

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

**Assessment Report
Title Page and Summary**

TYPE OF REPORT [type of survey(s)]: MT Geophysics Survey

TOTAL COST: \$72,590.96

AUTHOR(S): David L. Pighin/Quantec Geoscience

SIGNATURE(S): "David L Pighin"

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): N/A

YEAR OF WORK: 2019

STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S): 5801697

PROPERTY NAME: Aldridge 2

CLAIM NAME(S) (on which the work was done): 1065280,1069441,1061351,1061350

COMMODITIES SOUGHT: Lead/Zinc

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN:

MINING DIVISION: Nelson

NTS/BCGS:

LATITUDE: 49 ° 15 ' 48 " **LONGITUDE:** 116 ° 14 ' 39 " (at centre of work)

OWNER(S):

1) DLP RESOURCES INC.

2)

MAILING ADDRESS:

#201 - 135 - 10th Ave. S.,

Cranbrook, B.C. V1C 2N1

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

1) Same

2)

MAILING ADDRESS:

Same

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

Aldridge Formation; siltstones; faults; lead; zinc

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: 38451

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping _____			
Photo interpretation _____			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic _____			
Electromagnetic _____			
Induced Polarization _____			
Radiometric _____			
Seismic _____			
Other Titan 24 Magnetotelluric (MT) Survey 11.6 km	1065280,1069441,1061351,1061350		\$72,590.96
Airborne _____			
GEOCHEMICAL (number of samples analysed for...)			
Soil _____			
Silt _____			
Rock _____			
Other _____			
DRILLING (total metres; number of holes, size)			
Core _____			
Non-core _____			
RELATED TECHNICAL			
Sampling/assaying _____			
Petrographic _____			
Mineralographic _____			
Metallurgic _____			
PROSPECTING (scale, area) _____			
PREPARATORY / PHYSICAL			
Line/grid (kilometres) _____			
Topographic/Photogrammetric (scale, area) _____			
Legal surveys (scale, area) _____			
Road, local access (kilometres)/trail _____			
Trench (metres) _____			
Underground dev. (metres) _____			
Other _____			
		TOTAL COST:	\$72,590.96

**ASSESSMENT REPORT
TITAN 24 MT GEOPHYSICAL SURVEY**

ALDRIDGE 2 PROPERTY

**NTS 082F/1E,1W
BCGS 082F029/019
UTM 555000E 5457000N**

**LEADVILLE CREEK AREA
Kitchener, BC**

Nelson Mining Division

Survey completed by:

**QUANTEC GEOSCIENCE LIMITED
146 Spark Ave.,
Toronto, ON M2H 2S4**

**OWNER
DLP Resources Inc.
#201 – 135 – 10th Ave. S.,
Cranbrook, BC V1C 2N1**

Submitted: July, 2020

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**ASSESSMENT REPORT
TITAN 24 MT GEOPHYSICAL SURVEY**

DLP RESOURCES INC.

July, 2020

Report on MT Geophysical Survey - Aldridge 2 Property

1.0 Introduction

This assessment report presents the results of the analysis and interpretation of the data regarding a Titan 24 MT survey completed November 16 to 26, 2019 over the Aldridge Project Grid 2 by Quantec Geoscience Ltd. on behalf of DLP Resources Inc.

The objective of the survey was to detect and delineate zones and structures from near surface to potential depths of up to 1500 m with MT resistivity.

A total of 6 lines were surveyed with an azimuth of 90°. Data were processed, inspected for quality assurance, and reviewed daily by the geophysicist in charge of the project. The measured data were inverted using 2D inversions and the resultant models are presented as 2D cross-sections of the resistivity for each line. Constant-depth plan maps were generated from the 2D models and are presented at various depths.

2.0 Property Description, Location and History

2.1 Property Description and Location

The Aldridge 2 property is located on NTS map sheets 082F01 about 50 kilometres south of Cranbrook on BC Hwy 3 – see Location Map (Figure 1). The property is comprised of 6 mineral claims totaling 1,939.5 ha (Figure 2). The Aldridge 2 property is centered on UTM (Nad83,11 UTM) coordinates UTM 555000E 5457000N within the Nelson Mining Division. The Aldridge 2 is in the Leadville Creek drainage a west-flowing tributary to the Goat river. Access is gained from Highway 3 east of Creston using the Goat River forest service road then up the Leadville creek logging road for five kilometres before exiting on a side road to the south. There are logging clear-cuts to the south, some of which are fifteen years old with some roads overgrown but generally access is good to this portion of the property. Topography is moderate ranging from 1000m to 1750m ASL.

List of Claims

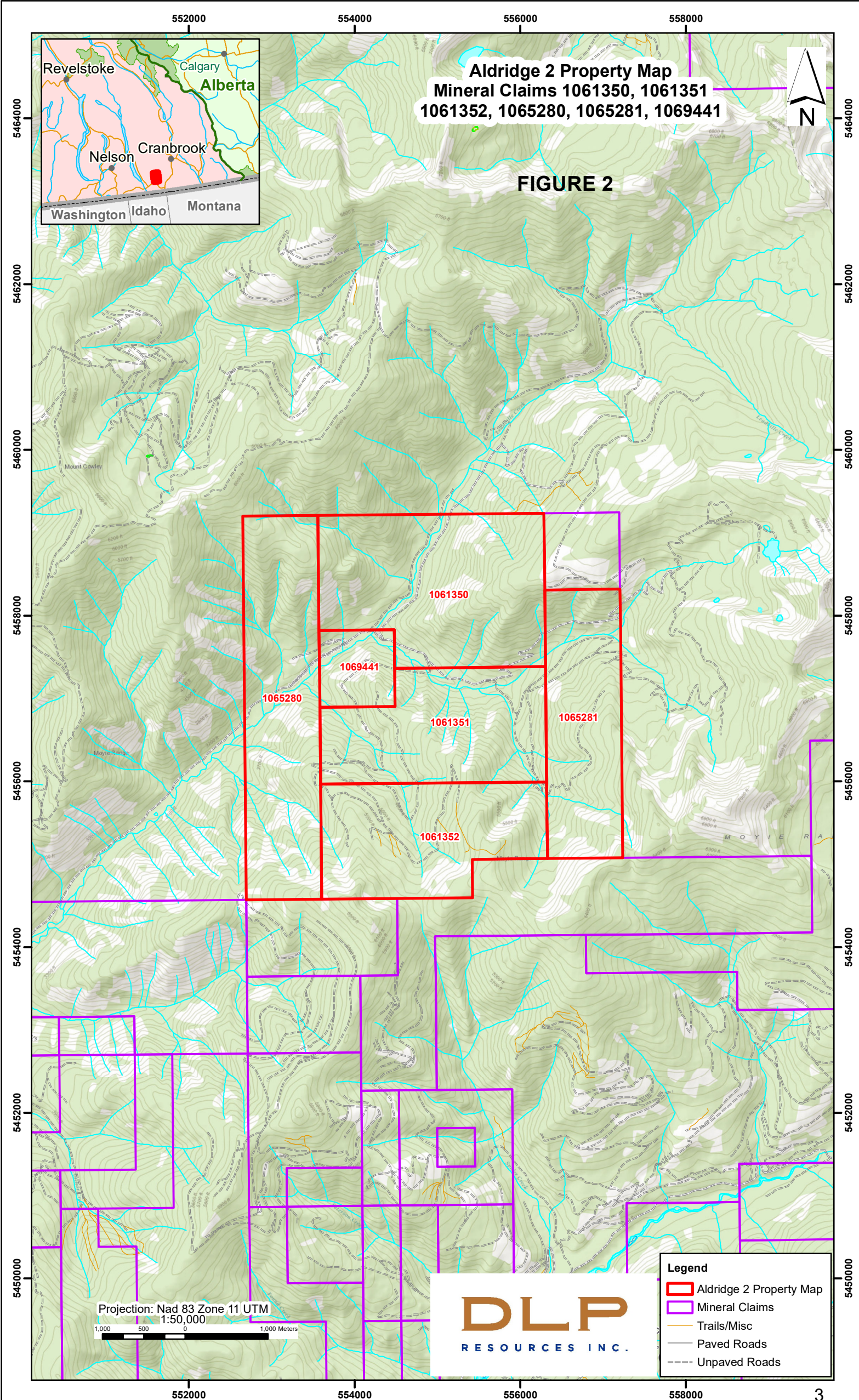
Title Number	Claim Name	Owner	Good To Date	Area (ha)	Comments
1061350	JR 4	286231 (100%)	2024/JUN/30	463.6697	
1061351	JR 5	286231 (100%)	2024/JUN/30	337.3201	
1061352	JR 6	286231 (100%)	2024/JUN/30	337.3977	
1065280	JR7	286231 (100%)	2024/JUN/30	421.6291	
1065281	JR8	286231 (100%)	2024/JUN/30	295.1519	
1069441	LIGER 01-19	132094 (100%)	2024/JUN/30	84.3187	Held Under Option

**ASSESSMENT REPORT
TITAN 24 MT GEOPHYSICAL SURVEY**

DLP RESOURCES INC.

July, 2020





Aldridge 2 Property Map
Mineral Claims 1061350, 1061351
1061352, 1065280, 1065281, 1069441

FIGURE 2

- Legend**
- Aldridge 2 Property Map
 - Mineral Claims
 - Trails/Misc
 - Paved Roads
 - Unpaved Roads

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RESOURCES INC.

**ASSESSMENT REPORT
TITAN 24 MT GEOPHYSICAL SURVEY**

DLP RESOURCES INC.

July, 2020

2.2 History

The Aldridge 2 block of claims has had very little exploration work completed on it. Some of the ground work did spread over into the Leadville drainage from efforts on the Kid/Star or Star properties which occur immediately to the south and on-strike from the Aldridge 2. Here exploration started in 1967 with prospecting, sampling of soils and rocks, geology mapping, geophysics and diamond drilling through to the present day. The principal work overlapping on to the Aldridge 2 was geophysics as a UTEM grid done by Cominco Ltd. in 1990 (Assessment Report 19274). The exploration done on the Kid/Star has been directed at Middle Aldridge host rocks with shear zones containing gold and base metals. Drilling also verified the rocks contain geochemically anomalous lead and zinc spread over a significant section as mineralization in quartz veins but also as disseminations within the sediments. Additional interest in the Peterson drainage was created by the presence of fragmental rocks and tourmalinite zones. The same Middle Aldridge stratigraphy underlies the Aldridge 2.

More recent mineral exploration has been focussed on structurally-hosted gold which is recognized throughout the district, especially in the Moyie and Perry creek drainages to the northeast.

3.0 Regional Geology

The Kid Creek-Leadville Creek area is central to the Purcell Anticlinorium, a broad generally north-plunging structure in southeastern B.C. that is cored by Middle Proterozoic Purcell Supergroup rocks and flanked by Late Proterozoic Windermere Group or Paleozoic sedimentary rock. The area lies in the hangingwall to the Moyie Fault, a major, regional right-lateral reverse fault which is part of the Rocky Mountain fold and thrust belt event. The Moyie Fault follows earlier faults that have documented movements extending back to the Middle Proterozoic. These earlier structures controlled in part the distribution of the Middle Proterozoic through lower Paleozoic paleogeography.

The Purcell Supergroup comprises an early synrift succession, the Aldridge Formation, and an overlying generally shallow water post-rift or rift fill sequence which includes the Creston and Kitchener Formations and younger Purcell rocks.

The Aldridge is the oldest formation of the Proterozoic Belt-Purcell Supergroup. The Supergroup is a thick sequence of terrigenous clastic, carbonate, and minor volcanic rocks of Middle Proterozoic age. The basal Aldridge Formation, as exposed in Canada, is siliciclastic turbidites about 4000 meters thick. It is informally divided into the Lower, Middle, and Upper members. To the north and east in the basin, the Lower Aldridge, the base of which is not exposed, is about 1500 meters of rusty weathering (due to pyrrhotite), thin to medium bedded argillite, wacke and quartzitic wacke generally interpreted as distal turbidites. The Sullivan orebody occurs at the top

**ASSESSMENT REPORT
TITAN 24 MT GEOPHYSICAL SURVEY**

DLP RESOURCES INC.

July, 2020

of this division. To the south and west in the basin in Canada, the upper part of the Lower Aldridge is dominated by grey weathering, medium to thick bedded quartz wackes considered to be proximal turbidites. The Lower Aldridge is commonly host to a proliferation of Moyie intrusions, principally as sills. The Middle Aldridge is about 2500 meters of grey to rusty weathering, dominantly medium bedded quartzitic wacke turbidites with periodic inter-turbidite intervals of thin bedded, rusty weathering argillites some of which form finely laminated marker beds (time stratigraphic units correlated over great distances within the Aldridge/Prichard basin). There are several Moyie intrusions as sills within the Middle Aldridge including two of the most consistent, laterally extensive sills. The Upper Aldridge is about 300 meters of thin bedded to laminated, rusty weathering, dark argillite and grey siltite often in couplet pairs.

4.00 Property Geology

The Aldridge 2 claim block is underlain by Middle Aldridge sedimentary rocks fault bounded on the west by Creston Formation. The quartzites, siltstones, and argillites are turbidites with the thicker bedded quartzitic component dominant. Unique within the Middle Aldridge are stratigraphic marker horizons (laminated intervals) that can be correlated over long distances within the Purcell basin. Some are identified on the Aldridge 2 confirming along with the dominant rock types and sedimentary features that the property covers the middle portion of the Middle Aldridge. Government geology maps and adjacent property work indicate faults are present through the area.

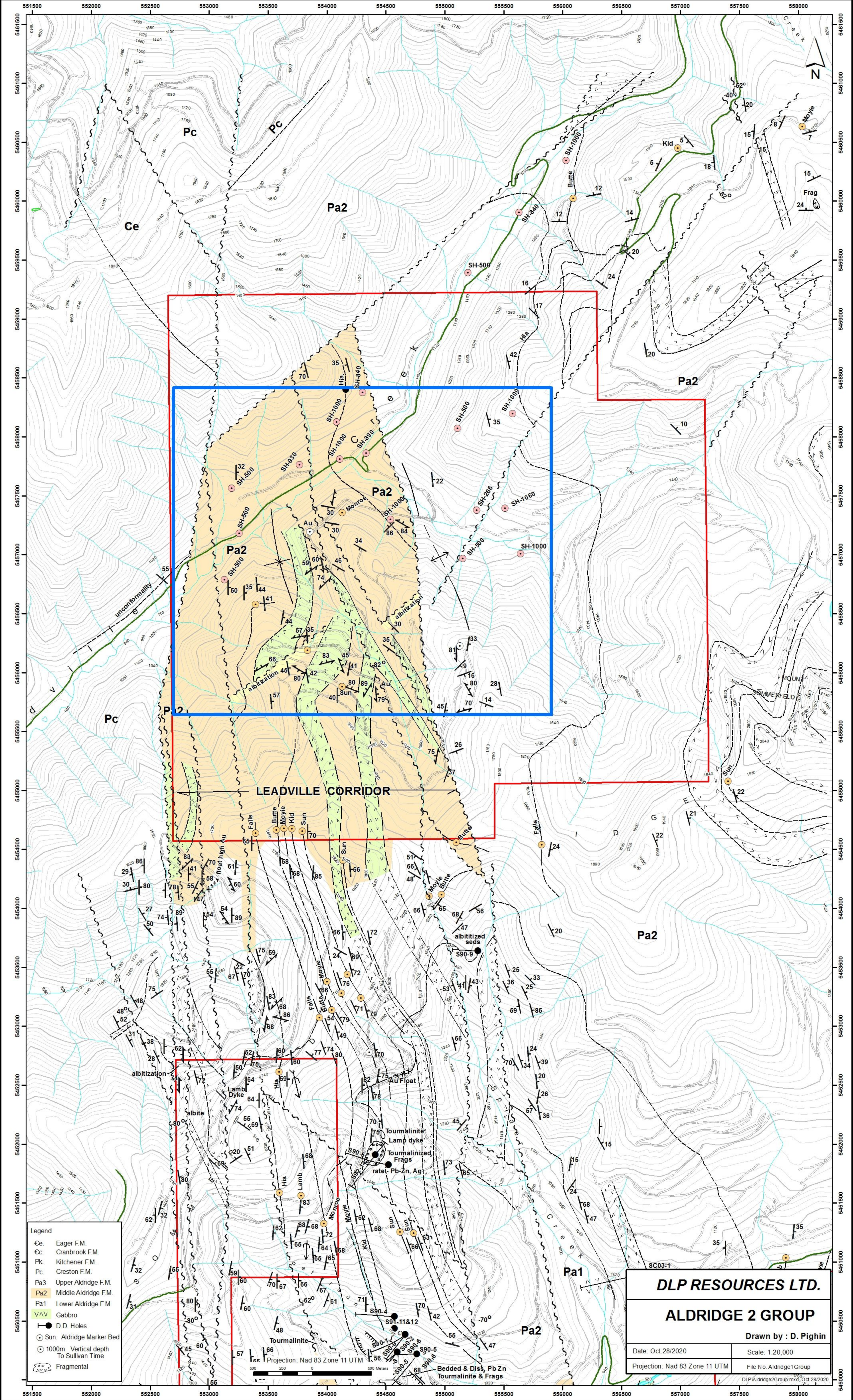


Figure 3. Aldridge 2 Geology map with MT grid area shown in blue

**ASSESSMENT REPORT
TITAN 24 MT GEOPHYSICAL SURVEY**

DLP RESOURCES INC.

July, 2020

5. Summary and Conclusion

(Refer to attached Quantec report for the 2D MT resistivity models)

The 2D MT resistivity models of all the lines show a low-resistivity intrusion in the deep portion of the southern part of the grid, originating under L0400N at an elevation of ~450 masl. The intrusion becomes wider at ~1000 masl, and forms a bowl-shaped structure (possibly a sill) in the southern part of the grid. The anomaly extends to the north in the shallower zones (200 to 400m depths).

The correlation between the low-resistivity features observed and “alteration” minerals associated to intrusive bodies in this location should be pursued further in order to locate potential drilling targets.

6. Itemized Cost Statement

**STATEMENT OF EXPENDITURES
MT GEOPHYSICS SURVEY
ALDRIDGE 2 GRID
October 16, 2019 to January 31, 2020**

DESCRIPTION	PERIOD	EXPENDITURE
MT GEOPHYSICS CONTRACTOR		
QUANTEC GEOSCIENCE LTD. ALDRIDGE 2		
GRID	Nov 16 to 26, 2019	\$68,664.96
(Inv. CA2351)		
GEOLOGICAL CONTRACTOR		
High Grade Geological Services	Nov & Dec, 2019	\$2,250.00
-determine layout of survey grid, field visit, oversee program progress, geological interpretation	4.5 days @ \$500/day	
MAPS & REPRODUCTIONS	Oct, 2019 to Dec, 2019	\$676.00
REPORT WRITING		\$1,000.00

TOTAL EXPENDITURES = \$72,590.96

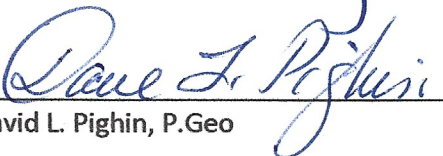
Statement of Qualifications – D. L. Pighin

MT Survey – Aldridge 2

I, David L. Pighin, P. Geo. do hereby certify that:

1. I am a self-employed consulting geologist whose office is at Hidden Valley Road, Cranbrook, BC. Mailing address is 301 8th Street S. Cranbrook BC, V1C 1P2.
2. I am a member in good standing of the Association of Professional Engineers and Geoscientists of the province of British Columbia.
3. I have been actively involved in mining and exploration geology, primarily in the Province of British Columbia, for the past 50 years.
4. I was employed by Cominco Ltd. for 24 years, first as a prospector, then as an exploration technician, and finally as an exploration geologist.
5. Since 1989, I have worked for numerous junior exploration companies.
6. I have worked as an exploration geologist in BC, the Yukon, the NWT, New Brunswick, in most of the western United States and Mexico.
7. I have designed numerous diamond drill programs small and large (>2 million dollars).
8. I have planned and managed numerous exploration programs designed to find deposits of base metals, tungsten, molybdenum, gold, diamonds, and rare earth metals.

Dated this 10th Day of July, 2020


David L. Pighin, P. Geo

**ASSESSMENT REPORT
TITAN 24 MT GEOPHYSICAL SURVEY**

DLP RESOURCES INC.

July, 2020

APPENDIX 1

**SUMMARY REPORT FOR A
TITAN 24 MT GEOPHYSICAL SURVEY
OVER
ALDRIDGE PROJECT GRID 2
(CRESTON, BRITISH COLUMBIA)**

Performed by:

QUANTEC GEOSCIENCE LIMITED

SUMMARY REPORT FOR A

TITAN 24 MT SURVEY

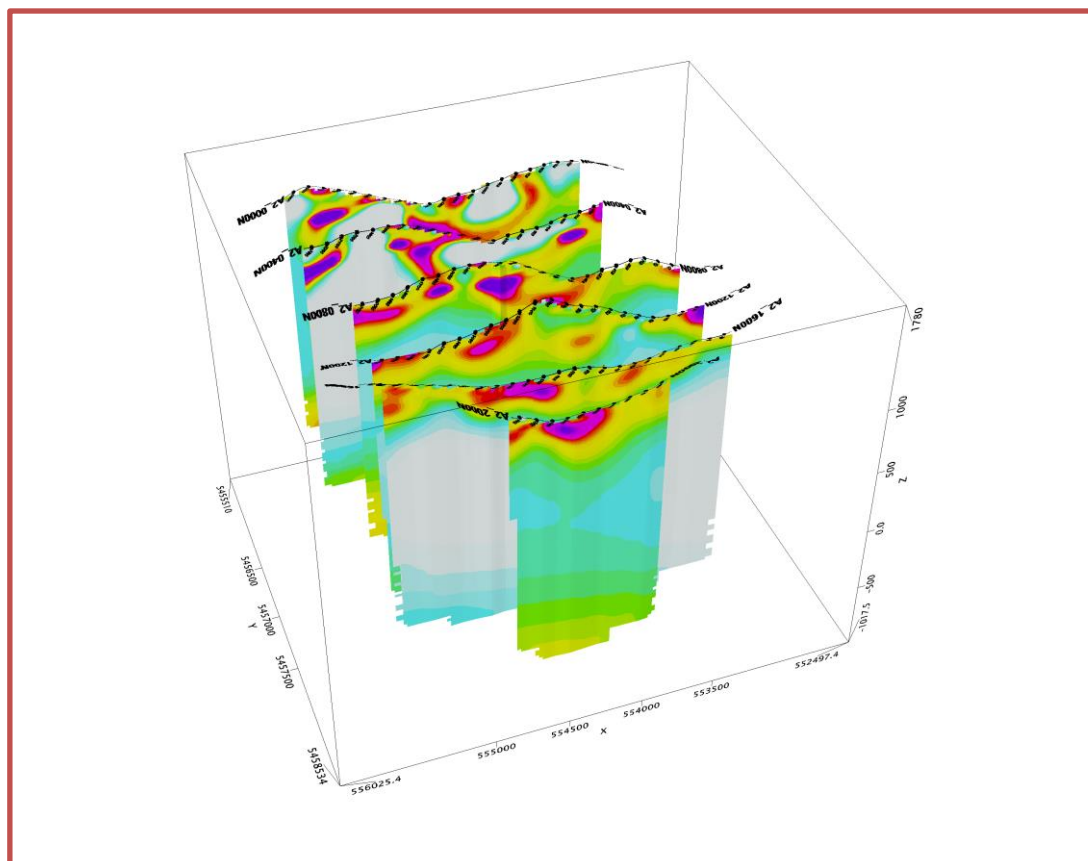
OVER

ALDRIDGE PROJECT GRID 2

(CRESTON, BRITISH COLUMBIA)

ON BEHALF OF

DLP RESOURCES INC.



January 24, 2020
CA01206T

Quantec Geoscience Ltd.
146 Sparks Ave., Toronto, ON, M2H 2S4, Canada
+1-416-306-1941



QUANTEC
Geoscience

Report Disclaimer:

Quantec Geoscience Limited holds a Certificate of Authorization from the Association of Professional Geoscientists of Ontario (PGO) to perform the work presented in this report. Quantec employed qualified professionals to carry out the work presented in this geophysical report.

Statements made in this report represent opinions that consider information available at the time of writing. Although every effort has been made to ensure the accuracy of the material contained in this report, complete certainty cannot be guaranteed due to the interpretive nature of the work which may include mathematically derived solutions that are inherently non-unique. Therefore, the estimated physical parameters of the subsurface may have no direct relation to the real geology and possible economic value of any mineralization.

There is no guarantee or representation to the user as to the level of accuracy, currency, suitability, completeness, usefulness, or reliability of this information for any purpose. Therefore, decisions made based on this work are solely the responsibility of the end user. It is incumbent upon the end user to examine the data and results delivered and make Quantec aware of any perceived deficiencies.

EXECUTIVE SUMMARY

This report presents the results of the analysis and interpretation of the data measured by the Titan24 MT survey completed November 16 to December 9, 2019 over the Aldridge Project Grid 2 by Quantec Geoscience Ltd. on behalf of DLP Resources Inc.

The objective of the survey was to detect and delineate zones and structures from near surface to potential depths of up to 1500m with MT resistivity.

A total of 6 lines were surveyed with an azimuth of 90°. Data were processed, inspected for quality assurance, and reviewed daily by the geophysicist in charge of the project. The measured data were analysed using 2D inversions, and the resultant models are presented as 2D cross-sections of the resistivity for each line. Constant-depth plan maps were generated from the 2D models, and the resultant “stitched-2D” surfaces are presented in the plan maps at various depths.

The 2D MT resistivity models of all the lines show a low-resistivity intrusion in the deep portion of the southern part of the grid, originating under L0400N at an elevation of ~450 masl. The intrusion becomes wider at ~1000 masl, and forms a bowl-shaped structure (possibly a sill) in the southern part of the grid. The anomaly extends to the north in the shallower zones (200 to 400m depths).

The correlation between the low-resistivity features observed and “alteration” minerals associated to intrusive bodies in this location should be pursued further in order to locate potential drilling targets.

Note that the Grid 2 is located approximately 10 km north of Grid 1 surveyed during the same field campaign. The results of Grid 1 have been discussed and presented in a separate report.

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1. INTRODUCTION

This report presents the results of the analysis and interpretation of the data measured by the Titan 24 MT survey completed November 16 to December 9, 2019 over the Aldridge Project Grid 2 by Quantec Geoscience Ltd. on behalf of DLP Resources Inc.

Note that the Grid 2 is located approximately 10 km north of Grid 1 surveyed during the same field campaign. The results of Grid 1 have been discussed and presented in a separate report¹.

1.1. CLIENT INFORMATION

Name:	DLP Resources Inc.
Address:	#201 – 135 10 th Ave. S Cranbrook British Columbia V1C 2N1 Canada
Representative:	Jim Stypula Phone: +1-250-417-5366 Email: styys@hotmail.com

1.2. GENERAL PROJECT INFORMATION

Quantec Project Manager:	Mark Morrison
Quantec Project Number:	CA01206T
Report prepared by:	José Antonio Rodríguez
Project Name:	Aldridge Project Grid 2
Survey Type:	Titan 24 MT
General Location:	Approximately 26 km northeast of Creston (see Figure 1-1)
Lat /Long:	49°15'46.74"N, 116°15'18.87"W
UTM:	5554186 m E, 5456958 m N
Datum:	WGS84 UTM Zone 11N

¹ Summary Report for a TITAN 24 MT Survey over Aldridge Project Grid 1

Survey Period:

November 16 to December 9, 2019

1.3. SURVEY LOGISTICS

Logistic report:

Logistic Report for a Titan 24 MT survey over Aldridge Project (Creston, British Columbia) by Quantec Geoscience Ltd. on behalf of DLP Resources Inc.

PDF File: CA01206T_DLP_Aldridge_LogisticsReport.pdf

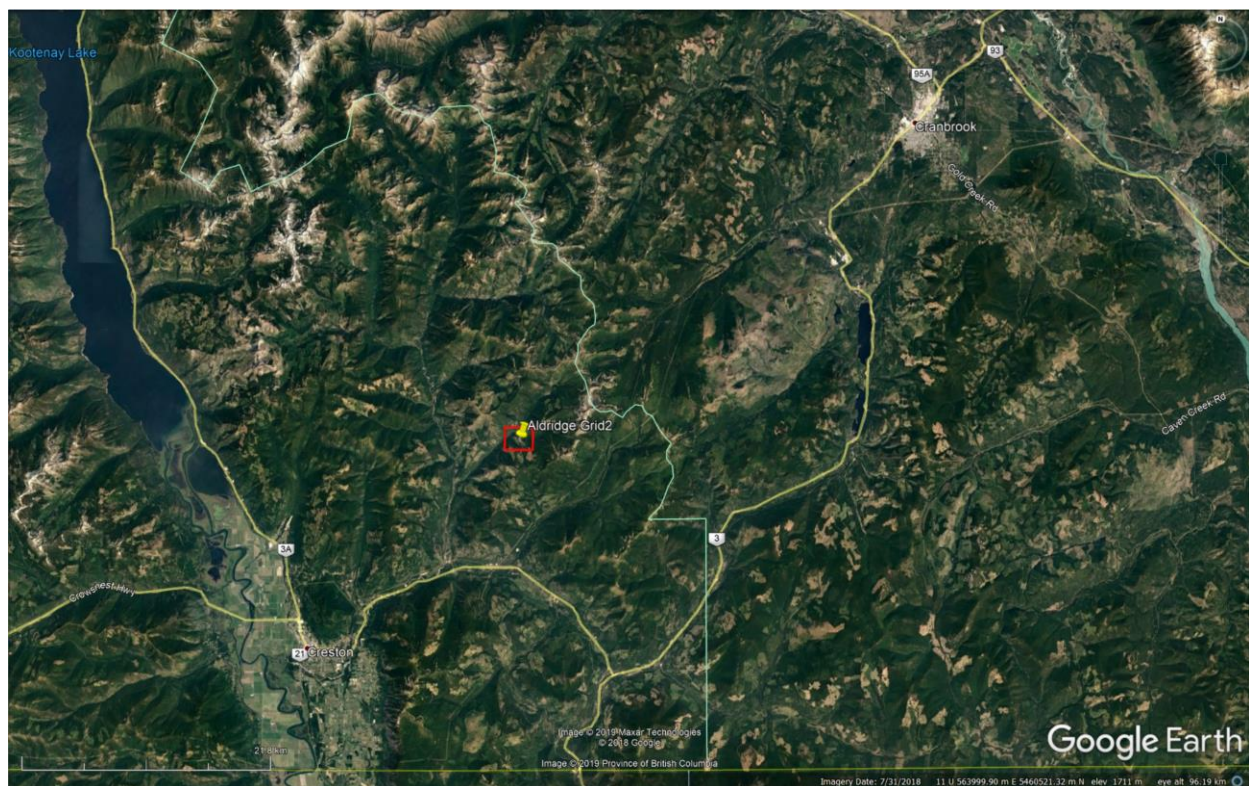


Figure 1-1: General Location Map.

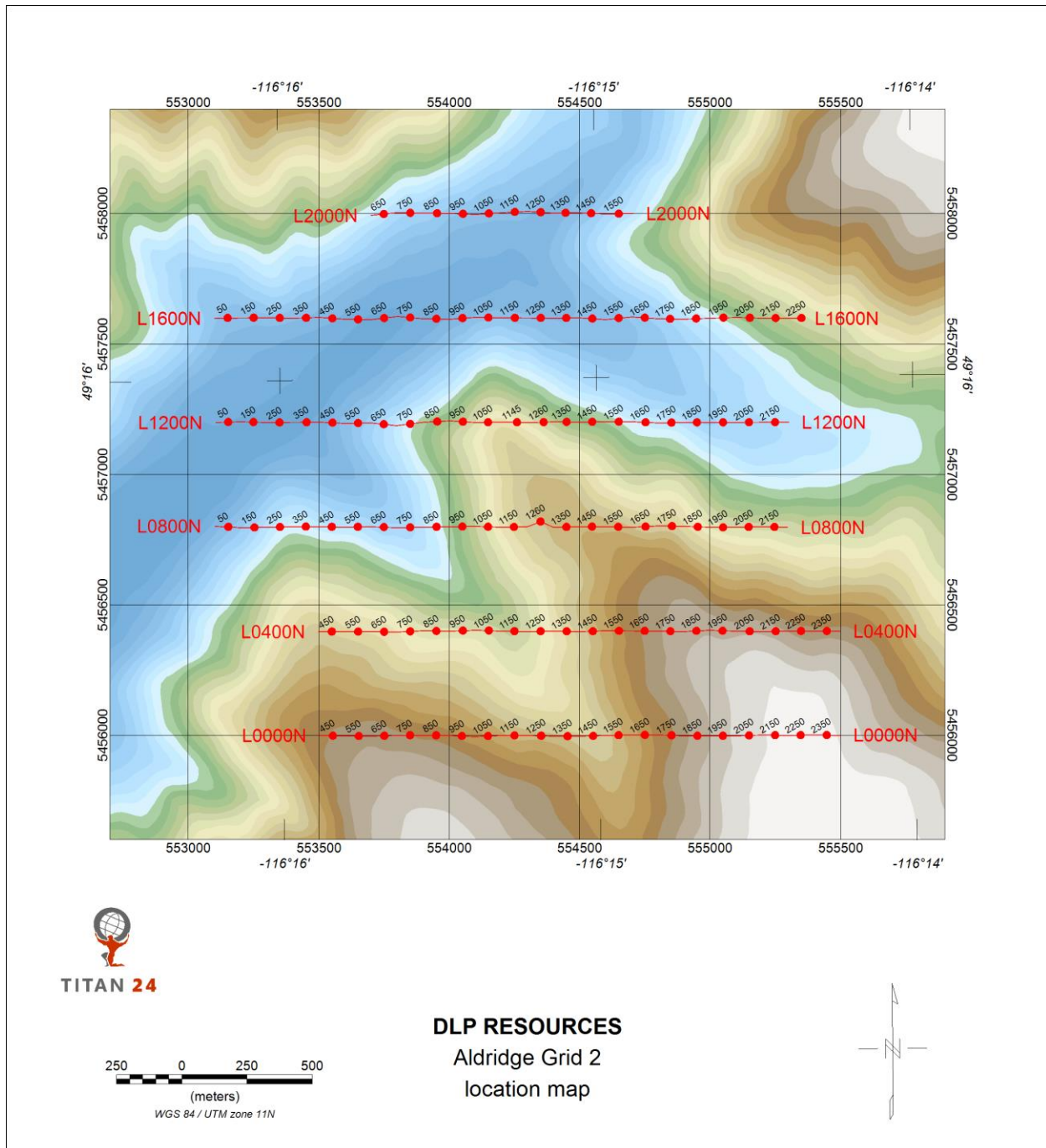


Figure 1-2: Location of survey stations and line numbers in Aldridge Grid 2

1.4. DELIVERABLES

The final survey results delivered with this report are

- 2D inversion products:
 - For each line:
 - MT resistivity models.
 - Each as Geosoft maps (.MAP) and images (.PNG) files.
 - Plan maps of the stitched 2D models at selected depth levels;
 - Each level as Geosoft maps (.MAP), images (.PNG) files.
 - 3D Geosoft format voxels (.GEOSOFT_VOXEL) of the 2D models;

1.5. DIGITAL ARCHIVE ATTACHED TO THE REPORT

The digital archive accompanying this report contains a copy of all final results, including inversion files and map products. The logistics report and final processed data are also included along with positioning files and field reports.

Table 1-1: Contents of the digital archive attached to the report.

Directory		Contents
\Report		Summary report (.PDF)
INVERSION RESULTS		
\Geosoft	\BaseMaps	Location maps includes GPS survey database and other survey related Geo-referenced documents (SRTM, databases)
	\Inv2D	Geosoft documents (databases, maps) related to the 2D inversions
\Inversions	\MT	Archive (zip) related to AOA-Geotools (PWm inversion)

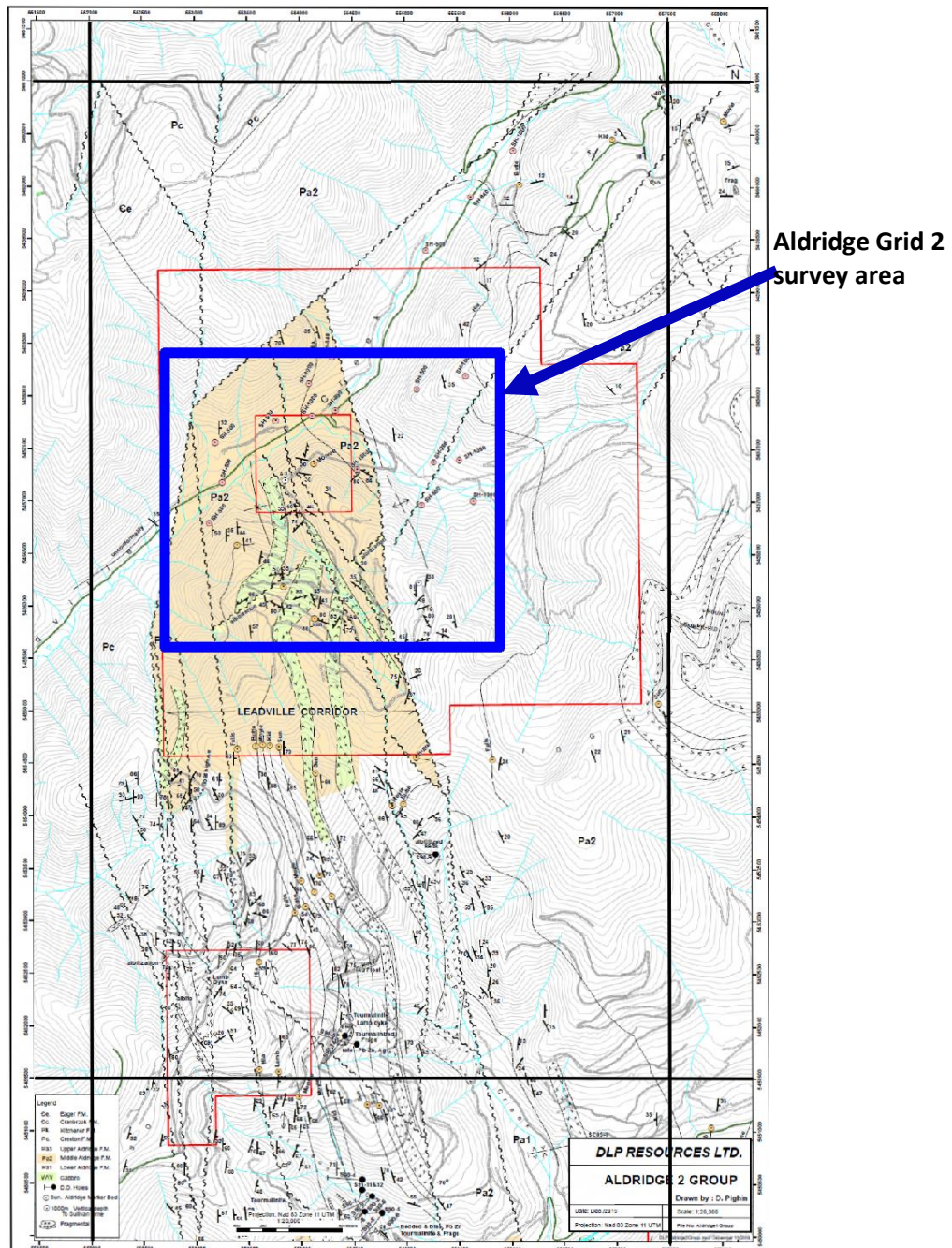


Figure 2-2: Geologic map of the Aldridge Project Grid 2 area.

3. INVERSION PROCEDURES

3.1. MAGNETOTELLURIC INVERSIONS

The Magnetotelluric (MT) method is a natural source EM method that measures the variation of both the electric (E) and magnetic (H) field on the surface of the earth to determine the distribution at depth of the resistivity of the underlying rocks. A complete review of the method is presented in Vozoff (1972) and Orange (1989).

The measured MT impedance Z , defined by the ratio between the E and H fields, is a tensor of complex numbers. This tensor is generally represented by an apparent resistivity (a parameter proportional to the modulus of Z) and a phase (argument of Z). The variation of those parameters with frequency relates the variations of the resistivity with depth, the high frequencies sampling the sub-surface and the low frequencies the deeper part of the earth. However, the apparent resistivity and the phase have an opposite behaviour. An increase of the phase indicates a more conductive zone than the host rocks and is associated with a decrease in apparent resistivity. The objective of the inversion of MT data is to compute a distribution of the resistivity of the surface that explains the variations of the MT parameters, i.e. the response of the model that fits the observed data. The solution however is not unique and different inversions must be performed (different programs, different conditions) to test and compare solutions for artefacts versus a target anomaly.

The depth of investigation is determined primarily by the frequency content of the measurement. Depth estimates from any individual sounding may easily exceed 20 km. However, the data can only be confidently interpreted when the aperture of the array is comparable to the depth of investigation.

The inversion model is dependent on the data, but also on the associated data errors and the model norm. The inversion models are not unique, may contain artefacts of the inversion process and may not therefore accurately reflect all the information apparent in the actual data. Inversion models need to be reviewed in context with the observed data, model fit. The user must have an understanding of the model norm used and evaluate whether the model is geologically plausible.

3.1.1.2D inversion parameters

For this project, 2D inversions were performed on the data.

The 2D inversions presented in this report were carried out along each profile using the Quantec proprietary Phil Wannamaker inversion algorithm (see APPENDIX D).

For each profile, we assume the strike direction is perpendicular to the profile for all sites: the TM mode is then defined by the inline E-field (and cross line H-field), and the TE mode is defined by the cross-line E-field (and inline H-field) data.

The 2D inversions were performed using resistivity and phase data interpolated at 6 frequencies per decade, assuming 10% and 5% error for the resistivity and phase respectively, which is equivalent to 5% error on the impedance component Z .

No static shift of the data has been applied.

The topography was included in the inversions of each profile. To accommodate topographic variation, the vertical mesh was set with 20 m thick cells for the first ~300 m, and then the thickness of the cells increased logarithmically (factor 1.06) with depth, from 20 m up to 5 km size at depth.

The PWm horizontal mesh was defined with 25 m wide cells to guarantee at least 4 cells between sites. A mesh of 4 cells between sites is used to accommodate topographic variations along the profile and to accommodate the topography mesh constraint from the inversion program.

Each 2D inversion started from a half space model of 100 $\Omega \cdot m$.

4. INVERSION RESULTS AND INTERPRETATION

The 2D inversion models are presented as cross-sections on a line-per-line basis, and also as constant depth plan maps derived from the stitched 2D models. Figure 4-1 presents the resistivity range used in plotting.

The MT resistivity for Aldridge Grid 2 shows a low resistivity structure on the southern part of the grid, possibly indicative of an intrusive body, originating at depths greater than 1000m, and splitting into branch-like structures at depths of ~600m. This may be indicative of a sill structure with the intrusion closer to the surface at the edges of the sill.

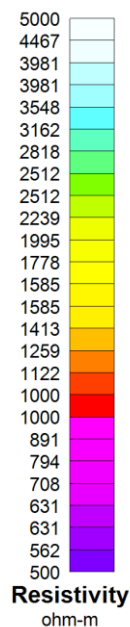


Figure 4-1: Resistivity range used for the sections and plan maps

4.1. 2D SECTION VIEWS

The 2D model results for each line are shown, with lines ordered from south to north. The wide zone of low resistivity is outlined with dashed lines. The correlation between this structural mapping of low resistivity features and mineralization should be investigated further. A strip of the geologic map is shown over each section for reference.

4.1.1. L0000N cross-section

The low-resistivity intrusion forms a cup-shaped structure, possibly a sill. The low-resistivity values extend to near the surface at the edges of the structure.

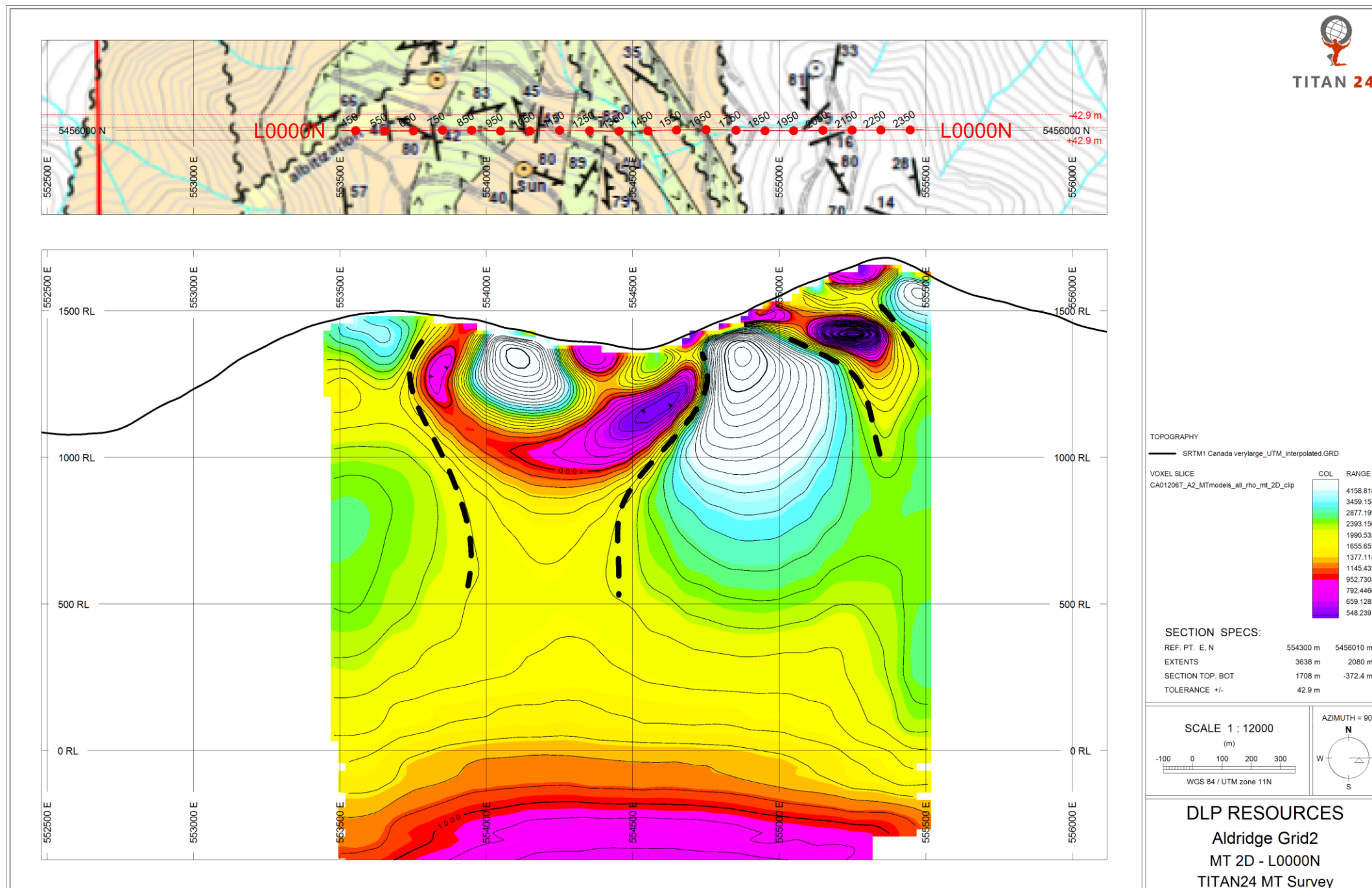


Figure 4-2: L0000N MT resistivity cross-section

4.1.2. L0400N cross-section

There appears to be a low-resistivity intrusive body at an elevation of ~600m, with a width of ~400m. the intrusion becomes wider into a possible sill structure at ~1000m elevation, and the low-resistivity features come close to the surface around the edges of the structure.

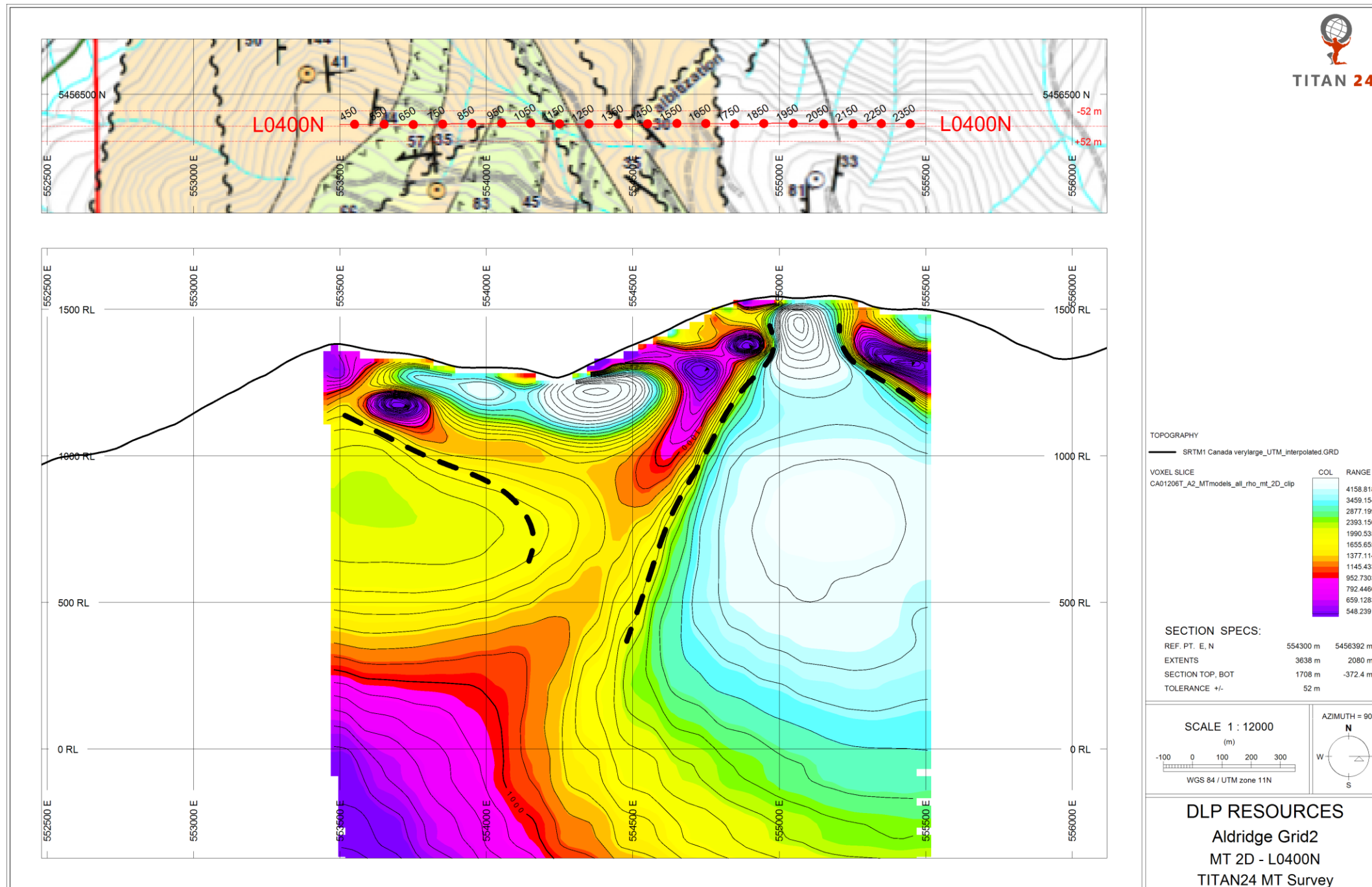


Figure 4-3: L0400N MT resistivity cross-section

4.1.3. L0800N cross-section

A low-resistivity intrusive body is ~250m wide at ~500m elevation, and forms a cup-shaped structure at ~900m elevation. Some of the low-resistivity features come close to the surface around the edges of the structure.

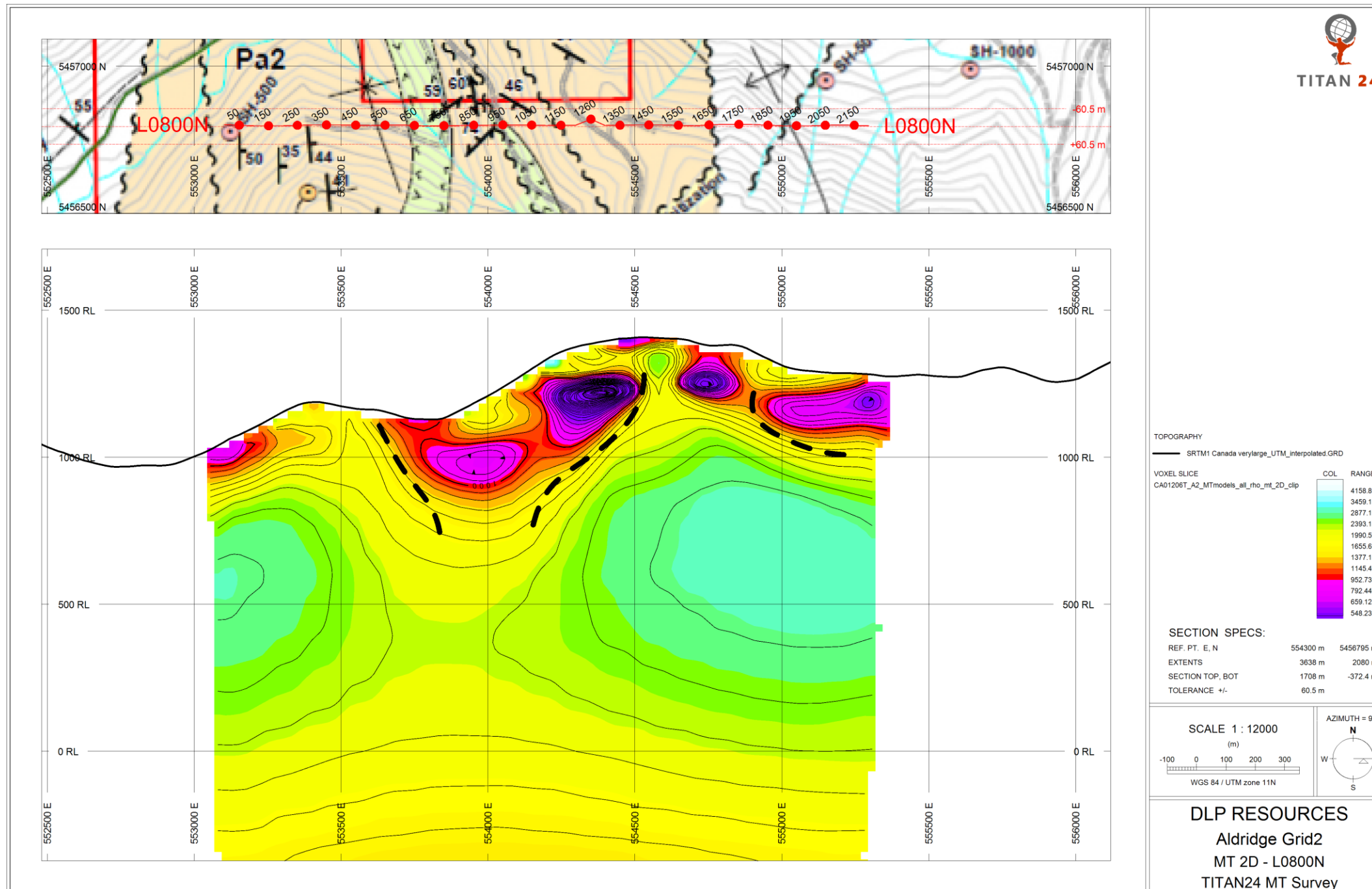


Figure 4-4: L0800N MT resistivity cross-section

4.1.5. L1600N cross-section

There are two observable low-resistivity features close to the surface.

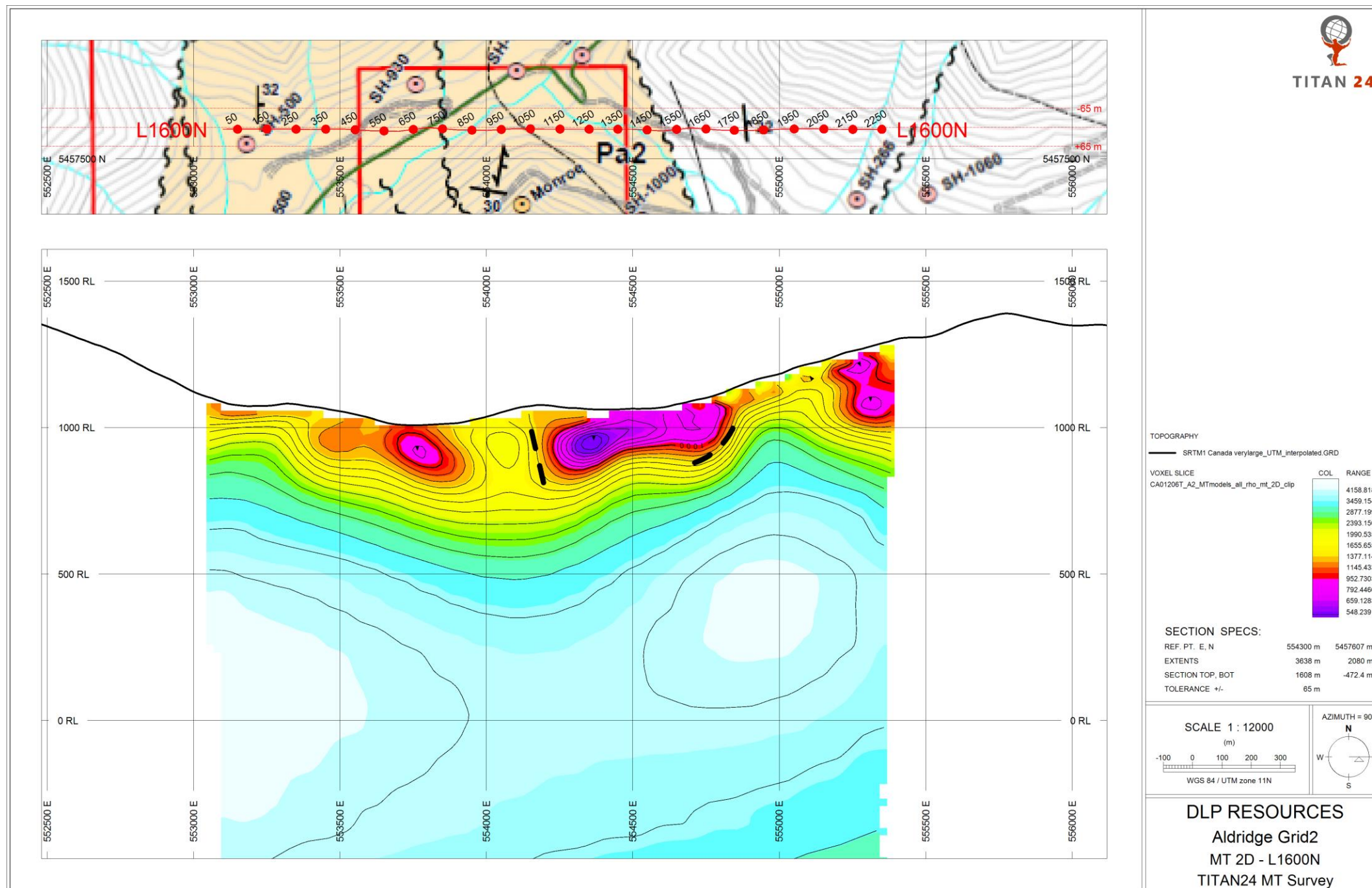


Figure 4-6: L1600N MT resistivity cross-section

4.1.6. L2000N cross-section

There is a low-resistivity feature close to the surface.

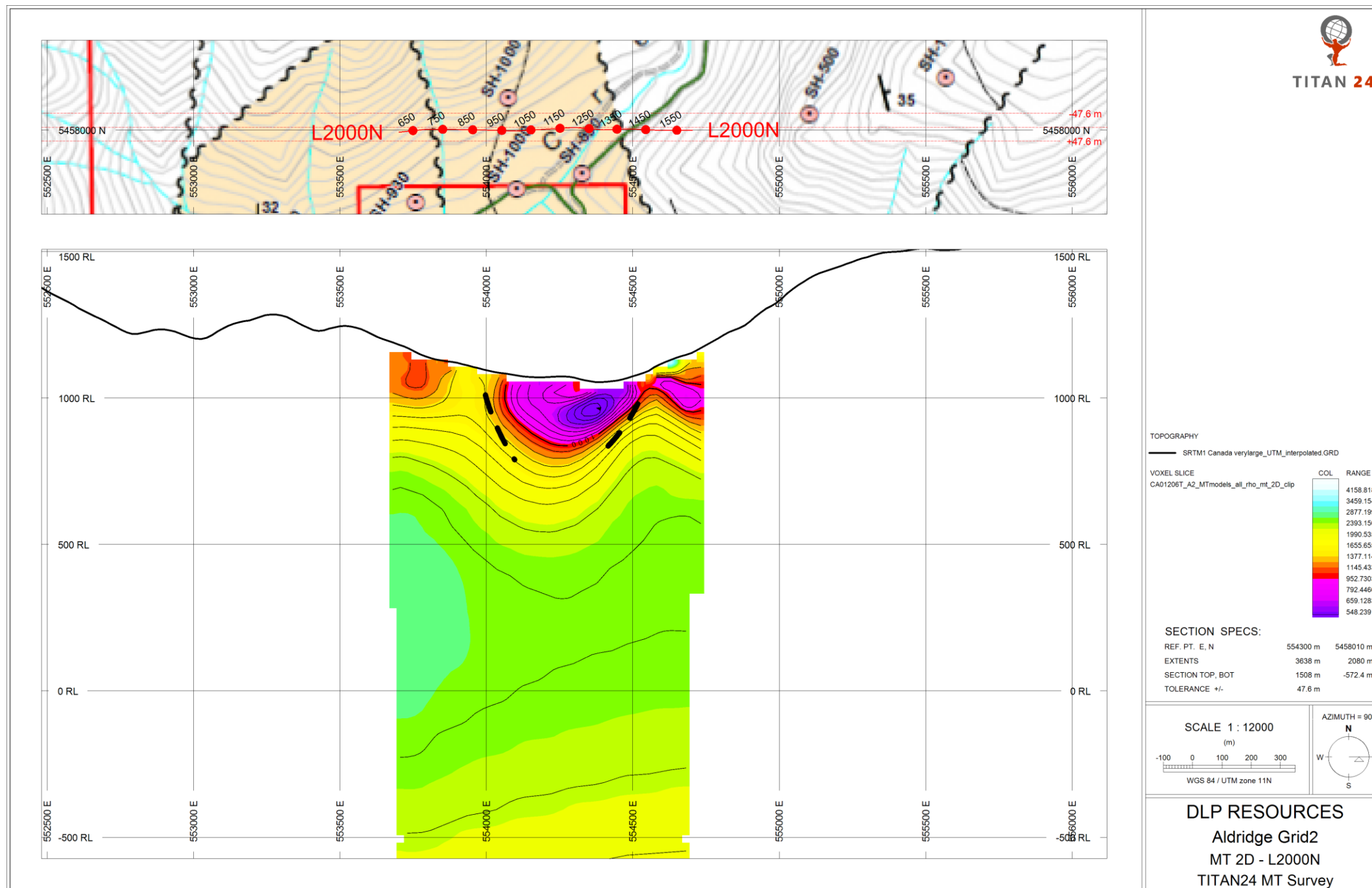


Figure 4-7: L2000N MT resistivity cross-section

4.2. CONSTANT-DEPTH PLAN MAPS

Constant-depth plan maps were generated from the 2D MT models by mathematically interpolating between the 2D models at constant depth levels. It must be noted that this is different from a 3D model in that no physical consideration is taken in the interpolation, and so the plan maps presented here are “stitched 2D” plan maps, done to assist in interpretation. The depths used to generate the plan maps were 200m, 400m, 600m, 800m, and 1000m below the surface (Figure 4-8 through Figure 4-12).

The plan maps show a low-resistivity intrusive body, better defined in the southern half of the grid area, especially at 600m depth and below. There appears to be a N-S elongation of the intrusive structure, but the main portion is concentrated to the south of L0800N, and especially under L0400N. Closer to the surface, at depths of ~200m, the low-resistivity feature becomes wider and takes a ring shape in the southern part of the grid, possibly indicative of a sill structure with the top of the sill at ~1000 masl, with the low-resistivity feature closer to the surface around the edges of the structure.

4.2.1. Plan map at constant 200m depth

The 200m depth shows relatively shallow low-resistivity features. In the southern half of the grid, the low-resistivity features show a ring-like formation, which may be the edges of a sill structure.

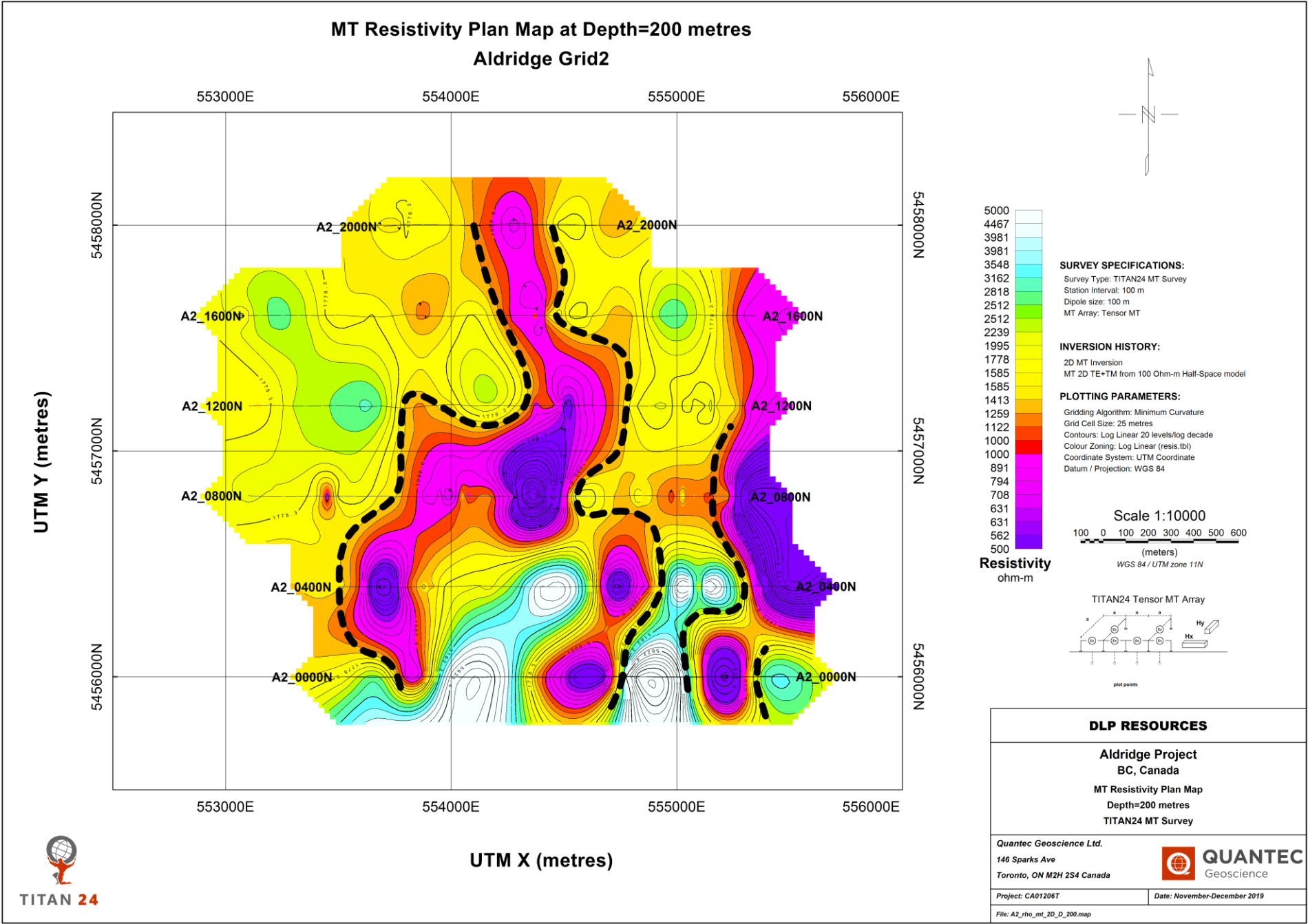


Figure 4-8: Plan map of MT resistivity, constant 200m depth

4.2.2. Plan map at constant 400m depth

At a depth of 400m, we observe what may be the base of the low-resistivity intrusion, below the point where it becomes wider.

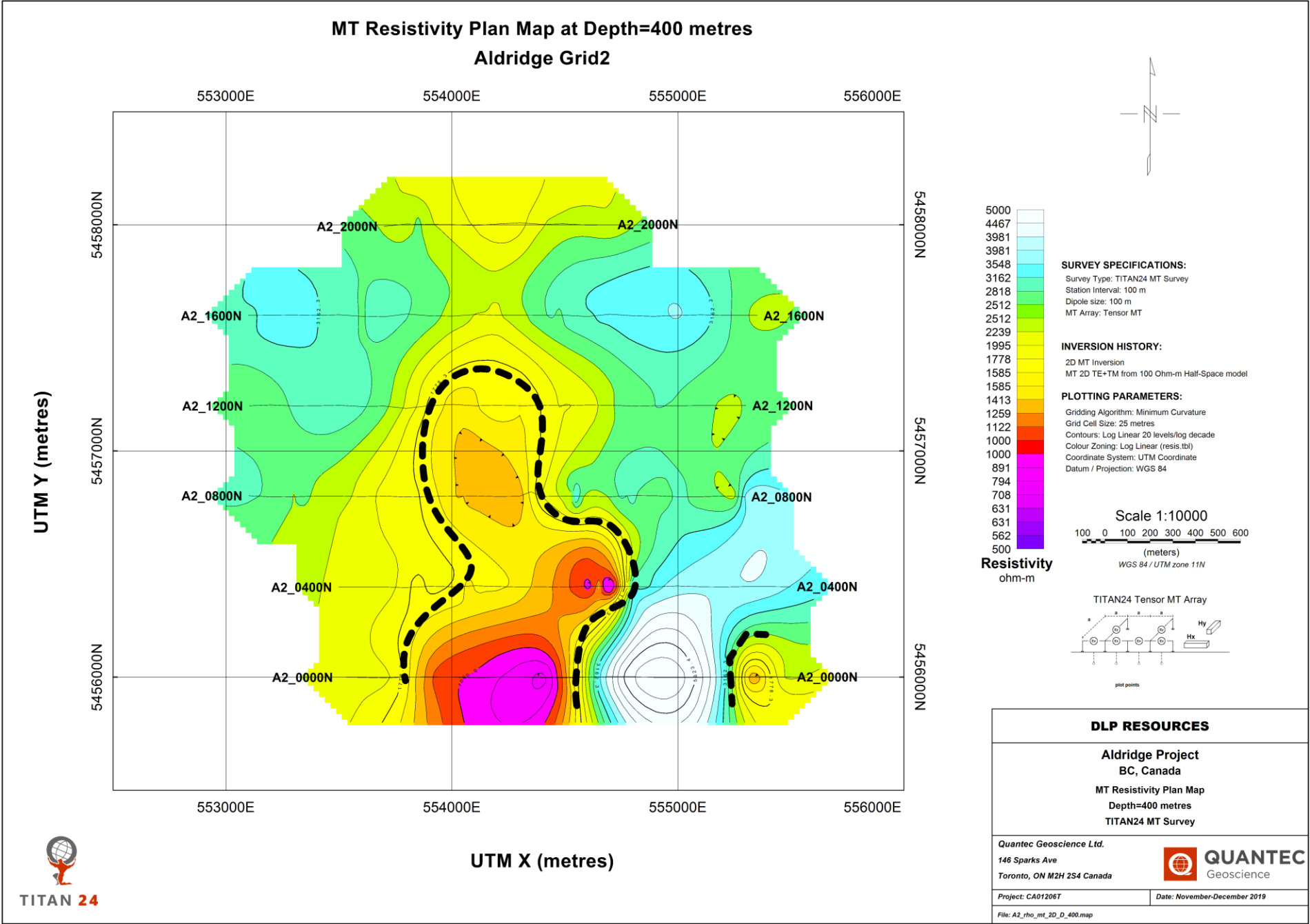


Figure 4-9: Plan map of MT resistivity, constant 400m depth

4.2.3. Plan map at constant 600m depth

A low-resistivity intrusion is visible in the southern part of the grid area.

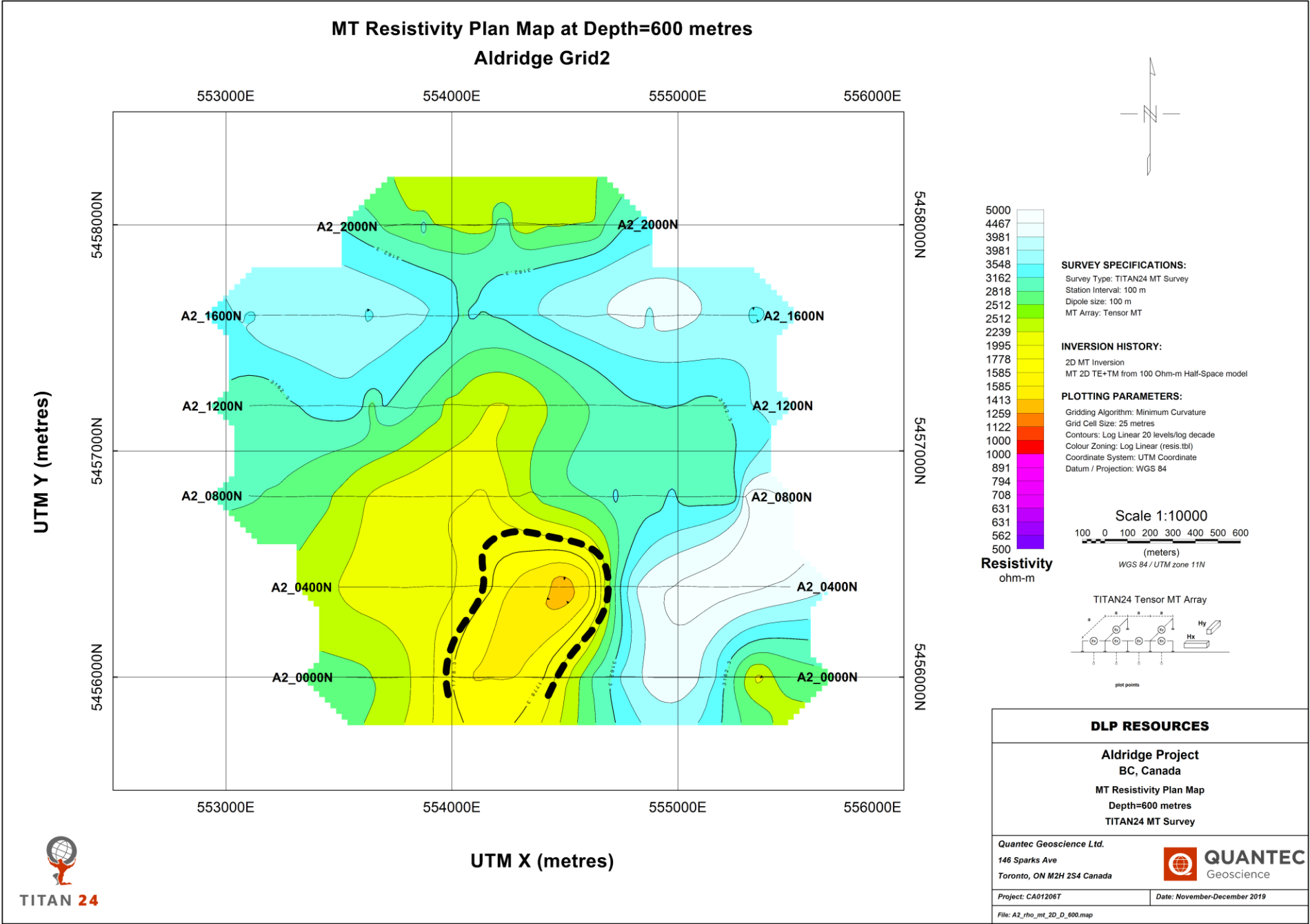


Figure 4-10: Plan map of MT resistivity, constant 600m depth

4.2.4. Plan map at constant 800m depth

The main part of a low-resistivity intrusive body appears to be below line 0400N.

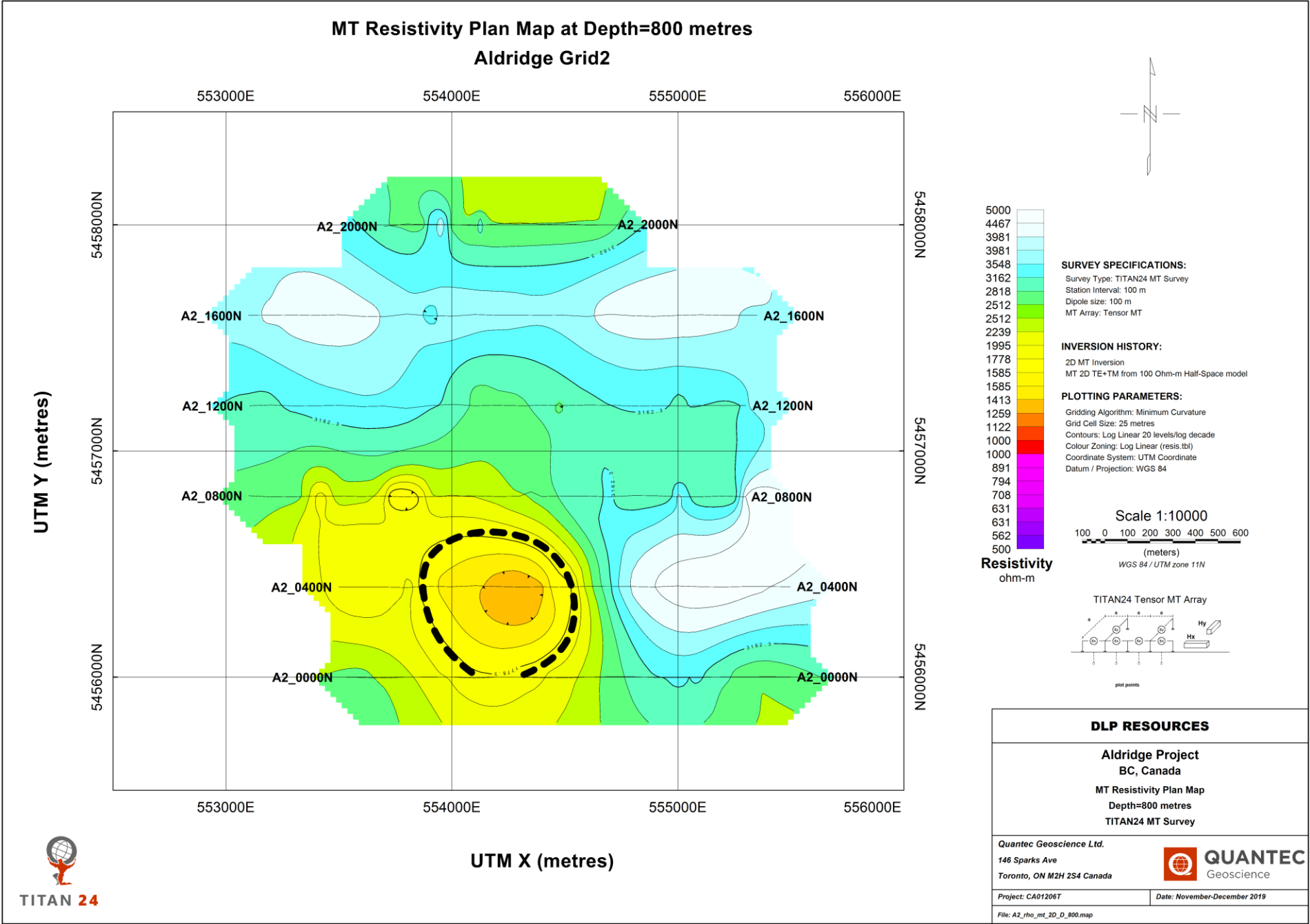


Figure 4-11: Plan map of MT resistivity, constant 800m depth

4.2.5. Plan map at constant 1000m depth

To the south of the grid area we observe what may be the bottom of the low-resistivity intrusion, surrounded by the top of the basement.

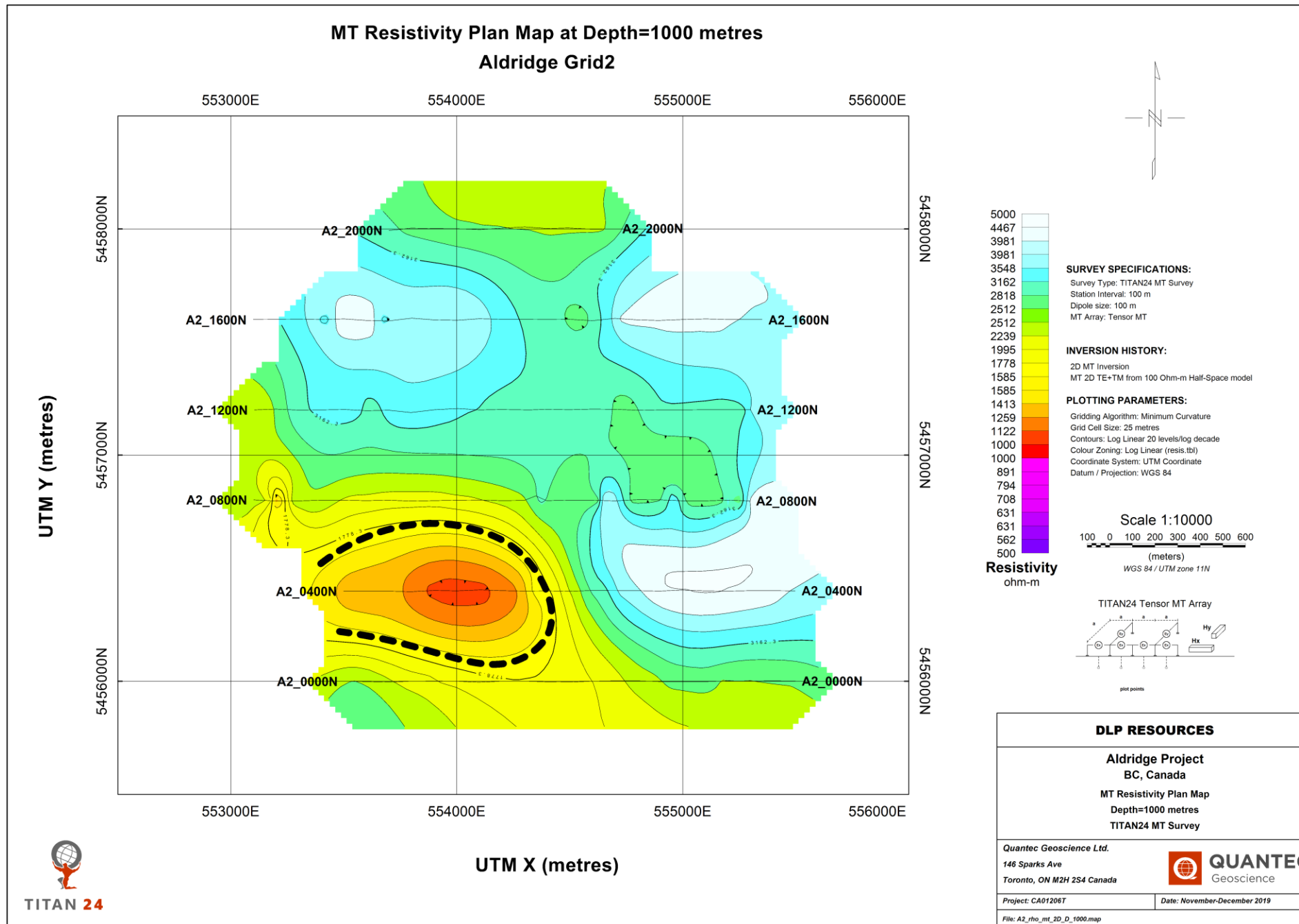


Figure 4-12: Plan map of MT resistivity, constant 1000m depth

4.3. 3D VIEWS

The 2D inversion sections are displayed in a 3D view in order to visualize the different features of the MT resistivity models and observe their continuity from one line to the next in three dimensions. Two view angles are provided: one looking to the NE (Figure 4-13), the other looking to the SE (Figure 4-14).

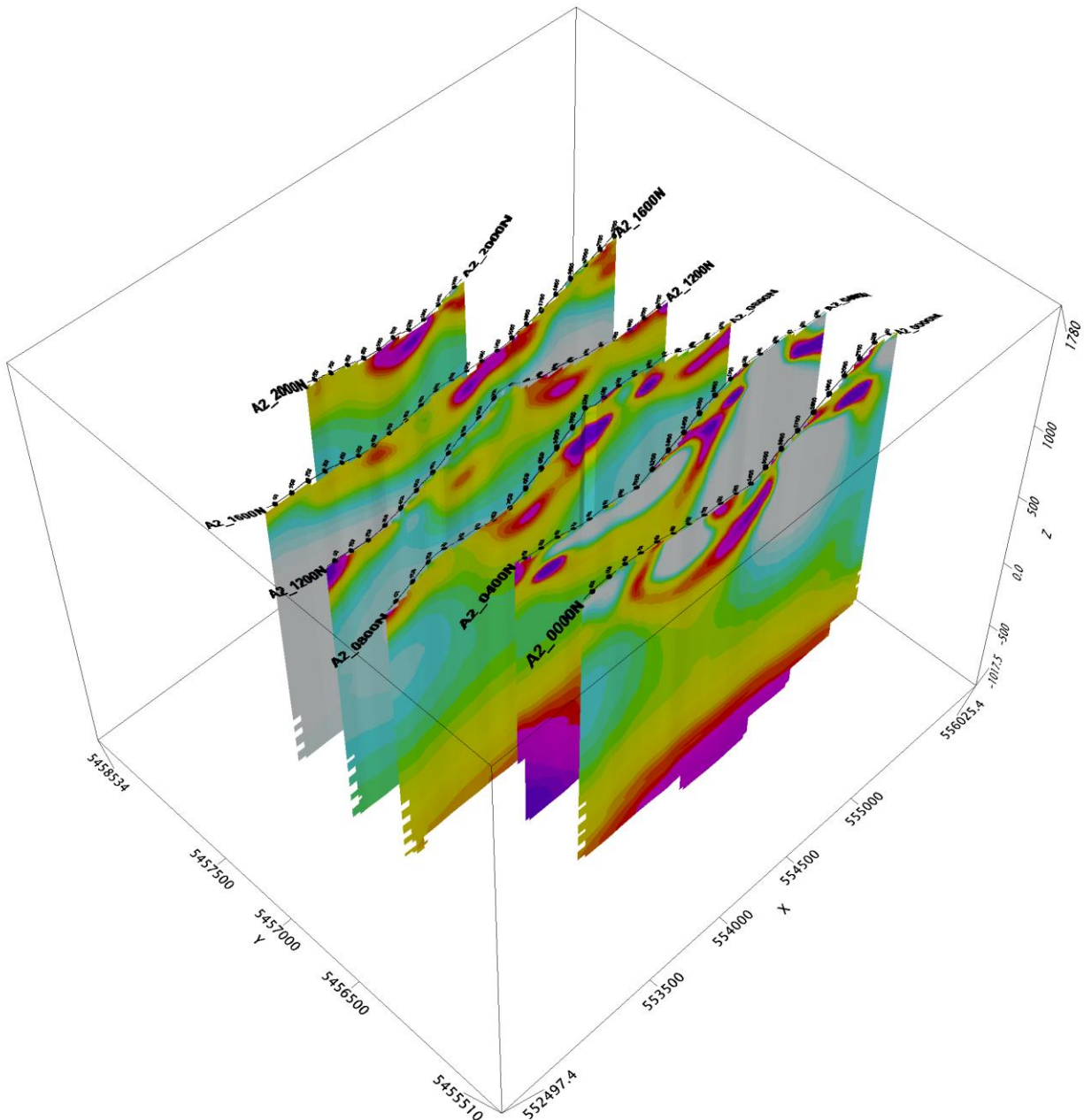


Figure 4-13: 3D view of 2D MT resistivity models, looking NE.

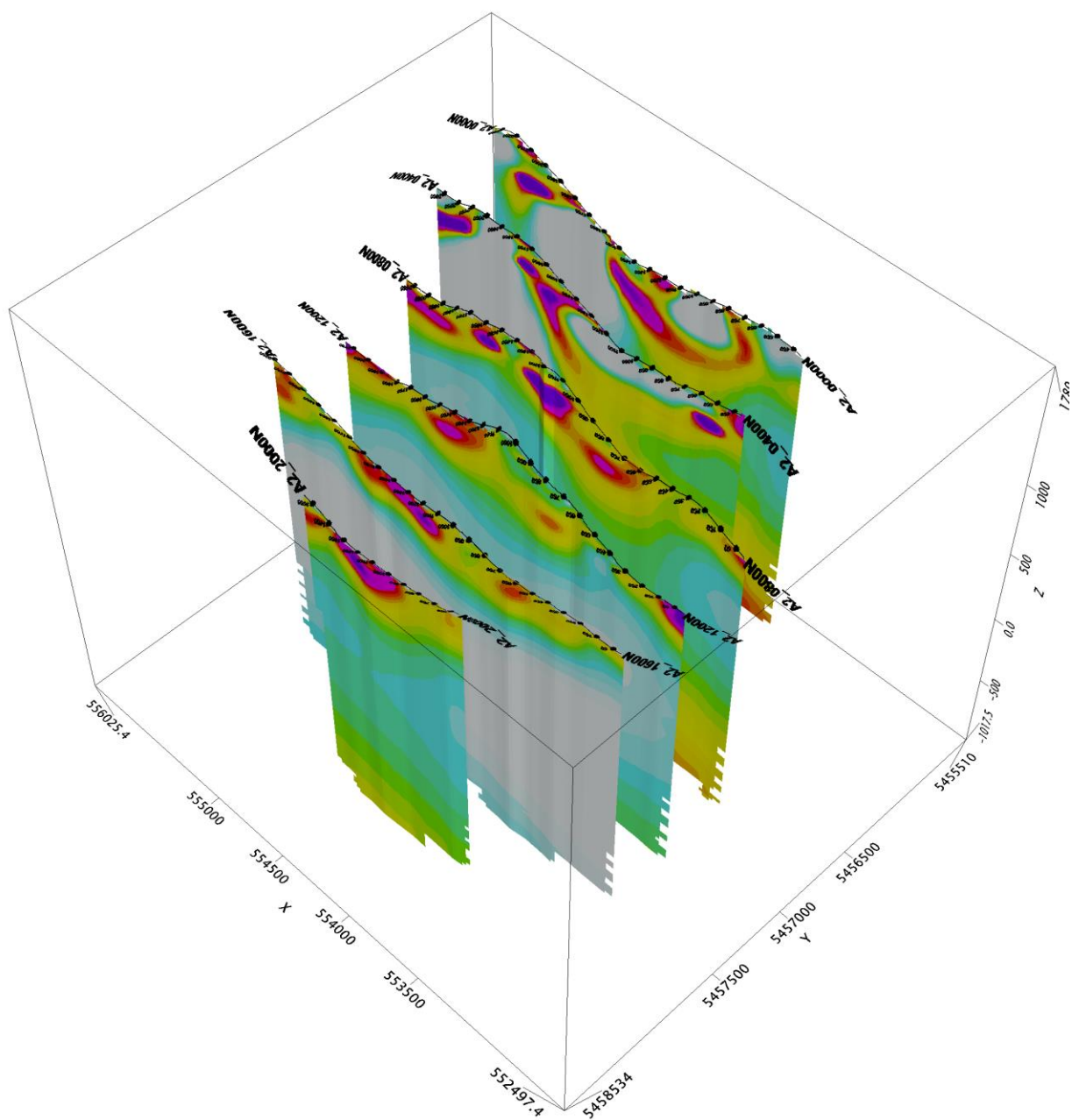


Figure 4-14: 3D view of 2D MT resistivity models, looking SE.

5. CONCLUSIONS AND RECOMMENDATIONS

This report presents the results of the analysis and interpretation of the data measured by the Titan24 MT survey completed November 16 to December 9, 2019 over the Aldridge Project Grid 2 by Quantec Geoscience Ltd. on behalf of DLP Resources Inc.

The objective of the survey was to detect and delineate zones and structures from near surface to potential depths of up to 1500m with MT resistivity.

A total of 6 lines were surveyed with an azimuth of 90°. Data were processed, inspected for quality assurance, and reviewed daily by the geophysicist in charge of the project. The measured data were analysed using 2D inversions, and the resultant models are presented as 2D cross-sections of the resistivity for each line. Constant-depth plan maps were generated from the 2D models, and the resultant “stitched-2D” surfaces are presented in the plan maps at various depths.

The 2D MT resistivity models of all the lines show a low-resistivity intrusion in the deep portion of the southern part of the grid, originating under L0400N at an elevation of ~450 masl. The intrusion becomes wider at ~1000 masl, and forms a cup-shaped structure (possibly a sill) in the southern part of the grid, and is elongated to the north in the shallower zones (200 to 400m depths).

The correlation between the low-resistivity features observed and alteration minerals associated to intrusive bodies in this location should be pursued further in order to locate potential drilling targets.

Respectfully submitted January 24, 2020 by: José Antonio Rodríguez

Quantec Geoscience Limited

APPENDIX A. REFERENCES

A.1. MAGNETOTELLURIC METHODS

Bahr, K., and Simpson, F., 2005, Practical Magnetotellurics, Cambridge University Press.

Cagniard, L., 1953, Basic Theory of the magneto-telluric method of geophysical prospecting: *Geophysics*, 18, pp 605-635.

Constable, S.C., Parker, R.L., and Constable, C.G., 1987. Occam's inversion - A practical algorithm for generating smooth models from electromagnetic sounding data. *Geophysics*, 52 (3), 289-300.

Geotools (AOA) MT. Geotools corp. Austin TX.

Geotools (CGG) MT. Magnetotelluric and Time Domain EM Data Analysis Software. Reference Document, CGG Multi-Physics Imaging, Milan.

Key K., 2009. 1D inversion of multicomponent, multifrequency marine CSEM data: Methodology and synthetic studies for resolving thin resistive layers. *Geophysics*, 74, p. F9-F20.

Marquardt, D.W., 1963. An algorithm for least-squares estimation of non-linear parameters. *J. Sot. Ind. Appl. Math.*, 11, 431-441.

Nabighian, M.N., 1987. *Electromagnetic Methods in Applied Geophysics, Volume 2: Application (Parts A and B)*. Society of Exploration Geophysicists (SEG), Tulsa.

Orange, A.S., 1989. Magnetotelluric exploration for hydrocarbons. *Proceedings of the IEEE*, 77, 287-317.

Parker, R.L., and Booker, J.R., 1996. Optimal one-dimensional inversion and bounding of magnetotelluric apparent resistivity and phase measurements. *Physics of the Earth and Planetary Interiors*, 98, 269-282.

Siripunvaraporn, W., 2012. Three-Dimensional Magnetotelluric Inversion: An Introductory Guide for Developers and Users. *Surv Geophys* 33, 5-27.

Vozoff, K., 1972. The Magnetotelluric method in the Exploration of Sedimentary basins. *Geophysics*, 37, 98-141.

Wannamaker, P., Hohmann, G., Ward, S., 1984. Magnetotelluric response of three-dimensional bodies in layered earth. *Geophysics* 49, 1517-1534.

MT 2D Inversion codes:

PWm2D:

Quantec MT2D inversion – see APPENDIX D

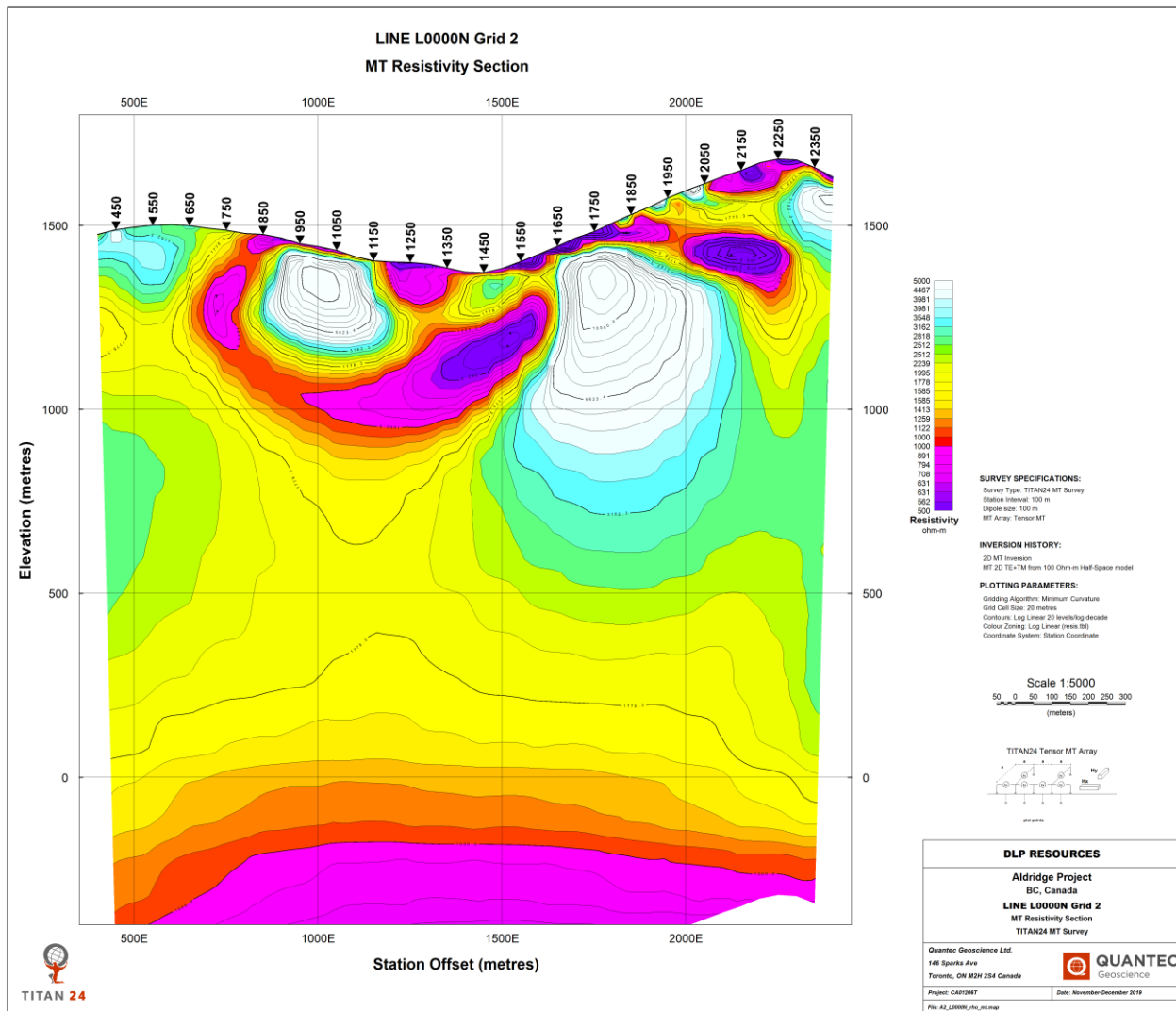
A.2. TECHNICAL REPORTS

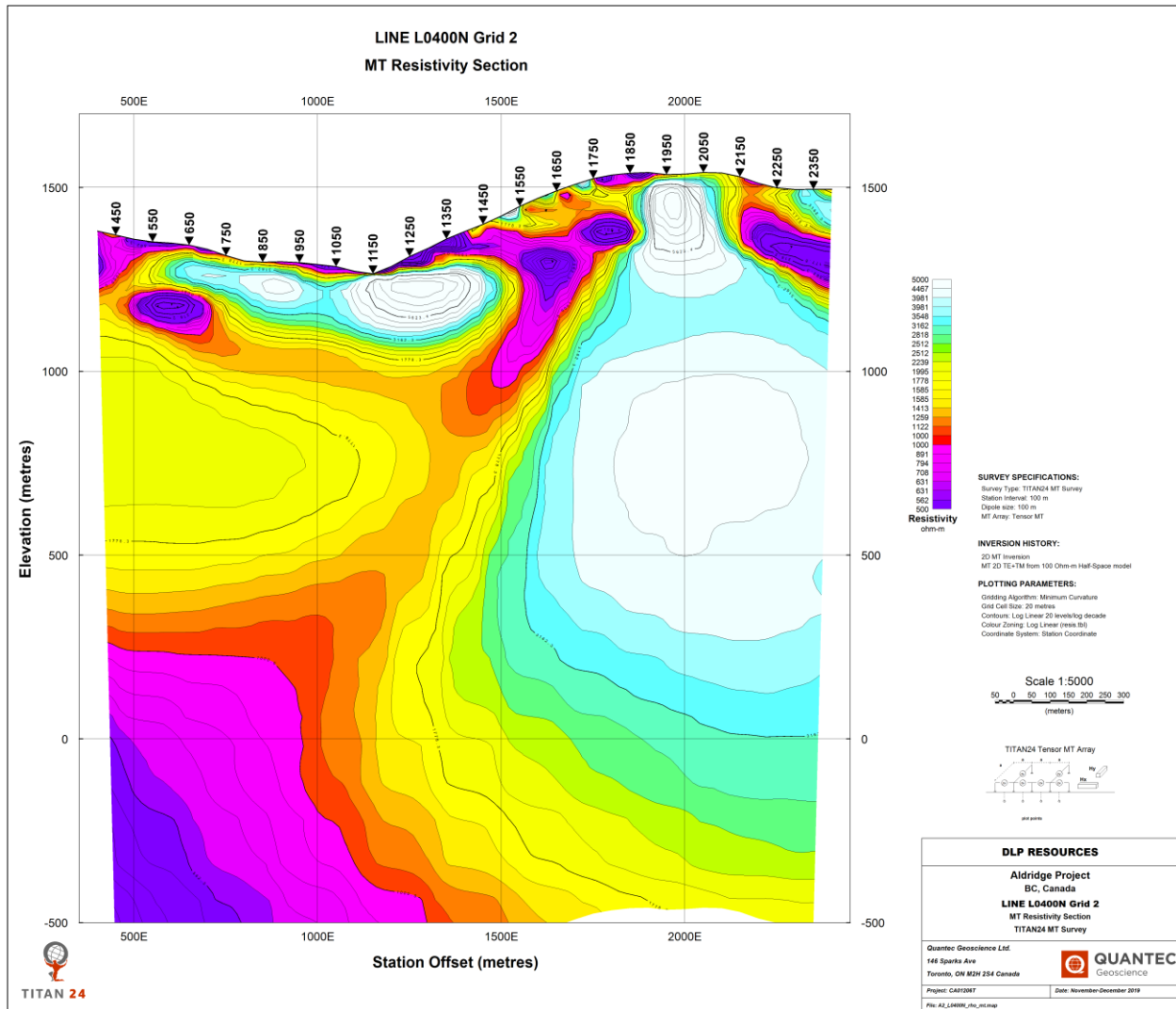
See: Logistic Report for a Titan24 MT survey over Aldridge Project (Creston, BC) by Quantec Geoscience Ltd. on behalf of DLP Resources Inc., December 2019

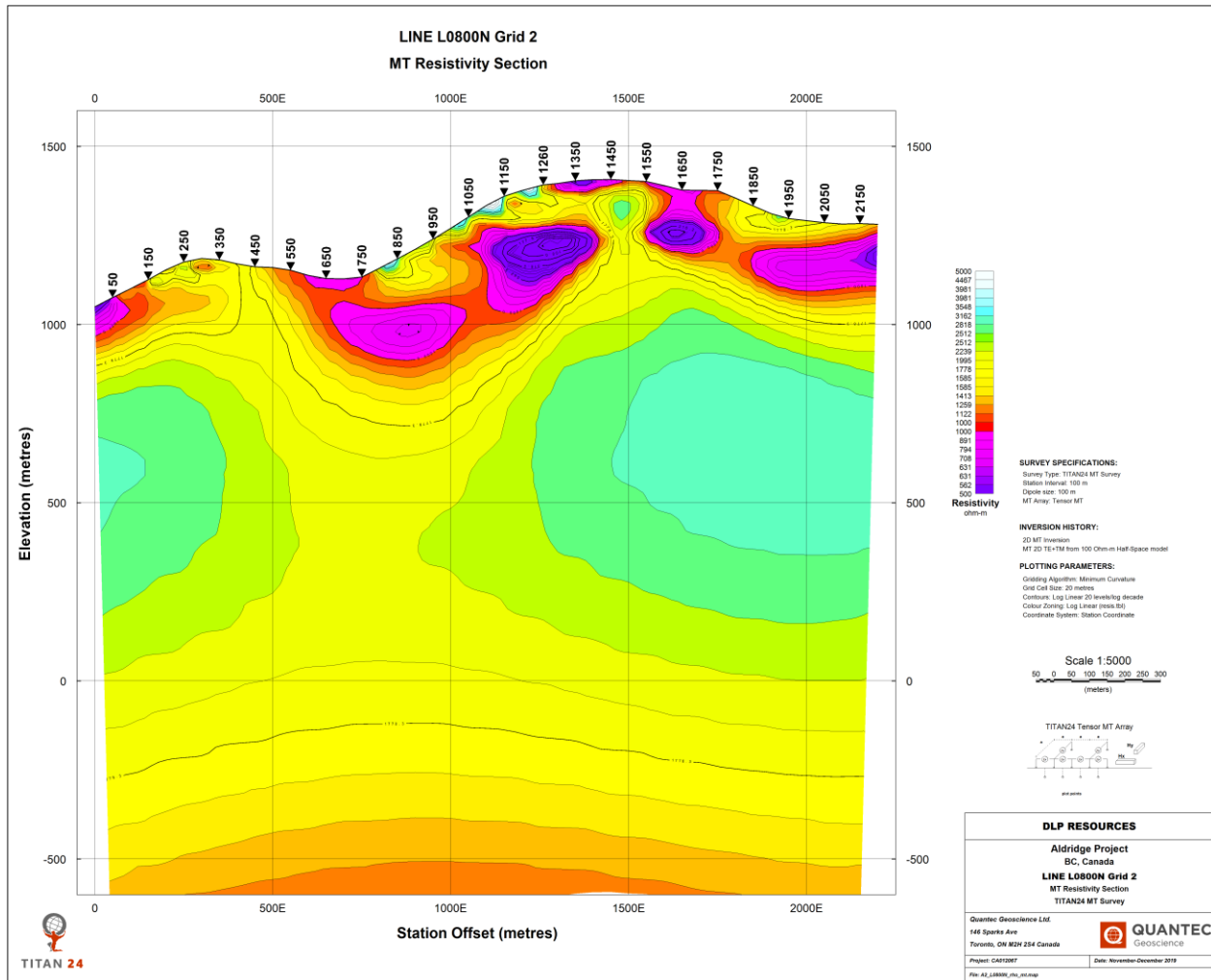
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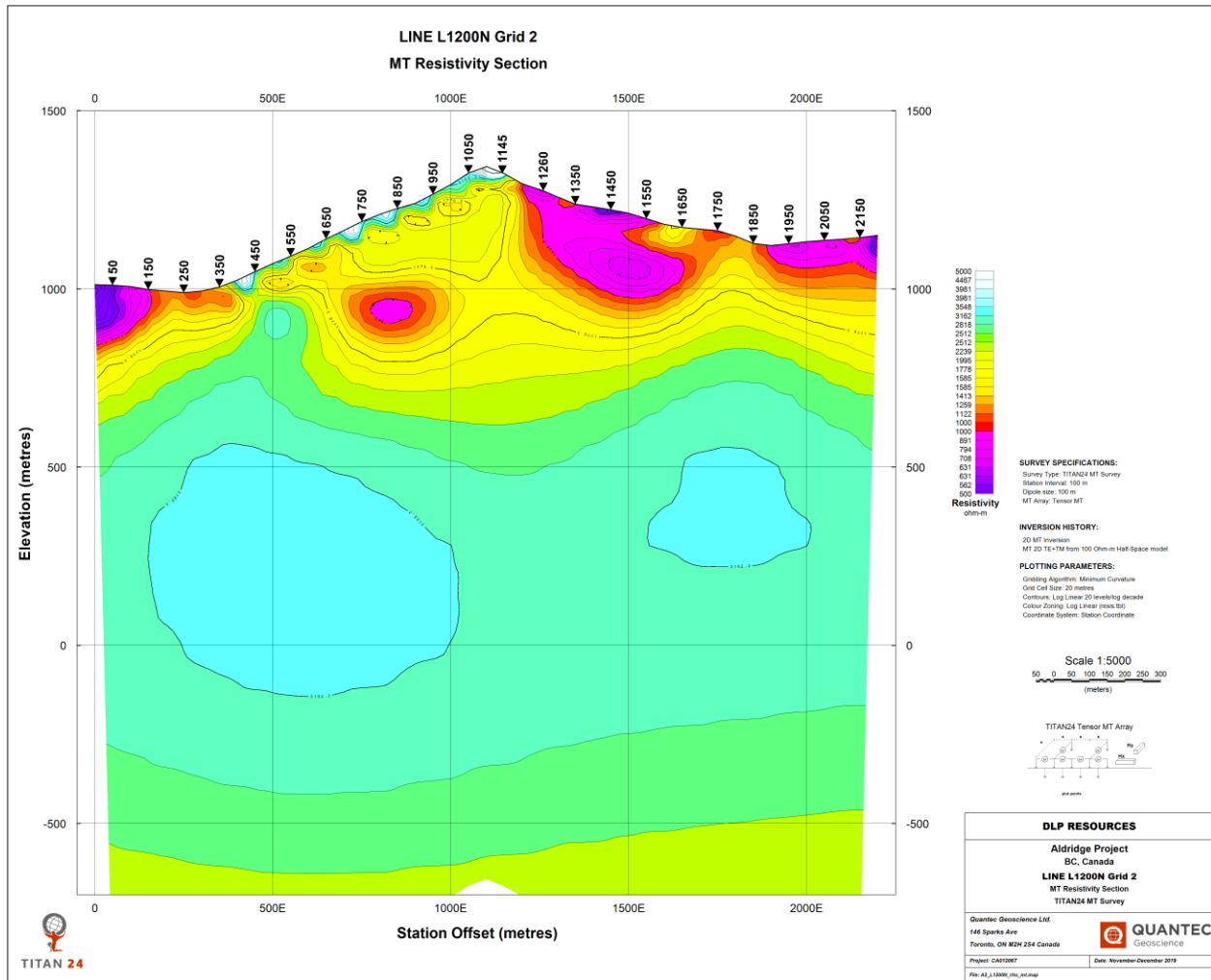
APPENDIX B. SECTIONS

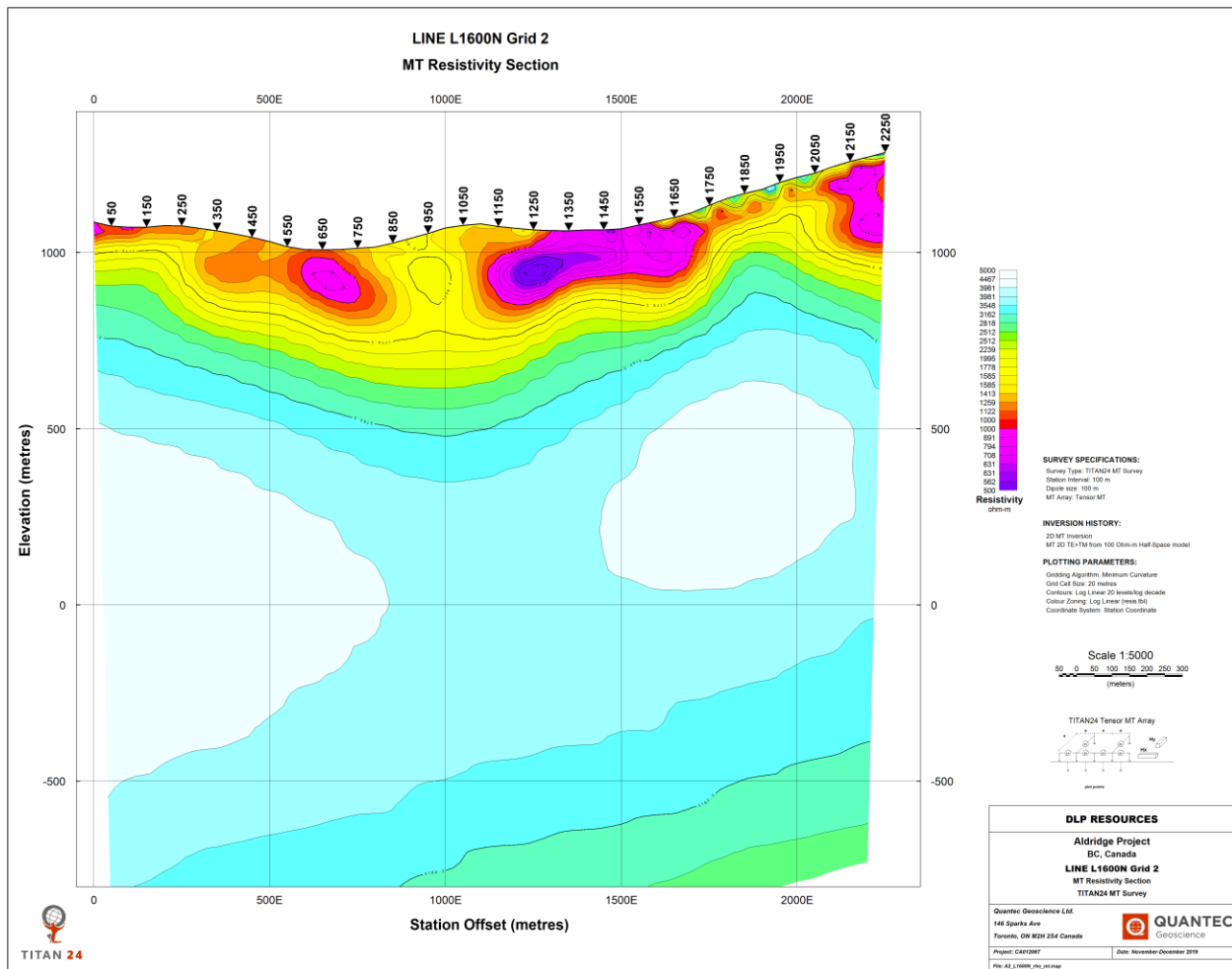
B.1. SECTIONS IN GRID COORDINATES

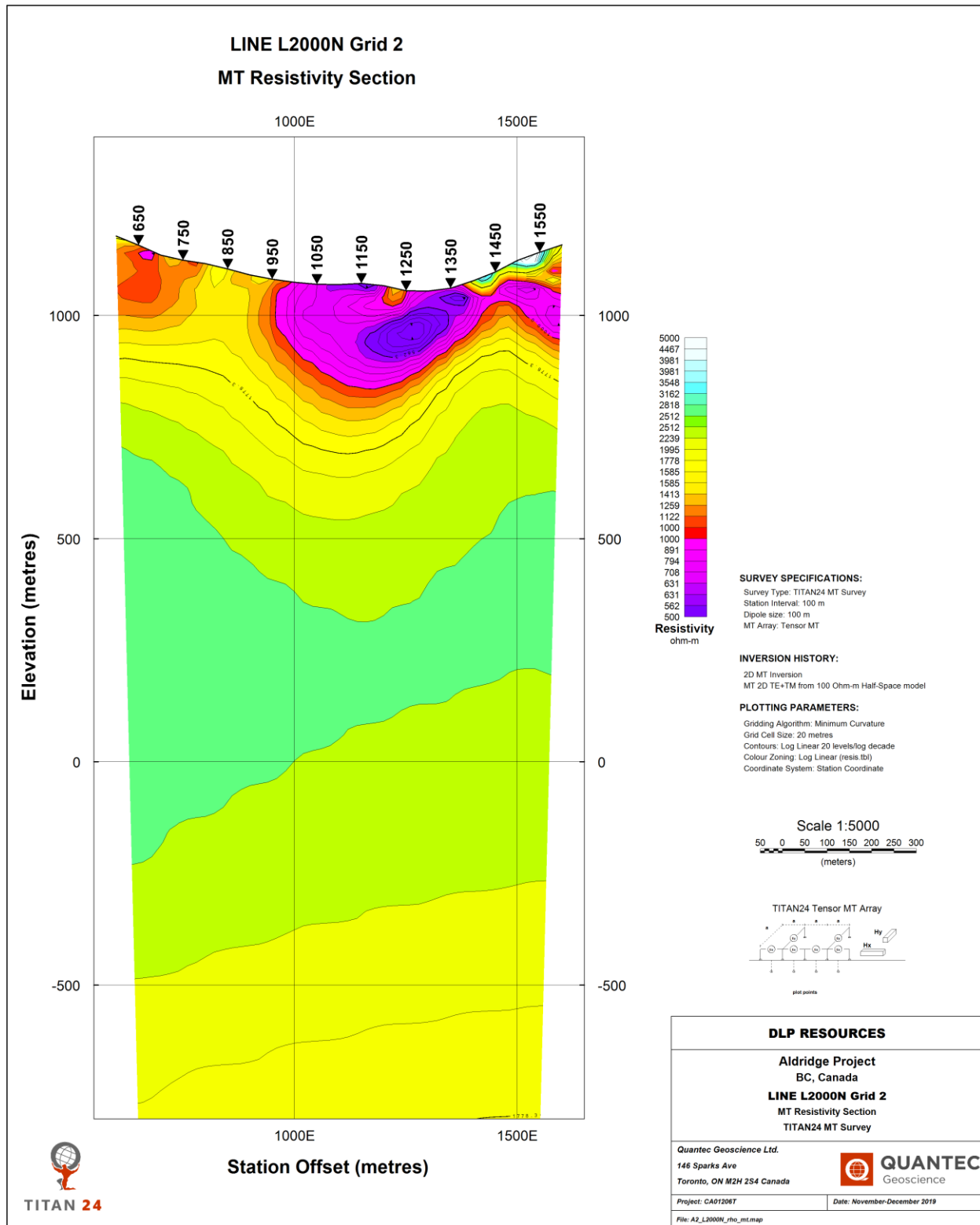




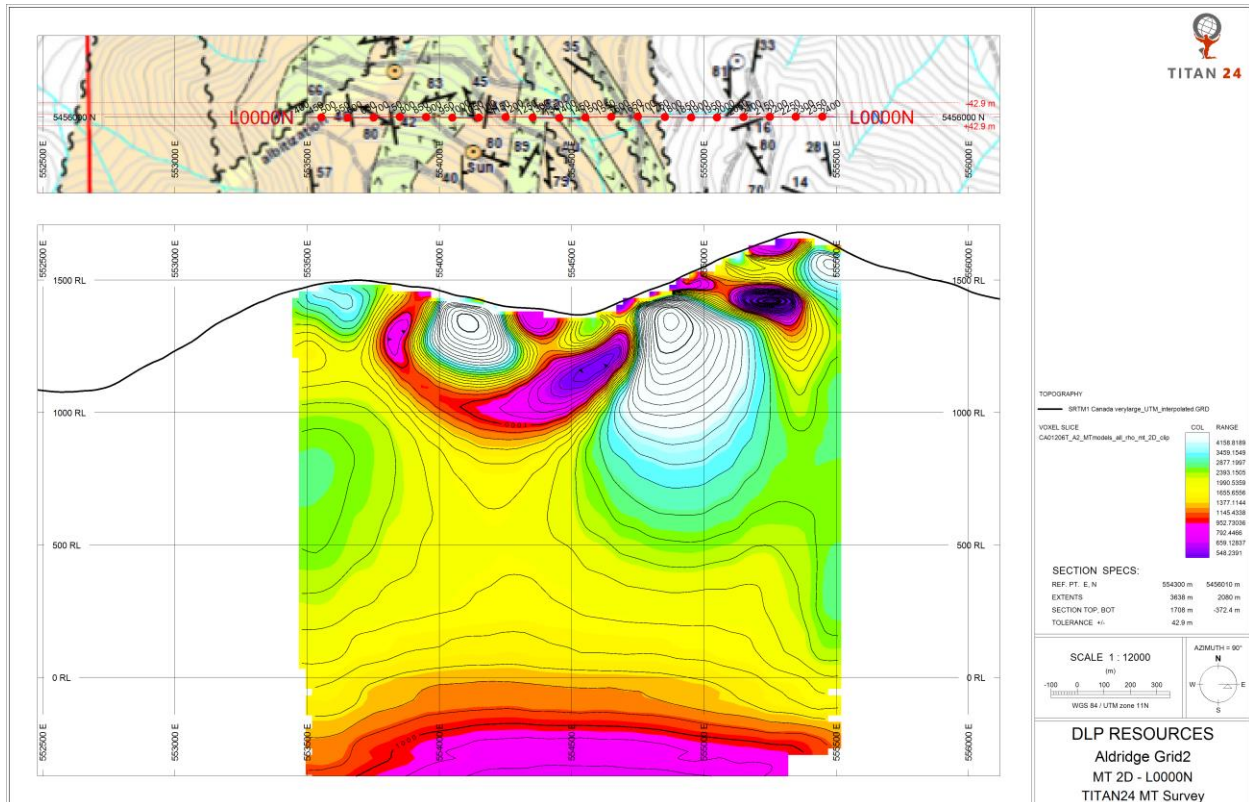


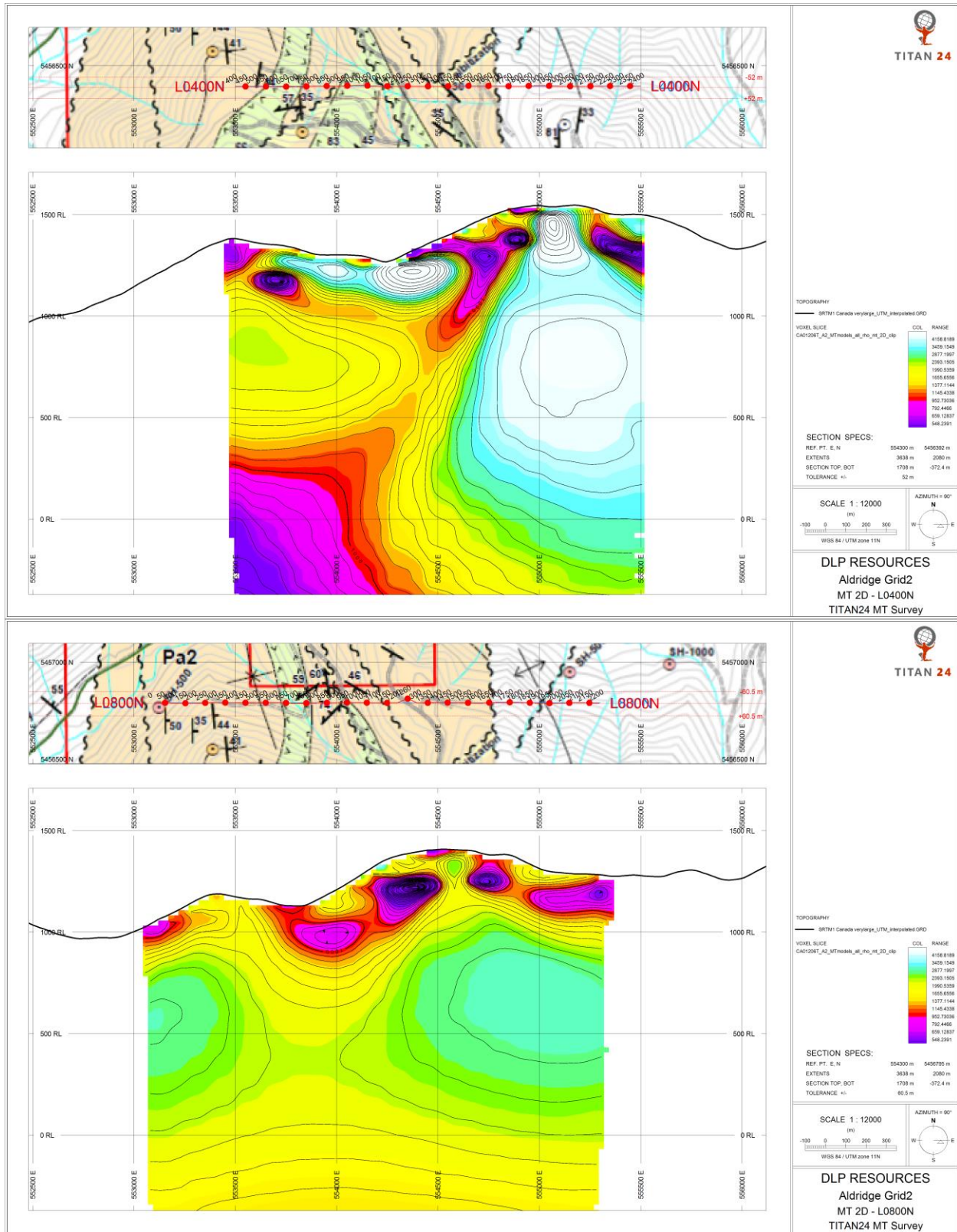


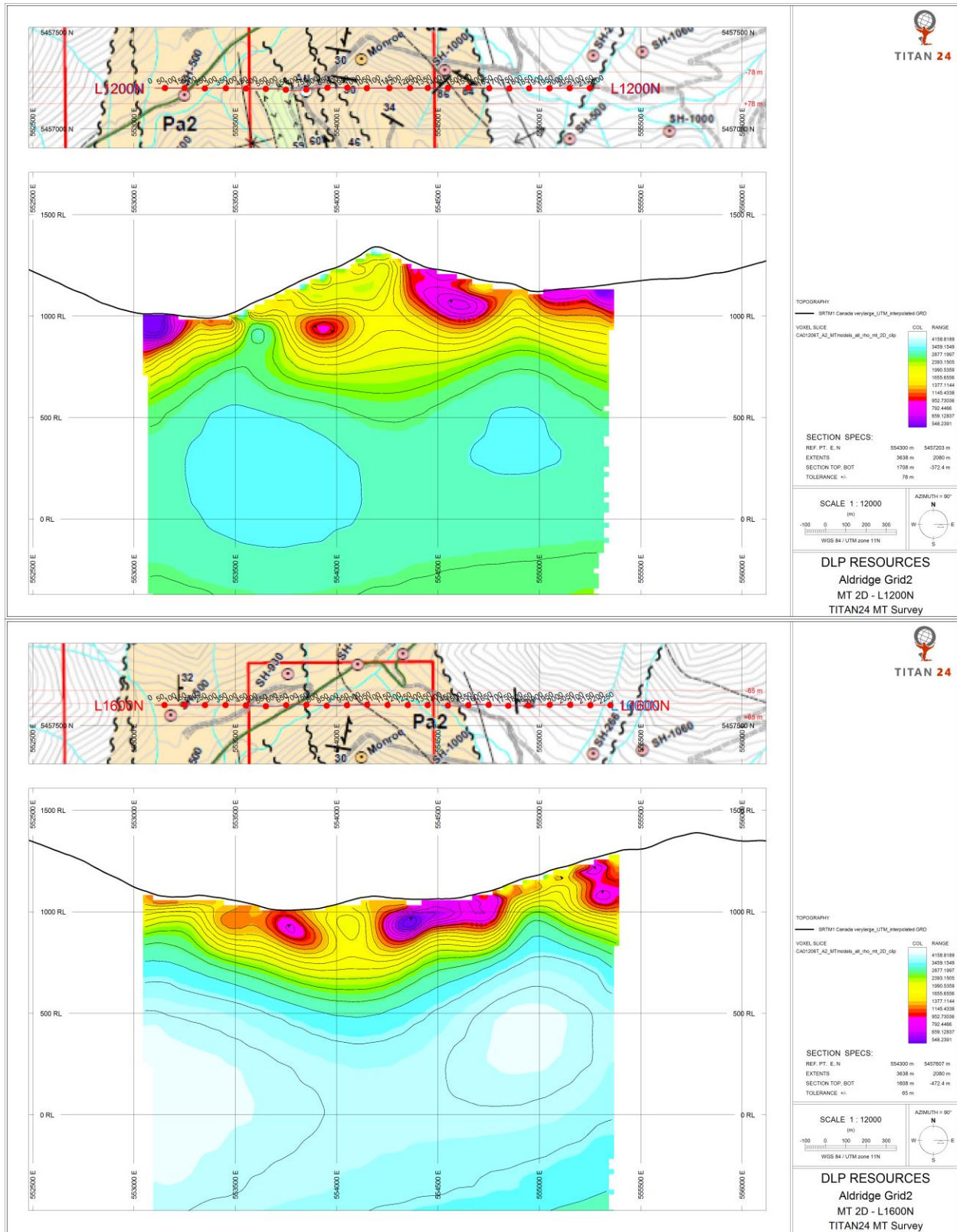


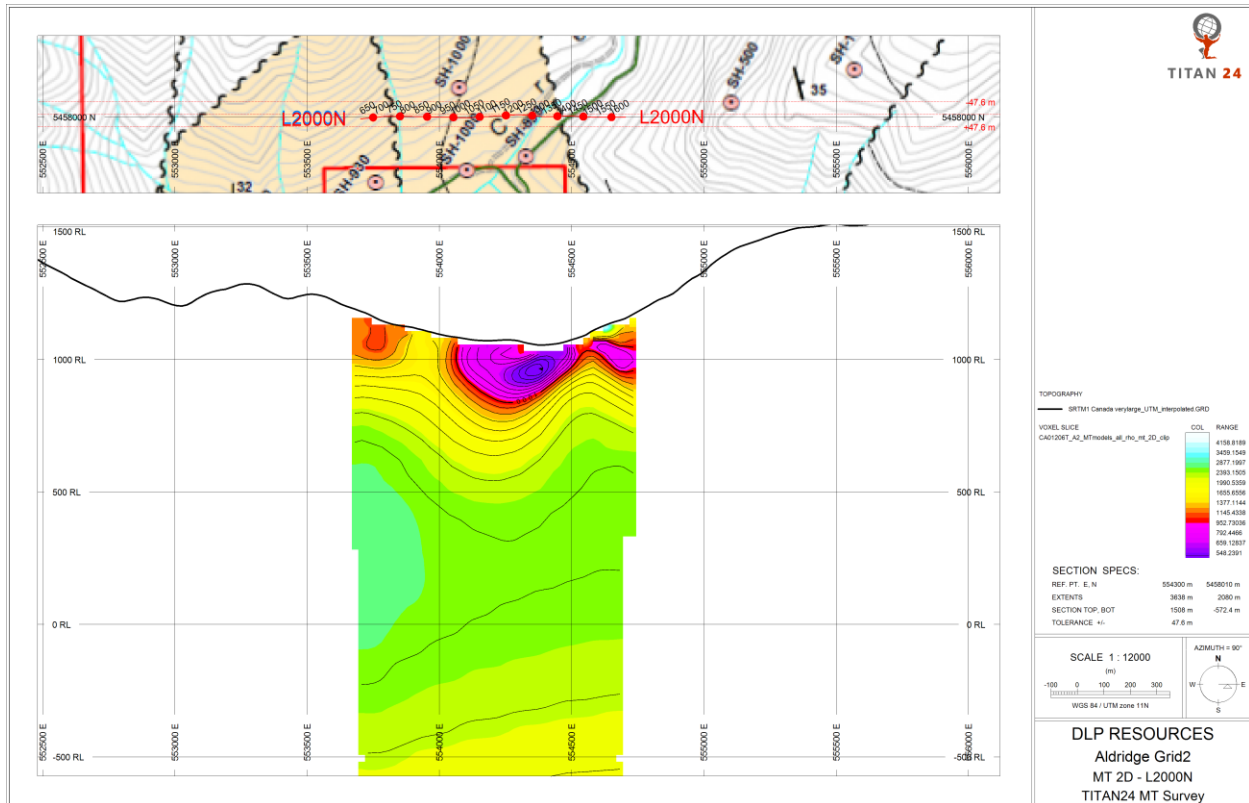


B.2. GEOREFERENCED SECTIONS

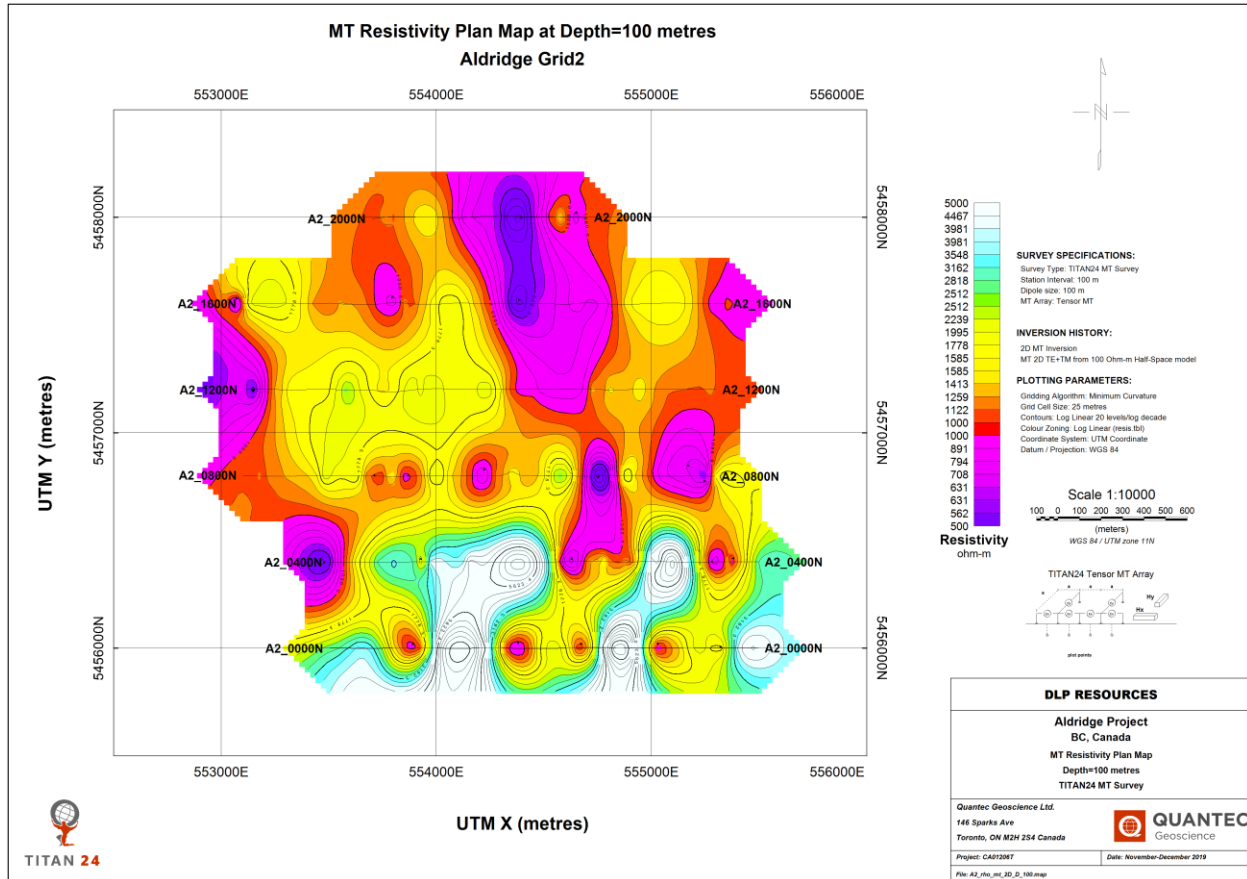


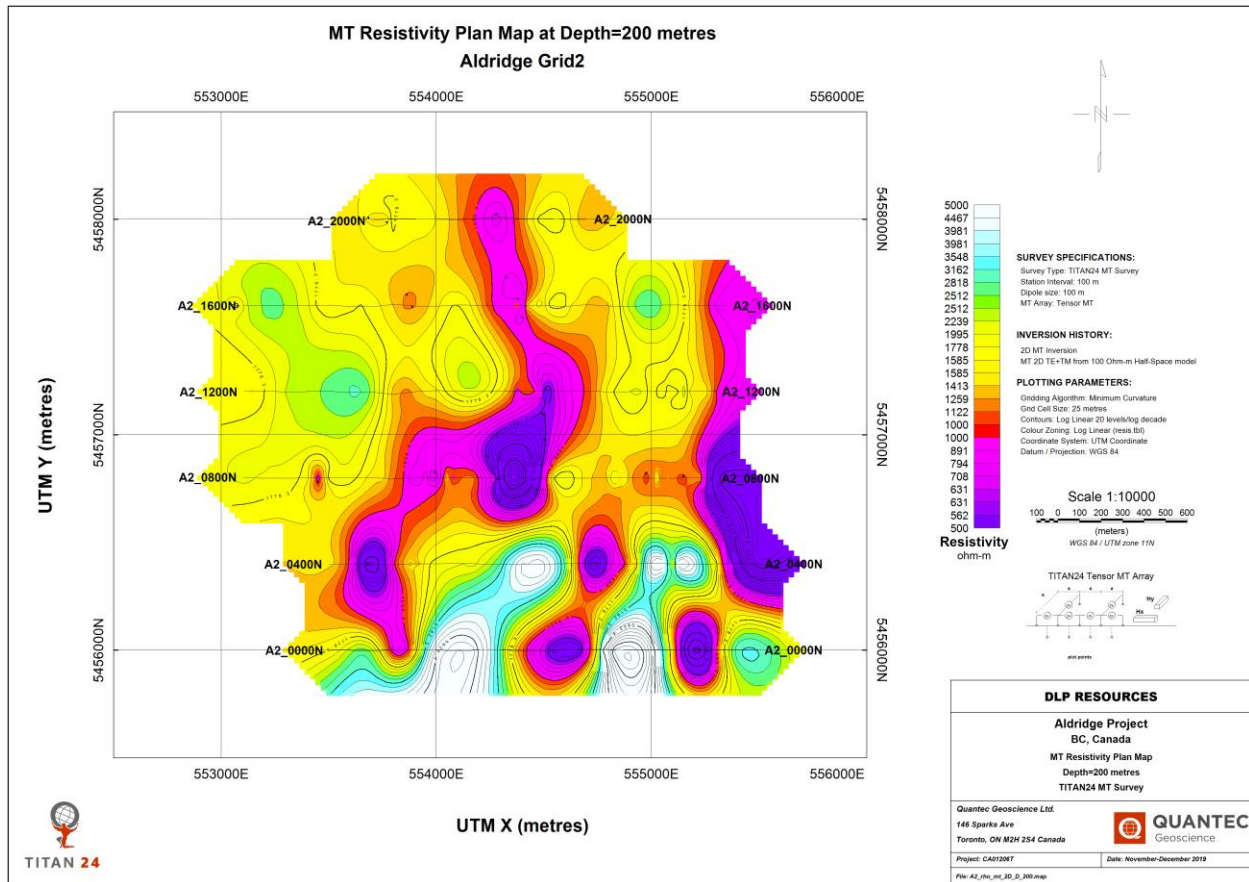


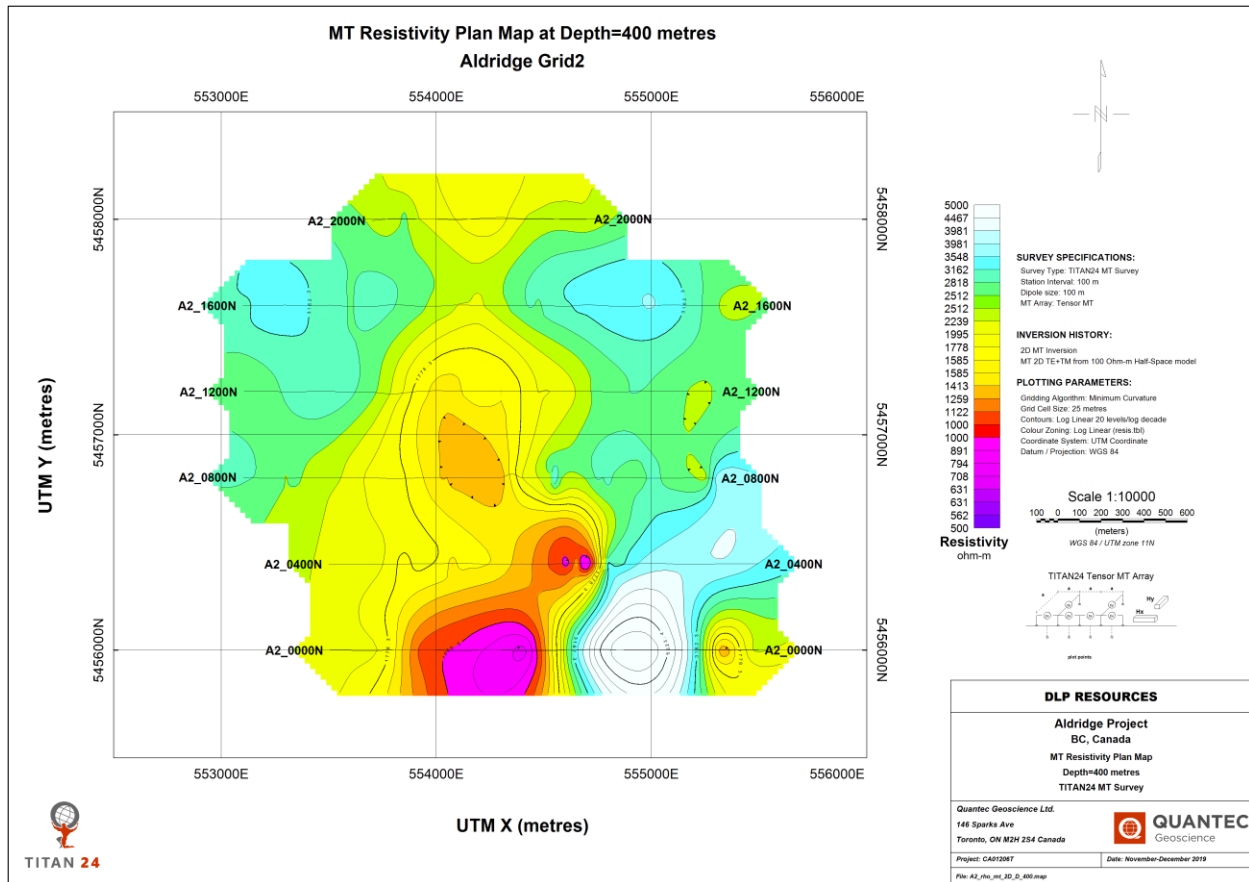


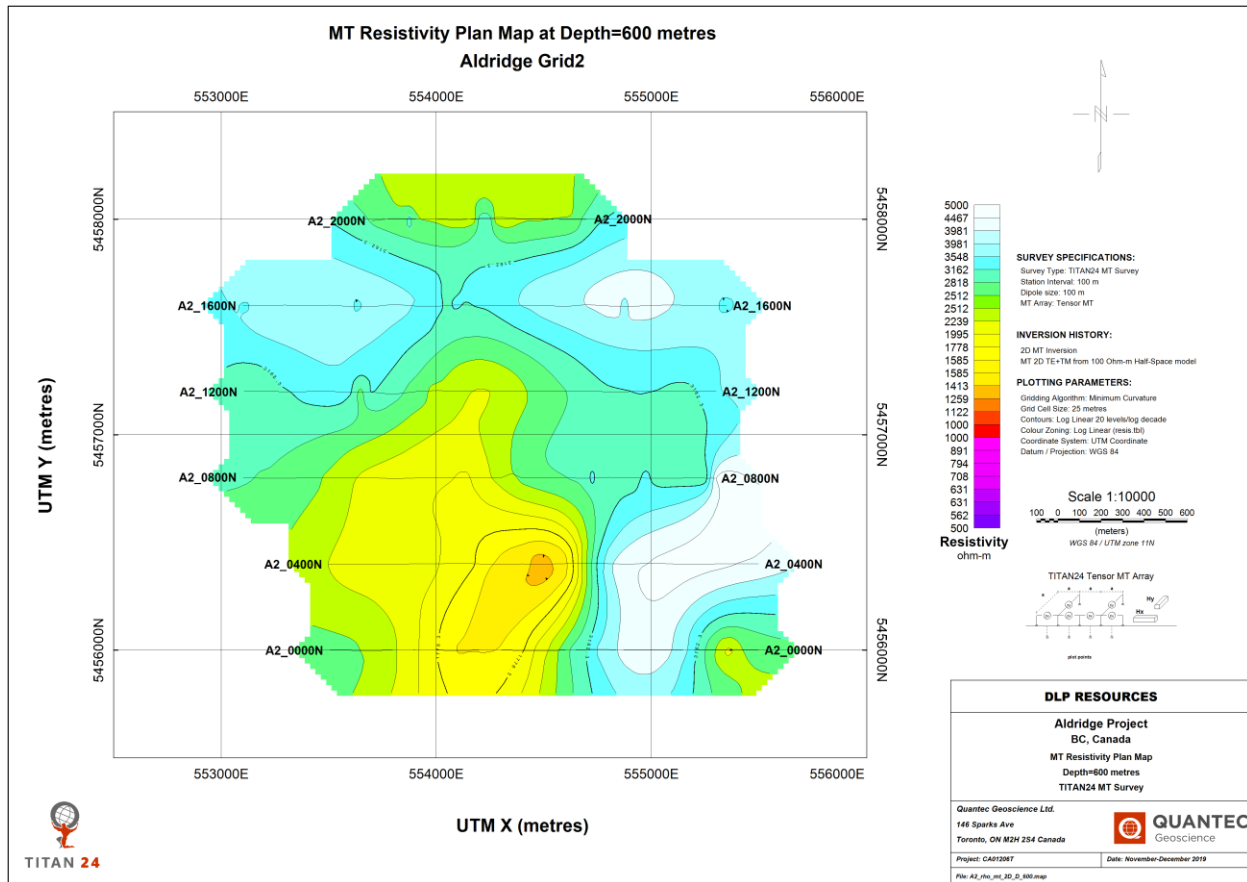


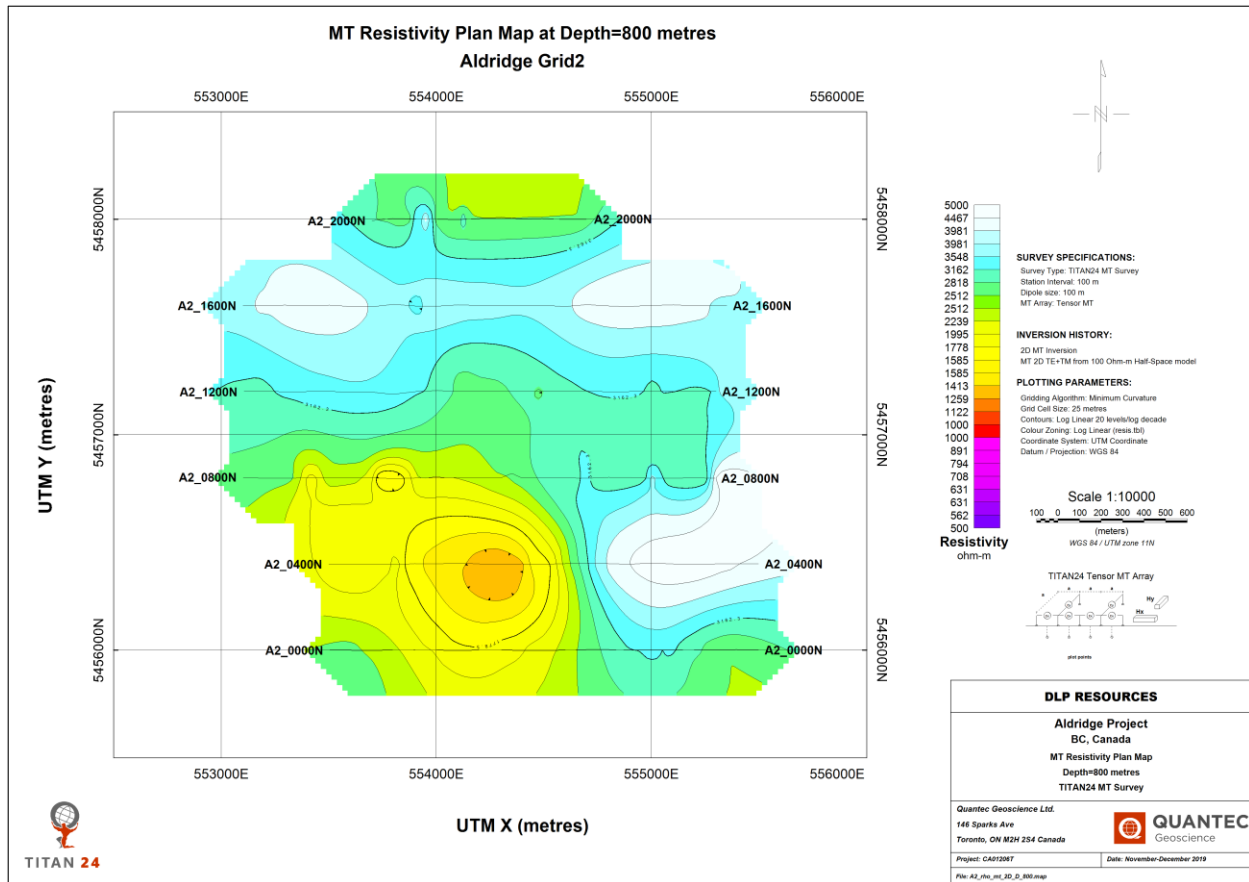
APPENDIX C. PLAN MAPS

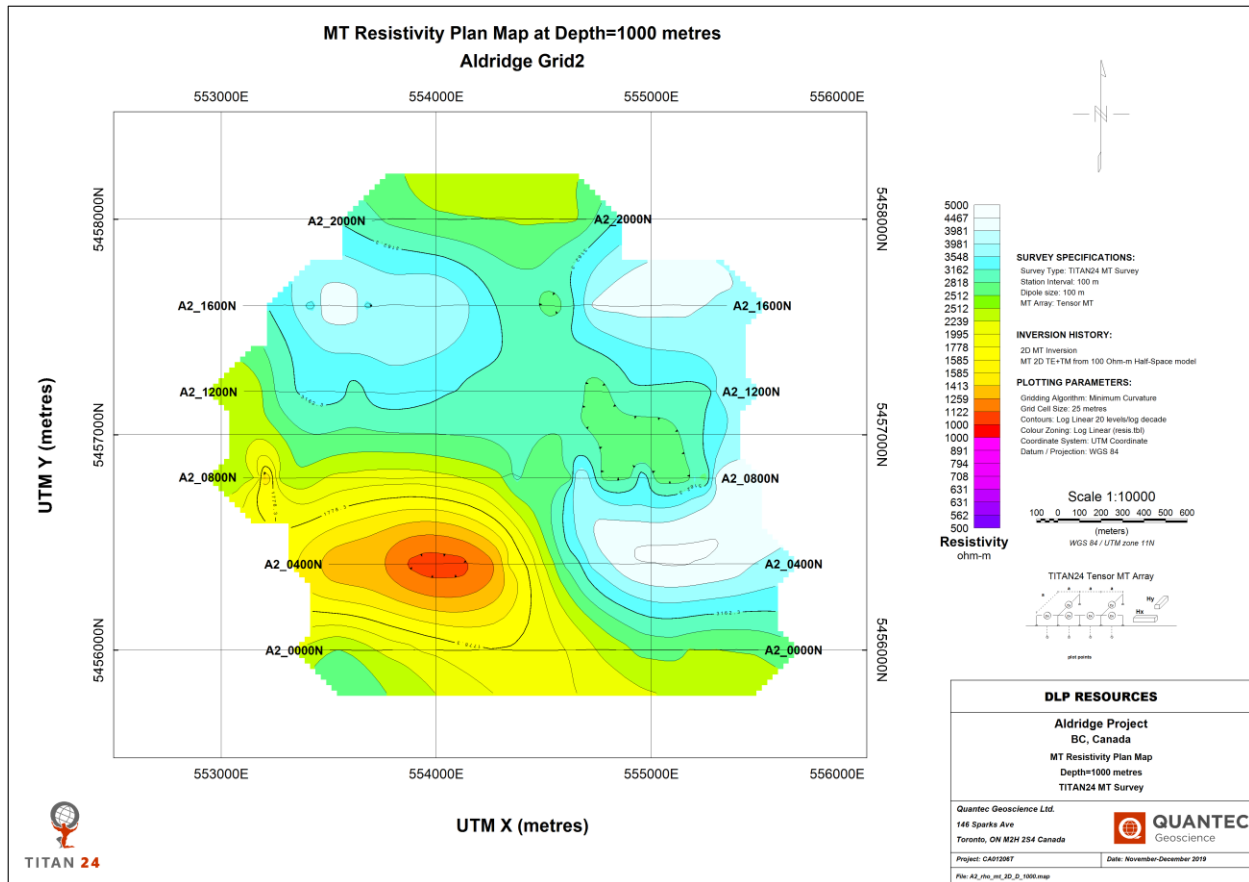












APPENDIX D. **QUANTEC PROPRIETARY 2D PHIL WANNAMAKER INVERSION CODE**

This is a Quantec proprietary inversion code developed by Phil Wannamaker (Professor University of Utah, USA). That program include topography and allows inversion of TE and TM mode data (apparent resistivity and phases, with errors), as also inversion for tipper data.

“The inversion of MT data to yield resistivity cross sections is based on the apriori, maximum likelihood estimates of Tarantola (1987) and utilizes the finite element platform of DeLugao and Wannamaker (1996). The approach applies stabilization through a weighted sum of apriori model adherence and spatial smoothing in terms of model slope (cf., DeGroot-Hedlin and Constable, 1990; Rodi and Mackie, 2001). The apriori damping factor is updated each iteration to achieve stabilization in terms of fundamental parameter correlations characteristic of the physics of diffusive EM (e.g., conductivity-dimension). Also, the parameters defining the image grow both laterally and vertically with depth, thereby preserving the influence of individual parameters at the surface according to basic EM scaling, and thus stabilizing the parameter step matrix and increasing depth of exploration.” [Wannamaker, et al, 2007]

D.1. REFERENCES:

- Lugao, P.P., and Wannamaker, P.E., 1996. Calculating the two-dimensional magnetotelluric Jacobian in finite elements using reciprocity. *Geophysical Journal International*, 127, 806-810.
- Wannamaker, P. E., Stodt, J. A., and Rijo, L., 1986, Two-dimensional topographic variations in magnetotellurics modeled using finite elements: *Geophysics*, 51, 2131-2144.
- Wannamaker, P.E., Stodt, J.A., and Rijo, L., 1987. A stable finite-element solution for two-dimensional magnetotelluric modeling. *Geophysical Journal of the Royal Astronomical Society*, 88, 277-296.

(*) For the MT inversion, the parameter step which combines the forward results, the parameter jacobians, and the data (with errors) follow Tarantola :

- Tarantola, A., 1987, *Inverse Problem Theory*: Elsevier, New York, 613 pp.
- Tarantola, A., 2005, *Inverse Problem Theory and Methods for Model Parameter Estimation*: SIAM, Philadelphia, 352 pp.
- Mackie, R. L., Bennett, B. R. and Madden, T. R., 1988. Long-period magnetotelluric measurements near the central California coast: a land-locked view of the conductivity structure under the Pacific Ocean. *Geophysical Journal* (95), pp181-194.

D.2. EXAMPLE OF USE OF THE 2D ALGORITHM IN PEER REVIEWED PAPERS

Moore, J., R. Allis, M. Nemcok, T. Powell, D. Norman, P. Wannamaker, I. Raharjo, and C. Bruton, The evolution of volcano-hosted geothermal systems based on deep wells from Karaha-Telaga Bodas, Indonesia: *Amer. J. Sci.*, 308, doi:10.2475/01.2008.01, 1-48, 2008.

Wannamaker, P. E., T. G. Caldwell, G. R. Jiracek, V. Maris, G. J. Hill, Y. Ogawa, H. M. Bibby, S. L. Bennie, and W. Heise, Fluid and deformation regime of an advancing subduction system at Marlborough, New Zealand: *Nature*, doi:10.1038/nature08204, 733-736, 2009.

Wannamaker, P. E., D. P. Hasterok, J. M. Johnston, J. A. Stodt, D. B. Hall, T. L. Sodergren, L. Pellerin, V. Maris, W. M. Doerner, and M. J. Unsworth, Lithospheric dismemberment and magmatic processes of the Great Basin-Colorado Plateau transition, Utah, implied from magnetotellurics: *Geochemistry, Geophysics, Geosystems*, 9, Q05019, doi:10.1029/2007GC001886, 2008.

D.3. OTHER REFERENCES

Wannamaker, PE, Doerner, WM, and Hasterok, DP. 2007. Integrated dense array and transect MT surveying at Dixie Valley geothermal area, Nevada- structural controls, hydrothermal alteration and deep fluid sources. In, proceedings, 32th workshop on geothermal reservoir Engineering, Stanford University.

SUMMARY INFORMATION

QUANTEC OFFICE INFORMATION	
Office:	Quantec Geoscience Ltd.
Address:	146 Sparks Ave., Toronto, ON, M2H 2S4, Canada
Phone:	+1-416-306-1941
Web:	www.quantecgeoscience.com
Email:	info@quantecgeoscience.com
PROJECT INFORMATION	
Client Name:	DLP Resources Inc.
Project Name:	Aldridge Project Grid 2
Project Location:	Creston, British Columbia
Project Type:	Titan 24 MT
Project Number:	CA01206T
Project Manager:	Mark Morrison
Project Period:	November 16 to December 9, 2019
Report Type:	Summary Report
Report Author(s):	José Antonio Rodríguez
Report date:	January 24, 2020
Reference	<i>Summary Report for a Titan 24 MT survey over Aldridge Project Grid 2 (Creston, British Columbia) by Quantec Geoscience Ltd. on behalf of DLP Resources Inc.</i>
Template version	Version 2019.12.04

**ASSESSMENT REPORT
TITAN 24 MT GEOPHYSICAL SURVEY**

DLP RESOURCES INC.

July, 2020

APPENDIX 2

**LOGISTICS REPORT
For a Titan MT Survey**

ALDRIDGE PROJECT

**Work Performed by:
QUANTEC GEOSCIENCE LTD.**

LOGISTICS REPORT FOR A

TITAN 24 MT SURVEY

OVER

ALDRIDGE PROJECT

(CRESTON, BRITISH COLUMBIA)

ON BEHALF OF

DLP RESOURCES INC.



December 16, 2019
CA01206T

Quantec Geoscience Ltd.
146 Sparks Ave., Toronto, ON, M2H 2S4, Canada
+1-416-306-1941



QUANTEC
Geoscience

Report Disclaimer:

Quantec Geoscience Limited holds a Certificate of Authorization from the Association of Professional Geoscientists of Ontario (PGO) to perform the work presented in this report. Quantec employed qualified professionals to carry out the work presented in this geophysical report.

Statements made in this report represent opinions that consider information available at the time of writing. Although every effort has been made to ensure the accuracy of the material contained in this report, complete certainty cannot be guaranteed due to the interpretive nature of the work which may include mathematically derived solutions that are inherently non-unique. Therefore, the estimated physical parameters of the subsurface may have no direct relation to the real geology and possible economic value of any mineralization.

There is no guarantee or representation to the user as to the level of accuracy, currency, suitability, completeness, usefulness, or reliability of this information for any purpose. Therefore, decisions made based on this work are solely the responsibility of the end user. It is incumbent upon the end user to examine the data and results delivered and make Quantec aware of any perceived deficiencies.

EXECUTIVE SUMMARY

This report presents the logistics of the TITAN 24 MT survey completed from November 16 to December 9 over the Aldridge Project by Quantec Geoscience Ltd. on behalf of DLP Resources Inc..

The report describes the instrumentation, data acquisition and processing procedures, final data formats and contents of the digital archives. The final processed data are also presented as pseudo-depth plots of apparent resistivity and chargeability, Magnetotelluric (MT) sounding curves of apparent resistivity and phase, etc.

A total of 14 MT profiles were surveyed. Data were processed and inspected for quality assurance on site and reviewed daily by the geophysicist in charge of the project.

The final processed survey results delivered with the report include:

- GPS Data
 - Multi-site ASCII survey files
 - Each file includes location (Latitude/Longitude, projected UTM and GRID coordinates) and elevation details of MT sites.
- Magnetotelluric (MT) Data
 - Single site data in the Electrical Data Interchange (EDI) format containing the MT spectra at each frequency.

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1. INTRODUCTION

This report presents the logistics of the TITAN 24 MT survey completed from November 16 to December 9 over the Aldridge Project by Quantec Geoscience Ltd. on behalf of DLP Resources Inc..

1.1. CLIENT INFORMATION

Name:	DLP Resources Inc.
Address:	#201 – 135 10 th Ave. S. Cranbrook British Columbia V1C 2N1 Canada
Representative:	Jim Stypula, CEO Phone: +1 250-417-5336 Email: styys@hotmail.com

1.2. GENERAL PROJECT INFORMATION

Quantec Project Manager:	Mark Morrison
Quantec Project Number:	CA01206T
Report Prepared by:	Tony Parks, José Antonio Rodríguez
Project Name:	Aldridge Project
Survey Type:	TITAN 24 MT
General Location:	Grid 1 Approx. 21 km East of Creston (see Figure 1-1). Lat /Long: 49°10'8.77"N, 116°14'5.91"W UTM: 555766 m E, 5446536 m N Datum: WGS84, UTM Zone 11N Grid 2 Approx. 26 km North East of Creston (see Figure 1-1). Lat /Long: 49°15'46.74"N, 116°15'18.87"W UTM: 554186 m E, 5456958 m N Datum: WGS84, UTM Zone 11N
Survey Period:	From November 16 to December 9

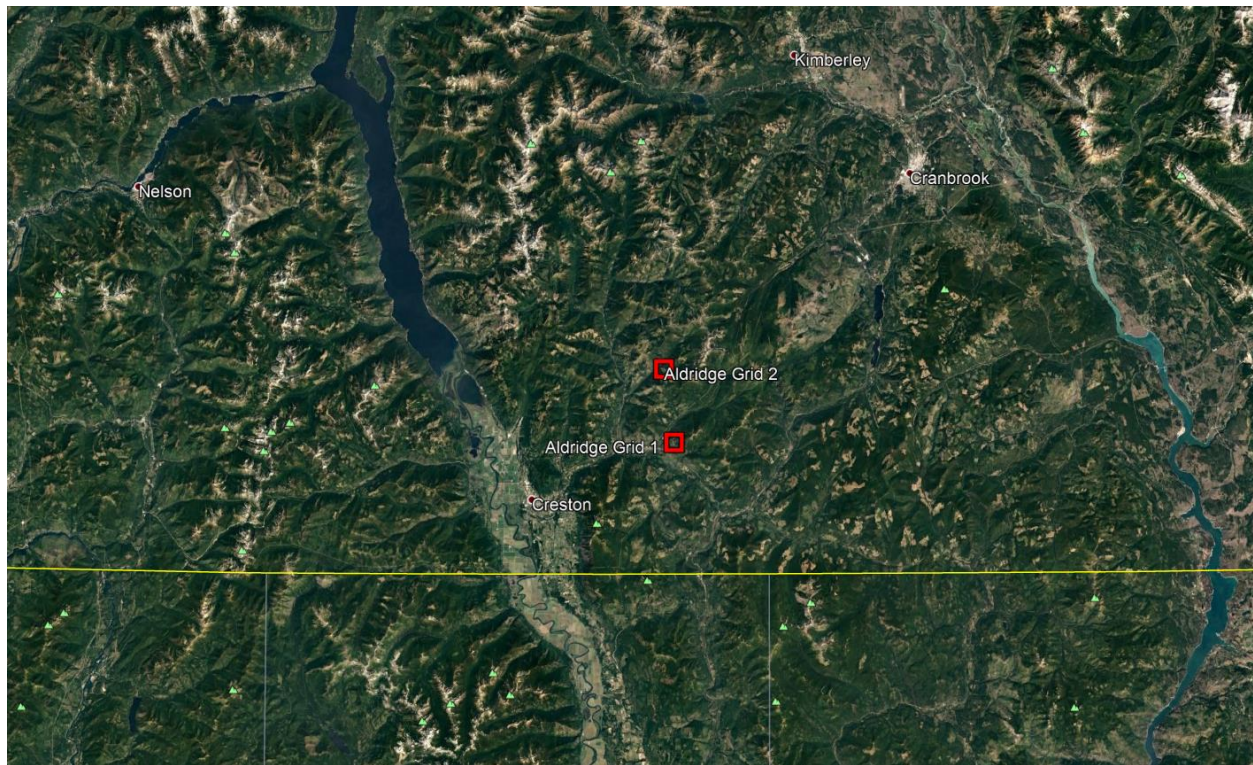


Figure 1-1: General location map.

2. SURVEY LOGISTICS

2.1. ACCESS

Base of Operations:	Magnuson Hotel Creston
Mode of Access:	Pickup Truck

2.2. GRID AREA

Established by:	Quantec, approved by client prior to survey execution
Grid Coordinate Reference System:	Grid referenced to UTM coordinates
Datum and Projection:	WGS 84, UTM Zone 11N
Grid Azimuth:	Grid N is 00° True
Magnetic Declination:	14°E
Site Location:	handheld GPS

2.3. PRODUCTION SUMMARY

Details of Survey Production:	See APPENDIX A
Survey Period (Total):	From November 16 to December 9 24 days
Survey Days (Read Time):	23 days
Fatigue:	1 days

2.4. SURVEY COVERAGE SUMMARY

Details of Survey Coverage:	see APPENDIX B
-----------------------------	----------------

2D MT Survey:

Lines Acquired:	14 lines covering a total of 32 km Note: The distance reported is the cumulative distance from first to last receiver electrode of each line; overlap stations, if any, are counted once.
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MT Survey:

Sites Acquired: 321 sites
321 EDI files delivered (one per site)

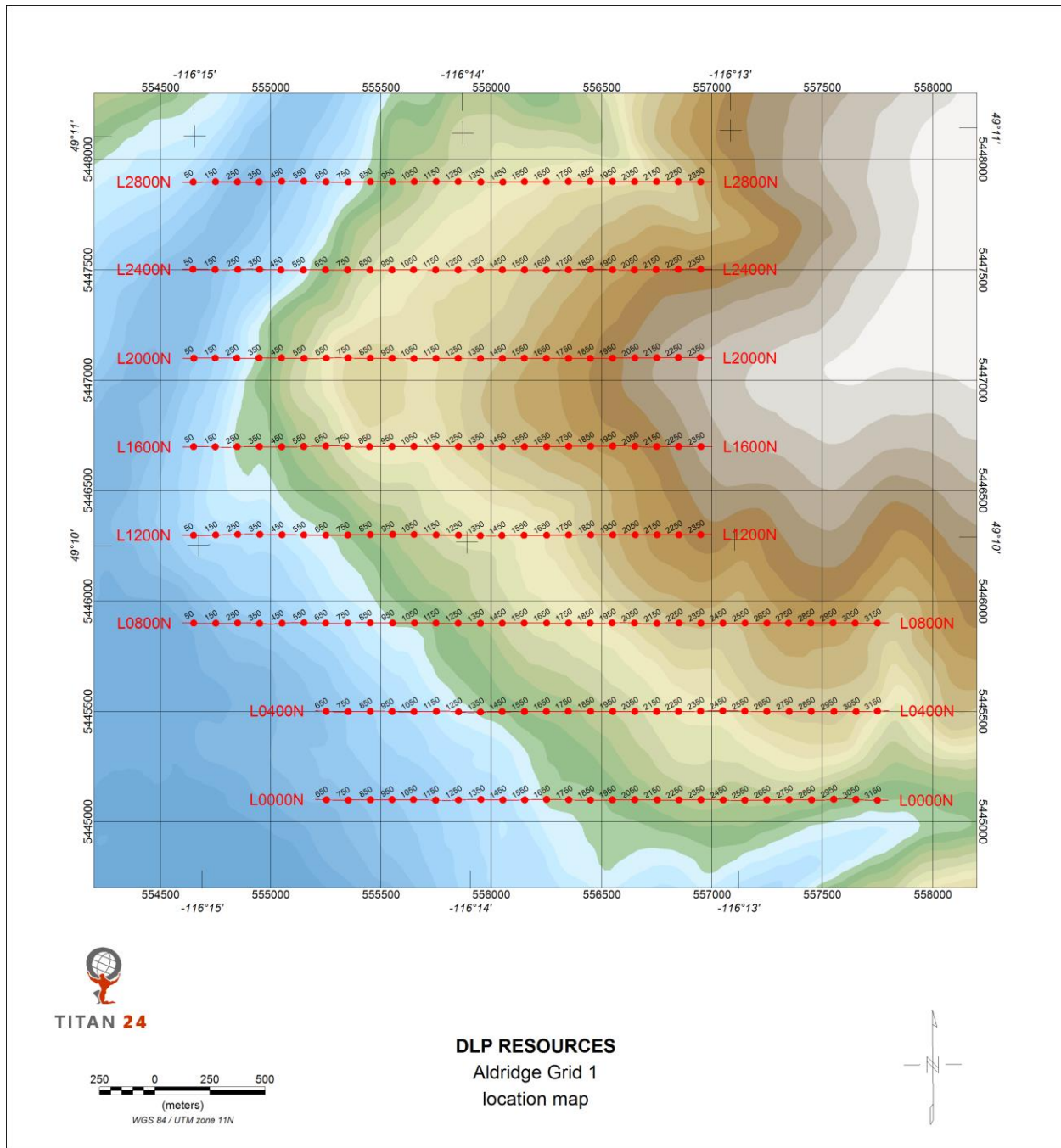


Figure 2-1: MT survey coverage map, Grid 1.

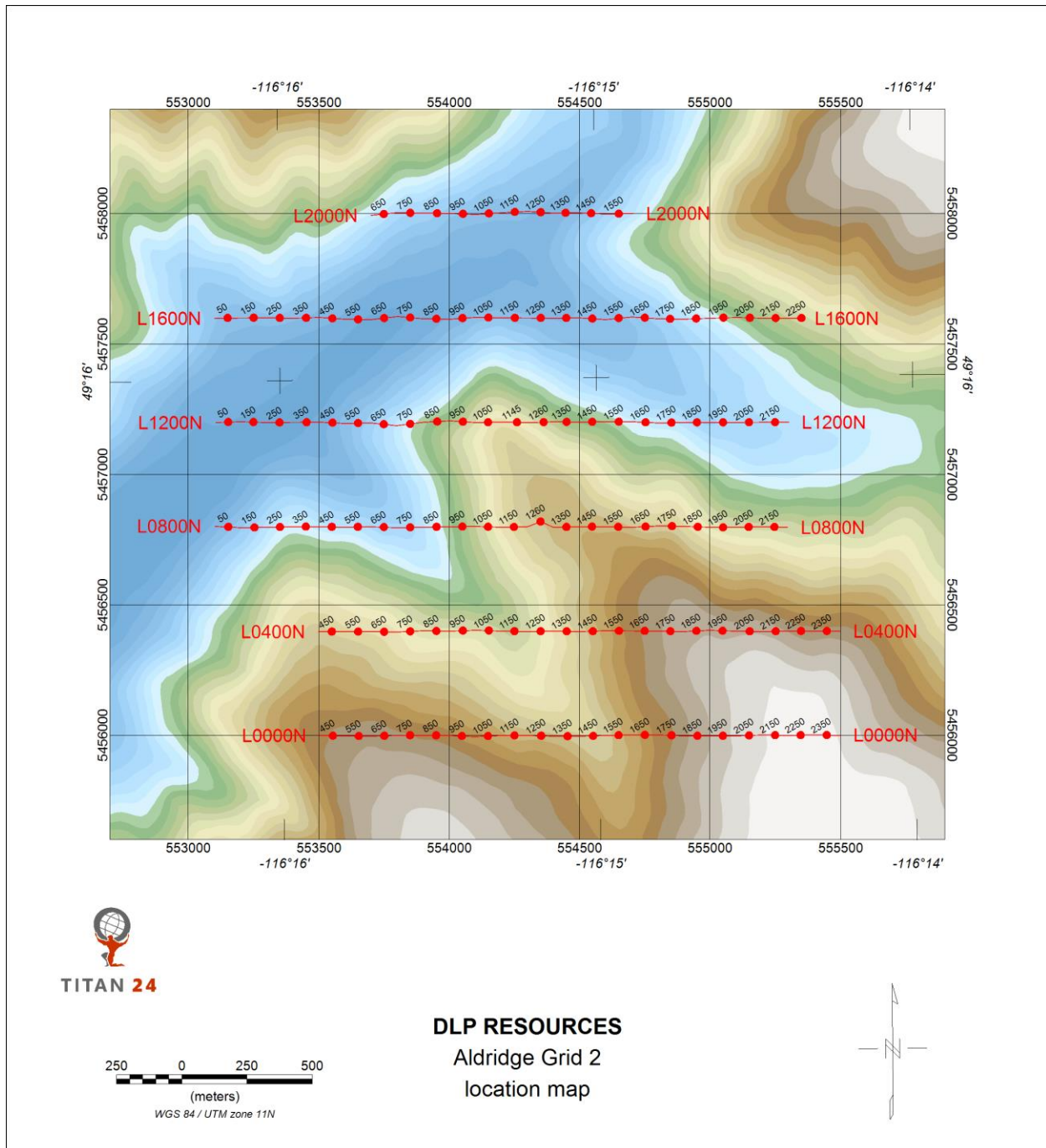


Figure 2-2: MT survey coverage map, Grid 2.

2.5. QUANTEC PERSONNEL

Project Manager:	Mark Morrison
Field Operations Manager:	AJ Erasmus
Project Geophysicist:	José Antonio Rodríguez
Field HSE Coordinator:	AJ Erasmus
Field Data Processor:	Tony Parks
Field Technicians:	Fred Bowen Joel Cranford Josh Reischer

2.6. HEALTH, SAFETY, AND ENVIRONMENT (HSE)

Quantec Geoscience is committed to conducting its activities in a manner that will safeguard and protect the health and safety of all Quantec personnel, clients, the public and the environment.

2.6.1. Hazard Assessment and Control

Prior to mobilization, Quantec HSE compiled a hazard inventory for the project and risk assessments were completed for the tasks involved in conducting the work. On the basis of the risk assessments, corresponding Job Safety Analyses (JSA) were prepared defining safe work procedures.

2.6.2. Systems and Procedures

All personnel were equipped with any personal protective equipment (PPE) required for the work.

One Quantec crew member was assigned as an HSE coordinator to assist the Field Manager with implementation of HSE procedures and reporting.

Daily safety meetings of Quantec personnel were conducted each morning prior to commencement of work to review safe work procedures and discuss any prior incidents, daily plans and potential hazards.

Vehicle circle checks were completed by drivers before departure.

3. SURVEY SPECIFICATIONS

3.1. INSTRUMENTATION

Receiver System:	RT160Q Quantec data logger
Synchronisation:	GPS clock (10 ns precision)
Receiver Electrodes:	Ground contacts using stainless steel rods / steel plates

MT Specific

Magnetic Sensors [HF]:	Geometrics G100K magnetic field sensors
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Magnetic Sensors [LF]:	Phoenix MTC50 magnetic field sensors
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See APPENDIX F for more detailed information.

3.2. SURVEY LAYOUT

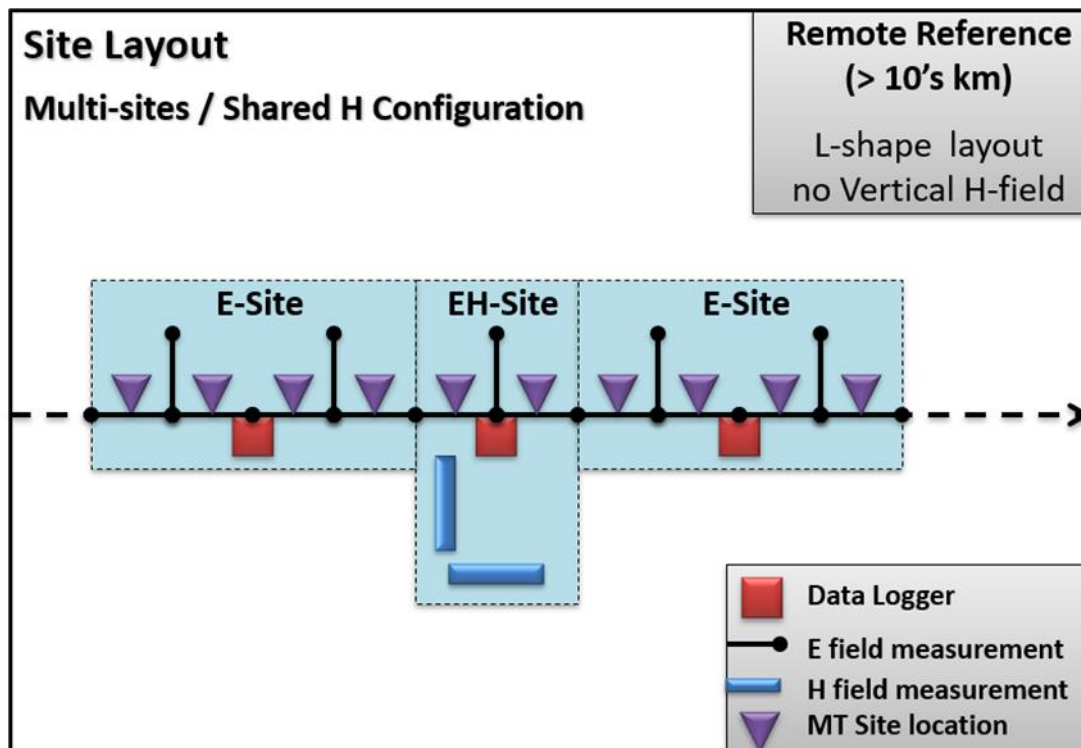


Figure 3-1: Survey acquisition layout.

3.3. MAGNETOTELLURIC SURVEY PARAMETERS

3.3.1. Geometry

Technique:	Tensor magnetotelluric soundings processed with remote reference.
Site Configuration:	L-shaped E-field (Ex is in-line and Ey is cross-line); Ey channel is shared by 2 stations; One set HF and LF magnetic sensors located between each pair of lines.
E-field Dipole Lengths:	Ex: 100 m Ey: 100 m
Site Orientation:	Acquisition layout with X pointing to 090° True.
Remote Site Configuration:	L-shaped E-fields with HF and LF magnetic sensors located at the site. The sensors are oriented in the same direction as the local sites.
Remote Reference Position:	537223 m E, 5453416 m N (WGS84, UTM Zone 11N)
Synchronization to Remote:	GPS clock (10 ns precision)

3.3.2. Acquisition and Processing Parameters

Data Acquisition:	Time series recording.
Time Series Sampling:	HF1: 48,000 samples/s HF2: 12,000 samples/s LF1: 120 samples/s LF2: 40 samples/s (resampled from LF1)
Time Series Recording Time:	HF: minimum of 1 hour to maximum of storage capacity or until pick up LF: minimum of 12 hours to maximum of storage capacity or until pick up HF and LF recording schedule is fixed and defined as follows:

Band	Sampling	Start	Duration
HF1	48 kHz	16, 36, 56 minutes after the hour	30 s for each run
HF2	12 kHz	0, 8, 20, 28, 40, 48 minutes after the hour	4 minutes for each run
LF	120 Hz	At logger deployment	Continuous until pickup

Frequency Bandwidth: 10 kHz to 0.001 Hz

Calibration Version: 2.203 (2019/10/17)

Processing: Quantec proprietary QuickLay software (ver.5.5.8.0) coupled with Egbert MT processing code (Egbert, 1997):

- 1) Coherent noise rejection using remote reference
- 2) Proprietary digital filtering (scrubbing)
- 3) Coherency sorting
- 4) Impedance estimate stacking

Processing configuration set to 12 frequencies per decade

Data processed to output X at **090° True**

Processed Data: Auto- and cross-power spectral estimates for individual stations and sampling band archived as Spectral Density Matrix (SDM) files (Egbert output)

Results are band-merged, edited, and saved as SEG-EDI¹ (Electronic Data Interchange) files.

Data Conventions:

Right-hand positive down coordinate system.

Time dependence: $e^{+j\omega t}$

3.3.3.Field Quality Control Tests

Parallel Sensor Test: A parallel sensor test was completed at the beginning of the survey to verify proper operation of the equipment. The test results are presented in APPENDIX D.

Remote Test: MT data was collected at the remote site prior to the survey to evaluate suitability of the site location. The test results are presented in APPENDIX E.

¹ EDI is a format conforming to SEG standard for the storage of magnetotelluric (MT) data (Wight, 1987).

3.3.4.Data Presentation

Sounding Curves:

Observed XY and YX apparent resistivity and phase
Data Rotation and Strike
(see APPENDIX C for sounding curves)

Pseudo-Section Plots:

Observed XY and YX apparent resistivity and phase
(see APPENDIX C for MT pseudo-sections)

3.3.5.Ap Index

The magnetic signal strength as reported by the Ap^2 index varies from 1 to a maximum of 12, with an average near 4 during the project.

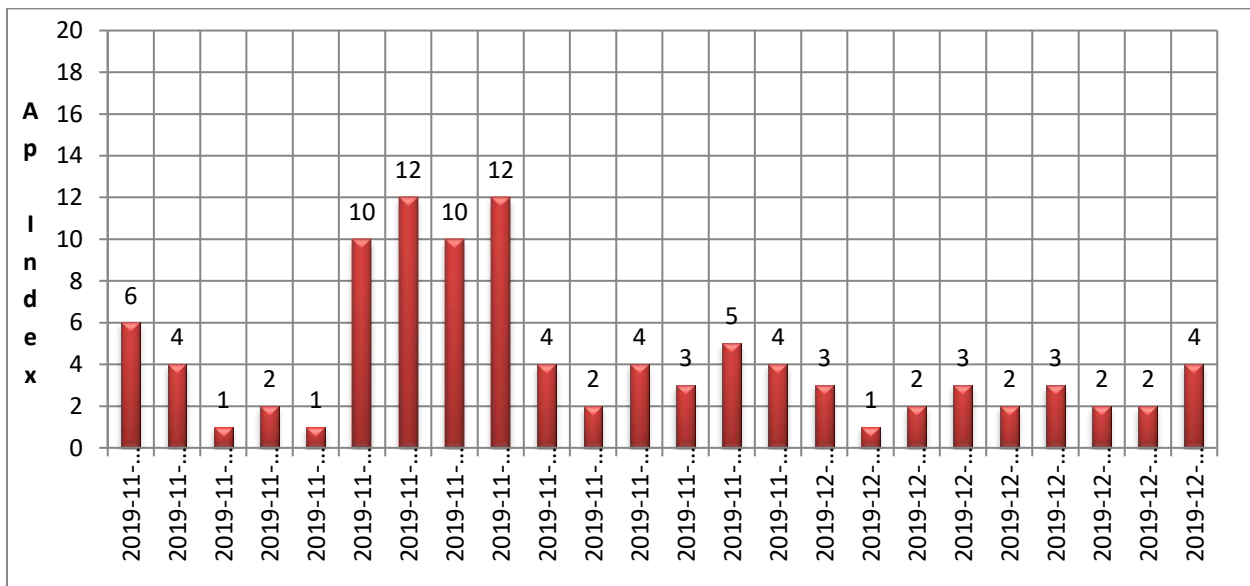


Figure 3-2: Magnetic signal strength (Ap index) during the project.

² Ap Index reported on the processing notes were uploaded from the Helmholtz Centre Potsdam – GFZ German Research Centre for Geosciences (<https://www.gfz-potsdam.de/en/kp-index/>).

4. COMMENTS ON MEASURED DATA

- Electrode contacts in some areas were poor due to rocky and/or frozen ground conditions. The crew used either steel plates or stainless steel rods depending on which suited the local ground conditions better
- The Ap index was relatively low throughout most of the survey. This likely resulted in a noisier low frequency deadband and limited clean data at the lowest frequencies.

5. DELIVERABLES

The final deliverables include the following:

- GPS Data
 - Multi-site ASCII survey files
 - Each file includes location (Latitude/Longitude, projected UTM and local GRID coordinates) and elevation details of MT sites and every single electrode on the line.
- Magnetotelluric (MT) Data
 - Single site data in the Electrical Data Interchange (EDI) format containing the MT spectra at each frequency.

5.1. FIELD DATA ARCHIVE

The raw field data are delivered on a hard disk drive and comprise the following:

Time Series:	Raw event files (e.g., Eventxxxx.dat), provided with log files having information on the location and time of the event (QuickLay digital format).
Processed MT Data:	<p>Daily processing runs in QuickLay digital format saved as '.MT' files linked with SDM files containing auto- and cross-power spectral estimates for each sampling band and site; Spectra are in right-hand positive down coordinate system.</p> <p>Processed SDM formatted data are band-merged into geo-referenced EDI files containing auto- and cross-power spectral estimates for individual stations; Spectra EDI files were also saved as EDI containing impedances, and MT parameters (resistivities, phases) and respective error estimates.</p> <p><u>EDI Format:</u></p> <p>Single site format = one site per EDI file</p> <p>Multi-site format = all sites along a profile per EDI file</p> <p>EDI files have X at 090° True (i.e., ROTSPEC=090)</p> <p>EDI is a format conforming to the SEG standard for the storage of magnetotelluric data (Wight, D. E., 1987).</p>

5.2. DIGITAL ARCHIVE ATTACHED TO THE REPORT

The digital archive accompanying this report contains the final processed data, including survey files, and a copy of this report. The digital archive is delivered on the USB archive.

Table 5-1: Contents of the digital archive attached to the report.

Directory	Contents
\Report	Logistics report (.PDF)
\Grid#\Line#\Data\EDI	Final processed MT data (.EDI) – includes raw spectra EDI files.
\Grid#\Line#\Data\Survey	Compilation of line survey files – includes location maps (PDF, PNG format) and related Geosoft database(s).
\Remote	Final processed MT data (.EDI) from the remote site, each day processed referenced and unreferenced.
\Geosoft	Survey databases in Geosoft .GDB format, location map in .PNG and Geosoft map formats
\Documents	Processing reports for each line, production summary

Respectfully submitted December 16, 2019 by Tony Parks, José Antonio Rodríguez

Quantec Geoscience Limited

APPENDIX A. PRODUCTION SUMMARY

Task	Crew On-Site	Date	Line	Survey Coverage (Km)	MT Profile	Daily Field Activity
Survey	5	16/11/2019	A2-2000N			Conduct Parallel Sensor Test. Start setup on L2000N on Aldridge 2.
Survey	5	17/11/2019	A2-2000N, 1600N	2	Completed	Setup remote site. Setup 2 coil sites. Setup 3 stations on L2000N and 3 stations on L1600N.
Survey	5	18/11/2019	A2-1600N	1.4	Completed	Harvest data for 6 stations and setup 3 stations on L1600N and 1 station on L1200N.
Survey	5	19/11/2019	A2-1200N	0.8		Harvest data for 4 stations and setup 2 stations on L1200N. Setup coil site.
Survey	5	20/11/2019	A2-1200N	1.2	Completed	Harvest data for 2 stations and setup 3 stations on L1200N.
Survey	5	21/11/2019	A2-800N	0.8		Harvest data for 3 stations and setup 2 stations on L800N. Setup coil site.
Survey	5	22/11/2019	A2-800N	1.4	Completed	Harvest data for 2 stations and setup 4 stations on L800N
Survey	5	23/11/2019	A2-400N	1.2		Harvest data for 4 stations and setup 3 stations on L400N. Setup coil site.
Survey	5	24/11/2019	A2-400N	0.8	Completed	Harvest data for 3 stations and setup 2 stations on L400N

Survey	5	25/11/2019	A2-0N	1.6		Harvest data for 2 stations and setup 4 stations on L0N. Redeploy station 0600L0400N for QAQC.
Survey	5	26/11/2019	A2-0N	0.4	Completed	Harvest data for 4 stations and setup 1 station on L0N. Redeploy coil site due to active road works.
Fatigue	5	27/11/2019				Fatigue day between moving from Aldridge 2 to Aldridge 1
Survey	5	28/11/2019	A1-2800N			Start setup on L2800N on Aldridge 1. Setup coil site.
Survey	5	29/11/2019	A1-2800N	2		Setup 5 stations on L2800N. Setup coil site.
Survey	5	30/11/2019	A1-2800N, 2400N	2.4	Completed	Harvest data for 5 stations . Setup 1 station on L2800N and 5 stations on L2400N
Survey	5	1/12/2019	A1-2400N, 2000N	2	Completed	Harvest data for 6 stations. Setup 1 station on L2400N and 4 stations on L2000N. Setup coil site
Survey	5	2/12/2019	A1-2000N, 1600N	1.6	Completed	Harvest data for 5 stations. Setup 2 stations on L2000N and 2 stations on L1600N.
Survey	5	3/12/2019	A1-1600N, 1200N	2	Completed	Harvest data for 4 stations. Setup 4 stations on L1600N and 1 station on L1200N. Setup coil site.
Survey	5	4/12/2019	A1-1200N	2	Completed	Harvest data for 5 stations. Setup 5 stations on L1200N.
Survey	5	5/12/2019	A1-0800N	2		Harvest data for 5 stations. Setup 5 stations on L0800N. Setup 2 coil sites

Survey	5	6/12/2019	A1-0800N, 0400N	2.4	Completed	Harvest data for 5 stations. Setup 3 stations on L0800N and 3 stations on L0400N.
Survey	5	7/12/2019	A1-0400N, 0N	2.2	Completed	Harvest data for 6 stations. Setup 4 stations on L0400N and 2 stations on L0N. Setup coil site.
Survey	5	8/12/2019	A1-0N	1.8	Completed	Harvest data for 6 stations . Setup 5 stations on L0N.
Survey	5	9/12/2019				Harvest data for 5 stations and pick up equipment.

APPENDIX B. SURVEY COVERAGE

B.1. PROFILES

Grid 1

Line	Grid Coordinates		UTM Coordinates (WGS84, Zone 11N)			
	Start	End	Start		End	
			Easting	Northing	Easting	Northing
L0000N	600	3200	555200	5445100	557800	5445100
L0400N	600	3200	555200	5445500	557800	5445500
L0800N	0	3200	554600	5445900	557800	5445900
L1200N	0	2400	554600	5446300	557000	5446300
L1600N	0	2400	554600	5446700	557000	5446700
L2000N	0	2400	554600	5447100	557000	5447100
L2400N	0	2400	554600	5447500	557000	5447500
L2800N	0	2400	554600	5447900	557000	5447900

Grid 2

Line	Grid Coordinates		UTM Coordinates (WGS84, Zone 11N)			
	Start	End	Start		End	
			Easting	Northing	Easting	Northing
L0000N	400	2400	553500	5456000	555500	5456000
L0400N	400	2400	553500	5456400	555500	5456400
L0800N	0	2200	553100	5456800	555300	5456800
L1200N	0	2200	553100	5457200	555300	5457200
L1600N	0	2300	553100	5457600	555400	5457600
L2000N	600	1600	553700	5458000	554700	5458000

Note: information reported is first and last **receiver** electrode of each line.

B.1.1. MT Array

Grid 1

Line #	Receiver		Coverage
	Start	End	(1)
L0000N	600	3200	2.6
L0400N	600	3200	2.6
L0800N	0	3200	3.2
L1200N	0	2400	2.4
L1600N	0	2400	2.4
L2000N	0	2400	2.4
L2400N	0	2400	2.4
L2800N	0	2400	2.4

(1) distance (km) from first to last **receiver** electrode of each spread

(2) distance overlap (km) between each spread

Grid 2

Line #	Start	End	(1)
L0000N	400	2400	2
L0400N	400	2400	2
L0800N	0	2200	2.2
L1200N	0	2200	2.2
L1600N	0	2300	2.3
L2000N	600	1600	1

(3) distance (km) from first to last **receiver** electrode of each spread

(4) distance overlap (km) between each spread

APPENDIX C. MEASURED MT DATA

This section presents the final processed MT data on a line per line basis as:

Pseudo-sections

- a. Observed XY and YX Apparent Resistivity ($\Omega \cdot m$)
- b. Observed XY and YX Phase

Sounding curves

- a. Observed XY and YX Apparent Resistivity ($\Omega \cdot m$)
- b. Observed XY and YX Phase
- c. Data Rotation and Strike

Notice:

Mode **XY** is defined by Electrical (**Ex**) field and orthogonal magnetic (**Hy**) field ($=E_x/H_y$);

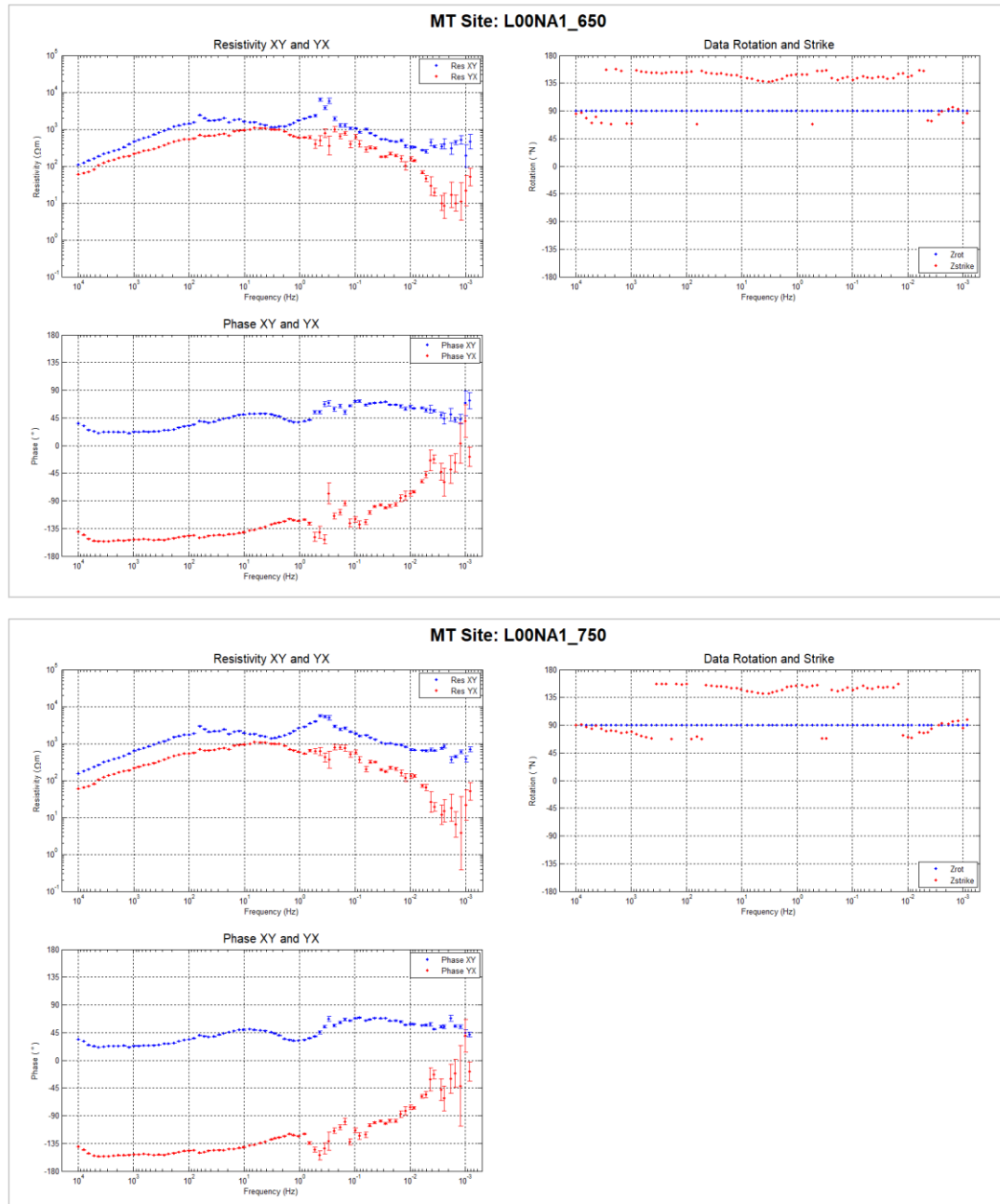
Mode **YX** is defined by Electrical (**Ey**) field and orthogonal Magnetic (**Hx**) field ($=E_y/H_x$);

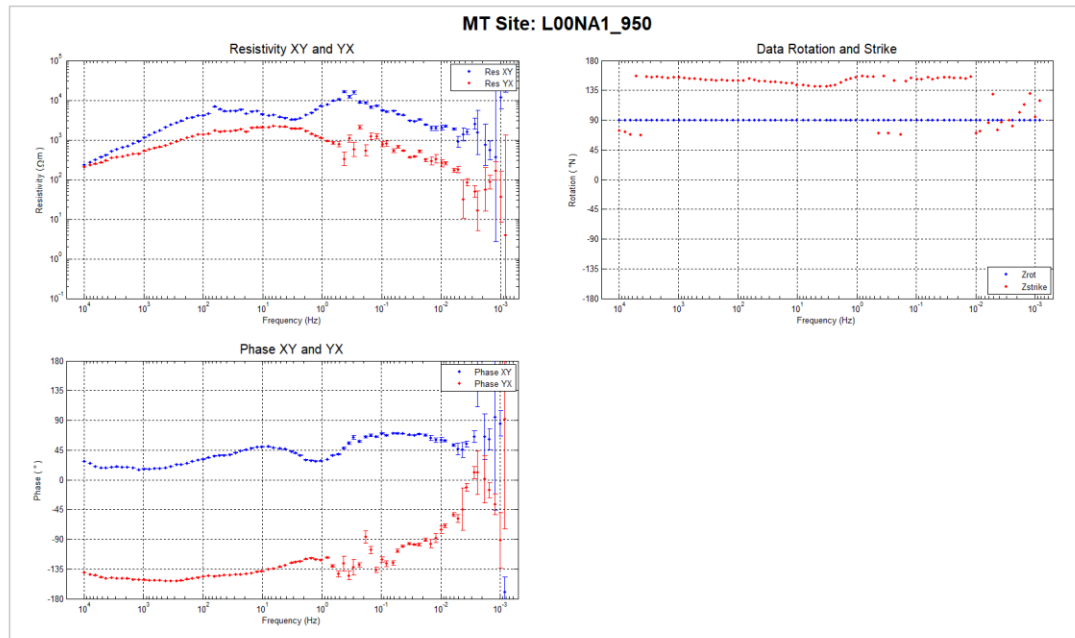
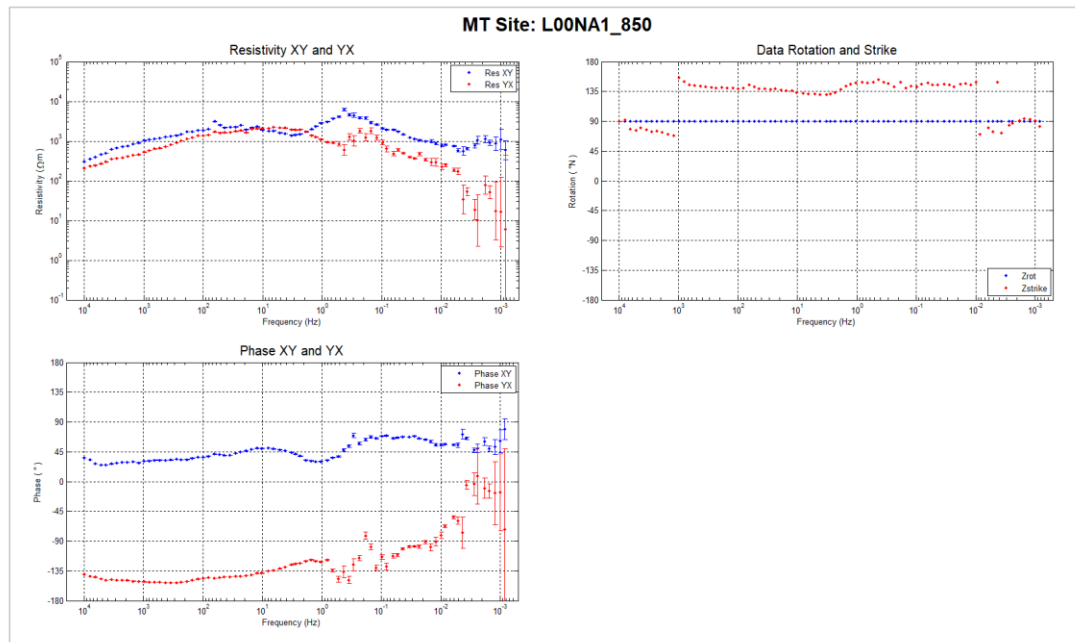
Tipper **Tzx** and **Tzy** represent the ratio of the Vertical Magnetic (**H_z**) field and the Horizontal X (**H_x**) and Y Magnetic (**H_y**) fields respectively;

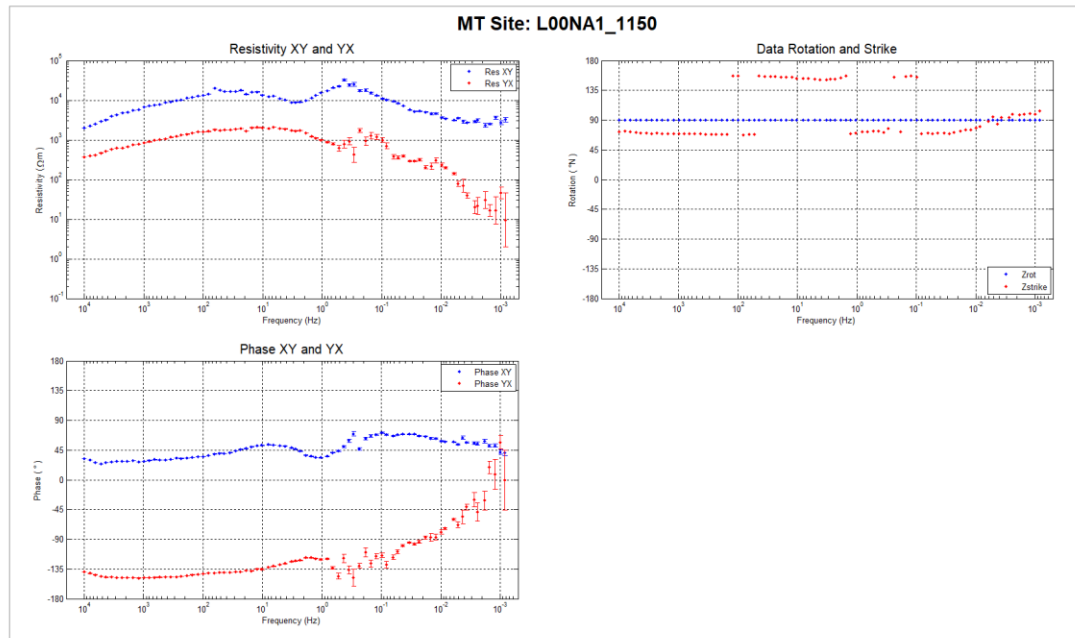
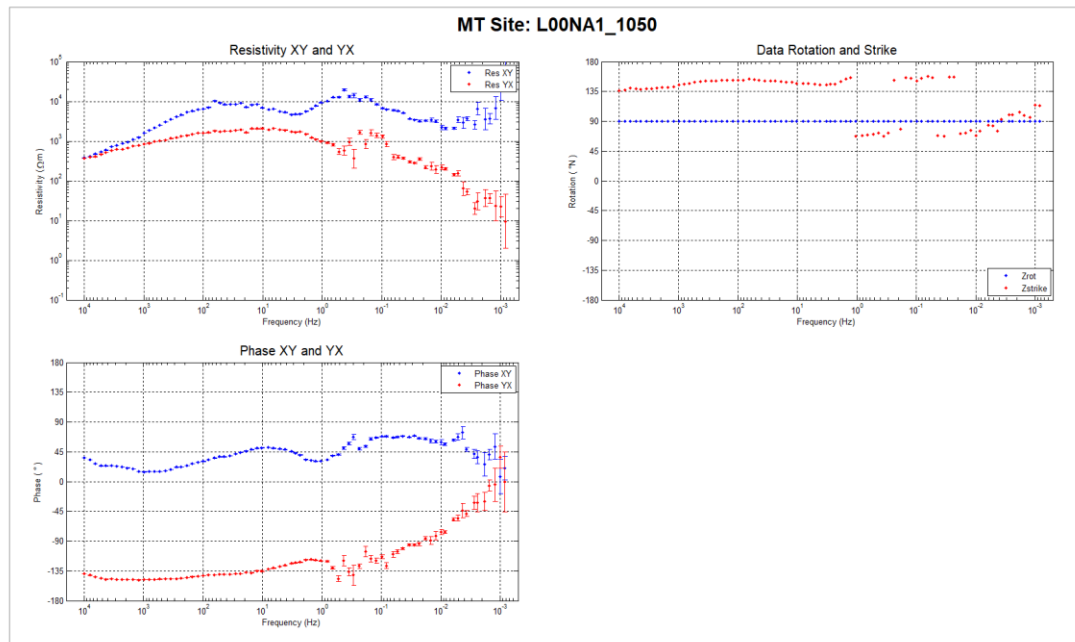
X-axis pointing to 090° **True** (line direction) and Y is perpendicular to X
(right hand positive down coordinate system)

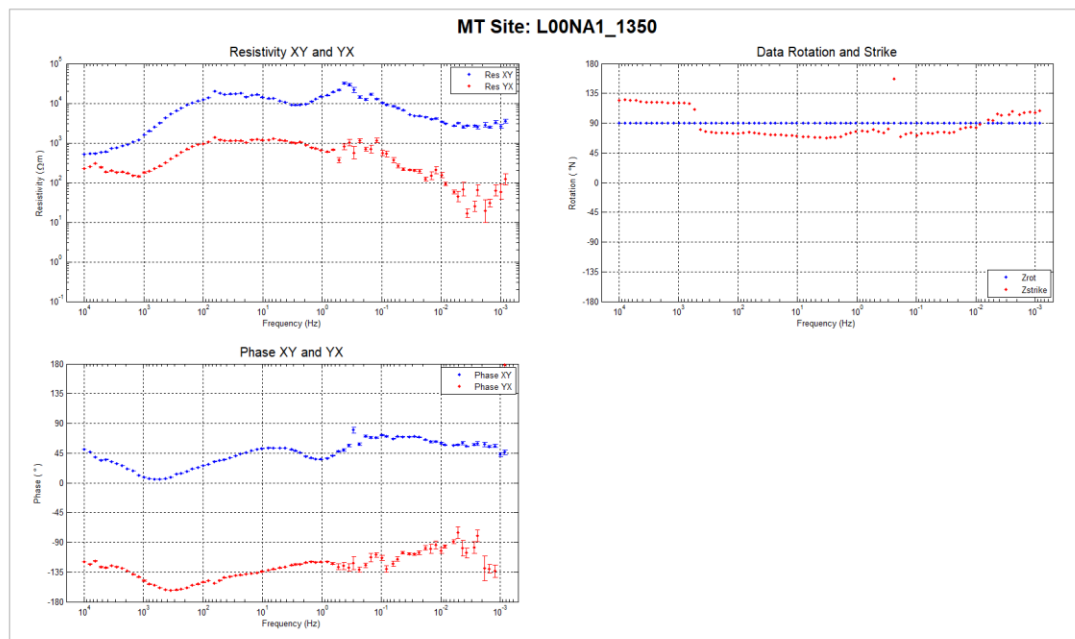
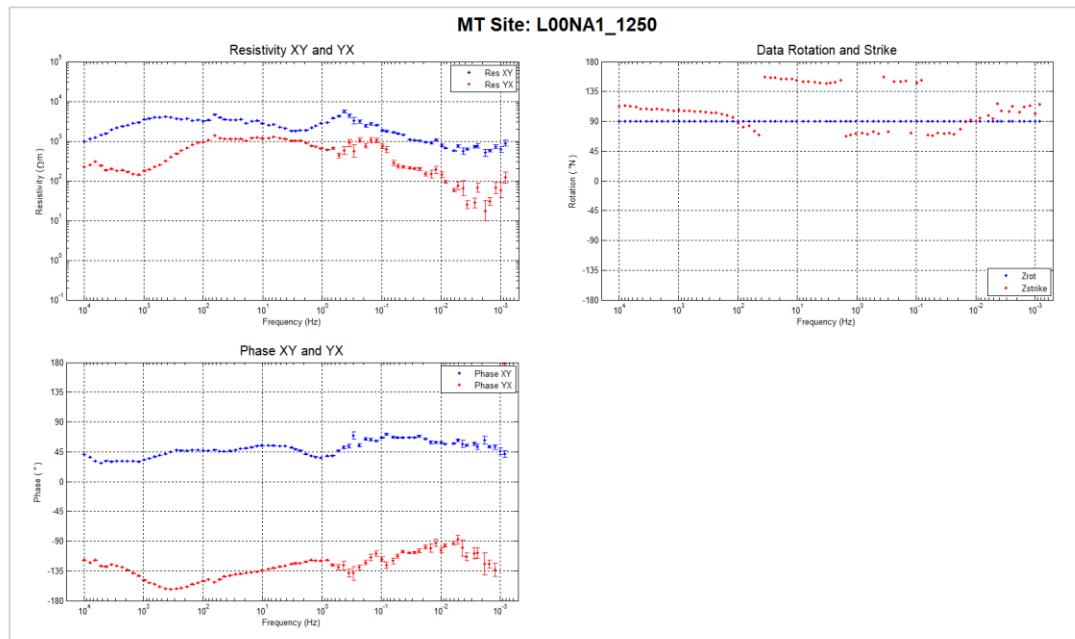
C.1. SOUNDING CURVES – GRID 1

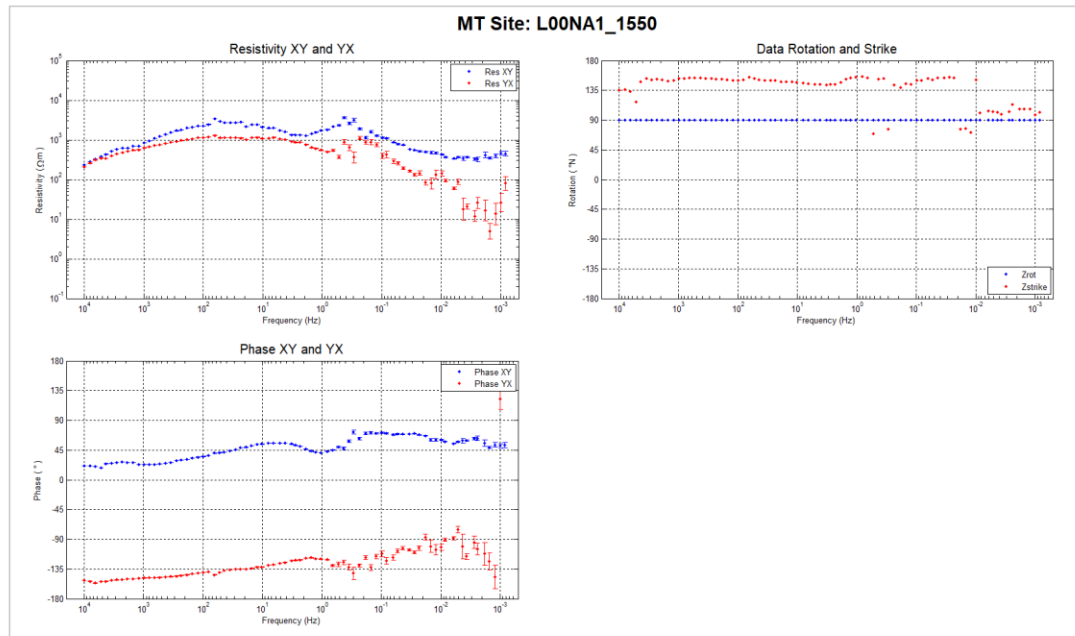
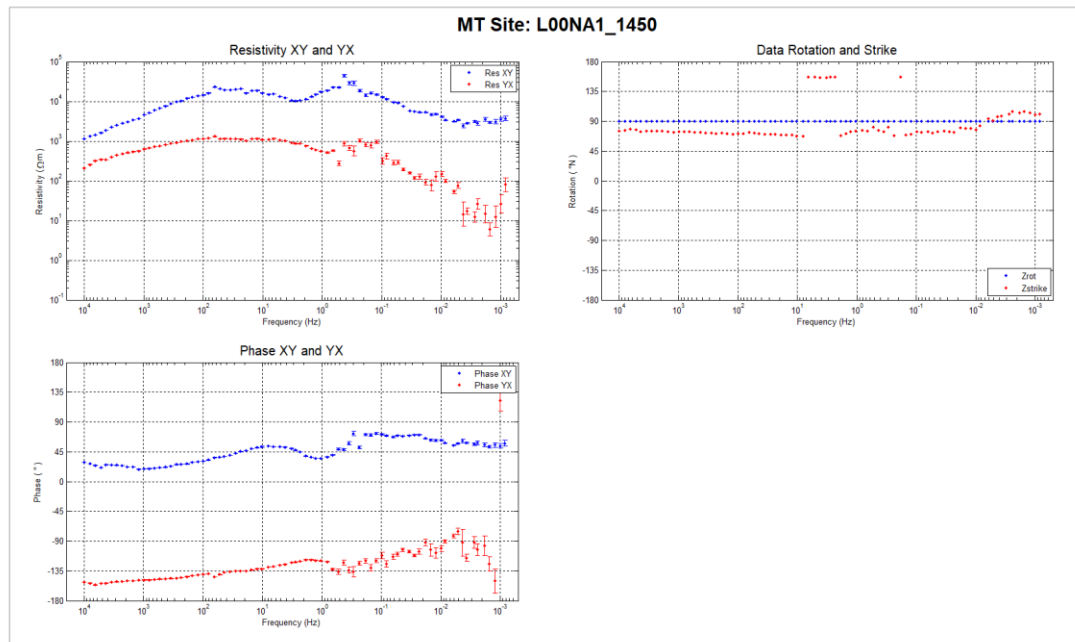
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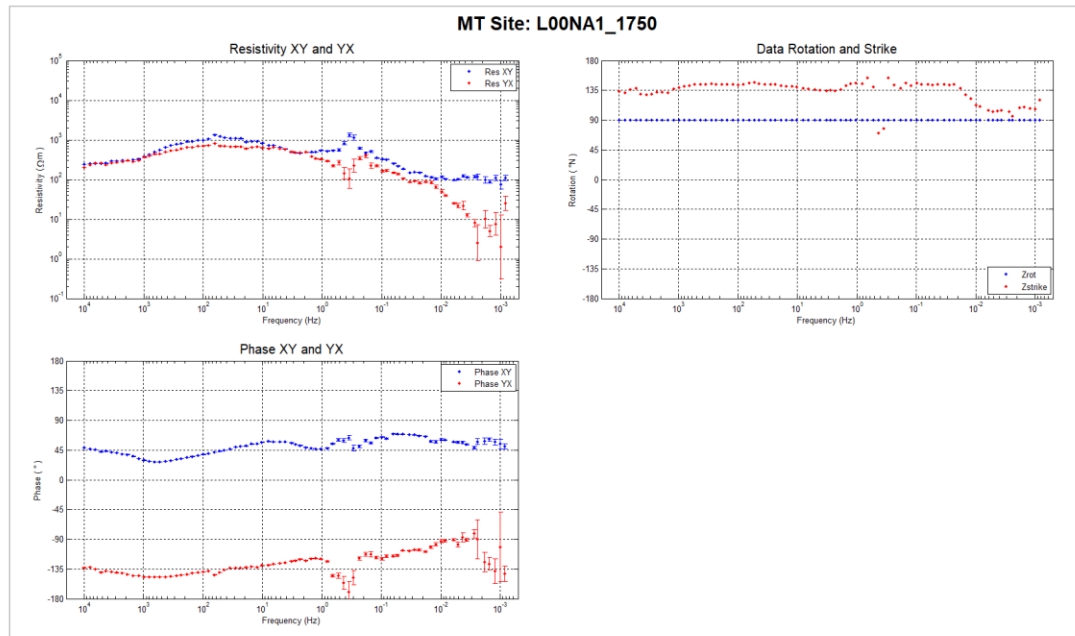
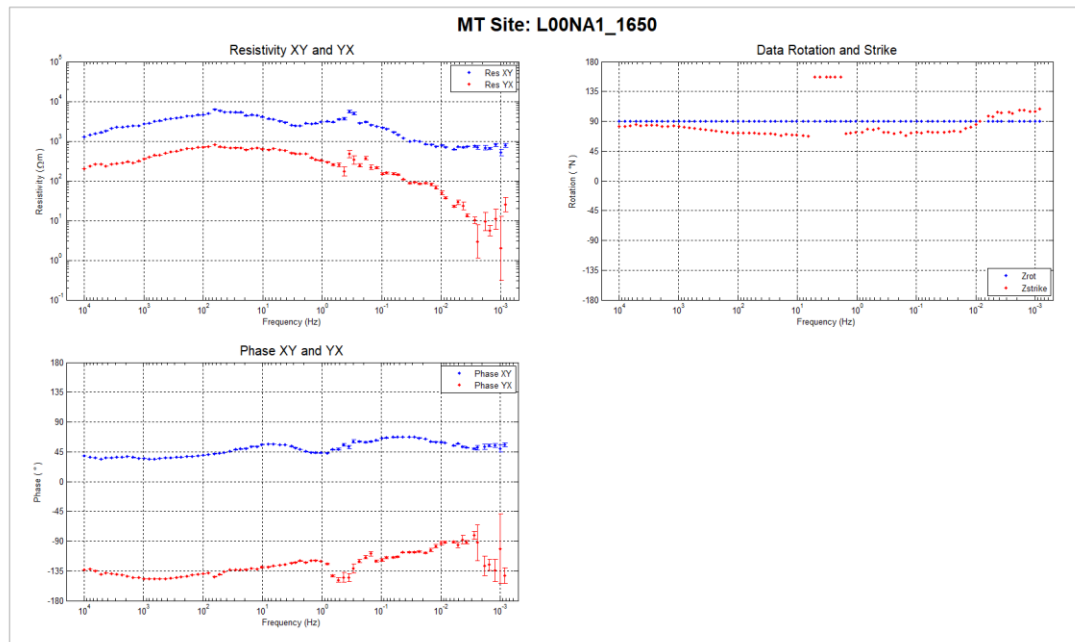


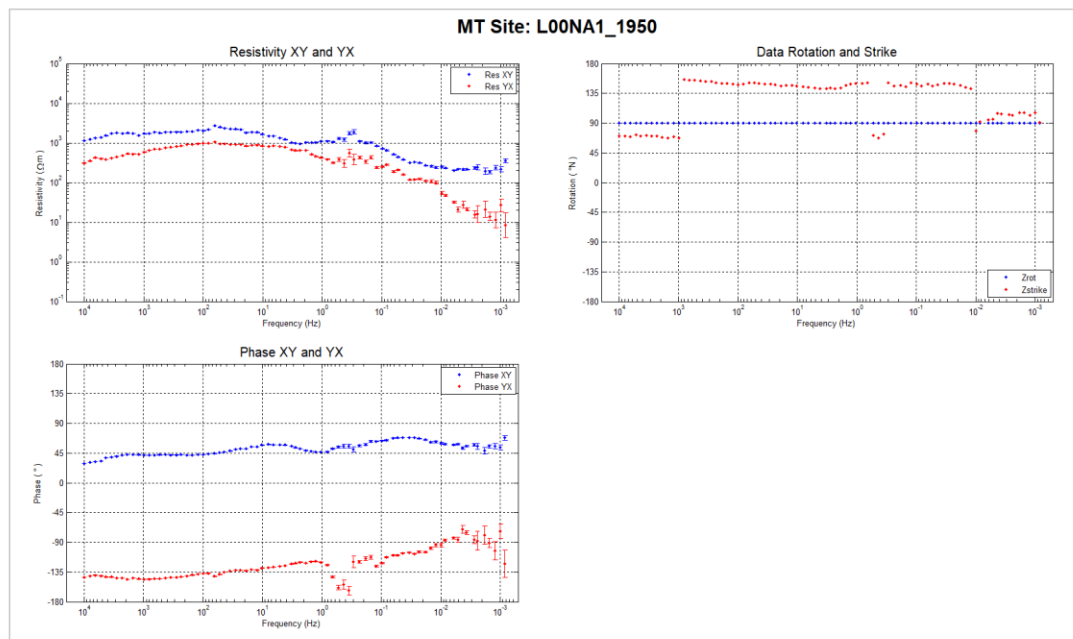
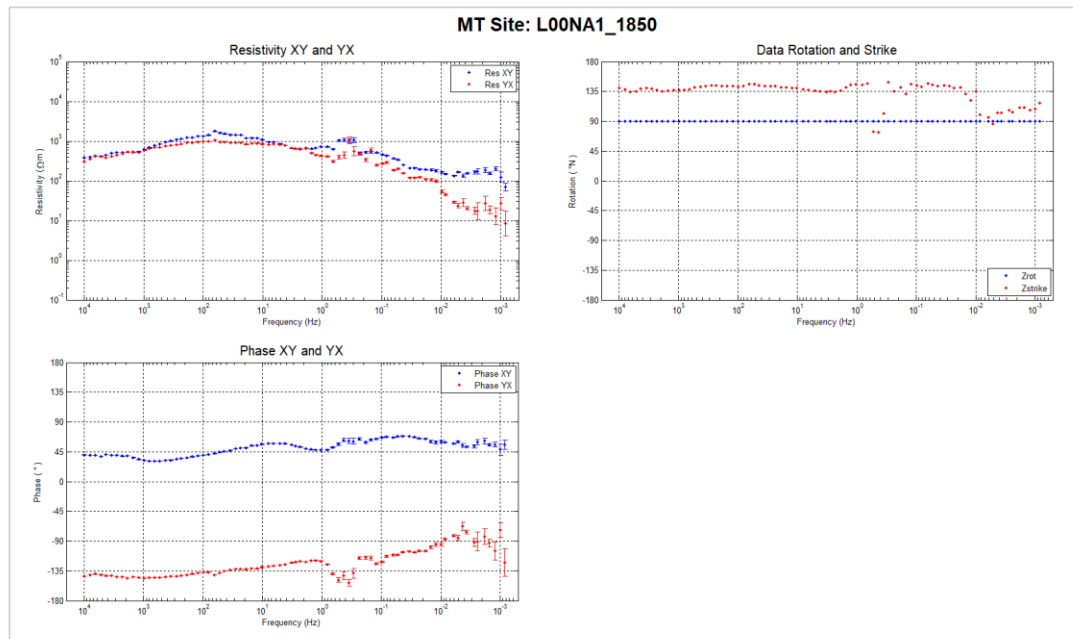


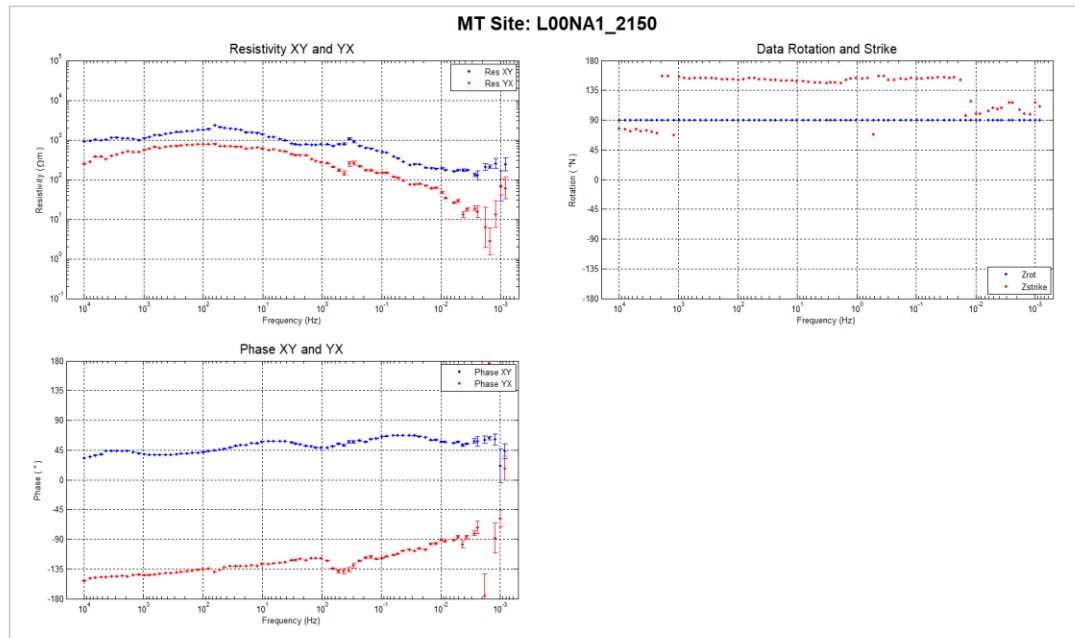
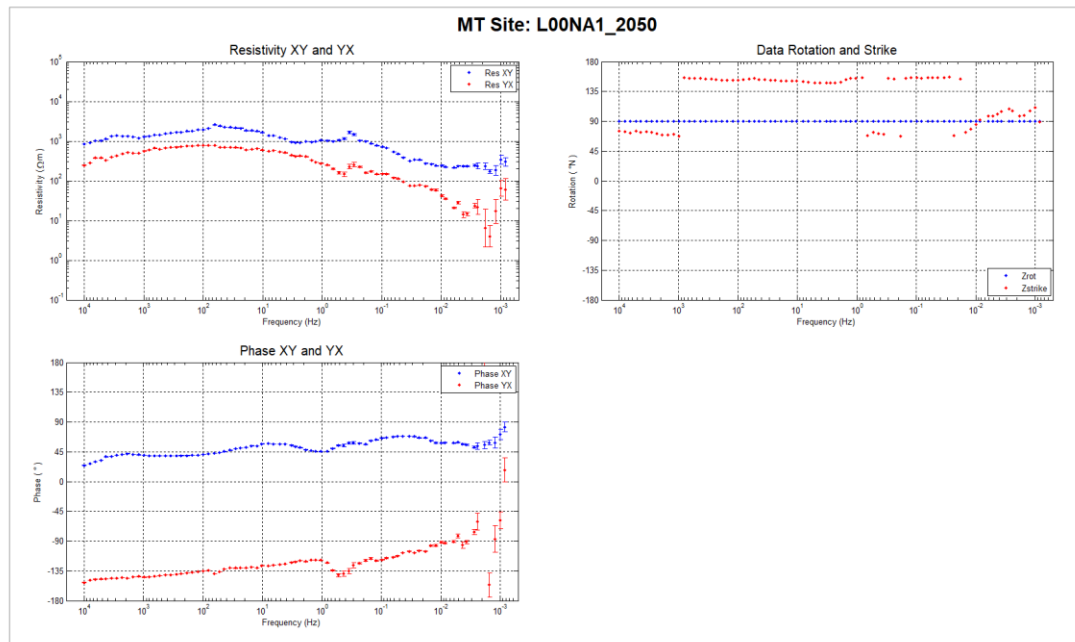


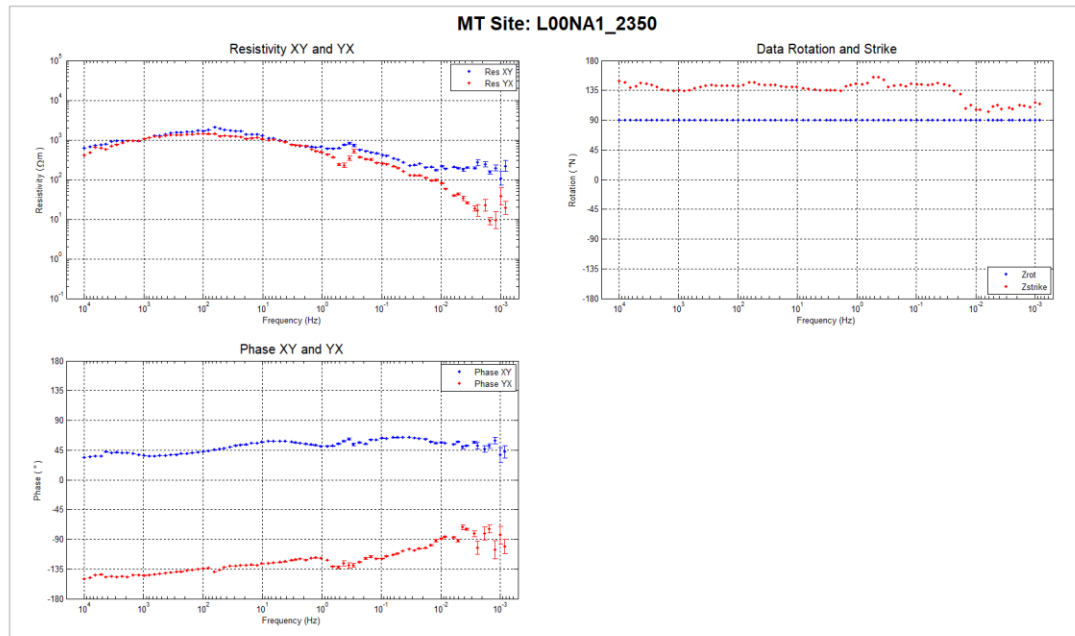
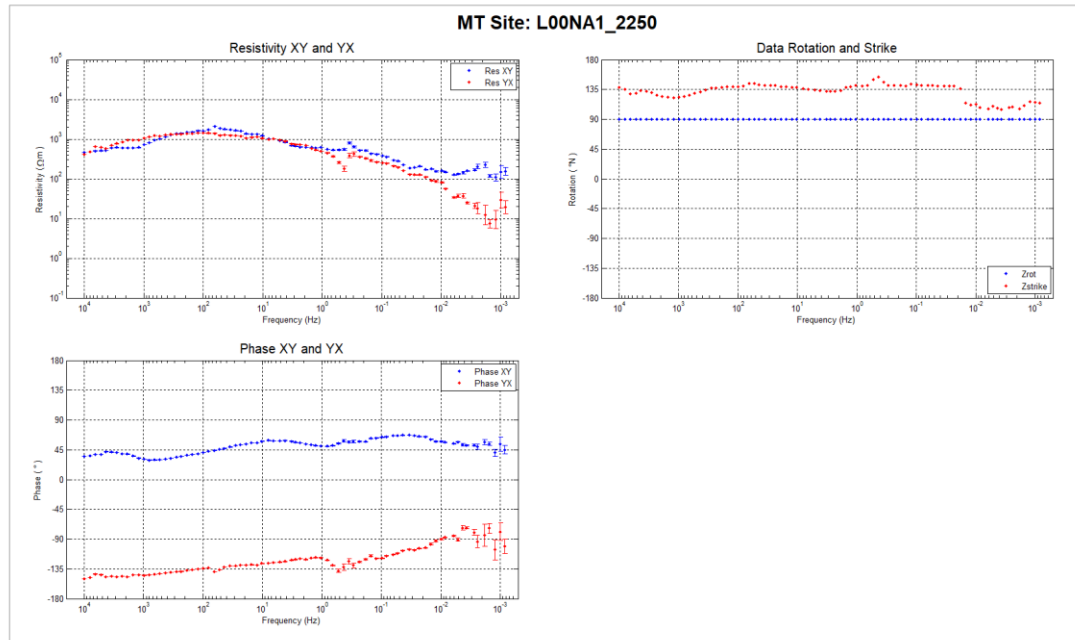


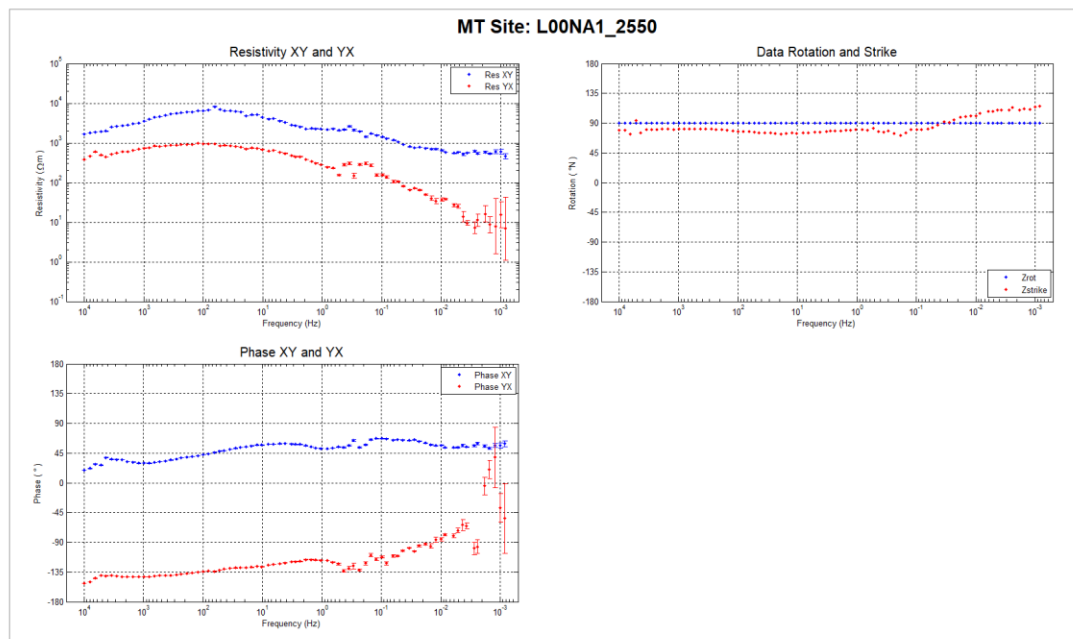
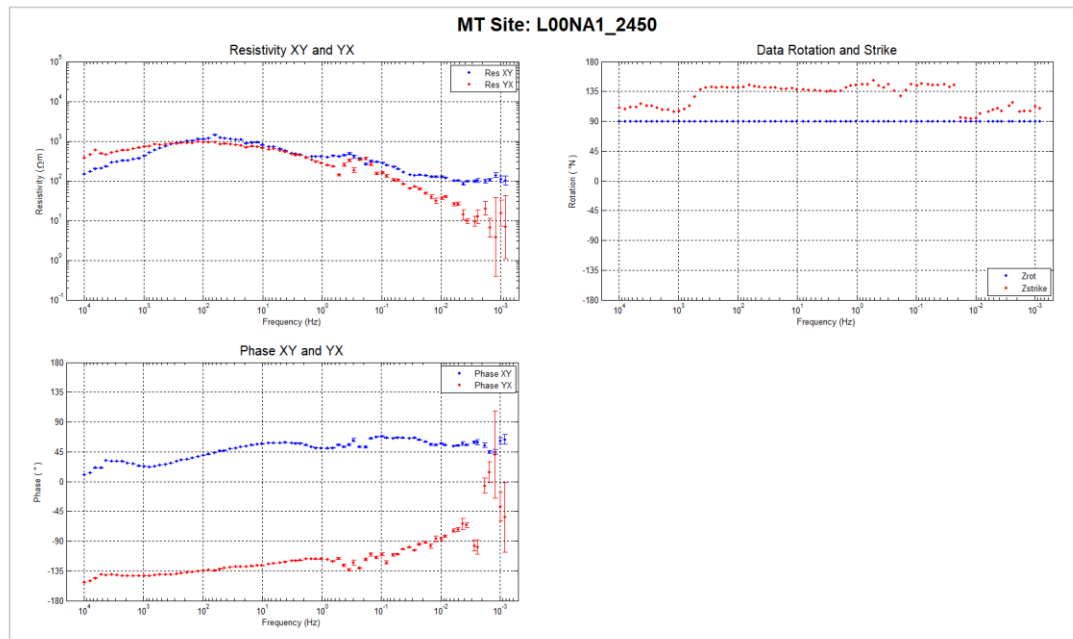


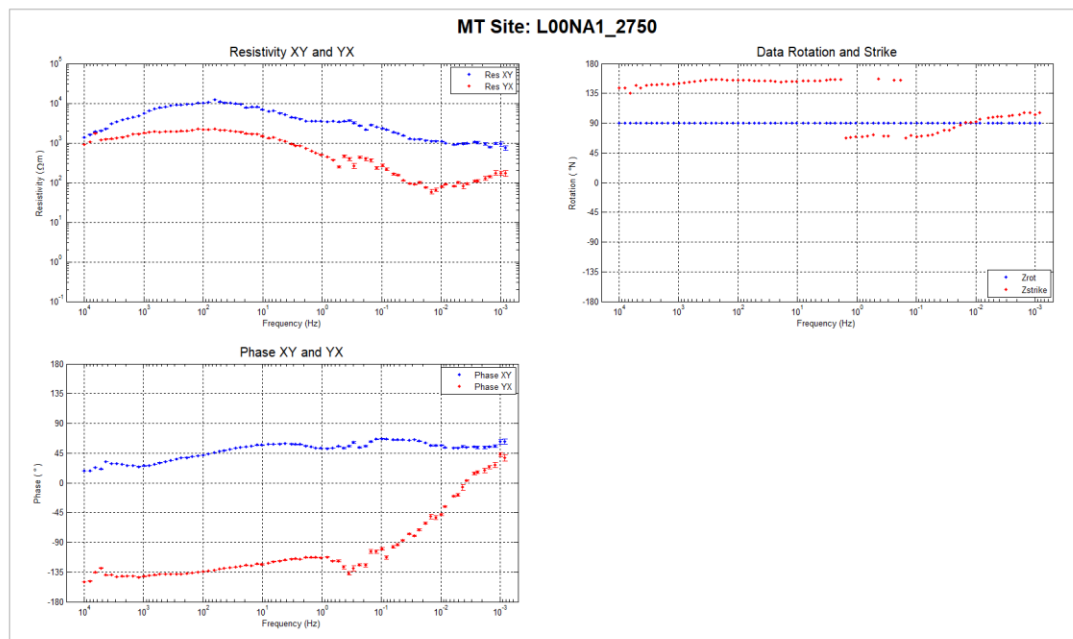
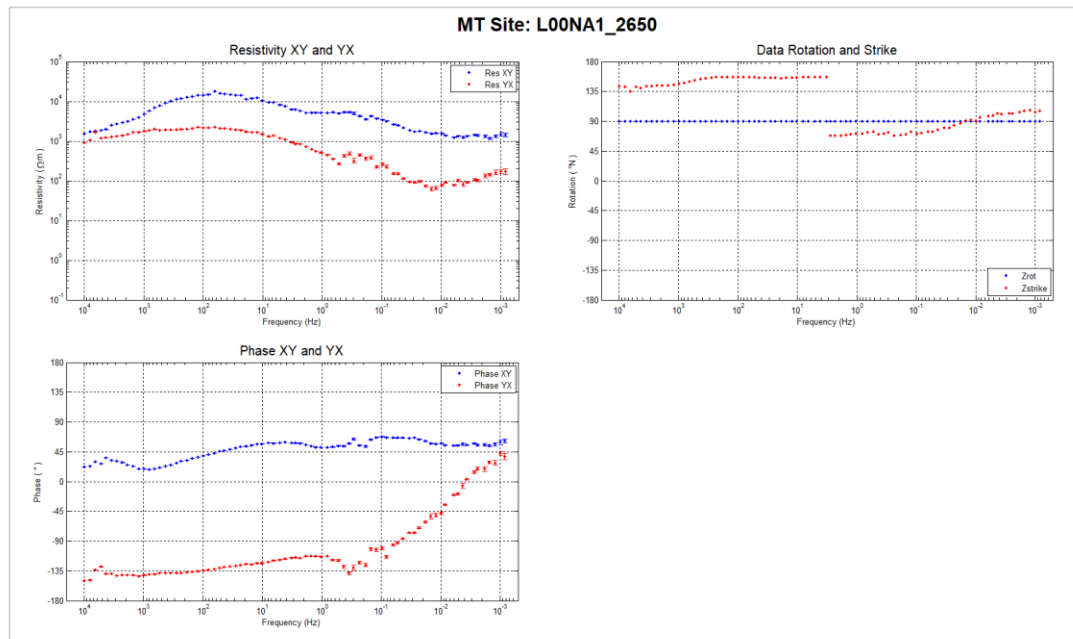


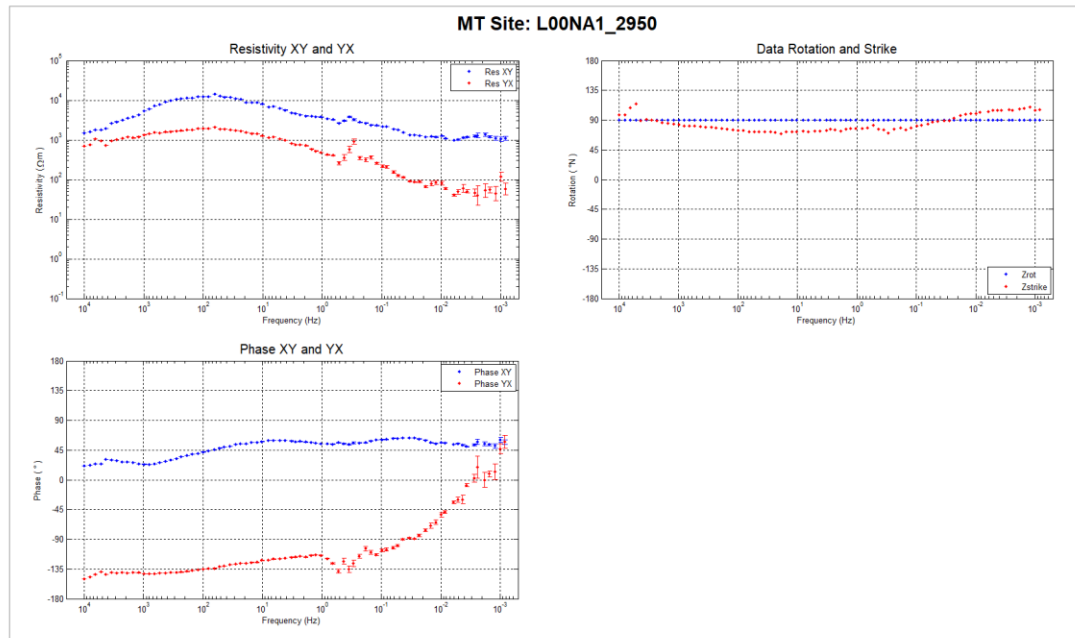
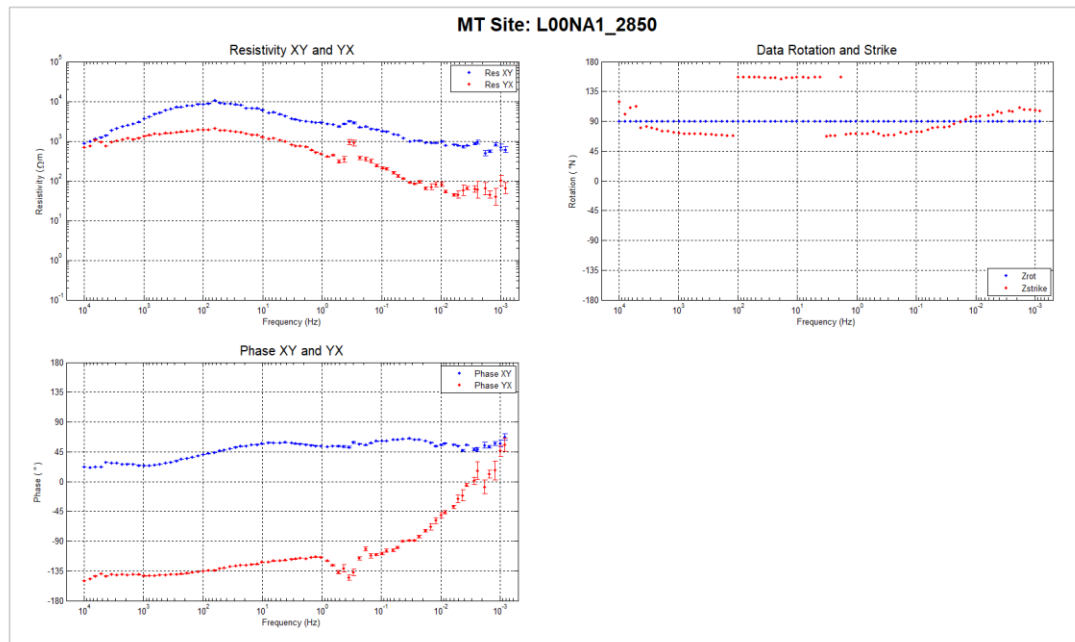


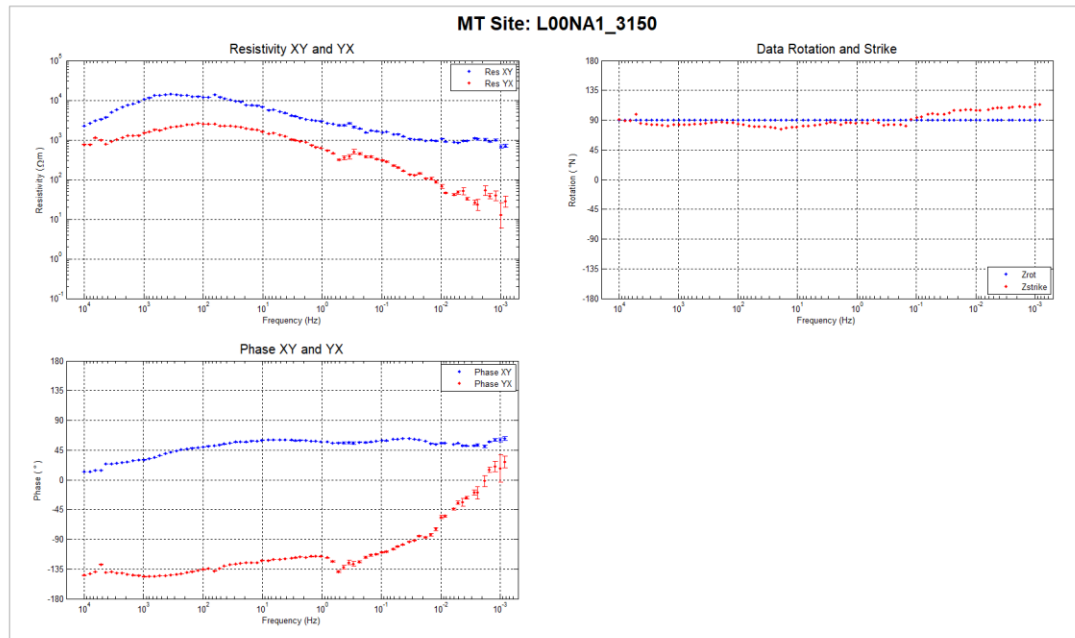
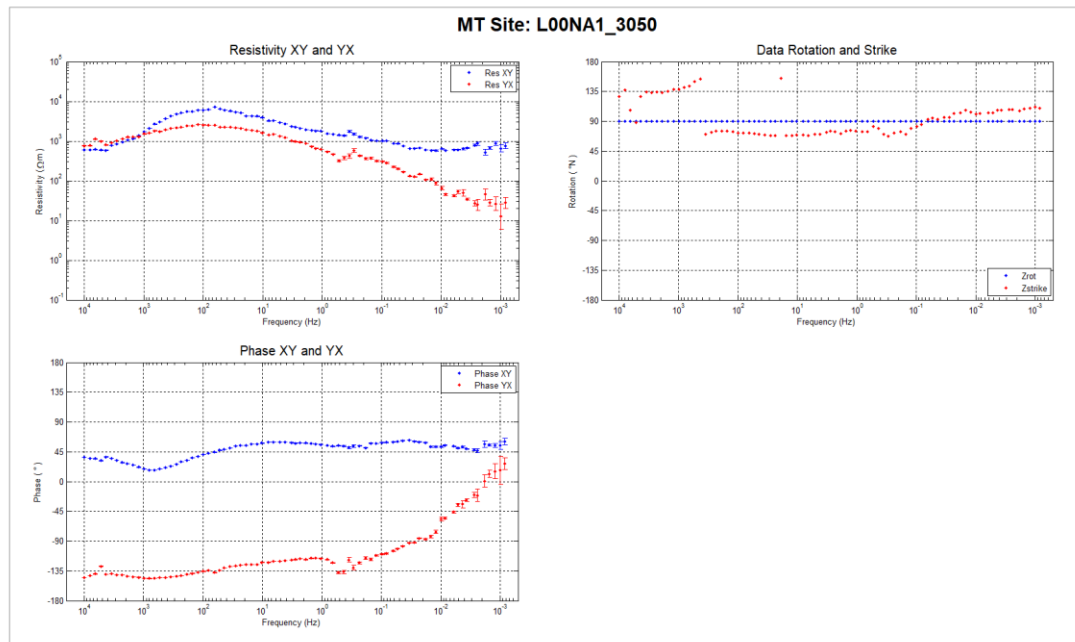




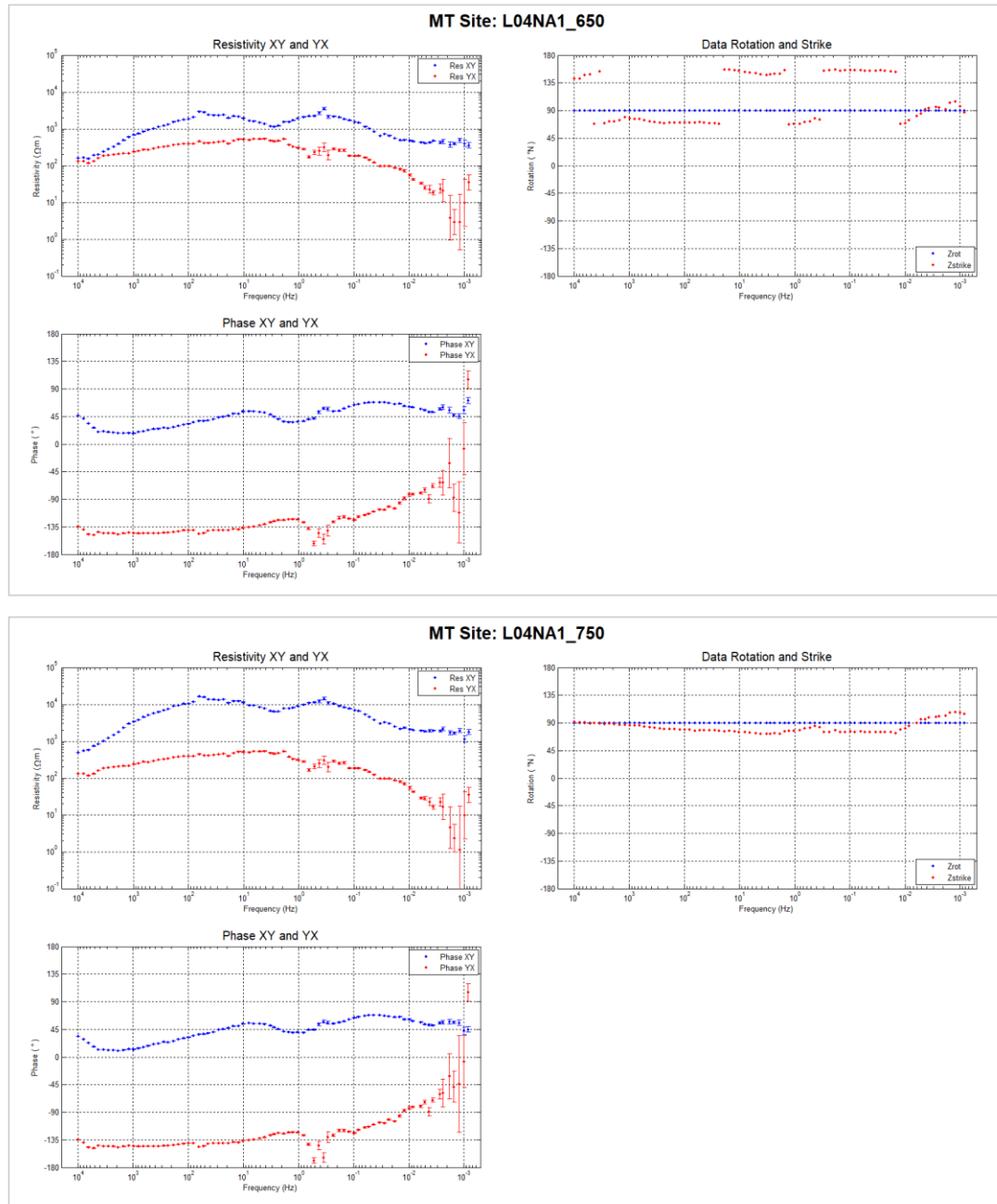


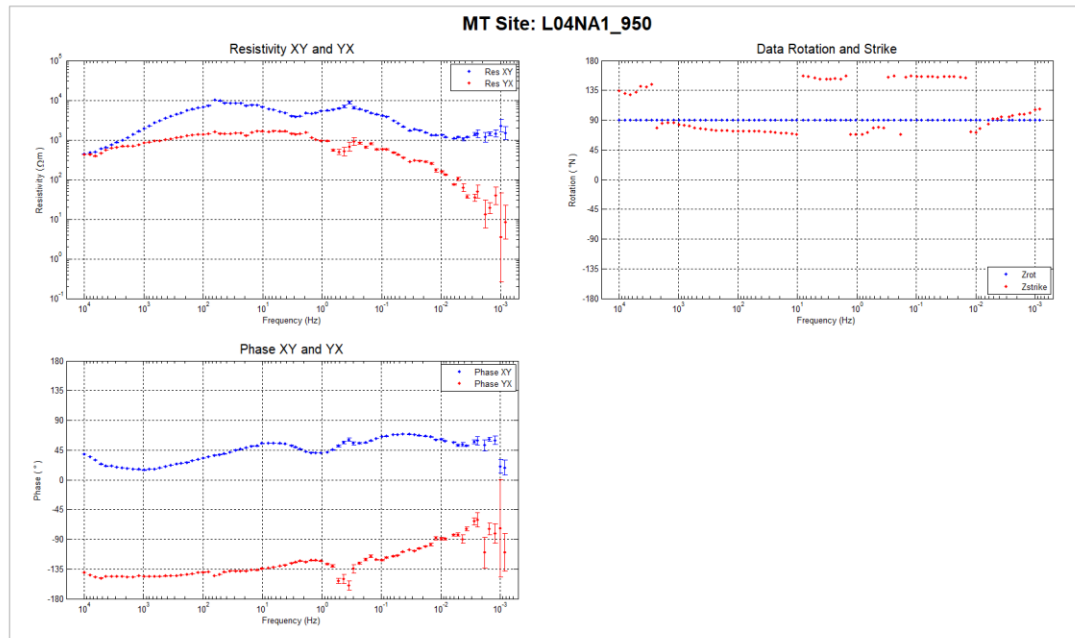
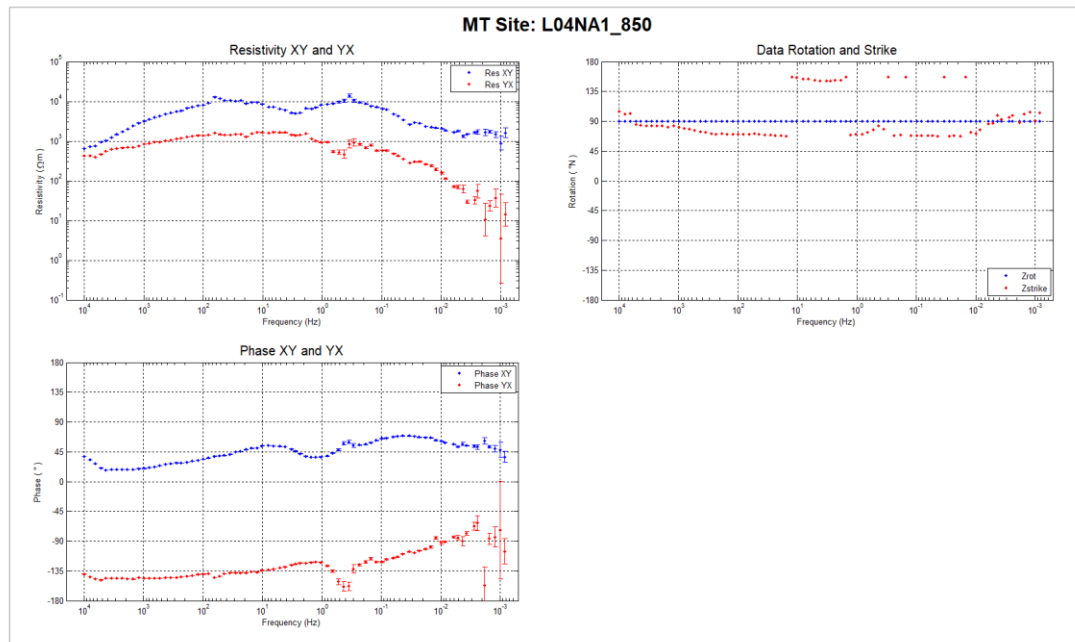


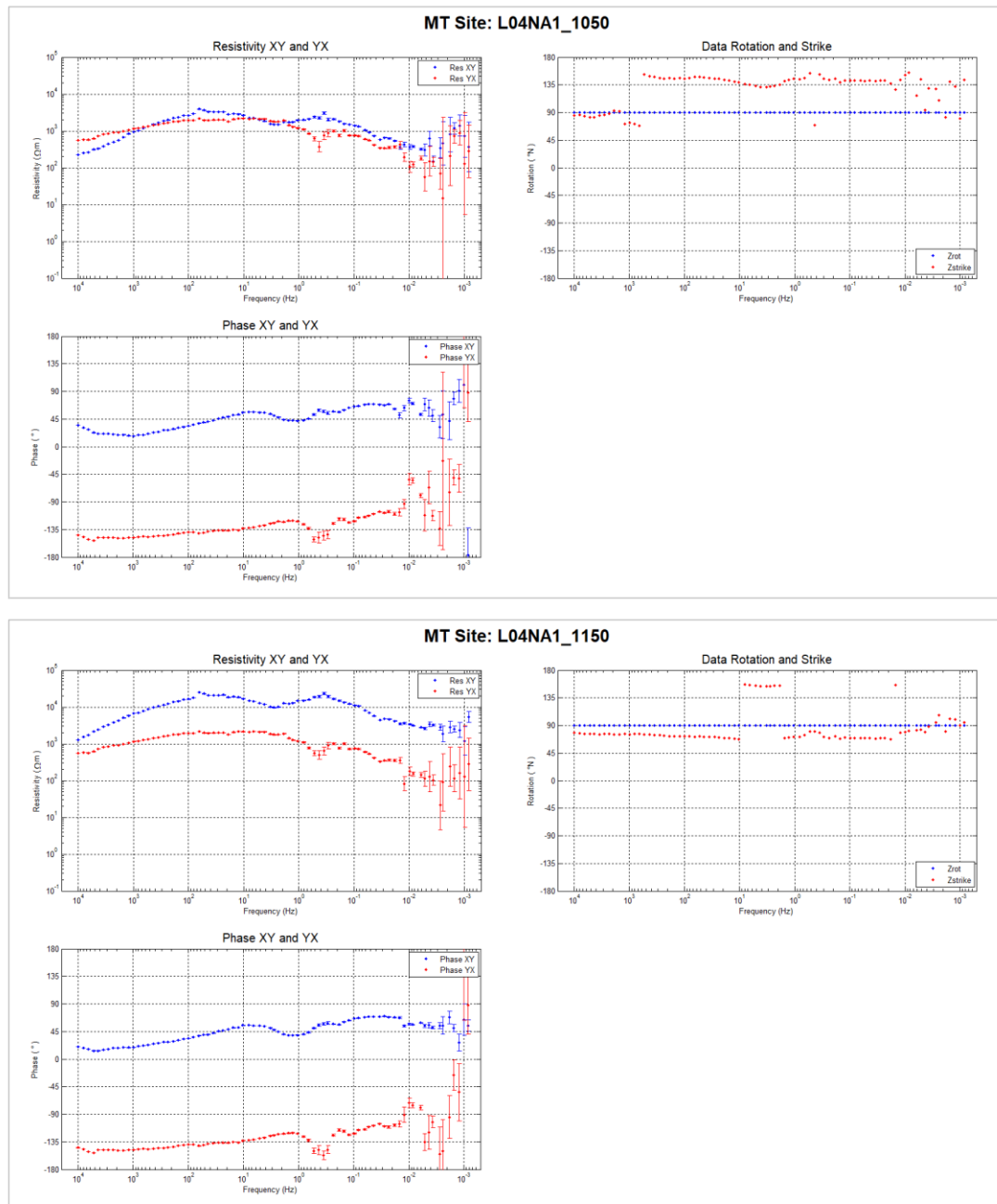


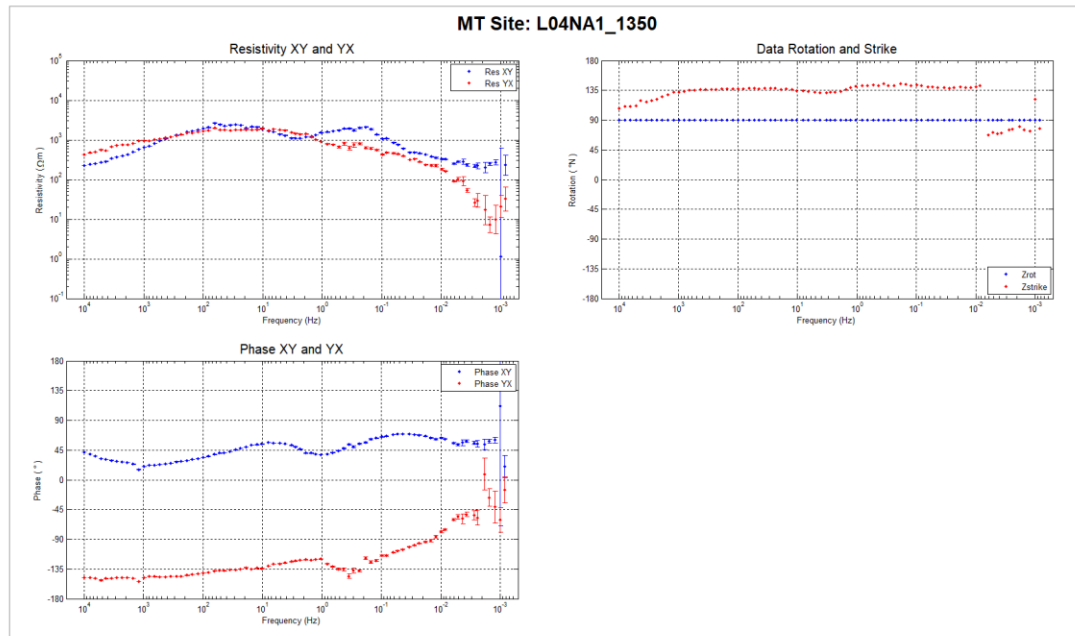
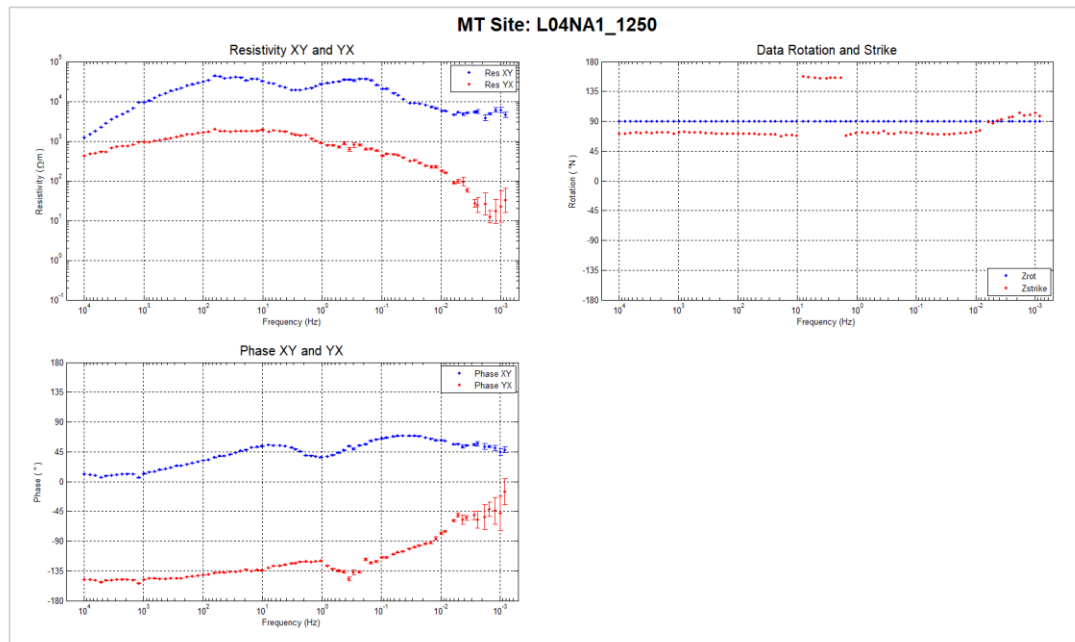


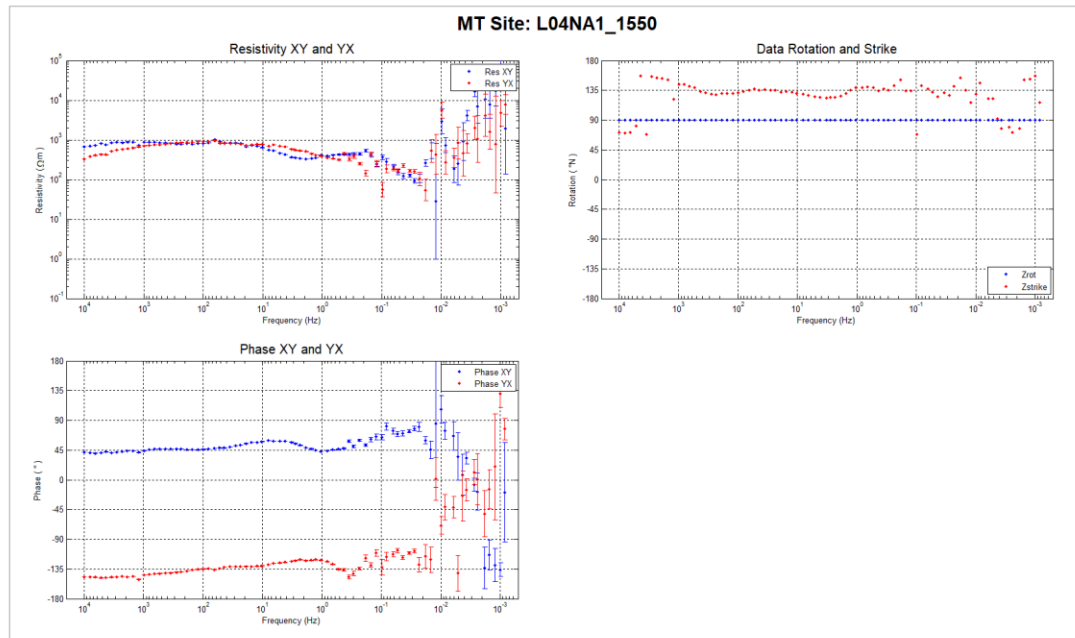
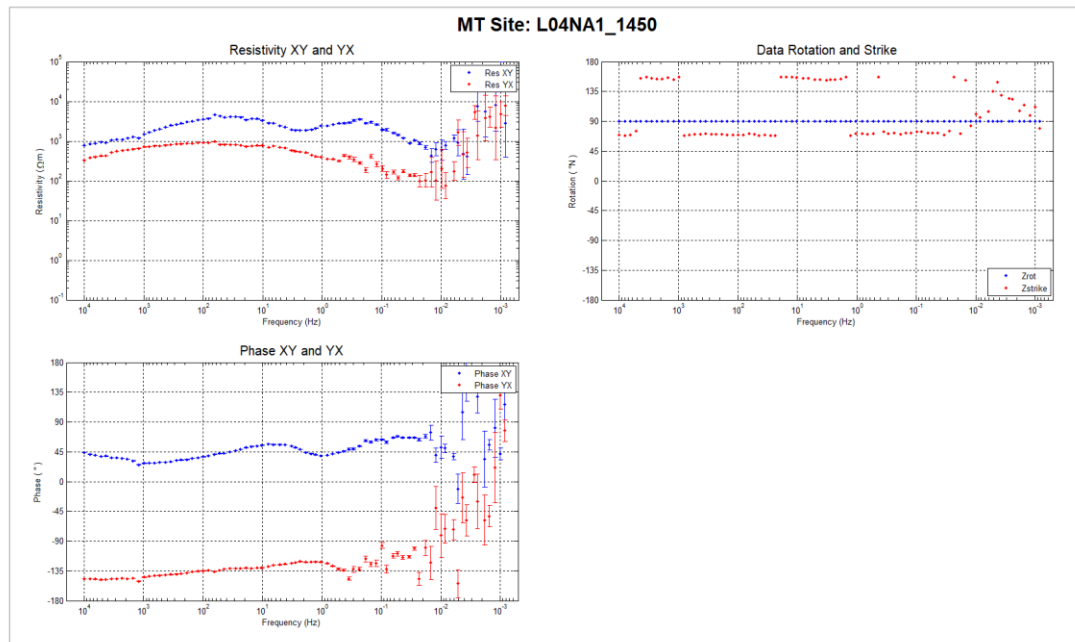
C.1.2. Line 0400N

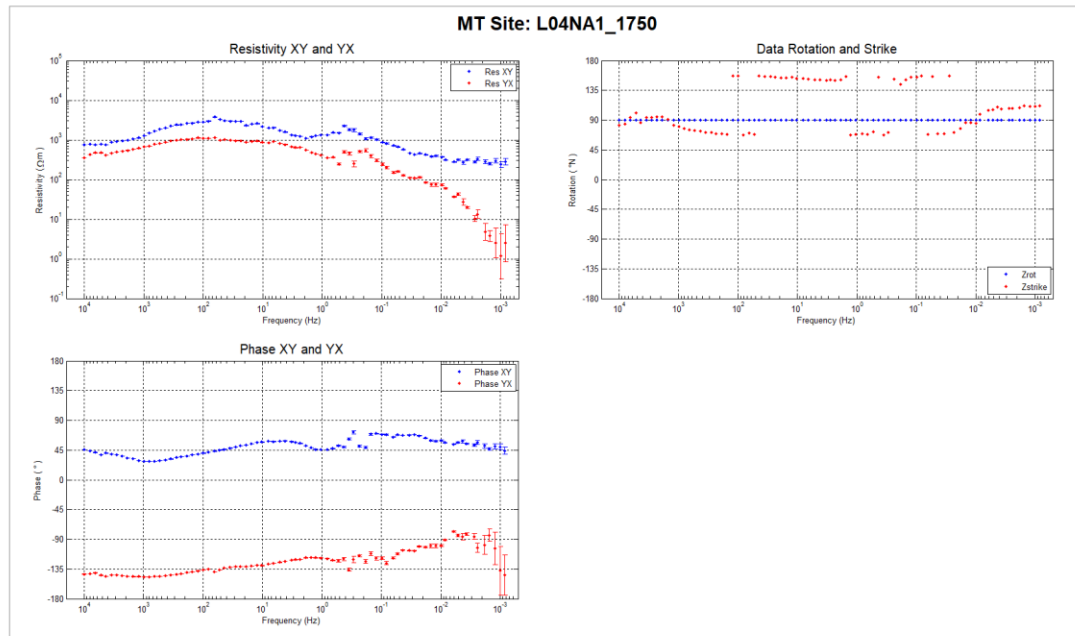
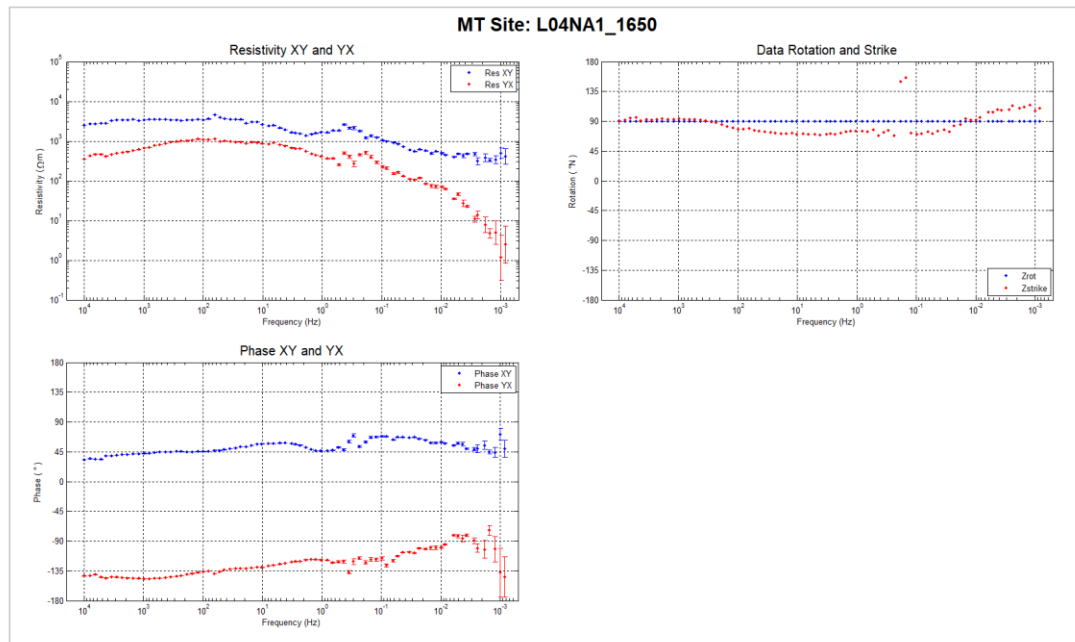


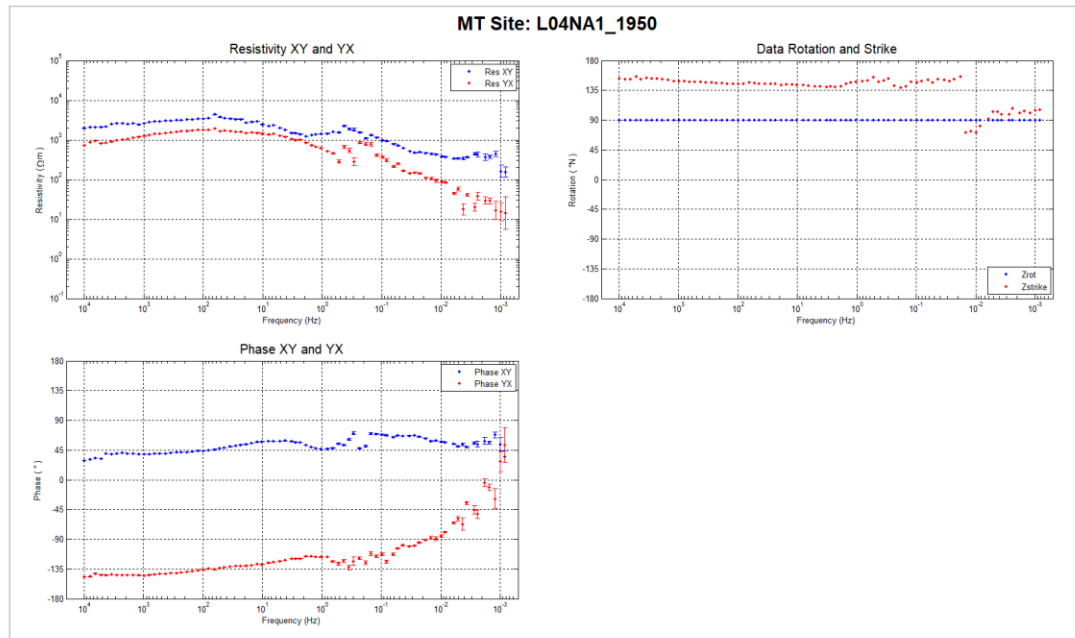
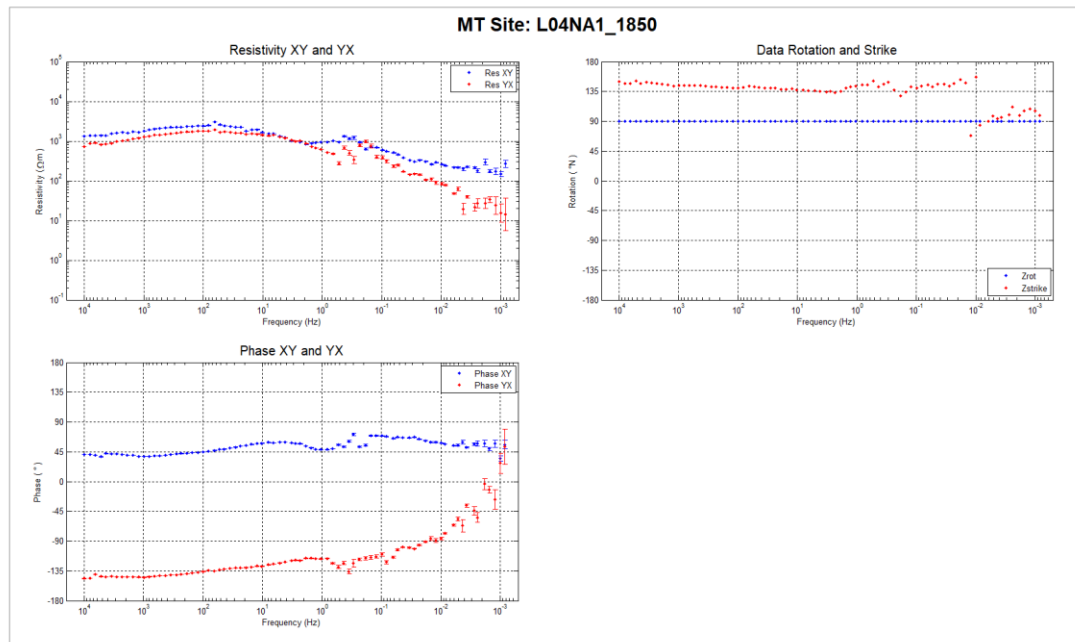


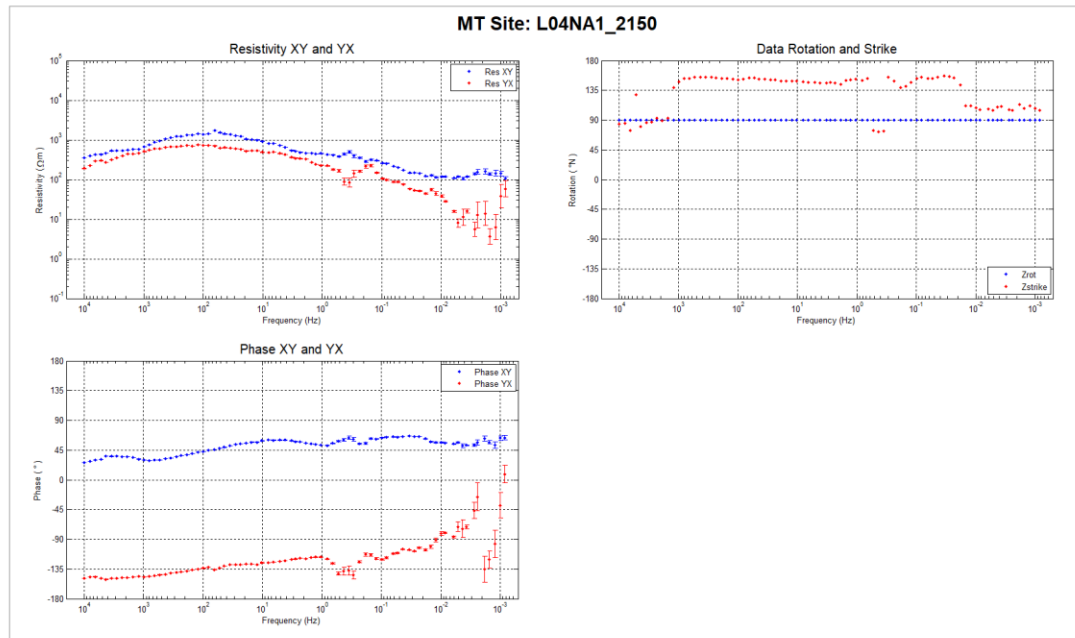
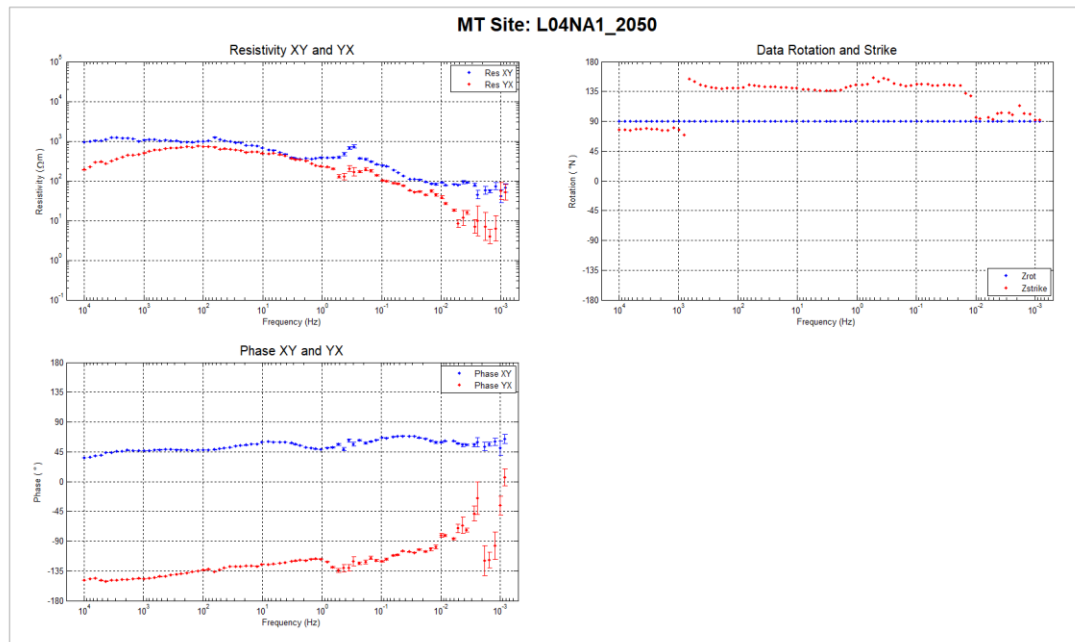


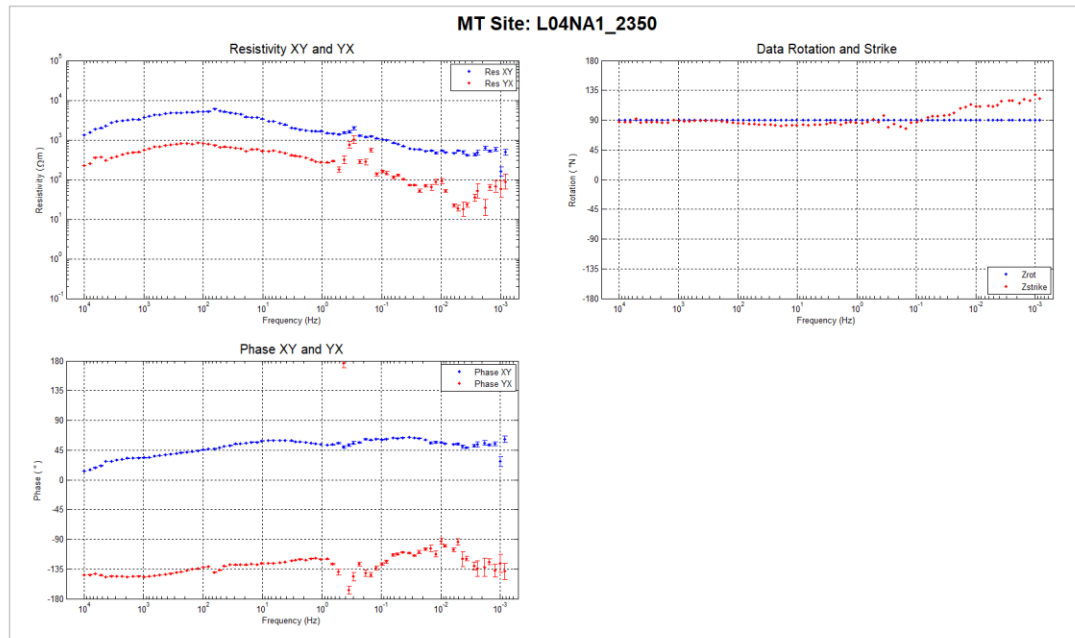
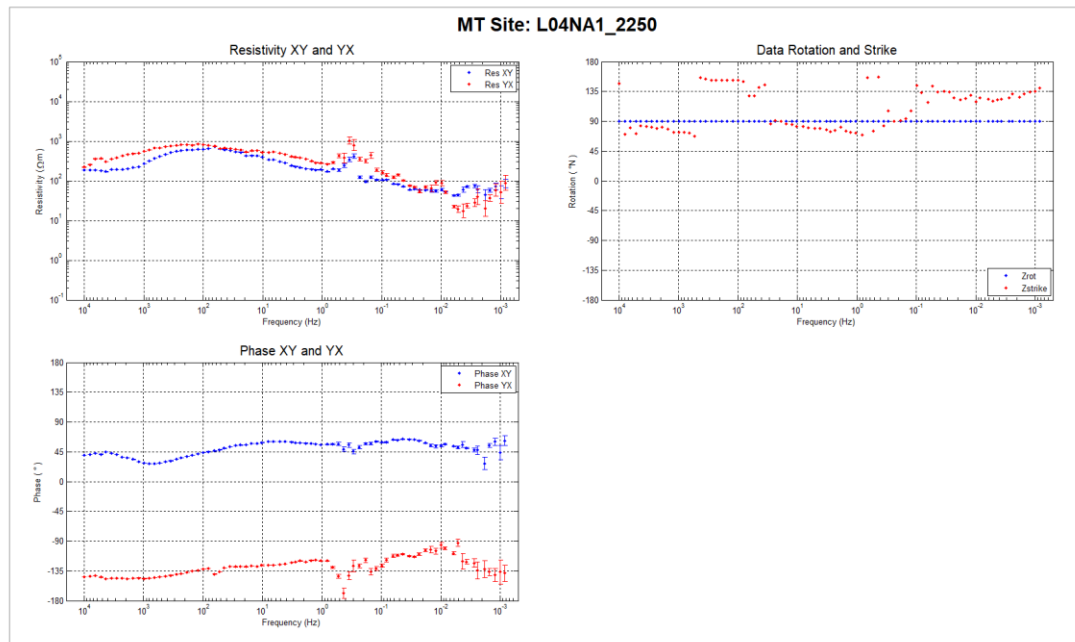


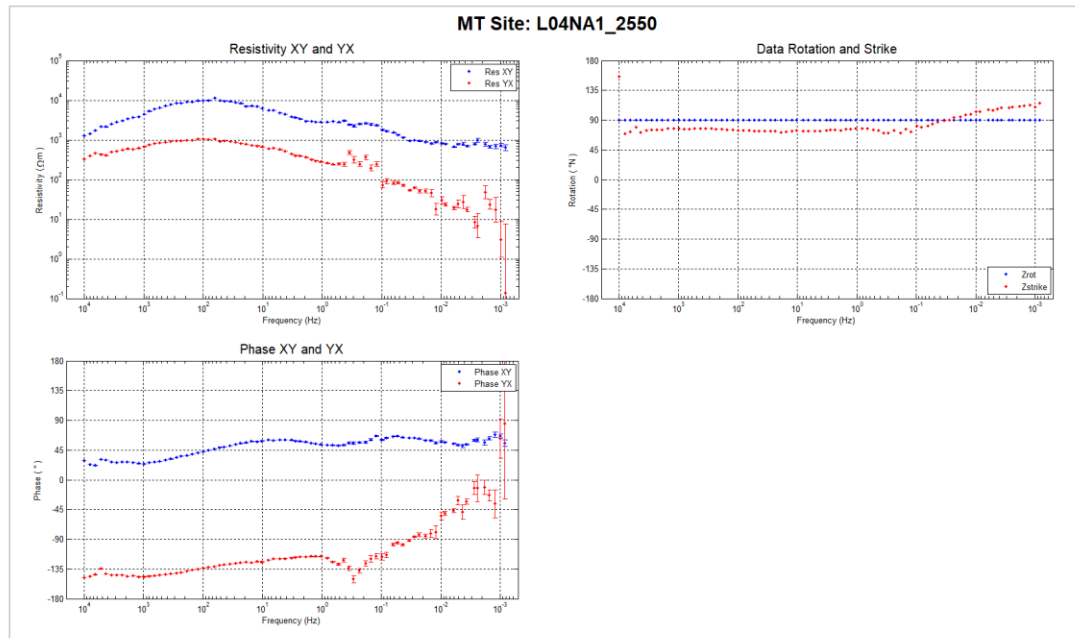
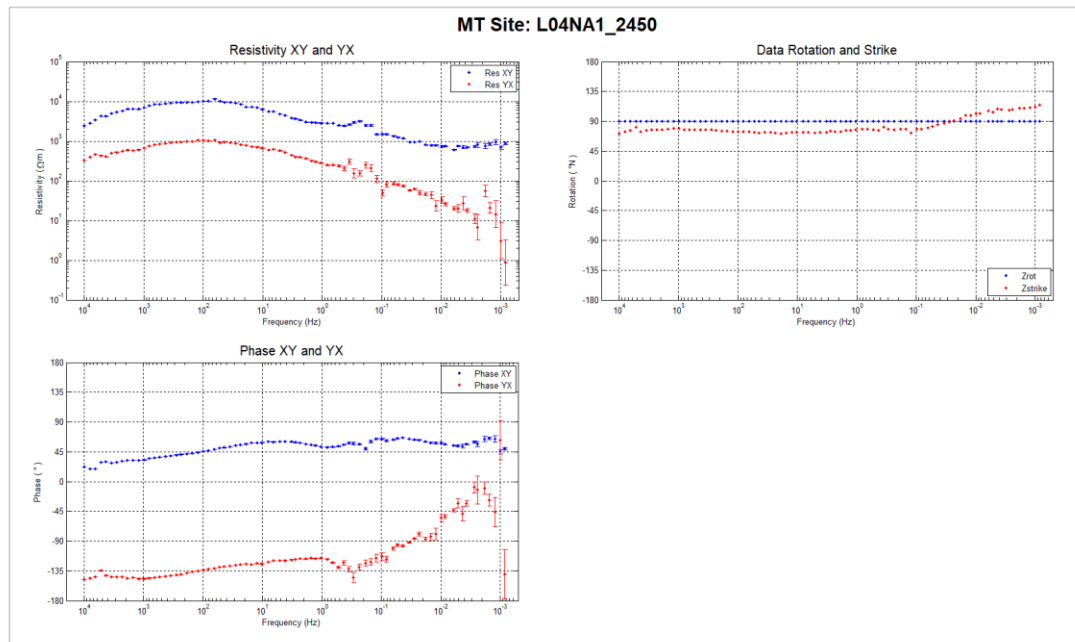


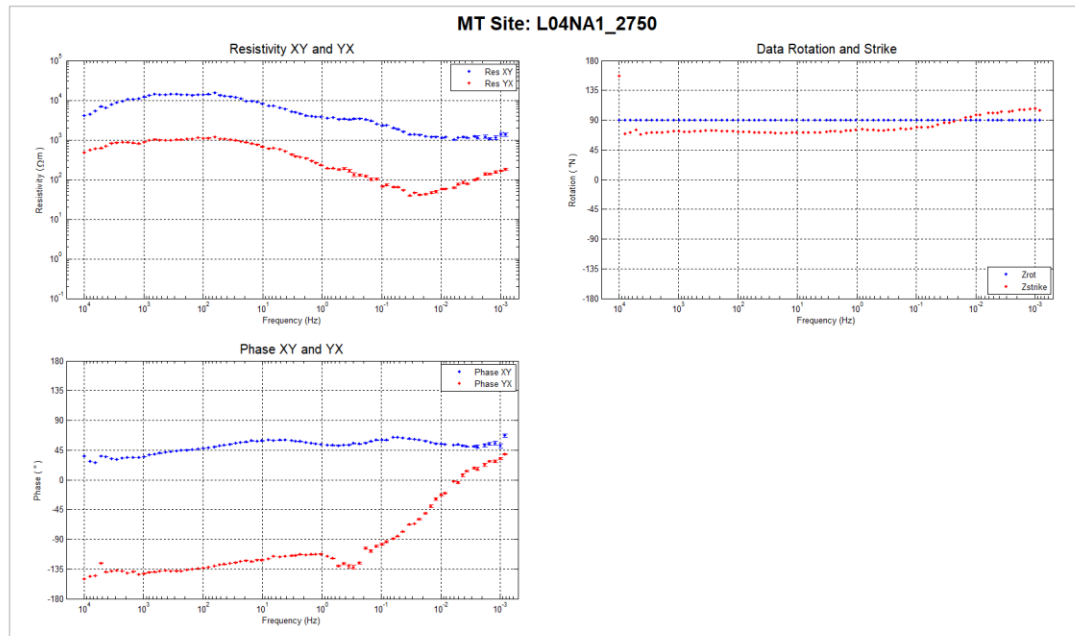
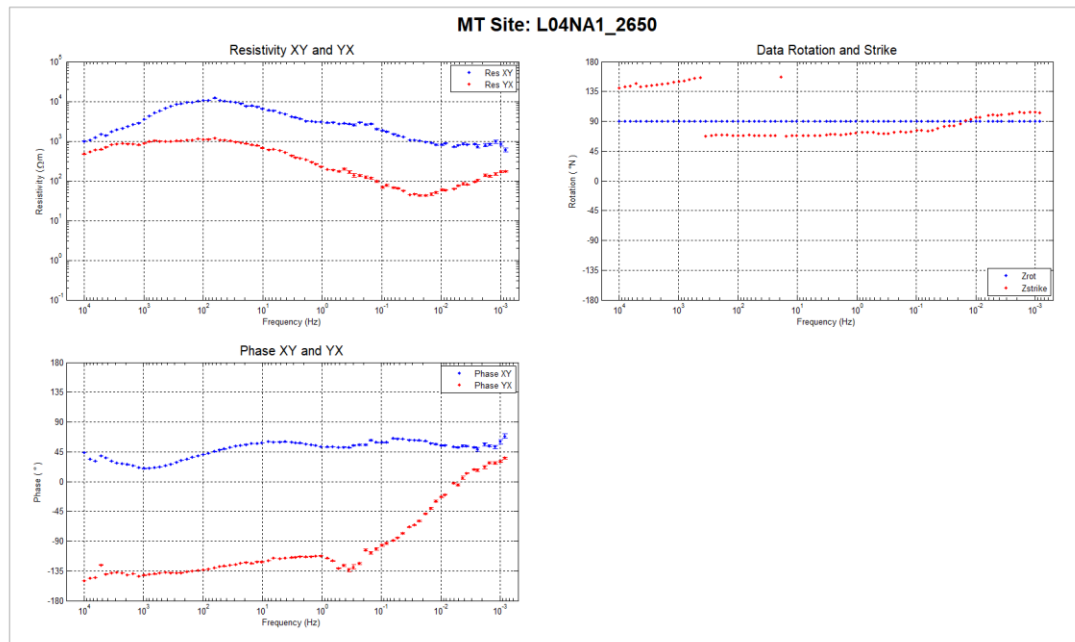


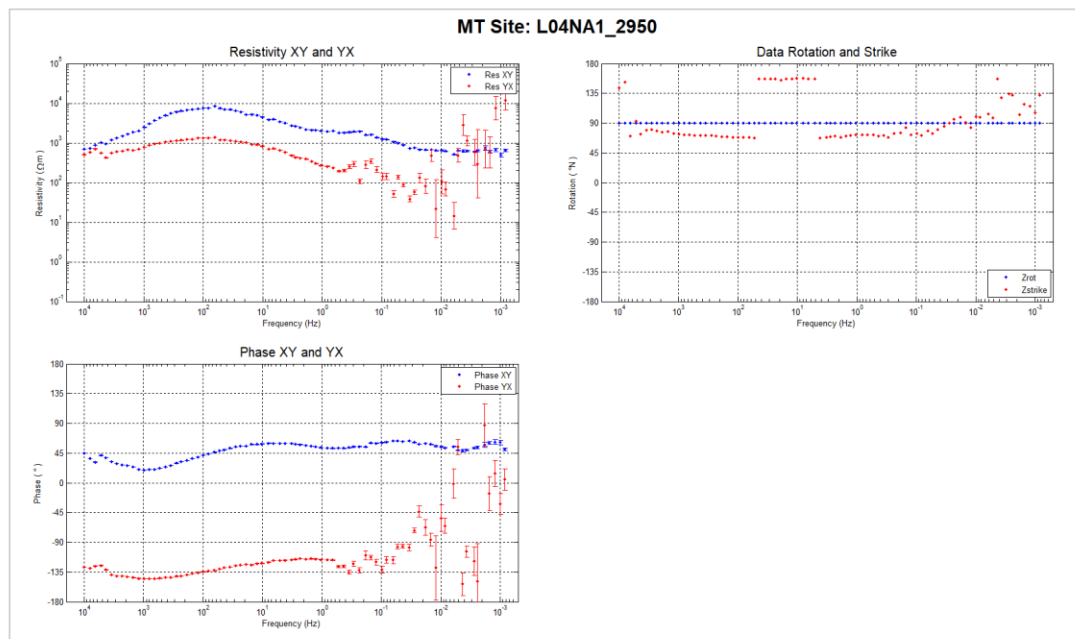
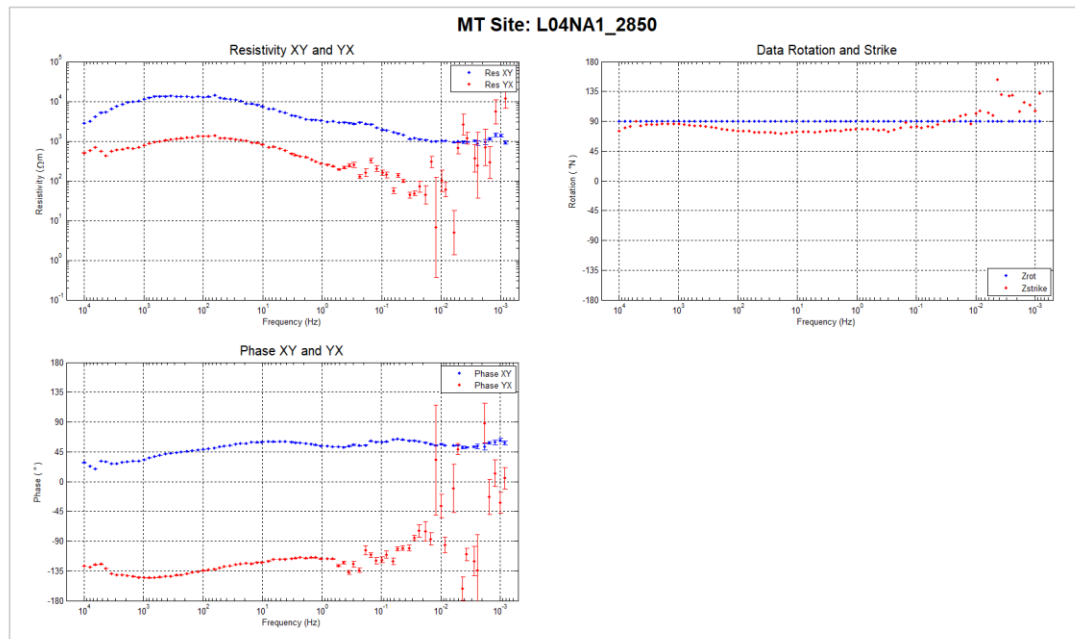


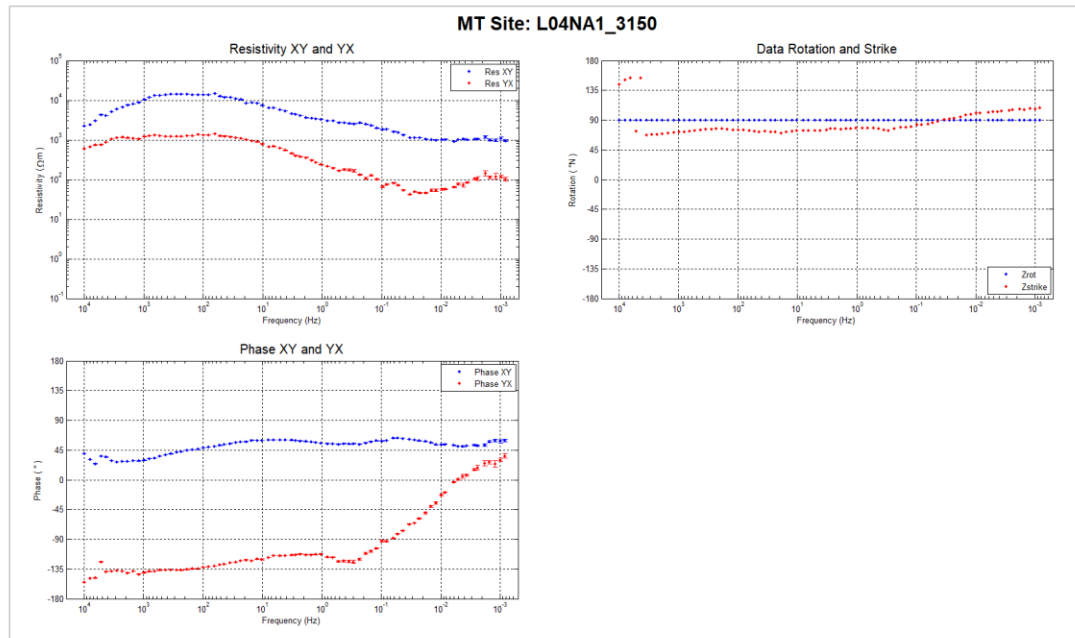
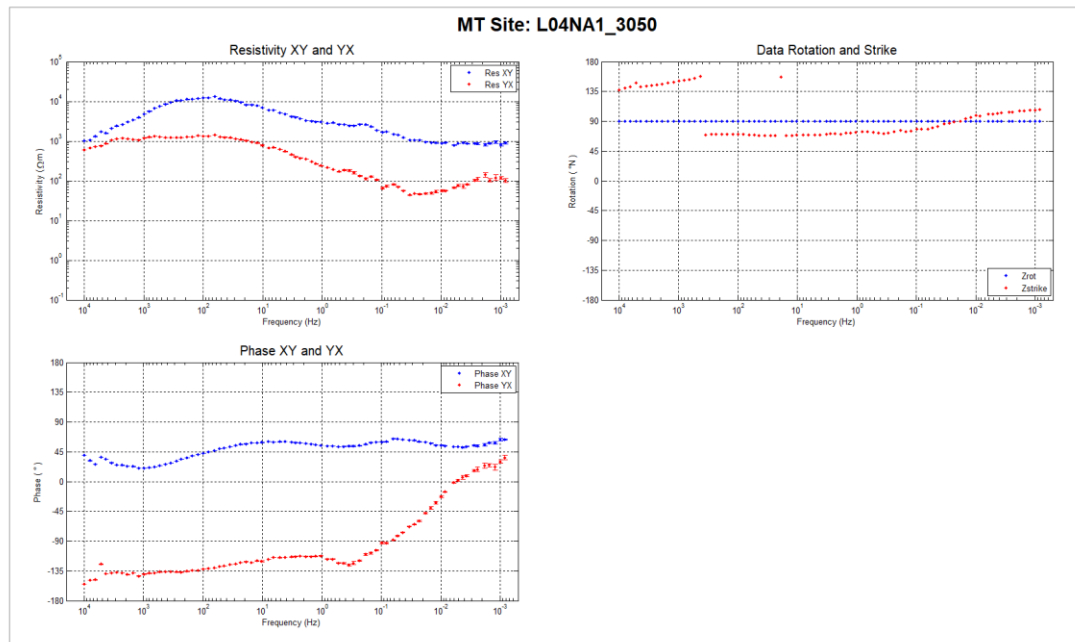




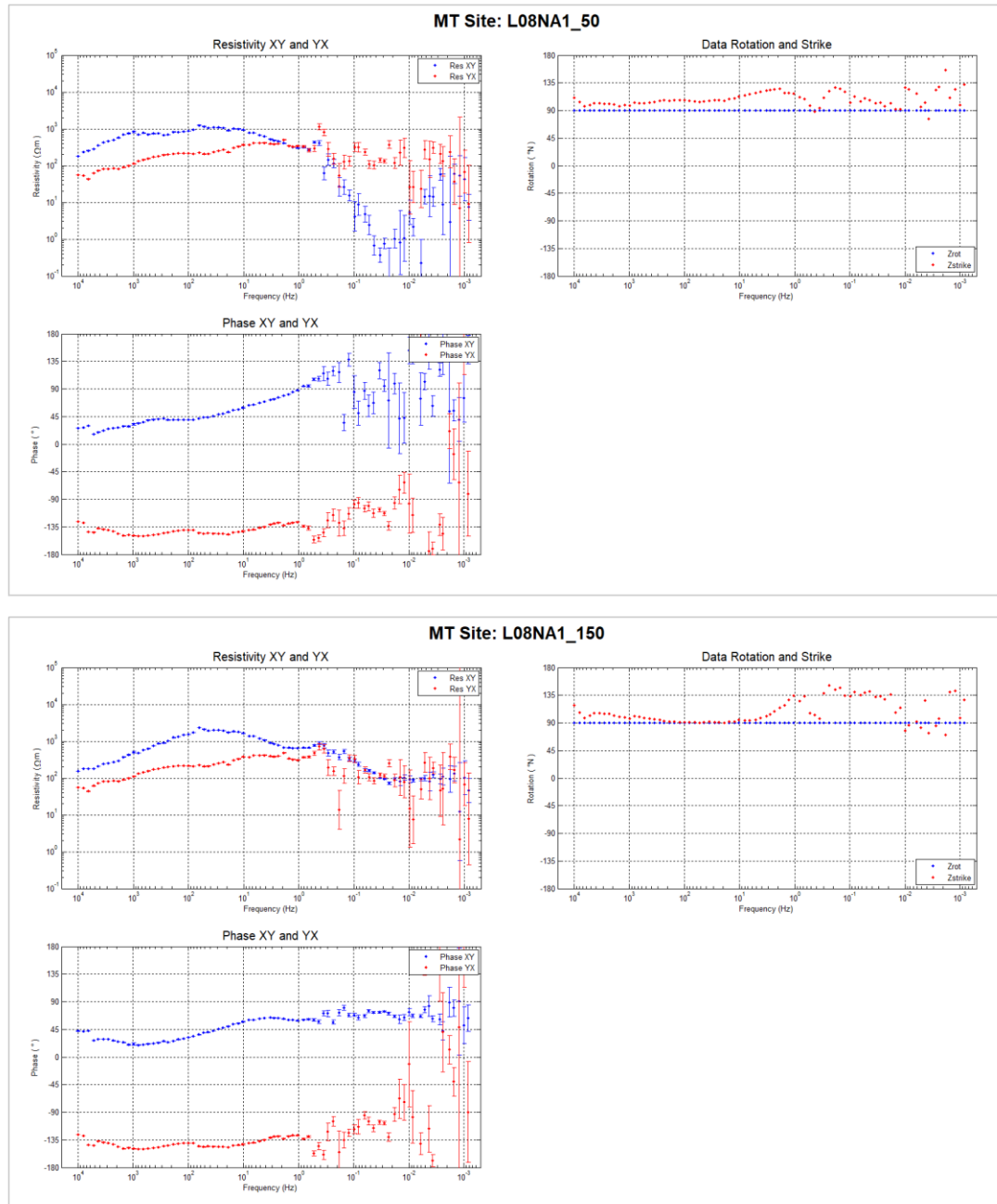


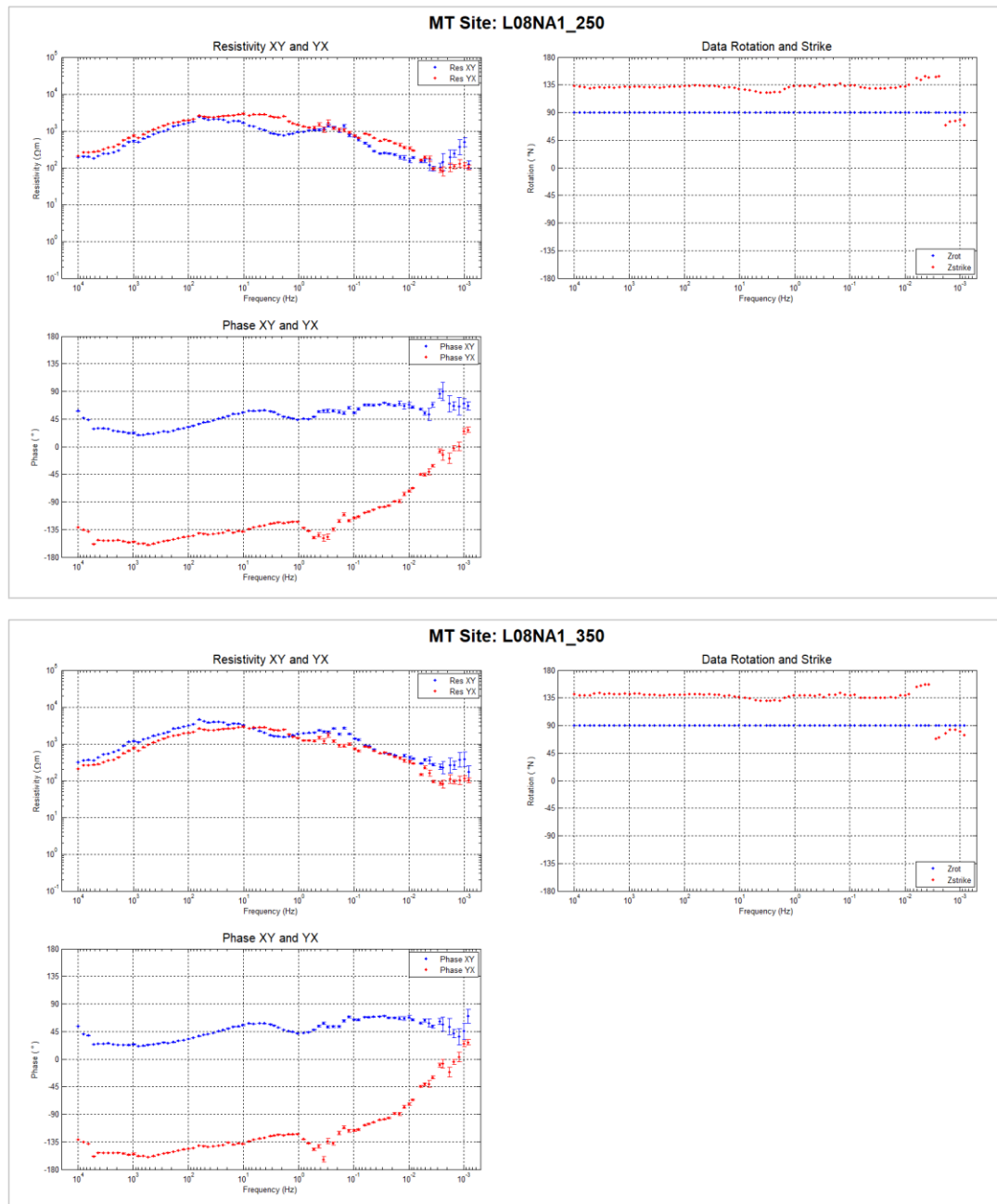


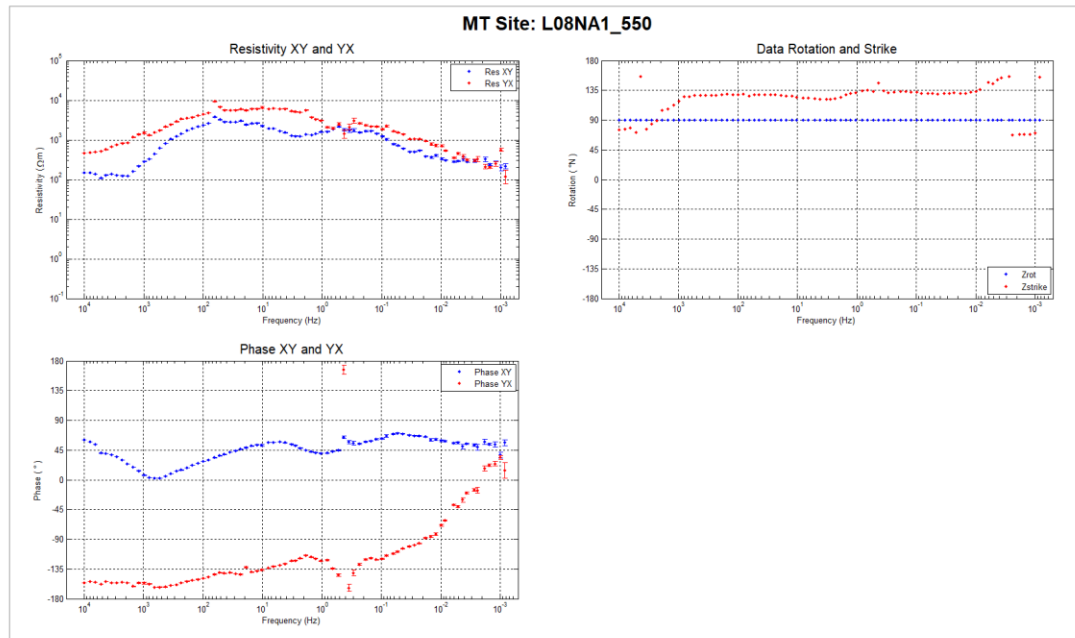
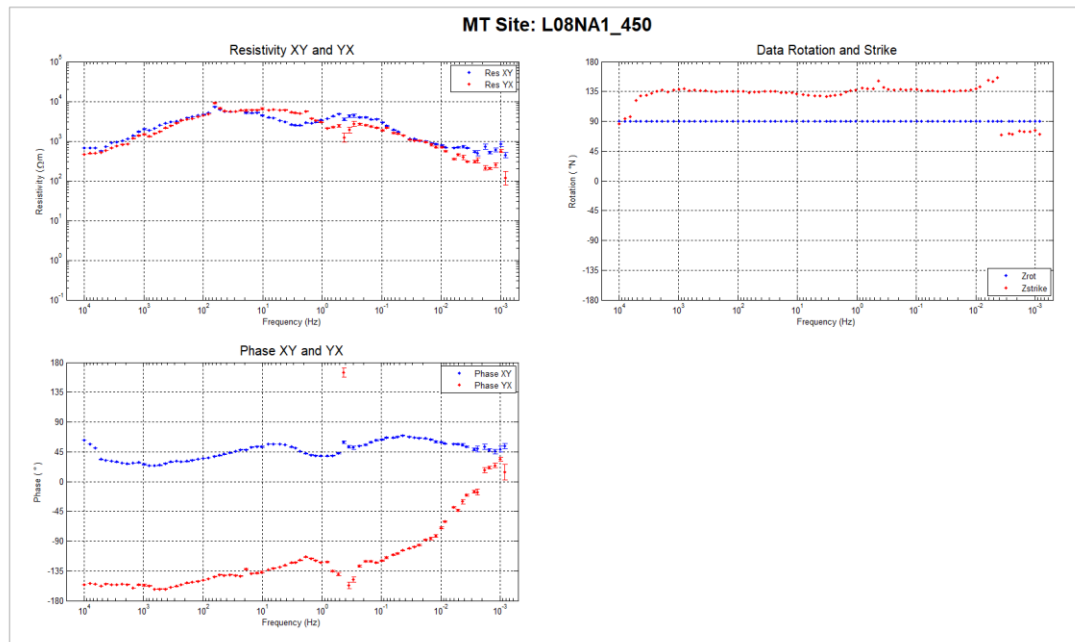


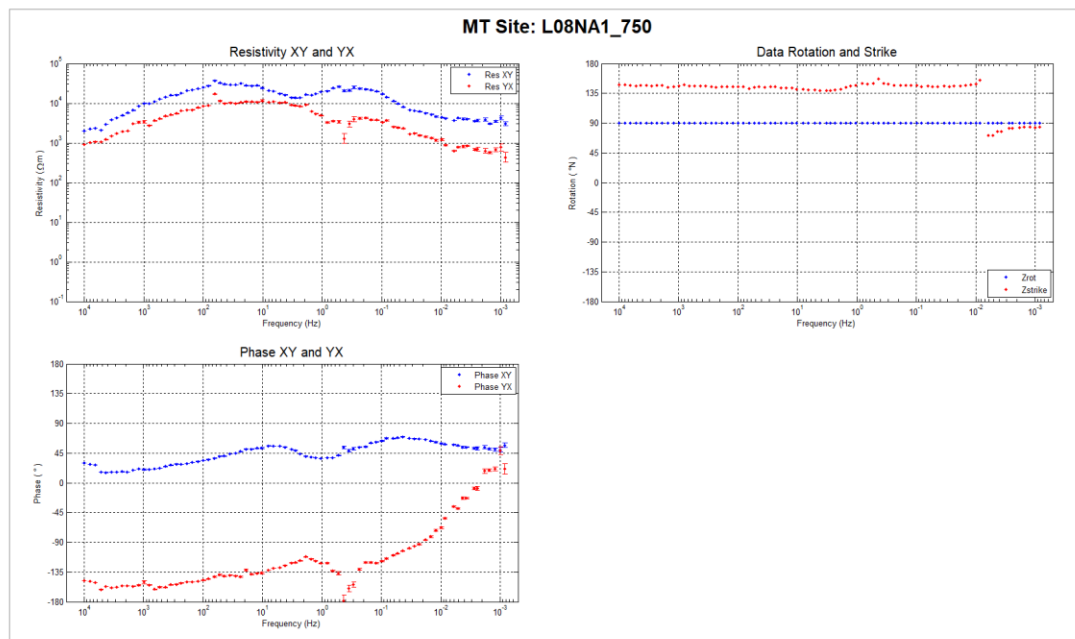
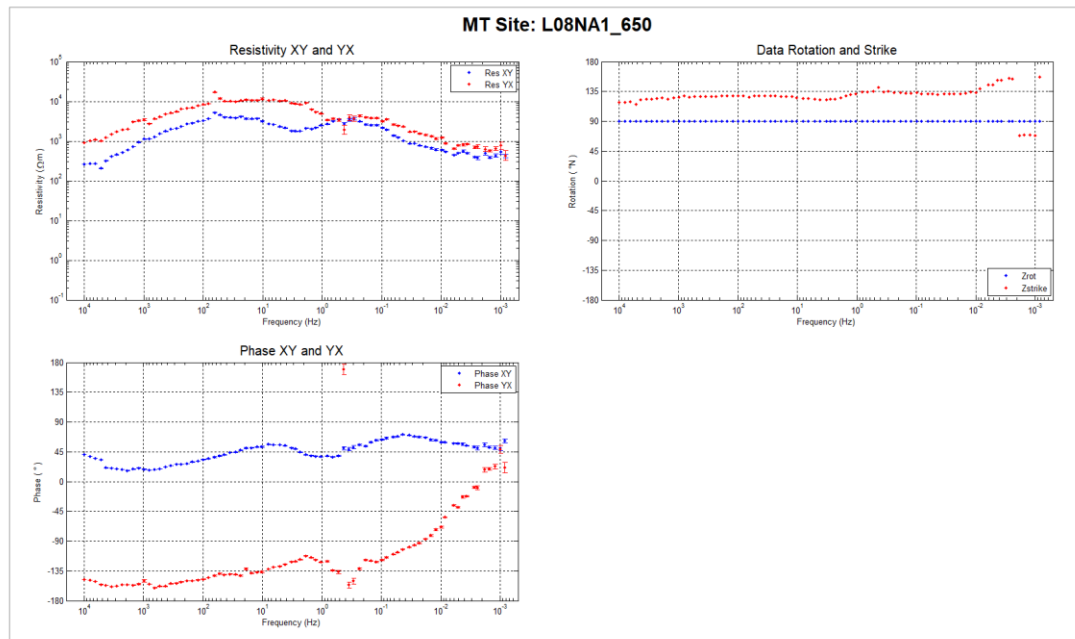


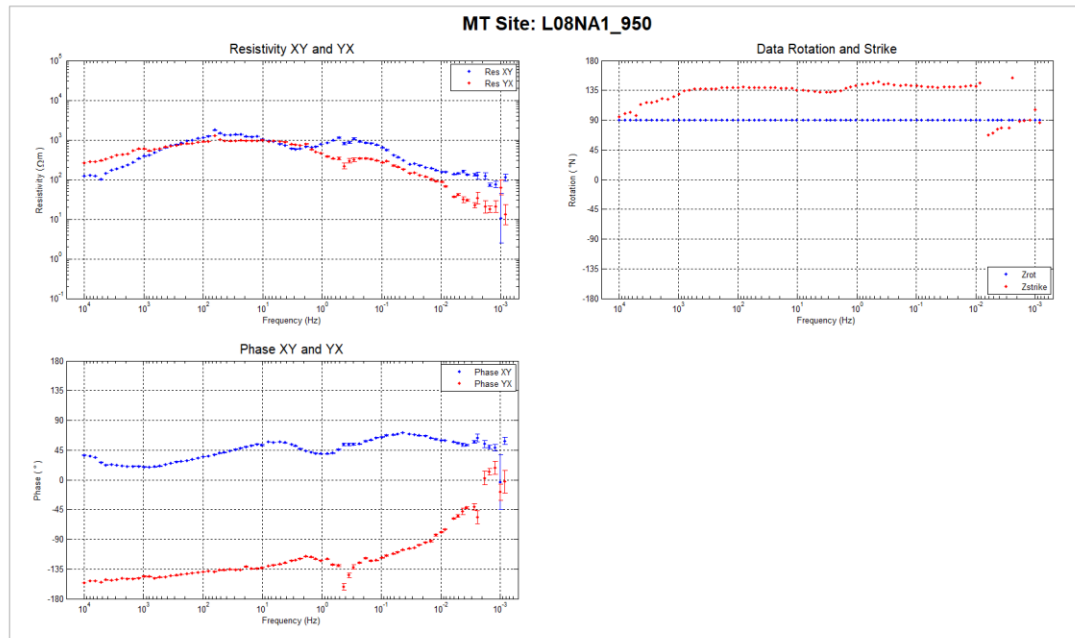
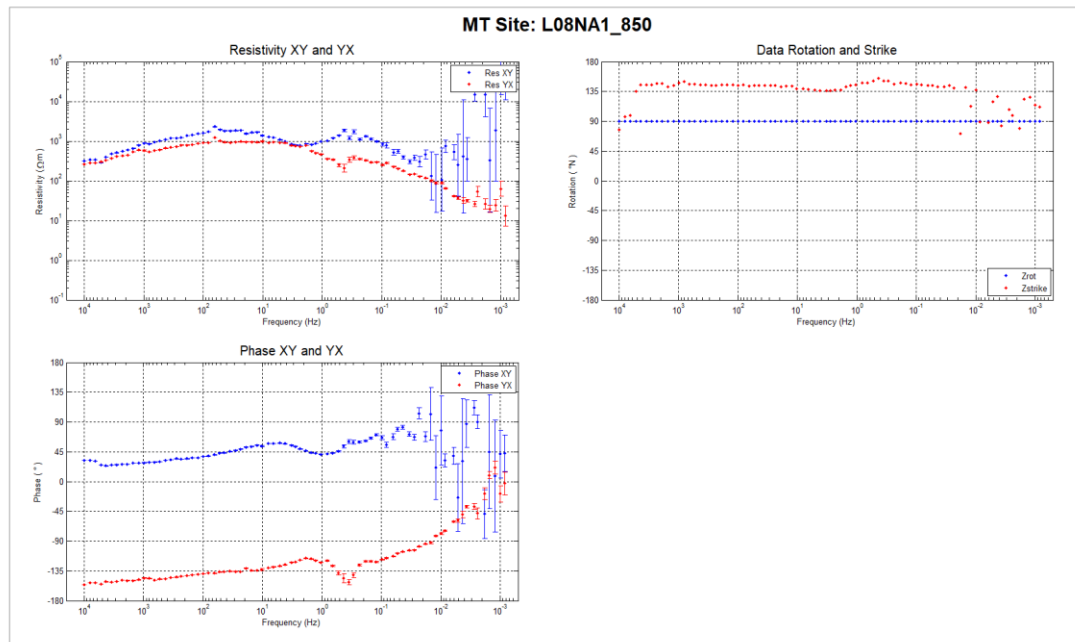
C.1.3. Line 0800N

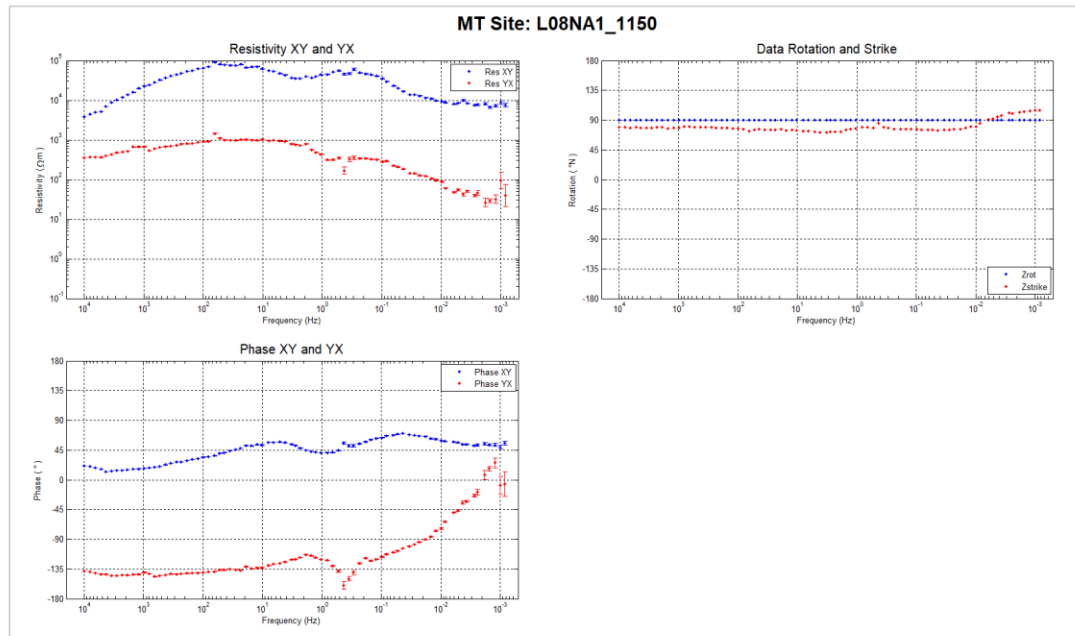
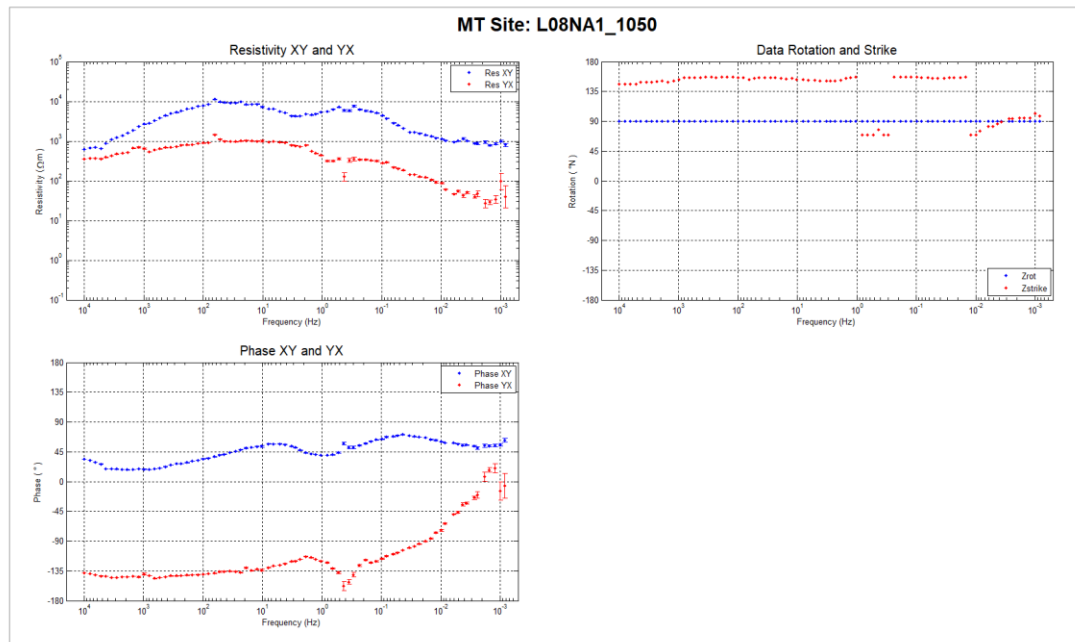


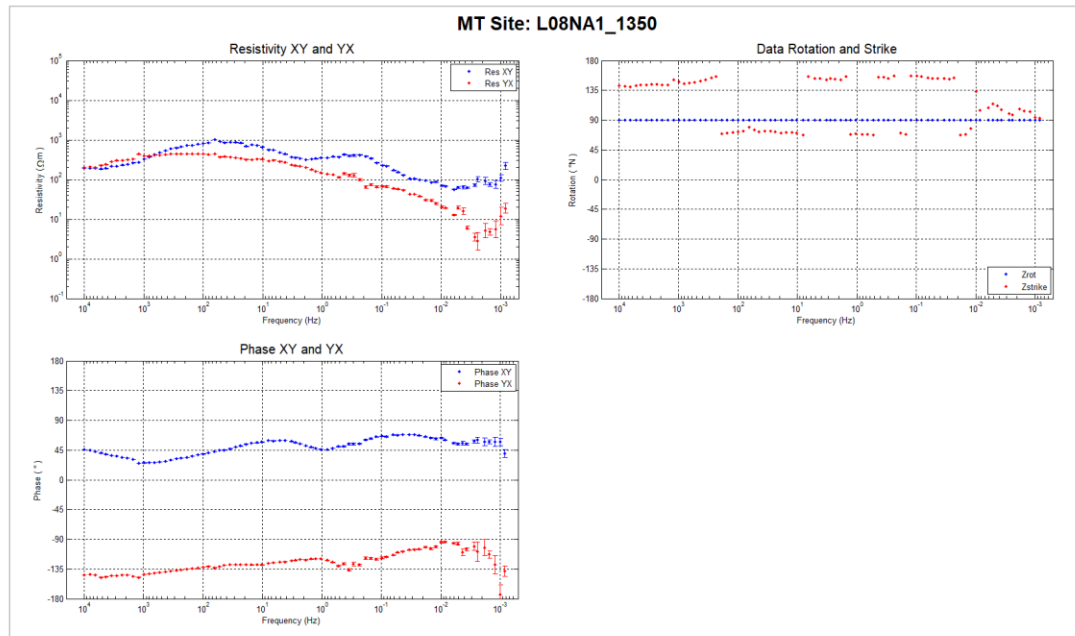
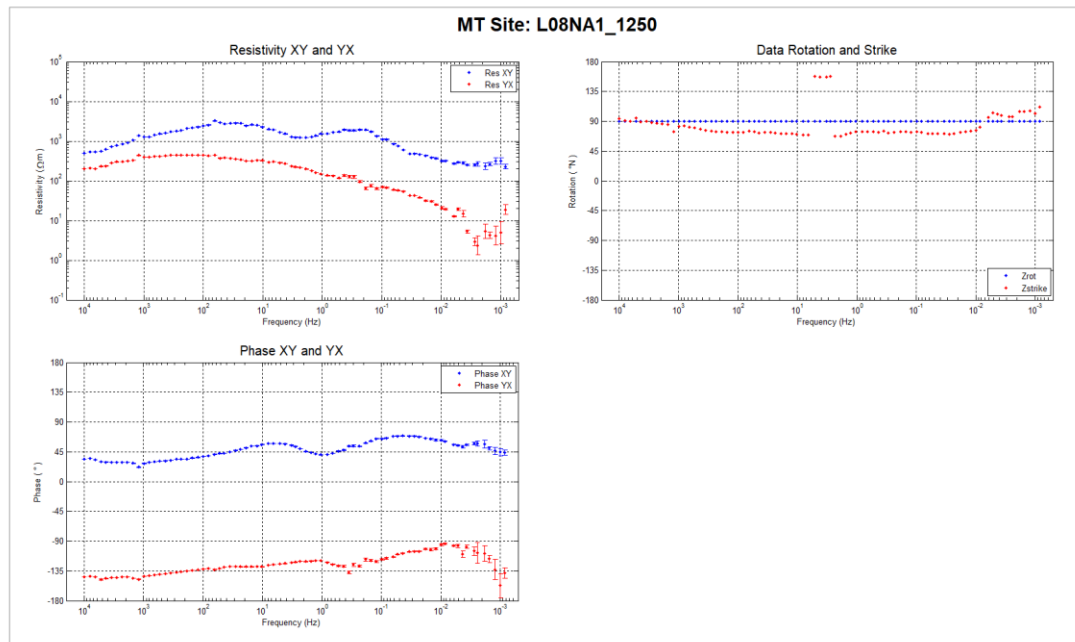


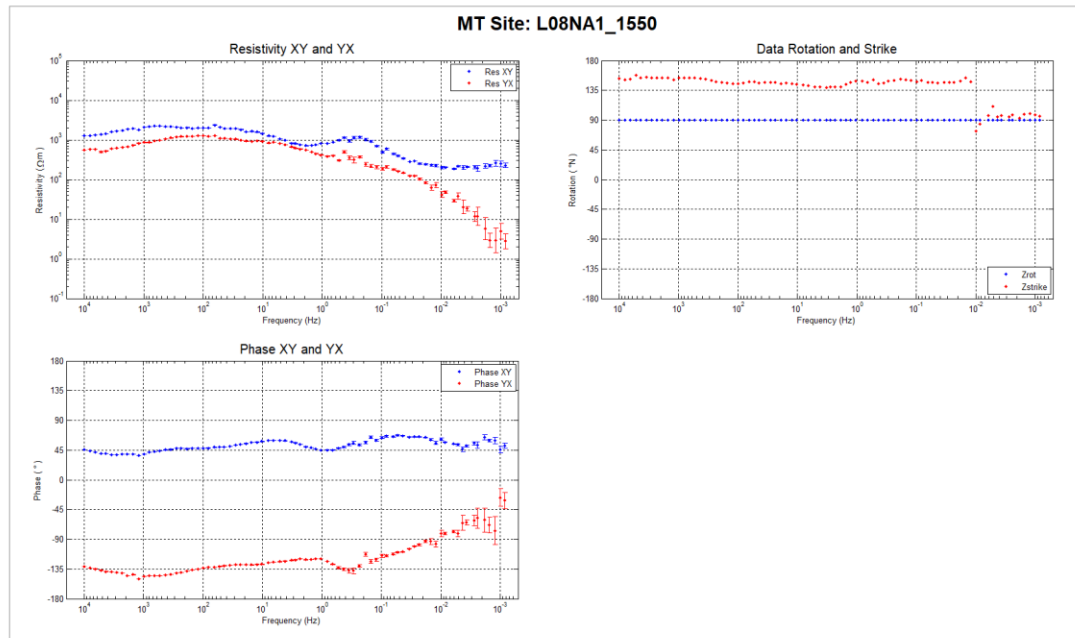
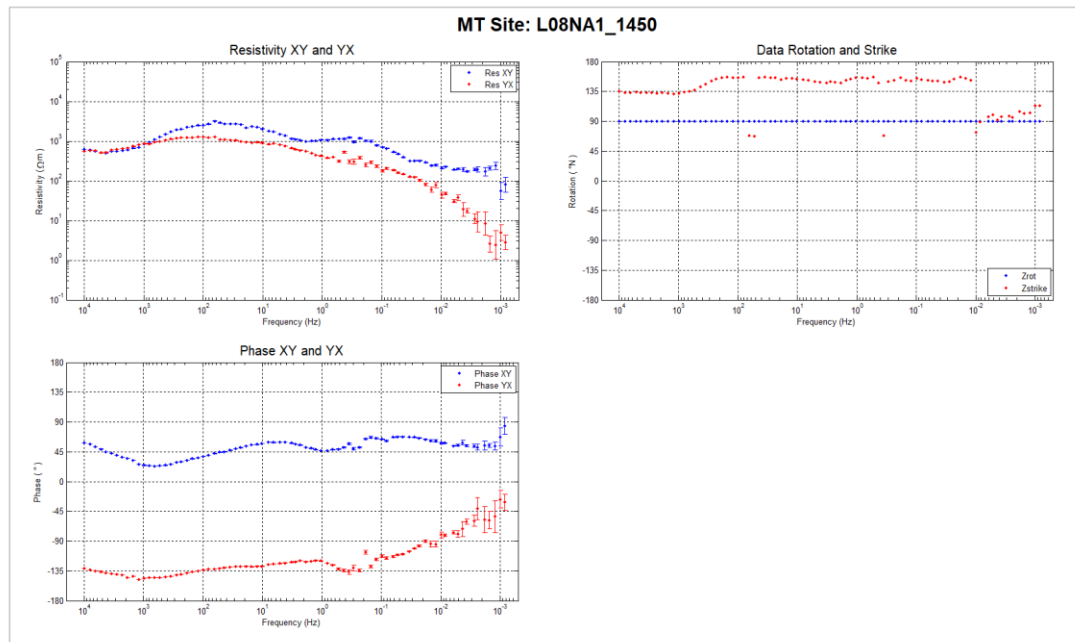


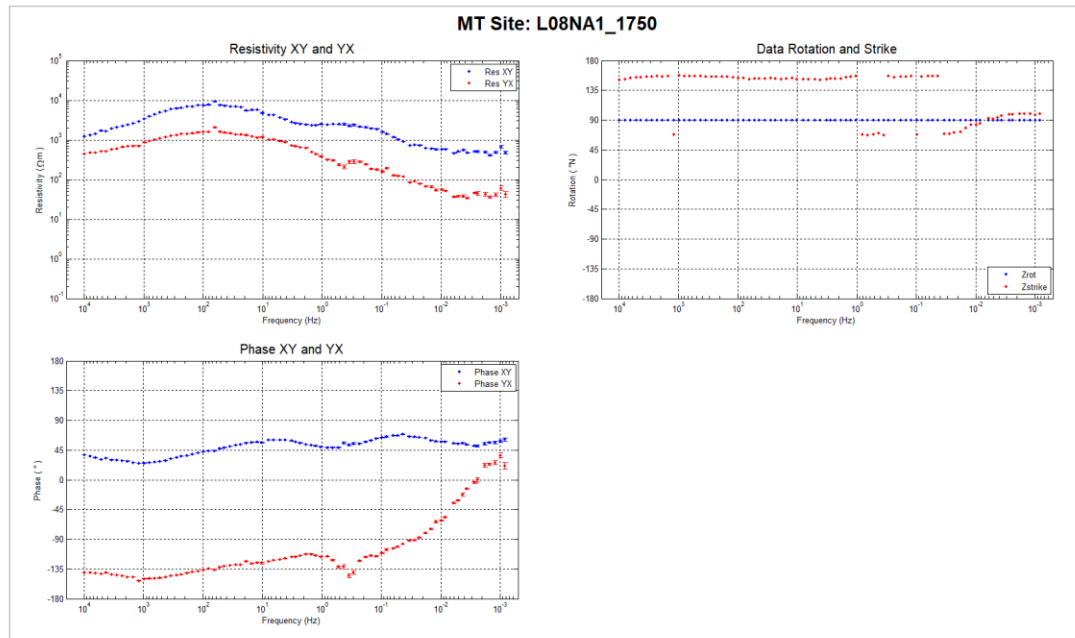
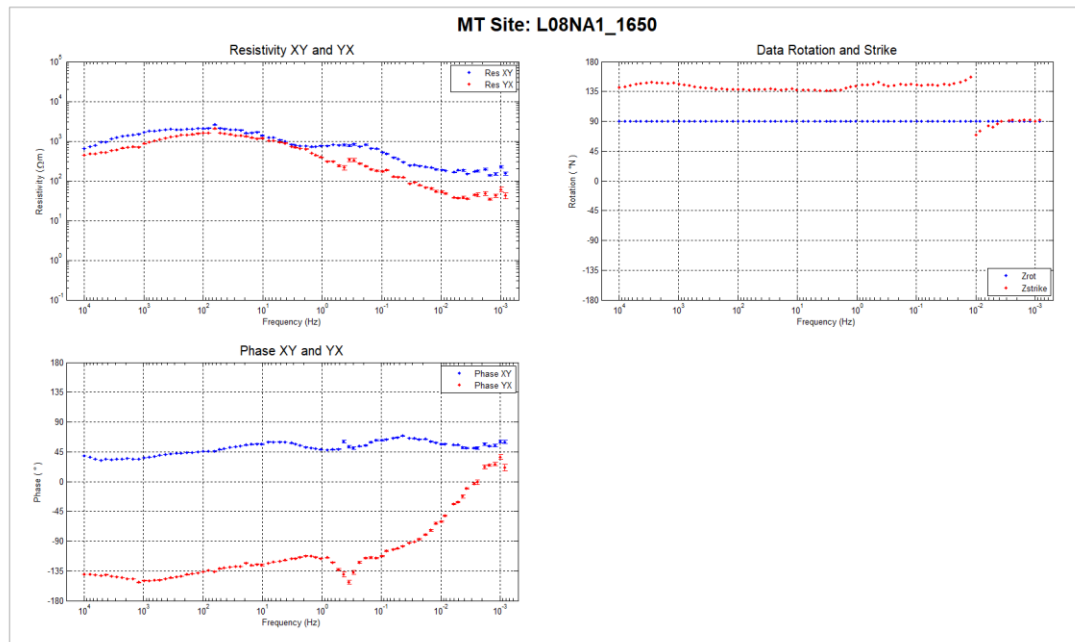


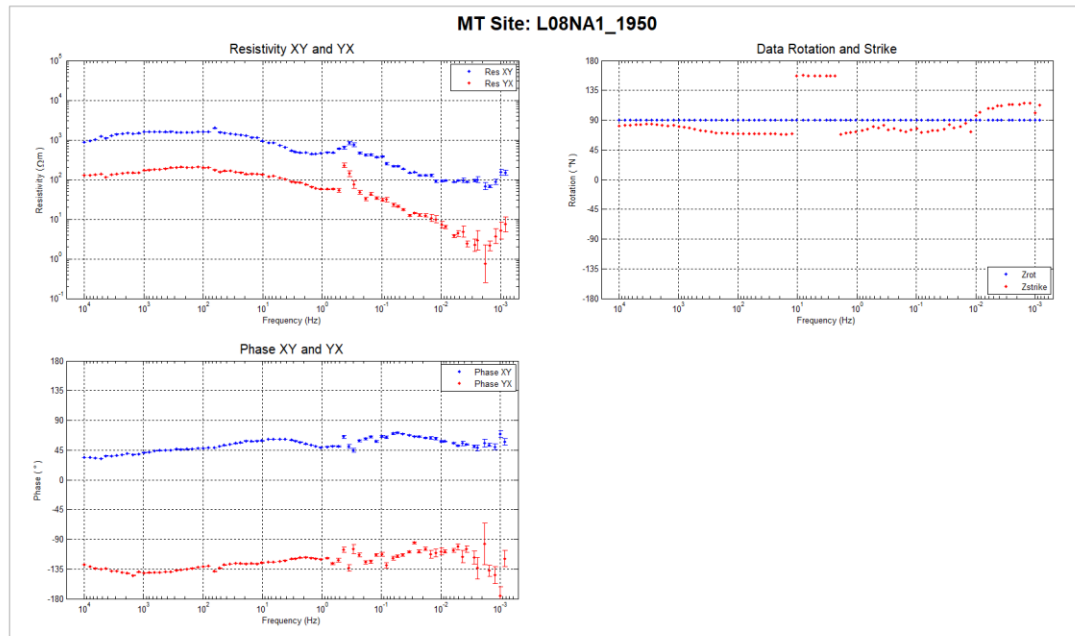
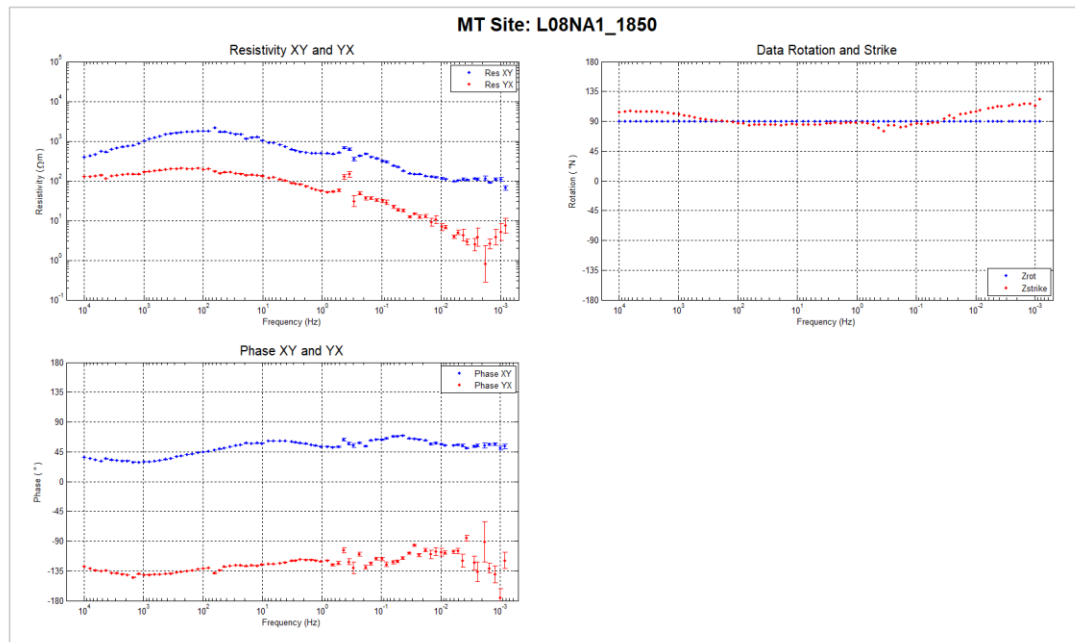


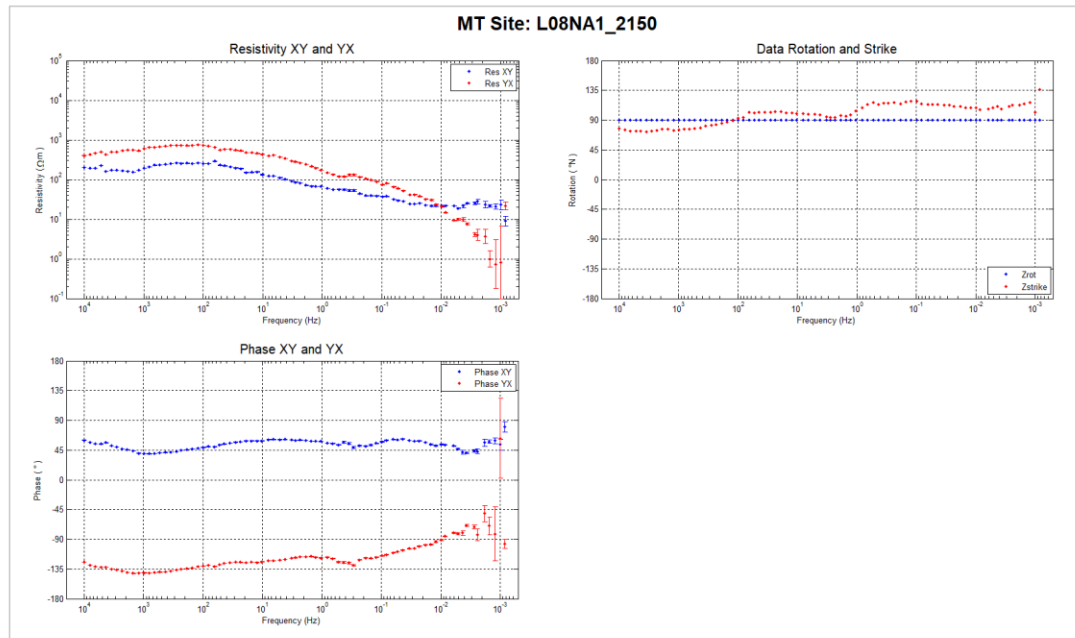
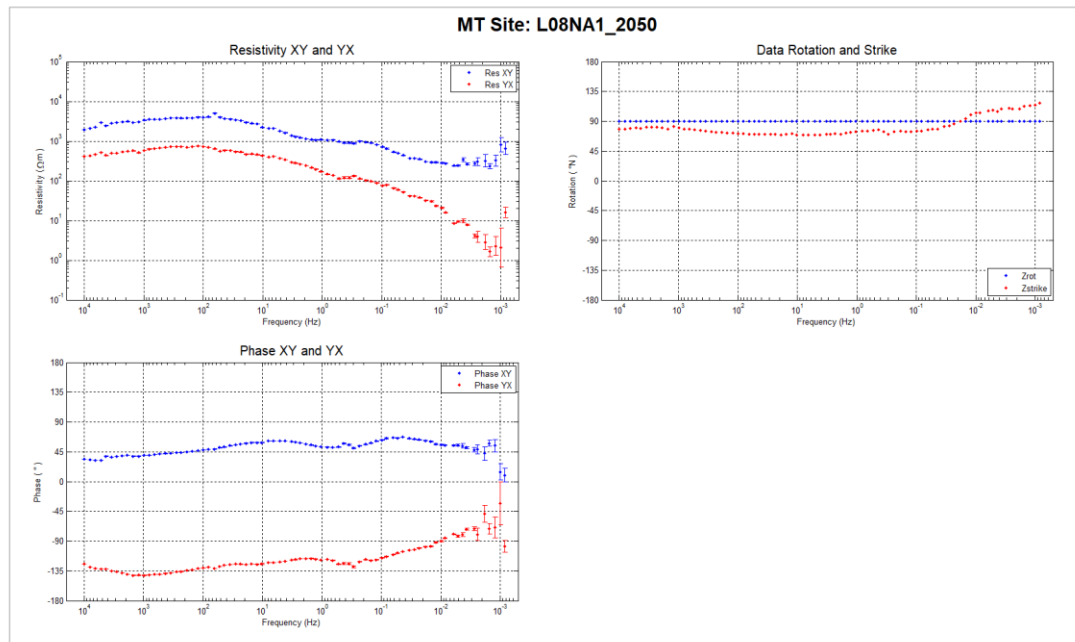


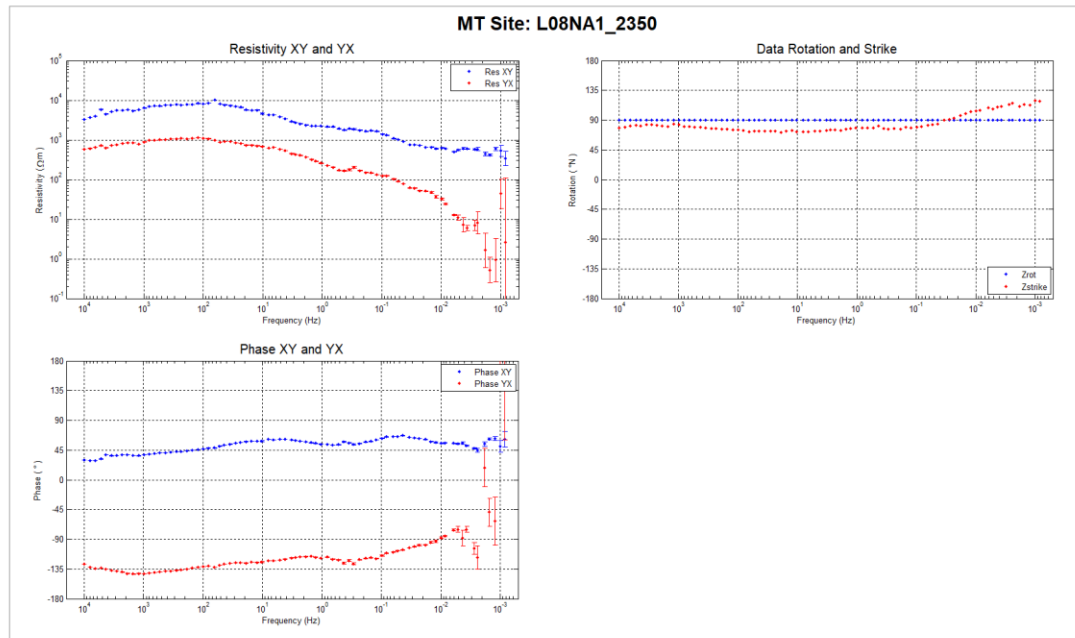
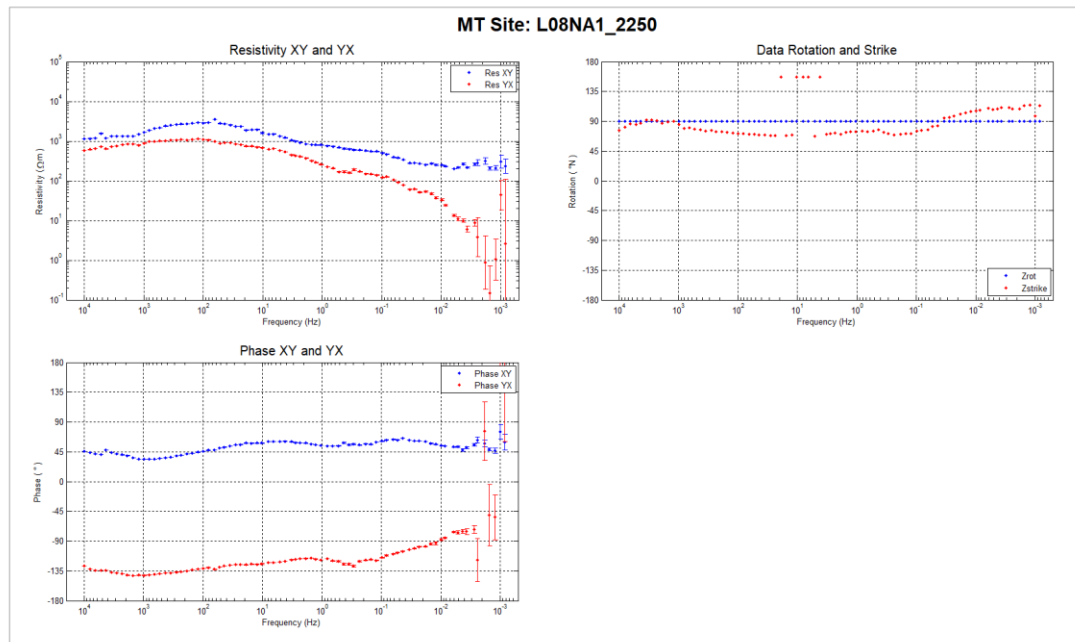


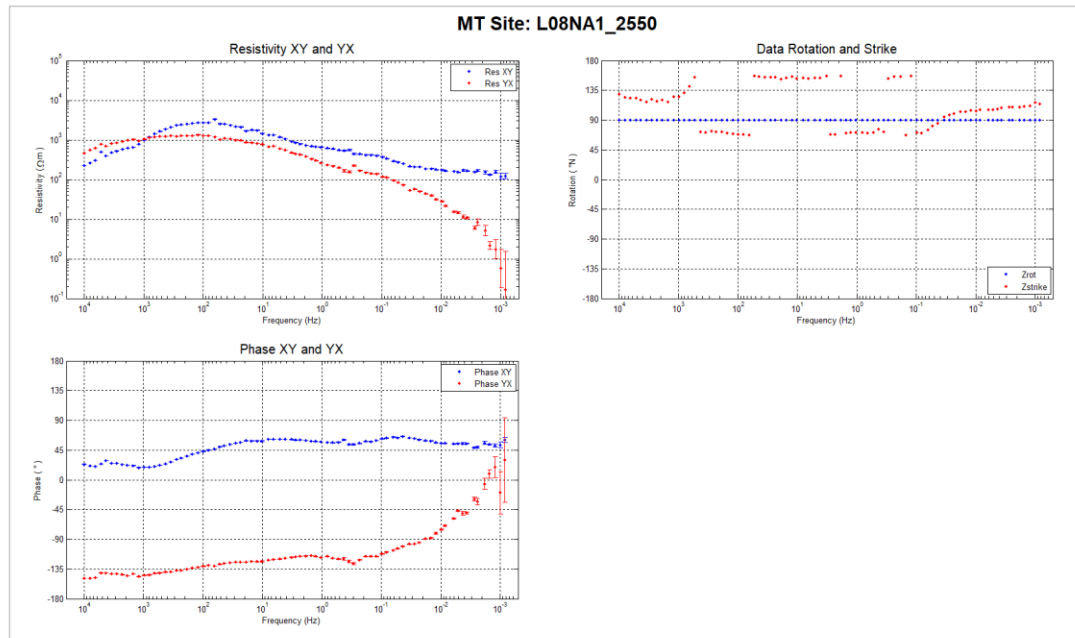
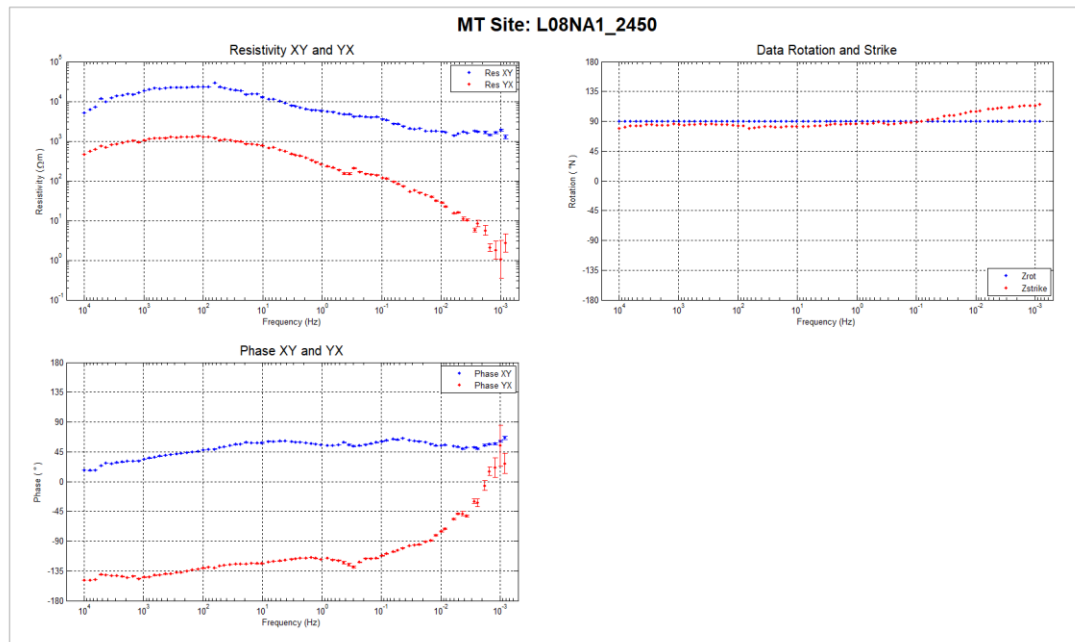


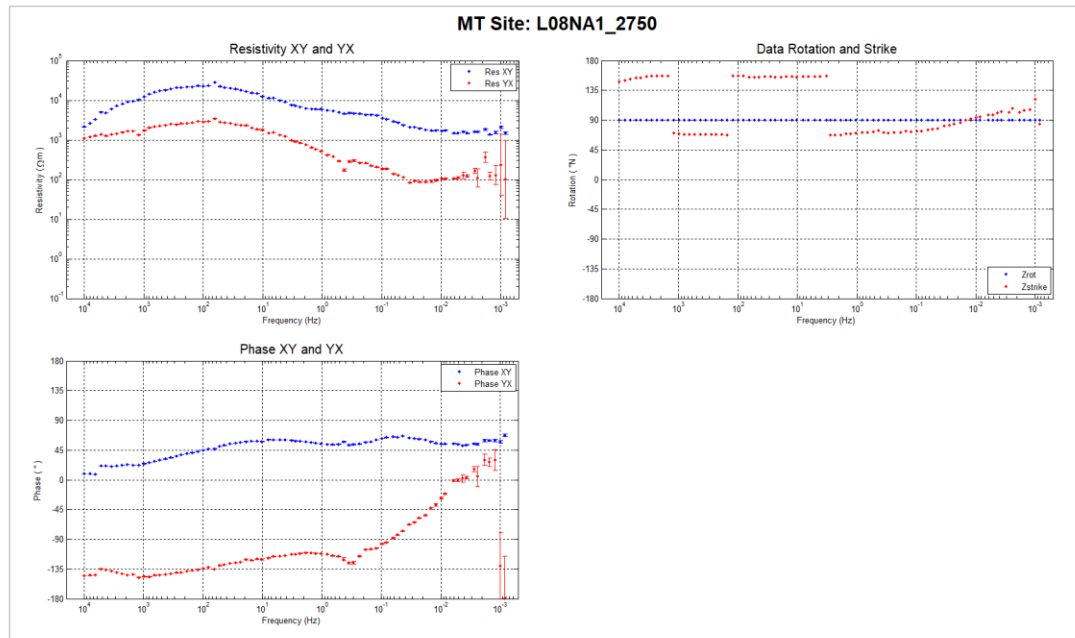
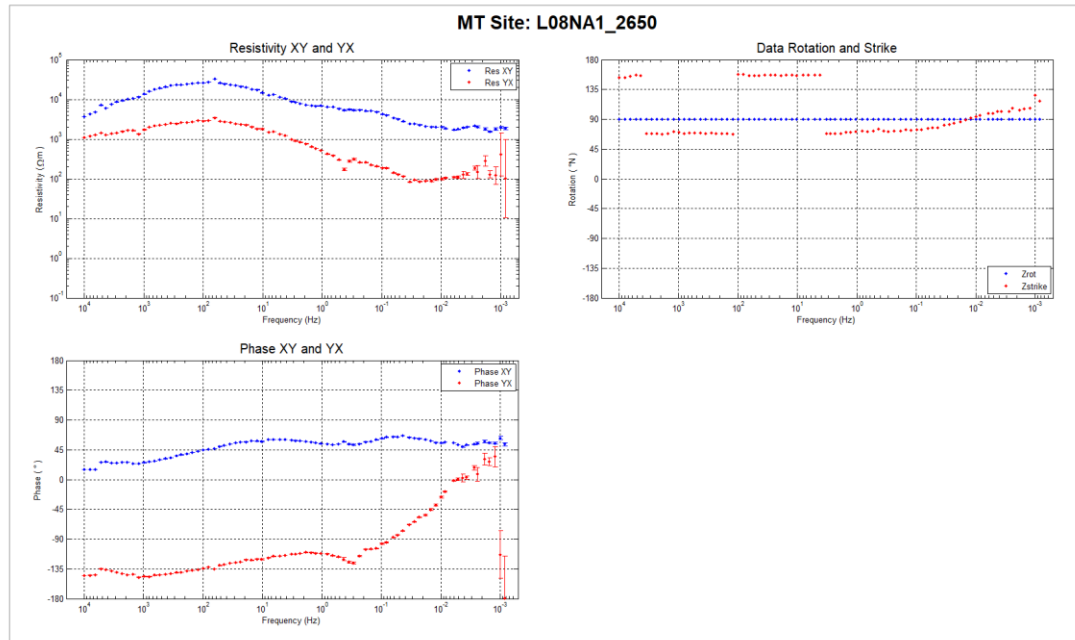


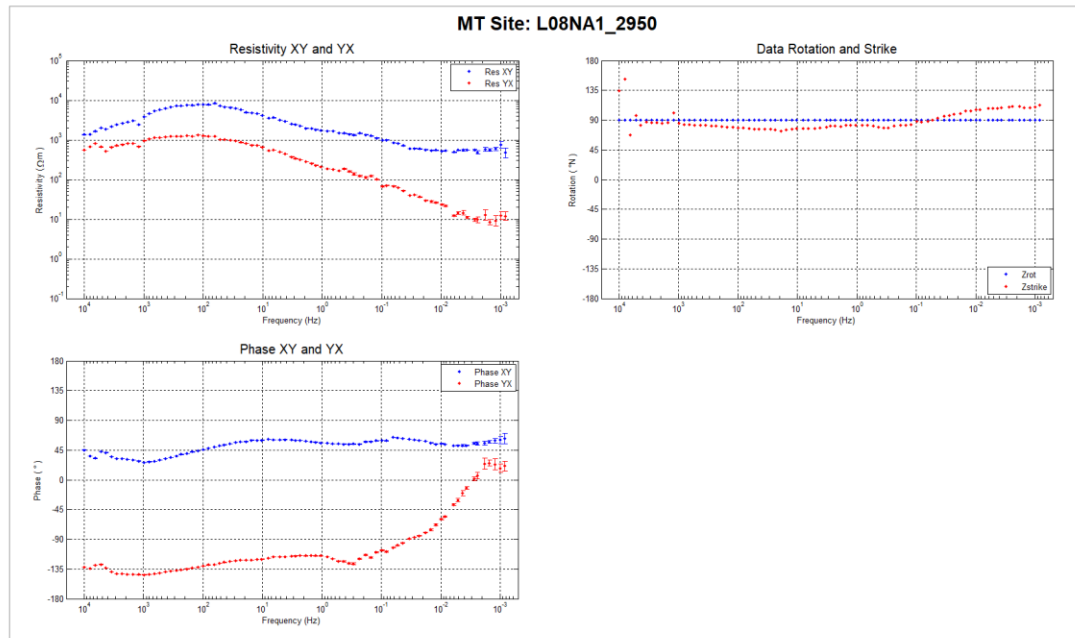
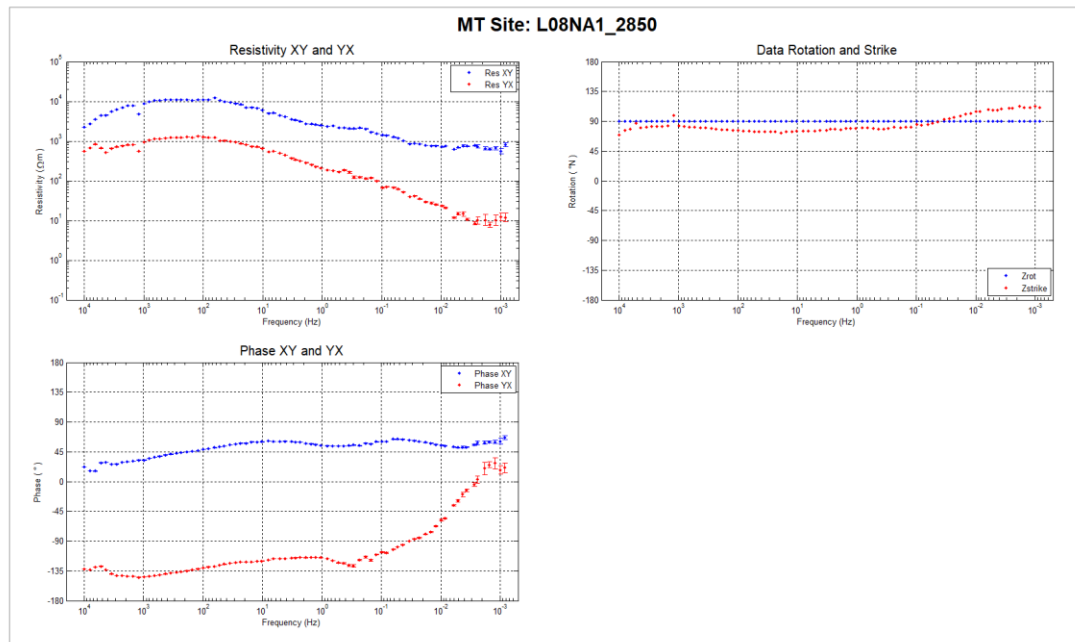


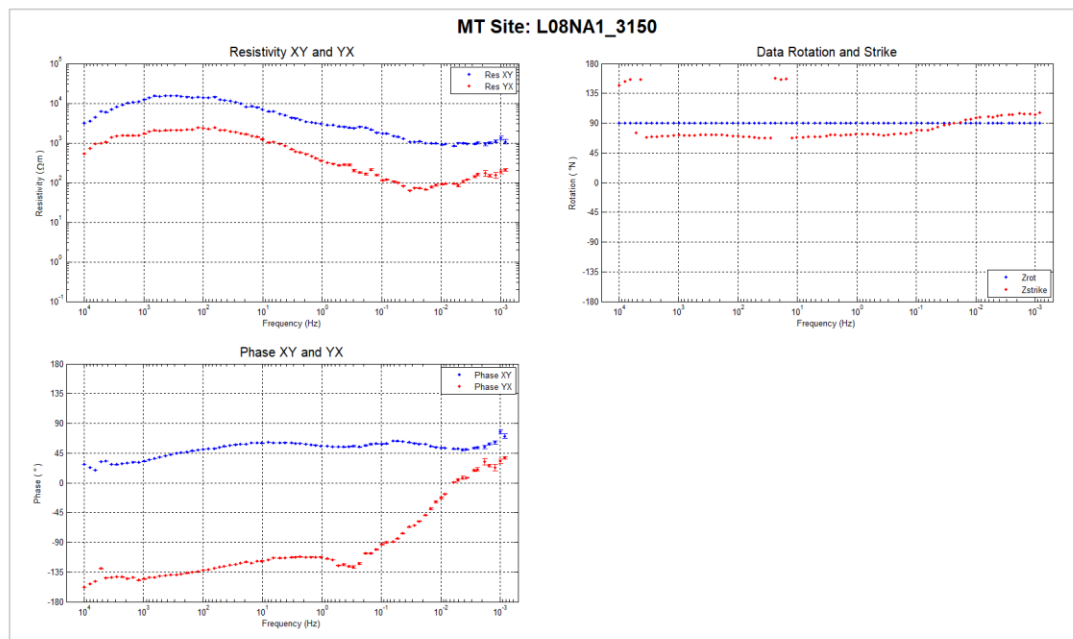
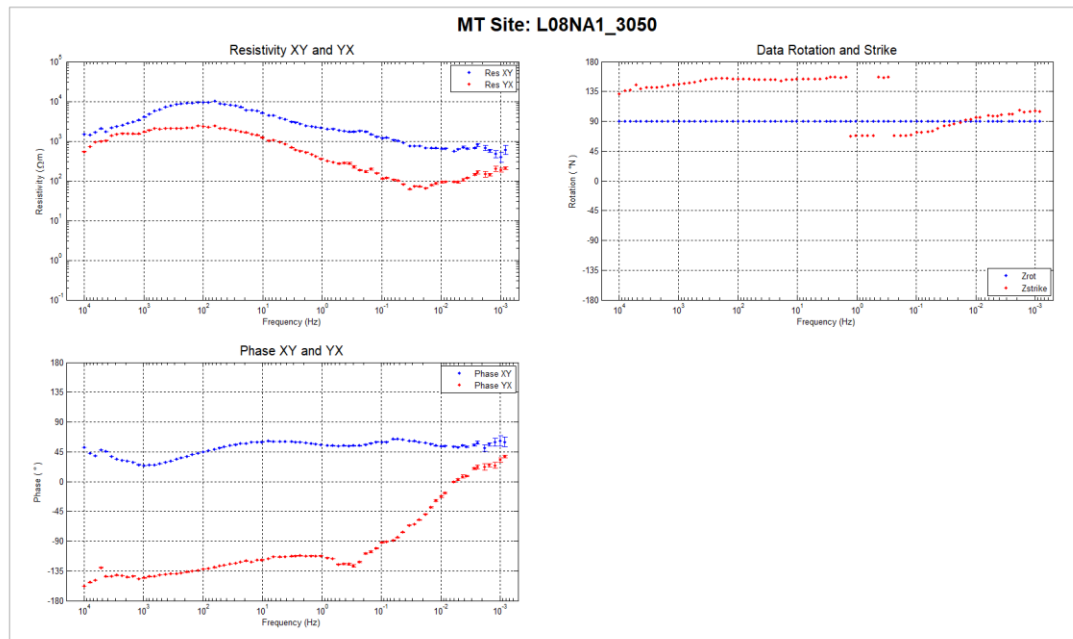




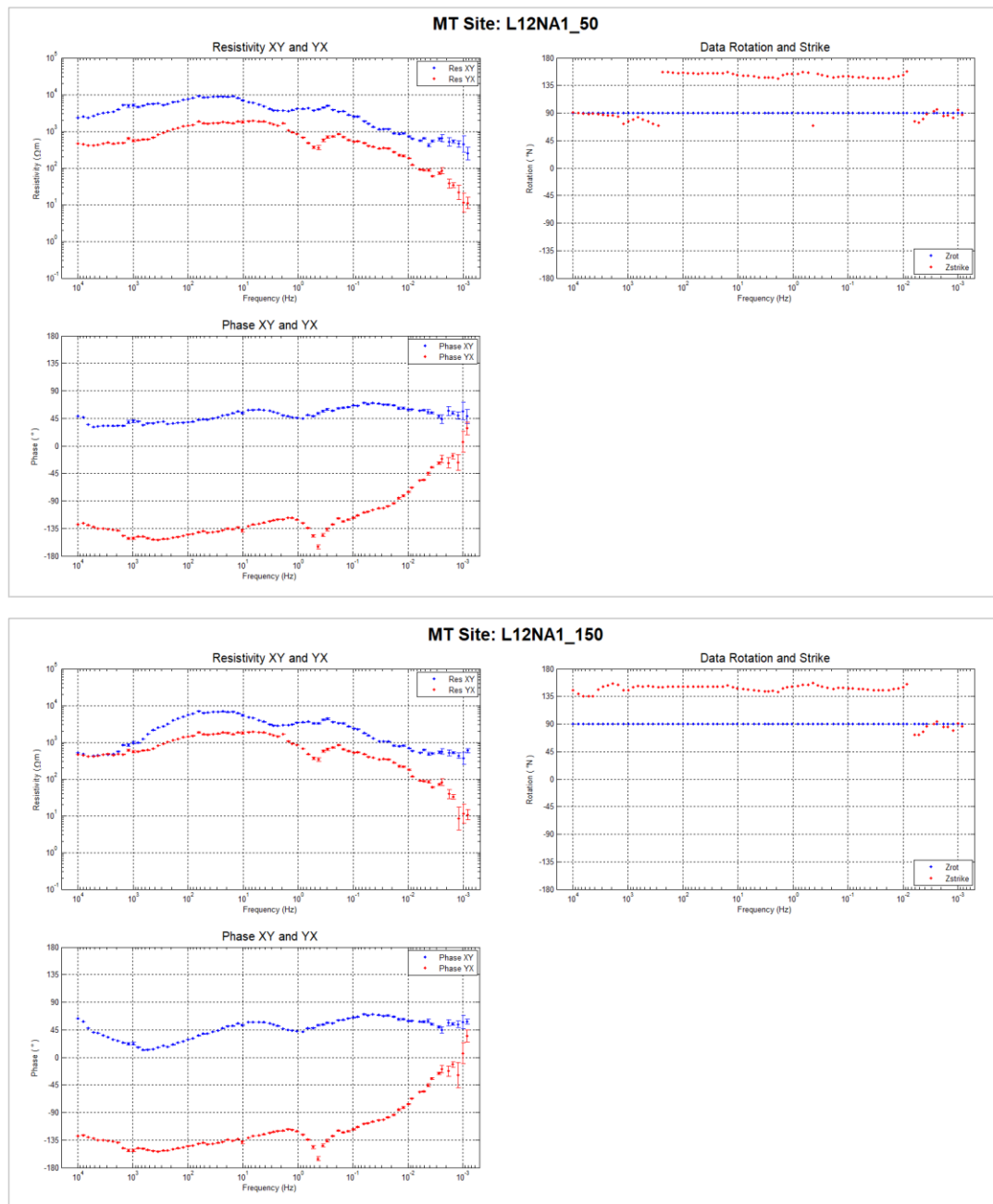


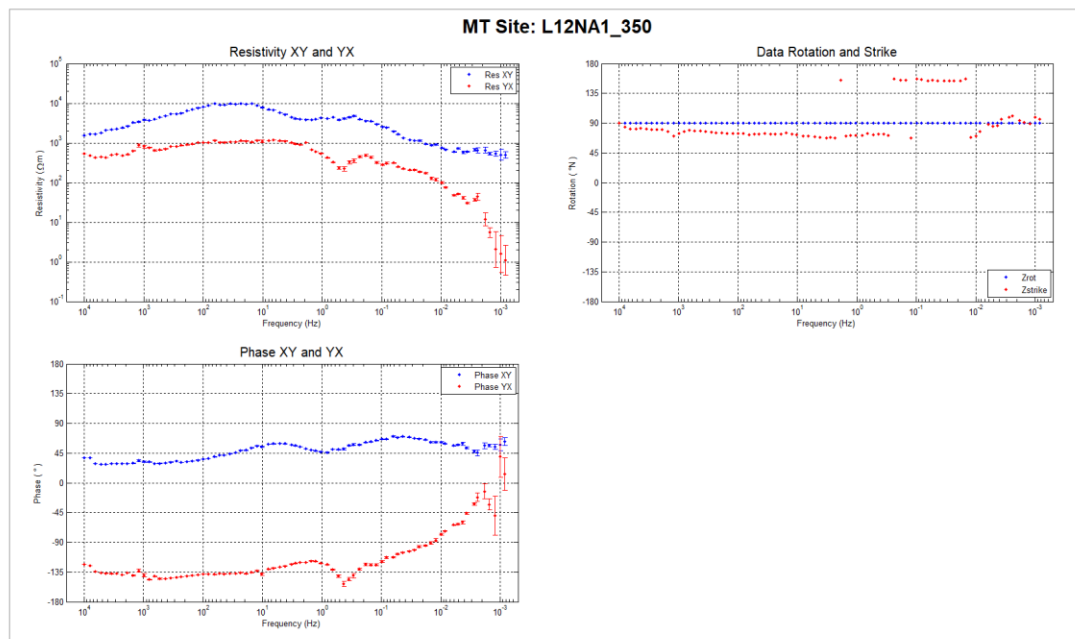
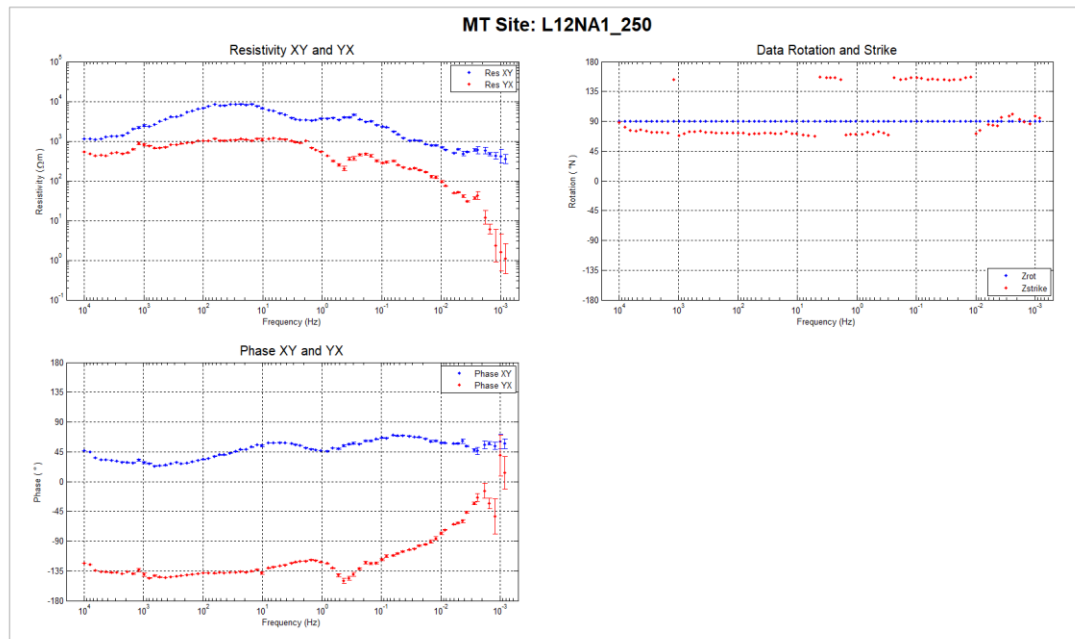


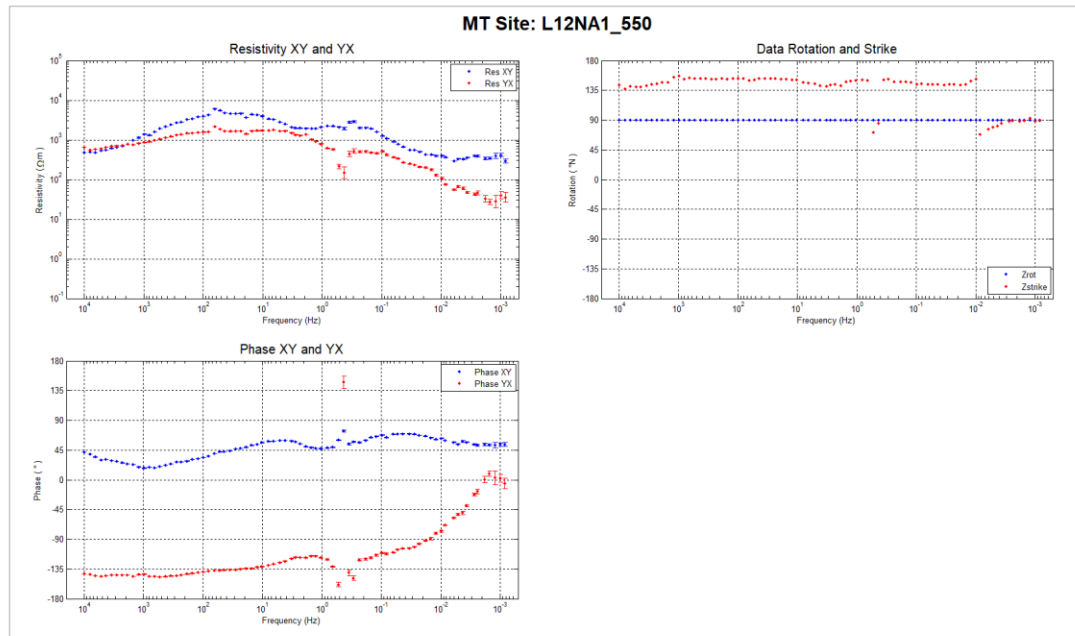
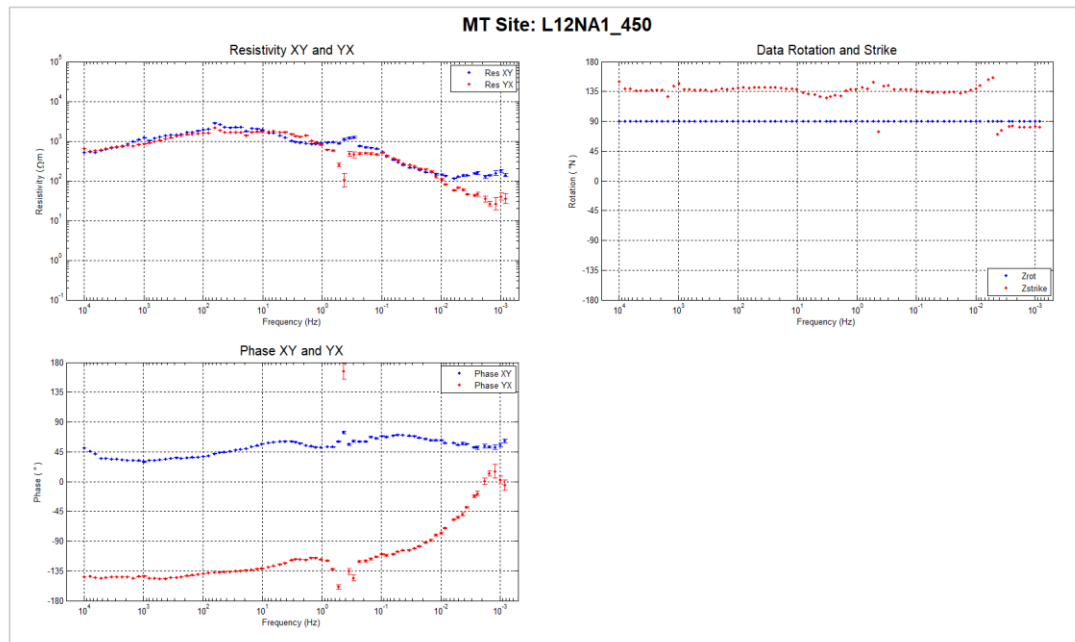


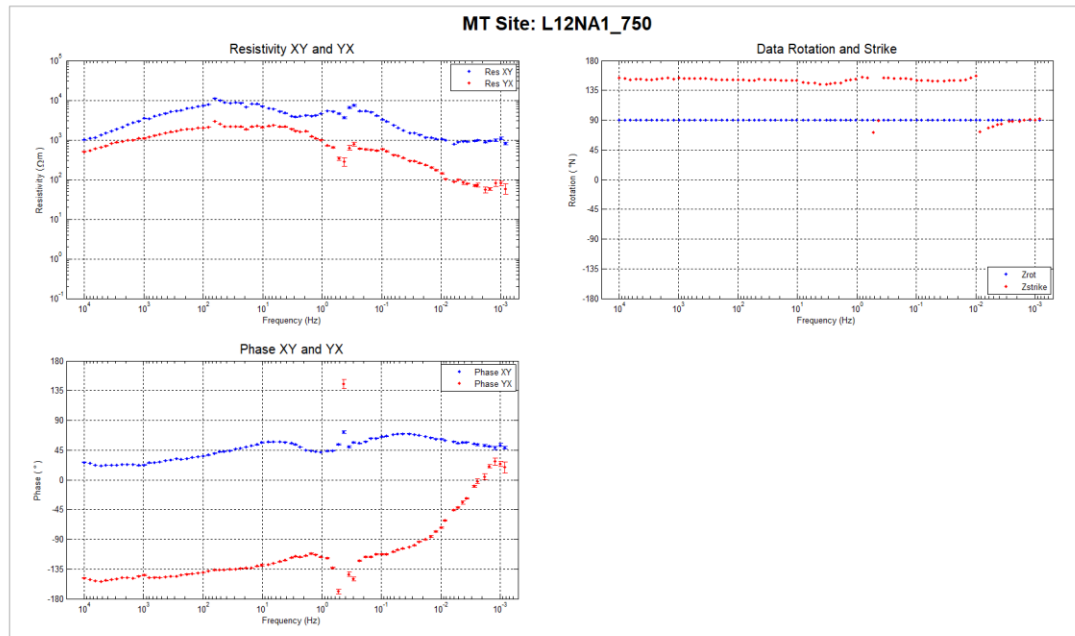
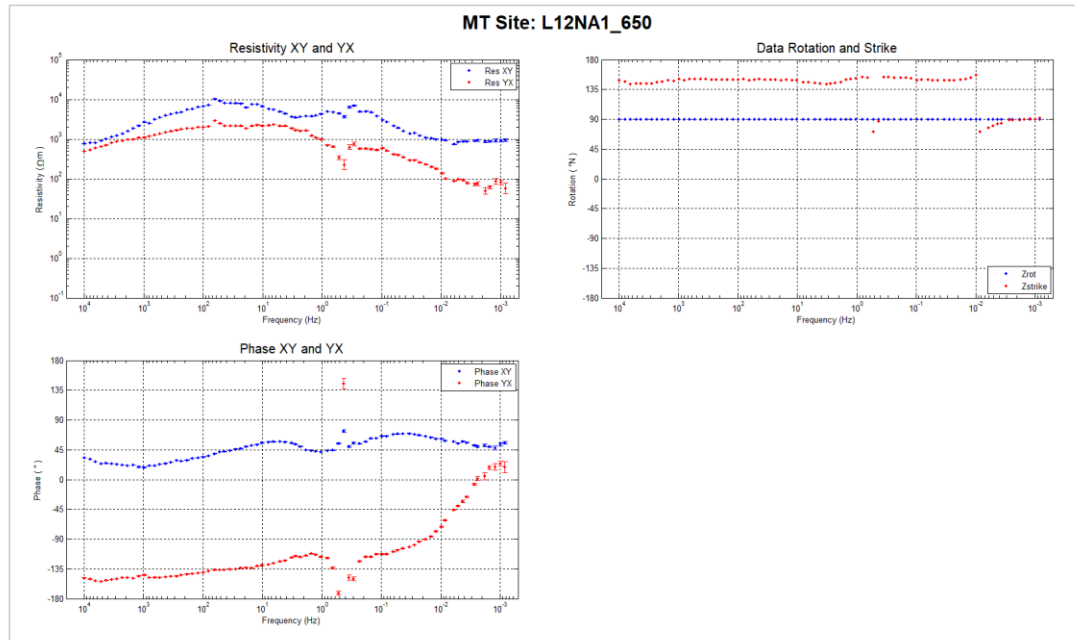


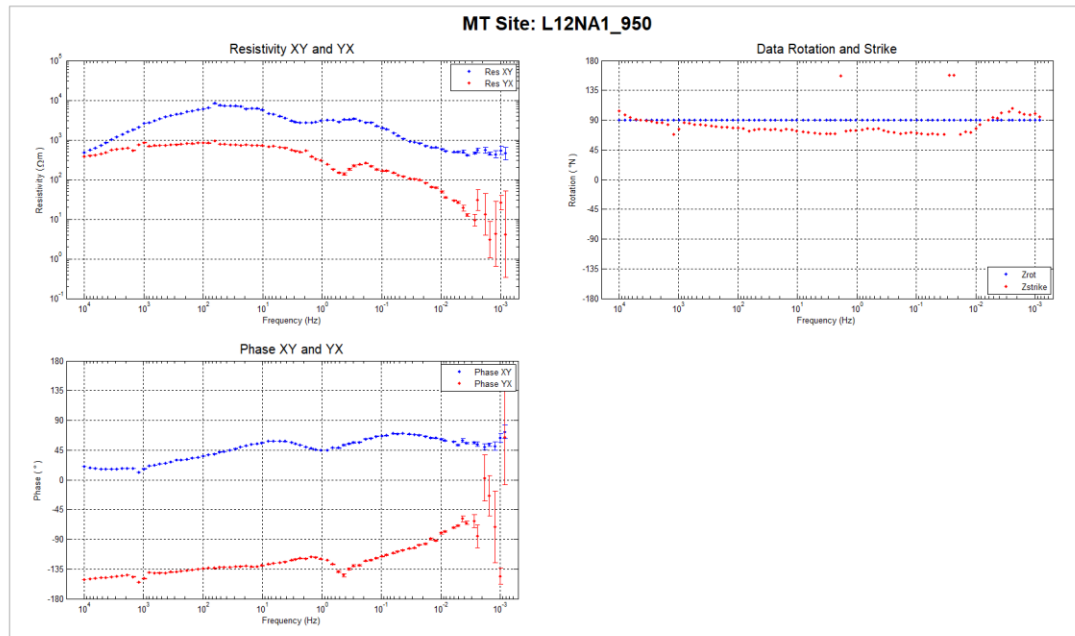
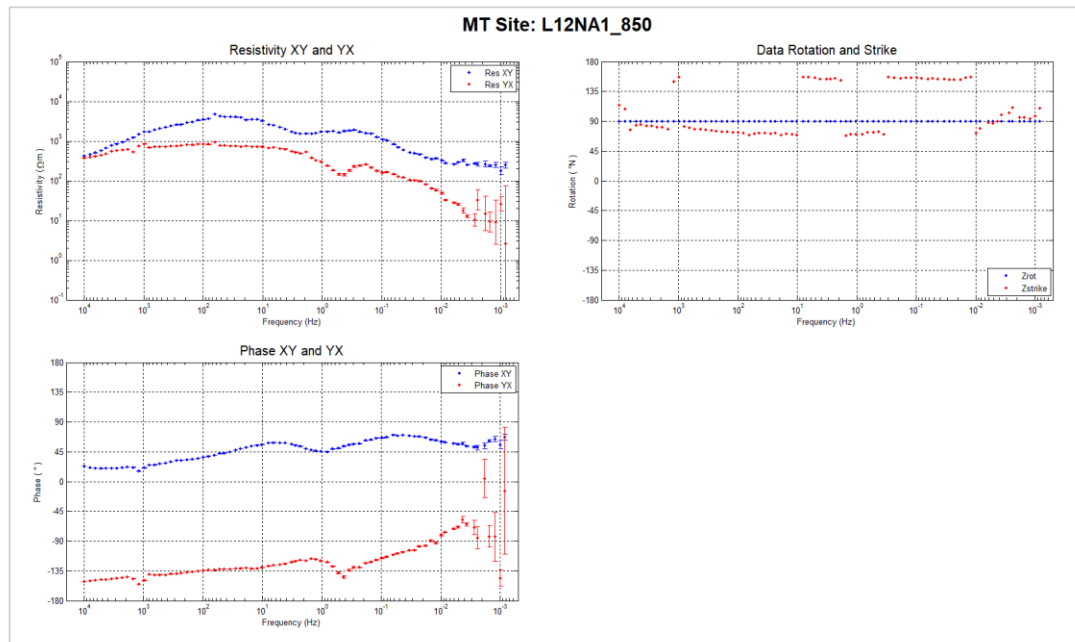
C.1.4. Line 1200N

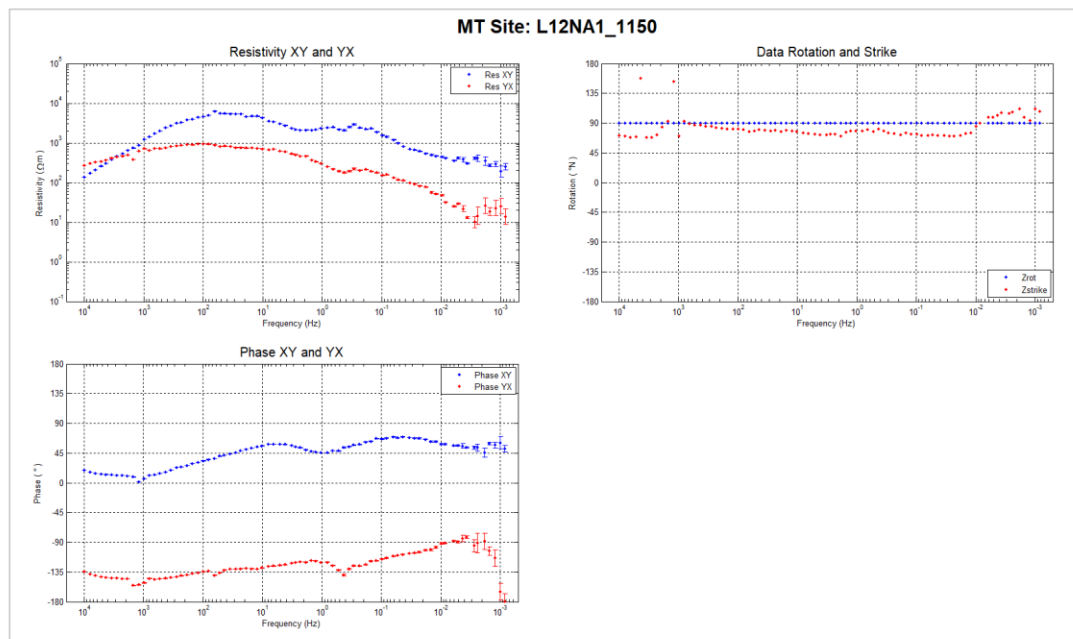
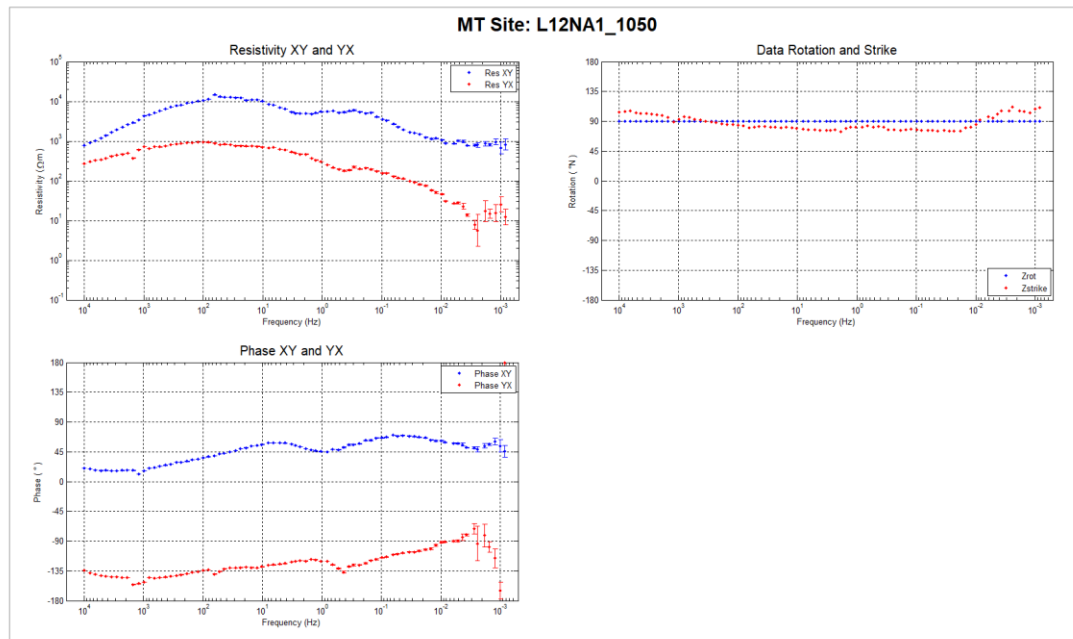


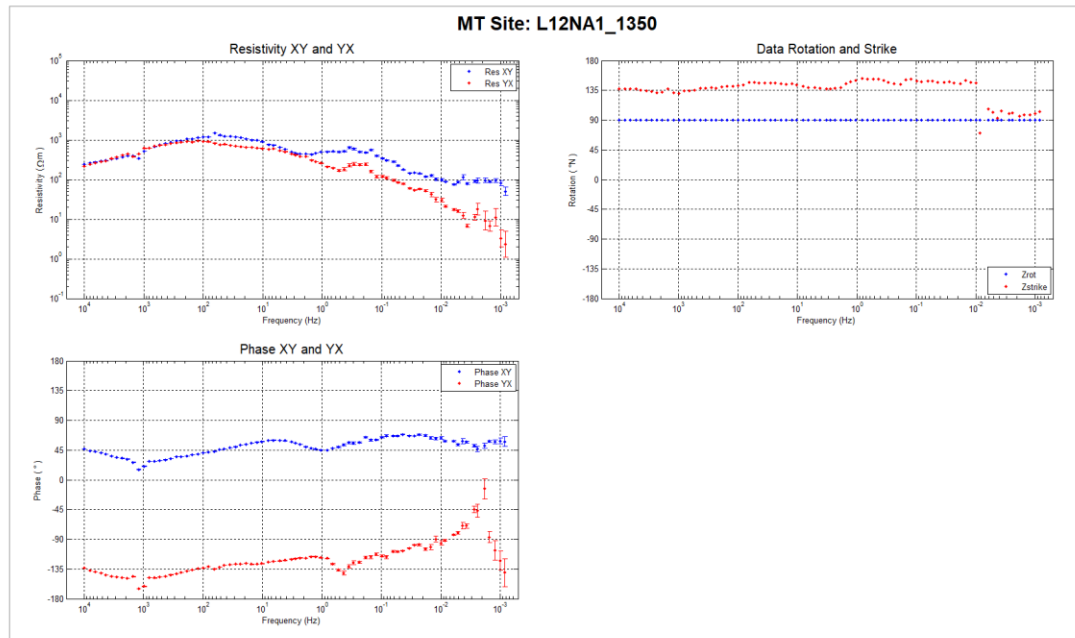
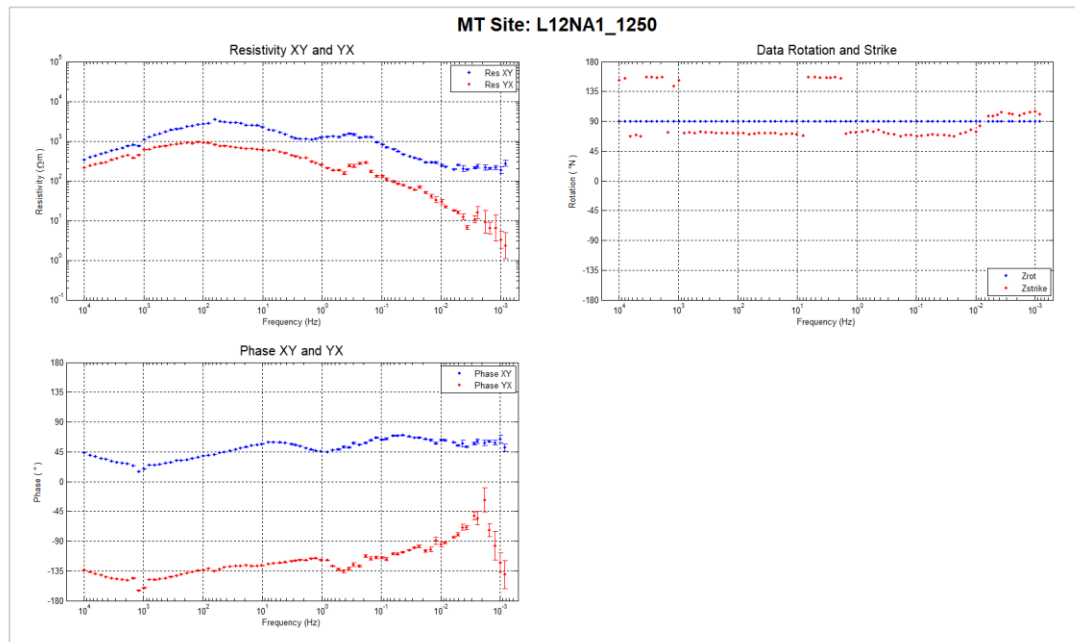


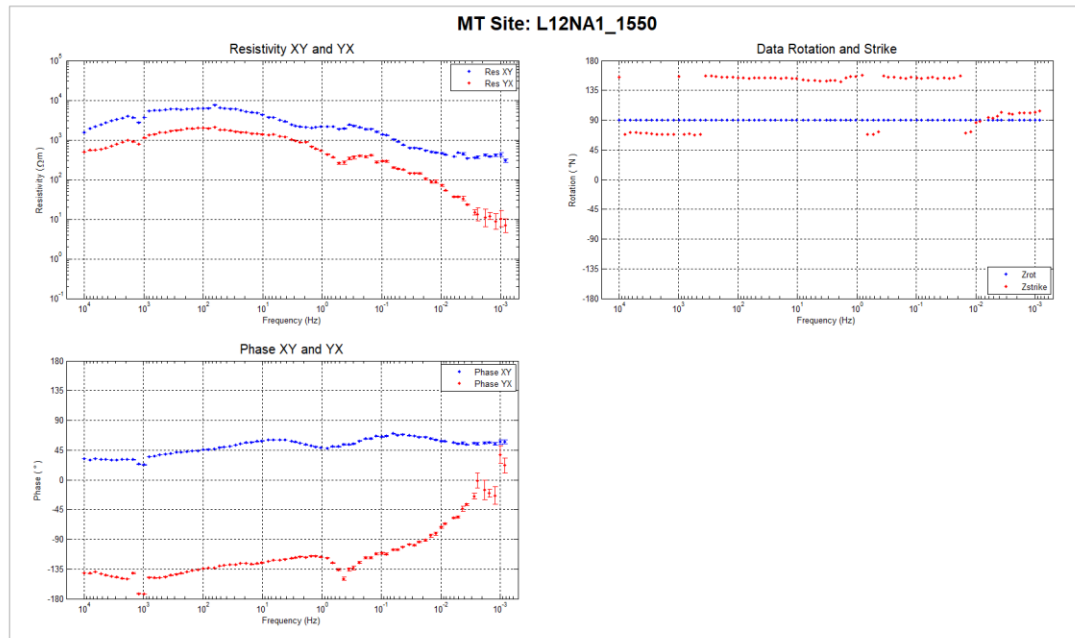
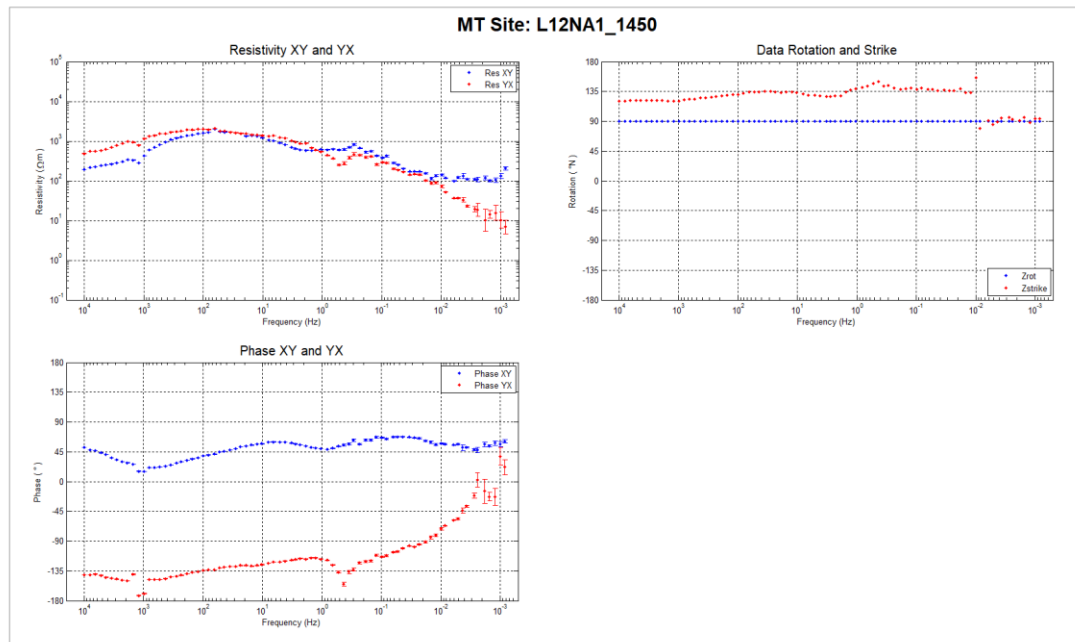


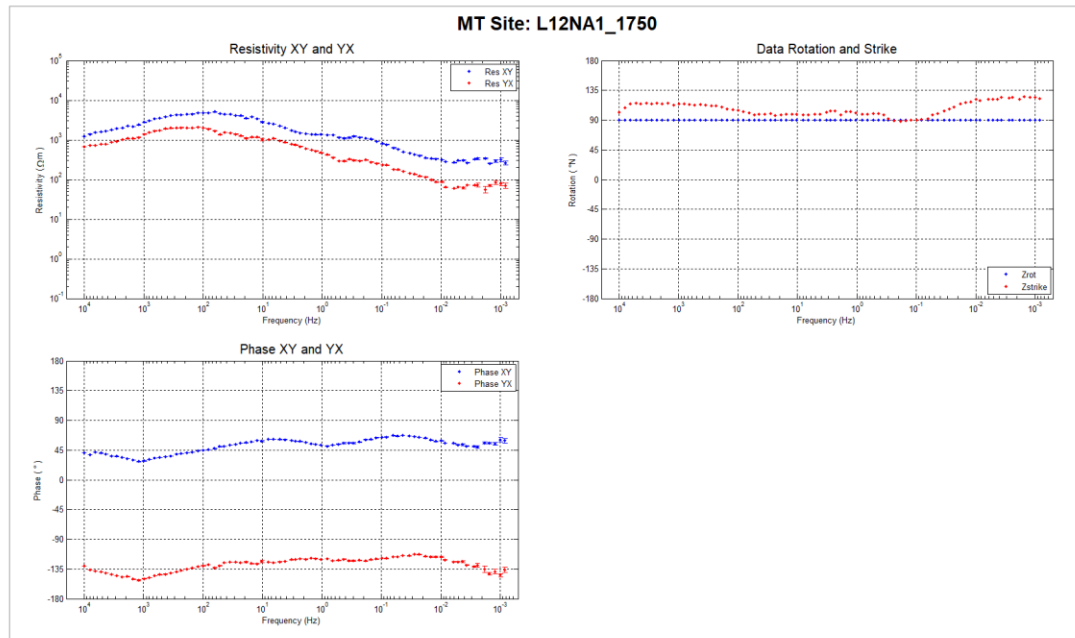
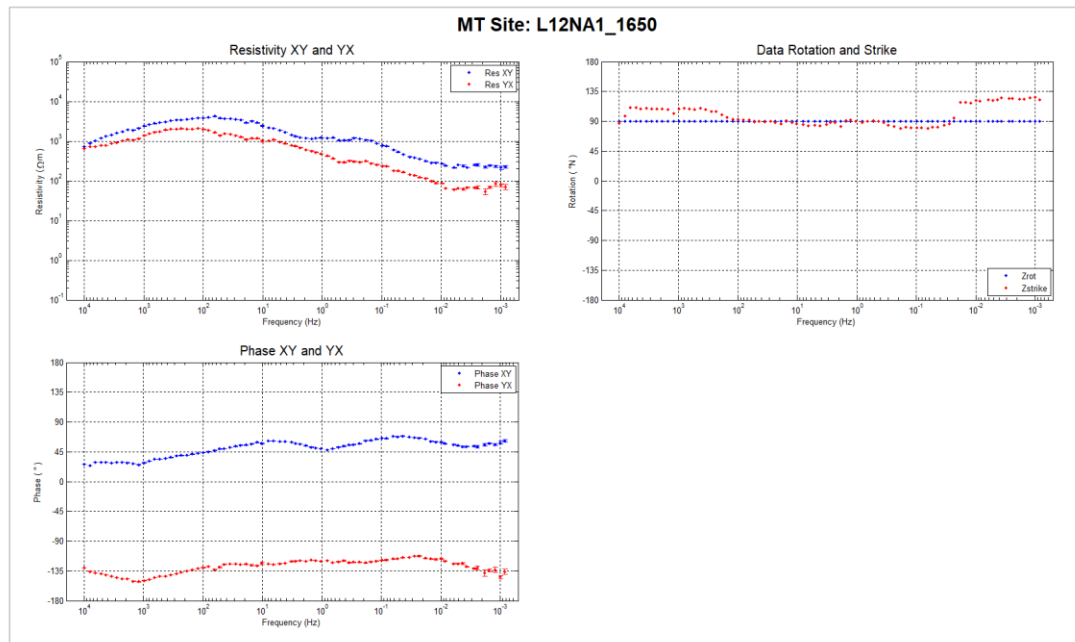


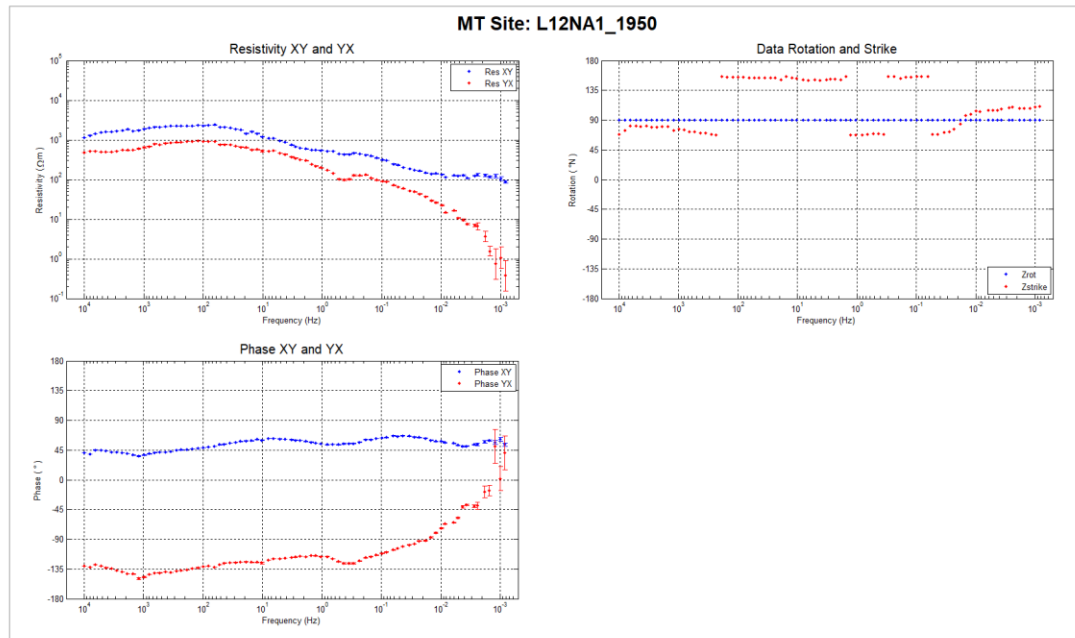
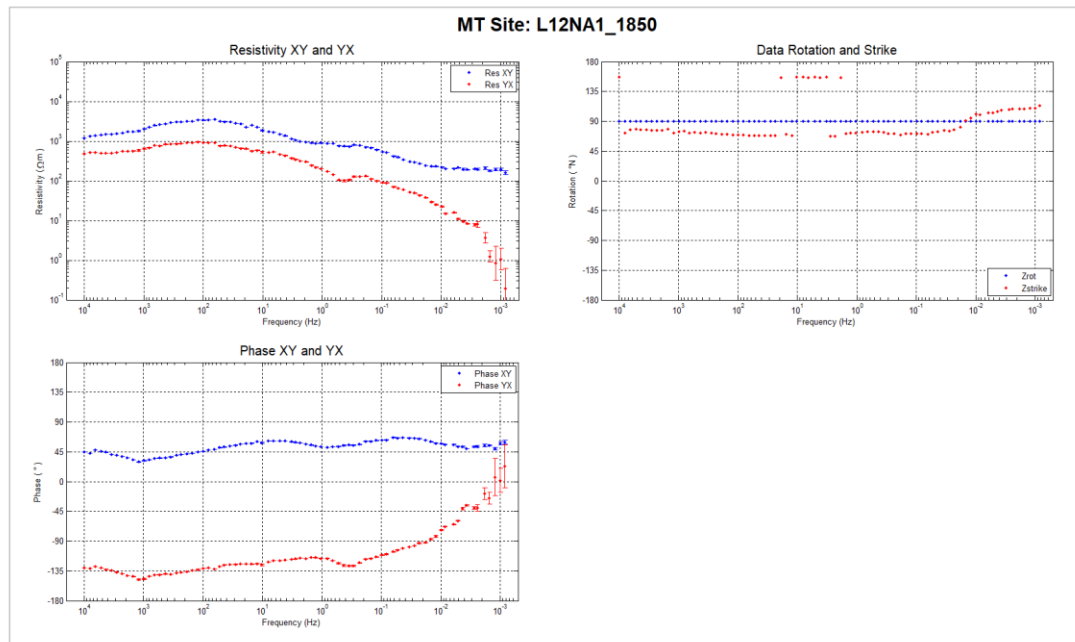


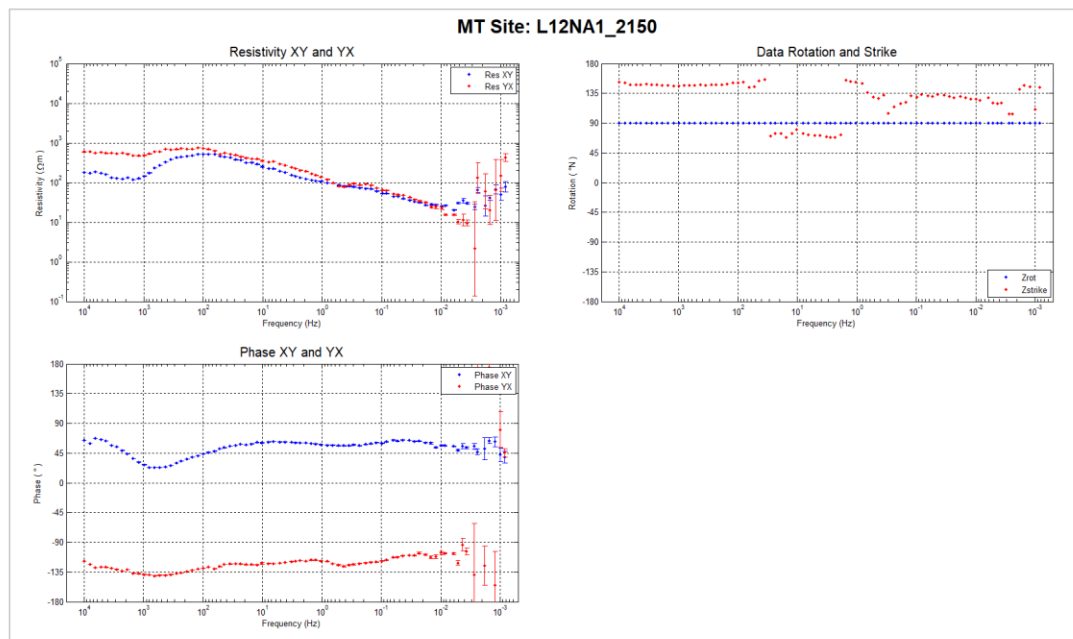
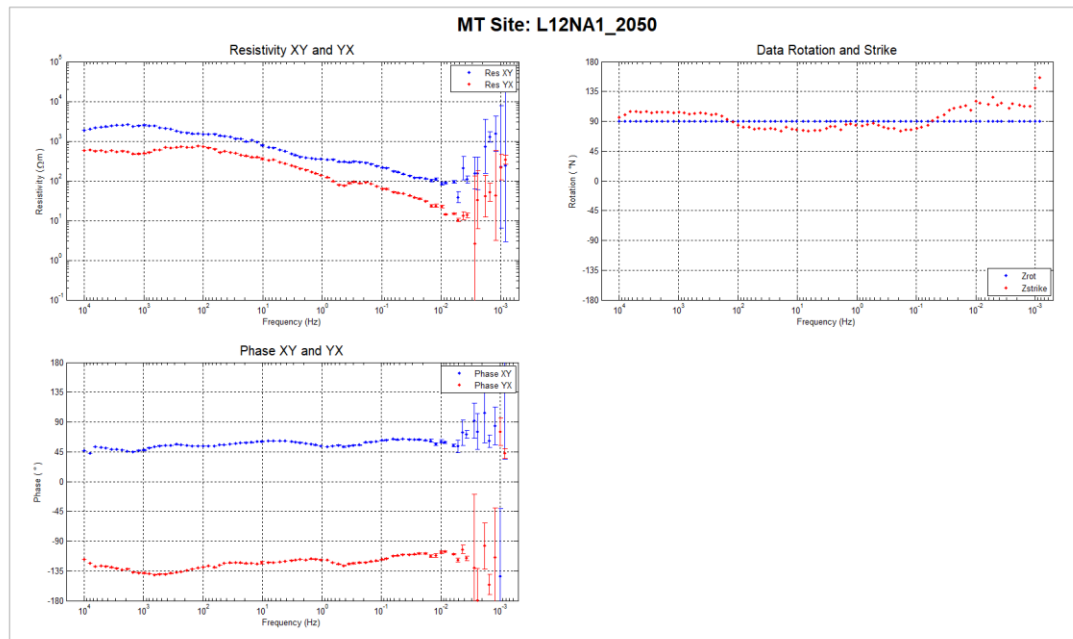


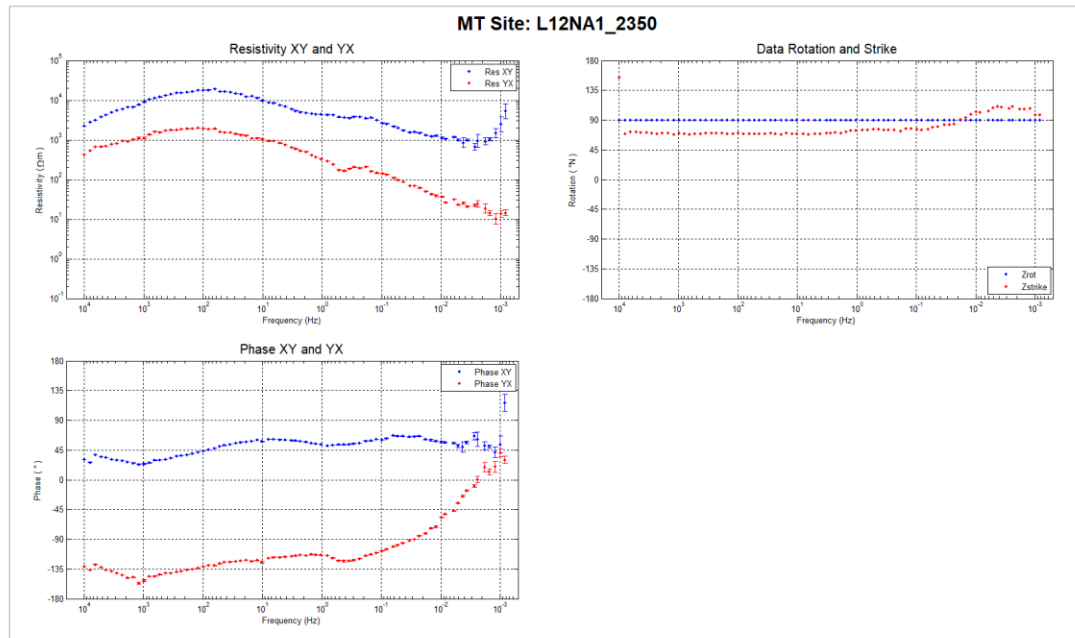
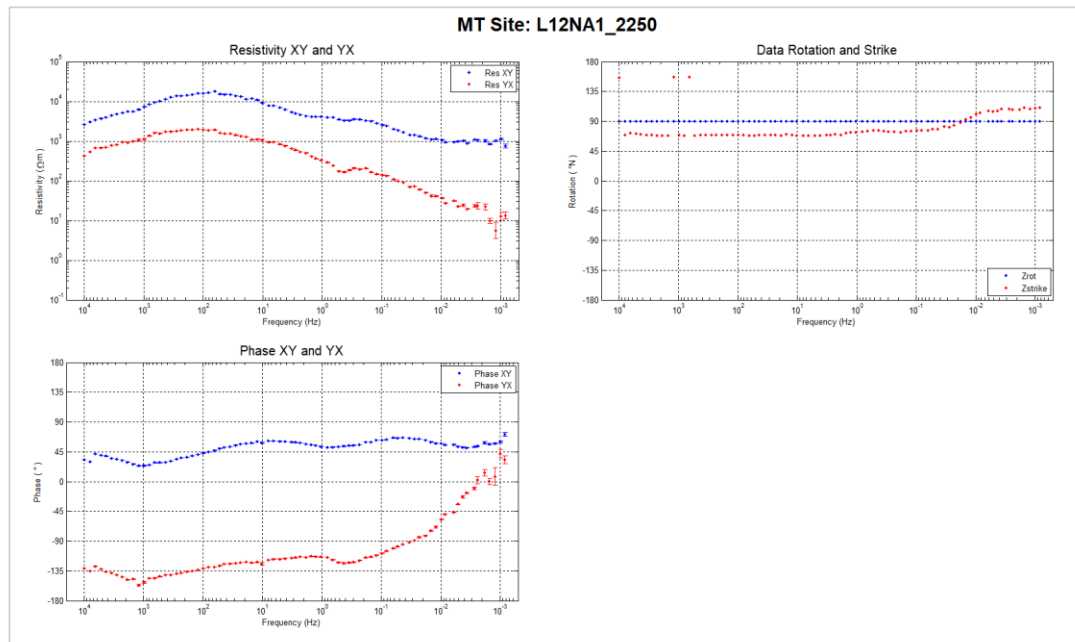




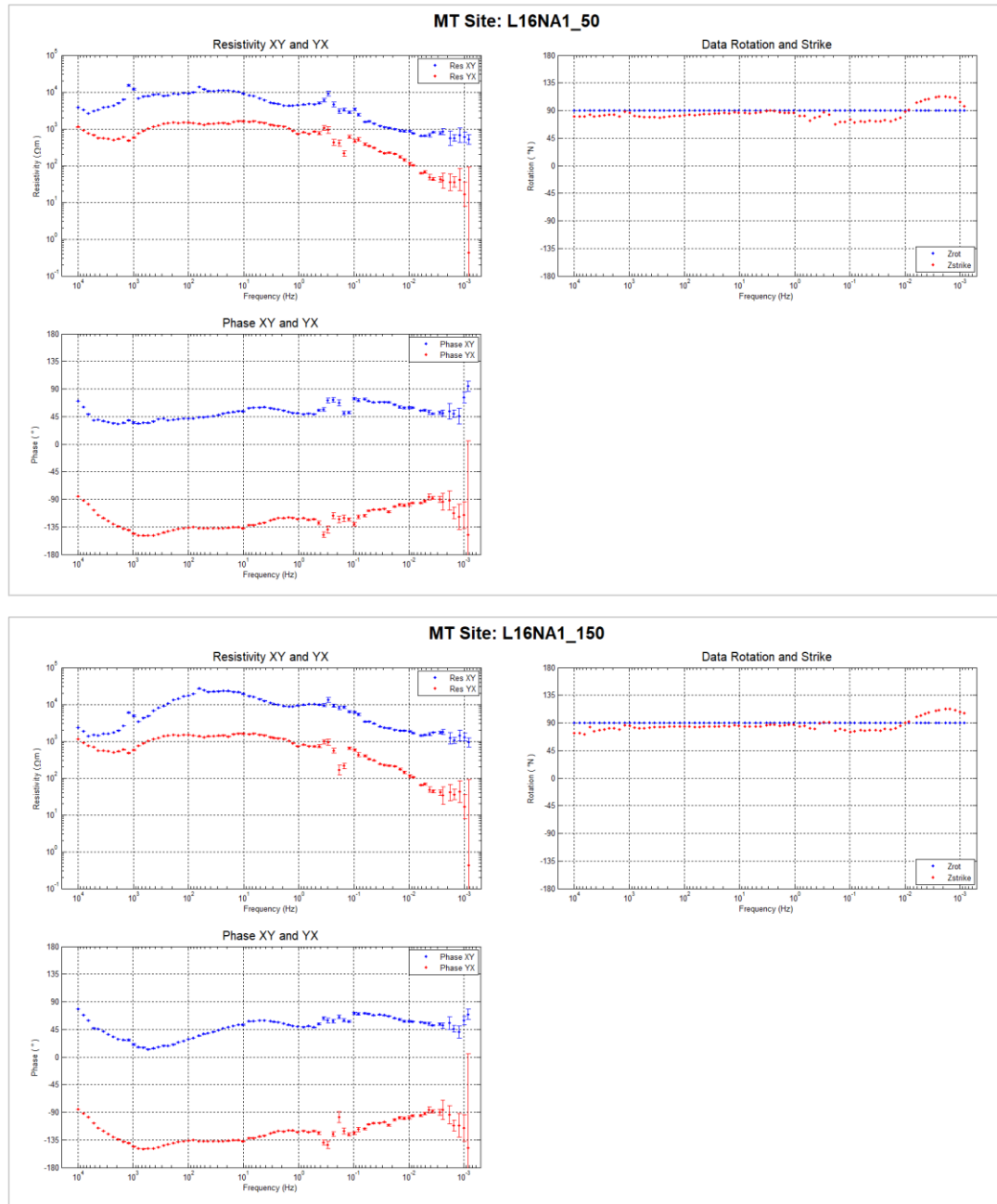


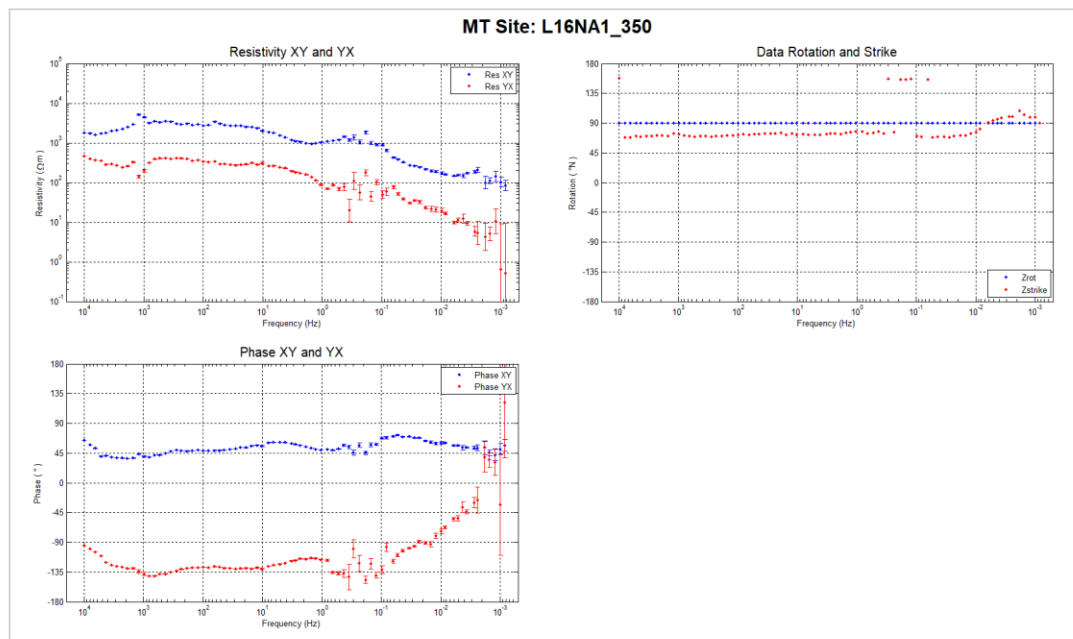
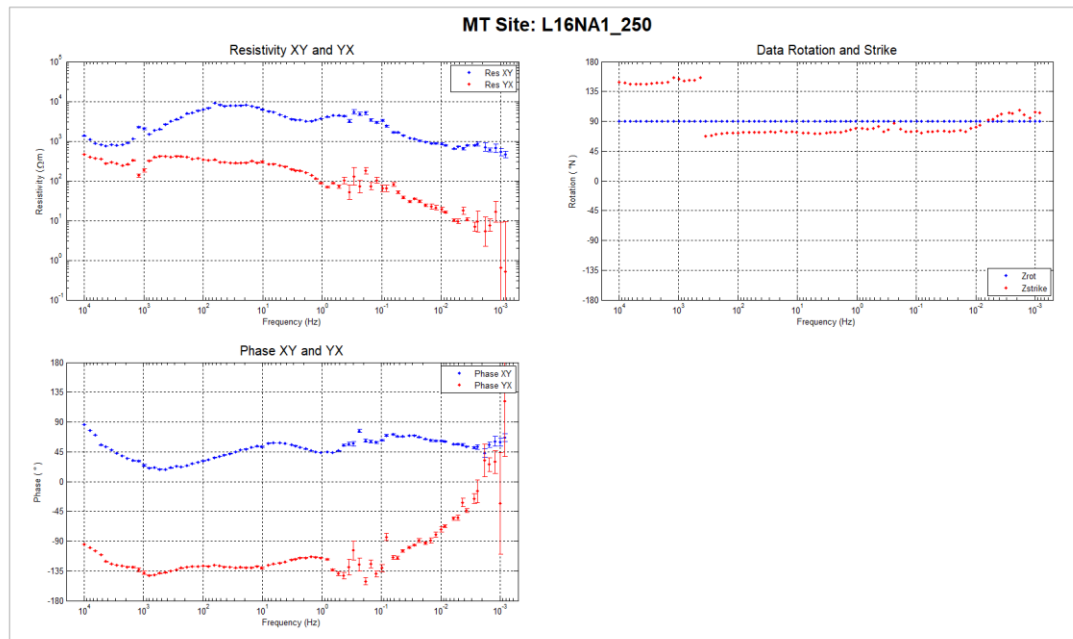


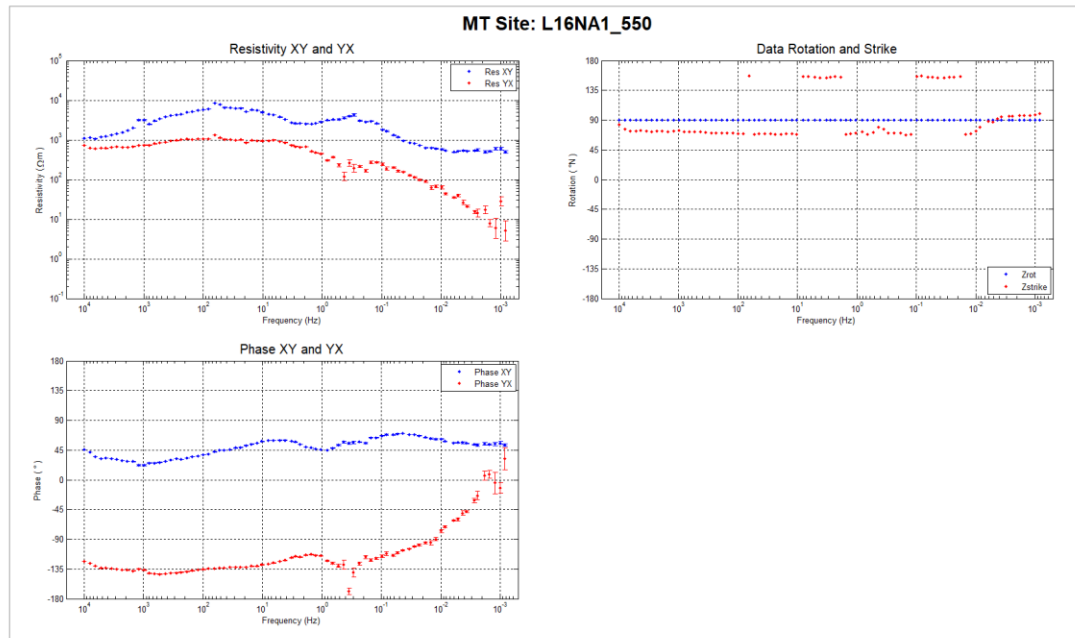
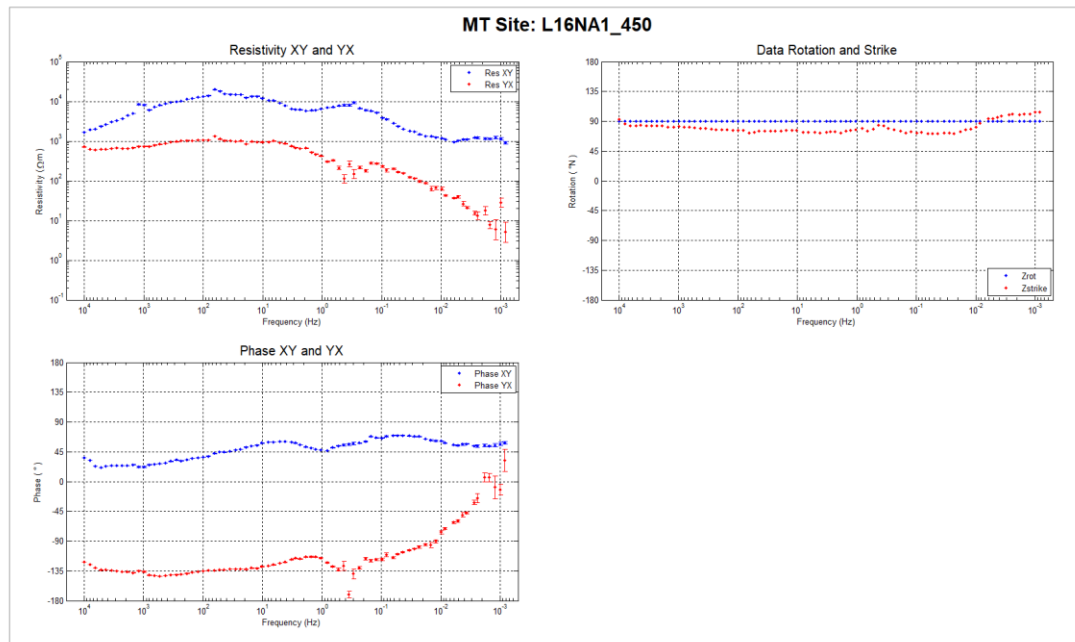


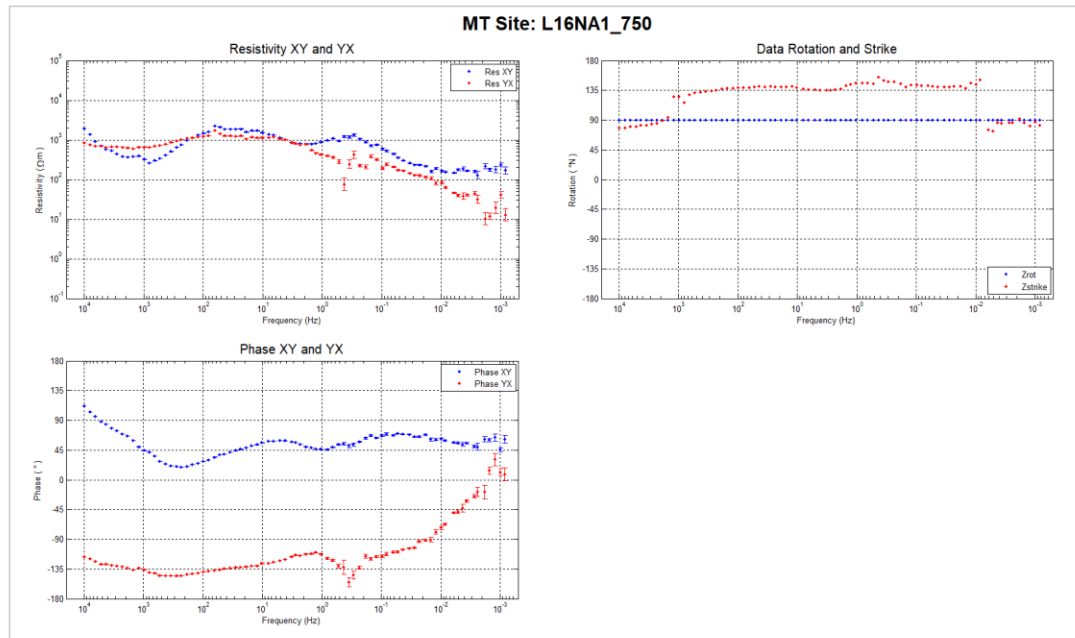
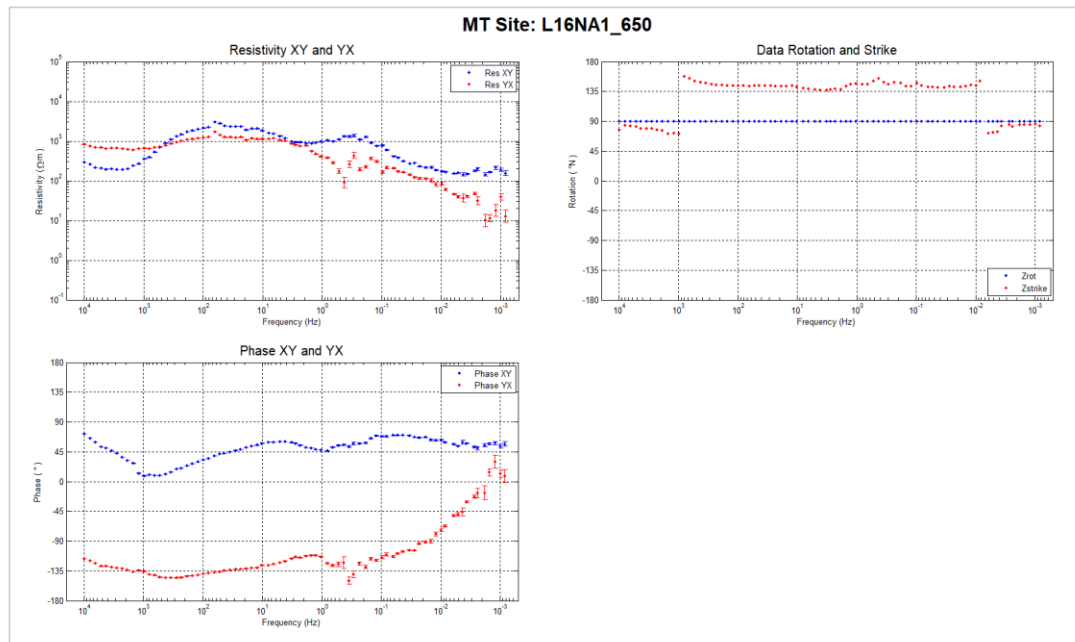


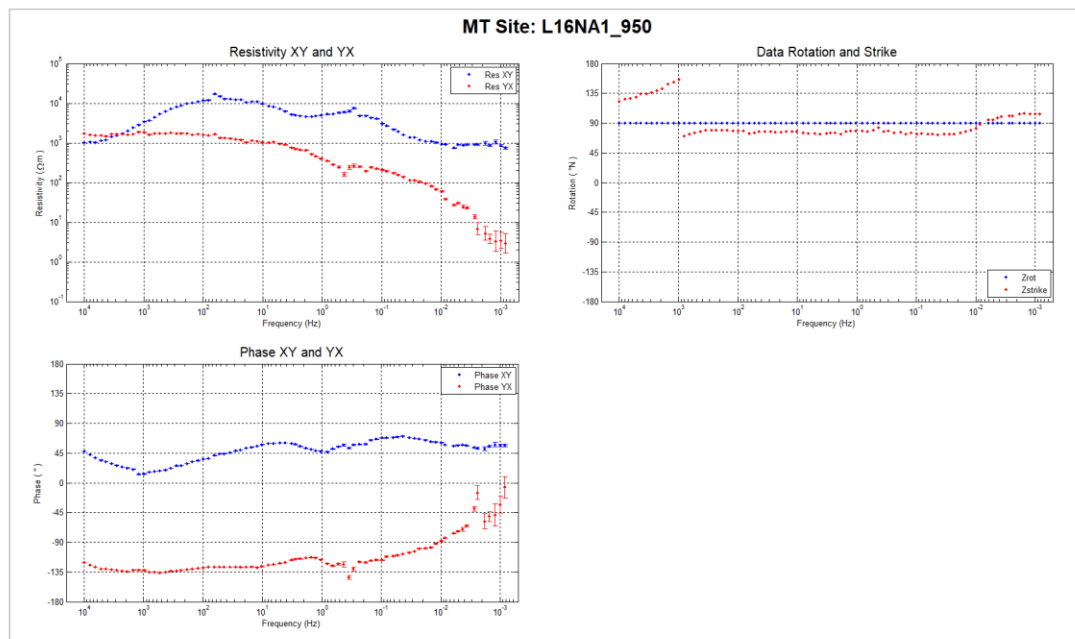
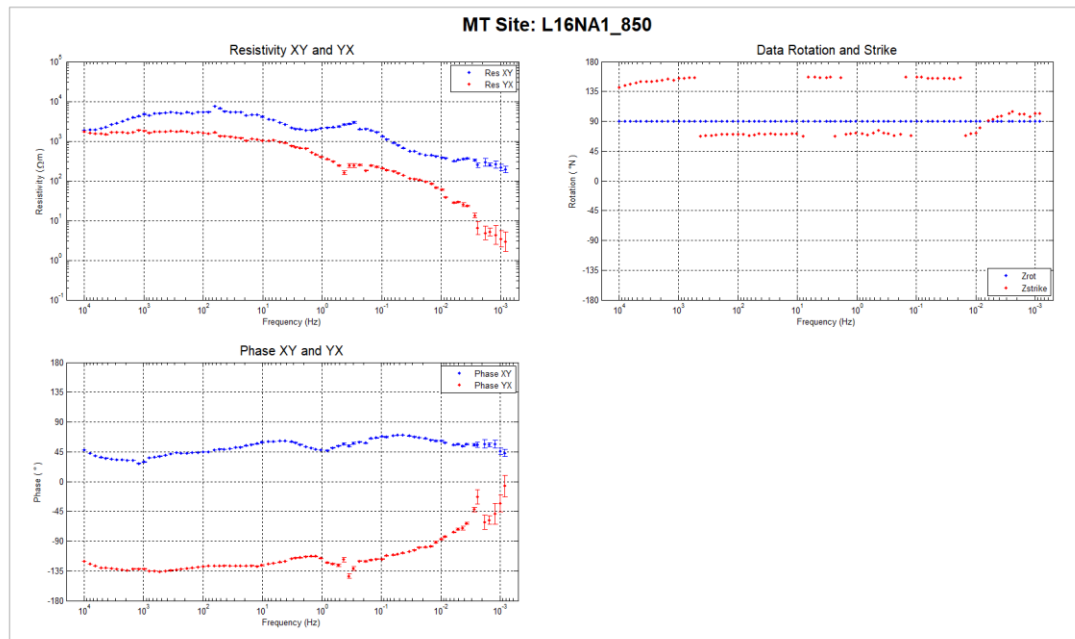
C.1.5. Line 1600N

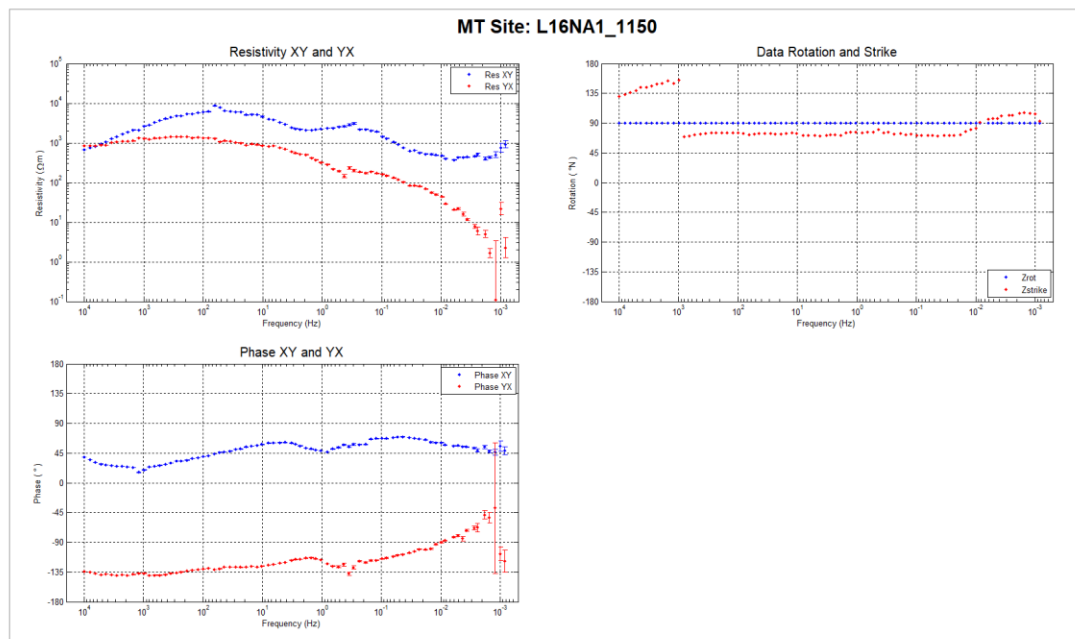
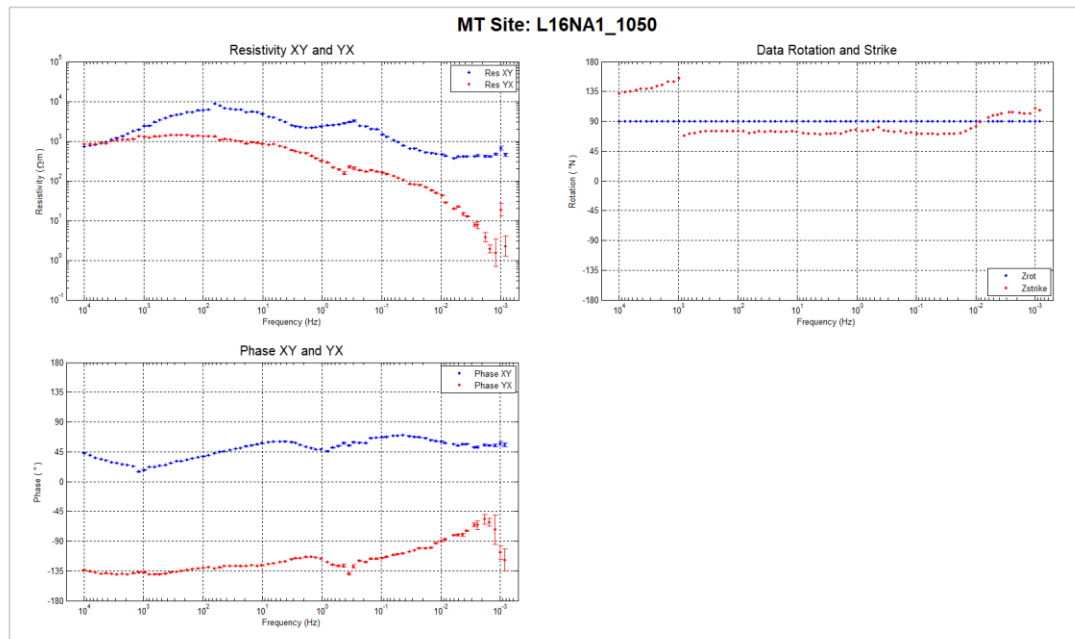


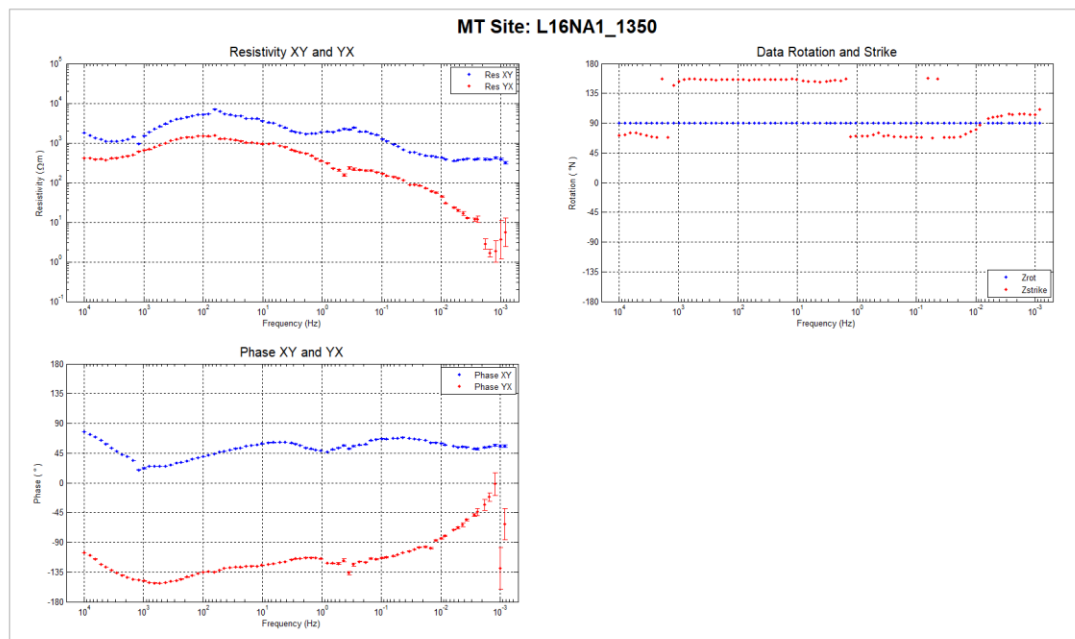
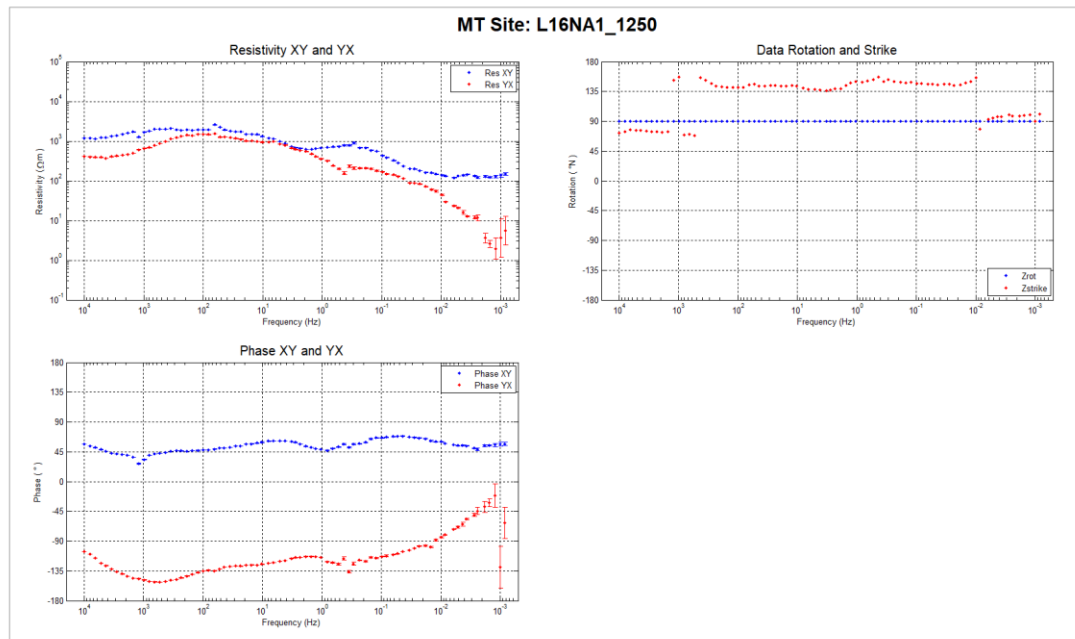


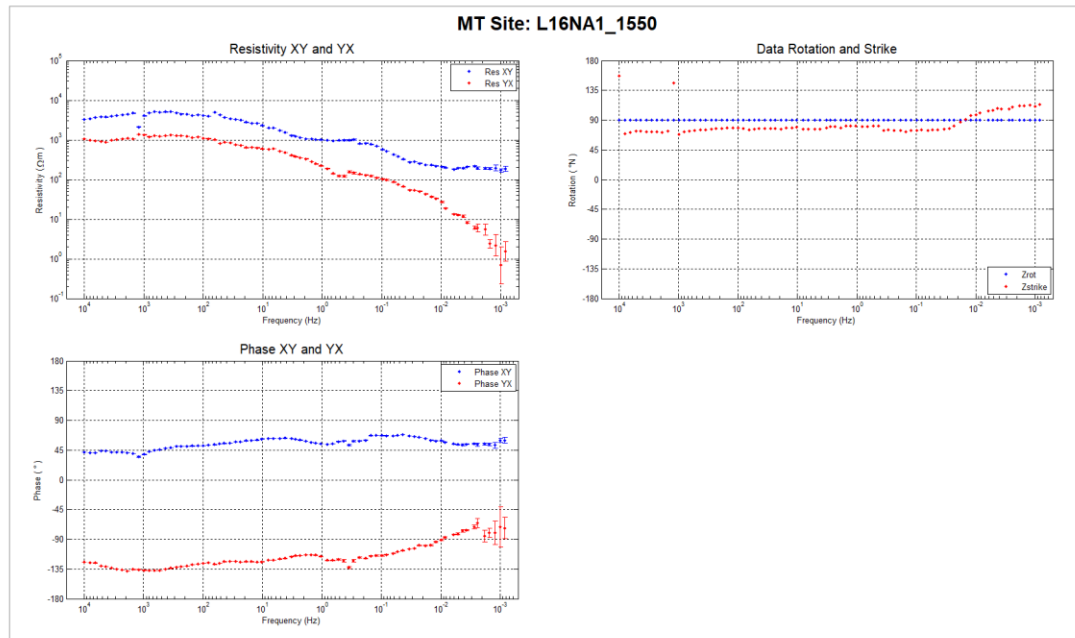
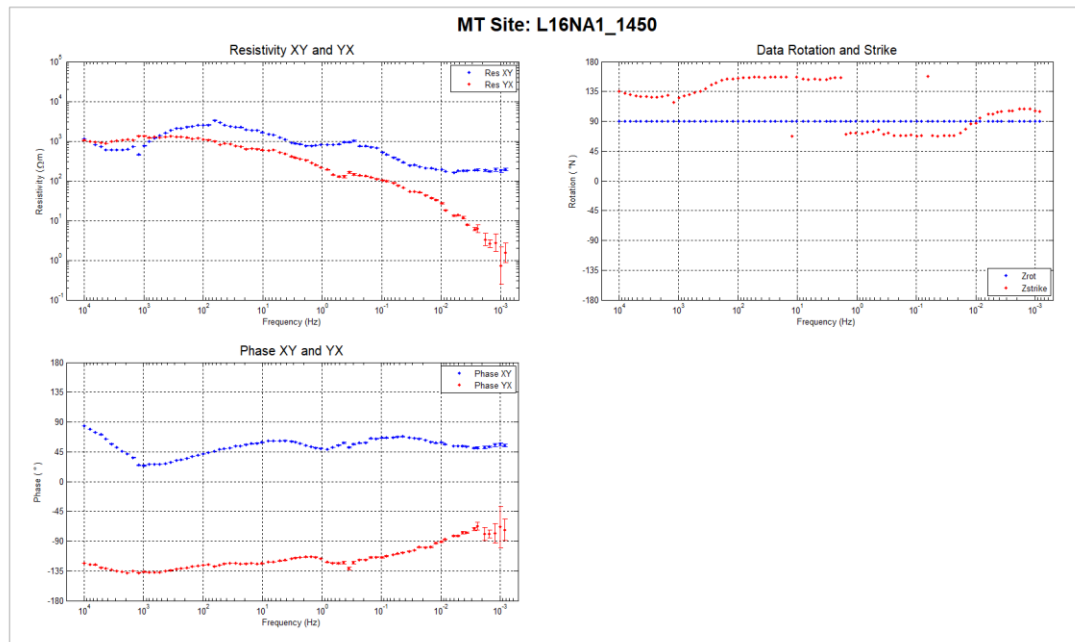


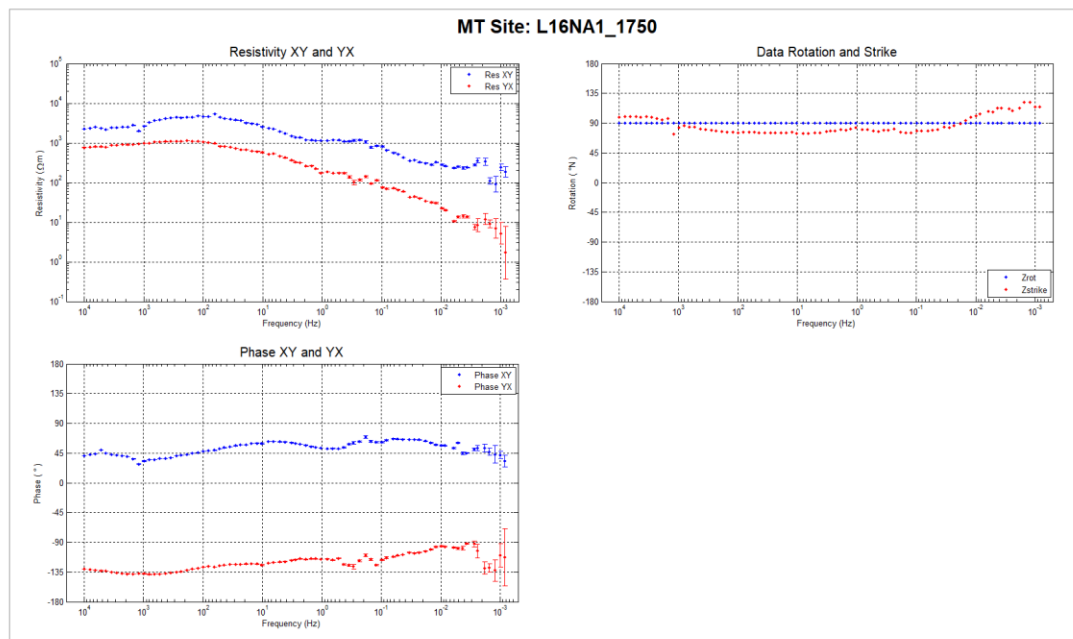
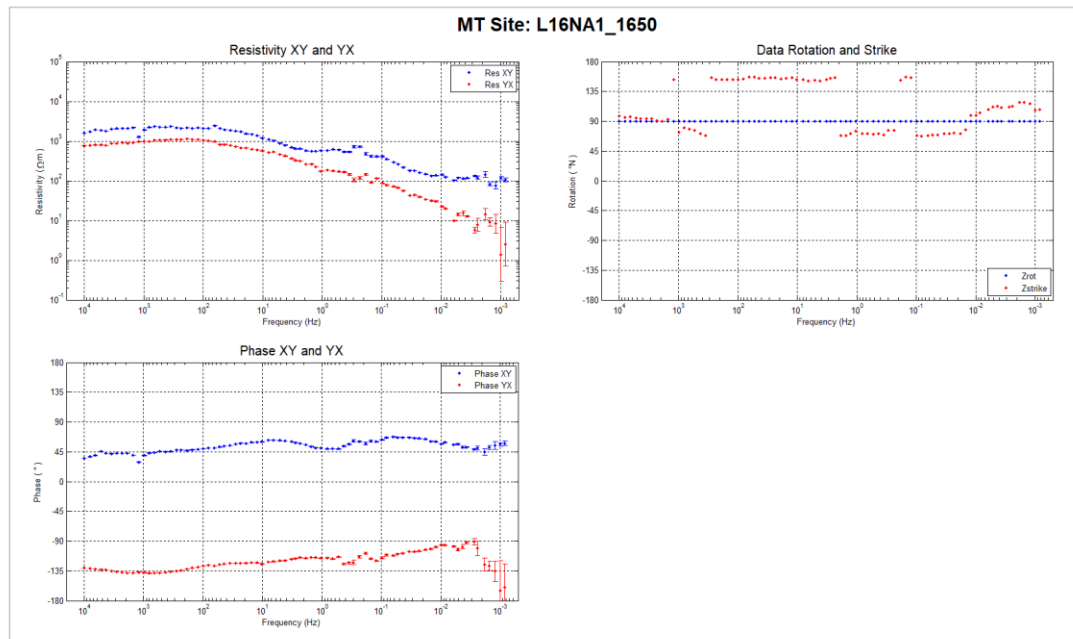


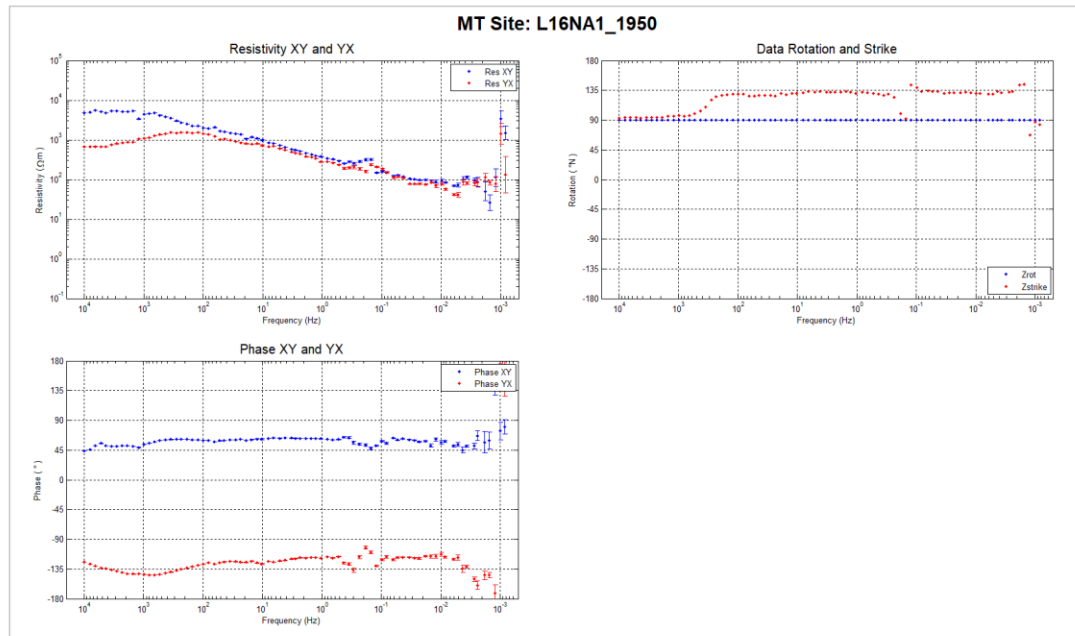
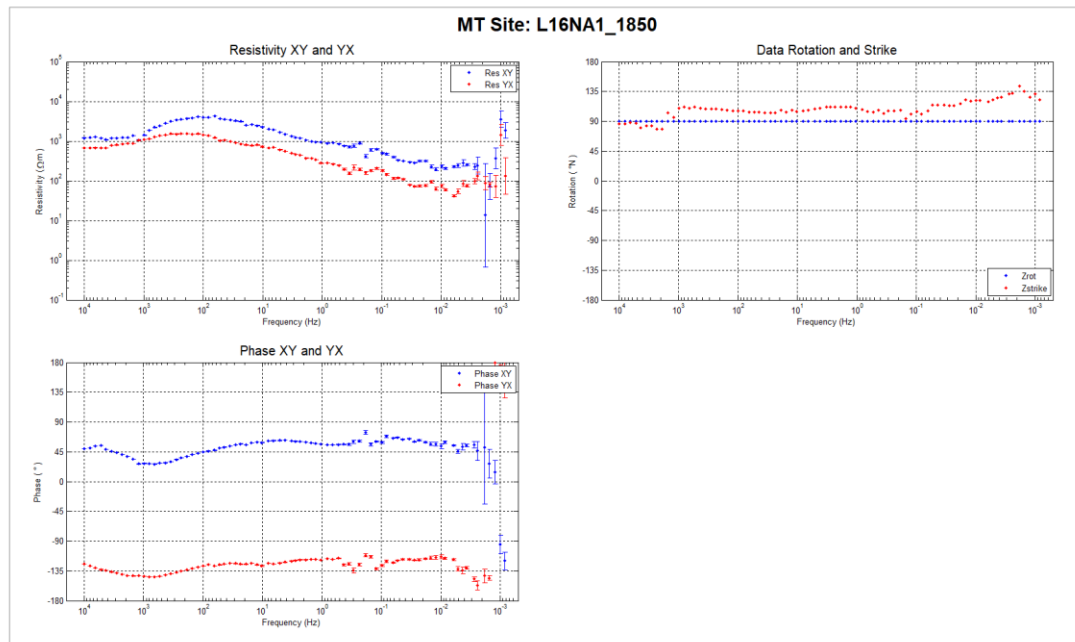


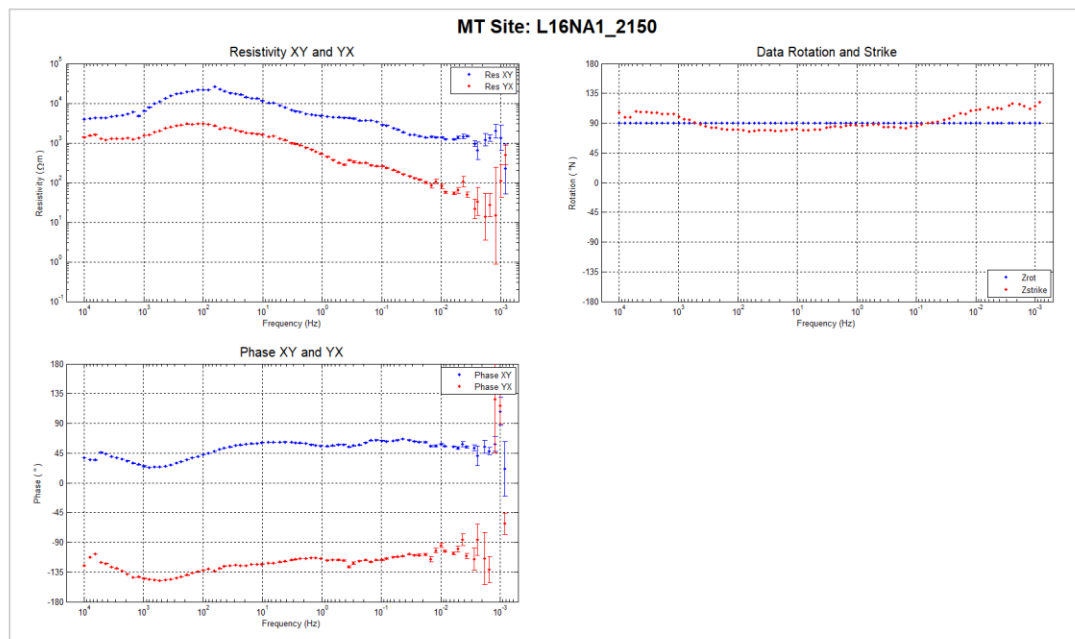
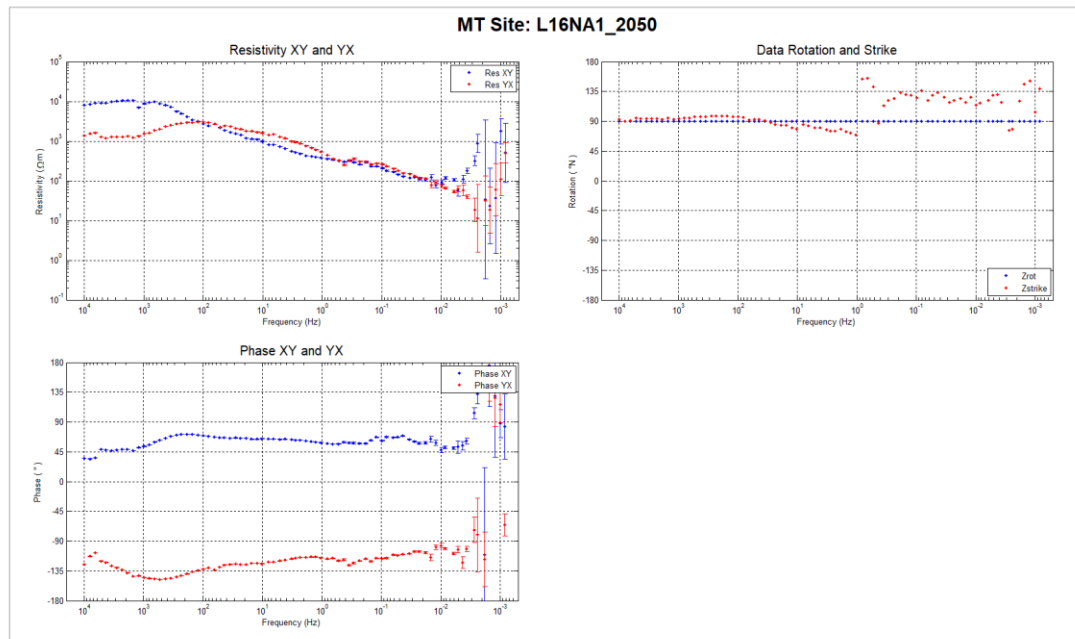


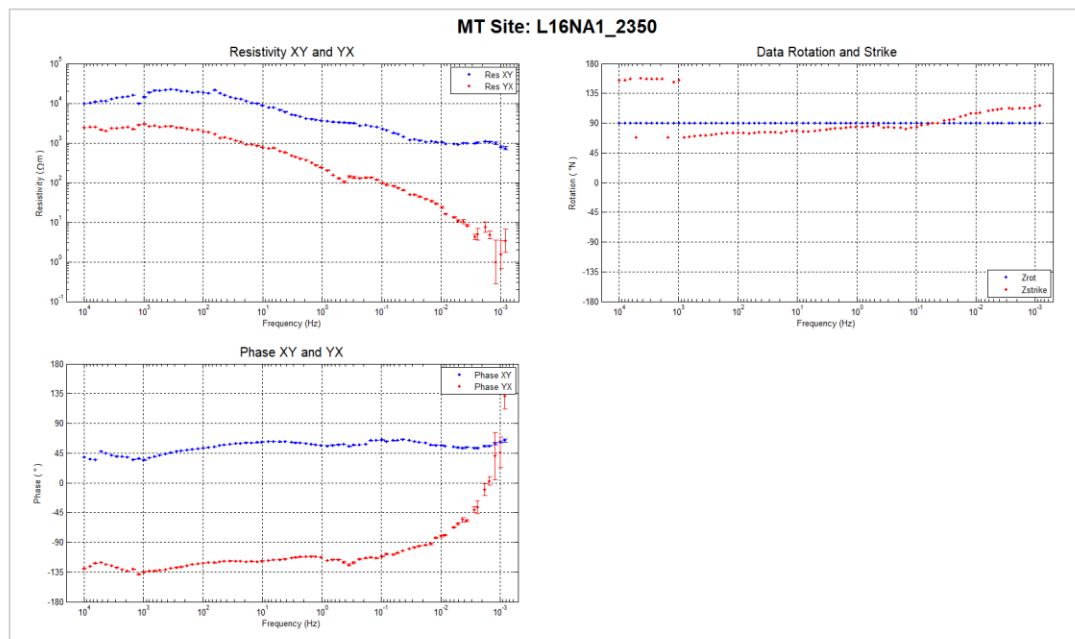
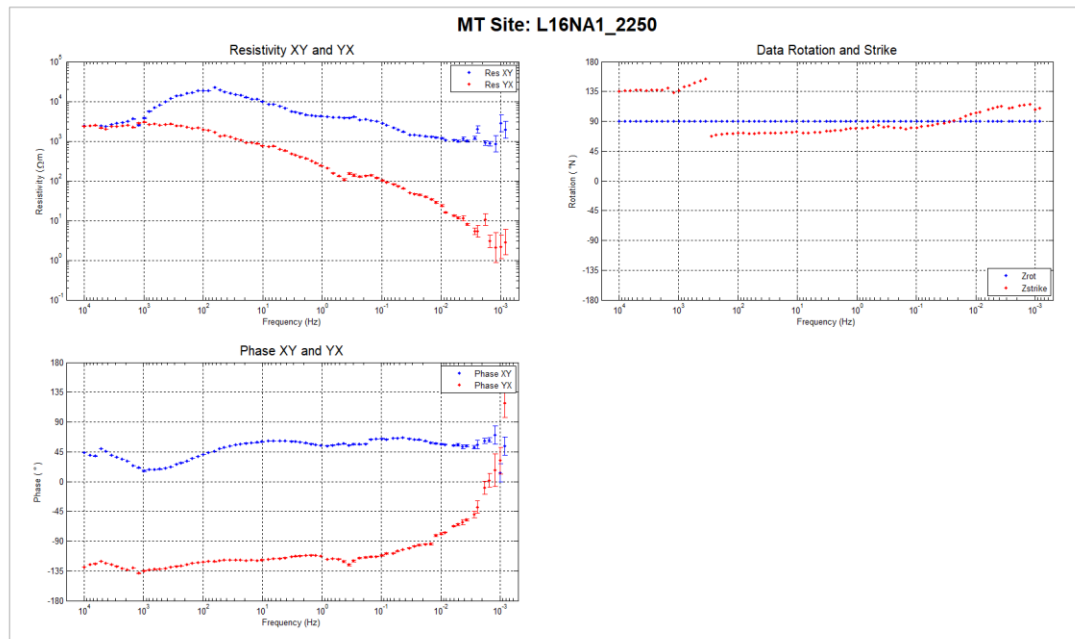




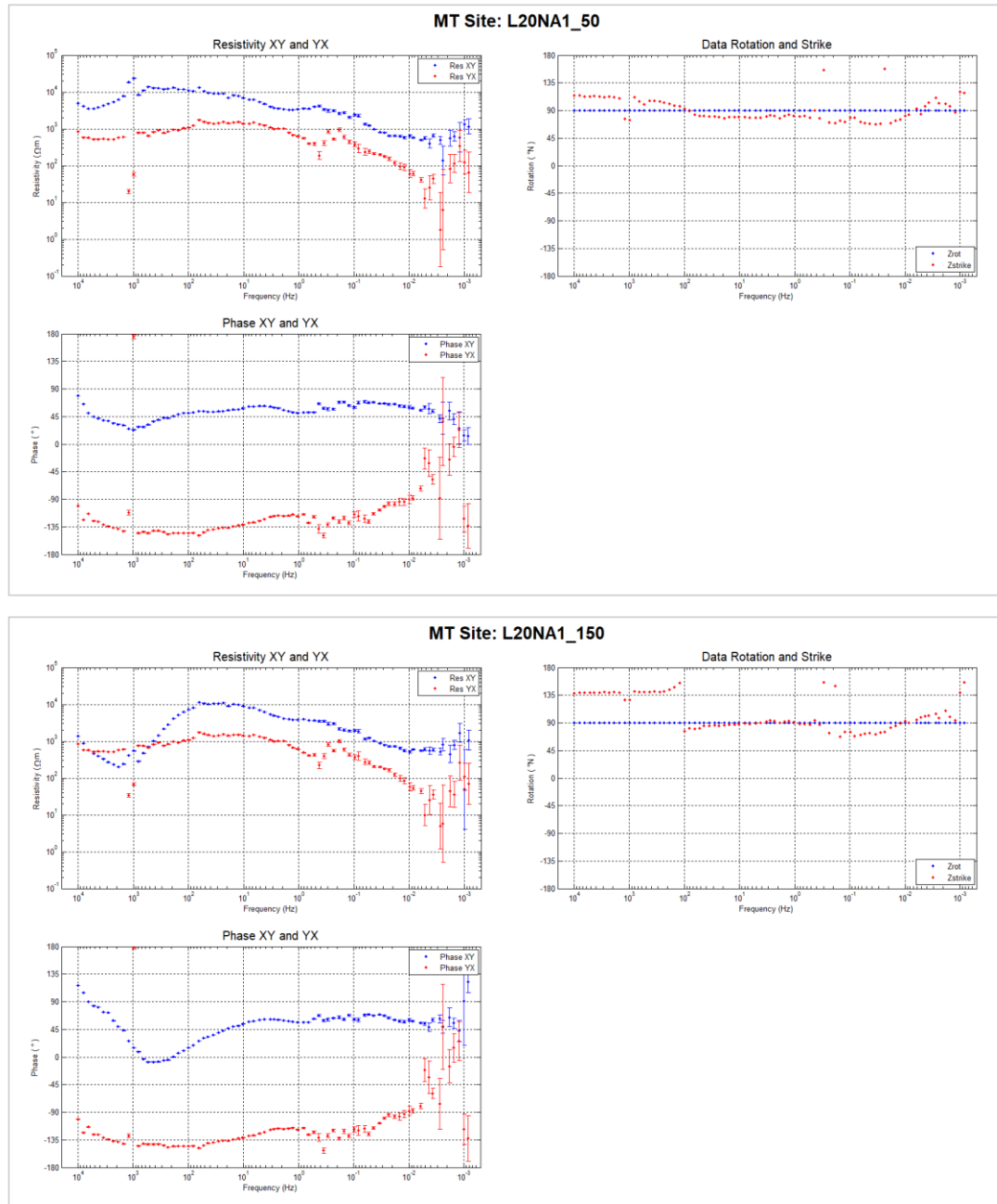


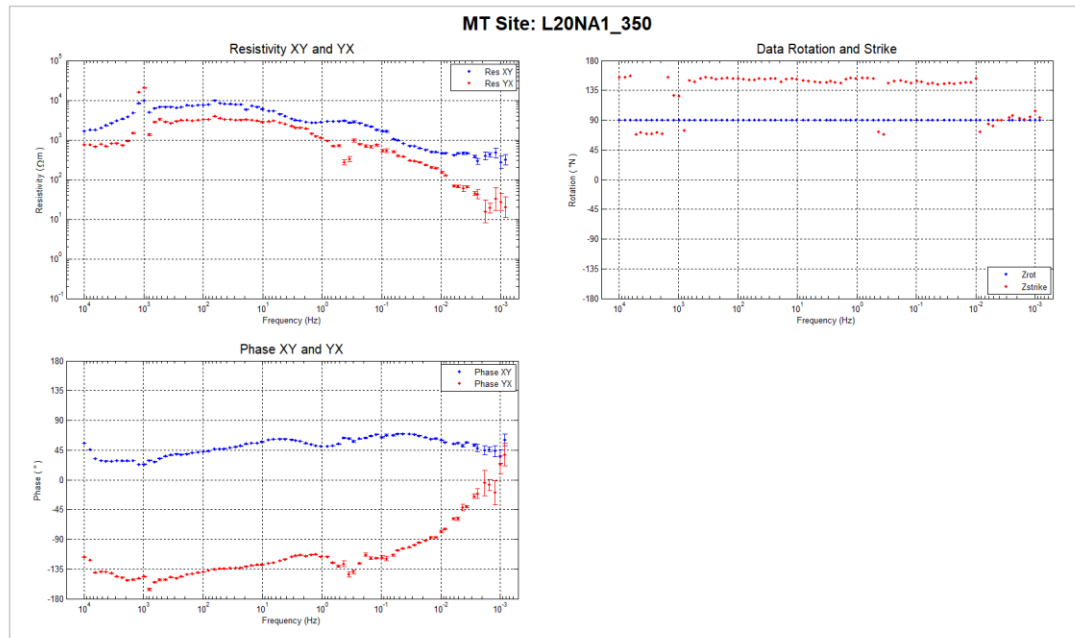
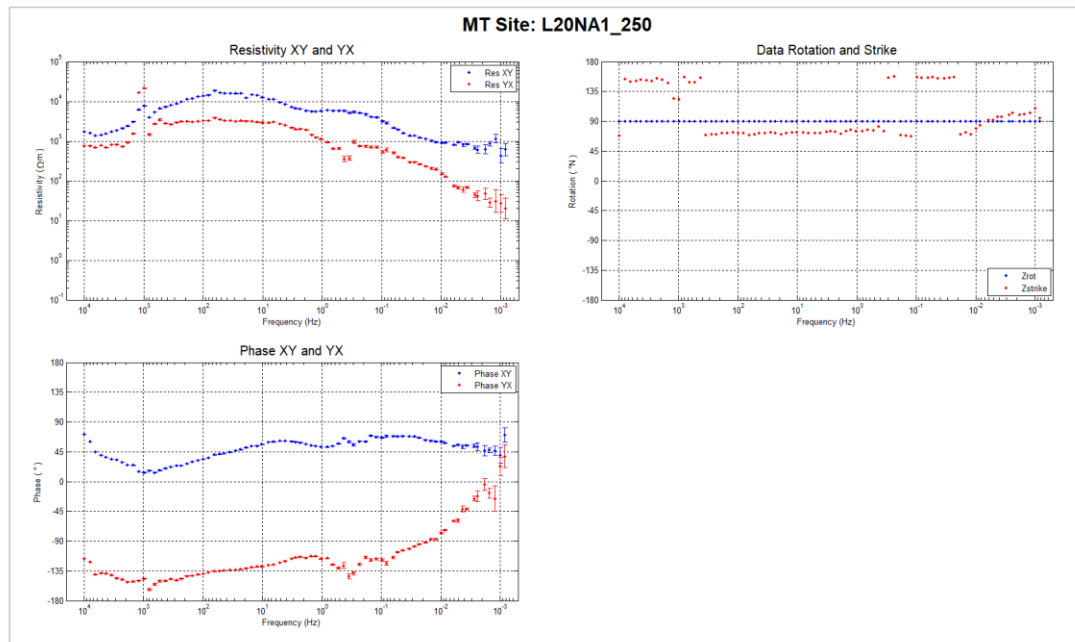


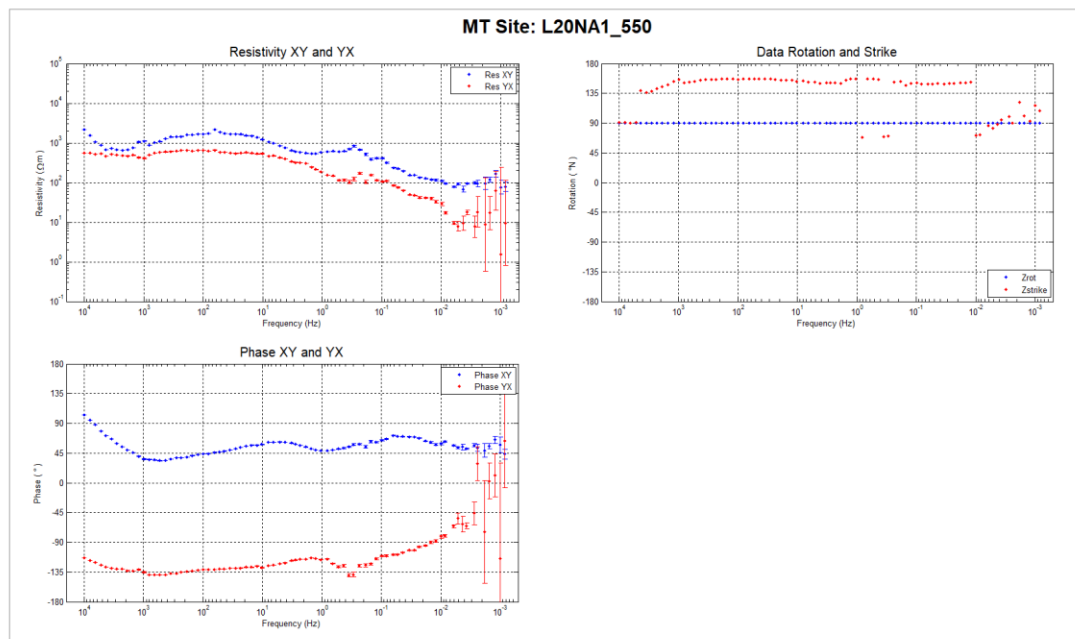
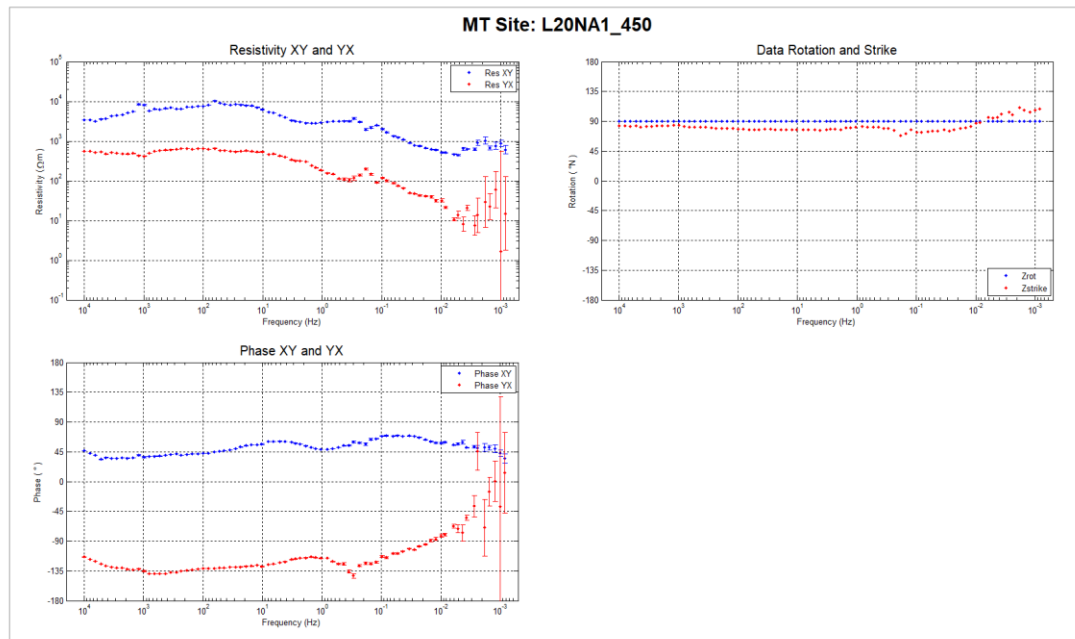


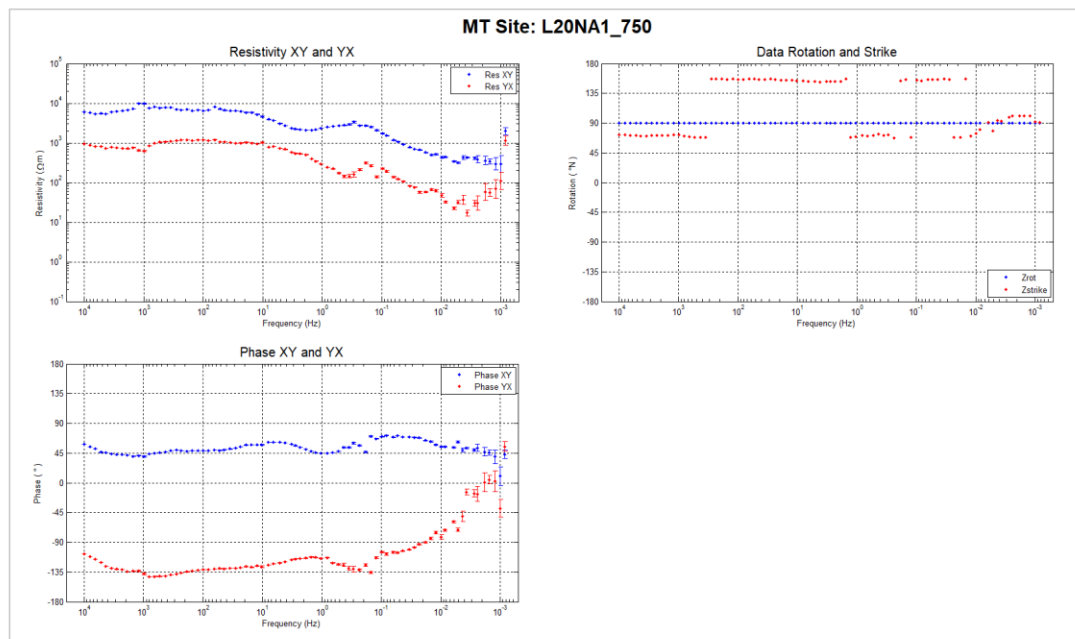
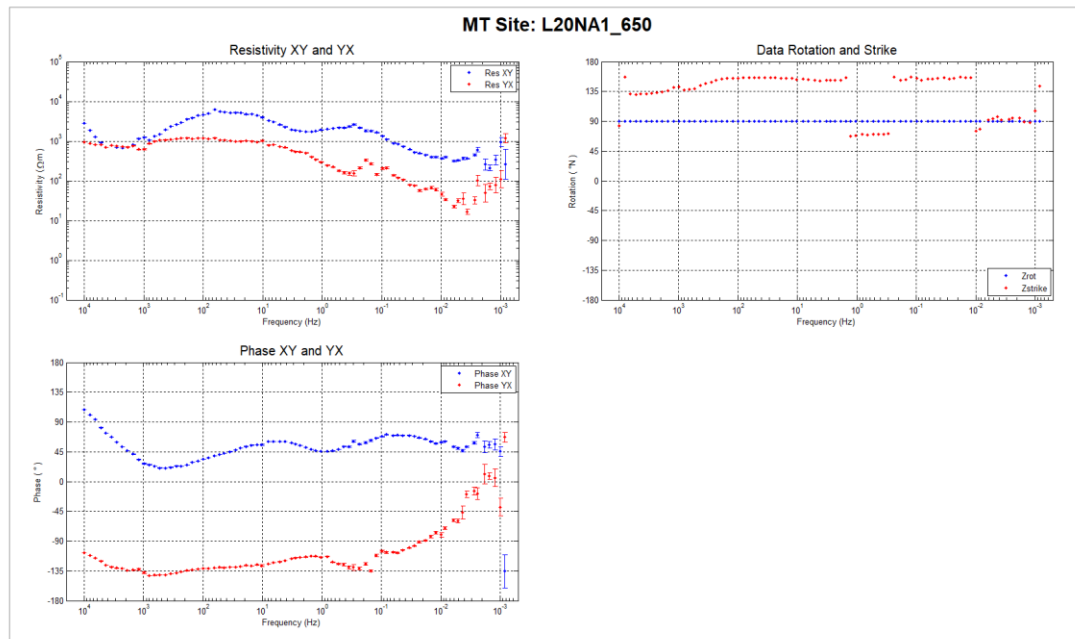


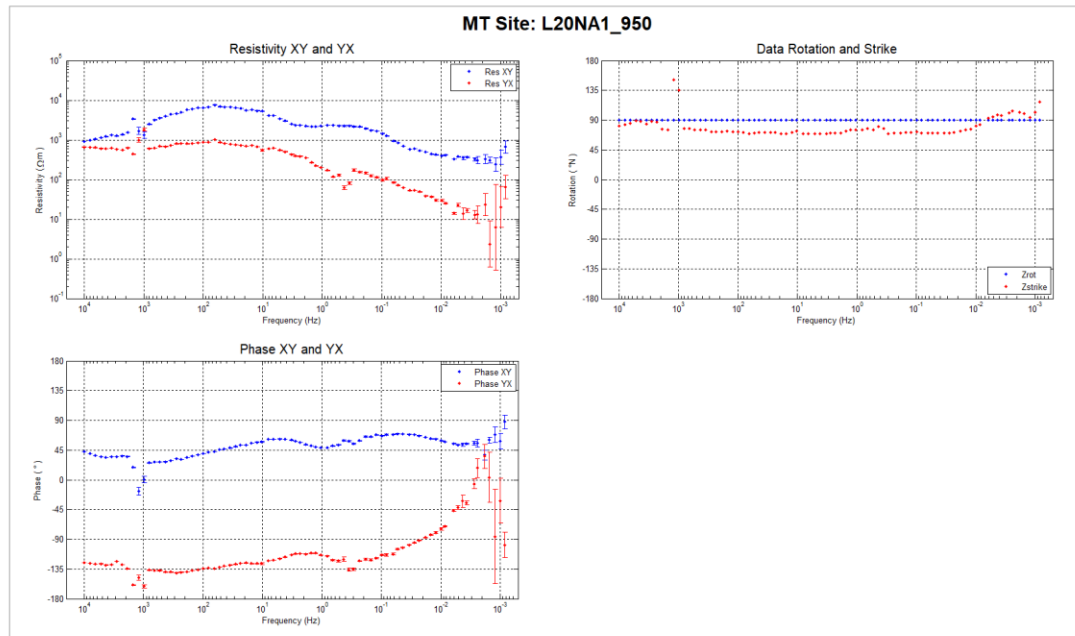
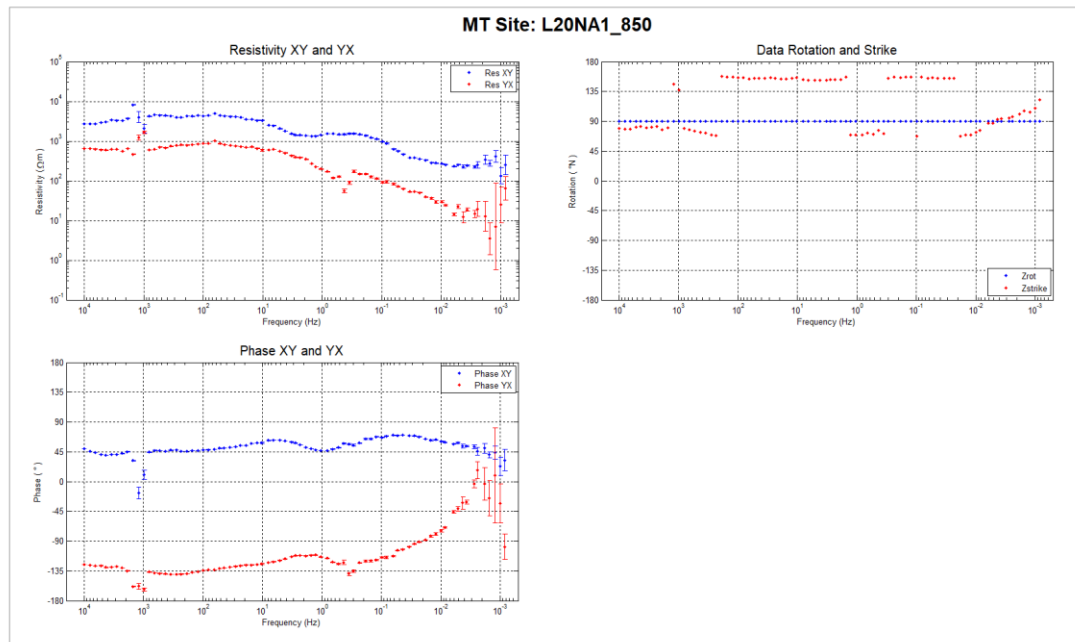
C.1.6. Line 2000N

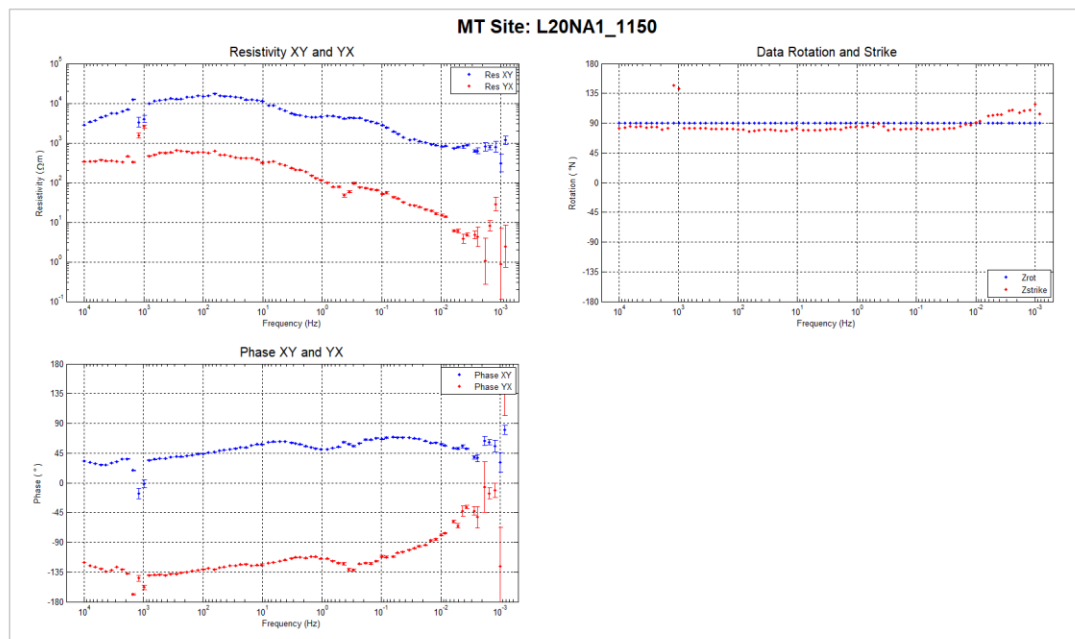
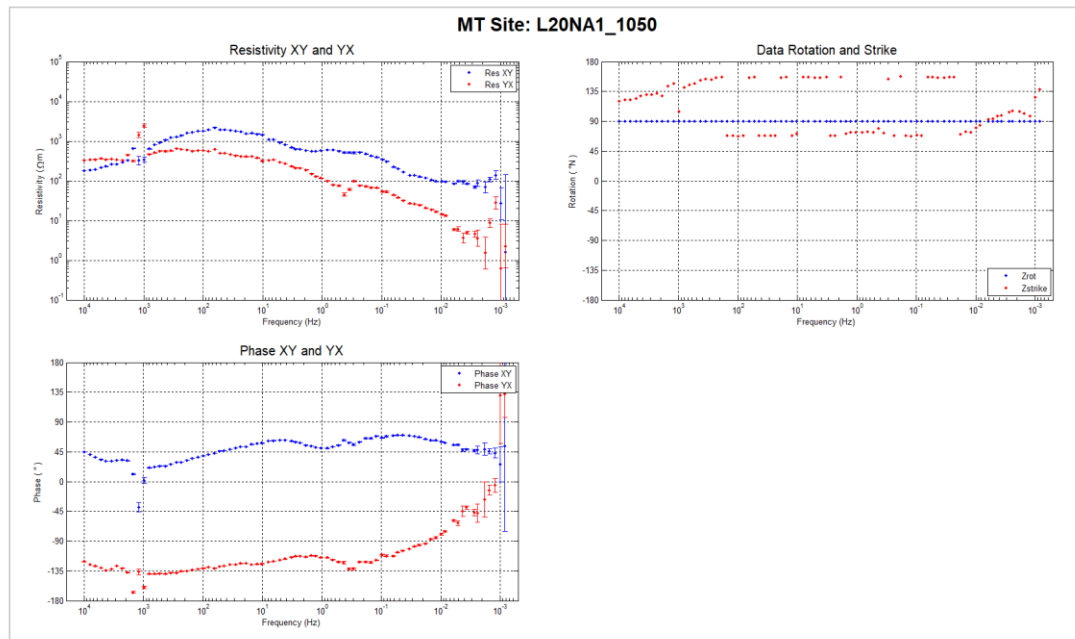


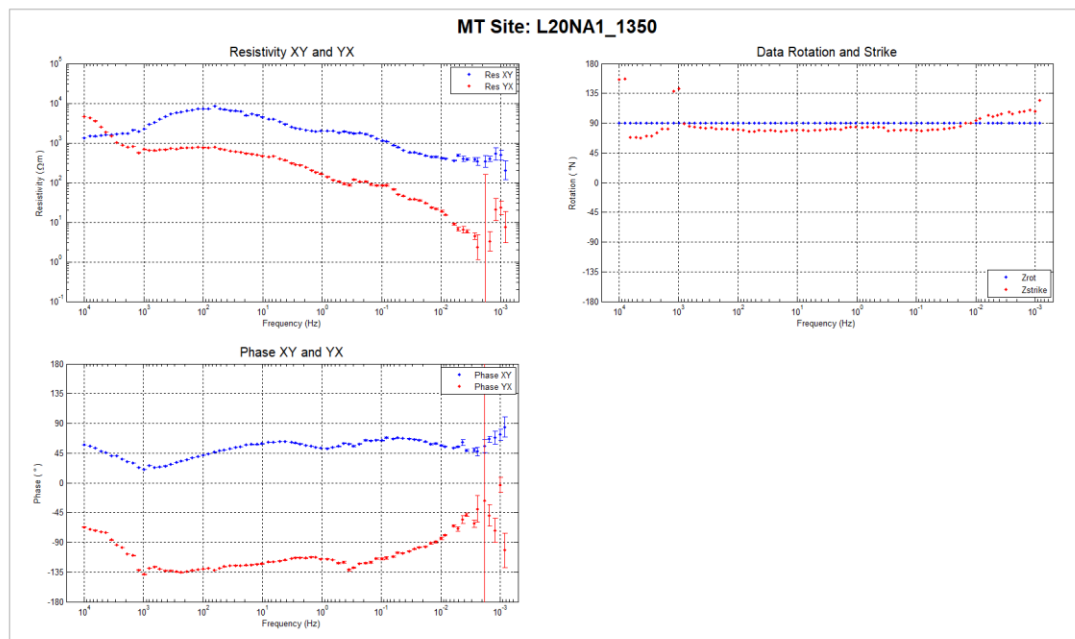
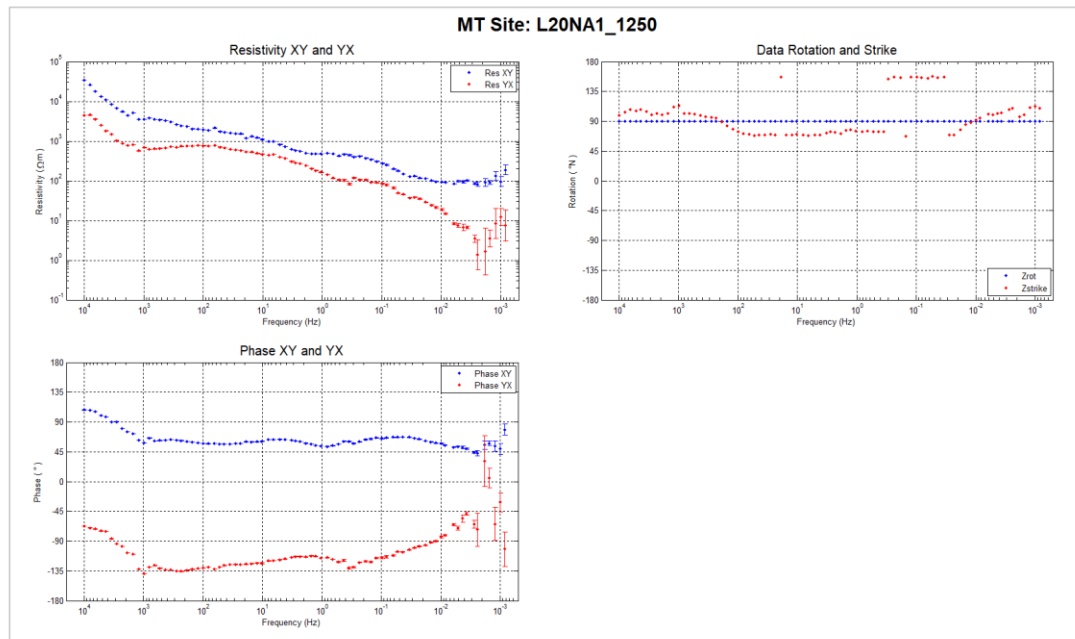


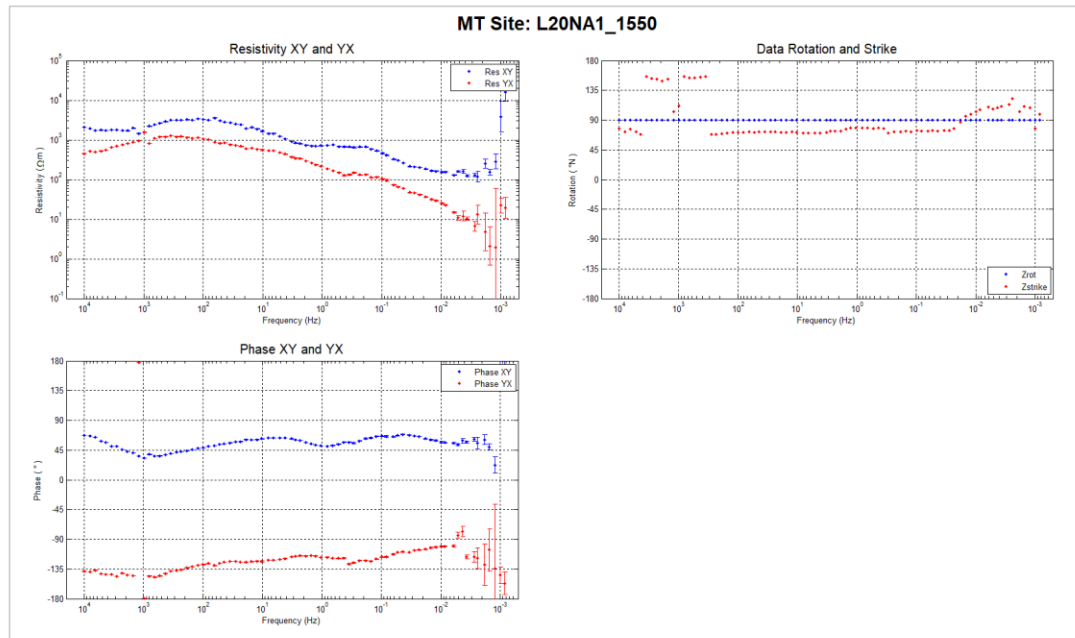
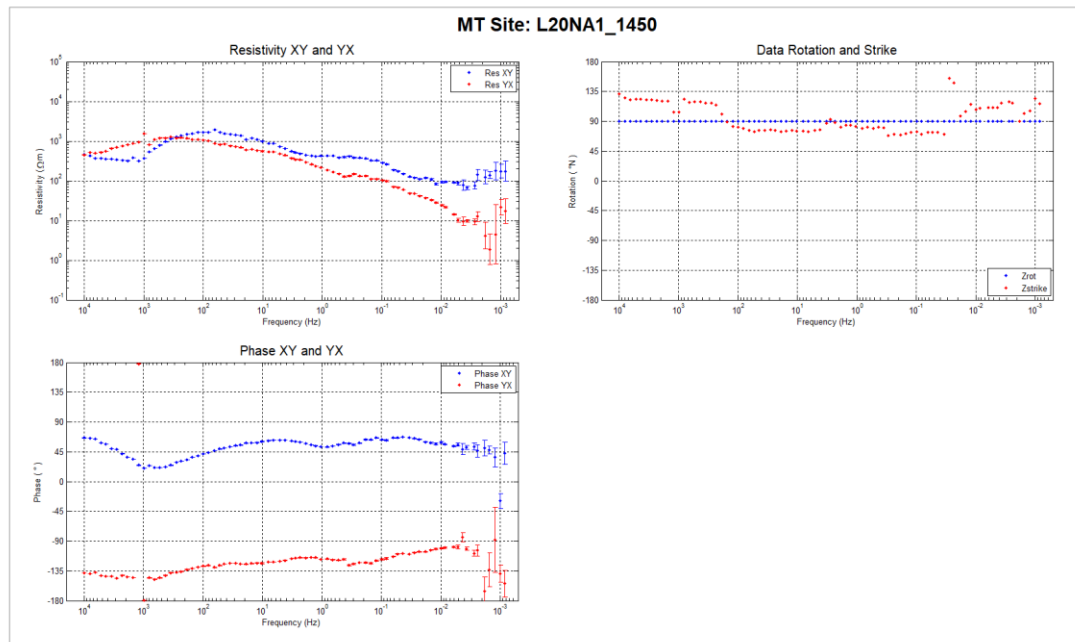


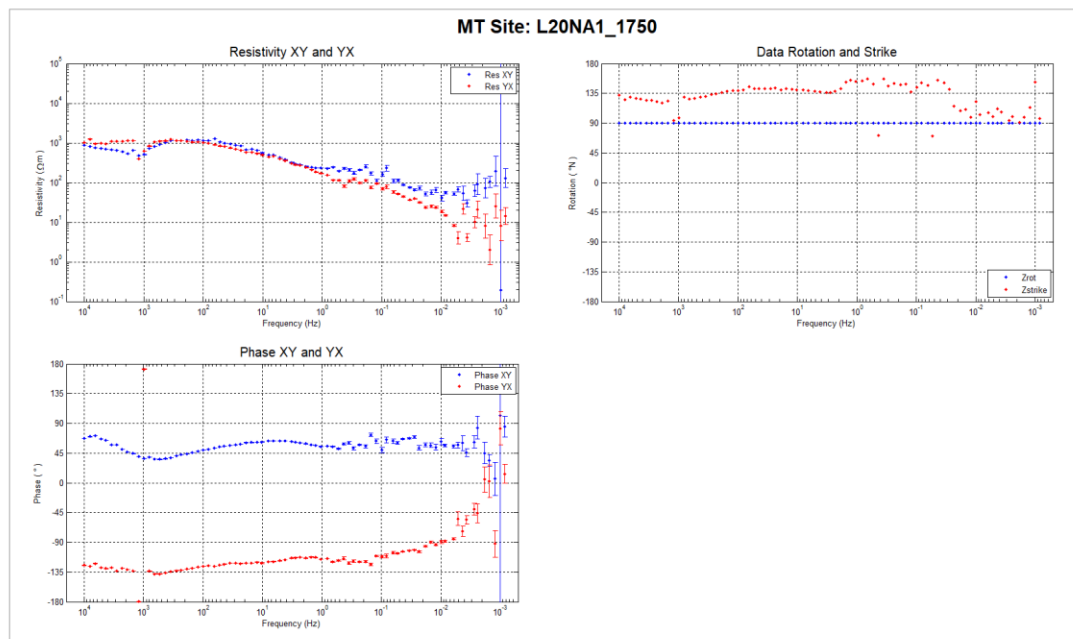
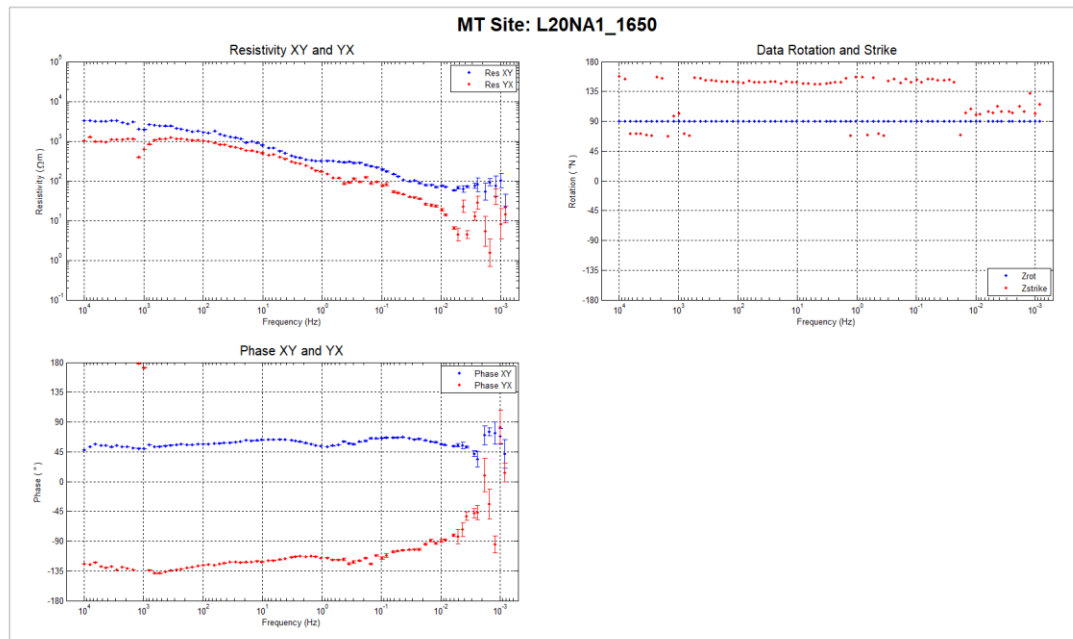


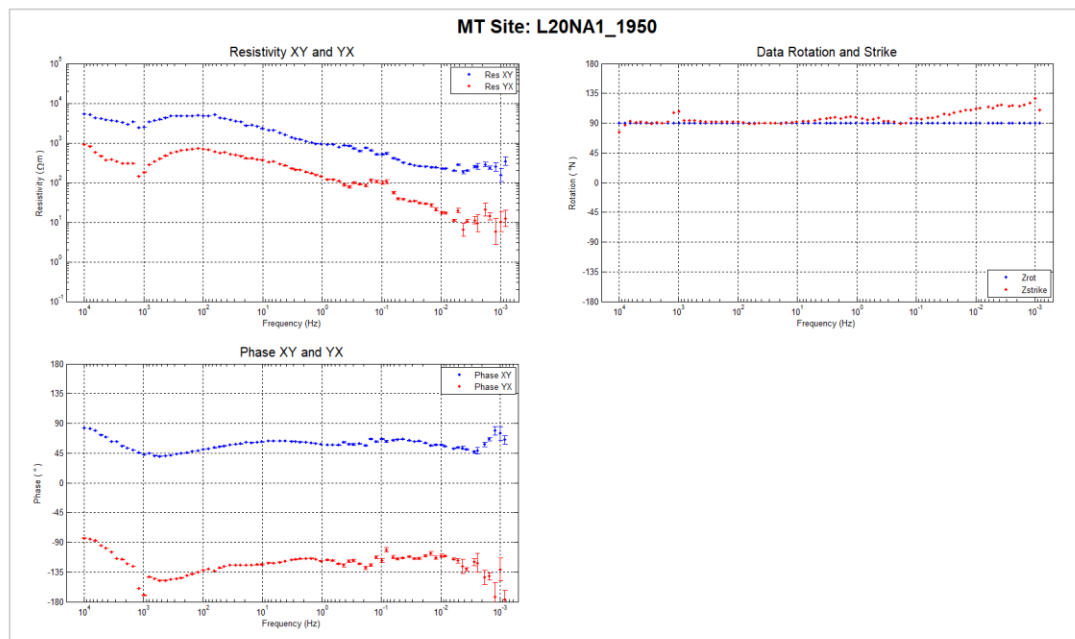
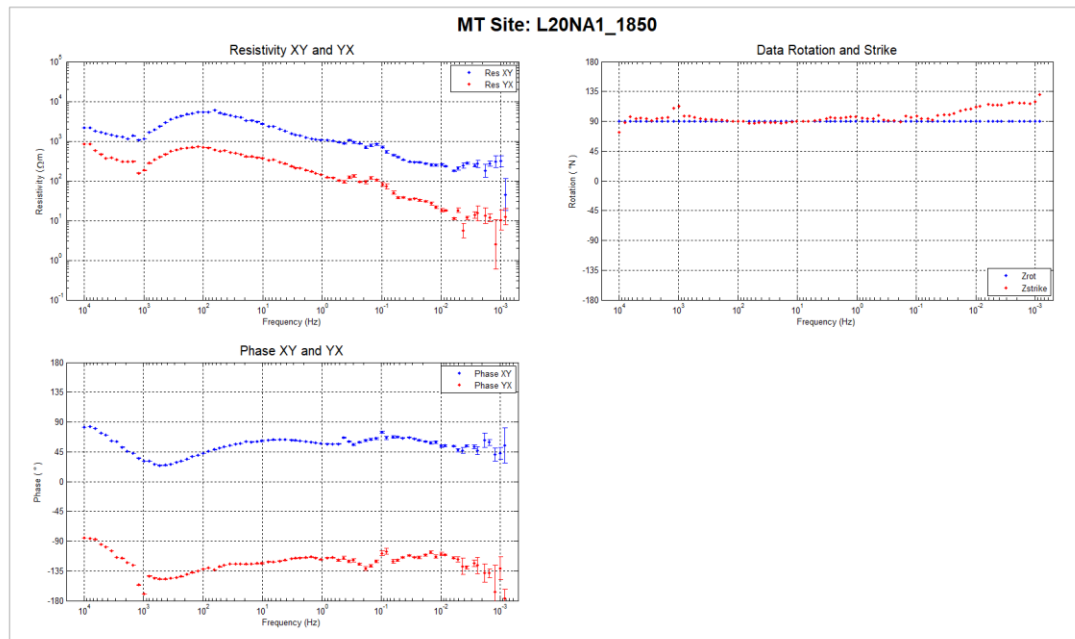


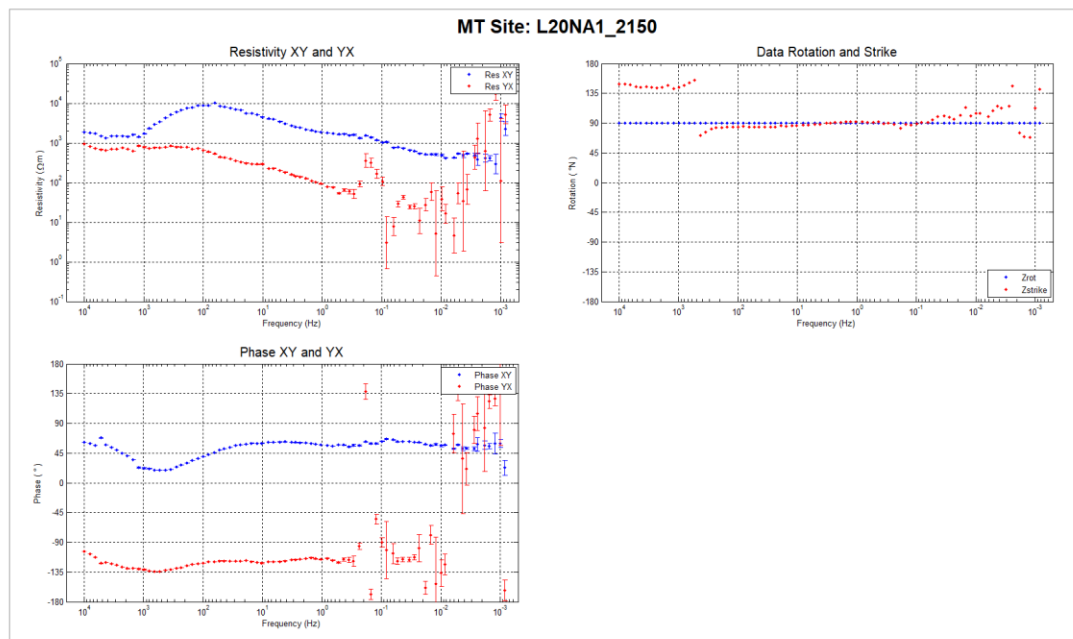
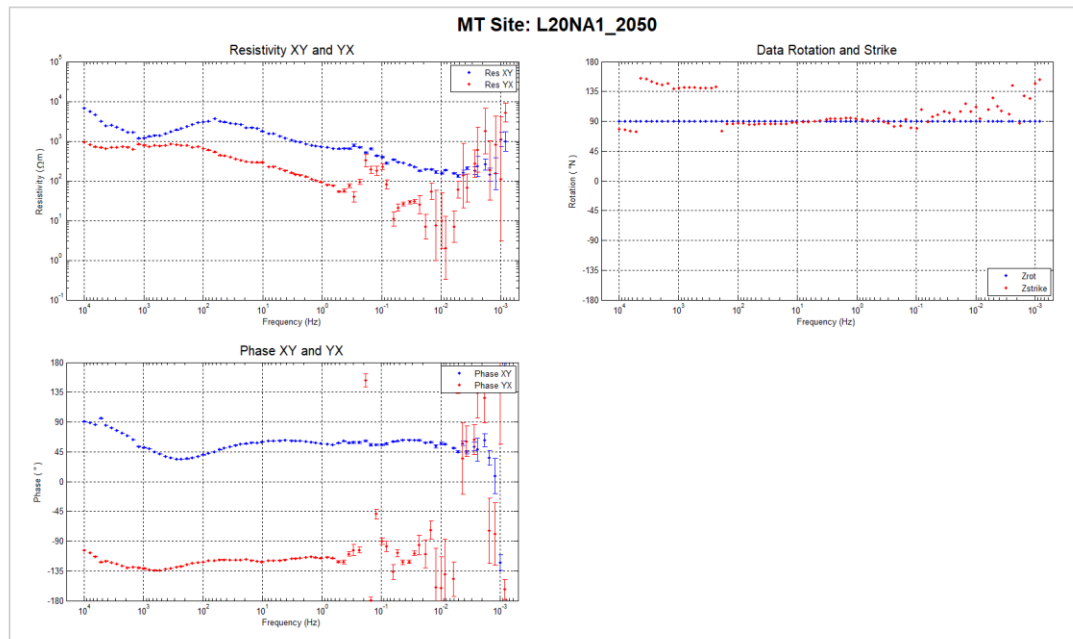


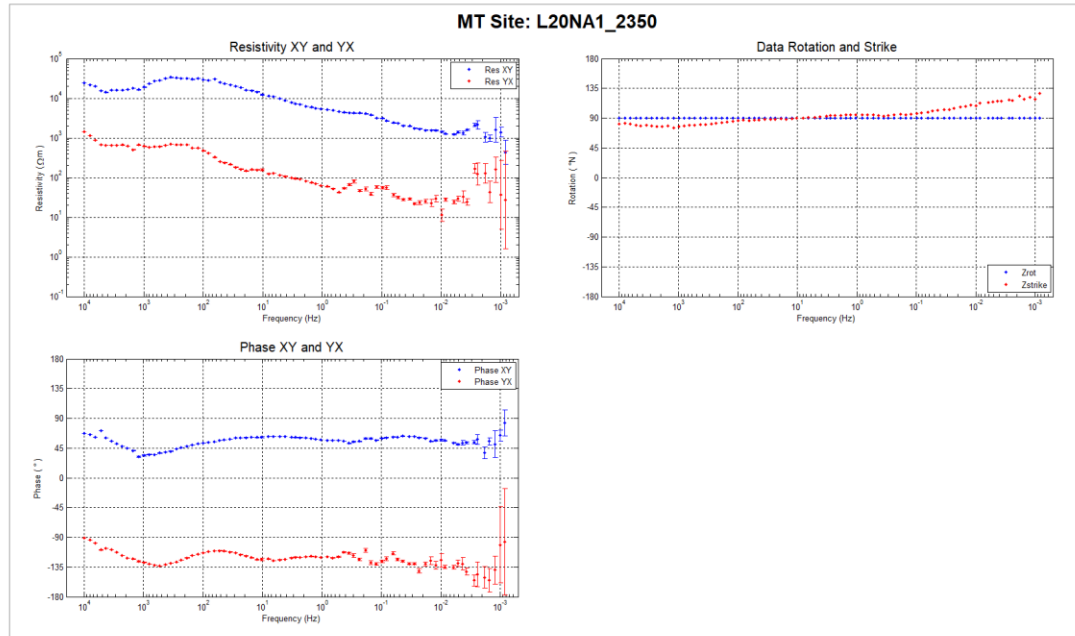
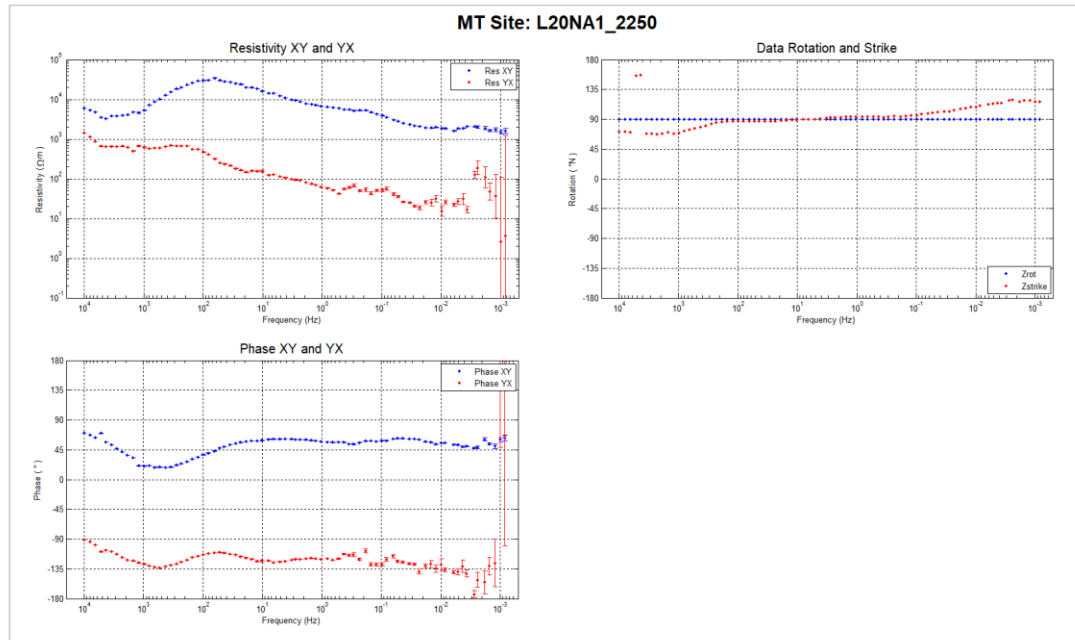




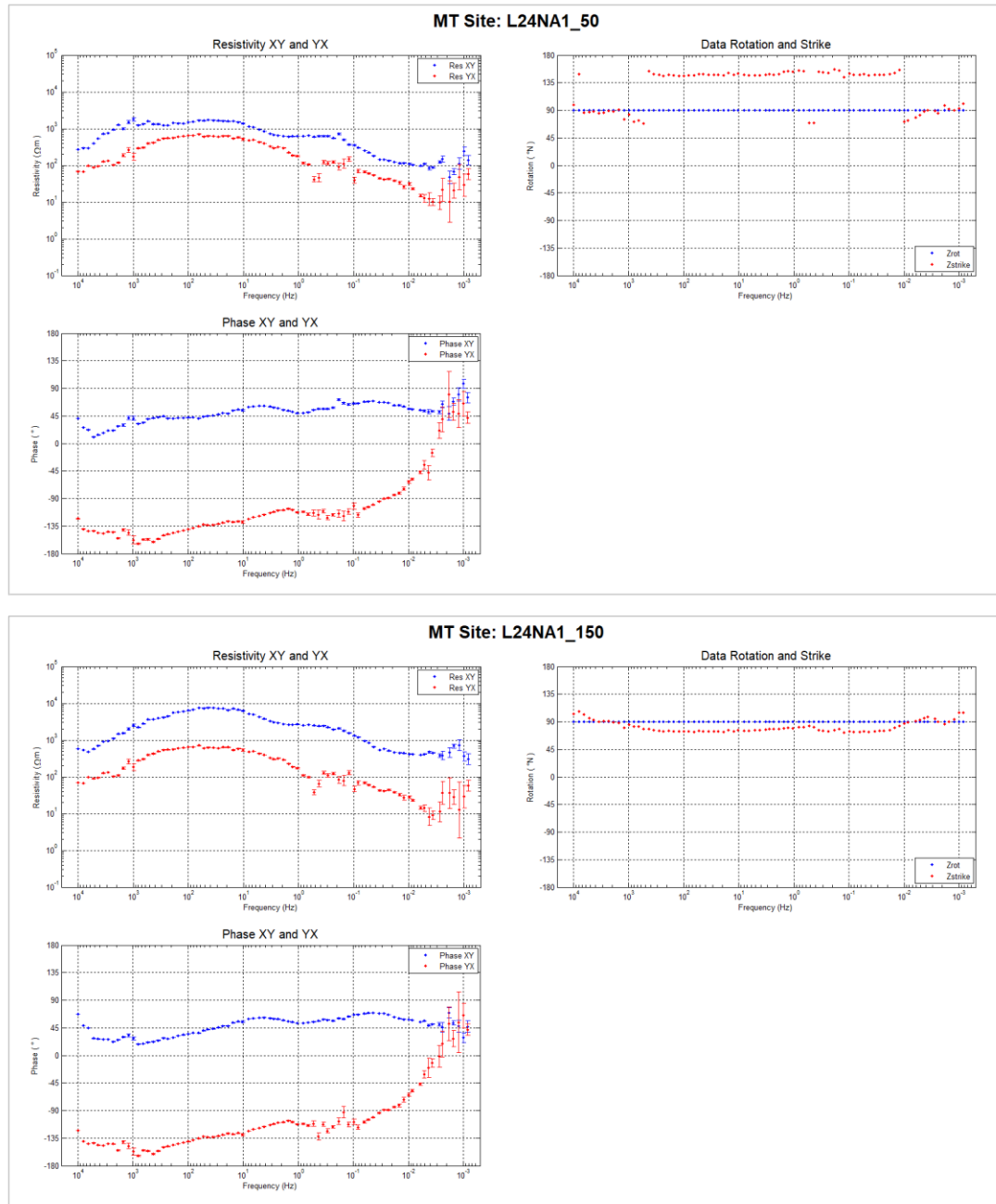


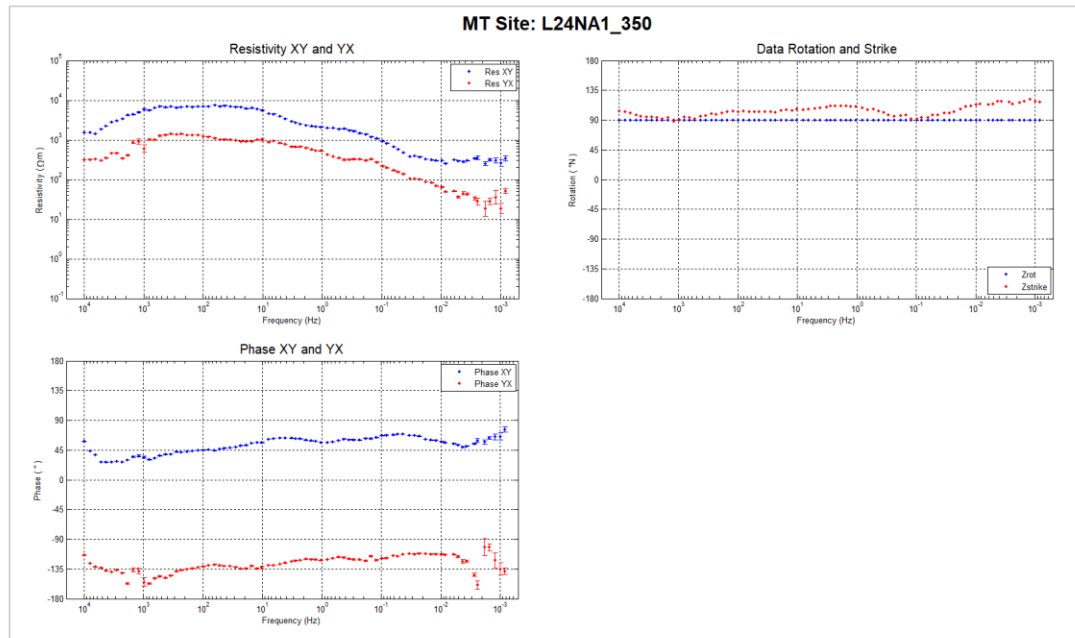
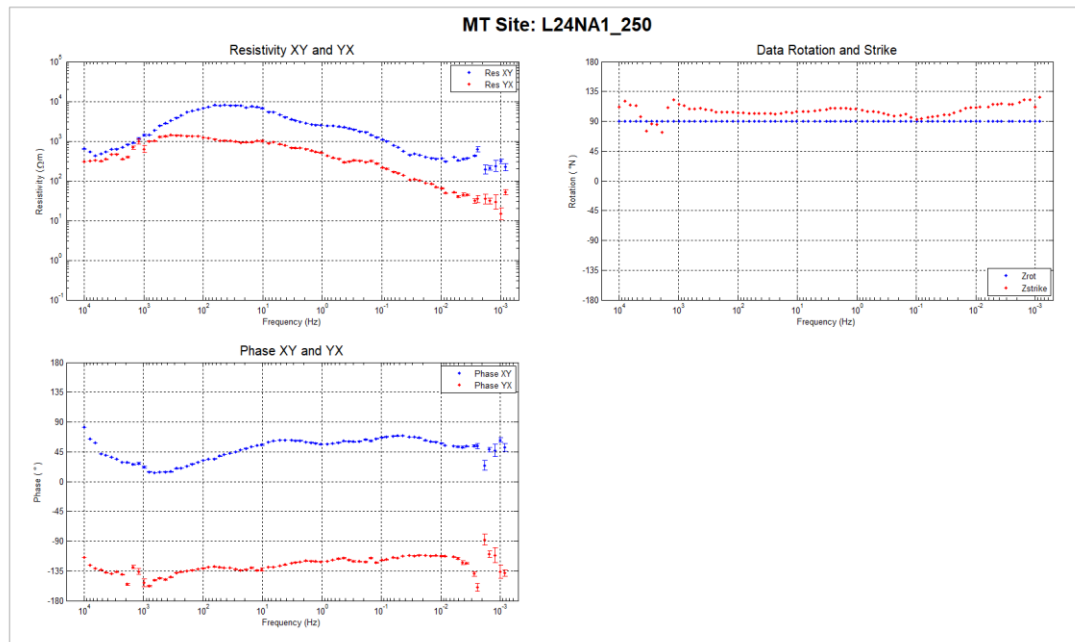


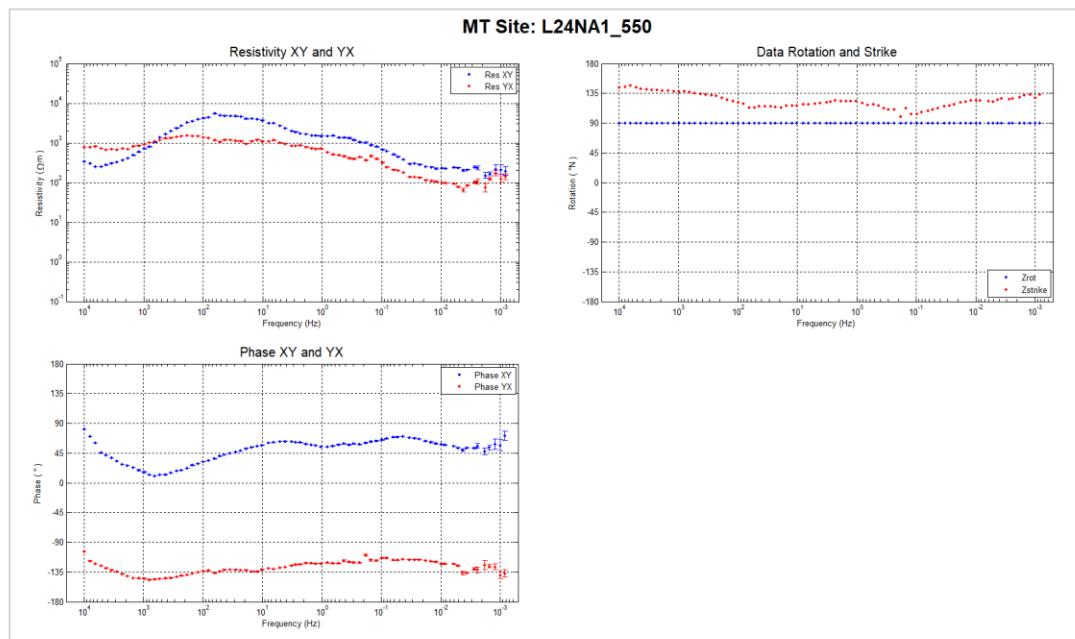
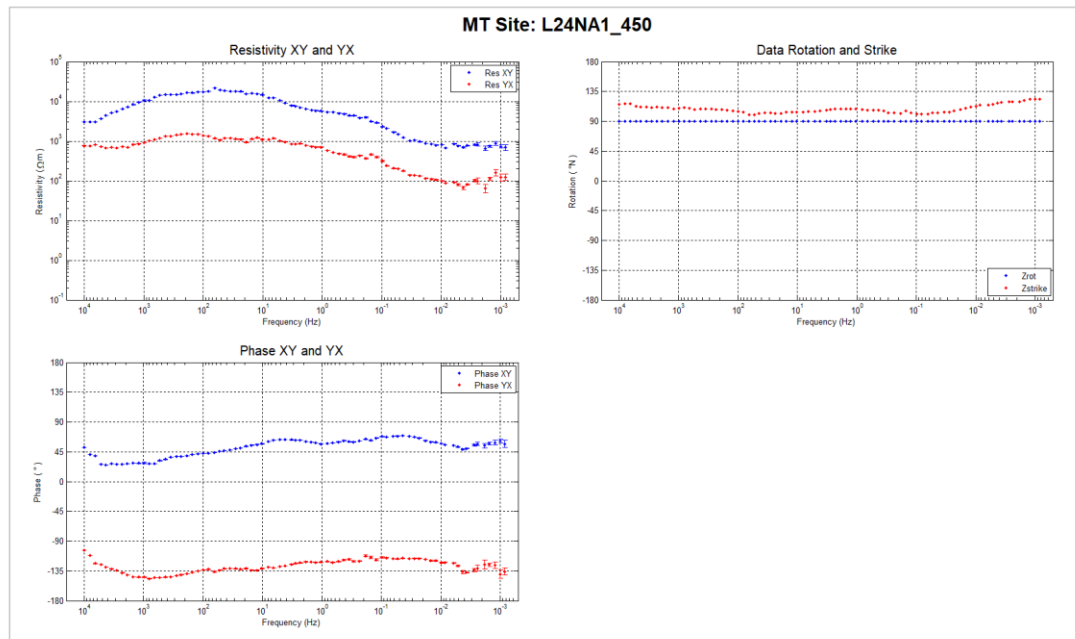


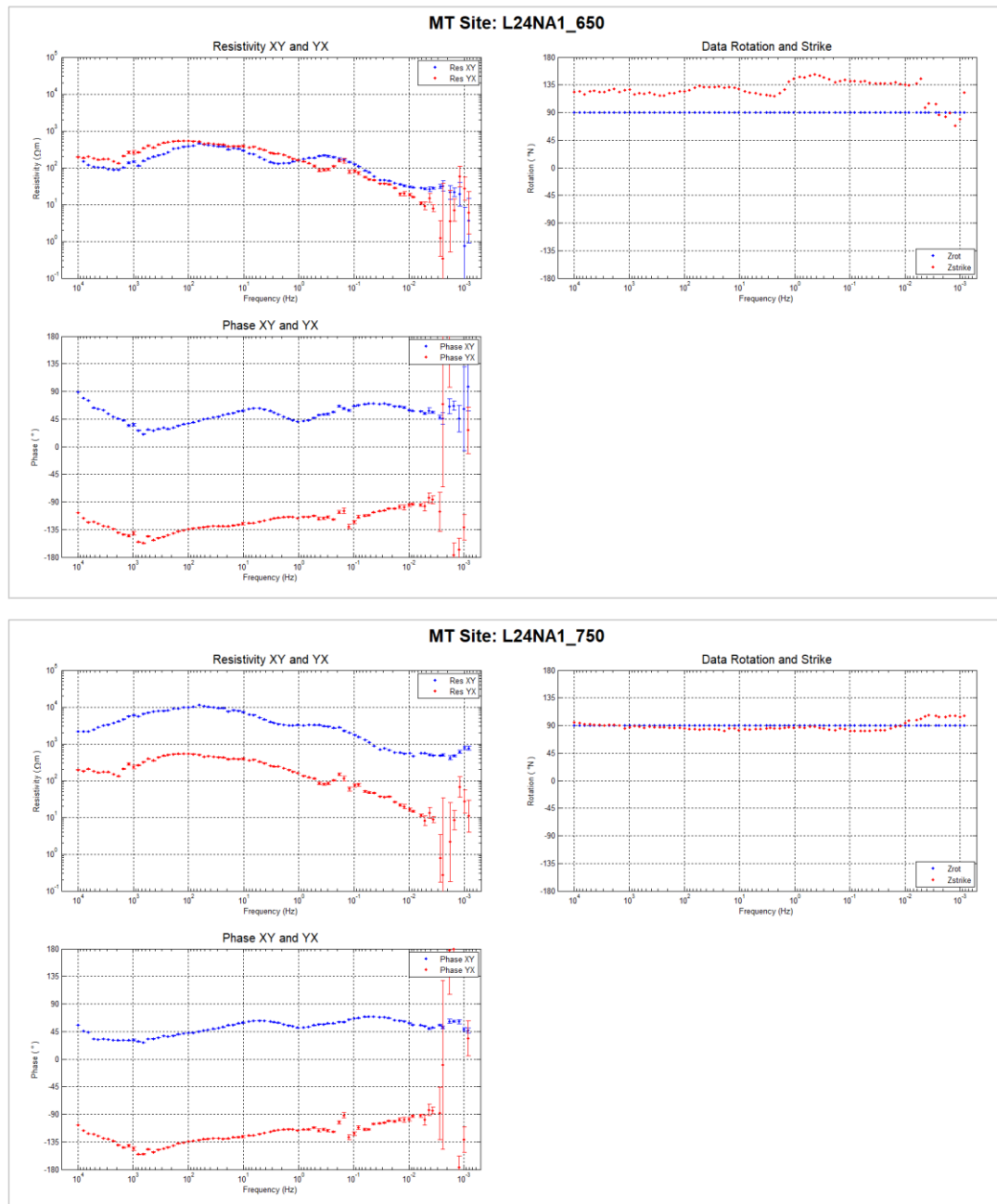


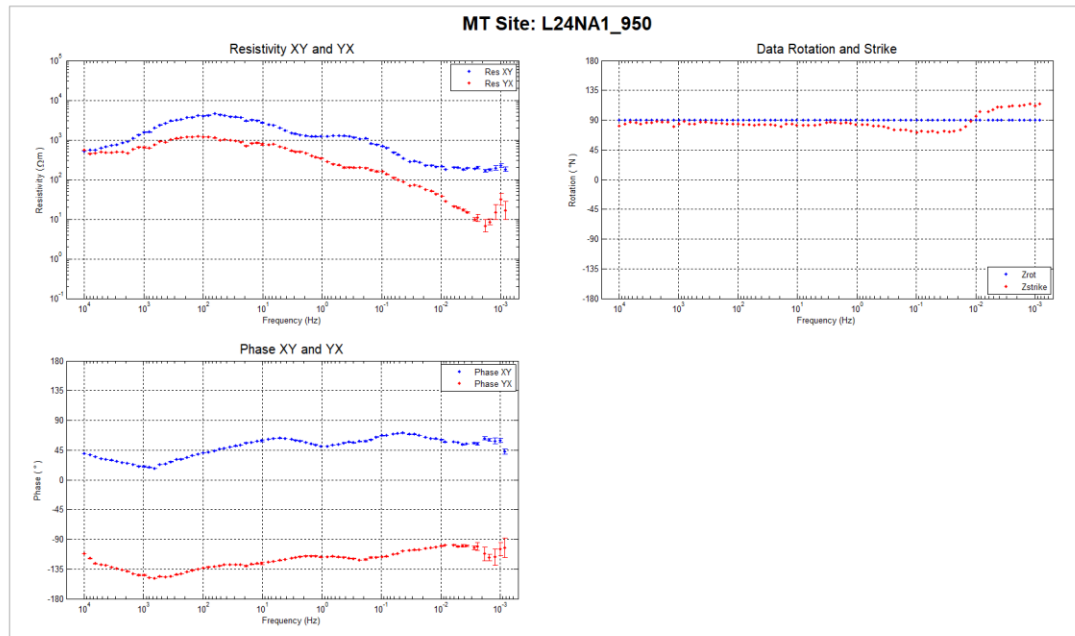
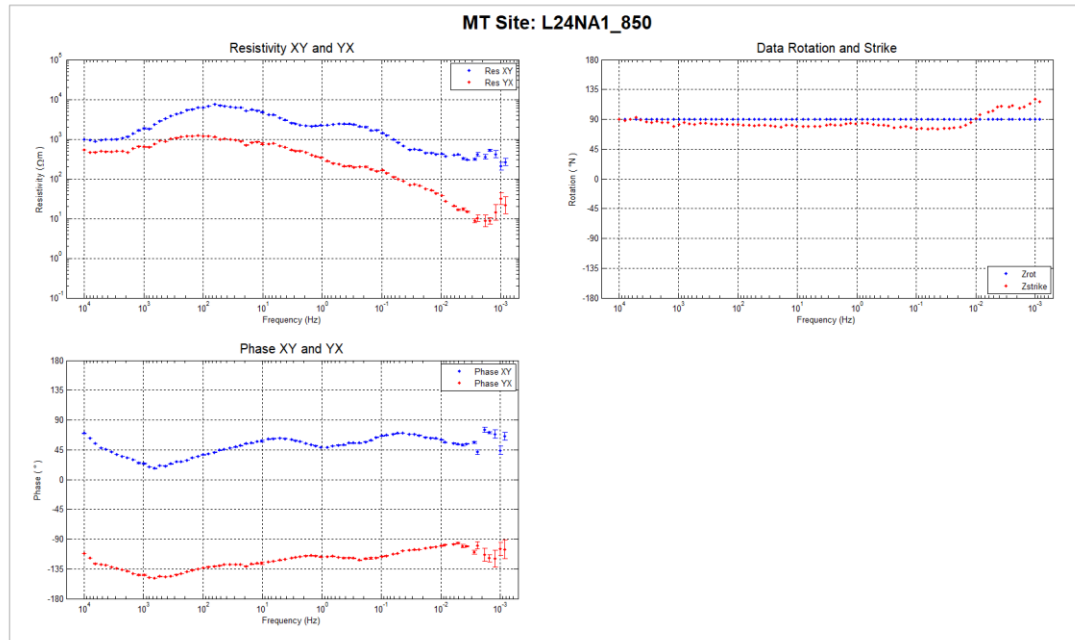
C.1.7. Line 2400N

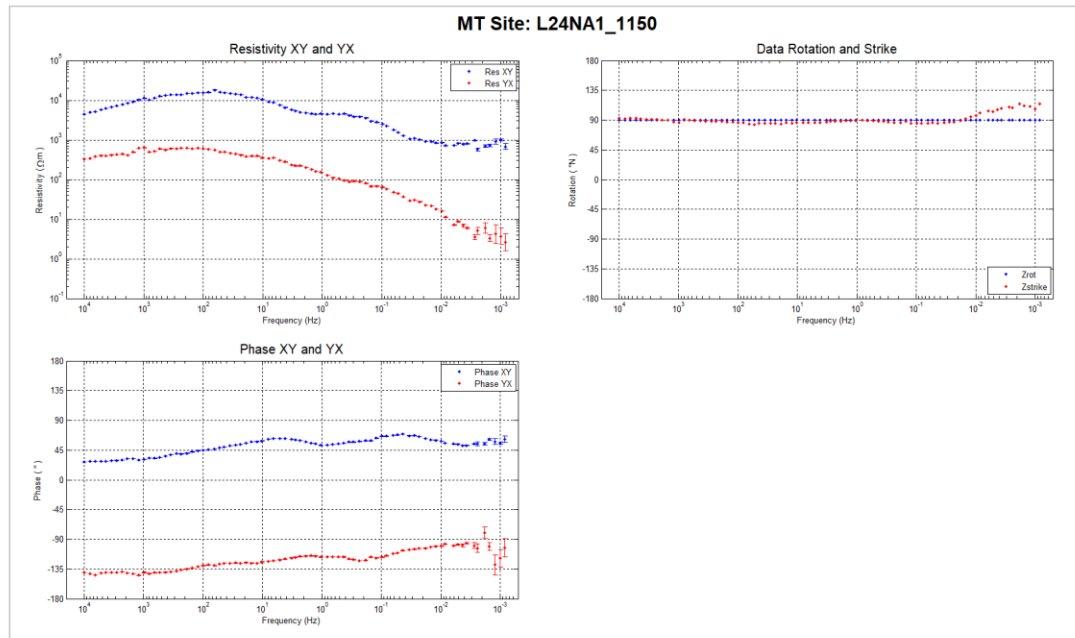
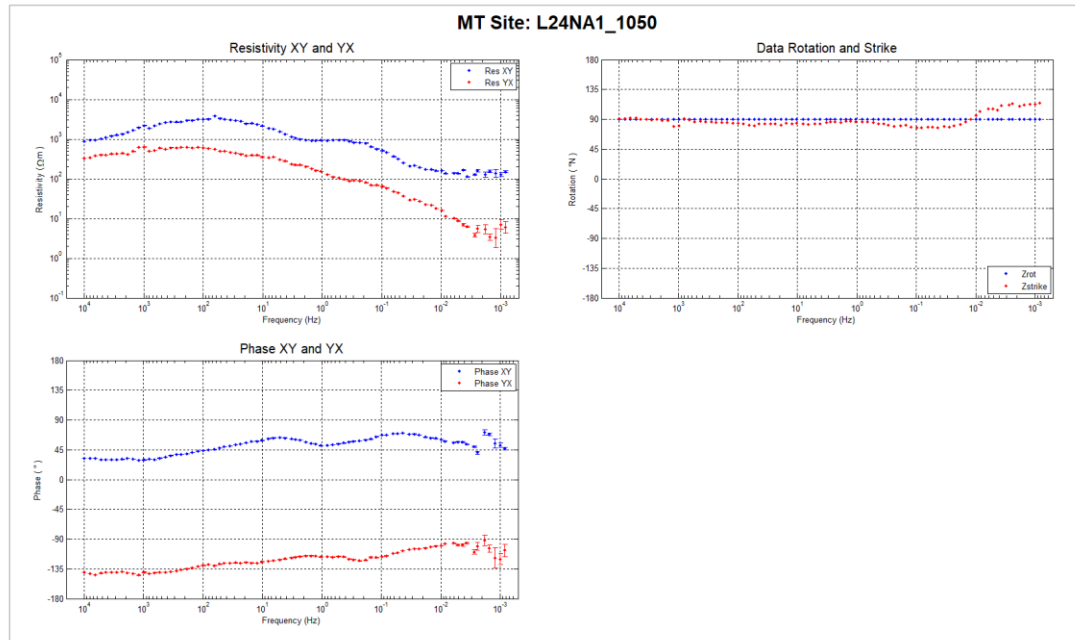


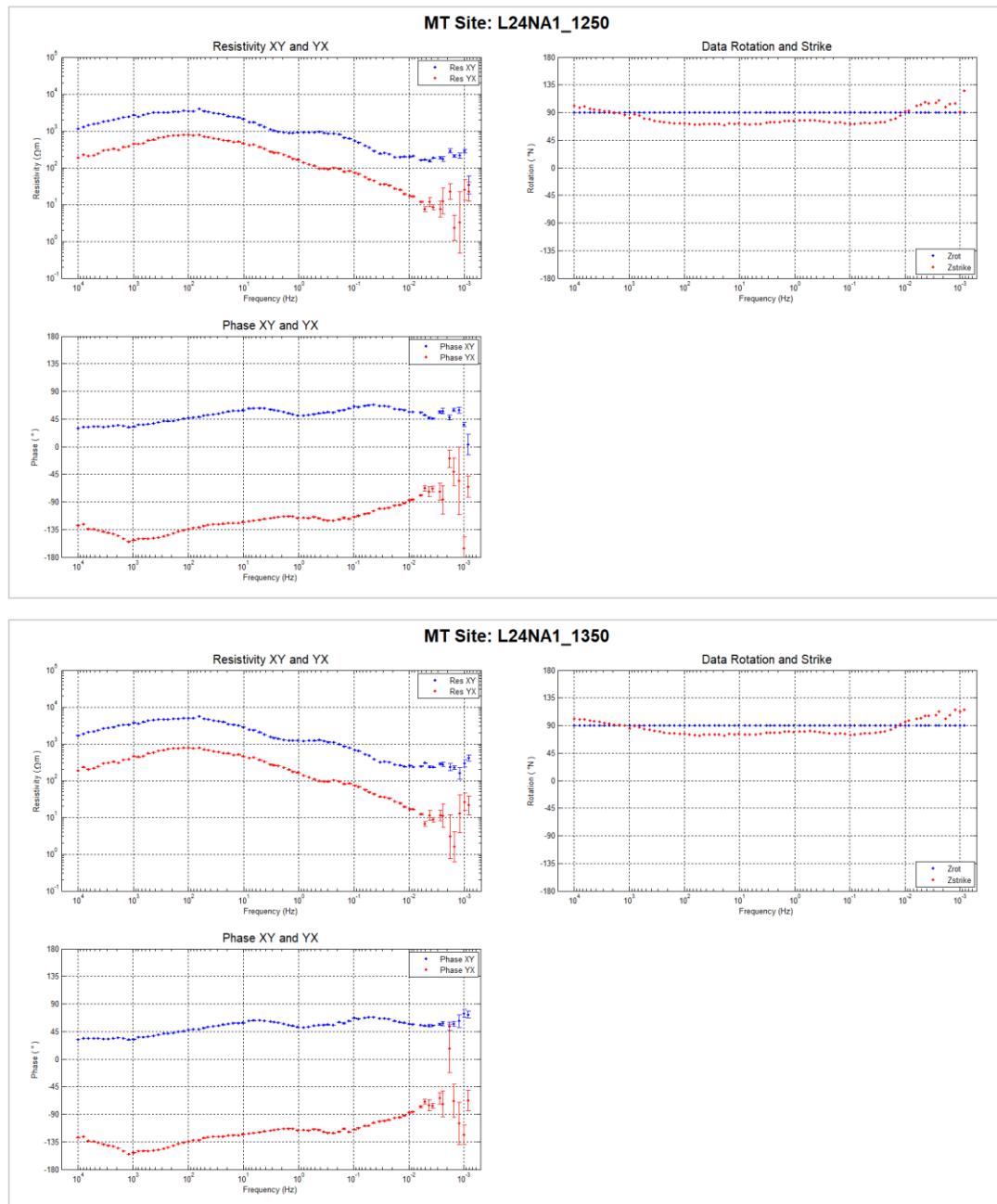


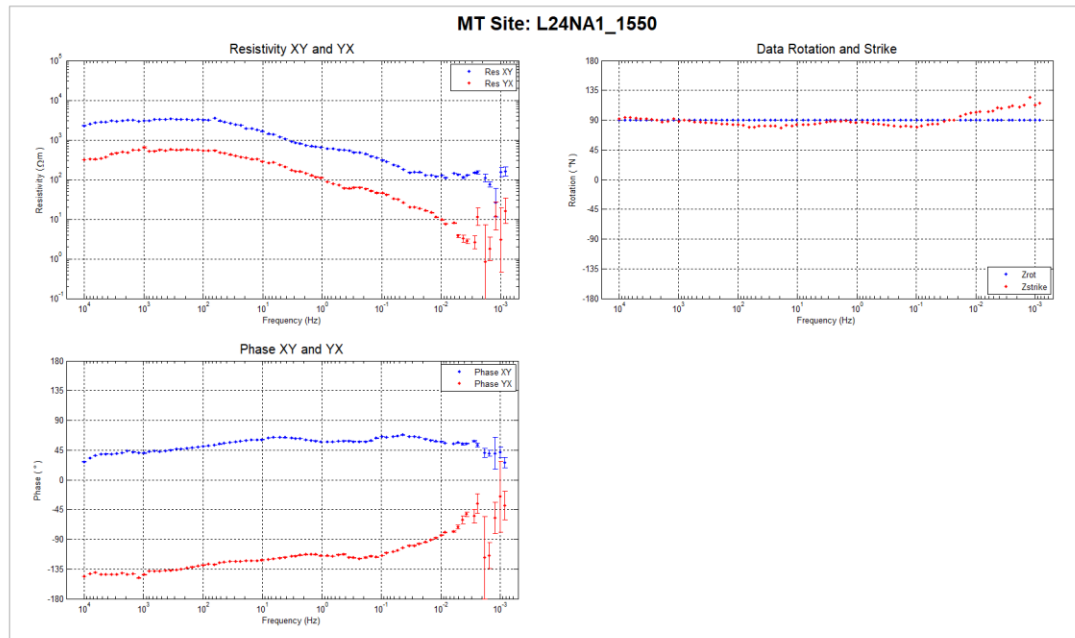
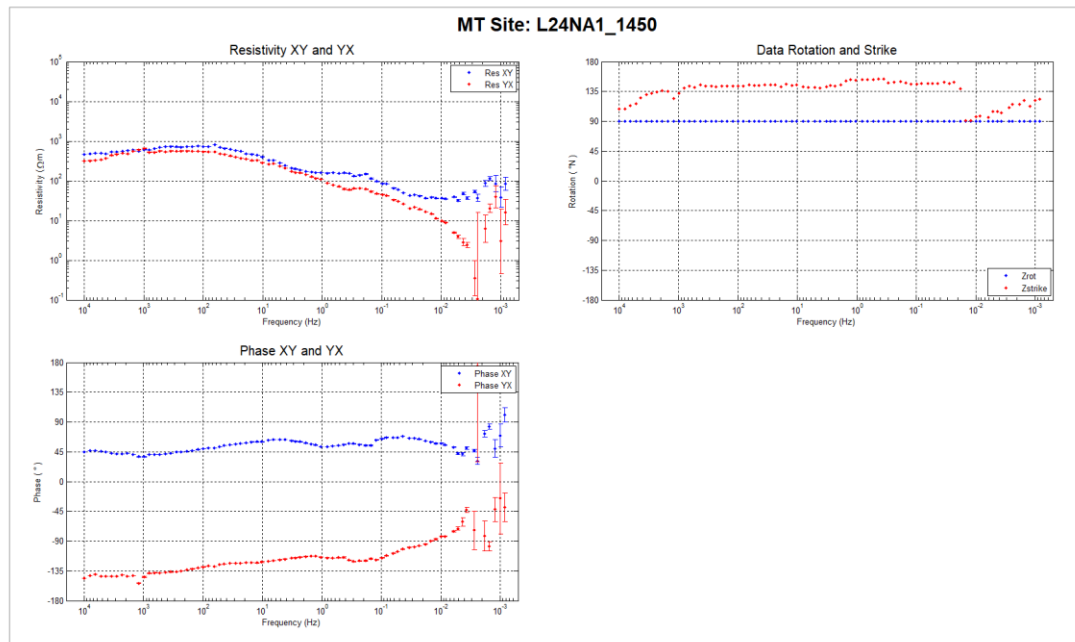


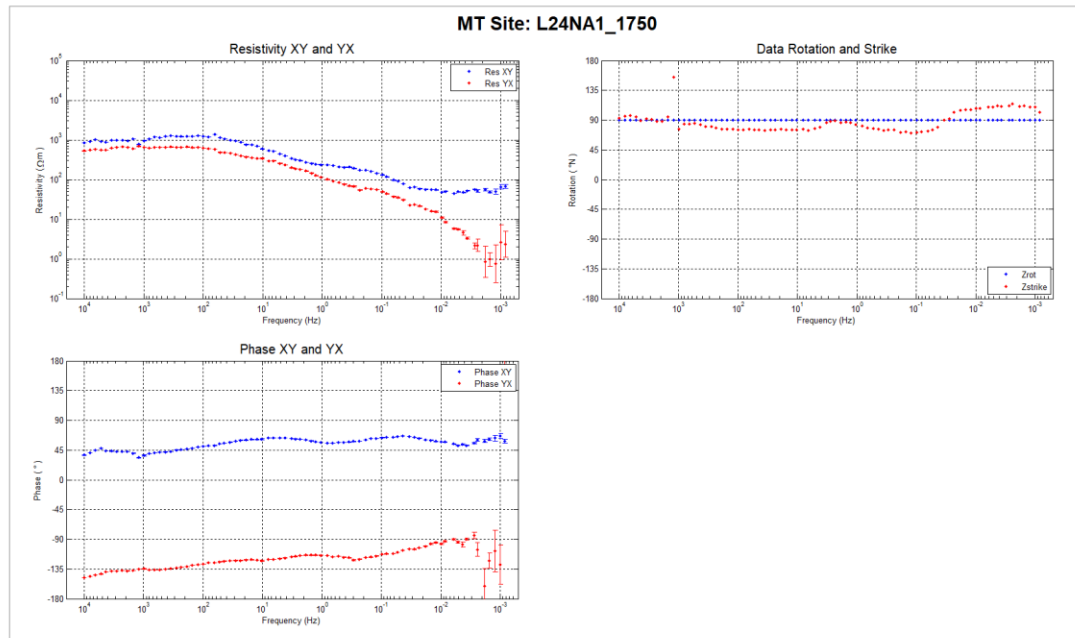
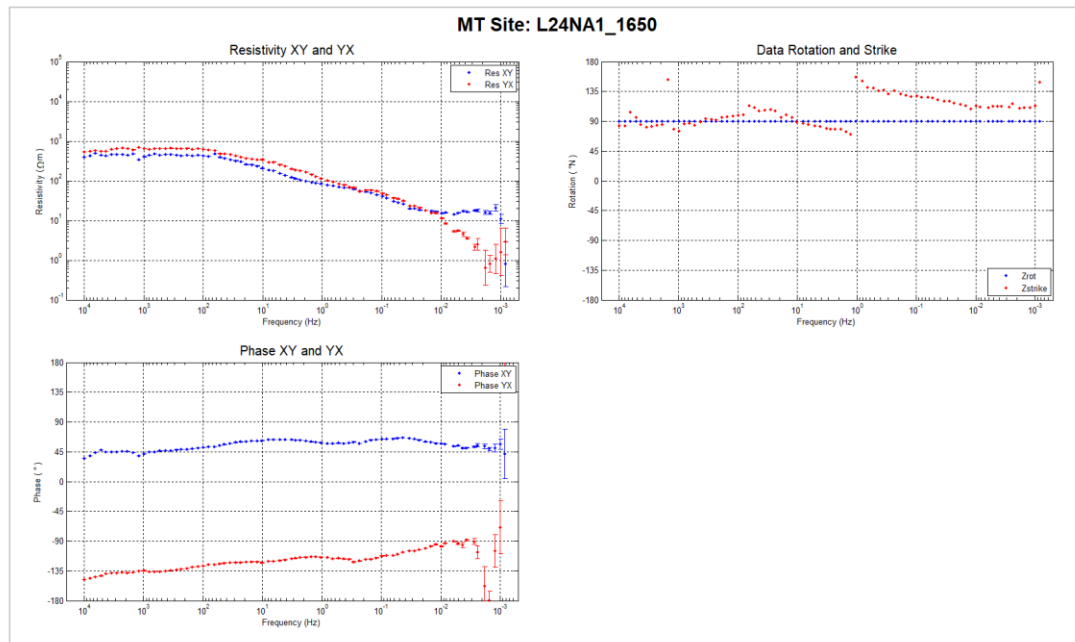


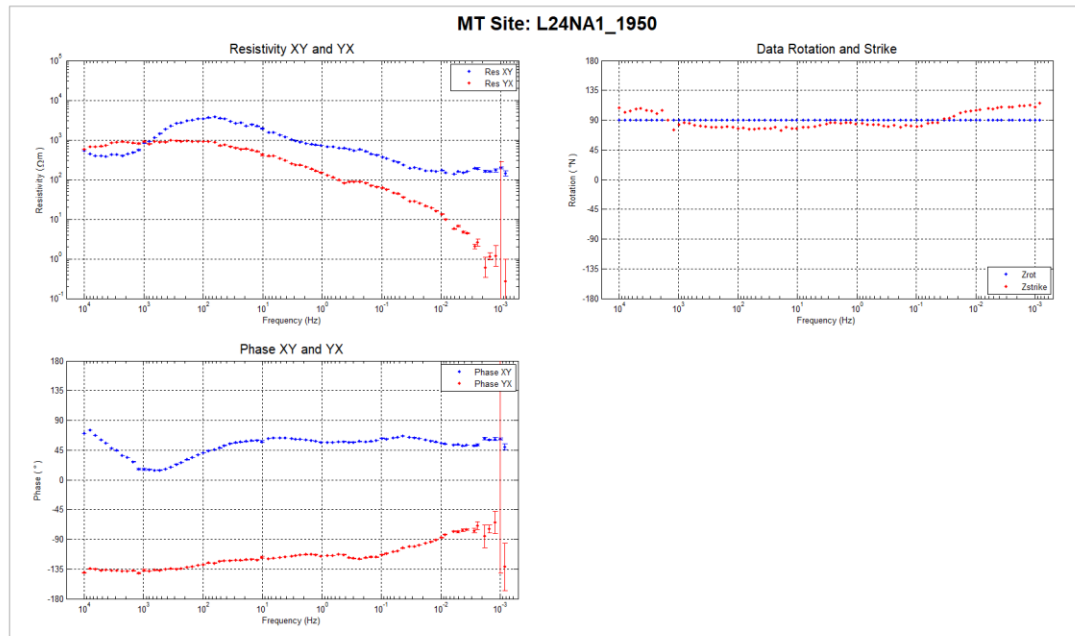
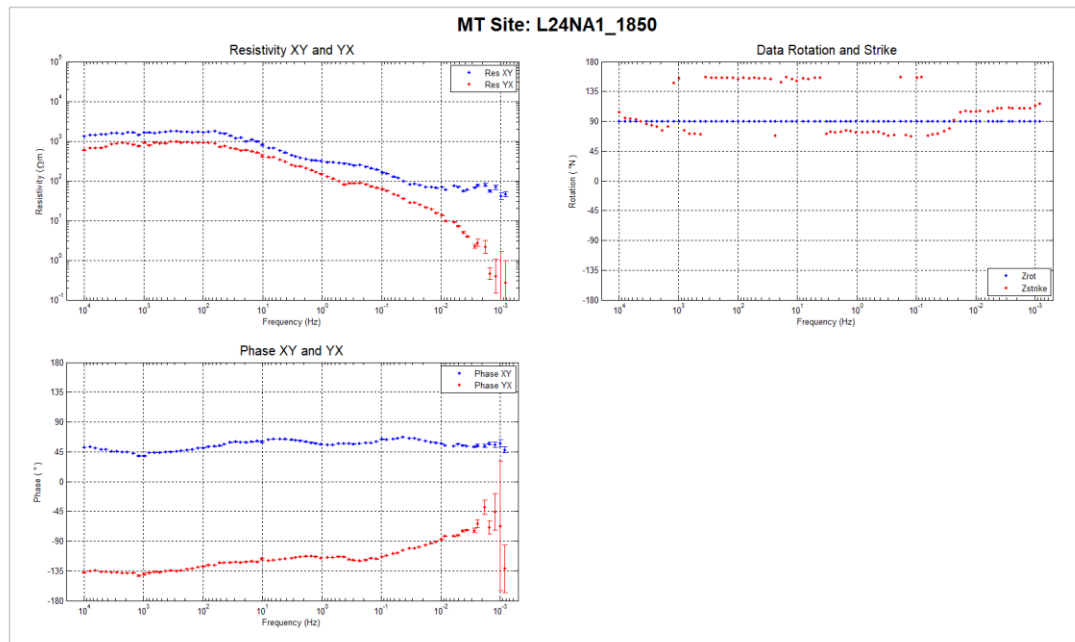


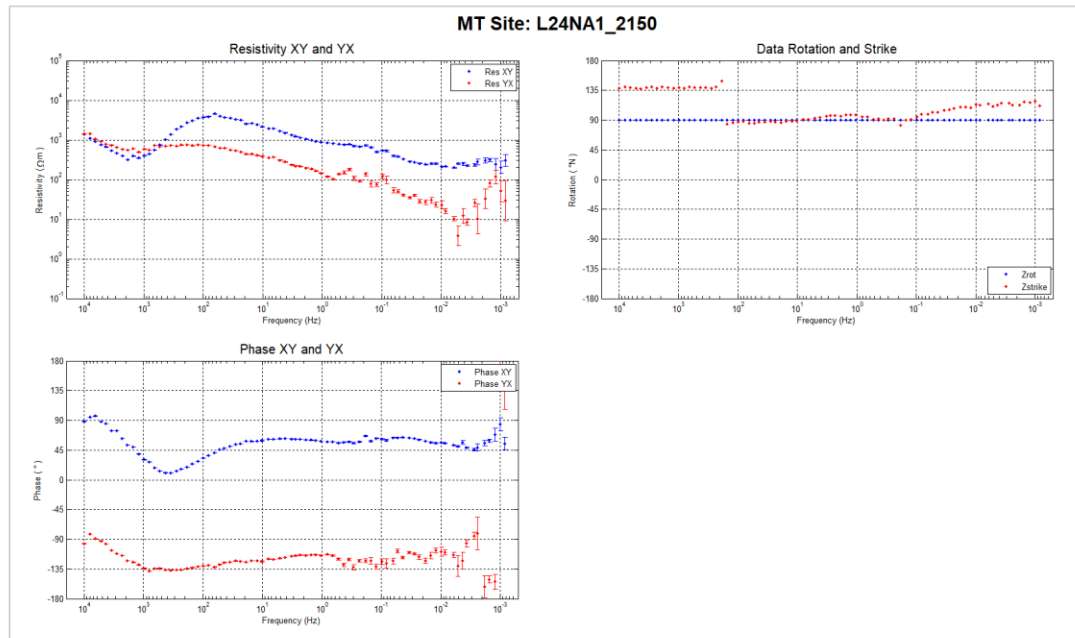
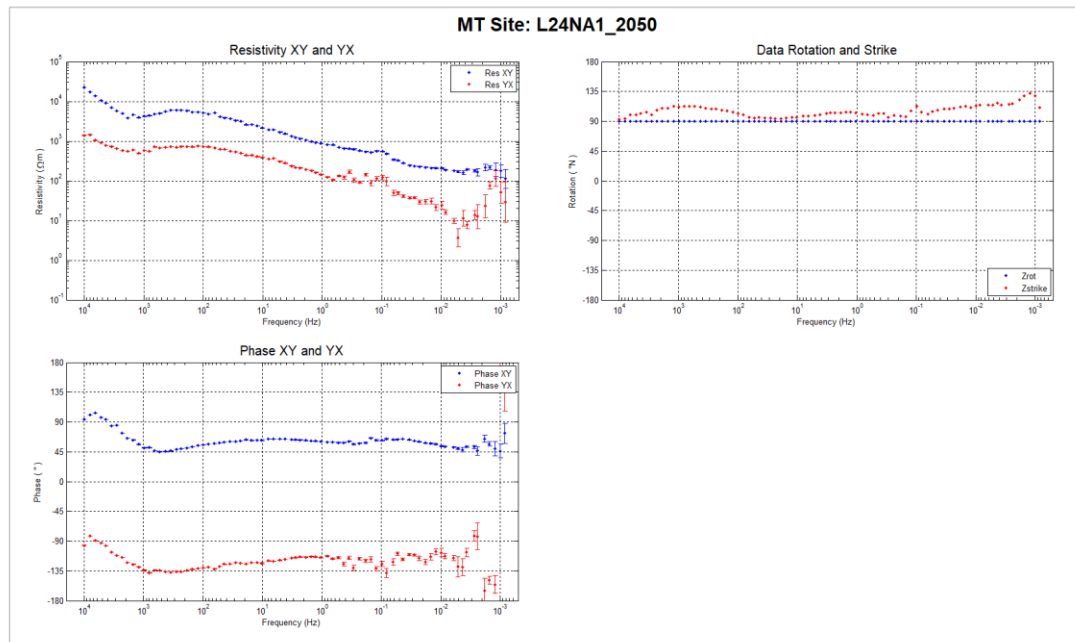


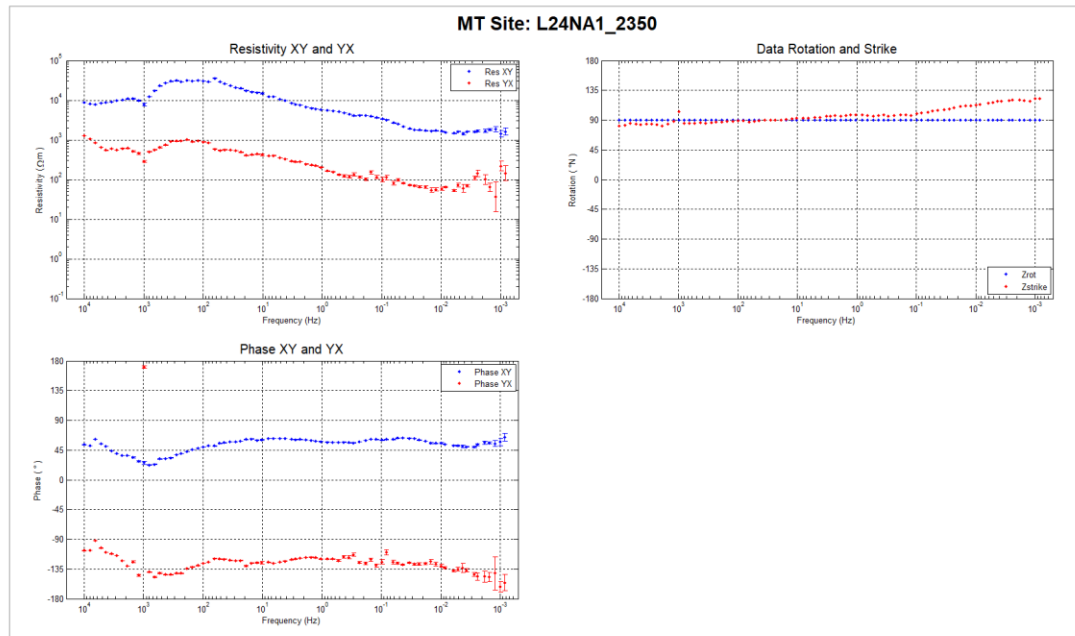
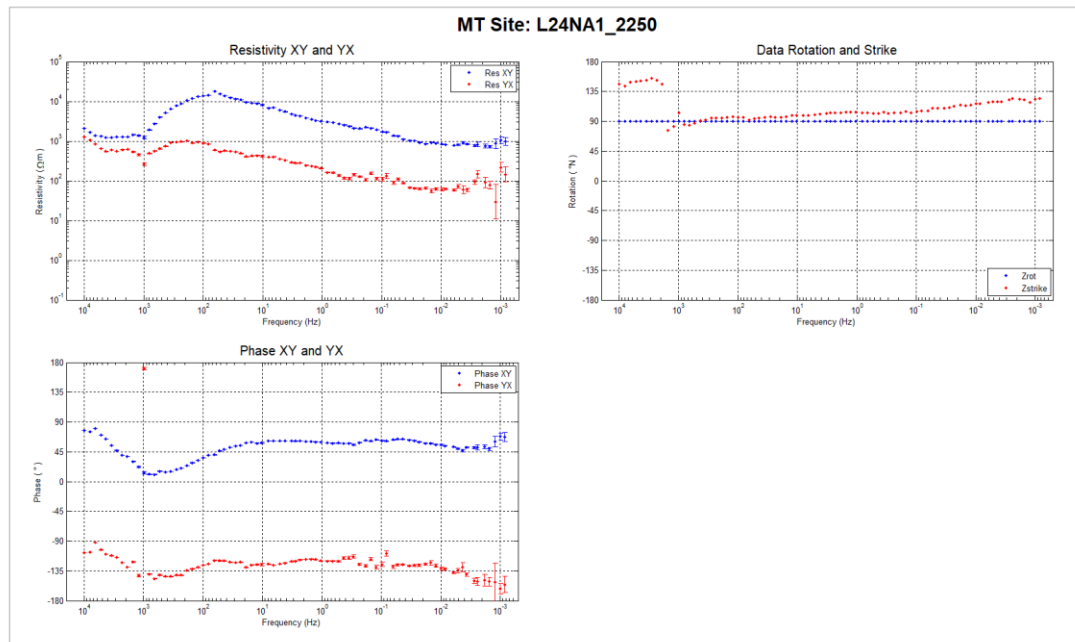




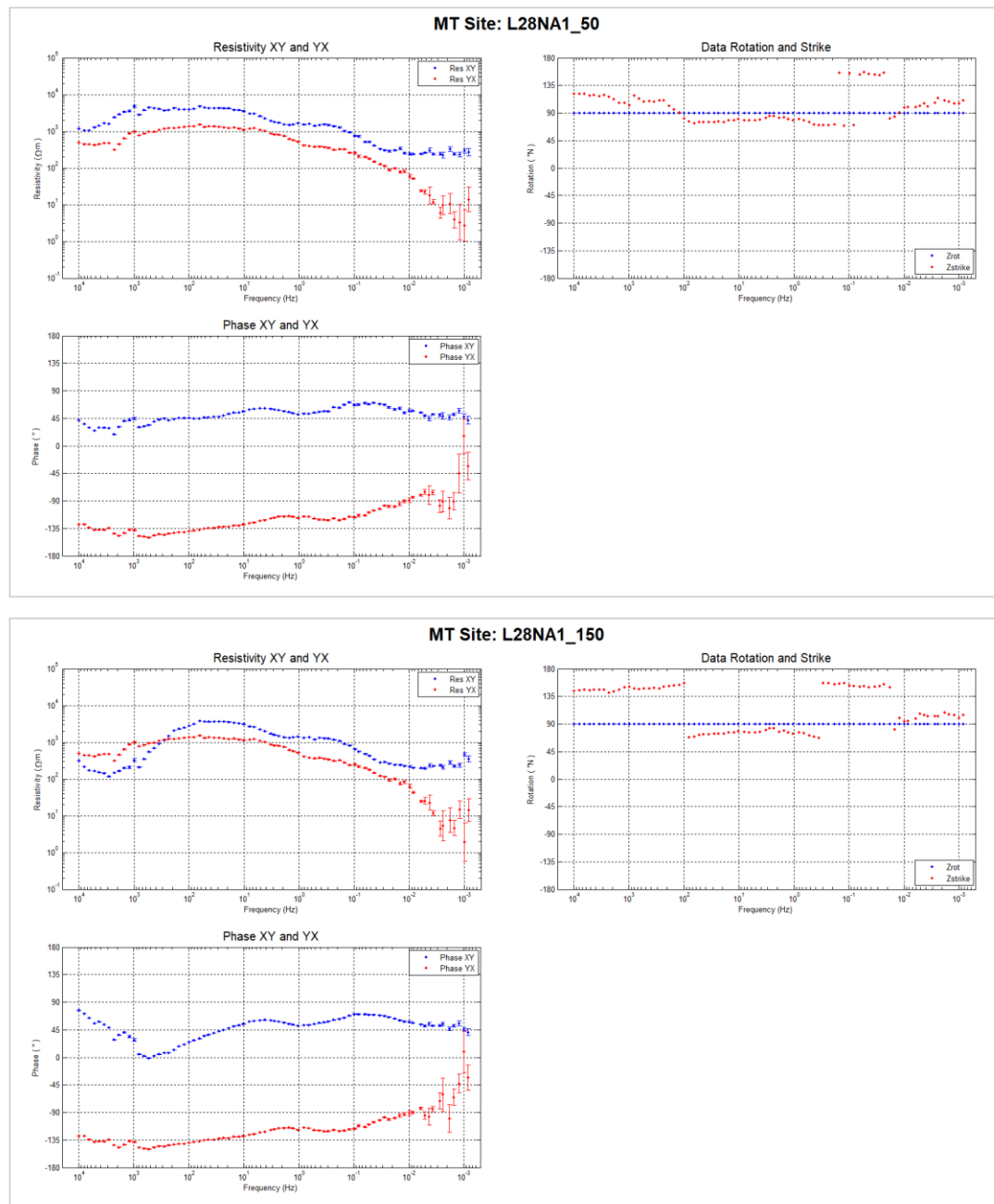


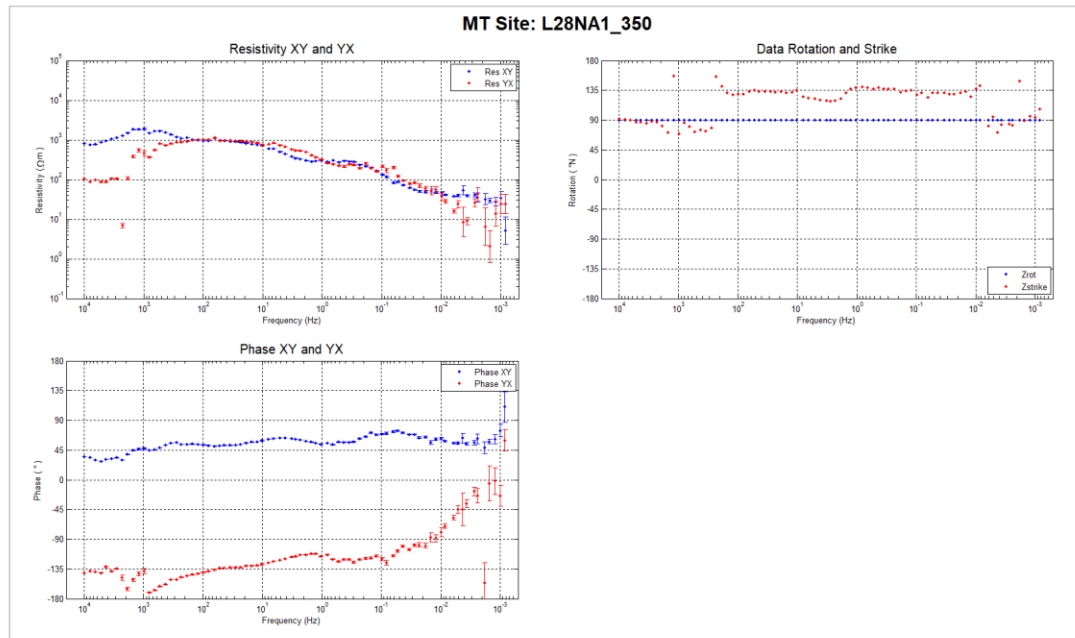
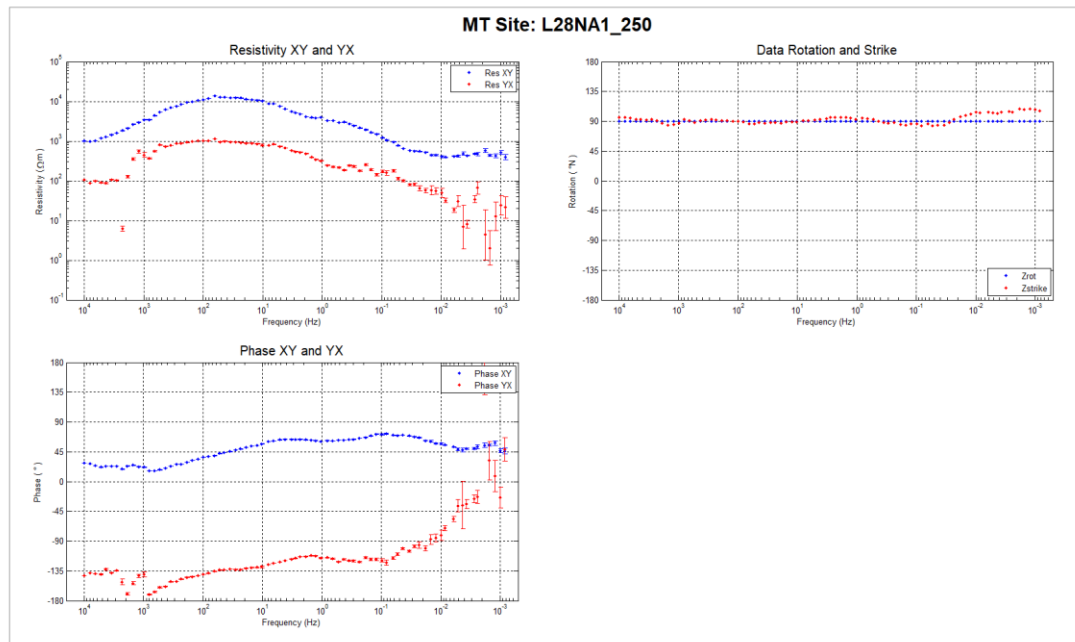


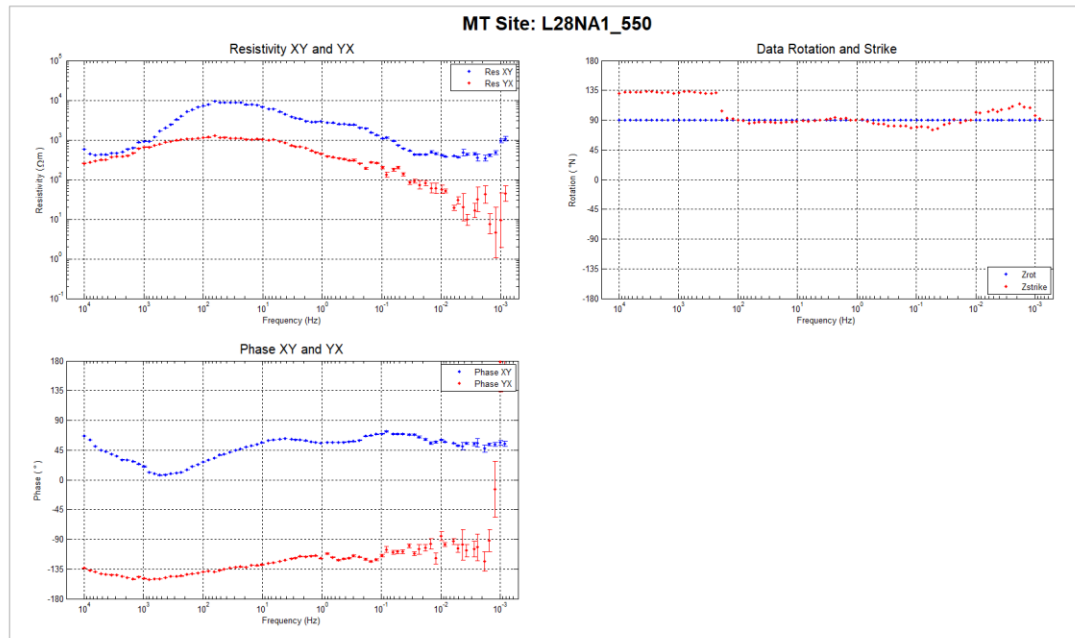
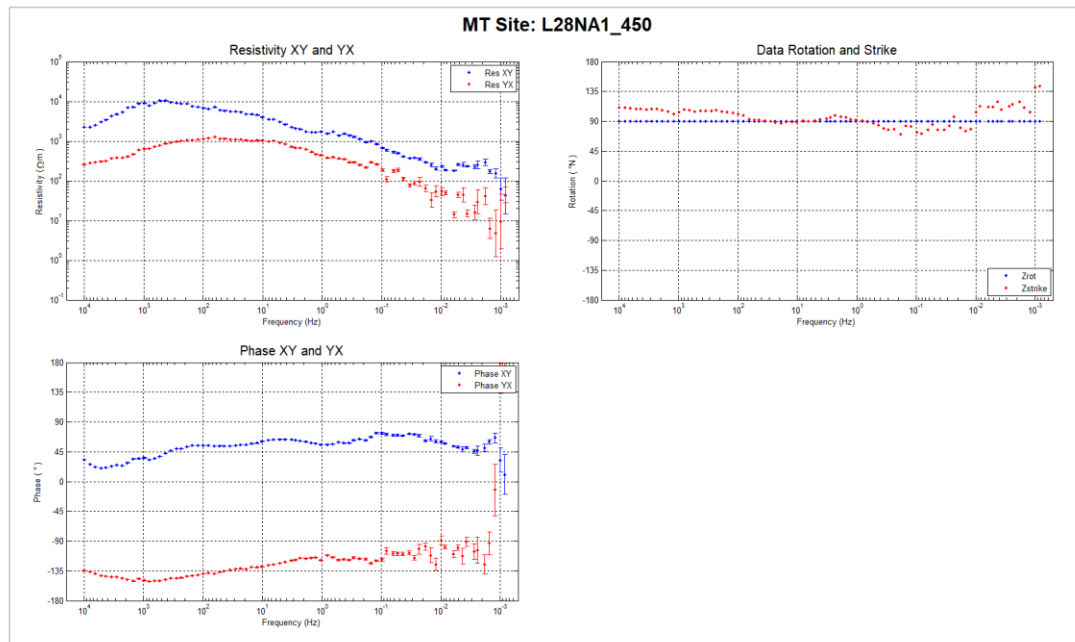


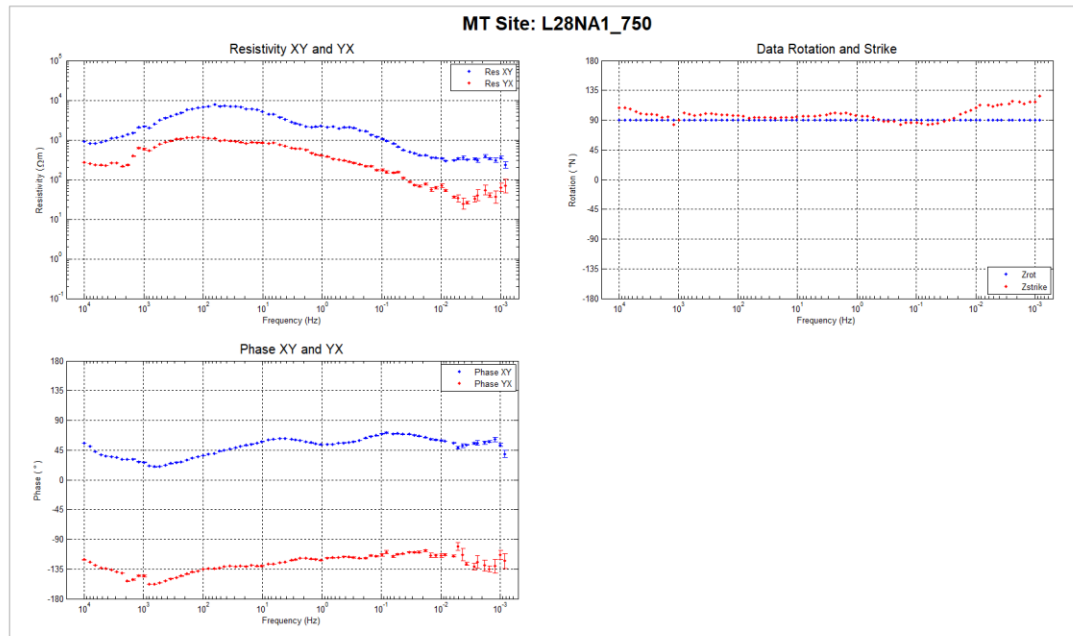
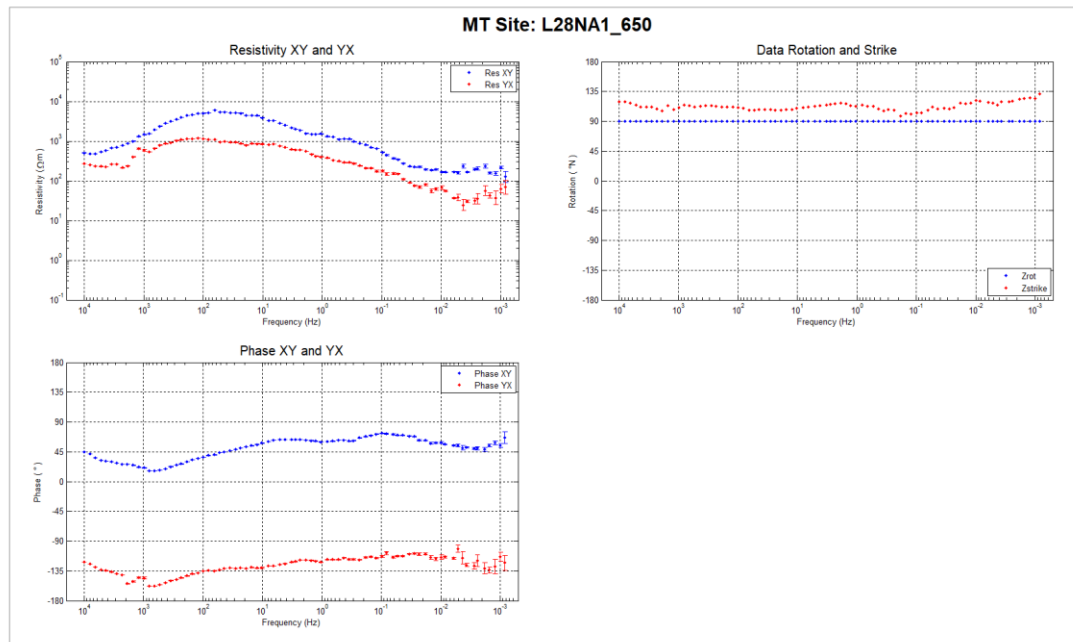


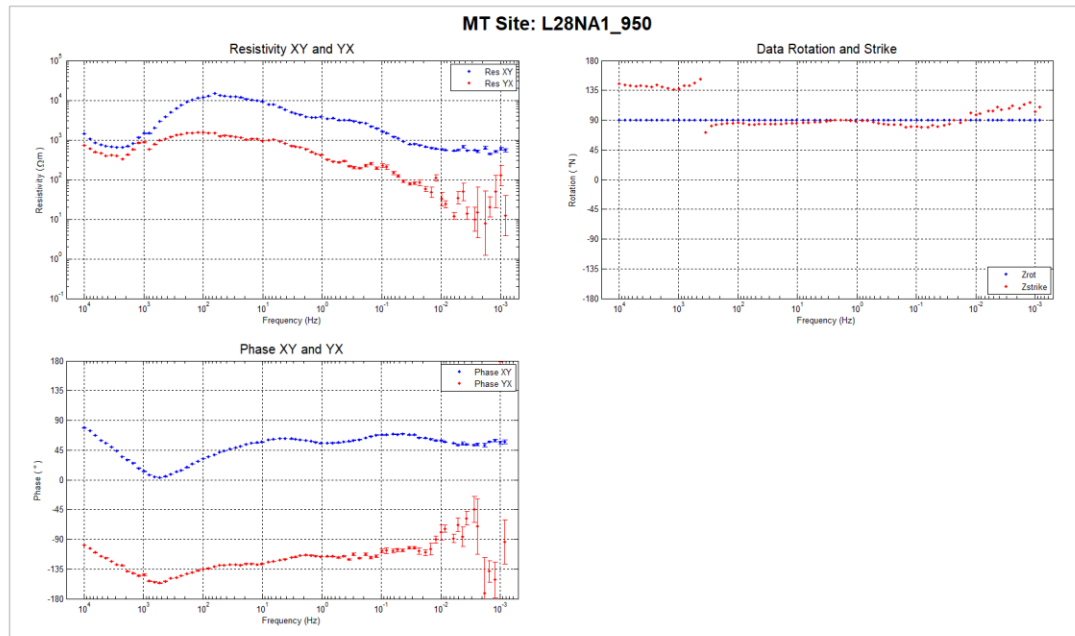
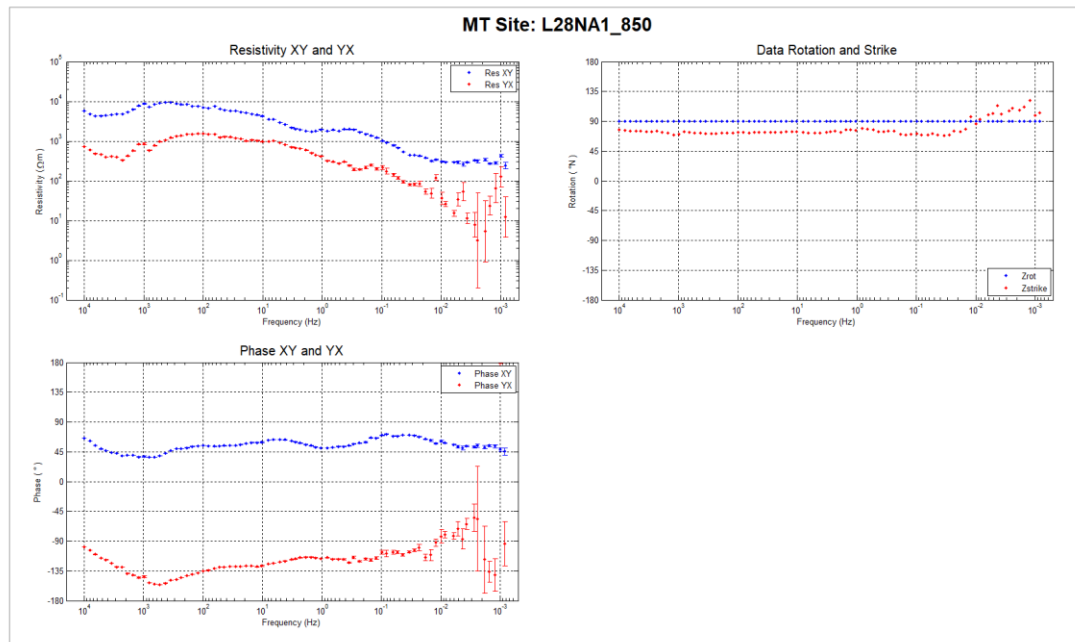
C.1.8. Line 2800N

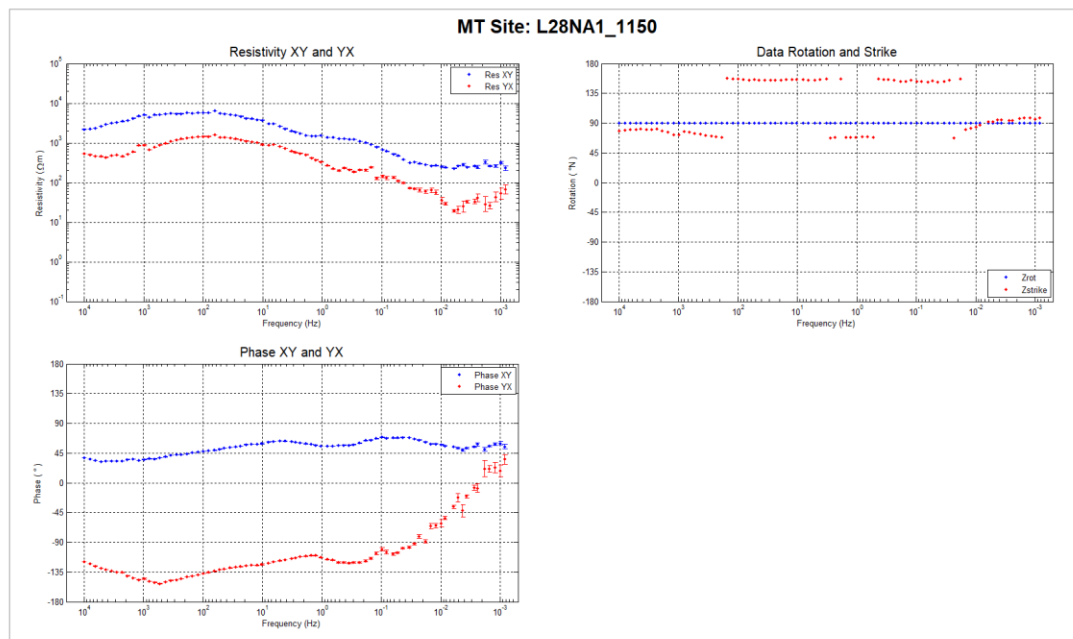
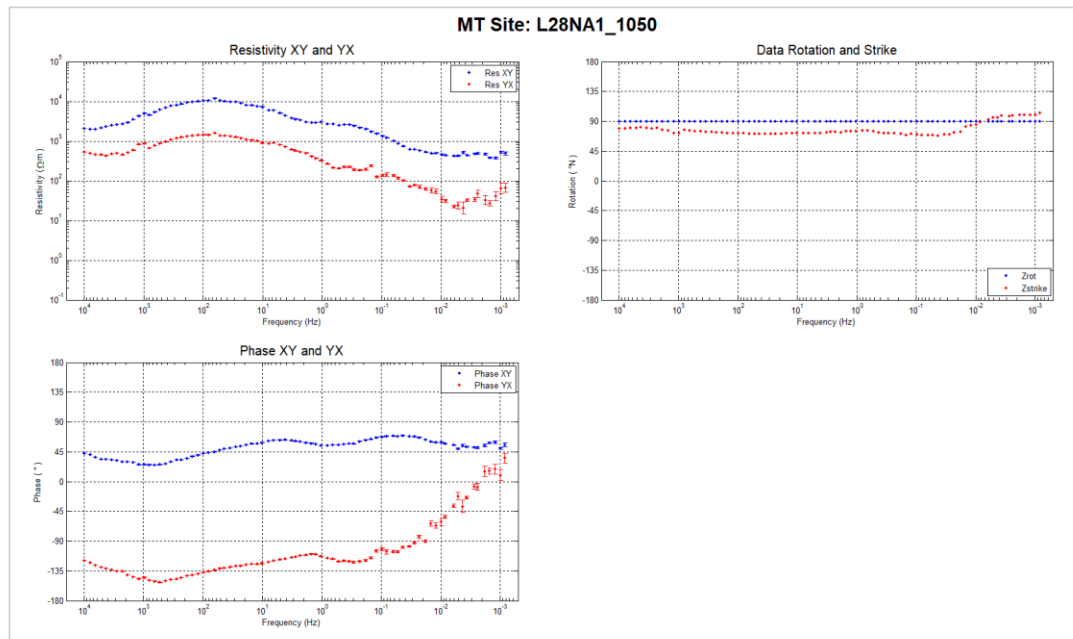


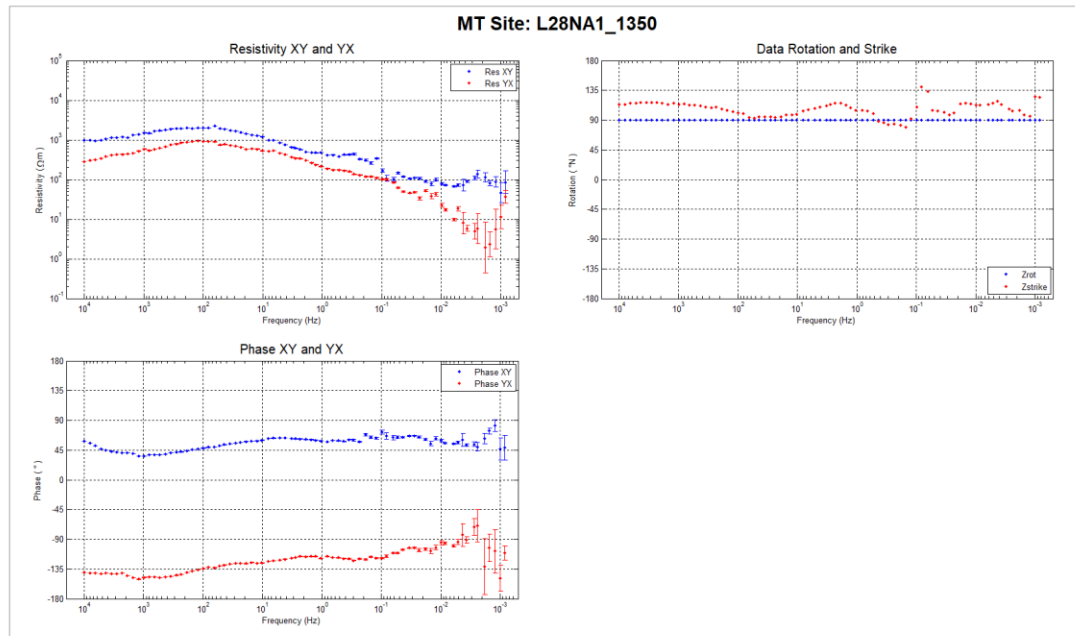
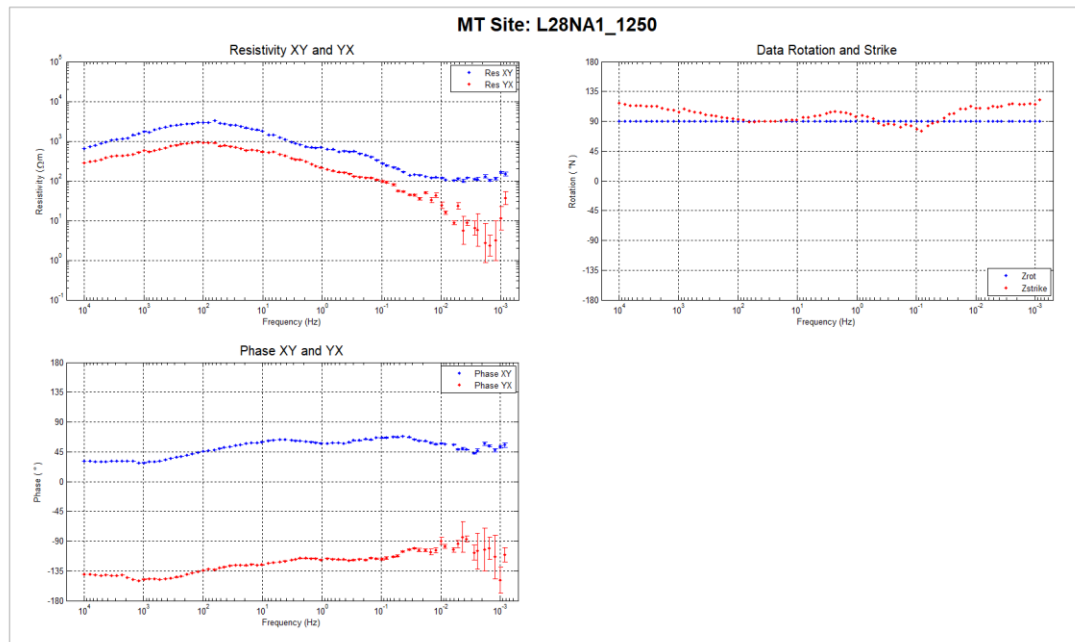


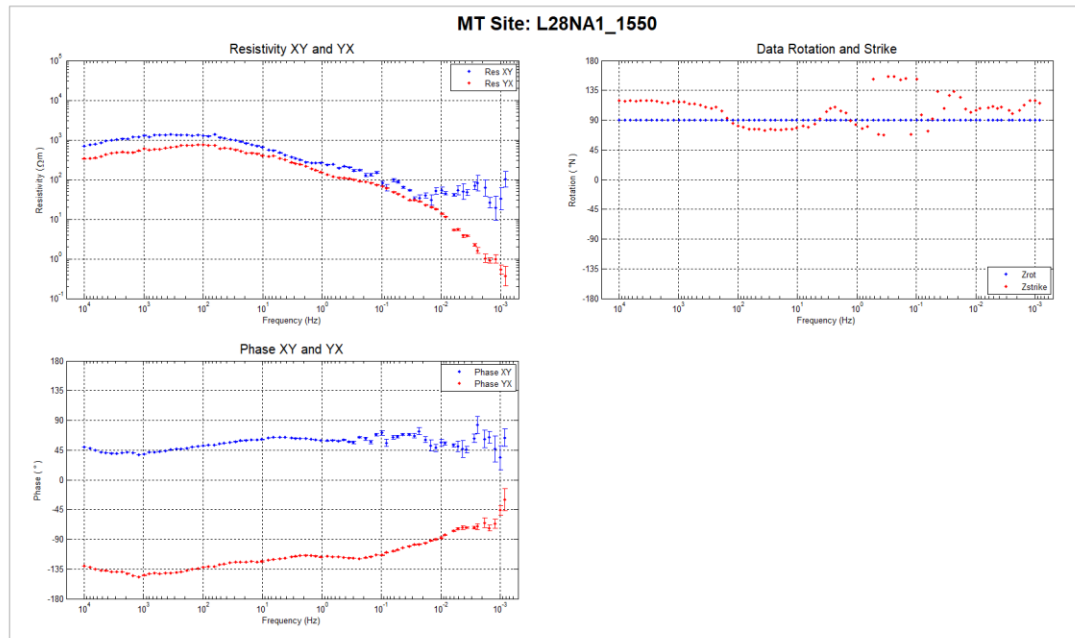
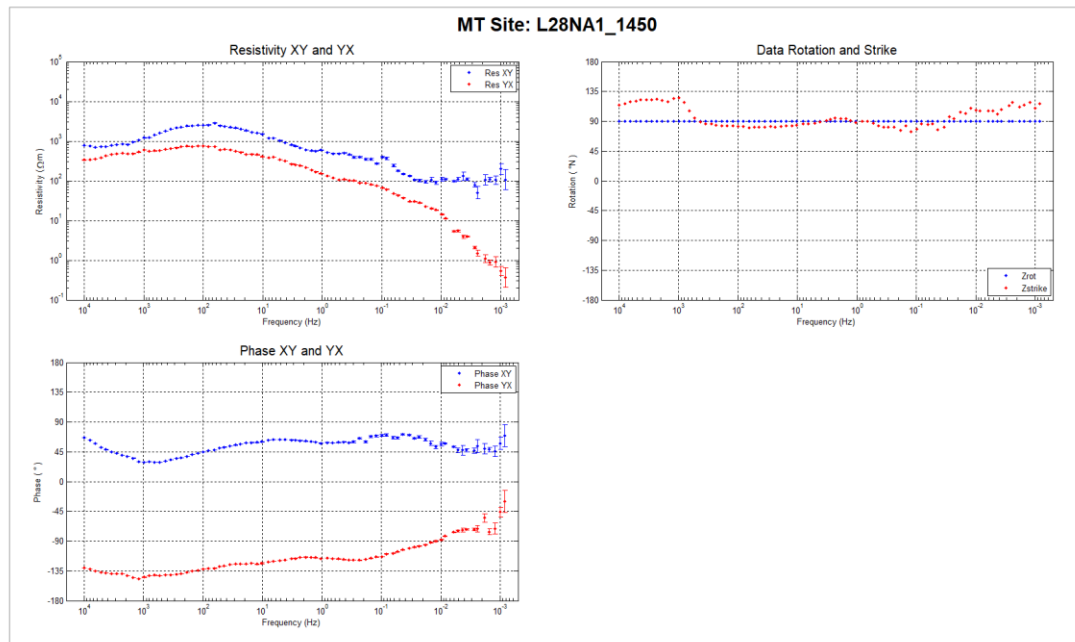


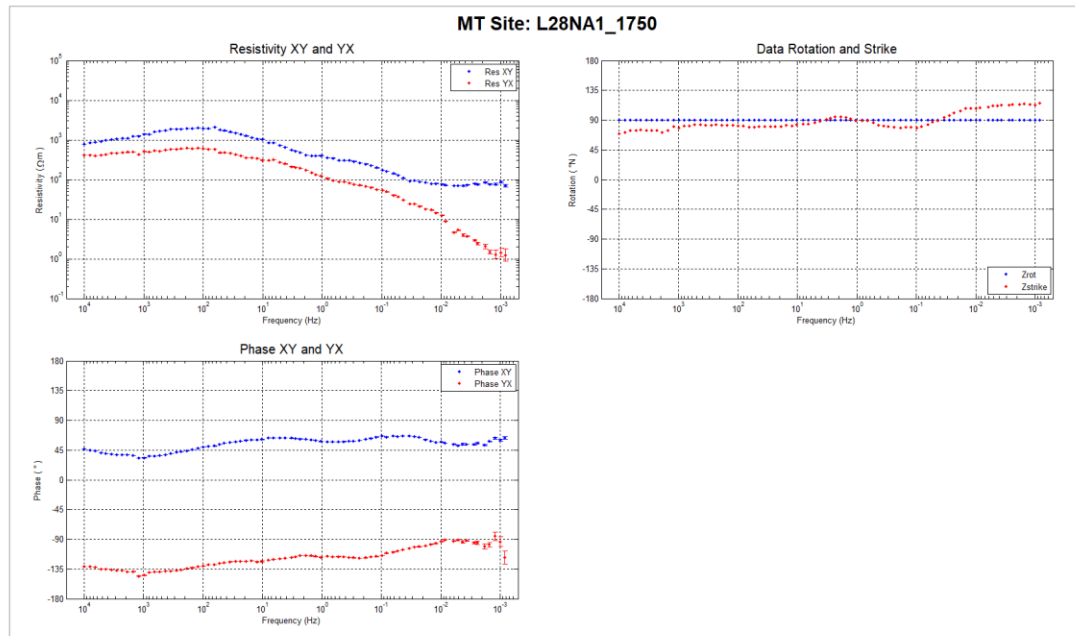
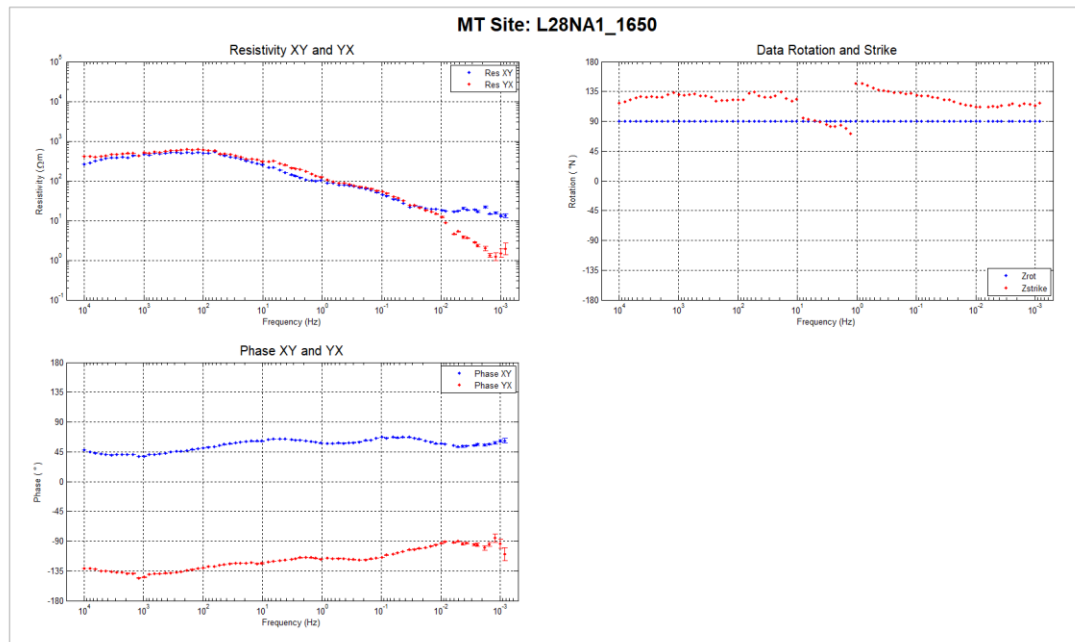


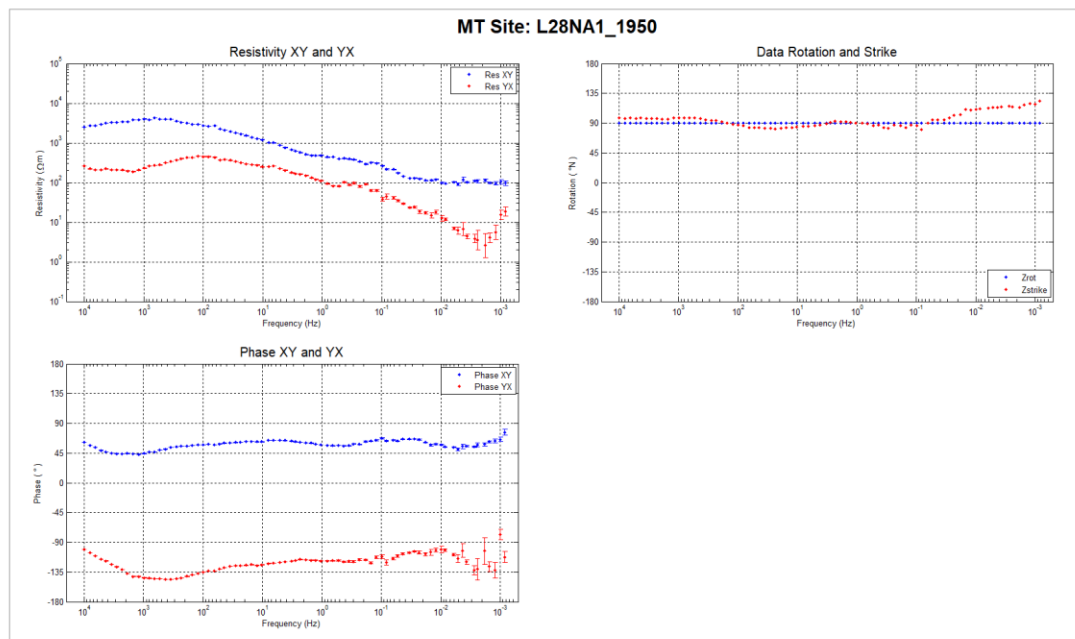
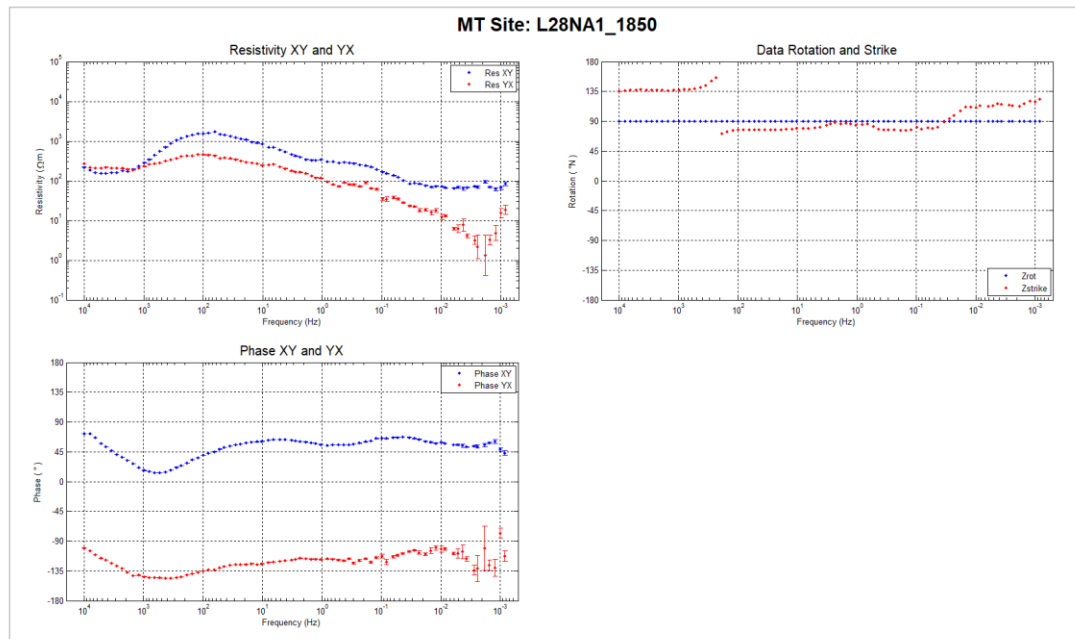


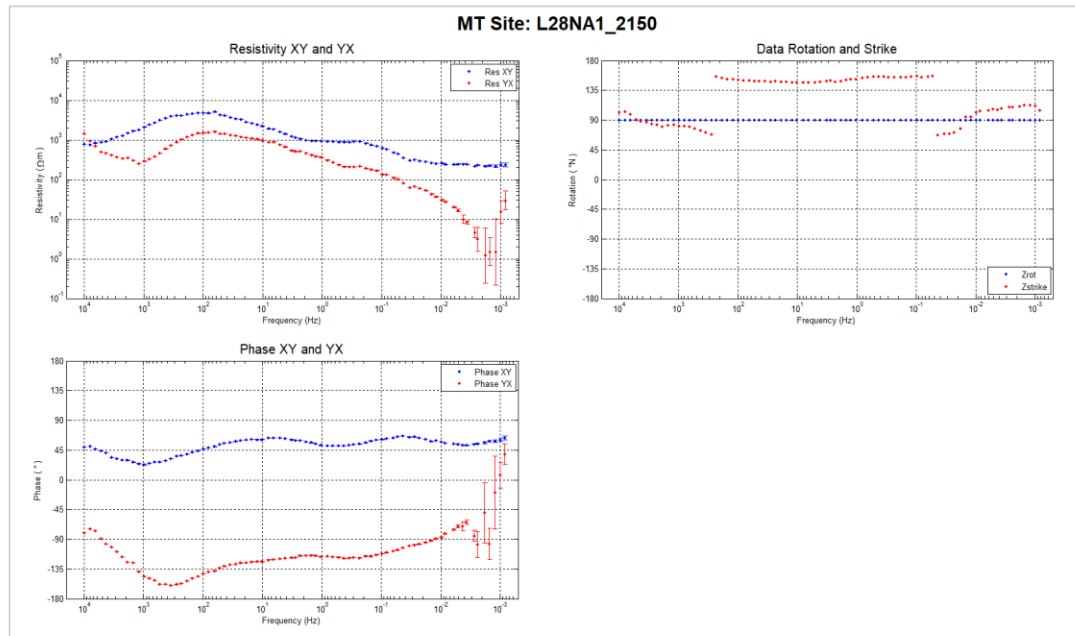
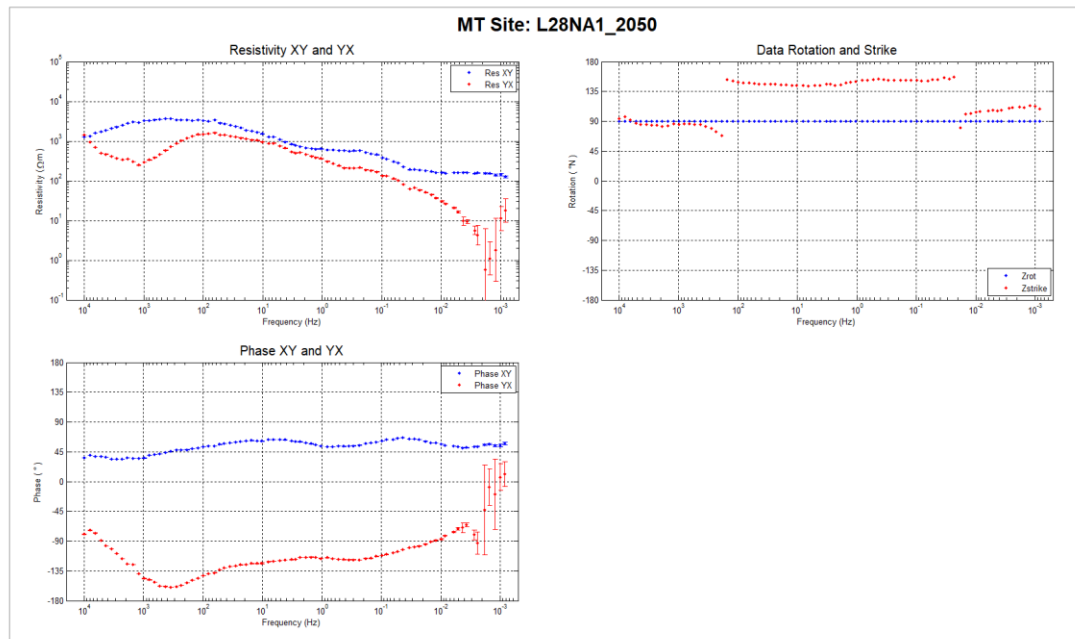


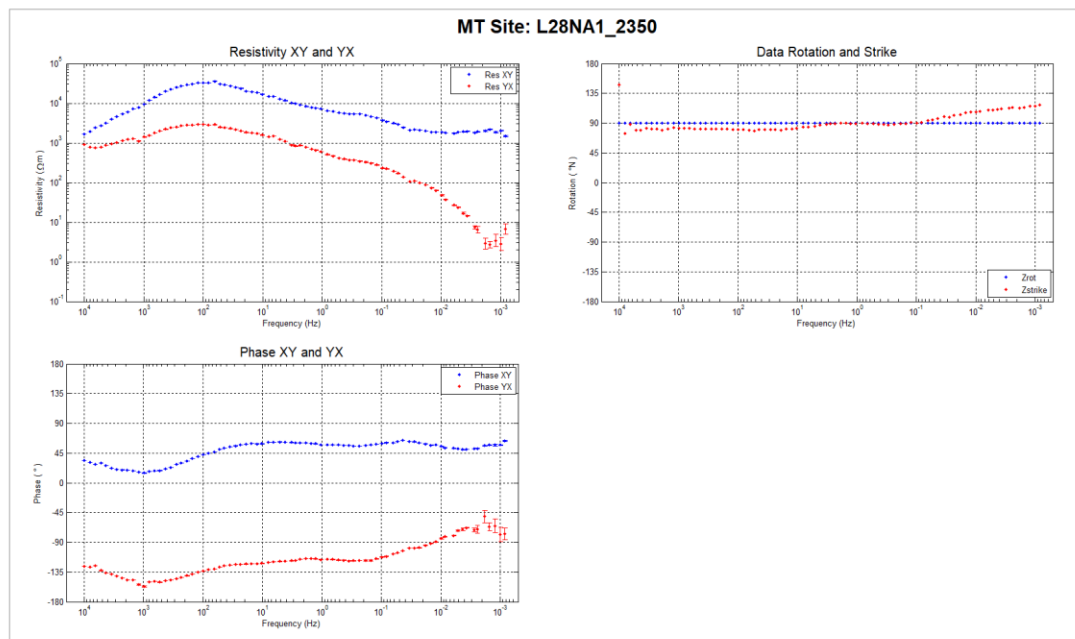
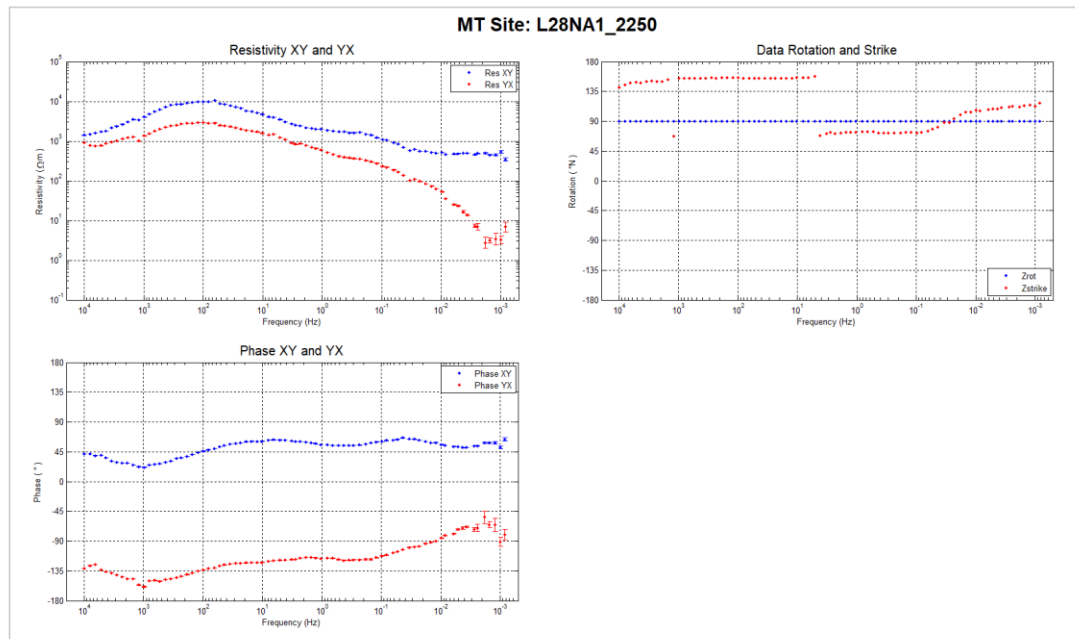






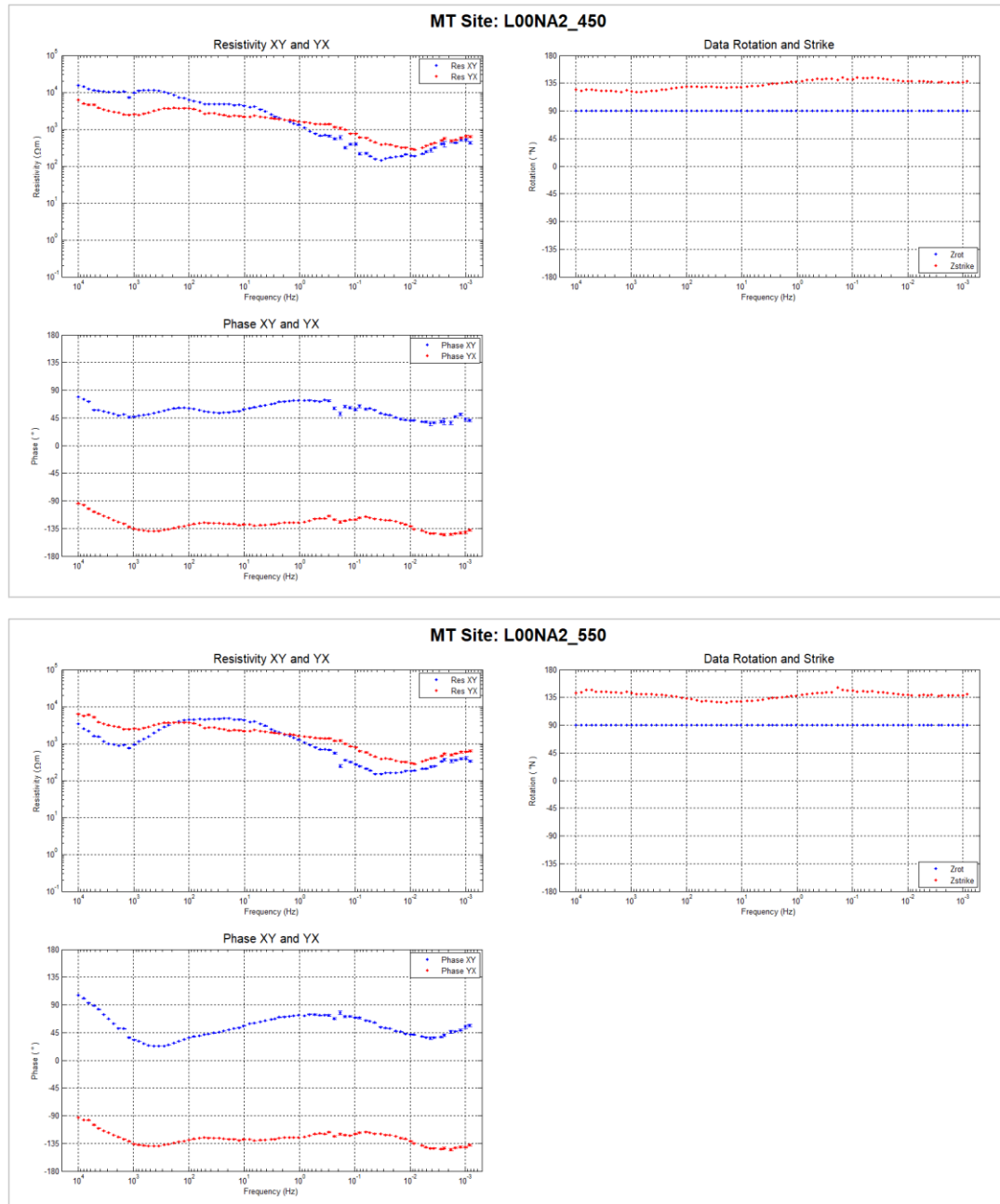


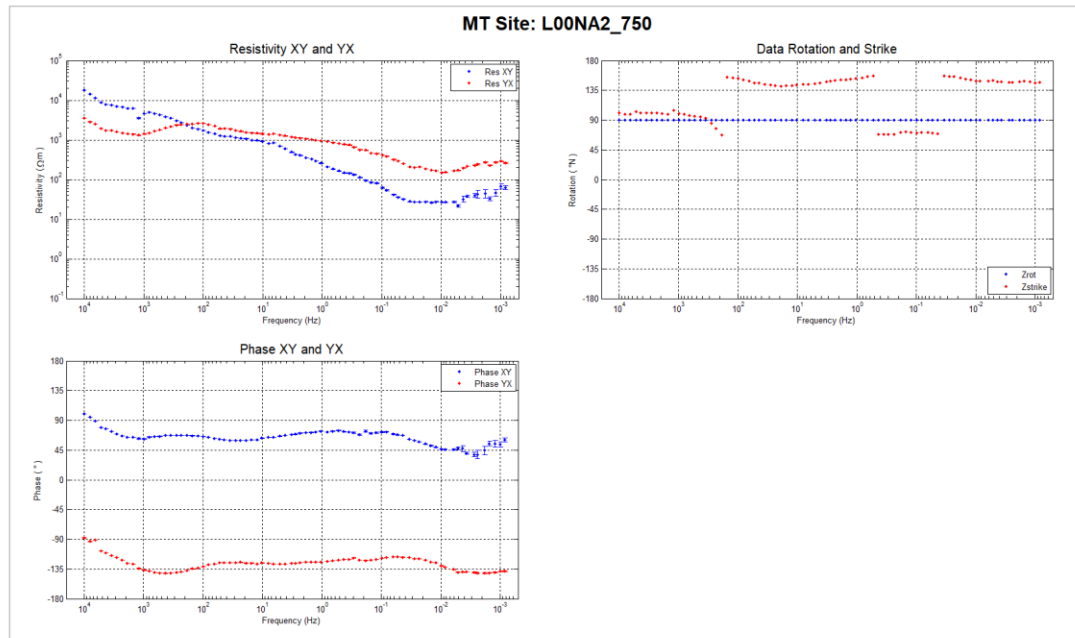
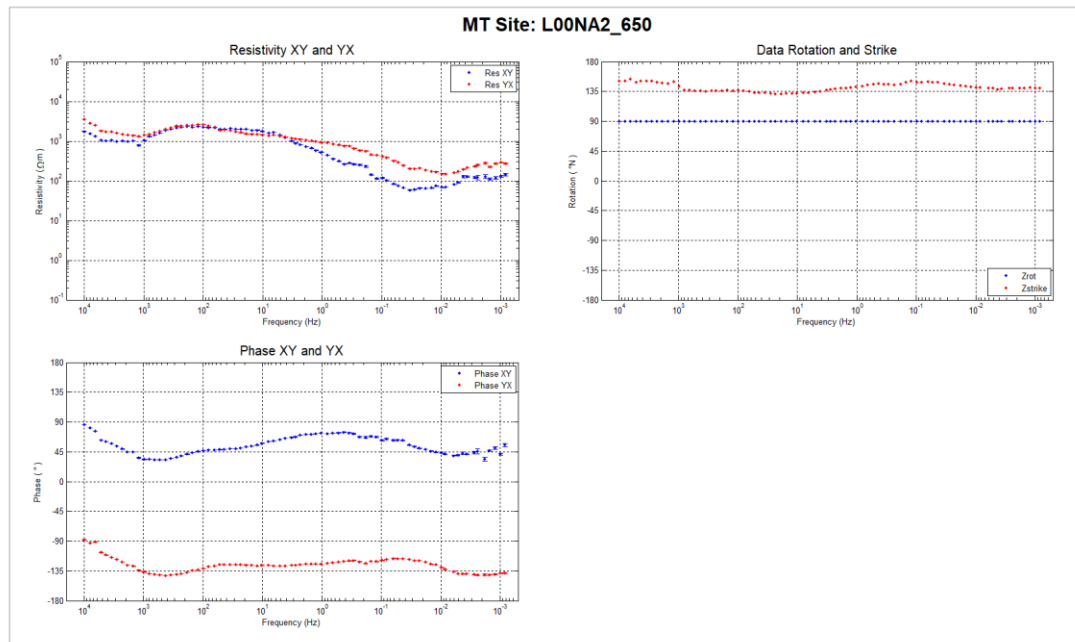


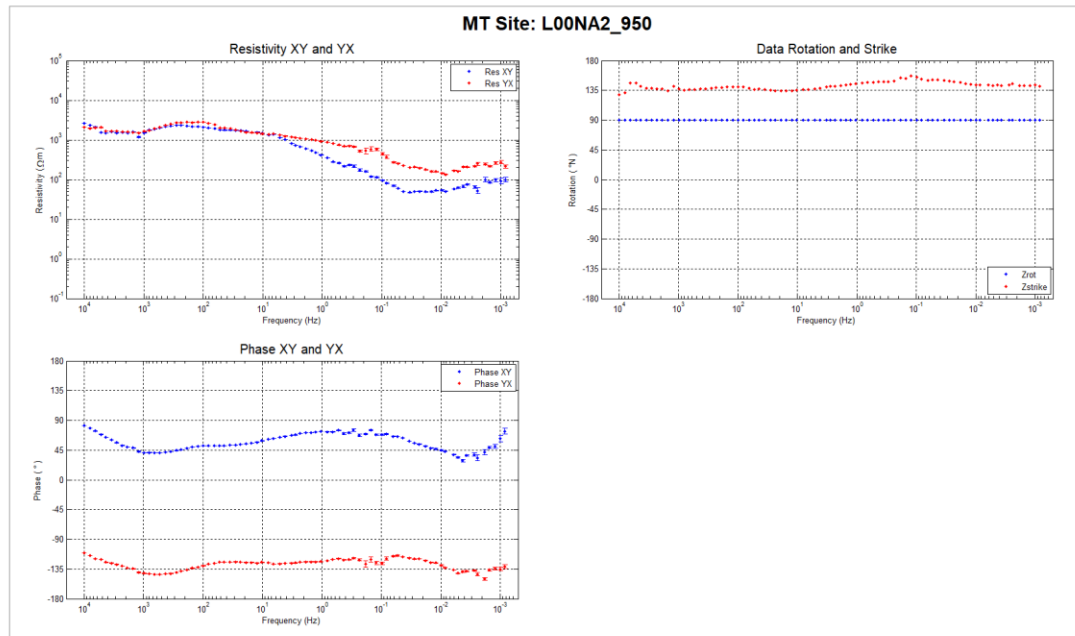
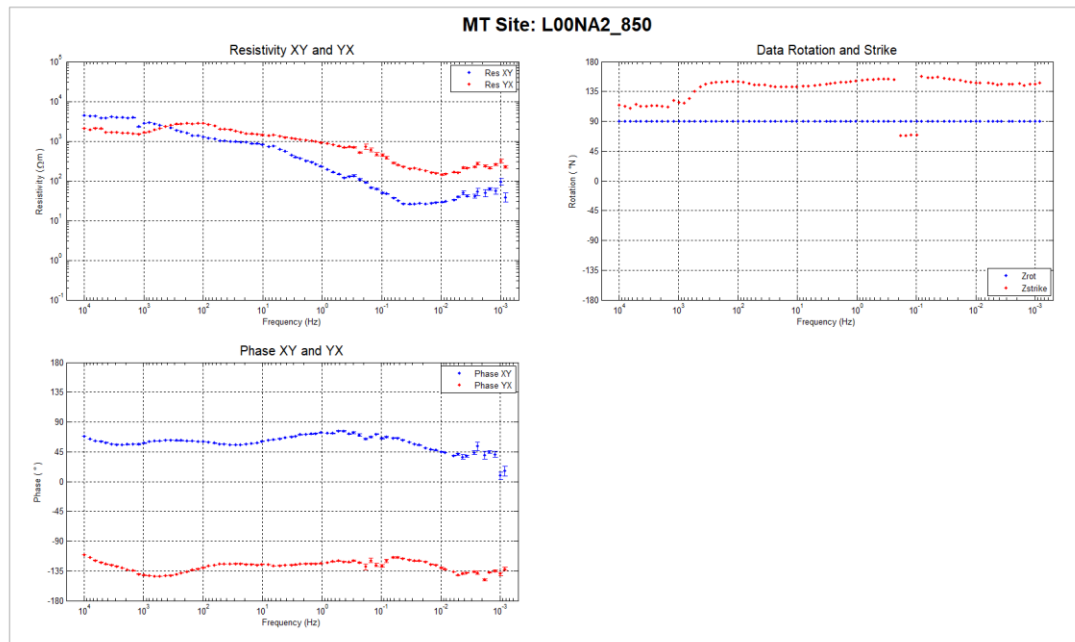


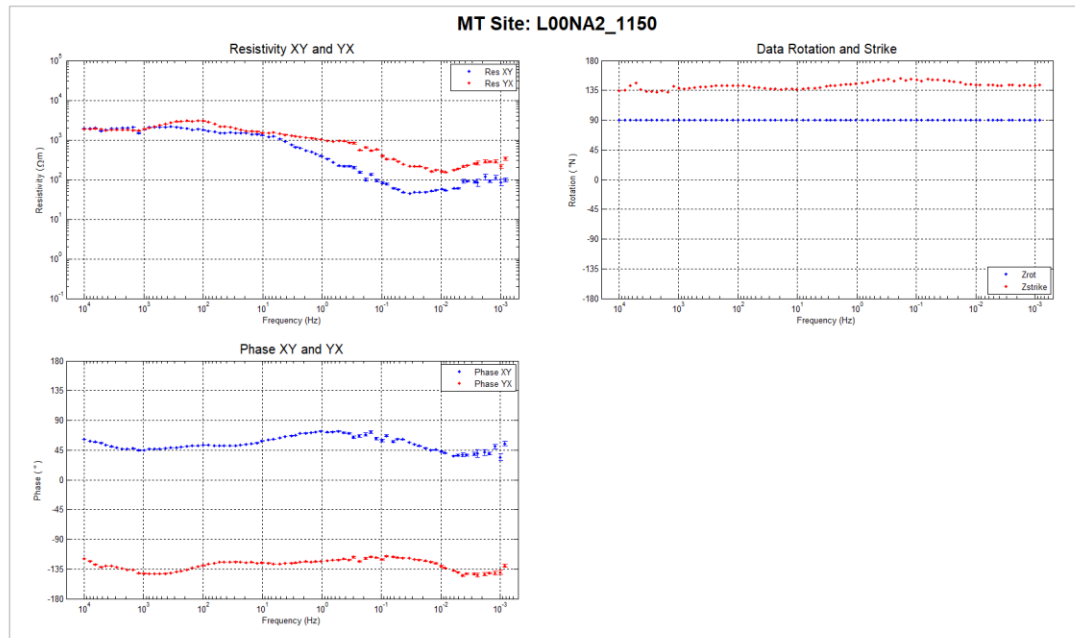
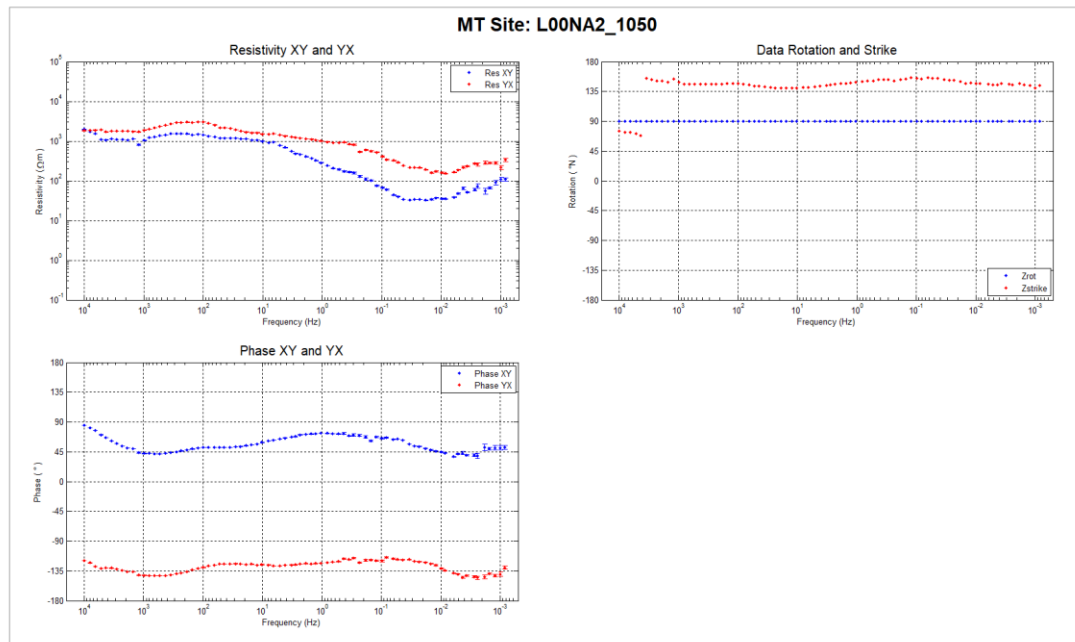
C.2. SOUNDING CURVES – GRID 2

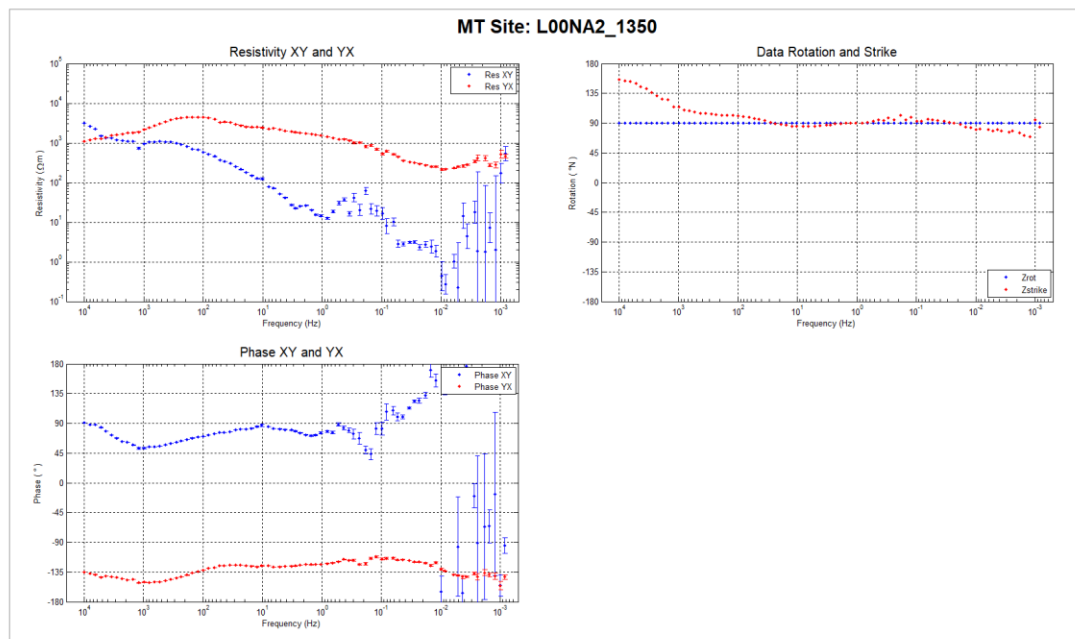
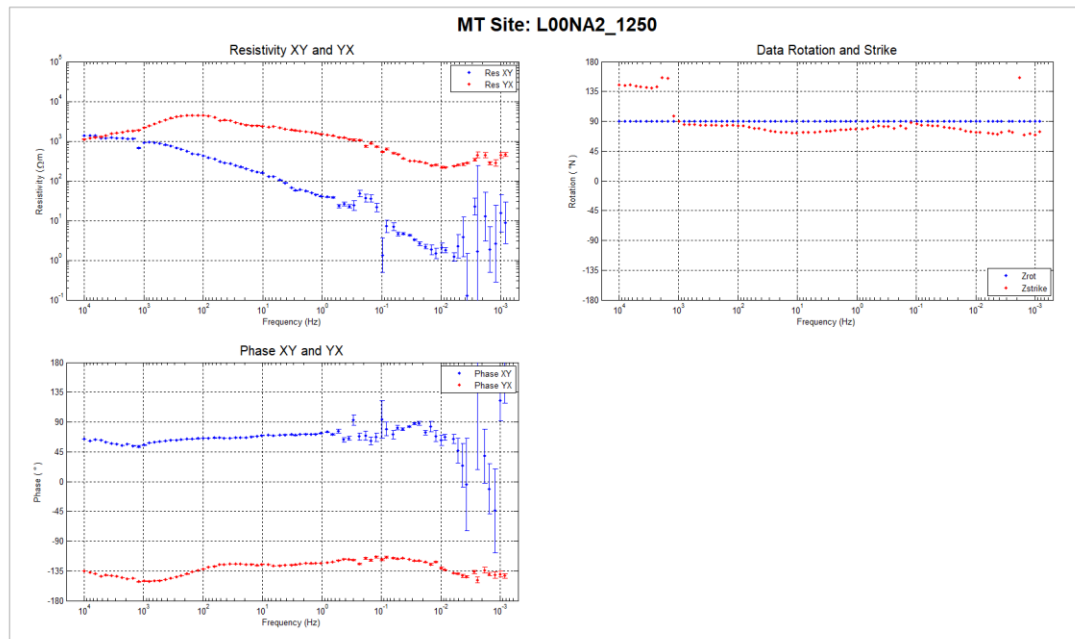
C.2.1. Line 0000N

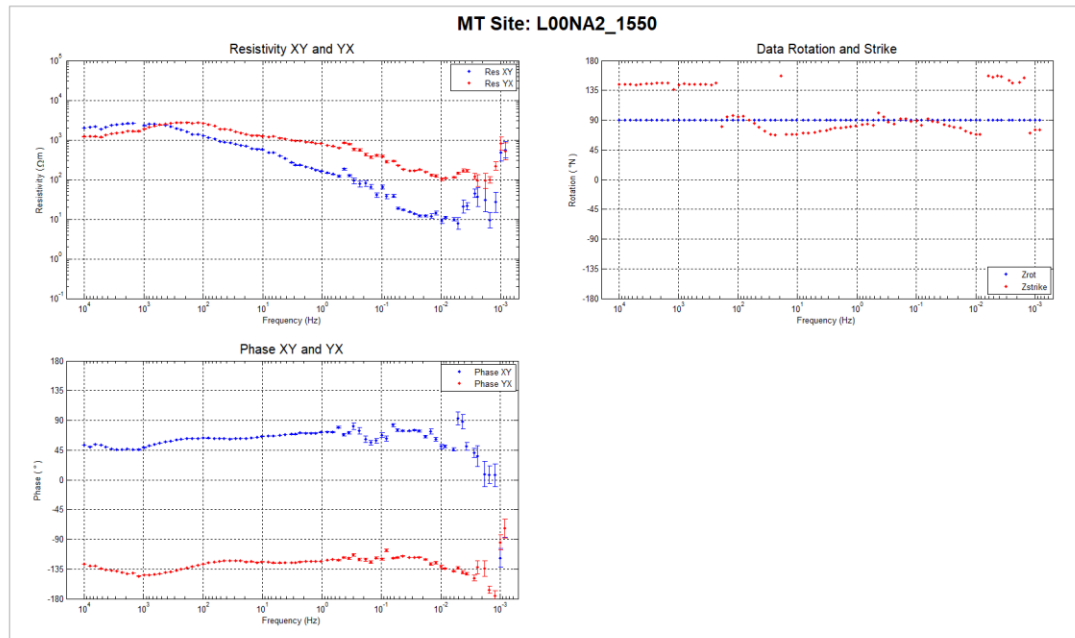
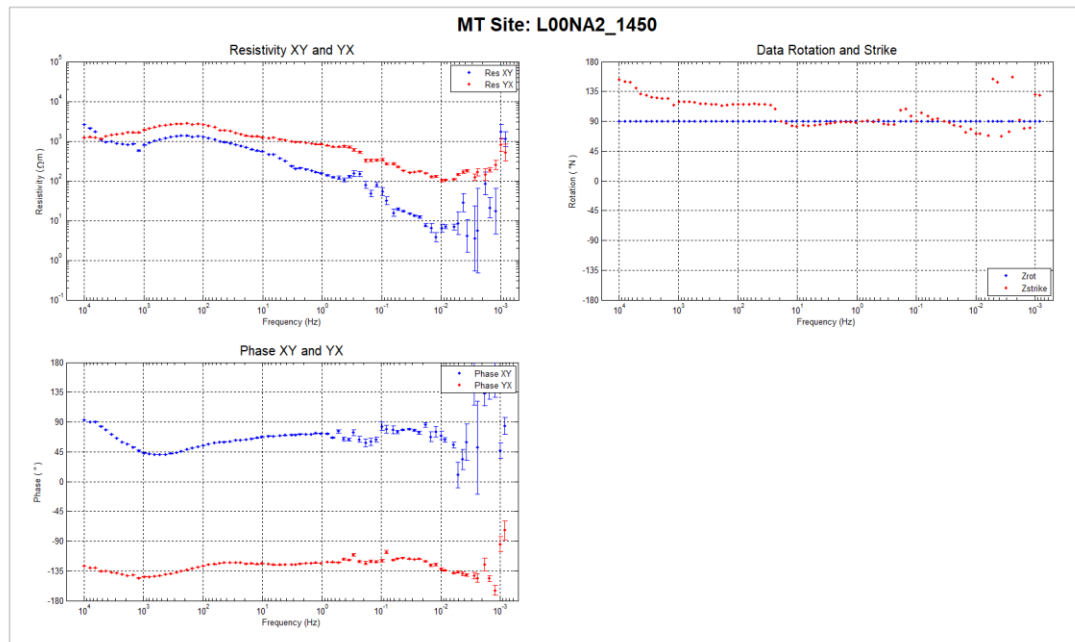


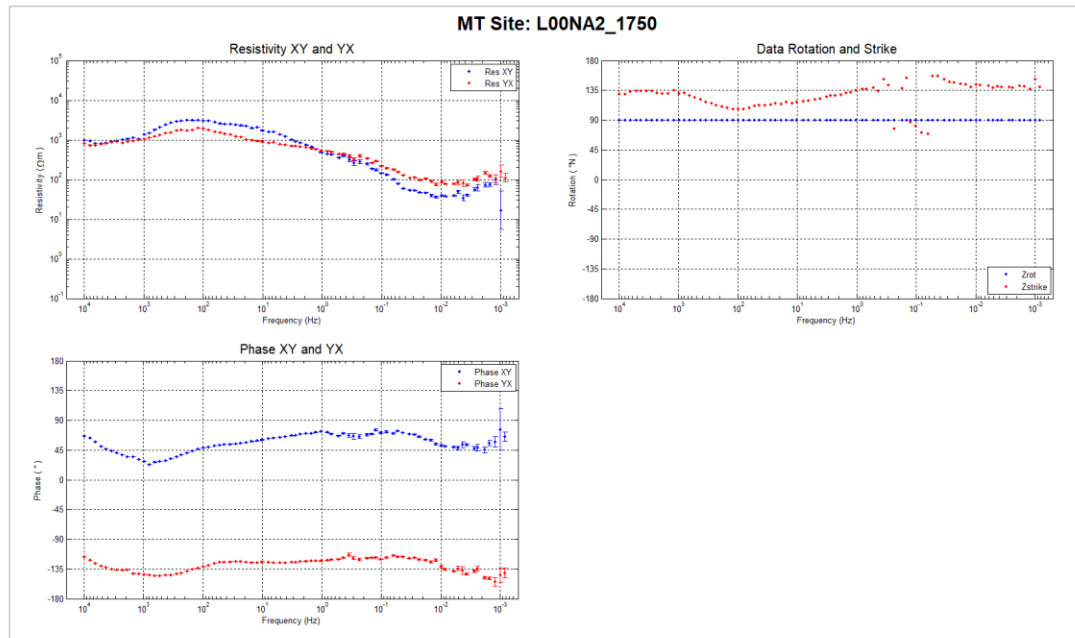
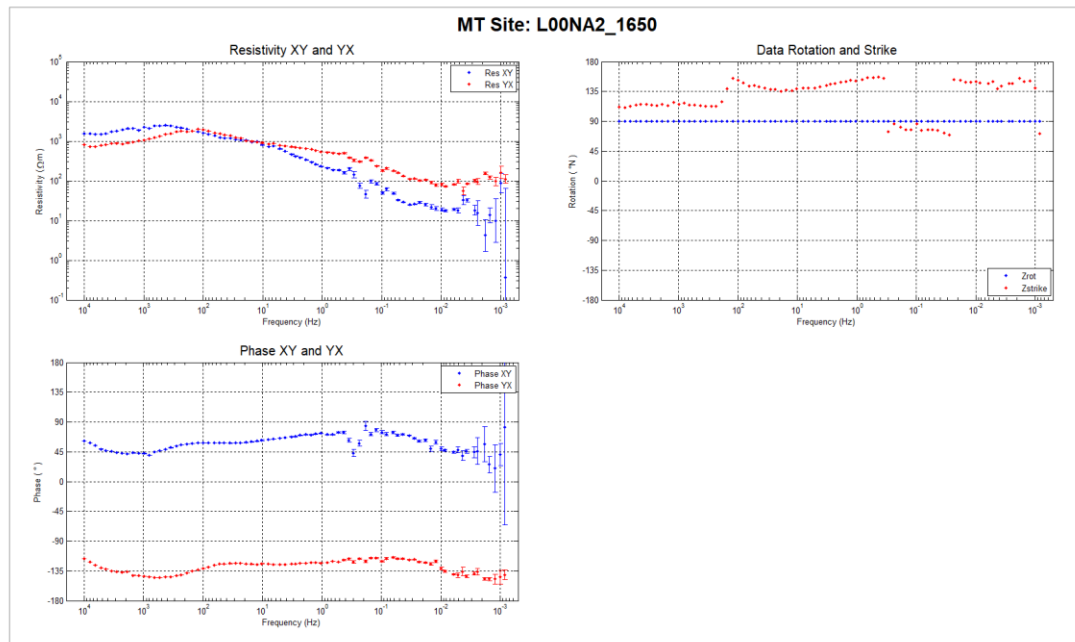


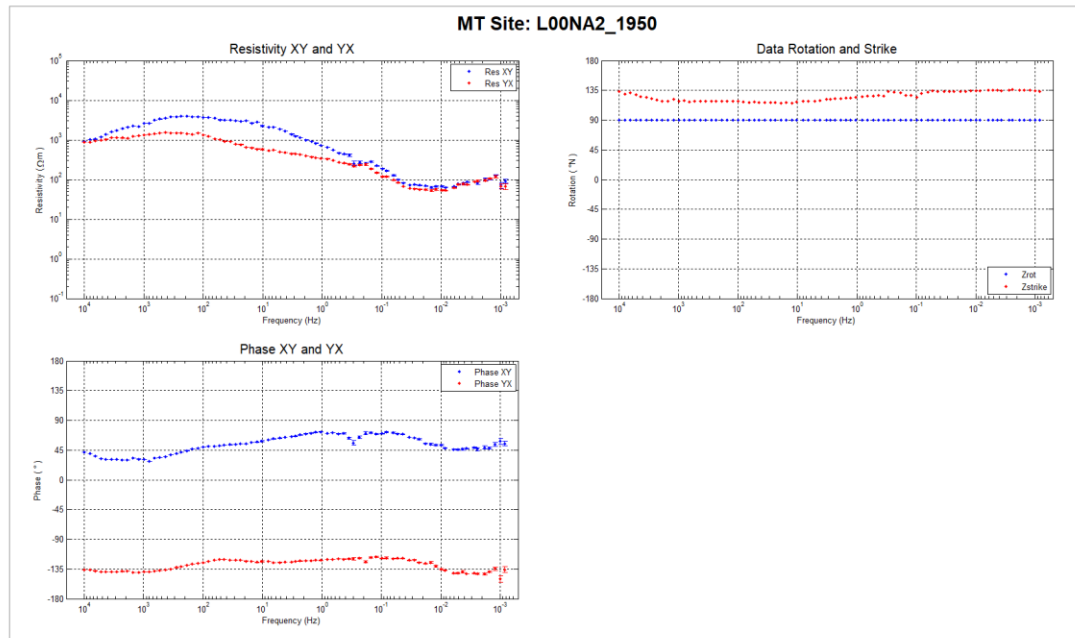
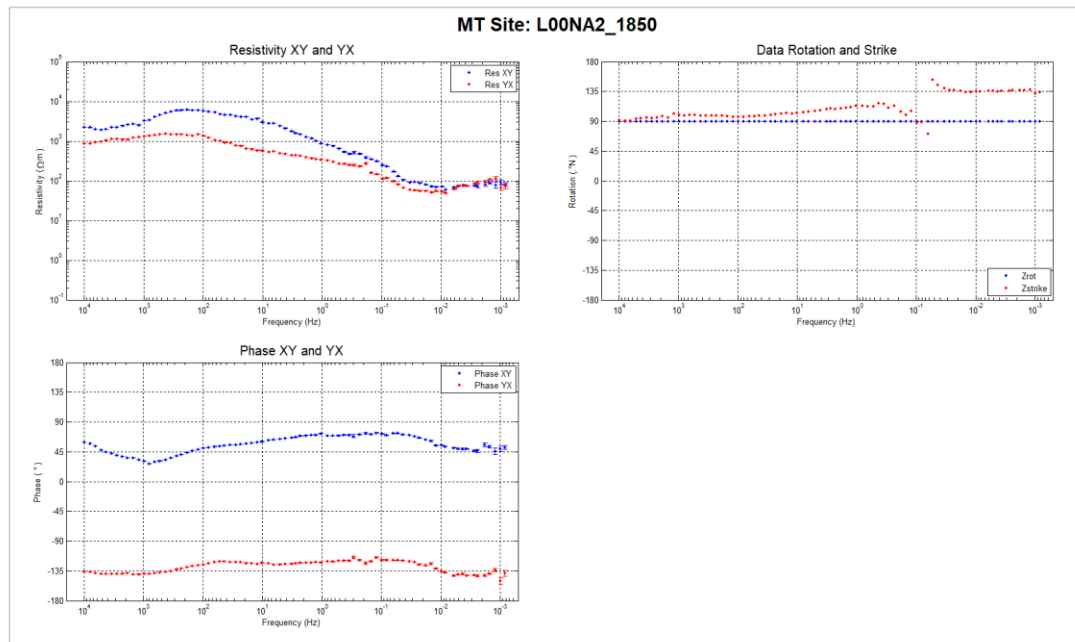


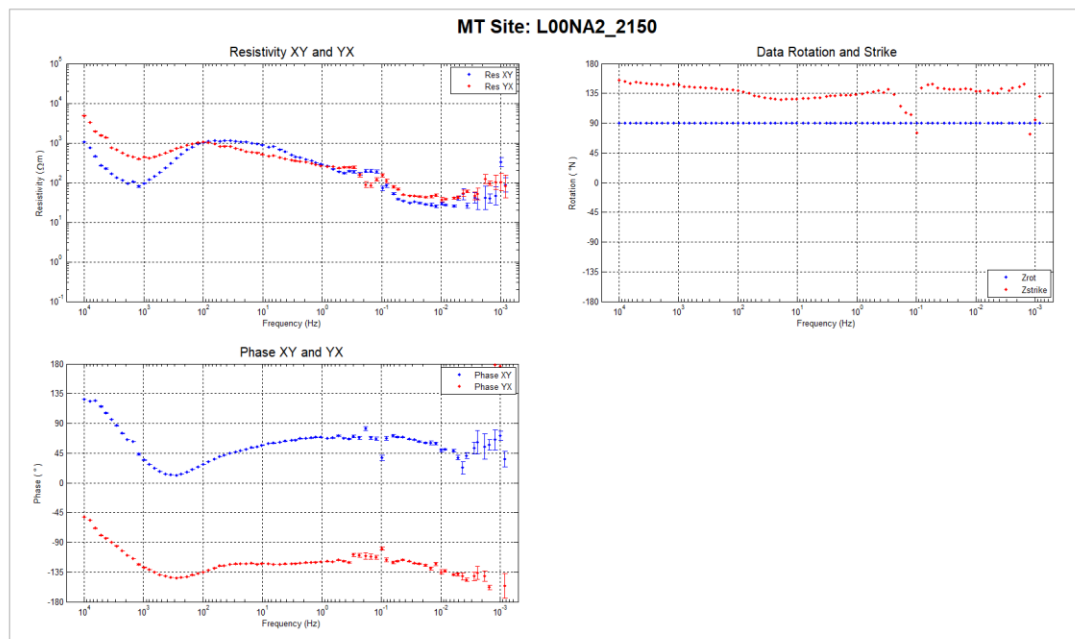
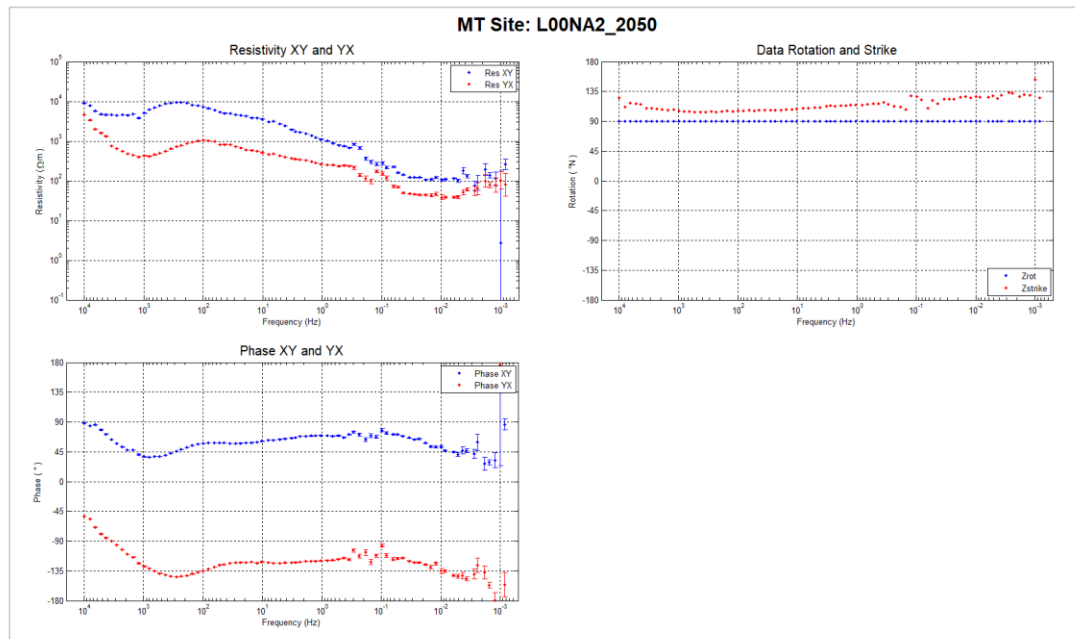


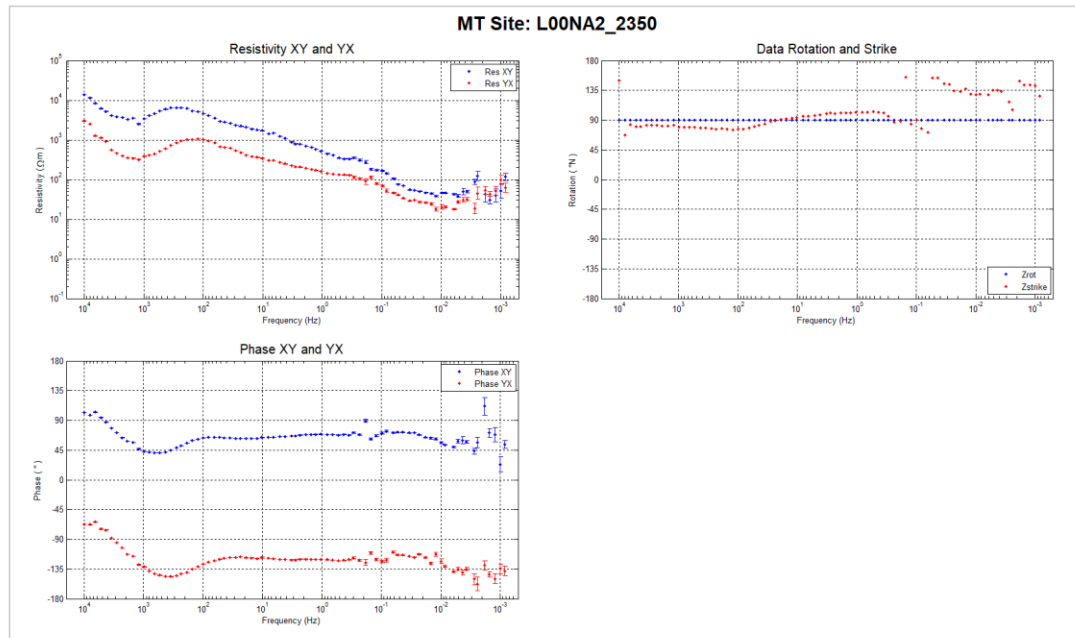
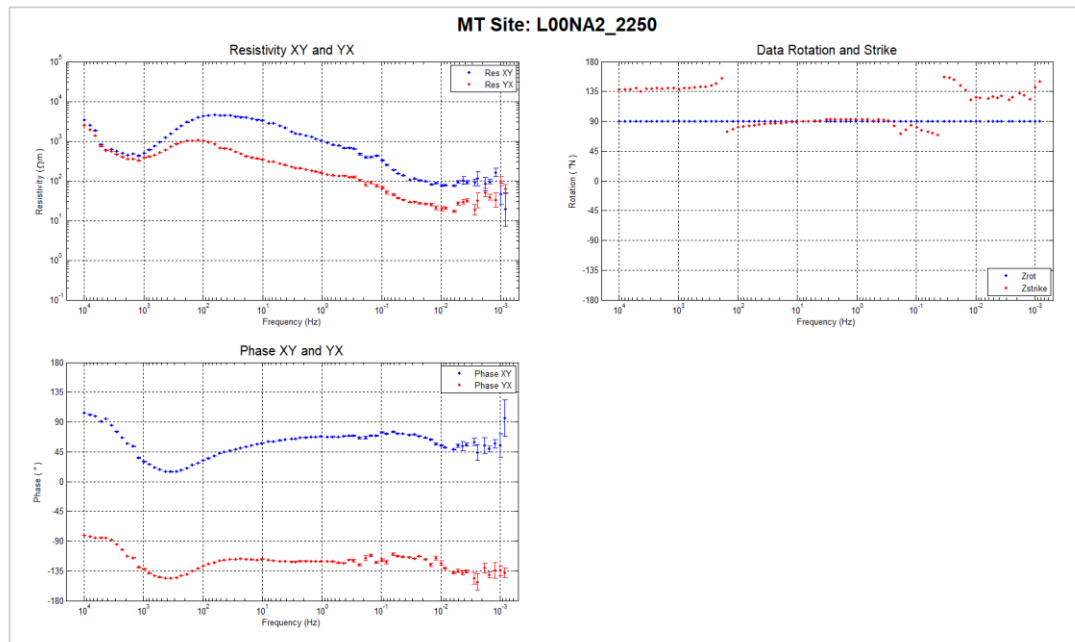




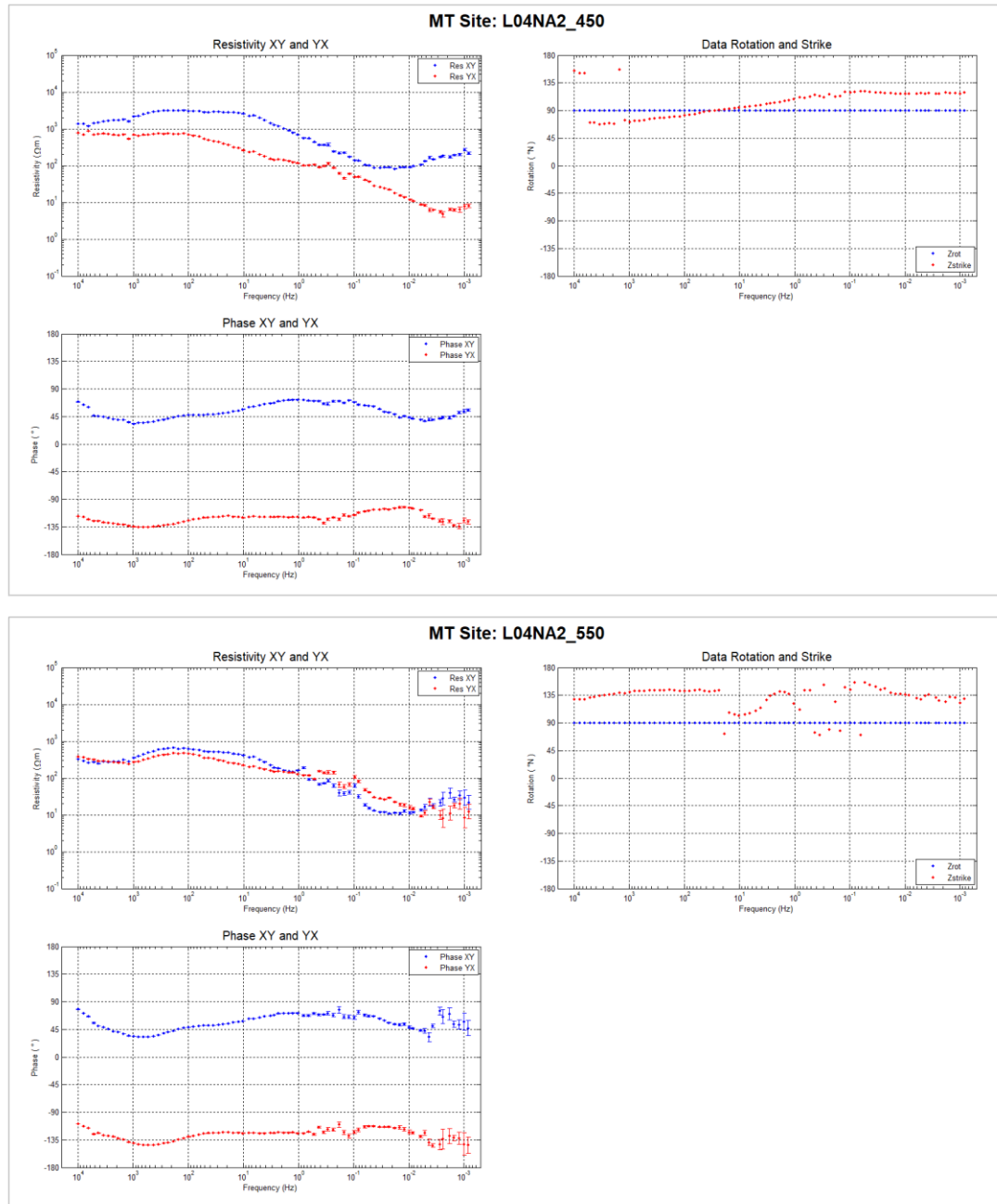


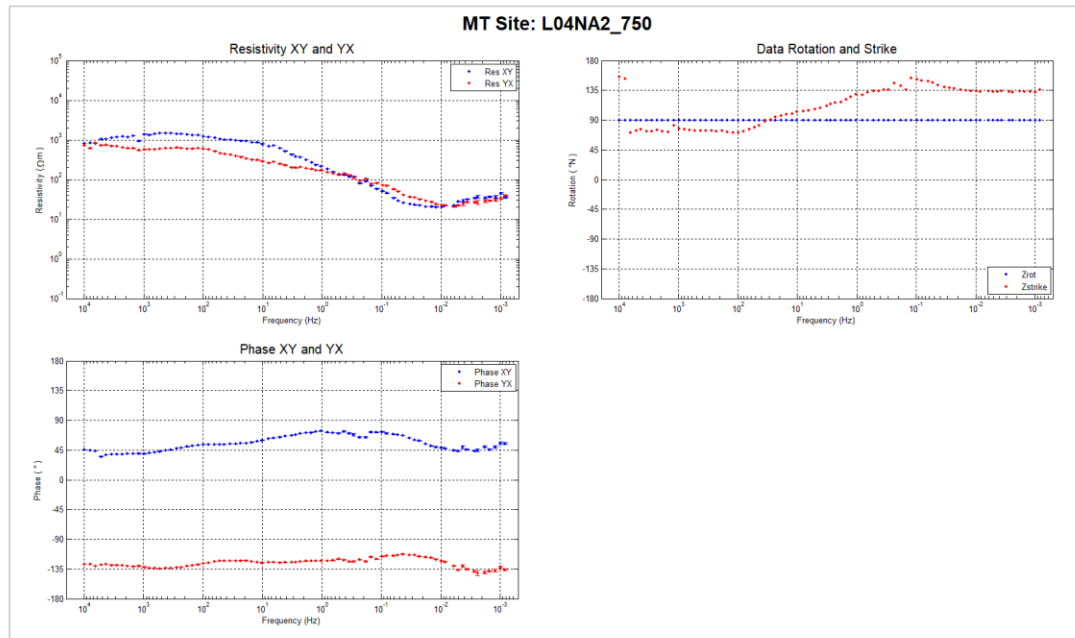
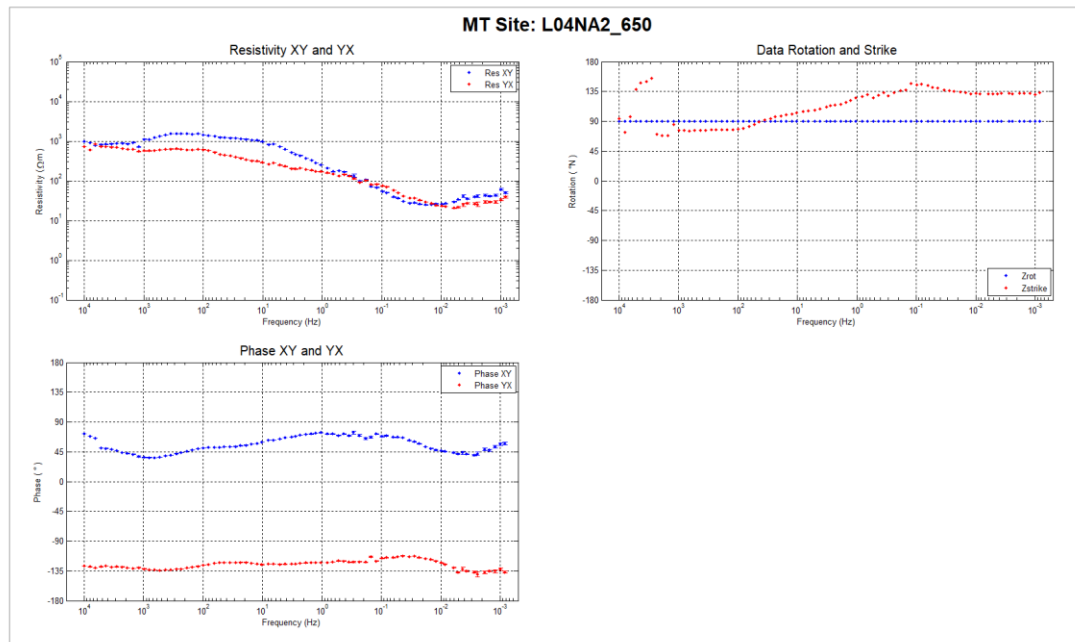


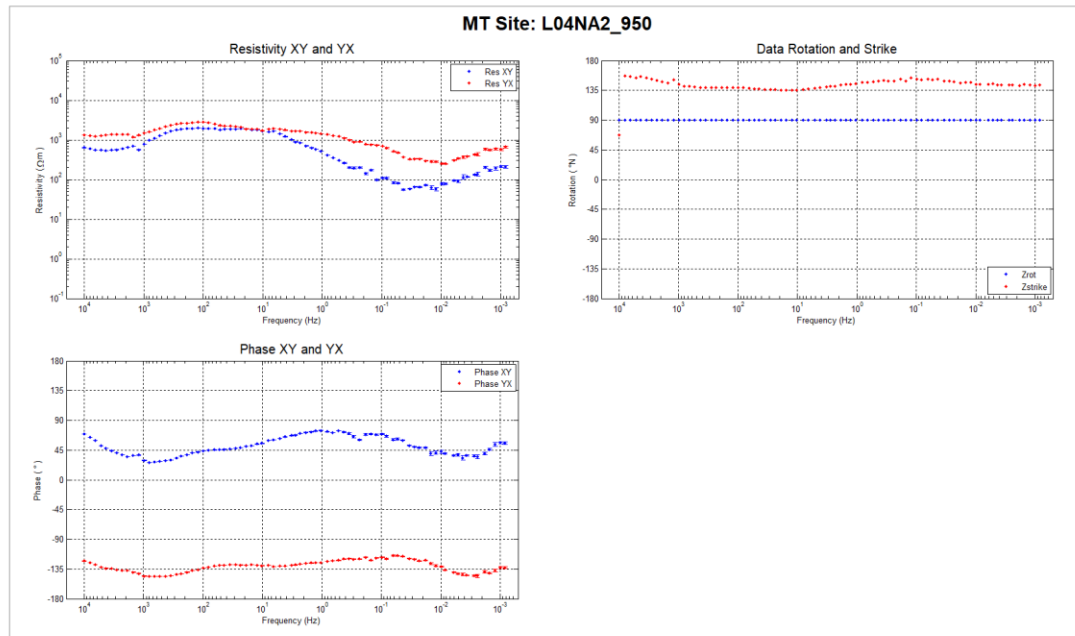
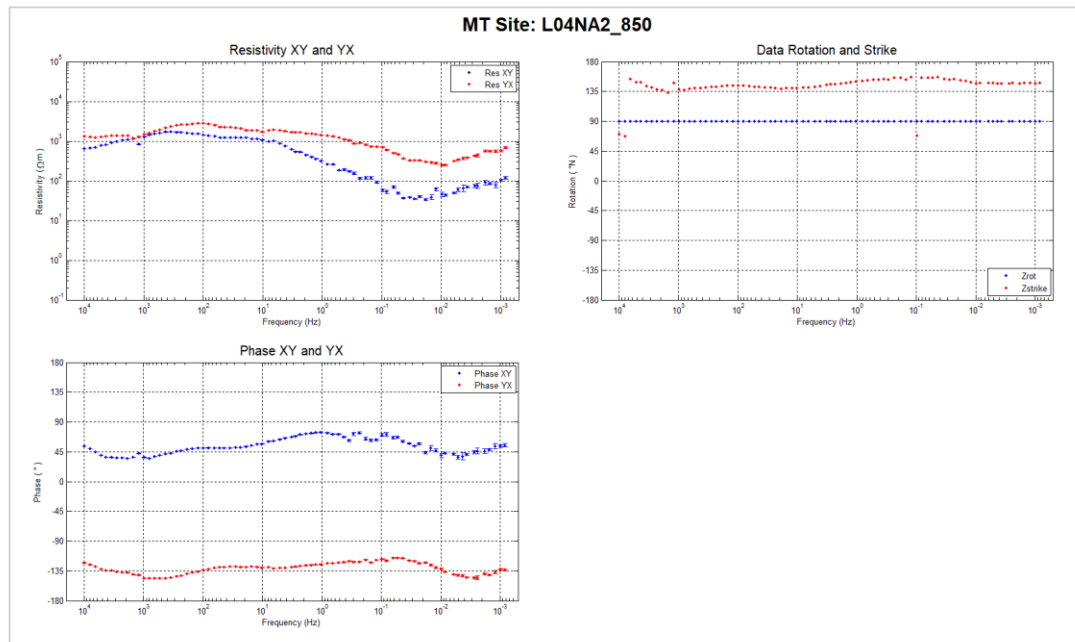


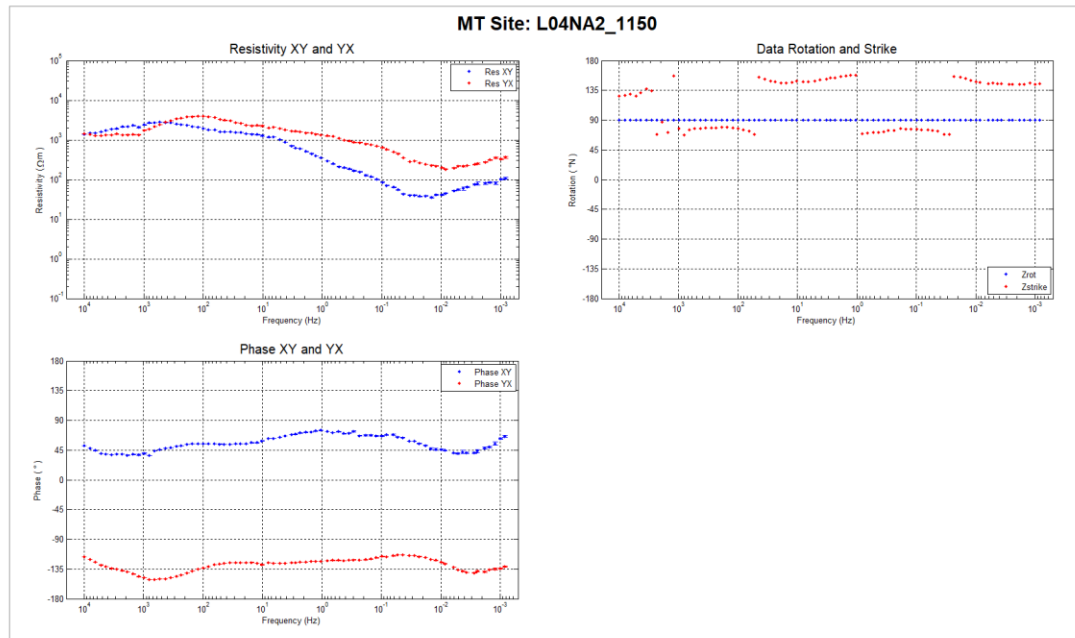
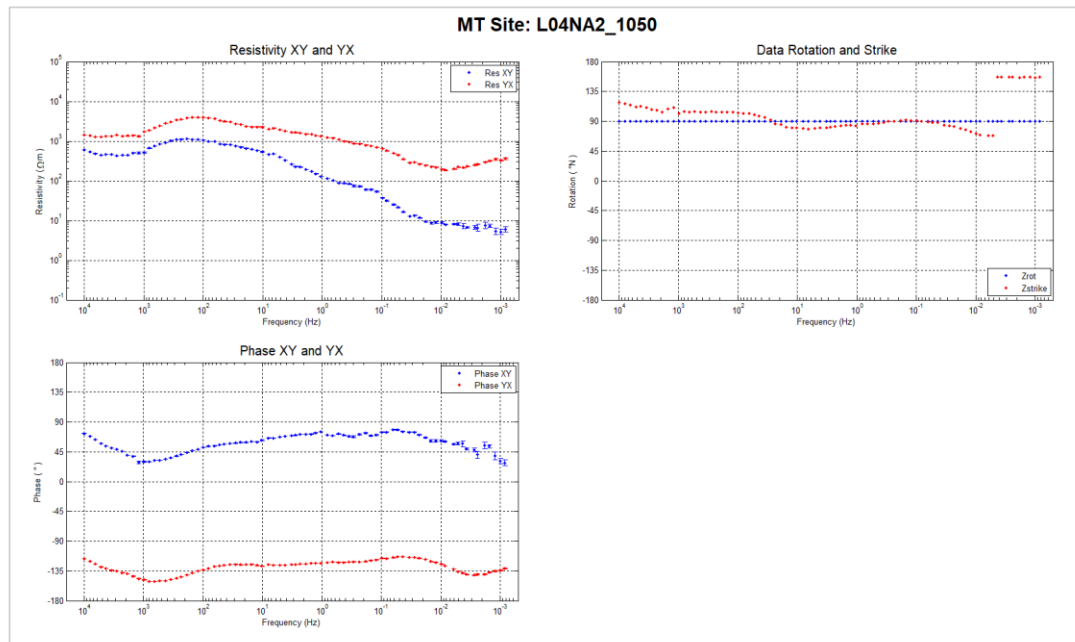


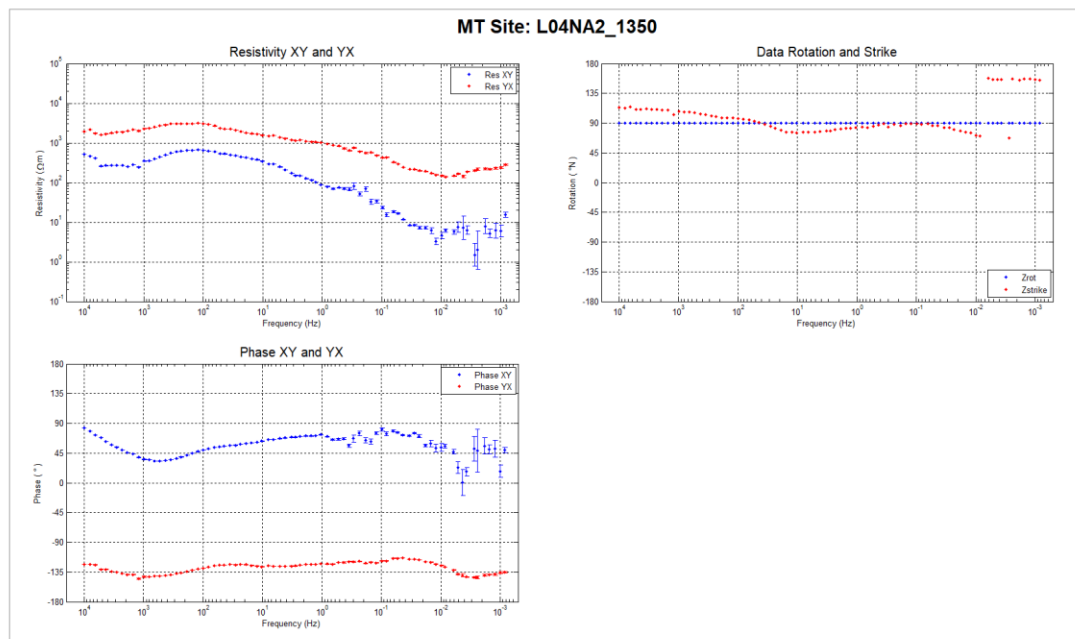
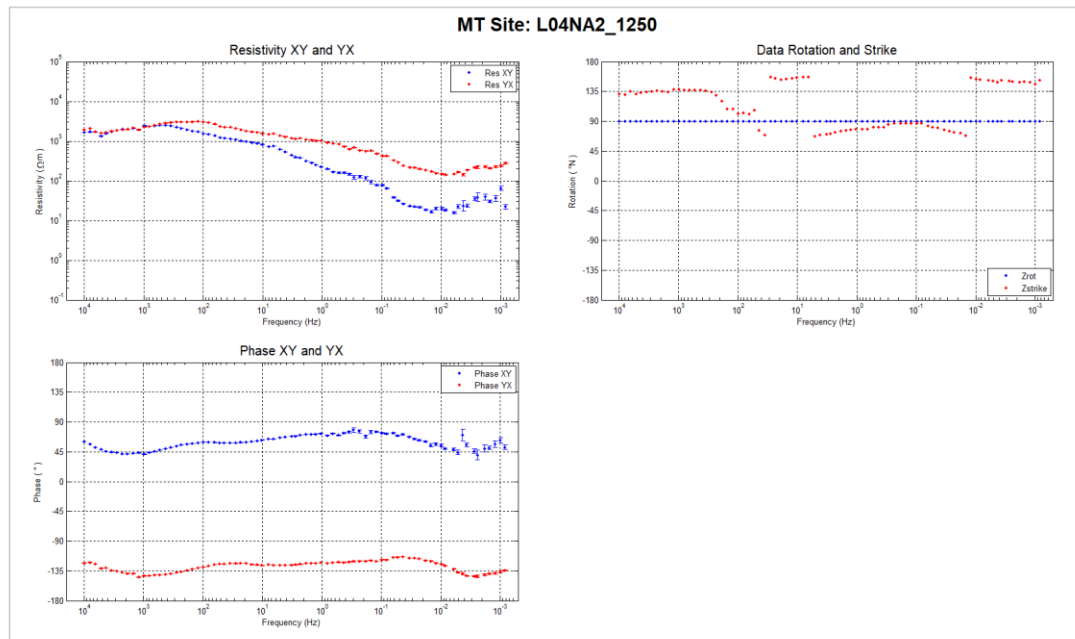
C.2.2. Line 0400N

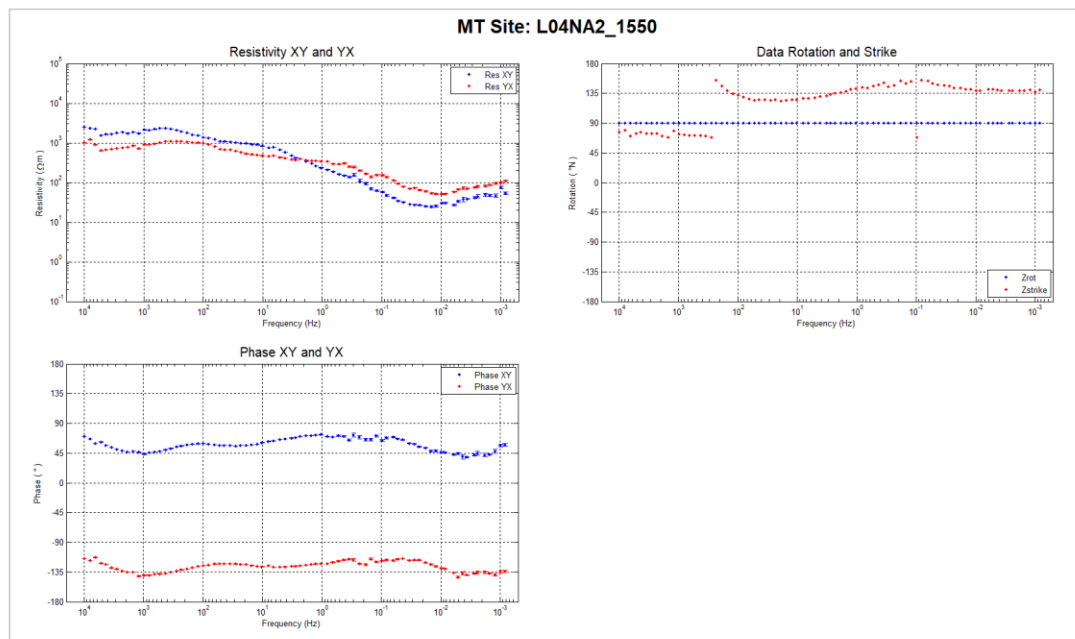
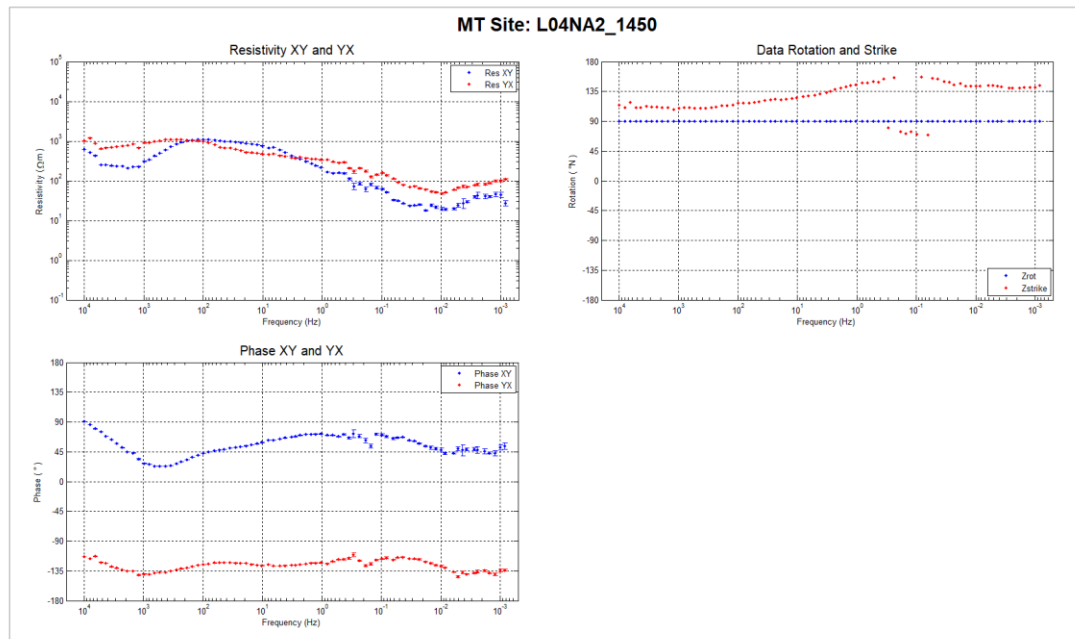


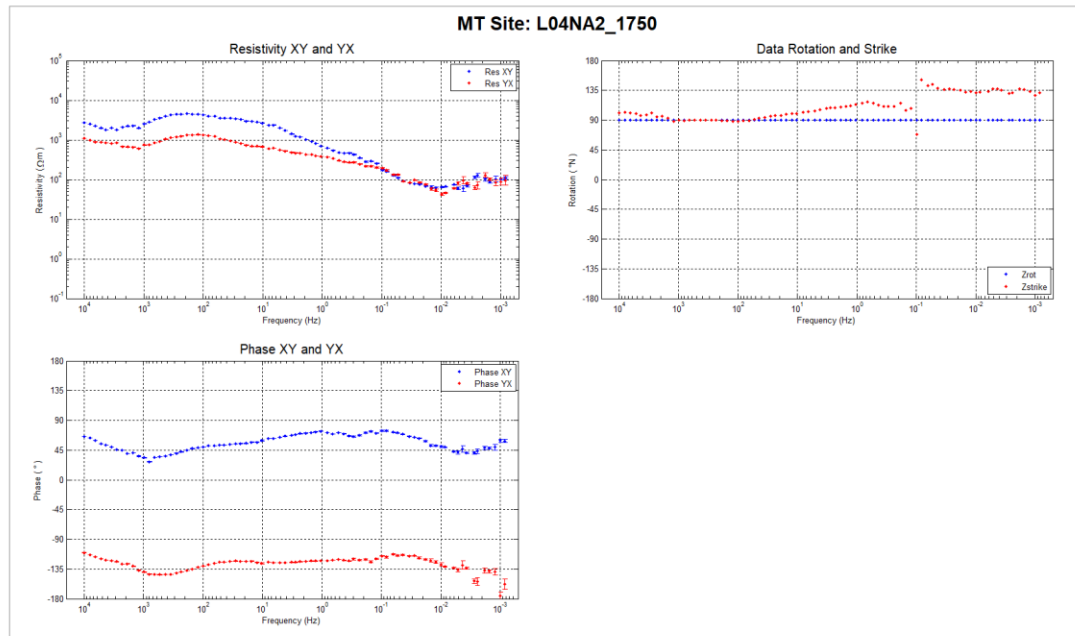
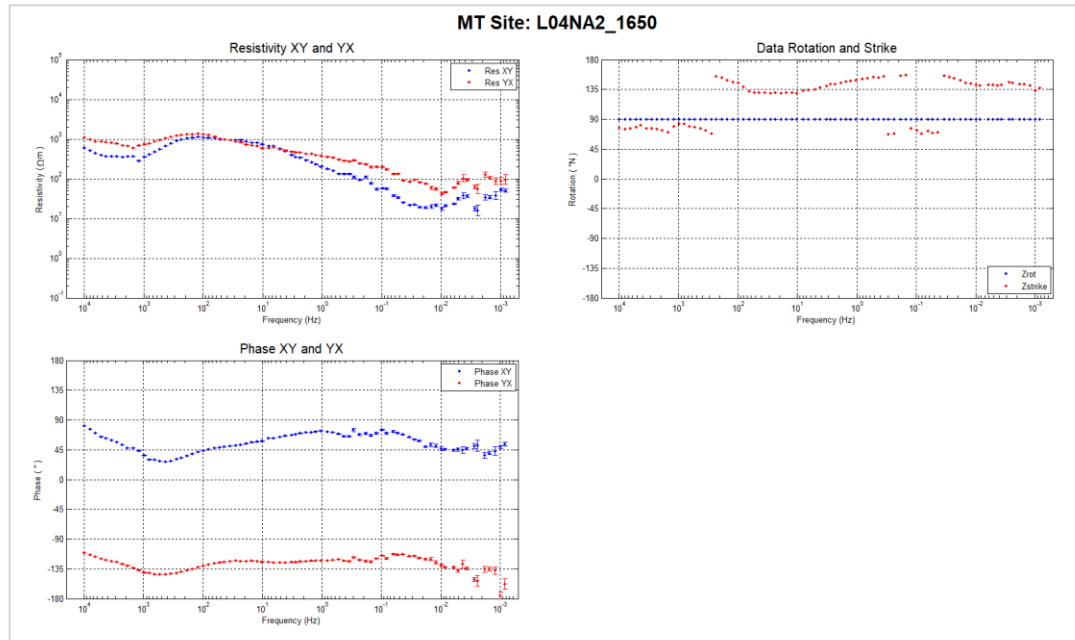


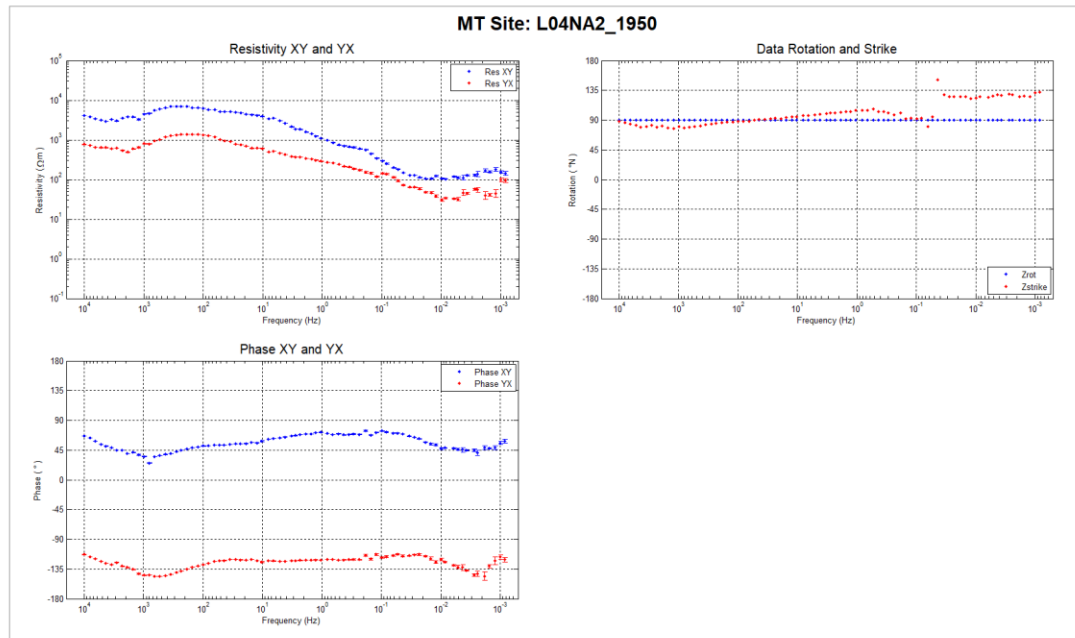
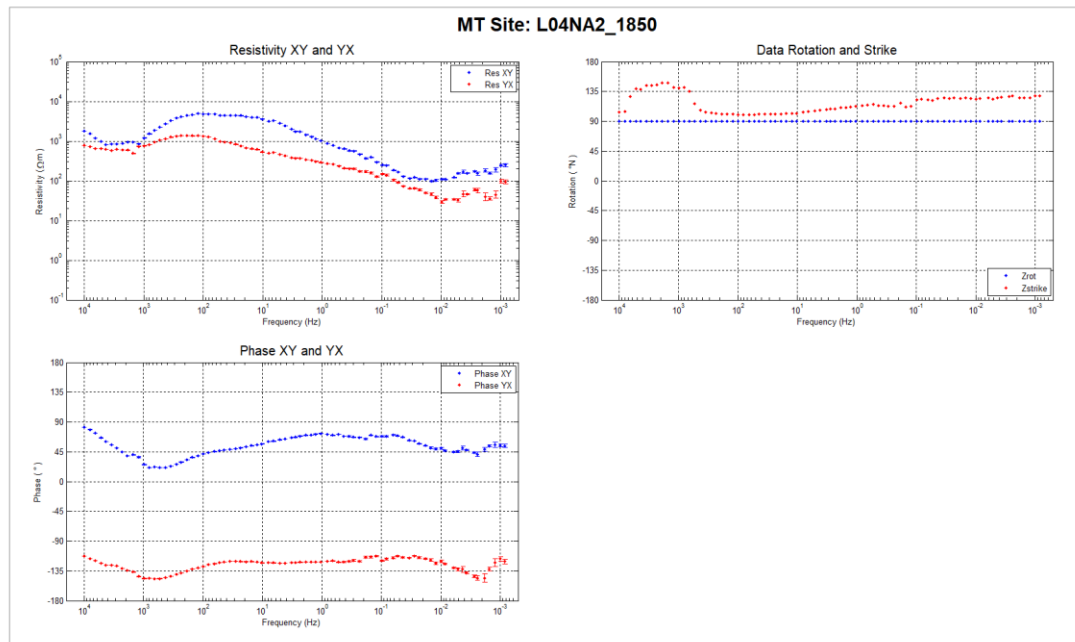


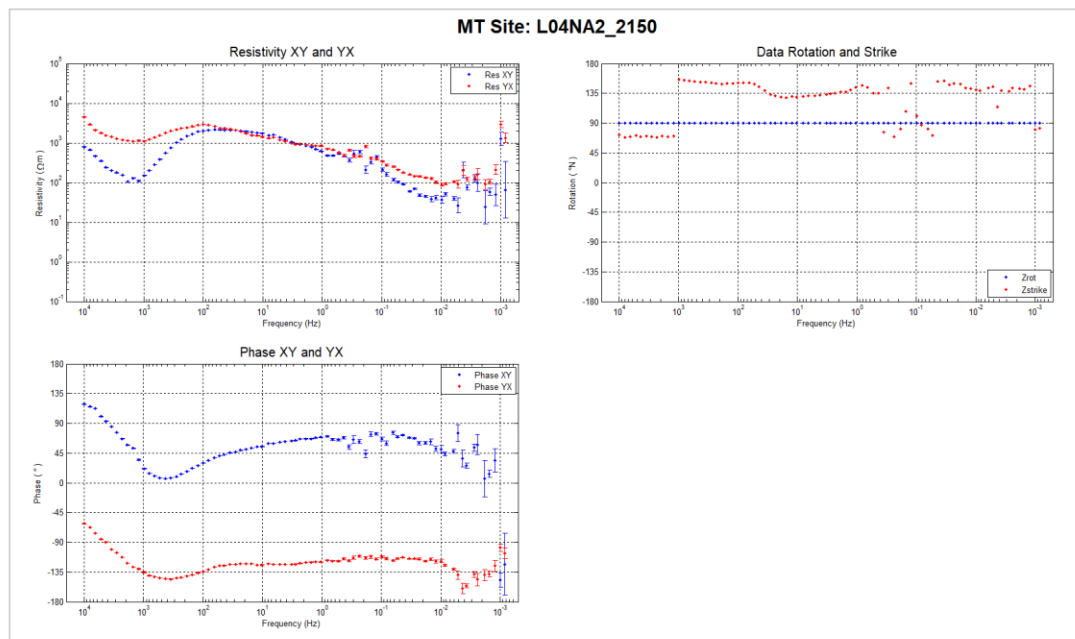
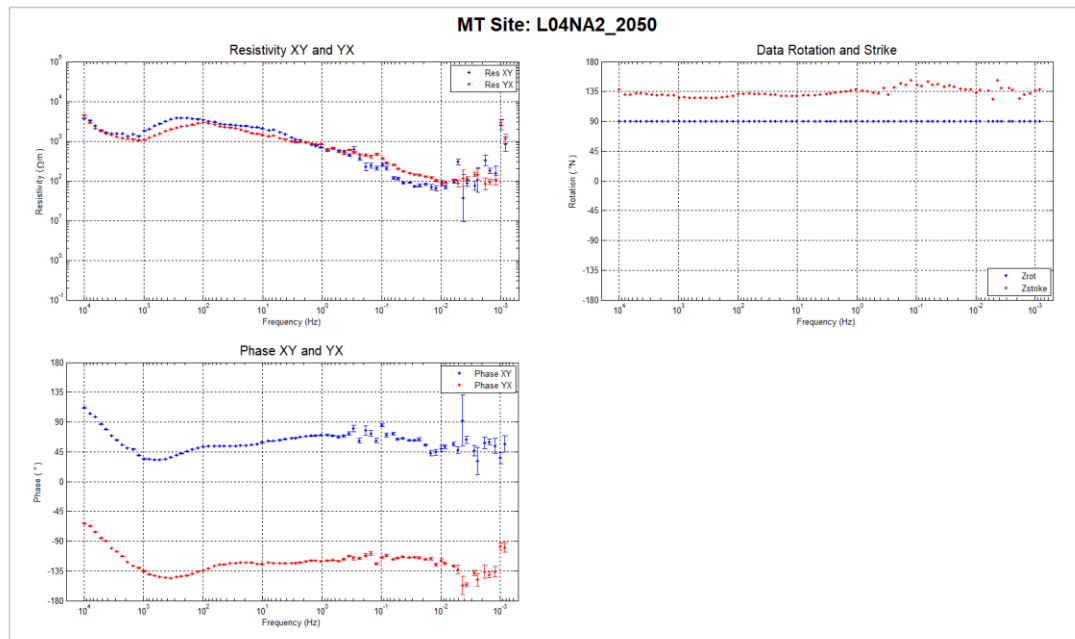


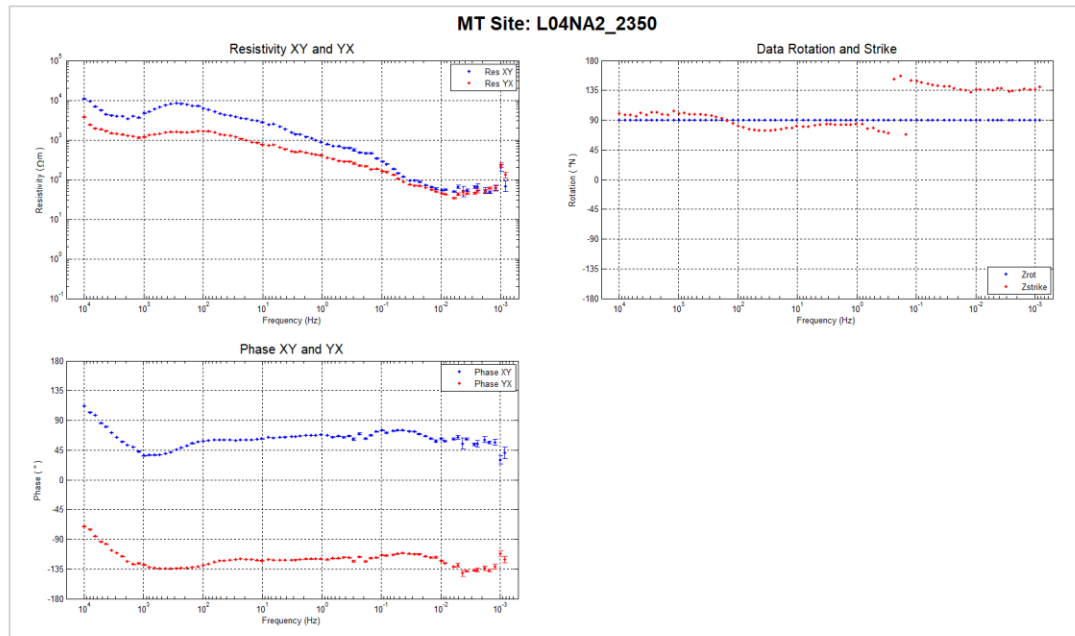
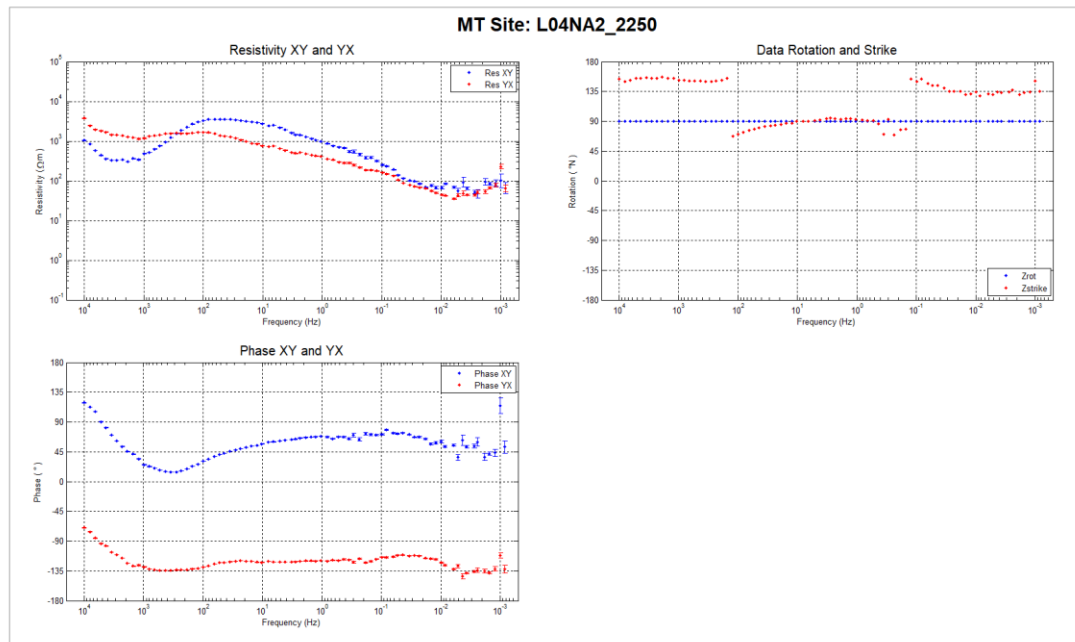




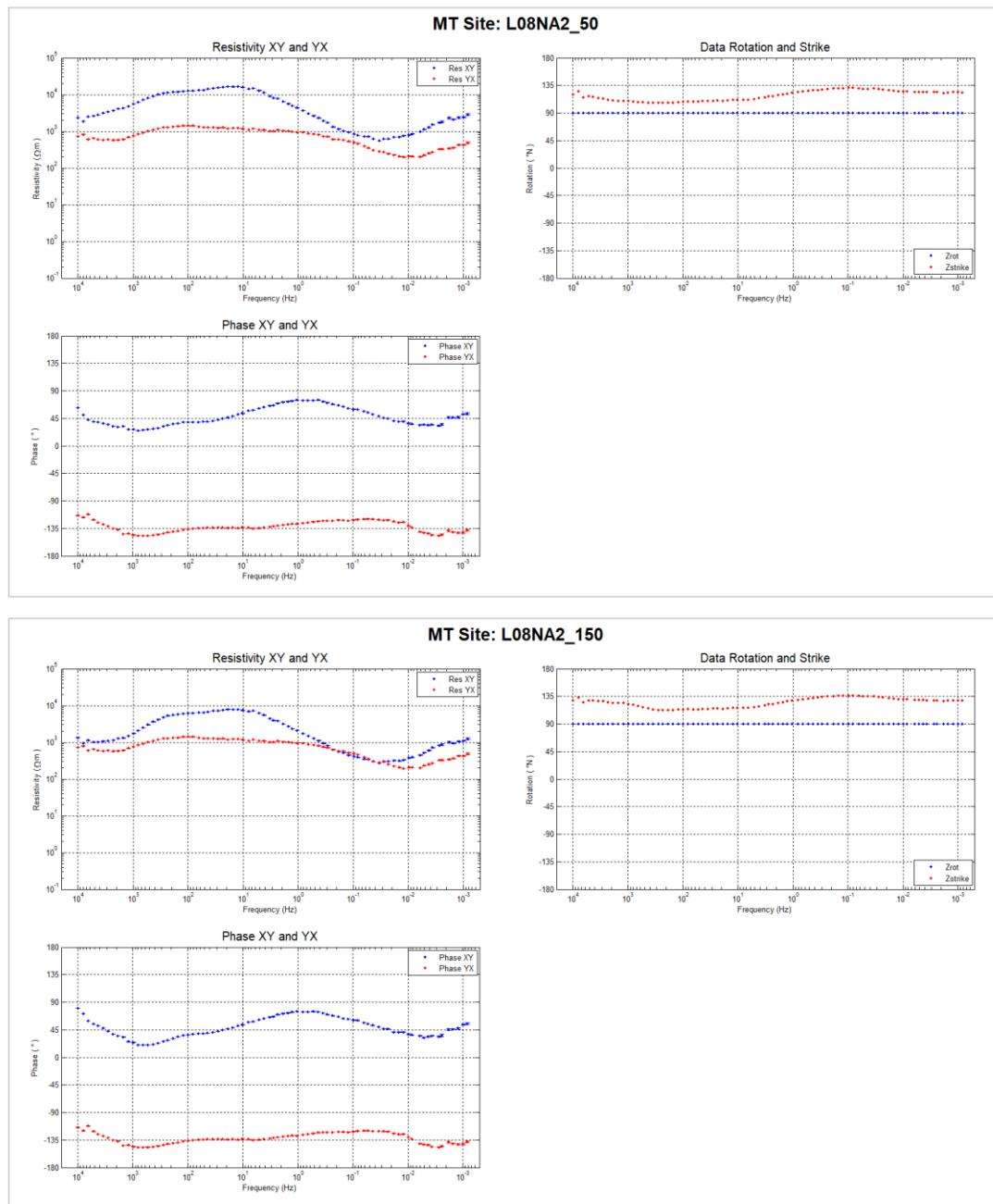


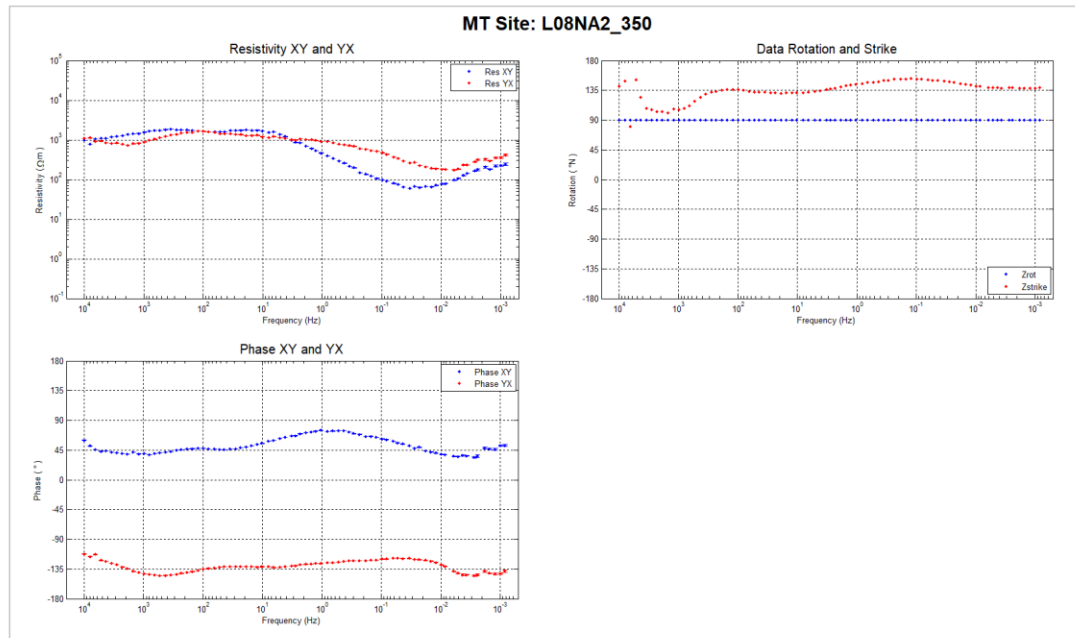
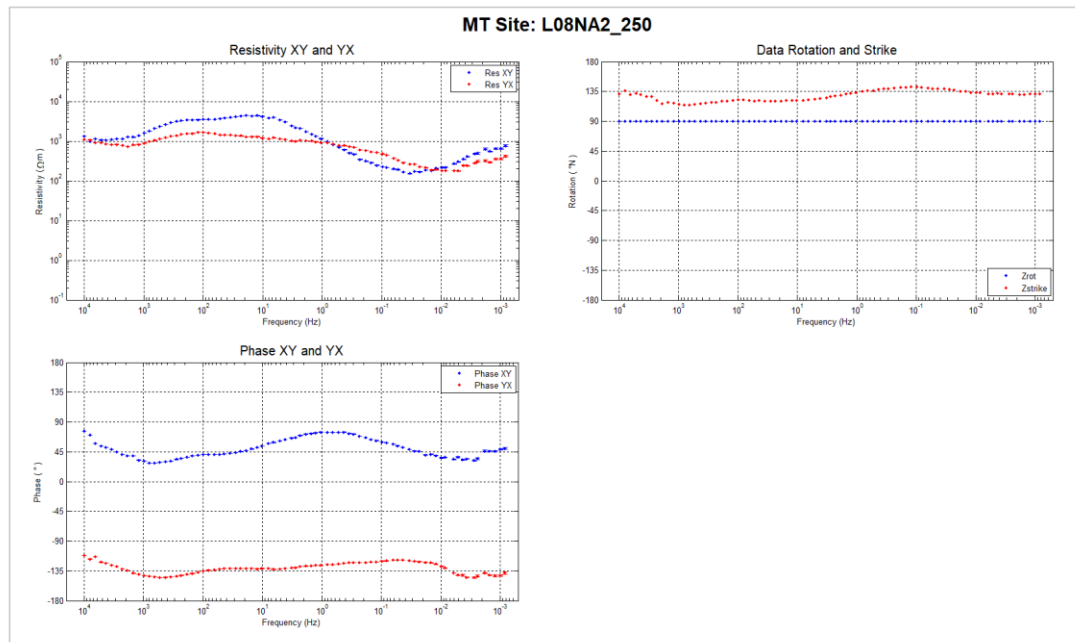


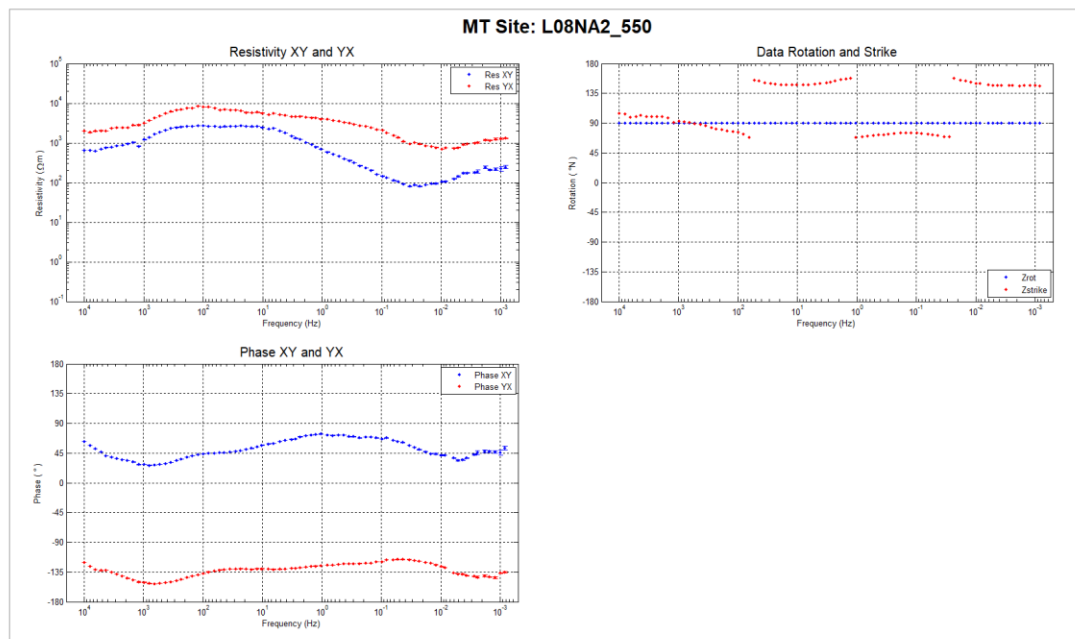
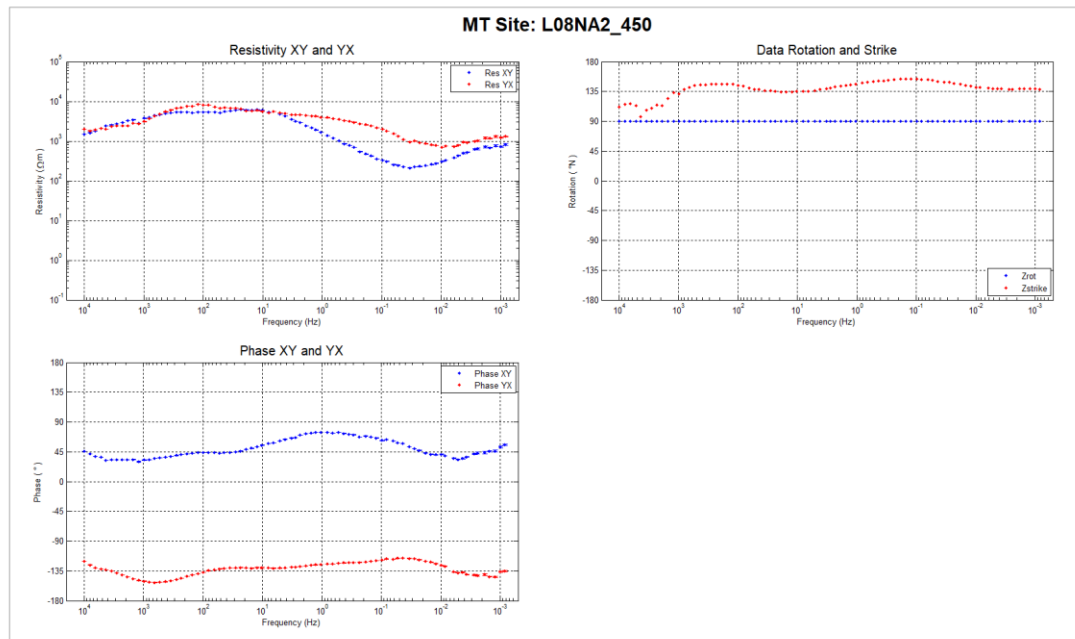


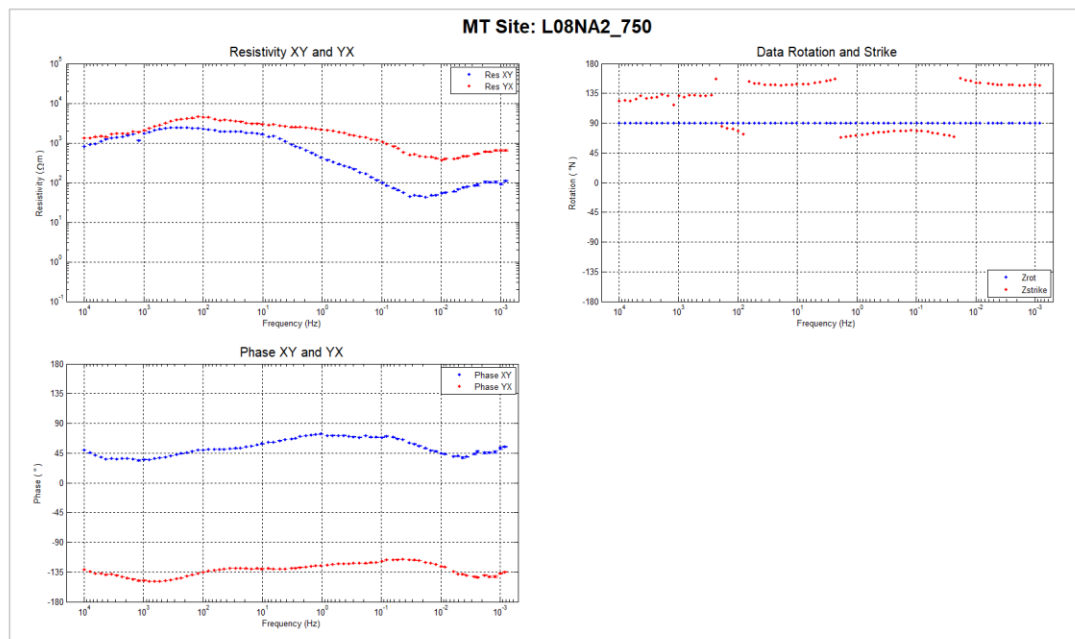
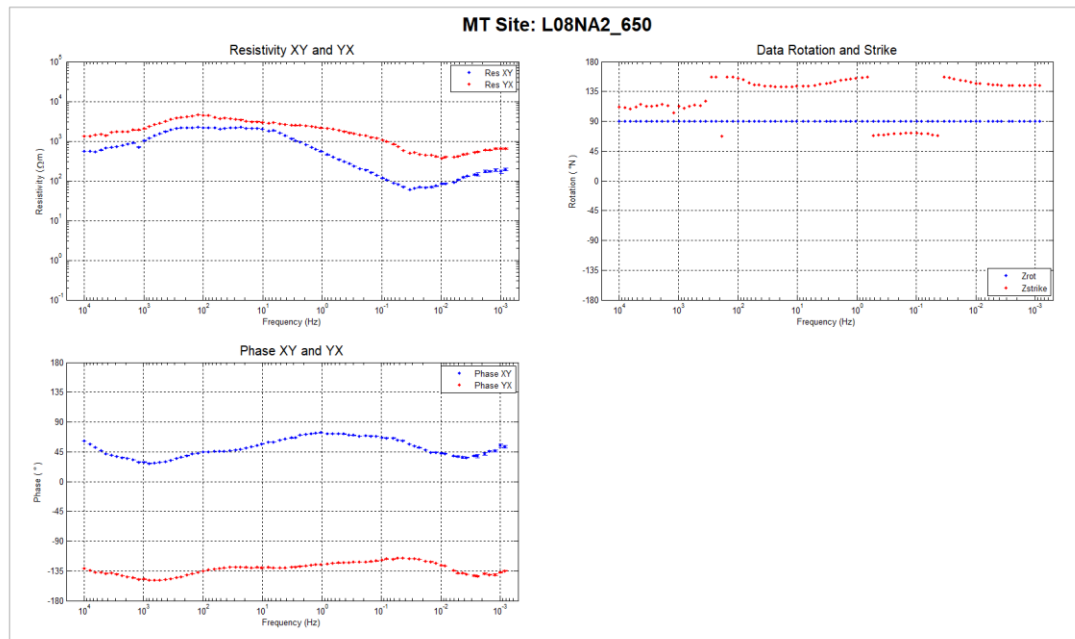


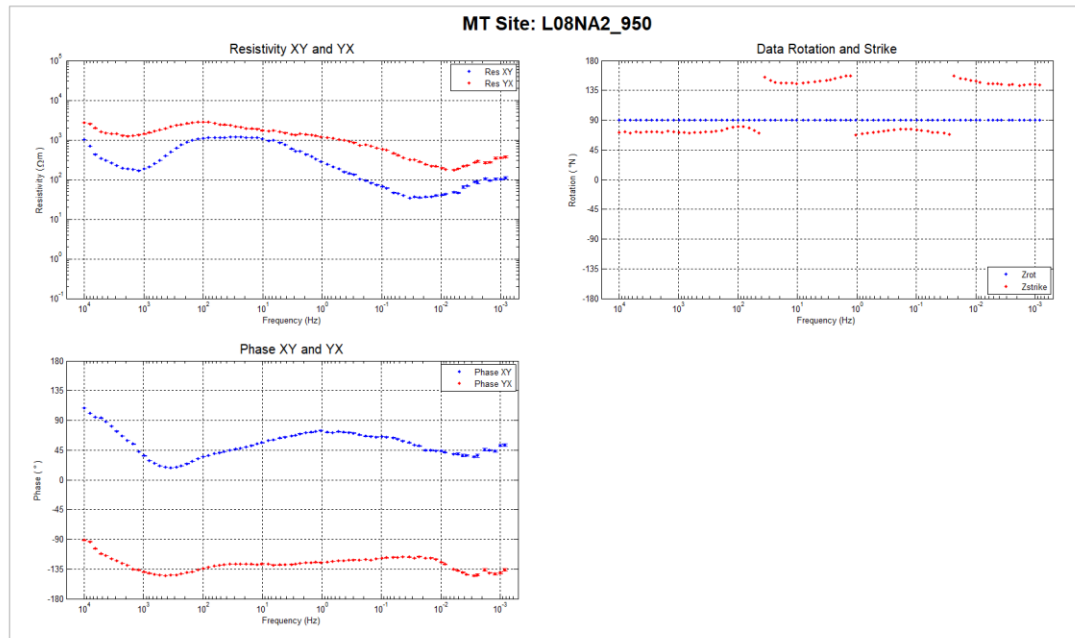
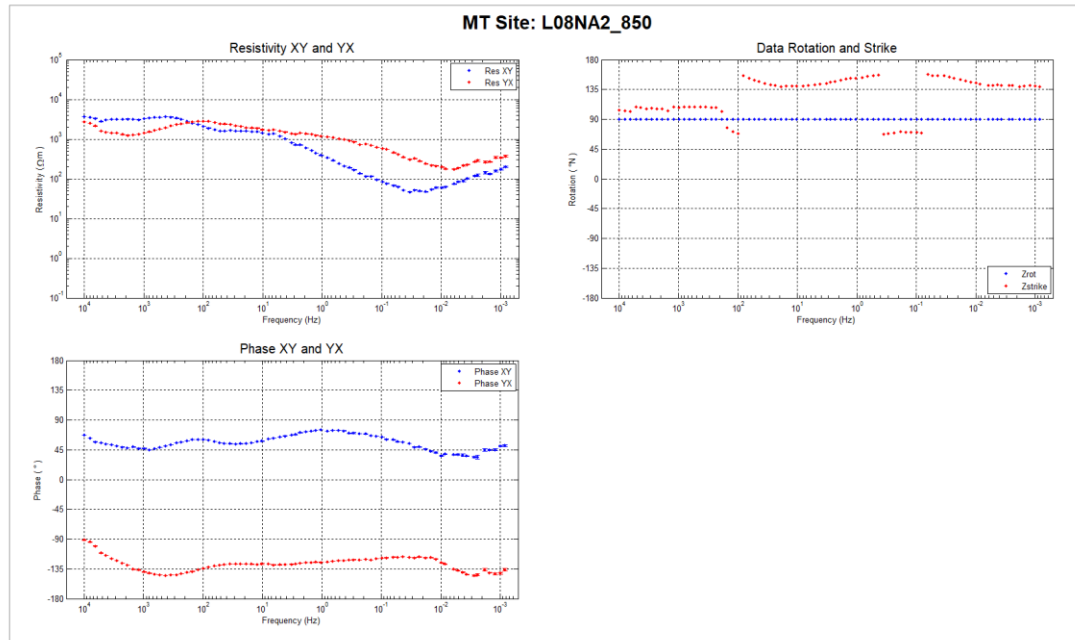
C.2.3. Line 0800N

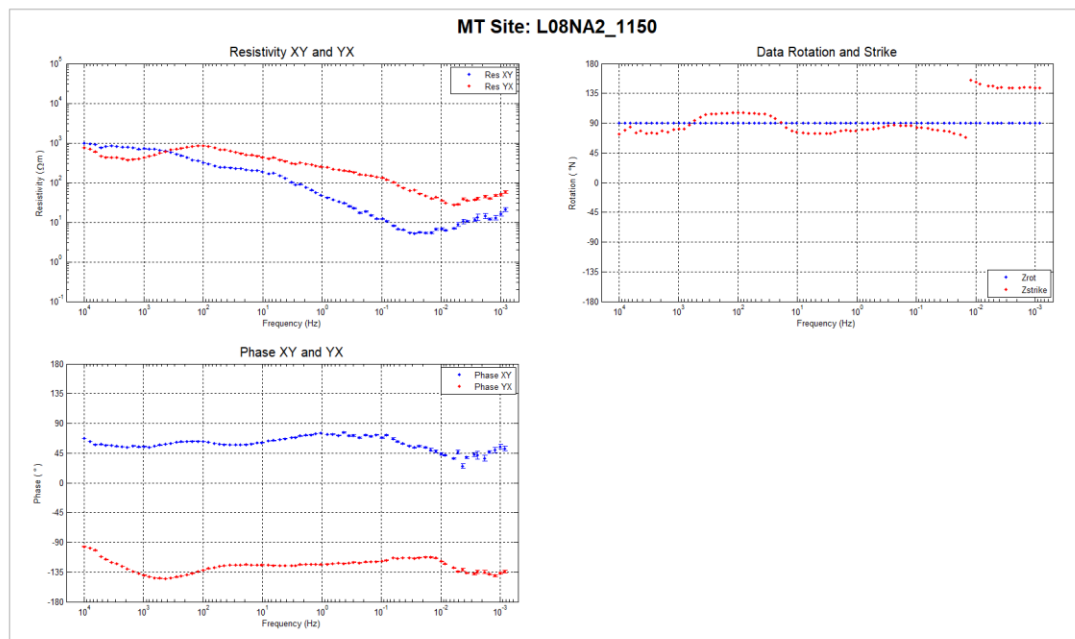
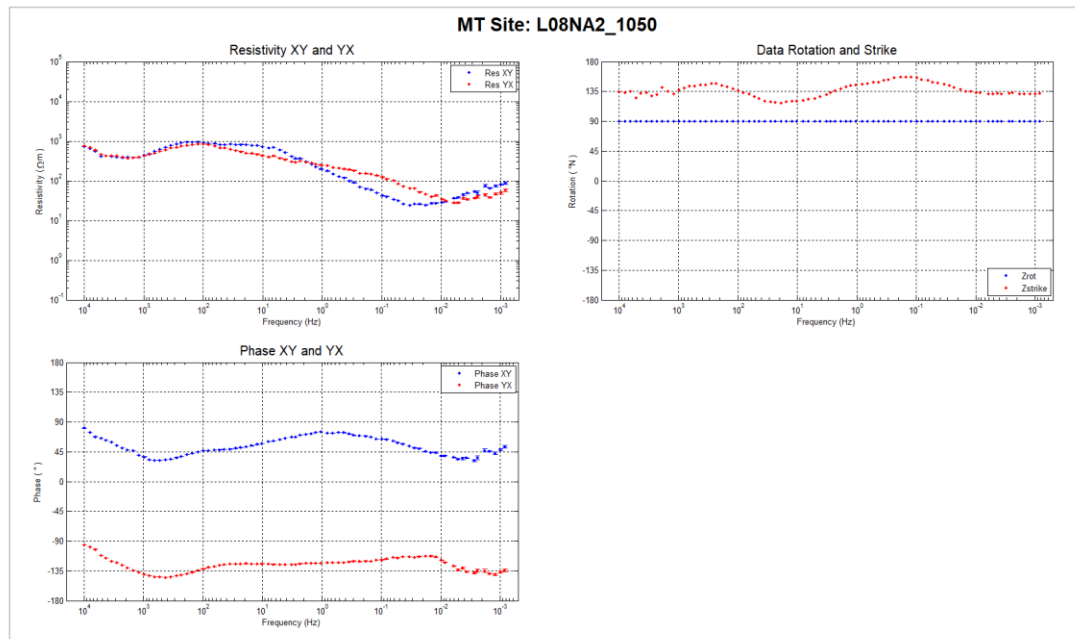


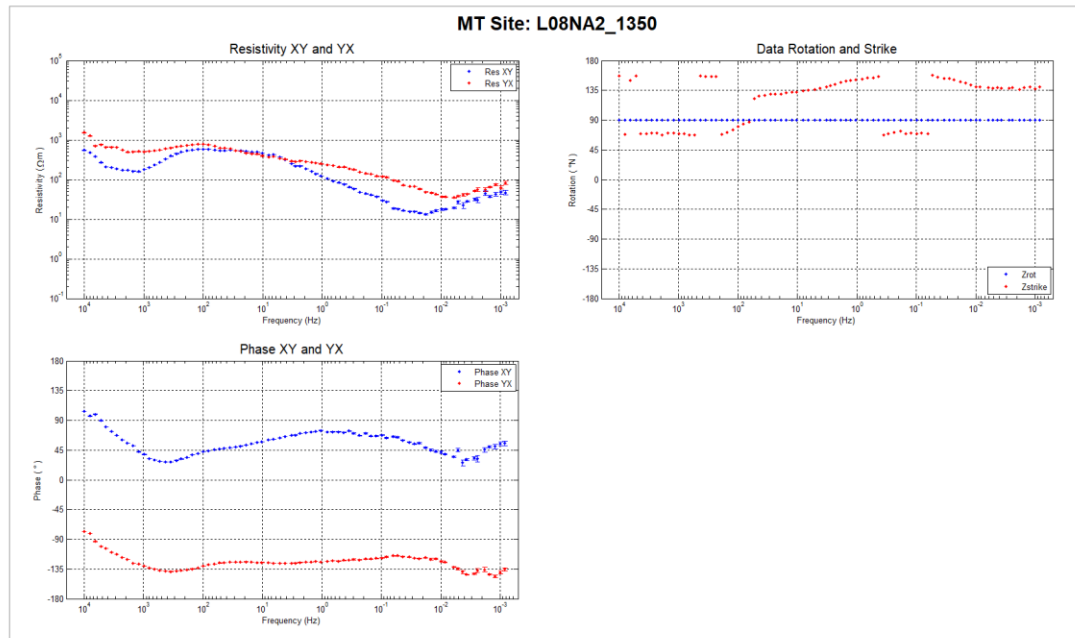
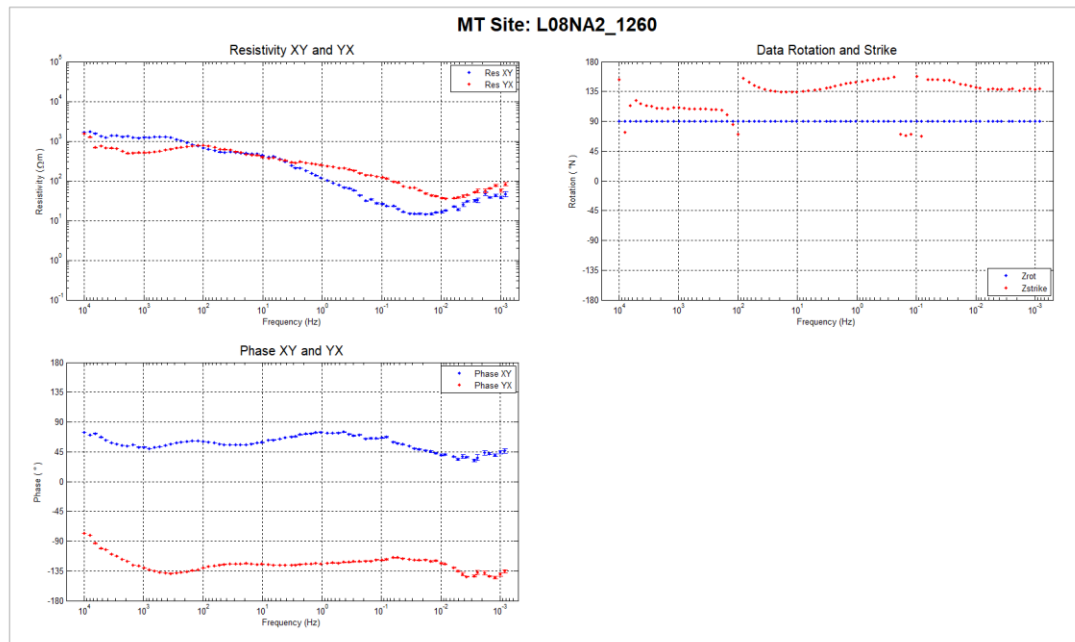


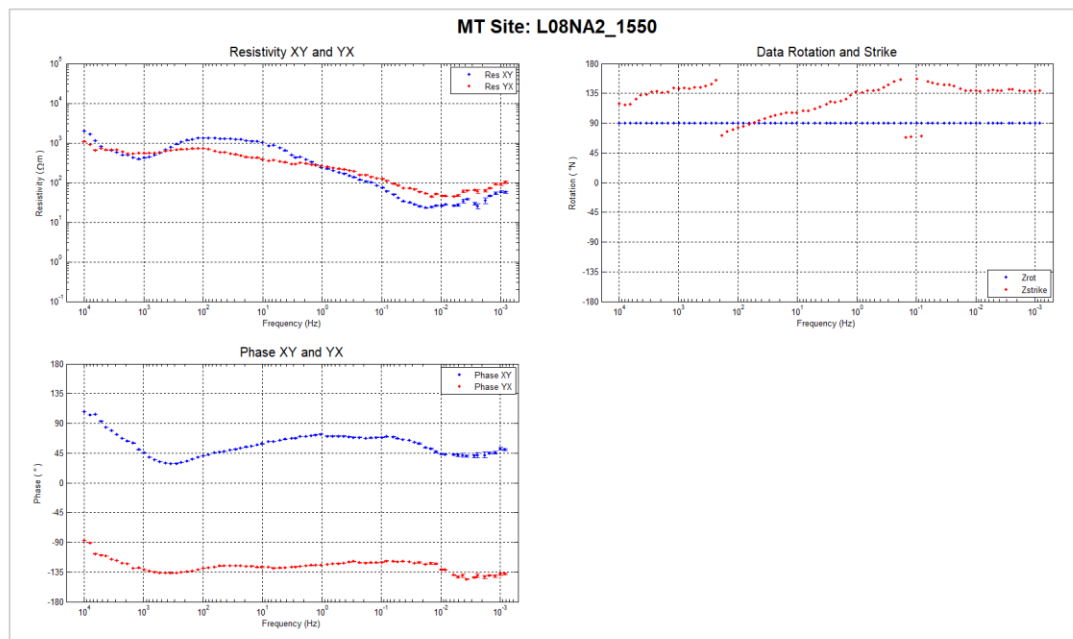
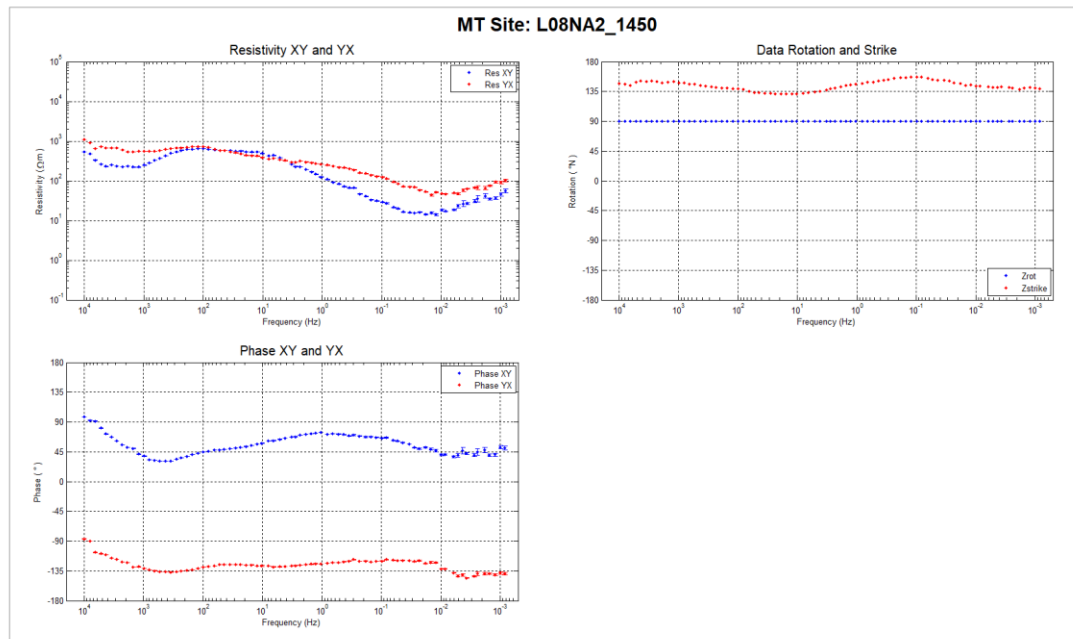


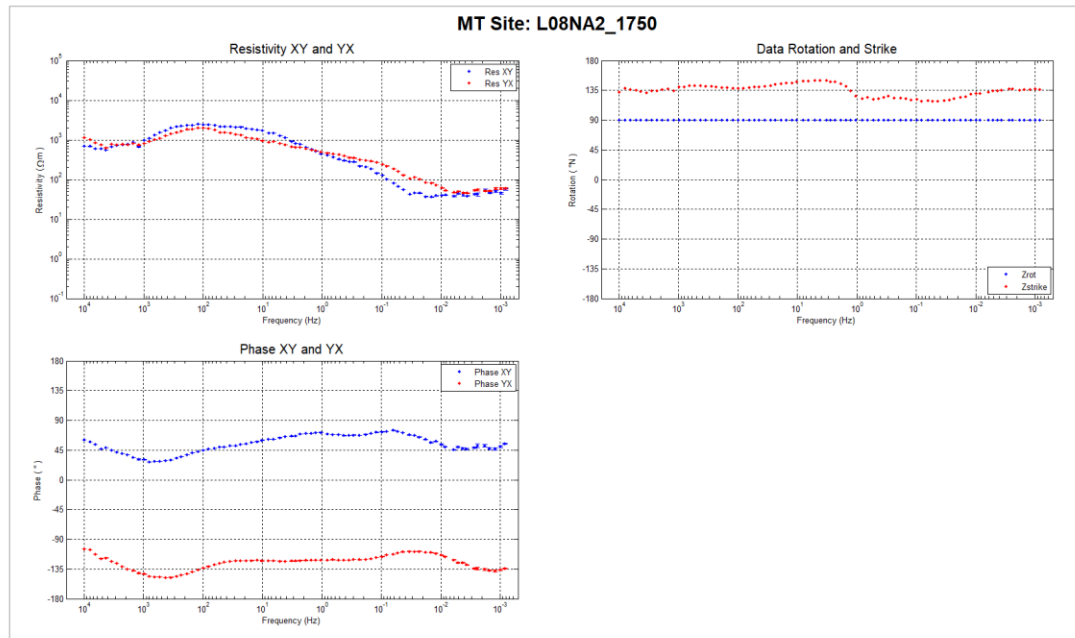
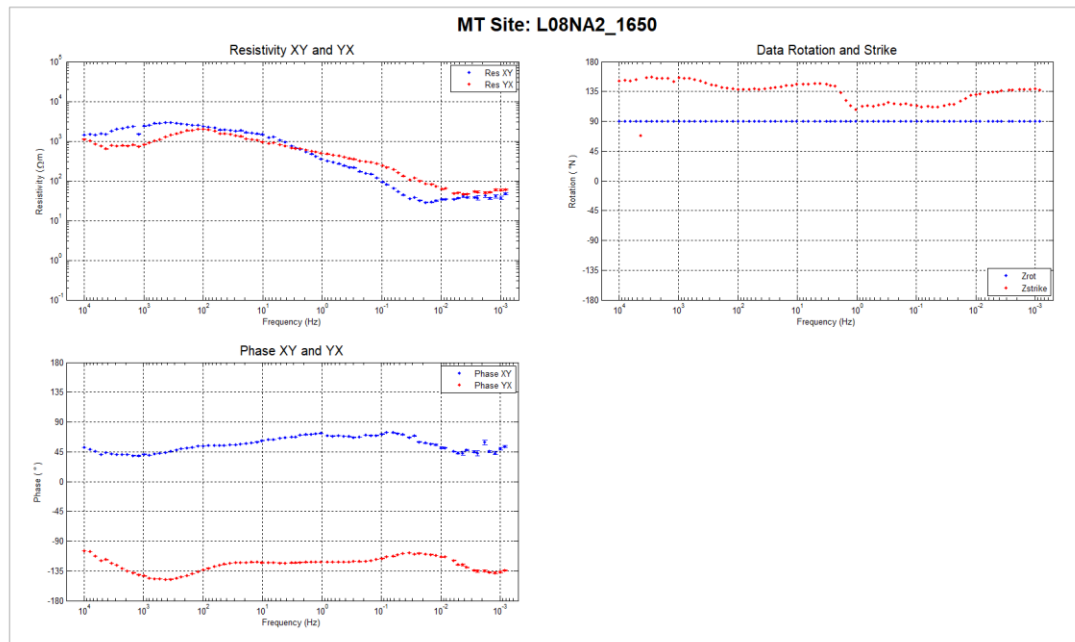


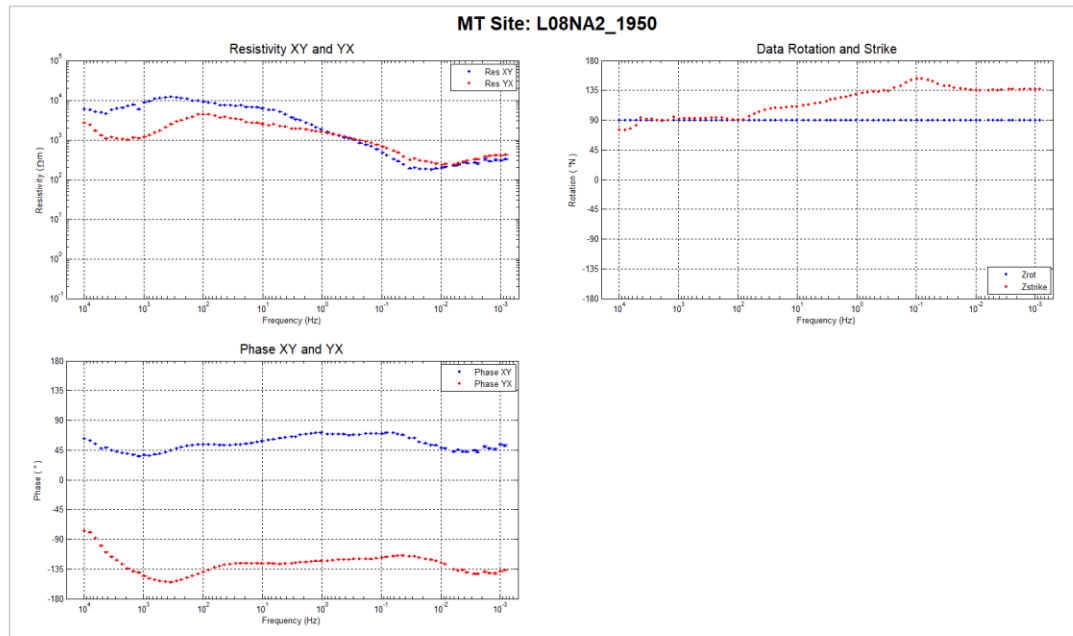
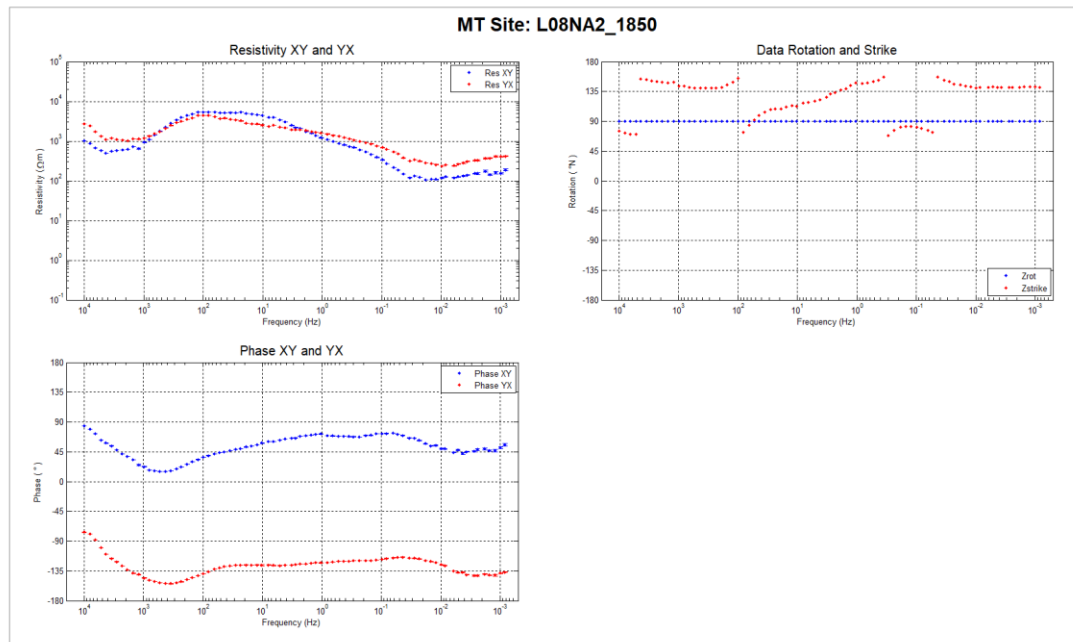


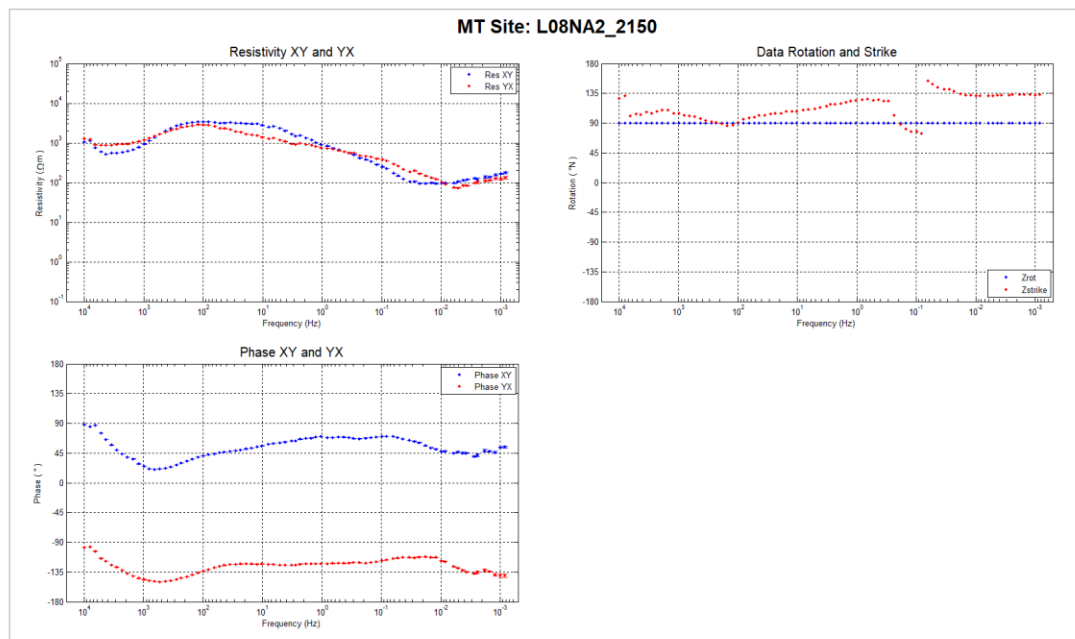
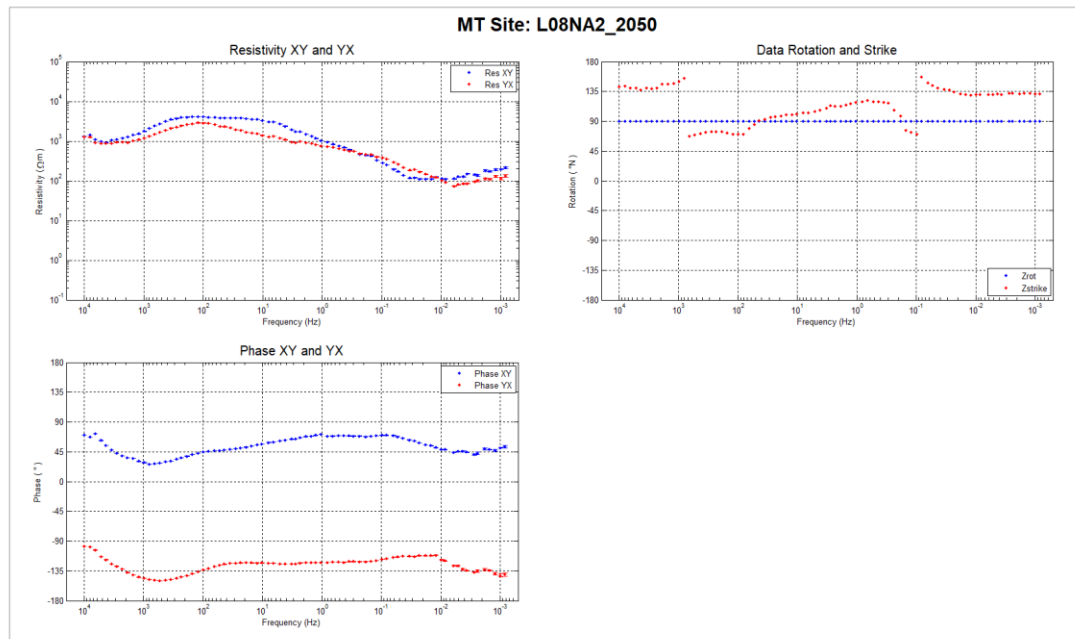




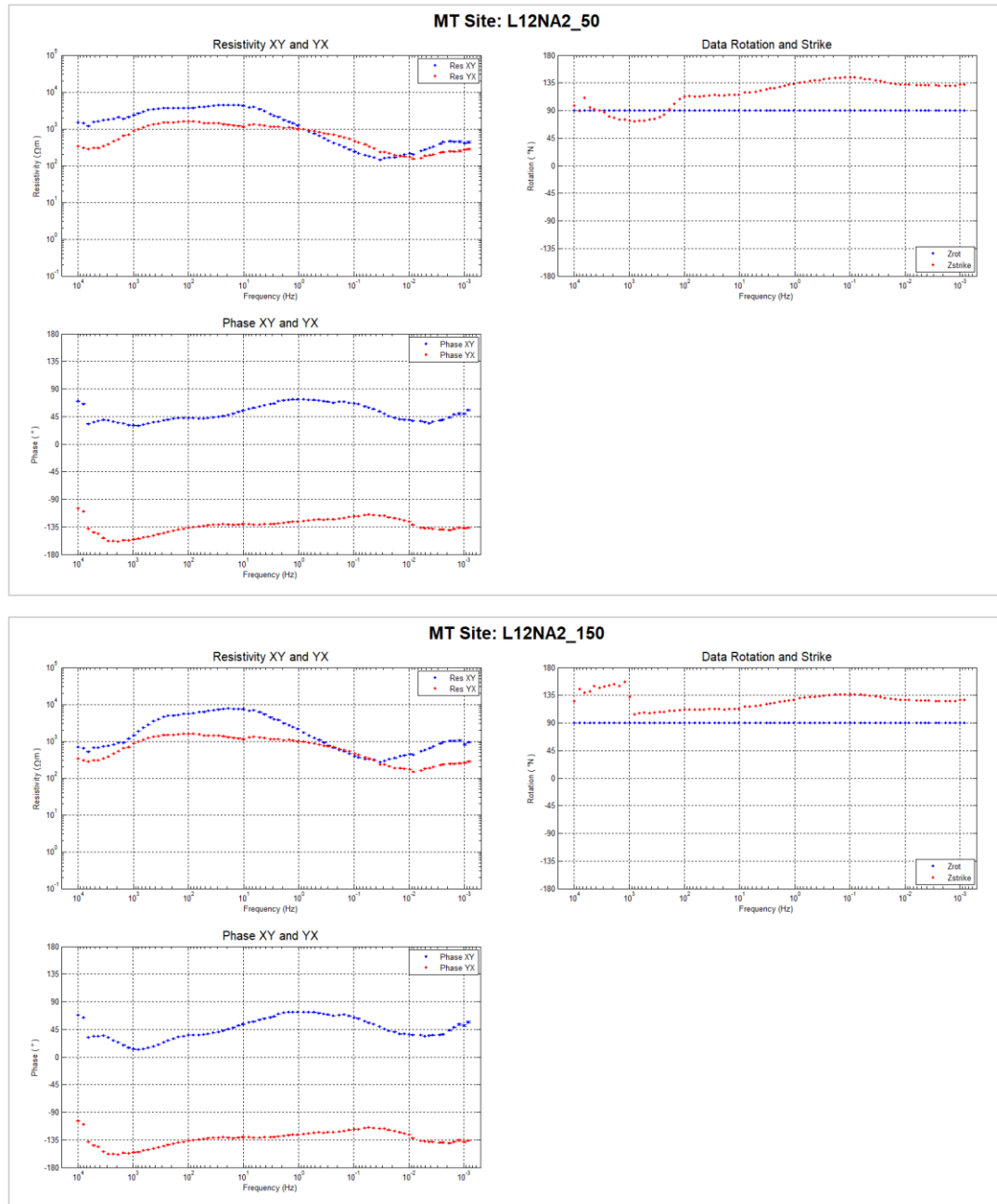


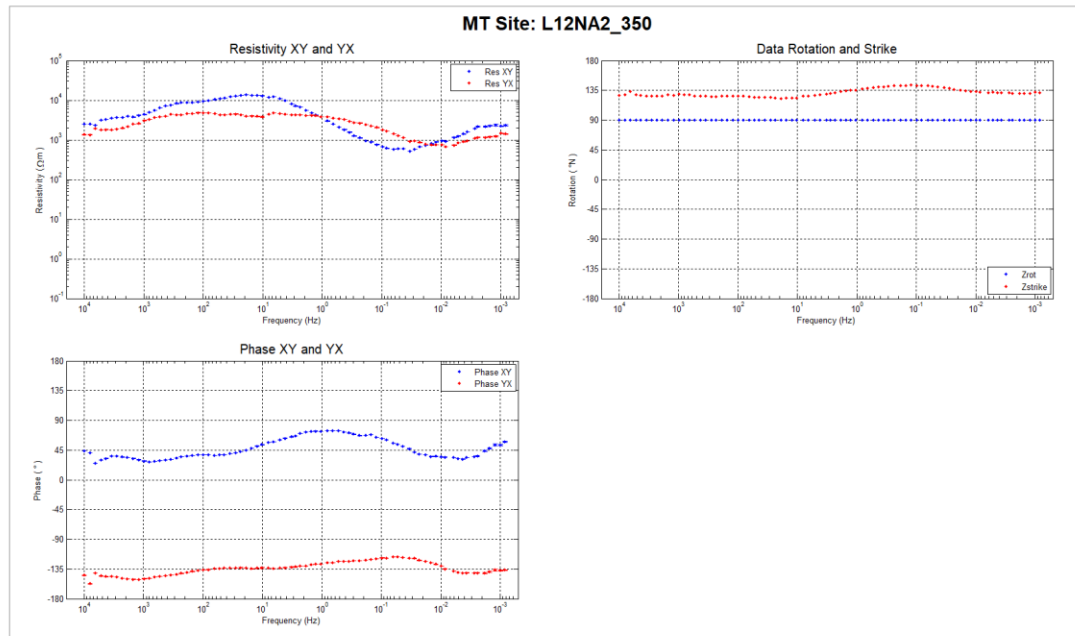
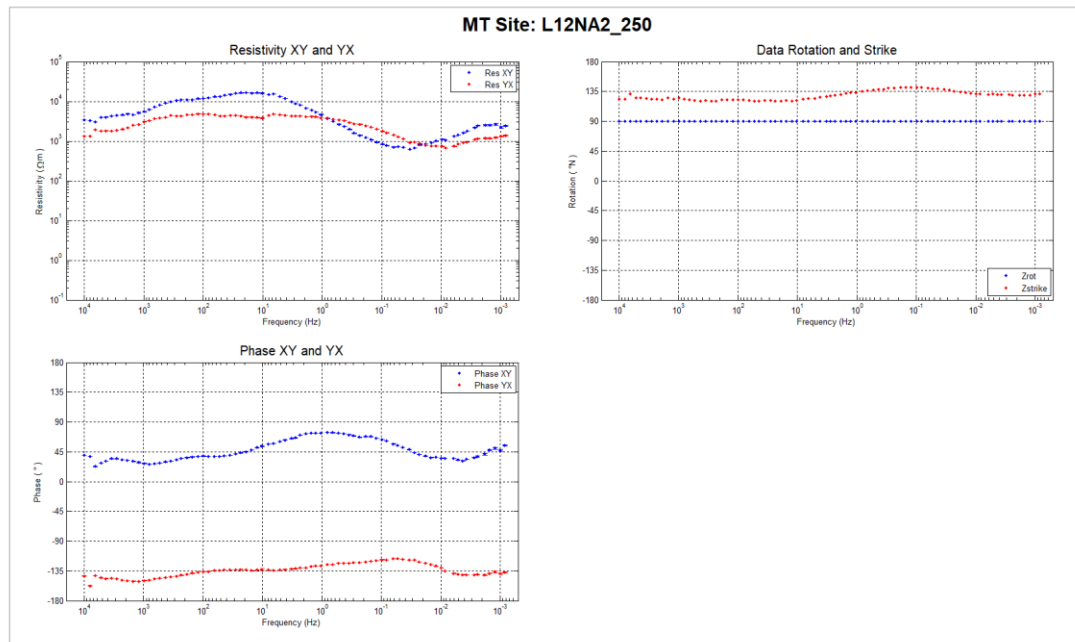


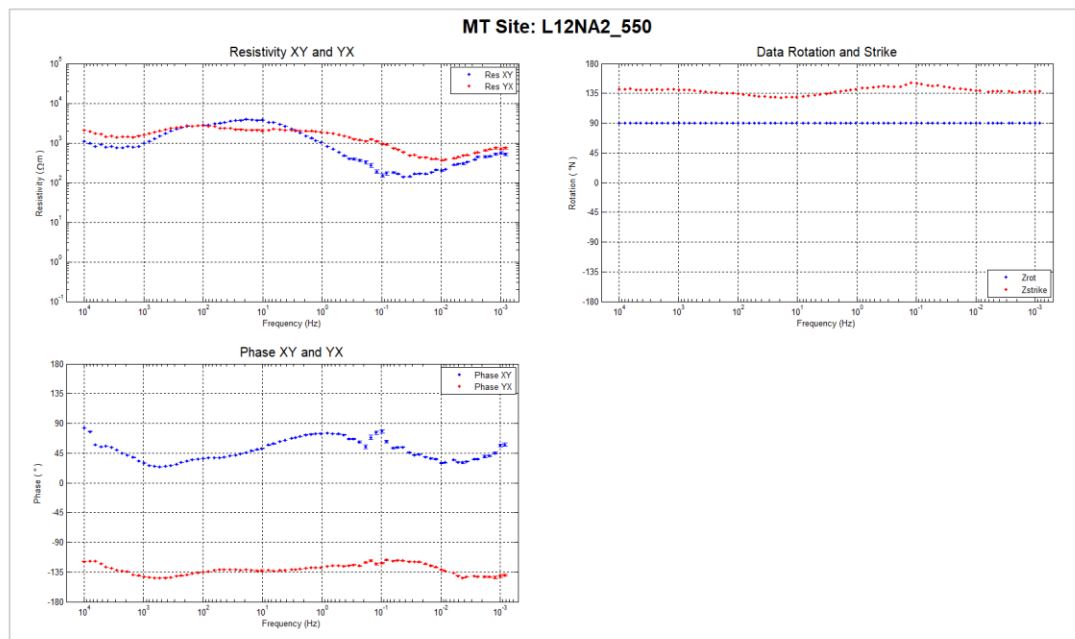
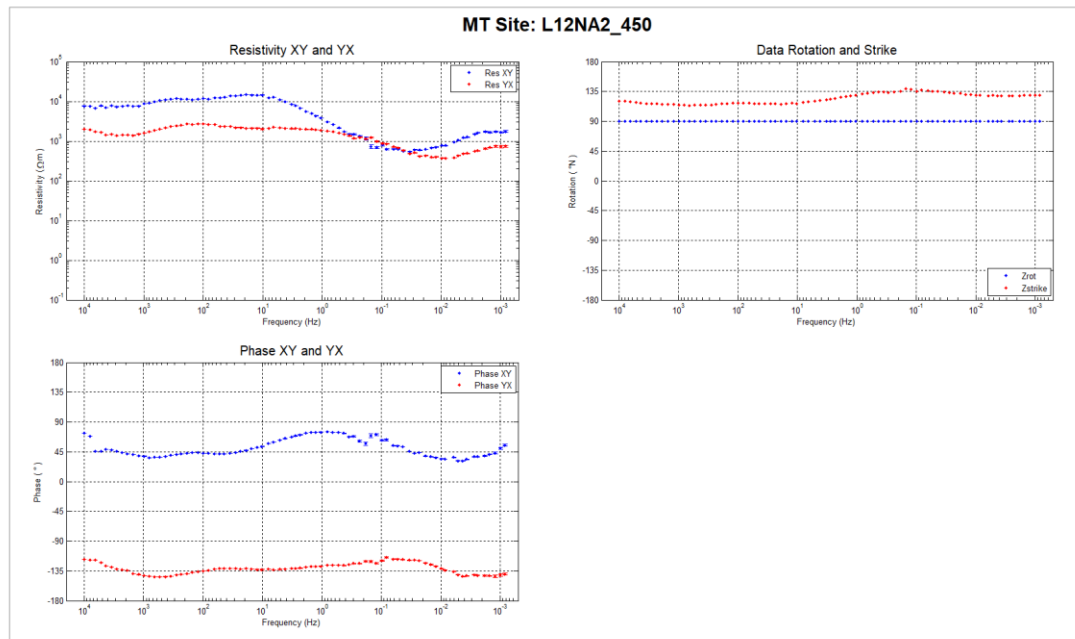


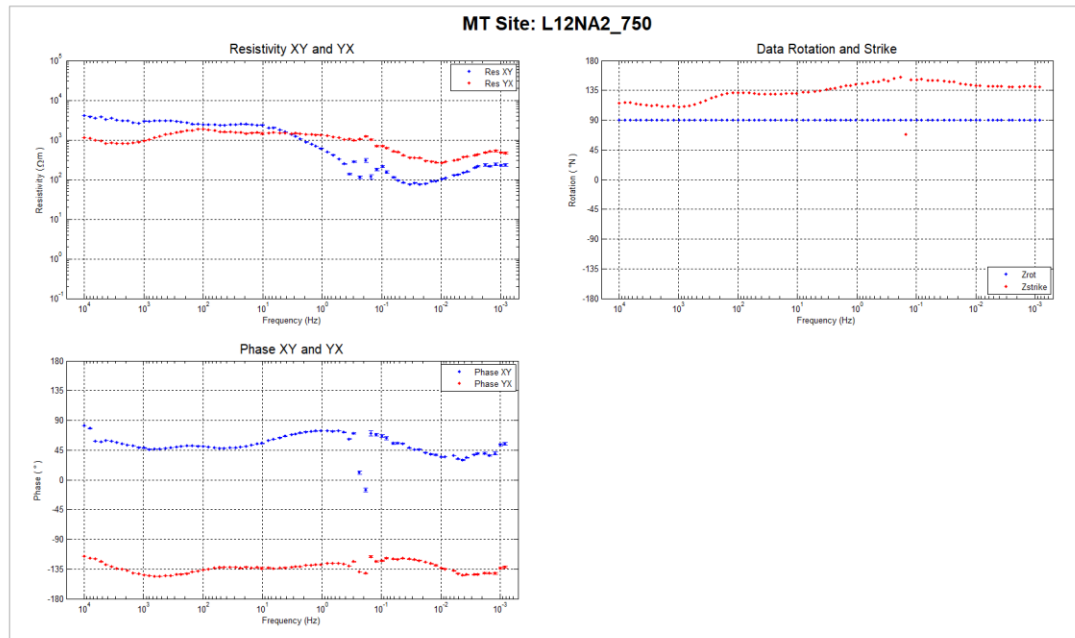
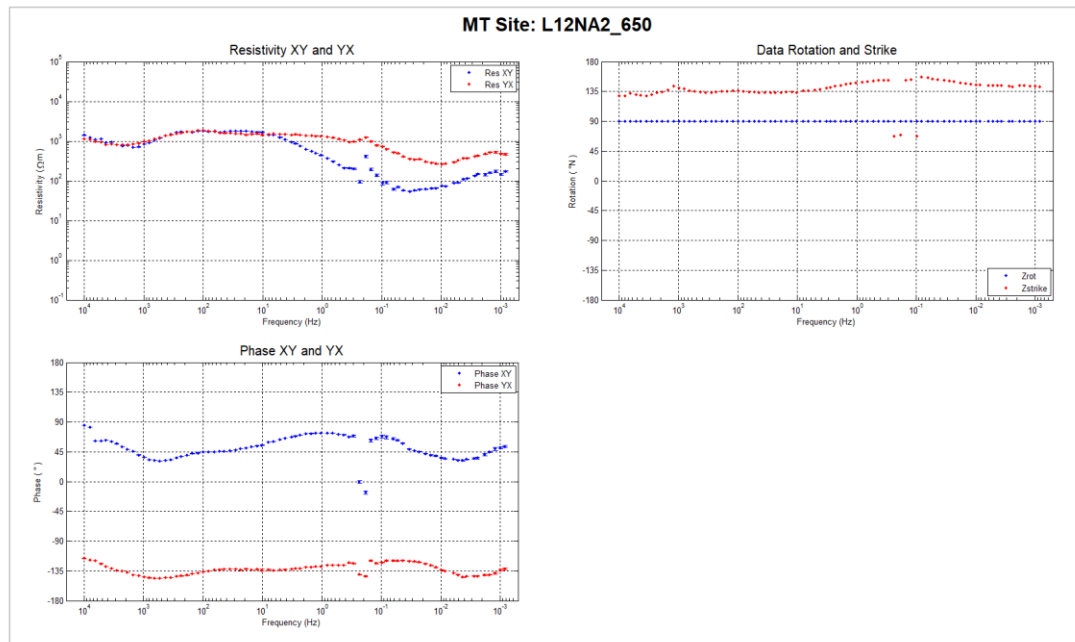


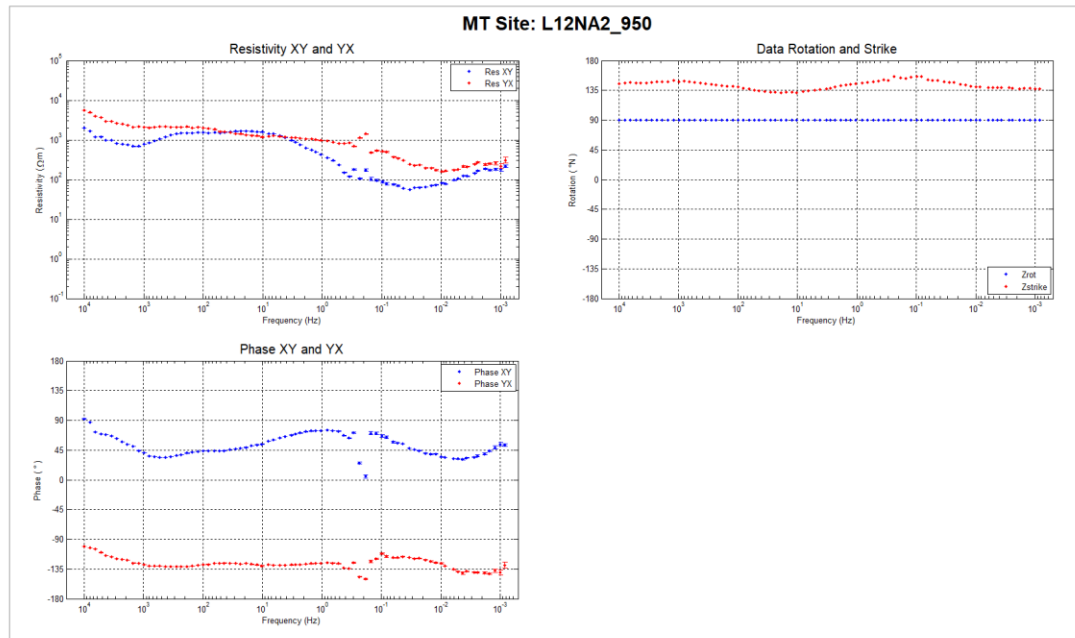
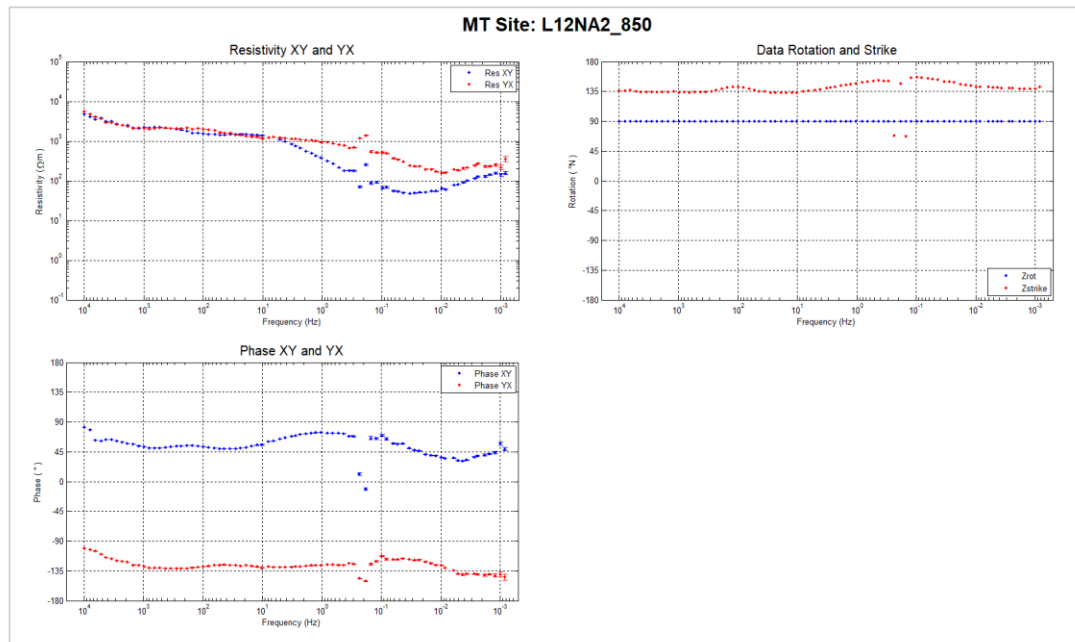
C.2.4. Line 1200N

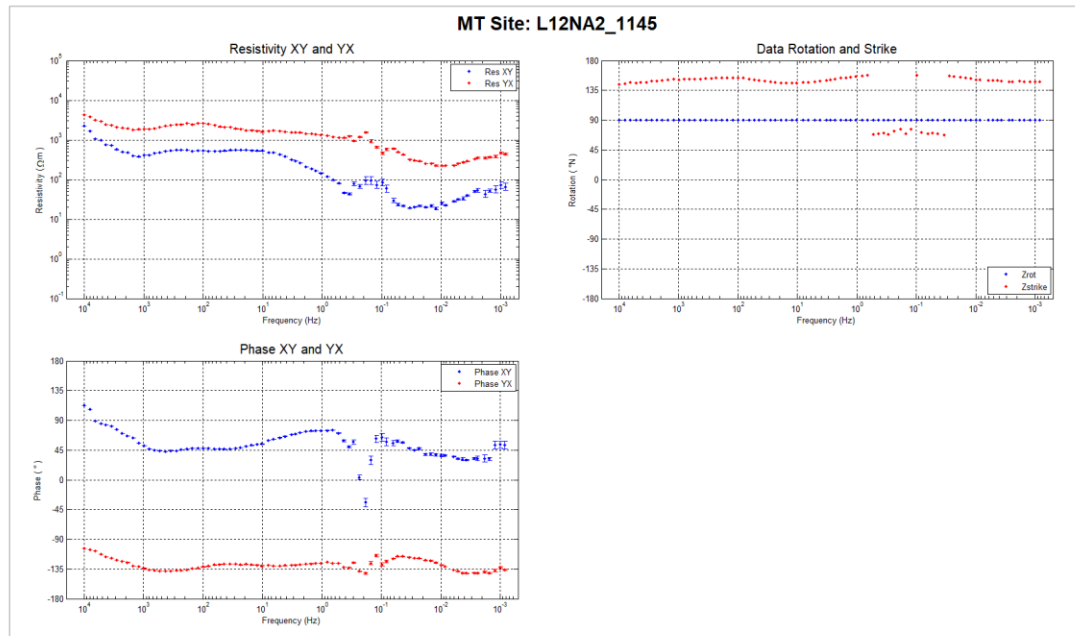
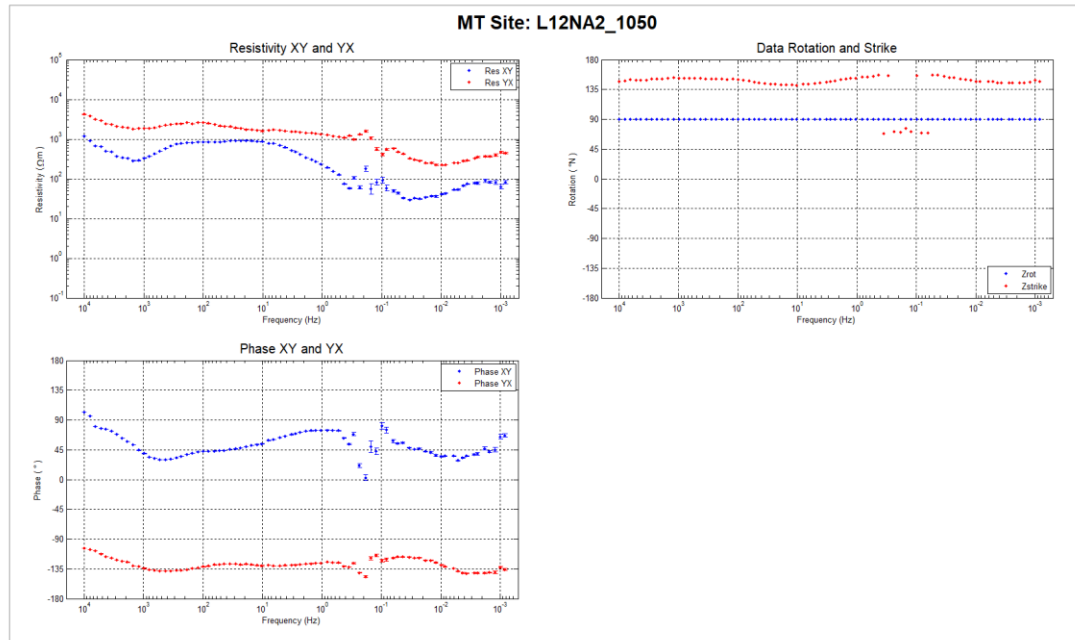


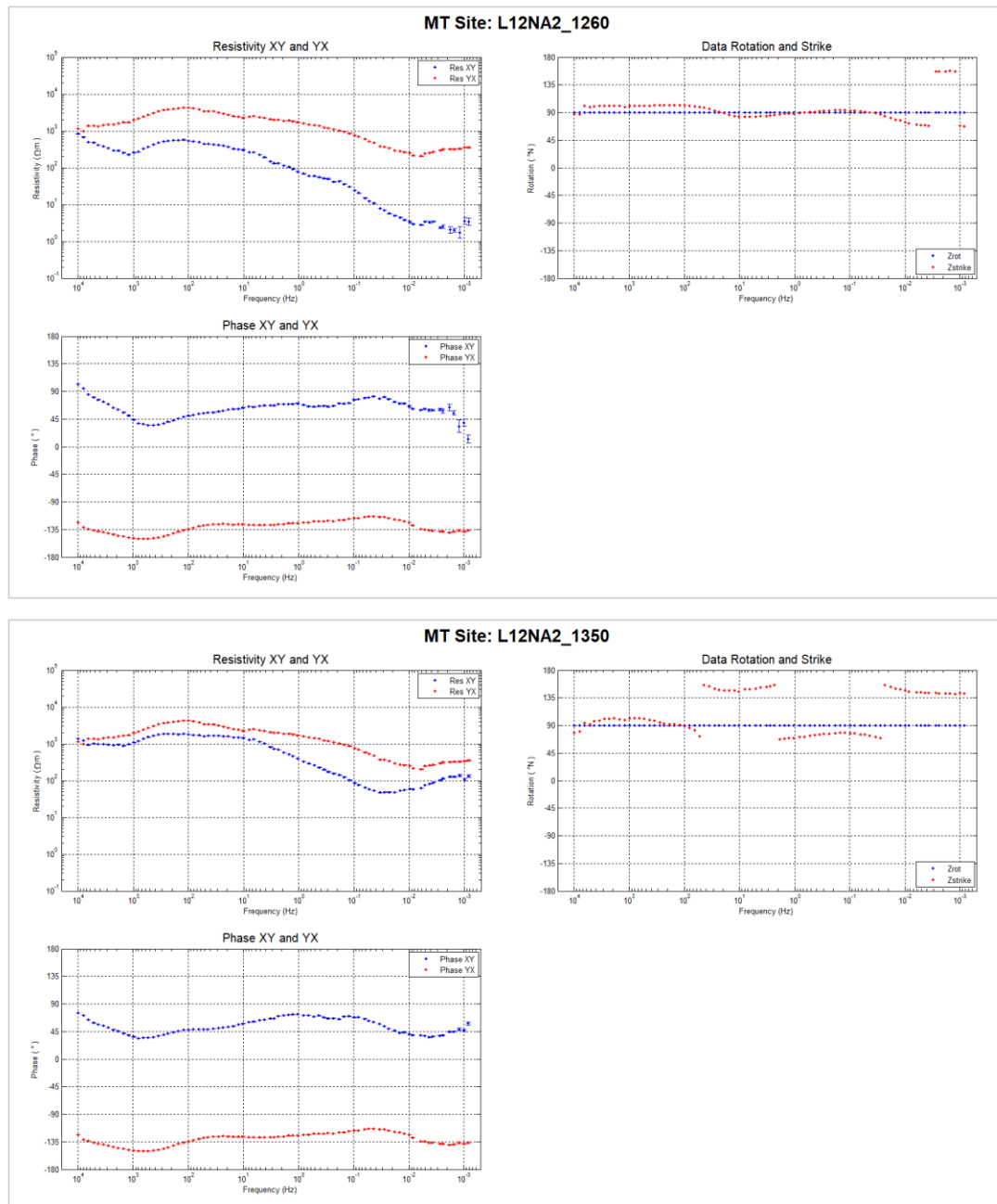


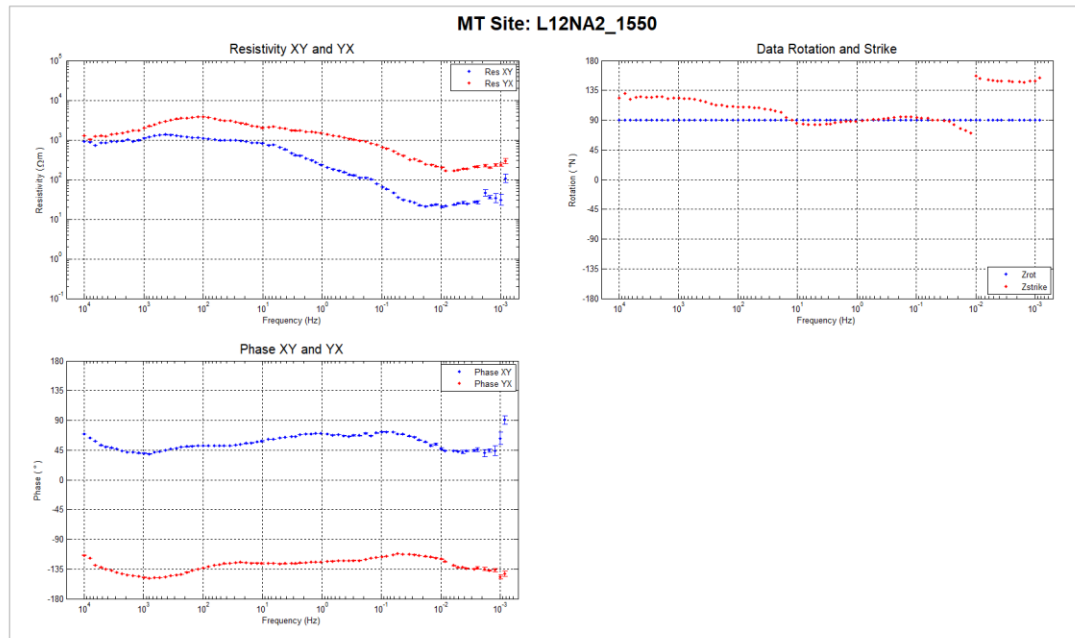
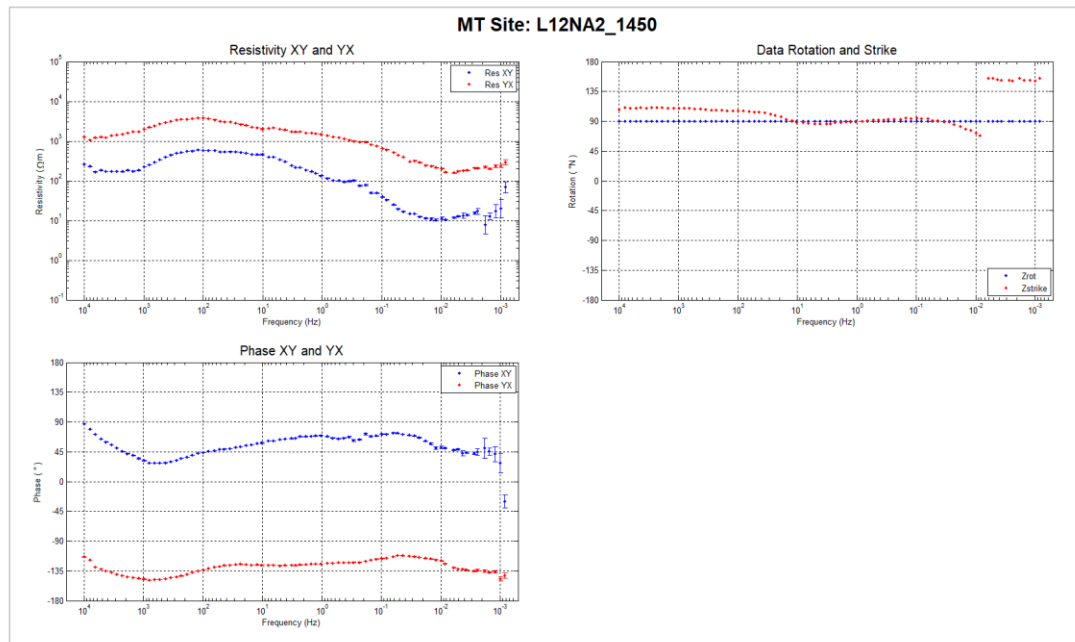


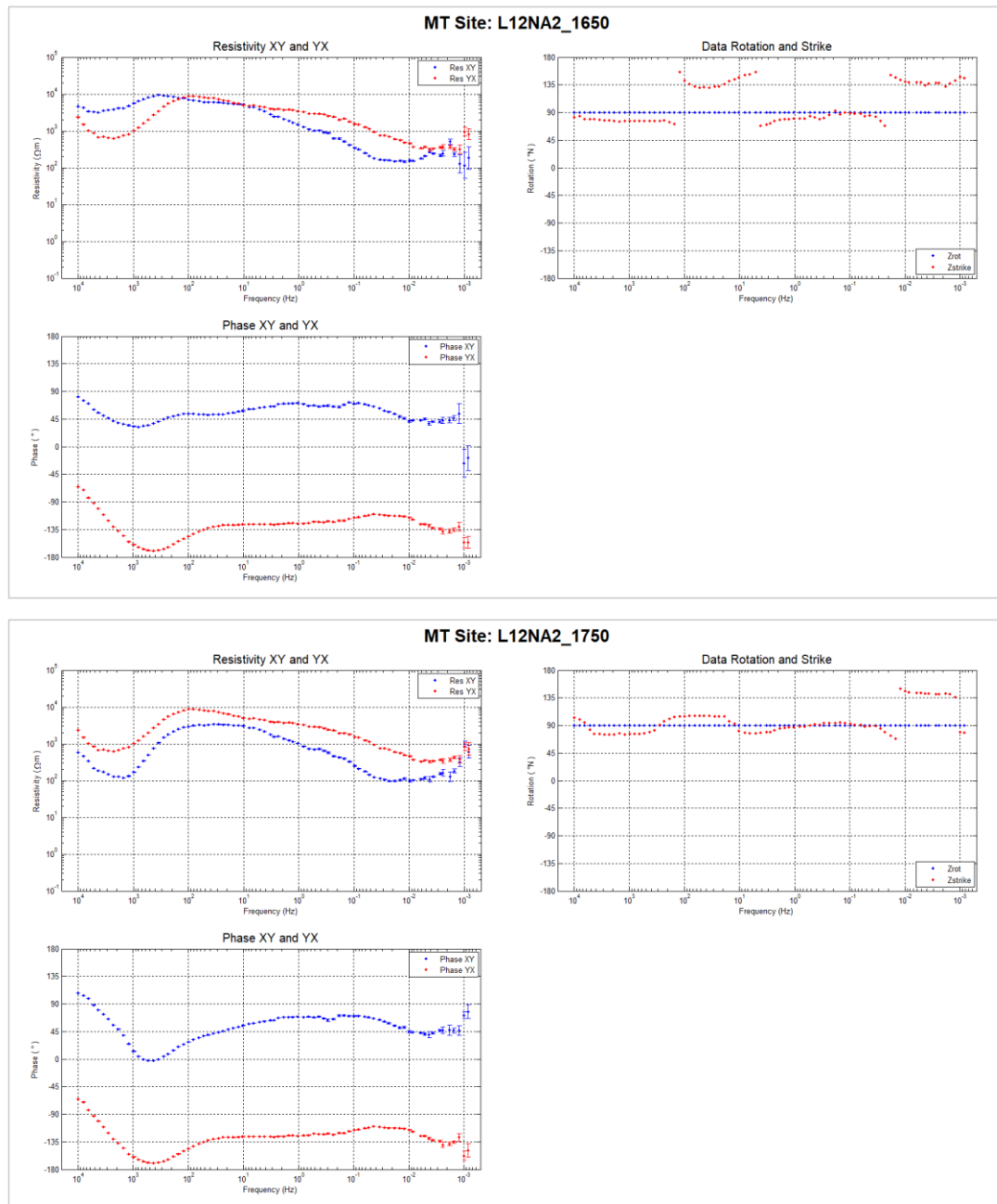


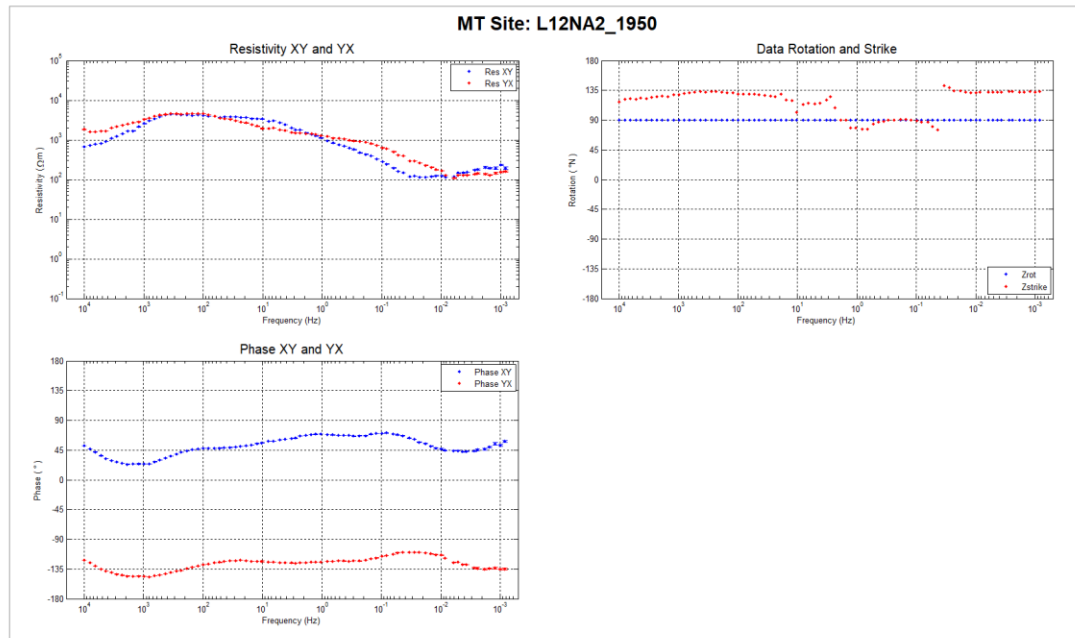
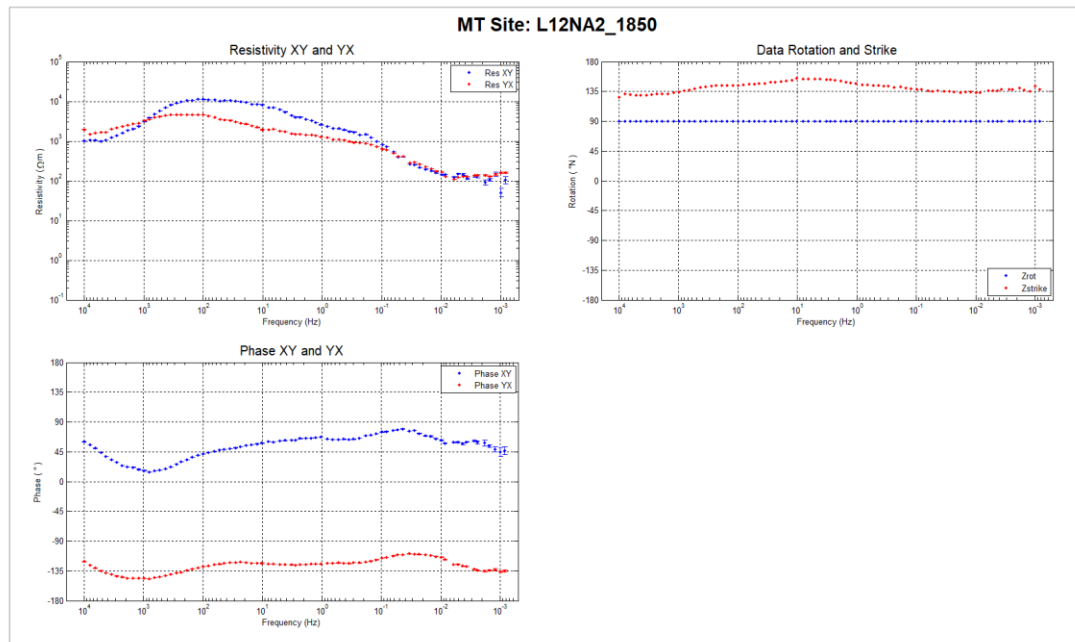


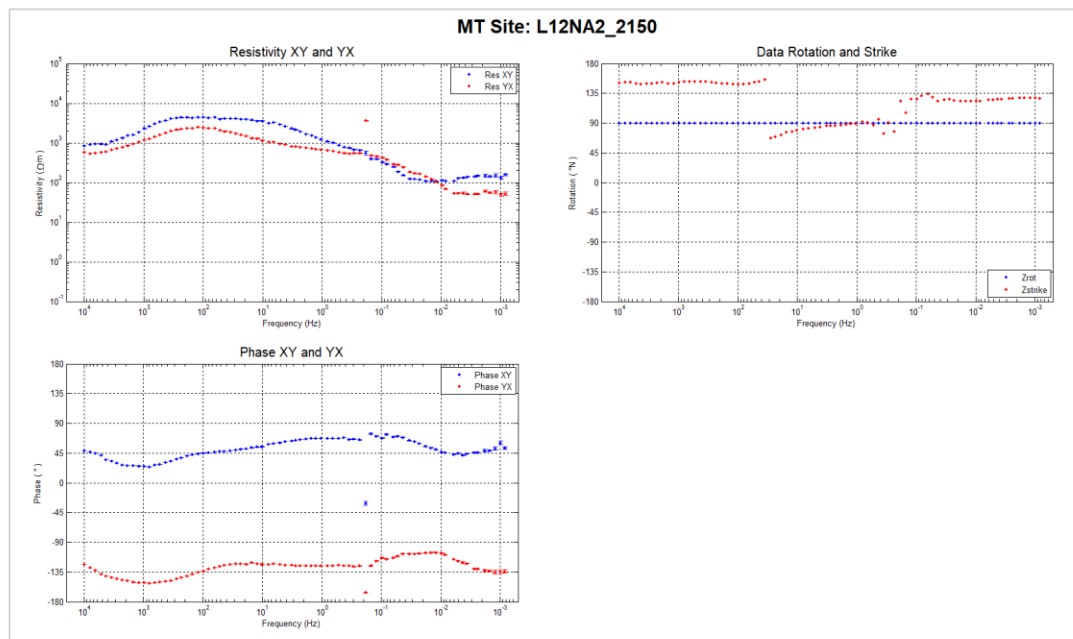
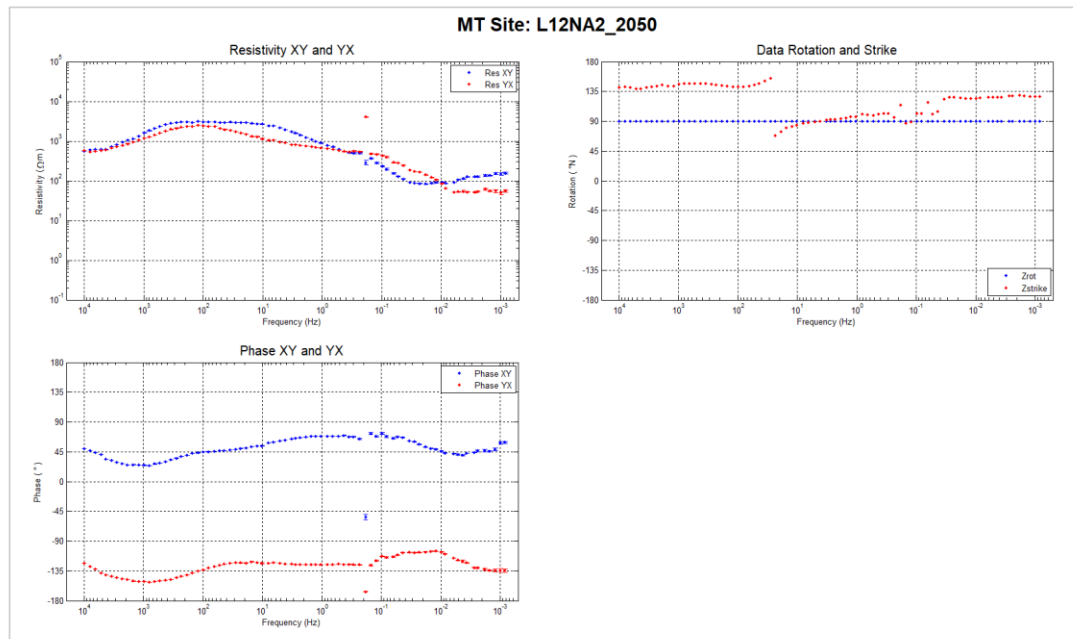




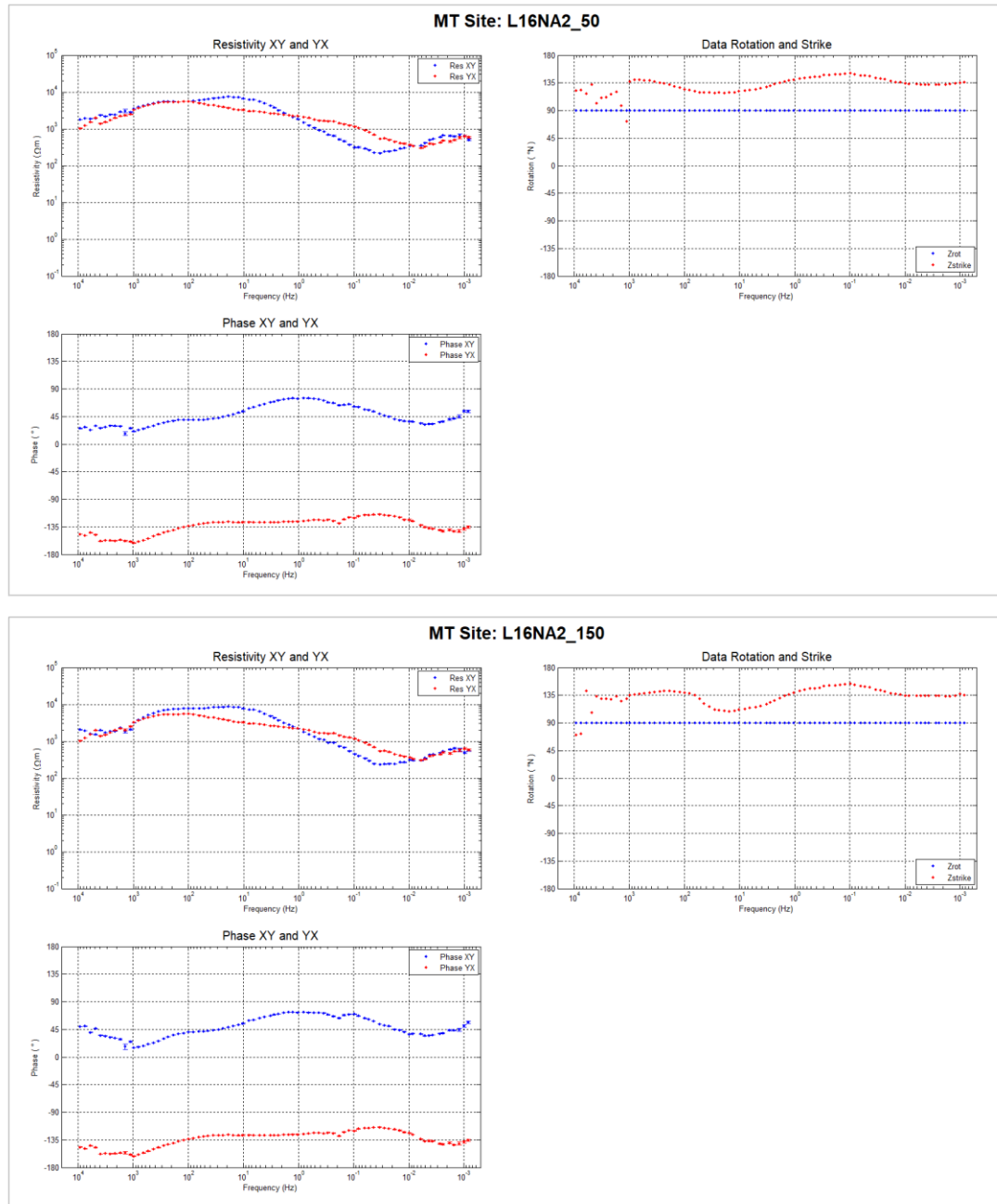


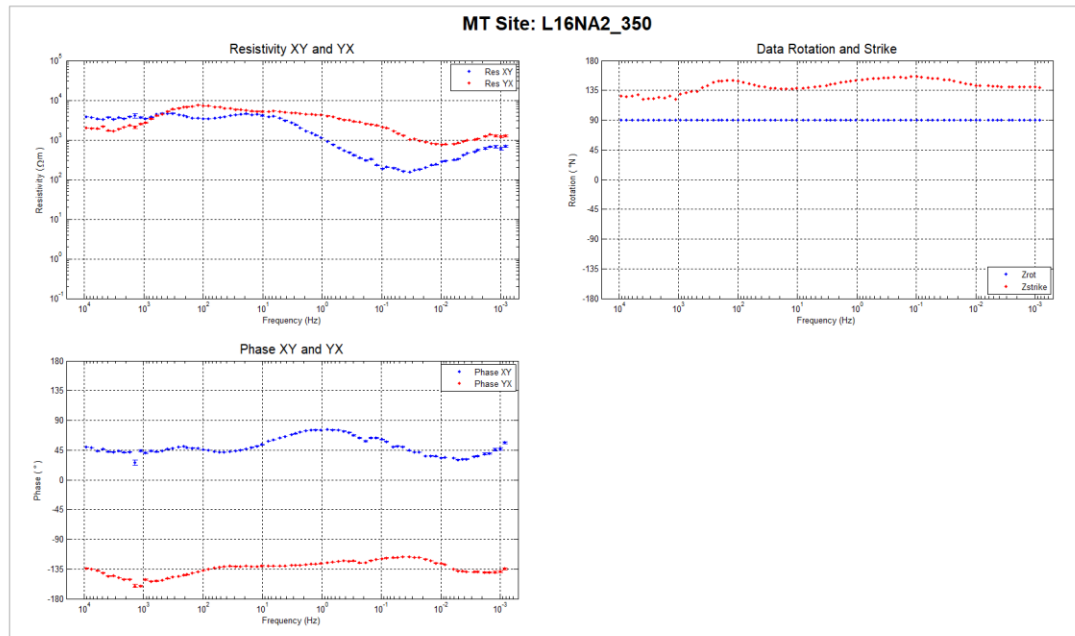
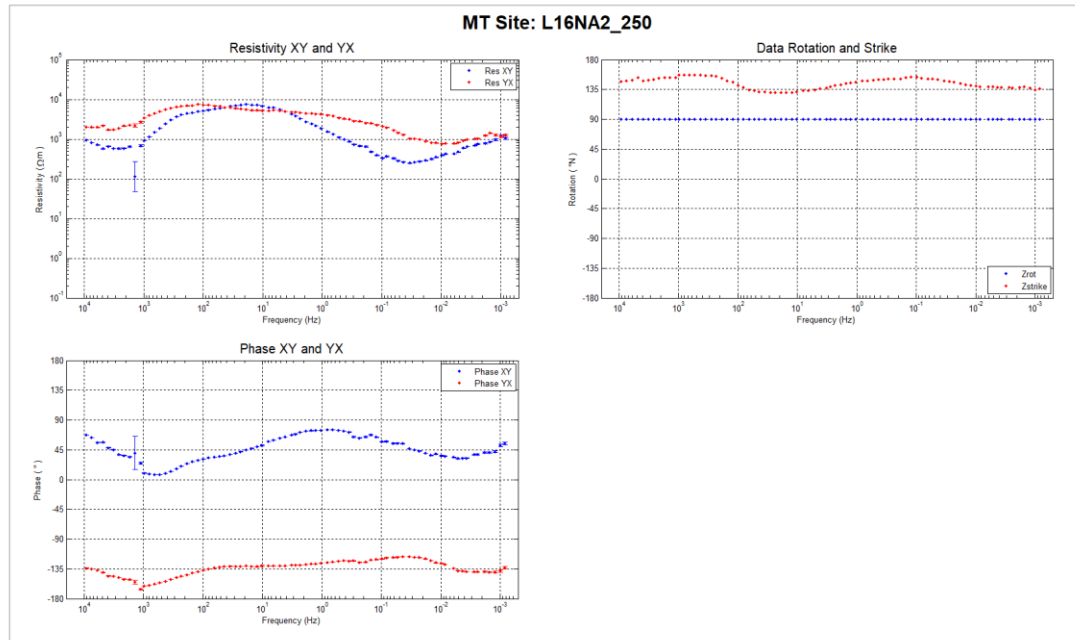


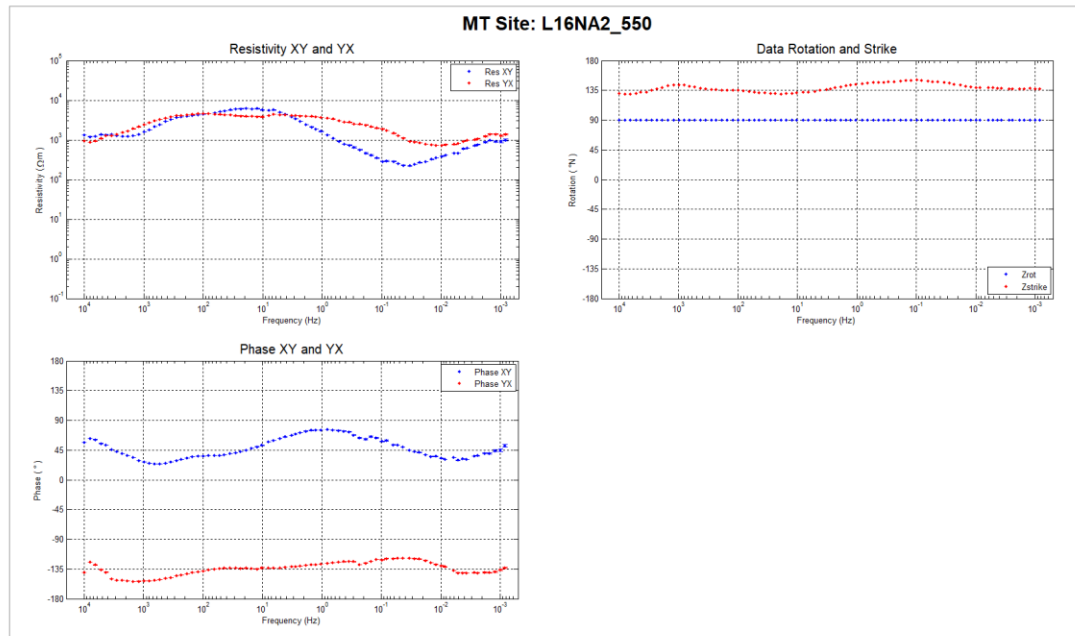
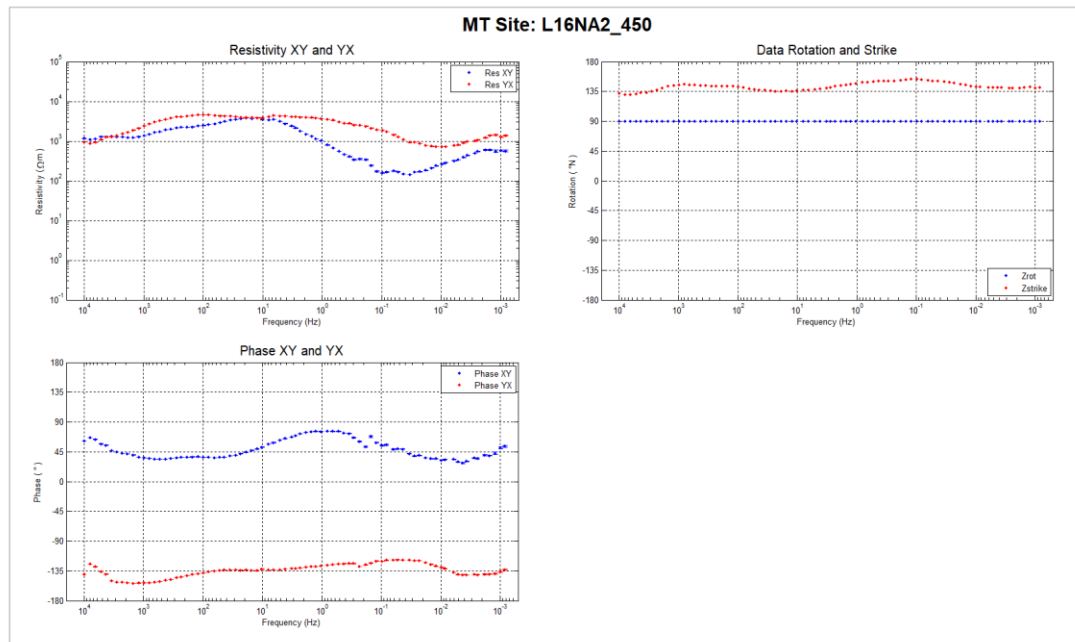


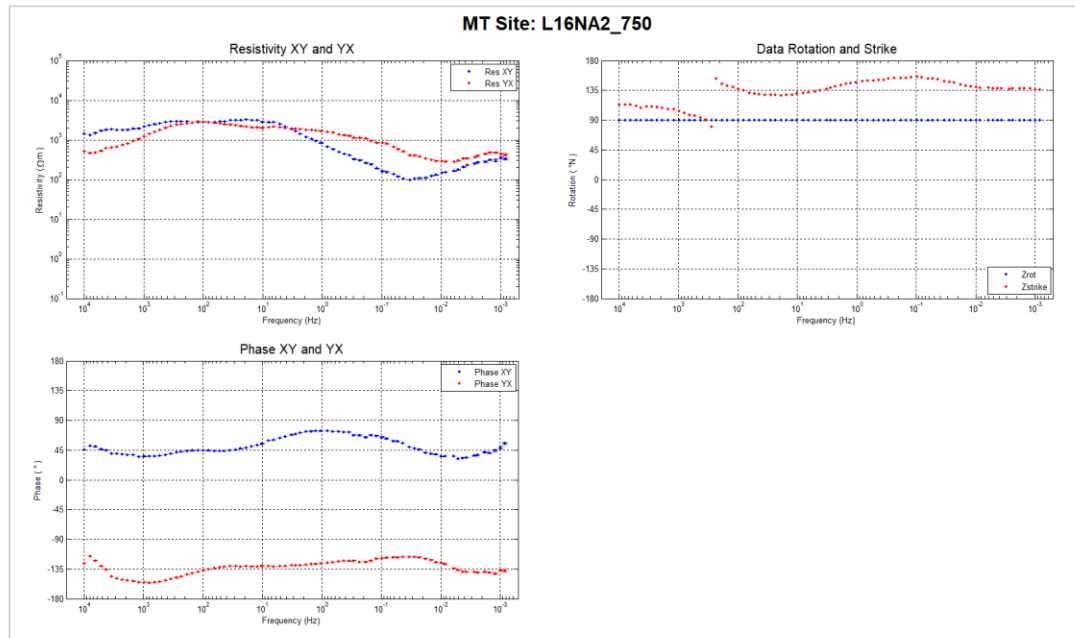
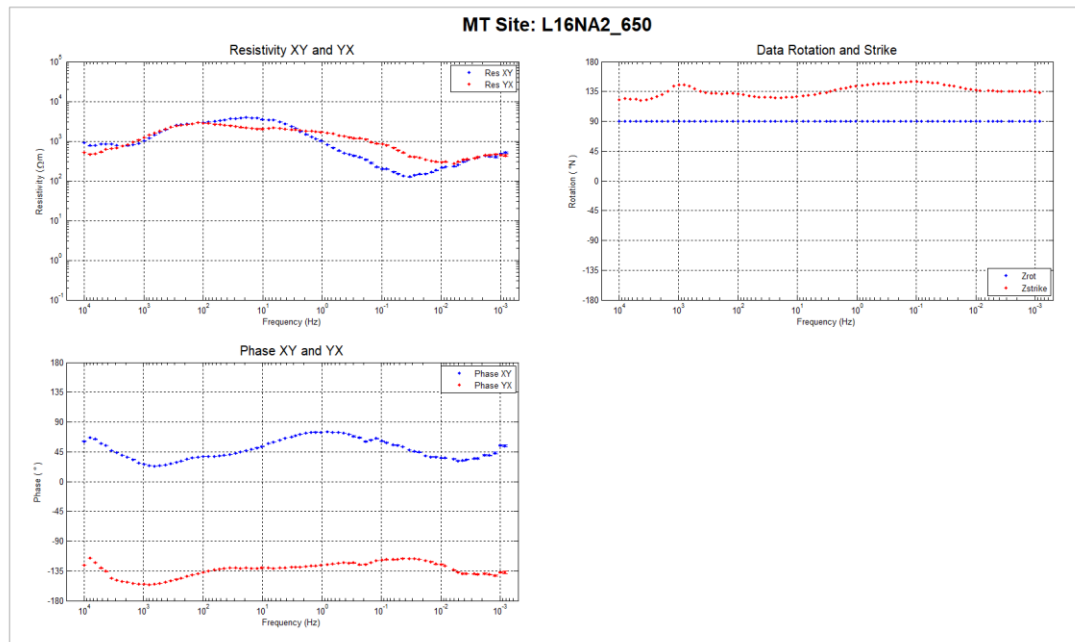


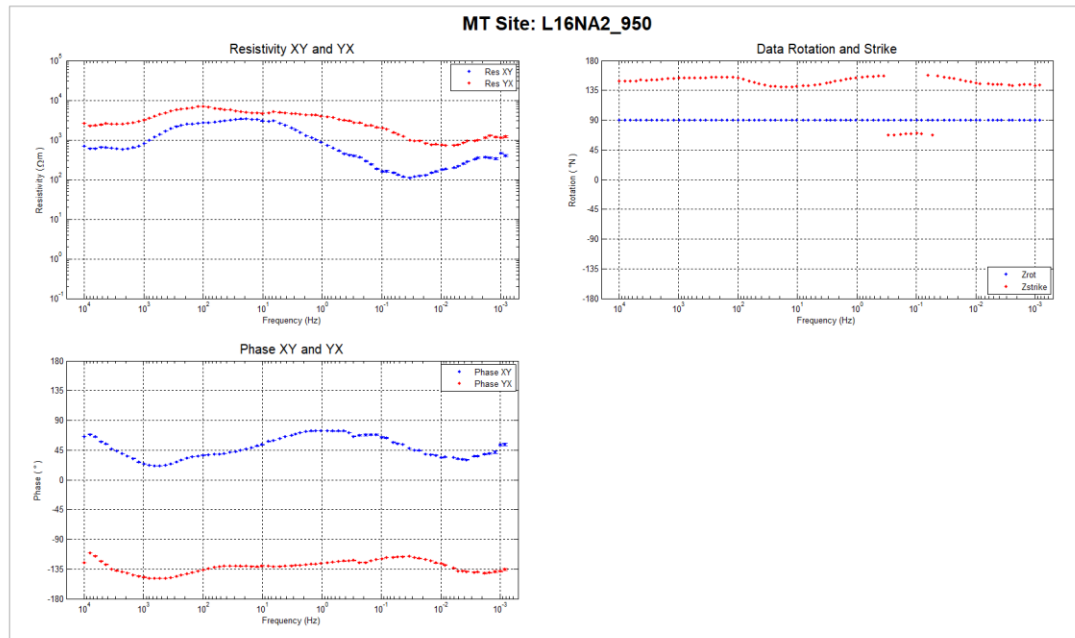
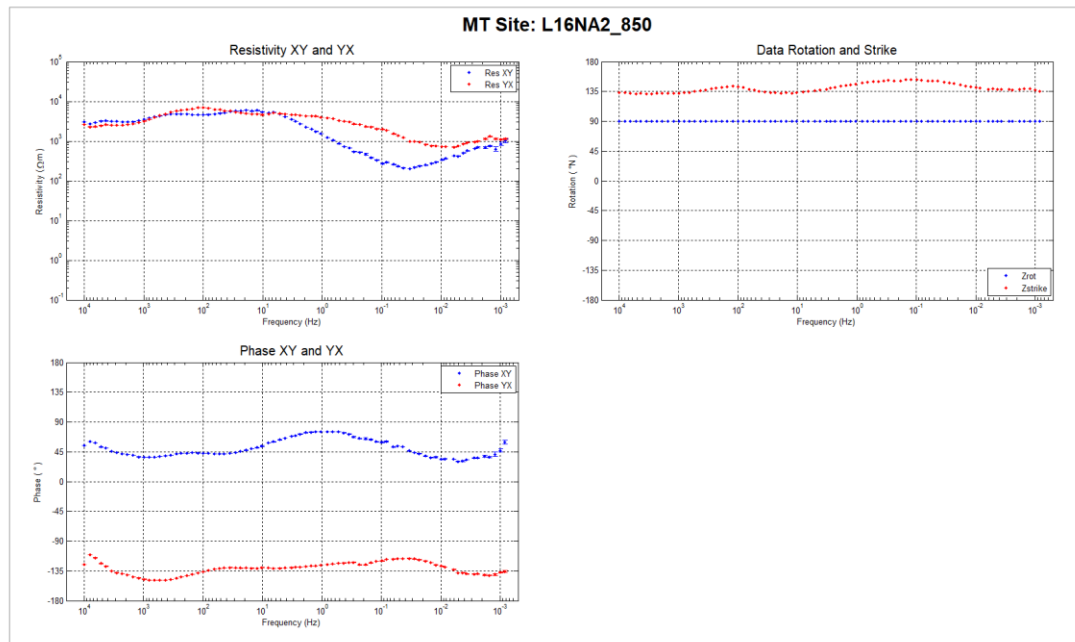
C.2.5. Line 1600N

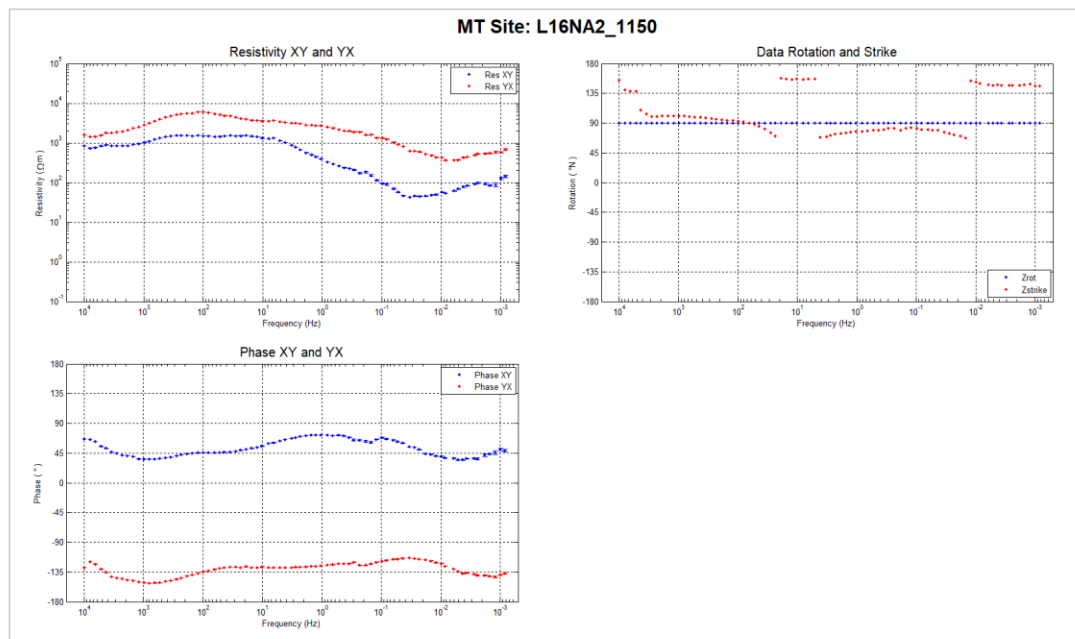
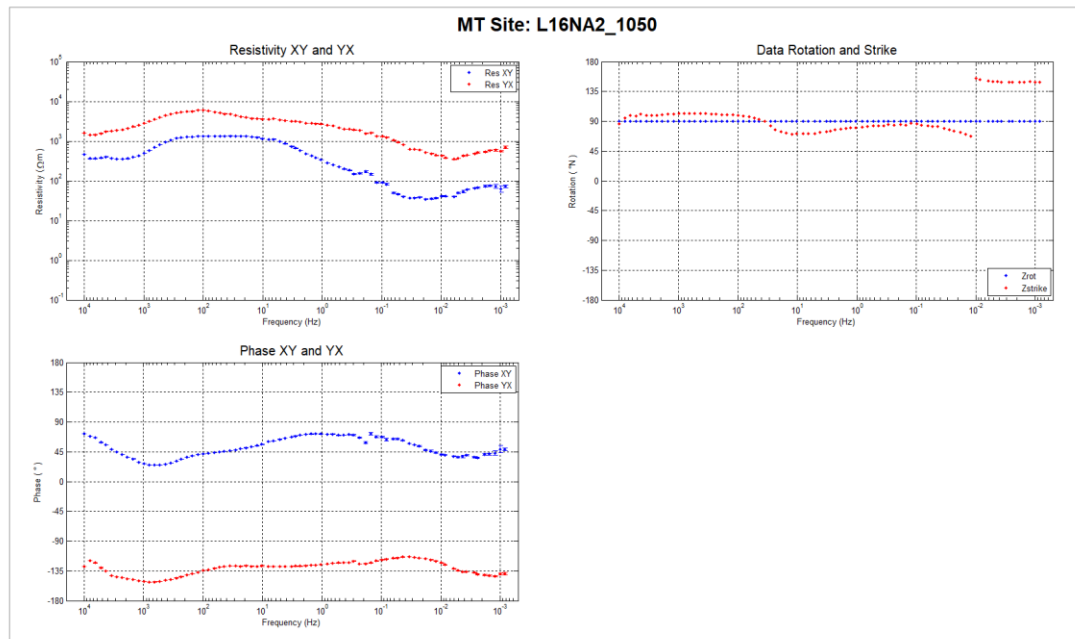


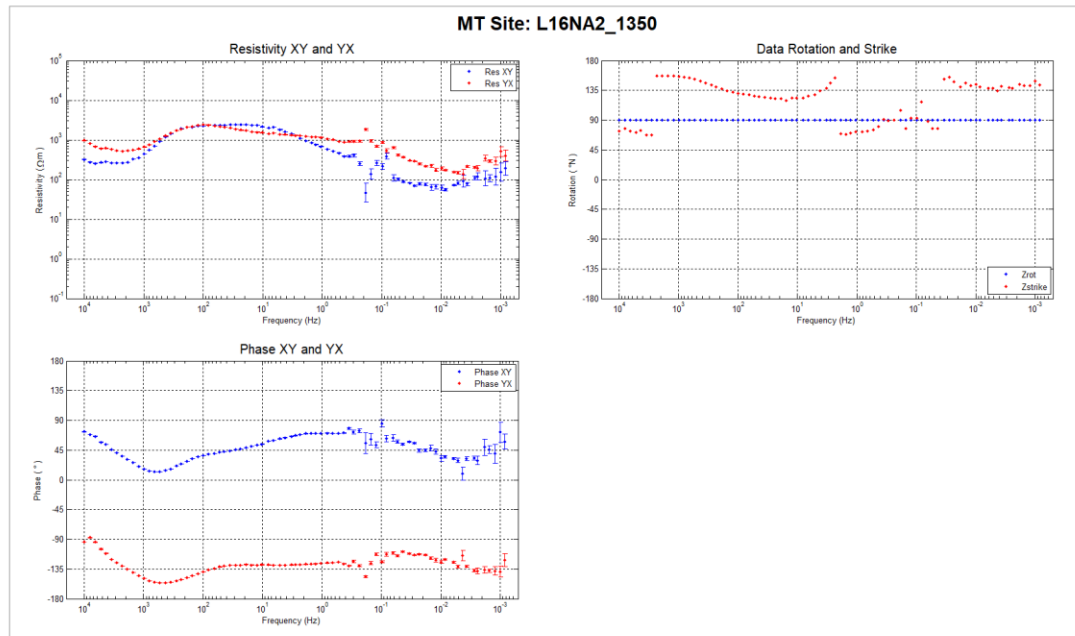
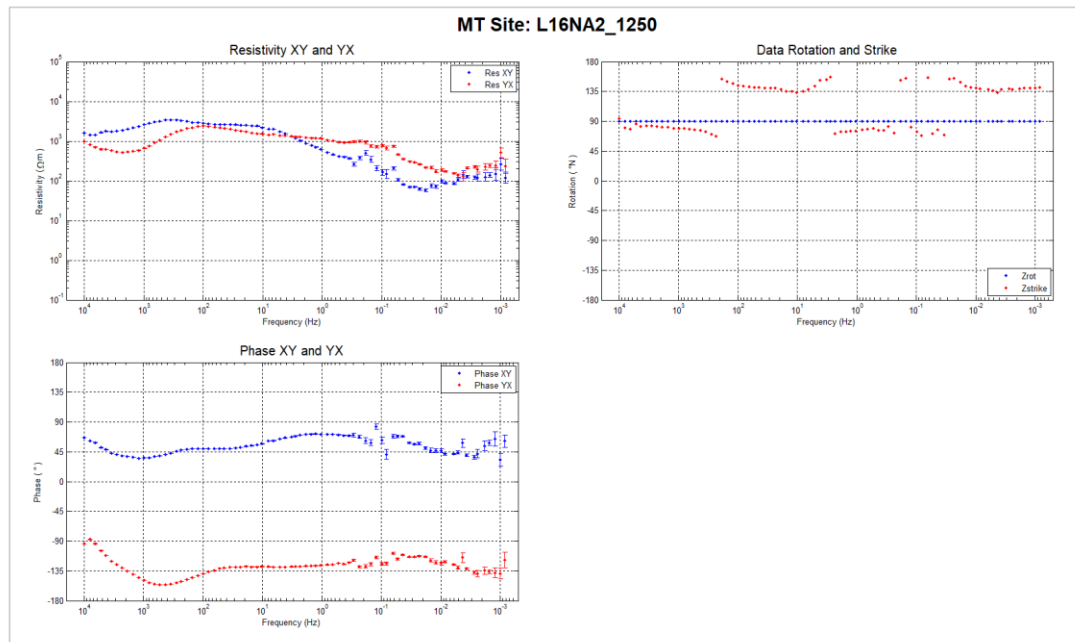


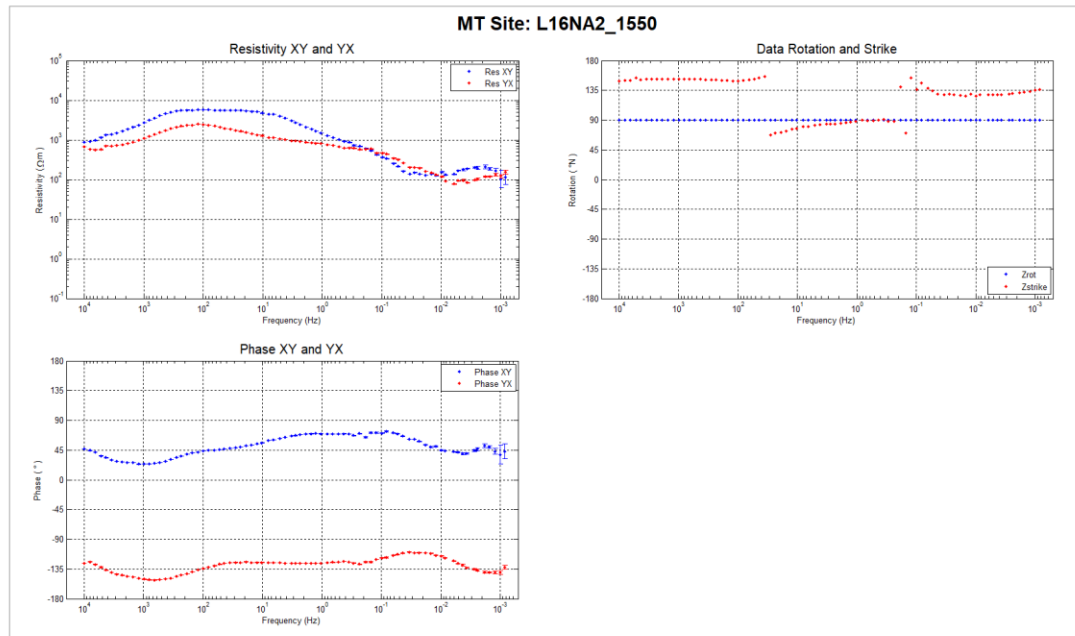
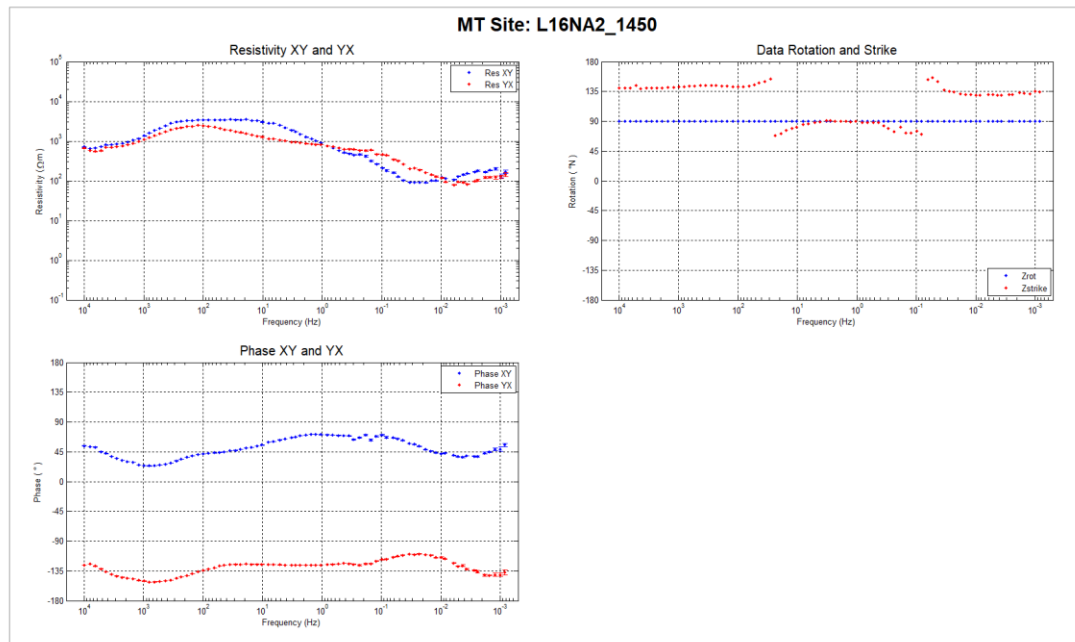


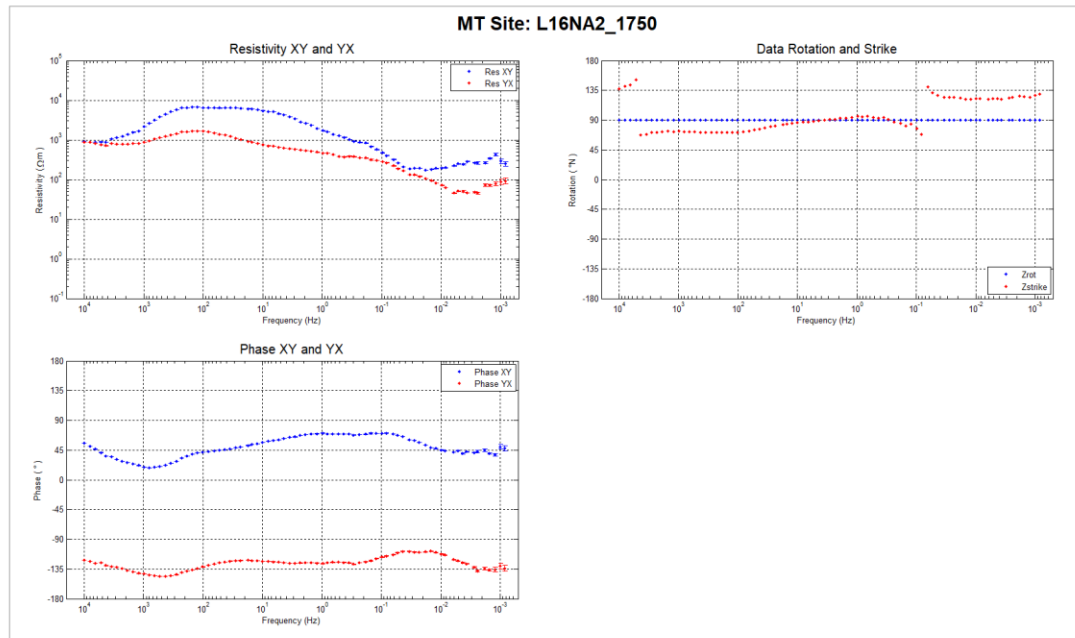
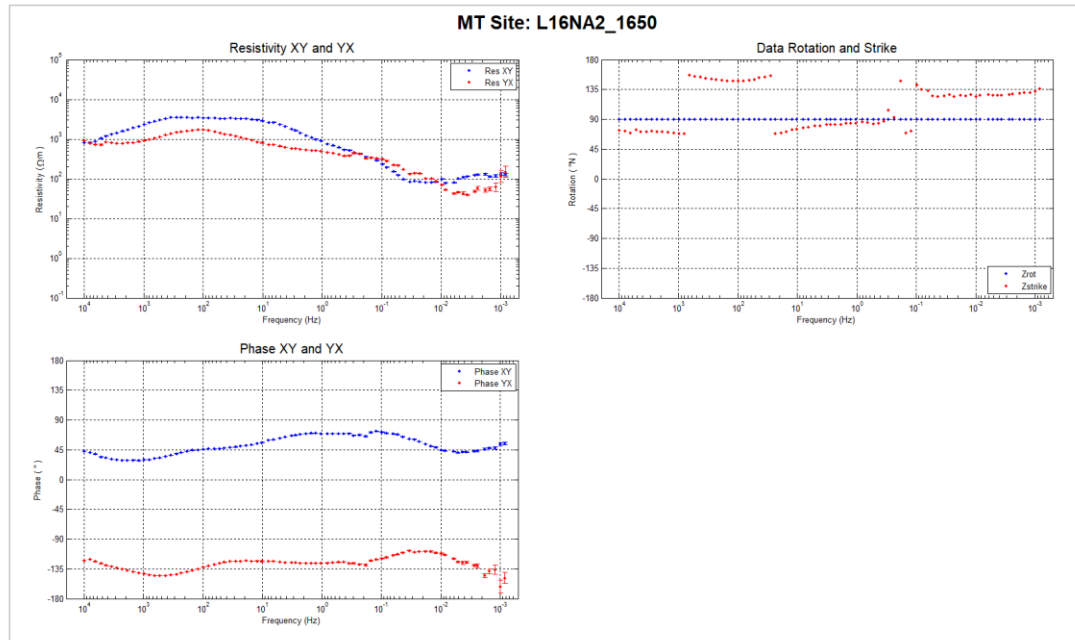


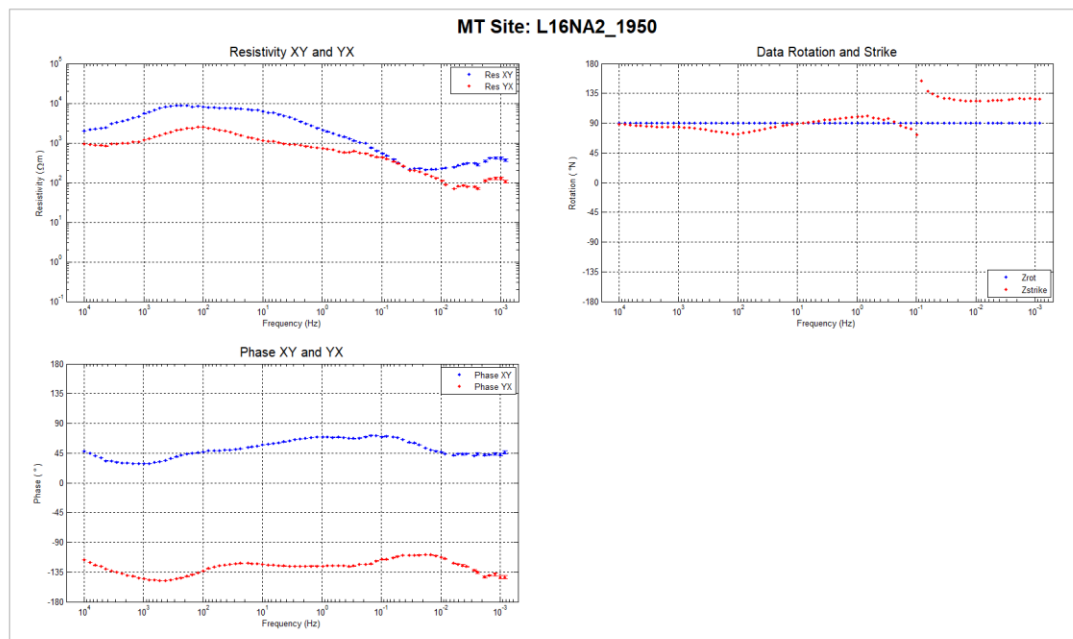
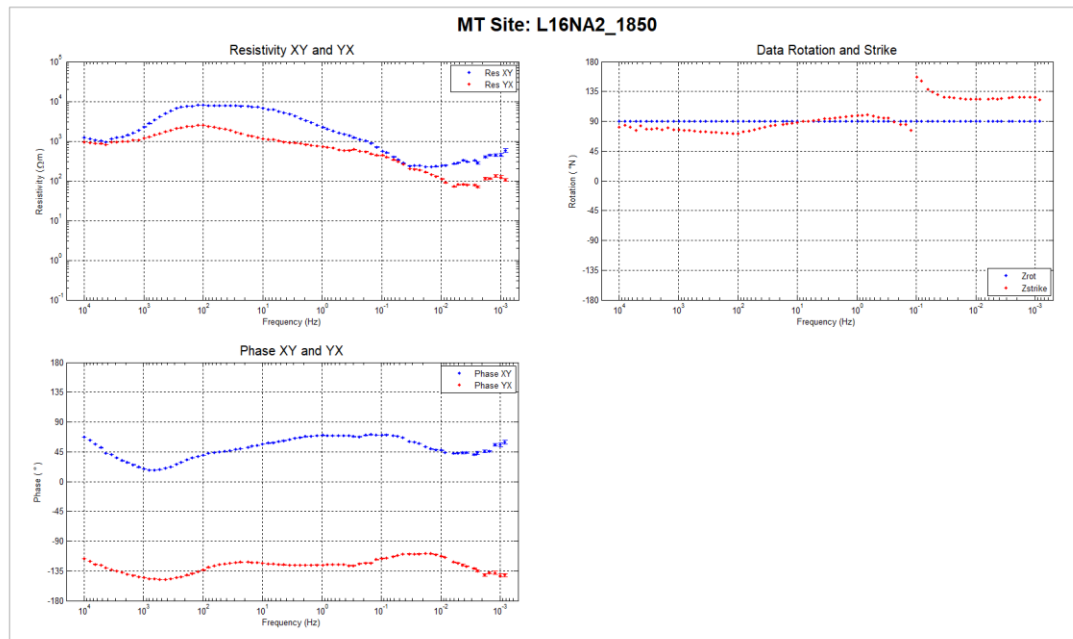


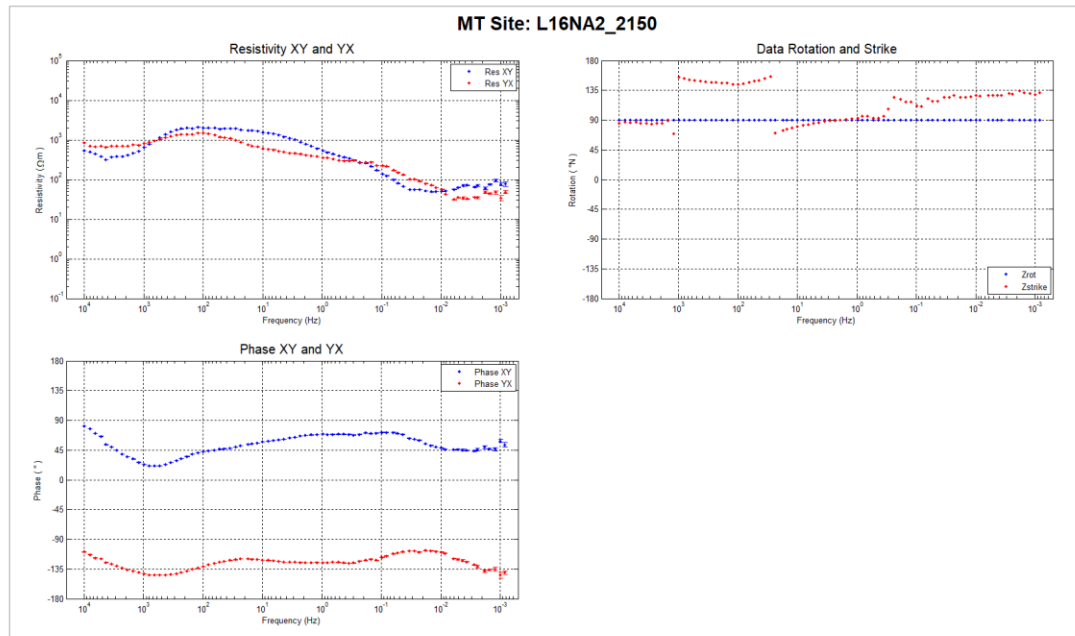
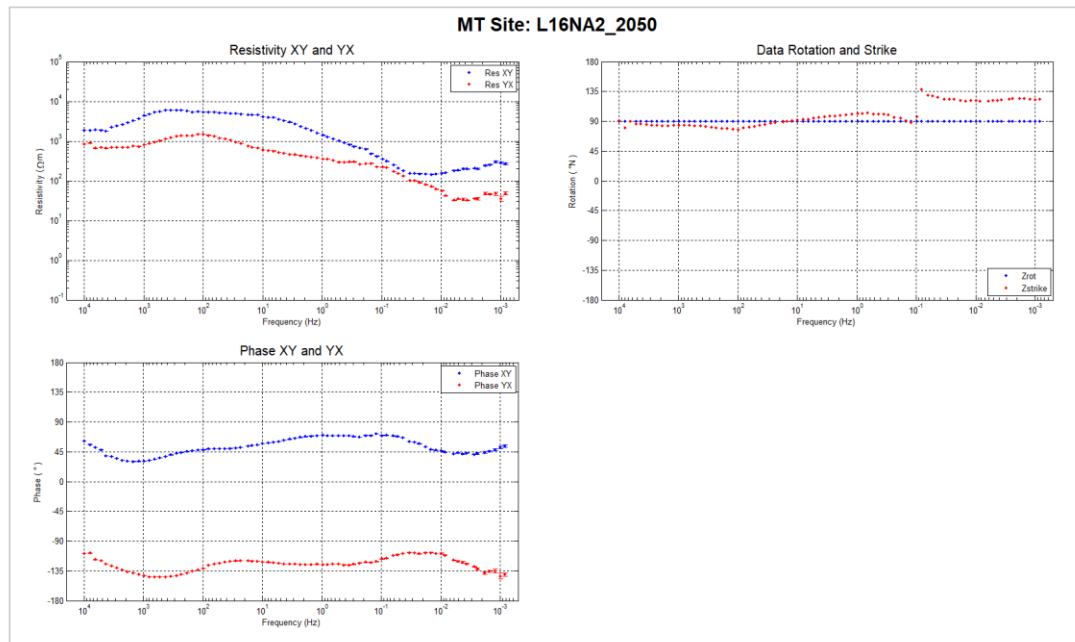


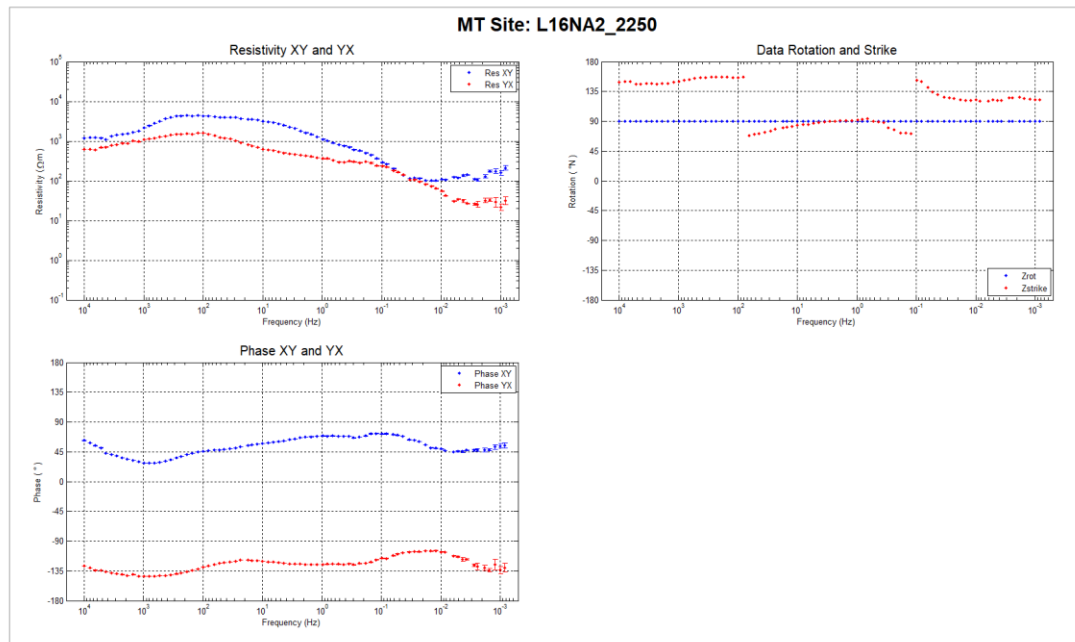




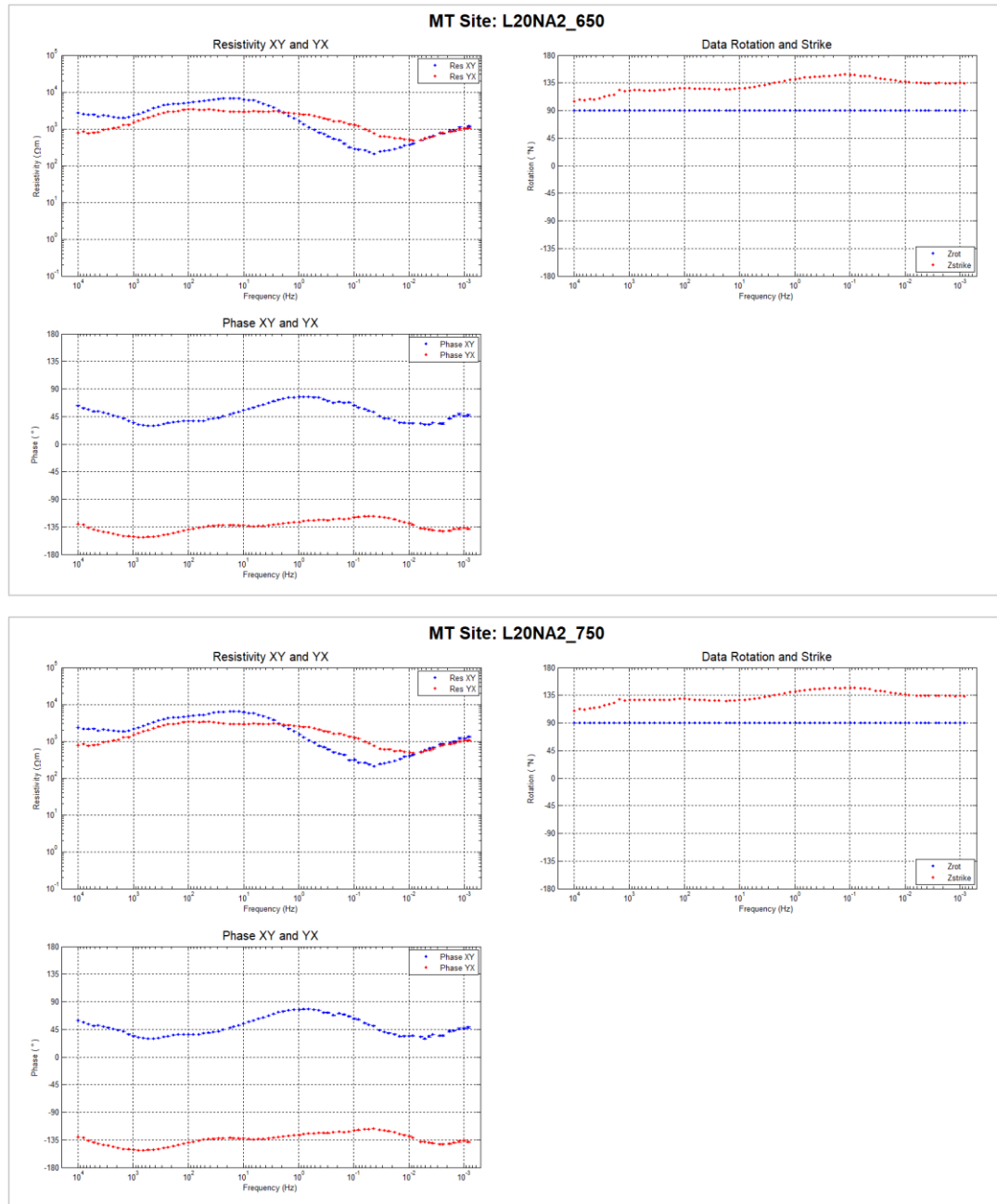


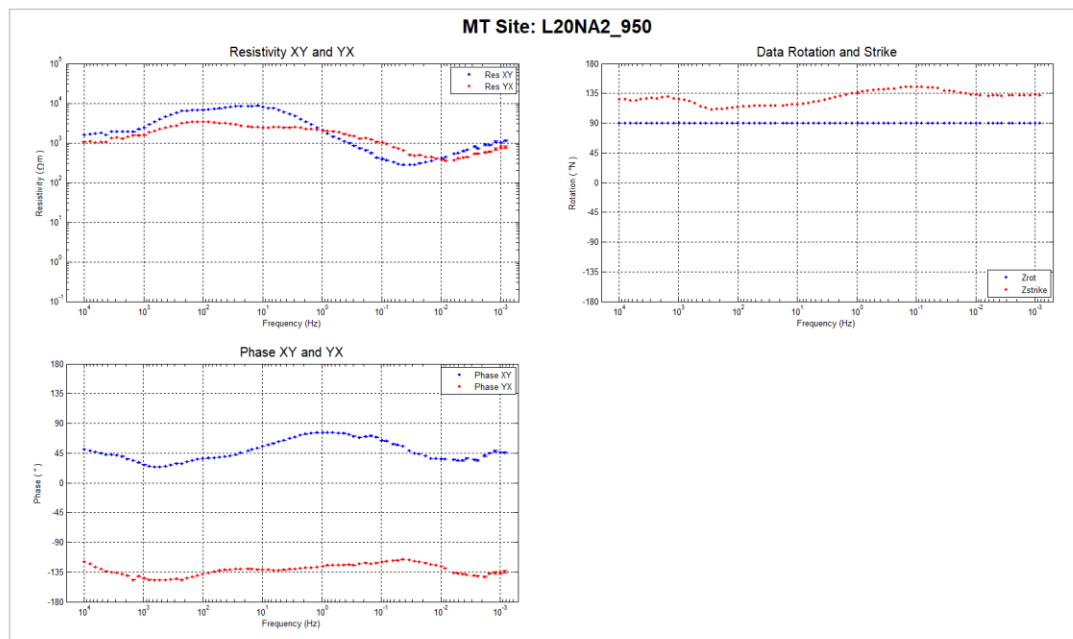
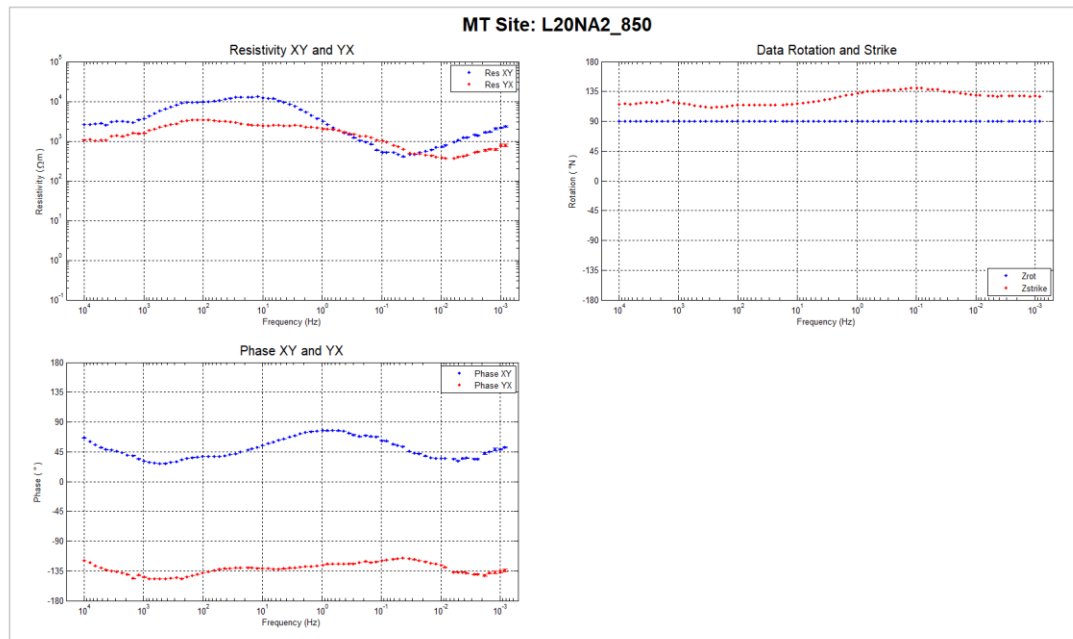


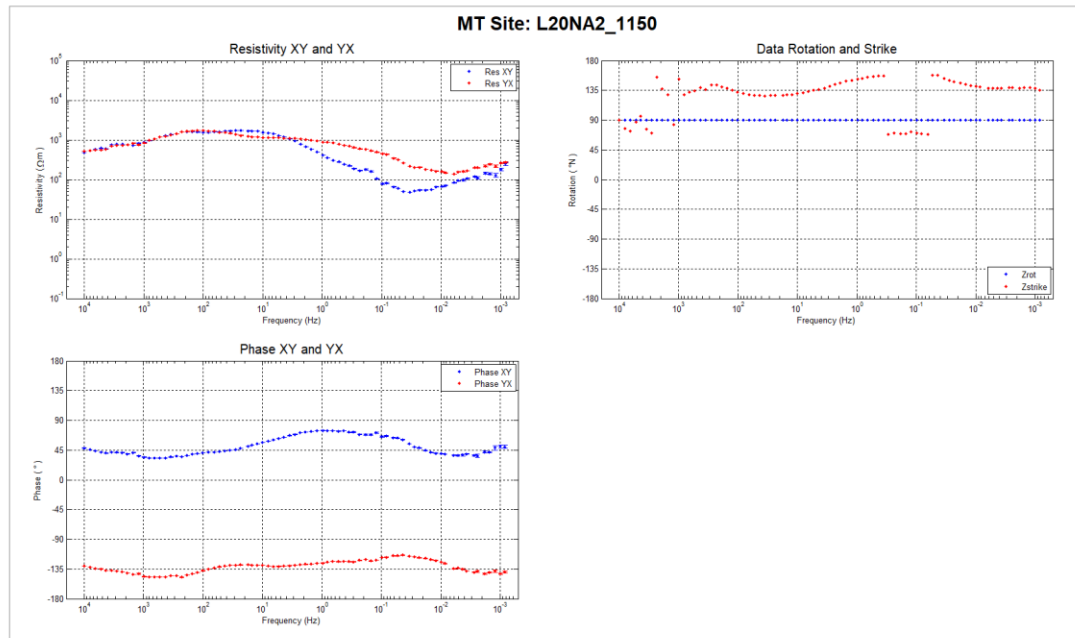
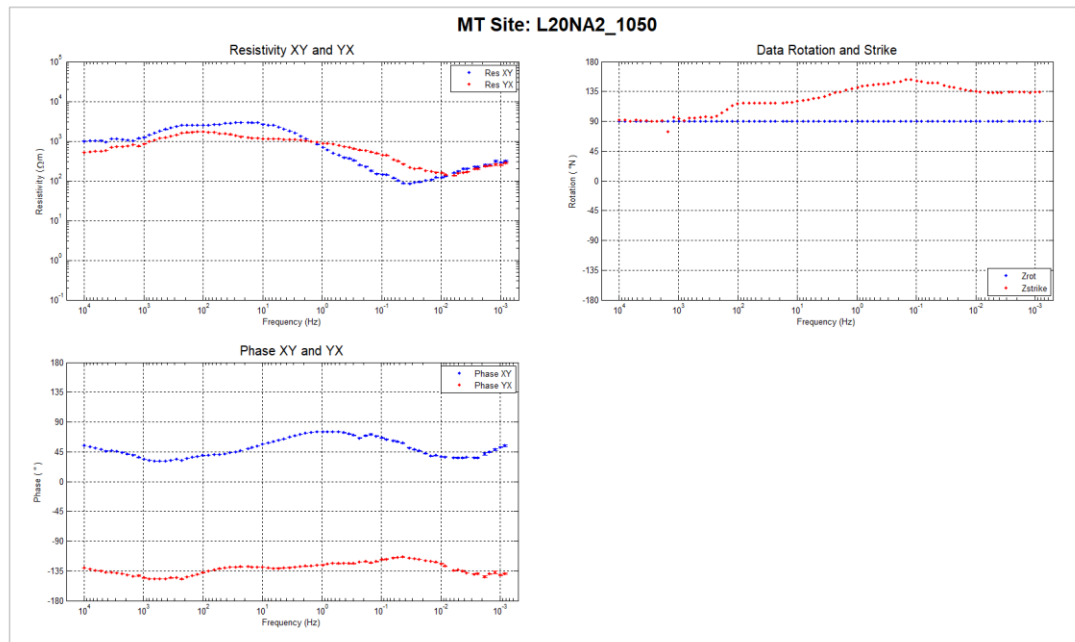


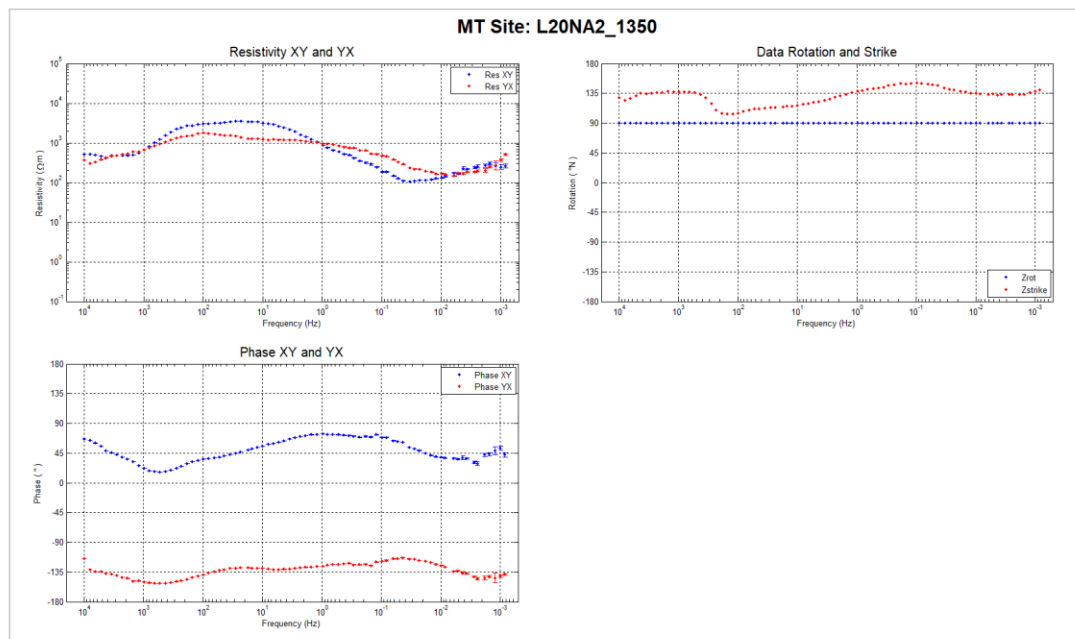
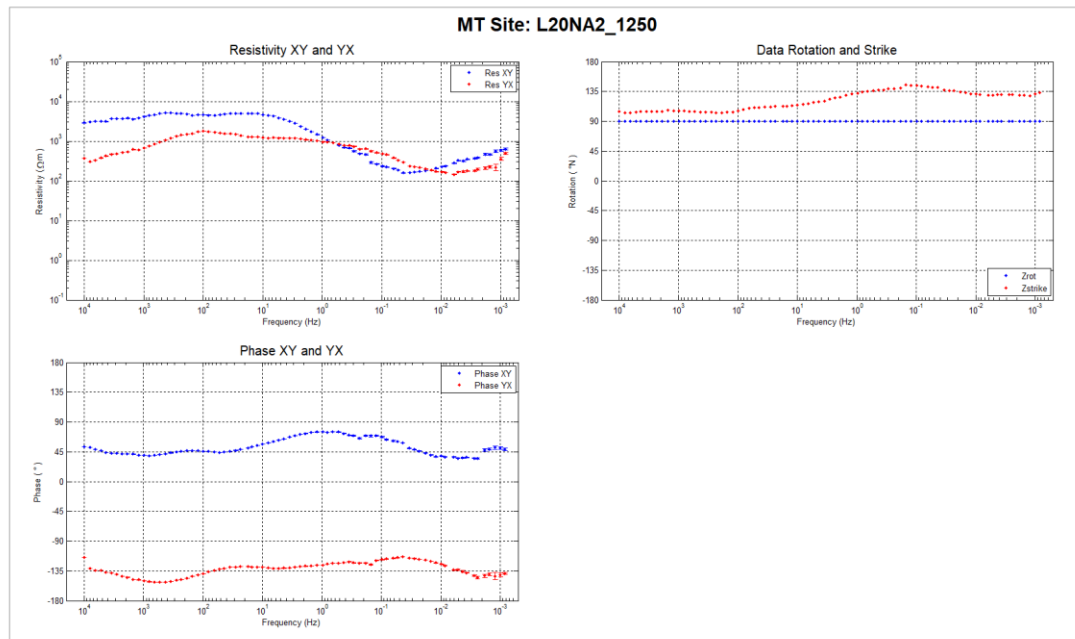


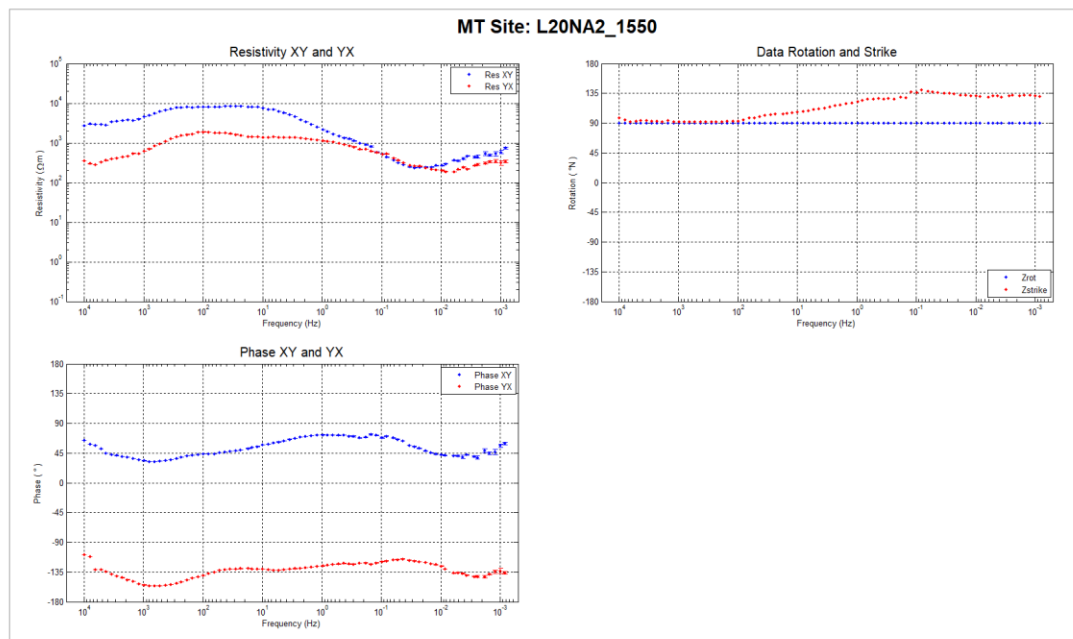
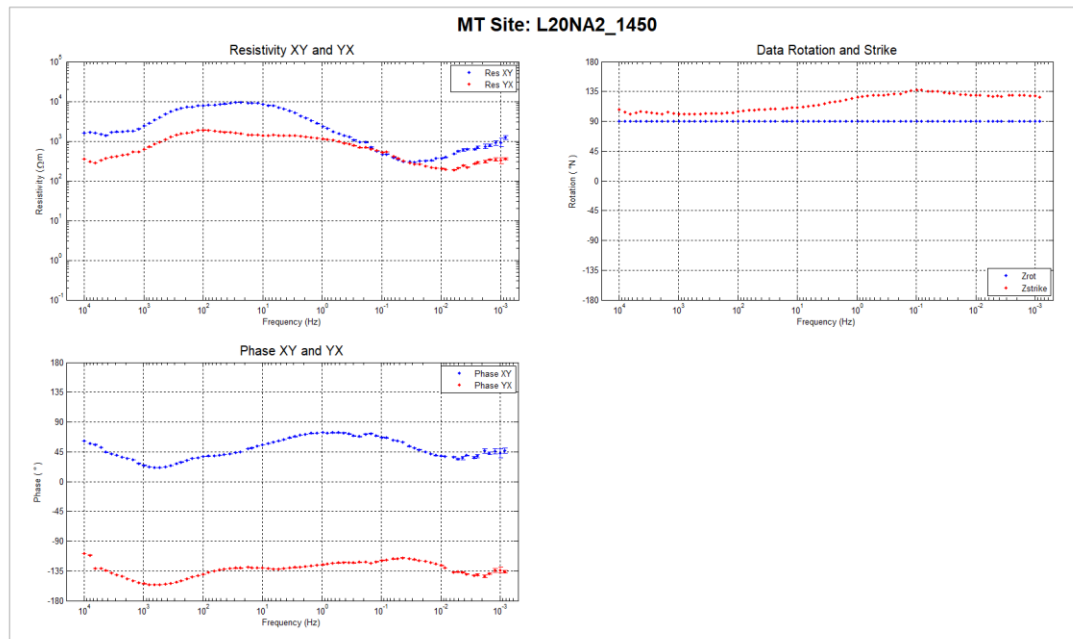
C.2.6. Line 2000N





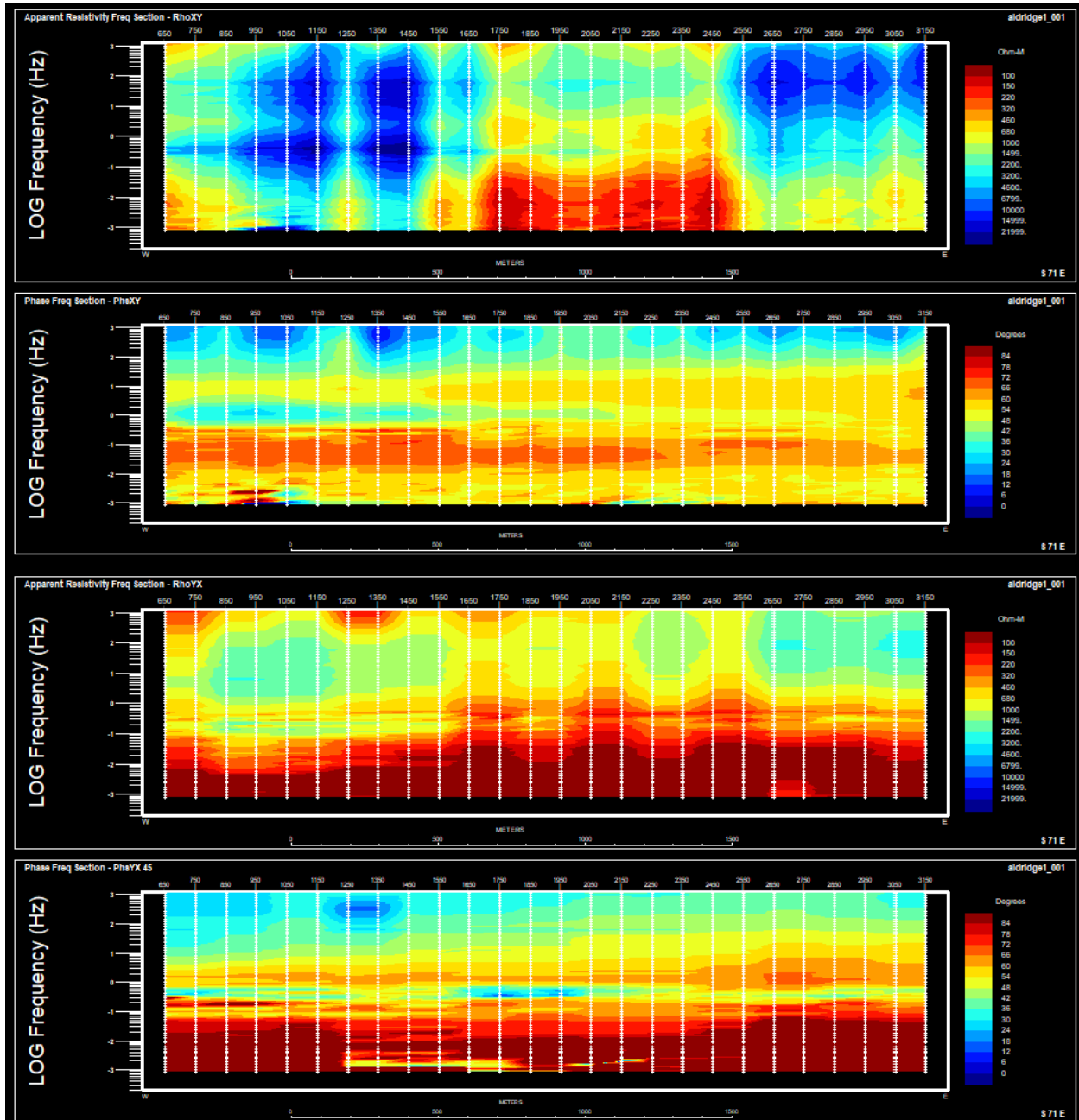




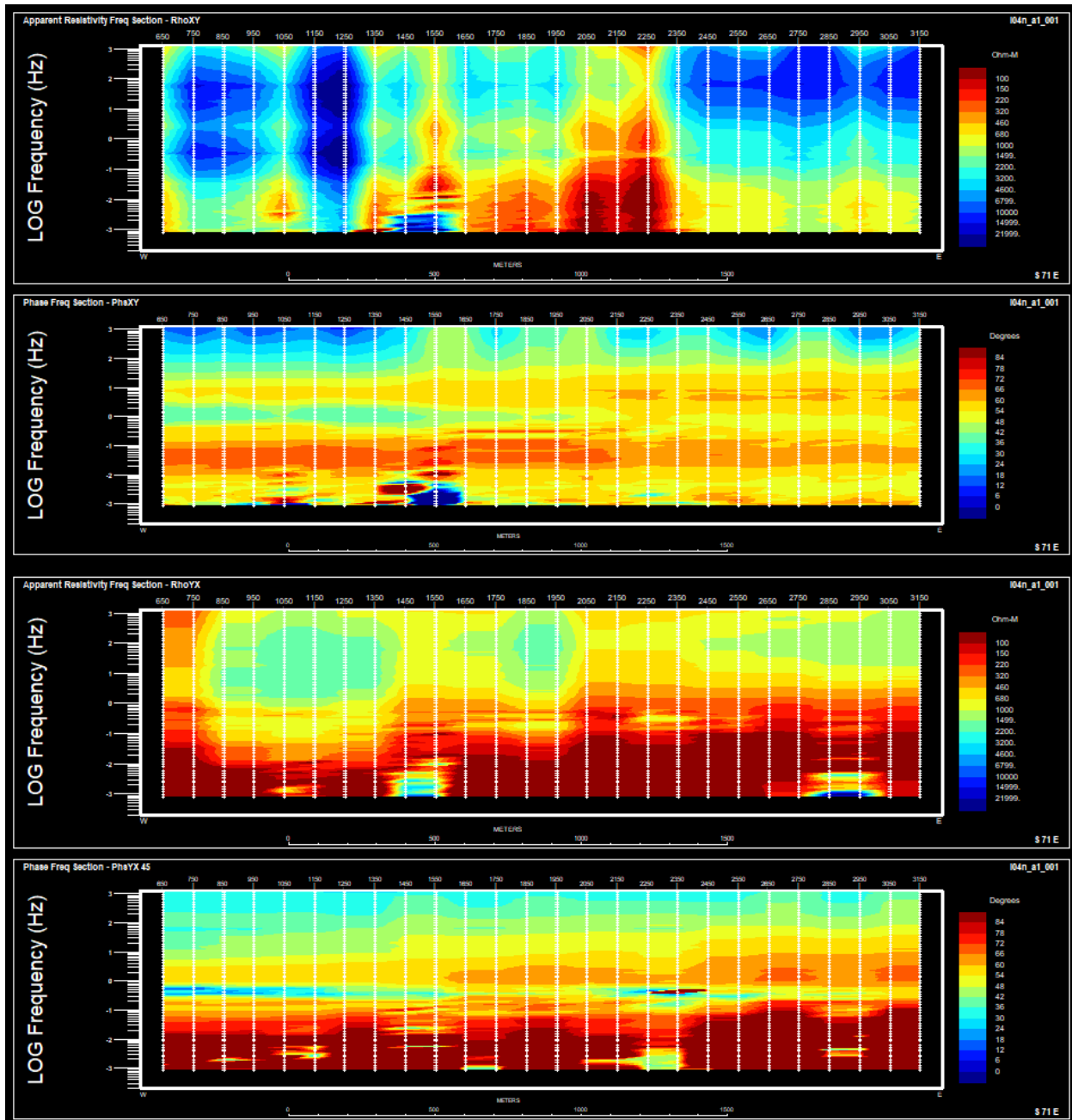


C.3. PSEUDO-SECTION PROFILES – GRID 1

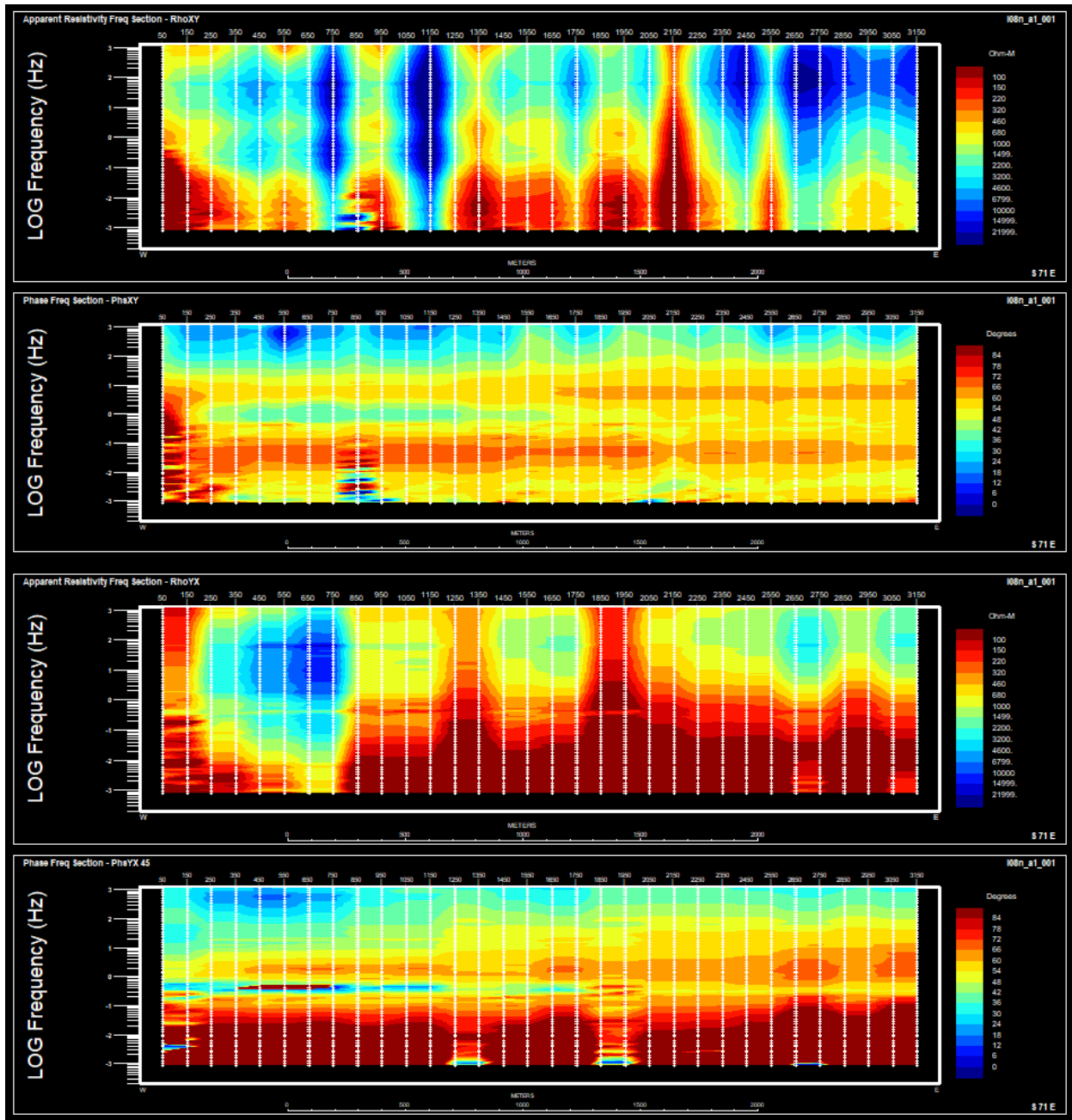
C.3.1. Line 0000N



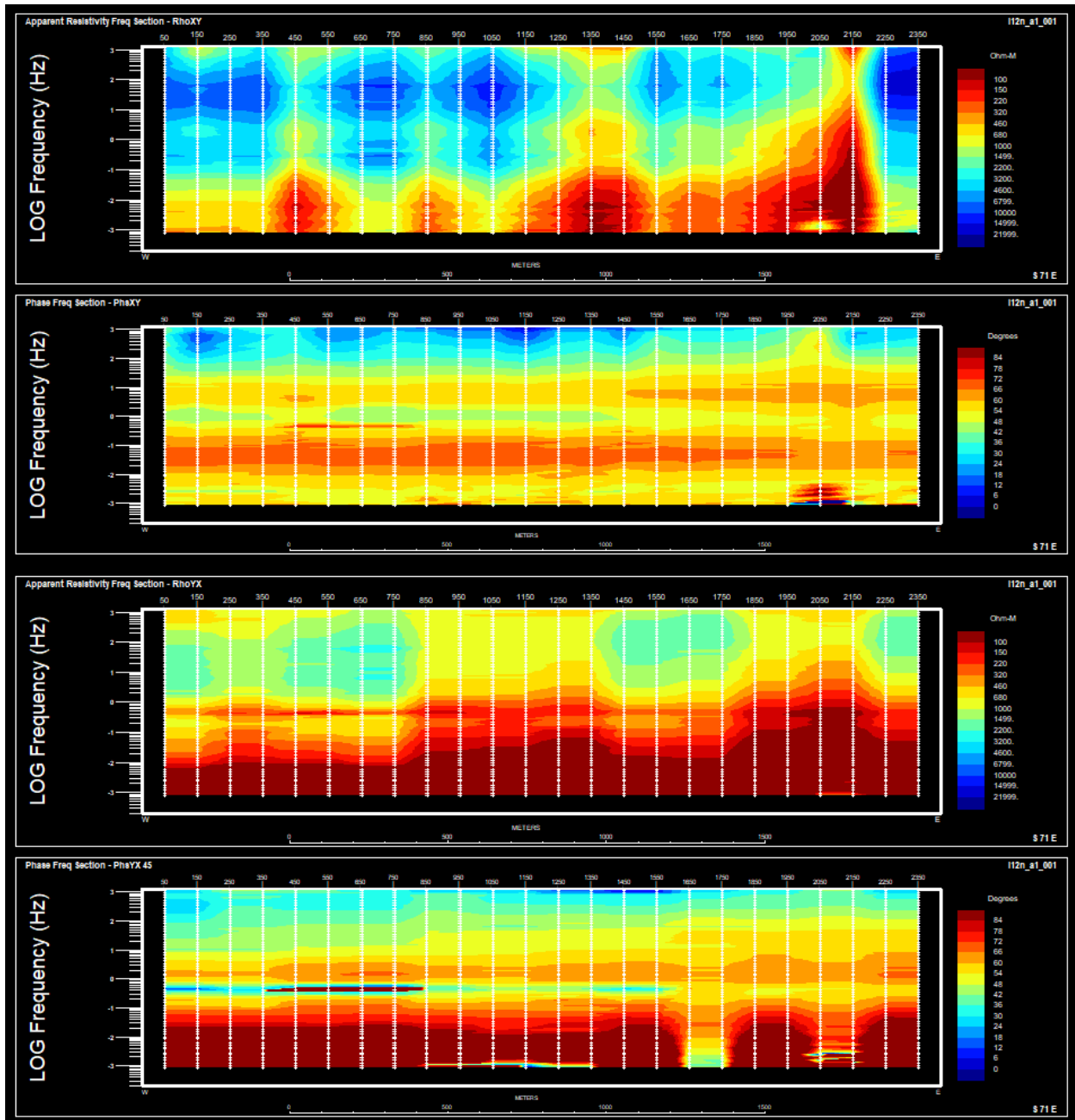
C.3.2. Line 0400N



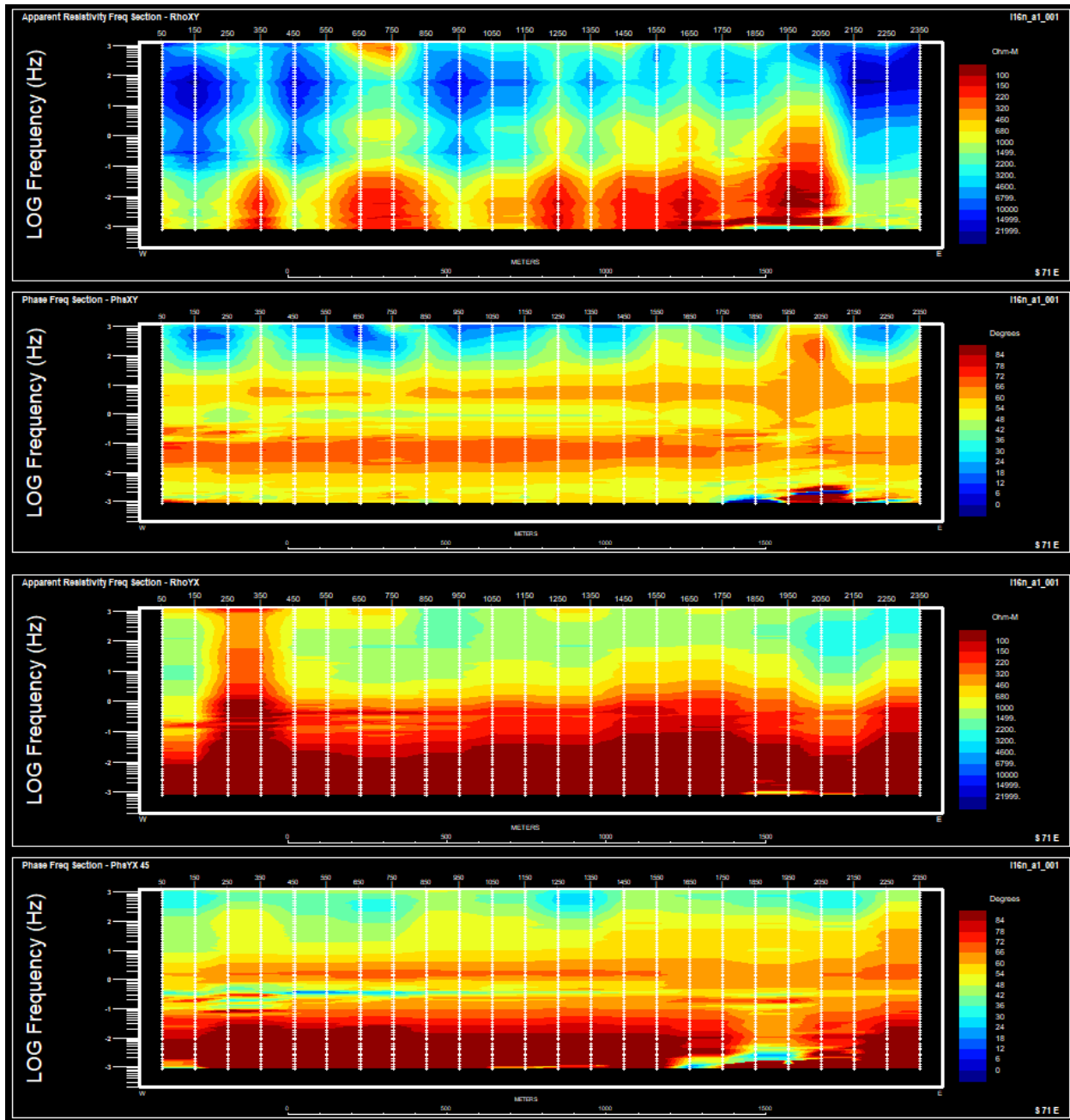
C.3.1. Line 0800N



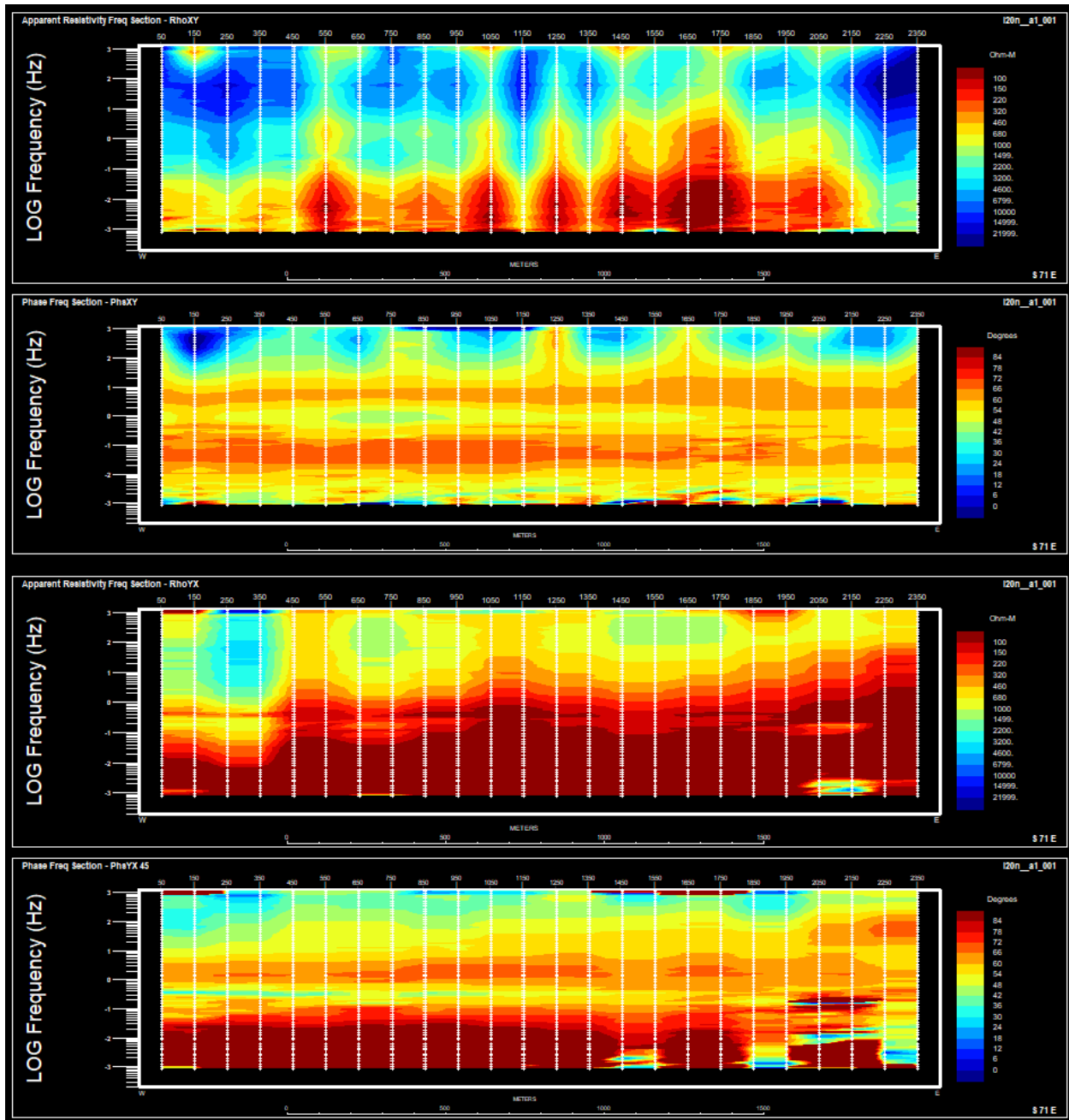
C.3.1. Line 1200N



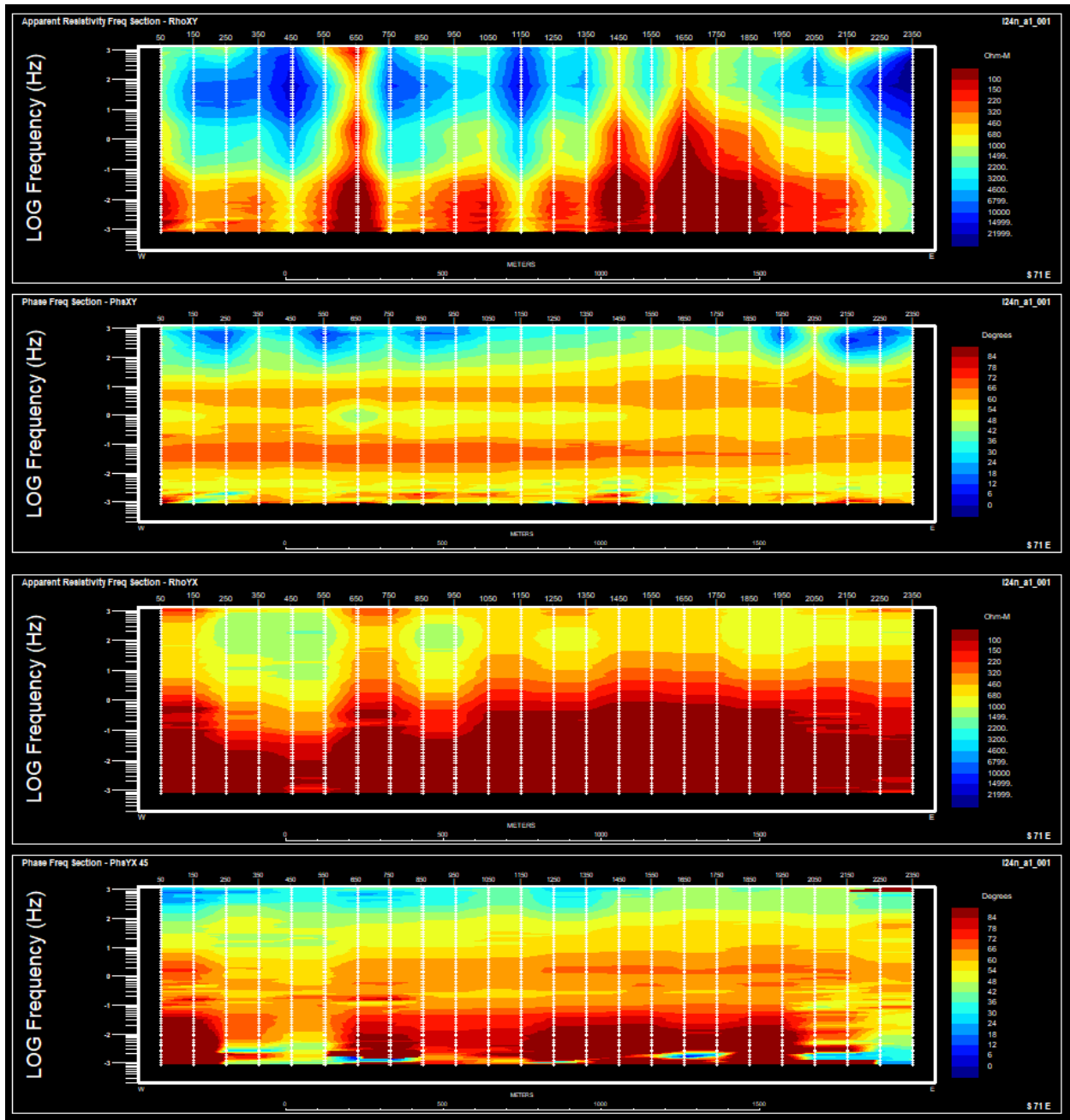
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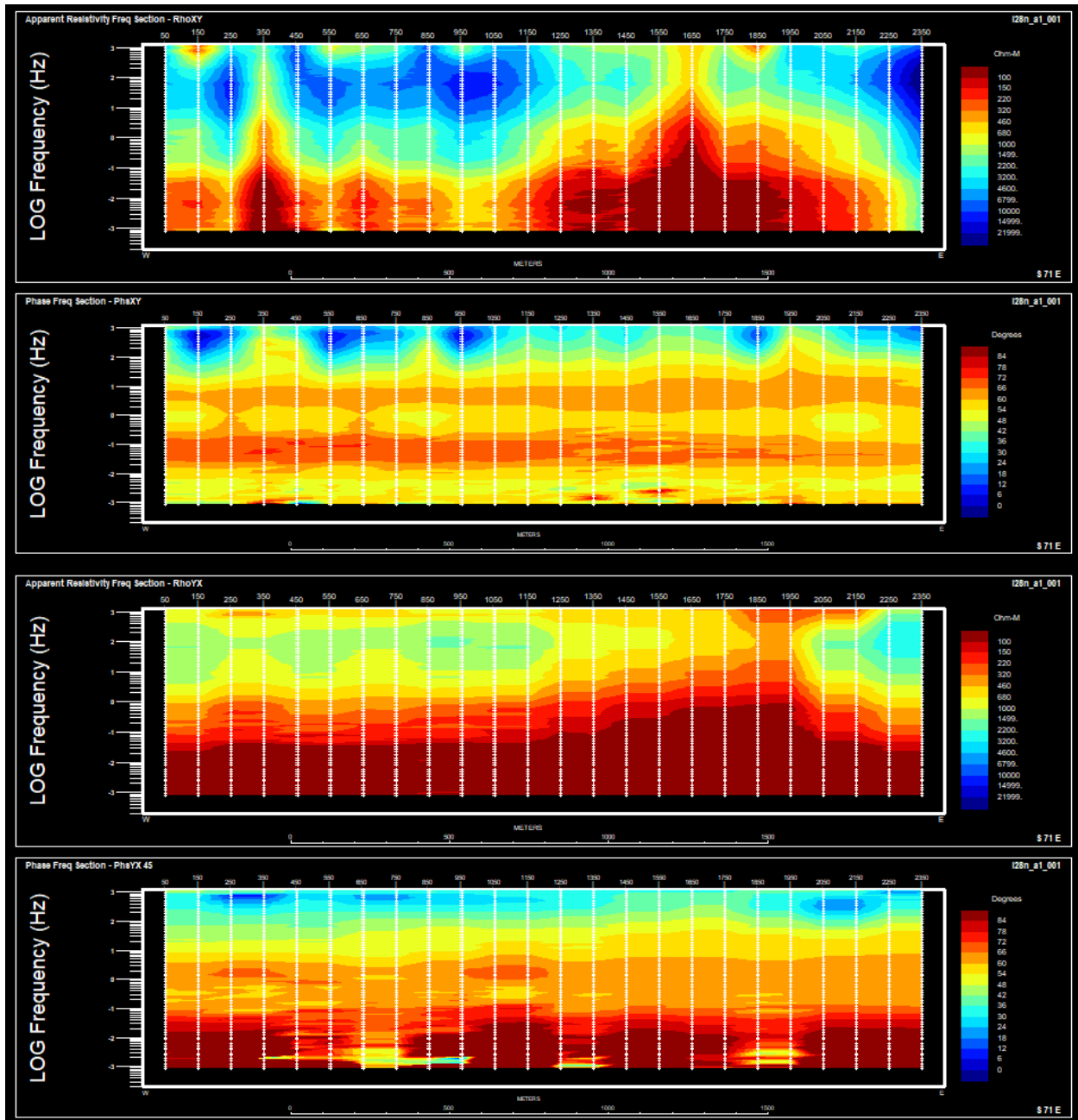
C.3.1. Line 2000N



C.3.1. Line 2400N

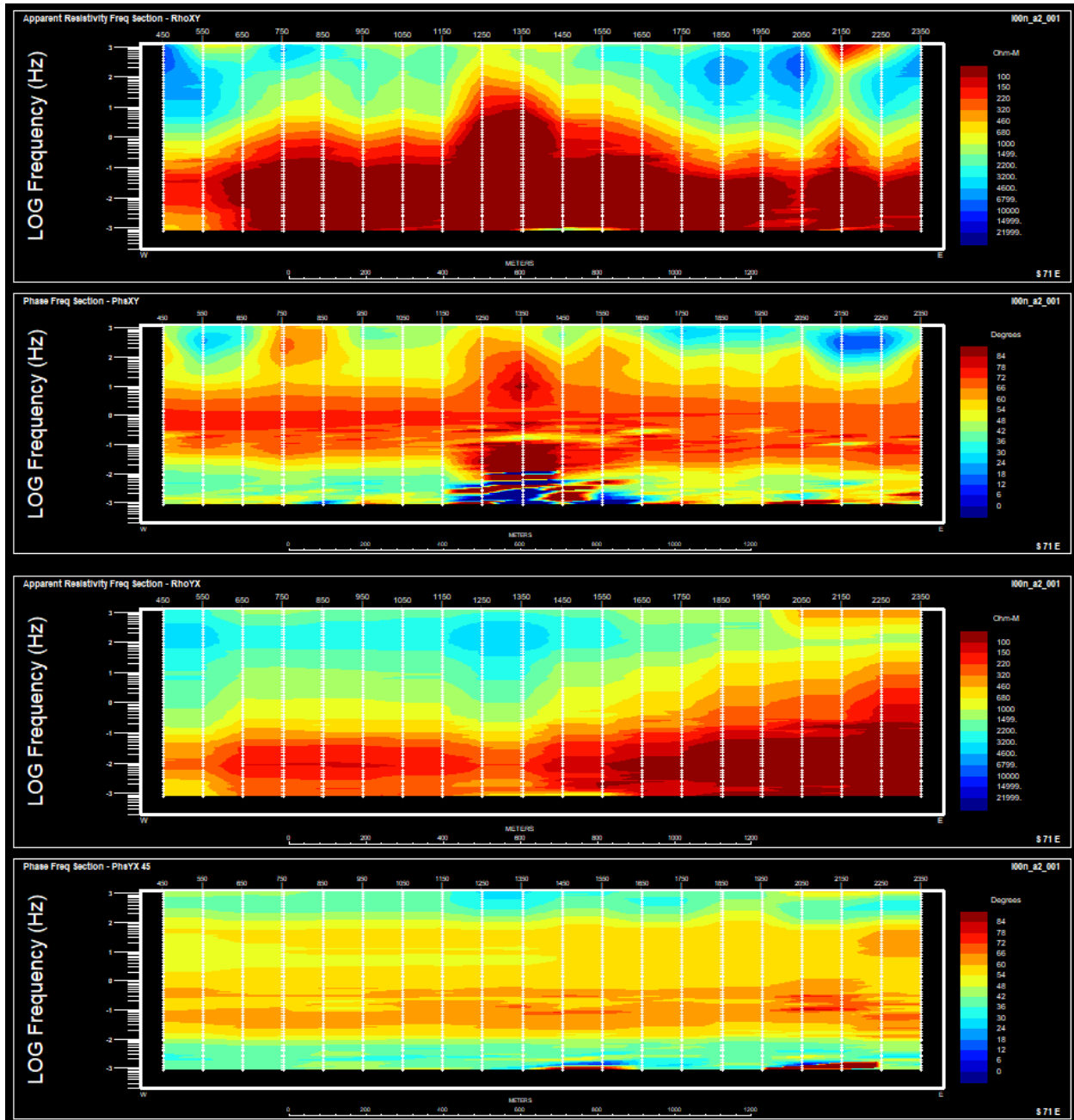


C.3.1. Line 2800N

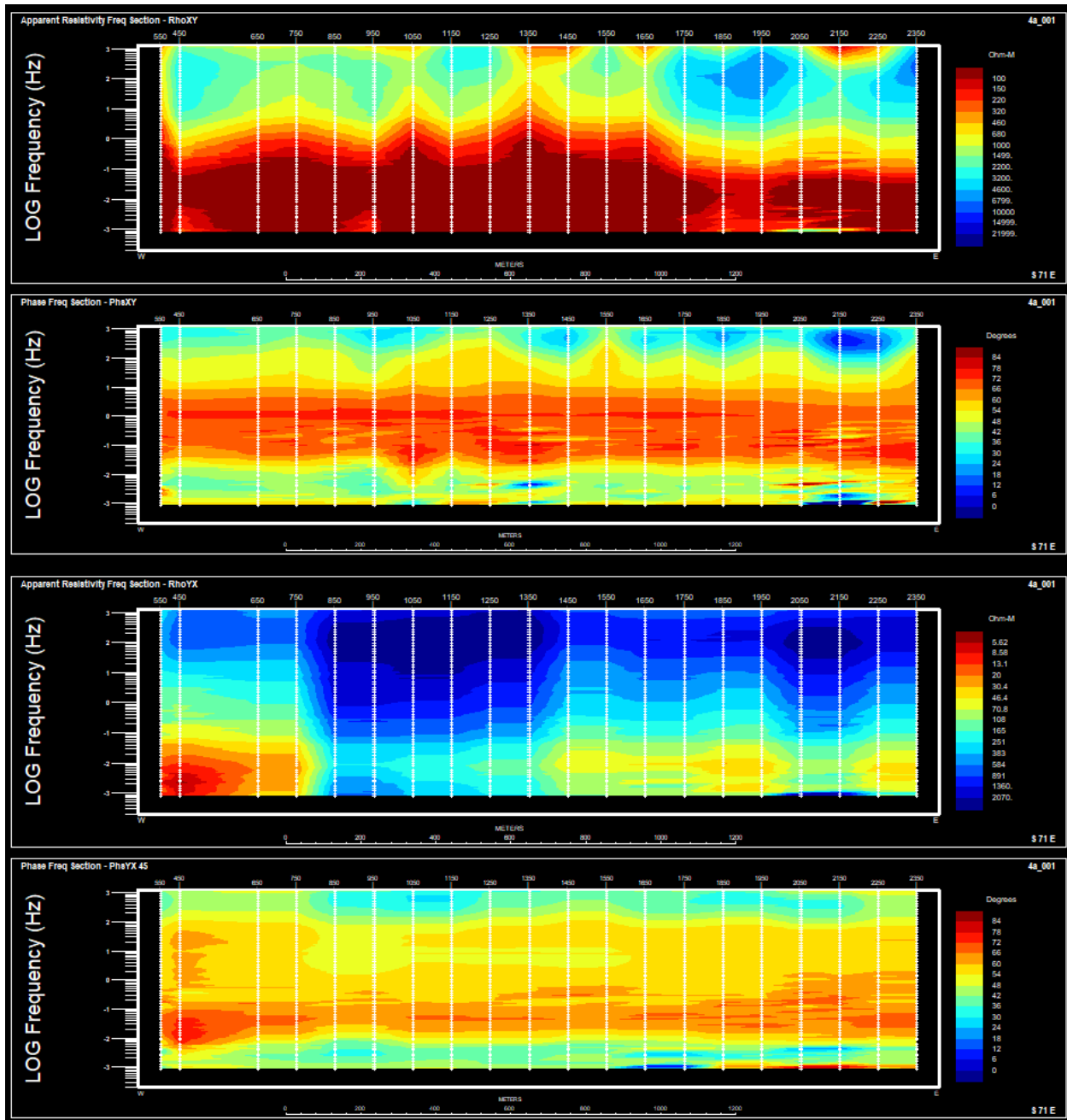


C.4. PSEUDO-SECTION PROFILES – GRID 2

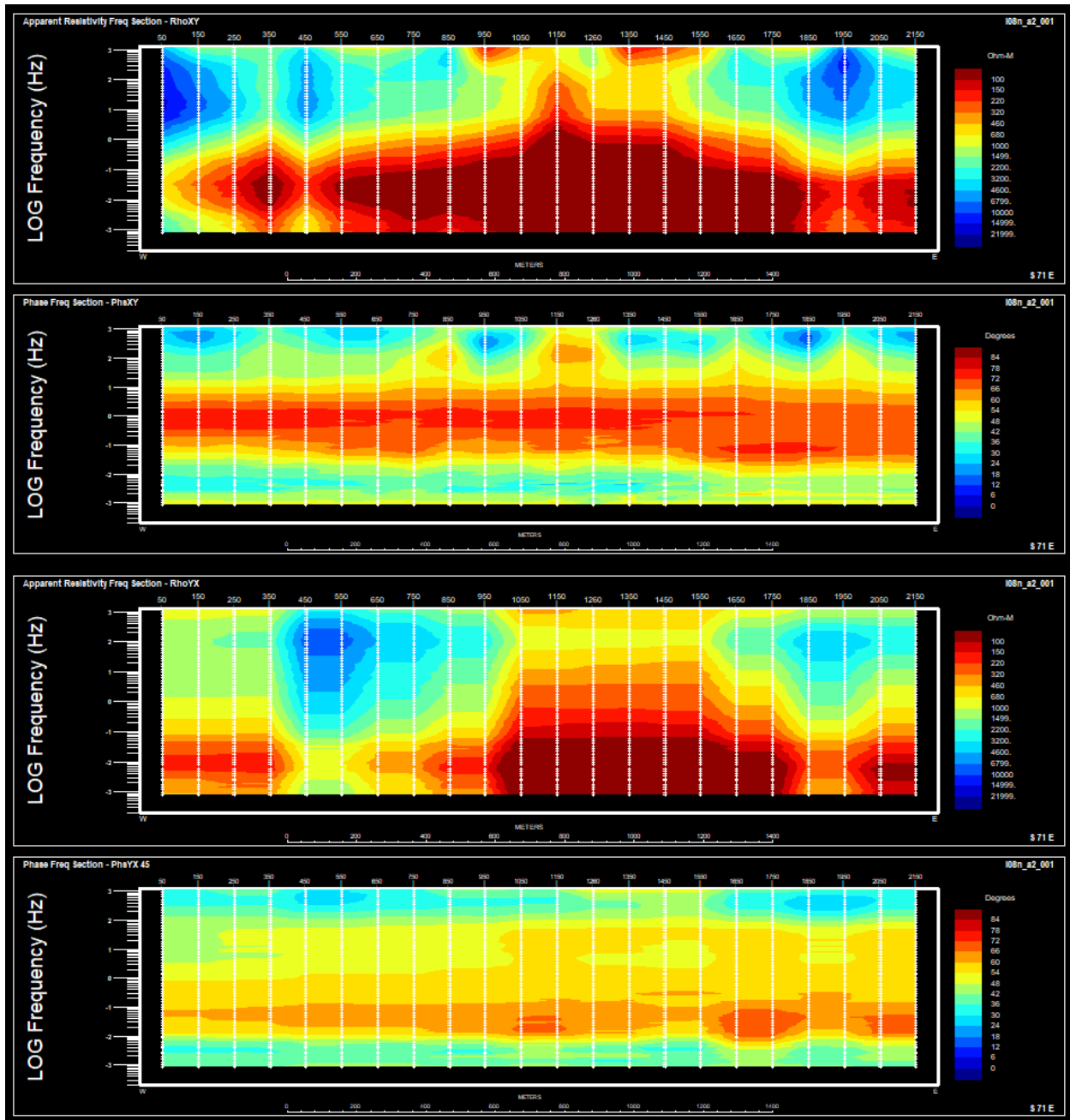
C.4.1. Line 0000N



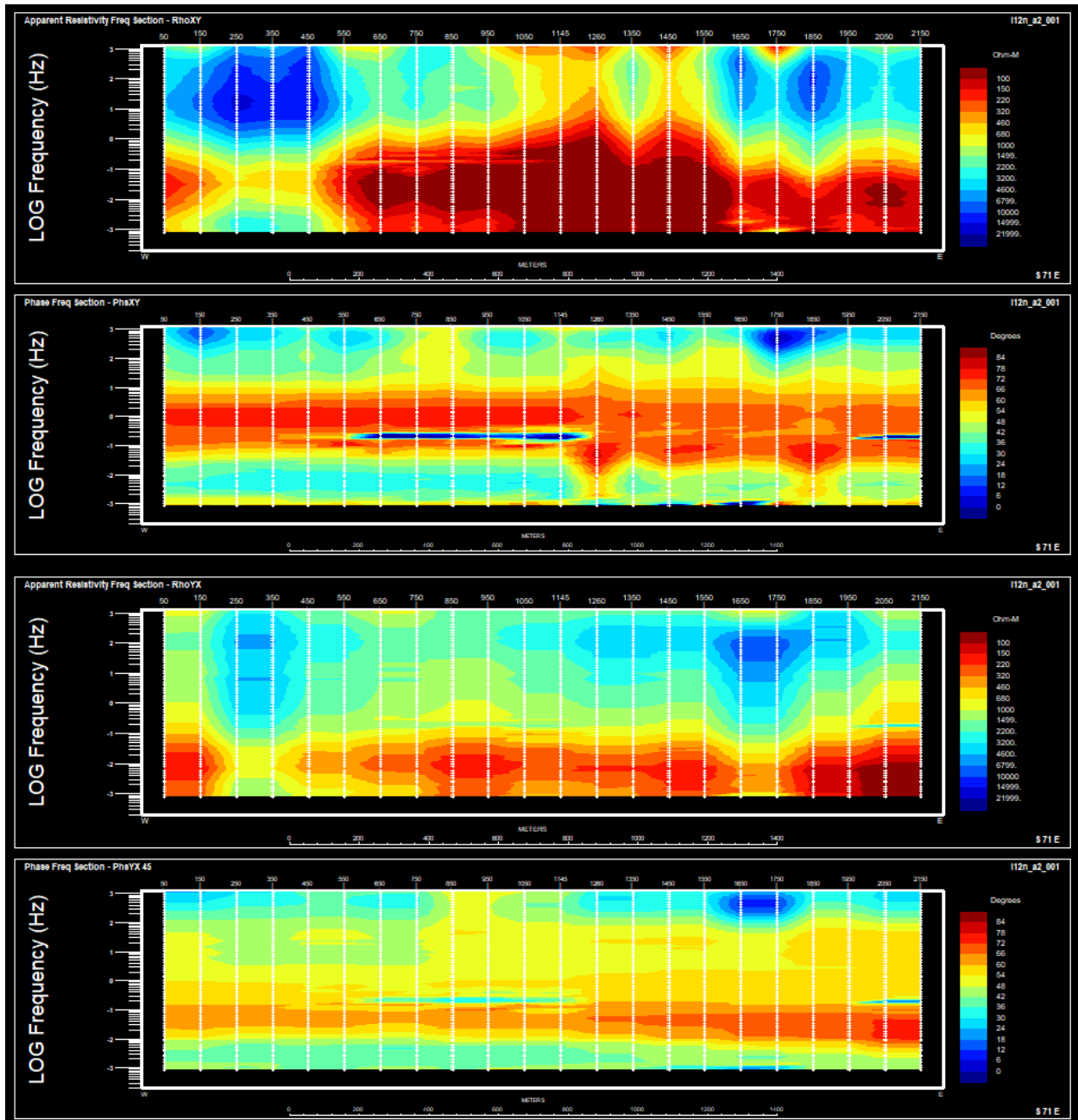
C.4.2. Line 0400N



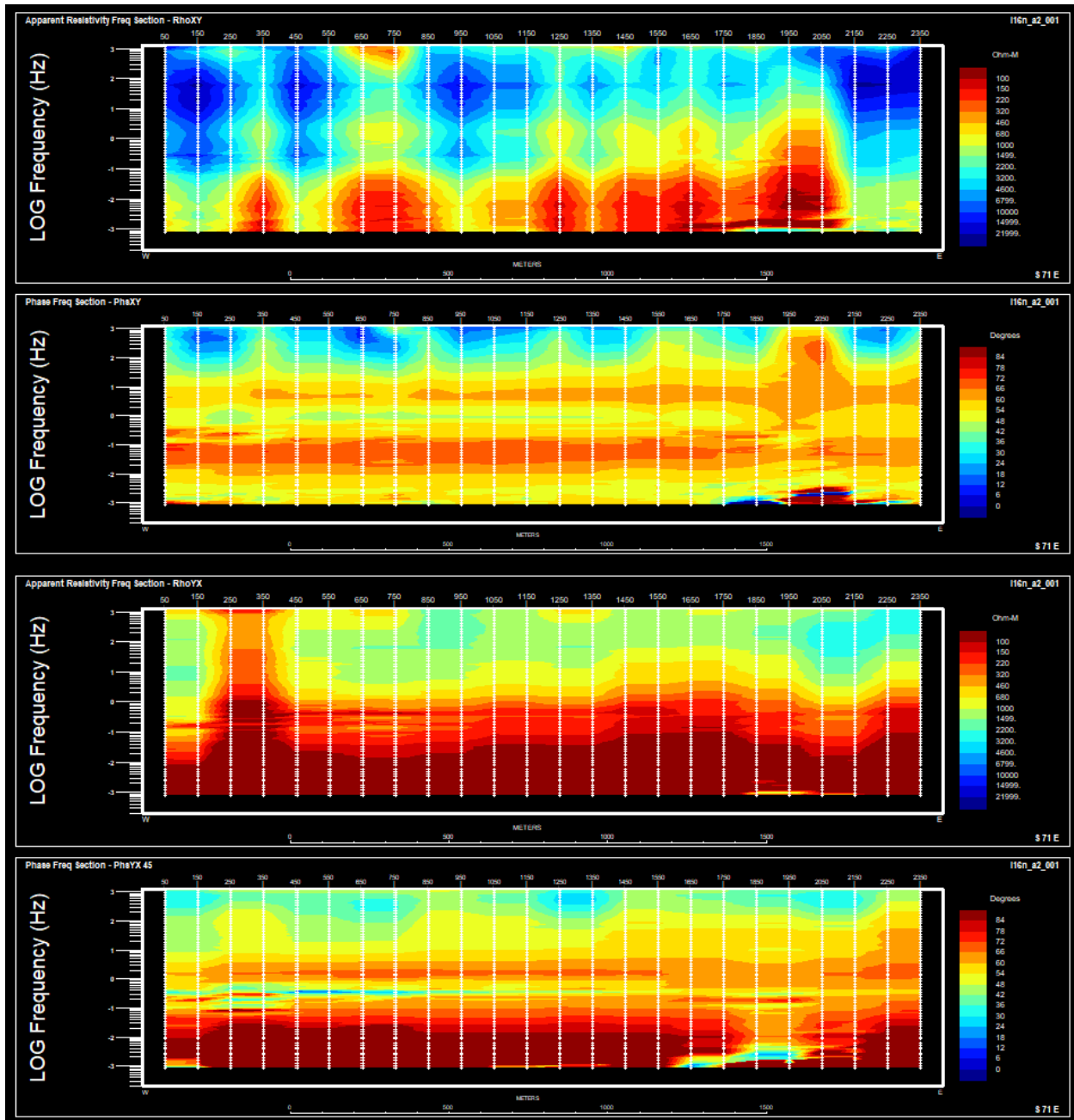
C.4.3. Line 0800N



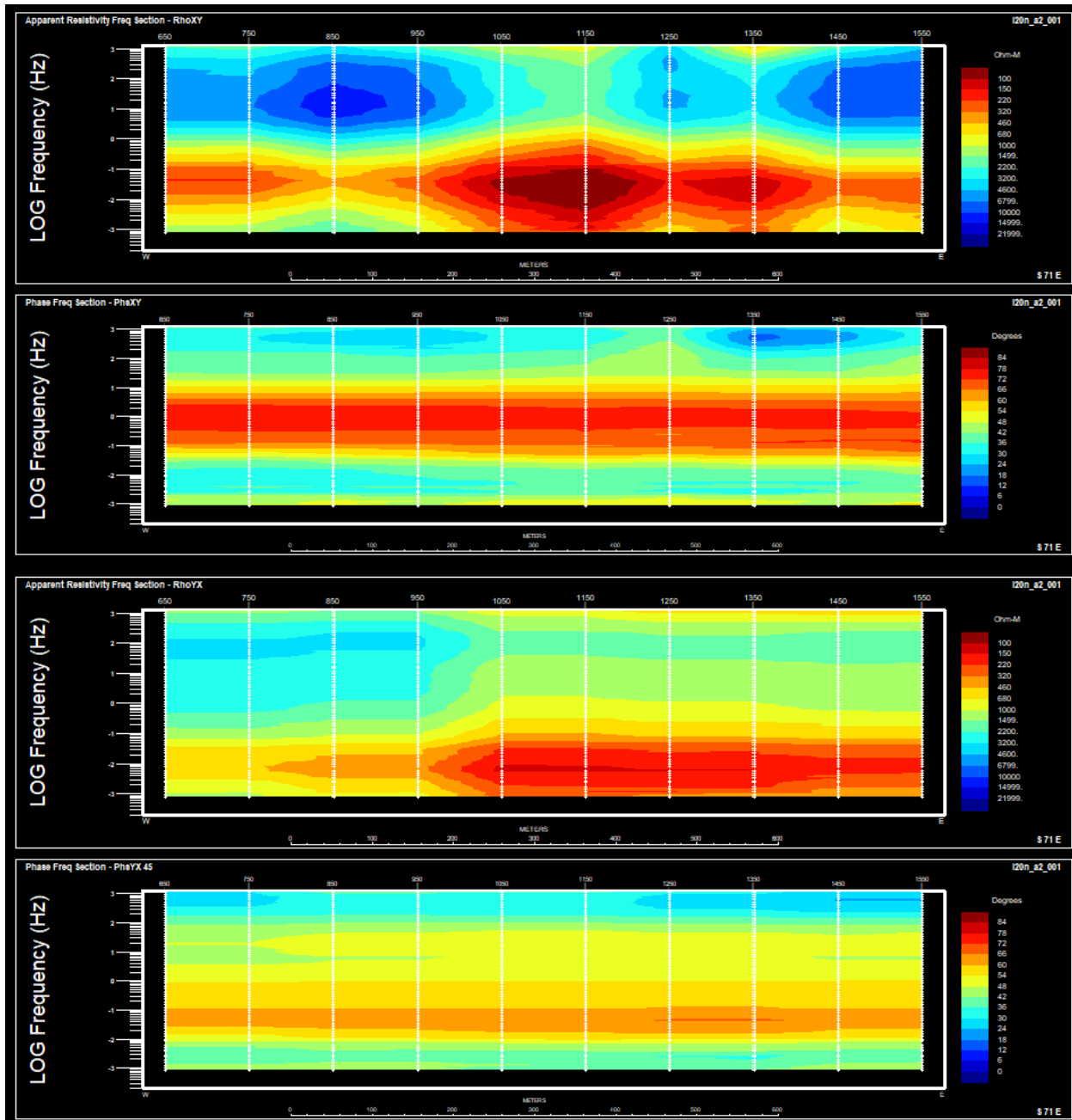
C.4.4. Line 1200N



C.4.5. Line 1600N



C.4.6. Line 2000N



APPENDIX D. PARALLEL SENSOR TEST

D.1. GENERAL INFORMATION

Project:	CA01206T – DLP Resources Inc. – Aldridge
Date:	November 16, 2019
Prepared by:	Tony Parks
Field Staff:	Tony Parks Josh Reischer
QuickLay version:	ver.5.5.6
Common folder:	ver.2.203 (released: 2019/10/17)
Datum and Projection:	WGS 84 / UTM Zone 11 North (Zones are North)
Site Location (UTM):	536708 m E / 5449146 m N
Coil Orientation:	80° True
Magnetic Declination:	14° East

D.2. SUMMARY OF COILS TESTED AND RESULTS

Serial ID	Test Passed (ID)	Notes
P50-3076	Test 1	All ok
P50-3091	Test 1	
P50-3094	Test 1	
P50-3098	Test 1	
P50-3100	Test 1	
P50-3104	Test 1	
P50-3107	Test 1	
P50-3112	Test 1	
P50-3116	Test 1	
P50-3125	Test 1	
GHF-1050	Test 1	
GHF-1053	Test 1	
GHF-1055	Test 1	
GHF-1078	Test 1	
GHF-1120	Test 1	
GHF-1142	Test 1	
GHF-1451	Test 1	
GHF-1453	Test 1	
GHF-1468	Test 1	
GHF-1472	Test 1	

D.2.1. Photo(s) of the PST layout





D.2.2. Comments on test conditions (culture, noise, etc.)

The test was conducted on the side of a forest road north of Creston BC. The low frequency coils were covered in snow to shield them from wind vibrations. The closest electrical infrastructure were houses around 3km to the west.

D.2.3. Comments on test results

The results from this test show that all magnetometer coils are functioning as designed

D.3. PST PROCESSING PARAMETERS

For Low Frequency (LF)

Processing Properties

General

Processing Method: Welch

Display Options:

- ☒ Apply Calibration
- ☐ Unwrap Phase
- Min: 1 Hz
- Degrees

Display:

- ☒ PSD
- ☐ PSD(dB)
- ☒ Coherency
- ☒ Relative Amplitude
- ☒ Relative Phase
- ☐ MISO PSD Noise
- ☐ MISO PSD Noise(dB)

OK Cancel Apply Help

For High Frequency (HF)

Processing Properties

General

Processing Method: Welch

Display Options:

- ☒ Apply Calibration
- ☐ Unwrap Phase
- Min: 10 Hz
- Degrees

Display:

- ☒ PSD
- ☐ PSD(dB)
- ☒ Coherency
- ☒ Relative Amplitude
- ☒ Relative Phase
- ☐ MISO PSD Noise
- ☐ MISO PSD Noise(dB)

OK Cancel Apply Help

D.4. TEST LF 1 RESULTS

MT Event Editor: Test1_1k.event

Event Extensions Sensor Association Tools Window

General

Name: Test1_1k Type: MT ☐ Mark as Bad View
 Description: Sub Type: Not set ☐ Standard ☐ Processor ☒ PST

Sample Rate: 1000Hz

Start: ☒ Use Limit 16/11/2019 19:03:48 19:03:48

End: ☒ Use Limit 16/11/2019 19:46:54 19:46:55

☒ TS Viewer works only with event time range

Event Components Channels

Event: Test1_1k

Info

- Name: Test1_1k
- Event: Intersecting
- MT Survey: MagnetoTelluric
- Sample Rate: 1000
- Duration: 43m06.2410s

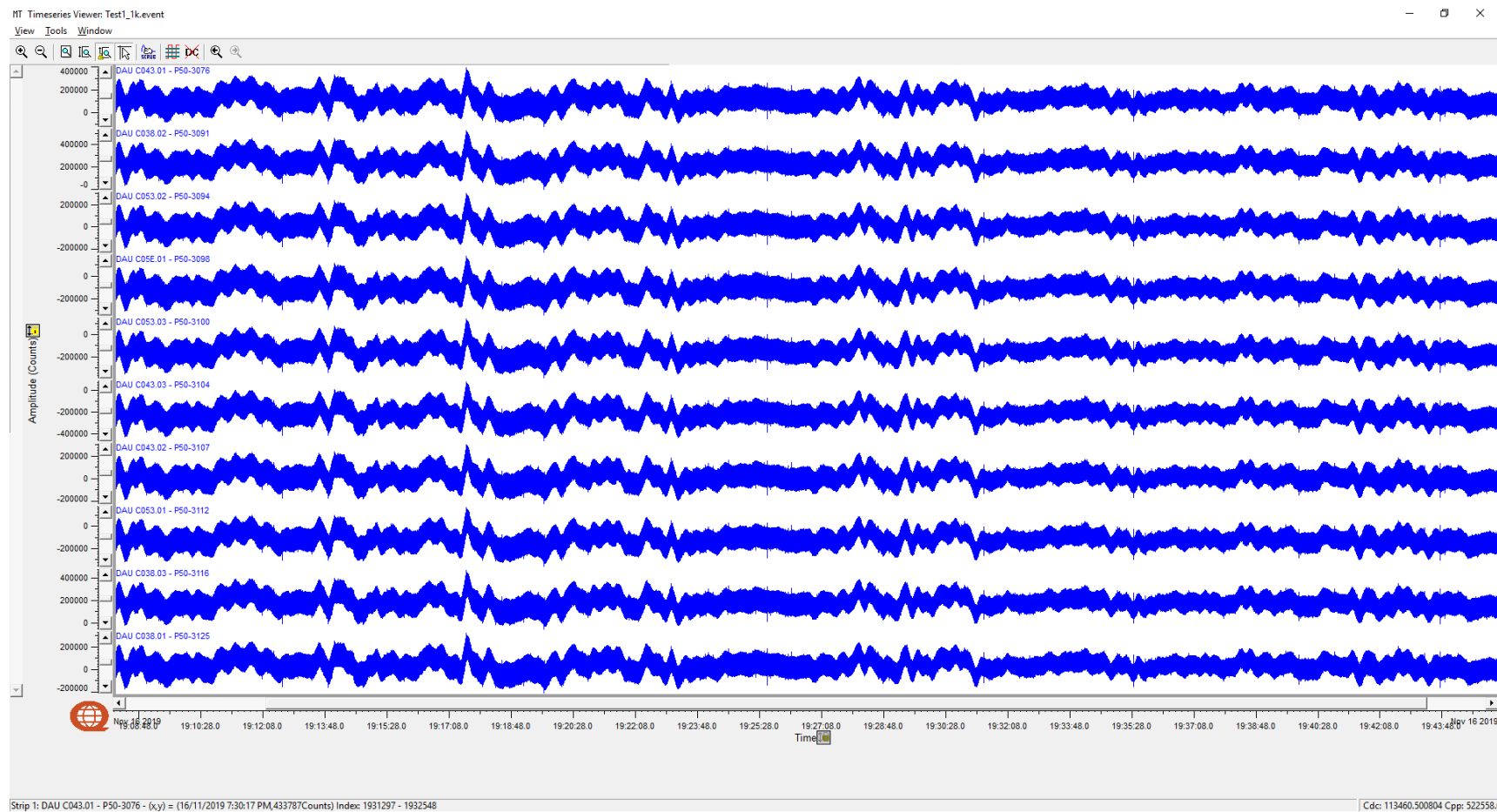
Components (4)

- Serial Event: SEvC038_1000Hz_1
- Serial Event: SEvC043_1000Hz_1
- Serial Event: SEvC053_1000Hz_2
- Serial Event: SEvC05E_1000Hz_1

Channels	Sensor: Name	Sensor: Impedance	DAU: ID	DAU: Make	Instrument: Manuf...	DAU: Gain	Sensor: Type
DAU C043.01 - P50-3076	P50-3076	110	C043.01	RT160	Phoenix	16	Magnetometer
DAU C038.02 - P50-3091	P50-3091	110	C038.02	RT160	Phoenix	16	Magnetometer
DAU C053.02 - P50-3094	P50-3094	110	C053.02	RT160	Phoenix	16	Magnetometer
DAU C05E.01 - P50-3098	P50-3098	110	C05E.01	RT160	Phoenix	16	Magnetometer
DAU C053.03 - P50-3100	P50-3100	110	C053.03	RT160	Phoenix	16	Magnetometer
DAU C043.03 - P50-3104	P50-3104	110	C043.03	RT160	Phoenix	16	Magnetometer
DAU C043.02 - P50-3107	P50-3107	110	C043.02	RT160	Phoenix	16	Magnetometer
DAU C053.01 - P50-3112	P50-3112	110	C053.01	RT160	Phoenix	16	Magnetometer
DAU C038.03 - P50-3116	P50-3116	110	C038.03	RT160	Phoenix	16	Magnetometer
DAU C038.01 - P50-3125	P50-3125	110	C038.01	RT160	Phoenix	16	Magnetometer

Active Template: <None>

Time Series @1000 samples per second

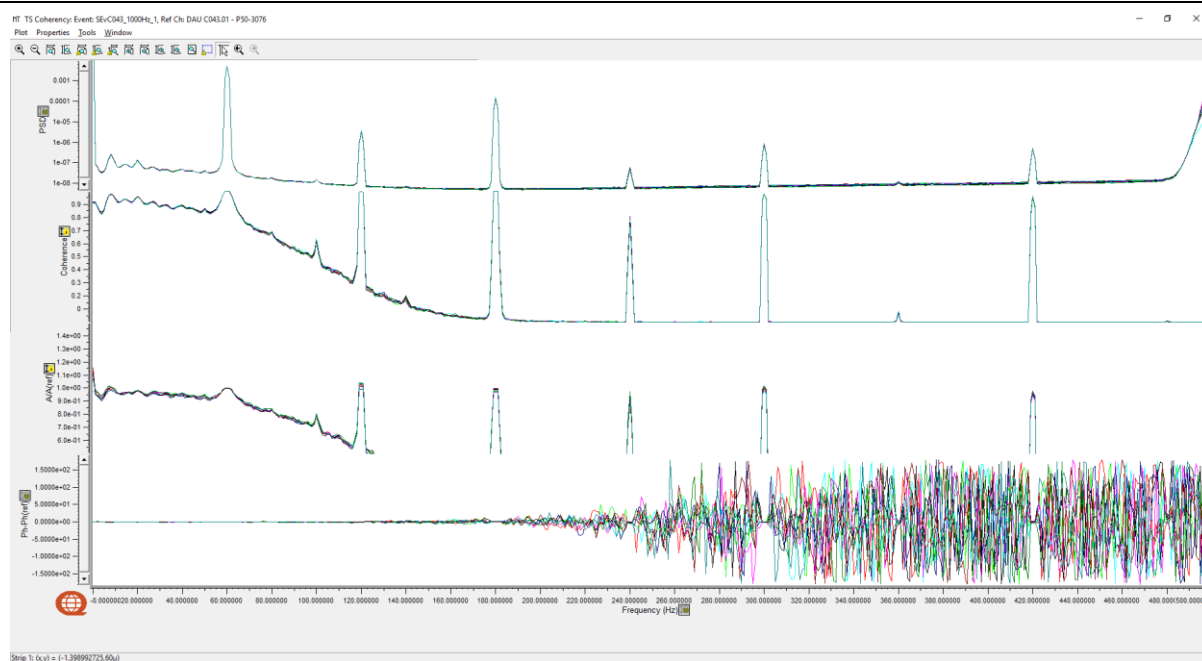


Notes

Serial ID	Pass / Fail	Notes
P50-3076	Pass	All OK
P50-3091	Pass	
P50-3094	Pass	
P50-3098	Pass	
P50-3100	Pass	
P50-3104	Pass	
P50-3107	Pass	
P50-3112	Pass	
P50-3116	Pass	
P50-3125	Pass	

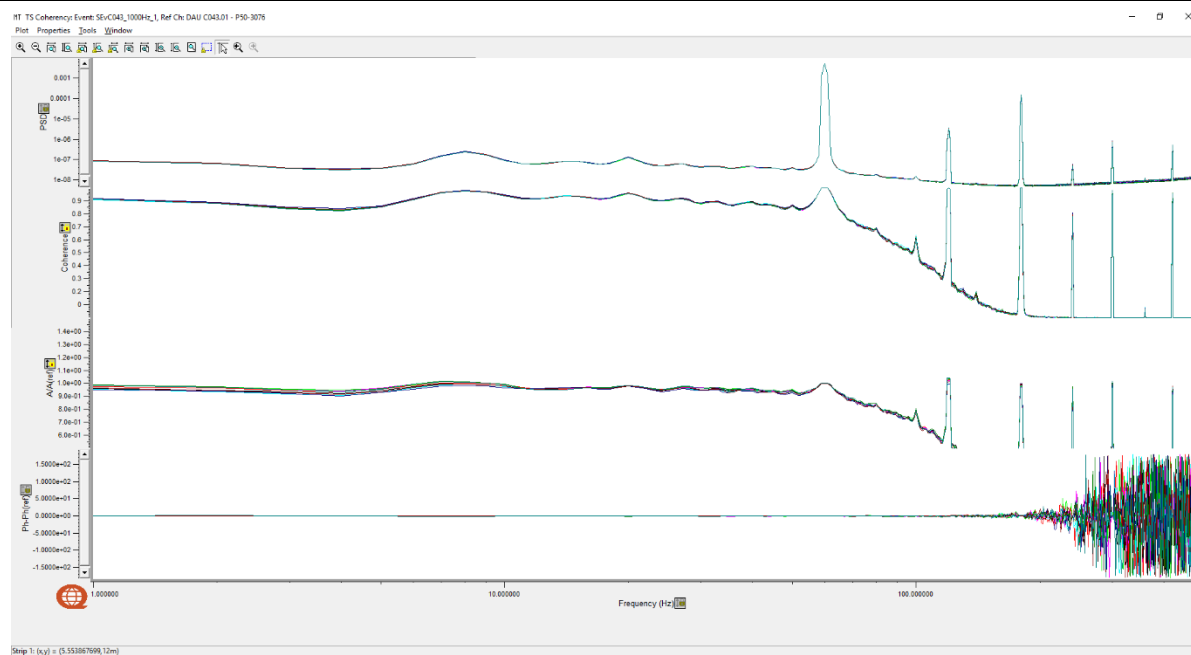
Power Spectral Density (PSD) of channels (strip 1); Coherency (strip 2) and Response Function (strips 3 and 4; Amplitude and Phase)
– Linear frequency scale –

Test 1
Sampling @ 1000 samples/s



Power Spectral Density (PSD) of channels (strip 1); Coherency (strip 2) and Response Function (strips 3 and 4; Amplitude and Phase)
– Logarithmic frequency scale –

Test 1
Sampling @ 1000 samples/s



MT Legend

Name	Pen
PSD: DAU C038.02 - P50-3091	
PSD: DAU C043.01 - P50-3076	
PSD: DAU C053.02 - P50-3094	
PSD: DAU C05E.01 - P50-3098	
PSD: DAU C053.03 - P50-3100	
PSD: DAU C043.03 - P50-3104	
PSD: DAU C043.02 - P50-3107	
PSD: DAU C053.01 - P50-3112	
PSD: DAU C038.03 - P50-3116	
PSD: DAU C038.01 - P50-3125	

Active Template: <None>

D.5. TEST HF 1 RESULTS

MT Event Editor: C038_20193201936_(30.450000s)_(4).event

Event Extensions Sensor Association Tools Window

General

Name: C038_20193201936_(30.450000s)_(4) Type: MT ☐ Mark as Bad

Description: Sub Type: Not set

Sample Rate: 48000Hz

Start: ☒ Use Limit 16/11/2019 16/11/2019 19:36:00 19:36:00

End: ☒ Use Limit 16/11/2019 16/11/2019 19:36:30 .450 < 19:36:31

☒ TS Viewer works only with event time range

View
☐ Standard
☐ Processor
☒ PST

Event Components Channels

MT Event: C038_20193201936_(30.450000s)_(4)

Info
 Name: C038_20193201936_(30.450000s)
 Event: Intersecting
 MT Survey: MagnetoTelluric
 Sample Rate: 48000
 Duration: 30.450000s

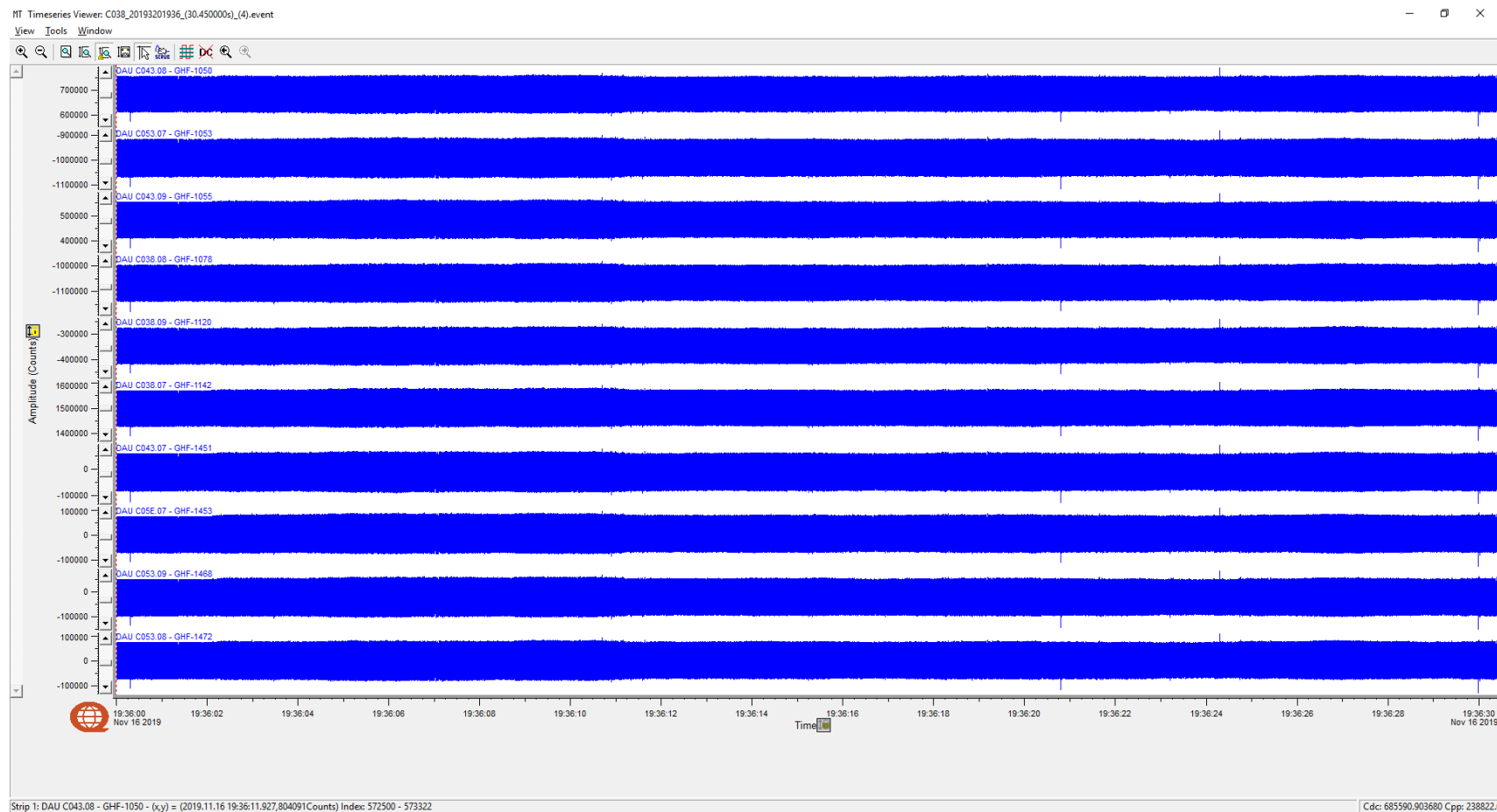
Components (4)

- NetEvent: C038_20193201936
- NetEvent: C043_20193201936
- NetEvent: C053_20193201936
- NetEvent: C05E_20193201936

Channels	Sensor: Name	Sensor: Impedance	DAU: ID	DAU: Make	Instrument: Manuf...	DAU: Gain	Sensor: Type
DAU C043.08 - GHF-1050	GHF-1050	50	C043.08	RT160	Geometrics	16	Magnetometer
DAU C053.07 - GHF-1053	GHF-1053	50	C053.07	RT160	Geometrics	16	Magnetometer
DAU C043.09 - GHF-1055	GHF-1055	50	C043.09	RT160	Geometrics	16	Magnetometer
DAU C038.08 - GHF-1078	GHF-1078	50	C038.08	RT160	Geometrics	16	Magnetometer
DAU C038.09 - GHF-1120	GHF-1120	50	C038.09	RT160	Geometrics	16	Magnetometer
DAU C038.07 - GHF-1142	GHF-1142	50	C038.07	RT160	Geometrics	16	Magnetometer
DAU C043.07 - GHF-1451	GHF-1451	50	C043.07	RT160	Geometrics	16	Magnetometer
DAU C05E.07 - GHF-1453	GHF-1453	50	C05E.07	RT160	Geometrics	16	Magnetometer
DAU C053.09 - GHF-1468	GHF-1468	50	C053.09	RT160	Geometrics	16	Magnetometer
DAU C053.08 - GHF-1472	GHF-1472	50	C053.08	RT160	Geometrics	16	Magnetometer

Active Template: <None>

Time Series @48k samples per second

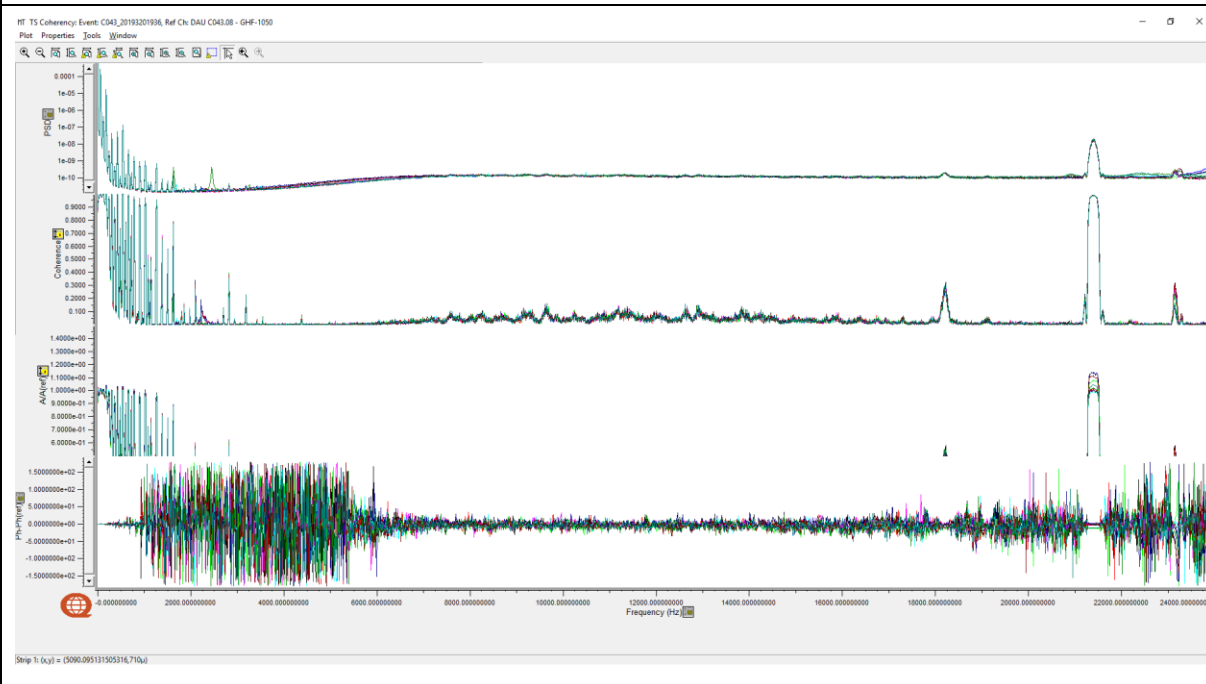


Notes

Serial ID	Pass / Fail	Notes
GHF-1050	Pass	All OK
GHF-1053	Pass	
GHF-1055	Pass	
GHF-1078	Pass	
GHF-11000	Pass	
GHF-1142	Pass	
GHF-1451	Pass	
GHF-1453	Pass	
GHF-1468	Pass	
GHF-1472	Pass	

Power Spectral Density (PSD) of channels (strip 1); Coherency (strip 2) and Response Function (strips 3 and 4; Amplitude and Phase)
– Linear frequency scale –

Test 2
Sampling @ 48k samples/s



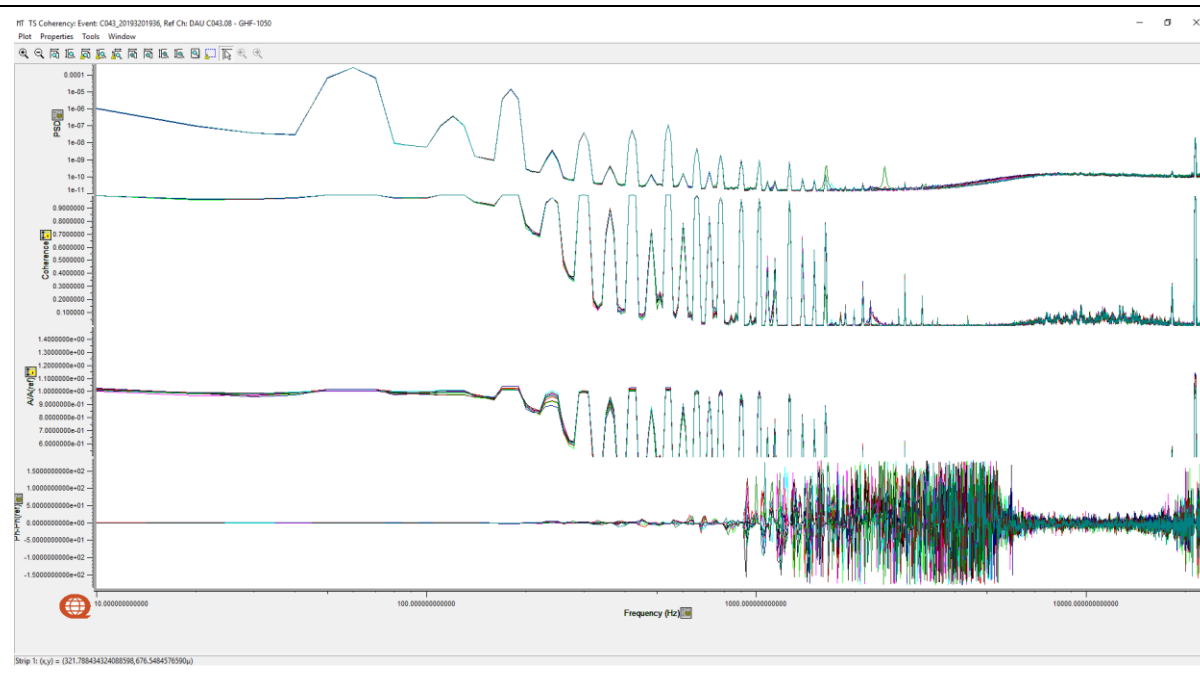
MT Legend

Name	Pen
DAU C043.08 - GHF-1050	
DAU C053.07 - GHF-1053	
DAU C043.09 - GHF-1055	
DAU C038.08 - GHF-1078	
DAU C038.09 - GHF-1120	
DAU C038.07 - GHF-1142	
DAU C043.07 - GHF-1451	
DAU C05E.07 - GHF-1453	
DAU C053.09 - GHF-1468	
DAU C053.08 - GHF-1472	

Active Template: <None>

Power Spectral Density (PSD) of channels (strip 1); Coherency (strip 2) and Response Function (strips 3 and 4; Amplitude and Phase)
– Logarithmic frequency scale –

Test 2
Sampling @ 48k samples/s



MT Legend

Name	Pen
DAU C043.08 - GHF-1050	
DAU C053.07 - GHF-1053	
DAU C043.09 - GHF-1055	
DAU C038.08 - GHF-1078	
DAU C038.09 - GHF-1120	
DAU C038.07 - GHF-1142	
DAU C043.07 - GHF-1451	
DAU C05E.07 - GHF-1453	
DAU C053.09 - GHF-1468	
DAU C053.08 - GHF-1472	

Active Template: <None>

APPENDIX E. MT REMOTE TEST

E.1. GENERAL INFORMATION

Project: CA01206T – DLP Aldridge
Date: November 19, 2019
Prepared by: Tony Parks
QuickLay version: ver.5.5.8.0
Common folder: ver.2.203 (released: 2019/10/17)
Datum and Projection: WGS 84 / UTM Zone 11 North
Site Location (UTM): 537223 m E / 5453416 m N
Magnetic Declination: 14 East
Sensor Information: see table below

Channel	Azimuth	Length	Channel	Azimuth
Ex	00° North	100 m	Hx	00° North
Ey	90° East	100 m	Hy	90° East

Channels	Sensor: Name	Sensor: Impedance	DAU: ID	DAU: Make	Instrument: Manuf...	DAU: Gain	Sensor: Type
DAU C038.01 - Rm_Hx	Rm_Hx	110	C038.01	RT160	Phoenix	16	Magnetometer
DAU C038.02 - Rm_Hy	Rm_Hy	110	C038.02	RT160	Phoenix	16	Magnetometer
DAU C038.04 - Rm_Ex	Rm_Ex	17000	C038.04	RT160		4	Dipole
DAU C038.05 - Rm_Ey	Rm_Ey	19000	C038.05	RT160		4	Dipole

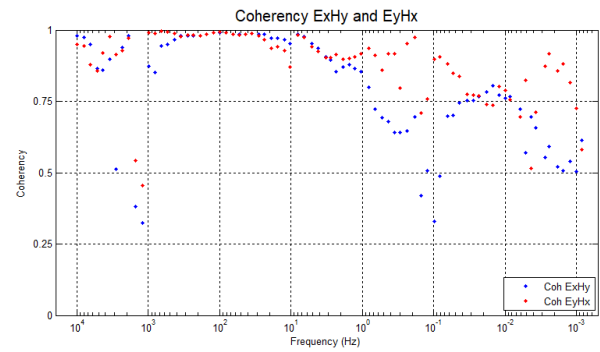
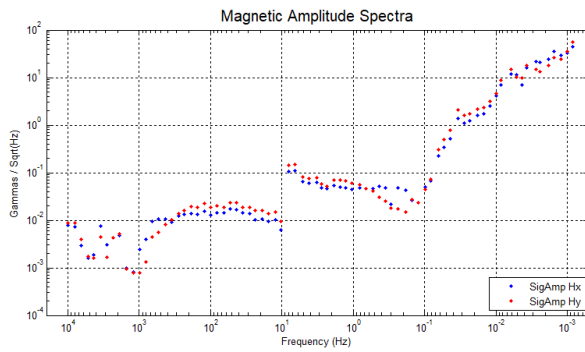
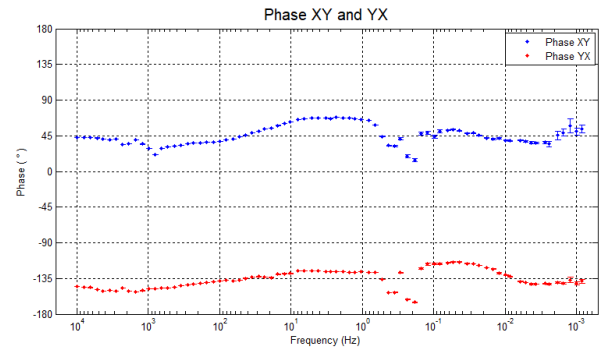
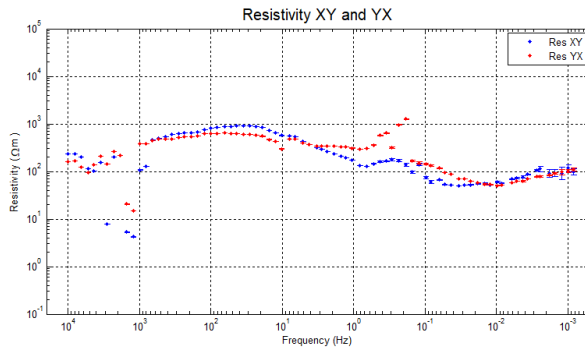
Culture: The remote was located at the end of a logging road at the top of a hill. The nearest source of electrical noise were some houses around 4.8km to the south west.

E.2. SOUNDING CURVES

Apparent resistivity, phase, magnetic signal amplitude and off-diagonal coherences of the MT remote, data processed unreferenced

Comments: The processed data is clean so the site is appropriate for use as a reference for the grid stations

MT Site: 1119_Rm_UnRef



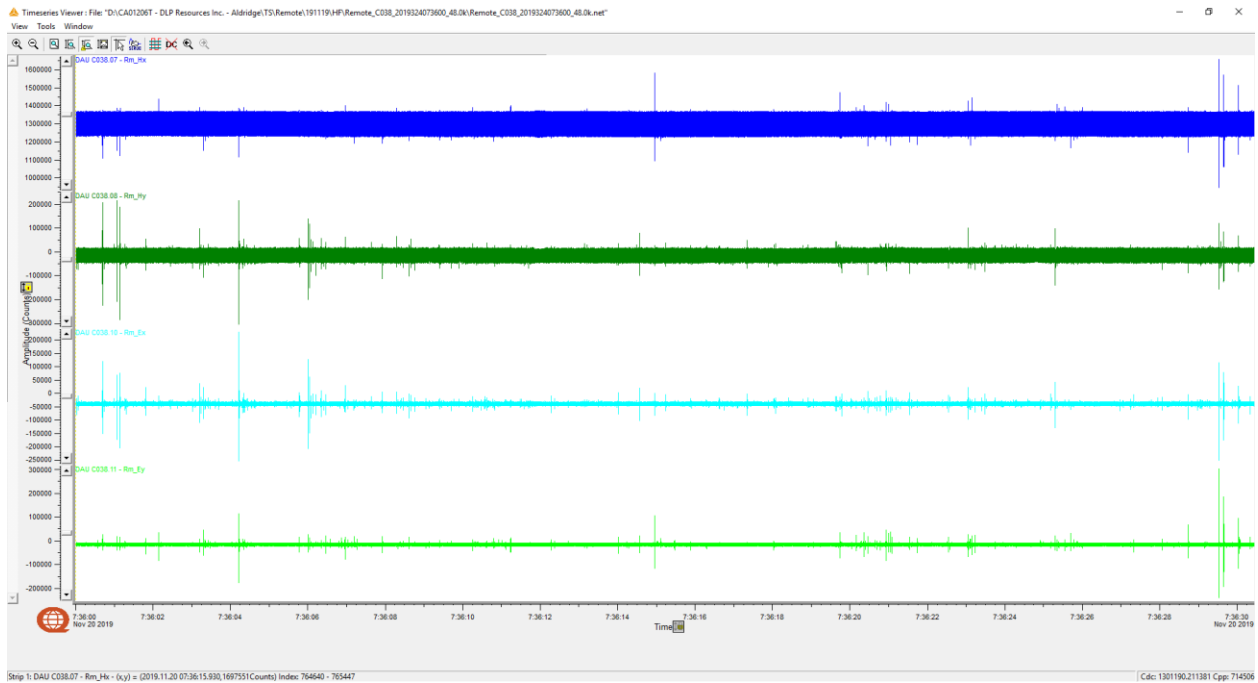
E.3. EVENTS ACQUIRED AND USED IN PROCESSING

Sample rate	Net Events	TS Length	Observation
48,000 sps	Remote_20193240656 Remote_20193240716 Remote_20193240736 Remote_20193240756	30 seconds each	
12,000 sps	Remote_20193240700 Remote_20193240708 Remote_20193240720 Remote_20193240728 Remote_20193240740 Remote_20193240748	4 minutes each	
1000 sps	Remote_20193232300 Remote_20193240000 Remote_20193240100 Remote_20193240200 Remote_20193240300 Remote_20193240400 Remote_20193240500 Remote_20193240600 Remote_20193240700 Remote_20193240800 Remote_20193240900 Remote_20193241000 Remote_20193241100 Remote_20193241200 Remote_20193241300 Remote_20193241400 Remote_20193241500 Remote_20193241600 Remote_20193241700	18 hours 10 minutes	
40 sps	Same as 1000 sps	18 hours 10 minutes	Sub-sampled from 1000 sps data

E.4. SCREEN CAPTURE OF TIME SERIES

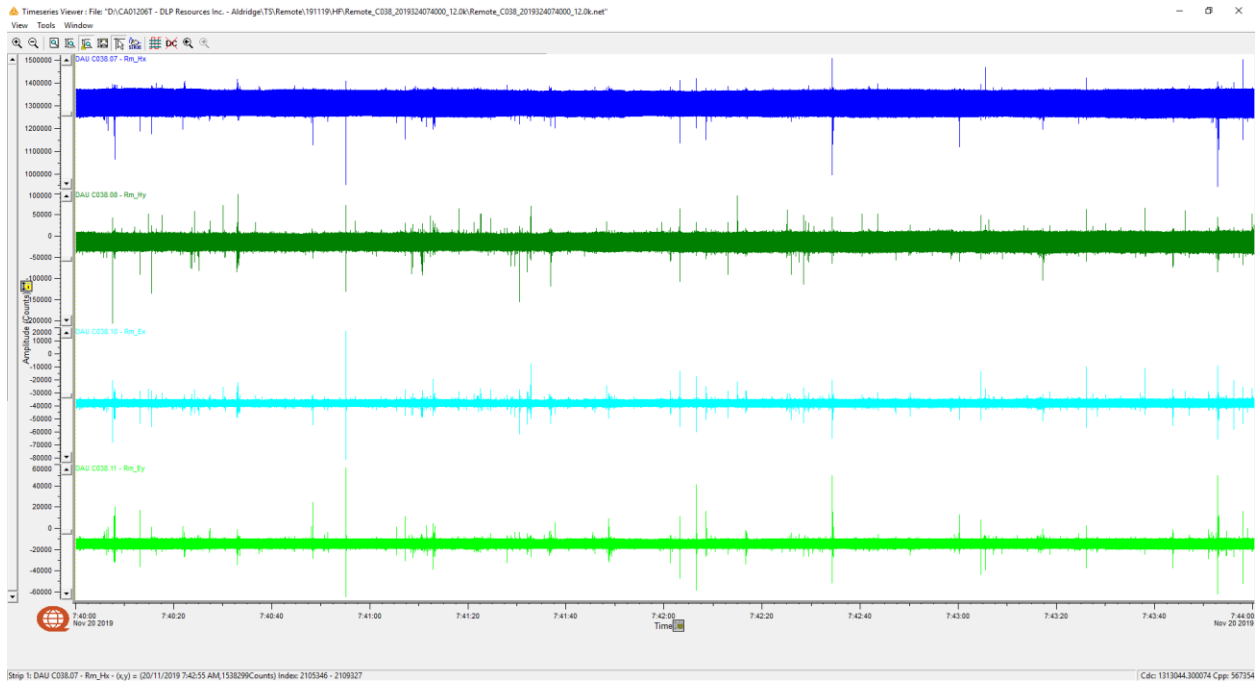
Time Series:

@48,000 samples per second



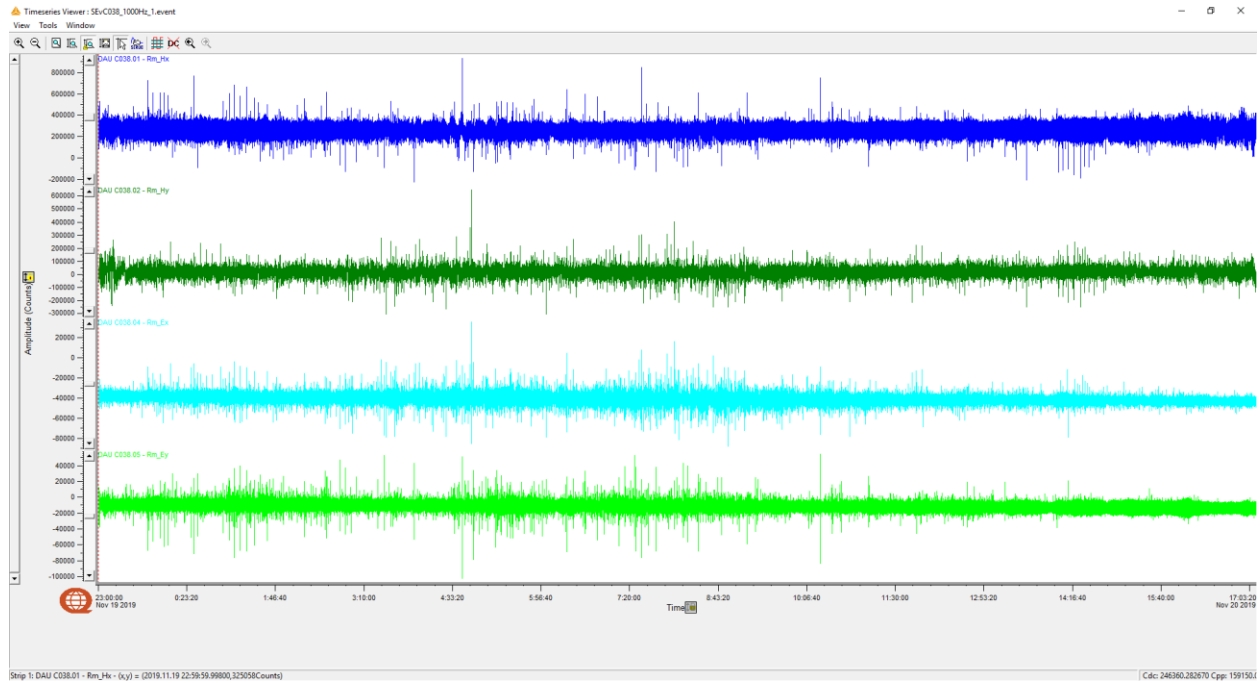
Time Series:

@ 12,000 samples per second



Time Series:

@1,000 samples per second



APPENDIX F. INSTRUMENT SPECIFICATIONS

F.1. REF TEK – 160 QUANTEC DATA ACQUISITION SYSTEM

Refraction Technology Inc. – Plano, Texas

Specification	Description			
Mechanical – DAS				
Size:	130mm high x 240mm wide x 400mm long			
Weight:	16 lbs			
Shock:	Survives a 1 meter drop on any axis			
Operating Temperature:	-20°C to +60°C			
Connectors				
Channel Input:	PTO7A14-19S (2 each for 6-Channel DAS)			
Power:	PTO7A12-4S			
GPS Antenna:	standard			
Power				
Input Voltage:	10 to 15 VDC			
Average Power:	~6 W (5-6 channel)			
	~8 W (10-12 channel)			
A/D Converter				
Type:	Δ–Σ modulation, 256 KHz base rate, 24-bit output resolution			
Channels:	12 (6 @ LS and 6 @ HS)			
Input Impedance:	100 Mohm			
Sensor Input Signal Range:	Gain	Input Full Scale	Bit Weight	
		(volts)	Actual	Reported
	1	± 32 V	3.81 μV	
	2	± 16 V		
	4	± 8 V	954 nV	
	8	± 4 V		
	16	± 2 V	238 nV	
	32	± 1 V		
	64	± 500 mV	59.6 nV	
	128	± 250 mV		
256	± 125 mV	14.9 nV		

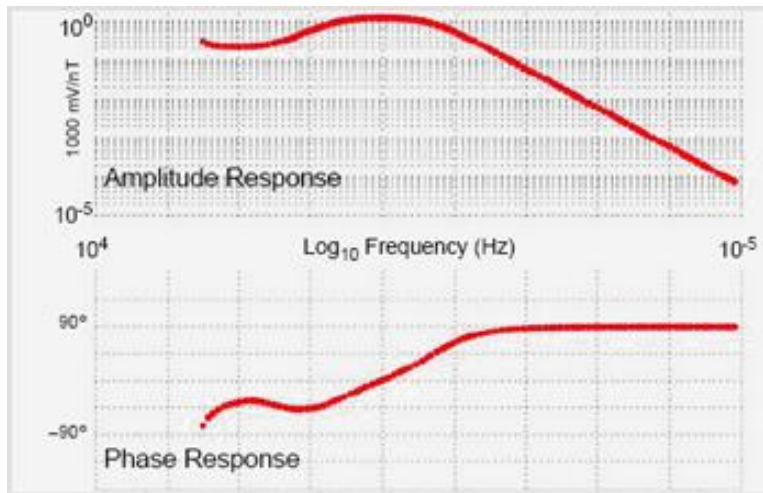
Specification	Description
Sample Rates HS:	48000, 12000, 9600, 8000 sps
Sample Rates LS:	4000, 2000, 1600, 1000, 960, 800, 500, 480, 400, 250, 240, 200, 125, 120, 100, 60, 50 sps

Specification	Description
Time Base	
Type:	GPS Receiver/Clock plus a disciplined oscillator
Accuracy with GPS:	+/- 100 µsec after validated 3-D fix and locked
Free-Running Accuracy:	0.1 ppm over the temperature range of 0°C to 40°C, and 0.2 ppm from -20°C to 0°C
Recording Modes	
Continuous:	All LS modes
HS Mode 0	8000 sps for 360 s; once
HS Mode 1	8000 sps for 360 s; every 10 minutes on the 0, 10, 20, 30, 40, 50 minute marks
HS Mode 2	12000 sps for 240 s; every 10 minutes on the 0, 10, 20, 30, 40, 50 minute marks
HS Mode 3	48000 sps for 60 s; every 10 minutes on the 0, 10, 20, 30, 40, 50 minute marks
HS Mode 4	2 @ 12 ksps for 240 s and 1 @ 48 ksps for 30 s; repeated 20 minutes (12 ksps on 0, 8, 20, 28, 40, 48 minute marks and 48 ksps on 16, 36, and 56 minute marks)
Recording Capacity	
Battery Backed SRAM:	64 Mbytes
Removable Storage:	3 @ 8 GB industrial USB 2 sticks
Recording Format	
Format:	SEED and miniSEED Recording Formats

F.2. MTC 50 (P50) SERIES MAGNETIC SENSORS

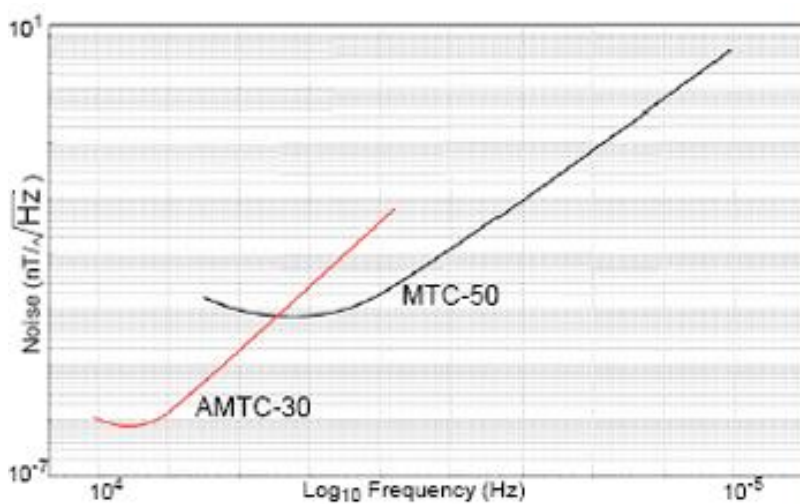
Phoenix Geophysics Ltd

MTC-50 magnetic sensor coils weigh just over 10 kg, and measure only 141 cm. They provide magnetotelluric data at frequencies between 400 Hz to 0.00002 Hz.



Technical Specifications

Overall Length : 141 cm
Outside Diameter : 6.0 cm
Weight : 10.5 kg
Frequency Range (for MT) :
400 Hz to 0.00002 Hz



F.3. GHF MAGNETIC FIELD INDUCTION SENSOR

Geometrics



Geometrics G100K Magnetic Induction Sensor



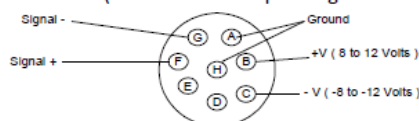
The Geometrics G100K Magnetic Induction Sensors is a highly sensitive, low-noise coil induction sensor. The sensor response is stable and flat over a broad range of frequencies to provide a consistent and reliable measurement for AMT, CSAMT, and other geophysical measurements requiring vector magnetic field measurements four decades of frequencies from 10 Hz to 100k Hz.

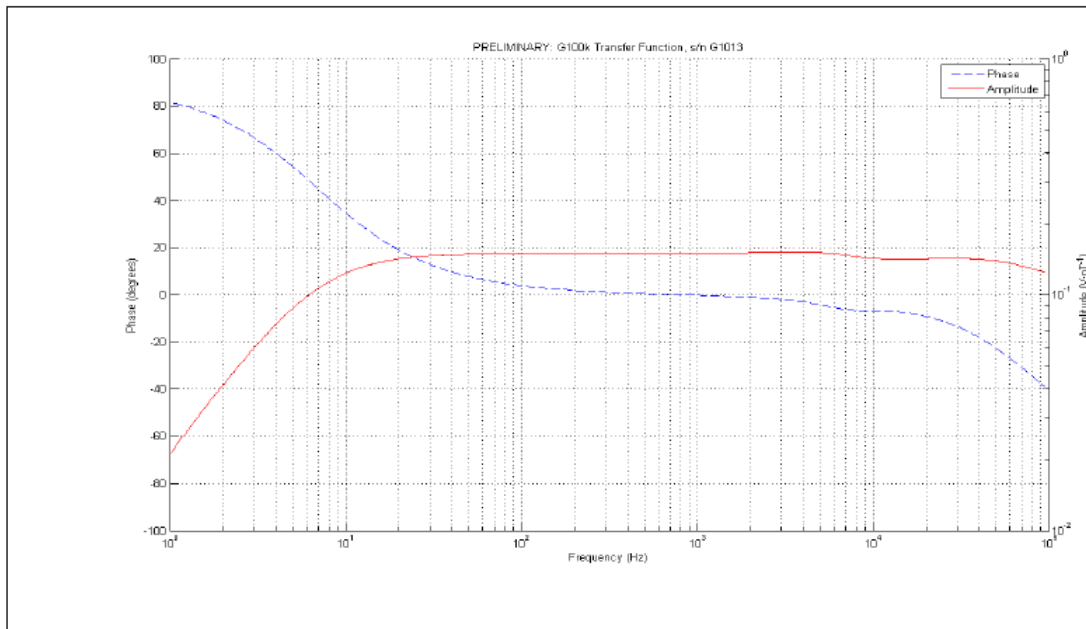
Features:

- Rugged G10 casing
- Low noise
- Stable amplitude and phase response over time and operating temperature
- Low power consumption (480 mW)
- Small diameter and light weight
- Frequency range: 10 Hz to 100 kHz

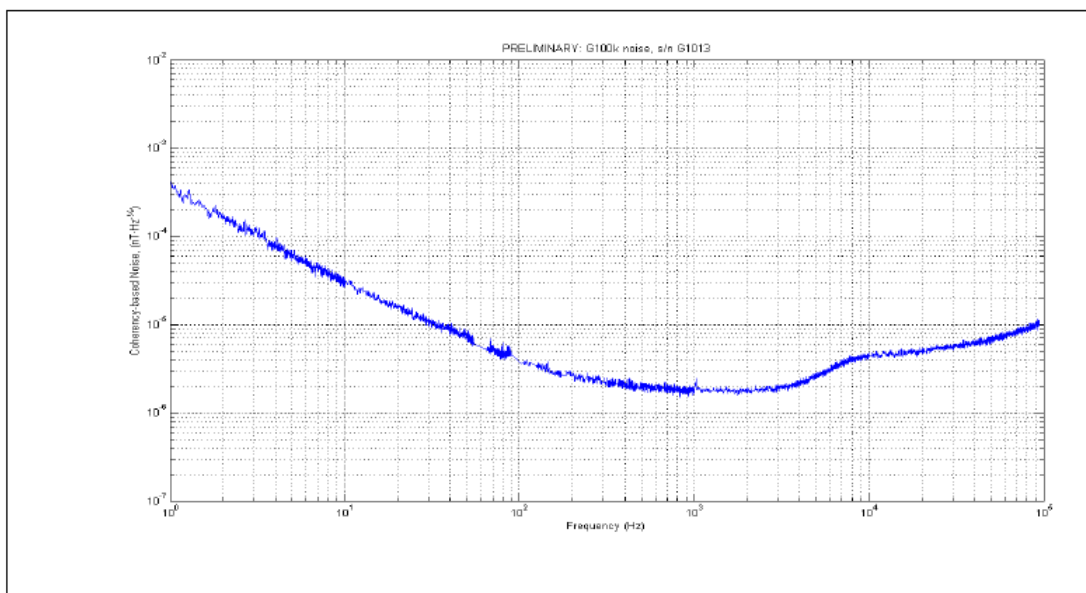
Technical Specifications:

- 3 dB point: 7 Hz and 100 kHz
- Power consumption: 20 mA at +/- 12 V
- Sensitivity in flat region: 150 mV/nT
- Mechanical
 - Length: 76.2 cm (30 in)
 - Diameter: 4.1 cm (1.63 in)
 - Weight: 2.04 kg (4.5 lbs)
- Connector
 - Type: Tajimi 8-pin (23A16-8AM)
 - Mating type: Tajimi 8-pin (23B16-8AF)
 - Dust cap: Tajimi (16 RC)
 - Pin out (show connector pin diagram below)





Typical transfer function (coil response)



Typical noise curve

APPENDIX G. REFERENCES

Telford., W.M., Geldart, L., Sheriff, R., and Keys, D., 1976. Applied Geophysics: Cambridge University Press, New York, NY.

G.1. MAGNETOTELLURIC

Egbert, G.D., 1997. Robust multiple station magnetotelluric data processing. Geophys. J. Int., 130, 475-496.

Wight, D.E., 1987. MT/EMAP Data Interchange Standard. The Society of Exploration Geophysicists Document.

SUMMARY INFORMATION

QUANTEC OFFICE INFORMATION	
Office:	Quantec Geoscience Ltd.
Address:	146 Sparks Ave., Toronto, ON, M2H 2S4, Canada
Phone:	+1-416-306-1941
Web:	www.quantecgeoscience.com
Email:	info@quantecgeoscience.com
PROJECT INFORMATION	
Client Name:	DLP Resources Inc.
Project Name:	Aldridge Project
Project Location:	Creston, British Columbia
Project Type:	TITAN 24 MT
Project Number:	CA01206T
Project Manager:	Mark Morrison
Project Period:	November 16 to December 9
Report Type:	Logistics Report
Report Author(s):	Tony Parks, José Antonio Rodríguez
Report date:	December 16, 2019
Reference	<i>Logistics Report for a TITAN 24 MT survey over Aldridge Project (Creston, British Columbia) by Quantec Geoscience Ltd. on behalf of DLP Resources Inc.</i>
Template version	Version 2019.12.04