



Precision Directional Services, Inc.

27610 Commerce Oaks Drive  
Oak Ridge North, TX 77385

Bringelson Ranch 8-20-9-58

Scale 2":100' - MD

3/10/2014 6:39 AM

Oper. Company: Carrizo Oil & Gas, Inc.

Well: Bringelson Ranch 8-20-9-58

Field: Niobrara CONZ'83

Rig: Xtreme 19

Well ID: 05-123-38614-00

Job Number: DL2134

Notes:

State: Colorado

County: Weld County

Country: USA

Start Date: 03/05/2014 19:00:00

End Date: 03/10/2014 02:00:00

Latitude: 40.734658333333

Longitude: -103.89555833333

Notes:

Elev KB: 17'

Elev DF: 4936'

Elev GL: 4919'

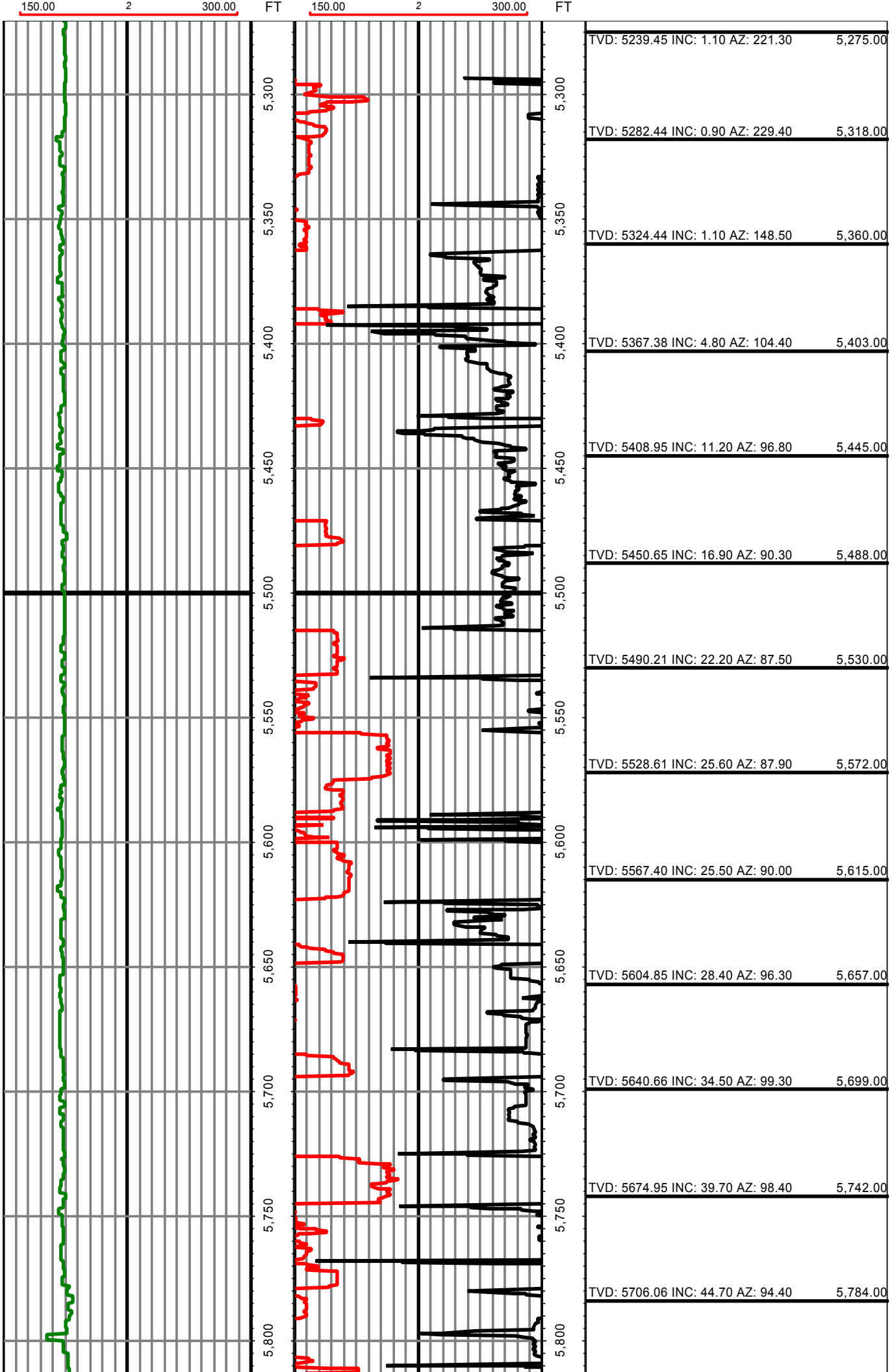
Operator 1: Paul Brown

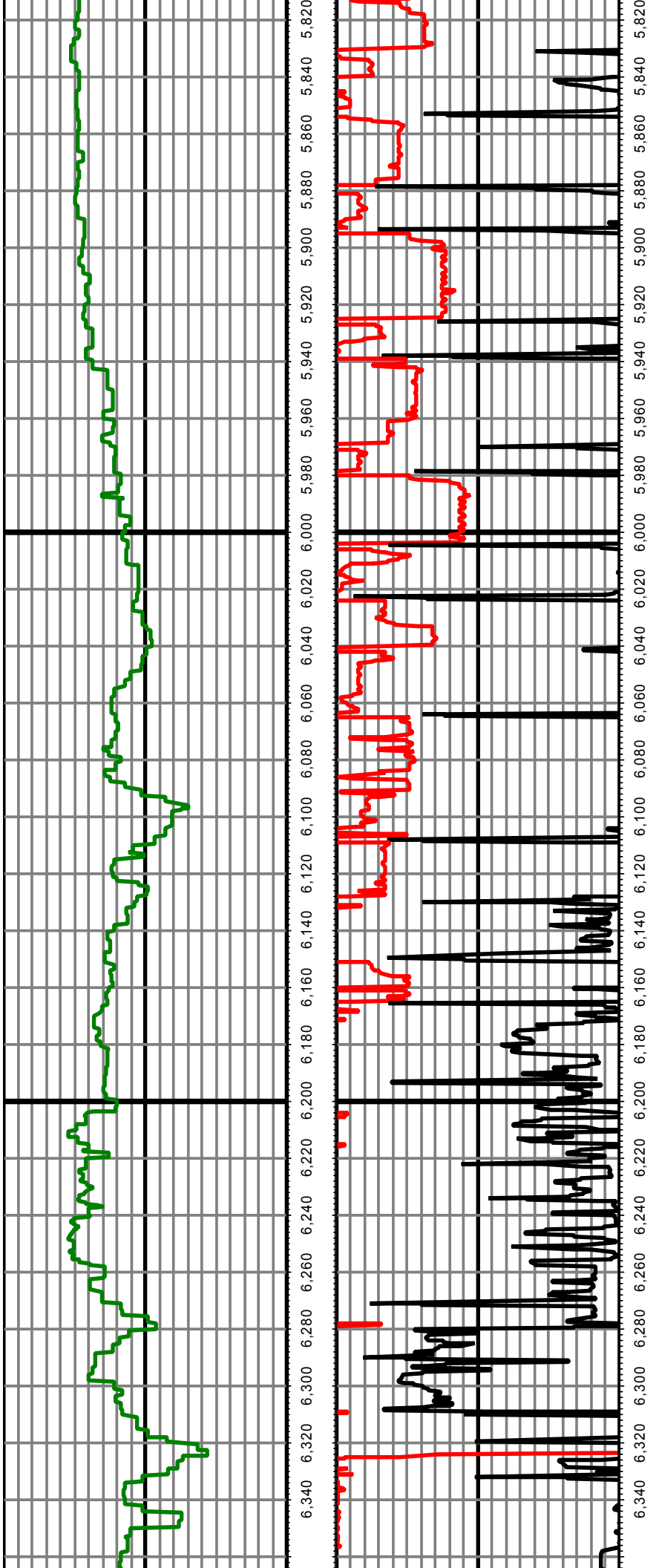
Notes:

Operator 2: Neil LaRubbio

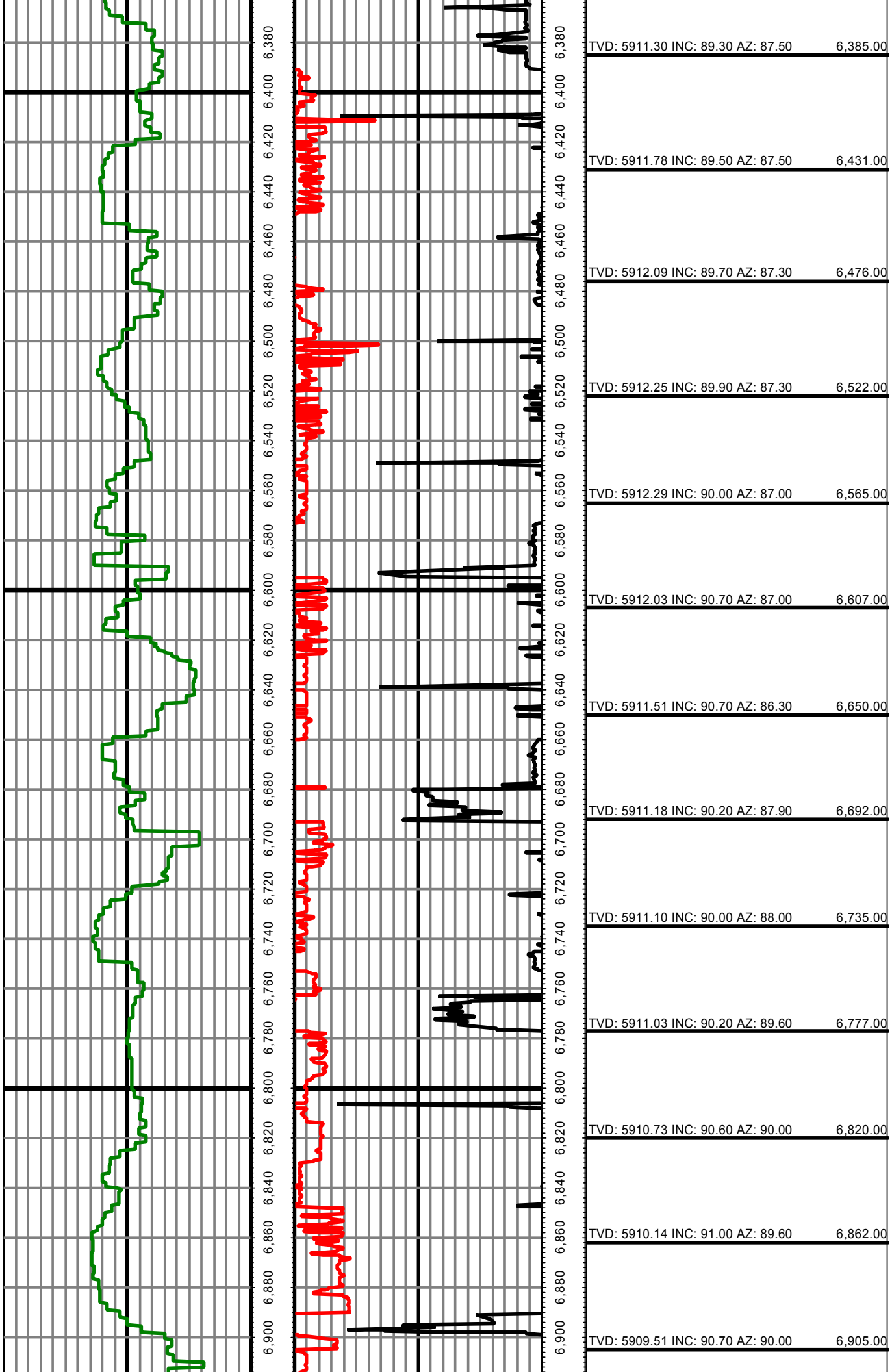
Tool Run Data	Run #1	Run #2	Run #3	Run #4	Run #5
Tool S/N	G2577	G1519			
Bit Size	8 3/4	6 1/8			
Cal Factor	2.99	1.34			
Gamma Offset	52.00	56.00			
Resistivity Offset	0.00	0.00			
Start Depth	5290.00	6310.00			
StartDate	3/5/2014	3/7/2014			
StartTime	7:00 PM	8:00 PM			
EndDepth	6310.00	9874.00			
EndDate	3/6/2014	3/10/2014			
EndTime	4:30 PM	2:00 AM			
Mud Type	WBM	WBM			
Mud Weight	9.5 - 9.8	9.6 - 10.1			
Funnel Viscosity	47 / 49	42 / 50			
Plastic Viscosity	15 / 16	11 / 16			
Yield Point	11	8 / 10			
Gel Strength	21 / 22	17 / 21			
Solids Content	6 - 6.7 %	7 - 8 %			
Sand Content	0.5%	0.0 - 0.25 %			
Mud Alkalinity	0.6 - 0.7	0.65 - 0.85			
Filtrate Alkalinity	0.4 / 1	0.6 / 1.4			
Chlorides	700 - 800	800 - 900			
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			
Hole Data			Casing Data		
Size	From	To	Size	From	To
12 1/4	0.00	1450.00	9 5/8	0.00	1399.00
8 3/4	1450.00	6310.00	7	0.00	6052.00
6 1/8	6310.00	9874.00	4.5	6052.00	9500.00

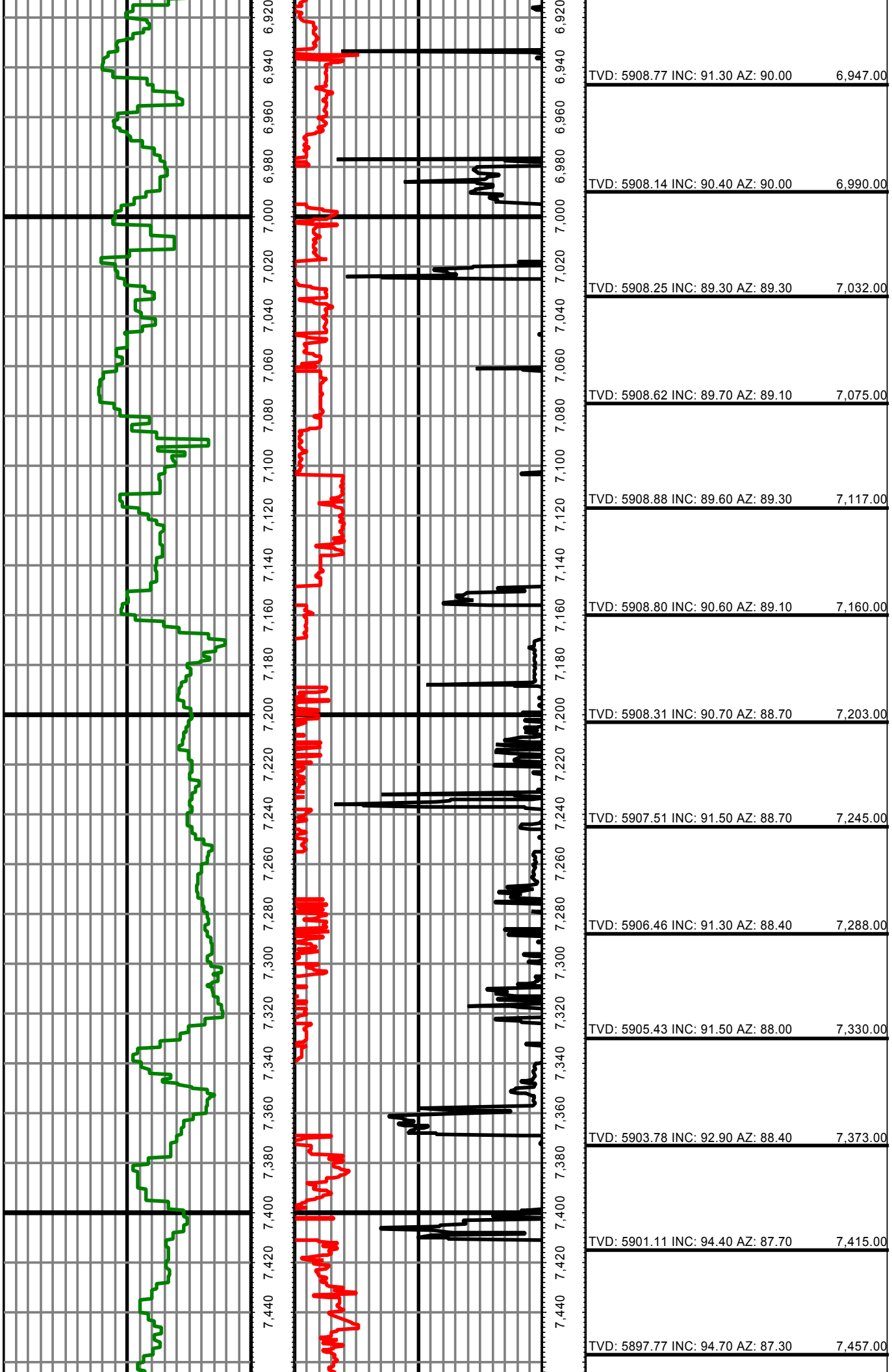
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not except in the case of gross or willful negligence on our part, be liable or responsible for any loss, cost damages or expenses incurred or sustained by anyone resulting from an interpretation made by any of our officers, agents, or employees.

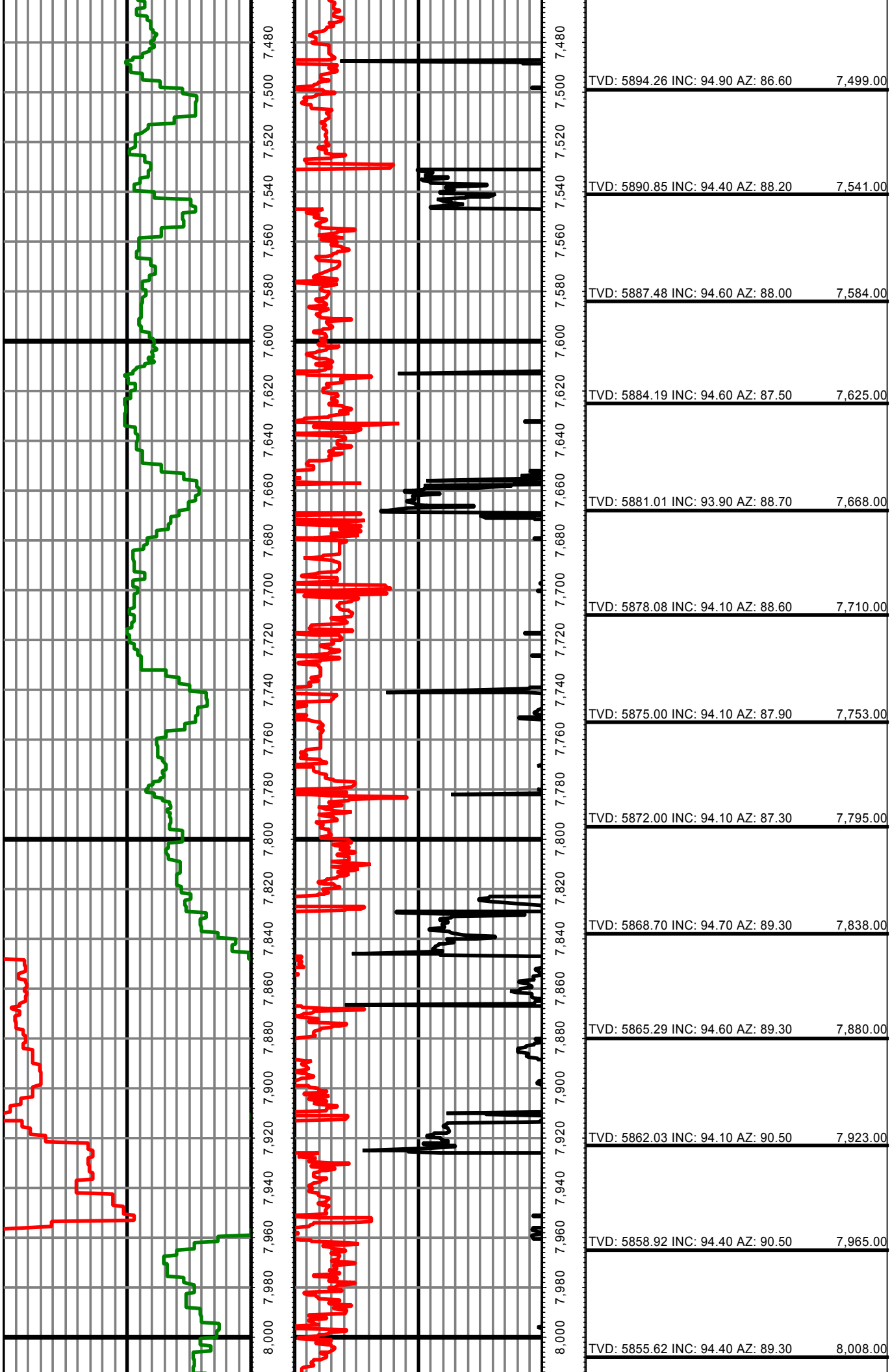


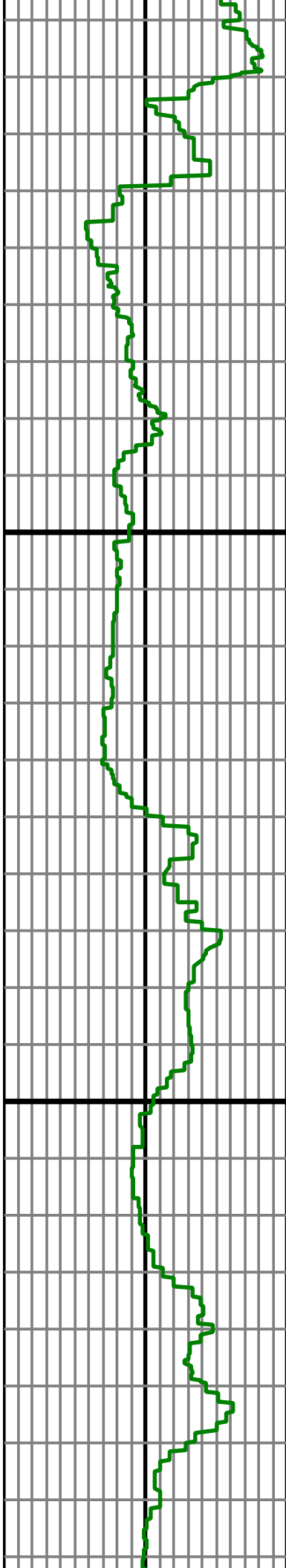


TVD: 5735.52 INC: 48.80 AZ: 90.90	5,827.00
TVD: 5762.00 INC: 53.00 AZ: 89.50	5,869.00
TVD: 5787.03 INC: 55.80 AZ: 91.20	5,912.00
TVD: 5809.87 INC: 58.30 AZ: 92.40	5,954.00
TVD: 5831.83 INC: 60.30 AZ: 93.90	5,997.00
TVD: 5851.25 INC: 64.60 AZ: 91.70	6,039.00
TVD: 5868.70 INC: 67.50 AZ: 89.60	6,082.00
TVD: 5882.79 INC: 73.30 AZ: 89.10	6,124.00
TVD: 5892.87 INC: 78.90 AZ: 88.90	6,166.00
TVD: 5898.63 INC: 82.70 AZ: 88.80	6,202.00
TVD: 5903.64 INC: 82.90 AZ: 89.50	6,242.00
TVD: 5910.57 INC: 88.90 AZ: 87.20	6,339.00

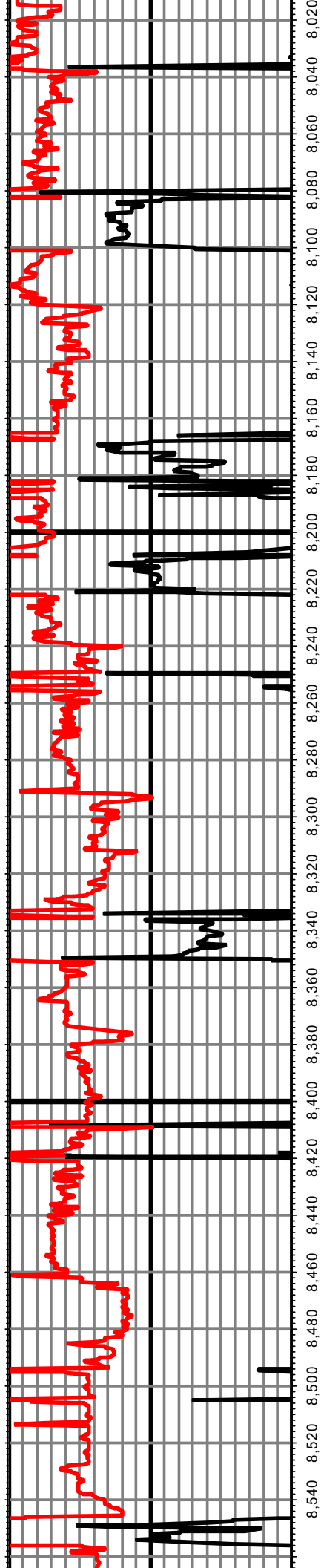








8,020 8,040 8,060 8,080 8,100 8,120 8,140 8,160 8,180 8,200 8,220 8,240 8,260 8,280 8,300 8,320 8,340 8,360 8,380 8,400 8,420 8,440 8,460 8,480 8,500 8,520 8,540



TVD: 5852.33 INC: 94.60 AZ: 88.20 8,050.00

TVD: 5849.33 INC: 93.40 AZ: 89.80 8,093.00

TVD: 5846.69 INC: 93.80 AZ: 89.80 8,135.00

TVD: 5844.25 INC: 92.70 AZ: 91.40 8,178.00

TVD: 5842.93 INC: 90.90 AZ: 92.40 8,220.00

TVD: 5842.14 INC: 91.20 AZ: 91.70 8,263.00

TVD: 5841.04 INC: 91.80 AZ: 91.40 8,305.00

TVD: 5840.53 INC: 89.60 AZ: 90.00 8,347.00

TVD: 5840.79 INC: 89.70 AZ: 90.20 8,390.00

TVD: 5840.79 INC: 90.30 AZ: 90.20 8,432.00

TVD: 5840.49 INC: 90.50 AZ: 89.80 8,475.00

TVD: 5840.09 INC: 90.60 AZ: 89.30 8,517.00

TVD: 5839.86 INC: 90.00 AZ: 90.00 8,560.00

