Casing Inspection

Company	Client Name
Well	Well #2
Field	Oilfield
County	Brazoria
State	Texas
API#	42-000-00000
Log Date	09/04/2025
Top of Log	Surface
Bottom of Log	8201.59ft
ECCE Corrected	YES
Bad Fingers	NO
Logged by	T. Ogle
Witnessed by	Mr. Client
Location	Pearland, TX
Processed by	JT3 DCS, Houston, TX
Contact	Tim Ogle

JT3
Data Consulting Services, LLC

Casing	Size	Weight	From	To
Record	(in)	(lb/ft)	(Ft)	(Ft)
Surface			Surface	
Protection			Surface	
Production			Surface	
Tubing	2-7/8"	6.5#	Surface	8,213ft

Any interpretation of logs or survey, either through optical or electronic processing means or otherwise, or any recommendation or description of any reservoir based on such interpretation of other data, are opinions based upon measurements, assumptions and empirical relationships, which inferences and assumptions are not incapable of error. We cannot and do not guarantee the accuracy, correctness or completeness of such interpretations, recommendations or descriptions and Company agrees that we shall not be liable or responsible for any loss, cost, damage or expense accrued or sustained by Company resulting directly or indirectly therefrom. Under no circumstances should any such interpretation, recommendation, or description be relied upon as the basis for any procedure conducted in or on a well which involves any risk to the safety of personnel, equipment or venture. Company shall always have full responsibility for such decisions and for all decisions concerning other procedures relating to drilling, completion or production operations.

Interpretation Summary

Internal inspection was carried out with the 24 Arm Caliper.
The Wall thickness has been inspected with the EMT tool.

MFC
Depth interval processed: 10.14' - 8198.59'. Number of joints processed: 250 Joints.

There are 249 joints of class 1 corrosion (0% - 20%),
1 joints of class 2 corrosion (20% - 40%),
0 joints of class 3 corrosion (40% - 60%),
0 joints of class 4 corrosion (60% - 80%),
0 joints of class 5 corrosion (80% - 100%)

The worst Penetration is 20.4% (0.047 in) in Joint 80 at a depth of 2636.66 Ft

The worst Showing Metal Loss is 10.0% in Joint 65

EMT
First Barrier

The worst Wall Thickness Loss is 14.6% (0.032 in) in Joint 246 at depth 8057.87 Ft

The worst Penetrations and Projections are shown in the tables below
The Well Log, the corresponding charts, diagrams, and well trajectory, are shown below

Processing was done in CardLine software. Processed By: JT3 Data Consulting Services, Houston, TX
Contact: Tim Ogle (346) 617-0639

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Measured Logs

The interpretation is based on usage of Multifinger Caliper tool in combination with Electro- Magnetic Thickness tool. This approach enables both inside and outside casing wear or damage detection. The inside diameter of first pipe is calculated based on multifinger caliper measurement while the outside diameter of first pipe is calculated by superimposing and combining thickness measurement from EMT tool. Apart from the first pipe also the second pipe can be evaluated. EMT Relative Damage Distance curve is used for evaluation whether the damage of the second pipe is from inside or from outside.

Before Interpretation, The Log data is checked for Calibrations, Pre & Post Verifications, and Anomoloies encountered during the logging process.

Critical Note: It is extremely important that we have all of the information available about the well and the problem that is being investigated, the data collected is critical and it is important that all of the Calibration and Verfication steps be followed.

Well Interp. Parameters & LQC

Company	Client Name
Well	Well #2
Log Date	9/4/2025

2.875	in	Tubing OD
6.5	#	Tubing Weight
2.441	in	Tubing ID
0.217	in	Wall Thickness
0.190	in	MIN Wall Thickness API

JT3 Data Consulting Services, LLC

Run 1:	Ran in hole with 24-Arm Multi-Finger Caliper with Electromagnetic Thickness
Run 2:	

Grade	Wall Loss %
1	0-12.5%
2	12.5->20%
3	20->40%
4	40->60%
5	60->80%
6	80->100%

Client Supplied Data		Log Quality Control		Interpretation Parameters	
N	.LAS File	Y	Before Calibration	Y	Default Grading
Y	Field Print	Y	After Calibration	N	Client Specified Grading
N	Job Log	Y	Collars Detected	N	Data Merge
N	Wellbore Diagram	N	Acceptable Centralization	N	Depth Corrected
N	Completion Report	Y	Excentralization Required	Y	ECCE Corrected
N	Cement Bond Log	N	Bad Fingers	N	Bad Fingers Corrected
Y	Database .db	N	Tool Sticking	Y	Data Filtering

Grade	Penetration %
1	0 > 10%
2	10 > 25%
3	25 > 50%
4	50 > 75%
5	75 > 100%

Gas Lift:	Reported		Detected			Perfs:	Reported		Detected		
#1		-	2641.14	WLM		#1		-		WLM	
#2		-	3910.85	WLM		#2		-		WLM	
#3		-	5188.3	WLM		#3		-		WLM	
#4		-	6136.55	WLM		#4		-		WLM	
#5		-	6728.35	WLM		#5		-		WLM	
#6		-	7317	WLM		#6		-		WLM	
#7		-	7941.15	WLM		#7		-		WLM	
#8		-	8527.35	WLM		#8		-		WLM	

Multi-Finger Caliper Logging

Multi-Finger Caliper (MFC) logging uses multiple measuring arms to record inner diameter of the casing wall. The arms independently measure radius between middle tool axis and casing wall. The MFC survey shows quantity of inside wall damage as well as position of damage. The Caliper survey will determine the extent of wear and corrosion, and detect holes inside casing or tubing string.

The Multi-Finger Caliper has 24, 40, 56 and 60 "measuring arms", upon number of arms depends tools diameter and maximum casing diameter. Calipers should be centralized during operation allowing all measuring fingers to be connected to inner casing wall. Some tool models themselves contain roller stabilizers, but the recommendation is to have at least two roller or spring centralizers in vertical holes and four in very deviated or horizontal well bores. Each caliper finger is connected to an independent non-contact displacement LVDT Sensor that features small sizes, long service life, and high measurement accuracy. The MFC transmits all arms independently over wireline, as well as head voltage, well inclination, azimuth and temperature. Data regarding minimum, maximum and average inner diameter are recorded in a database, in real time during operations.

Each measuring finger has a carbide tip to protect the area of greatest wear. As the caliper moves over casing, the measuring arms follow the contour of the casing inside wall. When measuring fingers are opened or closed, the mechanical actuating mechanism of the tool convert the radial movement of the measuring finger to axial displacement of the iron core of placement transducer. Displacement of inner core is converted to output electrical signal as a result of the axial iron core displacement of placement transducer. Signal is subsequently enter A/D converter and as telemetry signal sent to surface logging equipment.

Advances in technology has produced Multi-Finger Calipers capable of Memory Operations. This expands the calipers capability to Slickline and Coil Tubing operations. Typically the Memory Controller is programmed and powered by a high capacity lithium battery. The memory toolstring is run in hole in conjunction with a Time Depth Controller. Data vs. Time, and Time vs. Depth data are combined post logging to produce the Multi-Finger Caliper Log.

Data discrepancies can arise due to changes in logging methods, speed, or pipe properties because these factors directly influence how data is captured, processed, and interpreted. Here is a brief explanation:

1. Logging Method: Changes in the tools, sensors, or algorithms used to record data can alter the way information is collected, introducing variations.

2. Speed of Data Collection: If the speed at which data is logged changes (e.g., increasing sampling rates), it can capture more detailed variations in the system, which may not have been apparent before.

3. Pipe Properties: Variations in pipe material, size, roughness, or age can affect the data captured. These physical changes can lead to different data outputs, even under similar operating conditions.

Data inconsistencies in well logging using a Multi-Finger Caliper tool can arise due to several factors:

1. Tool Position in the Well: If the caliper tool is not centralized or is tilted within the wellbore, the measuring fingers may not accurately contact the wellbore wall. This leads to irregular or incomplete measurements, particularly in non-circular boreholes.

2. Tool Rotation: The caliper tool will rotate due to the forces applied by the wireline cable, this will effect the data collected as the measuring fingers may not follow the exact path as previous logging runs.

3. Distance Between Measuring Fingers: The spacing of the caliper fingers affects the resolution of the measurement. Wider spacing might miss small-scale irregularities, while closely spaced fingers may provide more detailed data. If the spacing is inconsistent, it can lead to gaps or overlaps in the recorded data.

4. Logging Speed: The speed at which the caliper tool moves through the well affects the frequency of data acquisition. If the logging speed is too fast, the tool might skip over subtle changes in the borehole geometry, leading to inaccurate or incomplete data. Conversely, slow logging speeds provide more detailed measurements but increase operation time and cost.

Together, these factors can result in data inconsistencies when comparing historical and current datasets.

Electromagnetic Thickness Logging

The measurement of the electromagnetic defectoscope is based on detecting of the variable electromagnetic field created by transmitter coils of tool. The variable magnetic field is generated by coil creating eddy currents in surrounding metal pipes. The reference magnetic field created by eddy currents is detected by receiving coils of the tool. MIDS tool can be used to determine the thicknesses of the first and second pipe or third pipe separately.

This tool is composed of several sensors and combined with upper and bottom centralizer and electronics. Sensors present on tool are temperature, gamma ray, long vertical coil sensor array (ZL), short vertical coil sensor array (ZS) and 6 lateral coil Arrays. Sensor arrays Long, Short, and lateral R & have different depth of investigation and are used for different pipe sizes and combination of pipe sizes.

Long vertical sensor array is a long-space receiver which records curves ZL1 to ZL42 and has deeper depth of investigation. Long sensor is used for calculation of single pipe thickness, calculation of second pipe thickness, vertical cracks detection of second pipe and corrosion detection of first and second and/or third pipe.

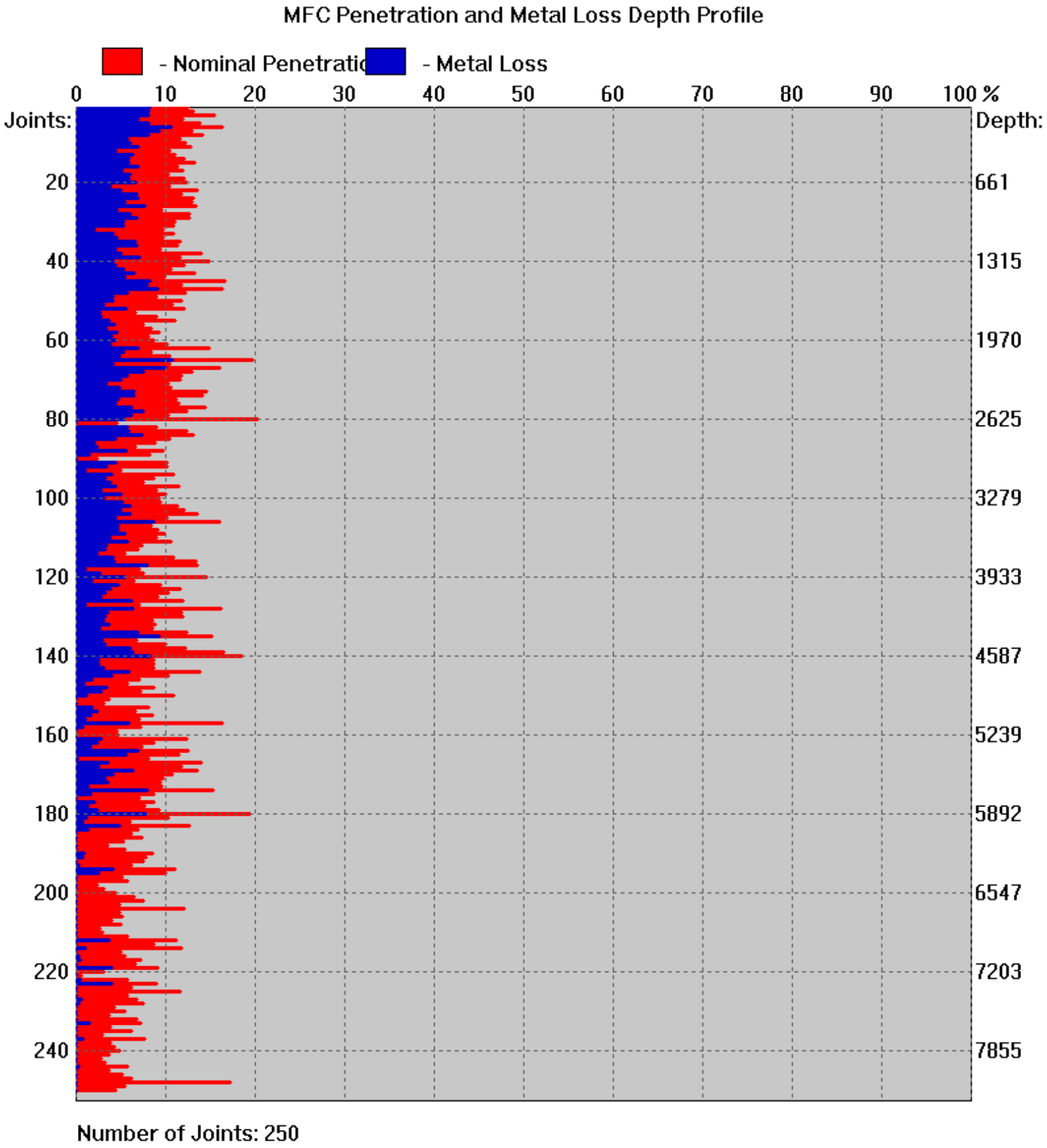
Short sensor array is also a vertical sensor with short space distance and shallower investigation depth, which records curves of ZS1 to ZS30 that are used for first pipe casing thickness, vertical crack inside first pipe, corrosion of first pipe and perforation inside hole.

There are also 6 lateral sensors arrays of 8 pieces each. Those are lateral receivers because coil axis is perpendicular to pipe. Each of 6 lateral sensor arrays record curves from Sc1 to Sc8 and measuresure lateral crack of inner pipe, detect mechanical deformation of inner pipe, calculate thickness of inner pipe and help to determine perforations

Toolstring Diagram

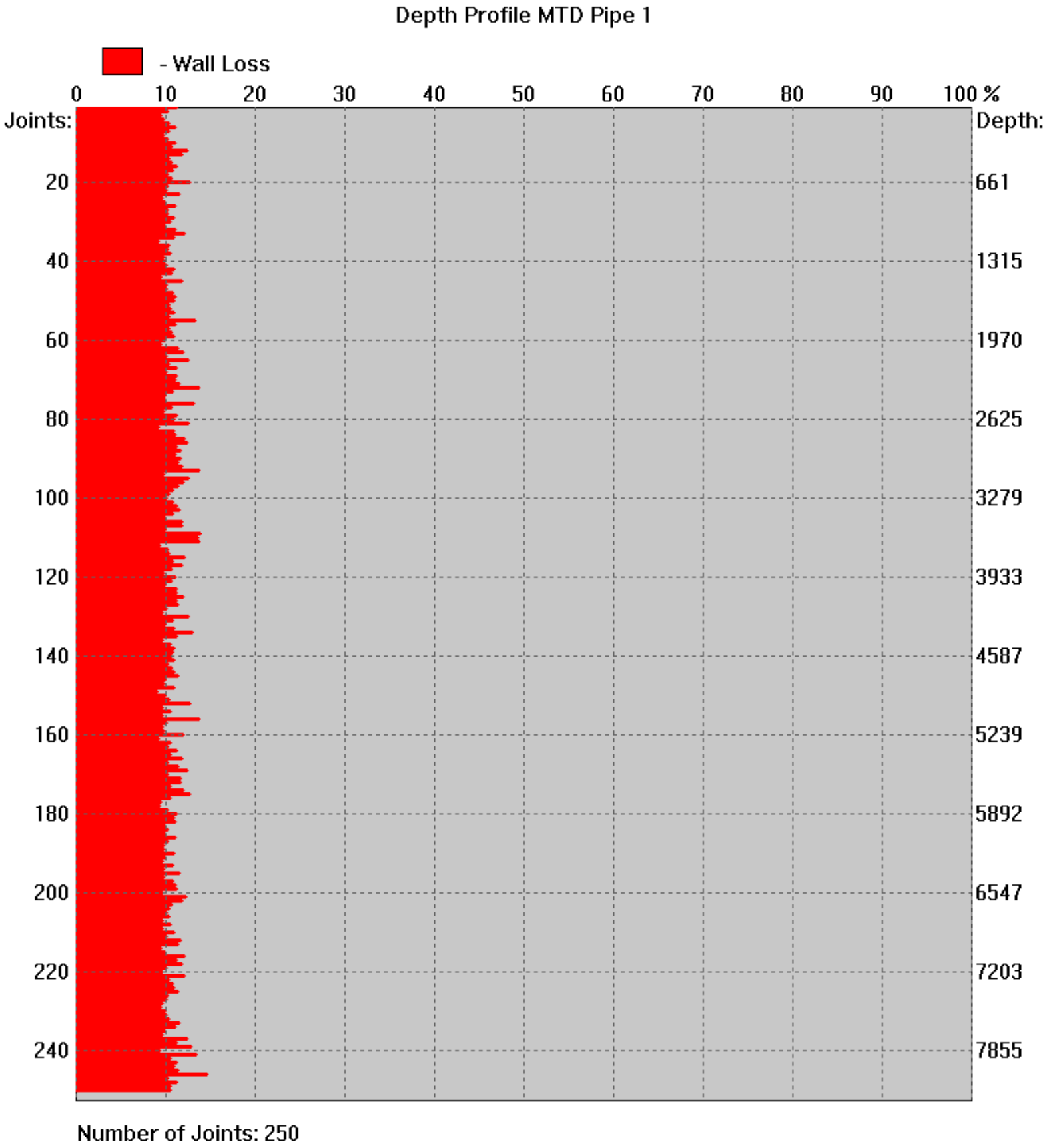
Sensor	Offset (ft)	Schematic	Description
			WS_WTC-WTC51 (8060-WTC51_(REQUIRED)) 1 11/16" HuntingTitan Telemetry
CRCCnt	13.98		
FrmCnt	13.98		WS_SCT-SCT35 Hunting WS 1-11/16" Bow Spring Centralizer
WTSTime	13.98		
WTSTemp	13.98		
CHV	13.98		
Meas	9.56		WS_MCT-MCT41 (8020-MCT41) Hunting WS 1 11/16" Multi-finger Caliper Tool-24 Finger
MFCBEAR	7.41		
MFCACCY	7.41		
MFCACCX	7.41		
Aux1	7.41		
TE24_EXTTEMP	2.18		WS_EMT-EMT24 (2206901) Hunting WS 1-11/16" ElectroMagnetic Thickness Tool
TE24_INTTEMP	2.18		
TE24_R6	2.18		
TE24_R5	2.18		
TE24_R4	2.18		
TE24_R3	2.18		
TE24_R2	2.18		
TE24_R1	2.18		WS_SCT-SCT35 Hunting WS 1-11/16" Bow Spring Centralizer
TE24_ZS	2.18		
TE24_ZL	2.18		

Depth Profile - MFC



Number of Joints: 250

Depth Profile - EMT



Number of Joints: 250

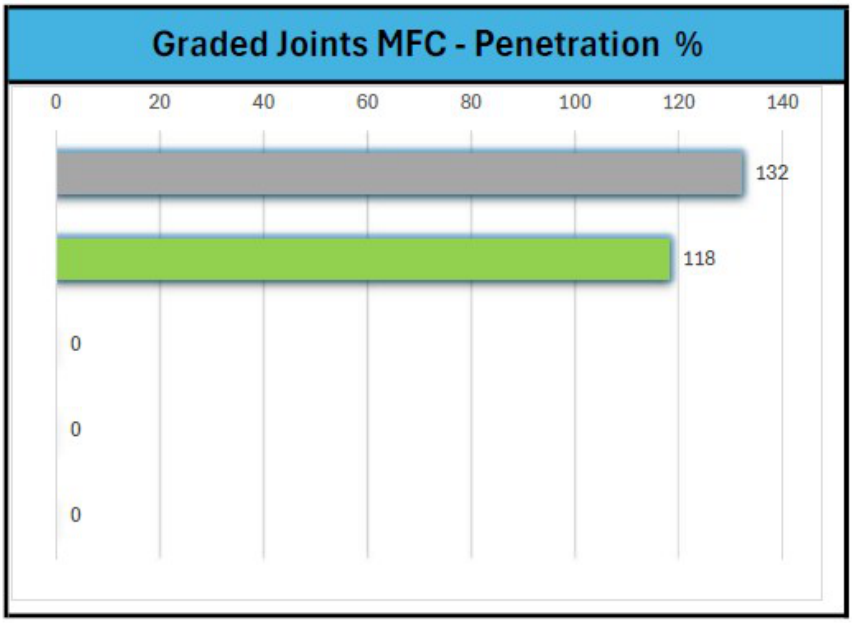
2-7/8" 6.5# Tubing

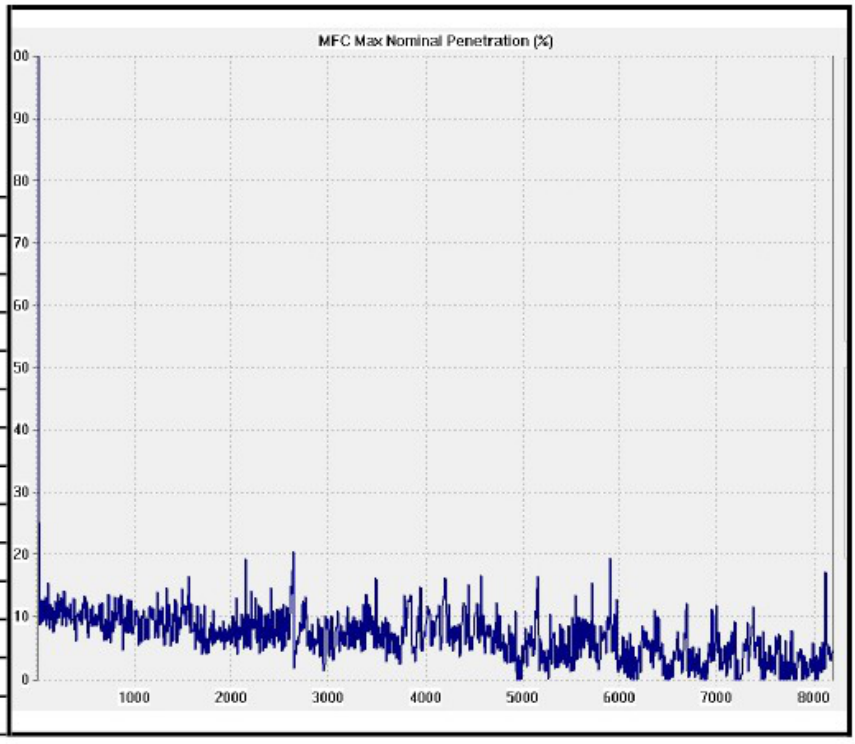
Graded Joints MFC - Penetration %

2.875	in	Casing OD
6.5	#	Casing Weight
2.441	in	Casing ID
0.217	in	Wall Thickness
0.190	in	MIN Wall Thickness API

Grade	Penetration %
1	0->10%
2	10->25%
3	25->50%
4	50->75%
5	75->100%

Grade	Joints
1	132
2	118
3	0
4	0
5	0
	250





	Penetration 20.4% (0.047 in) in Joint 80 at depth 2636.66 Ft
	Penetration 19.8% (0.045 in) in Joint 65 at depth 2149.37 Ft
	Penetration 19.4% (0.044 in) in Joint 180 at depth 5907.20 Ft
	Penetration 18.5% (0.042 in) in Joint 140 at depth 4602.17 Ft
	Penetration 17.3% (0.039 in) in Joint 248 at depth 8117.99 Ft
	Penetration 16.7% (0.038 in) in Joint 45 at depth 1494.47 Ft
	Penetration 16.6% (0.038 in) in Joint 139 at depth 4569.58 Ft
	Penetration 16.4% (0.037 in) in Joint 47 at depth 1559.83 Ft
	Penetration 16.4% (0.037 in) in Joint 6 at depth 217.45 Ft
	Penetration 16.4% (0.037 in) in Joint 157 at depth 5153.52 Ft
	Penetration 16.2% (0.037 in) in Joint 128 at depth 4208.21 Ft
	Penetration 16.2% (0.037 in) in Joint 67 at depth 2214.90 Ft
	Penetration 16.1% (0.037 in) in Joint 106 at depth 3491.02 Ft
	Penetration 15.4% (0.035 in) in Joint 3 at depth 115.97 Ft
	Penetration 15.4% (0.035 in) in Joint 174 at depth 5710.35 Ft

2-7/8" 6.5# Tubing

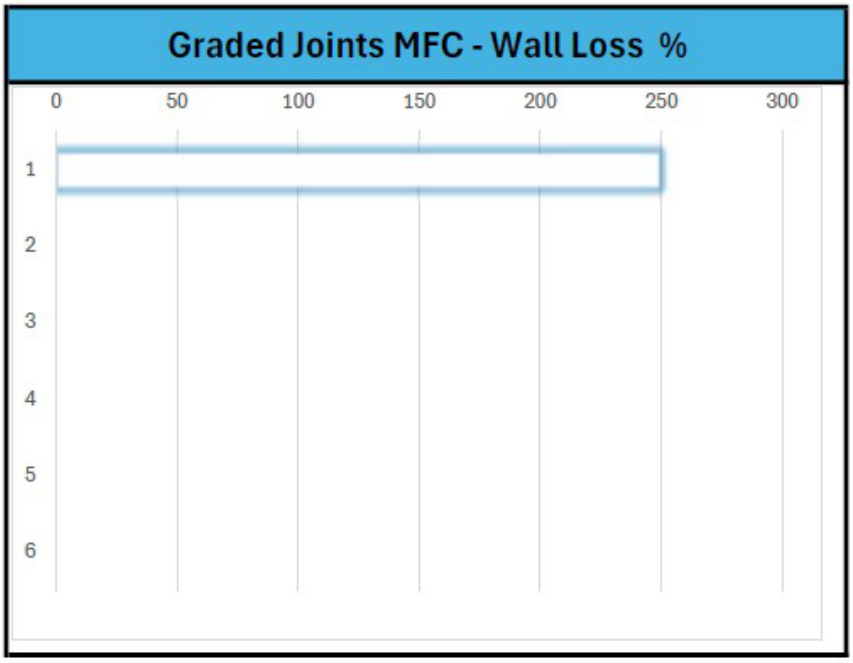
Graded Joints MFC - Wall Loss %

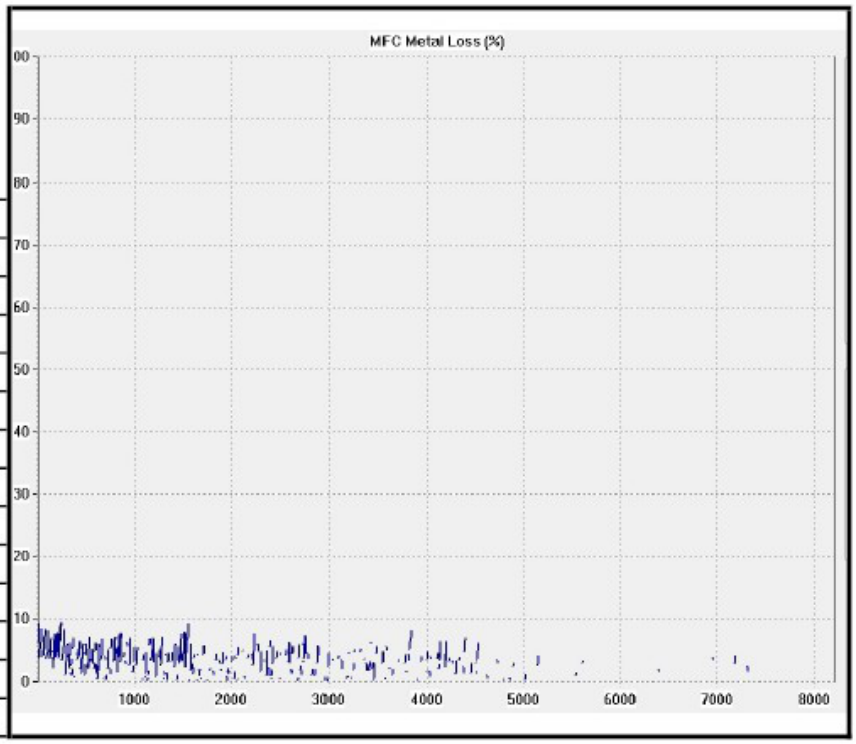
2.875	in	Casing OD
6.5	#	Casing Weight
2.441	in	Casing ID
0.217	in	Wall Thickness
0.190	in	MIN Wall Thickness API

Grade	Wall Loss %
1	0-12.5%
2	12.5-20%
3	20->40%
4	40->60%
5	60->80%
6	80->100%

Grade	Joints
1	250
2	0
3	0
4	0
5	0
6	0
	250

	Showing Metal Loss 10.0% in Joint 65
	Showing Metal Loss 9.3% in Joint 7
	Showing Metal Loss 9.3% in Joint 135
	Showing Metal Loss 9.2% in Joint 47
	Showing Metal Loss 8.8% in Joint 106
	Showing Metal Loss 8.3% in Joint 45
	Showing Metal Loss 8.3% in Joint 1
	Showing Metal Loss 8.2% in Joint 8
	Showing Metal Loss 8.2% in Joint 2
	Showing Metal Loss 8.1% in Joint 3
	Showing Metal Loss 8.0% in Joint 117
	Showing Metal Loss 8.0% in Joint 174
	Showing Metal Loss 8.0% in Joint 46
	Showing Metal Loss 7.9% in Joint 180
	Showing Metal Loss 7.8% in Joint 6





2-7/8" 6.5# Tubing

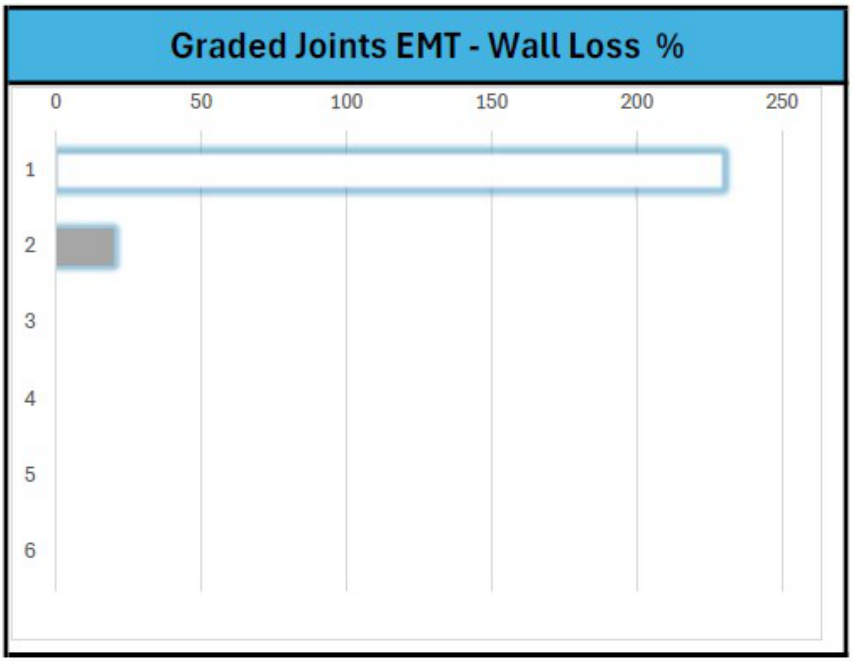
Graded Joints EMT - Wall Loss %

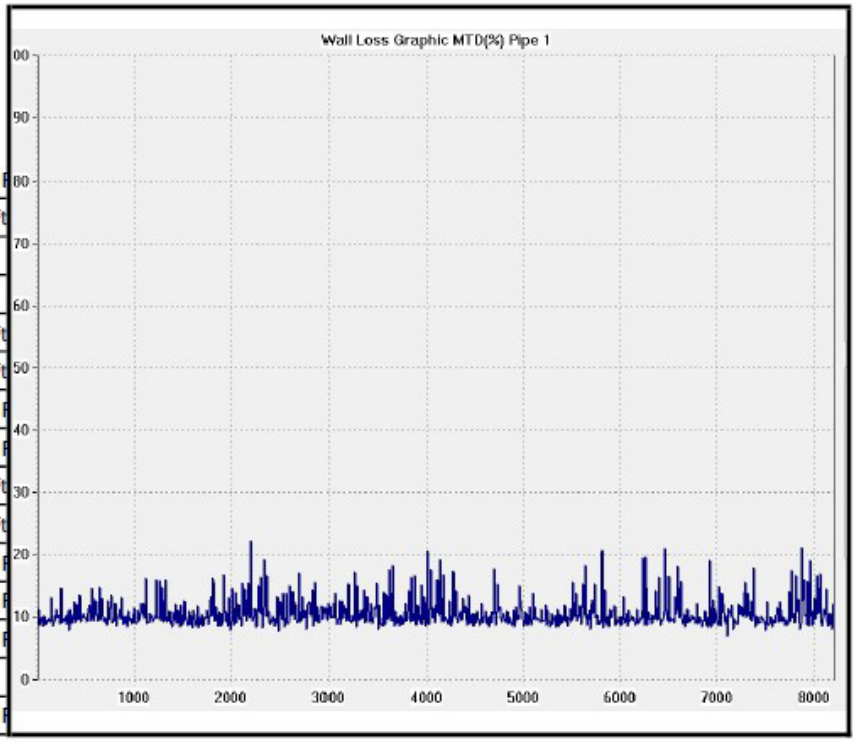
2.875	in	Casing OD
6.5	#	Casing Weight
2.441	in	Casing ID
0.217	in	Wall Thickness
0.190	in	MIN Wall Thickness API

Grade	Wall Loss %
1	0-12.5%
2	12.5-20%
3	20->40%
4	40->60%
5	60->80%
6	80->100%

Grade	Joints
1	230
2	20
3	0
4	0
5	0
6	0
	250

- Wall Thickness Loss 14.6% (0.032 in) in Joint 246 at depth 8057.87 F
- Wall Thickness Loss 13.8% (0.03 in) in Joint 109 at depth 3565.66 Ft
- Wall Thickness Loss 13.8% (0.03 in) in Joint 72 at depth 2354.06 Ft
- Wall Thickness Loss 13.8% (0.03 in) in Joint 93 at depth 3060.12 Ft
- Wall Thickness Loss 13.7% (0.03 in) in Joint 111 at depth 3648.32 Ft
- Wall Thickness Loss 13.7% (0.03 in) in Joint 156 at depth 5104.91 Ft
- Wall Thickness Loss 13.5% (0.029 in) in Joint 110 at depth 3591.41 F
- Wall Thickness Loss 13.4% (0.029 in) in Joint 241 at depth 7876.36 F
- Wall Thickness Loss 13.4% (0.029 in) in Joint 55 at depth 1796.96 Ft
- Wall Thickness Loss 13.2% (0.029 in) in Joint 76 at depth 2483.86 Ft
- Wall Thickness Loss 13.1% (0.028 in) in Joint 134 at depth 4383.22 F
- Wall Thickness Loss 12.9% (0.028 in) in Joint 239 at depth 7833.42 F
- Wall Thickness Loss 12.8% (0.028 in) in Joint 152 at depth 4973.46 F
- Wall Thickness Loss 12.7% (0.028 in) in Joint 20 at depth 667.87 Ft
- Wall Thickness Loss 12.7% (0.028 in) in Joint 175 at depth 5717.71 F





Joint Summary - MFC

1	Class 1	0 - 20 %
2	Class 2	20 - 40 %
3	Class 3	40 - 60 %
4	Class 4	60 - 80 %
5	Class 5	80 - 100 %

Joint Number	Depth From	Depth To	Joint Length	Corrosion Class	Max Pit Nominal	Max Pit Nominal	Max Pit Position	Metal Loss	Metal Loss Posn	Ovality Level	Min Diameter	Max Diameter	Min Diam Position
#	Ft	Ft	Ft	#	%	in	Ft	%	Ft	in	in	in	Ft
1	21.75	54.56	32.81	1	12.6	0.029	51.55	8.3	51.99	0.04	2.388	2.47	22.74
2	54.56	87.24	32.68	1	13.2	0.03	85.48	8.2	84.88	0.043	2.397	2.473	55.96
3	87.24	120.09	32.85	1	15.4	0.035	115.97	8.1	118.58	0.049	2.397	2.476	88.36
4	120.09	152.92	32.83	1	12	0.027	146.88	6.9	151.26	0.054	2.396	2.467	121.14
5	152.92	185.69	32.77	1	13.9	0.032	184.72	7.6	184.7	0.046	2.4	2.471	184.55
6	185.69	218.42	32.73	1	16.4	0.037	217.45	7.8	211.87	0.04	2.404	2.473	186.72
7	218.42	251.14	32.72	1	13.1	0.03	248.49	9.3	249	0.044	2.402	2.477	222.24
8	251.14	283.84	32.7	1	14.2	0.032	280.59	8.2	277.64	0.037	2.396	2.473	255.01
9	283.84	316.61	32.77	1	11.6	0.027	311.72	5.9	313.03	0.06	2.371	2.467	284.95
10	316.61	349.39	32.78	1	12.2	0.028	344.07	6.1	344.08	0.05	2.393	2.468	317.6
11	349.39	382.07	32.68	1	12.9	0.029	376.78	7	379.45	0.049	2.391	2.47	357.62
12	382.07	414.87	32.8	1	10.6	0.024	412.74	4.4	412.9	0.046	2.387	2.46	383.15
13	414.87	447.66	32.79	1	11	0.025	444.15	6.3	444.75	0.04	2.395	2.465	415.88
14	447.66	480.32	32.66	1	12.2	0.028	475.12	5.9	478.24	0.047	2.387	2.463	448.66
15	480.32	513.21	32.89	1	13.4	0.03	486.18	6	507.94	0.05	2.386	2.47	481.39
16	513.21	545.91	32.7	1	11.4	0.026	541.88	7	541.87	0.042	2.396	2.467	514.22
17	545.91	578.71	32.8	1	12	0.027	571.25	5.2	576.46	0.053	2.379	2.463	547
18	578.71	611.36	32.65	1	10.4	0.024	609.32	6	609.33	0.064	2.389	2.464	584.89
19	611.36	644.15	32.79	1	12.2	0.028	642.41	6	640.56	0.056	2.388	2.464	612.56
20	644.15	676.97	32.82	1	12.4	0.028	674.8	6.7	673.51	0.036	2.396	2.465	651.91
21	676.97	709.81	32.84	1	10.5	0.024	708.84	3.9	705.29	0.07	2.365	2.451	708.64
22	709.81	742.56	32.75	1	13.6	0.031	741.57	5	739.55	0.059	2.374	2.469	710.81
23	742.56	775.34	32.78	1	11.8	0.027	774.37	6.8	772.49	0.042	2.387	2.464	743.55
24	775.34	808	32.66	1	13.2	0.03	805.54	7	806.26	0.053	2.39	2.474	776.45
25	808	840.85	32.85	1	13	0.03	838.13	5.5	838.91	0.054	2.391	2.461	809.11
26	840.85	873.48	32.63	1	13.4	0.031	869.99	7.8	869.99	0.043	2.398	2.473	858.66
27	873.48	906.34	32.86	1	9.7	0.022	901.65	4.7	901.77	0.039	2.381	2.459	874.46
28	906.34	939.02	32.68	1	12.7	0.029	935.99	6.2	933.57	0.048	2.396	2.467	909.03
29	939.02	971.72	32.7	1	12.7	0.029	968.74	6.9	968.89	0.049	2.387	2.471	956.94
30	971.72	1004.51	32.79	1	11.1	0.025	1002.87	5.3	1001.29	0.043	2.39	2.46	972.7
31	1004.51	1037.19	32.68	1	11	0.025	1026.09	5.4	1034.85	0.042	2.39	2.458	1005.6
32	1037.19	1070.01	32.82	1	9.7	0.022	1068.85	2.2	1068.22	0.039	2.381	2.446	1049.69
33	1070.01	1102.82	32.81	1	11	0.025	1096.14	4.2	1099.77	0.063	2.375	2.463	1073.79
34	1102.82	1135.54	32.72	1	9.8	0.022	1131.82	4.6	1133.81	0.04	2.374	2.457	1103.99
35	1135.54	1168.34	32.8	1	11.8	0.027	1166.38	6.7	1165.76	0.048	2.383	2.464	1136.67
36	1168.34	1200.98	32.64	1	11.3	0.026	1198.02	6.9	1198.14	0.047	2.388	2.468	1169.37
37	1200.98	1233.56	32.58	1	9.5	0.022	1231.75	4.5	1231.97	0.048	2.39	2.452	1202.02

38	1233.56	1266.4	32.84	1	14.1	0.032	1237.16	5.1	1263.74	0.073	2.364	2.459	1240.89
39	1266.4	1299.09	32.69	1	11.7	0.027	1296.18	7.1	1296.49	0.044	2.386	2.465	1267.48
40	1299.09	1331.89	32.8	1	14.9	0.034	1330.92	4.2	1328.19	0.071	2.383	2.473	1300.18
41	1331.89	1364.65	32.76	1	12.1	0.028	1362.39	4.5	1359.65	0.058	2.365	2.458	1332.89
42	1364.65	1397.27	32.62	1	10.6	0.024	1395.19	4.6	1394.8	0.055	2.388	2.458	1381.19
43	1397.27	1429.91	32.64	1	13.4	0.03	1428.94	6	1428.92	0.055	2.382	2.474	1406.08
44	1429.91	1462.69	32.78	1	10	0.023	1459.31	5.4	1461.14	0.038	2.374	2.459	1430.96
45	1462.69	1495.45	32.76	1	16.7	0.038	1494.47	8.3	1494.47	0.066	2.383	2.489	1466.64
46	1495.45	1528.05	32.6	1	11.9	0.027	1520.09	8	1523.21	0.046	2.395	2.469	1501.34
47	1528.05	1560.82	32.77	1	16.4	0.037	1559.83	9.2	1559.83	0.048	2.394	2.484	1531.84
48	1560.82	1593.74	32.92	1	12.2	0.028	1588.98	5.9	1589.56	0.05	2.385	2.461	1561.8
49	1593.74	1626.45	32.71	1	9.1	0.021	1624.8	4.1	1621.25	0.051	2.371	2.452	1594.74
50	1626.45	1659.23	32.78	1	11.8	0.027	1655.07	4.2	1653.12	0.056	2.385	2.46	1641.52
51	1659.23	1691.96	32.73	1	10.9	0.025	1690.99	3.2	1686.9	0.057	2.364	2.457	1660.21
52	1691.96	1724.71	32.75	1	12.1	0.028	1723.74	5.6	1722.34	0.066	2.362	2.472	1692.96
53	1724.71	1757.44	32.73	1	6.7	0.015	1754.55	2.7	1754.84	0.049	2.36	2.444	1725.69
54	1757.44	1790.25	32.81	1	9	0.021	1787.51	2.9	1784.7	0.053	2.373	2.452	1758.44
55	1790.25	1823.04	32.79	1	11	0.025	1819.9	3.8	1820.97	0.057	2.357	2.461	1791.29
56	1823.04	1855.57	32.53	1	7.6	0.017	1848.89	4.4	1851.32	0.039	2.383	2.451	1854.49
57	1855.57	1888.41	32.84	1	8.5	0.019	1878.19	3.4	1885.47	0.065	2.366	2.449	1878.19
58	1888.41	1921.21	32.8	1	9.3	0.021	1917.64	4.6	1915.95	0.041	2.387	2.455	1889.44
59	1921.21	1953.94	32.73	1	8.1	0.019	1949.23	4	1951.56	0.059	2.361	2.449	1922.19
60	1953.94	1986.66	32.72	1	8.8	0.02	1983.42	4.5	1982.19	0.037	2.39	2.453	1957.82
61	1986.66	2019.44	32.78	1	10.2	0.023	2016.5	4	2017.89	0.078	2.365	2.456	1987.64
62	2019.44	2052.11	32.67	1	14.9	0.034	2051.14	4.8	2051.13	0.048	2.389	2.466	2020.53
63	2052.11	2084.77	32.66	1	8.4	0.019	2081.38	5.4	2082.97	0.034	2.389	2.453	2053.12
64	2084.77	2117.56	32.79	1	10.5	0.024	2113.44	5	2115.84	0.059	2.371	2.457	2088.85
65	2117.56	2150.34	32.78	1	19.8	0.045	2149.37	10	2149.36	0.067	2.379	2.499	2130.51
66	2150.34	2183.07	32.73	1	10.5	0.024	2178.28	4.2	2180.79	0.062	2.37	2.456	2174.09
67	2183.07	2215.87	32.8	1	16.2	0.037	2214.9	7.8	2214.89	0.045	2.377	2.478	2186.8
68	2215.87	2248.49	32.62	1	13	0.03	2243.49	7.6	2243.49	0.039	2.397	2.473	2247.4
69	2248.49	2281.19	32.7	1	11.8	0.027	2279.89	5.9	2278.54	0.051	2.39	2.459	2249.5
70	2281.19	2313.9	32.71	1	11.6	0.026	2312.92	5.1	2312.92	0.045	2.388	2.464	2284.87
71	2313.9	2346.62	32.72	1	10.4	0.024	2345.27	3.4	2340.82	0.052	2.37	2.455	2314.95
72	2346.62	2379.44	32.82	1	10.7	0.024	2376.74	4.9	2376.74	0.044	2.375	2.461	2351.35
73	2379.44	2412.06	32.62	1	14.6	0.033	2411.09	6.5	2407.74	0.083	2.389	2.481	2380.55
74	2412.06	2444.79	32.73	1	14.2	0.032	2413.04	5.4	2443.8	0.057	2.386	2.471	2413.12
75	2444.79	2477.46	32.67	1	11.2	0.026	2475.67	4.7	2471.4	0.073	2.371	2.463	2476.42
76	2477.46	2510.34	32.88	1	11.5	0.026	2509.37	4.5	2507.91	0.056	2.369	2.467	2478.49
77	2510.34	2543.09	32.75	1	14.5	0.033	2542.12	4.9	2542.11	0.061	2.382	2.471	2520.03
78	2543.09	2575.79	32.7	1	12.5	0.028	2574.82	5.6	2574.8	0.057	2.383	2.464	2544.29
79	2575.79	2608.47	32.68	1	10.4	0.024	2606.99	6.2	2605.61	0.043	2.395	2.462	2583.16
80	2608.47	2641.36	32.89	2	20.4	0.047	2636.66	5.5	2639.75	0.139	2.358	2.502	2636.77
81	2641.36	2674.07	32.71	1	4.7	0.011	2657.74	0	2657.72	0.041	0.826	2.437	2644.88
82	2674.07	2706.82	32.75	1	9	0.021	2700.82	5.8	2700.82	0.039	2.376	2.456	2675.1
83	2706.82	2739.47	32.65	1	12.4	0.028	2737.52	6	2736.32	0.04	2.383	2.466	2707.85
84	2739.47	2772.25	32.78	1	13.2	0.03	2768.91	7.4	2767.25	0.052	0.831	2.466	2769.52
85	2772.25	2804.86	32.61	1	10.5	0.024	2773.24	4.6	2773.67	0.034	2.392	2.453	2776.08
86	2804.86	2837.44	32.58	1	8.9	0.02	2835.44	2.1	2835.34	0.044	2.384	2.45	2815.54

87	2837.44	2870.09	32.65	1	6.8	0.015	2843.24	2.5	2866.29	0.035	2.381	2.442	2869.09
88	2870.09	2902.75	32.66	1	9.8	0.022	2900.43	5.6	2899.69	0.038	2.391	2.46	2871.23
89	2902.75	2935.64	32.89	1	8.3	0.019	2932.89	1.5	2927.99	0.042	2.374	2.446	2903.77
90	2935.64	2968.29	32.65	1	2.4	0.006	2943.49	0	2951.97	0.038	2.367	2.421	2944.04
91	2968.29	3000.91	32.62	1	10.3	0.023	2969.69	4.5	2998.35	0.05	2.385	2.457	2999.92
92	3000.91	3033.64	32.73	1	10.2	0.023	3032.66	3.5	3028.79	0.043	2.376	2.451	3001.89
93	3033.64	3066.16	32.52	1	5.1	0.012	3064.79	1	3062.04	0.038	2.386	2.44	3057.58
94	3066.16	3098.89	32.73	1	10.9	0.025	3097.91	4	3096.2	0.055	2.384	2.457	3067.34
95	3098.89	3131.69	32.8	1	8.8	0.02	3130.13	3.4	3125.21	0.058	2.375	2.451	3099.88
96	3131.69	3164.36	32.67	1	7.6	0.017	3158.87	3.9	3158.2	0.043	2.381	2.447	3132.7
97	3164.36	3197.07	32.71	1	11.6	0.026	3195.54	4.5	3195.49	0.049	2.374	2.462	3165.49
98	3197.07	3229.89	32.82	1	9.1	0.021	3225.68	2.9	3225.11	0.058	2.366	2.451	3202.64
99	3229.89	3262.51	32.62	1	10.1	0.023	3259.26	5	3259.25	0.033	2.394	2.459	3233.71
100	3262.51	3295.33	32.82	1	9.3	0.021	3292.29	3.2	3290.78	0.058	2.373	2.452	3294.31
101	3295.33	3328.17	32.84	1	9.5	0.022	3326.34	5.2	3322.17	0.056	2.364	2.454	3301.8
102	3328.17	3360.79	32.62	1	11.5	0.026	3359.82	4.3	3359.81	0.053	2.379	2.453	3332.69
103	3360.79	3393.66	32.87	1	12.1	0.028	3361.77	5	3361.78	0.047	2.375	2.465	3370.58
104	3393.66	3426.34	32.68	1	13.6	0.031	3395.16	6.1	3423.44	0.081	2.365	2.462	3395.17
105	3426.34	3459.1	32.76	1	10.2	0.023	3456.8	4.5	3456.81	0.048	2.375	2.458	3427.39
106	3459.1	3492.01	32.91	1	16.1	0.037	3491.02	8.8	3491.03	0.055	2.388	2.49	3466.49
107	3492.01	3524.69	32.68	1	8.5	0.019	3520.23	4.7	3522.69	0.049	2.364	2.456	3493.02
108	3524.69	3557.31	32.62	1	9.1	0.021	3555.88	4.8	3555.31	0.037	2.388	2.454	3525.69
109	3557.31	3589.99	32.68	1	9.9	0.023	3588.27	5.5	3586.38	0.043	2.393	2.46	3558.34
110	3589.99	3622.58	32.59	1	9	0.021	3617.28	4	3620.22	0.04	2.378	2.449	3606.73
111	3622.58	3655.19	32.61	1	10.7	0.024	3654.22	3.3	3653.5	0.046	2.378	2.449	3623.57
112	3655.19	3687.98	32.79	1	7.4	0.017	3683.92	3.5	3683.94	0.036	2.386	2.45	3687
113	3687.98	3720.48	32.5	1	7	0.016	3718.54	3.3	3718.69	0.043	2.393	2.446	3691.64
114	3720.48	3753.34	32.86	1	5.5	0.013	3751.16	2.5	3750.78	0.045	2.379	2.441	3724.25
115	3753.34	3785.99	32.65	1	10.9	0.025	3785	4.1	3783.59	0.045	2.386	2.458	3769.52
116	3785.99	3818.6	32.61	1	13.4	0.031	3787.6	4.4	3813.79	0.045	2.394	2.462	3800.55
117	3818.6	3851.26	32.66	1	13.5	0.031	3848.15	8	3849.69	0.046	2.403	2.476	3822.39
118	3851.26	3883.99	32.73	1	7.1	0.016	3852.3	1.1	3854.02	0.029	2.368	2.438	3883.02
119	3883.99	3916.61	32.62	1	7.6	0.017	3911.12	2.7	3914.72	0.044	2.377	2.446	3887.62
120	3916.61	3949.32	32.71	1	14.7	0.034	3947.67	3.9	3945.55	0.078	2.362	2.472	3920.44
121	3949.32	3982.09	32.77	1	6.6	0.015	3950.99	1.8	3951.25	0.034	2.37	2.442	3981.12
122	3982.09	4014.79	32.7	1	9.5	0.022	4012.59	4.8	4012.77	0.046	2.382	2.456	3983.1
123	4014.79	4047.65	32.86	1	11.7	0.027	4023.38	3.9	4043.54	0.056	2.368	2.459	4015.82
124	4047.65	4080.54	32.89	1	10.4	0.024	4079.57	3.3	4075.42	0.056	2.375	2.454	4053.72
125	4080.54	4113.36	32.82	1	9.3	0.021	4110.98	2.8	4108.31	0.053	2.365	2.449	4083.89
126	4113.36	4144.85	31.49	1	11.9	0.027	4141.77	6.3	4140.46	0.083	2.355	2.467	4114.42
127	4144.85	4177.45	32.6	1	7.1	0.016	4146.44	1.2	4174.95	0.044	2.371	2.437	4176.47
128	4177.45	4210.34	32.89	1	16.2	0.037	4208.21	6.3	4208.6	0.07	2.373	2.479	4178.81
129	4210.34	4243.17	32.83	1	11.9	0.027	4239.59	3.7	4237.73	0.061	2.374	2.459	4211.37
130	4243.17	4275.89	32.72	1	12	0.027	4244.16	3.4	4274.9	0.053	2.364	2.459	4246.56
131	4275.89	4308.44	32.55	1	8.6	0.02	4305.48	3.2	4302.29	0.046	2.375	2.45	4288.68
132	4308.44	4341.26	32.82	1	9	0.02	4339.1	3.7	4339.24	0.051	2.38	2.453	4309.57
133	4341.26	4374	32.74	1	8.6	0.02	4372.26	2.7	4370.85	0.043	2.375	2.448	4360.32
134	4374	4406.69	32.69	1	12.4	0.028	4400.79	6.9	4403.19	0.058	2.376	2.465	4377.75
135	4406.69	4439.98	33.29	1	15.2	0.035	4438.66	9.3	4438.66	0.062	2.368	2.487	4415.06
136	4439.98	4472.2	32.22	1	6.9	0.016	4470.29	3	4469.61	0.033	2.387	2.444	4443.02

137	4472.2	4504.9	32.7	1	10.1	0.023	4503.92	3.3	4503.92	0.049	2.377	2.459	4479.99
138	4504.9	4537.54	32.64	1	12.3	0.028	4533.8	6	4532.74	0.061	2.384	2.469	4508.14
139	4537.54	4571.16	33.62	1	16.6	0.038	4569.58	6.4	4569.59	0.071	2.362	2.474	4540.71
140	4571.16	4603.14	31.98	1	18.5	0.042	4602.17	3.1	4600.44	0.049	2.381	2.451	4581.76
141	4603.14	4635.89	32.75	1	8.8	0.02	4631.25	2.5	4633.59	0.058	2.369	2.45	4604.36
142	4635.89	4668.61	32.72	1	8.8	0.02	4665.87	2.6	4661.39	0.049	2.365	2.447	4639.69
143	4668.61	4701.42	32.81	1	8.7	0.02	4700.45	3.2	4699.81	0.049	2.371	2.45	4678.67
144	4701.42	4734.27	32.85	1	13.9	0.032	4733.3	5.1	4733.29	0.055	2.37	2.47	4702.54
145	4734.27	4766.99	32.72	1	10.3	0.024	4763.17	3.7	4764.53	0.052	2.374	2.455	4735.3
146	4766.99	4799.78	32.79	1	7.2	0.016	4797.7	1.9	4797.94	0.058	2.364	2.441	4768
147	4799.78	4832.51	32.73	1	5.8	0.013	4828.72	1	4828.54	0.042	2.374	2.437	4808.22
148	4832.51	4865.12	32.61	1	8.8	0.02	4862.29	3.4	4861.04	0.042	2.359	2.445	4833.63
149	4865.12	4898.04	32.92	1	7.3	0.017	4872.39	2.8	4895.91	0.038	2.373	2.443	4866.15
150	4898.04	4930.82	32.78	1	10.9	0.025	4927.51	1.2	4928.52	0.083	2.336	2.456	4902.57
151	4930.82	4963.7	32.88	1	3.7	0.008	4961.34	0	4947.26	0.044	2.353	2.428	4962.7
152	4963.7	4996.4	32.7	1	3.1	0.007	4991.69	0	4980.05	0.041	2.332	2.426	4967.45
153	4996.4	5028.94	32.54	1	8.2	0.019	5027.4	1.9	5027.21	0.066	2.347	2.441	4997.41
154	5028.94	5061.6	32.66	1	6.6	0.015	5030.12	2.5	5030.73	0.04	2.368	2.444	5035.79
155	5061.6	5094.49	32.89	1	8.6	0.02	5092.72	1.7	5088.61	0.065	2.362	2.446	5062.72
156	5094.49	5127.04	32.55	1	7.1	0.016	5126.05	1	5125.2	0.038	2.365	2.44	5111.04
157	5127.04	5157.26	30.22	1	16.4	0.037	5153.52	5.4	5156.28	0.101	2.344	2.487	5128.23
158	5157.26	5190	32.74	1	7.2	0.016	5161.75	0.8	5188.2	0.048	2.35	2.44	5158.39
159	5190	5222.89	32.89	1	4.7	0.011	5218.23	0	5206.45	0.035	2.344	2.431	5221.89
160	5222.89	5255.42	32.53	1	4.8	0.011	5253.51	0	5239.16	0.044	2.358	2.431	5226.56
161	5255.42	5288	32.58	1	12.4	0.028	5287.02	2.9	5286.52	0.139	2.33	2.469	5287.03
162	5288	5320.94	32.94	1	8.7	0.02	5289.01	2.4	5314.86	0.056	2.364	2.449	5289.17
163	5320.94	5353.73	32.79	1	7.5	0.017	5325.95	1.7	5323.46	0.049	2.359	2.442	5337.46
164	5353.73	5383.67	29.94	1	12.6	0.029	5382.7	4.8	5382.67	0.046	2.356	2.452	5354.82
165	5383.67	5416.44	32.77	1	11.5	0.026	5415.47	0.9	5415.45	0.056	2.355	2.443	5396.37
166	5416.44	5449.19	32.75	1	8.2	0.019	5448.22	0.2	5445.92	0.063	2.363	2.443	5431.17
167	5449.19	5482.04	32.85	1	14.1	0.032	5481.07	1.1	5481.05	0.052	2.35	2.45	5462.5
168	5482.04	5514.74	32.7	1	11.8	0.027	5513.77	1.9	5513.75	0.051	2.357	2.453	5497.21
169	5514.74	5547.54	32.8	1	13.6	0.031	5546.54	6.5	5546.54	0.061	2.354	2.475	5532.49
170	5547.54	5580.29	32.75	1	10.8	0.025	5579.32	3.7	5579.22	0.061	2.362	2.458	5548.52
171	5580.29	5613.09	32.8	1	9.8	0.022	5610.1	3.2	5610.1	0.048	2.353	2.452	5589.88
172	5613.09	5645.8	32.71	1	9.6	0.022	5643.03	3.6	5643.42	0.045	2.363	2.451	5631.61
173	5645.8	5678.5	32.7	1	9.7	0.022	5651.61	1.4	5675.07	0.048	2.359	2.443	5655.25
174	5678.5	5711.36	32.86	1	15.4	0.035	5710.35	8	5710.34	0.049	2.353	2.476	5687.97
175	5711.36	5743.99	32.63	1	8.8	0.02	5739	1.6	5738.94	0.061	2.34	2.449	5719.76
176	5743.99	5776.72	32.73	1	7.1	0.016	5744.98	0	5760.36	0.054	2.357	2.437	5745.21
177	5776.72	5809.54	32.82	1	8.7	0.02	5804.19	2.2	5804.3	0.047	2.359	2.447	5777.76
178	5809.54	5842.42	32.88	1	7.7	0.018	5841.39	1.5	5836.35	0.05	2.365	2.445	5810.57
179	5842.42	5875.19	32.77	1	9.4	0.021	5874.21	2.4	5874.2	0.061	2.345	2.448	5849.32
180	5875.19	5908.2	33.01	1	19.4	0.044	5907.2	7.8	5907.22	0.073	2.36	2.494	5892.46
181	5908.2	5941.04	32.84	1	10.4	0.024	5940.06	1.2	5940.06	0.091	2.344	2.46	5916.8
182	5941.04	5973.57	32.53	1	6.1	0.014	5943.24	0.8	5943.49	0.05	2.357	2.436	5947.22
183	5973.57	6006.54	32.97	1	12.7	0.029	5974.66	5	5974.61	0.072	2.353	2.475	5986.72
184	6006.54	6039.51	32.97	1	7	0.016	6035.65	1.4	6036.12	0.065	2.338	2.442	6007.55
185	6039.51	6072.2	32.69	1	6.3	0.014	6067.95	0	6055.86	0.056	2.352	2.433	6040.49

186	6072.2	6104.99	32.79	1	7.4	0.017	6103.95	0	6088.6	0.048	2.355	2.437	6073.32
187	6104.99	6137.69	32.7	1	5.4	0.012	6134.66	0	6121.34	0.05	2.35	2.432	6113.36
188	6137.69	6170.51	32.82	1	3.6	0.008	6165.69	0	6154.1	0.048	2.351	2.424	6154.05
189	6170.51	6203.3	32.79	1	5.4	0.012	6200.32	0	6186.91	0.051	2.339	2.432	6171.55
190	6203.3	6236.02	32.72	1	8.7	0.02	6234.62	0.9	6232.39	0.061	2.359	2.439	6234.79
191	6236.02	6268.91	32.89	1	7.9	0.018	6246.39	0.9	6263.79	0.067	2.333	2.444	6242.77
192	6268.91	6301.71	32.8	1	7.6	0.017	6271.33	0	6295.66	0.048	2.353	2.437	6275.75
193	6301.71	6334.46	32.75	1	6.3	0.014	6332.86	0.3	6330	0.061	2.346	2.438	6308.48
194	6334.46	6367.26	32.8	1	11.1	0.025	6366.27	4.2	6366.27	0.05	2.35	2.453	6335.51
195	6367.26	6400.02	32.76	1	10.1	0.023	6395.54	2.6	6395.71	0.059	2.352	2.449	6373.23
196	6400.02	6432.76	32.74	1	5.2	0.012	6428.99	0	6416.39	0.048	2.348	2.43	6401.04
197	6432.76	6465.54	32.78	1	5.7	0.013	6435.14	0	6449.15	0.043	2.351	2.433	6449.6
198	6465.54	6498.3	32.76	1	2.4	0.005	6494.08	0	6481.92	0.047	2.352	2.422	6488.55
199	6498.3	6531.09	32.79	1	3.2	0.007	6527.25	0	6514.7	0.044	2.351	2.422	6511.15
200	6531.09	6563.76	32.67	1	4.5	0.01	6560.81	0	6547.43	0.052	2.344	2.429	6537.4
201	6563.76	6596.52	32.76	1	6.5	0.015	6595.55	0	6580.14	0.056	2.35	2.439	6564.82
202	6596.52	6629.31	32.79	1	7.6	0.017	6603.79	0	6612.92	0.057	2.351	2.442	6612.74
203	6629.31	6662.16	32.85	1	4.9	0.011	6630.29	0	6645.74	0.058	2.349	2.432	6630.47
204	6662.16	6694.97	32.81	1	12.1	0.028	6692.66	0	6678.57	0.087	2.348	2.455	6683.78
205	6694.97	6727.86	32.89	1	5	0.011	6723.04	0	6711.42	0.05	2.355	2.425	6709.29
206	6727.86	6760.62	32.76	1	5.3	0.012	6756.99	0	6744.24	0.057	2.339	2.429	6728.84
207	6760.62	6793.35	32.73	1	4	0.009	6791.3	0	6776.99	0.062	2.341	2.431	6784.18
208	6793.35	6826.22	32.87	1	5	0.011	6824.71	0	6809.79	0.067	2.335	2.438	6794.39
209	6826.22	6858.86	32.64	1	2.7	0.006	6856.63	0	6842.54	0.052	2.349	2.423	6838.29
210	6858.86	6891.72	32.86	1	3	0.007	6886.14	0	6875.29	0.042	2.351	2.424	6873.2
211	6891.72	6924.52	32.8	1	5.8	0.013	6921.25	0	6908.12	0.06	2.336	2.432	6899.02
212	6924.52	6957.27	32.75	1	11.3	0.026	6954.19	3.7	6954.09	0.071	2.357	2.46	6939.11
213	6957.27	6990.09	32.82	1	8.7	0.02	6958.9	0	6973.68	0.053	2.334	2.429	6965.73
214	6990.09	7022.79	32.7	1	11.9	0.027	6997.47	1.1	6995.2	0.069	2.338	2.449	7008.47
215	7022.79	7055.53	32.74	1	5.1	0.012	7052.11	0	7039.16	0.042	2.359	2.431	7026.69
216	7055.53	7088.26	32.73	1	5.5	0.013	7085.94	0.3	7086.17	0.048	2.336	2.438	7056.52
217	7088.26	7120.9	32.64	1	7.2	0.016	7119.93	0.6	7117.37	0.063	2.353	2.436	7099.6
218	7120.9	7153.54	32.64	1	6.7	0.015	7152.39	0	7137.22	0.046	2.335	2.417	7124.7
219	7153.54	7186.26	32.72	1	9.2	0.021	7184.21	4	7184.13	0.044	2.368	2.45	7154.55
220	7186.26	7218.99	32.73	1	3.2	0.007	7214.05	0	7202.63	0.044	2.343	2.428	7197.7
221	7218.99	7251.64	32.65	1	0.7	0.002	7250.32	0	7235.32	0.034	2.34	2.404	7225.65
222	7251.64	7284.44	32.8	1	5.8	0.013	7281.89	0.5	7282.05	0.061	2.333	2.439	7252.68
223	7284.44	7317.15	32.71	1	9.1	0.021	7315.67	4.1	7314.94	0.043	2.369	2.456	7302.04
224	7317.15	7349.86	32.71	1	6.2	0.014	7347.79	0	7333.51	0.052	2.343	2.436	7326.52
225	7349.86	7382.83	32.97	1	11.6	0.027	7378.98	0	7366.35	0.078	2.353	2.451	7372.93
226	7382.83	7415.68	32.85	1	5.9	0.013	7411.36	0	7399.26	0.06	2.342	2.432	7383.81
227	7415.68	7448.56	32.88	1	6.9	0.016	7445.81	0.7	7446.74	0.051	2.351	2.439	7435.25
228	7448.56	7481.34	32.78	1	7.6	0.017	7477	0.3	7478.98	0.05	2.35	2.439	7467.01
229	7481.34	7514.09	32.75	1	4.3	0.01	7508.26	0	7497.72	0.051	2.349	2.426	7497
230	7514.09	7546.84	32.75	1	5.5	0.012	7543.47	0	7530.47	0.078	2.34	2.442	7527.21
231	7546.84	7579.63	32.79	1	3.8	0.009	7576.59	0	7563.24	0.071	2.325	2.43	7553.6
232	7579.63	7612.39	32.76	1	6.9	0.016	7610.73	0	7596.01	0.056	2.348	2.436	7580.64
233	7612.39	7645.09	32.7	1	7.2	0.017	7641.59	1.5	7641.79	0.056	2.368	2.438	7618.94
234	7645.09	7677.75	32.66	1	3.9	0.009	7672.73	0	7661.42	0.042	2.34	2.424	7646.17
235	7677.75	7710.34	32.59	1	6.2	0.014	7708.44	0	7694.05	0.057	2.344	2.433	7695.1

236	7710.34	7740.34	30	1	3	0.007	7738.59	0	7725.34	0.037	2.353	2.423	7711.44
237	7740.34	7773.05	32.71	1	7.8	0.018	7769.49	0.8	7770.16	0.049	2.354	2.438	7756.34
238	7773.05	7805.74	32.69	1	3.9	0.009	7774.46	0	7789.4	0.043	2.354	2.43	7786.32
239	7805.74	7838.46	32.72	1	4.4	0.01	7836.4	0	7822.1	0.045	2.347	2.431	7821.5
240	7838.46	7871.08	32.62	1	4.9	0.011	7867.09	0	7854.77	0.056	2.357	2.429	7845.31
241	7871.08	7903.78	32.7	1	3.8	0.009	7901.97	0	7887.43	0.047	2.357	2.428	7876.14
242	7903.78	7933.53	29.75	1	2.8	0.006	7931.82	0	7918.66	0.042	2.354	2.419	7905
243	7933.53	7966.33	32.8	1	3.3	0.008	7964.69	0	7949.93	0.056	2.344	2.427	7934.74
244	7966.33	7999.09	32.76	1	5.8	0.013	7997.09	0	7982.71	0.056	2.35	2.439	7976.59
245	7999.09	8031.82	32.73	1	3.7	0.008	8028.99	0	8015.46	0.041	2.341	2.426	8011.07
246	8031.82	8064.6	32.78	1	5.2	0.012	8061.91	0	8048.21	0.06	2.326	2.435	8032.8
247	8064.6	8097.37	32.77	1	6.3	0.014	8096.4	0	8080.99	0.054	2.344	2.436	8068.24
248	8097.37	8130.15	32.78	1	17.3	0.039	8117.99	0	8113.76	0.08	2.351	2.44	8098.37
249	8130.15	8162.84	32.69	1	5.5	0.013	8141.15	0	8146.5	0.054	2.363	2.435	8161.79
250	8162.84	8192.88	30.04	1	4.5	0.01	8189.69	0	8177.86	0.063	2.345	2.426	8163.89

Joint Summary - EMT

1	Class 1	0 - 20 %
2	Class 2	20 - 40 %
3	Class 3	40 - 60 %
4	Class 4	60 - 80 %
5	Class 5	80 - 100 %

Joint Number #	Depth From Ft	Depth To Ft	Joint Lenght Ft	Corrosion Class #	Max Loss %	Avg Loss %	Min Thckn in	Pit Depth Ft	Nom Thckn in
1	21.75	54.56	32.81	1	11.3	8.3	0.024	24.12	0.217
2	54.56	87.24	32.68	1	10.2	8.3	0.022	74.66	0.217
3	87.24	120.09	32.85	1	9.5	7.9	0.021	110.71	0.217
4	120.09	152.92	32.83	1	9.8	7.9	0.021	123.32	0.217
5	152.92	185.69	32.77	1	10.3	7.9	0.022	158.91	0.217
6	185.69	218.42	32.73	1	11.1	8.1	0.024	204.61	0.217
7	218.42	251.14	32.72	1	10.3	8.3	0.022	236.57	0.217
8	251.14	283.84	32.70	1	9.8	7.5	0.021	269.72	0.217
9	283.84	316.61	32.77	1	10.2	8.4	0.022	298.41	0.217
10	316.61	349.39	32.78	1	11.1	7.8	0.024	344.92	0.217
11	349.39	382.07	32.68	1	10.6	8.0	0.023	353.71	0.217
12	382.07	414.87	32.80	1	12.5	8.2	0.027	389.51	0.217
13	414.87	447.66	32.79	1	11.8	8.4	0.026	438.02	0.217
14	447.66	480.32	32.66	1	10.3	8.2	0.022	477.87	0.217
15	480.32	513.21	32.89	1	10.6	8.3	0.023	485.56	0.217
16	513.21	545.91	32.70	1	11.3	7.9	0.024	532.16	0.217
17	545.91	578.71	32.80	1	10.8	8.0	0.024	576.12	0.217
18	578.71	611.36	32.65	1	10.3	8.4	0.022	599.86	0.217
19	611.36	644.15	32.79	1	10.7	8.5	0.023	621.51	0.217
20	644.15	676.97	32.82	1	12.7	7.7	0.028	667.87	0.217
21	676.97	709.81	32.84	1	10.3	7.6	0.022	681.47	0.217
22	709.81	742.56	32.75	1	10.0	8.0	0.022	734.62	0.217
23	742.56	775.34	32.78	1	11.5	8.1	0.025	760.56	0.217
24	775.34	808.00	32.66	1	9.6	7.6	0.021	804.62	0.217
25	808.00	840.85	32.85	1	10.0	8.3	0.022	829.86	0.217
26	840.85	873.48	32.63	1	11.1	7.8	0.024	853.07	0.217
27	873.48	906.34	32.86	1	10.2	8.1	0.022	900.16	0.217
28	906.34	939.02	32.68	1	10.2	7.9	0.022	931.31	0.217
29	939.02	971.72	32.70	1	11.0	8.1	0.024	945.76	0.217
30	971.72	1004.51	32.79	1	10.5	7.7	0.023	992.17	0.217
31	1004.51	1037.19	32.68	1	9.9	7.6	0.021	1035.62	0.217
32	1037.19	1070.01	32.82	1	11.1	8.2	0.024	1040.86	0.217
33	1070.01	1102.82	32.81	1	12.2	8.4	0.026	1079.71	0.217
34	1102.82	1135.54	32.72	1	10.9	8.1	0.024	1127.37	0.217
35	1135.54	1168.34	32.80	1	9.2	7.9	0.02	1144.72	0.217
36	1168.34	1200.98	32.64	1	10.4	7.7	0.023	1174.71	0.217
37	1200.98	1233.56	32.58	1	10.2	7.5	0.022	1213.26	0.217

38	1233.56	1266.40	32.84	1	10.5	8.4	0.023	1263.77	0.217
39	1266.40	1299.09	32.69	1	9.8	7.8	0.021	1276.71	0.217
40	1299.09	1331.89	32.80	1	9.9	7.6	0.021	1323.32	0.217
41	1331.89	1364.65	32.76	1	10.1	8.2	0.022	1357.47	0.217
42	1364.65	1397.27	32.62	1	10.9	7.5	0.024	1369.66	0.217
43	1397.27	1429.91	32.64	1	10.7	8.3	0.023	1402.31	0.217
44	1429.91	1462.69	32.78	1	9.4	7.8	0.02	1449.82	0.217
45	1462.69	1495.45	32.76	1	11.9	7.5	0.026	1486.97	0.217
46	1495.45	1528.05	32.60	1	10.1	7.7	0.022	1521.07	0.217
47	1528.05	1560.82	32.77	1	10.0	7.7	0.022	1530.61	0.217
48	1560.82	1593.74	32.92	1	10.9	8.0	0.024	1572.01	0.217
49	1593.74	1626.45	32.71	1	11.0	7.5	0.024	1612.52	0.217
50	1626.45	1659.23	32.78	1	11.0	8.2	0.024	1657.77	0.217
51	1659.23	1691.96	32.73	1	10.3	8.2	0.022	1662.66	0.217
52	1691.96	1724.71	32.75	1	10.5	7.9	0.023	1709.06	0.217
53	1724.71	1757.44	32.73	1	11.0	8.3	0.024	1749.82	0.217
54	1757.44	1790.25	32.81	1	10.4	7.7	0.023	1763.96	0.217
55	1790.25	1823.04	32.79	1	13.4	8.3	0.029	1796.96	0.217
56	1823.04	1855.57	32.53	1	11.1	8.0	0.024	1826.66	0.217
57	1855.57	1888.41	32.84	1	10.4	8.4	0.023	1879.77	0.217
58	1888.41	1921.21	32.80	1	10.7	8.1	0.023	1892.41	0.217
59	1921.21	1953.94	32.73	1	11.0	7.7	0.024	1937.96	0.217
60	1953.94	1986.66	32.72	1	10.0	8.4	0.022	1982.72	0.217
61	1986.66	2019.44	32.78	1	9.5	8.4	0.021	2013.91	0.217
62	2019.44	2052.11	32.67	1	11.4	7.9	0.025	2043.42	0.217
63	2052.11	2084.77	32.66	1	12.0	8.5	0.026	2079.37	0.217
64	2084.77	2117.56	32.79	1	10.1	7.6	0.022	2087.17	0.217
65	2117.56	2150.34	32.78	1	12.6	7.7	0.027	2123.41	0.217
66	2150.34	2183.07	32.73	1	10.3	7.8	0.022	2156.76	0.217
67	2183.07	2215.87	32.80	1	11.3	7.9	0.024	2190.51	0.217
68	2215.87	2248.49	32.62	1	10.0	7.8	0.022	2236.62	0.217
69	2248.49	2281.19	32.70	1	11.3	7.5	0.025	2255.61	0.217
70	2281.19	2313.90	32.71	1	11.1	8.1	0.024	2307.07	0.217
71	2313.90	2346.62	32.72	1	11.5	7.6	0.025	2339.82	0.217
72	2346.62	2379.44	32.82	1	13.8	7.7	0.03	2354.06	0.217
73	2379.44	2412.06	32.62	1	10.8	7.8	0.024	2396.27	0.217
74	2412.06	2444.79	32.73	1	9.9	8.4	0.021	2440.37	0.217
75	2444.79	2477.46	32.67	1	9.9	8.5	0.022	2449.51	0.217
76	2477.46	2510.34	32.88	1	13.2	8.3	0.029	2483.86	0.217
77	2510.34	2543.09	32.75	1	10.7	8.5	0.023	2536.02	0.217
78	2543.09	2575.79	32.70	1	9.7	8.3	0.021	2569.02	0.217
79	2575.79	2608.47	32.68	1	11.2	7.9	0.024	2579.41	0.217
80	2608.47	2641.36	32.89	1	11.0	8.3	0.024	2624.82	0.217
81	2641.36	2674.07	32.71	1	12.6	8.4	0.027	2645.57	0.217
82	2674.07	2706.82	32.75	1	9.2	7.7	0.02	2699.42	0.217
83	2706.82	2739.47	32.65	1	10.9	8.2	0.024	2709.56	0.217
84	2739.47	2772.25	32.78	1	11.1	8.3	0.024	2764.77	0.217
85	2772.25	2804.86	32.61	1	12.1	7.7	0.026	2799.37	0.217
86	2804.86	2837.44	32.58	1	12.5	7.6	0.027	2811.46	0.217

87	2837.44	2870.09	32.65	1	11.3	8.3	0.024	2843.16	0.217
88	2870.09	2902.75	32.66	1	11.7	7.9	0.025	2884.76	0.217
89	2902.75	2935.64	32.89	1	11.1	7.5	0.024	2926.17	0.217
90	2935.64	2968.29	32.65	1	11.8	8.1	0.026	2942.52	0.217
91	2968.29	3000.91	32.62	1	11.4	8.3	0.025	2974.06	0.217
92	3000.91	3033.64	32.73	1	11.8	7.6	0.026	3009.86	0.217
93	3033.64	3066.16	32.52	1	13.8	8.0	0.03	3060.12	0.217
94	3066.16	3098.89	32.73	1	9.8	7.8	0.021	3094.07	0.217
95	3098.89	3131.69	32.80	1	12.6	8.0	0.027	3106.51	0.217
96	3131.69	3164.36	32.67	1	11.9	7.9	0.026	3153.37	0.217
97	3164.36	3197.07	32.71	1	11.4	7.5	0.025	3189.82	0.217
98	3197.07	3229.89	32.82	1	10.7	7.8	0.023	3200.56	0.217
99	3229.89	3262.51	32.62	1	10.3	7.7	0.022	3232.21	0.217
100	3262.51	3295.33	32.82	1	10.1	7.5	0.022	3291.27	0.217
101	3295.33	3328.17	32.84	1	10.8	8.3	0.024	3303.51	0.217
102	3328.17	3360.79	32.62	1	11.2	8.5	0.024	3353.17	0.217
103	3360.79	3393.66	32.87	1	11.5	8.0	0.025	3381.82	0.217
104	3393.66	3426.34	32.68	1	10.8	8.2	0.024	3395.97	0.217
105	3426.34	3459.10	32.76	1	9.9	8.4	0.021	3428.57	0.217
106	3459.10	3492.01	32.91	1	11.8	8.0	0.026	3484.52	0.217
107	3492.01	3524.69	32.68	1	11.9	8.1	0.026	3518.52	0.217
108	3524.69	3557.31	32.62	1	9.9	7.8	0.021	3527.41	0.217
109	3557.31	3589.99	32.68	1	13.8	8.3	0.03	3565.66	0.217
110	3589.99	3622.58	32.59	1	13.5	8.0	0.029	3591.41	0.217
111	3622.58	3655.19	32.61	1	13.7	7.9	0.03	3648.32	0.217
112	3655.19	3687.98	32.79	1	9.3	8.5	0.02	3658.11	0.217
113	3687.98	3720.48	32.50	1	10.3	8.4	0.022	3697.06	0.217
114	3720.48	3753.34	32.86	1	10.4	8.2	0.023	3738.31	0.217
115	3753.34	3785.99	32.65	1	12.2	8.0	0.026	3781.27	0.217
116	3785.99	3818.60	32.61	1	10.8	8.0	0.023	3811.72	0.217
117	3818.60	3851.26	32.66	1	11.8	8.4	0.026	3828.21	0.217
118	3851.26	3883.99	32.73	1	10.7	8.0	0.023	3875.72	0.217
119	3883.99	3916.61	32.62	1	9.7	8.5	0.021	3887.61	0.217
120	3916.61	3949.32	32.71	1	11.1	8.4	0.024	3947.42	0.217
121	3949.32	3982.09	32.77	1	10.7	8.1	0.023	3974.27	0.217
122	3982.09	4014.79	32.70	1	9.9	7.7	0.021	4009.82	0.217
123	4014.79	4047.65	32.86	1	11.3	7.7	0.024	4040.37	0.217
124	4047.65	4080.54	32.89	1	11.2	7.9	0.024	4055.66	0.217
125	4080.54	4113.36	32.82	1	12.0	7.9	0.026	4106.37	0.217
126	4113.36	4144.85	31.49	1	11.2	8.4	0.024	4137.62	0.217
127	4144.85	4177.45	32.60	1	11.4	7.9	0.025	4170.57	0.217
128	4177.45	4210.34	32.89	1	10.1	8.2	0.022	4197.01	0.217
129	4210.34	4243.17	32.83	1	9.6	7.5	0.021	4213.82	0.217
130	4243.17	4275.89	32.72	1	12.6	8.5	0.027	4244.59	0.217
131	4275.89	4308.44	32.55	1	10.8	8.4	0.023	4301.37	0.217
132	4308.44	4341.26	32.82	1	9.9	7.8	0.022	4334.32	0.217
133	4341.26	4374.00	32.74	1	11.0	7.7	0.024	4346.86	0.217
134	4374.00	4406.69	32.69	1	13.1	7.7	0.028	4383.22	0.217
135	4406.69	4439.98	33.29	1	11.3	8.0	0.025	4430.32	0.217
136	4439.98	4472.20	32.22	1	9.7	7.9	0.021	4470.76	0.217

137	4472.20	4504.90	32.70	1	10.6	7.8	0.023	4477.26	0.217
138	4504.90	4537.54	32.64	1	11.0	8.3	0.024	4524.31	0.217
139	4537.54	4571.16	33.62	1	10.9	7.6	0.024	4567.82	0.217
140	4571.16	4603.14	31.98	1	10.6	7.9	0.023	4572.76	0.217
141	4603.14	4635.89	32.75	1	10.9	7.9	0.024	4617.46	0.217
142	4635.89	4668.61	32.72	1	10.2	8.0	0.022	4663.72	0.217
143	4668.61	4701.42	32.81	1	10.7	7.6	0.023	4678.76	0.217
144	4701.42	4734.27	32.85	1	10.9	7.7	0.024	4711.06	0.217
145	4734.27	4766.99	32.72	1	11.4	7.9	0.025	4757.82	0.217
146	4766.99	4799.78	32.79	1	9.9	7.6	0.021	4786.37	0.217
147	4799.78	4832.51	32.73	1	9.8	8.1	0.021	4806.46	0.217
148	4832.51	4865.12	32.61	1	10.9	8.0	0.024	4838.51	0.217
149	4865.12	4898.04	32.92	1	9.1	8.3	0.02	4891.07	0.217
150	4898.04	4930.82	32.78	1	9.9	8.3	0.021	4900.27	0.217
151	4930.82	4963.70	32.88	1	10.3	7.7	0.022	4943.36	0.217
152	4963.70	4996.40	32.70	1	12.8	8.2	0.028	4973.46	0.217
153	4996.40	5028.94	32.54	1	9.6	7.8	0.021	4999.72	0.217
154	5028.94	5061.60	32.66	1	10.4	8.5	0.023	5034.26	0.217
155	5061.60	5094.49	32.89	1	9.7	8.0	0.021	5089.97	0.217
156	5094.49	5127.04	32.55	1	13.7	7.7	0.03	5104.91	0.217
157	5127.04	5157.26	30.22	1	10.1	8.4	0.022	5131.91	0.217
158	5157.26	5190.00	32.74	1	9.7	7.8	0.021	5165.57	0.217
159	5190.00	5222.89	32.89	1	9.8	7.7	0.021	5192.46	0.217
160	5222.89	5255.42	32.53	1	12.0	8.3	0.026	5232.47	0.217
161	5255.42	5288.00	32.58	1	9.3	7.8	0.02	5261.56	0.217
162	5288.00	5320.94	32.94	1	10.6	7.8	0.023	5292.66	0.217
163	5320.94	5353.73	32.79	1	10.3	8.5	0.022	5327.12	0.217
164	5353.73	5383.67	29.94	1	11.2	8.2	0.024	5360.42	0.217
165	5383.67	5416.44	32.77	1	10.5	7.7	0.023	5387.21	0.217
166	5416.44	5449.19	32.75	1	11.9	8.0	0.026	5417.86	0.217
167	5449.19	5482.04	32.85	1	10.2	8.1	0.022	5451.52	0.217
168	5482.04	5514.74	32.70	1	11.4	7.6	0.025	5489.71	0.217
169	5514.74	5547.54	32.80	1	12.4	7.6	0.027	5538.07	0.217
170	5547.54	5580.29	32.75	1	10.2	8.5	0.022	5553.01	0.217
171	5580.29	5613.09	32.80	1	11.8	8.2	0.026	5603.47	0.217
172	5613.09	5645.80	32.71	1	11.7	7.6	0.025	5639.02	0.217
173	5645.80	5678.50	32.70	1	10.5	8.0	0.023	5669.56	0.217
174	5678.50	5711.36	32.86	1	11.9	8.5	0.026	5703.77	0.217
175	5711.36	5743.99	32.63	1	12.7	7.9	0.028	5717.71	0.217
176	5743.99	5776.72	32.73	1	10.5	7.9	0.023	5762.06	0.217
177	5776.72	5809.54	32.82	1	9.4	8.4	0.02	5781.67	0.217
178	5809.54	5842.42	32.88	1	9.4	8.1	0.02	5813.46	0.217
179	5842.42	5875.19	32.77	1	10.2	7.7	0.022	5851.27	0.217
180	5875.19	5908.20	33.01	1	11.2	8.1	0.024	5897.71	0.217
181	5908.20	5941.04	32.84	1	11.0	7.6	0.024	5929.72	0.217
182	5941.04	5973.57	32.53	1	11.1	7.9	0.024	5944.87	0.217
183	5973.57	6006.54	32.97	1	10.0	8.2	0.022	5992.51	0.217
184	6006.54	6039.51	32.97	1	10.2	7.8	0.022	6009.02	0.217
185	6039.51	6072.20	32.69	1	9.9	7.6	0.021	6045.66	0.217

186	6072.20	6104.99	32.79	1	11.1	8.5	0.024	6086.96	0.217
187	6104.99	6137.69	32.70	1	10.3	7.6	0.022	6129.82	0.217
188	6137.69	6170.51	32.82	1	9.8	8.3	0.021	6139.92	0.217
189	6170.51	6203.30	32.79	1	9.8	8.2	0.021	6176.97	0.217
190	6203.30	6236.02	32.72	1	11.0	7.7	0.024	6224.02	0.217
191	6236.02	6268.91	32.89	1	10.0	8.0	0.022	6262.27	0.217
192	6268.91	6301.71	32.80	1	9.6	7.6	0.021	6271.56	0.217
193	6301.71	6334.46	32.75	1	10.7	7.9	0.023	6304.12	0.217
194	6334.46	6367.26	32.80	1	9.8	7.9	0.021	6337.01	0.217
195	6367.26	6400.02	32.76	1	11.6	7.7	0.025	6375.66	0.217
196	6400.02	6432.76	32.74	1	9.8	7.7	0.021	6402.47	0.217
197	6432.76	6465.54	32.78	1	10.8	7.6	0.024	6457.67	0.217
198	6465.54	6498.30	32.76	1	11.1	8.1	0.024	6473.31	0.217
199	6498.30	6531.09	32.79	1	11.2	7.5	0.024	6504.62	0.217
200	6531.09	6563.76	32.67	1	9.6	8.1	0.021	6550.67	0.217
201	6563.76	6596.52	32.76	1	12.2	7.5	0.027	6588.92	0.217
202	6596.52	6629.31	32.79	1	11.8	7.5	0.026	6621.07	0.217
203	6629.31	6662.16	32.85	1	10.7	8.3	0.023	6633.57	0.217
204	6662.16	6694.97	32.81	1	10.4	7.8	0.023	6665.07	0.217
205	6694.97	6727.86	32.89	1	10.0	8.2	0.022	6699.76	0.217
206	6727.86	6760.62	32.76	1	10.3	7.8	0.022	6738.41	0.217
207	6760.62	6793.35	32.73	1	9.7	8.2	0.021	6786.41	0.217
208	6793.35	6826.22	32.87	1	10.5	8.2	0.023	6795.81	0.217
209	6826.22	6858.86	32.64	1	9.7	8.4	0.021	6828.97	0.217
210	6858.86	6891.72	32.86	1	10.9	8.5	0.024	6879.56	0.217
211	6891.72	6924.52	32.80	1	10.1	8.3	0.022	6894.07	0.217
212	6924.52	6957.27	32.75	1	11.6	7.9	0.025	6930.86	0.217
213	6957.27	6990.09	32.82	1	11.4	7.7	0.025	6974.07	0.217
214	6990.09	7022.79	32.70	1	9.5	8.5	0.021	6992.52	0.217
215	7022.79	7055.53	32.74	1	10.0	7.9	0.022	7025.36	0.217
216	7055.53	7088.26	32.73	1	12.1	8.4	0.026	7058.02	0.217
217	7088.26	7120.90	32.64	1	11.3	8.0	0.024	7113.07	0.217
218	7120.90	7153.54	32.64	1	11.9	7.8	0.026	7147.17	0.217
219	7153.54	7186.26	32.72	1	10.0	8.1	0.022	7162.01	0.217
220	7186.26	7218.99	32.73	1	9.6	8.3	0.021	7191.52	0.217
221	7218.99	7251.64	32.65	1	12.1	8.3	0.026	7225.91	0.217
222	7251.64	7284.44	32.80	1	10.4	8.1	0.022	7274.52	0.217
223	7284.44	7317.15	32.71	1	10.8	8.2	0.023	7292.71	0.217
224	7317.15	7349.86	32.71	1	10.9	8.4	0.024	7322.31	0.217
225	7349.86	7382.83	32.97	1	11.4	8.1	0.025	7373.57	0.217
226	7382.83	7415.68	32.85	1	10.2	8.2	0.022	7385.31	0.217
227	7415.68	7448.56	32.88	1	10.0	7.7	0.022	7420.27	0.217
228	7448.56	7481.34	32.78	1	9.7	8.0	0.021	7466.56	0.217
229	7481.34	7514.09	32.75	1	9.5	8.2	0.021	7483.77	0.217
230	7514.09	7546.84	32.75	1	9.9	7.7	0.022	7521.06	0.217
231	7546.84	7579.63	32.79	1	10.1	8.3	0.022	7549.17	0.217
232	7579.63	7612.39	32.76	1	10.3	7.7	0.022	7604.67	0.217
233	7612.39	7645.09	32.70	1	11.5	8.1	0.025	7618.46	0.217
234	7645.09	7677.75	32.66	1	11.1	8.5	0.024	7652.06	0.217
235	7677.75	7710.34	32.59	1	9.9	8.0	0.021	7692.96	0.217

236	7710.34	7740.34	30.00	1	9.7	8.3	0.021	7737.21	0.217
237	7740.34	7773.05	32.71	1	12.4	7.9	0.027	7746.61	0.217
238	7773.05	7805.74	32.69	1	11.3	8.1	0.025	7775.82	0.217
239	7805.74	7838.46	32.72	1	12.9	8.1	0.028	7833.42	0.217
240	7838.46	7871.08	32.62	1	9.3	8.4	0.02	7841.41	0.217
241	7871.08	7903.78	32.70	1	13.4	8.4	0.029	7876.36	0.217
242	7903.78	7933.53	29.75	1	10.5	7.7	0.023	7922.97	0.217
243	7933.53	7966.33	32.80	1	11.3	8.0	0.025	7938.11	0.217
244	7966.33	7999.09	32.76	1	11.0	8.1	0.024	7970.06	0.217
245	7999.09	8031.82	32.73	1	11.4	8.3	0.025	8004.76	0.217
246	8031.82	8064.60	32.78	1	14.6	8.4	0.032	8057.87	0.217
247	8064.60	8097.37	32.77	1	10.2	7.9	0.022	8069.22	0.217
248	8097.37	8130.15	32.78	1	11.2	8.1	0.024	8121.92	0.217
249	8130.15	8162.84	32.69	1	10.5	7.8	0.023	8154.67	0.217
250	8162.84	8192.88	30.04	1	10.6	7.6	0.023	8164.56	0.217

Curve Description - MFC

ÔªøCurve	Discription	Track	Units
WLOSSPR	Wall Loss in prc for current cross section	A	%
MINDIA	Minimum Diameter	A	in
AVGDIA	Average Diameter	A	in
MAXDIA	Maximum Diameter	A	in
Collar	Collar position	B	
NOMPIT	Nominal corrosion pit	C	%
MODEID	ModeID corrosion Pit (according to opt. radius)	C	%
ESSNTR	Essenttricity (Deformation parameter)	C	in
Ovality	Ovalization curve relative ovality	N	%
RAW	Corrosion Class in Color: Gray Green Yellow Brown Red	D	Grade
JNT#	Joint Number in the mid of track	D	#
NOM%	Value of nominal Corrosion against max in Joint	D	%
R01-R60	24 Caliper Curves	E	%
Processed	Corrosion Image (Centralized and Filtered)	E	
LOG	MDT measure spectr Image Map in Logarithmic Scale	H	

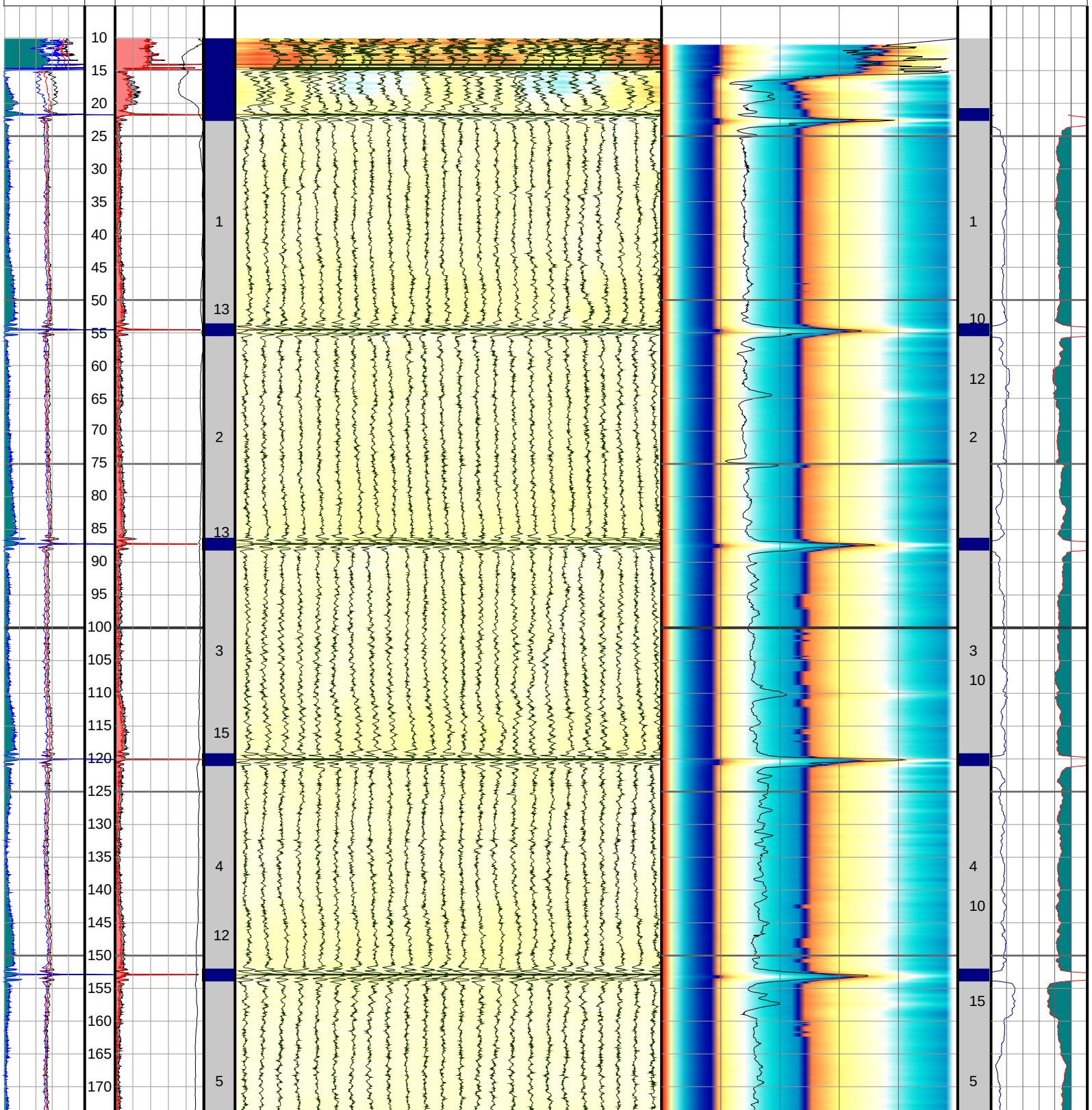
Curve Description - EMT

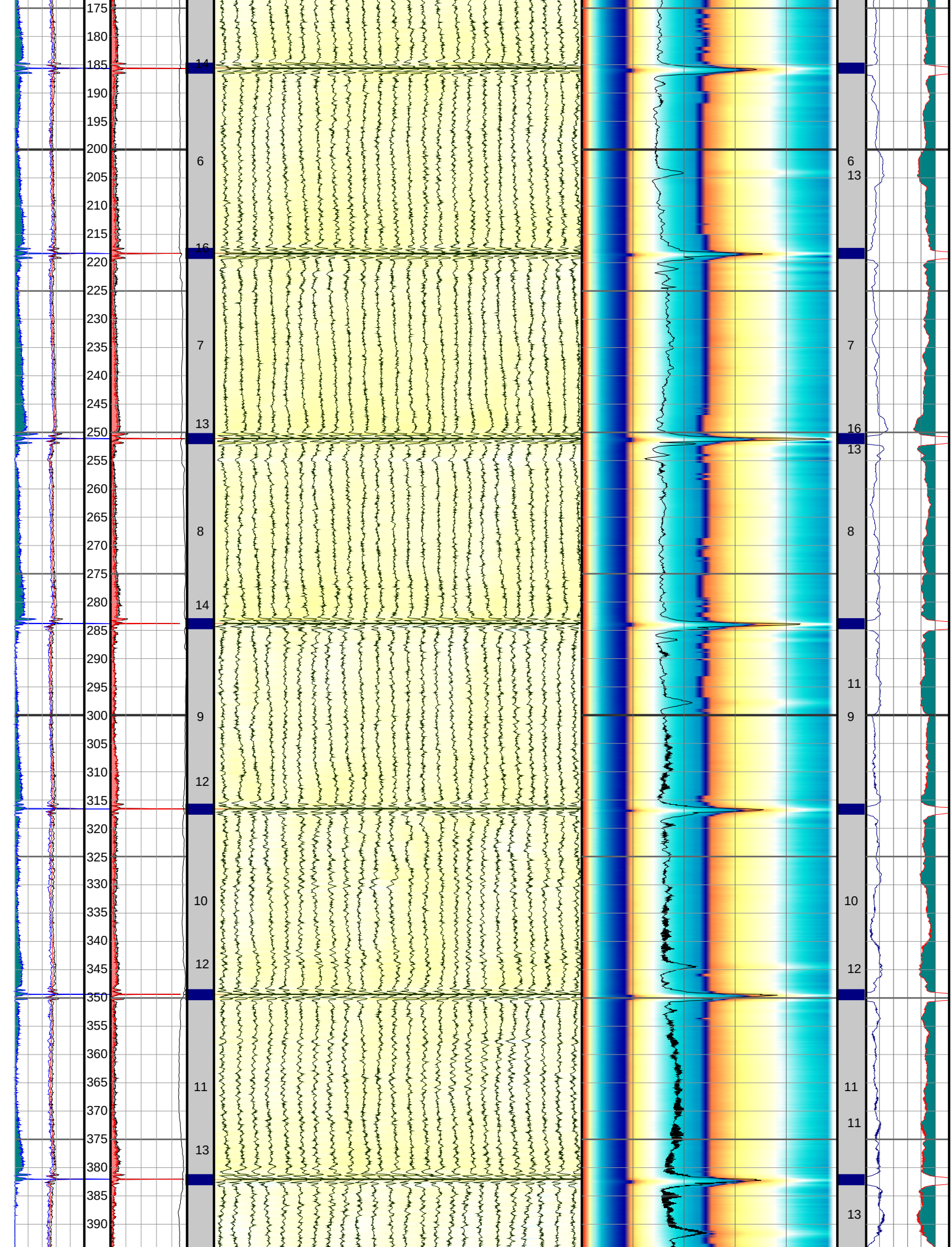
ÔªøCurve	Discription	Track	Units
WLOSSPR	Wall Loss in prc for current cross section	A	%
MINDIA	Minimum Diameter	A	in
AVGDIA	Average Diameter	A	in
MAXDIA	Maximum Diameter	A	in
Collar	Collar position	B	
NOMPIT	Nominal corrosion pit	C	%
MODEID	ModeID corrosion Pit (according to opt. radius)	C	%
ESSNTR	Essenttricity (Deformation parameter)	C	in
Ovality	Ovalization curve relative ovality	N	%
RAW	Corrosion Class in Color: Gray Green Yellow Brown Red	D	Grade
JNT#	Joint Number in the mid of track	D	#
NOM%	Value of nominal Corrosion against max in Joint	D	%
R01-R24	24 Caliper Curves	E	%
Processed	Corrosion Image (Centralized and Filtered)	E	
LOG	MDT measure spectr Image Map in Logarithmic Scale	H	
NOMTHCKN	First pipe. Nominal Thickness	I	in
WALLPIT	First pipe. Wall loss	I	%
THCKN	First pipe. Wall thickness	I	in
NOMTHCKN2	Second pipe. Nominal Thickness	J	in
WALLPIT2	Second pipe. Wall loss	J	%
THCKN2	Second pipe. Wall thickness	J	in

6276e-038
5429e-038
0033e-040

Well Log. Scale 1 : 240

MINDIA	Collar	NOMPIT	CLS	R01 - R24	INTER	MDT	THCKN1
2.14nch2.69	0 10	% 100	1.19	inch 1.23	168.401	1965.82	0.1085 0.2387
AVGDIA		MODEID	JNT#	Processed	LOG	MDT1	NOMTHCKN1
2.14nch2.69		0 % 100		Image	Image		0.1085 0.2387
MAXDIA		ECCNTR	NOM%			POS1	WALLPIT1
2.14nch2.69		1 inch 0				0	60
WLOSSPR							
0 % 50							

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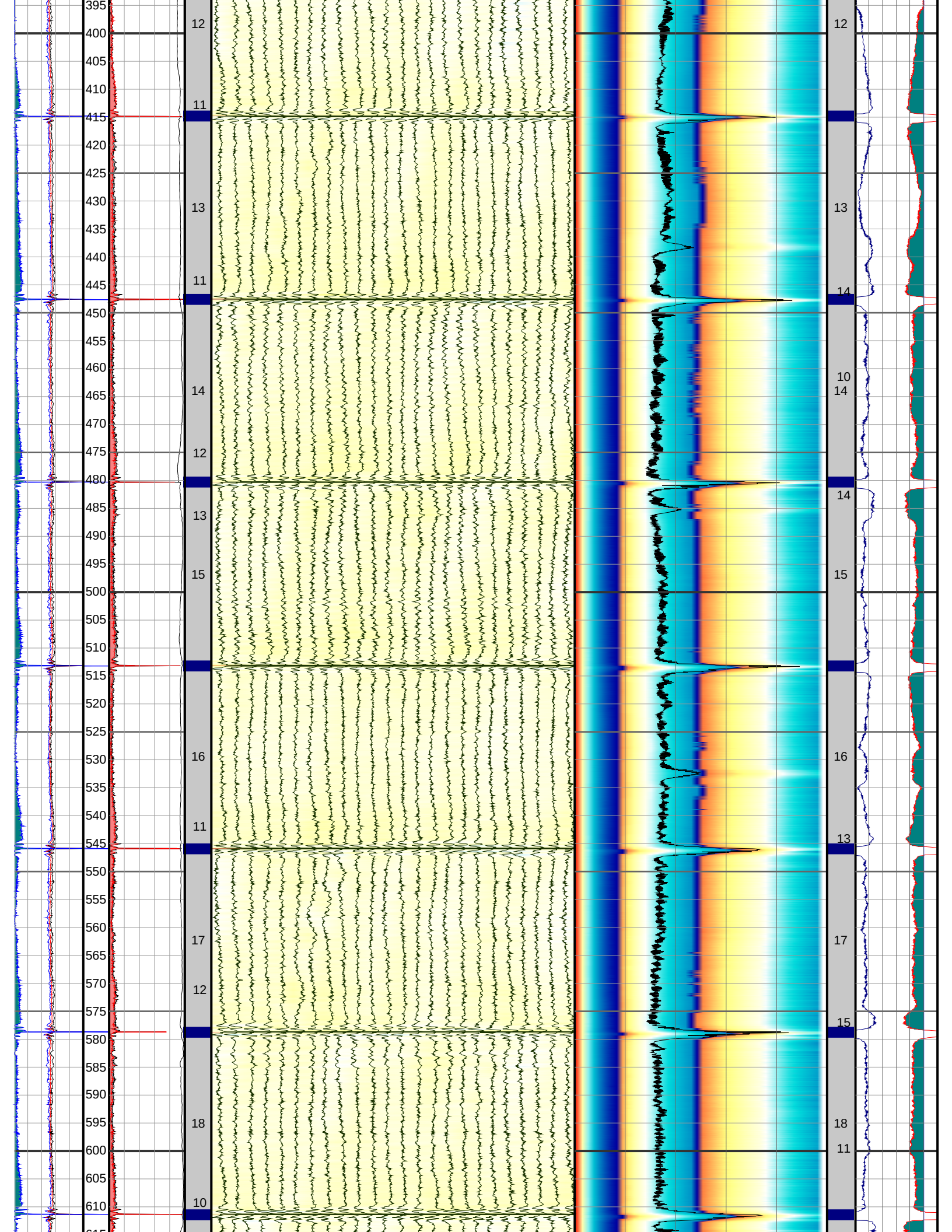
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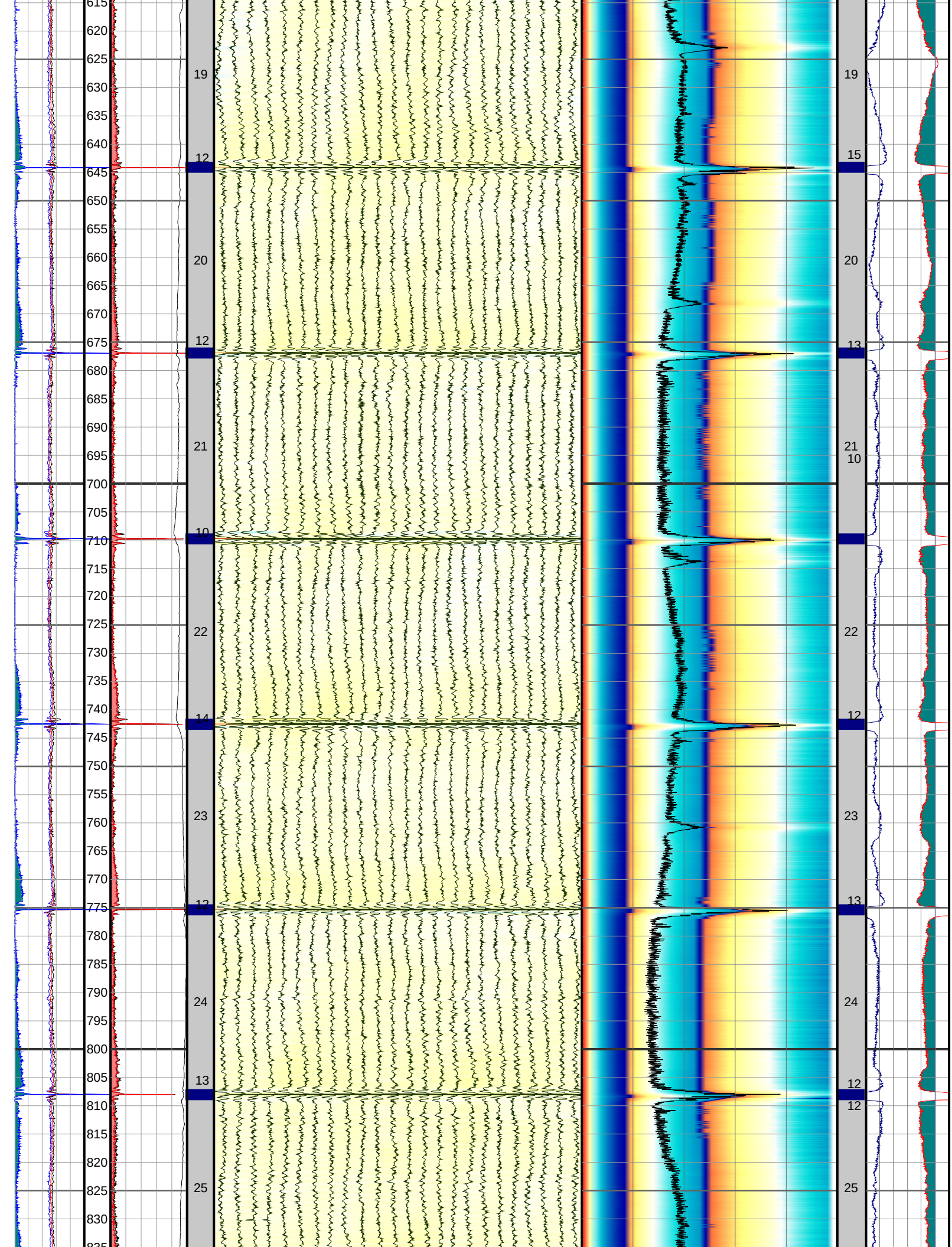
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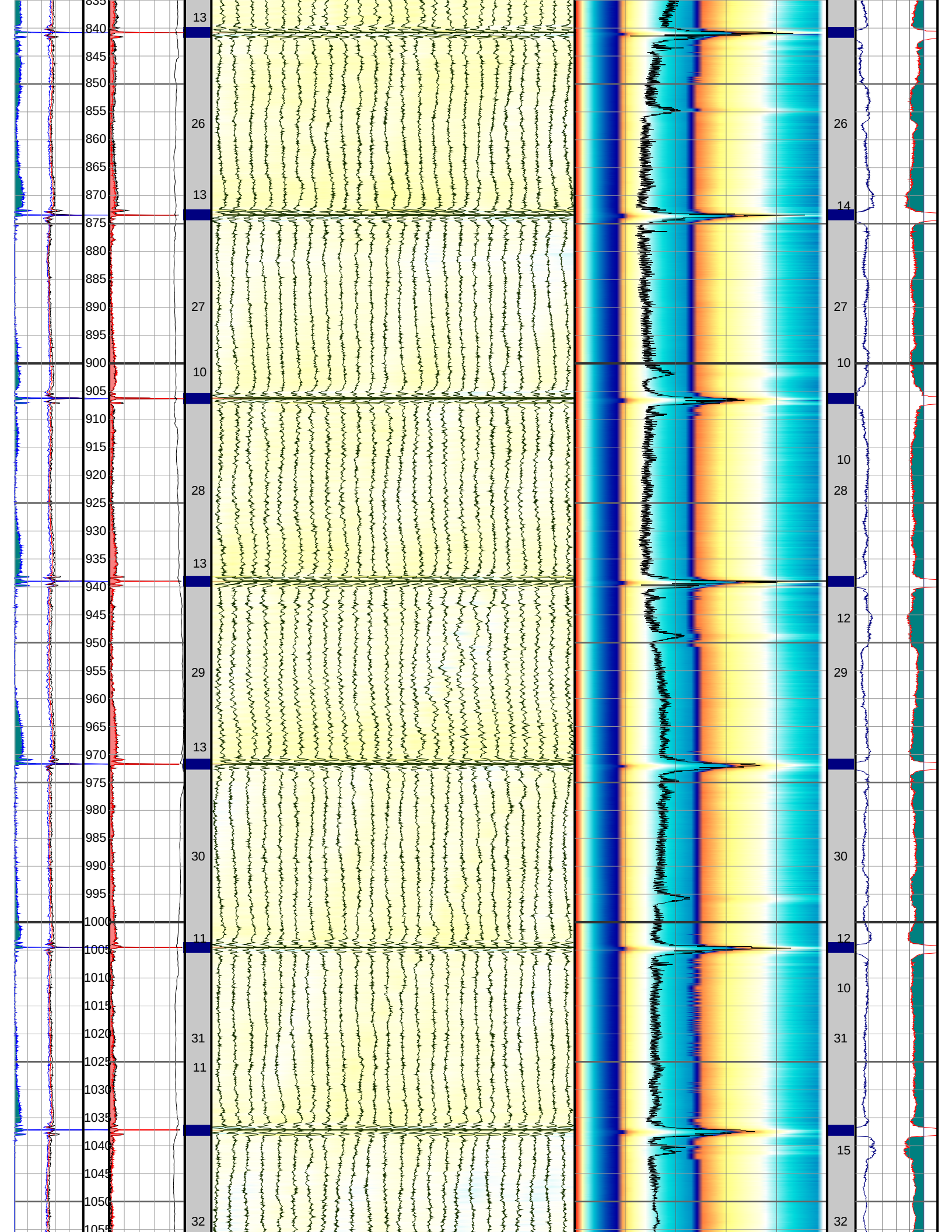

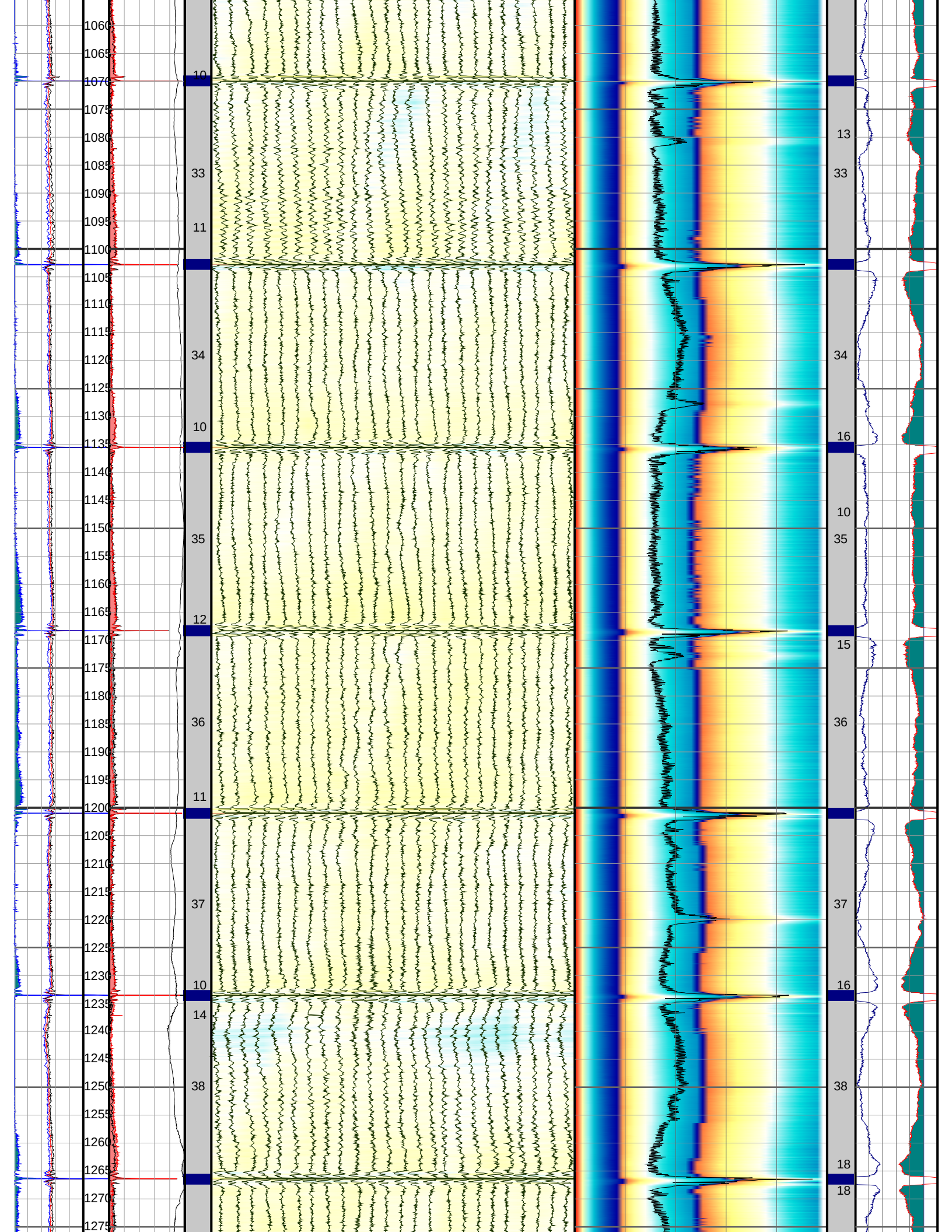

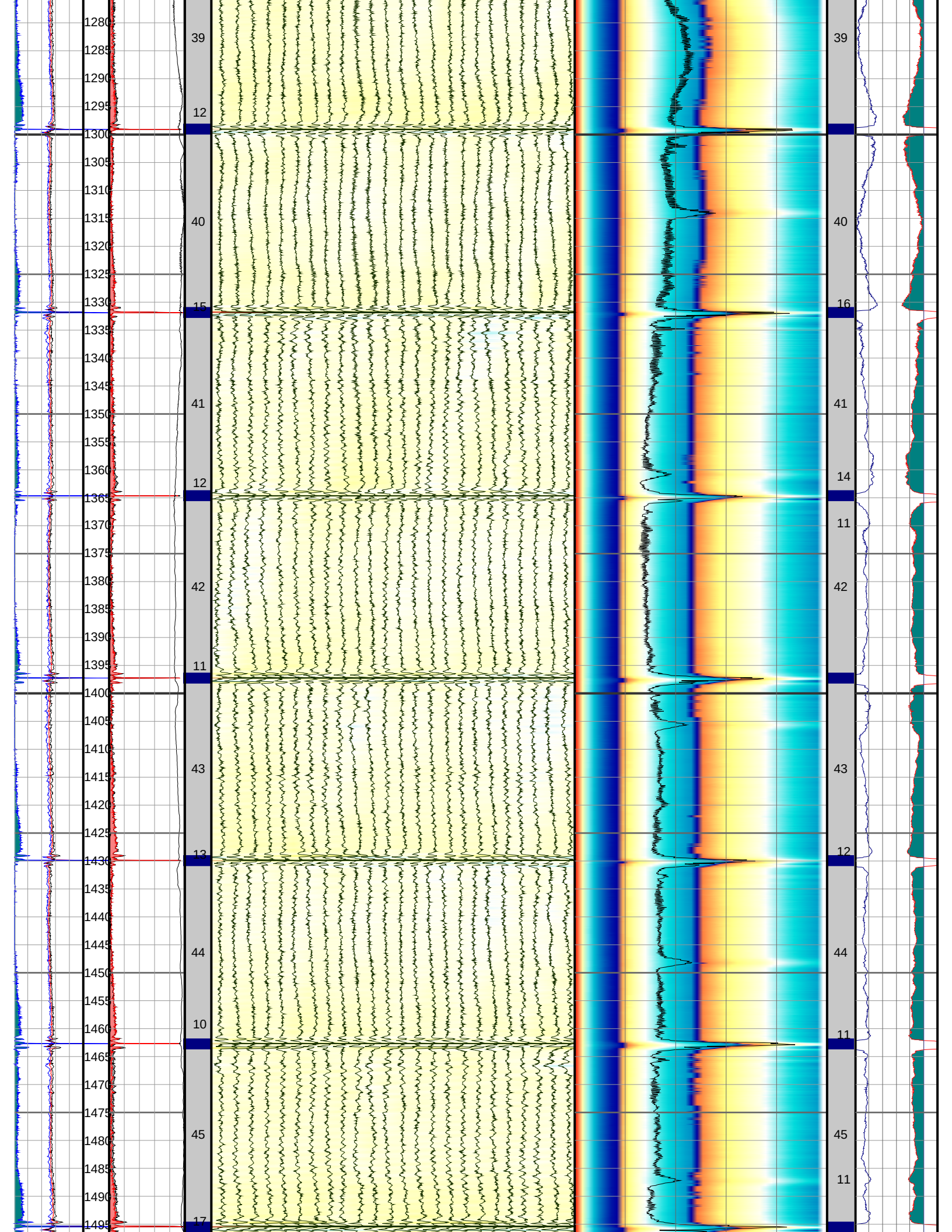
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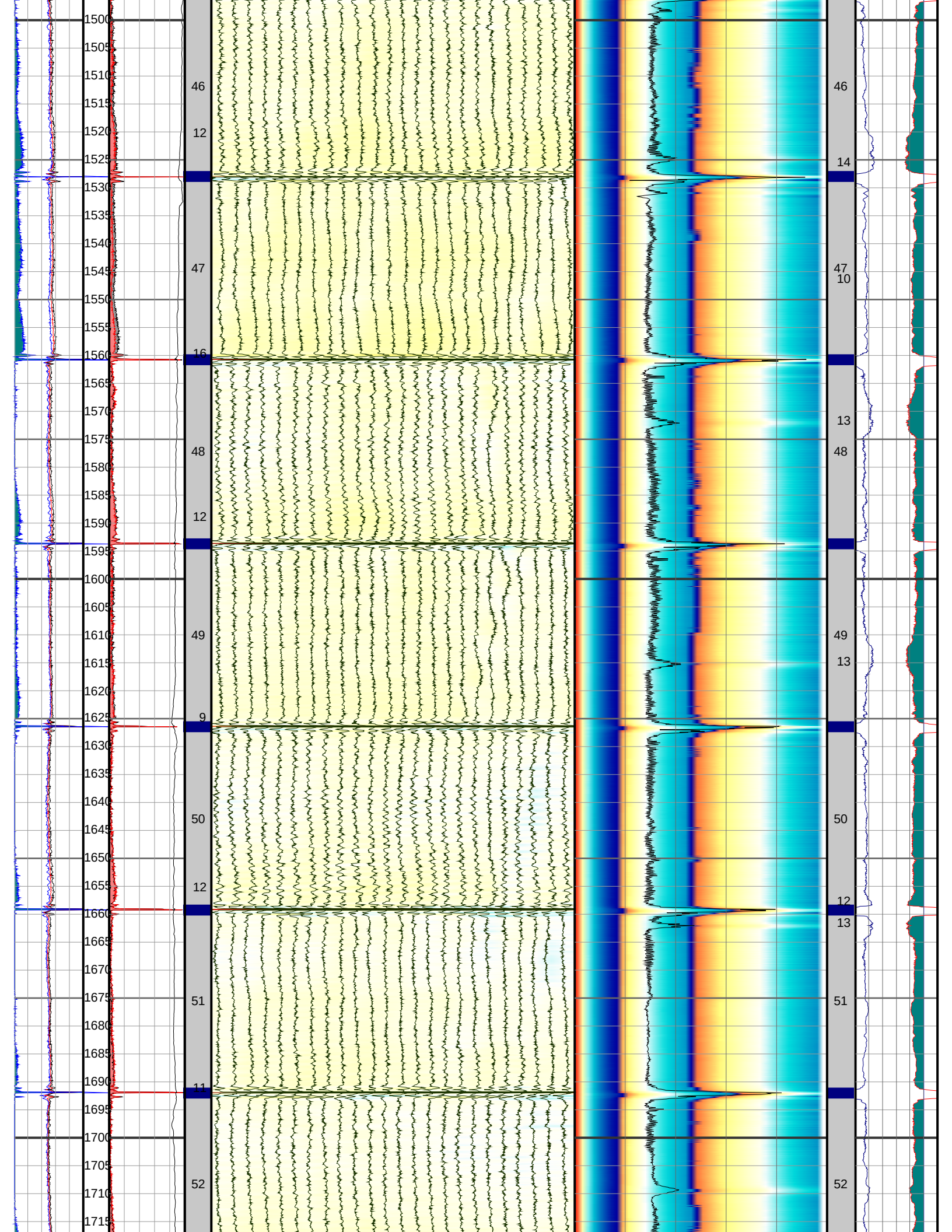
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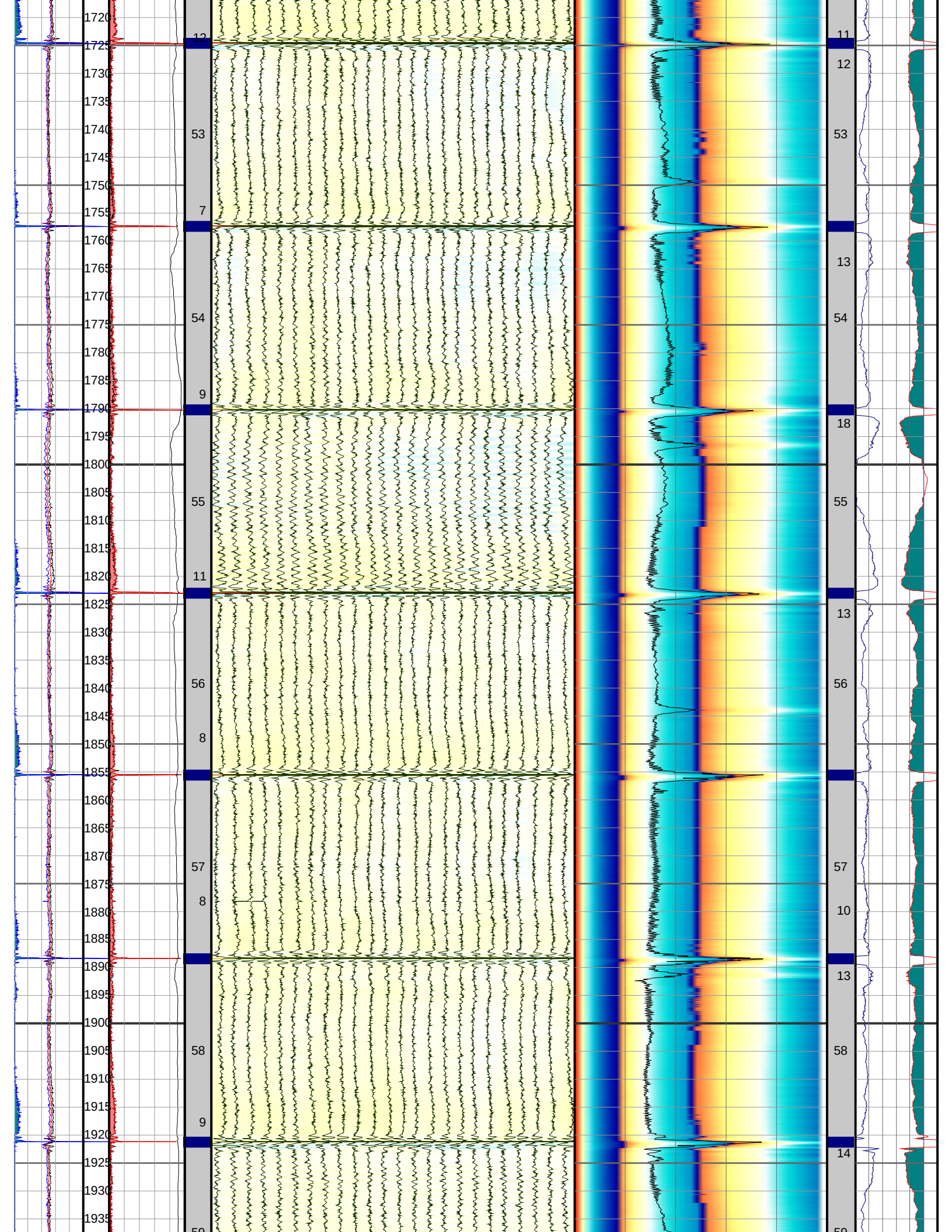
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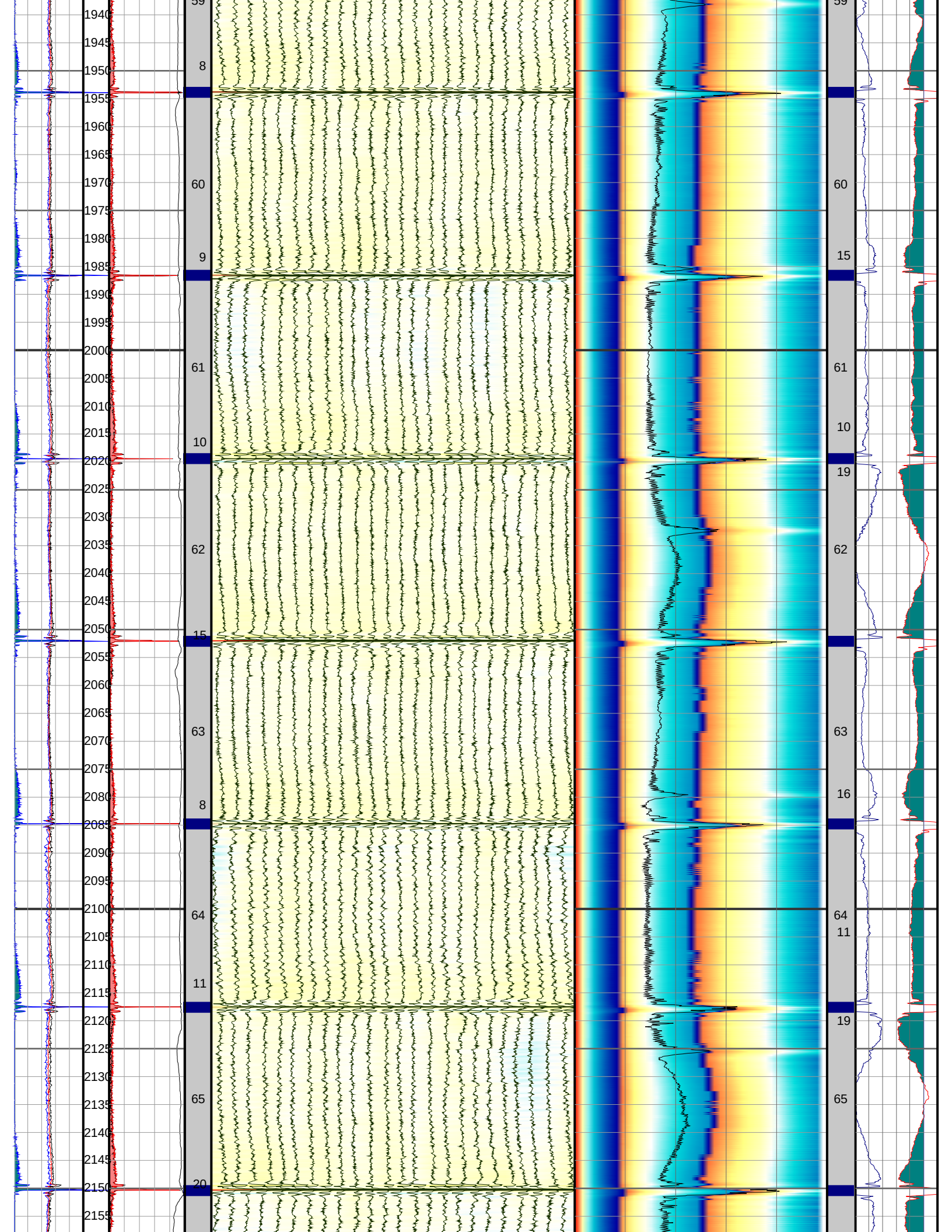

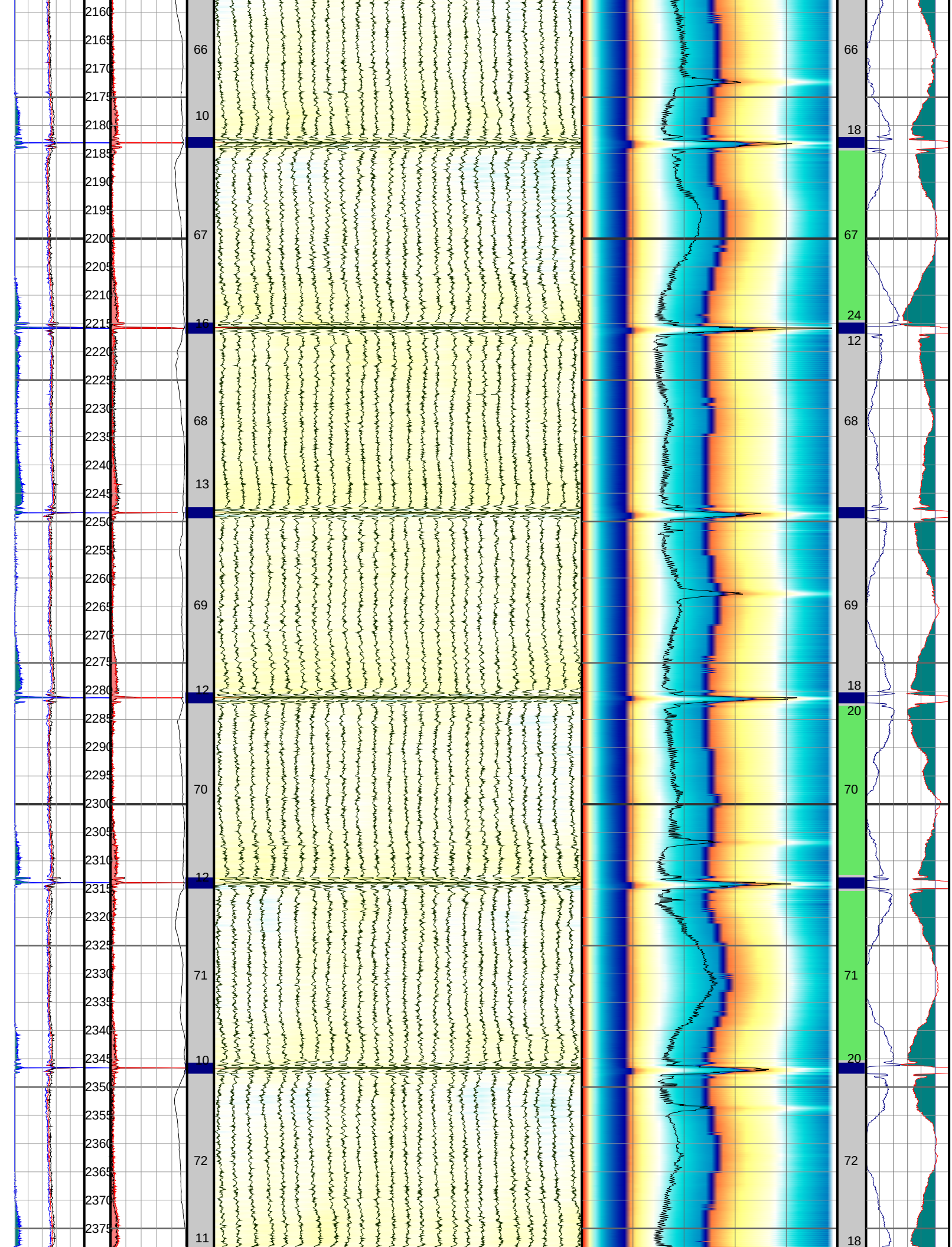

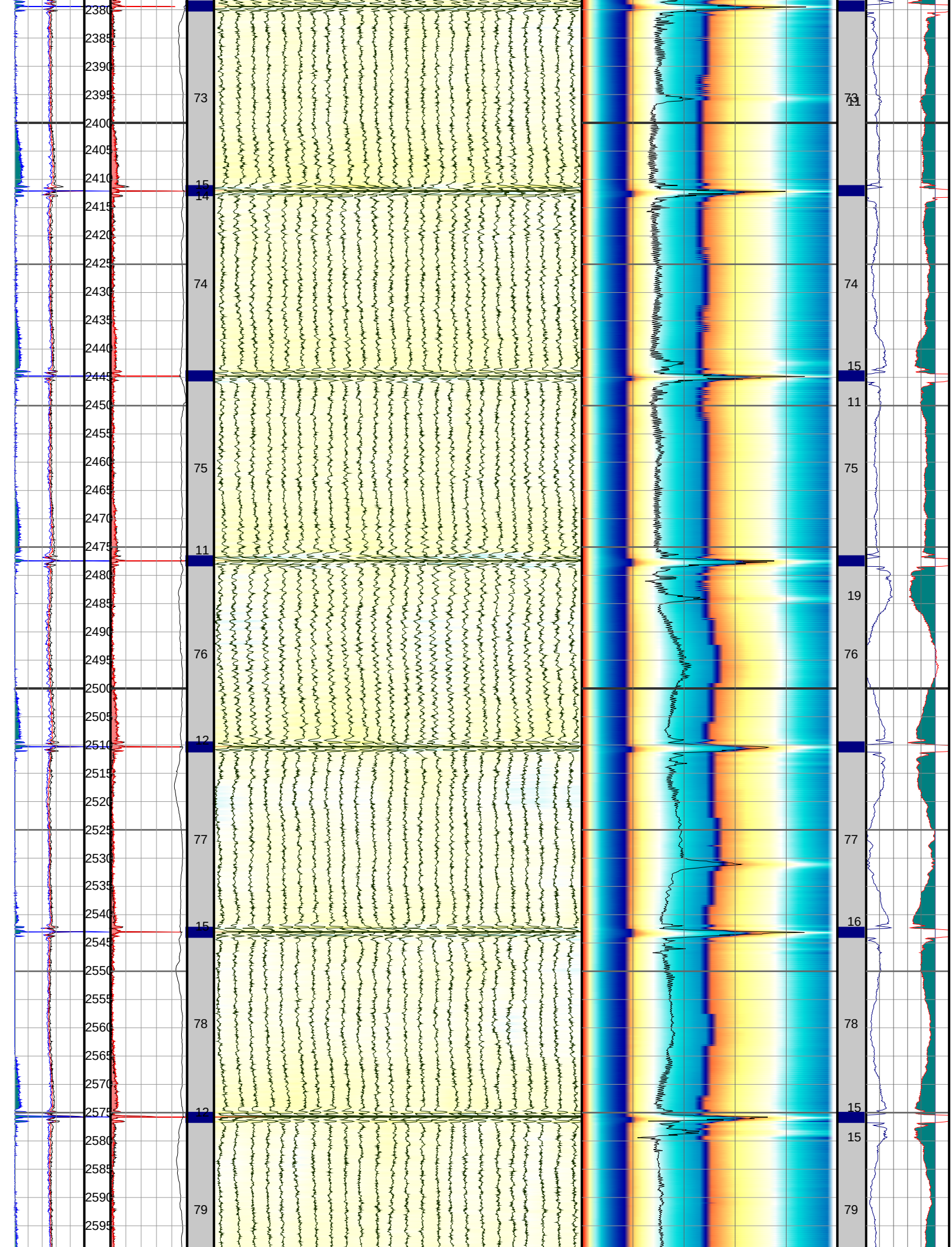

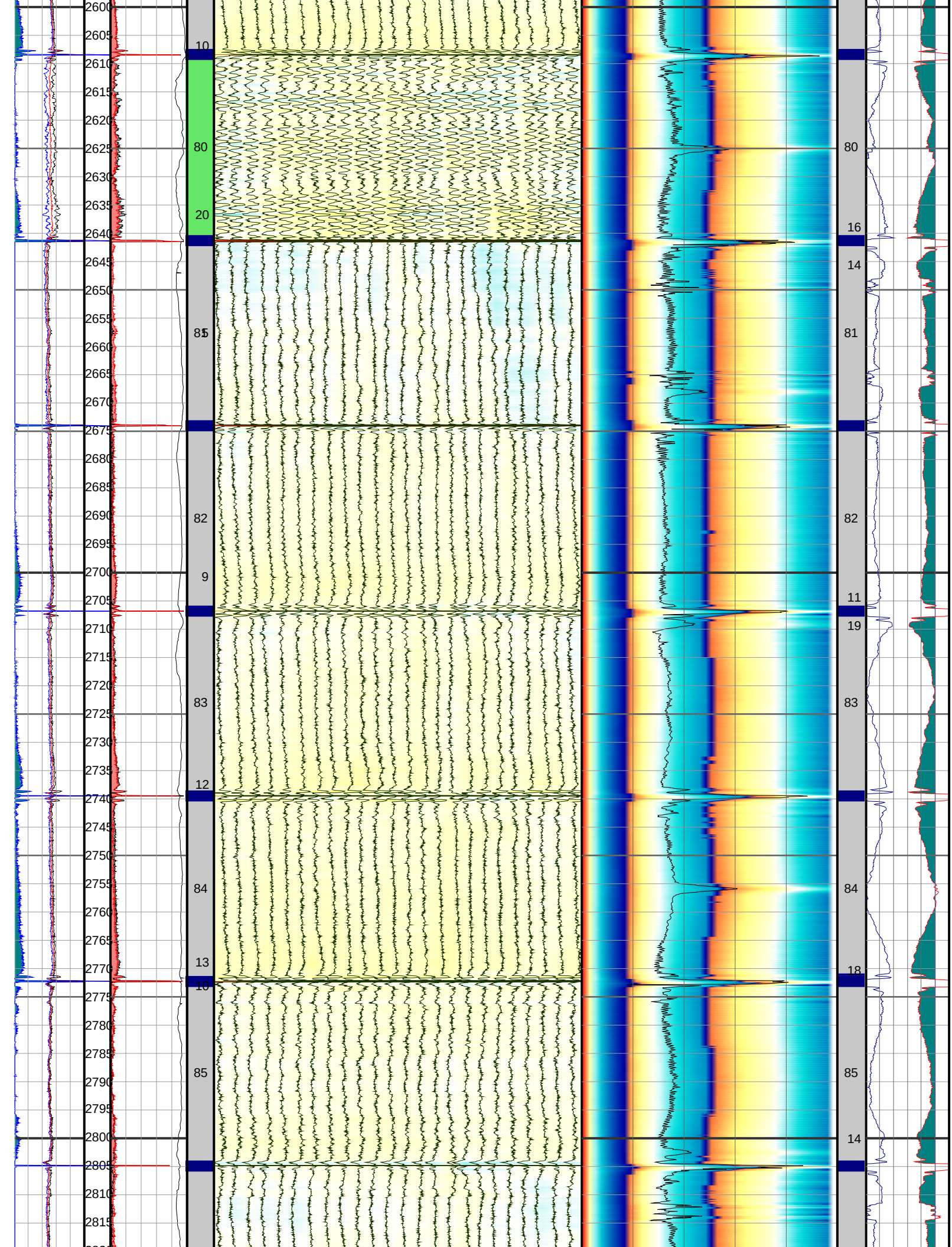

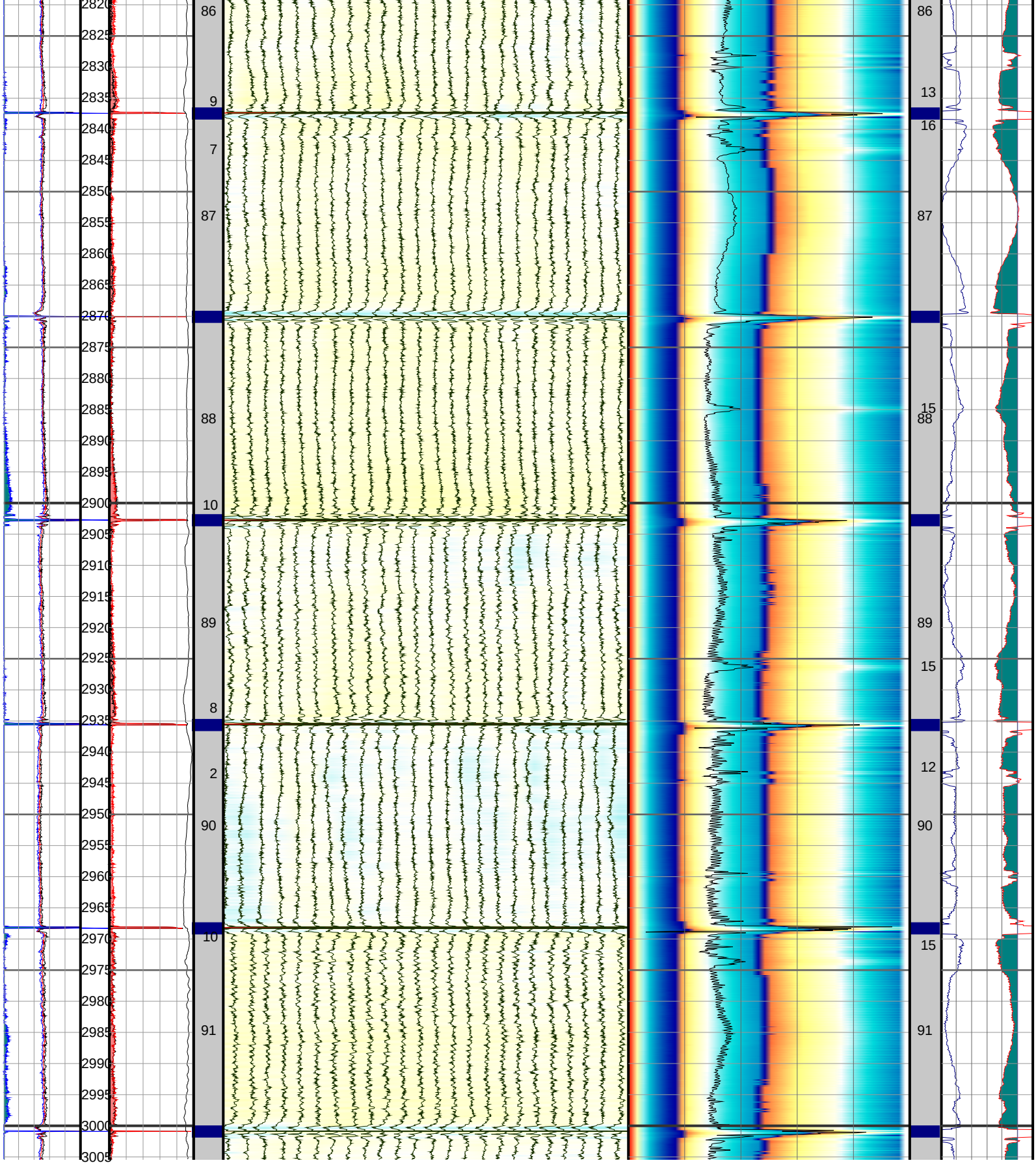

All interpretations are opinions based on inferences from electrical measurments or other measurements and JT3 Data Consulting Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and JT3 Data Consulting Sercices, LLC will not be liable or resonsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents, or employees

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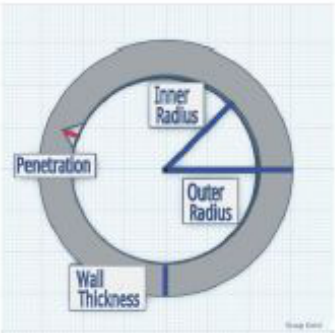
Houston, TX
(346) 617-0639

Appendix A - Report Terms



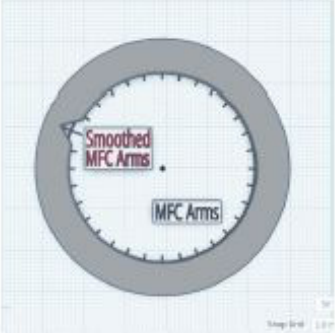
Nominal Penetration (NP)

Penetration (P)

NP= ————————X100%

Wall Thickness (WT)

(NP=P/WTx100%)



ModelD Penetration (MP%)

MFC Arm (MA)

MP%=————————————x100%

Wall Thickness (WT)

(MP%=MA/WTx100%)

Wall Loss % (WL%)

Lost Area (LA)

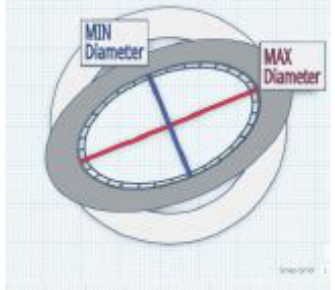
WL%=————————————x100%

Wall Thickness Area (WTA)

(WL%=LA/WTA x100%)

*ModelD Penetration is the most optimistic penetration calculation. It takes into account ovality and pipe tolerance. ModelD Penetration always less than

Wall Thickness Area is between Inner Radius and Outer Radius (OR)

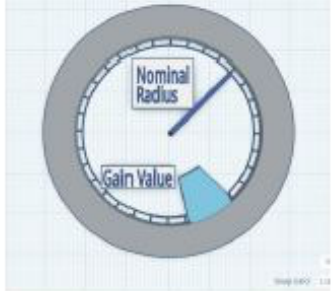


Ovality % (O%)

Max Diameter—Min Diameter

O%=————————————— x100%

O%=MinD-MaxD x100%



Projection % (P%)

Gain Value (GV)

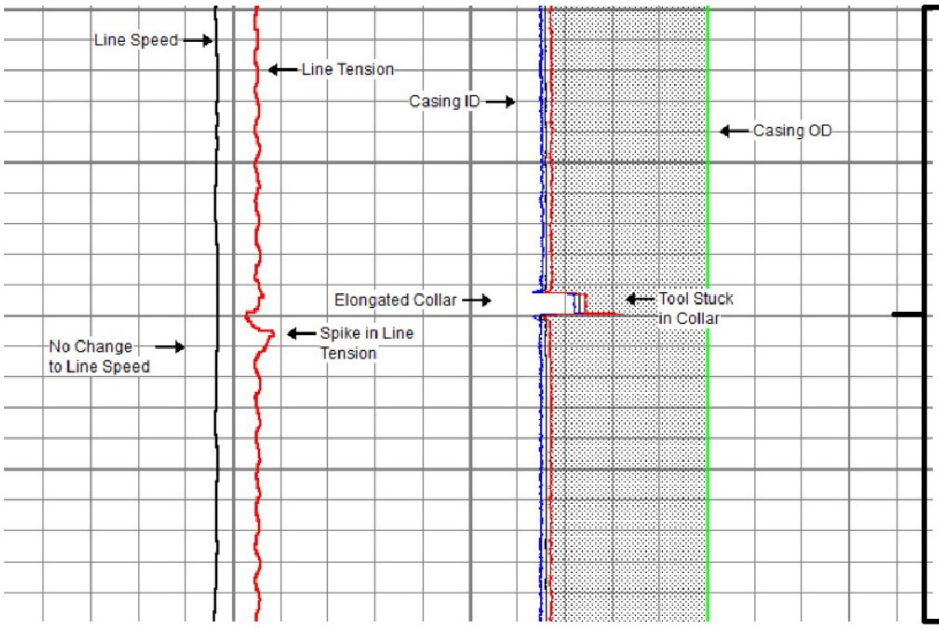
P%=————————————x100%

Nominal Radius IR (NRIR)

(P%=GV/NRIR x100%)

*Gain Value—Min Radius less than Internal Radius (IR)

Appendix B - Elongated Collars



Elongated Collar

An Elongated Collar occurs when logging conditions are just right that the Multi-Finger Caliper Measuring Finger tips "Stick" the tool in the collar. This is explained away by the constant Line Speed and the Spike in Line Tension. To Avoid, The Logging Engineer should adjust logging speed.