

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)]:

TOTAL COST: \$53,373.67

AUTHOR(S): Konstantin Lesnikov

SIGNATURE(S): Konstantin Lesnikov

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): MX-8-271 / 2011/Dec/22

YEAR OF WORK: 2011

STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S): 5120828 / 2011/Nov/02

PROPERTY NAME: Island Copper East Block

CLAIM NAME(S) (on which the work was done): mo 1, mo 2, mo 3, mo 4, mo 5, mo 6, mo 7, mo 8, mo9, mo 10, mo 11, mo 12,
mo 15, mo 16

COMMODITIES SOUGHT: Cu, Au, Mo

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: 6757, 6660, 6664

MINING DIVISION: Nanaimo

NTS/BCGS: 092L/12

LATITUDE: 50 ° 40 ' 00 " LONGITUDE: 127 ° 55 ' 00 " (at centre of work)

OWNER(S):

1) Northisle Copper and Gold Inc.

2) _____

MAILING ADDRESS:

2050 - 1111 West Georgia St.

Vancouver, BC V6E 4M3

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

1) Northisle Copper and Gold Inc.

2) _____

MAILING ADDRESS:

2050 - 1111 West Georgia St

Vancouver, BC V6E 4M3

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

Island Copper, porphyry, Island Intrusion, Rupert Stock, Bonanza Volcanics, Parson Bay Formation, Karmutsen Formation,

Hushamu deposit, Red Dog, Pemberton Hills, NW EXPO

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: AR: 28389, 2659, 17368, 16510, 15884,

15707, 15367, 15024, 15077, 14393, 11460, 1681,

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	_____	_____	_____
Induced Polarization	21 line km	mo 1 to mo 12, mo 15, mo16	\$53,373.67
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	_____	_____	_____
		TOTAL COST:	\$53,373.67

NorthIsle Copper and Gold Inc.

**2011 INDUCED POLARIZATION SURVEY REPORT
RUPERT GRID
ISLAND COPPER EAST BLOCK**

Located in the Northern Vancouver Island Area
Nanaimo Mining Division
NTS 092L/12
50° 40' North Latitude
127 ° 55' West Longitude

-prepared by-

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NorthIsle Copper and Gold Inc.
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January, 2012

SUMMARY

In 2011 NorthIsle Copper and Gold Inc. conducted an Induced Polarization (IP) Survey at its Rupert Claim Block exploring for a possible porphyry type copper-gold-molybdenum mineralization.

Total of 21 line kilometers was surveyed. Survey was performed at the reconnaissance scale with widely spaced grid lines. Significant chargeability (IP) highs were detected in the western part of the Rupert Grid. These anomalies generally correspond to the known series of east-west trending porphyritic dykes apparently extending from the Rupert Stock which is located west of the property. Previous drilling of the porphyritic dyke swarm has intercepted relatively short intervals of copper and molybdenum mineralization and sporadic pyritization.

Results of 2010 survey confirm that IP survey as a method differentiates various geological units and their contacts on this property. IP survey inversions can be used to estimate overburden thickness.

Further infill IP survey is recommended for the area with increased chargeability responses.

The proximity of Island Copper Deposit – a historic producer located 3.8 km west of the Rupert property boundary – along with several other nearby deposits (e.g. Hushamu, Red Dog) still makes this property prospective.

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1.0 INTRODUCTION

This report details results of the 2011 exploration program performed on the Rupert Claim Block by NorthIsle Copper and Gold Inc. Rupert Claim Block is an E-W-trending group of mineral claims 20 km long and 5.5 km wide stretching from the east end of Rupert Inlet 20 km southeast of Port Hardy, British Columbia (Figure 1).

2011 exploration program consisted entirely of geophysical work. A total of 21 line km of the induced polarization survey were conducted by Scott Geophysics Ltd.

2.0 PROPERTY TITLE

The Rupert Property comprises 21 mineral claims staked in March and May 2005 by Moraga Resources Ltd (Table 1). The property area totals 9704 hectares and all claims are currently held by NorthIsle Copper and Gold Inc.

Tenure No	Tenure Name	Area (ha)	Issue Date	Expiry Date
509465	mo 1	492.27	2005/mar/23	2012/oct/07
509466	mo 2	492.52	2005/mar/23	2012/oct/07
509467	mo 3	492.26	2005/mar/23	2012/oct/07
509468	mo 4	492.52	2005/mar/23	2012/oct/07
509469	mo 5	492.26	2005/mar/23	2012/oct/07
509470	mo 6	492.51	2005/mar/23	2012/oct/07
509471	mo 7	492.26	2005/mar/23	2012/oct/07
509472	mo 8	492.52	2005/mar/23	2012/oct/07
509474	mo 9	492.26	2005/mar/23	2012/oct/07
509475	mo 10	492.52	2005/mar/23	2012/oct/07
509476	mo 11	492.26	2005/mar/23	2012/oct/07
509479	mo 12	492.52	2005/mar/23	2012/oct/07
509480	mo 13	492.25	2005/mar/23	2012/oct/07
509481	mo 14	492.52	2005/mar/23	2012/oct/07
509482	mo 15	492.24	2005/mar/23	2012/oct/07
509483	mo 16	492.51	2005/mar/23	2012/oct/07
509485	mo 17	492.23	2005/mar/23	2012/oct/07
509486	mo 18	492.51	2005/mar/23	2012/oct/07
509487	mo 19	492.37	2005/mar/23	2012/oct/07
512103	FILL 12	123.05	2005/may/05	2012/oct/07
513183	CONNECT01	225.53	2005/may/22	2012/oct/07
Total (ha)		9703.89		

Table 1: Rupert Claim Block Tenures



Figure 1: Property Location Map

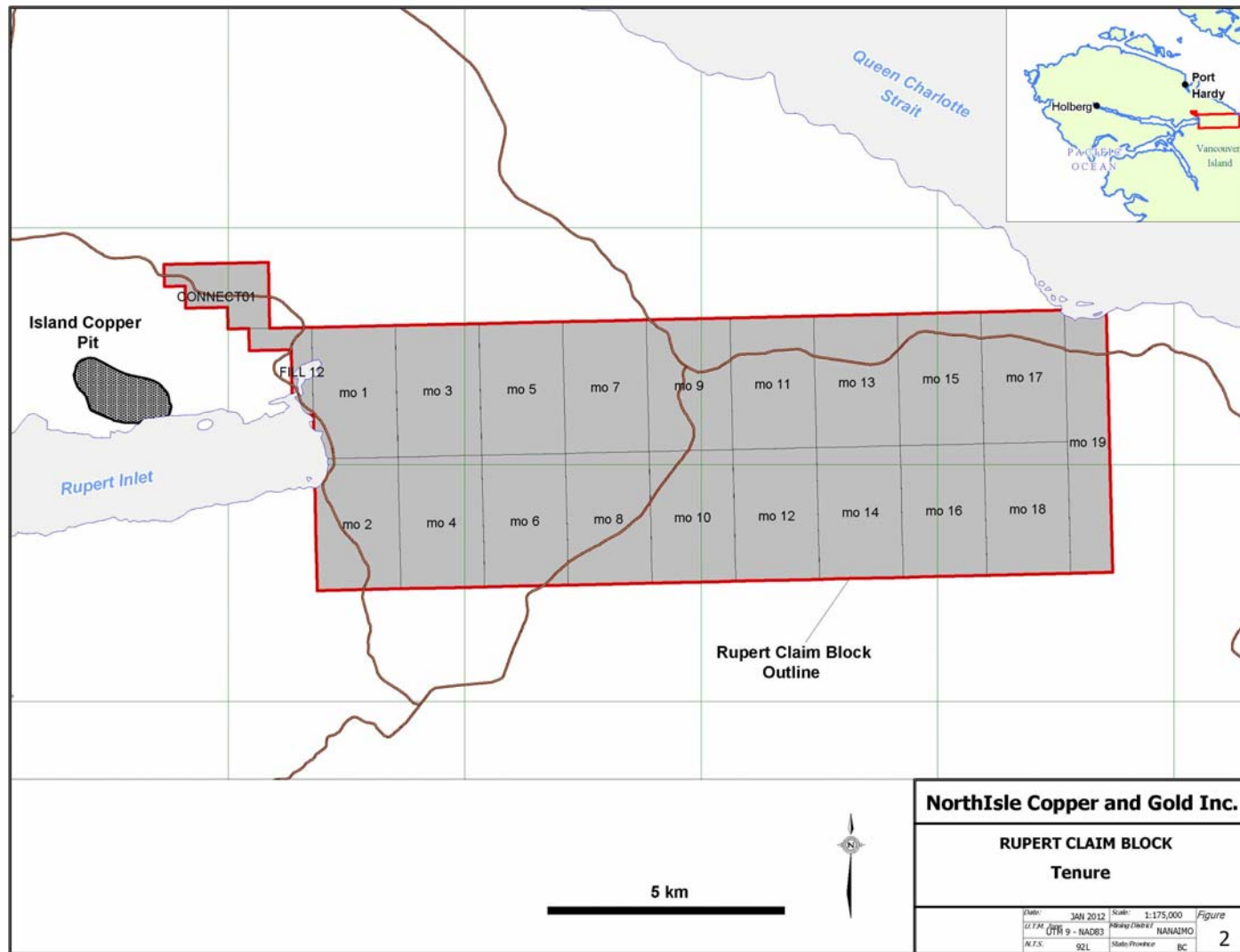


Figure 2: Tenure

3.0 LOCATION, ACCESS AND PHYSIOGRAPHY

The Rupert Claim Block is located in the northern Vancouver Island area, centred approximately at latitude 50° 40' and longitude 127° 55' and is covered by NTS map sheet 092L/12. Claim block extends from the tip of Rupert Inlet on the West to the Queen Charlotte Strait on the East.

Topography of the property is characterized by low, flat, till covered areas with very subtle relief. Elevations range from sea-level to 120 m.

Vegetation comprises a mix of second- and first-growth forest of fir, hemlock, spruce and cedar. Parts of the claim block are swampy. Logging has been active across the property for several decades so second growth areas are highly variable in terms of age, density and ease of access. Approximately 50% of the property area has been clear cut.

Climate is typical of coastal areas of British Columbia with an average annual rainfall in nearby Coal Harbour of 203 cm (Environment Canada online data). Monthly precipitation varies from a low of 4.7 cm in July, to a high of 32.7 cm in November. Temperatures are generally moderate at sea level with average daily minimum temperatures not lower than 0° at Coal Harbour.

An extensive network of radio controlled logging roads provides good access to most areas of the Rupert Claim Block. These roads exhibit a wide range of conditions, however, with the worst being completely impassable to vehicles. The Island Highway (Route 19) cuts through the eastern part of the property. Port Hardy is about 20 km drive to the North along this route.

4.0 PROPERTY EXPLORATION HISTORY

In 1962, the British Columbia Department of Mines and the Geological Survey of Canada jointly flew an airborne magnetic survey covering the northern part of Vancouver Island. This survey delineated a belt of north-westerly-trending magnetic highs north of Holberg and Rupert Inlets. Considerable exploration of these anomalies ensued, mostly focused on skarn-type iron deposits. During 1963 and 1964 several programs, mainly of stream sediment sampling, were conducted by numerous companies. No significant discoveries were made, however, and by 1965 very little interest was shown in the region (Muntanion and Witherley, 1982).

Things changed, however, with the discovery of the Island Copper Mine located 3.5 km west of the current Rupert Area boundary as described by Perelló et al. (1995). A local prospector named Gordon Melbourne staked a magnetic anomaly at Bay Lake near the eastern end of Rupert Inlet and in 1965 discovered chalcopyrite in float, then the bedrock source by trenching. Utah Construction and Mining Co. (Utah) optioned the property in January, 1966 and immediately began a program of mapping, soil sampling and ground geophysics, quickly followed by drill testing beginning in the spring of 1966. The discovery hole – the eighty-second of the program – was drilled in February, 1967 and intersected an 88 m interval grading 0.45% Cu. This was the first deep, follow-up hole drilled. This deposit was developed into the Island Copper Mine, with production beginning in October, 1971 and continuing until December, 1995. The mine

produced 345 million metric tonnes (t) of ore with average grades of 0.41% copper, 0.017% molybdenum, 0.19 g/t gold and 1.4 g/t silver (Perelló et al., 1995).

The Island Copper mine is located about four kilometers west of the Rupert Property. The property is almost entirely overburden-covered but was explored between the late 1960s and 2005.

Table 2 (Baker, 2006) summarizes all known exploration work carried out on the area comprising the Rupert Claim Block.

Program/Zones	Geochemistry	Geophysics	Drilling	Reference
1967–70 Ballinderry, Riviera Expo, Opex, Lorri	1210 soil samples	39.9 line-km IP, 56 line-km mag.		(Baird, 1970; Baird, 1968; Singhai, 1970b)
1974-1980 Utah East 86 Group			12 DDHs (R-01 to 12) for 1561.8m BQ; 545.6m NQ	(Kaiway, 1974; Lamb, 1976, 1977, 1980a, b)
Prior to 1982 Unknown			23 DDHs (C-31, C-98, C-99, C-312 to 314, C-330 to 333, BC-01, BC-03 to 14), at least 14 DDH prior to 1970	Location recorded on 1982 report map (Fleming et al. 1983), mentioned in (Singhai, 1970a)
1981 – 1982 Utah East 86 Group		124.8 line-km IP/Res., VLF-EM, and mag.		(Fleming et al., 1983)
1983 – 1984 Utah East 86 Group			4 DDHs (R-013 to 016) totalling 555.0m of NQ	(Clarke, 1986a; Fleming, 1983b; Holland and Fleming, 1984)
1985 Utah East 86 Group	1713 soils		1DDH R-017 totalling 169.5m of NQ	(Clarke, 1986a; Fleming, 1985a)
1986 Utah East 86 Group	2159 soils, select 1985 soils re-analyzed		1 DDH R-018 totalling 305m	(Clarke, 1986b, c; Fleming, 1986a, b, 1987; Fleming and Clarke, 1987)
1988 Utah East 86 Group	72 soils, 48 pit samples			(Fleming, 1988)
1993 Utah East 86 Group			3 DDHs (R-019 to 021) totalling 648.3m of NQ	(Fleming, 1993)
2005 Lumina Rupert Property	138 soil samples	Approx. 600 km DIGHEM V-DSP airborne EM/Res/Mag	8 DDHs (R-022 to R-029) totaling 1,108.7m of NQ	(Baker, 2006)
Totals	5292soils, 48 pit samples		52 DDHs total meterage unknown	

Table 2: Rupert Exploration History

4.1 Riviera Mines and Ballinderry Exploration 1967 to 1970

In 1967, Utah staked 661 claims along strike from the Island Copper deposit and named it the Expo Property after the World's Fair hosted in Montreal that year. This included a large portion of the western half of the current Rupert Property. Records of work done on claims by other companies during this time is incomplete likely due to selective filing for assessment credits.

In 1968 Riviera Mines Ltd. performed a 6.3 line-km IP survey on parts of the Expo and Har claim groups south of Rupert Inlet (Baird, 1968). Areas of weakly anomalous chargeability were delineated on the Expo claims.

In 1969 Ballinderry Exploration obtained parts of the Expo claim block and conducted a 33.6 line km IP survey, collected 1210 soil samples which were analysed for copper and completed a 56 line-km magnetometer survey (Baird, 1970; Singhai, 1970b). Two east-west trending steeply-dipping magnetic anomalies were identified and attributed to granite dykes with pyrrhotite, pyrite, and chalcopyrite mineralization.

4.2 Utah 1974 to 1984

By 1974 Utah had re-acquired and consolidated the Expo claims east of Rupert Inlet. Utah drilled five BQ diamond drill holes totalling 888.2m (holes R-001 to R-005) in the summer of 1974. The drilling was presumably to test previously identified geophysical and geochemical anomalies attributed to the Rupert Stock, although the intention is not stated (Kaiway, 1974). Six more holes were drilled between 1976 and 1980 (R-006 to R-012) totalling 545.6 m of NQ and 673.6 m of BQ. No mention of significant mineralization in any of the reports covering this period (Lamb, 1976, 1977, 1980a).

Exploration efforts were renewed in 1981 and a two year program of ground geophysical (IP / resistivity, mag., VLF-EM) and soil geochemical surveys was undertaken with 124.8 line-km of ground geophysics completed. Three geophysical trends were delineated (Clarke, 1983; Fleming et al., 1983):

- The Dyke Trend – originally known as anomalies 81-8, 81-9, 81-11, and 82-1, this group of east-west trending chargeability highs and associated magnetic highs has been attributed to porphyritic dykes extending eastward from the Rupert Stock.
- Quatsino Trend – Comprising chargeability anomalies 81-12 and 82-3, that are located near the inferred contact with Quatsino Limestone to the north and is interpreted to be related to skarn in the limestone. The anomaly is partially contained within the Rupert Property.
- M-1 Anomaly – A small, low-amplitude magnetic high in the southern part of the claim block.

Another trend called the Parson Bay Trend was identified but attributed to pyrite mineralization in Bonanza Group volcanic rocks and was ignored as an exploration target. Subsequent drilling

in 1983 and 1984 (DDHs R-013 to -016, totalling 555.0 m of NQ) tested the strike length of the Dyke Trend. All diamond drill holes confirmed the presence of the Rupert Stock-like intrusive rocks and holes R-014 and R-015 returned anomalous copper and molybdenum (30 feet of 0.12% Cu, 0.048% Mo and 10 feet of 0.10% Cu, 0.008% Mo, respectively).

4.3 Utah 1985 to 1993

Diamond drilling of the Dyke Trend chargeability anomalies continued in 1985 with one drill hole, R-017, on the far east of the anomaly (Clarke, 1986a). This intersected Parsons Bay Formation from top to bottom and so closed off the eastern extent of the Rupert Stock. The following year the M-1 lowamplitude magnetic anomaly was tested with diamond drill hole R-018 (Clarke, 1986b). The hole intersected magnetite alteration with higher than normal magnetic susceptibility (relative to other data from the same unit). The magnetite alteration was interpreted to be the cause of the M-1 anomaly.

Contemporaneous with the diamond drilling discussed above, a large soil geochemistry survey was undertaken around (Clarke, 1986c; Fleming, 1985a, b, 1986a, b). The survey consisted of 2559 samples with about every second sample being analyzed for copper, molybdenum, lead, zinc, gold, silver, arsenic, and manganese (2435 samples) and 30 element ICP (124 samples + unknown number rerun from 1985 survey). The geochemical survey returned weak anomalies across most of the area except for some anomalous values of Zn, Cu, Au, Mo, and As in the western portion of the survey centered on hole R-017. Further drilling was recommended.

In early 1988 a follow-up geochemical survey was performed taking 48 samples from shallow (0.3 to 1.0 m deep) pits and 72 line samples (Fleming, 1988). Samples from pits 15 and 16 returned anomalous values including 0.06% Mo, 0.13% Cu, 0.75% Zn and 1.1 g/t Au. Further trenching and drilling was recommended for this area. It was not until 1993 that the area would again see drilling. The drilling included a final three holes, one in each of the main areas of previous concern, the far-east anomaly (R-019), the M-1 anomaly (R-020), and the Rupert Stock in the northwest of the property (R-021) (Fleming, 1993). All three holes resulted in low geochemical values and no further drilling was recommended.

4.4 Lumina Resources, 2005 Exploration Program

Lumina Resources Corp. 2005 exploration program included geophysical survey, soil geochemistry survey and drilling. In May 2005 a helicopter borne DIGHEM electromagnetic/resistivity/magnetic survey was performed. Approximately 600 line km were flown. Line separation was 200m and lines were flown north-south. Based on magnetic and resistivity patterns (Klein, 2005a) a porphyry copper-gold target was identified.

Since no outcrop data was attainable, 138 soil samples were collected across the geophysical target area along north-south oriented grid lines. A selective leach method (digestion in a hot hydroxylamine hydrochloride) was used to dissolve amorphous hydrous iron oxide which can be

an effective scavenger of mobile metal ions. Samples were analyzed for 63 elements via ICPMS.

Subsequently, eight NQ drill holes (R-022 to R-029) were drilled within the main target area for 1108.7 metres. There was no significant mineralization in 2005 drill holes, only indications of a large hydrothermal alteration system in several holes. The east-west trending dyke system intersected by BHP was not encountered in 2005 drilling.

5.0 REGIONAL GEOLOGY

The most recent description of the regional geology of the Rupert area is given by Nixon et al. (2006) and the following summary is taken predominantly from Nixon's paper and references therein. Figure 3 shows the bedrock geology of northern Vancouver Island.

Vancouver Island is comprised of Upper Paleozoic to Lower Mesozoic rocks of Wrangellia – a tectonostratigraphic terrane that occurs discontinuously northward as far as central Alaska. This terrane was amalgamated to the Alexander Terrane of the Alaskan Panhandle (together comprising the Insular Superterrane) by Late Carboniferous time. Subsequently, these terranes were accreted to North America between the Middle Jurassic and the mid-Cretaceous. Thus, Vancouver Island records an early allochthonous history, and a later history with commonality to the North American margin.

The pre-accretion history of Wrangellia is represented by the Paleozoic Sicker Group and the Middle Triassic Karmutsen Formation. The Sicker Group comprises marine Devonian to Early Permian volcanic and sedimentary rocks that host VMS deposits such as at Myra Falls. The Karmutsen conformably overlies the Sicker Group and comprises basaltic and minor sedimentary rocks that underlie about 50% of Vancouver Island. This unit is up to 6000 m thick. Richards et al. (1991) argued that the Karmutsen was initiated by, and extruded above a mantle plume and recent geochemical data support an oceanic plateau origin for the Karmutsen (Greene et al., 2006). The Karmutsen is in turn conformably overlain by the Quatsino Formation of limestone consistent with a period of quietude following impingement of a mantle plume.

The Bonanza Arc (DeBari et al., 1999) formed along the length of Vancouver Island during accretion of Wrangellia. Owing to later tiling, products of this arc from various crustal depths are all preserved. These include the Westcoast Crystalline Complex, Island Intrusions and the Bonanza Group volcanic rocks. DeBari et al. (1999) argue that all these components have similar ages and geochemical signatures and that they are therefore all products of a single arc. Ages for these rocks range from ca 190 to 169 Ma. Stockic rocks of the Island Intrusions are responsible for porphyry copper mineralization on Vancouver Island.

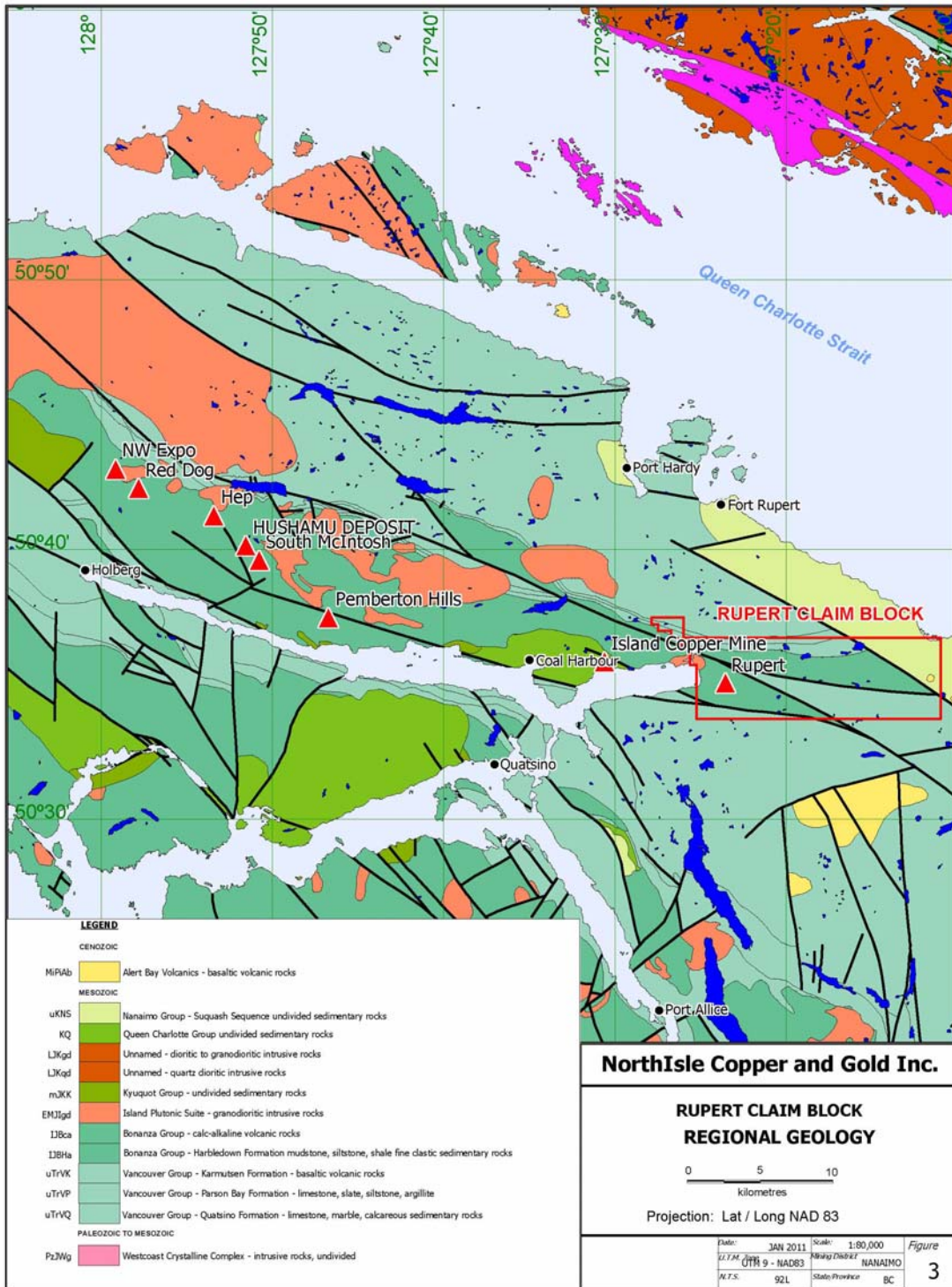


Figure 3: Regional Geology

6.0 PROPERTY GEOLOGY

6.1 Lithology

The following geological description of the Rupert Property is summarized from a compilation map by (Fleming, 1983a) and from the map by (Nixon et al., 2000). The property is underlain by a generally southward-younging sequence of east - west-trending upper Triassic to middle Jurassic volcanic and lesser sedimentary rocks belonging to the Vancouver and Bonanza Groups (Figure 4). Table 3 summarizes the characteristics of these rock units. The northern part of the property is underlain by mafic volcanic rocks of the Karmutsen Formation. These thickly bedded to massive flows form the topographically highest points in this part of Vancouver Island.

Immediately to the south, the Karmutsen is conformably overlain by the Quatsino Formation of fine-grained (micritic), massive to weakly bedded grey limestone. In this area, the Quatsino Formation is approximately 100-200 m thick. Lying above the Quatsino Formation is the Parson Bay Formation comprising thinly-bedded siltstone and mudstone on the Rupert Property.

Most of the core of the Rupert Property is underlain by “Bonanza” volcanic rocks that occur above the Parson Bay rocks. These generally comprise a monotonous sequence of massive andesitic volcanic rocks but in drill core local well-bedded tuffaceous units were encountered. Owing to displacement across the Rupert Fault, the Karmutsen is also exposed along the southern part of the property.

The northeast corner of the property is underlain by a fault-bound, unconformably overlying clastic wedge of Upper Cretaceous sedimentary rocks correlative to the Nanaimo Group.

The core of the property is intruded by a series of east-west dykes interpreted to be apophyses emplaced eastward from the Rupert Stock. This granodiorite body crops out at the northeast corner of Rupert Inlet, immediately east of the Island Copper Mine. The Rupert Stock is part of the Jurassic Island Stockic suite responsible for porphyry Cu-Au-Mo mineralization at Island Copper.

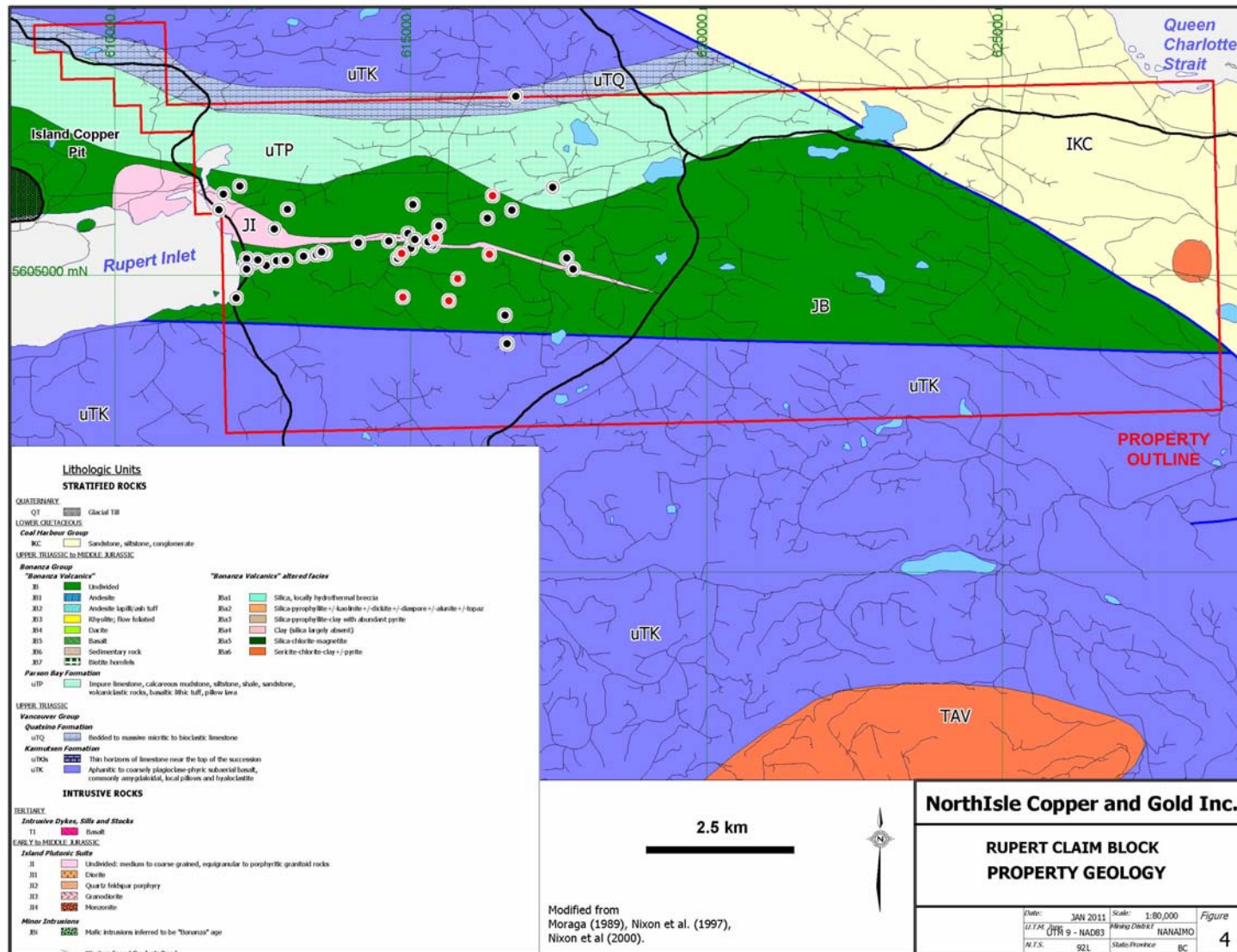


Figure 4: Property Geology

Table 3: Rupert Lithologic Units

STRATIFIED ROCKS:

QUATERNARY

QT gravel, boulder till, local mud-rich laminated till

UPPER CRETACEOUS

Nanaimo Group

uKN Sandstone, siltstone, conglomerate, minor coal

UPPER TRIASSIC to MIDDLE JURASSIC

Bonanza Group

“Bonanza Volcanics”

JB Undivided volcanic rock

JB1 Andesite: green, variably massive / coherent facies, feldspar-phyric, hyaloclastite breccia common

JB2 Andesite lapilli and/or ash tuff: green, volcaniclastic facies comprising angular to rounded coarse ash to block-sized fragments, locally fine-grained ash size, local charred wood fragments

JB3 Rhyolite: coherent and volcaniclastic facies

JB4 Dacite

JB5 Basalt

JB6 Sedimentary rocks: undivided

JB7 Hornfels, biotite-rich contact metamorphosed Bonanza volcanic rocks

Parson Bay Formation

uTP Impure limestone, calcareous mudstone, siltstone, shale, sandstone, volcaniclastic rocks, basaltic lithic tuff, pillow lava

UPPER TRIASSIC

Vancouver Group

Quatsino Formation

uTQ Bedded to massive micritic to bioclastic limestone

Karmutsen Formation

uTKls thin limestone horizons near top of succession

uTK Aphanitic to coarsely plagioclase-phyric subaerial basalt, commonly amygdaloidal, local pillows and hyaloclastite breccia

INTRUSIVE ROCKS:

TERTIARY

Intrusive dykes, sills and stocks

TI Basalt, medium-grained weakly to unaltered with chilled margins

EARLY TO MIDDLE JURASSIC

Island Stockic Suite

J1 Undivided: medium to coarse-grained, equigranular to porphyritic granitoid rocks

J11 Diorite

J12 Quartz-feldspar porphyry

J13 Granodiorite

J14 Monzonite

Minor Intrusions

JB1 Mafic intrusions inferred to be “Bonanza” age

6.2 Structure

The layered units underlying the Rupert Property generally dip gently to steeply southward, although bedding orientation data are very rare. Deformation of the area has been described by Nixon et al. (1994) and is summarized below.

Phase 1: Post-Early Jurassic to Pre-Cretaceous Deformation

The first deformational event is related to an east-northeast directed compressional event that resulted in regional tilting of the Lower Jurassic and older strata to form the Victoria arch. In addition flexural slip folding and the development of northwesterly trending thrust faults occurred during this deformation event. Northeast directed compression is indicated by the presence of locally well developed, northwesterly striking, stylolitic cleavage in the Quatsino limestone.

Phase 2: Post-Mid to Pre-Late Cretaceous Deformation:

The second deformational event postdates deposition of the mid-Cretaceous Coal Harbour Group sediments and may predate deposition of the Upper Cretaceous Nanaimo Group. Northerly directed compression resulted in an episode of intense strike-slip faulting and lesser thrusting. Faults formed during this deformation event are dominantly northwesterly trending structures that have in many cases produced significant drag folding in adjacent strata where the units are well bedded. The most obvious northwesterly trending faults are high-angle dextral strike slip faults with a south-side up sense of motion. It is the presence of this generation of faults that cause most of the stratigraphic repetitions that occur in the map area.

The Holberg fault is a curvilinear south-side up thrust fault that formed during this second deformational event in response to northward directed stresses. This important structure places Upper Triassic strata on the south side of Holberg Inlet adjacent to mid-Cretaceous and older strata on the north side of the inlet. The most convincing kinematic indicator for movement on

the Holberg fault is the presence of many northerly verging, gently plunging drag folds in the footwall. Minor coaxial thrust faults and a well-developed stylolitic cleavage in limestones in the footwall also demonstrate this sense of motion. Some of the major NW trending dextral strike-slip faults in the area are splays off the Holberg fault.

Phase 3: Tertiary Deformation

The third deformational event in the area is characterized by northwesterly to north-northwesterly directed extension that postdates the deposition of the Upper Cretaceous Nanaimo Group sediments. This phase of deformation is represented by minor north-easterly to east north-easterly striking normal faults that affect Upper Cretaceous and older strata. Northeast striking Tertiary dikes intruded during this final phase of deformation.

6.3 Mineralization and Alteration

No significant mineralization was observed on the Rupert Property. Owing to low topographic relief and thick glacial till very few outcrop exposures are present. Cu / Mo mineralization, disseminated pyrite and hydrothermal alteration were observed in core only.

7.0 2011 EXPLORATION PROGRAM

2011 Exploration program consisted entirely of the geophysical IP survey. The survey was reconnaissance in scale; designed to target a possible porphyry type copper-gold-molybdenum mineralization east of the Island Copper deposit.

In June 2011 eleven cut-lines were prepared by a 3-man line-cutting crew contracted from Durfeld Geological Services. Each cut-line was 2km long. Spacing between lines was 960m, except between the two easternmost lines spaced at 2,710m. IP survey stations were marked every 100m with pickets and metal tags with station coordinates.

Geophysical survey was performed by Scott Geophysics Ltd. field crew within the periods September 30 to October 8 and October 11 to October 18, 2011.

Survey results were digitally processed by Condor Consulting Inc. which produced a set of 11 2D inversions.

7.1. Survey Coverage and Procedures

A total of 21 line km of IP survey was performed on the Rupert Grid. The lines were widely spaced, namely 1000m intervals for lines 13000E to 22000E, and 2700m for line 24700E. Their location is shown on the accompanying plan maps. The UTM coordinates were derived from a GPS survey performed concurrently with the IP. The pole dipole array was used for the IP

survey with an “a” spacing of 100 metres and at “n” separations of 1, 2, 3, 4, 5, and 6. The online current electrode was located to north of the potential electrodes on all survey lines.

7.2. Personnel

Lise Gagnon was the crew chief on the survey on behalf of Scott Geophysics Ltd. Konstantin Lesnikov was the representative on behalf of NorthIsle Copper and Gold Inc.

7.3. Instrumentation

A GDD Grx8 receiver and two GDD TxII transmitters were used for the IP survey. Readings were taken in the time domain using a 2 second on/2 second off alternating square wave. The chargeability values plotted on the accompanying pseudosections and plan map is for the interval 690 to 1050 msec after shutoff (mid point 870 msec). Subject to adequate signal, GPS readings were taken at all electrode locations using a Garmin 60CSx GPS receiver and altimeter. The UTM datum is WGS84 zone 9U.

8.0 DISCUSSION OF RESULTS

The IP survey was performed at a reconnaissance scale. Significant chargeability (IP) highs were detected on the survey, which for the purposes of this report are defined as greater than 10 milliVolts/Volt (mV/V). The main IP highs detected on the survey are briefly summarized below:

Line 13000E:

A broad IP high from 5150E-5850E with a peak value of 36 mV/V at approx. 5400E.

Line 14000E:

IP highs from 5250E-5500E (peak value of 23 mV/V at approx. 5400E) and from 5900E to the north end of the line (peak value of 20 mV/V at approx. 6150E at the second separation).

Line 15000E:

IP highs from 5250E-5550E (peak value of 25 mV/V at approx. 5400E) and from 6000E to the north end of the line (peak value of 20 mV/V at the end of the line).

Line 16000E:

IP high at the further separations from 5900E to the north end of the line.

Line 17000E:

IP high at further separations from 5000E-5300E (peak value of 12.5 mV/V at third separation at approx. 5150E) and from 5700E to 6250E (peak value of 25 mV/V at approx. 5900E).

Line 18000E:

IP high from 4900E-5150E (+ 15 mV/V at further separations) and from 5350E to 6000E (+ 20 mV/V at north end, furthest separations).

Line 19000E:

IP high from 5200E-5550E (+ 25 mV/V at approx. 5400E).

No IP highs that could be considered as significant at this time were detected on lines 20000E, 21000E, 22000E, or 24700E.

9.0 RECOMMENDATIONS

Significant chargeability (IP) highs were detected on the Rupert Grid survey. Subject to a geological review, the following additional geophysical work is recommended:

Inversion of the data to better define locations and to facilitate correlation to other data sets, such as geology or geochemistry.

Fill in survey to an interline spacing of 500m from lines 13000E to 20000E. Those fill in lines, and existing lines 13000E to 19000E, should be extended 500m to the north, or as necessary to define the extent of IP highs detected at the end of the lines.

10.0 CONCLUSIONS

The purpose of 2011 IP survey was to detect a porphyry style mineralization east of the Island Copper deposit. Given that several showings and deposits occur within the belt westward from Island Copper, it is reasonable that similar systems are also present to the east within the same belt or rocks. This area, however, is difficult to explore: topography is subdued and overburden is typically quite thick. This precludes using basic techniques such as mapping or standard soil analyses to obtain reliable data sets. Thick and conductive overburden also complicates interpretation of IP survey results. Presence of a conductive upper layer has a tendency to mask or alter characteristics of the bedrock.

2011 IP survey has detected several anomalies with chargeability greater than 10 milliVolts/Volt (mV/V). Anomalies are detected in the western part of the survey grid, ie there are no significant chargeability highs east of the survey line 19000E. Chargeability anomalies create an east-west oriented trend over six km long. This chargeability anomaly is open to the west towards the Rupert Stock and to the north in lines 14000E, 15000E and 16000E. A set of chargeability anomalies in lines 14000E, 15000E, 17000E and 18000E form another east-west trend about 400 meters to the South of the trend described above. This trend roughly coincides with the porphyritic dyke intersected in several historic drill holes. Mineralized holes R-14 is close to the southern anomaly detected in survey line 15000E while mineralized hole R-19 is in the vicinity of the southern anomaly detected in the survey line 18000E.

To further test continuity and extent of chargeability anomalies, an infill IP survey was proposed. Proposed infill survey lines will be half way between the existing lines. Proposed survey lines would be extended to the north to test extent of anomalies established in lines 14000E, 15000E and 16000E. Proposed survey will total between 10 and 15 line km.

Appendix A: Bibliography

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Appendix B: Statement of Expenditures

STATEMENT OF EXPENDITURES*

Rupert Claim Block

Archaeological Survey: May 24-28, June 21

SOURCES ARCHAEOLOGICAL AND HERITAGE RESEARCH INC.

Field Director K. Richards

May 24-28	Field	34.75 hours @ \$77.50	\$2,693.13
May 24-28	Travel	9.88 hours @ \$50.00	\$493.75
June 21	Field	5 hours @ \$77..50	\$387.50
June 21	Travel	4.9 hours @ \$50.00	\$244.50

Field Assistant B. Evans

May 24-28	Field	35.75hours @ \$65.00	\$2,323.75
May 24-28	Travel	10 hours @ \$40.00	\$400.00

Field Assistant A.Finkelstein

June 21	Field	5 hours @ \$45.00	\$225.00
June 21	Travel	5 hours @ \$40.00	\$200.00

First Nation Field Assistant M. Wallas

May 24-28	Field	30.63 hours @ \$45.00	\$1,378.13
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First Nation Field Assistant C. Wilson

May 24-28	Field	18.25 hours @ \$45.00	\$821.25
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First Nation Field Assistant R. Nelson

May 24-28	Field	9.13 hours @ \$45.00	\$354.38
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First Nation Field Assistant F. Williams

June 21	Field	4 hours @ \$45.00	\$180.00
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Expenses:

Mgmt/Reports	\$2,687.10
Accomodation	\$1,114.88
Food	\$525.00
Transportation	\$970.27
Contingency 2.5% of fees	\$309.72

ARND BURGERT CONSULTING, LTD

Arnd Bourgert, Geologist

May 24-28	Field	4 days @ \$670.00	\$3,350
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Expenses:

Meals	\$97.94
Supplies	\$37.10
Transportation	\$130.36
Travel	\$312.31

Total charges:

\$19,236.07

Northisle Copper and Gold Inc.

Geophysical Survey: Sept 30 – Oct 17, 2011
SCOTT GEOPHYSICS LTD.

Fixed fee (9.1): \$600.00

Crew Chief (Lise Gagnon), Technician (Jan Hansen), Equipment:

Sept 30, Oct 18	travel	2 travel days @ \$990	\$1,980.00
Oct 08	IP survey	0.5 survey day @ \$1,540	\$770.00
Oct 1-7, 11-17	IP survey	14 survey days @ \$1,450	\$21,560.00

Expenses (9.4):

Ferry			\$380.05
Fuel			\$806.39
Groceries			\$1,622.21
Internet			\$37.44
Lodging			\$3,144.68
Meals			\$2,307.56
Vehicle			\$825.00
10% overhead on expenses			\$912.33
4x4 crew cab Sept 30-Oct 8, 11-18	16.5 days @ \$130		\$2,145.00

Assistants (9.5):

David Overmers: Sept 30-Oct 8, 11-18	16.5 days @ \$250/day	\$4,125.00
Dustin Overmers: Sept 30-Oct 8, 11-18	16.5 days @ \$250/day	\$4,125.00
Brittany Bayne: Sept 30-Oct 8, 11-18	16.5 days @ \$250/day	\$4,125.00

Credit towards mob/demob crew/expenses Vancouver (charged to Project)(-\$1,140.00)

Total charges: **\$48,325.66**

Digital data processing:

CONDOR CONSULTING INC.

Consulting	2 days @ US\$1100/day	US\$2,200.00
2D Inversions	11 inversions @ US\$250/each	US\$2,750.00

Total charges: US\$4,950.00

US\$ exchange rate for October 1.0198 CAD **\$5,048.01**

Total applied towards assessment \$72,609.74

*HST excluded

Appendix C: Geologist's Certificates

CERTIFICATE

I, Konstantin Lesnikov, residing at 5065 Maitland Street, Burnaby, B.C., do hereby certify that:

1. I graduated from the Faculty of Mining and Geology at the University of Belgrade, Yugoslavia in 1991 with a B.Sc. degree in Petrology and Geochemistry.
2. From 1997 to present, I have been working for Canadian mining companies as a mineral exploration geologist. I have been actively involved in mineral exploration in Peru, Yukon Territory and British Columbia.
3. Since March 2007 I have been employed as a geologist with Western Copper Corporation and I am currently employed by NorthIsle Copper and Gold Resources .
4. I have participated in planning and supervising the work described in this report.

Signed this 27th day of January, 2012



Konstantin Lesnikov

GEOPHYSICAL REPORT
INDUCED POLARIZATION SURVEY
RUPERT GRID, EAST BLOCK
ISLAND COPPER PROJECT, COAL HARBOUR AREA, B.C.

on behalf of

WESTERN COPPER CORP.
Suite 2050 – 1111 West Georgia Street
Vancouver, B.C. V6E 4M3

Surveys performed: September 30 to October 8 and October 11 to 18, 2011

by

Alan Scott, Geophysicist
SCOTT GEOPHYSICS LTD.
4013 West 14th Avenue
Vancouver, B.C. V6R 2X3

January 19, 2012

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2. Survey Coverage and Procedures	1
3. Personnel	1
4. Instrumentation	1
5. Discussion of Results	2
6. Recommendations	3

Appendix

Statement of Qualifications	rear of report
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Accompanying Maps (1:10000 scale)

Chargeability/Resistivity Pseudosections

Lines 13000E, 14000E, 15000E, 16000E, and 17000E

Lines 18000E, 19000E, 20000E, 21000E, and 22000E

Line 24700E

Chargeability Contour Plan – Triangular Filtered Values – UTM coordinates

Resistivity Contour Plan – Triangular Filtered Values – UTM coordinates

Accompanying Data Files

One (1) compact disk with all survey data and maps

1. INTRODUCTION

An Induced Polarization (IP) survey was performed at the Rupert Grid, East Block, Island Copper Project, Coal Harbour Area, B.C., within the periods September 30 to October 8 and October 11-18, 2011.

The surveys were performed by Scott Geophysics Ltd. on behalf of Western Copper Corp. This report describes the instrumentation and procedures, presents the results of the surveys, and makes recommendations regarding further work.

2. SURVEY COVERAGE AND PROCEDURES

A total of 21 line km of IP survey was performed on the Rupert Grid. The lines were widely spaced, namely 1000m intervals for lines 13000E to 22000E, and 2700m for line 24700E. Their location is shown on the accompanying plan maps. The UTM coordinates were derived from a GPS survey performed concurrently with the IP.

The pole dipole array was used for the IP survey with an “a” spacing of 100 metres and at “n” separations of 1, 2, 3, 4, 5, and 6. The online current electrode was located to north of the potential electrodes on all survey lines.

3. PERSONNEL

Lise Gagnon was the crew chief on the survey on behalf of Scott Geophysics Ltd. Konstantin Lesnikov was the representative on behalf of Western Copper Corp.

4. INSTRUMENTATION

A GDD Grx8 receiver and two GDD TxII transmitters were used for the IP survey. Readings were taken in the time domain using a 2 second on/2 second off alternating square wave. The chargeability values plotted on the accompanying pseudosections and plan map is for the interval 690 to 1050 msec after shutoff (mid point 870 msec).

Subject to adequate signal, GPS readings were taken at all electrode locations using a Garmin 60CSx GPS receiver and altimeter. The UTM datum is WGS84 zone 9U.

5. DISCUSSION OF RESULTS

The IP survey was performed at a reconnaissance scale. Significant chargeability (IP) highs were detected on the survey, which for the purposes of this report are defined as greater than 10 milliVolts/Volt (mV/V). The main IP highs detected on the survey are briefly summarized below:

Line 13000E:

A broad IP high from 5150E-5850E with a peak value of 36 mV/V at approx. 5400E.

Line 14000E:

IP highs from 5250E-5500E (peak value of 23 mV/V at approx. 5400E) and from 5900E to the north end of the line (peak value of 20 mV/V at approx. 6150E at the second separation).

Line 15000E:

IP highs from 5250E-5550E (peak value of 25 mV/V at approx. 5400E) and from 6000E to the north end of the line (peak value of 20 mV/V at the end of the line).

Line 16000E:

IP high at the further separations from 5900E to the north end of the line.

Line 17000E:

IP high at further separations from 5000E-5300E (peak value of 12.5 mV/V at third separation at approx. 5150E) and from 5700E to 6250E (peak value of 25 mV/V at approx. 5900E).

Line 18000E:

IP high from 4900E-5150E (+ 15 mV/V at further separations) and from 5350E to 6000E (+ 20 mV/V at north end, furthest separations).

Line 19000E:

IP high from 5200E-5550E (+ 25 mV/V at approx. 5400E).

No IP highs that could be considered as significant at this time were detected on lines 20000E, 21000E, 22000E, or 24700E.

6. RECOMMENDATIONS

Significant chargeability (IP) highs were detected on the Rupert Grid survey. Subject to a geological review, the following additional geophysical work is recommended.

Inversion of the data to better define locations and to facilitate correlation to other data sets, such as geology or geochemistry.

Fill in survey to an interline spacing of 500m from lines 13000E to 20000E. Those fill in lines, and existing lines 13000E to 19000E, should be extended 500m to the north, or as necessary to define the extent of IP highs detected at the end of the lines.

Respectfully Submitted,

A handwritten signature in blue ink, appearing to read "Alan Scott", written in a cursive style.

Alan Scott, Geophysicist

Statement of Qualifications

for

Alan Scott, Geophysicist

of

4013 West 14th Avenue
Vancouver, B.C. V6R 2X3

I hereby certify the following statements regarding my qualifications and involvement in the program of work on behalf of Western Mines Corp., at the Rupert Grid, Island Copper Project, Coal Harbour Area, B.C., and as presented in this report of January 19, 2012.

The work was performed by individuals qualified for its performance.

I have no material interest in the property under consideration in this report.

I graduated from the University of British Columbia with a Bachelor of Science degree (Geophysics) in 1970 and with a Master of Business Administration in 1982.

I am a member of the Association of Professional Engineers and Geoscientists of the Province of British Columbia.

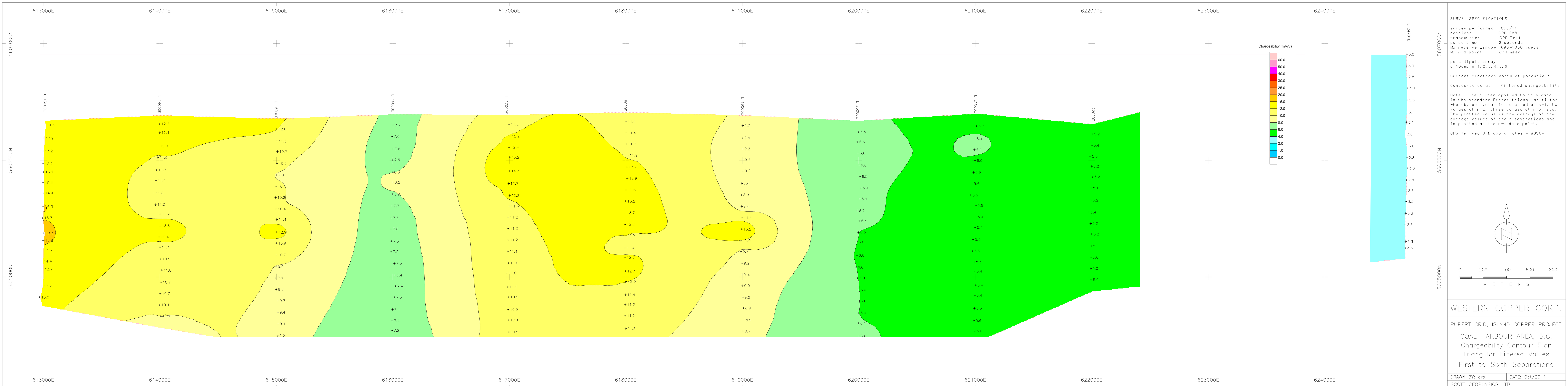
I have been practicing my profession as a Geophysicist in the field of Mineral Exploration since 1970.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'Alan Scott', with a stylized flourish at the end.

Alan Scott, P.Geol.

Appendix D: Chargeability and Apparent Resistivity Contour Plans

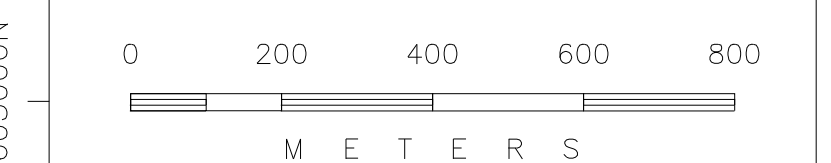
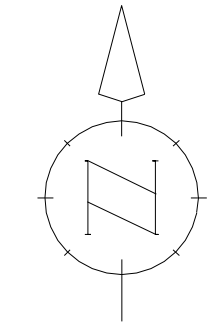


SURVEY SPECIFICATIONS
 survey performed Oct/11
 receiver GDD Rx8
 transmitter GDD Tx11
 pulse time 2 seconds
 Mx receive window 690-1050 msec
 Mx mid point 870 msec

pole dipole array
 a=100m, n=1, 2, 3, 4, 5, 6
 Current electrode north of potentials
 Contoured value Filtered chargeability

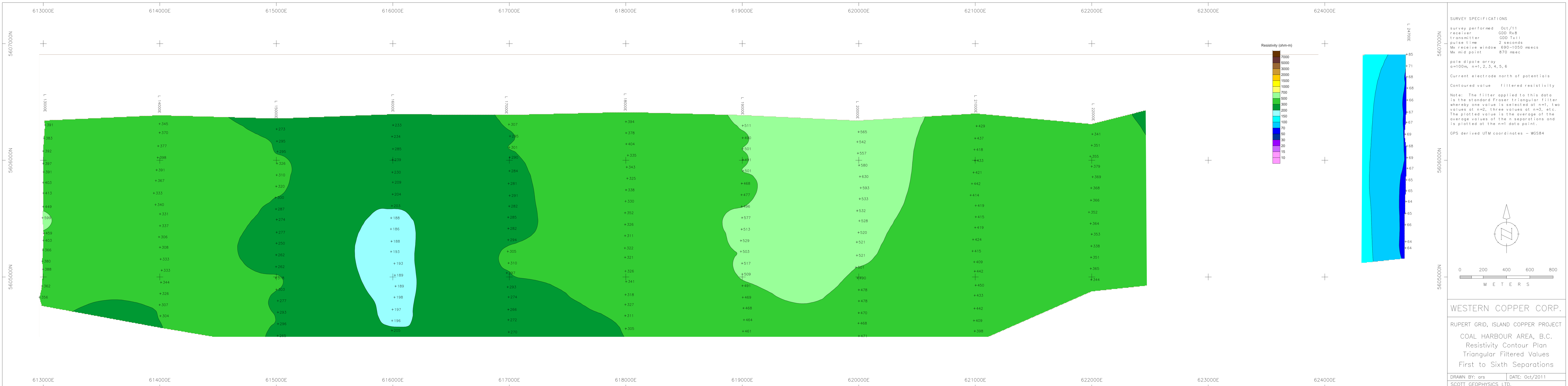
Note: The filter applied to this data is the standard Fraser triangular filter whereby one value is selected at n=1, two values at n=2, three values at n=3, etc. The plotted value is the average of the average values of the n separations and is plotted at the n=1 data point.

GPS derived UTM coordinates - WGS84



WESTERN COPPER CORP.
 RUPERT GRID, ISLAND COPPER PROJECT
 COAL HARBOUR AREA, B.C.
 Chargeability Contour Plan
 Triangular Filtered Values
 First to Sixth Separations

DRAWN BY: ars DATE: Oct/2011
 SCOTT GEOPHYSICS LTD.



SURVEY SPECIFICATIONS
 survey performed Oct/11
 receiver GDD Rx8
 transmitter GDD Tx11
 pulse time 2 seconds
 Mx receive window 690-1050 msec
 Mx mid point 870 msec

pole dipole array
 a=100m, n=1, 2, 3, 4, 5, 6
 Current electrode north of potentials
 Contoured value filtered resistivity

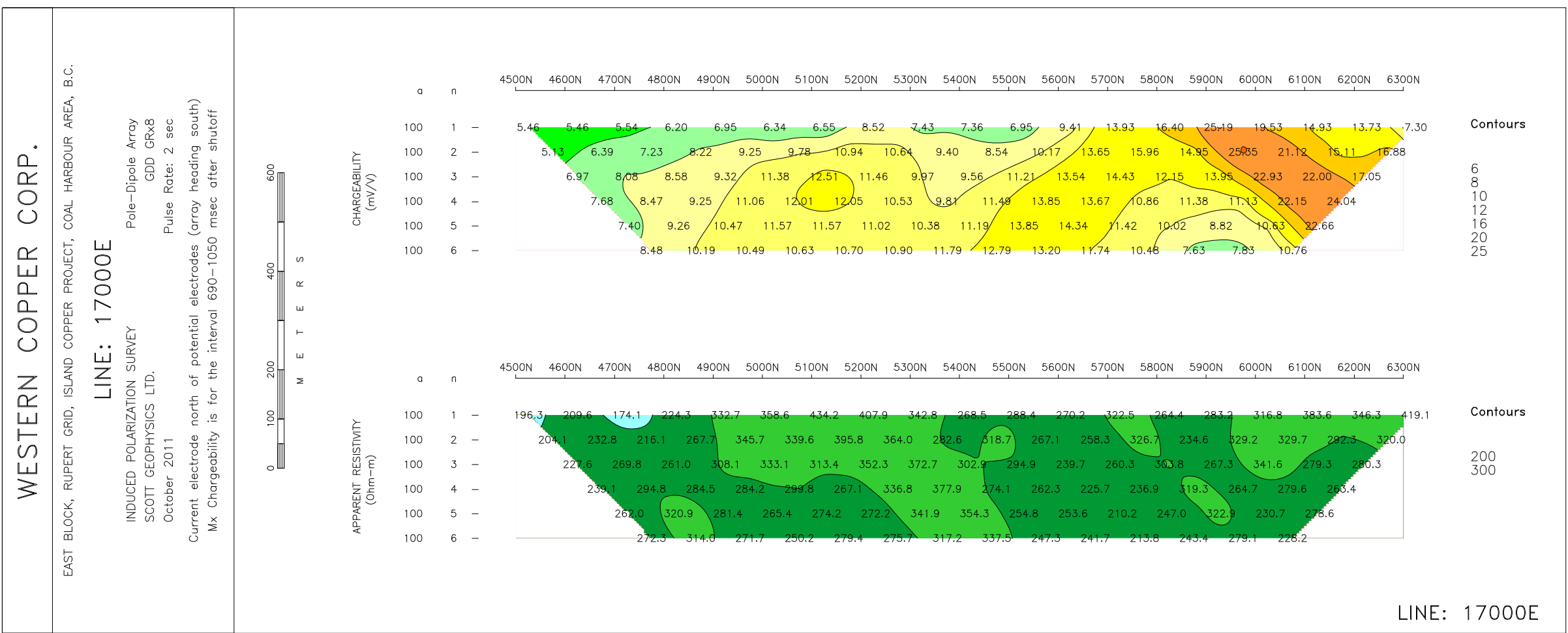
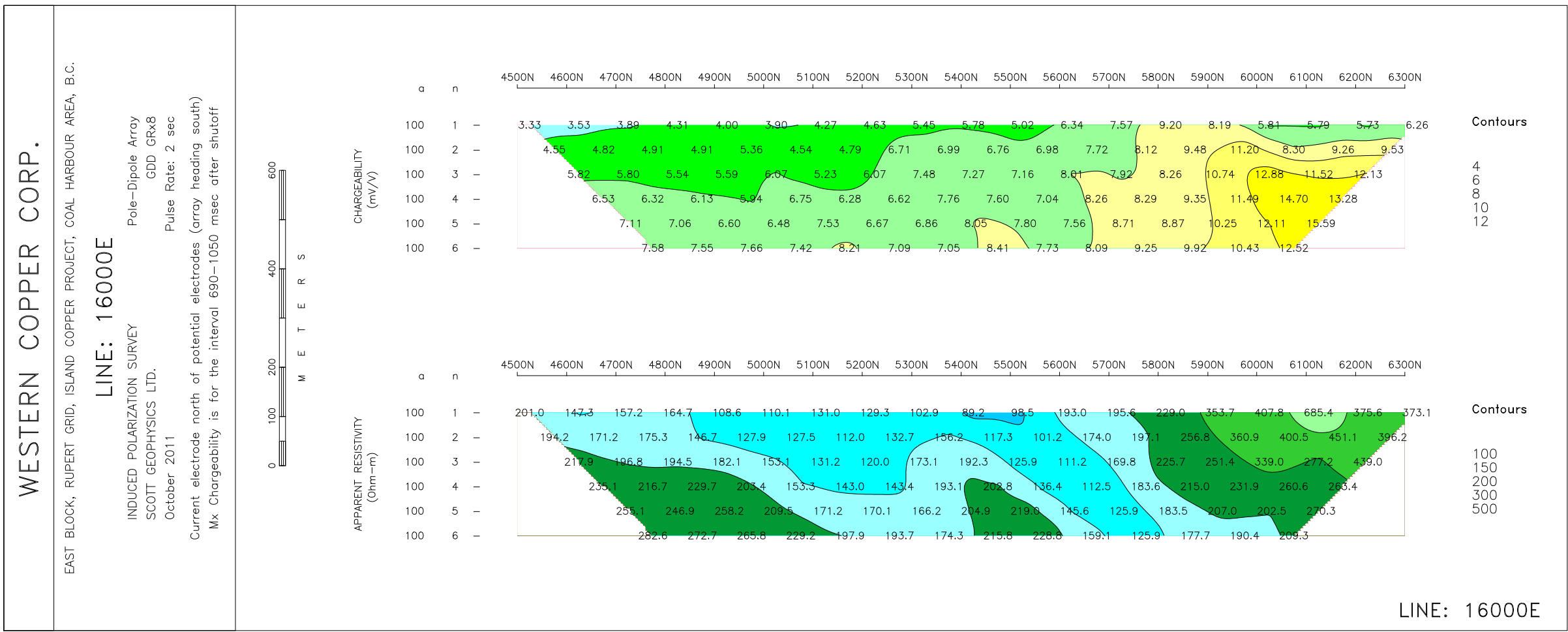
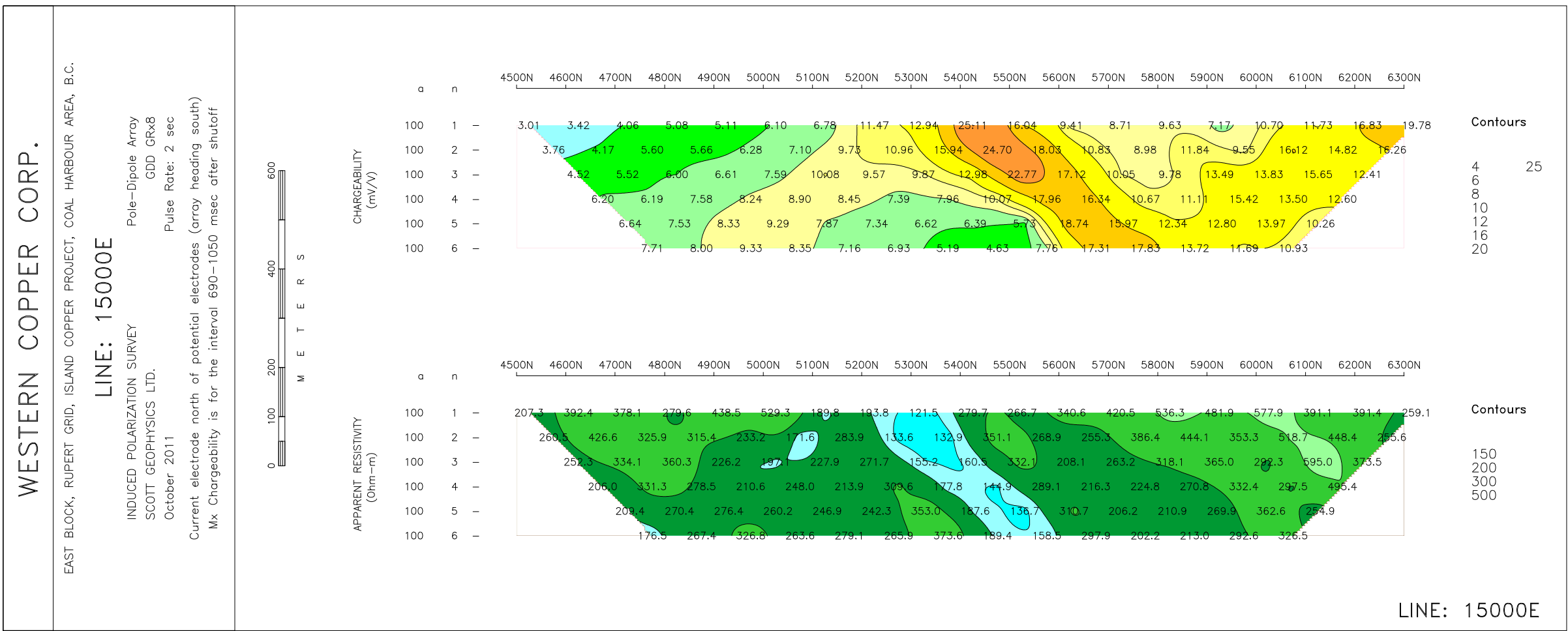
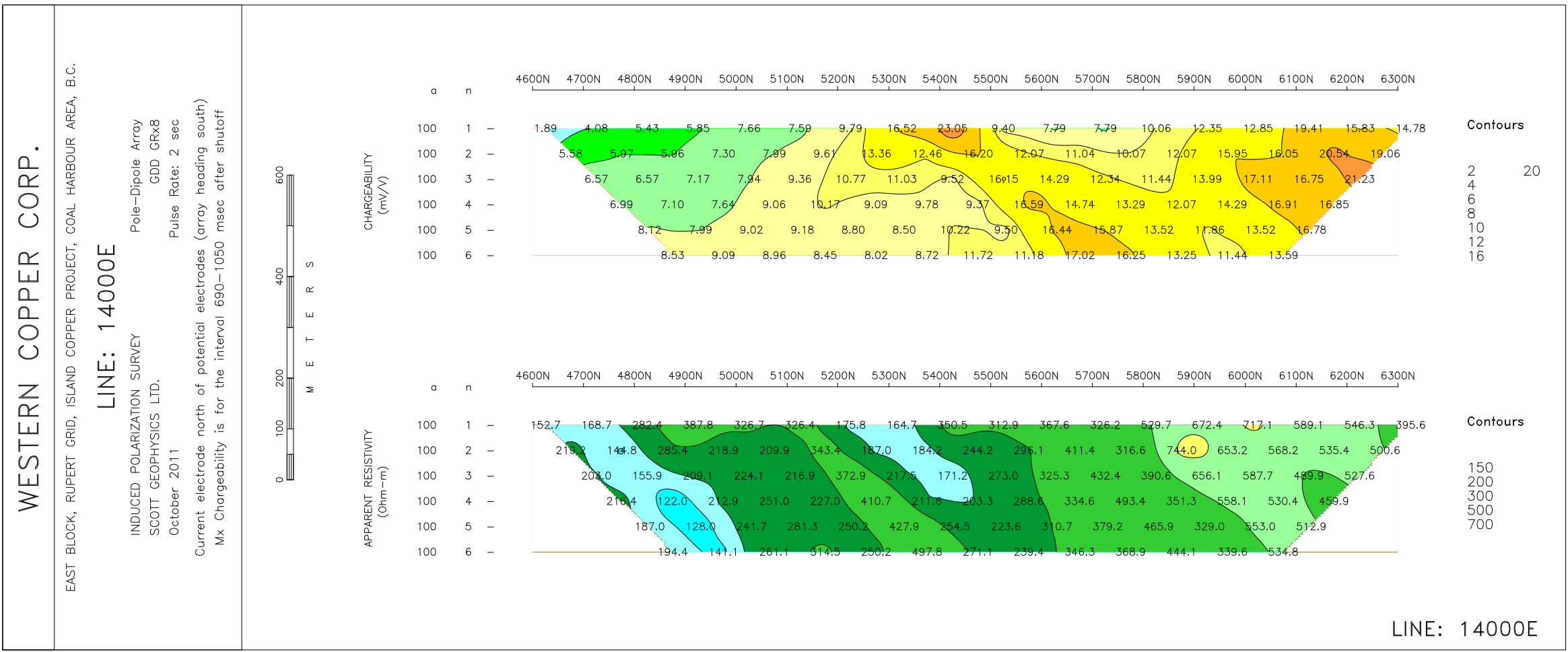
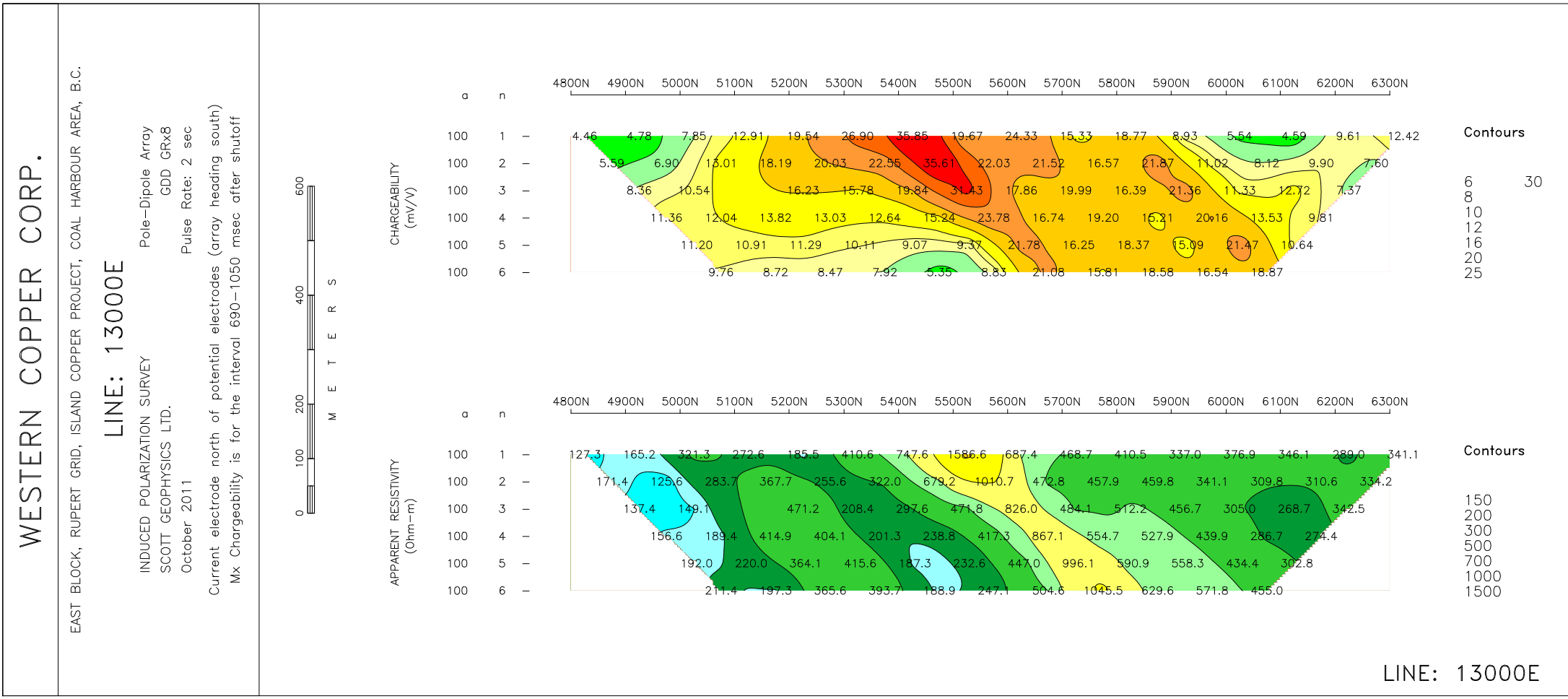
Note: The filter applied to this data is the standard Fraser triangular filter whereby one value is selected at n=1, two values at n=2, three values at n=3, etc. The plotted value is the average of the average values of the n separations and is plotted at the n=1 data point.

GPS derived UTM coordinates - WGS84

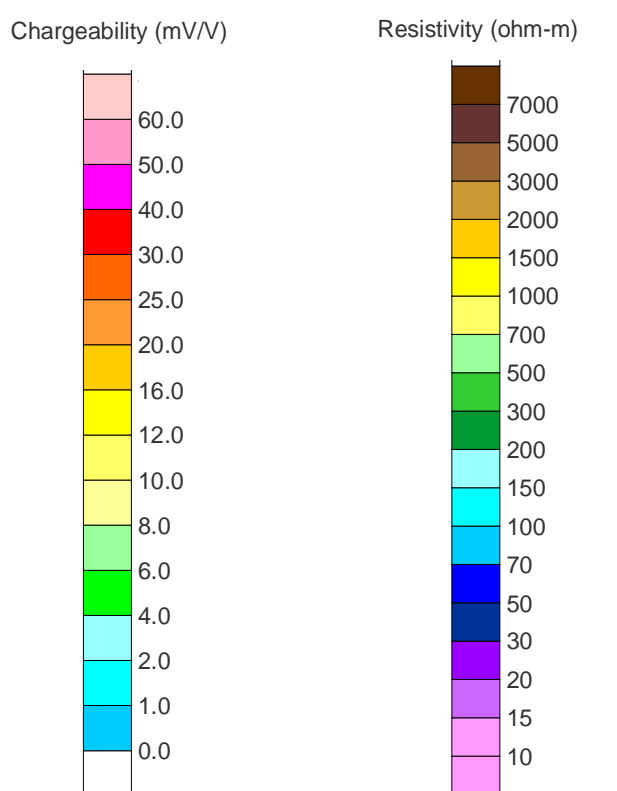
WESTERN COPPER CORP.
 RUPERT GRID, ISLAND COPPER PROJECT
 COAL HARBOUR AREA, B.C.
 Resistivity Contour Plan
 Triangular Filtered Values
 First to Sixth Separations

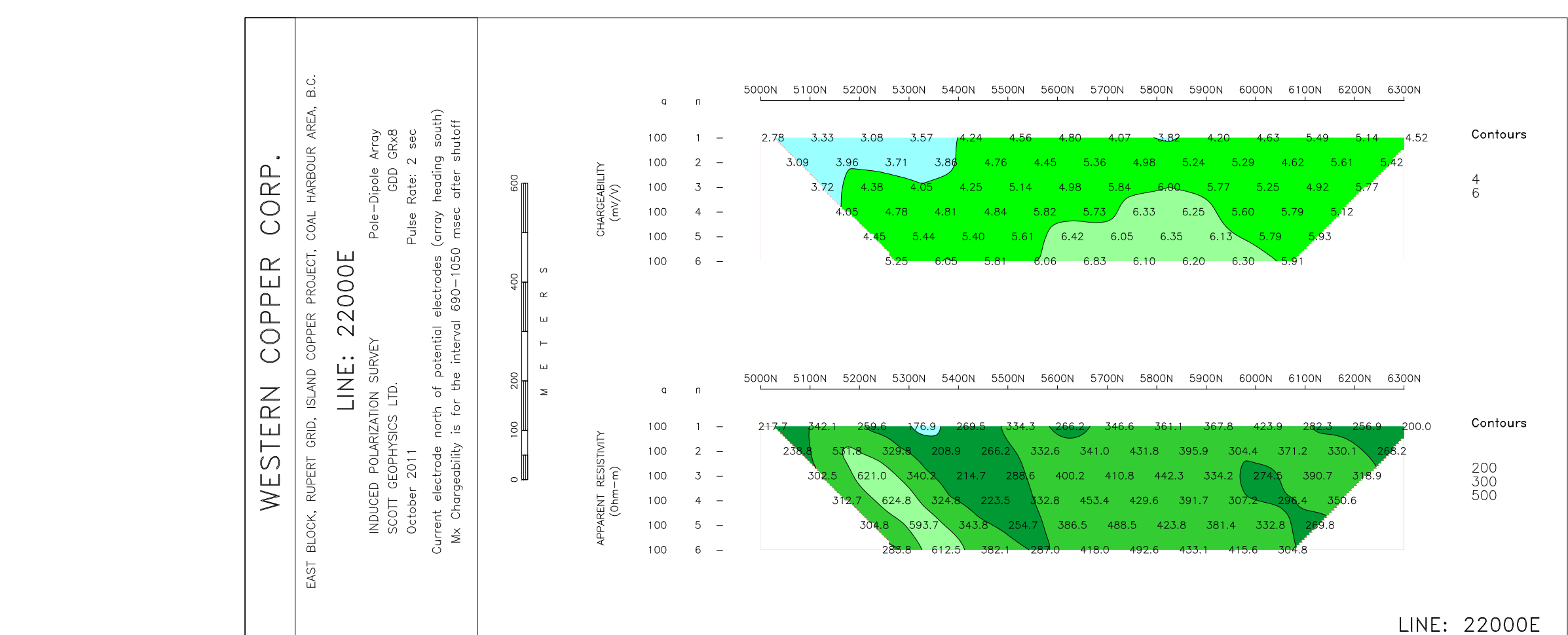
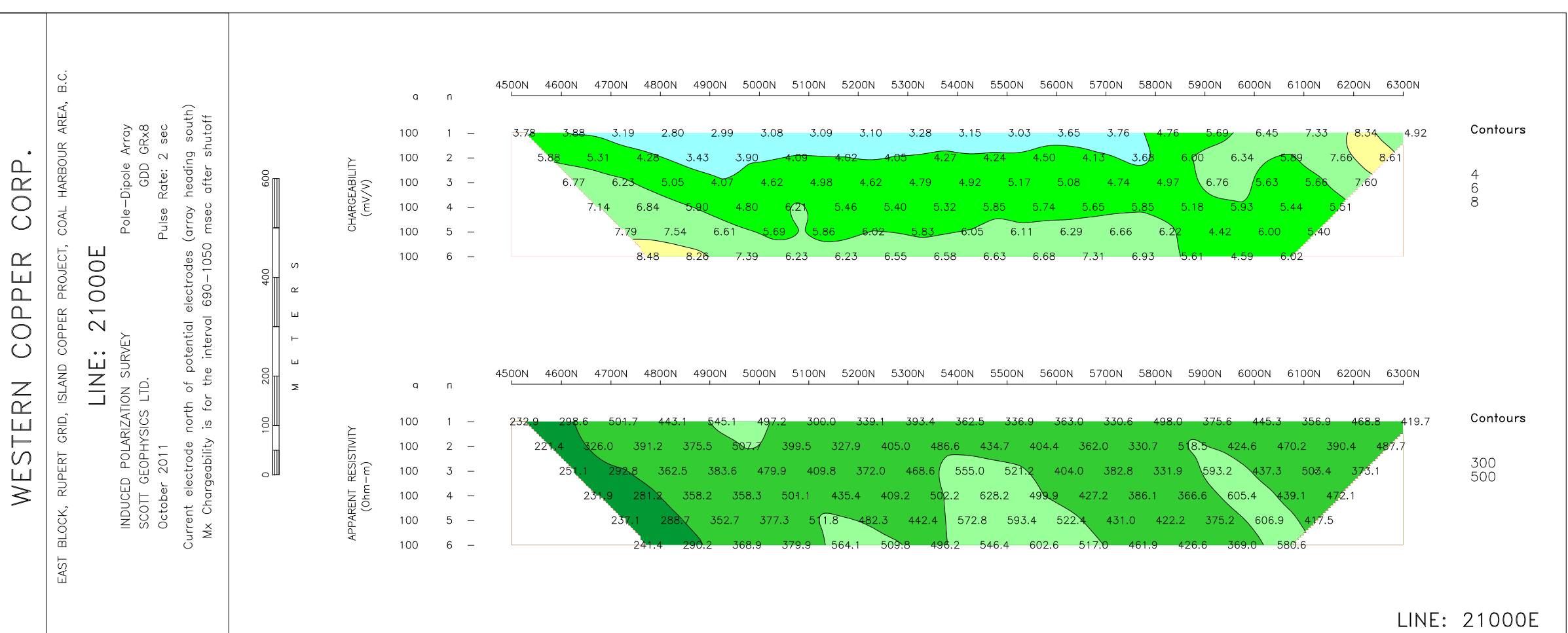
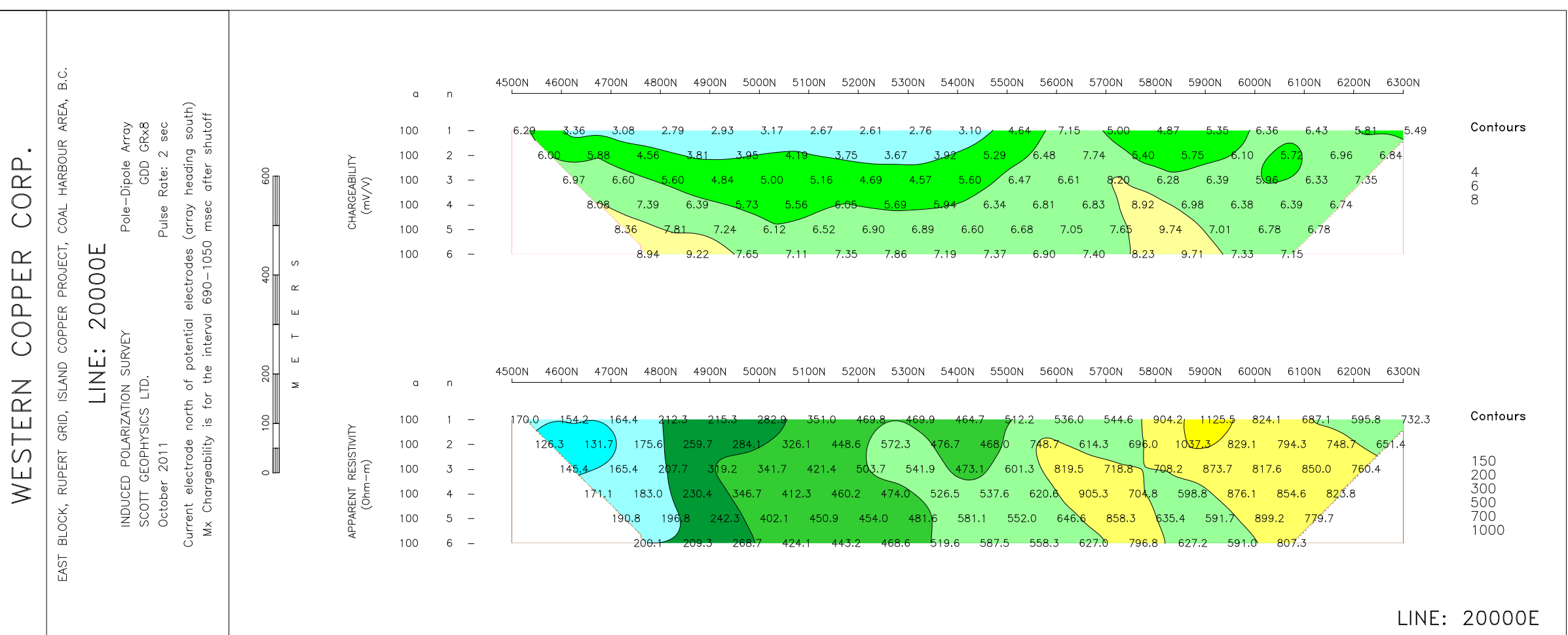
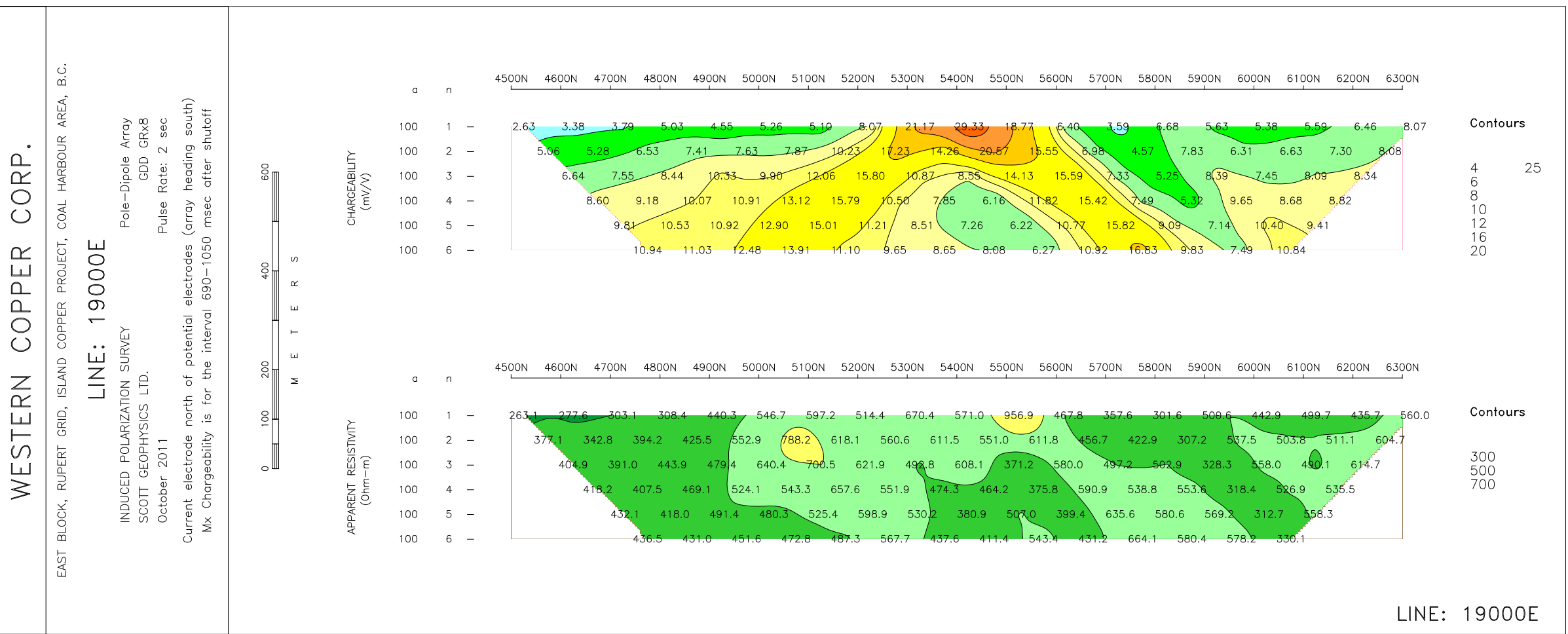
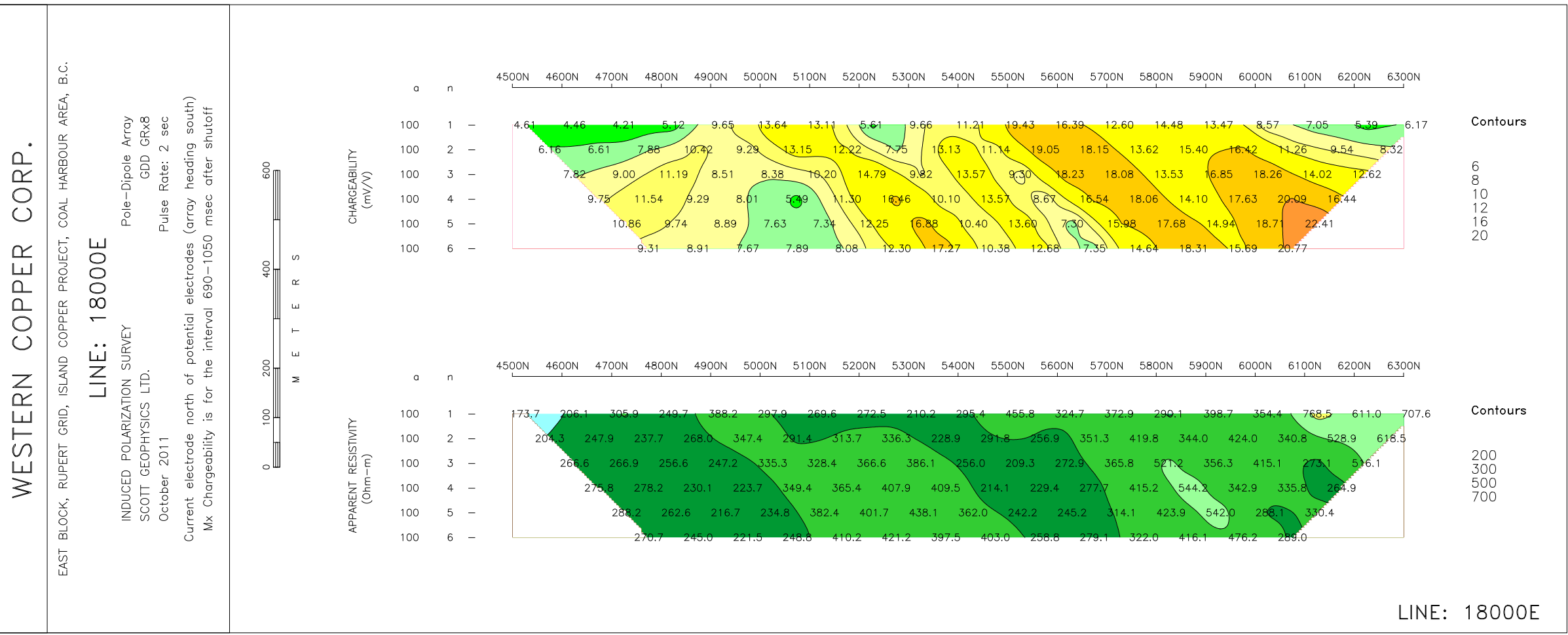
DRAWN BY: ars DATE: Oct/2011
 SCOTT GEOPHYSICS LTD.

Appendix E: Chargeability and Apparent Resistivity Sections

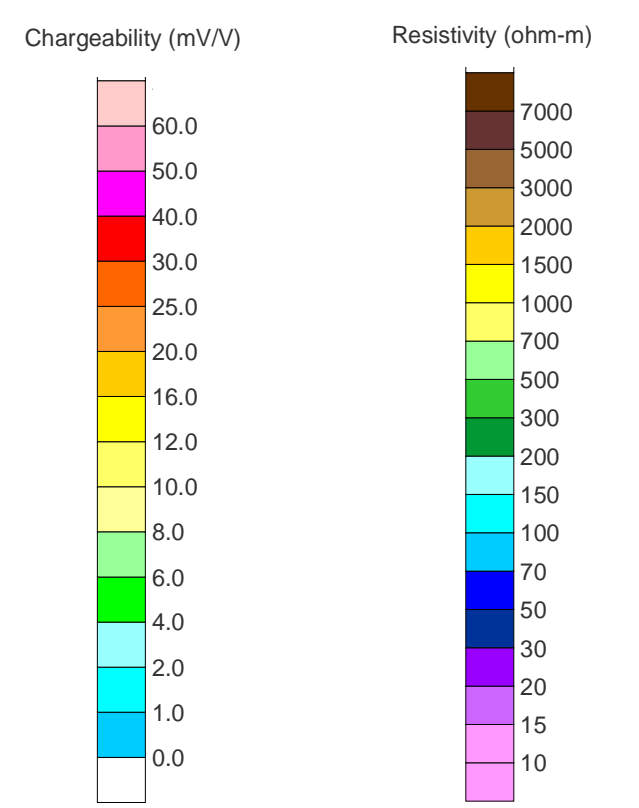


WESTERN COPPER CORP.
EAST BLOCK, RUPERT GRID,
COAL HARBOUR AREA, BC
Induced Polarization Survey
Chargeability and Resistivity Pseudosections
SCOTT GEOPHYSICS LTD. Oct/2011





WESTERN COPPER CORP.
EAST BLOCK, RUPERT GRID
COAL HARBOUR AREA, BC
Induced Polarization Survey
Chargeability and Resistivity Pseudosections
SCOTT GEOPHYSICS LTD. Oct/2011



WESTERN COPPER CORP.

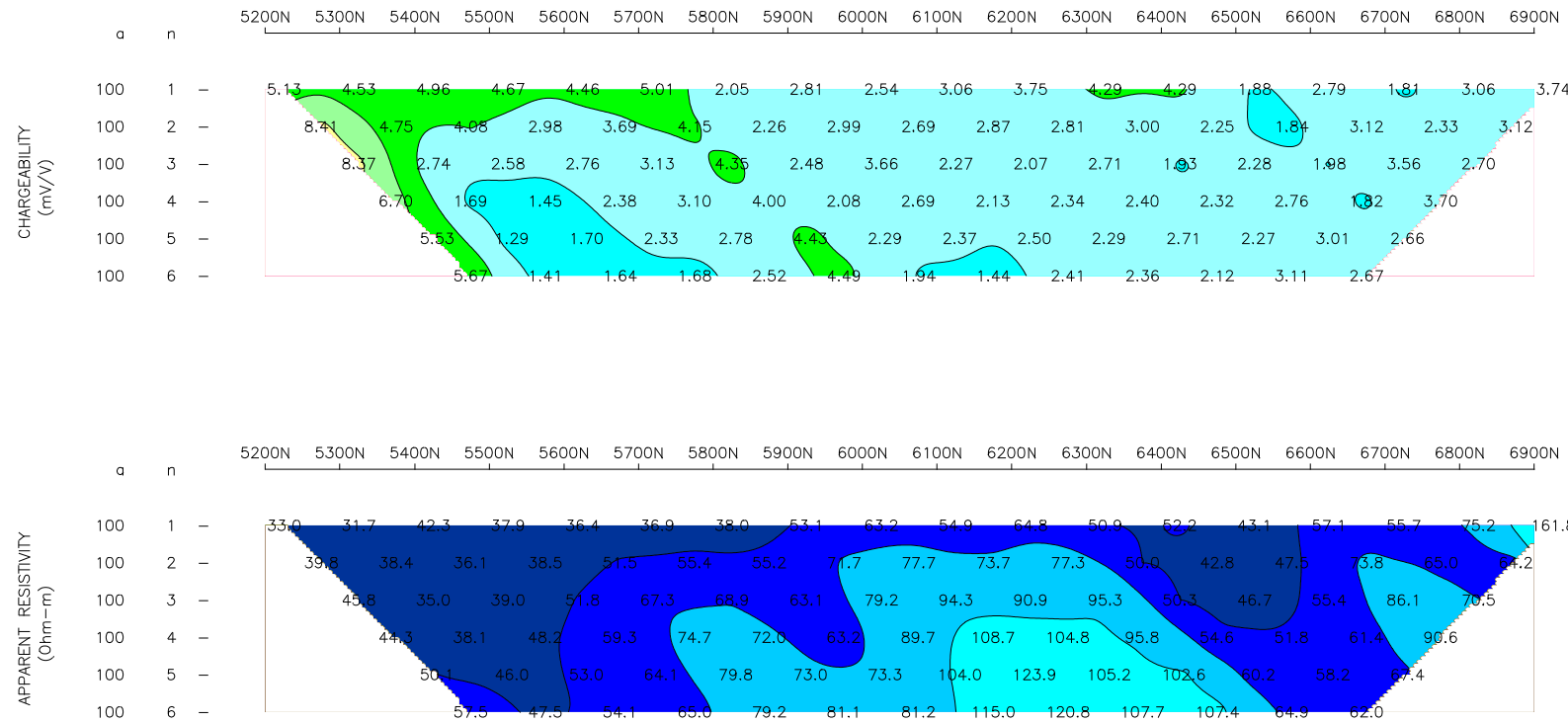
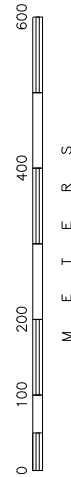
EAST BLOCK, RUPERT GRID, ISLAND COPPER PROJECT, COAL HARBOUR AREA, B.C.

LINE: 24700E

INDUCED POLARIZATION SURVEY
 SCOTT GEOPHYSICS LTD.
 October 2011

Pole-Dipole Array
 GDD GRx8
 Pulse Rate: 2 sec

Current electrode north of potential electrodes (array heading south)
 Mx Chargeability is for the interval 690-1050 msec after shutoff



Contours
2
4
6
8

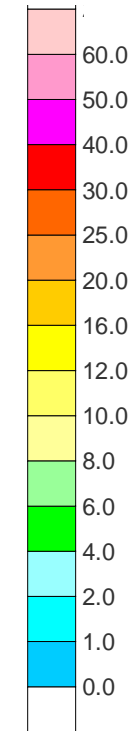
Contours
50
70
100
150

LINE: 24700E

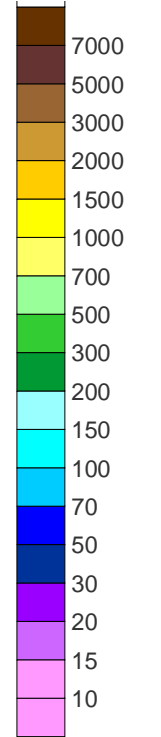
WESTERN COPPER CORP.
 EAST BLOCK, RUPERT GRID
 COAL HARBOUR AREA, BC
 Induced Polarization Survey
 Chargeability and Resistivity Pseudosections

SCOTT GEOPHYSICS LTD. Oct/2011

Chargeability (mV/V)

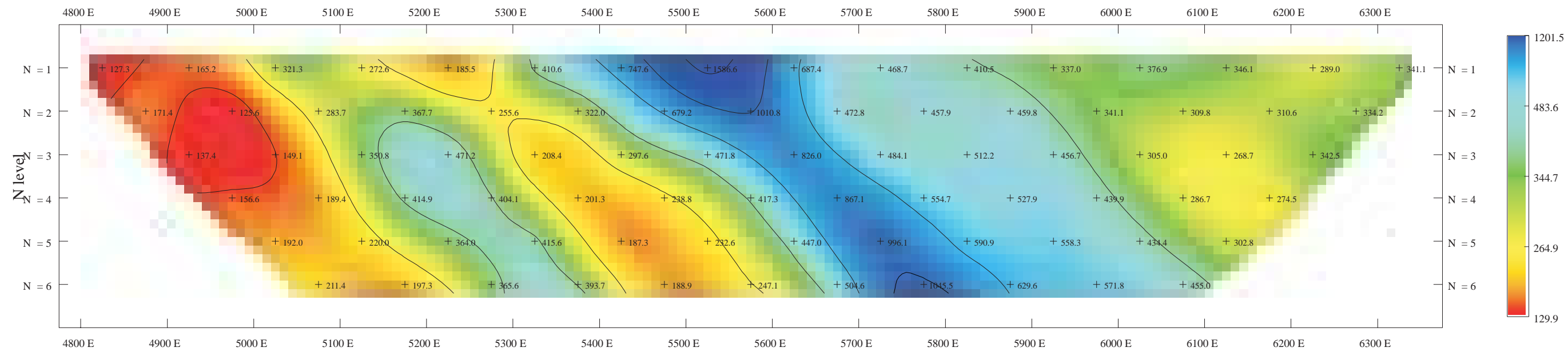


Resistivity (ohm-m)

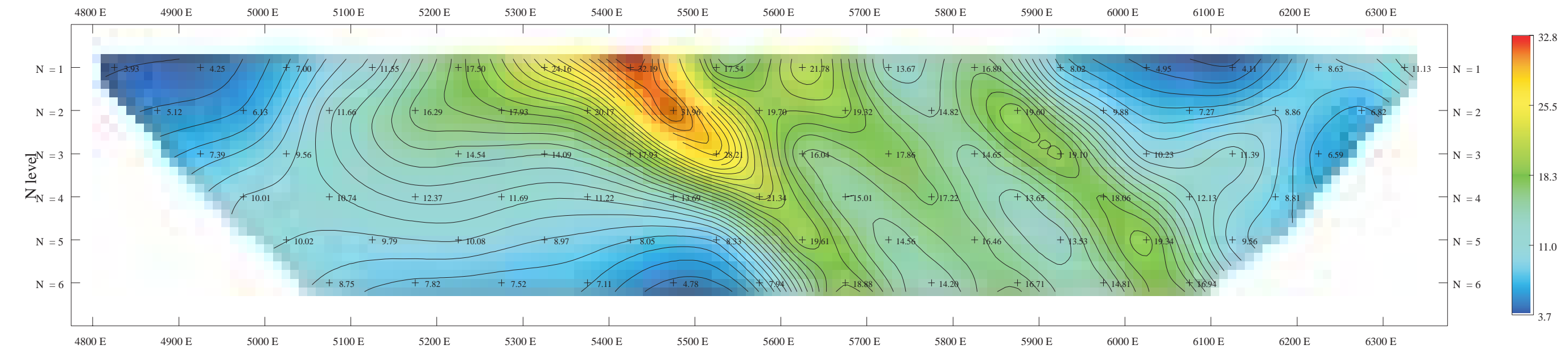


Appendix F: 2D Inversion Sections

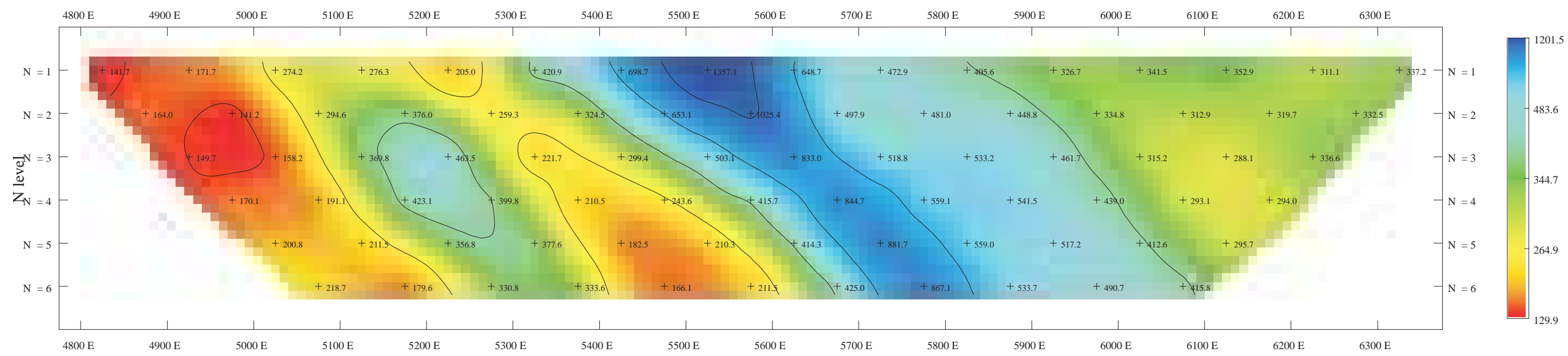
Apparent Resistivity (obs) (ohm.metres)



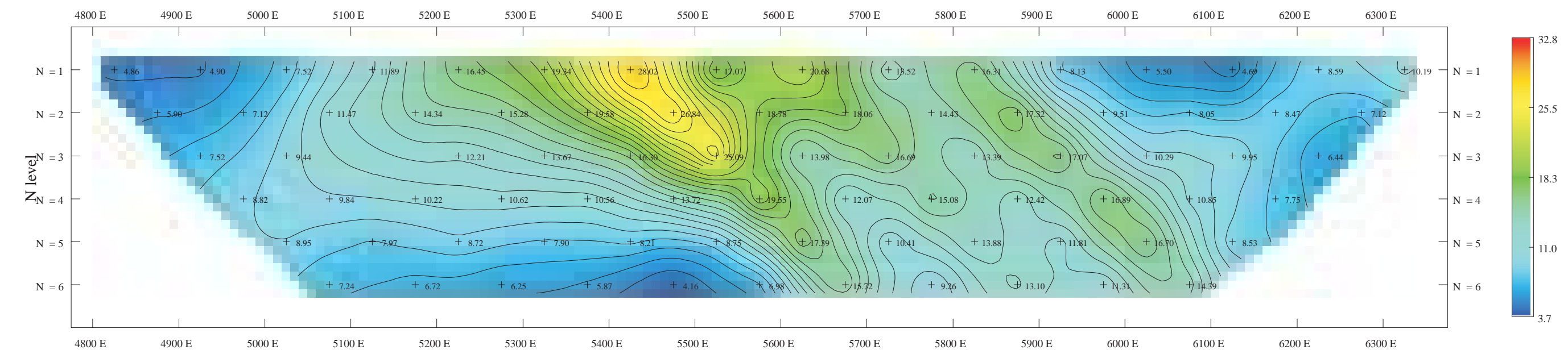
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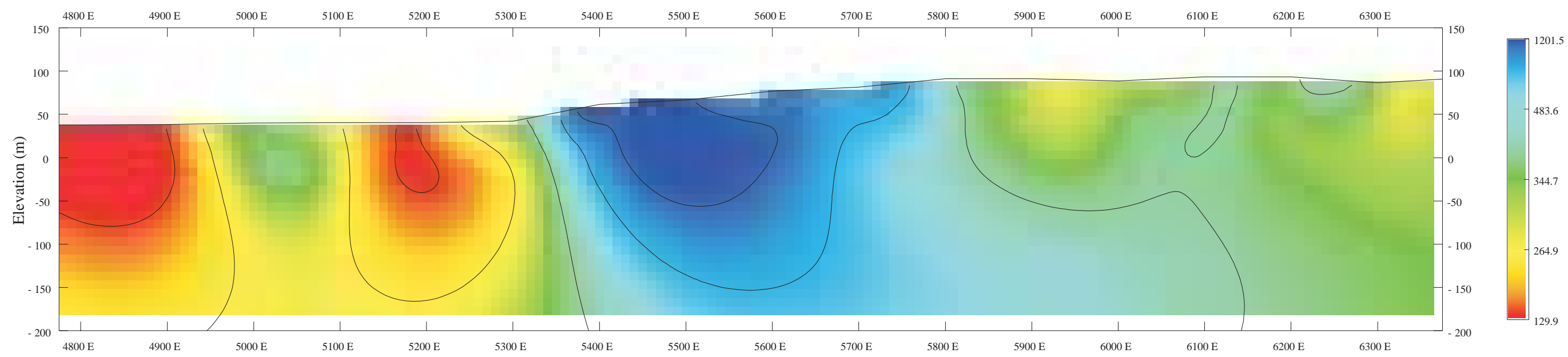
Apparent Resistivity (mod) (ohm.metres)



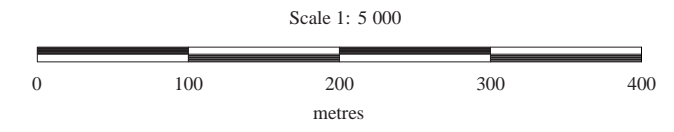
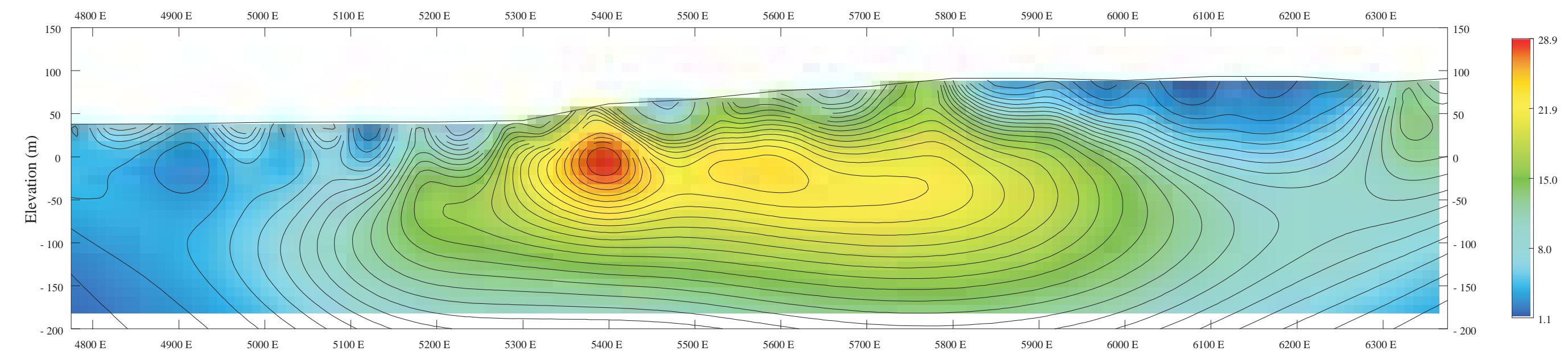
Chargeability (mod) (mV/V)



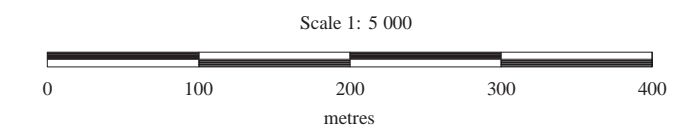
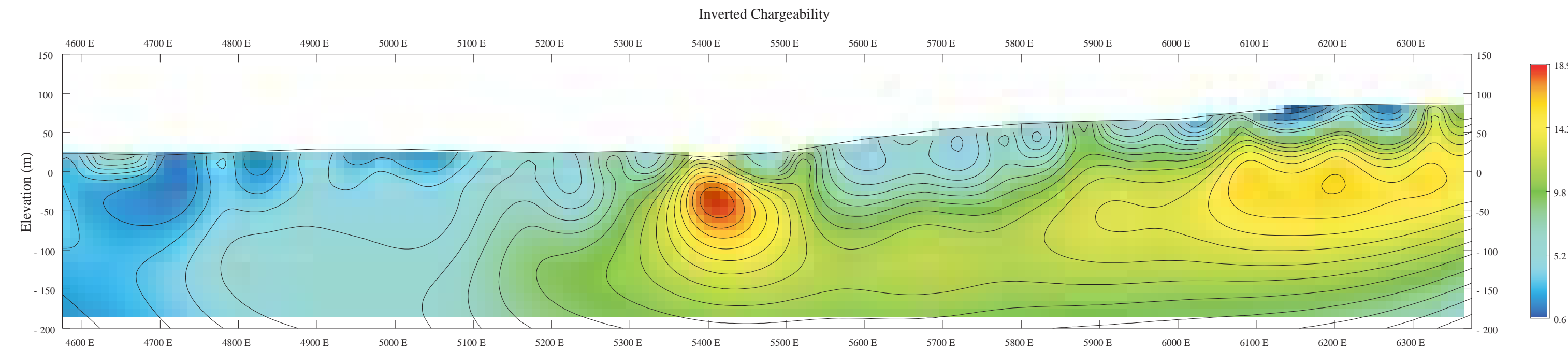
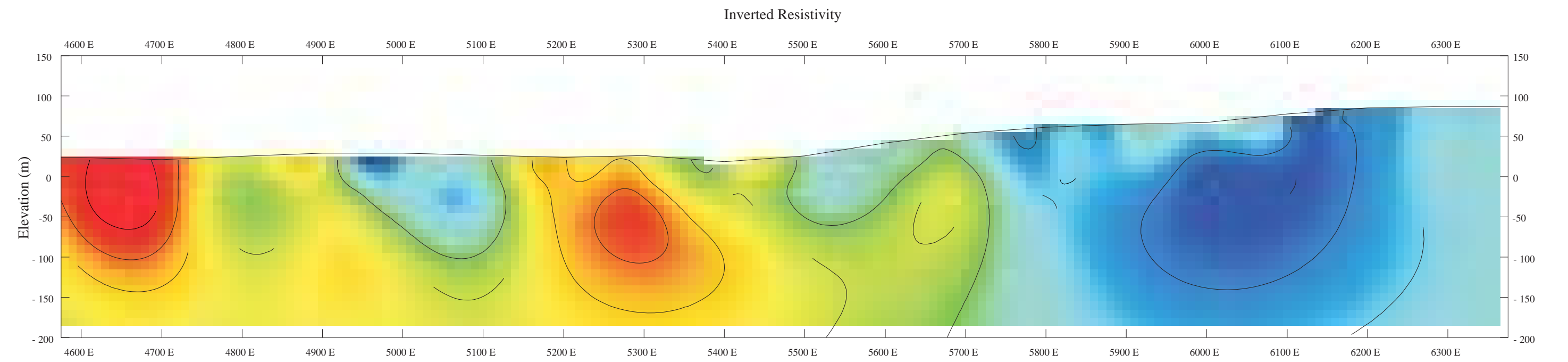
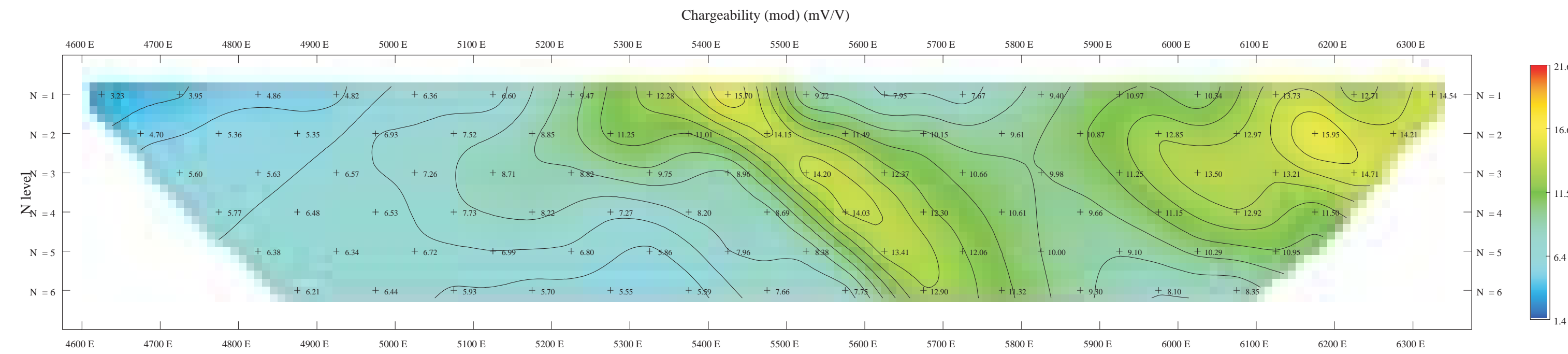
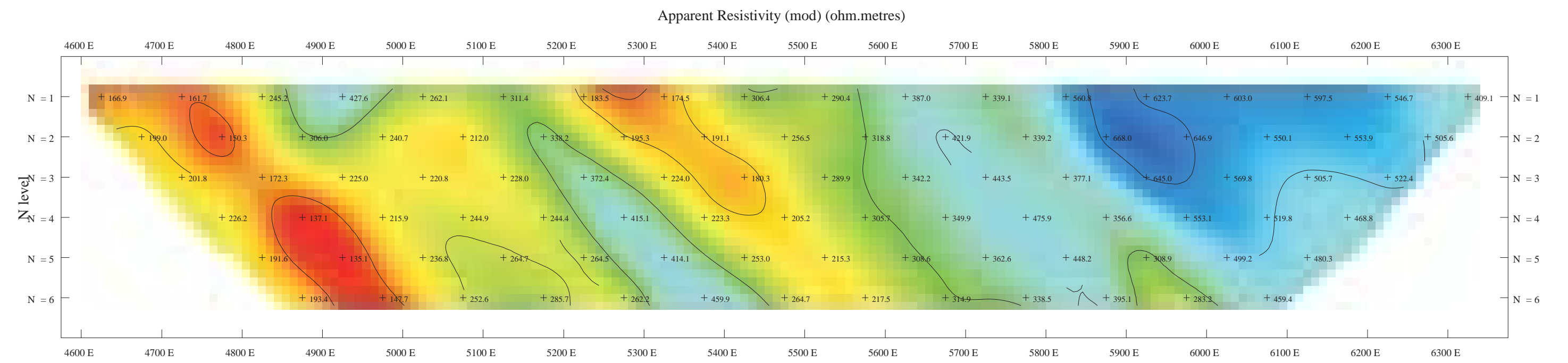
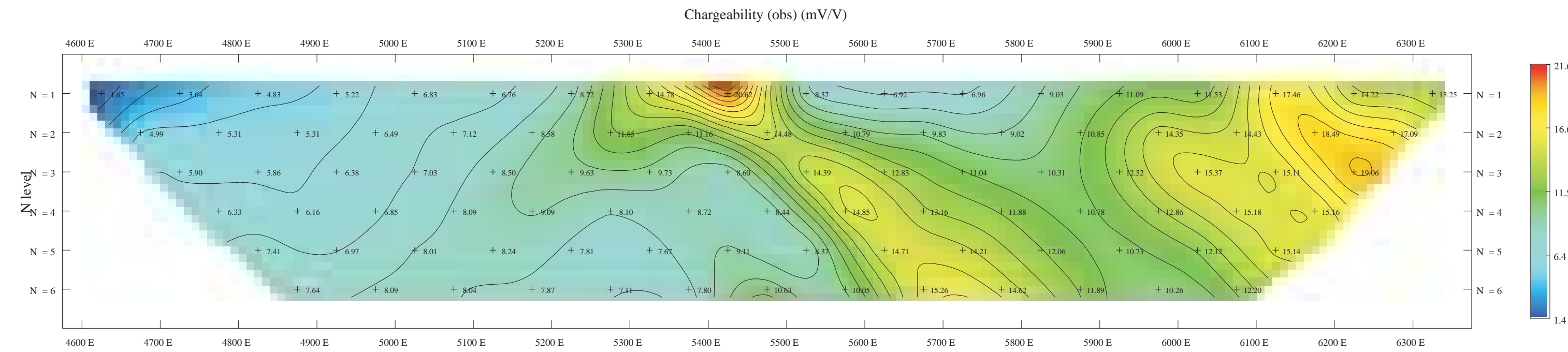
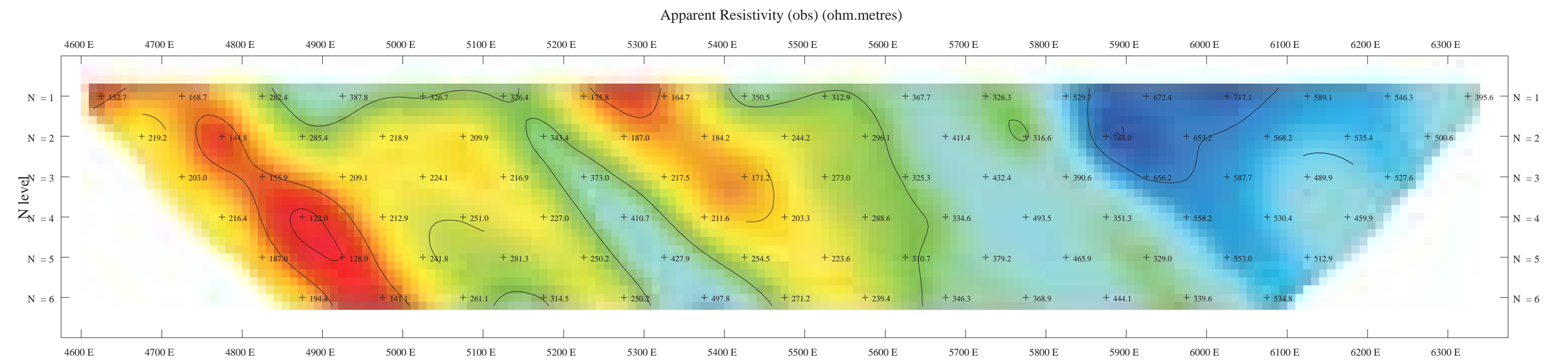
Inverted Resistivity



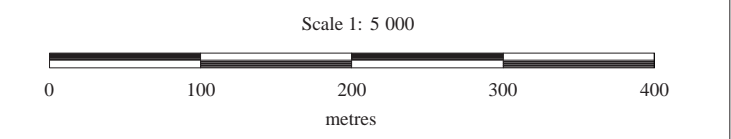
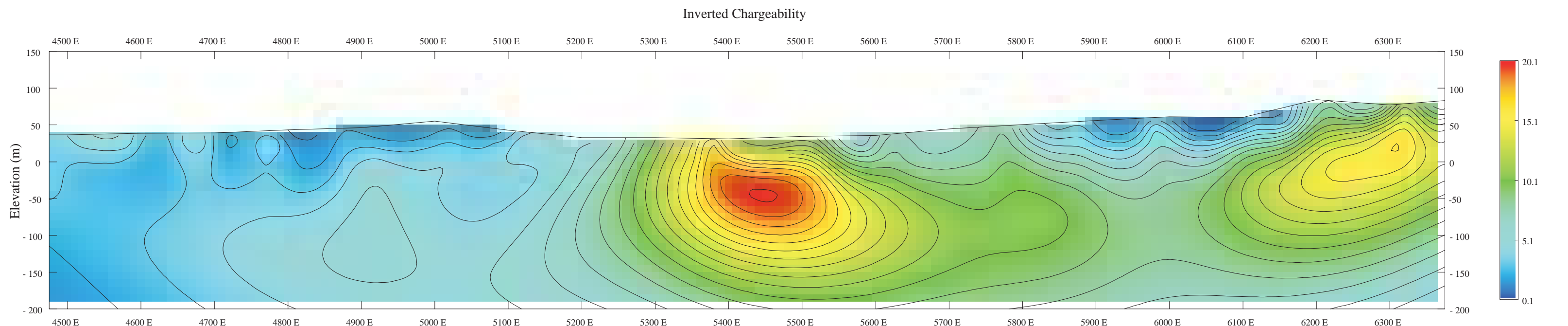
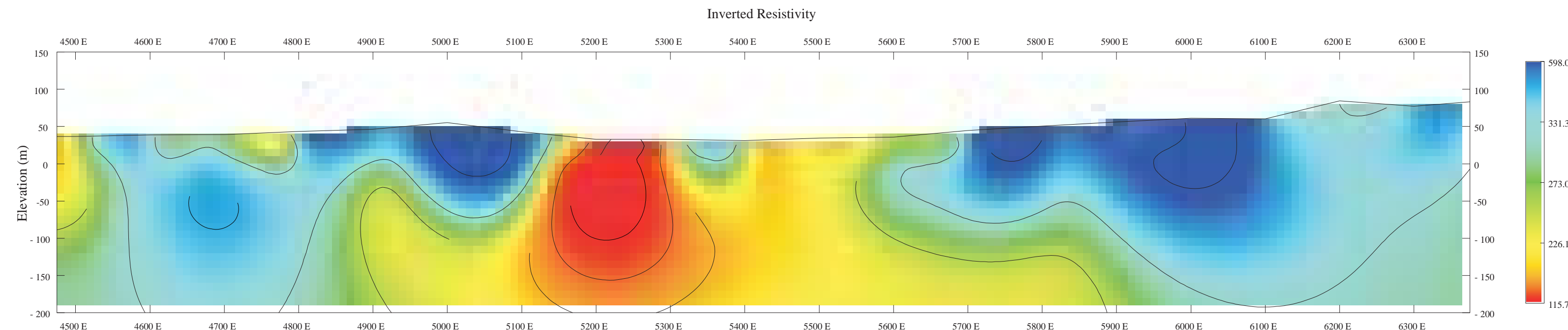
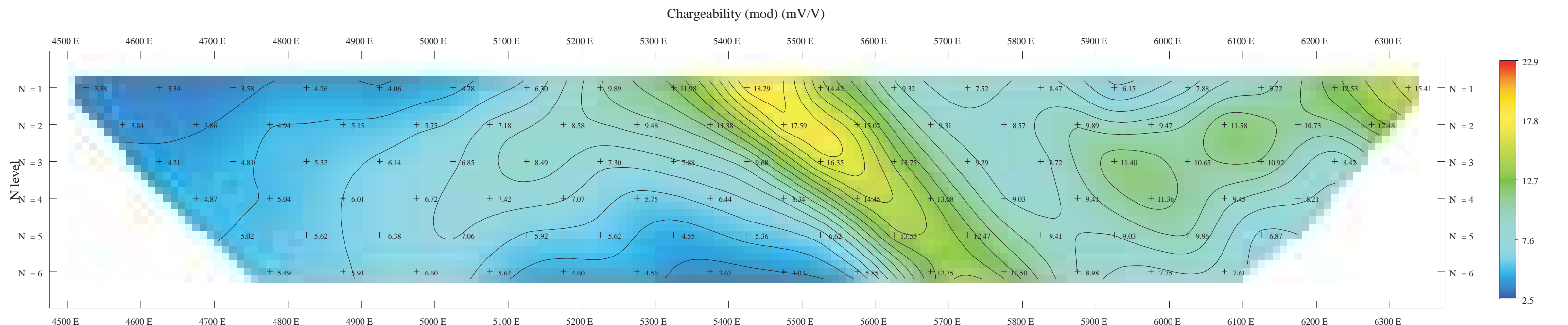
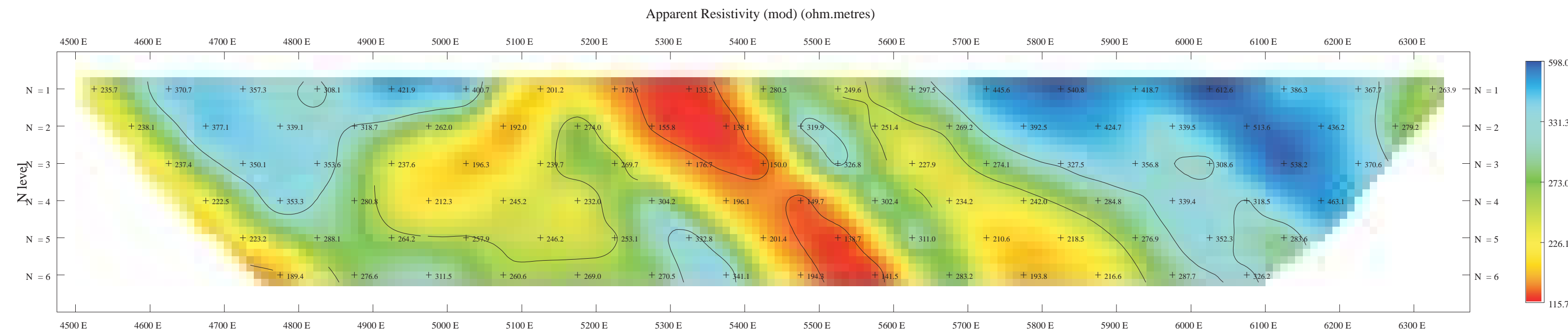
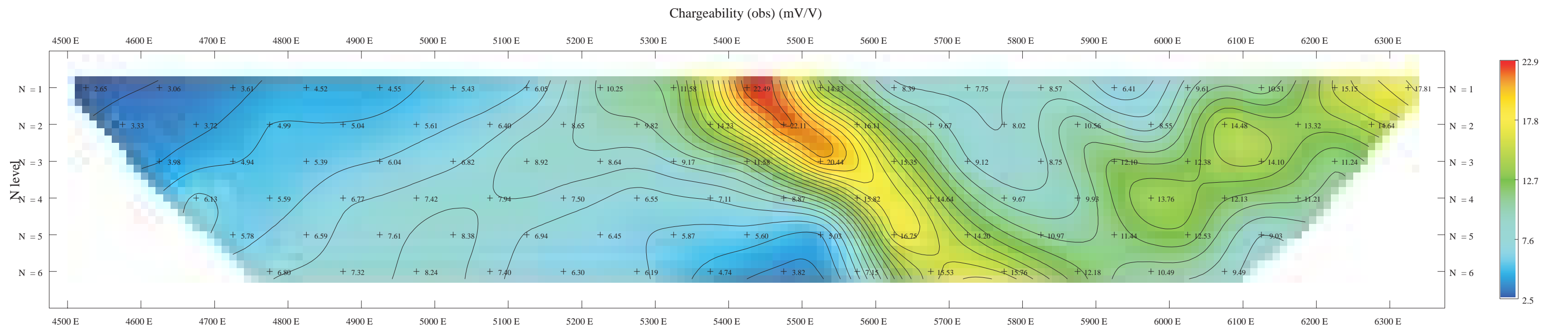
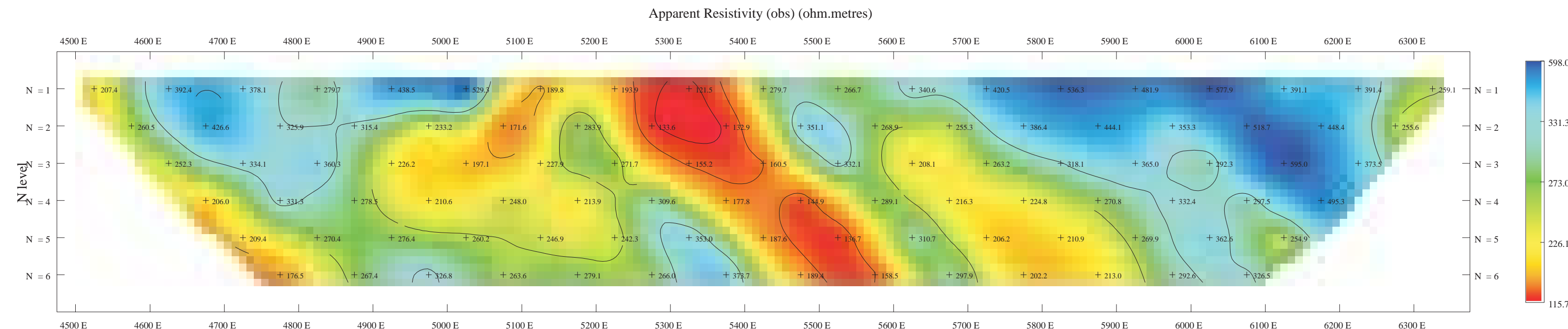
Inverted Chargeability



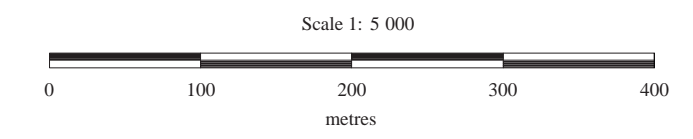
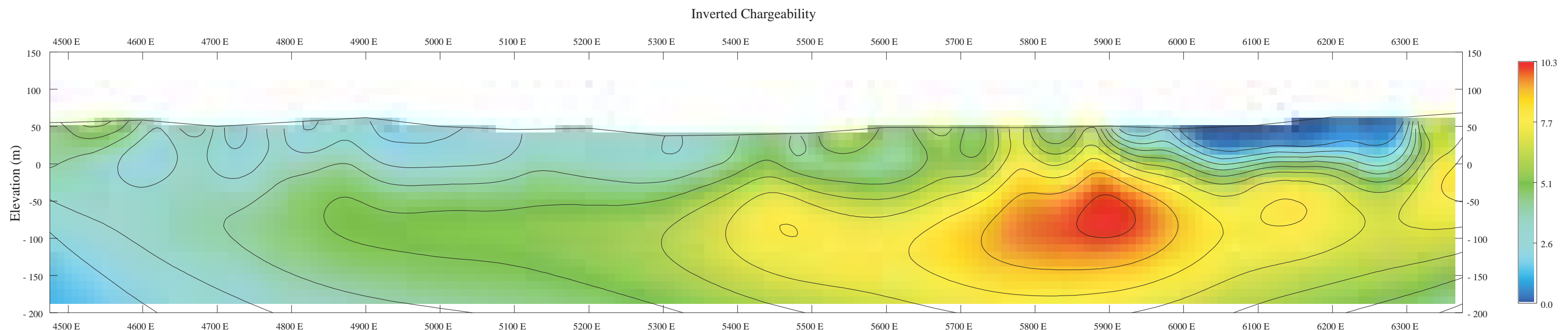
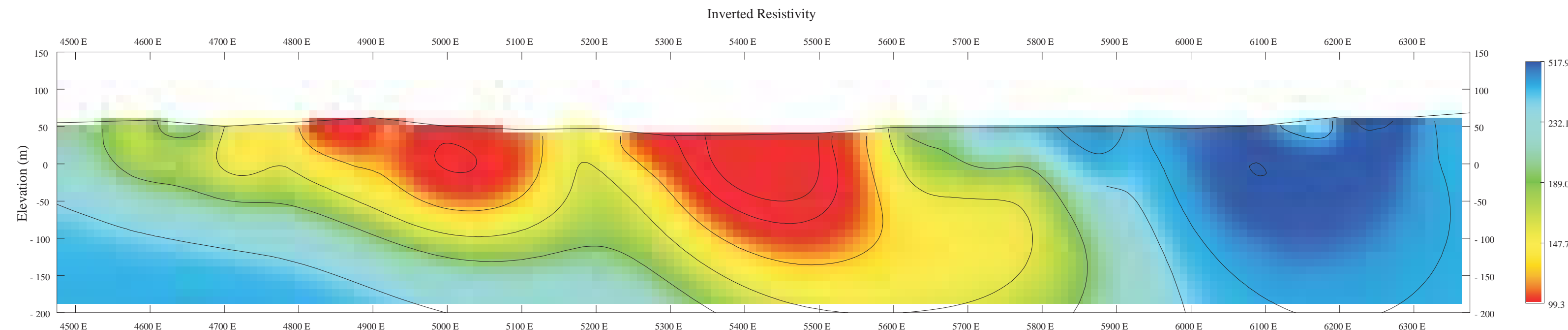
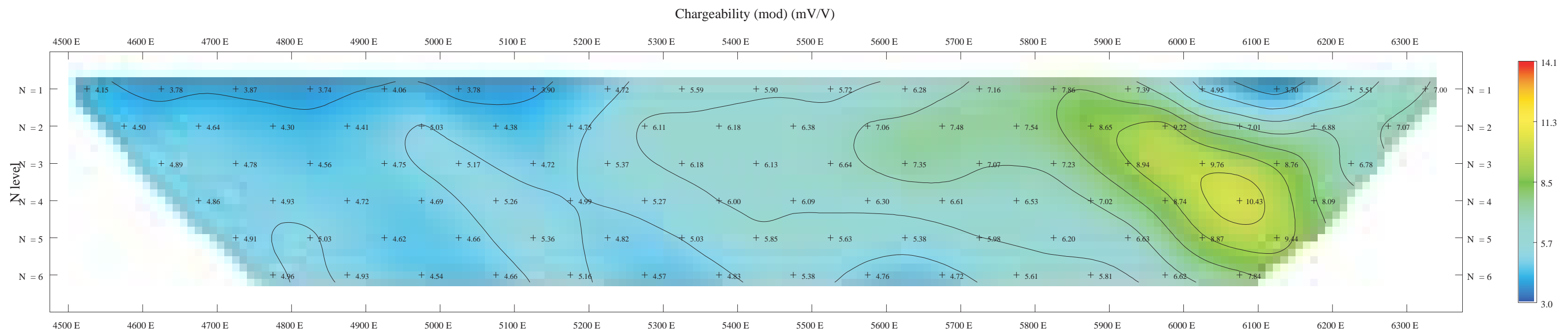
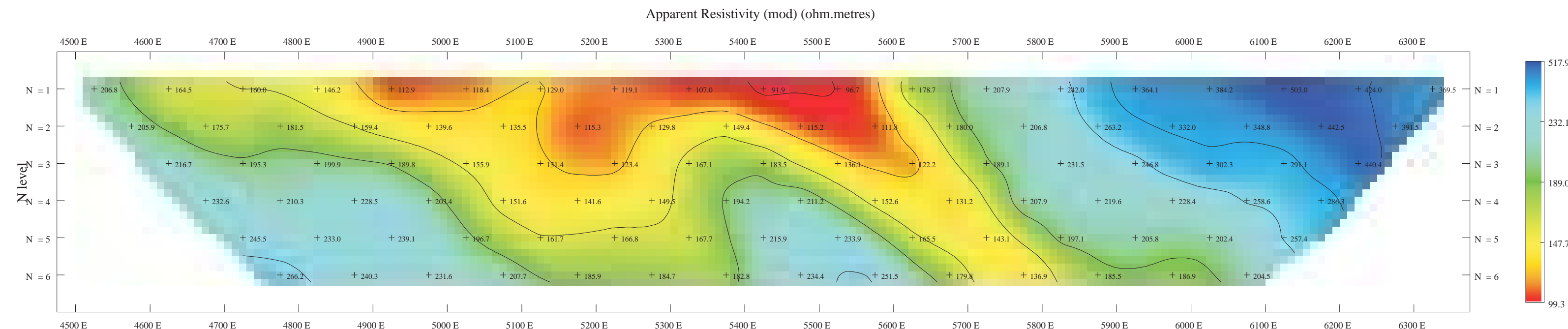
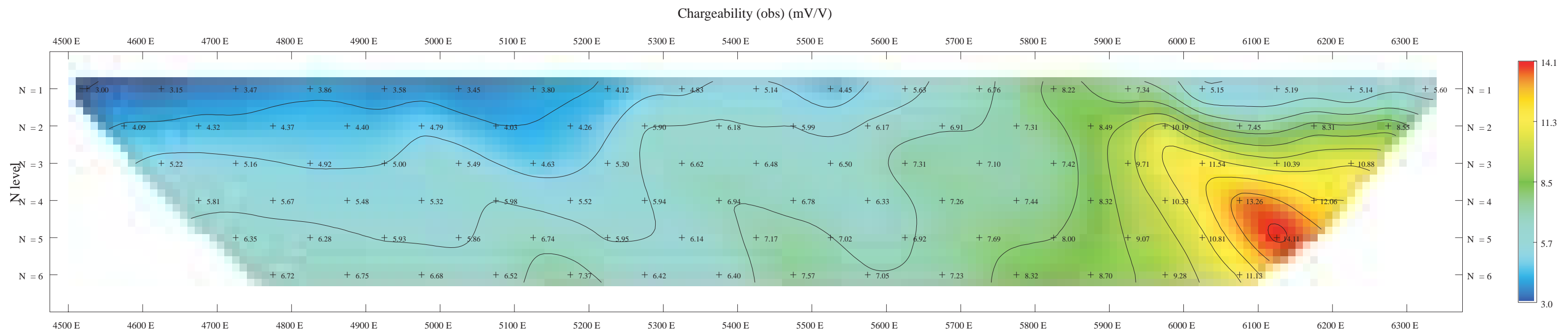
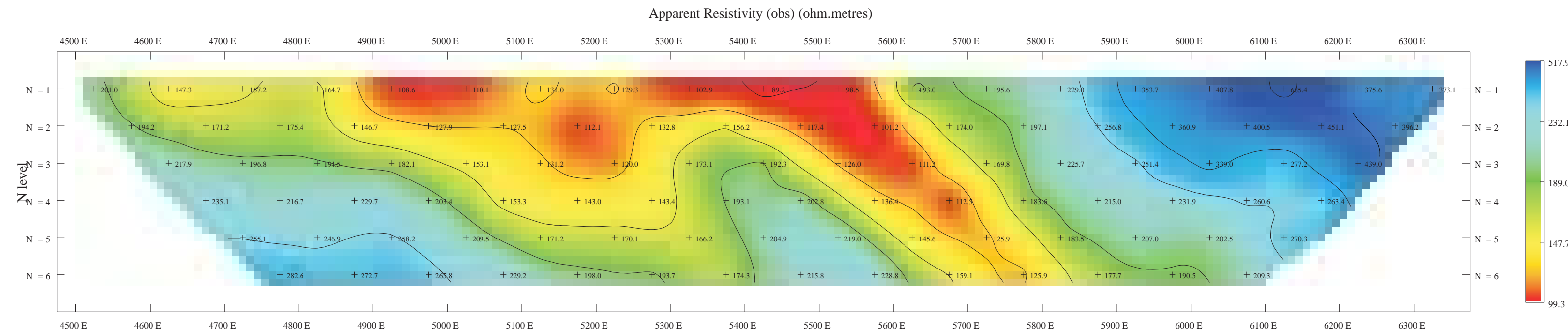
Western Copper Corp. Island Copper Project Line 13000 E	
Author :	Ref :
Drawn :	
Date : 26-Oct-2011	Report No :
Scale 1: 5 000	Plan No :



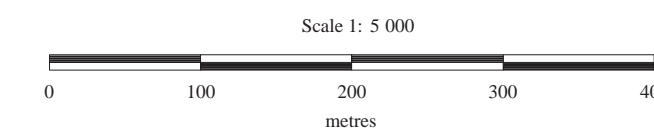
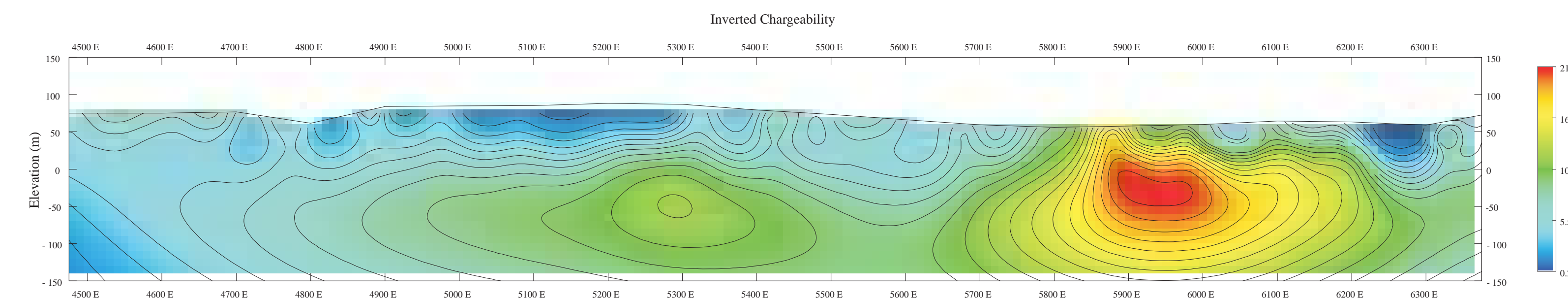
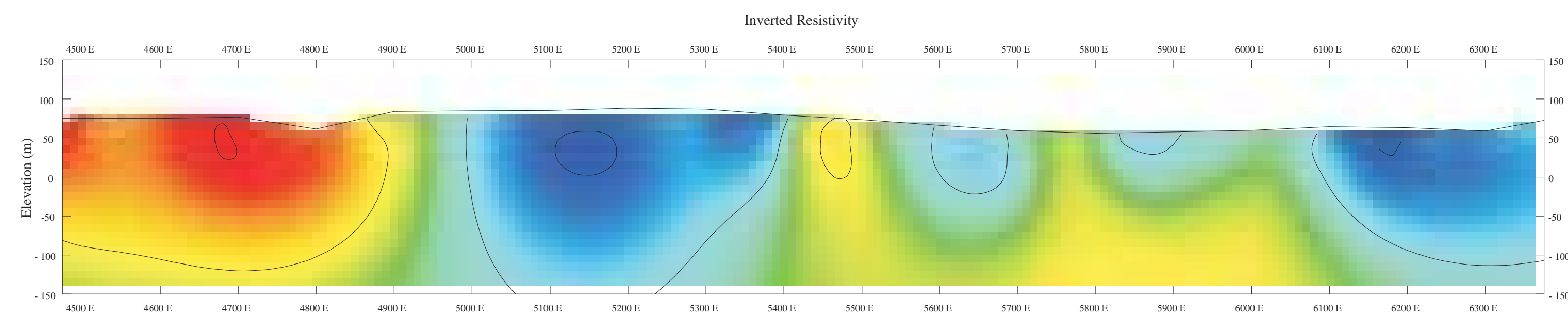
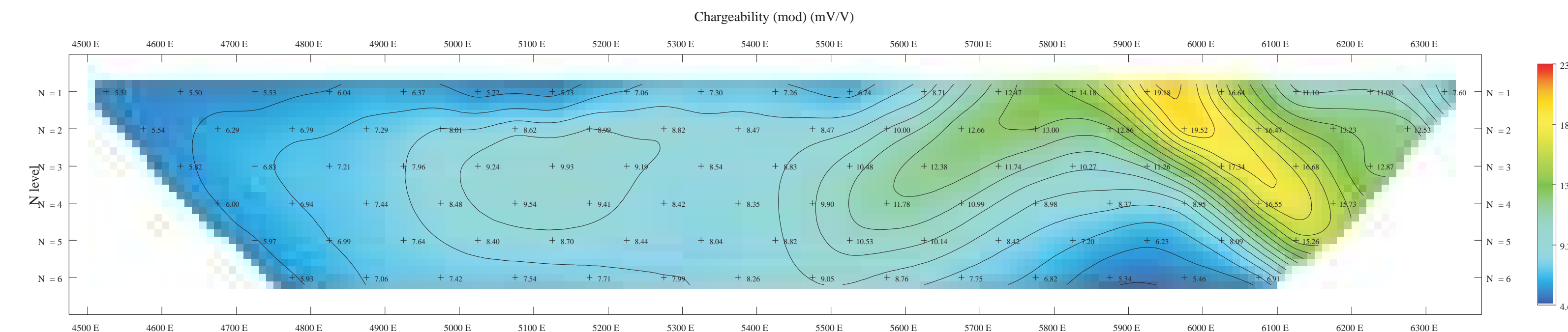
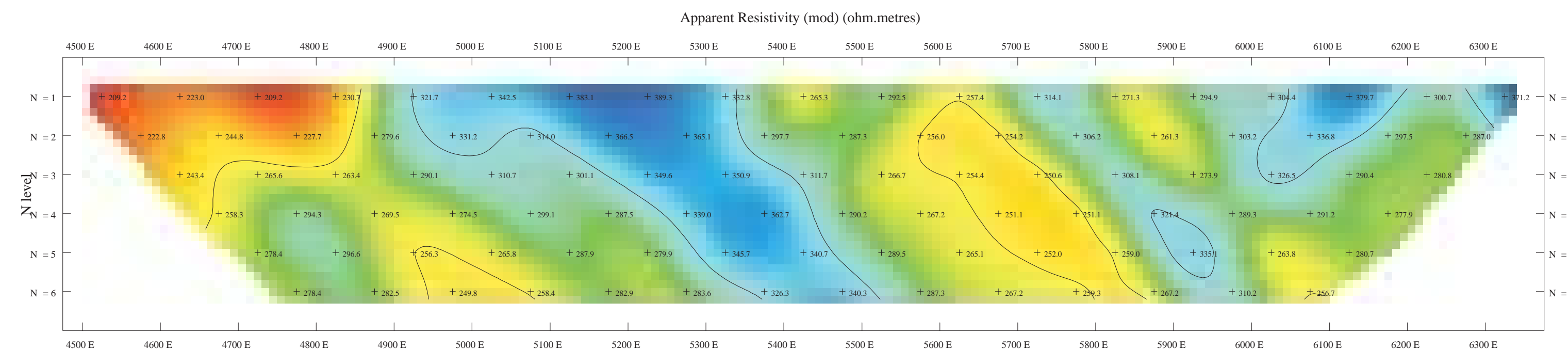
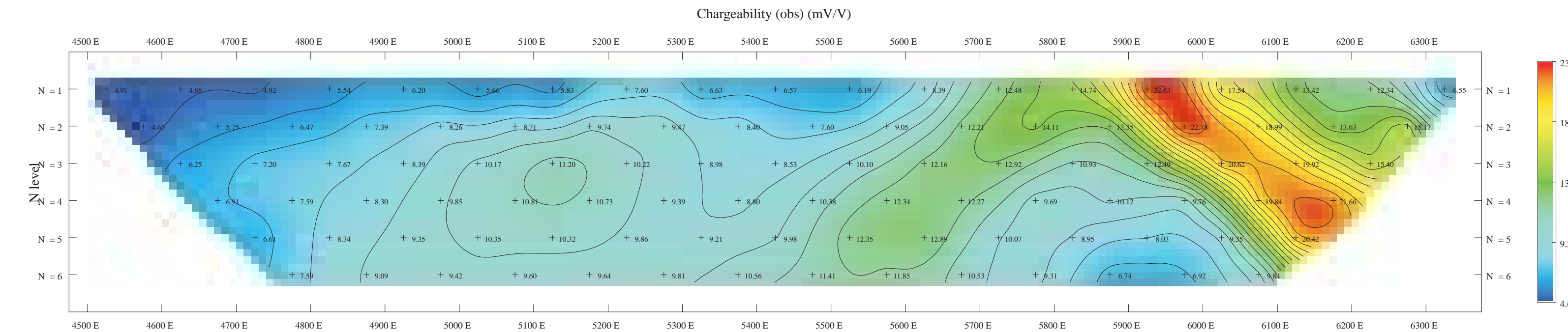
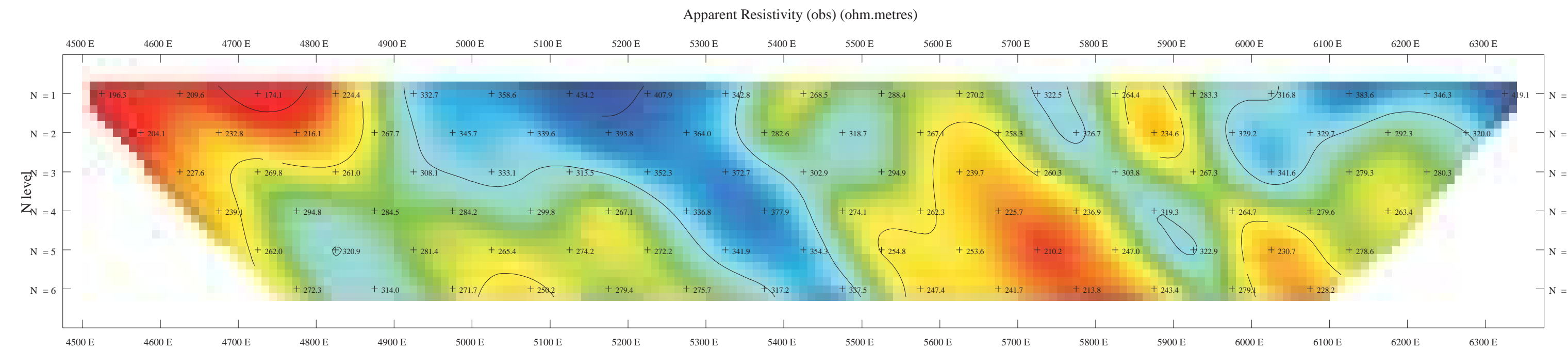
Wester Copper Corp.	
Island Copper Project	
Line 14 000 E	
Author :	Ref :
Drawn :	
Date : 26-Oct-2011	Report No :
Scale 1: 5 000	Plan No :



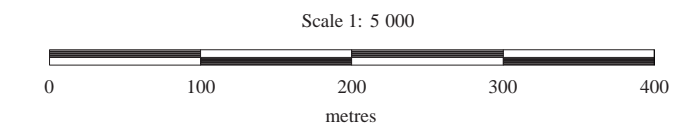
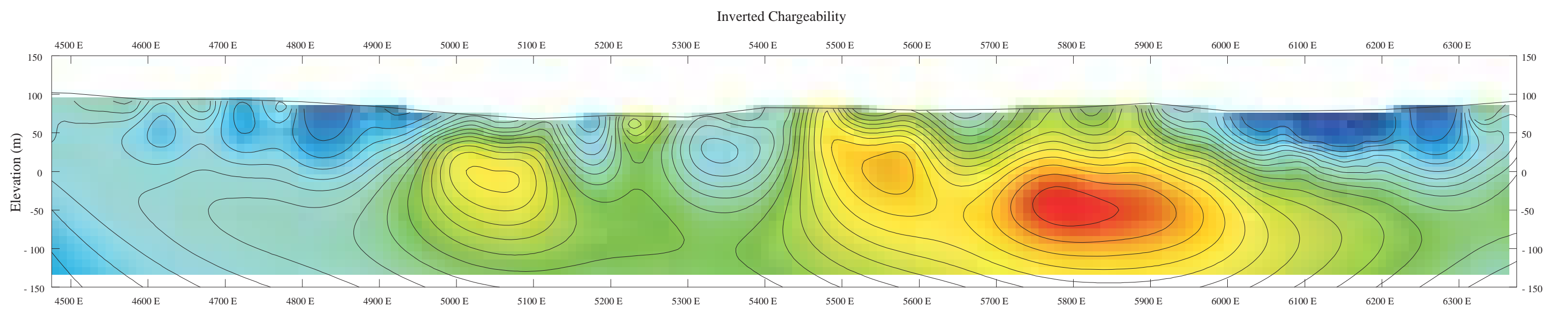
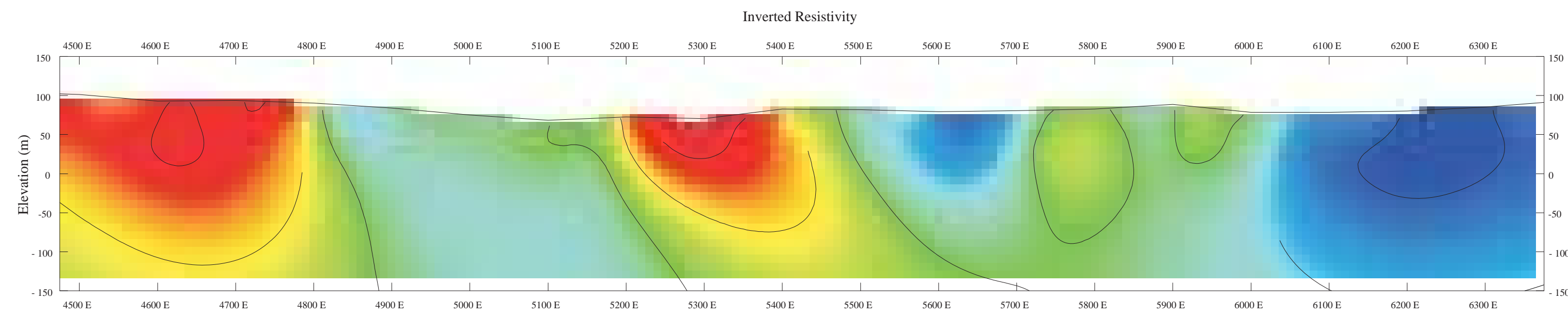
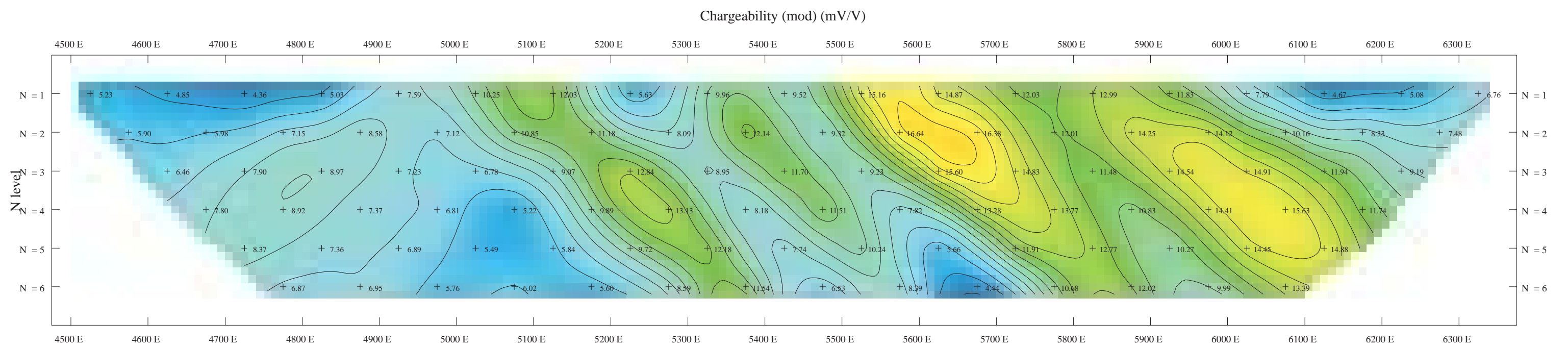
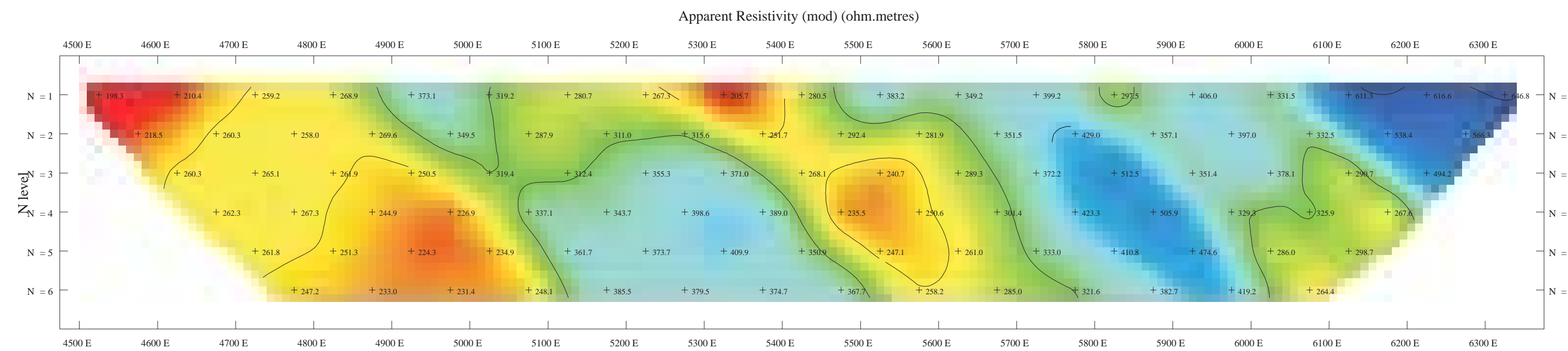
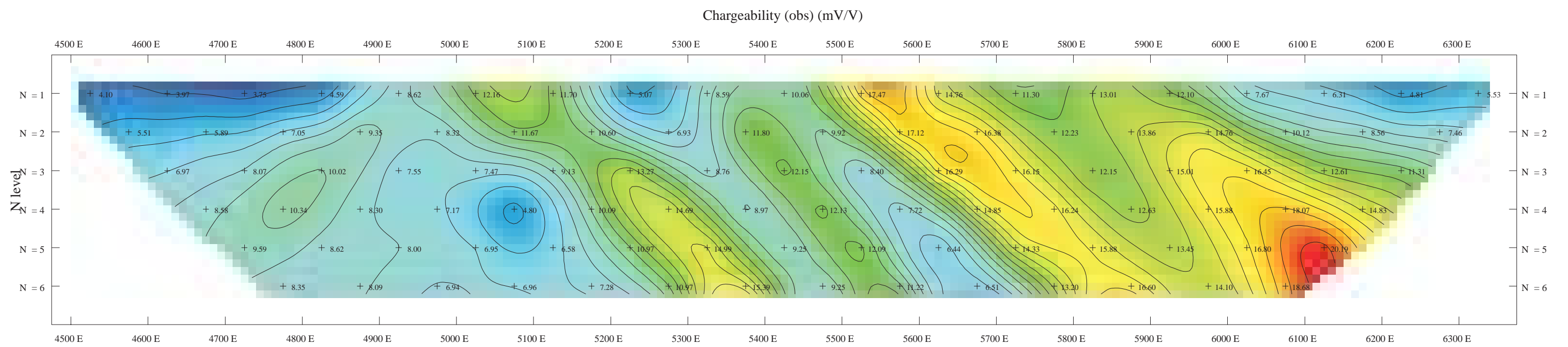
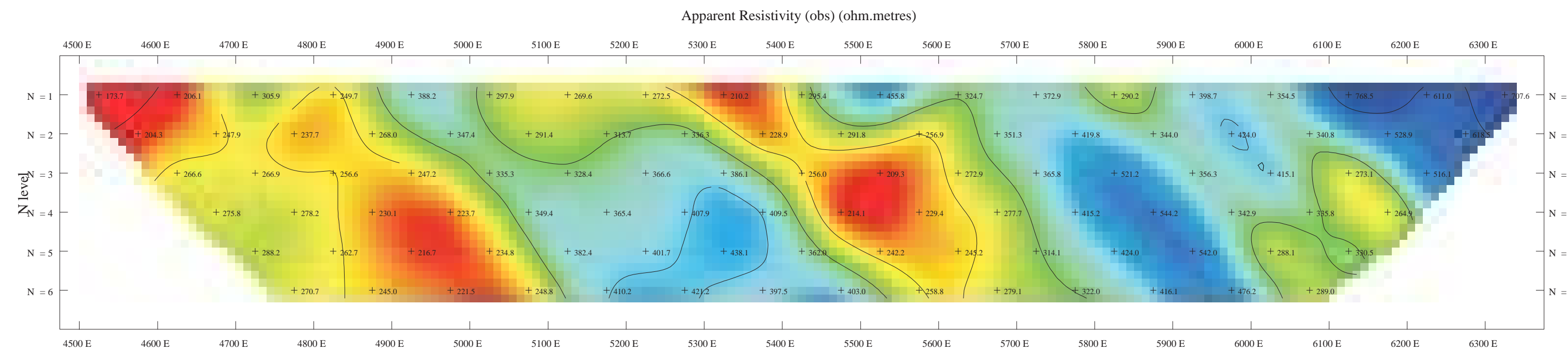
Western Copper Corp.
Island Copper Project
Line 15 000 E



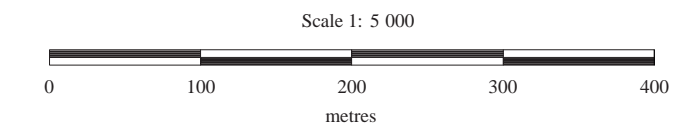
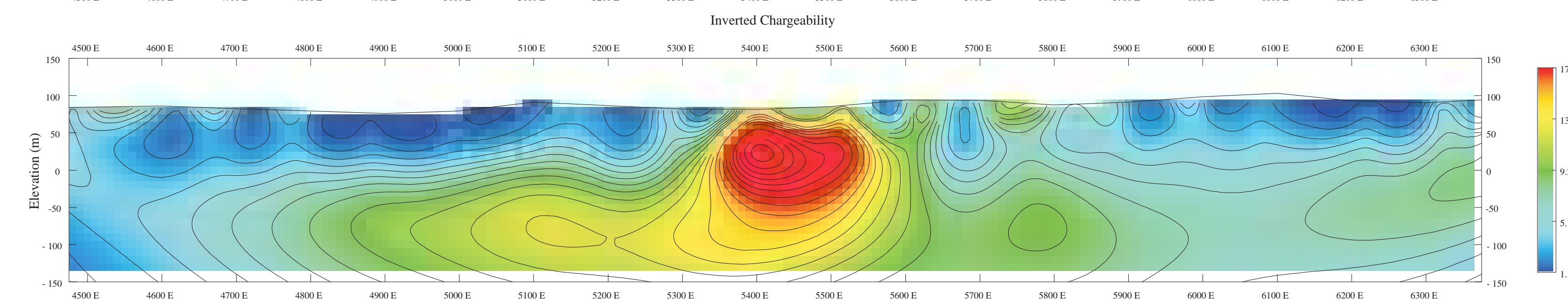
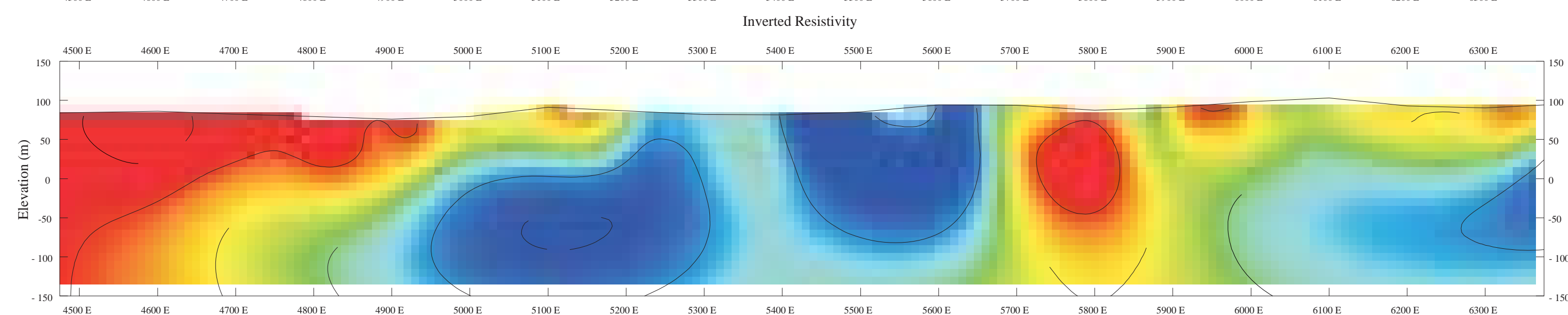
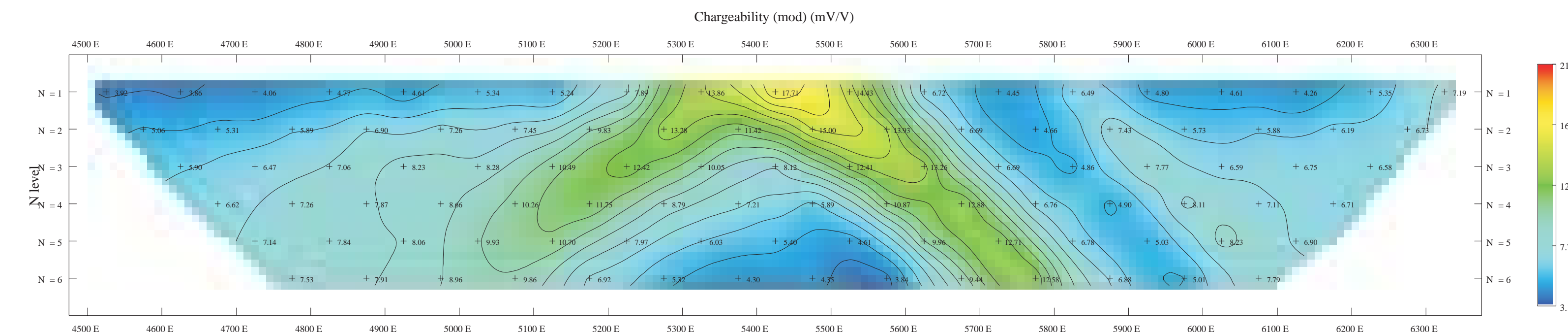
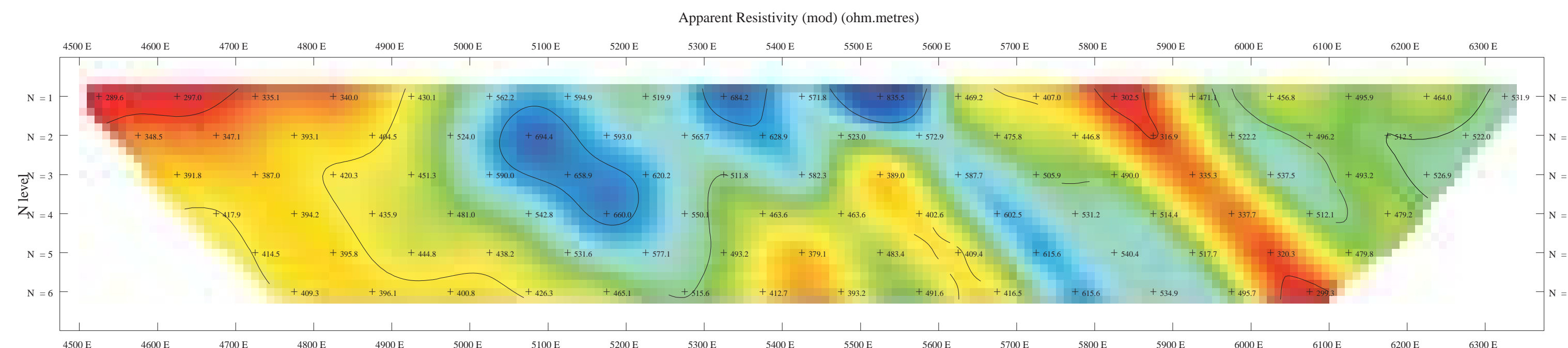
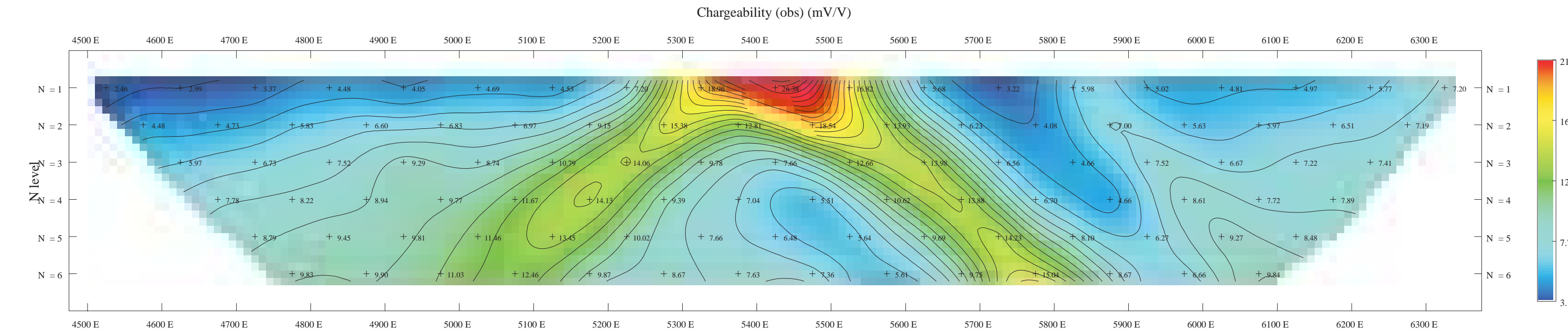
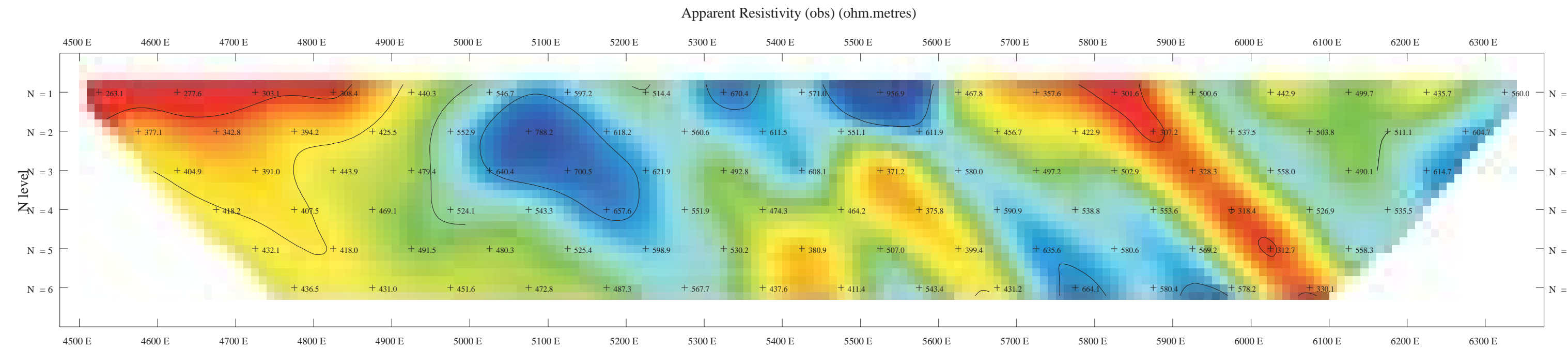
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Island Copper Project	
Line 16 000 E	
Author : scott	Ref :
Drawn :	
Date : 26-Oct-2011	Report No :
Scale 1: 5 000	Plan No :



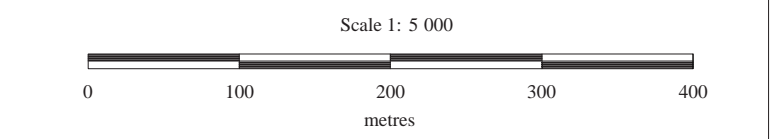
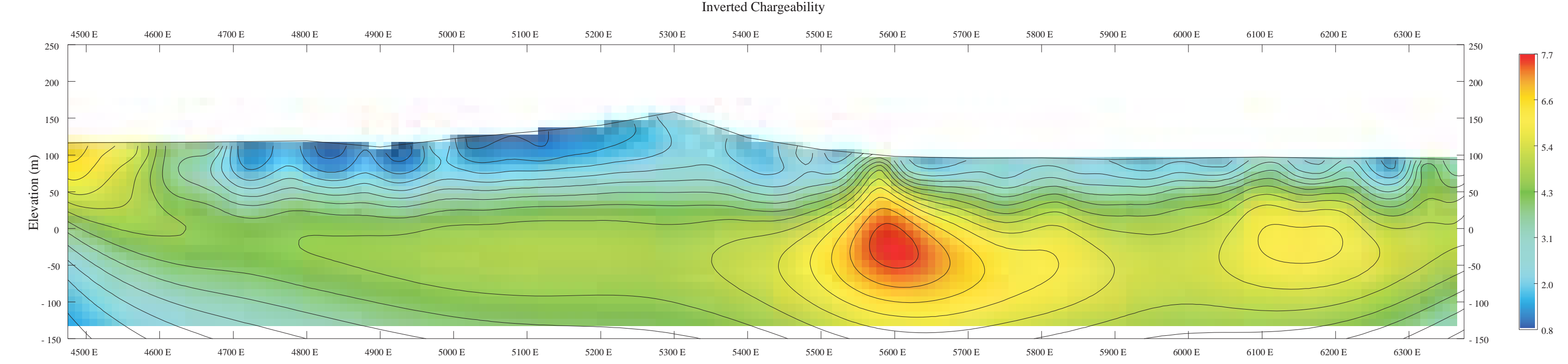
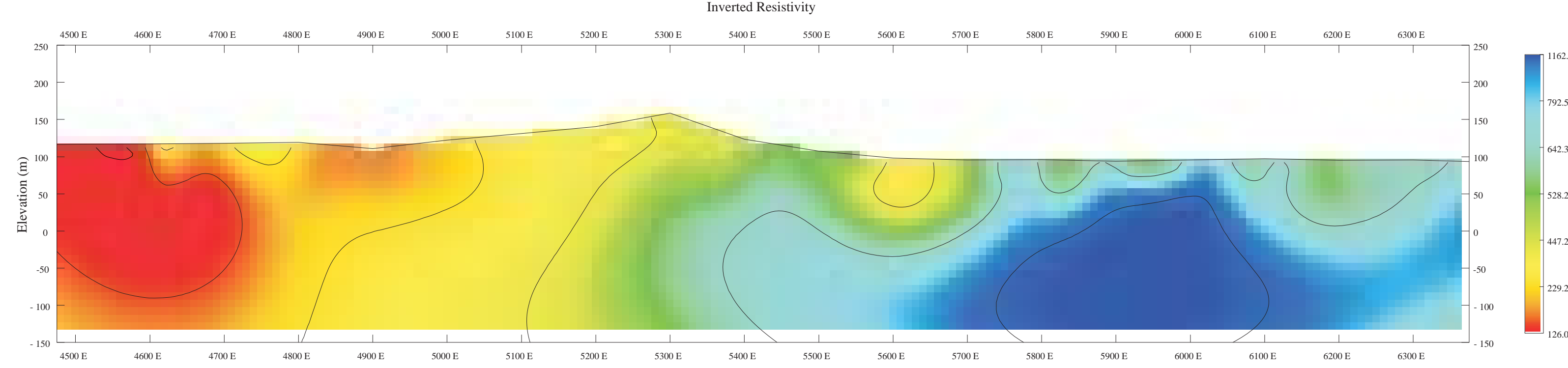
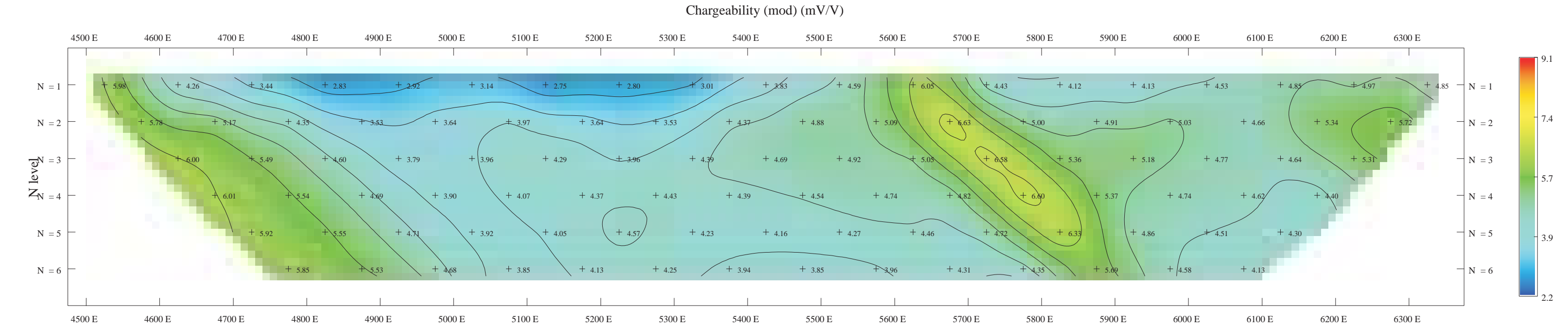
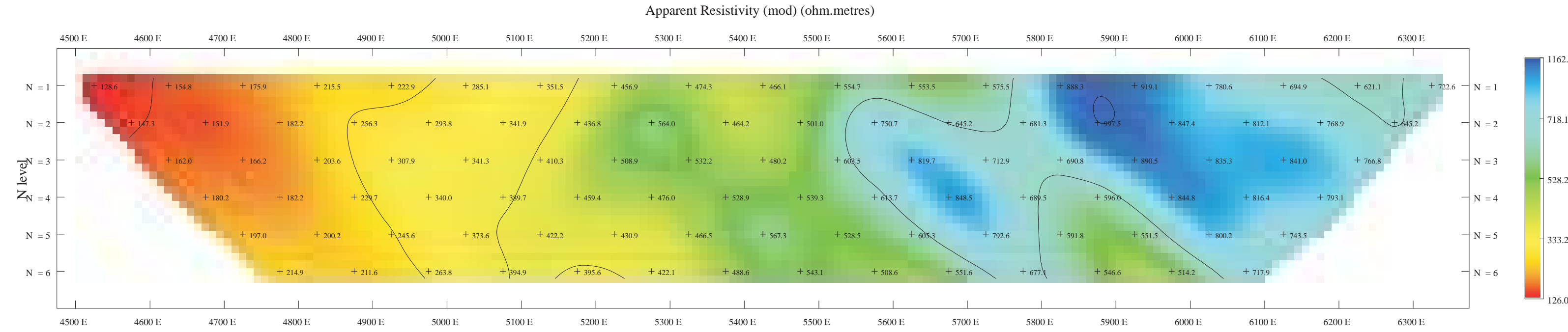
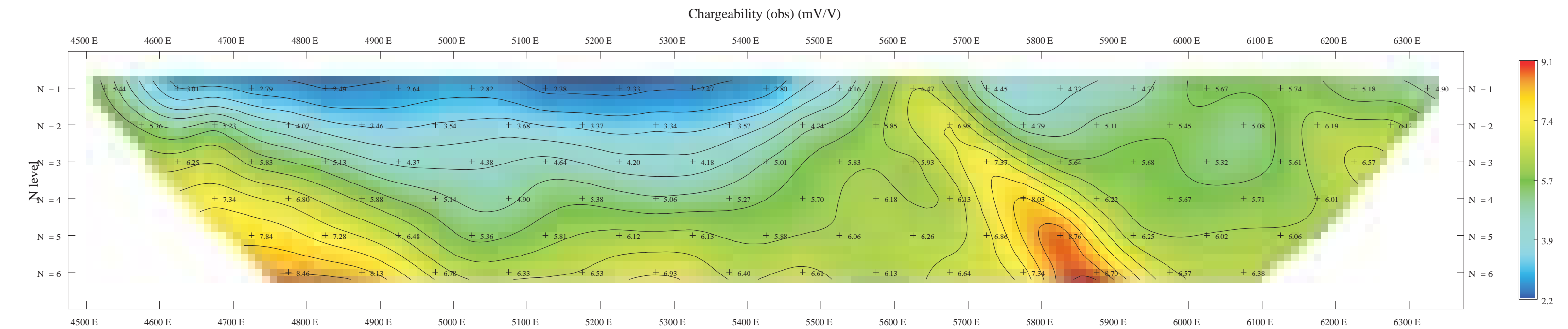
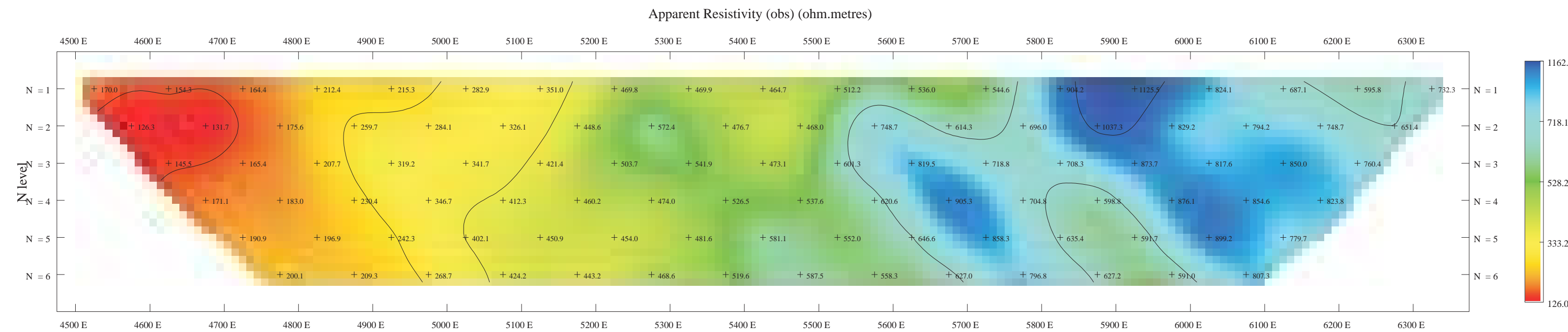
Western Copper Corp.	
Island Copper Project	
Line 17 000 E	
Author : scott	Ref :
Drawn :	
Date : 26-Oct-2011	Report No :
Scale 1: 5 000	Plan No :



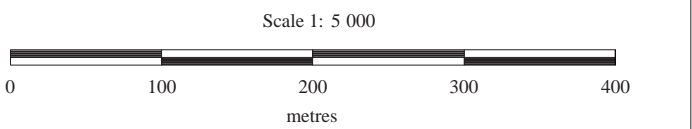
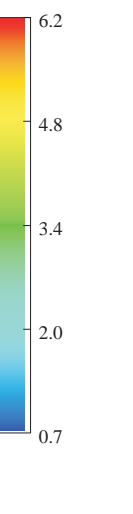
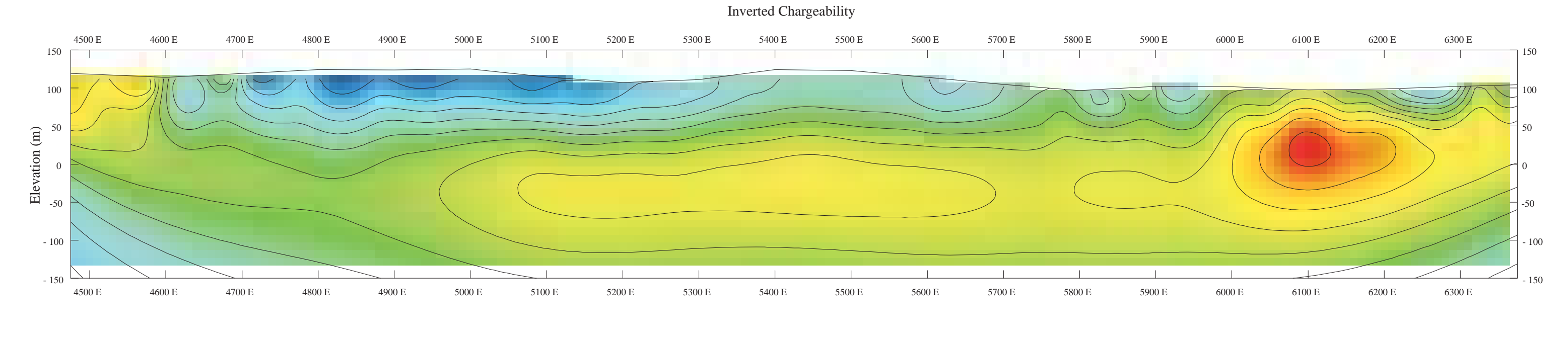
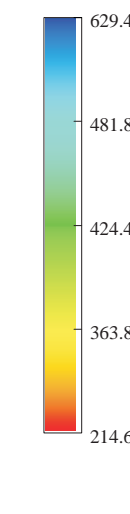
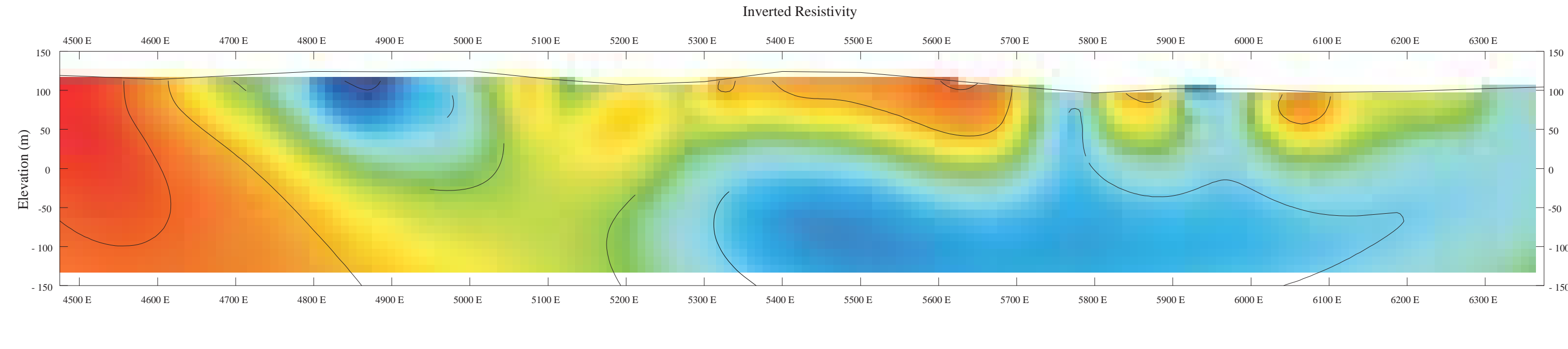
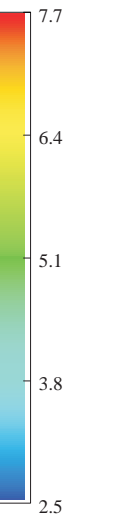
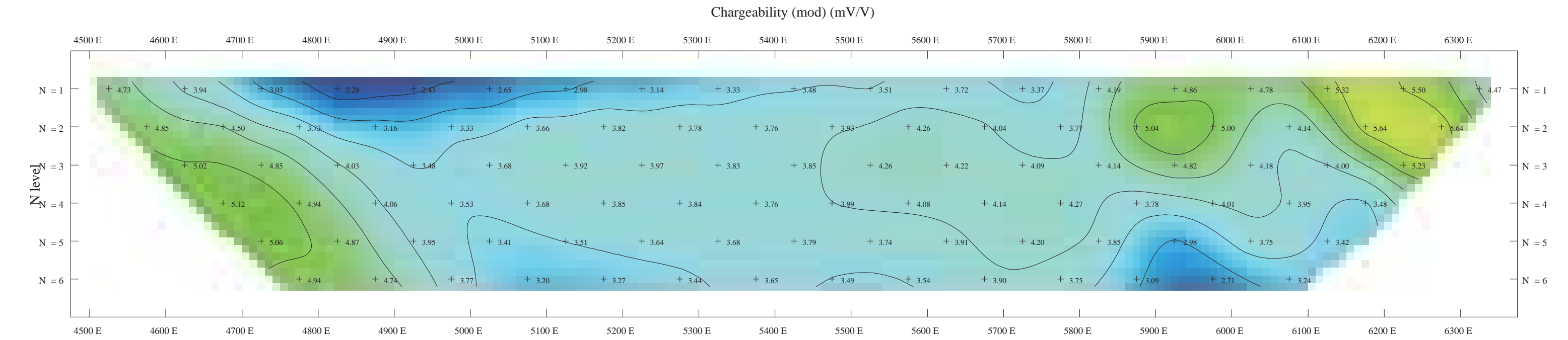
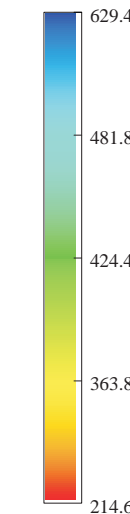
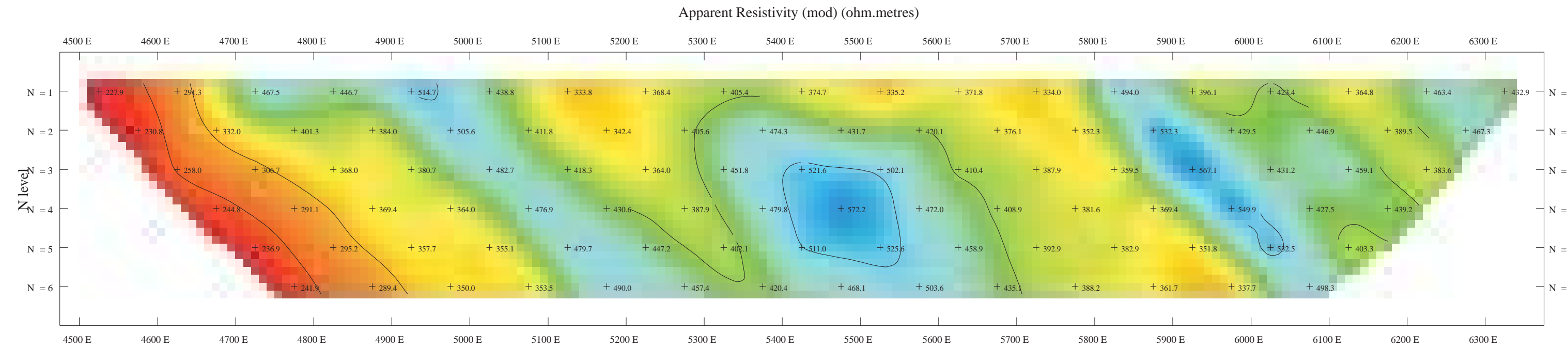
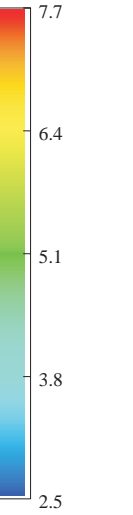
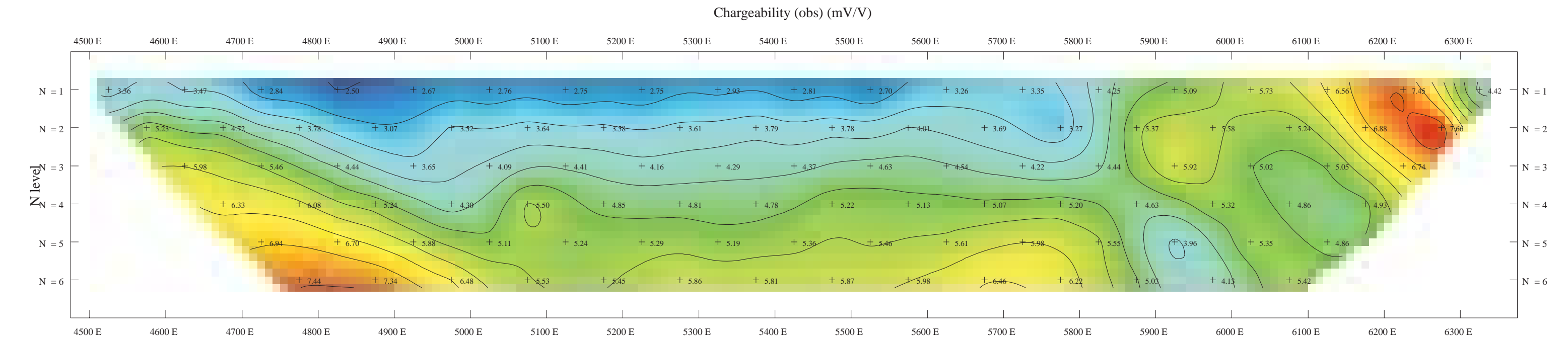
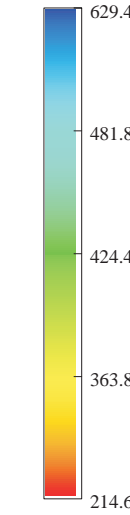
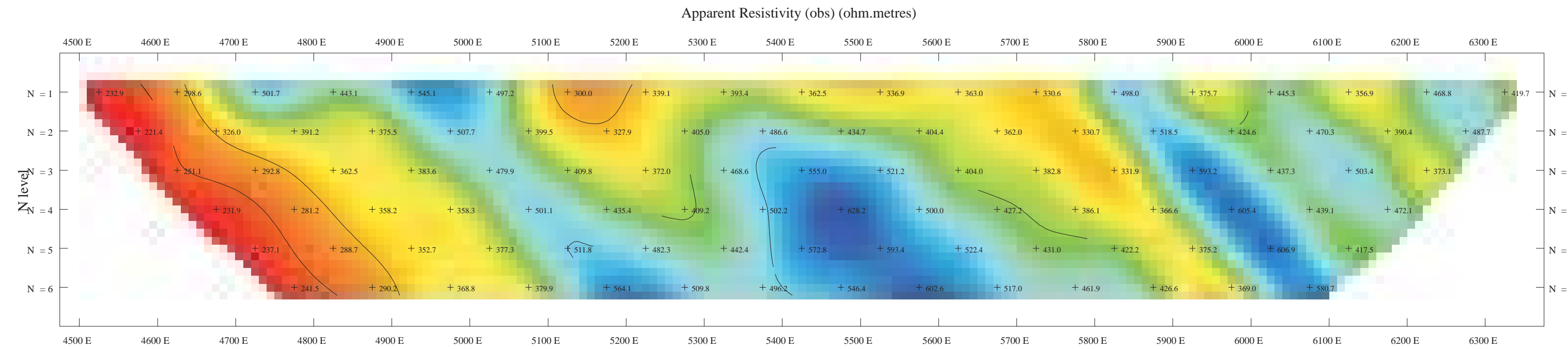
Western Copper Corp.	
Island Copper Project	
Line 18 000 E	
Author : scott	Ref :
Drawn :	Report No :
Date : 26-Oct-2011	Scale 1: 5 000
	Plan No :



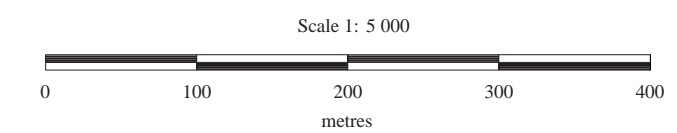
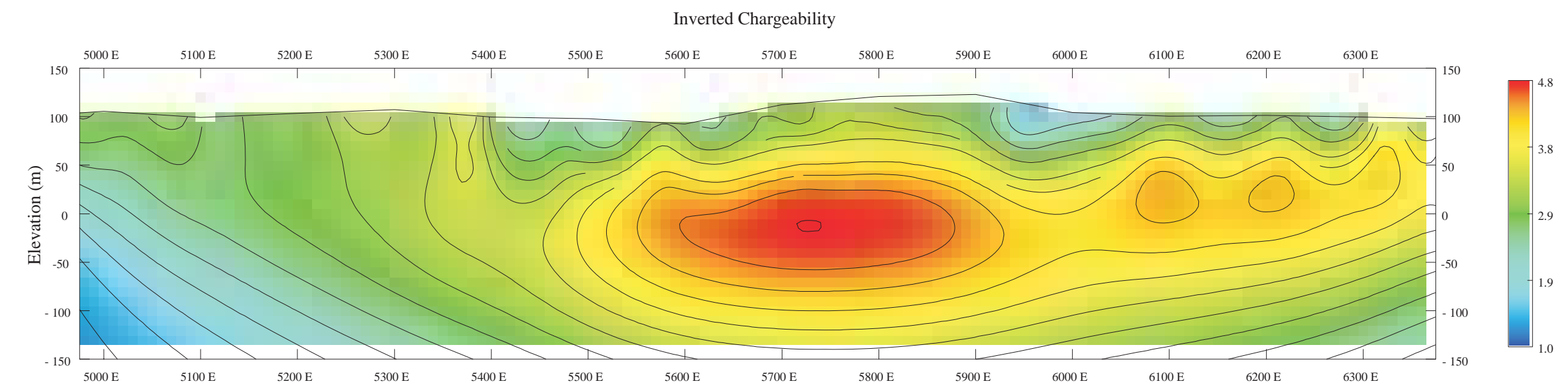
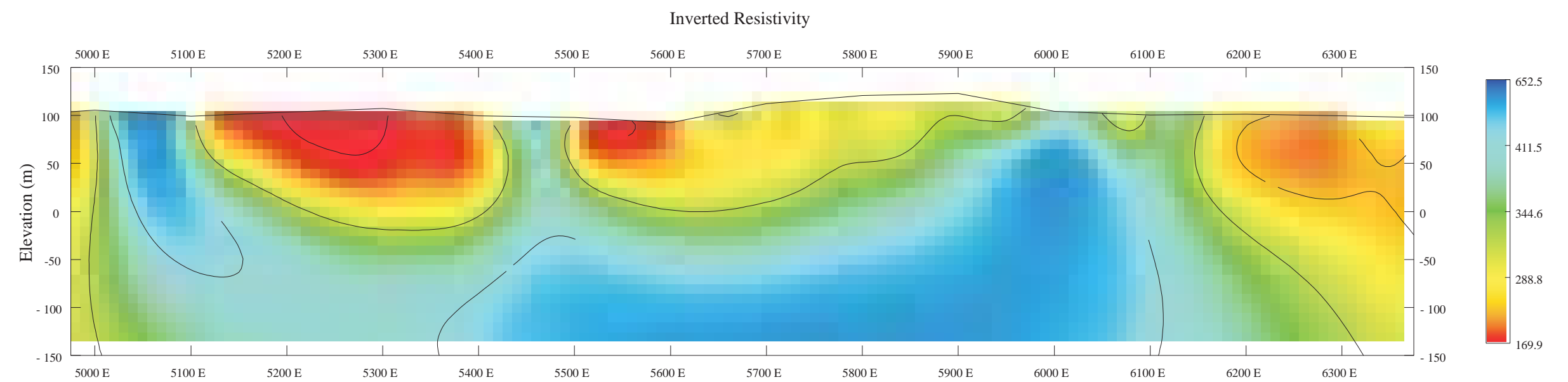
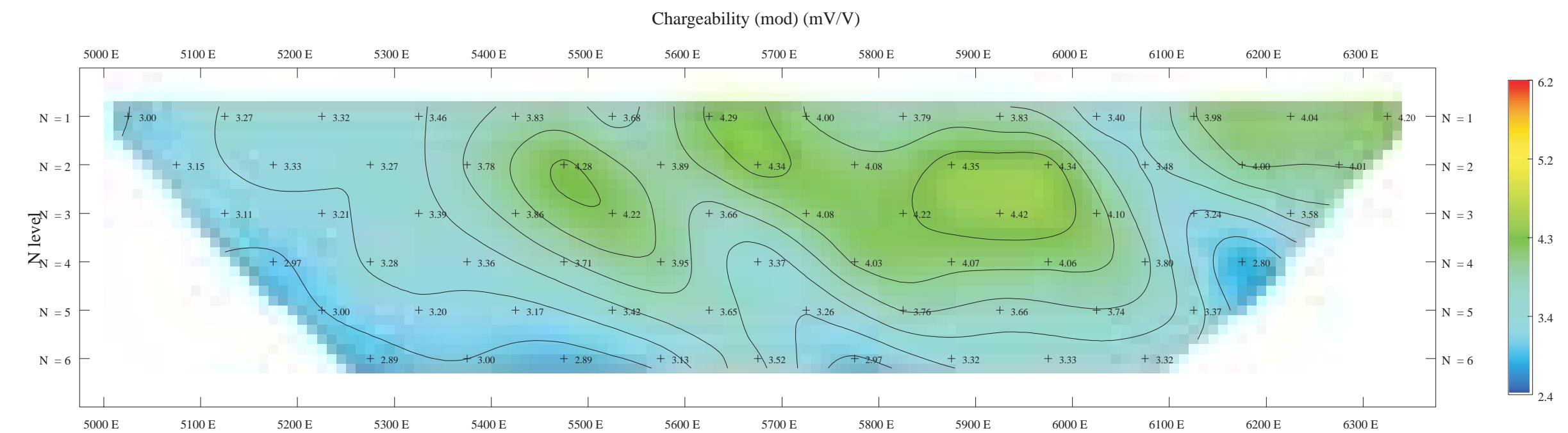
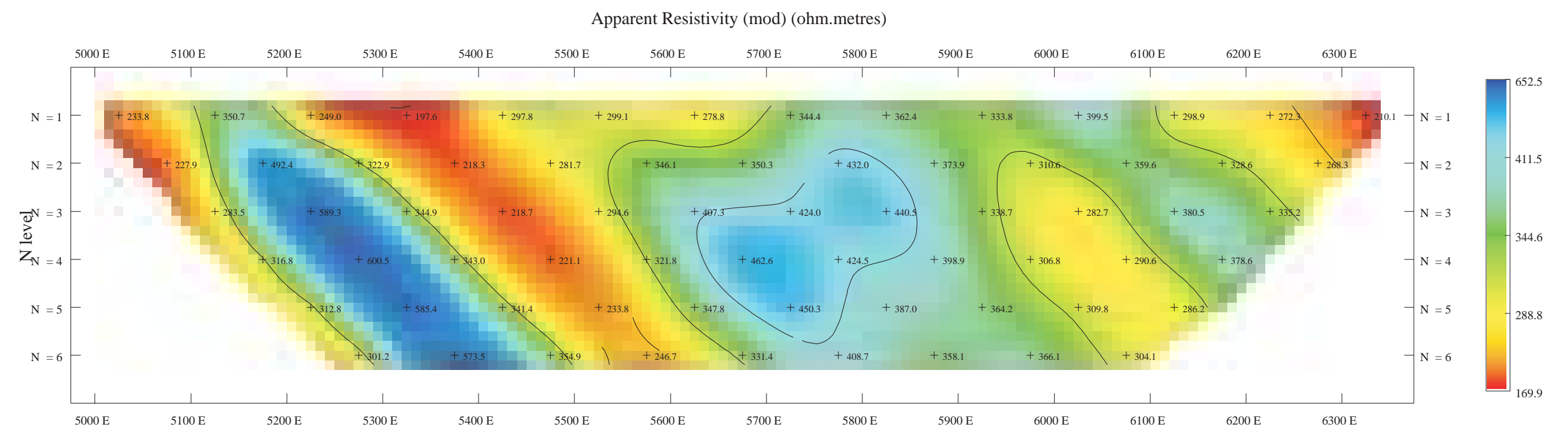
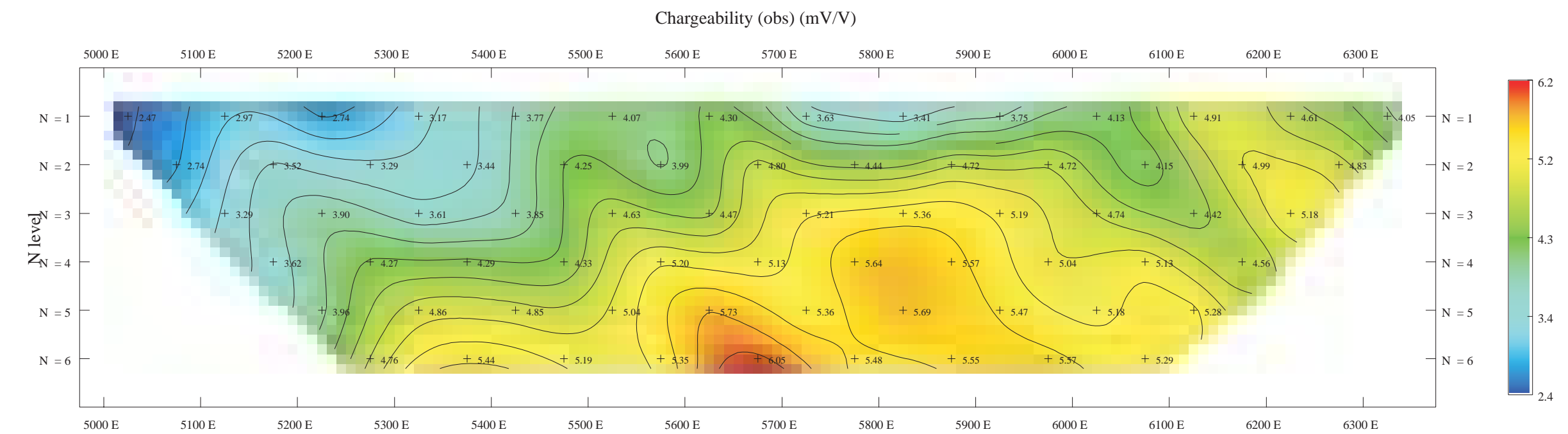
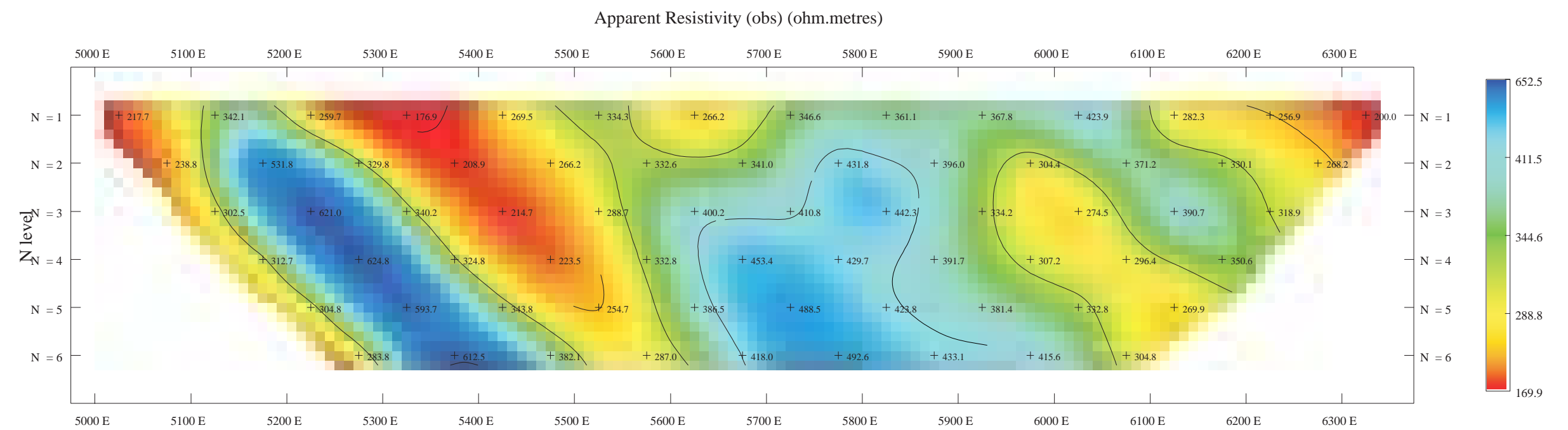
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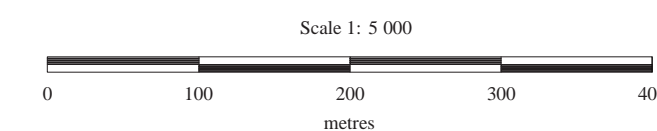
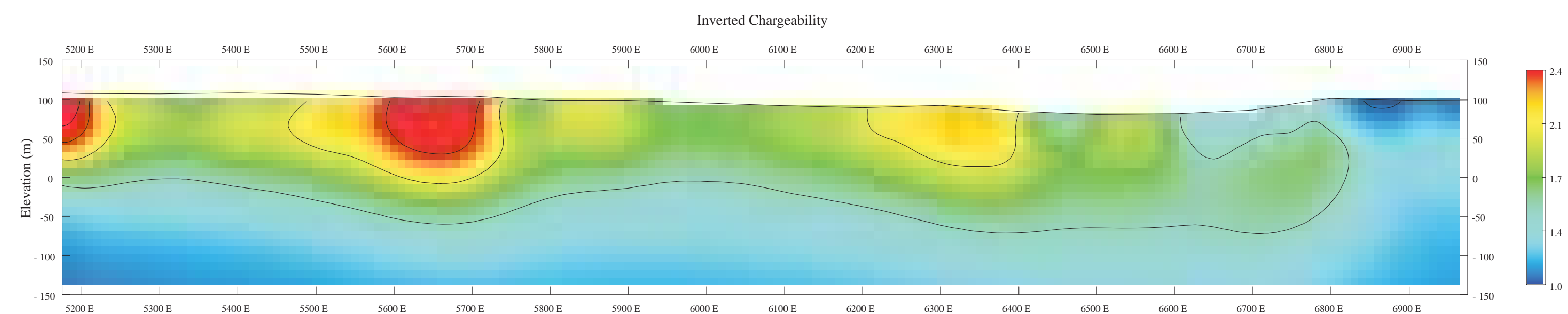
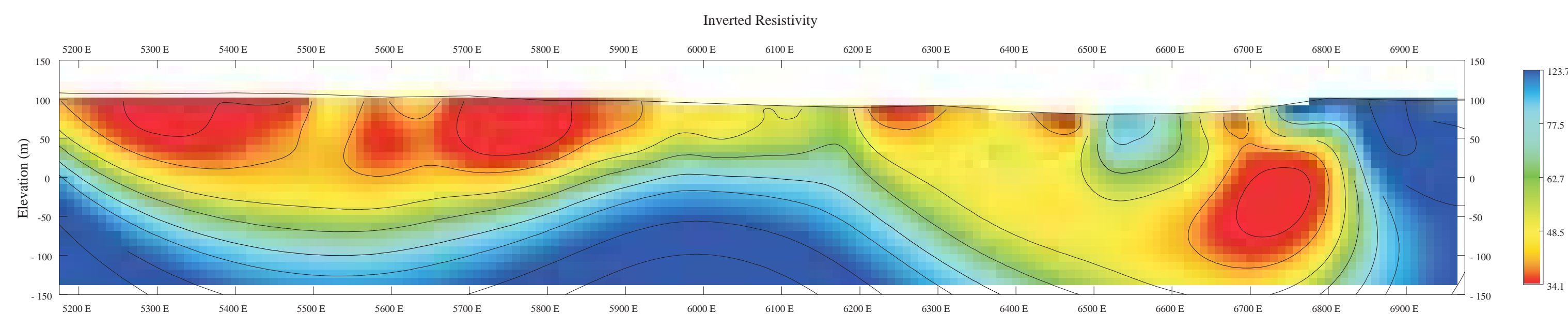
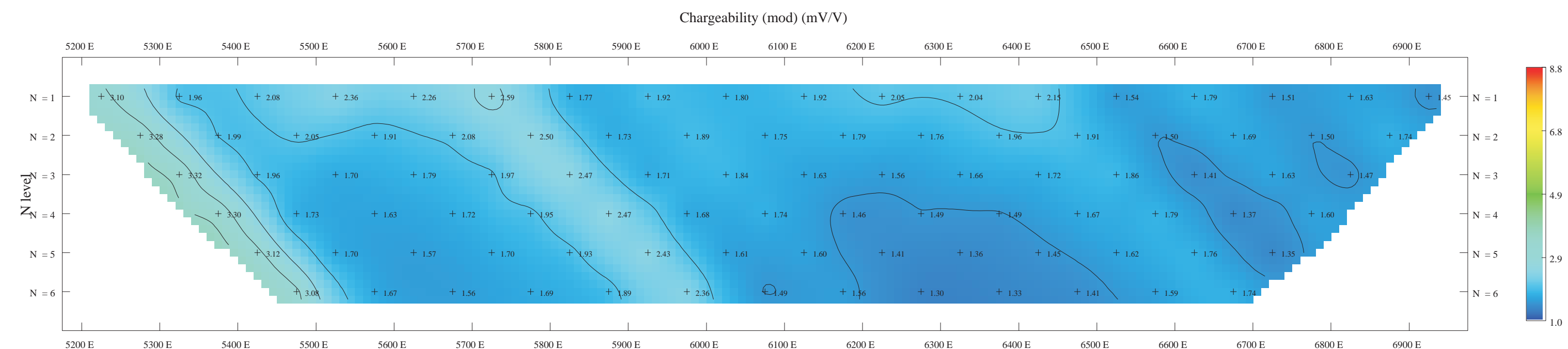
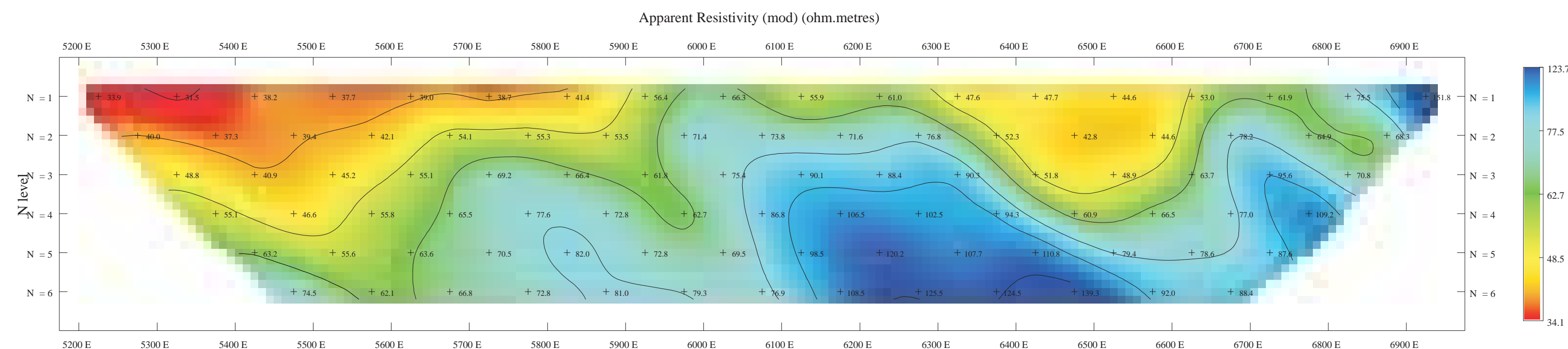
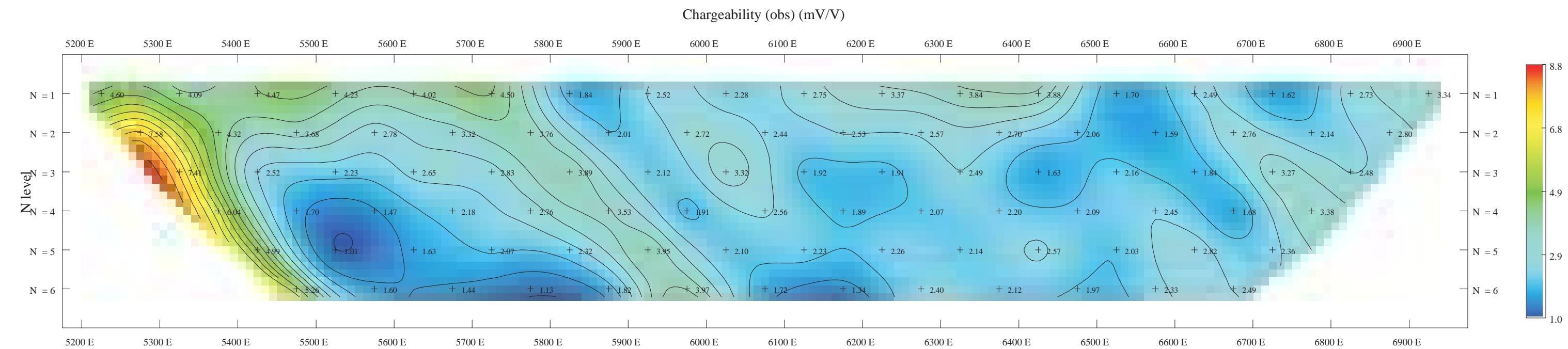
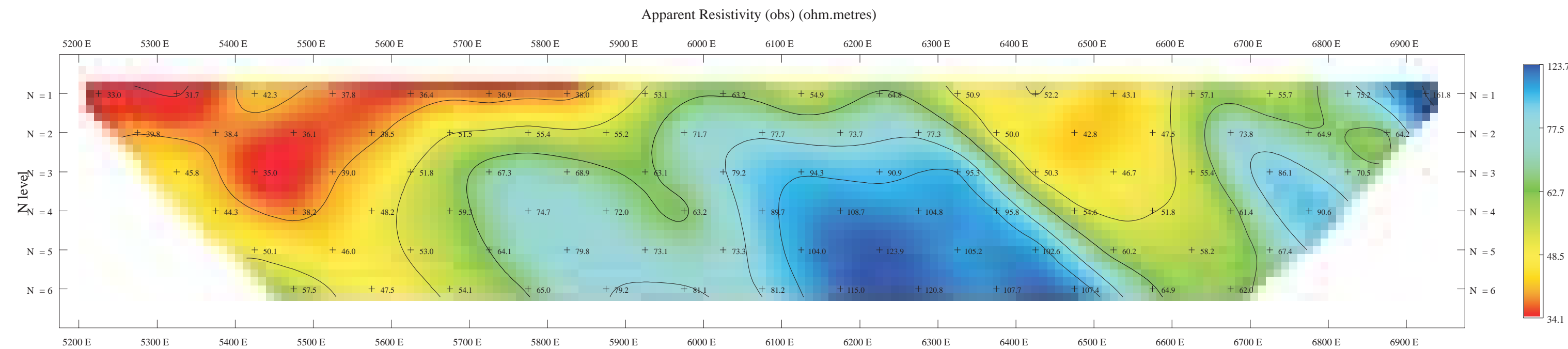
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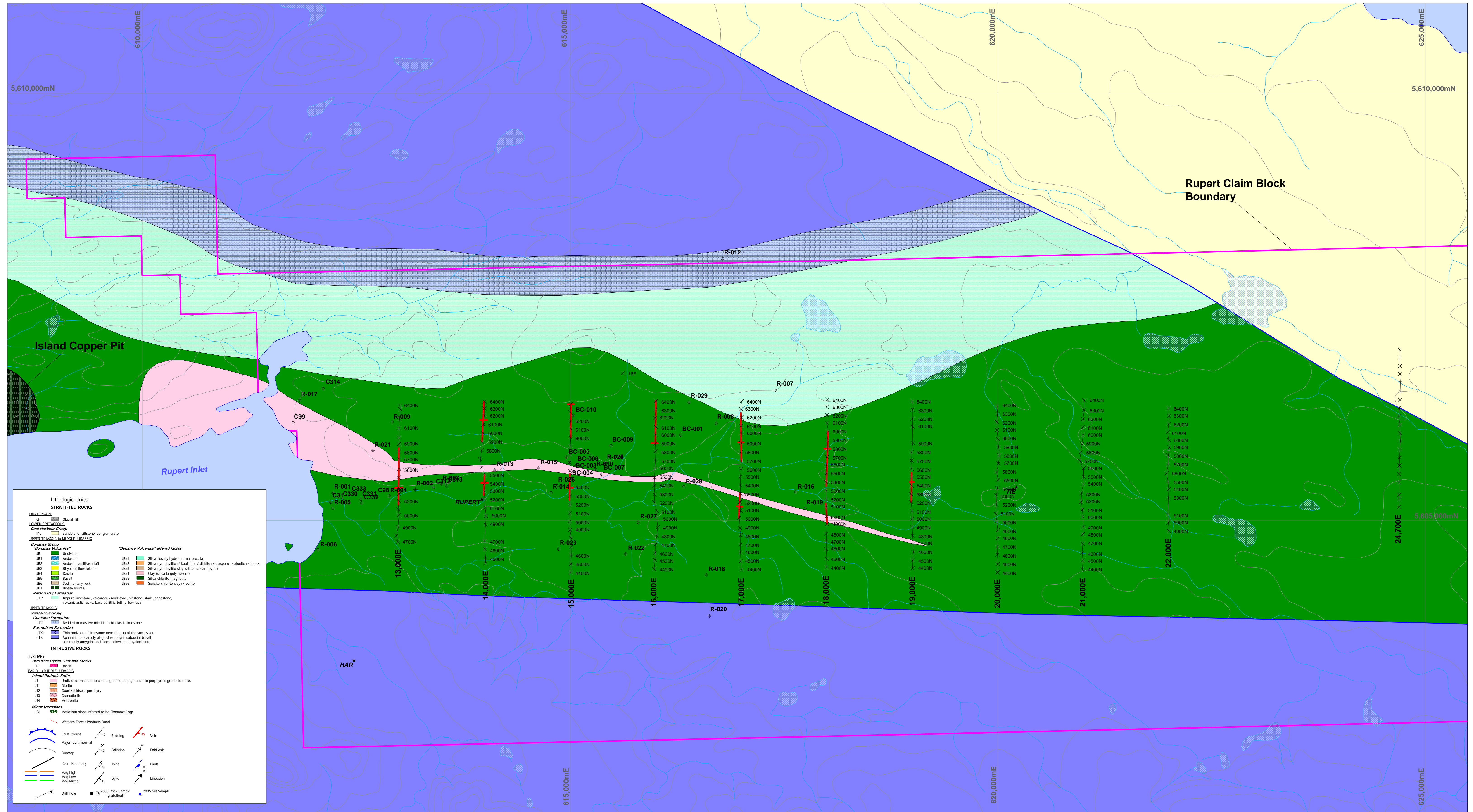


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Appendix G: Geology Map, Drill Holes and 2011 IP Survey Lines



Lithologic Units

STRATIFIED ROCKS

QUATERNARY

QT Glacial Till

LOWER CRETACEOUS

Coal Harbour Group

HC Sandstone, siltstone, conglomerate

UPPER TRIASSIC to MIDDLE JURASSIC

Bonanza Group

"Bonanza Volcanics" altered facies

J1 Undescribed	J1a1 Silica, locally hydrothermal breccia
J2 Andesite	J2a1 Silica, pyrophyllite + kaolinite + talc + diopside + albite + / topaz
J3 Andesite / light / ash tuff	J3a1 Silica, pyrophyllite + kaolinite + talc + diopside + albite + / topaz
J4 Rhyolite: flow foliated	J4a1 Silica, pyrophyllite + kaolinite + talc + diopside + albite + / topaz
J5 Diacite	J5a1 Clay (silica largely absent)
J6 Basalt	J6a1 Silica, chlorite + magnetite
J7 Sedimentary rock	J7a1 Sericite-chlorite-clay + / pyrite
J8 Siltstone horizons	

Parson Bay Formation

uP Impure limestone, calcareous mudstone, siltstone, shale, sandstone, volcaniclastic rocks, basaltic tuff, pillow lava

LOWER TRIASSIC

Vancouver Group

Quaternary Formation

uQ1 Bedded to massive micritic to bioclastic limestone

Kamistone Formation

uK1 Thin horizons of limestone near the top of the succession

uK2 Aphanitic to coarsely plagioclase-phyric subvolcanic basalt, commonly amygdaloidal, local pillow and hyaloclastite

INTRUSIVE ROCKS

TERTIARY

Intrusive Dykes, Sills and Stocks

T1 Basalt

EARLY to MIDDLE JURASSIC

Felsic Plutonic Suite

J1 Undescribed: medium to coarse grained, equigranular to porphyritic, granitoid rocks
J2 Granite
J3 Quartz feldspar porphyry
J4 Granodiorite
J5 Monzonite

Minor Intrusions

J6a1 Mafic intrusions inferred to be "Bonanza" age

Western Forest Products Road

Fault, thrust

Major fault, normal

Outcrop

Claim Boundary

Mag high

Mag Low

Mag Meas

Drill Hole

2005 Rock Sample (grab, float)

2005 Silt Sample

Bedding

Foliation

Joint

Dyke

Vein

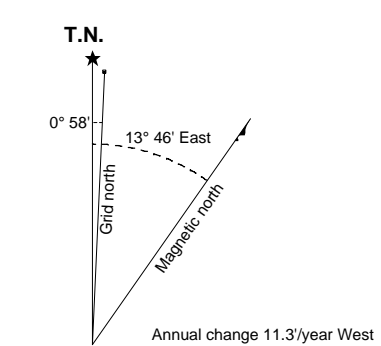
Fold Axis

Fault

Limestone

LEGEND

- IP Survey Line
- × IP Survey Station
- ★ MINFILE Occurrence
- ◆ Historical Drill Hole
- Chargeability Anomaly



NORTHISLE COPPER AND GOLD INC.

Rupert Claim Block

Geophysical Survey Lines and Geology

0 1 2
kilometres

Scale 1 : 20,000

UTM Zone 9, NAD83, NTS 92L/11 and 92L/12

DATE: Jan 2012



SOURCES ARCHAEOLOGICAL & HERITAGE RESEARCH INC.

PRELIMINARY FIELD RECONNAISSANCE

**Island Copper East Block Property,
Rupert IP Geophysical Survey Grid, Rupert Land
District, Northern Vancouver Island, B.C.**



Non-Permit

PREPARED FOR

NorthIsle Copper and Gold Inc.
Vancouver, B.C.

AUTHORS

Morgan Bartlett, BA
Robbin Chatan, MA

April 2012



**Preliminary Field Reconnaissance (PFR) Report:
Island Copper East Block Property**

HCA Permit #: Non-permit

Project Officer: N/A

Client:	NorthIsle Copper and Gold Inc.	Client Contacts:	Konstantin Lesnikov John McClintock
Locations:	Rupert Inlet, Waukwag Creek	Development:	Commercial Mineral Exploration
Land District:	Rupert	FN Traditional Territories:	Quatsino FN Kwakiutl FN

Development

Biogeoclimatic Zones:	CWHvm1 CWHvh1	Mineral Tenures:	#509465, 509466 509467, 509468, 509469, 509470, 509471, 509472, 509474, 509475, 509476, 509479 509480, 509481 509482, 509483	Dates:	2012/13
Geophysical IP Survey Grid:	Rupert	Development Type:	Geophysical Exploration	Exploration Type:	Diamond Drilling
Rupert: 24.0 km			Total Area: 24.0\ km		

Field Survey Summary

Project Supervisor:	Hartley Odwak, MA		Field Directors:	Kennedy Richard, BA	
Archaeologists:	Blake Evans, MA Aviva Finkelstein, BA		First Nation Representatives:	Charles Wilson (QFN) Mark Wallas (KFN) Frank Williams (QFN)	
Proponent Field Personnel:	Arnd Burgert, P. Geo.		Survey Dates:	25-28 May, 2011 21 June, 2011	
Heritage Concerns:	No	Archaeological:	No	Traditional Use Site	No
Features:	N/A	Borden Block/s:	EdSu, EdSt	Permanent Site No./s:	N/A

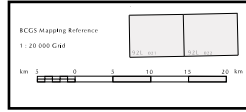
Report

Author:	Morgan Bartlett, BA Robbin Chatan, MA	Illustrations:	Nick Weber, MA
Attachments:	Figures 1-2; Plates 1-2.		

FIG. 1

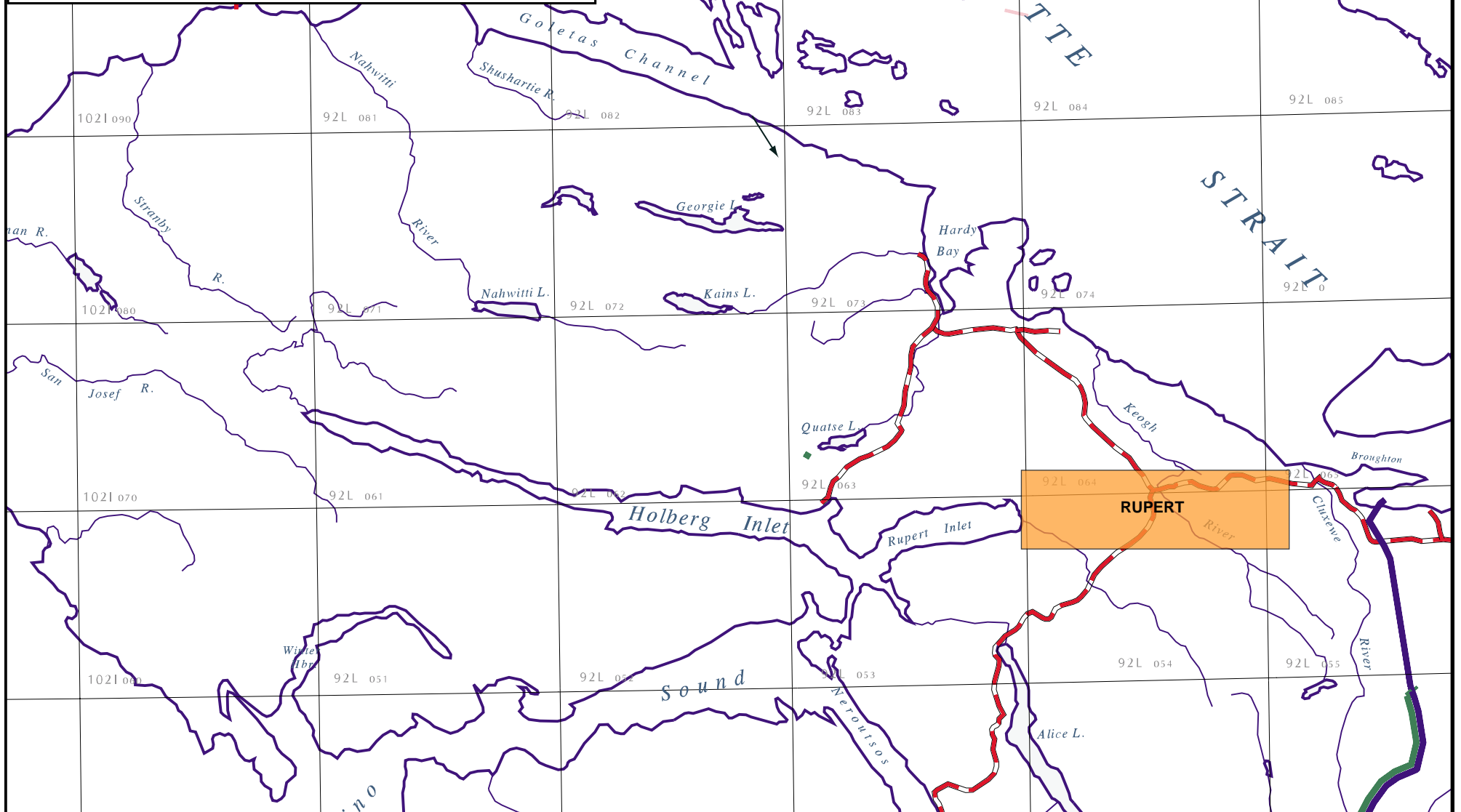
Island Copper East Block Property, Rupert Geophysical IP Survey Grid, Rupert Land District, Northern Vancouver Island, B.C.

Study Area



SOURCES ARCHAEOLOGICAL & HERITAGE RESEARCH INC.

(M. Bartlett) April 2012 | Non-Permit PFR



1.0 POTENTIAL ASSESSMENT

1.1 Ethnographic Backgrounds

This proposed Rupert geophysical IP survey grid area is located within the asserted traditional territories of the Kwakiutl and Quatsino First Nations. Table 1.1 below summarises the eight (8) nearest documented ethnohistoric and ethnographic sites to the Island Copper East Block Property on Northern Vancouver Island (Boas 1934: Map 5; Bouchard 1995; Galois 1994).

Table 1.1: Nearest Documented Ethnohistoric/Ethnographic Sites

Geophysical IP Survey Grid	Location	Site Name	Site Type	References
Rupert	Rupert Inlet	<i>wadzā'lis</i>	Cultural Landform, Named Place	Boas 1934: Maps 5/31
Rupert	Rupert Inlet	<i>ts!ē'qwē</i>	Cultural Landform, Named Place	Boas 1934: Map 5/32
Rupert	Rupert Inlet	<i>neqemā'lis</i>	Cultural Landform, Named Place	Boas 1934: Map 5/33
Rupert	Rupert Inlet	<i>mEkūmā'lis</i>	Cultural Landform, Named Place	Boas 1934: Map 5/34
Rupert	Rupert Inlet, Waukwaas Creek	<i>wax-was</i>	Cultural Landform, Named Place	Boas 1934: Map 5/35
Rupert	Rupert Inlet, Coetkwaas Creek	<i>k!ē'dEgwis</i>	Cultural Landform, Named Place	Boas 1934: Map 5/36
Rupert	Rupert Inlet	<i>xo·dzas</i>	Cultural Landform, Named Place Traditional History, Origin Story Food Harvesting, Fishing Domestic, Dwelling	Galois 1994:362, Hy8
Rupert	Rupert Inlet, Washlawlis Creek	<i>Tsequae</i>	Domestic, Dwelling Food Harvesting, Fishing Cross-cultural Interaction, Communication Cultural Landform, Named Place	Galois 1994:372, Ks22; Boas Map 5/32

The nearest documented ethnographic sites are situated along or near the shoreline of Rupert Inlet. These consist of two (2) occupation sites that are located at the head of Rupert Inlet, and six (6) Kwakwaka'wakw named places. The two ethnohistoric village sites are associated with other activities such as season fisheries, a place of origin of the Hoyalas tribal group at *xo·dzas*, and for *Tsequae* located at one end of the ethnohistoric trail between Rupert Inlet and Fort Rupert in Beaver Harbour (Port Hardy).

1.2 Archaeological Backgrounds

Prior to field survey there were three (3) registered archaeological sites situated within the vicinity of the proposed Rupert geophysical IP survey grid area (HCA 1978-006, Johnson and Williamson, 1978; HCA 1998-246, Maas and Chatan 1999). Table 1.2 below summarises these nearest recorded archaeological sites to this proposed *NorthIsle* geophysical IP survey grid study area.

Table 1.2: Nearest Registered Archaeological Sites

Geophysical IP Survey Grid	Borden No.	Site Type	Subtype	Descriptor	HCA Permit
Rupert	EdSu 002	Cultural Material	Subsurface	Shell Midden	1978-006
Rupert	EdSu 009	Cultural Material Culturally Modified Tree Historic	Subsurface Habitation	Shell Midden Cabin	1998-246
Rupert	EdSu 010	Subsistence Feature	Fishing	Fishing Weir	1998-246

All these recorded archaeological sites within the vicinities of the *NorthIsle* Rupert geophysical IP survey grid area are located on or near the shoreline of Rupert Inlet.

1.3 Summary of Archaeological Potential

The archaeological potentials for the proposed Rupert geophysical IP survey grid study area were determined by its proximity to known ethnohistoric, ethnographic, and archaeological sites; its geographical proximity to the inner coastal waters of Rupert Inlet, freshwater fish- and non-fish-bearing drainage systems, particularly Waukwaas Creek; as well as its known topographical and vegetation/forest settings. Table 1.3 below summarizes the archaeological potential ratings for this geophysical IP survey grid area.

Table 1.3: Predicted Archaeological Potentials

Geophysical IP Survey Grid	Location	Surface/Subsurface Site Potential	CMT Site Potential
Rupert	Rupert Inlet, Waukwaas Creek	Low-Moderate	Moderate-High

Therefore, based on these archaeological and CMT site potential assessments for the proposed Island Copper East Block Property, and following the criteria of the *Quatsino Protocol* (2002, 2007), the Preliminary Field Reconnaissance (PFR) surveys of this geophysical IP survey grid study area was required.

2.0 FIELD SURVEY

2.1 Pre-Field Research

Prior to the commencement of the field work component the field team examined a series of 1:50,000 scale NTS topographic, 1:20,000 scale, 1:20,000 scale, and 1:250,000 project location maps in order to target the highest archaeological potential areas for the proposed Island Copper East Block property. The targeted survey areas in this Rupert geophysical IP survey grid consisted of a series of twelve (01-12) straight and parallel flagged geophysical exploration lines.

2.2 Field Survey Methods

Field survey in the proposed *NorthIsle* Island Copper East Block property composed of the Rupert geophysical IP survey grid aimed to focus on the flagged geophysical lines containing mature second-growth and veteran old-growth tree species, higher elevation terraces and benches, as well as those areas adjacent to past and present drainage networks. The survey methodologies included a systematic surface ground survey of the proposed geophysical exploration impact areas. In the case of the flagged line-cutting areas, the pedestrian survey included field investigation along both the 1m flagged lines and the visible surrounding terrain. Where terrain and archaeological potential warranted it, an area of 50 m or greater outside of the flagged line was also subject to inspection by the field crews, especially between lines and coastal buffer zones. Such a survey strategy is designed to be both flexible to the shape, size, terrain and forest cover along marked lines, and to allow for the assessment of the immediate surrounding area outside the lines in case these lines are subsequently modified.

The field crew consisted of two (2) teams of two (2) individuals who navigated the proposed flagged *NorthIsle* geophysical IP survey grid lines in parallel traverses, or when warranted, the survey was intensified with parallel zigzag traverses. The survey covered transects ranging between a minimum of 10 m and a maximum of 100+ m (Figures 2-4). Traverse coverage depended upon the terrain and conditions encountered which either enhanced or hampered visibility. Overall, survey visibility ranged between poor (5 m – 10 m radius) in areas of high understorey density and height, and excellent (50+ m radius) in areas of relatively open understorey within second-growth stands or marshland.

During the survey, all natural cuts, exposures, as well as root masses and holes from dead- and wind-thrown trees encountered during the survey were inspected for the presence of buried archaeological remains, deposits, features, and palaeosols. No surface or subsurface archaeological remains were encountered in the examination of the natural exposures during the PFR surveys conducted in this proposed *NorthIsle* geophysical IP survey grid study area.

When encountered or known, all exposed rock outcrops were inspected for natural karst or karst-like features, such as caves, rock-shelters, overhangs, crevices, fissures, and sinkholes that could hold archaeological remains. No archaeological remains were discovered in the inspection of the geological features encountered in this survey.

The locations of survey coverage and site location was determined by the use hip chains, compasses, and clinometer, and where possible, by portable Geographical Positioning System (GPS) device. These were tied in

with existing mapped features, including permanent local topographic features and marked geophysical line stations.

2.3 **Culturally Modified Tree Inventory**

In areas of perceived low, moderate and high archaeological potential, all standing and fallen cedars within the visual range of the surveyor were examined by proceeding from tree to tree or stand to stand. Other species of trees were examined for cultural modifications if they fell within or along each transect. All CMTs discovered were to be recorded according to the standards contained in *Culturally Modified Trees of British Columbia Handbook*² (British Columbia, Archaeology Branch 2001). Site extent or boundaries and feature composition would be determined in accordance to the B.C. Archaeology Branch Bulletin #12 (dated 25 May 2004) on “*CMT Site Boundaries*”

(http://www.tca.gov.bc.ca/archaeology/bulletins/bulletin12_defining_culturally_modified_tree_site_boundaries.htm). CMT site boundaries are determined by feature distance ($\leq 100\text{m}$ apart), feature distribution, and by about 10 m radius from the trunk or log section at a minimum, with exceptions based on clear topographical reasons or particular development concerns, such as safety criteria and development feasibility. No archaeological or post-1846 traditional use CMT features or sites were encountered in the PFR survey conducted in the *NorthIsle* Rupert geophysical IP survey grid area.

2.4 **Burials**

In the case where human burials and/or remains were encountered, *SOURCES* would follow the B.C. Archaeology Branch’s policy on “*Found Human Remains*”

(http://www.tca.gov.bc.ca/archaeology/policies/found_human_remains.htm), dated 22 September 1999. No human remains or burial features were encountered in the PFR survey of this proposed geophysical IP survey grid study area.

3.0 **FIELD SURVEY RESULTS**

3.1 **Rupert Geophysical IP Survey Grid Survey Description**






3.1.1 **Survey Specifics**

A) Access: This study area was accessed by vehicle from Port Hardy on the built forestry road networks by driving south on the built Coal Harbour (CH) M/L and then the built Port Hardy (PH) M/L. From this road this geophysical IP survey grid study area was accessed by foot.

B) Survey Crew and Spacing: The team consisted of four (4) individuals that were divided into separate crews of three (3), and two (2) individuals spaces at intervals between a minimum of 5 m and a maximum of 20 m apart. The estimated survey transect breadths ranged between 15 m and 110 m (Figure 2; Plates 1-2).

C) Survey Visibility Range: Survey visibility ranged between a minimum of poor/fair (5 m radius) and maximum of good (20 m – 35 m radius) depending upon the nature of the topography and the variable densities of the understorey encountered.

FIG. 2 Island Copper East Block Property, Rupert Geophysical IP Survey Grid.

-  AIA Recommended Area
-  Sources 2011 Surveys
-  Previously-logged area
-  Proposed Drill Hole at Hushamu Deposit
-  Proposed Geophysical Survey Line

Western Forest Products Roads

 Maintained	 Temporary
 Permanent	 Abandoned
 Semipermanent	 Deactivated

SOURCES ARCHAEOLOGICAL & HERITAGE RESEARCH INC.
 (N. Weber, M. Bartlett) April 2012 | Non-permit PFR

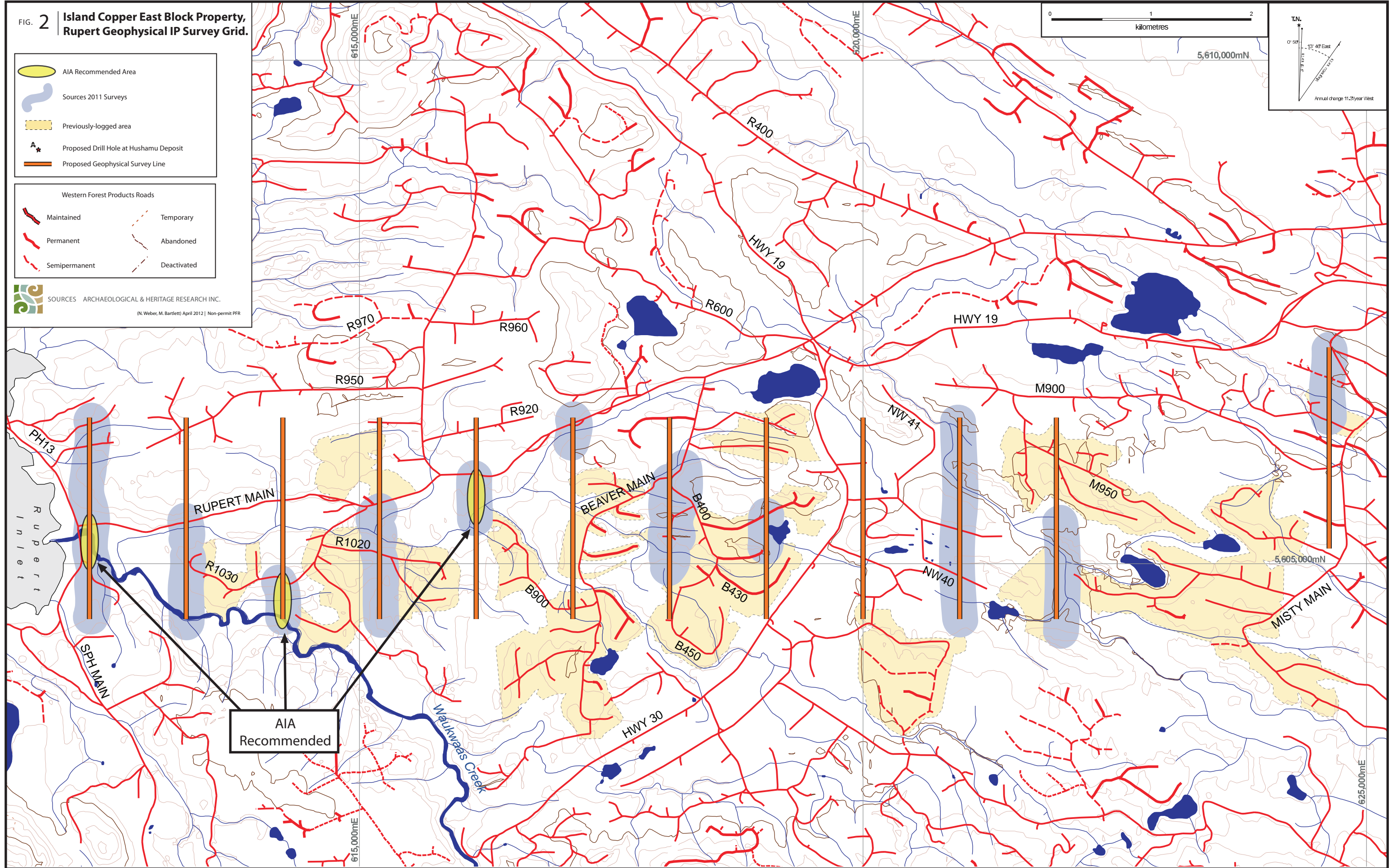
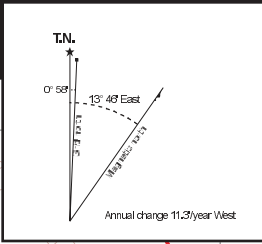
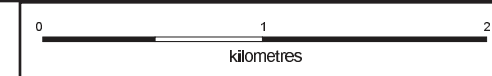




Plate 1. Rupert Geophysical IP Survey Grid - Charles Wilson (KFN) at the base of a large western redcedar snag. (Source: Kennedy Richard, P5280064.jpg)



Plate 2. Rupert Geophysical IP Survey Grid - Charles Wilson (KFN), Mark Wallas (QFN), and Blake Evans (SOURCES) crossing an un-named creek. (Source: Kennedy Richard, P5270011.jpg)

3.1.2 Observed Terrain

A) Elevation Range: This study area is composed of twelve (12) lines (01-12), 2000 m in length, the first 11 beginning and ending at UTM northing 5604450 and 5606450. The lines occur east at intervals of 960 m beginning at easting 612320 until line 12, which begins at easting 624630 and northing 5605150. Elevations in this area range between 50 m and 120 m asl.

B) Slope Range: The slopes range between a minimum of gently sloped (+/-5%) and a maximum of very steep (100+%) gradients. The terrain is undulating.

C) Drainages: This study area is bisected by several intermittent/ephemeral seasonal drainages flowing west and joining with the Waukwaas Creek.

D) Exposed Geological Features: No exposed geological features including karst or karst-like features were observed in this survey of the Rupert geophysical IP survey grid study area.

E) Natural Exposures: The examination of the natural exposures encountered during this survey such as wind-throw root holes and root masses, erosional cuts, *etc.*, did not yield any evidence for buried archaeological remains or palaeosol horizons.

F) Subsurface Testing: No subsurface testing was conducted during this survey. However, three zones of high archaeological potential including subsurface testing were identified on Rupert geophysical IP survey grid lines 01, 03, and 05.

3.1.3 Observed Forest Cover:

A) Forest Cover Age Class: The moderate to high-density forest over in this study area consists of a mixture of old-growth stands with second-growth regeneration.

B) Stand Composition Ranges: Hemlock (10%-95%) with stem diameters ranging between 10 cm and 1+ m DBH; redcedar (2%-90%) with DBH measurements between 10 cm and 1.75 m; amabilis fir (10%-50%) with stem diameters between 5 cm and 90 cm DBH; and Sitka spruce (2%-30) with DBH measurements between 20 and 1m. Stands of red alder (30%-95%) with DBH measurements between 10 cm and 40 cm were encountered in highly disturbed areas.

C) Presence of Wind- and Dead-fall: Patches range between low and moderate density, some with large veteran/old-growth logs. There are some areas with occasional remnant wind-snapped stumps and standing snags.

D) Natural Scarring (“Cat-faces”): The examination of both standing stems and wind-thrown logs indicated that these trees were impacted by natural scars caused by impacts from wind or dead-throws, rock-slides, and arboreal pathologies.

E) Presence of Historic Commercial Logging: Evidence of a previous logging and shake-blocking episodes are found in patches with remnant felled stump features exhibiting sawn cut-faces and spring-board notching.

F) Culturally Modified Trees (CMTs): No CMT features were identified during this survey.

G) Understorey: Moderate to high density salal, huckleberry, devil’s club, thimble berry and conifer saplings (hemlock, redcedar).

H) Ground Cover: Composed of mosses, skunk cabbage, bleeding heart, tall grasses, false lily of the valley, horsetail and ferns.

The archaeological PFR survey of the **Rupert geophysical IP survey grid area** covered an estimated 50% of its total area or a linear distance of about 12 km. No visible archaeological or post-1846 aboriginal traditional use sites or features were encountered either within or immediately adjacent the proposed impact areas. However, three zones of perceived high archaeological potential for surface/subsurface sites and CMTs were identified during the surveys in this geophysical IP survey grid area. These include the central section of Rupert geophysical IP survey grid line 01, located along the eastern shore of Rupert Inlet, the southern section of Rupert geophysical IP survey grid line 03, located along the banks Waukwaas River, and the central section of Rupert geophysical IP survey grid line 05, located along the banks of an unnamed creek draining Beaver Lake and subsequently joining with the Waukwaas River (see Figure 4).

4.0 IMPACT ASSESSMENTS

No visible pre-1846 archaeological and post-1846 aboriginal traditional use sites and features were found in the non-permit archaeological PFR archaeological survey of the proposed *NorthIsle* Rupert geophysical IP survey grid area. However, during the survey of this particular geophysical IP survey grid area three areas were observed to possess a high archaeological potential that warrant further archaeological assessment, including subsurface testing, under a BC HCA Site Inspection Permit.

5.0 RECOMMENDATIONS

5.1 Specific Recommendations

The non-permit archaeological PFR surveys conducted by *SOURCES* in the proposed *NorthIsle* Rupert geophysical IP survey grid area covered about 50% of the total geophysical exploration line impact areas. No pre-1846 archaeological or post-1846 aboriginal sites or features were encountered in this PFR field survey. However, three (3) zones were considered to possess high archaeological potential for the presence of archaeological surface/subsurface and CMT features and sites were identified during the PFR field surveys in the Rupert geophysical IP survey grid area (Figure 2). These identified high potential zones are:

- 5.1.1 The central section of Rupert line 01, located along the eastern shore of Rupert Inlet;
- 5.1.2 The southern section of Rupert line 03, located along the banks Waukwaas River; and
- 5.1.3 The central section of Rupert line 05, located along the banks of an unnamed creek draining Beaver Lake and subsequently joining with the Waukwaas River.

Based on these observations the Proponent, *NorthIsle Copper and Gold Inc.*, has contracted *SOURCES* to conduct Archaeological Impact Assessments (AIAs) under a *B.C. Heritage Conservation Act* (RSBC 1996, Chapter 187) Site Inspection Permit 2012-0019 awarded to Hartley Odwak. This HCA permit will cover the archaeological assessments in these three areas of interest identified in this PFR field survey (HCA 2012-0019, Bartlett and Richard In Progress).

5.2 General Recommendations

With the exceptions of the three zones of high archaeological potential discussed above, based on the survey coverage and the negative findings, the remaining portions of the proposed *NorthIsle* Rupert geophysical IP survey grid area in the Island Copper East Block property is considered to possess low archaeological potentials and further work is highly unlikely. However, in the likelihood that any previously unidentified archaeological features, sites, or deposits may be encountered during the course of the proposed *NorthIsle* commercial mineral exploration operations in this geophysical IP survey grid area it is further recommended that:

5.5.1 That *NorthIsle Copper and Gold Inc.* informs all contractors and personnel involved in the proposed commercial mineral/geophysical exploration and ancillary developments that all unrecorded archaeological remains in British Columbia are protected from disturbance, either intentional or inadvertent, by the ***B.C. Heritage Conservation Act*** (RSBC 1996, Chapter 187), the ***Forest Planning and Practices Regulation*** (2002, Section 10), and the ***ILMB Vancouver Island Land Use Plan*** (December 2000); and;

5.5.3 In the event that previously un-identified archaeological remains are encountered, all activities in the area concerned must be immediately suspended. Archaeological Permitting and Assessment Section, B.C. Archaeology Branch, Ministry of Forests, Lands, and Natural Resource Operations (Victoria), and the Kwakiutl (Port Hardy, IR #1 Fort Rupert) and Quatsino (Coal Harbour, IR #18 Quattishe Subdivision) First Nations must be informed as soon as possible of the location and type of the archaeological remains and the nature of the disturbance.

These recommendations apply solely to physical archaeological evidence of past human activity and in no way attempt to encompass or represent any traditional land use or aboriginal rights and title concerns of the Kwakiutl and Quatsino First Nations.

6.0 REFERENCES

- Apland, Brian C., and Ray Kenny,
1998 ***British Columbia Archaeological Impact Assessment Guidelines***⁴. B.C. Archaeology Branch, Ministry of Tourism, Culture, and the Arts, Victoria. <http://srmwww.gov.bc.ca/arch/pubs/impweb/impact.htm>
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Appendix H: Data CD