

Ministry of Energy, Mines & Petroleum Resources
Mining & Minerals Division
BC Geological Survey

Assessment Report
Title Page and Summary

TYPE OF REPORT [type of survey(s)]: Acquisition, Processing and Inversion of a Magnetotelluric TOTAL COST: \$34,084.09

AUTHOR(S): Frederick A. Cook

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Date: 2018.07.23 16:47:04 -0700

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): _____

YEAR OF WORK: 2017

STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S): Event 5685968: Dates Aug 20 - Oct 24, 2017;

Event 5703780: Dates Aug 20 - Oct 24, 2017

PROPERTY NAME: MB

CLAIM NAME(S) (on which the work was done): MB 01-16 (1041043), and MB 02-17 (1051787)

COMMODITIES SOUGHT: Precious metals, massive sulphides

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: _____

MINING DIVISION: Ft. Steele

NTS/BCGS: 082F

LATITUDE: 49 ° 33 ' 30 " LONGITUDE: 116 ° 22 ' 11 " (at centre of work)

OWNER(S):

1) D. E. LaVoie 2) _____

MAILING ADDRESS:

2290 DeWolfe Ave.

Kimberley, BC V1A1P5

OPERATOR(S) [who paid for the work]:

1) Kootenay Silver, Inc. 2) _____

MAILING ADDRESS:

Suite 1820-1055 W. Hastings St.

Vancouver, BC V6E2E9

PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):

Metasedimentary rock; Proterozoic; Middle Aldridge Formation, sedex deposits

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: Kennedy, AR29315; Magrum and Crowe, AR161; Cook, AR36666; McCartney, AR23049; Ransom, AR25177

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping			
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic MT data acquisition		1041043, 1051787	\$31,084.09
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for...)			
Soil			
Silt			
Rock			
Other			
DRILLING (total metres; number of holes, size)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling/assaying			
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale, area)			
PREPARATORY / PHYSICAL			
Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/trail			
Trench (metres)			
Underground dev. (metres)			
Other	Report		\$3,000.00
TOTAL COST:			\$34,084.09

Assessment Report:

Acquisition, Processing and Inversion of a Magnetotelluric Profile

Across the Meachen Bend (MB 01-16, MB 02-17) Property,

Kimberley, British Columbia

MTO events 5695968 and 5703780

Approximate centre of property:

North 49° 33' 30"; West 116° 22' 11"

UTM Zone 11 545580E, 5489710N

NTS map sheet 082F

Fort Steele Mining Division

by

**F. A. Cook, Ph.D., P.Geo.
Salt Spring Imaging, Ltd.
128 Trincomali Heights
Salt Spring Island, B.C.**

Property Owner:

**D. E. Lavoie
2290 DeWolfe Ave.
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July, 2018

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1.0 Summary

The purpose of this report is to describe the design, acquisition, processing and interpretation of a short (10 station) magnetotelluric line in the Purcell Anticlinorium of southeastern British Columbia. Data were recorded in late August, 2017 and processed by Phoenix Geophysics. The results were inverted to provide an approximate image of the electrical conductivity structure in the subsurface of the Meachen Bend (MB; Figures 1 and 2) property. The variations in conductivity were then correlated with seismic reflection images to determine if there are conductive zone that may be associated with strata-bound sedex type deposits.

2.0 Introduction and Terms of Reference

2.1 General

Application of advanced processing techniques to a seismic reflection profile along the Meachen Creek forest service road in southeastern B.C. (Figure 1) has led to the identification of key stratigraphic and structural variations in the near subsurface that are consistent with the development of favourable conditions for massive formation and deposition of strata-bound sulphides. Coupled with strong showings of metals in veins and in soils, the Meachen Bend property may host a significant sulphide deposit.

This report is a description of geological and geophysical analyses undertaken in 2016.

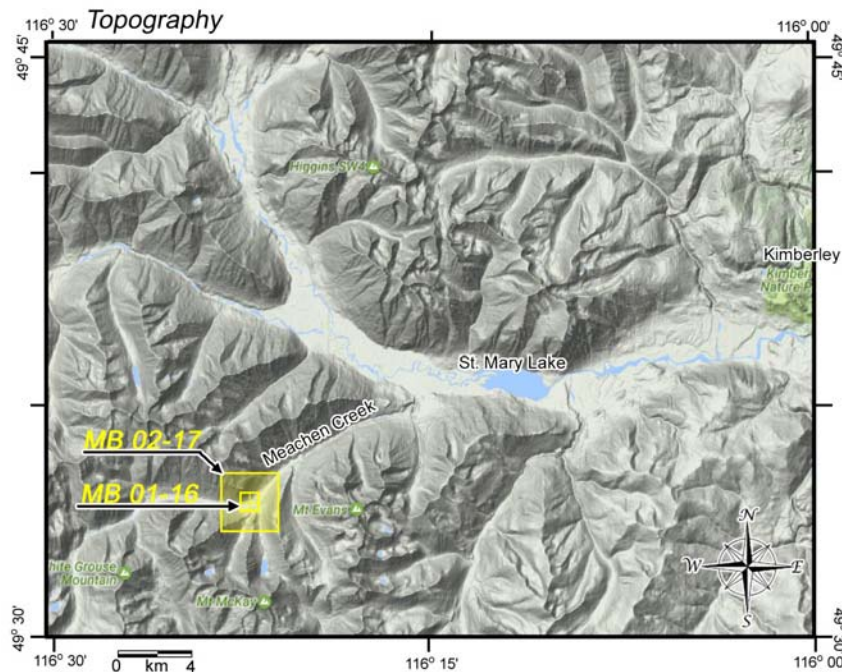
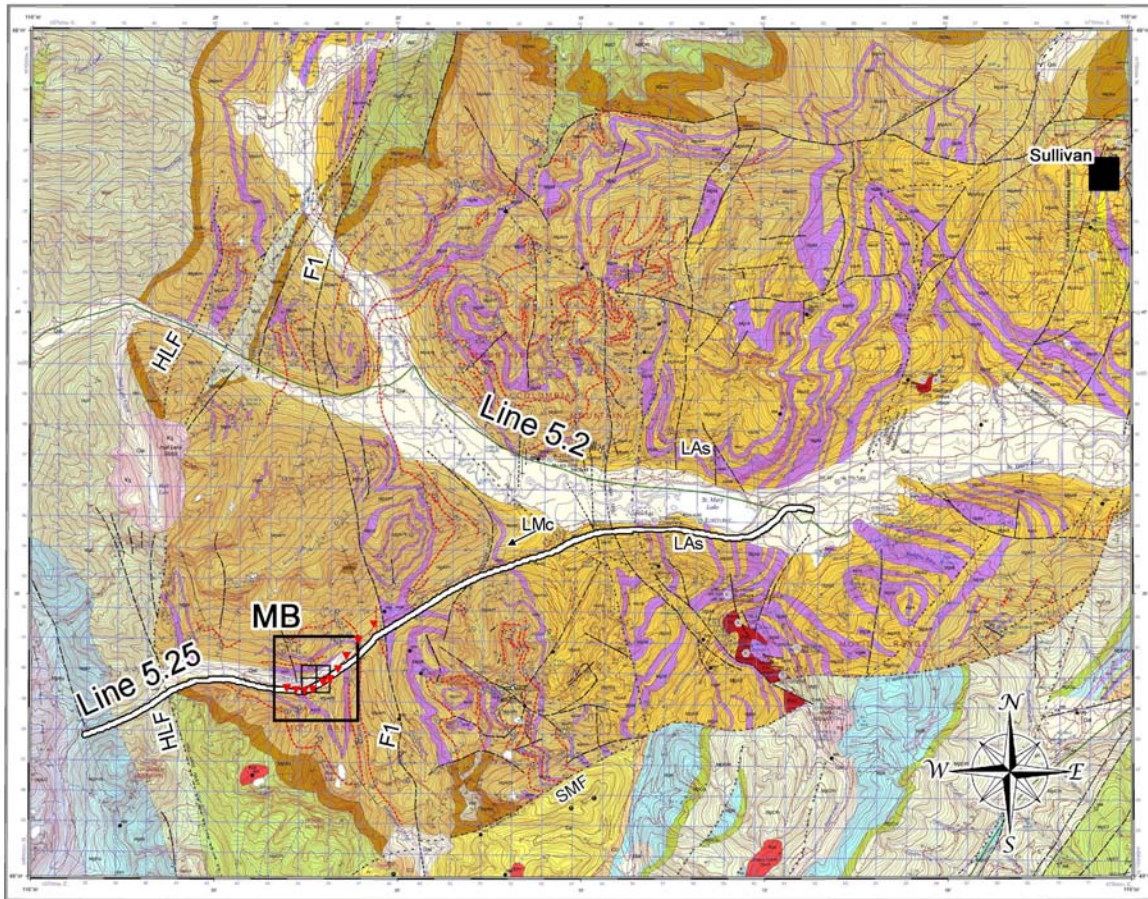


Figure 1. Satellite image of St. Mary Lake area with MB 01-16 and MB 02-17 tenures indicated in yellow.

Geology



modified from Brown et al. 2011



Legend

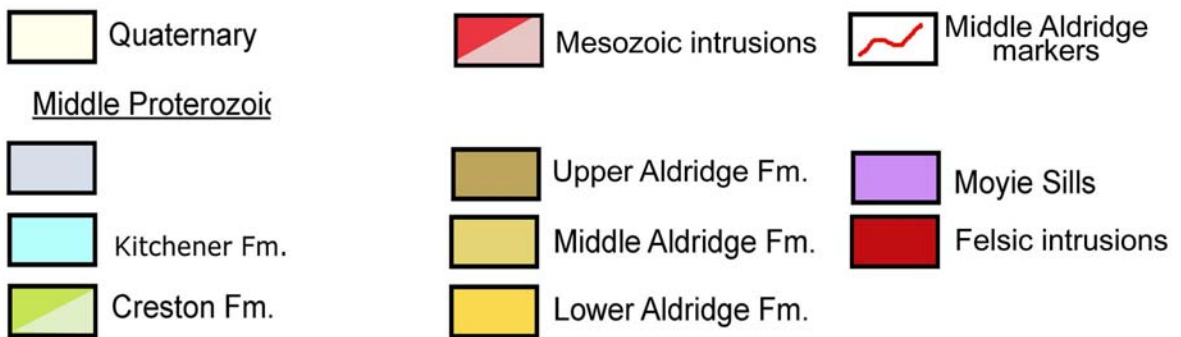


Figure 2. Geological map of the St. Mary Lake area (modified from Brown et al. 2011). The location of seismic lines 5.2 and 5.25 are shown as are a number of faults and formations. Abbreviations used are:: SMF, St. Mary fault; HLF, Hall Lake fault, F1, Fiddler Creek fault and extension; LMC, Lower-Middle Aldridge contact; LAS, Lower Aldridge sills, The black rectangle in the northeast is the location of the Sullivan mine. Red dots in the MB property are the locations of MT stations.

2.2 Terms of Reference

Included in this report are a description of the general geological setting of the Property, a description and analysis of geophysical data and results, an interpretation and reinterpretation of geological and geophysical relationships, and an evaluation of the merits of the relevant parts of the property. Reports reviewed by the author are listed in the reference section at the end of this report.

The author is familiar with the geology and geophysics of the region, having been responsible for acquiring geophysical data in British Columbia since 1983 and as the transect leader for the Lithoprobe Southern Canadian Cordillera transect from 1985-1995 and Transect co-leader for the Lithoprobe Slave-Northern Cordillera transect from 1995-2005.

All measurement units used in this report are metric. The coordinate system in use on the Property and on all maps is UTM zone 11 (NAD83).

3.0 Mineral Tenure Description and Location

The MB 01-16 and MB 02-17 tenures are located in southeastern British Columbia approximately 25 km southwest of Kimberley, BC (Figures 1 and 2). The property consists of a two mineral tenures containing approximately 754.43 hectares in 36 cells (Table I). The mineral cell titles were acquired online and as such there are no posts or lines marking the location of the property on the ground. The claims are owned by D. Lavoie of Kimberley, BC.

Table 1: Description of the MB 01-16 and MB 02-17 mineral titles.

Event 5695968

Title Number	Claim Name/Property	Issue Date	Good To Date	New Good To Date	# of Days Forward	Area in Ha	Applied Work Value	Sub-mission Fee
1041043	MB 01-16	2016/JAN/06	2027/JAN/06	2027/JAN/06	0	83.83	\$ 0.00	\$ 0.00
1051787	MB 02-17	2017/MAY/03	2018/MAY/03	2023/Jun/22	1876	670.60	\$ 31551.39	\$ 0.00

Event 5703780

Title Number	Claim Name/Property	Issue Date	Good To Date	New Good To Date	# of Days Forward	Area in Ha	Applied Work Value	Sub-mission Fee
1041043	MB 01-16	2016/JAN/06	2027/JAN/06	2027/JAN/06	0	83.83	\$ 0.00	\$ 0.00
1051787	MB 02-17	2017/MAY/03	2023/JUN/22	2023/Sep/21	91	670.60	\$ 2501.02	\$ 0.00

4.0 Accessibility and Physiography

The MB property is a rectangular block of cells that are located along Meachen creek south of St. Mary Lake (Figures 1 and 2). The property is located approximately 25 km southwest of Kimberley, B. C. (Figures 1 and 2). Access to the property is along the St. Mary lake road from Maryville and then south along the Meachen Creek road.

In this area, the terrain is mountainous with elevation differences of as much as 1000m from the Meachen Creek valley to the higher elevations.

5.0 Exploration History

The area in the vicinity of the property has been prospected since the Sullivan deposit was found and subsequently exploited. Although the author could not find information that suggests the specific area of the MB claims had been staked previously, there have been a number of claims in the vicinity with anomalous metals. These include the Whitefish and Goodhope claims near Fiddler creek (rock sampling; Magrum, 1984), the MEA claims (soil geochemistry; McCartney, 1993), the Tow property (soil geochemistry; Ransom, 1997) and the Whopper claims (rock geochemistry; Kennedy, 2007).

Regional airborne magnetic data and electromagnetic data that were acquired in the St. Mary Lake area were recorded for the BC Geological Survey and the Geological Survey of Canada by GeoTerrex (McConnell, 1997). These data were gridded to 100m. Gravity data in the vicinity of the seismic survey were compiled by Sanders (2012), although there are very few stations near the MB property.

6.0 Geological Setting

The area of this study is in the central part of the Purcell anticlinorium in Canada southwest of Kimberley, B. C. (Figure 2). The Purcell anticlinorium in this area can be subdivided into three major blocks that are separated from one another by transverse contractional faults. The lowest structural panel is the Moyie block that is dominated by the Moyie anticline, a structure that plunges to the northeast in Canada and to the southeast in Montana. In Canada, its western and northern boundary is the Moyie fault, an east/southeast verging transverse contractional structure with a minimum of 8-10 km of displacement. The next structurally higher block is the St. Mary block, which is delineated on the southeast by the Moyie fault and on the northwest by the St. Mary fault (Figure 2). The northern most block in this area is the Hall Lake block, which is located in the hangingwall of the St. Mary's fault and the footwall of the Hall Lake fault. The MB 01-16 property is located in the Hall Lake block in the hangingwall of the St. Mary fault (Figure 2).

The study area is included in Geological Survey of Canada open file 6308 (Brown et al. 2011) which is reproduced in Figure 2. The map area contains three distinct regions

that are separated by major faults: 1) a triangular area in the southeast that is delimited in the northwest by the St. Mary fault (SMF), 2) a large area that dominates the map north of the St. Mary fault and east of the Hall Lake fault (HLF) and in which the MB property is located, and 3) the area west of the Hall Lake fault. The St. Mary fault emplaces metasedimentary and igneous rocks of the Lower and Middle Aldridge formations and younger formations onto the rocks as young as Devonian and thus represents a major structural break. All of the rocks of interest here are in the hangingwall of the St. Mary fault, with the stratigraphic level generally rising to the west-northwest. Thus, the oldest rocks in the panel are the Lower Aldridge strata in a panel adjacent to the St. Mary fault and extending to the vicinity of the Sullivan mine. Faults confined to the hangingwall block of the St. Mary fault include the north-striking F1 fault that is located along Fiddler Creek in the vicinity of Meachen creek, but then projects more than 15 km northward across Redding Creek and the St. Mary river (Figure 2).

Exploration efforts have been focused on finding:

- 1) Stratabound deposits similar to the Sullivan deposit, primarily in the same stratigraphic interval (Lower-Middle Aldridge contact, or LMc; Figure 2), or in fragmental black smoker type deposits at other stratigraphic positions (e.g., Middle Aldridge), and
- 2) Polymetallic vein deposits associated with joints, fractures or faults.

Although numerous metalliferous quartz-carbonate veins have been found at the surface, stratabound deposits similar to the Sullivan are elusive.

Previous work (Cook, 2017) has described the geological and geophysical setting coupled with reprocessed geophysical data; the penultimate image of this work is the interpreted seismic profile shown in Figure 3. The key points from this image that are relevant to the MB property are: 1) the image helps to delineate the structure and stratigraphic variations in the subsurface, and 2) the image has revealed a prominent seismic amplitude anomaly (labelled 'Anomaly' in Figure 3) at the stratigraphic position (Lower Aldridge to Middle Aldridge transition) of the Sullivan deposit approximately 30 km to the northeast (Figure 1). Acquisition and analysis of magnetotelluric data has the potential to provide a key rock property (electrical conductivity) that may be correlated with the stratigraphy and structure that are delineated on the seismic profile.

7.0 Work Accomplished in 2017

7.1 The 2017 Magnetotelluric Survey

Following the reprocessing and interpretation of the seismic data (Cook, 2017), the results allowed enhanced detail of structures and stratigraphic horizons in the subsurface (Figure 3). In an effort to target properties (e.g., electrical conductivity) that are often associated with massive sulphides, the 2017 magnetotelluric was acquired. Following is a description of the data acquisition, processing and inversion of these data.

7.11 Data Acquisition

To determine the electrical conductivity structure in the near subsurface of the Meachen Bend property and to relate the electrical structure to the stratigraphy and geometry delineated on the seismic profile, a short, 10 station magnetotelluric (MT) survey was undertaken in August, 2017. The stations are located adjacent to the Meachen Creek forest service road (Figure 1) and extend from about 200m west of the Fiddler Creek fault (F1 in Figure 1) westward across the seismic amplitude anomaly (Figure 2). The survey was undertaken in late August, 2017 and the data were processed and inverted by Phoenix Geophysics.

7.12 Estimation of Goelectric Strike

In order to perform the inversions in a 2-D cross-section, it is necessary to estimate the goelectric strike. This is the orientation at which the induction vectors indicate current flow. Although it is often similar to the geological strike, there is no requirement that the goelectric strike and the geological strike coincide. In this survey, we estimated the goelectrical strike in two ways: 1) by graphing the directions of induction vectors for the different frequencies and stations, and 2) by calculating the inversion fits and comparing with the geological strike.

Rose diagrams for the estimated strike directions for each frequency and for each station are shown in Figure 4a. Figure 4b shows a compilation for all frequencies. As the diagrams show, most of the strike directions vary from about +45° to -45°. Geological strike appears to be approximately 20-30° west of north (-20° to -30°, Figure 1), although it may vary to north in some areas. Accordingly, a number of inversions were calculated with different strike azimuths.

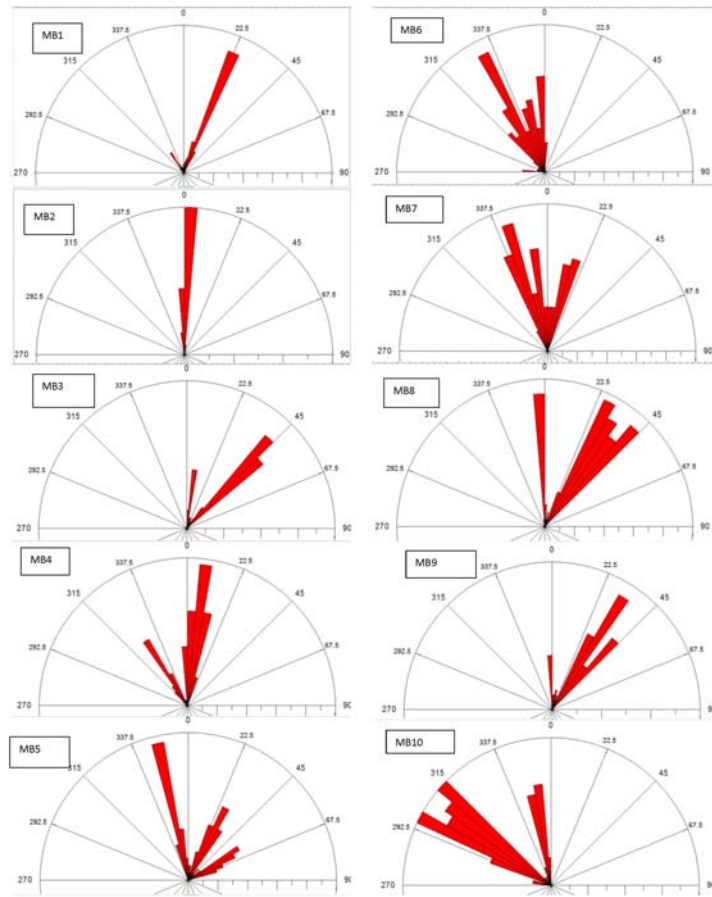


Figure 4a. Rose diagram plots of the strike directions for each frequency at each of the 10 MT stations. The variability indicates some variation in strike from station to station.

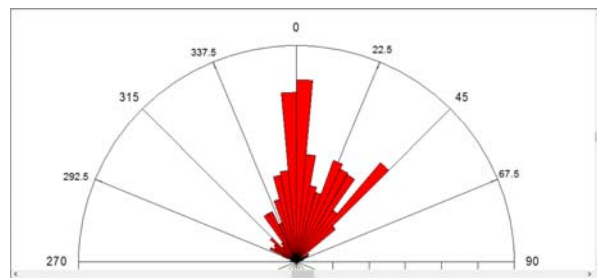


Figure 4b. Rose diagram plot for all frequencies and all stations combined. The dominant direction appears to be north-south, with variations from $+45^{\circ}$ to -45° .

7.13 Inversions

Inversions were carried out for a number of different geoelectrical azimuths; the best fits were obtained with the strike azimuth at either -30° or 0° . Results of the inversion are shown in Figures 5a and 5b to about 3 km depth for these two directions. In these images, conductivity values from the inversion are colour contoured (reds represent high conductivity; purple and blue represent low conductivity) and overlain on the seismic interpretation so that the seismic features can be compared with the MT results. Figure 5a is the inversion with the strike azimuth of 0° , and Figure 5b is the inversion with strike azimuth = -30° . Although they are quite similar, the inversion for -30° appears to produce a slightly better fit for the phase and apparent conductivity curves (not shown here). Figure 5c shows the inversion (azimuth = -30°) plotted to about 7 km depth with the potential field (magnetics and airborne EM) profiles displayed above the section.

The inversion results produce the following important findings:

1. There is a very strong electrically conductive zone near the surface on the east side of the MT line (stations MB01 and MB02). This conductive zone is shallow (centre at about 200m depth) and has not been tested by drilling or by detailed geology and geochemistry of the surface rocks. This will be discussed later.
2. There is a prominent, but low conductivity, nearly vertical zone that appears to rise from about 7 km depth to the surface in a convex westward arcuate trajectory. Although the seismic amplitude anomaly is apparently weakly conductive, this conduit-like conductor appears to intersect the seismic anomaly on its way to the surface.
3. Near the surface, the 'conduit' conductor appears to separate into three 'branches' that then project to the surface (Figure 6).

Figure 6 is an enlargement of the cross section in the vicinity of the MT line. Superimposed on the section is an inversion of the 2016 VLF profile as described in Cook (2017).

Due to the relatively high frequencies (~ 25 kHz) in VLF surveying, the VLF signal does not often penetrate to significant depths. However, in this case, the near-surface rocks tend to be relatively electrically resistive ($1000 \Omega\text{-m}$ or more) and the inversions indicated that some signal may have been obtained from 200m depth or more (Cook, 2017). The VLF profile in Figure 6 was inverted and plotted to 250m depth.

There are three zones of elevated conductivity on the VLF inversion (labelled '1', '2', and '3' on Figure 6). Zone 1 appears to be very shallow and high conductivity. However, because the signal will not penetrate much below a conductive zone, the shallow high conductivity observe on the VLF profile may just represent the top of an extensive conductive zone at depth. The results from the MT inversion appear to indicate that an extensive conductor is indeed in the subsurface beneath VLF conductor 1 (Figure 6).

VLF anomalies 2 and 3 are somewhat deeper than VLF anomaly 1. However, and most importantly, each of the VLF conductors appears to be located on one of the three 'branches' that the MT conduit conductor separates into as it reaches the surface. This is important for three reasons:

1. Two independent techniques (VLF and MT) have detected conductors in the near surface at the same locations (1, 2 and 3);
2. The spatial correlation of the VLF conductors with the MT conductors supports the interpretation of the MT conductors as part of a conduit system from depth (because the MT technique is detecting even weak variations in electrical conductivity), and,
3. The near-surface conductor ('1' in Figure 6) appears to be a strong conductor on both the VLF and the MT data sets. The VLF data only 'see' a thin strong conductor there because the mono-frequency signal can not penetrate to depth once the conductor is intersected by the signal. The MT profile, however, is able to provide an image of the subsurface due to the multi-frequency content of the signal.

The prominent seismic anomaly identified earlier (Figure 3) appears to be weakly conductive. Elevated conductivity can be caused by fluids (saline or wet clay), carbon (e.g., graphite, coal), or metal. In addition, the seismic amplitude anomaly has to be caused by a contrast in seismic velocity and/or density. In Cook (2017) a series of three possibilities was suggested for interpreting the seismic anomaly. Following the MT survey, the interpretation can be updated such that the seismic anomaly could be due to one (or a combination of) the following:

1. Sideswipe: The MT profile does not enhance the 3D geometric information so that an out-of-plane reflection is still possible;
2. A local stratigraphic change, such as a local sill, is also still possible;
3. A strata-bound sulphide is a possibility if the zone is weakly conductive (i.e., dominantly sphalerite or other, non-connected metals).

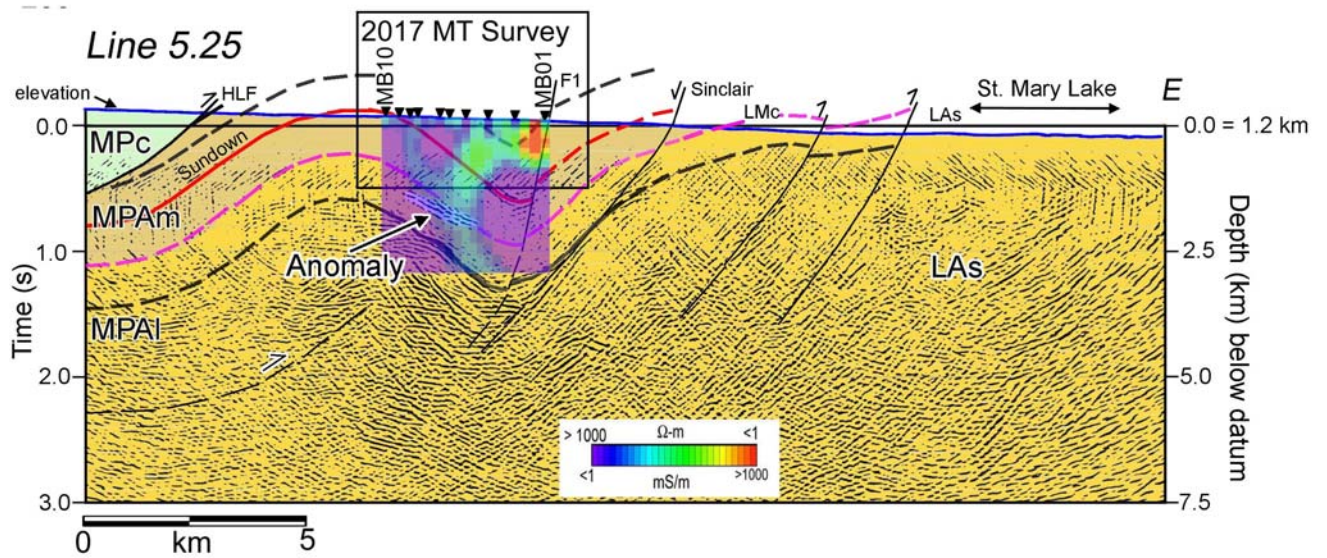


Figure 5a. Inversion of the MT profile for geoelectric strike = 0° and overlain on the seismic data with 50% transparency. The colour scale for the MT contours is shown in the scale bar in the lower centre of the diagram.

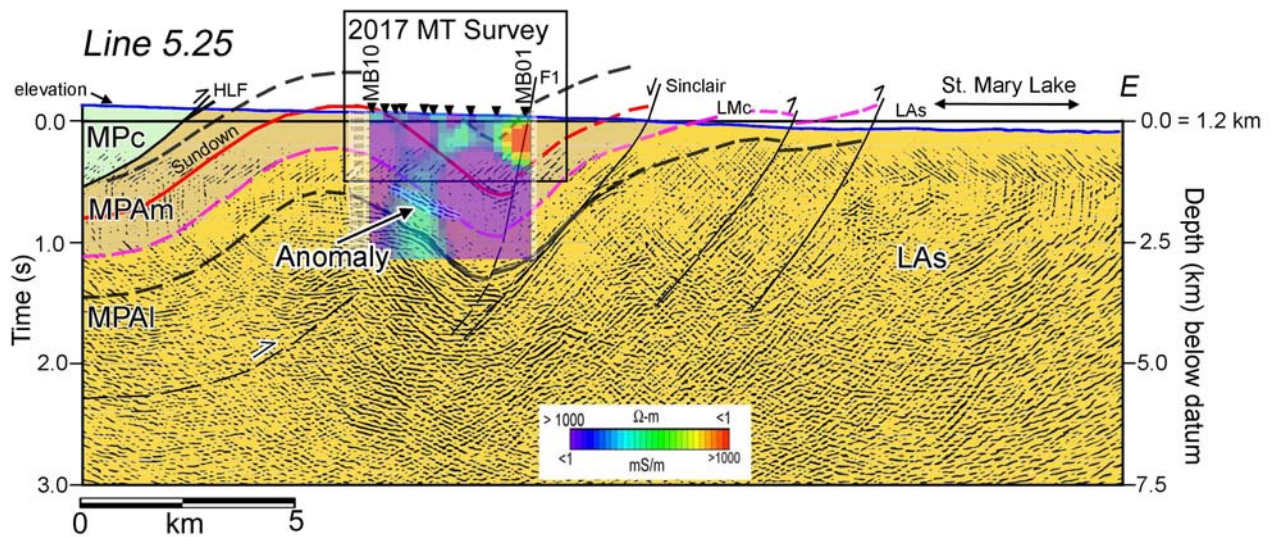


Figure 5b. Inversion of the MT profile for geoelectric strike = -30° and overlain on the seismic data with 50% transparency. The results are similar to those in Figure 5a, with the near vertical conductive zone shifted slightly westward.

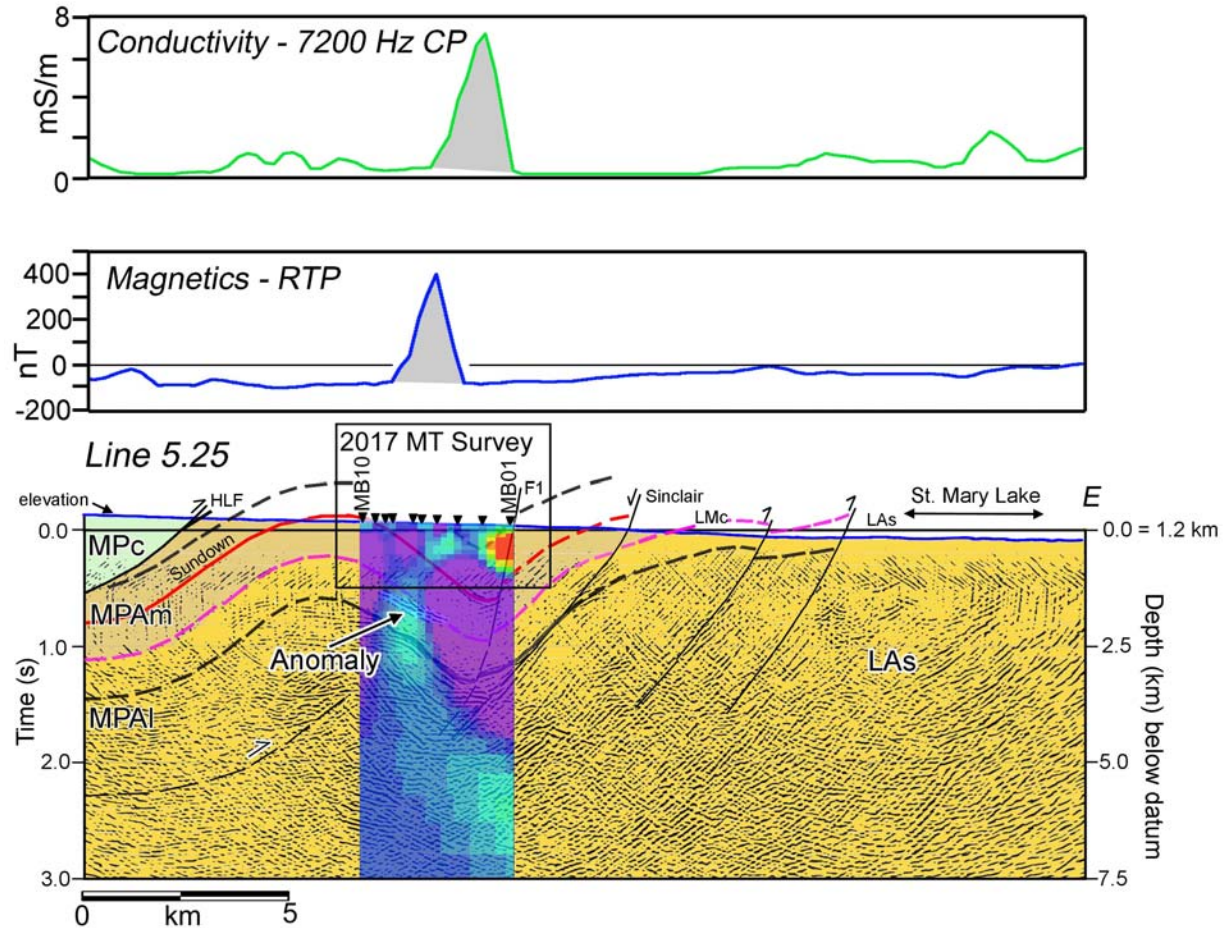


Figure 5c. Same seismic cross section as in Figure 3 with the inversion of the 2017 MT profile superimposed in colour to more than 7 km depth. The outlined area is enlarged in Figure 6. The weak conductor that appears to rise from below 7 km depth through the seismic anomaly to the surface can be interpreted as a ‘conduit’ for fluid movement and distribution of metals. This ‘conduit’ then appears to separate into several ‘branches’ near the surface where the interpretation of a conduit is enhanced by correlating the ‘branches’ to conductors delineated by the 2016 VLF survey (see Figure 6).

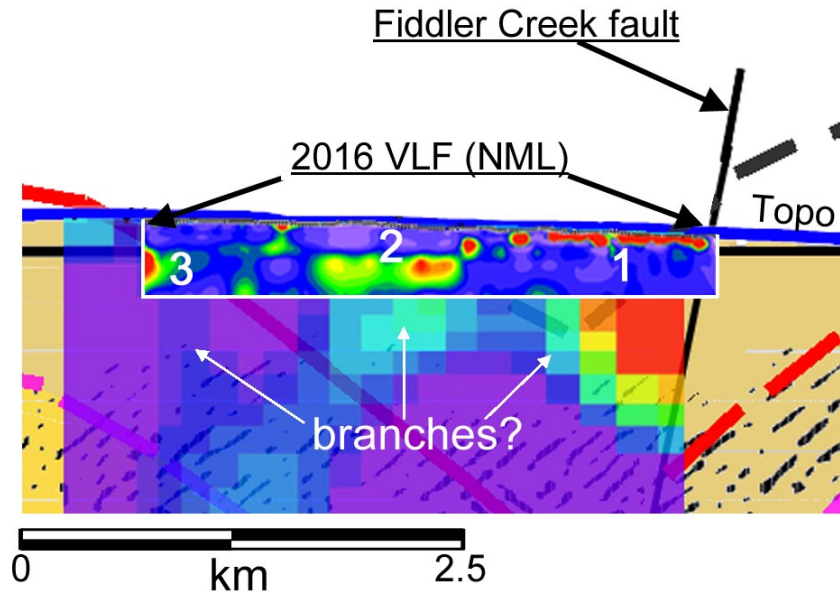


Figure 6. Enlargement of the near-surface results with the 2016 VLF profile results superimposed. Note how the 'conduit' separates into three 'branches'. Each of these projects to the surface where there are conductors ('1', '2', and '3') that are labelled on the NML (North Dakota transmitter) version of the 2016 VLF survey.

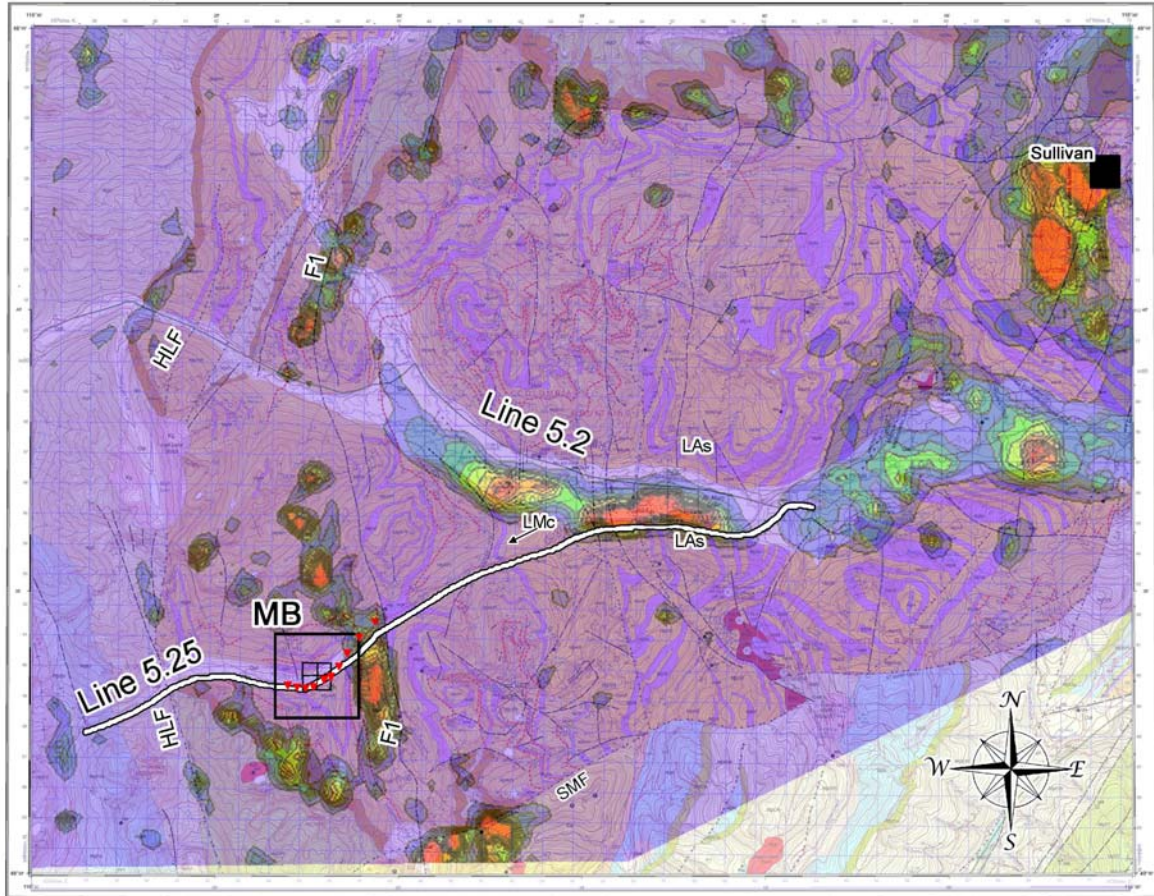
7.2 Comparison with Airborne EM

Figure 7 is an image of the geological map from Figure 1 with a version of the 1995 airborne EM survey superimposed. The largest EM anomalies are the Sullivan deposit, the St. Mary lake area (probably due to clay-rich young sediments), and anomalies near the MB property.

The amplitudes of anomalies are determined by both the conductivity of the rocks as well as the distance (=depth) of the source from the detecting instrument. As Scrivens (2005) showed, a conductor at 200m depth or so will produce an anomaly that is 10's to 100's of times lower amplitude than an equivalent conductor at the surface. In other words, the airborne EM anomaly on the east side of the MB property coincides with the conductive zone on the MT survey as well as conductor '1' on the VLF profile. According to the stratigraphic interpretation, this conductor is located above the Sundown sill in the Middle Aldridge. If the interpretation of the steep conductor as a conduit is valid, prominent conductor #1 may have been fed, in part, by metals that migrated from depth.

This EM anomaly (airborne, VLF and, now, MT) has not been tested either geologically or geochemically. In other words, there is little detailed mapping, no soils surveys and no drilling that have been undertaken to test it, even though there are a number of strong showings nearby. These include the Good Hope and Evans veins on the east side of the Fiddler Creek fault.

Geology with EM



modified from Brown et al. 2011



Legend

Quaternary	Mesozoic intrusions	Middle Aldridge markers
<u>Middle Proterozoic</u>		
	Upper Aldridge Fm.	Moyie Sills
Kitchener Fm.	Middle Aldridge Fm.	Felsic intrusions
Creston Fm.	Lower Aldridge Fm.	

Figure 7. Map of the airborne EM anomalies (7200 Hz, coplanar) superimposed with transparency on the geological map of Brown et al. (2011). The location of the MB property is outlined in black; seismic profile 5.25 is denoted by the outlined white line, and locations of 2017 MT stations MB01- MB10 are denoted as red dots. Also shown is the location of the strong MT conductor near the surface (labelled as ‘MT anomaly’).

8.0 Summary and Conclusions

The 2017 MT survey across the Meachen Bend (MB) property has provided new images of the subsurface electrical conductivity structure. Three key points are:

1. There is a strong electrical conductor on the west side of the Fiddler Creek fault in the near subsurface. The depth to the centre of the conductor is about 200-300m, and the zone has not been tested with drilling or with detailed geochemistry and geological mapping;
2. There is a weak, but prominent, near-vertical conductive zone that appears to intersect the seismic amplitude anomaly (in 2D). The zone has the appearance of, and is thus most easily interpreted as, a 'conduit' for fluid flow, and,
3. The 'conduit' appears to separate into several 'branches' near the surface, one of which is the strongly conductive zone near the Fiddler Creek fault, and all three of which appear to project into conductors detected on a VLF survey.

9.0 References

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10.0 Statement of Costs

Property:	MB 01-16, MB 02-17	
Event #	5695968 & 5703780	
Start - End Date:	Aug 20 - Oct 24, 2017	
Tenure work done on:	1041043, 1051787	
Type of work done:	Geophysical – Magnetotellurics	
Craig Kennedy	Fieldwork-MT – Aug 21-28, 2017	
	8 man days @ 450/day	3,600.00
	6 truck days @ 150/day	900.00
Fred Cook	Aug 20 - 30, Oct 23, 24, 2017	
	13 man days @ 800/day	10,400.00
	Travel & LO	2,515.90
	Report	3,000.00
Phoenix Geophysics Ltd. Broadband MT Survey		13,000.00
Misc. Field expenses		<u>668.19</u>
Total		<u>\$ 34,084.09</u>

11.0 Statement of Qualifications

I, **Frederick A. Cook** do hereby certify that:

I attained the degree of Doctor of Philosophy (Ph.D.) in geophysics from Cornell University in Ithaca, New York in 1981.

I have a B.Sc. in geology (1973) and an MSc. in Geophysics (1975) from the University of Wyoming in Laramie, Wyoming.

I am a registered member of the Association of Professional Engineers and Geoscientists of British Columbia (P. Geo. 2009). Previously, from 1984-2009, I was registered with the Association of Professional Engineers, Geologists and Geophysicists of Alberta as both a P. Geol. and a P. Goph.

I am a member of the American Geophysical Union and the Geological Society of America.

I have worked as a geophysicist/geologist for a total of 40 years since my graduation from university.

I have worked for the Continental Oil Company (1975-1977) and the University of Calgary (1982-2010).

I was the Director of the Lithoprobe Seismic Processing Facility at the University of Calgary from 1987-2003.

I have recently (2011) been appointed an International Consultant for the Chinese SinoProbe project.

I have a thorough knowledge of the geology and geophysics of southern British Columbia based on extensive geological and geophysical fieldwork.

I have authored more than 125 scholarly publications in peer-reviewed journals and books.

I am the author of this report.

I am not aware of any material fact or material change with respect to the subject matter of this report, which is not reflected in this report.

“signed and sealed” at Salt Spring Island, B.C.

Frederick A. Cook, P. Geo.

Salt Spring Imaging, Ltd

128 Trincomali Heights

Salt Spring Island, B.C. V8K1M8

Dated at Salt Spring Island, B.C. this 21st day of July, 2018

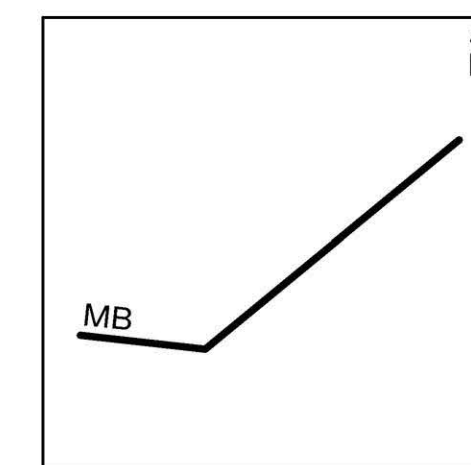
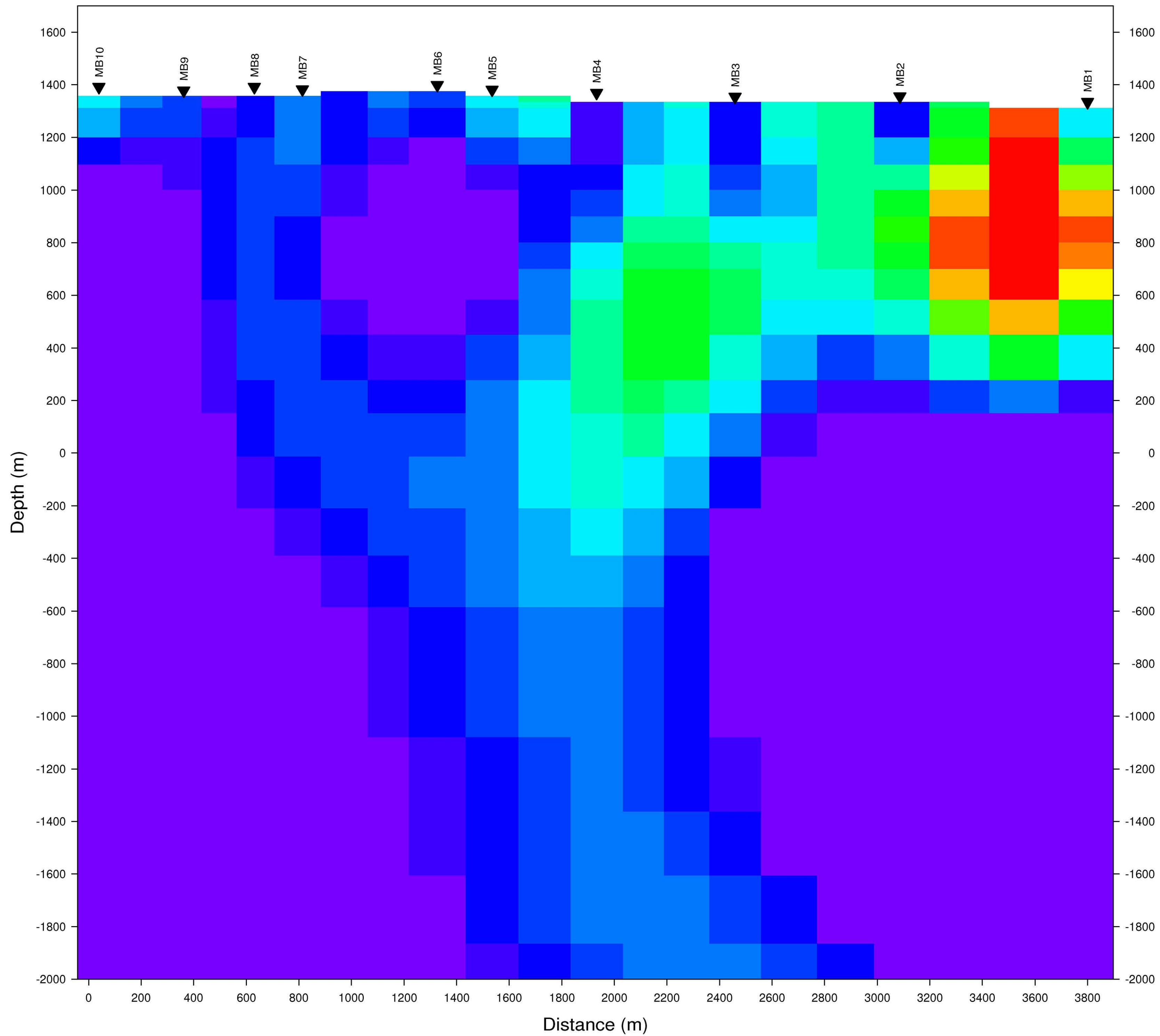
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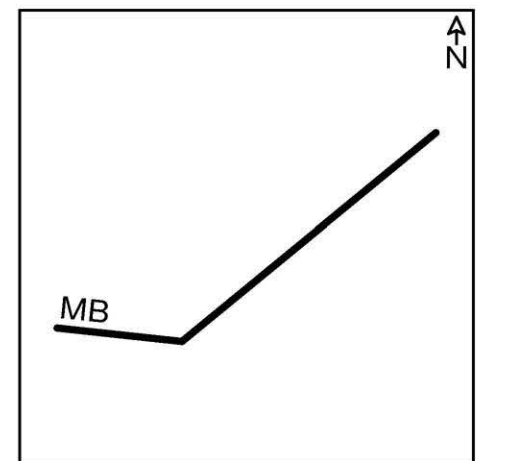
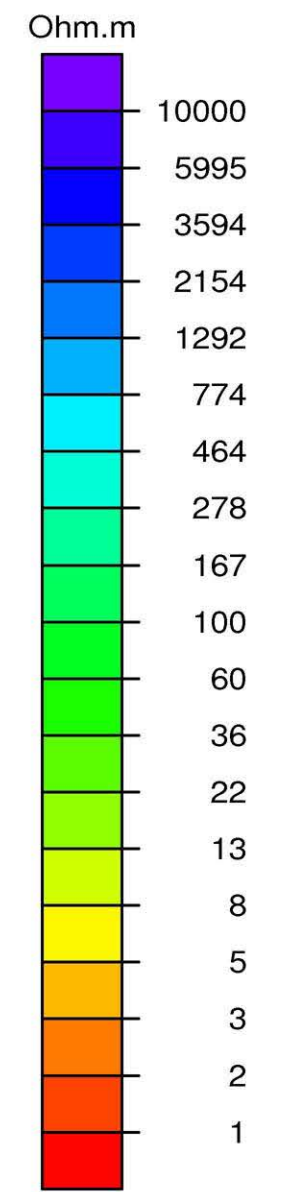
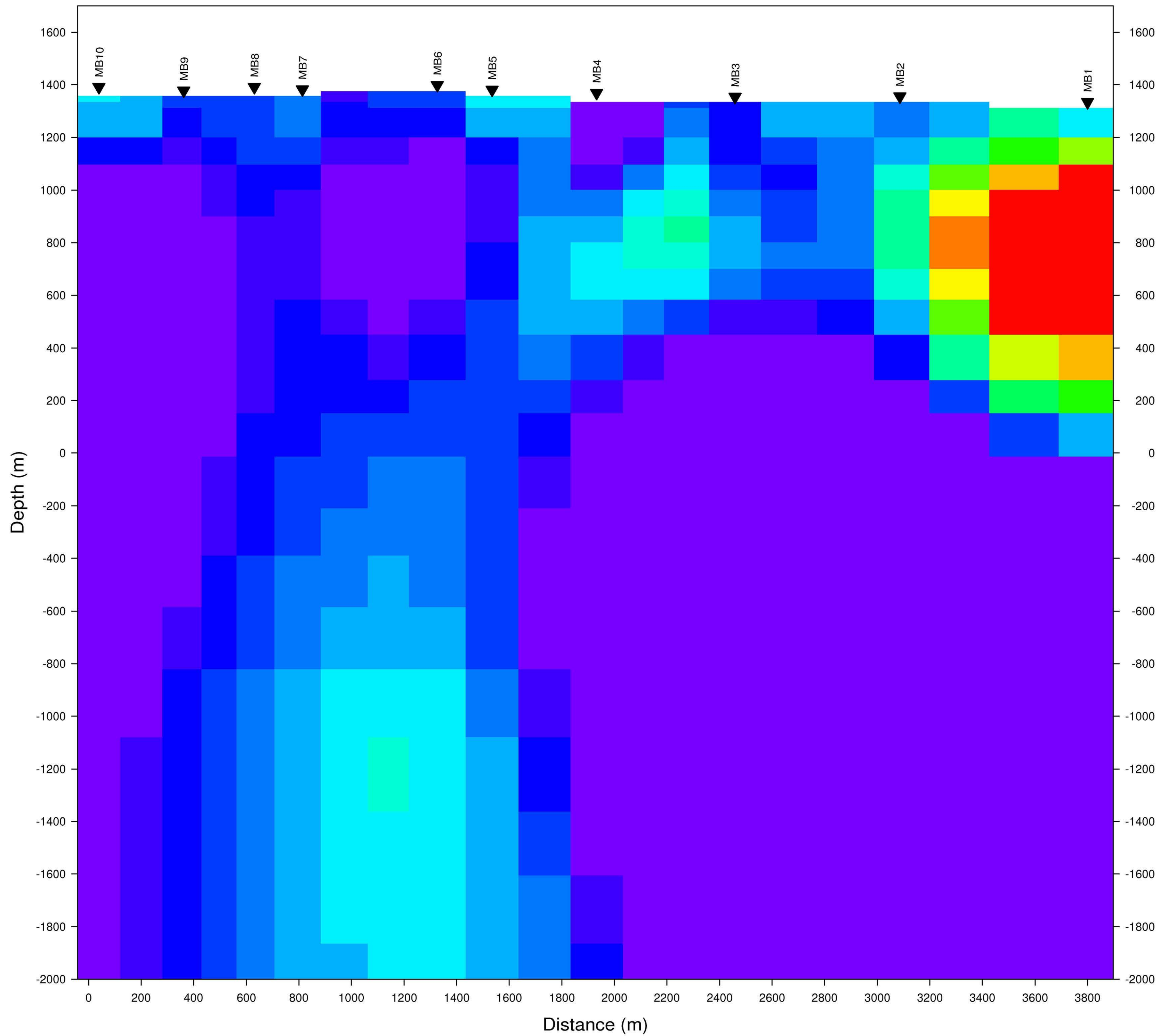
Appendix 1. Magnetotelluric Station Locations**Phoenix MT Stations: MB Project**

MB	UTMeast	UTMnorth	Elev (m)
1	547493.9631	5491458.575	1313.6
2	546978.8466	5490964.894	1331.9
3	546540.4035	5490514.54	1329.0
4	546258.6198	5490059.992	1340.7
5	545995.9805	5489759.425	1345.8
6	545850.1776	5489609.951	1370.9
7	545417.5889	5489445.109	1364.7
8	545228.5401	5489419.445	1358.0
9	544957.3225	5489417.198	1363.3
10	544645.5057	5489514.695	1363.1

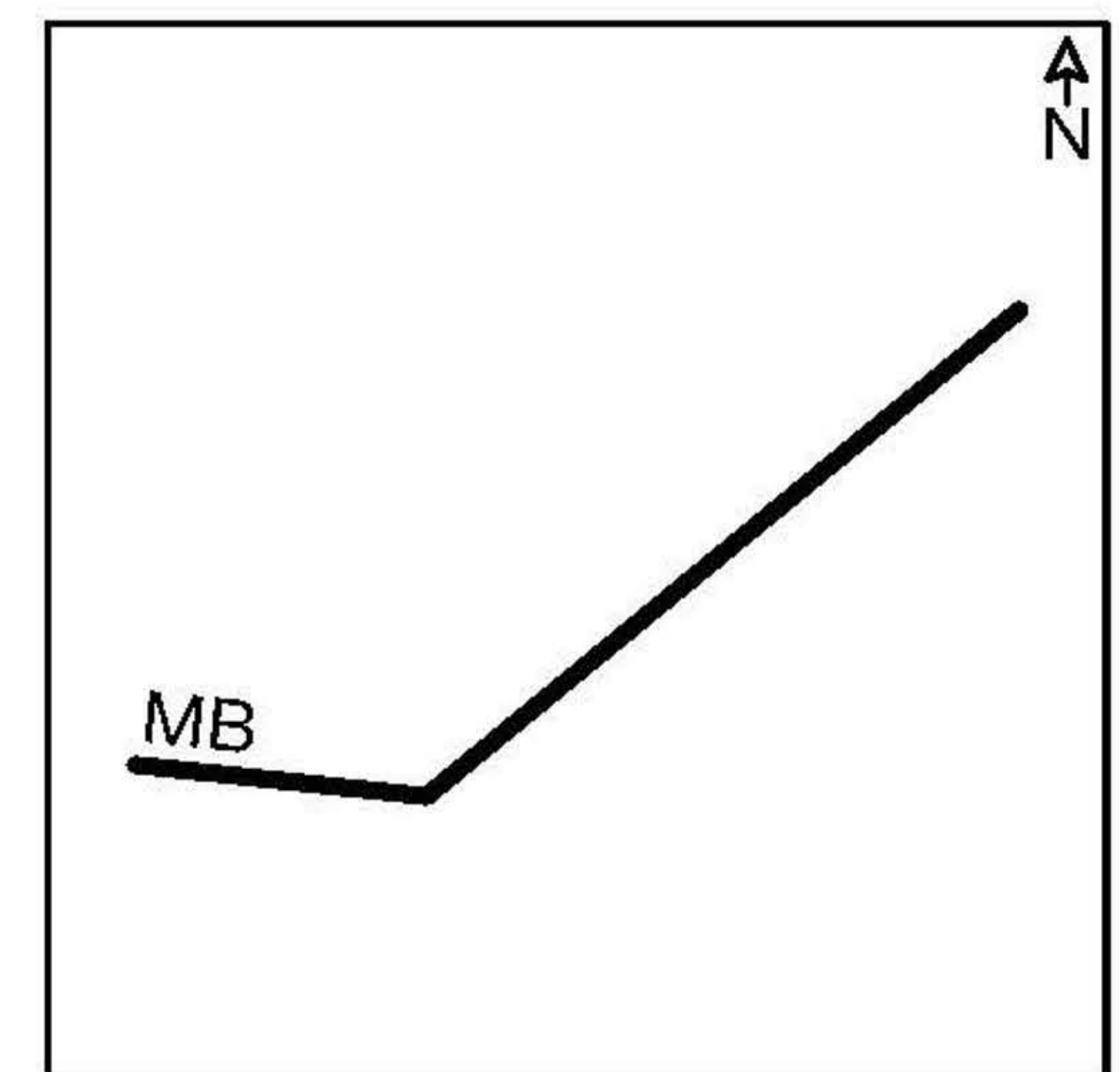
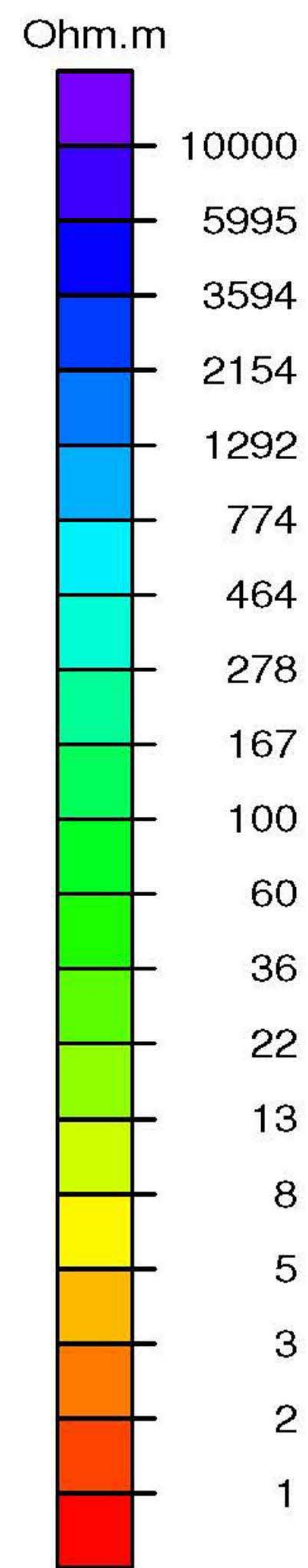
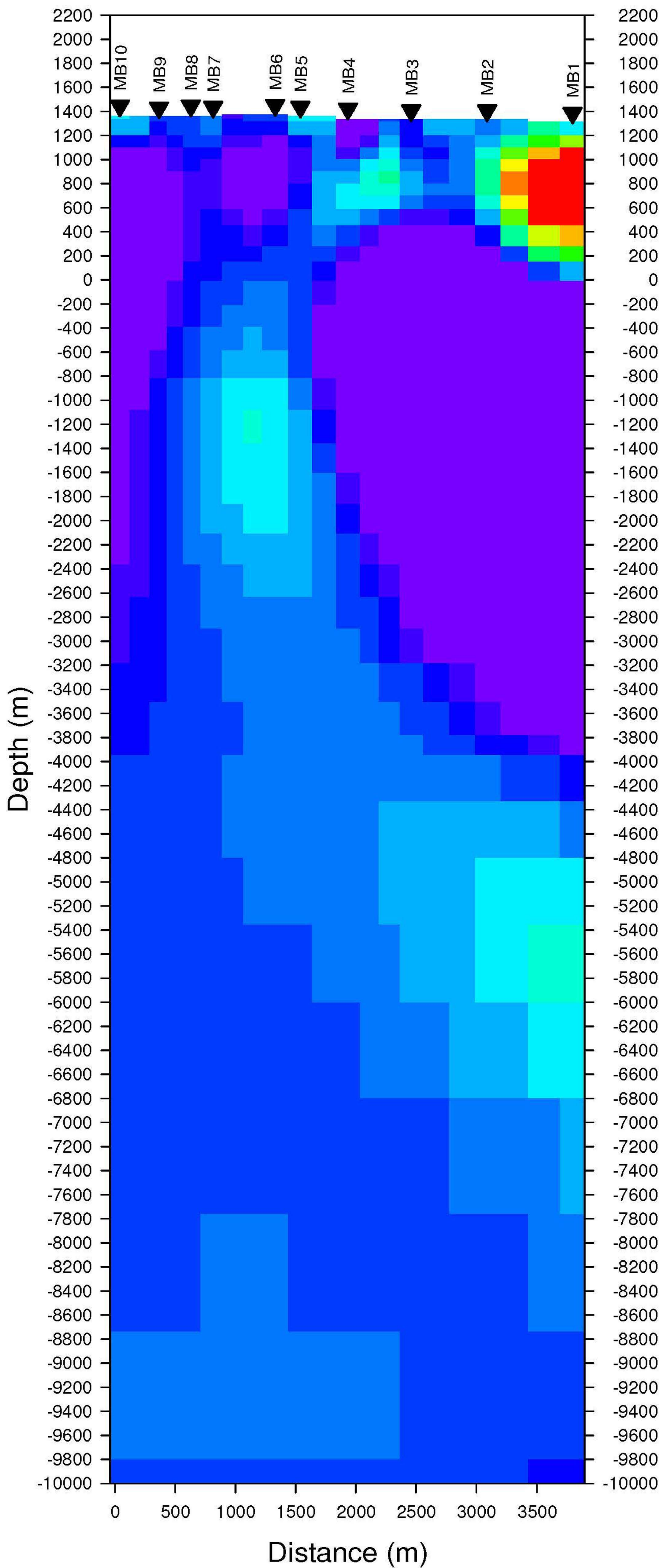
Appendix 2: Magnetotelluric Cross Sections, Scale 1:10000



*MB Inversion
Strike = 0*



*MB Inversion
Strike = -30*



MB Inversion
Strike = -30