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Report on a Surface UTEM-5
Ground Geophysical Survey

As completed by Lamontagne Geophysics Ltd. for:

NORONT

AT5 and Blue Jay/AT12 Properties

Ring of Fire, James Bay Lowlands
BMA 526862 and BMA 527861
Porcupine Mining District, Ontario

May 10, 2017

AT5 and Blue Jay/AT12 Properties
2016 Exploration Report
Surface UTEM-5 Survey

Report prepared for:

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May 10, 2017
266 Pages

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1. Introduction

From February 21, 2016 to March 17, 2016, Lamontagne Geophysics Ltd. ("Lamontagne") was contracted by Noront Resources Ltd. ("Noront") to perform Surface UTEM-5 Surveys on their AT5 and Blue Jay/AT12 Properties. The AT5 Property lies on Noront's Mining Lease CLM503 in the township of BMA 526 862 (NTS 043D09) whereas the Blue Jay/AT12 Property lies on claims 3008266, 3008687, 3011027, and 3011028 in the township of BMA 527 861 (NTS 043D16). Both properties are located in the Porcupine Mining District (Figures 1 and 2).

The Surface UTEM-5 survey at AT5 commenced on February 24, 2016 and was completed on March 5, 2016. It covered an area of approximately 1.63 km^2 (or 163 hectares), with 21.825 line km of surveying being completed. The survey covered the majority of the AT5 airborne magnetic anomaly. The Surface UTEM-5 survey at Blue Jay/AT12 commenced on March 6, 2016 and was completed on March 14, 2016. It covered an area of approximately 1.74 km^2 (or 174 hectares), with 24 line km of surveying being completed. The survey covered the majority of the AT12 airborne magnetic anomaly (Figures 3, 4, and 5).

Noront's 2016 Exploration focus was on Ni-Cu-PGE sulphide mineralization in the footwall zone of the Ring of Fire ultramafic intrusive suite, which hosts the majority of the magmatic sulphide mineralization in the Ring of Fire (Eagle's Nest, Blue Jay/AT12, AT12 extension, F2 Zone, Contact Zone, NW Breccia). Noront holds nearly the entire Ring of Fire ultramafic footwall contact zone and thus holds a significant package of land on which to explore for further Ni-Cu-PGE mineralization (Figure 4).

The ground that Noront holds in the ultramafic intrusive and footwall contact zones has been divvied into Areas 1 through 10, with Areas 1 and 2 covering a large area just north, northwest, and northeast of the Eagle's Nest and Blackbird deposits (this area also covers the AT5 and AT6 anomalies). Area 3 covers the Blue Jay Ni-Cu-PGE prospect and surrounds (formerly known as AT12). Area 5 covers the footwall contact zone in the area of the Big Daddy chromite deposit (a Joint Venture with KWG Resources), and Area 6 covers the footwall contact zone in the area of the Black Thor and Black Label chromite deposits. Area 6 is also host to Ni-Cu-PGE footwall sulphide mineralization that was discovered by Cliffs Natural Resources in the AT12 Extension, F2 Zone, Contact Zone, and NW Breccia Zone (Figure 4).

The overall plan for the 2016 Exploration program involved initial ground geophysical surveying of focus areas (namely, Areas 1, 2, 3, 5, and 6) by Insight IP, which would then provide target areas for follow-up surveying by Lamontagne Geophysics' UTEM-5 system. The UTEM-5 survey was carried out to test anomalies outlined by earlier exploration, to detect/outline new conductors, and to detect/outline deeper features and potential depth continuations of shallow features. The UTEM surveying would then, ideally, delineate drill targets.

The second part of the 2016 exploration program, as detailed within this report, involved Surface UTEM-5 surveying of project Area 2 (AT5) and Area 3 (Blue Jay/AT12). This surveying builds upon knowledge gained by Insight IP surveying in Areas 1, 2, and 3 during the 2011-2012 exploration program and Phase 1 of the 2016 exploration program (Figure 5).

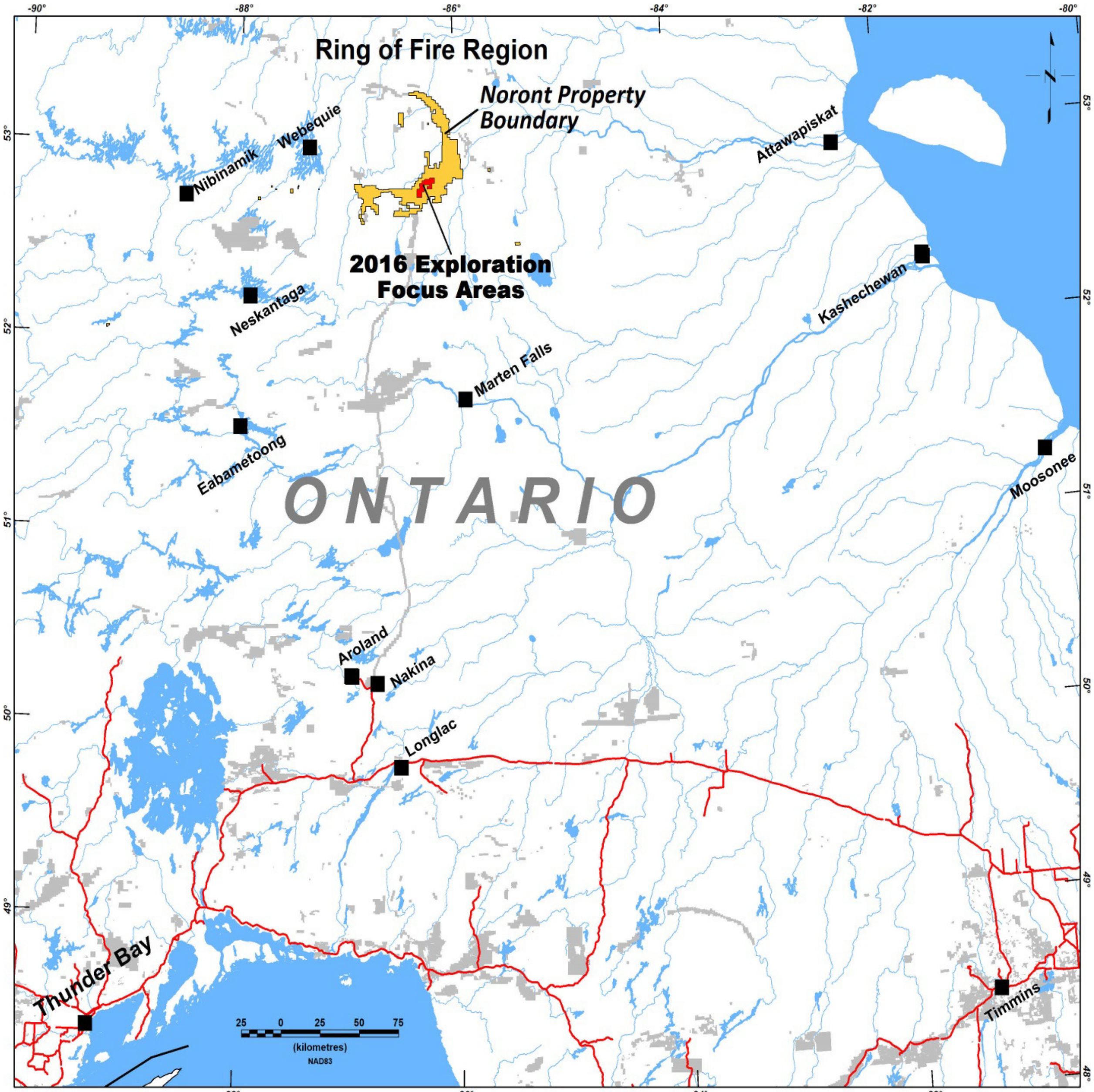

Figure 1: General location map in Ontario.

2. Exploration History

Between 1959 and 1988, there was sporadic exploration for diamonds by companies such as Consolidated African Selection Trust, De Beers South Africa (1962), and Monopros Limited (the Canadian subsidiary of De Beers), until the discovery of the Attawapiskat diamondiferous kimberlite field by Monopros Limited in 1988. In the early to mid-1990s, joint ventures partners

Spider Resources Inc. ('Spider') and KWG Resources Inc. ('KWG') conducted an airborne magnetic survey throughout the northern part of the James Bay Lowlands focusing on diamond exploration. They discovered the Good Friday and MacFadyen kimberlites in the Attawapiskat cluster, as well as the five Kyle series kimberlites, that lie to the east of the property being reported herein.

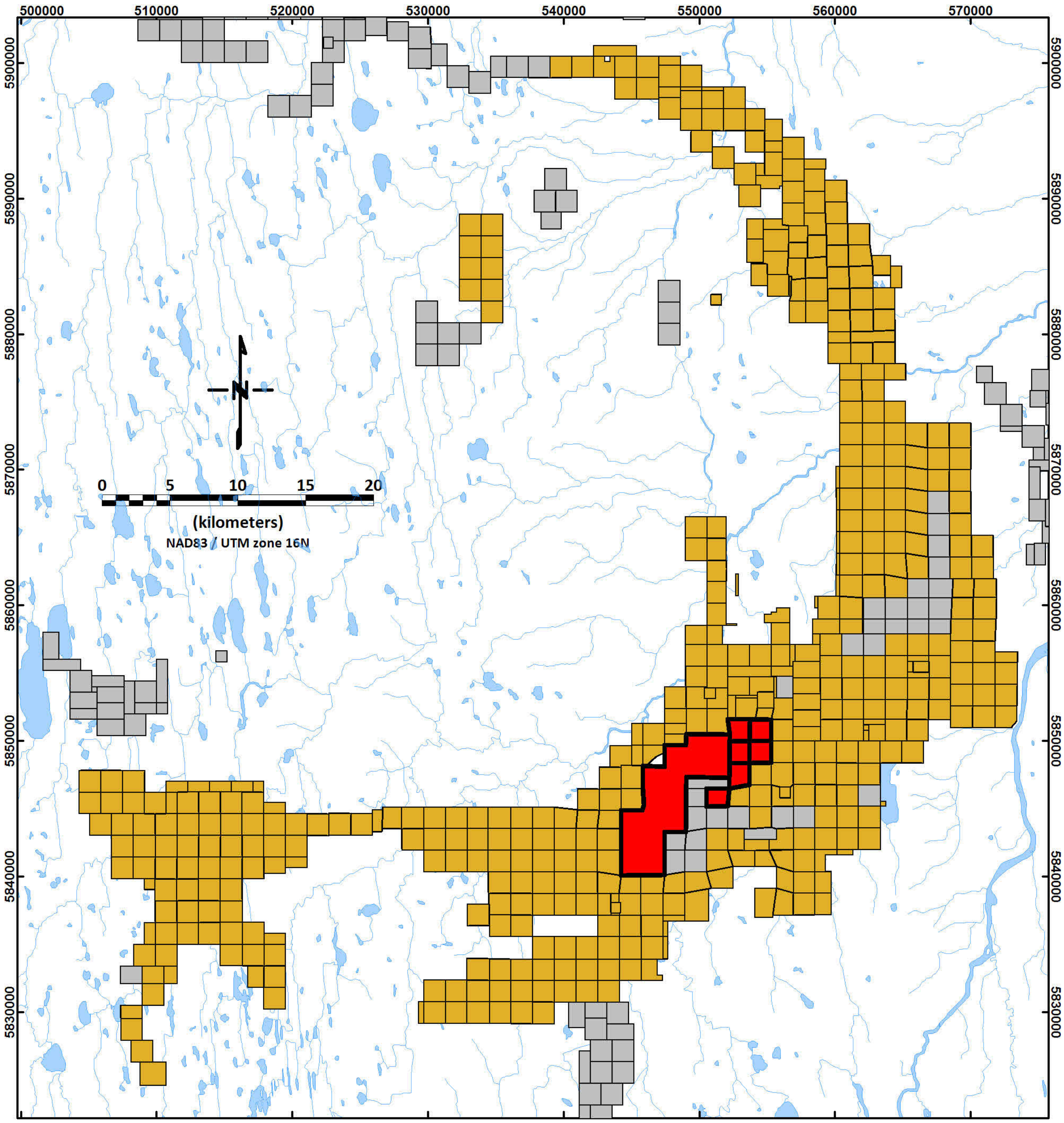

Figure 2: Ring of Fire claim map, with mining leases shown. Claims in yellow are of Noront Resources; claims in grey are of other companies. Claims in red are those of Noront's (including Noront's mining lease) on which exploration was completed in 2016.

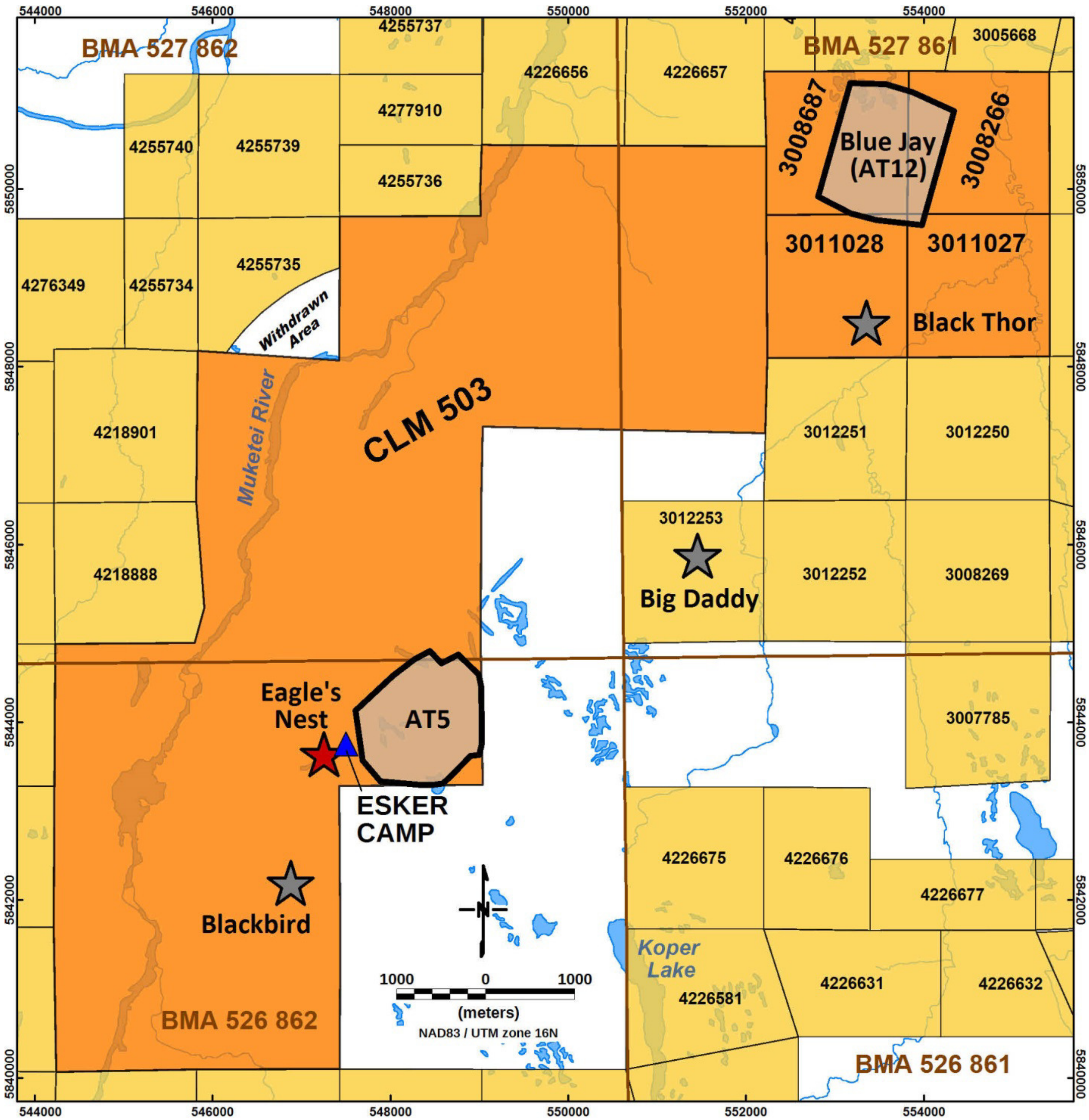

Figure 3: Property claim map. All claims shown (in yellow) belong 100% to Noront Resources, with the exception of claims 3012253, 3012252, and 3008269, which are 72% Noront – 28% KWG. Orange claims are those being filed for work herein. CLM503 is Noront's Mining Lease. Black polygons represents AT5 and Blue Jay/AT12 survey outlines.

In 2002, De Beers Canada Inc. entered into a joint venture with Spider and KWG after discovering the McFaulds No. 1 volcanogenic massive sulphide (VMS) deposit while searching for kimberlites in 2001. Subsequent work by Spider and KWG, following another Spider/KWG airborne magnetometer survey, led to the discovery of the McFaulds No. 3 deposit and other related VMS occurrences nearby.

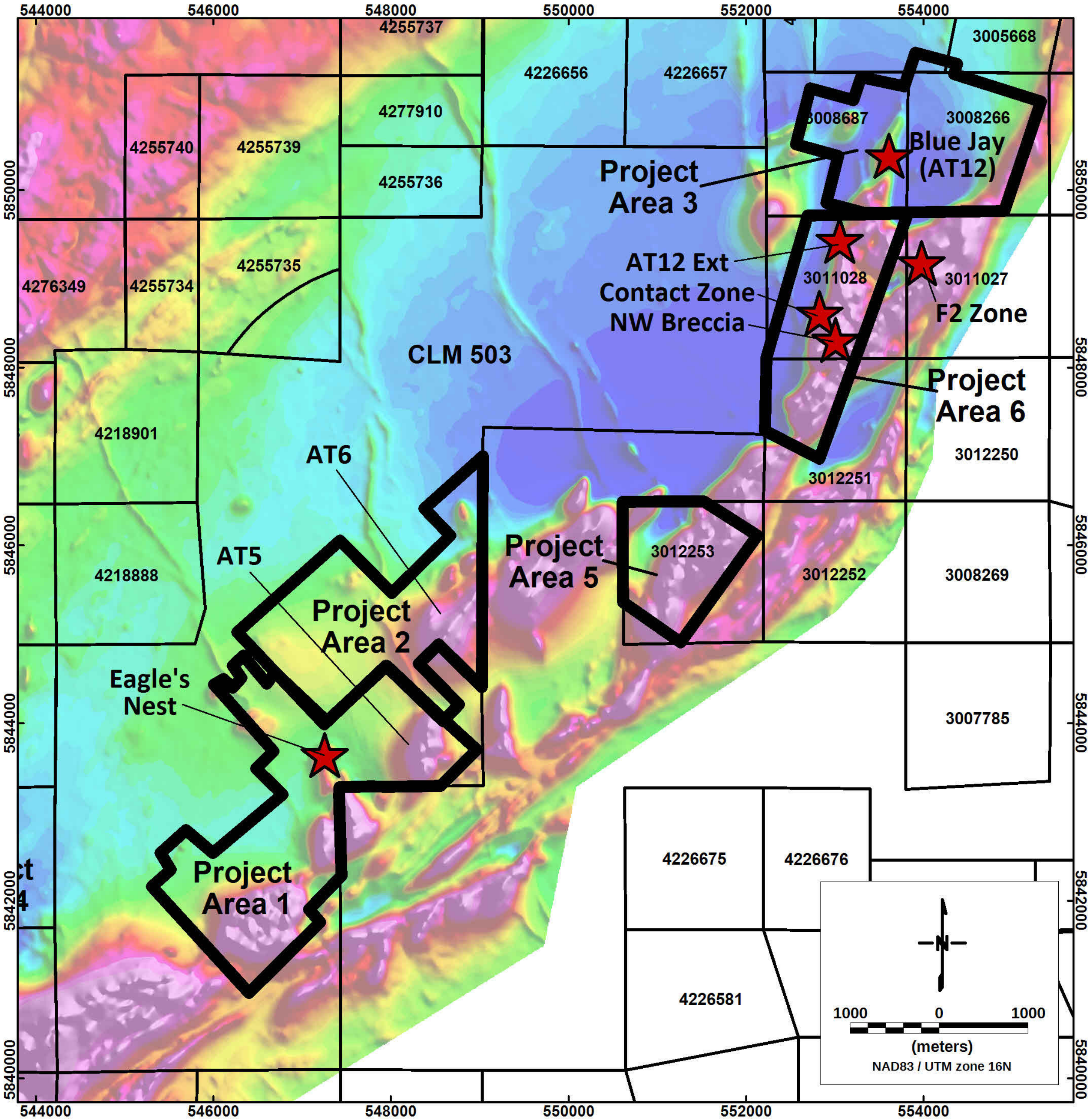

Figure 4: 2016 Exploration Focus Areas. Total magnetic intensity in background. Claims shown are of Noront Resources.

The discovery of these deposits, and the recognition of the region as a greenstone belt with great potential for further discoveries of base metal deposits, led to a staking rush by junior mining companies (including Noront) that began in December 2002 and continued well into 2003. The staking rush and subsequent exploration led to the discovery of six additional VMS deposits in 2003 by other junior exploration companies in the region.

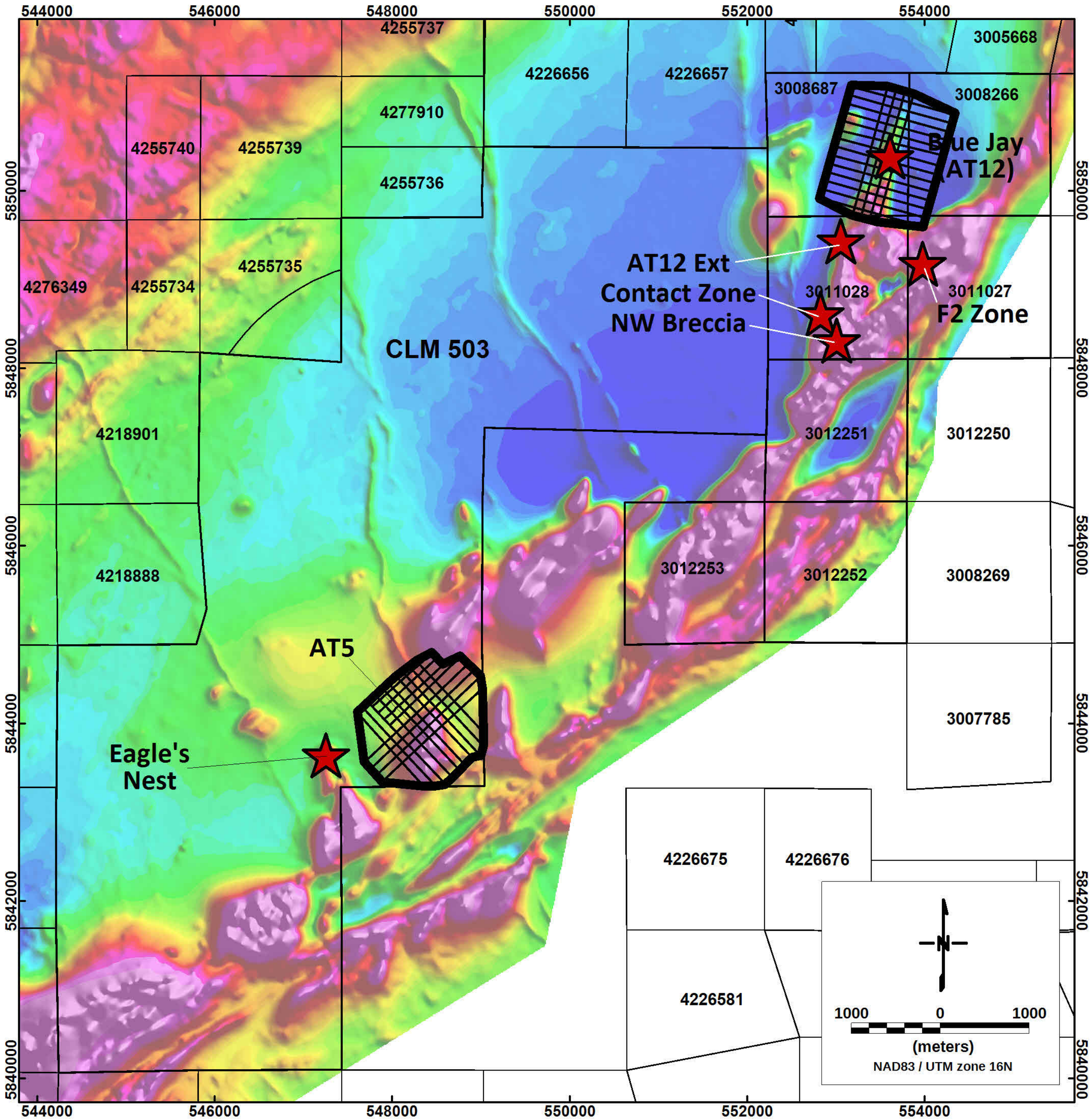

Figure 5: Location map of Lamontagne's Surface UTEM-5 surveys over the AT5 and Blue Jay/AT12 areas. The thick black polygons represent the complete survey outline; thinner lines represent surveyed lines. Total magnetic intensity in the background.

Noront has been exploring the general area since early 2003, shortly after the VMS mineralization was discovered near McFaulds Lake by De Beers Canada. Noront acquired their initial claims by staking in August 2003 and followed that up with additional claim staking in January 2006, in the fall of 2007, and in the spring of 2008. Geophysical surveys (VTEM and ground magnetometer) conducted between 2004 and 2006 identified magnetic targets that were drilled in 2006 by Probe Mines Ltd. on Noront-held claims. It was this drilling that led to the identification of ultramafic rock, which thus highlighted the potential for Ni-Cu-PGE-Cr mineralization in the area.

Noront discovered the Eagle One (now termed Eagle's Nest) magmatic massive sulphide (MMS) deposit while searching for VMS mineralization in 2007. Following this discovery, Noront commissioned airborne and ground geophysical surveys to aid in the search for other similar deposits nearby. Noront completed a large-scale airborne geophysical survey in the fall of 2007 using Aeroquest Ltd. and their AeroTEM system. This was then followed by ground geophysical surveying (magnetics and gravity) by JVX Ltd., which was completed in the early part of 2008 on the Grid 1 property, as well as in late 2008 and early 2009 on the Grid 2 property. In 2008, Noront completed another large-scale airborne geophysical survey (Geotech VTEM) over nearly all of Noront's claims in the Ring of Fire region.

Following these surveys, a total of twelve anomalous conductive and magnetic targets were chosen for further exploration, in the hopes of finding another MMS deposit in the host ultramafic rocks. These targets were given a project designator, 'AT', and a number (1 through 12), and most were investigated through diamond drilling. This led to the 2008 discovery of the Eagle Two shear hosted sulphide deposit nearby, as well as the AT12 (now called Blue Jay) MMS deposit to the northeast of Eagle's Nest. It was the drilling of the Eagle Two deposit that led to the later discovery of the Blackbird chromite deposits in 2008 and the Blackstone/AT1 chromite occurrence in 2010, which are both hosted by the same ultramafic complex as Eagle's Nest. In 2009, the Thunderbird vanadium occurrence was discovered further to the east of Blackbird – Eagle Two – Eagle's Nest in a large mafic body (thought to the be the compliment to the Eagle's Nest – Blackbird ultramafic body), and in late 2009, the Triple J gold occurrence was discovered in the area of Eagle Two and Blackbird, in a contact zone between the granodiorite and Blackbird-hosting peridotite. In January 2010, a resource model and National Instrument 43-101 report was released on the Blackbird Chromite deposits, entitled "Technical Report on the Mineral Resource Estimate for the Blackbird Chrome Deposits, James Bay Lowlands, Northern Ontario, Canada". The resource model and report were created by Micon International Ltd. In April 2011, an updated resource model and National Instrument 43-101 report was released for the Eagle's Nest Sulphide deposit, entitled "Technical Report on the Updated Mineral Resource Estimate for the Eagle's Nest Property, McFaulds Lake Project, James Bay Lowlands, Ontario, Canada". The resource model and report were created by Micon International Ltd. And in May 2012, an updated resource model and National Instrument 43-101 report was released for the Blackbird Chromite deposits, entitled "Technical Report on the Updated Mineral Resource Estimate for the Blackbird Chrome Deposits, McFaulds Lake Property, James Bay Lowlands, Ontario, Canada". The resource model and report were again created by Micon International Ltd. In 2010, Noront completed yet another large-scale airborne geophysical survey (Terraquest High Resolution Magnetic and VLF-EM Airborne Survey) over nearly all of Noront's claims in the Ring of Fire region.

Noront completed a preliminary feasibility study in October 2011 (Burgess et al. 2011) to evaluate the development of the Eagle's Nest deposit, a high-grade Ni-Cu-Pt-Pd mineralized pipe-like body that is approximately 60 by 200 metres wide, and extends to depths beyond

1600 metres. This study indicated that the proposed mine infrastructure would be constructed underground. A contained, buried pipeline would then pump and transport a slurry of nickel-copper concentrate from the mill at the Eagle's Nest mine site to Webequie Junction, 90 kilometres west of the proposed mine site. From there, the concentrate would be dewatered and loaded for bulk transportation along a proposed 210 kilometre-long all-season road to Highway 808 north of Pickle Lake, Ontario. Transportation would then continue along the existing highway through Pickle Lake to the proposed Savant Lake concentrate handling facility. Development of a 105 kilometre-long winter road would provide a road connection from Webequie Junction to the Eagle's Nest mine site. This proposed infrastructure plan is termed the "East-West Corridor Alternative". In May, 2012, the Ontario Government announced their support for a north-south access route (the "North-South Corridor Alternative"), which provides access to the Ring of Fire via an access road from Nakina, Ontario. Noront adopted this proposed infrastructure corridor as the base case for the Eagle's Nest project in their 2012 feasibility study (Burgess et al. 2012). However, Noront has retained the originally designed East-West Corridor as an alternative, and in order to support construction activities, Noront plans to upgrade the existing winter road along the existing East-West Corridor from Pickle Lake to Webequie, in conjunction with the First Nations that currently use this route. This will include increasing funding to develop the main winter road towards Webequie and development of a new winter road leading east to the project site from south of Webequie, at Webequie Junction.

Insight IP was conducted over the Eagle's Nest – Blackbird property area in 2011-2012, and was followed by limited drilling of IP targets in 2012. IP was also conducted over the AT12/Blue Jay property, and drilling took place there as well. Valuable information on the geology of these areas was gained, but no deposits were uncovered.

In 2015, Noront purchased Cliffs Chromite Far North (formerly Spider Resources) and Cliffs Chromite Ontario (formerly Freewest Resources), thereby purchasing all property formerly owned by Cliffs Natural Resources in the Ring of Fire. In doing so, Noront purchased a 100% ownership in the Black Thor & Black Label chromite deposits, a 70% and controlling interest in the Big Daddy chromite deposit, an 85% and controlling interest in the McFaulds Lake VMS deposits and occurrences, and a 50% interest in the Kyle kimberlite occurrences. As a result, Noront now owns the majority of property in the Ring of Fire, and with it, all major deposits and much of the prospective ground.

In August 2016, Noront purchased a 75% interest in the Butler Lake and Sanderson properties from MacDonald, both located in the Ring of Fire area of Northern Ontario. MacDonald will carry a 25% interest in the two properties until the issuance of a NI 43-101 compliant resource on either property, at which time MacDonald will have the option to convert the interest into a 1% NSR. If MacDonald does not elect to convert, Noront can elect to purchase the remaining 25% from MacDonald. If neither company chooses their respective options, then a joint venture arrangement will be formed in order to develop the properties.

Noront's exploration plan for the Ring of Fire for 2017 involves Ni-Cu-PGE exploration in and around its flagship property of Eagle's Nest, as well as in the Sanderson area, and VMS exploration on the McFaulds and Butler properties.

3. Property Description and Location

The AT5 and Blue Jay/AT12 Properties are located in the James Bay Lowlands of Northern Ontario in the Porcupine Mining District. Using NAD83 / UTM Zone 16N, the AT5 project is located at approximately 548350mE, 5843985mN, and the Blue Jay/AT12 project is located at approximately 553600mE, 5850380mN. The properties are located approximately 75 kilometres east of the community of Webequie, 125 kilometres northeast of the community of Neskantaga, 125 kilometres northwest of the community of Marten Falls, 285 kilometres north of the town of Nakina, and is immediately north of the Eagle's Nest deposit (Figure 1).

Noront's land package in the Ring of Fire contains 495 unpatented mineral claims and one mining lease totaling 115,556 hectares of ground and mineral exploration rights. In 2016, Noront's multifaceted exploration program focused on a total of six claims, as well as Noront's mining lease (Table 1).

Exploration personnel were accommodated at the Esker Camp (547500mE, 5843730mN). Access to the field survey area was by snowmobile, and the crews mobilized to site every day from Esker Camp. Access to the Esker Camp is by snowmobile, helicopter, ATV, or Argo from the Koper Lake base camp (~4 km southeast of the camp), which is serviced by fixed wing (ice or float planes) from Nakina, Ontario, or from the First Nation community of Webequie.

The Lamontagne Geophysics crew (with survey equipment) mobilized from Kingston, Ontario via truck. They overnighted in Sudbury and Geraldton, and arrived at the Esker Camp via a Nakina–Webequie–Esker Camp flight.

3.1 Claims Being Filed for Assessment

The AT5 Surface UTEM-5 survey was only completed on Noront's mining lease, CLM 503 (G# 60100775). This lease comprises former Noront mining claims P 3005670, P 3006707, P 3006708, P 3006709, P 3012256, P 3012259, P 3012260, P 3012261, P 3012262, P 3012264, P 3012265, P 4218890, P 4218902, P 4218903, P 4218904, P 4226701, P 4226702, P 4226703, P 4226704, and P 4226705. The lease comprises 4100.44 hectares of mining rights and 3510.31 hectares of surface rights, which are owned 100% by Noront Resources, and has a 21-year term which is up for renewal July 31, 2034. It is located in the township areas of BMA 526 862 and BMA 527 862 (NTS 043D09 and 043D16), in the Porcupine Mining District (Figure 3).

The Blue Jay/AT12 Surface UTEM-5 survey was completed on claims P 3008266 and P 3008687 (owned 100% by Noront Resources) and claims P 3011027 and P 3011028 (owned 100% by Noront's fully-owned subsidiary, Noront Muketei Minerals). Each of the four claims listed above are 16-unit claims. They are all located in the township area of BMA 527 861 (NTS 043D16) in the Porcupine Mining District (Figure 3). They were all recorded in 2003 (April 22nd, July 31st, and October 8th), and are all due in 2019 (February 28th, April 22nd, and May 8th). Please refer to Table 1 for a claim-by-claim detail of township/area, recording date, due date, ownership, and number of units/hectares.

Claim Number	Units	Township/ Area	Recording Date	Claim Due Date	Ownership
3008266	**16**	**BMA 527 861**	**2003-Jul-31**	**2019-Feb-28**	**Noront Resources 100%**
3008687	**16**	**BMA 527 861**	**2003-Oct-08**	**2019-May-08**	**Noront Resources 100%**
3011027	**16**	**BMA 527 861**	**2003-Apr-22**	**2019-Apr-22**	**Noront Muketei Minerals 100%**
3011028	**16**	**BMA 527 861**	**2003-Apr-22**	**2019-Apr-22**	**Noront Muketei Minerals 100%**
3012251	16	BMA 527 861	2003-Apr-22	2019-Apr-22	Noront Muketei Minerals 100%
3012253	16	BMA 527 861	2003-Apr-22	2020-Apr-22	Noront Muketei 72% - Canada Chrome 28%
CLM503 (G 60100775)	**4100 ha**	**BMA 526 862 BMA 527 861 BMA 527 862**	**2013-Aug-01**	**2034-Jul-31**	**Noront Resources 100%**

Table 1: Listing of claims & lease on which exploration was done during Noront's 2016 exploration program. Those highlighted in bold red text are those being filed for assessment herein.

3.2 Personnel

Noront's 2016 exploration team consisted of Ryan Weston (VP Exploration), Matt Downey (Manager, Lands & Data), Matt Deller & Roland Landry (Project Geologists), and Jeremy Brett (Consulting Geophysicist with MPH Consulting). They were all involved in the planning, targeting, and execution of the exploration program. Rob Lyght and Cory Exell, Noront geotechs, were involved in line cutting and geo-referencing.

Noront contracted the geophysics to Lamontagne Geophysics Ltd., of Kingston, Ontario. Rob Langridge oversaw the project and wrote the report, while the Lamontagne field crew consisted of Phil Guimond (crew chief/operator), Gerry Lafortune (Rx/Tx operator), Richard Lahaye (Rx/Tx operator), Bill Dingwall (Tx operator/electronics), and Joey Plouffe (field assistant). Yves Lamontagne provided insight.

Numerous personnel from the communities of Webequie and Marten Falls were also employed by Noront as line cutters and geophysical assistants.

4. Geology

4.1 Regional Geology

The project area is situated in the Ring of Fire ('ROF') in Northern Ontario (also known as the McFaulds Lake area). This area is underlain by rocks of the northwestern part of the Archean Superior Province, which is the world's largest continuously-exposed Archean craton. The northwestern Superior Province is composed of a series of major Mesoarchean volcanic and plutonic belts trending from west to east that each formed as separate microcontinents <3.0 Ga, and are separated by younger Neoarchean metasedimentary belts and crustal-scale faults. These continental fragments underwent rifting and lateral transport through processes considered to be a mixture of modern horizontal plate tectonics (such as those presently operative in largely oceanic domains such as the western Pacific Ocean) and vertical plate tectonics (those that would have occurred during the Archean when the continents were thinner, hotter, and less dense). Later subduction of the oceanic crust between these microcontinents eventually led to their collision and amalgamation to form the current geometry of the Superior Province (Figure 6).

The property areas lie within the McFaulds Lake greenstone belt, which lies within the North Caribou terrane of the western Superior Province (Stott et al. 2010; Stott 2011), formerly known as the Sachigo Subprovince, the Sachigo Superterrane, and the North Caribou Superterrane (Rayner and Stott 2005; Percival et al. 2006; Stott 2007). The North Caribou terrane is comprised of a centrally-located core flanked by the Island Lake domain in the north and west, the Uchi domain in the south, and the Oxford-Stull domain in the north and east (Stott et al. 2010; Stott 2011). The terrane is dominated by two major periods of plutonic and metamorphic activity at 2.895-2.89 Ga and 2.86-2.85 Ga, but the subdomains within it (Island Lake, Uchi, and Oxford-Stull) contain evidence of Neoarchean magmatism and sedimentation (Stott et al. 2010). Along the margins of the North Caribou core there are remnants of a platformal sedimentary succession of quartzite, arkose, and iron formation (evidence of an older continental margin). This is overlain by mafic to komatiitic lavas which are believed to be the product of rifting of the protocontinental landmass circa 2.99-2.98 Ga (Percival et al. 2006; Stott 2008). Following rifting, the area underwent periodic episodes of plutonism, arc volcanism, sedimentation, accretion of fragments of intra-oceanic island arcs, and related obduction of oceanic crust as a result of the subduction of oceanic crust underneath it on both its northern and southern margins. The crust accreted onto the margins of the North Caribou core during this period is recognized as the Island Lake domain on the northern and western margins, the Oxford-Stull domain on the northern and eastern margins, and the Uchi domain on the southern margin (Stott 2008; Stott et al. 2010; Stott 2011). It is thusly interpreted that the North Caribou terrane forms a Mesoarchean core upon which subsequent Neoarchean crust was added (Percival et al. 2006; Stott 2008; Stott et al. 2010). As well, several older greenstone belts, from 3.0 to 2.9 Ga, are preserved in the terrane, as are ca. 3.0 to 2.9 Ga rift sequences (Stott et al. 2010). This terrane also experienced repeated episodes of deformation and medium- to high-grade metamorphism between 3.0 and 2.7 Ga (Percival et al. 2006; Stott 2007, 2008).

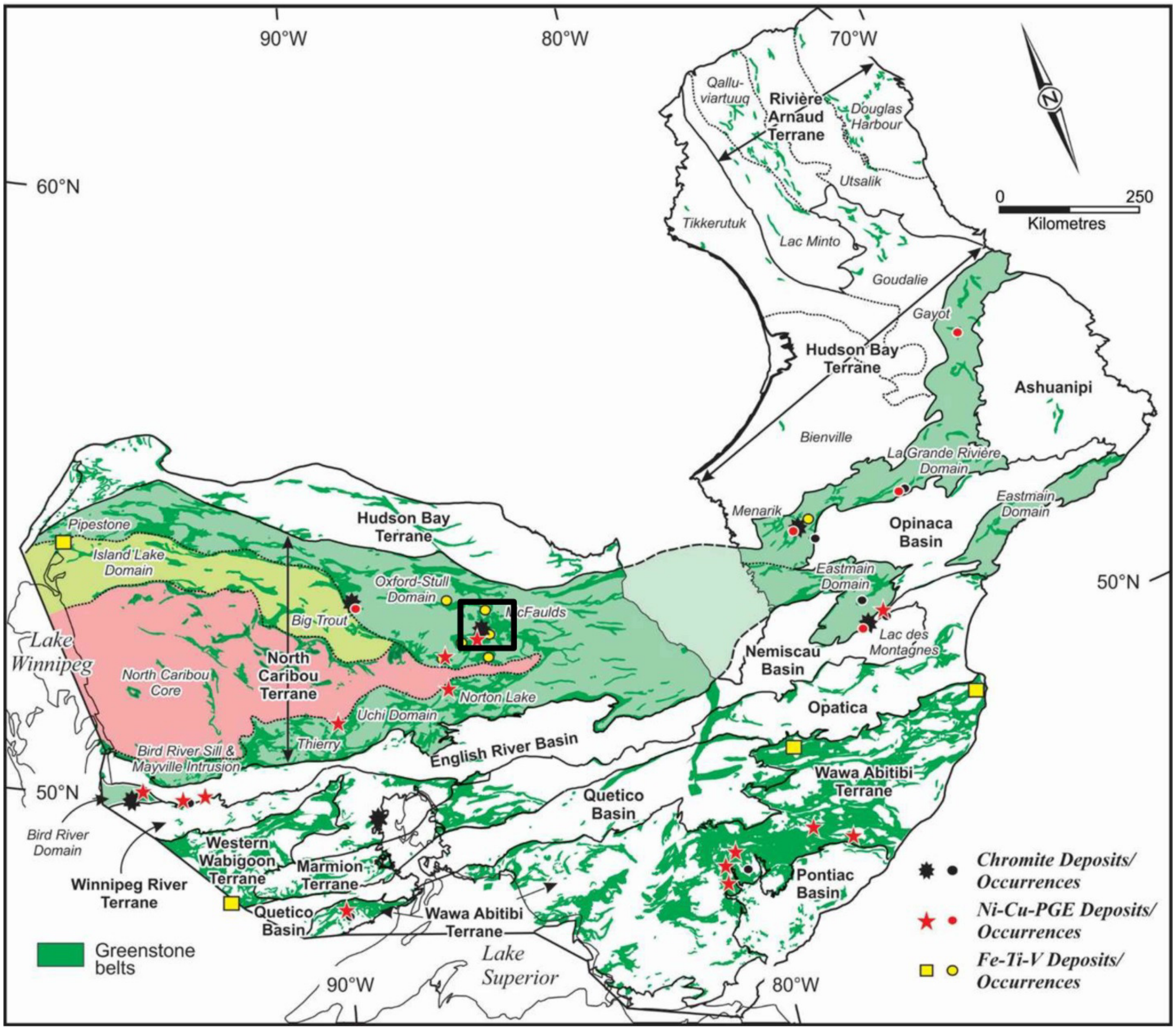

Figure 6: Geology of the Superior Province in Canada (from Houlé et al. 2015). The McFaulds Lake Greenstone Belt is in the centre of the figure.

The Oxford-Stull domain (Thurston et al. 1991; Oxford-Stull Subprovince of Rayner and Stott 2005), which contains the McFaulds Lake greenstone belt at its eastern limit of exposure, runs east-southeast and forms the northern-eastern portions of the North Caribou terrane. It stretches from northwestern Manitoba to north-central Ontario where it extends under the Paleozoic cover rocks of the James Bay Lowlands (Figure 6). Across the breadth of the Oxford-Still domain, there is a preponderance of Neoarchean U/Pb zircon ages in volcanic and plutonic rocks (Stott et al. 2010). As well, this domain is distinguished from other domains of the North Caribou terrane by its lack of pre-3.0 Ga crustal ages as determined by U-Pb dating and Sm-Nd isotope systematics (Stott et al. 2010). It includes several assemblages ranging in age from Mesoarchean (2.87 to 2.83 Ga) to Neoarchean volcanism at 2.72 to 2.71 Ga (Stott 2008). U/Pb zircon analyses of volcanic and plutonic rocks near the James Bay Lowlands region give ages from 2.737 Ga to as young as 2.683 Ga, and Nd model ages suggest relatively juvenile crustal growth (Rayner and Stott 2005; Stott 2008; Stott et al. 2010). Mesoarchean crystallization ages are somewhat scarce, and are generally restricted close to the northern and southern boundaries of the domain (Stott et al. 2010).

At the southern boundary of this domain lies a series of major ductile shear zones that separate it from the Island Lake domain and the rest of the North Caribou terrane. In the McFaulds Lake area this boundary is called the Stull-Wunnummin fault. The southern contact of the Oxford-Stull domain with the Island Lake domain shows a prevalence of Mesoarchean zircon ages and isotopic evidence suggests that the two domains share a constructive history prior to the development of the Stull-Wunnummin fault (Stott 2008). The northern boundary of the Oxford-Stull domain is the North Kenyon fault, a major ductile strike-slip deformation corridor that separates the entire North Caribou terrane from the Hudson Bay terrane to the north, which is recognized as another older (> 3.0 Ga) continental fragment (Stott et al. 2010).

4.2 Ring of Fire Geology and the McFaulds Lake Greenstone Belt

A key feature of the McFaulds Lake area is a prominent linear magnetic high (associated with laterally extensive formational conductors) that is continuous for up to tens of kilometers, and forms a semi-circle, ~60 kilometres in diameter from north to south, as seen on the regional airborne magnetic anomaly maps. This prominent linear magnetic high is known as the Ring of Fire (ROF). The ROF has been interpreted as a regionally extensive iron formation, or more probably a series of ferrogabbroic intrusions, that was deposited/intruded along the margins of a regional scale granodiorite pluton, one that had been intruded into and caused doming of supracrustal rocks of the Oxford-Stull domain. Along the length of the ROF magnetic high, it is generally intercalated with mafic to intermediate lavas and tuffs and intruded by a variety of mafic to intermediate sills and dykes. Although original theories included iron formation as the sulphur source, there is little evidence for the existence of large volumes of iron formation in the ROF area. There are, however, extensive ferrogabbroic intrusions, which would not account for the Sulphur, but may be accountable for the extensive magnetic highs in the ROF.

Due to the near-total absence of outcrops, no such greenstone belt was recognized in the McFaulds Lake area until 1999 (Percival et al. 1999). Since then, however, much work has been done, sparked by the discoveries from 2003-2007. The McFaulds Lake Greenstone Belt (MLGB), as it is now termed (Metsaranta and Houlé 2011, 2012, and 2013), is comprised of six lithotectonic assemblages, which have all been age-dated and are listed here from youngest to oldest: the Tappan Assemblage (< ca. 2702 Ma); the Muketei Assemblage (ca. 2735 Ma); the Winiskisis Assemblage (ca 2757 Ma, < ca. 2714 Ma); the Victory Assemblage (2797-2781 Ma); the Attawapiskat Assemblage (2820-2811 Ma); and the Butler Assemblage (ca. 2828 Ma; Mungall et al. 2010; Metsaranta and Houlé 2011, 2012, and 2013). See Figure 7 for a summary map of the MLGB geology. This data suggests that the MLGB has had a complex history of volcanism, sedimentation, and deformation spanning from at least ca. 2828 Ma to 2702 Ma (Metsaranta and Houlé 2013). The Muketei Assemblage is the most fertile of the assemblages and is host to roughly half of all known occurrences in the Ring of Fire, including the major ultramafic Ni-Cu-PGE and chromite deposits (Eagle's Nest, Black Thor, Blackbird, Big Daddy), as well as the McFaulds Lake VMS deposits and occurrences.

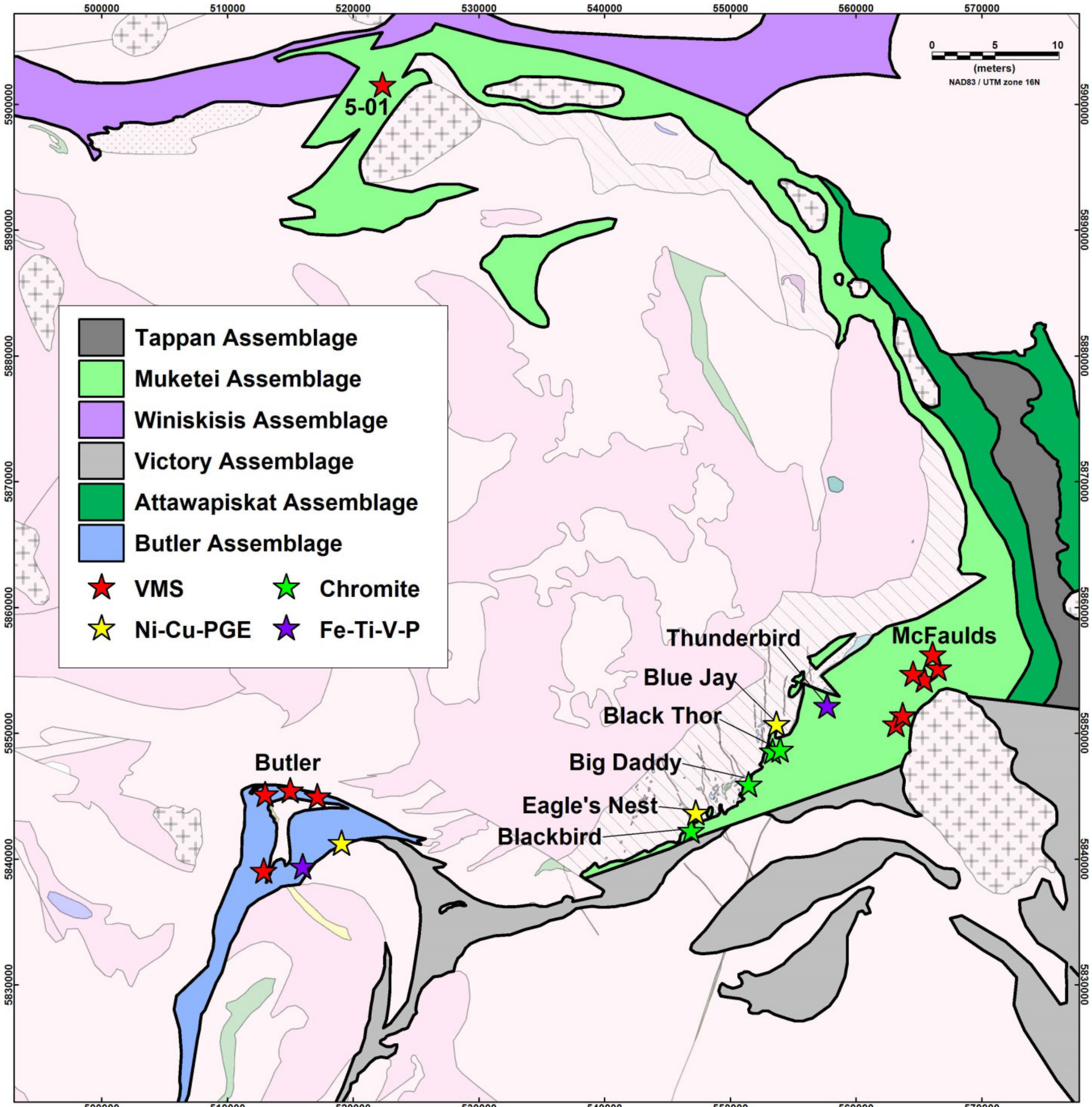

Figure 7: Geological Assemblages of the McFaulds Lake Greenstone Belt (modified from Metsaranta and Houlé 2013).

The Muketei Assemblage displays a complex history of volcanism, sedimentation, and plutonism, with two ages of volcanic deposition, two ages of felsic plutonism, one mafic-ultramafic intrusive event, and one ferrogabbroic event. A period of mafic to felsic volcanism was the first to occur (with synvolcanic granitic intrusion), and has been dated at 2782.2 +/- 5.2 Ma (Mungall et al. 2010). This volcanism was proceeded shortly after by the intrusion of large tonalitic bodies at 2773.4 +/- 0.9 Ma (Mungall et al. 2010 and R. Metsaranta, pers. comm.). This event in turn was proceeded by a very significant and short period of intermediate to felsic volcanism and mafic to ultramafic intrusion at 2734 Ma, which marks the main deposition of the Muketei Assemblage (Mungall et al. 2010, Metsaranta and Houlé 2011, 2012, and 2013, and R. Metsaranta, pers. comm.). Many drill core samples from a variety of rock types in the Muketei Assemblage have been age-dated and all have been found to lie, within error, very close to this date. Ultramafic sills and dykes, which host the Ni-Cu-PGE and Cr deposits, and which also cut the 2773.4 Ma footwall tonalite, have been dated at 2734 Ma. Intermediate volcanics, which lie stratigraphically beneath and above the felsic volcanics which host the McFaulds Lake VMS deposits and occurrences, have been dated at 2734 Ma as well. Finally, the ferrogabbroic intrusions, which host the Fe-Ti-V-P mineralization in the ROF, have an age of 2733 Ma. Late granitic intrusions cap the activity in the area, and have been dated at ca. 2728 to 2698 Ma (R. Metsaranta, pers. comm.).

4.3 Property Geology

Several magmatic Ni-Cu-PGE sulphide occurrences, such as the Eagle's Nest and Blue Jay/AT12 deposits, are hosted in ultramafic dykes that lie structurally beneath the ROF magnetic high. Extensive layered ultramafic sills (which are considered to form the main intrusion) consisting of dunite, harzburgite, orthopyroxenite, and chromite lie structurally on top of the aforementioned ultramafic dykes. These sills were preferentially developed at the horizon formerly occupied by the ferrogabbros. This most likely occurred via magmatic assimilation (Figure 8).

The current theory for the formation of the Eagle's Nest magmatic sulphide deposit, as well as other nearby sulphide and chromite deposits, is that a mantle plume appeared beneath the margin of the North Caribou microcontinent around 2735 Ma. Passing up through extensional faults, the ultramafic komatiitic parental magma interacted with sulphide-bearing metasediments (including iron formation), causing saturation with sulphide liquid and the collection of massive to net-textured magmatic sulphides in short-lived orthocumulate-textured mush zones at the bases of dykes (Eagle's Nest, Eagle Two, AT12 deposits). In places, these feeders formed into substantial sills, and in these sills, in higher, longer-lasting sill-like feeders, chromite and olivine were segregated mechanically into layers and lenses from the highly contaminated komatiite magma (Blackbird, Black Creek, Big Daddy, Black Thor, Black Label deposits). The magma residual to the deposition of the sulphide, dunite, chromitite, peridotite and pyroxenite crystallized as a layered intrusion, leading to the deposition of norite, anorthosite, ferrogabbro, and V-rich titanomagnetite layers (Thunderbird deposit). Heat-driven circulation of hydrothermal fluids through the older, pre-existing and overlying sedimentary and volcanic rocks caused the deposition of massive Cu-Zn sulphide mineralization (VMS) where these fluids vented at the sea floor during volcanism. Subsequent metamorphic fluid flow through shear zones caused the formation of mesothermal Au mineralization in the Triple J Gold occurrence directly adjacent to the Blackbird and Eagle Two deposits (Figure 8). The AT5 anomaly was discovered by early drilling to contain ultramafic intrusive rocks of the Eagle's Nest – Blackbird igneous complex. However, until 2016, the area had been under-explored.

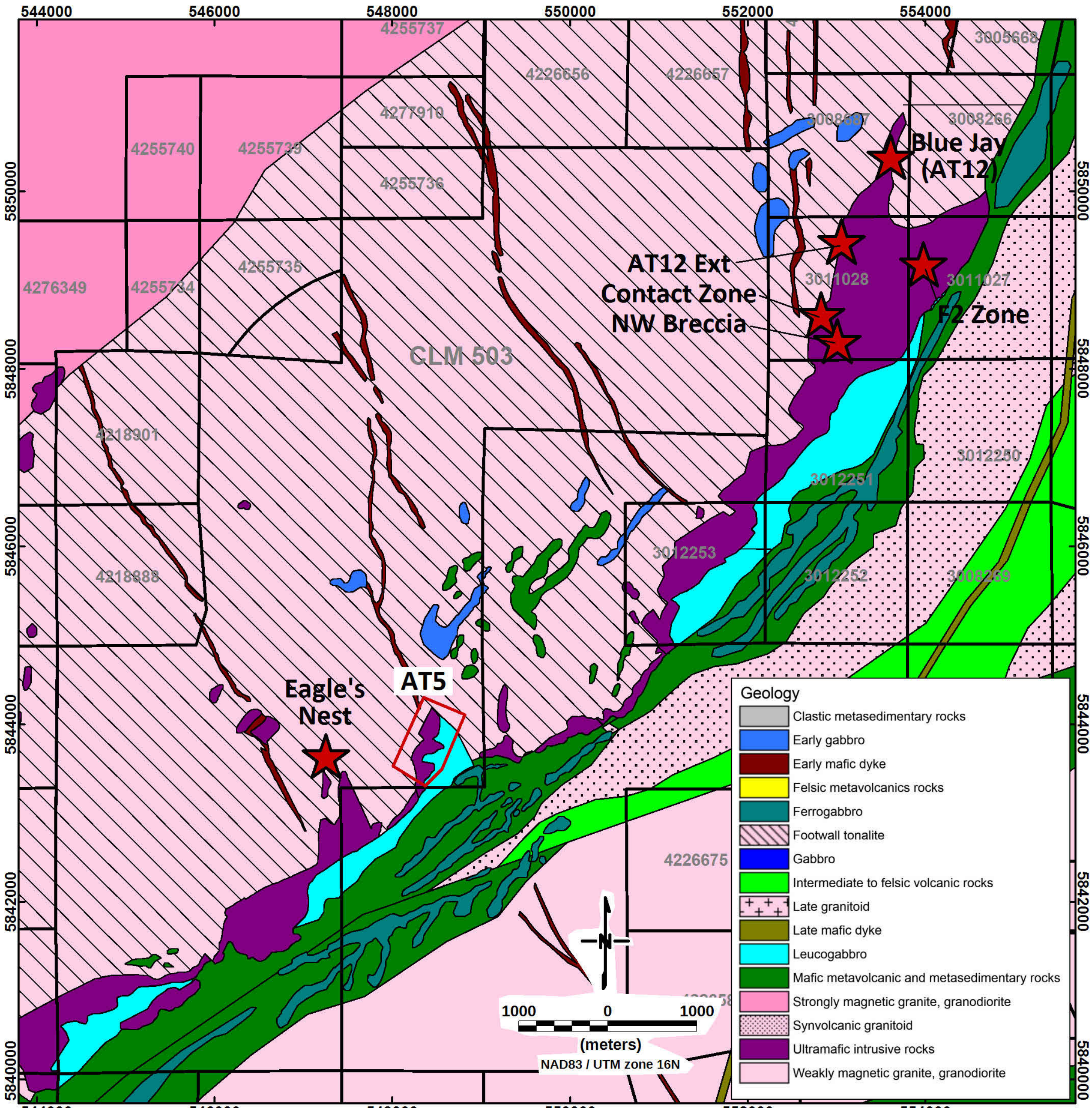

Figure 8: Property Geology

The Black Thor – Black Label Igneous Complex is a mantle derived, layered ultramafic intrusion, and was emplaced along the contact of the uplifted gneissic dome and the McFaulds Lake Greenstone Belt. Sulphide droplets separated from the melt as an immiscible liquid and settled towards the base of the intrusion because of their greater densities, accumulating as massive sulphides in embayments and producing the basal contact zone sulphide mineralization (i.e. at the AT12 Extension, Contact Zone, F2 Zone, and NW Breccia Zone). Base and precious metals (Ni-Cu-PGEs) were scavenged from the melt into sulphide droplets due to their chalcophile affinity. The ultramafic magma became oversaturated in chromite via magma mixing, contamination, a decrease in oxygen fugacity, and/or an increase in pressure, which led to the chromite mineralization seen in the Black Thor and Black Label areas. Continual pulses of magma led to further chromite mineralization. The Igneous Complex was subsequently intruded by a late websterite intrusion that crosscut and brecciated older rocks in the area. Sulphides were subsequently precipitated and possibly remobilized within magmatic breccias formed along the margins of the websterite intrusion (e.g. F2 Zone and NW Breccia Zone). The Igneous Complex was then intruded by a late biotite gabbro intrusion (Figure 8).

The Eagle's Nest deposit is a subvertically dipping body of massive and net-textured magmatic sulphide minerals (pyrrhotite, pentlandite, and chalcopyrite) and magnetite in the form of a sheet about 200 metres long, as much as several tens of metres thick, and at least >1000 metres deep. It strikes northeast-southwest and occupies the northwestern margin of a vertically inclined serpentinized peridotite dyke. Near the surface, the massive sulphides are confined to the northwestern tip edge of this intrusive body, and are bordered to the south and southeast by thicker zones of net-textured sulphides, which are hosted by serpentinized peridotite. At depth, there are occurrences of massive sulphides further to the east within the dyke, although they tend to be concentrated near the western and northern extremities. The dyke is closed off both at its northern and southern ends and plunges vertically or very steeply to the south (Figure 8).

5. Geophysical Program

Lamontagne Geophysics Ltd., of Kingston, Ontario, carried out and completed the Surface UTEM-5 survey over the AT5 and Blue Jay/AT12 properties in the early winter of 2016. Rob Langridge oversaw the project and wrote the report, while the Lamontagne field crew consisted of Phil Guimond (crew chief/operator), Gerry Lafortune (Rx/Tx operator), Richard Lahaye (Rx/Tx operator), Bill Dingwall (Tx operator/electronics), and Joey Plouffe (field assistant). Yves Lamontagne provided insight.

The Surface UTEM-5 survey at AT5 covered an area of approximately 1.63 km^2 (or 163 hectares), with 21.825 line km of surveying being completed (Figure 9a) whereas the Surface UTEM-5 survey at Blue Jay/AT12 covered an area of approximately 1.74 km^2 (or 174 hectares), with 24 line km of surveying being completed (Figure 9b).

The Lamontagne report is provided as Appendix 1. It contains loop layouts, maps, and all EM profiles collected from the survey. Appendix 2 contains the results of the modeling, as completed by Lamontagne. Appendix 3 is a report done by Jeremy Brett, of MPH consulting, on the anomalies uncovered during the survey at AT5.

6. Conclusions and Recommendations

From February 21, 2016 to March 17, 2016, Lamontagne Geophysics was contracted by Noront to perform Surface UTEM-5 Surveys on their AT5 and Blue Jay/AT12 Properties. The AT5 Property lies on Noront's Mining Lease CLM503 and the Blue Jay/AT12 Property lies largely on claims 3008266 and 3008687, with small portions covering claims 3011027 and 3011028 to the south. Lamontagne completed 21.825km of UTEM work on the AT5 property and 24km on the Blue Jay/AT12 property (Figure 9a and 9b).

The purpose of the AT5 survey was to test anomalous chargeability (detected from the IP survey) on the northwest flank of the AT5 magnetic anomaly, an area interpreted to lie on the hangingwall/footwall contact of the ROF ultramafic intrusion with the basement tonalite. This contact represents the stratigraphic bottom of the ultramafic intrusive body and may contain an embayment favourable for sulphide emplacement (Figure 9a).

No significant UTEM-5 anomalies were observed for conductive bodies between surface and 450m depth. The UTEM-5 data were examined and modeled by Lamontagne to determine if a signature from Eagle's Nest was present in these data. This process, involving data normalization, led to the detection of very subtle picoTesla/Amp scale anomalies in UTEM-5 Channels 1 through 8, due to a deep conductor. This conductor was then modeled at or near the hangingwall/footwall contact, with a depth to top of ~750m, an 800m strike length and a conductance of at least ~100 Siemens. Although this conductance is well below the desirable ~1000 Siemen threshold for Ni-Cu sulphides, this body could represent a large Ni-Cu sulphide system that is undetectable from the surface at these depths (Figure 9a).

It was thus recommended that a diamond drill program be undertaken at AT5 in order to test this deep conductor.

No new targets were uncovered during the Blue Jay/AT12 survey (Figure 9b). Table 2 represents the breakdown of line km per claim for this survey, as it crossed portions of four mining claims.

Respectfully submitted:

Matt Downey, M.Sc., P.Geo., May 10, 2017

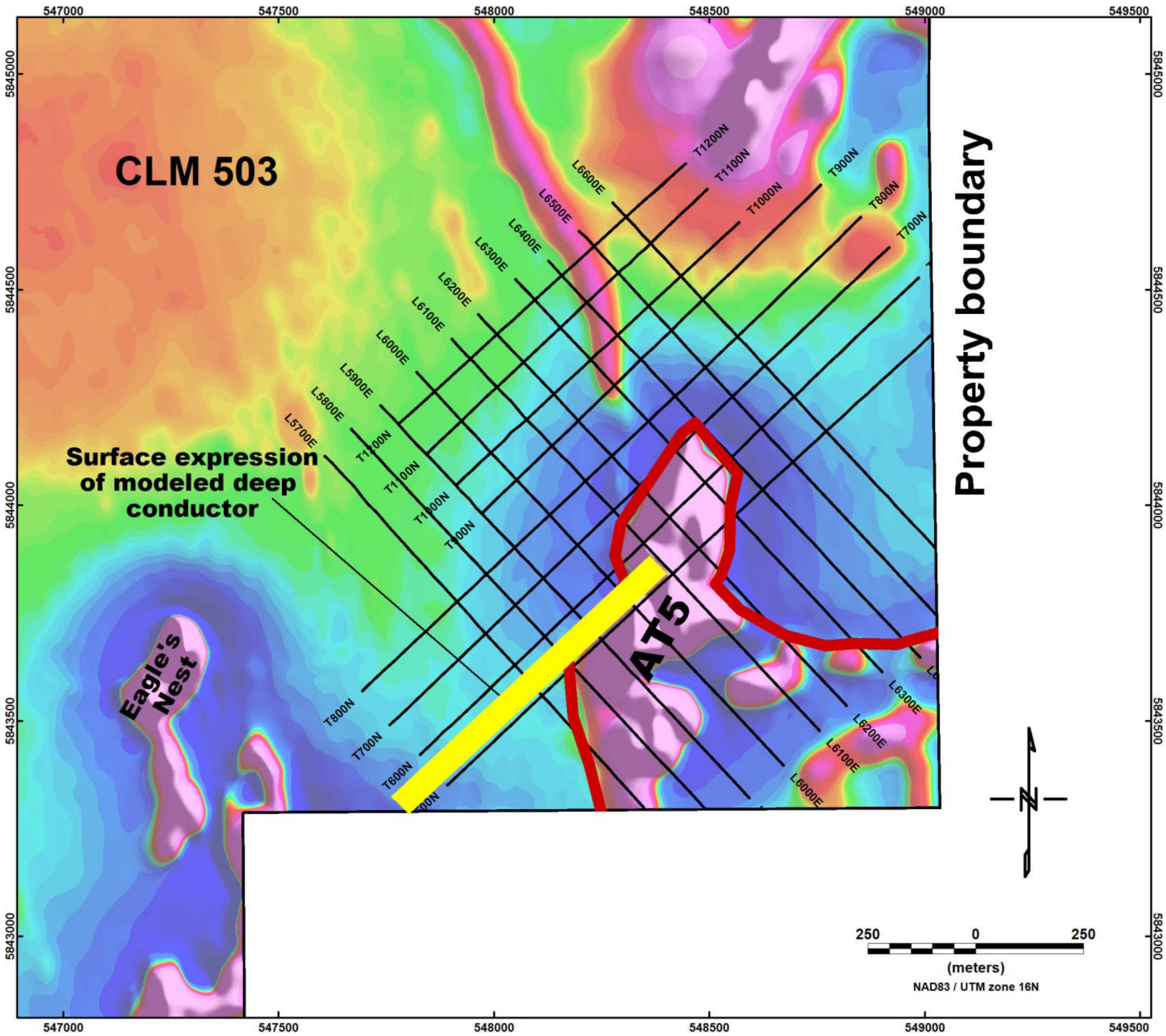

Figure 9a. Map of AT5 UTEM-5 survey area. Survey lines shown in black. Heli-GT first vertical derivative is in the background. The yellow polygon represents the surface expression of the top of the modeled UTEM-5 conductive plate, which lies approximately 750m below surface. The thick red line represents the ultramafic-tonalite contact.

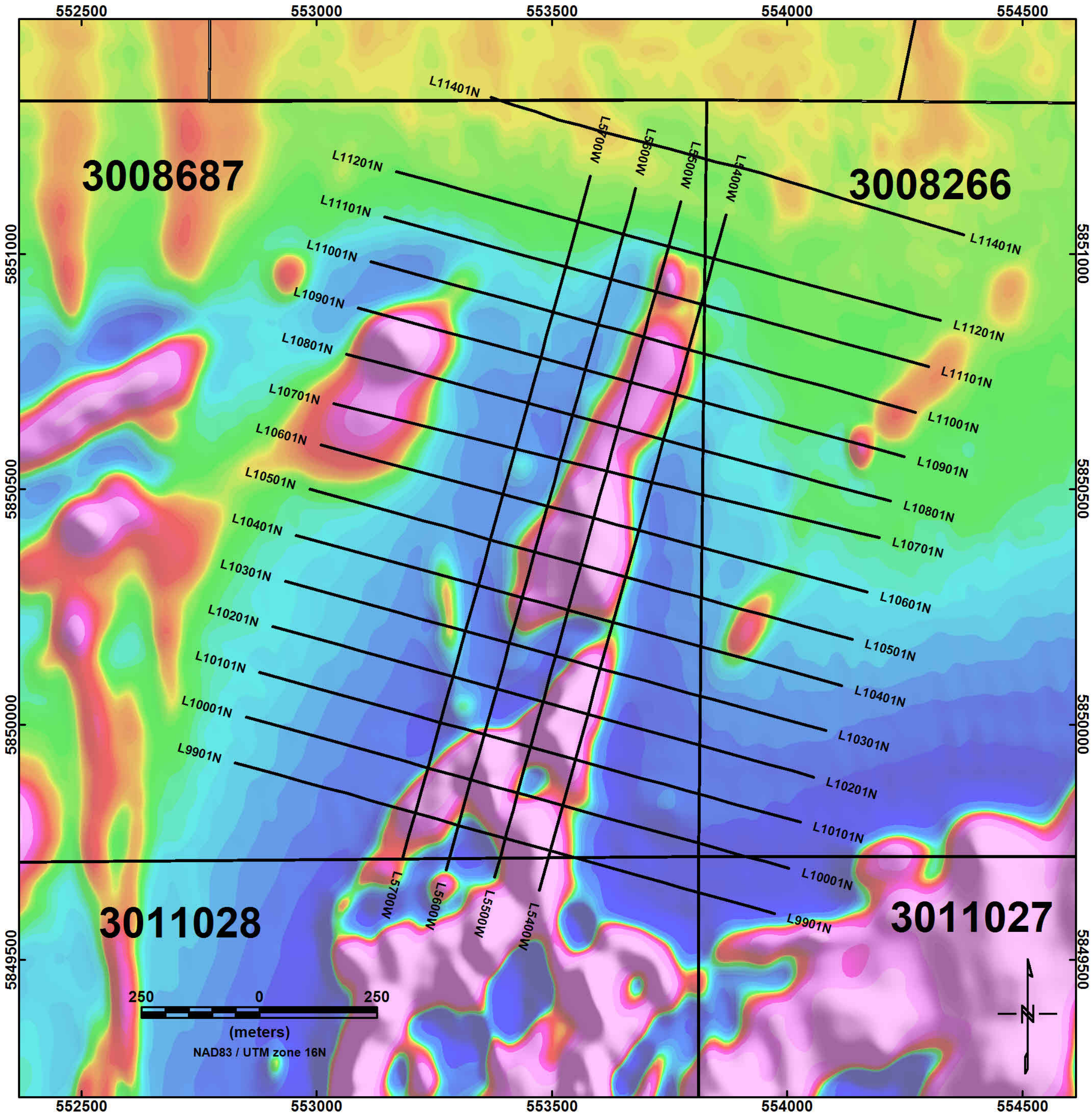

Figure 9b. Map of Blue Jay/AT12 UTEM-5 survey area. Survey lines shown in black. Heli-GT first vertical derivative is in the background.

Claim #	Line KM
3008266	5.4
3008687	17.6
3011027	0.5
3011028	0.5
Total	**24**

Table 2: Number of line kilometers per claim for the Blue Jay/AT12 UTEM-5 survey.

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CERTIFICATE

I, Matt Downey, M.Sc., P. Geo., of 34 Glen Dhu Drive, Whitby, Ontario, do hereby certify that:

1. I am a geologist in the Province of Ontario with twelve years of experience in the mineral exploration industry. I have an Hon. B.Sc. from the University of Toronto, Toronto, Ontario (2002) and an M.Sc. from the University of Waterloo, Waterloo, Ontario (2005).
2. I have worked in the Ring of Fire as a geologist and data manager since September 2008.
3. I have studied the project area thoroughly, and have visited the project area a number of times since 2009.
4. I obtained my P. Geo status within the Province of Ontario (APGO) in March, 2011.
5. I am responsible for the preparation of this report, except as provided for or disclaimed in the report, based on the sources and documents described in the report.
6. As of the date of this report, I am not aware of any material fact or material change with respect to the subject matter of this report, which is not reflected in this report, the omission to disclose which makes this report misleading.
7. I am the Manager, Lands & Data for Noront Resources Ltd. and handle land and data management, map and geological report preparation, and aid in Noront's exploration projects.
8. I hereby give my consent to Noront Resources to use this report in support of their application for assessment credit on the subject property.

PROFESSIONAL GEOSCIENTIST
MATTHEW W. DOWNEY
PRACTISING MEMBER
1974
ONTARIO

Matt Downey, M.Sc., P. Geo., May 2017
Toronto, Ontario

Appendix 1

Noront 2016 Exploration Program

Surface UTEM-5 at AT5 & Blue Jay/AT12

Lamontagne Geophysics Report

-2016 UTEM5 Survey Report-
AT5/AT12 Grids
Ring of Fire
for
Noront Resources Ltd.

LAMONTAGNE GEOPHYSICS LTD
GEOPHYSIQUE LTEE

April, 2016

Rob Langridge, M.Sc.

CONTENTS

Figures

Appendices

INTRODUCTION

During the period of February 23rd 2016 through March 14th 2016 a UTEM5 survey (surveying days: February 25th - March 14th) was carried out by Lamontagne Geophysics Limited personnel for Noront Resources Ltd. on their property in the Ring of Fire area located in the James Bay Lowlands of Northern Ontario. The survey covered the AT5/AT12 Grids - location/layout of the AT5/AT12 Grids is shown in Figures 1, 2 and 3. The UTEM5 survey was carried out to test anomalies outlined by earlier exploration, to detect/outline new conductors and to detect/outline deeper features and potential depth continuations of shallow features.

A total of 45.825 line km of BL/BT/Bz UTEM5 data was collected with the UTEM5 receiver using eight transmitter loops - four Tx loops per grid (Figures 2/3). For all stations on the three-component data were collected from two loops simultaneously. The survey frequencies and coverage for the survey are summarized below

AT5 Grid 21.825km total

SE-NW Lines covering Lines 5700E to 6600E: 12.075km total

S1:	1.7857Hz (off-loop - loop to the gridSouth)		-	Loop 2016-6
S2:	0.7143Hz	(in-loop)	-	Loop 2016-5

SW-NE Lines covering Lines 500N to 1200N: 9.750km total

S1:	1.7857Hz (off-loop - loop to the gridEast)	-	Loop 2016-7
S2	0.7143Hz (off-loop - loop to the gridWest)	-	Loop 2016-8

AT12 Grid 24.000km total

WNW-ESE Lines covering Lines 9901N to 11401N: 18.000km total

S1:	1.7857Hz (off-loop - loop to the gridEast)		-	Loop 2016-10
S2:	0.7143Hz	(in-loop)	-	Loop 2016-09

Note: L11401N only surveyed from Loop 2016-10.

SSW-NNE Lines covering Lines 5700W to 5400W: 6.000km total

S1:	1.7857Hz (off-loop - loop to the gridNorth)	-	Loop 2016-12
S2	0.7143Hz (off-loop - loop to the gridSouth)	-	Loop 2016-11

This report documents the UTEM5 survey in terms of logistics, survey parameters and field personnel, outlines the data processing and discusses the results. Appendix A contains the data presented as BL/BT/Bz profiles.

Other appendices contain:

- List of Personnel/Production Diary (Appendix B)
- an outline of the UTEM5 System (Appendix C)
- Note on sources of anomalous Ch0 (Appendix D)

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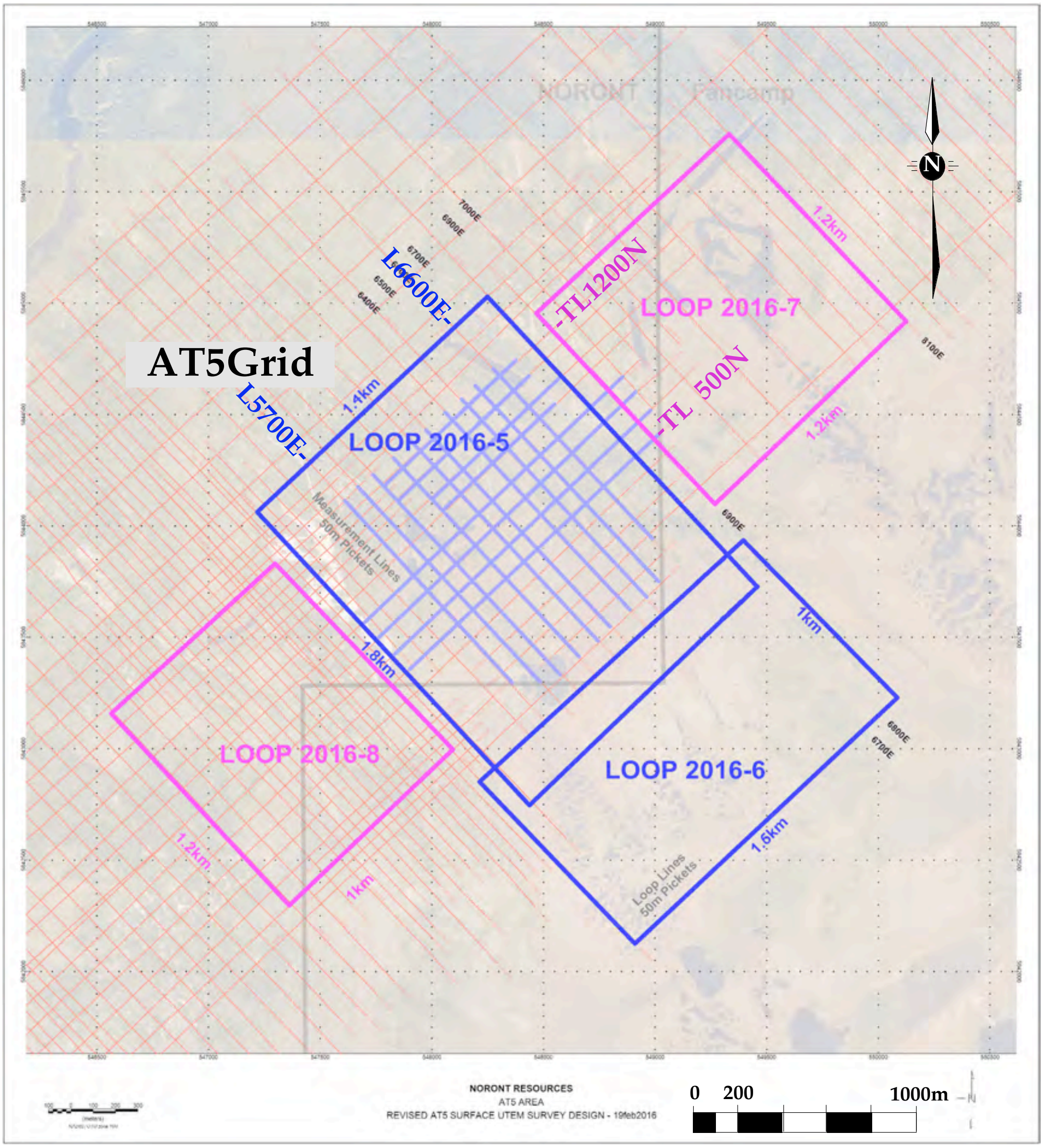
Noront Resources Ltd.
AT5/AT12 Grids UTEM5 Survey
Location Map

Figure 1



SE-NW Lines 5700E-6600N
surveyed simultaneously from:
Loop 2015-6 S1 @ 1.7857Hz
Loop 2015-5 S2 @ 0.7143Hz

SW-NE Lines 500N-1200N
surveyed simultaneously from:
Loop 2015-7 S1 @ 1.7857Hz
Loop 2015-8 S2 @ 0.7143Hz

NAD83 Zone 16N

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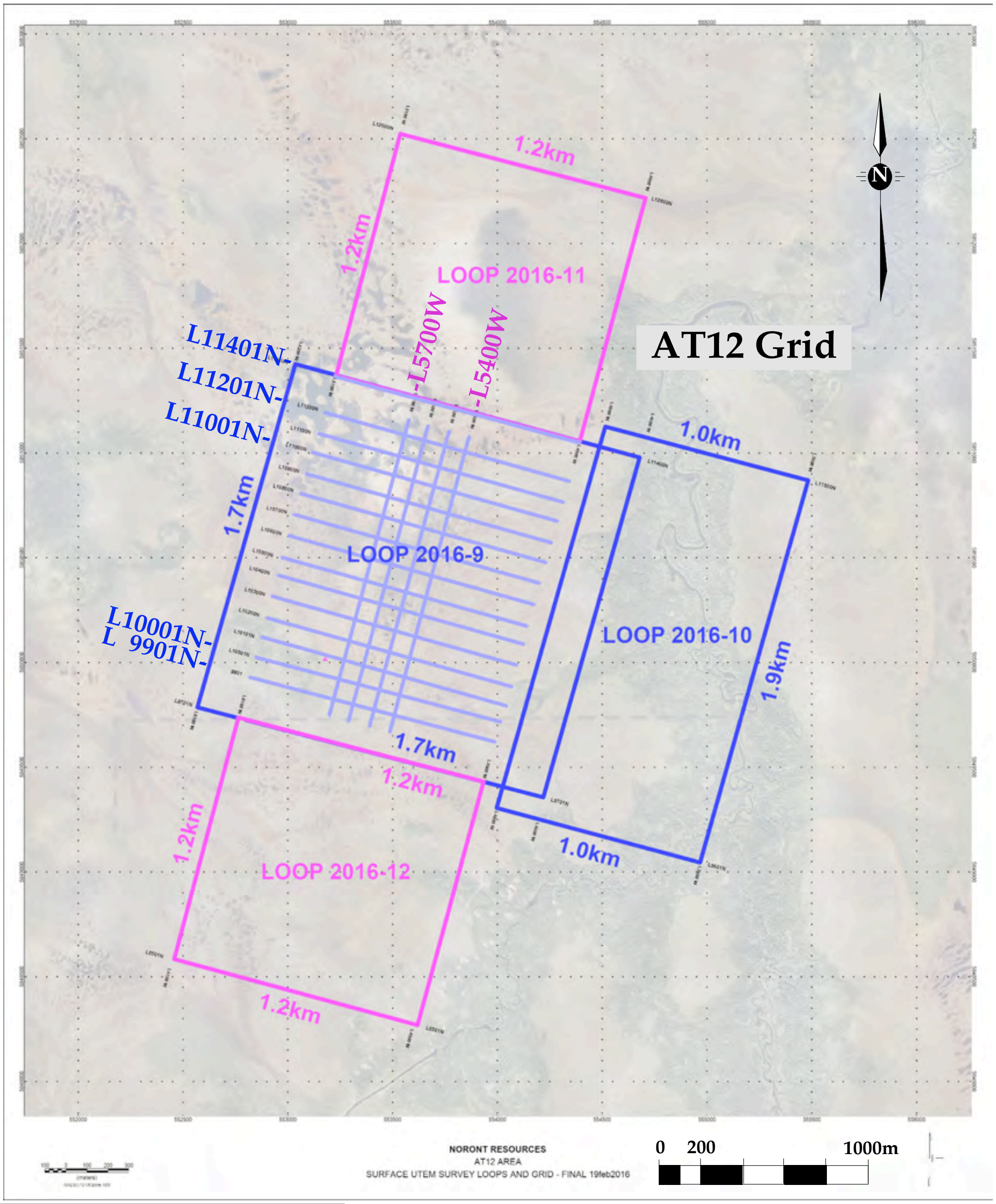
Noront Resources Ltd.
AT5 Grid - UTEM5 Survey
Grid Map

Figure 2



WNW-ESE Lines 9901N-11401N
surveyed simultaneously from:
Loop 2015-10 S1 @ 1.7857Hz
Loop 2015-09 S2 @ 0.7143Hz

SSW-NNE Lines 5700W-5400W
surveyed simultaneously from:
Loop 2015-12 S1 @ 1.7857Hz
Loop 2015-11 S1 @ 0.7143Hz

NAD83 Zone 16N

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Noront Resources Ltd.
AT12 Grid - UTEM5 Survey
Grid Map

Figure 3

SURVEY DESIGN

The UTEM5 survey was planned and carried out to test anomalies outlined by earlier exploration, to detect/outline new conductors and to detect/outline deeper features and potential depth continuations of shallow features.

The grid and loop layout was designed by Noront Resources personnel in consultation with Lamontagne Geophysics. Loop size and location were selected to provide good coupling with the expected targets and to allow efficient coverage of the area of interest.

The survey parameters employed are as follows:

- line spacing of 50m for SE-NW lines, 50/100m for SW-NE lines
- station interval of 50m reduced to 25m if required.
- 4 transmitter loops per Grid - giving a total of 8:
    - Grid AT5: Loops 2016-5 through 2015-8
    - Grid AT12: Loops 2016-9 through 2015-12
- three component measurements a pair of Transmitter loops simultaneously:

Grid AT5:

Loop 2016-6	1.7857Hz - loop to the gridSouth	~1000x1600m loop
+ Loop 2016-5	0.7143Hz - in-loop	~1400x1800m loop
Loop 2016-7	1.7857Hz - loop to the gridEast	~1200x1200m loop
+ Loop 2016-8	0.7143Hz - loop to the gridWest	~1200x1000m loop

Grid AT12:

Loop 2016-10	1.7857Hz - loop to the gridSouth	~1000x1900m loop
+ Loop 2016-09	0.7143Hz - in-loop	~1700x1700m loop
Loop 2016-12	1.7857Hz - loop to the gridEast	~1200x1200m loop
+ Loop 2016-11	0.7143Hz - loop to the gridWest	~1200x1200m loop

- 12Ch single (minimum 120s) stacking (duplicates as required) as follows: frequencies for coverage (in the ratio 5:2) (Figure 3):
    - 1.7857Hz S1 - AT5 Loops 2016-6/7 and AT12 Loops 2016-10/12
      120sec stacking = 215 full-cycles/430 half-cycles
    - 0.7143Hz S2 AT5 Loops 2016-5/8 and AT12 Loops 2016-09/11
      120sec stacking = 86 full-cycles/172 half-cycles

Note: further details of frequencies/sampling/stacking are listed in Figure 3.

Noront Resources provided GPS (NAD83) locations for all survey stations and the transmitter loops. The LGL crews routinely collect handheld-GPS (Garmin eTrex) data for all transmitter loops for the purpose of control.

Note: Geometric control should be considered a mandatory part of the interpretation of any UTEM survey where the target is potentially non-decaying. Poor geometric control has the potential to both mask and invent Ch0 (latest time) conductors (Appendix D).

Sampling 1
1.7857Hz

off loop	frequency	1.785714	Hz	Sampling 1
	period	0.560000	s	
(5MHz clock)	half period	1400000	0.2µs cycles	Loop 2015-1
(narrowest Ch=1unit)	XNP	**4444**	/halfperiod	and
	width of unit channel	6.30063E-05	s	Loop 2015-4
	width of unit channel	63.0063	µs	

(symbol) channel		peak of tapered Ch (µs)	tapered Ch begins - unit -	tapered Ch ends - unit -	Maxwell equivalent boxcar Ch mid point (ms)	Maxwell equivalent boxcar Ch width (ms)
timing Ch13	⅄	31.50	-0.5	1.5	0.0315	0.0630
12	✗	94.51	0.5	3	0.1027	0.0788
11	+	189.02	1.5	6	0.2143	0.1418
10	Φ	378.04	3	12	0.4287	0.2835
9	⊽	756.08	6	24	0.8574	0.5671
8	⧗	1512.15	12	48	1.7147	1.1341
7	⁊	3024.30	24	96	3.4295	2.2682
6	∡	6048.61	48	192	6.8590	4.5365
5	Σ	12097.21	96	384	13.7179	9.0729
4	□	24194.42	192	768	27.4359	18.1458
3	\	48388.85	384	1536	54.8717	36.2916
2	/	96777.69	768	3072	109.7434	72.5833
1	ǀ	193555.39	1536	4269	188.0596	86.0981
0	○	268973.94	3072	4442.5	250.6185	43.1751
timing Ch15	☰	279905.54	4269	4443.5	-3.2741	5.4973
timing Ch14	⊟	279968.54	4442.5	4444+0.5	-0.0315	0.0630

TSS: sub-stack time =	**2.800000**	s
StackN: number of substacks =	**43**	substacks
stacking time =	120.40	s
cycles stacked =	215.00	cycles
half-cycles stacked =	430.00	half-cycles

Sampling 2
0.7143Hz

off loop	frequency	0.714286	Hz	Sampling 2
	period	1.400000	s	
(5MHz clock)	half period	3500000	0.2µs cycles	Loop 2015-2
(narrowest Ch=1unit)	XNP	**4444**	/halfperiod	and
	width of unit channel	1.57516E-04	s	Loop 2015-3
	width of unit channel	157.5158	µs	

(symbol) channel		peak of tapered Ch (µs)	tapered Ch begins - unit -	tapered Ch ends - unit -	Maxwell equivalent boxcar Ch mid point (ms)	Maxwell equivalent boxcar Ch width (ms)
timing Ch13	⅄	78.76	-0.5	1.5	0.0788	0.1575
12	✗	236.27	0.5	3	0.2569	0.1969
11	+	472.55	1.5	6	0.5359	0.3544
10	Φ	945.09	3	12	1.0717	0.7088
9	⊽	1890.19	6	24	2.1434	1.4176
8	⧗	3780.38	12	48	4.2869	2.8353
7	⁊	7560.76	24	96	8.5737	5.6706
6	∡	15121.51	48	192	17.1474	11.3411
5	Σ	30243.02	96	384	34.2948	22.6823
4	□	60486.05	192	768	68.5896	45.3645
3	\	120972.10	384	1536	137.1793	90.7291
2	/	241944.20	768	3072	274.3586	181.4582
1	ǀ	483888.40	1536	4269	470.1489	215.2453
0	○	672434.76	3072	4442.5	626.5463	107.9377
timing Ch15	☰	699763.74	4269	4443.5	-8.1851	13.7433
timing Ch14	⊟	699921.26	4442.5	4444+0.5	-0.0788	0.1575

TSS: sub-stack time =	**2.800000**	s
StackN: number of substacks =	**43**	substacks
stacking time =	120.40	s
cycles stacked =	86.00	cycles
half-cycles stacked =	172.00	half-cycles

UTEM5 Frequency Selection

A target frequency is entered for each UTEM transmitter and the local powerline frequency are entered in the UTEM receiver. The actual frequencies used are selected by the receiver software to be as close to the entered target frequencies as possible while optimizing rejection of the other transmitters and powerline noise.
The minimum substack time is set by the receiver software to the shortest time that will include an integer number of cycles of each frequency used and 30Hz (the first harmonic of the 60 Hz powerline frequency).

Allowable stacking times are required to be a multiple of the minimum substack time.

Where responses extend to the latest time-channel measured (Ch0) the survey frequency can be lowered. Reducing the number of channels from 12 to 10 allows for a wider anti-aliasing filter bandwidth.
This can help improve S/N (signal-to-noise ratio) when dealing with high-frequency noise - eg. wind “whistling”.

The equivalent boxcar channels are centred on the median (by area) of the tapered Chs (Figure 4).

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Noront Resources Ltd.
UTEM5 Survey
Frequency/Chs details

Figure 4

SURVEY LOGISTICS

A Lamontagne Geophysics crew and survey equipment mobilized from Kingston, Ontario, on February 21st, overnighting in Sudbury and Geraldton, arriving at Noront's Esker Camp on February 23rd via the Nakina-Webequie-Esker Camp flight. Camp orientation was completed upon arrival and the rest of the day was spent unpacking and readying the equipment. The Lamontagne crew consisted of Phil Guimond (crew chief/operator), Gerry Lafortune (Rx/Tx operator), Richard Lahaye (Rx/Tx operator), Bill Dingwall (Tx operator/electronics), and Joey Plouffe (field assistant). The location of the project is shown in Figure 1 and the AT5/AT12 Grid locations are shown in Figures 2 and 3 respectively.

Loop deployment began on February 23rd with Loops 2016-6 and 2016-5. This transmitter loop pair was used to survey the SE-NW trending lines (L57+00E to L66+00E). The LGL crew was assisted by local helpers supplied by Noront as noted in the job diary (Appendix B). The initial loop pair was completed the following day. Surveying began on February 25th. In general surveying went well - a snowy/windy night resulted in a day of digging out equipment but additional looping was done and the crew reset for the following day. Surveying of the Grid AT5 S1/S2 pair of Loops 2016-6 and 2016-5 was completed on February 29th. Surveying of the second Grid AT5 S1/S2 pair of Loops 2016-7 and 2016-8 started on March 1st and was completed on March 4th. Looping on the AT12 Grid was initiated during the latter part of this work.

March 5th was a looping/moving day for the Lamontagne crew and 4 local helpers. By the end-of-day:

- all wire was picked up from the AT5 Grid
- the first AT12 Grid pair of Loops 2016-10 and 2016-09 was completed/tested.
- the two transmitter setups were dismantled and setup Loops 2016-10/2016-09.

Surveying of Loops 2016-10 and 2016-09 began the following morning - March 6th and was completed on March 10th. At this point it was decided to add Line 11401N to the coverage - this line was chained/available because it had served as the loop front for Loop 2016-09. Because of this the line could only be surveyed from Loop 2016-10 (S1). The crew and helpers collected the wire from Line 11401N prior to surveying and continued looping - picking up Loop 2016-09 and completing the second Grid AT12 S1/S2 pair of Loops 2016-12 and 2016-11. Once surveying of Line 11401N was completed a portion of Loop 2016-10 was collected.

Surveying the second Grid AT12 S1/S2 pair of Loops 2016-12 and 2016-11 started on March 12th and was completed on March 14th. All looping was completed at the end-of-day and the equipment was returned to camp and packed for demobilization. The crew and equipment were demobbed to Nakina airport on March 15th and they continued south. Demobilization was completed on March 17th. A detailed description of the AT5/AT12 Grids UTEM5 survey is in Appendix B - the Production Diary.

Surveying proceeded fairly smoothly for the duration of the project. Weather conditions were typical for this time of year.. Transportation on the grid was by snowmachine and on snowshoe. The survey equipment consisted of two UTEM5 receiver/coils, 2 UTEM4 Transmitters as well as all necessary accessories, support equipment and backup equipment. Data was reduced on a field computer (MacBook) and UTEM profiles and digital data were made available/emailed to the client daily.

SURVEY RESULTS

The results of the survey are summarized and presented as UTEM5 profiles in Appendix A. The final AT5/AT12 Grids and loop locations are presented in Figure 2 and 3. The data presented in Appendix A are reduced with a UTM grid (NAD83). Overall the UTEM data quality is considered good. Note that Ch0 (latest time channel) profiles should be considered in conjunction with other available information (App. D).

For each line surveyed the continuously normalized profiles have been plotted for the three components collected. Profiles are presented for the AT5 Grid and then the AT12 Grid. Note that in order to show the range of responses there are two sets of profiles plotted for the data:

- all Chs:from Ch12-Ch1 and Ch0
- the 8 late Chs: Chs8-Ch1 and Ch0

For each pair of Transmitter loops the S1 profiles are presented followed by the S2 profiles. Four-axis profiles are presented in order of line number from west-to-east or south-to-north. The order is as follows:

AT5 Grid

Loop 2016-6	S1:	1.7857Hz	Lines 5700E to L6600E
Loop 2016-5	S2:	0.7143Hz	Lines 5700E to L6600E
Loop 2016-7	S1:	1.7857Hz	Lines 500N to L1200N
Loop 2016-8	S2:	0.7143Hz	Lines 500N to L1200N

AT12 Grid

Loop 2016-10	S1:	1.7857Hz	Lines 9901N to 11401N
Loop 2016-09	S2:	0.7143Hz	Lines 9901N to 11201N

Note: Line 11400N only surveyed from Loop 2016-10 (S1)

Loop 2016-12	S1:	1.7857Hz	Lines 5700W to 5400W
Loop 2016-11	S2:	0.7143Hz	Lines 5700W to 5400W

Note: all UTEM5 reports present data as:

- BL - in-line horizontal component (c1) - UTEM3 ~equivalent - Hx
  the L-azimuth direction is selectable
- BT - the transverse horizontal component (c2) - UTEM3 ~equivalent - Hy
  the T-azimuth direction is 90° counterclockwise from L-azimuth
- BZ -vertical component (c3) - UTEM3 equivalent - Hz

Outline of profile types:

BL BT Bz continuous norm Ch0 reduced

Continuous normalization is useful for detection of the presence of anomalies at any position on a profile. The anomaly shape is distorted by normalization to the local field. Near the wire (large field) continuously normalized Ch0 tends towards zero.

Note: Ch0 is later in time and narrower than Ch1 (Appendix C).

The BL/BT/Bz continuously normalized data are presented as 4-axis profiles:

top axis: Ch1-10	Bz	Ch0 Reduced
upper middle axis: Ch1-10	BT	Ch0 Reduced
lower middle axis: Ch1-10	BL	Ch0 Reduced
bottom axis: Ch0	BL BT Bz	Primary Field Reduced

A description of the standard plotting formats used and of the UTEM System is presented in Appendix C.

Note on digital data:

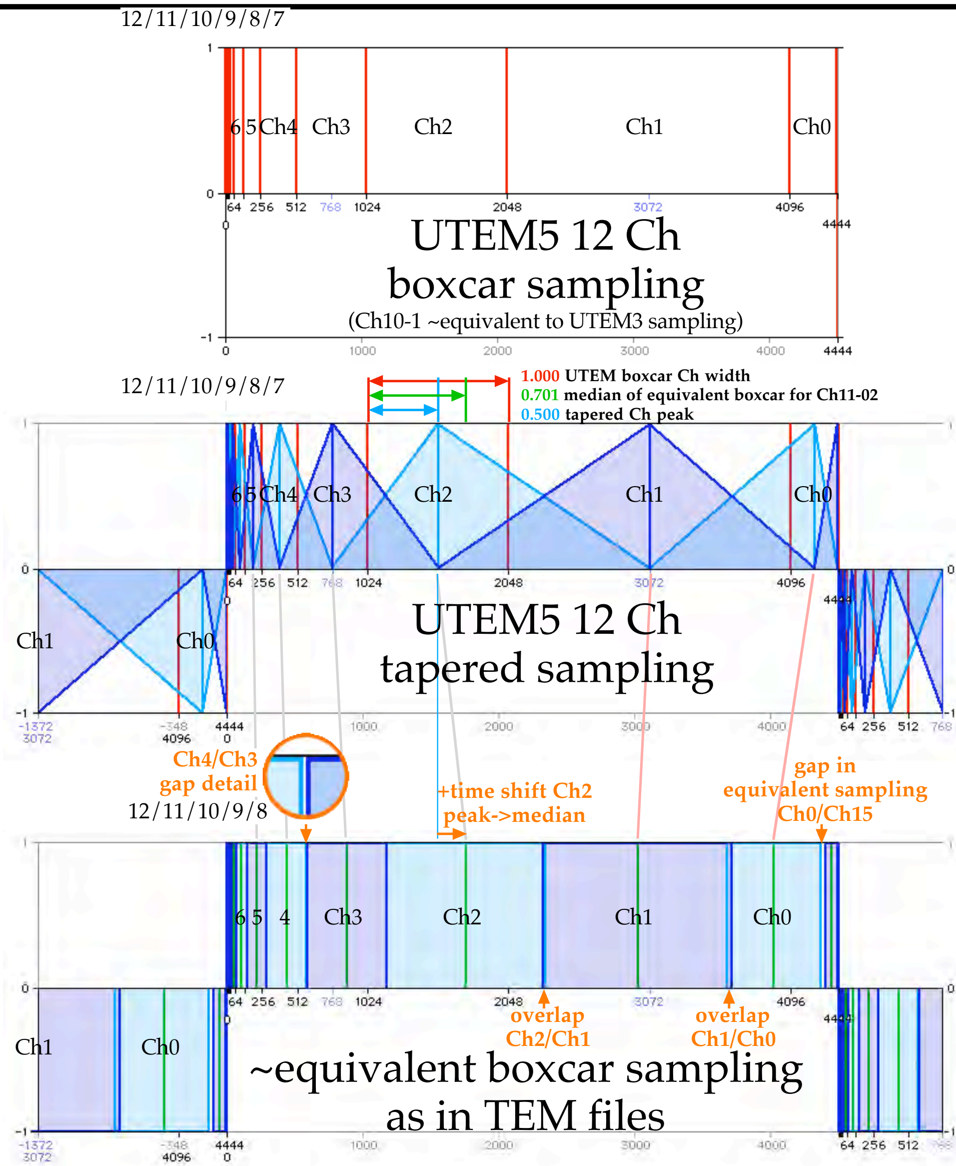
The standard formats of the UTEM5 data - raw, edited, reduced (3CH5) - are all included in the digital record of the AT5/AT12 Grids UTEM5 Survey accompanying this report. The 3cH5 files can be plotted using the 3C Plotter:

https://www.lamontagnegeophysics.com/plotter/

The 3C Plotter is a geophysical data plotter that runs in any modern web browser running locally on your machine or online. The 3C Plotter is designed to aid in visualization and interpretation of electromagnetic data. The output is in Scalable Vector Format (SVG), which means it can be presented in large format without loss in quality and is suitable for printing and exporting to pdf. The features of the plotter are outlined in the 3C Plotter Manual:

https://lamontagnegeophysics.com/plotter/manual.pdf

TEM files - compatible with Maxwell - are also included. For the TEM files the UTEM5 12 Ch tapered sampling has been approximated with an (~)equivalent boxcar sampling. The details of the equivalent boxcar channels are listed along with the standard sampling/Ch information in Figure 3 . In Figure 4 the UTEM5 boxcar and UTEM5 tapered samplings are shown and compared to the equivalent boxcar sampling.



Notes:
- **upper**: boxcar sampling equivalent to UTEM3 sampling
- **centre**: UTEM5 tapered sampling (Appendix C)
- **lower**: ~equivalent boxcar sampling in TEM files
  - Chs centred on the median (by area) of the tapered Ch
  - Ch area is the same as in UTEM5 tapered sampling
  - a Ch followed by a wider (or an equal-width) Ch :
    - the median time shifts to later than the tapered peak
    - Chs abut or gap between Chs (gap detail Ch4/Ch3)
  - for a Ch followed by a narrower Ch (Ch1 or Ch0):
    - the median time shifts to earlier than the tapered peak
    - ~overlap with previous Ch (Ch2/Ch1 or Ch1/Ch0)

Note: The time shifts that result from the choice of centring the ~equivalent boxcar Chs on the median (by area) of the tapered Chs yield modeling results that will better match the actual conductivity values at early times (of a given decay). Applying a factor (~0.95/0.9) to reduce these time shifts somewhat will yield modeling results that better match actual conductivity values at later/late times (of a given decay).

LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTEE

UTEM5 12Ch Sampling
boxcar/tapered channel options
~equivalent boxcar sampling

Figure 5

Appendix A

1613 UTEM5 Profiles

UTEM5 Survey

AT5/AT12 Grids
Ring of Fire

for

Noront Resources Ltd.

Presentation

The results of the survey are summarized and presented as UTEM5 profiles in Appendix A. The final AT5/AT12 Grids and loop locations are presented in Figure 2 and 3. The data presented in Appendix A are reduced with a UTM grid (NAD83). Overall the UTEM data quality is considered good. Note that Ch0 (latest time channel) profiles should be considered in conjunction with other available information (App. D).

For each line surveyed the continuously normalized profiles have been plotted for the three components collected. Profiles are presented for the AT5 Grid and then the AT12 Grid. Note that in order to show the range of responses there are two sets of profiles plotted for the data:

- • all Chs:from Ch12-Ch1 and Ch0
  • the 8 late Chs: Chs8-Ch1 and Ch0

For each pair of Transmitter loops the S1 profiles are presented followed by the S2 profiles. Four-axis profiles are presented in order of line number from west-to-east or south-to-north. The order is as follows:

AT5 Grid

Loop 2016-6	S1:	1.7857Hz	Lines 5700E to L6600E
Loop 2016-5	S2:	0.7143Hz	Lines 5700E to L6600E
Loop 2016-7	S1:	1.7857Hz	Lines 500N to L1200N
Loop 2016-8	S2:	0.7143Hz	Lines 500N to L1200N

AT12 Grid

Loop 2016-10	S1:	1.7857Hz	Lines 9901N to 11401N
Loop 2016-09	S2:	0.7143Hz	Lines 9901N to 11201N

Note: Line 11400N only surveyed from Loop 2016-10 (S1)

Loop 2016-12	S1:	1.7857Hz	Lines 5700W to 5400W
Loop 2016-11	S2:	0.7143Hz	Lines 5700W to 5400W

Note: all UTEM5 reports present data as:

- BL - in-line horizontal component (c1) - UTEM3 ~equivalent - Hx
  the L-azimuth direction is selectable
- BT - the transverse horizontal component (c2) - UTEM3 ~equivalent - Hy
  the T-azimuth direction is 90° counterclockwise from L-azimuth
- BZ -vertical component (c3) - UTEM3 equivalent - Hz

Outline of profile types:

BL BT Bz continuous norm Ch0 reduced

Continuous normalization is useful for detection of the presence of anomalies at any position on a profile. The anomaly shape is distorted by normalization to the local field. Near the wire (large field) continuously normalized Ch0 tends towards zero.

Note: Ch0 is later in time and narrower than Ch1 (Appendix C).

The BL/BT/Bz continuously normalized data are presented as 4-axis profiles:

top axis: Ch1-10	Bz	Ch0 Reduced
upper middle axis: Ch1-10	BT	Ch0 Reduced
lower middle axis: Ch1-10	BL	Ch0 Reduced
bottom axis: Ch0	BL BT Bz	Primary Field Reduced

A description of the standard plotting formats used and of the UTEM System is presented in Appendix C.

Note on digital data:

The standard formats of the UTEM5 data - raw, edited, reduced (3CH5) - are all included in the digital record of the AT5/AT12 Grids UTEM5 Survey accompanying this report. The 3cH5 files can be plotted using the 3C Plotter:

https://www.lamontagnegeophysics.com/plotter/

The 3C Plotter is a geophysical data plotter that runs in any modern web browser running locally on your machine or online. The 3C Plotter is designed to aid in visualization and interpretation of electromagnetic data. The output is in Scalable Vector Format (SVG), which means it can be presented in large format without loss in quality and is suitable for printing and exporting to pdf. The features of the plotter are outlined in the 3C Plotter Manual:

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TEM files - compatible with Maxwell - are also included. For the TEM files the UTEM5 12 Ch tapered sampling has been approximated with an (~)equivalent boxcar sampling. The details of the equivalent boxcar channels are listed along with the standard sampling/Ch information in Figure 3 . In Figure 4 the UTEM5 boxcar and UTEM5 tapered samplings are shown and compared to the equivalent boxcar sampling.

List of Data Collected and Plotted

Noront Resources Ltd. (1613)
AT5 Grid - UTEM5 Surface coverage

Loop	Line	Coverage	m	components
Loop 2016-6 (@ 1.785714Hz)		off-loop - loop to the gridSouth		
Loop 2016-5 (@ 0.7142857Hz)		in-loop		
2 Loop coverage	Line 5700E	150N - 1250N	1100m	BL/BT/Bz
	Line 5800E	50N - 1250N	1200m	BL/BT/Bz
	Line 5900E	0 - 1250N	1250m	BL/BT/Bz
	Line 6000E	0 - 1250N	1250m	BL/BT/Bz
	Line 6100E	0 - 1250N	1250m	BL/BT/Bz
	Line 6200E	0 - 1250N	1250m	BL/BT/Bz
	Line 6300E	0 - 1250N	1250m	BL/BT/Bz
	Line 6400E	0 - 1250N	1250m	BL/BT/Bz
	Line 6500E	50N - 1250N	1200m	BL/BT/Bz
	Line 6600E	175N - 1250N	1075m	BL/BT/Bz
U5 BL/BT/Bz coverage		Loop 6/5	12075m	BL/BT/Bz
Loop 2016-7 (@ 1.785714Hz)		off-loop - loop to the gridEast		
Loop 2016-8 (@ 0.7142857Hz)		off-loop - loop to the gridWest		
2 Loop coverage	TLine 500N	5400E - 6950E	1550m	BL/BT/Bz
	TLine 600N	5400E - 7000E	1600m	BL/BT/Bz
	TLine 700N	5400E - 7000E	1600m	BL/BT/Bz
	TLine 800N	5400E - 7000E	1600m	BL/BT/Bz
	TLine 900N	6000E - 7000E	1000m	BL/BT/Bz
	TLine 1000N	6000E - 6800E	800m	BL/BT/Bz
	TLine 1100N	5900E - 6700E	800m	BL/BT/Bz
	TLine 1200N	5900E - 6700E	800m	BL/BT/Bz
U5 BL/BT/Bz coverage		Loop 7/8	9750m	BL/BT/Bz
AT5 Grid Total U5		**2 loop coverage**	**21825m**	**BL/BT/Bz**

equalling:
- 130950m UTEM5 single component/single Tx coverage
- 43650m UTEM5 1 loop coverage
- 11325m UTEM5 **1.785**/**0.714Hz** BL/BT/Bz coverage

List of Data Collected and Plotted

Noront Resources Ltd. (1613)
AT12 Grid - UTEM5 Surface coverage

Loop	Line	Coverage	m	components
Loop 2016-10 (@ **1.785714Hz**)		off-loop - loop to the gridEast		
Loop 2016-09 (@ **0.7142857Hz**)		in-loop		
2 Loop coverage	Line 9901N	6100W - 4900W	1200m	BL/BT/Bz
	Line 10001N	6100W - 4900W	1200m	BL/BT/Bz
	Line 10101N	6100W - 4900W	1200m	BL/BT/Bz
	Line 10201N	6100W - 4900W	1200m	BL/BT/Bz
	Line 10301N	6100W - 4900W	1200m	BL/BT/Bz
	Line 10401N	6100W - 4900W	1200m	BL/BT/Bz
	Line 10501N	6100W - 4900W	1200m	BL/BT/Bz
	Line 10601N	6100W - 4900W	1200m	BL/BT/Bz
	Line 10701N	6100W - 4900W	1200m	BL/BT/Bz
	Line 10801N	6100W - 4900W	1200m	BL/BT/Bz
	Line 10901N	6100W - 4900W	1200m	BL/BT/Bz
	Line 11001N	6100W - 4900W	1200m	BL/BT/Bz
	Line 11101N	6100W - 4900W	1200m	BL/BT/Bz
	Line 11201N	6100W - 4900W	1200m	BL/BT/Bz
Lp 2016-10	Line 11401N	6100W - 4900W	1200m	BL/BT/Bz
U5 BL/BT/Bz coverage		Loop 10/9	18000m	BL/BT/Bz
Loop 2016-12 (@ **1.785714Hz**)		off-loop - loop to the gridNorth		
Loop 2016-11 (@ **0.7142857Hz**)		off-loop - loop to the gridSouth		
2 Loop coverage	Line 5700W	9801N - 11301N	1500m	BL/BT/Bz
	Line 5600W	9801N - 11301N	1500m	BL/BT/Bz
	Line 5500W	9801N - 11301N	1500m	BL/BT/Bz
	Line 5400W	9801N - 11301N	1500m	BL/BT/Bz
U5 BL/BT/Bz coverage		Loop 7/8	6000m	BL/BT/Bz
AT12 Grid Total U5		**2 loop coverage**	**24000m**	**BL/BT/Bz**

equalling:
- 144000m UTEM5 single component/single Tx coverage
- 48000m UTEM5 1 loop coverage
- 24000m UTEM5 **1.785**/**0.714Hz** BL/BT/Bz coverage

AT5/AT12
Survey Total:
- 45825m UTEM5 2 Transmitter BL/BT/Bz line coverage

equalling:
- 274950m UTEM5 single component/single Tx coverage
- 91650m UTEM5 1 loop coverage
- 45825m UTEM5 2 loop coverage
- 45825m UTEM5 **1.785**/**0.714Hz** BL/BT/Bz coverage

AT5 Grid

Loop 2016-6 (@ **1.785714Hz**) off-loop - loop to the gridSouth
Loop 2016-5 (@ **0.7142857Hz**) in-loop

2 Loop coverage	Line 5700E	150N - 1250N	1100m	BL/BT/Bz
	Line 5800E	50N - 1250N	1200m	BL/BT/Bz
	Line 5900E	0 - 1250N	1250m	BL/BT/Bz
	Line 6000E	0 - 1250N	1250m	BL/BT/Bz
	Line 6100E	0 - 1250N	1250m	BL/BT/Bz
	Line 6200E	0 - 1250N	1250m	BL/BT/Bz
	Line 6300E	0 - 1250N	1250m	BL/BT/Bz
	Line 6400E	0 - 1250N	1250m	BL/BT/Bz
	Line 6500E	50N - 1250N	1200m	BL/BT/Bz
	Line 6600E	175N - 1250N	1075m	BL/BT/Bz

Loop 2016-7 (@ **1.785714Hz**) off-loop - loop to the gridEast
Loop 2016-8 (@ **0.7142857Hz**) off-loop - loop to the gridWest

2 Loop coverage	TLine 500N	5400E - 6950E	1550m	BL/BT/Bz
	TLine 600N	5400E - 7000E	1600m	BL/BT/Bz
	TLine 700N	5400E - 7000E	1600m	BL/BT/Bz
	TLine 800N	5400E - 7000E	1600m	BL/BT/Bz
	TLine 900N	6000E - 7000E	1000m	BL/BT/Bz
	TLine 1000N	6000E - 6800E	800m	BL/BT/Bz
	TLine 1100N	5900E - 6700E	800m	BL/BT/Bz
	TLine 1200N	5900E - 6700E	800m	BL/BT/Bz

AT5 Grid

Loop 2016-6

BL/BT/Bz

~1.785Hz frequency

continuous norm

12Ch - Ch0 reduced

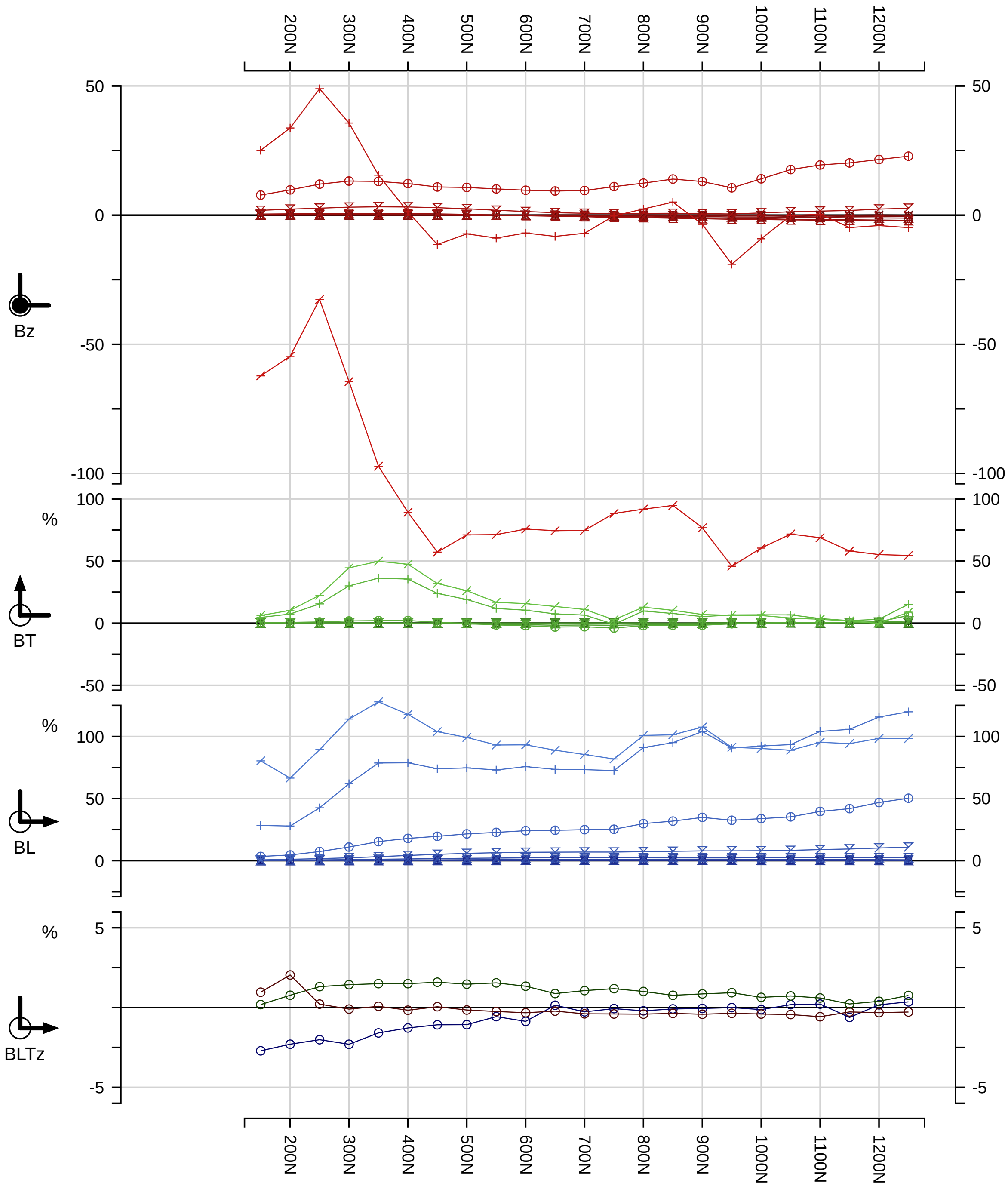
all Chs plotted

Loop 2016-6 (@ **1.785714Hz**) off-loop - loop to the gridSouth

Line 5700E	150N - 1250N	1100m	BL/BT/Bz
Line 5800E	50N - 1250N	1200m	BL/BT/Bz
Line 5900E	0 - 1250N	1250m	BL/BT/Bz
Line 6000E	0 - 1250N	1250m	BL/BT/Bz
Line 6100E	0 - 1250N	1250m	BL/BT/Bz
Line 6200E	0 - 1250N	1250m	BL/BT/Bz
Line 6300E	0 - 1250N	1250m	BL/BT/Bz
Line 6400E	0 - 1250N	1250m	BL/BT/Bz
Line 6500E	50N - 1250N	1200m	BL/BT/Bz
Line 6600E	175N - 1250N	1075m	BL/BT/Bz

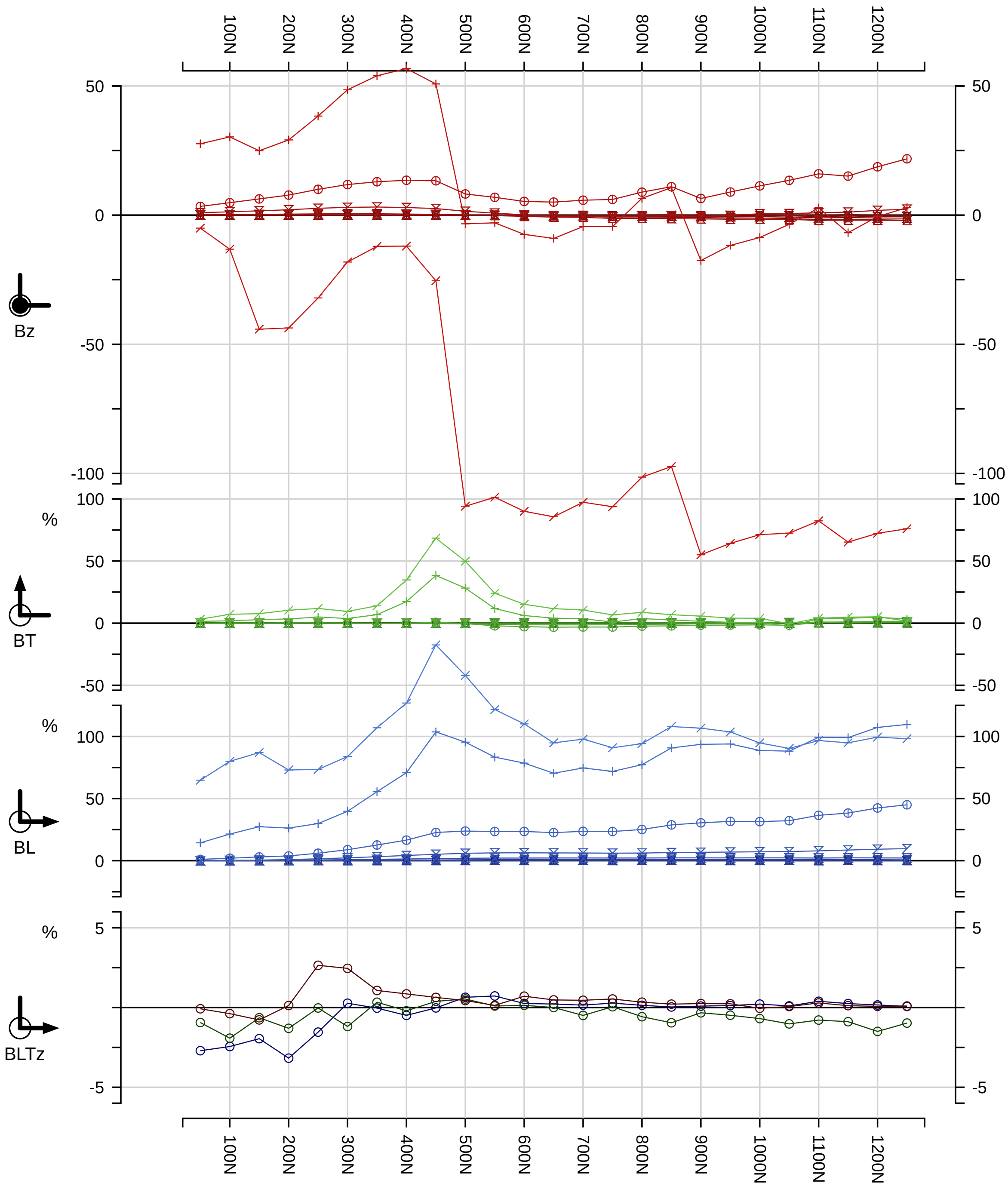
Loop 2016-6 - all Chs - B_{LTZ}

pg 18



Line: L5700E Loop: 2016-6S1 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-6S1_L5700EA.3cH5 / 3 components S1 Lp6 all	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 24/2/16 Red: 25/4/16 Plot: 25/4/16

Loop 2016-6 - all Chs - B_{LTZ}



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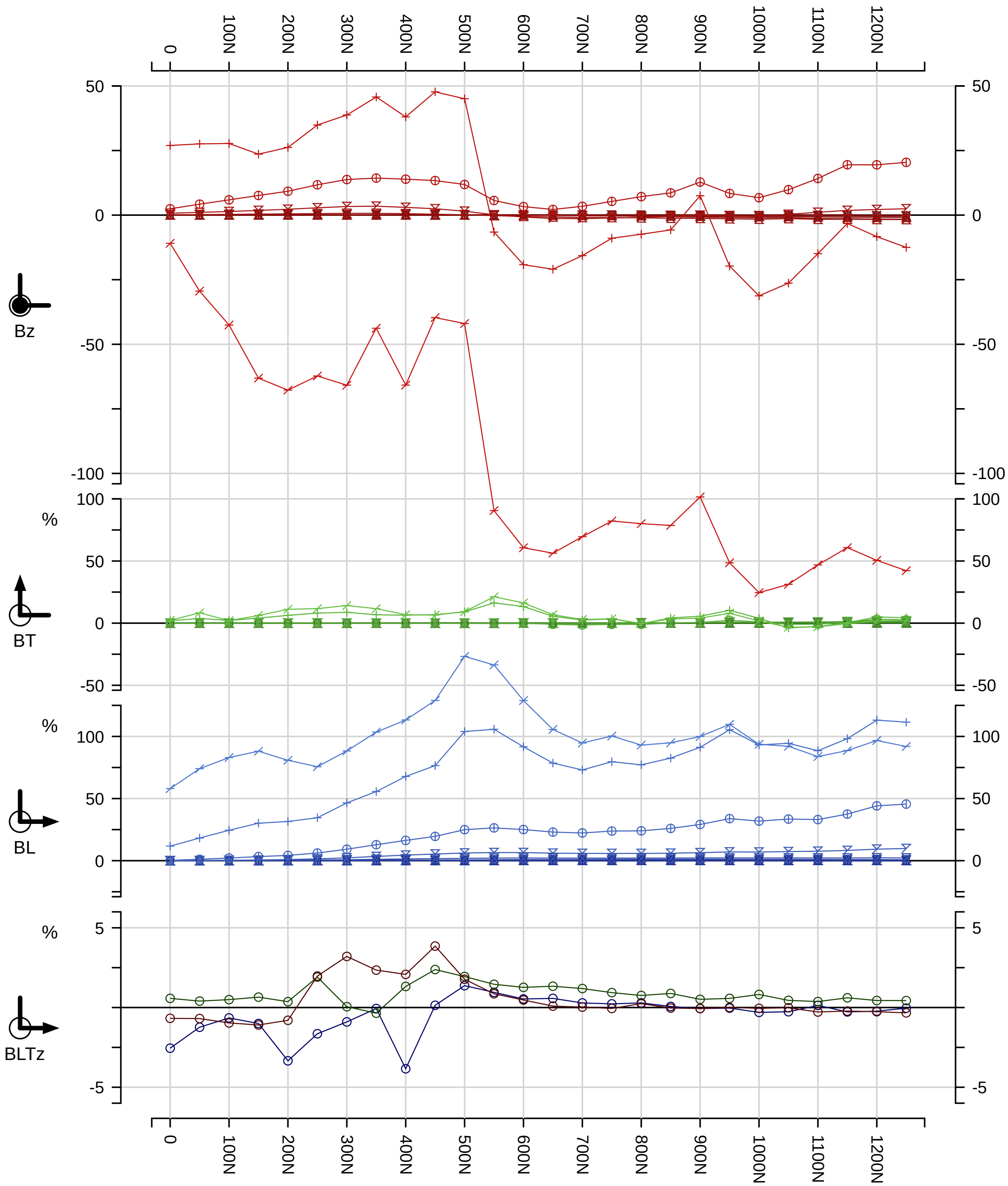
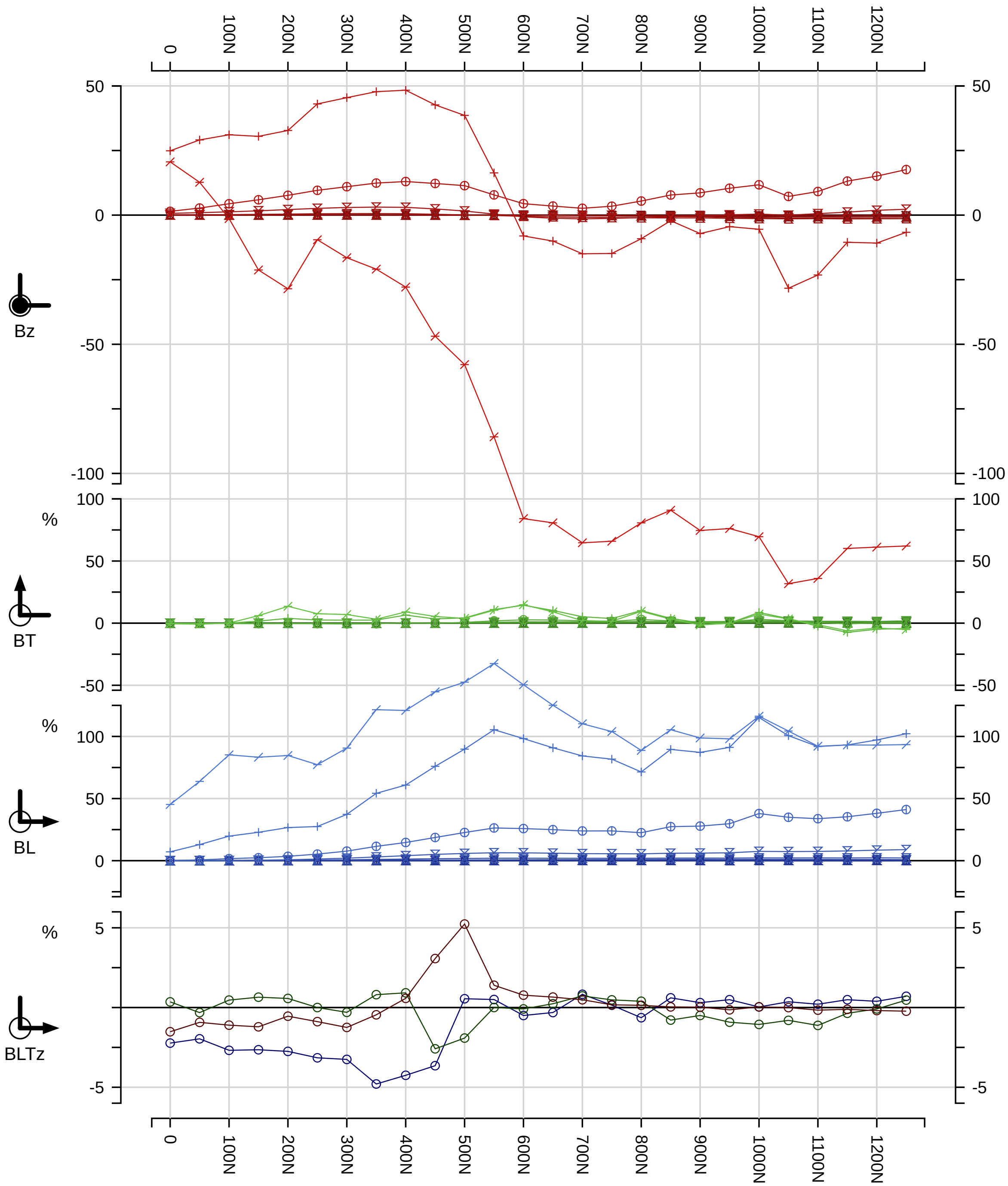
Loop 2016-6 - all Chs - B_{LTZ}



Line: L5900E Loop: 2016-6S1 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-6S1_L5900EA.3cH5 / 3 components S1 Lp6 all	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 25/2/16 Red: 25/4/16 Plot: 25/4/16

Loop 2016-6 - all Chs - B_{LTZ}

pg 21



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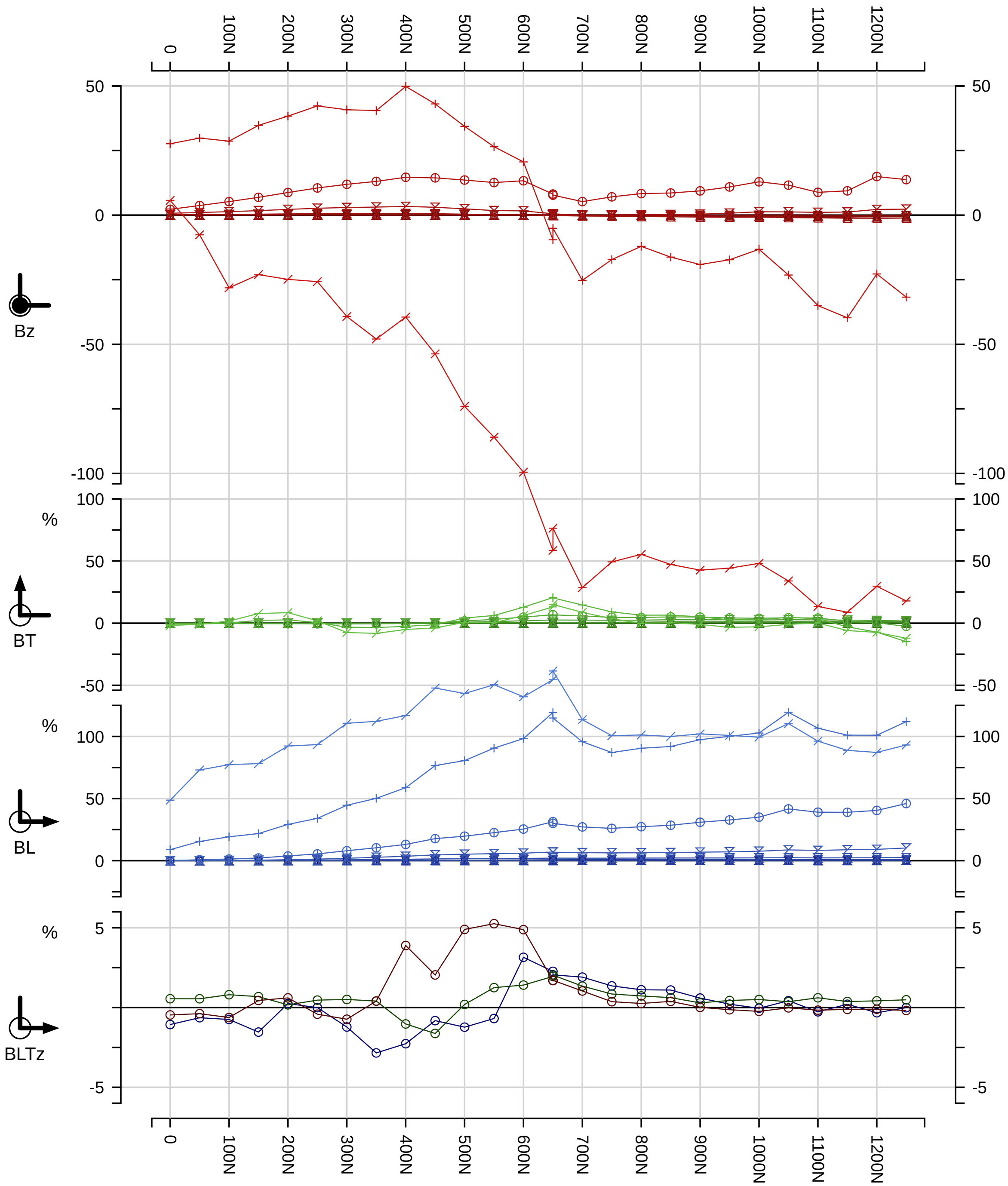
Loop 2016-6 - all Chs - B_{LTZ}

pg 22



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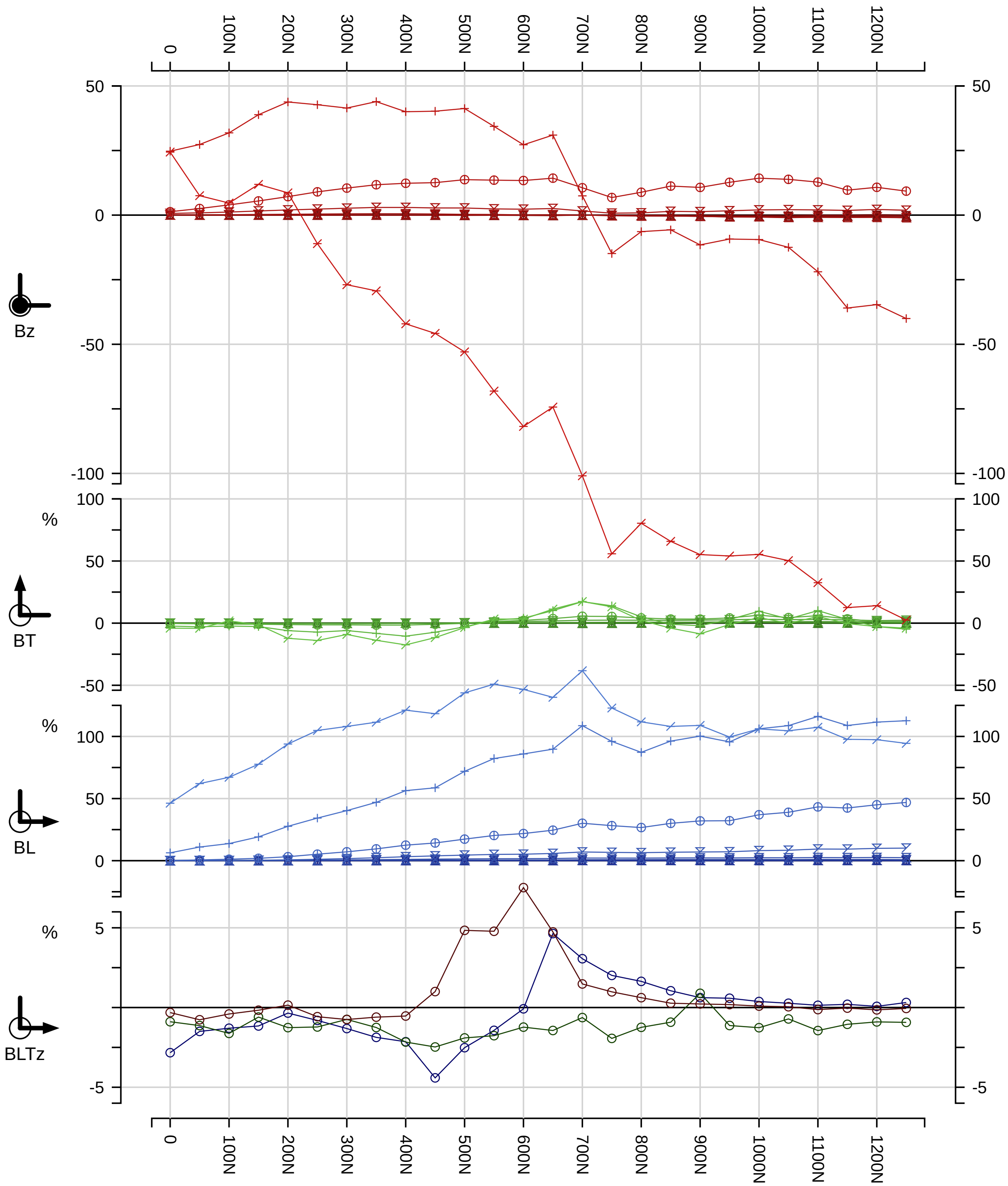
Loop 2016-6 - all Chs - B_{LTZ}

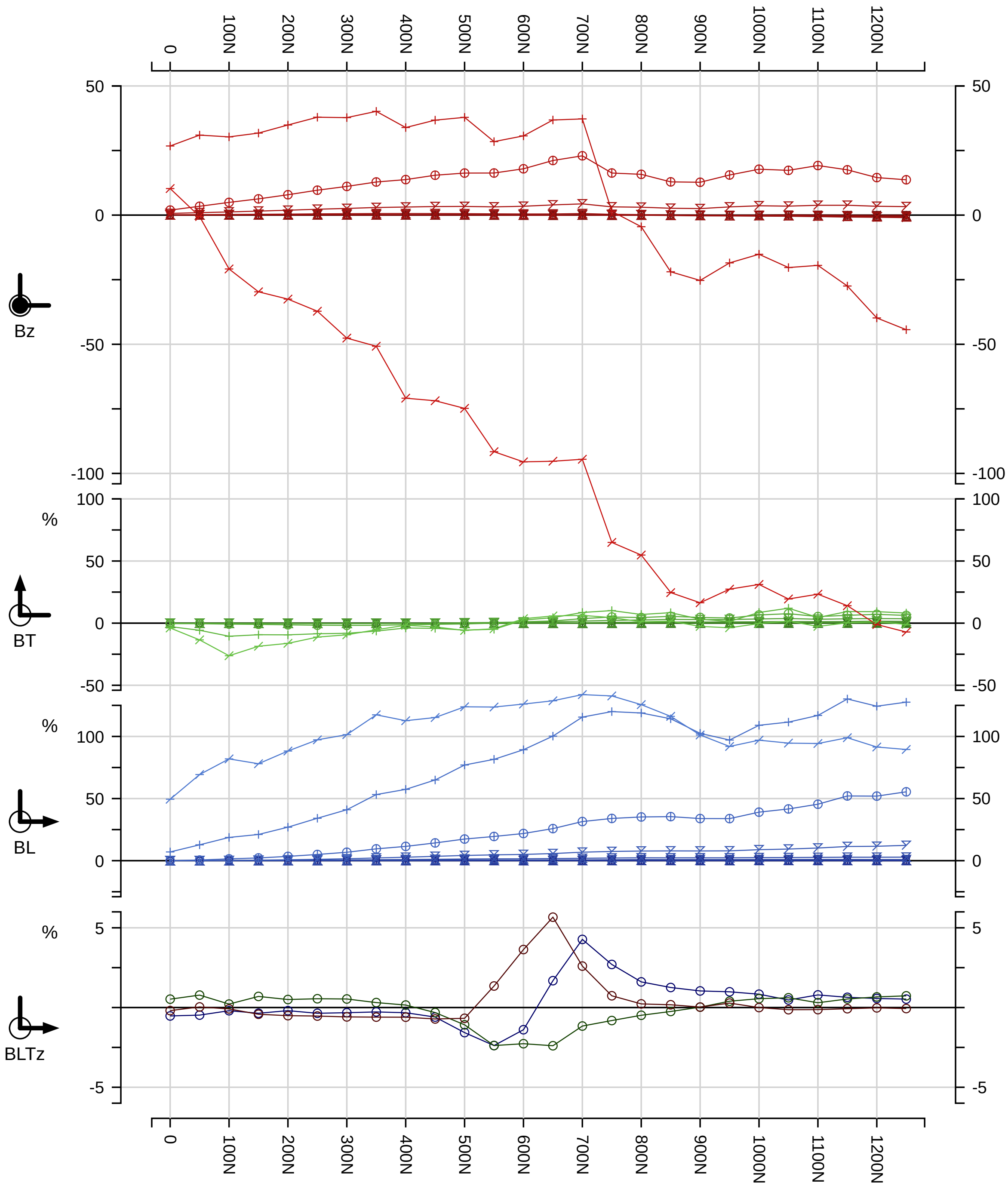
pg 23



Line: L6200E Loop: 2016-6S1 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-6S1_L6200EA.3cH5 / 3 components S1 Lp6 all	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 27/2/16 Red: 25/4/16 Plot: 25/4/16

Loop 2016-6 - all Chs - B_{LTZ}

pg 24



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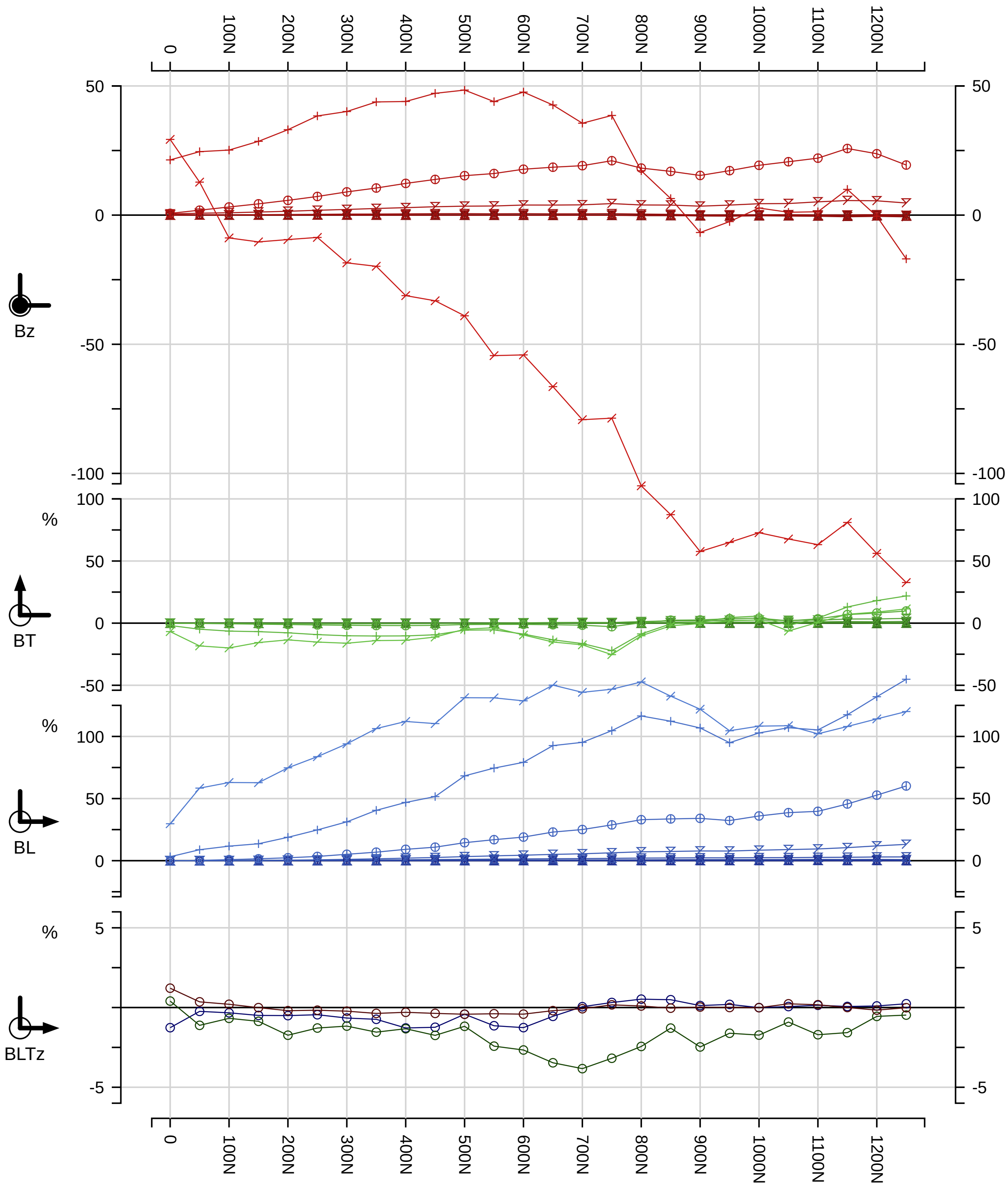
Loop 2016-6 - all Chs - B_{LTZ}

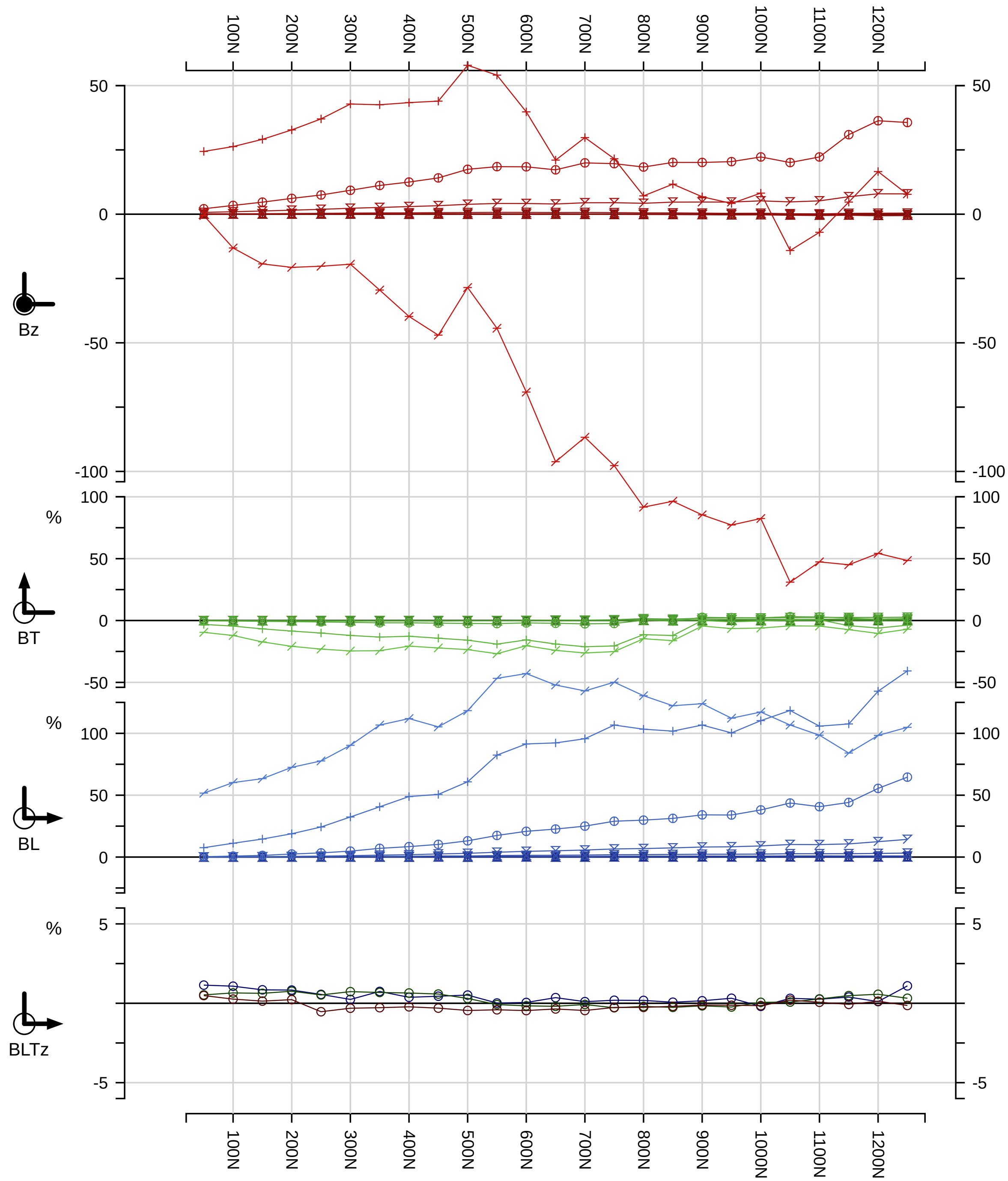
pg 25



Line: L6400E Loop: 2016-6S1 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-6S1_L6400EA.3cH5 / 3 components S1 Lp6 all	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 27/2/16 Red: 25/4/16 Plot: 25/4/16

Loop 2016-6 - all Chs - B_{LTZ}

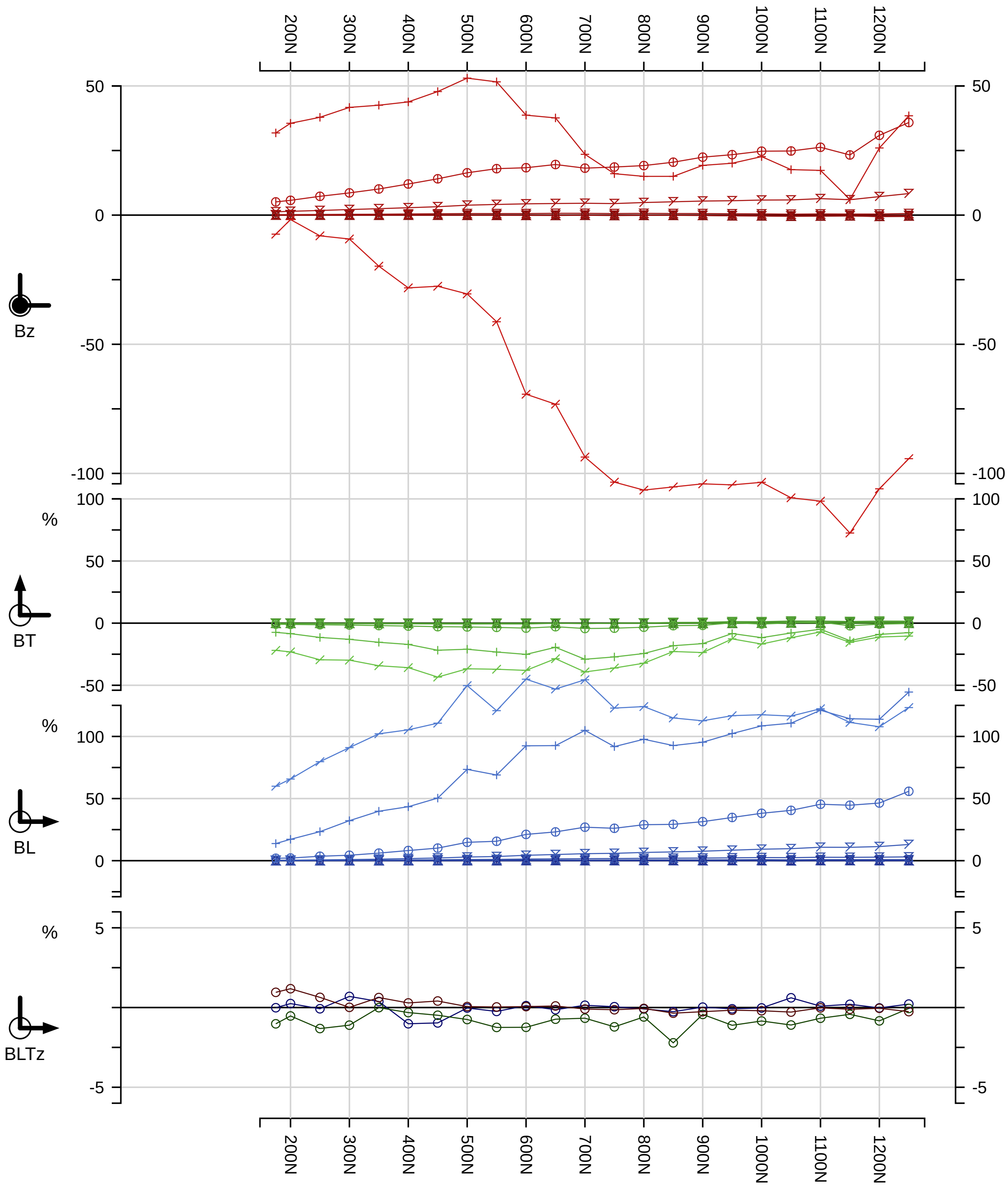
pg 26



Line: L6500E Loop: 2016-6S1 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-6S1_L6500EA.3cH5 / 3 components S1 Lp6 all	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 28/2/16 Red: 25/4/16 Plot: 25/4/16

Loop 2016-6 - all Chs - B_{LTZ}

pg 27



Line: L6600E Loop: 2016-6S1 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-6S1_L6600EA.3cH5 / 3 components S1 Lp6 all	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 28/2/16 Red: 25/4/16 Plot: 25/4/16

Loop 2016-6 - all Chs - B_{LTZ}

AT5 Grid

Loop 2016-6

BL/BT/Bz

~1.785Hz frequency

continuous norm

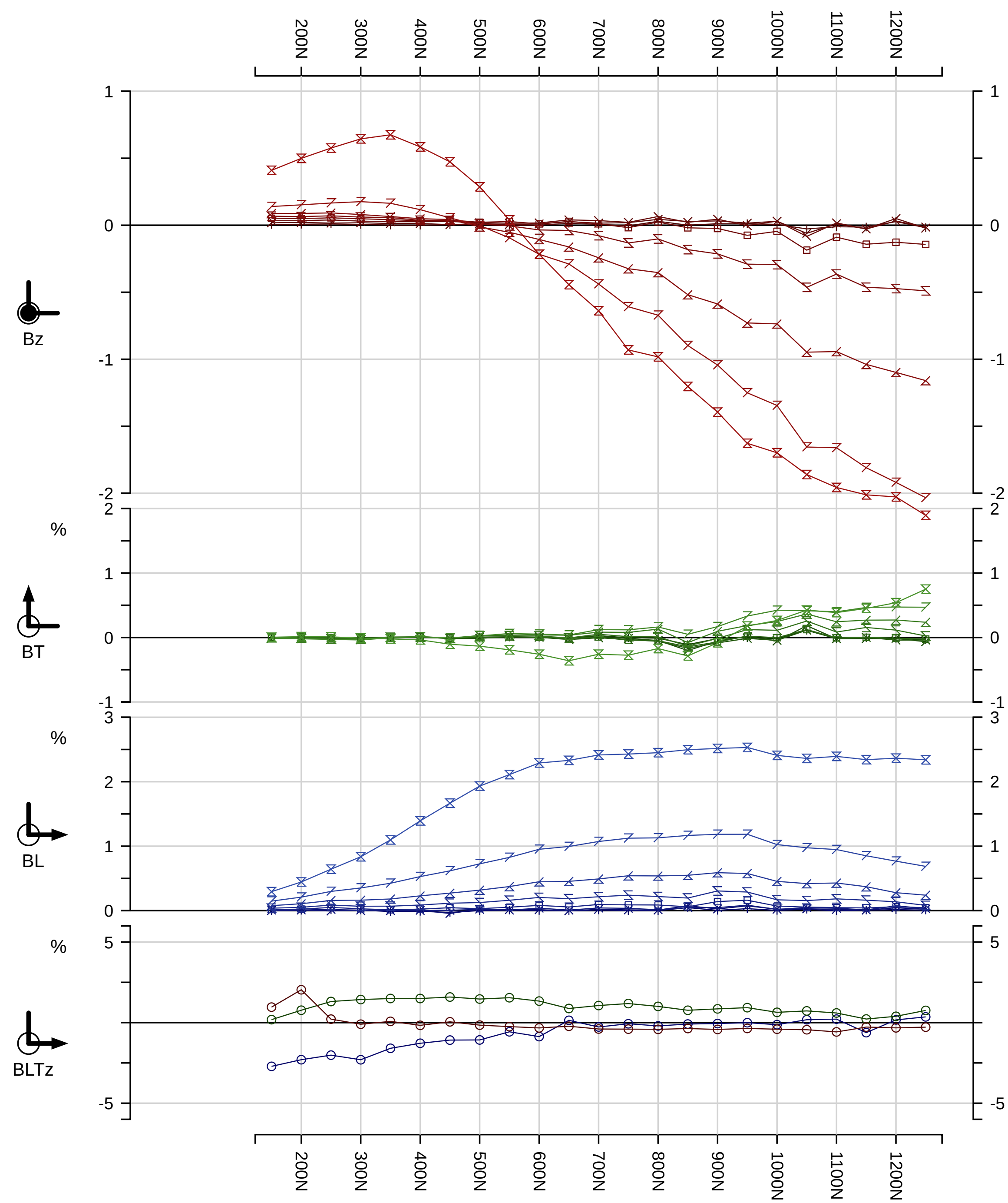
12Ch - Ch0 reduced

late Chs8-Ch0 plotted

Loop 2016-6 (@ **1.785714Hz**) off-loop - loop to the gridSouth

Line 5700E	150N - 1250N	1100m	BL/BT/Bz
Line 5800E	50N - 1250N	1200m	BL/BT/Bz
Line 5900E	0 - 1250N	1250m	BL/BT/Bz
Line 6000E	0 - 1250N	1250m	BL/BT/Bz
Line 6100E	0 - 1250N	1250m	BL/BT/Bz
Line 6200E	0 - 1250N	1250m	BL/BT/Bz
Line 6300E	0 - 1250N	1250m	BL/BT/Bz
Line 6400E	0 - 1250N	1250m	BL/BT/Bz
Line 6500E	50N - 1250N	1200m	BL/BT/Bz
Line 6600E	175N - 1250N	1075m	BL/BT/Bz

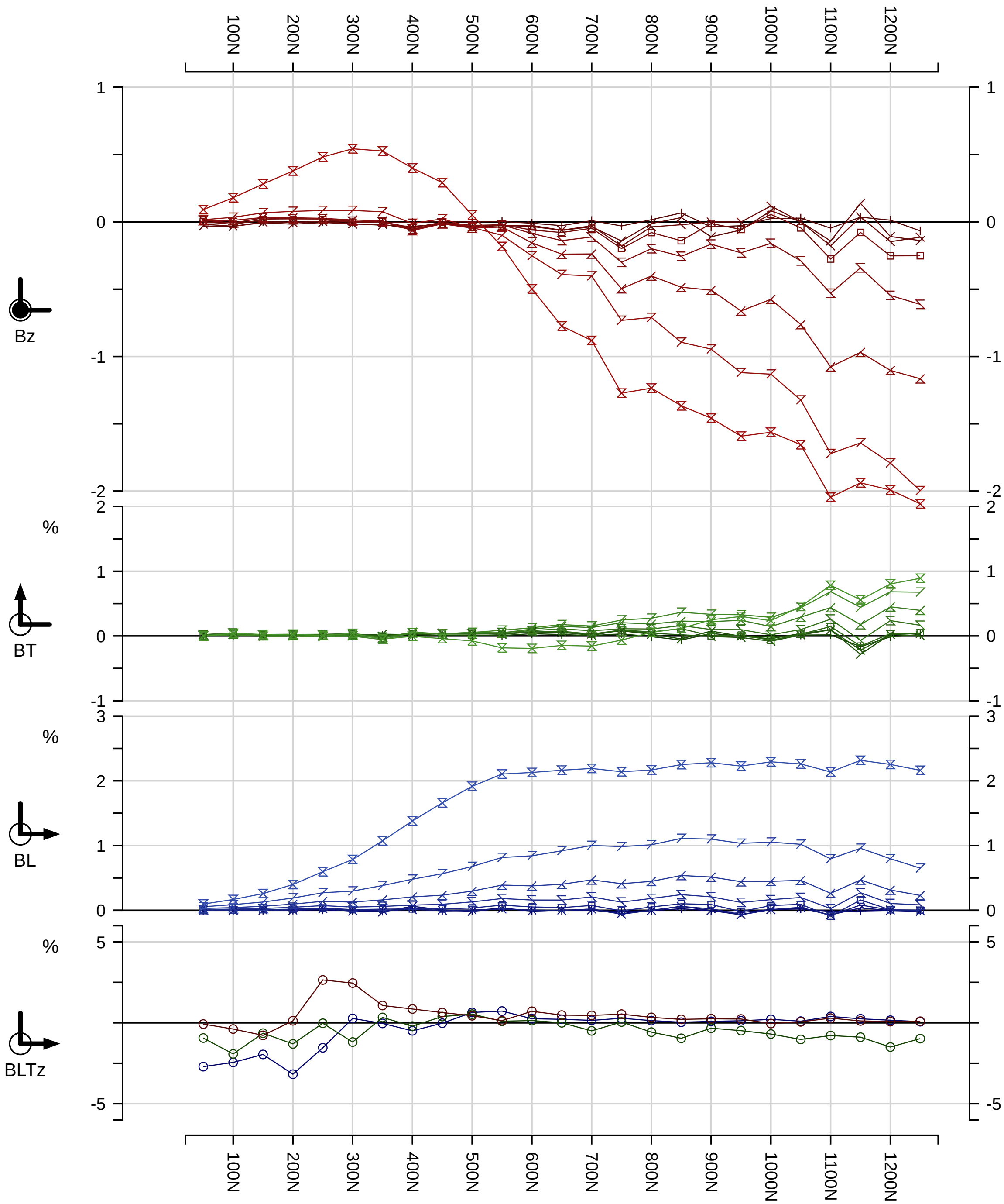
Loop 2016-6 - late Chs8-Ch0 - B_{LTZ}



Line: L5700E Loop: 2016-6S1 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-6S1_L5700EA.3cH5 / 3 components S1 Lp6 late8Ch*	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 24/2/16 Red: 25/4/16 Plot: 25/4/16

Loop 2016-6 - late Chs8-Ch0 - B_{LTZ}

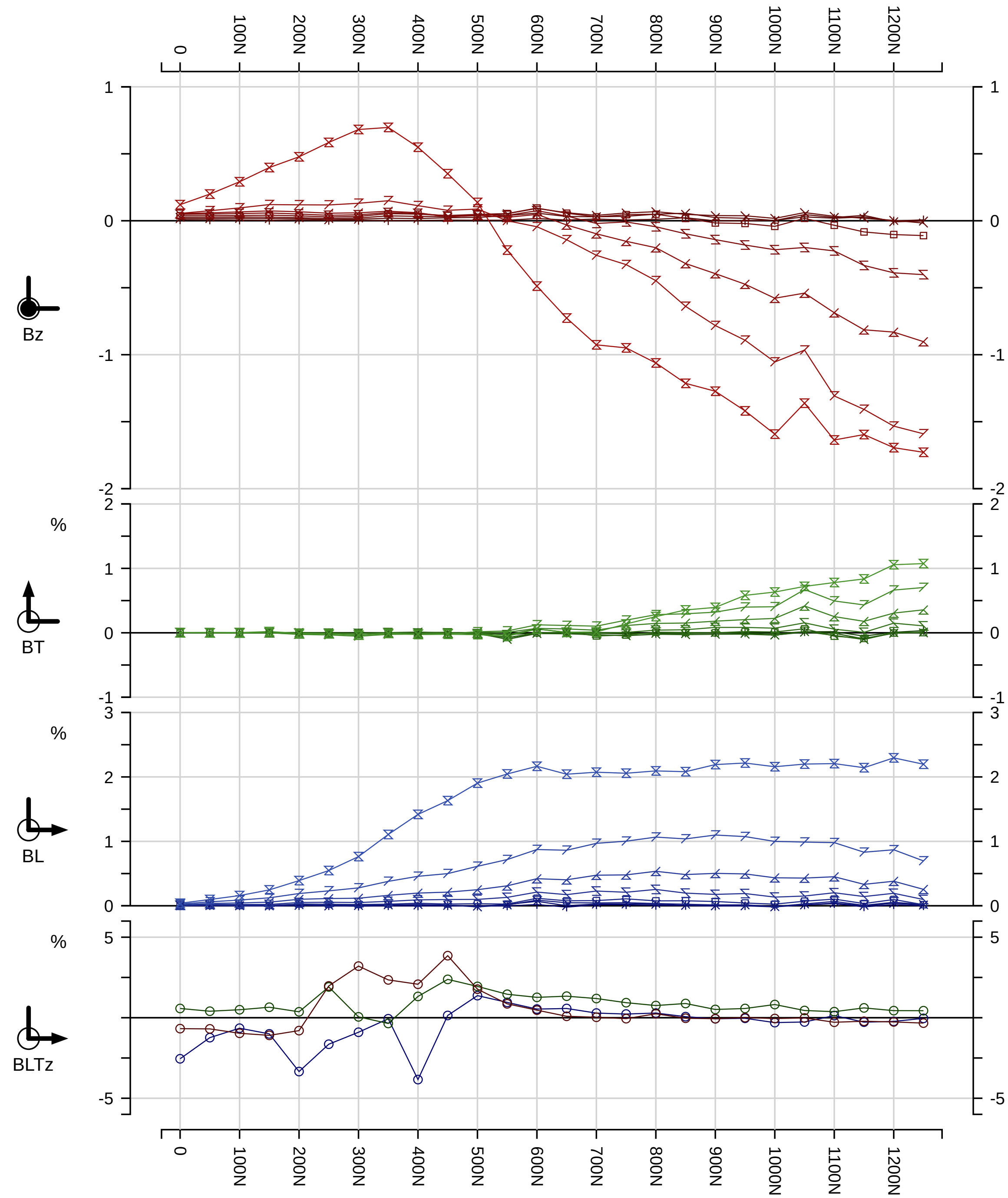
pg 30



Line: L5800E Loop: 2016-6S1 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-6S1_L5800EA.3cH5 / 3 components S1 Lp6 late8Ch*	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 24/2/16 Red: 25/4/16 Plot: 25/4/16

Loop 2016-6 - late Chs8-Ch0 - B_{LTZ}

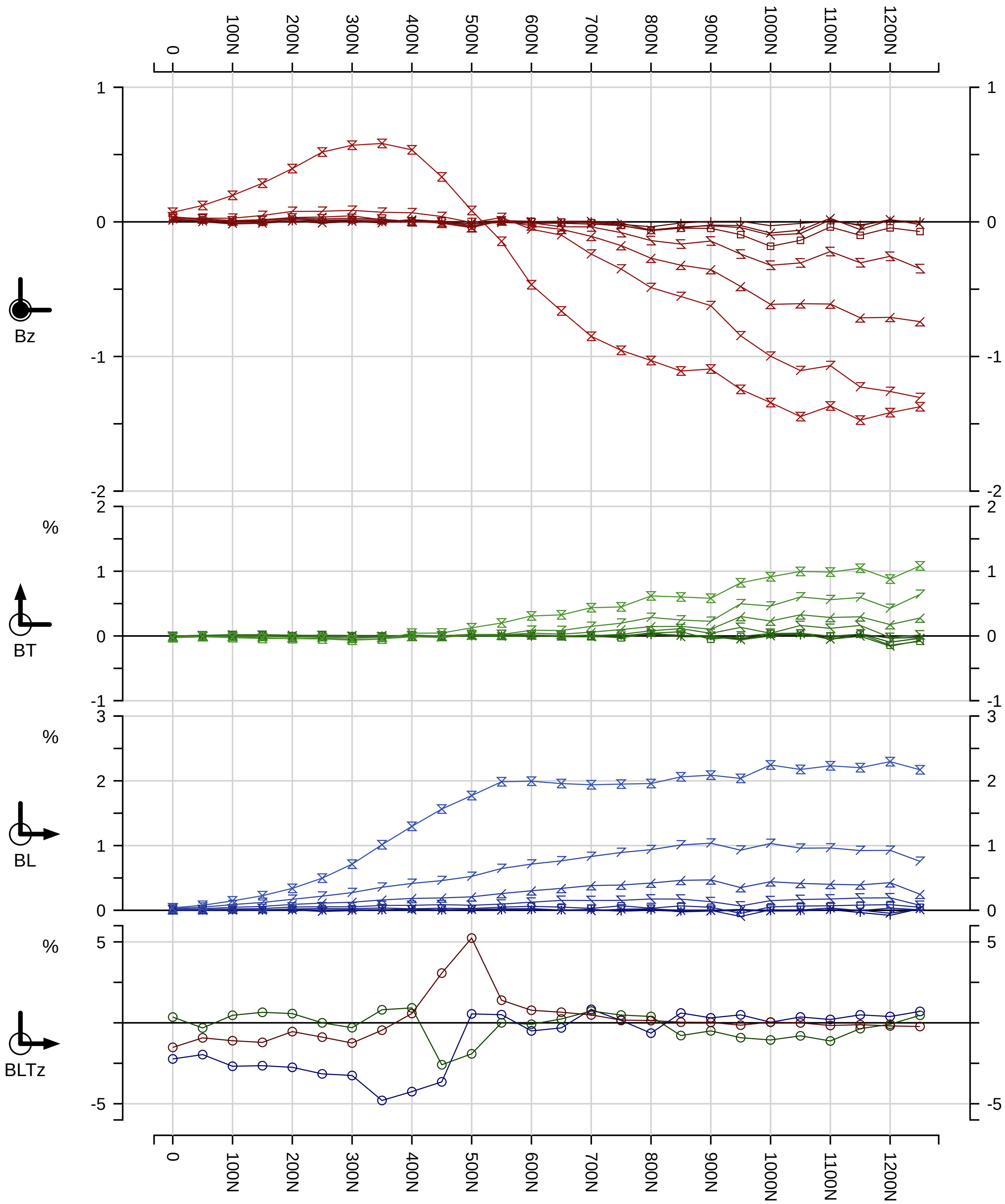
pg 31



Line: L5900E Loop: 2016-6S1 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-6S1_L5900EA.3cH5 / 3 components S1 Lp6 late8Ch*	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 25/2/16 Red: 25/4/16 Plot: 25/4/16

Loop 2016-6 - late Chs8-Ch0 - B_{LTZ}

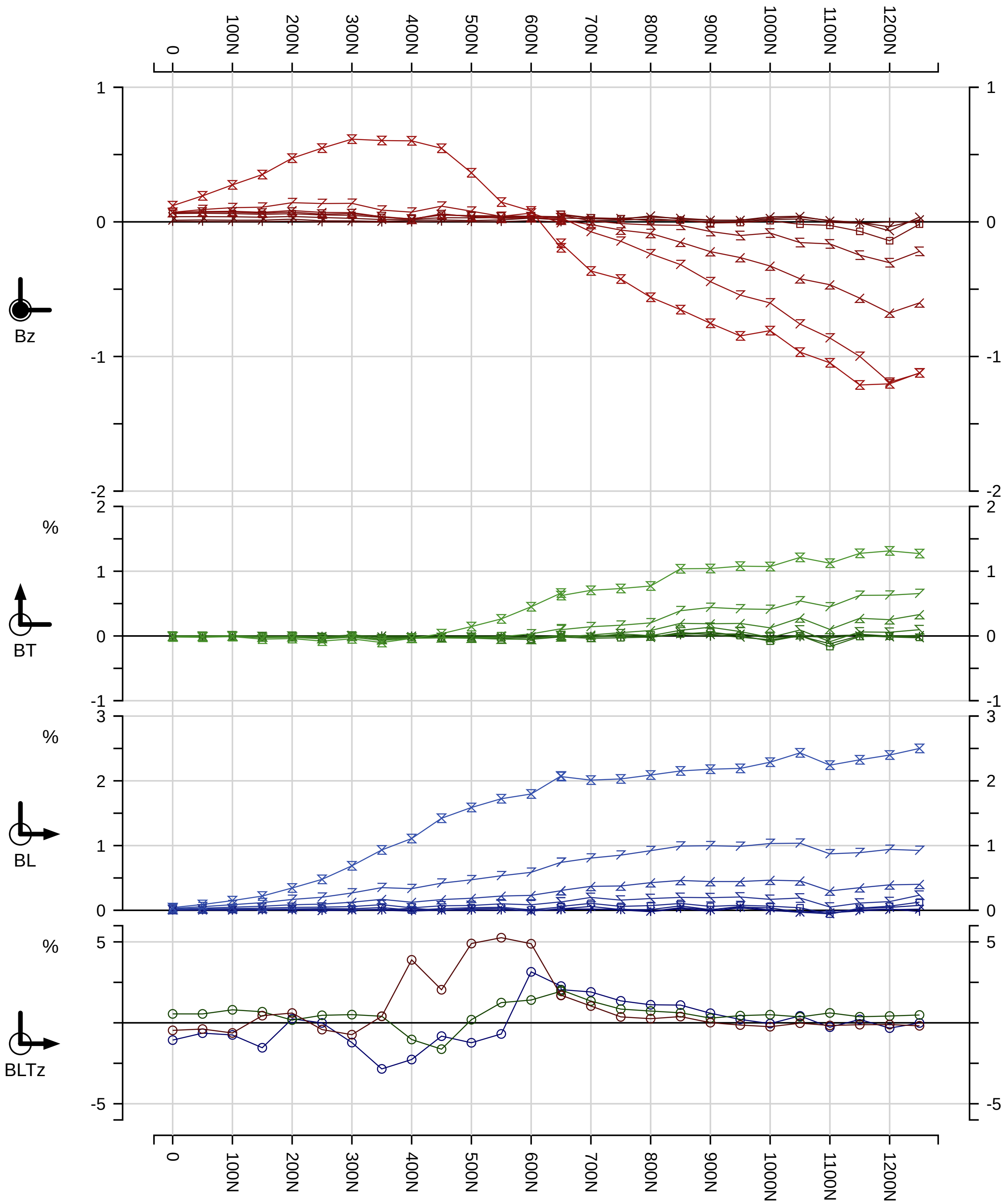
pg 32



Line: L6000E Loop: 2016-6S1 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-6S1_L6000EA.3cH5 / 3 components S1 Lp6 late8Ch*	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 25/2/16 Red: 25/4/16 Plot: 25/4/16

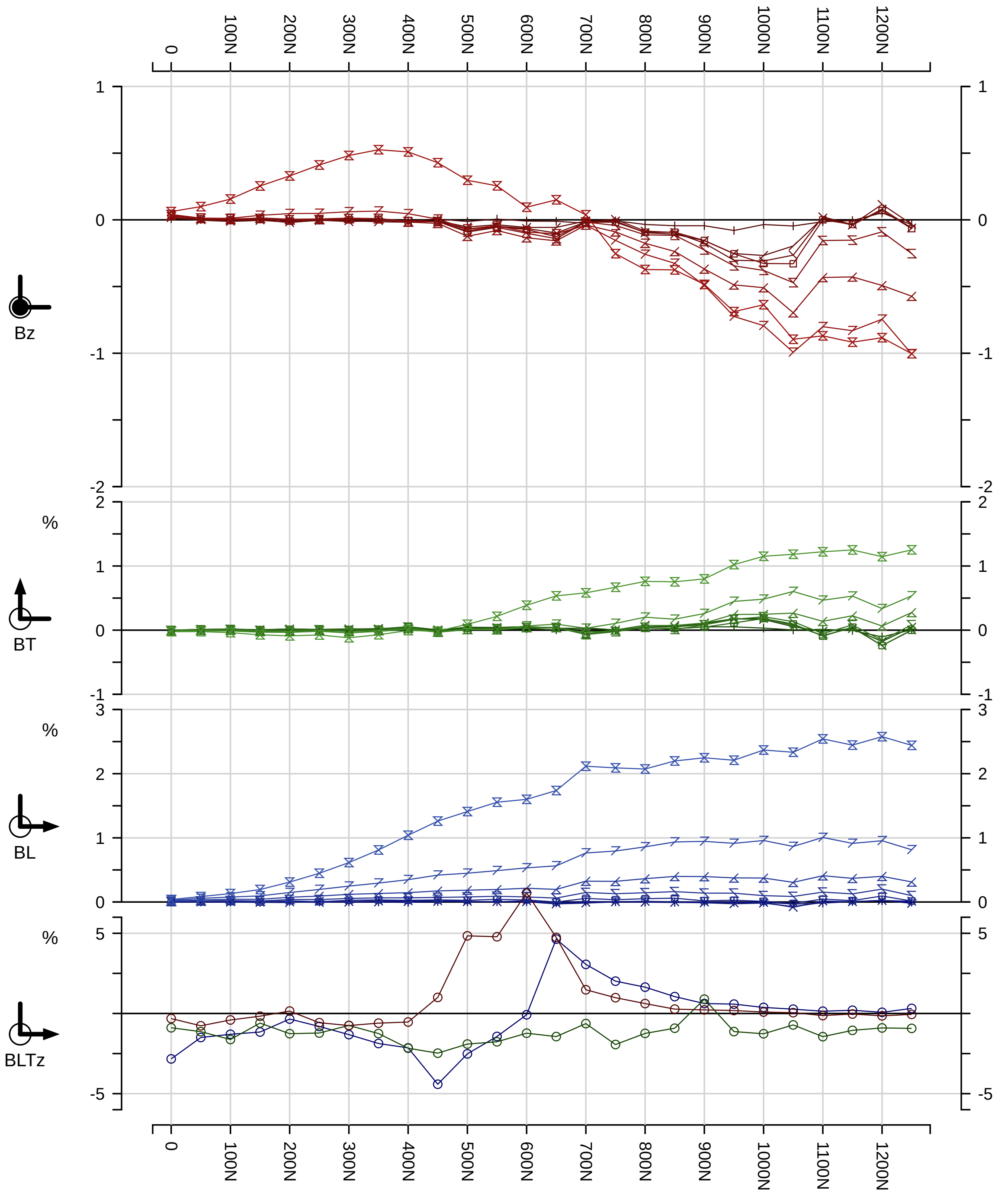
Loop 2016-6 - late Chs8-Ch0 - B_{LTZ}

pg 33



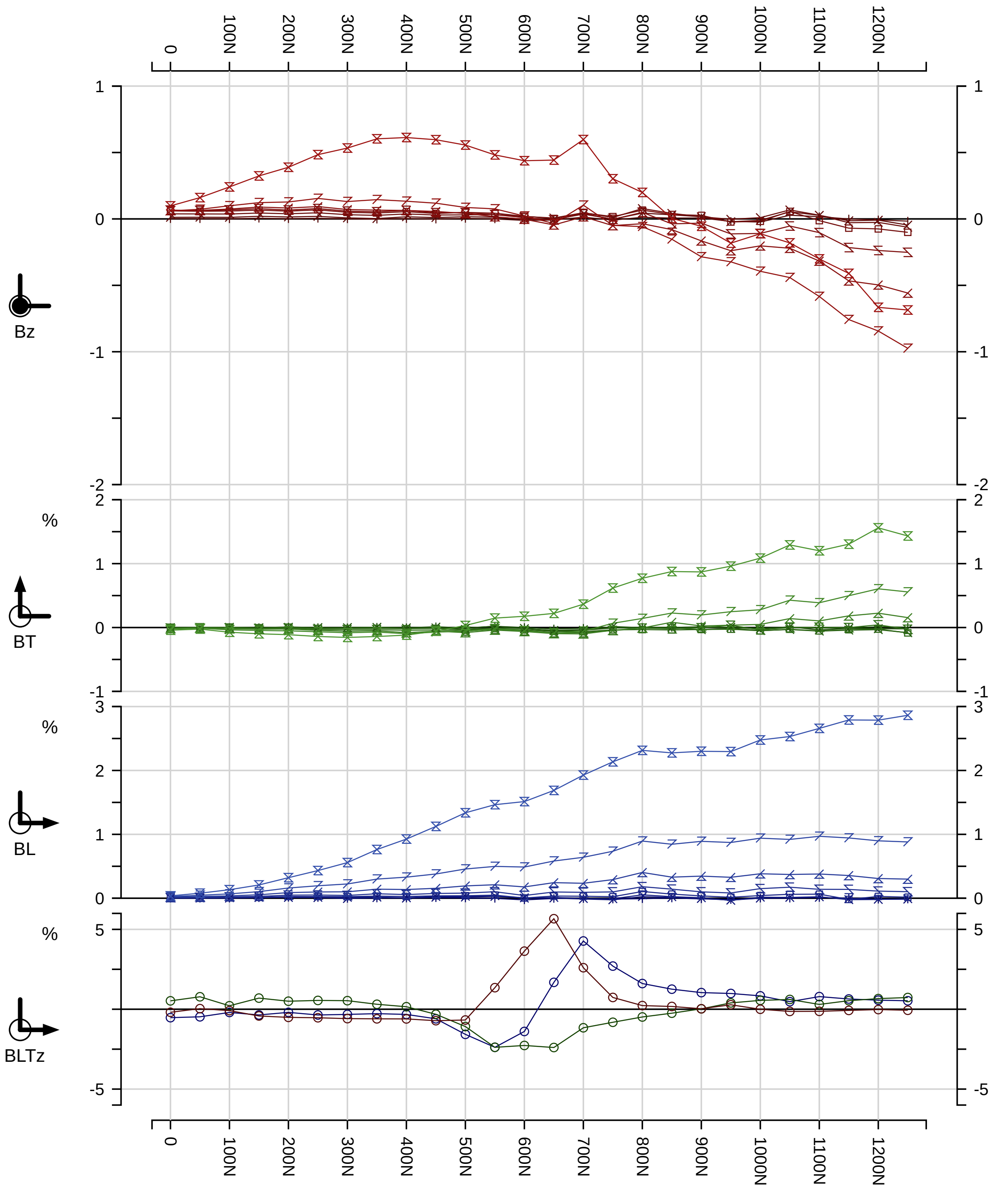
Line: L6100E Loop: 2016-6S1 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-6S1_L6100EA.3cH5 / 3 components S1 Lp6 late8Ch*	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 27/2/16 Red: 25/4/16 Plot: 25/4/16

Loop 2016-6 - late Chs8-Ch0 - B_{LTZ}



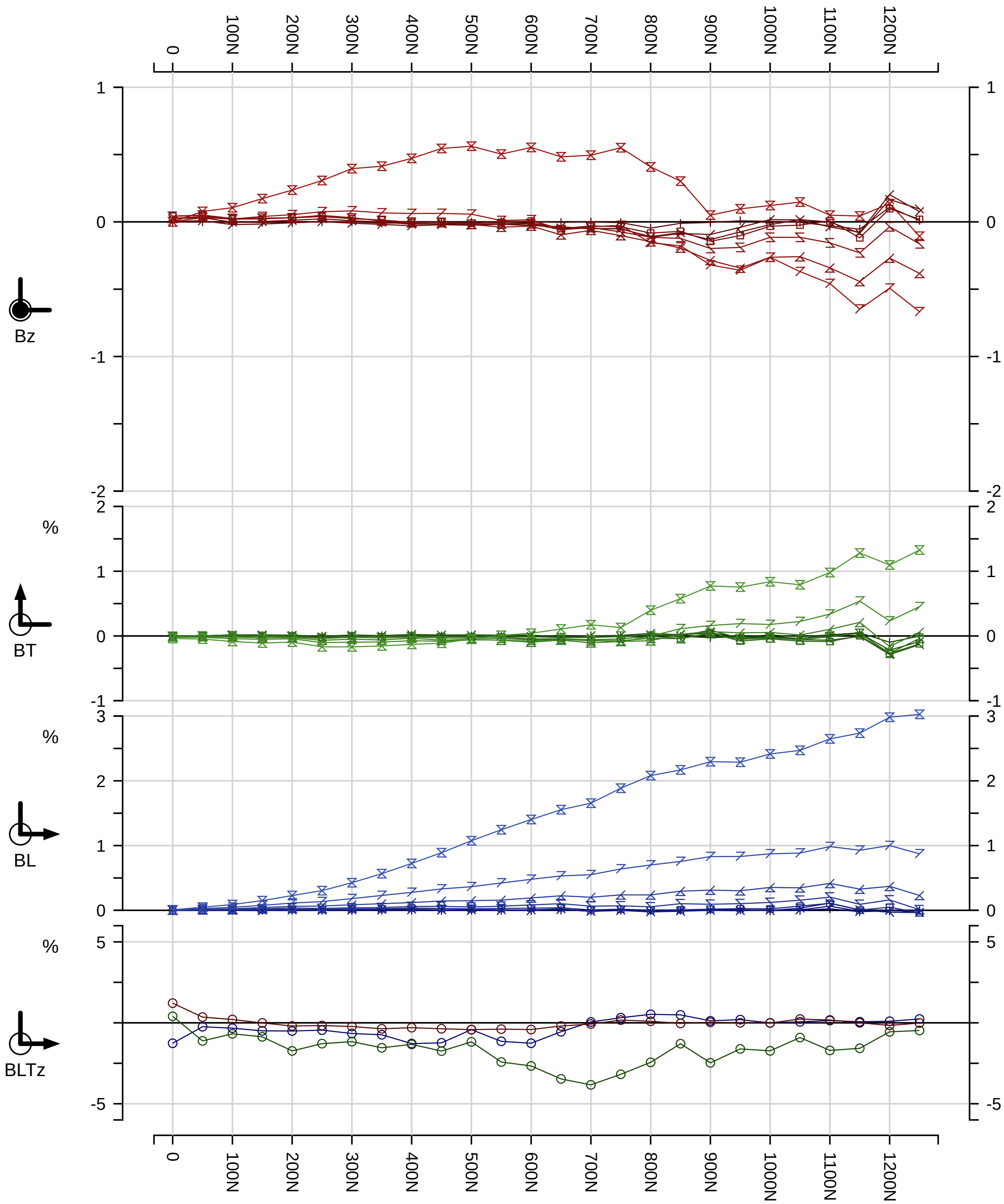
Line: L6200E Loop: 2016-6S1 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-6S1_L6200EA.3cH5 / 3 components S1 Lp6 late8Ch*	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 27/2/16 Red: 25/4/16 Plot: 25/4/16

Loop 2016-6 - late Chs8-Ch0 - B_{LTZ}



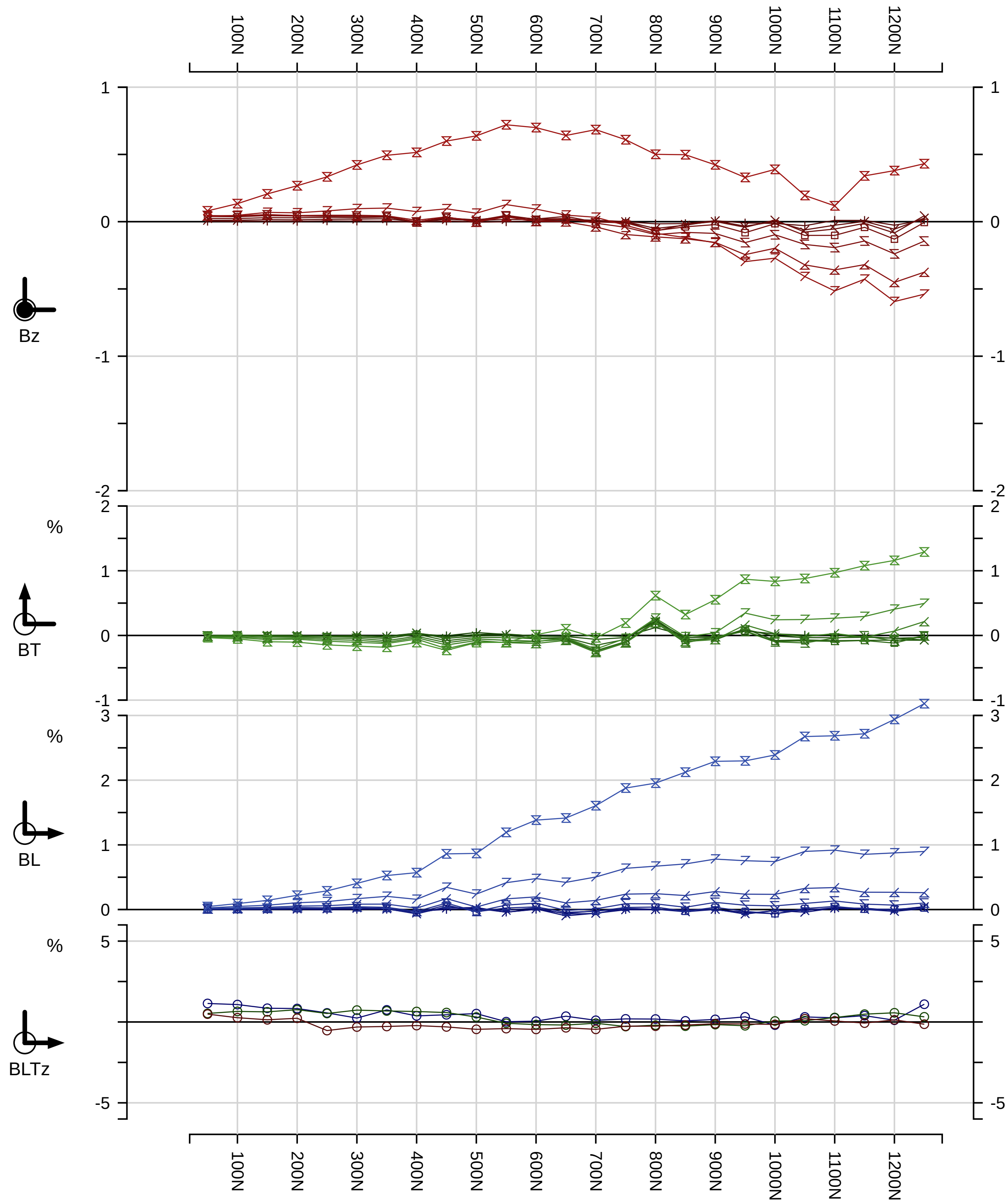
Line: L6300E Loop: 2016-6S1 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-6S1_L6300EA.3cH5 / 3 components S1 Lp6 late8Ch*	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 27/2/16 Red: 25/4/16 Plot: 25/4/16

Loop 2016-6 - late Chs8-Ch0 - B_{LTZ}



Line: L6400E Loop: 2016-6S1 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-6S1_L6400EA.3cH5 / 3 components S1 Lp6 late8Ch*	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 27/2/16 Red: 25/4/16 Plot: 25/4/16

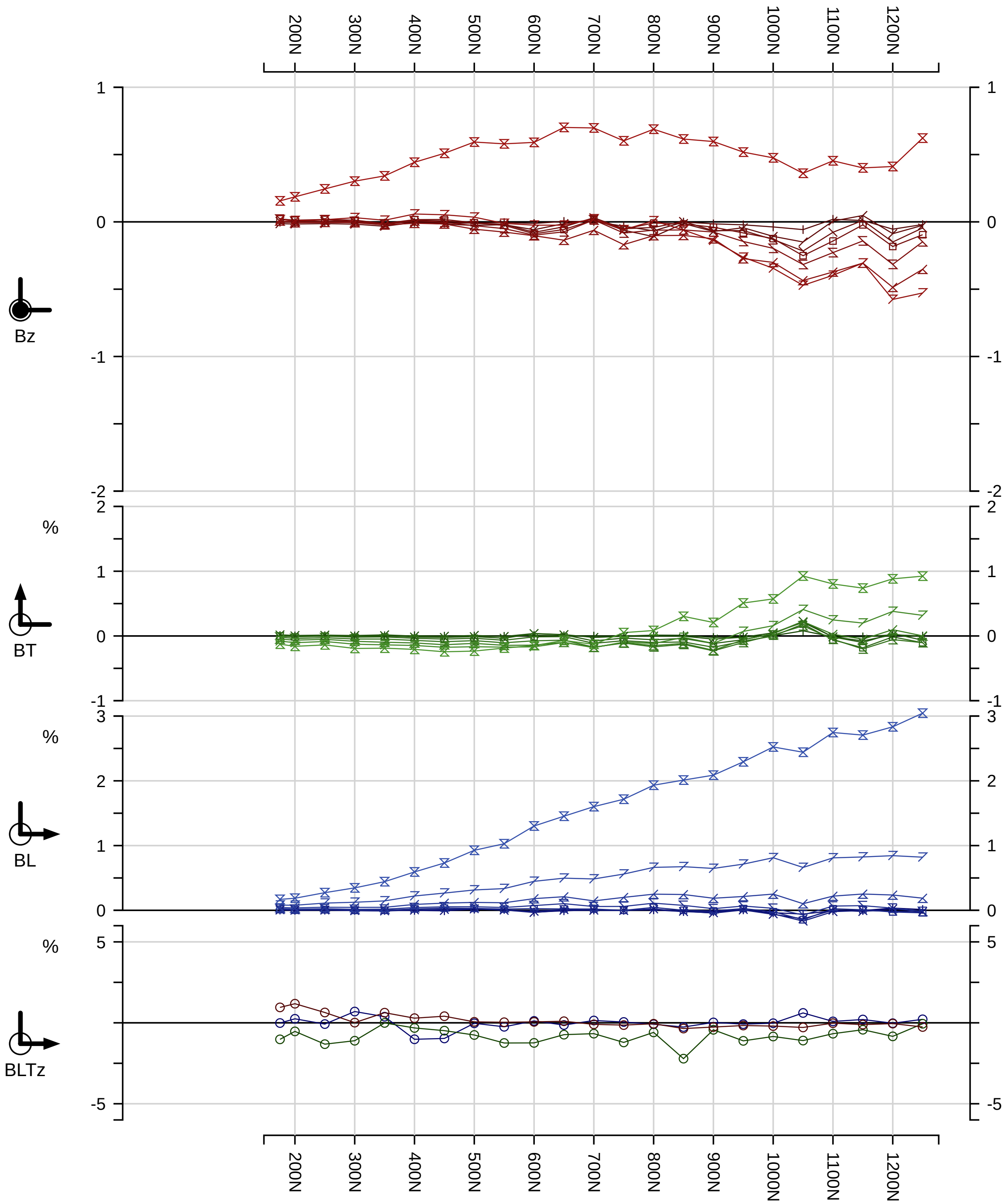
Loop 2016-6 - late Chs8-Ch0 - B_{LTZ}



Line: L6500E Loop: 2016-6S1 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-6S1_L6500EA.3cH5 / 3 components S1 Lp6 late8Ch*	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 28/2/16 Red: 25/4/16 Plot: 25/4/16

Loop 2016-6 - late Chs8-Ch0 - B_{LTZ}

pg 38



Line: L6600E Loop: 2016-6S1 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-6S1_L6600EA.3cH5 / 3 components S1 Lp6 late8Ch*	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 28/2/16 Red: 25/4/16 Plot: 25/4/16

Loop 2016-6 - late Chs8-Ch0 - B_{LTZ}

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AT5 Grid

Loop 2016-5

BL/BT/Bz

~0.7143Hz frequency

continuous norm

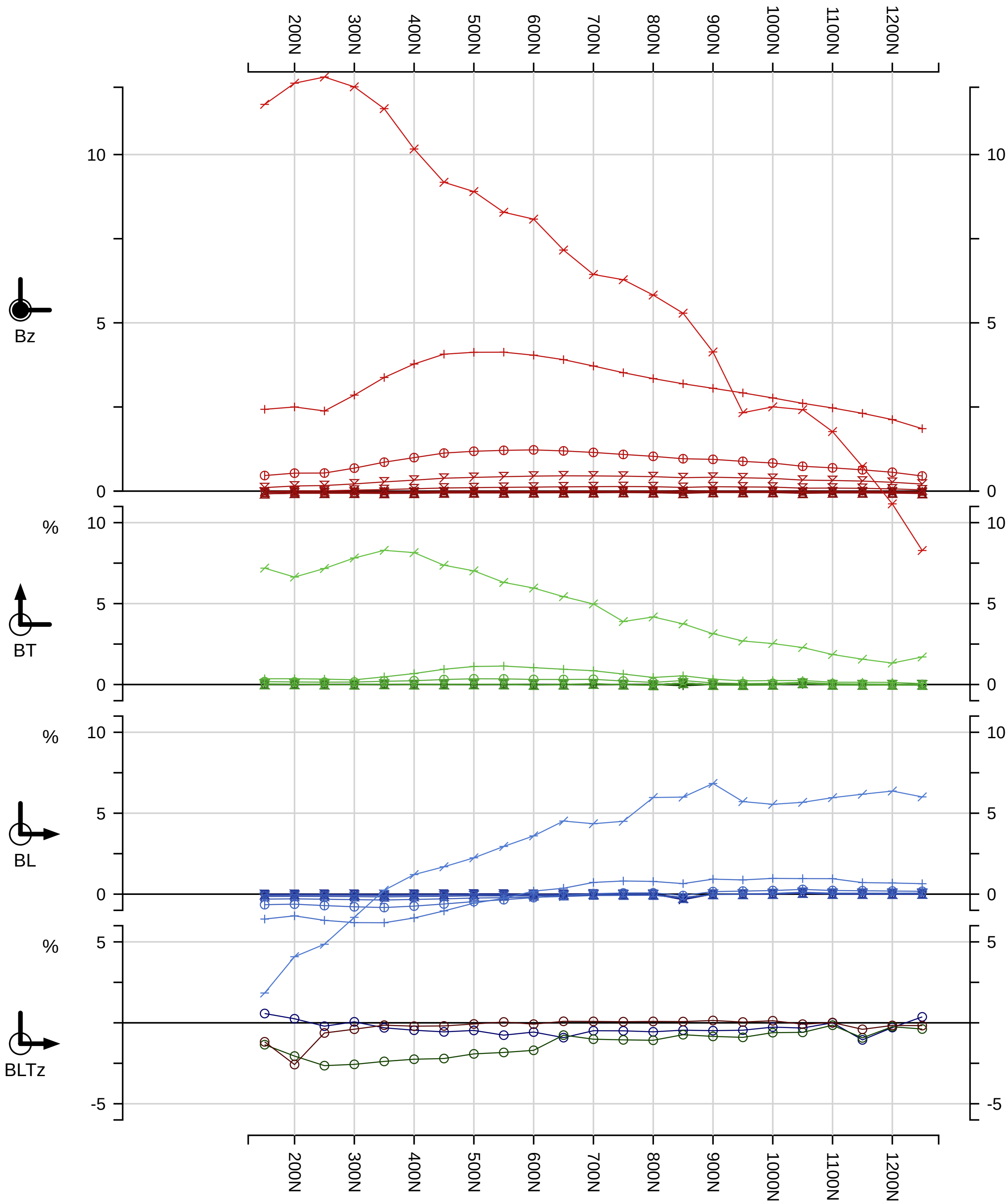
12Ch - Ch0 reduced

all Chs plotted

Loop 2016-5 (@ **0.7142857Hz**) in-loop

Line 5700E	150N - 1250N	1100m	BL/BT/Bz
Line 5800E	50N - 1250N	1200m	BL/BT/Bz
Line 5900E	0 - 1250N	1250m	BL/BT/Bz
Line 6000E	0 - 1250N	1250m	BL/BT/Bz
Line 6100E	0 - 1250N	1250m	BL/BT/Bz
Line 6200E	0 - 1250N	1250m	BL/BT/Bz
Line 6300E	0 - 1250N	1250m	BL/BT/Bz
Line 6400E	0 - 1250N	1250m	BL/BT/Bz
Line 6500E	50N - 1250N	1200m	BL/BT/Bz
Line 6600E	175N - 1250N	1075m	BL/BT/Bz

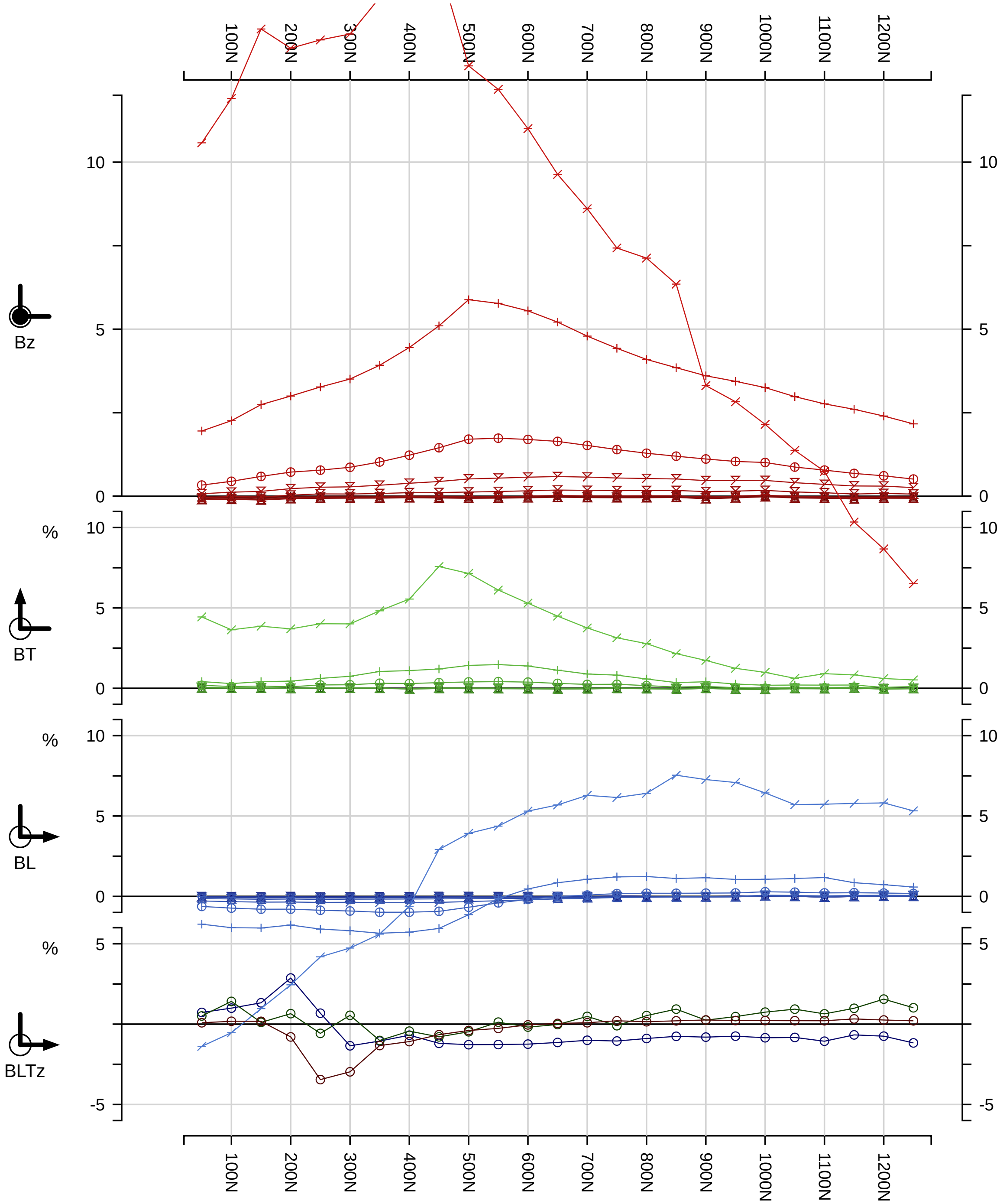
Loop 2016-5 - all Chs - B_{LTZ}



Line: L5700E Loop: 2016-5S2 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-5S2_L5700EB.3cH5 / 3 components S2 Lp5 all	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 24/2/16 Red: 25/4/16 Plot: 25/4/16

Loop 2016-5 - all Chs - B_{LTZ}

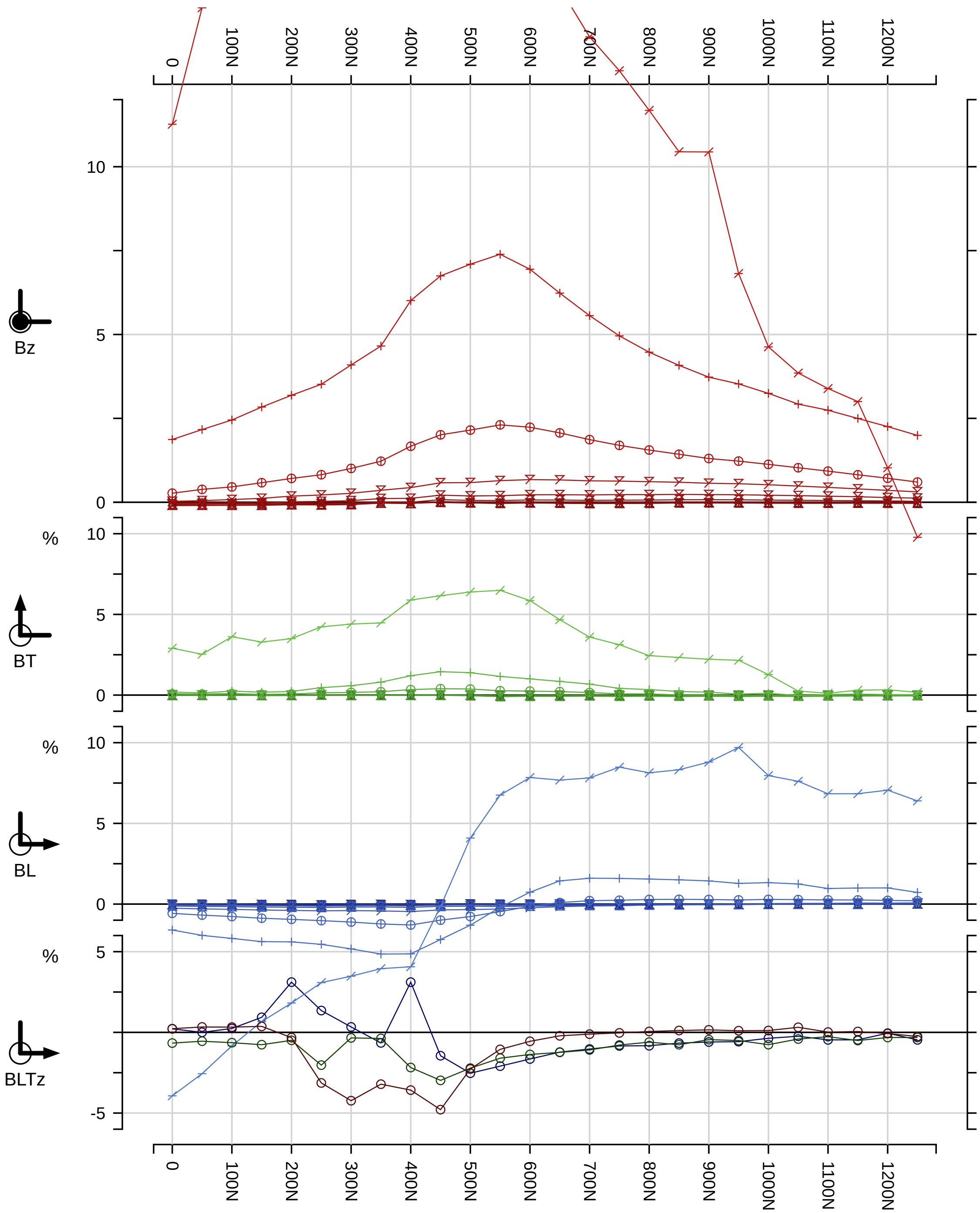
pg 41



Line: L5800E Loop: 2016-5S2 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-5S2_L5800EB.3cH5 / 3 components S2 Lp5 all*	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 24/2/16 Red: 25/4/16 Plot: 25/4/16

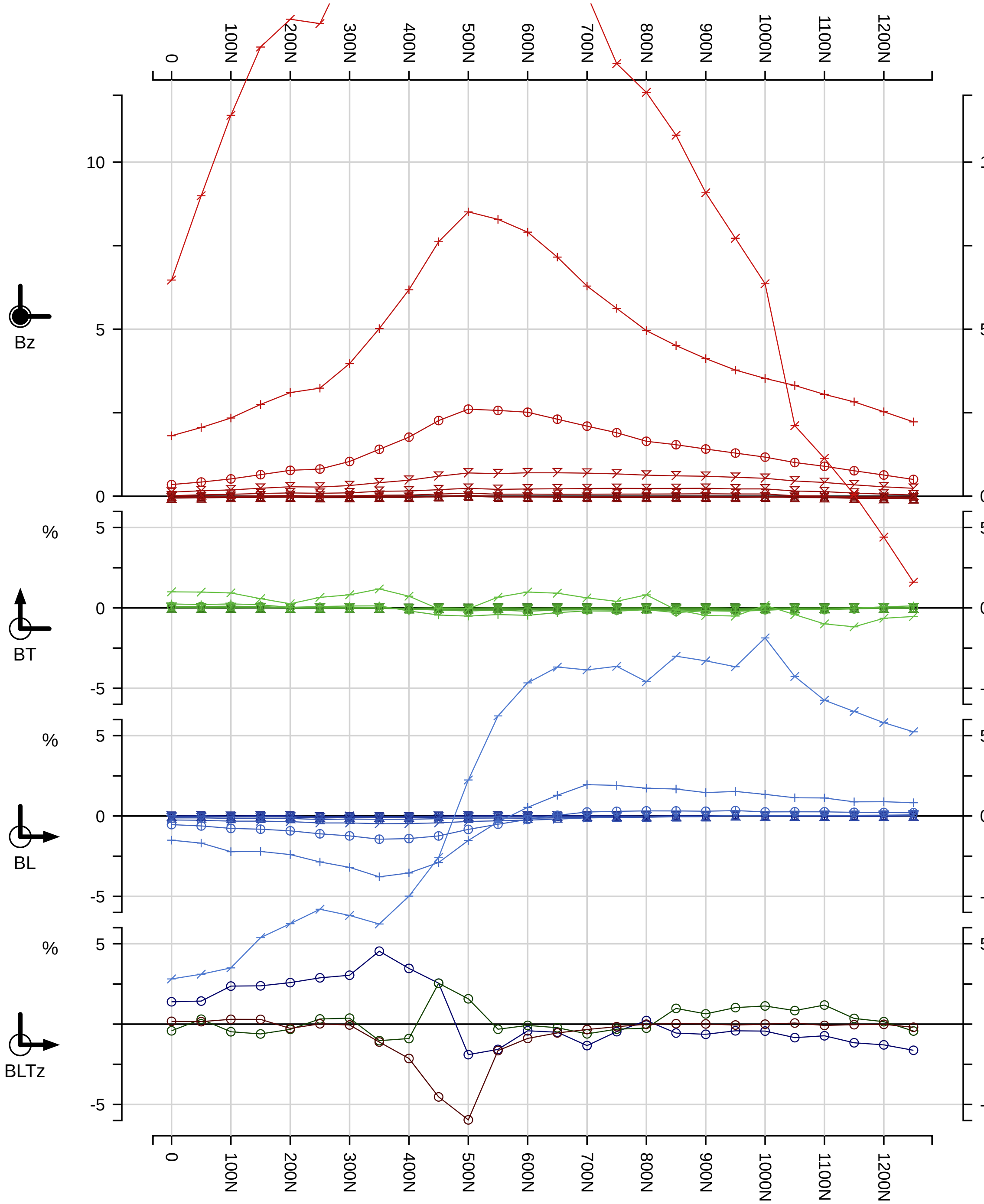
Loop 2016-5 - all Chs - B_{LTZ}

pg 42



Line: L5900E Loop: 2016-5S2 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-5S2_L5900EB.3cH5 / 3 components S2 Lp5 all*	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 25/2/16 Red: 25/4/16 Plot: 25/4/16

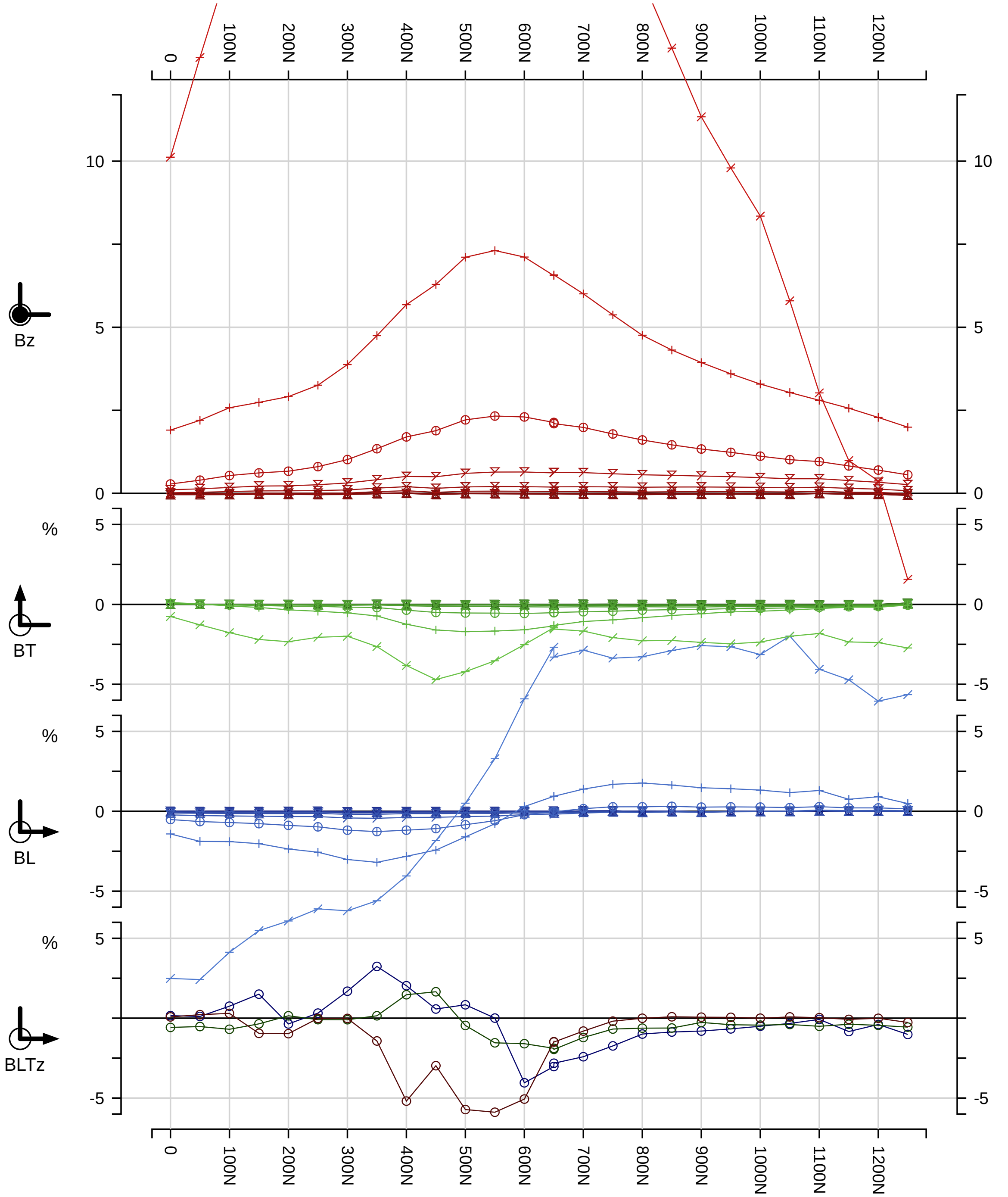
Loop 2016-5 - all Chs - B_{LTZ}



Line: L6000E Loop: 2016-5S2 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-5S2_L6000EB.3cH5 / 3 components S2 Lp5 all*	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 25/2/16 Red: 25/4/16 Plot: 25/4/16

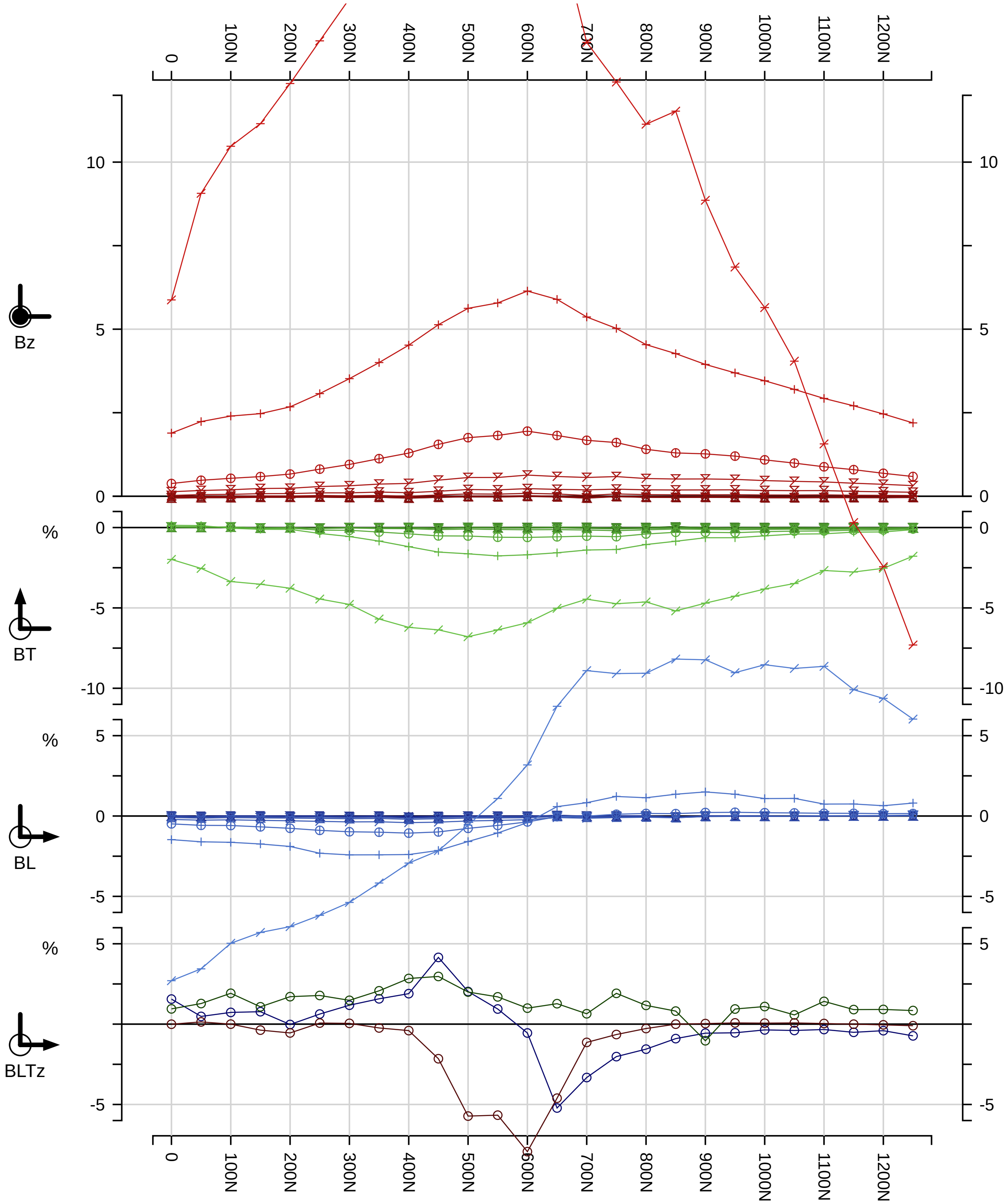
Loop 2016-5 - all Chs - B_{LTZ}

pg 44



Line: L6100E Loop: 2016-5S2 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-5S2_L6100EB.3cH5 / 3 components S2 Lp5 all*	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 27/2/16 Red: 25/4/16 Plot: 25/4/16

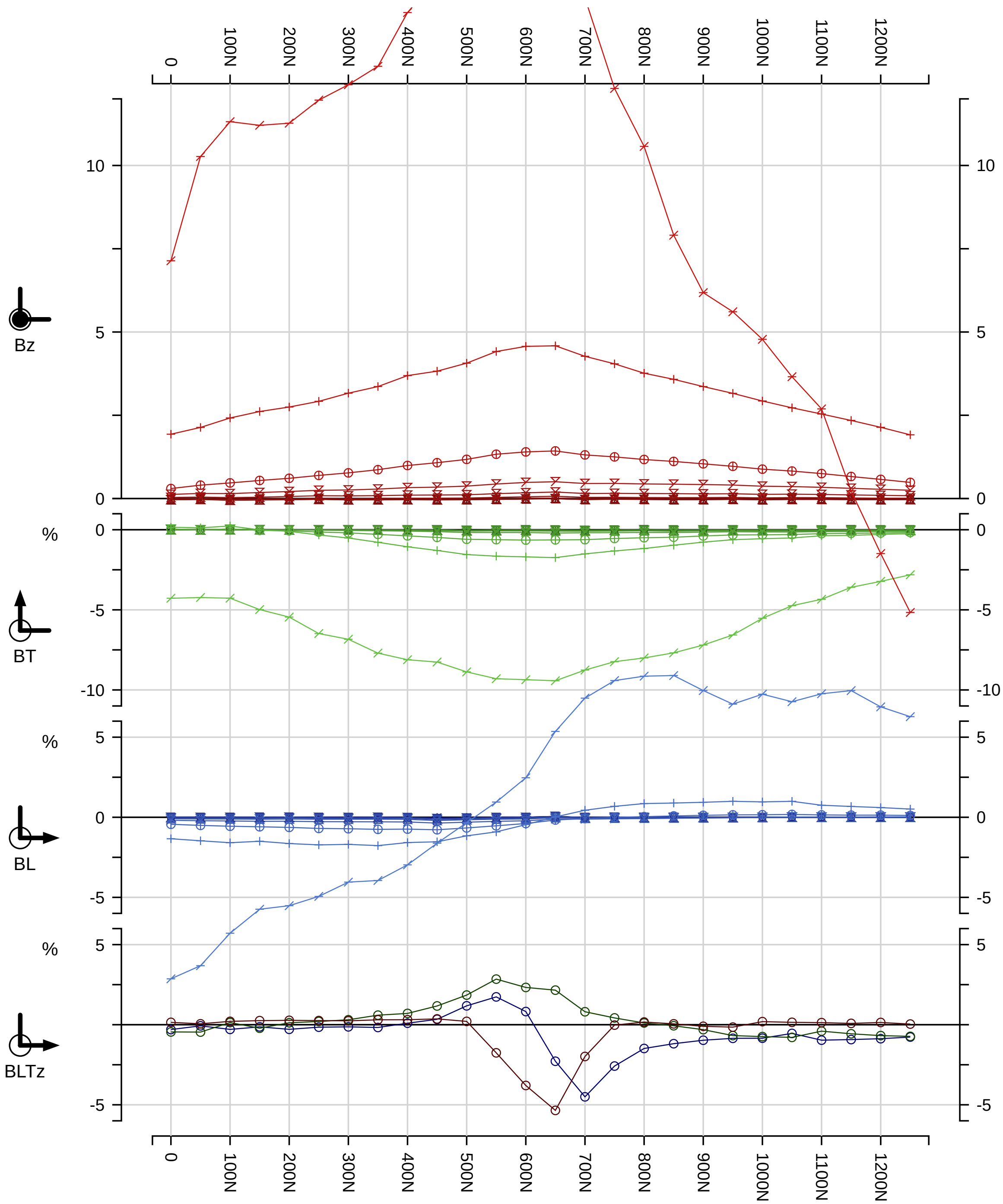
Loop 2016-5 - all Chs - B_{LTZ}



Line: L6200E Loop: 2016-5S2 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-5S2_L6200EB.3cH5 / 3 components S2 Lp5 all*	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 27/2/16 Red: 25/4/16 Plot: 25/4/16

Loop 2016-5 - all Chs - B_{LTZ}

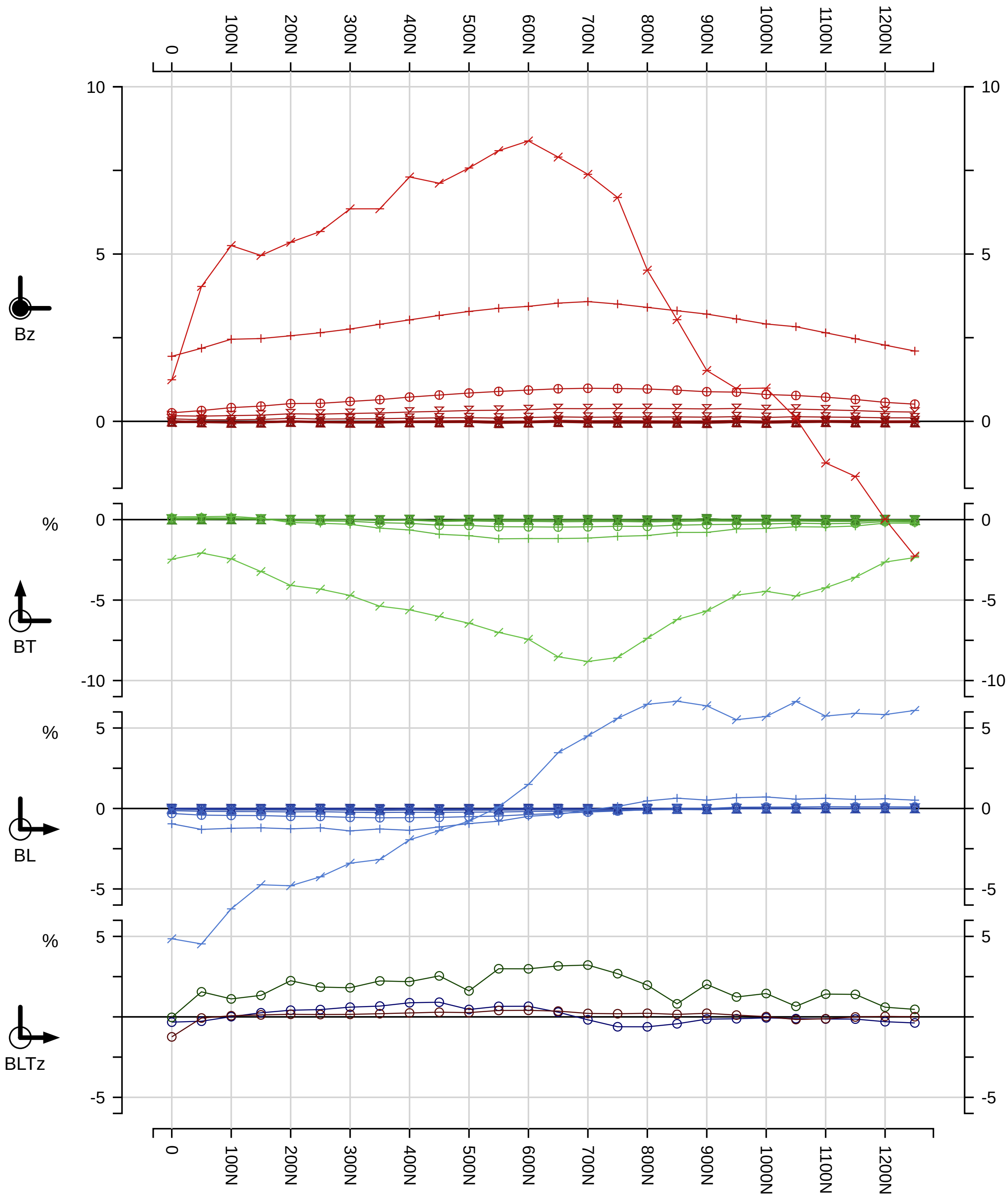
pg 46



Line: L6300E Loop: 2016-5S2 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-5S2_L6300EB.3cH5 / 3 components S2 Lp5 all*	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 27/2/16 Red: 25/4/16 Plot: 25/4/16

Loop 2016-5 - all Chs - B_{LTZ}

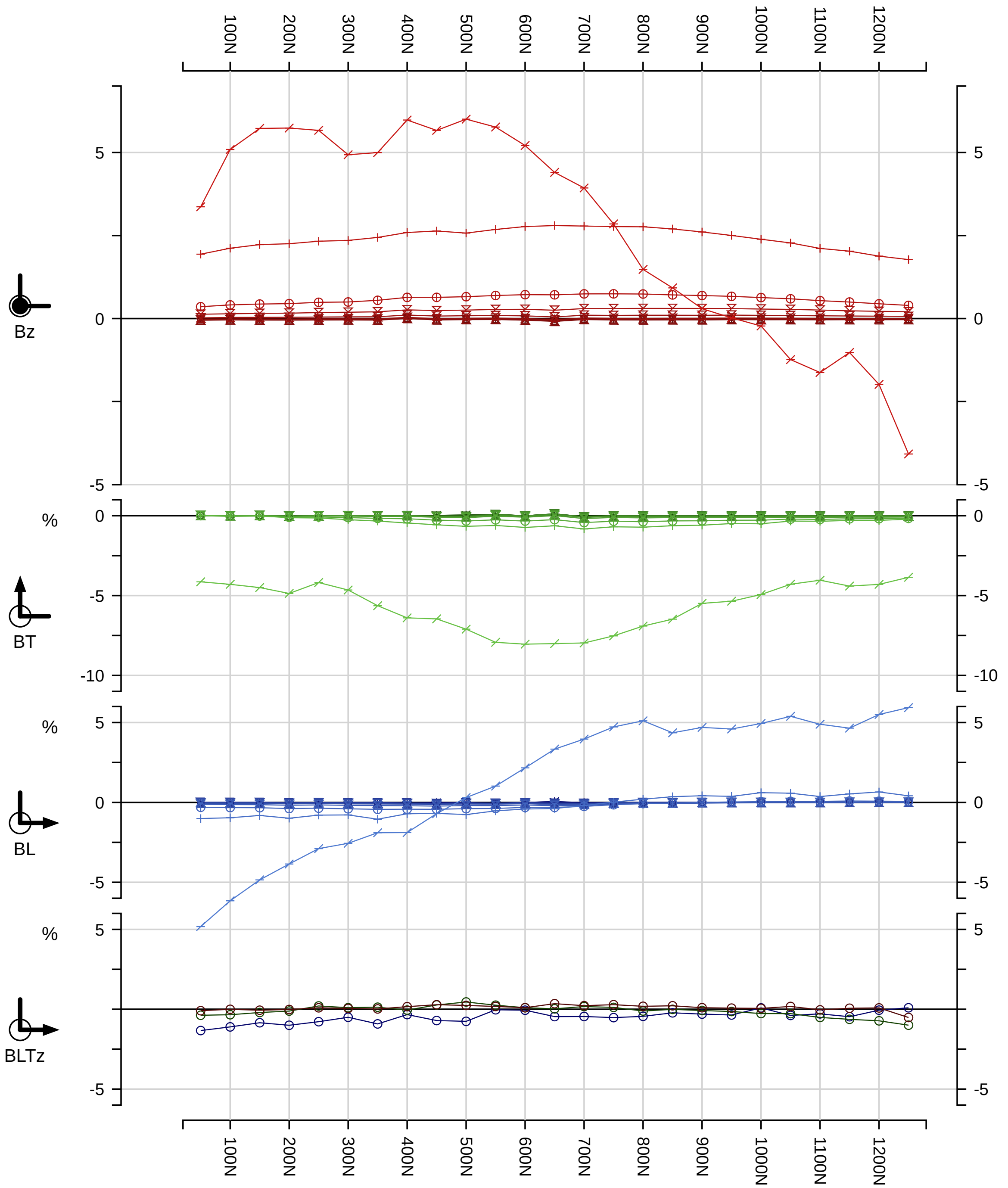
pg 47



Line: L6400E Loop: 2016-5S2 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-5S2_L6400EB.3cH5 / 3 components S2 Lp5 all*	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 27/2/16 Red: 25/4/16 Plot: 25/4/16

Loop 2016-5 - all Chs - B_{LTZ}

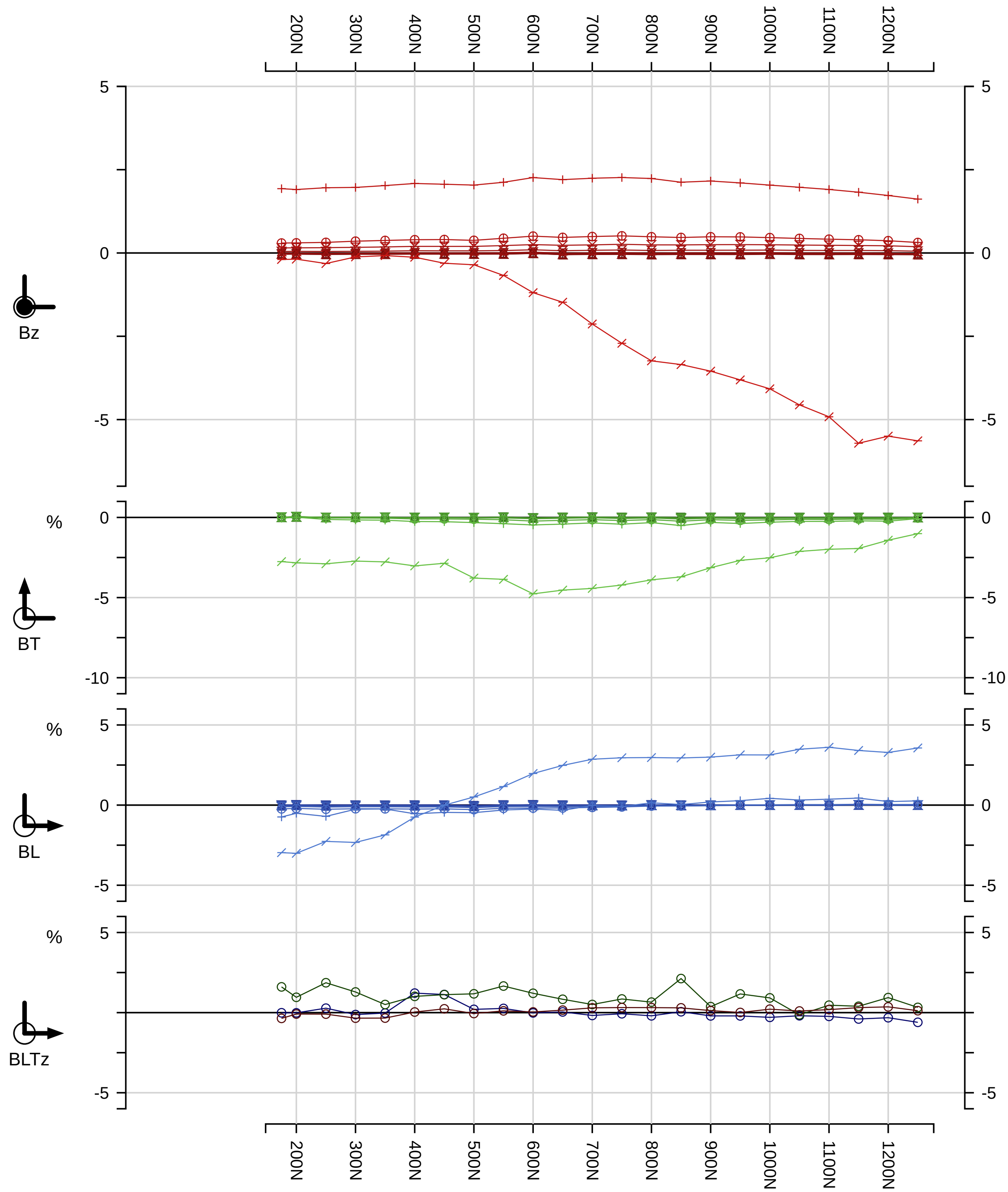
pg 48



Line: L6500E Loop: 2016-5S2 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-5S2_L6500EB.3cH5 / 3 components S2 Lp5 all*	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 28/2/16 Red: 25/4/16 Plot: 25/4/16

Loop 2016-5 - all Chs - B_{LTZ}

pg 49



Line: L6600E Loop: 2016-5S2 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-5S2_L6600EB.3cH5 / 3 components S2 Lp5 all*	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 28/2/16 Red: 25/4/16 Plot: 25/4/16

Loop 2016-5 - all Chs - B_{LTZ}

pg 50

AT5 Grid

Loop 2016-5

BL/BT/Bz

~0.7143Hz frequency

continuous norm

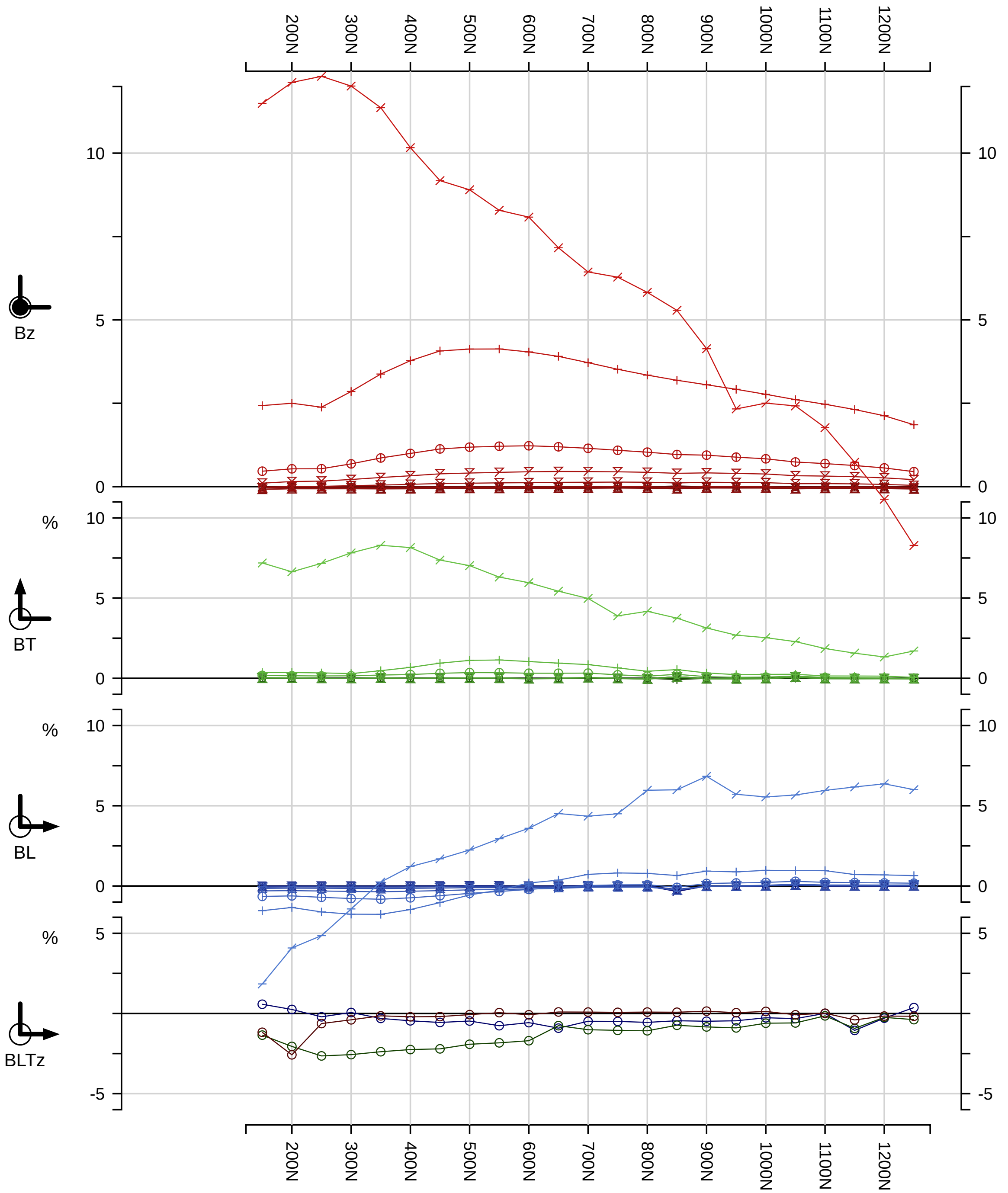
12Ch - Ch0 reduced

late Chs8-Ch0 plotted

Loop 2016-5 (@ **0.7142857Hz**) in-loop

Line 5700E	150N - 1250N	1100m	BL/BT/Bz
Line 5800E	50N - 1250N	1200m	BL/BT/Bz
Line 5900E	0 - 1250N	1250m	BL/BT/Bz
Line 6000E	0 - 1250N	1250m	BL/BT/Bz
Line 6100E	0 - 1250N	1250m	BL/BT/Bz
Line 6200E	0 - 1250N	1250m	BL/BT/Bz
Line 6300E	0 - 1250N	1250m	BL/BT/Bz
Line 6400E	0 - 1250N	1250m	BL/BT/Bz
Line 6500E	50N - 1250N	1200m	BL/BT/Bz
Line 6600E	175N - 1250N	1075m	BL/BT/Bz

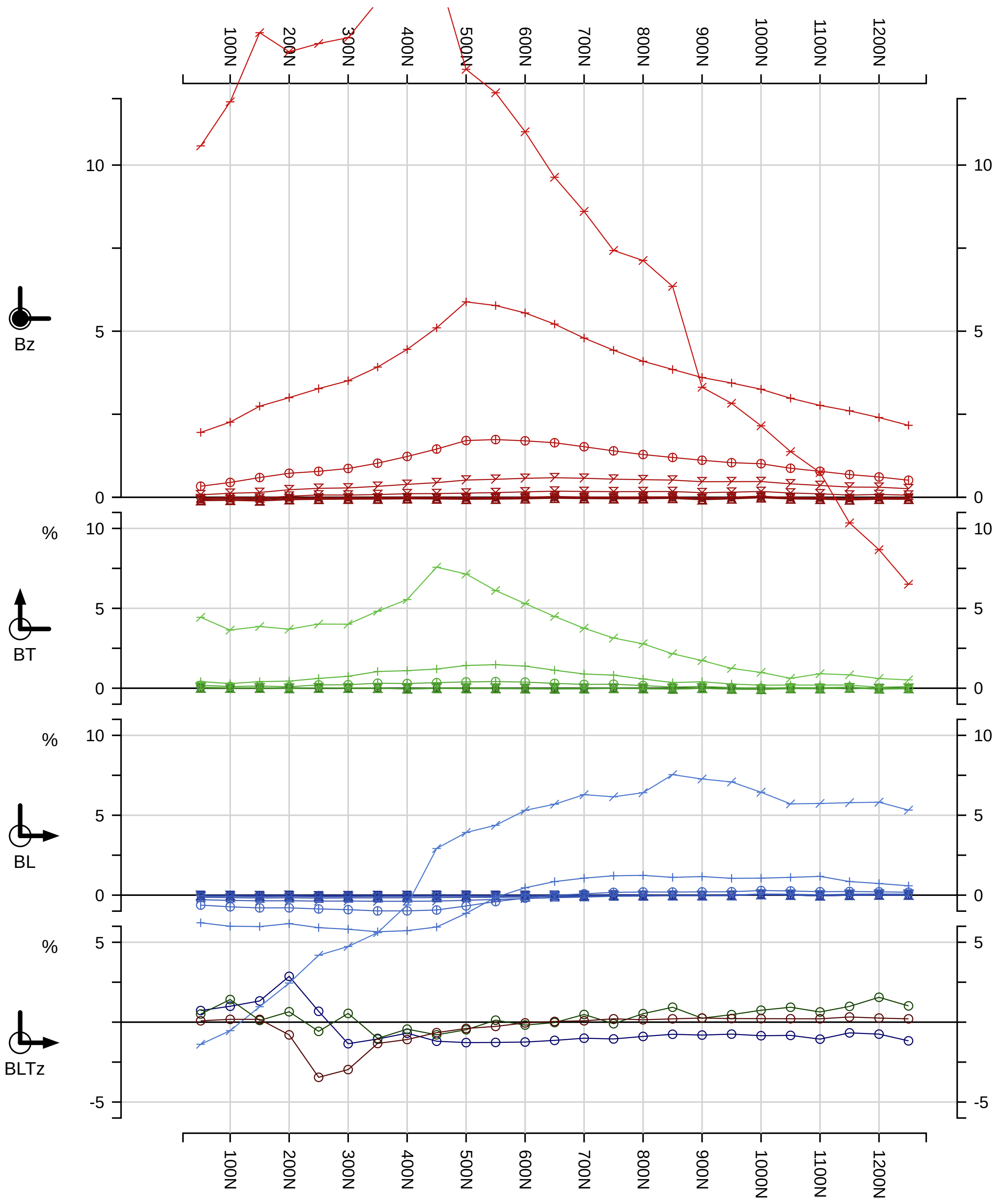
Loop 2016-5 - late Chs8-Ch0 - B_{LTZ}



Line: L5700E	(Chn - Ch0) / |Bp| (%)	UTEM-5 Survey at: AT5
Loop: 2016-5S2	Cont norm @ Δz: 0m	For: NORONT
Cpt: BL, BT, Bz	Base Freq: 0.71429Hz	LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 24/2/16 Red: 25/4/16 Plot: 25/4/16
L 313.0°	aLp2016-5S2_L5700EB.3cH5 / 3 components S2 Lp5 all	

Loop 2016-5 - late Chs8-Ch0 - B_{LTZ}

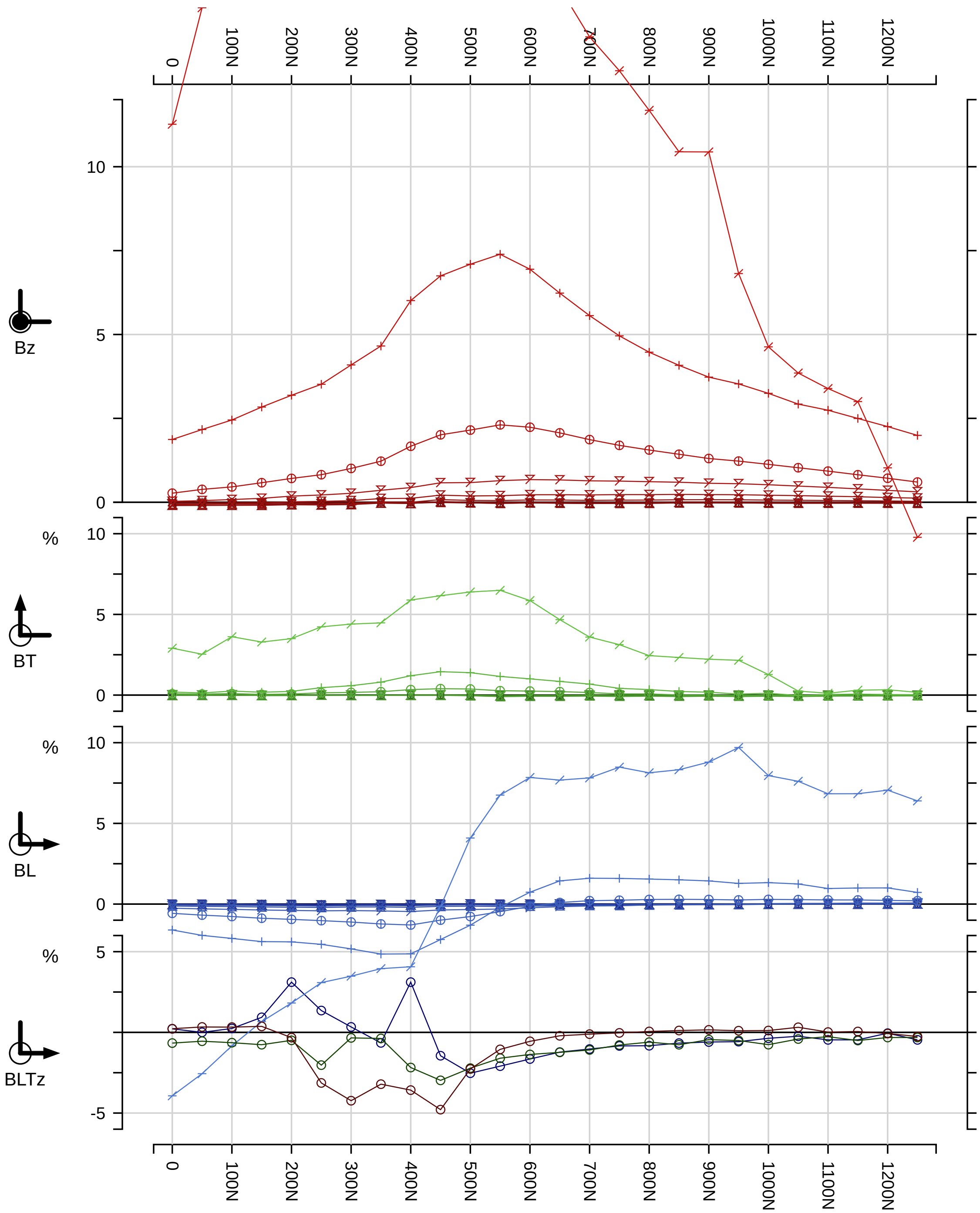
pg 52



Line: L5800E Loop: 2016-5S2 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-5S2_L5800EB.3cH5 / 3 components S2 Lp5 all*	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 24/2/16 Red: 25/4/16 Plot: 25/4/16

Loop 2016-5 - late Chs8-Ch0 - B_{LTZ}

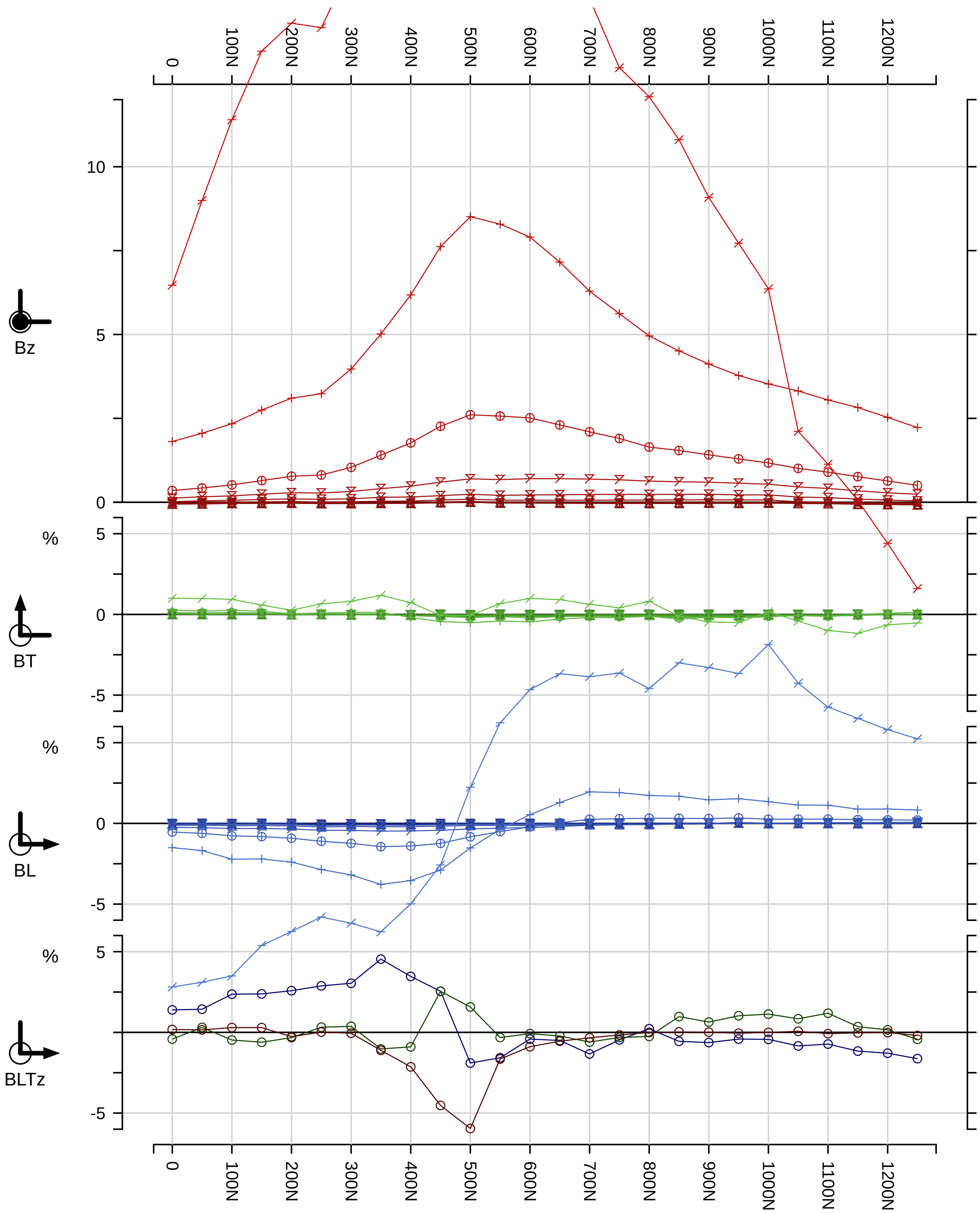
pg 53



Line: L5900E Loop: 2016-5S2 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-5S2_L5900EB.3cH5 / 3 components S2 Lp5 all*	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 25/2/16 Red: 25/4/16 Plot: 25/4/16

Loop 2016-5 - late Chs8-Ch0 - B_{LTZ}

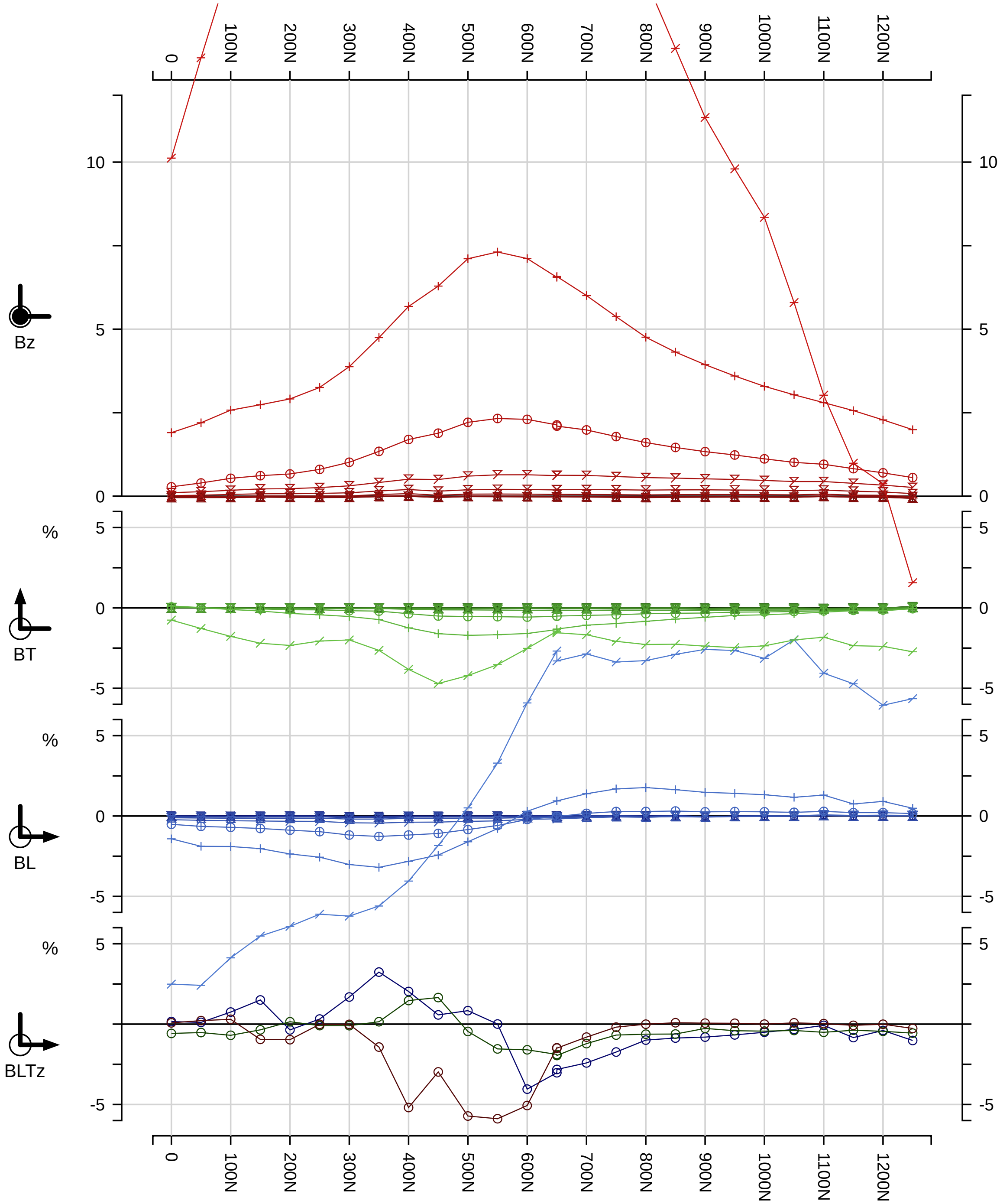
pg 54



Line: L6000E Loop: 2016-5S2 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-5S2_L6000EB.3cH5 / 3 components S2 Lp5 all*	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 25/2/16 Red: 25/4/16 Plot: 25/4/16

Loop 2016-5 - late Chs8-Ch0 - B_{LTZ}

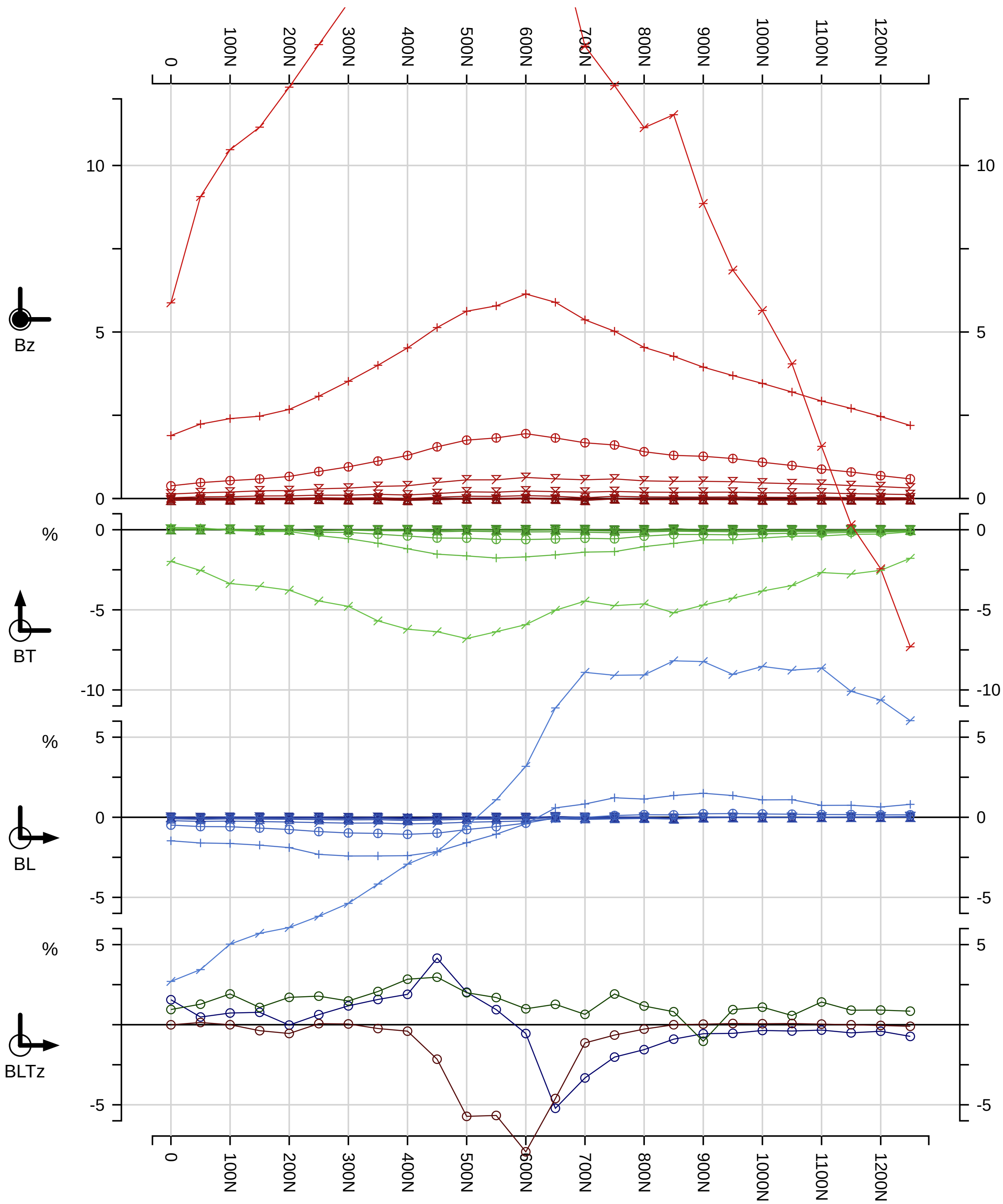
pg 55



Line: L6100E Loop: 2016-5S2 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-5S2_L6100EB.3cH5 / 3 components S2 Lp5 all*	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 27/2/16 Red: 25/4/16 Plot: 25/4/16

Loop 2016-5 - late Chs8-Ch0 - B_{LTZ}

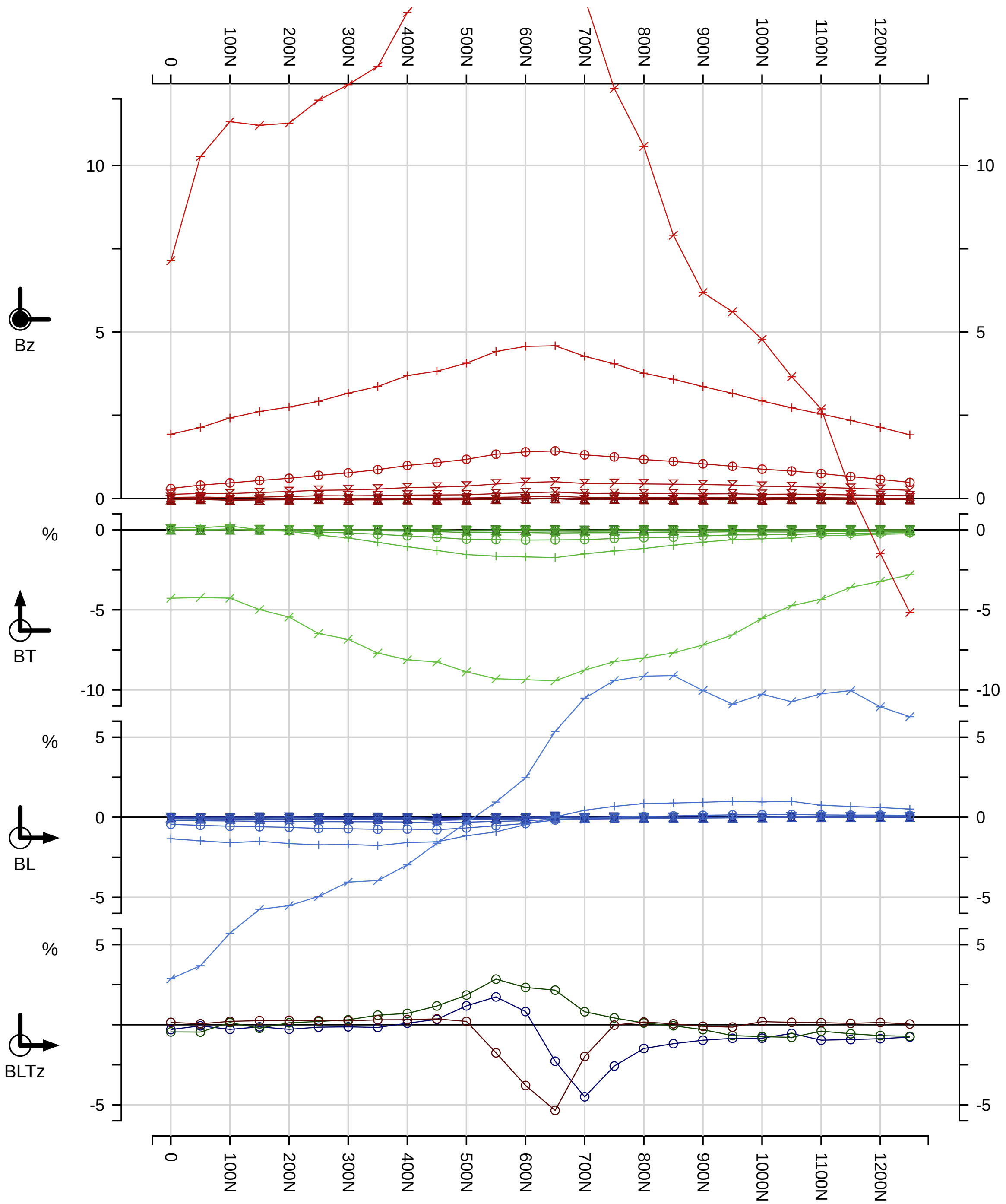
pg 56



Line: L6200E Loop: 2016-5S2 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-5S2_L6200EB.3cH5 / 3 components S2 Lp5 all*	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 27/2/16 Red: 25/4/16 Plot: 25/4/16

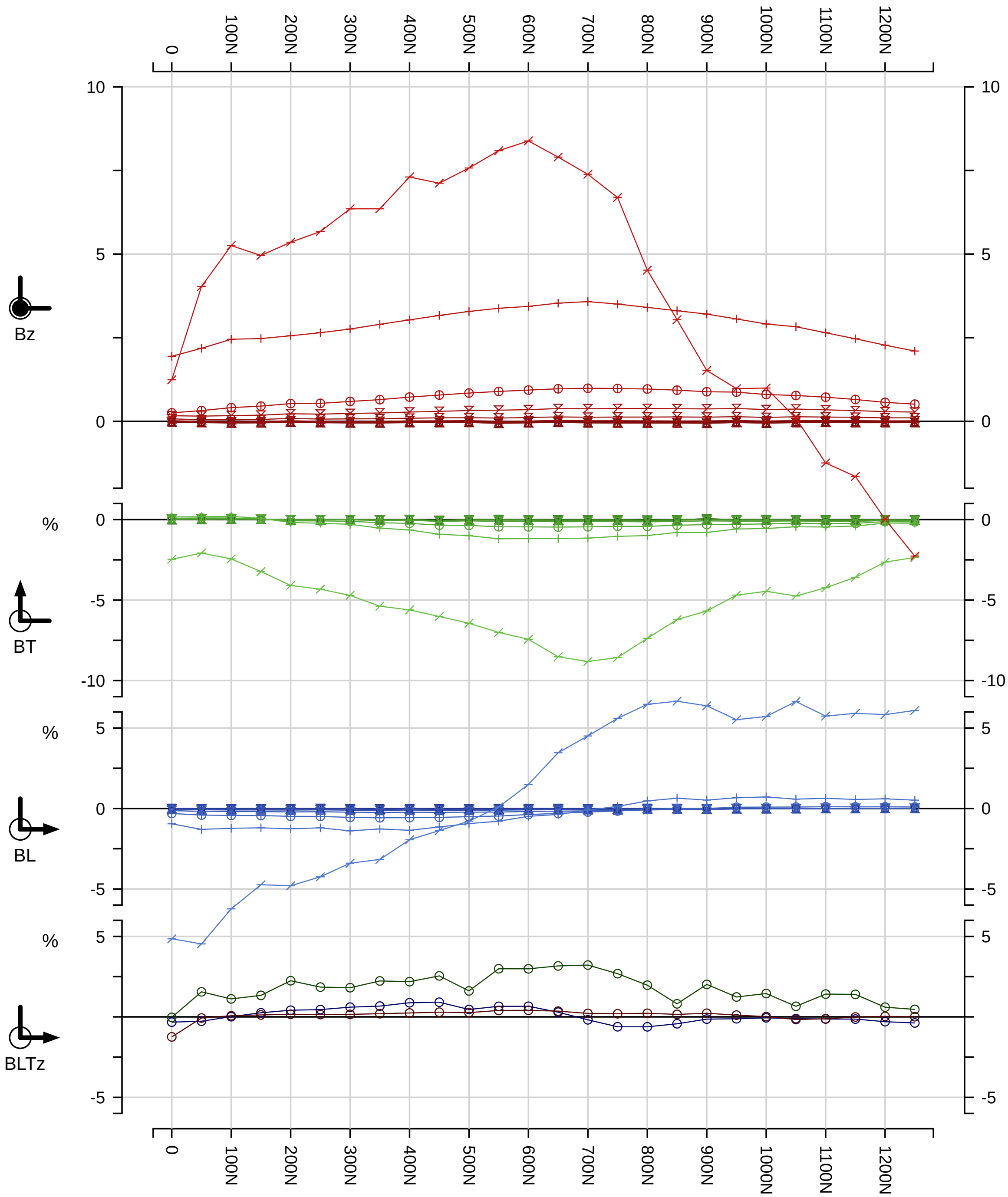
Loop 2016-5 - late Chs8-Ch0 - B_{LTZ}

pg 57



Line: L6300E Loop: 2016-5S2 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-5S2_L6300EB.3cH5 / 3 components S2 Lp5 all*	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 27/2/16 Red: 25/4/16 Plot: 25/4/16

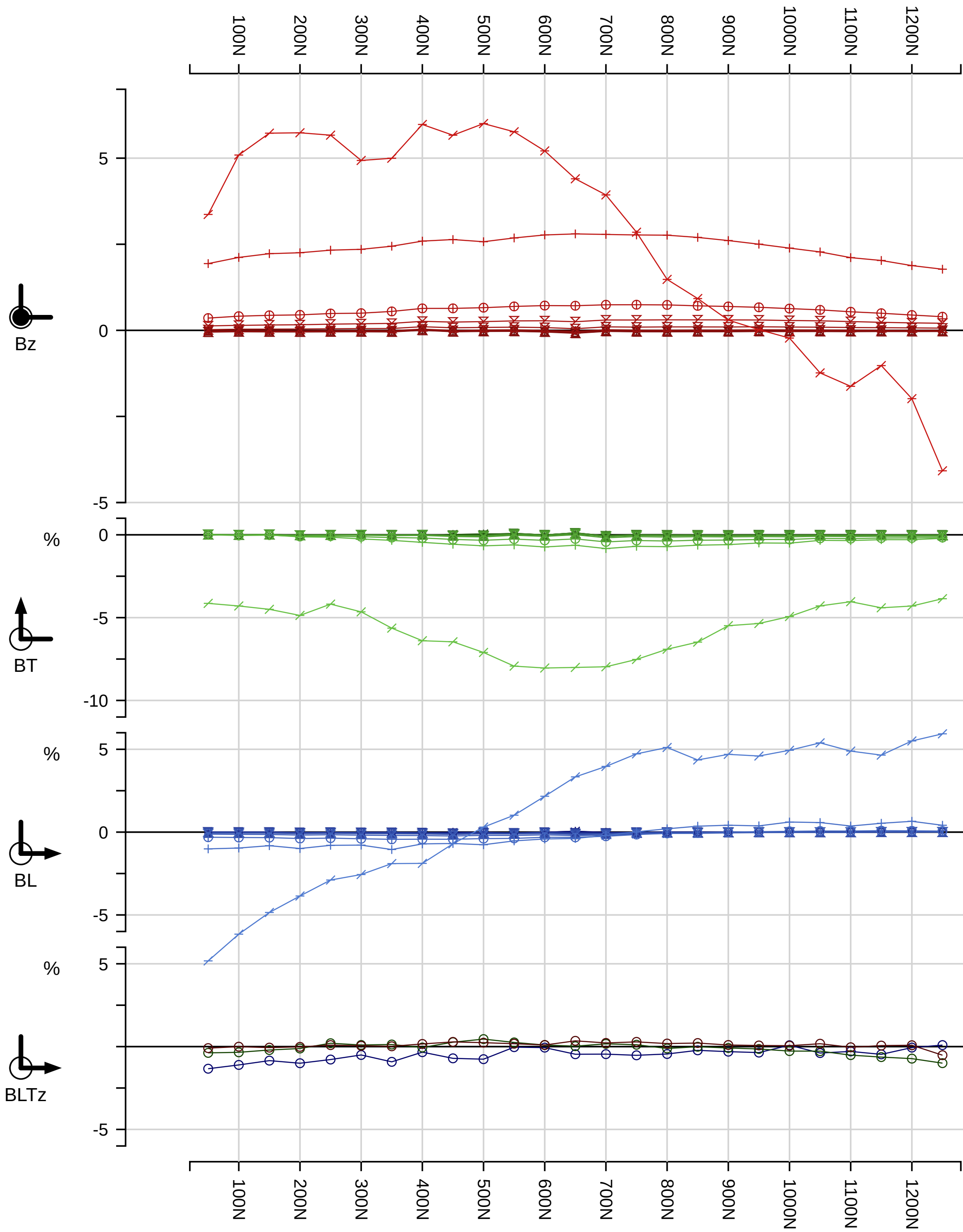
Loop 2016-5 - late Chs8-Ch0 - B_{LTZ}



Line: L6400E Loop: 2016-5S2 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-5S2_L6400EB.3cH5 / 3 components S2 Lp5 all*	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 27/2/16 Red: 25/4/16 Plot: 25/4/16

Loop 2016-5 - late Chs8-Ch0 - B_{LTZ}

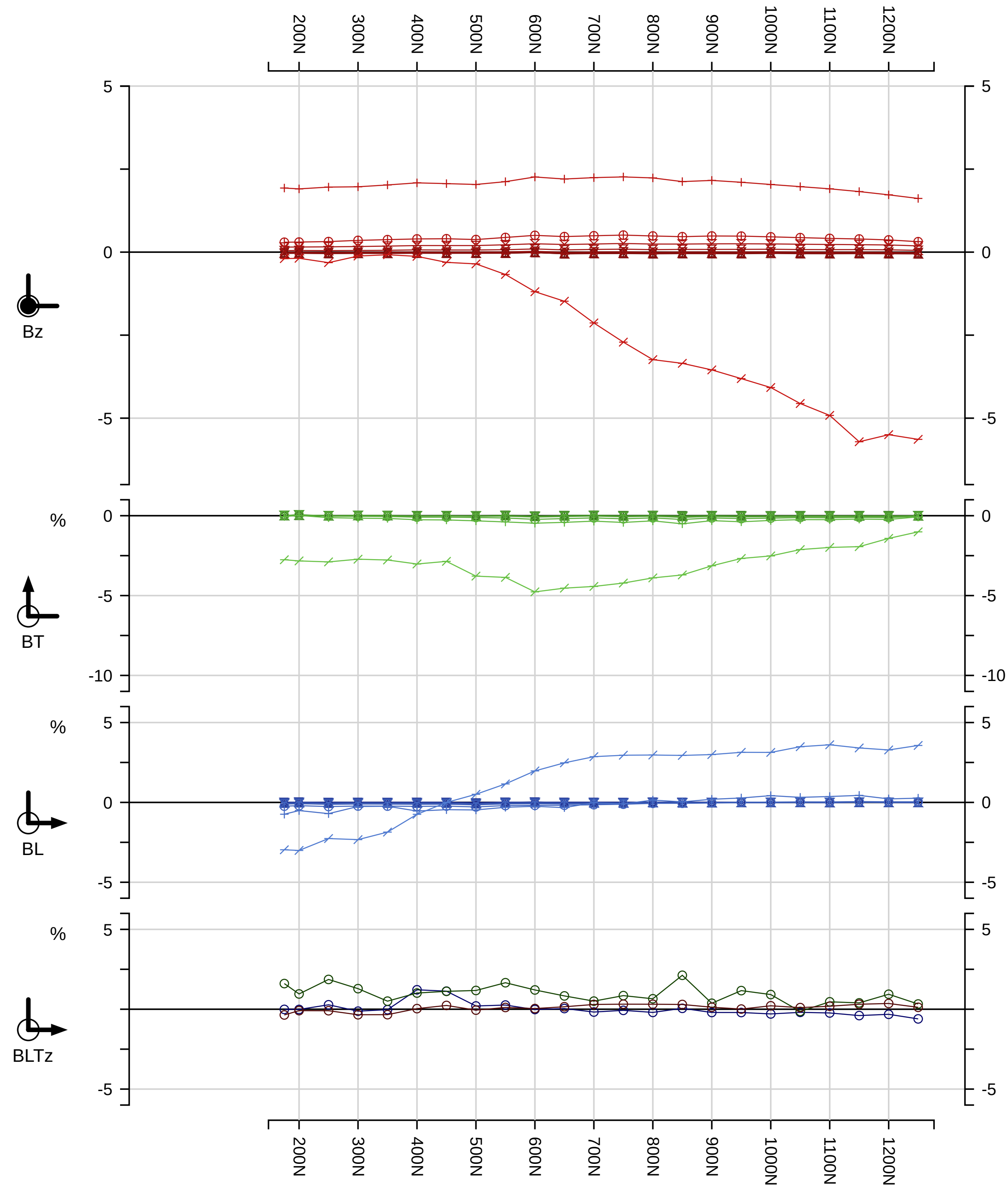
pg 59



Line: L6500E Loop: 2016-5S2 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-5S2_L6500EB.3cH5 / 3 components S2 Lp5 all*	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 28/2/16 Red: 25/4/16 Plot: 25/4/16

Loop 2016-5 - late Chs8-Ch0 - B_{LTZ}

pg 60



Line: L6600E Loop: 2016-5S2 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-5S2_L6600EB.3cH5 / 3 components S2 Lp5 all*	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 28/2/16 Red: 25/4/16 Plot: 25/4/16

Loop 2016-5 - late Chs8-Ch0 - B_{LTZ}

pg 61

AT5 Grid

Loop 2016-7

BL/BT/Bz

~1.785Hz frequency

continuous norm

12Ch - Ch0 reduced

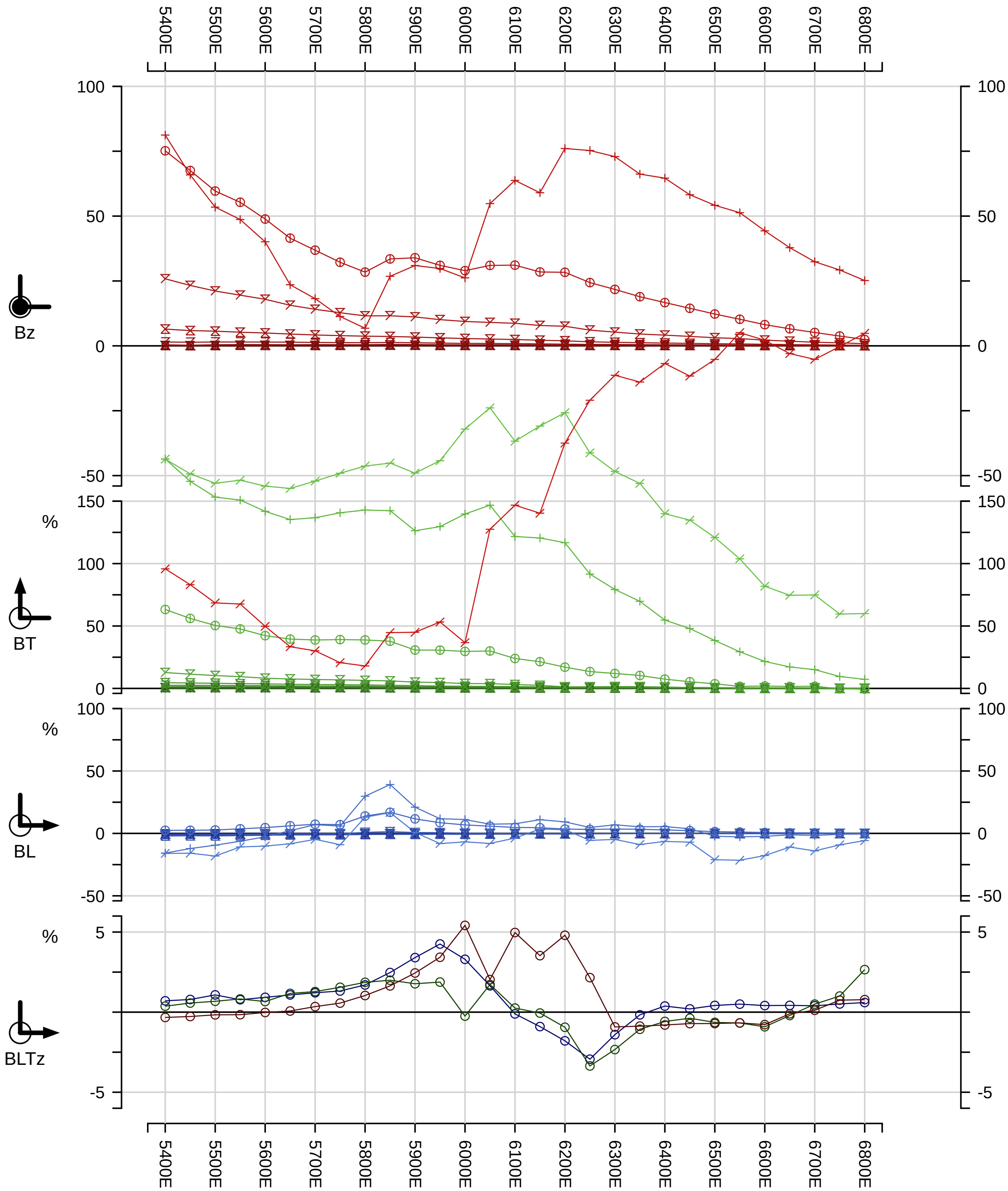
all Chs plotted

Loop 2016-7 (@ **1.785714Hz**) off-loop - loop to the gridEast

TLine 500N	5400E - 6950E	1550m	BL/BT/Bz
TLine 600N	5400E - 7000E	1600m	BL/BT/Bz
TLine 700N	5400E - 7000E	1600m	BL/BT/Bz
TLine 800N	5400E - 7000E	1600m	BL/BT/Bz
TLine 900N	6000E - 7000E	1000m	BL/BT/Bz
TLine 1000N	6000E - 6800E	800m	BL/BT/Bz
TLine 1100N	5900E - 6700E	800m	BL/BT/Bz
TLine 1200N	5900E - 6700E	800m	BL/BT/Bz

Loop 2016-7 - all Chs - B_{LTZ}

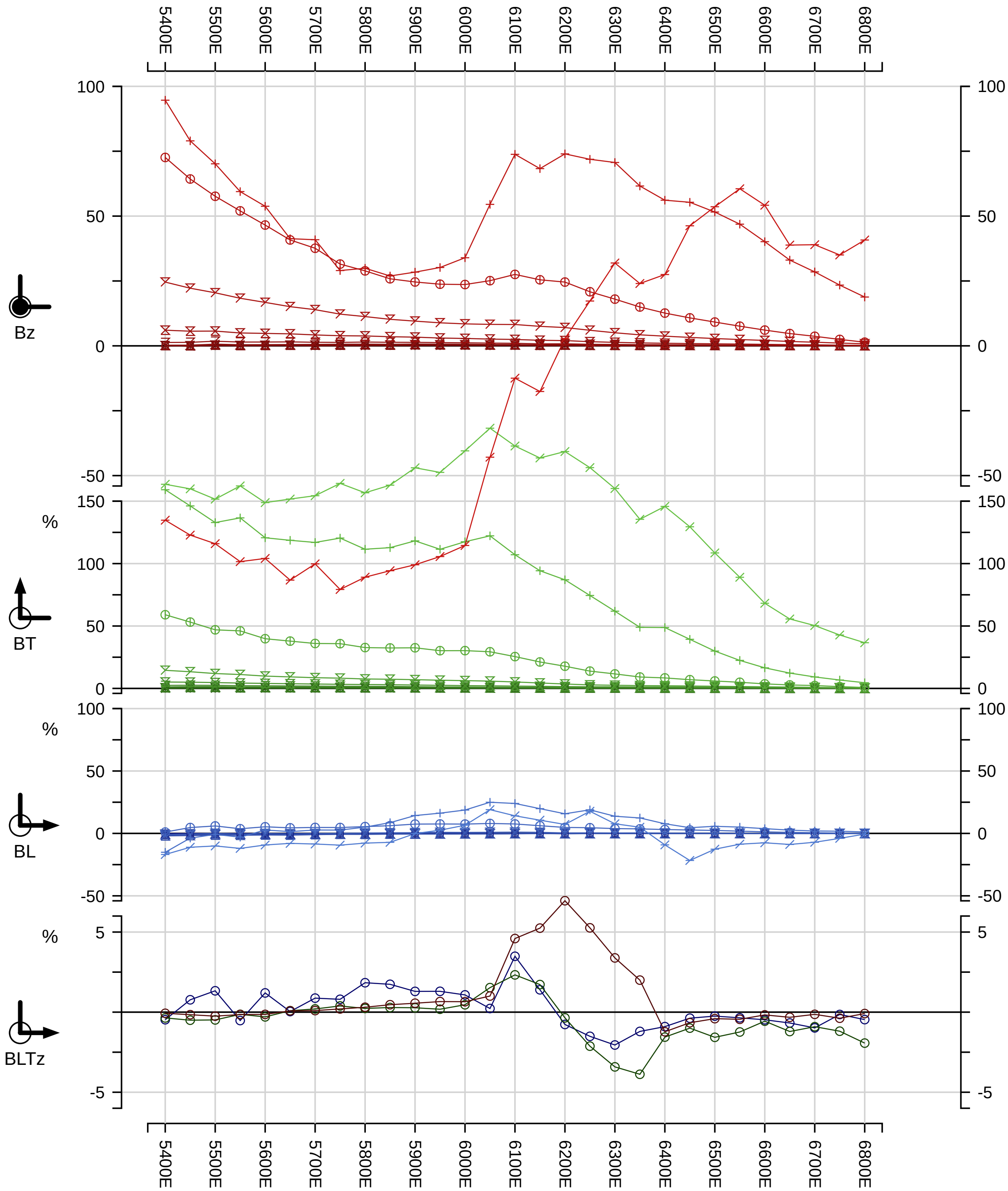
pg 62



Line: L500N Loop: 2016-7S1 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-7S1_L500NA.3cH5 / 3 components S1 Lp6 all	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 29/2/16 Red: 25/4/16 Plot: 25/4/16

Loop 2016-7 - all Chs - B_{LTZ}

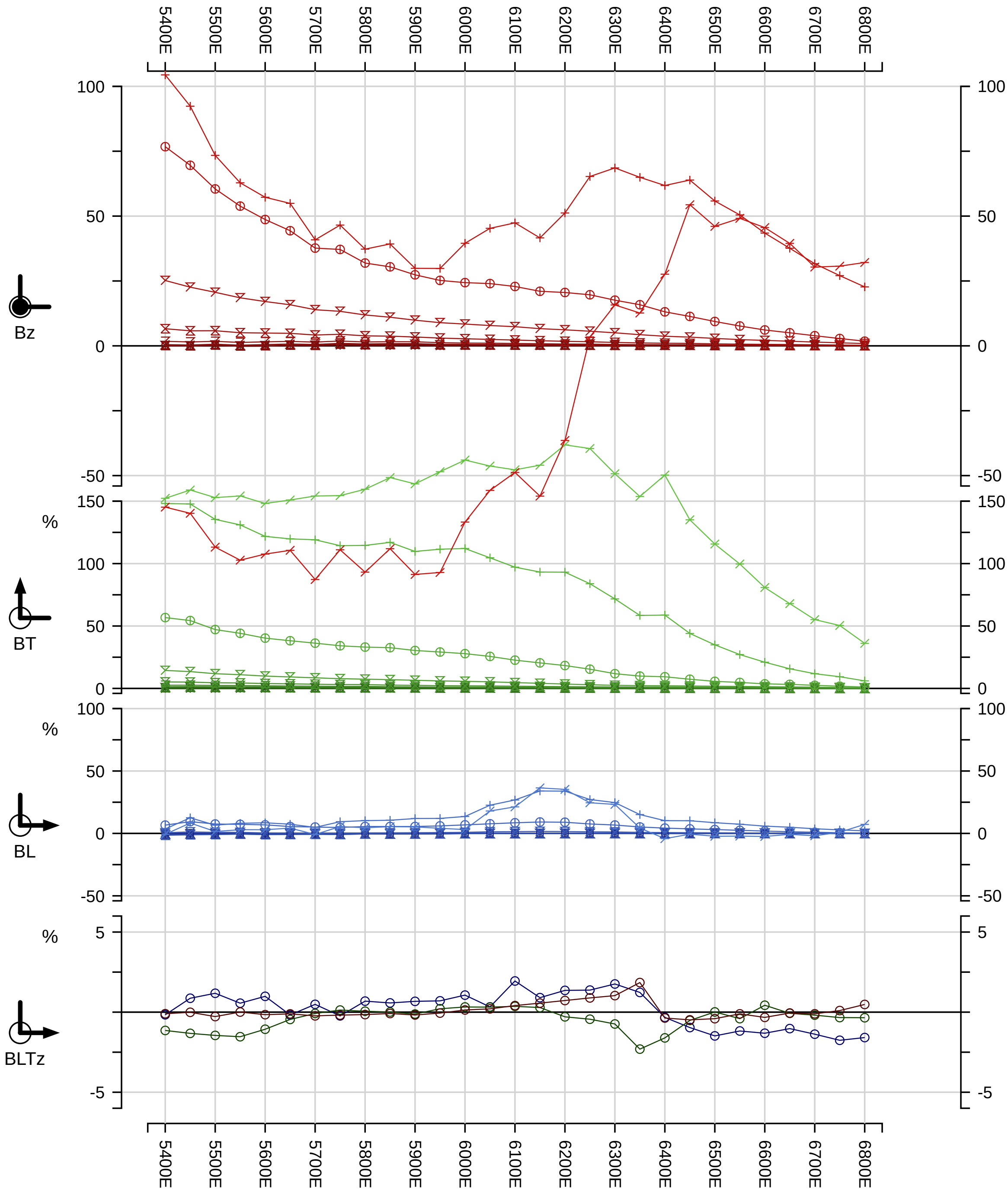
pg 63



Line: L600N Loop: 2016-7S1 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-7S1_L600NA.3cH5 / 3 components S1 Lp7 all	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 29/2/16 Red: 25/4/16 Plot: 25/4/16

Loop 2016-7 - all Chs - B_{LTZ}

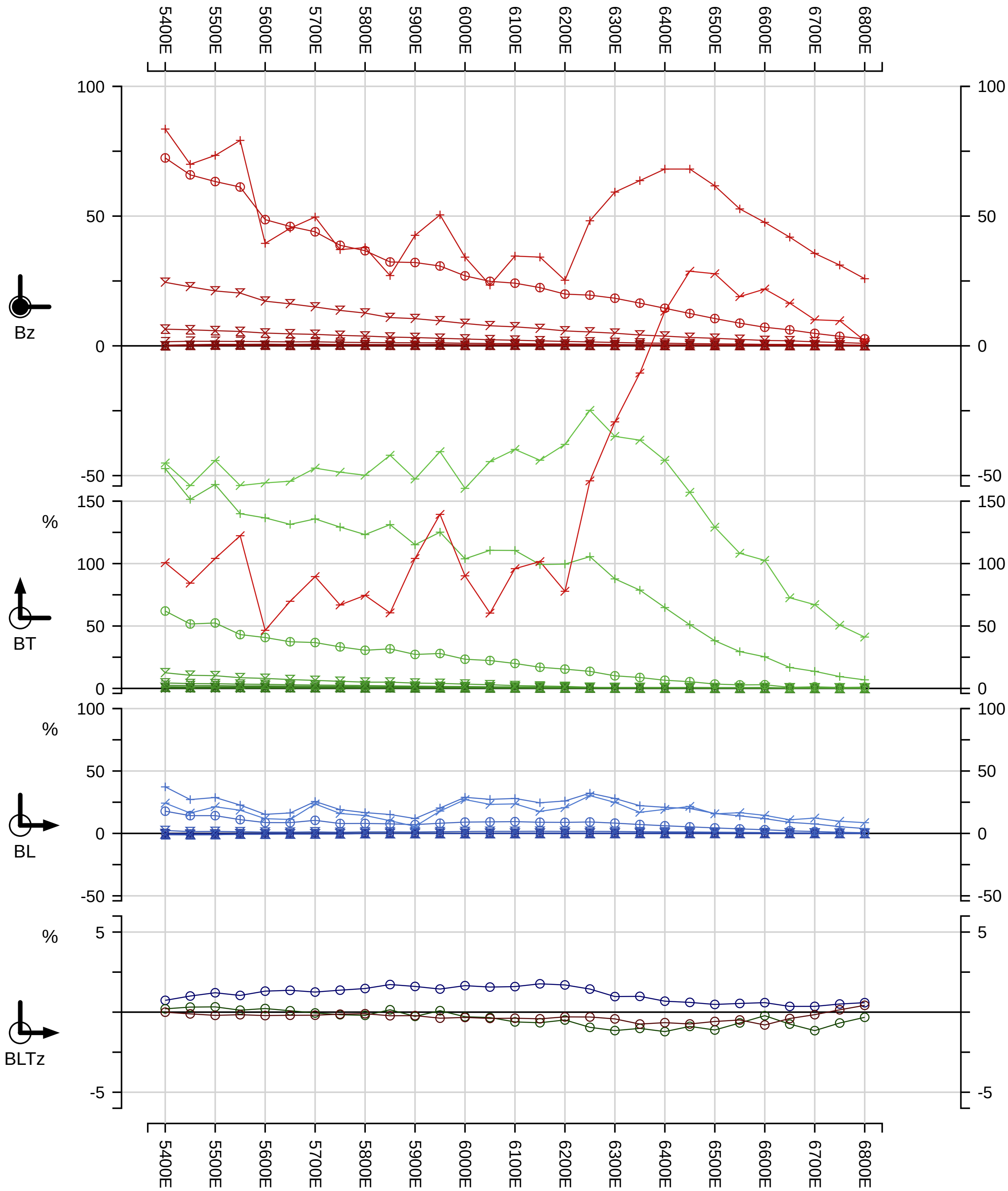
pg 64



Line: L700N Loop: 2016-7S1 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-7S1_L700NA.3cH5 / 3 components S1 Lp7 all	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 1/3/16 Red: 25/4/16 Plot: 25/4/16

Loop 2016-7 - all Chs - B_{LTZ}

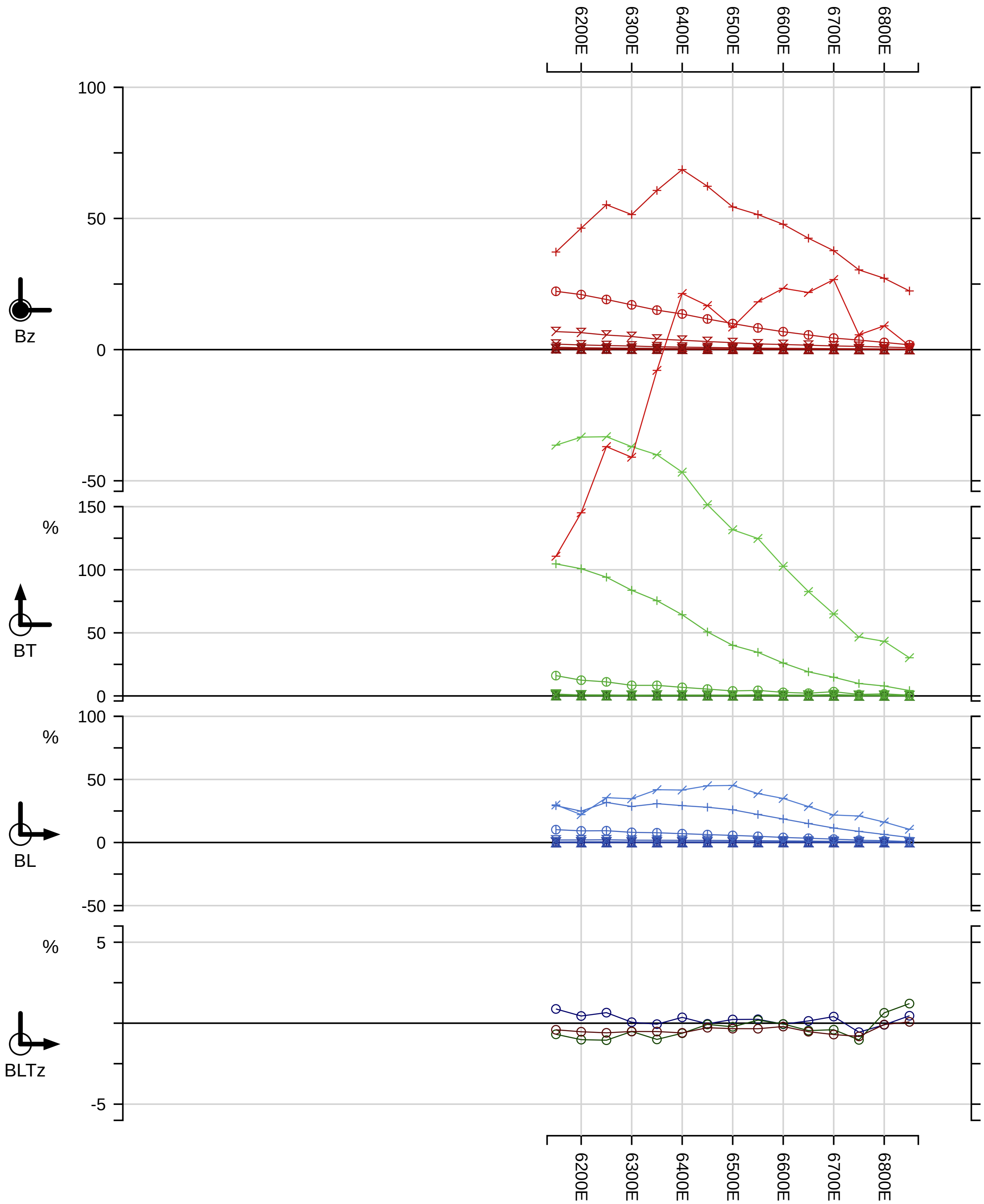
pg 65



Line: L800N Loop: 2016-7S1 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-7S1_L800NA.3cH5 / 3 components S1 Lp6 all	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1613 Surv: 1/3/16 Red: 25/4/16 Plot: 25/4/16

Loop 2016-7 - all Chs - B_{LTZ}

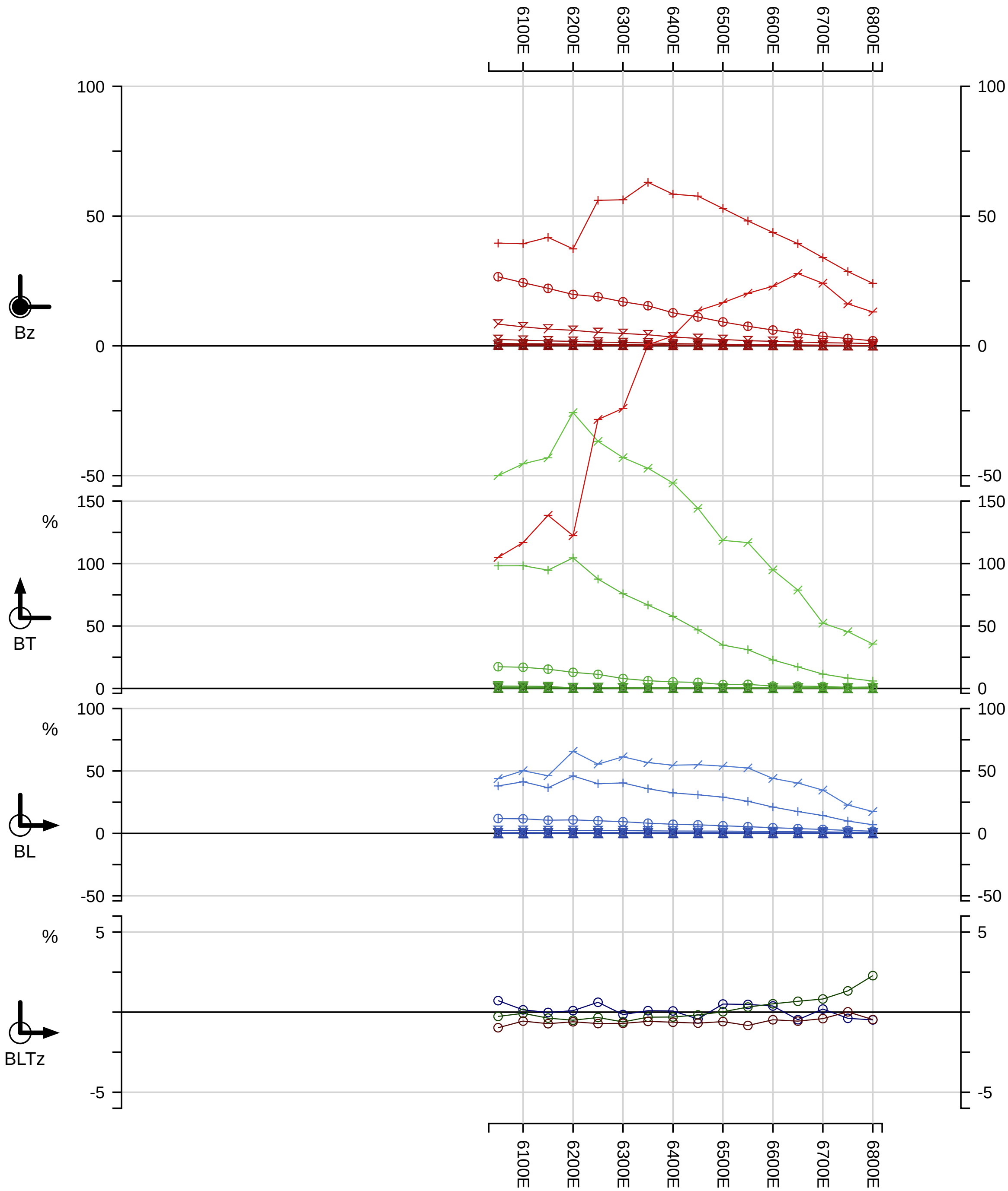
pg 66



Line: L900N Loop: 2016-7S1 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-7S1_L900NB.3cH5 / 3 components S1 Lp6 all	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 2/3/16 Red: 25/4/16 Plot: 25/4/16

Loop 2016-7 - all Chs - B_{LTZ}

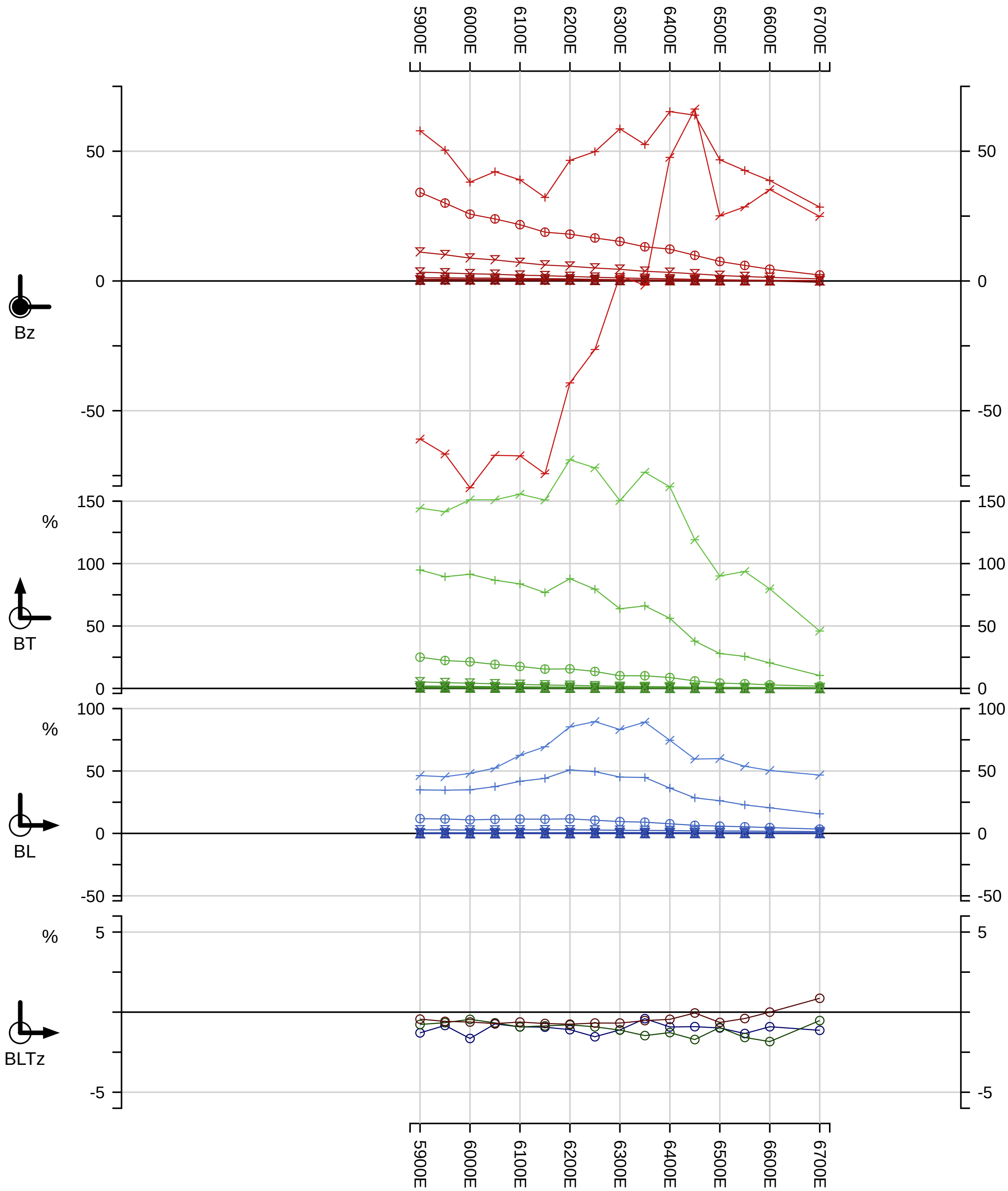
pg 67



Line: L1000N Loop: 2016-7S1 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-7S1_L1000NA.3cH5 / 3 components S1 Lp6 all	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 2/3/16 Red: 25/4/16 Plot: 25/4/16

Loop 2016-7 - all Chs - B_{LTZ}

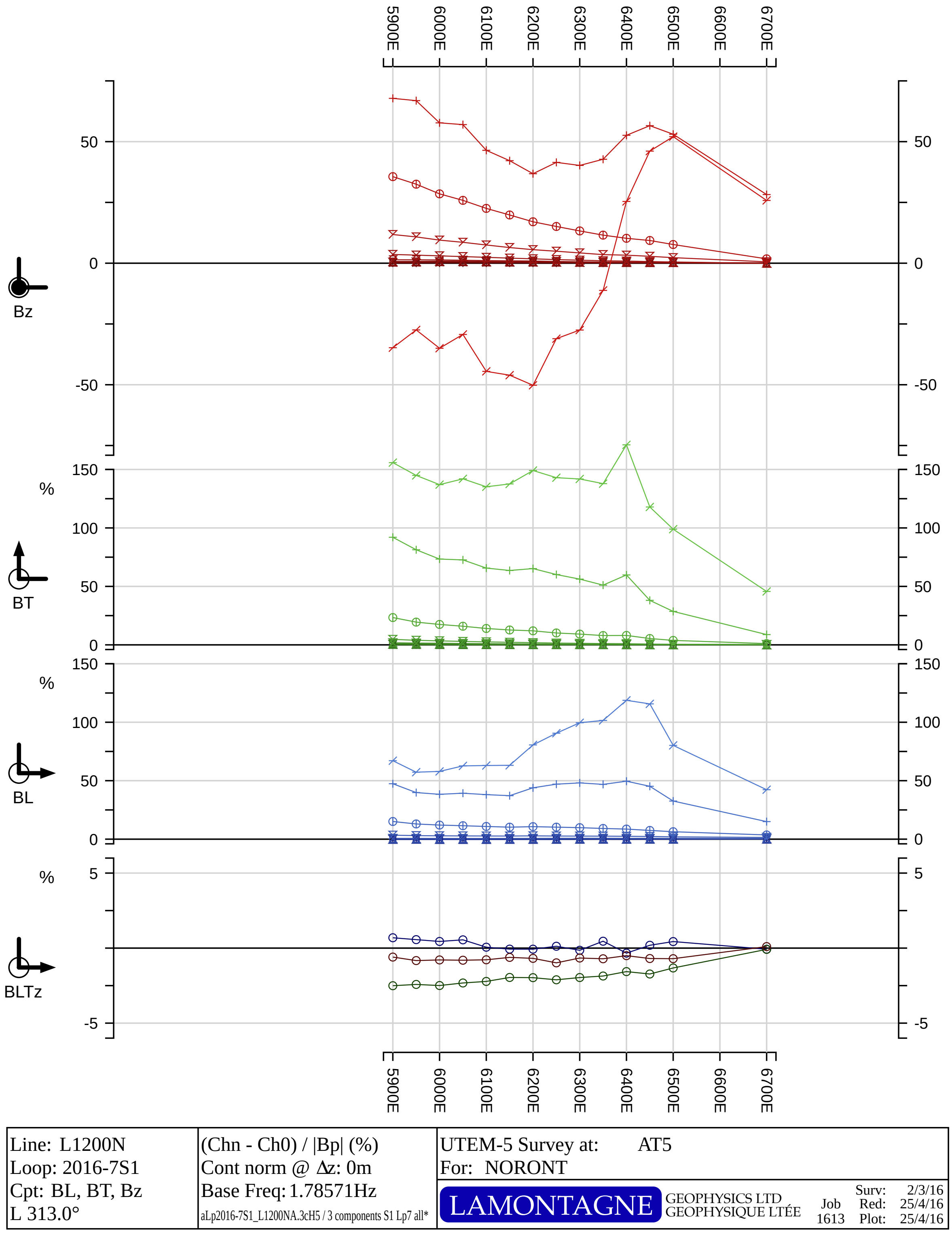
pg 68



Line: L1100N Loop: 2016-7S1 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-7S1_L1100NA.3cH5 / 3 components S1 Lp7 all*	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 2/3/16 Red: 25/4/16 Plot: 25/4/16

Loop 2016-7 - all Chs - B_{LTZ}

pg 69



Loop 2016-7 - all Chs - B_{LTZ}

pg 70

AT5 Grid

Loop 2016-7

BL/BT/Bz

~1.785Hz frequency

continuous norm

12Ch - Ch0 reduced

late Chs8-Ch0 plotted

Loop 2016-7 (@ **1.785714Hz**) off-loop - loop to the gridEast

TLine 500N	5400E - 6950E	1550m	BL/BT/Bz
TLine 600N	5400E - 7000E	1600m	BL/BT/Bz
TLine 700N	5400E - 7000E	1600m	BL/BT/Bz
TLine 800N	5400E - 7000E	1600m	BL/BT/Bz
TLine 900N	6000E - 7000E	1000m	BL/BT/Bz
TLine 1000N	6000E - 6800E	800m	BL/BT/Bz
TLine 1100N	5900E - 6700E	800m	BL/BT/Bz
TLine 1200N	5900E - 6700E	800m	BL/BT/Bz

Loop 2016-7 - late Chs8-Ch0 - B_{LTZ}

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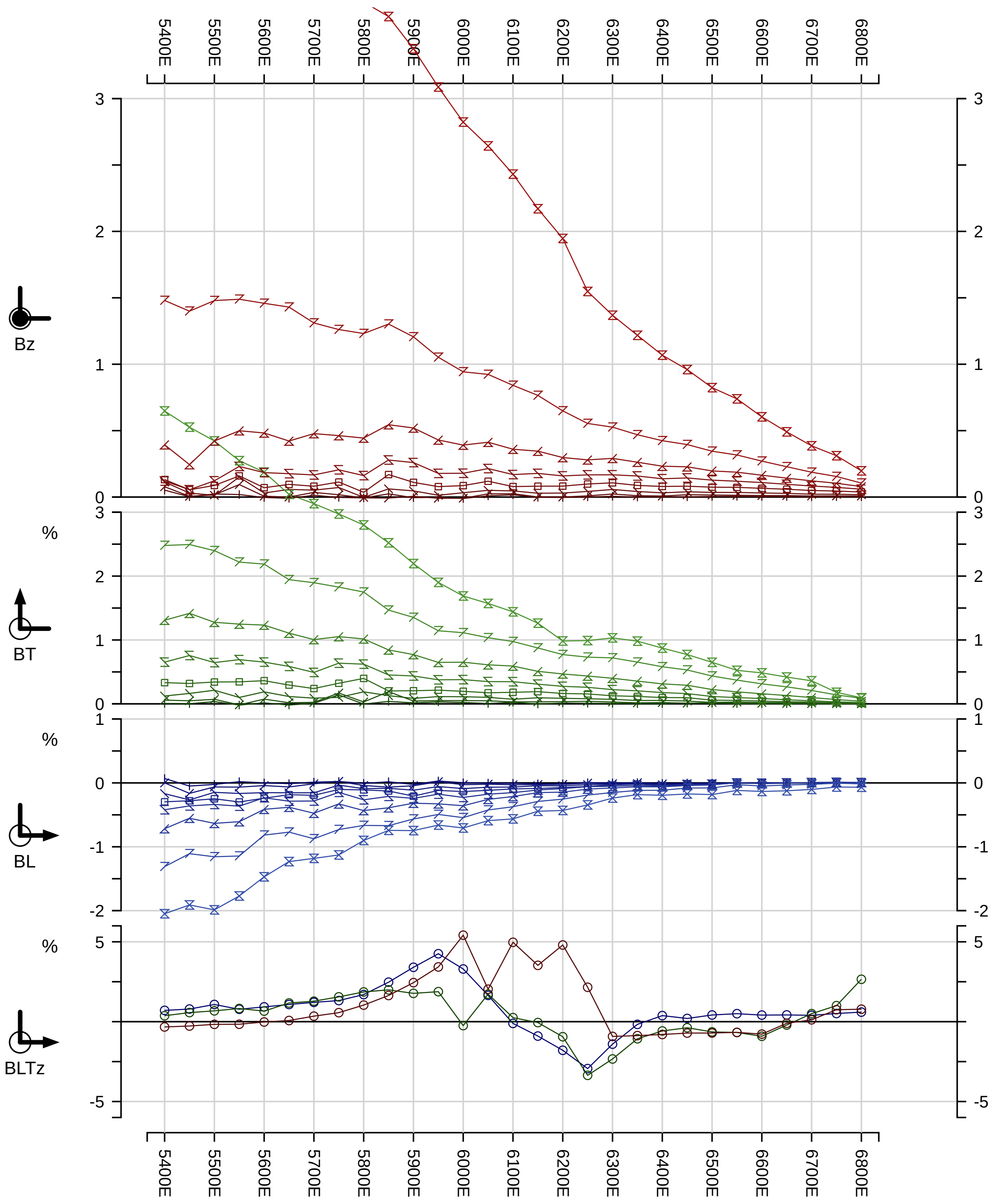
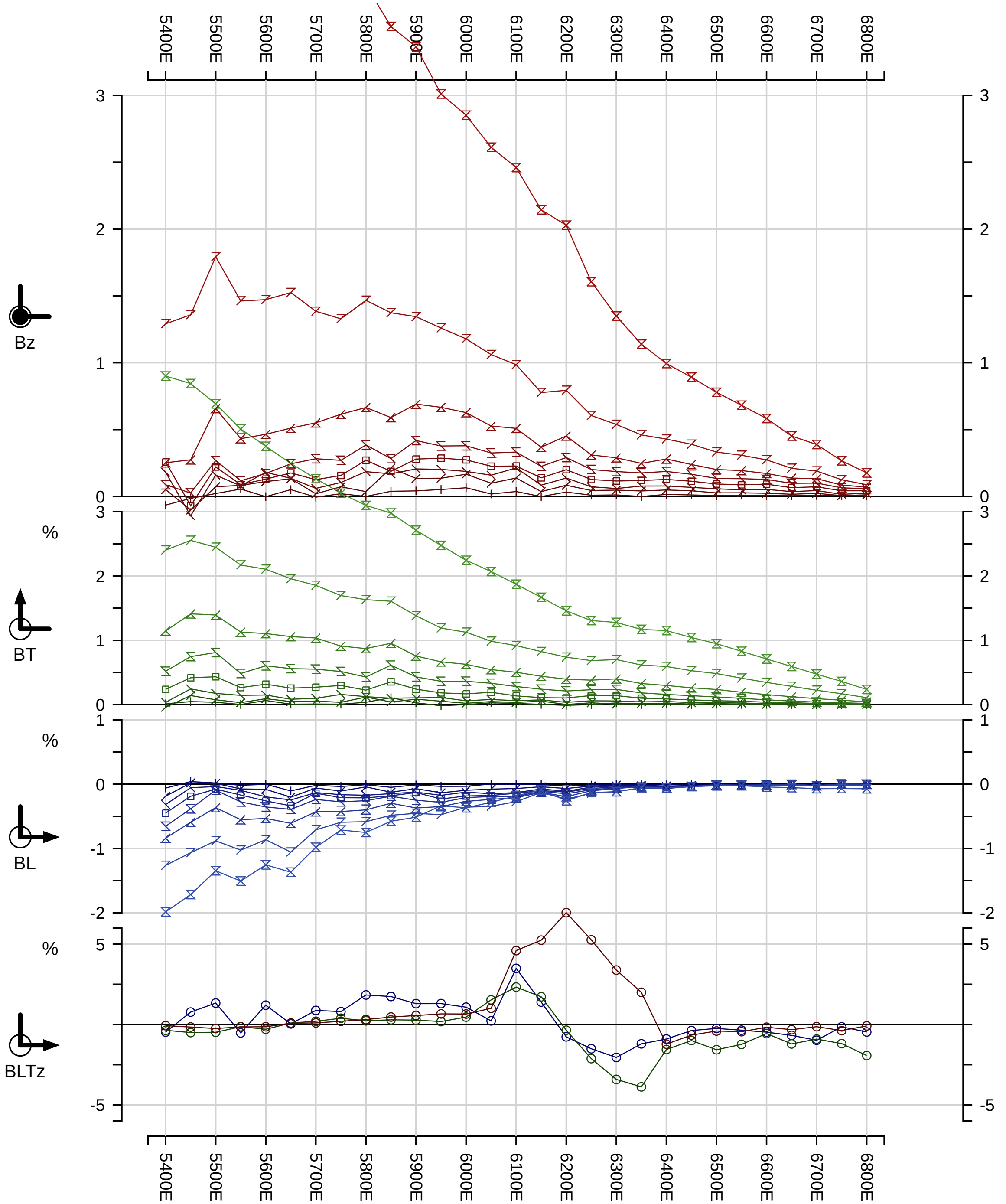


Line: L500N Loop: 2016-7S1 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-7S1_L500NA.3cH5 / 3 components S1 Lp7 late8Ch	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 29/2/16 Red: 25/4/16 Plot: 25/4/16

Loop 2016-7 - late Chs8-Ch0 - B_{LTZ}

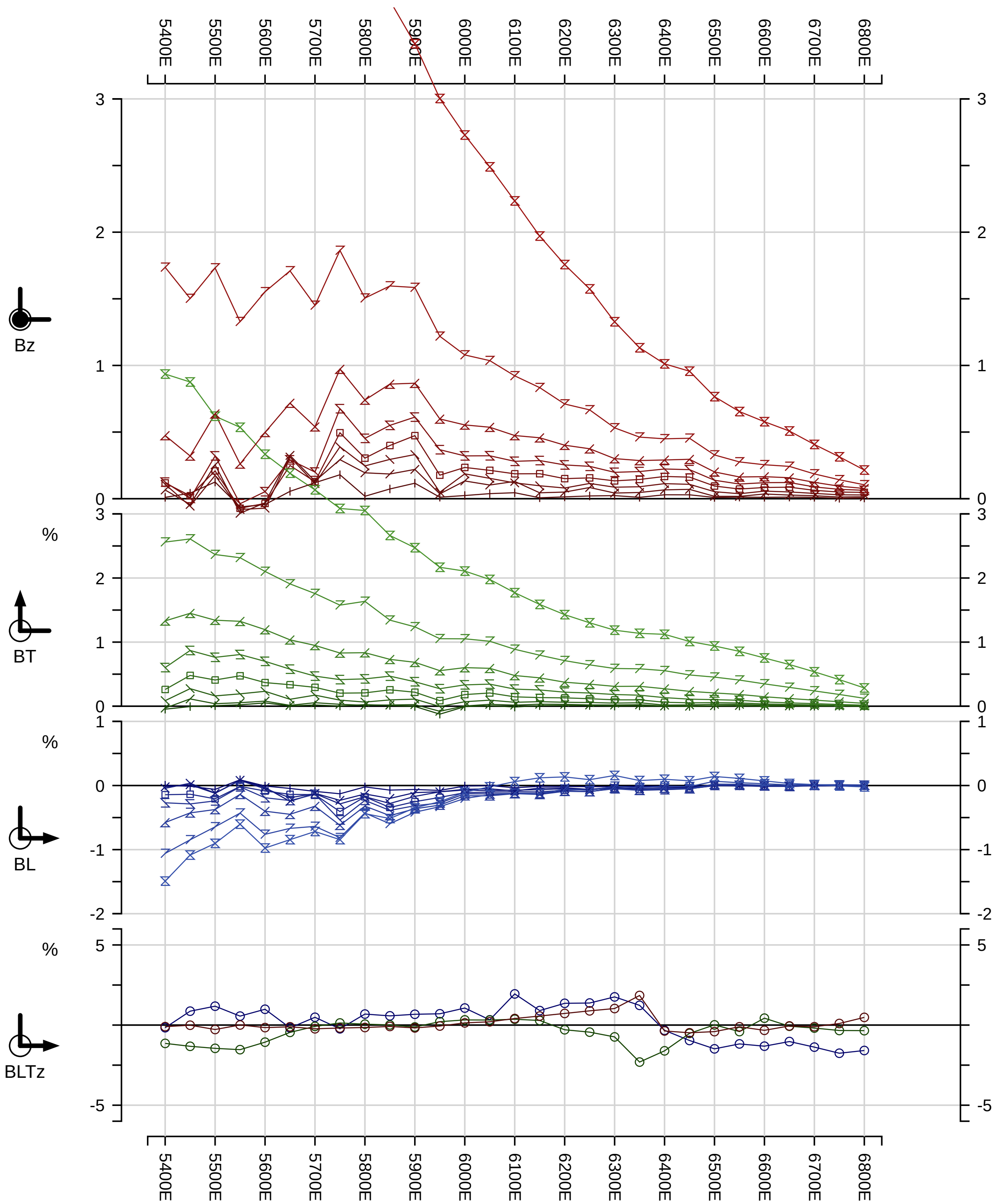
pg 72



Line: L600N Loop: 2016-7S1 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-7S1_L600NA.3cH5 / 3 components S1 Lp7 late8Ch	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 29/2/16 Red: 25/4/16 Plot: 25/4/16

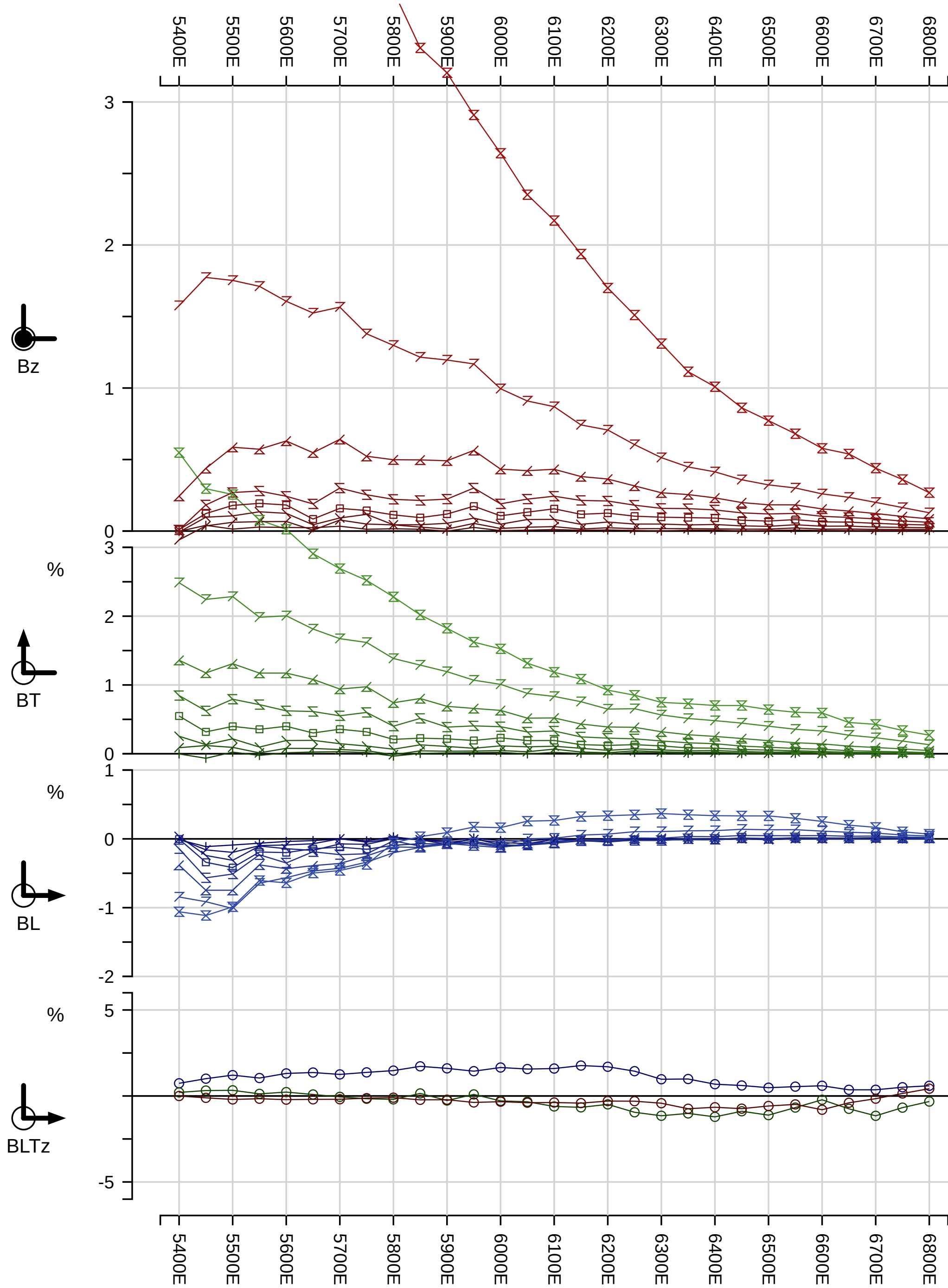
Loop 2016-7 - late Chs8-Ch0 - B_{LTZ}

pg 73



Line: L700N Loop: 2016-7S1 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-7S1_L700NA.3cH5 / 3 components S1 Lp7 late8Ch	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 1/3/16 Red: 25/4/16 Plot: 25/4/16

Loop 2016-7 - late Chs8-Ch0 - B_{LTZ}



Line: L800N Loop: 2016-7S1 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-7S1_L800NA.3cH5 / 3 components S1 Lp7 late8Ch	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 1/3/16 Red: 25/4/16 Plot: 25/4/16

Loop 2016-7 - late Chs8-Ch0 - B_{LTZ}

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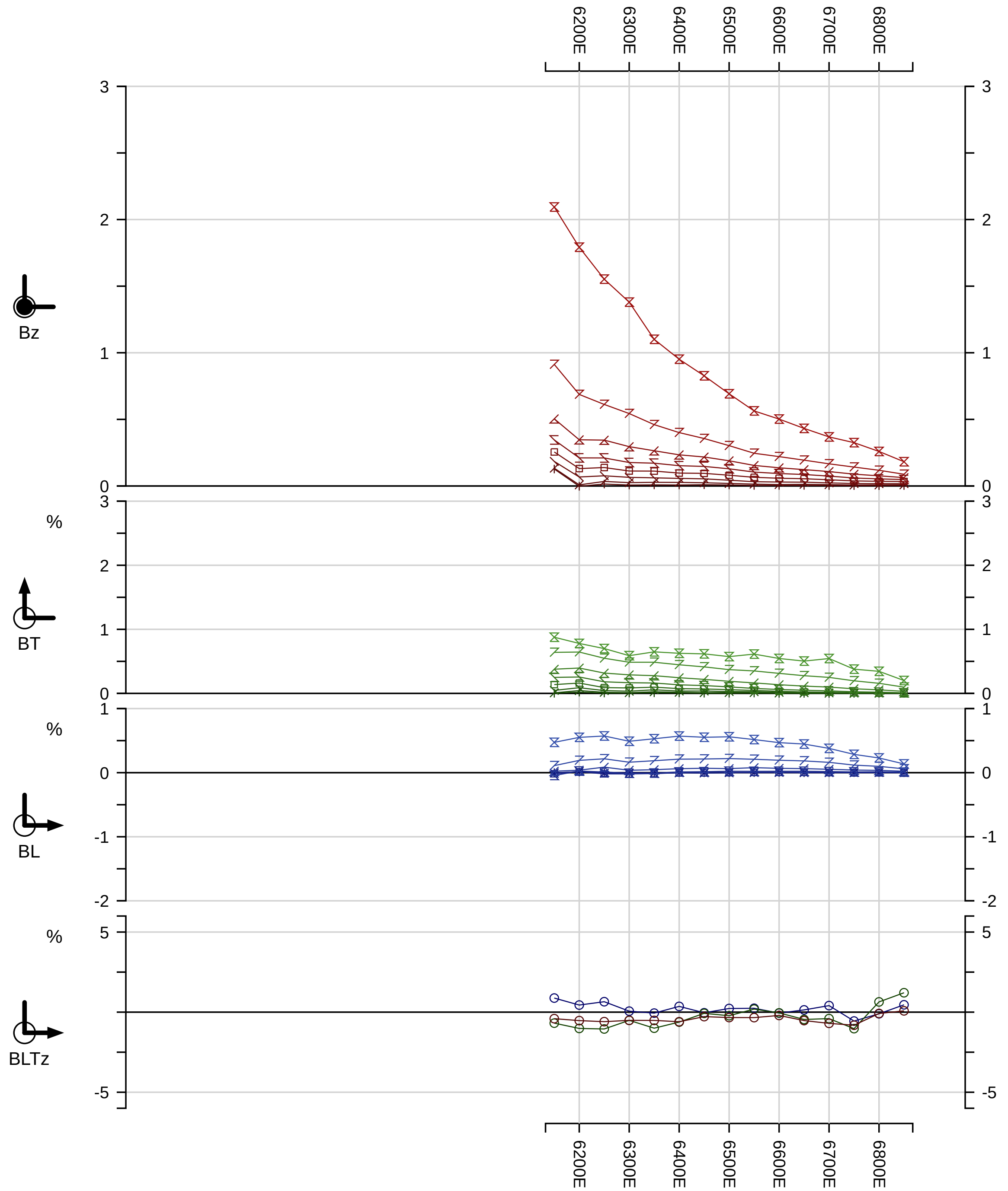

Line: L900N Loop: 2016-7S1 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-7S1_L900NB.3cH5 / 3 components S1 Lp7 late8Ch	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 2/3/16 Red: 25/4/16 Plot: 25/4/16

Loop 2016-7 - late Chs8-Ch0 - B_{LTZ}

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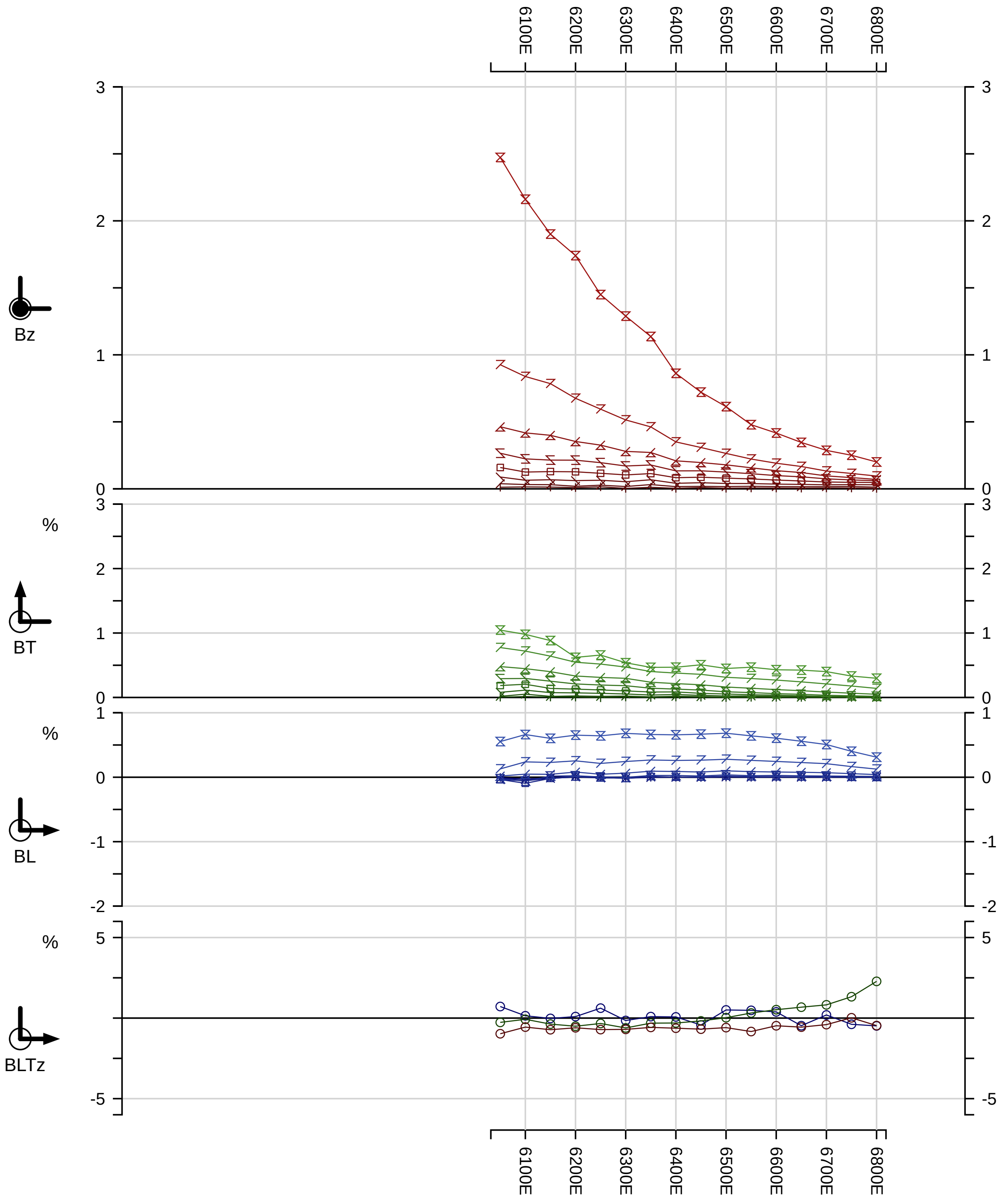
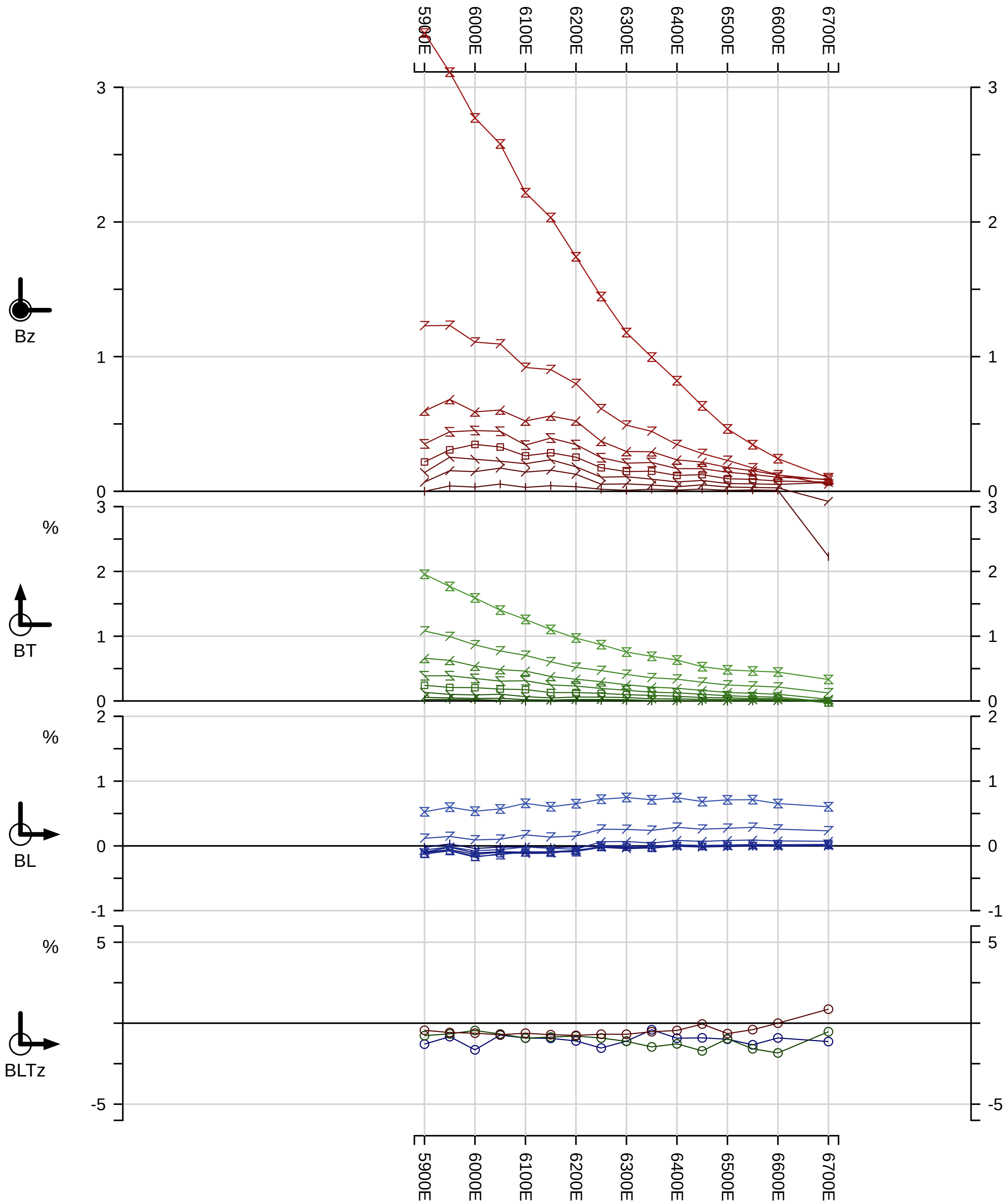


Line: L1000N Loop: 2016-7S1 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-7S1_L1000NA.3cH5 / 3 components S1 Lp7 late8Ch	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 2/3/16 Red: 25/4/16 Plot: 25/4/16

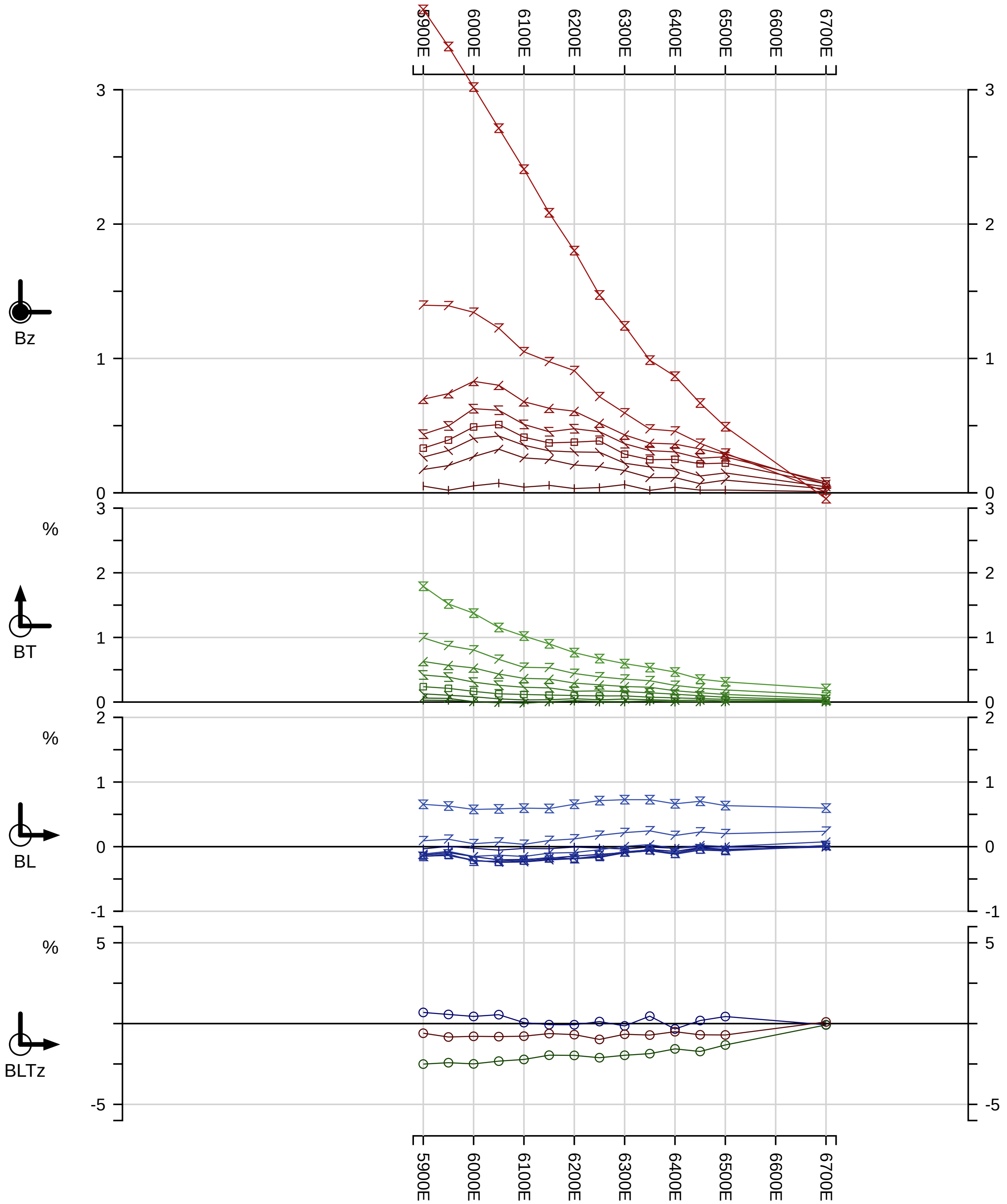
Loop 2016-7 - late Chs8-Ch0 - B_{LTZ}

pg 77



Line: L1100N Loop: 2016-7S1 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-7S1_L1100NA.3cH5 / 3 components S1 Lp7 late8Ch*	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 2/3/16 Red: 25/4/16 Plot: 25/4/16

Loop 2016-7 - late Chs8-Ch0 - B_{LTZ}



Line: L1200N Loop: 2016-7S1 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-7S1_L1200NA.3cH5 / 3 components S1 Lp7 late8Ch*	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 2/3/16 Red: 25/4/16 Plot: 25/4/16

Loop 2016-7 - late Chs8-Ch0 - B_{LTZ}

AT5 Grid

Loop 2016-8

BL/BT/Bz

~0.7143Hz frequency

continuous norm

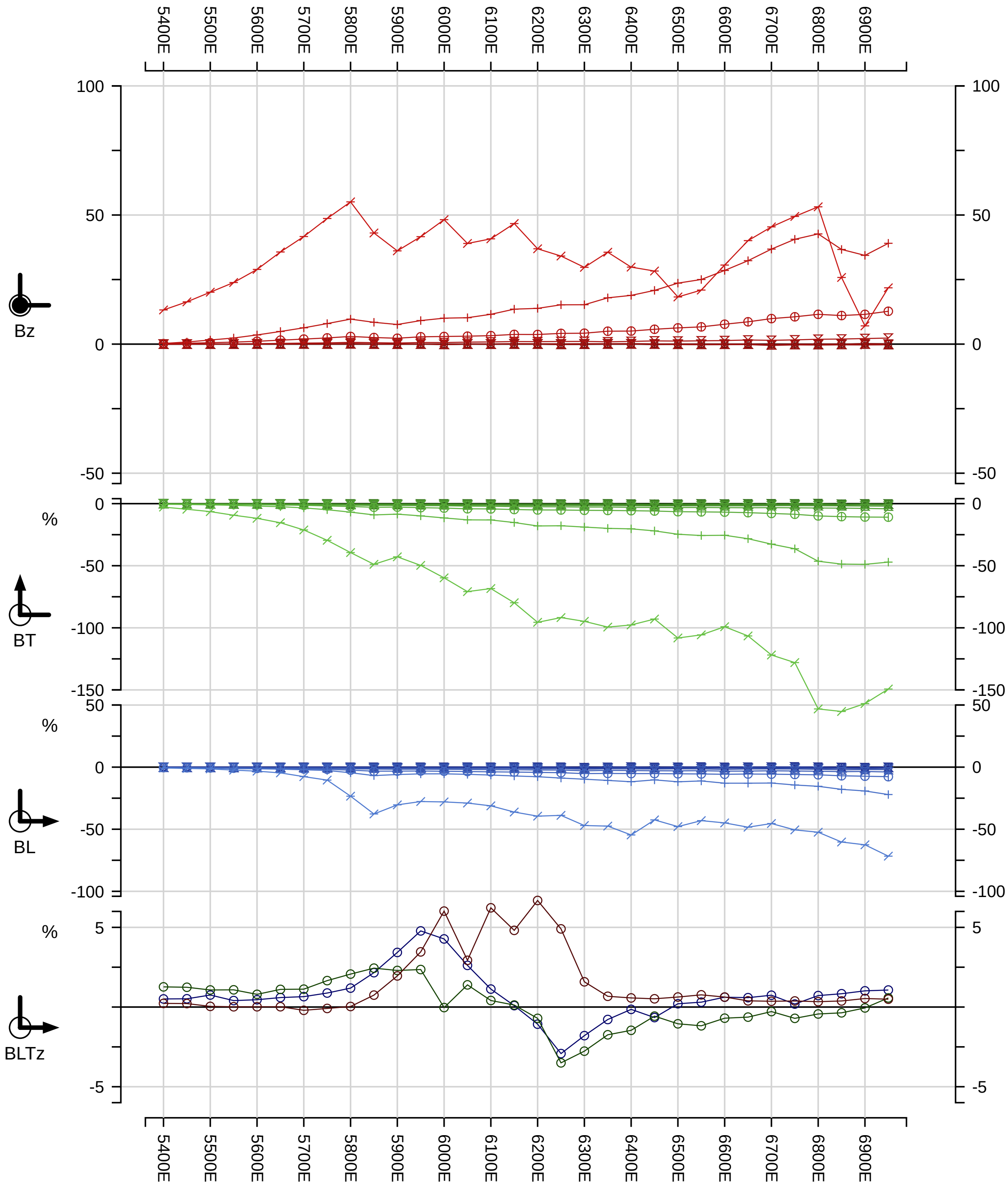
12Ch - Ch0 reduced

all Chs plotted

Loop 2016-8 (@ **0.7142857Hz**) off-loop - loop to the gridWest

TLine 500N	5400E - 6950E	1550m	BL/BT/Bz
TLine 600N	5400E - 7000E	1600m	BL/BT/Bz
TLine 700N	5400E - 7000E	1600m	BL/BT/Bz
TLine 800N	5400E - 7000E	1600m	BL/BT/Bz
TLine 900N	6000E - 7000E	1000m	BL/BT/Bz
TLine 1000N	6000E - 6800E	800m	BL/BT/Bz
TLine 1100N	5900E - 6700E	800m	BL/BT/Bz
TLine 1200N	5900E - 6700E	800m	BL/BT/Bz

Loop 2016-8 - all Chs - B_{LTZ} pg 80



Line: L500N Loop: 2016-8S2 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-8S2_L500NB.3cH5 / 3 components S2 Lp8 all	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 3/3/16 Red: 25/4/16 Plot: 27/4/16

Loop 2016-8 - all Chs - B_{LTZ}

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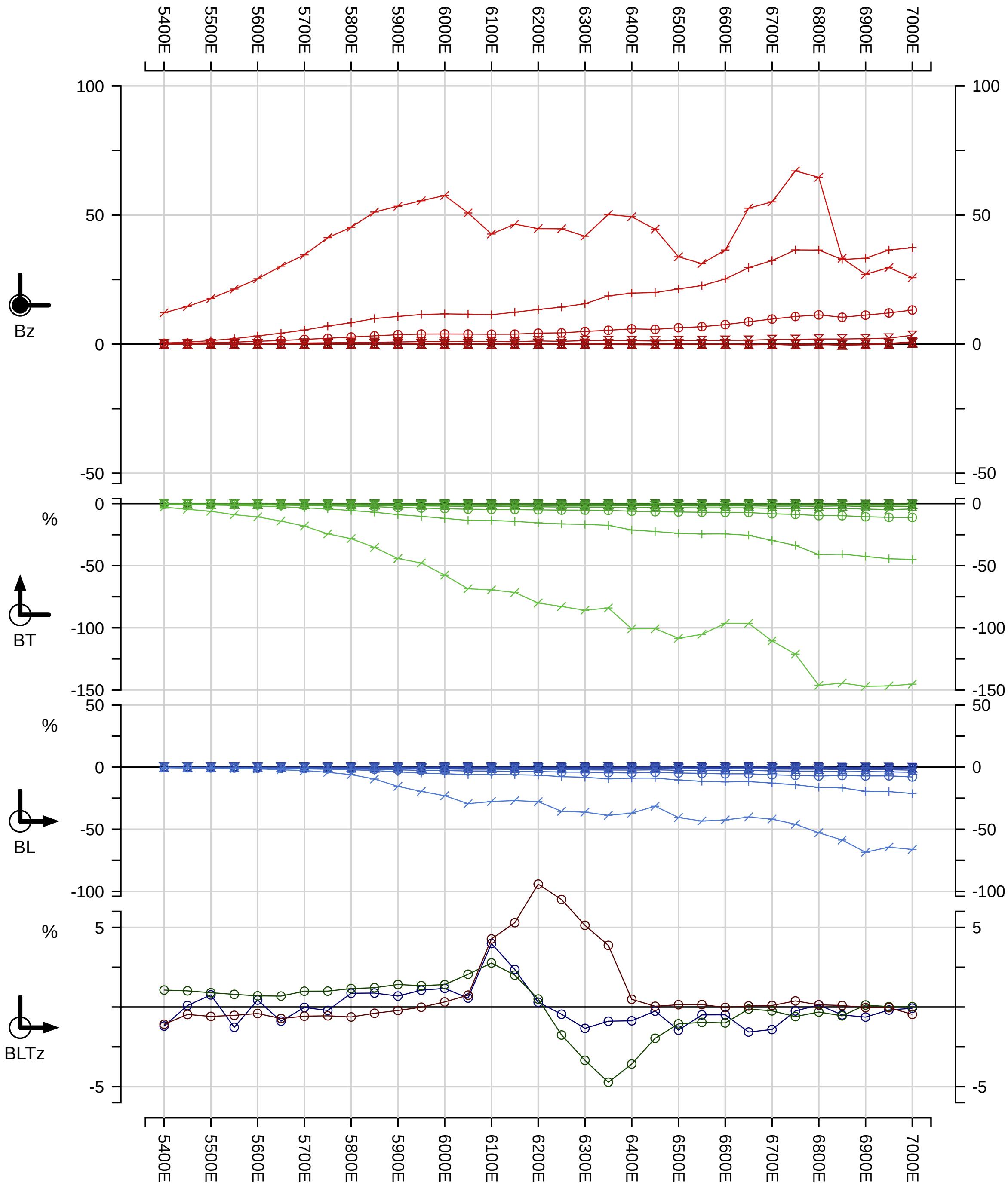
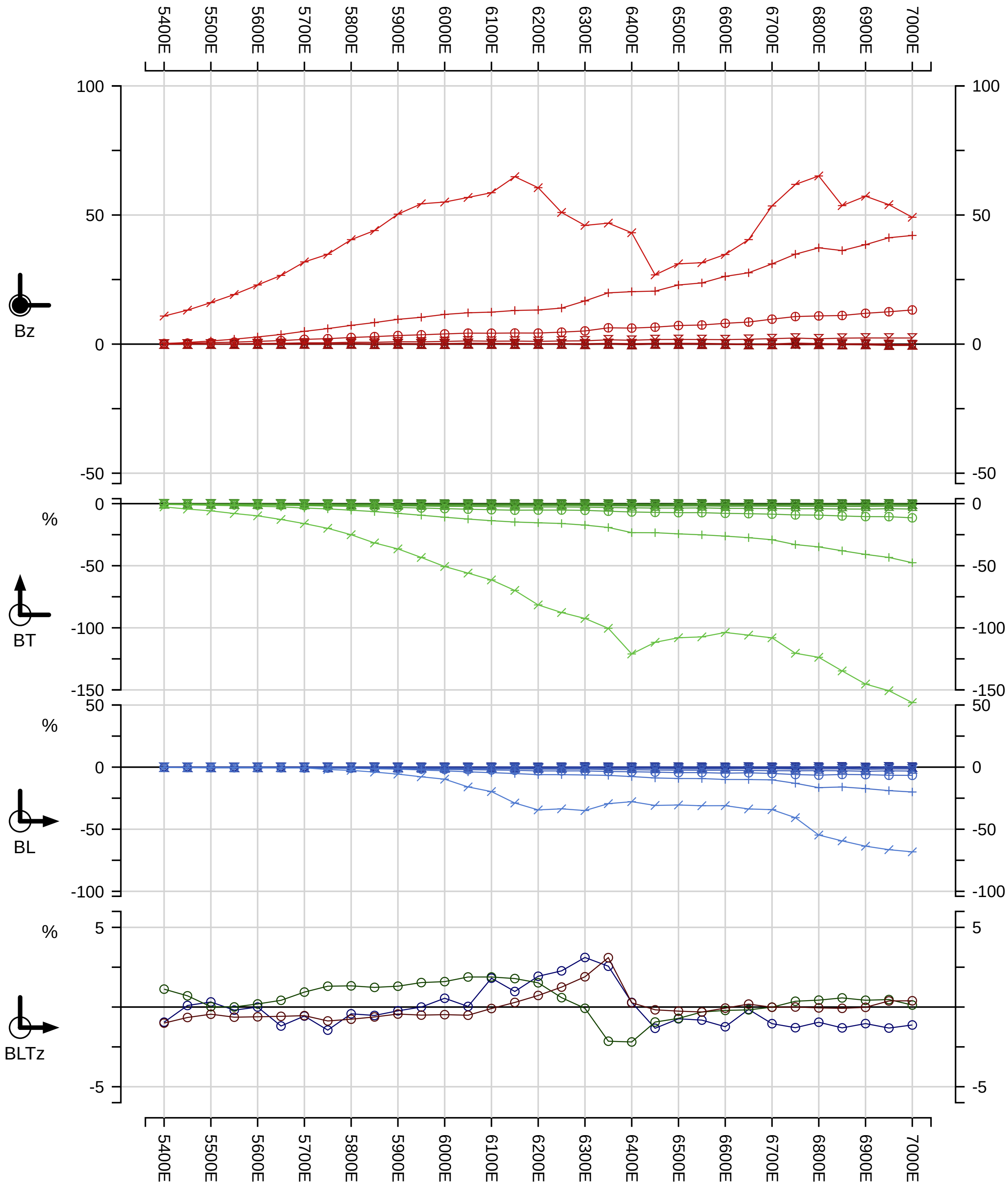


Line: L600N Loop: 2016-8S2 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-8S2_L600NB.3cH5 / 3 components S2 Lp8 all	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 3/3/16 Red: 25/4/16 Plot: 27/4/16

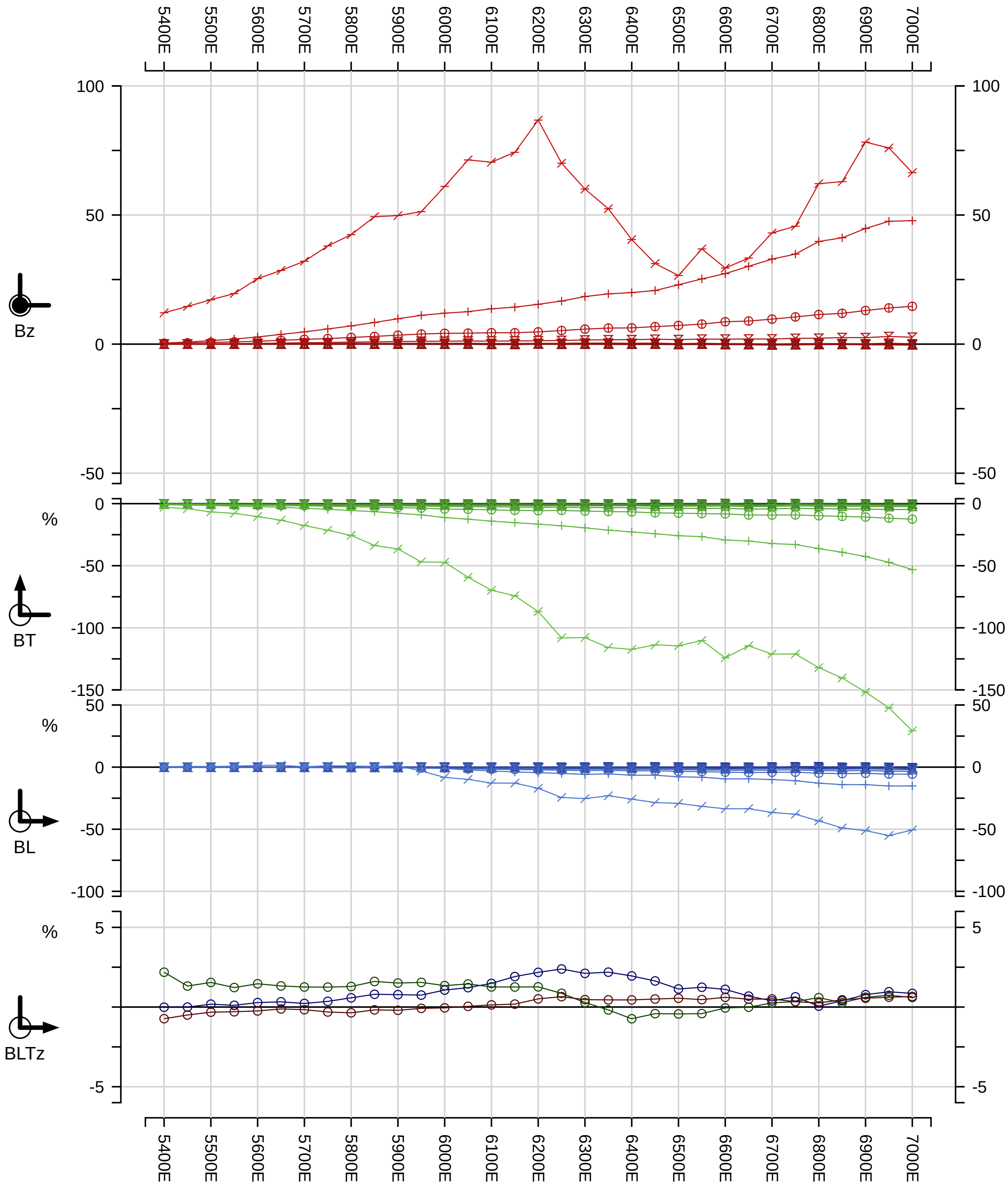
Loop 2016-8 - all Chs - B_{LTZ}



Line: L700N Loop: 2016-8S2 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-8S2_L700NB.3cH5 / 3 components S2 Lp8 all	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 3/3/16 Red: 25/4/16 Plot: 27/4/16

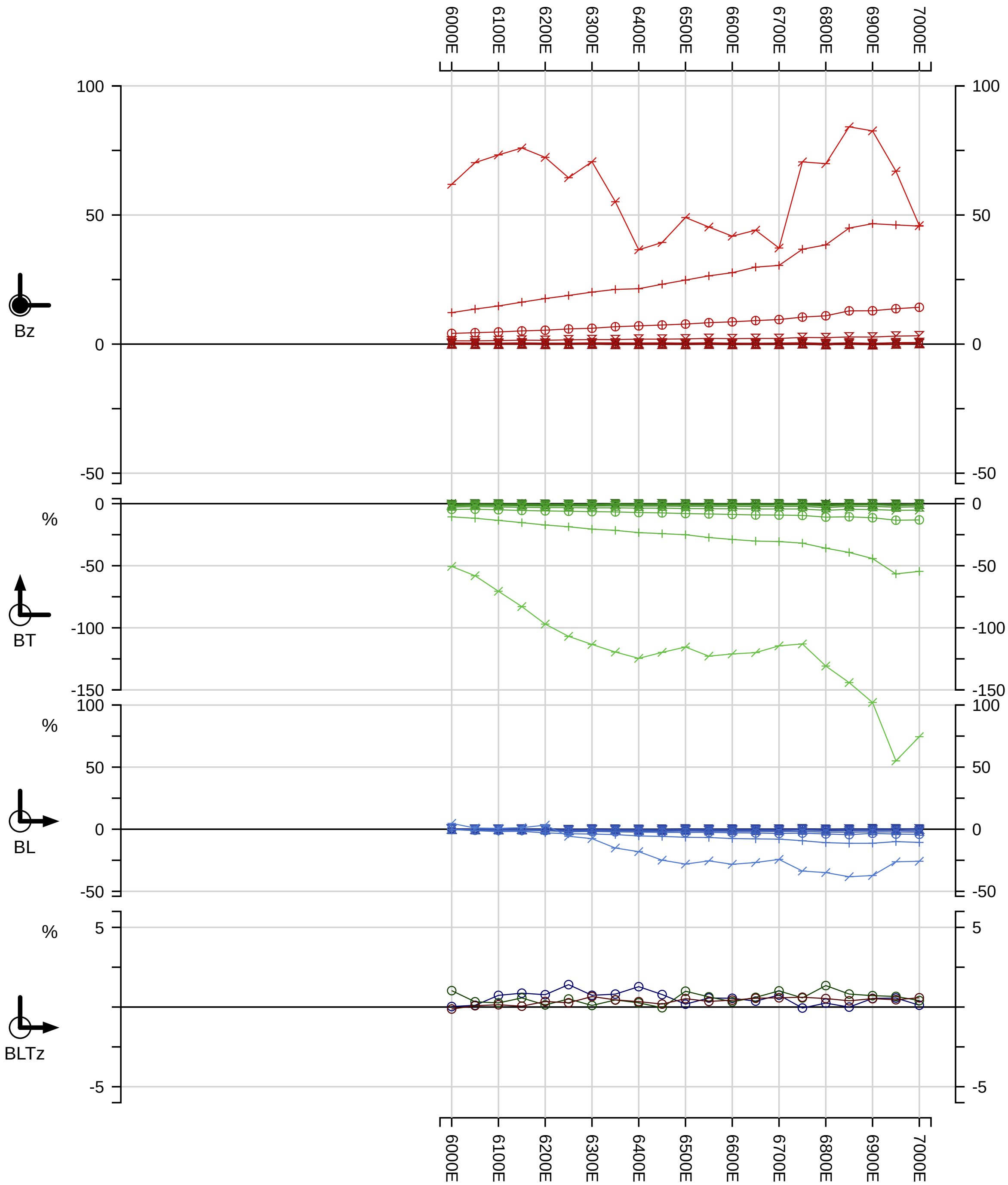
Loop 2016-8 - all Chs - B_{LTZ}

pg 83



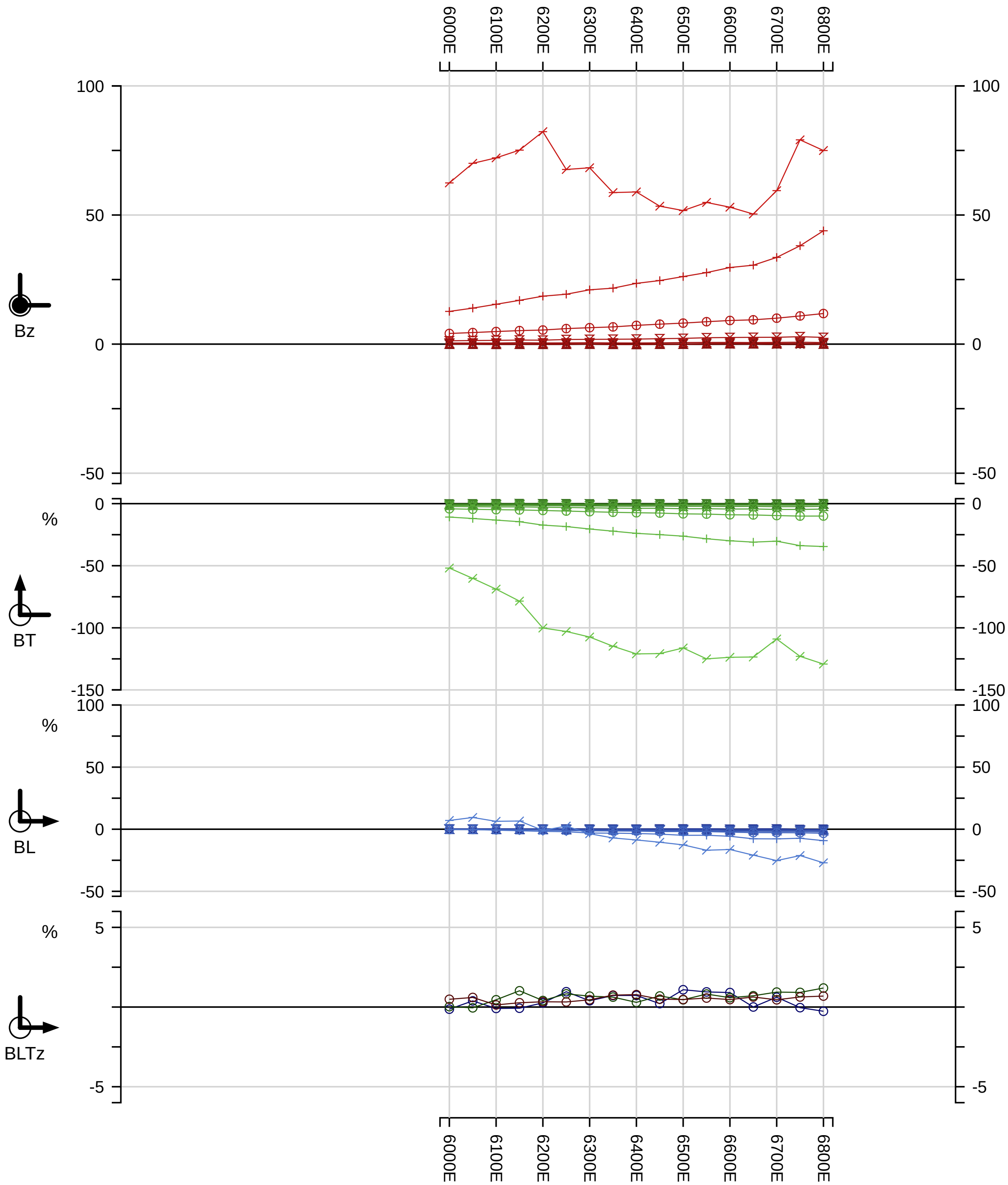
Line: L800N Loop: 2016-8S2 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-8S2_L800NB.3cH5 / 3 components S2 Lp8 all	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 3/3/16 Red: 25/4/16 Plot: 27/4/16

Loop 2016-8 - all Chs - B_{LTZ}



Line: L900N Loop: 2016-8S2 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-8S2_L900NA.3cH5 / 3 components S2 Lp8 all*	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 3/3/16 Red: 25/4/16 Plot: 27/4/16

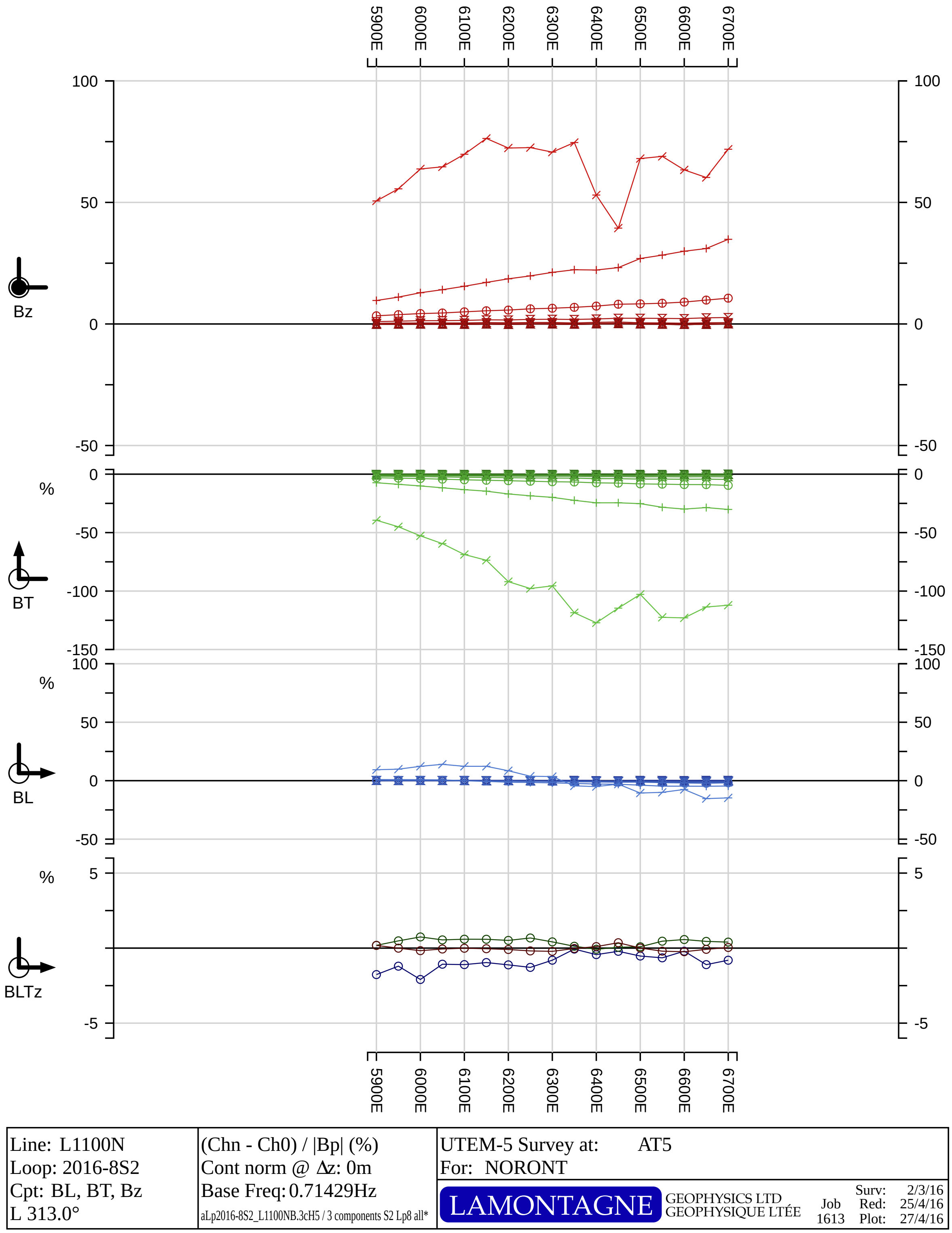
Loop 2016-8 - all Chs - B_{LTZ}



Line: L1000N Loop: 2016-8S2 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-8S2_L1000NB.3cH5 / 3 components S2 Lp8 all*	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 2/3/16 Red: 25/4/16 Plot: 27/4/16

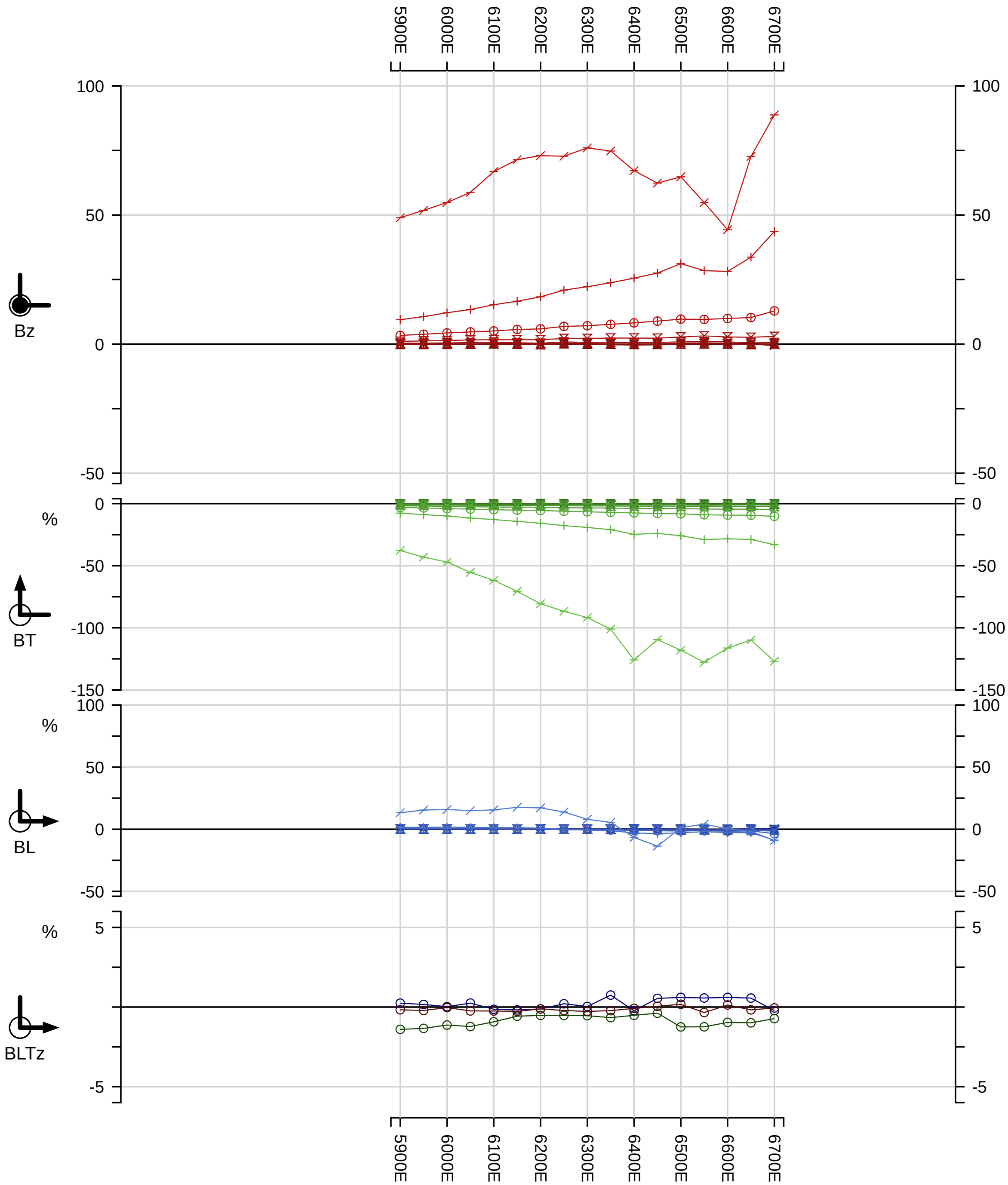
Loop 2016-8 - all Chs - B_{LTZ}

pg 86



Loop 2016-8 - all Chs - B_{LTZ}

pg 87



Line: L1200N Loop: 2016-8S2 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-8S2_L1200NB.3cH5 / 3 components S2 Lp8 all*	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 2/3/16 Red: 25/4/16 Plot: 27/4/16

Loop 2016-8 - all Chs - B_{LTZ}

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AT5 Grid

Loop 2016-8

BL/BT/Bz

~0.7143Hz frequency

continuous norm

12Ch - Ch0 reduced

late Chs8-Ch0 plotted

Loop 2016-8 (@ **0.7142857Hz**) off-loop - loop to the gridWest

TLine 500N	5400E - 6950E	1550m	BL/BT/Bz
TLine 600N	5400E - 7000E	1600m	BL/BT/Bz
TLine 700N	5400E - 7000E	1600m	BL/BT/Bz
TLine 800N	5400E - 7000E	1600m	BL/BT/Bz
TLine 900N	6000E - 7000E	1000m	BL/BT/Bz
TLine 1000N	6000E - 6800E	800m	BL/BT/Bz
TLine 1100N	5900E - 6700E	800m	BL/BT/Bz
TLine 1200N	5900E - 6700E	800m	BL/BT/Bz

Loop 2016-8 - late Chs8-Ch0 - B_{LTZ}

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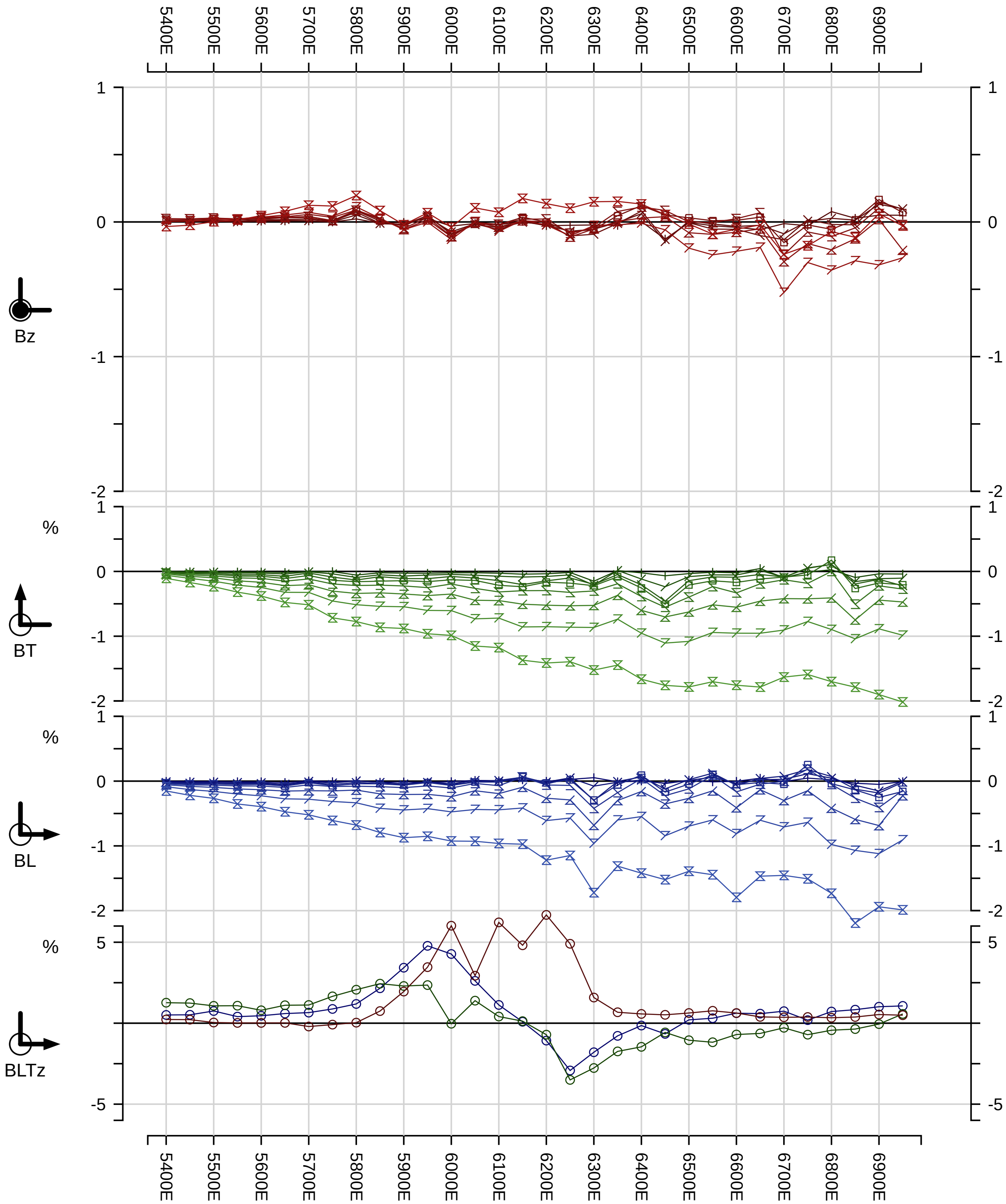
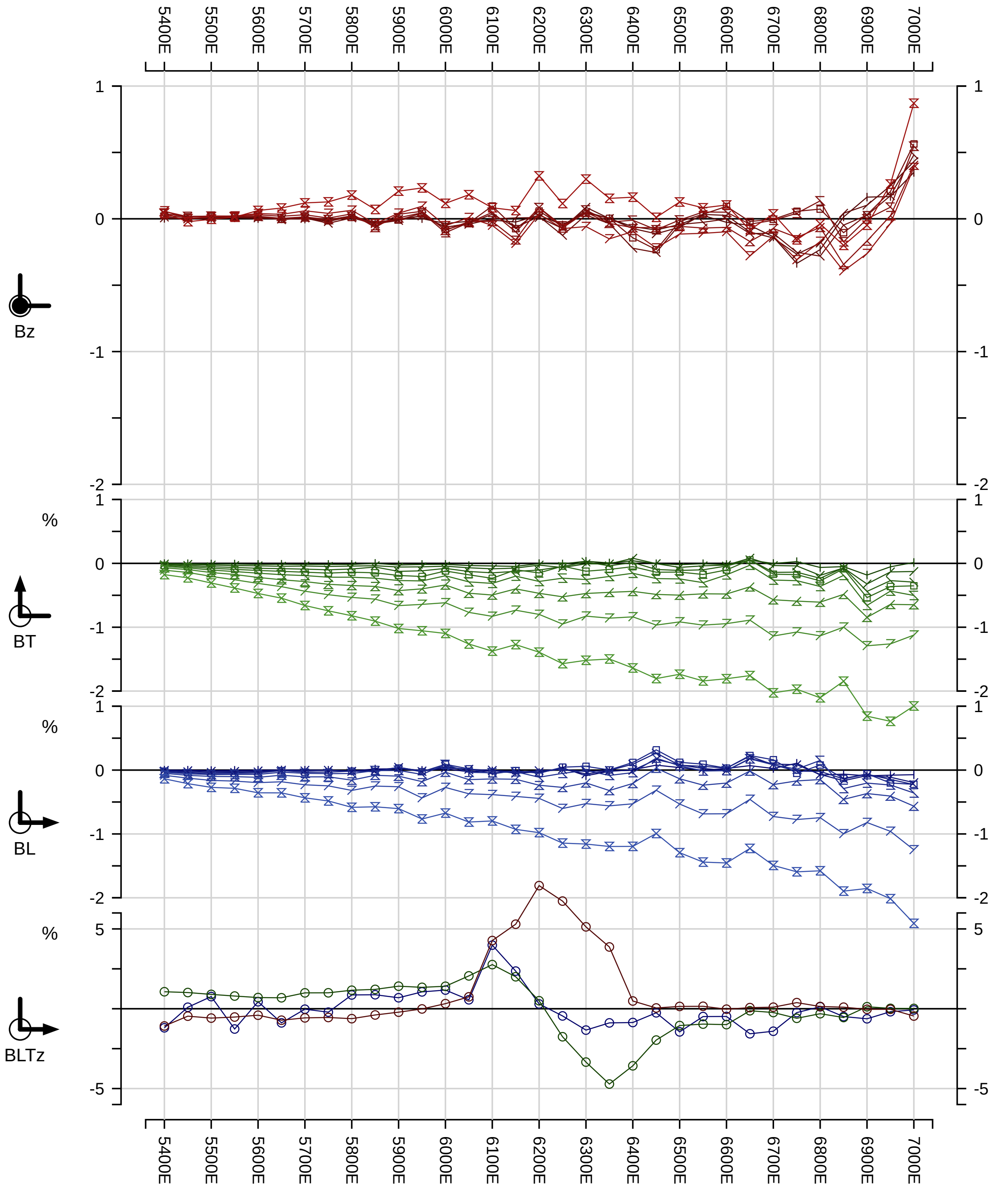


Line: L500N Loop: 2016-8S2 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-8S2_L500NB.3cH5 / 3 components S2 Lp8 late8Ch	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 3/3/16 Red: 25/4/16 Plot: 27/4/16

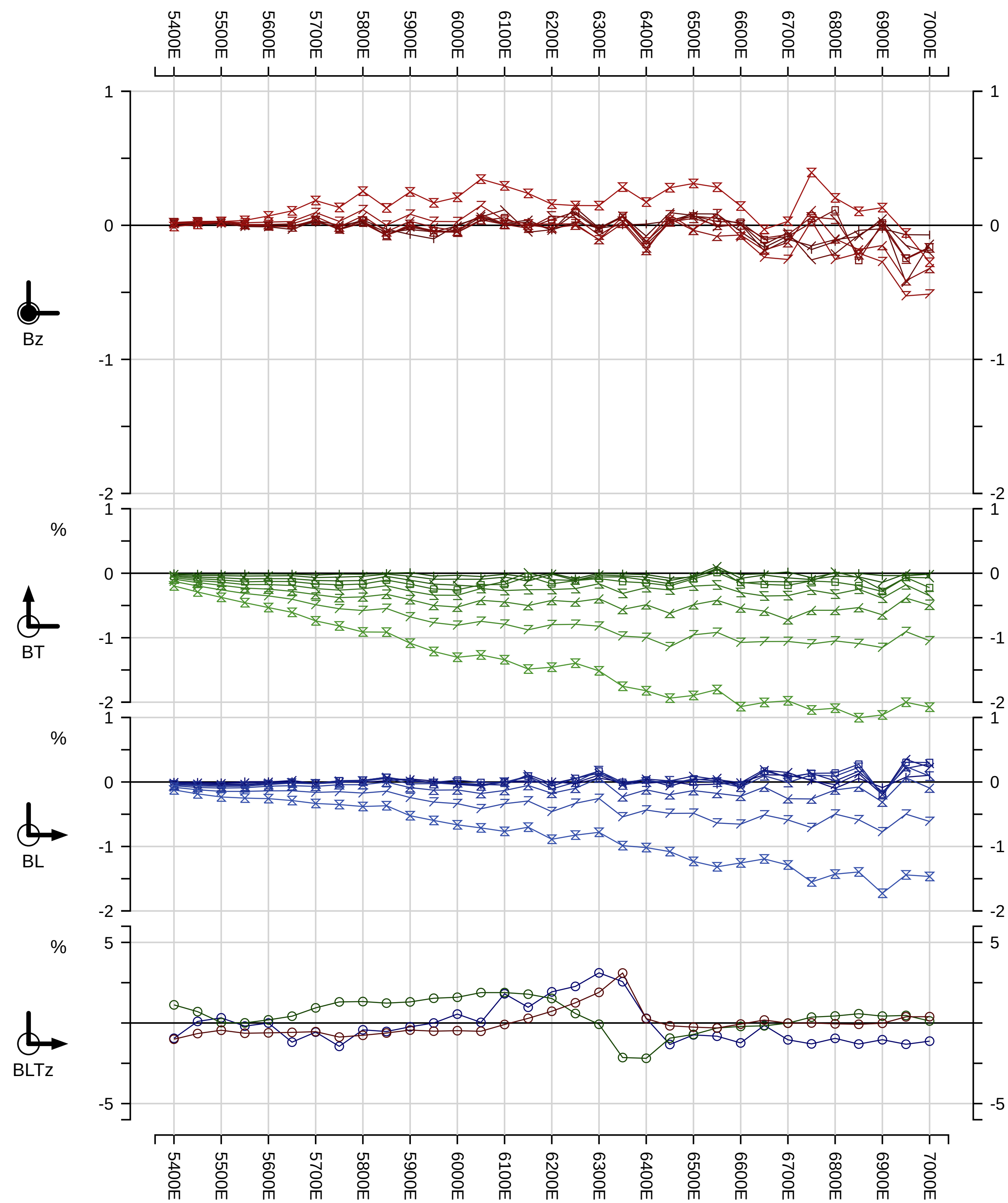
Loop 2016-8 - late Chs8-Ch0 - B_{LTZ}

pg 90



Line: L600N Loop: 2016-8S2 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-8S2_L600NB.3cH5 / 3 components S2 Lp8 late8Ch	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 3/3/16 Red: 25/4/16 Plot: 27/4/16

Loop 2016-8 - late Chs8-Ch0 - B_{LTZ}



Line: L700N Loop: 2016-8S2 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-8S2_L700NB.3cH5 / 3 components S2 Lp8 late8Ch	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 3/3/16 Red: 25/4/16 Plot: 27/4/16

Loop 2016-8 - late Chs8-Ch0 - B_{LTZ}

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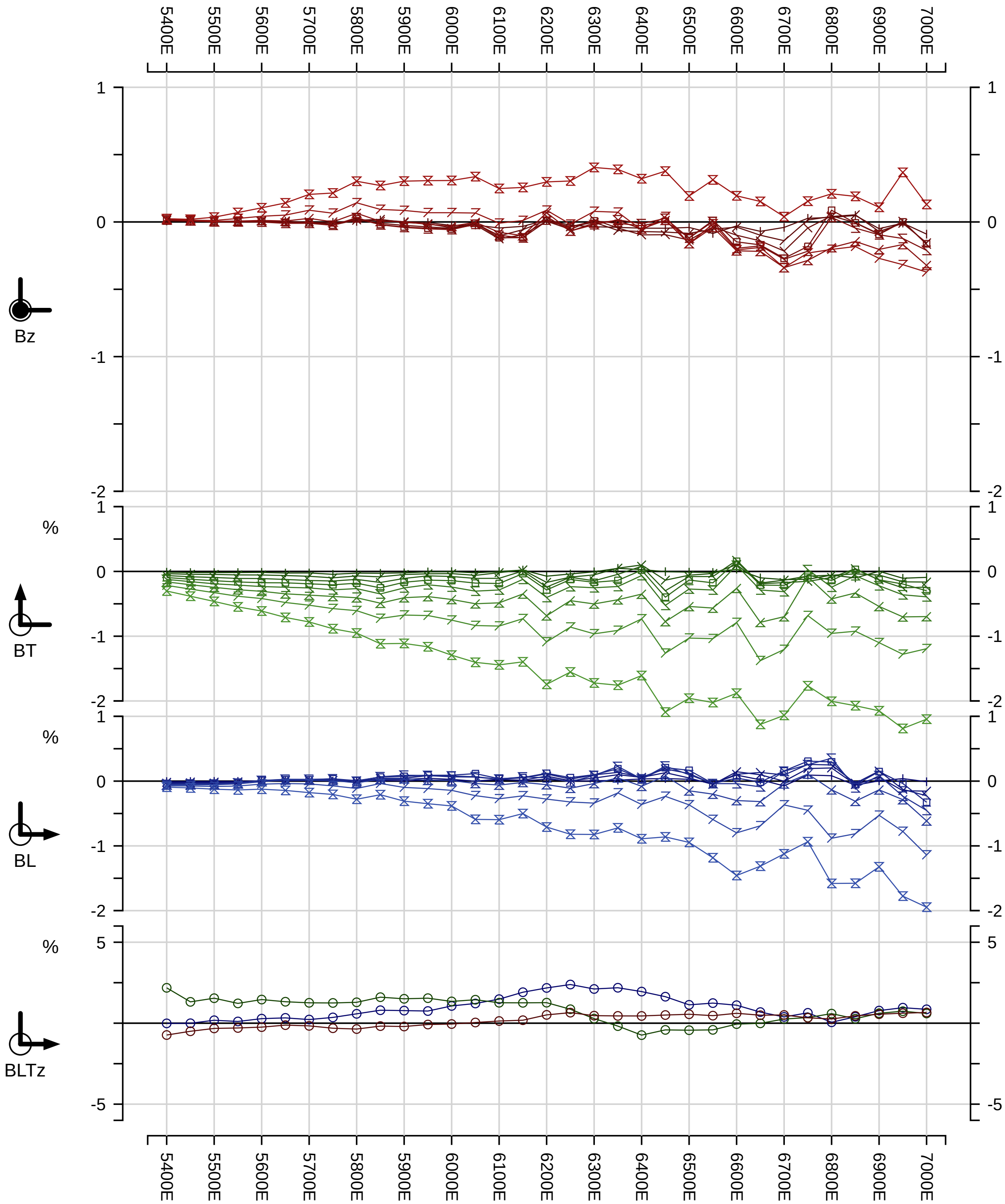
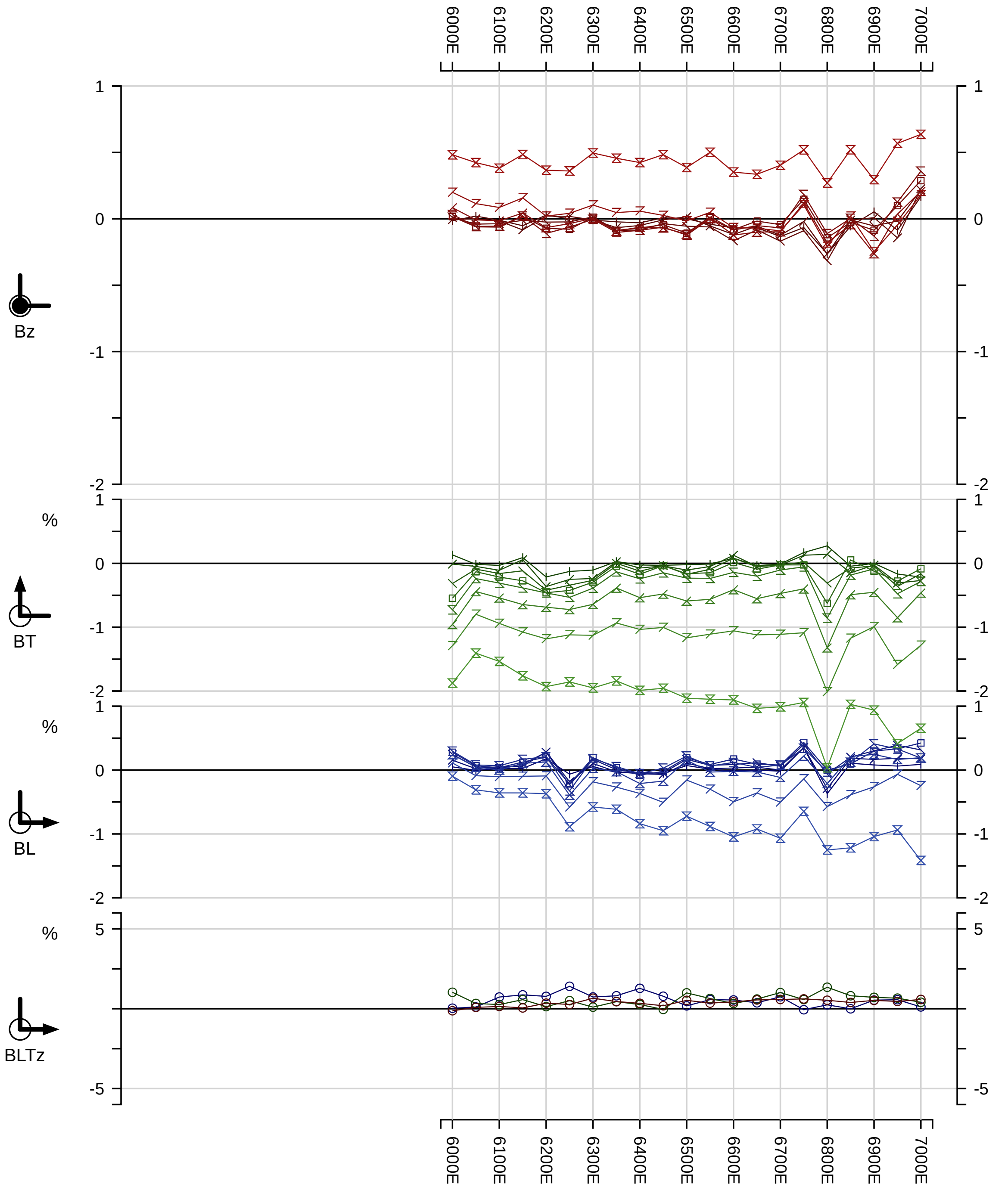


Line: L800N Loop: 2016-8S2 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-8S2_L800NB.3cH5 / 3 components S2 Lp8 late8Ch	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 3/3/16 Red: 25/4/16 Plot: 27/4/16

Loop 2016-8 - late Chs8-Ch0 - B_{LTZ}



Line: L900N Loop: 2016-8S2 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-8S2_L900NA.3cH5 / 3 components S2 Lp8 late8Ch	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 3/3/16 Red: 25/4/16 Plot: 27/4/16

Loop 2016-8 - late Chs8-Ch0 - B_{LTZ}

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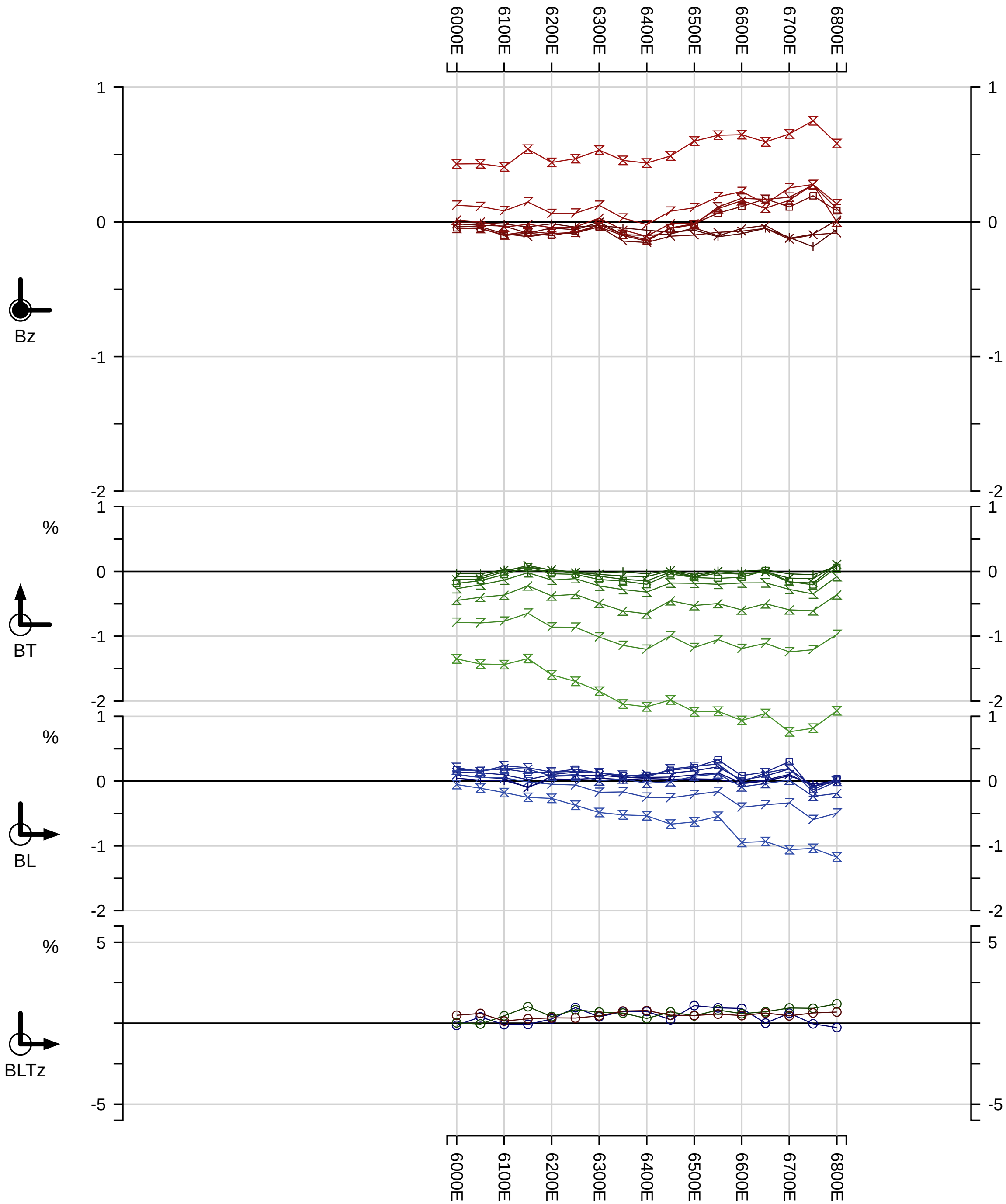
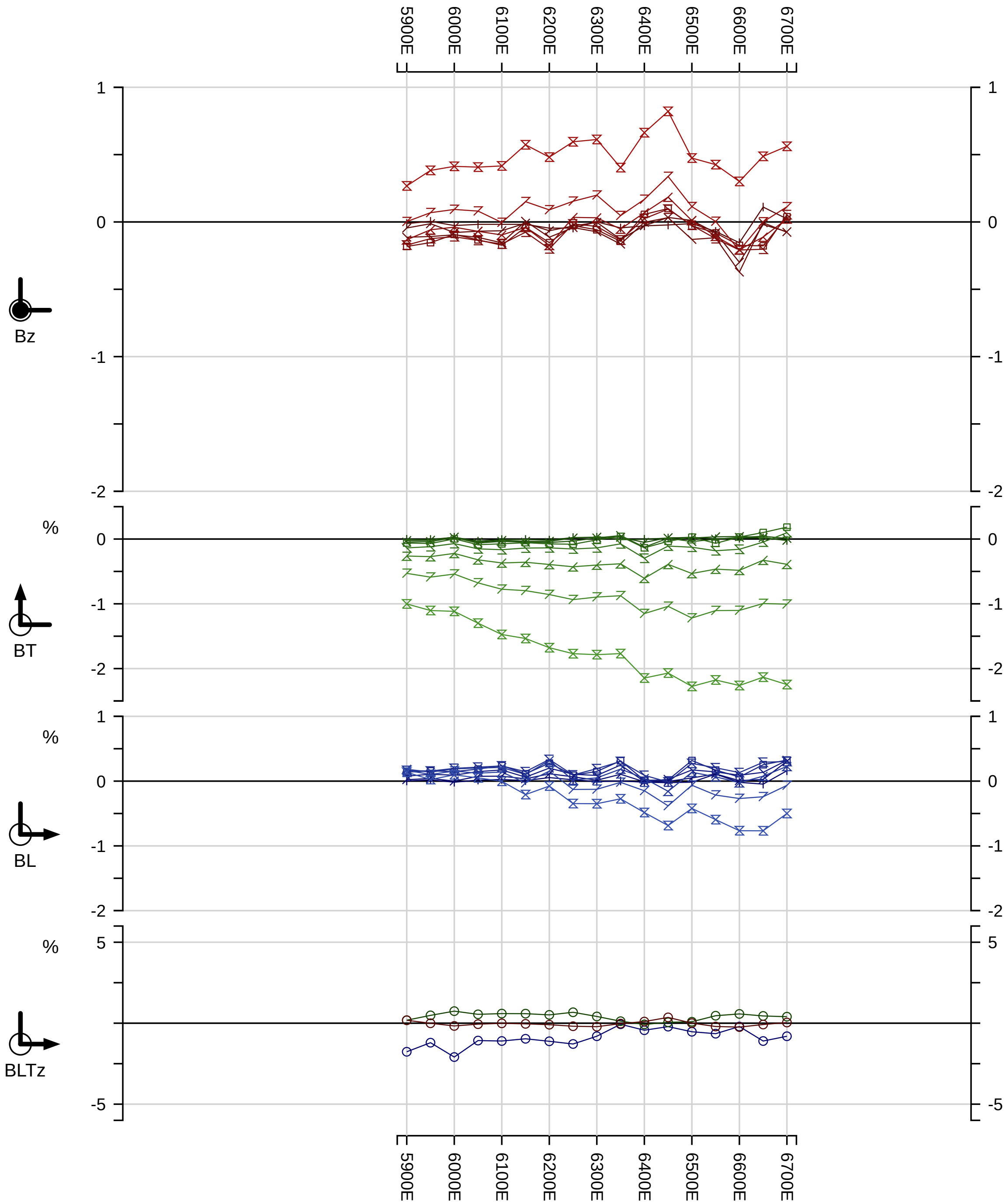


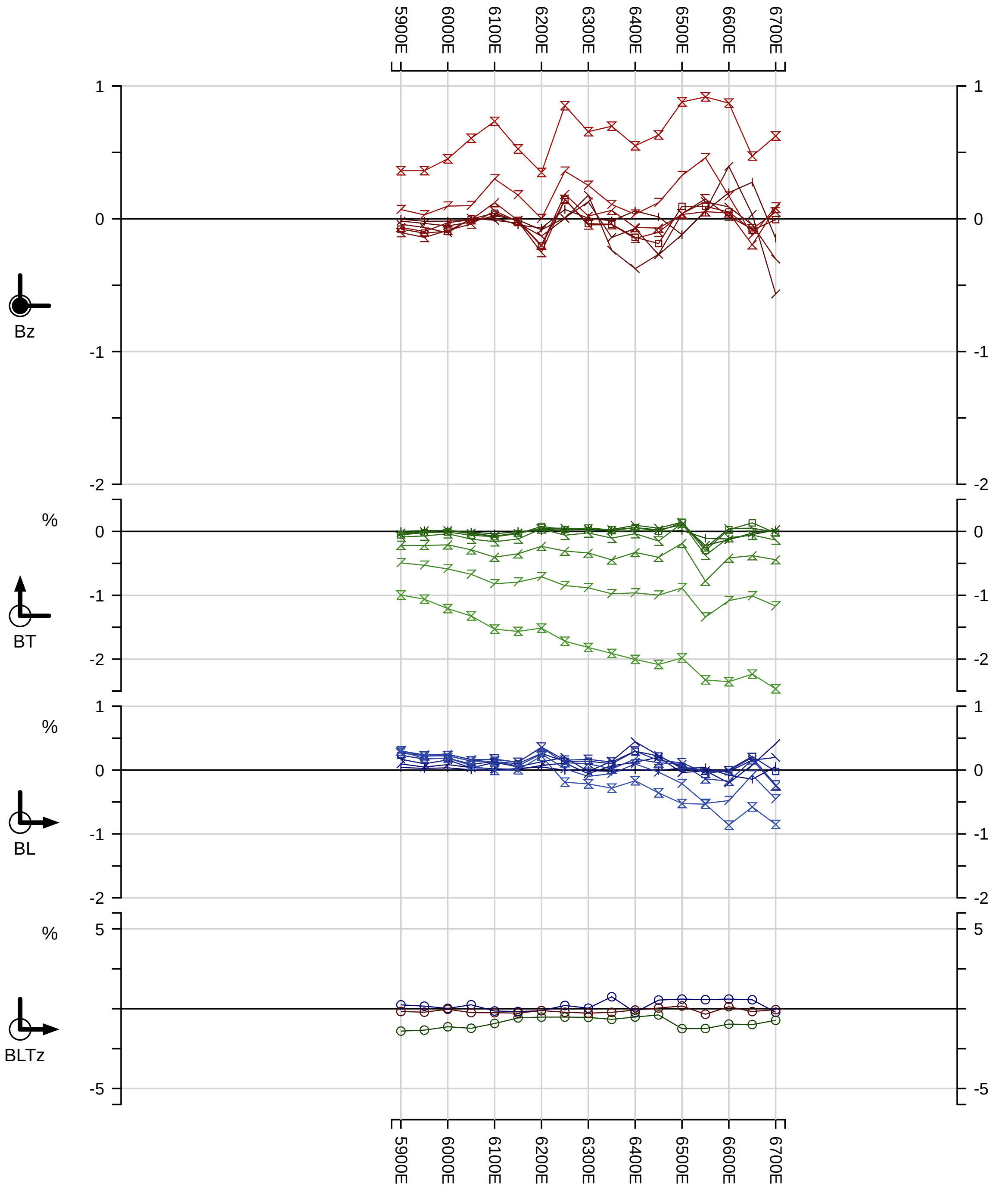
Line: L1000N Loop: 2016-8S2 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-8S2_L1000NB.3cH5 / 3 components S2 Lp8 late8Ch	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 2/3/16 Red: 25/4/16 Plot: 27/4/16

Loop 2016-8 - late Chs8-Ch0 - B_{LTZ}



Line: L1100N Loop: 2016-8S2 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-8S2_L1100NB.3cH5 / 3 components S2 Lp8 late8Ch*	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 2/3/16 Red: 25/4/16 Plot: 27/4/16

Loop 2016-8 - late Chs8-Ch0 - B_{LTZ}



Line: L1200N Loop: 2016-8S2 Cpt: BL, BT, Bz L 313.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-8S2_L1200NB.3cH5 / 3 components S2 Lp8 late8Ch*	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 2/3/16 Red: 25/4/16 Plot: 27/4/16

Loop 2016-8 - late Chs8-Ch0 - B_{LTZ}

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AT12 Grid

Loop 2016-10 (@ **1.785714Hz**) off-loop - loop to the gridEast
Loop 2016-09 (@ **0.7142857Hz**) in-loop

2 Loop coverage	Line 9901N	6100W - 4900W	1200m	BL/BT/Bz
	Line 10001N	6100W - 4900W	1200m	BL/BT/Bz
	Line 10101N	6100W - 4900W	1200m	BL/BT/Bz
	Line 10201N	6100W - 4900W	1200m	BL/BT/Bz
	Line 10301N	6100W - 4900W	1200m	BL/BT/Bz
	Line 10401N	6100W - 4900W	1200m	BL/BT/Bz
	Line 10501N	6100W - 4900W	1200m	BL/BT/Bz
	Line 10601N	6100W - 4900W	1200m	BL/BT/Bz
	Line 10701N	6100W - 4900W	1200m	BL/BT/Bz
	Line 10801N	6100W - 4900W	1200m	BL/BT/Bz
	Line 10901N	6100W - 4900W	1200m	BL/BT/Bz
	Line 11001N	6100W - 4900W	1200m	BL/BT/Bz
	Line 11101N	6100W - 4900W	1200m	BL/BT/Bz
	Line 11201N	6100W - 4900W	1200m	BL/BT/Bz
Lp 2016-10	Line 11401N	6100W - 4900W	1200m	BL/BT/Bz

Loop 2016-12 (@ **1.785714Hz**) off-loop - loop to the gridNorth
Loop 2016-11 (@ **0.7142857Hz**) off-loop - loop to the gridSouth

2 Loop coverage	Line 5700W	9801N - 11301N	1500m	BL/BT/Bz
	Line 5600W	9801N - 11301N	1500m	BL/BT/Bz
	Line 5500W	9801N - 11301N	1500m	BL/BT/Bz
	Line 5400W	9801N - 11301N	1500m	BL/BT/Bz

AT12 Grid

Loop 2016-10

BL/BT/Bz

~1.785Hz frequency

continuous norm

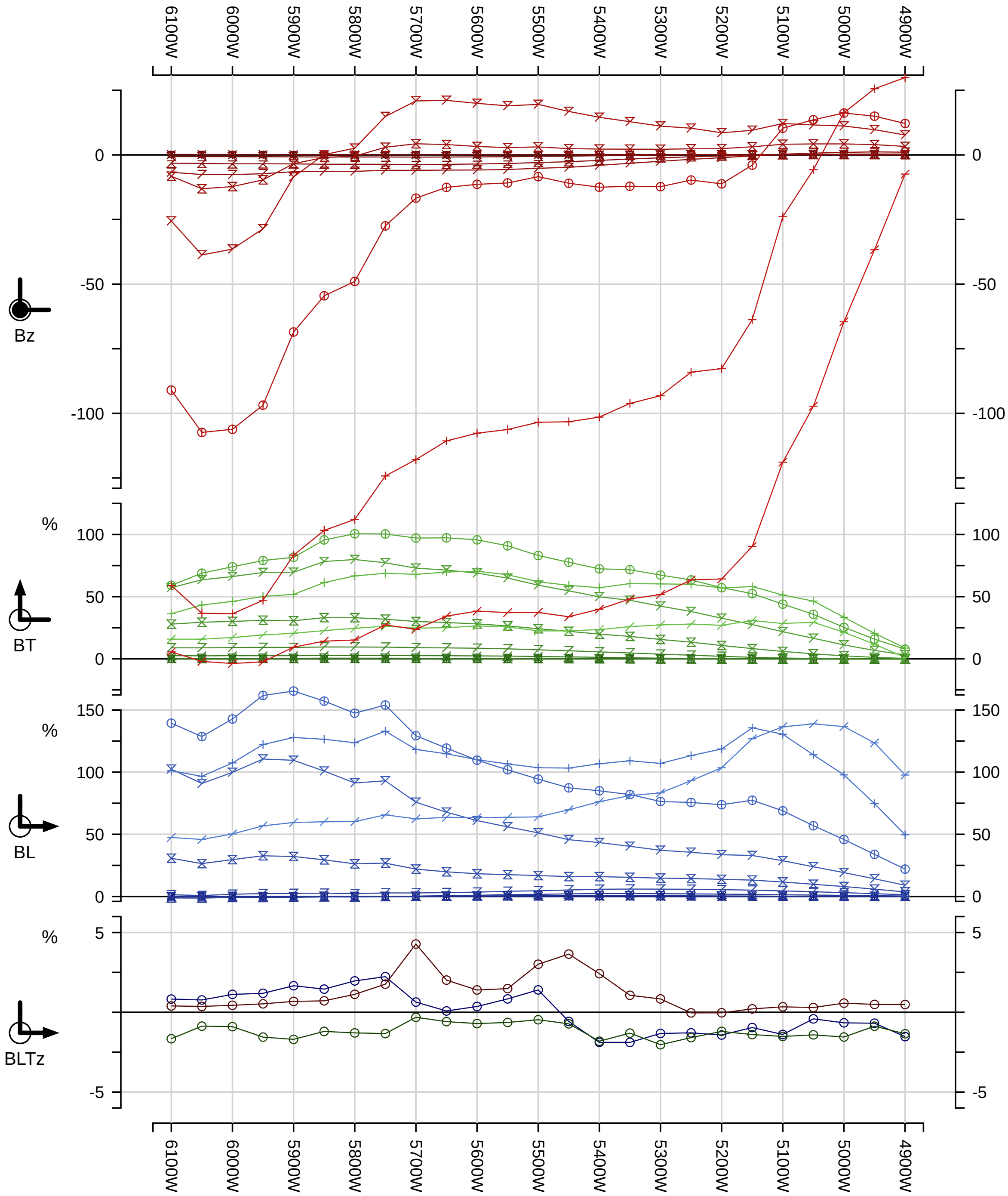
12Ch - Ch0 reduced

all Chs plotted

Loop 2016-10 (@ **1.785714Hz**) off-loop - loop to the gridEast

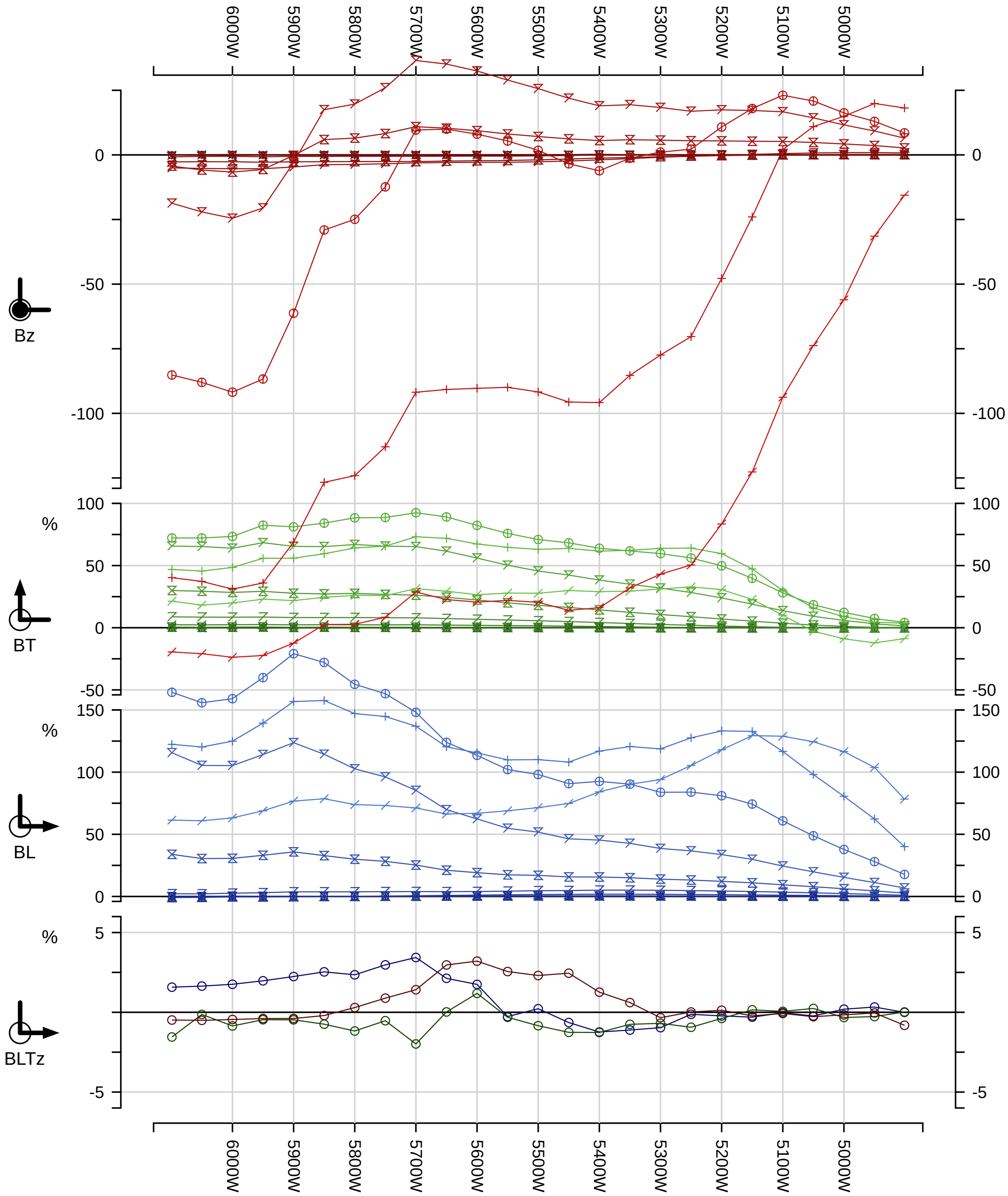
2 Loop coverage	Line 9901N	6100W - 4900W	1200m	BL/BT/Bz
	Line 10001N	6100W - 4900W	1200m	BL/BT/Bz
	Line 10101N	6100W - 4900W	1200m	BL/BT/Bz
	Line 10201N	6100W - 4900W	1200m	BL/BT/Bz
	Line 10301N	6100W - 4900W	1200m	BL/BT/Bz
	Line 10401N	6100W - 4900W	1200m	BL/BT/Bz
	Line 10501N	6100W - 4900W	1200m	BL/BT/Bz
	Line 10601N	6100W - 4900W	1200m	BL/BT/Bz
	Line 10701N	6100W - 4900W	1200m	BL/BT/Bz
	Line 10801N	6100W - 4900W	1200m	BL/BT/Bz
	Line 10901N	6100W - 4900W	1200m	BL/BT/Bz
	Line 11001N	6100W - 4900W	1200m	BL/BT/Bz
	Line 11101N	6100W - 4900W	1200m	BL/BT/Bz
	Line 11201N	6100W - 4900W	1200m	BL/BT/Bz
1 loop	Line 11401N	6100W - 4900W	1200m	BL/BT/Bz

Loop 2016-10 - all Chs - B_{LTZ} pg 99



Line: L9901N Loop: 2016-10S1 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-10S1_L9901NA.3cH5 / 3 components S1 Lp10 all	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 5/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-10 - all Chs - B_{LTZ}



Line: L10001N Loop: 2016-10S1 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-10S1_L10001NA.3cH5 / 3 components S1 Lp10 all*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 9/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-10 - all Chs - B_{LTZ}

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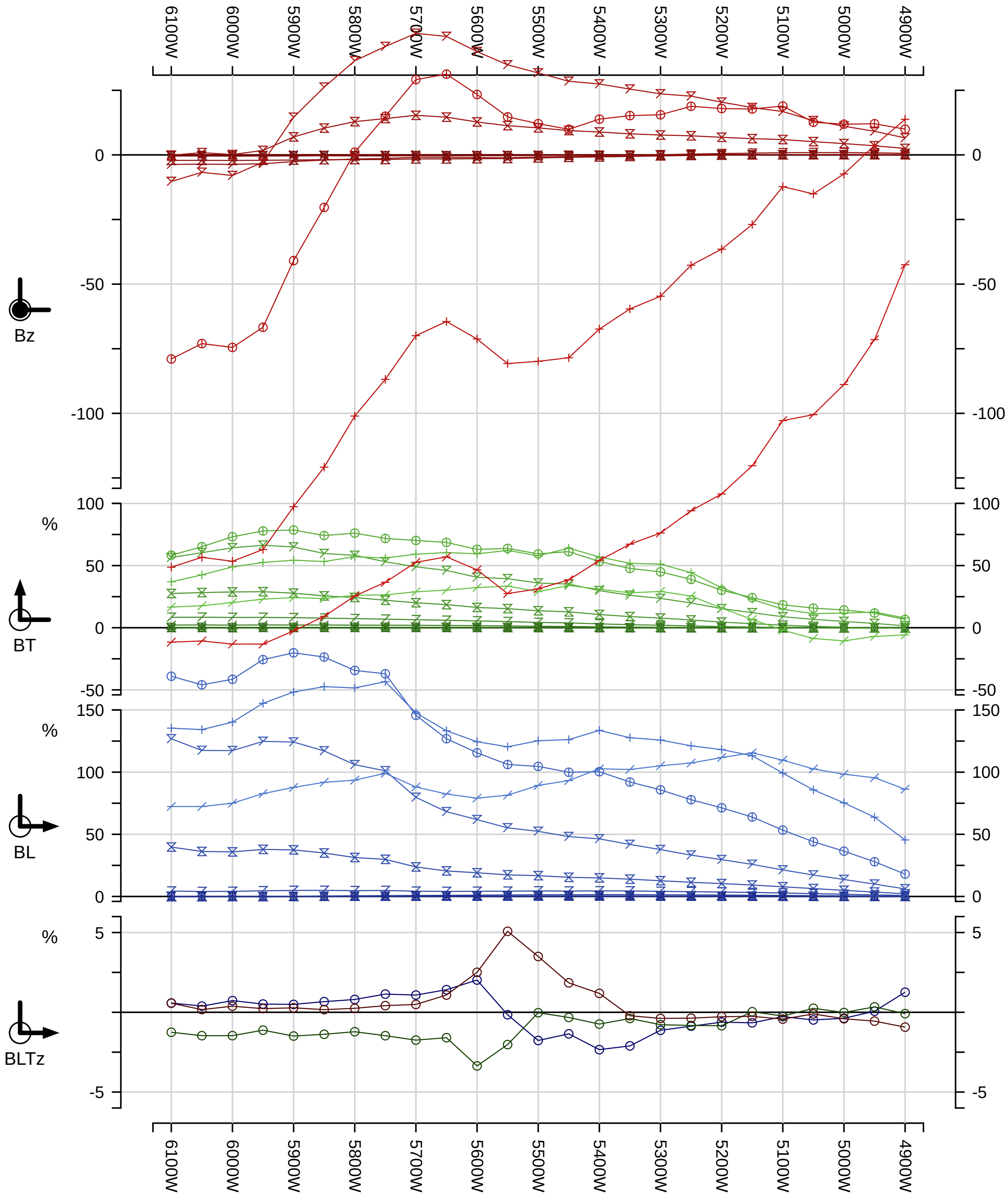
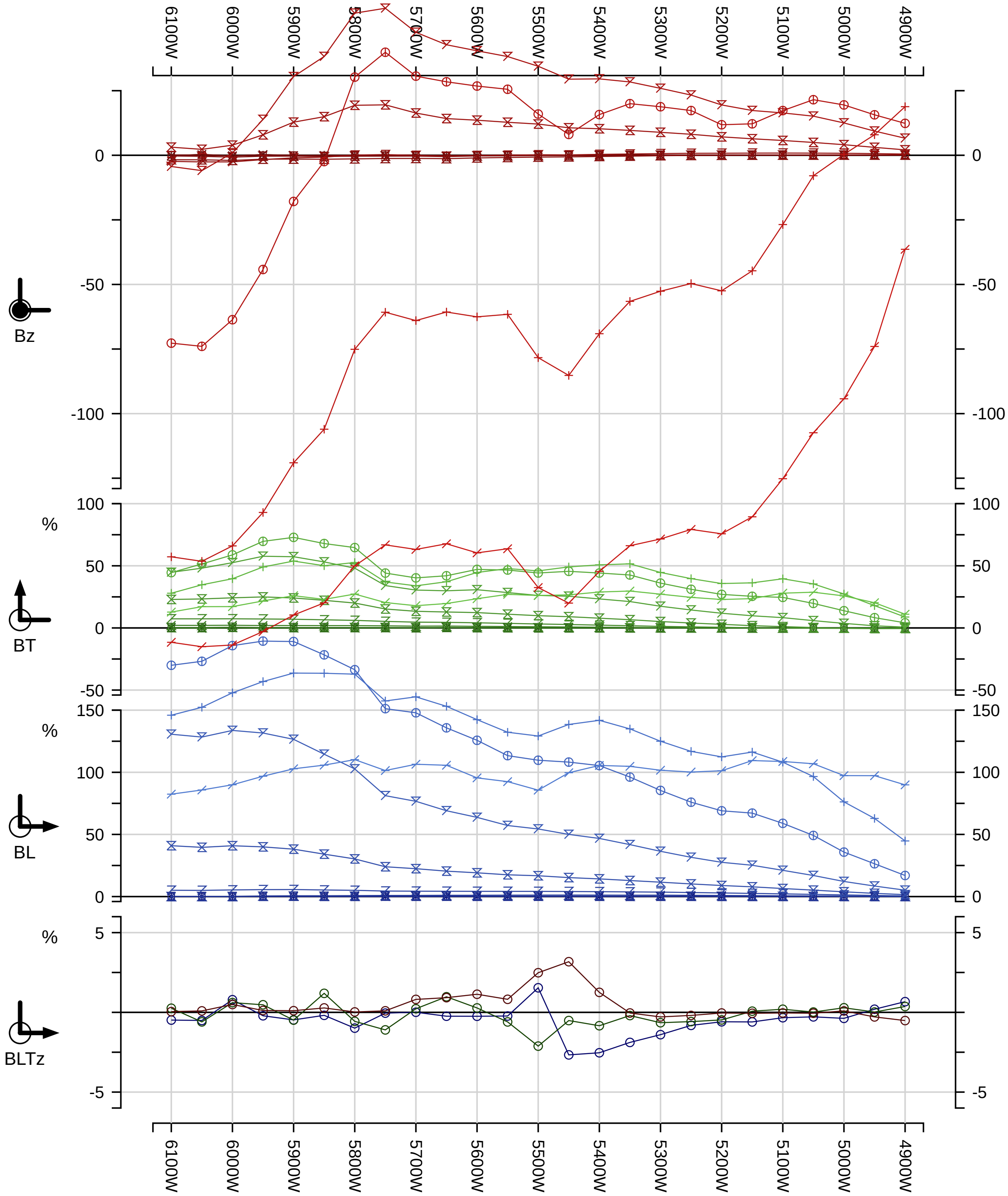


Line: L10101N Loop: 2016-10S1 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-10S1_L10101NA.3cH5 / 3 components S1 Lp10 all*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 6/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-10 - all Chs - B_{LTZ}



Line: L10201N Loop: 2016-10S1 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-10S1_L10201NA.3cH5 / 3 components S1 Lp10 all*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 6/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-10 - all Chs - B_{LTZ}

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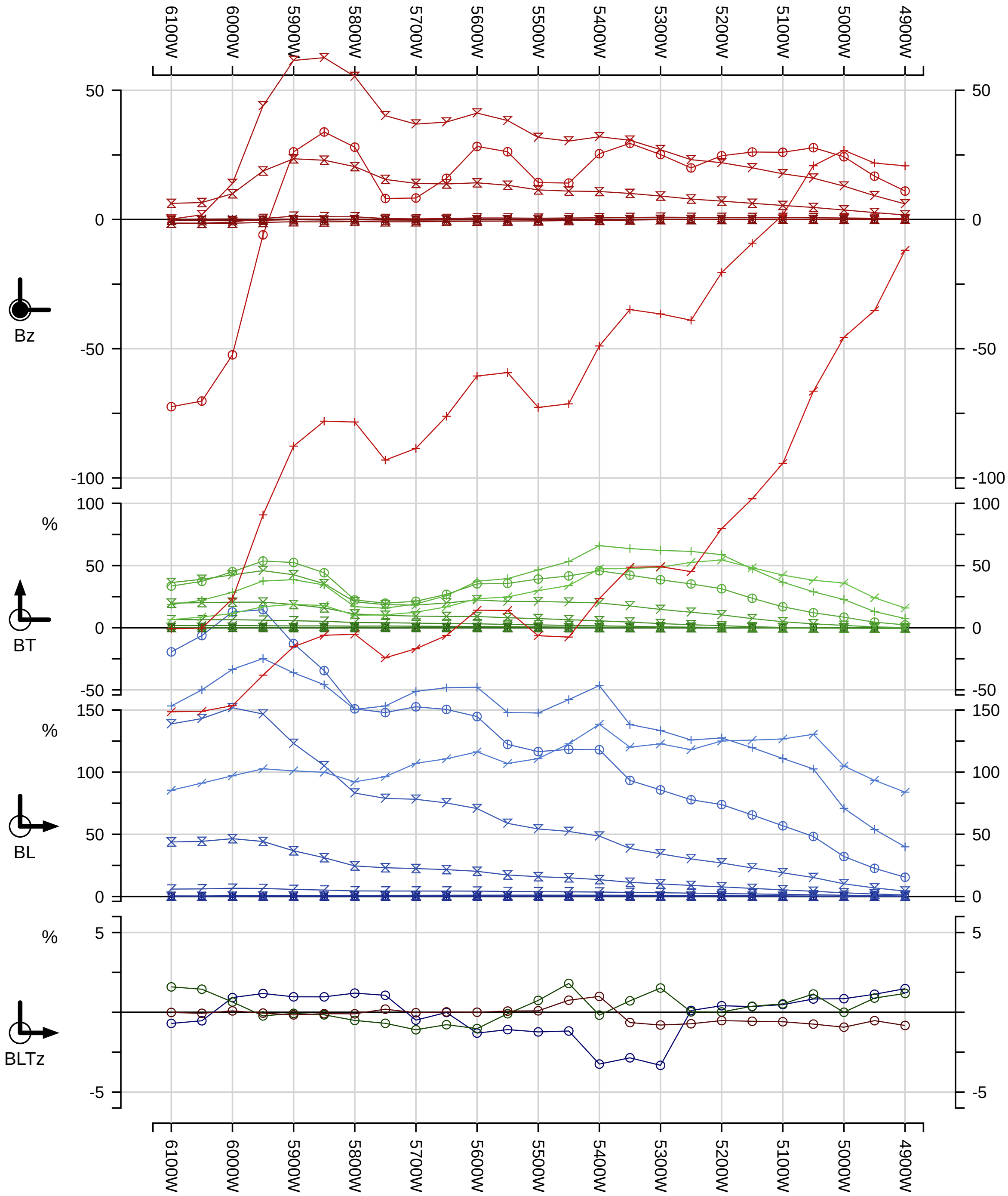
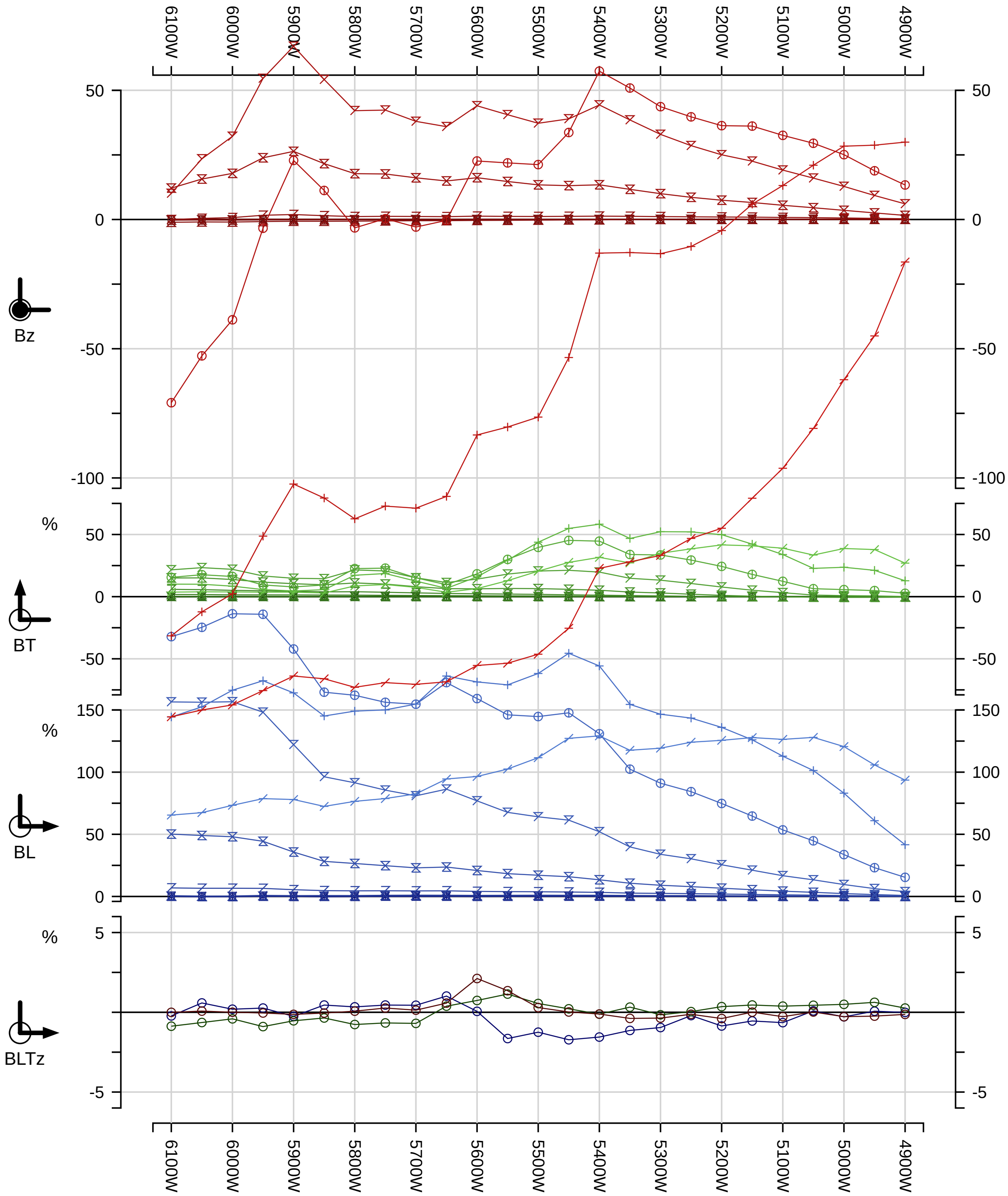


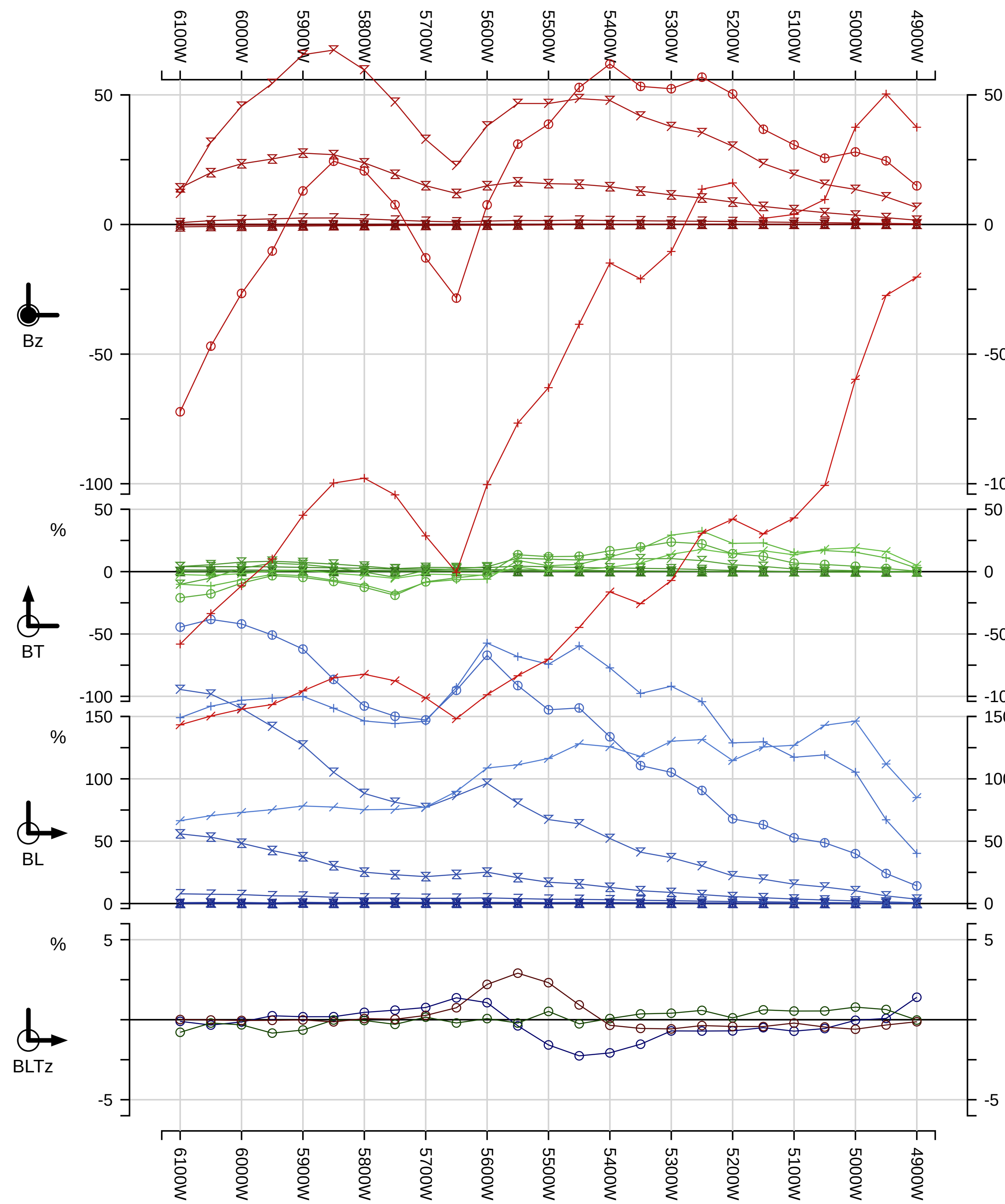
Line: L10301N Loop: 2016-10S1 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-10S1_L10301NA.3cH5 / 3 components S1 Lp10 all*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 6/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-10 - all Chs - B_{LTZ}



Line: L10401N Loop: 2016-10S1 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-10S1_L10401NA.3cH5 / 3 components S1 Lp10 all*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 7/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-10 - all Chs - B_{LTZ}



Line: L10501N Loop: 2016-10S1 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-10S1_L10501NA.3cH5 / 3 components S1 Lp10 all*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 8/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-10 - all Chs - B_{LTZ}

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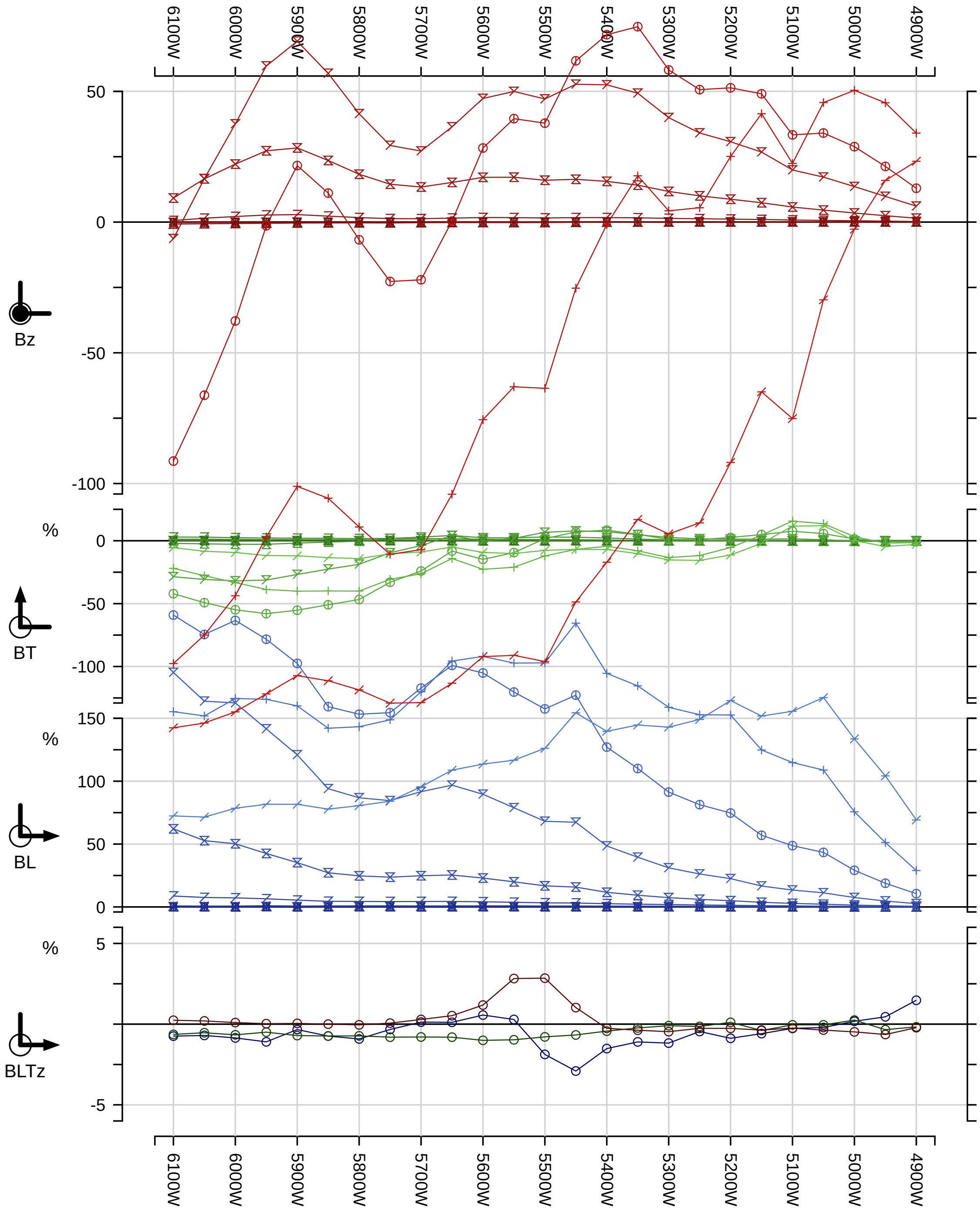
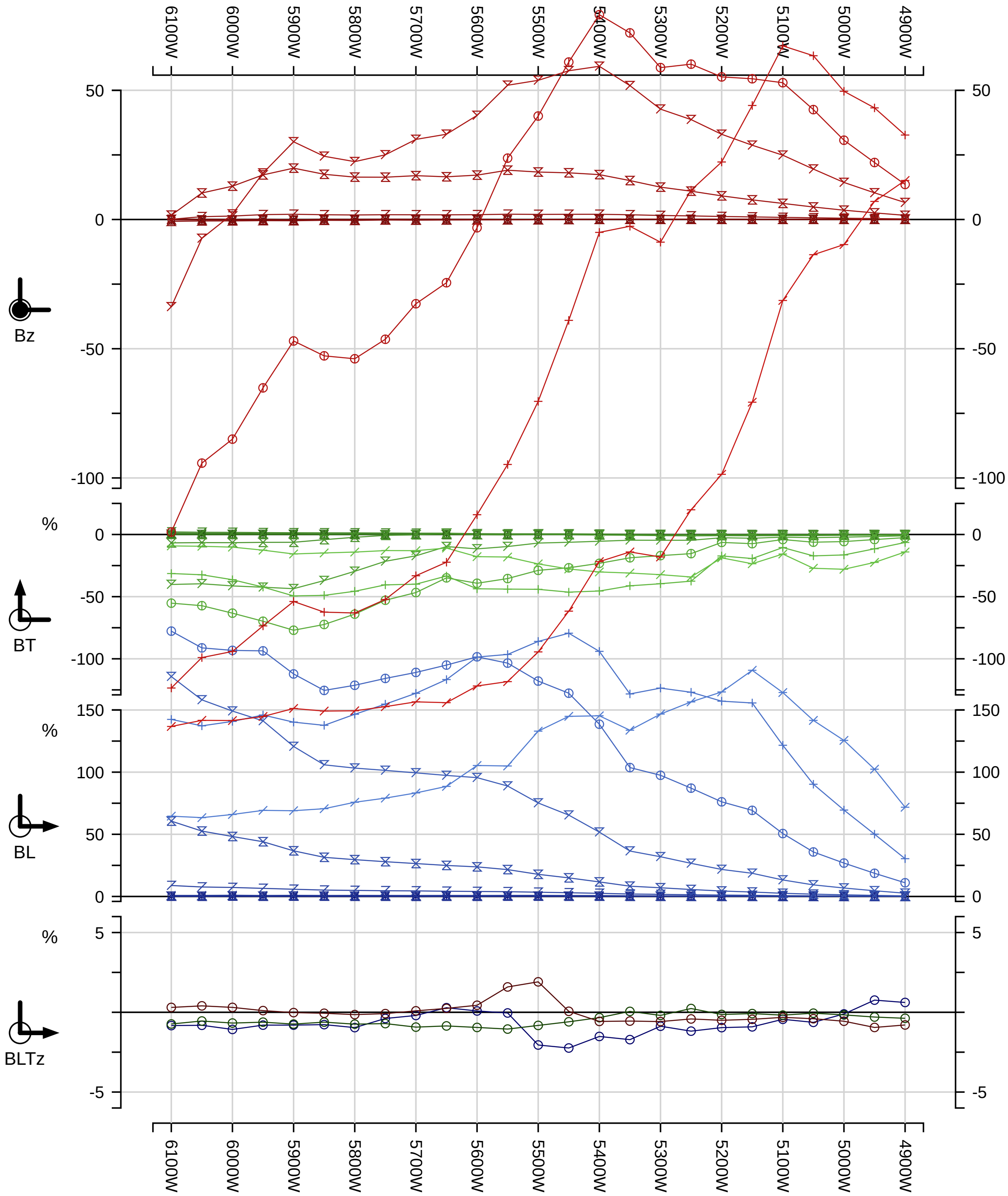


Line: L10601N Loop: 2016-10S1 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-10S1_L10601NA.3cH5 / 3 components S1 Lp10 all*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 7/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-10 - all Chs - B_{LTZ}



Line: L10701N Loop: 2016-10S1 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-10S1_L10701NA.3cH5 / 3 components S1 Lp10 all*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 8/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-10 - all Chs - B_{LTZ}

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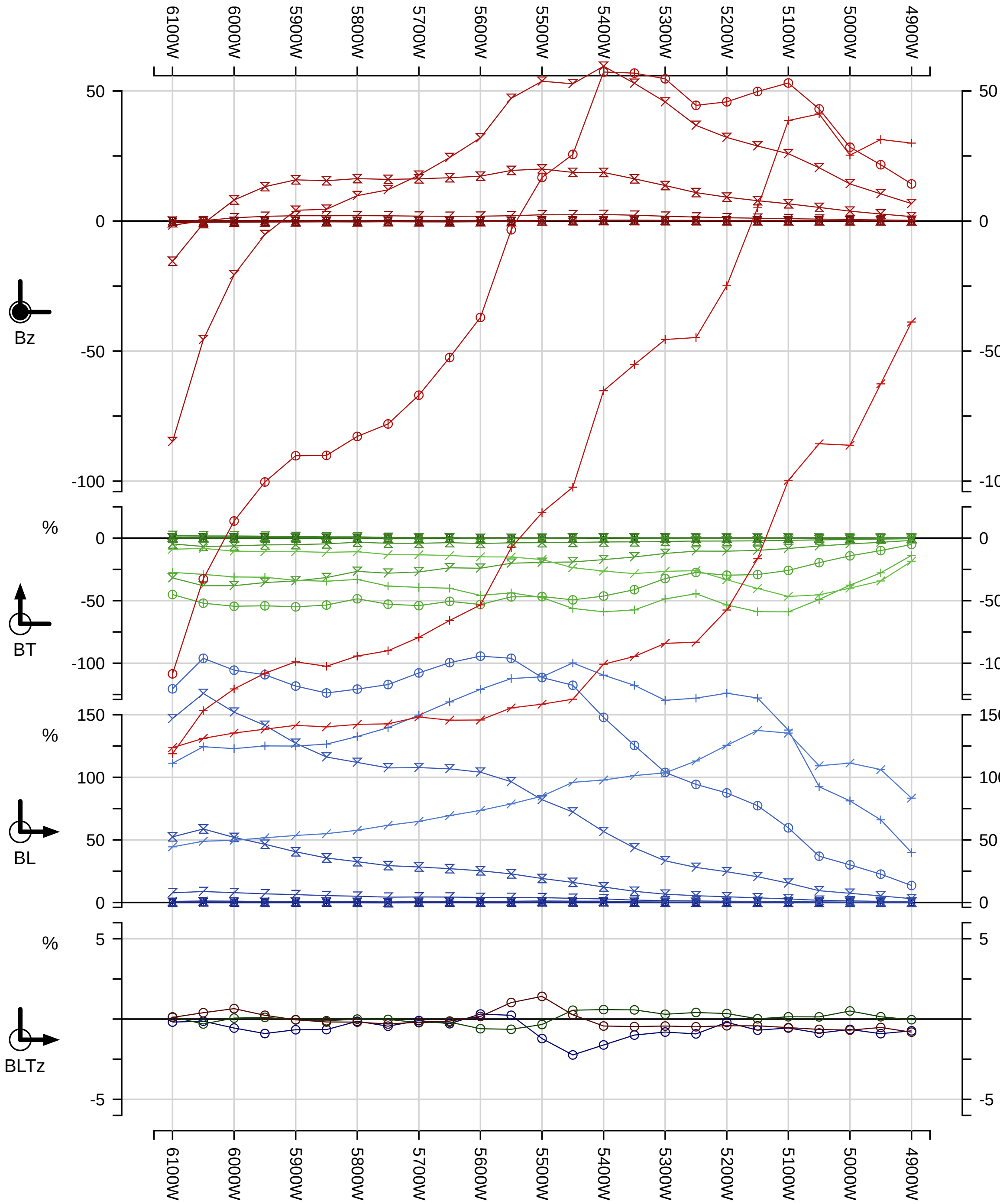
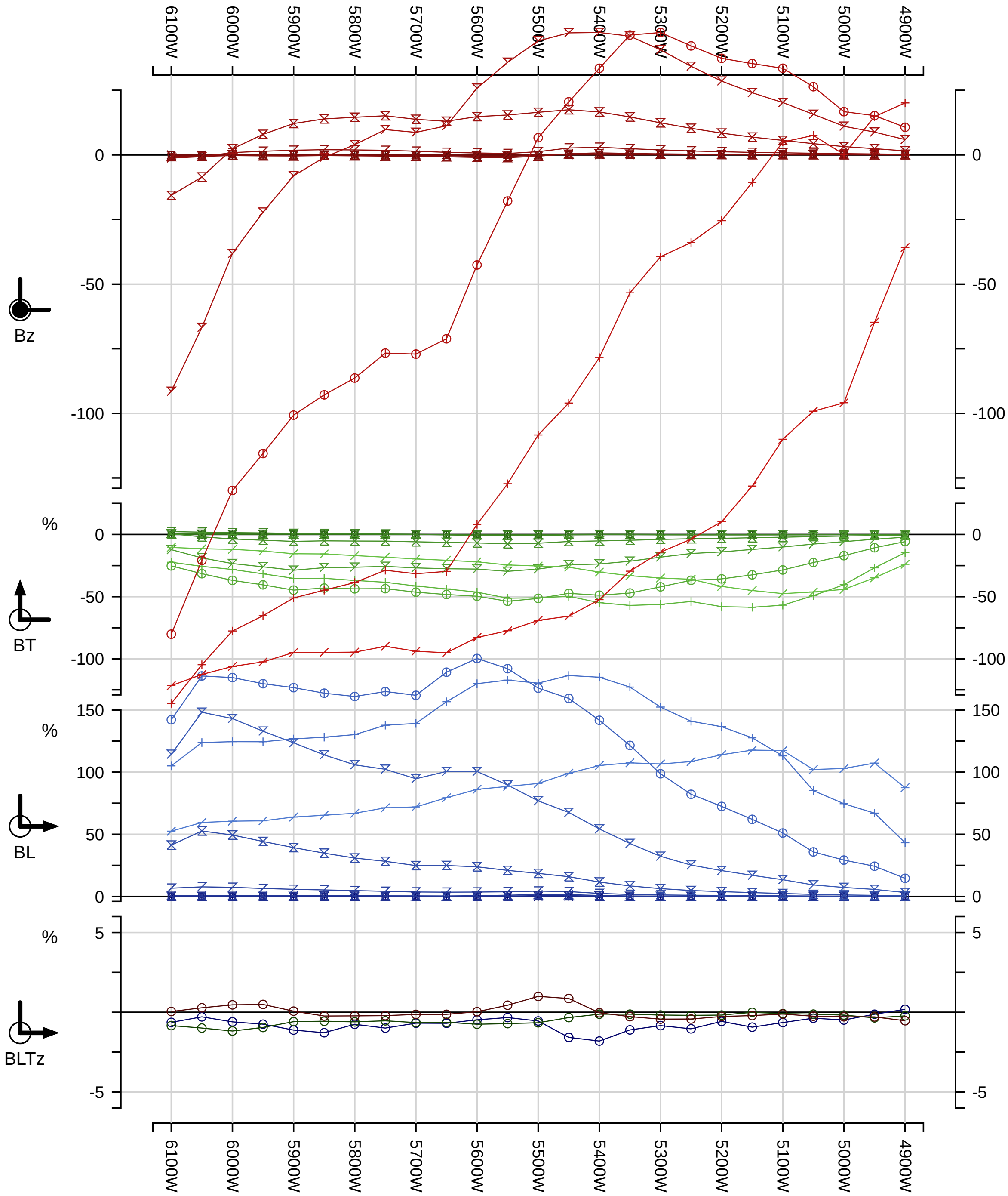


Line: L10801N Loop: 2016-10S1 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-10S1_L10801NA.3cH5 / 3 components S1 Lp10 all*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 8/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-10 - all Chs - B_{LTZ}

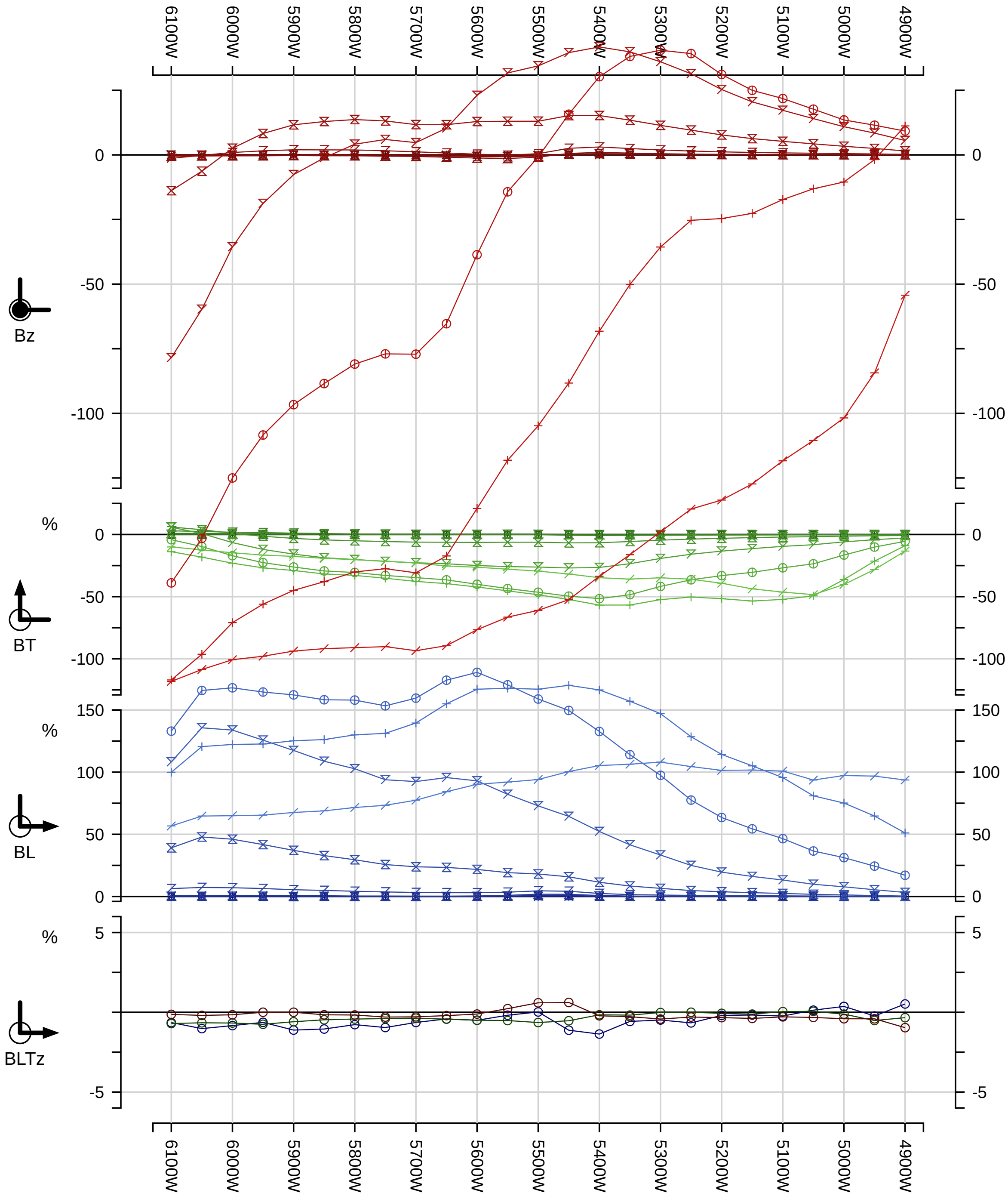
pg 109



Line: L10901N Loop: 2016-10S1 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-10S1_L10901NA.3cH5 / 3 components S1 Lp10 all*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 8/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-10 - all Chs - B_{LTZ}

pg 110



Line: L11001N Loop: 2016-10S1 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-10S1_L11001NA.3cH5 / 3 components S1 Lp10 all*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 9/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-10 - all Chs - B_{LTZ}

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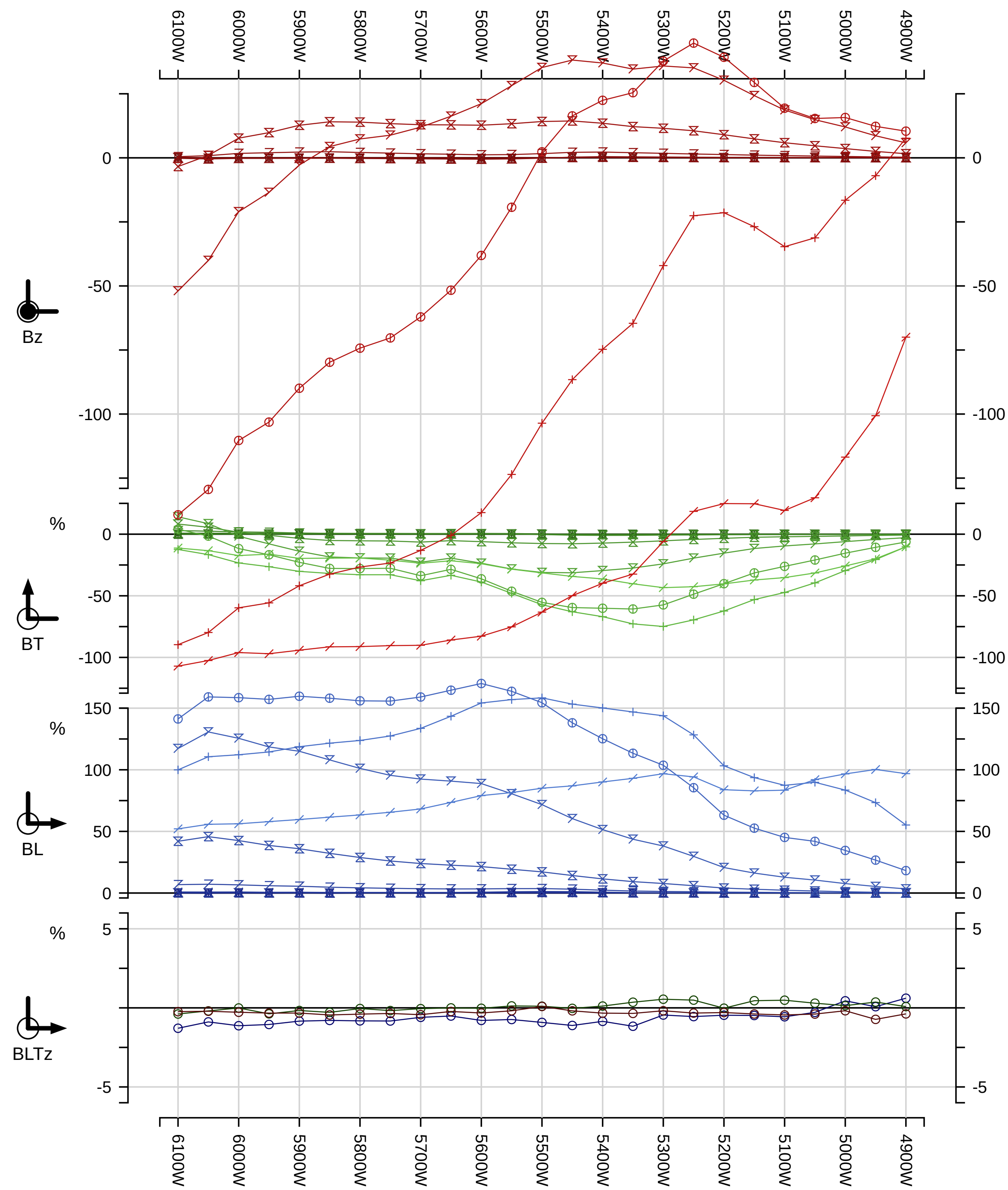
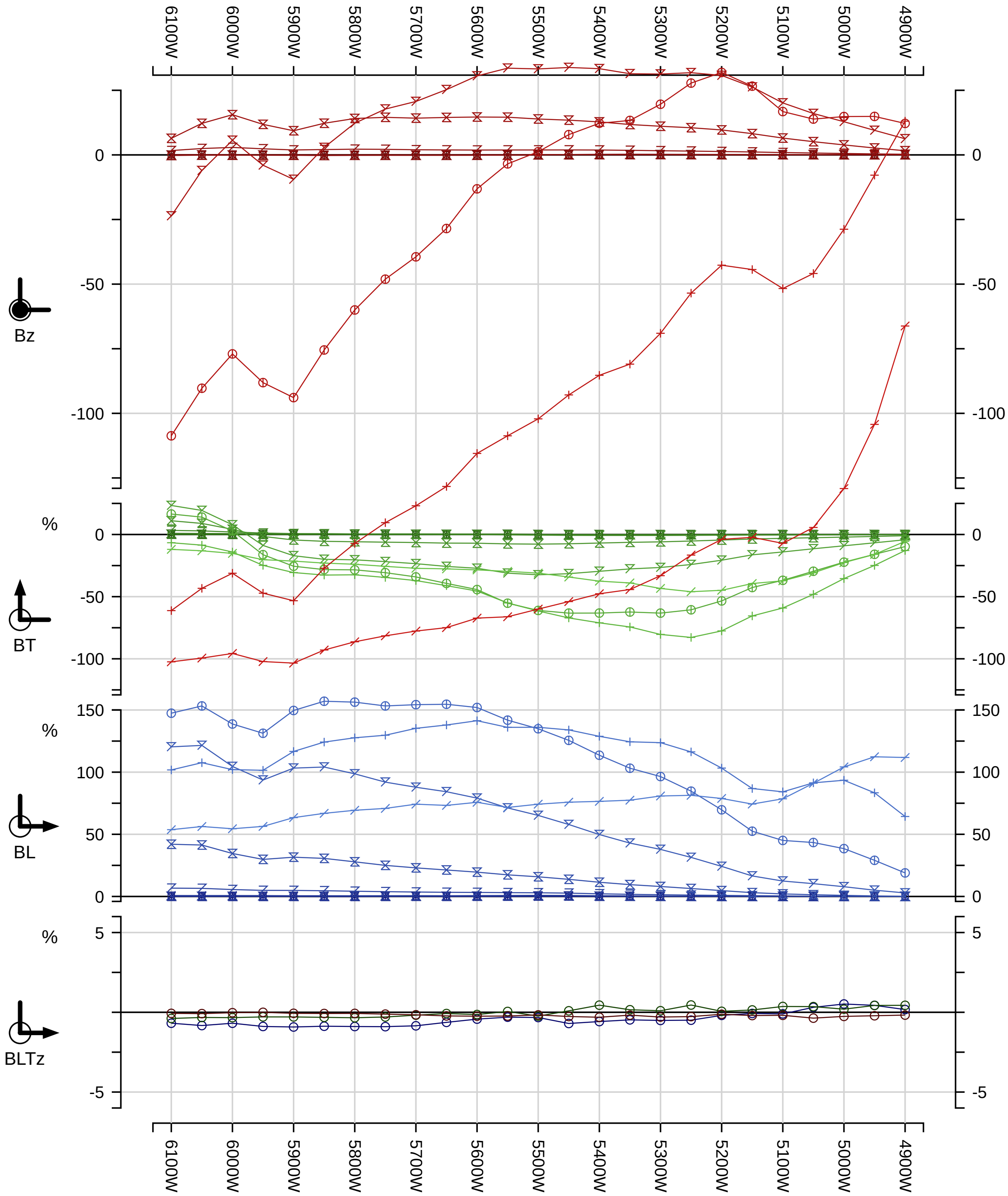


Line: L11101N Loop: 2016-10S1 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-10S1_L11101NA.3cH5 / 3 components S1 Lp10 all*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 9/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-10 - all Chs - B_{LTZ}

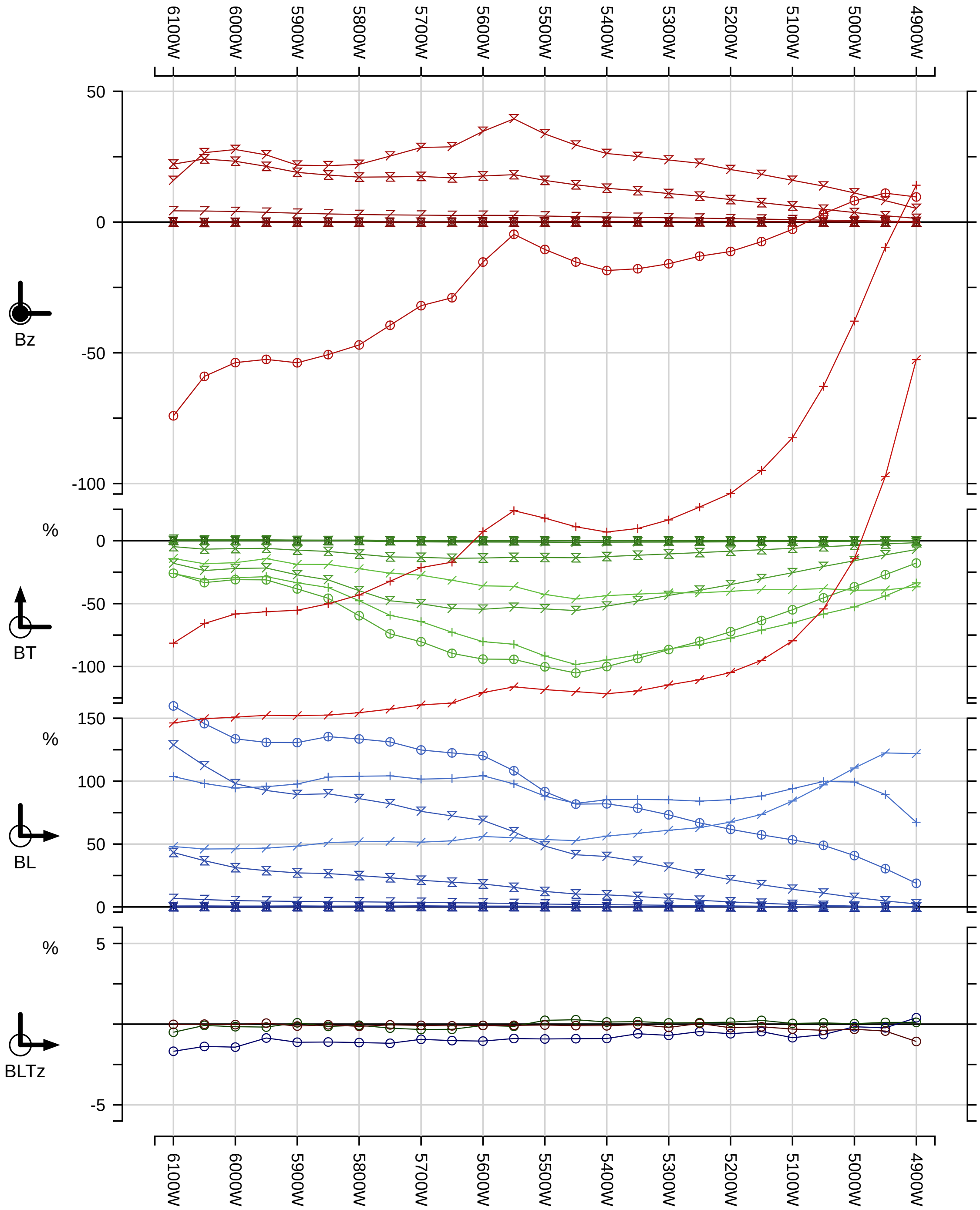
pg 112



Line: L11201N Loop: 2016-10S1 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-10S1_L11201NA.3cH5 / 3 components S1 Lp10 all*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 9/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-10 - all Chs - B_{LTZ}

pg 113



Line: L11401N Loop: 2016-10S1 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-10S1_L11401NA.3cH5 / 3 components S1 Lp10 all*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 10/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-10 - all Chs - B_{LTZ}

AT12 Grid

Loop 2016-10

BL/BT/Bz

~1.785Hz frequency

continuous norm

12Ch - Ch0 reduced

late Chs8-Ch0 plotted

Loop 2016-10 (@ **1.785714Hz**) off-loop - loop to the gridEast

2 Loop coverage	Line 9901N	6100W - 4900W	1200m	BL/BT/Bz
	Line 10001N	6100W - 4900W	1200m	BL/BT/Bz
	Line 10101N	6100W - 4900W	1200m	BL/BT/Bz
	Line 10201N	6100W - 4900W	1200m	BL/BT/Bz
	Line 10301N	6100W - 4900W	1200m	BL/BT/Bz
	Line 10401N	6100W - 4900W	1200m	BL/BT/Bz
	Line 10501N	6100W - 4900W	1200m	BL/BT/Bz
	Line 10601N	6100W - 4900W	1200m	BL/BT/Bz
	Line 10701N	6100W - 4900W	1200m	BL/BT/Bz
	Line 10801N	6100W - 4900W	1200m	BL/BT/Bz
	Line 10901N	6100W - 4900W	1200m	BL/BT/Bz
	Line 11001N	6100W - 4900W	1200m	BL/BT/Bz
	Line 11101N	6100W - 4900W	1200m	BL/BT/Bz
	Line 11201N	6100W - 4900W	1200m	BL/BT/Bz
1 loop	Line 11401N	6100W - 4900W	1200m	BL/BT/Bz

Loop 2016-10 - late Chs8-Ch0 - B_{LTZ}

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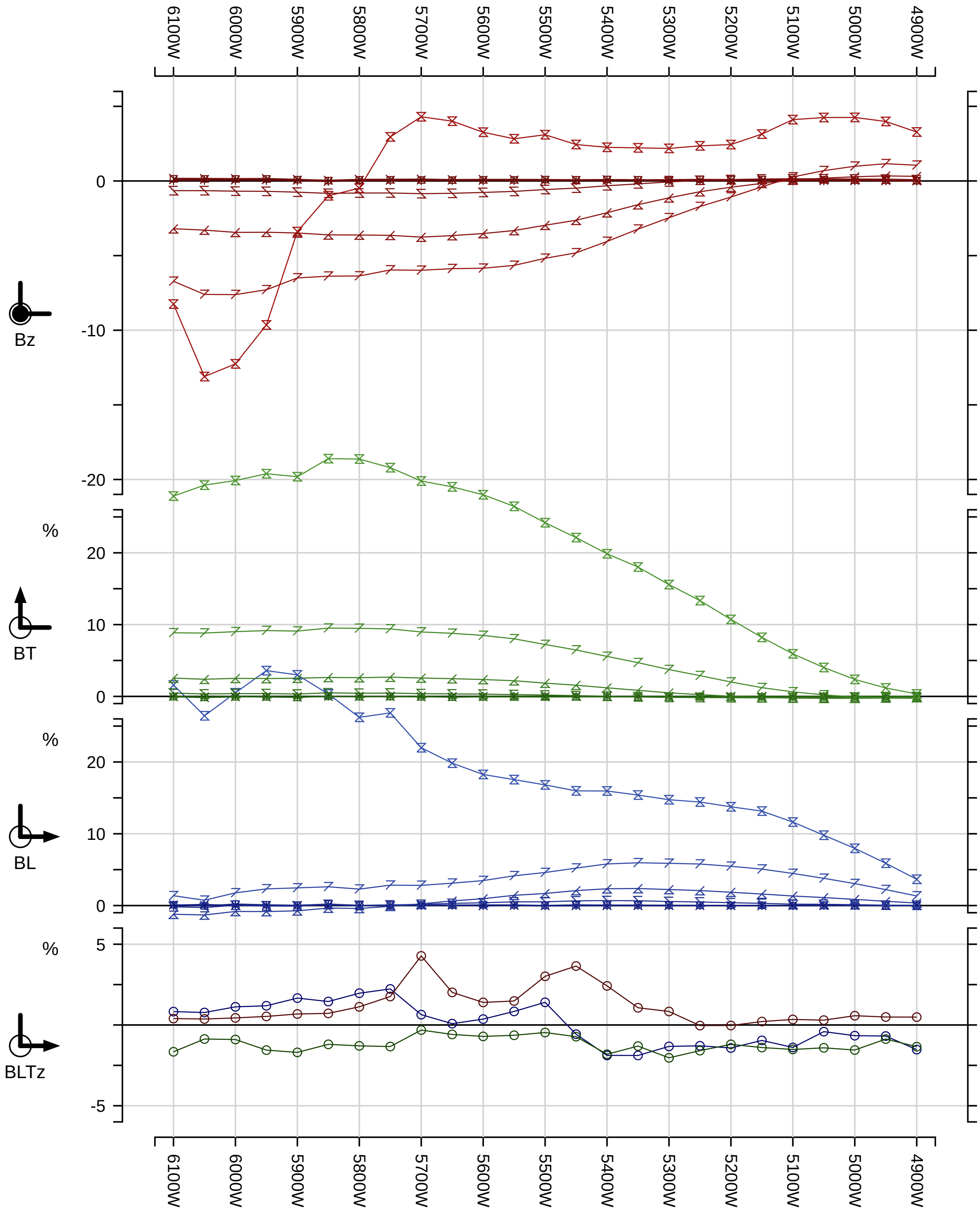
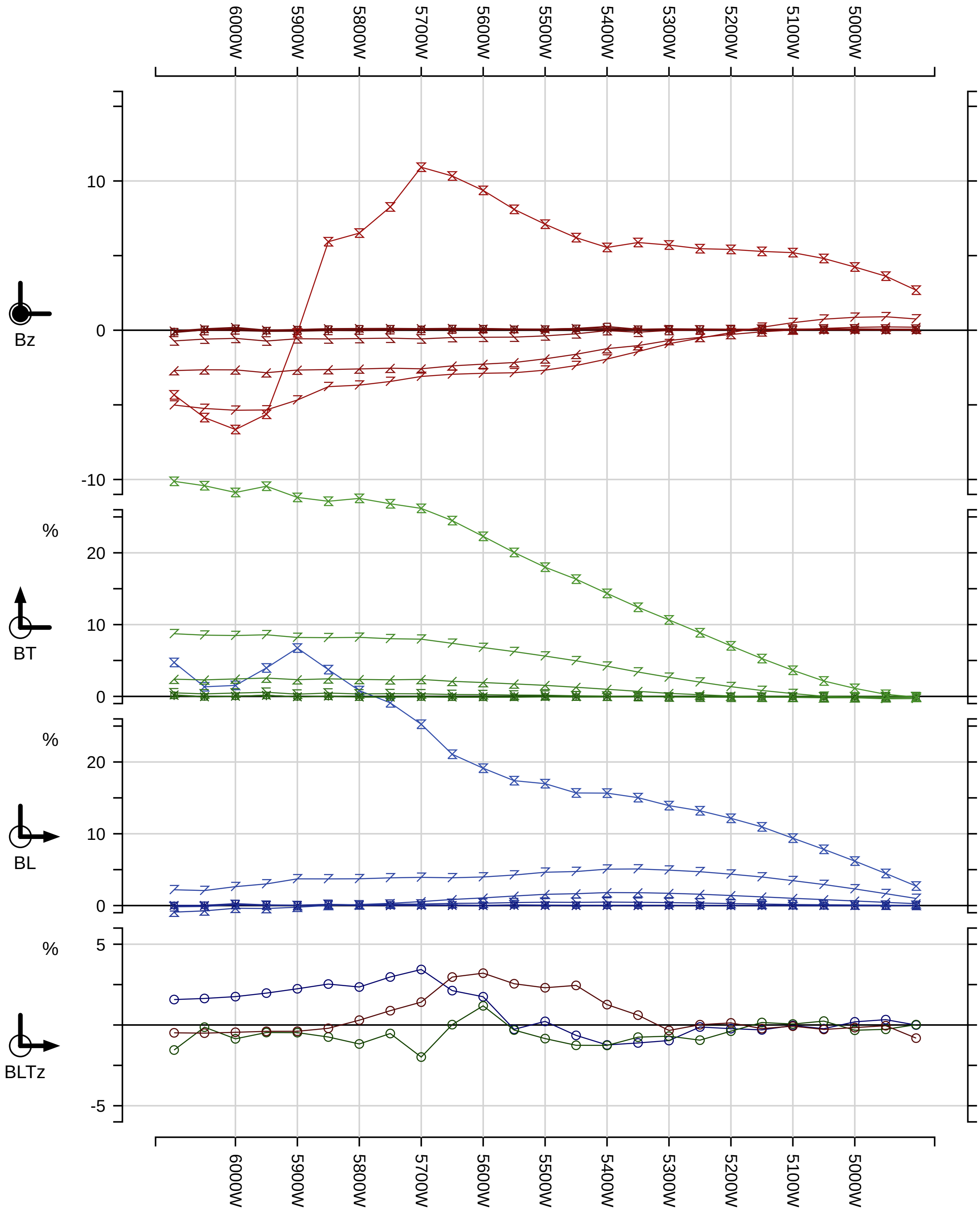


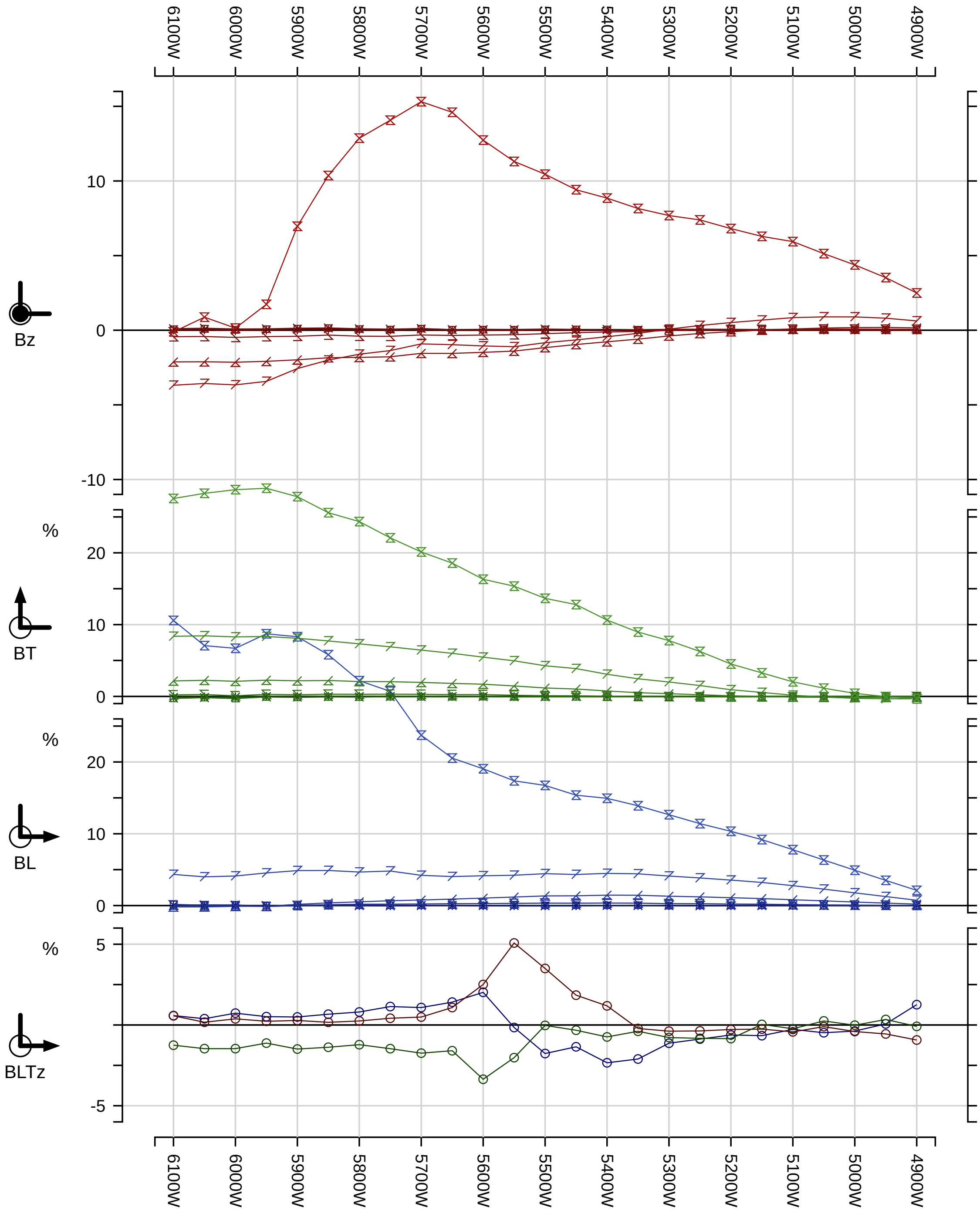
Line: L9901N Loop: 2016-10S1 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-10S1_L9901NA.3cH5 / 3 components S1 Lp10 late8Ch	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 5/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-10 - late Chs8-Ch0 - B_{LTZ}



Line: L10001N Loop: 2016-10S1 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-10S1_L10001NA.3cH5 / 3 components S1 Lp10 late8Ch*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 9/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-10 - late Chs8-Ch0 - B_{LTZ}



Line: L10101N Loop: 2016-10S1 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-10S1_L10101NA.3cH5 / 3 components S1 Lp10 late8Ch*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 6/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-10 - late Chs8-Ch0 - B_{LTZ}

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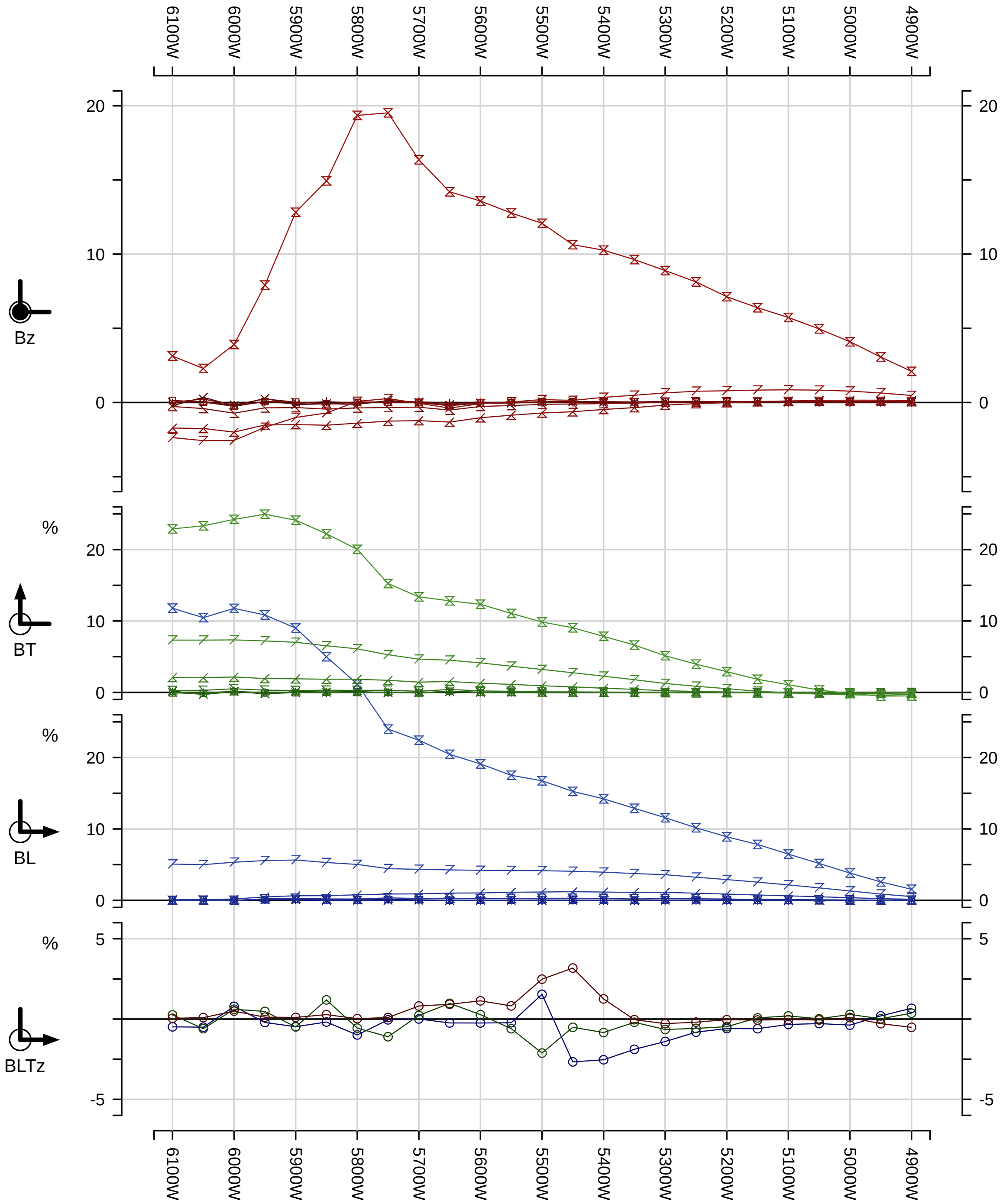
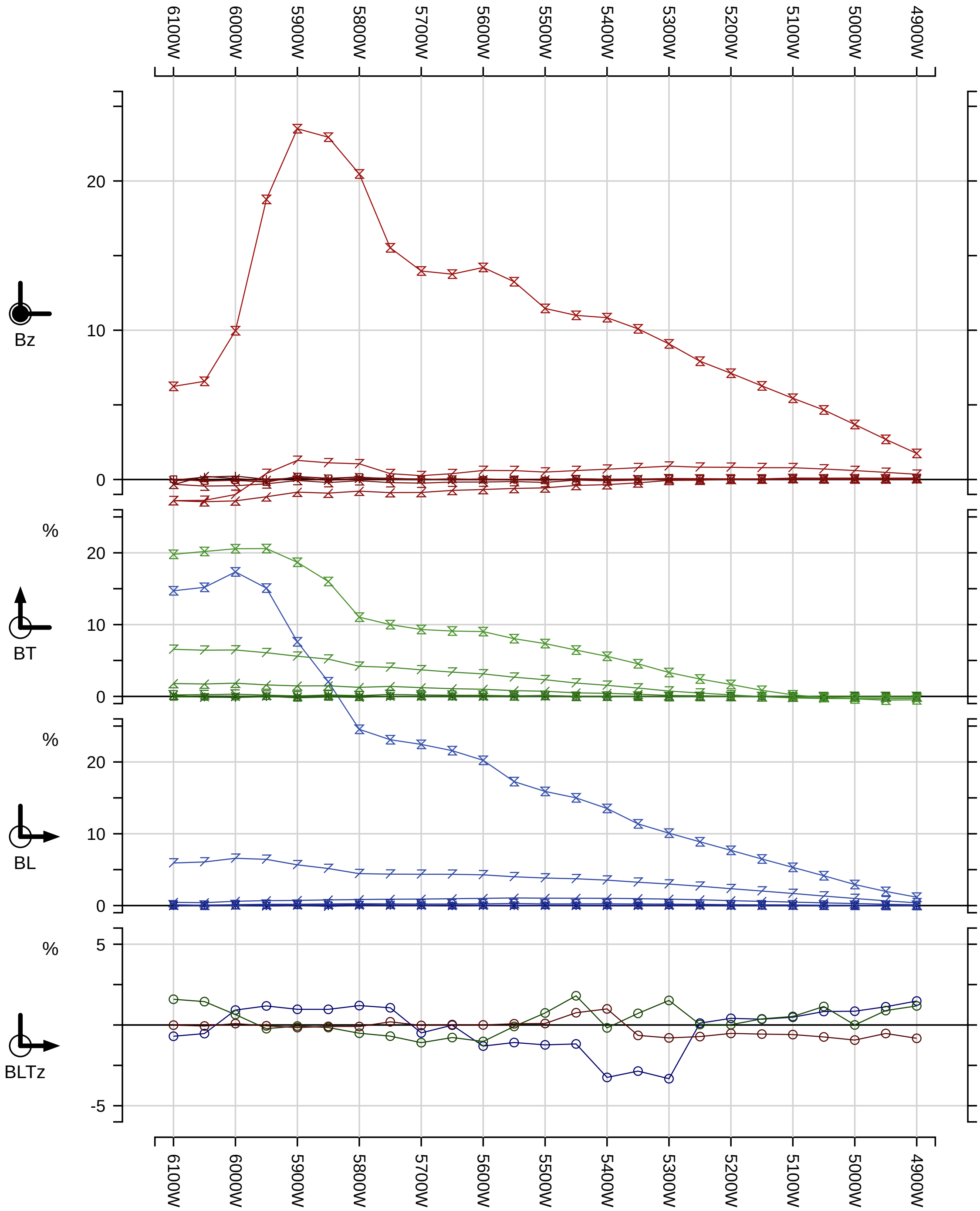


Line: L10201N Loop: 2016-10S1 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-10S1_L10201NA.3cH5 / 3 components S1 Lp10 late8Ch*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 6/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-10 - late Chs8-Ch0 - B_{LTZ}

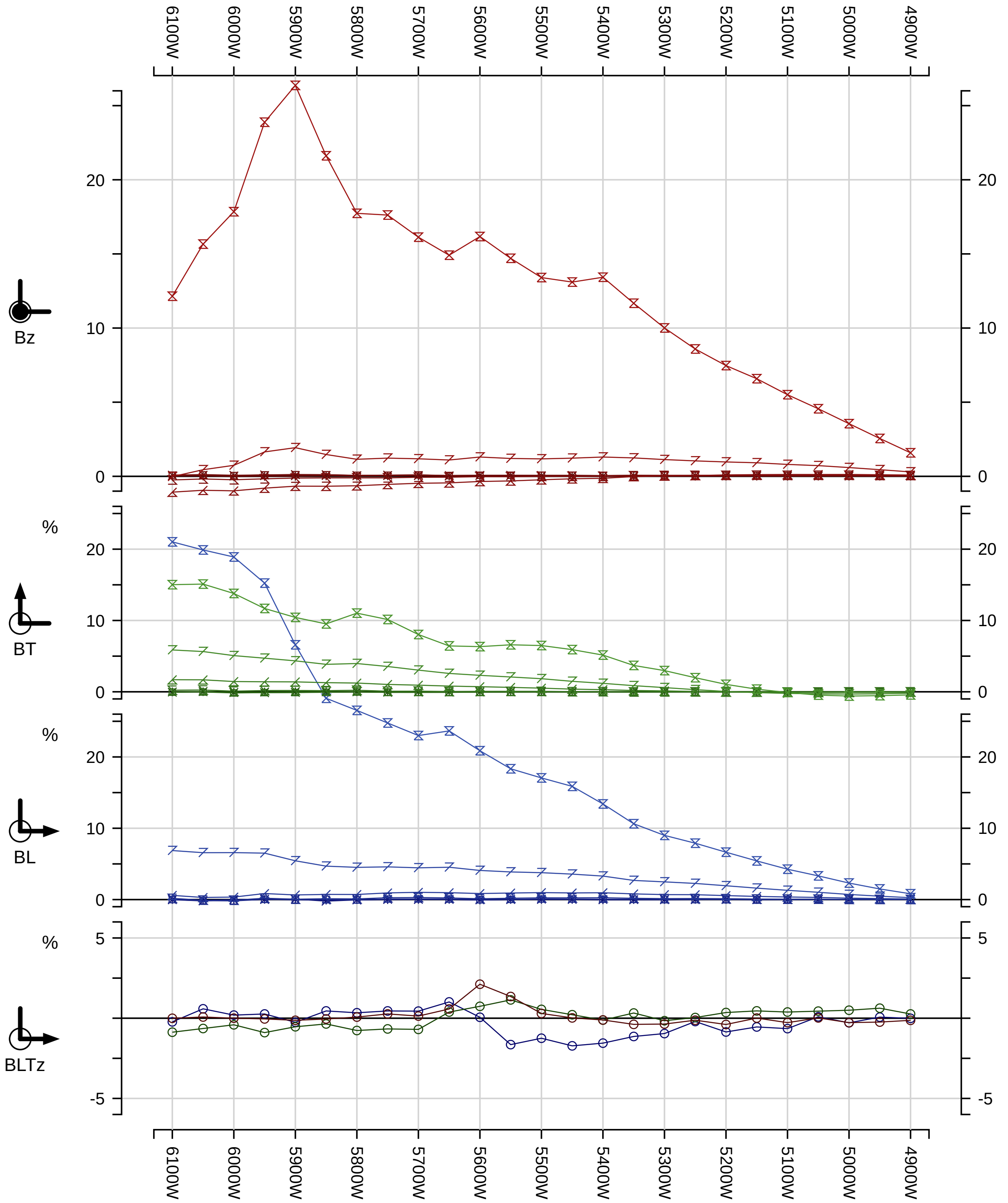
pg 119



Line: L10301N Loop: 2016-10S1 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-10S1_L10301NA.3cH5 / 3 components S1 Lp10 late8Ch*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 6/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-10 - late Chs8-Ch0 - B_{LTZ}

pg 120



Line: L10401N Loop: 2016-10S1 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-10S1_L10401NA.3cH5 / 3 components S1 Lp10 late8Ch*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 7/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-10 - late Chs8-Ch0 - B_{LTZ}

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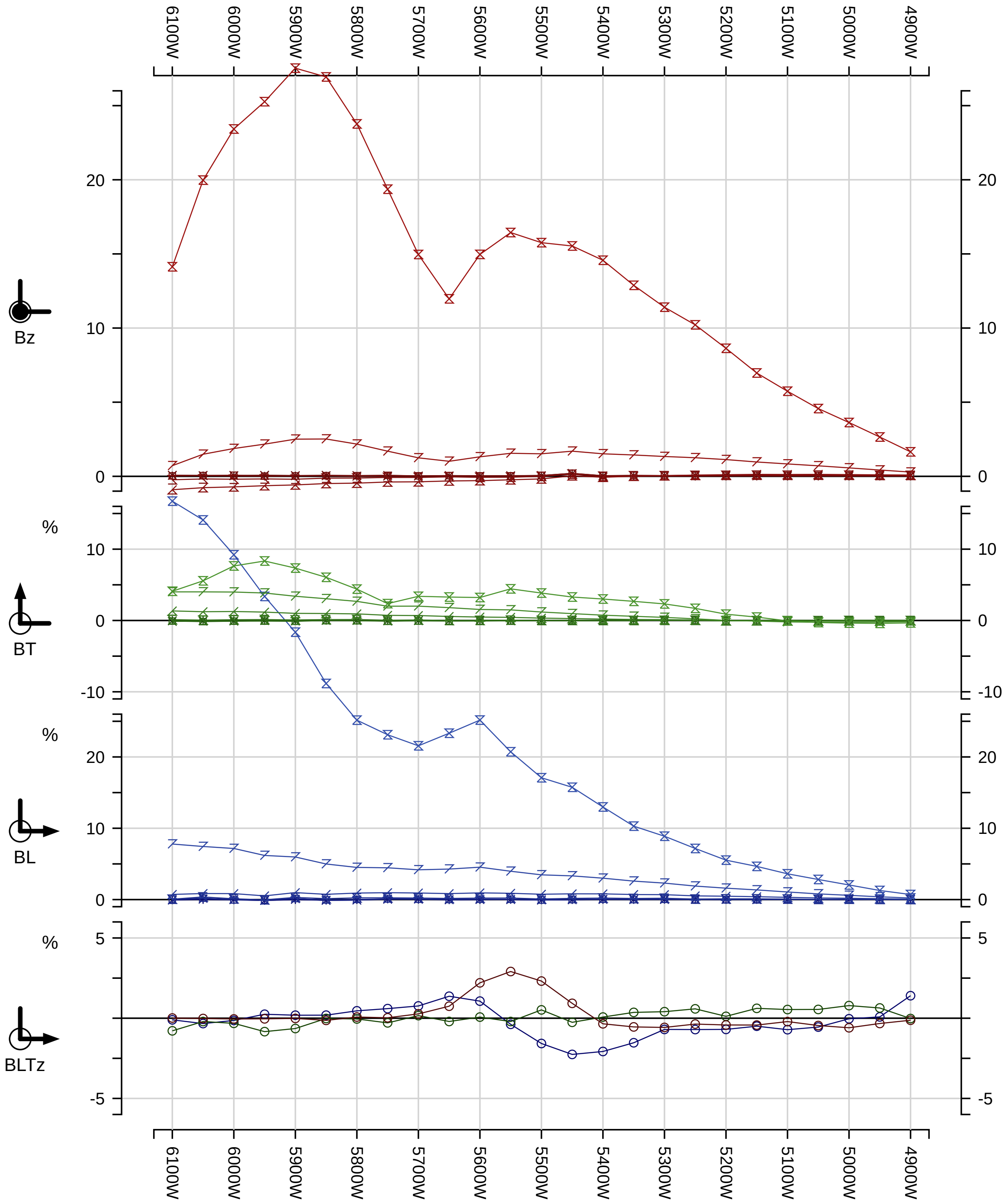
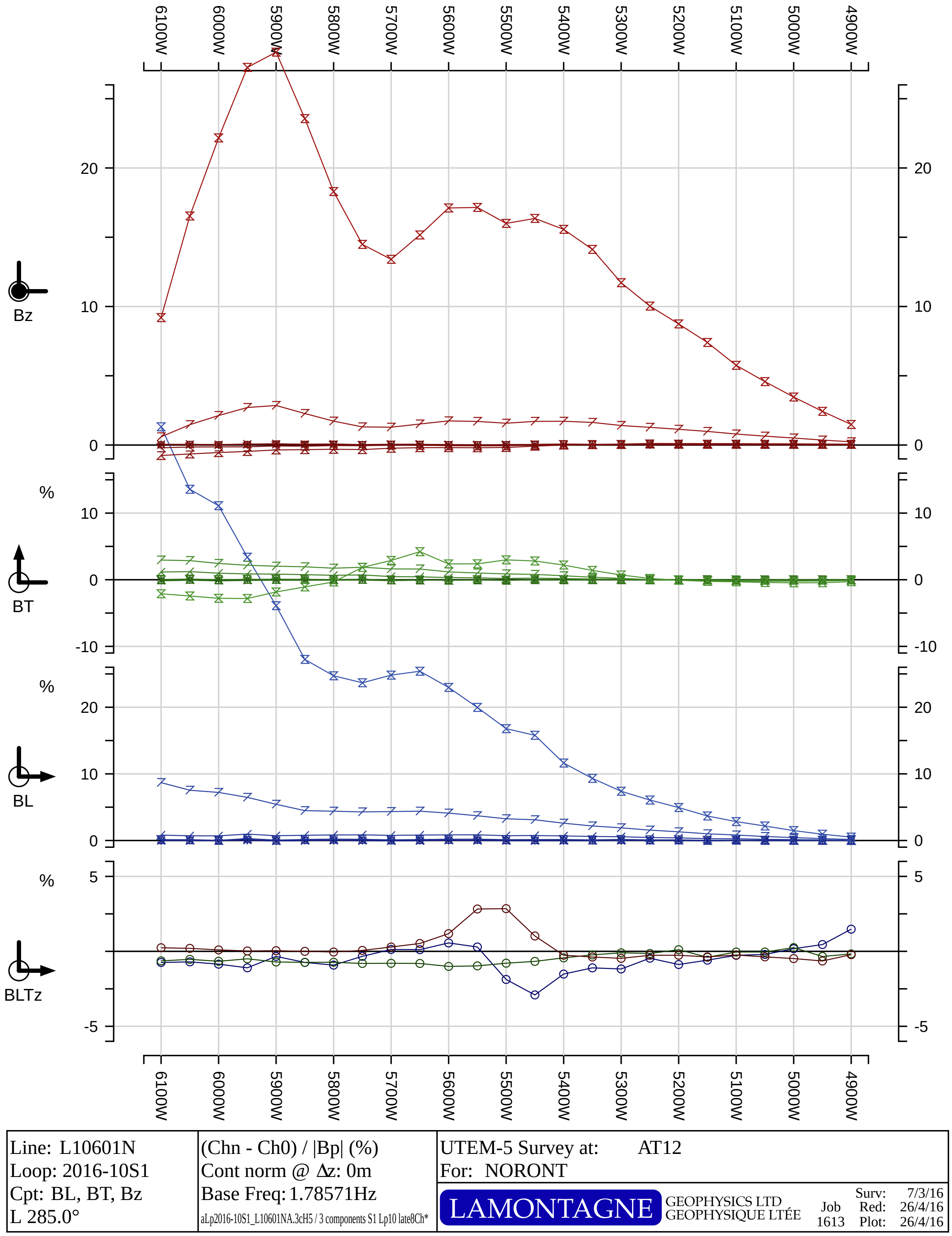


Line: L10501N Loop: 2016-10S1 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-10S1_L10501NA.3cH5 / 3 components S1 Lp10 late8Ch*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 8/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-10 - late Chs8-Ch0 - B_{LTZ}



Loop 2016-10 - late Chs8-Ch0 - B_{LTZ}

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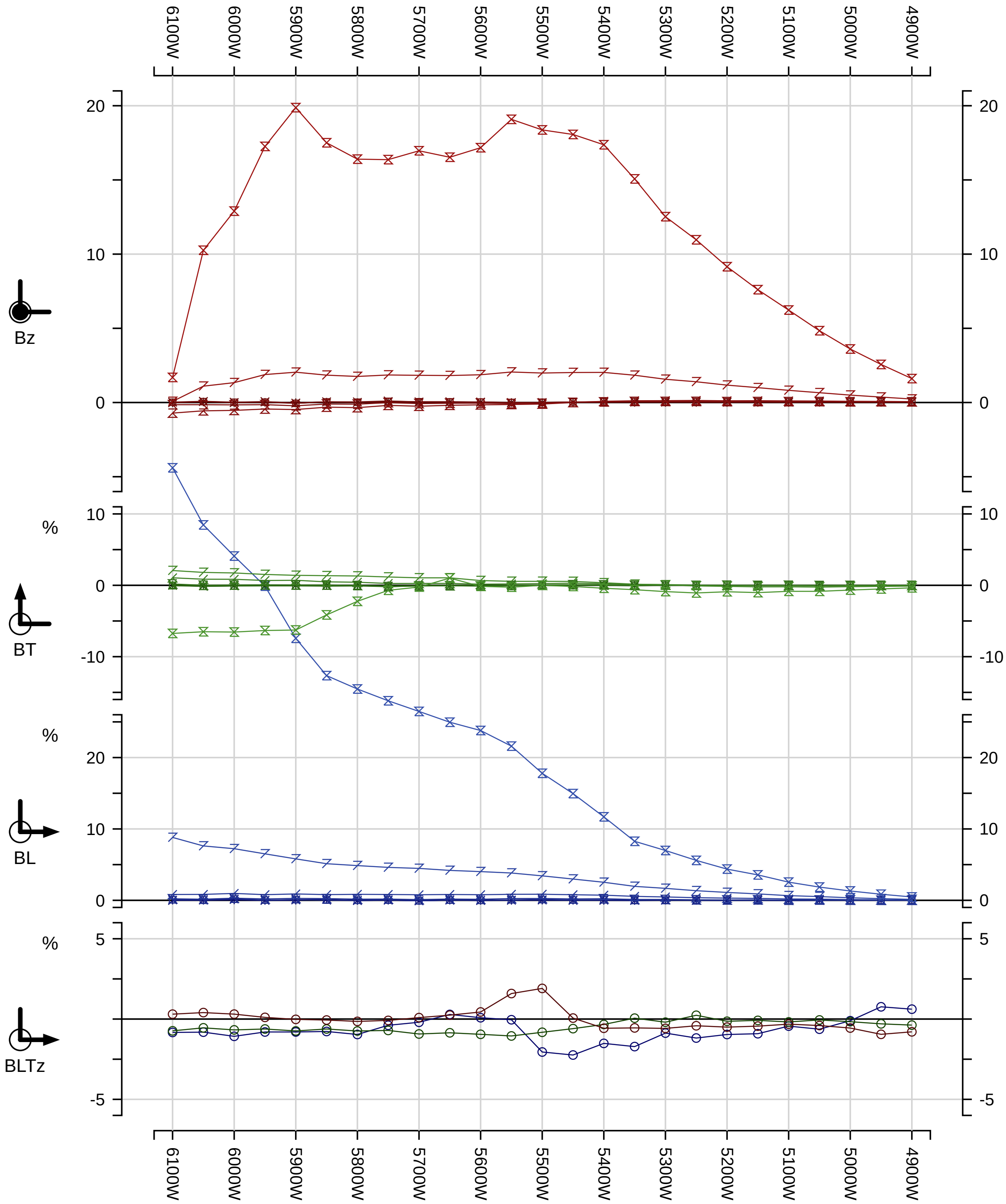

Line: L10701N Loop: 2016-10S1 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-10S1_L10701NA.3cH5 / 3 components S1 Lp10 late8Ch*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 8/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-10 - late Chs8-Ch0 - B_{LTZ}

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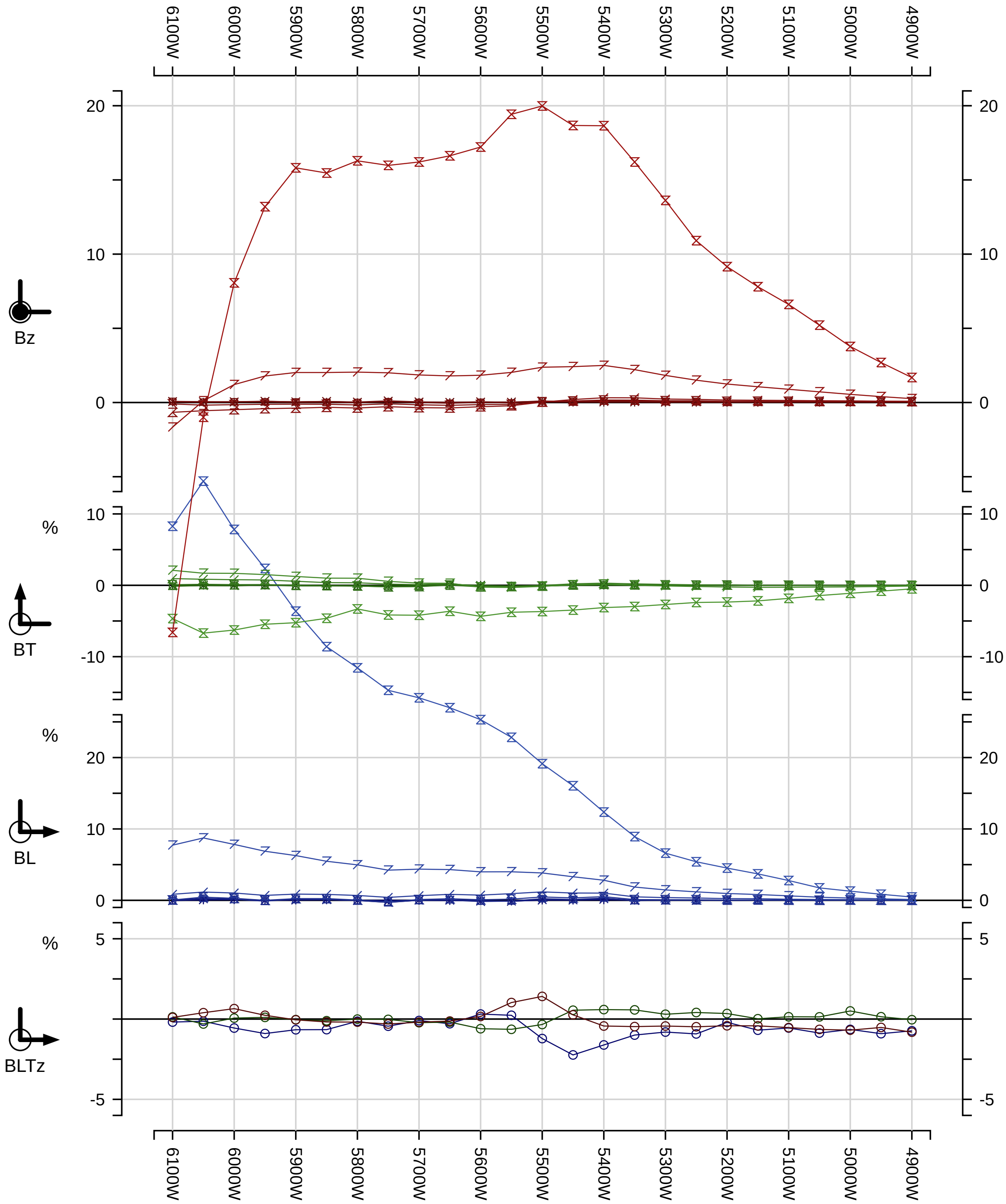

Line: L10801N Loop: 2016-10S1 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-10S1_L10801NA.3cH5 / 3 components S1 Lp10 late8Ch*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 8/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-10 - late Chs8-Ch0 - B_{LTZ}

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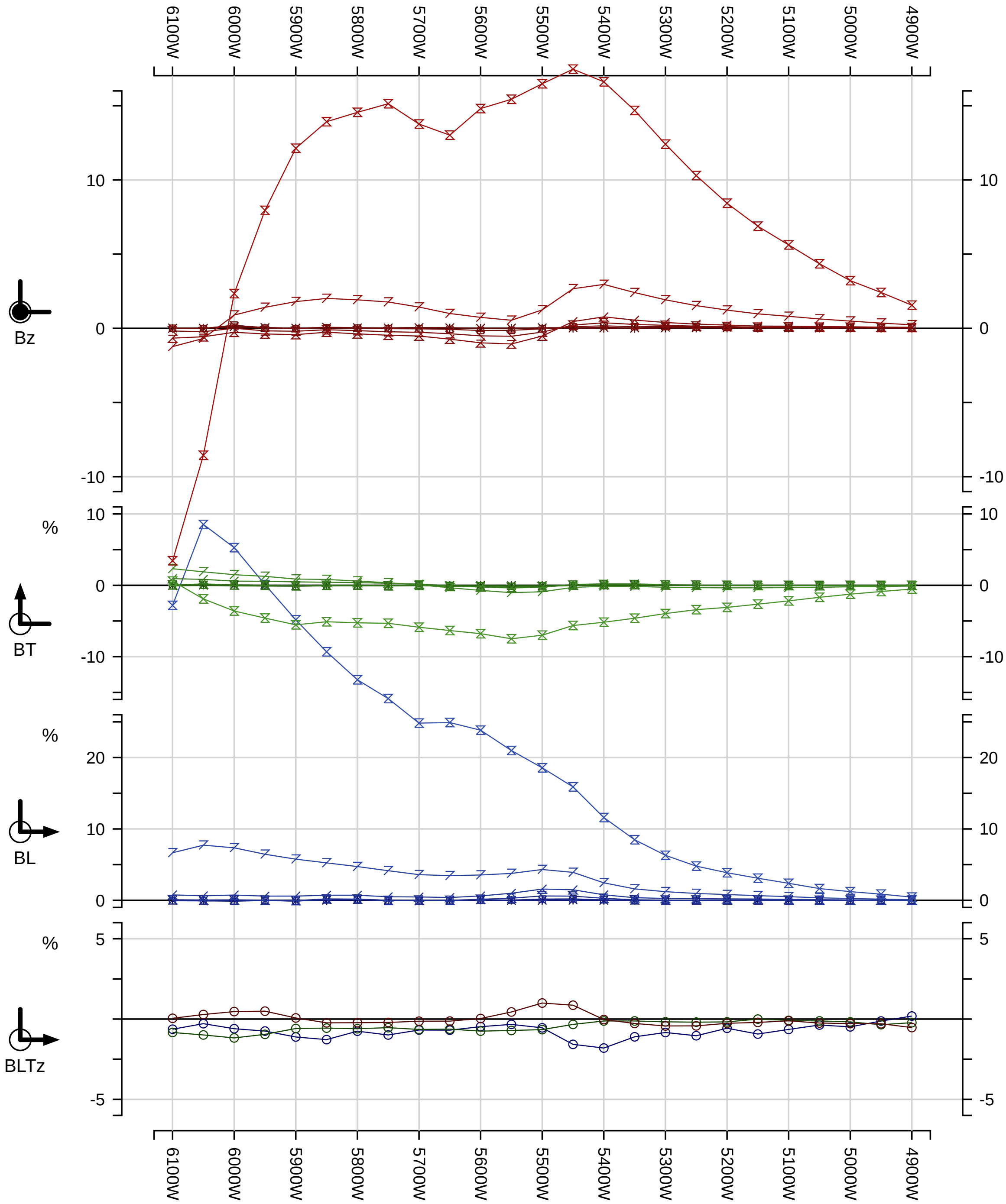

Line: L10901N Loop: 2016-10S1 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-10S1_L10901NA.3cH5 / 3 components S1 Lp10 late8Ch*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 8/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-10 - late Chs8-Ch0 - B_{LTZ}

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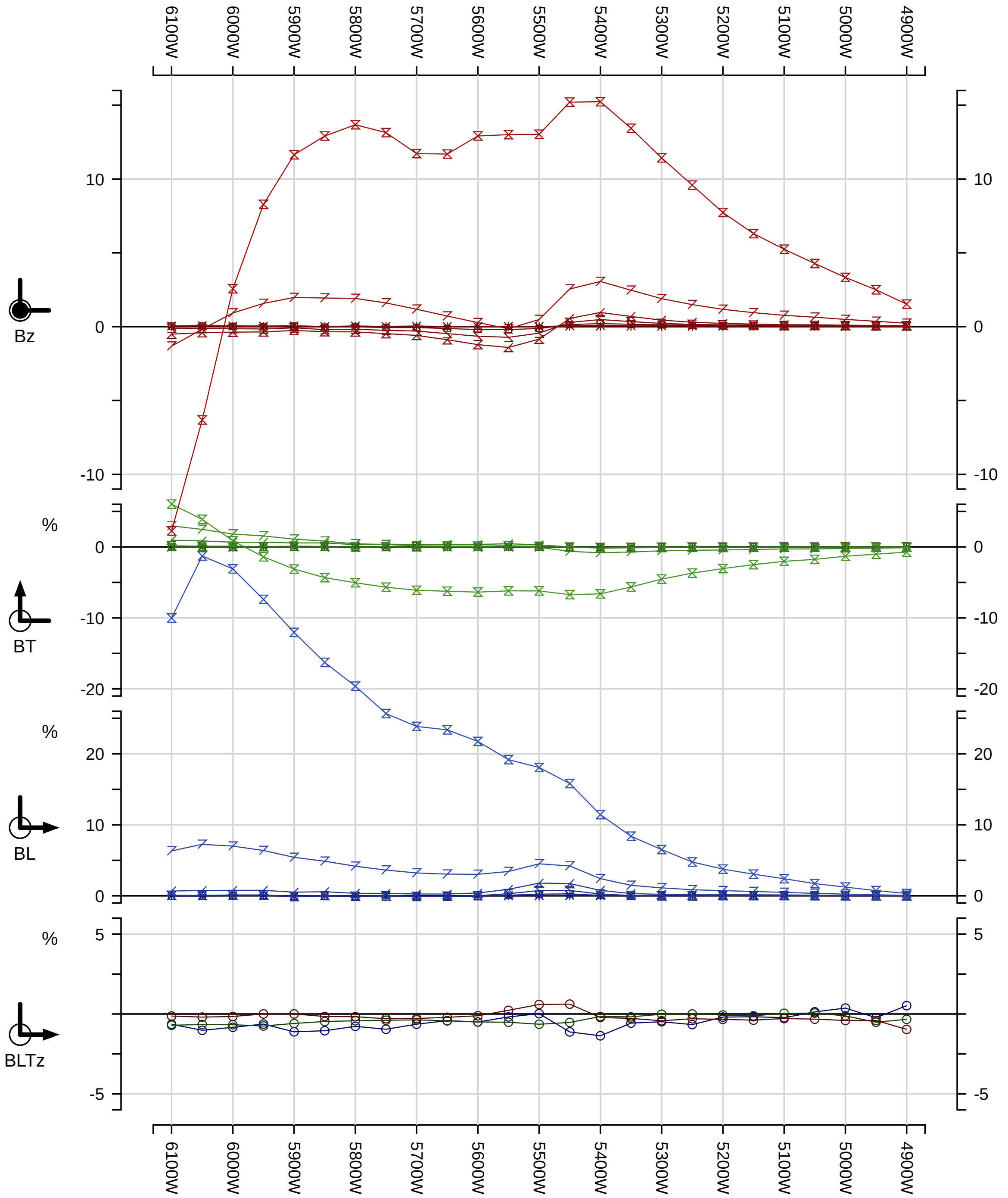

Line: L11001N Loop: 2016-10S1 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-10S1_L11001NA.3cH5 / 3 components S1 Lp10 late8Ch*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 9/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-10 - late Chs8-Ch0 - B_{LTZ}

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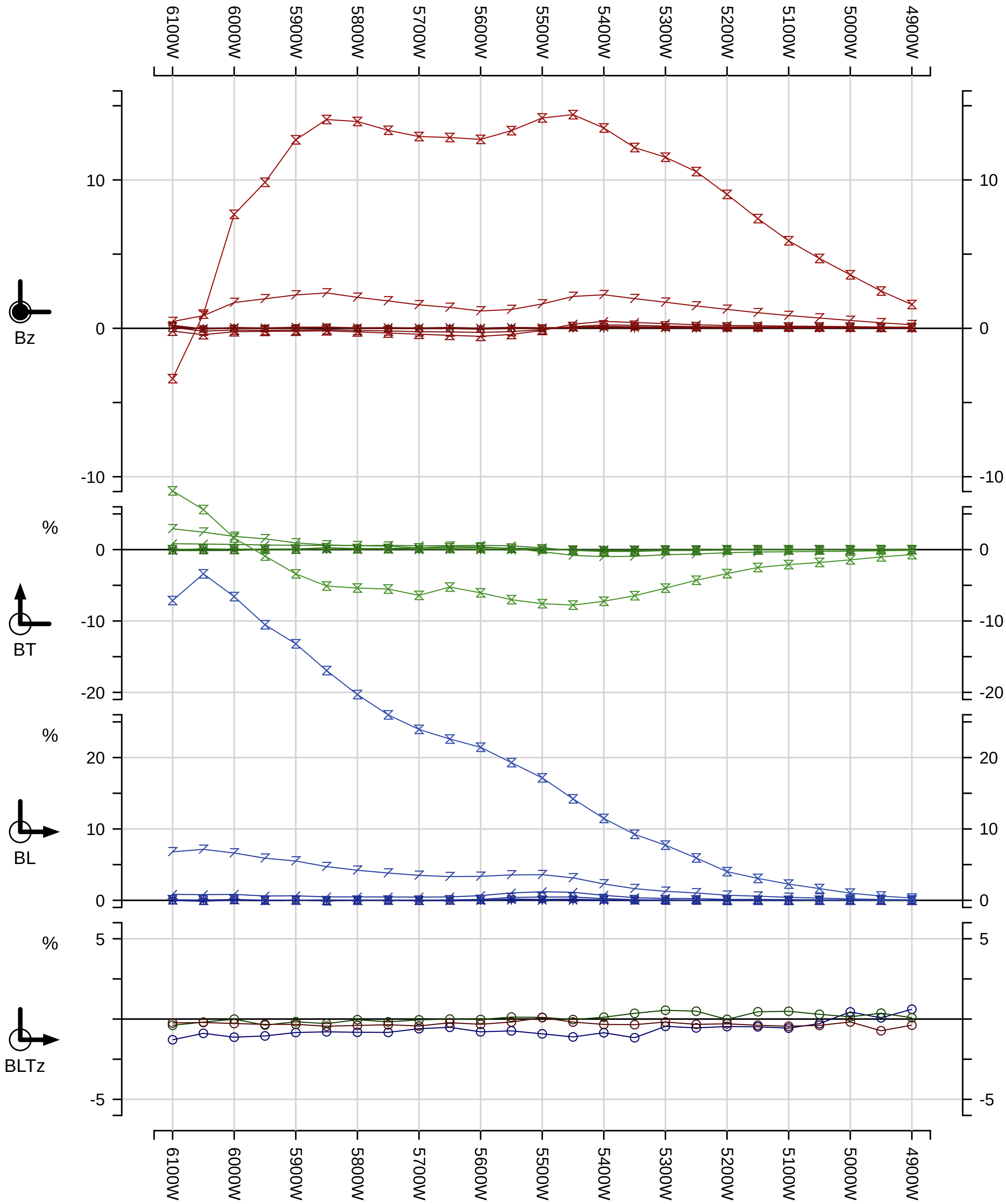
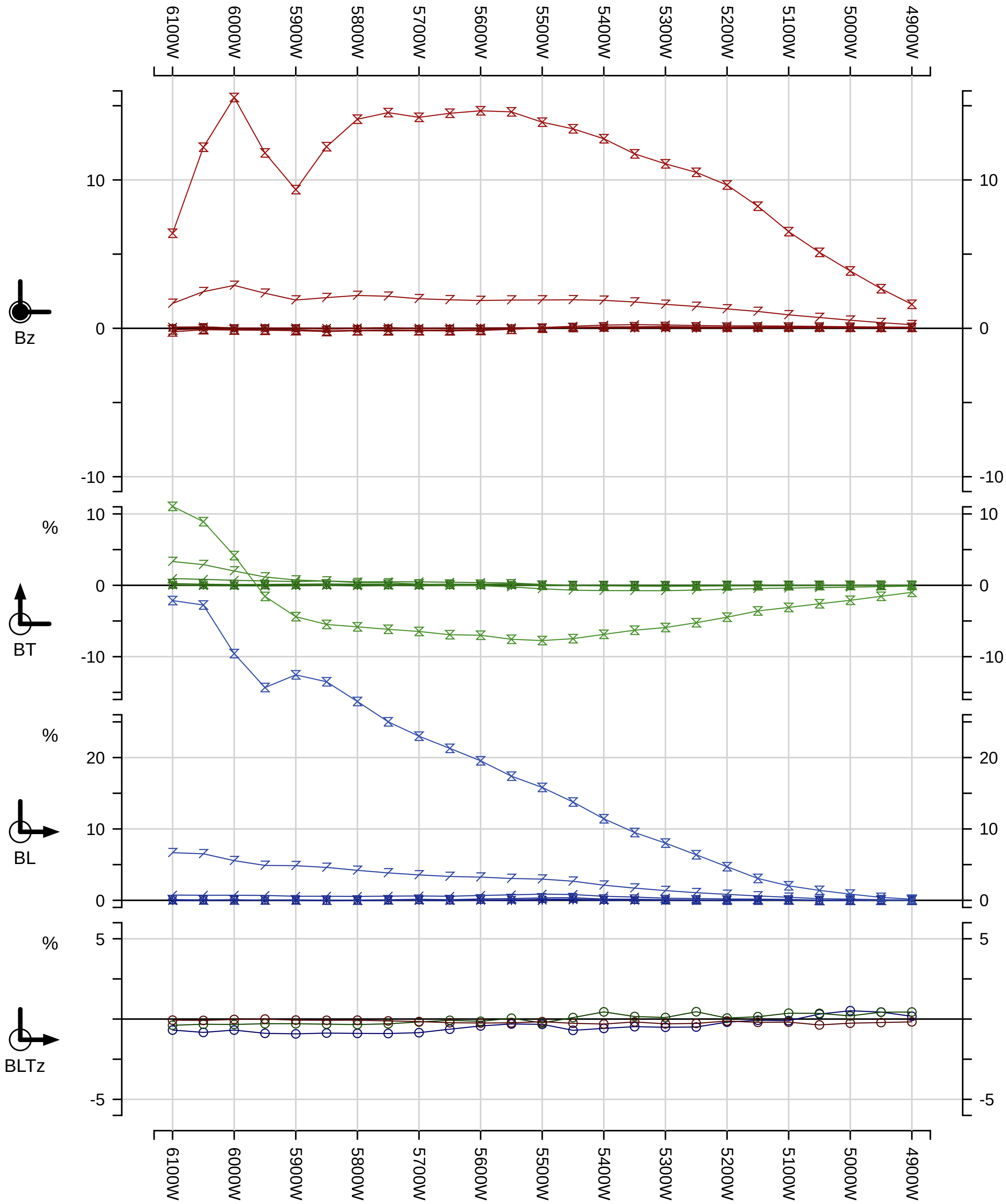


Line: L11101N Loop: 2016-10S1 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-10S1_L11101NA.3cH5 / 3 components S1 Lp10 late8Ch*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 9/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-10 - late Chs8-Ch0 - B_{LTZ}

pg 128



Line: L11201N Loop: 2016-10S1 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-10S1_L11201NA.3cH5 / 3 components S1 Lp10 late8Ch*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 9/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-10 - late Chs8-Ch0 - B_{LTZ}

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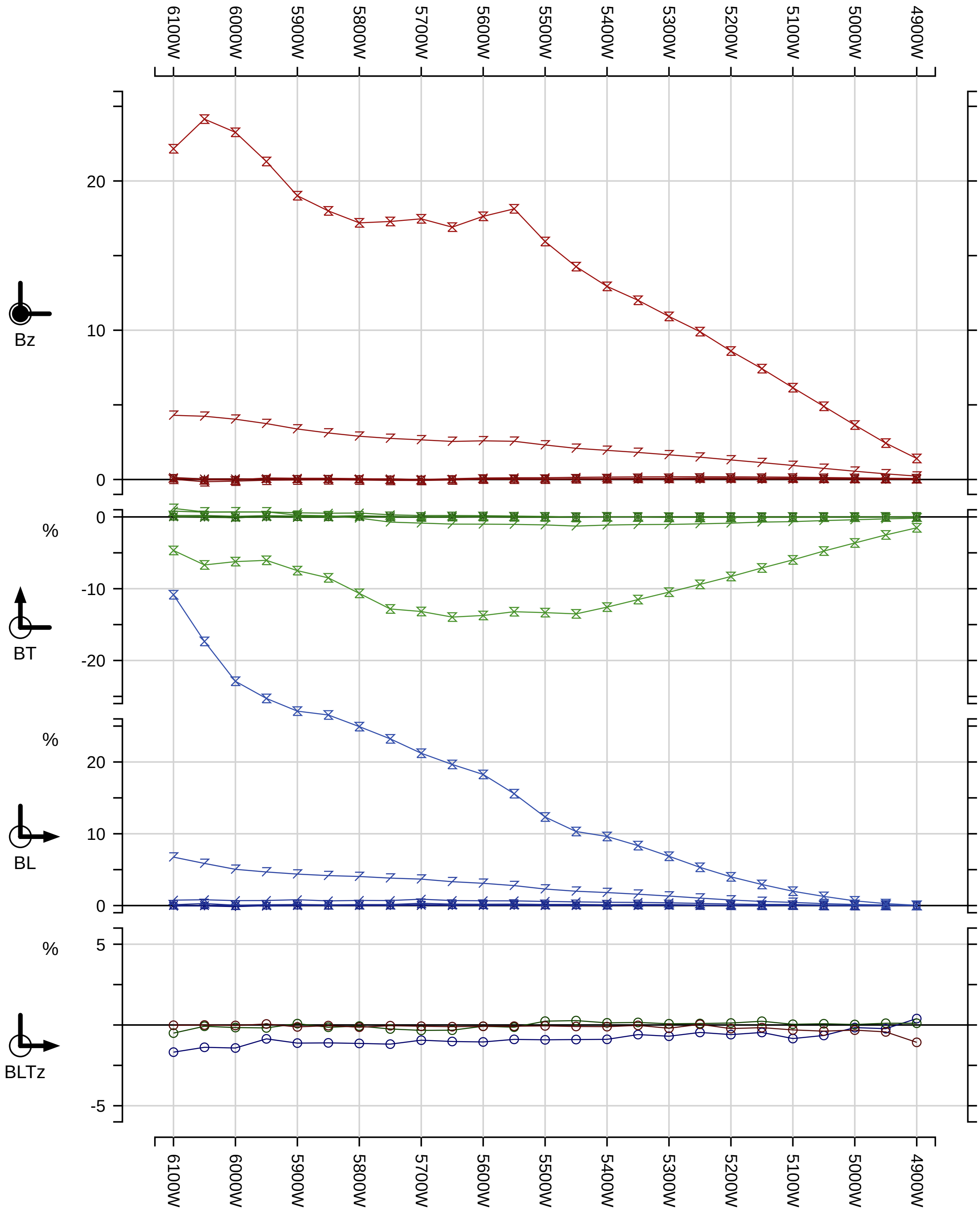

Line: L11401N Loop: 2016-10S1 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-10S1_L11401NA.3cH5 / 3 components S1 Lp10 late8Ch*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 10/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-10 - late Chs8-Ch0 - B_{LTZ}

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AT12 Grid

Loop 2016-9

BL/BT/Bz

~0.7143Hz frequency

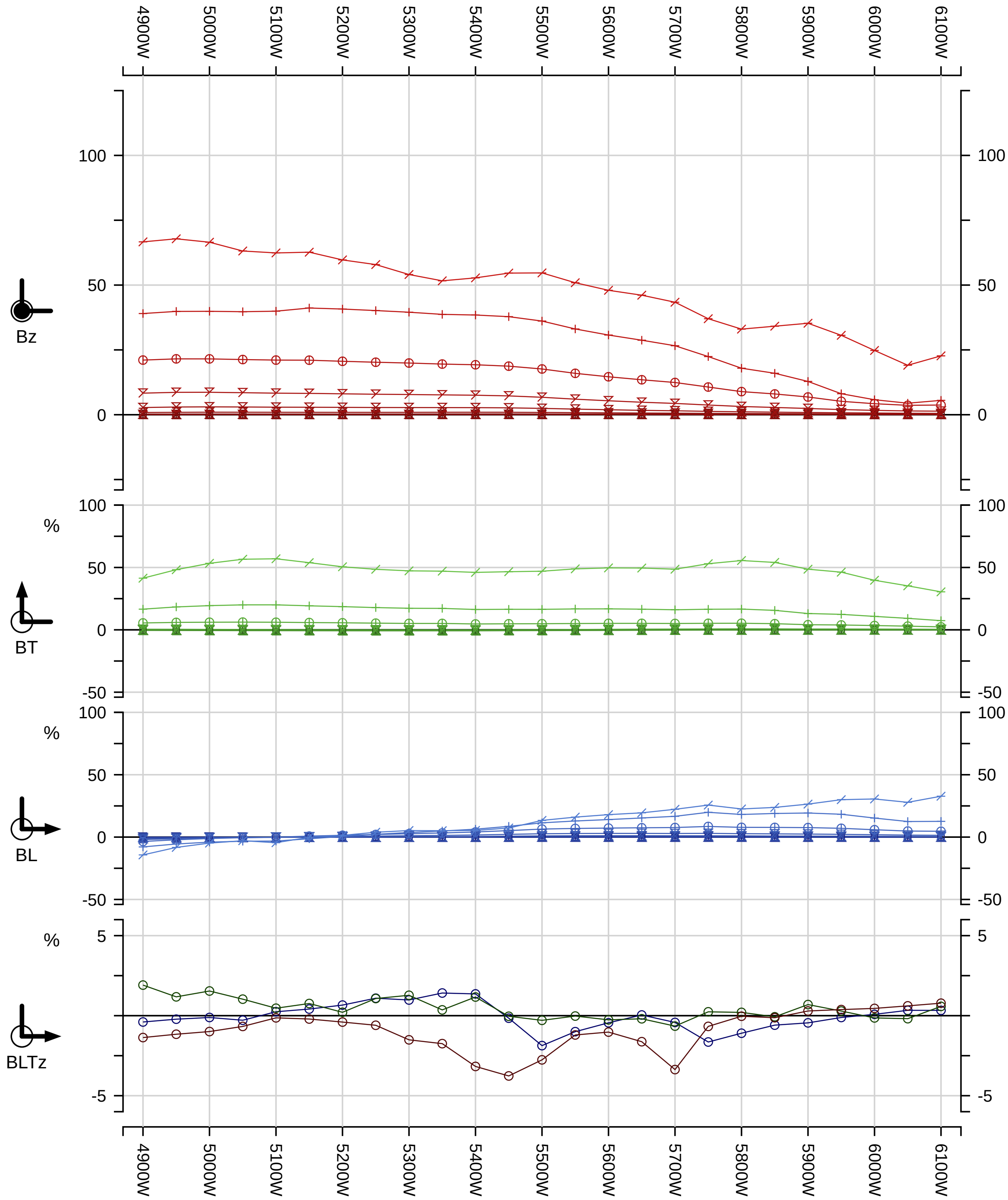
continuous norm

12Ch - Ch0 reduced

all Chs plotted

Loop 2016-09 (@ **0.7142857Hz**) in-loop

Line 9901N	6100W - 4900W	1200m	BL/BT/Bz
Line 10001N	6100W - 4900W	1200m	BL/BT/Bz
Line 10101N	6100W - 4900W	1200m	BL/BT/Bz
Line 10201N	6100W - 4900W	1200m	BL/BT/Bz
Line 10301N	6100W - 4900W	1200m	BL/BT/Bz
Line 10401N	6100W - 4900W	1200m	BL/BT/Bz
Line 10501N	6100W - 4900W	1200m	BL/BT/Bz
Line 10601N	6100W - 4900W	1200m	BL/BT/Bz
Line 10701N	6100W - 4900W	1200m	BL/BT/Bz
Line 10801N	6100W - 4900W	1200m	BL/BT/Bz
Line 10901N	6100W - 4900W	1200m	BL/BT/Bz
Line 11001N	6100W - 4900W	1200m	BL/BT/Bz
Line 11101N	6100W - 4900W	1200m	BL/BT/Bz
Line 11201N	6100W - 4900W	1200m	BL/BT/Bz



Line: L9901N Loop: 2016-09S2 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-09S2_L9901NB.3cH5 / 3 components S1 Lp9 all	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 5/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-9 - all Chs - B_{LTZ}

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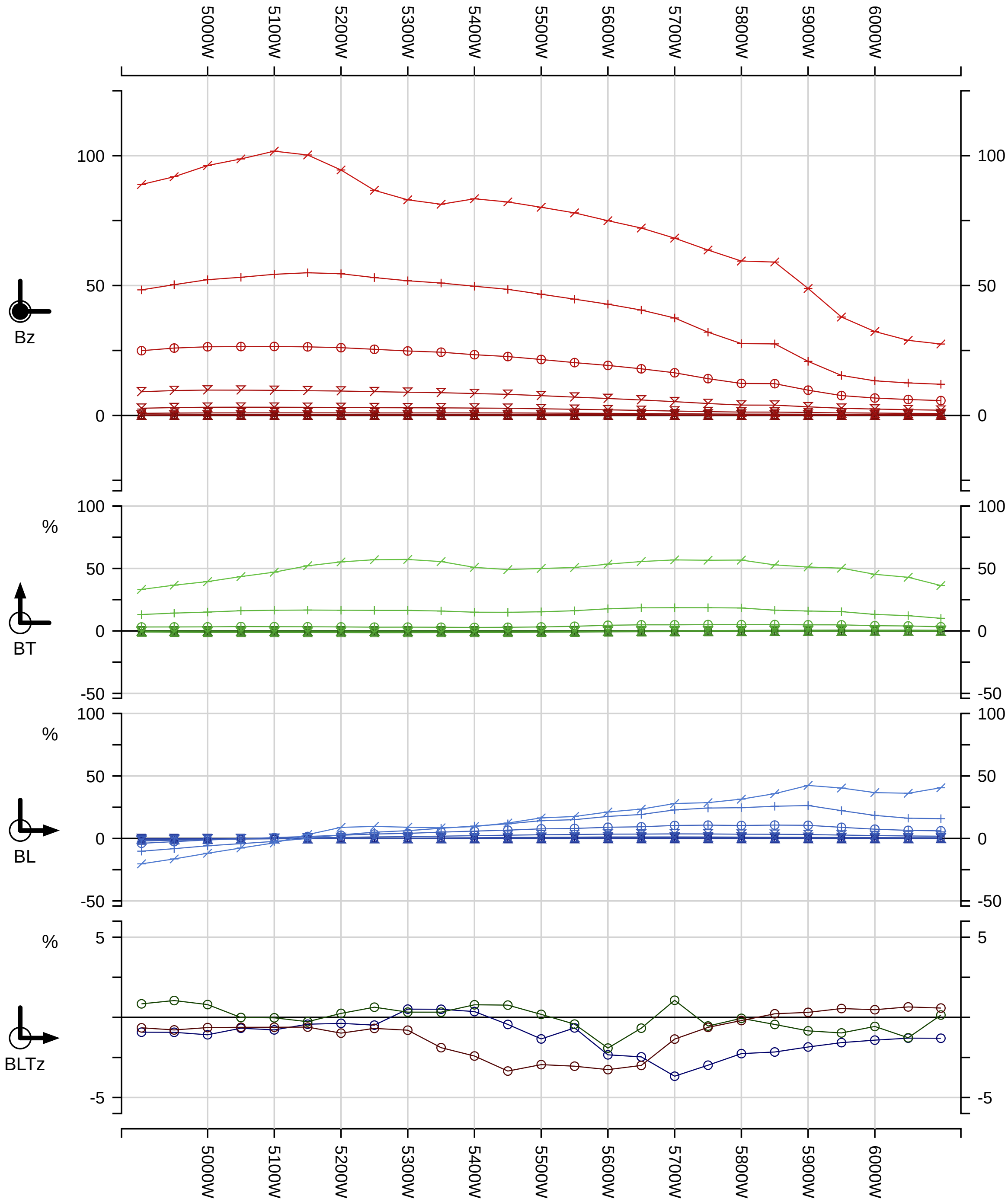
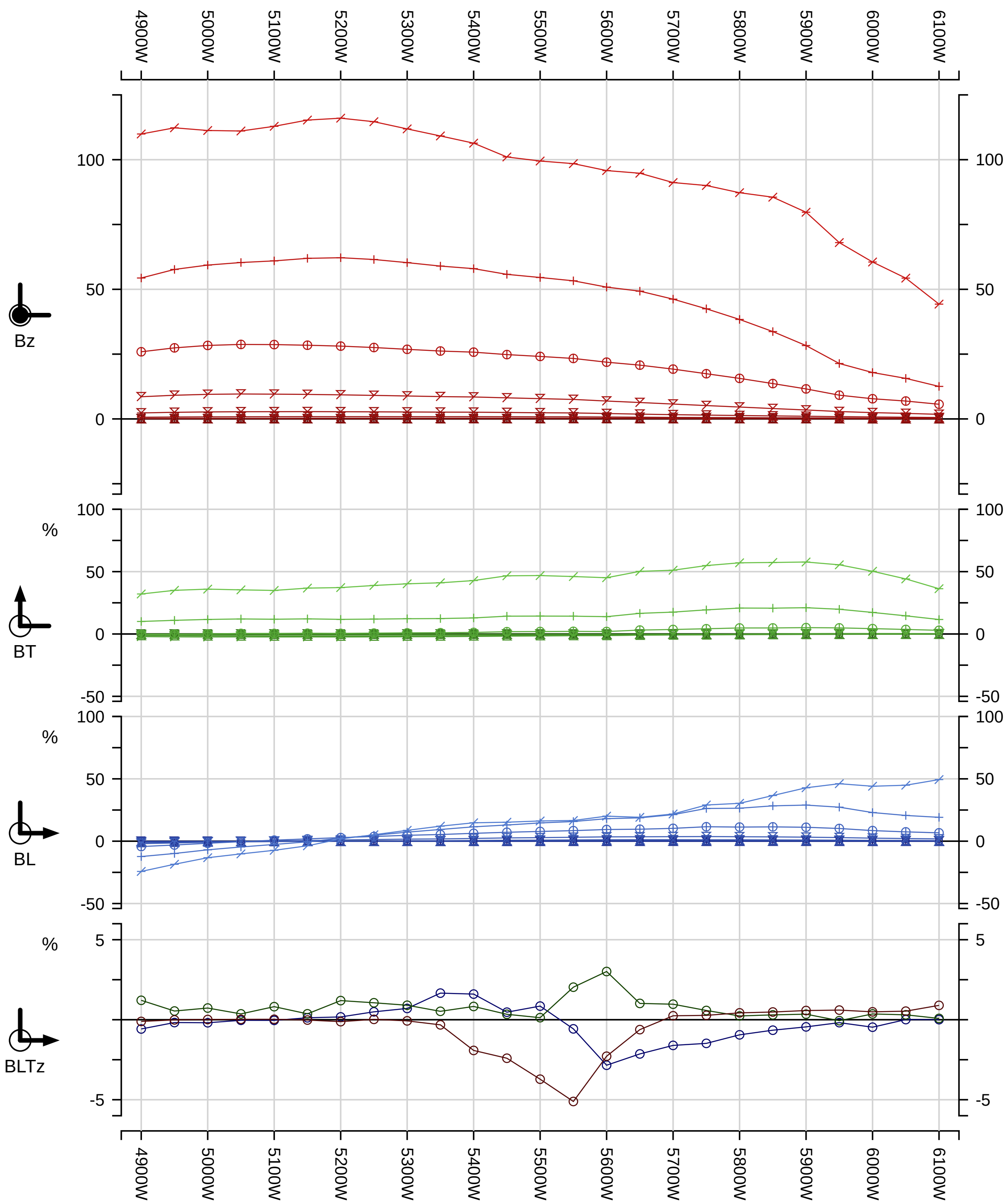


Line: L10001N Loop: 2016-09S2 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-09S2_L10001NB.3cH5 / 3 components S1 Lp9 all	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 9/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-9 - all Chs - B_{LTZ}

pg 133



Line: L10101N Loop: 2016-09S2 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-09S2_L10101NB.3cH5 / 3 components S1 Lp9 all	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 6/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-9 - all Chs - B_{LTZ}

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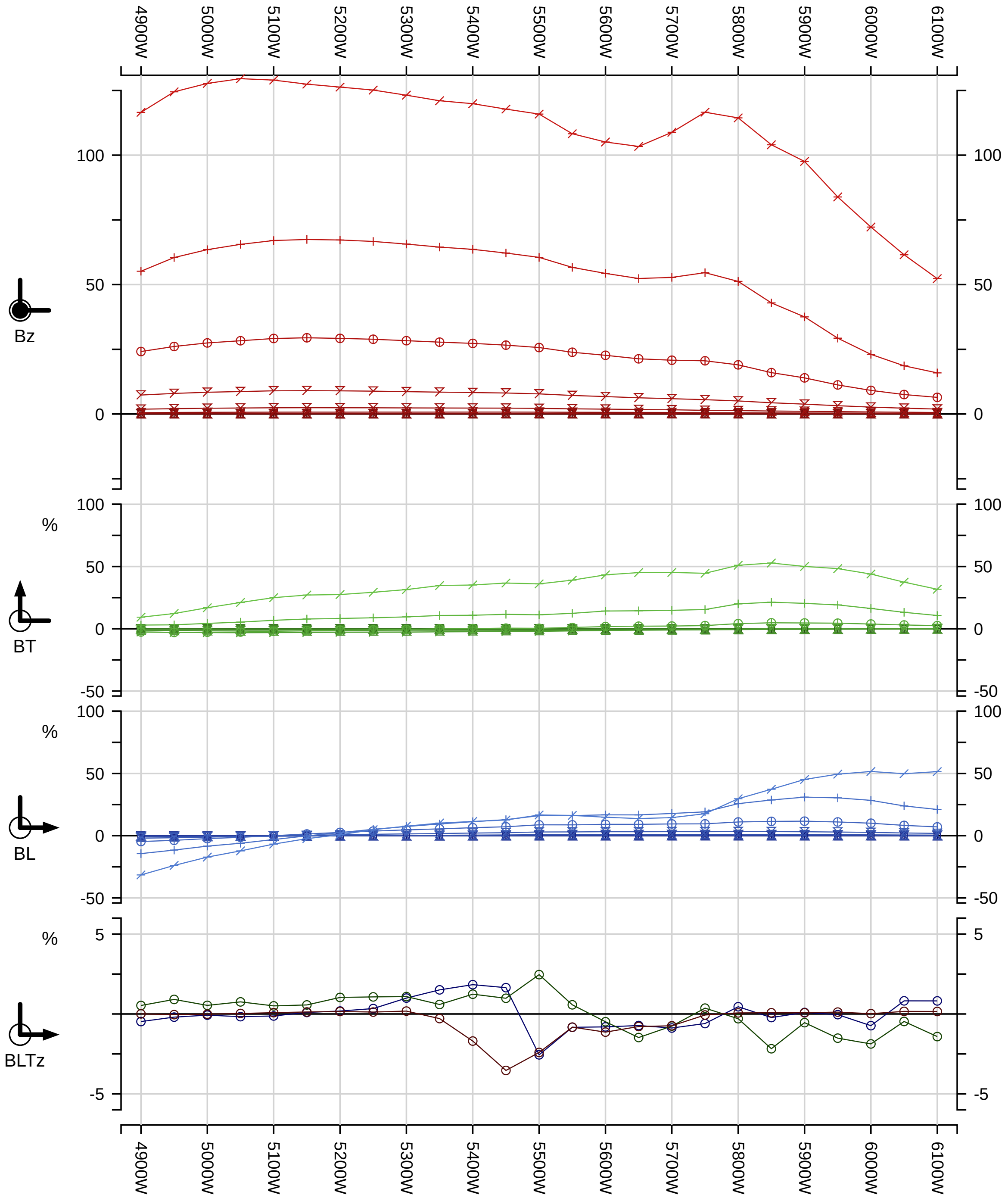

Line: L10201N	(Chn - Ch0) / |Bp| (%)	UTEM-5 Survey at: AT12
Loop: 2016-09S2	Cont norm @ Δz: 0m	For: NORONT
Cpt: BL, BT, Bz	Base Freq: 0.71429Hz	LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE
L 285.0°	aLp2016-09S2_L10201NB.3cH5 / 3 components S1 Lp9 all	Job 1613 Surv: 6/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-9 - all Chs - B_{LTZ}

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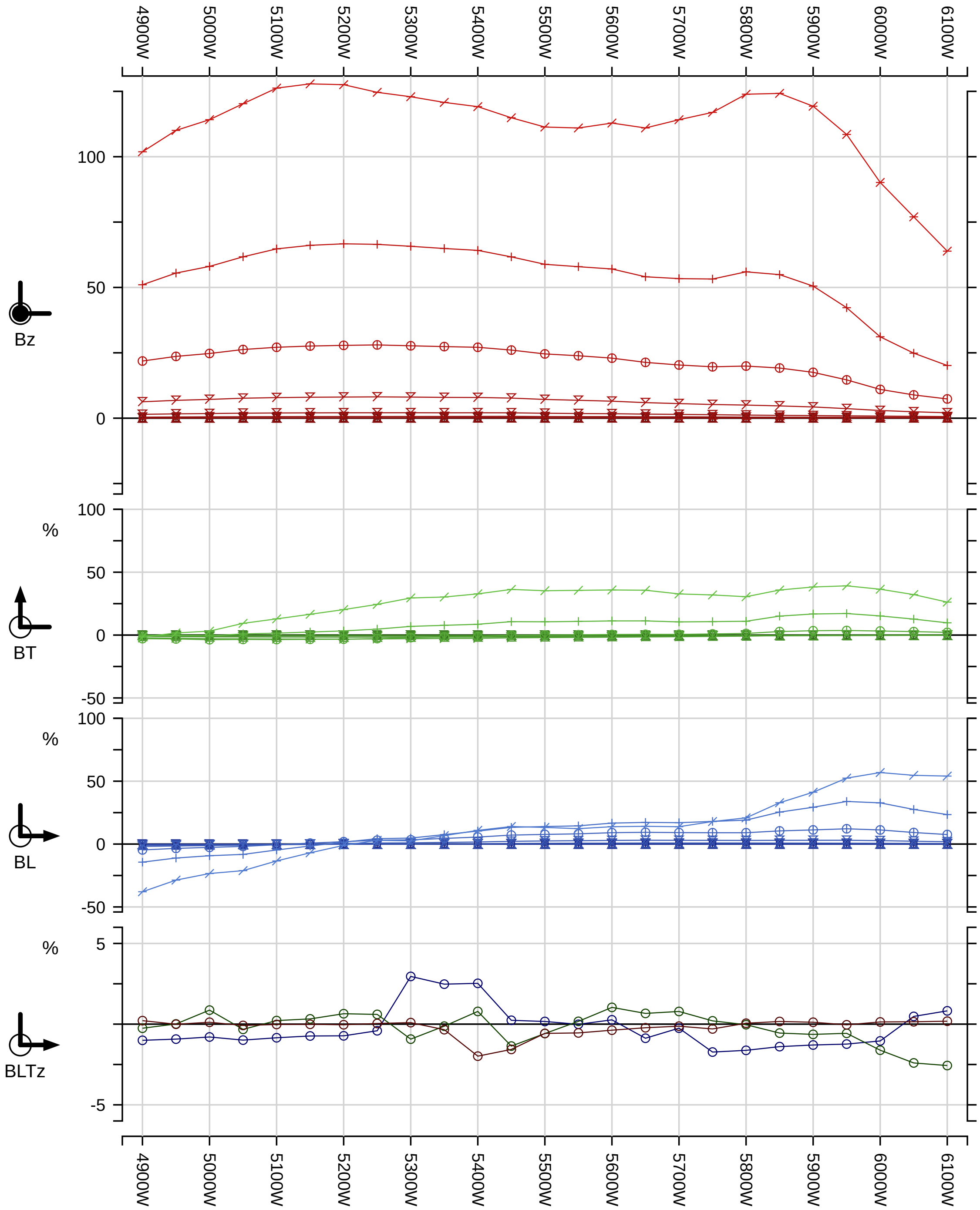
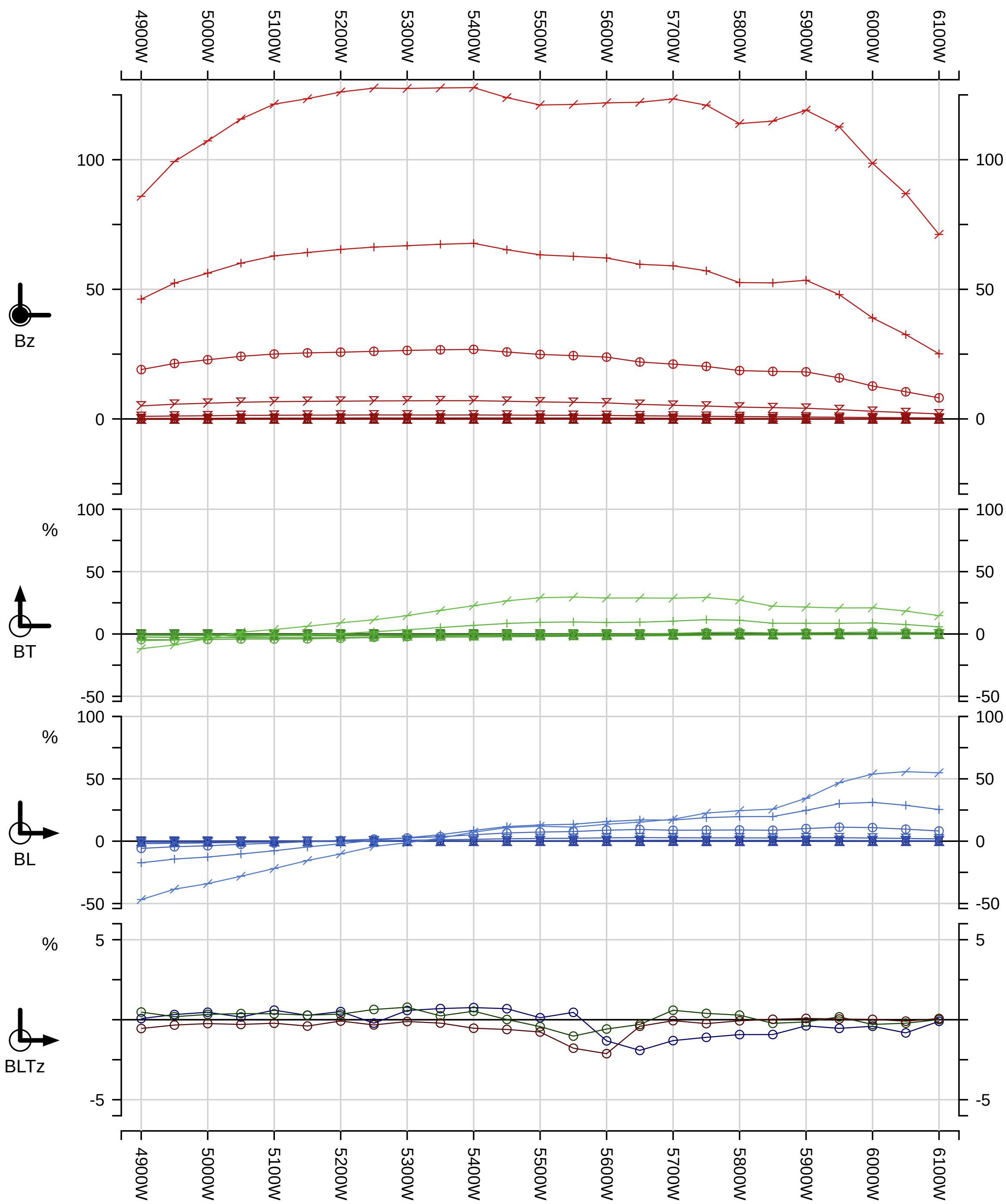


Line: L10301N	(Chn - Ch0) / |Bp| (%)	UTEM-5 Survey at: AT12
Loop: 2016-09S2	Cont norm @ Δz: 0m	For: NORONT
Cpt: BL, BT, Bz	Base Freq: 0.71429Hz	LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 6/3/16 Red: 26/4/16 Plot: 26/4/16
L 285.0°	aLp2016-09S2_L10301NB.3cH5 / 3 components S1 Lp9 all	

Loop 2016-9 - all Chs - B_{LTZ}

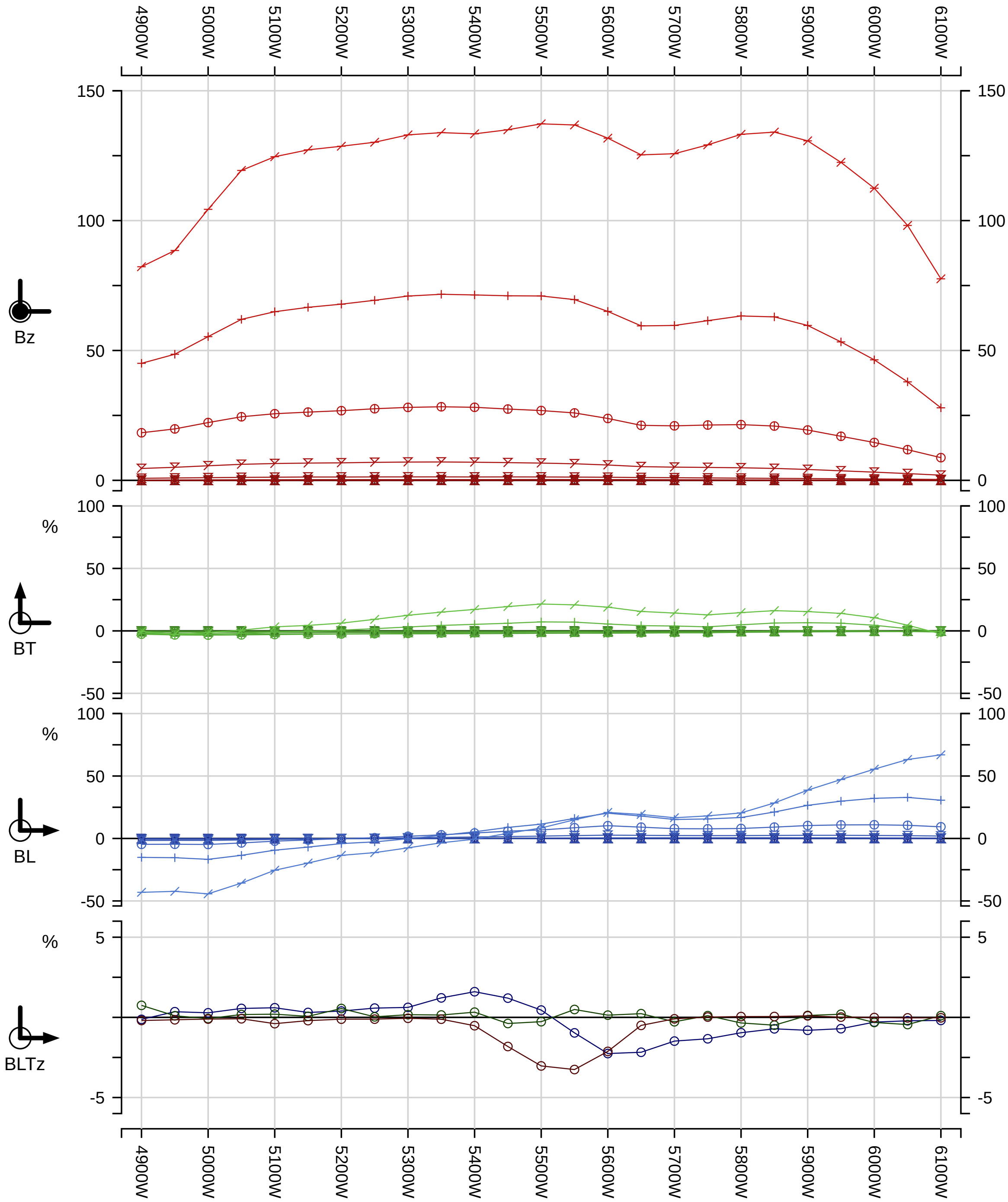
pg 136



Line: L10401N Loop: 2016-09S2 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-09S2_L10401NB.3cH5 / 3 components S1 Lp9 all	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 7/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-9 - all Chs - B_{LTZ}

pg 137



Line: L10501N Loop: 2016-09S2 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-09S2_L10501NB.3cH5 / 3 components S1 Lp9 all*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 8/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-9 - all Chs - B_{LTZ}

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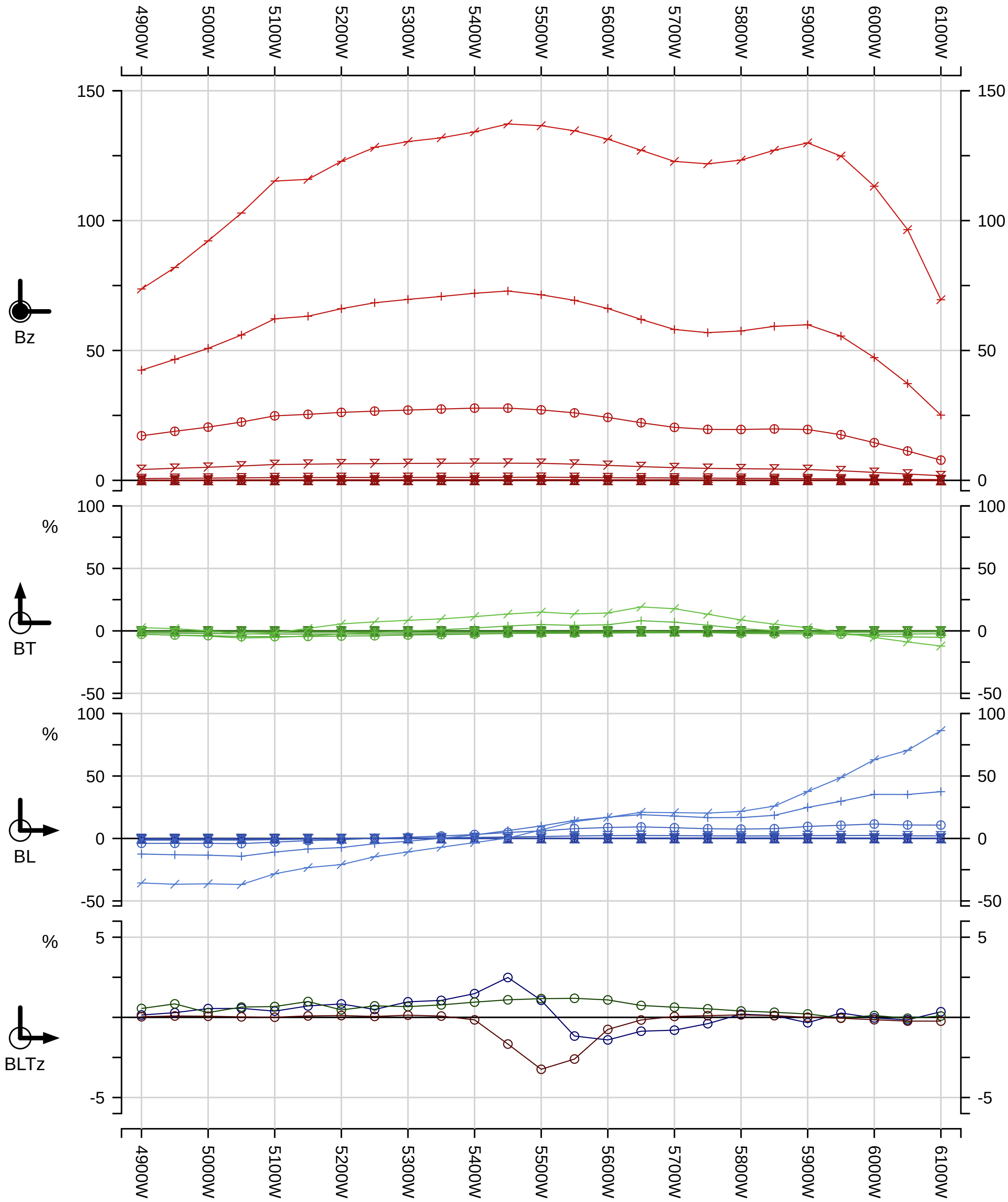
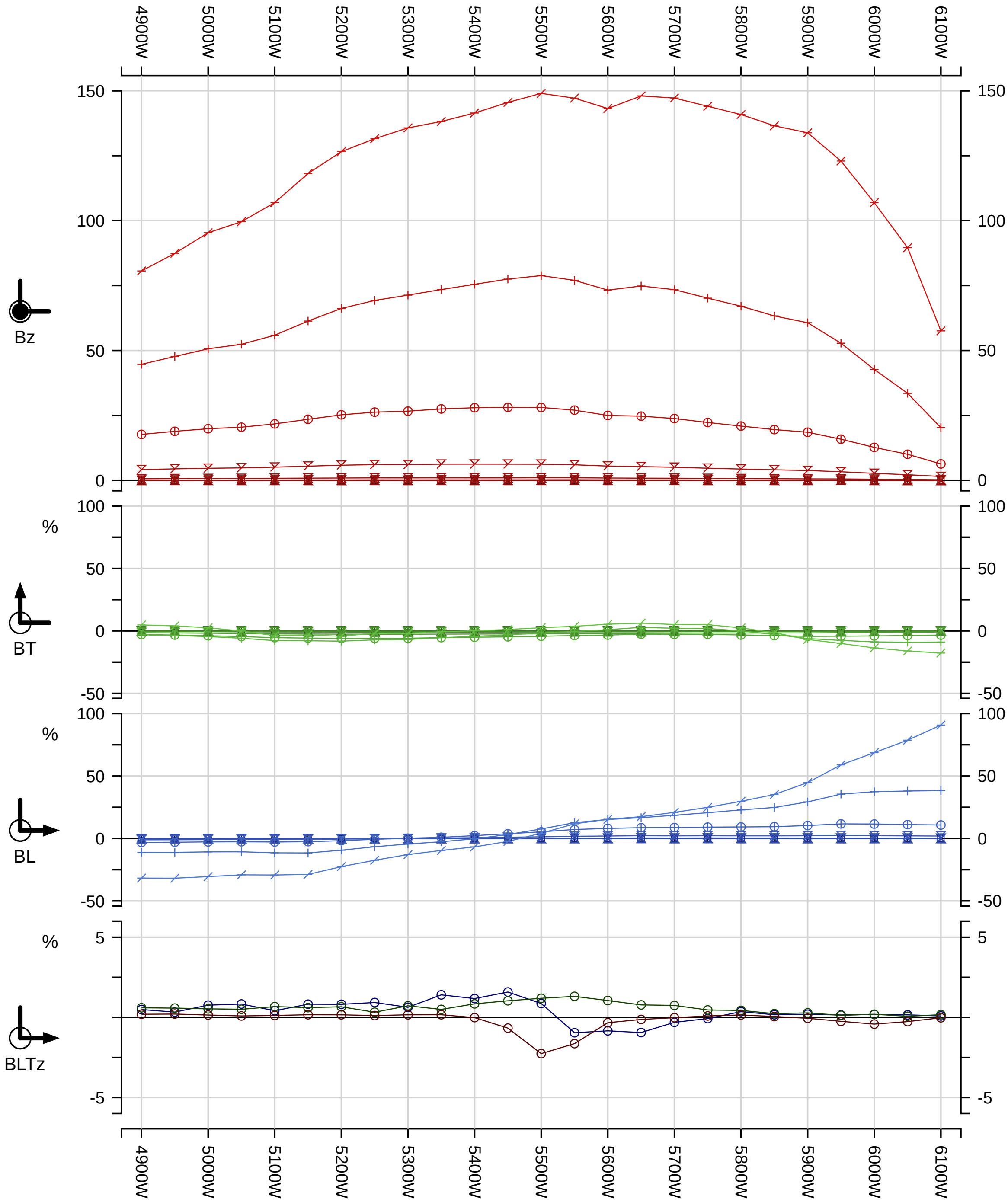


Line: L10601N Loop: 2016-09S2 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-09S2_L10601NB.3cH5 / 3 components S1 Lp9 all*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 7/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-9 - all Chs - B$_{LTZ}$

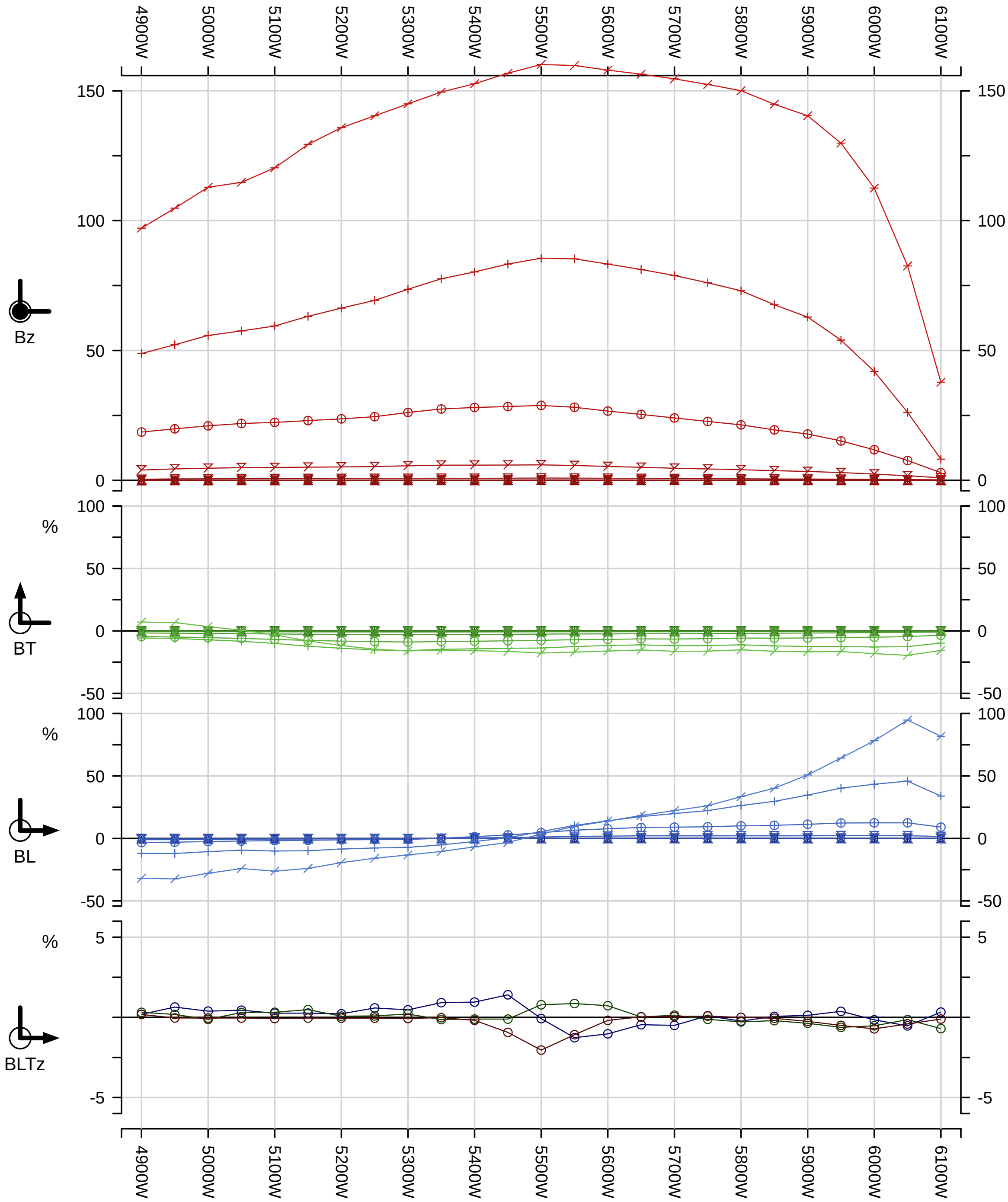
pg 139



Line: L10701N Loop: 2016-09S2 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-09S2_L10701NB.3cH5 / 3 components S1 Lp9 all*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 8/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-9 - all Chs - B_{LTZ}

pg 140



Line: L10801N Loop: 2016-09S2 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-09S2_L10801NB.3cH5 / 3 components S1 Lp9 all*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 8/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-9 - all Chs - B_{LTZ}

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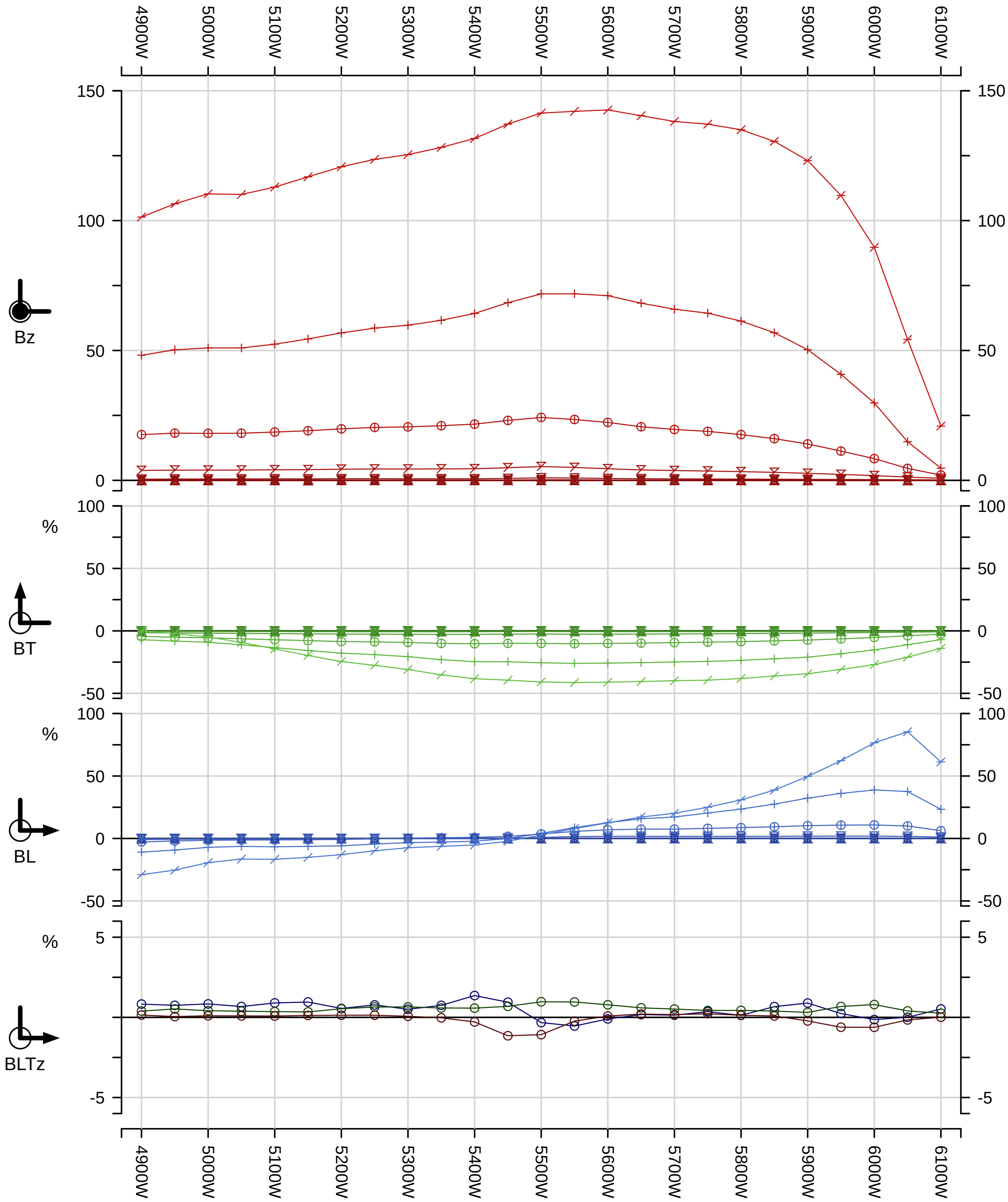
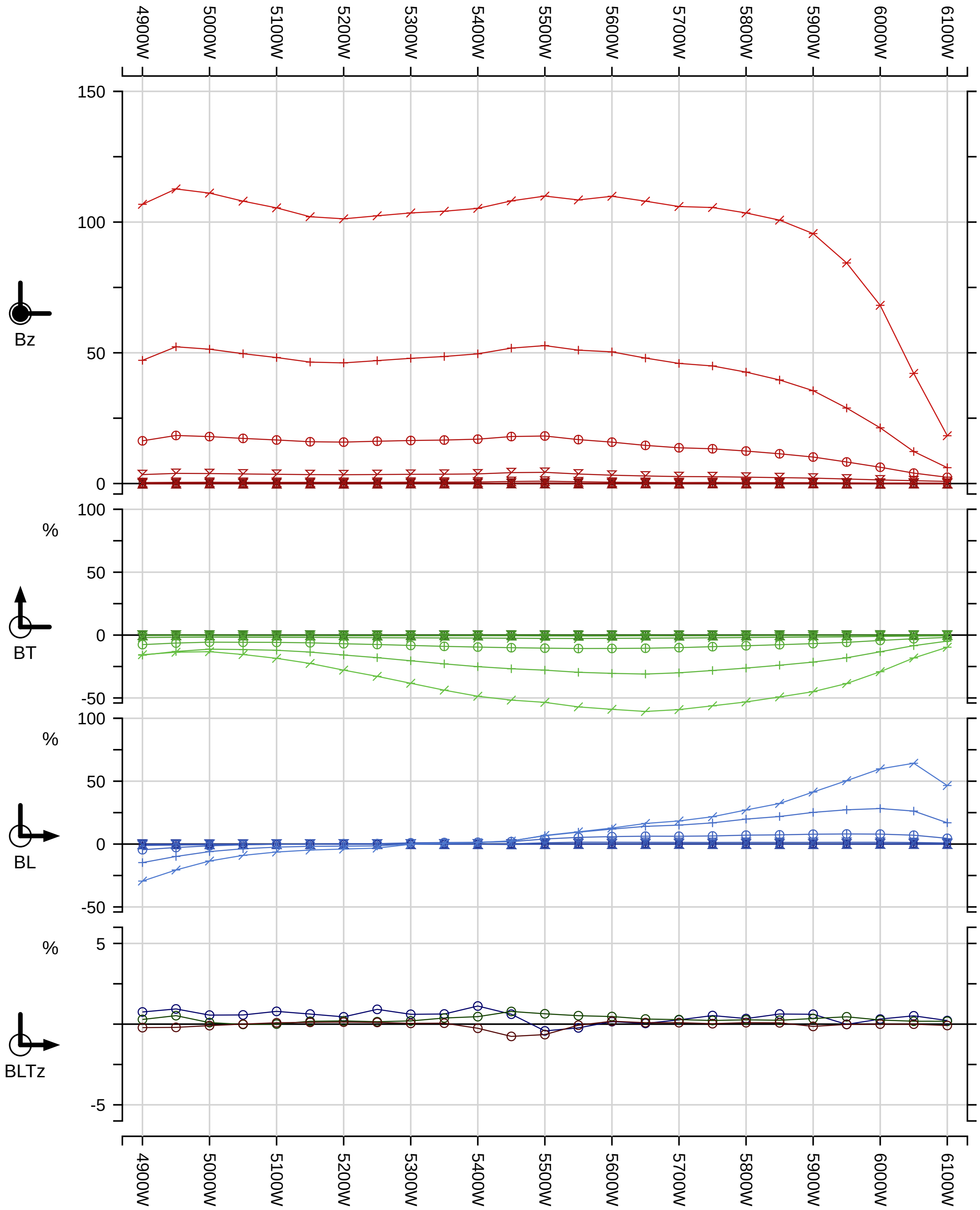


Line: L10901N Loop: 2016-09S2 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-09S2_L10901NB.3cH5 / 3 components S1 Lp9 all*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 8/3/16 Red: 26/4/16 Plot: 26/4/16

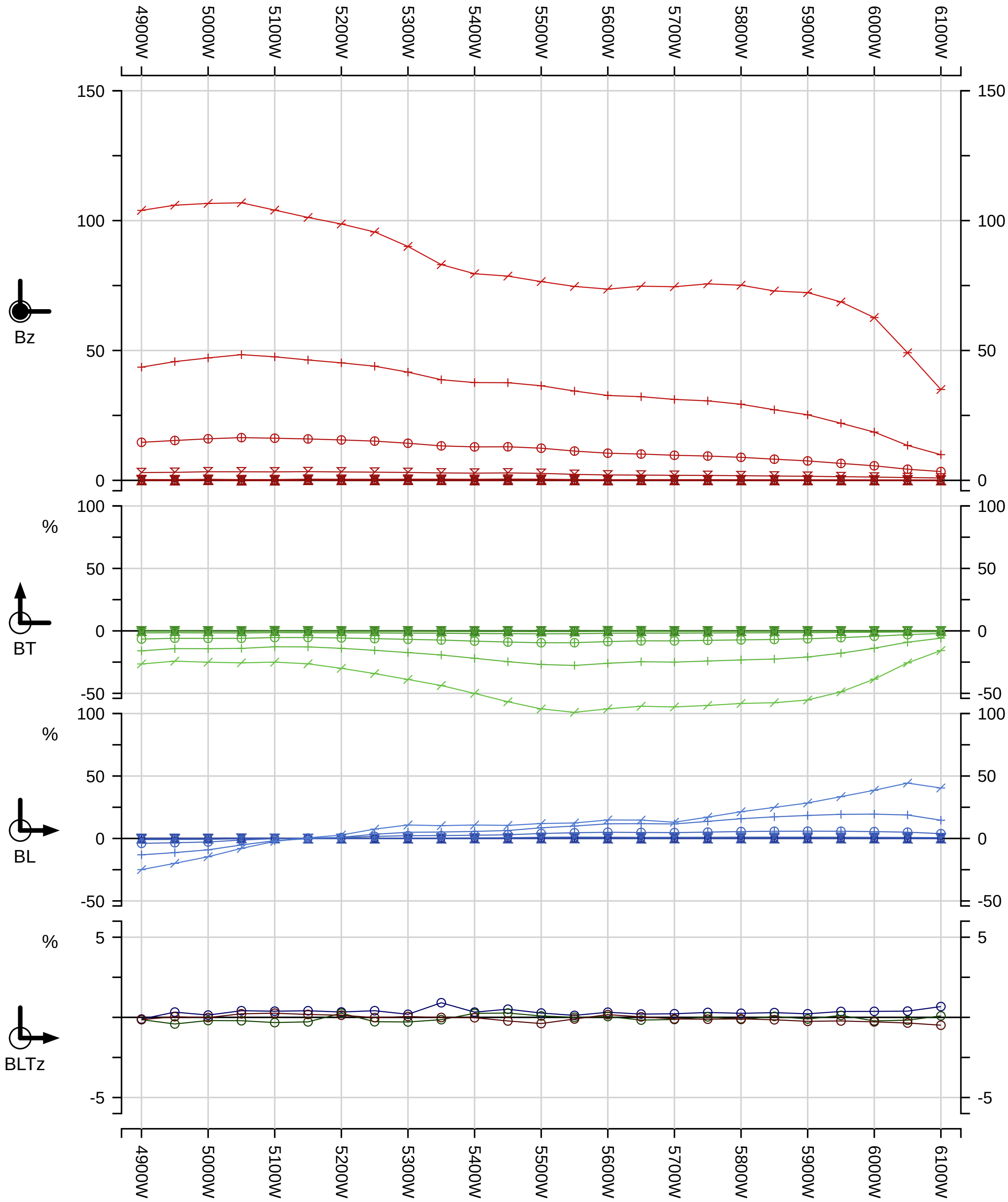
Loop 2016-9 - all Chs - B_{LTZ}

pg 142



Line: L11001N Loop: 2016-09S2 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-09S2_L11001NB.3cH5 / 3 components S1 Lp9 all*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 9/3/16 Red: 26/4/16 Plot: 26/4/16

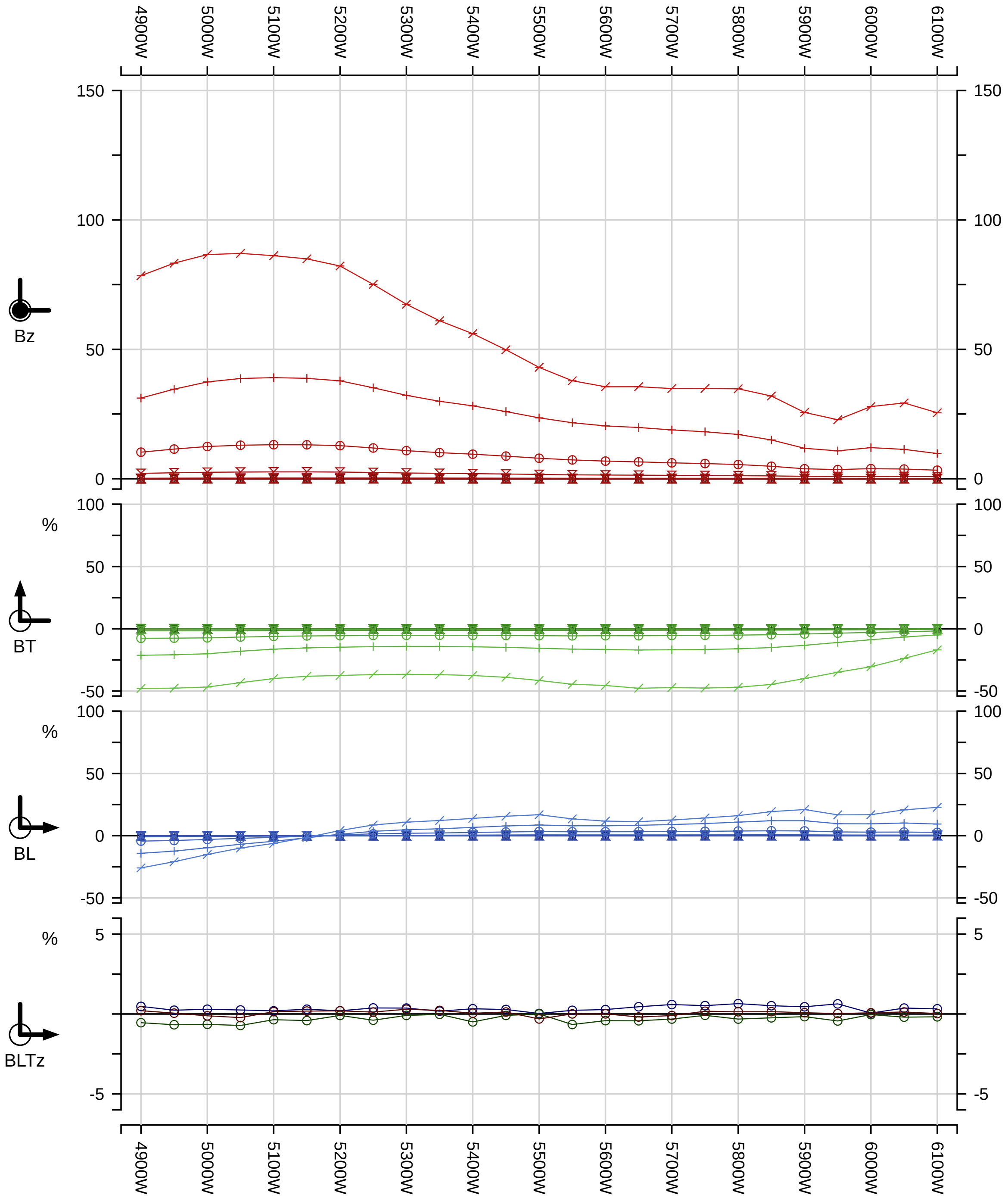
Loop 2016-9 - all Chs - B_{LTZ}



Line: L11101N	(Chn - Ch0) / |Bp| (%)	UTEM-5 Survey at: AT12
Loop: 2016-09S2	Cont norm @ Δz: 0m	For: NORONT
Cpt: BL, BT, Bz	Base Freq: 0.71429Hz	LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 9/3/16 Red: 26/4/16 Plot: 26/4/16
L 285.0°	aLp2016-09S2_L11101NB.3cH5 / 3 components S1 Lp9 all*	

Loop 2016-9 - all Chs - B_{LTZ}

pg 144



Line: L11201N Loop: 2016-09S2 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-09S2_L11201NB.3cH5 / 3 components S1 Lp9 all*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 9/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-9 - all Chs - B_{LTZ}

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AT12 Grid

Loop 2016-9

BL/BT/Bz

~0.7143Hz frequency

continuous norm

12Ch - Ch0 reduced

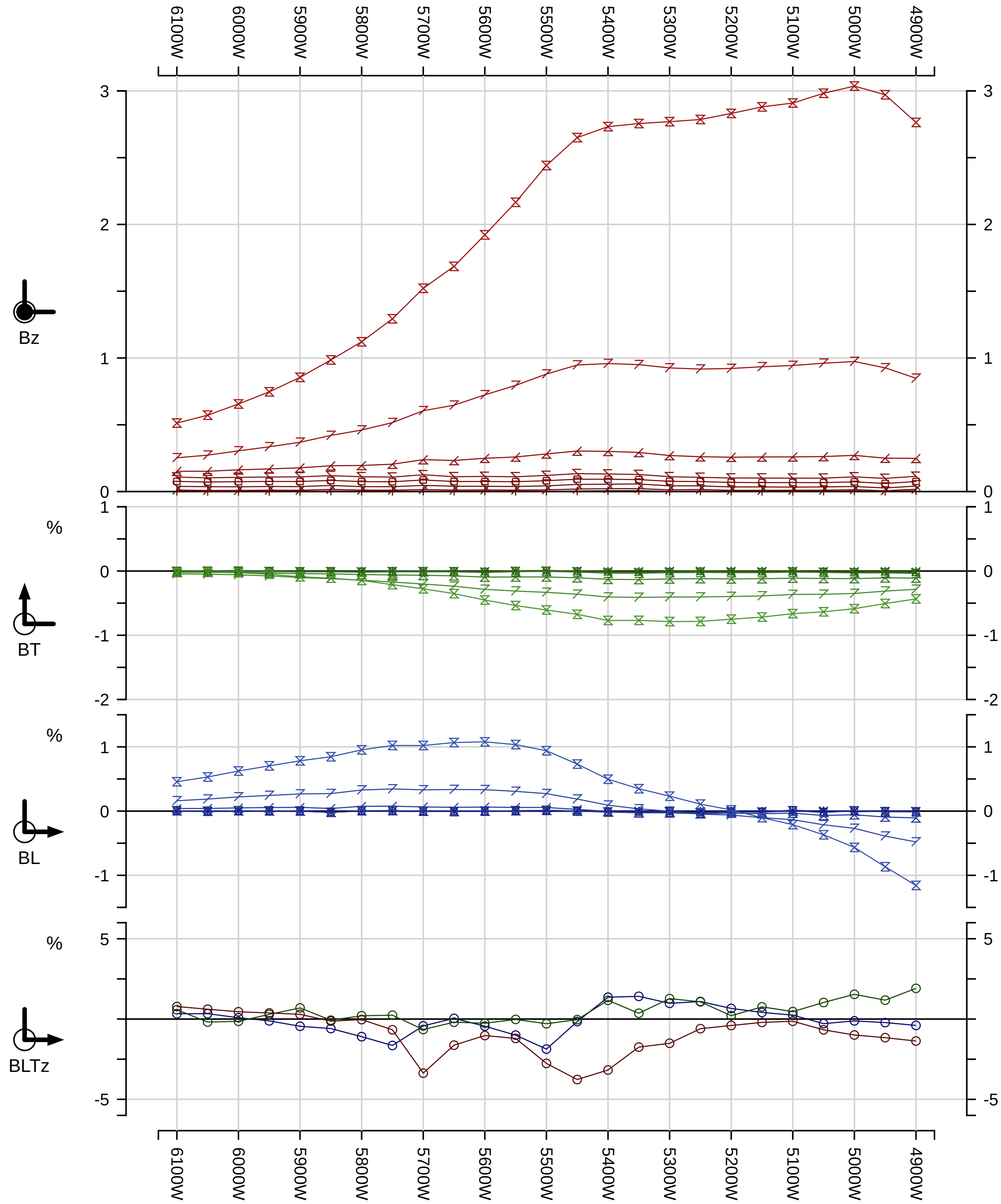
late Chs8-Ch0 plotted

Loop 2016-09 (@ **0.7142857Hz**) in-loop

Line 9901N	6100W - 4900W	1200m	BL/BT/Bz
Line 10001N	6100W - 4900W	1200m	BL/BT/Bz
Line 10101N	6100W - 4900W	1200m	BL/BT/Bz
Line 10201N	6100W - 4900W	1200m	BL/BT/Bz
Line 10301N	6100W - 4900W	1200m	BL/BT/Bz
Line 10401N	6100W - 4900W	1200m	BL/BT/Bz
Line 10501N	6100W - 4900W	1200m	BL/BT/Bz
Line 10601N	6100W - 4900W	1200m	BL/BT/Bz
Line 10701N	6100W - 4900W	1200m	BL/BT/Bz
Line 10801N	6100W - 4900W	1200m	BL/BT/Bz
Line 10901N	6100W - 4900W	1200m	BL/BT/Bz
Line 11001N	6100W - 4900W	1200m	BL/BT/Bz
Line 11101N	6100W - 4900W	1200m	BL/BT/Bz
Line 11201N	6100W - 4900W	1200m	BL/BT/Bz

Loop 2016-9 - late Chs8-Ch0 - B_{LTZ}

pg 146



Line: L9901N Loop: 2016-09S2 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-09S2_L9901NB.3cH5 / 3 components S1 Lp9 late8Ch	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 5/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-9 - late Chs8-Ch0 - B_{LTZ}

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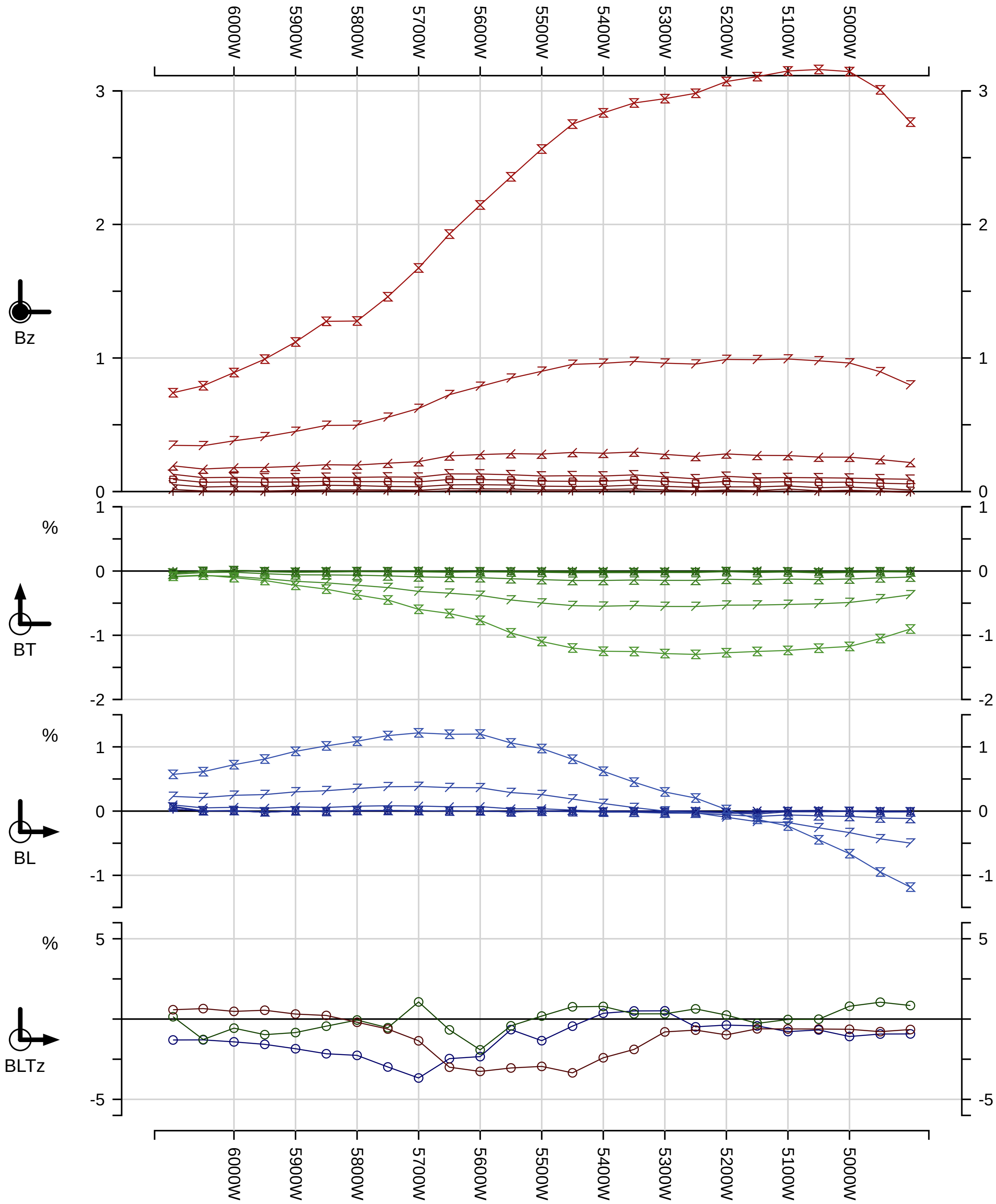

Line: L10001N Loop: 2016-09S2 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-09S2_L10001NB.3cH5 / 3 components S1 Lp9 late8Ch	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 9/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-9 - late Chs8-Ch0 - B_{LTZ}

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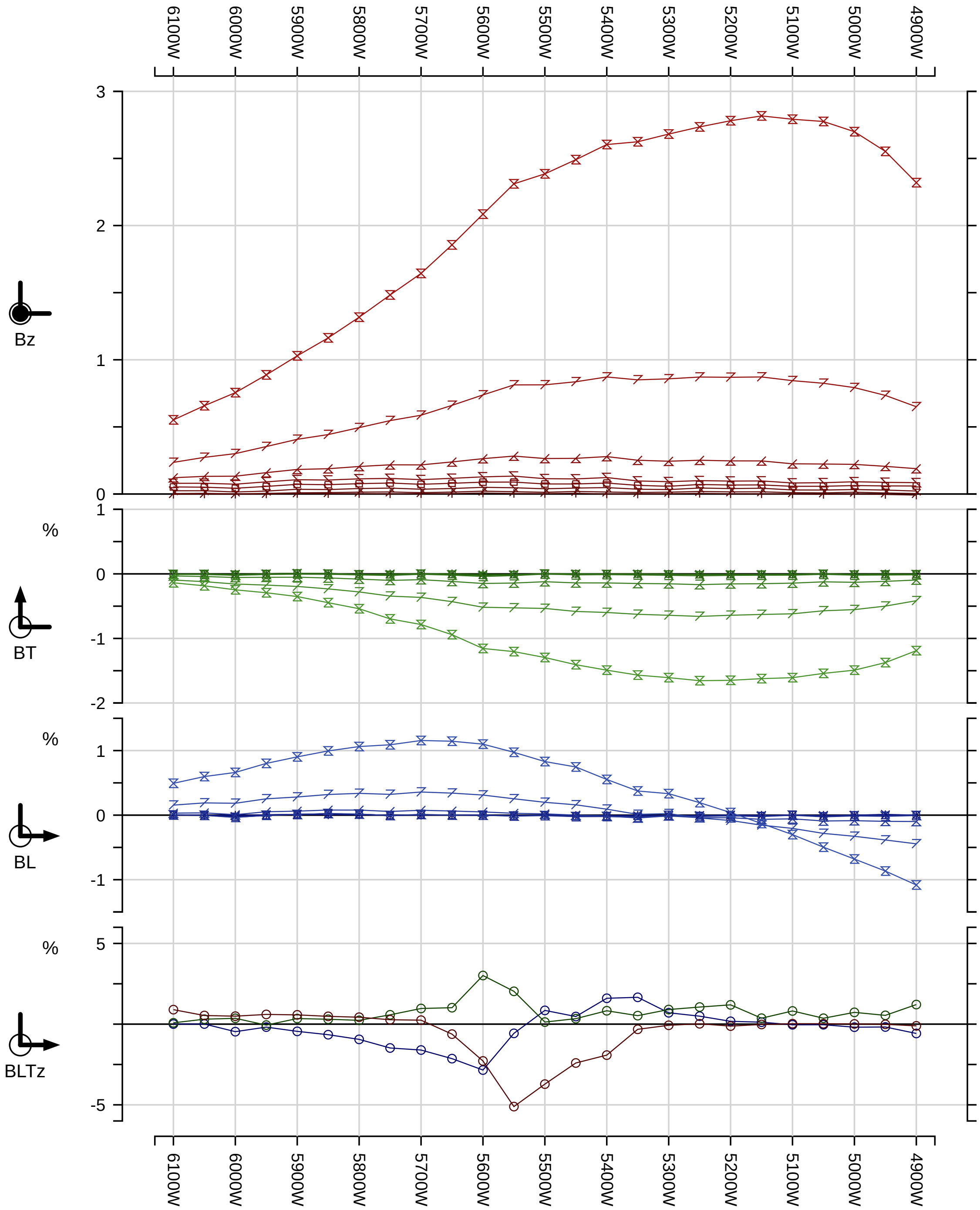
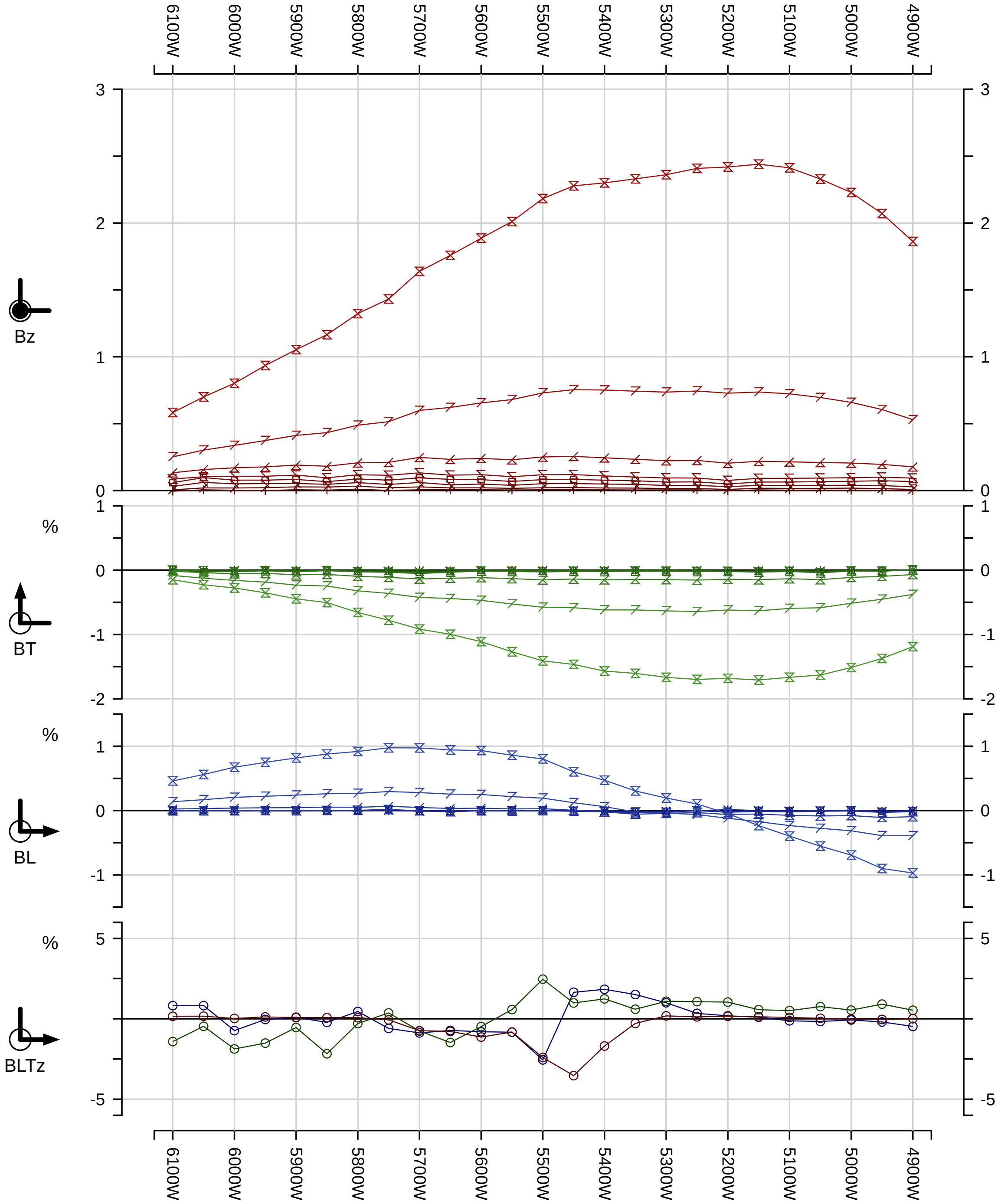


Line: L10101N Loop: 2016-09S2 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-09S2_L10101NB.3cH5 / 3 components S1 Lp9 late8Ch	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 6/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-9 - late Chs8-Ch0 - B_{LTZ}



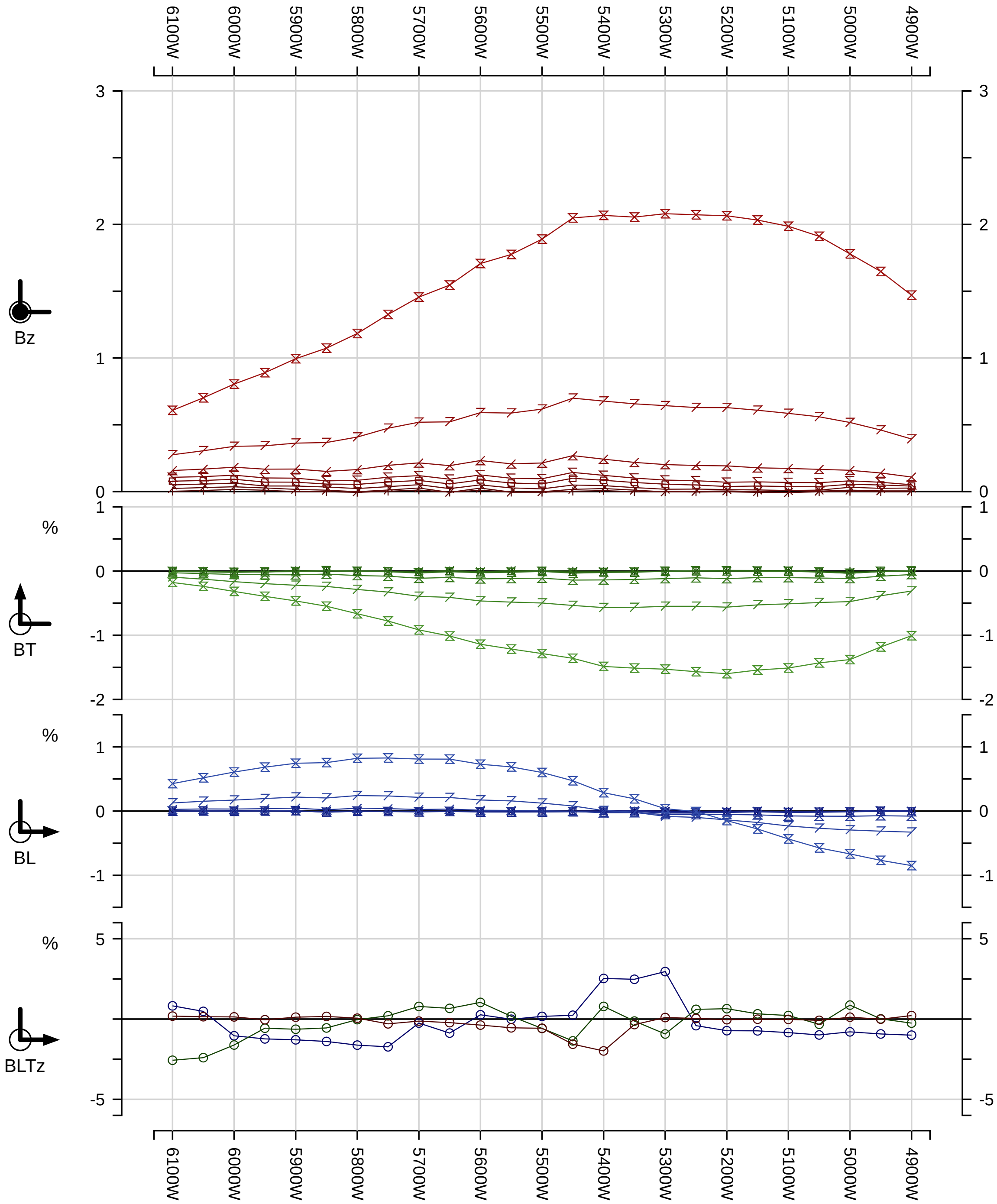
Line: L10201N
Loop: 2016-09S2
Cpt: BL, BT, Bz
L 285.0°

(Chn - Ch0) / |Bp| (%)
Cont norm @ Δz: 0m
Base Freq: 0.71429Hz
aLp2016-09S2_L10201NB.3cH5 / 3 components S1 Lp9 late8Ch

UTEM-5 Survey at: AT12
For: NORONT

LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE
Job 1613
Surv: 6/3/16
Red: 26/4/16
Plot: 26/4/16

Loop 2016-9 - late Chs8-Ch0 - B_{LTZ}



Line: L10301N Loop: 2016-09S2 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-09S2_L10301NB.3cH5 / 3 components S1 Lp9 late8Ch	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 6/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-9 - late Chs8-Ch0 - B_{LTZ}

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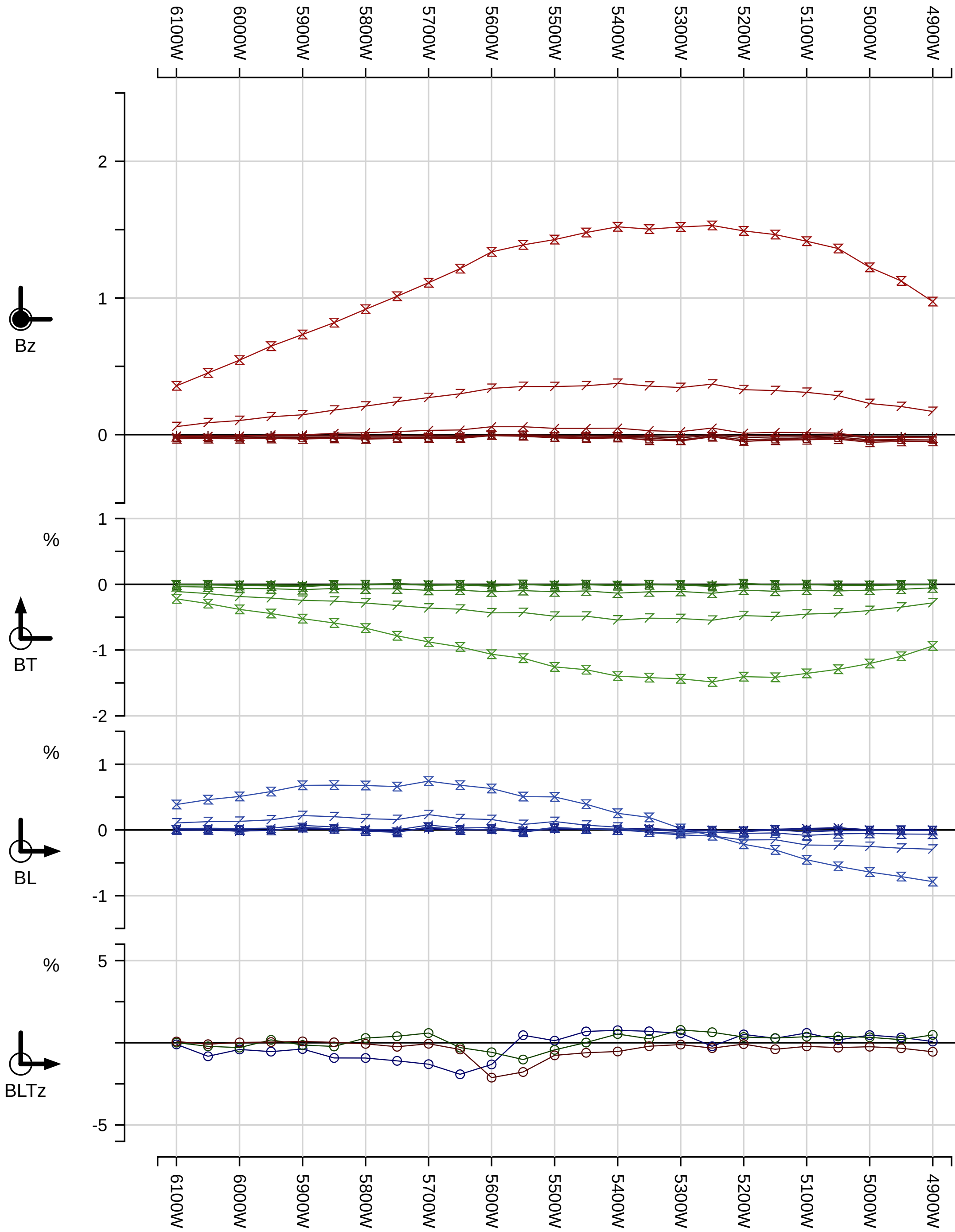
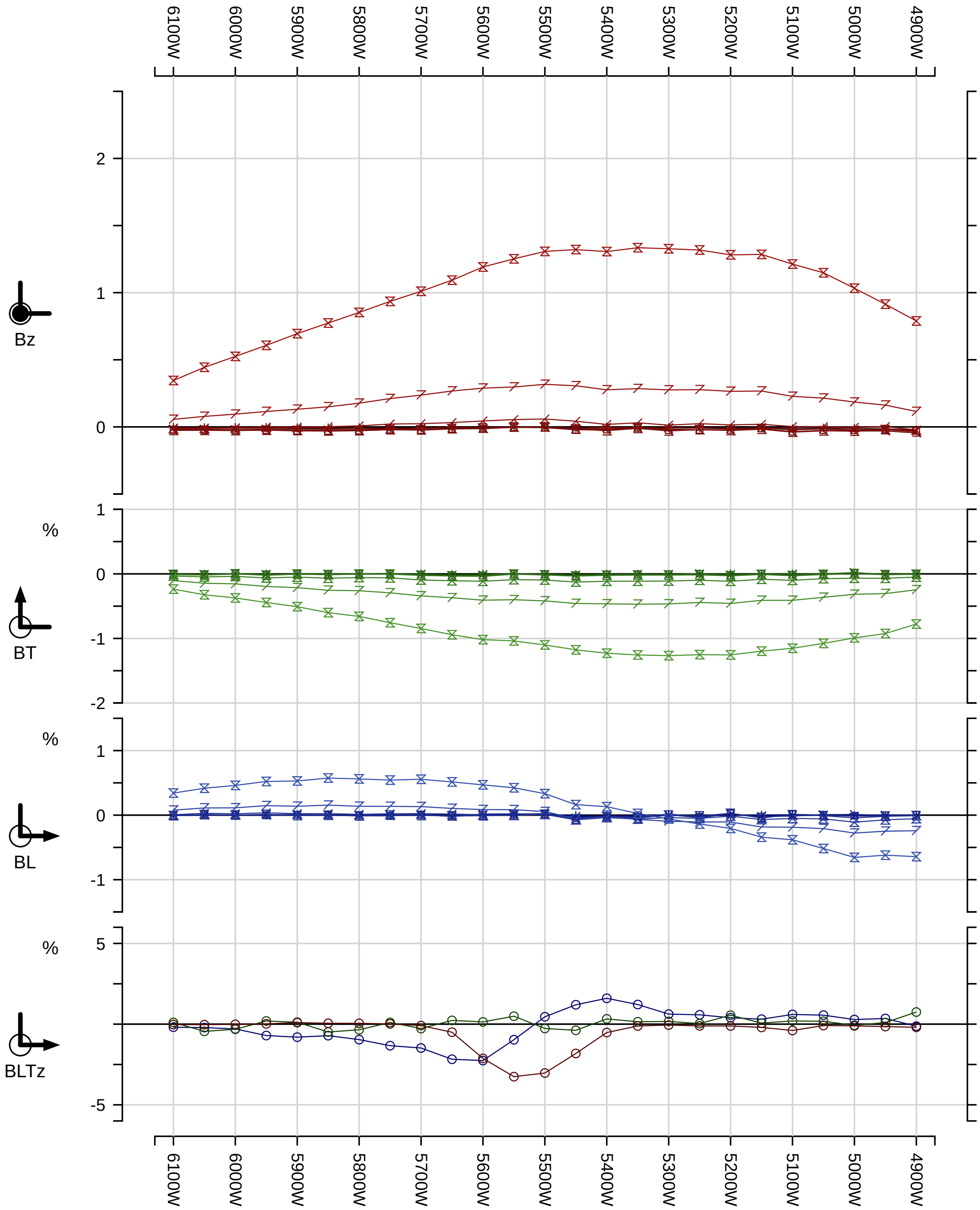


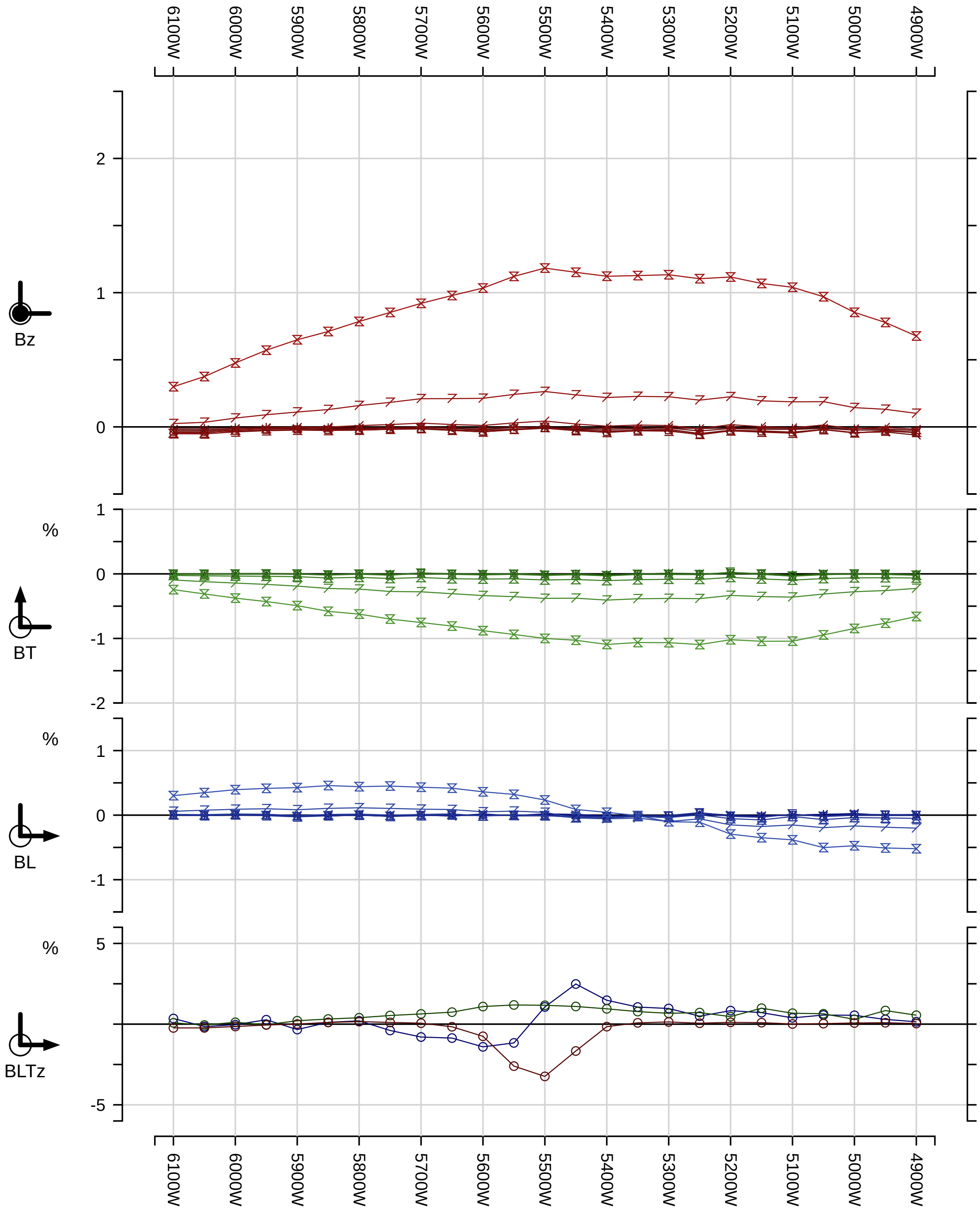
Line: L10401N Loop: 2016-09S2 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-09S2_L10401NB.3cH5 / 3 components S1 Lp9 late8Ch*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 7/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-9 - late Chs8-Ch0 - B_{LTZ}



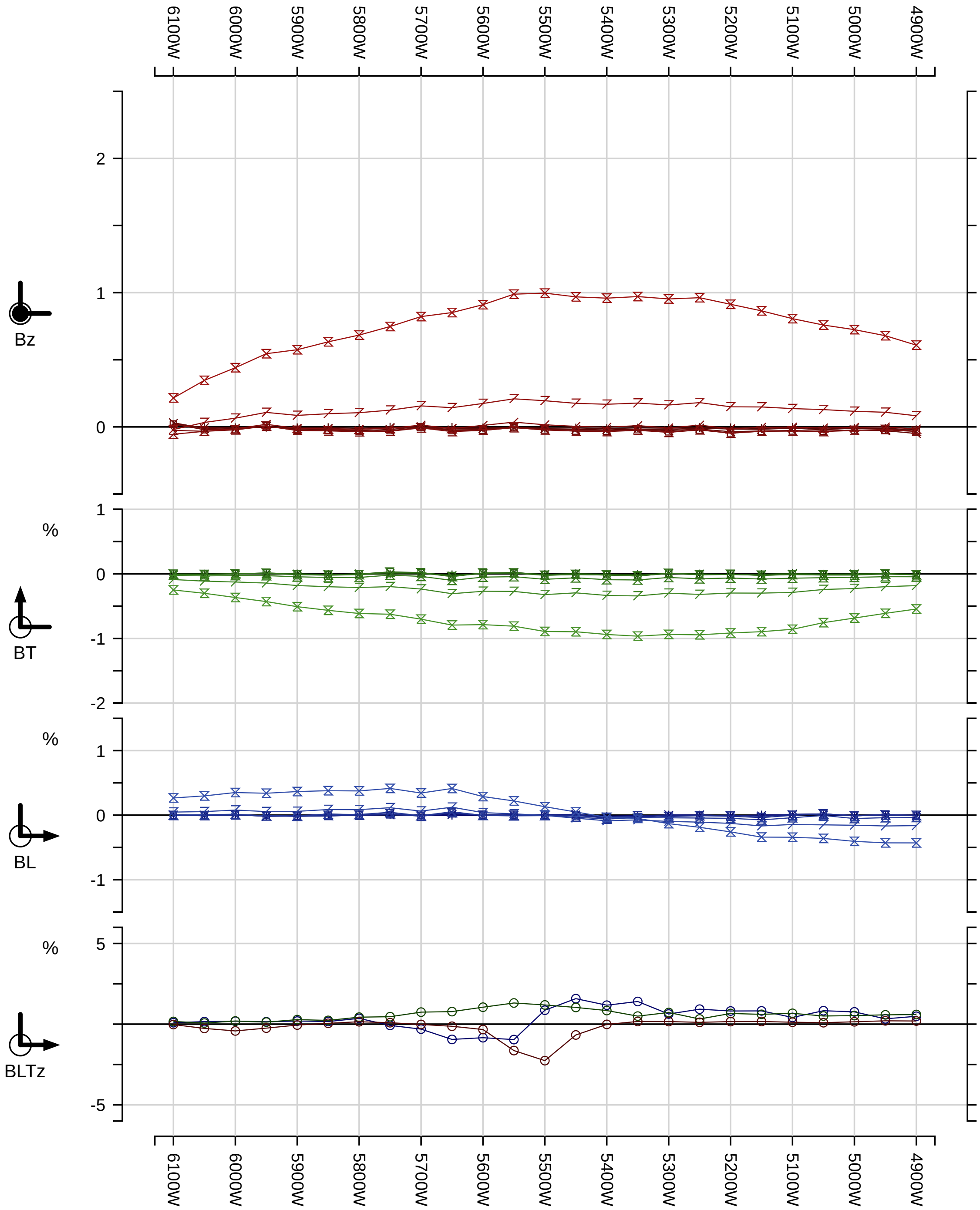
Line: L10501N Loop: 2016-09S2 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-09S2_L10501NB.3cH5 / 3 components S1 Lp9 late8Ch*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 8/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-9 - late Chs8-Ch0 - B_{LTZ}



Line: L10601N Loop: 2016-09S2 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-09S2_L10601NB.3cH5 / 3 components S1 Lp9 late8Ch*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 7/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-9 - late Chs8-Ch0 - B_{LTZ}



Line: L10701N Loop: 2016-09S2 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-09S2_L10701NB.3cH5 / 3 components S1 Lp9 late8Ch*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 8/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-9 - late Chs8-Ch0 - B_{LTZ}

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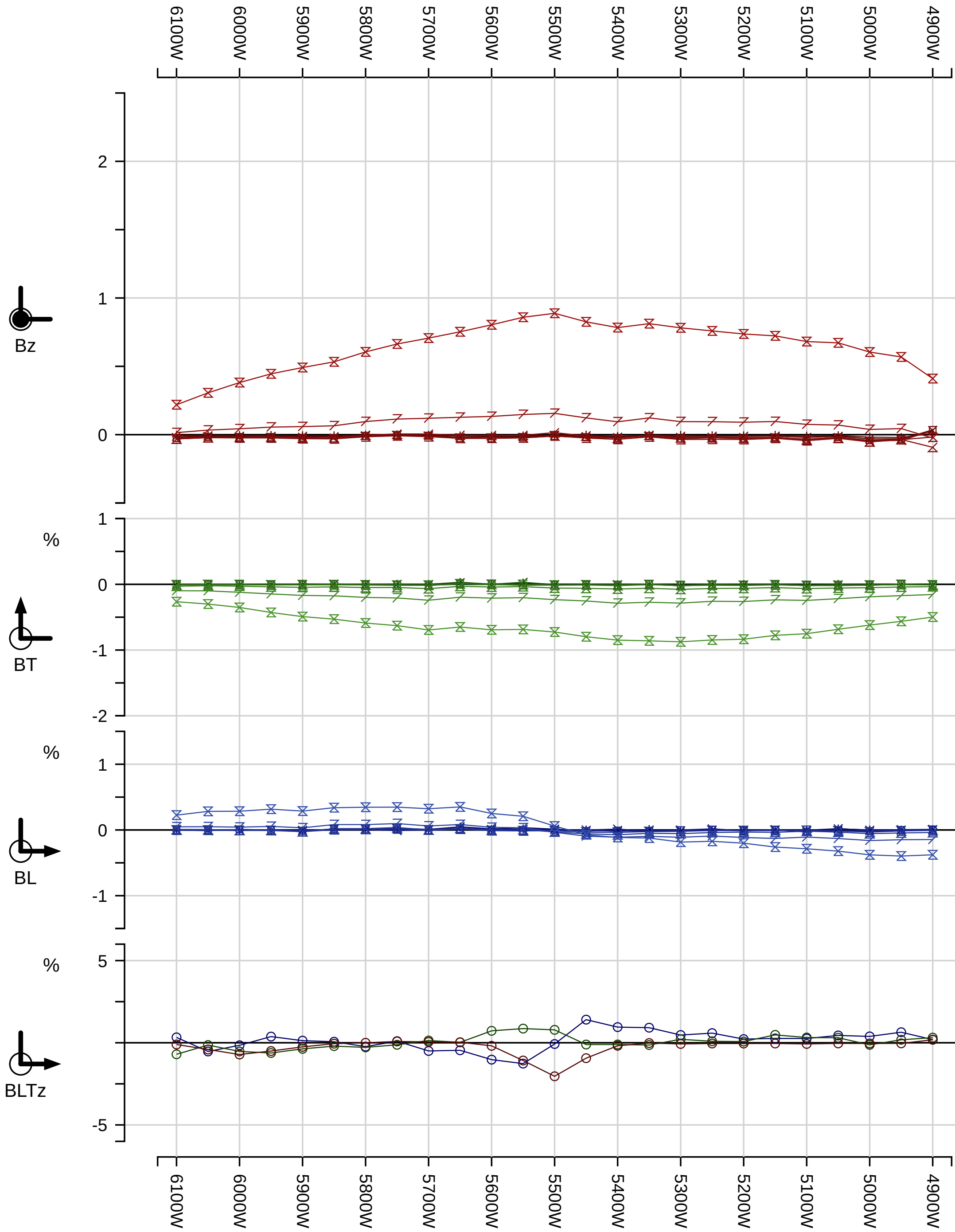
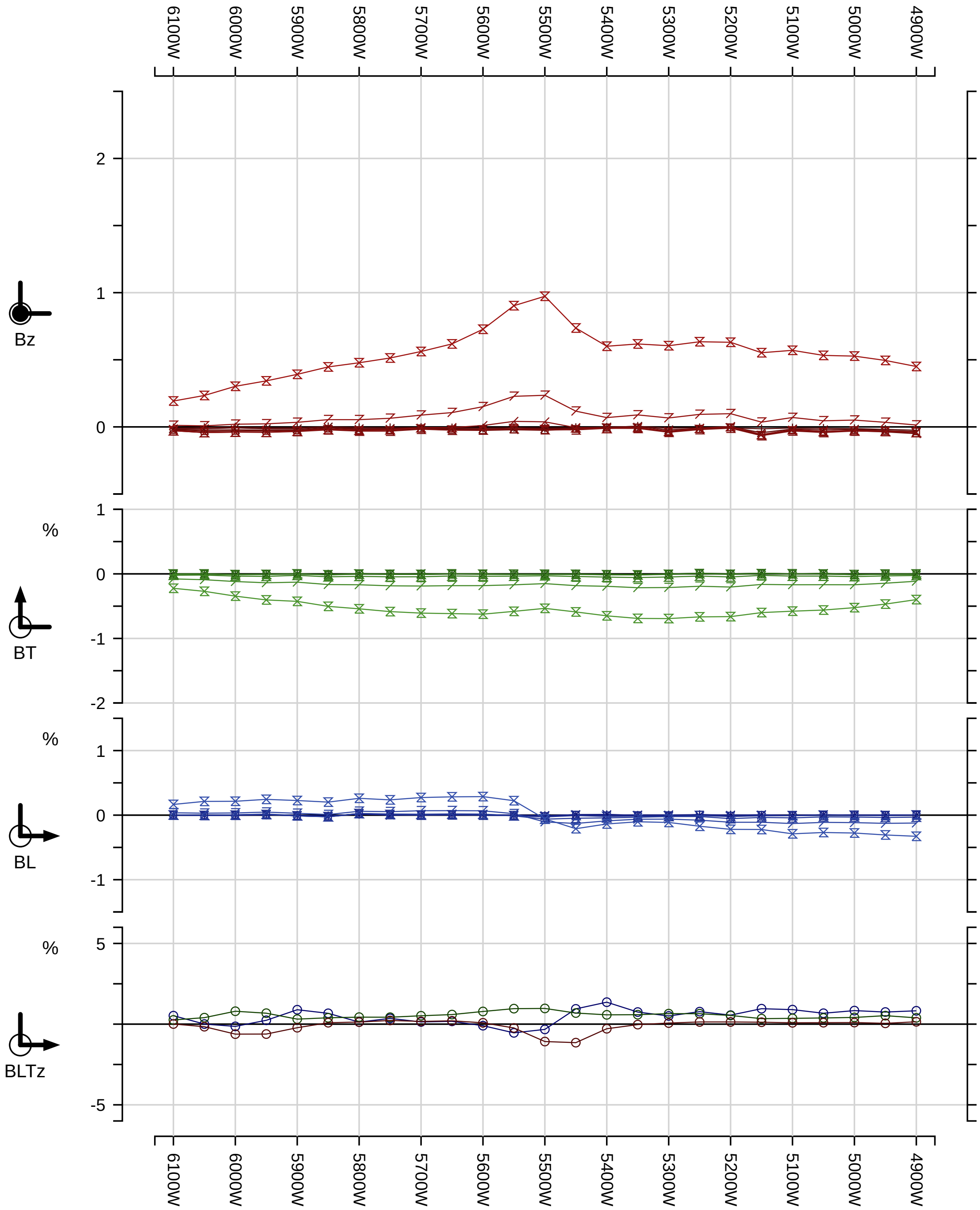


Line: L10801N Loop: 2016-09S2 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-09S2_L10801NB.3cH5 / 3 components S1 Lp9 late8Ch*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 8/3/16 Red: 26/4/16 Plot: 26/4/16

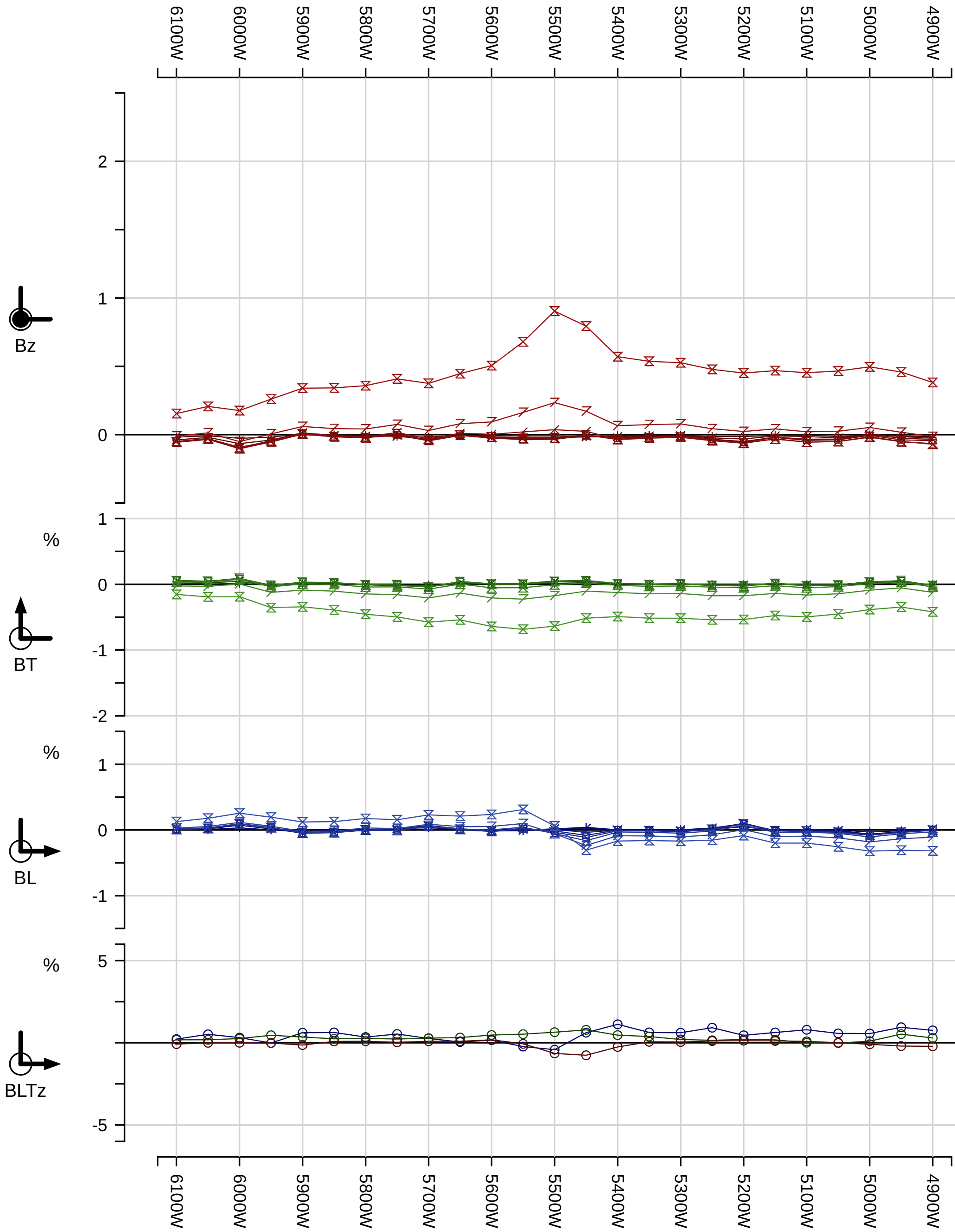
Loop 2016-9 - late Chs8-Ch0 - B_{LTZ}

pg 156



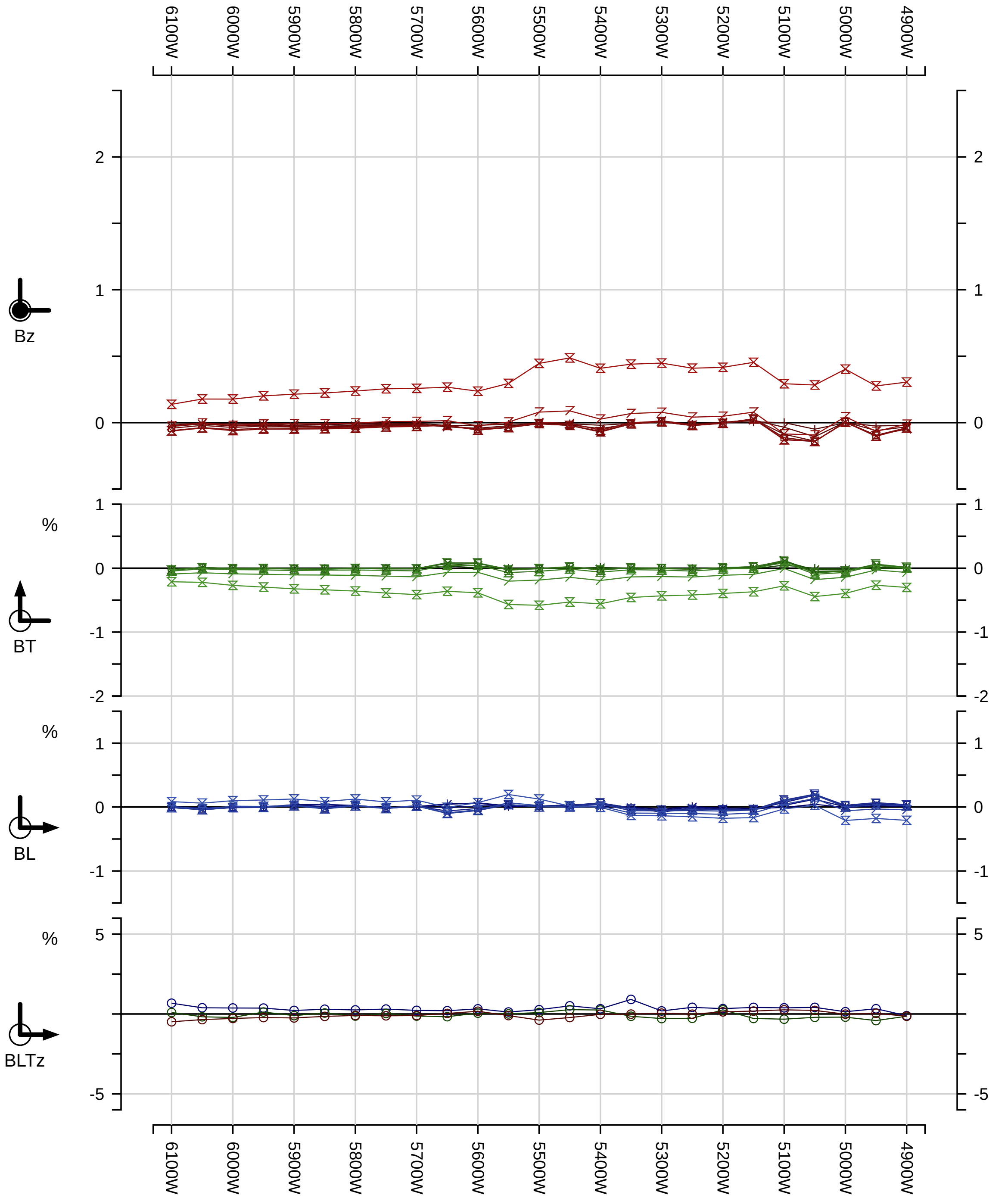
Line: L10901N Loop: 2016-09S2 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-09S2_L10901NB.3cH5 / 3 components S1 Lp9 late8Ch*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 8/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-9 - late Chs8-Ch0 - B_{LTZ}



Line: L11001N Loop: 2016-09S2 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-09S2_L11001NB.3cH5 / 3 components S1 Lp9 late8Ch*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 9/3/16 Red: 26/4/16 Plot: 26/4/16

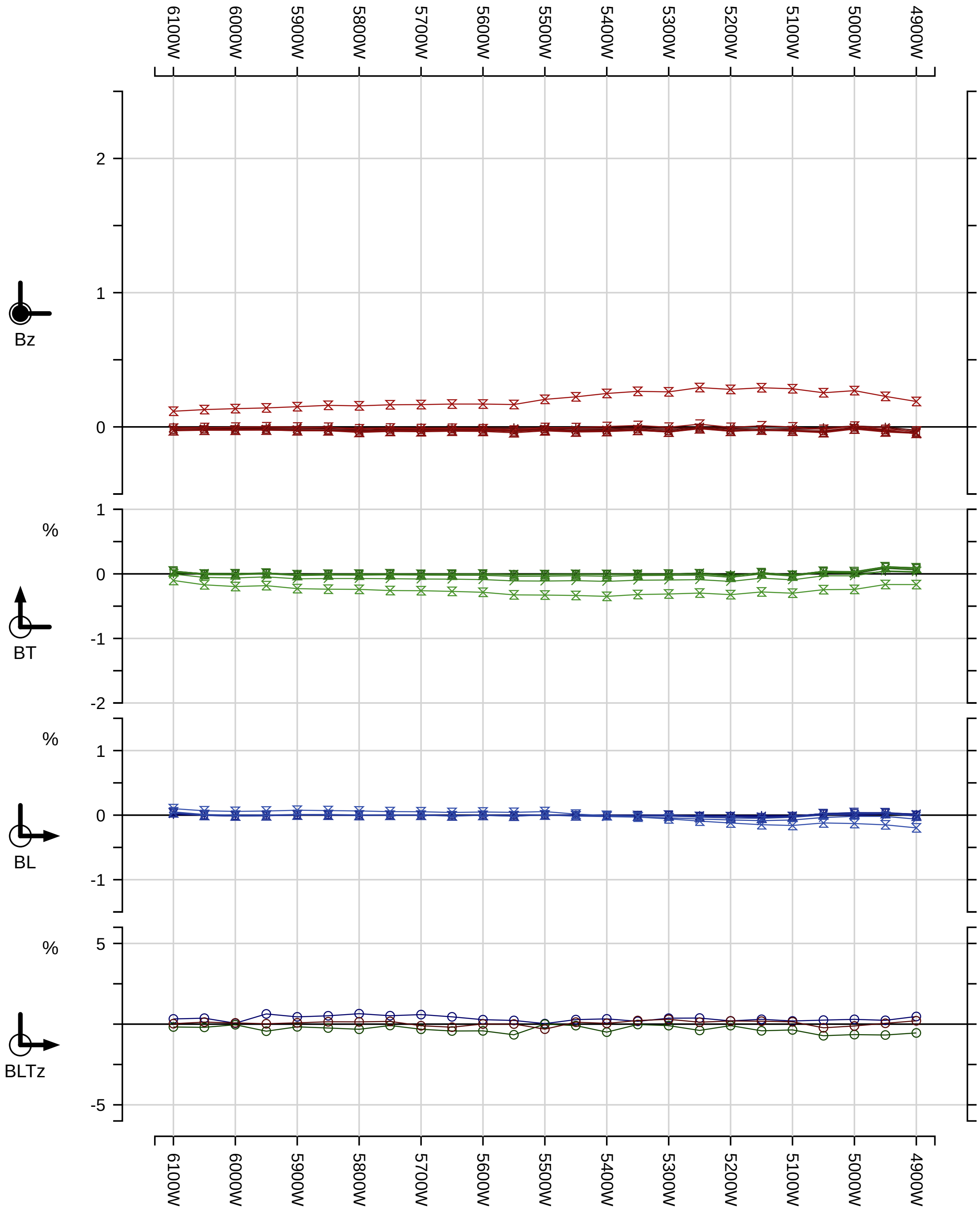
Loop 2016-9 - late Chs8-Ch0 - B_{LTZ}



Line: L11101N Loop: 2016-09S2 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-09S2_L11101NB.3cH5 / 3 components S1 Lp9 late8Ch*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 9/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-9 - late Chs8-Ch0 - B_{LTZ}

pg 159



Line: L11201N Loop: 2016-09S2 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-09S2_L11201NB.3cH5 / 3 components S1 Lp9 late8Ch*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 9/3/16 Red: 26/4/16 Plot: 26/4/16

Loop 2016-9 - late Chs8-Ch0 - B_{LTZ}

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AT12 Grid

Loop 2016-12

BL/BT/Bz

~1.785Hz frequency

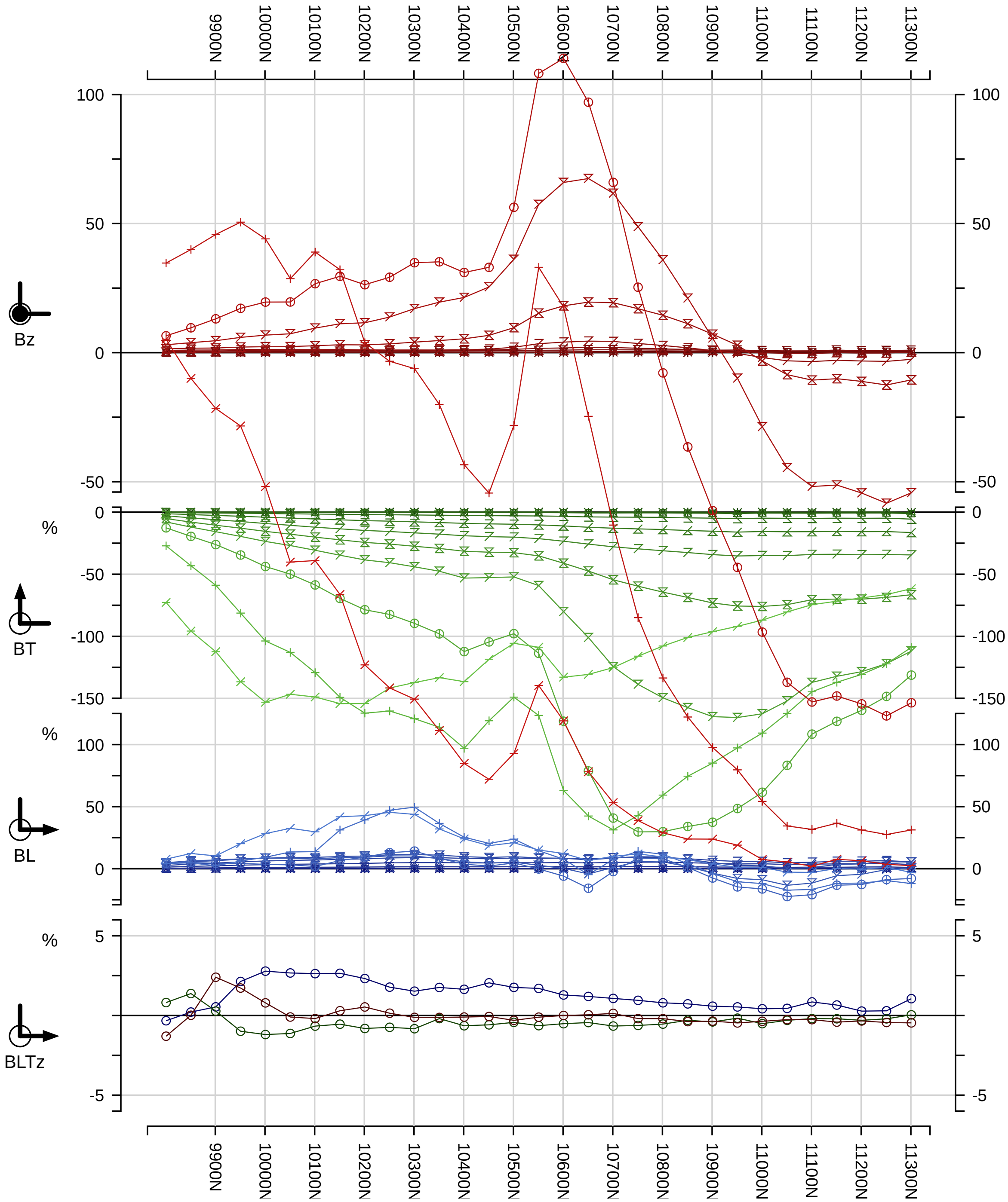
continuous norm

12Ch - Ch0 reduced

all Chs plotted

Loop 2016-12 (@ **1.785714Hz**) off-loop - loop to the gridNorth

Line 5700W	9801N - 11301N	1500m	BL/BT/Bz
Line 5600W	9801N - 11301N	1500m	BL/BT/Bz
Line 5500W	9801N - 11301N	1500m	BL/BT/Bz
Line 5400W	9801N - 11301N	1500m	BL/BT/Bz



Line: L5700W
Loop: 2016-12S1
Cpt: BL, BT, Bz
L 285.0°

(Chn - Ch0) / |Bp| (%)
Cont norm @ Δz: 0m
Base Freq: 1.78571Hz
aLp2016-12S1_L5700WA.3cH5 / 3 components S1 Lp12 all*

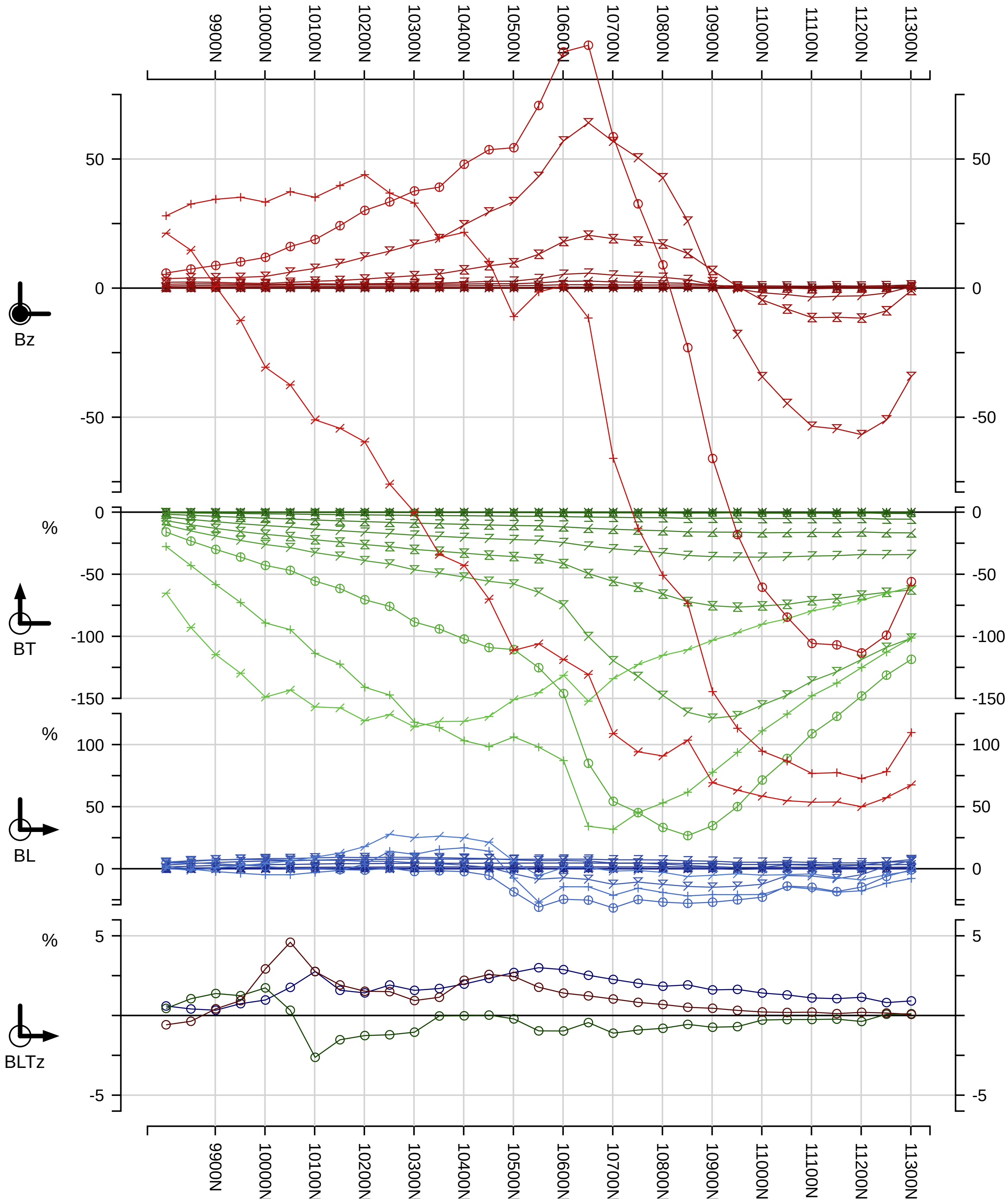
UTEM-5 Survey at: AT12
For: NORONT

LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE

Job 1613

Surv: 13/3/16
Red: 24/4/16
Plot: 26/4/16

Loop 2016-12 - all Chs - B_{LTZ}



Line: L5600W Loop: 2016-12S1 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-12S1_L5600WA.3cH5 / 3 components S1 Lp12 all*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 13/3/16 Red: 24/4/16 Plot: 26/4/16

Loop 2016-12 - late Chs8-Ch0 - B_{LTZ}

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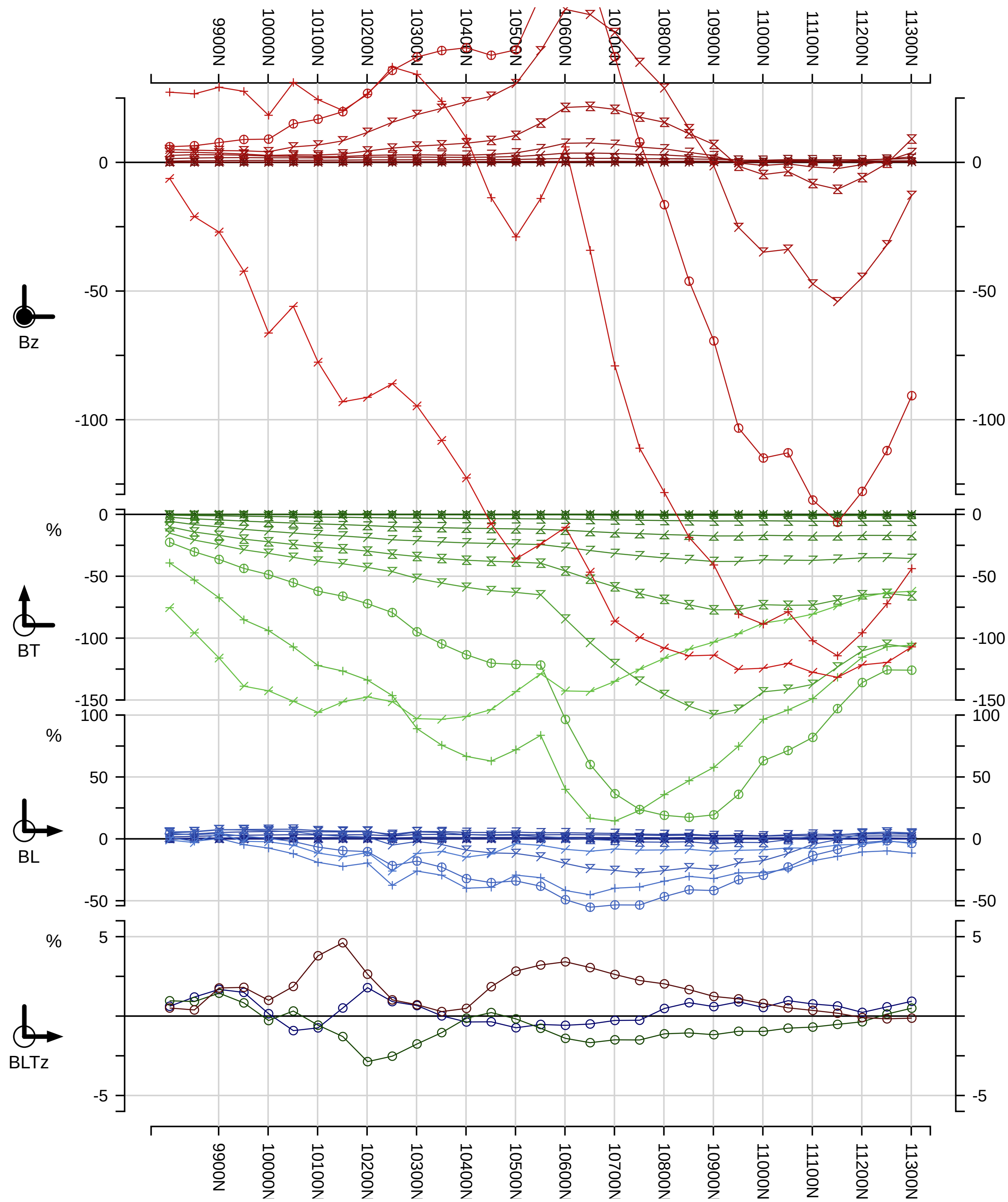

Line: L5500W Loop: 2016-12S1 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-12S1_L5500WA.3cH5 / 3 components S1 Lp12 all*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 12/3/16 Red: 24/4/16 Plot: 26/4/16

Loop 2016-12 - all Chs - B_{LTZ}

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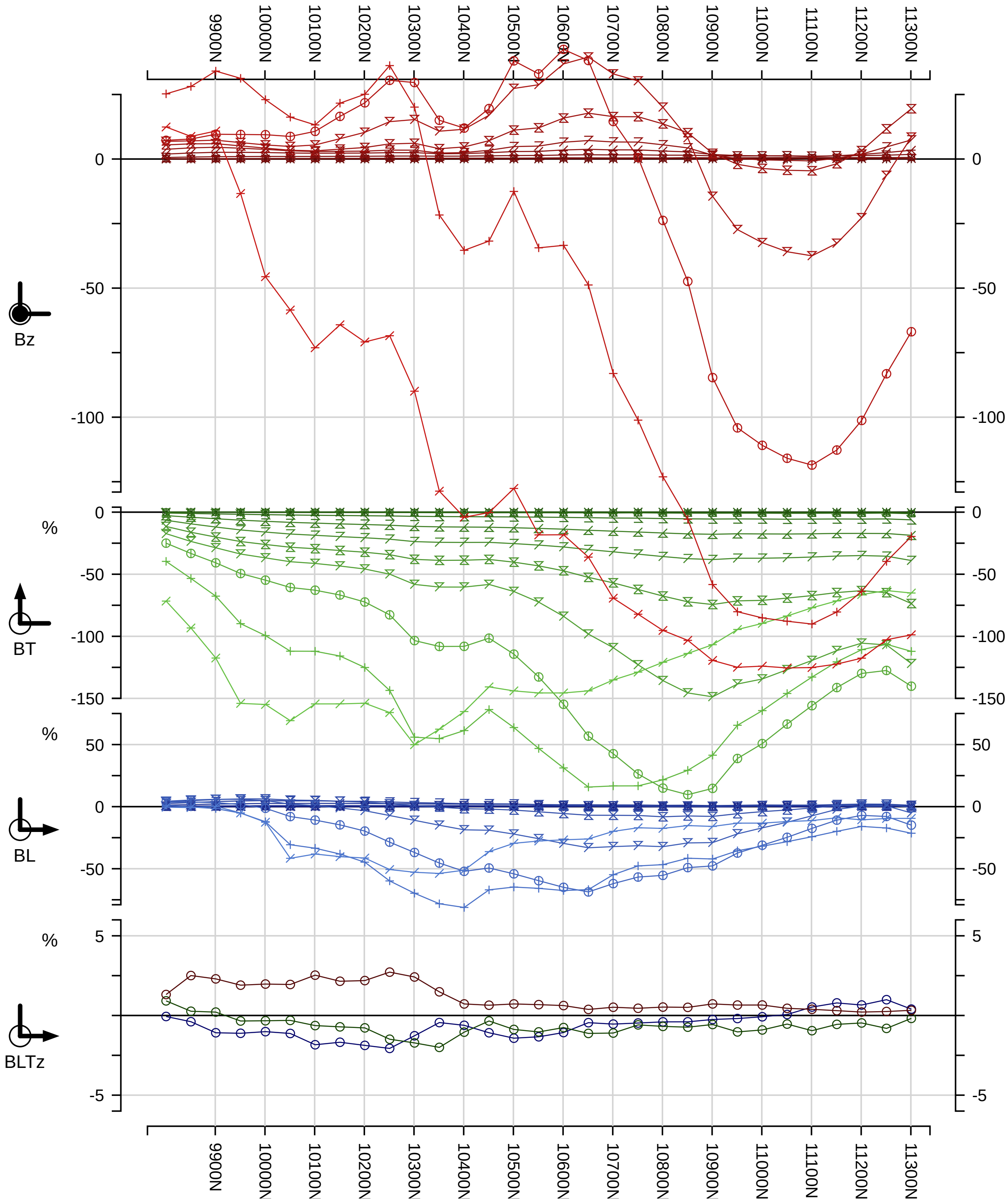


Line: L5400W Loop: 2016-12S1 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-12S1_L5400WA.3cH5 / 3 components S1 Lp12 all*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 12/3/16 Red: 24/4/16 Plot: 25/4/16

Loop 2016-12 - late Chs8-Ch0 - B_{LTZ}

pg 165

AT12 Grid

Loop 2016-12

BL/BT/Bz

~1.785Hz frequency

continuous norm

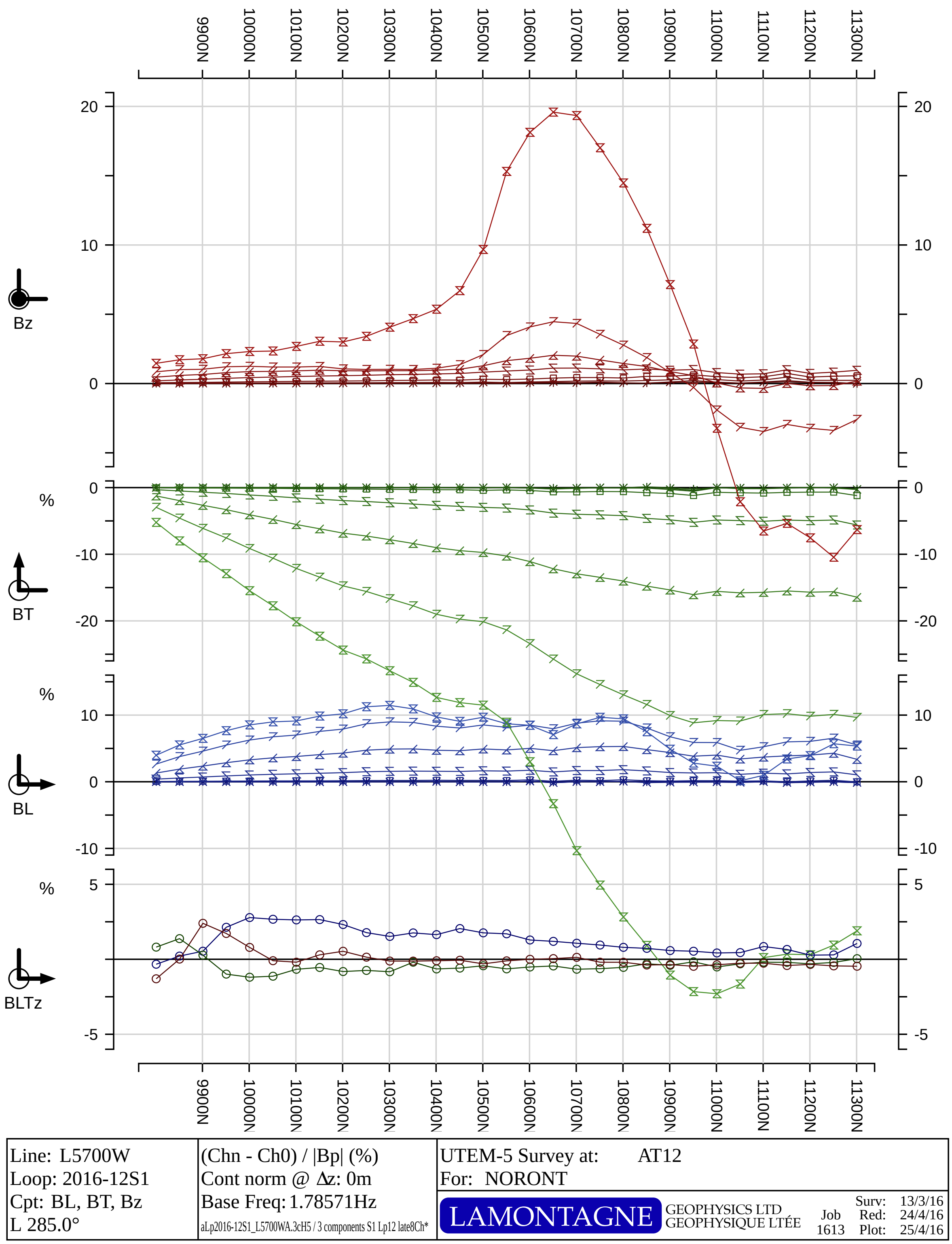
12Ch - Ch0 reduced

late Chs8-Ch0 plotted

Loop 2016-12 (@ **1.785714Hz**) off-loop - loop to the gridNorth

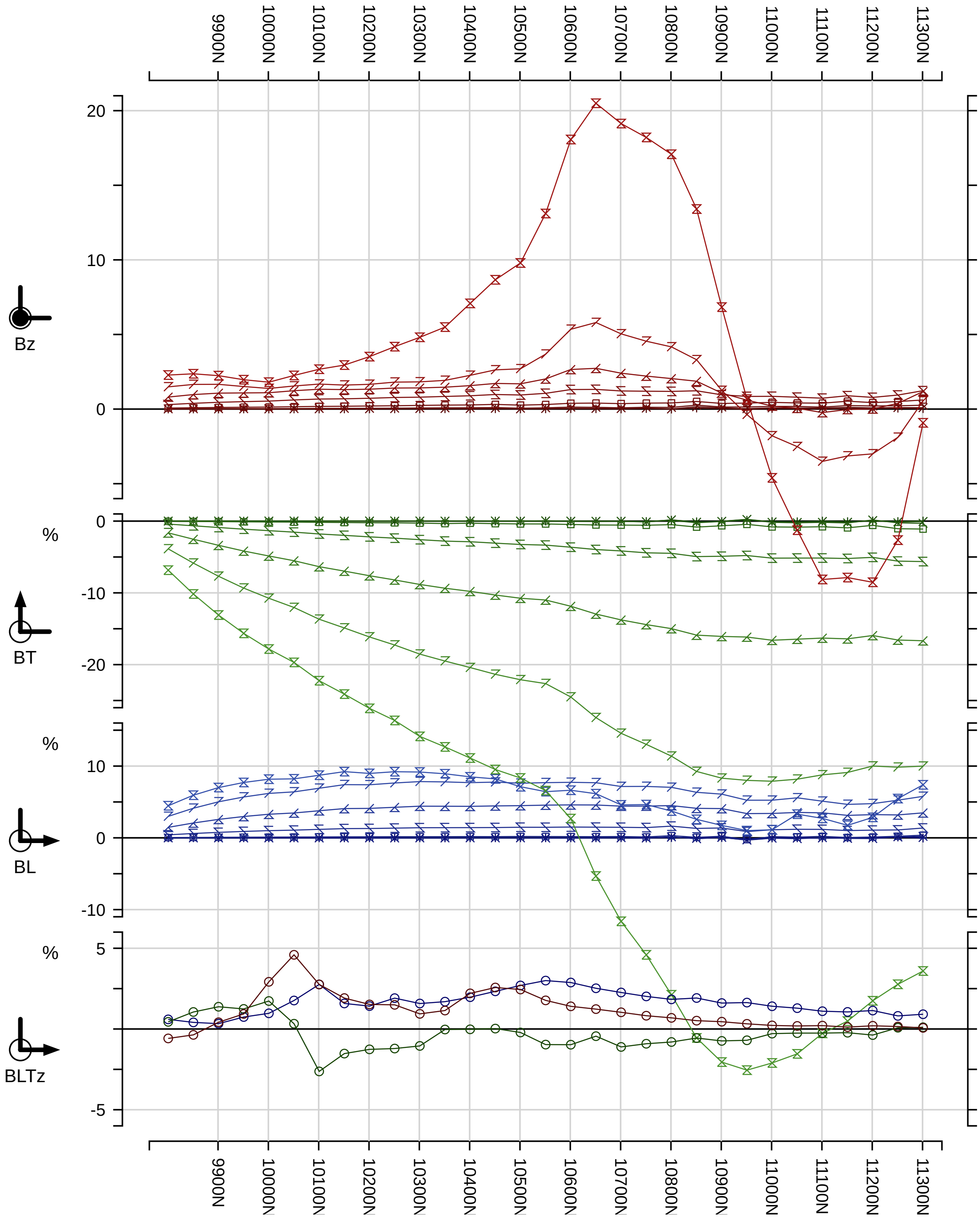
Line 5700W	9801N - 11301N	1500m	BL/BT/Bz
Line 5600W	9801N - 11301N	1500m	BL/BT/Bz
Line 5500W	9801N - 11301N	1500m	BL/BT/Bz
Line 5400W	9801N - 11301N	1500m	BL/BT/Bz

Loop 2016-12 - late Chs8-Ch0 - B_{LTZ} pg 166



Loop 2016-12 - late Chs8-Ch0 - B_{LTZ}

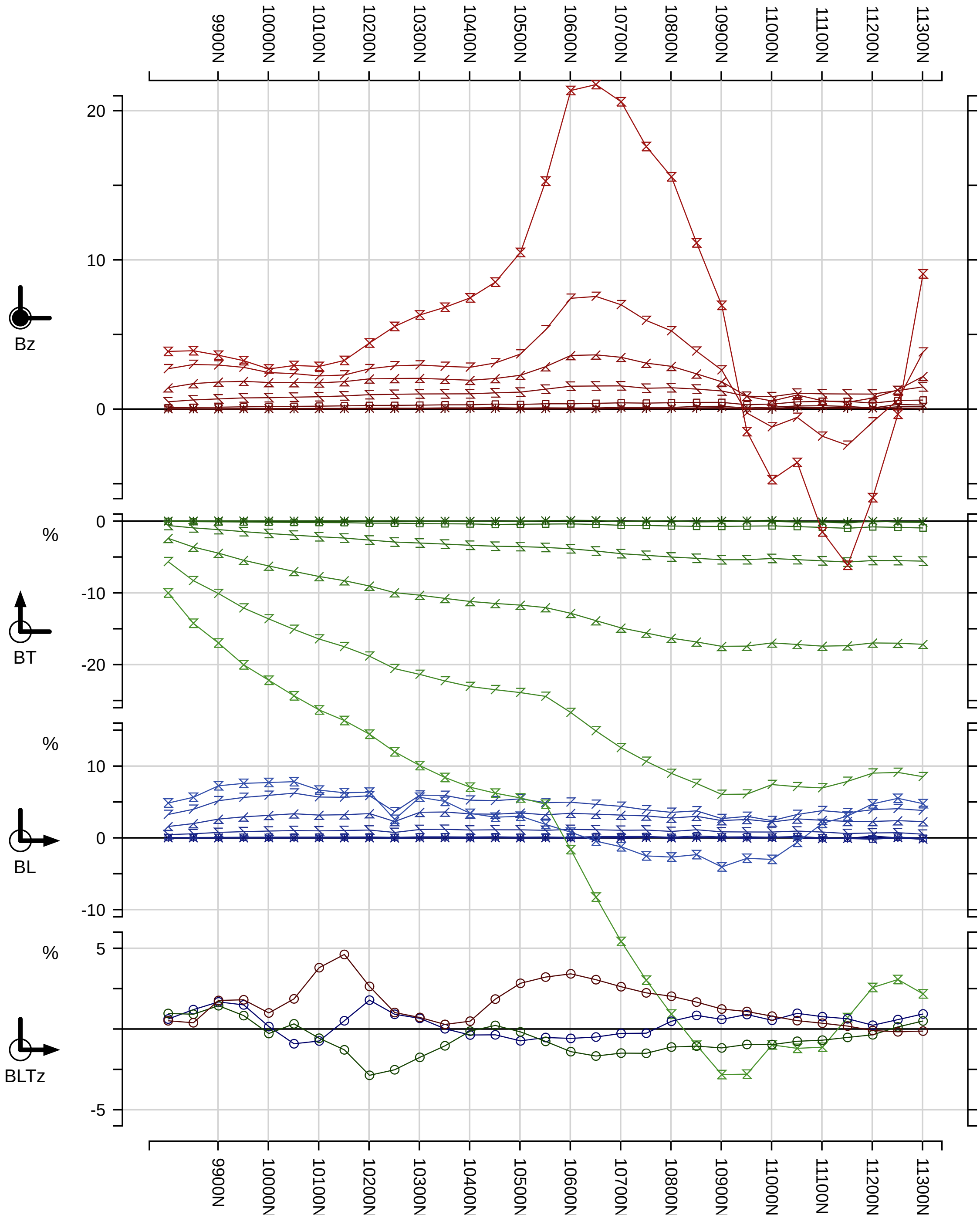
pg 167



Line: L5600W Loop: 2016-12S1 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-12S1_L5600WA.3cH5 / 3 components S1 Lp12 late8Ch*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 13/3/16 Red: 24/4/16 Plot: 25/4/16

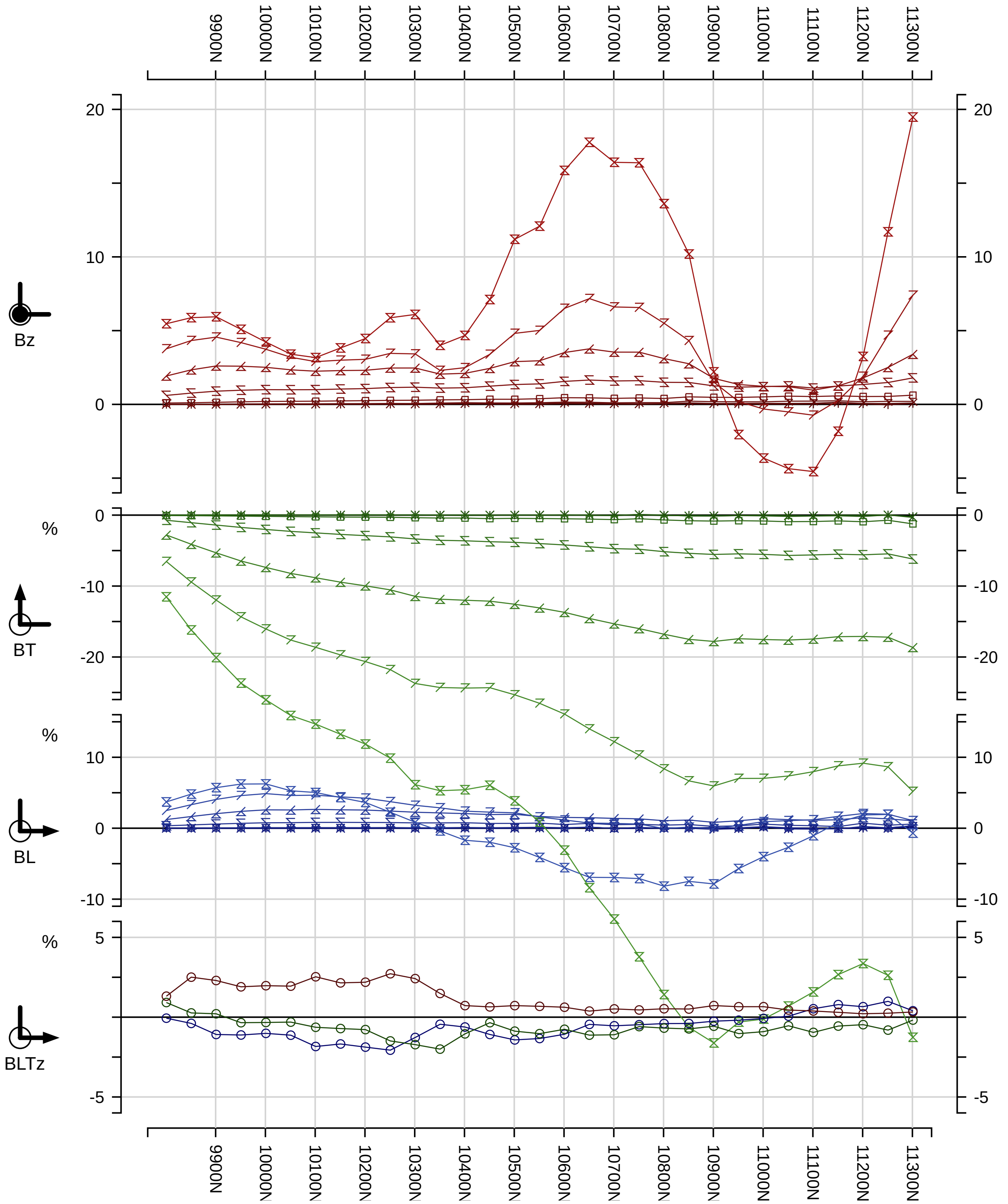
Loop 2016-12 - late Chs8-Ch0 - B_{LTZ}

pg 168



Line: L5500W Loop: 2016-12S1 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-12S1_L5500WA.3cH5 / 3 components S1 Lp12 late8Ch*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 12/3/16 Red: 24/4/16 Plot: 25/4/16

Loop 2016-12 - late Chs8-Ch0 - B_{LTZ}



Line: L5400W Loop: 2016-12S1 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 1.78571Hz aLp2016-12S1_L5400WA.3cH5 / 3 components S1 Lp12 late8Ch*	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 12/3/16 Red: 24/4/16 Plot: 25/4/16

Loop 2016-12 - late Chs8-Ch0 - B_{LTZ}

pg 170

AT12 Grid

Loop 2016-11

BL/BT/Bz

~0.7143Hz frequency

continuous norm

12Ch - Ch0 reduced

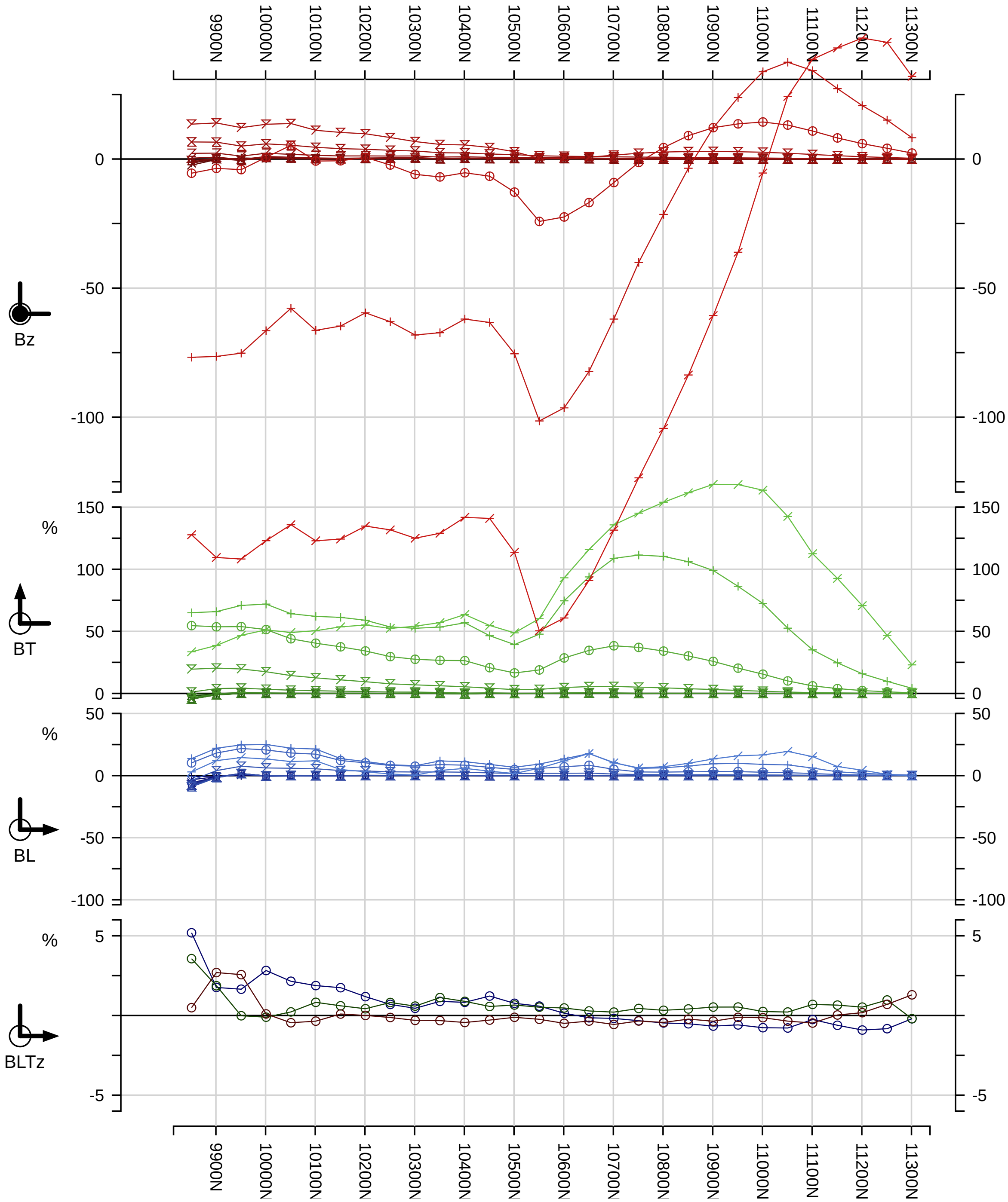
all Chs plotted

Loop 2016-11 (@ **0.7142857Hz**) off-loop - loop to the gridSouth

Line 5700W	9801N - 11301N	1500m	BL/BT/Bz
Line 5600W	9801N - 11301N	1500m	BL/BT/Bz
Line 5500W	9801N - 11301N	1500m	BL/BT/Bz
Line 5400W	9801N - 11301N	1500m	BL/BT/Bz

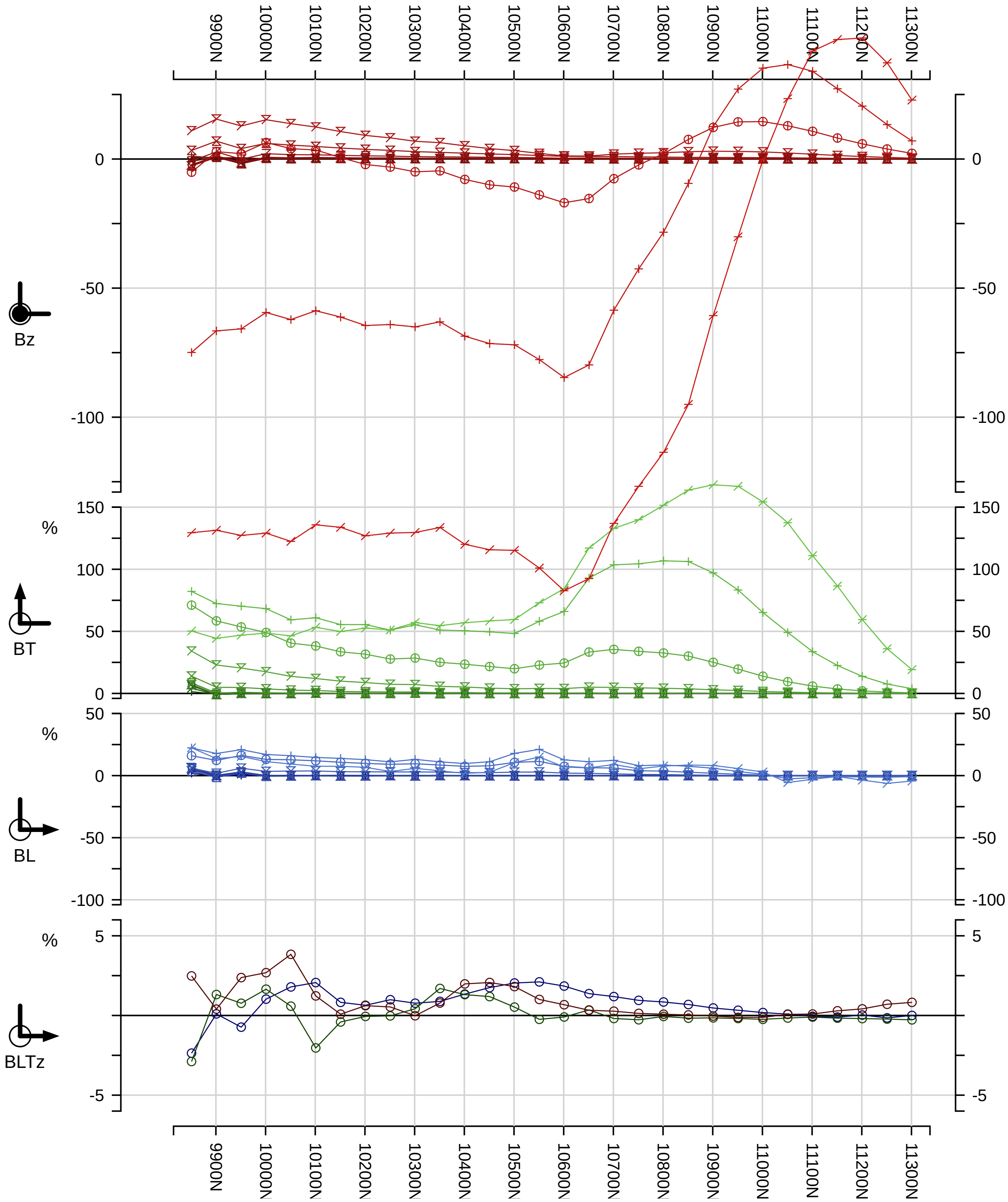
Loop 2016-11 - all Chs - B_{LTZ}

pg 171



Line: L5700W Loop: 2016-11S2 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-11S2_L5700WB.3cH5 / 3 components S1 Lp11 all	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 13/3/16 Red: 24/4/16 Plot: 25/4/16

Loop 2016-11 - all Chs - B_{LTZ}



Line: L5600W Loop: 2016-11S2 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-11S2_L5600WB.3cH5 / 3 components S1 Lp11 all	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 13/3/16 Red: 24/4/16 Plot: 25/4/16

Loop 2016-11 - all Chs - B_{LTZ}

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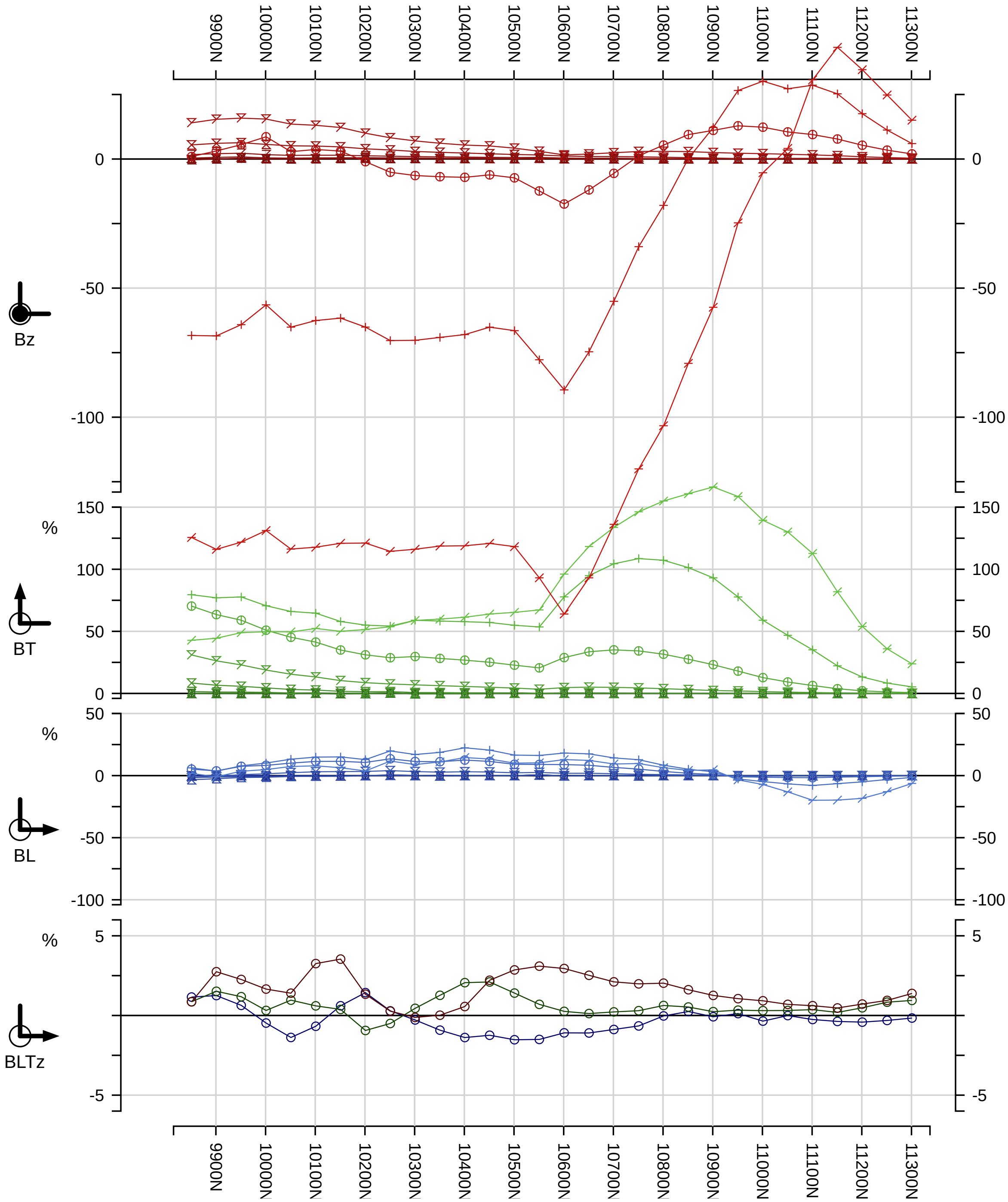
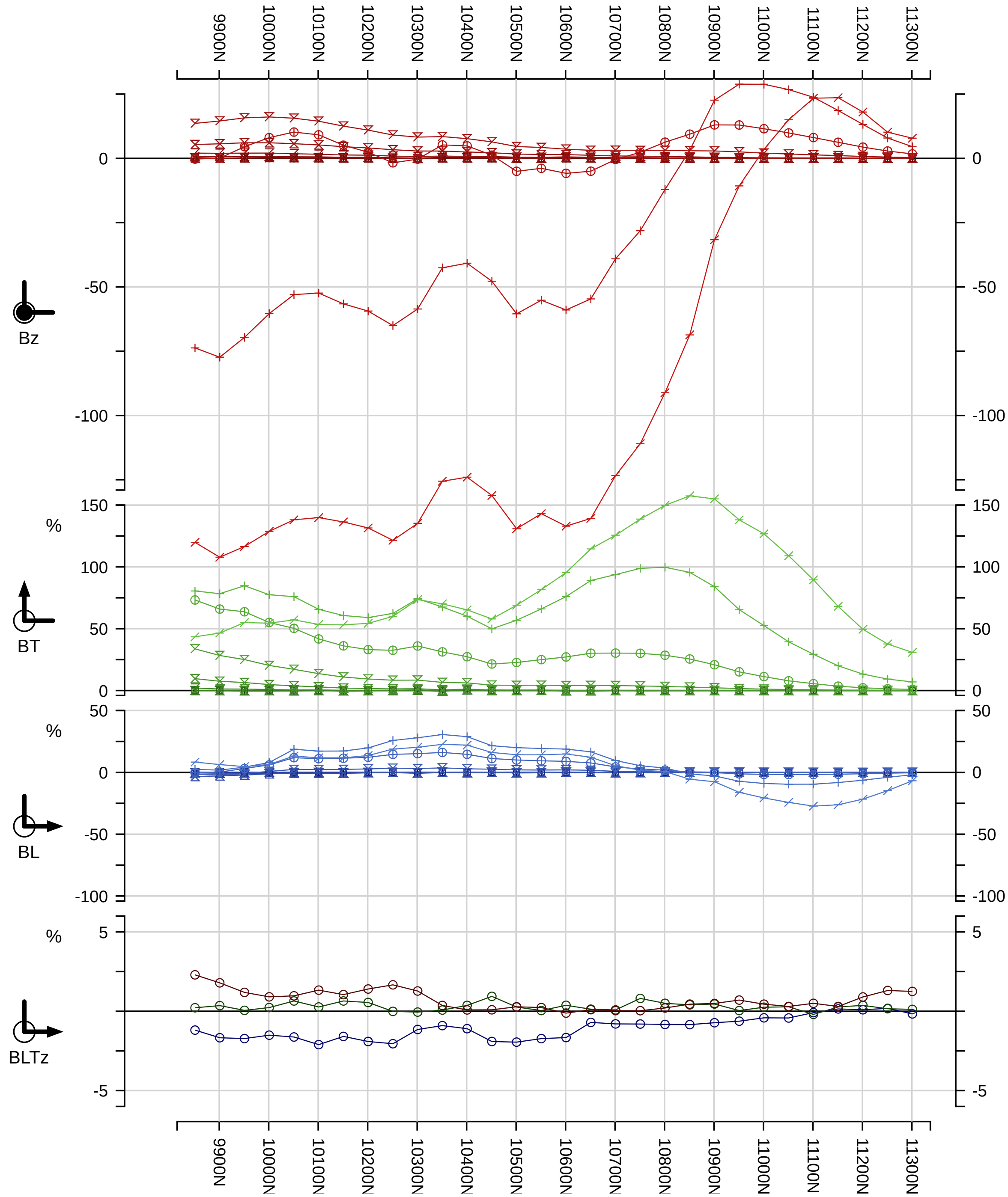


Line: L5500W Loop: 2016-11S2 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-11S2_L5500WB.3cH5 / 3 components S1 Lp11 all	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 12/3/16 Red: 24/4/16 Plot: 25/4/16

Loop 2016-11 - all Chs - B_{LTZ}



Line: L5400W	(Chn - Ch0) / |Bp| (%)	UTEM-5 Survey at: AT12
Loop: 2016-11S2	Cont norm @ Δz: 0m	For: NORONT
Cpt: BL, BT, Bz	Base Freq: 0.71429Hz	LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE — Job 1613 — Surv: 12/3/16 Red: 24/4/16 Plot: 25/4/16
L 285.0°	aLp2016-11S2_L5400WB.3cH5 / 3 components S1 Lp11 all	

Loop 2016-11 - all Chs - B_{LTZ}

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AT12 Grid

Loop 2016-11

BL/BT/Bz

~0.7143Hz frequency

continuous norm

12Ch - Ch0 reduced

late Chs8-Ch0 plotted

Loop 2016-11 (@ **0.7142857Hz**) off-loop - loop to the gridSouth

Line 5700W	9801N - 11301N	1500m	BL/BT/Bz
Line 5600W	9801N - 11301N	1500m	BL/BT/Bz
Line 5500W	9801N - 11301N	1500m	BL/BT/Bz
Line 5400W	9801N - 11301N	1500m	BL/BT/Bz

Loop 2016-11 - late Chs8-Ch0 - B_{LTZ}

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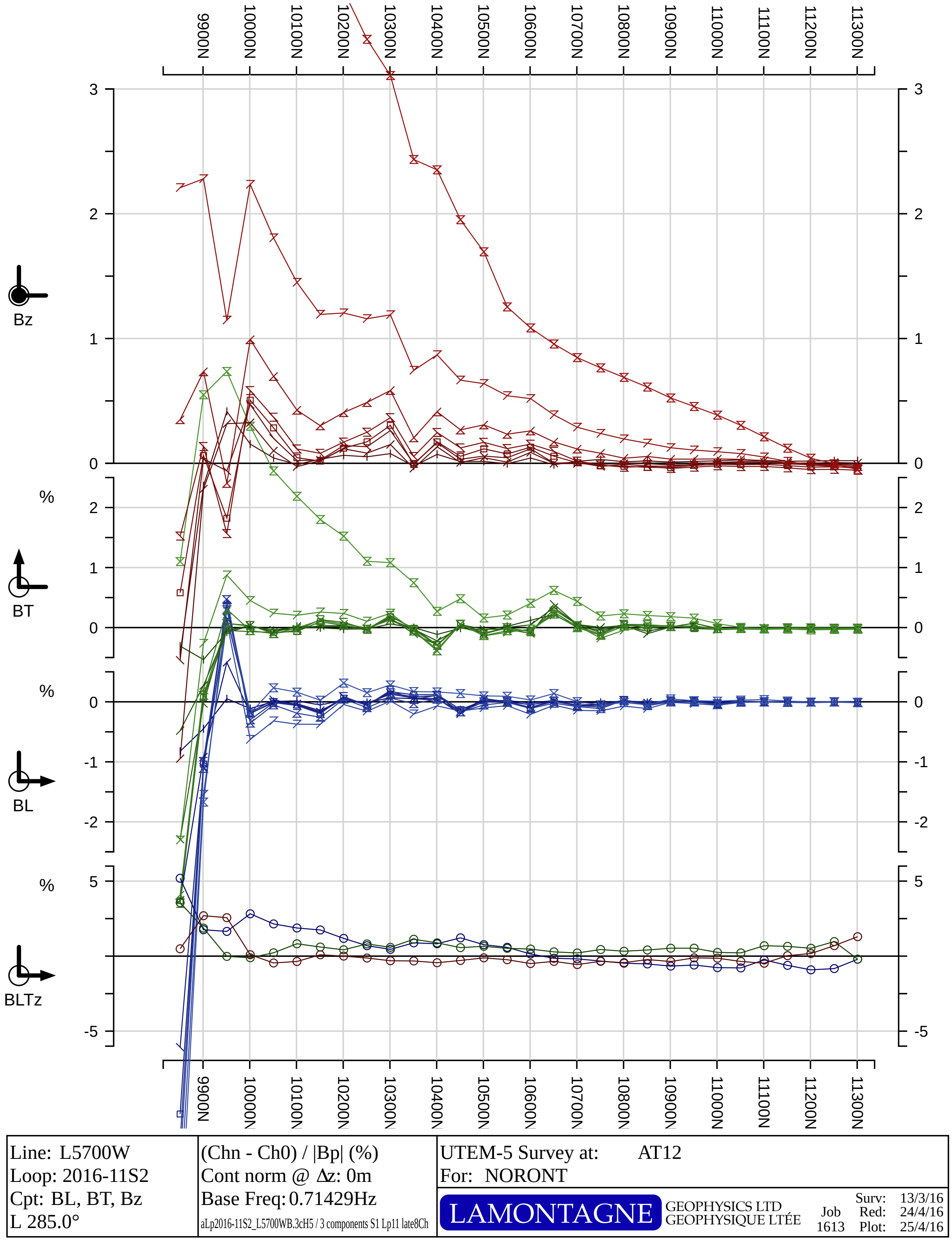
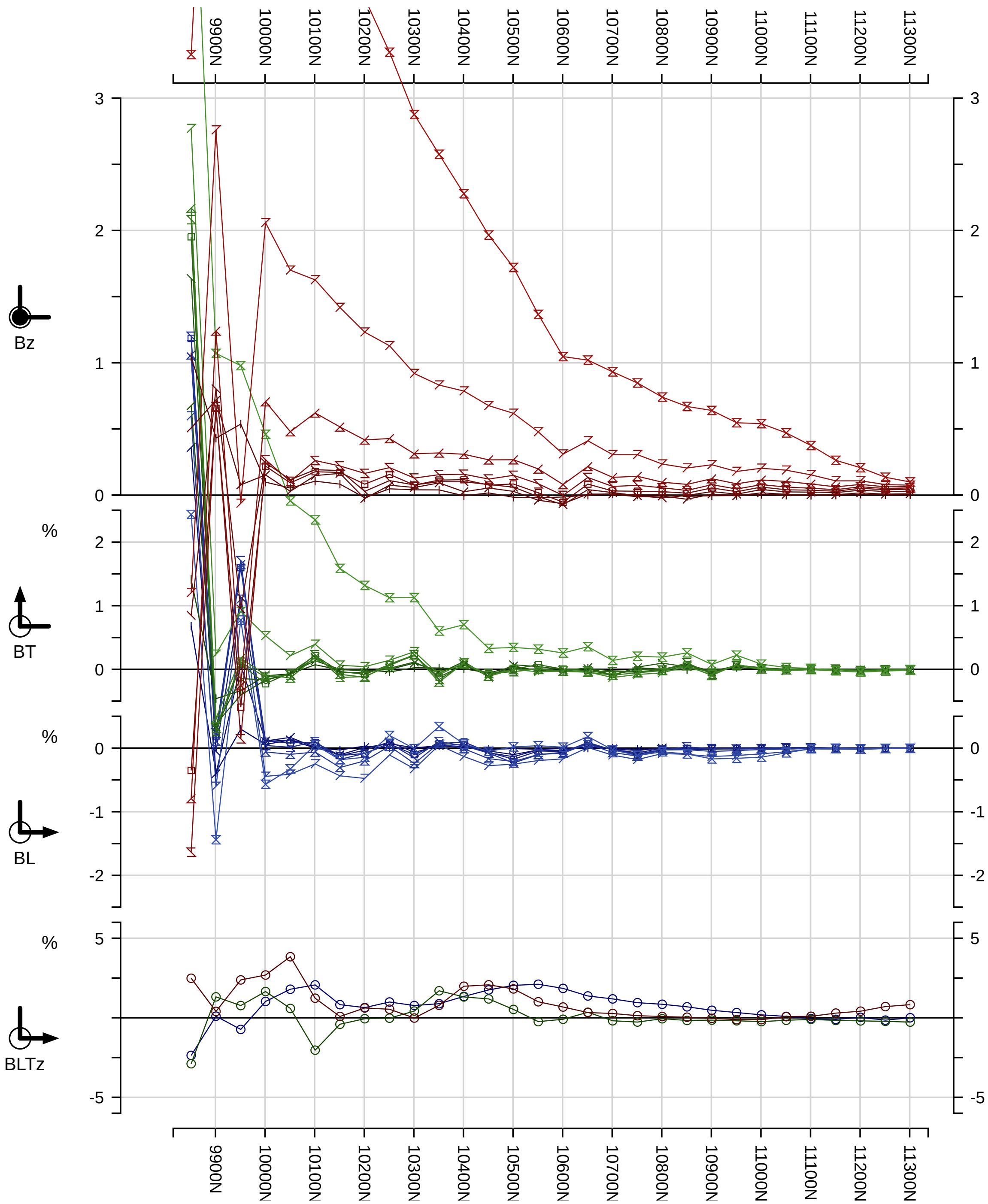


Loop 2016-11 - late Chs8-Ch0 - B_{LTZ}



Line: L5600W Loop: 2016-11S2 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-11S2_L5600WB.3cH5 / 3 components S1 Lp11 late8Ch	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 13/3/16 Red: 24/4/16 Plot: 25/4/16

Loop 2016-11 - late Chs8-Ch0 - B_{LTZ}

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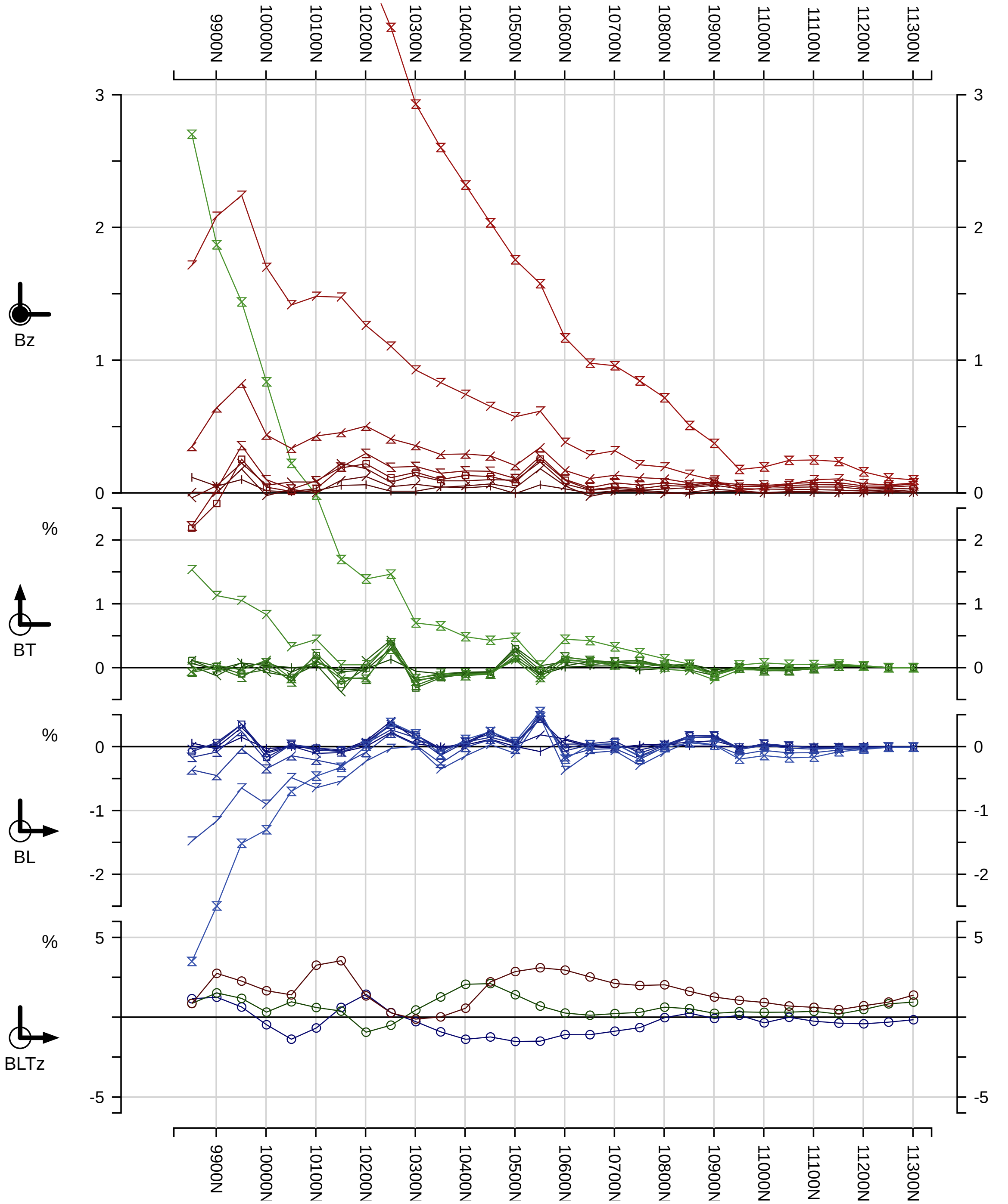
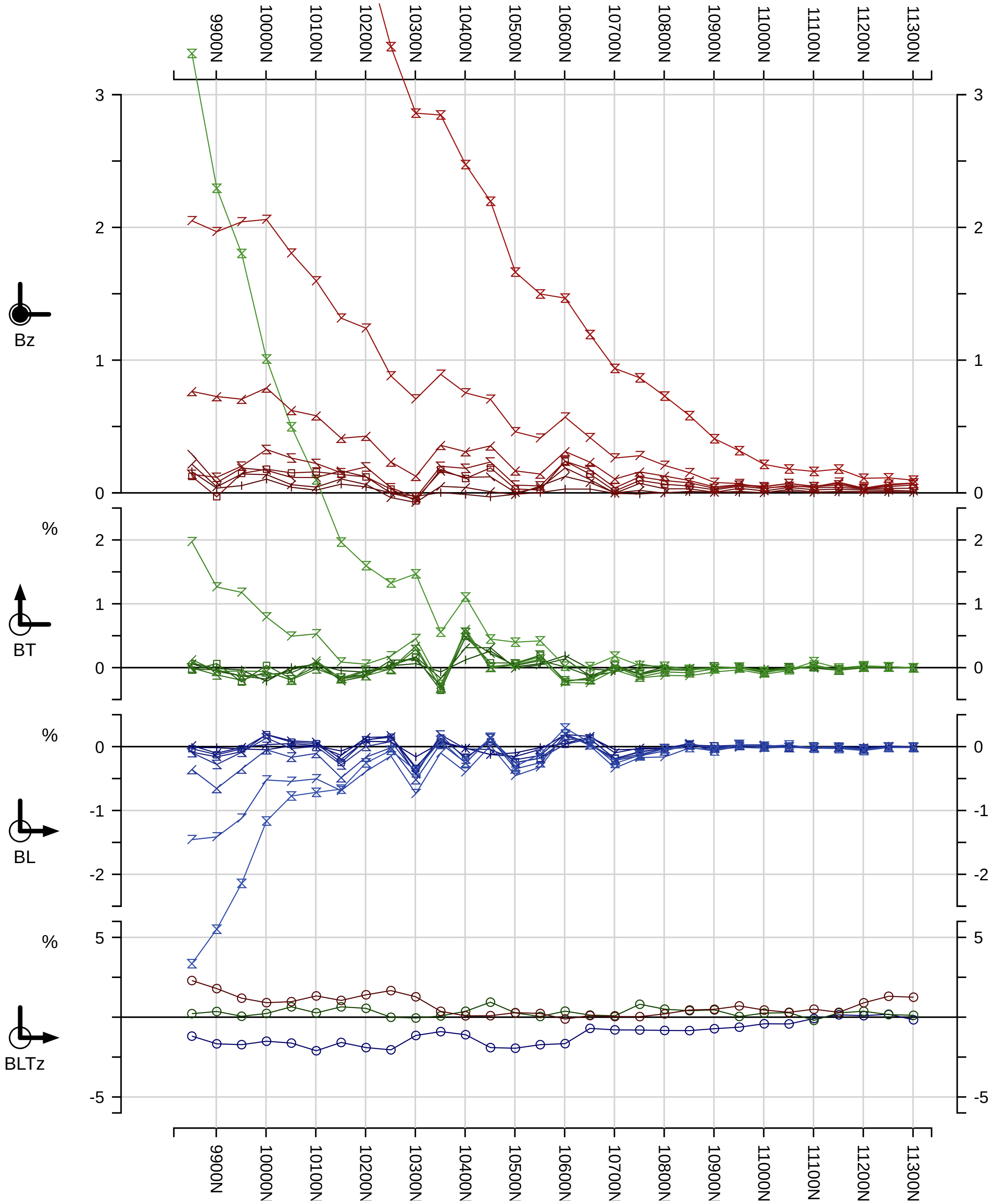


Line: L5500W Loop: 2016-11S2 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-11S2_L5500WB.3cH5 / 3 components S1 Lp11 late8Ch	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 12/3/16 Red: 24/4/16 Plot: 25/4/16

Loop 2016-11 - late Chs8-Ch0 - B_{LTZ}



Line: L5400W Loop: 2016-11S2 Cpt: BL, BT, Bz L 285.0°	(Chn - Ch0) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 0.71429Hz aLp2016-11S2_L5400WB.3cH5 / 3 components S1 Lp11 late8Ch	UTEM-5 Survey at: AT12 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 12/3/16 Red: 24/4/16 Plot: 25/4/16

Loop 2016-11 - late Chs8-Ch0 - B$_{LTZ}$

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Appendix B

1613 Production Diary

UTEM5 Survey

AT5/AT12 Grids
Ring of Fire

for

Noront Resources Ltd.

Production Log 1613 UTEM5 Survey
UTEM5 Survey - AT5/AT12 Grids
Noront Resources Ltd.

Date	Rate - Production	Comments
February 21	Mob	B.Dingwall and R.Lahaye load the trucks in the morning in Kingston and drive to Sudbury. P.Guimond departs Toronto and proceeds to Sudbury. Crew: P.Guimond,B.Dingwall,R.Lahaye
February 22	Mob	Pick up two more crew in Sudbury (G.Lafortune, J.Ploufe) and drive to Geraldton to overnight. Crew: P.Guimond,B.Dingwall,G.Lafortune,R.Lahaye,J.Ploufe
February 23	Mob	Drive to the Nakina airport, unload the gear and depart for Esker Camp at 08h00. A second plane with the remaining equipment arrives in camp at noon. After unpacking, camp orientation, and lunch the crew was able to lay ~3km of wire on Loop 2016-6. B. Dingwall stays in camp to test the transmitters. Crew: P.Guimond,B.Dingwall,G.Lafortune,R.Lahaye,J.Ploufe
February 24	L-5	Finish laying all of the collar loop (Loop 2016-5) and the SE loop (Loop 2016-6) of AT5. B.Dingwall plus a helper (Frank) spend the day burying the loop wire where it crosses snowmobile trail to Koper Lake and move gear to the transmitter site. Crew: P.Guimond,B.Dingwall,G.Lafortune,R.Lahaye,J.Ploufe
Feb. 25	P(2/2)-5 2900m	Set up the transmitter site and start the coils. One survey crew begins on L57+00E/12+50N, surveying southward. The other receiver begins at the southern end of L58+00E. Problems encountered trying to start Tx#6. A replacement Tx is retrieved from camp and surveying is underway by 11h30. Two Noront helpers, Chris and Les, help out with the surveying crew today. Arnold and Frank, the two other helpers, lay wire on Loop 2016-8. The loop is complete by the end of the day.
	AT5	**Loop 2016-6 S1 1.7857 Hz Tx09** **Loop 2016-5 S2 0.7143 Hz Tx10** **Line 57+00E 1+50N - 12+50N R6RD2** **Line 58+00E 0+50N - 12+50N R1RD1** **Line 59+00E 0 - 4+00N R6RD2** **Line 60+00E 10+50N - 12+50N R1RD1** Crew: P.Guimond,B.Dingwall,G.Lafortune,R.Lahaye,J.Ploufe

Date	Rate - Production	Comments

Feb. 26 P(2/2)-5 3350m Set up the transmitter site and start the coils. A slight delay starting one of the transmitters due to issues with the fibre optic connection. Two Noront helpers, Chris and Les, help out with the surveying crew today.

AT5	**Loop 2016-6 S1 1.7857 Hz Tx09**			
	Loop 2016-5 S2 0.7143 Hz Tx10			
	Line 59+00E	**4+00N - 12+50N**	**R6RD2**	
	Line 60+00E	**0 - 10+50N**	**R1RD1**	
	Line 61+00E	**6+00N - 12+50N**	**R6RD2**	
	Line 62+00E	**0 - 8+00N**	**R1RD1**	

Crew: P.Guimond,B.Dingwall,G.Lafortune,R.Lahaye,J.Ploufe

February 27 0.5 L-4 Very windy overnight and in the morning. One tent at the Tx site had blown over overnight. Most of the gear is buried in snow and snow has made it's way into the other tent as well. The tent is repositioned, more anchor ropes are added, and snow is piled up at the base to act as a anchor/ barrier. All the electronics are brought back to camp to dry out. Four crew members spend the rest of the day looping and checking out access trails. Two and one half sides of Loop 2016-7 are laid. Loop 2016-8 is checked for continuity and found to be broken. Two men walk the loop, finding and repairing two loop breaks. At the end of the day all 3 transmitters are tested and found to be in good working order.

Crew: P.Guimond,B.Dingwall,G.Lafortune,R.Lahaye,J.Ploufe

Feb. 28 P(2/2)-5 4125m Transport all the electronic gear back to the Tx site and set up. Start up the coils and start surveying by 09h15. A cold but trouble-free day. Two Noront helpers, Chris and Les, help out with the surveying crew today.

	Loop 2016-6 S1 1.7857 Hz Tx09		
	Loop 2016-5 S2 0.7143 Hz Tx10		
AT5	**Line 61+00E**	**0 - 6+00N**	**R6RD2**
	Line 62+00E	**8+00N - 12+50N**	**R1RD1**
	Line 63+00E	**0 - 12+50N**	**R6RD2**
	Line 64+00E	**0 - 12+50N**	**R1RD1**
	Line 65+00E	**10+50N - 12+50N**	**R6RD2**
	Line 66+00E	**1+75N - 5+50N**	**R1RD1**

Crew: P.Guimond,B.Dingwall,G.Lafortune,R.Lahaye,J.Ploufe

Feb. 29 P(2/2)-5 1700m Set up the transmitter site and start the coils. Finish surveying the remaining two lines to complete the NW-SE grid. Dismantle the transmitter site and transport everything to the two new sites for the NE-SW grid. Pick up enough wire on Loops 2016-5 and 6 to lay on Loop 2016-7 to complete the loop. Noront helpers, Chris and Les, help out today.

AT5 **Loop 2016-6 S1 1.7857 Hz Tx09**
Loop 2016-5 S2 0.7143 Hz Tx10

Line 65+00E	**0+50N - 10+50N**	**R6RD2**
Line 66+00E	**5+50N - 12+50N**	**R1RD1**

Crew: P.Guimond,B.Dingwall,G.Lafortune,R.Lahaye,J.Ploufe

March 01 P(2/2)-5 3150m Set up the two new transmitter sites and start the coils. Start surveying on the NE-SW grid of AT5 on TL500N and TL600N. Les coils for R. Lahaye, G. Lafortune is manning the second transmitter site. Chris and Frank pick up all the remaining wire on Loops 2016-5 and 2016-6.

AT5 **Loop 2016-7 S1 1.7857 Hz Tx09**
Loop 2016-8 S2 0.7143 Hz Tx10

Line 5+00N	**54+00E - 69+50E**	**R6RD2**
Line 6+00N	**54+00E - 70+00E**	**R1RD1**

Crew: P.Guimond,B.Dingwall,G.Lafortune,R.Lahaye,J.Ploufe

March 02 P(2/2)-5 3200m Set up the two transmitter sites and start the coils. Complete two more lines on the NE-SW grid of AT5. Les coils for R. Lahaye, G. Lafortune is manning the second transmitter site.

AT5 **Loop 2016-7 S1 1.7857 Hz Tx09**
Loop 2016-8 S2 0.7143 Hz Tx10

Line 7+00N	**54+00E - 70+00E**	**R1RD1**
Line 8+00N	**54+00E - 70+00E**	**R6RD2**

Crew: P.Guimond,B.Dingwall,G.Lafortune,R.Lahaye,J.Ploufe

March 03 P(2/2)-5 3250m The crew was told in the morning that there would be only 1 day available to complete the remaining 4 lines on the NE-SW grid of AT5. The plan was to try to get as much coverage as possible in the available time. Set up the two transmitter sites and start the coils. A problem with the generator for Tx09 (Loop 2016-7) causes a delay part way through the day. Surveying continues using the S2 transmitter only while the unit is replaced. A loop break on Loop 2016-7 (skidoo catching the wire) causes another delay. Because of time constraints some stations are dropped at the end of the lines, allowing for more complete coverage over the zones of interest. Les and Roland are coilers today.

March 03 (cont) J.Ploufe, Arnold and Chris lay all the available wire on Loops 2016-9 and 2016-10 of AT12. Loop 2016-9 is complete and tested and 1 side of Loop 2016-10 is deployed.

AT5 **Loop 2016-7 S1 1.7857 Hz Tx09**
Loop 2016-8 S2 0.7143 Hz Tx10

Line 9+00N	**60+00E - 68+50E**	**R6RD2**
Line 10+00N	**60+00E - 68+00E**	**R6RD2**
Line 11+00N	**59+00E - 67+00E**	**R2RD1**
Line 12+00N	**59+00E - 67+00E**	**R2RD1**

Crew: P.Guimond,B.Dingwall,G.Lafortune,R.Lahaye,J.Ploufe

March 04 P(2/2)-5 2750m Site specific emergency response orientation (AT12) first thing in the morning.
The crew was told by the Lamontagne office to re-read portions of 5 lines surveyed over the last two days using only 1 loop. Set up the S2 transmitter site and start the coils. Surveying underway by 09h30, finishing at 17h00. No helpers used today.

Loop 2016-8 S2 0.7143 Hz Tx10
AT5

Line 5+00N	**65+00E - 69+50E**	**R6RD2**
Line 6+00N	**65+00E - 70+00E**	**R2RD1**
Line 7+00N	**59+00E - 67+00E**	**R2RD1**
Line 8+00N	**65+00E - 70+00E**	**R6RD2**
Line 9+00N	**65+00E - 70+00E**	**R6RD2**

Crew: P.Guimond,B.Dingwall,G.Lafortune,R.Lahaye,J.Ploufe

March 05 L-5 Pick up all the wire on Loops 2016-7 and 2016-8, as well as some remaining bits on 2016-6 Dismantle the two transmitter sites and transport everything to AT12. Set up one common transmitter site for Loops 2016-9 and 2016-10. Start up and test all three transmitters. Finish laying wire on Loop 2016-10 as well as one side of 2016-11. By the end of the day everything is in place and ready for surveying to begin tomorrow. Arnold, Les, Chris, and Roland assisted in the looping today.

Crew: P.Guimond,B.Dingwall,G.Lafortune,R.Lahaye,J.Ploufe

March 06 P(2/2)-5 2400m Out to the AT12 grid to set up the transmitter site and start the coils. Start surveying on the two southern-most E-W lines. Arnold and Roland work with the survey crew today.

AT12 **Loop 2016-10 S1 1.7857 Hz Tx09**
Loop 2016-09 S2 0.7143 Hz Tx06

Line 99+01N	**49+00W - 61+00W**	**R6RD2**
Line 100+01N	**49+00W - 61+00W**	**R2RD1**

Crew: P.Guimond,B.Dingwall,G.Lafortune,R.Lahaye,J.Ploufe

Date	Rate - Production	Comments

March 07 P(2/2)-5 3600m Out to the AT12 grid to set up the transmitter site and start the coils. Survey a line and a half each. Arnold and Travis work with the survey crew.

AT12 **Loop 2016-10 S1 1.7857 Hz Tx09**
Loop 2016-09 S2 0.7143 Hz Tx06

Line 101+01N	**49+00W - 61+00W**	**R6RD2**
Line 102+01N	**49+00W - 61+00W**	**R2/R6**
Line 103+01N	**49+00W - 61+00W**	**R2RD1**

Crew: P.Guimond,B.Dingwall,G.Lafortune,R.Lahaye,J.Ploufe

March 08 P(2/2)-5 3800m Out to the AT12 grid to set up the transmitter site and start the coils. Switched to coil P3 today. A problem was encountered with Tx06. There was a half hour delay while it was replaced with Tx10. Survey a line each and part of two others. Arnold and Travis work with the survey crew today. Tx06 is repaired in the evening.

AT12 **Loop 2016-10 S1 1.7857 Hz Tx09**
Loop 2016-09 S2 0.7143 Hz Tx10

Line 104+01N	**49+00W - 61+00W**	**R6RD2**
Line 105+01N	**54+00W - 61+00W**	**R6RD2**
Line 106+01N	**49+00W - 61+00W**	**R2P3**
Line 107+01N	**49+00W - 56+00W**	**R2P3**

Crew: P.Guimond,B.Dingwall,G.Lafortune,R.Lahaye,J.Ploufe

March 09 P(2/2)-5 3400m Out to the AT12 grid to set up the transmitter site and start the coils. Use Tx06 for the S2 loop today but noisy data was encountered at the first station. Switch back to Tx10 but the noisy data persists. A bit of a delay while the 2 loop crossings are checked to see if the wires are in contact. Readings return to normal after 45 minutes and surveying continues without further interruptions. Arnold and Joey lay all the remaining wire. Loop 2016-11 is complete and Loop 2016-12 is missing 800m of wire on the west side. Kevin, Roland and Travis work with the survey crew today.

Loop 2016-10 S1 1.7857 Hz Tx09
Loop 2016-09 S2 0.7143 Hz Tx10

AT12

Line 105+01N	**49+00W - 54+00W**	**R6RD2**
Line 107+01N	**56+00W - 61+00W**	**R2P3**
Line 108+01N	**49+00W - 61+00W**	**R6RD2**
Line 109+01N	**49+00W - 61+00W**	**R2P3**

Crew: P.Guimond,B.Dingwall,G.Lafortune,R.Lahaye,J.Ploufe

March 10 P(2/2)-5 3600m Out to the AT12 grid to set up the transmitter site and start the coils. Survey a line each and share a third. The 14 E-W lines are now complete. Kevin and Travis work with the survey crew today.

March 10 (cont)

AT12

Loop 2016-10 S1 1.7857 Hz Tx09
Loop 2016-09 S2 0.7143 Hz Tx10

Line 110+01N	**49+00W - 61+00W**	**R2P3**
Line 111+01N	**49+00W - 61+00W**	**R6RD2**
Line 112+01N	**49+00W - 61+00W**	**R2/R6**

Crew: P.Guimond,B.Dingwall,G.Lafortune,R.Lahaye,J.Ploufe

March 11 0.5 L-5 1200m
0.5 P(2/1)-5

One additional line is added to the AT12 grid, to be surveyed from only one loop (2016-10). Out to the grid to set up the S1 transmitter and start the coils. Survey L11401N, using two receivers. Finish surveying by noon and spend the rest of the day moving and setting up the transmitter site on Loop 2016-11. All of the wire on Loop 2016-10 is picked up plus the west side of Loop 2016-9. At day's end the two N-S off-loops are ready for surveying tomorrow. Kevin and Travis work with the crew.

AT12

Loop 2016-10 S1 1.7857 Hz Tx09

Line 114+01N	**49+00W - 61+00W**	**R2/R6**

Crew: P.Guimond,B.Dingwall,G.Lafortune,R.Lahaye,J.Ploufe

March 12 P(2/2)-5 2550m

Out to the AT12 grid to set up the two transmitter sites and start the coils. Begin surveying the N-S grid from Loops 2016-11 and 2016-12. The S2 data was found to be noisier than usual, requiring extra stacking and slowing production. Kevin, Travis, and Roland work with the survey crew today. Arnold helps out in the morning by helping Joey pick up the remaining wire on Loop 2016-9.

AT12

Loop 2016-12 S1 1.7857 Hz Tx10
Loop 2016-11 S2 0.7143 Hz Tx09

Line 54+00W	**100+51N - 113+01N**	**R2P3**
Line 55+00W	**100+01N - 113+01N**	**R6RD2**

Crew: P.Guimond,B.Dingwall,G.Lafortune,R.Lahaye,J.Ploufe

March 13 P(2/2)-5 2050m

Out to the AT12 grid to set up the two transmitter sites and start the coils. Continue surveying the N-S grid from Loops 2016-11 and 2016-12. The S2 data was found to be noisier than usual, requiring extra stacking and slowing production. Kevin, Travis, and Roland work with the survey crew.

AT12

Loop 2016-12 S1 1.7857 Hz Tx10
Loop 2016-11 S2 0.7143 Hz Tx09

Line 54+00W	**98+01N - 100+51N**	**R2P3**
Line 55+00W	**98+01N - 100+01N**	**R6RD2**
Line 56+00W	**98+01N - 106+51N**	**R2P3**
Line 57+00W	**98+01N - 105+51N**	**R6RD2**

Crew: P.Guimond,B.Dingwall,G.Lafortune,R.Lahaye,J.Ploufe

Date	Rate - Production	Comments
March 14	0.5 L-5 1400m 0.5 P(2/2)-5	Out to the AT12 grid to set up the two transmitters and start the coils. Finish surveying the remaining two lines of the N-S grid from Loops 2016-11 and 2016-12. Upon completion of the survey all wire from both loops is picked up and all the equipment at the two transmitter sites is packed and returned to camp. In the evening, prepare the electronic gear for demob tomorrow. Kevin, Travis, and Roland work with the survey crew today.
	AT12	**Loop 2016-12 S1 1.7857 Hz Tx10** **Loop 2016-11 S2 0.7143 Hz Tx09** **Line 56+00W 106+51N - 113+01N R2P3** **Line 57+00W 105+51N - 113+01N R1P1**
	Crew: P.Guimond,B.Dingwall,G.Lafortune,R.Lahaye,J.Ploufe	
March 15	Demob -	The first flight departs Koper Lake strip at 09h00 with two crew members plus gear. A second plane with the remaining crew and equipment departs at 12h30. The gear is sorted and loaded into the two trucks at the Nakina airport, then the crew drives to Geraldton to overnight.
	Crew: P.Guimond,B.Dingwall,G.Lafortune,R.Lahaye,J.Ploufe	
March 16	Demob -	The crew proceeds to Sudbury, dropping off G.Lafortune and J.Ploufe.
	Crew: P.Guimond,B.Dingwall,G.Lafortune,R.Lahaye,J.Ploufe	
March 17	Demob -	B.Dingwall travels from Sudbury to Kingston, P.Guimond from Sudbury-Toronto and R.Lahaye Sudbury-Kingston-Montreal.
	Crew: P.Guimond,B.Dingwall,R.Lahaye.	

LEGEND

P(n/n)-x	Surface Production	(# of Rx/Tx) - # of personnel
L(n/n)-x	Looping	(# of Rx/Tx) - # of personnel
AL(n/n)-x	Advance Looping	(# of Rx/Tx) - # of personnel
S(n/n)-x	Standby	(# of Rx/Tx) - # of personnel
D(n/n)-x	Down	(# of Rx/Tx) - # of personnel
n/c(n/n)-x	no charge	(# of Rx/Tx) - # of personnel

AT5 Grid data collected:	2 loop coverage	21825m	BL/BT/Bz
AT12 Grid data collected:	2 loop coverage	24000m	BL/BT/Bz
Total UTEM5 data collected:	2 loop coverage	45825m	BL/BT/Bz

Appendix C

The UTEM SYSTEM
- UTEM 5 -

- Introduction to UTEM5 -

The UTEM System

UTEM Data Reduction and Plotting Conventions

Data Presentation

UTEM5

The UTEM5 system collects 3-component data from up to 3 transmitter loops - three coupling angles - simultaneously - translating to superior target definition and improved detection of all targets. In addition:
\
• UTEM5 precision is at least an order of magnitude better than the UTEM3 system. Our current estimate is that the UTEM5 surface coil precision will prove to be better by a factor of 10-40 times. Improved sensitivity equals better depth penetration. It also translates to significantly shorter stacking times or alternatively, better precision for the same stacking time. The improvement in precision is greater at lower frequencies (<4Hz).

• UTEM5 surface equipment has a greater advantage at low frequency - <4Hz. The UTEM5 technical advantage is greatest in the search for targets that are deeper and more highly-conductive when (very) large-loops (geometry of the applied field is simpler). UTEM5, however, will be found to be extremely useful in numerous other applications.

• Figure C1 shows the UTEM5 channels when 12Ch sampling is selected. Channels are spaced in a binary, geometric progression across each half-cycle of the received waveform - giving just over 3 channels per decade. Ch**12**, the earliest channel, is (~)1/2**12** of the half-cycle wide. Ch**1**, the latest channel, is (~)1/2**1** of the half-cycle wide. The use of UTEM4/5 Transmitters and UTEM5 Receivers allows for the implementation of:
- Ch0 - a narrow Ch later than Ch1. Making Ch0 normalization an option.
- 3 timing channels - Ch13/14/15 (Figure C1) for 12Ch UTEM5 The timing Chs improve the operator's ability to monitor Rx/Tx(s) synchronisation and allow for more precise phase correction/improved deconvolution.

• the UTEM5 rejection of non-survey frequencies including powerline noise is far superior to previous UTEM systems. One of the many features of the UTEM5 system that add up to the improved rejection is the option of tapered channel sampling (Figure C1).

The ability to simultaneously collect higher-precision, 3-component data from multiple transmitters (coupling angles) at low frequency is really what the UTEM5 system is designed for - to be efficient and precise. To date UTEM5 surveys using multiple transmitters operating at base frequencies as low as 0.25Hz have confirmed that both the sensitivity of the system and the rejection of non-survey frequencies (powerline noise etc.) is far superior to previous UTEM systems.

In terms of BH operations, UTEM5 Rx coupled with our existing BHUTEM system allows for the collection of 3-component data from multiple transmitters simultaneously. The precision improvement may not be that noticeable near surface - in high field strengths. But at depth - low field strength - we estimate up to a factor of 5 improvement in precision. That improvement, and the multiple transmitter option, will add up to a considerable increase in the ability to resolve deep, highly-conductive targets - allowing for the detection of smaller targets and targets more distant from the hole.

The UTEM SYSTEM

UTEM uses a large, fixed, horizontal transmitter loop as its source. Loops range in size from 300x300m to 4000x4000m and larger. Smaller loops are generally used over conductive terrain or for shallow sounding work. Larger loops are used over resistive terrain or where the ability of the system to resolve a response can be aided by the simpler geometry of the applied field. The UTEM receiver(s)/ transmitter(s) are typically synchronised at the beginning of a survey day and the Rx(s) operates remotely after that point. The Rx/Tx clocks are sufficiently accurate to maintain synchronisation.

Measurements are routinely taken to a distance of twice the loop dimensions and can be continued further depending on the local noise levels. Lines are typically surveyed:

- off-loop: out from an edge of the loop when the target is steeply dipping.
- inside-the-loop: when the target is ~flat-lying

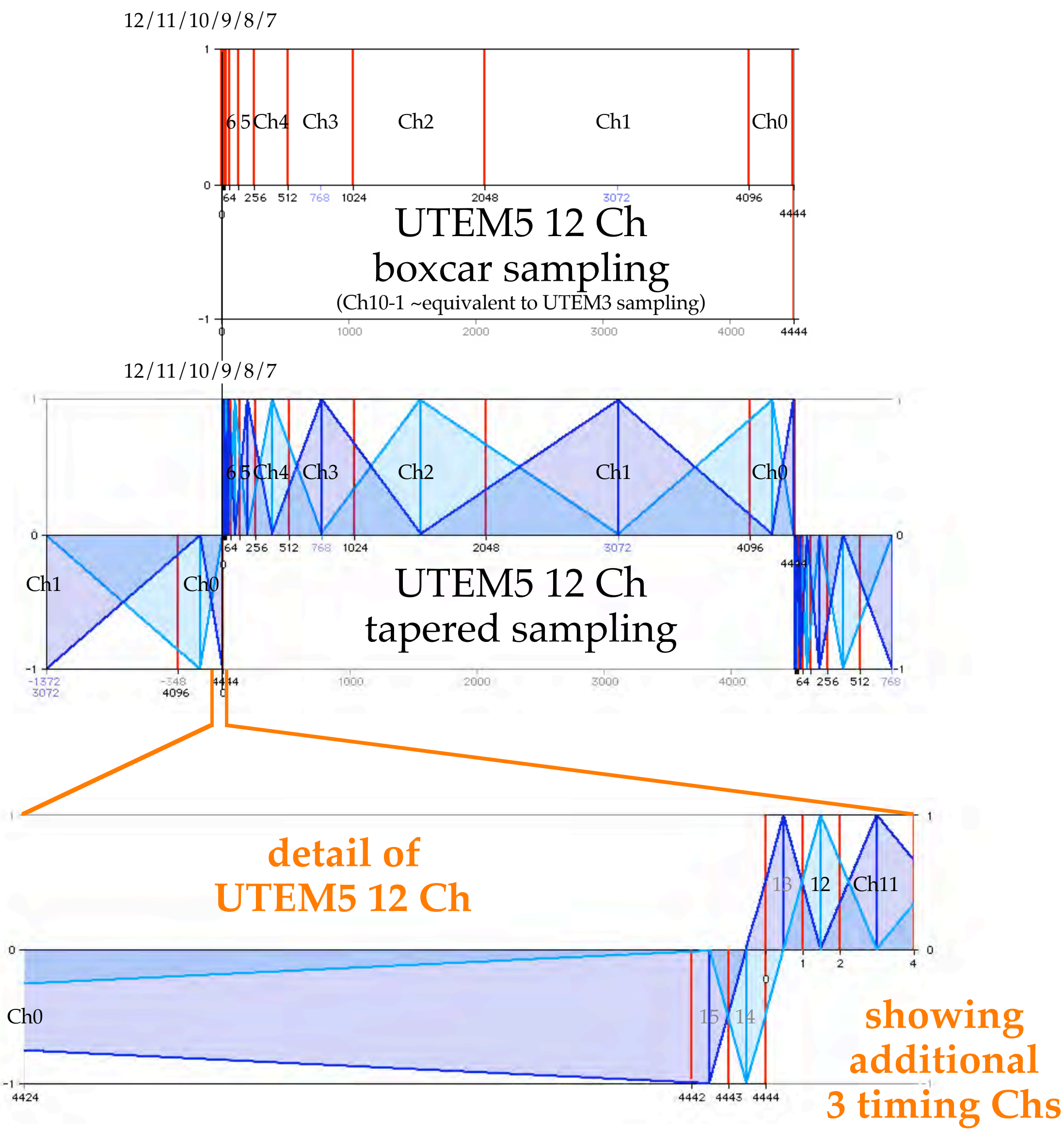
BHUTEM - the borehole version of UTEM - surveys have been carried out to depths up to 3000+ metres.

System Waveform

A UTEM transmitter passes a low-frequency current of a precisely regulated triangular waveform through the transmitter loop. The frequency can be set to any value within the operating range of the transmitter. A target frequency for each UTEM transmitter and the local powerline frequency are entered. The actual frequencies used are selected to be as close to the target frequencies as possible while optimising rejection of the other transmitters and powerline noise (60 Hz in North America/generally 50Hz elsewhere). Since the receiver coils responds to the time derivative of the magnetic field, the UTEM system really "sees" the step response of the ground. UTEM is the only time domain system which measures the step response of the ground. All other TDEM systems to date transmit a modified step current and "see" the (im)pulse response of the ground at the receiver. In practice, the UTEM waveform is filtered - pre-whitened - to optimize signal-to-noise. Deconvolution techniques produce the equivalent to the conceptual “step response” at the receiver.

System Sampling

The UTEM receiver measures the time variation of the magnetic field in the direction of the receiver coil at (typically) channels or delay times. UTEM channels are spaced in a binary, geometric progression across each half-cycle of the received waveform. Channel **12 (or Ch10)** is the earliest channel and it is $1/2^{12}$ of the half-cycle wide. Channel **1**, the latest channel, is $1/2^{1}$ of the half-cycle wide (see UTEM3 10Ch figure below and Figure C1). The measurements obtained for each of channels are accumulated over many half-cycles. The final channel value stored is the average of the measurements. The number of half-cycles averaged depends on the signal strength and the ambient noise.



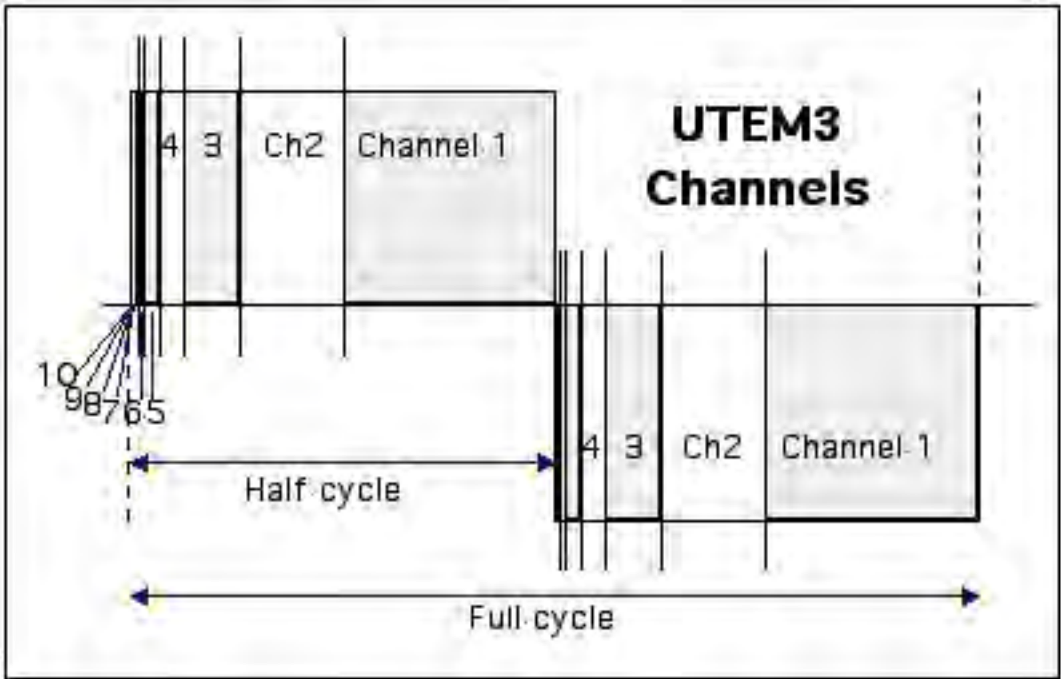
Notes:
- boxcar sampling equivalent to UTEM3 sampling
- tapered sampling: improved powerline rejection
- the use of UTEM4/5 Transmitters and UTEM5 Receivers improves syncing/timing and allows for the implementation of:
  - Ch0 - a narrow Ch after (later than) Ch1.
    - Ch0 normalization is an option
  - 3 timing channels - Ch13/14/15 shown for 12Ch UTEM5
    - improved ability to monitor Rx/Tx(s) synchronisation.
    - improved deconvolution/phase correction.

LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTEE

UTEM5 12Ch Sampling

boxcar/tapered options

Figure C1



System Configurations

During a surface UTEM5 survey the 3-component receiver coil is oriented along the survey line and the coil orientation is determined from the data from a set of three orthogonal accelerometers in the coil in combination with the GPS coordinates of the line. The 3 measured (raw) components of the magnetic field - uvw - are oriented and resolved into:

- u the horizontal transverse component BT(ransverse) ~UTEM3 Hy
- v the vertical component Bz ~UTEM3 Hz
- w the horizontal in-line component BL(ine) ~UTEM3 Hx

Note: the UTEM System is also capable of measuring the electric field. The two horizontal components,Ex and Ey can be measured using a dipole sensor comprised of two electrodes. E-field measurements are useful for outlining resistive features to which the magnetic field is not very sensitive.

BHUTEM4 surveys employ a 3-component receiver coil - longer and smaller in diameter than the surface coil. The borehole receiver coil forms part of a down-hole receiver package used to measure the axial (along-borehole) and the two transverse components of the magnetic field. Due to the distance between coil and receiver in borehole surveys the signal must be transmitted up to the receiver. In BHUTEM the signal is transmitted to surface digitally using a kevlar-reinforced fibre-optic cable as a data link. Using a fibre-optic link avoids signal degradation problems and allows surveying of boreholes to 3000+m. The cable is also very light - the specific gravity is ~1.0 - making the cable handling hardware quite portable.

The EM Induction Process

Any time-varying transmitted ("primary") field induces current flow in conductive regions of the ground below and around the transmitter loop (i.e. in the earth or "half-space"). This current flow produces a measurable EM field, the secondary field, which has an inherent "inertia" that resists the change in primary field direction. This “inertial” effect is called self-inductance; it limits the rate at which current can change and is only dependent on the shape and size of a conductive path.

It takes a certain amount of time for the transmitted current flow to be redirected (reversed) and re-established to full amplitude after the rate-of-change of the primary field reverses direction. This measurable reversal time is characteristic for a given conductor. In general, for a good conductor this time is greater than that of a poor conductor. This is because in a good conductor the terminal current level is greater, whereas its rate of change is limited by the inductance of the current path. The time-varying current causes an EMF in the sensor proportional to the time derivative of the current. This EMF decays with time - it vanishes when the reversal is complete - and the characteristic time of the EMF decay as measured by the sensor is referred to as the **decay time** of the conductor.

The large-scale current which is induced in the half-space by the primary field produces the half-space response as seen in typical UTEM profiles. This background response is influenced by the finite conductivity of the surrounding rock. Other currents may be induced in locally more conductive zones (conductors) that have longer decay times than the half-space response. The responses of these conductors are superimposed upon the background response. The result is that the UTEM receiver detects:

- the primary field waveform, a square-wave
- the half-space (background) response of the surrounding rock
- a slight-to-large response due to any conductors present.

The result is that in the presence of conductors the primary field waveform is substantially (and anomalously) distorted.

UTEM DATA REDUCTION and PLOTTING CONVENTIONS

The UTEM data as it appears in the data files is in total field form in nanoTesla (nT). These are total field values - the UTEM system measures during the "on-time" and as such samples both the primary and secondary fields.

For plotting purposes, the magnetic field data are transformed to other formats as required. The following is provided as a description of the various plotting formats used for the display of UTEM data. A plot format is defined by choices of choice of the *normalization* and *field type* parameters selected for display.

PLOT FORMATS

UTEM results can be expressed as a % of a normalizing field at some point in space. In **continuously normalized** form the normalizing factor (the denominator) is the magnitude of the computed local primary field vector. As the primary exciting field magnitude diminishes with increasing distance from the transmitter loop the response is continuously amplified as a function of offset from the loop. Although this type of normalization considerably distorts the response shape, it permits anomalies to be easily identified at a wide range of distances from the loop.

Note: An optional form of continuous normalization permits the interpreter to normalize the response to the magnitude of the primary field vector at a fixed depth below each station. This is useful for surface profiles which come very close to the loop. Without this adjustment option, the normalizing field is so strong near the loop that the secondary effects become too small in the presence of such a large primary component. In such circumstances interpretation is difficult, however; by "normalizing at some depth" the size of the normalizing field, near the loop in particular, is reduced and the resulting profile can be more effectively interpreted to a very close distance from the transmitter wire. The usual choice for the depth is the estimated target depth.

In **Absolute** profiles the data is presented in picoTesla (pT). Data presented in this format show the non-distorted shape of the field profiles. Unfortunately, the very large range in magnitude of anomalies both near and far from the loop means that small anomalies, particularly those far from the loop, may be overlooked on this type of plot in favour of presenting larger amplitude anomalies.
Note: Selecting the correct plot scales is critical to the recognition of conductors over the entire length of a Absolute profile. This presentation is often used for interpretation where an analysis of the shape of a specific anomaly is required. Absolute profiles are therefore plotted selectively as required during interpretation. An exception to this procedure occurs where surface data has been collected entirely inside a transmitter loop. The primary field does not vary greatly inside the loop, therefore, the benefits of continuous normalization are not required in the display of such results.

FIELD TYPE

The type of field may be either the **Total field** or the **Secondary field.** In general, it is the secondary field that is most useful for the recognition and interpretation of discrete conductors.

UTEM Results as Secondary Fields

Because the UTEM system measures during the transmitter on-time the determination of the secondary field requires that an estimate of the primary signal be subtracted from the observations. Two estimates of the primary signal are available:

1) UTEM Channel 0

One estimate of the primary signal is the value of the latest time channel observed by the UTEM System, Channel 0. When Channel 0 is subtracted from the UTEM data the resulting data display is termed ***Channel 0 Reduced***. This reduction formula is used in situations where it can be assumed that all responses from any target bodies have decayed away by the latest time channel sampled. The Channel 0 value is then a reasonable estimate of the primary signal present during Channels 1....10/12.

In practice the ***Channel 0 Reduced*** form is most useful when the secondary response is very small at the latest delay time. In these cases Channel 0 is indeed a good estimate of the primary field and using it avoids problems due to geometric errors or transmitter loop current/system sensitivity errors.

2) Calculated primary field

An alternate estimate of the primary field is obtained by computing the primary field from the known locations of the transmitter loop and the receiver stations. When the computed primary field is subtracted from the UTEM data the resulting data display is termed ***Primary Field Reduced***.

The calculated primary field will be in error if the geometry is in error - mislocation of the survey stations or the loop vertices - or if the transmitter loop current/system sensitivity is in error. Mislocation errors from loop/station geometry may give rise to very large secondary field errors depending on the accuracy of the loop and station location method used. Transmitter loop current/system sensitivity error is rarely greater than 2%. ***Primary Field Reduced*** is plotted in situations where a large Channel 0 response is observed. In this case the assumption that the Channel 0 value is a reasonable estimate of the primary field effect is not valid.

Note: for UTEM data profiles plotted in ***Channel 0 Reduced*** form the secondary field data for Ch0 itself are always presented in ***Primary Field Reduced*** form and are plotted on a separate axis. This plotting format serves to show any long time-constant responses, magnetostatic anomalies and/or geometric errors present in the data.

Mathematical Formulations

In the following expressions:

Rnj is the result plotted for the nth UTEM channel,
R1j is the result plotted for the latest-time UTEM channel, Channel 0,
Chnj is the raw component sensor value for the nth channel at station j,
Ch1j is the raw component sensor value for Channel 0 at station j,
BPj is the computed primary field component in the sensor direction
|BP| is the magnitude of the computed primary field at:
- a fixed station for the entire line (point normalized data)
- the local station of observation (continuously normalized data)
- a fixed depth below the station (continuously normalized at a depth).

Channel 0 Reduced Secondary Fields : Here, the latest time channel, Ch0 is used as an "estimate" of the primary signal and other channels are expressed as:

$$\mathbf{Rnj = (Chnj - Ch1j) / |BP| \times 100\%}$$

Ch0 itself is reduced by subtracting a calculation of the primary field observed in the direction of the coil, **HP** as follows:

$$\mathbf{R1j = (Ch1j - HPj) / |BP| \times 100\%}$$

Primary Field Reduced Secondary Fields **:** In this form all channels are reduced according to the equation used for Ch0 above:

$$\mathbf{Rnj = (Chnj - BPj) / |BP| \times 100\%}$$

This type of reduction is most often used in cases where very good geometric control is available (leading to low error in the calculated primary field, **BPj**) and where very slowly decaying responses result in significant secondary field effects remaining in Ch0 observations.

UTEM Results as a Total Field

In certain cases results are presented as a % of the **Total Field**. This display is particularly useful, in borehole surveys where the probe may actually pass through a very good conductor. In these cases the shielding effect of the conductor will cause the observed (total) field to become very small below the intersection point. This nullification due to shielding effects on the total field is much easier to see on a separate ***Total Field*** plot. In cases where the amplitude of the anomalies relative to the primary field is small, suggesting the presence of poorly conductive bodies, the ***Total Field*** plot is less useful.

The data contained in the UTEM reduced data files is in ***Total Field***, continuously normalized form if:

$$\mathbf{Rnj = Chnj / |BP| \times 100\%}$$

DATA PRESENTATION

All UTEM5 survey results are presented as profiles in an appendix of this report. For BHUTEM surveys the requisite Vectorplots, presented as plan and section views showing the direction and magnitude of the calculated primary field vectors for each transmitter loop, are presented in a separate appendix.

The symbols used to identify the channels on all plots (Appendix A) as well as the mean delay time for each channel (3.750Hz/10Ch) is shown in the following table (for details of frequencies used in this survey see figures in the report):

outside	frequency	3.750000 Hz	
	period	0.26667 s	
(5MHz clock)	half period	666666 0.2μs cycles	
(narrowest Ch=1unit)	XNP	**1062** half-period	
	width of unit channel	1.255493e-4 s	
	width of unit channel	125.5493 μs	
(symbol) channel	midpoint of ch (microseconds)	tapered Ch begins - unit -	tapered Ch ends - unit -
timing Ch11	62.77	-0.5	1.5
⊿ 10	188.32	0.5	3
X̄ 9	376.65	1.5	6
Σ 8	753.30	3	12
⊽ 7	1506.59	6	24
□ 6	3013.18	12	48
⧉ 5	6026.37	24	96
\ 4	12052.73	48	192
< 3	24105.47	96	384
/ 2	48210.93	192	768
> 1	96421.86	384	1042
| 0	130822.37	768	1060.5
timing Ch13	133145.03	1042	1061.5
timing Ch12	133270.58	1060.5	1062+0.5

Note: With UTEM5 there is the option of expanding the 10Ch (+Ch0) sampling to earlier time Chs - routinely to 12Chs. There are tradeoffs involved in measuring additional earlier-time Chs - stacking time can be greatly increased by adding too many narrow(er) Chs. That said, when operating at a frequency of ~4Hz or lower, 2 Chs can be added without incurring significant penalty. 12Ch (+Ch0) sampling @4Hz brings the earliest delay time (Ch12) to 47.08μs - the equivalent of the earliest delay time when operating @15Hz with 10Ch sampling.

Notes on Standard plotting formats:

Channel 0 Reduced form - The data are typically displayed on three separate axes. This permits scale expansion and allows for the accurate determination of signal decay rates. The standard configuration is:

Top axis - early time channels and a repeat of the latest channel from the centre axis for comparison are plotted at a reduced scale.

Centre axis - intermediate-to-late-time channels are plotted on the centre axis using a suitable scale.

Bottom axis -the latest time channel (Ch0) is plotted alone in ***Primary Field Reduced*** form using the same scale as the centre axis.

UTEM data in ***Primary Field Reduced*** form:

All channels are displayed on a single axis. Typically they are plotted using peak-to-peak scale values of up to -200% - 200%.

BHUTEM4 data plotted as total field profiles:

The 3 components are expressed directly as a percentage of the ***Total Field***. Each three-axis data plot shows peak values of up to 100%.
Note: the measured total field value is plotted as a polarity-reference tool.

BHUTEM data plotted as secondary field profiles:

Check the title block of the plot to determine if the data is in:
Channel 0 Reduced form or in ***Primary Field Reduced*** form.
Note: the measured total field value is plotted as a polarity-reference tool.

Appendix D

Note on sources of anomalous Ch0

Note: The data presented in this report are channel 0 normalized - the latest time channel plotted is Ch0. Traditionally in UTEM data the latest time channel plotted has been Ch1.

Note on sources of anomalous Ch0

This section outlines the possible sources of anomalous channel 0 which is not correlated to the Ch1-10/12 profiles on the upper axes of a channel 0 normalized plot.

1) **Mislocation of the transmitter loop and/or survey stations**

Mislocating the transmitter loop and/or the survey stations results in an error in the calculated primary field at the station and appears as an anomalous Ch0 value not correlated to channel 0 normalized Ch1-10/12. The effect is amplified near the loop front. This can be seen in the profiles - the error in Ch0 generally increases approaching the loop. As a rule a 1% error in measurement of the distance from the loop will result in, for off-loop surveys, an error in the Hz (vertical component) Ch0 of:

- 1% near the loop front (long-wire field varies as 1/r)
- 3% at a distance from the loop front (dipolar field varies as 1/r3)
- 2% at intermediate distances (intermediate field varies as ~1/r2)

The in-loop survey configuration generally diminishes geometric error since the field gradients are considerably lower. At the centre of the loop the gradient in the vertical field is essentially zero so it is difficult to introduce geometric anomalies near the loop centre. Near the loop sides and at the closest approach of the lines to the wire mislocation of the loop and the station becomes more critical. Typically loop sides are designed to be >200m from any survey stations.

Errors in elevation result in smaller errors in Hz but they can affect the chainage and accumulate along the line. Errors in elevation have a stronger affect on the two horizontal components, Hx and Hy.

2) **Magnetostatic UTEM responses**

Magnetostatic UTEM responses arise over rocks which generate magnetic anomalies. Such magnetic materials will amplify the total (primary + secondary) field of the UTEM transmitter which is sensed by the receiver coil. The secondary field is generated by subtracting a computed primary which does not include magnetic effects. This can give rise to strong and abrupt channel 0 anomalies when the source of the magnetics is at or near surface. This is the case in a number of places on these grids. UTEM magnetostatic anomalies differ from DC magnetic anomalies in the following three major ways:

1) In the case of DC magnetics the field is dipping N and is very uniform over the scale of the survey area while the UTEM field in-loop is vertical and it is stronger near the loop edges.
2) Most aeromagnetics are collected as total field while with UTEM we measure components - Bz, BL and BT..
3) DC magnetic instruments observe the total magnetization of the causative body which is due to its susceptibility as well as any remnant magnetization. An AC method such as UTEM will not respond to the remnant portion of the magnetization.

The larger amplitude of the UTEM Ch0 response is explained by the fact that the UTEM primary field is often more favourably coupled (magnetostatically speaking) to magnetic mineralization as compared to the earths field. Another factor could be the presence of a reverse remnant component to the magnetization.

Note: positive (negative) magnetic anomalies will cause:

- positive (negative) Ch0 anomalies in data collected outside the loop
- negative (positive) Ch0 anomalies in data collected inside the loop

3) **Extremely good conductors**

An extremely good conductor will be characterized by a time constant much longer than the half-period (@ 30Hz giving a time constant>>16ms). This will give rise to an anomalous Ch0 which is not correlated to the Ch1-10/12 data plotted on the upper axes of a channel 0 normalized plot.

Appendix 2

Noront 2016 Exploration Program

Surface UTEM-5 at AT5 & Blue Jay/AT12

Modelling Results for AT5 UTEM-5 Survey
By Lamontagne Geophysics

Modelling results for
AT5 area UTEM survey

Yves Lamontagne, Michal Kolaj and Owen Fernley
Lamontagne Geophysics Limited
April 21, 2016

LAMONTAGNE GEOPHYSICS LTD. GÉOPHYSIQUE LTÉE.

Introduction

The AT5 area was surveyed using grid NS lines for loops 5 (in-loop) and 6 (south loop) and using grid EW lines for loops 7 (east) and 8 (west). No clear high conductance target was detected in the area.

Systematic anomalous responses of moderate amplitudes were noticed during the UTEM 5 survey and data reduction of the AT5 area. These responses were clearest on line 5700E using loop 6 (south loop) and lines 500N and 600N using loop 7 (east loop) but also visible on adjacent lines diminishing in amplitude going east from 5700E and going north from 600N. At the time of survey it was determined that the responses would not justify additional detailed work because of the indicated great depth and moderate quality of the estimated source.

In view of the experience gained in the UTEM5 Eagle's Nest survey, it was considered remotely possible that the decaying responses may have been directly related to the Eagle's Nest zone itself or to some yet unknown extension of it. The object of this modelling is to test this hypothesis using the MGEM and Multiloop X modelling tools and to otherwise establish the probable cause of the observed response.

Modelling methods

The modelling sequence consisted of first modelling the effect of the known Eagle's Nest body using the MGEM model described in the January 2016 report. Then Multiloop X was used to fit a plate conductor to the response of L5700E and adjacent lines. This model was then incorporated into the MGEM conductivity volume and successively adjusted to fit the data of NS and EW lines. Due to the limited time allowed for this work only the loops with the clearest responses were modelled (loops 6 and 7). The loops and grids modelled are shown in Figure 1. The MGEM fine mesh size was increased from the 140x140x140 (6.25m model mesh) used in January to a fine mesh of 150x138x186 (111 below the surface and 75 above; 12.5m model mesh) for the final models that included both the Eagle's Nest and a deep dyke in the same model. Simplified loops were used to speed up the modelling setup.

The main response that attracted attention is shown in Figure 2A in continuously normalized format and in Figure 2B in absolutely normalized format. The anomalous decay lasts to channel 4 (sampling time of ≈25ms) where the late time response has a small amplitude (2%) consistent with a deep source. The 1/e decay time is estimated as 12ms, which for VMS exploration would be considered good but would not normally be indicative of massive Cu-Ni mineralization. The initial conductance estimate was 120S or less. The response on the EW lines had similar decay times but showed less anomaly shape character as the lines seemed to be running parallel to the causative body (see Figure 7).

Eagle's Nest alone

MGEM modelling with the Eagle's Nest model alone produces a very small response at the north end of line 5700E which is nearest to it (Figure 3). The slow decaying part of the modelled response not affected by the host response has an amplitude of 0.02% or less. The small amplitude is in part due to the fact that loop 6 is far from the Eagle's Nest zone. We can conclude from these results that the observed response is due to a different source.

Deep zone modelling

Multiloop X was used to fit by trial and error the data from lines 5700E to 6000E. The forward modelling resulted in a single zone striking grid EW at a depth of 750m and centred at 5700E/ 550N. This 800x500m zone was introduced in the MGEM model and was given an arbitrarily a thickness of 50m (Figure 5 and 6). Figure 4 shows the general match of the MGEM model response to the data on line 5700E (compare to Figure 2A).

In an attempt to render very small (<0.05%) late channel decays on lines 5800E, 500N and 700N, a small zone at 200m depth was added to the main dyke. This very small zone of dimension of 25x38x225m can only vaguely explain some of the very late decays and gives a larger response than observed on L5800E. The very broad positive Bz responses on lines 600N and 700N cannot be explained by this modelling as discussed below.

The deep dyke model fitted the NS lines reasonably well but the EW line responses were not rendered. In an attempt to model the BL and BT decaying response of the EW lines (such as that of Figure 7), a larger less conductive "current channelling" zone was added extending from the main deep zone (Figure 9). This resulted in a response with more similarity to the observed response on line 600N (Figure 8) but with faster decay than observed. It is felt that this channeling conductor extension could be made to render the anomaly better if it was connected to a less resistive host in some areas.

Reversed polarity responses

In the survey area there were numerous instances of small reversed polarity responses. Generally, the Bz response over a conductive feature is mainly negative outside the loop and positive inside the loop. Local response of polarities opposite to this can be explained in some cases by fringe anomalies existing in a very narrow band around the edge of conductors but it is difficult to explain the presence of these response over appreciable areas unless there are larger un-reversed responses nearby.

In the outside-loop AT5 coverage the EW lines 600N, 700N, 1100N and 1200N and the NS lines 6200E to 6400E around 1100N and 1200N are the most affected. Attempts at modelling the response on 600N and 700N with a small reversed coupled zone was not successful. In inside-loop coverage a reversed negative Bz response at the <0.1% level is seen on some of the lines. We have to consider the possibility that some or all of these responses are due to induced polarization particularly in view of the fact that the area was picked because of an IP response.

Conclusions

The main anomaly at AT5 has been modelled as a deep conductor of finite size and moderate conductance. This new zone does not have a high enough conductance to make it an immediate target for Cu-Ni exploration but nonetheless, it may be an interesting geological structure to follow-up. This conclusion must be qualified by the observation that any sub-1% non-decaying response indicative of a highly conductive fraction associated with this zone would not be detectable due to the presence of magnetic anomalies.

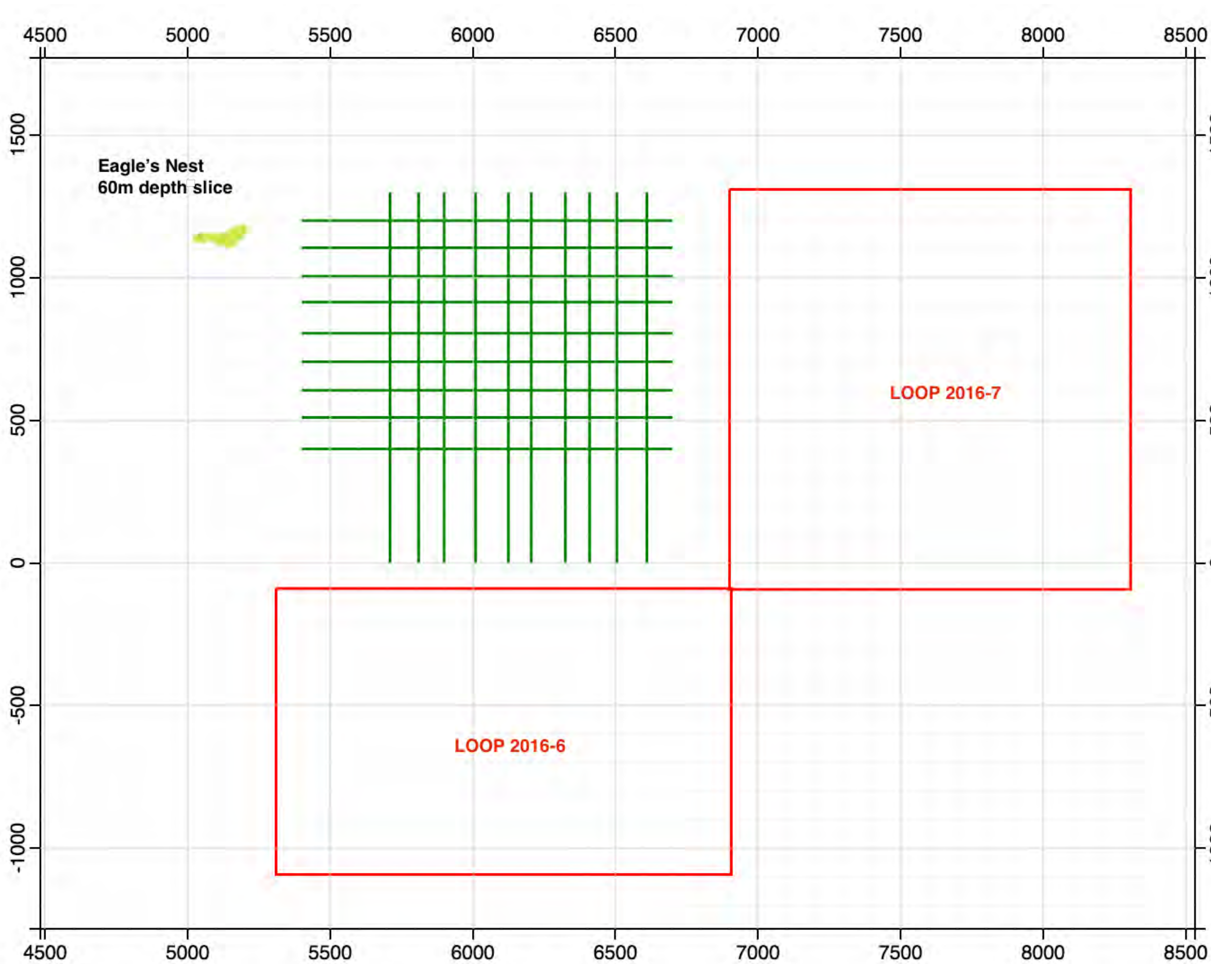


Figure 1. Plan view of the survey geometry used for the modelling. The anomalous conductivity at a depth slice of 60m is shown. This model was run to produce results of Figure 3.

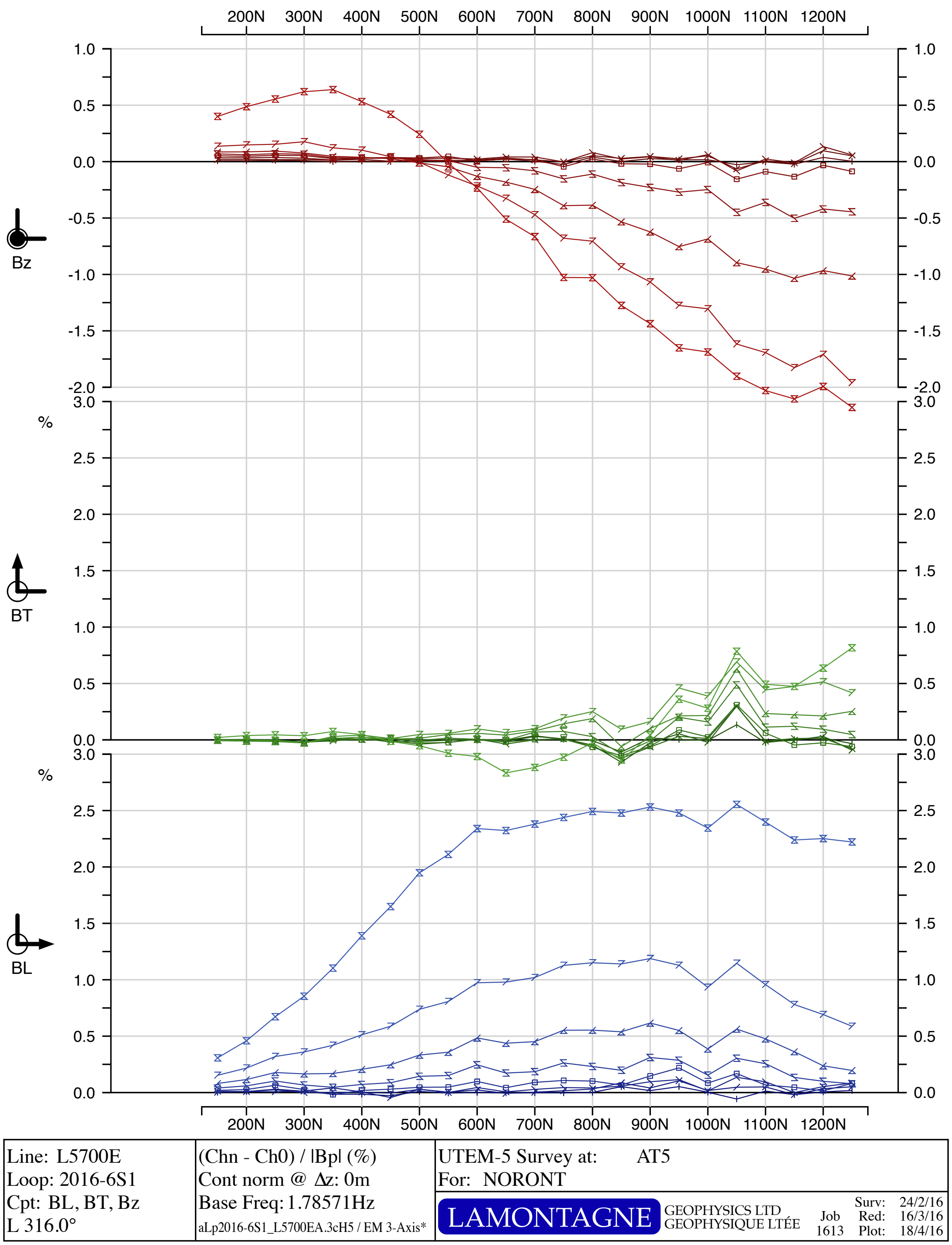


Figure 2A. Field data from Loop 6 Line 5700. Note the amplitudes are much larger and of different character as compared to the model data in Figure 3.

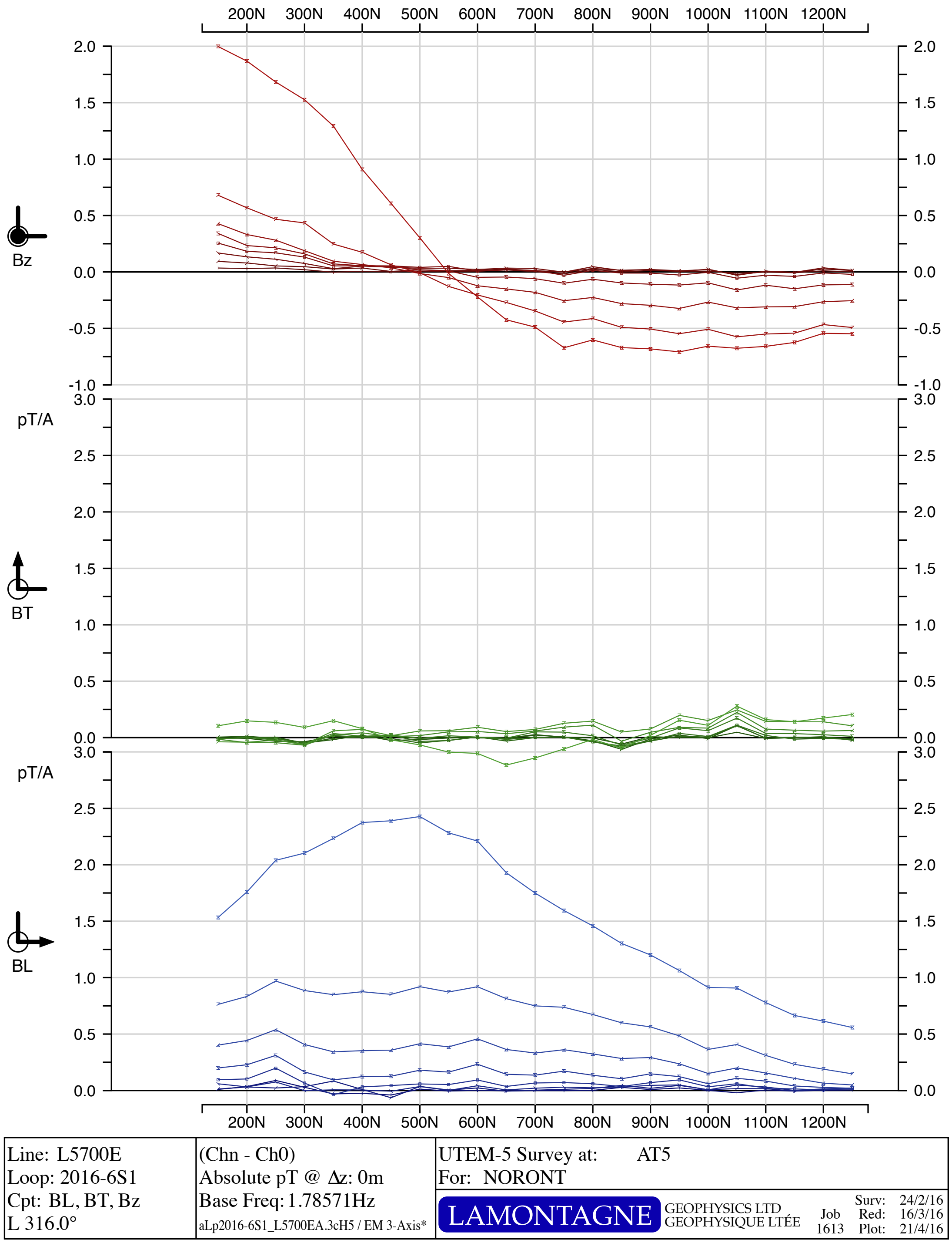


Figure 2B. Field data from Loop 6 Line 5700 absolutely normalized.

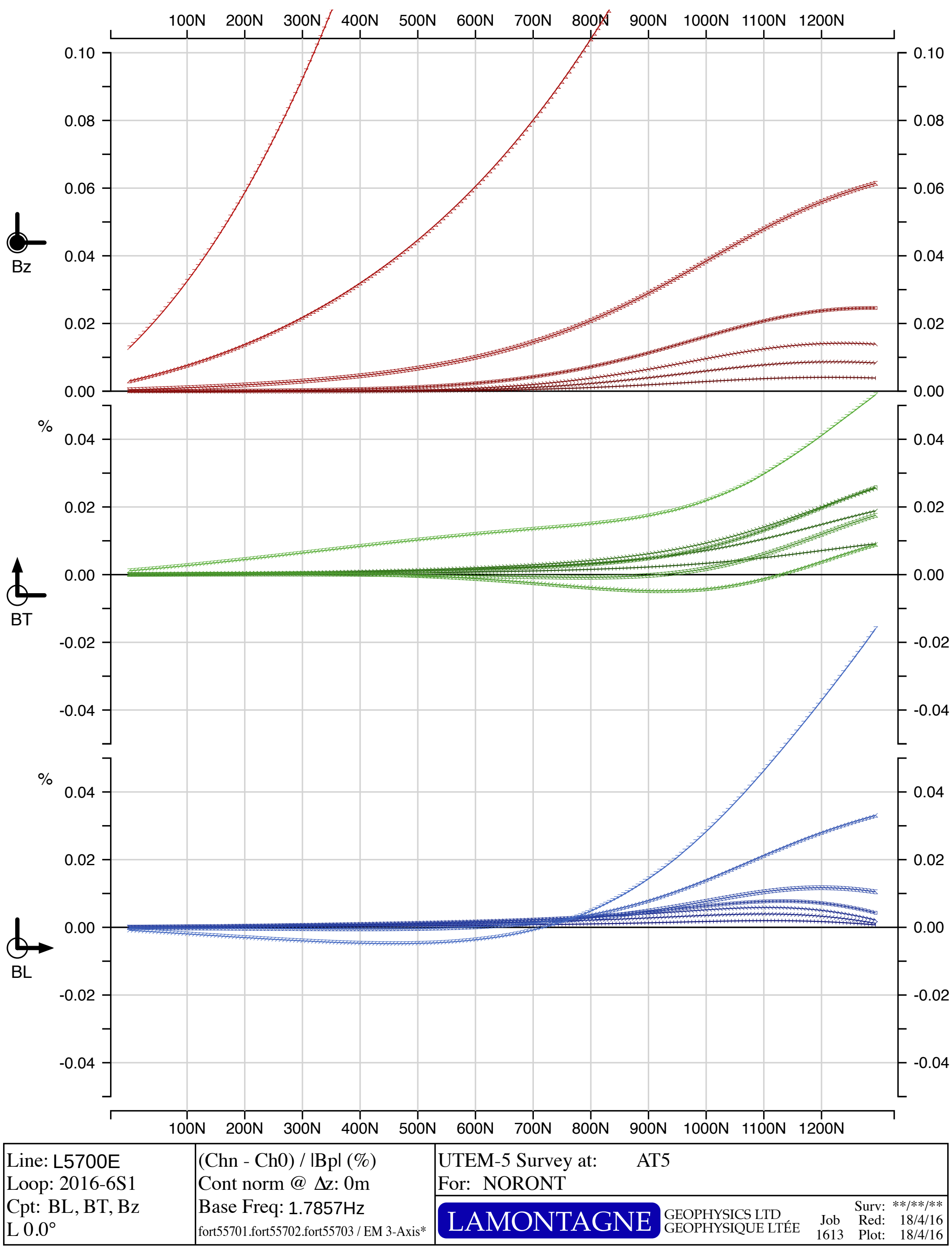


Figure 3. Model data from Loop 6 Line 5700. Note the scale here is 30 times smaller than that of Figure 2 to depict the very small observed amplitudes generated by the Eagle's Nest zone.

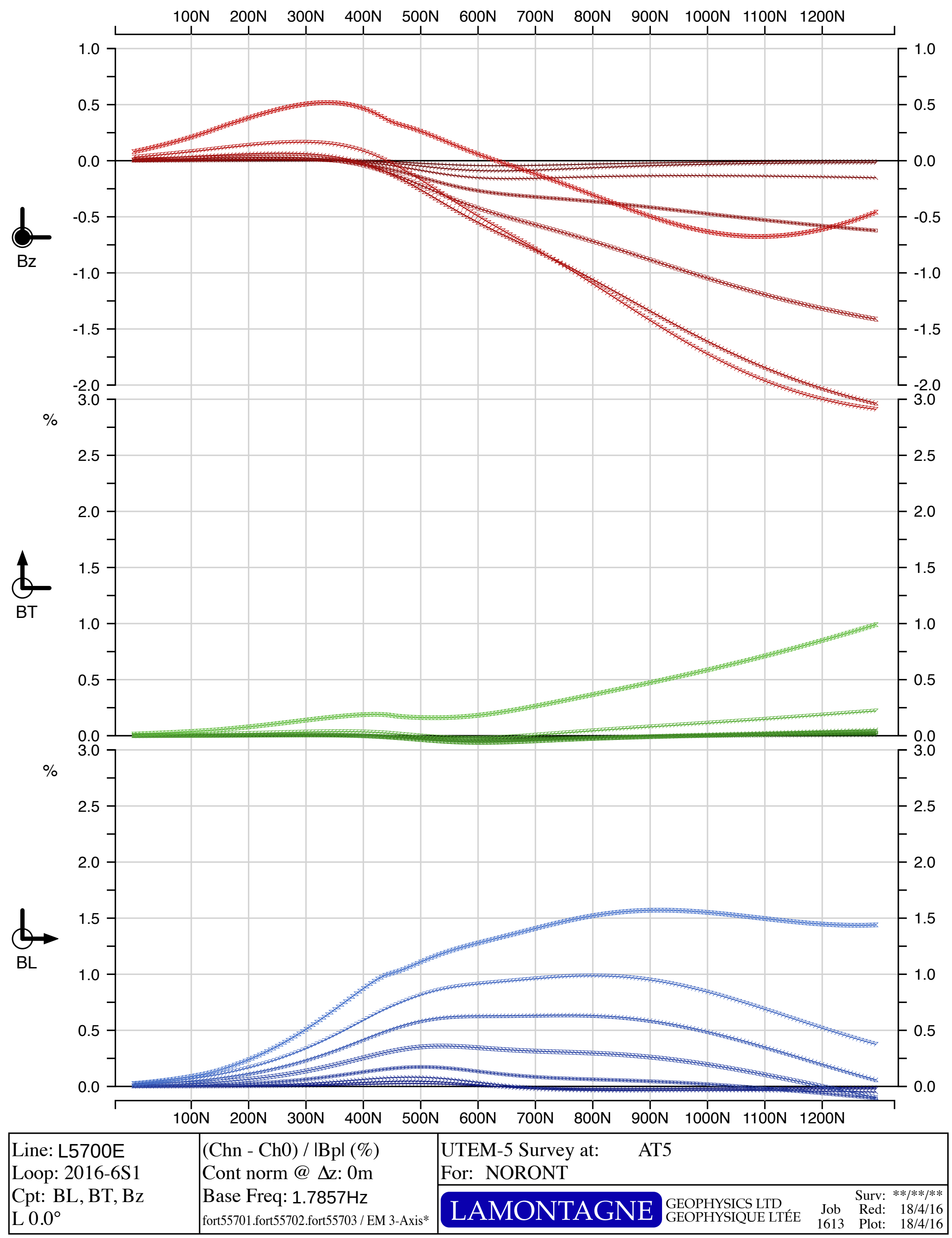


Figure 4. Model data from Loop 6 Line 5700 corresponding to the model in Figures 5 and 6. Note the superior fit of this model to the field data in Figure 2A.

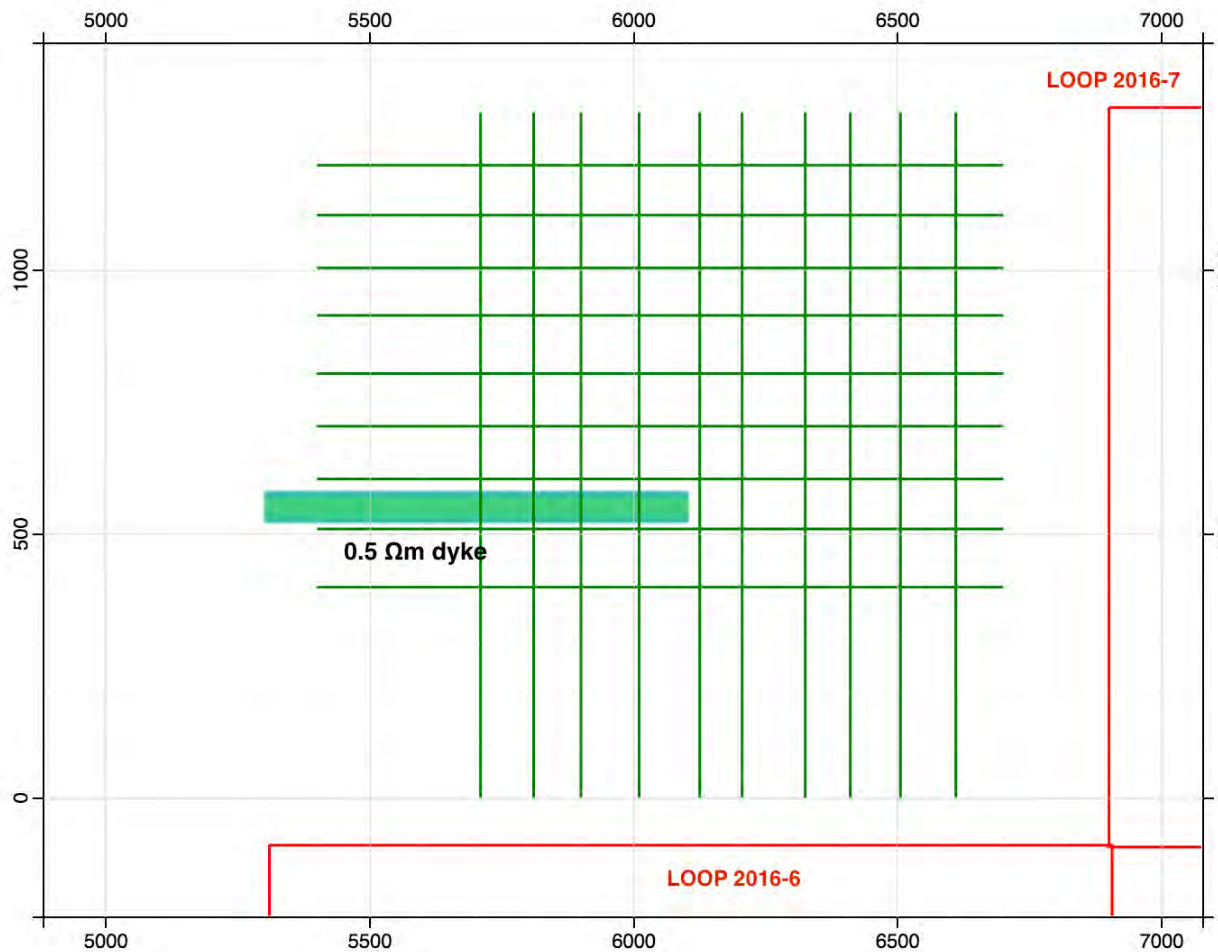


Figure 5. Plan view at a depth slice of 755m showing the anomalous conductivity model (host resistivity of 20000Ωm) used to generate the south model results (Figure 4). The 0.5Ωm dyke is located at (5700m, 550m -750m), has dimensions of 50m x 800m x 500m (thickness, strike length, depth extent) and a strike/dip of 270°/78° N. The conductance of the dyke is estimated to be in the range of 50S to 100S.

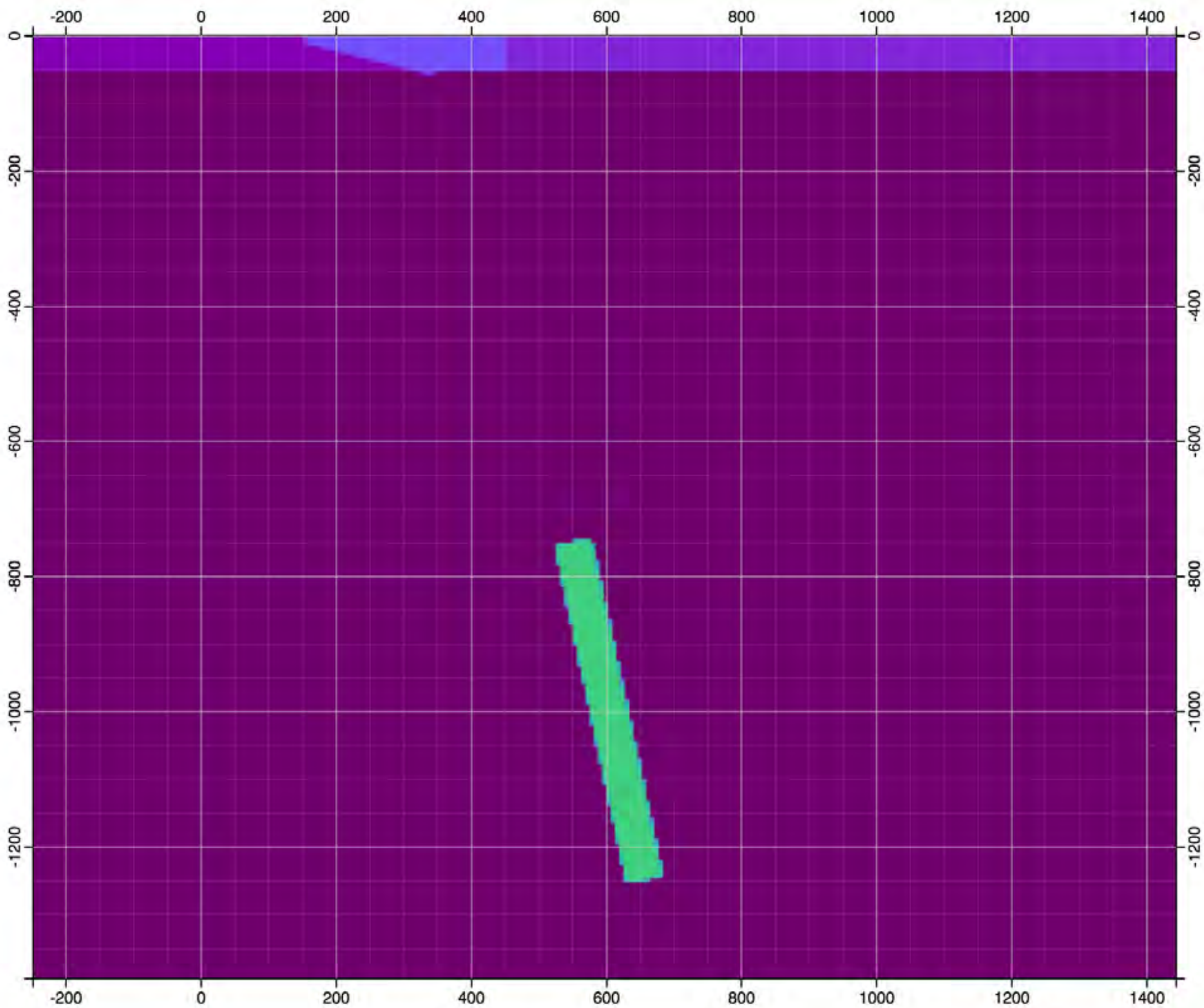


Figure 6. Cross section at 5700m Easting. Host resistivity of 20000Ωm, conductive dyke of 0.5Ωm, and a variable 50m overburden ranging from 300Ωm to 3000Ωm.

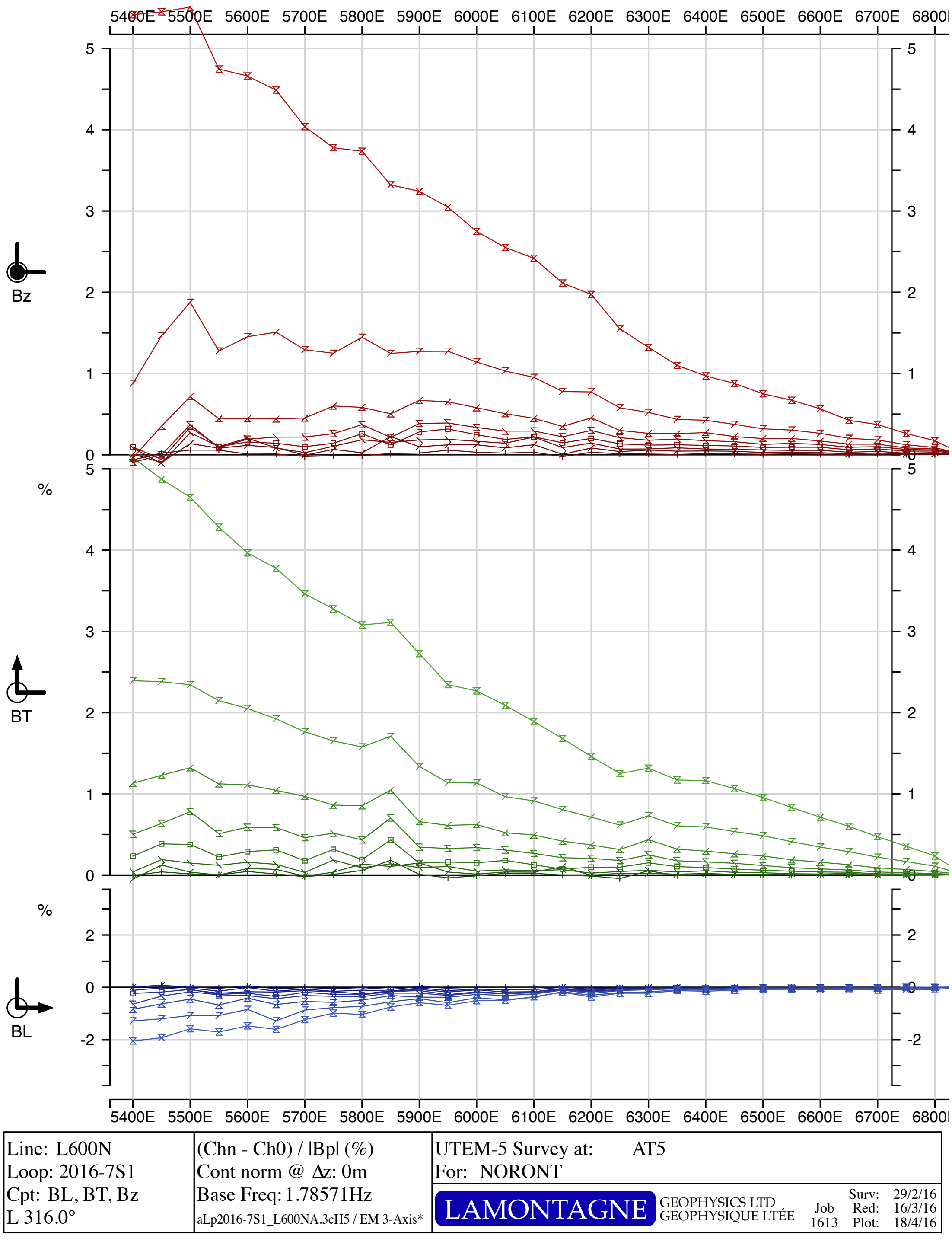


Figure 7. Field data from Loop 7 Line 600.

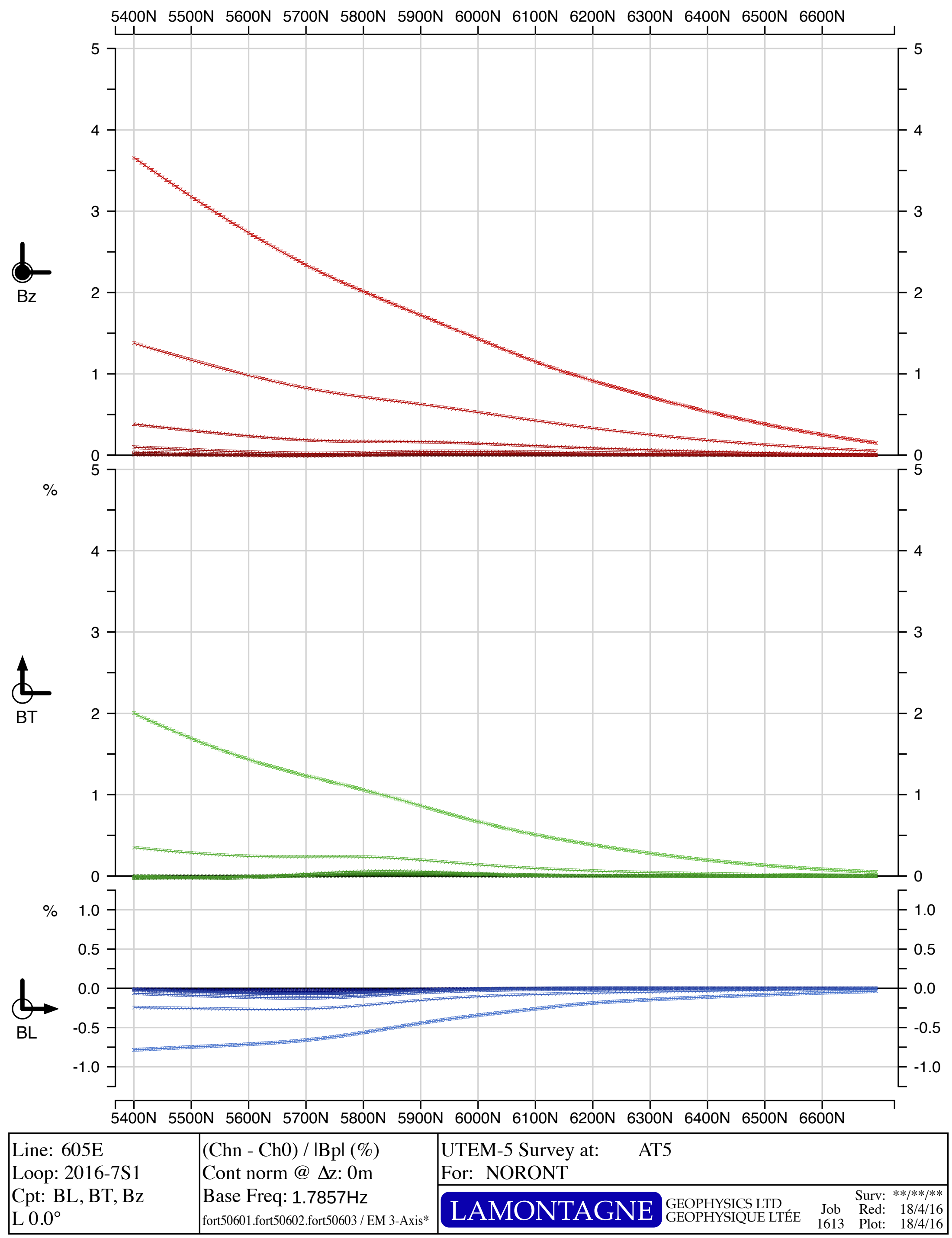


Figure 8. Model data from Loop 7 Line 600 corresponding to the model shown in Figure 9.

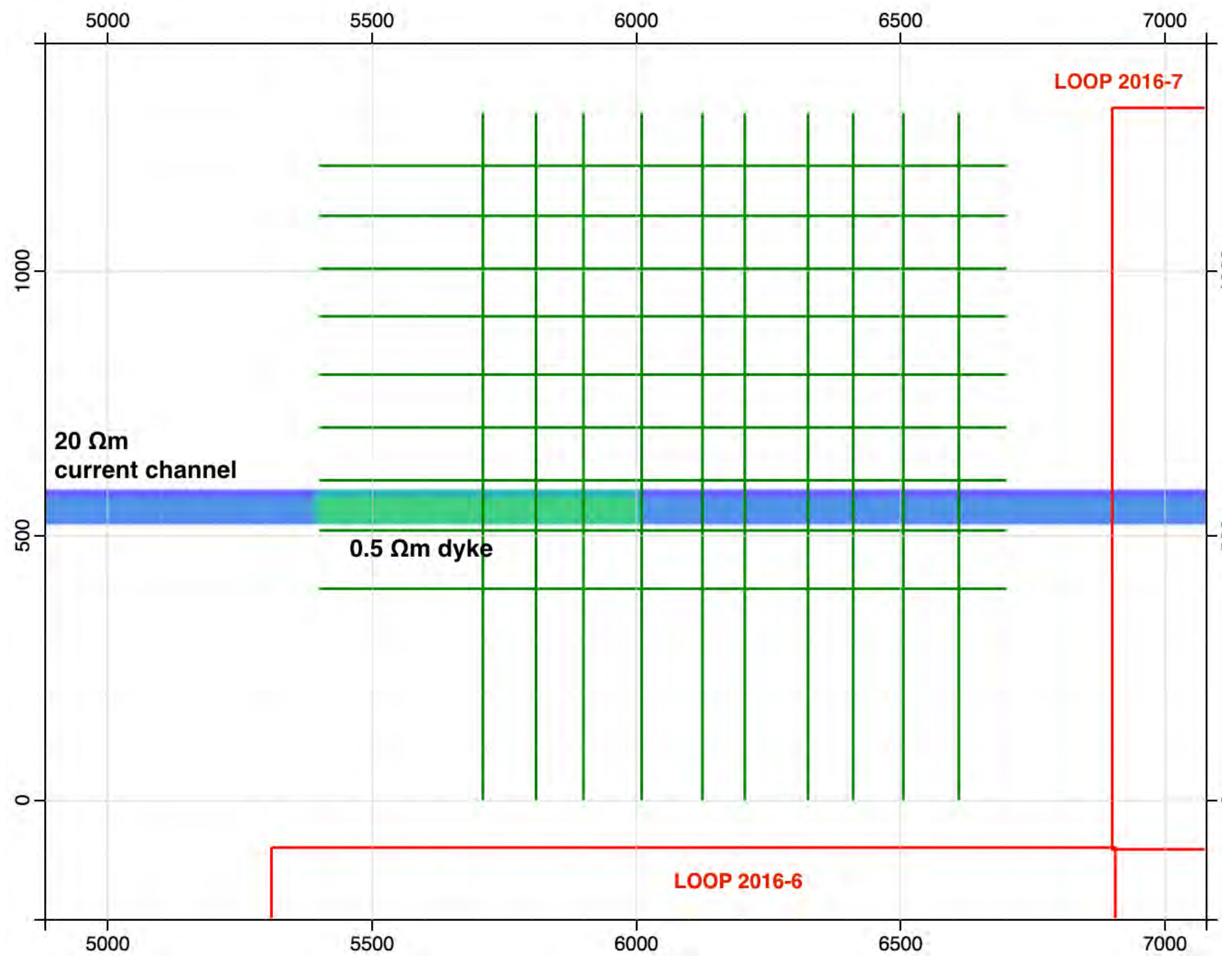


Figure 9. Plan view at a depth slice of 755m showing the anomalous conductivity model used to generate the eastern loop results (Figure 8). The 0.5Ωm dyke is located at (5700m, 550m -750m),has dimensions of 50m x 600m x 500m (thickness, strike length, depth extent) and a strike/dip of 270°/78° N. The 20 Ωm current channeling structure is positioned/oriented identically to that of the conductive dyke but has a strike length and dip length of 2915m and 2000m respectively. All orientations/locations in grid coordinates.

Table 1. Grid and UTM Coordinates of Modelled Conductor

TOP - GRID	X	Y	Z
A	5296.875	578.125	740.625
B	6115.625	578.125	740.625
C	6115.625	521.875	746.875
D	5296.875	521.875	746.875
BOTTOM - GRID	**X**	**Y**	**Z**
A	5296.875	684.375	1246.875
B	6115.625	684.375	1246.875
C	6115.625	628.125	1253.125
D	5296.875	628.125	1253.125
TOP - UTM	**Easting**	**Northing**	**Z**
A	547763.756	5843324.644	740.625
B	548362.552	5843883.030	740.625
C	548400.914	5843841.892	746.875
D	547802.118	5843283.505	746.875
BOTTOM - UTM	**Easting**	**Northing**	**Z**
A	547691.294	5843402.350	1246.875
B	548290.089	5843960.737	1246.875
C	548328.452	5843919.598	1253.125
D	547729.656	5843361.212	1253.125

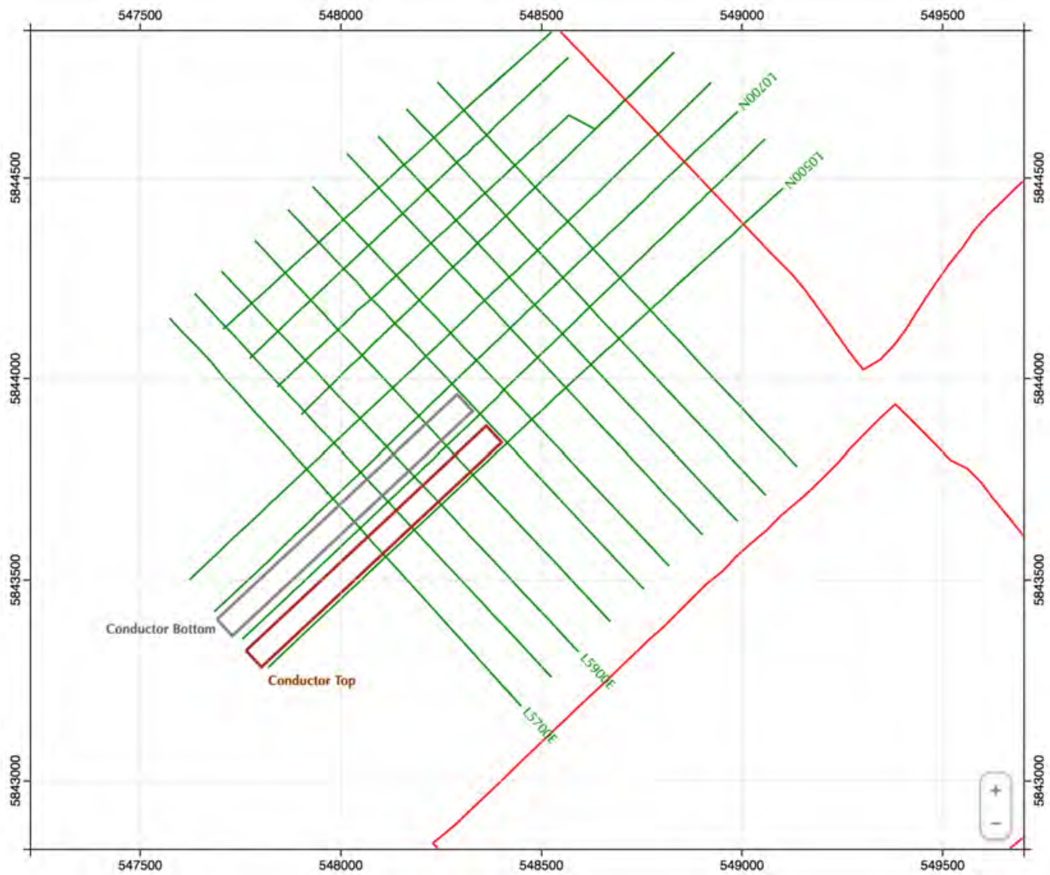


Figure 1. UTM lines and Loops 6 and 7 and outline of the top (brown) and bottom (grey) of the conductor.

Notes:

Z coordinate refers to the depth below surface.
All modelling was performed with a surface elevation of 0m.
Modelled traverse lines were given a depth of 0m.
Conversion between UTM and Grid coordinates calculated using:

$$Grid\_x = [Easting*\cos(-43°) - Northing*\sin(-43°)] - 4380450$$
$$Grid\_y = [Easting*\sin(-43°) + Northing*\cos(-43°)] - 3899385$$

Appendix 3

Noront 2016 Exploration Program

Surface UTEM-5 at AT5 & Blue Jay/AT12

Jeremy Brett (MPH Consulting Geophysicist)
AT5 Target Report

GEOPHYSICAL TARGET AT AT5
NORONT RESOURCES

Jeremy S. Brett, MPH

May 5th, 2016

SUMMARY

A Surface UTEM 5 Survey was conducted over the AT5 area in Q1 of 2016, to test anomalous chargeability at the NW flank of the AT5 magnetic anomaly, interpreted to be on the hanging wall / footwall contact of the AT5 ultramafic and mafic intrusion. No significant UTEM5 anomalies were observed for conductive bodies between surface and 450m depth. The UTEM 5 data were examined and modelled by Lamontagne to determine if a signature from Eagle's Nest was present in these data. This process, involving data normalization, led to the detection of very subtle picoTesla/Amp scale anomalies in UTEM 5 Channels 1 through 8, due to a deep conductor. This conductor has been modelled at/near the hanging wall / footwall contact of AT5, with a depth to top of ~750m, an 800m strike length and a Conductance of at least ~100 Siemens. Although this conductance is well below the desirable ~1000 Siemen threshold for Ni-Cu sulfides, this body could represent a large Ni-Cu sulfide system, which could contain zones with higher sulfide concentrations that are undetectable from the surface at these depths. A very subtle anomaly pattern was also observed at the NW end of the westernmost of the Surface UTEM 5 lines that is probably due to Eagle's Nest.

TARGET PARAMETERS

TYPE: Ni-Cu-PGE Sulfide or VMS
LOCATION: AT5
CONTEXT: Footwall of AT5 ultramafic body, within a current channelling structure
STRIKE: NE-SW (045 degrees)
STRIKE EXTENT: ~800m (centred on L5700E, Station 550N)
DIP: ~82 degrees
DEPTH: ~750m to top
DEPTH EXTENT: 500m?
THICKNESS: 50m
CONDUCTANCE: ~100 Siemens, minimum (UTEM 5 Ch 1 through 8 Anomaly)
CHARGEABLE: Probably, along strike extension
RESISTIVITY LOW: Probably, along strike extension

POSSIBLE CAUSATIVE BODY:

i) Large but discrete (800m x 500m?) stringer to net-textured Ni-Cu sulfide system ,

ii) This body may contain smaller, higher grade, and higher conductance, sulfide units that are undetectable from surface due to their small size relative to the depth

ALTERNATIVE CAUSATIVE BODIES:

a) Graphite - improbable since graphite has not been observed on the property to date

b) Iron formation- improbable since conductive iron formation horizons have not been observed on the property to date

c) Massive or stringer magnetite - improbable, since the strike extensive magnetite zones on the property have a lower conductance than the 100S modelled for the UTEM 5 body

KEY POINTS

- The body modelled from the UTEM 5 data lies on the NW flank of the AT5 magnetic anomaly, has an 800m strike length, 500m depth extent and 50m thickness. It is strike limited, and therefore probably not formational. It could represent the area-extensive net-textured and stringer components of a large sulfide system.

- This body lies well below all drillholes in the area. It has therefore not been intersected and has not been investigated properly with BHEM. It is a blind target.

- The modelled conductance is at least 100 Siemens (2 Siemens/m over 50m). Although this is well below the desired threshold of 1000 Siemens, this body is very deep and out of range for detection of smaller and more sulfide rich (higher conductance) zones, within this larger halo of moderate conductivity.

- The body lies within a modelled 20 ohm-m (~2.5 Siemen if 50m wide) current channel, or probable structure, which extends across the length of the Surface UTEM5 grid. This structure is probably coincident with the deep IP chargeable anomaly observed on line 6200E, below 400m depth. The modelled conductive body also lies to the SW of a possible sinistral jog in this current channelling structure, as indicated in the UTEM 5 and aeromagentic data.

- The modelled body is parallel to the near surface strike of Eagle's Nest, and dips to the NW, parallel to the deeper parts of Eagle's Nest. This could indicate that the body is hosted in a parallel metalliferous structure.

- Although the ultramafic and mafic rocks identified in drillholes at AT5 have been classified as unfavourable for hosting Ni-Cu sulfides, the geology may change at depth. Data from both the Surface UTEM 5 survey (conductor below 750m) and the IP Survey (chargeability high plus resistivity low below 400m), indicate a change with depth.

- Borehole UTEM data, from drillholes NOT-10-1G195 and NOT-10-1G191 at AT5, both exhibit anomalies at the bottom of the hole indicative of conductivity off the ends of these holes. Although these partial anomalies are difficult to model, they are both in the vicinity of the new UTEM 5 modelled body and the L6200E Deep IP Chargeable features / UTEM 5 current channelling structure.

- Physical properties measurements on samples of dunite from drillholes NOT-10-1G195 have indicated an average of 49 ohm-m (1 Siemen for a 50m interval). This is similar to the 20 ohm-m (2.5 Siemens over 50m) modelled for the current channel by Lamontagne, but may not be the same causative lithology. Similar results of 24 ohm-m on average (2 Siemens for a 50m interval) were observed for drillcore samples of serpentinized peridotite with magnetite stringers. Although strike extensive (400-800m long) magnetite bearing zones are observed on the property as conductor axes via the VTEM surveys, neither of these physical property averages agree with the 100 Siemens modelled for the conductive UTEM 5 body centred over line 5700E.

- A shallow anomaly has been detected on Line 5800E, at ~600N. The anomaly is small, probably pencil-like, and would be difficult to drill. It demonstrates a conductance indicative of sulfides, however, and should be taken as evidence of probable sulfides in the area.

- This target also conforms to a VMS target model, if the correct rock types can be shown to exist in the vicinity of the modeled conductor. The modelled conductivity and size conform to a VMS model.

- The detection of this conductor at 750m depth is significant for the power of the UTEM 5 system to detect conductive bodies at significant depths on the culturally quiet Noront pre-development property (i.e. lacking in EM noise due to culture or development activity). The new UTEM 5 technology and processing can facilitate very deep exploration.

Please refer to the annotated Figures 1 through 8, and Plots 1 through 7, as attached.

RECOMMENDATIONS

The modelled deep body from the Surface UTEM 5 survey should be tested. Although it is 'high-risk' due to the 750m depth and low >100 Siemen conductance , this target could be due to an 800m x 500m sulfide system which could contain smaller zones of higher sulfide concentration that are undetectable from surface.

An appropriate approach should include the drilling of 1 or 2 deep platform holes, to a depth of 1300m, parallel and down-dip with the modelled target zone, for the primary purpose of Borehole UTEM surveying. This approach would provide more and cleaner borehole EM data than drillholes designed to pierce the zone initially. (Inhole conductors and magnetic anomalies would complicate the BHEM anomalies and affect accurate interpretation.) If higher conductance zones are identified from the BHEM surveys, then these can be targeted by wedging off into the target bodies.

This target should be prioritized below any >1000 Siemen near surface targets developed in Areas 6 and 5, under the current Q2-Q3 program. A program is roughly estimated to cost $400k-500k for 1 hole, including BHEM and wedging. (This rough calculation has to be checked in detail.)

A second approach may be to ream and wedge off of existing drillhole NOT-10-1G191. Although this hole would not be ideal as a BHEM platform hole, it may be a cost effective way to get a first intersection of the large modelled conductive body.

All of the above should be discussed in person or via Webex using active 3D maps.

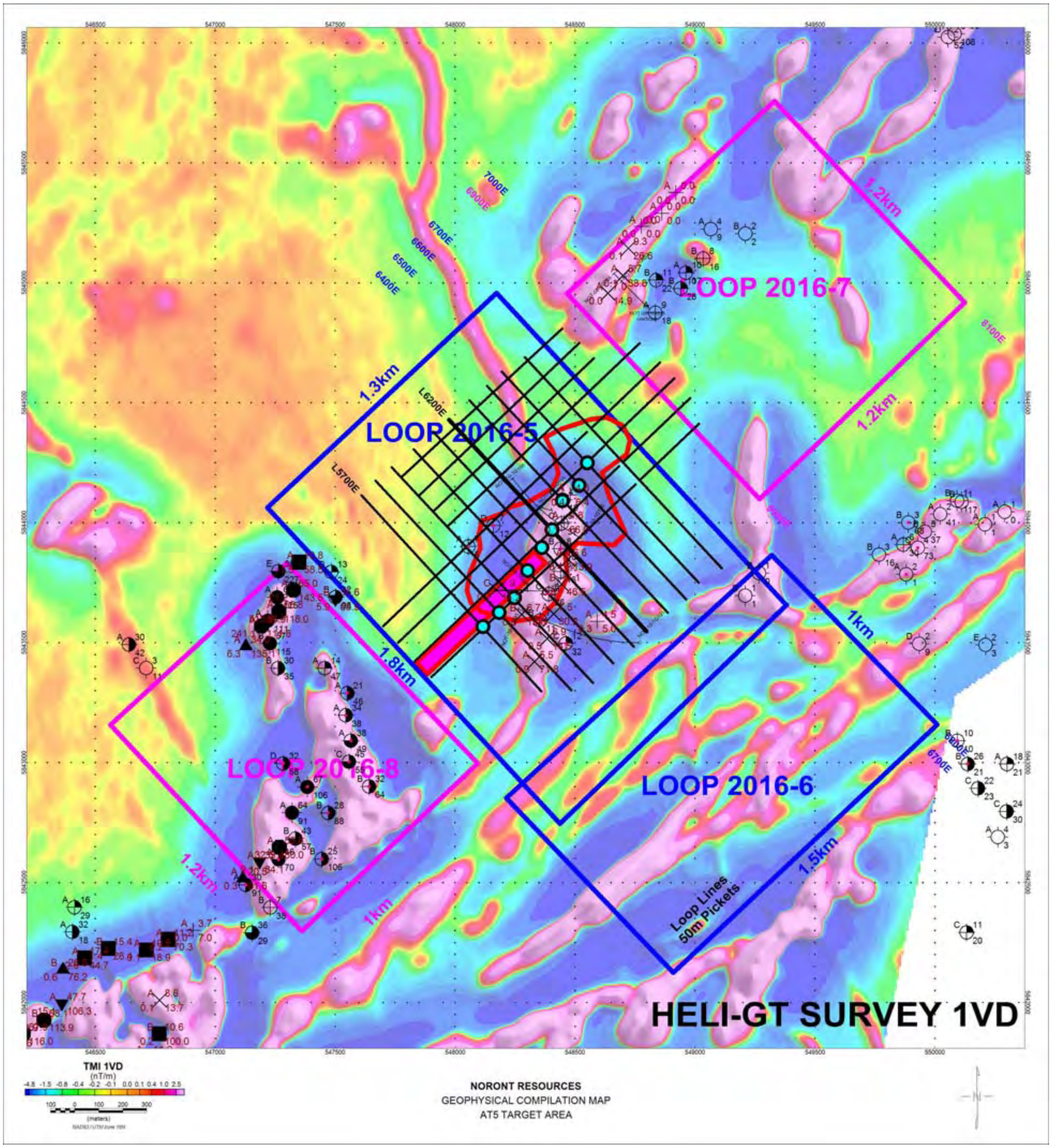


Fig 1: Heli-GT Aeromagnetic Survey, First Vertical Derivative, with Surface UTEM 5 Loops and Lines, plus modelled deep body from UTEM 5 data (pink polygon), and UTEM 5 Bz cross-over points (cyan dots). Note the sinistral jog in the HW/FW contact of the AT5 magnetic body, and in the trace of the current channelling anomaly (structure) indicated by the Bz cross-over points.

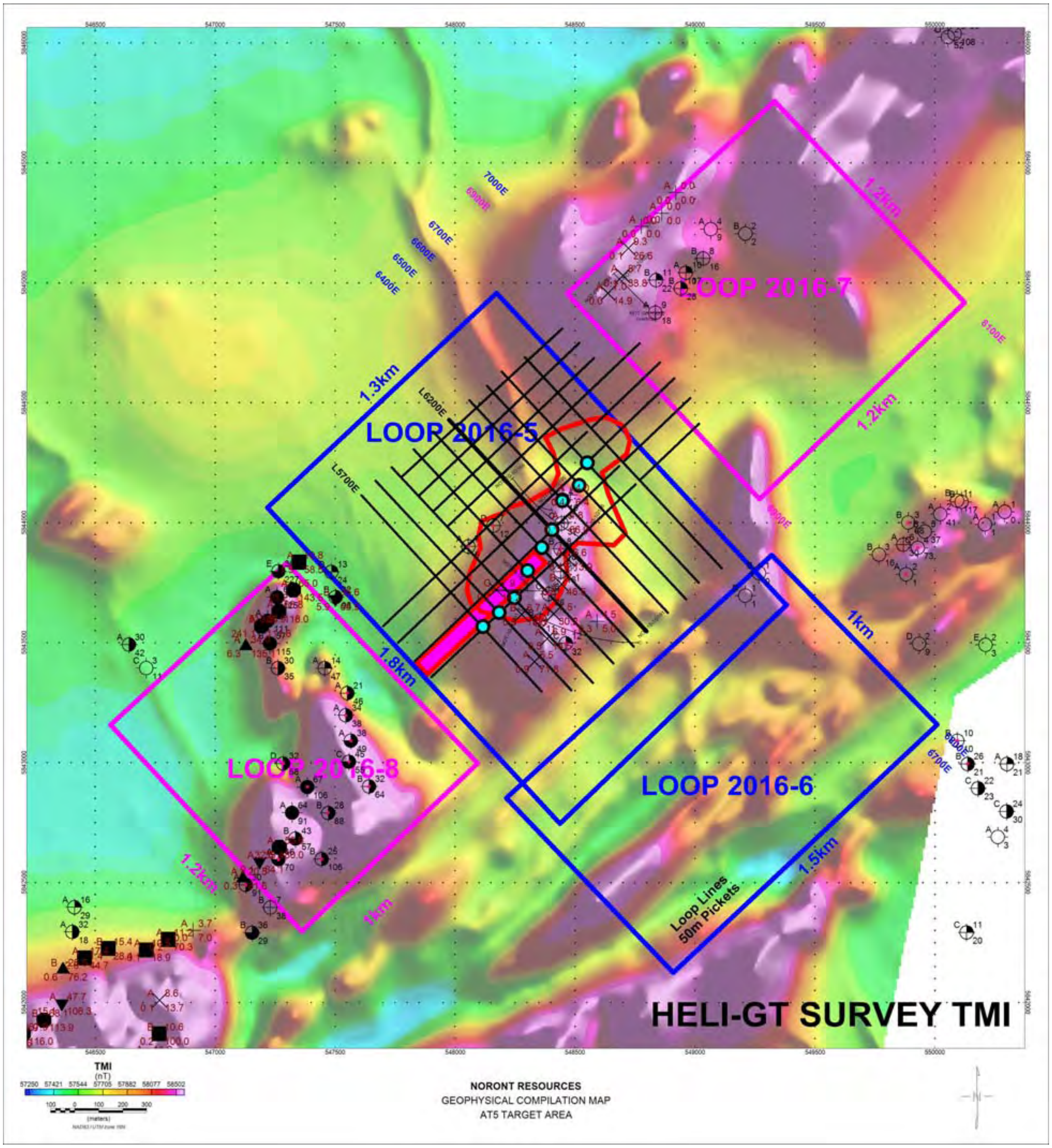


Fig 2: Heli-GT Aeromagnetic Survey, Total Magnetic Intensity, with Surface UTEM 5 Loops and Lines, plus modelled deep body from UTEM 5 data (pink polygon)), and UTEM 5 Bz cross-over points (cyan dots).

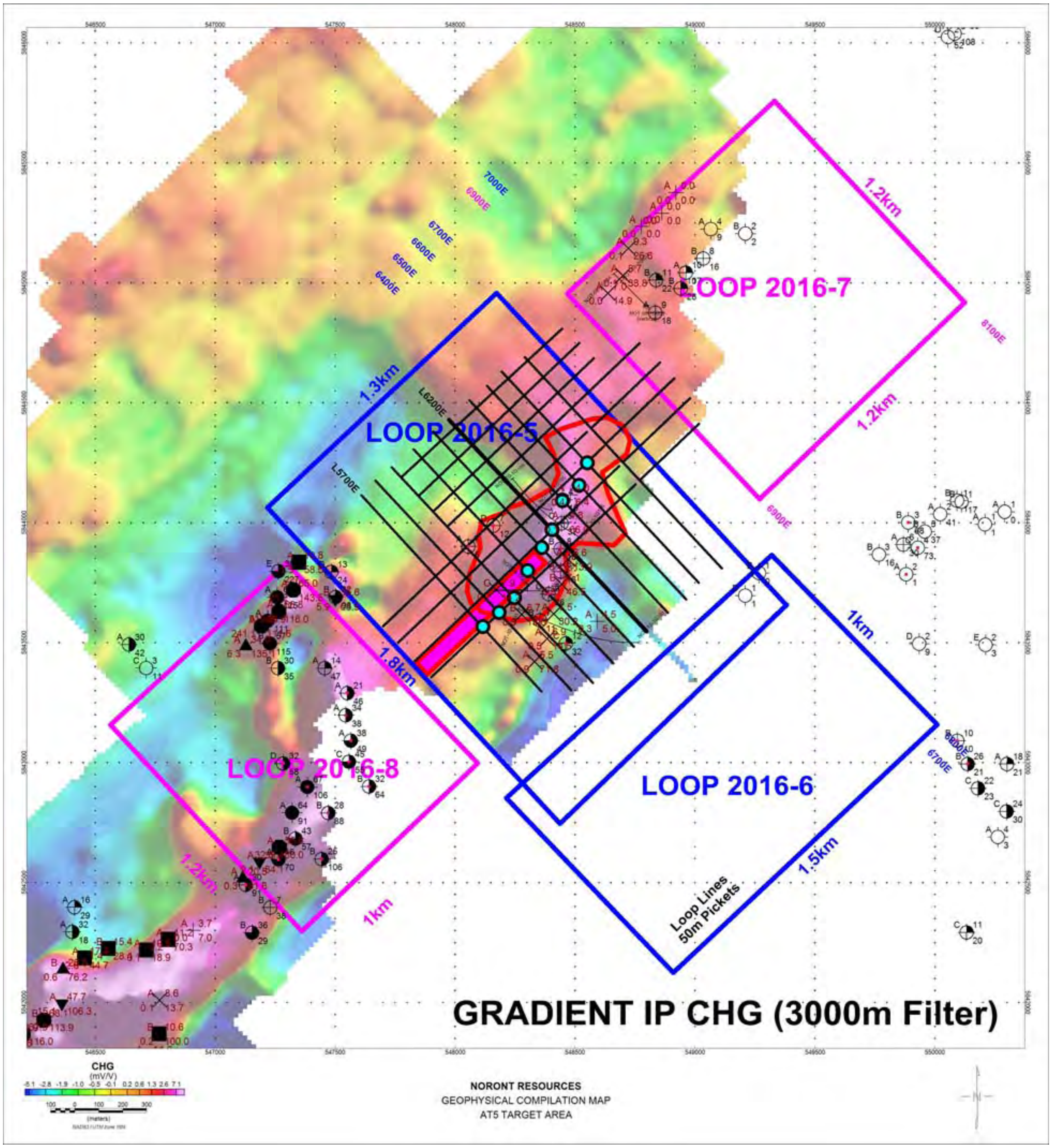


Fig 3: Gradient IP Survey, Chargeability, with Surface UTEM 5 Loops and Lines, plus modelled deep body from UTEM 5 data (pink polygon) , and UTEM 5 Bz cross-over points (cyan dots). Note that the modelled deep UTEM 5 body lies below the chargeablility 'cloud' on the NW flank of the AT5 ultramafics.

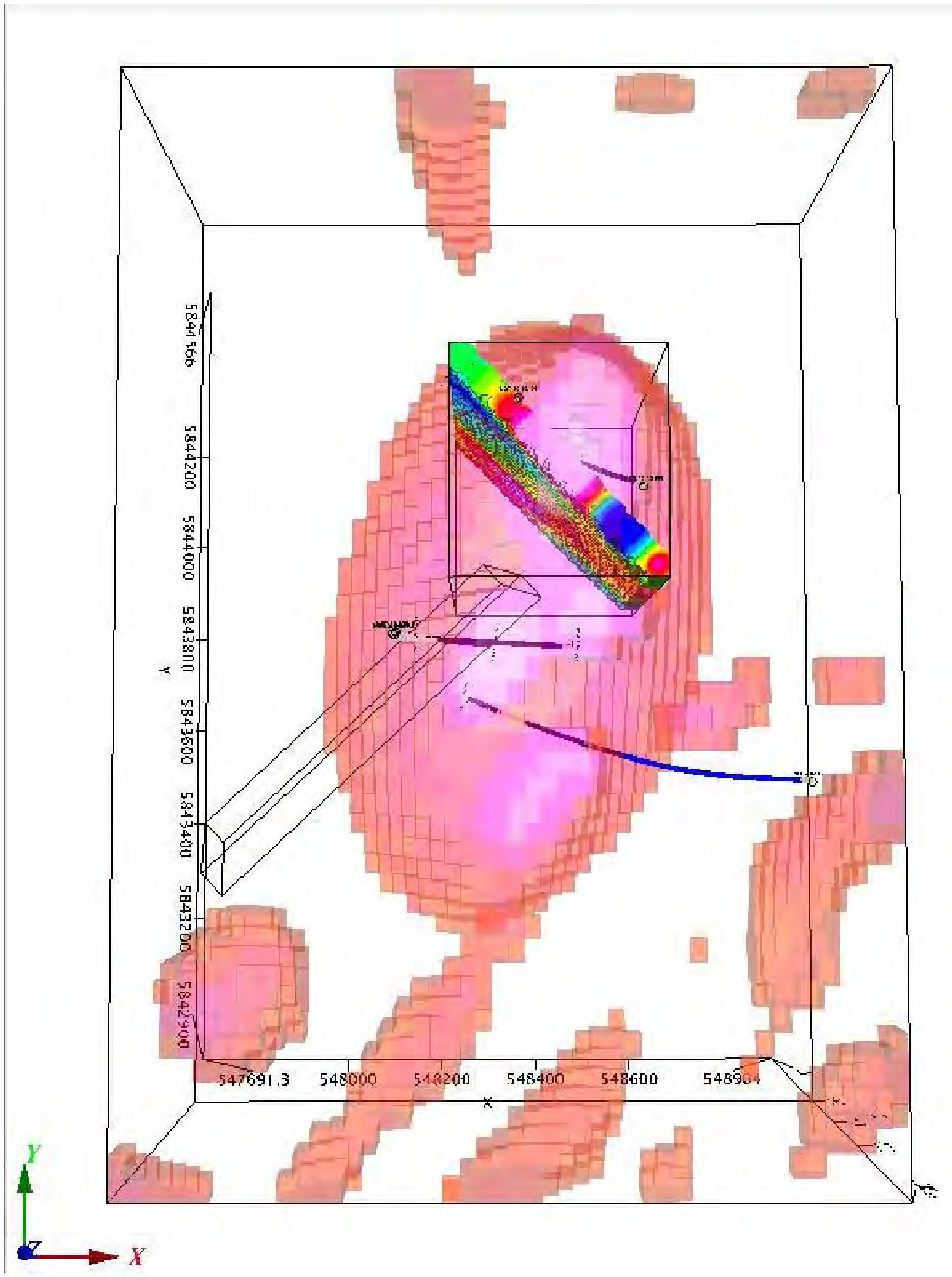


Fig 4: 3D Rendering looking from above, N is up, of Deep UTEM 5 body (black polygon), 3D magnetic inversions (pink), IP Chargeability Inversion (full colour) and Drillholes.

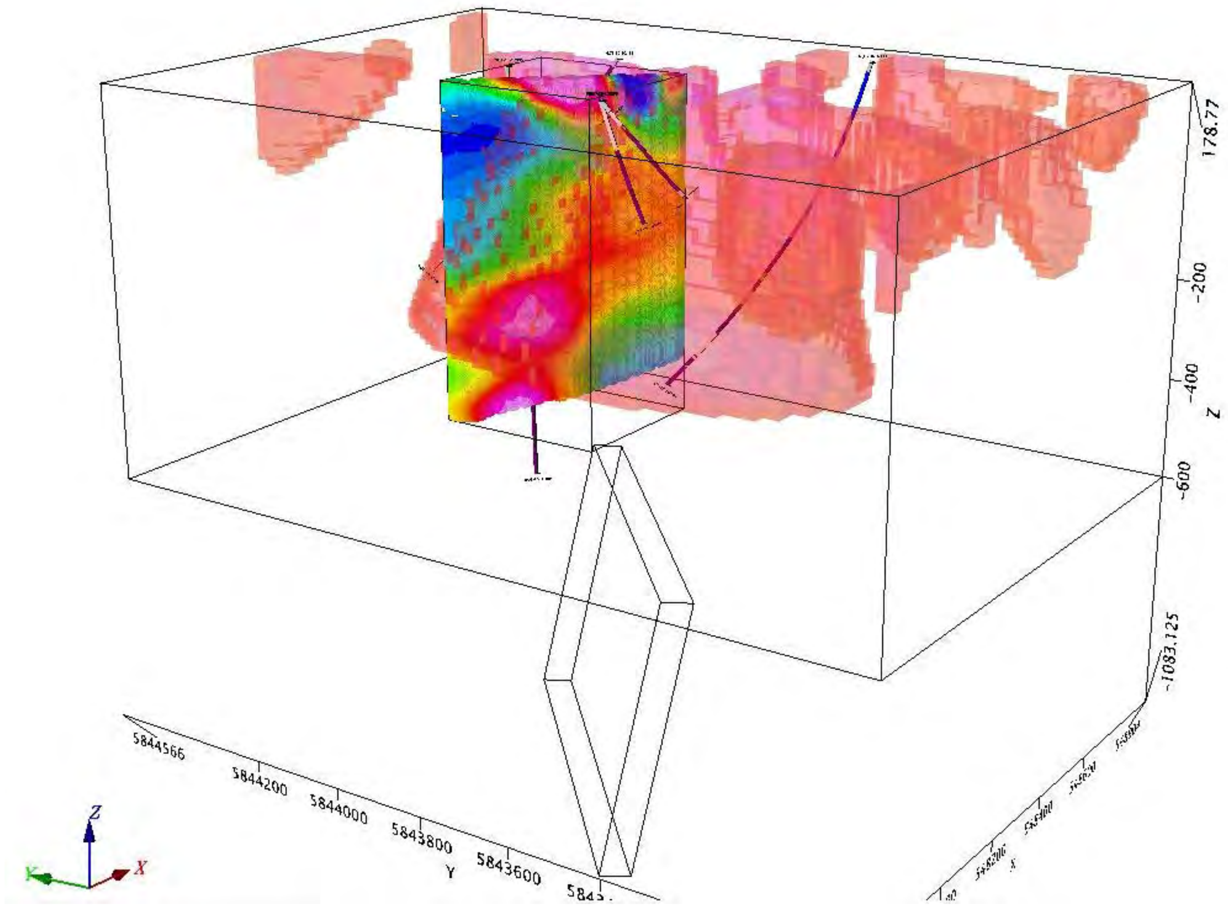


Fig 5: 3D Rendering looking from side, looking to NE, of Deep UTEM 5 body (black polygon), 3D magnetic inversions (pink), IP Chargeability Inversion (full colour) and Drillholes. Note that the strike of the UTEM 5 deep body is roughly in line with the deep chargeable inversion feature on L6200E. Note the NW-stepping offset and possible lithology change in the IP chargeability inversion at ~400m depth.

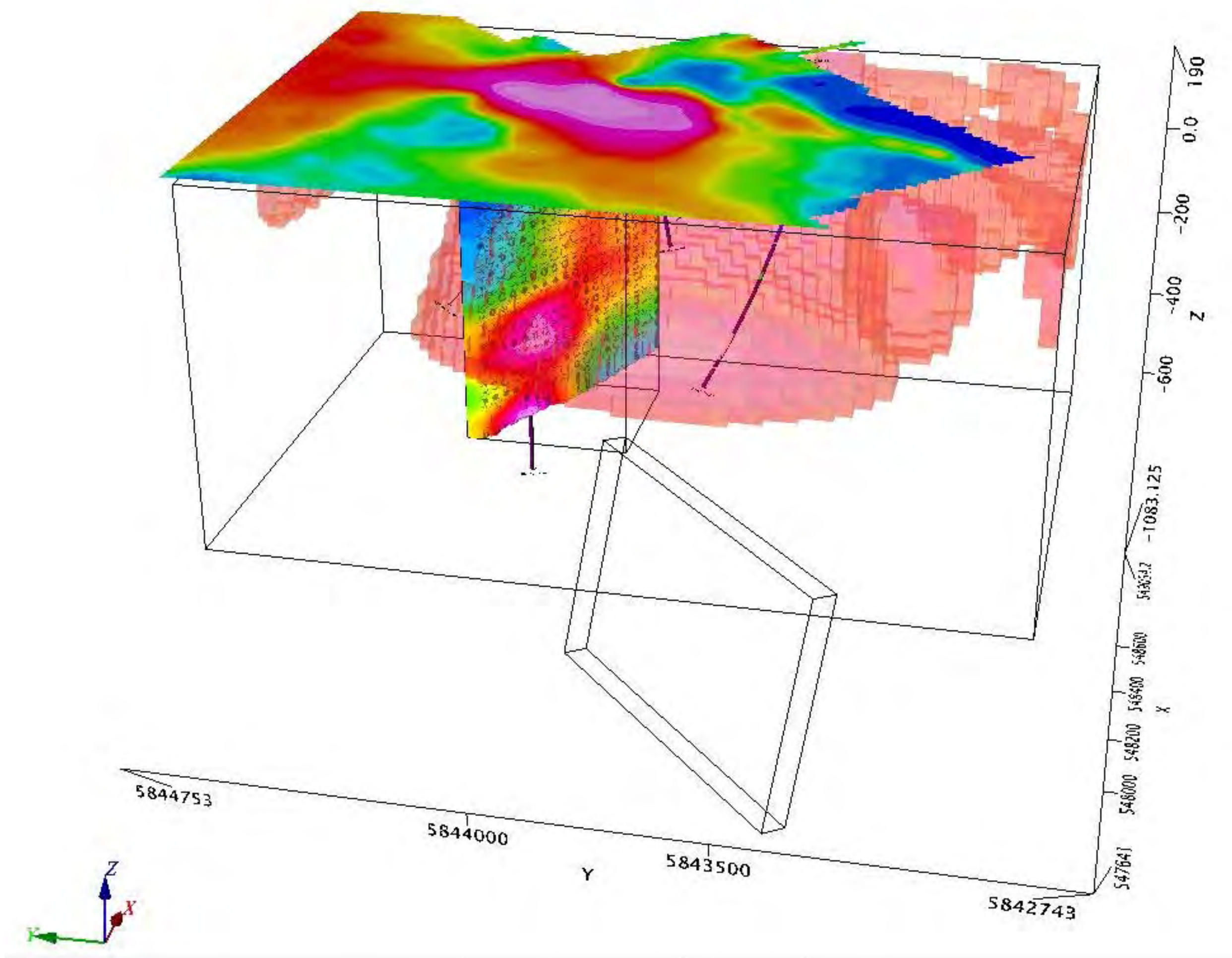


Fig 6: 3D Rendering looking from side, looking to ENE, of Deep UTEM 5 body (black polygon), 3D magnetic inversions (pink), IP Chargeability Inversion (full colour) and Drillholes. Gradient IP Chargeable plan map added. Again, the strike of the UTEM 5 deep body is roughly in line with the deep chargeable inversion feature on L6200E.

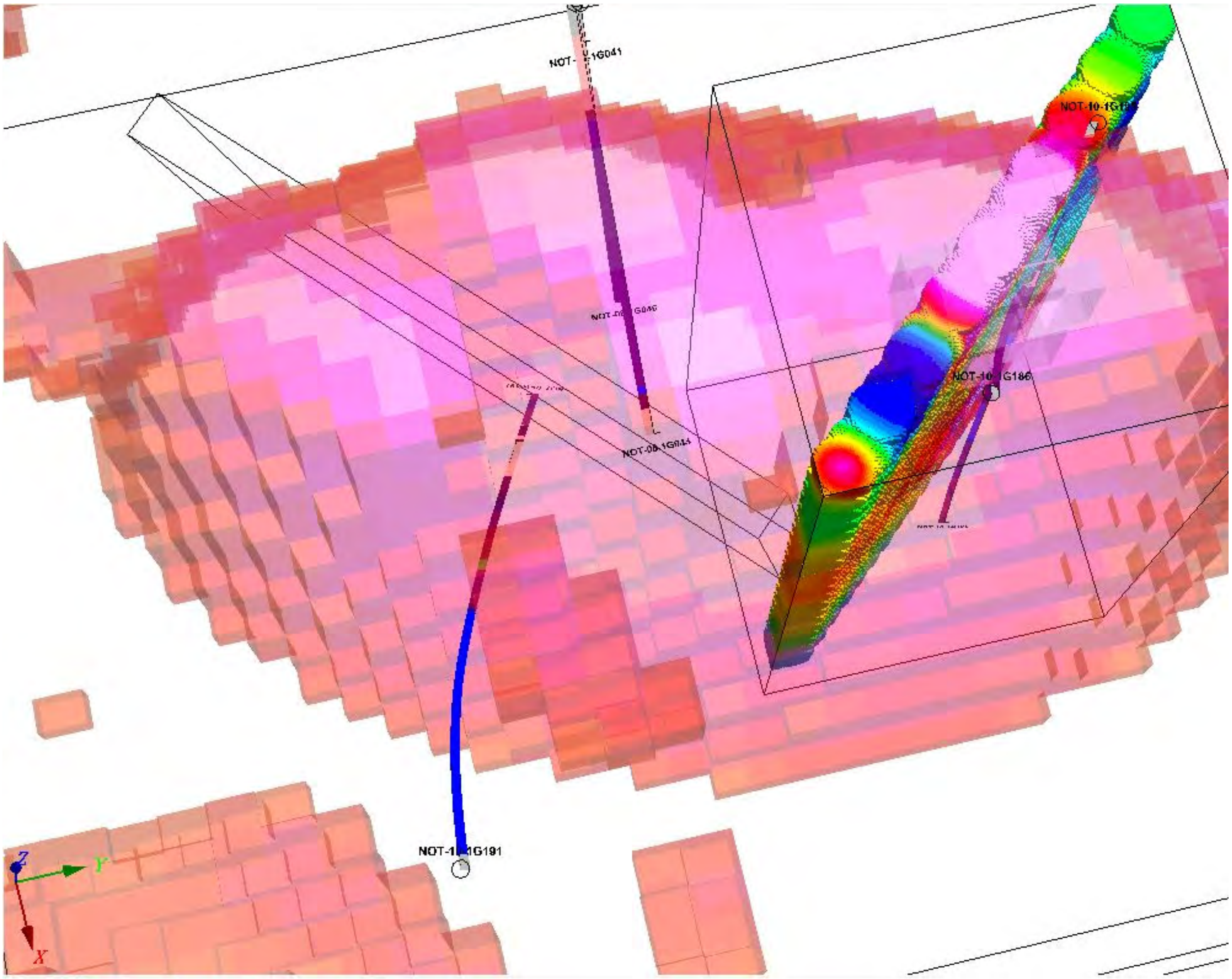


Fig 7: 3D Rendering looking from above to WNW, of Deep UTEM 5 body (black polygon), 3D magnetic inversions (pink), IP Chargeability Inversion (colour) and Drillholes.

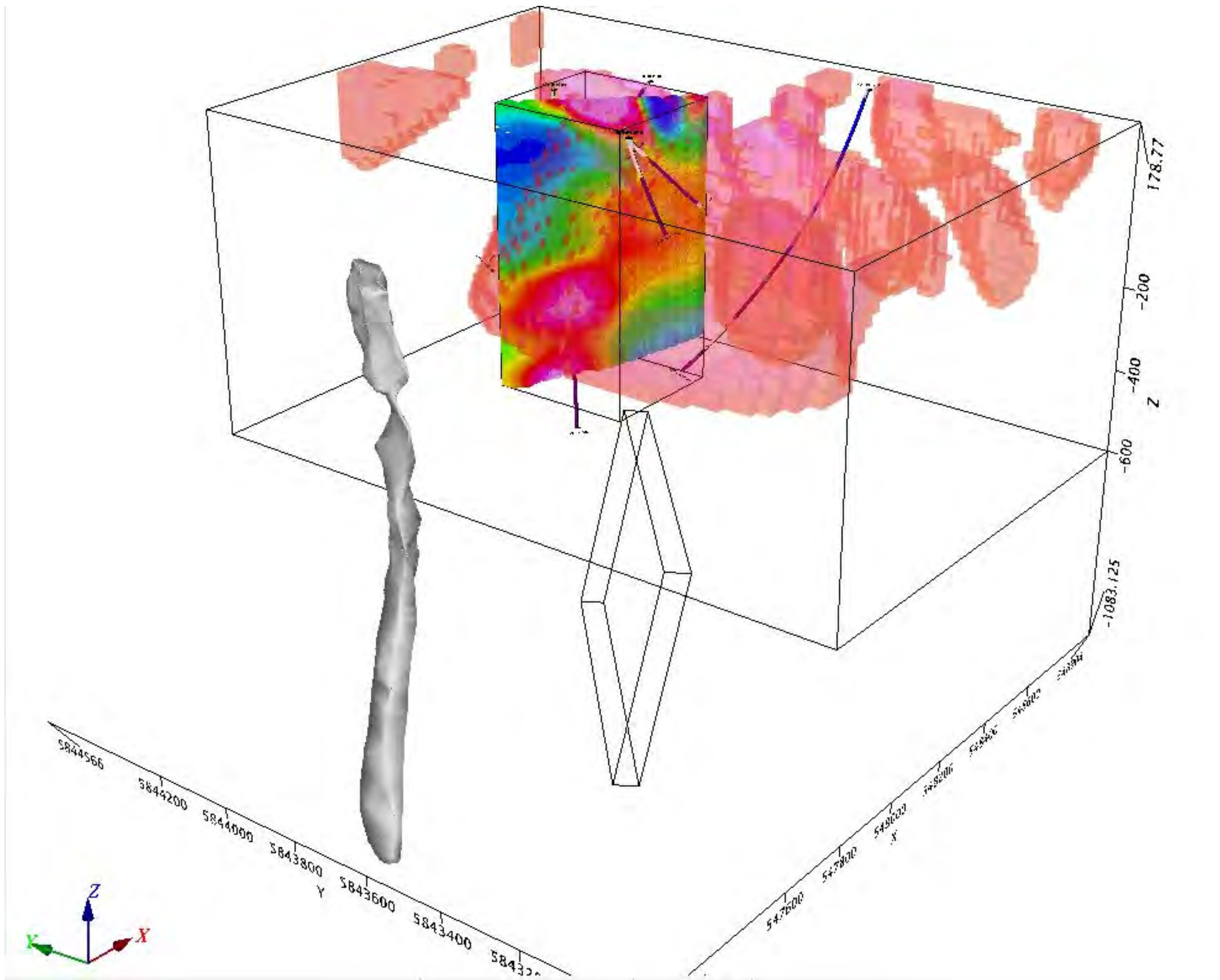
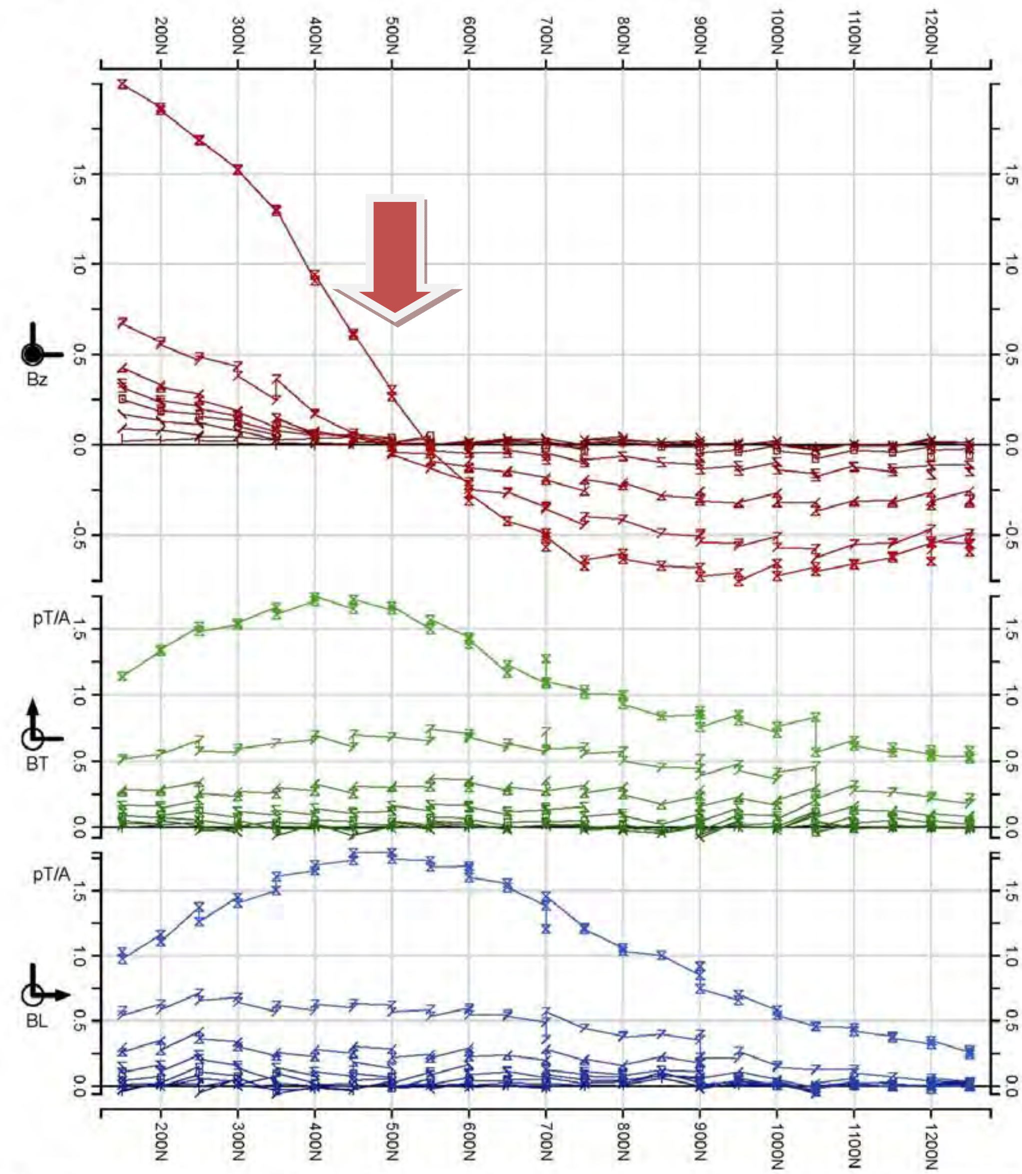


Fig 8: 3D Rendering looking from above to NE, of Deep UTEM 5 body (black polygon), 3D magnetic inversions (pink), IP Chargeability Inversion (colour) and Drillholes and Eagle's Nest Wireframe. Note that strike of the deep UTEM 5 body is parallel with the top part of Eagle's Nest, and the dip is parallel with the bottom of Eagle's Nest.

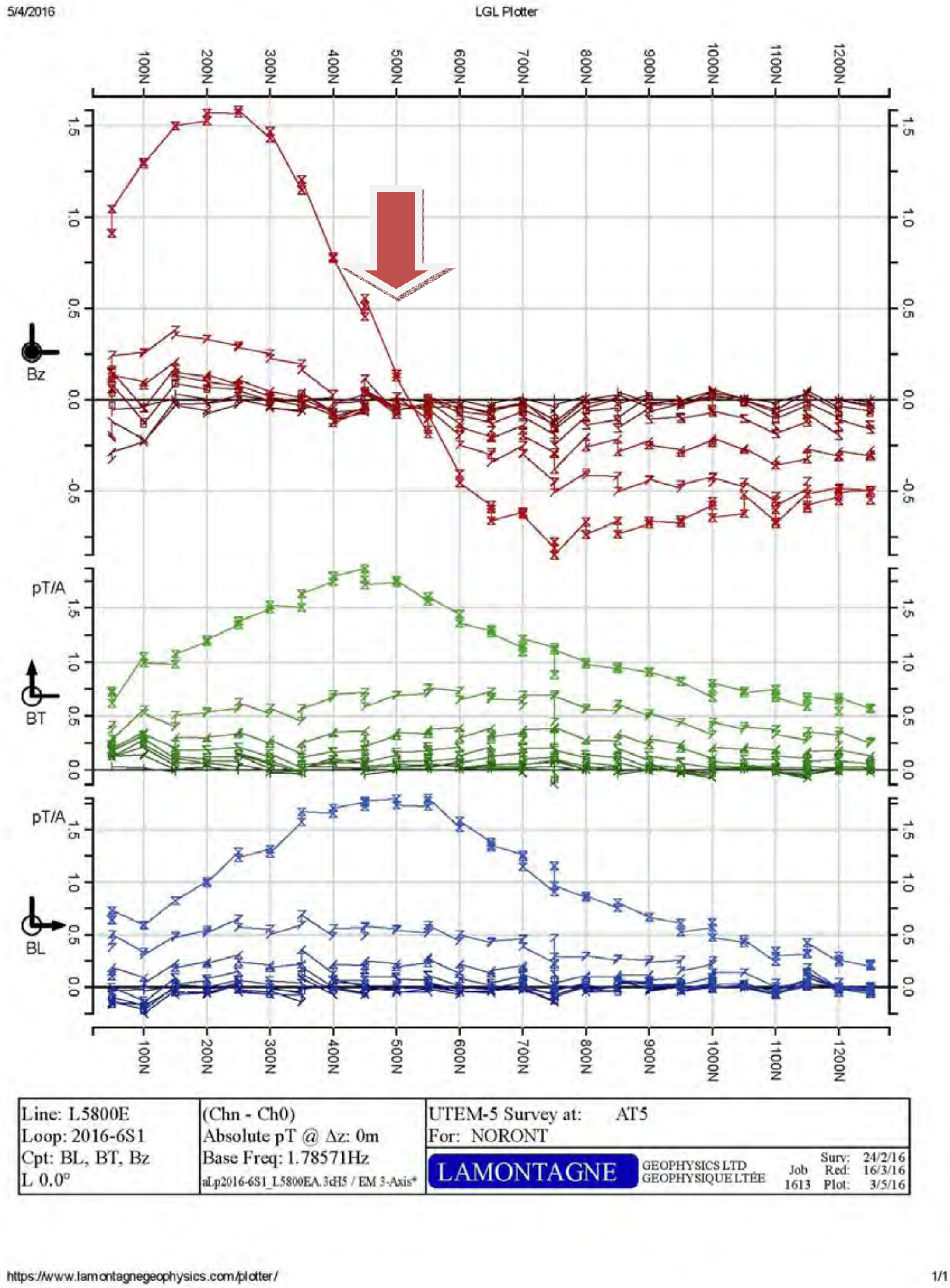
5/4/2016 LGL Plotter



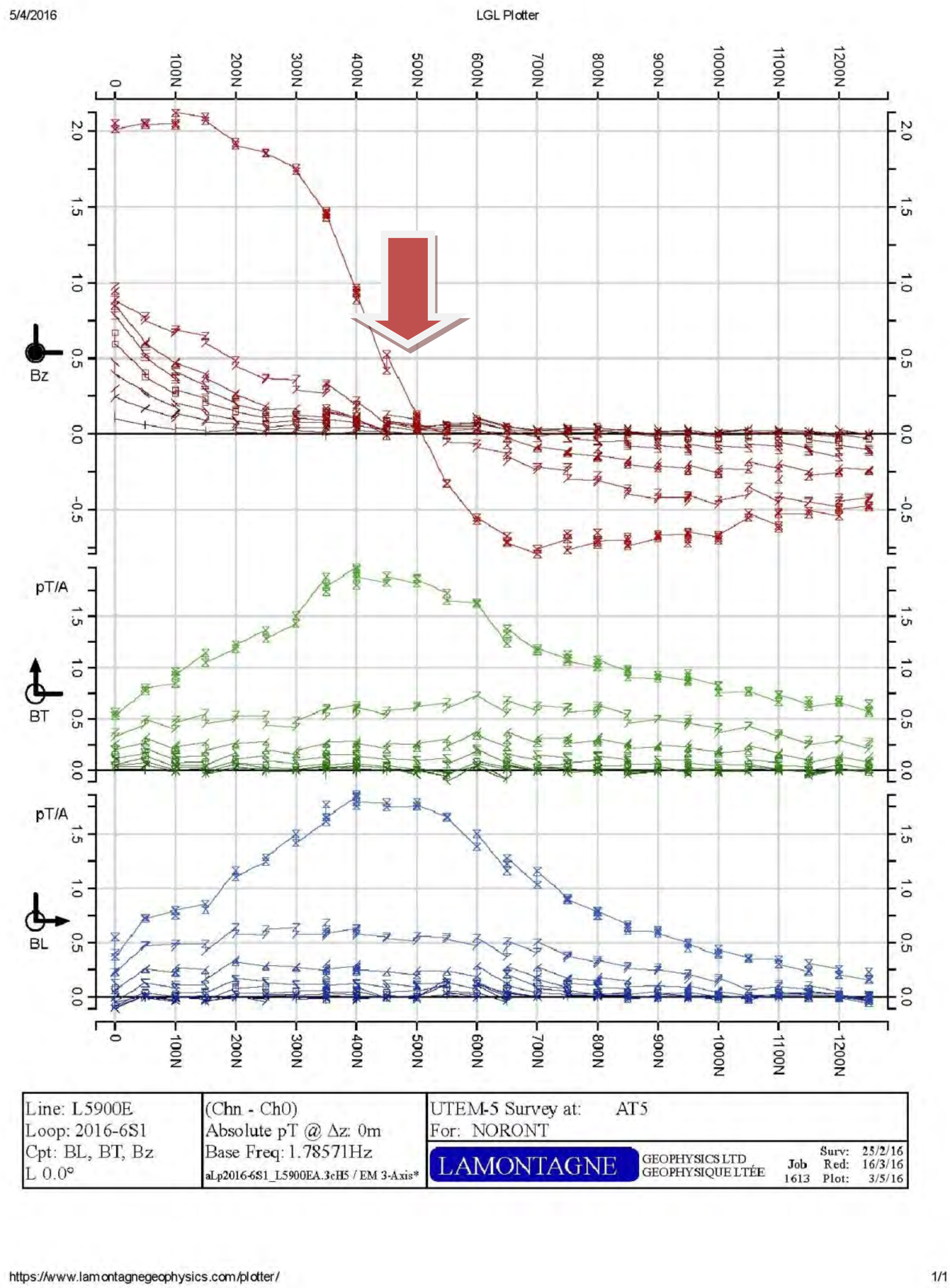
Line: L5700E Loop: 2016-6S1 Cpt: BL, BT, Bz L 0.0°	(Chn - Ch0) Absolute pT @ Δz: 0m Base Freq: 1.78571Hz aLp2016-6S1_L5700EA.3dI5 / EM 3-Axis*	UTEM-5 Survey at: AT5 For: NORONT LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1613 Surv: 24/2/16 Red: 16/3/16 Plot: 3/5/16

https://www.lamontagnegeophysics.com/plotter/ 1/1

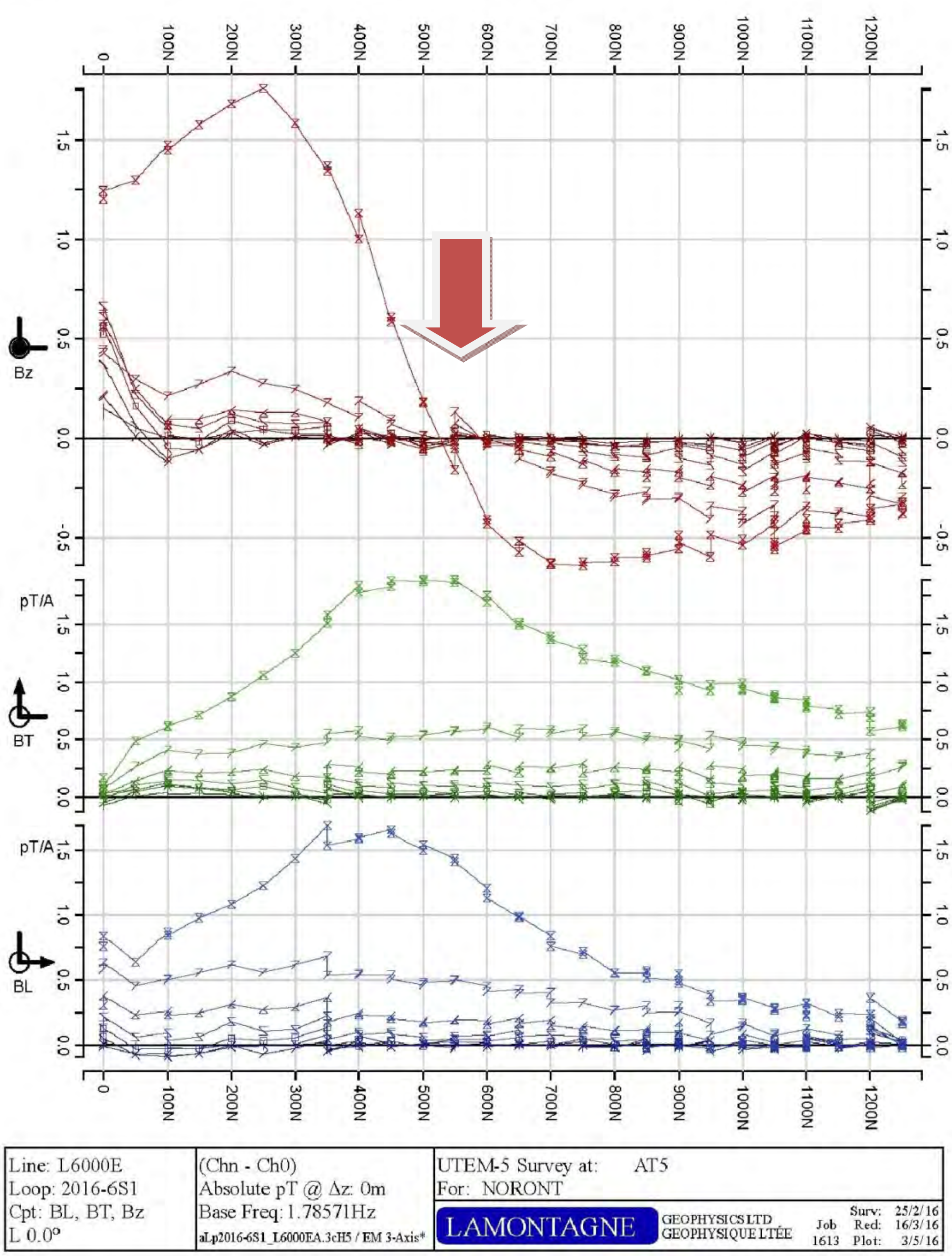
PLOT 1: UTEM 5 Profiles for L5700E, Ch 1 through 8, Normalized for subtle anomalies. Subtle picoTesla/A scale crossover (Z-component) and peak anomaly (orthogonal components) observed for deep causative body north of Line 500N.



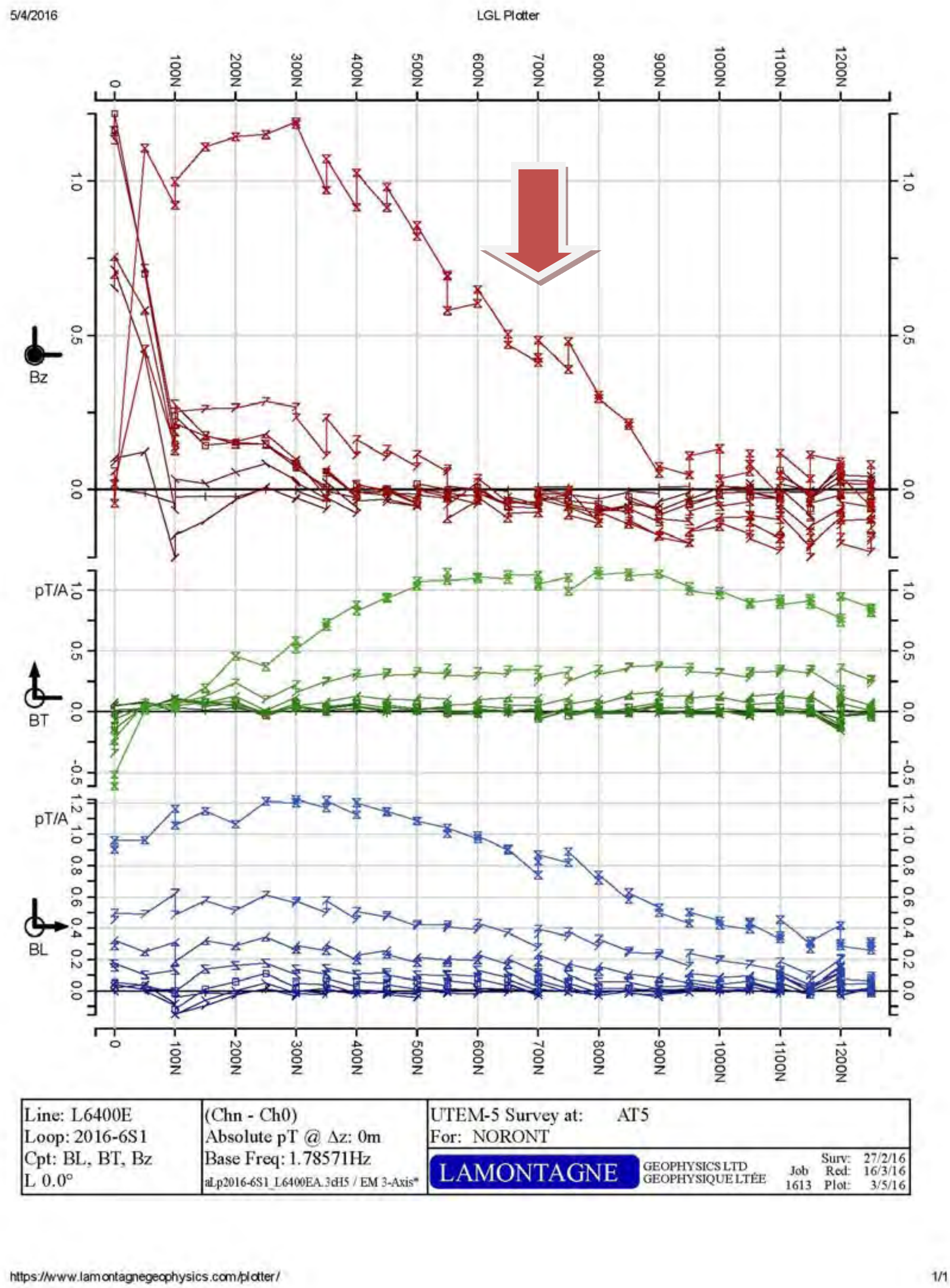
PLOT 2: UTEM 5 Profiles for L5800E, Ch 1 through 8, Normalized for subtle anomalies. Subtle picoTesla/A scale crossover (Z-component) and peak anomaly (orthogonal components) observed for deep causative body north of Line 500N.



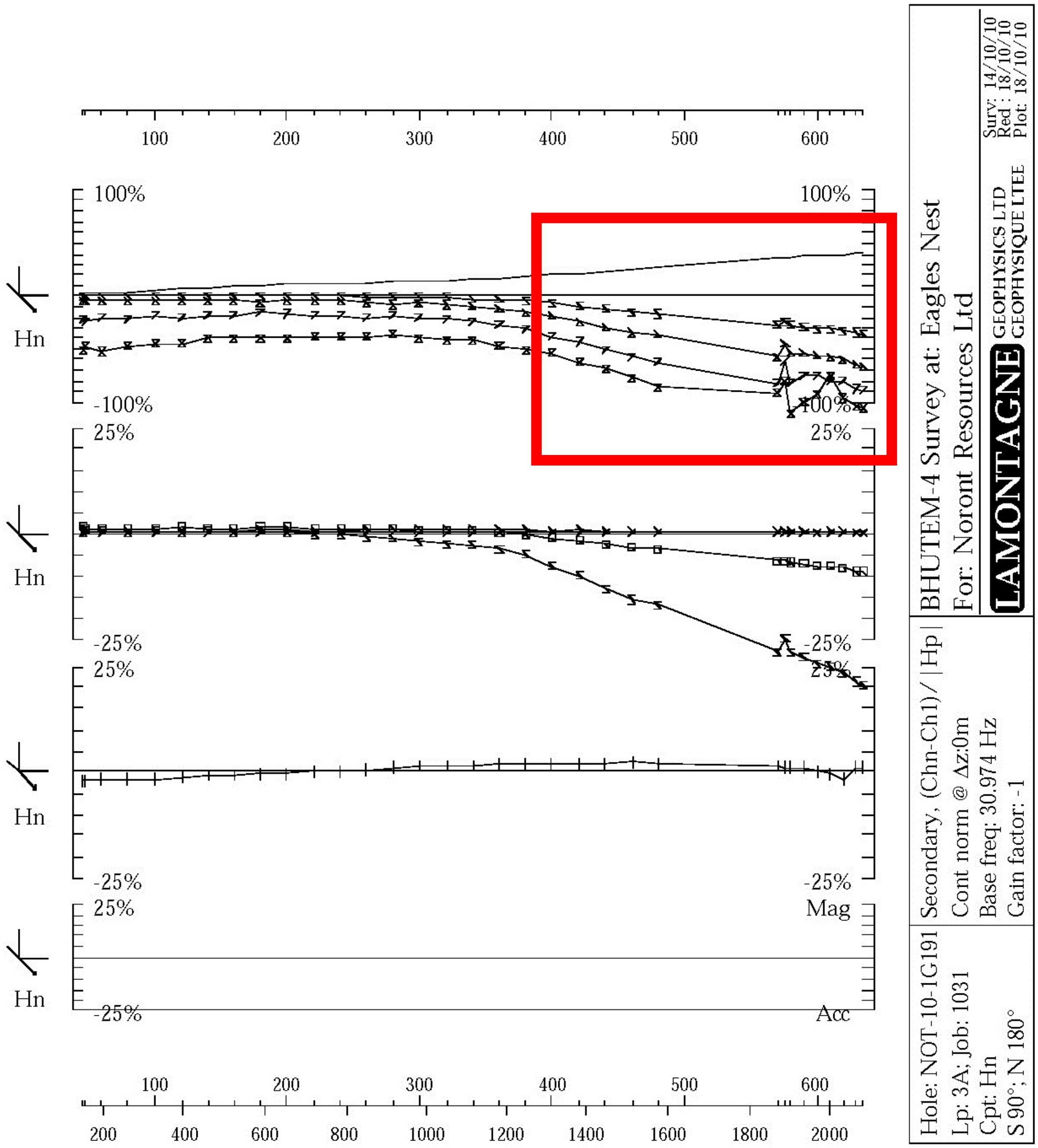
PLOT 3: UTEM 5 Profiles for L5900E, Ch 1 through 8, Normalized for subtle anomalies. Subtle picoTesla/A scale crossover (Z-component) and peak anomaly (orthogonal components) observed for deep causative body north of Line 500N.



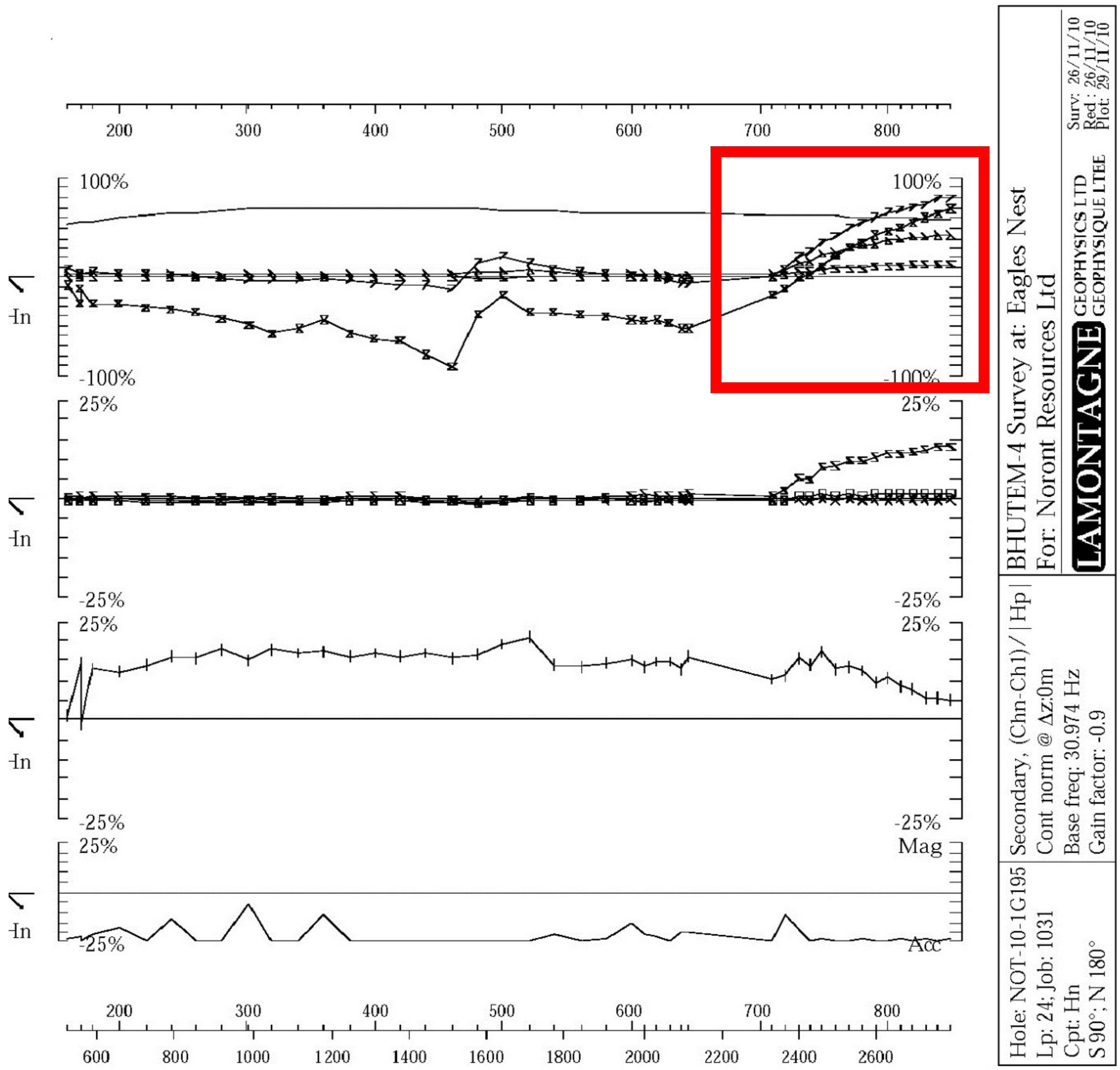
PLOT 4: UTEM 5 Profiles for L6000E, Ch 1 through 8, Normalized for subtle anomalies. Subtle picoTesla/A scale crossover (Z-component) and peak anomaly (orthogonal components) observed for deep causative body north of Line 500N.



PLOT 5: UTEM 5 Profiles for L6400E, Ch 1 through 8, Normalized for subtle anomalies. Subtle picoTesla/A scale crossover (Z-component) and peak anomaly (orthogonal components) observed for <u>deep current channelling structure</u>, north of Line 700N.



PLOT 6: Borehole UTEM Hn plot showing response for conductor off the end of the hole in DDH NOT-10-1G191, in the vicinity of the deep body modelled from the 2016 Q1 Surface UTEM 5 Survey.



PLOT 7: Borehole UTEM Hn plot showing the response for a conductor off the end of the hole in DDH NOT-10-1G195, in the vicinity of the deep current channel modelled from the 2016 Q1 Surface UTEM 5 Survey,and the moderately deep IP anomaly. (Anomaly is weaker than the one observed in DDH NOT-10-1G191.)