

**Kiska Metals Corporation**

**2012 GEOLOGICAL AND GEOPHYSICAL  
REPORT ON THE KLIYUL PROJECT**

Located in the Omineca Mountains, Omineca Mining Division  
NTS 94D/8, 9; BCGS 94D.49, 50, 59, 60  
56° 30' N Latitude; 126° 09' W Longitude

-Prepared for-

**KISKA METALS CORPORATION**  
Suite 575, 510 Burrard Street  
Vancouver, BC, Canada  
V6C 3A8

-Prepared by-

Ronald Voordouw, Ph.D.  
**EQUITY EXPLORATION CONSULTANTS LTD.**  
Suite 200,900 West Hastings Street  
Vancouver, British Columbia, Canada, V6C 1E5

February, 2012

## TABLE OF CONTENTS

TABLE OF CONTENTS .....	2
LIST OF APPENDICES.....	3
LIST OF TABLES .....	3
LIST OF FIGURES.....	3
1.0 SUMMARY.....	4
2.0 INTRODUCTION.....	5
3.0 RELIANCE ON OTHER EXPERTS.....	5
4.0 PROPERTY DESCRIPTION AND LOCATION.....	5
5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, PHYSIOGRAPHY .....	5
6.0 HISTORY .....	9
7.0 REGIONAL GEOLOGY AND MINERALIZATION.....	13
8.0 PROPERTY GEOLOGY, ALTERATION AND MINERALIZATION .....	14
8.1 Stratified Units .....	14
8.1.1 Kliyul Creek unit (Takla Group).....	14
8.1.1 Goldway Peak unit (Takla Group).....	14
8.2 Intrusive rocks.....	16
8.2.1 Upper Triassic ultramafic-mafic suite.....	16
8.2.1 Early Middle Jurassic monzonite–diorite and tonalite suite .....	16
8.2.2 Lower Cretaceous granite, granodiorite and tonalite.....	18
8.3 Structural Setting .....	18
8.4 Alteration .....	19
8.5 Mineralization Styles .....	19
9.0 2011 WORK PROGRAM.....	20
9.1 Data Compilation .....	20
9.2 Prospecting.....	21
9.3 Induced Polarization/Resistivity survey .....	22
9.4 Reclamation.....	22
10.0 ANALYSIS OF SELECT COMPILED DATA .....	23
10.1 Drill core .....	23
10.2 Soils.....	23
10.3 Stream sediments.....	24
11.0 GEOLOGICAL MAPPING AND PROSPECTING .....	25
12.0 ROCK SAMPLING AND GEOCHEMISTRY .....	27
13.0 INDUCED POLARIZATION/RESISTIVITY SURVEY.....	27
14.0 DISCUSSION AND CONCLUSIONS .....	31

## LIST OF APPENDICES

Appendix A: Bibliography	
Appendix B: Claim Data	
Appendix C: Statement of Expenditures	
Appendix D: Rock Sample Descriptions	
Appendix E: Rock Sample Analytical Certificates	
Appendix F: Geophysical Consultant Report I: Peter E. Walcott & Associates	
Appendix G: Geophysical Consultant Report II: Jan Klein, Consulting Geophysicist	
Appendix H: Compact Disc	
Appendix I: Geologist's Certificate	

## LIST OF TABLES

Table 1: Kliyul property claim status .....	8
Table 2: Kliyul property - summary of work history .....	10
Table 3: Summary of BC Minfile occurrences on the Kliyul property .....	19
Table 4: Summary of drill core stored on the Kliyul property. N = number of drill holes.....	22
Table 5: Select percentile values and the median for historical soil samples from the project area.....	23
Table 6: Select percentile values and the median for historical stream sediments from the project area. ....	24
Table 7: Summary of IP/Res domains defined by the 2011 survey .....	27

## LIST OF FIGURES

Figure 1: Kliyul project location map .....	6
Figure 2: Kliyul property claims map.....	7
Figure 3: Generalized geology of the Kliyul property after Schiarizza and Tan (2005) .....	15
Figure 4: Map showing key lithological units, structural trends, alteration, mineralization and stream sediment geochemistry in the core of the Kliyul property. Legend for lithological units and linework is the same as in Figure 3.....	17
Figure 5: Map illustrating key elements of the 2011 work program, including the IP/Res survey grid, area of prospecting/geological surveying, as well as the location of 2011 exploration camp, reclaimed camps and reclaimed drill pads.....	21
Figure 6: Plot showing variation in gold-in-silt abundance (Au ppb) within creeks draining the Kliyul Cu-Au-magnetite skarn. Headwaters of all three creeks lie in the Lay/Kliyul valley. ....	25
Figure 7: Outcrop photographs showing (a) epidote-rich veins and aggregates cut by granitic dikelet, (b) tonalite dyke with xenoliths of epidote-altered and unaltered Goldway Peak mafic volcanic, (c) boulder of Darb Creek tonalite with diffuse epidote veins cut by thin granitoid veinlets, (d) Goldway Peak mafic volcanic cut by symmetrically zoned orthoclase-epidote vein (Or-Ep vein), (e) rounded xenolith of Goldway Peak mafic volcanic within Darb Creek tonalite, and (f) contact between monzonite and breccia unit, the latter comprising xenoliths of Takla Group within a monzonite host.....	26
Figure 8: Map showing 2011 rock sample locations .....	28
Figure 9: Compilation map showing IP/Res domains, diamond drill holes and ground magnetic anomalies superimposed on n = 2 chargeability. Inset shows IP/Res target zones and proposed DDH.....	29
Figure 10: Compilation map showing IP/Res domains, diamond drill holes and ground magnetic anomalies superimposed on n = 2 resistivity. Inset shows IP/Res target zones and proposed DDH. ....	30

## 1.0 SUMMARY

This report describes the 2011 work program completed on Kiska Metals Corporation's ("Kiska") Kliyul property, which lies within the Omineca Mountains about ~200 kilometres northwest of Mackenzie. The Kliyul property is owned 100% by Rimfire Minerals Corporation ("Rimfire"), a wholly owned subsidiary of Kiska. The property comprises 74 contiguous mineral claims covering 5394.1 ha.

The Kliyul property, which lies within the Quesnel Terrane, is mostly underlain by the Upper Triassic Takla Group and Upper Triassic–Middle Jurassic mafic–ultramafic intrusive suites and granitoids. This geological setting is prospective for Cu-Au porphyry deposits, with analogous examples including Mt Milligan (707 Mt @ 0.18% Cu; 0.33 g/t Au) Kemess South (109 Mt @ 0.23% Cu; 0.71 g/t Au) and Kemess North underground (137 Mt @ 0.29% Cu; 0.56 g/t Au). Indicators of Cu-Au porphyry mineralization occur on the property and were investigated as part of this project.

The Kliyul property contains 19 BC Minfile showings, including two Cu-Au-magnetite "skarns" (Kliyul, Pacific Sugar), two Cu-Au porphyry showings and 15 gold and/or poly-metallic occurrences hosted in quartz vein-like systems. The Kliyul "skarn", which is the focal prospect of this report, covers an area of ~160 x 250 m and is also referred to as a "magnetite-silica replacement body", since it replaces andesitic, rather than calcareous host rocks. The ~7 km<sup>2</sup> area surrounding this skarn consists of a phyllic-altered (quartz-sericite ± pyrite ± clay) andesite that is intruded by similarly altered diorite–monzonite. Thirty-one, mostly shallow (<100 m), diamond drill holes were directed into this skarn and immediate surroundings between 1974 and 2006, with the best intersection recovered from one of only three DDH to exceed ~100 m in true vertical depth (0.23% Cu and 0.52 g/t Au over ~218 m).

The spatial association of Cu-Au-magnetite skarn, pervasive phyllic alteration and lengthy DDH intersections of Cu-Au mineralization is consistent with Cu-Au porphyry deposit models. Other features consistent with this model that occur on the Kliyul property include widespread propylitic alteration outside of the phyllic zone, gypsum-bearing veins and crackle breccias in drill core, spatial association with a swarm of diorite/monzonite dykes, nearby occurrence of gold-bearing quartz veins (e.g. Ginger, Independence, Banjo, KC1) and Au-enrichment in sediments from streams that drain the prospect.

The 2011 work program measured the chargeability and resistivity of rocks underlying the skarn-bearing phyllic alteration zone, through a 30.6 line-km induced polarization/resistivity (IP/Res) survey. Parameters of the survey (a = 200 m, n = 6) provided measurements to depths of ~500 m below the surface, significantly deeper than historical drilling. Four man-days of prospecting and geological mapping were also done.

New IP/Res data is used to identify four domains (#1–4) and three target zones (JK, Donut Hole, Higher Res), the latter occurring mostly domain #3. This most-prospective domain comprises an area of moderate chargeability and low–moderate resistivity that is spatially coincident with (1) Kliyul Cu-Au-magnetite skarn, (2) zone of phyllic alteration, and (3) three separate ~0.2–0.3 km<sup>2</sup> magnetic highs. The remaining three, apparently barren, domains are interpreted as propylitic-altered volcanic rocks (#4), graphitic sedimentary rocks (#2) and graphite-poor sediments (#1). The JK and Higher Res target zones form a contiguous, ~NW–SE trending belt of moderate chargeability and low to moderate-high resistivity that includes the Kliyul Cu-Au-magnetite skarn. The Donut Hole anomaly consists of moderate-low chargeability enclosed by moderate-high chargeability, and lies just south of the Kliyul skarn. A program of 12 x 600 m diamond drill holes is proposed that tests all three anomalies.

## 2.0 INTRODUCTION

This report presents the 2011 work program completed on Kiska Metals Corporation's ("Kiska") Kliyul project, which lies within the Omineca Mountains about ~200 kilometres northwest of Mackenzie. The 2011 work follows on from extensive exploration by previous operators and, most recently, a small field program conducted by the operator in 2010 (Lui, 2010).

The author spent four weeks on the property in July–August 2011. Expenditure, sample descriptions, lab certificates, geophysical maps & pseudo-sections, inversion models and statement of work confirmation reports are appended to this report.

## 3.0 RELIANCE ON OTHER EXPERTS

The author has relied on Kiska for information regarding ownership of tenure and terms of underlying agreements (see Section 4.0). Interpretation of induced polarization/resistivity data was provided by the survey contractor, Peter E. Walcott & Associates, as well as independent, Vancouver-based, consultant Jan Klein. The author has not otherwise relied on a report, opinion or statement of an expert for other information concerning legal, political, environmental or other issues.

## 4.0 PROPERTY DESCRIPTION AND LOCATION

The Kliyul property is located in north-central B.C., approximately 200 km northwest of Mackenzie (Figure 1), and is owned 100% by Rimfire Minerals Corporation ("Rimfire"), a wholly-owned subsidiary of Kiska.

The Kliyul claim block consists of 74 contiguous mineral claims that cover an area of 5394.1 ha (Figure 2, Table 1). Several claims overlap with each other so that the actual area covered by these claims is ~5% less than that. All of the claims are held by Rimfire.

## 5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, PHYSIOGRAPHY

The Omineca Mining Access Road, which connects the recently closed Kemess Cu-Au mine with the paved highway system near Mackenzie, passes about five kilometres north of the Kliyul property and should allow eventual easy road access. This road passes an old, but still usable, airstrip located along the northern end of Johanson Lake, which was used as the staging area for the 2011 program.

The Kliyul property lies within the Swannell Ranges of the Omineca Mountains. The core of the property follows a broad east-northeast trending valley at about 1,750 metres elevation, which drains westerly into the headwaters of Kliyul Creek and easterly into the headwaters of Lay Creek (herein referred to as the Lay/Kliyul valley). Slopes increase from this and other broad valleys to form steep-sided ridges, commonly topping out above 2,100 metres elevation and with cirques on north-facing crests. Most of the Kliyul property is above tree-line, which lies at about 1,650 metres elevation.

The climate is typical of a continental setting at this latitude. Winters are cold with total snowfall of approximately two metres; summers are cool and moist. The property is most easily worked from July to September.

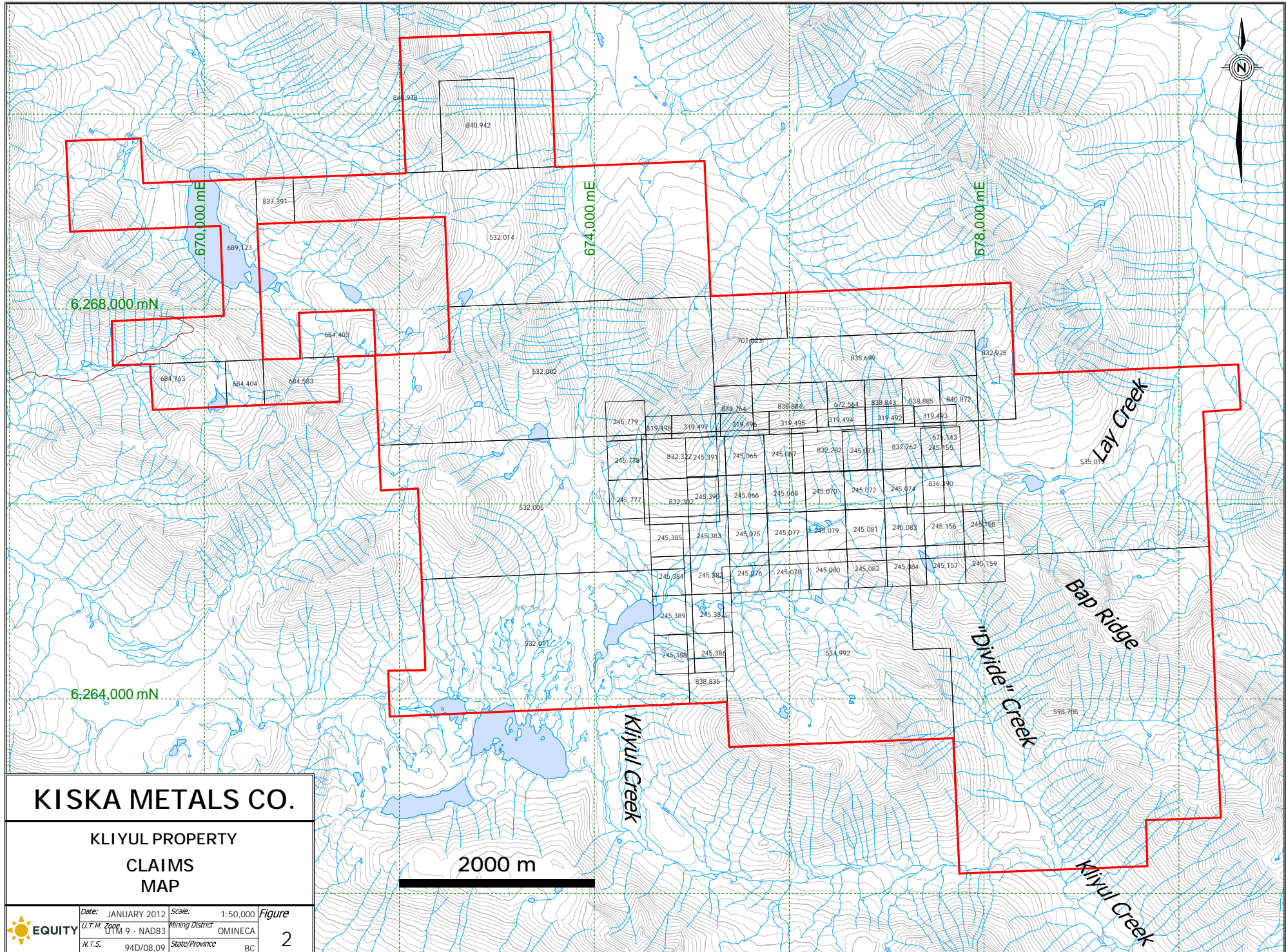
The town of Mackenzie, which has a population of about 5,000, can provide labour, heavy equipment, bulk fuel and a full range of local contractors. The town also has access to a CN rail line and the paved highway system. A high-voltage power line follows the Omineca Mining Road, connecting the Kemess mine with the BC Hydro grid. It is not clear what will happen to this power line now that the Kemess mine is shut down.



# KISKA METALS CO.

## KLIYUL PROPERTY LOCATION MAP

	Date: FEBRUARY 2012	Scale: 1:8,000,000	Figure
	U.T.M. Zone: 18QTM 9 - NAD83	Mining District: OMINECA	1
	N.T.S. 94D/08/09	State/Province: BC	



# KISKA METALS CO.

## KLIYUL PROPERTY CLAIMS MAP

2000 m



**EQUITY**

Date: JANUARY 2012	Scale: 1:50,000	Figure
U.T.M. Zone: UTM 9 - NAD83	Mining District: OMINECA	2
N.T.S. 94D/08,09	State/Province: BC	

Table 1: Kliyul property claim status

Claim Name	No Claims	Owner	Issue date	Good to date	Area (ha)
<b><i>Kliyul Property</i></b>					
KLI NO. 1 - 4, 6 - 8, 10 - 21, 25 - 28	23	Rimfire Minerals Co	1970/Aug/10, Sep/11	2013/Feb/01	575.00
KLI #39 - 48	10	Rimfire Minerals Co	1971/Jul/12	2013/Feb/01	250.00
UTA #4, 6, 8	3	Rimfire Minerals Co	1973/Aug/29	2013/Feb/01	75.00
YUL-7 - 13	7	Rimfire Minerals Co	1993/Jul/15, 20	2013/Feb/01	175.00
KLI 51 - 54	4	Rimfire Minerals Co	2006/Apr/13	2013/Feb/01	1642.19
JOH 2	1	Rimfire Minerals Co	2006/Jun/06	2013/Feb/01	446.28
MOC1	1	Rimfire Minerals Co	2006/Jun/06	2013/Feb/01	392.93
KLIYUL	1	Rimfire Minerals Co	2009/Feb/04	2013/Feb/01	875.26
KLIYUL	1	Rimfire Minerals Co	2009/Nov/21	2013/Feb/01	17.85
THE RITZ VEIN	1	Rimfire Minerals Co	2009/Nov/26	2013/Feb/01	17.85
RH ADVISORY	1	Rimfire Minerals Co	2009/Dec/13	2013/Feb/01	35.70
GOLDWAY, GOLDWAY 2, 5	3	Rimfire Minerals Co	2009/Dec/13, 24	2013/Feb/01	285.49
GOLDWAY 3	1	Rimfire Minerals Co	2009/Dec/14	2011/Dec/31	35.70
SUGAR BABY	1	Rimfire Minerals Co	2010/Jan/18	2013/Feb/01	53.53
(unnamed)	4	Rimfire Minerals Co	2010/Aug/27	2013/Feb/01	142.80
SB2	1	Rimfire Minerals Co	2010/Sep/07	2011/Dec/31	142.76
GW	1	Rimfire Minerals Co	2010/Oct/21	2012/Oct/21	17.85
V4	1	Rimfire Minerals Co	2010/Nov/03	2011/Dec/31	17.84
94D	1	Rimfire Minerals Co	2010/Nov/24	2011/Dec/31	17.85
94D	1	Rimfire Minerals Co	2010/Nov/24	2012/Nov/24	35.70
WIERD	1	Rimfire Minerals Co	2010/Nov/24	2011/Dec/31	17.86
GW2 - 5	4	Rimfire Minerals Co	2010/Nov/21, 23, 24; Dec 15	2011/Dec/31	160.62
JOH 3 - 5.9 G/T GOLD + CU, JOH 3 - GOLD + CU EXT.	2	Rimfire Minerals Co	2010/Dec/16	2011/Dec/31	214.02
<b>Total</b>	<b>72</b>				<b>5431.07</b>



## 6.0 HISTORY

The following account and summary table of historical work (Table 2) is taken from the 43-101 report by Awmack (2010).

Exploration dates back to the 1940's, when several gold-bearing quartz veins were discovered on the current Kliyul property and in its vicinity. In 1946–47, Springer-Sturgeon Gold Mines discovered several narrow quartz-sulphide veins on their Ginger claims (apparently Tenures 245391 and 319497 of the current Kliyul property); the best channel sample reported by White (1948) assayed 47 g/tonne Au and 96 g/tonne Ag across 0.66 metres. Goodrich and Chayer did some trenching at the same time on at least two quartz veins on their Independence claim group (apparently on Tenure 535013 of the current Kliyul property). White (1948) reported channel samples from each vein, across widths of 0.86 and 1.63 metres, but only traces of gold and silver were present.

The original KLI claims, which form the core of today's Kliyul property, were staked by Kennco Explorations in 1970 to cover gossanous exposures. Kennco carried out ground magnetics in 1970, showing a generally flat background with an isolated magnetic high (Stevenson, 1971a).

In 1971, Kennco collected reconnaissance silt and soil geochemical samples, identifying a 500 m diameter >300 ppm Cu soil anomaly accompanied by spotty elevated Au, Ag and Mo values (Stevenson, 1971b). They also carried out an IP survey that indicated the Cu-in-soil anomaly lay entirely within a 600 x 1800 m zone "typical of disseminated metallic mineralization" (Goudie and Hallof, 1971).

Kennco optioned their KLI claims to Sumac Mines in 1973. The following year, Sumac Mines reported logs but not assays for 11 BQ drill holes on the KLI claims; they apparently also drilled 4 X-ray drill holes which were not reported. At least five of Sumac's holes were drilled into Kennco's magnetic high and Cu-in-soil anomaly, intersecting silicified, epidote-bearing, dark green andesite with variable quantities of magnetite and chalcopyrite (Rogers, 1974).

In 1974, BP Minerals carried out extensive fieldwork on their BAP claims, which overlapped and extended southeasterly from the eastern end of the KLI claims. They noted widespread <3 cm wide quartz-pyrite-chalcopyrite veining in an epidote-altered monzonite to the southeast of the Kliyul property. A reconnaissance geochemical/geophysical grid was laid out over a pyritic ash tuff unit which lies partially on the Kliyul property. Most of the grid exceeded 100 ppm Cu and 5 ppm Mo in talus fines and soils, with maximum values of 5800 ppm Cu and 89 ppm Mo (Mustard, 1974).

The following year, BP Minerals blasted three hand-trenches on their BAP claims near the southeastern boundary of the Kliyul property and extended their soil grid northward (Mustard and Bates, 1975), without notable results. In 1976, BP ran seven lines of MaxMin EM over their grid, identifying six northwesterly-striking zones of weak conductivity thought to be caused by water-filled fracture or shear zones (Betz, 1976).

BP subsequently allowed all but three of their BAP claims to lapse and the lapsed claims were re-staked in 1981 as the KC claims by Golden Rule, who also carried out work on the southeastern corner of the Kliyul property. Golden Rule discovered several 0.3–2.0 metre wide, northwesterly-striking quartz-pyrite-chalcopyrite-galena veins with 2.3–36.4 g/tonne Au and 2.6–150 g/tonne Ag located within 200 metres of the Kliyul property's southern border. They also relocated the Independence vein and resampled it in three trenches over a strike-length of >300 metres, with maximum values of 460 and 1346 ppb Au (Fox, 1982). To maintain their three BAP claims, BP reanalyzed their 1974/75 soil and talus fine samples for Au; the majority of these samples exceeded 70 ppb Au, to a maximum of 1750 ppb Au (Hoffman, 1982).

By 1981, Vital Mines had acquired Sumac's interest in the KLI claims and drilled four more holes in the main area of interest, describing a "near vertical stockwork of calcite-epidote-magnetite veinlets" cutting volcanic rocks; chalcopyrite was noted mainly in the veinlets but also disseminated in the host rock (Rogers, 1981).

Table 2: Kliyul property - summary of work history

Operator (Year) (Claims)	Geochemistry	Geophysics	Drilling	Assessment Report (Reference)
<b>Springer-Sturgeon (1946-47)</b>				
(Ginger)			trenching	(White, 1948)
<b>Goodrich/Chayer (1946-47)</b>				
(Independence)			trenching	(White, 1948)
<b>Kennco (1970)</b>				
(KLI)		ground Mag		2818 (Stevenson, 1971a)
<b>Kennco (1971)</b>				
(KLI)	silts, soils	ground IP		3312 (Stevenson, 1971b); 3313 (Goudie and Hallof, 1971)
<b>BP (1974)</b>				
(BAP)	soils, talus fines, rocks	ground Mag, EM		5135 (Mustard, 1974)
<b>Sumac (1974)</b>				
(KLI)			14 DDH (989.9m)	5211 (Rogers, 1974)
<b>BP (1975)</b>				
(BAP)	soils, talus fines		trenches	5600 (Mustard and Bates, 1975)
<b>BP (1976)</b>				
(BAP)		ground EM		5976 (Betz, 1976)
<b>Vital (1981)</b>				
(KLI)			4 DDH (602.9m)	9464 (Rogers, 1981)
<b>Golden Rule (1981)</b>				
(KC)	silts, soils, rocks			10346 (Fox, 1982)
<b>BP (1982)</b>				
(BAP)	soils, talus fines			10950 (Hoffman, 1982)
<b>BP (1984)</b>				
(KLI)	soils, rocks		re-log holes	13258 (Smit and Meyers, 1985)
<b>Golden Rule (1984)</b>				
(KC)	silts, rocks	ground Mag		13580 (Wilson, 1984)
<b>Lemming (1986)</b>				
(BAP)	talus fines, rocks			15182 (Rebagliatti, 1986)
<b>Ritz (1986)</b>				
(KC)	soils, rocks	6.6 km ground mag/VLF		15583 (Christopher, 1986)
<b>Placer Dome (1990)</b>				
(KLI)	soils, rocks	30.6 km ground mag/VLF		20578 (Price et al., 1990)
<b>Golden Rule (1990)</b>				
(JO)	silts, rocks			21502 (Fox, 1991)

Table 2: Kliyul property - summary of work history (cont.)

Operator (Year) (Claims)	Geochemistry	Geophysics	Drilling	Assessment Report (Reference)
<b>Swannell (1992)</b>				
(JOH, DARB)	soils, rocks			22585 (Leriche and Taylor, 1992)
<b>Noranda (1992)</b>				
(KLI)	soils, rocks			23033 (Gill, 1993)
<b>Noranda (1993)</b>				
(KLI)			6 RCH (560.0m)	23033 (Gill, 1993)
<b>Noranda (1993)</b>				
(KLI, JO)	soils, rocks	ground Mag; airborne mag/EM/radiometrics		23379 (Gill, 1994d)
<b>Noranda (1994)</b>				
(KLI, JO)			10 DDH (1120.5m)	23797 (Gill, 1994a)
<b>Noranda (1994)</b>				
(KC, BAP)	soils, rocks	ground Mag		23544 (Gill, 1994c); 23681 (Gill, 1994e)
<b>Noranda (1994)</b>				
(JO)	soils, rocks	ground Mag		23680 (Gill, 1994b)
<b>Noranda (1994)</b>				
(JOH)	rocks			23842 (Gill, 1995b)
<b>Noranda (1995)</b>				
(JO)	soils, rocks			24073 (Gill, 1995a)
<b>Geoinformatics (2006)</b>				
(Kliyul)			2 DDH (751.5m)	29112 (Mair and Bidwell, 2007)
<b>Kiska (2010)</b>				
(Kliyul)			Re-logged 8 DDH	31866 (Lui, 2010)
<b>Kiska (2011)</b>				
(Kliyul)	rocks	30.6 km IP/Res		this report

BP optioned the Kliyul property from Kennco and Vital in 1984. They re-logged and selectively resampled 1593 m of previously-drilled core, reinterpreting the main zone of drilling as an “irregular 200 x 100 m zone of magnetite-rich skarn mineralization (Smit and Meyers, 1985). Previous assay results indicated a gold-bearing zone having a 10 to 30 metre thickness with grades in the 1.6 to 2.4 g/t Au range and 0.46% Cu (Smit and Meyers, 1985). BP also mapped the property at 1:5,000 scale and collected reconnaissance rock and soil samples.

In 1984, Golden Rule continued exploration of their KC claims for Au-bearing quartz veins. To the east of the Independence vein, they reported an extensive 070°-striking, variably silicified, fracture zone hosting 0.2–1.3 metre wide quartz veins in regions of intense fracturing and silicification. Cross-fracturing in the quartz veins is mineralized with up to 30% pyrite and lesser galena, chalcopyrite and sphalerite; float samples assayed up to 122 g/tonne Au and 70 g/tonne Ag (Wilson, 1984).

Ritz Resources optioned the KC claims and carried out geochemical and geophysical surveys over two small grids in the northwestern corner of their property (on current Tenure 535013), focusing again on its gold potential (Christopher, 1986).

In 1986, Lemming Resources optioned the three remaining BAP claims from BP and collected 90 grid-based talus fine samples in order to relocate the Au anomalies previously reported by BP (Rebagliatti, 1986).

Placer Dome optioned the KLI claims from Kennco and Vital Pacific in 1990. They laid out a geochemical/geophysical grid consisting of a 3.2 kilometre east–west baseline along the main valley and 1.44 km cross-lines every 200 metres along it. Soil samples were collected at 40-metre intervals along the cross-lines and 50-metre intervals along the baseline. They recognized three multi-element soil geochemical anomalies: Anomaly A, measuring 400 x 400 metres over the previously drilled magnetite skarn (Au-Cu with spotty Ag); an elongate, 600 metre long Anomaly B along BAP ridge which extends towards BP's BAP claims (Au-Ag-As-Zn-Pb), and; Anomaly C, associated with a diorite plug at the northwestern end of the grid (As-Mo-Zn-Cu with lesser Ag and Pb). Conductors from the VLF-EM survey were ascribed to sulphide-rich shale beds; the magnetic survey did not outline any magnetic anomalies except for the previously-drilled magnetite-rich zone, although that anomaly was three times the size of its drilled portion, leaving it open to the south (Price et al., 1990).

Also in 1990, Golden Rule staked their JO claims west and south of the KLI property (areas covered by current Tenures 534992, 532011, 532005, 532002 and 532014) and carried out reconnaissance silt sampling and prospecting. They reported several Au-bearing silt samples draining the Dortatelle Fault near the western end of the KLI claims (Fox, 1991).

In 1992, Swannell Minerals carried out mapping and soil geochemistry on their Darb property, which covered the headwaters of Darb Creek, including the northern portion of the current Kliyul property. They collected soil samples at 100 metre centres on lines 200 metres apart which straddled the Dortatelle Fault. A number of Cu, Mo and Au-bearing soil samples resulted from this grid which have not been thoroughly investigated since (Leriche and Taylor, 1992).

By 1992, Placer Dome had allowed their option on the KLI claims to lapse. Noranda optioned it and carried out 1:5,000 scale geological mapping, focusing on alteration assemblages. The following year, they drilled six reverse circulation holes on the KLI claims, concentrating on the magnetite-rich Cu-Au skarn zone and tested it to the west, southeast and to depth in the south (Gill, 1993). Following the successful drill program, Noranda optioned Golden Rule's JO claims to the west and south of the KLI claims, along with ground to the north and southeast of the current Kliyul property. They commissioned an airborne magnetic, electromagnetic and radiometric survey across the entire property, carried out a program of test-pitting in the vicinity of the magnetite skarn, carried out soil geochemistry over airborne magnetic highs and ran magnetic survey lines to infill Placer Dome's survey over the main valley. Noranda recognized a second magnetite skarn near the northern boundary of the current Kliyul property, the Pacific Sugar Zone, with the best chip sample reporting 6014 ppm Cu and 1000 ppb Au across 1.5 metres, associated with melanocratic diorite. They also relocated and resampled the Ginger B vein, with the best 2-metre chip sample assaying 13.0 g/tonne Au and 15.2 g/tonne Ag across pyritic andesite with 30–50% quartz veining (Gill, 1994d).

In 1994, Noranda refined their mapping of the KLI claims and drilled 10 core holes. These holes tested magnetic highs, coincident Cu-Au soil geochemistry, Au-anomalous results from their 1993 test-pitting and an area with Au soil geochemistry overlying altered volcanoclastic rocks and monzonite dykes. Drill results were generally mediocre, but Noranda raised the possibility that the drilled area could be within a "propylitic halo surrounding a larger porphyry system located at depth or peripheral to the Kliyul replacement body" (Gill, 1994a).

In 1994, Noranda optioned the KC and BAP claims and collected soil samples at 50-metre intervals along 26.9 line-kilometres of grid on Bap Ridge, defining a 100–750 metre wide, >100 ppb Au soil anomaly which extended northwesterly for 1.6 kilometres onto the KLI claims, remaining open to the northwest (Gill, 1994c). A ground magnetic survey was carried out over 8.6 line-kilometres of the grid; NW–SE and N–S magnetic breaks correlated well with bedding, foliation, fracturing and shearing (Gill, 1994e). Meanwhile, on

the JO claims to the west, Noranda laid out a grid for soil geochemistry and ground magnetics to cover a subdued regional soil geochemical anomaly. This work revealed a 100–600 metre wide, 1.7 kilometre long soil geochemical anomaly defined by >50 ppb Au (Gill, 1994b). To the north, Noranda did mapping and limited rock sampling over portions of their JOH claims, including the Pacific Sugar Zone and portions of current Tenures 532002 and 532014. The Pacific Sugar Zone, which straddles the northern boundary of the current Kliyul property, was described as a 3–6 metre thick magnetite-pyrite-epidote-garnet skarn covering an area of 40 x 100 metres (Gill, 1995b).

In 1995, Noranda expanded their geochemical grid over the JO claims, collecting infill soil samples over the existing grid and adding 12.0 kilometres of new grid-lines, bringing sample density to 50 x 100 metres. This work better defined the irregular >50 ppb Au soil geochemical anomaly which trends NE–SW, parallel to the Kliyul valley floor; a strong glaciofluvial control to the anomaly was suspected (Gill, 1995a).

By 1996, International Conquest Exploration had acquired an option on the JOH claims, immediately north of the Kliyul property and drilled five short holes (total 154.83m) within 150 metres of the Kliyul property boundary on the Pacific Sugar Zone. Their best intersection graded 0.27% Cu and 0.54 g/tonne Au across 9.4 metres (Leriche and Harrington, 1996).

No further work was reported on the Kliyul property until 2006, when Geoinformatics staked and optioned a large tract of land in the Mesilinka district between the Kemess Cu-Au deposit in the north and the Lorraine Cu-Au deposit in the south, and acquired the original KLI claims from Kennecott (formerly Kennco). Noting that historic drilling on the Kliyul magnetite skarn was generally restricted to within 100 vertical metres of surface, Geoinformatics drilled two deeper holes targeted at 3-D inversions of historic magnetic data. Their best intersection graded 0.23% Cu and 0.52 g/tonne Au along 217.8 metres of core (Mair and Bidwell, 2007).

The following year, Geoinformatics did not work on the Kliyul property itself, but drilled three holes (1247.0m) within 250 metres of its southern boundary on the former BAP claims. The holes intersected sericite-pyrite ± chlorite ± quartz alteration throughout, with narrow magnetite-pyrite-chalcopyrite zones at depth but no significant intersections (Mair and Bidwell, 2008).

In 2010, Kiska re-logged eight of the diamond drill holes stored on the property. Results of this work showed that Cu-Au mineralization is preferentially associated with chlorite-epidote-magnetite and sericite-ankerite alteration (Lui, 2010). Furthermore, Lui (2010) re-iterates that several features of the Kliyul prospect – most notably Cu-Au bedrock mineralization associated with a monzonite/diorite dyke swarm, gypsum-filled fractures, pyritization and elevated Cu-Au-Mo-in-silts and -soils – are consistent with the presence of a porphyry hydrothermal system at depth.

## 7.0 REGIONAL GEOLOGY AND MINERALIZATION

The Kliyul property is situated within the Quesnel Terrane, a Mesozoic island arc terrane that is bounded to the east by the ancestral North American continental margin (Cassiar Terrane), the Cache Creek Terrane in the west and, to the northwest, the comparable Stikine arc. Miogeoclinal rocks of the Cassiar Terrane consist of Proterozoic–Palaeozoic carbonates and siliciclastics that are, in the southeast, separated from the Quesnel Terrane by oceanic rocks of the Slide Mountain Terrane, which likely comprise the imbricated remnants of an Upper Palaeozoic marginal basin (Ferri, 1997). The Cache Creek Terrane is formed by oceanic rocks that include the accretionary wedge to the Quesnel arc (Struik, 1988; Travers, 1978). The Stikine Terrane was juxtaposed against the Quesnel terrane either through displacement along Cretaceous–Tertiary, dextral, strike-slip faults (Gabrielse, 1985) or through anticlockwise oroclinal rotation and sinistral translation of a northern extension of the Quesnel arc system in the Upper Triassic–Lower Jurassic (Mihalynuk et al., 1994). The Kliyul property lies in the more northerly part of the Quesnel Terrane that is bound by the Cassiar and Stikine terranes.

The Upper Triassic to Middle Jurassic intrusive rocks of the Quesnel and Stikine terranes host several world-class Cu-Au alkali porphyry deposits, including Kemess South, Kemess North underground and Mt Milligan. The Kemess South calc-alkaline Cu-Au porphyry deposit, located ~60 kilometres northwest of the Kliyul property, produced 161 million tonnes grading 0.228% Cu and 0.711 g/tonne Au from 1998 to December 31, 2007 (Skrecky, 2008), and was closed in 2011. It is hosted by a flat-lying, 199.6 ± 0.6 Ma, porphyritic granodiorite intrusion emplaced within Takla Group volcanic rocks. The highest Cu and Au grades are associated with a phyllic to intermediate argillic event that immediately post-dates potassic alteration (Duuring et al., 2009). The mineralized zone was unroofed and underwent supergene enrichment prior to deposition of the 194.0 ± 0.4 Ma Toodoggone Formation (Diakow, 2001; Duuring et al., 2009).

The Mt Milligan alkalic Cu-Au porphyry deposit, located ~180 kilometres southeast of Kliyul, has a NI 43-101 compliant Measured and Indicated Resource of 707 million tonnes grading 0.18% Cu and 0.33 g/tonne Au (Terrane, 2009). Ore bodies are associated with two small, Lower Jurassic, biotite- and quartz-bearing, crowded porphyritic monzonite stocks which intruded Takla Group pyroclastic and epiclastic strata of augite-phyric basalt derivation (Nelson and Bellefontaine, 1996). Gold-copper mineralization is hosted by intense potassic alteration, except for gold-pyrite mineralization with propylitic and minor albitic alteration in the 66 Zone (Nelson and Bellefontaine, 1996).

## 8.0 PROPERTY GEOLOGY, ALTERATION AND MINERALIZATION

### 8.1 Stratified Units

1:50,000 geological mapping over the Johanson Lake area (Figure 3) shows that most of the stratified rocks on the Kliyul property comprise part of the Takla Group, which is furthermore subdivided into the Goldway Peak and Kliyul Creek units (Schiarizza, 2004; Schiarizza and Tan, 2005a, b). Previous 1:5,000 mapping carried out by Noranda across the core of the Kliyul property, in 1992–94 (Gill, 1993, 1994a), is here integrated with the 1:50,000 geological mapping.

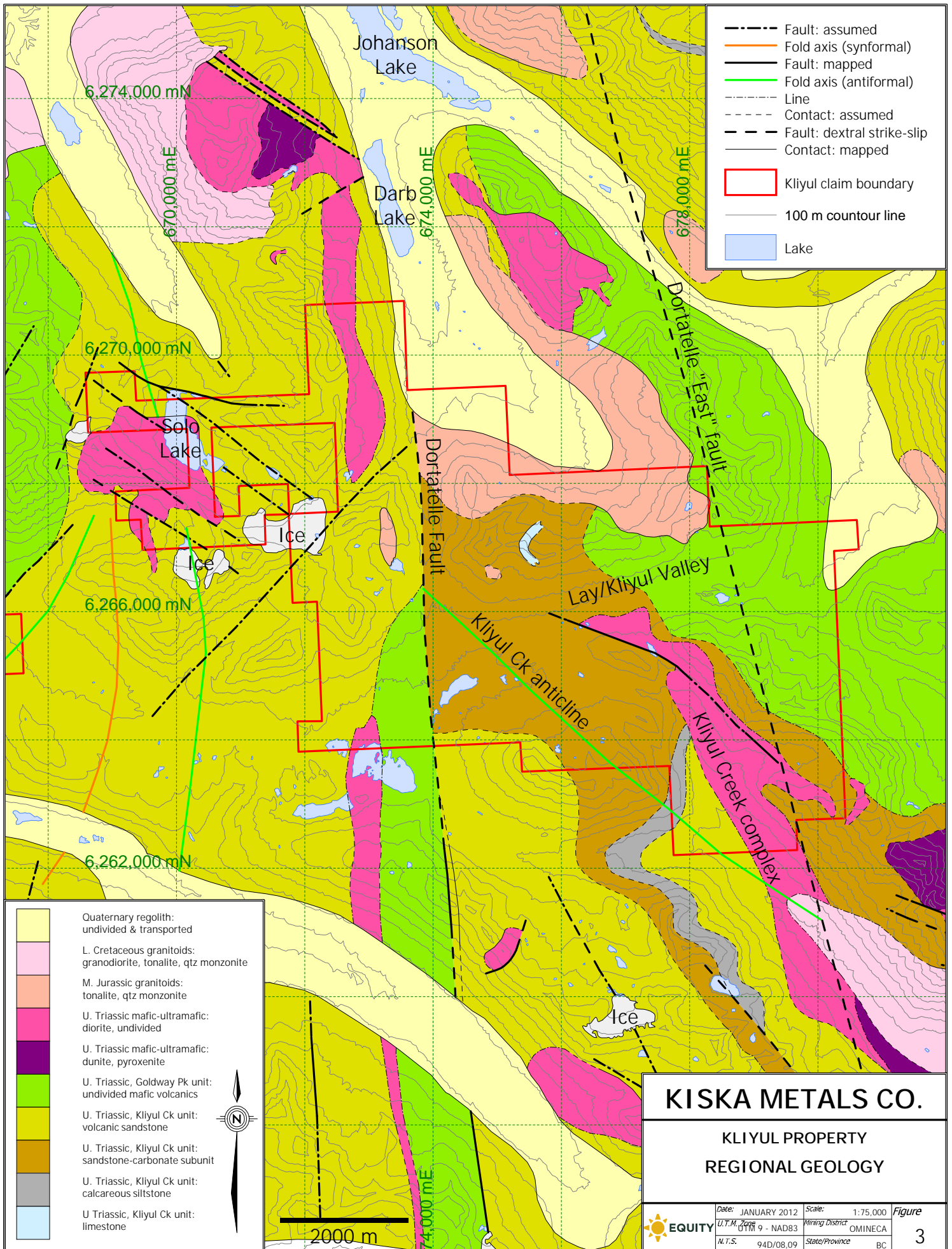
#### 8.1.1 Kliyul Creek unit (Takla Group)

The Kliyul Creek unit comprises a heterogeneous succession of volcanoclastic, volcanic and sedimentary rocks that is, regionally, subdivided into a single “main” unit and three volumetrically subordinate sub-units (Schiarizza and Tan, 2005a). The main unit consists of grey to green, fine to coarse-grained, volcanogenic sandstone. The subunits consist of (a) pyroxene-phyric basalt, (b) siltstone-limestone and (c) sandstone-carbonate.

The regional geology map (Schiarizza and Tan, 2005a) suggests that the western part of the Kliyul property is underlain by the “main” volcanic sandstone lithology of the Kliyul Creek unit, the central part is underlain by the sandstone-carbonate subunit and the eastern part is underlain by the Goldway Peak unit (Figure 3), which is described in the next section. Property-scale mapping by Noranda (Gill, 1993, 1994a), which focussed on the central part of the Kliyul claims, designated the sandstone-carbonate subunit of Schiarizza and Tan (2005a) as predominantly massive feldspar ± augite phyric andesitic tuffs and flows intercalated with limestone, limy agglomerate, graphitic mudstone and shale (Gill, 1993, 1994a). Because of the discrepancy between the regional and detailed maps, the sandstone-carbonate subunit of Schiarizza and Tan (2005a) will be referred to here as the “andesite-sandstone-carbonate” subunit.

#### 8.1.1 Goldway Peak unit (Takla Group)

The eastern part of the Kliyul property is underlain by the Goldway Peak unit, which, in comparison to the Kliyul Creek unit, comprises a relatively homogeneous assemblage of pyroxene-rich volcanic breccias. The Goldway Peak unit unconformably overlies, and interfingers with, the top of the Kliyul Creek unit, and represents the highest known level of the Takla Group (Schiarizza and Tan, 2005a).



- Fault: assumed
- Fold axis (synformal)
- Fault: mapped
- Fold axis (antiformal)
- Line
- - - Contact: assumed
- - - Fault: dextral strike-slip
- Contact: mapped
- Kliyul claim boundary
- 100 m contour line
- Lake

- Quaternary regolith:  
undivided & transported
- L. Cretaceous granitoids:  
granodiorite, tonalite, qtz monzonite
- M. Jurassic granitoids:  
tonalite, qtz monzonite
- U. Triassic mafic-ultramafic:  
diorite, undivided
- U. Triassic mafic-ultramafic:  
dunite, pyroxenite
- U. Triassic, Goldway Pk unit:  
undivided mafic volcanics
- U. Triassic, Kliyul Ck unit:  
volcanic sandstone
- U. Triassic, Kliyul Ck unit:  
sandstone-carbonate subunit
- U. Triassic, Kliyul Ck unit:  
calcareous siltstone
- U. Triassic, Kliyul Ck unit:  
limestone

**KISKA METALS CO.**

**KLIYUL PROPERTY  
REGIONAL GEOLOGY**

	Date: JANUARY 2012	Scale: 1:75,000	Figure <b>3</b>
	U.T.M. Zone UTM 9 - NAD83	Mining District OMINECA	
	N.T.S. 94D/08.09	State/Province BC	

Property-scale mapping by Noranda (Gill, 1993, 1994a) also recognized the more homogenous character of the stratified rocks in the eastern part of the Kliyul property (i.e. Goldway Peak unit), characterizing them as flat-lying, magnetic, epidote-rich, massive, dark green augite porphyry flows and tuffs. Gill (1993, 1994a) attributed the brecciated nature of these flows and tuffs to faulting and late dyking.

## 8.2 Intrusive rocks

Regional mapping (Schiarizza, 2004; Schiarizza and Tan, 2005a, b) suggests that intrusive rocks on and around the Kliyul property can be classified into three suites: (1) Upper Triassic ultramafic–mafic; (2) early Middle Jurassic monzonite–diorite and tonalite; and (3) Lower Cretaceous granite, granodiorite and tonalite (Figure 3). The Upper Triassic–Middle Jurassic groups are a prominent and economically important component of the Quesnel Terrane, including both calc-alkaline and alkaline plutons as well as Alaskan-type ultramafic-mafic intrusions. Many of these plutons and intrusions comprise part of, or occur near, the Hogem batholith, which extends from just north of the Kliyul property more than 150 km south to the Nation Lakes.

Earlier property-scale mapping by Gill (1993, 1994a) classified intrusive rocks into seven compositional groups, in contrast to the lithostratigraphic groups of Schiarizza and Tan (2005a, b), comprising listwanite, gabbro/pyroxenite, altered monzonite/diorite, melanocratic diorite (including microdiorite dykes), leucocratic diorite, quartz monzonite and feldspar porphyry dykes. The compositions for all seven of these groups correlate best with the Upper Triassic to Middle Jurassic suites of Schiarizza and Tan (2005a, b).

### 8.2.1 Upper Triassic ultramafic-mafic suite

Several Upper Triassic composite intrusions of ultramafic to mafic composition have been recognized in and around the Kliyul property (Schiarizza, 2004; Schiarizza and Tan, 2005a, b), and are interpreted as subvolcanic intrusions associated with Takla volcanism (Irvine, 1974; Schiarizza and Tan, 2005a). Most pertinent to the Kliyul property is the Kliyul Creek complex, which is an elongate pluton, 13 km long by <1 km wide, trending ~NNW–SSE (Figure 3). The southeastern end of the Kliyul Creek complex is mainly peridotite, locally with a border phase of hornblende gabbro. Rocks become more mafic towards its northwestern end, comprising mainly diorite, microdiorite, monzodiorite and gabbro, but with local patches of clinopyroxenite and hornblendite (Schiarizza and Tan, 2005a).

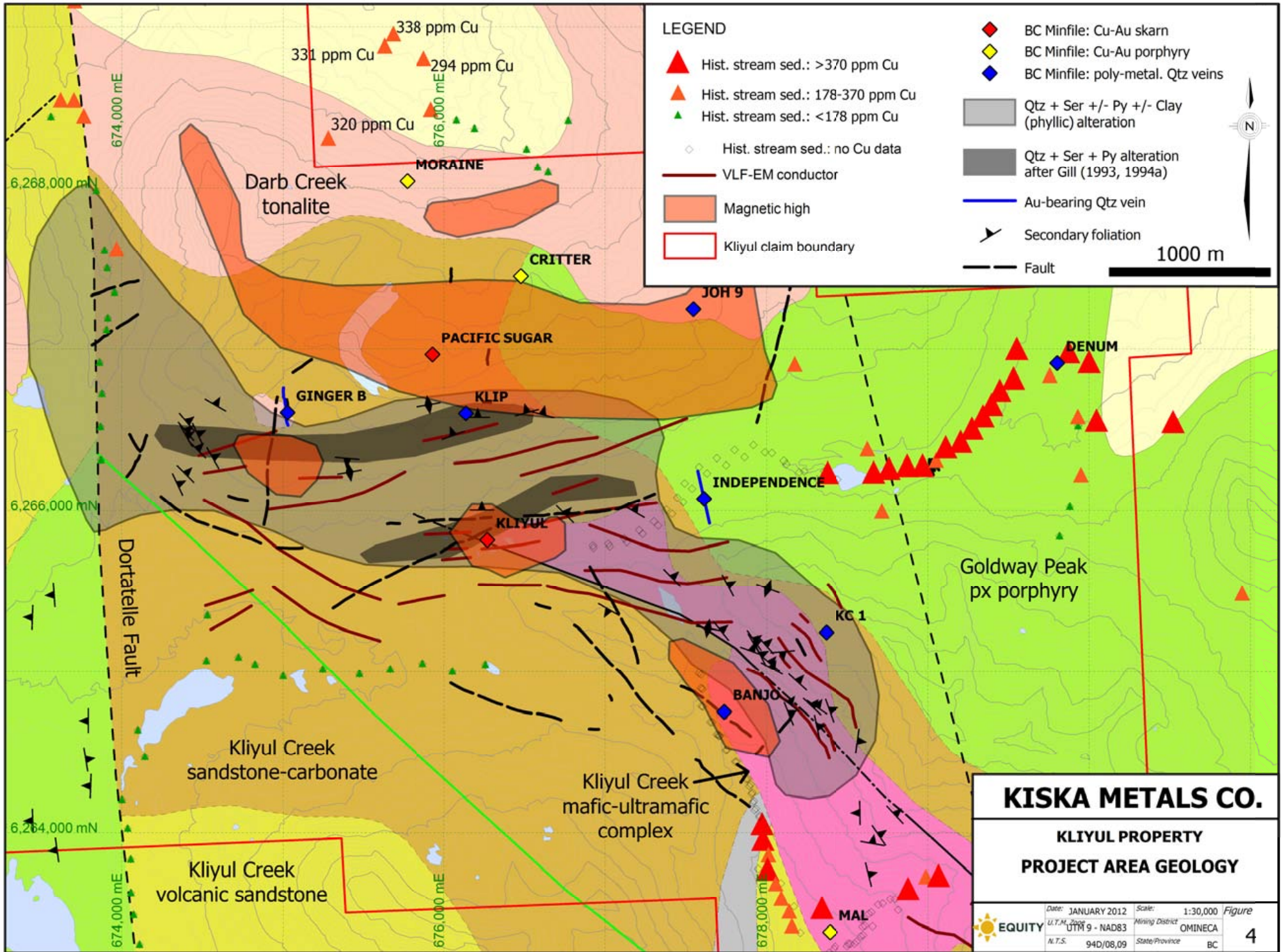
Other mafic–ultramafic complexes in the area include the Johanson Lake complex, which occurs in the northwestern part of the Kliyul property, in addition to isolated diorite stocks, such as the one located on the western margin of the Kliyul property near Solo Lake (Figure 3). The Johanson Lake complex comprises a core of mostly clinopyroxenite and hornblendite that is enveloped by gabbro and diorite.

Property-scale mapping (Gill, 1993, 1994a) has focussed extensively on an area that includes, and extends west of, the northwestern tip of the Kliyul Creek complex, since this area is marked by intense quartz-sericite ± pyrite ± clay alteration (= phyllic alteration) (Figure 4). Units mapped by Gill (1993, 1994a) that are likely related to the Kliyul Creek complex include (a) gabbro/pyroxenite intruded along a sheared/faulted contact between the Kliyul Creek andesite-sandstone-carbonate subunit and highly altered and foliated (Middle Jurassic?) monzonite–diorite, (b) listwanite-altered ultramafic, and (c) plugs of equigranular, medium to coarsely crystalline, melanocratic diorite, the latter appearing relatively fresh and containing ~40% hornblende and finely disseminated magnetite.

### 8.2.1 Early Middle Jurassic monzonite–diorite and tonalite suite

The early Middle Jurassic monzonite–diorite suite includes several stocks and plutons along a northwestern trend on the east side of Johanson Lake (Figure 3). They are mainly composed of pinkish-weathering, medium-grained hornblende monzonite but include hornblende diorite, quartz diorite and quartz monzodiorite (Schiarizza and Tan, 2005a). On the Kliyul property, rocks of this suite occur mostly within the Darb Creek tonalite along with two small intrusions (<0.5 km<sup>2</sup>) on either side of the Dortatelle Fault. The 174 ± 2 Ma Darb Creek tonalite pluton [Freidman in Schiarizza and Tan (2005a)], which occurs in the northernmost part of the Kliyul property, comprises at least ~7.5 km<sup>2</sup> of medium to coarse-grained hornblende-biotite tonalite. The two smaller intrusions consist of monzonite.





Detailed mapping by Gill (1993, 1994a) identified several units that can be linked to the early Middle Jurassic suite. Most notable of these is a suite of intensely sheared, bleached, pyritic (5–10%), strongly to moderately sericite-quartz-clay altered, sheeted, feldspar  $\pm$  quartz porphyritic diorite–monzonite dykes that strike northwesterly across the Kliyul property. These dykes have intruded and altered the Kliyul Creek host rocks, and are spatially associated with the Kliyul Cu-Au-magnetite skarn. Other units noted by Gill (1993, 1994a) that likely comprise part of the same Middle Jurassic suite include small dykes and plugs of medium-grained, leucocratic diorite, felsic feldspar porphyry dykes and younger, fresh, quartz monzonite.

### 8.2.2 Lower Cretaceous granite, granodiorite and tonalite

Lower Cretaceous granitic to granodioritic rocks of the Osilinka stocks and the Mesilinka pluton occur just south of the Kliyul property (e.g. southeast corner of Figure 3). The Mesilinka pluton consists mainly of coarse-grained biotite monzogranite to quartz monzonite, commonly with feldspar phenocrysts to 2 cm in size (Schiarizza and Tan, 2005a). The Osilinka stocks include a number of small, commonly elongated stocks and plugs composed of medium to coarse-grained, equigranular, biotite granodiorite to monzogranite.

The Johanson Creek tonalite pluton, which covers a northwesterly-elongated area of  $\sim 6 \times 12$  km northwest of the Kliyul property, has discordant K-Ar ages of  $121 \pm 4$  (biotite) and  $142 \pm 12$  (hornblende) Ma (Wanless et al., 1972). Regional mapping, however, suggests it may be of similar age to the  $\sim 174$  Ma Darb Creek pluton (Schiarizza and Tan, 2005a), in which case it should be reclassified into the early Middle Jurassic suite. The Johanson tonalite is light grey, contains modal hornblende-biotite, grades to quartz diorite, and locally displays a steeply-dipping west to northwest foliation (Schiarizza and Tan, 2005a).

### 8.3 Structural Setting

The Quesnel Terrane is regionally imbricated by a series of foreland-style thrust faults that developed during its emplacement overtop of the Cassiar Terrane, as well as accretion of the Cache Creek and Stikine terranes (Nelson et al., 1996). The eastern boundary of the Quesnel Terrane, which is formed with the Cassiar Terrane, is “a complex structural zone that includes late Lower Jurassic east-directed thrust faults” (Schiarizza, 2004, p. 85). The western boundary is marked by the  $\sim$ N–NW trending Pinchi and Finlay-Ingenika faults where it abuts the Cache Creek and Stikine terranes respectively. The Pinchi Fault forms the western boundary until the Cache Creek Terrane pinches out to the north, after which this fault merges with the Finlay-Ingenika Fault. These faults played a prominent role in accommodating regional, Cretaceous to Lower Tertiary, dextral strike-slip faulting (Zhang and Hynes, 1994).

The most prominent structural feature in and around the Kliyul property is the Dortatelle Fault (Figures 3, 4), a north-striking, dextral strike-slip, fault that has been traced for  $\sim 35$  km south from Johanson Lake through the western part of the Kliyul property to where it is truncated by, or merges with, the Finlay-Ingenika Fault (Schiarizza and Tan, 2005a). Other prominent features include the northwest-trending Kliyul Creek anticline (Figure 3), which lies just east of the Dortatelle Fault, and several steeply-dipping, northwest to west-northwest striking, sinistral faults (Schiarizza and Tan, 2005a). Some of these sinistral faults are within or peripheral to Upper Triassic ultramafic-mafic intrusions, which are also elongated parallel to these faults and may therefore be contemporaneous with intrusion. A localized association between ferricrete patches with topographic lineaments and/or large dykes suggests a link between structure and hydrothermal fluid flow.

The core of the Kliyul property is characterized by  $\sim$ E–W trending fabrics and lineaments (Figure 4) that link a  $\sim$ NW-trending fault bounding part of the Kliyul Creek ultramafic–mafic complex to the  $\sim$ N–S trending Dortatelle Fault. Zhang and Hynes (1991) interpret this  $\sim$ E–W trending zone as a cross-structure, or linking fault, connecting the Dortatelle Fault to an unnamed, broadly parallel-trending, fault located  $\sim 5$  km east (“Dortatelle-East fault”). This linking structure is therefore defined by both  $\sim$ E–W fabrics in the Lay/Kliyul valley and the  $\sim$ NW-trending fault that bounds the Kliyul Creek mafic–ultramafic complex (Figure 4). The orientation of this linking structure allows for an interpretation that it developed as an extensional structure between the Dortatelle and Dortatelle-East faults, and so provided a conduit for phyllic alteration. If this is indeed the case, more work is needed to evaluate why Triassic–Jurassic porphyry-style mineralization/alteration (i.e. Kliyul prospect) is located on a structure linking two faults typically related to Cretaceous–Lower Tertiary deformation.

## 8.4 Alteration

Noranda's initial mapping over the core of the Kliyul property concentrated on alteration distribution (Gill, 1993, 1994a). Along the Lay/Kliyul valley, Gill (1993, 1994a) mapped two groups of quartz-sericite-pyrite alteration zones (Figure 4). The northern group, measuring ~200 x 2,400 m, comprises several irregular quartz-sericite-pyrite patches aligned ~E–W within an area mapped by Gill as propylitic andesite tuff. The auriferous Ginger B vein is located just north of this group and the KLIP showing occurs towards its eastern end (Figure 4), the latter comprising minor gold mineralization in scattered quartz veins (Smit and Meyers, 1985). The southern quartz-sericite-pyrite alteration zone is defined by felsenmeer rubble and trenches dug by Noranda into the drift-covered valley bottom over an ~ENE–WSW distance of about 1,700 m, and roughly coincides with a fault inferred by Gill (1994a). It passes through the area where drilling intersected the Kliyul Cu-Au-magnetite skarn and remains open to the west.

The two sericite-quartz-pyrite zones mapped by Gill (Gill, 1993, 1994a) can be included within a single, S-shaped, ~900–1000 m wide zone of phyllic alteration that measures ~6.8 km in length (Figure 4). The central, ~east–west trending, part of this phyllic zone contains the Kliyul Cu-Au-magnetite skarn, northwesternmost tip of the Kliyul mafic–ultramafic complex, as well as gypsum-bearing veins and crackle breccias at depths >80 m (Gill, 1994a; Mair and Bidwell, 2007) (Figure 4). The trend for this part of the zone is parallel to both ~east–west foliation within the host rocks and the long axis of the Lay/Kliyul valley whereas the ~north–south trending tails follow the Dortatelle Fault and Kliyul mafic–ultramafic complex to the northwest and southeast respectively (Figure 4). It is perhaps notable that the ~north–south striking, gold-bearing, Ginger B and Independence quartz veins are both spatially associated with the inflection points of this S-shaped phyllic zone (Figure 4).

Alteration of Takla Group rocks to chlorite, epidote and/or actinolite is widespread, and is partly, if not mostly, related to regional greenschist-grade metamorphism. Geological mapping done as part of the 2011 work program, however, suggests that these greenschist-grade rocks furthermore show a propylitic overprint.

## 8.5 Mineralization Styles

The Kliyul property contains 19 BC Minfile showings, which include 15, mostly poly-metallic, quartz vein- and/or shear-related occurrences, two Cu-Au-magnetite “skarns” and two Cu-Au porphyry showings (Table 3). Some workers (Gill, 1993; Lui, 2010; Smit and Meyers, 1985) have pointed out that the Kliyul “skarn” is not an actual skarn, which are typically calcareous rocks into which large amounts of Si, Al, Fe and Mg have been introduced. The term “magnetite-silica replacement body” is therefore preferred by some workers. In this report, however, the term “skarn” is retained for these showings because the more appropriate terminology is cumbersome, inconsistent with historical terminology and provides little additional insight into the nature of the mineralization.

**Table 3: Summary of BC Minfile occurrences on the Kliyul property**

BC Minfile	N	Commodity	Deposit Type	ARIS (Reference)
KLIYUL, PACIFIC SUGAR	2	Cu, Au ± Fe, Ag	Magnetite skarn	13258 (Smit and Meyers, 1985); 25099 (Leriche and Harrington, 1996)
CRITTER, MORaine	2	Cu	Porphyry	(Database, 2005)
BANJO, BRUCE, CRO 2, DENUM, GINGER B, GLACIER, GOLDWAY, INDEPENDENCE, JOH 9, KC, KC 1, KLIP, MAP, SOLO, V3	15	Au ± Cu, Ag, Pb, Zn	Qtz vein, stockwork, shear and/or disseminations	10346 (Fox, 1982); 21502 (Fox, 1991), 21782 (Leriche and Luckman, 1991); 21394 (Richards, 1991); 13258 (Smit and Meyers, 1985), 15313 (von Rosen, 1986); 13580 (Wilson, 1984); (Database, 2005)

Historical work on the Kliyul Cu-Au-magnetite skarn shows that it is the largest prospect on the Kliyul property, being developed over a horizontal area of about ~160 x 250 m and drilled to ~70 m vertical depth (e.g. Gill, 1993). Gill (1994a) used privately held data from Sumac (1974) and Vital Pacific (1981) to calculate a NI 43-101 non-compliant resource of 2.3 Mt grading 0.3% Cu and 1.03 g/t Au (Gill, 1994a). More significantly, recent workers have suggested that the Kliyul skarn and surrounding phyllic alteration zone may be related to a Cu-Au porphyry system at depth (Gill, 1994a; Lui, 2010). Subsequent drilling of two relatively deep holes into a 3D inversion model of Kliyul skarn, magnetic, anomaly returned the best intersections to date, including 217.8 m of 0.23% Cu and 0.52 g/t Au (Mair and Bidwell, 2007). The result of the 2007 drill program provides additional impetus to test the Kliyul prospect with several deep diamond drill holes.

Gold-bearing quartz veins have been the focus of just two reported exploration efforts on the Kliyul property, first in the late 1940's when the Ginger B and Independence veins were discovered and then in the early 1980's when Golden Rule explored the Independence and other veins on their KC claims. No link between the mineralized quartz veins and Cu-Au magnetite skarn has been established on the property, although it is noteworthy that both such deposit types can form part of porphyry systems.

## 9.0 2011 WORK PROGRAM

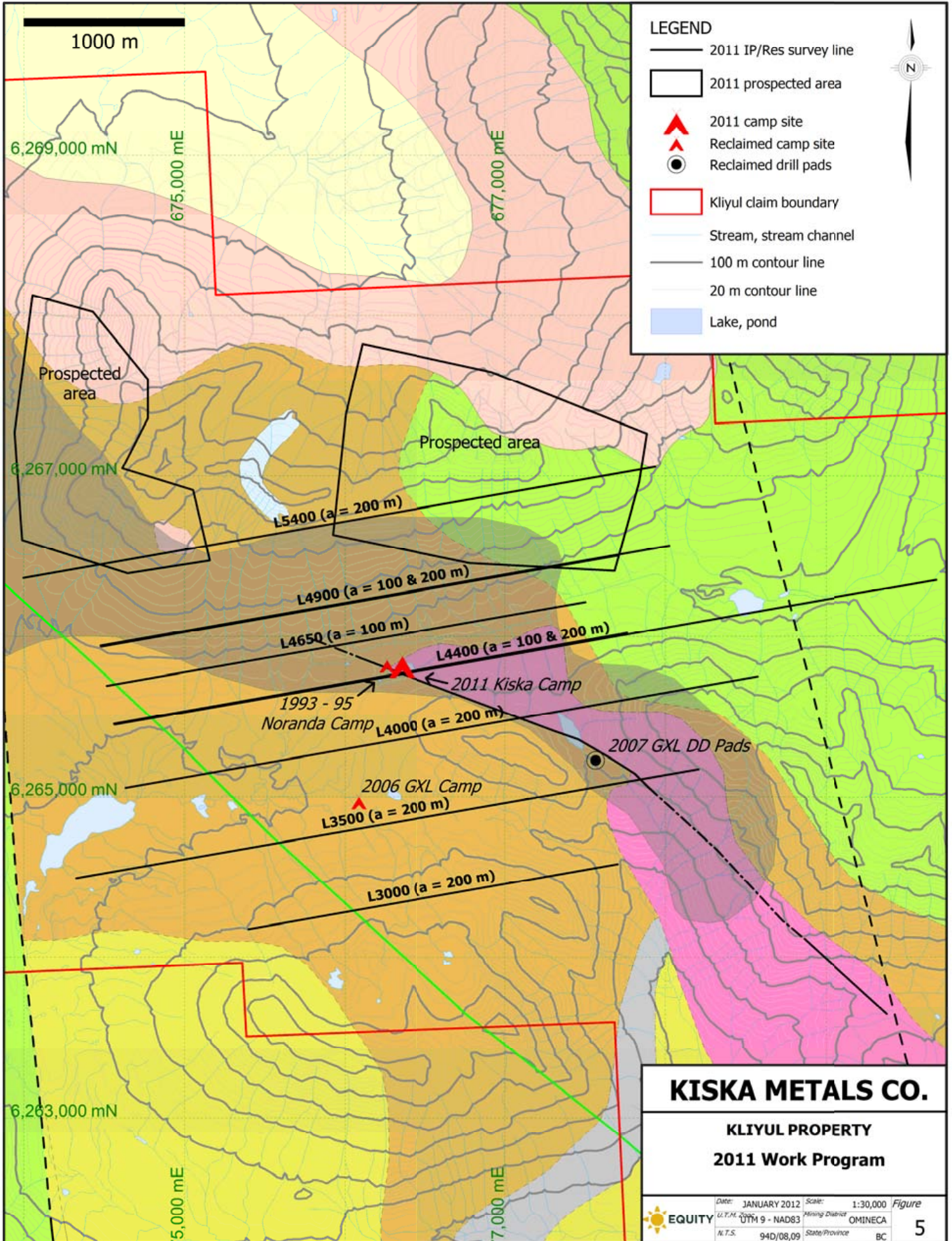
The 2011 work program was conducted from a helicopter-accessible camp established near the centre of the Kliyul property (56° 30' N; 126° 09' W). Most of the work focussed on a ~30 line-km induced polarization/resistivity (IP/Res) survey whereas some data compilation, prospecting and reclamation work was also done. Elements of the work program are summarized below and on Figure 5.

### 9.1 Data Compilation

Several data sets were added to the existing Kliyul database in order to maximize historical information used in the interpretation of new data. These data sets include newly digitized ground-based magnetic (Christopher, 1986; Cross, 1985; Gill, 1994d; Mustard, 1974; Price et al., 1990; Stevenson, 1971a; Wilson, 1984) and airborne magnetic contour maps (Gill, 1994d), as well as maps showing VLF-EM conductors (Betz, 1976; Cross, 1985; Mustard, 1974; Price et al., 1990). Descriptions of lithology, alteration and mineralization for 31 drill holes (Gill, 1993, 1994a; Smit and Meyers, 1985) were also incorporated into the DDH database, and comments on the methodology used to capture these logs are provided below.

Abundances of alteration minerals were given either descriptive names (e.g. "weak" or "intense") or, less often, modal proportions (e.g. 5% chlorite), and magnetite abundances were sometimes expressed as magnetic susceptibility. These different means of gauging alteration minerals were integrated into a single database by converting all modal proportions and magnetic susceptibilities to one of five descriptive equivalents; very weak = 1, weak = 2, moderate = 3, strong = 4, very strong or intense = 5. Conversions for modal percentages are; <1 modal% = very weak, 1–10% = weak, 10–20% = moderate, 20–40% = strong and >40% = very strong. Similarly, ranges of magnetic susceptibility were converted into very weak (0–2), weak (2–10), moderate (10–20), strong (20–50) and very strong (>50).

Sulphide mineral groupings include pyrite (+ 25 occurrences of pyrrhotite), chalcopyrite (+ a combined 16 occurrences of malachite, azurite, bornite) and molybdenite. Abundances of these minerals were typically quantified as modal percent, allowing for relatively straight forward quantification in the database. Exceptions include use of the terms "minor" or "trace", here characterized as 0.5 modal% and 0.1% respectively, as well as the symbols "<" or "<<", which were halved and quartered respectively (i.e. "<1%" = 0.5%).



## 9.2 Prospecting

Four days of prospecting were done to evaluate the northern part of the Kliyul property (Figure 5). Prospecting was done on foot traverses from the 2011 Kliyul camp.

Four select samples were collected from outcrops that were then marked with GPS, as well as with pink-blue flagging and etched metal tags. All samples were sent to ALS Minerals Labs in Terrace B.C., where they were split and pulverized to 85% passing 75 microns and then analysed by aqua regia ICP-AES for 35 elements. Gold (Au) was analysed by fire assay and an ICP-AES finish. Rock sample descriptions are attached in Appendix D and analytical certificates form Appendix E.

## 9.3 Induced Polarization/Resistivity survey

Logistical aspects and results of the 2011 IP/Res survey are detailed within reports written by Peter E. Walcott & Associates (Appendix F), who conducted the survey, and Jan Klein, P.Geo (Appendix G) who acted as an external consultant.

The surveyed IP/Res grid comprised six lines ranging from ~2.2–4.8 km in length and spaced ~500 m apart, plus another three lines ranging from ~2.5–3.1 km in length and spaced just ~250 m apart. All lines were oriented at ~80°. The lines spaced at ~500 m, which comprise a total of ~22.0 line-km, were surveyed with a pole-dipole array, “a” spacing of 200 m and separation (“n”) of 1–6, thereby achieving depth penetration of ~500 m. Three additional lines (4900N, 4650 and 4400N) spaced at ~250 m, which comprised an additional total of ~8.6 line-km, were surveyed at a = 100 m and n = 1–6, achieving depth penetration of ~200–300 m. Two of these lines were done on lines originally surveyed at spacing of ~500 m whereas the third was done in between these lines. The purpose of running these lines was to identify shallower drill targets, image the top of a deep chargeability high identified at spacing a = 200m, and improve integration of IP/Res with DDH data. The broad-scale nature of the survey means that the influence of small sources is smoothed into those from larger bodies.

Maps can be found in the pocket and include chargeability and resistivity at n = 1, n = 2, pant-leg filtered and Pyramid 10 filtered, as well as all chargeability and resistivity pseudo-sections obtained for a = 200 m and a = 100 m. The n = 1 and n=2 maps are suitable for interpreting IP/Res properties of near-surface and deeper bedrock respectively, whereas the Pyramid 10 filter smoothes large disseminated sources (e.g. porphyry targets) and the pant-leg filter emphasizes narrow steeply dipping sources (e.g. veins). All images found in the pocket were generated by Jan Klein, P.Geo., and are presented employing linear scales.

Inversion of IP/Res data was done by Walcott, and the sections are also included in the pocket. These sections show only that part of the grid that is spatially associated with historical drilling, the Kliyul Cu-Au-magnetite skarn and phyllic alteration. The purpose of these sections is to illustrate the need for more diamond drilling in order to properly test the Kliyul prospect.

## 9.4 Reclamation

Reclamation activities in 2011 included cleaning up of the 1993–1995 Noranda and 2006 Geoinformatics (GXL) exploration camps, salvaging of treated lumber left over from the 2007 GXL drilling program (Figure 5), and transport of 2007 GXL diamond drill core (holes KS 07-1 to -3) from their Mesilinka exploration camp, located ~50 km to the SE of the property, to the 2011 Kliyul camp site. A complete list of all DD core stored on the Kliyul property, all of which is at the 2011 camp site, is provided in Table 4.

**Table 4: Summary of drill core stored on the Kliyul property. N = number of drill holes**

DDH	N	Year	Company	ARIS
KL-5 - 8, KL-13	5	1974	Sumac Mines Ltd	5211
KL-16 - 19	4	1981	Kennco Expl Ltd	9464
NK-94-20 - 29	10	1994	Noranda Expl Co Ltd	23797
HS-95-1 - 4, 1a	5	1995?	?	?
KS-07-01 - 03	3	2007	Geoinformatics Expl Ltd	29914

## 10.0 ANALYSIS OF SELECT COMPILED DATA

### 10.1 Drill core

Historical records indicate that 41 diamond drill holes (DDHs) have pierced the part of the Kliyul property lying east of the Dortatelle Fault. Thirty-one of these DDHs were drilled into, or in the vicinity of, the Kliyul Cu-Au-magnetite skarn. Newly compiled lithological, alteration and mineralization data for these 31 drill holes is summarized below and included on the data disk (Appendix H), with the aim of improving characterization of the Kliyul skarn and identifying gaps in the database.

The 31 DDH located in the Lay/Kliyul valley intersected 3556.4 m of bedrock. The bulk of this bedrock (69.1%) consists of volcanic and intrusive rocks (69.1% and 13.1% respectively), with the remaining ~17.7% formed by argillite, chlorite ± biotite schist, breccia, quartz-sericite schist, volcanoclastic. The predominantly igneous nature of the bedrock contrasts with regional mapping of this unit as volcanic sandstone, breccia, limestone and siltstone (Kliyul Creek subunit 3 of Schiarizza and Tan, 2005b).

Descriptions of alteration show that chlorite, carbonate and sericite alteration are the most abundant, reported in ~60–80% of all intersected rocks, followed by epidote and silica alteration (~50–55% of all intersected rocks). These abundances are likely minimal, since they do not include vein occurrences, and indicate that the predominantly volcanic-intrusive host rocks underlying the Lay/Kliyul valley are widely altered to chlorite + carbonate + sericite ± epidote ± quartz. More unusual alteration minerals include gypsum, clay and/or abundant (= >5 modal %) magnetite, which occur in ~12%, 11% and 29% of intersected rocks respectively. There are also indications that particularly strong associations are shown between quartz-magnetite, clay-epidote and clay-carbonate, and that high abundances of clay are associated with low abundances of magnetite.

Sulphides were reported in ~98% of all intersected rocks, and ~99% of these sulphide-bearing rocks contain pyrite at an average abundance of ~2 modal%. Chalcopyrite is reported in ~67.5% of all intersected rocks, although at a median abundance of 0.25 modal% (i.e. trace abundance). Rocks containing >1 modal% chalcopyrite, on the other hand, comprise just ~8% of all intersected rocks. Molybdenite is reported from just ~1% of the drill core.

### 10.2 Soils

The soil database compiled by Geoinformatics contains 8264 entries for the Kliyul property and surrounding area (<33 km from center of property). Select percentiles for relevant elements are presented in Table 5 and are used to calculate background values for the project area, which is here defined as the interquartile range (IQR = 25<sup>th</sup>–75<sup>th</sup> percentile) (i.e. 6–65 ppb Au, 60–190 ppm Cu). Background values for precious and base metals are generally high, likely because soils were mostly collected from prospect areas and/or because many of the samples comprise talus fines.

**Table 5: Select percentile values and the median for historical soil samples from the project area.**

	Ag (ppm)	As (ppm)	Au (ppb)	Cu (ppm)	Fe (%)	Mo (ppm)	Pb (ppm)	Zn (ppm)
	<i>N</i> = 6446	<i>N</i> = 5383	<i>N</i> = 6540	<i>N</i> = 8005	<i>N</i> = 4765	<i>N</i> = 6345	<i>N</i> = 5896	<i>N</i> = 6600
99th	2.9	111	1065	1264	13.04	500	122	896
95th	1.5	76	330	570	9.30	19	46	290
75th	0.5	11	65	190	6.53	5	14	112
Median	0.2	3	22	109	5.50	2	6	79
25th	0.1	3	6	60	4.49	1	2	52

Soils on the Kliyul property consist of glacial till, alluvium, colluvium, talus fines and weathered bedrock (e.g. Price et al., 1990). Till and alluvium blanket the bottom of the Lay/Kliyul valley and, likely, most other valleys in the area as well, as suggested by hummocky topography. Talus fines are abundant along the steep slopes that bound the valleys on the property, and are the prevailing soil type collected in several grids (e.g. BAP prospect). B-horizon soils formed directly from weathered outcrops are probably quite scarce.

Analyses of soils collected from the Lay/Kliyul valley (Price et al., 1990) show IQR of 20–70 ppb Au and 78–146 ppm Cu, similar to that of the regional dataset (Table 5). A similar result was obtained for samples taken from a more closely-spaced grid placed directly over top of the Kliyul Cu-Au-magnetite skarn (IQR = 15–51 ppb Au, 77–150 ppm Cu). These findings are consistent with an interpretation that the Lay/Kliyul valley bottom is covered in till and alluvium that is disconnected from bedrock.

### 10.3 Stream sediments

Kiska's stream sediment database contains 1478 samples collected from within and around the Kliyul property, with the most distal samples collected ~30 km from its center. Select percentiles for relevant base and precious metals are presented in Table 6 and are used to, once again, define the background as interquartile range (IQR).

The Kliyul Cu-Au magnetite skarn lies in the Lay/Kliyul valley, which features streams draining towards the ENE (Lay Creek), SSE ("Divide" Creek) and to the SSE via a horseshoe-shaped lake-stream system to the west of the showing (Kliyul Creek). The headwaters of both Lay and Divide creeks lie within the phyllic alteration zone, with Lay Creek headwaters lying closest to the Cu-Au magnetite skarn. Kliyul Creek starts ~700 m south of the phyllic zone but is fed by several north-south trending creeks that cut across this zone.

Twenty-eight of the 42 stream sediment samples (~70%) from Lay Creek were analyzed only for gold and silver, which show IQRs of 35–65 ppb Au and 0.3–0.4 ppm Ag. The IQR for Au in Lay Creek is almost an order of magnitude higher than regional background (4–10 ppb Au), suggesting Au-enrichment in the Lay Creek source area. The highest values occur closest to the headwaters with additional enrichment occurring ~1.6 km downstream (Figure 6). Copper analyses, done on 14/42 samples (~30%), contain between 198–960 ppm Cu with a median of 605 ppm Cu, also suggesting enrichment of Cu in the source area. These results are consistent with the proximity of the Lay Creek headwaters to the Kliyul Cu-Au-magnetite skarn.

Gold abundances in Divide Creek are generally slight lower than those in Lay Creek (Figure 6), with a few exceptionally high values (up to 478 ppb Au). No other metals of interest were analyzed for this sample set. The comparatively complete data set for Kliyul Creek, with 38 of 44 samples analyzed for 30+ elements, indicates background abundances for select metals and pathfinders of interest (Au, Cu, Mo, Zn, Pb, Ag, As, Fe, Sb, W). The maximum value of 377 ppm Cu is the only one that falls within the regional 95<sup>th</sup> percentile.

**Table 6: Select percentile values and the median for historical stream sediments from the project area.**

Percentile	Ag (ppm)	As (ppm)	Au (ppb)	Cu (ppm)	Mo (ppm)	Pb (ppm)	Zn (ppm)
	<i>N</i> = 1357	<i>N</i> = 577	<i>N</i> = 709	<i>N</i> = 1274	<i>N</i> = 932	<i>N</i> = 929	<i>N</i> = 1270
99th	2.2	106	463	810	44	47	459
95th	1.7	35	152	377	10	28	205
75th	1.2	10	30	154	3	18	92
Median	0.5	4.3	10	91	1	7	72
25th	0.2	2	4	55	1	3	56



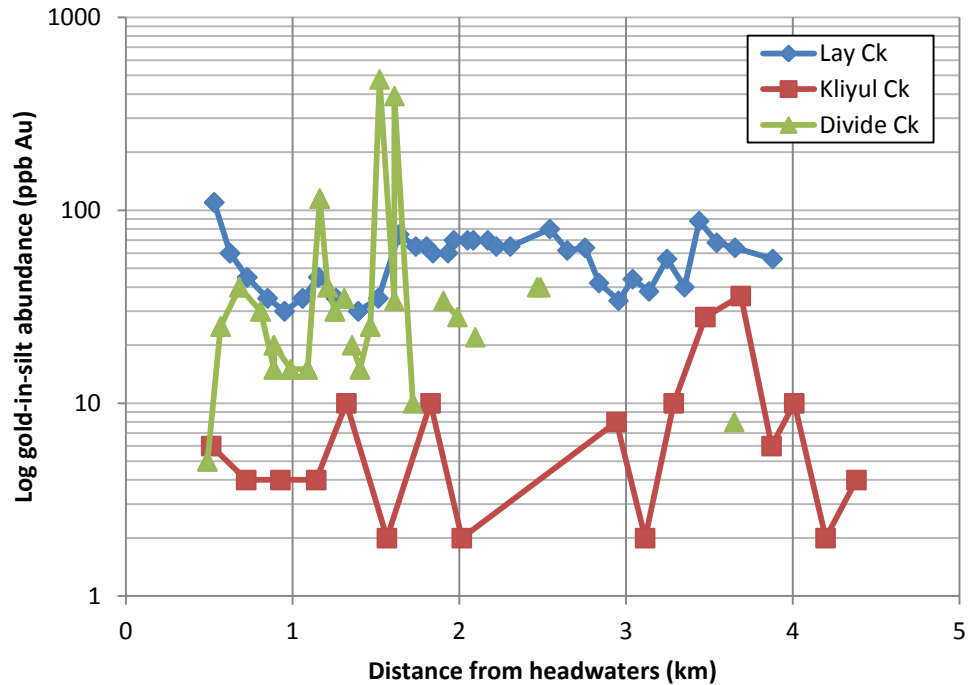


Figure 6: Plot showing variation in gold-in-silt abundance (Au ppb) within creeks draining the Kliyul Cu-Au-magnetite skarn. Headwaters of all three creeks lie in the Lay/Kliyul valley.

## 11.0 GEOLOGICAL MAPPING AND PROSPECTING

The main focus of mapping in 2011 was to determine the origin of elevated Cu- and Au-in-silt values in the northern part of the Kliyul property (samples above “Moraine” showing in Figure 4). Regional geological mapping (Schiarizza and Tan, 2005a) indicates that the bedrock in this part of the property consists of the Upper Triassic Kliyul Creek andesite-sandstone-carbonate and Goldway Peak pyroxene porphyry breccia, intruded by  $174 \pm 2$  Ma Darb Lake tonalite (Schiarizza and Tan, 2005a) (Figures 3, 4).

The area of prospecting and geological mapping focussed on the Takla Group rocks (i.e. Kliyul Creek andesite-sandstone-carbonate and Goldway Peak pyroxene porphyry breccia) that occur between the Darb Creek tonalite and the northern margin of the phyllic alteration zone (Figure 5). In this area, Takla Group rocks are cut by numerous epidote + feldspar  $\pm$  quartz (“epidote”) veins (Figure 7a), some of which are cut by granitoid dykelets (Figure 7a). The  $174 \pm 2$  Ma Darb Creek tonalite contains xenoliths of pervasively epidote-altered mafic volcanic (Figure 7b) and is cut by numerous epidote veins with diffuse contacts (Figure 7c), suggesting that epidote alteration was broadly synchronous with, and possibly pre-dates, intrusion. Both the Darb Creek tonalite and the epidote veins are cut by a swarm of thin, sharp-walled, granitoid dykes (e.g. Figures 7a, c). Field relations thereby suggest that the examined area was subject to at least two episodes of magmatic intrusion along with one, possibly two, intrusion-related episodes of hydrothermal alteration.

Epidote veins are mostly ~north–south trending, parallel to the regional foliation, and form dilational aggregates (e.g. Figure 7a) that suggest emplacement under shear stress. Symmetrical mineral zoning of some K-feldspar- and epidote-bearing veins, with the latter on the outside and former on the inside (Figure 7d), suggests gradual vein-filling and, therefore, a sustained period of hydrothermal fluid flow.

Xenoliths of Goldway Peak mafic volcanic occur in the outer part of the Darb Creek tonalite, and are typically rounded in appearance (Figure 7e). Chilled margins of Darb Creek tonalite are either thin or absent. Together, these relations suggest that the mafic volcanic was still hot when it was intruded by the  $174 \pm 2$  Ma tonalite, possibly because there was little cooling of host rocks or because the two units are more closely associated in time than suggested by current isotopic constraints.

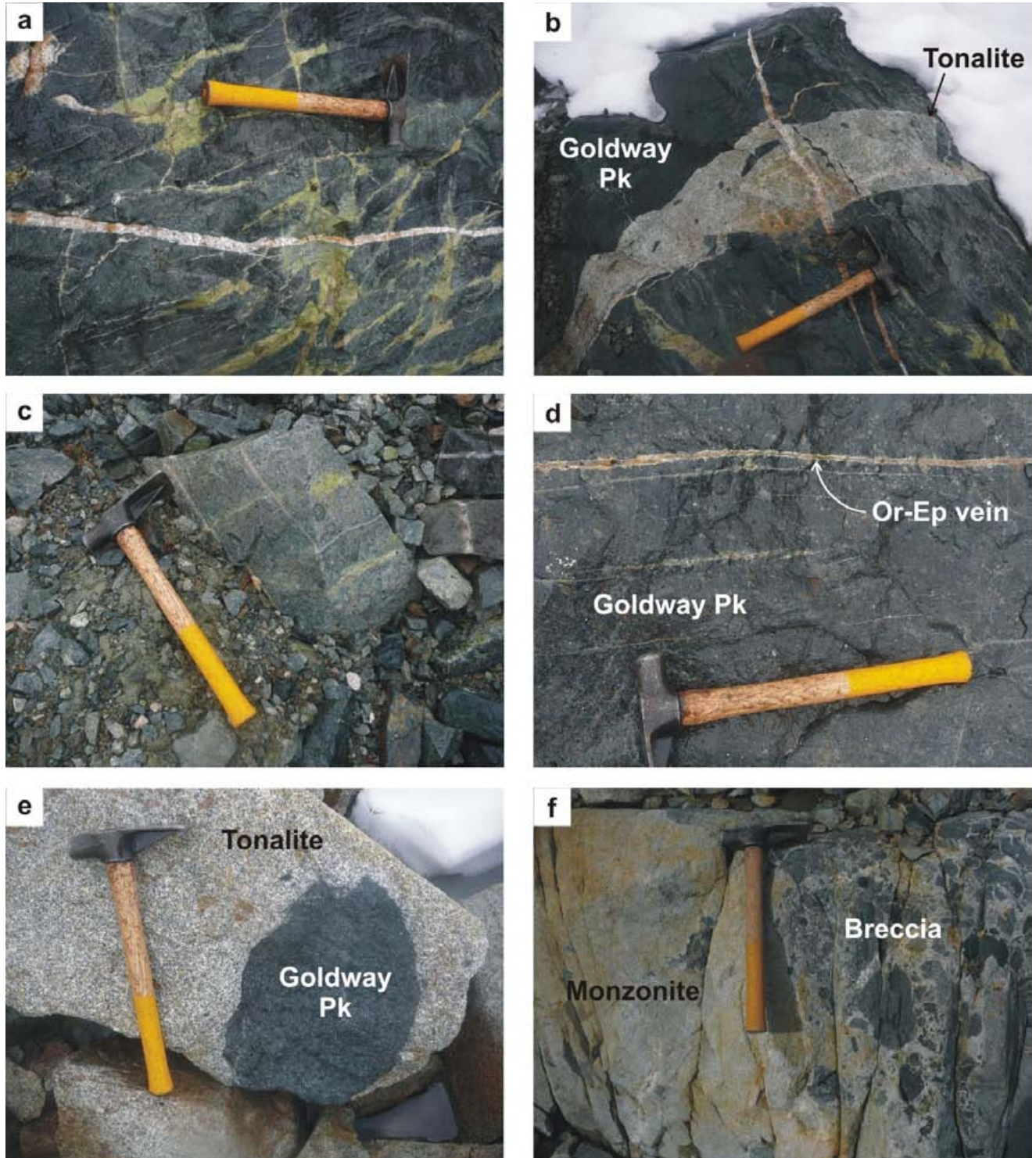


Figure 7: Outcrop photographs showing (a) epidote-rich veins and aggregates cut by granitic dikelet, (b) tonalite dyke with xenoliths of epidote-altered and unaltered Goldway Peak mafic volcanic, (c) boulder of Darb Creek tonalite with diffuse epidote veins cut by thin granitoid veinlets, (d) Goldway Peak mafic volcanic cut by symmetrically zoned orthoclase-epidote vein (Or-Ep vein), (e) rounded xenolith of Goldway Peak mafic volcanic within Darb Creek tonalite, and (f) contact between monzonite and breccia unit, the latter comprising xenoliths of Takla Group within a monzonite host.

A breccia unit (Figure 7f) was found at the southeastern tip of a small granitoid plug located ~1 km south of the Darb Creek tonalite, on the northern margin of the phyllic alteration zone. The eastern side of this intrusion abuts the Ginger B Au-bearing quartz vein (Figure 4). The breccia consists of subrounded to angular Takla Group clasts, ranging in size from ~1–30 cm, hosted within a granitoid matrix that grades into the adjacent massive granitoid.

## 12.0 ROCK SAMPLING AND GEOCHEMISTRY

Four samples were submitted to ALS Minerals for precious metal and trace element assay. Sample descriptions are listed in Appendix D and assays are presented in Appendix E.

Minor chalcopyrite mineralization was found in the contact zone of the Darb Lake amphibole tonalite and Kliyul Creek andesite-sandstone-carbonate unit (Figure 8). The Kliyul Creek unit returned the better assay, including 0.35% Cu, 261 ppb Au and 2.2 ppm Ag. The tonalite returned 0.29% Cu and 98 ppb Au. It is possible that these samples were collected from the “CRITTER” showing (Table 3, Figure 4).

The other two samples, comprising Goldway Peak augite-plagioclase porphyry and Kliyul Creek andesite, are essentially barren (<120 ppm Cu, <26 ppb Au) even though they contain ~5–10% pyrite. This pyrite is both disseminated and concentrated within epidote-rich veins.

## 13.0 INDUCED POLARIZATION/RESISTIVITY SURVEY

This section integrates the  $n = 2$  IP/Res distributions (in pocket) with geological and ground magnetic data in order to subdivide the 2011 survey area into four IP/Res domains and identify three target zones (Figures 9, 10; Table 7). The four domains are referred to as “Graphite-poor”, “Graphitic”, “Phyllic” and “Propylitic”. The three target zones are “JK”, “Donut Hole” and “Higher Res”, with the former-most identified by Jan Klein, P.Geol. (see Pyramid 10 chargeability map in pocket) and the latter two identified by the author. All three target zones lie mostly in the Phyllic domain whereas the Donut Hole anomaly extends into the Graphitic domain as well.

The Graphite-poor domain defines the SW-corner of the grid and is characterized by moderate–low chargeability and moderate–high resistivity (Figures 9, 10). This domain is bordered to the northeast by the “Graphitic” domain, which is a broad zone of very low resistivity coupled to moderate–high chargeability dominating the SW to central half of the grid. Regional geological mapping (Scharizza and Tan, 2005a, b) suggests that both of these domains are underlain by the Kliyul Creek andesite-carbonate-sandstone subunit. Geological mapping in 2011 also found thick graphite-rich layers within the Kliyul Creek subunit underlying the Graphitic domain. No outcrops were described in the Graphite-poor domain and so a lack, or scarcity, of graphitic layers is assumed from its electrical properties.

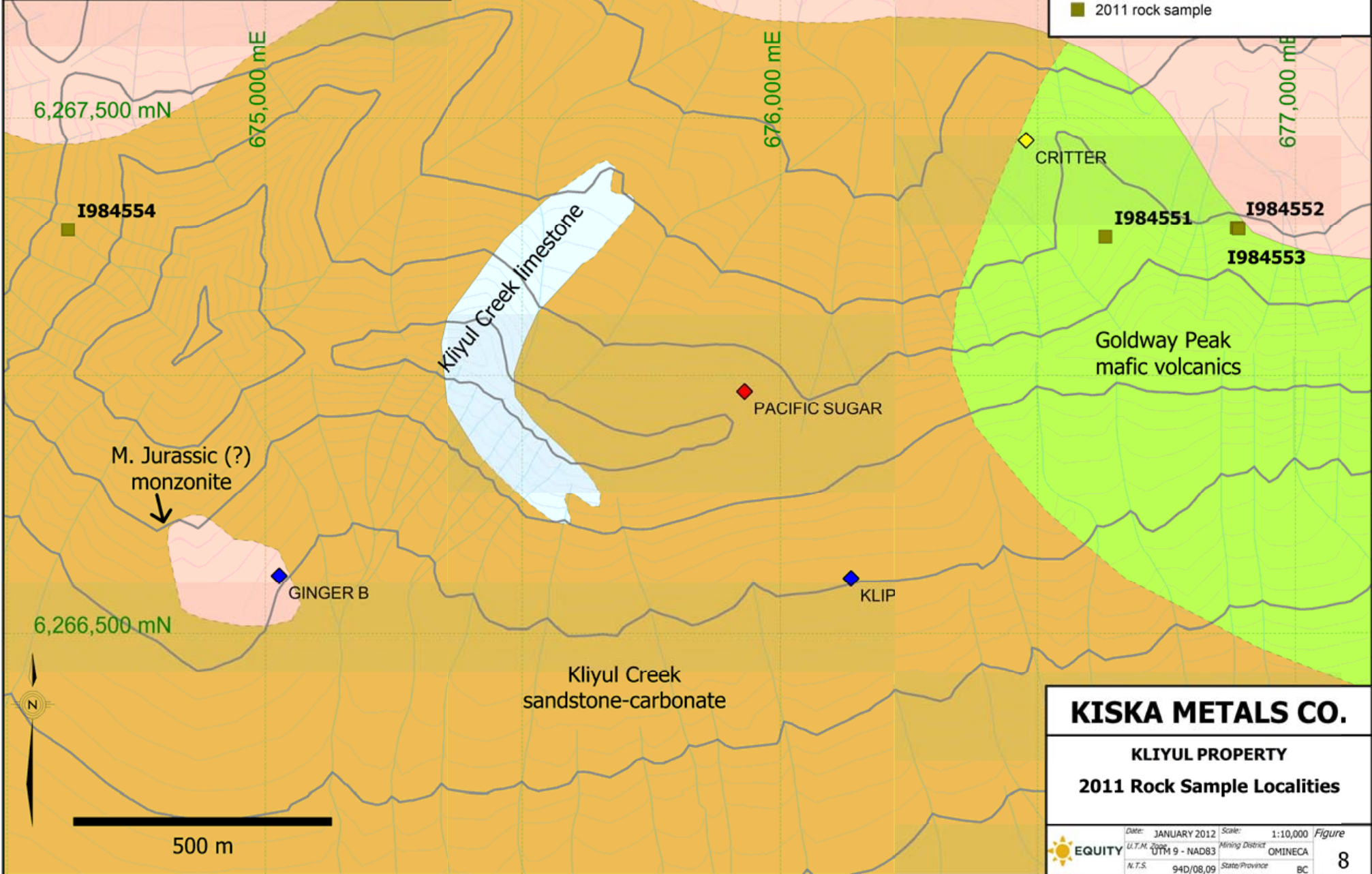
**Table 7: Summary of IP/Res domains defined by the 2011 survey**

Domain	Anomaly	Chargeability <i>mV/V</i>	Resistivity <i>ohm*m*100</i>	Rock Types	Elevation
Graphite-poor		12 - 28	12 - 60	Sediments?	low
Graphitic		14 - 36	0 - 27	Graphitic sediments	mostly low
	Donut Hole (West)	14 - 24	3 - 21	Graphitic sediments? Phyllic volcanic?	low- mod
Phyllic		18 - 30	12 - 42	Py-bearing, phyllic altered, volcanic & intrusive	low - high
	JK	8 - 22	12 - 42	"	low - high
	Donut Hole (East)	14 - 24	12 - 33	"	low- mod
	Higher Res	16 - 30	18 - 36	"	low- mod
Propylitic		8 - 16	12 - 57	Propylitic-altered volcanic	mostly high

Sample_#	Au_ppb	Ag_ppm	Cu_ppm
1984551	25	0.2	60
1984552	98	0.2	2,860
1984553	261	2.2	3,480
1984554	14	0.3	118

**LEGEND**

- ◆ BC Minfile: Cu-Au-Mag skarn
- ◆ BC Minfile: Cu-Au porphyry
- ◆ BC Minfile: poly-metal. Qtz vein(s)
- 2011 rock sample



**KISKA METALS CO.**

**KLIYUL PROPERTY**

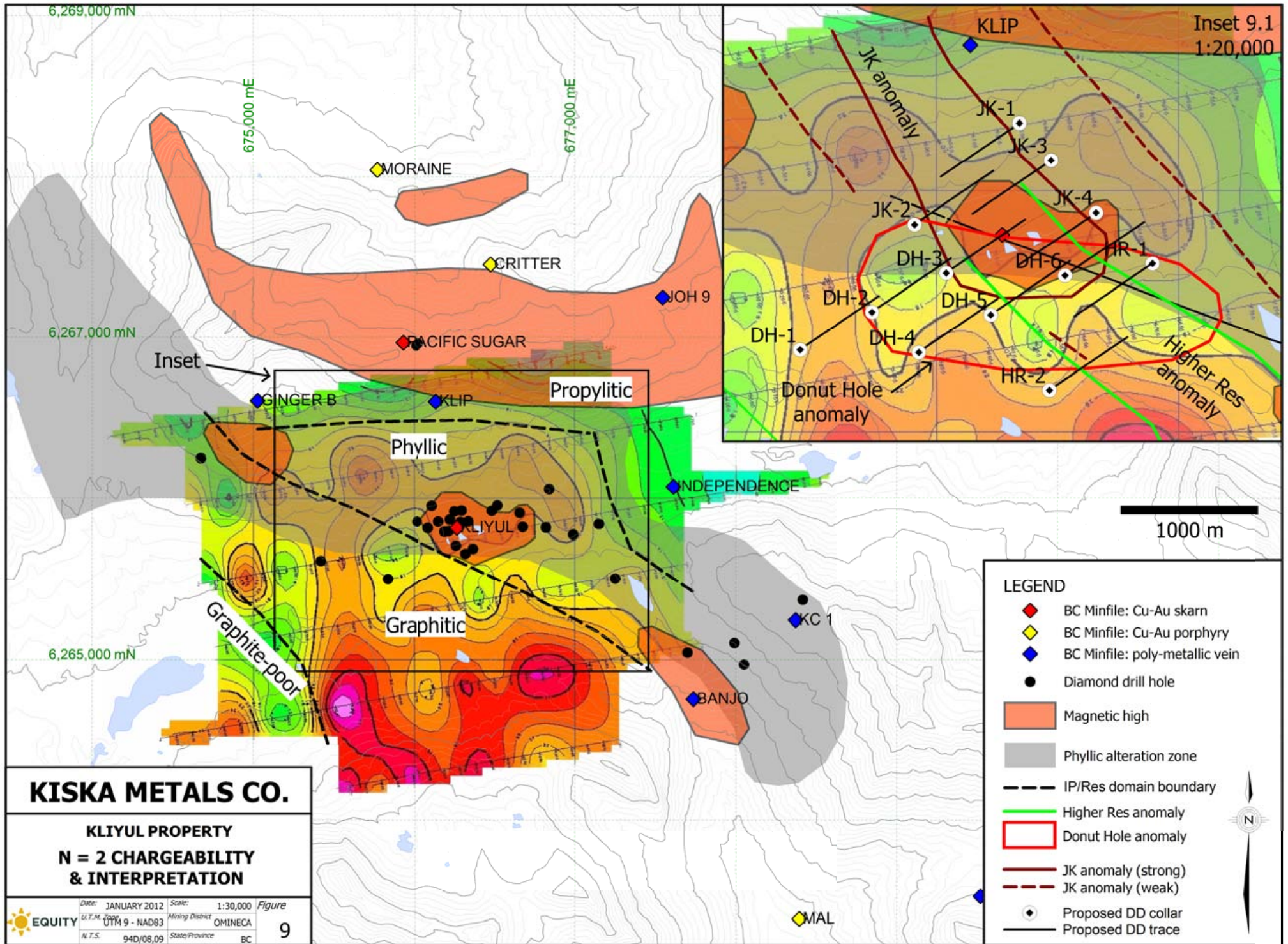
**2011 Rock Sample Localities**

---

Date: JANUARY 2012 Scale: 1:10,000 Figure  
 U.T.M. Zone: UTM 9 - NAD83 Mining District: OMINECA  
 N.T.S. 94D/08,09 State/Province: BC

**EQUITY**

8



Inset 9.1  
1:20,000

Inset

Propylitic

Phyllic

Graphitic

Graphite-poor

1000 m

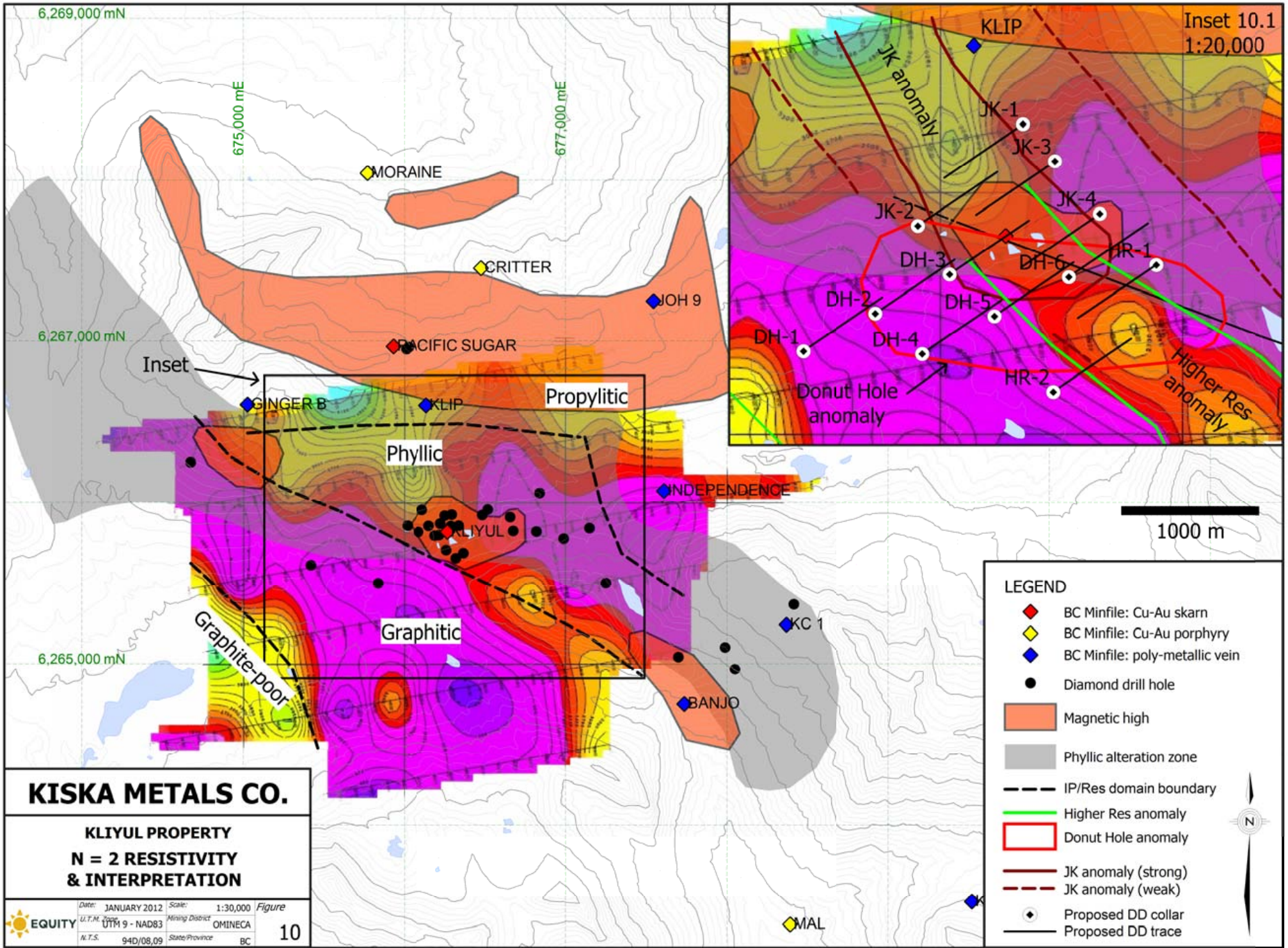
**LEGEND**

- ◆ BC Minfile: Cu-Au skarn
- ◆ BC Minfile: Cu-Au porphyry
- ◆ BC Minfile: poly-metallic vein
- Diamond drill hole
- Magnetic high
- Phyllic alteration zone
- IP/Res domain boundary
- Higher Res anomaly
- Donut Hole anomaly
- JK anomaly (strong)
- JK anomaly (weak)
- ⊙ Proposed DD collar
- Proposed DD trace

**KISKA METALS CO.**

**KLIYUL PROPERTY  
N = 2 CHARGEABILITY  
& INTERPRETATION**

	Date: JANUARY 2012	Scale: 1:30,000	Figure
	U.T.M. Zone: UTM 9 - NAD83	Mining District: OMINECA	9
	N.T.S. 94D/08.09	State/Province: BC	



**KISKA METALS CO.**

**KLIYUL PROPERTY  
N = 2 RESISTIVITY  
& INTERPRETATION**

	Date: JANUARY 2012	Scale: 1:30,000	Figure
	U.T.M. Zone: UTM 9 - NAD83	Mining District: OMINECA	
	N.T.S.: 94D/08,09	State/Province: BC	
			10

**LEGEND**

- ◆ BC Minfile: Cu-Au skarn
- ◆ BC Minfile: Cu-Au porphyry
- ◆ BC Minfile: poly-metallic vein
- Diamond drill hole
- Magnetic high
- Phyllic alteration zone
- - - IP/Res domain boundary
- Higher Res anomaly
- Donut Hole anomaly
- JK anomaly (strong)
- JK anomaly (weak)
- ⊙ Proposed DD collar
- Proposed DD trace



The Phyllic domain is the most intriguing of the four domains, since it comprises a broad area of moderate chargeability/low–moderate resistivity that is spatially coincident with (1) Kliyul Cu-Au-magnetite skarn, (2) phyllic alteration zone, and (3) three separate ~0.2–0.3 km<sup>2</sup> magnetic highs (Figures 9, 10). The moderate chargeability values are likely related to the widespread occurrence of disseminated pyrite in phyllically-altered bedrock. Resistivity values are mostly low apart from a ~NW- to SE-trending, ~300–500 m wide, zone of moderate resistivity values (1800–3300 ohm\*m) that appears to cross-cut the low values (Figure 10). Low resistivity may reflect faulting and breaking of bedrock within the ~E–W-trending part of a linking fault that is inferred to occur within the Lay/Kliyul valley. Property-scale mapping (Gill, 1993, 1994a) suggests that the ~NW-trending zone of somewhat higher resistivity may be related to a post-faulting mafic–ultramafic intrusion. An increase in resistivity also occurs towards the higher elevations in the north.

The last of the four domains is named the Propylitic domain, and occurs along the northern margin and in the NE corner of the 2011 survey grid. This domain is marked by low chargeability and moderate–high resistivity (Figures 9, 10; Table 7), and is predominantly underlain by propylitically-altered Goldway Peak volcanic rocks. The decrease in chargeability, especially relative to the adjacent phyllic domain, is likely related to a decrease in modal pyrite. The propylitic domain contains several gold- and base metal-bearing quartz vein prospects.

All three of the target zones occur within the Phyllic domain, with the JK anomaly also extending northwards into the Propylitic domain and the Donut Hole anomaly westwards into Graphitic domain. The JK anomaly was outlined by Jan Klein, P. Geo. (see Pyramid 10 chargeability map in pocket) and comprises a ~400 x 1300 m zone of moderate chargeability, trending ~150°–330°, that is flanked, to the east and west, by slightly more chargeable “wings” (see maps in pocket). The long axis of the zone extends from ~300 m south of the Kliyul prospect to ~1000 m north.

The Donut Hole anomaly consists of a moderately chargeable ellipse, measuring ~500 x 1500 m with long axis trending ~095°, surrounded by slightly more chargeable rocks to the north, south and west. This chargeability distribution is crudely analogous to the classic “donut hole-type” IP/Res targets linked to idealized porphyry systems, whereby a core zone of ore minerals is surrounded by a highly chargeable, pyrite-rich, shell. The Kliyul Donut Hole anomaly spans the boundary between the Phyllic and Graphitic domains (Figure 9, 10) and is untested in terms of diamond drilling.

The third, and final, target zone is the Higher Res anomaly, which comprises the ~300–500 m wide, ~NW–SE trending, zone of slightly elevated resistivity cutting across an east–west zone of very low resistivity (Figure 10). The Higher Res anomaly is contiguous with the JK anomaly and could possibly track a mafic–ultramafic intrusion or sheeted dyke complex (i.e. Kliyul Creek ultramafic–mafic complex).

## 14.0 DISCUSSION AND CONCLUSIONS

Results of the 2011 IP/Res survey helped add to a growing list of coincident features that support the conceptual model of a buried Cu-Au porphyry system occurring on the Kliyul property. These features, as described and discussed in the previous sections, include:

- (1) several chargeability/resistivity anomalies that require testing with long drill holes,
- (2) ~7.4 km<sup>2</sup> quartz + sericite ± pyrite ± clay (= phyllic) alteration zone,
- (3) Cu-Au-magnetite “skarn” mineralization,
- (4) gypsum-bearing veins and crackle breccias,
- (5) lengthy DDH intersections of Cu-Au mineralization (i.e. 217.8 m of 0.23% Cu and 0.52 g/t Au),
- (6) association with a swam of diorite/monzonite dykes
- (7) nearby occurrence of gold-bearing quartz veins (e.g. Ginger, Independence, Banjo, KC1)
- (8) Au-enrichment of stream sediments

These prospective features are furthermore surrounded by propylitic-altered country rock and localized along a linking fault-type structure, which could have provided a conduit for magmas and hydrothermal fluids.

The Phyllic IP/Res domain contains the bulk of three anomalies that should be tested with diamond drill holes; (1) "JK", (2) "Donut Hole" (which also extends into the Graphitic domain) and (3) "Higher Res". Proposed work on these three anomalies, which is described below, comprises a total of 12 x ~600 m diamond drill holes (= 7200 m total) that all trend towards either 055° or 235° and are angled at 50° (insets in Figures 9, 10). Each hole will therefore test to true vertical depths of ~460 m below the surface.

Seven of the twelve proposed DDH will intersect the JK anomaly, testing ~600 m of trend length in the vicinity of the Kliyul Cu-Au magnetite skarn. Three of these holes (JK-1 to -3 on Figures 9, 10) would test only the JK anomaly whereas the other four (DH-3, -5, -6, JK-4) would test the other two target zones as well.

Proposed diamond drill testing of the Donut Hole anomaly comprises two fences of three DDH, with fences spaced ~250 m apart and trending towards 055°. The trend of the holes is into the Kliyul Cu-Au-magnetite skarn if it is south-dipping, as suspected from previous diamond drilling programs (Gill, 1993). The northwestern fence (proposed DDH DH-1 to -3) tests a zone of relatively high chargeability before crossing the donut hole and ending in the JK anomaly. The southeastern fence is mostly contained within the donut hole and would also test the southern-most tip of the JK anomaly (DDH DH-5 and -6) as well as the Higher Res anomaly in DH-5. There is plenty of room to add a third three-hole fence located ~250 m to the SE.

The proposed drill plan for the Higher Res anomaly consists of two drill holes located SE of the Kliyul Cu-Au-magnetite skarn (HR-1 and -2) in addition to four holes laid out to test the JK and Donut Hole anomalies (DH-3 and -5, JK-3 and -4). These six drill holes would test the Higher Res anomaly along ~800 m of trend, with a higher density of holes towards the NW end.

Besides the 12 x ~600 m deep drill holes proposed above, additional future work should include careful integration of published maps, drill core and rock geochemistry in order to improve the geological map, since published observations (e.g. drill core logs) are, in places, at odds with regional geological mapping. Additional conventional soil sampling is not recommended, since it is ineffective over the till and alluvium cover in the area of most interest. Deep-penetrating soil geochemical methods have not been attempted yet on the property and may provide further insight.

Respectfully submitted,



---

Ronald Voordouw  
EQUITY ENGINEERING LTD.  
Vancouver, British Columbia  
February 12, 2012



**Appendix A: Bibliography**

- Awmack, H., 2010, 2010 summary report on the Kliyul project, 43-101 Report for Kiska Metals Co, p. 46.
- Betz, J., 1976, Report on the MaxMin II EM Survey, Bap Claim Group, British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report #5976, p. 35.
- Christopher, P. A., 1986, Geological, Geochemical and Geophysical Report on KC Property, British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report #15583, p. 63.
- Cross, D. B., 1985, Geological, geophysical and geochemical report KC 1 and 2 claims, British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report #14416, p. 54.
- Database, M., 2005, B.C. Ministry of Energy, Mines and Petroleum Resources <http://www.em.gov.bc.ca/Mining/Geolsurv/Minfile/search/default.htm>.
- Diakow, L. J., 2001, Geology of the southern Toodoggone River and northern McConnell Creek map areas, north-central British Columbia, British Columbia Ministry of Energy, Mines and Petroleum Resources, Open File Map 2001-1, 1:50,000 scale.
- Duuring, P., Rowins, S. M., McKinley, B. S. M., Dickinson, J. M., Diakow, L. J., Kim, Y.-S., and Creaser, R. A., 2009, Magmatic and structural controls on porphyry-style Cu-Au-Mo mineralization at Kemess south, Toodoggone district, British Columbia, Canada: *Mineralium Deposita*, v. 44, p. 435-462.
- Ferri, F., 1997, Nina Creek Group and Lay Range Assemblage, north-central British Columbia: remnants of late Paleozoic oceanic and arc terranes: *Canadian Journal of Earth Sciences = Journal Canadien des Sciences de la Terre*, v. 34, p. 854-874.
- Fox, M., 1982, Geological and Geochemical Report, KC 1 and 2 Mineral Claims, British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report #10346, p. 35.
- Fox, M., 1991, Geological and Geochemical Exploration Report, JO 1-8 and CRO 1-5 Mineral Claims, British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report #21502, p. 64.
- Gabrielse, H., 1985, Major dextral transcurrent displacements along the northern Rocky Mountain trench and related lineaments in north-central British Columbia: *Geological Society of America Bulletin*, v. 96, p. 1-14.
- Gill, D. G., 1993, Drilling Assessment Report on the Kliyul Property, British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report #23033, p. 82.
- Gill, D. G., 1994a, Drilling Assessment Report on the Kliyul Group of Claims, British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report #23797, p. 160.
- Gill, D. G., 1994b, Geochemical, Geophysical Assessment Report on the Darb Northwest Property, British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report #23680, p. 34.
- Gill, D. G., 1994c, Geological, Geochemical Assessment Report on the Croydon Property, British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report #23544, p. 77.
- Gill, D. G., 1994d, Geological, Geochemical, Geophysical and Physical Assessment Report on the Joh, Darb, Croydon, Mariposite & Kliyul Properties, British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report #23379, p. 238.
- Gill, D. G., 1994e, Geological, Geochemical, Geophysical Assessment Report on the Croydon Property, British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report #23681, p. 81.
- Gill, D. G., 1995a, Geochemical, Geological and Linecutting Assessment Report on the Darb Northwest Property, British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report #24073, p. 39.
- Gill, D. G., 1995b, Geological Assessment Report on the JOH 3 Group of Claims, British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report #23842, p. 49.
- Goudie, M. A., and Hallof, P., 1971, Report on the Induced Polarization and Resistivity Survey on the Kli No. 1 Group and No. 2 Group, British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report #3313, p. 36.
- Hoffman, S. J., 1982, Geochemical Report on the BAP Mineral Claims, British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report #10950, p. 113.

- Irvine, T. N., 1974, Ultramafic and gabbroic rocks in the Aiken Lakes and McConnell Creek map-areas, British Columbia, Report of Activities, Part A, Geological Survey of Canada, Paper 74-1A, p. 149-152.
- Leriche, P. D., and Harrington, E., 1996, Diamond Drill Report on the JOH Property, British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report #25099, p. 66.
- Leriche, P. D., and Luckman, N., 1991, Geological and geochemical report on the DARB property, British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report #21782, p. 45.
- Leriche, P. D., and Taylor, A., 1992, Geological, Geochemical and Geophysical Report on the Joh/Darb Property, p. 120.
- Lui, D. K., 2010, 2010 geological report on the Kliyul project, British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report #31866, p. 83.
- Mair, J., and Bidwell, G., 2007, 2006 Assessment Report, Mesilinka and Kliyul Projects, British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report #29112, p. 165.
- Mair, J., and Bidwell, G., 2008, 2007 Assessment Report, Mesilinka Project, British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report #29914, p. 581.
- Mihalynuk, M. G., Nelson, J., and Diakow, L. J., 1994, Cache Creek terrane development: oroclinal paradox within the Canadian cordillera: Tectonics, v. 13, p. 575-595.
- Mustard, D. K., 1974, Geological-Geochemical-Geophysical Report on the Bap Mineral Claims, British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report #5135, p. 60.
- Mustard, D. K., and Bates, C. D. S., 1975, Geochemical-Physical Work Report on the Bap Mineral Claims, British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report #5600, p. 67.
- Nelson, J. L., and Bellefontaine, K. A., 1996, Geology and Mineral Deposits of North-Central Quesnellia; Tezzeron Lake to Discovery Creek, Central British Columbia, British Columbia Ministry of Energy, Mines and Petroleum Resources Bulletin 99, 115 p.
- Nelson, J. L., Bellefontaine, K. A., Green, K. C., and MacLean, M., 1996, The Geology and Mineral Deposits of North-Central Quesnellia; Tezzeron Lake to Discovery Creek, Central British Columbia, B.C. Ministry of Employment and Investment, Energy and Minerals Division, Geological Survey Branch, p. 112.
- Price, S. M., Linden, G. E., Cannon, R. W., and Ditson, G. M., 1990, Geochemical, Geophysical and Prospecting Report on the KLI Claims, British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report #20578, p. 80.
- Rebagliatti, C. M., 1986, Soil Geochemistry, BAP 10, 14, 18 Mineral Claims, British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report #15182, p. 21.
- Richards, T. A., 1991, Geologic setting and sampling of vein systems, Solo group mineral claims, British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report #21394, p. 45.
- Rogers, T., 1974, Diamond Drilling on the Klisum Group, British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report #5211, p. 20.
- Rogers, T., 1981, Report on Diamond Drilling, Klisum Group, British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report #9464, p. 13.
- Schiarizza, P., 2004, Geology and Mineral Occurrences of Quesnel Terrane, Kliyul Creek to Johanson Lake (94D/8,9), Geological Fieldwork 2003, British Columbia Ministry of Energy, Mines and Petroleum Resources Paper 2004-1, p. 83-100.
- Schiarizza, P., and Tan, S. H., 2005a, Geology and Mineral Occurrences of the Quesnel Terrane between the Mesilinka River and Wrede Creek (NTS 94D/8, 9), North-Central British Columbia, Geological Fieldwork 2004, British Columbia Ministry of Energy, Mines and Petroleum Resources Paper 2005-1, p. 109-130.
- Schiarizza, P., and Tan, S. H., 2005b, Geology of the Johanson Lake Area, 94D/8 and 9, British Columbia Geological Survey Open File 2005-4 (1:50,000 map).
- Skrecky, G., 2008, Technical Report on the December 31, 2007 Reserves for Kemess South Mine, p. 53.

- Smit, H. Q., and Meyers, R., 1985, Assessment Report of the 1984 Geological and Geochemical Exploration Program on the KLI 84-1 Claim Group, British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report #13258, p. 212.
- Stevenson, R. W., 1971a, Report on Magnetometer Survey, Kli No. 1 Group, British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report #2818, p. 9.
- Stevenson, R. W., 1971b, Report on Soil and Silt Geochemical Survey, KLI No. 1 Group, British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report #3312, p. 20.
- Struik, L. C., 1988, Crustal evolution of the eastern Canadian cordillera: Tectonics, v. 7.
- Terrane, 2009, Terrane Metals Corp. News Release dated October 13, 2009.
- Travers, W. B., 1978, Overturned Nicola and Ashcroft strata and their relations to the Cache Creek Group, southwestern intermontane belt, British Columbia: Canadian Journal of Earth Sciences = Journal Canadien des Sciences de la Terre, v. 15.
- von Rosen, G., 1986, Assessment geological report on mapping, sampling and bulk sampling program, British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report #15313, p. 36.
- Wanless, R. K., Stevens, R. D., Lachance, G. R., and Delabio, R. N., 1972, Age determinations and geological studies, K-Ar isotopic ages, Report 10, Geological Survey of Canada, Paper 71-2, p. 96.
- White, W. H., 1948, Sustut-Aiken-McConnell Lake Area, British Columbia Department of Mines 1947 Annual Report, p. A100-A107.
- Wilson, G. L., 1984, Geological, Geochemical and Geophysical Report, KC 1 and 2 Mineral Claims, British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report #13580, p. 41.
- Zhang, G., and Hynes, A., 1991, Structures along Finlay-Ingenika fault, McConnell Creek area, north-central British Columbia (94C/5; 94D/8, 9), British Columbia Geological Survey, Geological fieldwork 1991, Paper 1992-1, p. 147-154.
- Zhang, G., and Hynes, A., 1994, Fabrics and kinematic indicators associated with the local structures along Finlay-Ingenika Fault, McConnell Creek area, north-central British Columbia: Canadian Journal of Earth Sciences = Journal Canadien des Sciences de la Terre, v. 31, p. 1687-1699.

**Appendix B: Claim Data**

Claim Name	Tenure No	Owner	Issue date	Good to date	Area (ha)
<b><i>Kliyul Property</i></b>					
94D	838884	Rimfire Minerals Co	2010/Nov/24	2012/Nov/24	35.70
94D	838885	Rimfire Minerals Co	2010/Nov/24	2011/Dec/31	17.85
GOLDWAY	684404	Rimfire Minerals Co	2009/Dec/13	2013/Feb/01	17.85
GOLDWAY 2	684403	Rimfire Minerals Co	2009/Dec/13	2013/Feb/01	35.69
GOLDWAY 3	684763	Rimfire Minerals Co	2009/Dec/14	2011/Dec/31	35.70
GOLDWAY 5	689123	Rimfire Minerals Co	2009/Dec/24	2013/Feb/01	231.95
GW	836390	Rimfire Minerals Co	2010/Oct/21	2012/Oct/21	17.85
GW2	838699	Rimfire Minerals Co	2010/Nov/21	2011/Dec/31	107.08
GW3	838764	Rimfire Minerals Co	2010/Nov/23	2011/Dec/31	17.85
GW4	838843	Rimfire Minerals Co	2010/Nov/24	2011/Dec/31	17.85
GW5	840872	Rimfire Minerals Co	2010/Dec/15	2011/Dec/31	17.85
JOH 3 - 5.9 G/T GOLD + CU	840942	Rimfire Minerals Co	2010/Dec/16	2011/Dec/31	71.35
JOH 3 - GOLD + CU EXT.	840978	Rimfire Minerals Co	2010/Dec/16	2011/Dec/31	142.68
JOH2	535013	Rimfire Minerals Co	2006/Jun/06	2013/Feb/01	446.28
KLI #39	245382	Rimfire Minerals Co	1971/Jul/12	2013/Feb/01	25.00
KLI #40	245383	Rimfire Minerals Co	1971/Jul/12	2013/Feb/01	25.00
KLI #41	245384	Rimfire Minerals Co	1971/Jul/12	2013/Feb/01	25.00
KLI #42	245385	Rimfire Minerals Co	1971/Jul/12	2013/Feb/01	25.00
KLI #43	245386	Rimfire Minerals Co	1971/Jul/12	2013/Feb/01	25.00
KLI #44	245387	Rimfire Minerals Co	1971/Jul/12	2013/Feb/01	25.00
KLI #45	245388	Rimfire Minerals Co	1971/Jul/12	2013/Feb/01	25.00
KLI #46	245389	Rimfire Minerals Co	1971/Jul/12	2013/Feb/01	25.00
KLI #47	245390	Rimfire Minerals Co	1971/Jul/12	2013/Feb/01	25.00
KLI #48	245391	Rimfire Minerals Co	1971/Jul/12	2013/Feb/01	25.00
KLI 51	532002	Rimfire Minerals Co	2006/Apr/13	2013/Feb/01	446.18
KLI 52	532005	Rimfire Minerals Co	2006/Apr/13	2013/Feb/01	357.07
KLI 53	532011	Rimfire Minerals Co	2006/Apr/13	2013/Feb/01	392.93
KLI 54	532014	Rimfire Minerals Co	2006/Apr/13	2013/Feb/01	446.02
KLI NO. 1	245065	Rimfire Minerals Co	1970/Aug/10	2013/Feb/01	25.00
KLI NO. 2	245066	Rimfire Minerals Co	1970/Aug/10	2013/Feb/01	25.00
KLI NO. 3	245067	Rimfire Minerals Co	1970/Aug/10	2013/Feb/01	25.00
KLI NO. 4	245068	Rimfire Minerals Co	1970/Aug/10	2013/Feb/01	25.00
KLI NO. 6	245070	Rimfire Minerals Co	1970/Aug/10	2013/Feb/01	25.00
KLI NO. 7	245071	Rimfire Minerals Co	1970/Aug/10	2013/Feb/01	25.00
KLI NO. 8	245072	Rimfire Minerals Co	1970/Aug/10	2013/Feb/01	25.00
KLI NO. 10	245074	Rimfire Minerals Co	1970/Aug/10	2013/Feb/01	25.00
KLI NO. 11	245075	Rimfire Minerals Co	1970/Aug/10	2013/Feb/01	25.00
KLI NO. 12	245076	Rimfire Minerals Co	1970/Aug/10	2013/Feb/01	25.00
KLI NO. 13	245077	Rimfire Minerals Co	1970/Aug/10	2013/Feb/01	25.00
KLI NO. 14	245078	Rimfire Minerals Co	1970/Aug/10	2013/Feb/01	25.00
KLI NO. 15	245079	Rimfire Minerals Co	1970/Aug/10	2013/Feb/01	25.00
KLI NO. 16	245080	Rimfire Minerals Co	1970/Aug/10	2013/Feb/01	25.00

Claim Name	Tenure No	Owner	Issue date	Good to date	Area (ha)
KLI NO. 17	245081	Rimfire Minerals Co	1970/Aug/10	2013/Feb/01	25.00
KLI NO. 18	245082	Rimfire Minerals Co	1970/Aug/10	2013/Feb/01	25.00
KLI NO. 19	245083	Rimfire Minerals Co	1970/Aug/10	2013/Feb/01	25.00
KLI NO. 20	245084	Rimfire Minerals Co	1970/Aug/10	2013/Feb/01	25.00
KLI NO.21	245155	Rimfire Minerals Co	1970/Sep/11	2013/Feb/01	25.00
KLI NO.25	245156	Rimfire Minerals Co	1970/Sep/11	2013/Feb/01	25.00
KLI NO.26	245157	Rimfire Minerals Co	1970/Sep/11	2013/Feb/01	25.00
KLI NO.27	245158	Rimfire Minerals Co	1970/Sep/11	2013/Feb/01	25.00
KLI NO.28	245159	Rimfire Minerals Co	1970/Sep/11	2013/Feb/01	25.00
KLIYUL	598705	Rimfire Minerals Co	2009/Feb/04	2013/Feb/01	875.26
KLIYUL	672564	Rimfire Minerals Co	2009/Nov/21	2013/Feb/01	17.85
MOC1	534992	Rimfire Minerals Co	2006/Jun/06	2013/Feb/01	392.93
RH ADVISORY	684583	Rimfire Minerals Co	2009/Dec/13	2013/Feb/01	35.70
SB2	832925	Rimfire Minerals Co	2010/Sep/07	2011/Dec/31	142.76
SUGAR BABY	701023	Rimfire Minerals Co	2010/Jan/18	2013/Feb/01	53.53
THE RITZ VEIN	675143	Rimfire Minerals Co	2009/Nov/26	2013/Feb/01	17.85
UTA #4	245777	Rimfire Minerals Co	1973/Aug/29	2013/Feb/01	25.00
UTA #6	245778	Rimfire Minerals Co	1973/Aug/29	2013/Feb/01	25.00
UTA #8	245779	Rimfire Minerals Co	1973/Aug/29	2013/Feb/01	25.00
V4	837391	Rimfire Minerals Co	2010/Nov/03	2011/Dec/31	17.84
WIIRD	838835	Rimfire Minerals Co	2010/Nov/24	2011/Dec/31	17.86
YUL-7	319492	Rimfire Minerals Co	1993/Jul/15	2013/Feb/01	25.00
YUL-8	319493	Rimfire Minerals Co	1993/Jul/15	2013/Feb/01	25.00
YUL-9	319494	Rimfire Minerals Co	1993/Jul/15	2013/Feb/01	25.00
YUL-10	319495	Rimfire Minerals Co	1993/Jul/15	2013/Feb/01	25.00
YUL-11	319496	Rimfire Minerals Co	1993/Jul/15	2013/Feb/01	25.00
YUL-12	319497	Rimfire Minerals Co	1993/Jul/20	2013/Feb/01	25.00
YUL-13	319498	Rimfire Minerals Co	1993/Jul/20	2013/Feb/01	25.00
(unnamed)	832282	Rimfire Minerals Co	2010/Aug/27	2013/Feb/01	35.70
(unnamed)	832322	Rimfire Minerals Co	2010/Aug/27	2013/Feb/01	35.70
(unnamed)	832262	Rimfire Minerals Co	2010/Aug/27	2013/Feb/01	35.70
(unnamed)	832302	Rimfire Minerals Co	2010/Aug/27	2013/Feb/01	35.70

**Appendix C: Statement of Expenditures**



**STATEMENT OF EXPENDITURES  
KLIYUL PROPERTY  
July 11 - August 5, 2011**

**PROFESSIONAL FEES AND WAGES:**

Henry Awmack, P.Eng.

Darcy Baker, P.Geo. 1.51 days @ \$700/day \$ 1,057.00

Shay Brennan, Geologist 0.13 days @ \$700/day 91.00

Dan Gainer, Sampler 1.88 days @ \$575/day 1,081.00

Harry Parker, Camp Manager 15.50 days @ \$275/day 4,262.50

Scott Parker, GIS / Logistics 4.00 days @ \$450/day 1,800.00

Colin Slauenwhite, Project Manager 103.00 hours @ \$75/hour 7,725.00

Sean Suttie, Assistant Geologist 13.00 days @ \$625/day 8,125.00

Dawn Thompson, Cook/First Aid 26.00 days @ \$400/day 10,400.00

Ron Voordouw, Project Geologist 20.00 days @ \$550/day 11,000.00

Agata Zurek, GIS 57.27 days @ \$700/day 40,089.00

1.25 hours @ \$75/hour 93.75 \$ 85,724.25

**EQUIPMENT RENTALS**

Chain Saw

Field Camp 12.00 days @ \$30/day \$360.00

Field Computers 178.00 days @ \$40/manday 7,120.00

26.00 days @ \$40/day 1,040.00



First Aid Equipment (Level III)

Generator (6.5KVA)	27.00 days @ \$30/day	810.00	
Rental Truck Insurance	45.50 days @ \$20/day	910.00	
Satellite Phones (Iridium)	7.00 days @ \$10/day	70.00	
	4 weeks @ \$75.00/week	300.00	
	152 minutes @ \$1.89/min	287.28	\$ 10,897.28

**EXPENSES:**

Chemical Analyses	\$ 163.55
Materials and Supplies	5,286.22
Small Tools and Equipment	1,200.93
Camp Food	10,909.42
Meals	502.61
Accommodation	420.50
Taxis and Airporters	705.40
Parking	1.79
Truck Rental (Non-Equity)	3,912.33
Automotive Fuel	600.04
Automotive Expenses	24.99
Helicopter Charter	45,696.20
Airfare	4,043.17
Telephone Distance Charges	16.04
Courier	46.94
Freight	29,487.48
Bulk Fuel	8,508.98
Drum Deposits	315.00
Ground Geophysics: Field Work	53,450.00

Geophysical Consulting	1,400.00	
Satellite Phone Rental	2,659.59	
Radio Rental (Non-Equity)	720.00	
Project Supervision Charge	31,320.65	
Report (estimated)	<u>3,000.00</u>	<u>\$ 204,391.83</u>
<b>TOTAL:</b>		<b><u><u>\$ 301,013.36</u></u></b>

## Appendix D: Rock Sample Descriptions

### MINERALS AND ALTERATION TYPES

AC	Actinolite	FP	feldspar	PF	plagioclase
AL	alunite	GA	garnet	PH	phlogopite
AM	amphibole	GE	goethite	PL	pyrolusite
AS	arsenopyrite	GL	galena	PO	pyrrhotite
AU	augite	GR	graphite	PY	pyrite
AZ	azurite	HB	hornblende	QZ	quartz veining
BA	barite	HE	haematite	RE	realgar
BI	biotite	HS	specularite	RN	rhodonite
BO	bornite	HZ	hydrozincite	SB	stibnite
BT	pyrobitumen	IL	illite	SD	siderite
CA	calcite	JA	jarosite	SI	silicification
CB	Fe-carbonate	KF	potassium feldspar	SK	skarn
CC	chalcocite	MC	malachite	SM	smithsonite
CD	chalcedony	MG	magnetite	SP	sphalerite
CL	chlorite	MI	mica	SR	scorodite
CP	chalcopyrite	MN	Mn-oxides	SS	sulphosalts
CU	native copper	MO	molybdenite	ST	smectite
CV	covellite	MR	mariposite/fuchsite	TP	topaz
CY	clay	MS	sericite	TT	tetrahedrite
DC	dickite	MT	marcasite	VG	gold
DS	diaspore	MU	muscovite	ZE	Zeolite
DU	dumortierite	NA	natroalunite	ZN	zunyite
EN	enargite	NE	neotocite		
EP	epidote	PA	pyrargyrite		

### ALTERATION INTENSITY

w	weak	s	strong
m	moderate	i	intense

# Rock Sample Descriptions      Kliyul

**Operator:** Kiska Metals Corp

**Project:** KSK11-01    2011

**NTS:** 94D/8\_9

<b>1984551</b> <b>Kliyul</b>	Grid North:		Grid East:		Type: Grab	Alteration: Weak EP, Weak MS	<u>Au (ppb)</u>	<u>Ag (ppm)</u>	<u>Cu (ppm)</u>	<u>Mo (ppm)</u>
	UTM 6267268	N	UTM 676631	E	Strike Length Exp:	Metallics: 0.5% CP, 2% PY	25	0.2	60	<1
	Elevation 2044	m	Sample Width: 9	cm	True Width:	Secondaries: Med GE	<u>W (ppm)</u>	<u>Zn (ppm)</u>		
					Host : Augite-Pl porphyry		<10	11		
Sampled By: SS 22-Jul-11	Inequigranular augite porphyry with disseminated PY and CP; extensive coverage of FE-oxides on weathered surface; minor EP veins with PY.									
<b>1984552</b> <b>Kliyul</b>	Grid North:		Grid East:		Type: Select	Alteration: Med EP, Med MS, Weak Q	<u>Au (ppb)</u>	<u>Ag (ppm)</u>	<u>Cu (ppm)</u>	<u>Mo (ppm)</u>
	UTM 6267286	N	UTM 676886	E	Strike Length Exp:	Metallics:	98	0.2	2860	<1
	Elevation 2009		Sample Width: 6	cm	True Width:	Secondaries: Weak AZ, Med MC	<u>W (ppm)</u>	<u>Zn (ppm)</u>		
					Host : Amphibole tonalite		<10	51		
Sampled By: SS 22-Jul-11	Inequigranular tonalite exhibiting moderate EP and MS alteration; minor QZ and EP veining with minor PY.									
<b>1984553</b> <b>Kliyul</b>	Grid North:		Grid East:		Type: Select	Alteration: Med CB	<u>Au (ppb)</u>	<u>Ag (ppm)</u>	<u>Cu (ppm)</u>	<u>Mo (ppm)</u>
	UTM 6267284	N	UTM 676890	E	Strike Length Exp:	Metallics: 0.05% CP, 0.5% PY	261	2.2	3480	<1
	Elevation 2015	m	Sample Width: 6	cm	True Width:	Secondaries: Strong AZ, Strong MC	<u>W (ppm)</u>	<u>Zn (ppm)</u>		
					Host : Carbonate siltstone		10	71		
Sampled By: SS 22-Jul-11	Fine-grained carbonate siltstone between volcanic units; possibly a skarn; EP and CB veins containing PY, mineralization disseminated PY.									
<b>1984554</b> <b>Kliyul</b>	Grid North:		Grid East:		Type: Select	Alteration: Strong EP	<u>Au (ppb)</u>	<u>Ag (ppm)</u>	<u>Cu (ppm)</u>	<u>Mo (ppm)</u>
	UTM 6267282	N	UTM 674618	E	Strike Length Exp:	Metallics: 0.05% CP, 2% PY	14	0.3	118	<1
	Elevation 2022	m	Sample Width: 7	cm	True Width:	Secondaries: Med GE	<u>W (ppm)</u>	<u>Zn (ppm)</u>		
					Host : Andesite		<10	22		
Sampled By: SS 29-Jul-11	Intense PY and EP veining; disseminated PY and CP.									

**Appendix E: Rock Sample Analytical**  
**Certificates**



ALS Canada Ltd.  
 2103 Dollarton Hwy  
 North Vancouver BC V7H 0A7  
 Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: EQUITY EXPLORATION CONSULTANTS LTD  
 SUITE 200, 900 WEST HASTINGS STREET  
 VANCOUVER V6C 1E5

Page: 1  
 Finalized Date: 8-SEP-2011  
 Account: EIAKSK

**CERTIFICATE VA11159811**

Project: KSK11-01  
 P.O. No.: KSK11-01\_1  
 This report is for 4 Rock samples submitted to our lab in Vancouver, BC, Canada on 12-AUG-2011.  
 The following have access to data associated with this certificate:  
 EQUITY EXPLORATION GENERAL      RON VOORDOUW

SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP41	35 Element Aqua Regia ICP-AES	ICP-AES
Au-ICP21	Au 30g FA ICP-AES Finish	ICP-AES

To: EQUITY EXPLORATION CONSULTANTS LTD  
 ATTN: RON VOORDOUW  
 SUITE 200, 900 WEST HASTINGS STREET  
 VANCOUVER V6C 1E5

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:   
 Colin Ramshaw, Vancouver Laboratory Manager



ALS Canada Ltd.  
 2103 Dollarton Hwy  
 North Vancouver BC V7H 0A7  
 Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: EQUITY EXPLORATION CONSULTANTS LTD  
 SUITE 200, 900 WEST HASTINGS STREET  
 VANCOUVER V6C 1E5

Page: 2 - A  
 Total # Pages: 2 (A - C)  
 Finalized Date: 8-SEP-2011  
 Account: EIAKSK

Project: KSK11-01

**CERTIFICATE OF ANALYSIS VA11159811**

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt. kg	Au-ICP21 Au ppm	ME-ICP41 Ag ppm	ME-ICP41 Al %	ME-ICP41 As ppm	ME-ICP41 B ppm	ME-ICP41 Ba ppm	ME-ICP41 Be ppm	ME-ICP41 Bi ppm	ME-ICP41 Ca %	ME-ICP41 Cd ppm	ME-ICP41 Co ppm	ME-ICP41 Cr ppm	ME-ICP41 Cu ppm	ME-ICP41 Fe %
		0.02	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
I984551		1.40	0.025	0.2	1.58	3	<10	120	<0.5	2	0.91	<0.5	35	16	60	4.41
I984552		1.34	0.098	0.2	1.10	<2	<10	240	<0.5	<2	0.70	<0.5	11	10	2860	2.57
I984553		2.06	0.261	2.2	3.56	<2	<10	300	<0.5	<2	1.14	0.6	32	75	3480	4.79
I984554		2.20	0.014	0.3	1.85	<2	<10	50	<0.5	<2	0.94	<0.5	64	12	118	8.26





ALS Canada Ltd.  
 2103 Dollarton Hwy  
 North Vancouver BC V7H 0A7  
 Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: EQUITY EXPLORATION CONSULTANTS LTD  
 SUITE 200, 900 WEST HASTINGS STREET  
 VANCOUVER V6C 1E5

Page: 2 - B  
 Total # Pages: 2 (A - C)  
 Finalized Date: 8-SEP-2011  
 Account: EIAKSK

Project: KSK11-01

**CERTIFICATE OF ANALYSIS VA11159811**

Sample Description	Method Analyte Units LOR	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	
		Ga ppm 10	Hg ppm 1	K % 0.01	La ppm 10	Mg % 0.01	Mn ppm 5	Mo ppm 1	Na % 0.01	Ni ppm 1	P ppm 10	Pb ppm 2	S % 0.01	Sb ppm 2	Sc ppm 1	Sr ppm 1
I984551		<10	<1	0.40	<10	0.90	239	<1	0.16	21	1000	<2	2.47	<2	3	41
I984552		<10	<1	0.30	10	0.58	477	<1	0.07	4	950	<2	0.03	<2	3	99
I984553		10	1	1.37	<10	1.74	1260	<1	0.22	25	560	<2	0.17	<2	12	49
I984554		<10	<1	0.21	<10	0.75	357	<1	0.20	15	310	<2	7.68	<2	4	39



ALS Canada Ltd.  
 2103 Dollarton Hwy  
 North Vancouver BC V7H 0A7  
 Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: EQUITY EXPLORATION CONSULTANTS LTD  
 SUITE 200, 900 WEST HASTINGS STREET  
 VANCOUVER V6C 1E5

Page: 2 - C  
 Total # Pages: 2 (A - C)  
 Finalized Date: 8-SEP-2011  
 Account: EIAKSK

Project: KSK11-01

**CERTIFICATE OF ANALYSIS VA11159811**

Sample Description	Method Analyte Units LOR	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
		Th	Ti	Ti	U	V	W	Zn
		ppm	%	ppm	ppm	ppm	ppm	ppm
		20	0.01	10	10	1	10	2
1984551		<20	0.21	<10	<10	109	<10	11
1984552		<20	0.13	<10	<10	65	<10	51
1984553		<20	0.26	<10	<10	197	10	71
1984554		<20	0.16	<10	<10	90	<10	22

**Appendix F: Geophysical Consultant Report I:**

**Peter E. Walcott & Associates**

Maps, pseudo-sections and inversions pertaining to this report are located in the pocket

**A LOGISTAL REPORT**

**ON**

**INDUCED POLARIZATION SURVEYING**

**Kliyul Property  
Johanson Lake Area  
OMINECA M.D., B.C.  
56° 30'N, 126° 8'W  
NTS: 93J/11**

**Survey Dates: July 18<sup>th</sup> – July 30<sup>th</sup>, 2011**

**For**

**EQUITY EXPLORATION CONSULTANTS LTD.**

**Vancouver, B.C.**

**BY**

**PETER E. WALCOTT & ASSOCIATES LIMITED**

**Vancouver, B.C.**

**DECEMBER 2011**

## TABLE OF CONTENTS

	<u>Page</u>
Introduction	3
Property Location & Access	4
Survey Specifications	8

### APPENDIX

Cost of Survey  
Personnel Employed on Survey

### ACCOMPANYING MAPS

### MAP POCKET

Grid Location Map	1:10,000
IP Pseudo Sections	1:10,000
Lines 3000N, 3500N, 4000N (100m & 200m), 4650N (100m), 4900N (100m & 200m), 5400N	

## **INTRODUCTION.**

Between July 18th and July 30th, 2011, Peter E. Walcott & Associates Limited undertook induced polarization (I.P.) surveying over parts of the Kliyul property, located some 10 kilometres south of Johanson Lake, British Columbia, for Equity Exploration consultants.

The survey grid was centered over an area of known mineralization as defined by historic diamond drilling. The purpose of the survey was to test for a deeper zone beneath the known mineralization, along with the potential for expansion of shallow zones.

The survey was conducted on a single grid on east-west orientated survey lines with a nominal spacing of 500 metres. A total of some 32 kilometres was surveyed.

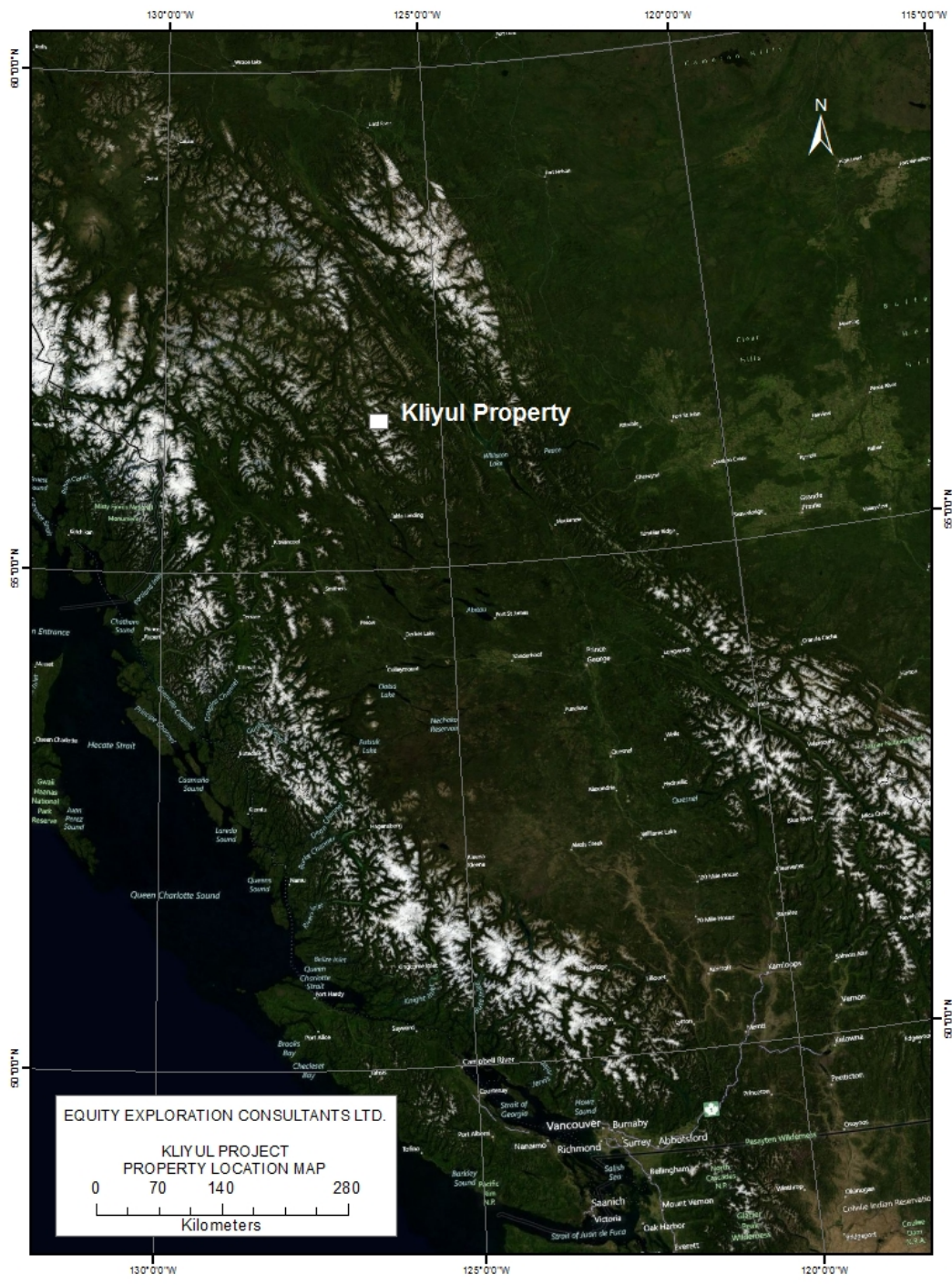
In addition the horizontal locations of the line stations were measured using a Brunton altimeter and a Garmin GPS unit respectively.

The I.P. data are presented as individual pseudo sections at a scale of 1:10,000.

**PROPERTY, LOCATION & ACCESS.**

The Kliyul property is located in the Omineca Mining Division of British Columbia. It is situated just some 9 kilometres south of Johanson Lake, just off the Omineca mine road.

Access to the survey area was obtained via helicopter from an airstrip located on the north end of Johanson Lake on the Omenica mining road. A camp was established on the survey grid, where the crew was housed for the duration of the survey. The grid was accessed via foot, with some helicopter support in the steeper areas.

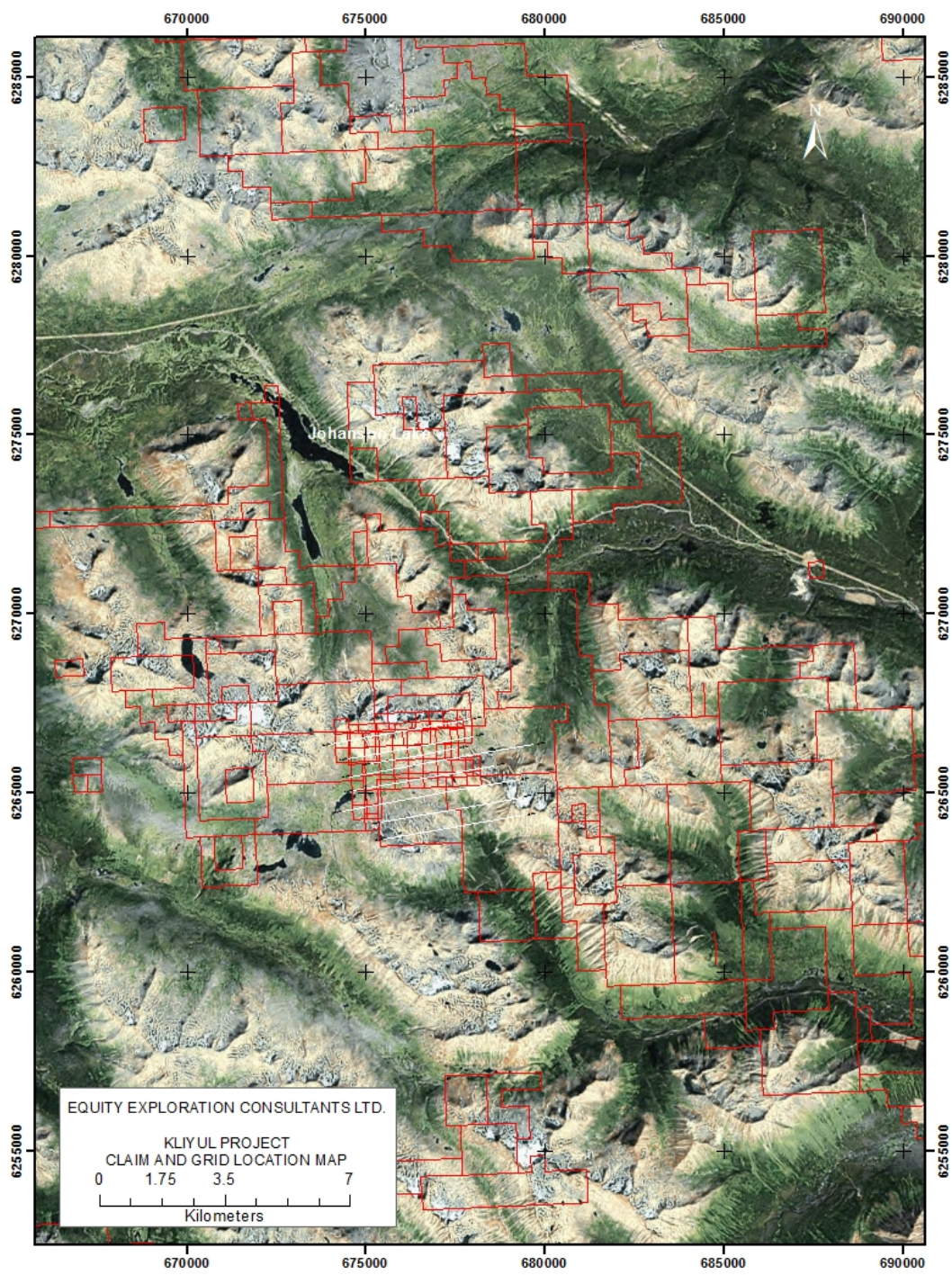


Property Location Map

Peter E. Walcott & Associates Limited  
Geophysical Services

Magnetic & Induced Polarization Surveying  
Kliyul Property

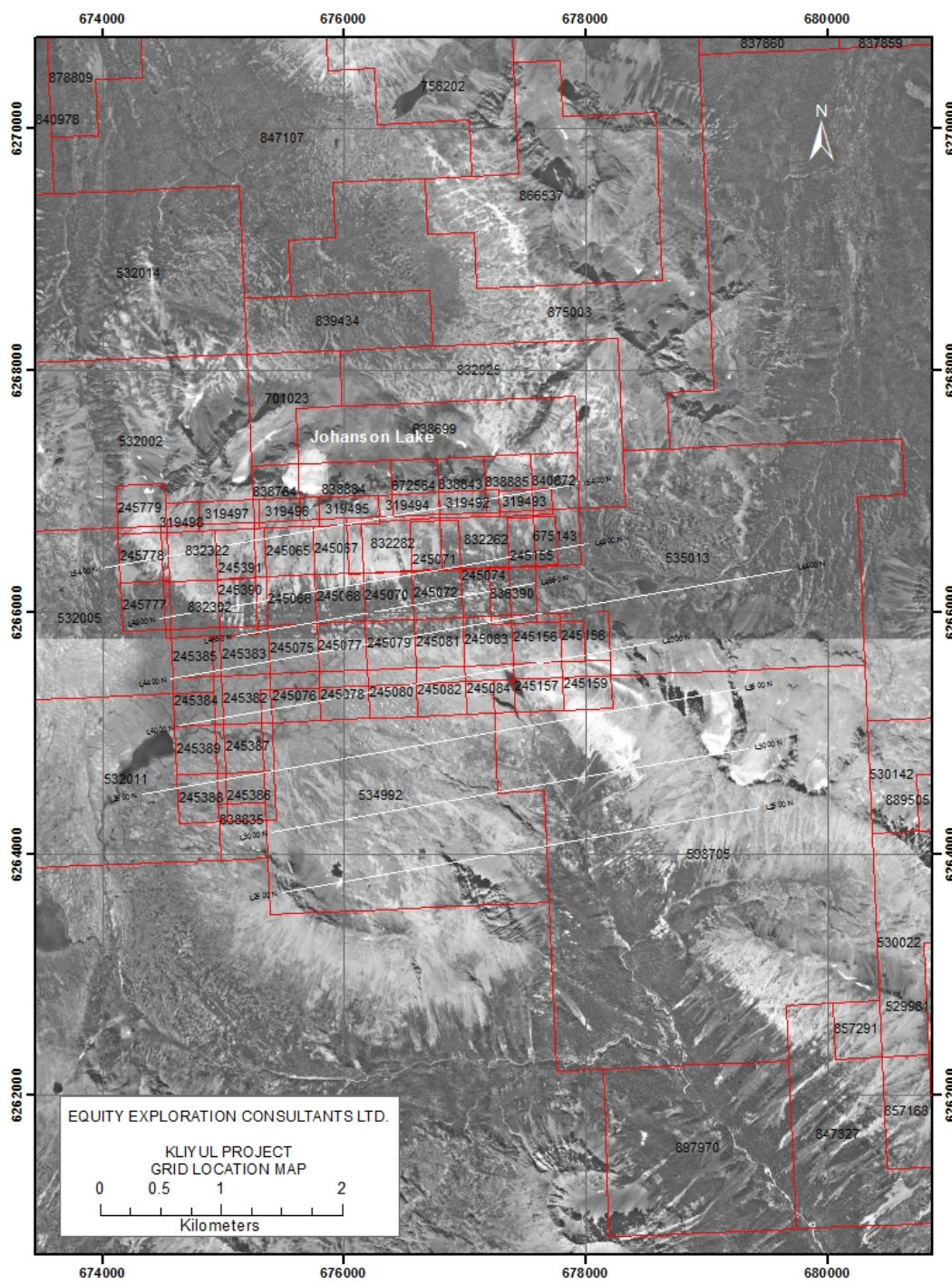




Road Access Map

Peter E. Walcott & Associates Limited  
Geophysical Services

Magnetic & Induced Polarization Surveying  
Kliyul Property



Claim and Line Location Map

Peter E. Walcott & Associates Limited  
Geophysical Services

Magnetic & Induced Polarization Surveying  
Kliyul Property

## **SURVEY SPECIFICATIONS.**

### *The Induced Polarization Survey.*

The induced polarization (I.P.) survey was conducted using a pulse type system, the principal components of which were manufactured by Hunttec Limited of Metropolitan Toronto, Canada and GDD Instruments of Quebec City, Canada.

The system consists basically of three components; two receivers (GDD), transmitter (Hunttec) and a motor generator (Hunttec). The transmitter, which provides a maximum of 7.5 kw d.c. to the ground, obtains its power from a 7.5 kw 400 c.p.s. three phase alternator driven by a Honda 24 h.p. gasoline engine. The cycling rate of the transmitter is 2 seconds "current-on" and 2 seconds "current-off" with the pulses reversing continuously in polarity. The data recorded in the field consists of careful measurements of the current (I) in amperes flowing through the current electrodes C<sub>1</sub> and C<sub>2</sub>, the primary voltages (V) appearing

## **SURVEY SPECIFICATIONS cont'd**

between any two sequential potential electrodes,  $P_1$  through  $P_{n+1}$ , during the “current-on” part of the cycle, and the apparent chargeability, ( $M_a$ ) presented as a direct readout in millivolts per volt using a 200 millisecond delay and a 1000 millisecond sample window by the receiver, a digital receiver controlled by a micro-processor – the sample window is actually the total of twenty individual windows of 50 millisecond widths.

The apparent resistivity ( $\rho_a$ ) in ohm metres is proportional to the ratio of the primary voltage and the measured current, the proportionality factor depending on the geometry of the array used. The chargeability and resistivity are called apparent as they are values which that portion of the earth sampled would have if it were homogeneous. As the earth sampled is usually inhomogeneous the calculated apparent chargeability and resistivity are functions of the actual chargeability and resistivity of the rocks.

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

On this survey the majority of the grid used an a-spacing of 200 metres, traversing the survey line at 200 metre increments. A small area was detailed using 100 m a-spacing, with a nominal line spacing of 250 metres.

### Vertical control.

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

## **SURVEY SPECIFICATIONS cont'd**

### *Horizontal control.*

The horizontal position of the stations were recorded using a WAAS equipped GPDMAP60Cx unit manufactured by Garmin of Kansas, USA.

### *Data Presentation.*

The I.P. data are presented as individual pseudo section plots of apparent chargeability and resistivity at a scale of 1:10,000. Plots of the 21 point moving filter – illustrated on the pseudo section – for the above are also displayed in the top window to better show the location of the anomalous zones.

**APPENDIX**

**COST OF SURVEY.**

Peter E. Walcott & Associates Limited undertook the survey on a daily basis providing an IP system with 2 receivers, altimeters, GPS unit, along with a six man crew for \$3,950.00 per day. Mobilization costs of \$10,000.00. Thus the total cost of services provided was of \$59,864.00

**PERSONNEL EMPLOYED ON SURVEY.**

<b>Name</b>	<b>Occupation</b>	<b>Address</b>	<b>Dates</b>
Alex Walcott	Geophysicist	Peter E. Walcott & Associates Limited 608 – 1529 W. 2 <sup>nd</sup> Ave., Vancouver, B.C. V6J 1H2	Jul. 18 <sup>th</sup> – 30 <sup>th</sup> , 2011
B. Jones	Geophysical Operator	"	"
A. Shongruden	"	"	"
S. Lessard	Helper	"	"
F. Zeleya	"	"	"
M. Altemann	"	"	"



**Appendix G: Geophysical Consultant Report**

**II: Jan Klein, Consulting Geophysicist**

Maps and pseudo-sections pertaining to this report are located in the pocket

# KLIYUL 2011 INDUCED POLARIZATION/RESISTIVITY SURVEY

## BRIEF COMMENTS

An Induced Polarization/Resistivity (IP/Res) survey was conducted along six lines spaced 500m apart using a pole-dipole array with spacing  $a=200\text{m}$  and separations  $n=1-6$ . Details using spacing  $a=100\text{m}$  were conducted along parts of two lines and fill-in line 4650N. The data were made available a few days ago. It is understood that airborne and ground magnetic data were collected at various times but are not included here.

The data appears of good quality (= relatively clean IP-decays.) Pseudo sections were prepared in the field so no additional ones are presented here. It is understood that the contractor (Peter E. Walcott & Associates Ltd.) will perform 3D-inversions. This may assist in a better understanding of the data for elevation differences between lines may confuse understanding the data.

It has to be emphasized that this is a broad-scale survey. The effect from small sources will be incorporated (=smoothed) into those from larger bodies. It can safely be stated that the resolution between sources is equal that of the spacing ( $=200\text{m}$ ). Depth penetration of the array is less than 50% of "na" (in this case  $6 \times 200$ ) or say 500m.

Plots are attached for  $n=1$  and 2 and of the pant-leg and pyramid filters of the IP and Res results. The pant-leg filter emphasizes more defined narrow steeply dipping sources while the pyramid filter is more useful to enhance deeper wider sources. Stacked pseudo section plots for IP and Res for both  $a$ -spacings are included. All images and contours are presented in linear scales. This provides a bit of a different view from those presented by the contractor using logarithmic scales.

The Res data show a band of conductive material running ~NW-SE through the west part of the grid. It is clearly seen in the  $n=1$  results and reflects a graphitic sedimentary unit. It may be dipping steeply NE. Resistivity association with elevation varies. East of the sediment band are high Res values associated with elevation highs, e.g. line 4000N near 6500 and 7700E and line 3600N near 7100E. To the west high Res values associate with low elevations, e.g. west end of line 4000N. Low Res values, mainly at shallow separations, run along most of lines 4400 and 4650N in a valley suggesting a structural association. Line 5400N at more than 300m higher elevation than line 4400N shows again higher Res values. It is therefore most likely that the Res values mapped are caused by different sources. This may be supported by the distribution in values seen on the histogram attached to the Res  $n=1$  map.

The chargeability (IP) values appear a bit more complex. There is a relatively good correlation between some IP highs and the Res low caused by the sediments. E.g. IP highs correlate with Res lows along Line 3500N at 5400 and 6200E and along 4000N near 5400 and 5900E. The higher IP values at the far west ends of lines 3000 and 3500N (open to west and depth) may be sourced by more sediments. The IP high at depth along line 4000N below 6700E is a combination of the single pant-legs from 6200 and 7200E;

on its own not too interesting but the eastern leg continues north along line 4400N at 7000E and line 4650N between 6700 and 7000E, it deepens along line 4900N near 6700E.

No topographic data is currently available for line 4650N to determine if it is at lower or higher elevation than line 4400N. Its IP values ( $a=100\text{m}$ ) are compared with those of adjacent lines 4400 and 4900N the most interesting of these three lines. The deeper IP values are the strongest along line 4400N between 5900 and 6550E (with a shallower branch at 7000E), line 4900N between 5750 and 6250E and line 5400N between 5600 and 6000E. The best definition of this zone is along the northern two lines where the source is deepest, the side branches become also deeper but still shallower than the deep source. It has to be mentioned that these shallower IP wings (or pant-legs) (e.g. line 5400N at 5250 and 6400E) of the deeper anomaly reflect part of that deeper source but are interpreted separately as side anomalies possibly coming closer to surface.

This anomaly is outlined on the “Chargeability, filtered (Pyramid 10)” plan map together with those of the possible side branches. The source comes closest to surface along line 4650N where it is also more complex. It is suggested to start investigating this anomaly along this line.

Respectfully submitted,

Jan Klein, M.Sc., P.Eng., P.Geo. (Ret.)  
Consulting Geophysicist

Delta, B.C., August 8, 2011

## **Appendix H: Compact Disc**

Report text, geochemical and drill databases, geophysical files, drafting and plot files, photographs

**Appendix I: Geologist's Certificate**

GEOLOGIST'S CERTIFICATE

Ronald J Voordouw  
31-870 West 7<sup>th</sup> Avenue,  
Vancouver, BC, Canada

I, **RONALD VOORDOUW**, do hereby certify that,

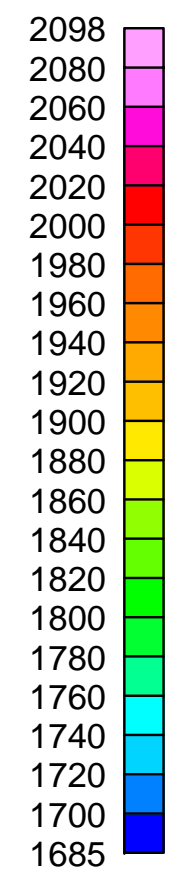
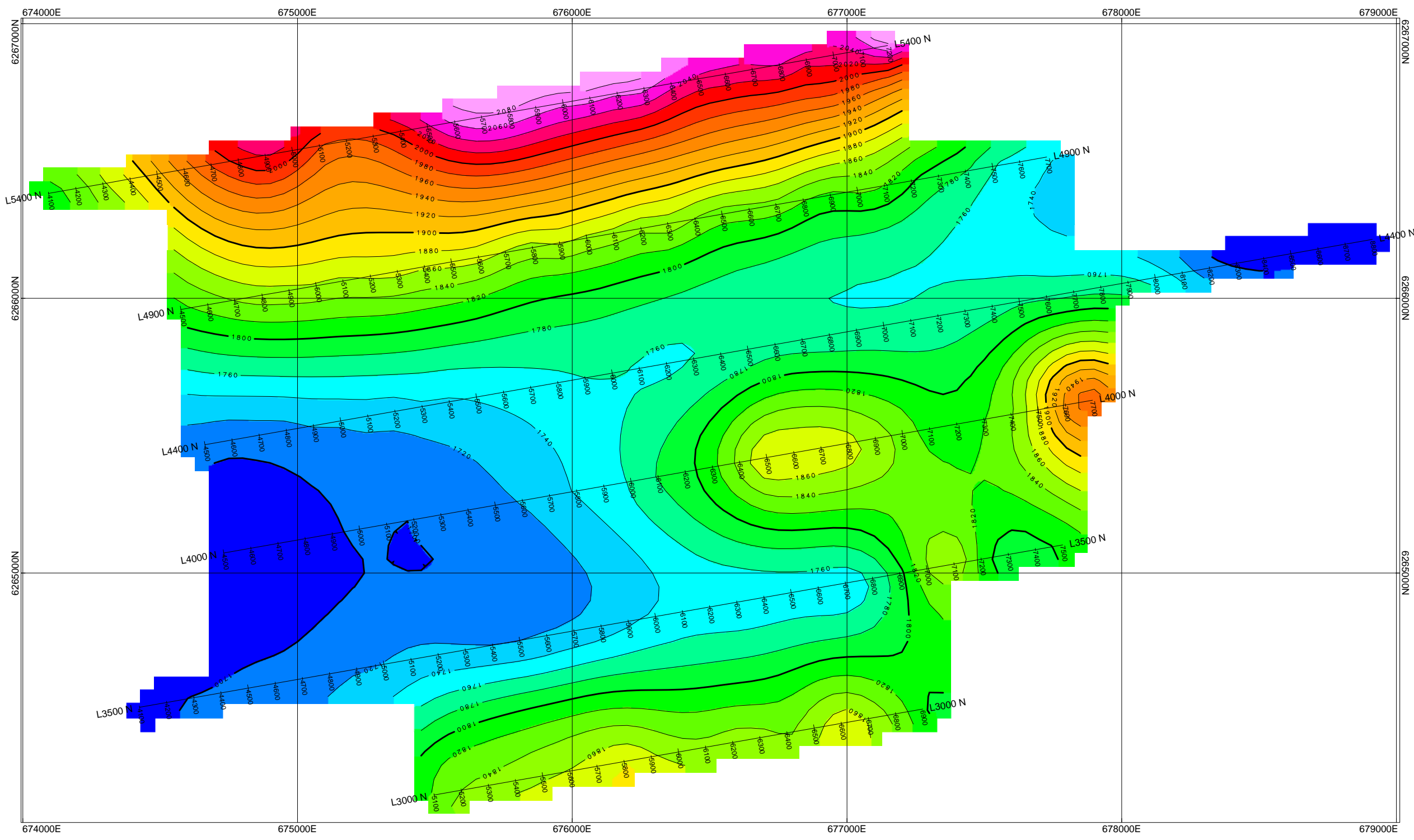
1. I am presently a project geologist with Equity Exploration Consultants Ltd, with offices at 200–900 West Hastings Street, Vancouver, British Columbia, Canada since April 1, 2011.
2. I reside at 31-870 West 7<sup>th</sup> Avenue, Vancouver, British Columbia, Canada.
3. I am the author of the report entitled “2011 geological and geophysical report on the Kliyul project”.
4. I graduated from the University of Calgary, Calgary, AB, Canada with a Bachelor of Science degree in geology in 1999
5. I graduated from the Memorial University of Newfoundland, Canada with a Doctorate in geology in 2006, and I have practiced my profession continuously since 2006
6. Since 2006 I have been involved in natural resource exploration for base metals, Cu and gold; research on PGE deposits; and regional geological mapping in Canada and South Africa.
7. This report is based partly upon field work carried out by me in July and August 2011.

Dated at Vancouver, British Columbia, this 12<sup>th</sup> day of February, 2012.

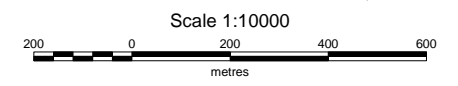


---

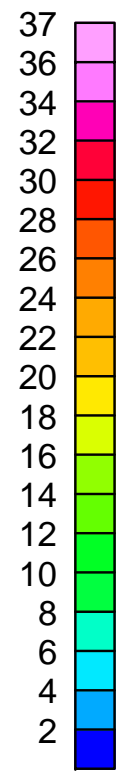
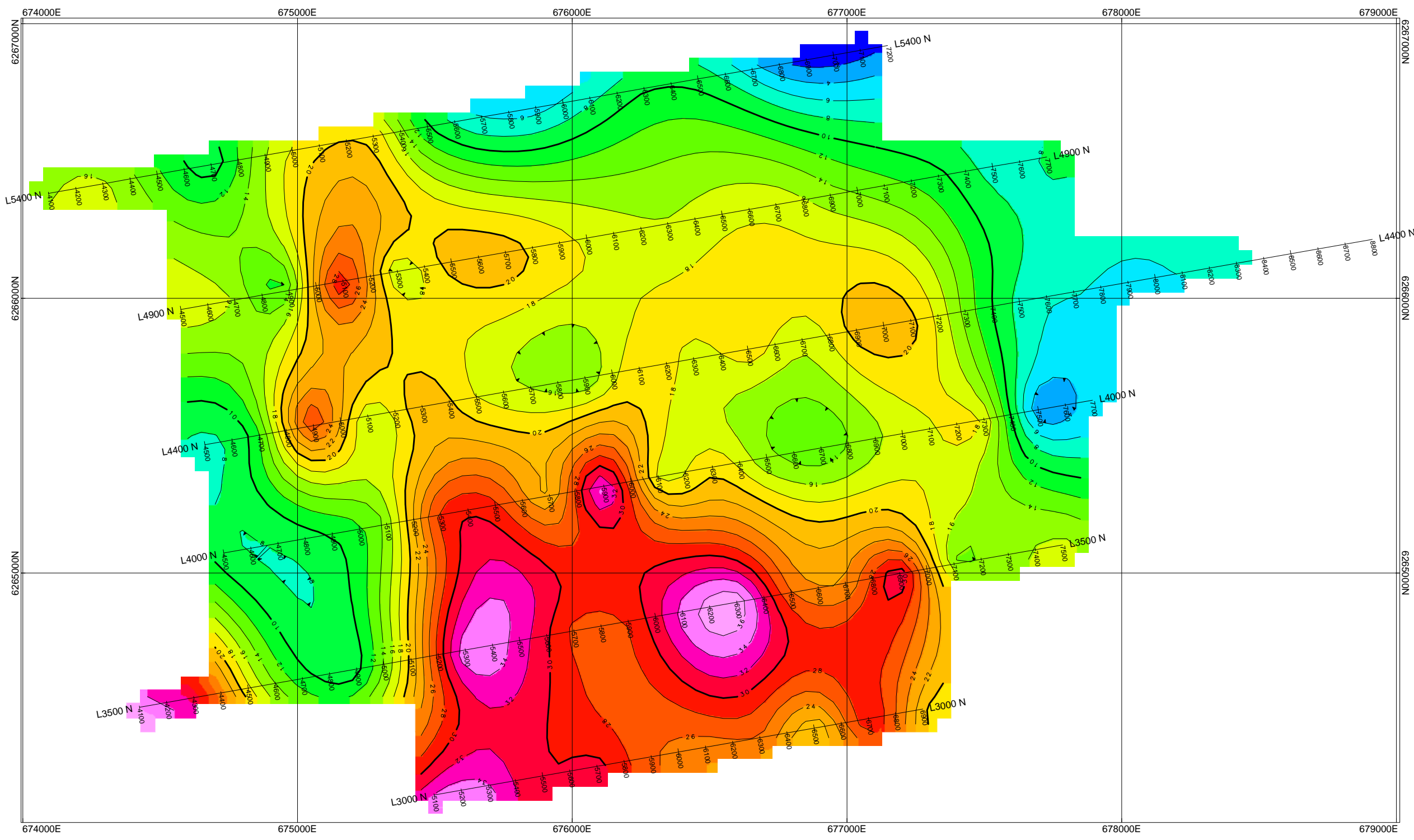
Ronald Voordouw, PhD



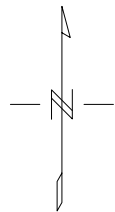
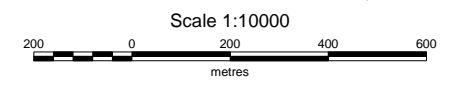
Elevation  
in meters



**EQUITY EXPLORATION CONSULTANTS Ltd.**  
**KLIYUL Property, British Columbia**  
**INDUCED POLARIZATION/RESISTIVITY SURVEY**  
**ELEVATION**  
 Survey executed by Peter E. Walcott and Associates Ltd.  
 during July-August 2011  
 a-spacings 200m  
 MAP:KLIYUL\_Elev.map  
 by: J.Klein, August 2011

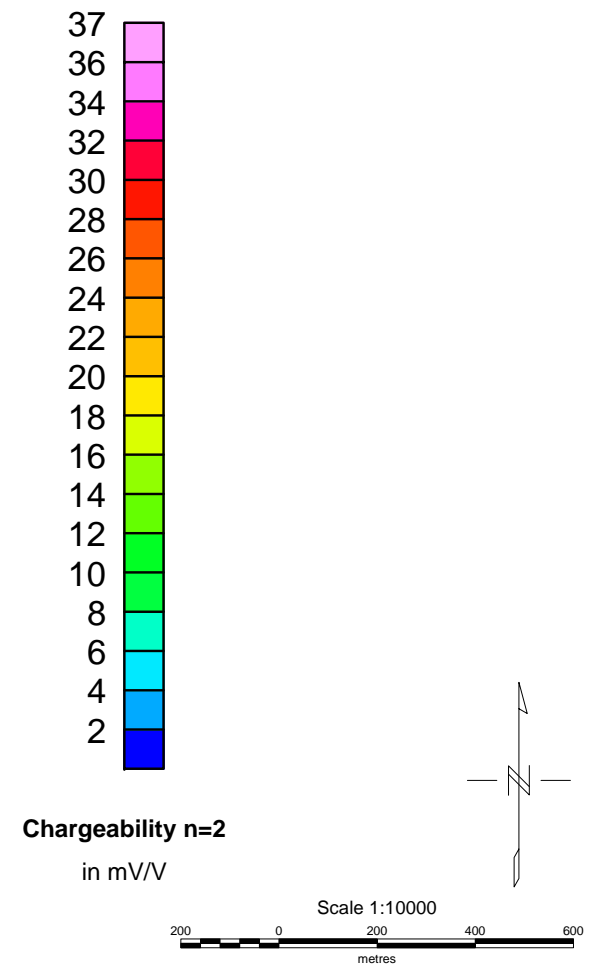
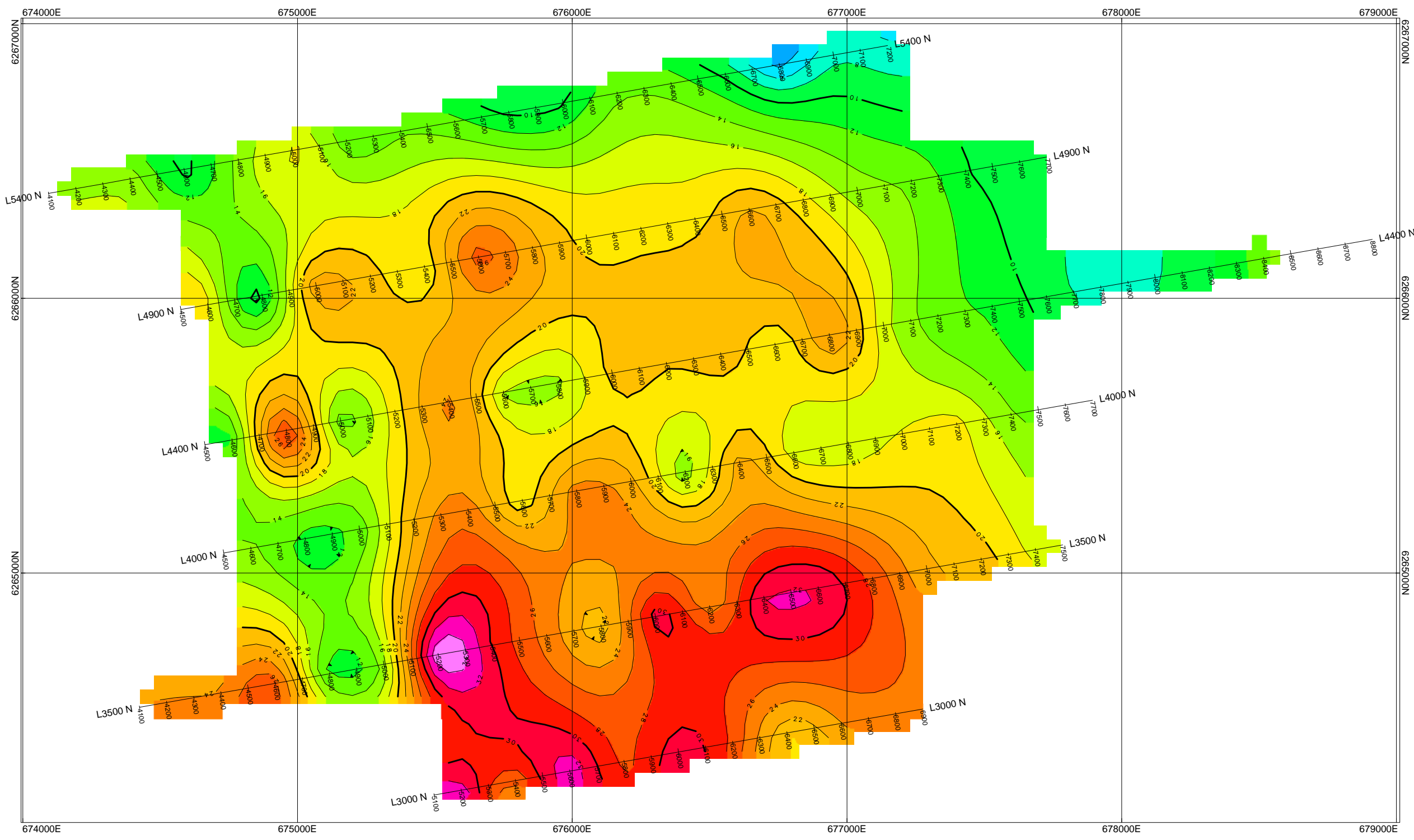


Chargeability  $n=1$   
in mV/V



**EQUITY EXPLORATION CONSULTANTS Ltd.**  
**KLIYUL Property, British Columbia**  
**INDUCED POLARIZATION/RESISTIVITY SURVEY**  
**CHARGEABILITY,  $a=200m, n=1$**   
 Survey executed by Peter E. Walcott and Associates Ltd.  
 during July-August 2011  
 a-spacings 200m  
 MAP:KLIYUL\_IPn1.map  
 by: **J.Klein, August 2011**



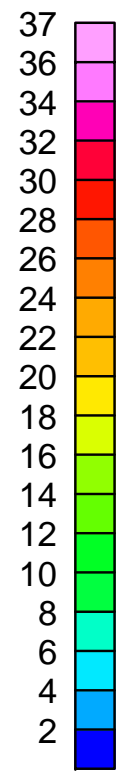
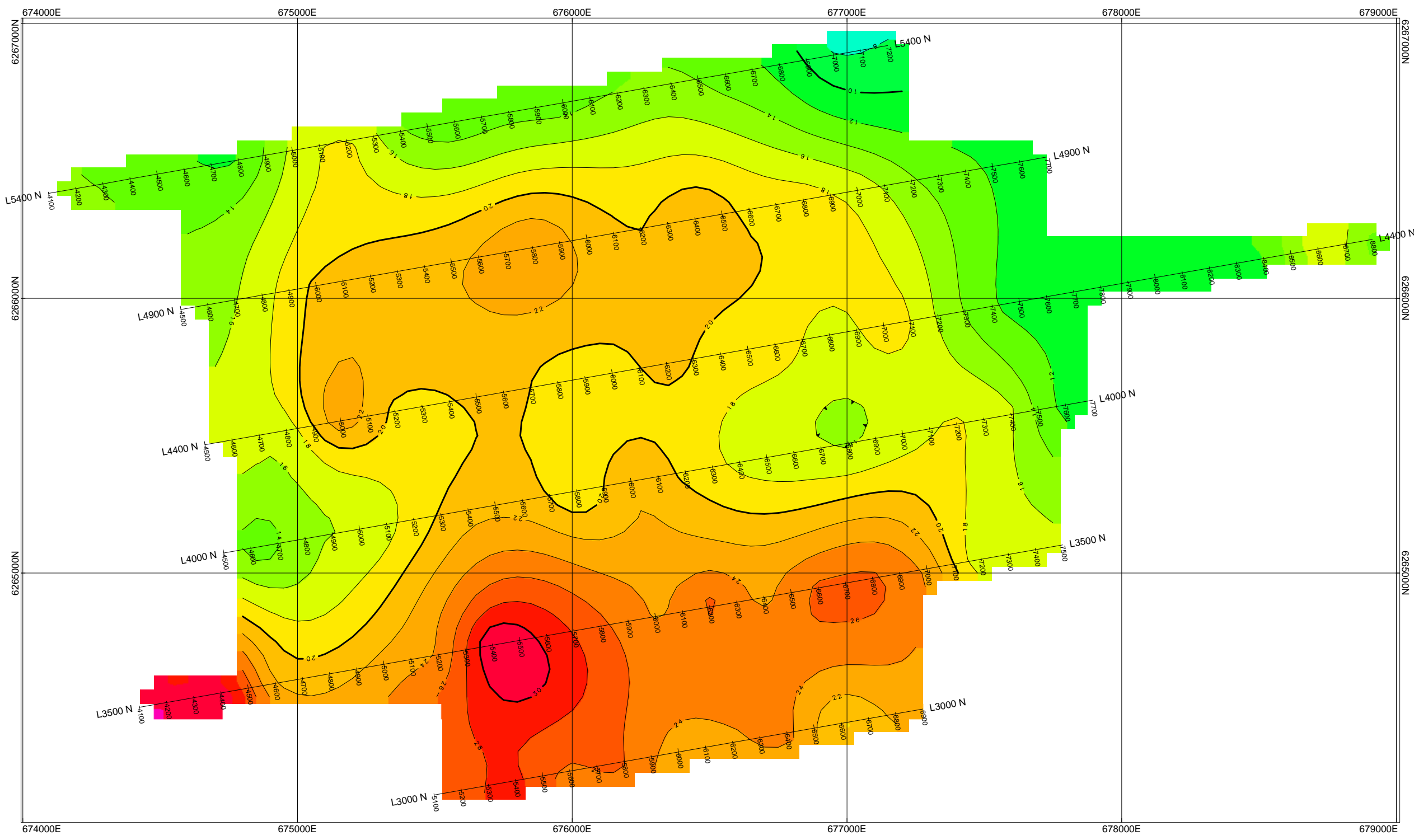


**EQUITY EXPLORATION CONSULTANTS Ltd.**

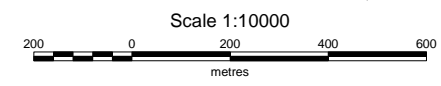
**KLIYUL Property, British Columbia  
INDUCED POLARIZATION/RESISTIVITY SURVEY  
CHARGEABILITY, a=200m, n=2**

Survey executed by Peter E. Walcott and Associates Ltd.  
during July-August 2011  
a-spacings 200m  
MAP:KLIYUL\_IPn2.map

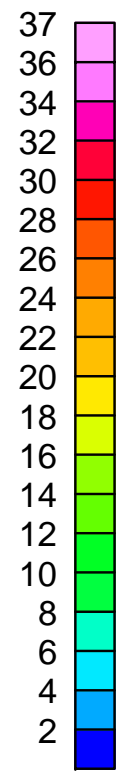
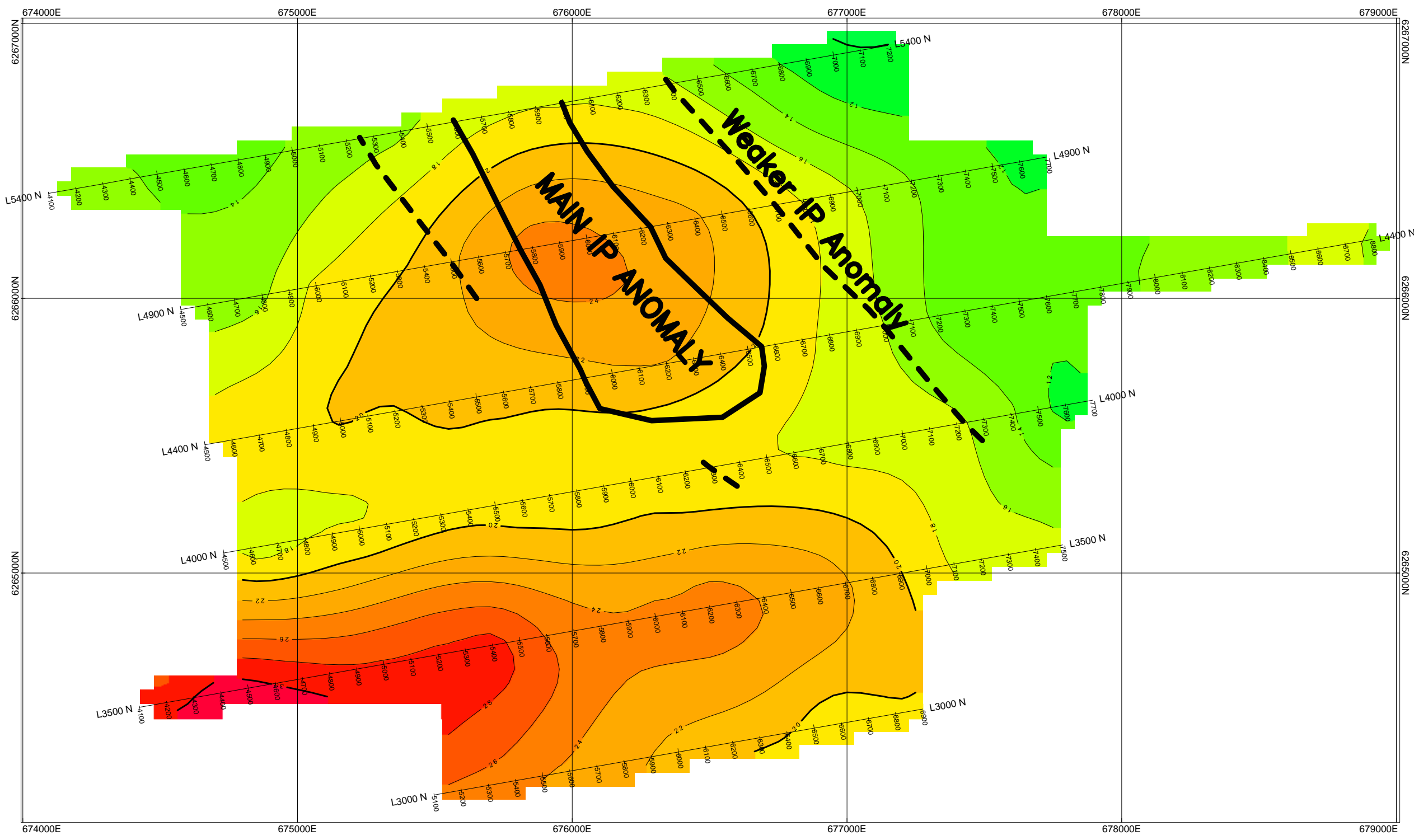
by: **J.Klein, August 2011**



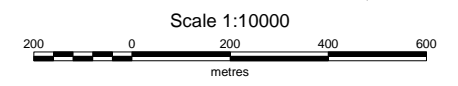
Chargeability filtered  
in mV/V



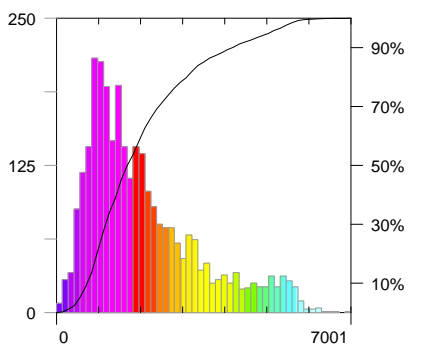
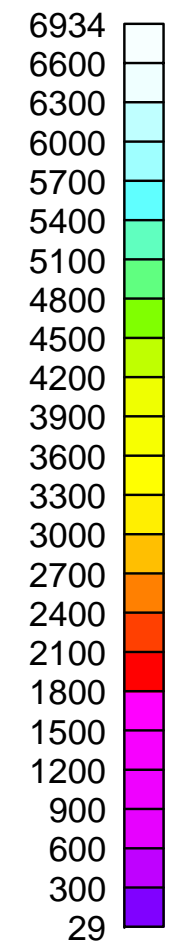
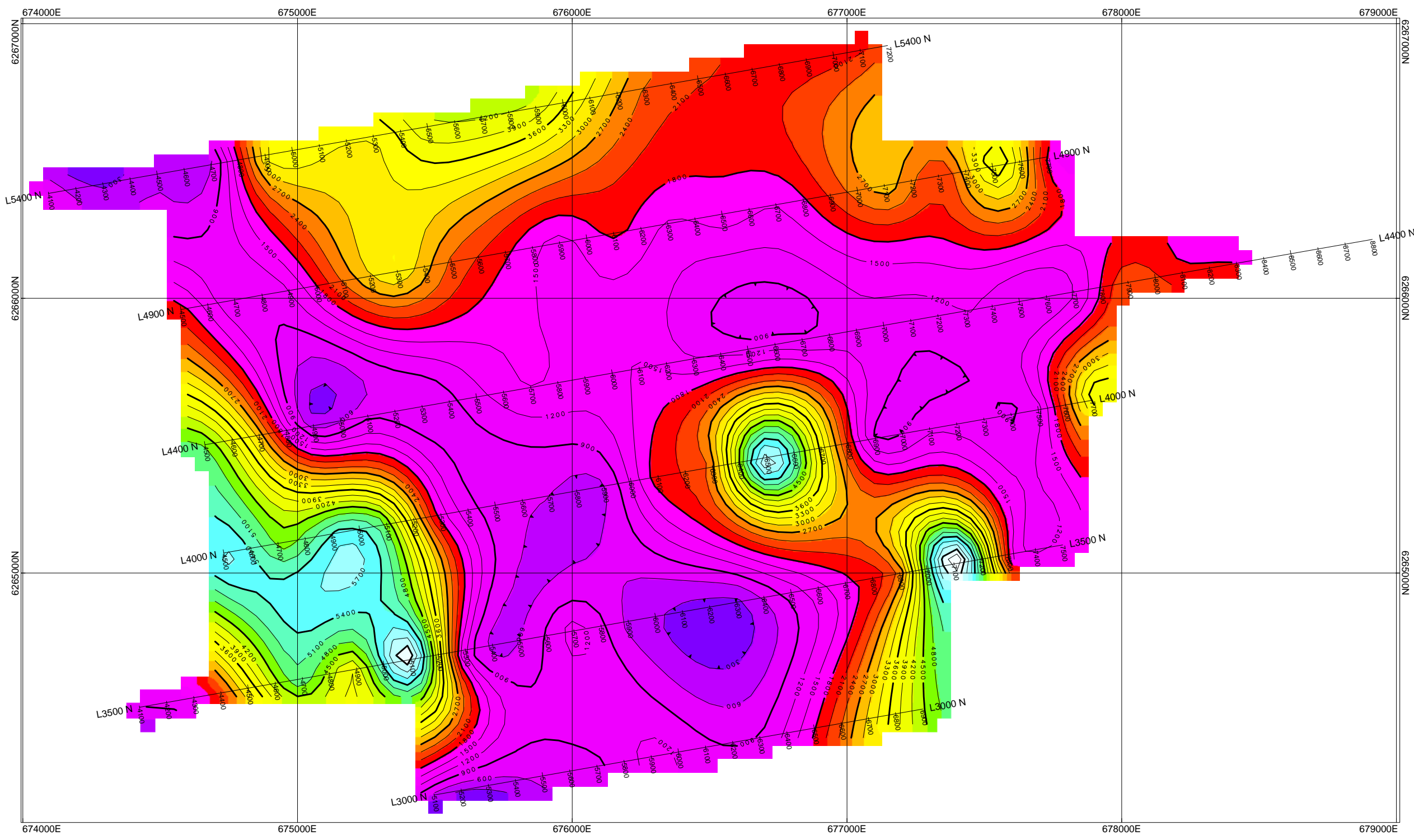
**EQUITY EXPLORATION CONSULTANTS Ltd.**  
**KLIYUL Property, British Columbia**  
**INDUCED POLARIZATION/RESISTIVITY SURVEY**  
**CHARGEABILITY, filtered (pant-leg)**  
 Survey executed by Peter E. Walcott and Associates Ltd.  
 during July-August 2011  
 a-spacings 200m  
 MAP:KLIYUL\_IPfiltpantleg.map  
 by: **J.Klein, August 2011**



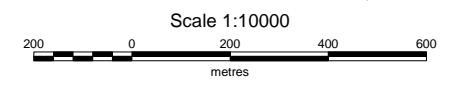
**Chargeability filtered (Pyr10)**  
in meters



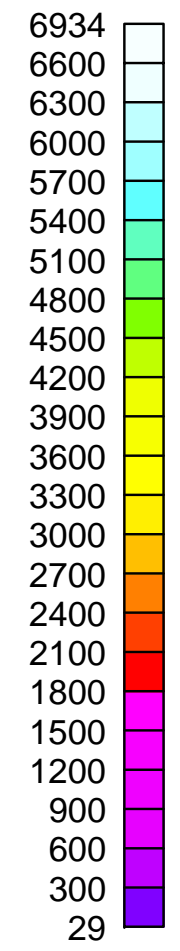
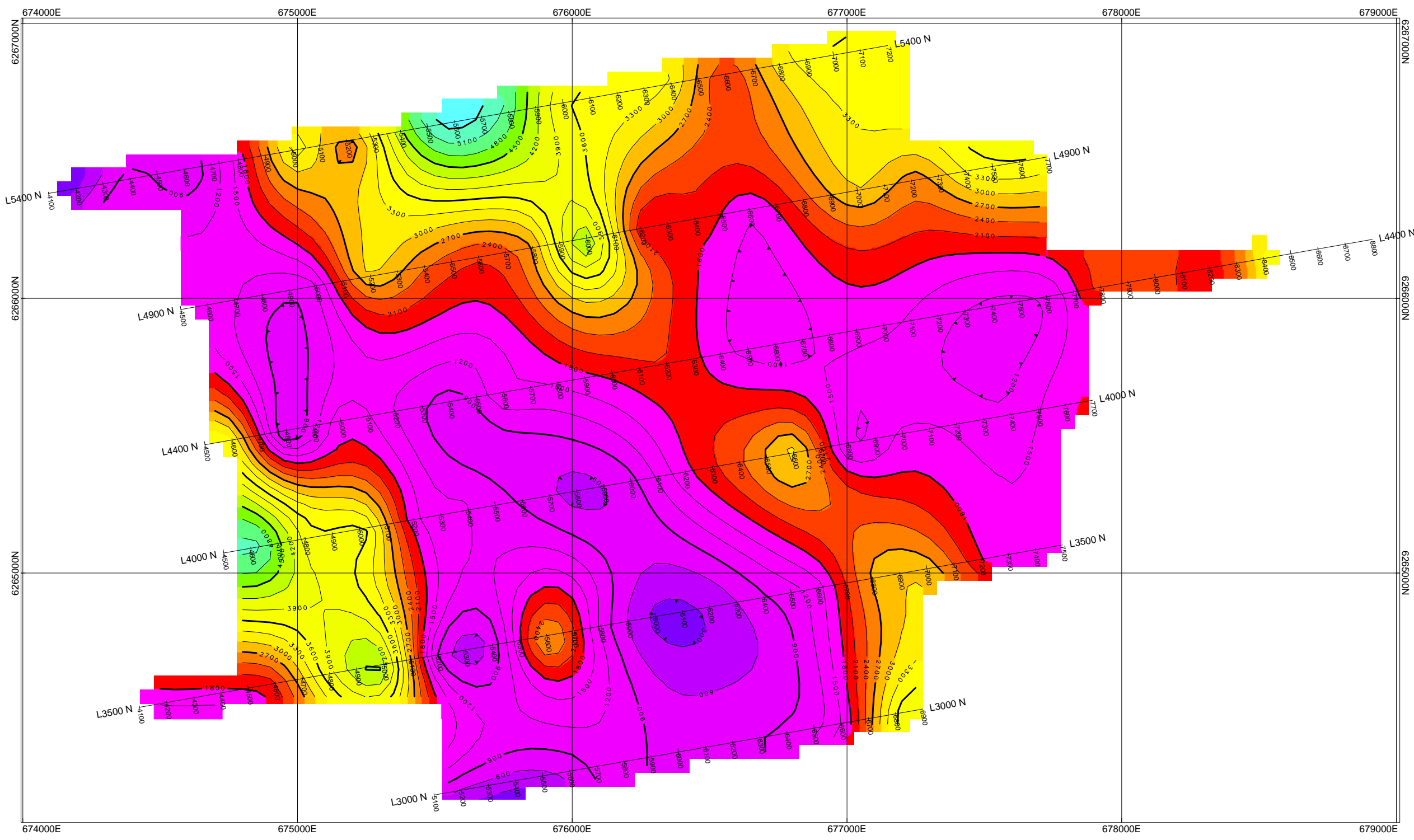
**EQUITY EXPLORATION CONSULTANTS Ltd.**  
**KLIYUL Property, British Columbia**  
**INDUCED POLARIZATION/RESISTIVITY SURVEY**  
**CHARGEABILITY, filtered (Pyramid 10)**  
 Survey executed by Peter E. Walcott and Associates Ltd.  
 during July-August 2011  
 a-spacings 200m  
 MAP:KLIYUL\_IPfiltpyr10.map  
 by: **J.Klein, August 2011**



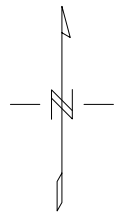
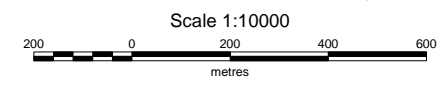
**Resistivity n=1**  
in ohmm



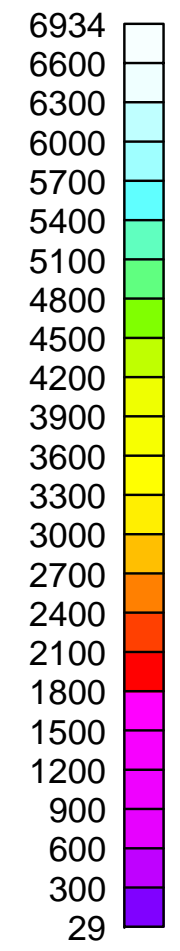
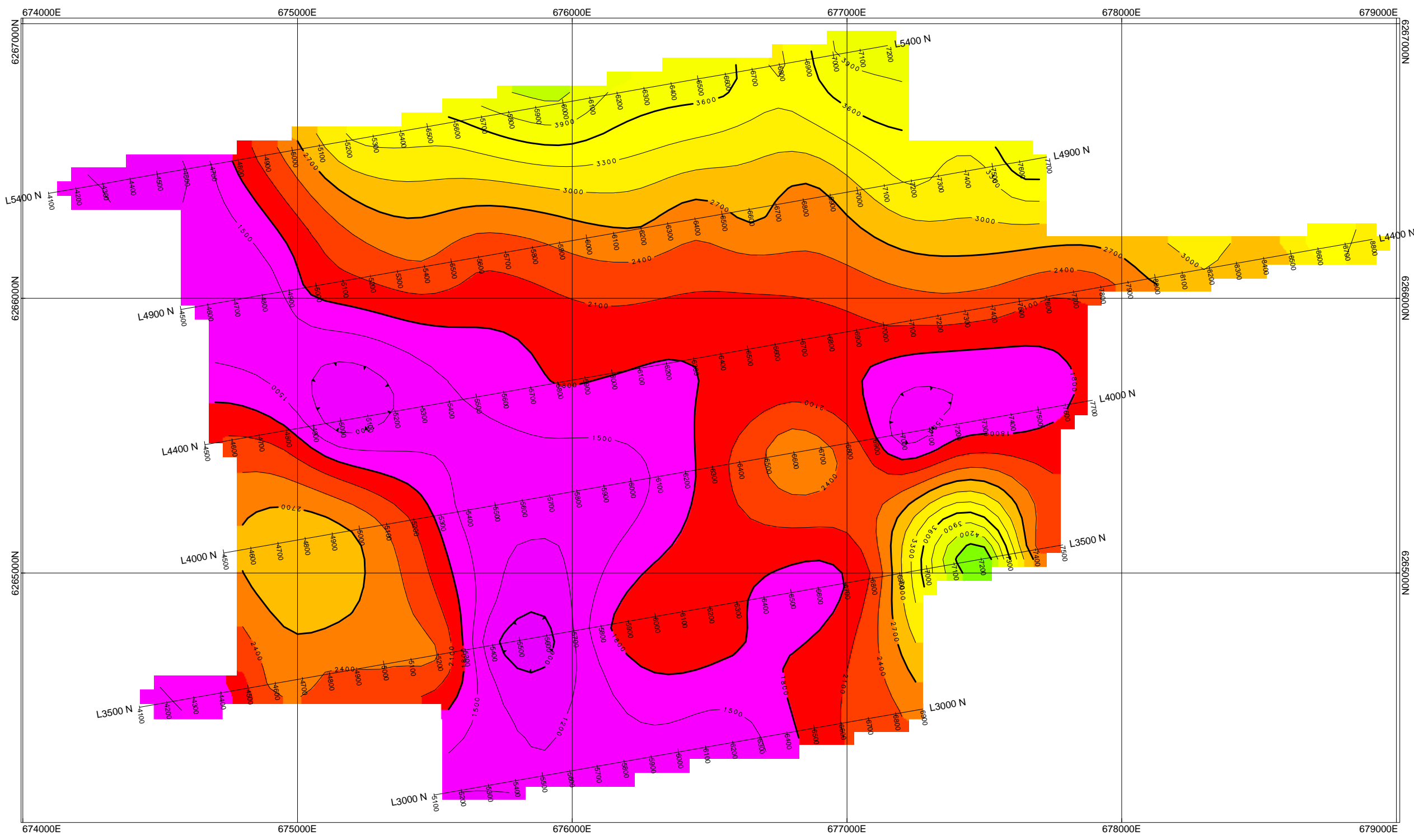
**EQUITY EXPLORATION CONSULTANTS Ltd.**  
**KLIYUL Property, British Columbia**  
**INDUCED POLARIZATION/RESISTIVITY SURVEY**  
**RESISTIVITY, a=200m, n=1**  
Survey executed by Peter E. Walcott and Associates Ltd.  
during July-August 2011  
a-spacings 200m  
MAP:KLIYUL\_Resn1.map  
**by: J.Klein, August 2011**



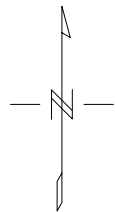
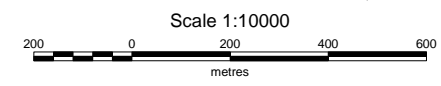
Resistivity n=2  
in ohmm



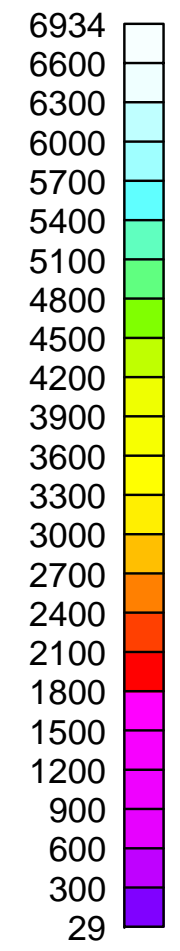
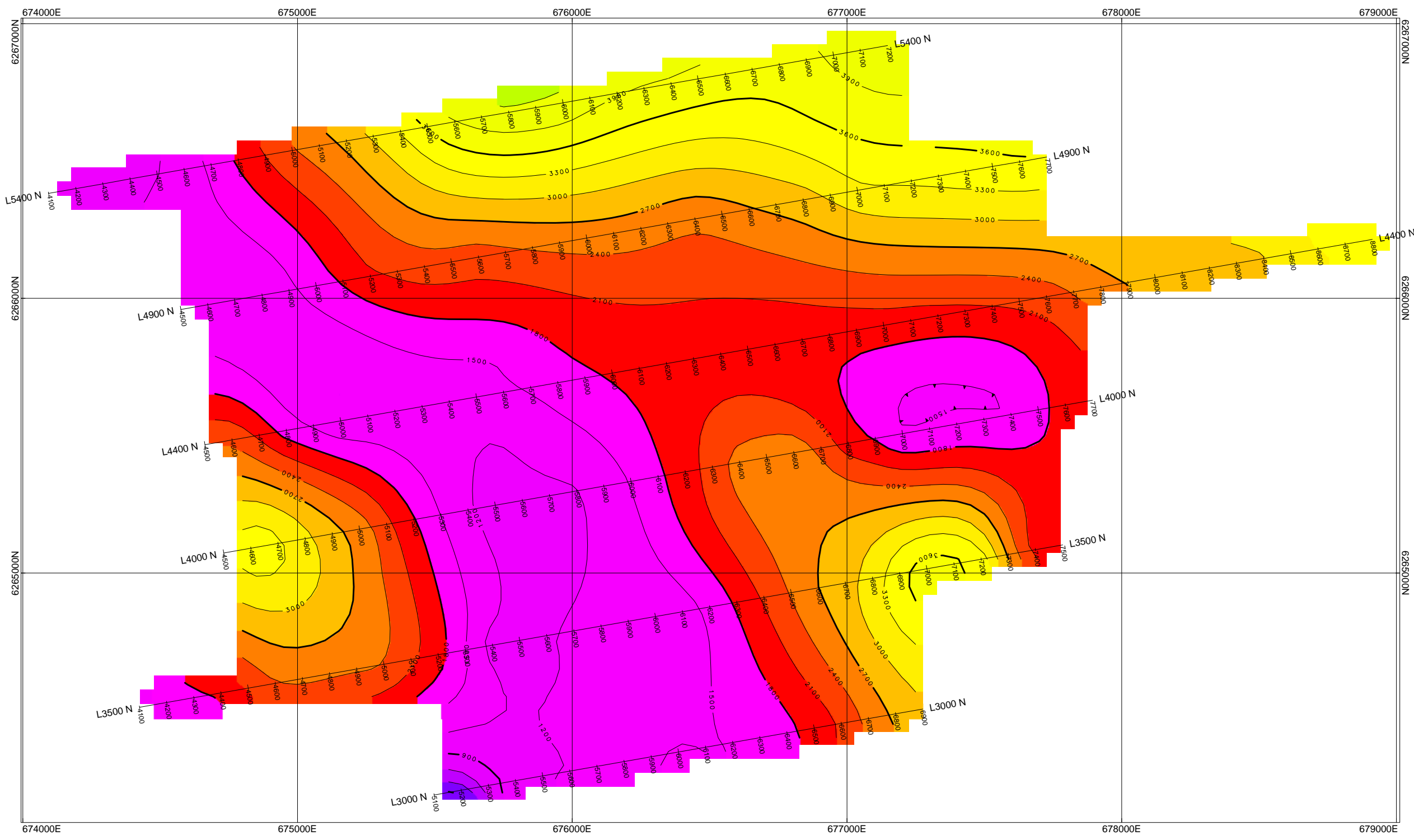
EQUITY EXPLORATION CONSULTANTS Ltd.  
**KLIYUL Property, British Columbia**  
**INDUCED POLARIZATION/RESISTIVITY SURVEY**  
**RESISTIVITY, a=200m, n=2**  
 Survey executed by Peter E. Walcott and Associates Ltd.  
 during July-August 2011  
 a-spacings 200m  
 MAP:KLIYUL\_Resn2.map  
 by: J.Klein, August 2011



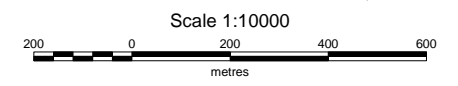
Resistivity filtered  
in ohmm



EQUITY EXPLORATION CONSULTANTS Ltd.  
**KLIYUL Property, British Columbia**  
**INDUCED POLARIZATION/RESISTIVITY SURVEY**  
**RESISTIVITY, filtered (pant-leg)**  
 Survey executed by Peter E. Walcott and Associates Ltd.  
 during July-August 2011  
 a-spacings 200m  
 MAP:KLIYUL\_Resfiltpantleg.map  
 by: J.Klein, August 2011

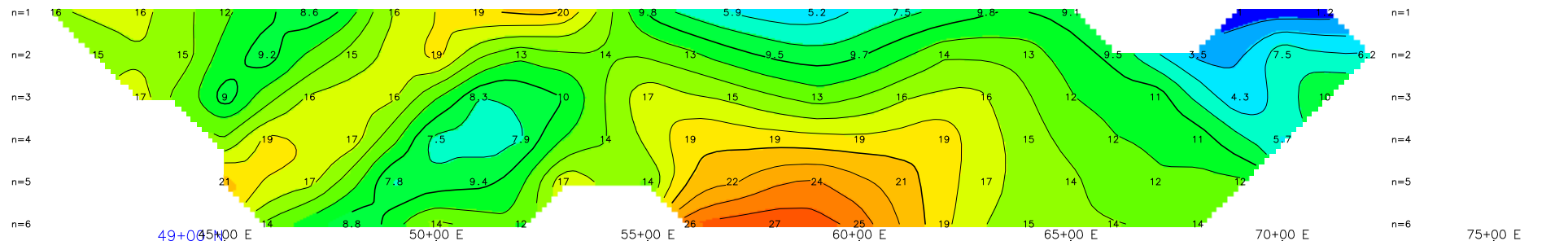


Resistivity filtered  
in ohmm

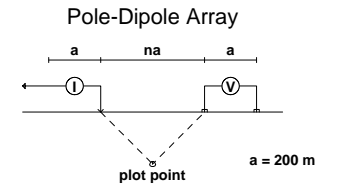


**EQUITY EXPLORATION CONSULTANTS Ltd.**  
**KLIYUL Property, British Columbia**  
**INDUCED POLARIZATION/RESISTIVITY SURVEY**  
**RESISTIVITY, filtered (pyramidal)**  
 Survey executed by Peter E. Walcott and Associates Ltd.  
 during July-August 2011  
 a-spacings 200m  
 MAP:KLIYUL\_Resfiltpyr.map  
 by: **J.Klein, August 2011**

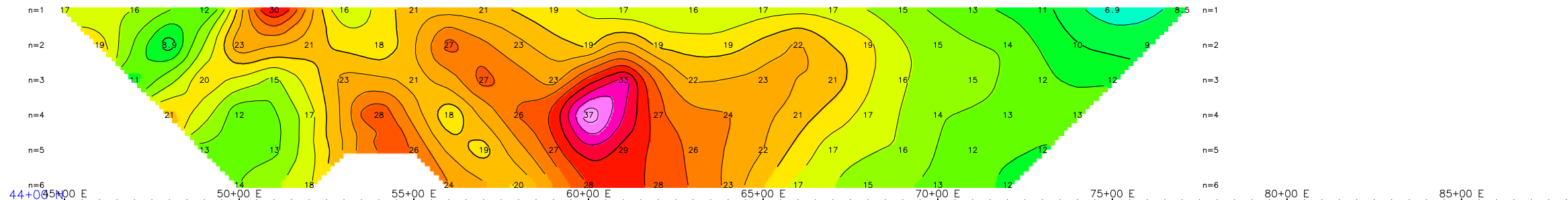
54+00 N 45+00 E 50+00 E 55+00 E 60+00 E 65+00 E 70+00 E



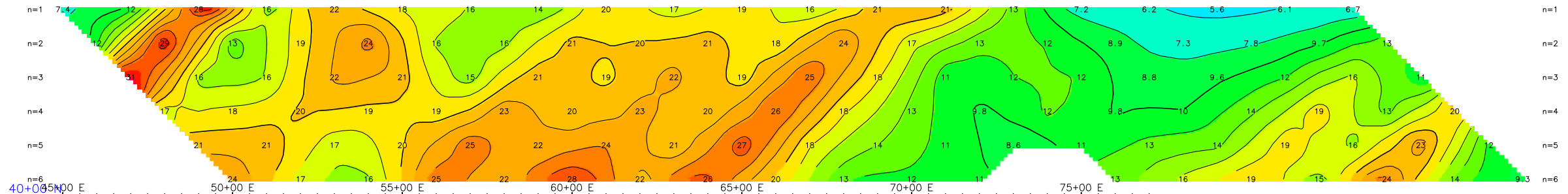
### Stacked Section Map IP\_Avg



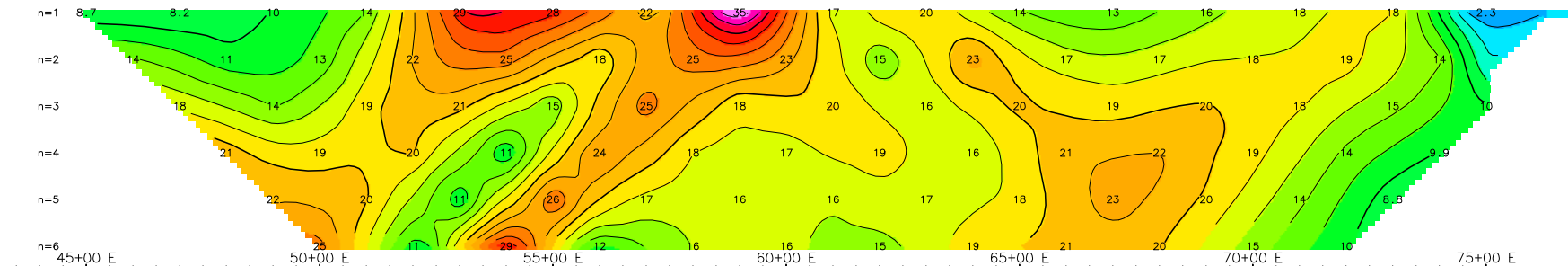
49+05 N 45+00 E 50+00 E 55+00 E 60+00 E 65+00 E 70+00 E 75+00 E



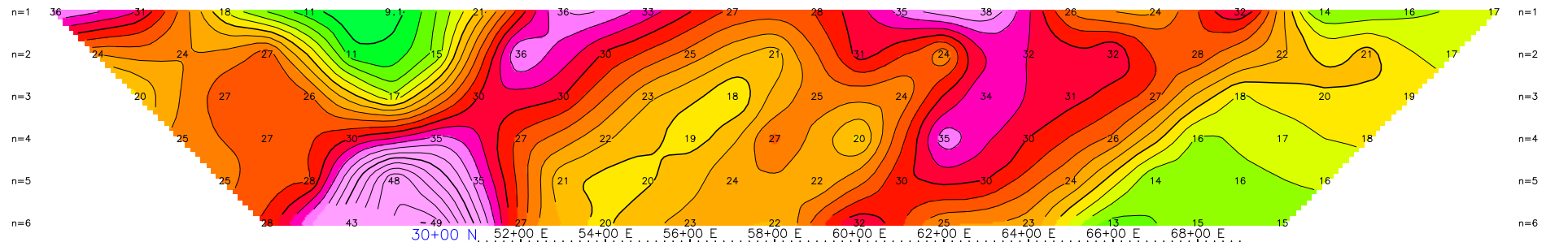
44+05 N 45+00 E 50+00 E 55+00 E 60+00 E 65+00 E 70+00 E 75+00 E 80+00 E 85+00 E



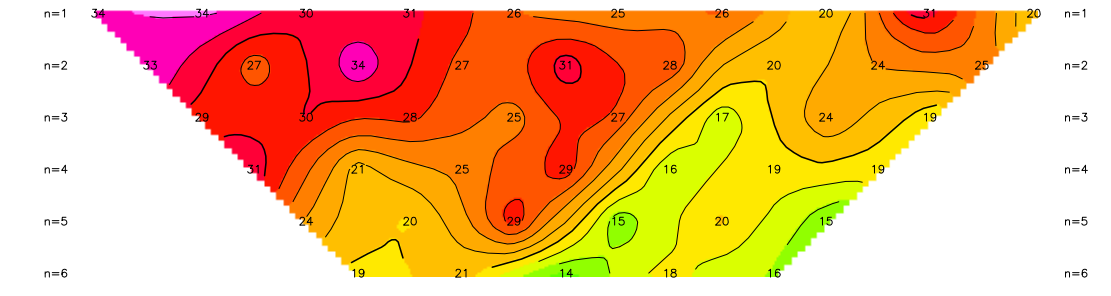
40+05 N 45+00 E 50+00 E 55+00 E 60+00 E 65+00 E 70+00 E 75+00 E



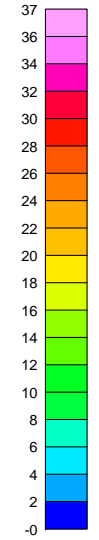
35+00 N 45+00 E 50+00 E 55+00 E 60+00 E 65+00 E 70+00 E 75+00 E



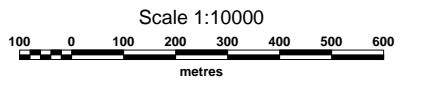
30+00 N 45+00 E 50+00 E 55+00 E 60+00 E 65+00 E 68+00 E



25+00 N 45+00 E 50+00 E 55+00 E 60+00 E 65+00 E 68+00 E



CHARGEABILITY  
in mV/V



EQUITY EXPLORATION CONSULTANTS Ltd

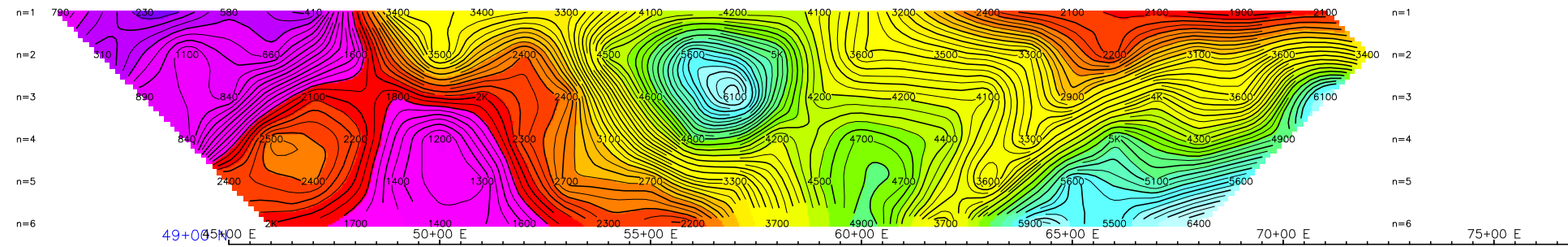
INDUCED POLARIZATION SURVEY  
KLIYUL Property, BC  
CHARGEABILITY a=200m

Date: 06/08/2011  
Interpretation: J. Klein

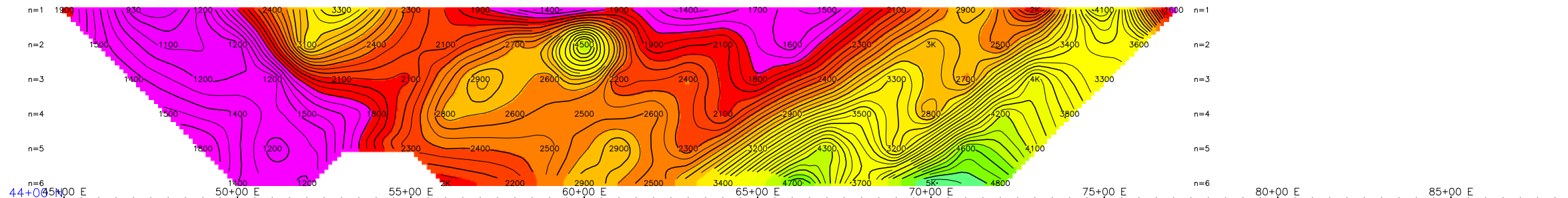
Peter E. Walcott & Assoc. Ltd



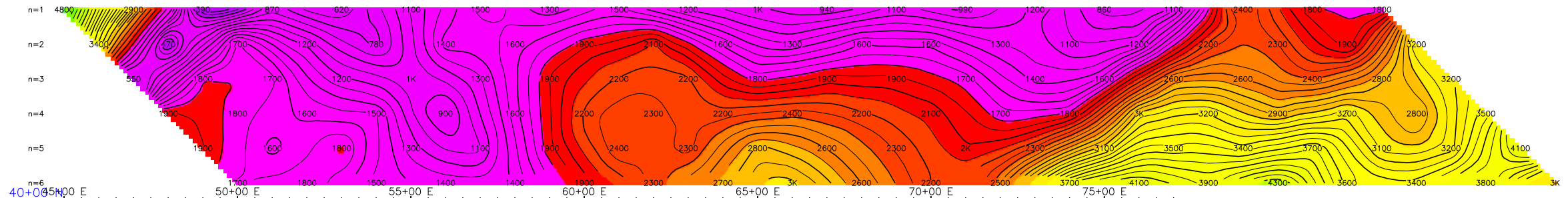
54+00 N 45+00 E 50+00 E 55+00 E 60+00 E 65+00 E 70+00 E



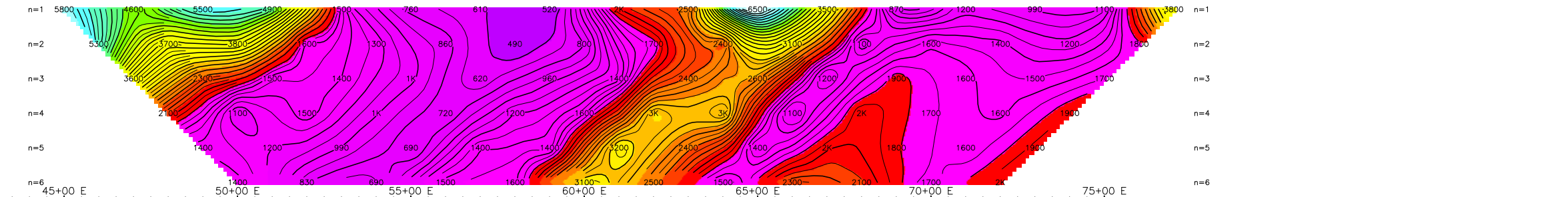
49+00 N 45+00 E 50+00 E 55+00 E 60+00 E 65+00 E 70+00 E 75+00 E



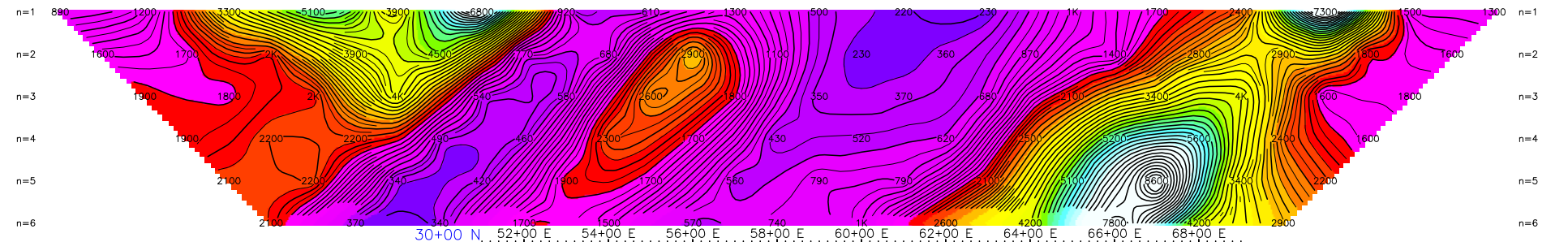
44+00 N 50+00 E 55+00 E 60+00 E 65+00 E 70+00 E 75+00 E 80+00 E 85+00 E



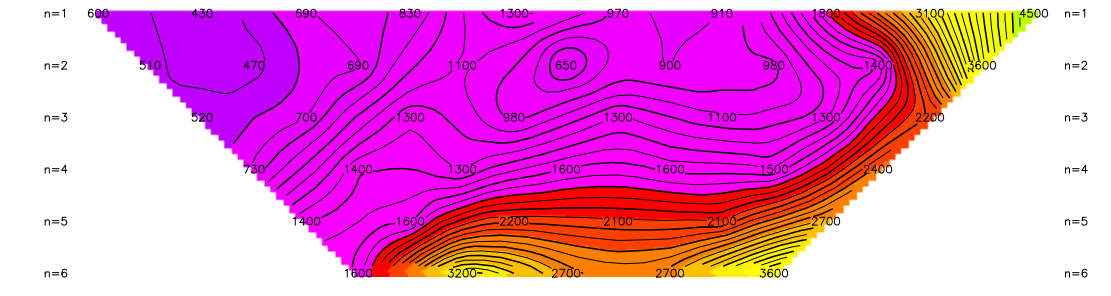
40+00 N 50+00 E 55+00 E 60+00 E 65+00 E 70+00 E 75+00 E



35+00 N 45+00 E 50+00 E 55+00 E 60+00 E 65+00 E 70+00 E 75+00 E

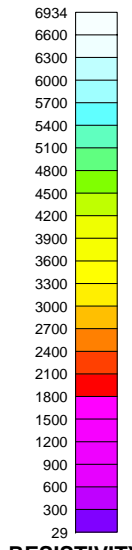
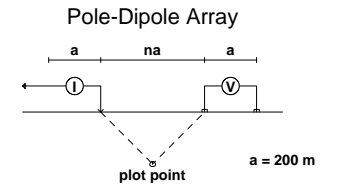


30+00 N 52+00 E 54+00 E 56+00 E 58+00 E 60+00 E 62+00 E 64+00 E 66+00 E 68+00 E

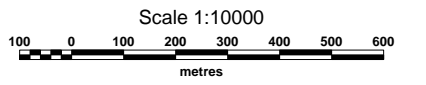


25+00 N 52+00 E 54+00 E 56+00 E 58+00 E 60+00 E 62+00 E 64+00 E 66+00 E 68+00 E

**Stacked Section Map**  
*ResCalc*



**RESISTIVITY**  
in ohm-m

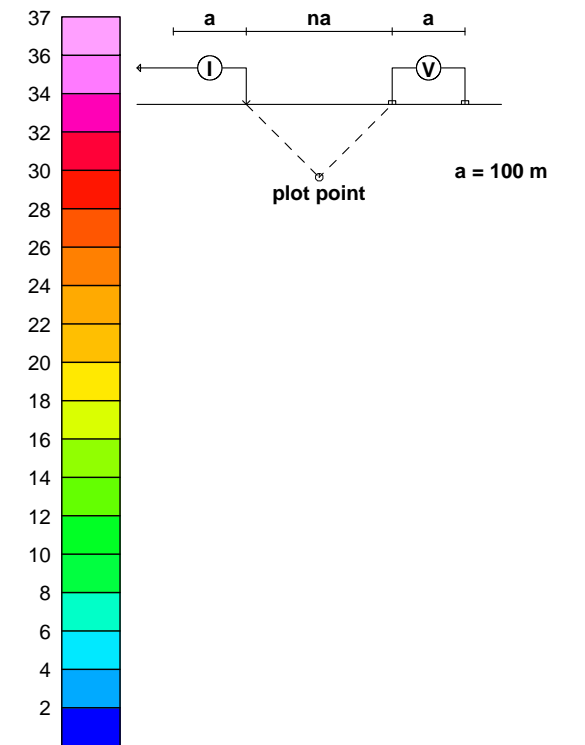


**EQUITY EXPLORATION CONSULTANTS Ltd**  
**INDUCED POLARIZATION SURVEY**  
**KLIYUL Property, BC**  
**RESISTIVITY a=200m**  
 Date: 06/08/2011  
 Interpretation: J. Klein  
**Peter E. Walcott & Assoc. Ltd**

### Stacked Section Map

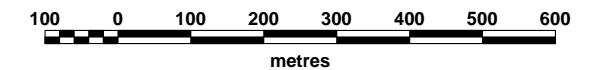
IP\_Avg

Pole-Dipole Array



CHARGEABILITY  
in mV/V

Scale 1:10000

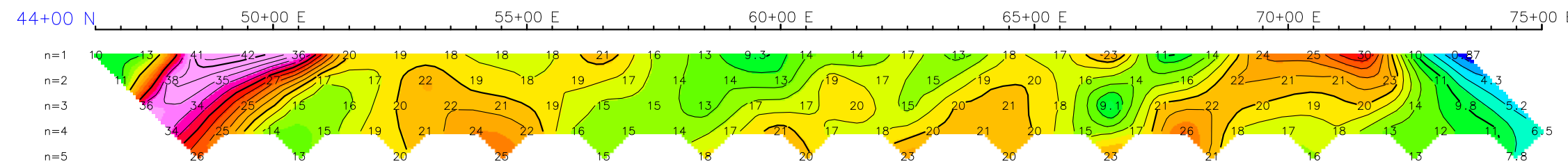
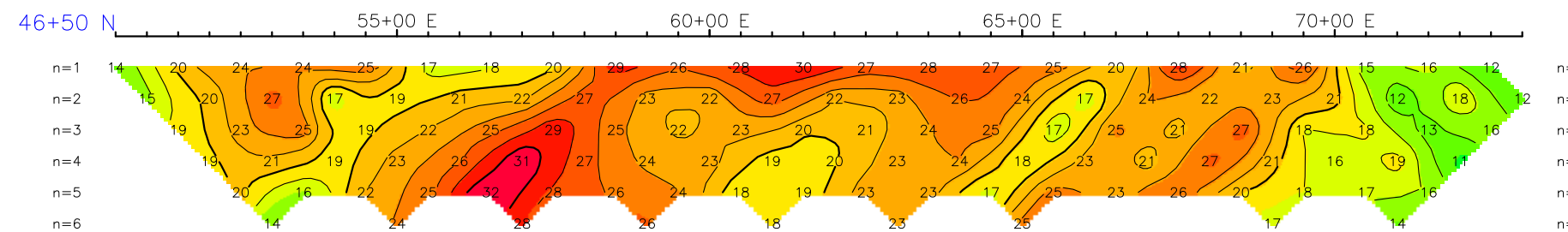
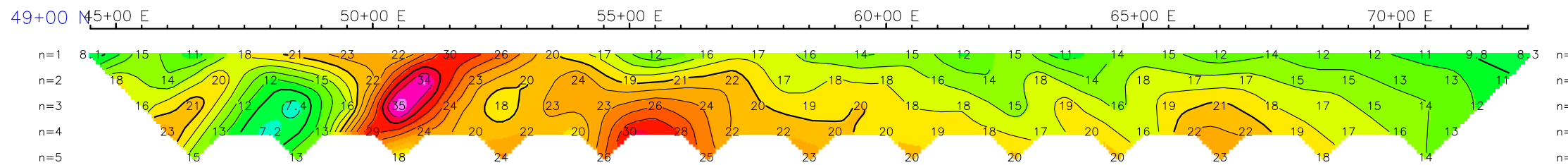


**EQUITY EXPLORATION CONSULTANTS Ltd**

**INDUCED POLARIZATION SURVEY  
KLIYUL Property, BC  
CHARGEABILITY  $a=100m$**

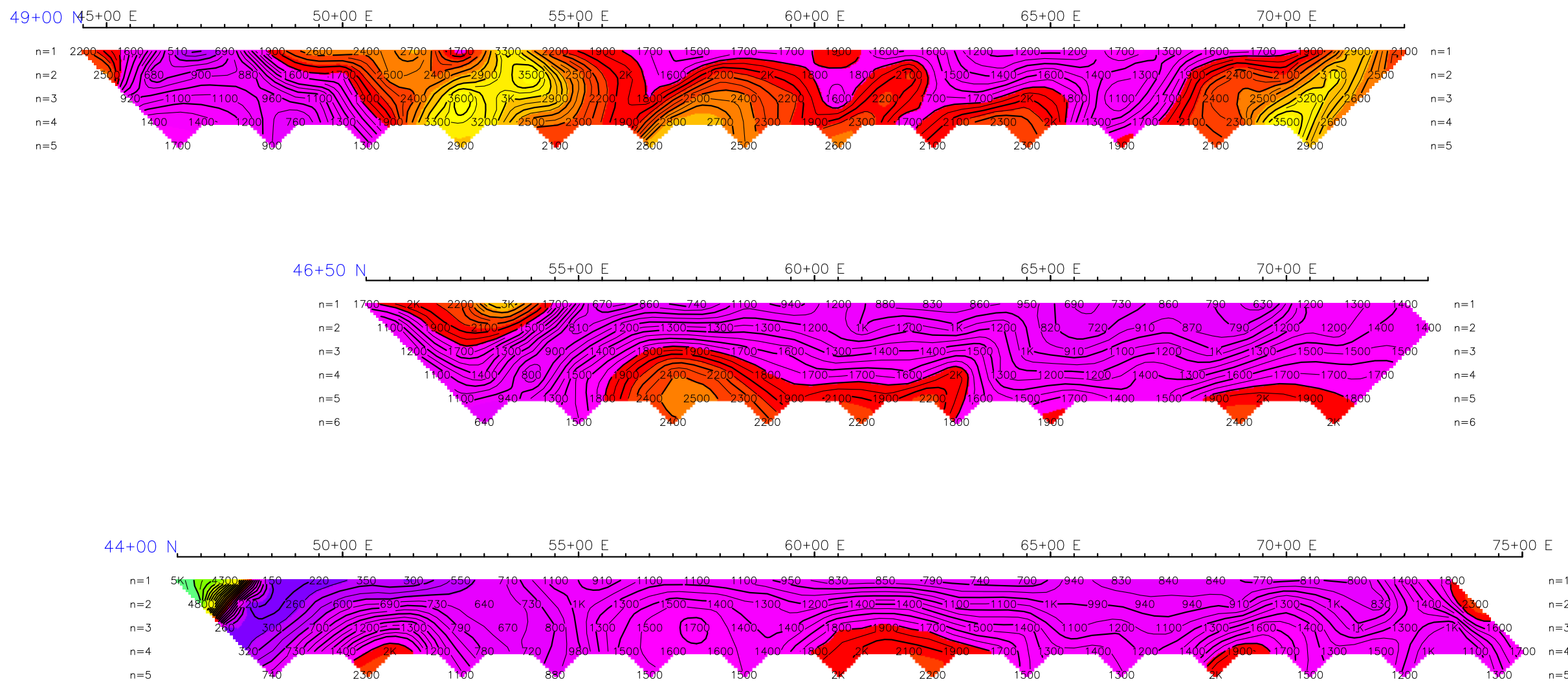
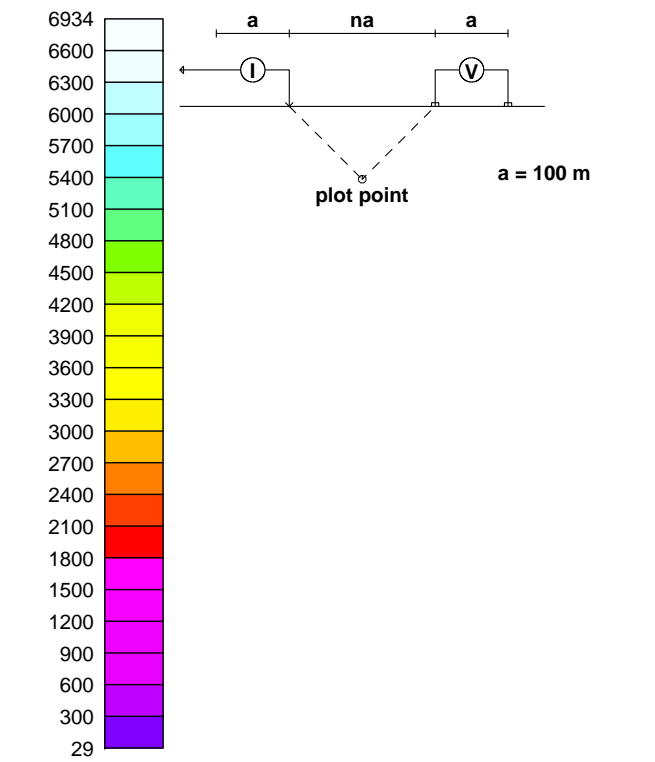
Date: 05/08/2011  
Interpretation: J. Klein

**Peter E. Walcott & Assoc. Ltd**



## Stacked Section Map ResCalc

### Pole-Dipole Array

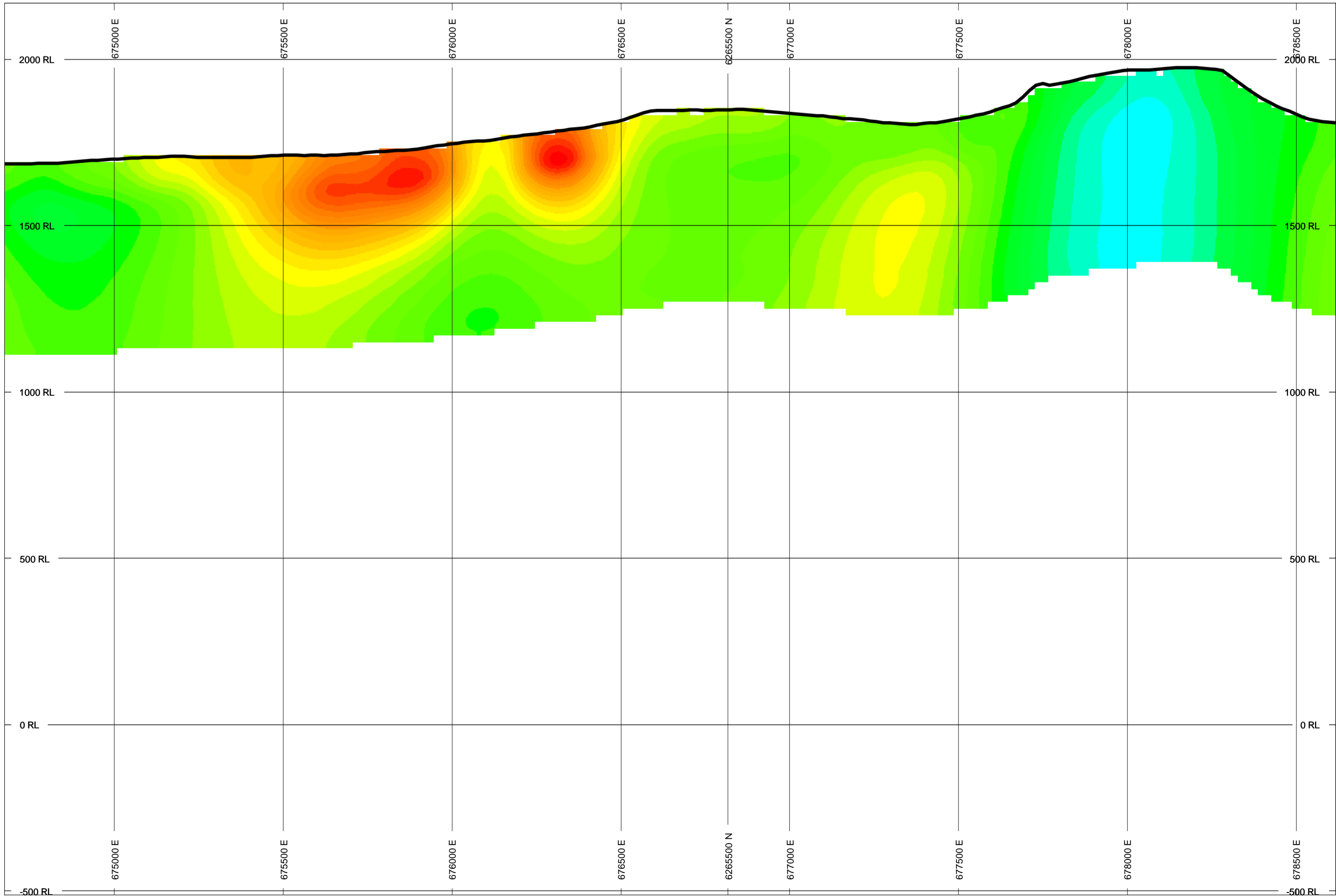
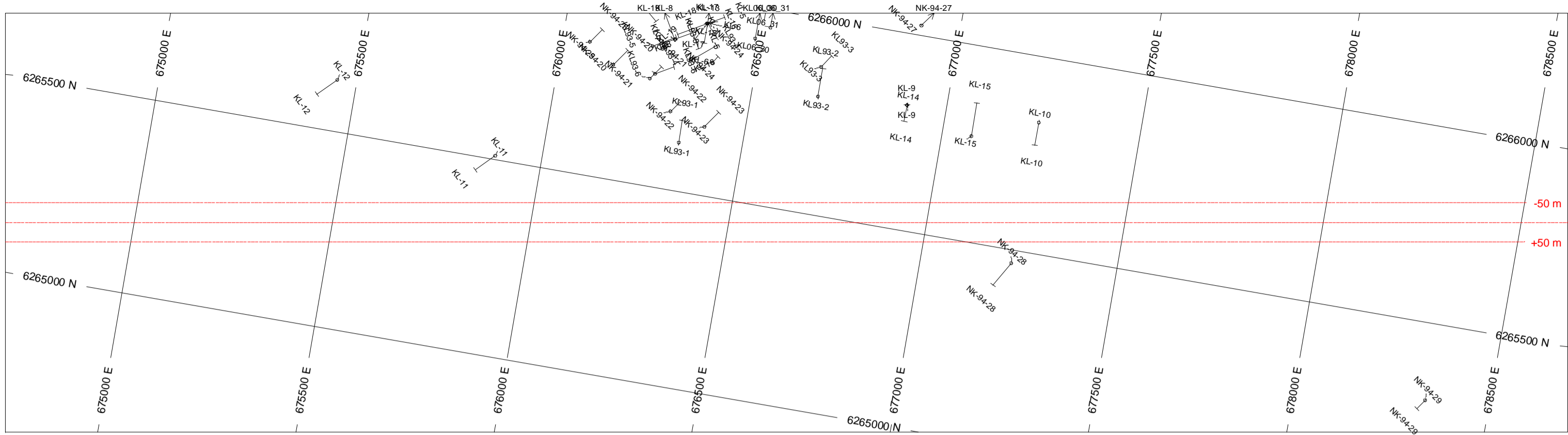


**EQUITY EXPLORATION CONSULTANTS Ltd**

**INDUCED POLARIZATION SURVEY**  
**KLIYUL Property, BC**  
**RESISTIVITY a=100m**

Date: 05/08/2011  
Interpretation: J. Klein

**Peter E. Walcott & Assoc. Ltd**



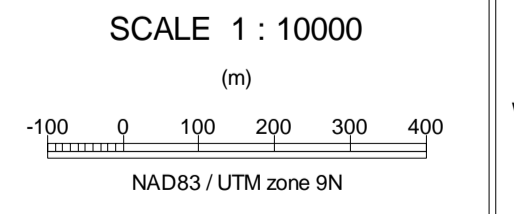
**TOPOGRAPHY**

dem.GRD

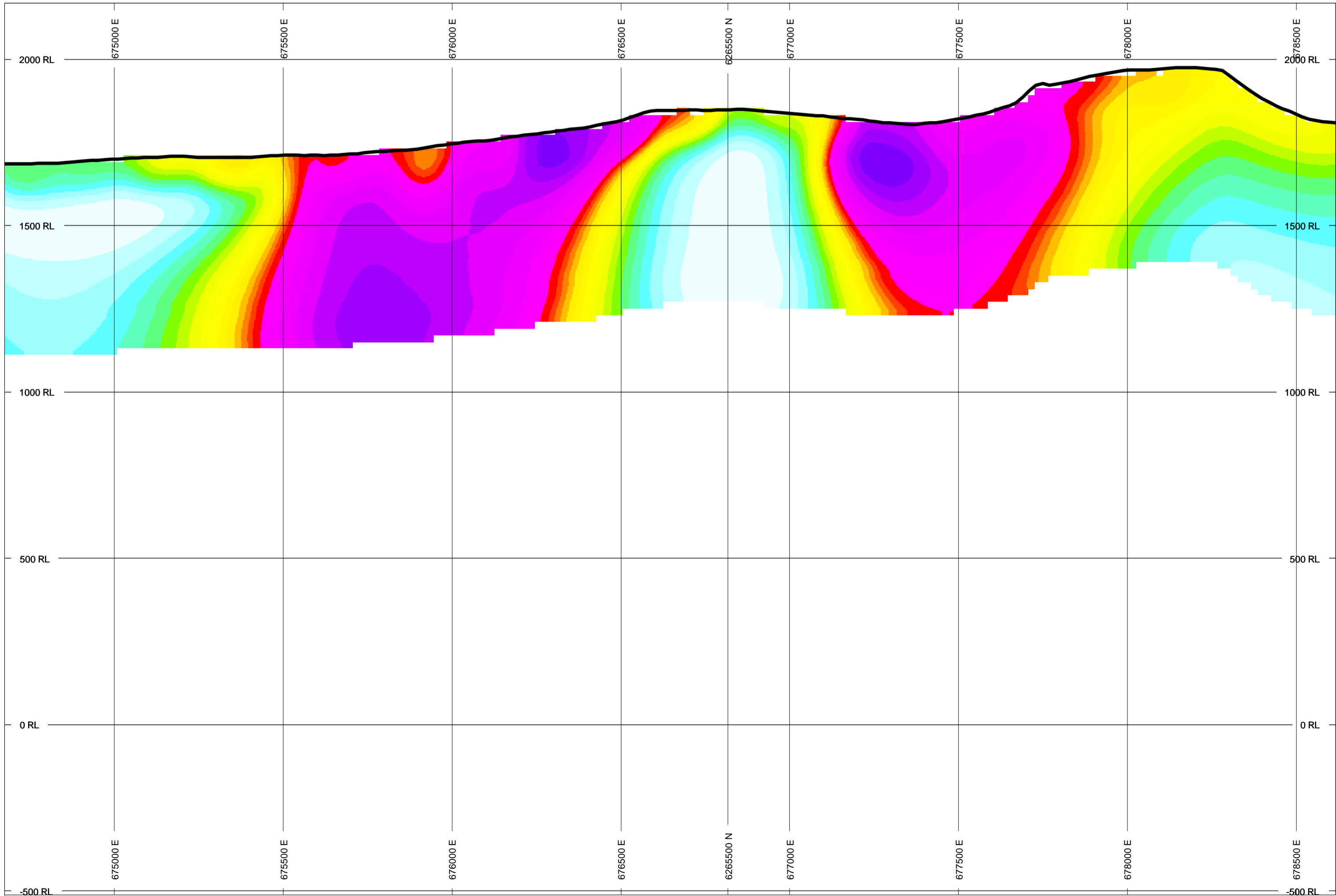
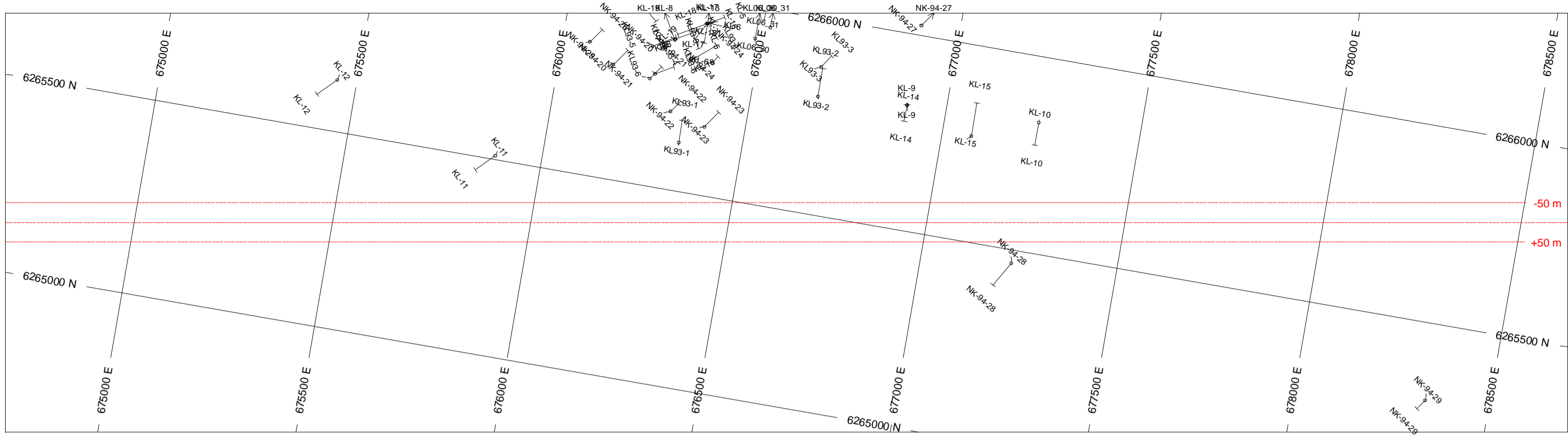
VOXEL SLICE	COL	RANGE
clipip		33.20512821
		30.51282051
		27.82051282
		25.12820513
		22.43589744
		19.74358974
		17.05128205
		14.35897436
		11.66666667
		8.974358974
6.282051282		
3.58974359		
0.8974358974		

BAR GRAPHS	L/R	COL
Cu_ppm	R	
Au_ppm	L	

**SECTION SPECS:**  
 REF. PT. E, N 676646 m 6265470 m  
 EXTENTS 4002 m 2681 m  
 SECTION TOP, BOT 2168 m -512.6 m  
 TOLERANCE +/- 50 m



**EQUITY ENGINEERING**  
**KLIYUL PROPERTY**  
**6265470N SECTION**  
 with MODELLED CHARGEABILITY (mV/V)

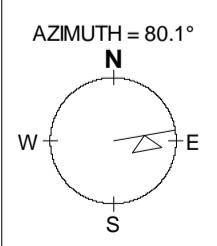
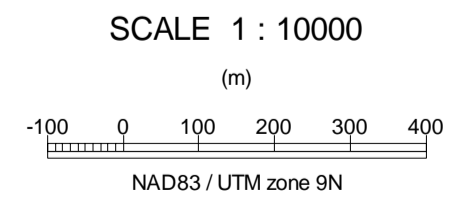


TOPOGRAPHY  
 dem.GRD

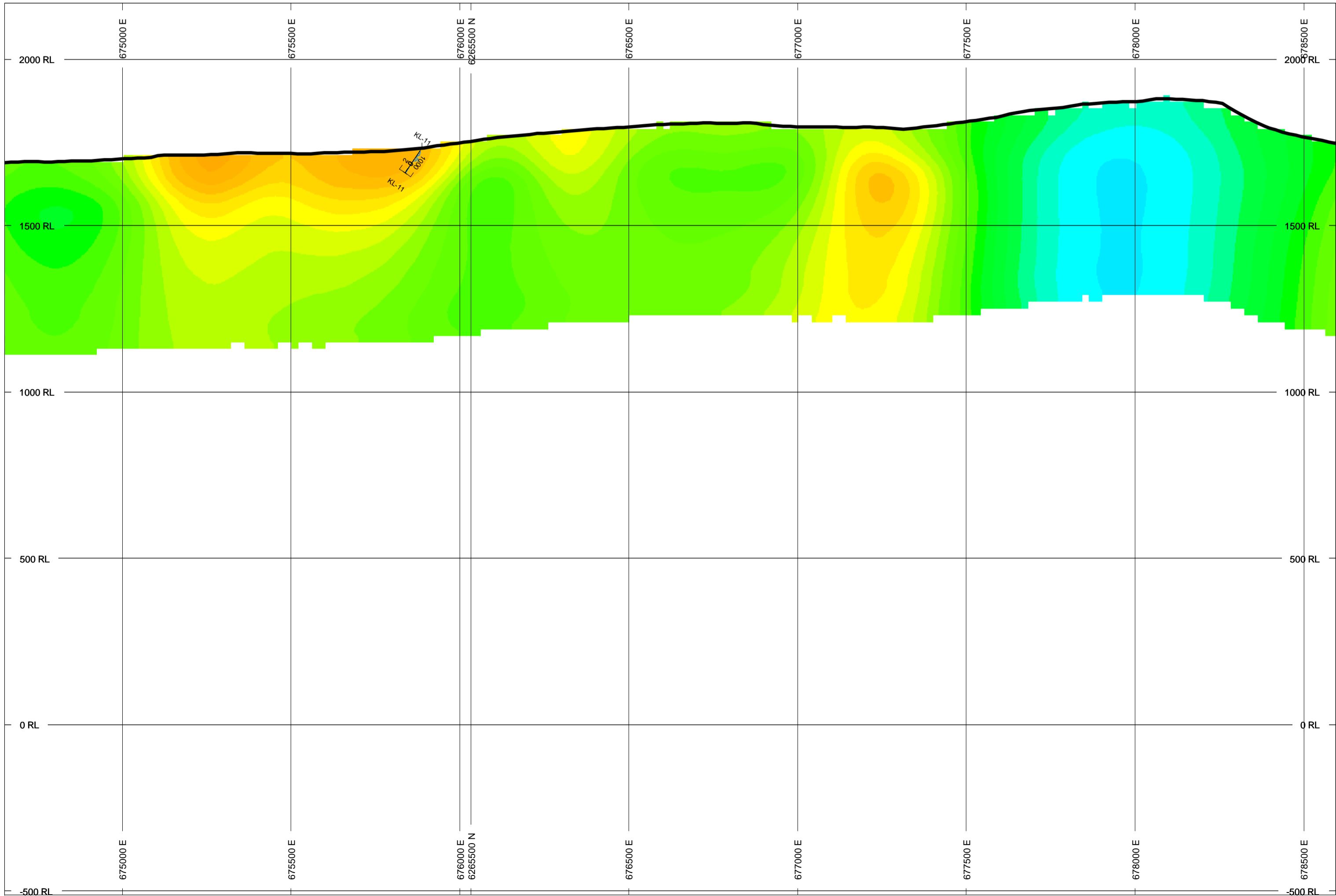
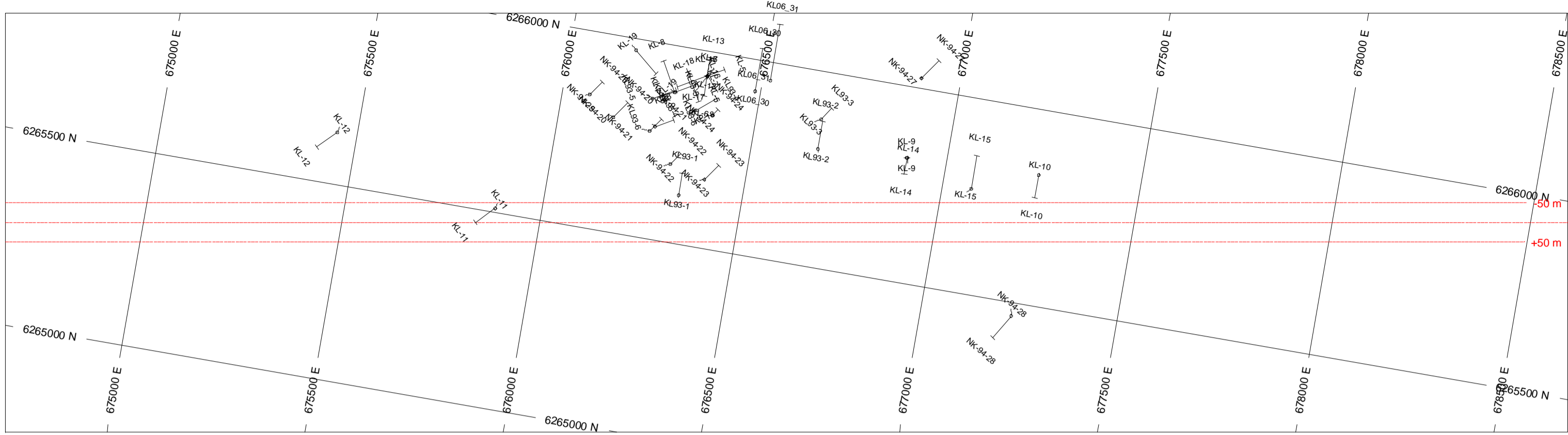
VOXEL SLICE	COL	RANGE
clipres		4606.220702
		3707.661132
		3145.652004
		2707.588653
		2375.995621
		2101.594276
		1865.910327
		1684.605234
		1503.19683
		1249.911031
		939.7692539
		650.6093141

BAR GRAPHS	L/R	COL
Cu_ppm	R	
Au_ppm	L	

SECTION SPECS:  
 REF. PT. E, N 676646 m 6265470 m  
 EXTENTS 4002 m 2681 m  
 SECTION TOP, BOT 2168 m -512.6 m  
 TOLERANCE +/- 50 m



**EQUITY ENGINEERING**  
**KLIYUL PROPERTY**  
**6265470N SECTION**  
 with MODELLED RESISTIVITY (ohm-m)



TOPOGRAPHY

dem.GRD

VOXEL SLICE

clipip

COL	RANGE
33.20512821	
30.51282051	
27.82051282	
25.12820513	
22.43589744	
19.74358974	
17.05128205	
14.35897436	
11.66666667	
8.974358974	
6.282051282	
3.58974359	
0.8974358974	

BAR GRAPHS

L/R	COL
Cu_ppm	R
Au_ppm	L

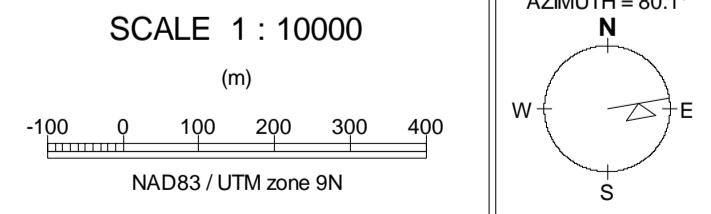
SECTION SPECS:

REF. PT. E, N 676623 m 6265603 m

EXTENTS 4002 m 2681 m

SECTION TOP, BOT 2168 m -512.6 m

TOLERANCE +/- 50 m

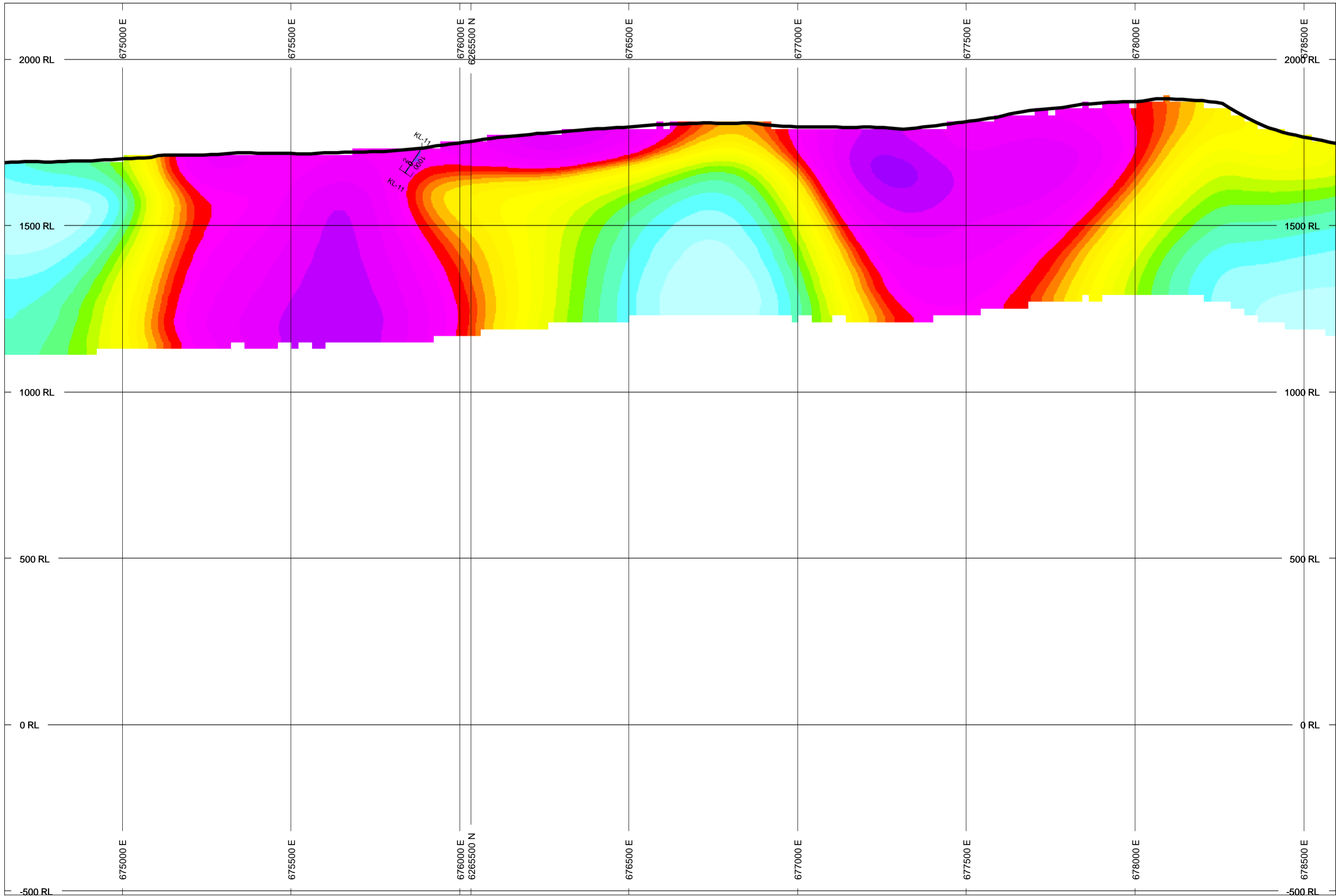
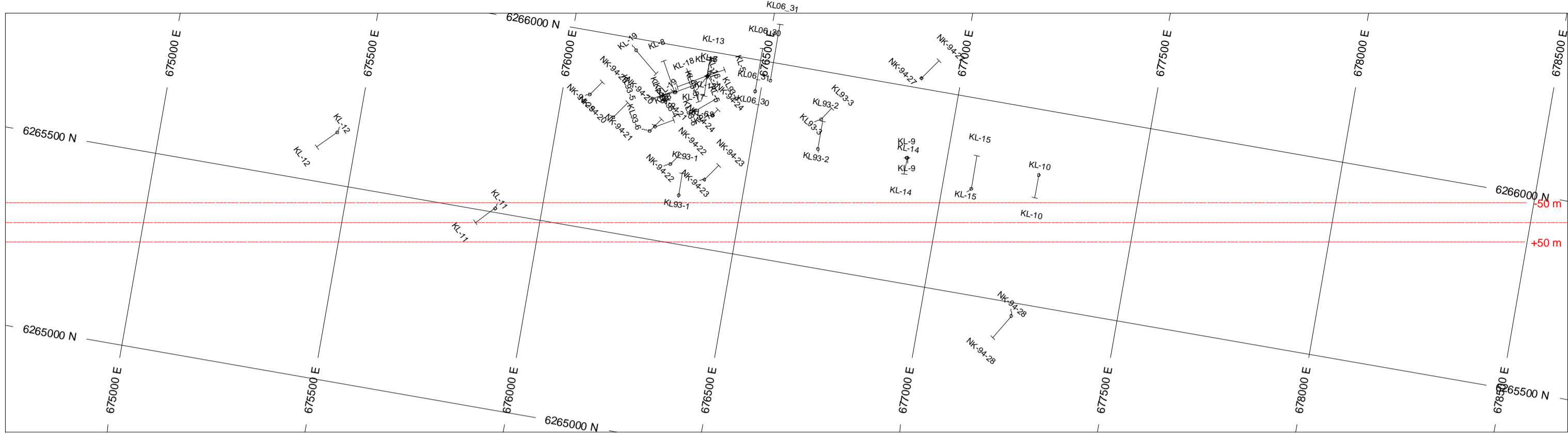


**EQUITY ENGINEERING**

**KLIYUL PROPERTY**

**6265603N SECTION**

with MODELLED CHARGEABILITY (mV/V)

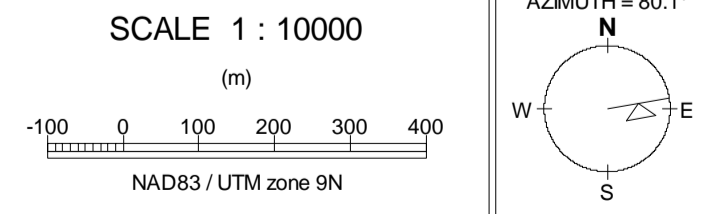


TOPOGRAPHY  
dem.GRD

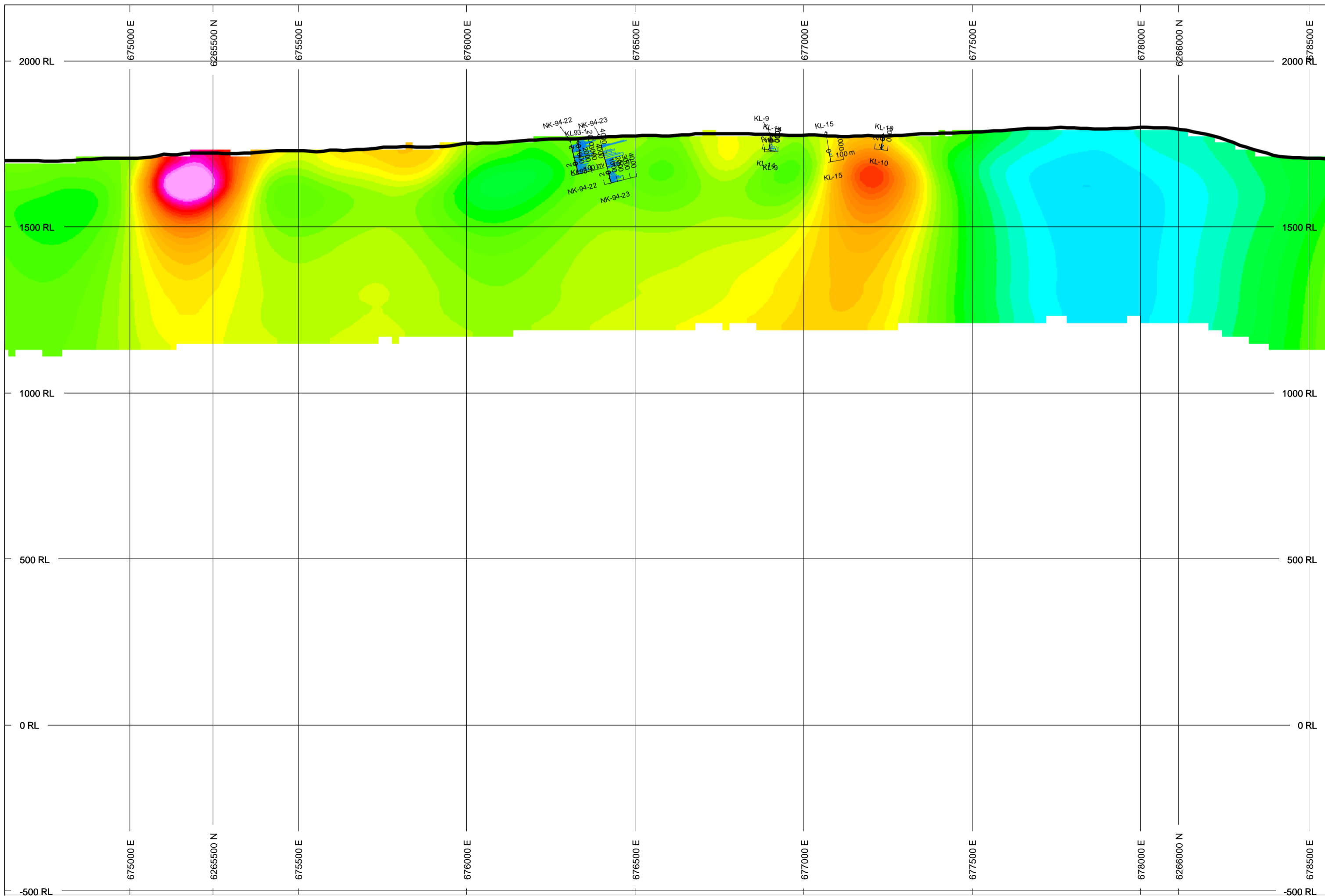
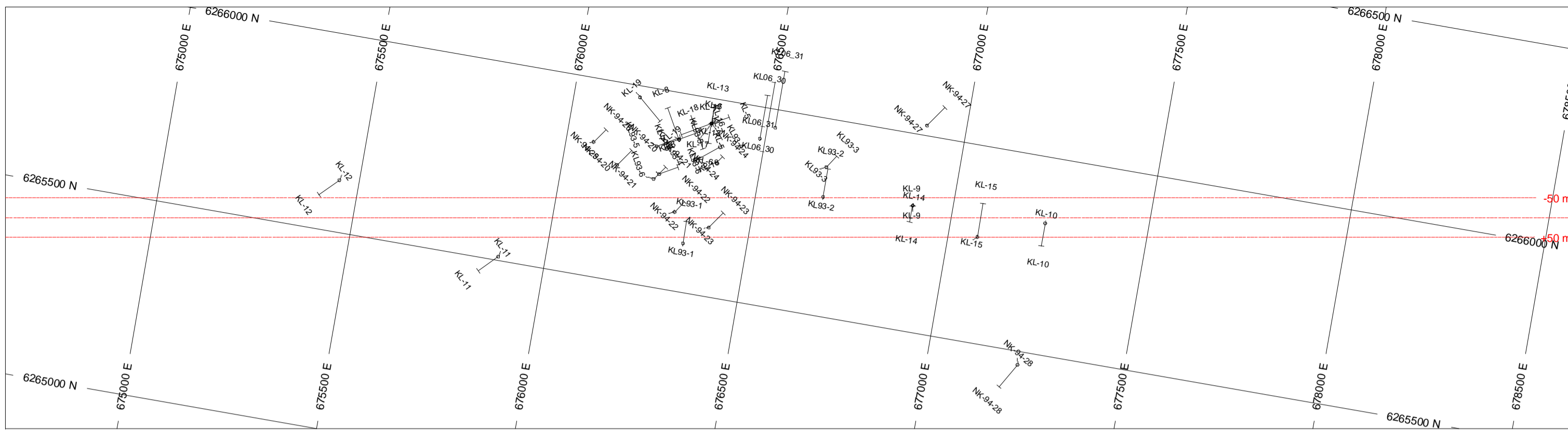
VOXEL SLICE	COL	RANGE
clips		4606.220702
		3707.661132
		3145.652004
		2707.588653
		2375.995621
		2101.594276
		1865.910327
		1684.605234
		1503.19683
		1249.911031
		939.7692539
		650.6093141

BAR GRAPHS	L/R	COL
Cu_ppm	R	
Au_ppm	L	

SECTION SPECS:  
 REF. PT. E, N 676623 m 6265603 m  
 EXTENTS 4002 m 2681 m  
 SECTION TOP, BOT 2168 m -512.6 m  
 TOLERANCE +/- 50 m



**EQUITY ENGINEERING**  
**KLIYUL PROPERTY**  
**6265603N SECTION**  
 with MODELLED RESISTIVITY (ohm-m)



TOPOGRAPHY

dem.GRD

VOXEL SLICE

clipip

COL	RANGE
33.20512821	
30.51282051	
27.82051282	
25.12820513	
22.43589744	
19.74358974	
17.05128205	
14.35897436	
11.66666667	
8.974358974	
6.282051282	
3.58974359	
0.8974358974	

BAR GRAPHS

L/R	COL
Cu_ppm	R
Au_ppm	L

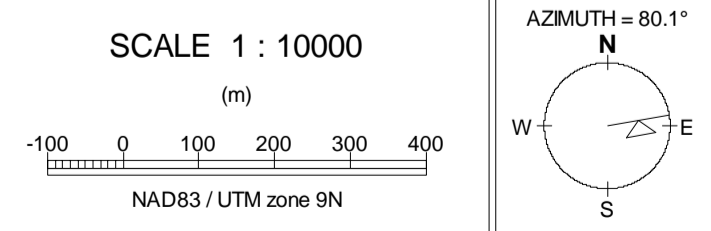
SECTION SPECS:

REF. PT. E, N 676600 m 6265736 m

EXTENTS 4002 m 2681 m

SECTION TOP, BOT 2168 m -512.6 m

TOLERANCE +/- 50 m



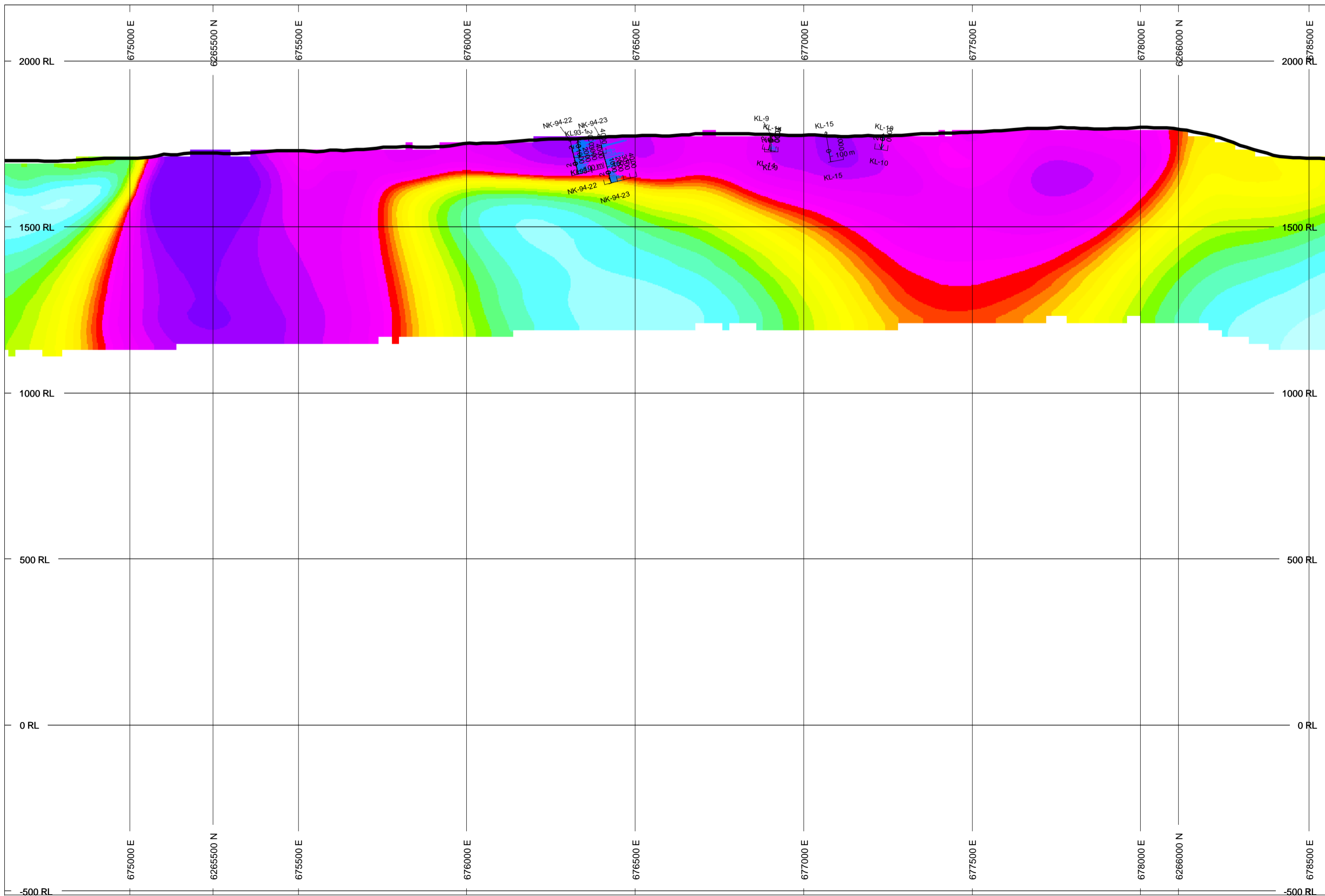
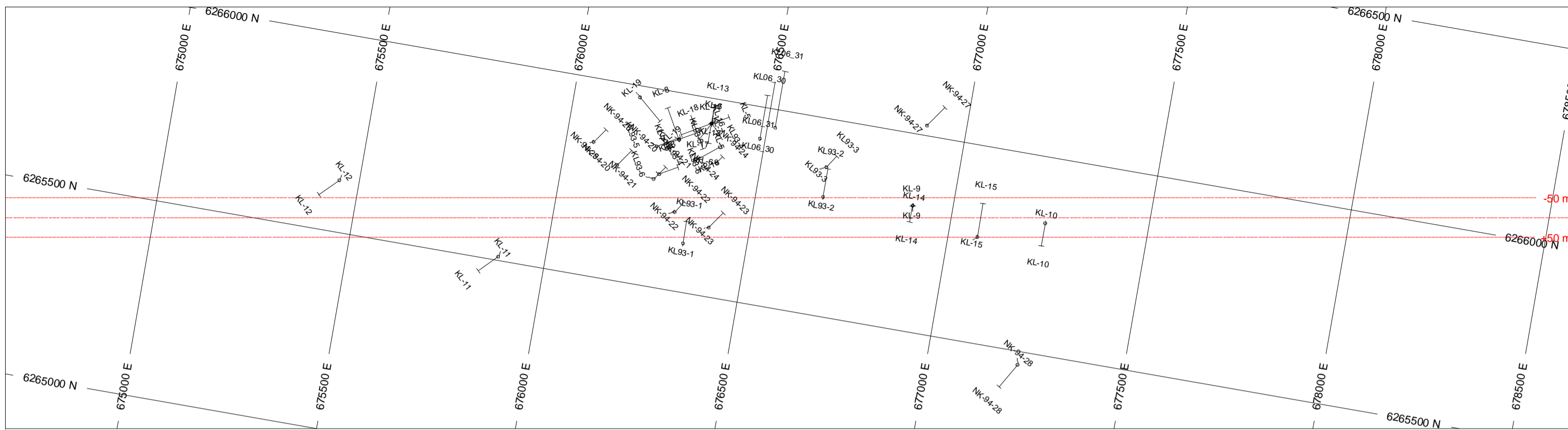
**EQUITY ENGINEERING**

**KLIYUL PROPERTY**

**6265736N SECTION**

with MODELLED CHARGEABILITY (mV/V)





TOPOGRAPHY  
 dem.GRD

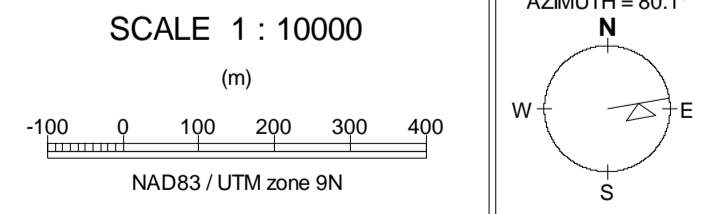
VOXEL SLICE  
 clipres

COL	RANGE
4606.220702	
3707.661132	
3145.652004	
2707.588653	
2375.995621	
2101.594276	
1865.910327	
1684.605234	
1503.19683	
1249.911031	
939.7692539	
650.6093141	

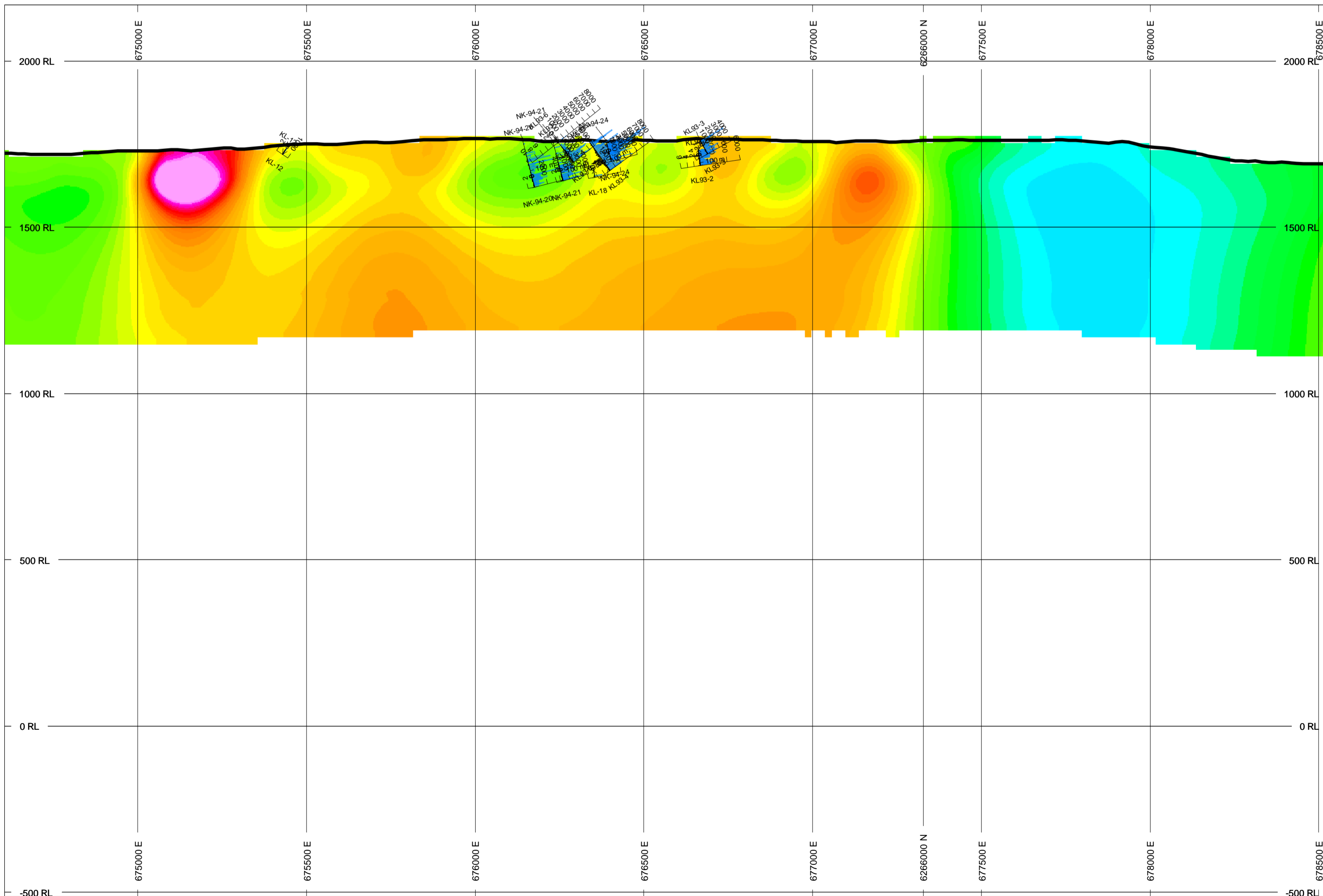
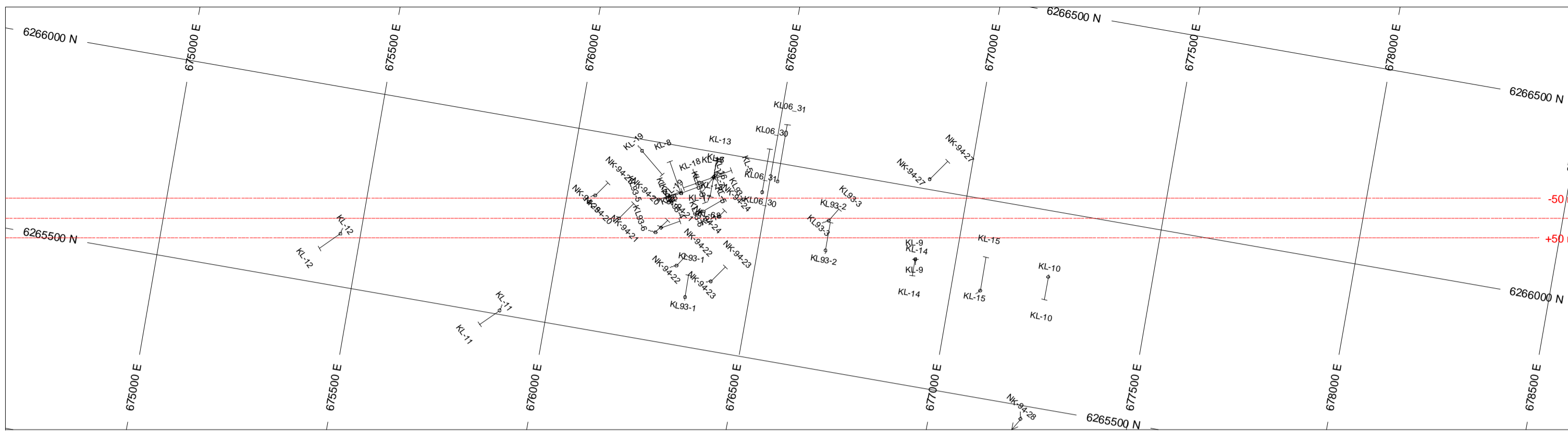
BAR GRAPHS

L/R	COL
Cu_ppm	R
Au_ppm	L

SECTION SPECS:  
 REF. PT. E, N 676600 m 6265736 m  
 EXTENTS 4002 m 2681 m  
 SECTION TOP, BOT 2168 m -512.6 m  
 TOLERANCE +/- 50 m



**EQUITY ENGINEERING**  
**KLIYUL PROPERTY**  
**6265736N SECTION**  
 with MODELLED RESISTIVITY (ohm-m)



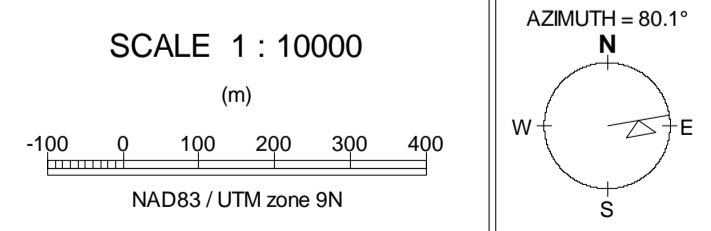
TOPOGRAPHY  
 dem.GRD

VOXEL SLICE  
 clipip

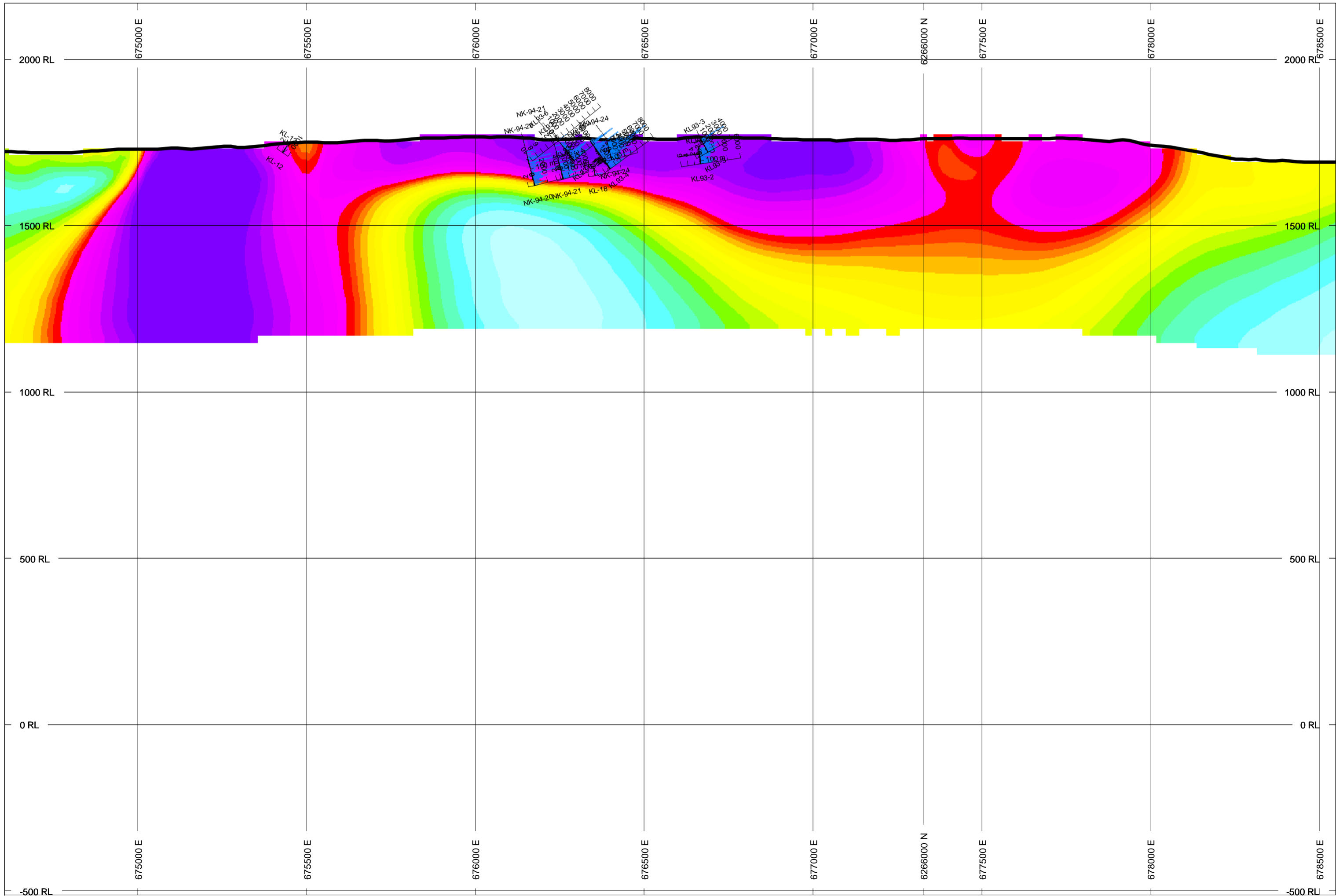
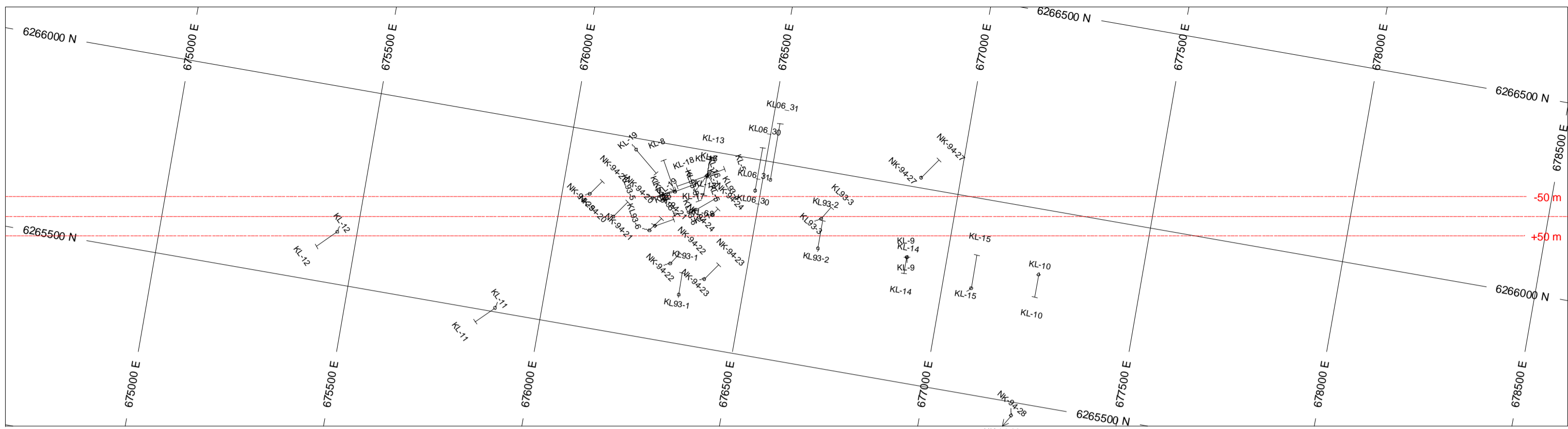
COL	RANGE
33.20512821	
30.51282051	
27.82051282	
25.12820513	
22.43589744	
19.74358974	
17.05128205	
14.35897436	
11.66666667	
8.974358974	
6.282051282	
3.58974359	
0.8974358974	

BAR GRAPHS  
 Cu\_ppm R  
 Au\_ppm L

SECTION SPECS:  
 REF. PT. E, N 676577 m 6265869 m  
 EXTENTS 4002 m 2681 m  
 SECTION TOP, BOT 2168 m -512.6 m  
 TOLERANCE +/- 50 m



**EQUITY ENGINEERING**  
**KLIYUL PROPERTY**  
**6265869N SECTION**  
 with MODELLED CHARGEABILITY (mV/V)



**TOPOGRAPHY**  
 dem.GRD

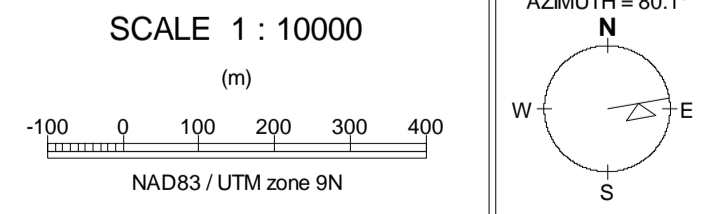
**VOXEL SLICE**  
 clipres

COL	RANGE
1	4606.220702
2	3707.661132
3	3145.652004
4	2707.588653
5	2375.995621
6	2101.594276
7	1865.910327
8	1684.605234
9	1503.19683
10	1249.911031
11	939.7692539
12	650.6093141

**BAR GRAPHS**

L/R	COL
Cu_ppm	R
Au_ppm	L

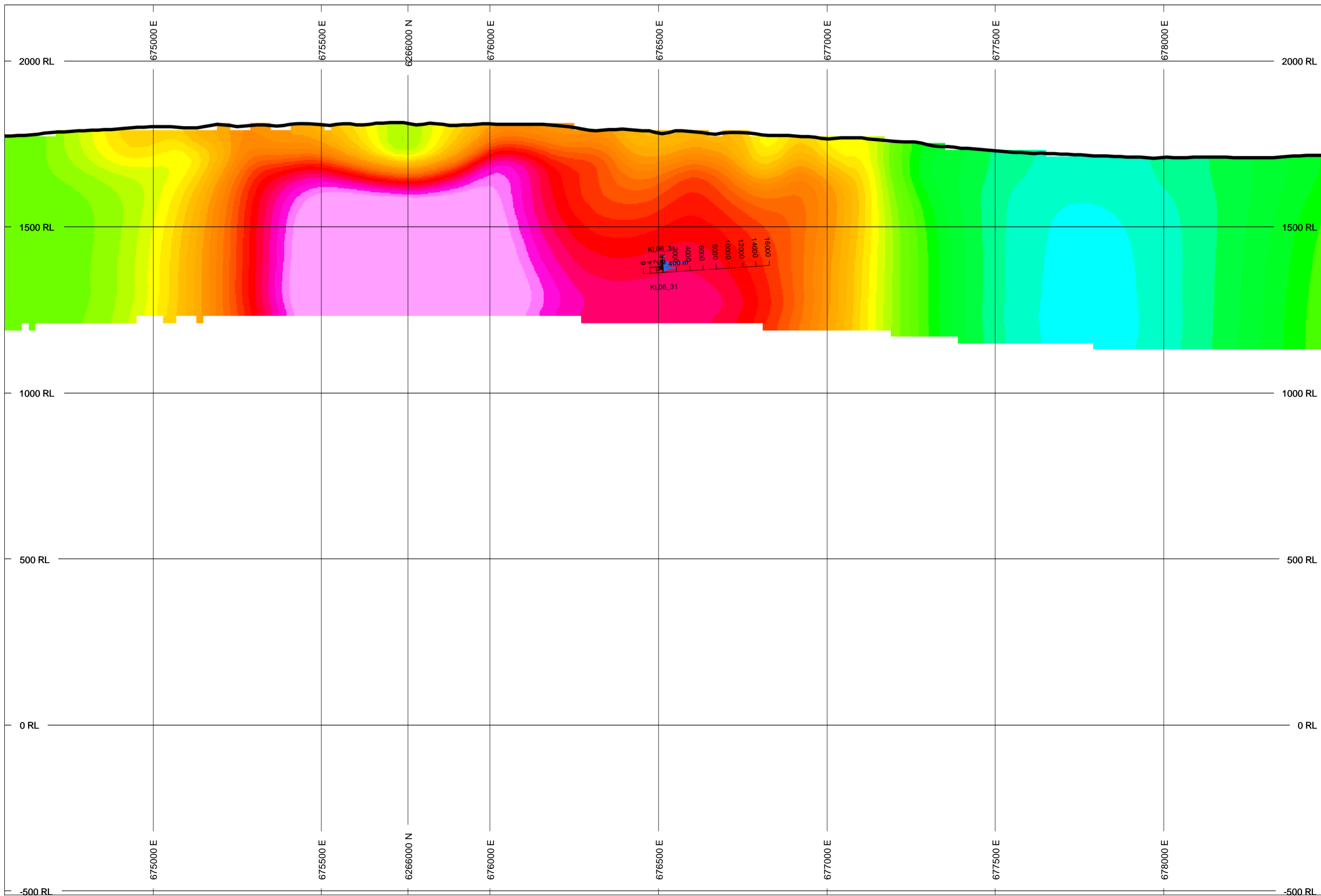
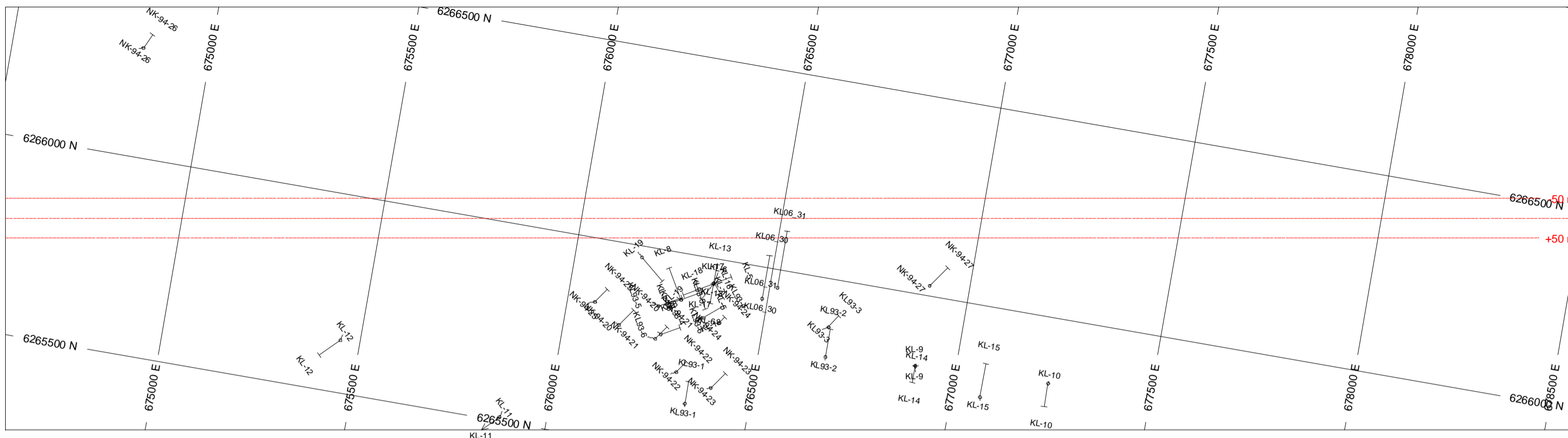
**SECTION SPECS:**  
 REF. PT. E, N 676577 m 6265869 m  
 EXTENTS 4002 m 2681 m  
 SECTION TOP, BOT 2168 m -512.6 m  
 TOLERANCE +/- 50 m



**EQUITY ENGINEERING**  
**KLIYUL PROPERTY**  
**6265869N SECTION**  
 with MODELLED RESISTIVITY (ohm-m)







**TOPOGRAPHY**

dem.GRD

**VOXEL SLICE**

clipip

COL	RANGE
33.20512821	
30.51282051	
27.82051282	
25.12820513	
22.43589744	
19.74358974	
17.05128205	
14.35897436	
11.66666667	
8.974358974	
6.282051282	
3.58974359	
0.8974358974	

**BAR GRAPHS**

L/R	COL
Cu_ppm	R
Au_ppm	L

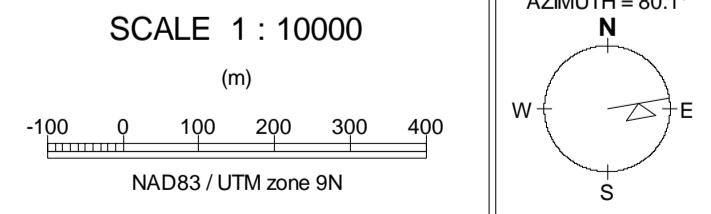
**SECTION SPECS:**

REF. PT. E, N 676531 m 6266135 m

EXTENTS 4002 m 2681 m

SECTION TOP, BOT 2168 m -512.6 m

TOLERANCE +/- 50 m

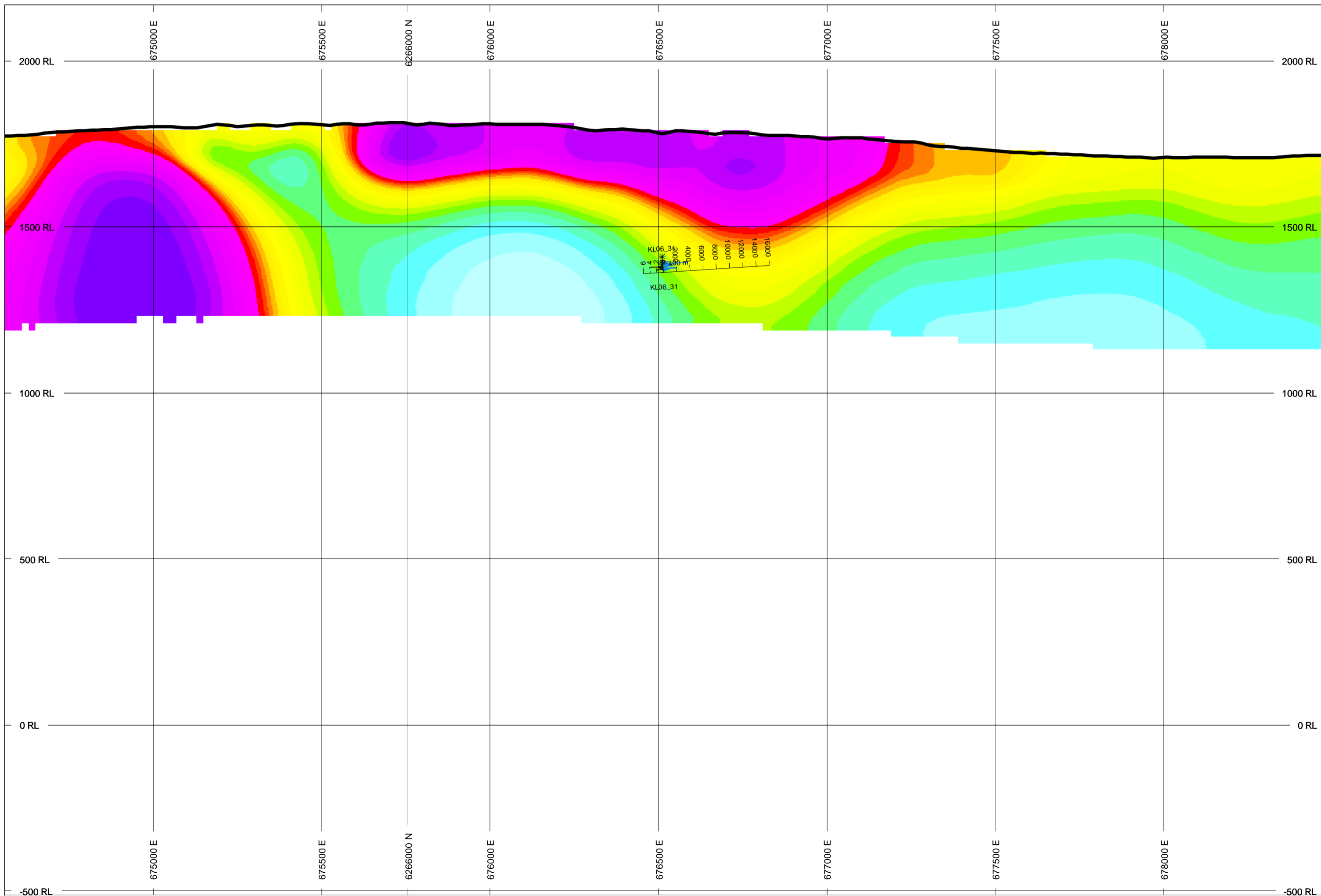
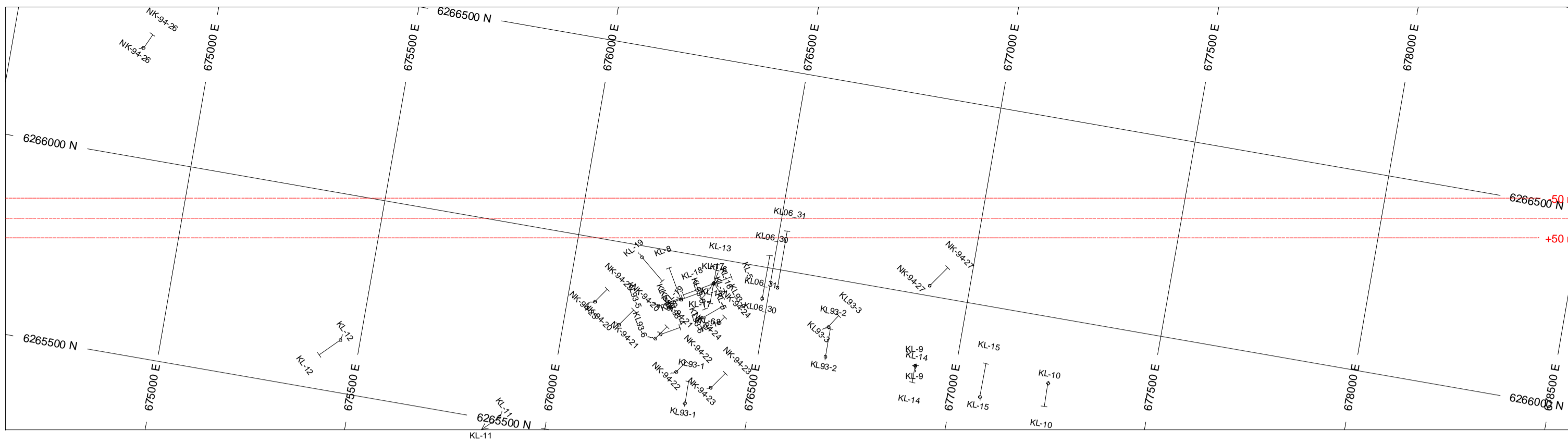


**EQUITY ENGINEERING**

**KLIYUL PROPERTY**

**6266135N SECTION**

with MODELLED CHARGEABILITY (mV/V)



**TOPOGRAPHY**  
 dem.GRD

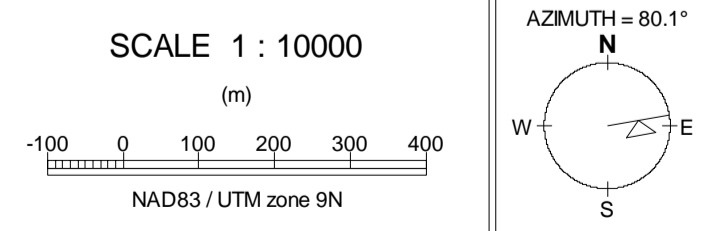
**VOXEL SLICE**  
 clipres

COL	RANGE
1	4606.220702
2	3707.661132
3	3145.652004
4	2707.588653
5	2375.995621
6	2101.594276
7	1865.910327
8	1684.605234
9	1503.19683
10	1249.911031
11	939.7692539
12	650.6093141

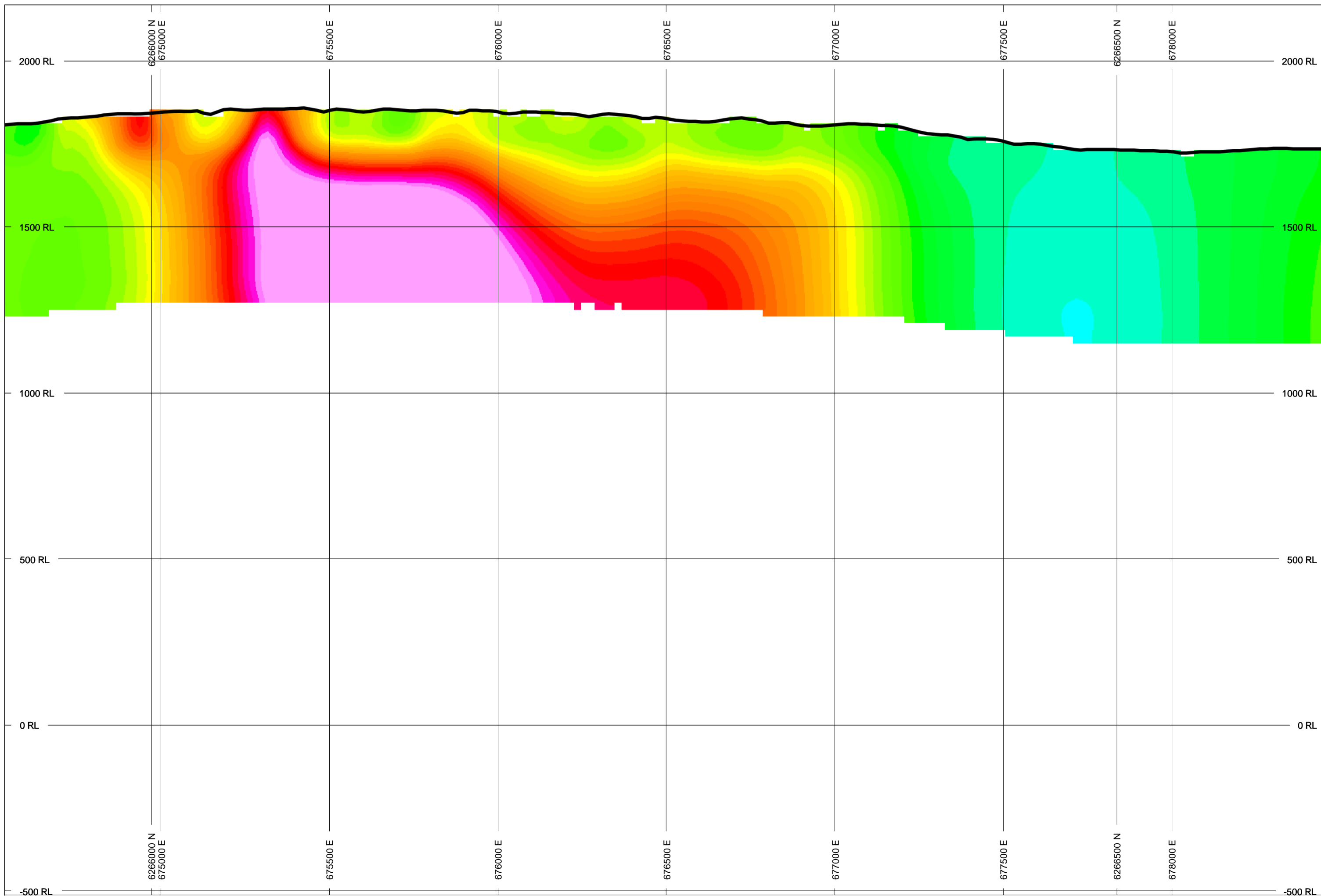
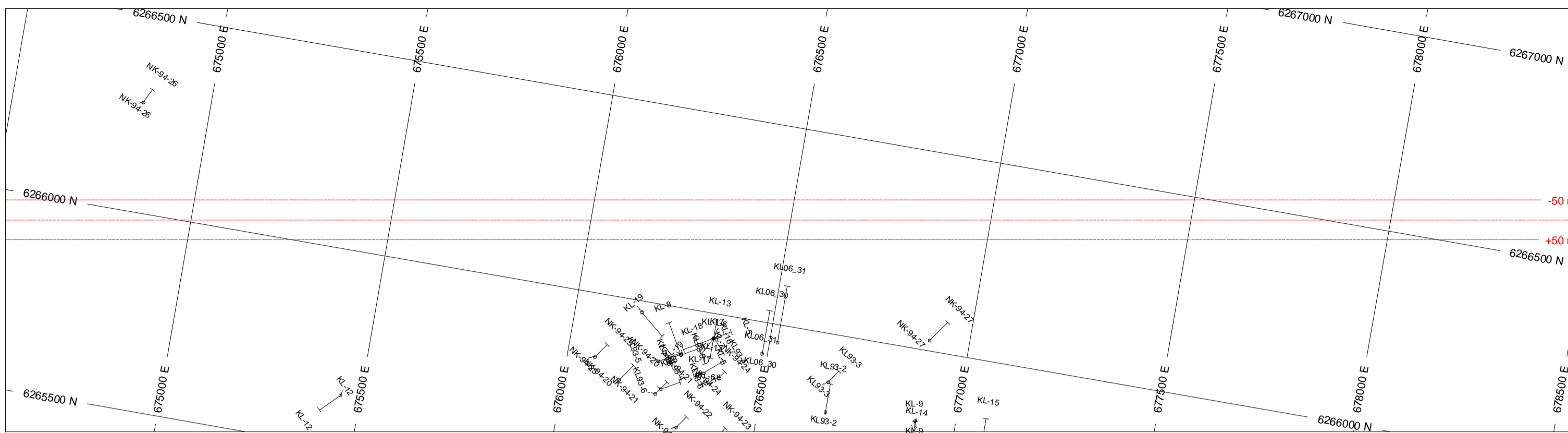
**BAR GRAPHS**

L/R	COL
Cu_ppm	R
Au_ppm	L

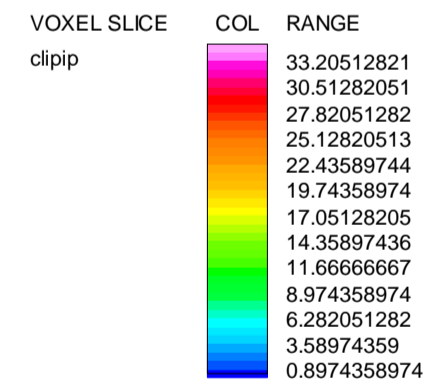
**SECTION SPECS:**  
 REF. PT. E, N 676531 m 6266135 m  
 EXTENTS 4002 m 2681 m  
 SECTION TOP, BOT 2168 m -512.6 m  
 TOLERANCE +/- 50 m



**EQUITY ENGINEERING**  
**KLIYUL PROPERTY**  
**6266135N SECTION**  
 with MODELLED RESISTIVITY (ohm-m)

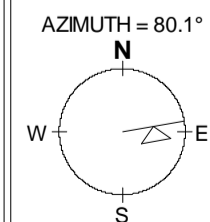
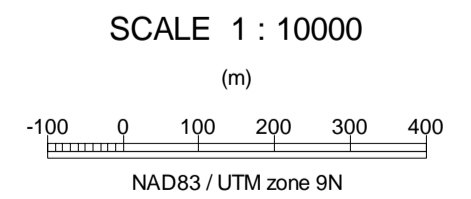


TOPOGRAPHY  
 dem.GRD



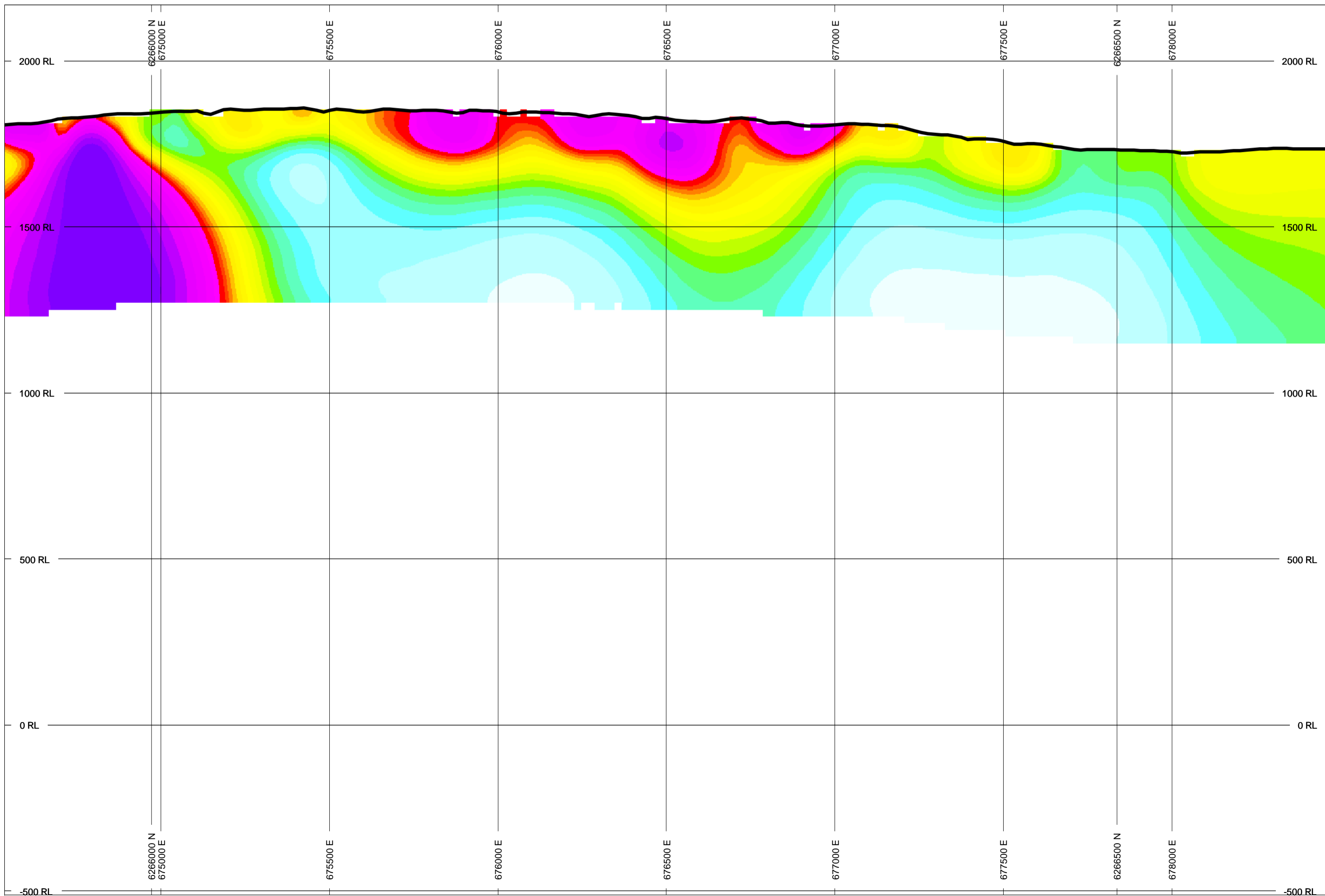
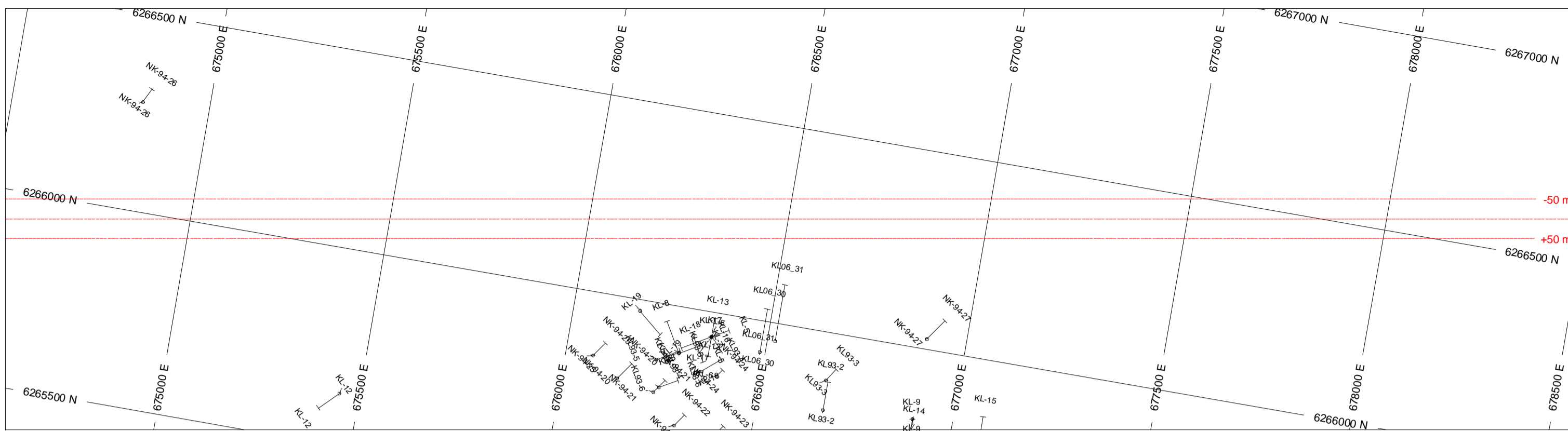
BAR GRAPHS	L/R	COL
Cu_ppm	R	
Au_ppm	L	

SECTION SPECS:  
 REF. PT. E, N 676507 m 6266268 m  
 EXTENTS 4002 m 2681 m  
 SECTION TOP, BOT 2168 m -512.6 m  
 TOLERANCE +/- 50 m

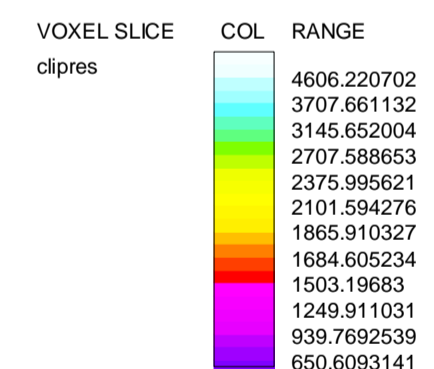


**EQUITY ENGINEERING**  
**KLIYUL PROPERTY**  
**6266268N SECTION**  
 with MODELLED CHARGEABILITY (mV/V)



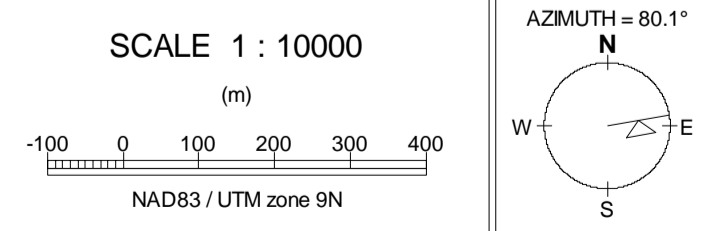


TOPOGRAPHY  
 dem.GRD

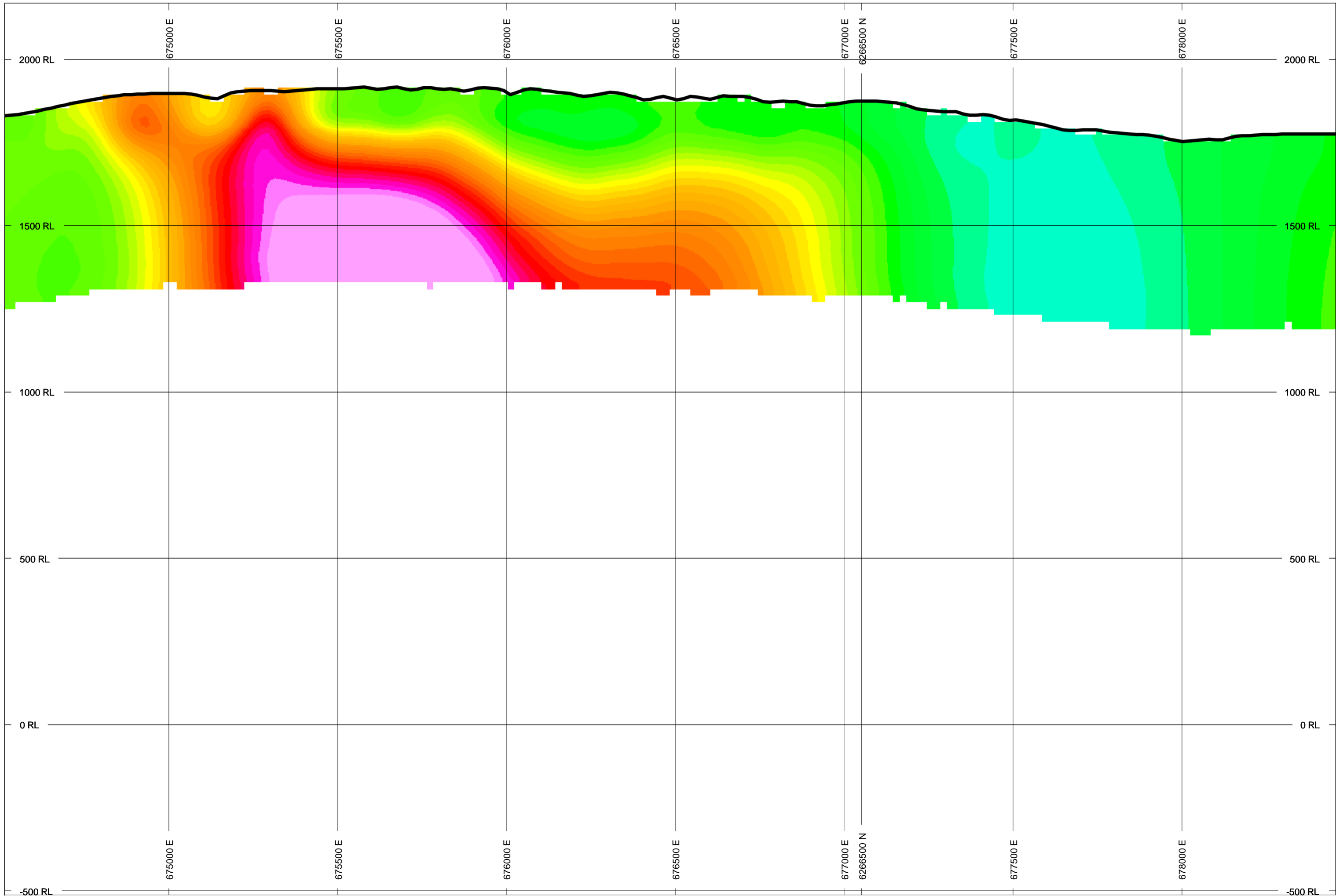
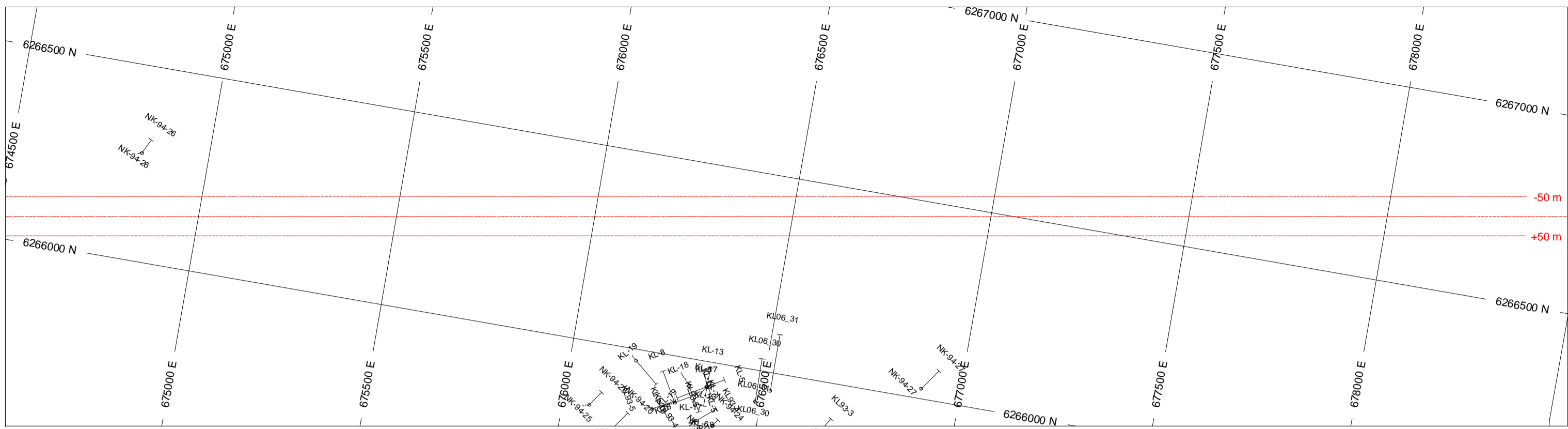


BAR GRAPHS	L/R	COL
Cu_ppm	R	[Color swatch]
Au_ppm	L	[Color swatch]

SECTION SPECS:  
 REF. PT. E, N 676507 m 6266268 m  
 EXTENTS 4002 m 2681 m  
 SECTION TOP, BOT 2168 m -512.6 m  
 TOLERANCE +/- 50 m



**EQUITY ENGINEERING**  
**KLIYUL PROPERTY**  
**6266268N SECTION**  
 with MODELLED RESISTIVITY (ohm-m)



**TOPOGRAPHY**

dem.GRD

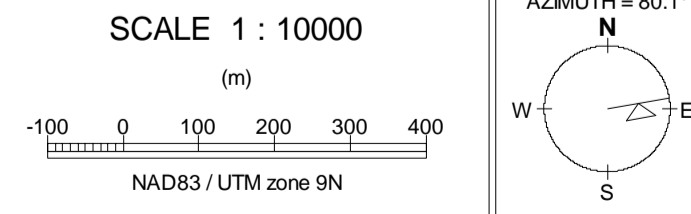
**VOXEL SLICE**

COL	RANGE
33.20512821	
30.51282051	
27.82051282	
25.12820513	
22.43589744	
19.74358974	
17.05128205	
14.35897436	
11.66666667	
8.974358974	
6.282051282	
3.58974359	
0.8974358974	

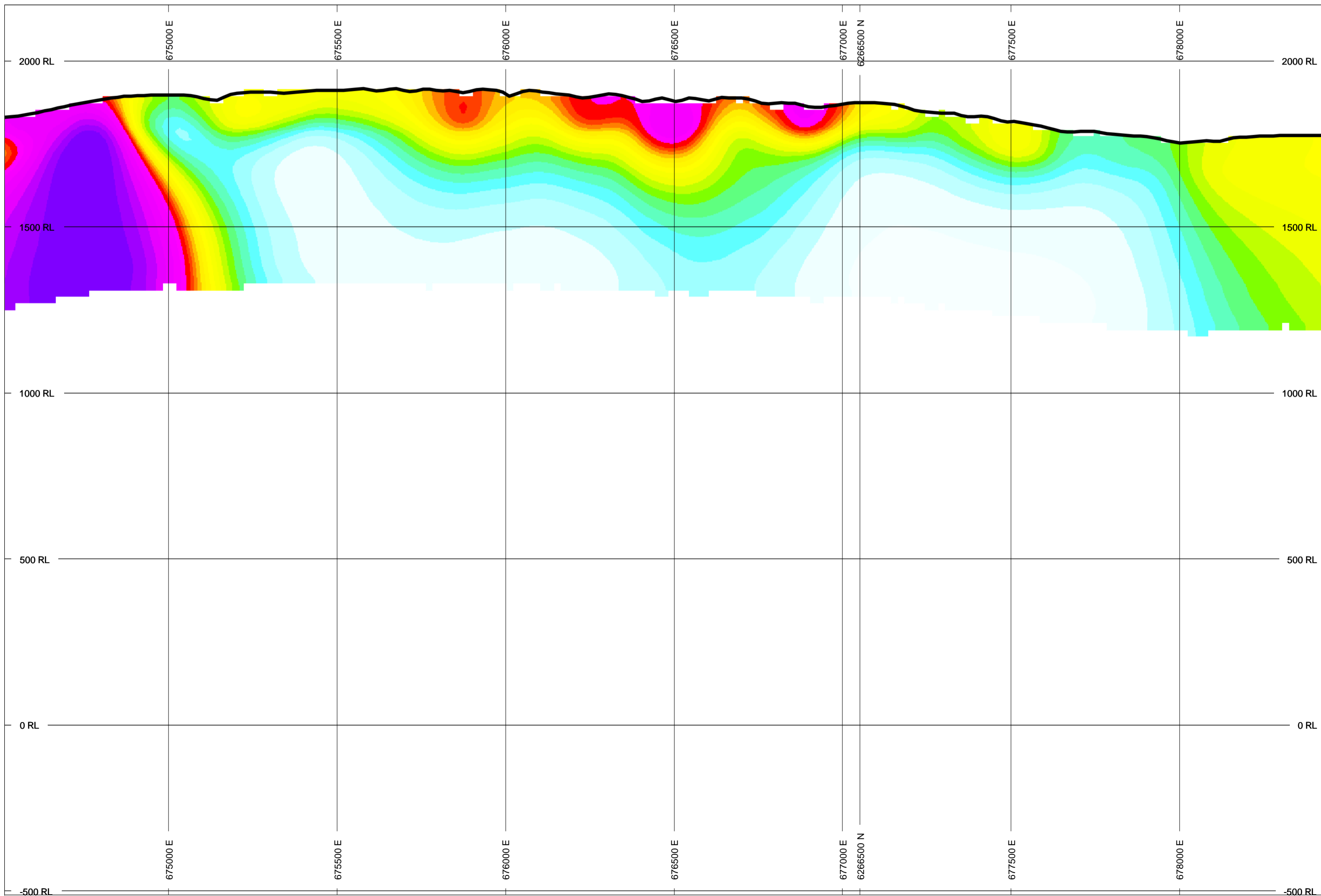
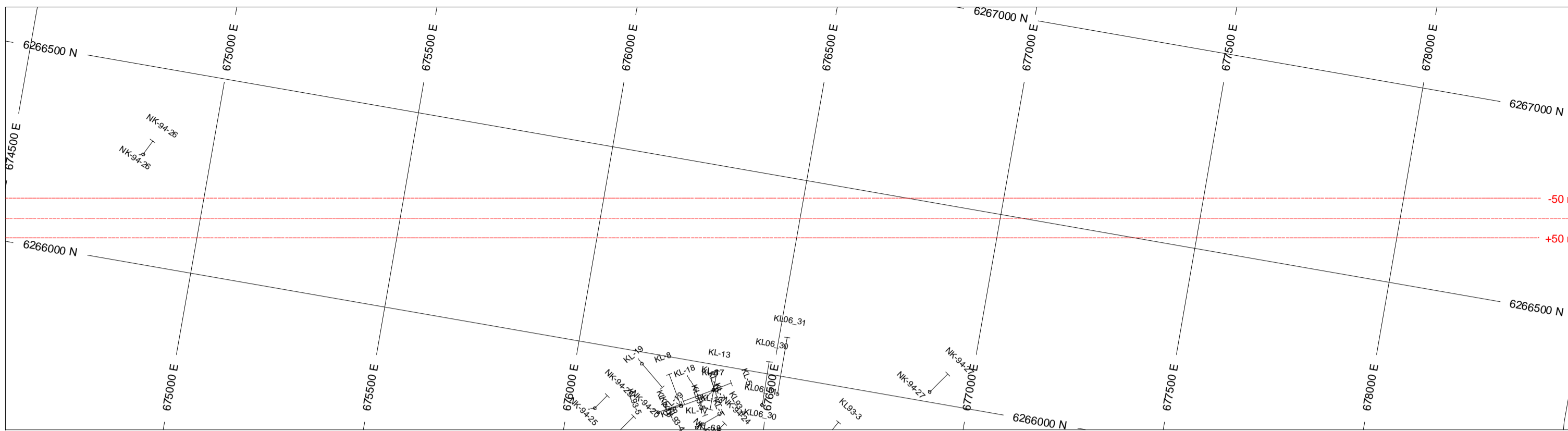
**BAR GRAPHS**

L/R	COL
Cu_ppm	R
Au_ppm	L

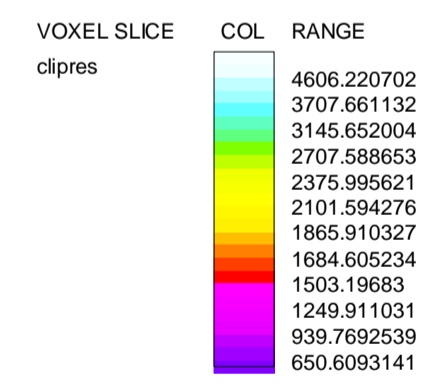
**SECTION SPECS:**  
 REF. PT. E, N 676484 m 6266401 m  
 EXTENTS 4002 m 2681 m  
 SECTION TOP, BOT 2168 m -512.6 m  
 TOLERANCE +/- 50 m



**EQUITY ENGINEERING**  
**KLIYUL PROPERTY**  
**6266401N SECTION**  
 with MODELLED CHARGEABILITY (mV/V)

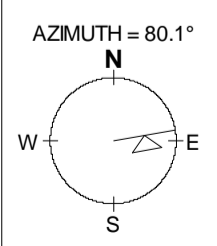
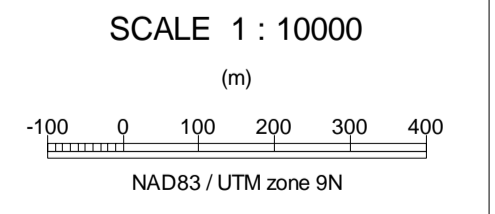


TOPOGRAPHY  
 dem.GRD

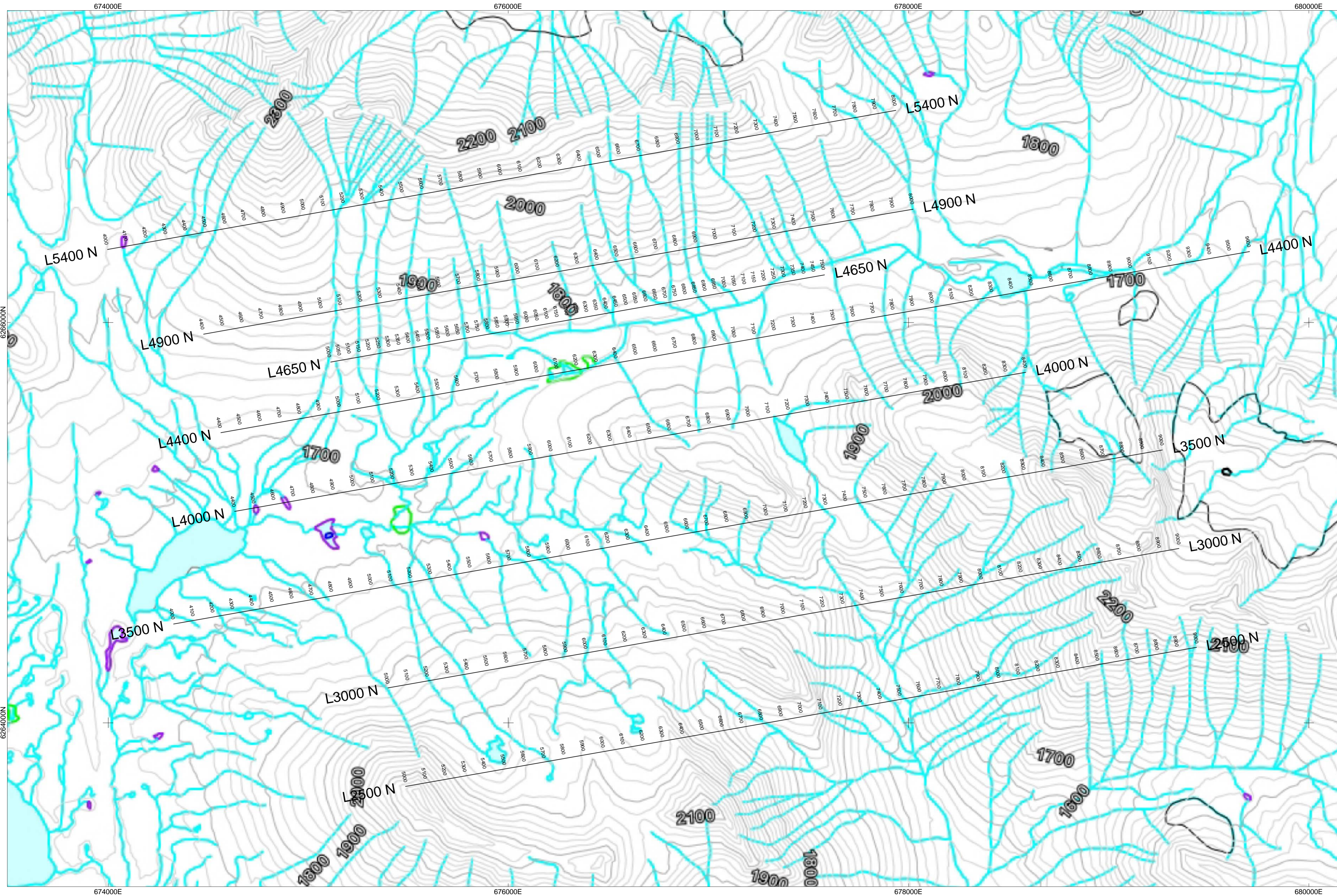


BAR GRAPHS	L/R	COL
Cu_ppm	R	□
Au_ppm	L	□

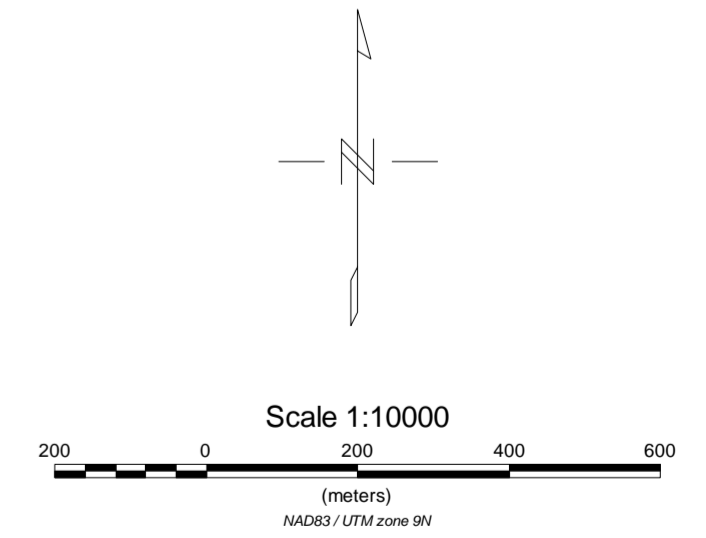
SECTION SPECS:  
 REF. PT. E, N 676484 m 6266401 m  
 EXTENTS 4002 m 2681 m  
 SECTION TOP, BOT 2168 m -512.6 m  
 TOLERANCE +/- 50 m



**EQUITY ENGINEERING**  
**KLIYUL PROPERTY**  
**6266401N SECTION**  
 with MODELLED RESISTIVITY (ohm-m)



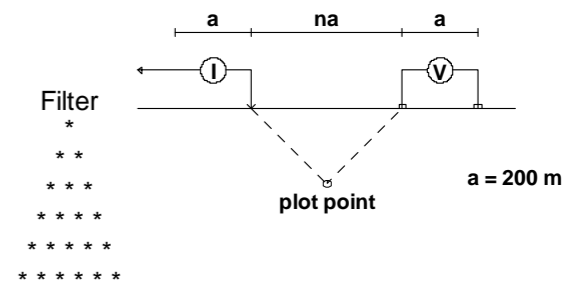
N0009929



EQUITY EXPLORATION CONSULTANTS LTD.  
 INDUCED POLARIZATION SURVEY  
 LINE LOCATION MAP  
 KLIYUL PROPERTY  
 OMINECA M.D.  
 BRITISH COLUMBIA  
 PETER E. WALCOTT & ASSOCIATES LIMITED

30+00 N

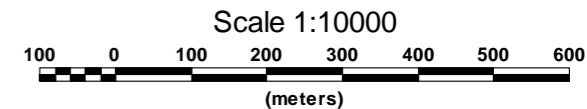
Pole-Dipole Array



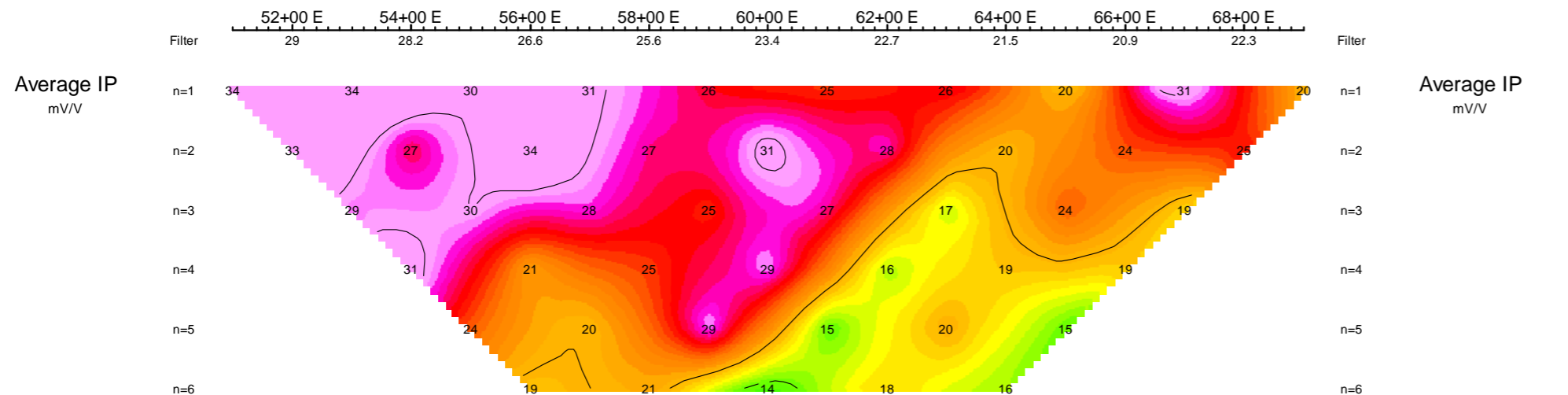
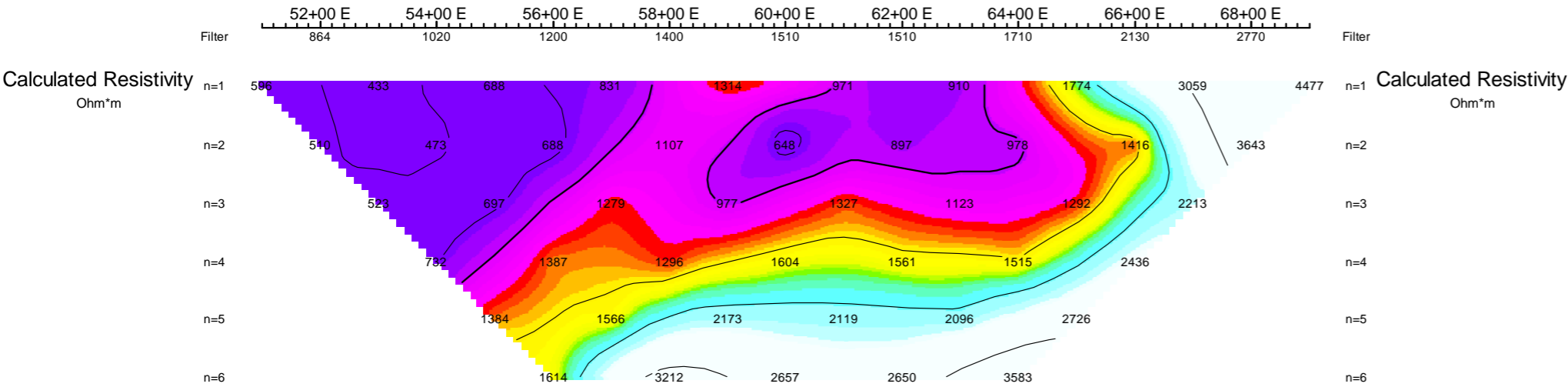
Instruments: Walcer 9.0kw Tx, 2 X GDD GRX Rx

Frequency: 0.125 Hz.  
Operators: A.W., B.J., A.S.

Logarithmic Contours: 1.5, 2, 3, 5, 7.5, 10,...

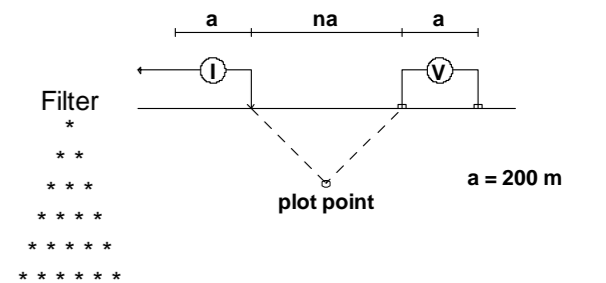


KISKA METALS CORPORATION  
INDUCED POLARIZATION SURVEY  
KLIYUL PROPERTY  
JOHANSON LAKE AREA, BRITISH COLUMBIA  
Date: JULY 2011  
PETER E. WALCOTT & ASSOCIATES LIMITED



35+00 N

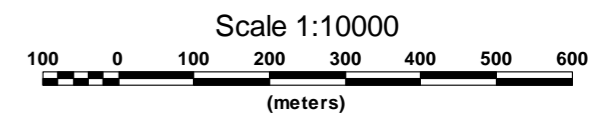
Pole-Dipole Array



Instruments: Walcer 9.0kw Tx, 2 X GDD GRX Rx

Frequency: 0.125 Hz.  
Operators: A.W., B.J., A.S.

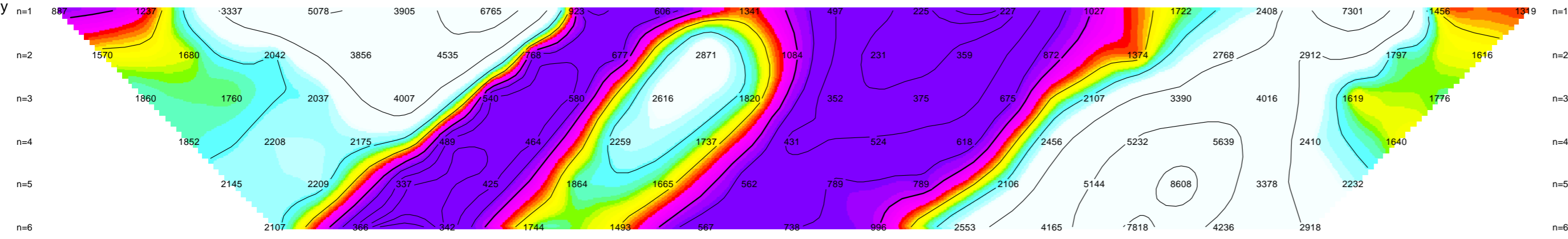
Logarithmic Contours: 1.5, 2, 3, 5, 7.5, 10,...



KISKA METALS CORPORATION  
INDUCED POLARIZATION SURVEY  
KLIYUL PROPERTY  
JOHANSON LAKE AREA, BRITISH COLUMBIA  
Date: JULY 2011  
PETER E. WALCOTT & ASSOCIATES LIMITED

Filter 1550 1850 2380 2440 2400 1900 1080 1190 1290 1220 1580 2140 2700 3130 3770 3460 1930 75+00 E

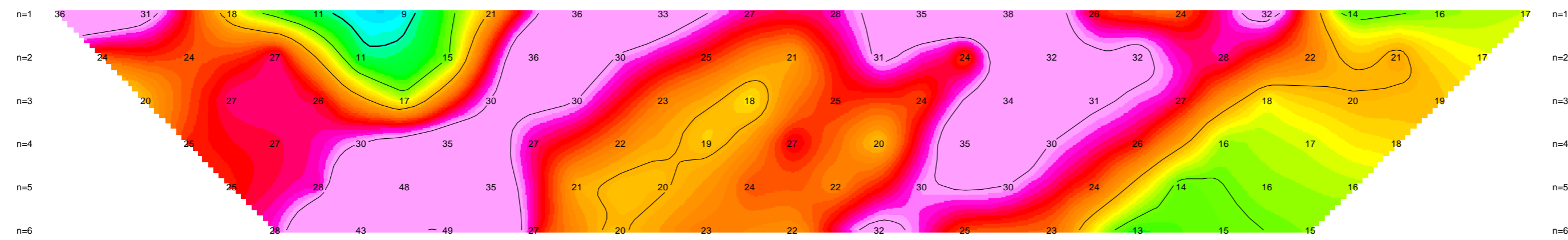
Calculated Resistivity  
Ohm\*m



Calculated Resistivity  
Ohm\*m

Filter 28.6 27.8 24.8 23.7 24.9 27.6 29.1 25.9 24.9 25.9 27.8 26.4 25 23.4 20.6 17.1 17.4 75+00 E

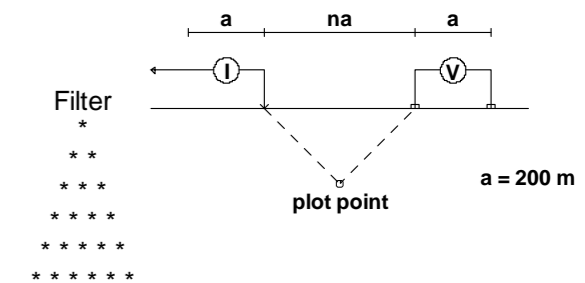
Average IP  
mV/V



Average IP  
mV/V

40+00 N

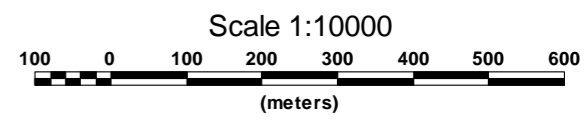
Pole-Dipole Array



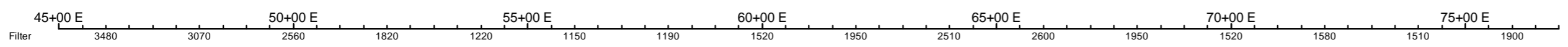
Instruments: Walcer 9.0kw Tx, 2 X GDD GRX Rx

Frequency: 0.125 Hz.  
Operators: A.W., B.J., A.S.

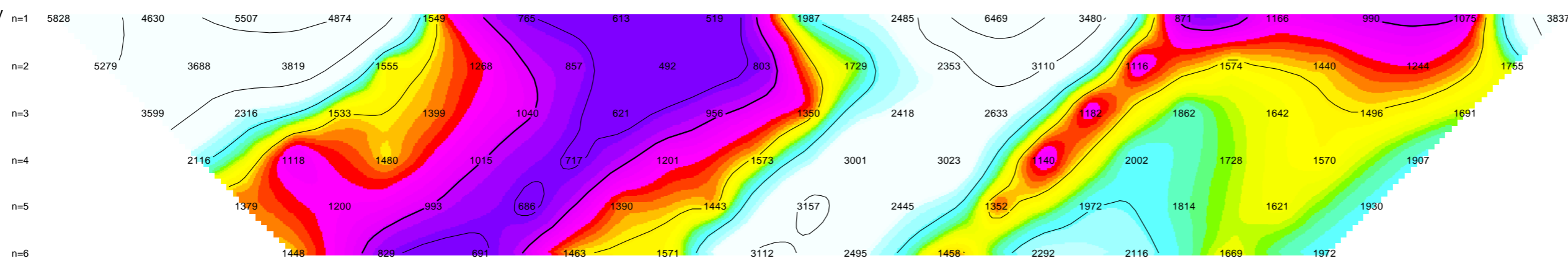
Logarithmic Contours  
1, 1.5, 2, 3, 5, 7.5, 10, ...



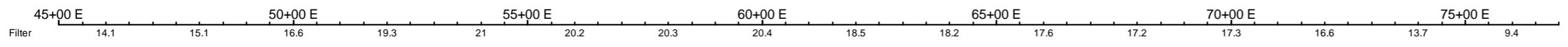
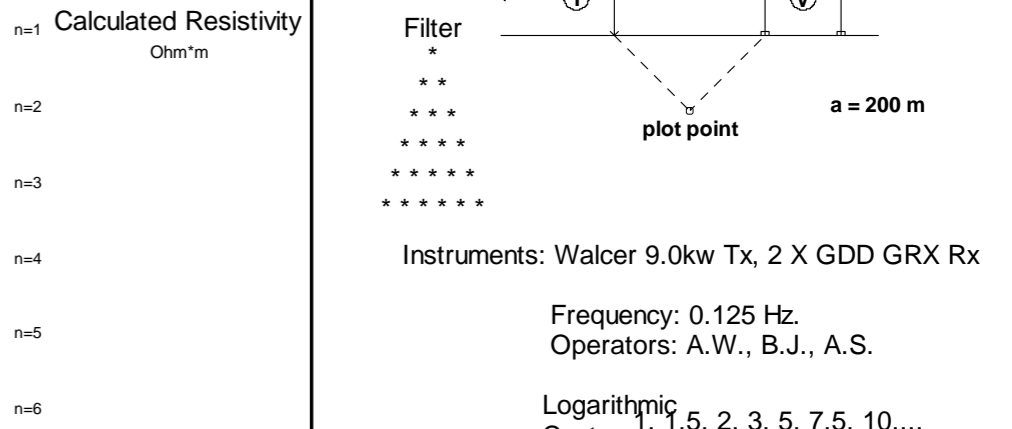
KISKA METALS CORPORATION  
INDUCED POLARIZATION SURVEY  
KLIYUL PROPERTY  
JOHANSON LAKE AREA, BRITISH COLUMBIA  
Date: JULY 2011  
PETER E. WALCOTT & ASSOCIATES LIMITED



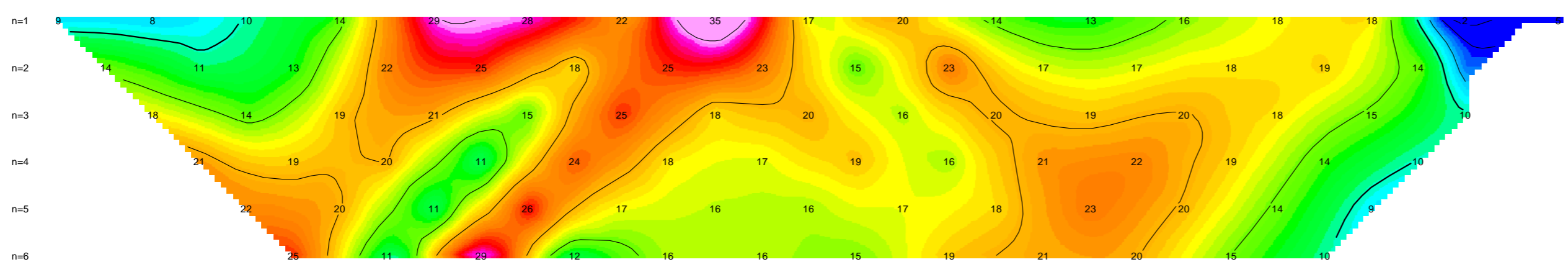
Calculated Resistivity  
Ohm\*m



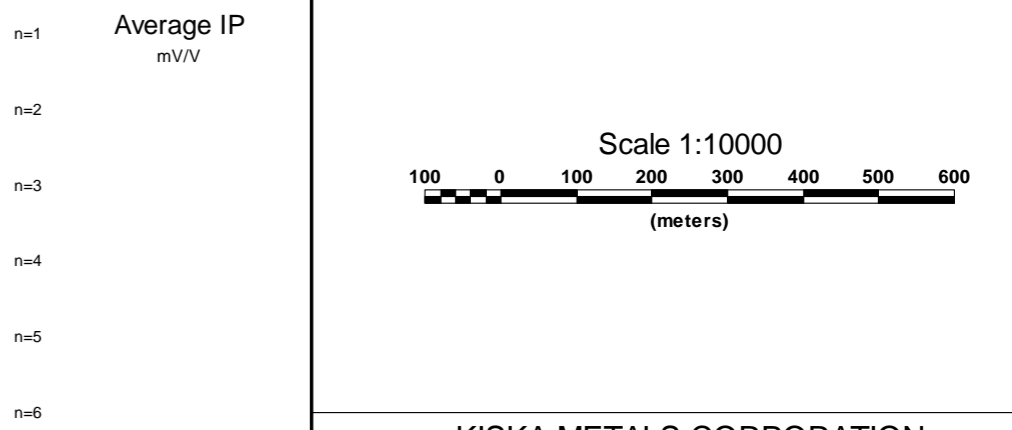
Calculated Resistivity  
Ohm\*m



Average IP  
mV/V

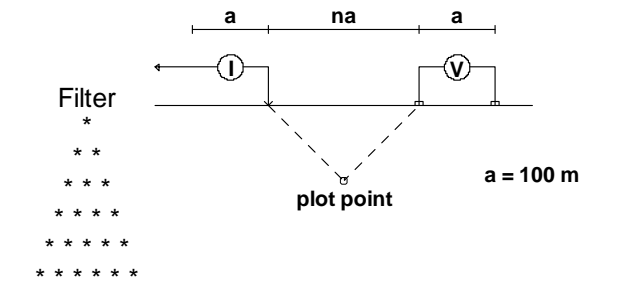


Average IP  
mV/V



44+00 N

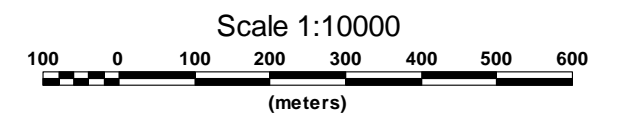
Pole-Dipole Array



Instruments: Walcer 9.0kw Tx, 2 X GDD GRX Rx

Frequency: 0.125 Hz.  
Operators: A.W., B.J., A.S.

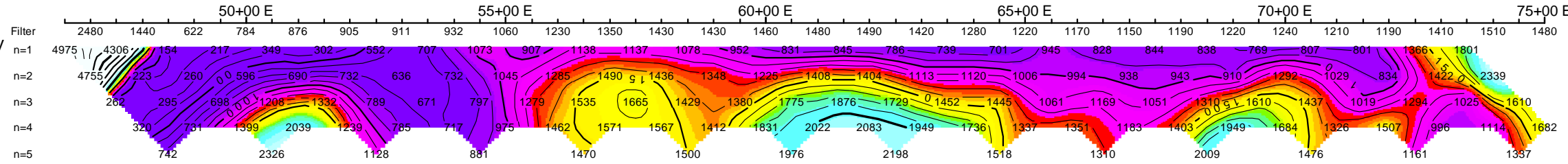
Logarithmic  
Contours 1, 1.5, 2, 3, 5, 7.5, 10,...



KISKA METALS CORPORATION  
INDUCED POLARIZATION SURVEY  
KLIYUL PROPERTY  
JOHANSON LAKE AREA, BRITISH COLUMBIA  
Date: JULY 2011  
PETER E. WALCOTT & ASSOCIATES LIMITED

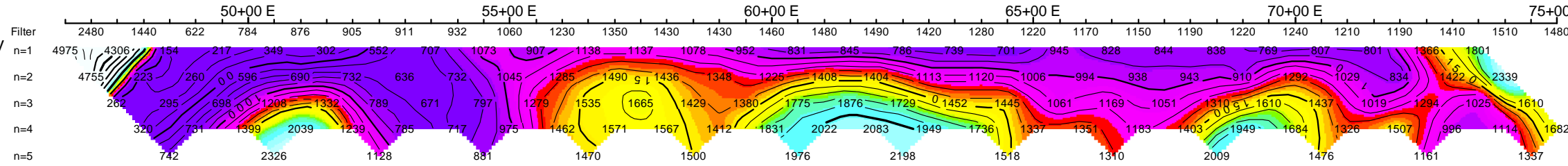
Calculated Resistivity  
Ohm\*m

Filter  
n=1  
n=2  
n=3  
n=4  
n=5



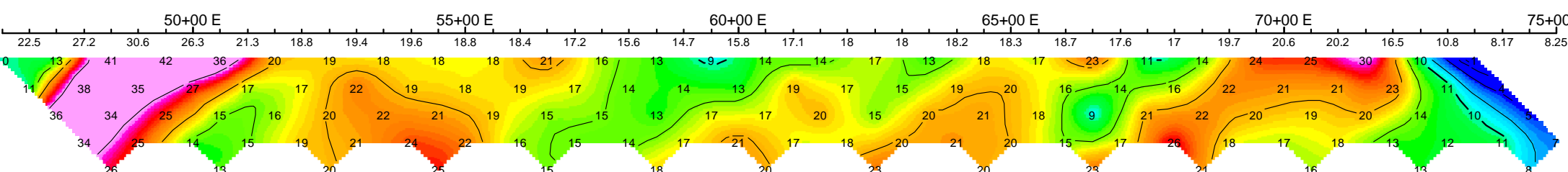
Calculated Resistivity  
Ohm\*m

Filter  
n=1  
n=2  
n=3  
n=4  
n=5



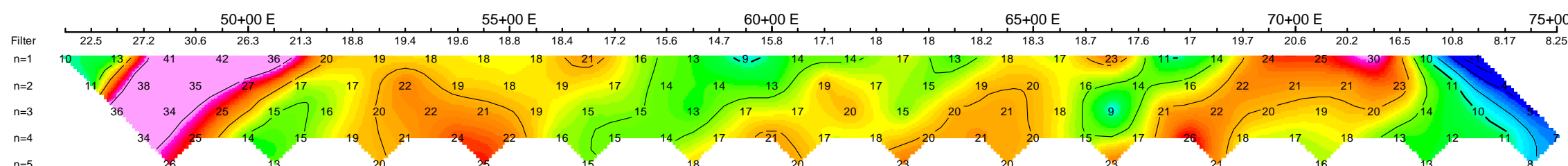
Average IP  
mV/V

Filter  
n=1  
n=2  
n=3  
n=4  
n=5



Average IP  
mV/V

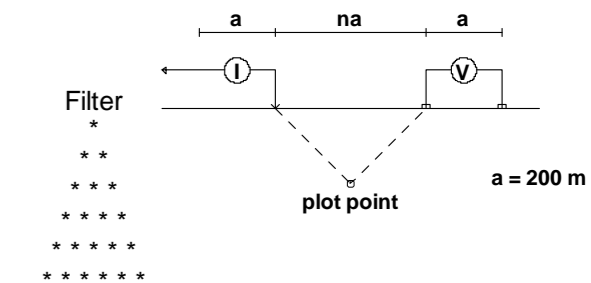
Filter  
n=1  
n=2  
n=3  
n=4  
n=5





44+00 N

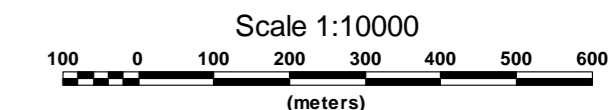
Pole-Dipole Array



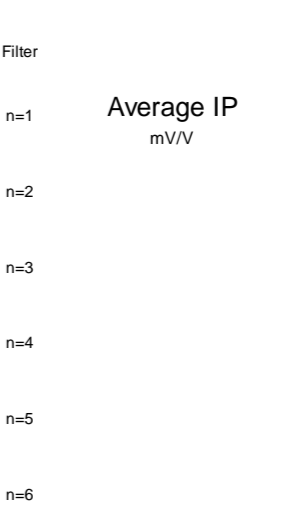
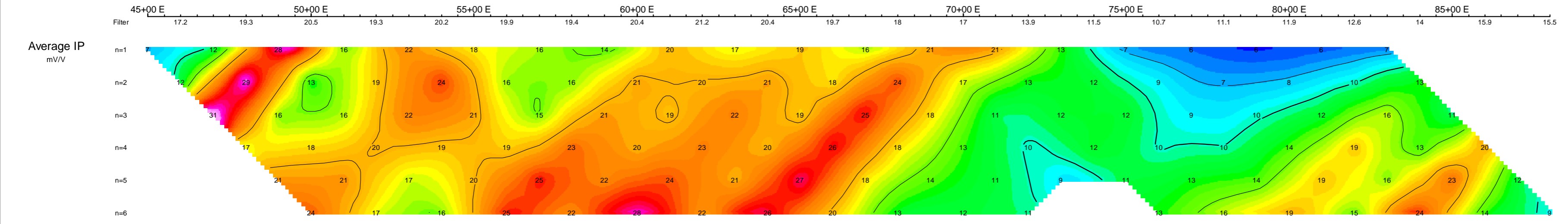
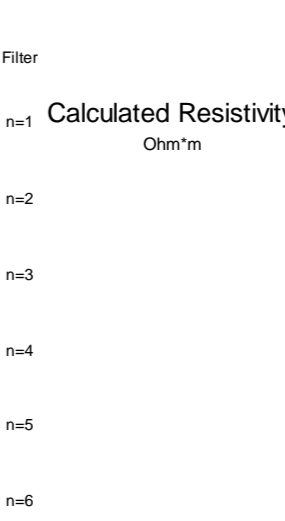
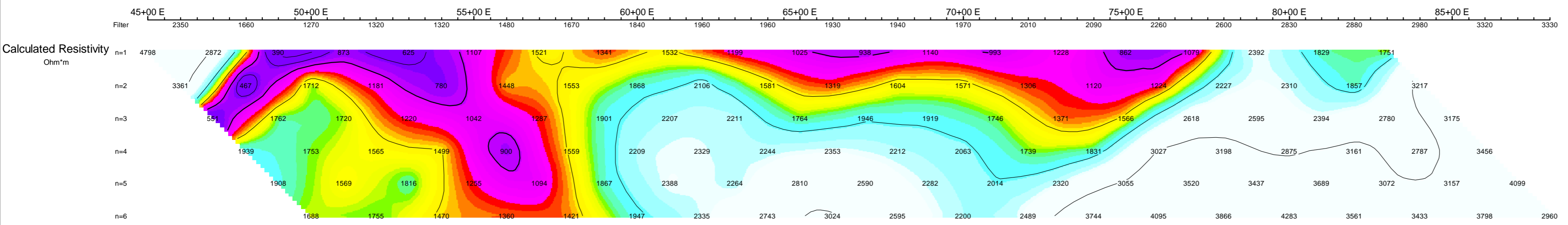
Instruments: Walcer 9.0kw Tx, 2 X GDD GRX Rx

Frequency: 0.125 Hz.  
Operators: A.W., B.J., A.S.

Logarithmic Contours  
1, 1.5, 2, 3, 5, 7.5, 10, ...

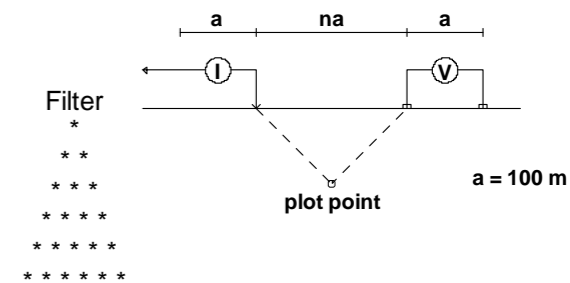


KISKA METALS CORPORATION  
INDUCED POLARIZATION SURVEY  
KLIYUL PROPERTY  
JOHANSON LAKE AREA, BRITISH COLUMBIA  
Date: JULY 2011  
PETER E. WALCOTT & ASSOCIATES LIMITED



# 46+50 N

## Pole-Dipole Array

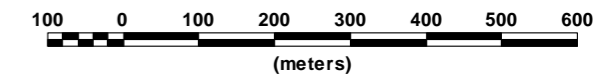


Instruments: Walcer 9.0kw Tx, 2 X GDD GRX Rx

Frequency: 0.125 Hz.  
Operators: A.W., B.J., A.S.

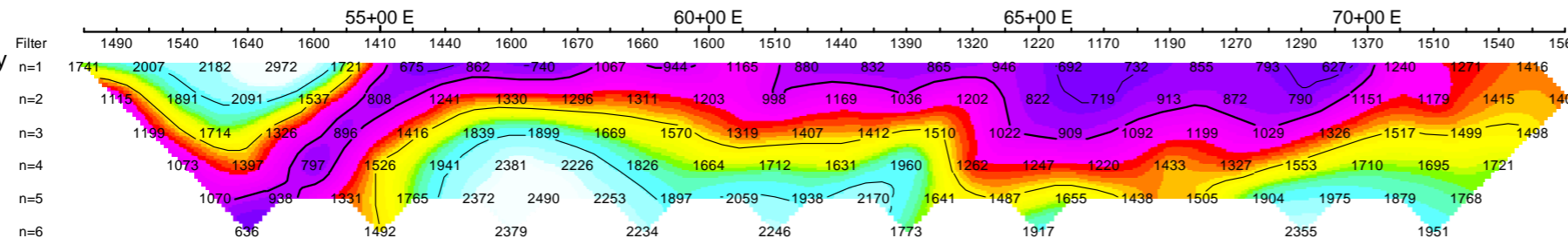
Logarithmic Contours: 1.5, 2, 3, 5, 7.5, 10,...

Scale 1:10000

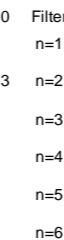


KISKA METALS CORPORATION  
INDUCED POLARIZATION SURVEY  
KLIYUL PROPERTY  
JOHANSON LAKE AREA, BRITISH COLUMBIA  
Date: JULY 2011  
PETER E. WALCOTT & ASSOCIATES LIMITED

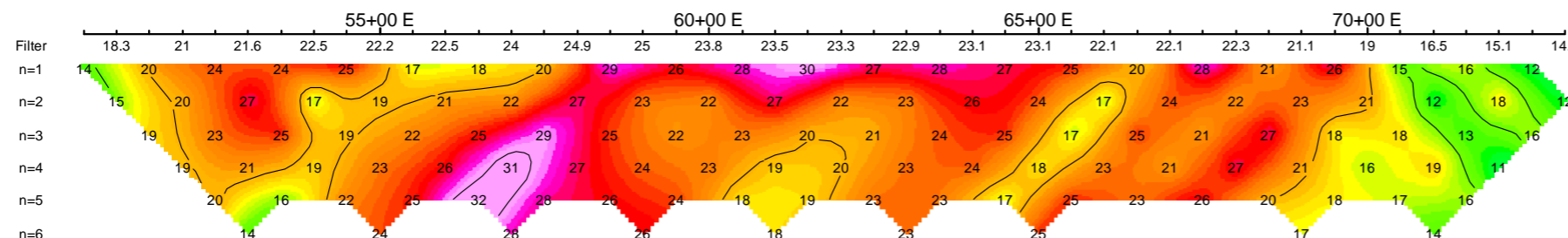
Calculated Resistivity  
Ohm\*m



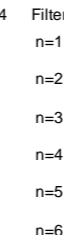
Calculated Resistivity  
Ohm\*m



Average IP  
mV/V

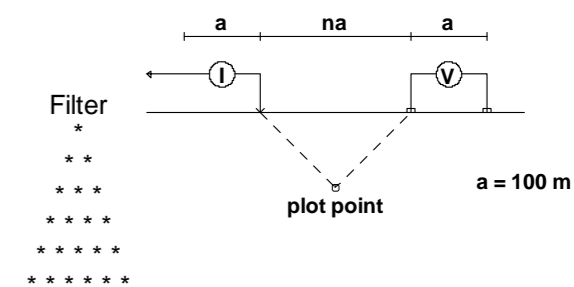


Average IP  
mV/V



49+00 N

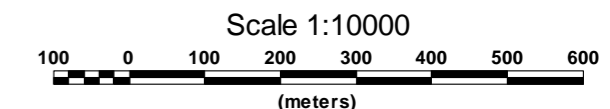
Pole-Dipole Array



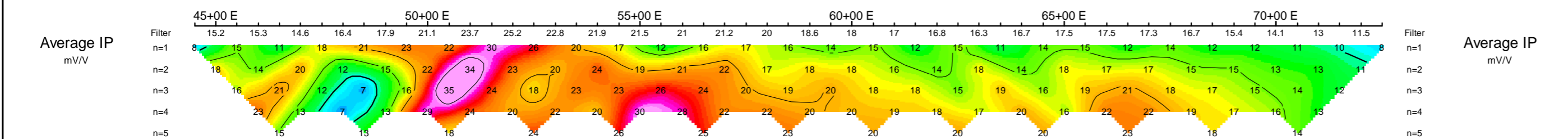
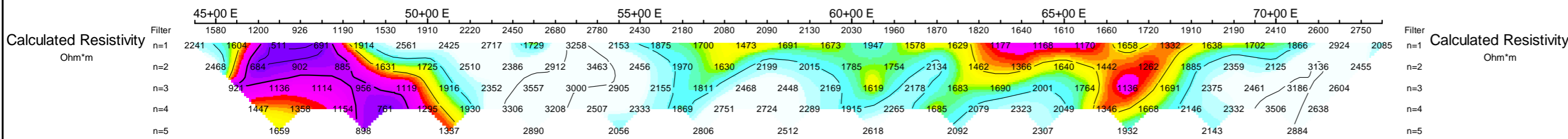
Instruments: Walcer 9.0kw Tx, 2 X GDD GRX Rx

Frequency: 0.125 Hz.  
Operators: A.W., B.J., A.S.

Logarithmic  
Contours  
1, 1.5, 2, 3, 5, 7.5, 10,...

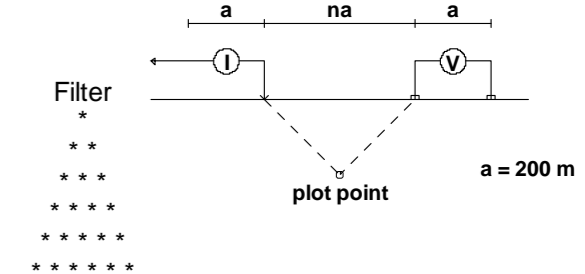


KISKA METALS CORPORATION  
INDUCED POLARIZATION SURVEY  
KLIYUL PROPERTY  
JOHANSON LAKE AREA, BRITISH COLUMBIA  
Date: JULY 2011  
PETER E. WALCOTT & ASSOCIATES LIMITED



49+00 N

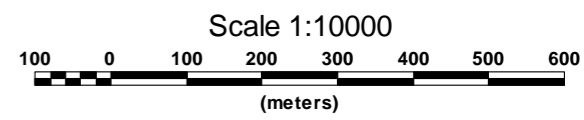
Pole-Dipole Array



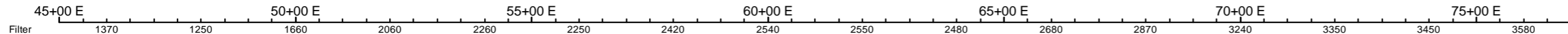
Instruments: Walcer 9.0kw Tx, 2 X GDD GRX Rx

Frequency: 0.125 Hz.  
Operators: A.W., B.J., A.S.

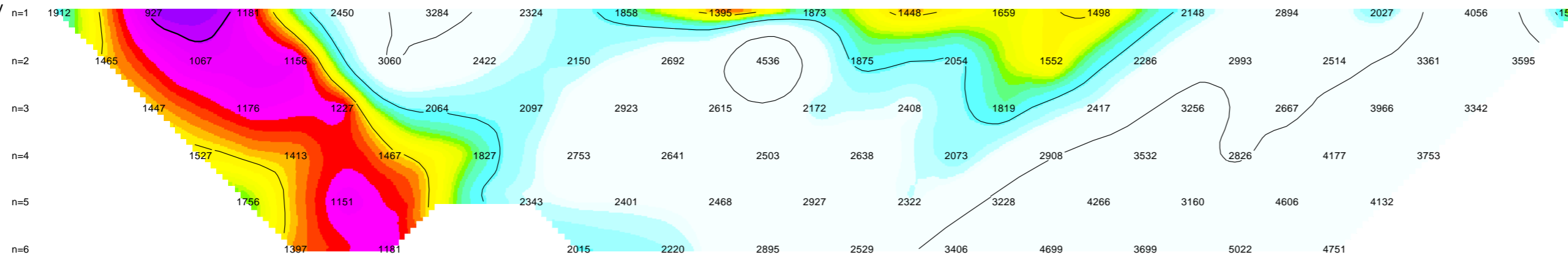
Logarithmic  
Contours: 1, 1.5, 2, 3, 5, 7.5, 10,...



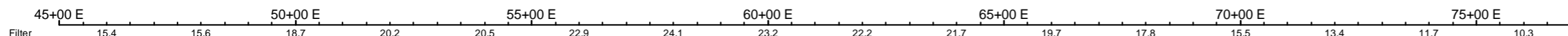
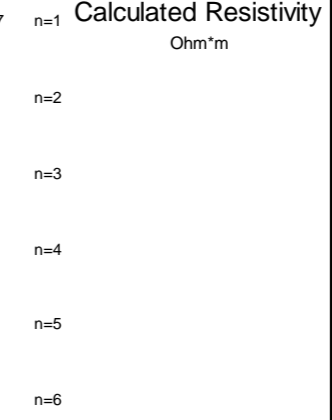
KISKA METALS CORPORATION  
 INDUCED POLARIZATION SURVEY  
 KLIYUL PROPERTY  
 JOHANSON LAKE AREA, BRITISH COLUMBIA  
 Date: JULY 2011  
 PETER E. WALCOTT & ASSOCIATES LIMITED



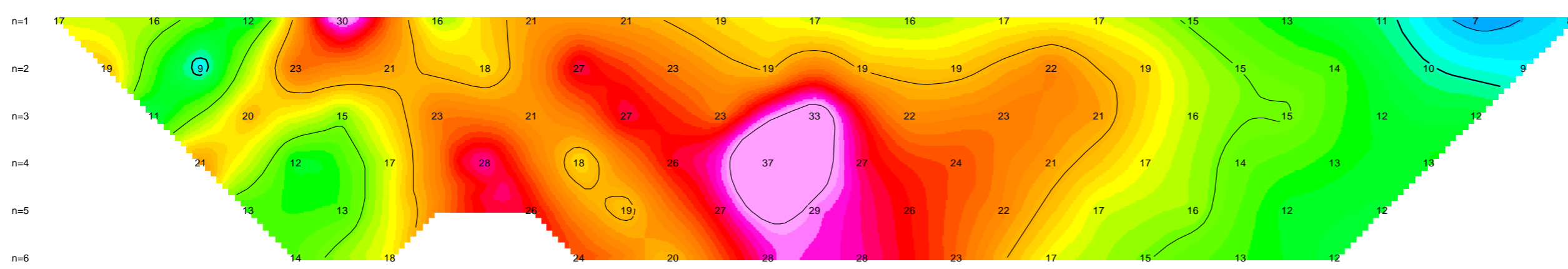
Calculated Resistivity  
Ohm\*m



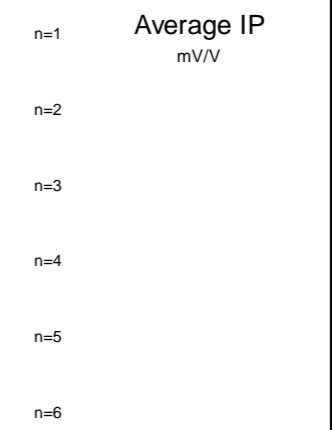
Calculated Resistivity  
Ohm\*m



Average IP  
mV/V

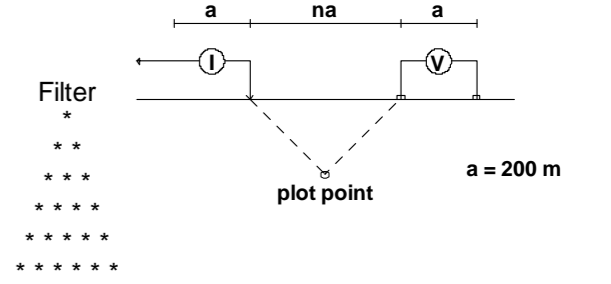


Average IP  
mV/V



54+00 N

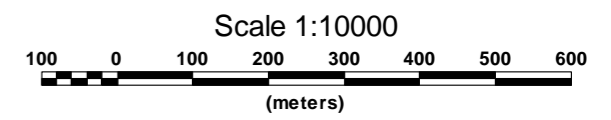
Pole-Dipole Array



Instruments: Walcer 9.0kw Tx, 2 X GDD GRX Rx

Frequency: 0.125 Hz.  
Operators: A.W., B.J., A.S.

Logarithmic  
Contours  
1, 1.5, 2, 3, 5, 7.5, 10,...



KISKA METALS CORPORATION  
INDUCED POLARIZATION SURVEY  
KLIYUL PROPERTY  
JOHANSON LAKE AREA, BRITISH COLUMBIA  
Date: JULY 2011  
PETER E. WALCOTT & ASSOCIATES LIMITED

