56 ARM CALIPER LOG

Company SOUTHERN CALIFORNIA GAS COMPANY
Well PORTER 69G
Field ALISO CANYON
County LOS ANGELES State CALIFORNIA

Company SOUTHERN CALIFORNIA GAS COMPANY
Well PORTER 69G
Field ALISO CANYON
County LOS ANGELES **State** CALIFORNIA

Location: API # : 04-037-24225

SEC 27 TWP 3N RGE 16W

Permanent Datum	GL	Elevation	2366'
Log Measured From	KB		
Drilling Measured From	KB		

Other Services
HRVRT

Elevation
K.B. 2395'
D.F.
G.L. 2366'

Date	8/4/16		
Run Number	1		
Depth Driller	8500'		
Depth Logger	7370'		
Bottom Logged Interval	7365'		
Top Log Interval	0'		
Open Hole Size			
Type Fluid	KCL		
Density / Viscosity			
Max. Recorded Temp.	152°F		
Estimated Cement Top			
Time Well Ready	0730		
Time Logger on Bottom	0840		
Equipment Number	4353		
Location	SHAFTER		
Recorded By	A.SMITH/ S.GORNTO		
Witnessed By	JASON FIKE		

Borehole Record				Casing Record			
Run Number	Bit	From	To	Size	Weight	From	To
				9.625"	47lb	0'	8500'

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible 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. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

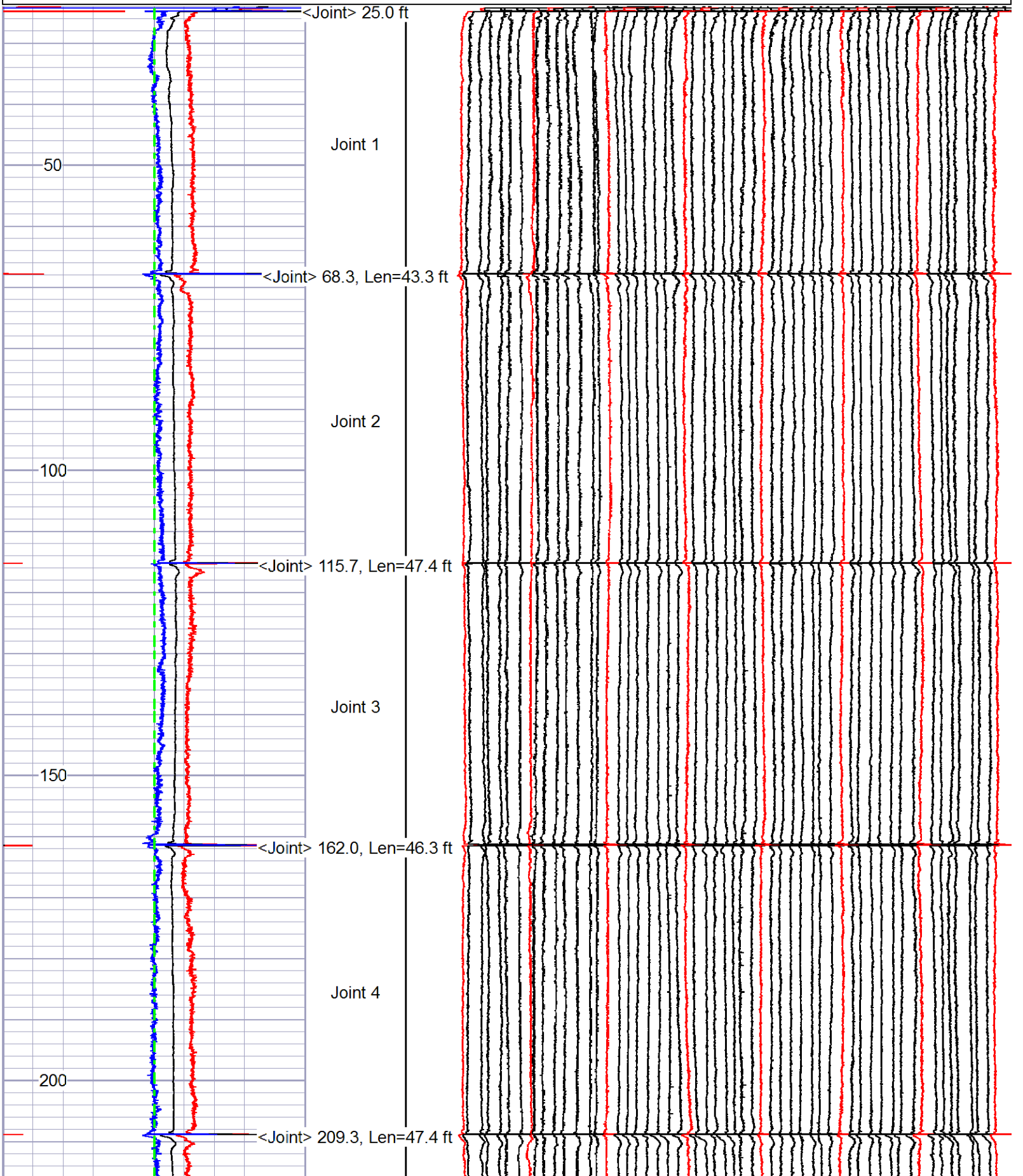
Comments

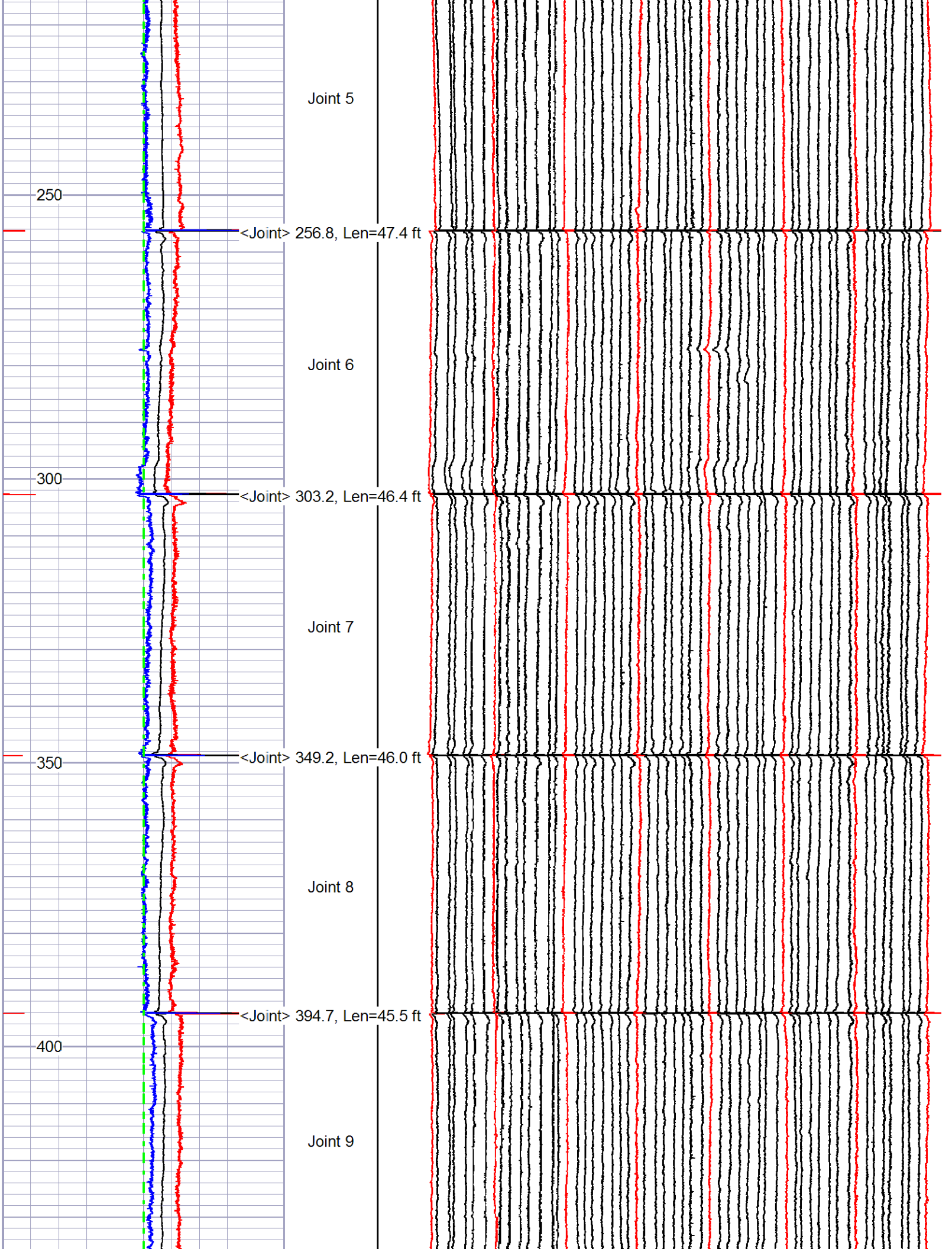
LOG CORRELATED TO: HALIBURTON CBL DATED MARCH 21, 2003

Database File c:\users\waakjan\desktop\incoming\hcal_socal_porter_69g\ical\project\processing\mfc\rawmain\main_proc.db
Dataset Pathname main_stat
Presentation Format 56f_hw
Dataset Creation Sat Aug 06 05:55:59 2016
Charted by Depth in Feet scaled 1:240

8.181	MAXIMUM FINGER (in)	9.181	PTANN	4.0905	56 FINGER TRACE (in)	7.1905
8.181	AVERAGE FINGER (in)	9.181				
8.181	MINIMUM FINGER (in)	9.181				
8.181	NOMINAL - ID (in)	9.181				

Note: 1" scale for amplification

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Joint 7
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Joint 8
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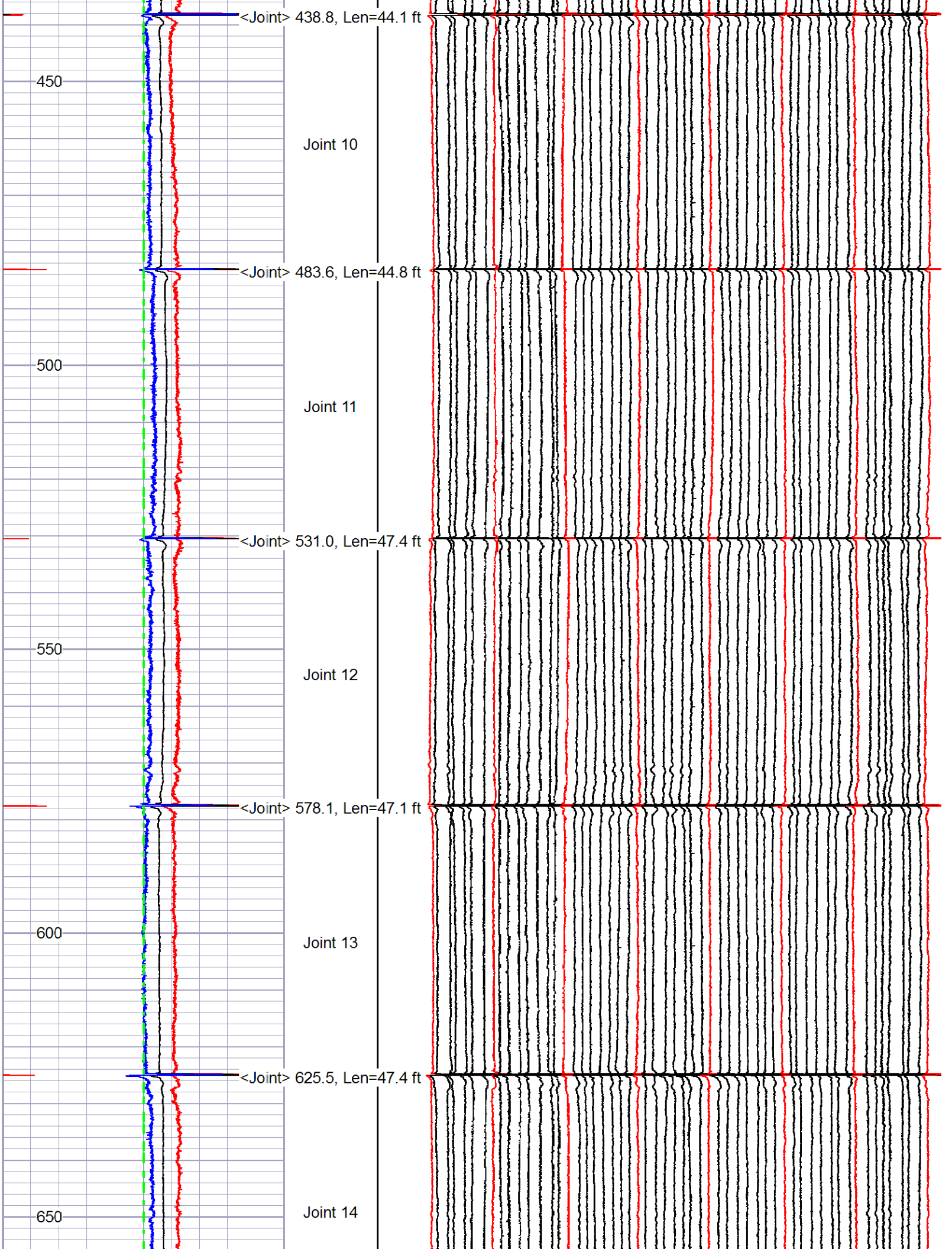
400
Joint 9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Joint 10
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Joint 11
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Joint 12
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600
Joint 13
<Joint> 625.5, Len=47.4 ft
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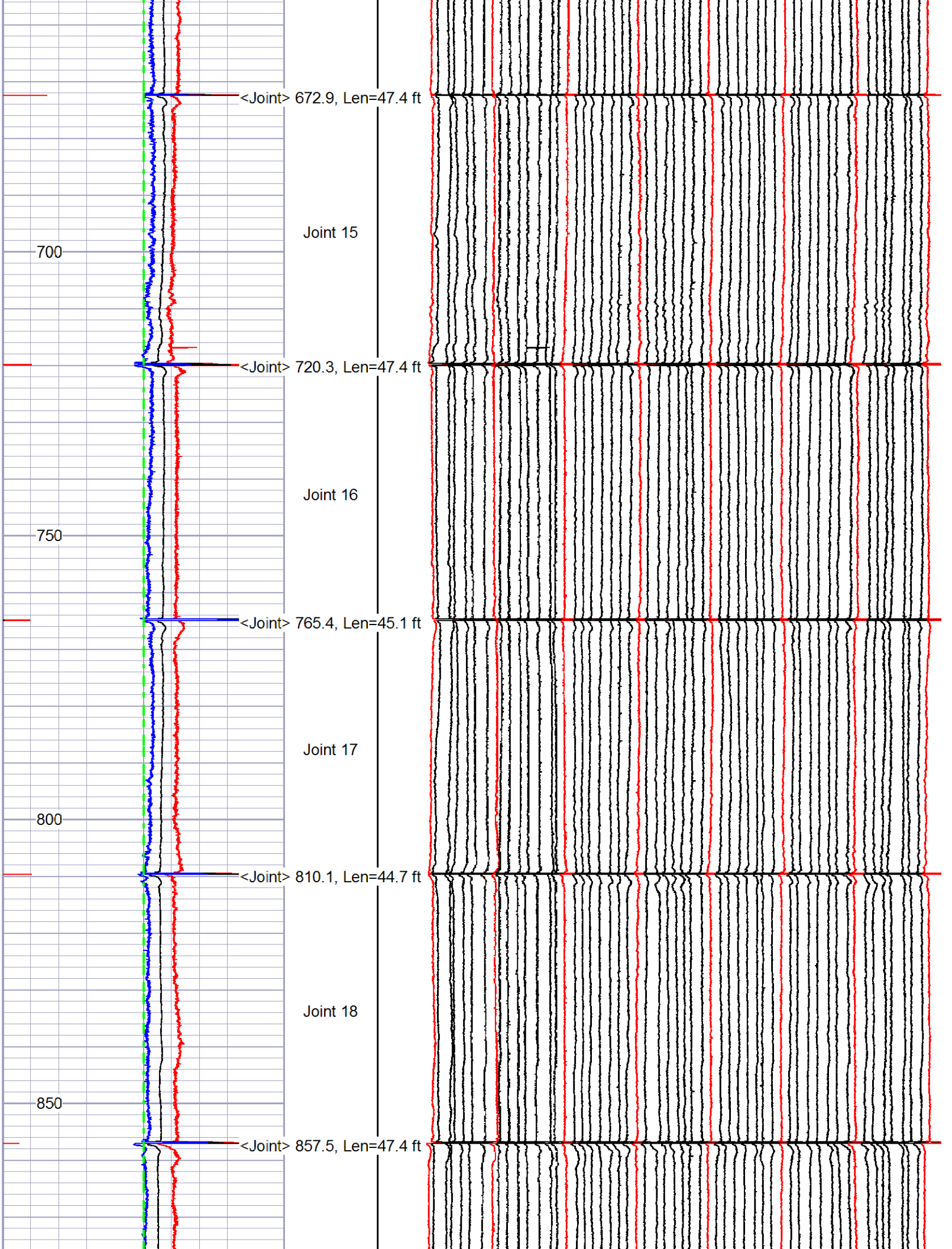
Joint 14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Joint 16
750
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Joint 17
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Joint 18
850
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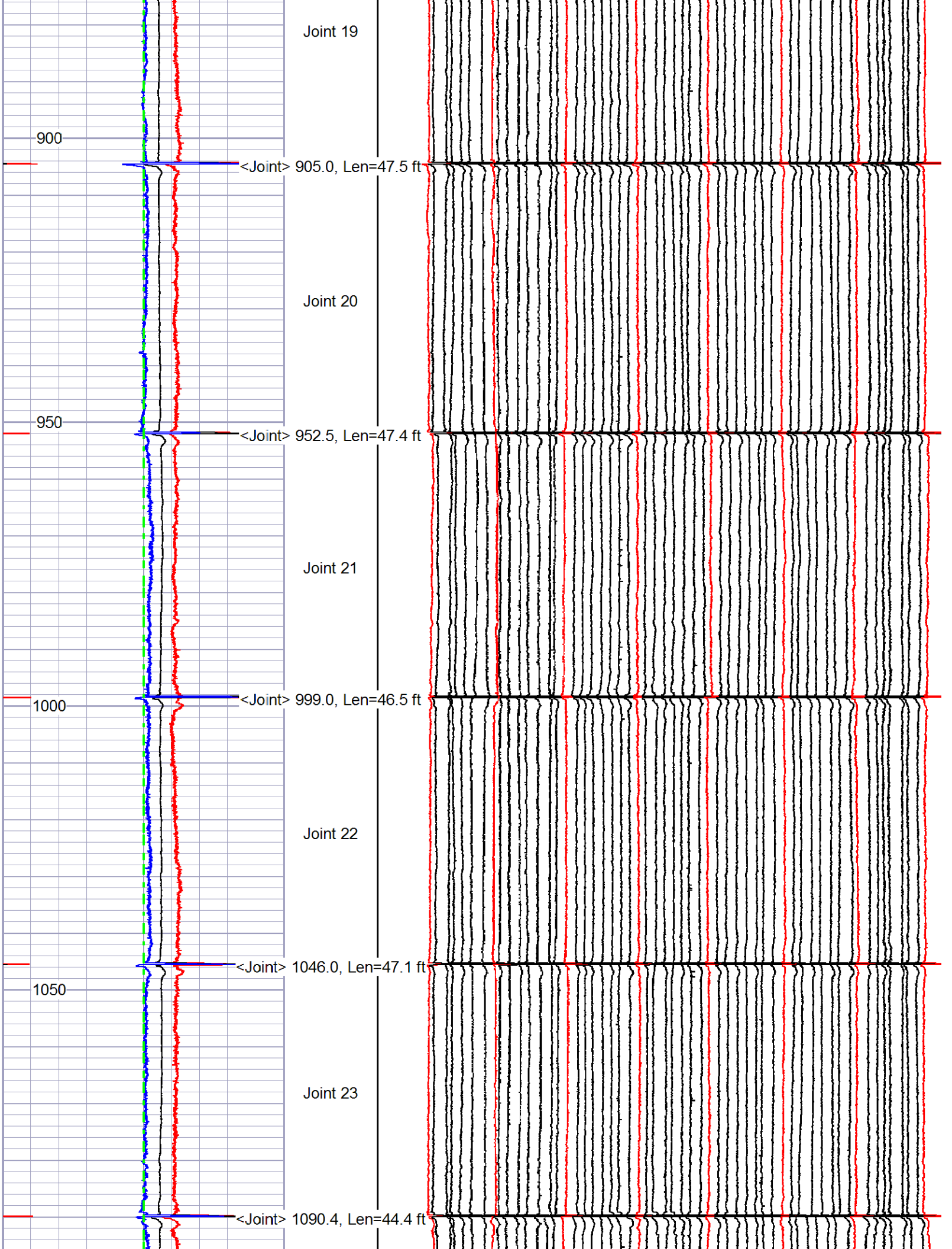
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950
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Joint 21
1000
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Joint 22
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1050
Joint 23
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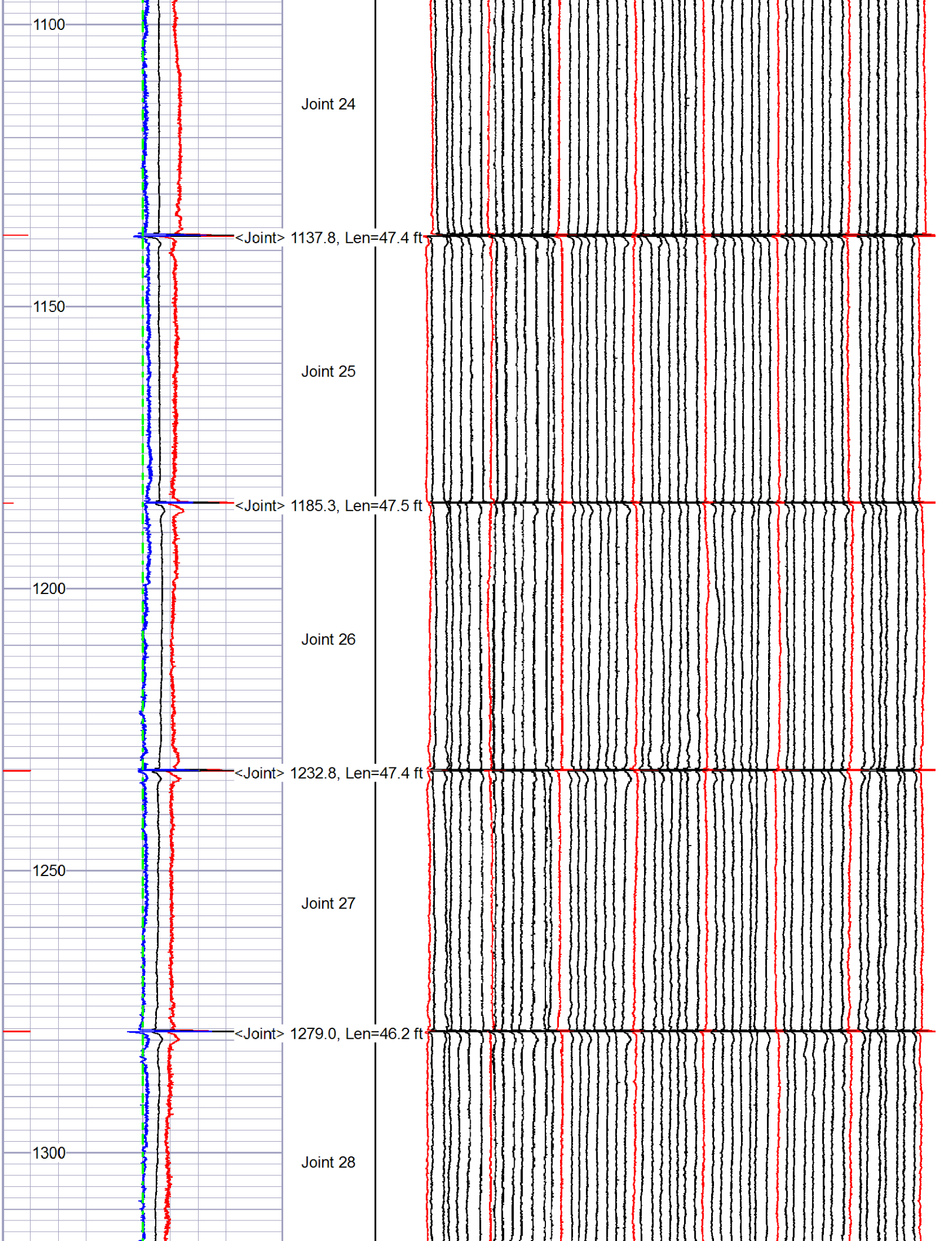
1100
Joint 24
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Joint 25
<Joint> 1185.3, Len=47.5 ft
1200
Joint 26
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1250
Joint 27
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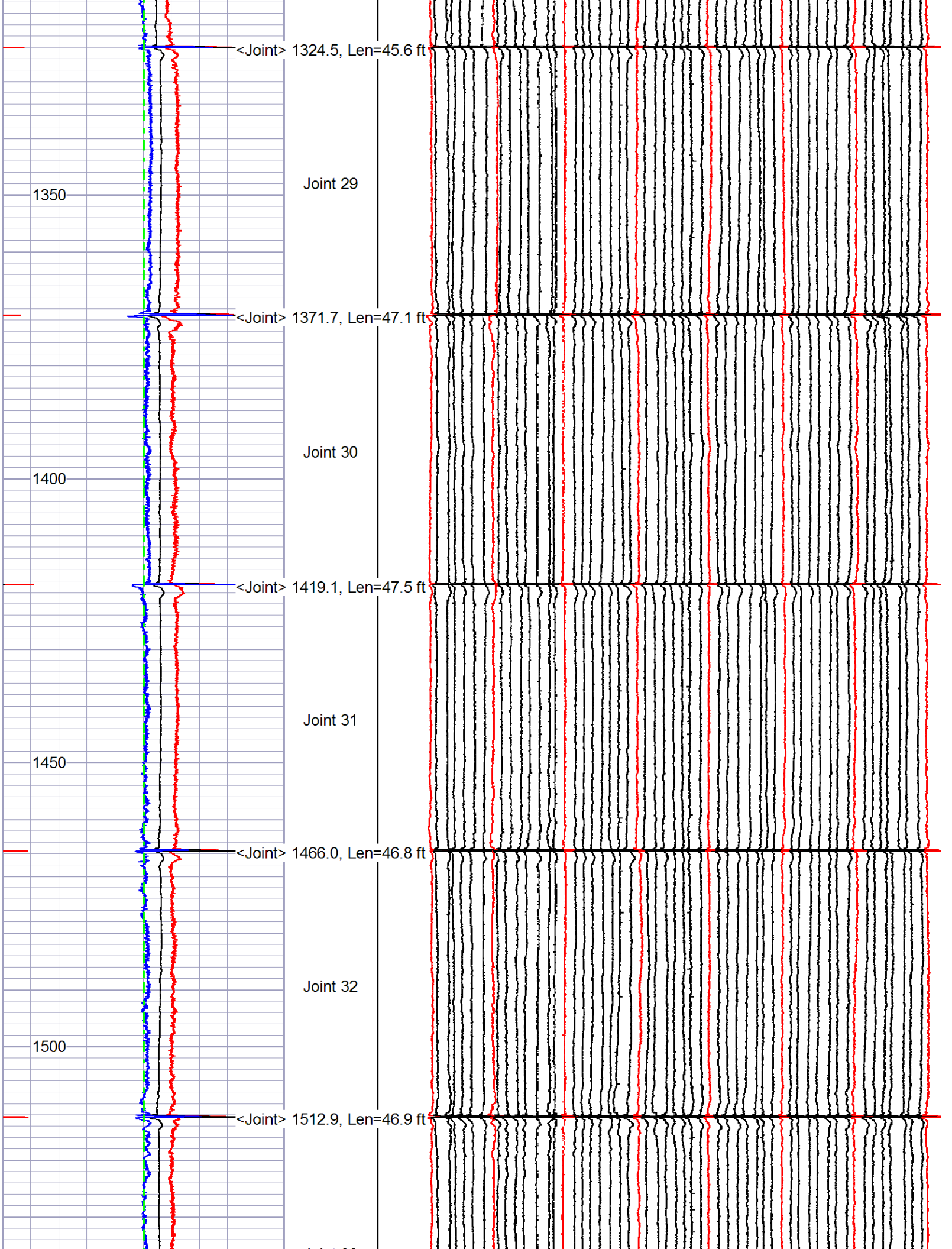
1300
Joint 28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1400
<Joint> 1419.1, Len=47.5 ft
Joint 31
1450
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Joint 32
1500
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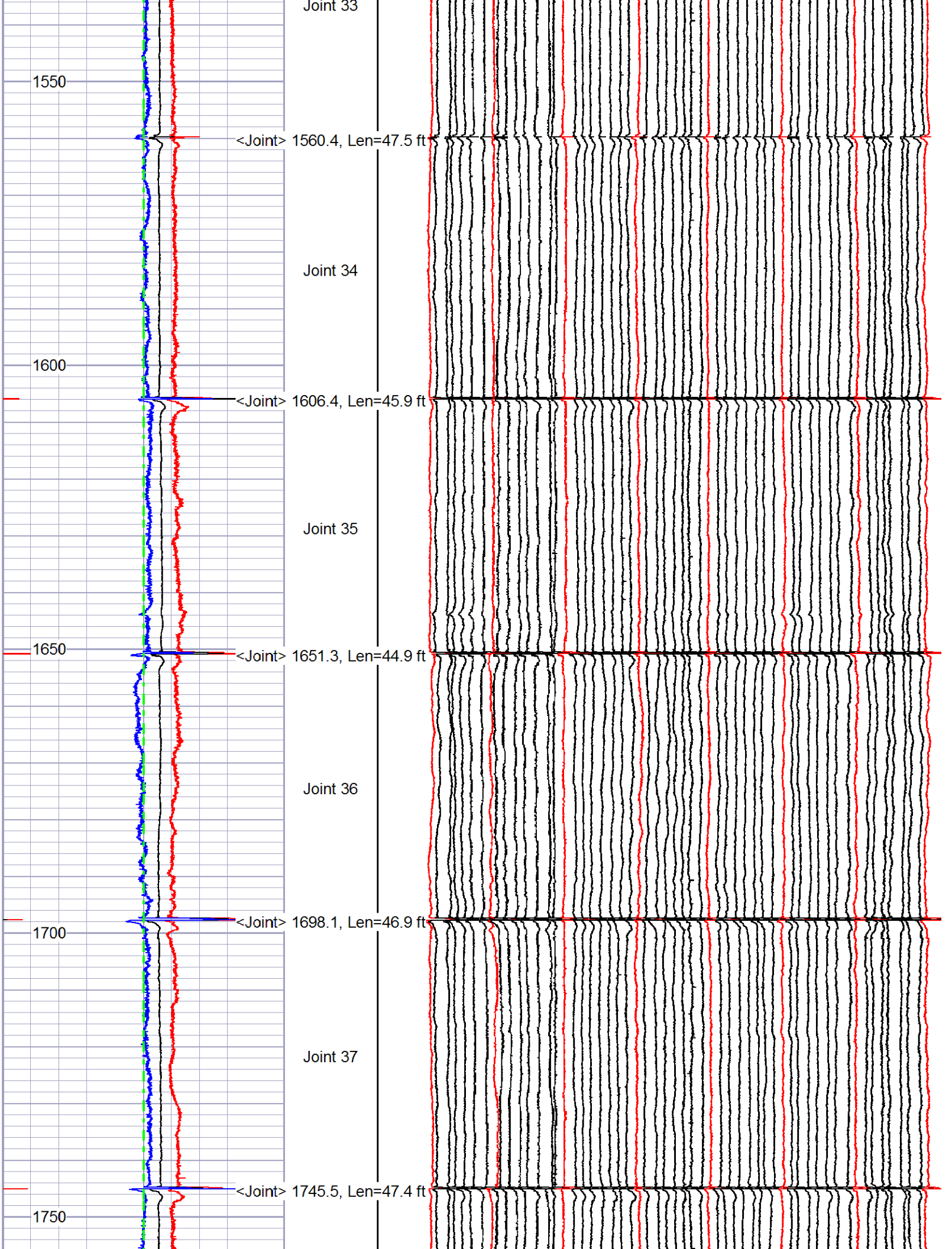
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Joint 35
1650
<Joint> 1651.3, Len=44.9 ft
Joint 36
1700
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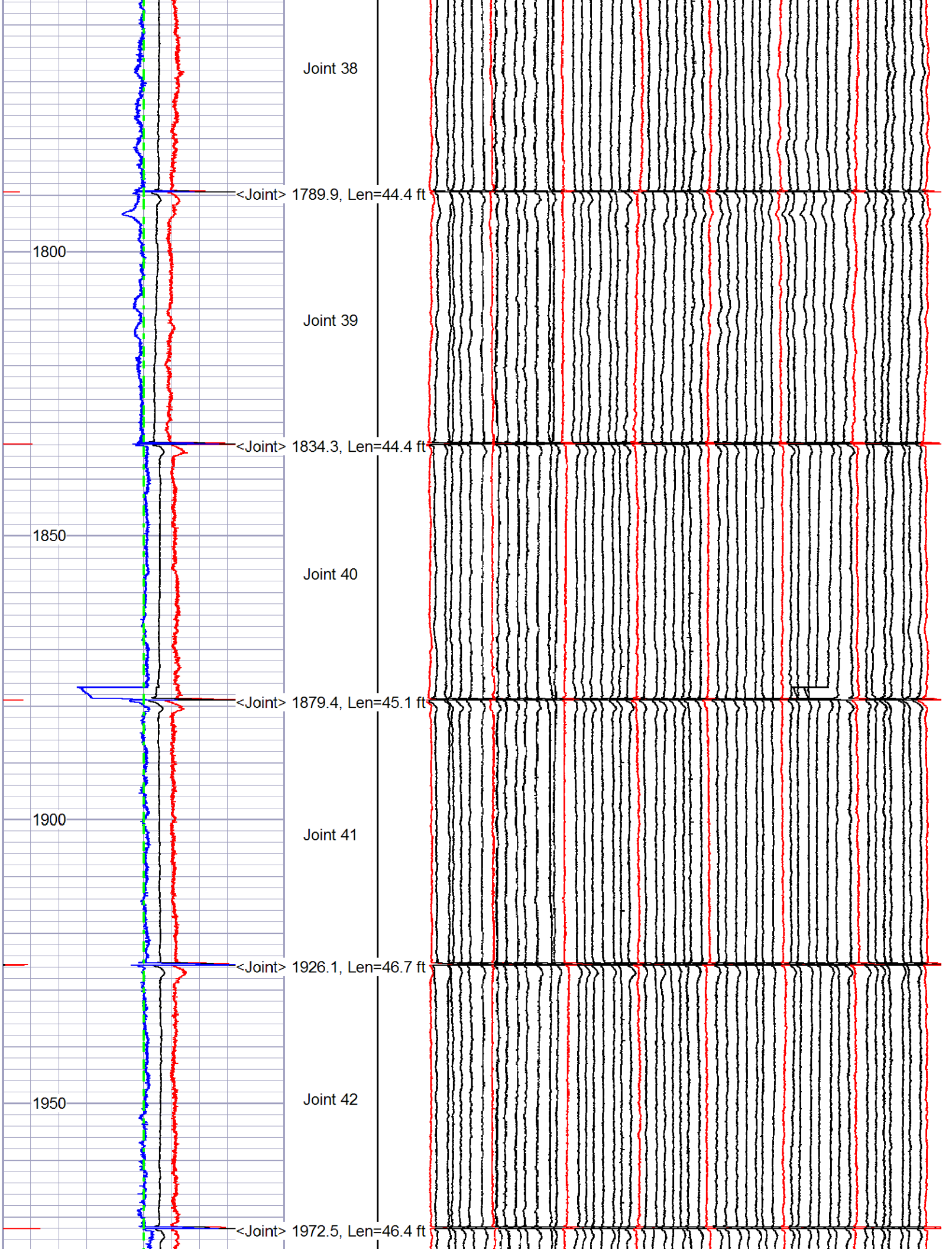
Joint 37
1750
<Joint> 1745.5, Len=47.4 ft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Joint 39
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1850
Joint 40
<Joint> 1879.4, Len=45.1 ft
1900
Joint 41
<Joint> 1926.1, Len=46.7 ft
1950
Joint 42
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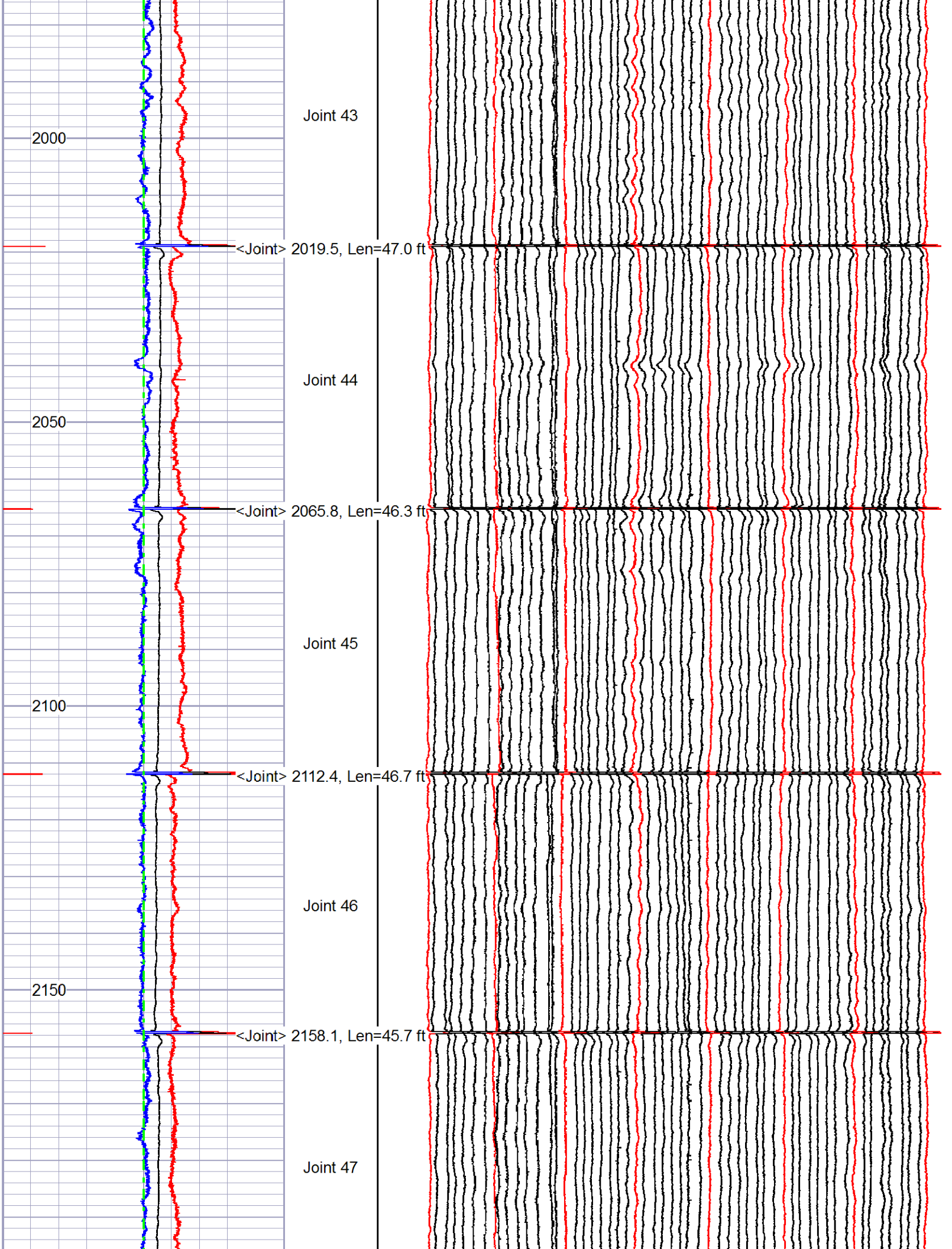
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2050
<Joint> 2065.8, Len=46.3 ft
Joint 45
2100
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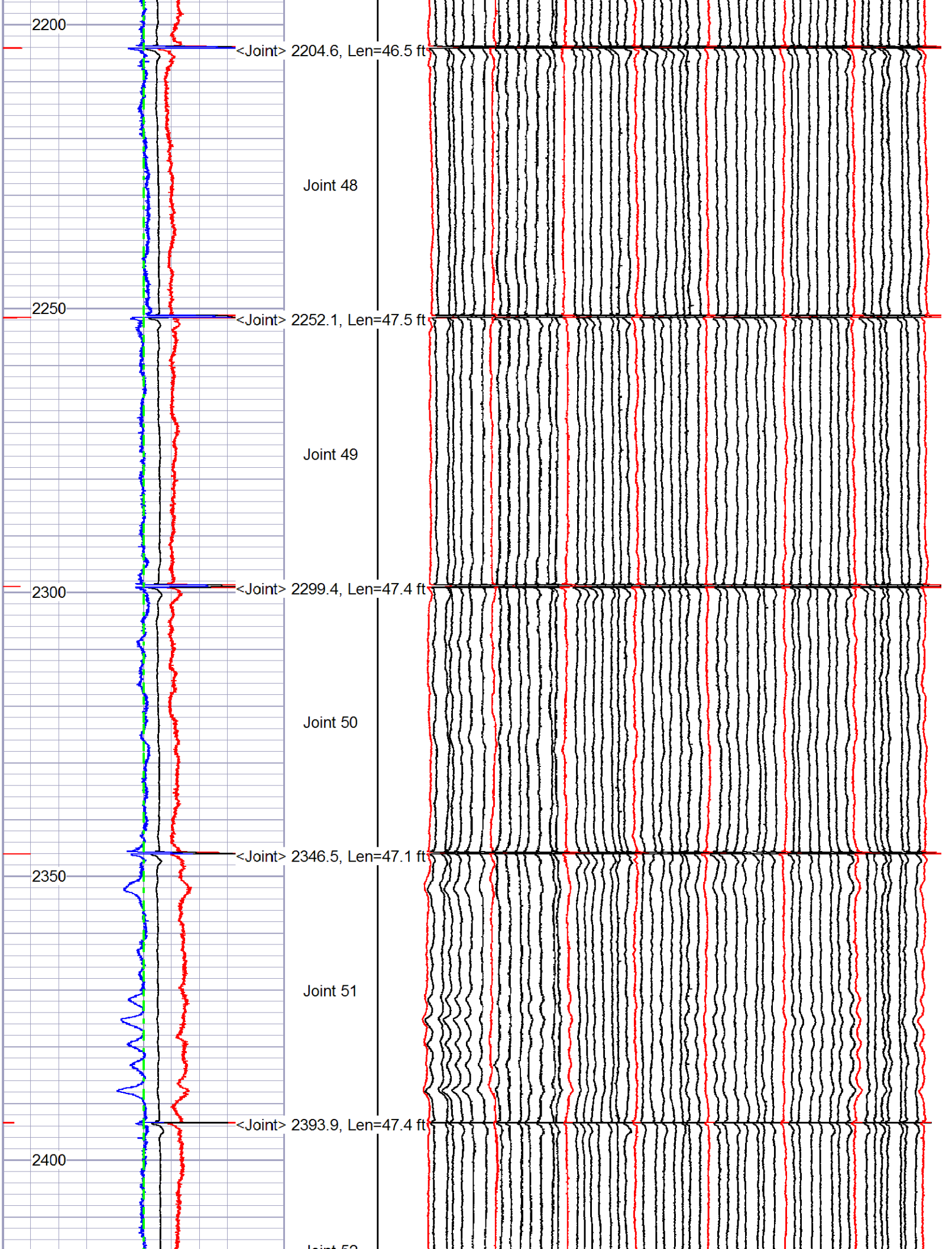
Joint 46
2150
<Joint> 2158.1, Len=45.7 ft
Joint 47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Joint 48
2250
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Joint 49
2300
<Joint> 2299.4, Len=47.4 ft
Joint 50
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Joint 51
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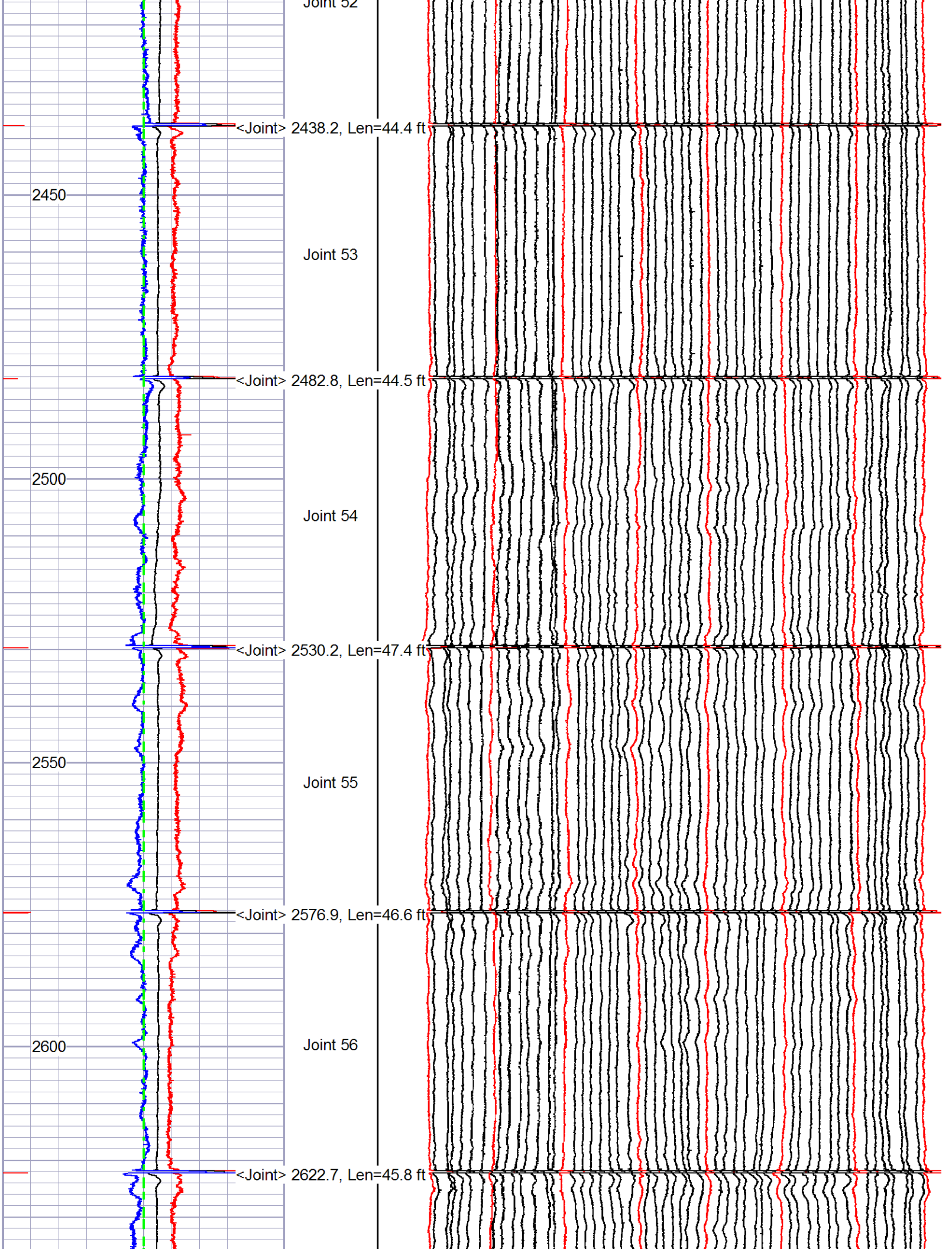
2400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Joint 53
<Joint> 2482.8, Len=44.5 ft
2500
Joint 54
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Joint 55
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Joint 56
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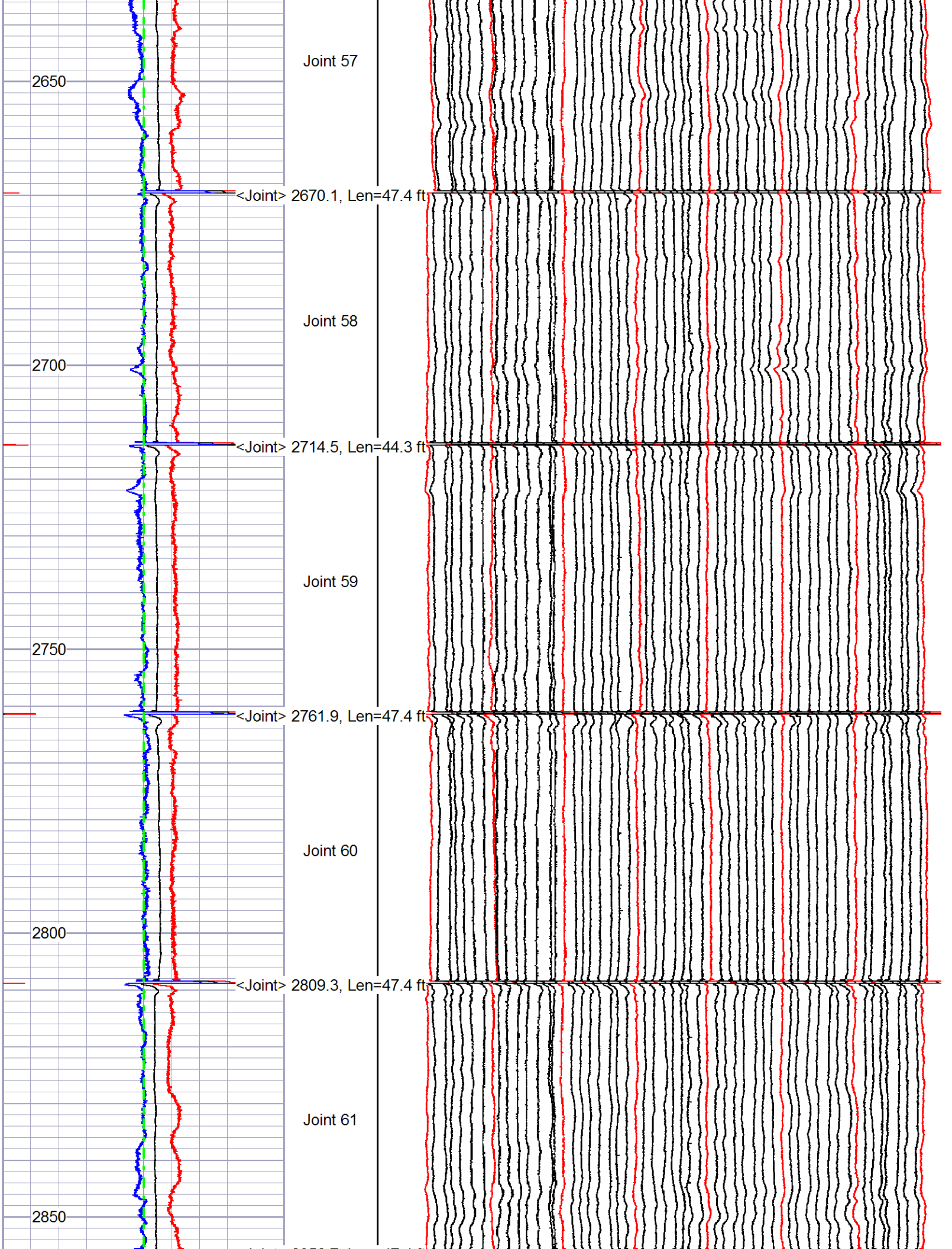
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Joint 57
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Joint 58
<Joint> 2714.5, Len=44.3 ft
2750
Joint 59
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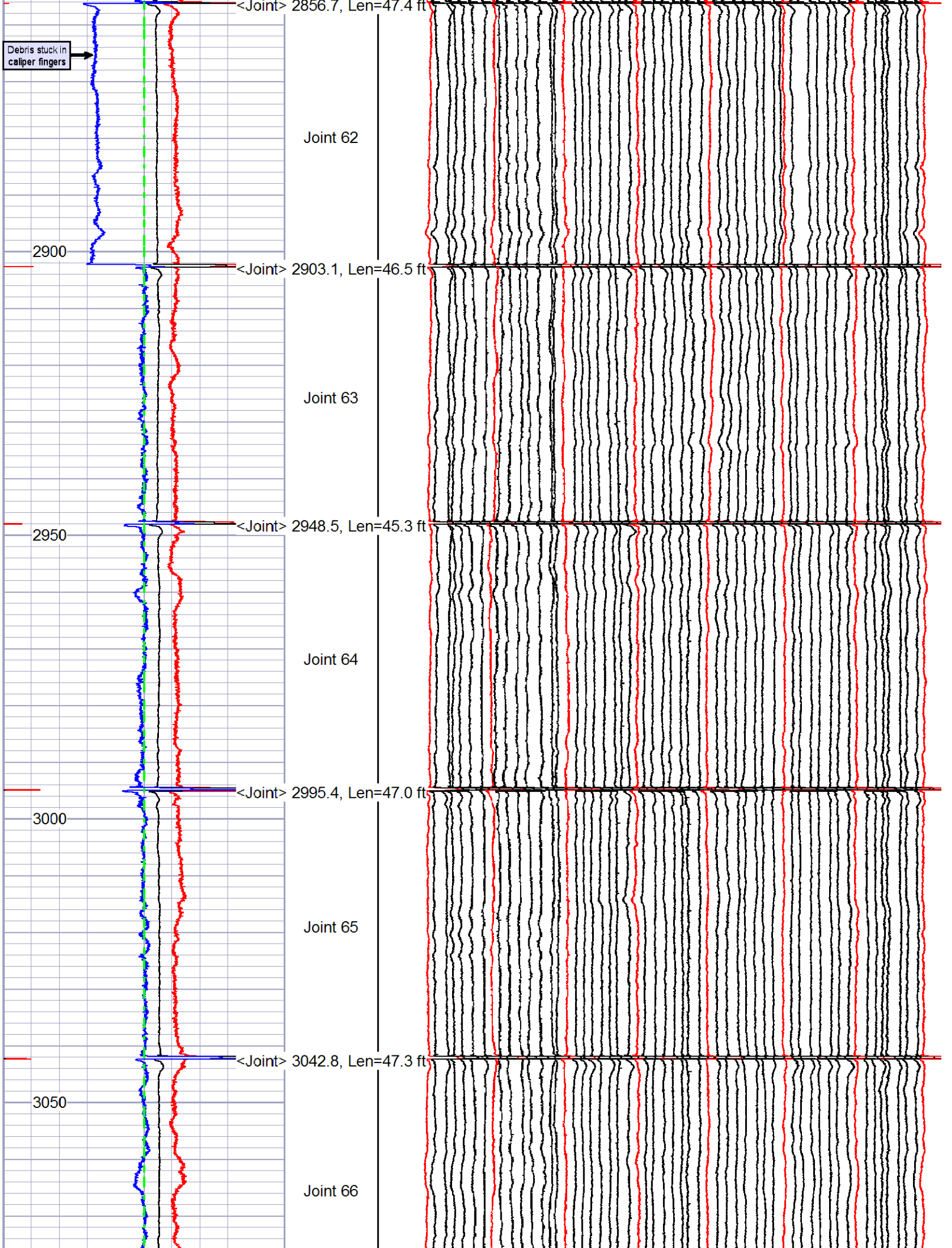
2800
Joint 60
<Joint> 2809.3, Len=47.4 ft
Joint 61
2850


Debris stuck in caliper fingers
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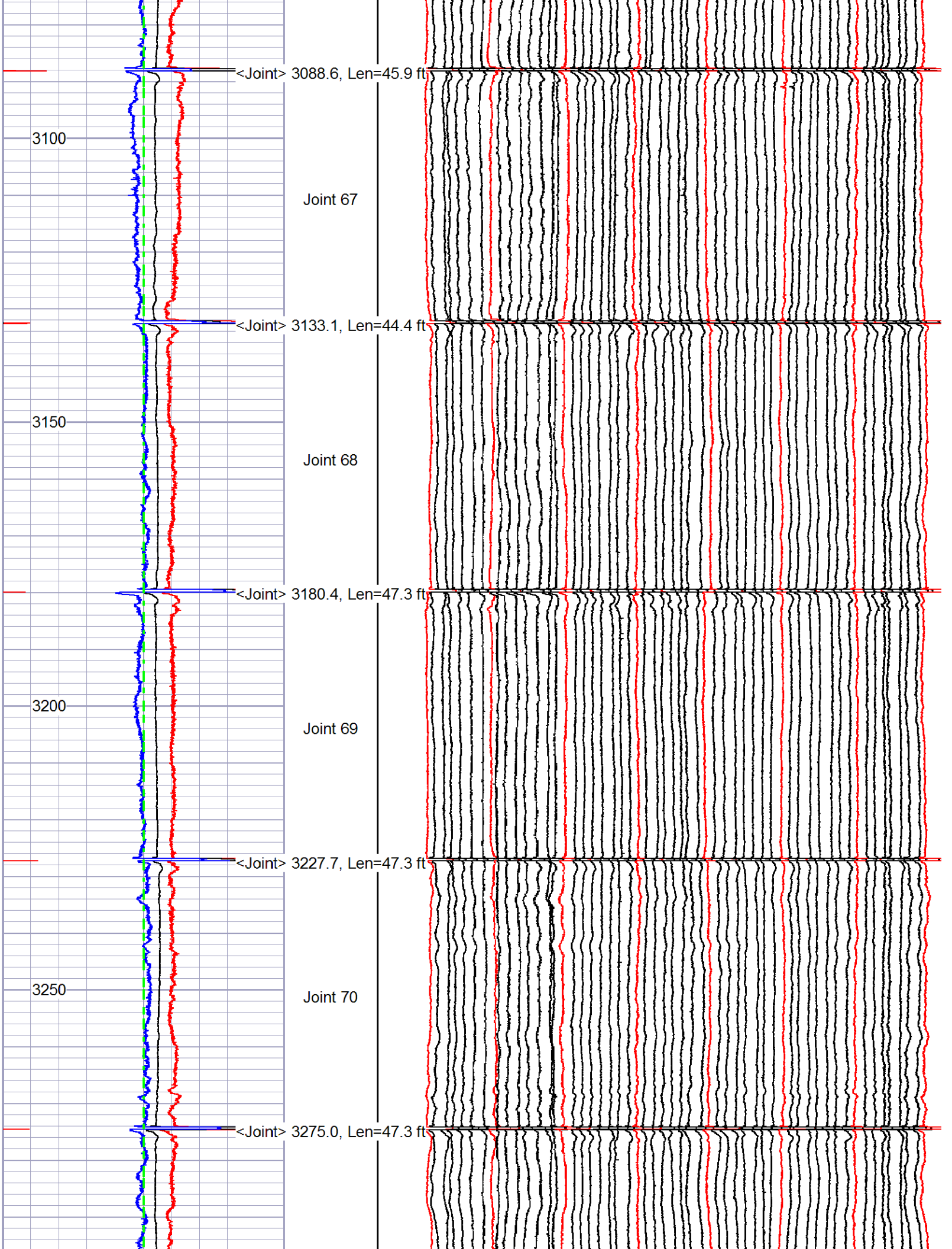
<Joint> 2903.1, Len=46.5 ft
Joint 63
2950
<Joint> 2948.5, Len=45.3 ft
Joint 64
<Joint> 2995.4, Len=47.0 ft
3000
Joint 65
<Joint> 3042.8, Len=47.3 ft
3050
Joint 66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Joint 67
<Joint> 3133.1, Len=44.4 ft
3150
Joint 68
<Joint> 3180.4, Len=47.3 ft
3200
Joint 69
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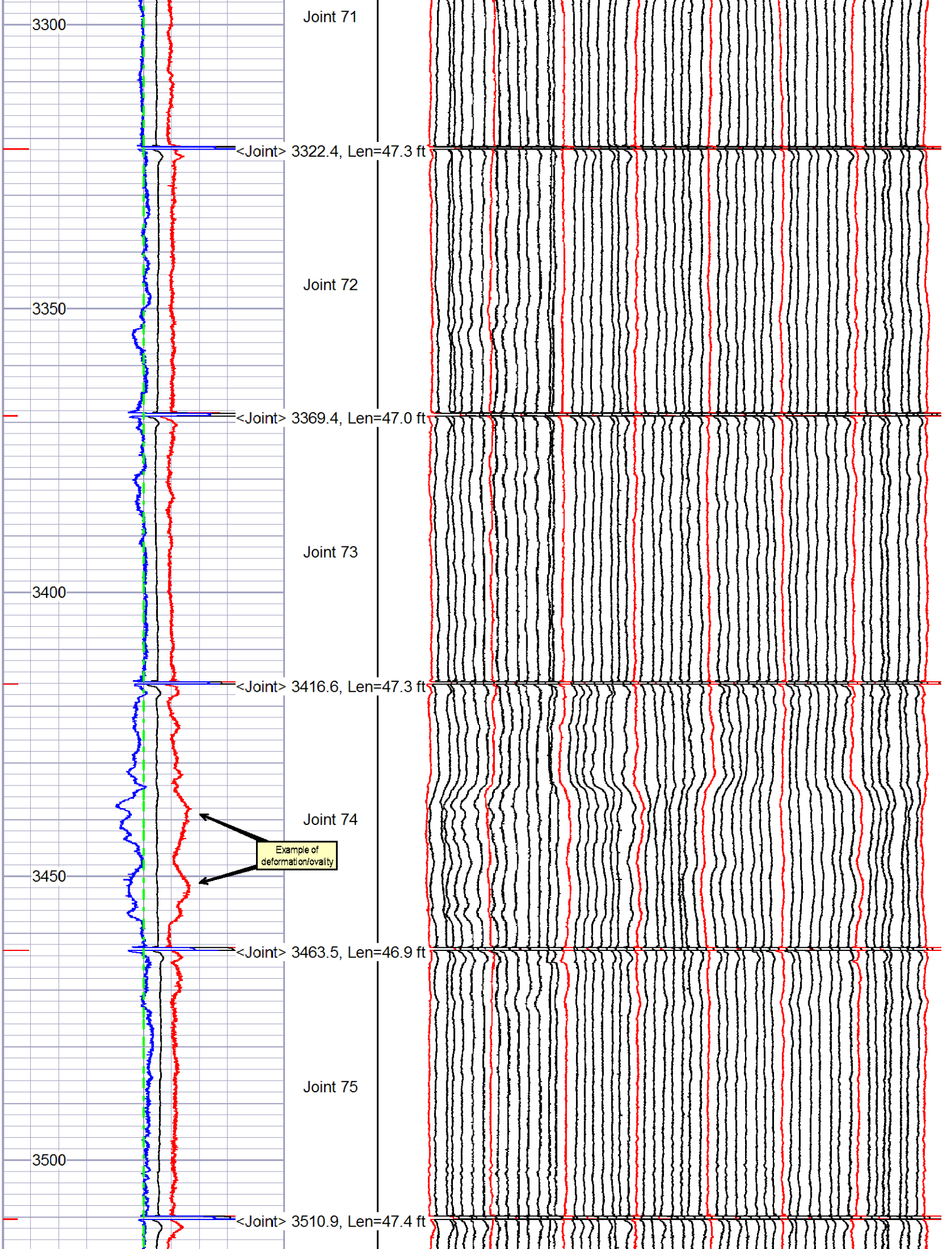
3250
Joint 70
<Joint> 3275.0, Len=47.3 ft


3300
Joint 71
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Joint 72
3350
<Joint> 3369.4, Len=47.0 ft
Joint 73
3400
<Joint> 3416.6, Len=47.3 ft
Joint 74
Example of deformation/ovality
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Joint 75
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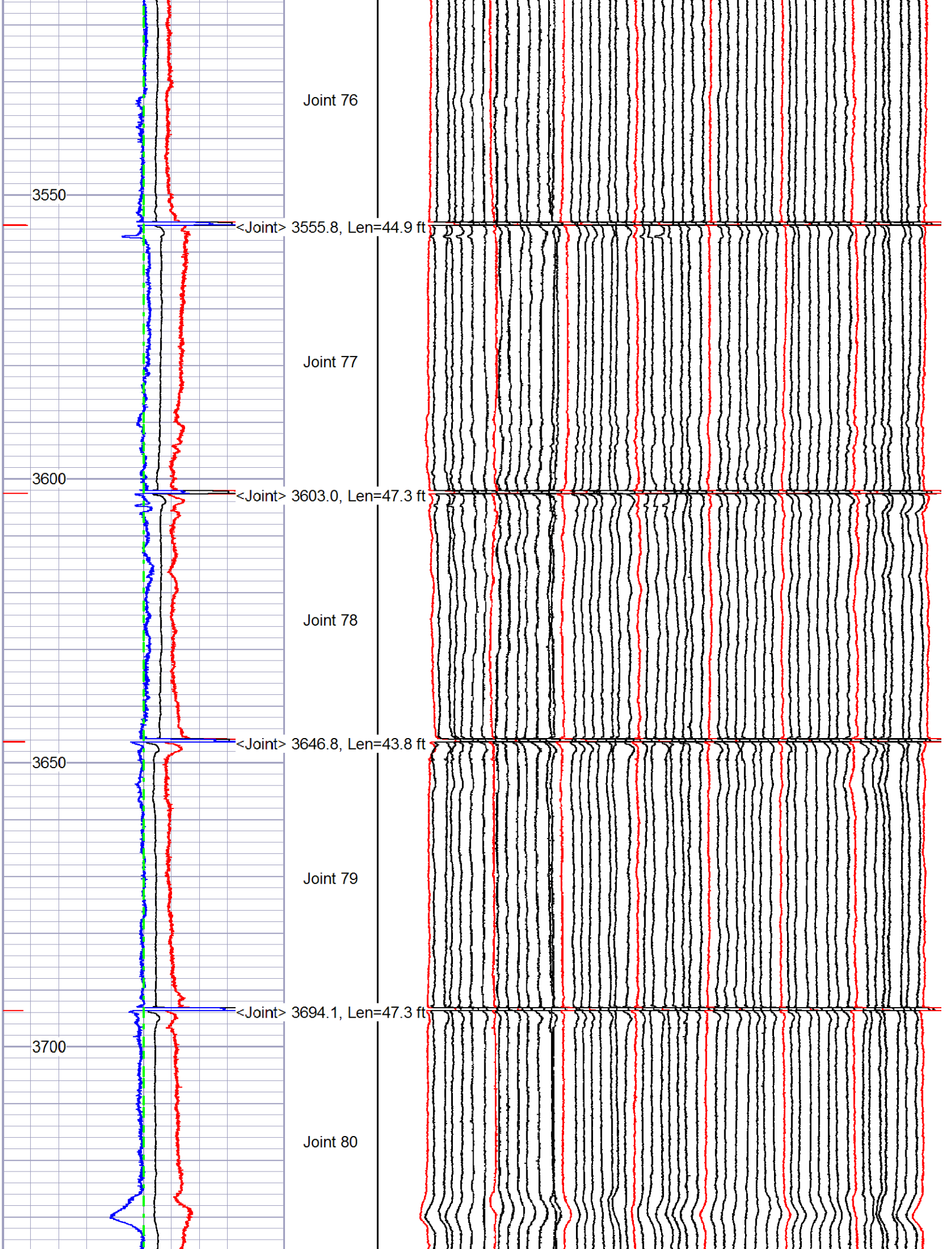
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<Joint> 3555.8, Len=44.9 ft
Joint 77
3600
<Joint> 3603.0, Len=47.3 ft
Joint 78
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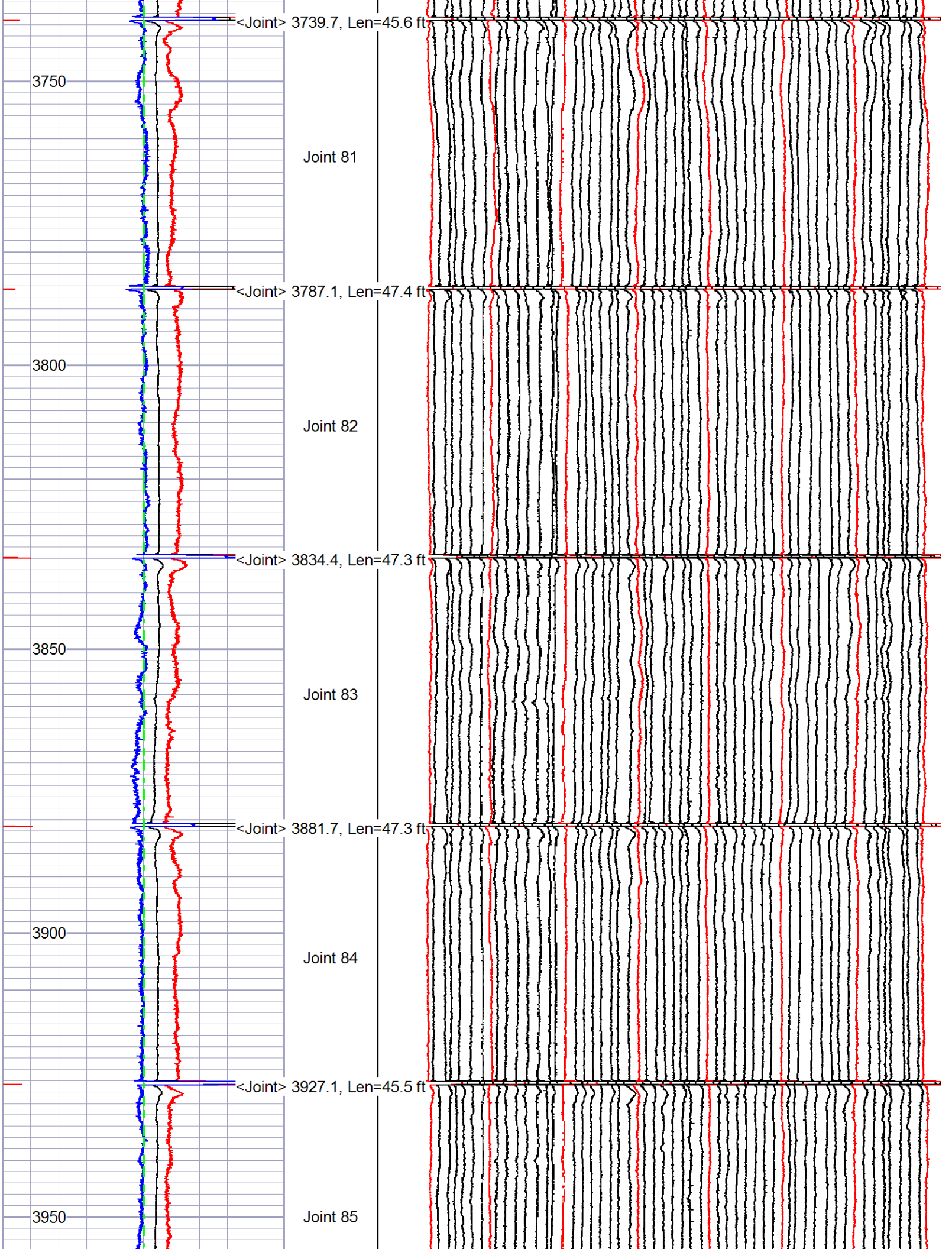
Joint 79
<Joint> 3694.1, Len=47.3 ft
3700
Joint 80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Joint 82
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Joint 83
<Joint> 3881.7, Len=47.3 ft
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Joint 84
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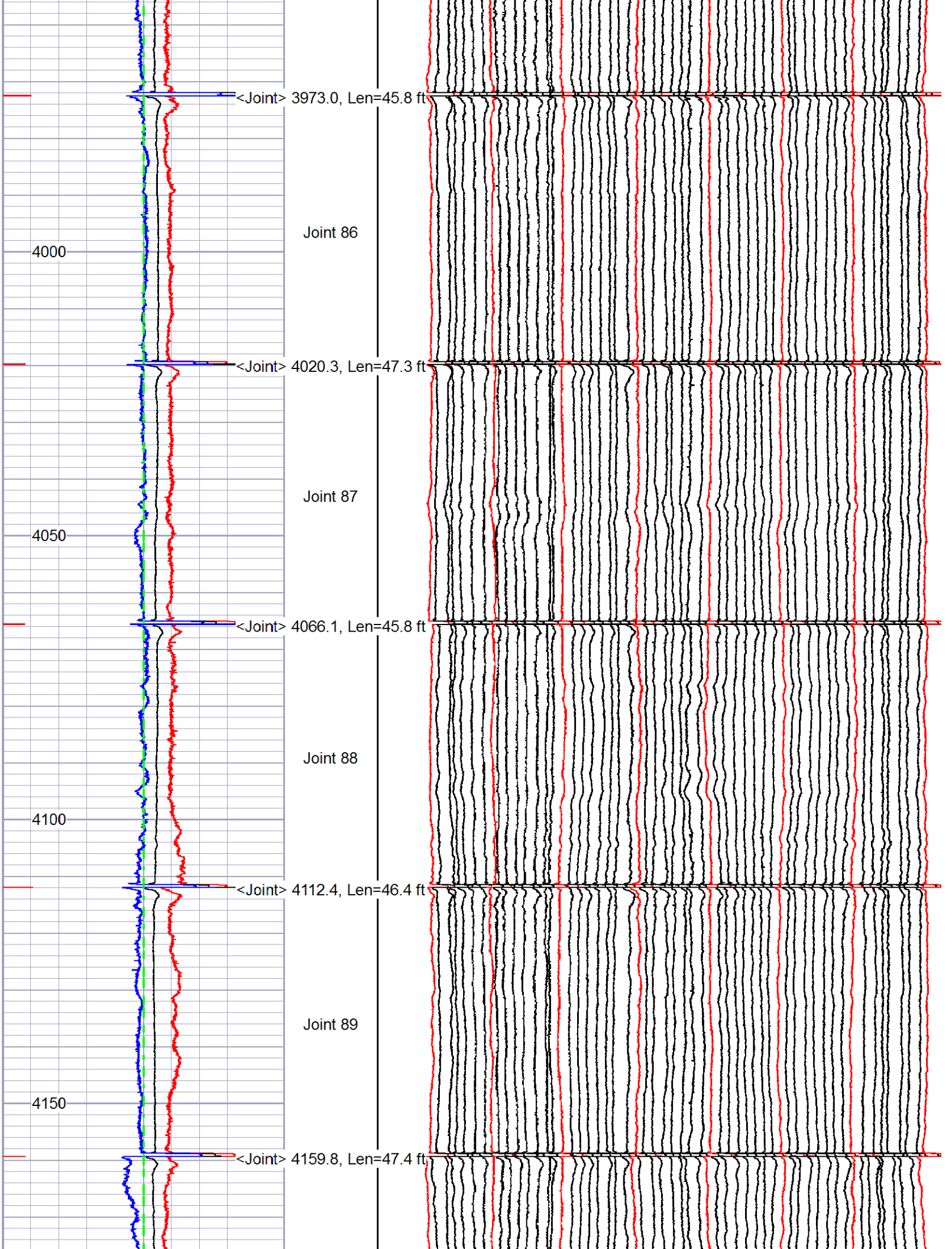
3950
Joint 85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Joint 86
4000
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Joint 87
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<Joint> 4066.1, Len=45.8 ft
Joint 88
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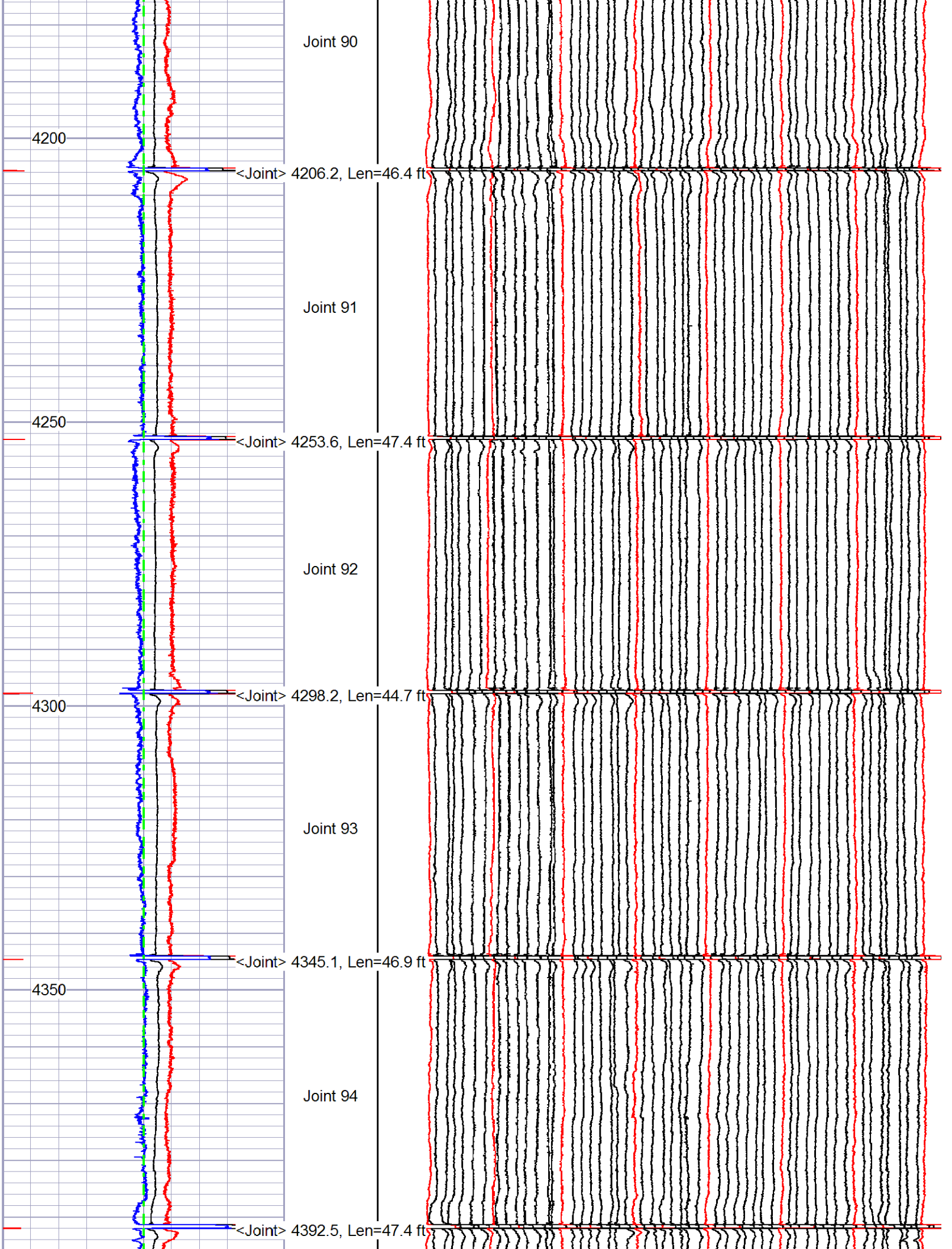
Joint 89
4150
<Joint> 4159.8, Len=47.4 ft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<Joint> 4206.2, Len=46.4 ft
Joint 91
4250
<Joint> 4253.6, Len=47.4 ft
Joint 92
<Joint> 4298.2, Len=44.7 ft
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Joint 93
<Joint> 4345.1, Len=46.9 ft
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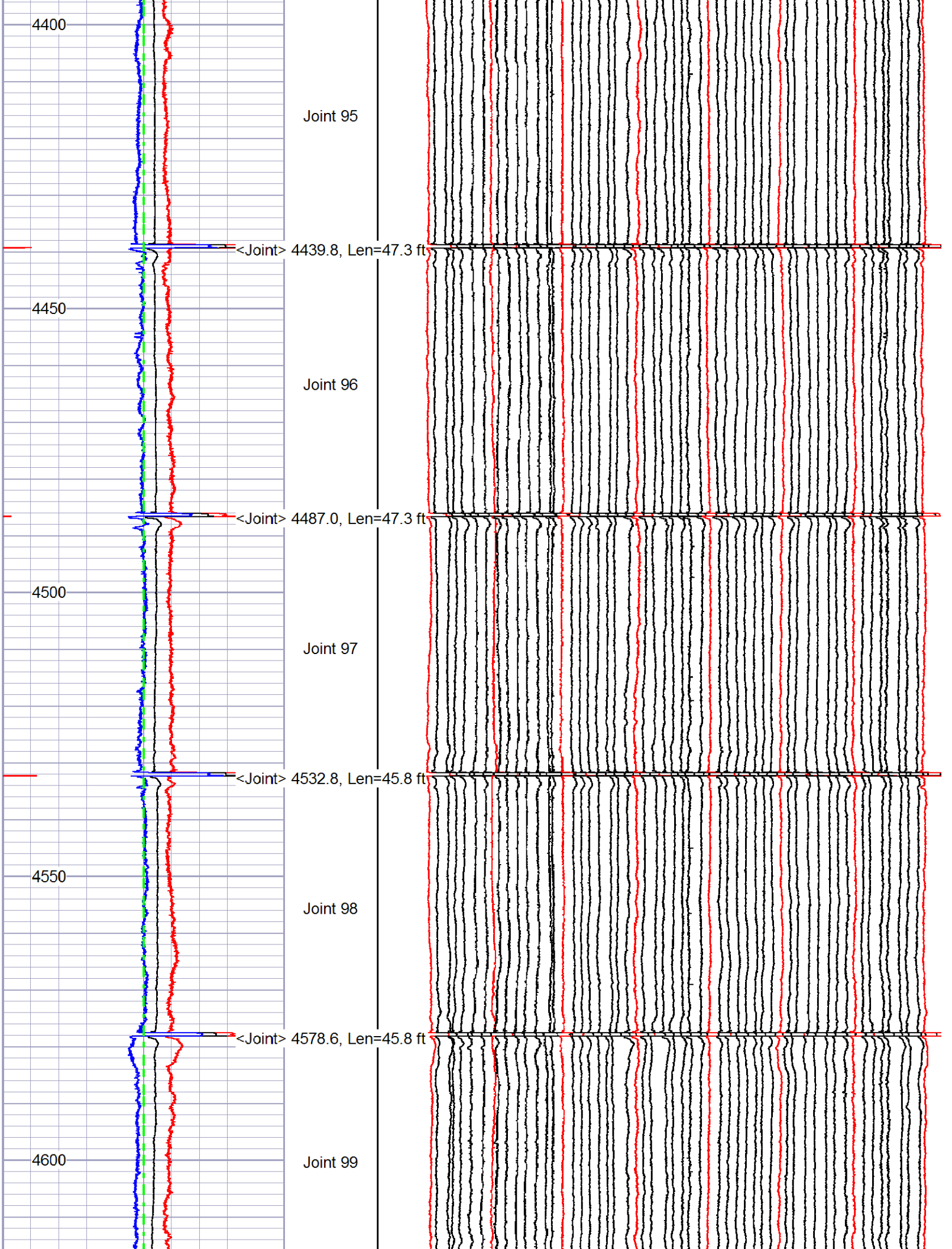
Joint 94
<Joint> 4392.5, Len=47.4 ft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Joint 95
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Joint 96
<Joint> 4487.0, Len=47.3 ft
4500
Joint 97
<Joint> 4532.8, Len=45.8 ft
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Joint 98
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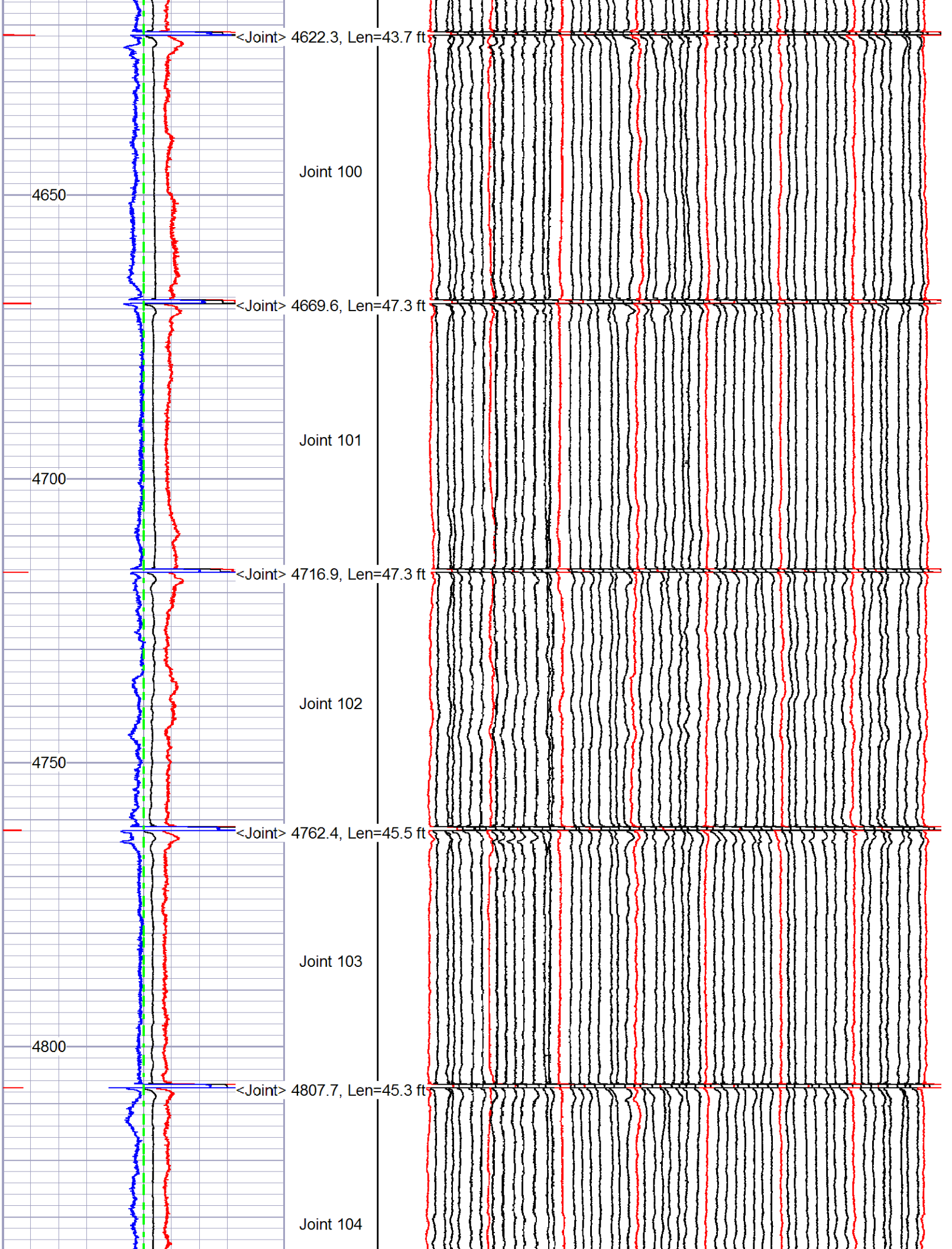
4600
Joint 99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Joint 101
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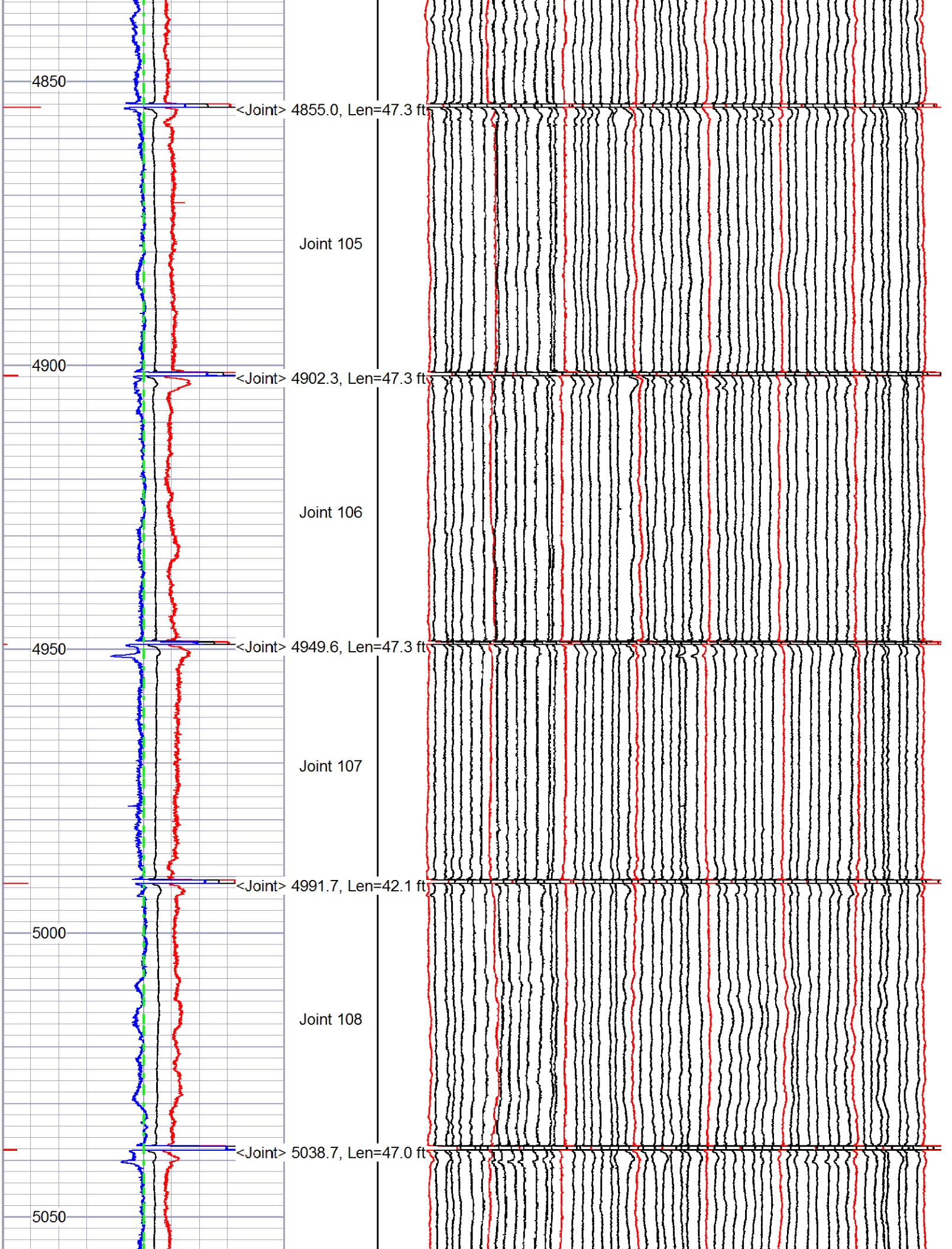
Joint 102
4750
<Joint> 4762.4, Len=45.5 ft
Joint 103
4800
<Joint> 4807.7, Len=45.3 ft
Joint 104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Joint 106
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<Joint> 4949.6, Len=47.3 ft
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Joint 108
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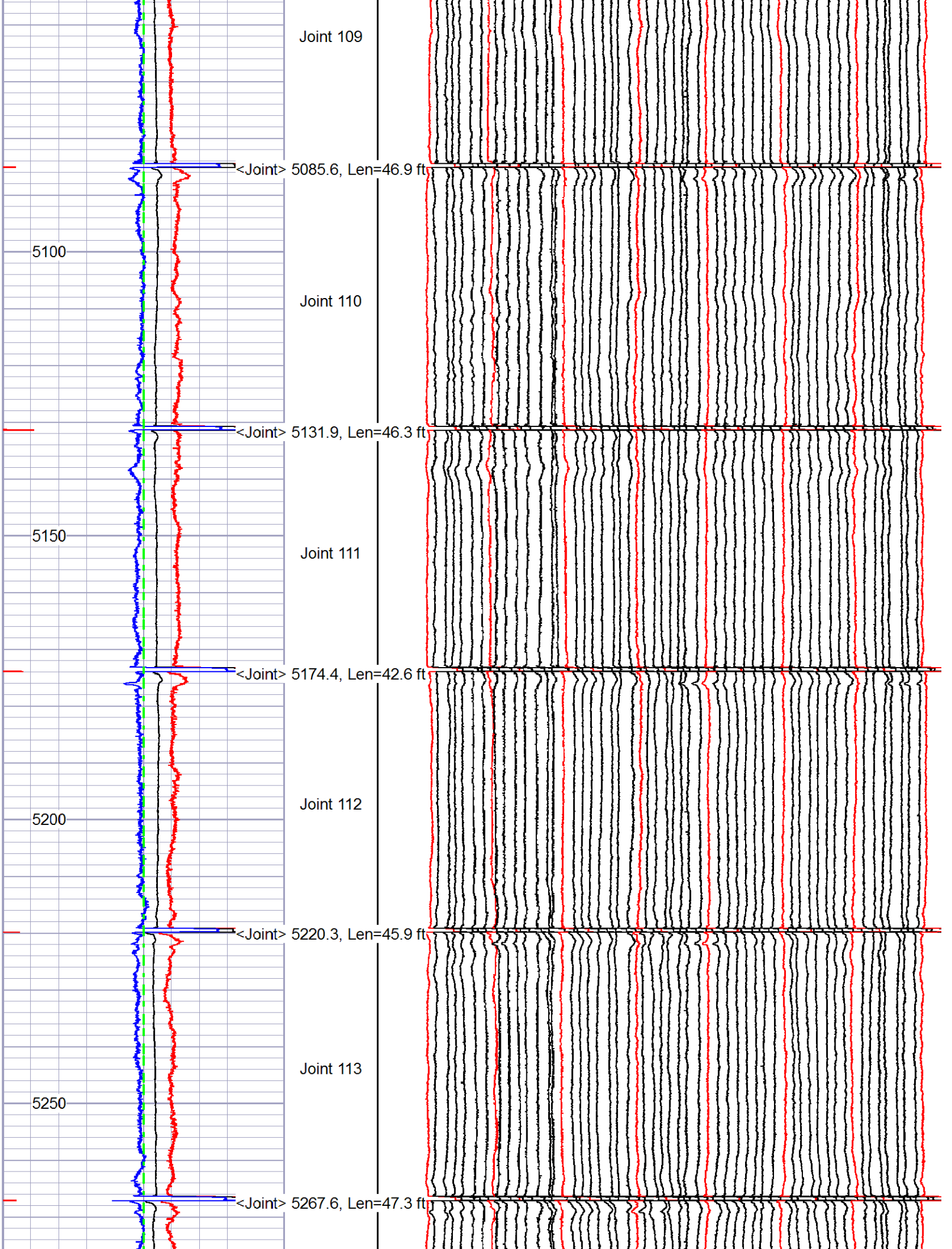
5050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Joint 110
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Joint 111
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Joint 112
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Joint 113
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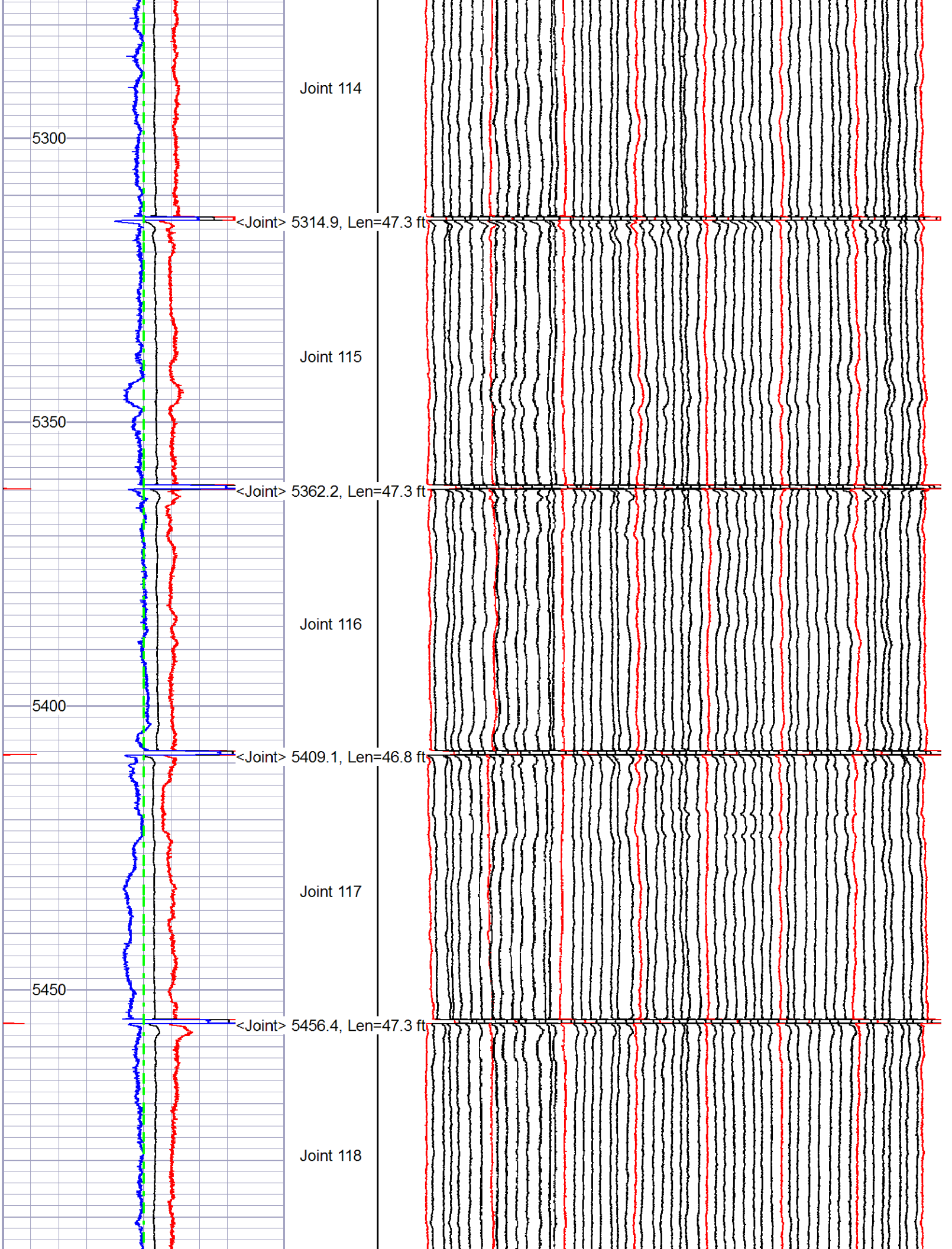
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Joint 115
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<Joint> 5362.2, Len=47.3 ft
Joint 116
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Joint 117
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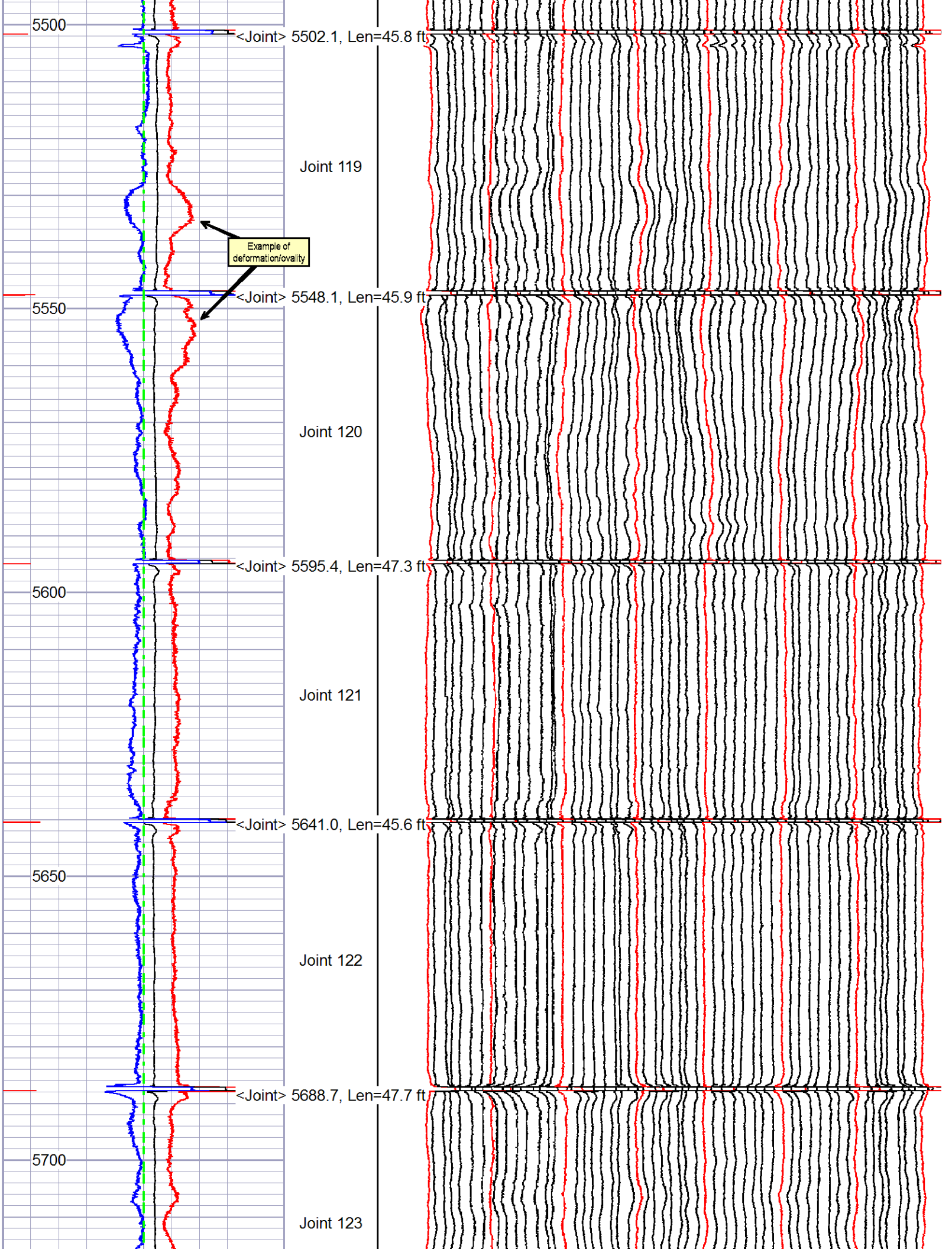
Joint 118


5500
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Joint 119
Example of deformation/ovality
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5550
Joint 120
<Joint> 5595.4, Len=47.3 ft
5600
Joint 121
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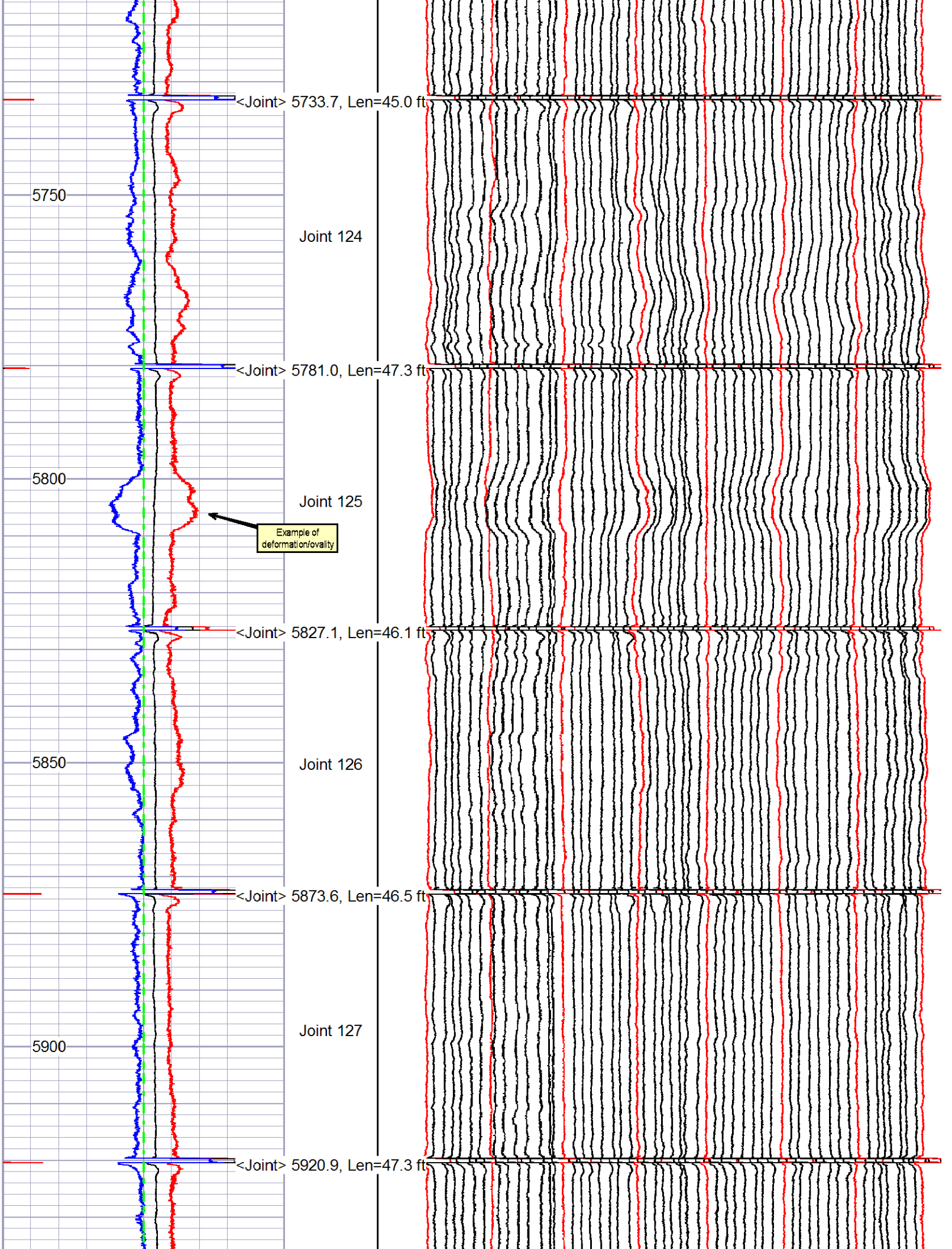
Joint 122
<Joint> 5688.7, Len=47.7 ft
5700
Joint 123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Joint 124
<Joint> 5781.0, Len=47.3 ft
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Joint 125
Example of deformation/ovality
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Joint 126
<Joint> 5873.6, Len=46.5 ft
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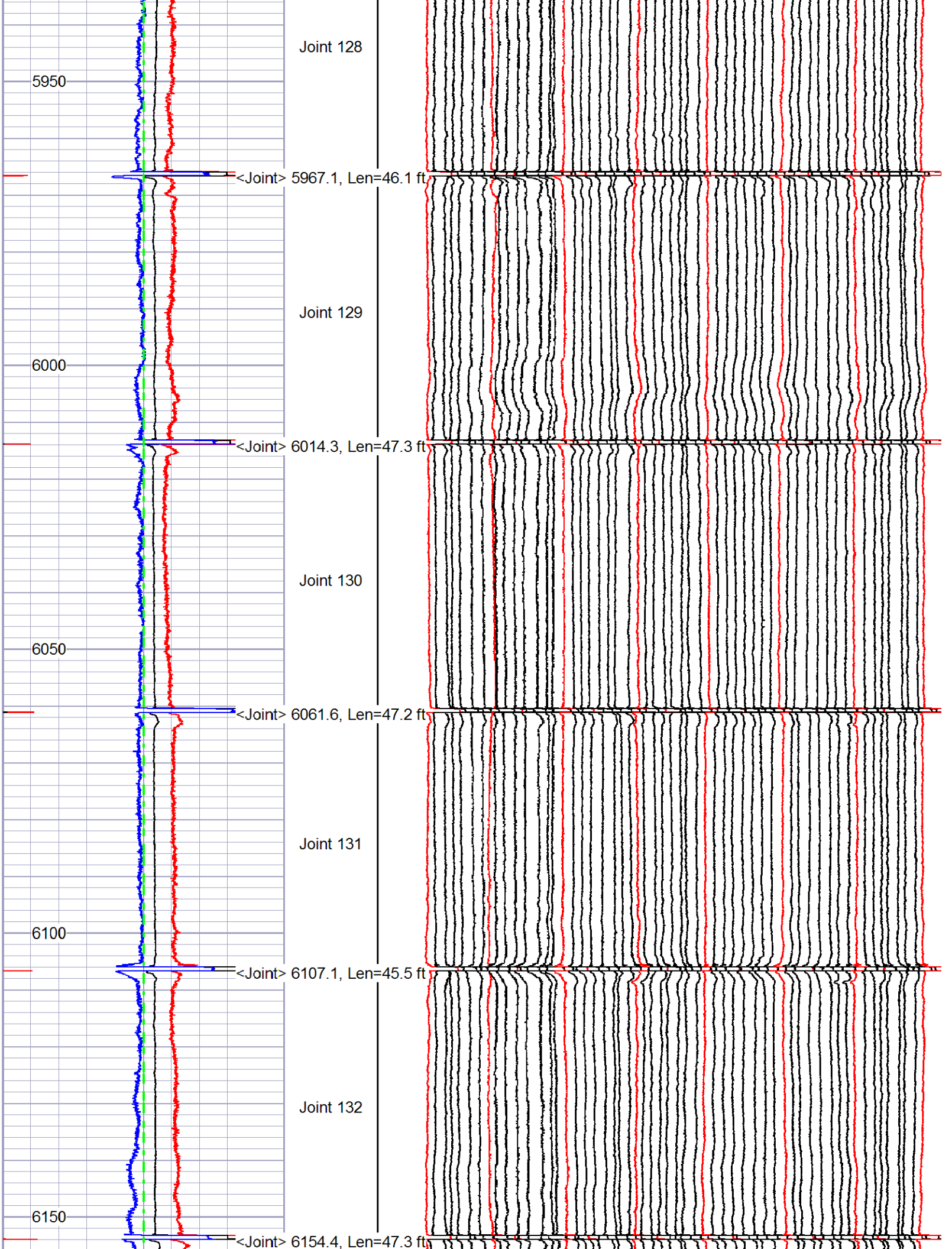
Joint 127
<Joint> 5920.9, Len=47.3 ft


Joint 128
5950
<Joint> 5967.1, Len=46.1 ft
Joint 129
6000
<Joint> 6014.3, Len=47.3 ft
Joint 130
6050
<Joint> 6061.6, Len=47.2 ft
Joint 131
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Joint 132
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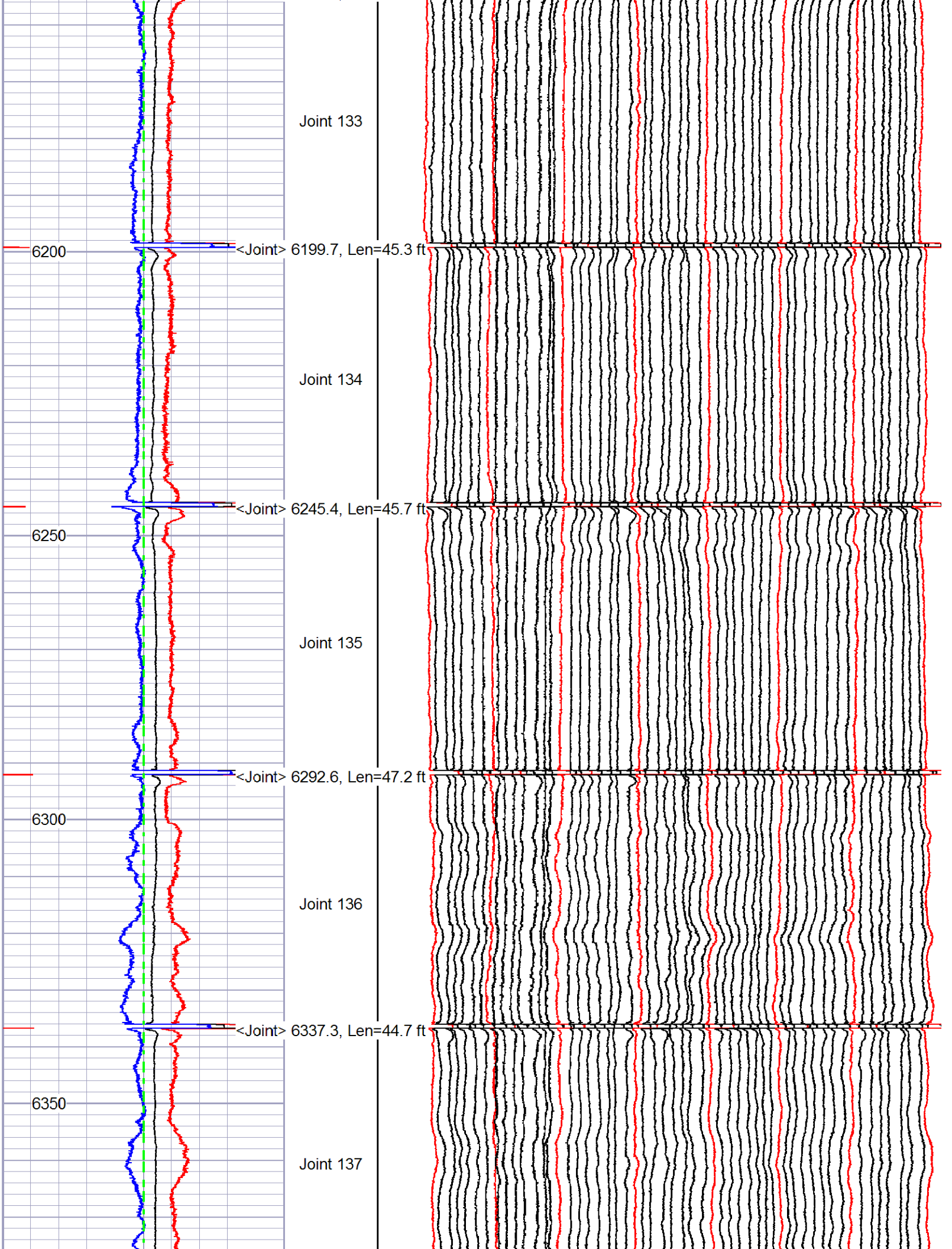
<Joint> 6154.4, Len=47.3 ft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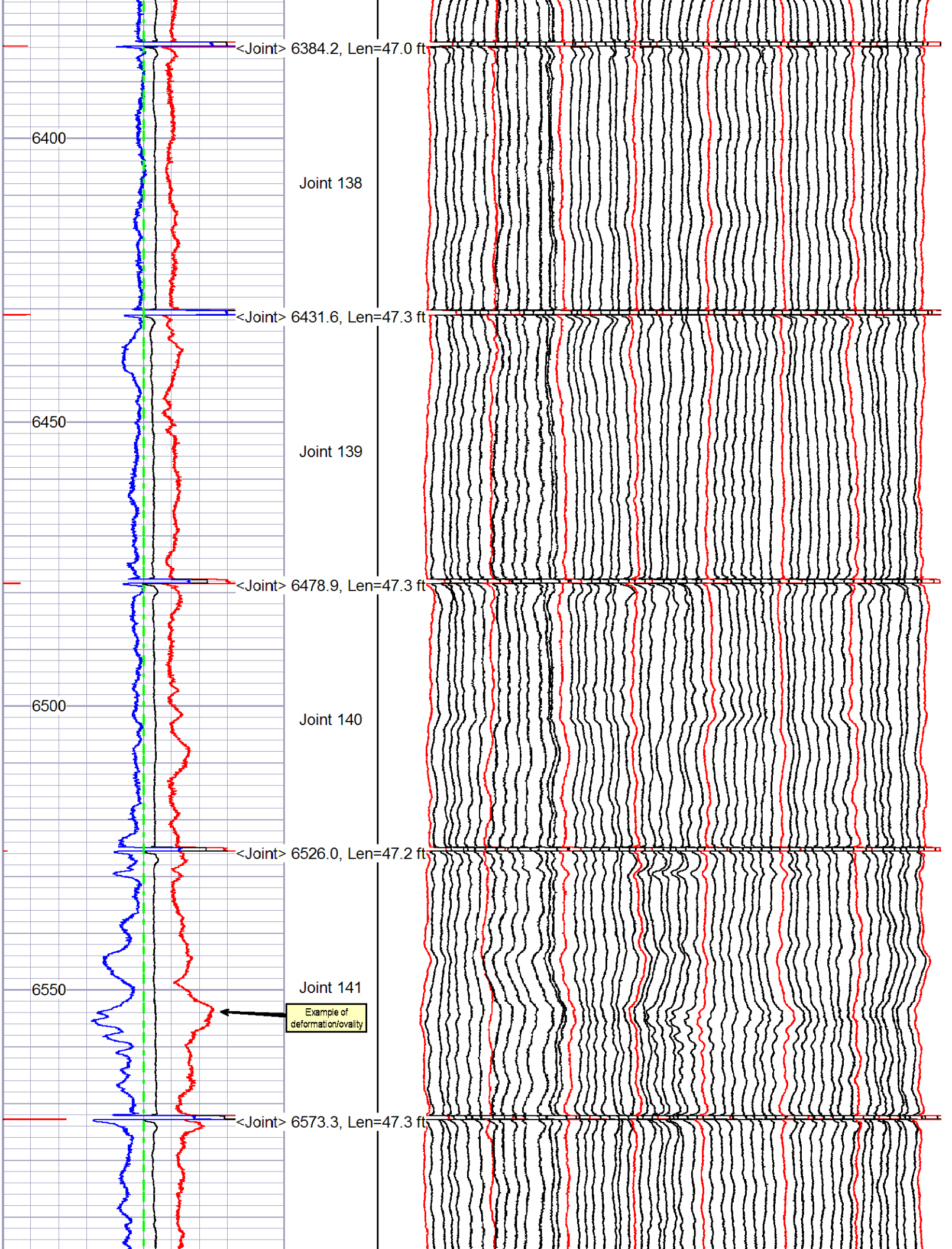
6200
<Joint> 6199.7, Len=45.3 ft
Joint 134
<Joint> 6245.4, Len=45.7 ft
6250
Joint 135
<Joint> 6292.6, Len=47.2 ft
6300
Joint 136
<Joint> 6337.3, Len=44.7 ft
6350
Joint 137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Joint 138
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Joint 139
<Joint> 6478.9, Len=47.3 ft
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Joint 140
<Joint> 6526.0, Len=47.2 ft
6550
Joint 141
Example of deformation/ovality
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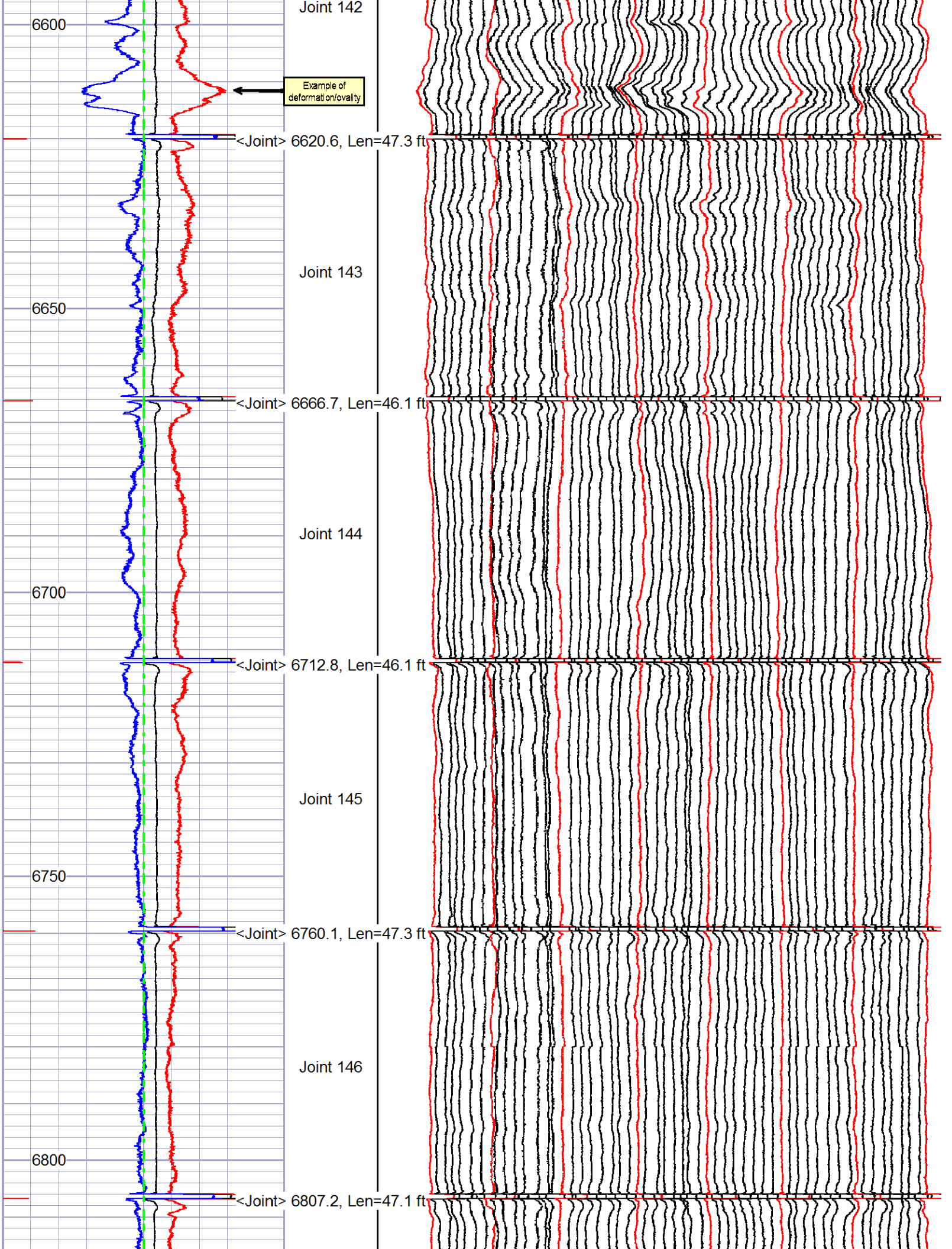
Joint 142
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Example of deformation/ovality
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Joint 143
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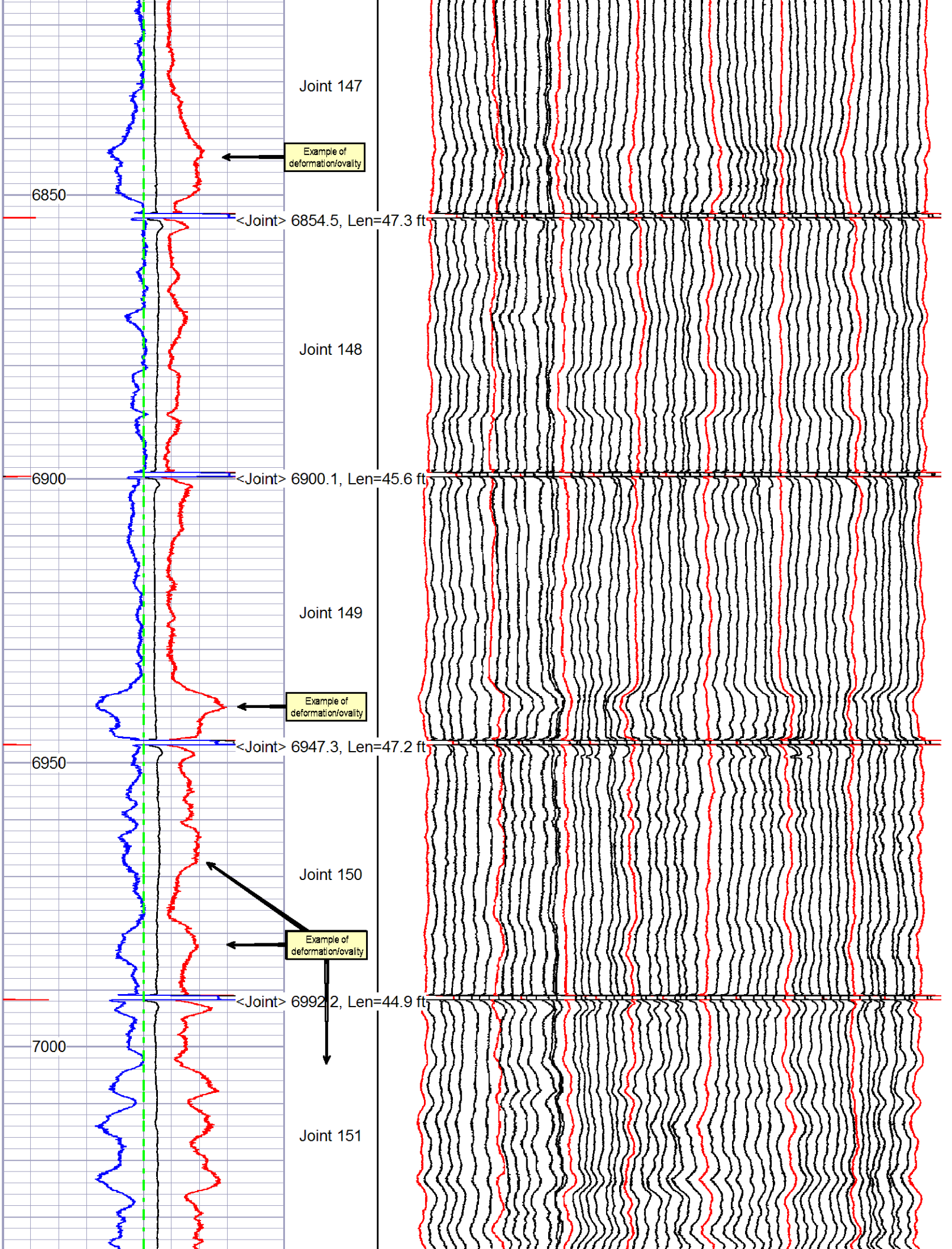
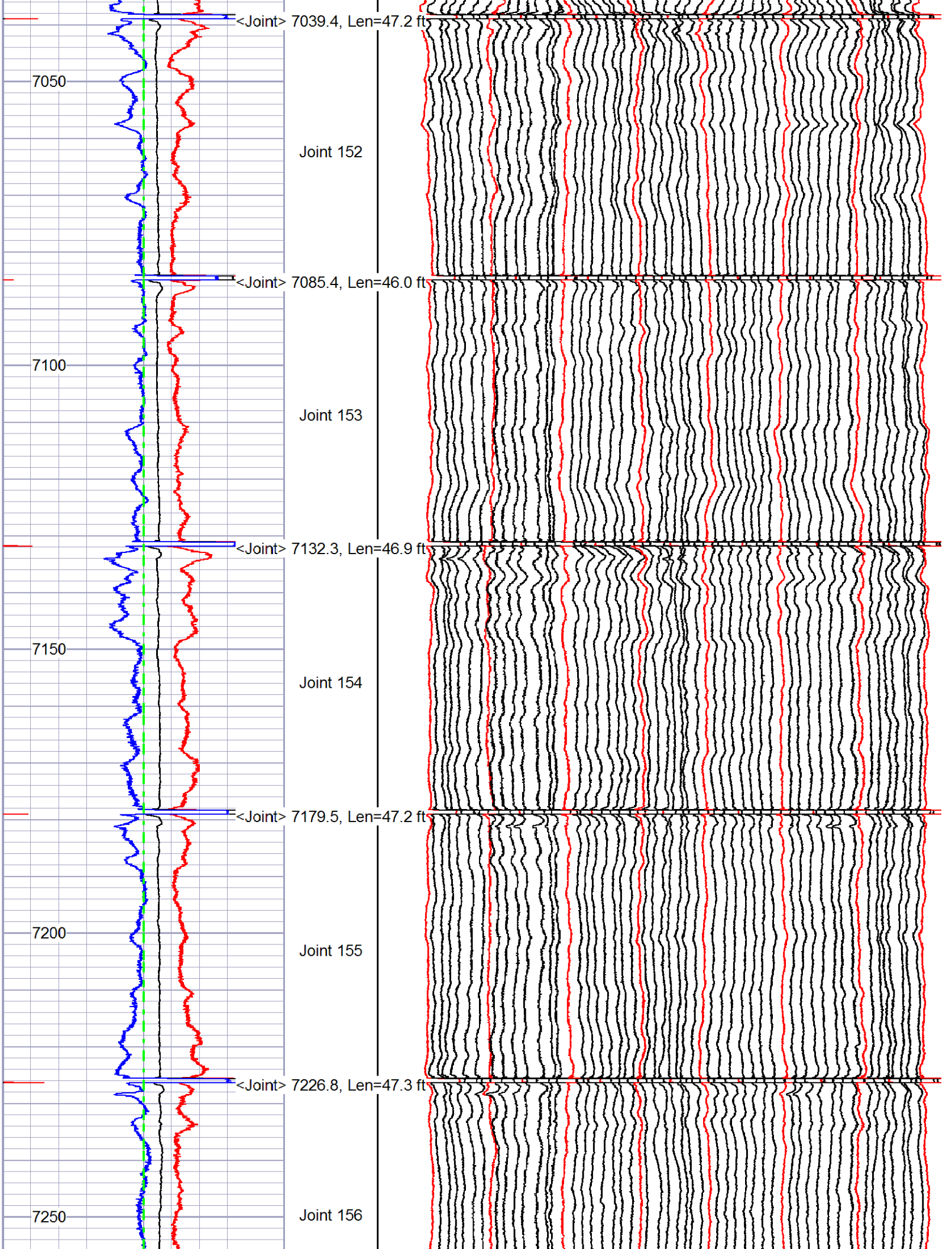
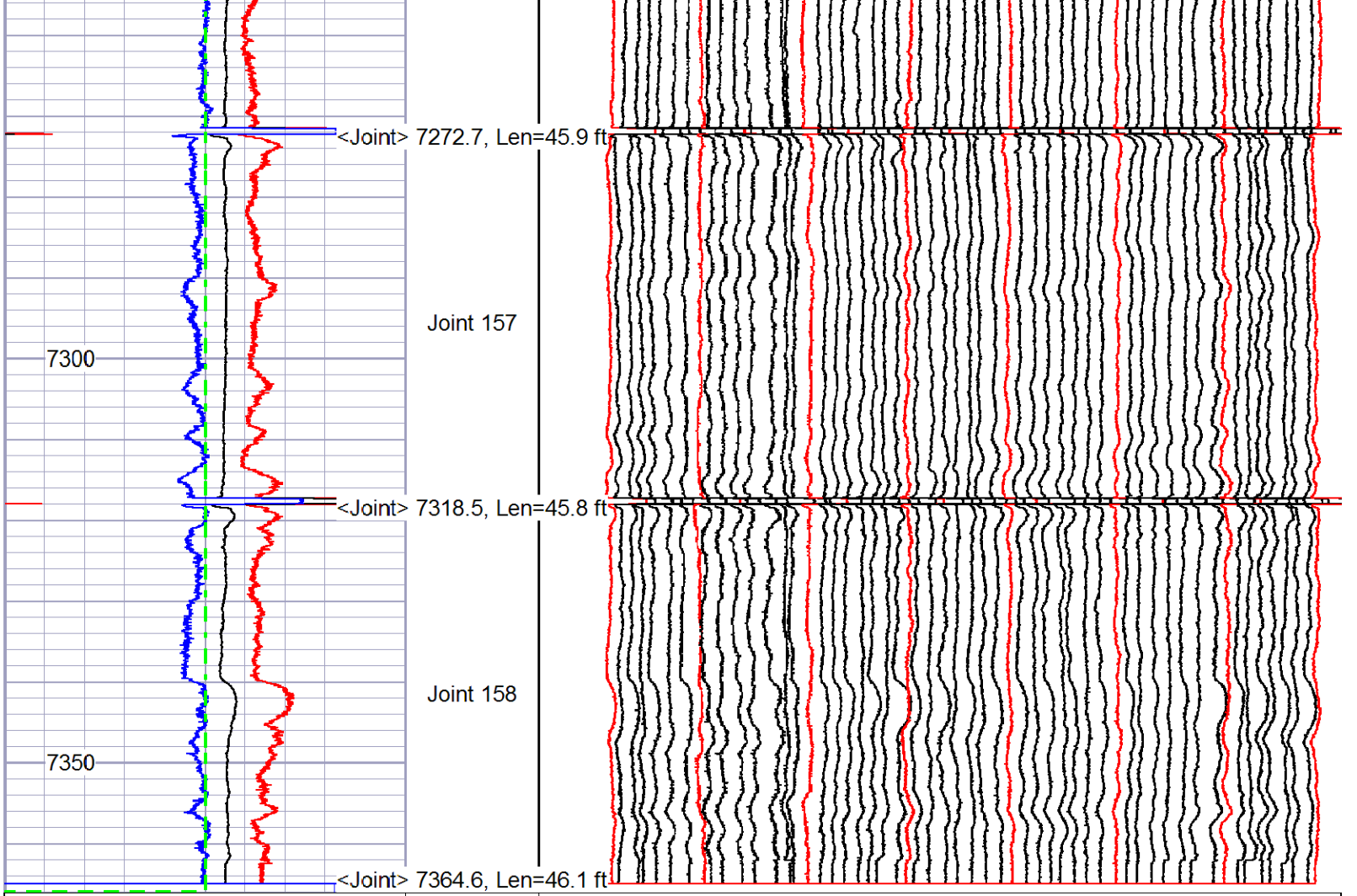
<Joint> 6666.7, Len=46.1 ft
Joint 144
6700
<Joint> 6712.8, Len=46.1 ft
Joint 145
6750
<Joint> 6760.1, Len=47.3 ft
Joint 146
6800
<Joint> 6807.2, Len=47.1 ft


Joint 147
Example of deformation/ovality
6850
<Joint> 6854.5, Len=47.3 ft
Joint 148
6900
<Joint> 6900.1, Len=45.6 ft
Joint 149
Example of deformation/ovality
<Joint> 6947.3, Len=47.2 ft
6950
Joint 150
Example of deformation/ovality
<Joint> 6992.2, Len=44.9 ft
7000
Joint 151


<Joint> 7039.4, Len=47.2 ft
7050
Joint 152
<Joint> 7085.4, Len=46.0 ft
7100
Joint 153
<Joint> 7132.3, Len=46.9 ft
7150
Joint 154
<Joint> 7179.5, Len=47.2 ft
7200
Joint 155
<Joint> 7226.8, Len=47.3 ft
7250
Joint 156



8.181	MAXIMUM FINGER (in)	9.181	PTANN	4.0905	56 FINGER TRACE (in)	7.1905
8.181	AVERAGE FINGER (in)	9.181				
8.181	MINIMUM FINGER (in)	9.181				
8.181	NOMINAL - ID (in)	9.181				

Calibration Report

Database File	porter_69g_ical.db
Dataset Pathname	pass1.19
Dataset Creation	Thu Aug 04 15:38:34 2016

GOWell 56 Arm Calibration Report

Serial Number:	10065
Tool Model:	56
Performed:	Thu Aug 04 06:53:04 2016

Ref ID:	6.00	7.00	8.00	9.00	9.63	Offset	in
Arm1	6.05	7.10	8.09	9.12	9.75	0.00	in
Arm2	6.02	7.02	7.98	8.98	9.61	0.00	in
Arm3	6.07	7.10	8.11	9.14	9.77	0.00	in
Arm4	5.91	6.93	7.91	8.98	9.60	0.00	in
Arm5	6.05	7.06	8.07	9.10	9.73	0.00	in
Arm6	6.06	7.03	8.01	9.03	9.64	0.00	in
Arm7	5.98	6.98	8.01	9.09	9.67	0.00	in
Arm8	6.02	7.00	8.01	9.03	9.60	0.00	in
Arm9	5.98	6.99	8.00	9.04	9.67	0.00	in
Arm10	6.19	7.14	8.13	9.15	9.74	0.00	in
Arm11	6.09	7.08	8.10	9.16	9.73	0.00	in
Arm12	6.04	6.99	7.98	9.02	9.59	0.00	in

Arm13	6.06	7.05	8.06	9.14	9.70	0.00	in
Arm14	6.15	7.11	8.08	9.12	9.68	0.00	in
Arm15	6.34	7.32	8.32	9.38	9.90	0.00	in
Arm16	6.38	7.36	8.36	9.40	9.95	0.00	in
Arm17	5.87	6.82	7.83	8.92	9.37	0.00	in
Arm18	6.18	7.16	8.15	9.21	9.74	0.00	in
Arm19	5.89	6.89	7.91	9.01	9.56	0.00	in
Arm20	6.11	7.11	8.07	9.12	9.67	0.00	in
Arm21	6.06	7.05	8.04	9.14	9.70	0.00	in
Arm22	6.23	7.21	8.16	9.20	9.75	0.00	in
Arm23	6.20	7.18	8.16	9.19	9.74	0.00	in
Arm24	6.15	7.14	8.12	9.16	9.74	0.00	in
Arm25	5.93	6.91	7.89	8.94	9.51	0.00	in
Arm26	6.12	7.12	8.10	9.16	9.75	0.00	in
Arm27	6.12	7.11	8.08	9.13	9.70	0.00	in
Arm28	6.19	7.20	8.17	9.25	9.84	0.00	in
Arm29	6.09	7.11	8.09	9.17	9.76	0.00	in
Arm30	6.23	7.25	8.21	9.22	9.81	0.00	in

* Bad

GOWell 56 Arm Calibration Report

Serial Number:
Tool Model:
Performed:

Ref ID:	6.00	7.00	8.00	9.00	9.63	Offset	in
Arm31	6.15	7.19	8.14	9.23	9.81	0.00	in
Arm32	6.08	7.09	8.04	9.07	9.69	0.00	in
Arm33	6.35	7.37	8.33	9.33	9.92	0.00	in
Arm34	6.33	7.35	8.28	9.28	9.89	0.00	in
Arm35	6.15	7.29	8.16	9.24	9.88	0.00	in
Arm36	6.40	7.41	8.21	9.32	9.92	0.00	in
Arm37	6.15	7.20	8.13	9.13	9.79	0.00	in
Arm38	6.14	7.16	8.05	9.08	9.80	0.00	in
Arm39	5.90	6.98	7.92	8.90	9.66	0.00	in
Arm40	6.20	7.26	8.17	9.18	9.84	0.00	in
Arm41	6.07	7.11	8.06	9.06	9.74	0.00	in
Arm42	6.12	7.19	8.09	9.11	9.77	0.00	in
Arm43	6.12	7.21	8.09	9.10	9.80	0.00	in
Arm44	6.80	7.75	8.71	9.66	10.27	0.00	in
Arm45	5.93	7.03	8.00	9.02	9.69	0.00	in
Arm46	6.09	7.17	8.13	9.14	9.81	0.00	in
Arm47	6.01	7.08	8.04	9.05	9.72	0.00	in
Arm48	5.97	7.05	8.02	9.02	9.68	0.00	in
Arm49	6.06	7.16	8.06	9.09	9.79	0.00	in
Arm50	6.18	7.20	8.13	9.11	9.79	0.00	in
Arm51	6.01	7.09	8.05	9.06	9.73	0.00	in
Arm52	6.10	7.16	8.13	9.12	9.77	0.00	in
Arm53	5.94	7.01	8.00	9.01	9.68	0.00	in
Arm54	6.14	7.20	8.09	9.08	9.72	0.00	in
Arm55	6.15	7.20	8.17	9.18	9.83	0.00	in
Arm56	6.03	7.08	8.01	9.03	9.65	0.00	in
Arm57							in
Arm58							in
Arm59							in
Arm60							in

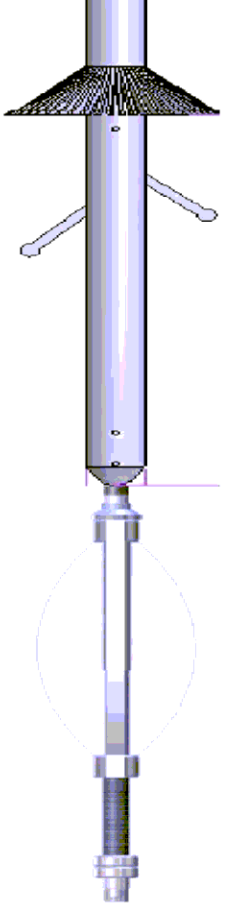
* Bad

GOWell 56 Arm Verification Report

	Pre Verification	Post Verification	Casing Check
Performed:	Thu Aug 04 06:57:44 2016	Thu Aug 04 15:38:24 2016	Thu Aug 04 13:28:26 2016
Ref ID:	0.00	8.00	8.68 in

Min.	4898885210058402170[illegible]	7.97[illegible]	8.69[illegible]	in[illegible]
Max.	0.00	8.00	8.77	in
Avg.	0.00	7.99	8.73	in
Dia1	8.00	7.99	8.76	in
Dia2	8.00	7.98	8.75	in
Dia3	8.00	7.99	8.76	in
Dia4	8.00	7.98	8.74	in
Dia5	8.00	7.99	8.76	in
Dia6	8.00	7.98	8.74	in
Dia7	8.00	7.98	8.75	in
Dia8	8.01	7.97	8.73	in
Dia9	8.00	7.99	8.74	in
Dia10	8.00	7.98	8.71	in
Dia11	8.01	7.98	8.76	in
Dia12	8.00	7.99	8.71	in
Dia13	8.00	7.99	8.72	in
Dia14	8.00	7.98	8.70	in
Dia15	8.00	7.99	8.75	in
Dia16	8.00	7.97	8.70	in
Dia17	8.02	7.98	8.72	in
Dia18	8.00	7.99	8.70	in
Dia19	8.00	7.99	8.69	in
Dia20	8.00	7.99	8.70	in
Dia21	8.00	8.00	8.75	in
Dia22	8.00	8.00	8.74	in
Dia23	8.00	8.00	8.74	in
Dia24	8.01	7.98	8.74	in
Dia25	8.00	8.00	8.75	in
Dia26	8.00	7.99	8.74	in
Dia27	8.00	7.99	8.76	in
Dia28	8.00	7.99	8.75	in

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb
BPRES	13.61					
PPRES	13.61		CHD-STNDRD Standard Cable Head	1.03	1.45	10.00
TOTBBL	13.61					
PRATE	13.61					
LTENUSR	13.61					
			CENT-3' In-Line 2. 3/4" Probe In-Line Standard GOI Centralizer	3.00	2.75	30.00



Meas	5.67	XIPEMAC-56 (10065) Hotwell 56 Arm caliper	6.58	3.50	100.00
Aux1	3.00	CENT-3' In-Line 2. 3/4" Probe In-Line Standard GOI Centralizer	3.00	2.75	30.00
LOCTIM	0.00				
UTCTIM	0.00				

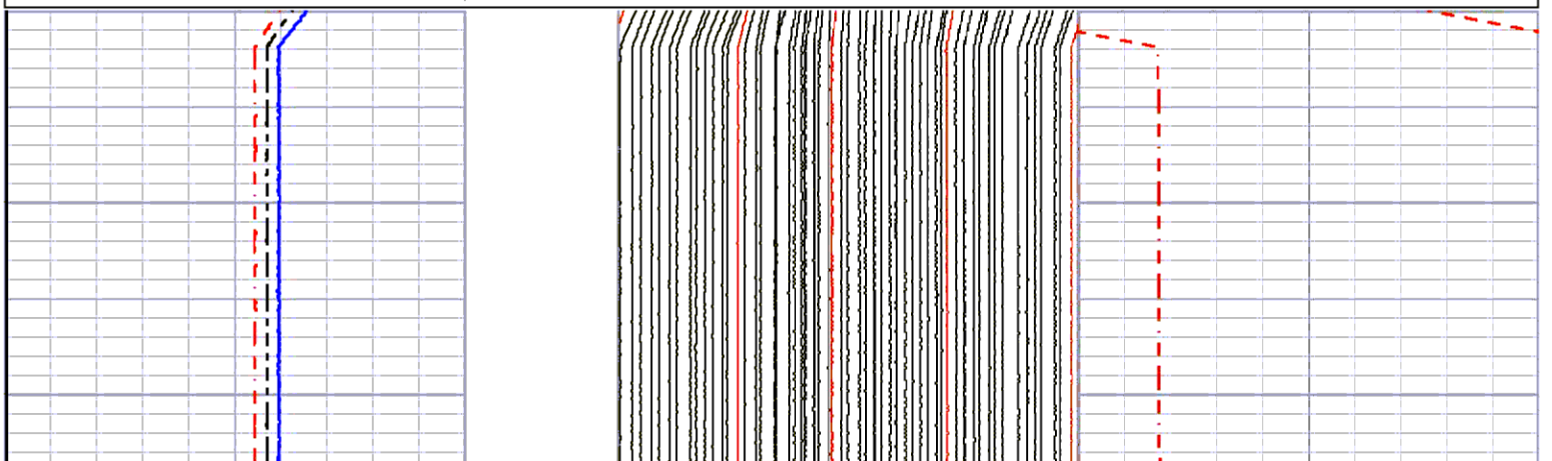
Dataset:	porter_69g_ical.db: field/well/run1/pass1.17
Total length:	13.61 ft
Total weight:	170.00 lb
O.D.:	3.50 in

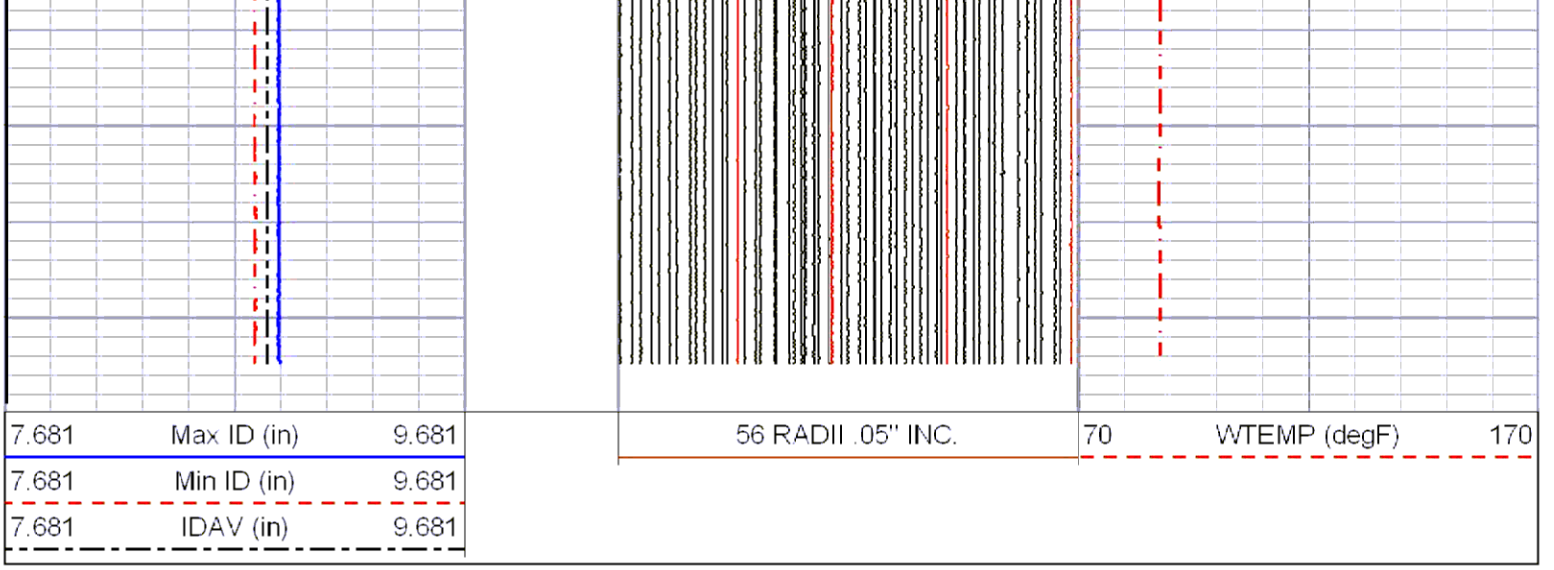
BAKER HUGHES

STUB CHECK

Database File	porter_69g_ical.db
Dataset Pathname	pass1.18
Presentation Format	56_47lb
Dataset Creation	Thu Aug 04 15:30:28 2016
Charted by	Time scaled 360/hour

7.681	Max ID (in)	9.681	56 RADII .05" INC.	70	WTEMP (degF) 170
7.681	Min ID (in)	9.681			
7.681	IDAV (in)	9.681			





7.681	Max ID (in)	9.681		56 RADII .05" INC.	70	WTEMP (degF) 170
7.681	Min ID (in)	9.681				
7.681	IDAV (in)	9.681				

BAKER HUGHES

Company	SOUTHERN CALIFORNIA GAS COMPANY
Well	PORTER 69G
Field	ALISO CANYON
County	LOS ANGELES
State	CALIFORNIA