



Precision Directional Services, Inc.

27610 Commerce Oaks Drive
Oak Ridge North, Texas 77385
713-435-6250

O'Hare 1-29-11-57

Scale 2":100' - MD

9/26/2014 4:16 AM

Oper. Company: Carrizo Oil & Gas, Inc.

Well: O'Hare 1-29-11-57

Field: Niobrara CONZ'83

Rig: Xtreme 19

Well ID: 05-123-40081-00

Job Number: DL2404

State: Colorado

County: Weld

Country: USA

Location: Kimball

Start Date: 09/19/2014 10:00:00

End Date: 09/26/2014 04:00:00

Latitude: 40.8918416666667

Longitude: -103.774016666666

Elev KB: 17'

Elev DF: 4944'

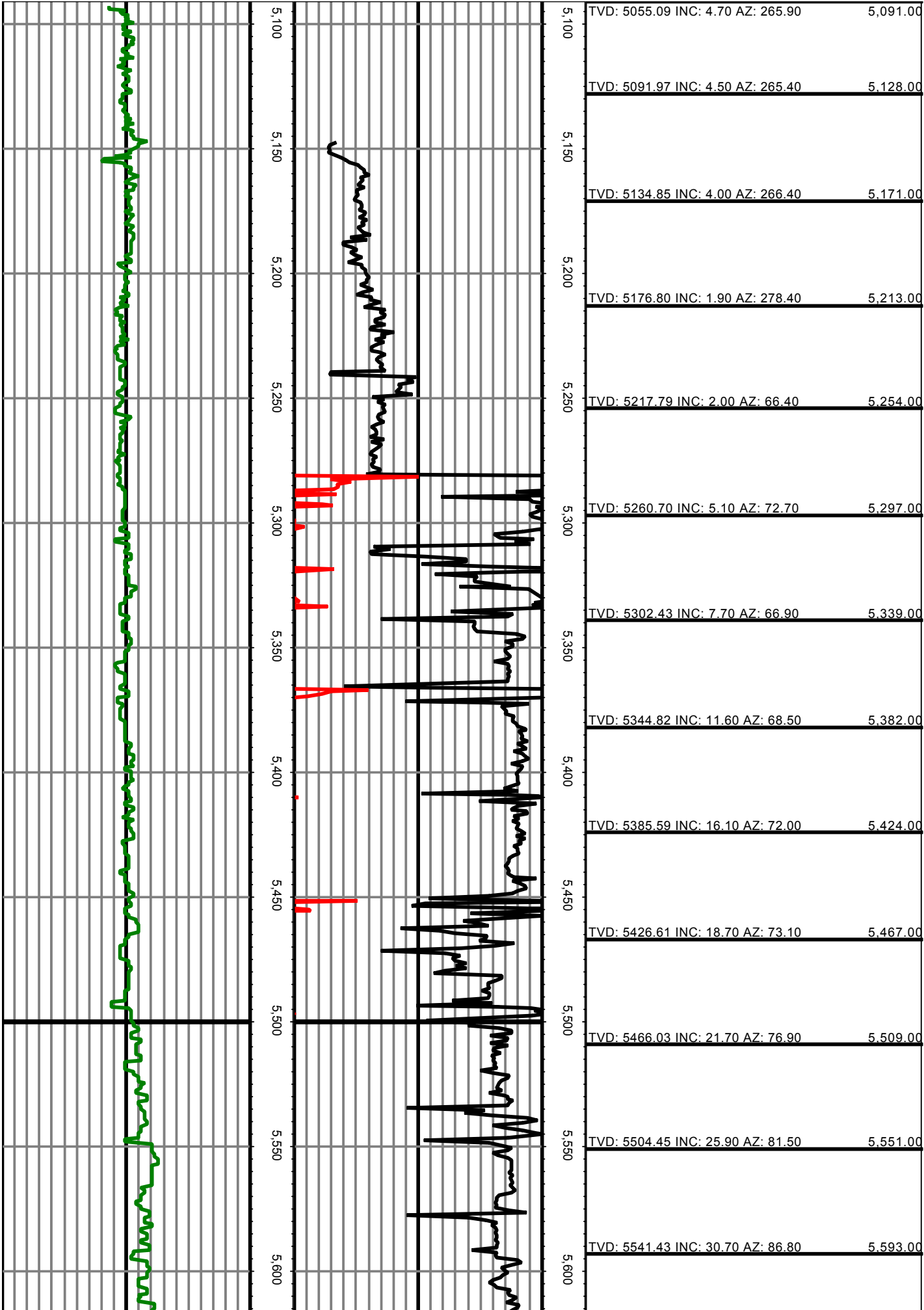
Elev GL: 4927'

Operator 1: Paul Brown

Operator 2: Kyle Elliott

Tool Run Data	Run #1	Run #2	Run #3	Run #4	Run #5
Tool S/N	G1698	G2034			
Bit Size	8 3/4	6 1/8			
Cal Factor	3.24	1.37			
Gamma Offset	52.00	54.00			
Resistivity Offset	0.00	0.00			
Start Depth	5145.00	5998.00			
StartDate	9/19/2014	9/21/2014			
StartTime	5:21 PM	5:23 PM			
EndDepth	5998.00	13350.00			
EndDate	9/20/2014	9/26/2014			
EndTime	12:00 AM	12:00 AM			
Mud Type	WBM	WBM			
Mud Weight	9.5 - 9.6	9.5 - 9.6			
Funnel Viscosity	52 - 55	47 - 51			
Plastic Viscosity	17	17 - 18			
Yield Point	15 - 17	13 - 14			
Gel Strength	5 - 12	25			
Solids Content	6.0	6.0 - 6.2			
Sand Content	0.25	0.25			
Mud Alkalinity	0.6	0.5 - 0.6			
Filtrate Alkalinity	0.4 - 1.0	0.3 - 1.0			
Chlorides	600 - 700	600 - 700			
Mud RM	N/A	N/A			
Mud RMF	N/A	N/A			
Mud RMC	N/A	N/A			
Mud RM at BHT	N/A	N/A			
Temperature	130 - 150	190 - 205			
Hole Data			Casing Data		
Size	From	To	Size	From	To
12 1/4	0.00	1496.00	9 5/8	0.00	1476.00
8 3/4	1496.00	5998.00	7	1476.00	5978.00
6 1/8	5998.00	13350.00	4.5	5978.00	13350.00

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, cost damages or expenses incurred or sustained by anyone resulting from an interpretation made by any of our officers, agents, or employees.



TVD: 5576.50 INC: 36.00 AZ: 89.40 5.635.00

TVD: 5609.95 INC: 41.80 AZ: 90.30 5.678.00

TVD: 5639.69 INC: 48.00 AZ: 90.50 5.720.00

TVD: 5666.48 INC: 52.70 AZ: 90.70 5.762.00

TVD: 5691.66 INC: 55.60 AZ: 91.00 5.805.00

TVD: 5714.41 INC: 58.80 AZ: 91.50 5.847.00

TVD: 5734.89 INC: 62.80 AZ: 91.20 5.889.00

TVD: 5751.66 INC: 68.90 AZ: 91.20 5.930.00

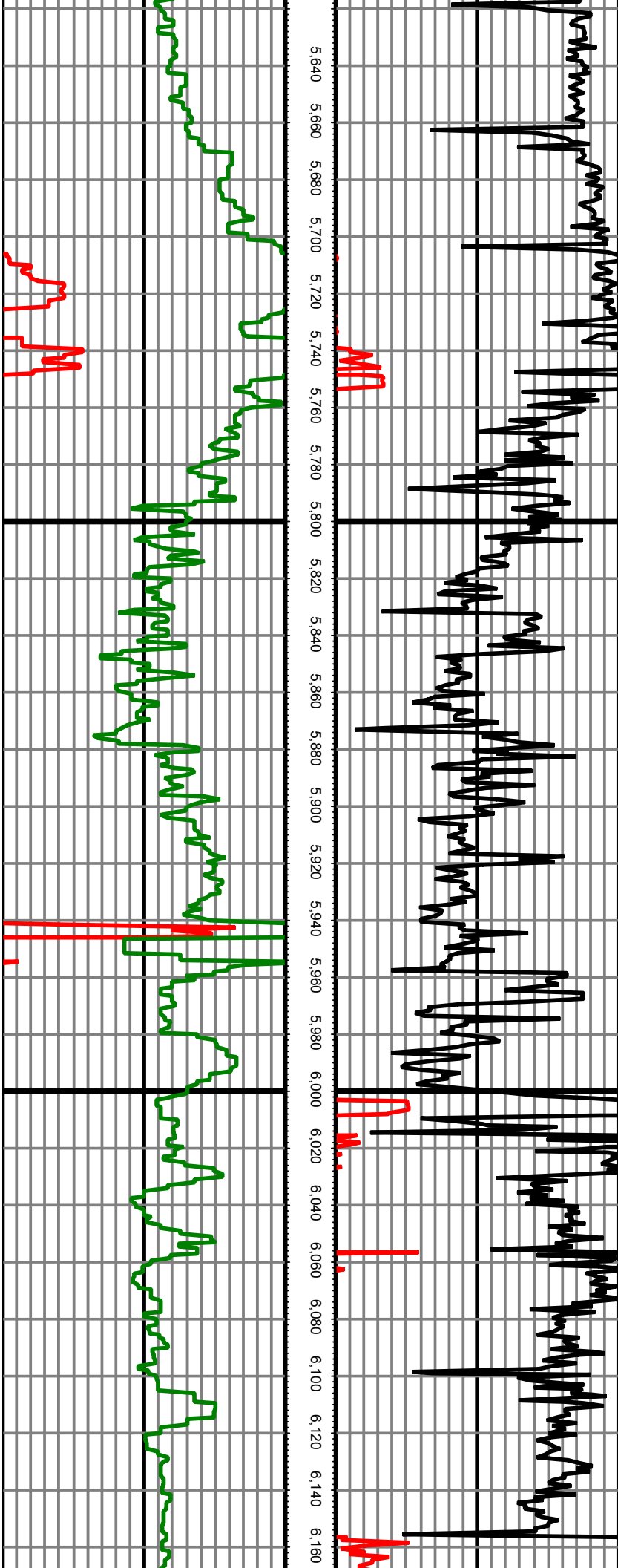
TVD: 5780.02 INC: 77.10 AZ: 85.20 6.027.00

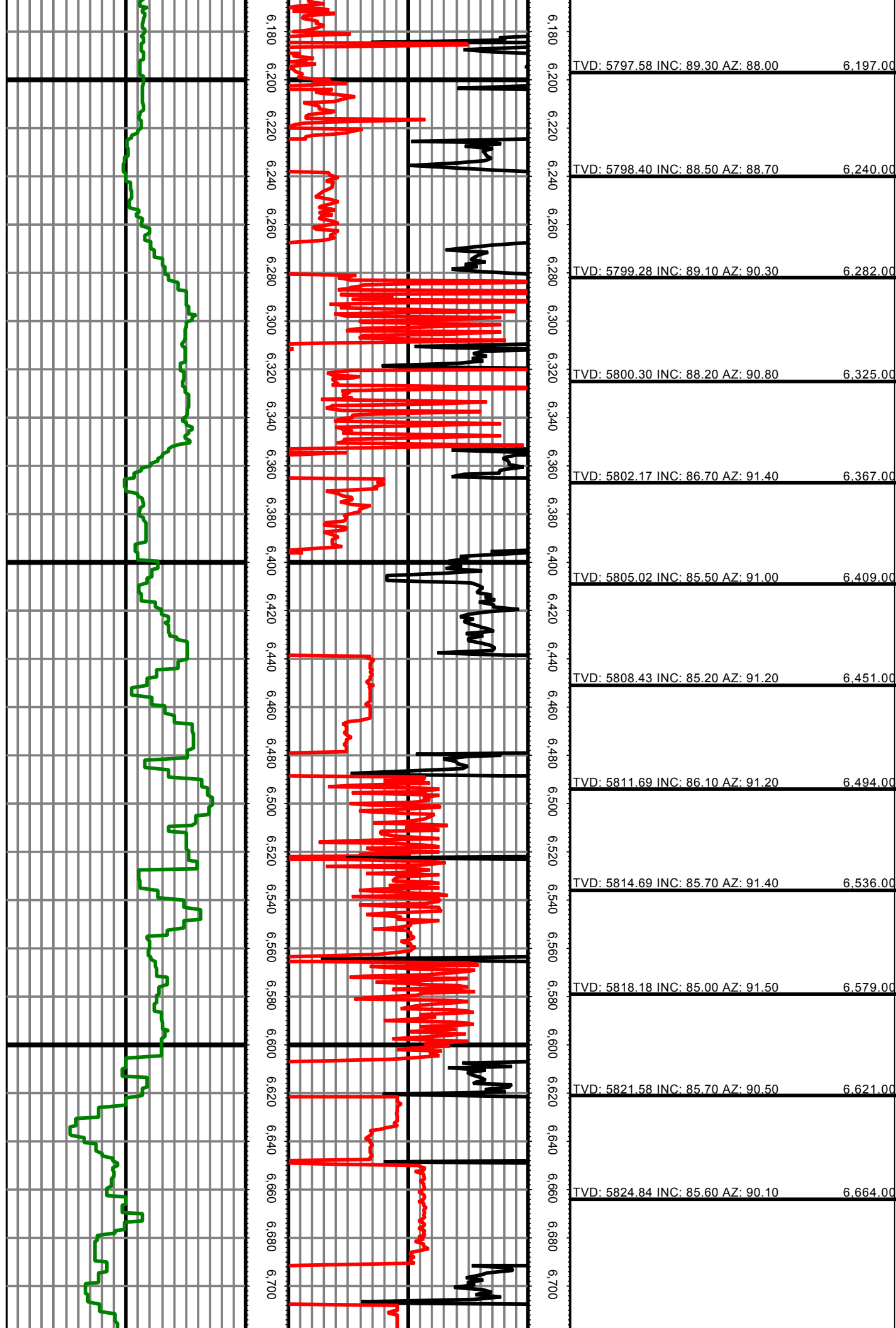
TVD: 5788.37 INC: 80.50 AZ: 85.00 6.070.00

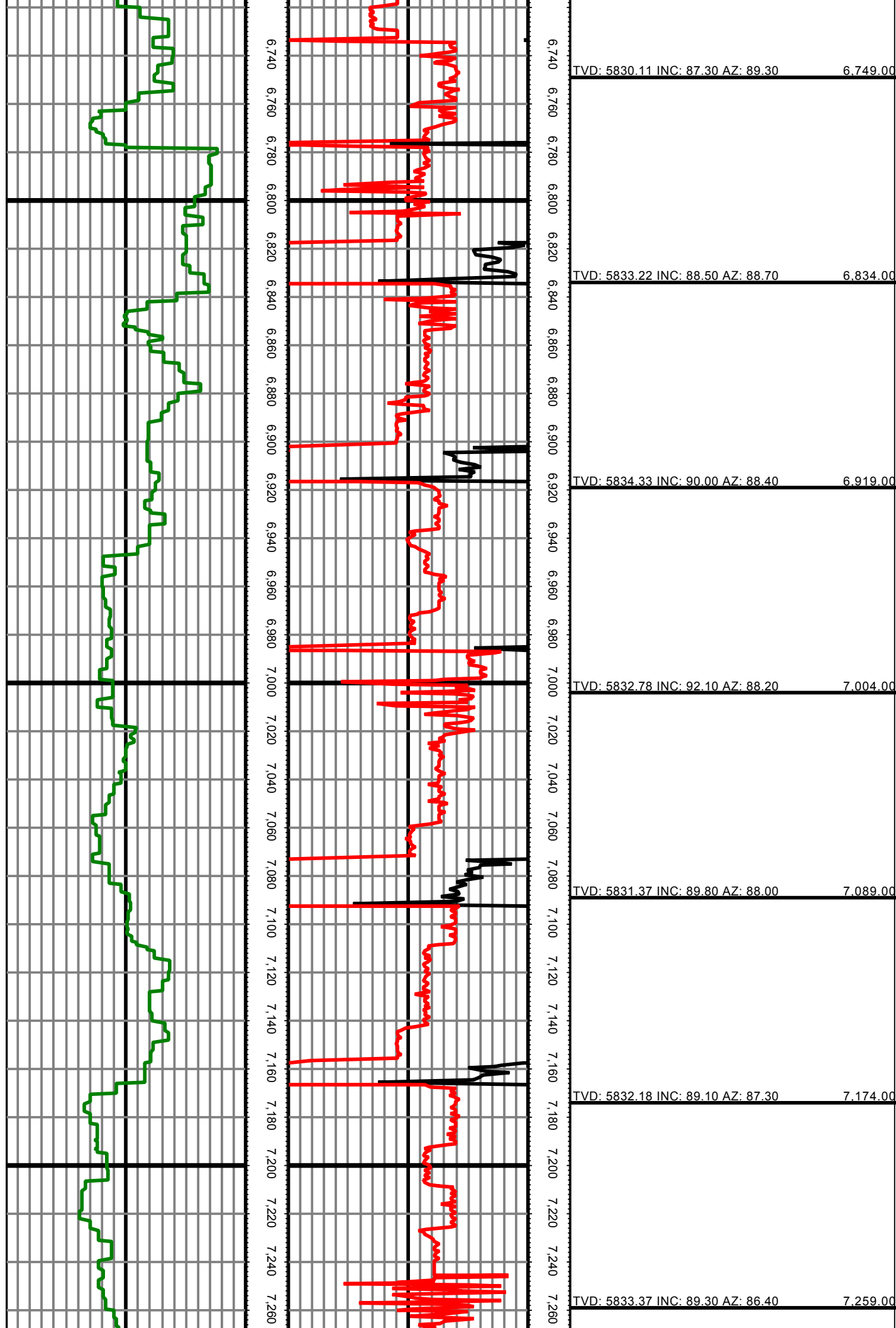
TVD: 5794.07 INC: 83.90 AZ: 86.80 6.112.00

TVD: 5796.85 INC: 88.70 AZ: 88.20 6.155.00

5.640 5.660 5.680 5.700 5.720 5.740 5.760 5.780 5.800 5.820 5.840 5.860 5.880 5.900 5.920 5.940 5.960 5.980 6.000 6.020 6.040 6.060 6.080 6.100 6.120 6.140 6.160







TVD: 5834.50 INC: 89.20 AZ: 85.60 7,345.00

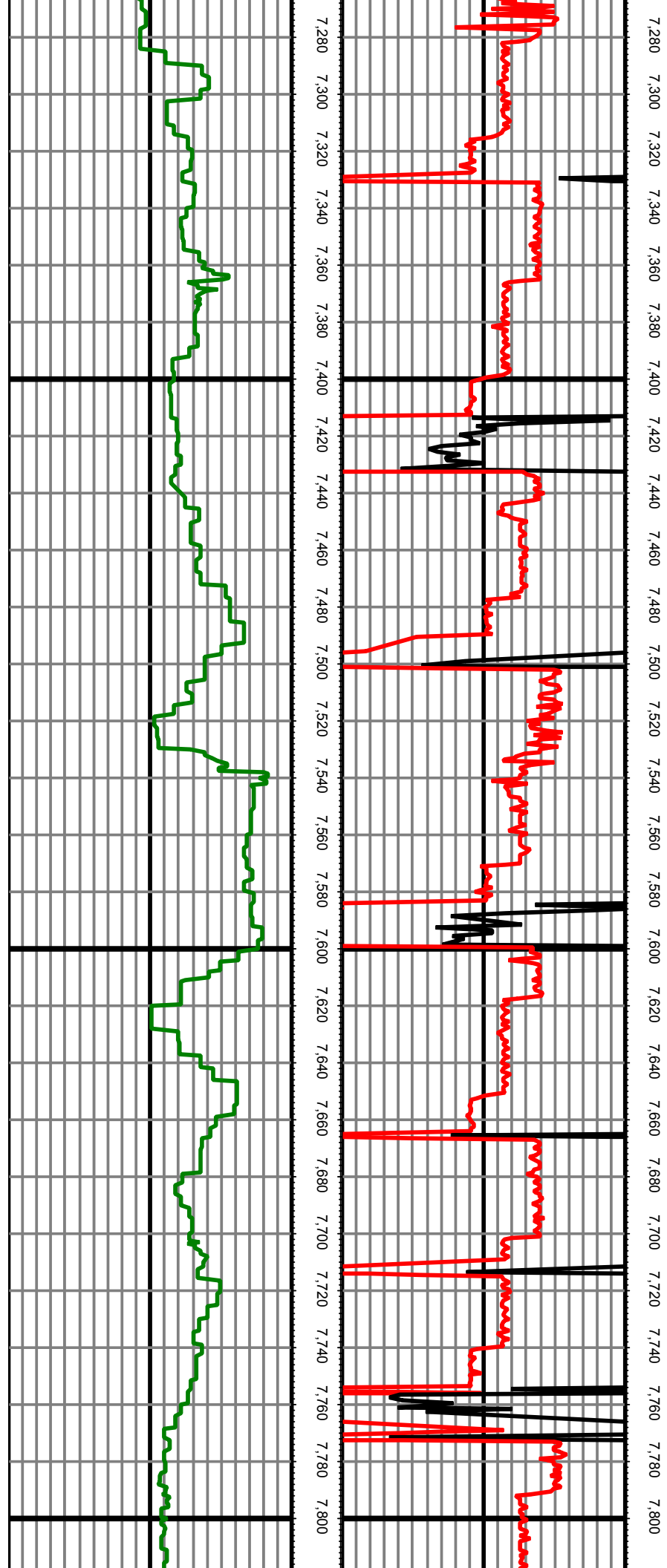
TVD: 5835.09 INC: 90.00 AZ: 87.80 7,430.00

TVD: 5834.57 INC: 90.70 AZ: 88.20 7,515.00

TVD: 5835.24 INC: 88.40 AZ: 87.70 7,600.00

TVD: 5838.20 INC: 87.60 AZ: 87.50 7,685.00

TVD: 5841.24 INC: 88.30 AZ: 87.00 7,770.00



TVD: 5842.21 INC: 90.40 AZ: 88.20 7.855.00

TVD: 5840.87 INC: 91.40 AZ: 88.50 7.940.00

TVD: 5839.33 INC: 90.70 AZ: 88.00 8.024.00

TVD: 5839.19 INC: 89.50 AZ: 87.30 8.109.00

TVD: 5839.33 INC: 90.30 AZ: 88.00 8.194.00

TVD: 5838.81 INC: 90.40 AZ: 87.50 8.279.00

TVD: 5839.33 INC: 88.90 AZ: 89.30 8.363.00

TVD: 5841.10 INC: 88.60 AZ: 88.70 8.444.00

TVD: 5843.50 INC: 88.20 AZ: 88.40 8.530.00

TVD: 5845.65 INC: 88.90 AZ: 89.10 8.615.00

TVD: 5847.21 INC: 89.00 AZ: 89.30 8.700.00

TVD: 5849.95 INC: 87.30 AZ: 89.30 8.785.00

TVD: 5852.92 INC: 88.70 AZ: 89.80 8.870.00

TVD: 5853.95 INC: 89.90 AZ: 90.30 8.955.00

TVD: 5853.81 INC: 90.30 AZ: 88.40 9.040.00

TVD: 5853.58 INC: 90.00 AZ: 87.50 9.126.00

TVD: 5852.48 INC: 91.50 AZ: 86.30 9.210.00

TVD: 5850.63 INC: 91.00 AZ: 87.50 9.295.00

TVD: 5849.22 INC: 90.90 AZ: 87.30 9.380.00

TVD: 5846.95 INC: 92.20 AZ: 87.10 9.464.00

TVD: 5844.13 INC: 91.60 AZ: 86.80 9.549.00

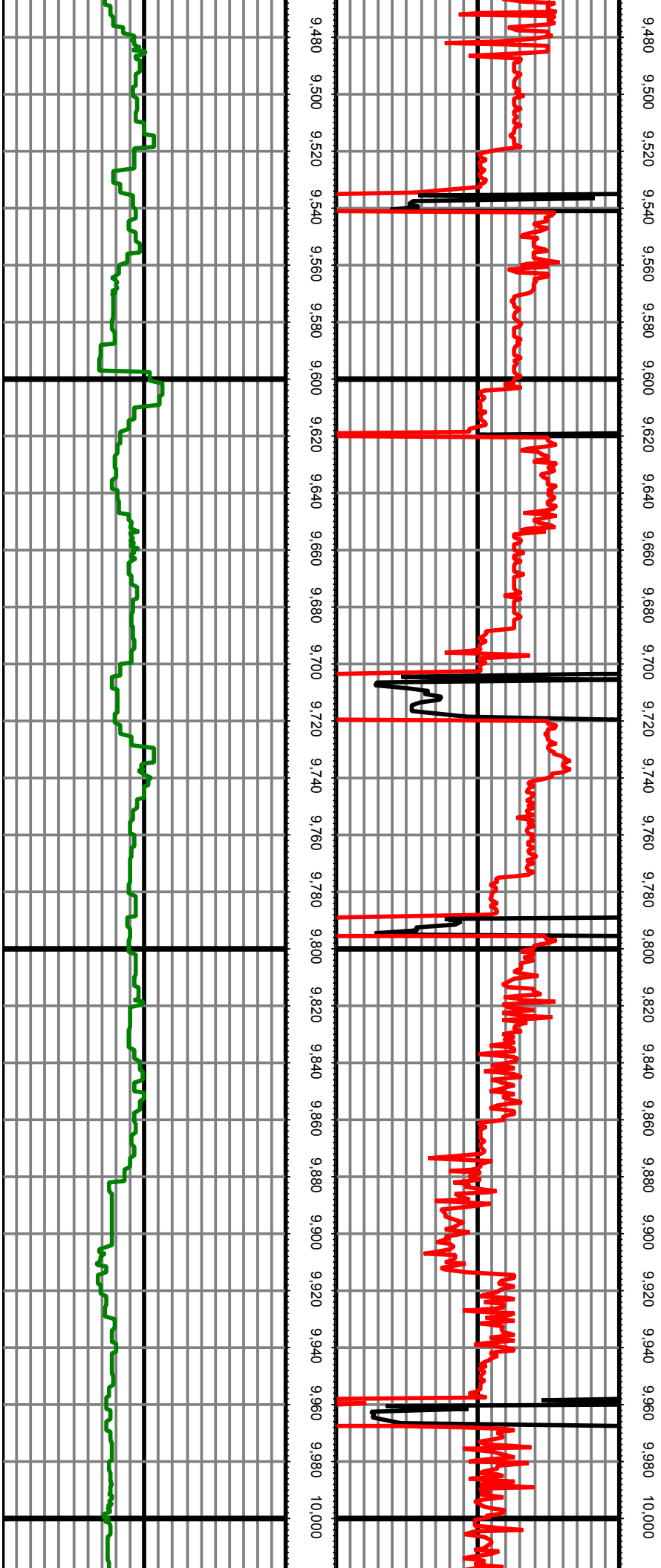
TVD: 5841.31 INC: 92.20 AZ: 86.10 9.634.00

TVD: 5839.16 INC: 90.70 AZ: 87.30 9.719.00

TVD: 5837.53 INC: 91.50 AZ: 87.10 9.804.00

TVD: 5835.30 INC: 91.50 AZ: 87.00 9.889.00

TVD: 5832.97 INC: 91.60 AZ: 87.10 9.975.00



TVD: 5830.16 INC: 92.20 AZ: 86.80 10,060.00

TVD: 5826.75 INC: 92.40 AZ: 87.70 10,145.00

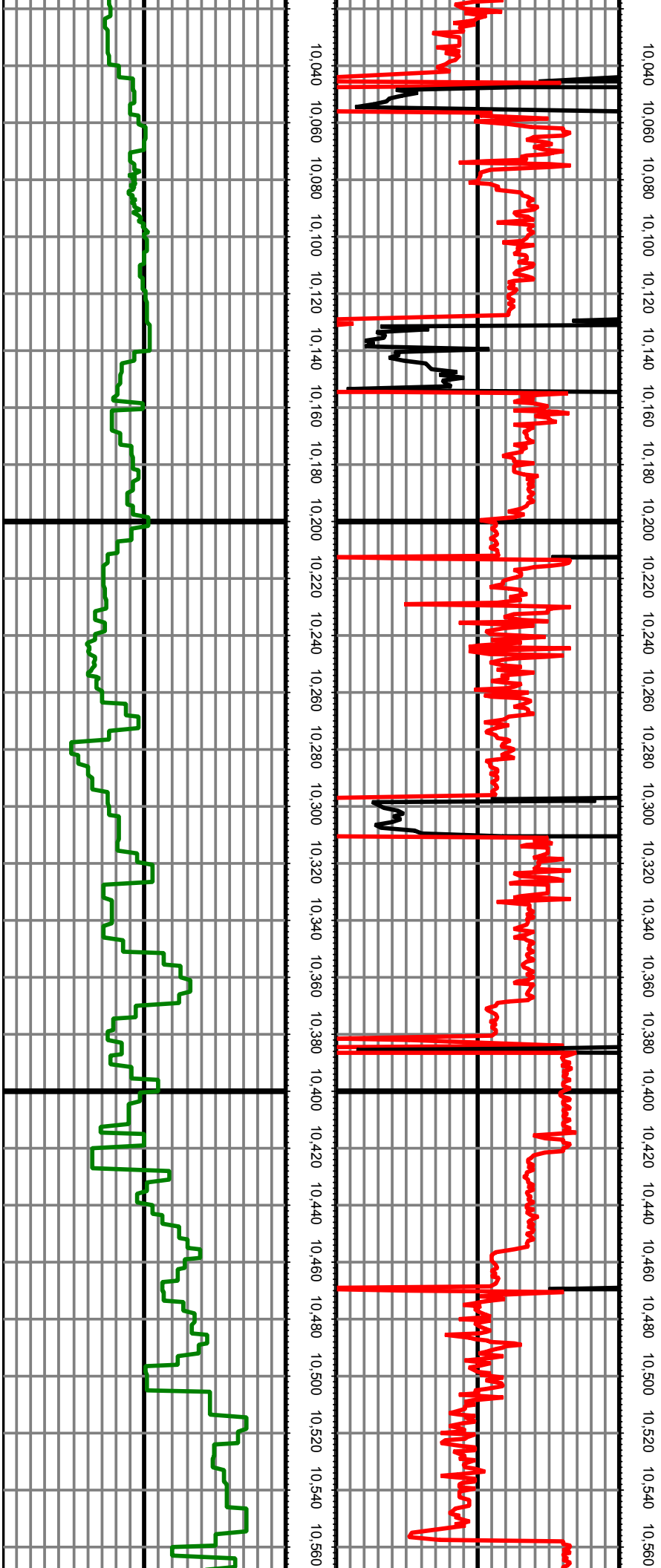
TVD: 5823.19 INC: 92.40 AZ: 88.00 10,230.00

TVD: 5820.00 INC: 91.90 AZ: 89.30 10,315.00

TVD: 5816.96 INC: 92.20 AZ: 89.10 10,400.00

TVD: 5813.69 INC: 92.20 AZ: 88.70 10,485.00

TVD: 5809.91 INC: 92.00 AZ: 88.20 10,570.00



TVD: 5809.91 INC: 92.90 AZ: 88.20 10,570.00

TVD: 5806.28 INC: 92.00 AZ: 88.60 10,655.00

TVD: 5803.83 INC: 91.30 AZ: 88.40 10,740.00

TVD: 5803.08 INC: 89.70 AZ: 88.00 10,826.00

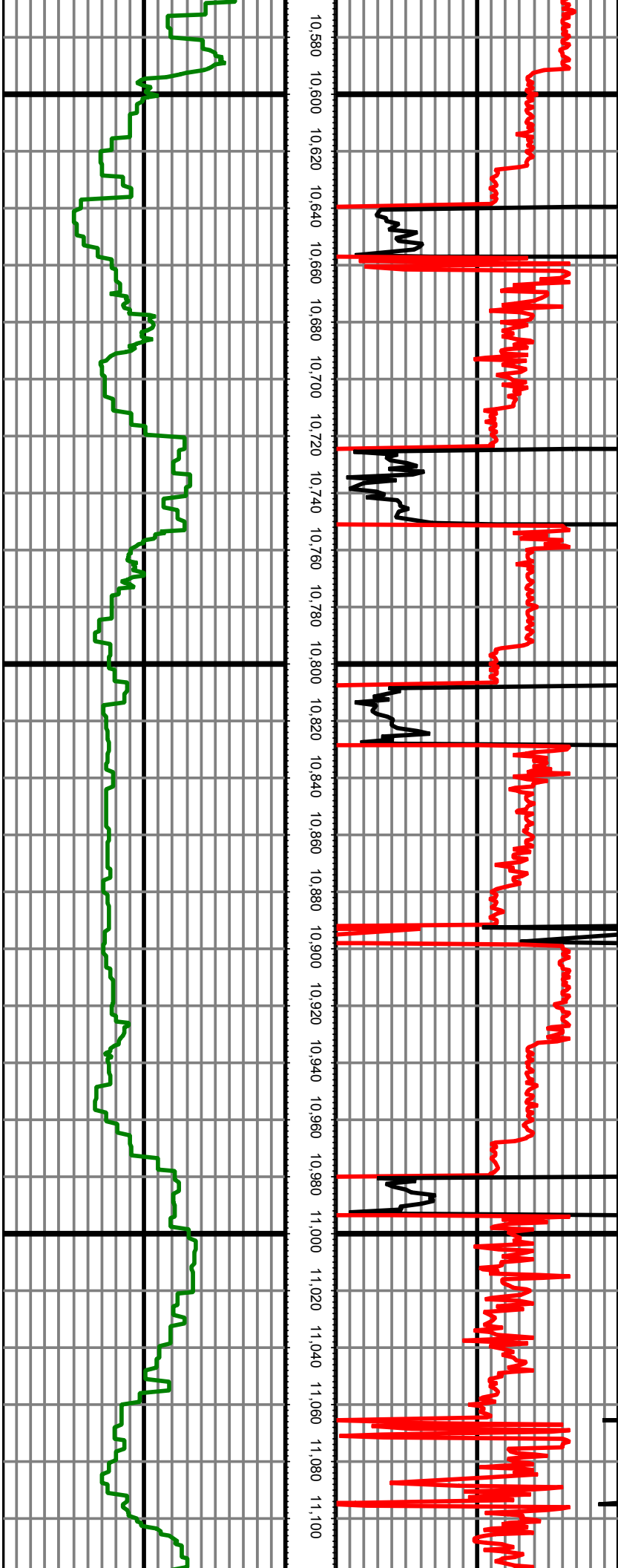
TVD: 5803.89 INC: 89.20 AZ: 87.70 10,910.00

TVD: 5804.70 INC: 89.70 AZ: 88.90 10,995.00

TVD: 5805.59 INC: 89.10 AZ: 88.70 11,080.00

10,580 10,600 10,620 10,640 10,660 10,680 10,700 10,720 10,740 10,760 10,780 10,800 10,820 10,840 10,860 10,880 10,900 10,920 10,940 10,960 10,980 11,000 11,020 11,040 11,060 11,080 11,100

10,580 10,600 10,620 10,640 10,660 10,680 10,700 10,720 10,740 10,760 10,780 10,800 10,820 10,840 10,860 10,880 10,900 10,920 10,940 10,960 10,980 11,000 11,020 11,040 11,060 11,080 11,100



TVD: 5807.35 INC: 88.50 AZ: 87.80 11,164.00

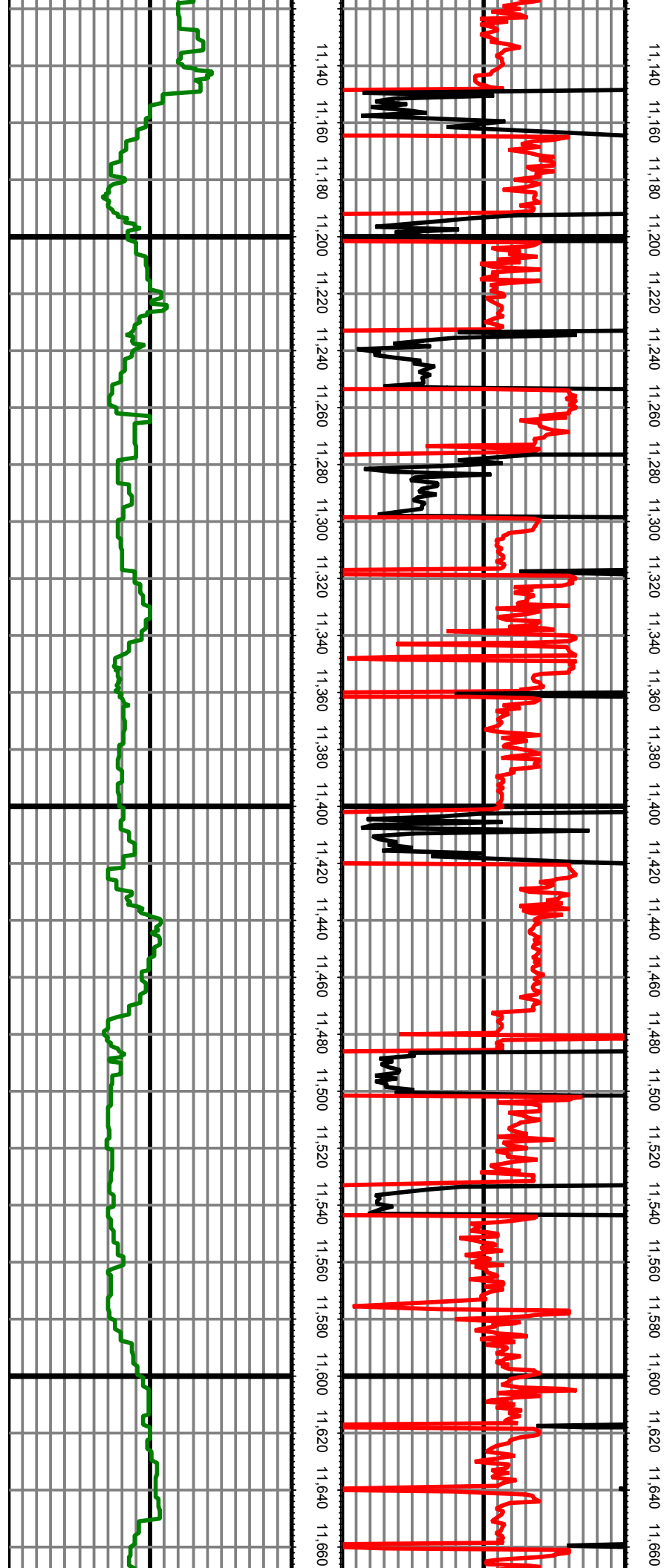
TVD: 5808.91 INC: 89.40 AZ: 89.30 11,249.00

TVD: 5808.83 INC: 90.70 AZ: 89.30 11,334.00

TVD: 5805.61 INC: 93.60 AZ: 90.00 11,420.00

TVD: 5801.75 INC: 91.60 AZ: 89.10 11,505.00

TVD: 5800.58 INC: 90.00 AZ: 88.70 11,589.00



TVD: 5801.10 INC: 89.30 AZ: 88.40 11,674.00

TVD: 5801.40 INC: 90.30 AZ: 88.20 11,759.00

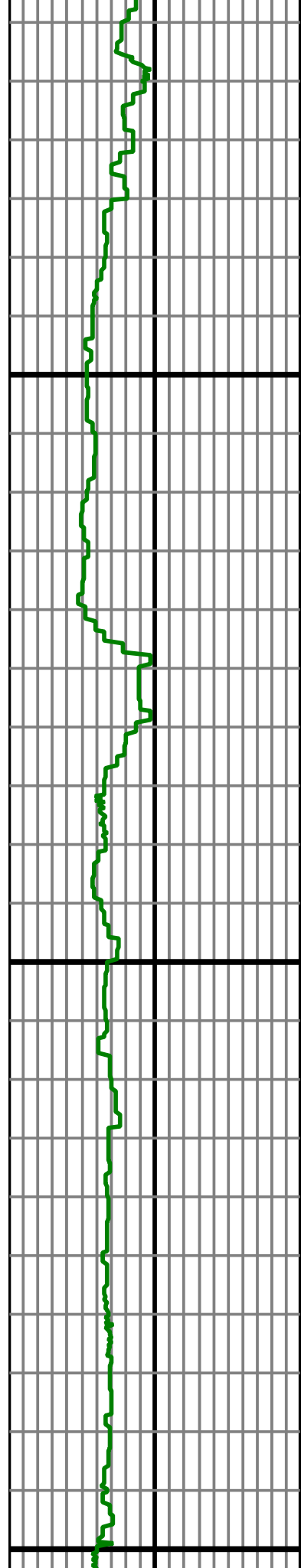
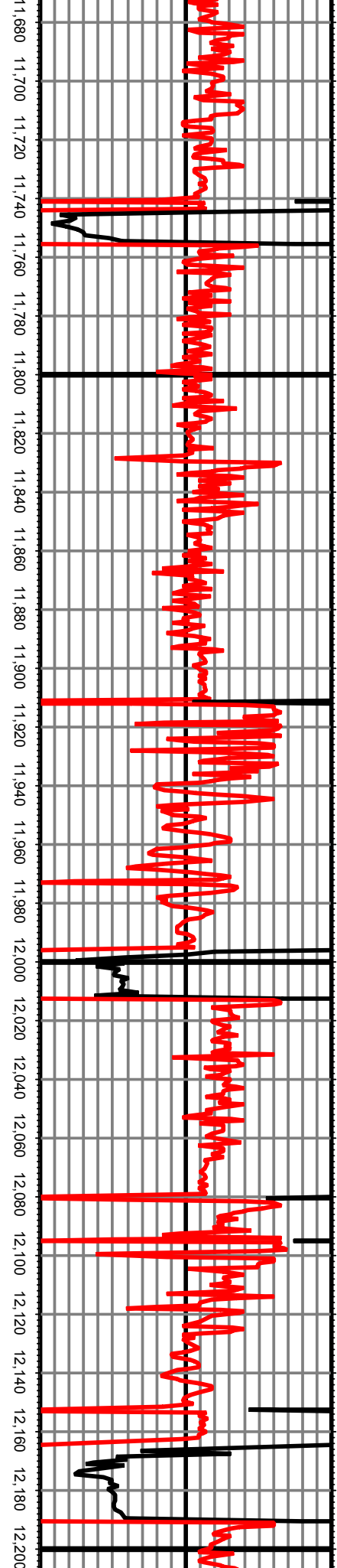
TVD: 5801.54 INC: 89.50 AZ: 87.30 11,843.00

TVD: 5802.43 INC: 89.30 AZ: 86.80 11,928.00

TVD: 5802.58 INC: 90.50 AZ: 87.10 12,013.00

TVD: 5802.21 INC: 90.00 AZ: 85.90 12,098.00

TVD: 5801.32 INC: 91.20 AZ: 88.40 12,183.00



TVD: 5799.47 INC: 91.30 AZ: 88.20 12.268.00

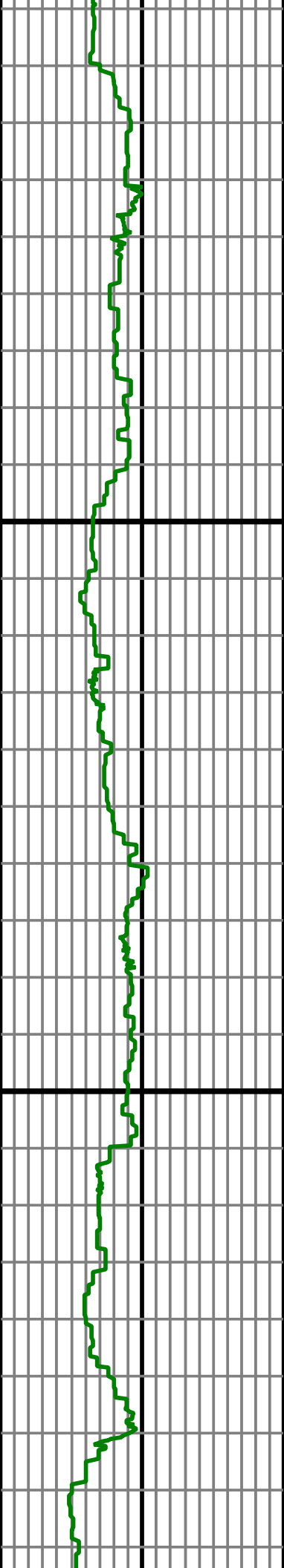
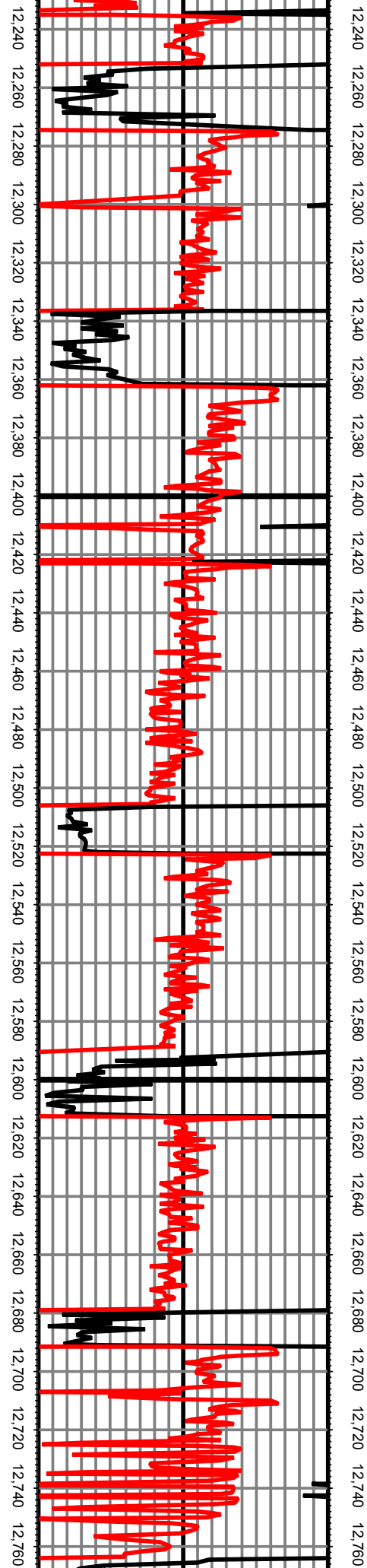
TVD: 5799.02 INC: 89.30 AZ: 86.40 12.353.00

TVD: 5800.30 INC: 89.00 AZ: 86.30 12.439.00

TVD: 5801.41 INC: 89.50 AZ: 86.60 12.524.00

TVD: 5800.22 INC: 92.10 AZ: 88.20 12.609.00

TVD: 5797.11 INC: 92.10 AZ: 88.00 12.694.00



TVD: 5794.88 INC: 90.90 AZ: 89.10 12.779.00

TVD: 5793.71 INC: 90.70 AZ: 88.90 12.863.00

TVD: 5793.56 INC: 89.50 AZ: 88.00 12.947.00

TVD: 5793.56 INC: 90.50 AZ: 88.90 13.032.00

TVD: 5792.90 INC: 90.40 AZ: 88.70 13.117.00

TVD: 5792.23 INC: 90.50 AZ: 88.00 13.202.00

TVD: 5791.82 INC: 90.10 AZ: 87.30 13.280.00

12.780 12.800 12.820 12.840 12.860 12.880 12.900 12.920 12.940 12.960 12.980 13.000 13.020 13.040 13.060 13.080 13.100 13.120 13.140 13.160 13.180 13.200 13.220 13.240 13.260 13.280 13.300

12.780 12.800 12.820 12.840 12.860 12.880 12.900 12.920 12.940 12.960 12.980 13.000 13.020 13.040 13.060 13.080 13.100 13.120 13.140 13.160 13.180 13.200 13.220 13.240 13.260 13.280 13.300

