolated, tabular body with a dip that is within ± 45° of vertical), 2) where background chargeabilities and resistivities (overburden and host rock) are uniform and 3) where the terrain is relatively flat. They are more difficult to interpret for irregular or nearby chargeable bodies and where there is any amount of conductive cover or topographic relief. Forward or inverse modelling may be useful in such cases.

For Mx, MIP and apparent resistivity, colour contour intervals in the pseudosections are taken from equal area distribution for the whole grid. Colour assignments for the spectral 'tau' and 'c' are fixed.

Archives

The results of the survey are archived on CD. Included on the CD is the Oasis Montaj viewer. File types include

ASCII *.txt or *.dmp or *.xyz – text files, including instrument data dumps
ASCII *.i12 – IPR12 collated raw data dumps
*.gdb - Geosoft databases (gps, magnetics/VLF, IP/resistivity)
*.map – Geosoft format pseudosections and maps included with this report
MS WORD *.doc and Adobe Acrobat *.pdf – this report,

APPENDIX 2

Appendix 2
Weekly Field Production Reports

JVX Ltd.
Weekly Field Production Report – IP/Resistivity

Project No 9-60	Client: **Augen Gold**	Area: Gogama ON	Week Ending: Nov.7/2009

Day	Description	Grid	Line	From P1	To P1	Length (m)
Sun Nov 1						
Mon Nov 2	Rob St., Rob R., & Brandon out & locate grid. Lay out infinity & access wires. Scout out some of the lines & put out snake. Check & fix rods & spools. Ready to read tomorrow. Denis & Dean gone for supplies.	Huffman Lake Option				
Tue Nov 3	Out to grid, train Dennis on Tx. Read lines 5700E 600N to 175S. 5600E 525N to 25S. Ian Travel.	Huffman Lake Option	5700E 5600E	600N 550N	175S 25S	775 575
Wed Nov4	Finish line 5600E, Read line 5500E complete. Read line 5400E to swamp. Have to break line & go around to finish. Have Dennis train Ian on Tx. Andrew Travel.	Huffman Lake Option	5600E 5500E 5400E	25S 500N 550N	625S 175S 25N	600 675 525
Thu Nov 5	Go around swamp & reset on line 5400E, finish line. Read line 5300E complete. Setup on line 5200E. Dennis checking roads & Mags. Dean out checking trails around grid for access & taking GPS points & tracking.	Huffman Lake Option	5400E 5300E	50S 625N	650S 200S	600 825
Fri Nov 6	Read line 5200E complete. Line is cut short, stops @ 490S, should go to 800S. Move & setup on line 5100E, line is only to 250N because of lake. Info said it went to 600N. Had to reroute access wire back down line 5200E to continue.	Huffman Lake Option	5200E	700N	475S	1175
Sat Nov 7	Read lines 5100E, & 5000E complete. Setup on line 4900E. Lines are pretty rough, line-cutters not doing a very good job.	Huffman Lake Option	5100E 5000E	250N 200N	200S 800S	450 1000

Name	Position	S	M	T	W	T	F	S
Dennis Palos	Geophysicist		x	x	x	x		
Rob St. Michel	Operator		x	x	x	x	x	x
Rob Raby	Operator		x	x	x	x	x	x
Dean McNichol	Assistant		x	x	x	x	x	x
Brandon Martel	Assistant		x	x	x	x	x	x
Ian Mazal	Assistant			x	x	x	x	x
Andrew Umemura	Assistant					x	x	x

JVX Ltd.
Weekly Field Production Report – IP/Resistivity

Project No 9-60	Client: **Augen Gold**	Area: Gogama ON	Week Ending: Nov.14/2009

Day	Description	Grid	Line	From P1	To P1	Length (m)
Sun Nov 8	Line 4900E. Complete and line 4800E complete. Line 4700E is in lake. Have to move to other side.	Huffman Lake Option	4900E 4800E	250N 250N	175S 50S	425 300
Mon Nov 9	Line 5900E complete. First part of grid finished.	Huffman Lake Option	5800E	575N	575S	1150
Tue Nov 10						
Wed Nov 11						
Thu Nov 12						
Fri Nov 13						
Sat Nov 14						

Name	Position	S	M	T	W	T	F	S
Rob. St. Michel	Operator	x	x					
Rob Raby	Operator	x	x					
Dean McNichol	Assistant	x	x					
Brandon Martel	Assistant	x	x					
Andrew Umemura	Assistant	x	x					
Ian Mazal	Assistant	x	x					

JVX Ltd.
Weekly Field Production Report – IP/Resistivity

Project No 9-60	Client: **Augen Gold**	Area: Gogama ON	Week Ending: Nov.21/2009

Day	Description	Grid	Line	From P1	To P1	Length (m)
Sun Nov 15						
Mon Nov 16						
Tue Nov 17						
Wed Nov 18						
Thu Nov 19	Read line 4500E complete. Andrew stand by for Dennis.	Huffman Lake Option	4500E	500N	375N	125
Fri Nov 20						
Sat Nov 21	Lay out new access and read line 6000E complete. Move and set up online 6200E. Ready for tomorrow am.	Huffman Lake Option	6000E	900N	200S	1100N

Name	Position	S	M	T	W	T	F	S
Rob St. Michel	Operator					x		x
Rob Raby	Operator					x		x
Dean McNichol	Operator					x		x
Andrew Umemura	Assistant					x		
Brandon Martel	Assistant					x		x
Ian Mazal	Assistant					x		x
Jim Corbiel	Assistant							x

JVX Ltd.
Weekly Field Production Report – IP/Resistivity

Project No 9-60	Client: **Augen Gold**	Area: Gogama ON	Week Ending: Nov.28/2009

Day	Description	Grid	Line	From P1	To P1	Length (m)
Sun Nov 22	Line IP 6200E complete. Bush crash and set up on south end of 6400E. Have to break because of lake. Read south and go around and set up on north.	Huffman Lake Option	6200E 6400E	1000N 325N	00 00	1000 325
Mon Nov 23	Finish line 6400E complete. Huffman grid complete. Pick all wire and gear and move off grid. Trip to Timmins for supplies.	Huffman Lake Option	6400E	1000N	525N	475
Tue Nov 24						
Wed Nov 25						
Thu Nov 26						
Fri Nov 27						
Sat Nov 28						

Name	Position	S	M	T	W	T	F	S
Rob St. Michael	Operator	x	x					
Rob Raby	Operator	x	x					
Dean McNichol	Operator	x	x					
Brandon Martel	Assistant	x	x					
Ian Mazal	Assistant	x	x					
Jim Corbiel	Assistant	x	x					

JVX Ltd.
Weekly Field Production Report – Magnetics/VLF

Project No 9-60	Client: **Augen Gold**	Area: Gogama ON	Week Ending: Nov. 14/2009

Day	Description	Grid	Line	From P1	To P1	Length (m)
Sun Nov 8						
Mon Nov 9						
Tue Nov 10						
Wed Nov 11	Mag VLF 24.0khz Total coverage: 2.725km Joined IP crew in afternoon	Huffman Lake Option	5800E 5700E 5600E	575N 600N 562.5N	562.5S 200N 625S	1137.5 400 1187.5
Thu Nov 12	Mag VLF 25.2khz Total coverage:5.6km	Huffman Lake Option	5700E 5500E 5400E 5300E 5200E 5100E 5000E	200N 500N 550N 625N 700N 250N 200N	175S 200S 650S 200S 450S 200S 800S	375 700 1100 825 1150 450 1000
Fri Nov 13	Mag VLF 24.0 kHz Total coverage 837.5 m	Huffman Lake Option	4500E 4800E 4900E	500N 250N 250N	387.5N 50S 175S	112.5 300 425
Sat Nov 14						

Personnel	Name	S	M	T	W	T	F	S
Geophysicist								
Operator	Rob Raby				x	x	x	
Operator								
Assistant								

JVX Ltd.
Weekly Field Production Report – Magnetics/VLF

Project No 9-60	Client: **Augen Gold**	Area: Gogama ON	Week Ending: Nov. 21/2009

Day	Description	Grid	Line	From P1	To P1	Length (m)
Sun Nov 15						
Mon Nov 16						
Tue Nov 17	Mag VLF 24.0khz Total coverage:2.675km Big lake on line 6400E at 525N Was thick bush to go around so I went to the road at 725N and headed towards 6800E. Did not find so I kept going and hit an even bigger lake. According to the map line 7200E should have been there.	Huffman Lake Option	6000E 6200E 6400E	1000N 1000N 1000N	200S 00 525N	1200 1000 475
Wed Nov 18	Mag VLF 24.0khz Total coverage:1.925km Base line ended at 6400E Line 5900E was not suppose to be there so I read it and its cut to 300N from BL0N	Huffman Lake Option	6400E 5900E B0N	325N 300N 6400E	00 00 4800E	325 300 1600
Thu Nov 19						
Fri Nov 20						
Sat Nov 21						

Personnel	Name	S	M	T	W	T	F	S
Geophysicist								
Operator	Rob Raby			x	x			
Operator								
Assistant								

APPENDIX 3

Appendix 3
Map Images

The results of the surveys are presented on 5 plan maps at 1:5000 and 15 stacked pseudosections at 1:2500. Colour/line contours, posted values, claim fabric and the survey grid of the 5 plan maps are shown below. Map surrounds and coordinates are not shown here. The 5 plan maps are

- total magnetic intensity contours
- VLF offset profiles, vertical inphase and quadrature, 24.0 kHz
- VLF offset profiles, vertical inphase and quadrature, 25.2 kHz
- n=2 Mx chargeability contours
- n=2 apparent resistivity contours

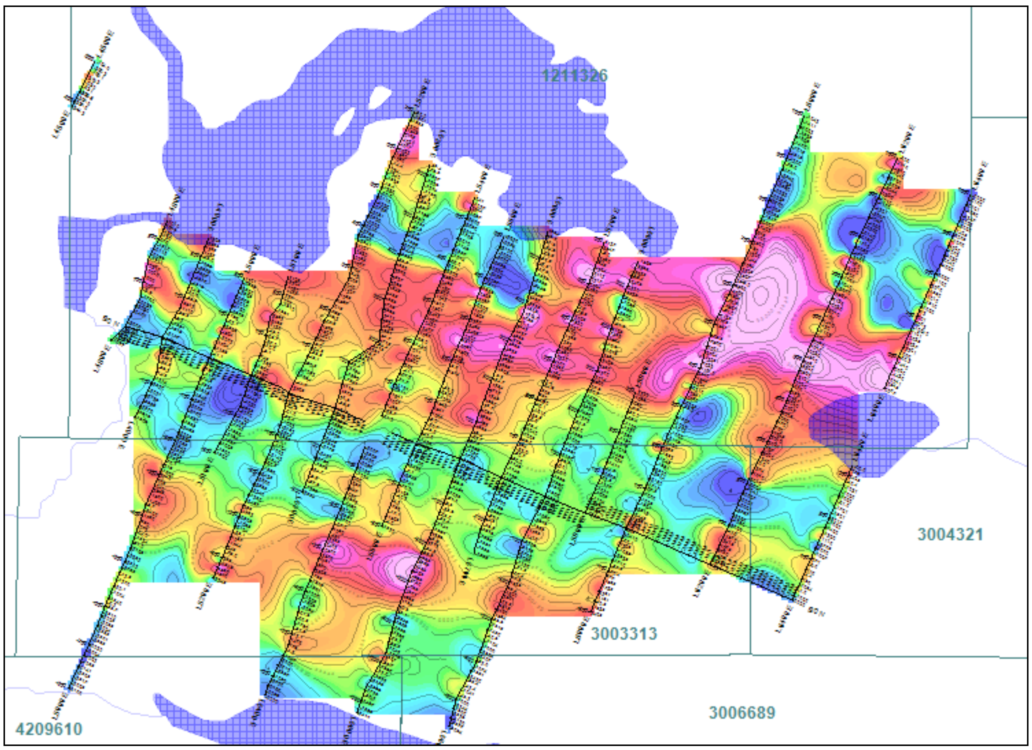


Figure 1. Total magnetic intensity

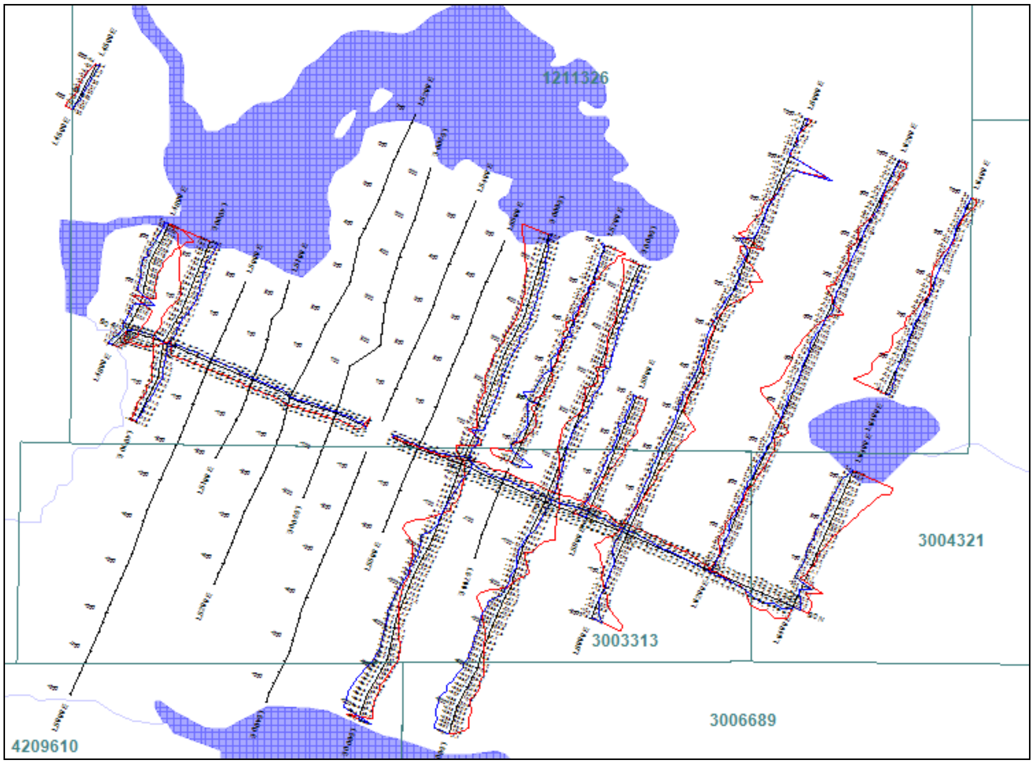


Figure 2. VLF offset profiles, 24.0 kHz

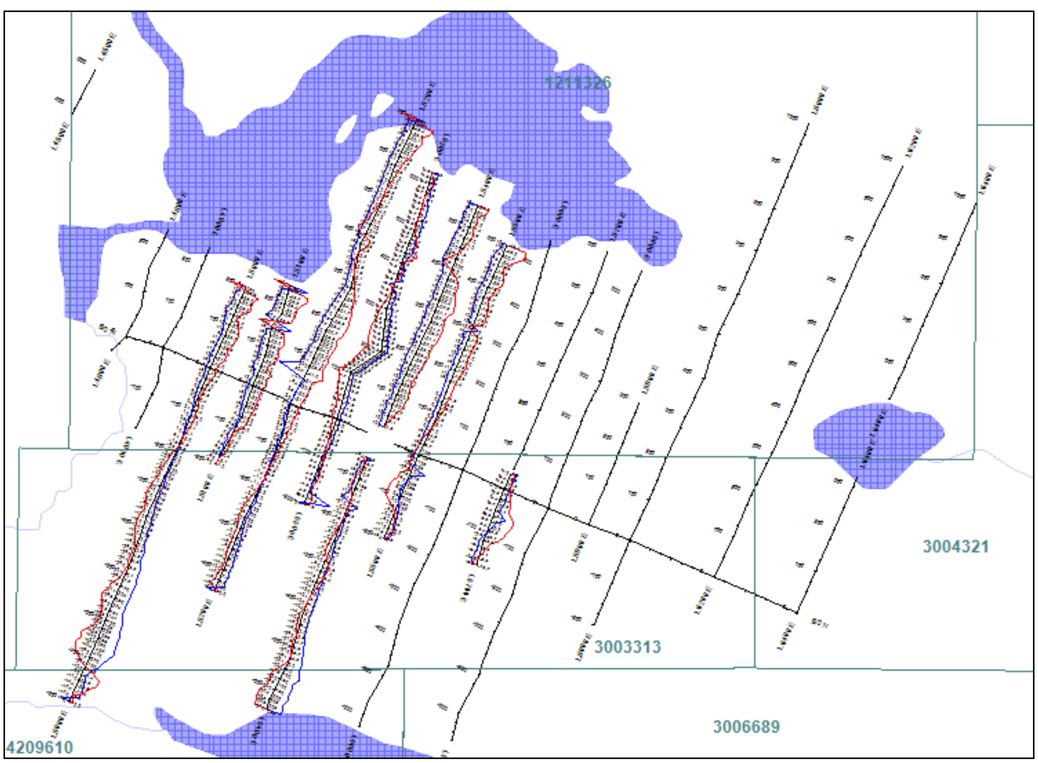


Figure 3. VLF offset profiles, 25.2 kHz

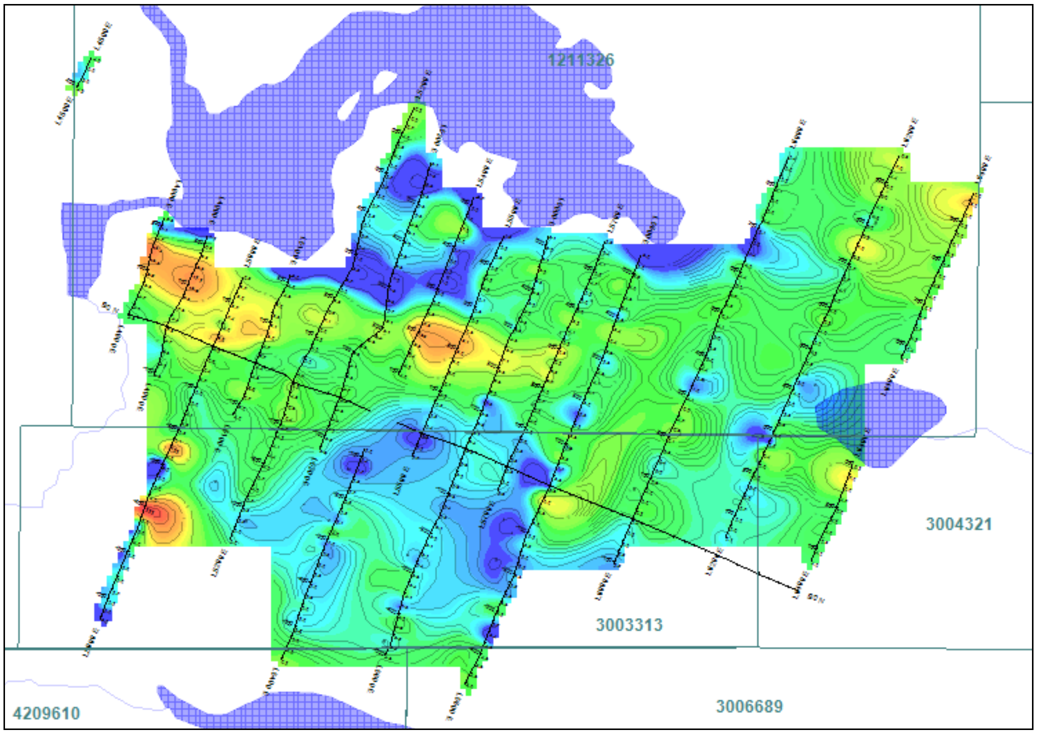


Figure 4. n=2 Mx chargeability

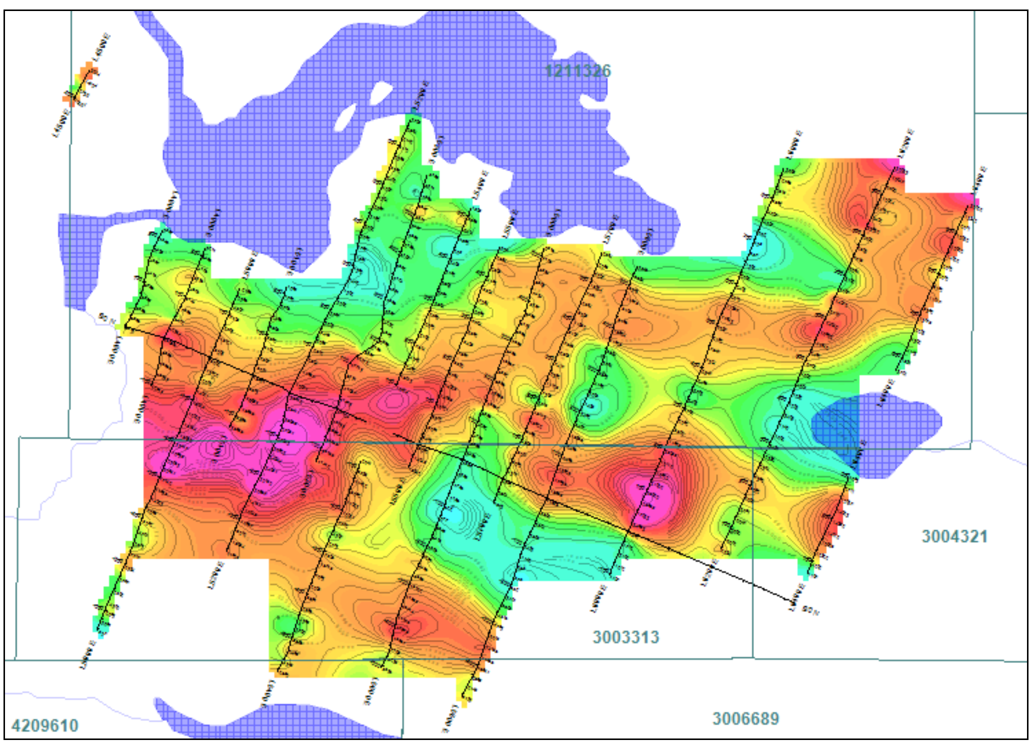


Figure 5. n=2 apparent resistivity

INSTRUMENT SPECIFICATION SHEETS

v7.0

Overhauser

Magnetometer / Gradiometer / VLF (GSM-19 v7.0)

GEM's unique Overhauser system combines data quality, survey efficiency and options into an instrument that matches costlier optically pumped Caesium devices.

And the latest v7.0 technology upgrades provide even more value:

- **Data export in standard XYZ (i.e. line-oriented) format for easy use in standard commercial software programs**
- **Programmable export format for full control over output**
- **GPS elevation values provide input for geophysical modeling**
- **Enhanced GPS positioning resolution <1.5m standard GPS for high resolution surveying <1.0m OmniStar GPS <0.7m for newly introduced CDGPS**
- **Multi-sensor capability for advanced surveys to resolve target geometry**
- **Picket and line marking / annotation for capturing related surveying information on-the-go**

And all of these technologies come complete with the most attractive savings and warranty in the business!

Overhauser (GSM-19) console with sensor and cable. Can also be configured with additional sensor for gradiometer (simultaneous) readings.

The GSM-19 v7.0 Overhauser instrument is the total field magnetometer / gradiometer of choice in today's earth science environment -- representing a unique blend of physics, data quality, operational efficiency, system design and options that clearly differentiate it from other quantum magnetometers.

With data quality exceeding standard proton precession and comparable to costlier optically pumped cesium units, the GSM-19 is a standard (or emerging standard) in many fields, including:

- o Mineral exploration (ground and airborne base station)
- o Environmental and engineering
- o Pipeline mapping
- o Unexploded Ordnance Detection
- o Archeology
- o Magnetic observatory measurements
- o Volcanology and earthquake prediction

Taking Advantage of the Overhauser Effect

Overhauser effect magnetometers are essentially proton precession devices -- except that they produce an order-of-magnitude greater sensitivity. These "supercharged" quantum magnetometers also deliver high absolute accuracy, rapid cycling (up to 5 readings / second), and exceptionally low power consumption.

The Overhauser effect occurs when a special liquid (with unpaired electrons) is combined with hydrogen atoms and then exposed to secondary polarization from a radio frequency (RF) magnetic field.

The unpaired electrons transfer their stronger polarization to hydrogen atoms, thereby generating a strong precession signal -- that is ideal for very high-sensitivity total field measurements.

In comparison with proton precession methods, RF signal generation also keeps power consumption to an absolute minimum and eliminates noise (i.e. generating RF frequencies are well out of the bandwidth of the precession signal).

In addition, polarization and signal measurement can occur simultaneously -- which enables faster, sequential measurements. This, in turn, facilitates advanced statistical averaging over the sampling period and/or increased cycling rates (i.e. sampling speeds).

Other advantages are described in the section called, "GEM's Commercial Overhauser System" that appears later in this brochure.

Key System Components

Key components that differentiate the GSM-19 from other systems on the market include the sensor and data acquisition console. Specifications for components are provided on the right side of this page.

Sensor Technology

GEM's sensors represent a proprietary innovation that combines advances in electronics design and quantum magnetometer chemistry.

Electronically, the detection assembly includes dual pick-up coils connected in series opposition to suppress far-source electrical interference, such as atmospheric noise. Chemically, the sensor head houses a proprietary hydrogen-rich liquid solvent with free electrons (free radicals) added to increase the signal intensity under RF polarization.

From a physical perspective, the sensor is a small size, light-weight assembly that houses the Overhauser detection system and fluid. A rugged plastic housing protects the internal components during operation and transport.

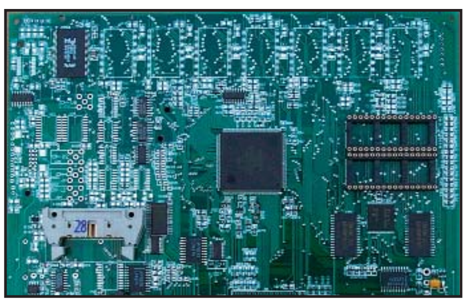
All sensor components are designed from carefully screened non-magnetic materials to assist in maximization of signal-to-noise. Heading errors are also minimized by ensuring that there are no magnetic inclusions or other defects that could result in variable readings for different orientations of the sensor.

Optional omni-directional sensors are available for operating in regions where the magnetic field is near-horizontal (i.e. equatorial regions). These sensors maximize signal strength regardless of field direction.

Data Acquisition Console Technology

Console technology comprises an external keypad / display interface with internal firmware for frequency counting, system control and data storage / retrieval. For operator convenience, the display provides both monochrome text as well as real-time profile data with an easy-to-use interactive menu for performing all survey functions.

The firmware provides the convenience of upgrades over the Internet via the GEMLinkW software. The benefit is that instrumentation can be enhanced with the latest technology without returning the system to GEM -- resulting in both timely implementation of updates and reduced shipping / servicing costs.



About GEM Advanced Magnetometers

GEM Systems, Inc. delivers the world's only magnetometers and gradiometers with built-in GPS for accurately-positioned ground, airborne and stationary data acquisition. The company serves customers in many fields including mineral exploration, hydrocarbon exploration, environmental and engineering, Unexploded Ordnance Detection, archeology, earthquake hazard prediction and observatory research.

Key products include the QuickTracker™ Proton Precession, Overhauser and SuperSenser™ Optically-Pumped Potassium instruments. Each system offers unique benefits in terms of sensitivity, sampling, and acquisition of high-quality data. These core benefits are complemented by GPS technologies that provide metre to sub-metre positioning.

With customers in more than 50 countries globally and more than 25 years of continuous technology R&D, GEM is known as the only geophysical instrument manufacturer that focuses exclusively on magnetic technology advancement.

"Our World is Magnetic"

Specifications

Performance

Sensitivity:	0.022 nT / √Hz
Resolution:	0.01 nT
Absolute Accuracy:	+/- 0.1 nT
Range:	15,000 to 120,000 nT
Gradient Tolerance:	< 10,000 nT/m
Samples at:	60+, 5, 3, 2, 1, 0.5, 0.2 sec
Operating Temperature:	-40C to +50C

Operating Modes

Manual: Coordinates, time, date and reading stored automatically at minimum 3 second interval.

Base Station: Time, date and reading stored at 1 to 60 second intervals.

Remote Control: Optional remote control using RS-232 interface.

Input / Output: RS-232 or analog (optional) output using 6-pin weatherproof connector.

Storage - 32 MB (# of Readings)

Mobile:	1,465,623
Base Station:	5,373,951
Gradiometer:	1,240,142
Walking Mag:	2,686,975

Dimensions

Console:	223 x 69 x 240 mm
Sensor:	175 x 75mm diameter cylinder

Weights

Console with Belt:	2.1 kg
Sensor and Staff Assembly:	1.0 kg

Standard Components

GSM-19 console, GEMLinkW software, batteries, harness, charger, sensor with cable, RS-232 cable, staff, instruction manual and shipping case.

Optional VLF

Frequency Range: Up to 3 stations between 15 to 30.0 kHz

Parameters: Vertical in-phase and out-of-phase components as % of total field. 2 components of horizontal field amplitude and total field strength in pT.

Resolution: 0.1% of total field

GEM Systems, Inc.
52 West Beaver Creek Rd., 14
Richmond Hill, ON
Canada L4B 1L9
Phone: 905-764-8008
Fax: 905-764-2949
Email: info@gemsys.ca
Web: www.gemsys.ca

IPR-12 SPECIFICATIONS

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 μvolt to 14 volt.

Chargeability (M) Range
0 to 300 millivolt/volt.

Tau Range
60 microseconds to 2000 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 100db.

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. An additional transient slice of minimum 10 ms width, and 10 ms steps, with delay of at least 40 ms is keyboard selectable. Programmable windows also available.

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.

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 40 characters, 128 x 240 dots, Backlit SuperTwist Liquid Crystal Display. Displays instrument status and data during and after reading. Alphanumeric and graphic displays.

Display Heater
Available for below -15°C operation.

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
Formattted serial data output for printer and PC, 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 57.6 kBaud. Selectable carriage return delay to accommodate slow peripherals. Hand-shaking is done by X-on/X-off.

Standard Rechargeable Batteries
Eight rechargeable Ni-Cad D cells. Supplied with a charger, suitable for 100/230V, 50 to 60 Hz, 10W. More than 20 hours service at +25°C, more than 8 hours at -30°C.

Ancillary 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 backup 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 Alkaline batteries, but rechargeable batteries are recommended for lower cost over time.

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
Batteries: 1.3 kg
Charger: 1.1 kg

Transmitters Available
GGT-3 GGT-10

An ISO 9001:2000 registered company

* All specifications are subject to change without notice.

SCINTREX
A DIVISION OF LRS

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A DIVISION OF LRS

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Lafayette, CO 80026
Telephone: +1 303 828 3499
Fax: +1 303 828 3288
e-mail: info@microglacoste.com
website: www.microglacoste.com

SPECIFICATIONS

TxII-1800 W

- Size: 21 x 34 x 39 cm.
- Weight: approximately 20 kg.
- Operating temperature: -40° C to 65° C.

TxII-3600 W

- 51 X 41.5 X 21.5 cm – built-in transportation box from Pelican.
- Weight: approximately 32 kg.
- Operating temperature: -40° C to 65° C.

ELECTRICAL CHARACTERISTICS

TxII-1800 W and TxII-3600 W

- Standard time base of 2 seconds for time-domain: 2 seconds ON, 2 seconds OFF.
- Optional time base: DC, 0.5, 1, 2, 4 or DC, 1, 2, 4, 8 seconds.
- Output current range: 0.030 to 10 A (normal operation).
  0.000 to 10 A (cancel open loop).
- Output voltage range: 150 to 2400 V / 14 steps.
- Ability to link 2 GDD transmitters to double power (Master / Slave).

CONTROLS

TxII-1800 W and TxII-3600 W

- Power ON/OFF.
- Output voltage range switch: 150 V, 180 V, 350 V, 420 V, 500 V, 600 V, 700 V, 840 V, 1000 V, 1200 V, 1400 V, 1680 V, 2000 V, 2400 V.

DISPLAYS

TxII-1800 W and TxII-3600 W

- Output current LCD: reads to ± 0.001 A.
- Electrode contact displayed when not transmitting.
- Output power displayed when transmitting.
- Automatic thermostat controlled LCD heater for readout.
- Total protection against short circuits even at zero (0) ohm.
- Indicator lamps in case of overload:
  - High voltage ON/OFF
  - Generator over or undervoltage
  - Logic fail
  - Output overcurrent
  - Overheating
  - Open Loop Protection

POWER

TxII-1800 W

Recommended generator:

- Standard 120 V / 60 Hz backpackable Honda generator.
- Suggested Models: EU1000iC, 1000 W, 13.5 kg or EU2000iC, 2000 W, 21.0 kg.

TxII-3600 W

Recommended generator:

- Standard 220 V, 50/ 60 Hz Honda generator.
- Suggested Models: EM3500XK1C, 3500 W, 62 kg or EM5000XK1C, 5000 kw, 77 kg.

DESCRIPTION

TxII-1800 W

- Includes shipping box, instruction manual and 110 V plug.
- Optional backpackable frame for transmitter or generator.

TxII-3600 W

- Includes built-in shipping box, instruction manual and 220 V plug.
- Optional 220 V extension.

SERVICE

Any instrument manufactured by GDD that breaks down while under warranty or service contract is replaced free of charge upon request, subject to instrument availability.

WARRANTY

- Standard three-year warranty on parts and labour.
- Repairs done at GDD's office in Sainte-Foy, QC, Canada.

Instrumentation GDD inc.

3700, boul. de la Chaudière, suite 200
Sainte-Foy (Québec) Canada G1X 4B7

Tel. : (418) 877-4249
Toll Free : 1-877-977-4249
Fax : (418) 877-4054

Web Site: www.gddinstrumentation.com
E-Mail: gdd@gddinstrumentation.com

Specifications subject to change without notice.

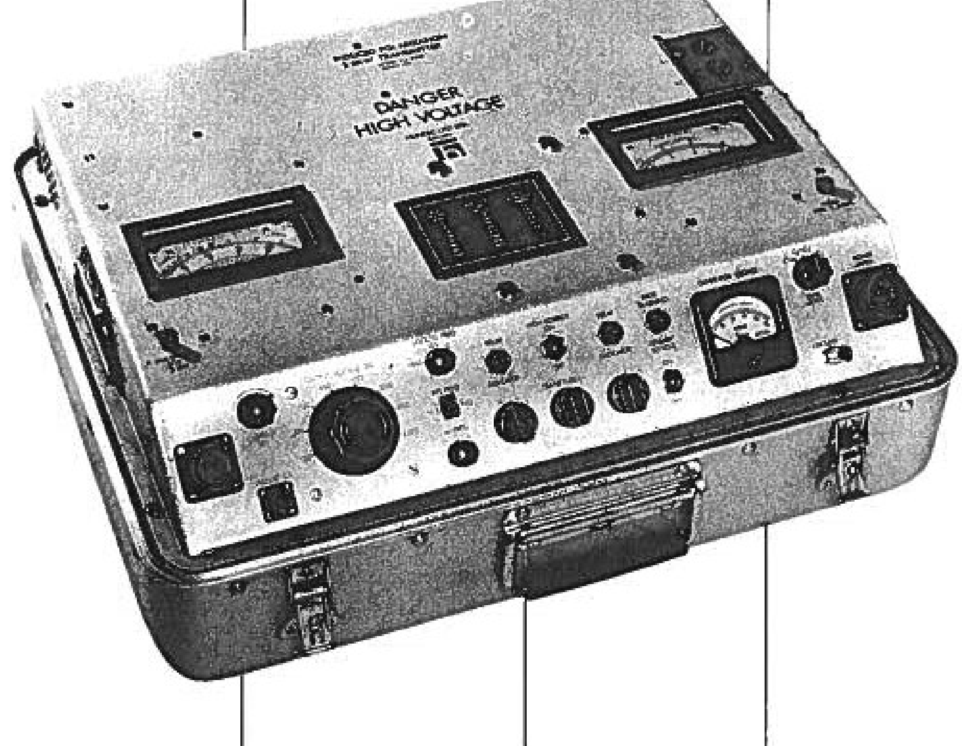
Taxes, transportation and duties are extra if applicable.

Instruments available for rental or sale.

© Copyright 2005 Instrumentation GDD inc.

M-4 SERIES

Induced Polarization/ Resistivity 2.5 kW Transmitter

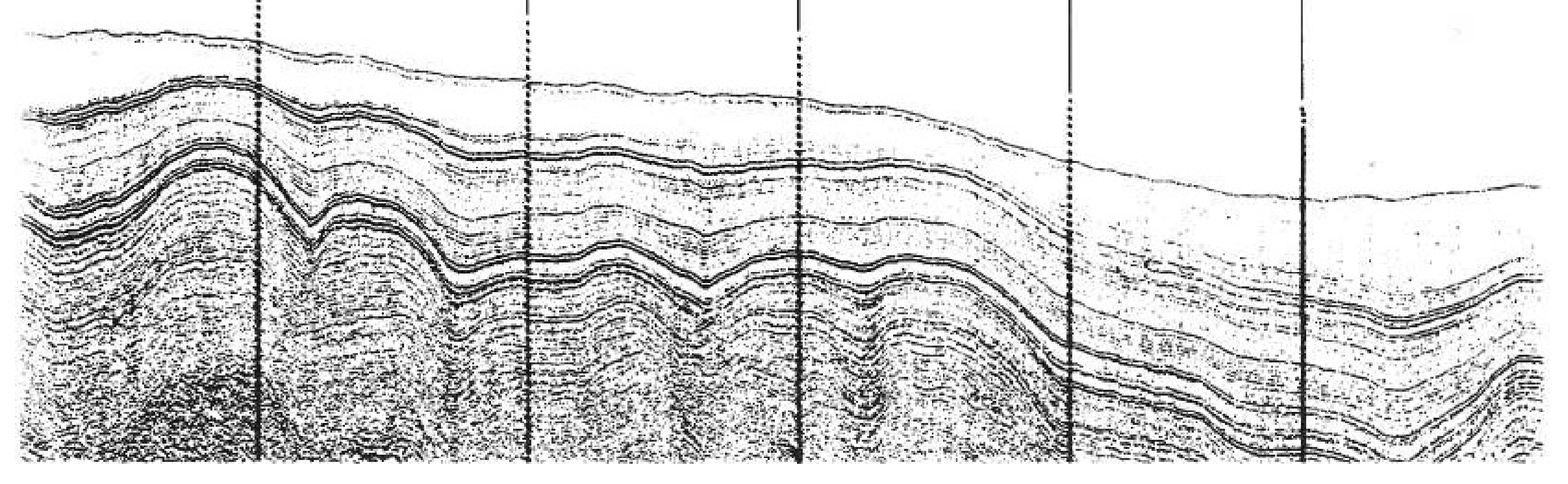


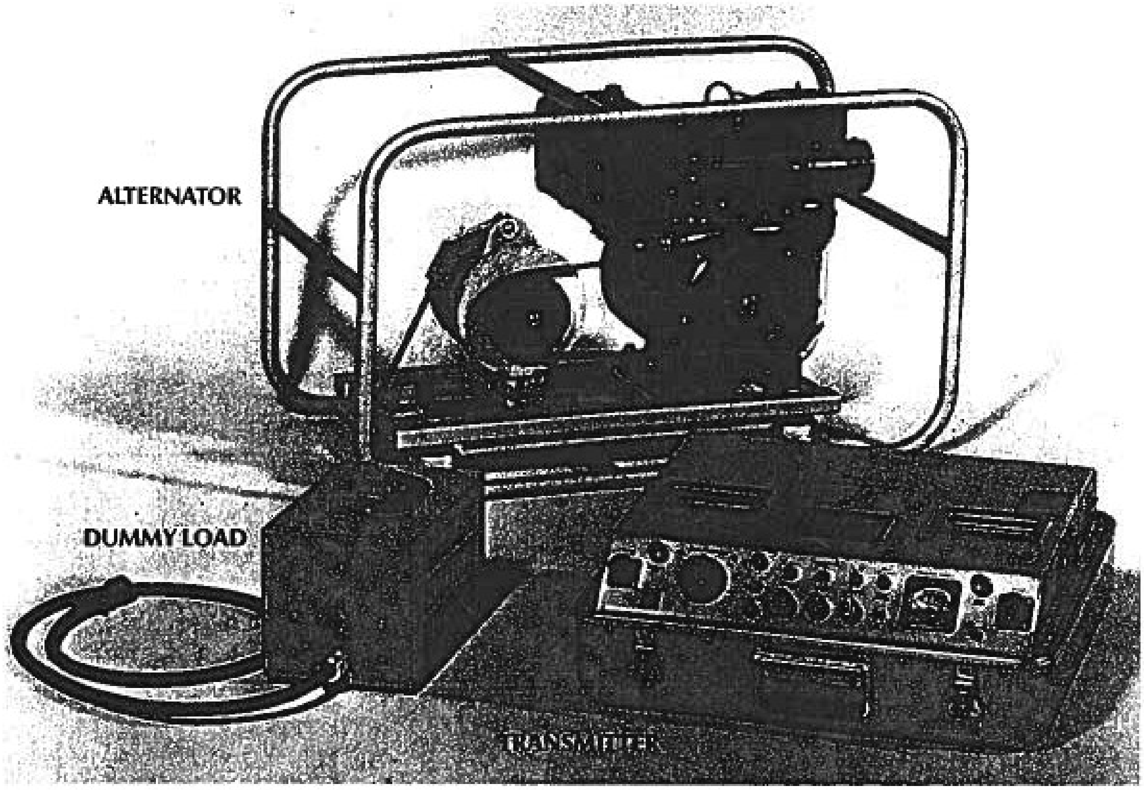
DESCRIPTION

The HUNTEC M-4 2.5 kW Induced Polarization transmitter is designed for time domain, frequency domain (PFE) and complex resistivity applications. The unit converts primary 400 Hz ac power from an engine-alternator set to a regulated dc output current, set by the operator. Current regulation eliminates output waveform distortion due to electrode polarization effects. It is achieved in the transmitter by varying the alternator field currents. The transmitter is equipped with dummy loads to smooth out generator load variations.

FEATURES

- Solid-state switching for long life and precise timing.
- Open circuit during the "off" time ensures no counter current flow.
- Resistance measurement for load matching.
- Precision crystal controlled timing.
- Failsafe operation protects against short-circuit and overvoltage.
- Automatic regulation of output current eliminates errors due to changing polarization potential and load resistance.





SPECIFICATIONS
M-4 2.5 kW Transmitter

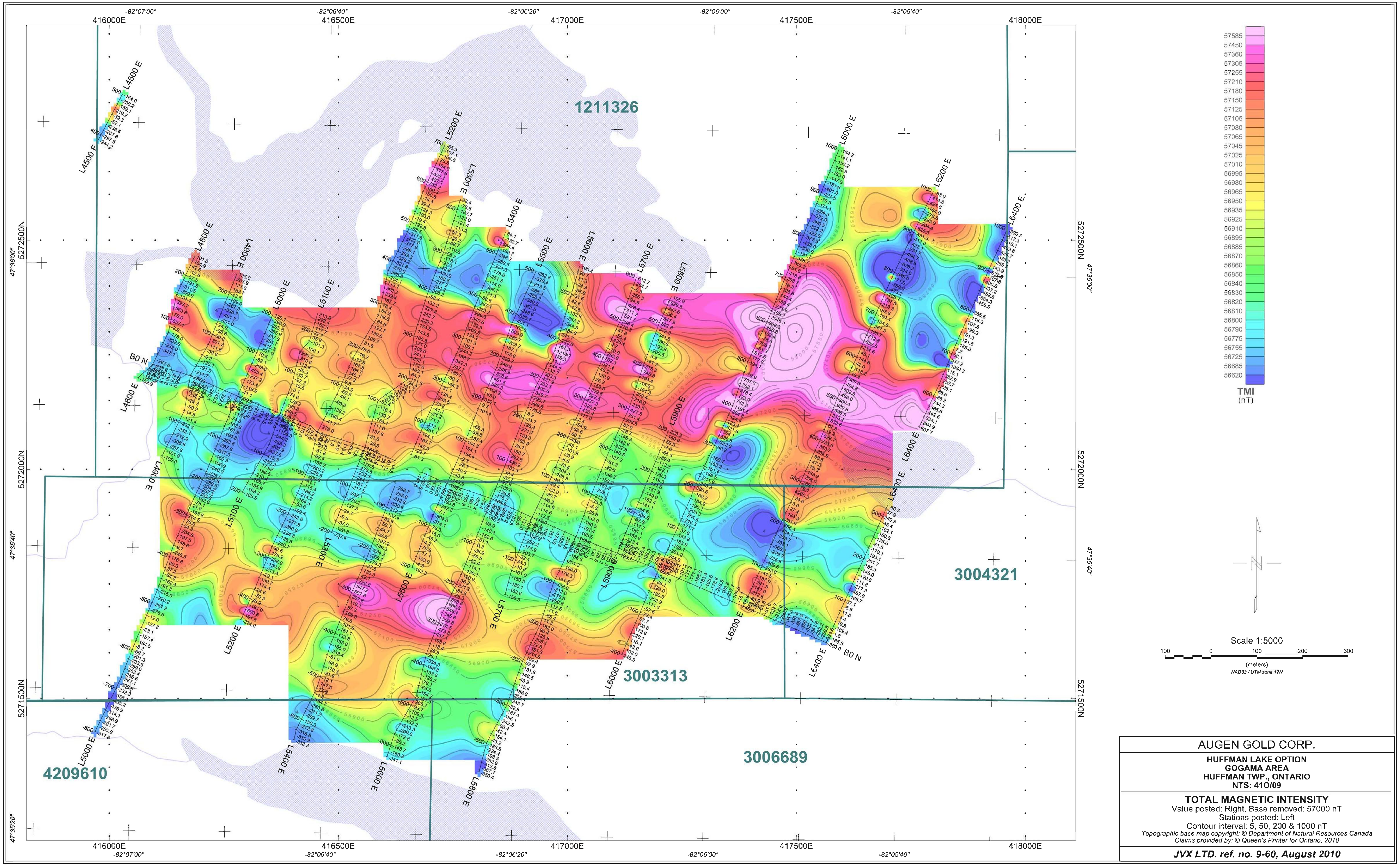
Power input:	96 — 144 V line to line 3 phase, 400 Hz (from Huntec generator set)
Output:	Voltage: 150 — 2200 V dc in 8 steps Current: 0.2 — 7 A regulated**
Current regulation:	Less than ±0.1% change for ±10% load change
Output frequency:	0.0625 Hz to 1 Hz (time domain, complex resistivity) 0.0625 Hz 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

M A P S



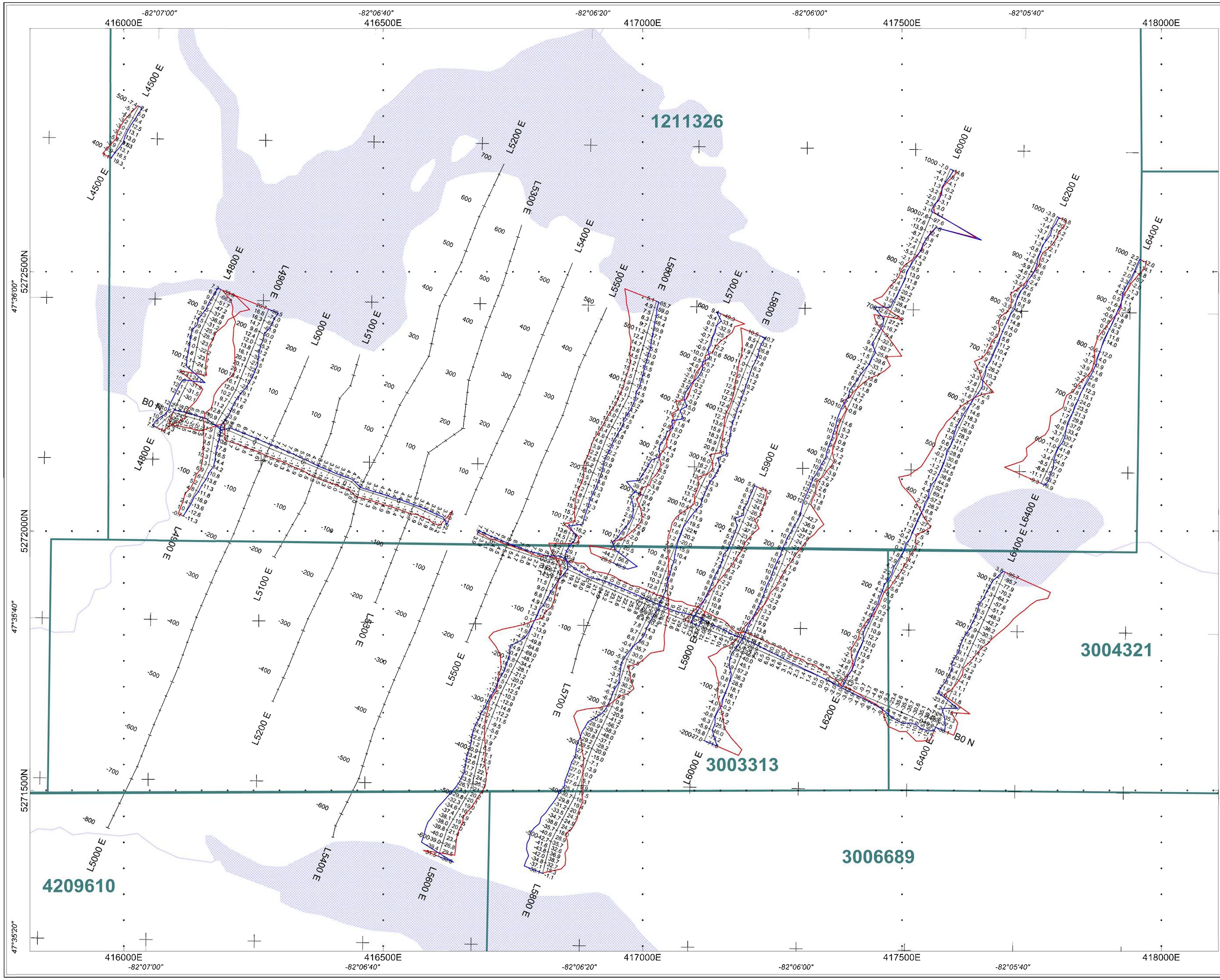
AUGEN GOLD CORP.

HUFFMAN LAKE OPTION
GOGAMA AREA
HUFFMAN TWP., ONTARIO
NTS: 41O/09

TOTAL MAGNETIC INTENSITY

Value posted: Right, Base removed: 57000 nT
Stations posted: Left
Contour interval: 5, 50, 200 & 1000 nT
Topographic base map copyright: © Department of Natural Resources Canada
Claims provided by: © Queen's Printer for Ontario, 2010

JVX LTD. ref. no. 9-60, August 2010



AUGEN GOLD CORP.

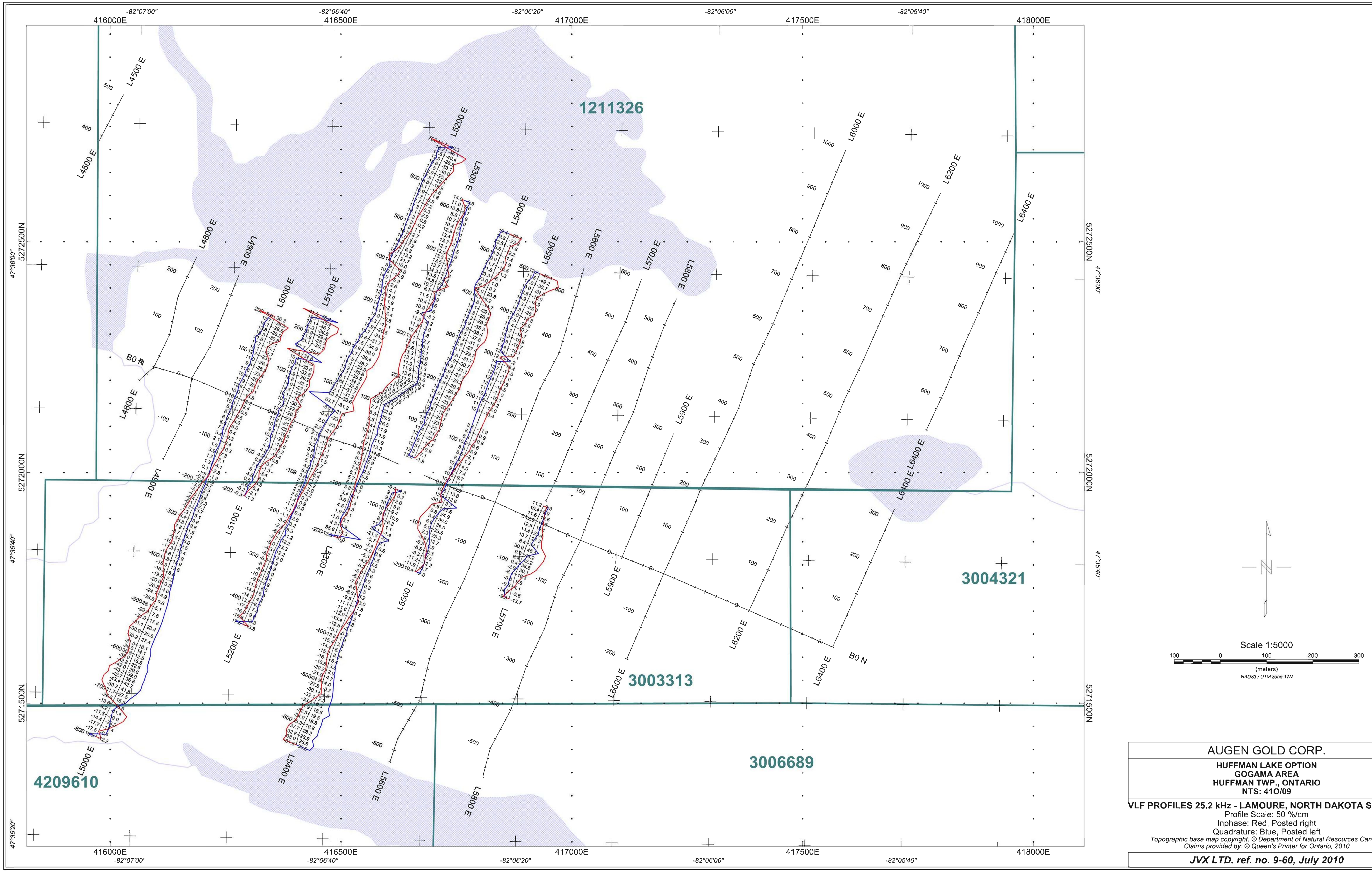
HUFFMAN LAKE OPTION
GOGAMA AREA
HUFFMAN TWP., ONTARIO
NTS: 41O/09

VLF PROFILES 24.0 kHz - CUTLER, MAINE STATION

Profile Scale: 50 %/cm
Inphase: Red, Posted right
Quadrature: Blue, Posted left

Topographic base map copyright: © Department of Natural Resources Canada
Claims provided by: © Queen's Printer for Ontario, 2010

JVX LTD. ref. no. 9-60, July 2010



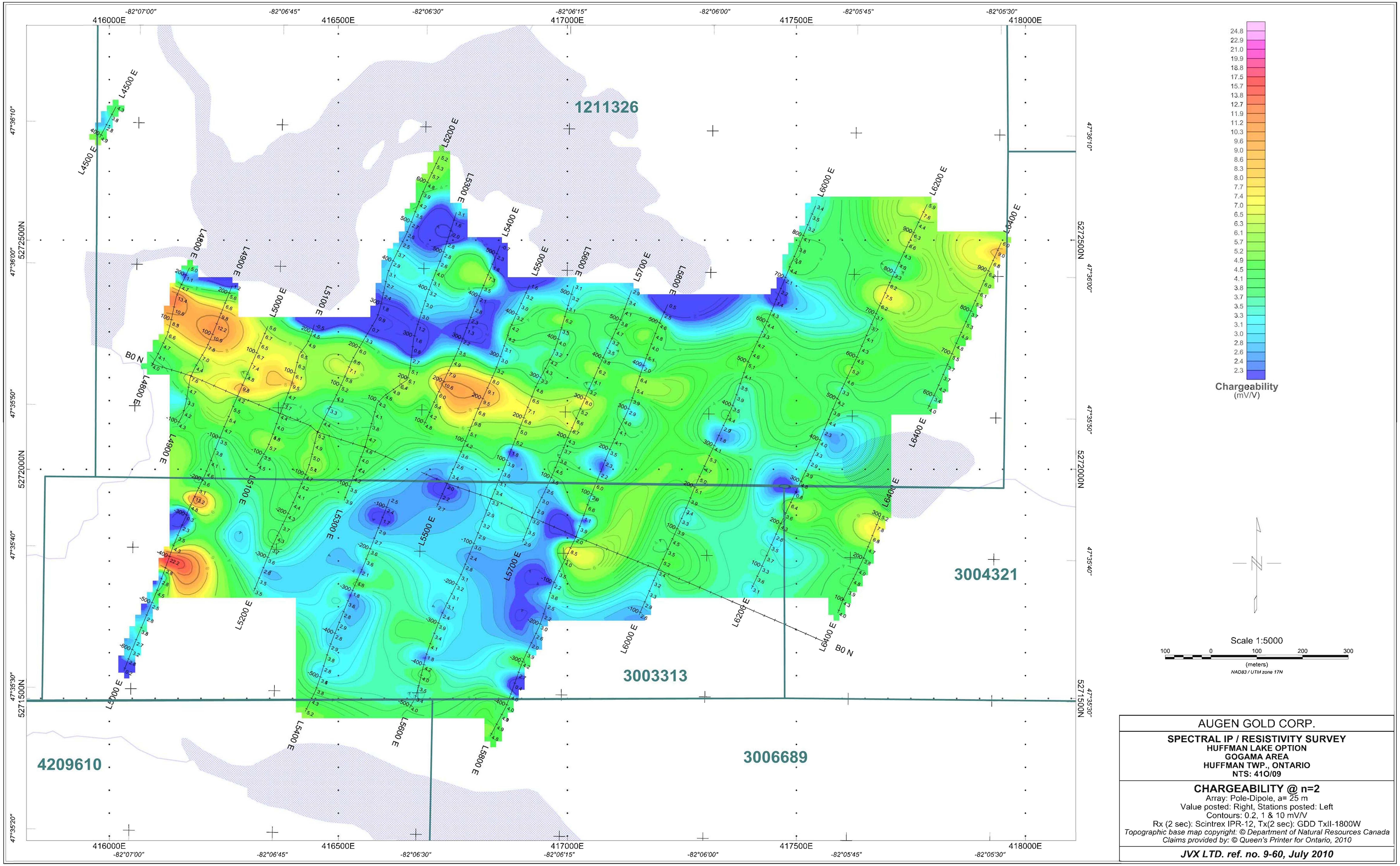
AUGEN GOLD CORP.

HUFFMAN LAKE OPTION
GOGAMA AREA
HUFFMAN TWP., ONTARIO
NTS: 41O/09

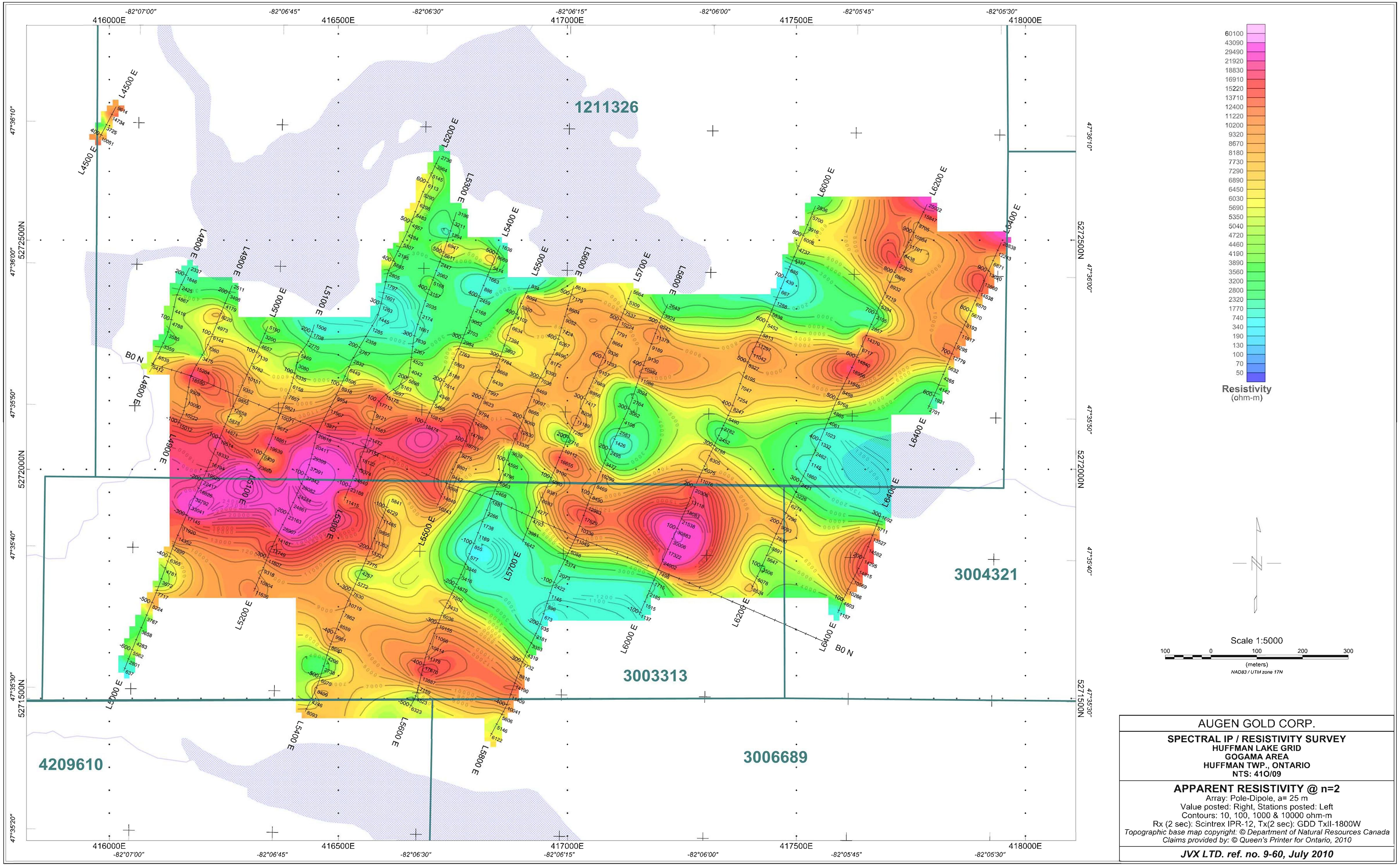
VLF PROFILES 25.2 kHz - LAMOURE, NORTH DAKOTA STATION
Profile Scale: 50 %/cm
Inphase: Red, Posted right
Quadrature: Blue, Posted left

Topographic base map copyright: © Department of Natural Resources Canada
Claims provided by: © Queen's Printer for Ontario, 2010

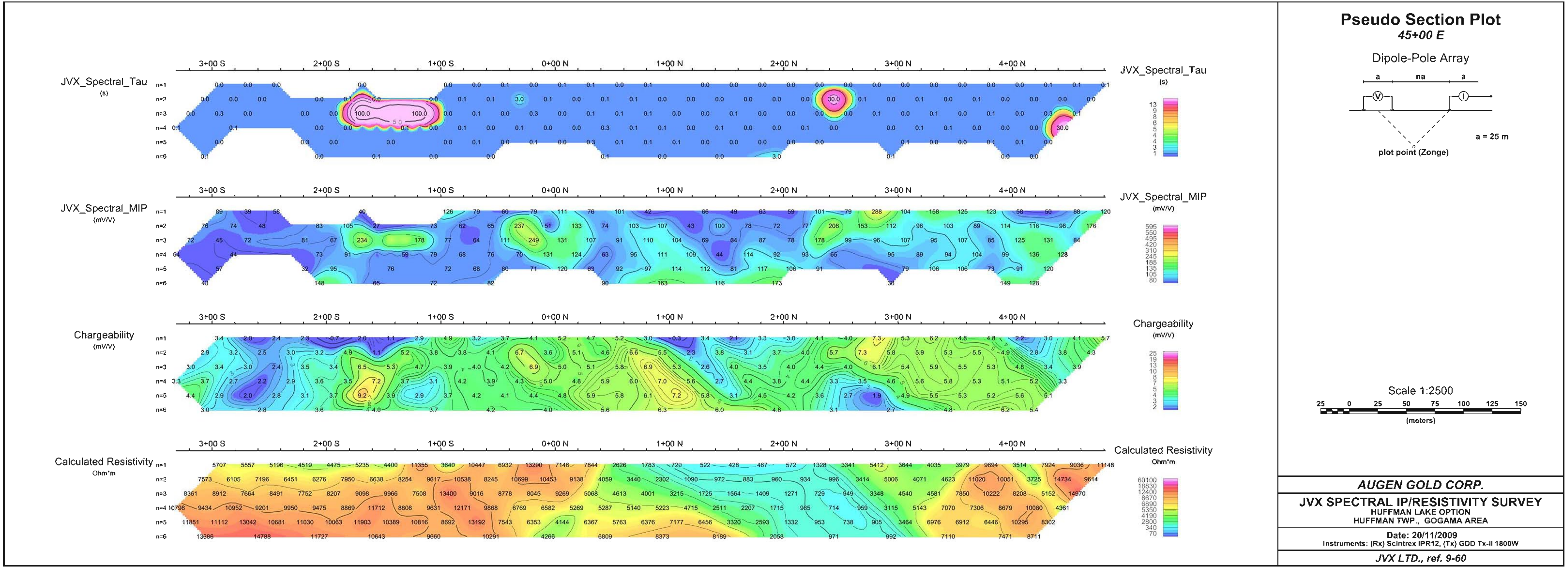
JVX LTD. ref. no. 9-60, July 2010



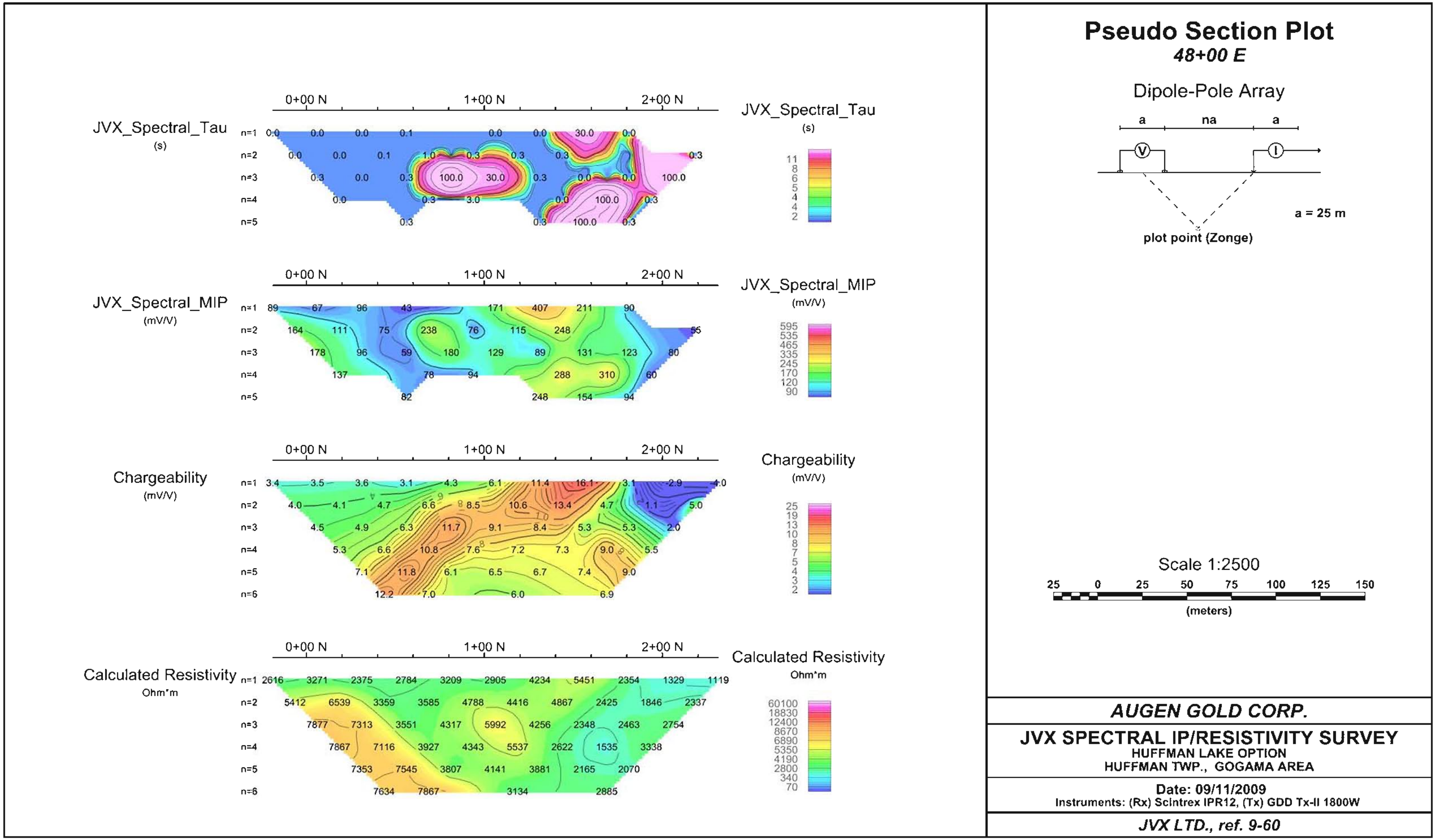
AUGEN GOLD CORP.
SPECTRAL IP / RESISTIVITY SURVEY
HUFFMAN LAKE OPTION
GOGAMA AREA
HUFFMAN TWP., ONTARIO
NTS: 41O/09
CHARGEABILITY @ n=2
Array: Pole-Dipole, a= 25 m
Value posted: Right, Stations posted: Left
Contours: 0.2, 1 & 10 mV/V
Rx (2 sec): Scintrex IPR-12, Tx(2 sec): GDD TxII-1800W
Topographic base map copyright: © Department of Natural Resources Canada
Claims provided by: © Queen's Printer for Ontario, 2010
JVX LTD. ref. no. 9-60, July 2010
Chargeability (mV/V)
Scale 1:5000
(meters)
NAD83 / UTM zone 17N
1211326
3004321
3003313
3006689
4209610
416000E
416500E
417000E
417500E
418000E
5272500N
5272000N
5271500N



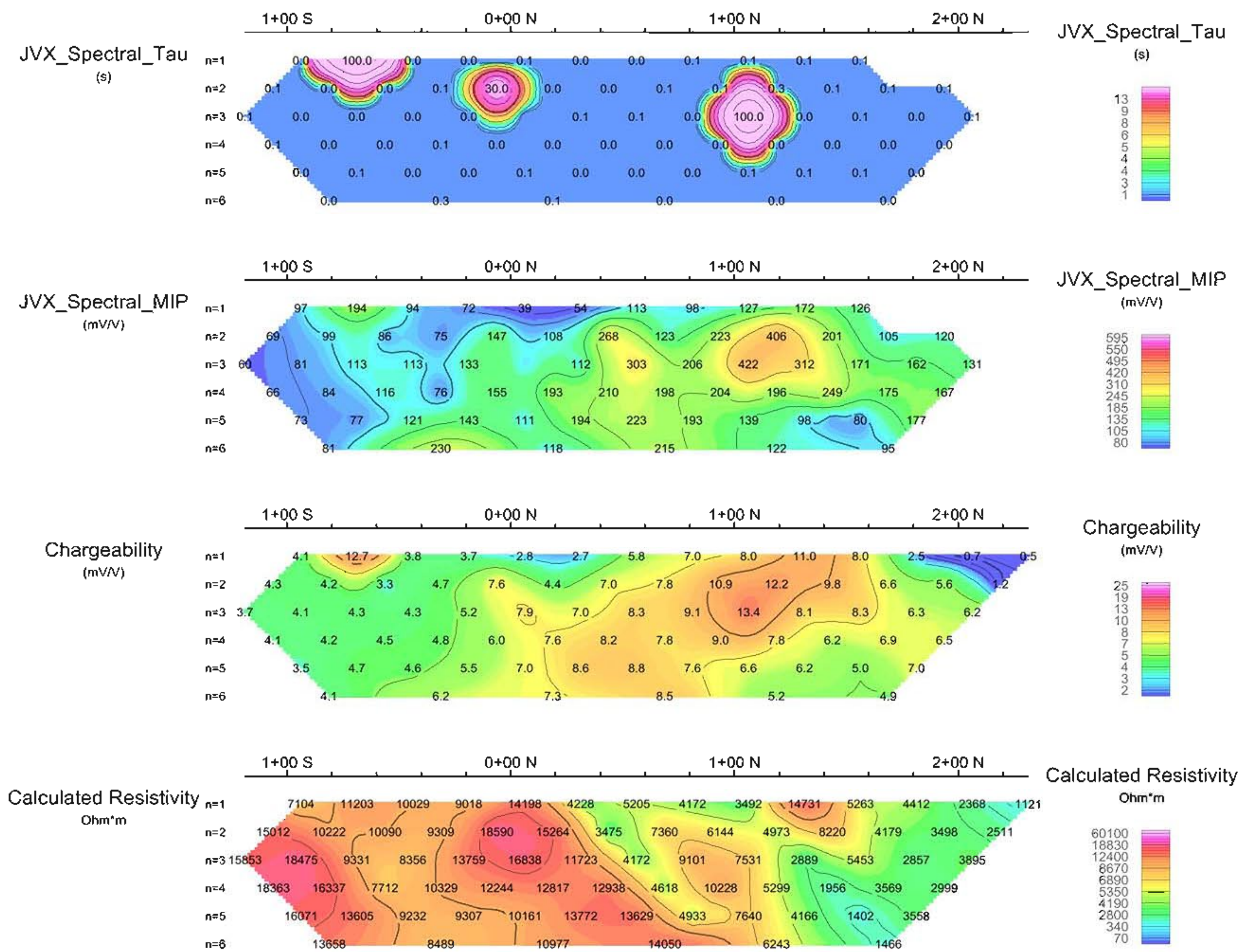
416000E
416500E
417000E
417500E
418000E
-82°07'00"
-82°06'45"
-82°06'30"
-82°06'15"
-82°06'00"
-82°05'45"
-82°05'30"
5272500N
5272000N
5271500N
47°36'10"
47°36'00"
47°35'50"
47°35'40"
47°35'30"
47°35'20"
1211326
3004321
3003313
3006689
4209610
L4500 E
L4800 E
L4900 E
L5000 E
L5100 E
L5200 E
L5300 E
L5400 E
L5500 E
L5600 E
L5700 E
L5800 E
L6000 E
L6200 E
L6400 E
B0 N
60100
43090
29490
21920
18830
16910
15220
13710
12400
11220
10200
9320
8670
8180
7730
7290
6890
6450
6030
5690
5350
5040
4720
4460
4190
3890
3560
3200
2800
2320
1770
740
340
190
130
100
70
50
Resistivity
(ohm-m)
Scale 1:5000
100 0 100 200 300
(meters)
NAD83 / UTM zone 17N
AUGEN GOLD CORP.
SPECTRAL IP / RESISTIVITY SURVEY
HUFFMAN LAKE GRID
GOGAMA AREA
HUFFMAN TWP., ONTARIO
NTS: 41O/09
APPARENT RESISTIVITY @ n=2
Array: Pole-Dipole, a= 25 m
Value posted: Right, Stations posted: Left
Contours: 10, 100, 1000 & 10000 ohm-m
Rx (2 sec): Scintrex IPR-12, Tx(2 sec): GDD TxII-1800W
Topographic base map copyright: © Department of Natural Resources Canada
Claims provided by: © Queen's Printer for Ontario, 2010
JVX LTD. ref. no. 9-60, July 2010



Pseudo Section Plot
45+00 E
Dipole-Pole Array
a = 25 m
plot point (Zonge)
Scale 1:2500
(meters)
JVX_Spectral_Tau
(s)
JVX_Spectral_MIP
(mV/V)
Chargeability
(mV/V)
Calculated Resistivity
Ohm*m
3+00 S
2+00 S
1+00 S
0+00 N
1+00 N
2+00 N
3+00 N
4+00 N
AUGEN GOLD CORP.
JVX SPECTRAL IP/RESISTIVITY SURVEY
HUFFMAN LAKE OPTION
HUFFMAN TWP., GOGAMA AREA
Date: 20/11/2009
Instruments: (Rx) Scintrex IPR12, (Tx) GDD Tx-II 1800W
JVX LTD., ref. 9-60



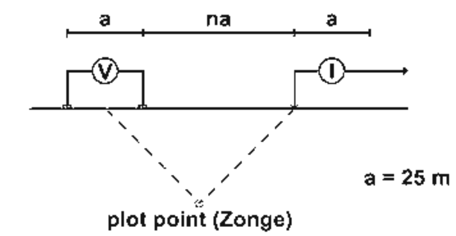
Pseudo Section Plot
48+00 E
Dipole-Pole Array
a na a
a = 25 m
plot point (Zonge)
0+00 N
1+00 N
2+00 N
JVX_Spectral_Tau
(s)
11 8 6 5 4 4 2
JVX_Spectral_MIP
(mV/V)
595 535 465 335 245 170 120 90
Chargeability
(mV/V)
25 19 13 10 8 7 5 4 3 2
Calculated Resistivity
Ohm*m
60100 18830 12400 8670 6890 5350 4190 2800 340 70
n=1
n=2
n=3
n=4
n=5
n=6
Scale 1:2500
25 0 25 50 75 100 125 150
(meters)
AUGEN GOLD CORP.
JVX SPECTRAL IP/RESISTIVITY SURVEY
HUFFMAN LAKE OPTION
HUFFMAN TWP., GOGAMA AREA
Date: 09/11/2009
Instruments: (Rx) Scintrex IPR12, (Tx) GDD Tx-II 1800W
JVX LTD., ref. 9-60



Pseudo Section Plot

49+00 E

Dipole-Pole Array



Scale 1:2500

25 0 25 50 75 100 125 150

(meters)

AUGEN GOLD CORP.

JVX SPECTRAL IP/RESISTIVITY SURVEY

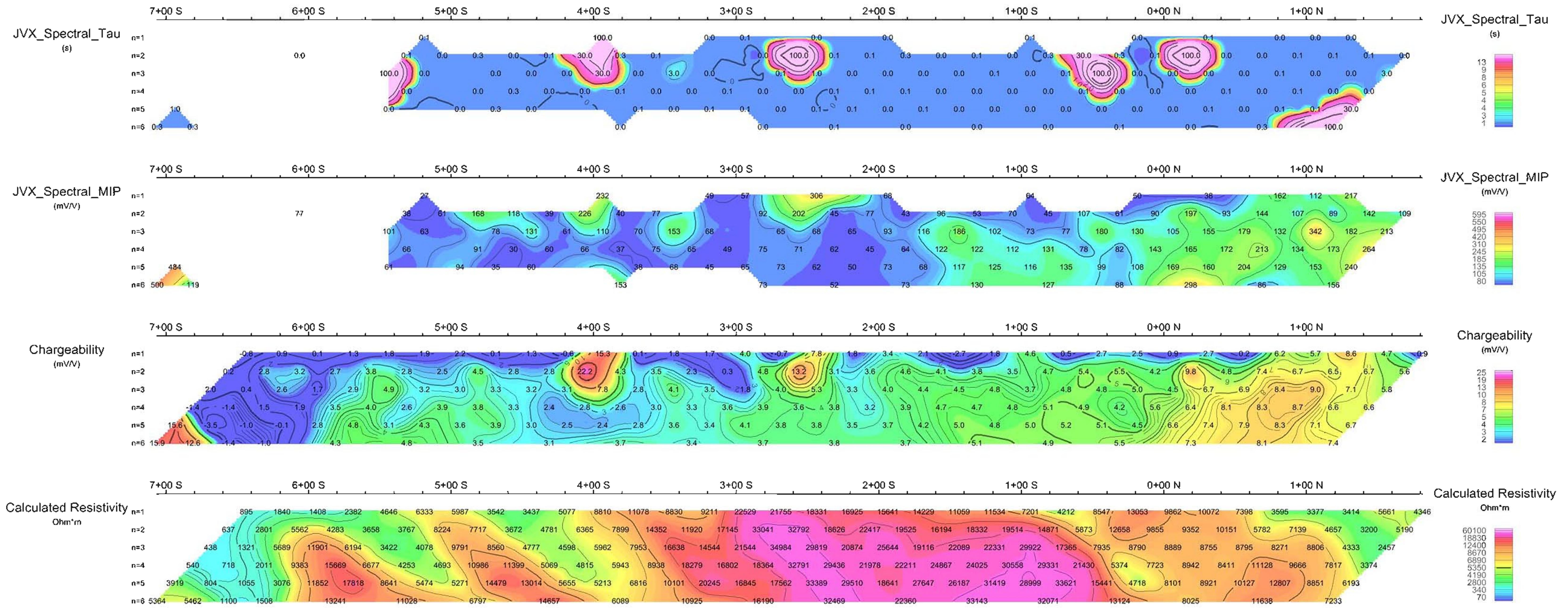
HUFFMAN LAKE OPTION

HUFFMAN TWP., GOGAMA AREA

Date: 09/11/2009

Instruments: (Rx) Scintrex IPR12, (Tx) GDD Tx-II 1800W

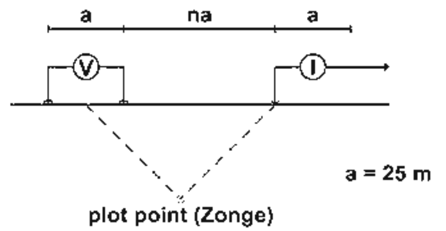
JVX LTD., ref. 9-60



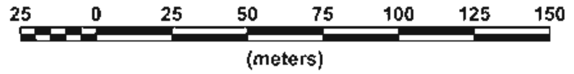
Pseudo Section Plot

50+00 E

Dipole-Pole Array



Scale 1:2500



AUGEN GOLD CORP.

JVX SPECTRAL IP/RESISTIVITY SURVEY

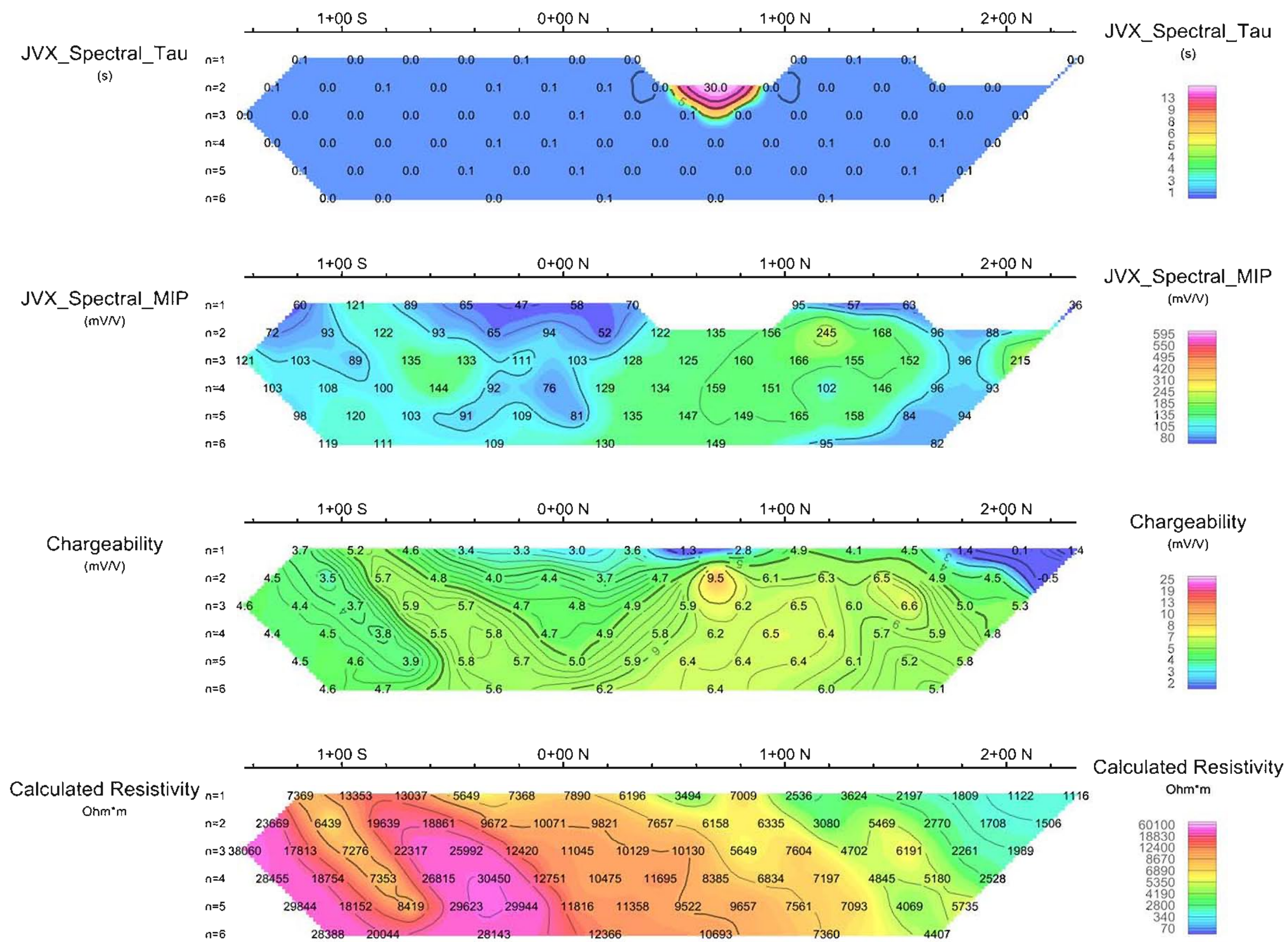
HUFFMAN LAKE OPTION

HUFFMAN TWP., GOGAMA AREA

Date: 09/11/2009

Instruments: (Rx) Scintrex IPR12, (Tx) GDD Tx-II 1800W

JVX LTD., ref. 9-60



Pseudo Section Plot

51+00 E

Dipole-Pole Array

a = 25 m

plot point (Zonge)

Scale 1:2500

(meters)

AUGEN GOLD CORP.

JVX SPECTRAL IP/RESISTIVITY SURVEY

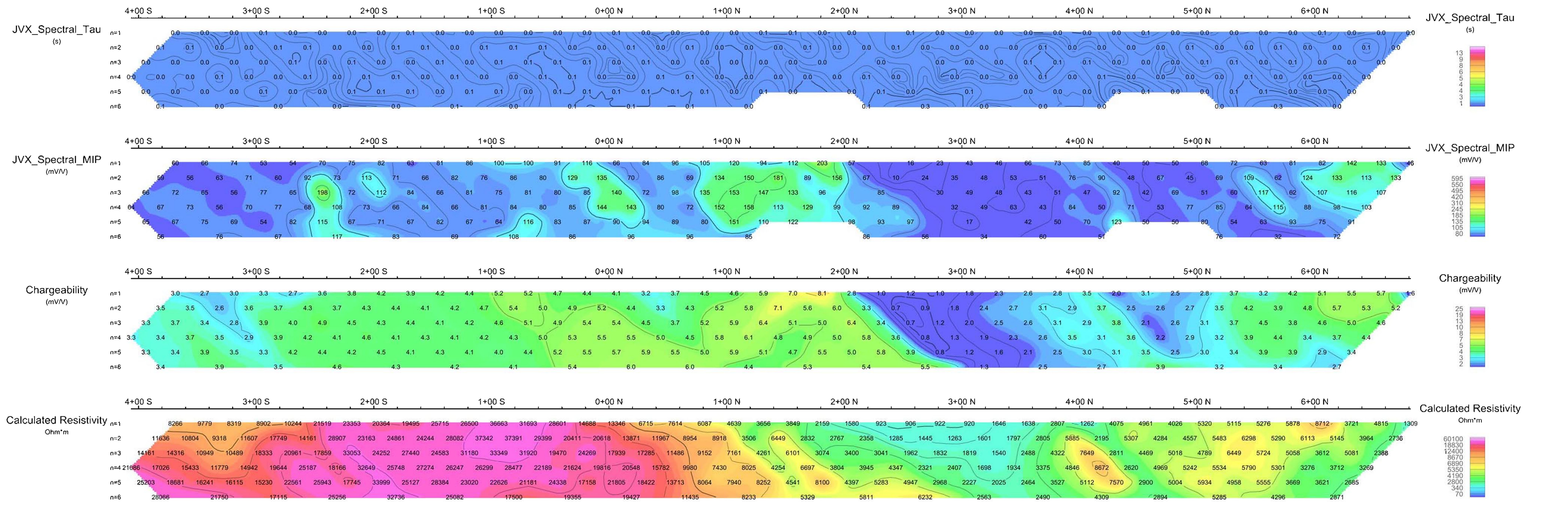
HUFFMAN LAKE OPTION

HUFFMAN TWP., GOGAMA AREA

Date: 09/11/2009

Instruments: (Rx) Scintrex IPR12, (Tx) GDD Tx-II 1800W

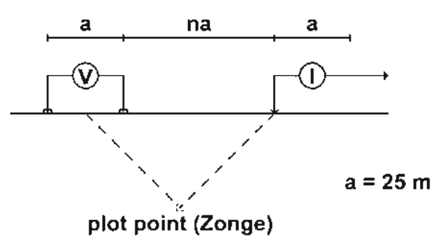
JVX LTD., ref. 9-60



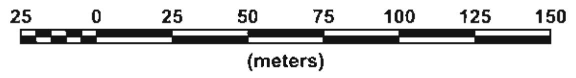
Pseudo Section Plot

52+00 E

Dipole-Pole Array



Scale 1:2500



AUGEN GOLD CORP.

JVX SPECTRAL IP/RESISTIVITY SURVEY

HUFFMAN LAKE OPTION

HUFFMAN TWP., GOGAMA AREA

Date: 09/11/2009

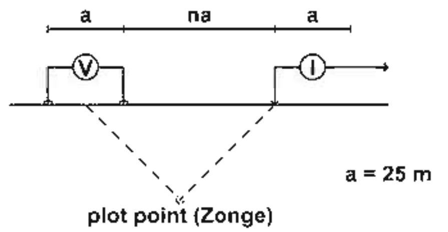
Instruments: (Rx) Scintrex IPR12, (Tx) GDD Tx-II 1800W

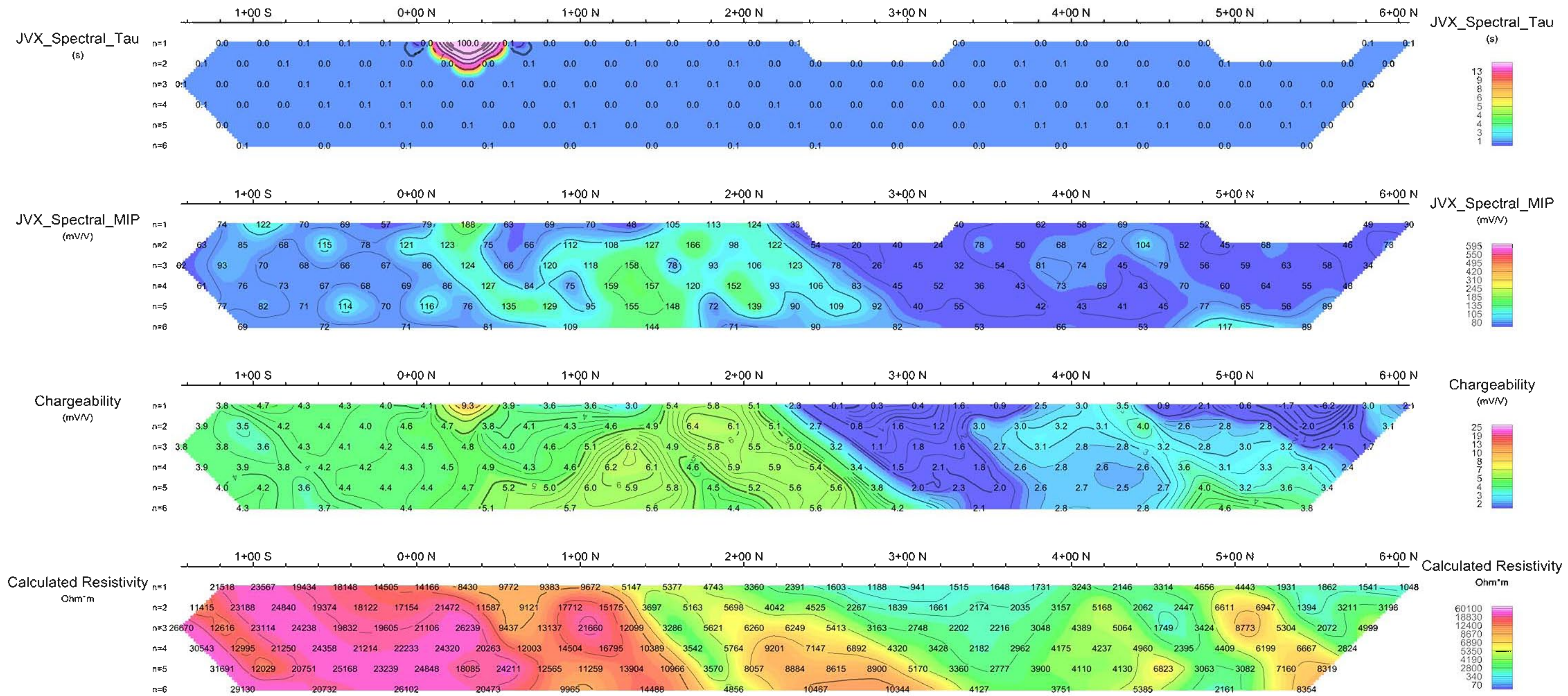
JVX LTD., ref. 9-60

Pseudo Section Plot

53+00 E

Dipole-Pole Array





Scale 1:2500

25 0 25 50 75 100 125 150

(meters)

AUGEN GOLD CORP.

JVX SPECTRAL IP/RESISTIVITY SURVEY

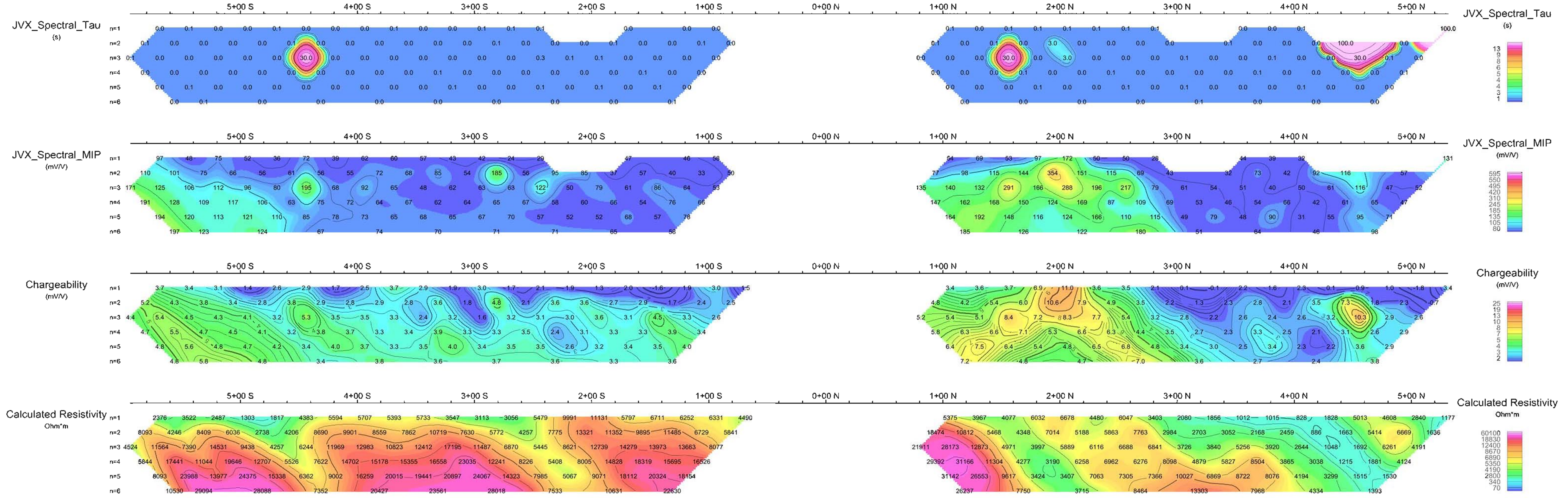
HUFFMAN LAKE OPTION

HUFFMAN TWP., GOGAMA AREA

Date: 06/11/2009

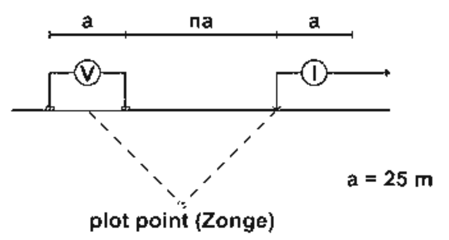
Instruments: (Rx) Scintrx IPR12, (Tx) GDD Tx-II 1800W

JVX LTD., ref. 9-60



Pseudo Section Plot
54+00 E

Dipole-Pole Array



Scale 1:2500

25 0 25 50 75 100 125 150

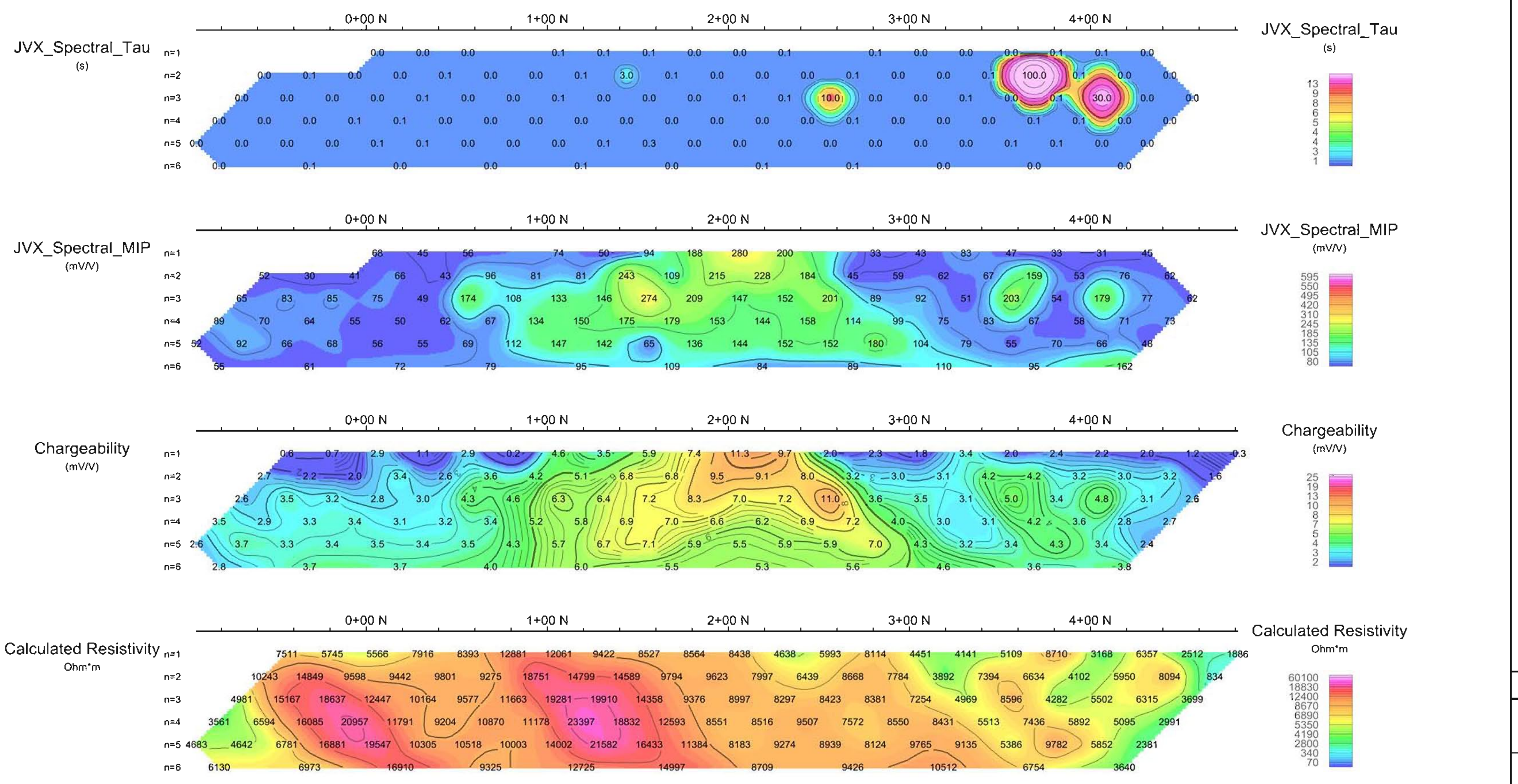
(meters)

AUGEN GOLD CORP.

JVX SPECTRAL IP/RESISTIVITY SURVEY
HUFFMAN LAKE OPTION
HUFFMAN TWP., GOGAMA AREA

Date: 06/11/2009
Instruments: (Rx) Scintrx IPR12, (Tx) GDD Tx-II 1800W

JVX LTD., ref. 9-60



Pseudo Section Plot

55+00 E

Dipole-Pole Array

a = 25 m

plot point (Zonge)

Scale 1:2500

(meters)

AUGEN GOLD CORP.

JVX SPECTRAL IP/RESISTIVITY SURVEY

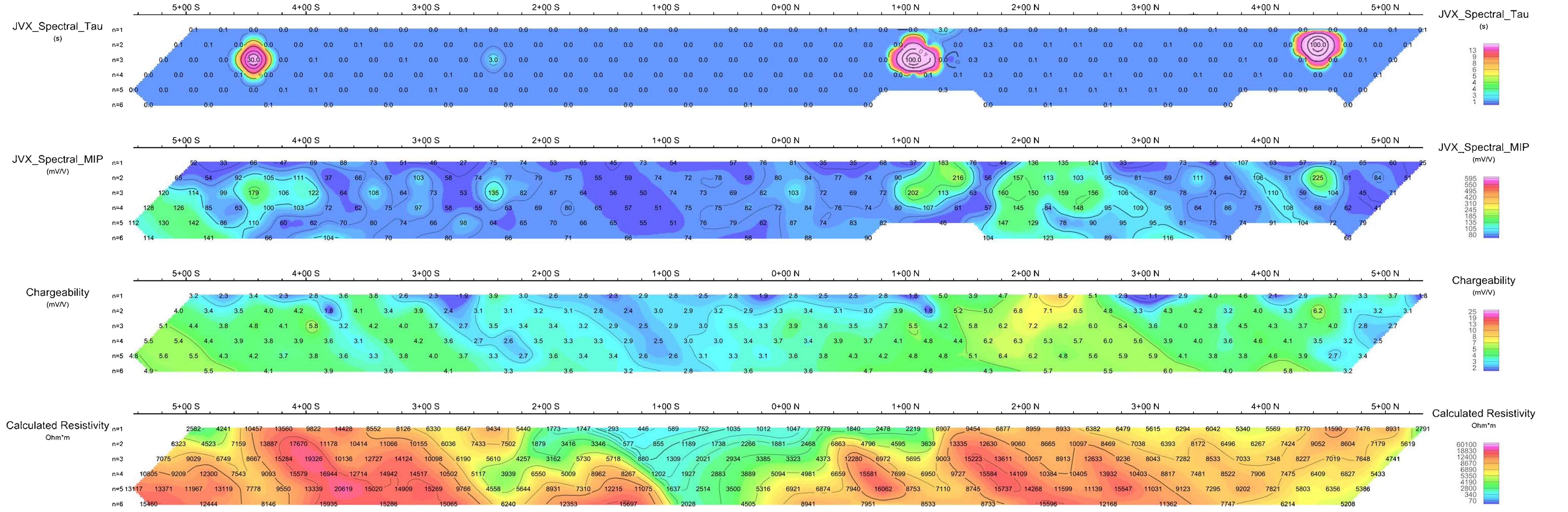
HUFFMAN LAKE OPTION

HUFFMAN TWP., GOGAMA AREA

Date: 05/11/2009

Instruments: (Rx) Scintrx IPR12, (Tx) GDD Tx-II 1800W

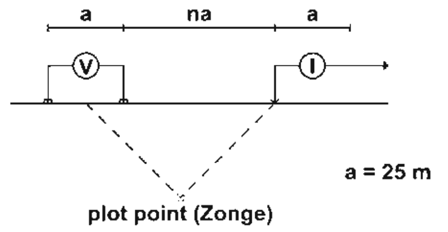
JVX LTD., ref. 9-60



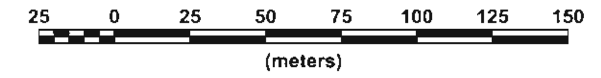
Pseudo Section Plot

56+00 E

Dipole-Pole Array



Scale 1:2500



AUGEN GOLD CORP.

JVX SPECTRAL IP/RESISTIVITY SURVEY

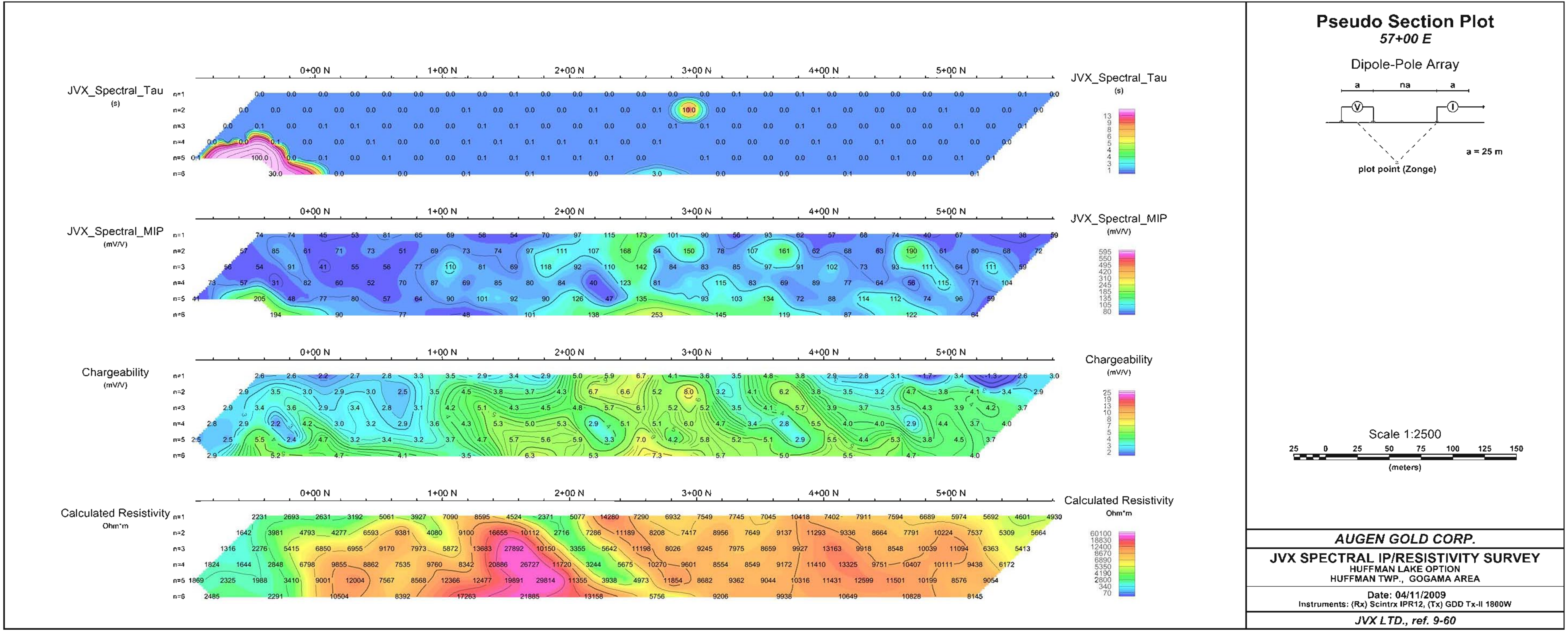
HUFFMAN LAKE OPTION

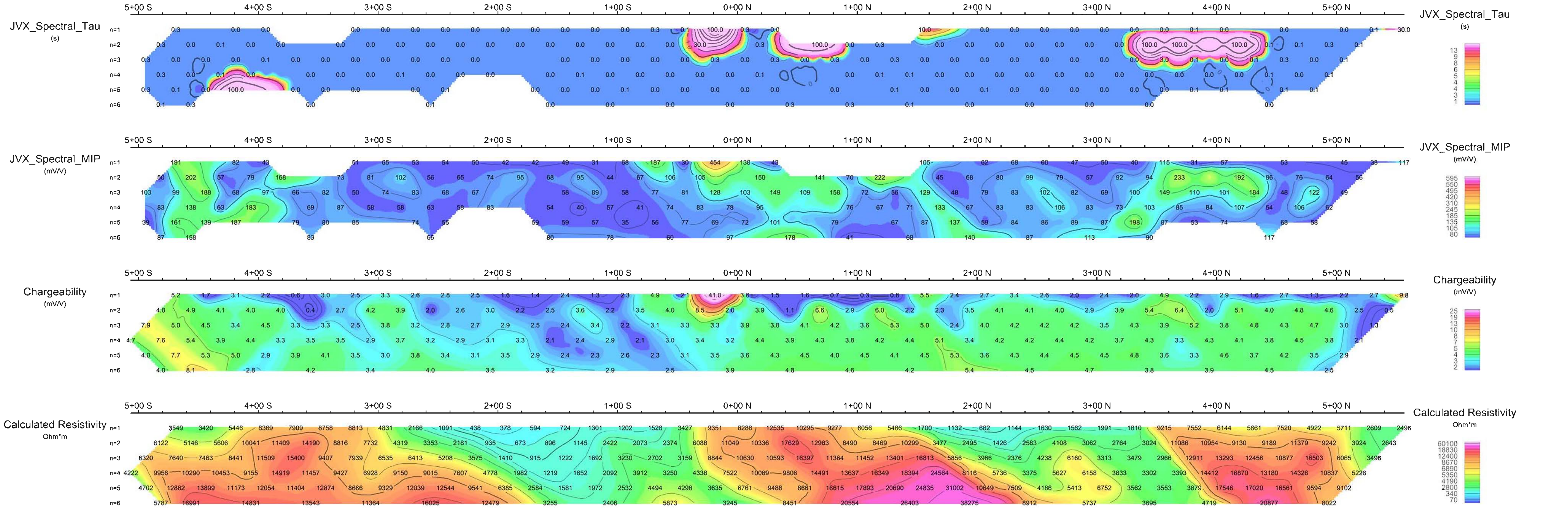
HUFFMAN TWP., GOGAMA AREA

Date: 05/11/2009

Instruments: (Rx) Scintrx IPR12, (Tx) GDD Tx-II 1800W

JVX LTD., ref. 9-60

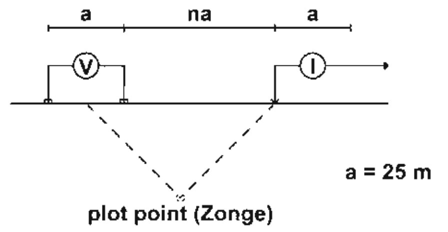

Pseudo Section Plot
57+00 E
Dipole-Pole Array
a
na
a
a = 25 m
plot point (Zonge)
JVX_Spectral_Tau
(s)
JVX_Spectral_MIP
(mV/V)
Chargeability
(mV/V)
Calculated Resistivity
Ohm*m
0+00 N
1+00 N
2+00 N
3+00 N
4+00 N
5+00 N
Scale 1:2500
(meters)
AUGEN GOLD CORP.
JVX SPECTRAL IP/RESISTIVITY SURVEY
HUFFMAN LAKE OPTION
HUFFMAN TWP., GOGAMA AREA
Date: 04/11/2009
Instruments: (Rx) Scintrx IPR12, (Tx) GDD Tx-II 1800W
JVX LTD., ref. 9-60



Pseudo Section Plot

58+00 E

Dipole-Pole Array



Scale 1:2500

25 0 25 50 75 100 125 150

(meters)

AUGEN GOLD CORP.

JVX SPECTRAL IP/RESISTIVITY SURVEY

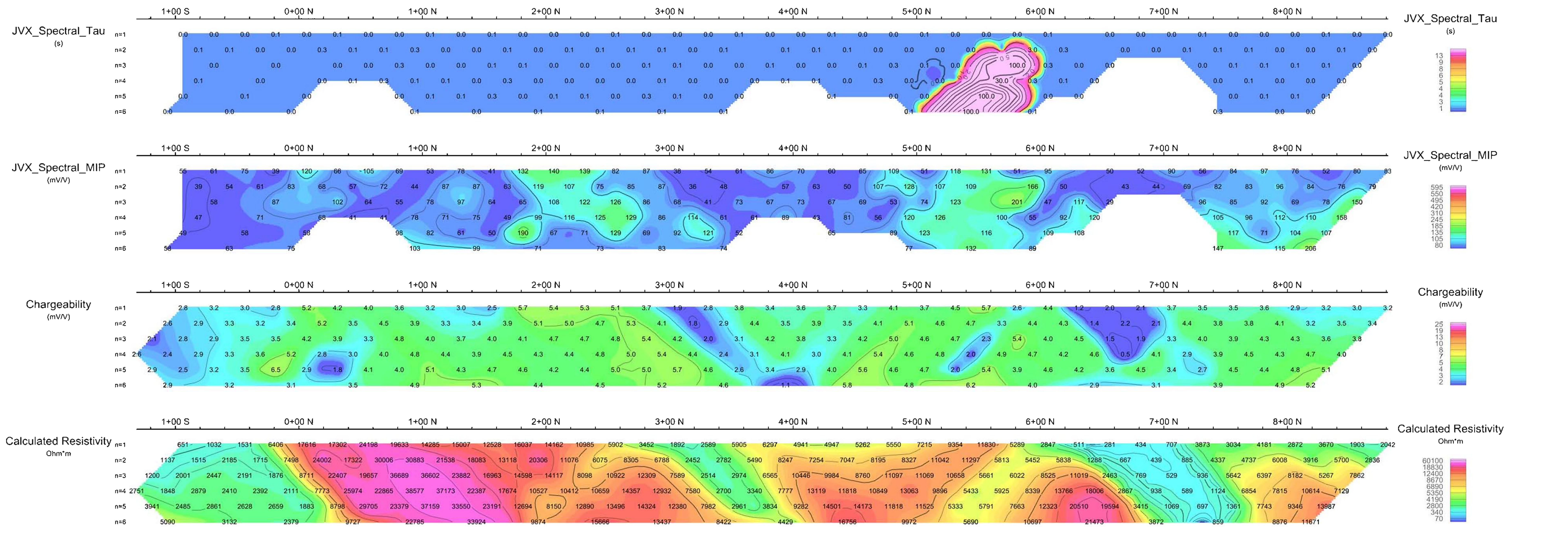
HUFFMAN LAKE OPTION

HUFFMAN TWP., GOGAMA AREA

Date: 10/11/2009

Instruments: (Rx) Scintrex IPR12, (Tx) GDD Tx-II 1800W

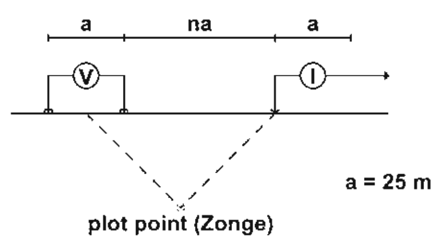
JVX LTD., ref. 9-60



Pseudo Section Plot

60+00 E

Dipole-Pole Array



Scale 1:2500

25 0 25 50 75 100 125 150

(meters)

AUGEN GOLD CORP.

JVX SPECTRAL IP/RESISTIVITY SURVEY

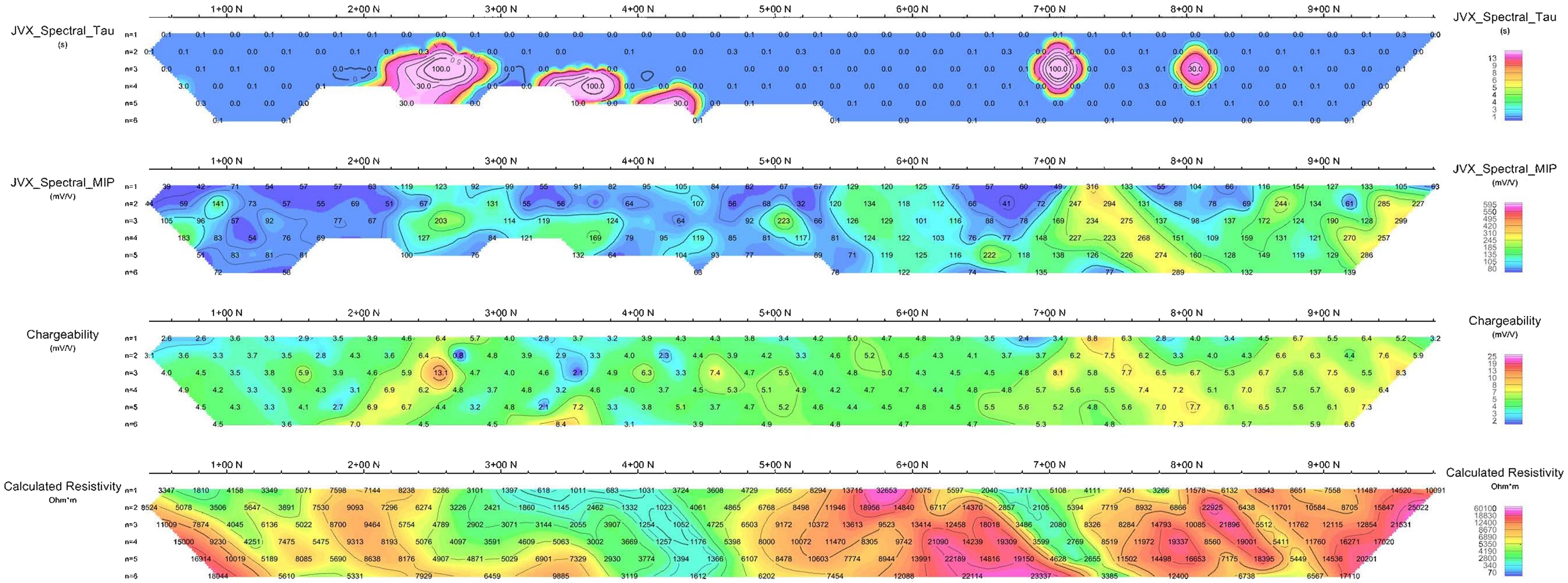
HUFFMAN LAKE OPTION

HUFFMAN TWP., GOGAMA AREA

Date: 22/11/2009

Instruments: (Rx) Scintrex IPR12, (Tx) GDD Tx-II 1800W

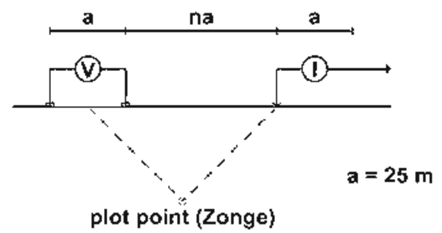
JVX LTD., ref. 9-60



Pseudo Section Plot

62+00 E

Dipole-Pole Array



Scale 1:2500

25 0 25 50 75 100 125 150

(meters)

AUGEN GOLD CORP.

JVX SPECTRAL IP/RESISTIVITY SURVEY

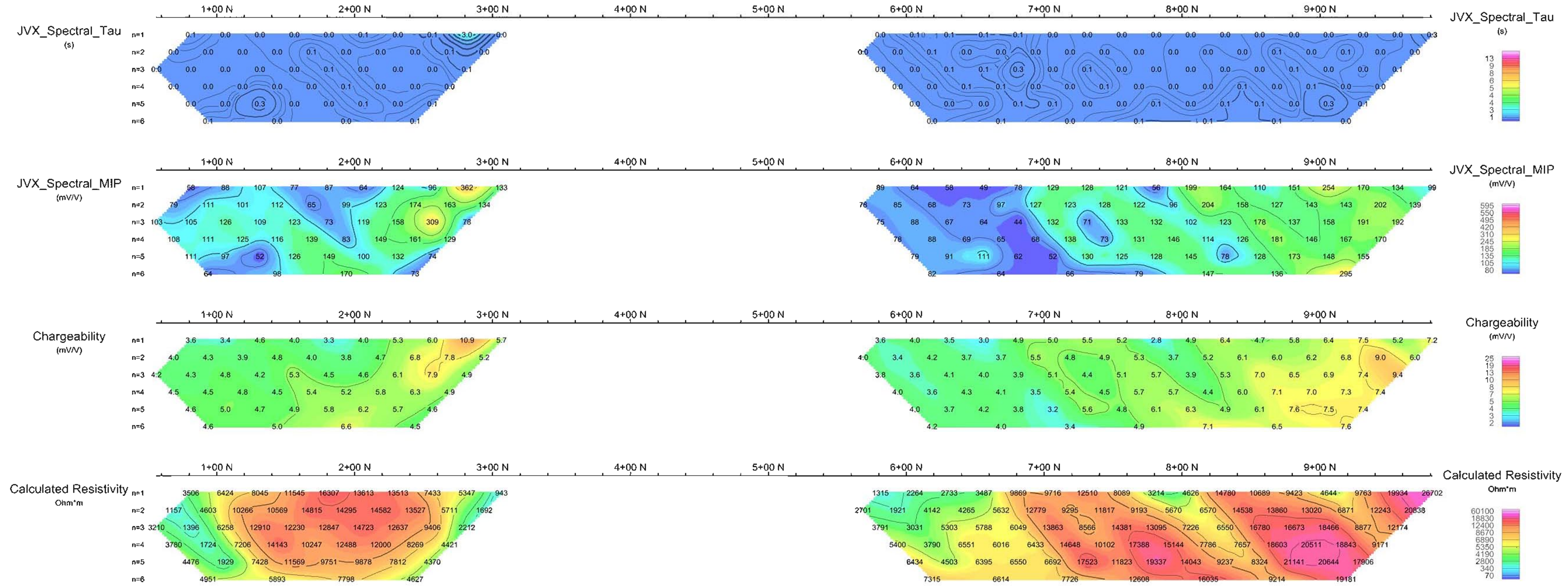
HUFFMAN LAKE OPTION

HUFFMAN TWP., GOGAMA AREA

Date: 23/11/2009

Instruments: (Rx) Scintrex IPR12, (Tx) GDD Tx-II 1800W

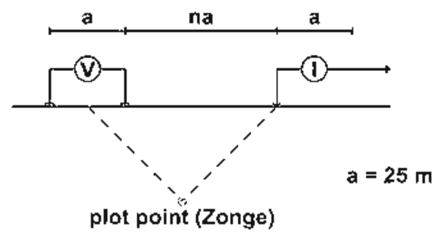
JVX LTD., ref. 9-60



Pseudo Section Plot

64+00 E

Dipole-Pole Array



Scale 1:2500

25 0 25 50 75 100 125 150

(meters)

AUGEN GOLD CORP.

JVX SPECTRAL IP/RESISTIVITY SURVEY

HUFFMAN LAKE OPTION

HUFFMAN TWP., GOGAMA AREA

Date: 24/11/2009

Instruments: (Rx) Scintrex IPR12, (Tx) GDD Tx-II 1800W

JVX LTD., ref. 9-60