

1:240												RWD												MD Log											
<div>Country : United States Field : Wattenberg Location : 40.409771°N                   : 104.181141°W Well : Grotheer 5-61 11A-2-1 Company : Bison Oil &amp; Gas II Rig : Ensign 140</div>												<div>Company : Bison Oil &amp; Gas II Rig : Ensign 140 Well : Grotheer 5-61 11A-2-1 Field : Wattenberg County/Parish : Weld State/Province : Colorado Country : United States Well ID : 05-123-51223</div>																							
LOCATION												Latitude : 40.409771°N Longitude : 104.181141°W Sect: 11 Twp: 5N Range: 61W												Other Services:											
<div>Permanent Datum : Log Measured From : RKB</div>												<div>Elevation: Elev. KB : 4729.20 DF : GLWD : 4,705.20</div>												<div>FIELD PRINT</div> <div>Job Number: GROTHEER 5-61 11A-2-1</div>											
<div>Depth Logged : 1976 to : 16348 Date Logged : 08/07/2022 to : 08/09/2022 Total Depth MD : 14372.00 TVD : 6147.8 Spud Date : 08/07/2022</div>																																			
Run Borehole Record (MD) Size From To												Run Borehole Record (MD) Size From To																							
1 8.5 1976 16348												5.5 1976 16348																							

LOGGING SUMMARY					
Log Run	Grotheer 5-61 11A2-1				
Bit Run	Grotheer 5-61 11A2-1				
Hole Size (in)	8.50				
Sensor Suite	609				
Measured Depth					
In Hole From	1976				
In Hole To	16348				
Log From	1976.00				
Log To	16348.00				
Date/Time					
In Hole Date	2022-08-05				
In Hole Time	07:40:01				
Out Hole Date	2022-08-09				
Out Hole Time	09:58:34				
Begin Log Date	2022-08-05				
Begin Log Time	07:40:00				
End Log Date	2022-08-09				
End Log Time	09:58:34				
LWD Engineer	Doug Rusco				
Oil Company Rep	Jose Torres				

DRILLING FLUID SUMMARY					
Mud Type	OBM				

<b>Density (lb/gal)</b>	9.70				
<b>Funnel Viscosity</b>	53				
<b>Plastic Viscosity</b>	26				
<b>Chlorides</b>	52000				
<b>Oil/Water Ratio</b>	78/22				
<b>Maximum Circ Temp (F)</b>	236				

**CORRECTIONS**

<b>Log Run</b>	Grotheer 5-61 11A2-1				
<b>Bit Run</b>	Grotheer 5-61 11A2-1				
<b>Start Date/Time</b>	2022-08-07 00:00:01				
<b>Start Depth (ft)</b>	0				
<b>End Date/Time</b>					
<b>End Depth (ft)</b>	no end depth				

<b>Gamma Ray Corrections</b>
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<b>Collar Correction</b>	2.228				
<b>Mud Density (lb/gal)</b>	12				
<b>Mud Correction</b>	1.561				
<b>Calibration</b>	1.35				
<b>%K</b>	0				

WPR Corrections	
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Effective Hole Diam (in)	8.5				
Surface Rm (ohm-m)	1000				
Surface Mud Temp (F)	75				
Bottom Hole Circ Temp (F)	125				
Rm @ BHT	620.349				

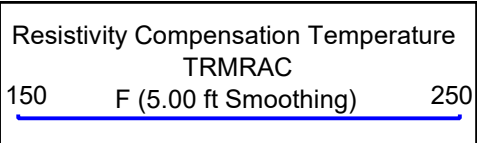
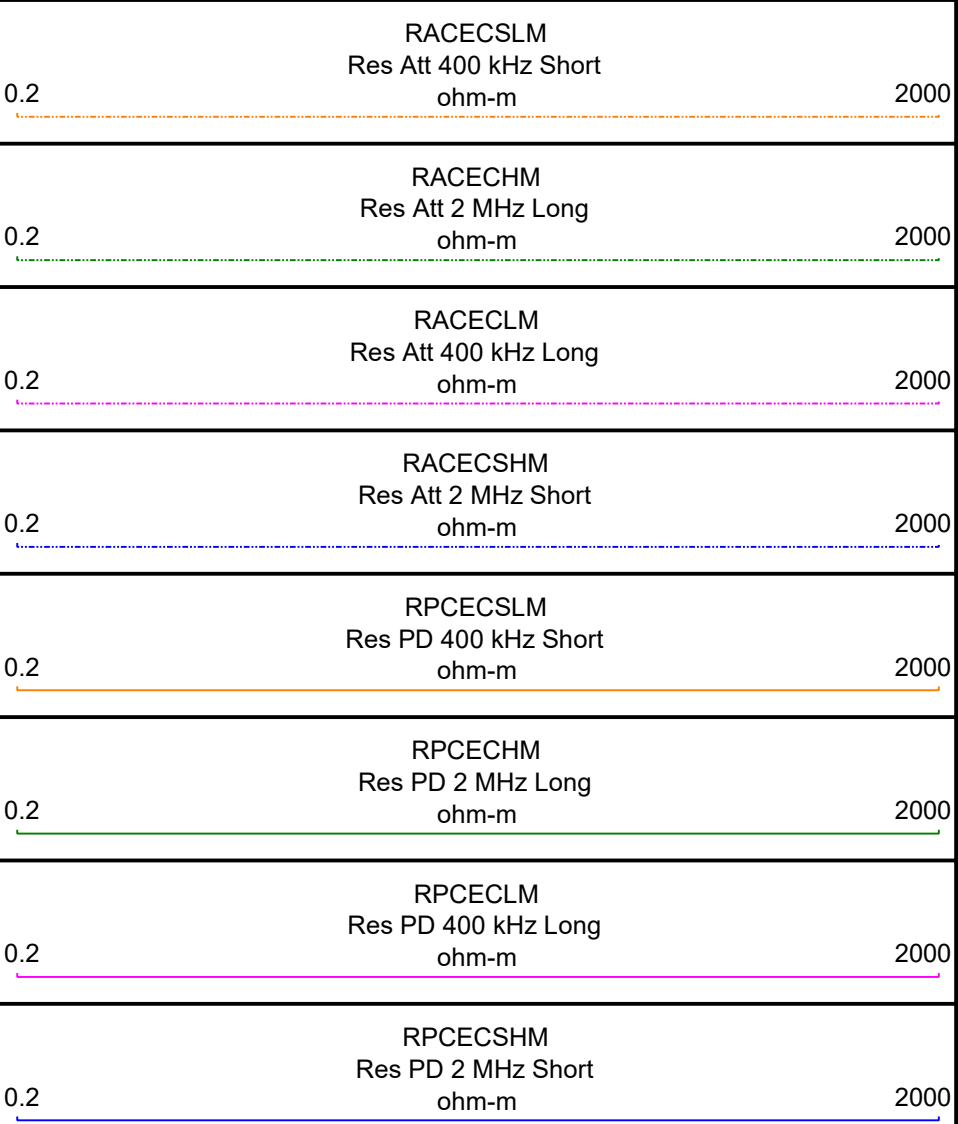
EQUIPMENT	
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<b>Log Run</b>	Grotheer 5-61 11A2-1				
<b>Bit Run</b>	Grotheer 5-61 11A2-1				
<b>Start Date/Time</b>	2022-08-05 07:40:01				
<b>Start Depth (ft)</b>	1976				
<b>End Date/Time</b>	2022-08-09 09:58:34				
<b>End Depth (ft)</b>	16348				

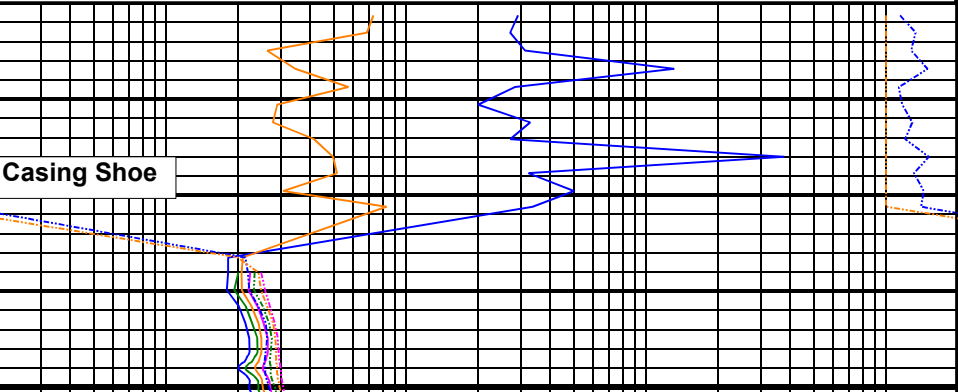
Serial Numbers
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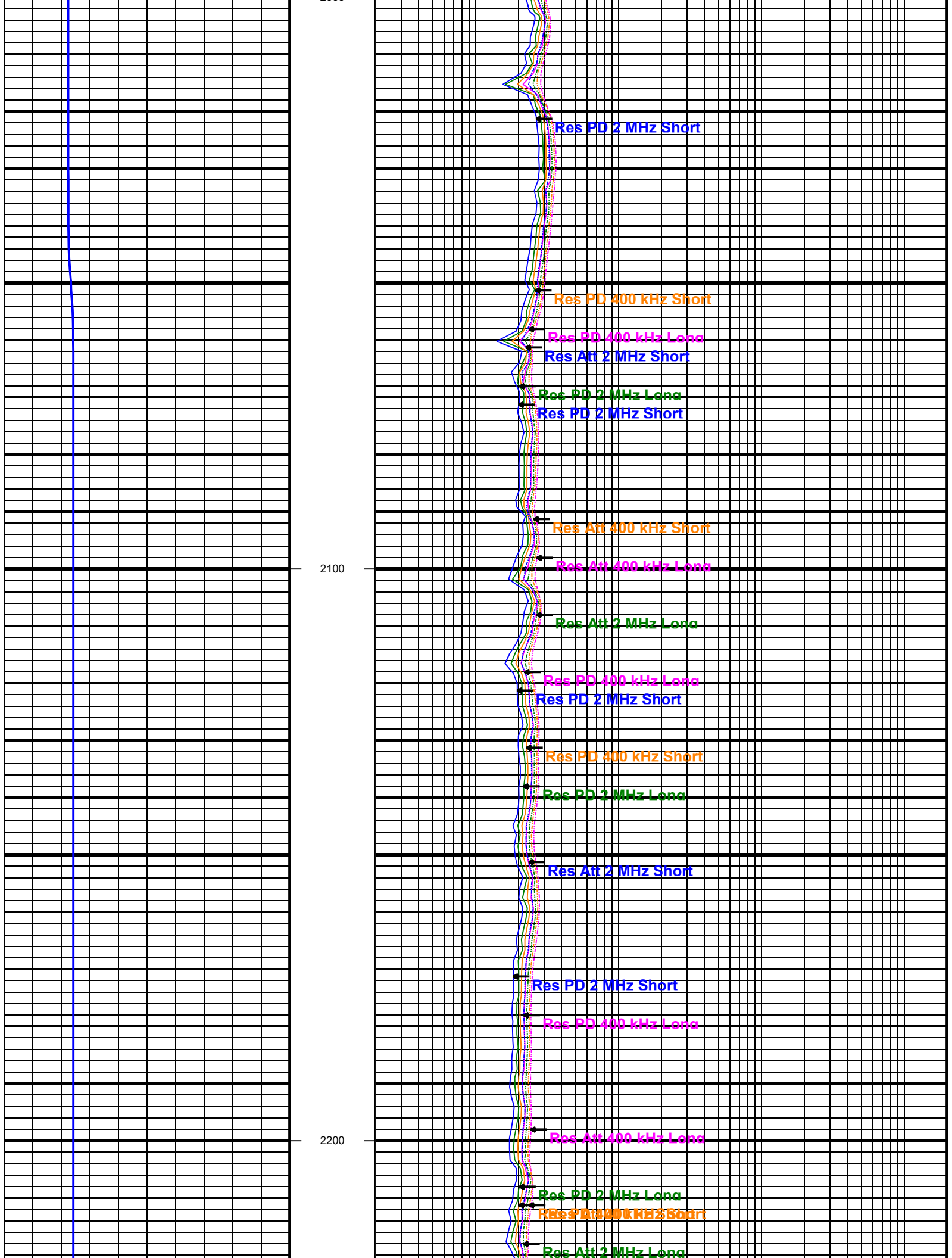
Surface Gear					
Flow Sub					
Pulser					
Battery 1					
Battery 2					
Turbine Alternator					
Directional Sensor					
Gamma Sensor					

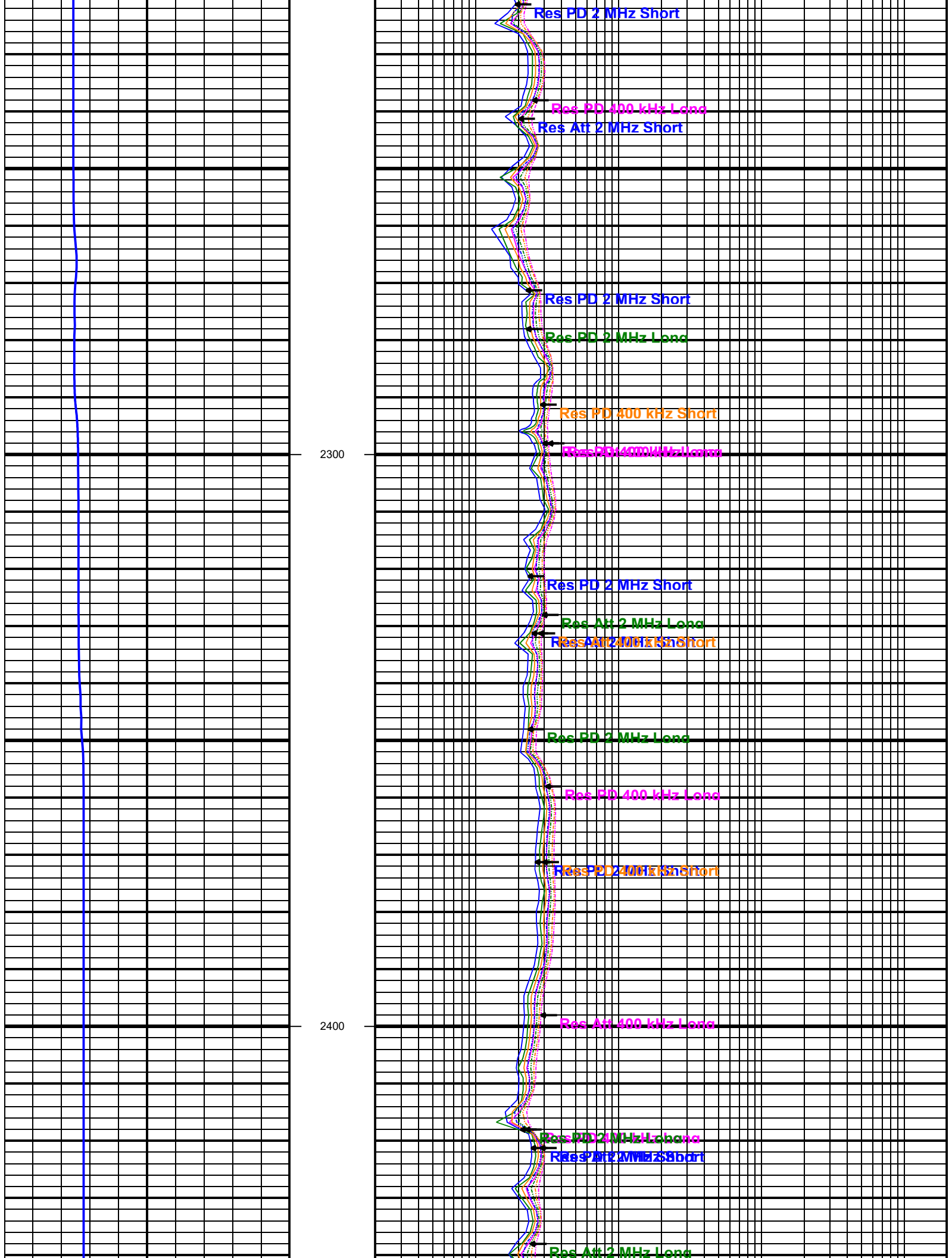
WPR Sensor	609				
Vibration Sensor					
Sensor Offsets To Bit					
Directional (ft)					
Gamma Ray (ft)					
WPR (ft)	10743.4				
PWD (ft)					
Vibration (ft)					

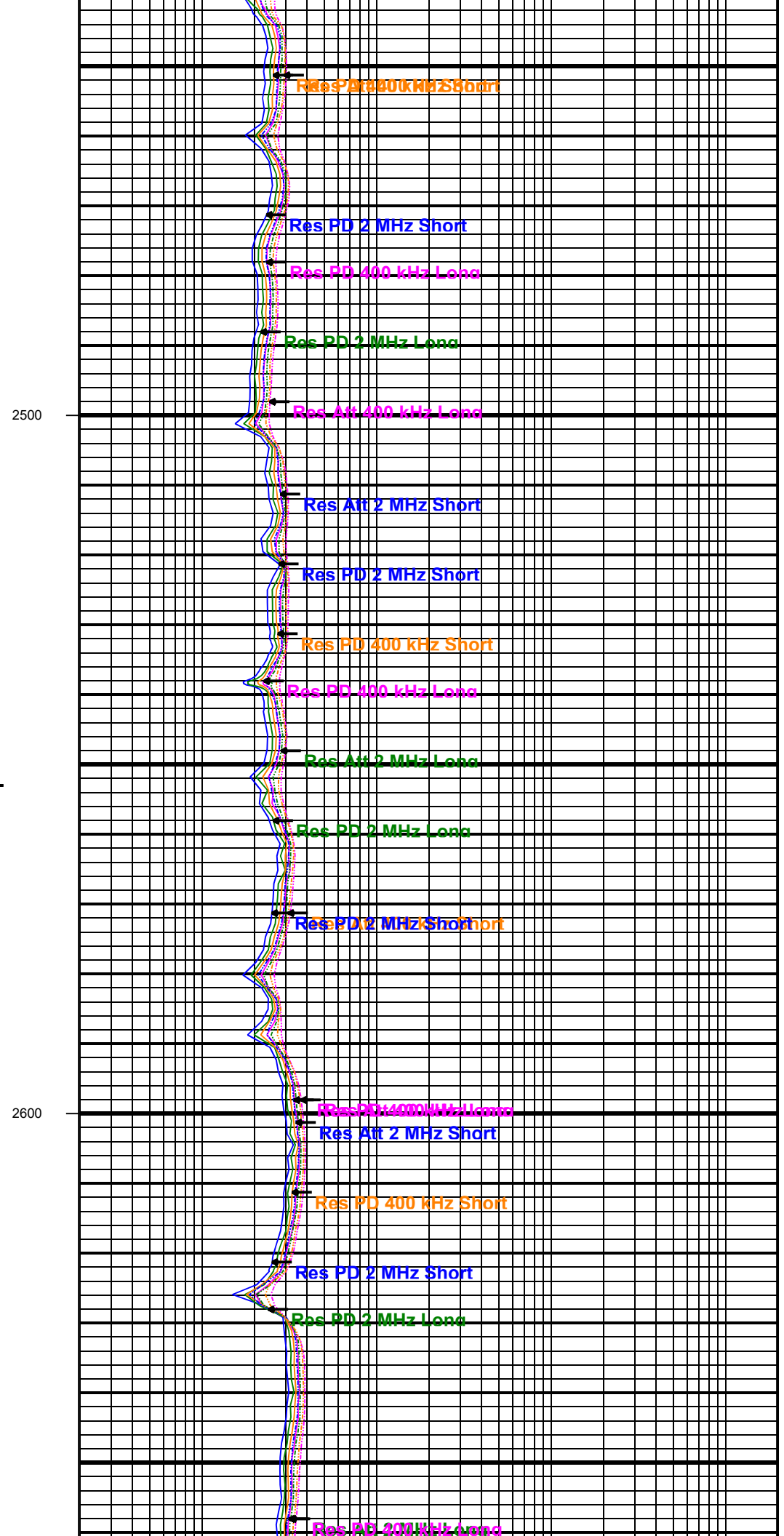
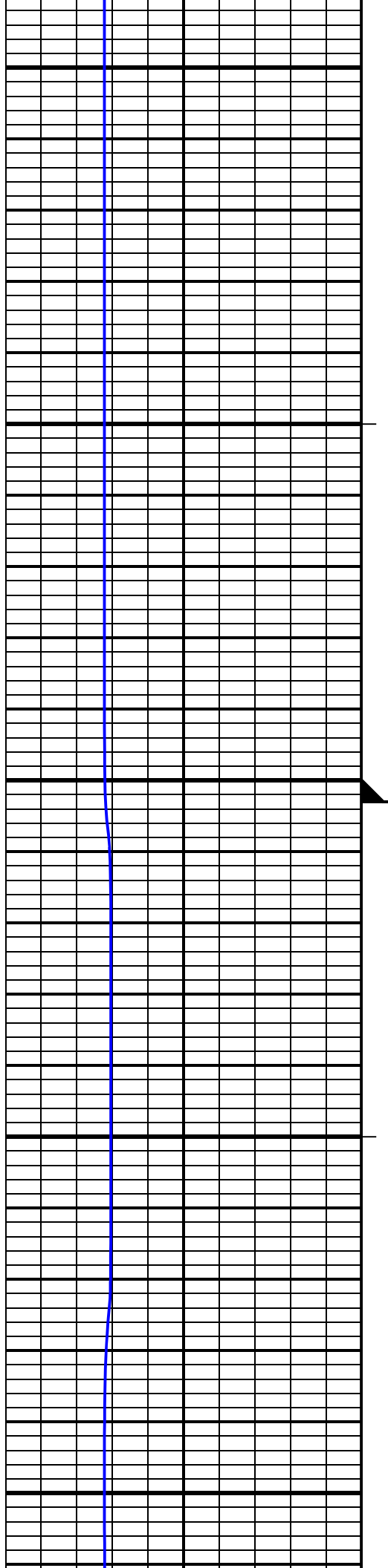


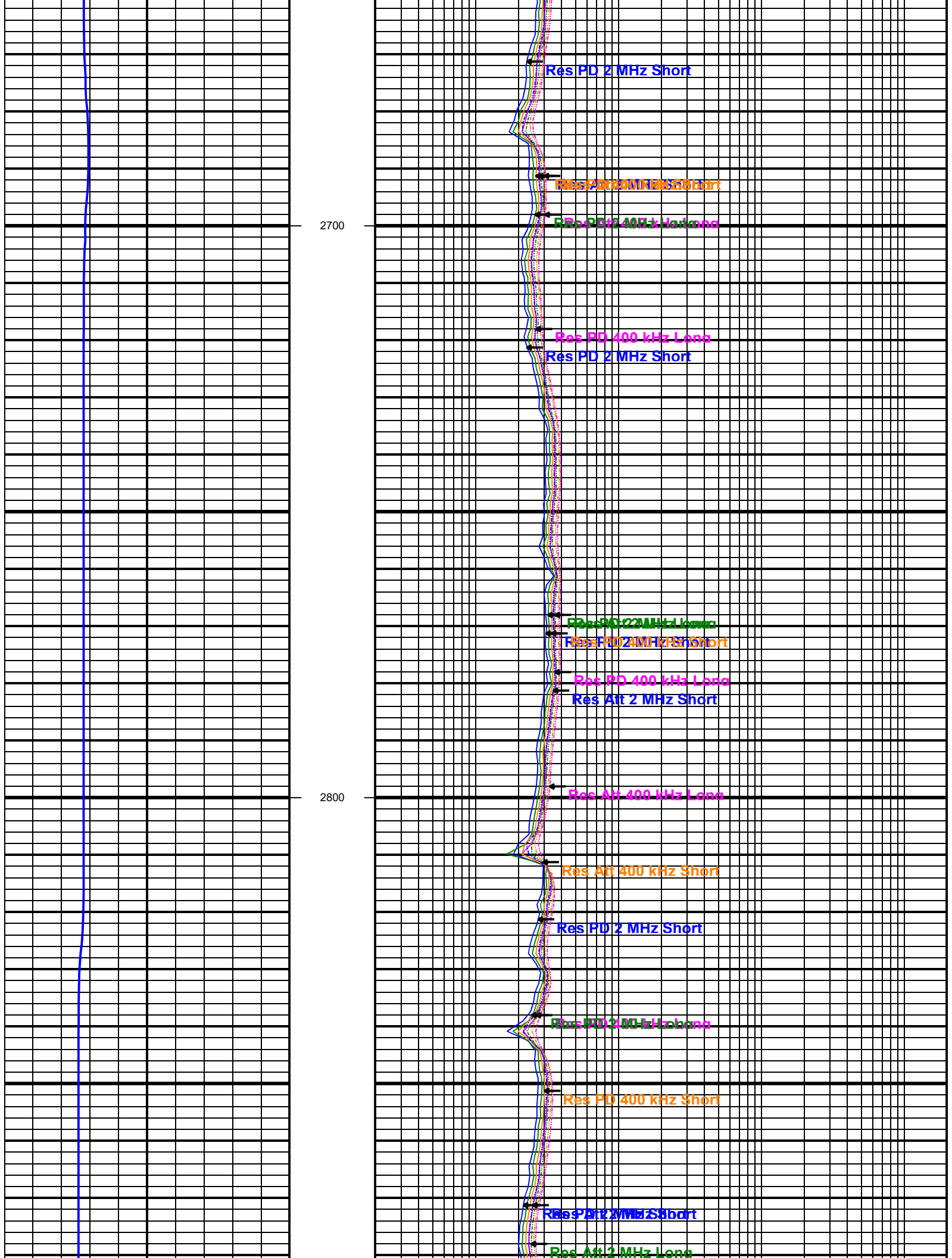
MD  
FEET  
1:240  
1960

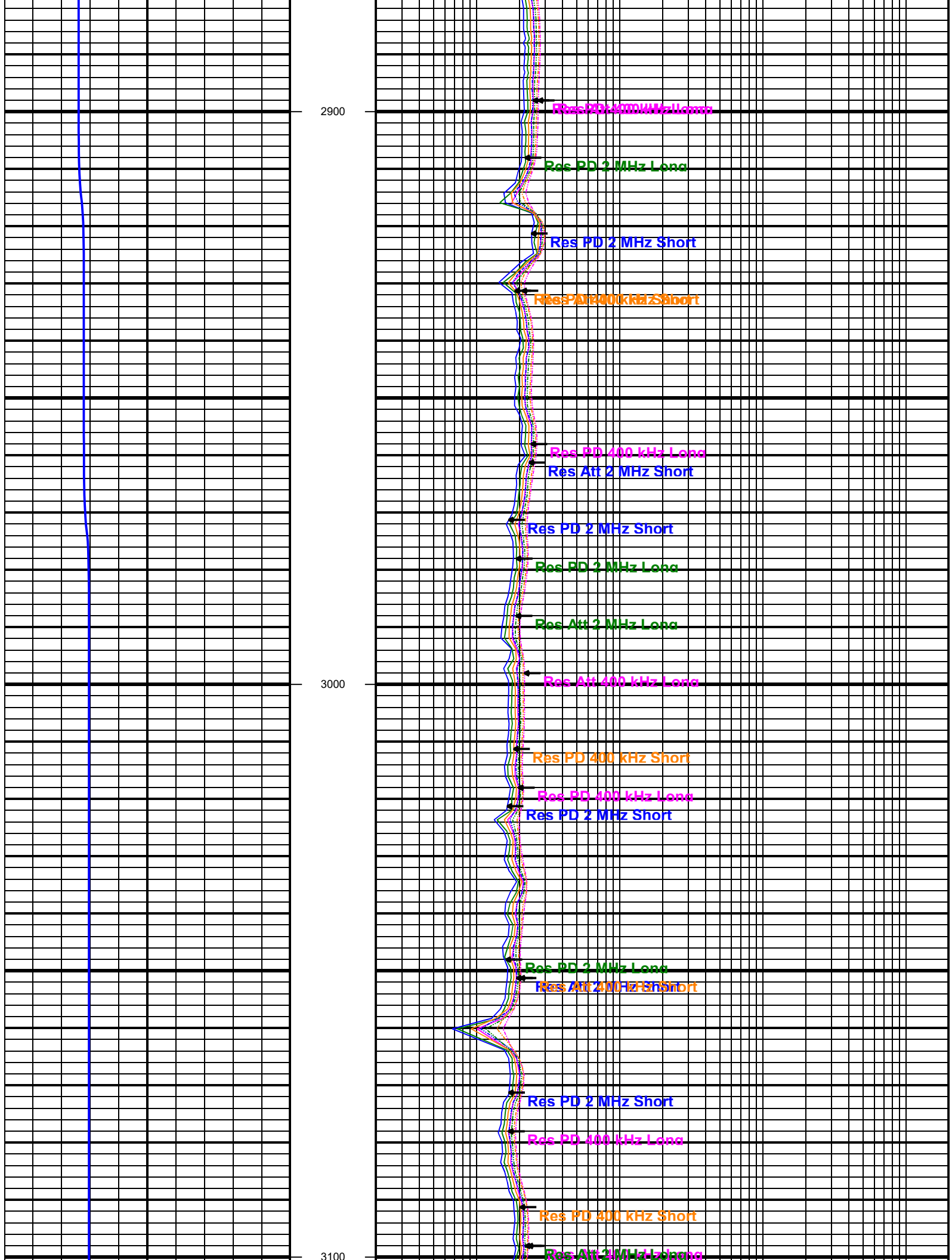




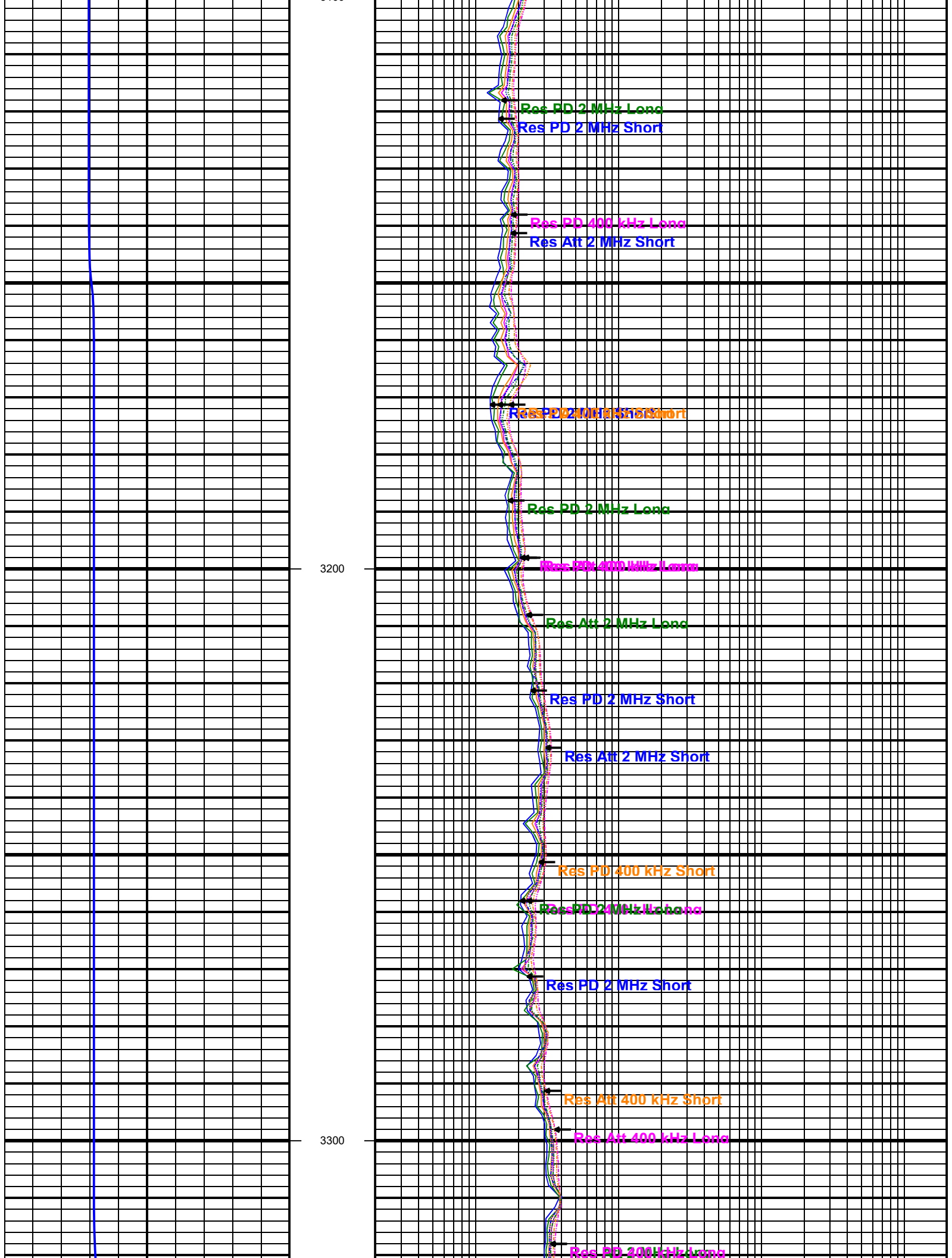


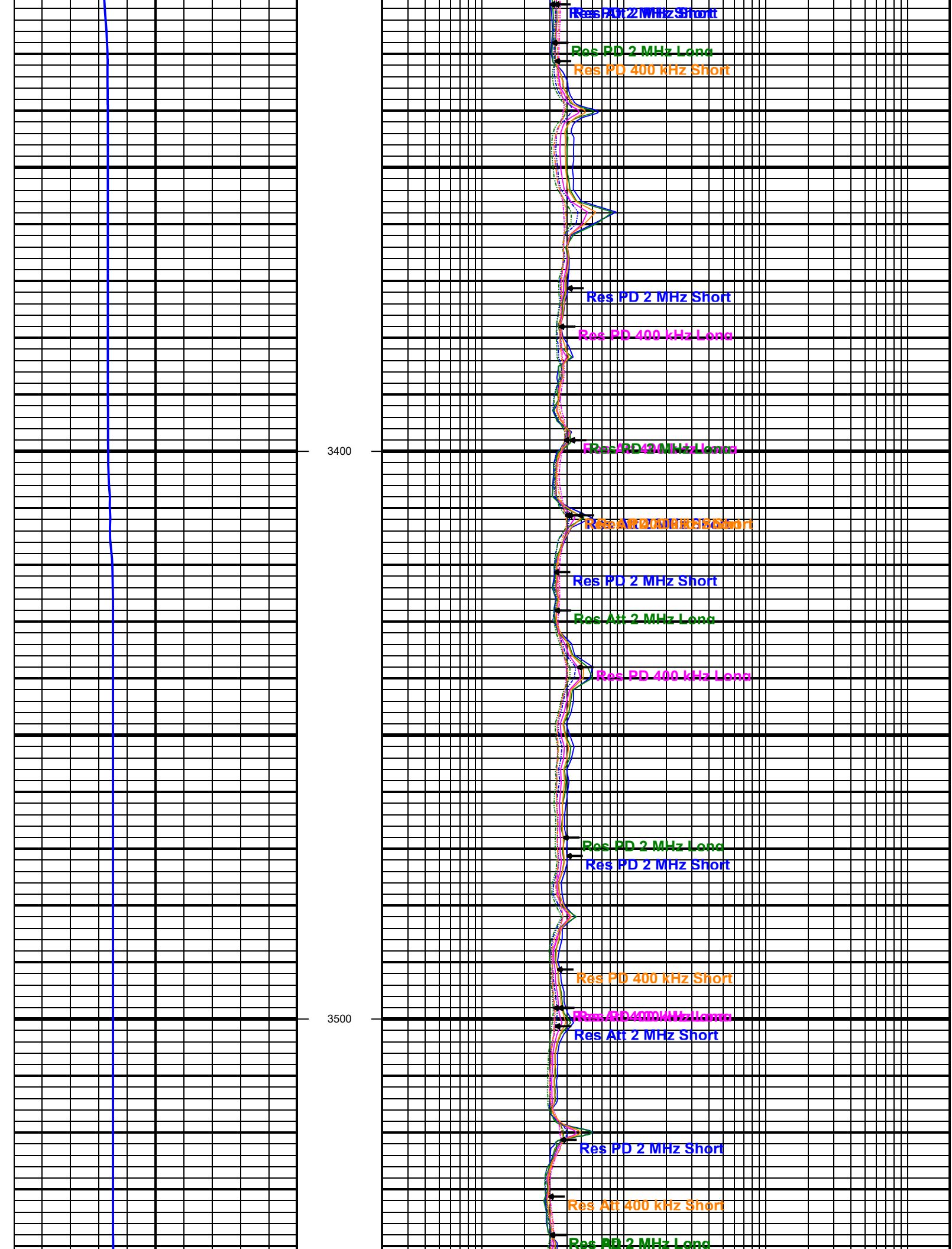


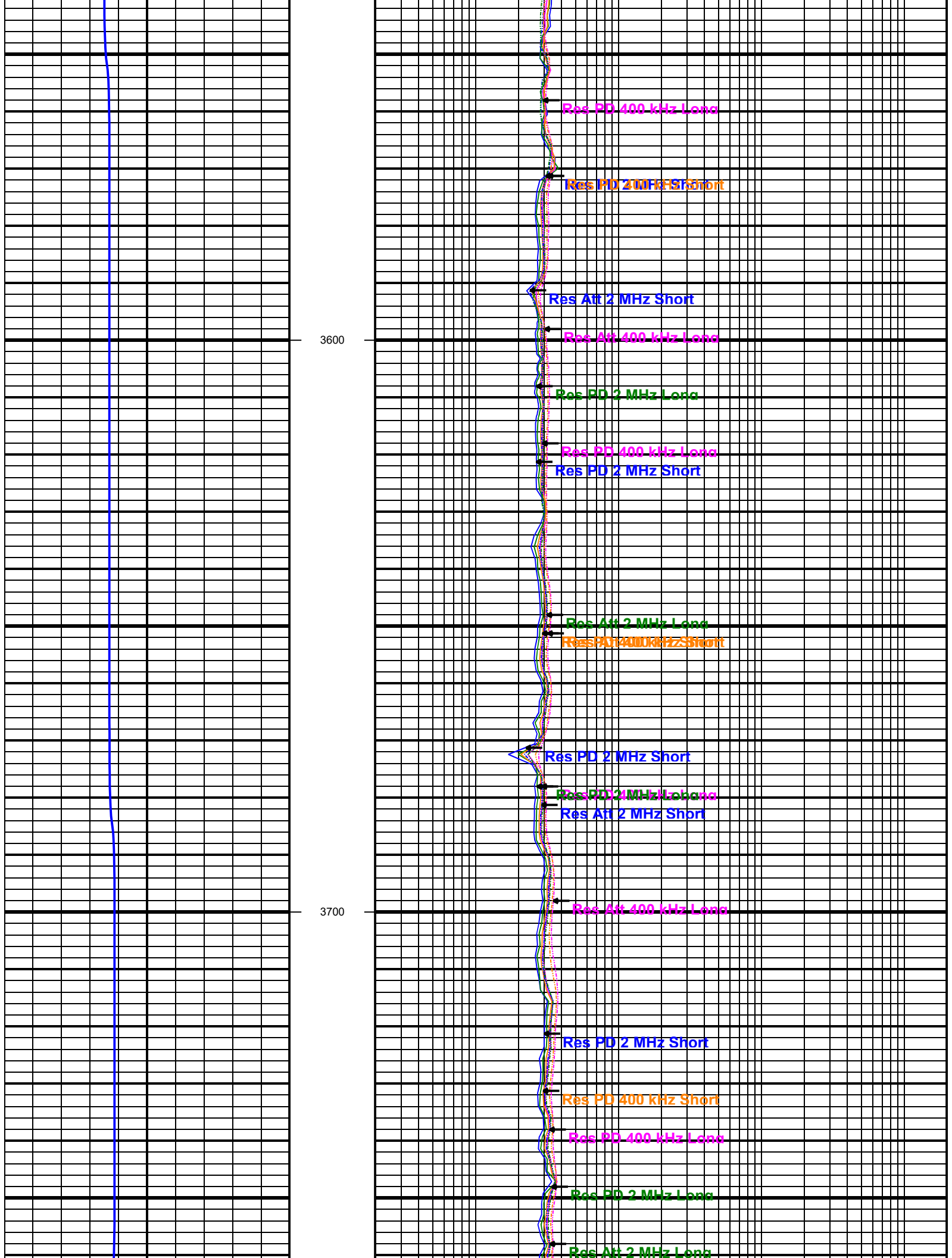


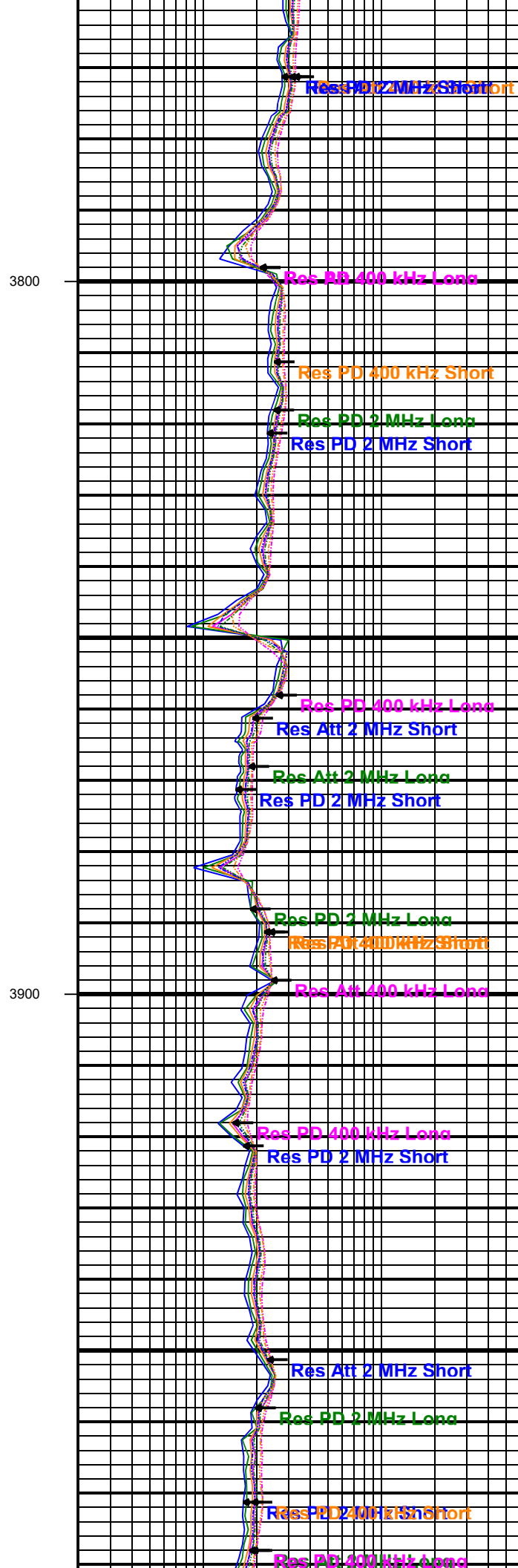
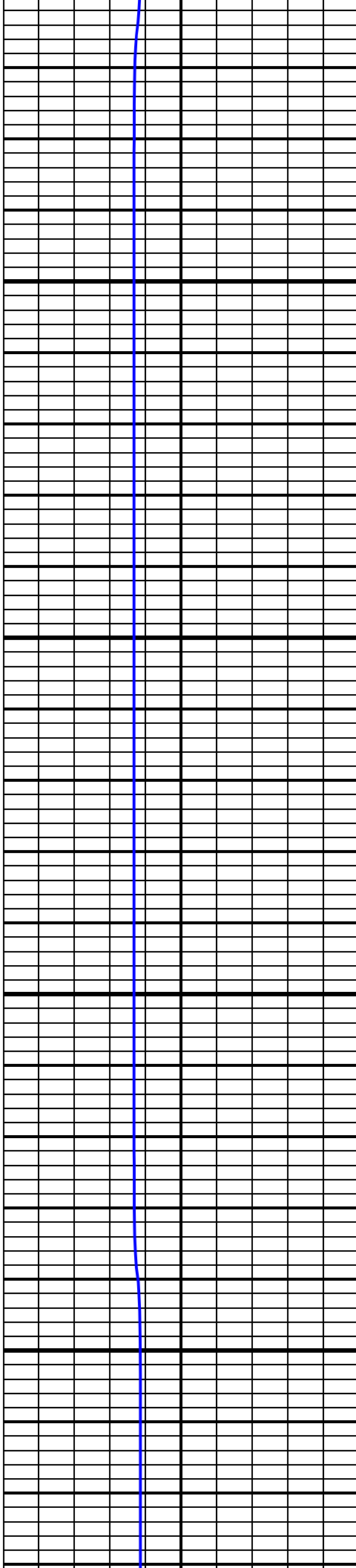


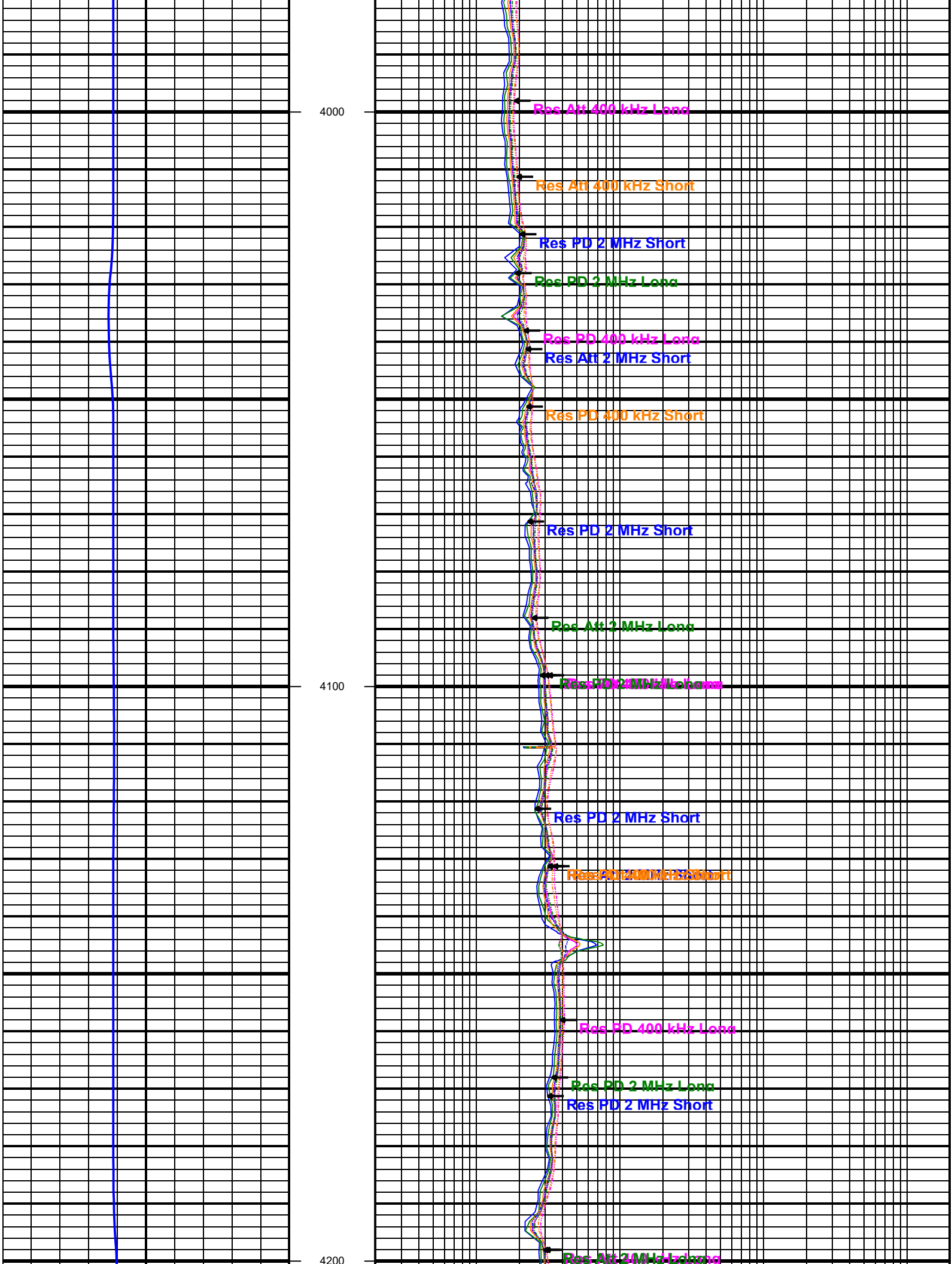


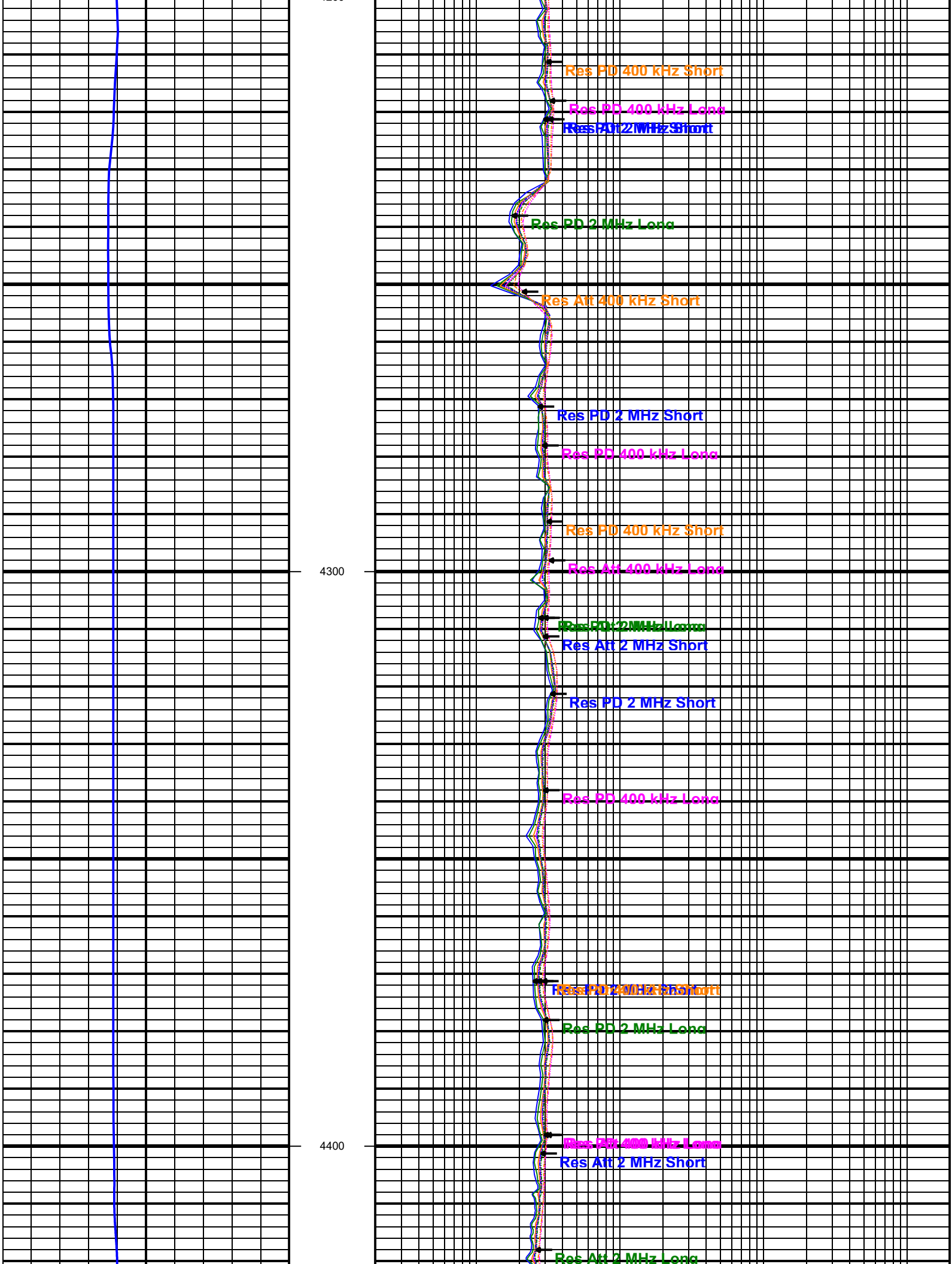


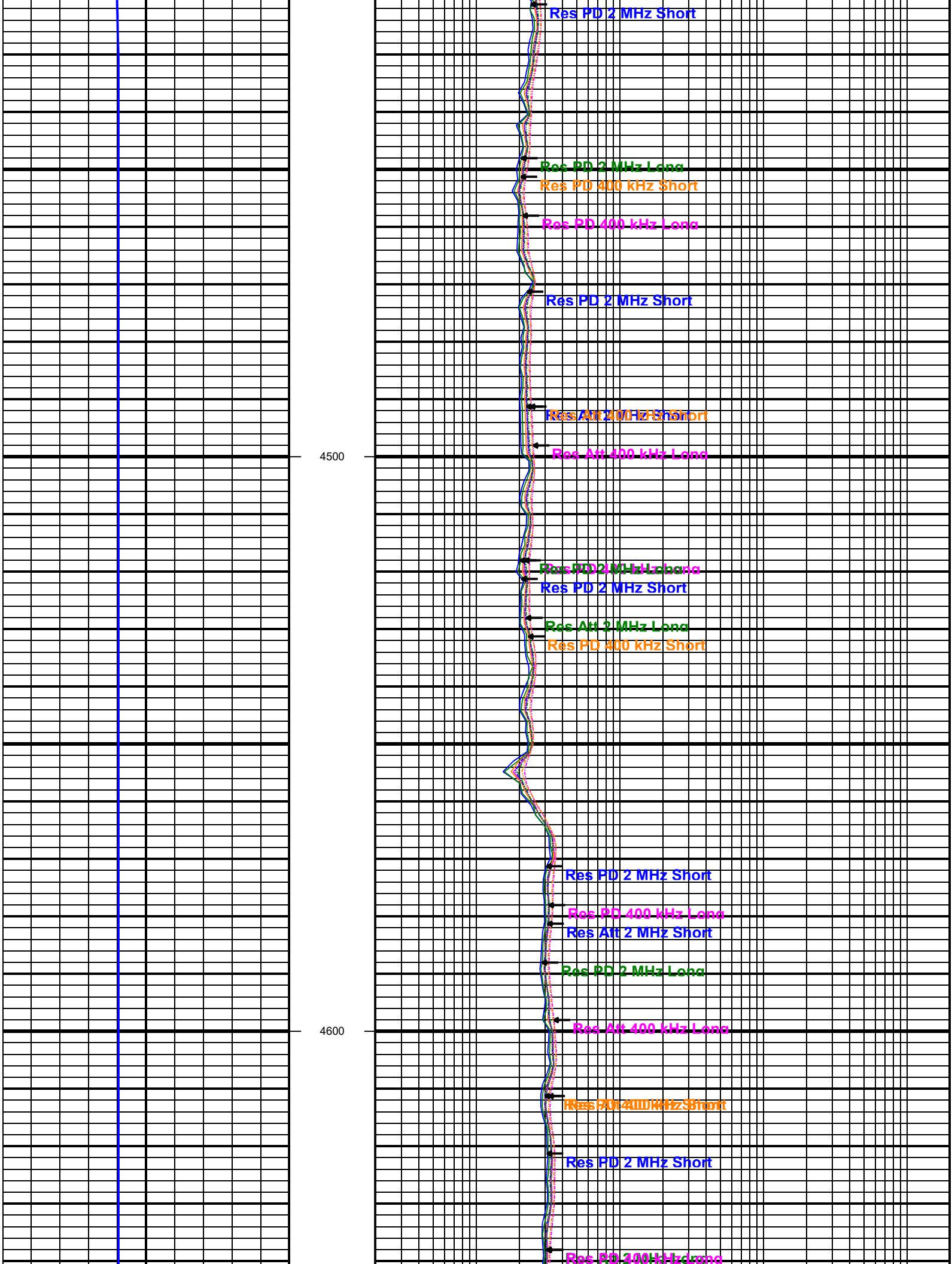


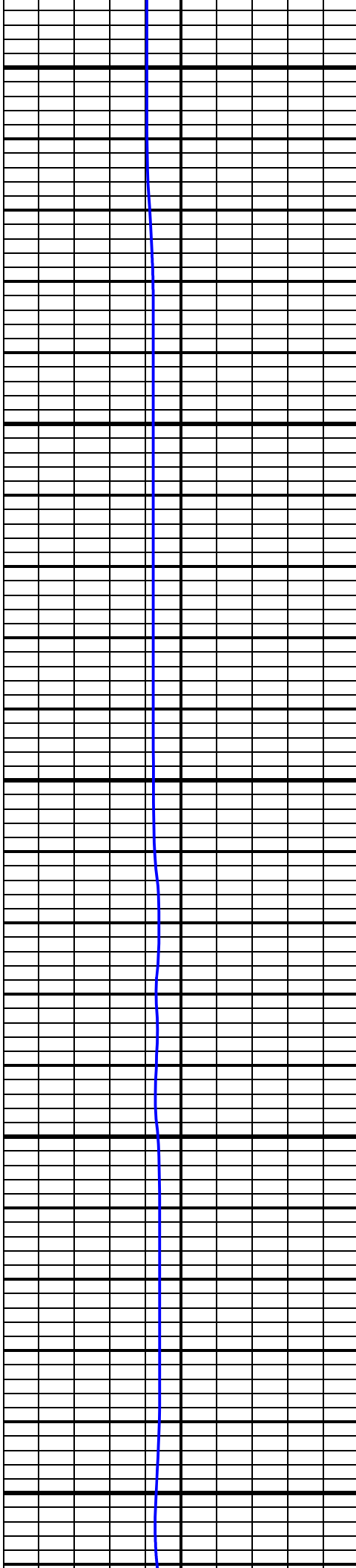






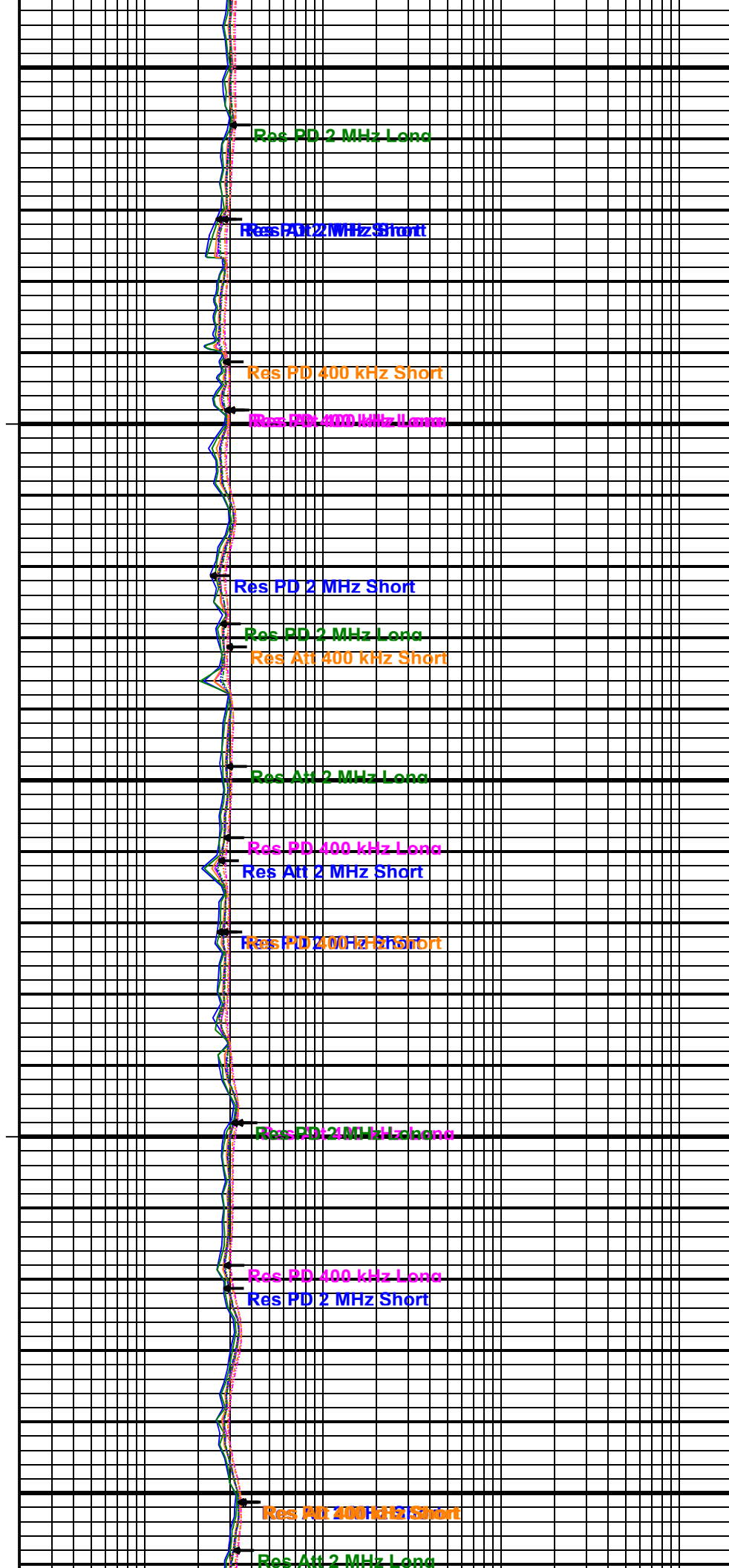




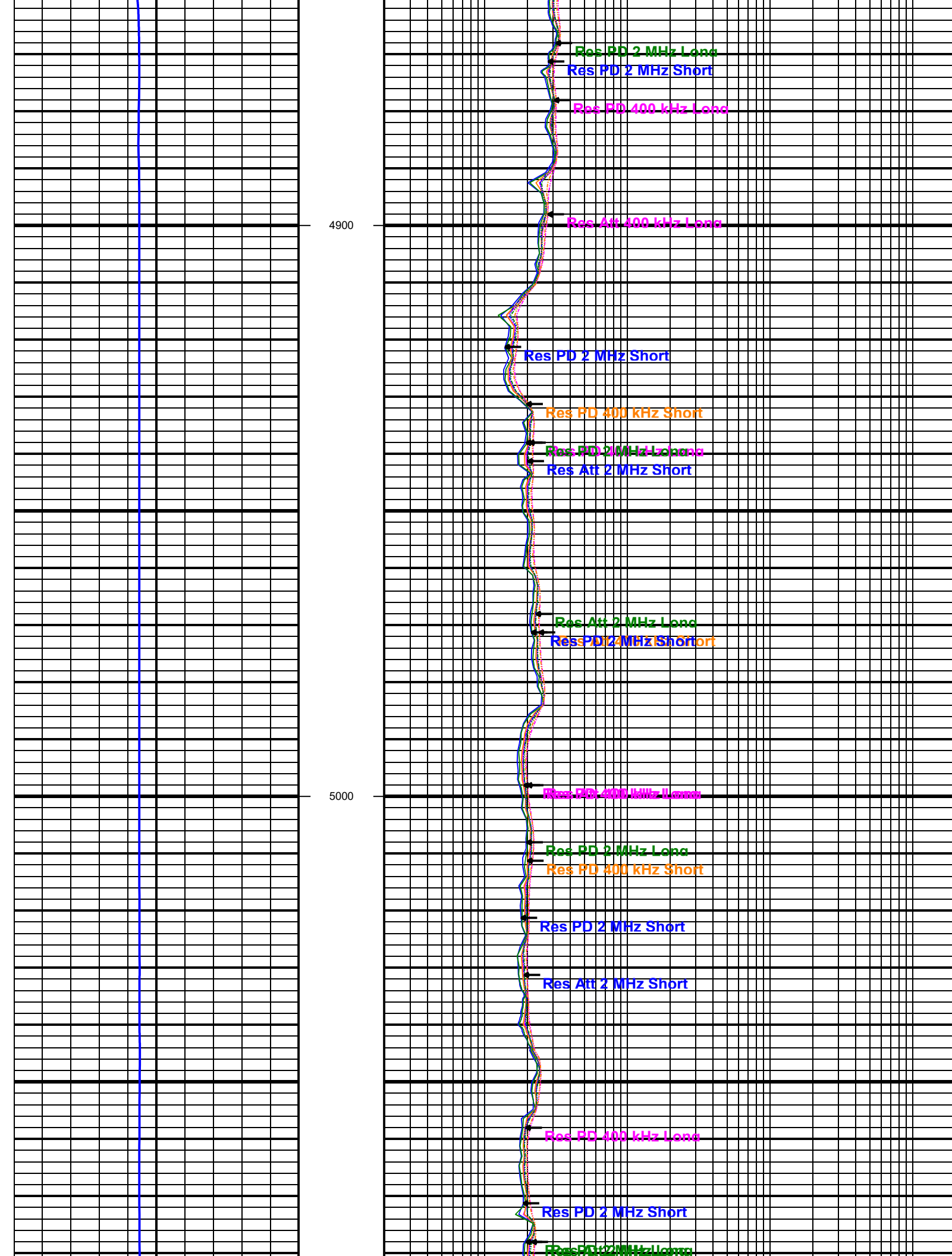


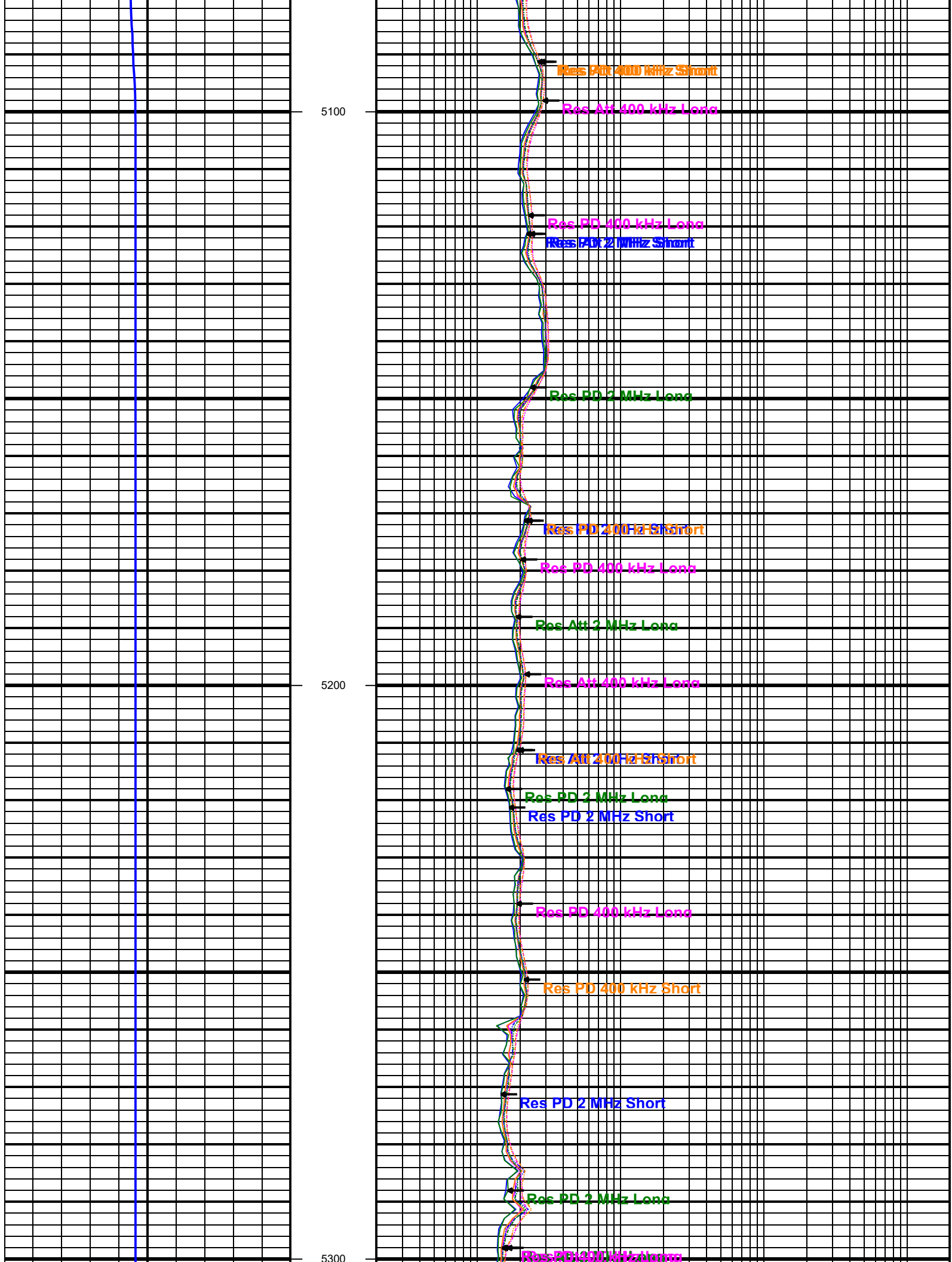
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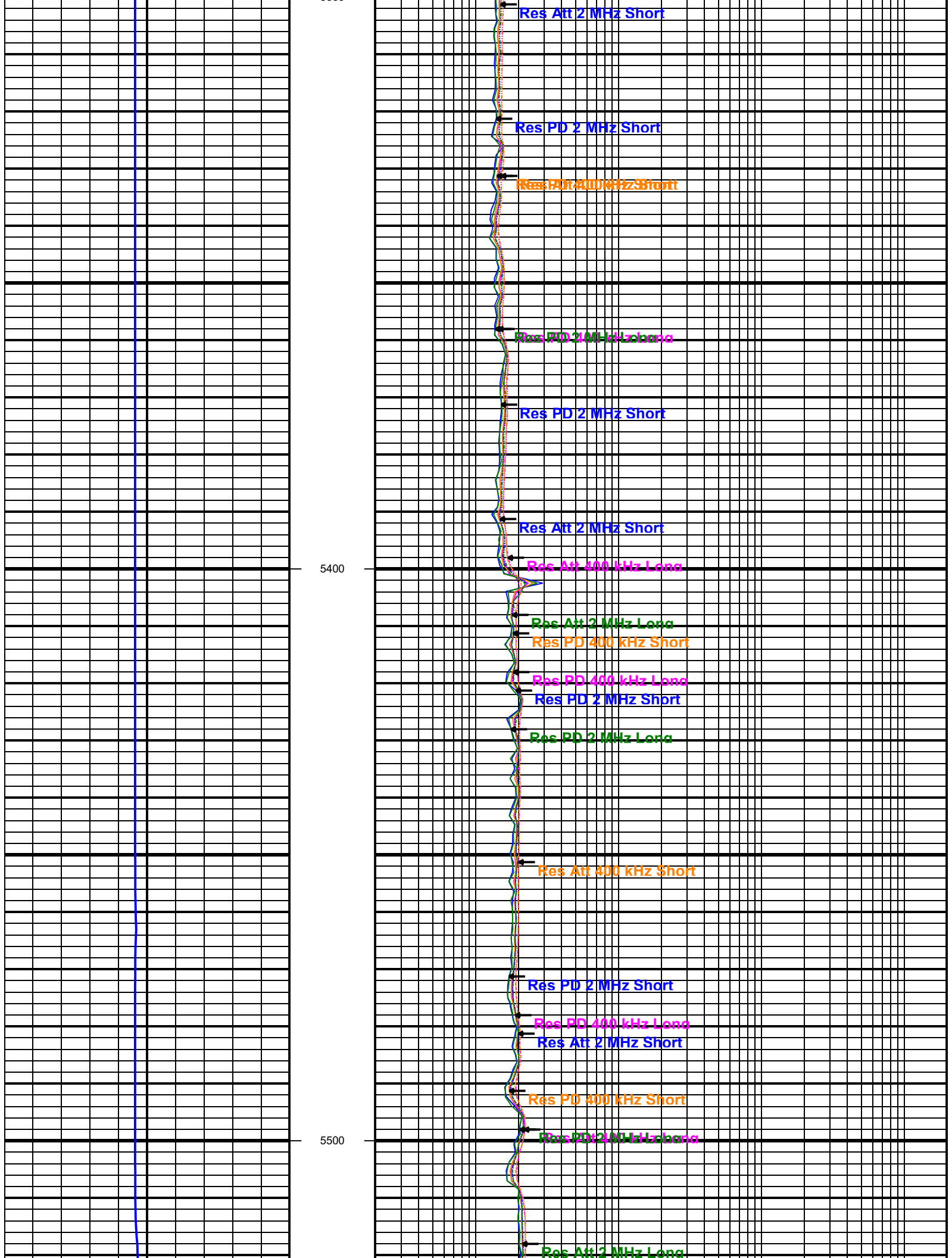
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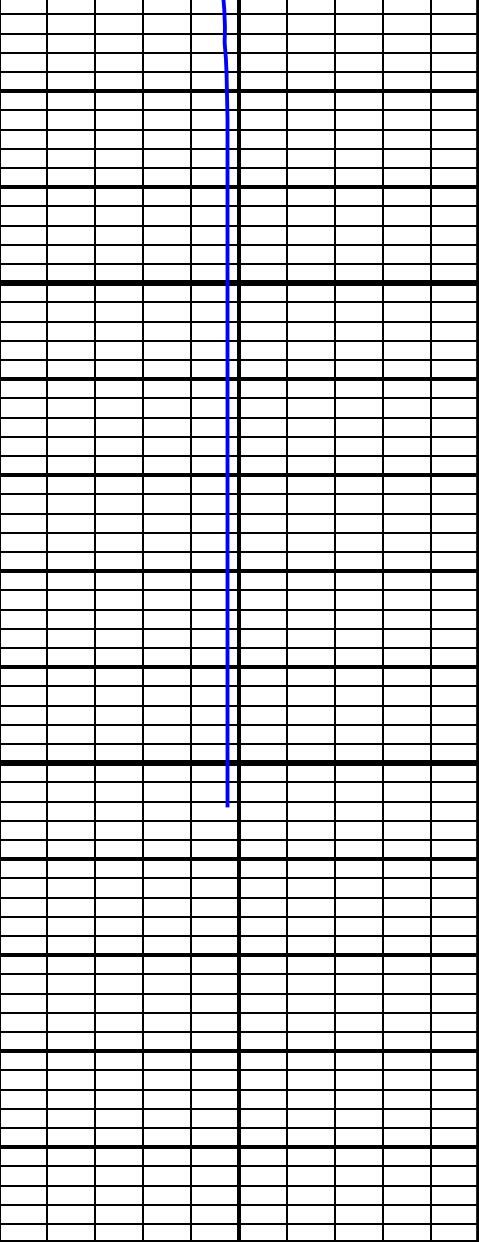










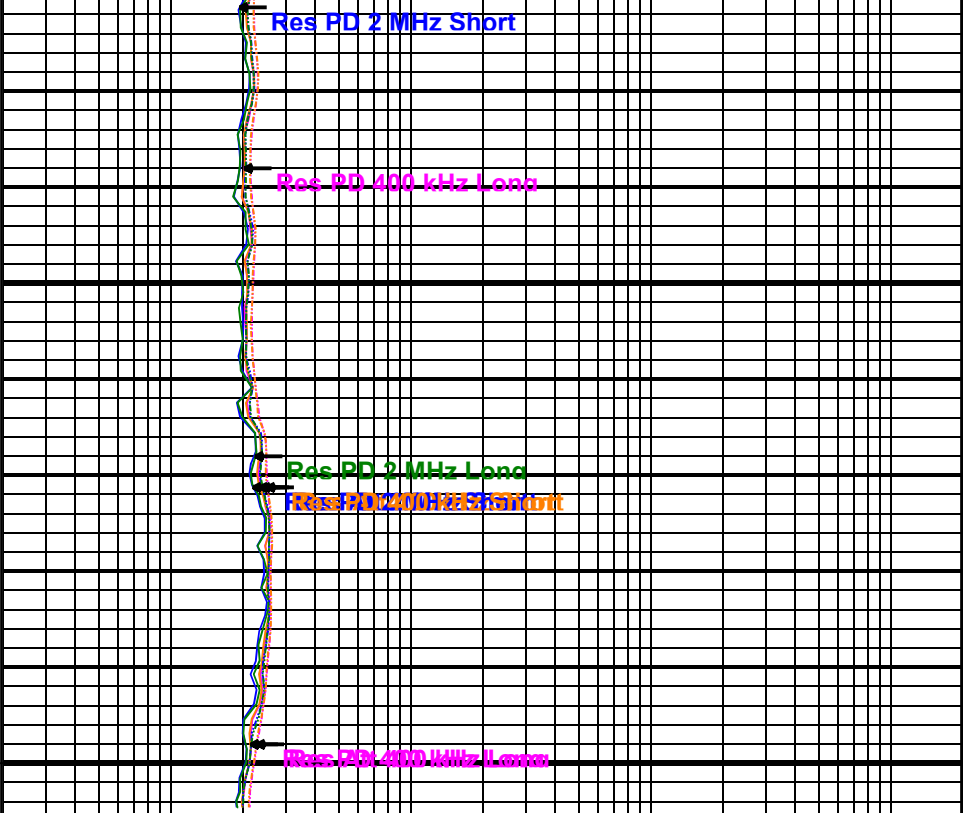


5600

5650

Resistivity Compensation Temperature  
TRMRAC  
150 F (5.00 ft Smoothing) 250

1:240  
FEET  
MD



Res PD 2 MHz Short

Res PD 400 kHz Long

Res PD 2 MHz Long

Res PD 400 kHz Short

Res Att 400 kHz Long

0.2	RPCECSHM Res PD 2 MHz Short ohm-m	2000
0.2	RPCECLM Res PD 400 kHz Long ohm-m	2000
0.2	RPCECHM Res PD 2 MHz Long ohm-m	2000
0.2	RPCECSLM Res PD 400 kHz Short ohm-m	2000
0.2	RACECSHM Res Att 2 MHz Short ohm-m	2000
0.2	RACECLM Res Att 400 kHz Long ohm-m	2000

	0.2	RACECHM Res Att 2 MHz Long ohm-m	2000
	0.2	RACECSLM Res Att 400 kHz Short ohm-m	2000

<b>DISCLAIMER</b>			
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