BC Geological Survey Assessment Report 29852

AN ASSESSMENT REPORT

<u>ON</u>

MAGNETIC & INDUCED POLARIZATION SURVEYING

Germansen Property Chuchi Lake Area, Omineca M.D., B.C. 55° 28'N, 125° 00'W NTS: 93N/6,7,10 & 11

<u>Claims Surveyed:</u> 501129, 501190 <u>Survey Dates:</u> October $9^{th} - 17^{th}$, 2007

For

SERENGETI RESOURCES INC.

Vancouver, B.C.

 \mathbf{BY}

PETER E. WALCOTT & ASSOCIATES LIMITED

Vancouver, B.C.

APRIL 2008

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INTRODUCTION.

Between October 9th and 17st, 2007 Peter E. Walcott & Associates Limited undertook magnetic and induced polarization (I.P.) surveying over parts of the Valleau property, located some 125 kilometres northwest of the settlement of Fort St. James, British Columbia, for Serengeti Resources.

The survey was carried out over six N 60° E lines spaced 500 metres apart which were established by linecutters contracted by Serengeti.

Readings of the earth's total magnetic field were recorded using a GSM 19 proton magnetometer on the magnetic survey, while measurements – first to sixth and/or seventh separation – of apparent chargeability – the I.P. response parameter – and resistivity were made on each of the line traverses using the pole – dipole technique with a 50 metre dipole.

In addition the elevations and horizontal locations of the line stations were measured using a Brunton altimeter and an LI GPS unit respectively.

The I.P. data are presented as individual pseudo sections at a scale of 1:5,000, while the magnetic data is shown as profiles on a plan map of the respective grid.

PROPERTY, LOCATION & ACCESS.

The Germansen property is located in the Omineca Mining Division of British Columbia some 125 kilometres northwest of the settlement of Fort St. James. It consists of the following claims:

Project	Tenure #	Claim Name	Hectares	Anniversary
GERMANSEN	501129	GER	458.2	12-Jan
GERMANSEN	501190	GER 1	457.9	12-Jan

Access to both properties is readily obtainable by helicopter from Fort St. James or from the Kwanika camp, some 24 kilometres to the west, where the crew was housed for this survey.

PREVIOUS WORK

Mineral exploration in the Omineca district rotated with placer gold prospecting in 1869and with copper exploration commencing in 1969.

In 1972 Noranda Explorations conducted soil sampling and induced polarization programmes on the property.

In 1989 Wesmin Resources acquired the ground covering the property and completed airborne magnetic and EM surveys, stream sediment sampling, soil sampling, trenching and limited IP surveying.

In 2005 Serengeti in conjunction with the GSC conducted some 530 line kilometres of heliborne magnetic and radiometric surveying, followed by the collection of a limited number of rock samples.

For further information the reader is referred to the B.C. Ministry of Energy, Mines and Petroleum Reserves ARIS archive, and to reports written and/or held by Serengeti.

GEOLOGY.

The properties are located within the Quesnel Trough – Quesnellia Terrane –, a Mesozoic island arc terrane juxtaposed against the ancestral North American continental margin.

The Quesnel Trough is bounded on the west by older rocks of the Cache Creek Terrane across the Pinchi Fault, and to the east across the Manson Fault by the Slide Mountain Terrane.

Here it comprises Upper Triassic and Lower Jurassic island arc volcanic and sedimentary units of the Takla Group, and the Chuchi Lake and Twin Creek successions along with the Hogem intrusive suite, late Triassic and early Jurassic composite plutons – the intrusive equivalent of the island arc volcanic units, and the Valleau Creek intrusive suite –diorite, gabbro, pyroxenite and hornlendite rocks – which occurs along the eastern margin of the Hogem Batholith.

Only scattered small outcrops of the above were found on the property which is otherwise covered by glacial till.

PURPOSE.

The purpose of the survey was to explore for porphyry gold-copper mineralization of similar type to the Kwanika deposit. This type occurs associated with diorite, monzodiorite and syenite plugs and stocks and coeval andesitic volcanic rocks along the flank of the Hogem batholith and are generally associated with strong airborne magnetic anomalies and large copper-gold stream sediment anomalies.

SURVEY SPECIFICATIONS.

Magnetic Survey.

The magnetic survey was carried out using a GSM 19 proton precession magnetometer manufactured by GEM Instruments of Richmond Hill, Ontario. This instrument measures variations in the total intensity of the earth's magnetic field to an accuracy of plus or minus one nanotesla. Corrections for daily variations in the earth's field – the diurnal – were made by comparison with a similar instrument set up at a fixed location – the base – where recordings were made at 10 second intervals.

The Induced Polarization Survey.

The induced polarization (I.P.) survey was conducted using a pulse type system, the principal components of which were manufactured by Huntec Limited of Metropolitan Toronto, Canada and Iris Instruments of Orleans, France.

The system consists basically of three units, a receiver (Iris), transmitter (Huntec) and a motor generator (Huntec). The transmitter, which provides a maximum of 7.5 kw d.c. to the ground, obtains its power from a 7.5 kw 400 c.p.s. three phase alternator driven by a Honda 20 h.p. gasoline engine. The cycling rate of the transmitter is 2 seconds "current-on" and 2 seconds "current-off" with the pulses reversing continuously in polarity. The data recorded in the field consists of careful measurements of the current (I) in amperes flowing through the current electrodes C_1 and C_2 , the primary voltages (V) appearing between any two sequential potential electrodes, P_1 through P_{n+1} , during the "current-on" part of the cycle, and the apparent chargeability, (M_a) presented as a direct readout in millivolts per volt using a 200 millisecond delay and a 1000 millisecond sample window by the receiver, a digital receiver controlled by a micro-processor – the sample window is actually the total of ten individual windows of 100 millisecond widths.

The apparent resistivity (\int_a) in ohm metres is proportional to the ratio of the primary voltage and the measured current, the proportionality factor depending on the geometry

SURVEY SPECIFICATIONS cont'd

of the array used. The chargeability and resistivity are called apparent as they are values which that portion of the earth sampled would have if it were homogeneous. As the earth sampled is usually inhomogeneous the calculated apparent chargeability and resistivity are functions of the actual chargeability and resistivity of the rocks.

The survey was carried out using the "pole-dipole" method of surveying. In this method the current electrode, C_1 , and the potential electrodes, P_1 through P_{n+1} , are moved in unison along the survey lines at a spacing of "a" (the dipole) apart, while the second current electrode, C_2 , is kept constant at "infinity". The distance, "na" between C_1 and the nearest potential electrode generally controls the depth to be explored by the particular separation, "n", traverse.

On this survey 50 metre dipoles were employed and first to sixth/seventh separation readings were obtained. In all some 10.6 kilometres of I.P. and magnetic traversing were completed.

Vertical control.

The elevations of the stations were recorded using an ADC Summit altimeter manufactured by Brunton of Wyoming, USA. This instrument measures elevations using barometric pressures to an accuracy of plus or minus 3 metres. Corrections for errors due to variations in atmospheric pressure were made by comparison to readings obtained on a similar instrument, held stationary at one location – the base –, at 10 minute intervals.

Horizontal control.

The horizontal position of the stations were recorded using an WAAS equipped Thales Mobile Mapper L-1 phase GPS receiver.

SURVEY SPECIFICATIONS cont'd

Data Presentation.

The I.P. data are presented as individual pseudo section plots of apparent chargeability and resistivity at a scale of 1:5,000. Plots of the 21 point moving filter – illustrated on the pseudo section – for the above are also displayed in the top window to better show the location of the anomalous zones.

The anomalous chargeability zones are outlined on the respective pseudo sections.

The ground magnetics are profiled on a plan map of the line grid.

DISCUSSION OF RESULTS.

These should be studied in conjunction with the contents of the 2006 geological report on the property by Myron Osatenko, P.Geo. and the summary report on the airborne geophysics by J. Klein, P.Geo. which show the previous ground and airborne geophysics respectively.

The writer has included page size maps showing the selected target areas, the airborne contoured total field magnetics, the gridded thorium – potassium ratio, the copper soil geochemistry, and the BCGS geology map in this report.

The magnetic survey outlined the airborne magnetic anomalies footprints but as expected showed the latter to consist of several zones of highs and lows.

Background chargeabilities of 3 to 7 millivolts/volt were observed on all of the six lines traversed mostly confined to the western ends of the lines where higher resistivities were also encountered.

Above this background a complex zone of higher chargeability is clearly discernible trending across the grid for the most part coincidental with the aforementioned geochemical response, as can be seen on the respective pseudosections.

A brief summary of the anomalous chargeability zone(s) on a line by line basis is as follows:

L1500S. A strong anomaly is noted between 10300 and 10850E – undefined to the east – at a depth of burial of some 30 metres. Its shallow eastern extremity correlates with an elevated magnetic response.

L1000S. A strong near surface anomaly is seen between 9900 and 10150E with another, undefined to the east beneath cover, from 10750 to 10900E. The former would appear to extend eastwards beneath the cover and could possibly join with the latter. Both of these show good correlation with elevated magnetic responses.

DISCUSSION OF RESULTS cont'd

L500S. Two zones can be seen on this line, a shallow one between 9850 and 10100E with the other between 10350 and 10550E. Again both of these correlate with higher magnetic readings.

L0N. The main anomaly would appear to consist of two zones, a shallow one between 9900 and 10100E and a deeper one between 10300 and 10450E. a shallow zone of limited depth extent is seen circa 9750E, while a possible buried zone is discernible around 10800E at the eastern extremity of the line. Magnetic response peaks correlate with the first two mentioned.

L500N. The responses on this line were weaker than those of the previous ones. A stronger response is seen between 10250 and 10400E possibly extending to depth to the west to connect with the shallow zone indicated around 9950E. As on the previous line a possible buried undefined zone occurs at the eastern extremity. Magnetic highs are noted over the better defined zones, but as before no magnetic response was observed at the extreme eastern end.

L1000N. Two zones exhibiting strong chargeability responses are noted between 10150 and 10200E, and 10300 and 10450E, withy a weaker shallow response between 9800 and 10000E. It is possible that these could represent a complex zone that coagulates at depth. As before magnetic peaks were observed over all three zones.

SUMMARY, CONCLUSIONS & RECOMMENDATIONS

Between October 9th and 17th, 2007 Peter E. Walcott and Associates Limited undertook magnetic and induced polarization traversing over parts of the Germansen property for Serengeti Resources Ltd.

The property is located in the Chuchi Lake area of British Columbia some 125 kilometres northwest of Fort St. James.

The survey was carried out over six lines that trended N 60° E over a previously located airborne magnetic feature and a long linear copper soil anomaly.

The I.P. survey located a region of elevated chargeability, within which several individual zones can be seen, that is associated with the aforementioned magnetic high and geochemical anomaly.

These responses are undefined to the south, the north and in places to the east.

The writer recommends that the previous geological, geochemical sampling, geophysics and prospecting data be compiled with the results of this survey in order to plan further exploration on the property.

Respectfully submitted,

PETER E. WALCOTT & ASSOCIATES LIMITED

Peter E. Walcott, P.Eng. Geophysicist

Vancouver, B.C. April 2008

APPENDIX

COST OF SURVEY.

Peter E. Walcott & Associates Limited undertook the survey on a daily basis. Mobilization and reporting were extra so that the total cost of services provided was \$32,860.00

PERSONNEL EMPLOYED ON SURVEY.

Name	Occupation	Address	Dates	
Peter E. Walcott	Geophysicist	Peter E. Walcott & Associates Limited 608 – 1529 W. 2 nd Ave. Vancouver, B.C. V6J 1H2	Apr.9 th & 10 th .08	
Alexander Walcott		"	Jan 14 th - 16 th ,2008 Mar. 14th -15th, 08	
Andrea Cochrane	"	"	Oct. 9th -17 th , 07	
C. Gugins	11	66	Oct 15 th - 17 th , 07	
R. Alexander	Geophysical Operator	"	Oct. 9th - Oct. 17th 2007	
J. Powers	Geophysical Assistant	"	"	
S. Lessard	**	н	11	
F. Consuegra	11	11	Oct 15 th -17 th , 07	
Mike Petrach	11	Serengeti Resources	Oct $9^{th} - 17^{th}$, 07	
Mathew Johnny	11	11	Oct. 9 th - 17 th , 07	
J. Walcott	Typing	Peter & Walcott & Associates Limited	Apr. 10 th , 2008	

Peter E. Walcott & Associates Limited Geophysical Services

Magnetic & Induced Polarization Surveying Germansen Property

CERTIFICATION.

I, Peter E. Walcott of 605 Rutland Court, Coquitlam, British Columbia, hereby certify that:

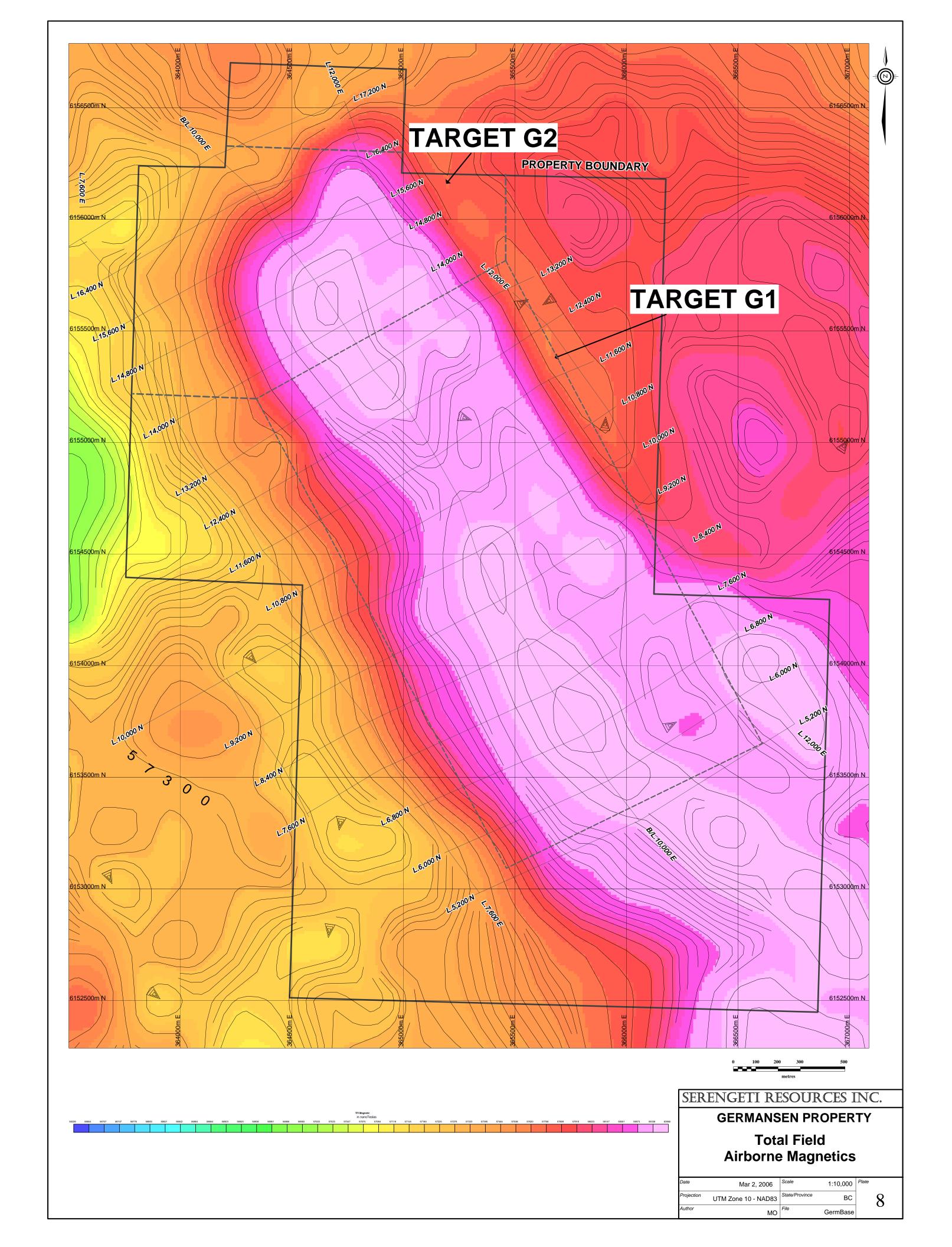
- 1. I am a graduate of the University of Toronto in 1962 with a B.A.Sc. in Engineering Physics, Geophysics Option.
- 2. I have been practicing my profession for the last forty five years.
- 3. I am a member of the Association of Professional Engineers of British Columbia and Ontario.
- 4. I hold no interest, direct or indirect in Serengeti Resources Inc., nor do I expect to receive any.

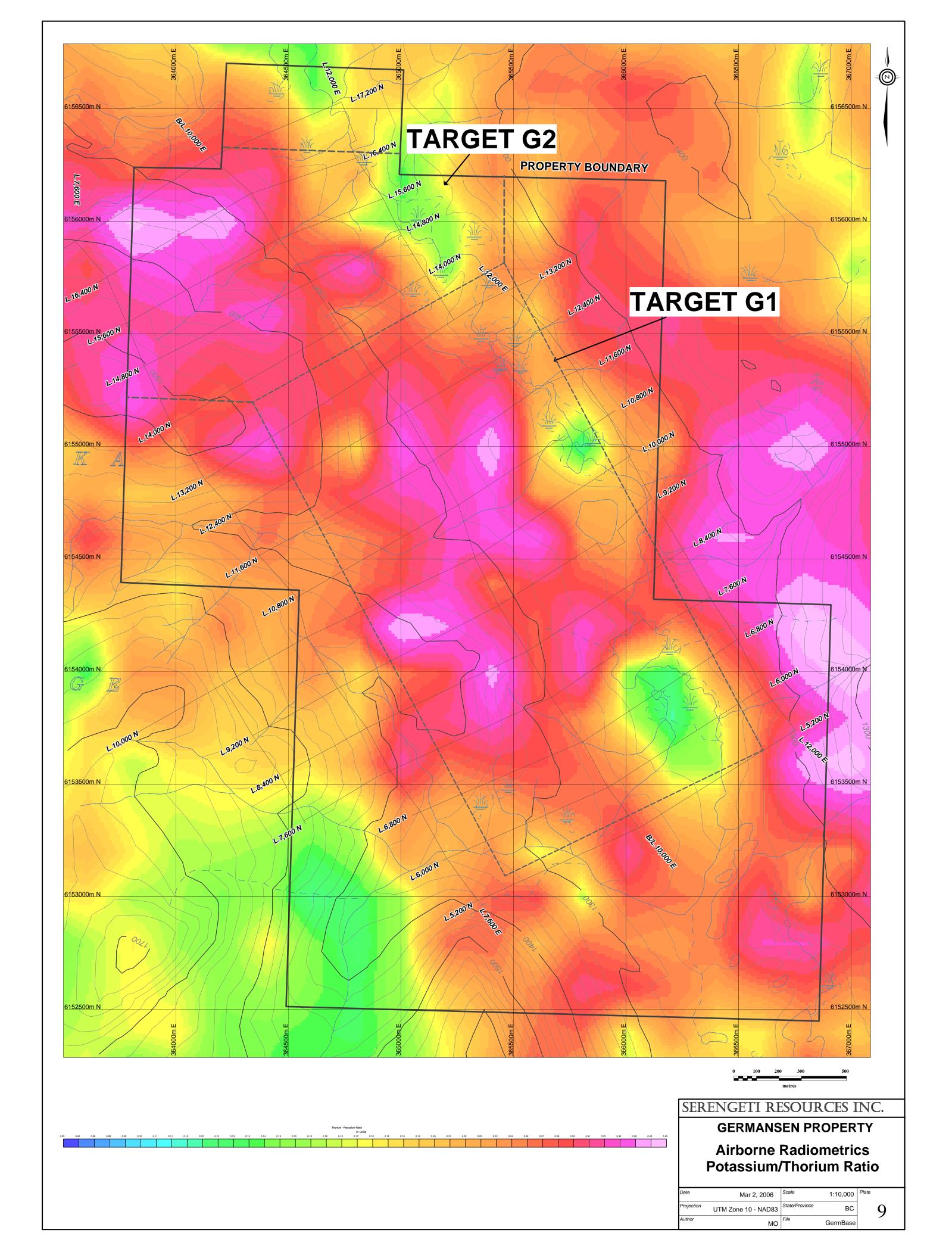
Peter E. Walcott, P.Eng.

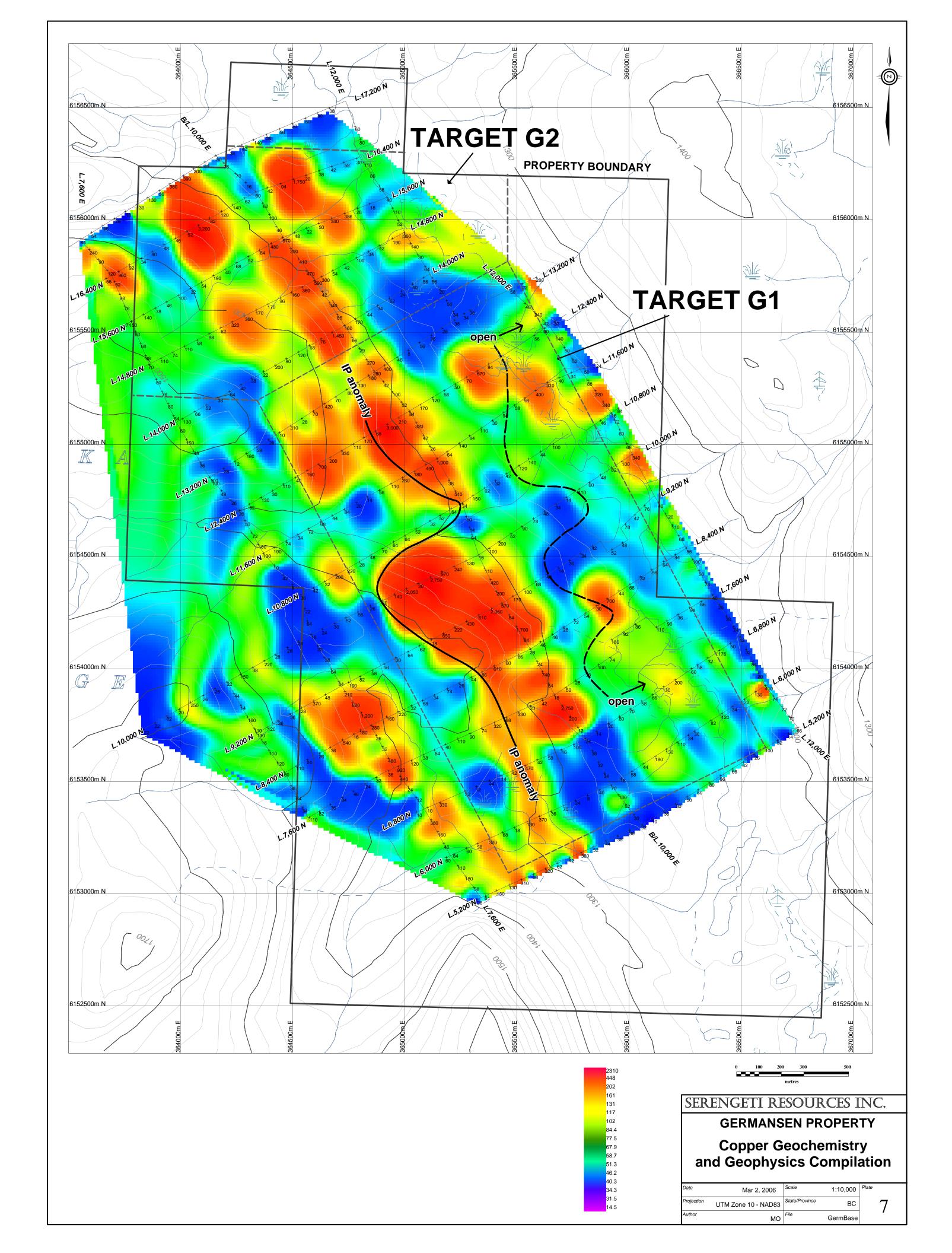
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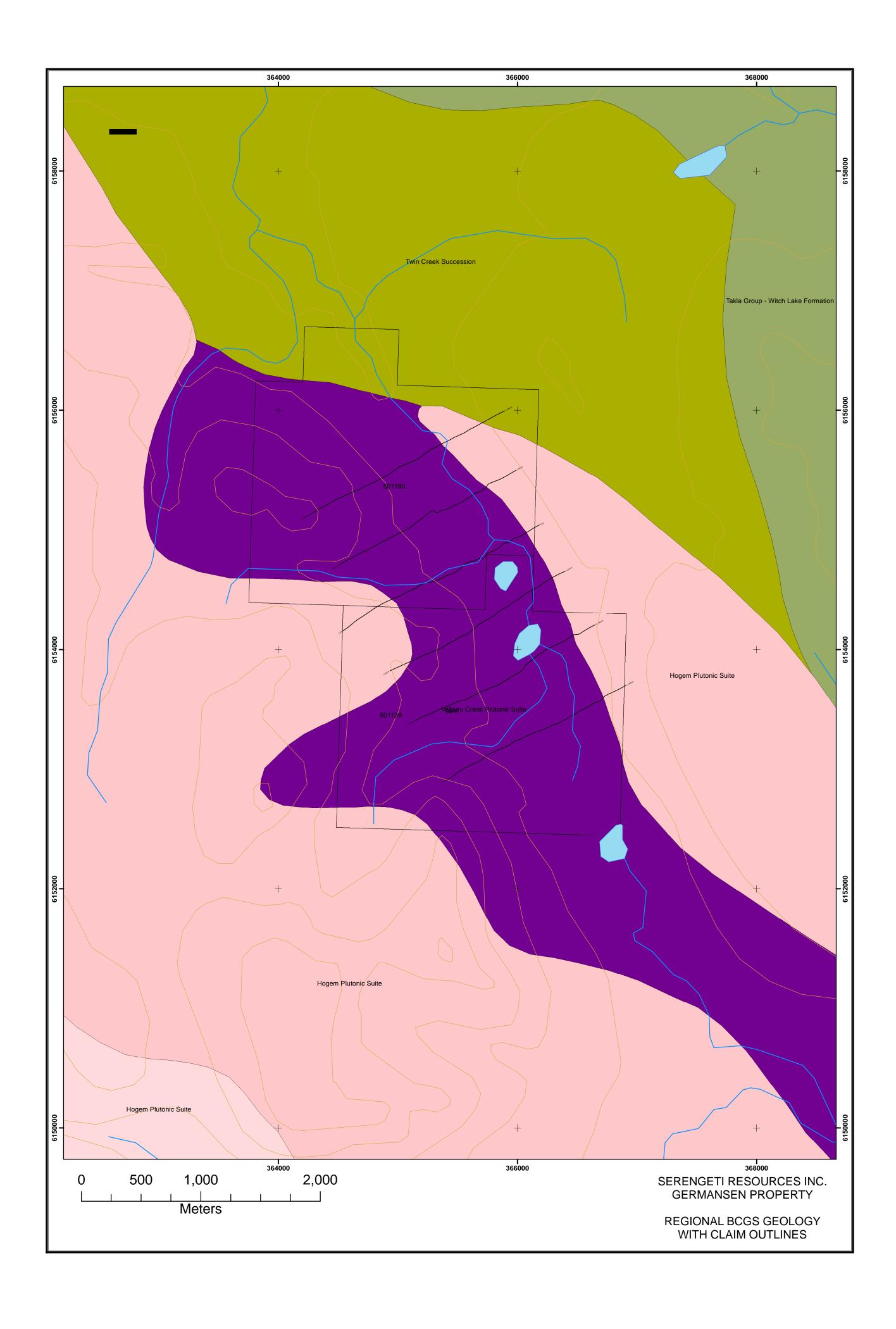


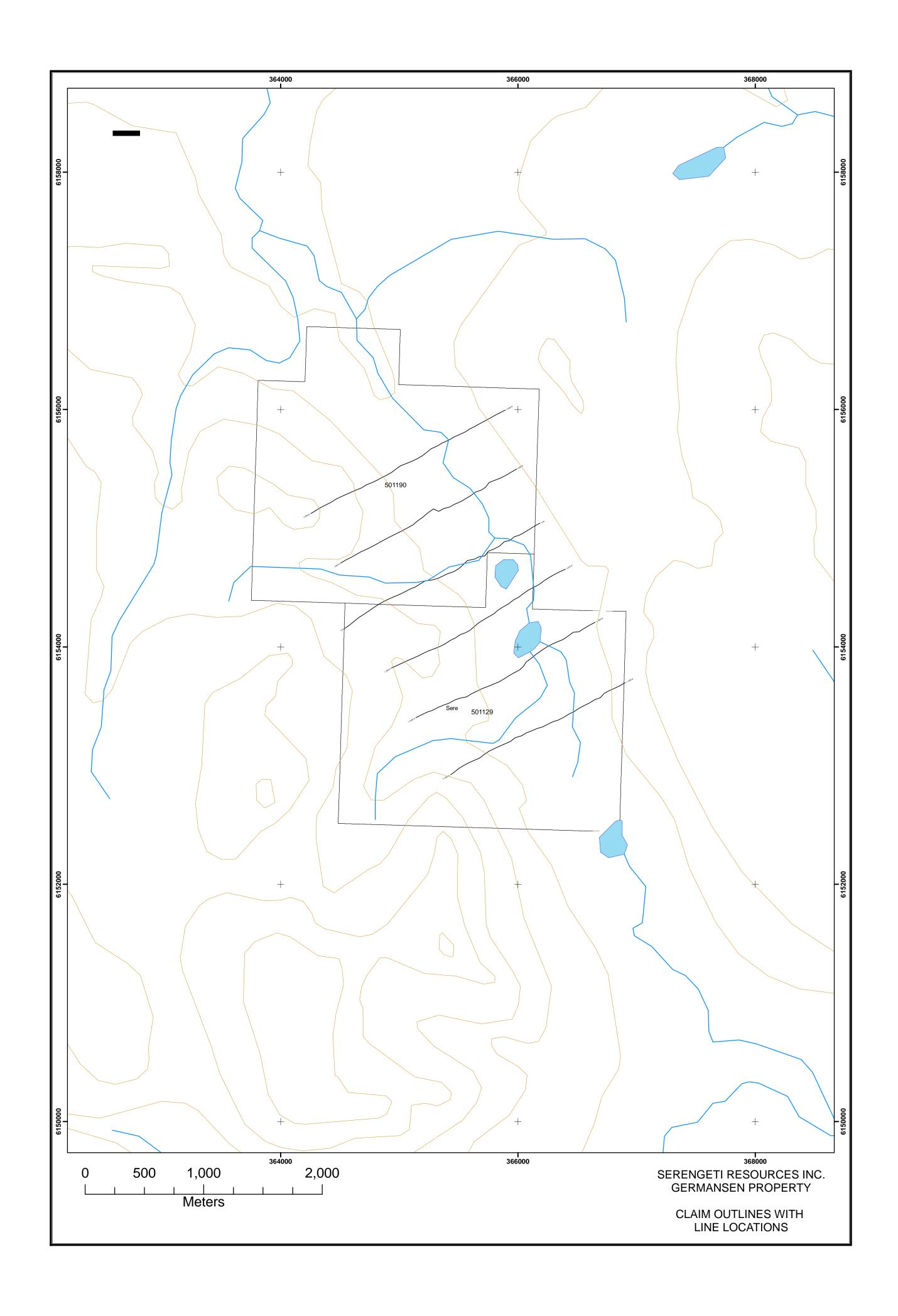
Figure 1
Property Location Map

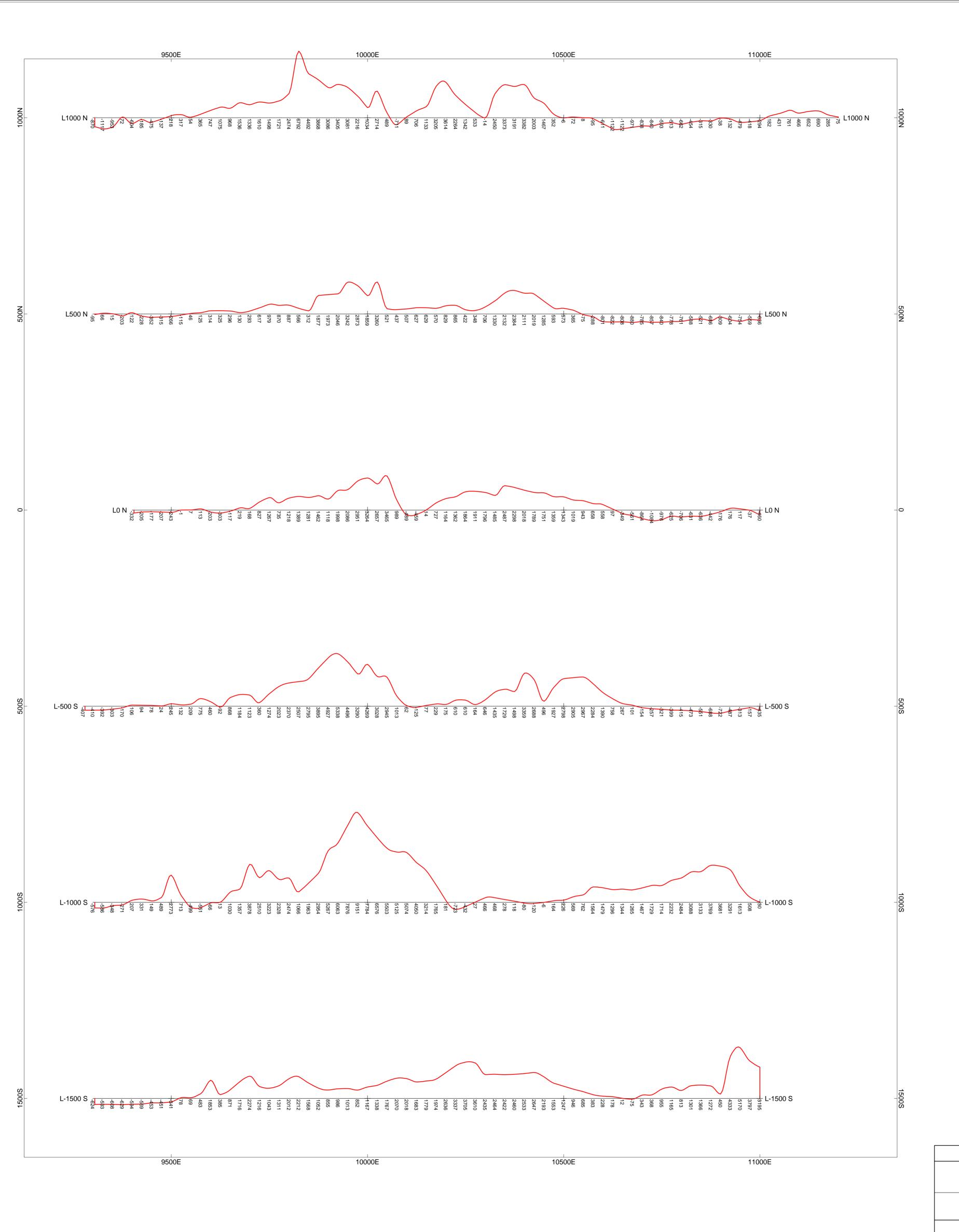


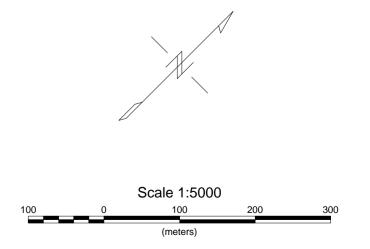












SERENGETI RESOURCES INC.

MAGNETIC SURVEY
PROFILES OF TOTAL FIELD INTENSITY (nT)
PROFILE BASE 57000 nT, 2000 nT/cm

GERMANSEN PROPERTY Fort St. James Area October 2007

PETER E. WALCOTT & ASSOCIATES LIMITED

