

**GEOPHYSICAL REPORT**

**INDUCED POLARIZATION SURVEY**

**ON THE**

**RIDGE ZONE PROJECT**

**FOR**

**SABLE RESOURCES LTD.**

**LOCATION:**

TOODOGGONE, B.C., CANADA

NTS SHEET: 094E06E

MINING ZONE: OMINECA MINING DISTRICT

**APPROXIMATE CENTER OF GRID:**

612,050 E; 6,352,650 N  
(UTM ZONE 10 N; NAD 27)

OR

57° 17' N; 127° 07' W  
(LOCATION OF BAKER MINE)

SURVEY CONDUCTED BY  
SJ GEOPHYSICS LTD.  
SEPTEMBER 2004

REPORT WRITTEN BY: SERGIO ESPINOSA, PH.D.

REVIEWED BY: SHAWN RASTAD, B.Sc.

S.J.V. CONSULTANTS LTD.

DECEMBER 2004

27653

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1050E	Interpreted Resistivity / Interpreted Chargeability : Line 1050E
1100E	2D & 3D Interpreted Resistivity / Interpreted Chargeability : Line 1100E
1150E	Interpreted Resistivity / Interpreted Chargeability : Line 1150E
1200E	Interpreted Resistivity / Interpreted Chargeability : Line 1200E
1250E	Interpreted Resistivity / Interpreted Chargeability : Line 1250E
1300E	Interpreted Resistivity / Interpreted Chargeability : Line 1300E

## 1. SUMMARY

The Ridge Zone Project on the Chapelle mineral claims, located in the Toodoggone, B.C. in the Omineca Mining District contains several resistive and chargeable features. The grid area displays favourable geophysical results concerning the presence of mineralized geological formations, even the presence of a high level epithermal gold-silver vein type deposit.

The resistivity features are complex and occur throughout the grid. The bodies generally trend 315 degrees in local grid coordinates. The important resistive body is a tabular one that dominates the southeast corner of the grid. The chargeable body is a half of a large bowl on the western side of the grid and surrounds a resistive body.

One section near the eastern edge of the local grid is both resistive and chargeable. This is where the chargeable "bowl" intersects the resistive, tabular body. These geophysical features are consistent with a silicified vein and a high concentration of disseminated sulfides.

## 2. INTRODUCTION

Sable Resources Ltd. commissioned SJ Geophysics Ltd. to undertake an Induced Polarization (IP) survey on the Ridge Zone Project on the Chapelle mineral claims in September 2004. The survey area is located in the Toodoggone area, B.C. - Omineca Mining District.

The area had been investigated several years ago using different methods that included reconnaissance geochemical rock sampling, VLF-EM magnetometer survey, 2D IP, trenching, and diamond drilling.

With a good depth of investigation and high-resolution, the purpose of the present 3D modified pole-dipole IP survey was to show the possibility of existence of a gold-silver vein type mineralized body in the area of the grid. Therefore, the geophysical targets are bodies of high resistivity and high chargeability. The high resistivity values would be associated with silicifications and the high chargeability values with disseminated sulphides.

Approximately 2.4 km of IP/Resistivity measurements were taken on seven different lines. The IP program was carried out as a 3D survey on the whole grid, and as a 2D survey was completed on line 1100E of the same grid.

### 3. FIELD WORK, GRID LOCATION AND INSTRUMENTATION

The geophysical survey was conducted during the period of September 18<sup>th</sup> to September 21<sup>nd</sup>, 2004. This period included four production days. The survey was conducted under the direction of the project geologist for Sable Resources Ltd. The geophysical crew was supervised by Jan Dobrescu (geophysicist) of SJ Geophysics Ltd. and consisted furthermore of John Wilkinson (technician), and Robert Sweatman and Greg Amos (field assistants).

The camp was established at the Baker Mine facilities, as near as possible to the survey area. The access was by truck. A road made possible the connection between camp and grid. The communication on site was via hand-held radios between the members of the crew.

Planning and logistics were done on site between the project geologist and the field geophysicist of SJ Geophysics Ltd.

The survey lines were selected on topographic maps and then put in the field by the project geologist of Sable Resources Ltd. UTM coordinates provided by the project geologist were used to confirm the line position and facilitate plotting and for the final results.

Lines were chained in prior to surveying. Inclinator (slope) readings were collected every 25 m during the geophysical survey in order to determine the elevation of the stations. The location and topographic data were then incorporated into the data processing and plotting routines.

The IP survey utilized a 3.8 kW GDD transmitter with a 2 seconds on, 2 seconds off duty cycle; and a Scintrex IPR-12 receiver.

A pole-dipole "expander" array was used with a dipole length of 25 meters and 50 meters, in different combinations for different positions along the lines, for 3DIP and 2DIP.

Figure 1 shows the geometry and location in UTM coordinates of the IP grid including the elevation values. In the case of the 2DIP survey, there was one single profile on line 1100E. Here, the nearest current electrode was consistently deployed 25 m from the first potential electrode. In the case of the 3DIP survey, the current electrodes were deployed on lines 50 apart, adjacent and parallel to the receiver lines. The furthest current electrode was effectively at infinity.

The four transmitter lines (in the following text described as Tx) were: 1000E, 1100E, 1200E, and

1300E. The second current electrode was moved on these Tx lines in 25 m station intervals. The three receiver lines (in the following text described as **Rx**) were 1050E, 1150E, and 1250E.

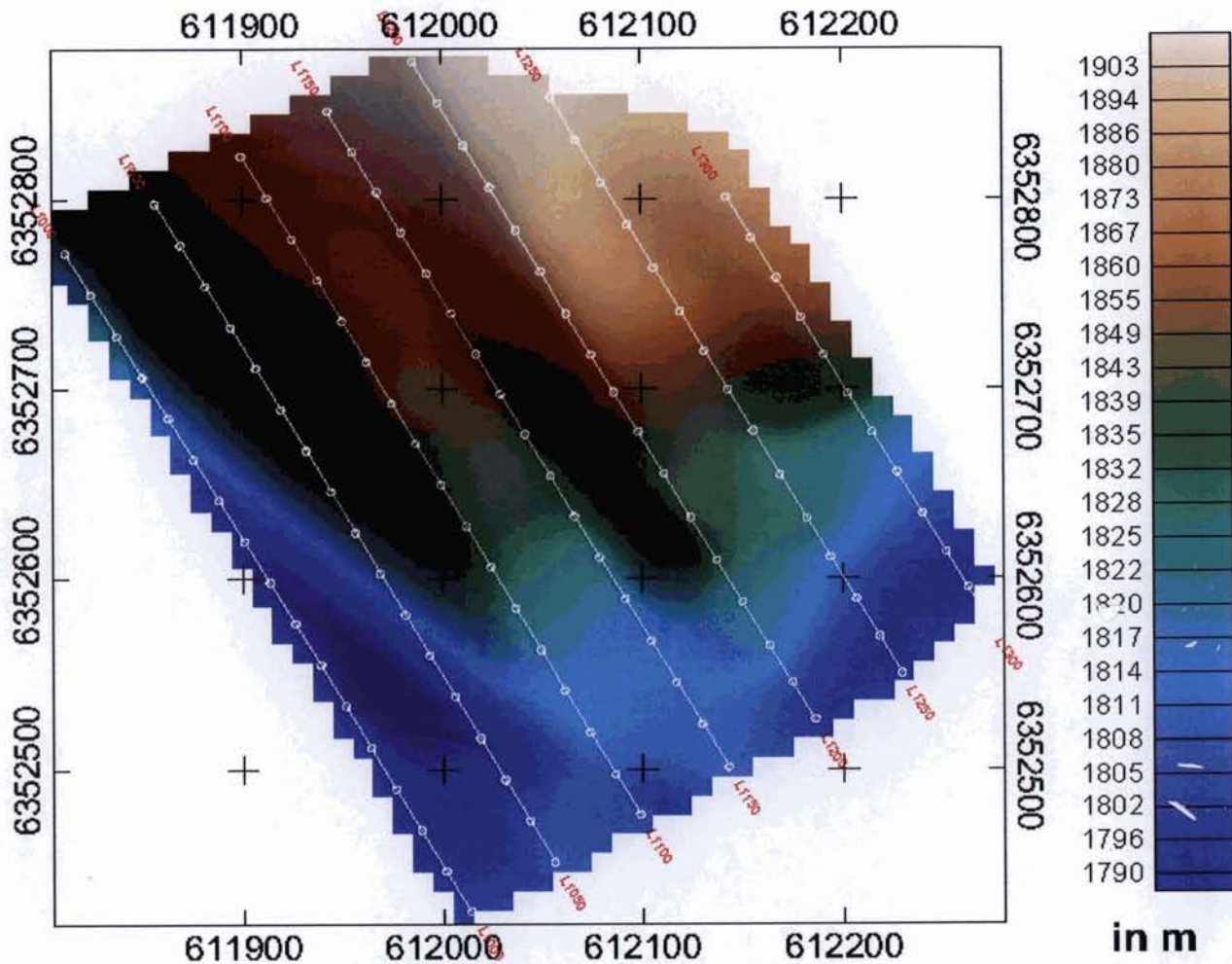


Figure 1: Grid location and elevation on the IP Grid of the Ridge Zone (The Chappelle)

## 4. GEOPHYSICAL TECHNIQUES

### 4.1. IP Method

The time domain IP technique energizes the ground surface with an alternating square wave pulse via a pair of current electrodes.

During the 3D survey, while one of the current electrodes was located in a remote location, hence called '*remote electrode*', the second current electrode was moved along the transmitter lines on the grid. The IP/Resistivity measurements were then made with potential electrode dipoles along receiver lines adjacent and parallel to the Tx lines on the same grid.

During the 2D survey, one of the current electrodes was located in an infinite location, hence called '*infinite electrode*', the second current electrode was moved along the sole survey line. The Rx line was the same as the Tx line.

After the Tx pulse has been transmitted into the ground via the current electrodes, the IP effect is measured as a time diminishing voltage at each potential electrode dipole. Several dipoles are setup to build a dipole array.

The IP effect is a measure of the amount of IP polarizable materials in the subsurface rock. Under ideal circumstances, the IP chargeability responses are a measure of the amount of disseminated metallic sulfides into the subsurface rocks.

Unfortunately, there are other rock materials that give rise to IP effects, including some graphitic rocks, clays, and some metamorphic rocks such as serpentinite. It means that from the geological point of view, IP responses are almost never uniquely interpretable. Because of the non-uniqueness of the geophysical measurements, it is always an advantage to incorporate additional geological information to assist in interpretation.

Also, from the IP measurements, the apparent resistivity of the ground is calculated from the input current, the measured primary voltage, and the geometrical specifications of the used dipole arrays.

Concerning the precision and errors of the measurements, these IP/Resistivity measurements are generally considered to be repeatable within about five percent. However, they will exceed this value,



if field conditions change due to variable water content or variable electrode contact.

IP/Resistivity measurements are influenced, to a large degree, by the rock materials nearest the surface, or more precisely, nearest the measuring electrodes. Stronger responses that are located near surface could mask a weaker one that is located at depth.

Nowadays, the 3DIP surveys are designed to take advantage of the mathematical functionality offered by the so-called 3D inversion techniques (read chapter "4.2 Inversion Programs"). Unlike conventional 2DIP, the electrode arrays are in this case is no longer restricted to constant dipole geometries.

Since in 3DIP-Tx-Rx array geometries, the Tx and Rx electrodes are located on adjacent and parallel lines, multiple current locations can be applied to a single Rx dipoles array (potential electrodes), and data acquisition rates can be significantly improved over conventional 2DIP surveys.

After collecting the data on a daily basis on the field using the Tx and Rx equipments, the data is then dumped onto a laptop hard disk in order to be pre-processed using the internal software package.

The pre-processing work consist firstly of doing a data quality control (QC) by checking the IP effect for each single Tx current shot and for each single Rx potential electrode dipole. A single reading of a bad IP decay of a potential electrode dipole can be just disregarded, but the readings of several bad IP decays related to one or more transmitter shots are repeated.

Part of the data QC is also plotting and checking the pseudo-sections. Since pseudo-sections are basically only designed for 2DIP surveys, plotting the pseudo-sections of the data gathered with 3DIP arrays should always be considered very carefully.

#### **4.2. *Inversion Programs***

Inversion programs that have recently become available, allow a more definitive interpretation, although the process still remains subjective.

The purpose of the inversion process is to convert surface 2D IP/Resistivity measurements into a realistic inverted depth section, and to convert surface 3D IP/Resistivity measurements into a realistic inverted 3D volume model. The use of the inversion routine is a subjective one because the input into the inversion routine calls for a number of user selectable variables whose adjustment can greatly influence the output. The output from the inversion routines do assist in providing a reliable

interpretation of IP/Resistivity data, however, they are relatively new to the exploration industry.

The inversion programs are generally applied iteratively to,

- 1) evaluate the output with regard to what is geologically known, to
- 2) estimate the depth of detection, and to
- 3) determine the viability of specific measurements.

The inversion programs (DCINV2D and DCINV3D) used by the SJ Geophysical Group was developed by a consortium of major mining companies under the auspices of the Geophysical Inversion Facility of the University of British Columbia (GIF/UBC). It solves two inverse problems. The DC potentials are first inverted to recover the spatial distribution of electrical resistivity, and secondly, the chargeability data (IP) are inverted to recover the spatial distribution of IP polarizable particles in the rocks.

In case of the 2DIP, the inverted depth section maps represent the cross sectional distribution of polarizable materials in the case of IP effect, and the cross sectional distribution of the resistivities in the case of the resistivity parameter. For the 3DIP, the inverted 3D models represent the spatial distribution of polarizable materials in the case of IP effect, and the spatial distribution of the resistivities in the case of the resistivity parameter

These inversions are calculated with the 3DIP inversion software running on the Beowulf cluster in the SJ Geophysics Ltd. office in Delta, B.C. These calculations can take several days depending on the size of the grid.

## 5. DATA DESCRIPTION

### 5.1. Data Presentation

As described above, the IP data, whether acquired in 2D or in 3D-arrays, is processed through an inversion program that outputs one possible subsurface distribution of resistive and polarizable materials that would produce the observed data on the Earth surface. This is a distribution along the profile Y and in depth Z in the case of the 2D version; or a distribution in the volume XYZ in the case of the 3D version.

In the case of a 2D survey, the results are presented in a false-colour cross section (resistivity and chargeability distribution in YZ). These displays could be interpreted as geological cross sections, but they have to be used with a lot of caution, since an anomalous body located between, but not under, two different survey lines could be causing that anomaly.

In the case of a 3D survey, the results are presented in a false-colour volumes display (resistivity and chargeability distribution in XZY), which can be directly interpreted as geological volumes. From these volumes and using a 3D visualization software, cross sections and/or plan maps (depth slices) can be plotted.

Cross sections for both versions, for the 2D and for the 3D surveys, are presented as plots in map folders at the back of this report.

False colour contour maps of the inverted resistivity and chargeability results can be produced for selected depths. Data is positioned using UTM coordinates gathered during the field work. This display illustrates the areal distribution of the geophysical trends, outlining strike orientations and possible fault offsets. Plan maps are plotted for both resistivity and chargeability at depths of 25m, 50m, 75m, 100m, and 150m below surface at the back of this report.

## **6. DISCUSSION OF RESULTS**

Non-uniqueness is a general problem in geophysical interpretation. This means that several geological environments might cause similar geophysical responses. Consequently, one of the challenges of interpreting geophysical data is to be able to assign the most likely geological situation or process to the measured geophysical signatures.

Having a clear understanding of the main exploration target model, and compiling into the interpretational thinking process more regional and local geological information, such as lithologies, structures, geochemistry, other geophysical data, etc. improves the final interpretation results. Therefore, this report does not include a complete interpretation as such. The discussion of the results is solely based on the observed geophysical signatures.

Since in this survey the geological targets are Au/Ag-qz-veins and since they are characterized by silicifications and disseminated sulphide content, the geophysical target in the inverted 3D data are volumes of high resistivity and high chargeability values.

### **6.1. 2D VS. 3D Comparison**

The methods of acquisition for two dimensional and three dimensional resistivity and chargeability surveys differ significantly. These two methods were used on line 1100E. While the false color depth sections in Figure 2 and 3 illustrate a similar appearance: a high resistive feature at surface with a chargeable body laying below. However, the differences in the section illustrate the problems inherent in two dimensional surveys. The two dimensional section may show a geophysical response from features that exist either below or to either side of the survey line. Thus the 2D section's geophysical response may be masked by strong anomalous features off line which makes examination of a single section difficult to interpret. There is no decisive method to discover the true depth or source of the anomalous response within in a 2D section. This is especially problematic in an area as complex as the Ridge Zone Project.

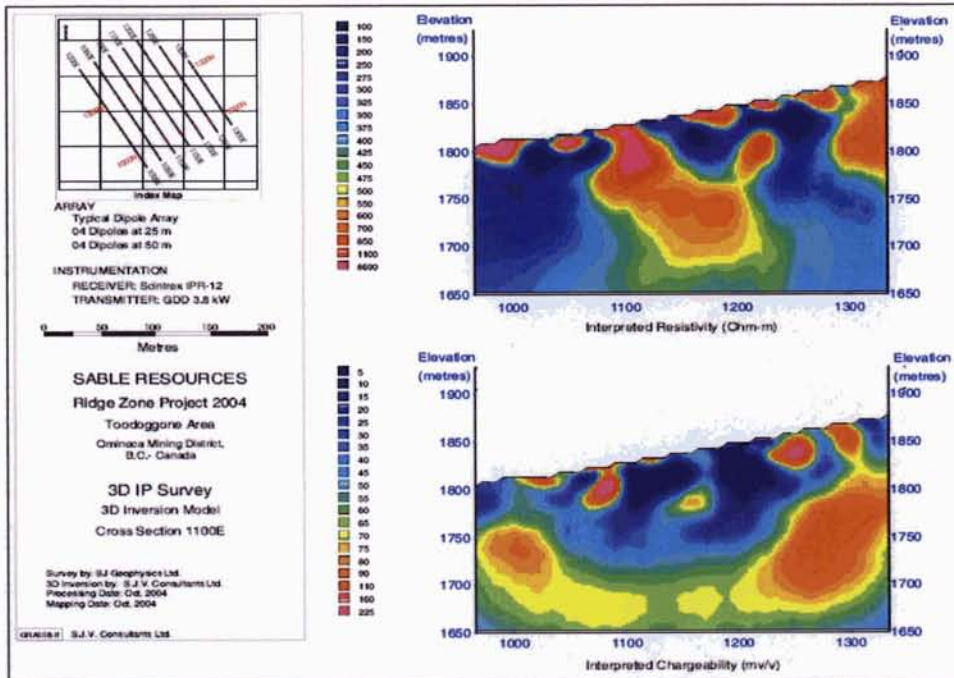


Figure 2: Ln 1100E - Cross section of 3D data

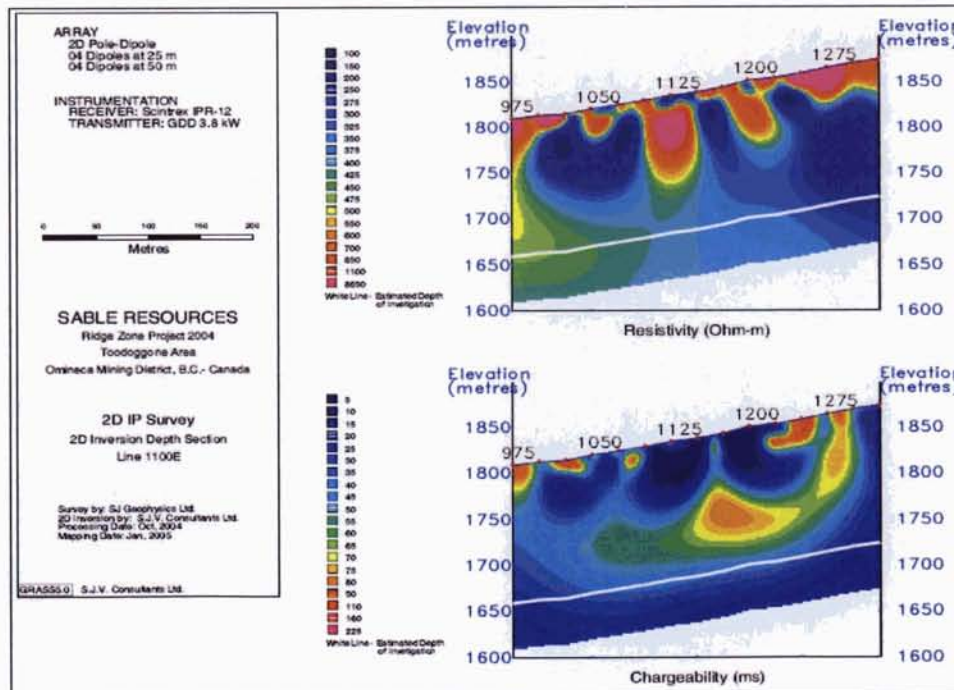
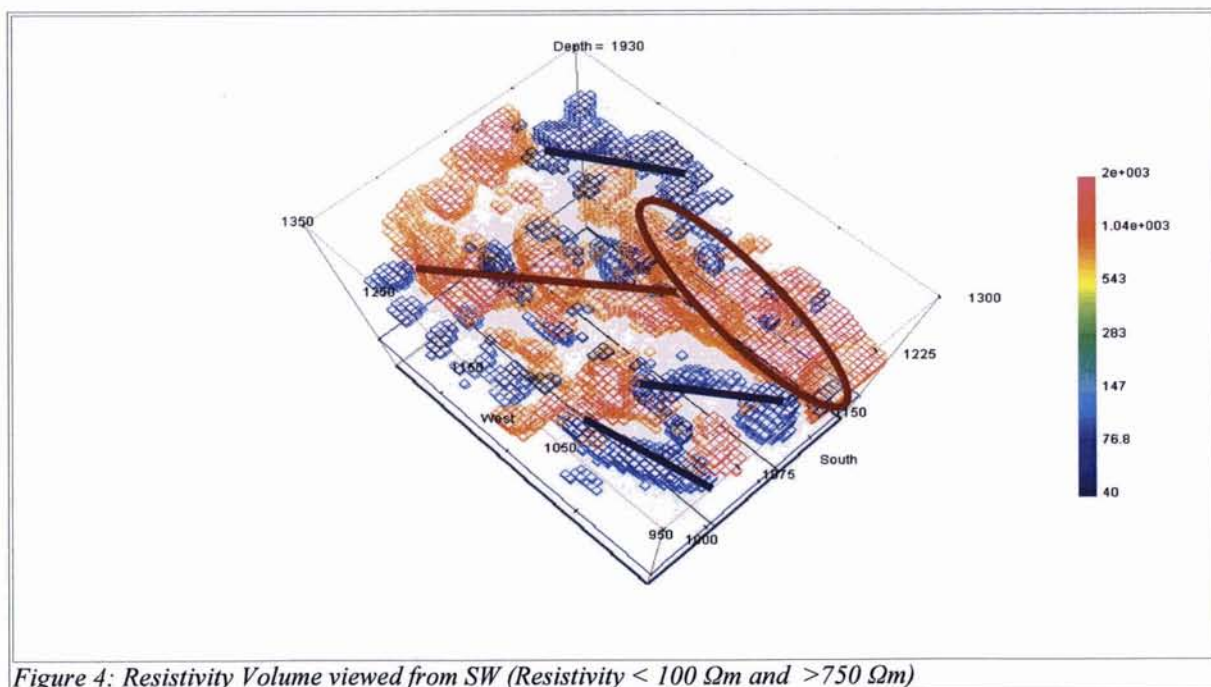


Figure 3: Line 1100E - Cross section of 2D data

## 6.2. 3D IP Results

The three dimensional techniques applied to this area have resulted in a model demonstrating several resistive and chargeable features. These are a resistive trend, a half moon chargeability anomaly, and two zones of high resistivity and high chargeability.

Figure 4 shows a 3D volume, viewed from above and local SW, of all resistive volumes depicting values higher than  $750 \Omega\text{m}$  (red-orange colouring). A couple of resistive features are noticeable from this view as indicated by the annotated red and blue lines on Figure 4.. The highly resistive feature striking approximately  $N45^\circ W$  (in local grid coordinates) was observed and is mainly constrained to depths less than 50m and is partially broken up. This resistive body is more evident in the 3D model than on the plan maps. To the south lies a tabular resistive feature body dipping  $\sim 60^\circ$  to its right side and extends to depths of 100m or more. This tabular body can be seen in the depth slices 25 m through 100m and is shown as the red annotated oval in Figure 4 (see plates at the back of this report).



Although the main geophysical target are high resistivity bodies, low resistivity features can also be

considered or provide additional insight. Figure 2 also depicts volumes depicting values lower than  $100 \Omega\text{m}$  (blue colouring). A few conductive features striking also  $\sim N45^{\circ}W$  (in local grid coordinates) could be observed here. This trend could be an indication that there is a structural control.

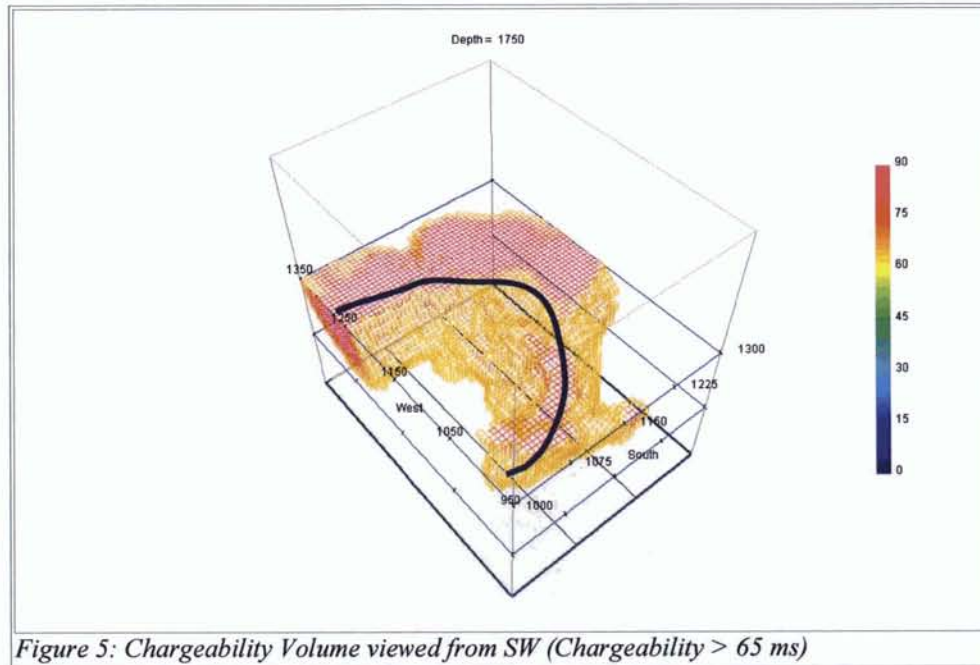
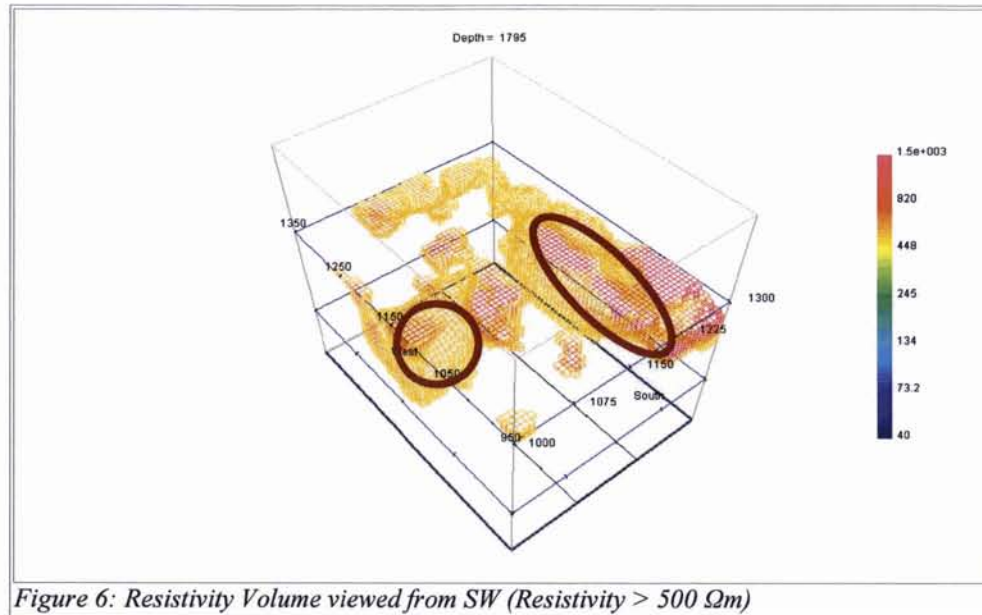


Figure 5 shows the chargeability model volume in 3D view looking from southwest and above. For clarity the model's surface material has been trimmed to illustrate the chargeability feature. This time, all chargeable volumes depicting values greater than 65 ms can be seen. Here, a large and highly chargeable feature can be located covering almost the majority of the grid. This feature has a half-moon shape and has a depth extension of up to 150 m. This half-moon feature may be part of a larger circular body. This circular feature can be observed especially in the depth slices at 75 m and 100 m (see plates at the back of this report).

Cross sections of the resistivity and chargeability along the survey lines have been cut from the 3D inversions. These can be found at the back of this report. From these cross sections, it can be observed that the chargeable half-moon feature seems to be wrapping a moderate value resistive body in the western portion of the grid. A high chargeable anomaly coincides with the high resistive tabular body mentioned earlier. Being the target Au-Ag-qz-veins, this could represent a good drill target. Figure 6 shows the moderate resistivity bodies in 3D.



## 7. CONCLUSIONS AND RECOMMENDATIONS

The Ridge Zone Project on the Chapelle mineral claims, located in the Toodoggone, B.C. in the Omineca Mining District contains several resistive and chargeable features. The grid area displays favourable geophysical results concerning the presence of mineralized geological formations, even the presence of a high level epithermal gold-silver vein type deposit.

The resistivity features are complex and occur throughout the grid. The bodies generally trend 315 degrees in local grid coordinates. The important resistive body is a tabular one that dominates the southeast corner of the grid. The chargeable body is a half of a large bowl on the western side of the grid and surrounds a resistive body.

One small section near the eastern edge of the grid in local grid coordinates is both resistive and chargeable where the chargeable “bowl” intersects the resistive, tabular body. These geophysical features are consistent with a silicified vein and a high concentration of disseminated sulfides.

Results of the 2D Inverted cross section of 1100E based on the 2D data set showed similarities to



the interpreted cross section from the 3D data set and therefore not mentioned in the "Discussion of Results". The most striking difference is the resolutions at depth. The 2D section appears to more smooth and spread out than the results of the 3D section. This is most noticeable below 100m depth.

This data gives good indication for further investigation. This geophysical data should be included with previously gathered exploratory data such as geochemistry, geophysics and drill data to derive a full interpretation. The 3DIP methodology gives strong evidence of resistivity and chargeability anomalies within the grid. The two most interesting features are the linear high resistive feature and the high chargeability half-moon shaped body that seems to be wrapping a moderately resistive body.

The data would be more valuable as part of a larger dataset. This grid is about the size of a football field and the anomalies may be as large or larger. The interpretation is much more difficult when the anomaly is not contrasted with data from the surrounding area. None of the geophysical features mentioned are closed off. There are also no structural features within the grid that could be projected off the project that would indicate a possible termination. The grid should be extended to cover the anomalies.

Respectfully submitted,

Per S.J.V. Consultants Ltd..



Shawn Rastad, B.Sc.

Sergio Espinosa, Ph.D.

## 8. APPENDIX 1 – STATEMENT OF QUALIFICATIONS

### 8.1. Sergio Espinosa

I, Sergio Espinosa, of the city of Vancouver, Province of British Columbia, hereby certify that:

1. I graduated from the Technical University Bergakademie in Freiberg, Germany, with a Bachelor of Science degree (1988) majoring in '*Applied Geophysics in Exploration and Engineering*'. I also hold a M.S. degree (1989) and a Ph.D. (1993) from the same university. (<http://www.tu-freiberg.de>)
2. I have been working in mineral exploration in South, Central, and North America since 1996.
3. I have no interest in Sable Resources or in any property within the scope of this report, nor do I expect to receive any.

Signed by: \_\_\_\_\_


Sergio Espinosa, Ph.D.  
Project Geophysicist  
S.J.V. Consultants Ltd.

Date: \_\_\_\_\_

**8.2. Shawn Rastad**

I, Shawn Rastad, of the city of Coquitlam, Province of British Columbia, hereby certify that:

- I graduated from the University of British Columbia in 1996 with a Bachelor of Science degree majoring in geophysics.
- I have been working in mineral and oil exploration since 1997.
- I have no interest in these claims, or in any property within the scope of this report, nor do I expect to receive any.

Signed by: 

Shawn Rastad, B.Sc.

Geophysics

Date: JUNE 01/05

**9. APPENDIX 2 – SUMMARY TABLES**

Survey lines of the Ridge Zone Grid (the Chappelle minerals claim)

<i>Line</i>	<i>From station</i>	<i>To station</i>	<i>Length (in m)</i>
1000	950	1350	400
1050	950	1350	400
1100	950	1350	400
1150	950	1350	400
1200	950	1350	400
1250	950	1300	350
1300	950	1225	275

**Total of survey lines: 2,625 m**

## 10. APPENDIX 3 – INSTRUMENT SPECIFICATIONS

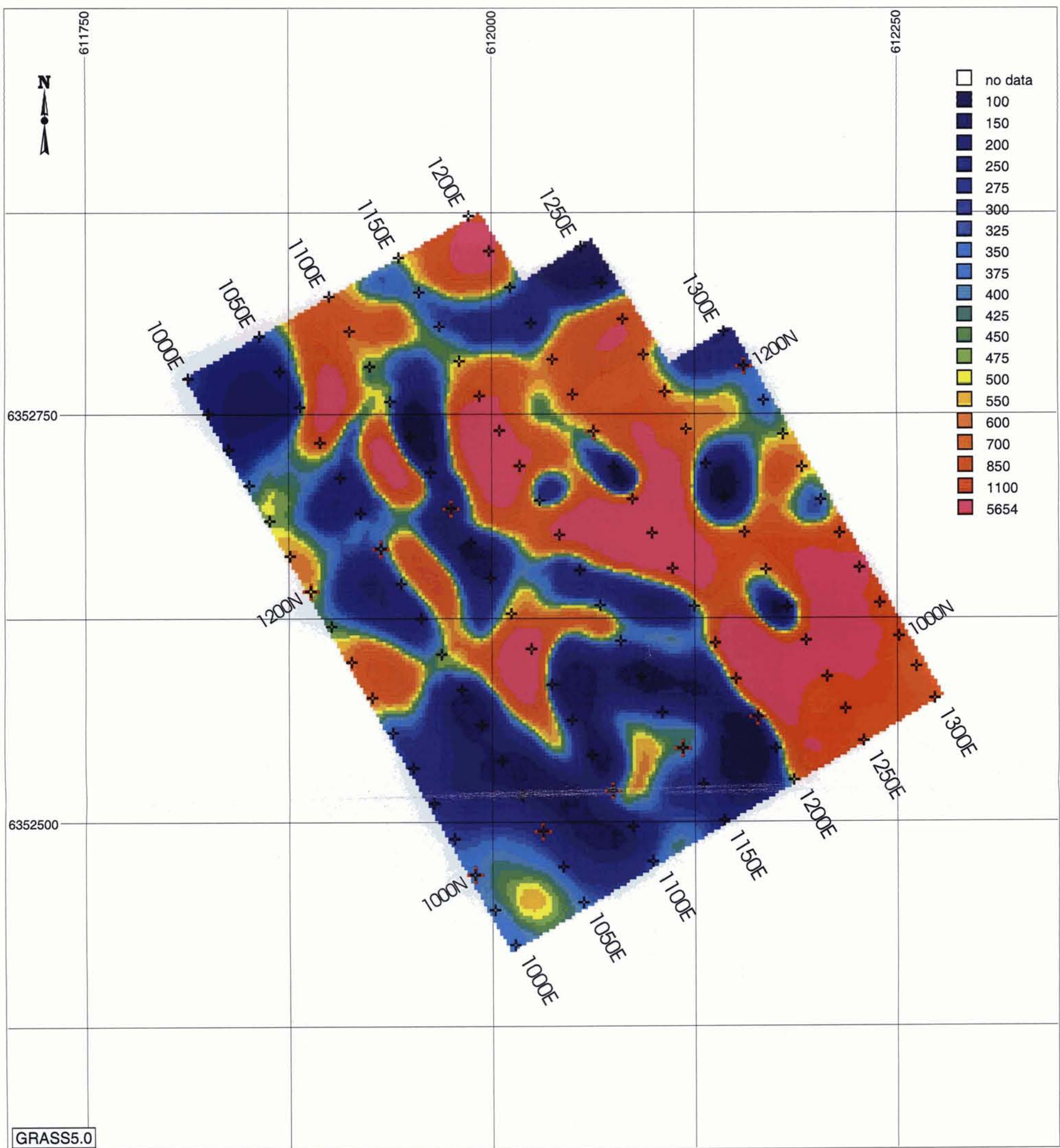
### 10.1. IRIS ELREC 10 IP Receiver

Technical:

Input impedance: 10 Mohm  
Input overvoltage protection up to 1000V  
Automatic SP bucking with linear drift correction  
Internal calibration generator for a true calibration on request of the operator  
Internal memory: 3200 dipoles reading  
Automatic synchronization and re-synchronization process on primary voltages signals whenever needed  
Proprietary intelligent stacking process rejecting strong non-linear SP drifts  
Common mode rejection: More than 100 dB (for  $R_s = 0$ )  
Self potential (Sp) : range: -15V - + 15V  
: resolution: 0.1 mV  
Ground resistance measurement  
range: 0.1-100 kohms  
Primary voltage : range: 10 $\mu$ V - 15V  
: resolution: 1 $\mu$ V  
: accuracy: typ. 1.3%  
Chargeability : resolution: 10 $\mu$ V/V  
: accuracy: typ. 0.6%  
General:  
Dimensions: 31x21x25 cm  
Weight (with the internal battery): 9 kg  
Operating temperature range: -30°C to 70°C  
Case in fiber-glass for resisting to field shocks and vibrations

## 10.2. GDD Tx II IP Transmitter

Input voltage:	120V / 60 Hz or 240V / 50Hz (optional)
Output power:	1.4 kW maximum.
Output voltage:	150 to 2000 Volts
Output current:	5 ma to 10Amperes
Time domain:	Transmission cycle is 2 seconds ON, 2 seconds OFF
Operating temp. range	-40° to +65° C
Display	Digital LCD read to 0.001A
Dimensions (h w d):	34 x 21 x 39 cm
Weight:	20kg.



**SABLE RESOURCES**

Ridge Zone Project 2004

Toodoggone Area

Omineca Mining District,  
B.C.- Canada

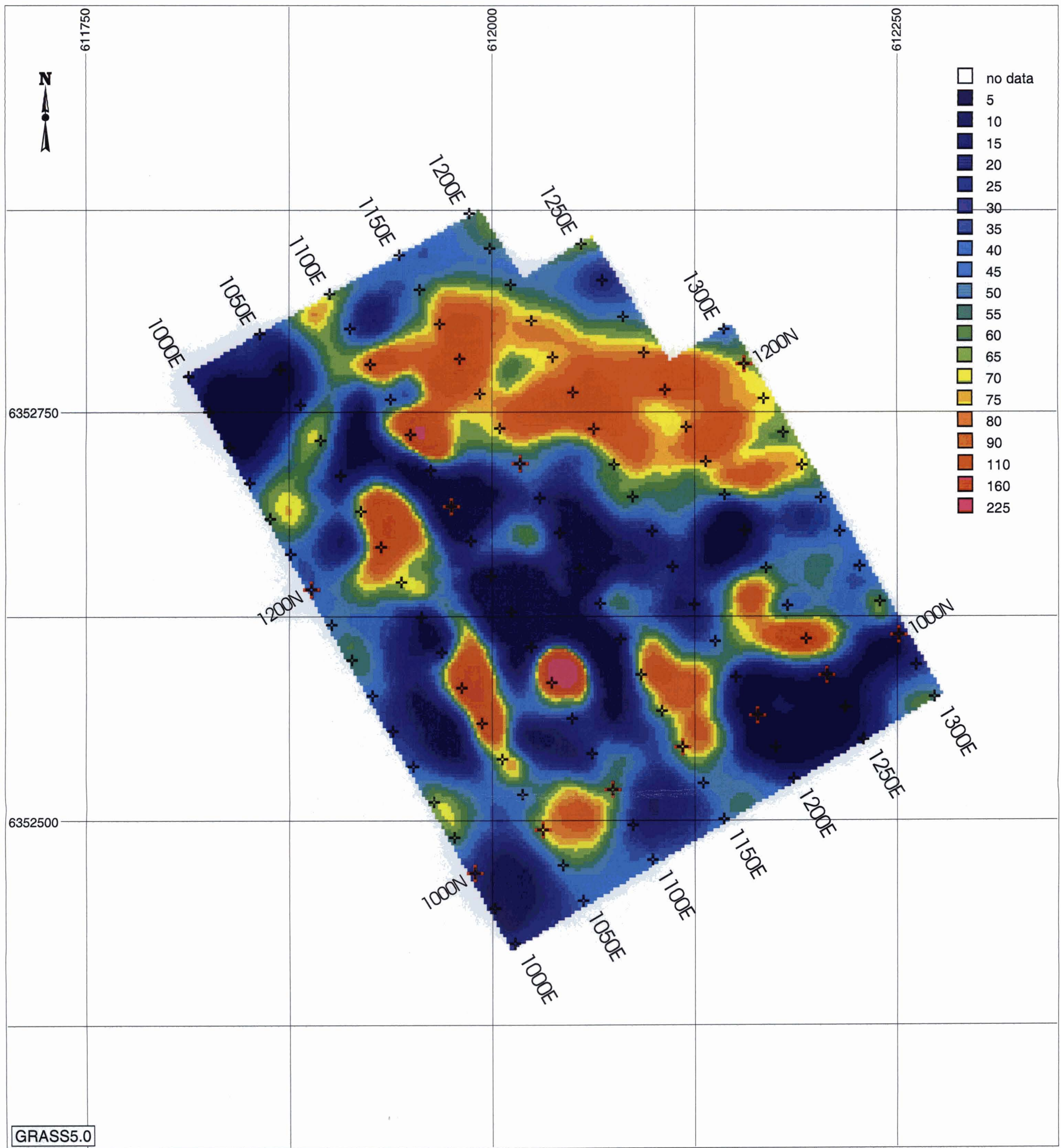
**3D IP Survey**

3D IP Inversion model

Interpreted Resistivity (Ohm-m)

25m Below Surface

IP Inversion by: S.J.V. Consultants Ltd.  
Processing Date: Oct, 2004  
Projection: UTM  
Datum: NAD83  
Zone: 09  
Mapping Date: Oct, 2004



GRASS5.0



## SABLE RESOURCES

Ridge Zone Project 2004

Toodoggone Area

Omineca Mining District,  
B.C.- Canada

### 3D IP Survey

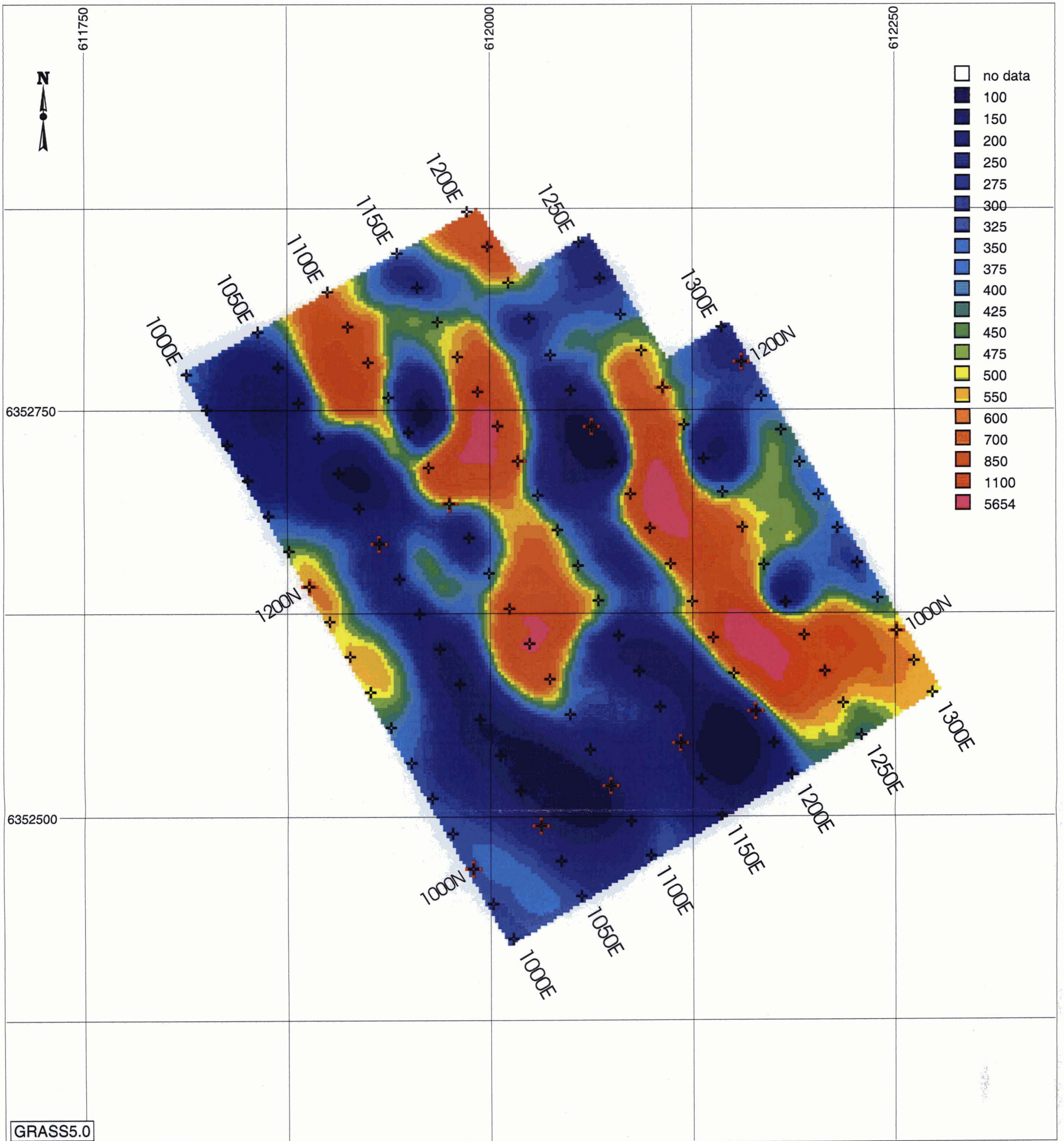
3D IP Inversion model

Interpreted Chargeability (ms)

25m Below Surface

IP Inversion by: S.J.V. Consultants Ltd.  
Processing Date: Oct, 2004  
Projection: UTM  
Datum: NAD83  
Zone: 09  
Mapping Date: Oct, 2004





**SABLE RESOURCES**

Ridge Zone Project 2004

Toodoggone Area

Omineca Mining District,  
B.C.- Canada

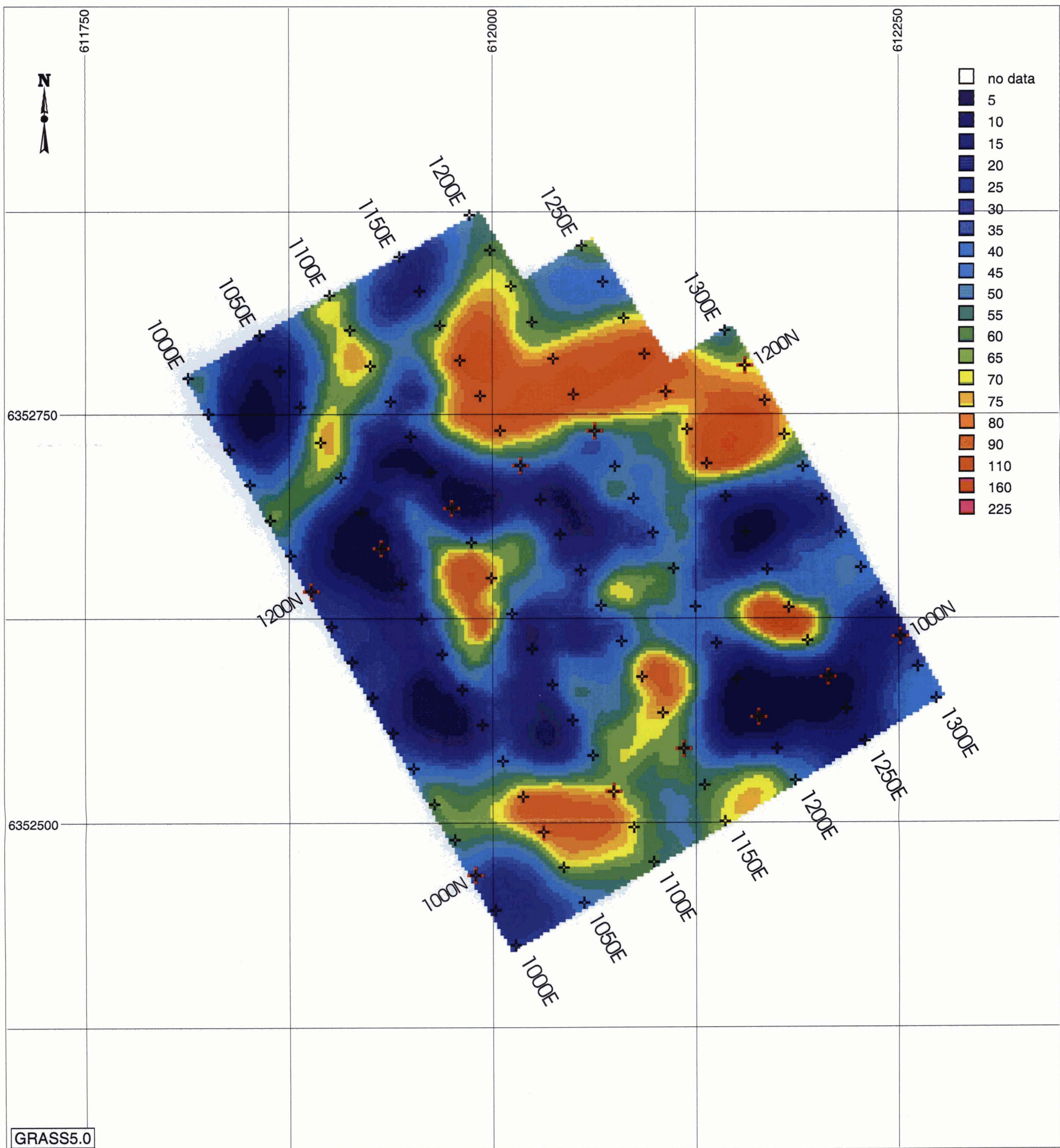
**3D IP Survey**

3D IP Inversion model

Interpreted Resistivity (Ohm-m)

50m Below Surface

IP Inversion by: S.J.V. Consultants Ltd.  
Processing Date: Oct, 2004  
Projection: UTM  
Datum: NAD83  
Zone: 09  
Mapping Date: Oct, 2004



## SABLE RESOURCES

Ridge Zone Project 2004

Toodoggone Area

Omineca Mining District,  
B.C.- Canada

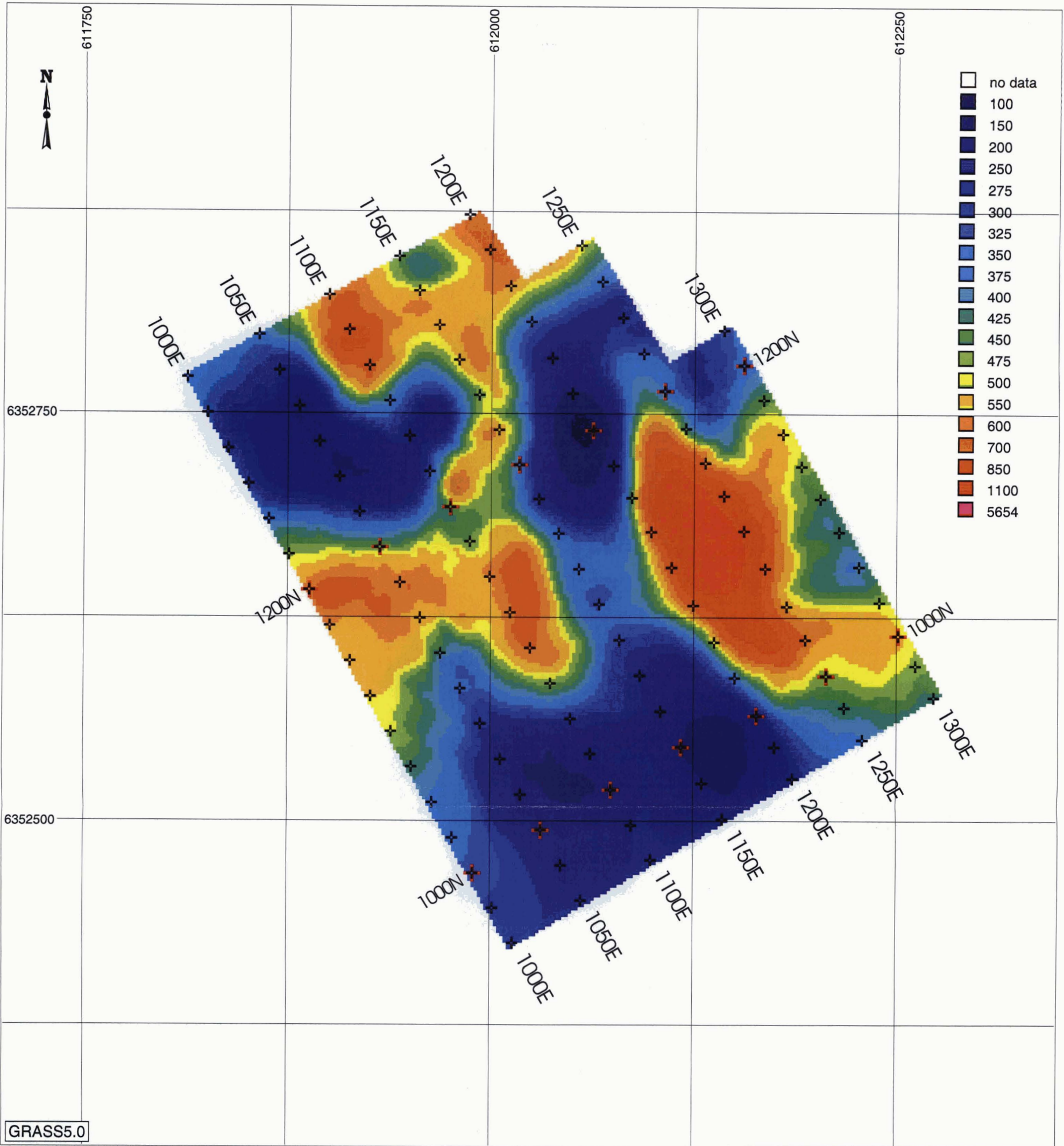
### 3D IP Survey

3D IP Inversion model

Interpreted Chargeability (ms)

50m Below Surface

IP Inversion by: S.J.V. Consultants Ltd.  
Processing Date: Oct, 2004  
Projection: UTM  
Datum: NAD83  
Zone: 09  
Mapping Date: Oct, 2004



## SABLE RESOURCES

Ridge Zone Project 2004

Toodoggone Area

Omineca Mining District,  
B.C.- Canada

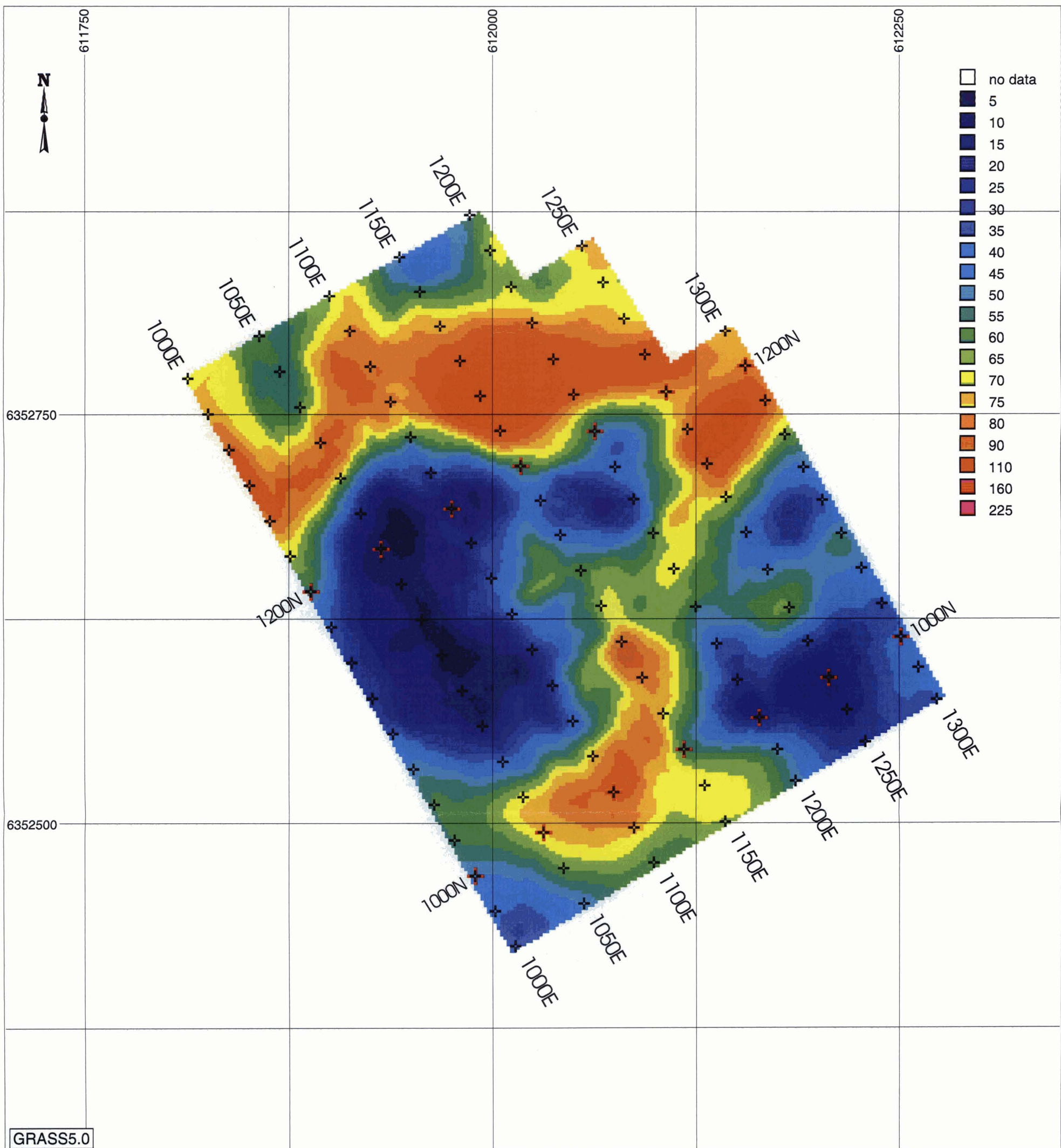
### 3D IP Survey

3D IP Inversion model

Interpreted Resistivity (Ohm-m)

75m Below Surface

IP Inversion by: S.J.V. Consultants Ltd.  
Processing Date: Oct, 2004  
Projection: UTM  
Datum: NAD83  
Zone: 09  
Mapping Date: Oct, 2004



**SABLE RESOURCES**

Ridge Zone Project 2004

Toodoggone Area

Omineca Mining District,  
B.C.- Canada

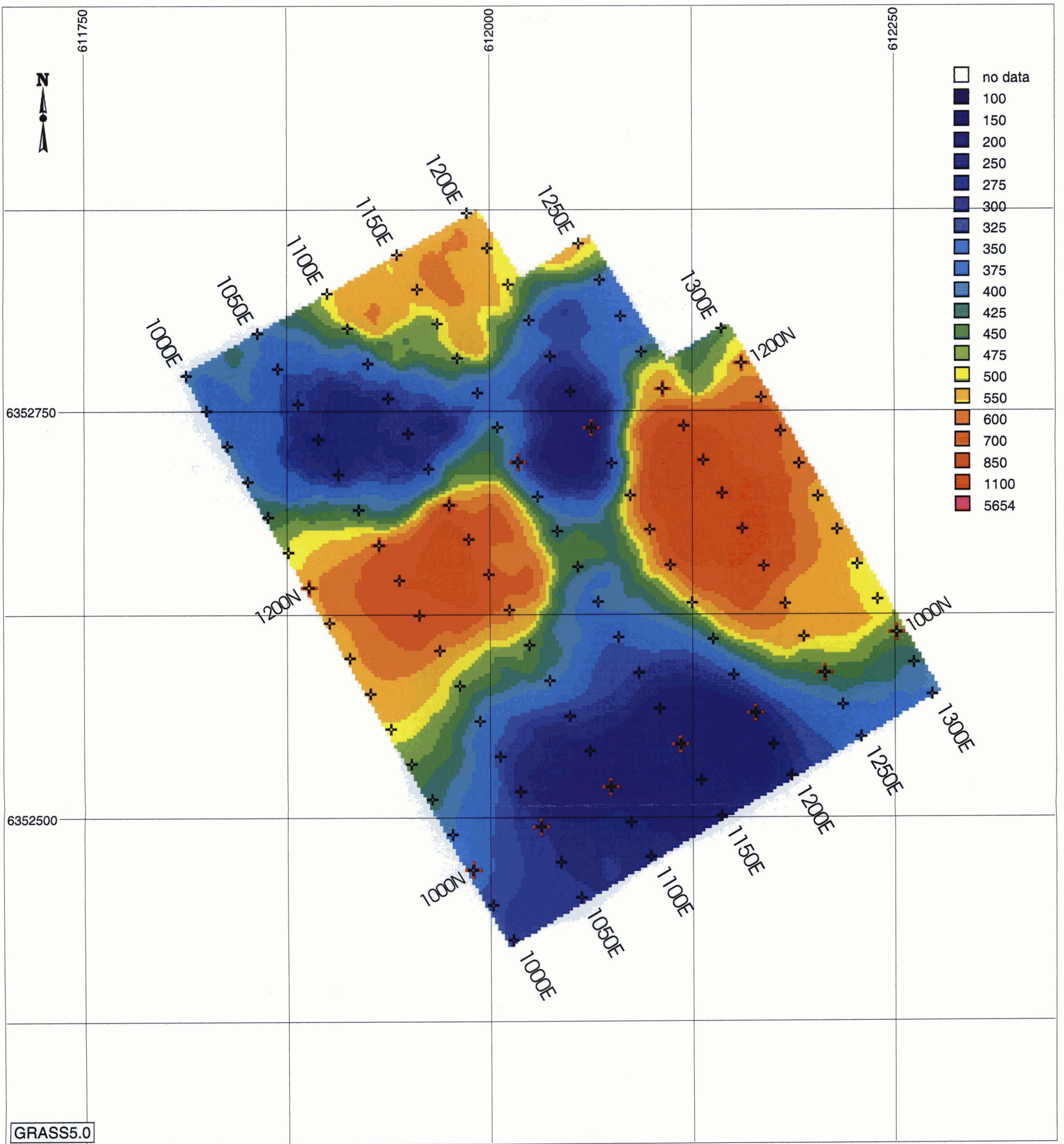
**3D IP Survey**

3D IP Inversion model

Interpreted Chargeability (ms)

75m Below Surface

IP Inversion by: S.J.V. Consultants Ltd.  
Processing Date: Oct, 2004  
Projection: UTM  
Datum: NAD83  
Zone: 09  
Mapping Date: Oct, 2004



**SABLE RESOURCES**

Ridge Zone Project 2004

Toodoggone Area

Omineca Mining District,  
B.C.- Canada

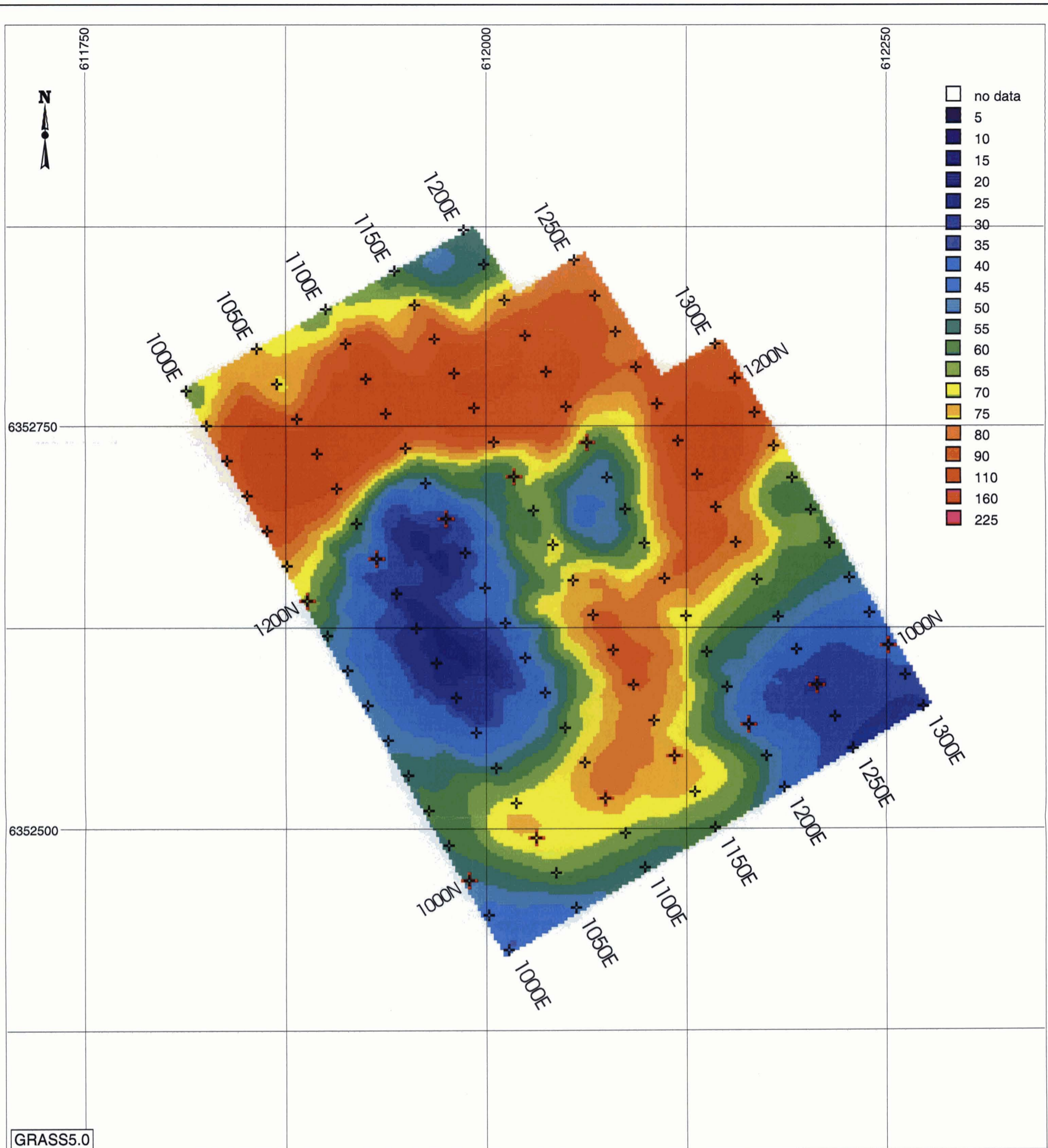
**3D IP Survey**

3D IP Inversion model

Interpreted Resistivity (Ohm-m)

100m Below Surface

IP Inversion by: S.J.V. Consultants Ltd.  
Processing Date: Oct, 2004  
Projection: UTM  
Datum: NAD83  
Zone: 09  
Mapping Date: Oct, 2004



**SABLE RESOURCES**

Ridge Zone Project 2004

Toodoggone Area

Omineca Mining District,  
B.C.- Canada

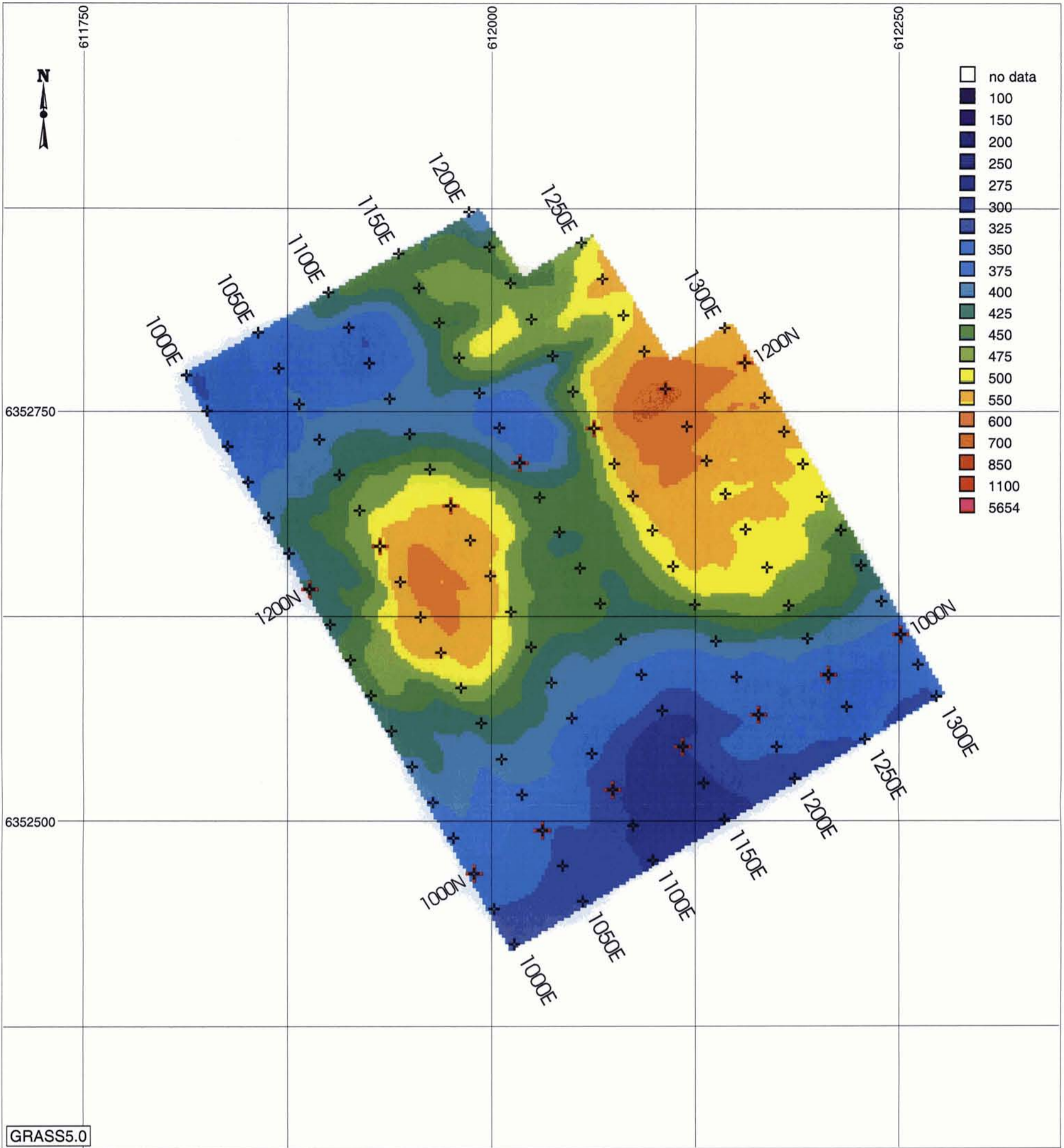
**3D IP Survey**

3D IP Inversion model

Interpreted Chargeability (ms)

100m Below Surface

IP Inversion by: S.J.V. Consultants Ltd.  
Processing Date: Oct, 2004  
Projection: UTM  
Datum: NAD83  
Zone: 09  
Mapping Date: Oct, 2004



**SABLE RESOURCES**

Ridge Zone Project 2004

Toodoggone Area

Omineca Mining District,  
B.C.- Canada

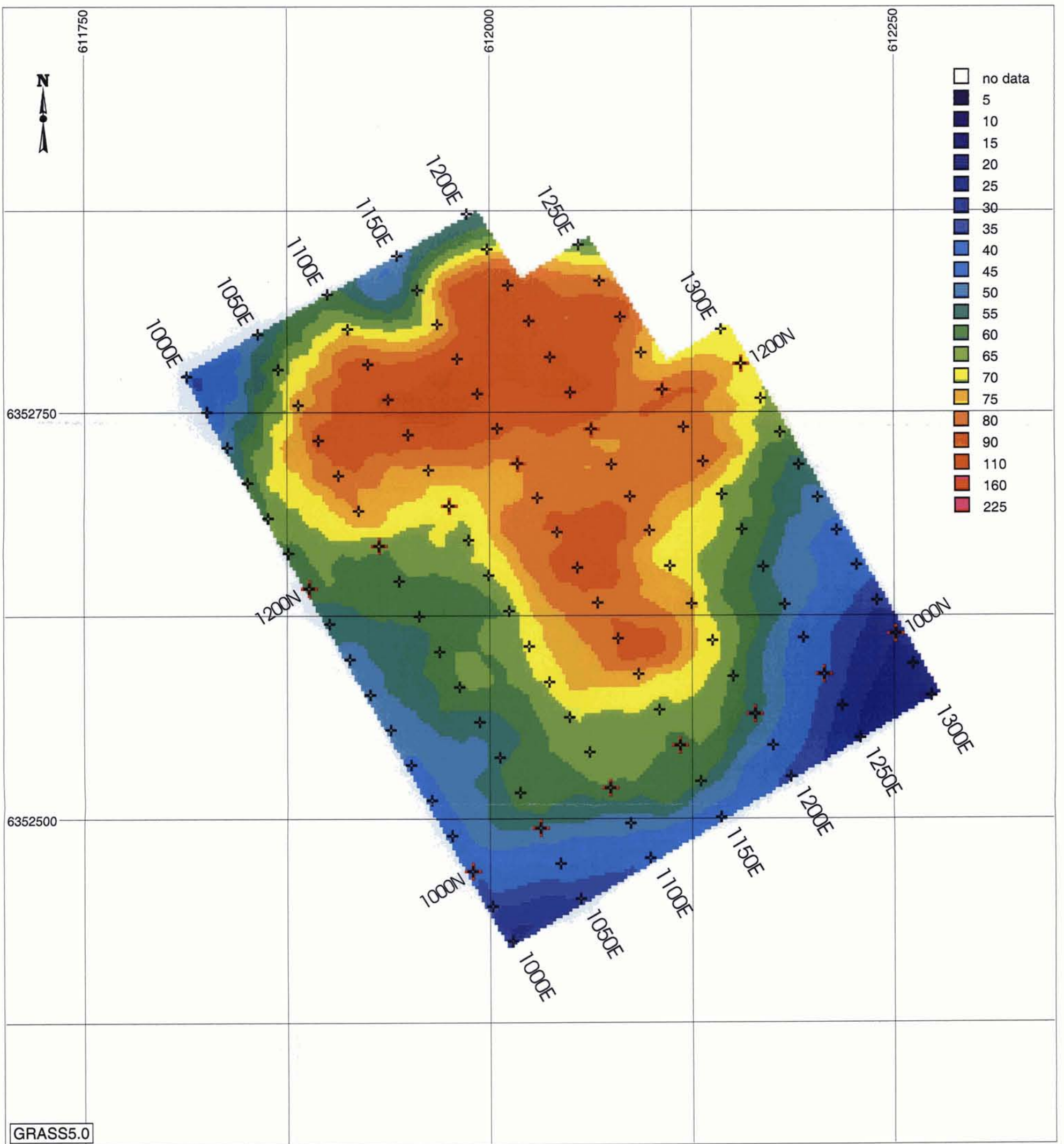
**3D IP Survey**

3D IP Inversion model

Interpreted Resistivity (Ohm-m)

150m Below Surface

IP Inversion by: S.J.V. Consultants Ltd.  
Processing Date: Oct, 2004  
Projection: UTM  
Datum: NAD83  
Zone: 09  
Mapping Date: Oct, 2004



**SABLE RESOURCES**

Ridge Zone Project 2004

Toodoggone Area

Omineca Mining District,  
B.C.- Canada

**3D IP Survey**

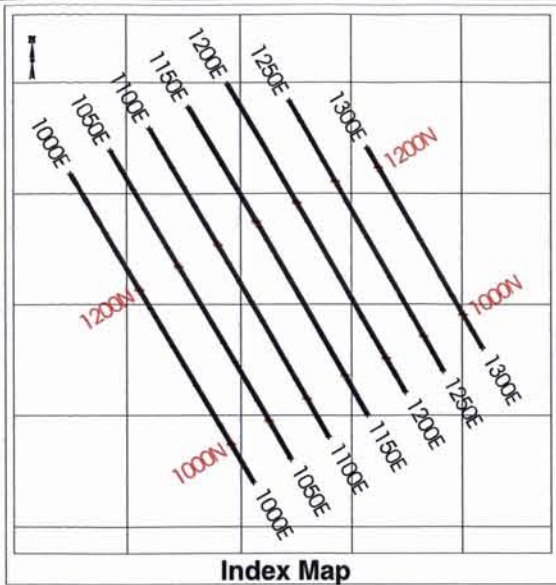
3D IP Inversion model

Interpreted Chargeability (ms)

150m Below Surface

IP Inversion by: S.J.V. Consultants Ltd.  
Processing Date: Oct, 2004  
Projection: UTM  
Datum: NAD83  
Zone: 09  
Mapping Date: Oct, 2004





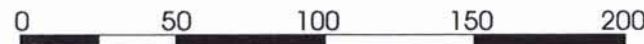
Index Map

**ARRAY**

Typical Dipole Array  
 04 Dipoles at 25 m  
 04 Dipoles at 50 m

**INSTRUMENTATION**

RECEIVER: Scintrex IPR-12  
 TRANSMITTER: GDD 3.8 kW



Metres

**SABLE RESOURCES**

Ridge Zone Project 2004

Toodoggone Area

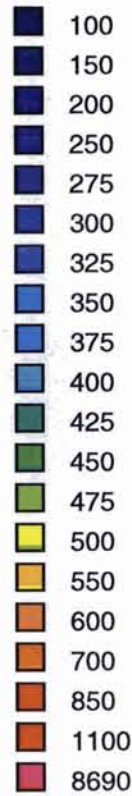
Omineca Mining District,  
 B.C.- Canada

**3D IP Survey**

3D Inversion Model

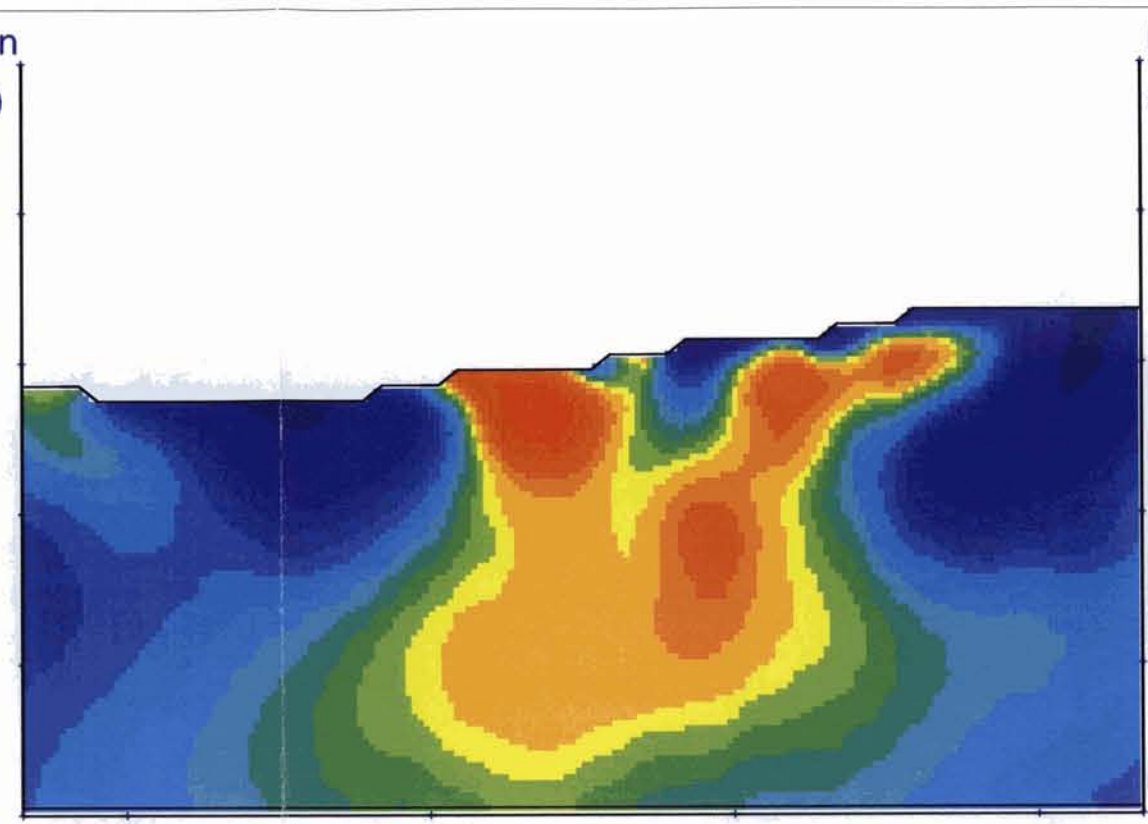
Cross Section 1000E

Survey by: SJ Geophysics Ltd.  
 3D Inversion by: S.J.V. Consultants Ltd.  
 Processing Date: Oct, 2004  
 Mapping Date: Oct, 2004



Elevation  
(metres)

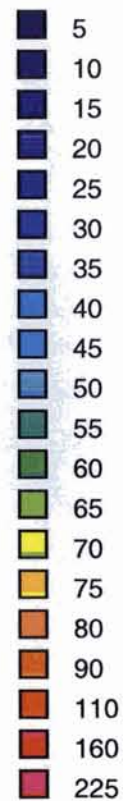
1850  
1800  
1750  
1700  
1650



Interpreted Resistivity (Ohm-m)

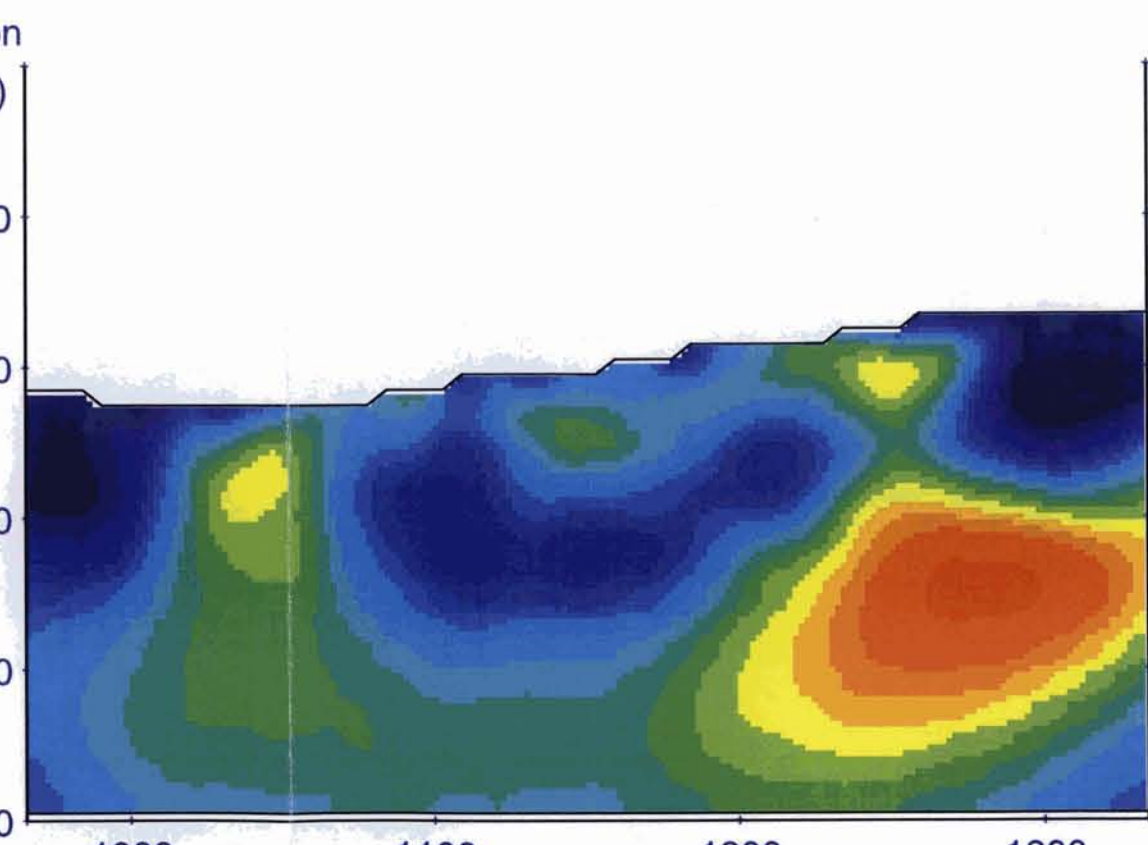
Elevation  
(metres)

1850  
1800  
1750  
1700  
1650



Elevation  
(metres)

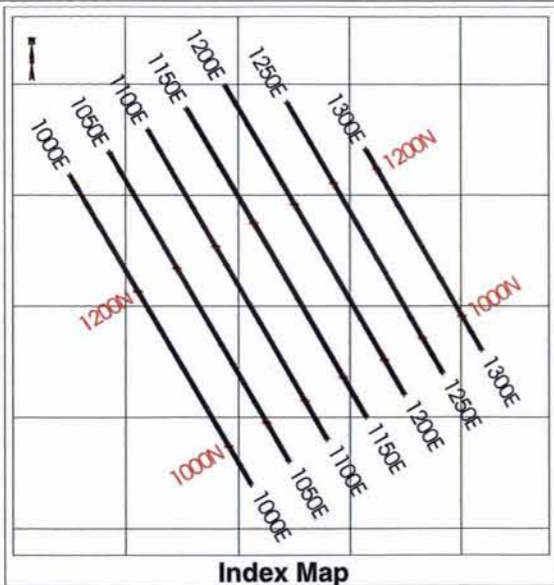
1850  
1800  
1750  
1700  
1650



Interpreted Chargeability (mv/v)

Elevation  
(metres)

1850  
1800  
1750  
1700  
1650



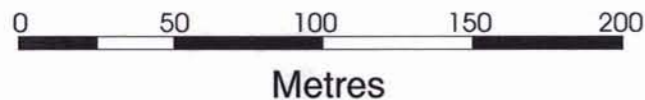
Index Map

**ARRAY**

Typical Dipole Array  
 04 Dipoles at 25 m  
 04 Dipoles at 50 m

**INSTRUMENTATION**

RECEIVER: Scintrex IPR-12  
 TRANSMITTER: GDD 3.8 kW



**SABLE RESOURCES**

Ridge Zone Project 2004

Toodoggone Area

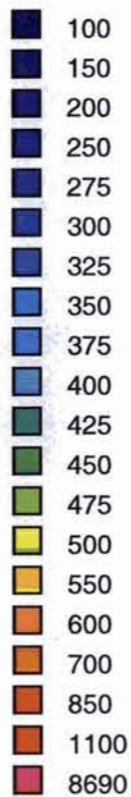
Omineca Mining District,  
 B.C.- Canada

**3D IP Survey**

3D Inversion Model

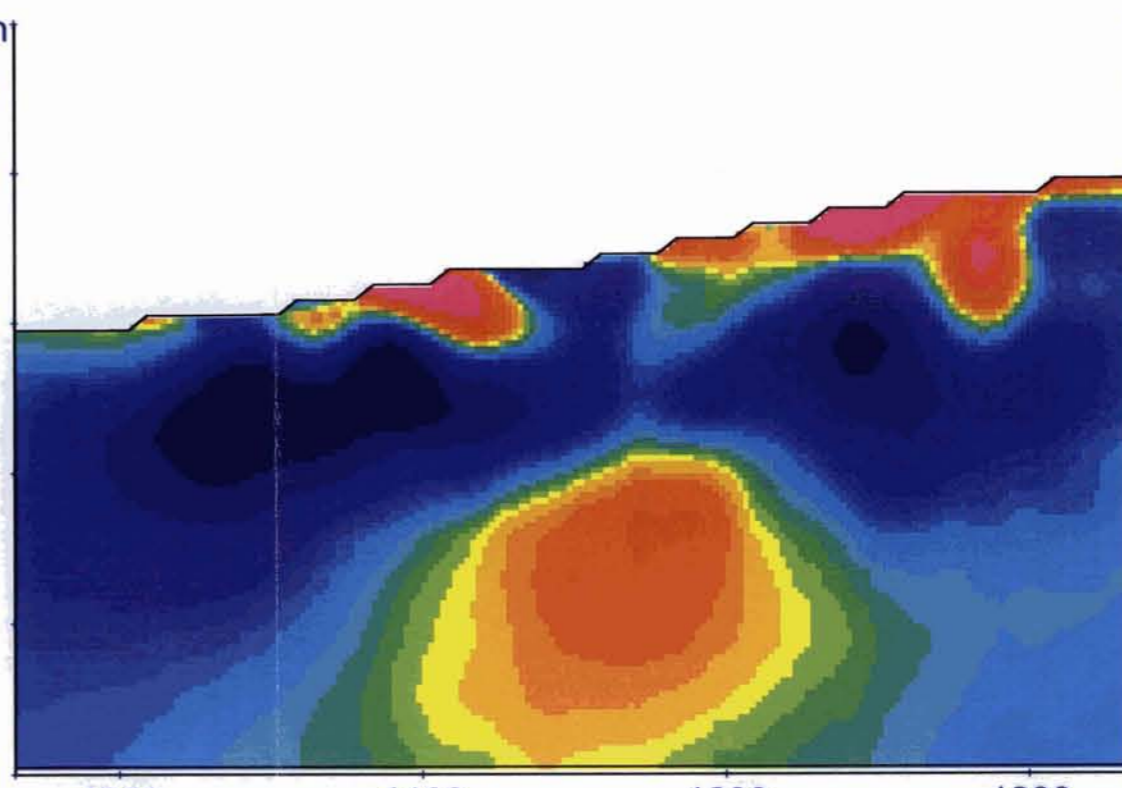
Cross Section 1050E

Survey by: SJ Geophysics Ltd.  
 3D Inversion by: S.J.V. Consultants Ltd.  
 Processing Date: Oct, 2004  
 Mapping Date: Oct, 2004



Elevation  
 (metres)

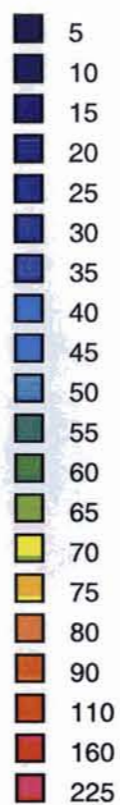
1850  
 1800  
 1750  
 1700  
 1650



Interpreted Resistivity (Ohm-m)

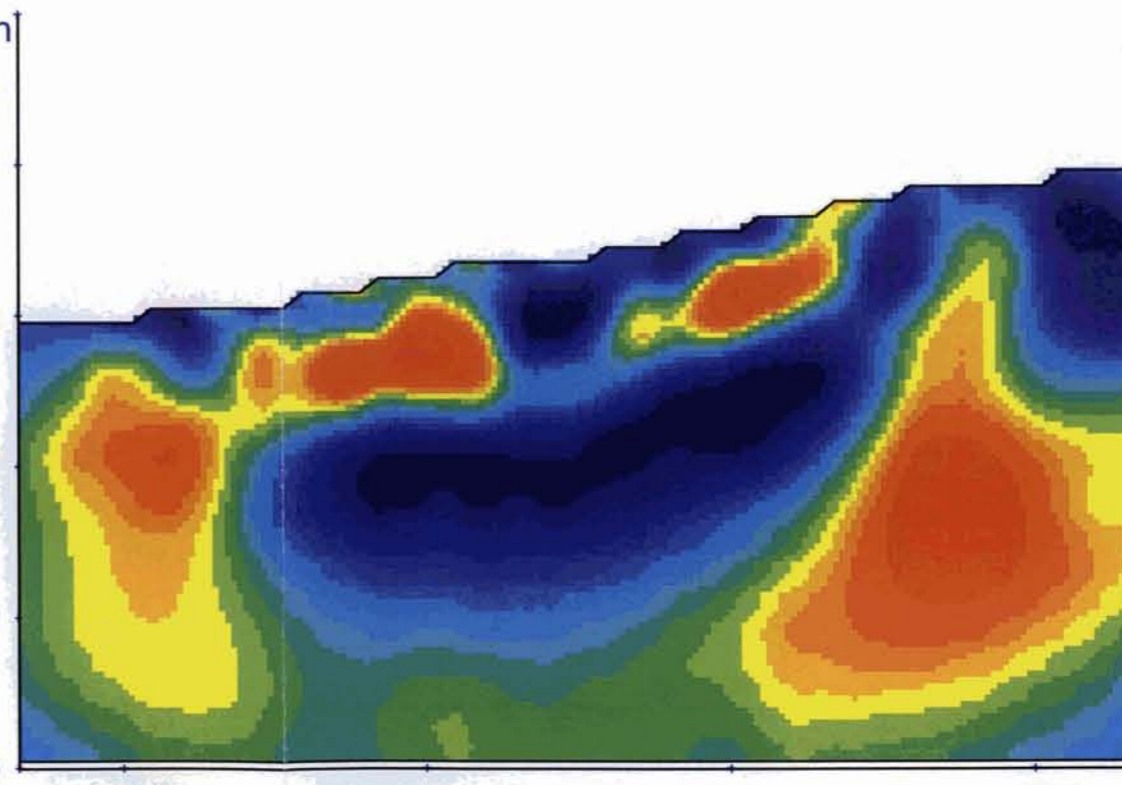
Elevation  
 (metres)

1850  
 1800  
 1750  
 1700  
 1650



Elevation  
 (metres)

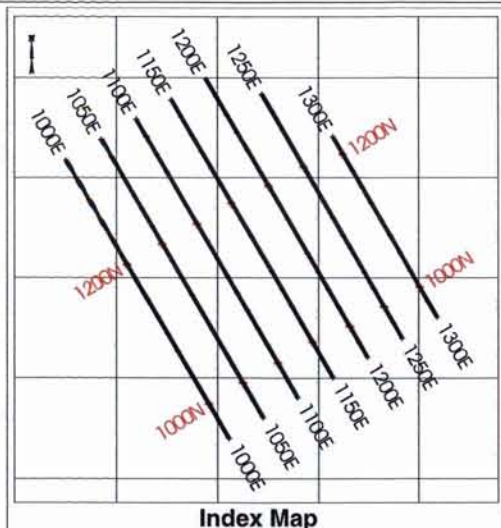
1850  
 1800  
 1750  
 1700  
 1650



Interpreted Chargeability (mv/v)

Elevation  
 (metres)

1850  
 1800  
 1750  
 1700  
 1650



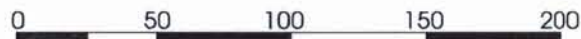
Index Map

**ARRAY**

Typical Dipole Array  
 04 Dipoles at 25 m  
 04 Dipoles at 50 m

**INSTRUMENTATION**

RECEIVER: Scintrex IPR-12  
 TRANSMITTER: GDD 3.8 kW



Metres

**SABLE RESOURCES**

**Ridge Zone Project 2004**

Toodoggone Area

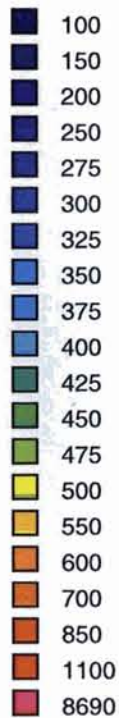
Omineca Mining District,  
 B.C.- Canada

**3D IP Survey**

3D Inversion Model

Cross Section 1100E

Survey by: SJ Geophysics Ltd.  
 3D Inversion by: S.J.V. Consultants Ltd.  
 Processing Date: Oct, 2004  
 Mapping Date: Oct, 2004



Elevation  
 (metres)

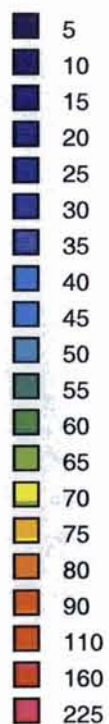
1900  
 1850  
 1800  
 1750  
 1700  
 1650

Interpreted Resistivity (Ohm-m)

1000 1100 1200 1300

Elevation  
 (metres)

1900  
 1850  
 1800  
 1750  
 1700  
 1650



Elevation  
 (metres)

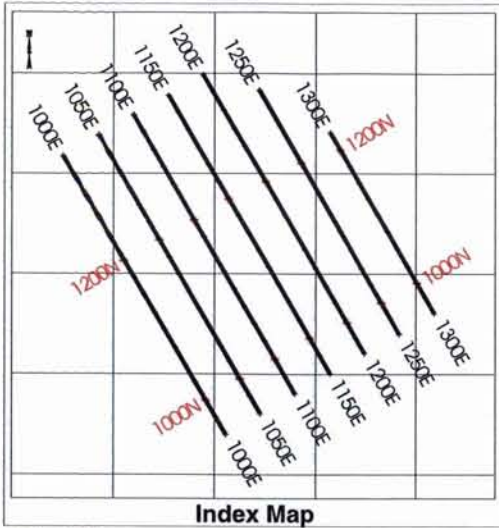
1900  
 1850  
 1800  
 1750  
 1700  
 1650

Interpreted Chargeability (mv/v)

1000 1100 1200 1300

Elevation  
 (metres)

1900  
 1850  
 1800  
 1750  
 1700  
 1650



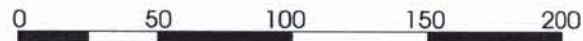
Index Map

**ARRAY**

Typical Dipole Array  
 04 Dipoles at 25 m  
 04 Dipoles at 50 m

**INSTRUMENTATION**

RECEIVER: Scintrex IPR-12  
 TRANSMITTER: GDD 3.8 kW



Metres

**SABLE RESOURCES**

Ridge Zone Project 2004

Toodoggone Area

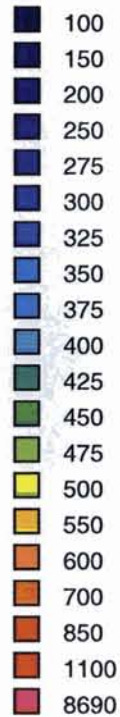
Omineca Mining District,  
 B.C.- Canada

**3D IP Survey**

3D Inversion Model

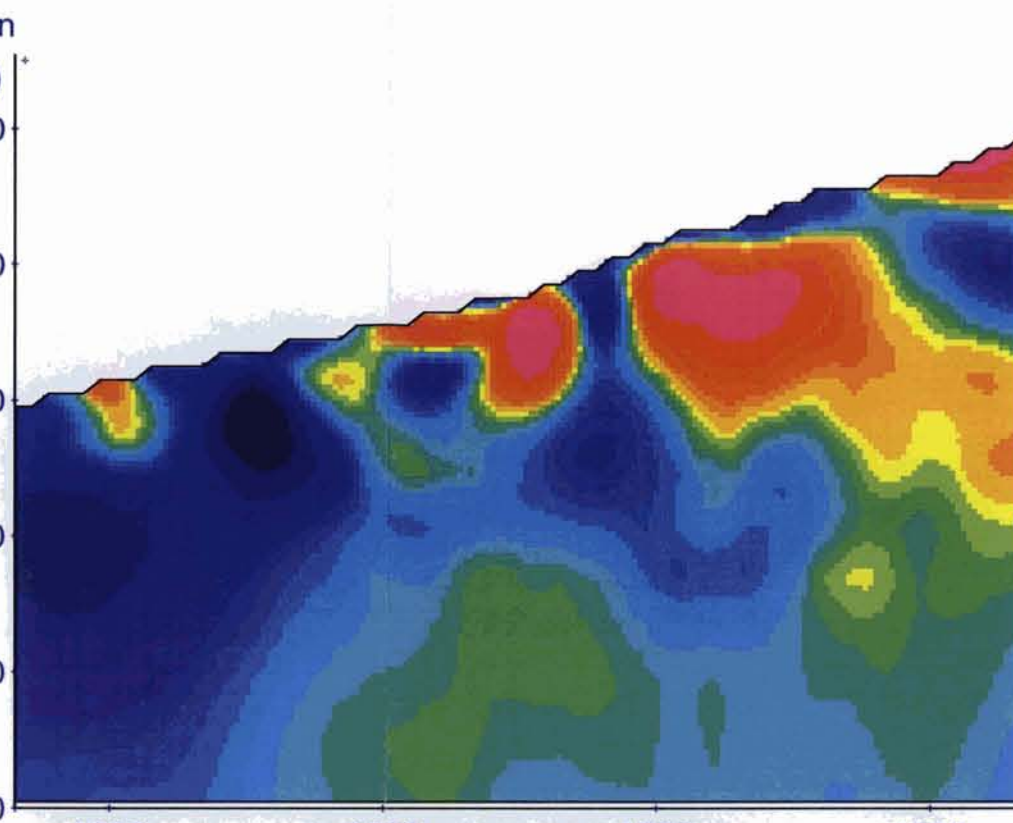
Cross Section 1150E

Survey by: SJ Geophysics Ltd.  
 3D Inversion by: S.J.V. Consultants Ltd.  
 Processing Date: Oct, 2004  
 Mapping Date: Oct, 2004



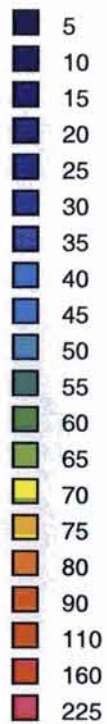
Elevation  
 (metres)

1900  
 1850  
 1800  
 1750  
 1700  
 1650



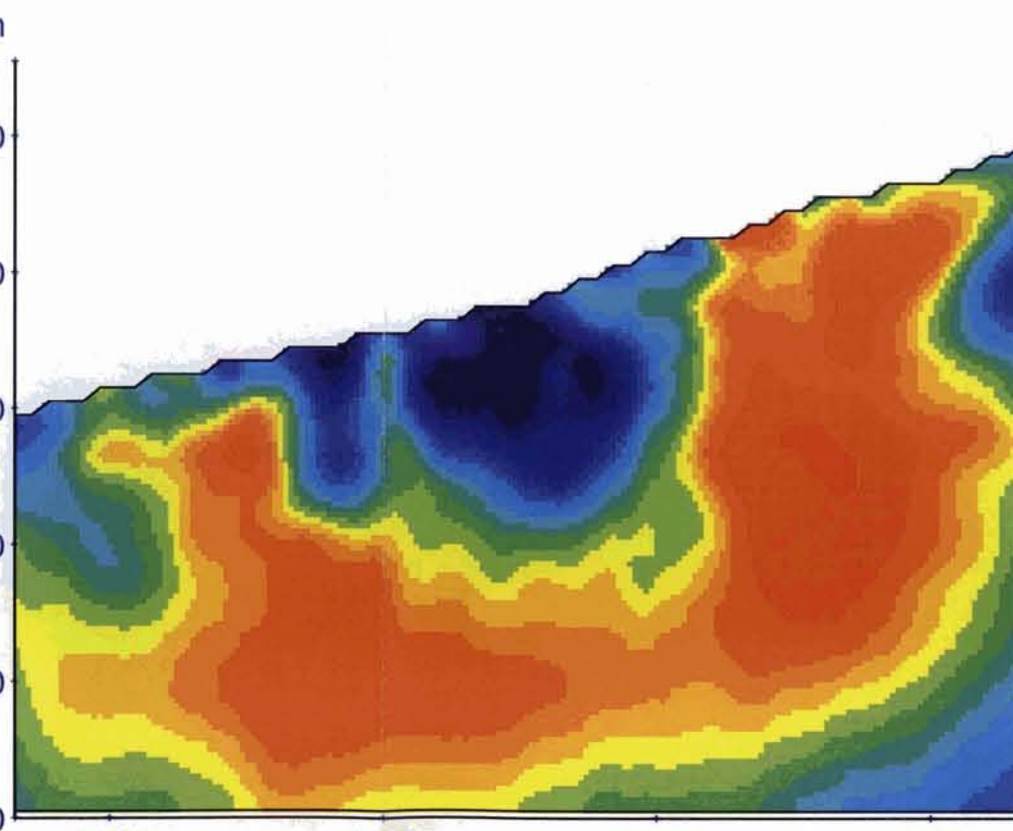
Elevation  
 (metres)

1900  
 1850  
 1800  
 1750  
 1700  
 1650



Elevation  
 (metres)

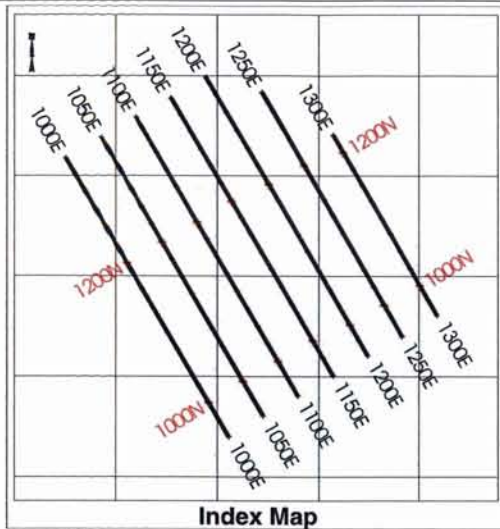
1900  
 1850  
 1800  
 1750  
 1700  
 1650



Elevation  
 (metres)

1900  
 1850  
 1800  
 1750  
 1700  
 1650

Interpreted Chargeability (mv/v)



Index Map

**ARRAY**

Typical Dipole Array

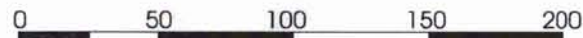
04 Dipoles at 25 m

04 Dipoles at 50 m

**INSTRUMENTATION**

RECEIVER: Scintrex IPR-12

TRANSMITTER: GDD 3.8 kW



Metres

**SABLE RESOURCES**

Ridge Zone Project 2004

Toodoggone Area

Omineca Mining District,  
B.C.- Canada

**3D IP Survey**

3D Inversion Model

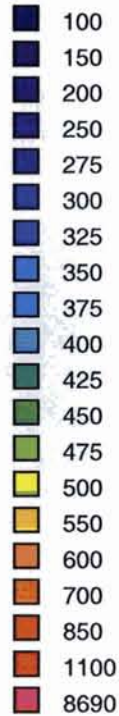
Cross Section 1200E

Survey by: SJ Geophysics Ltd.

3D Inversion by: S.J.V. Consultants Ltd.

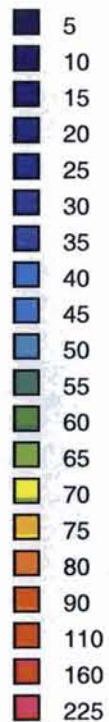
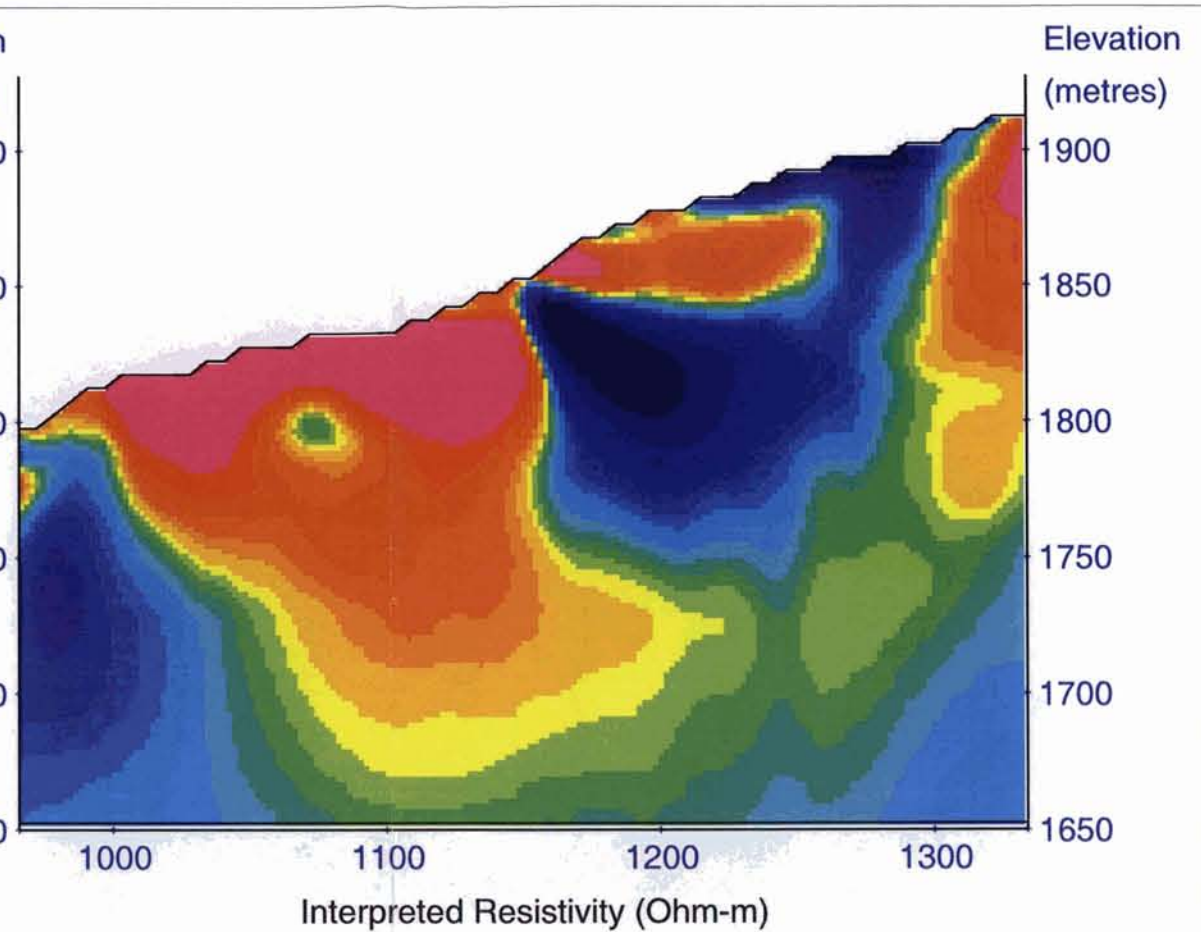
Processing Date: Oct, 2004

Mapping Date: Oct, 2004



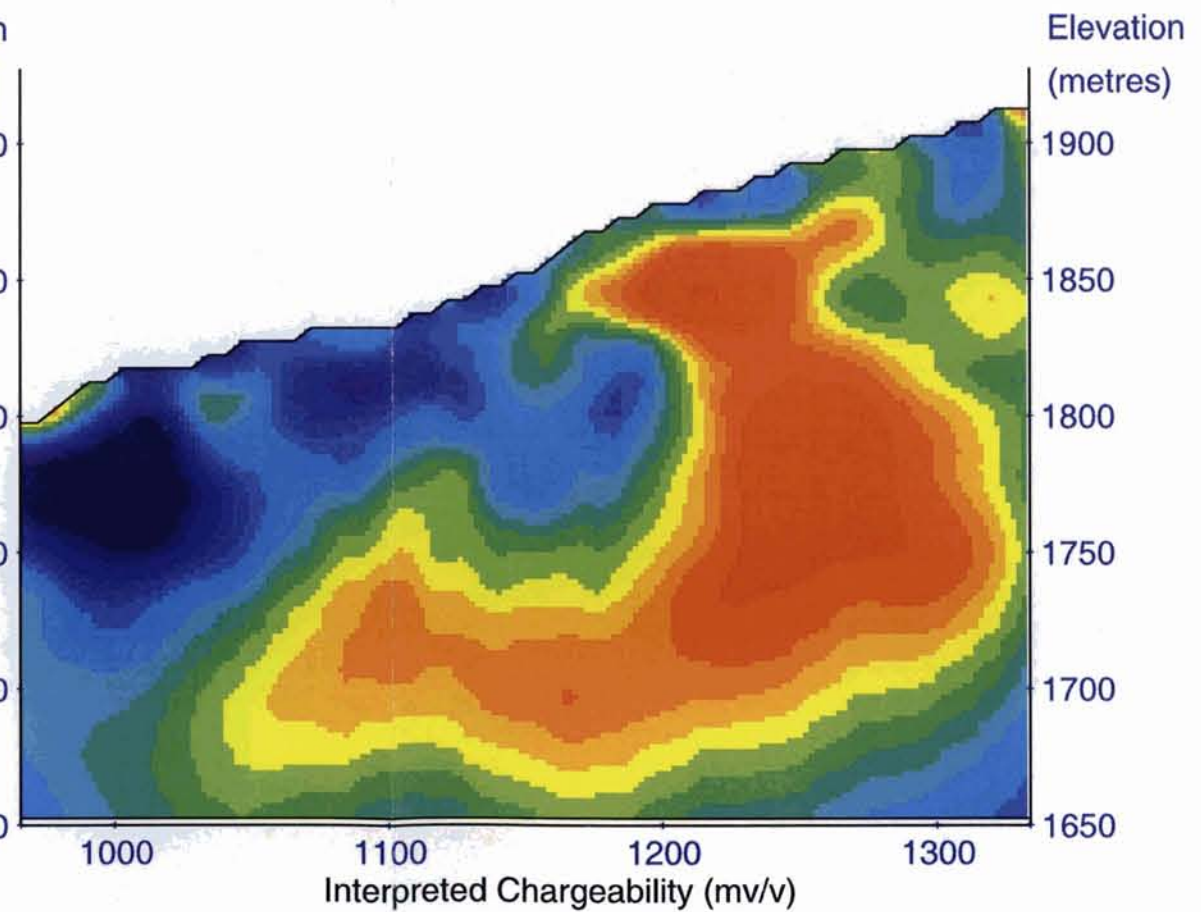
Elevation  
(metres)

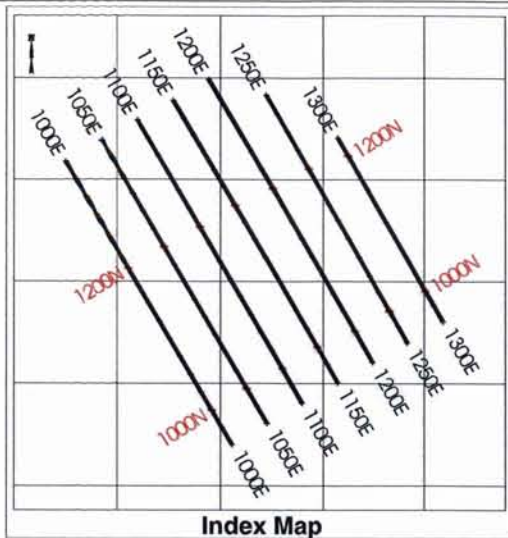
1900  
1850  
1800  
1750  
1700  
1650



Elevation  
(metres)

1900  
1850  
1800  
1750  
1700  
1650





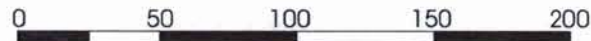
Index Map

**ARRAY**

Typical Dipole Array  
 04 Dipoles at 25 m  
 04 Dipoles at 50 m

**INSTRUMENTATION**

RECEIVER: Scintrex IPR-12  
 TRANSMITTER: GDD 3.8 kW



Metres

**SABLE RESOURCES**

**Ridge Zone Project 2004**

Toodoggone Area

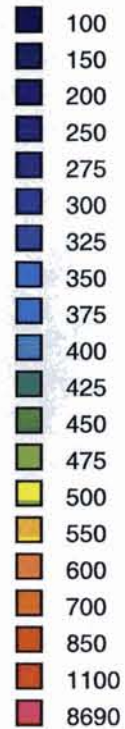
Omineca Mining District,  
 B.C.- Canada

**3D IP Survey**

3D Inversion Model

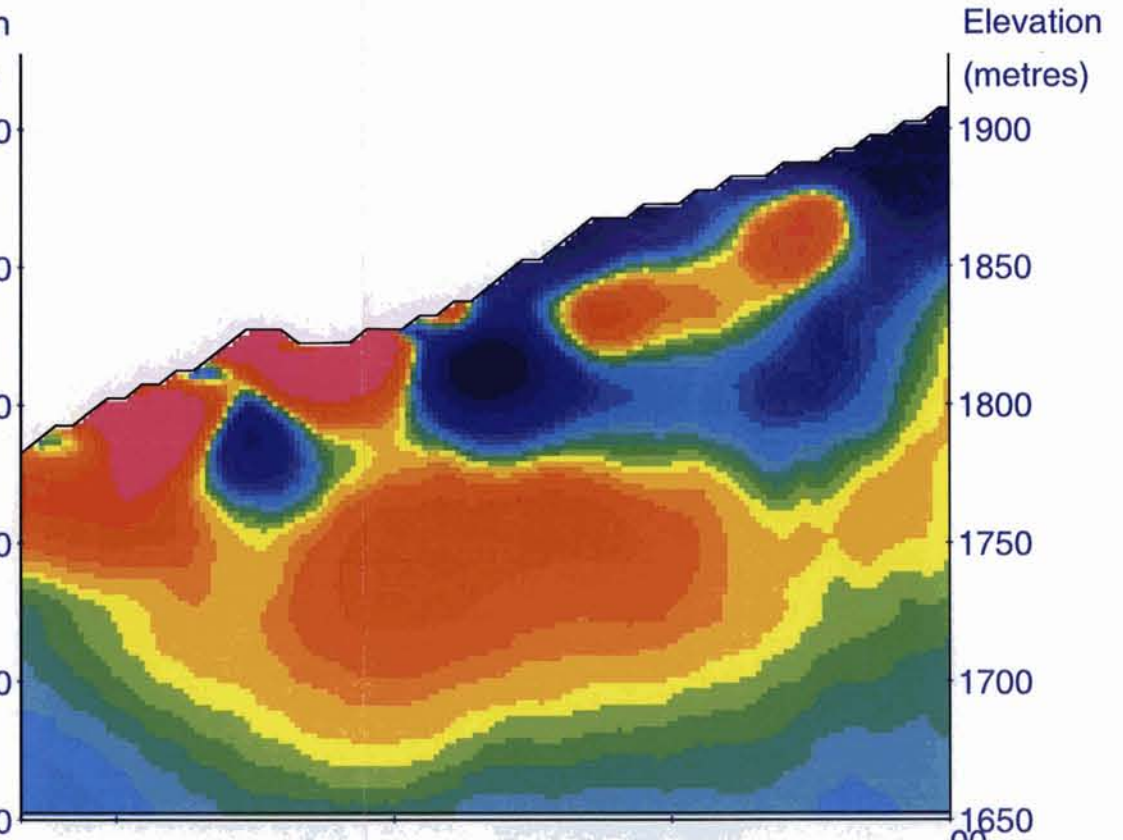
Cross Section 1250E

Survey by: SJ Geophysics Ltd.  
 3D Inversion by: S.J.V. Consultants Ltd.  
 Processing Date: Oct, 2004  
 Mapping Date: Oct, 2004

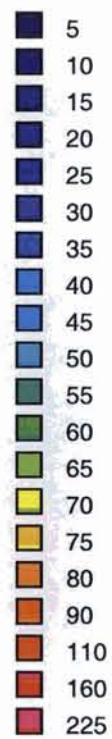


Elevation  
 (metres)

1900  
 1850  
 1800  
 1750  
 1700  
 1650

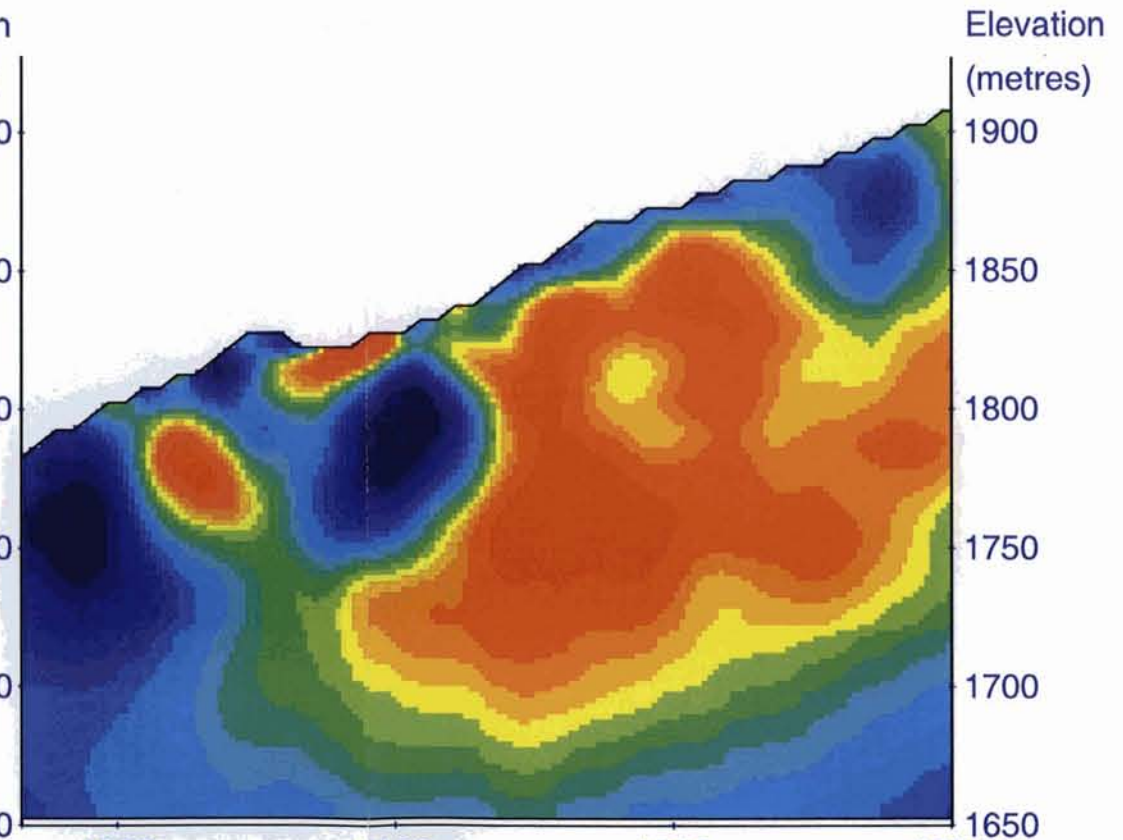


Interpreted Resistivity (Ohm-m)

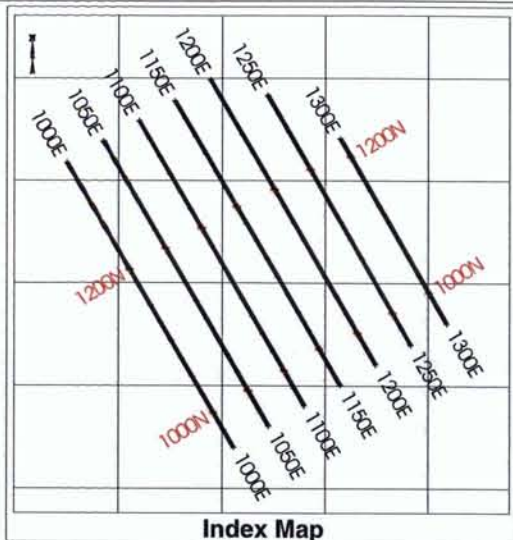


Elevation  
 (metres)

1900  
 1850  
 1800  
 1750  
 1700  
 1650



Interpreted Chargeability (mv/v)



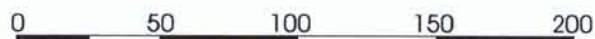
Index Map

**ARRAY**

Typical Dipole Array  
 04 Dipoles at 25 m  
 04 Dipoles at 50 m

**INSTRUMENTATION**

RECEIVER: Scintrex IPR-12  
 TRANSMITTER: GDD 3.8 kW



Metres

**SABLE RESOURCES**

Ridge Zone Project 2004

Toodoggone Area

Omineca Mining District,  
 B.C.- Canada

**3D IP Survey**

3D Inversion Model

Cross Section 1300E

Survey by: SJ Geophysics Ltd.  
 3D Inversion by: S.J.V. Consultants Ltd.  
 Processing Date: Oct, 2004  
 Mapping Date: Oct, 2004

GRASS5.0 S.J.V. Consultants Ltd.



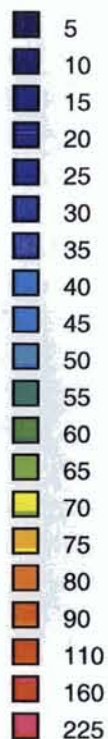
Elevation  
 (metres)

1900  
 1850  
 1800  
 1750  
 1700  
 1650

Elevation  
 (metres)

1900  
 1850  
 1800  
 1750  
 1700  
 1650

Interpreted Resistivity (Ohm-m)



Elevation  
 (metres)

1900  
 1850  
 1800  
 1750  
 1700  
 1650

Elevation  
 (metres)

1900  
 1850  
 1800  
 1750  
 1700  
 1650

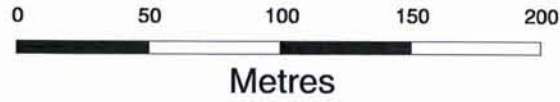
Interpreted Chargeability (mv/v)

**ARRAY**

2D Pole-Dipole  
04 Dipoles at 25 m  
04 Dipoles at 50 m

**INSTRUMENTATION**

RECEIVER: Scintrex IPR-12  
TRANSMITTER: GDD 3.8 kW



**SABLE RESOURCES**

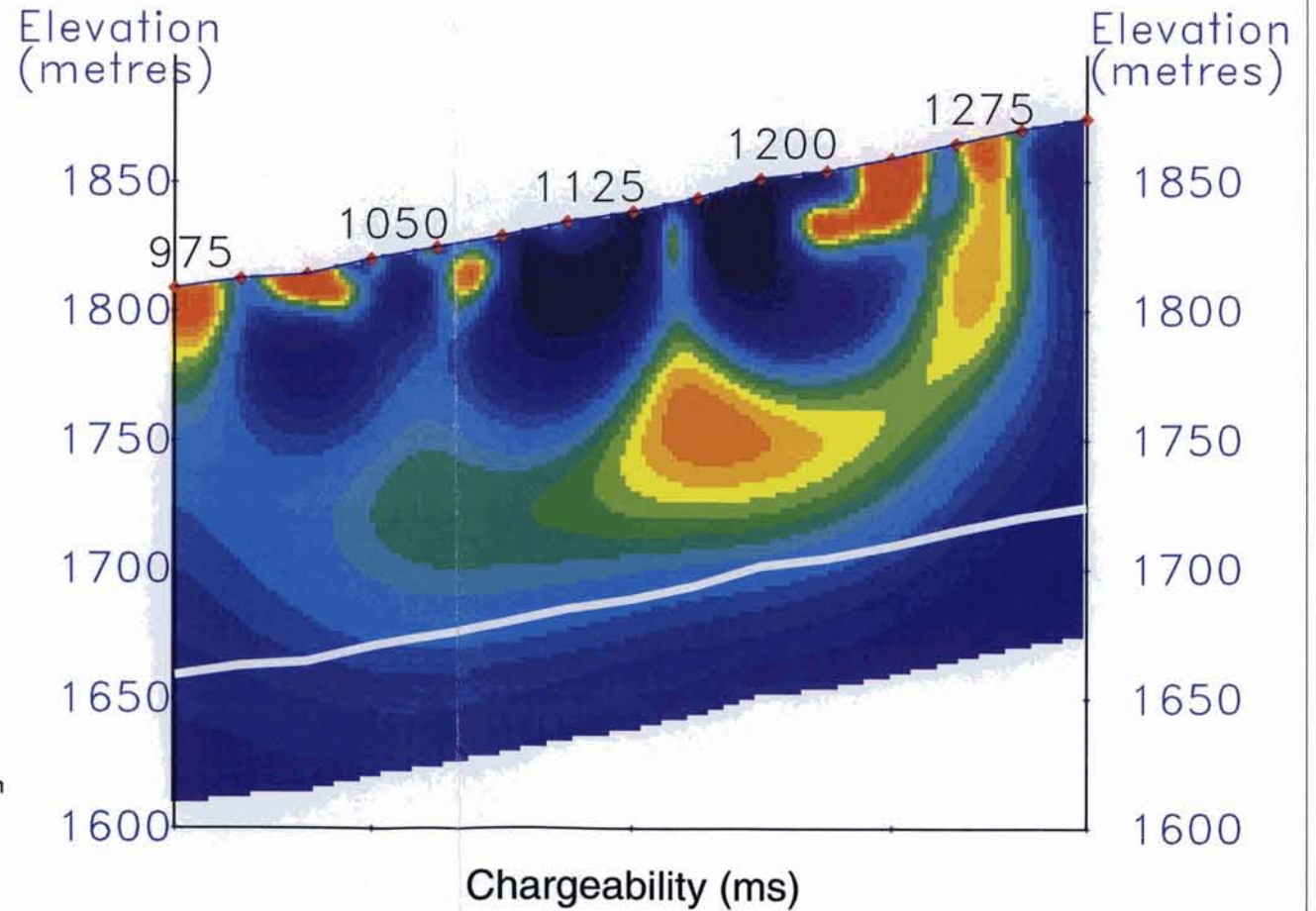
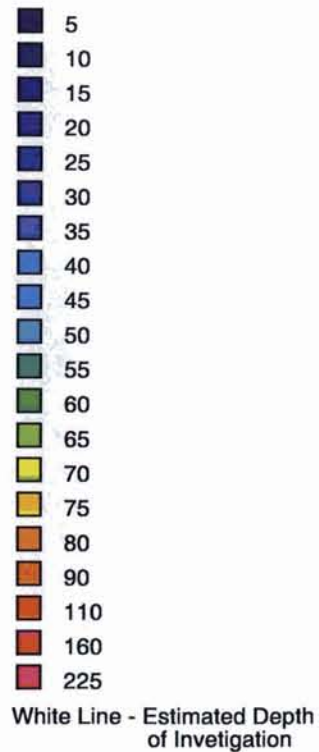
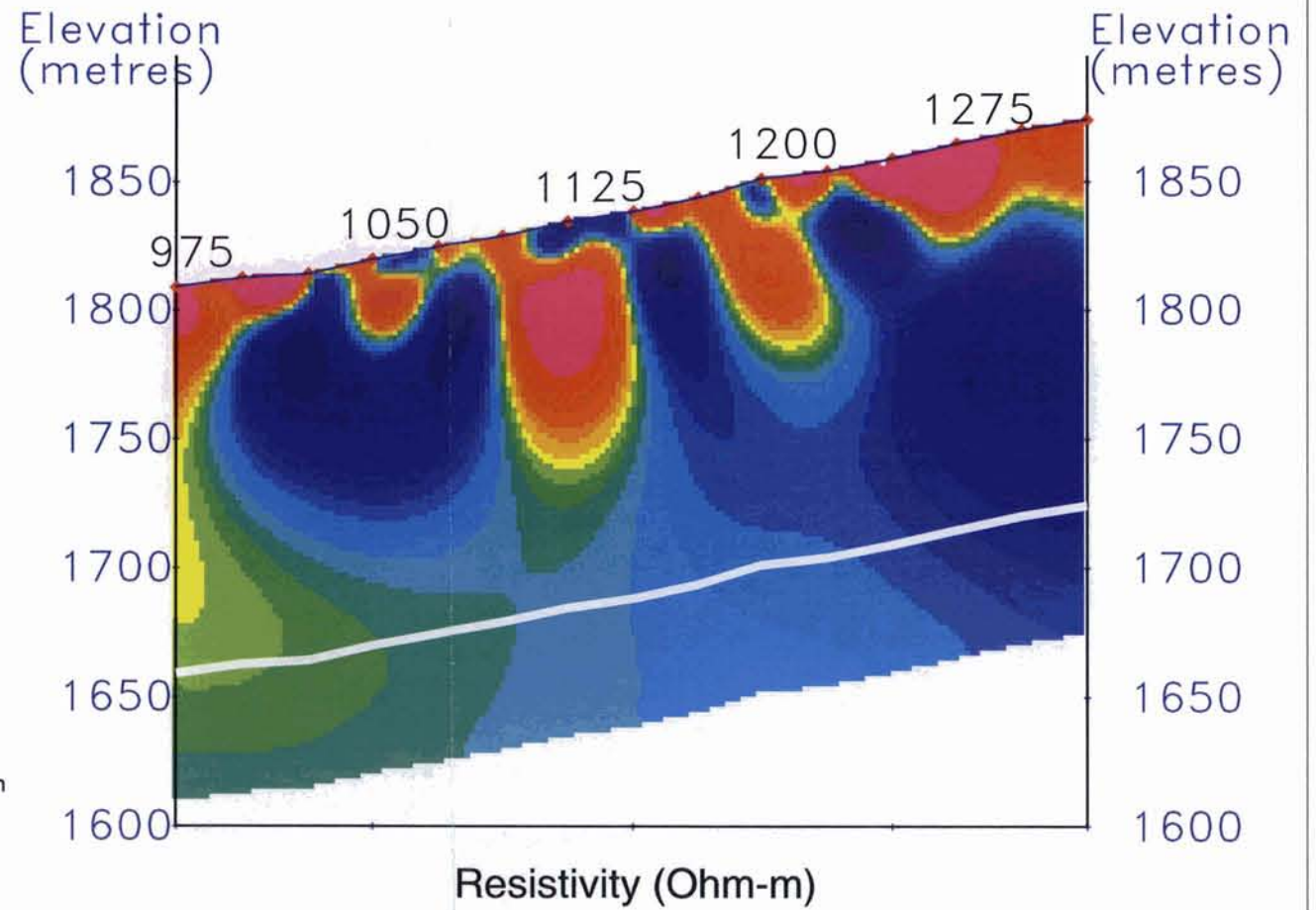
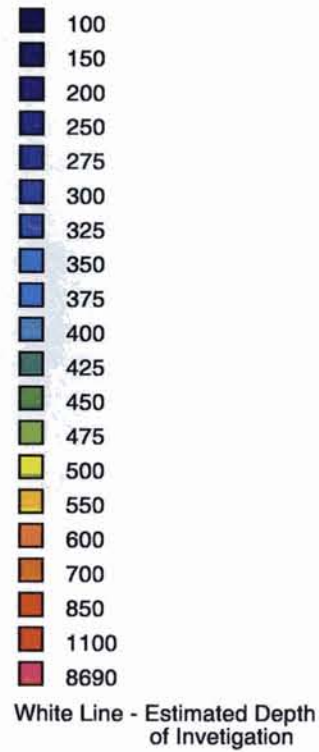
Ridge Zone Project 2004  
Toodoggone Area  
Omineca Mining District, B.C.- Canada

**2D IP Survey**

2D Inversion Depth Section  
Line 1100E

Survey by: SJ Geophysics Ltd.  
2D Inversion by: S.J.V. Consultants Ltd.  
Processing Date: Oct, 2004  
Mapping Date: Jan, 2005

GRASS5.0 S.J.V. Consultants Ltd.







***SJ Geophysics Ltd.***  
***S.J.V. Consultants Ltd.***



11762 - 94<sup>TH</sup> AVENUE  
DELTA, B.C., V4C 3R7, CANADA

BUS: 604 582-1100  
FAX: 604 589-7466

**MEMORANDUM**

To: Mel Rahal  
From: Shawn Rastad  
Date: May 31, 2005  
RE: Sable Resources' Ridge Zone Project

Mel,

The following drill targets are based on the interpretation provided by Sergio Espinosa's geophysical report on the geophysical program conducted on the Ridge Zone project. The recommendations are strictly based on the acquired geophysical data and does not take into considerations the knowledge of geological, geochemical or previous drilling results. Therefore, these drill targets should be confirmed with the geology before proceeding.

With a depth of investigation of +/-150 m, the purpose of the 3D IP survey was to show the possibility of existence of a gold-silver vein type mineralized body in the area of the grid. Therefore, the geophysical targets are bodies of high resistivity and high chargeability. The high resistivity values would be associated with silicifications and the high chargeability values with disseminated sulphides. A few interesting linear features were noted in the report that follow this pattern. On the eastern edge of the survey (as described by the local coords) a noted high chargeability half-moon shaped body intersects with a high resistive tabular body. This feature is consistent with the geophysical response expected.

One region that should be considered for possible spotting of drill targets should focus on the tabular resistive feature that intersects the half-moon body. The following image shows one possible selection of drill locations based on local coords. The following image shows the cross section for Ln 1250E.

Shawn Rastad. B.Sc. Geophysics

E-MAIL: [srastad@sjgeophysics.com](mailto:srastad@sjgeophysics.com) - WEBSITE: [www.sjgeophysics.com](http://www.sjgeophysics.com)

