



Titan Directional Drilling, LLC

20302 Park Row, Suite 1200
Katy, Texas 77449

Bringelson 17-20-9-58

Scale 5":100' - MD

4/5/2015 5:16 PM

Oper. Company: Carrizo Oil & Gas, Inc.

Well: Bringelson 17-20-9-58

Field: Niobrara CONZ'83

Rig: Xtreme #19

Well ID: 05-123-4115200

Job Number: TL15035

State: Colorado

County: Weld

Country: USA

Location: Grover

Start Date: 04/01/2015 00:00:00

End Date: 04/05/2015 17:00:00

Latitude: 40.73813333333333

Longitude: -103.89558055555556

Elev KB: 17'

Elev DF: 4889'

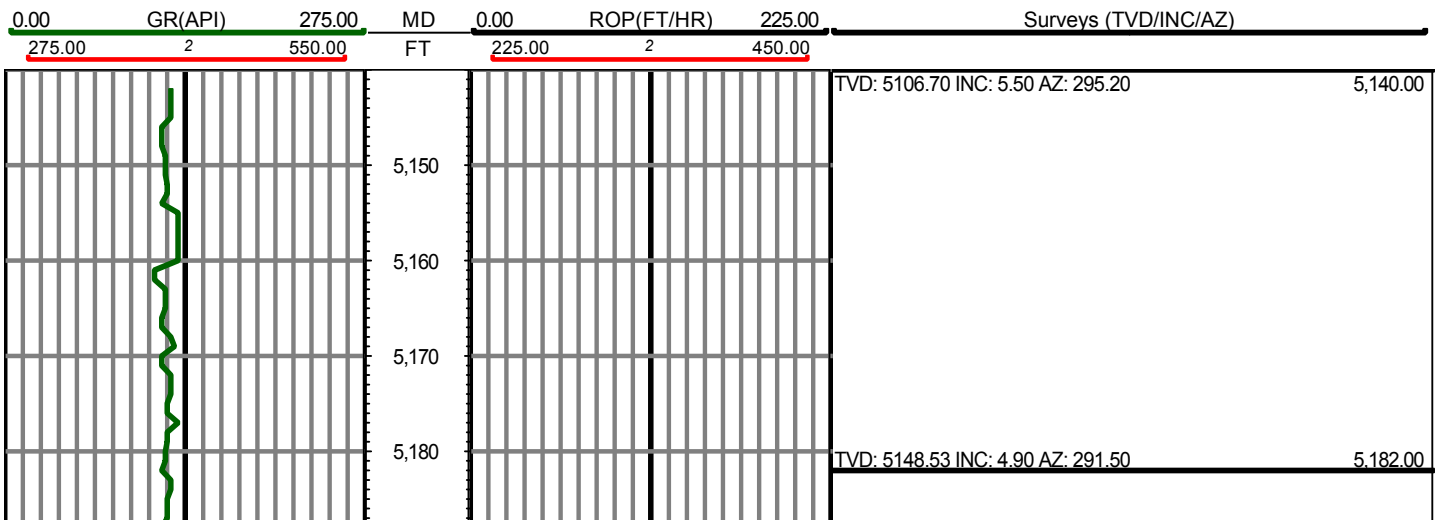
Elev GL: 4872'

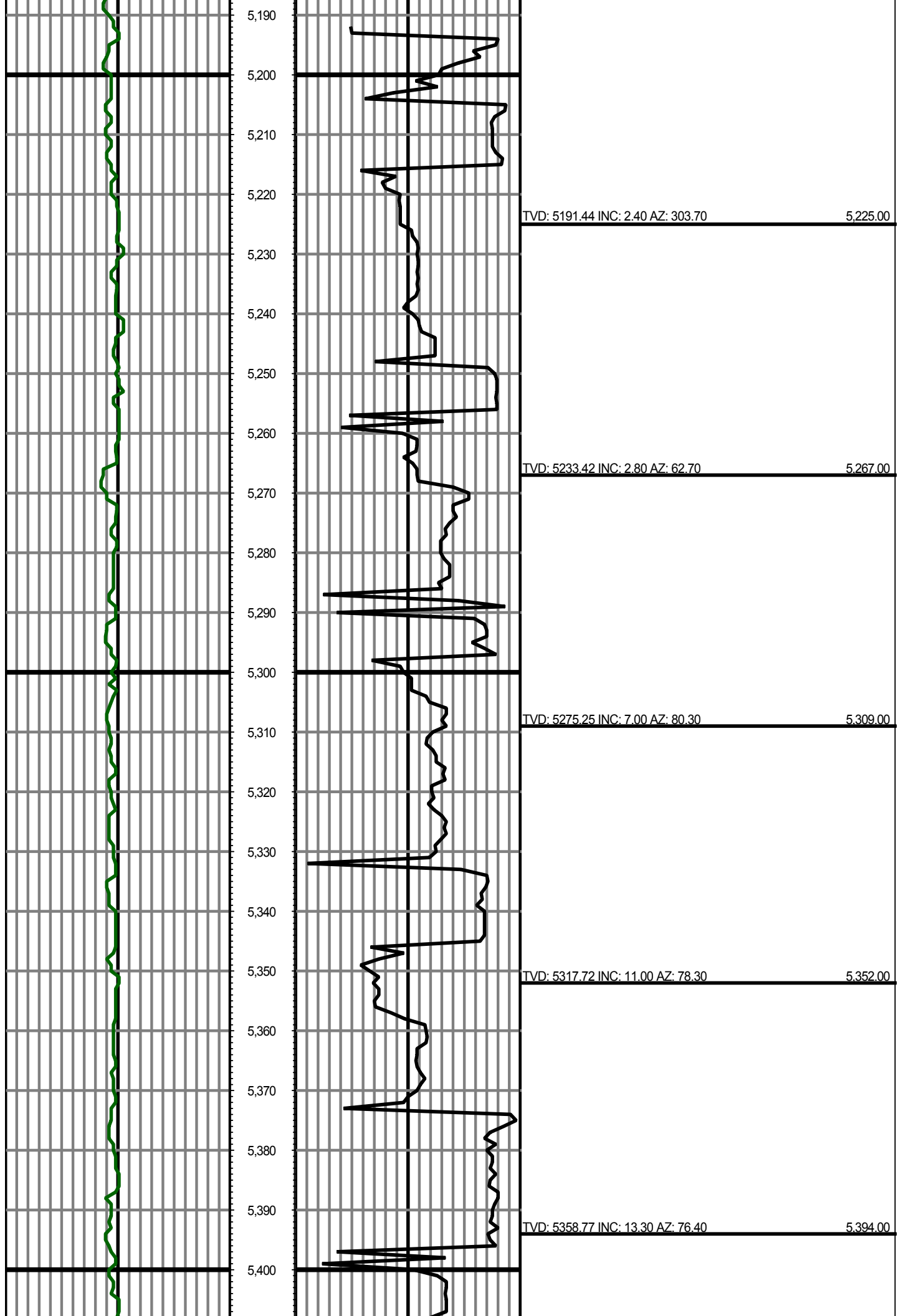
Operator 1: Skylar Thompson

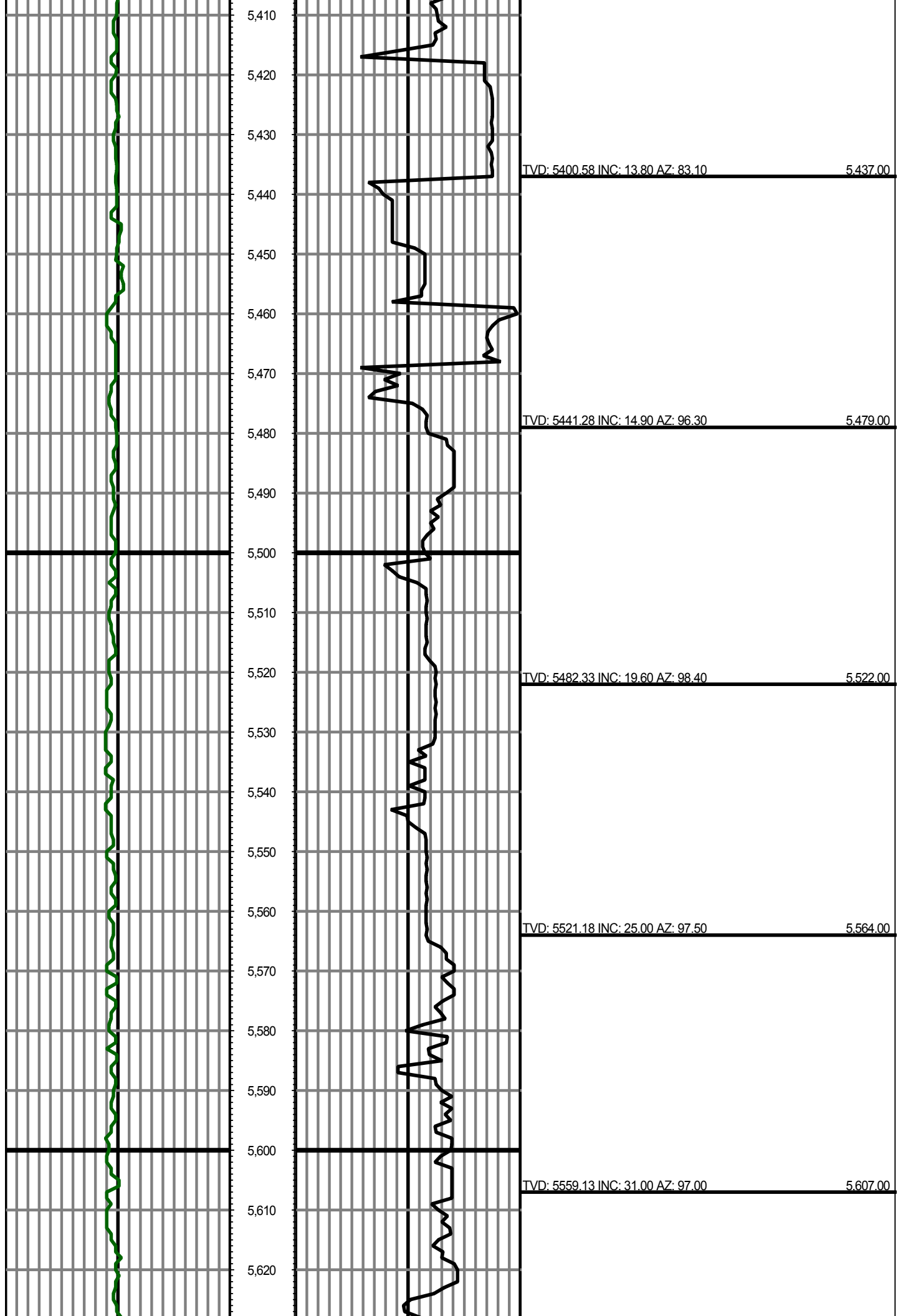
Operator 2: Paul Brown

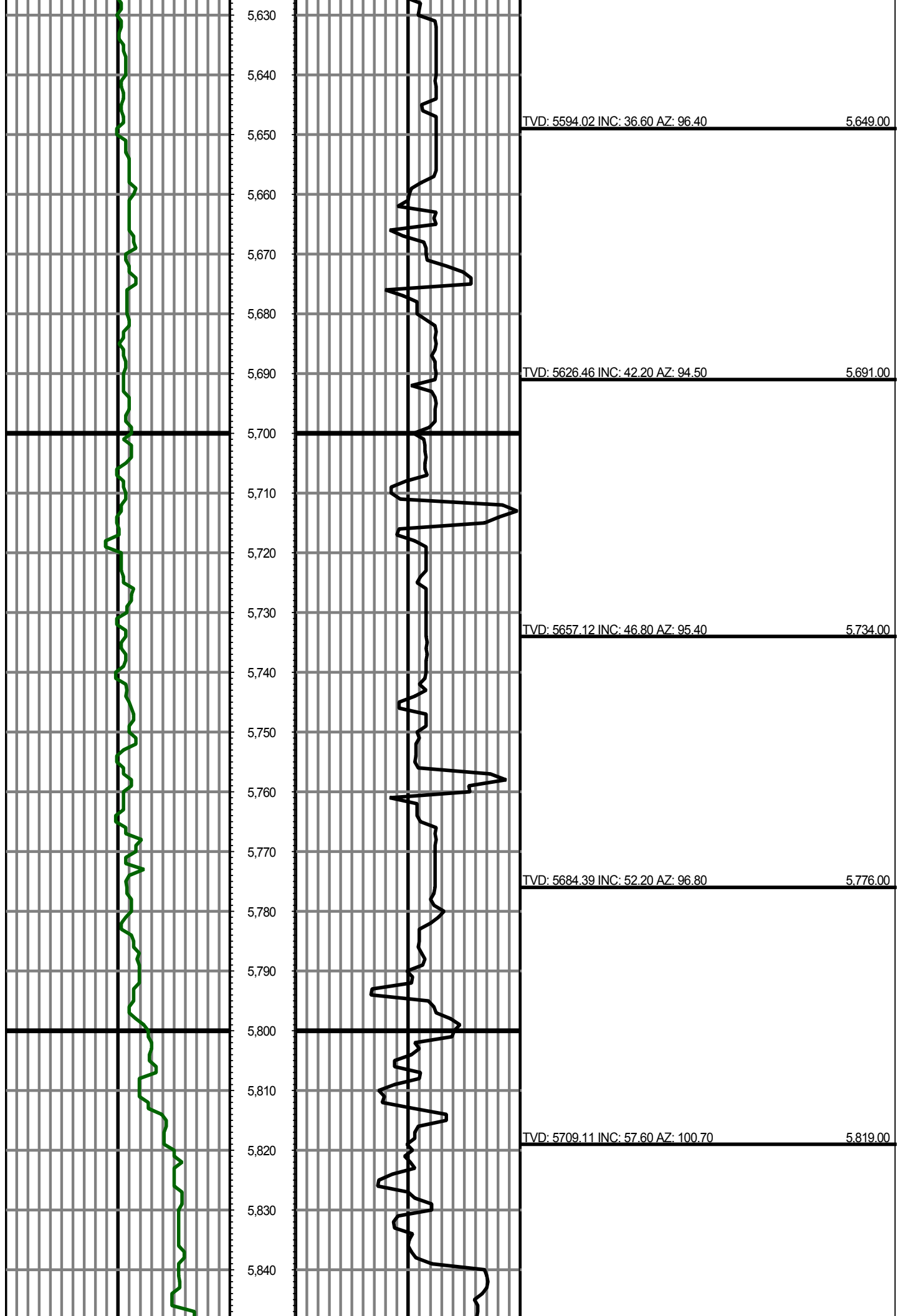
Tool Run Data	Run #1	Run #2	Run #3	Run #4	Run #5
Tool S/N	N/A	N/A	TG502	TG502	TG504
Bit Size	12 1/4	8 3/4	8 3/4	6 1/8	6 1/8
Cal Factor			4.98	2.33	2.33
Survey Offset:	54.00	49.00	61.00	61.00	62.00
Gamma Offset	0.00	0.00	50.00	50.00	49.00
Resistivity Offset	0.00	0.00	0.00	0.00	0.00
Start Depth	0.00	1460.00	5192.00	6152.00	8004.00
StartDate	3/29/2015	3/30/2015	4/1/2015	4/2/2015	4/4/2015
StartTime	08:15	22:00	20:45	15:50	00:15
EndDepth	1460.00	5192.00	6152.00	8004.00	10530.00
EndDate	3/29/2015	3/31/2015	4/1/2015	4/3/2015	4/5/2015
EndTime	22:30	19:30	20:00	23:10	17:00
Mud Type	WBM	WBM	WBM	WBM	WBM
Temperature	82	129	138	165	175
Hole Data			Casing Data		
Size	From	To	Size	From	To
12 1/4	0.00	1460.00	9 5/8	0.00	1440.00
8 3/4	1460.00	5192.00	7	0.00	6132.00
6 1/8	6152.00	10530.00	4.5	0.00	10530.00

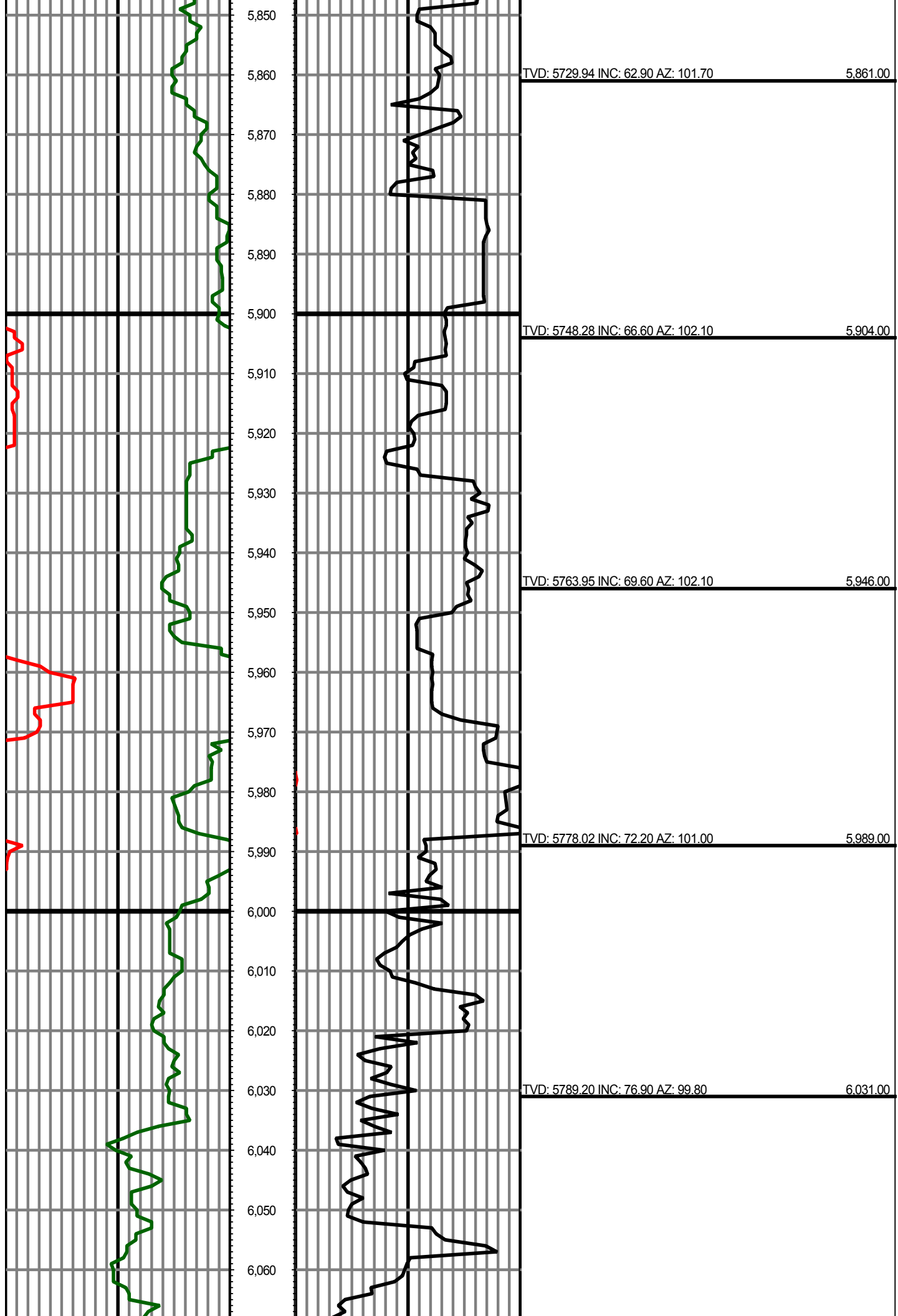
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not except in the case of gross or willful negligence on our part, be liable or responsible for any loss, cost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

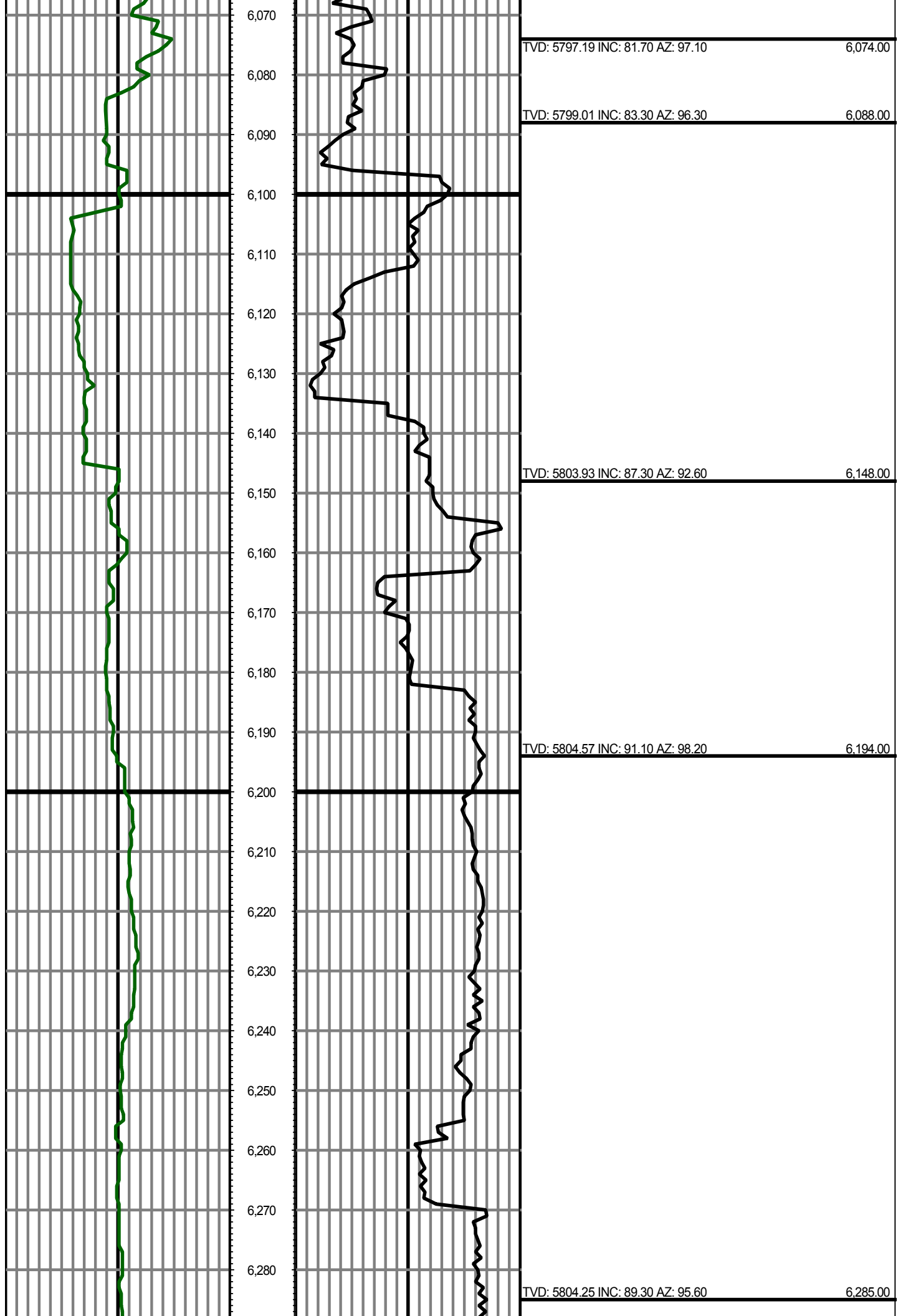


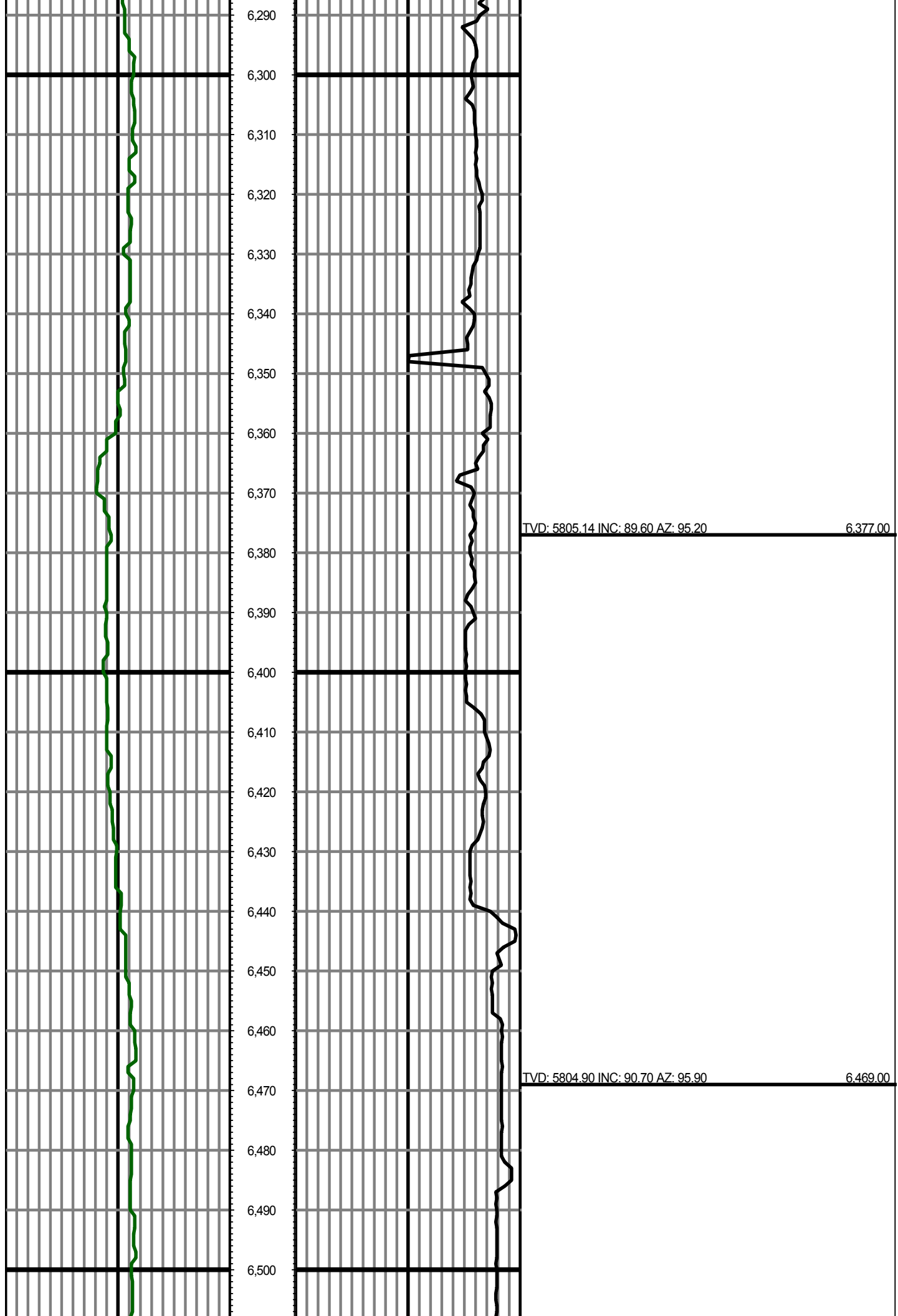


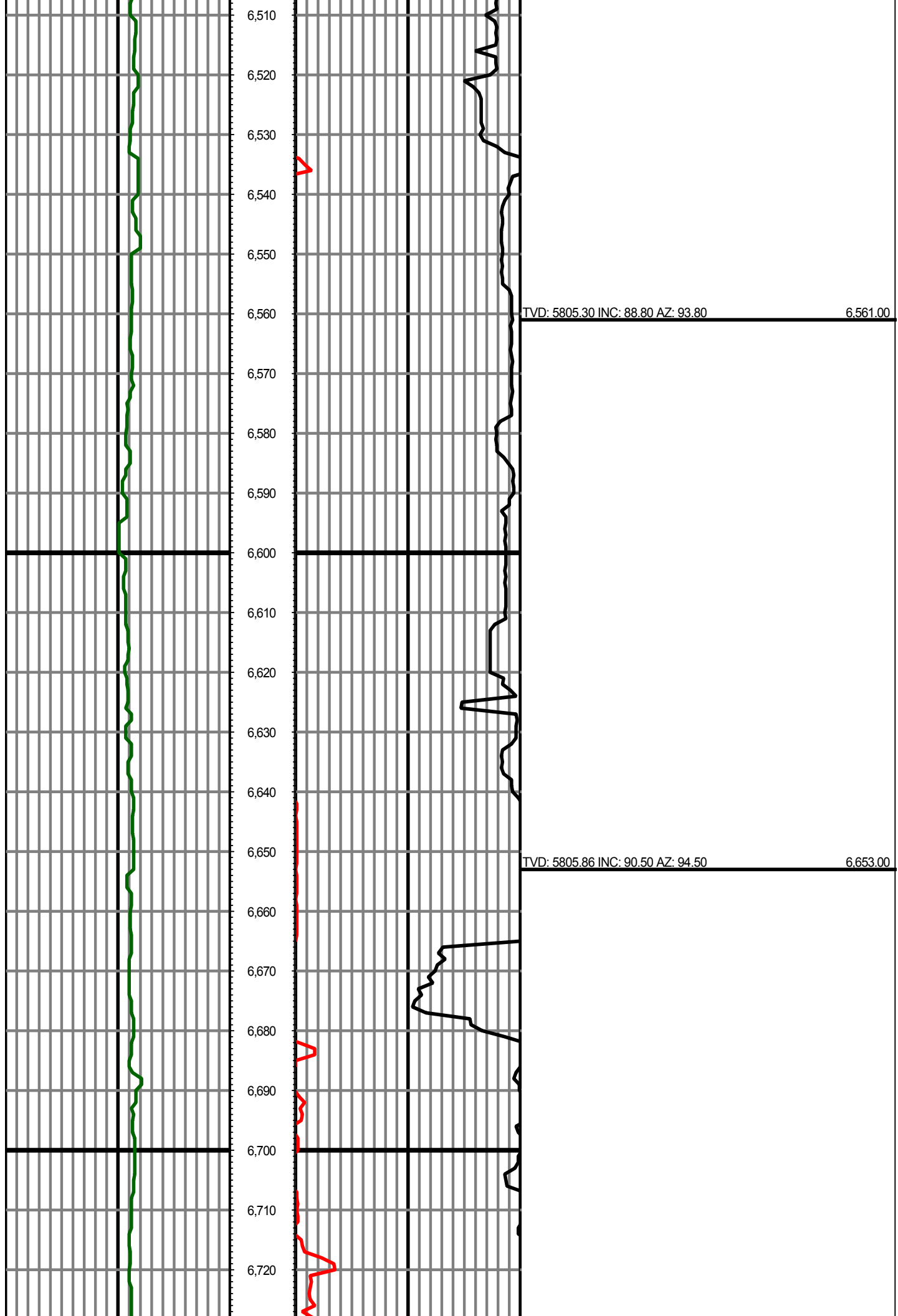


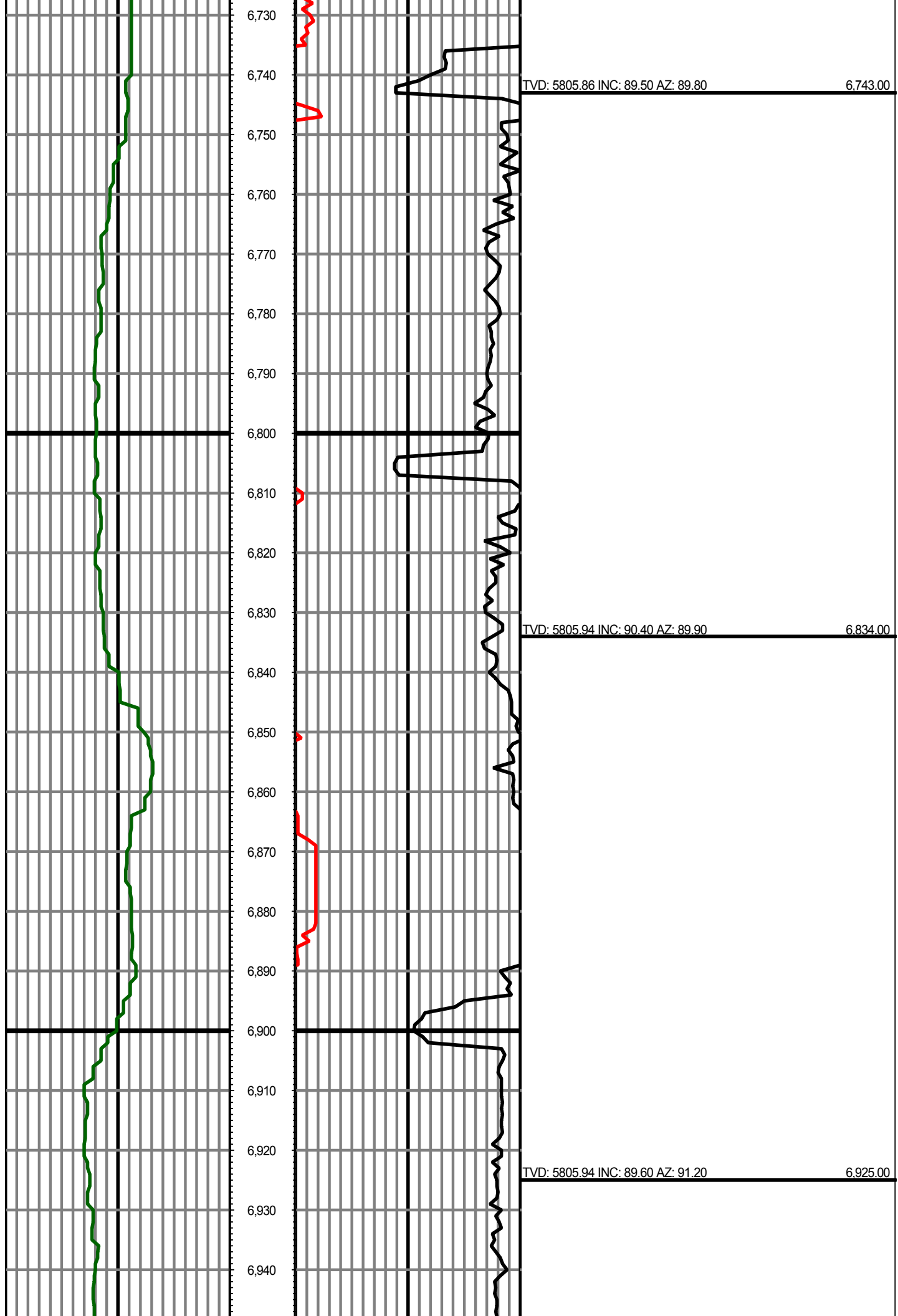


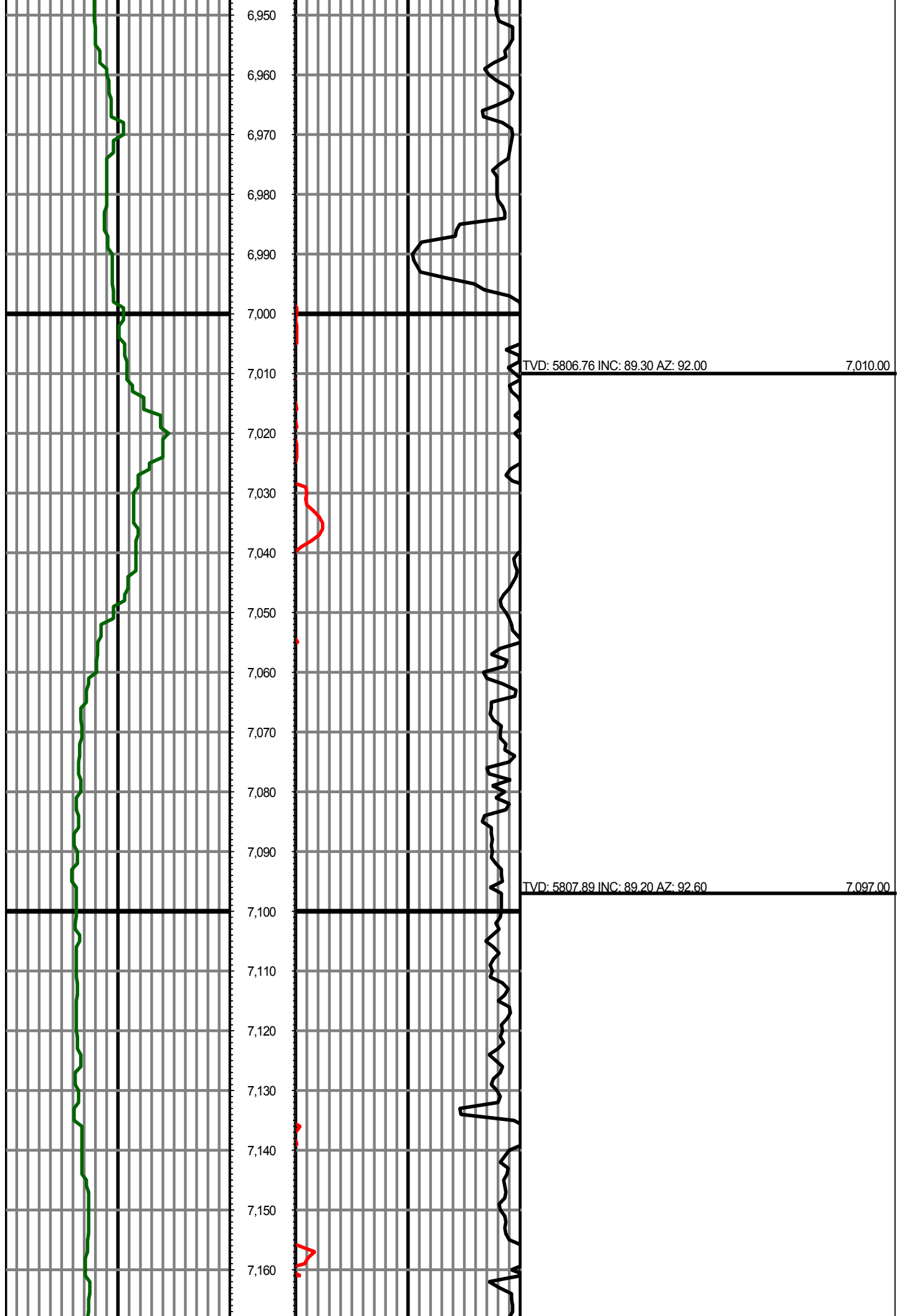


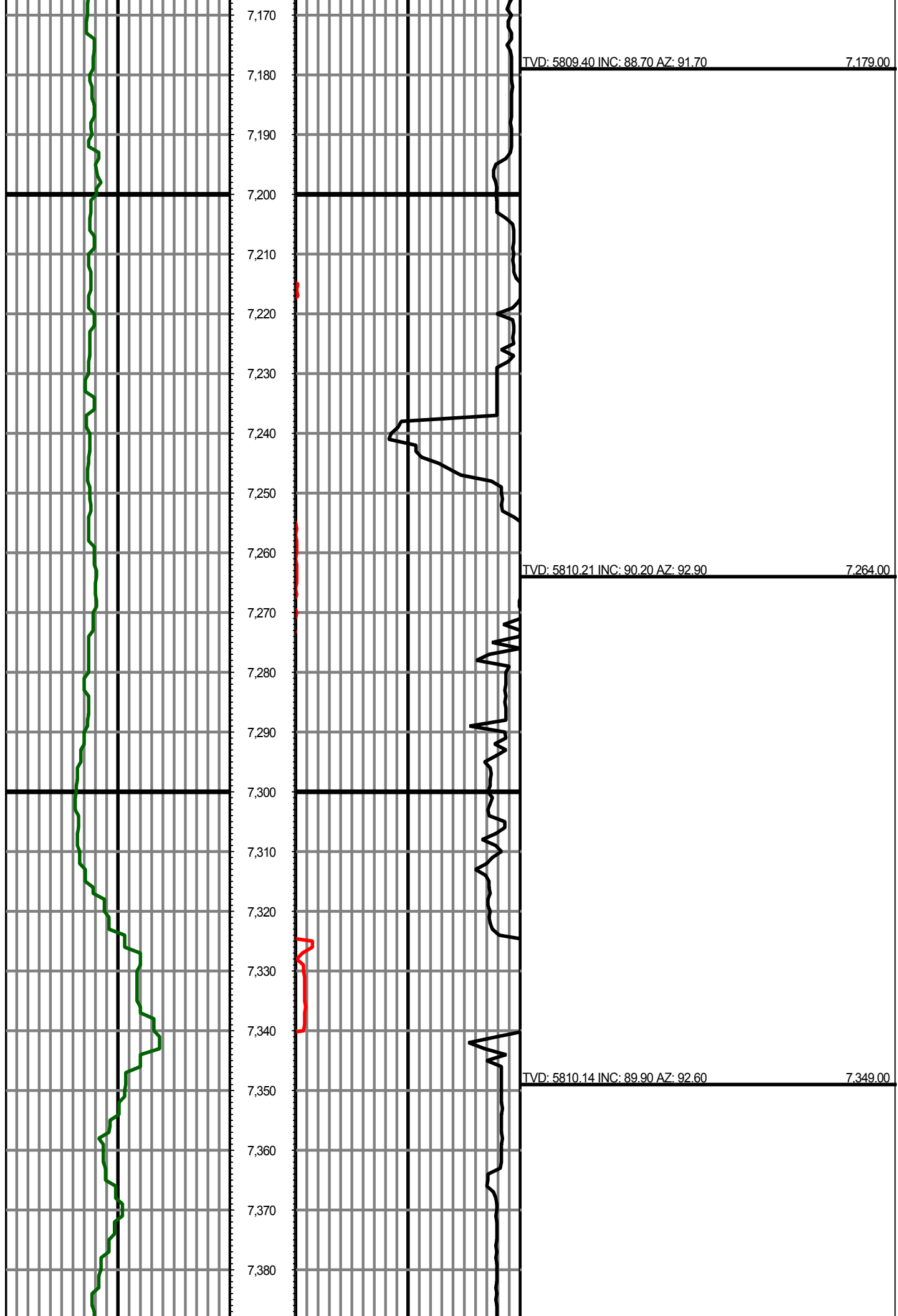


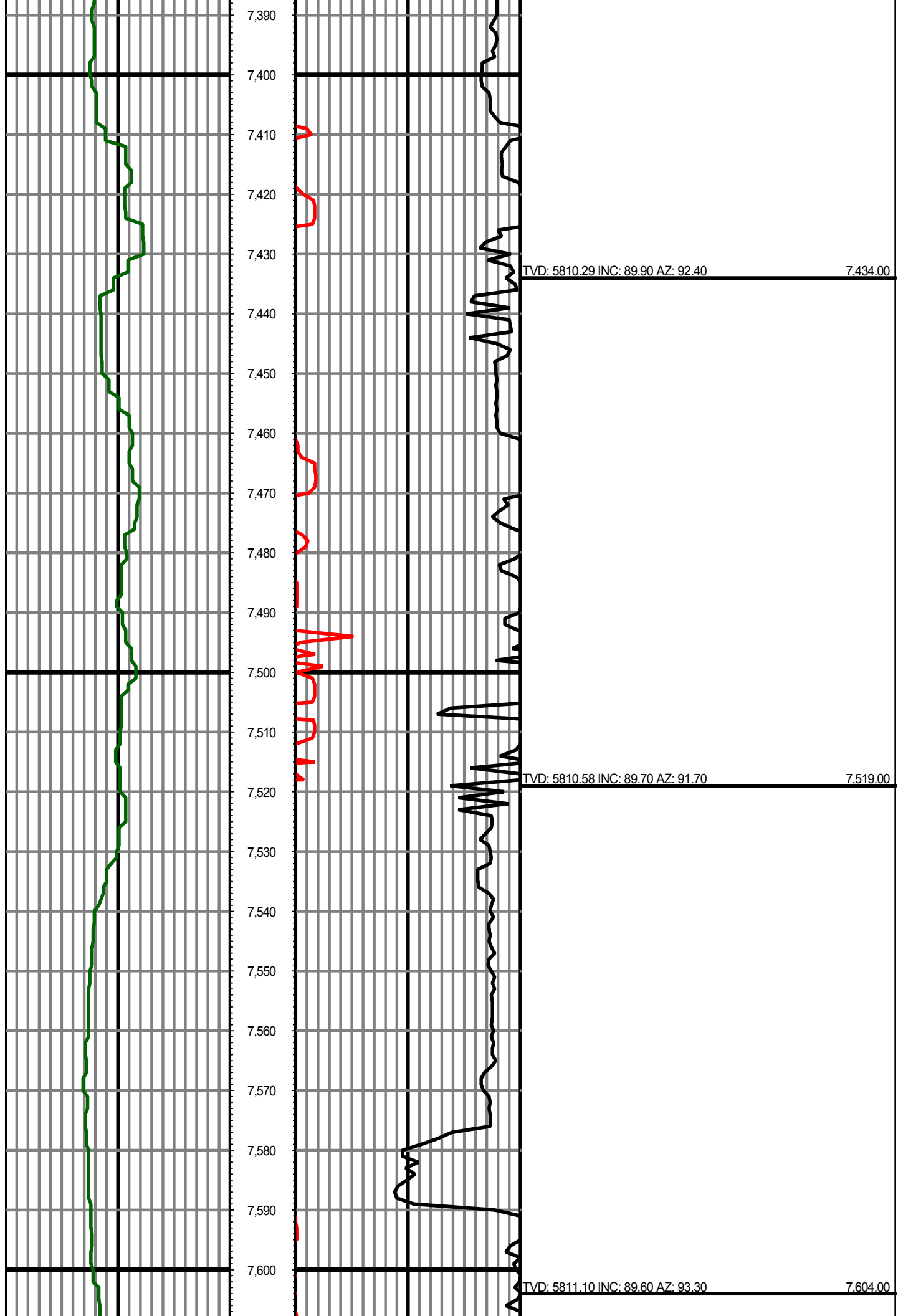


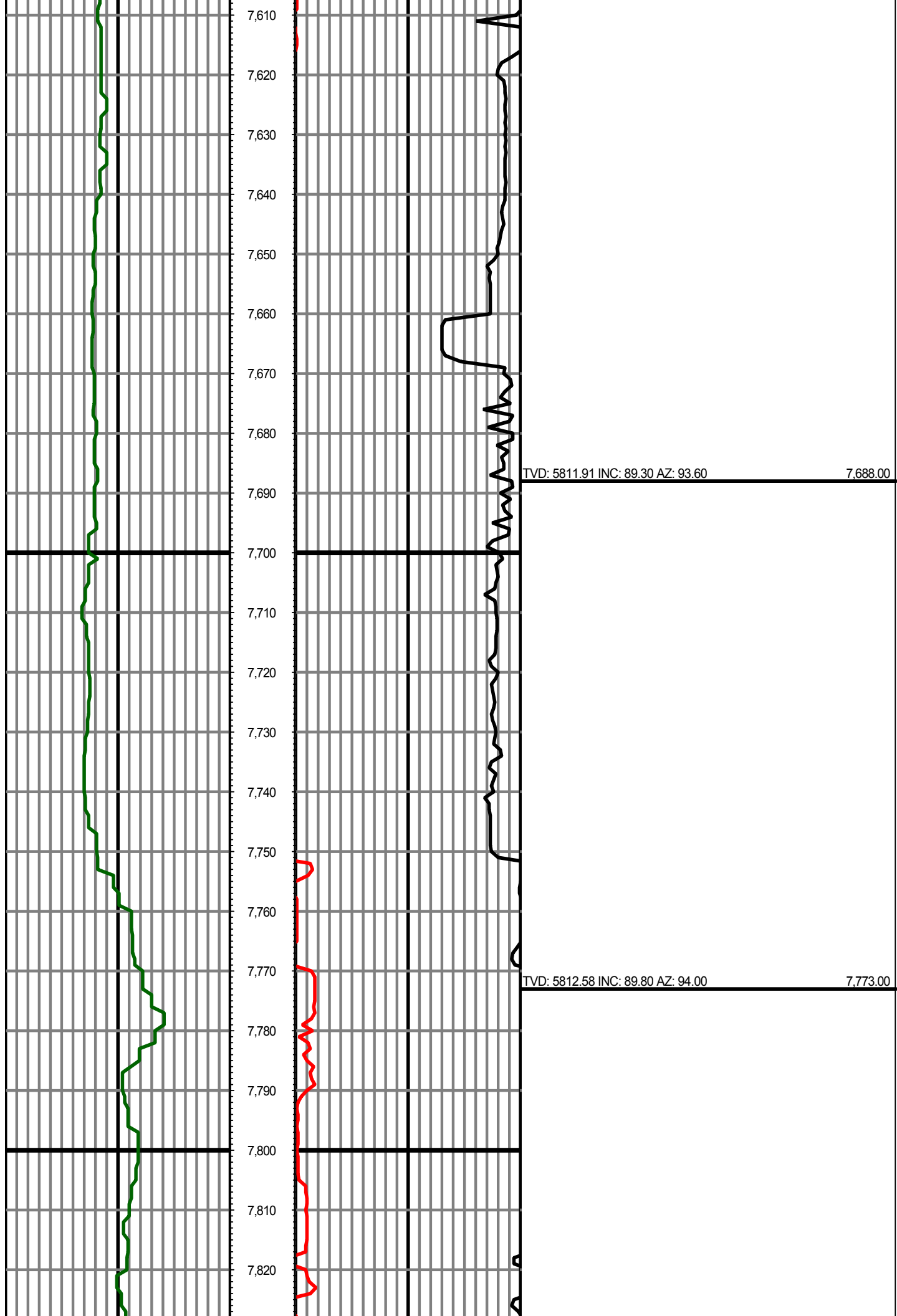


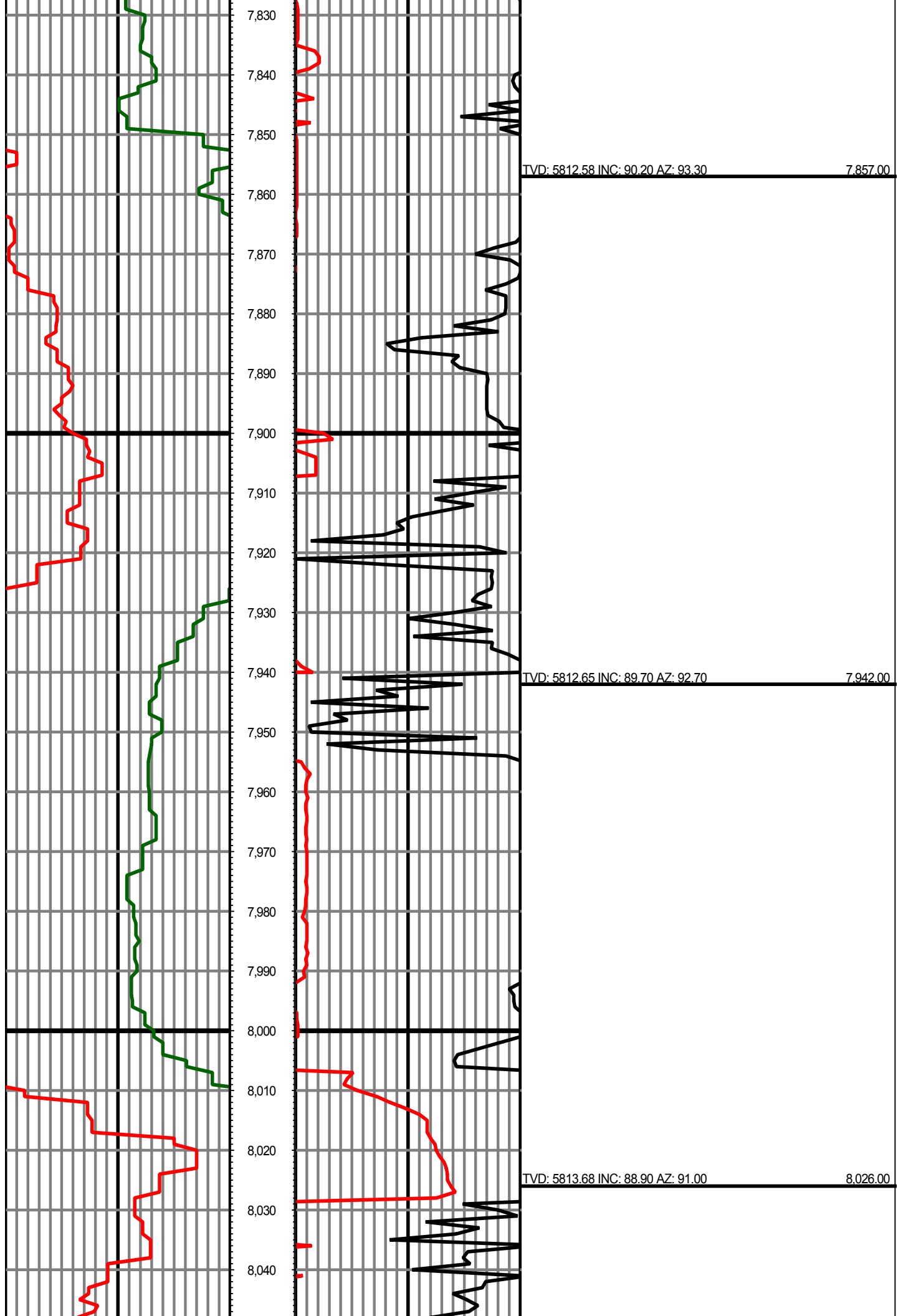


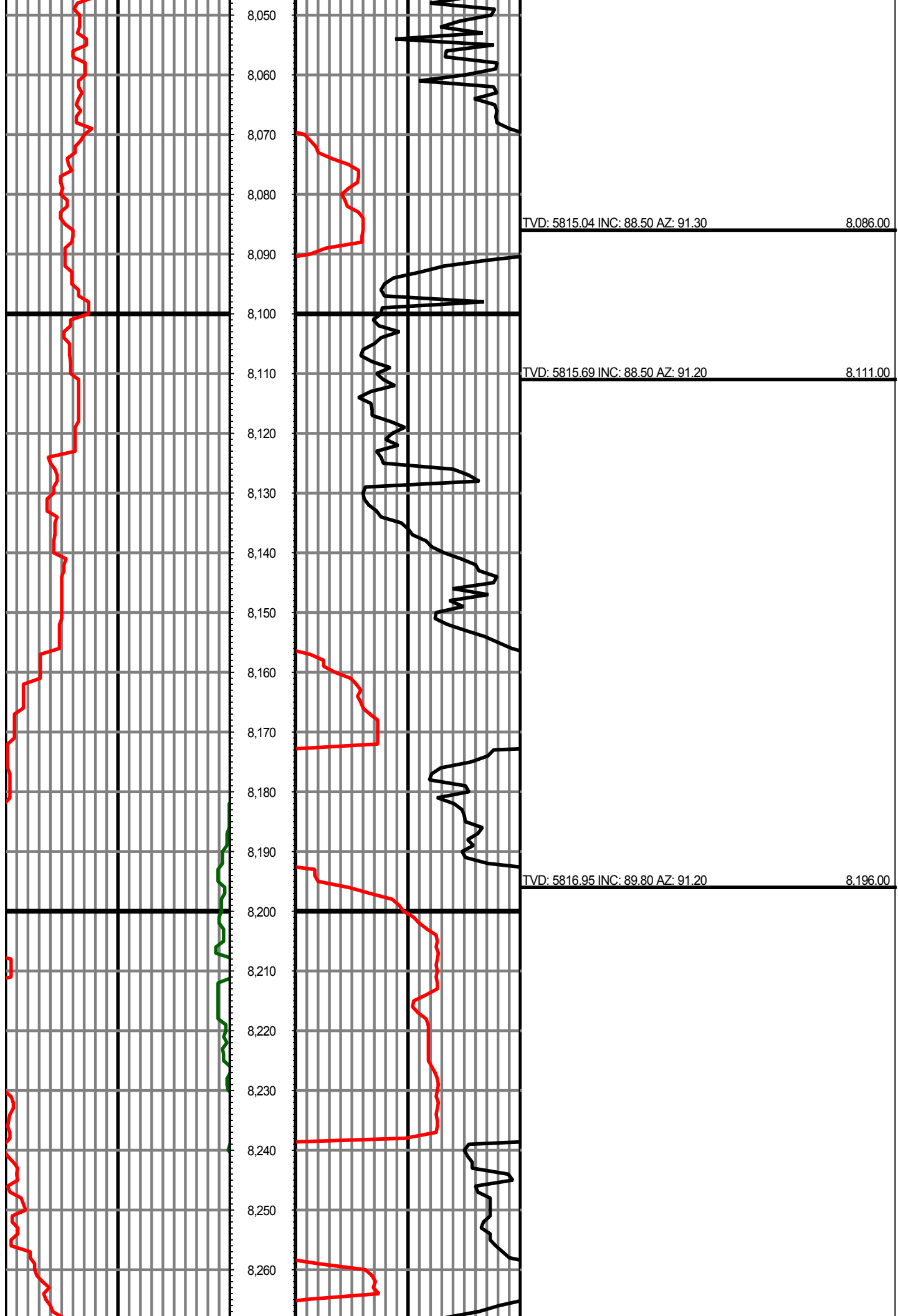


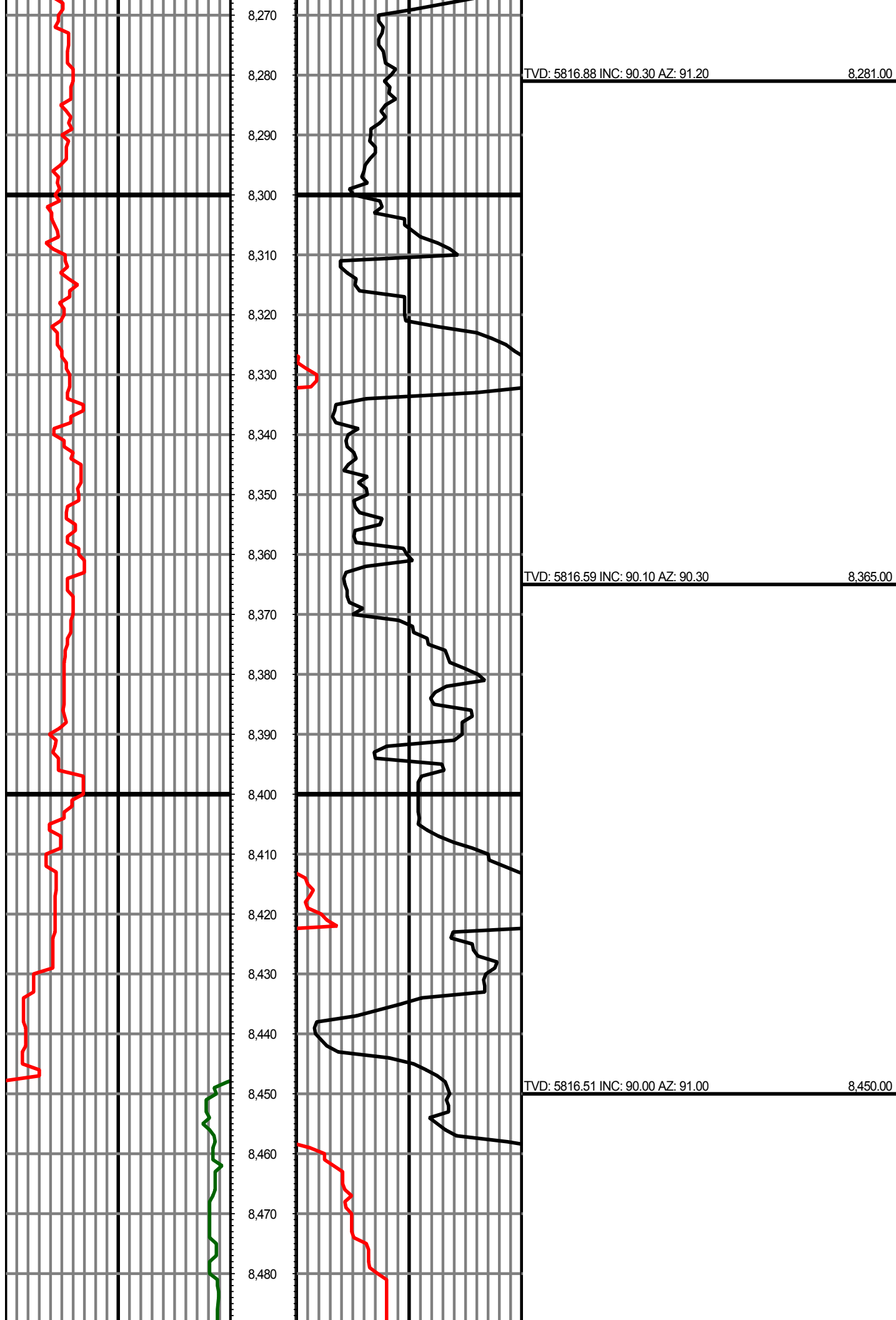


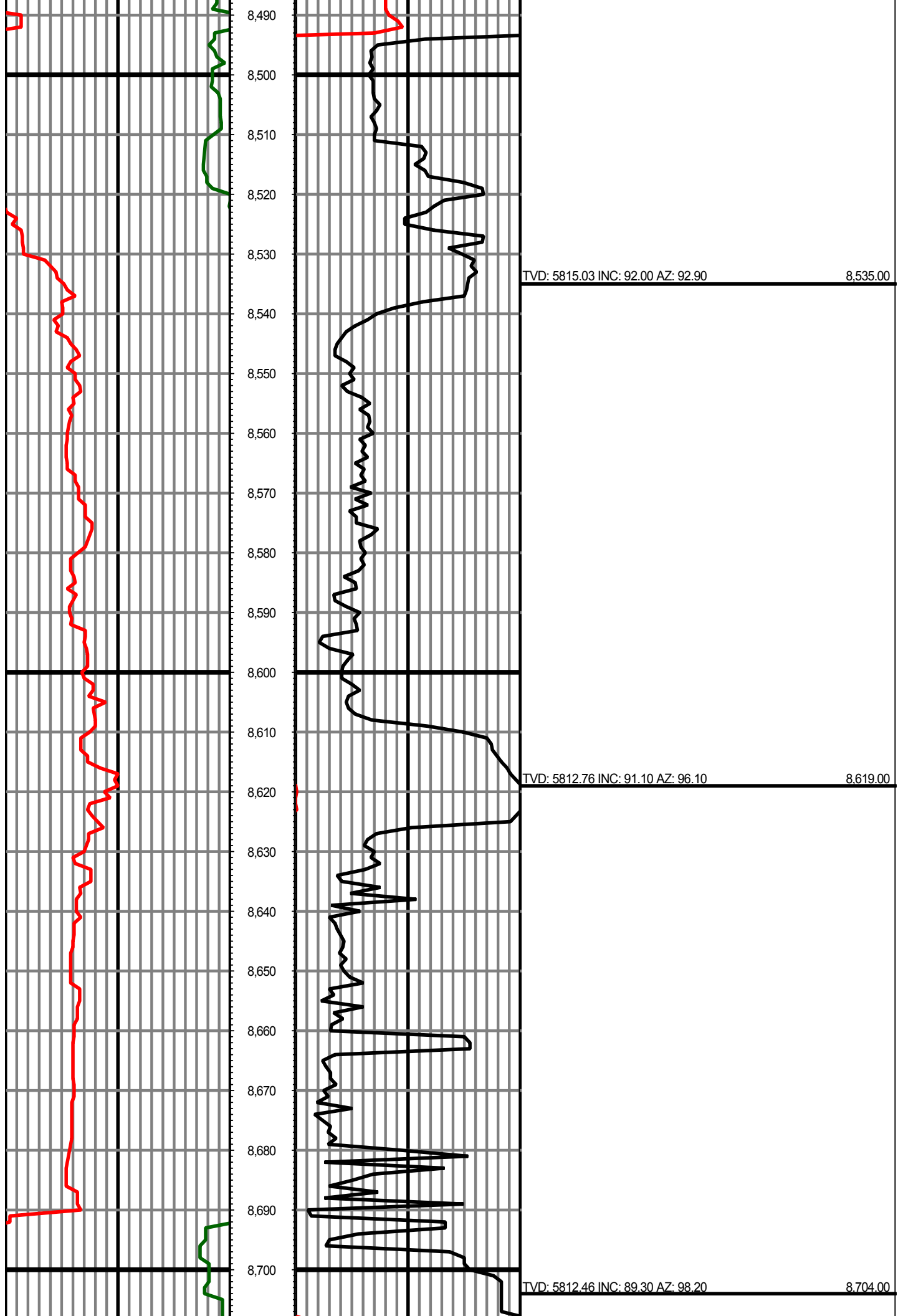


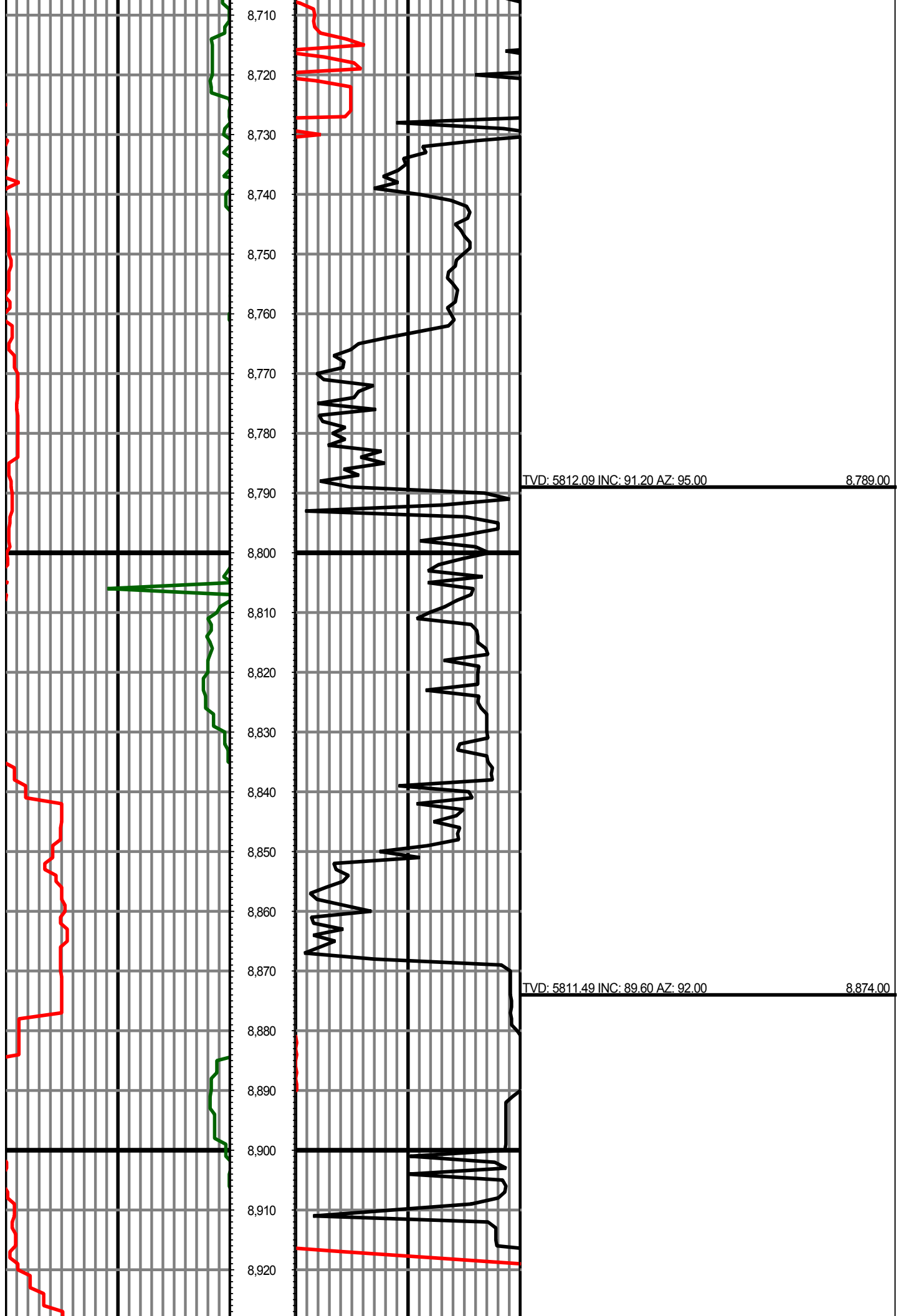


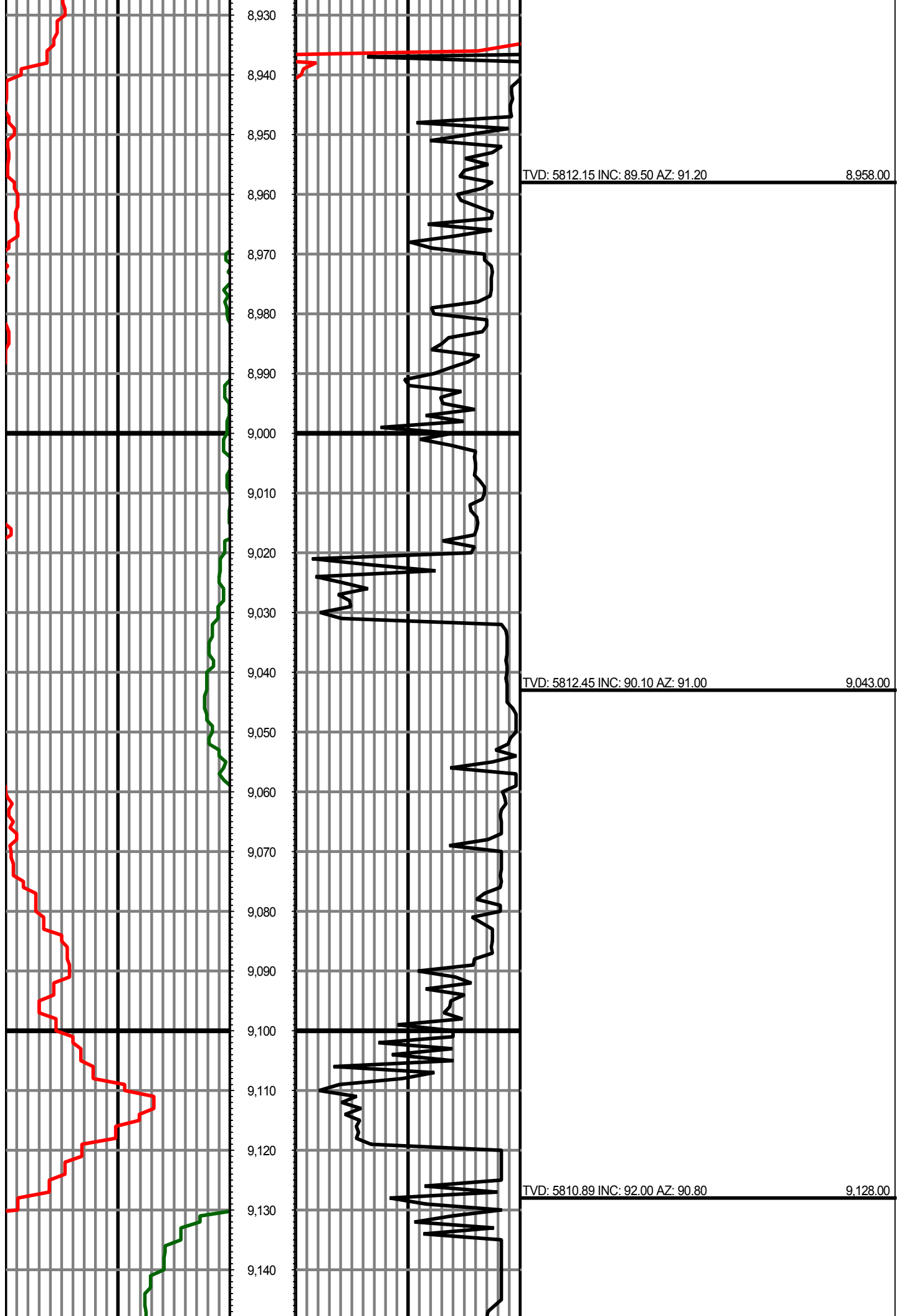


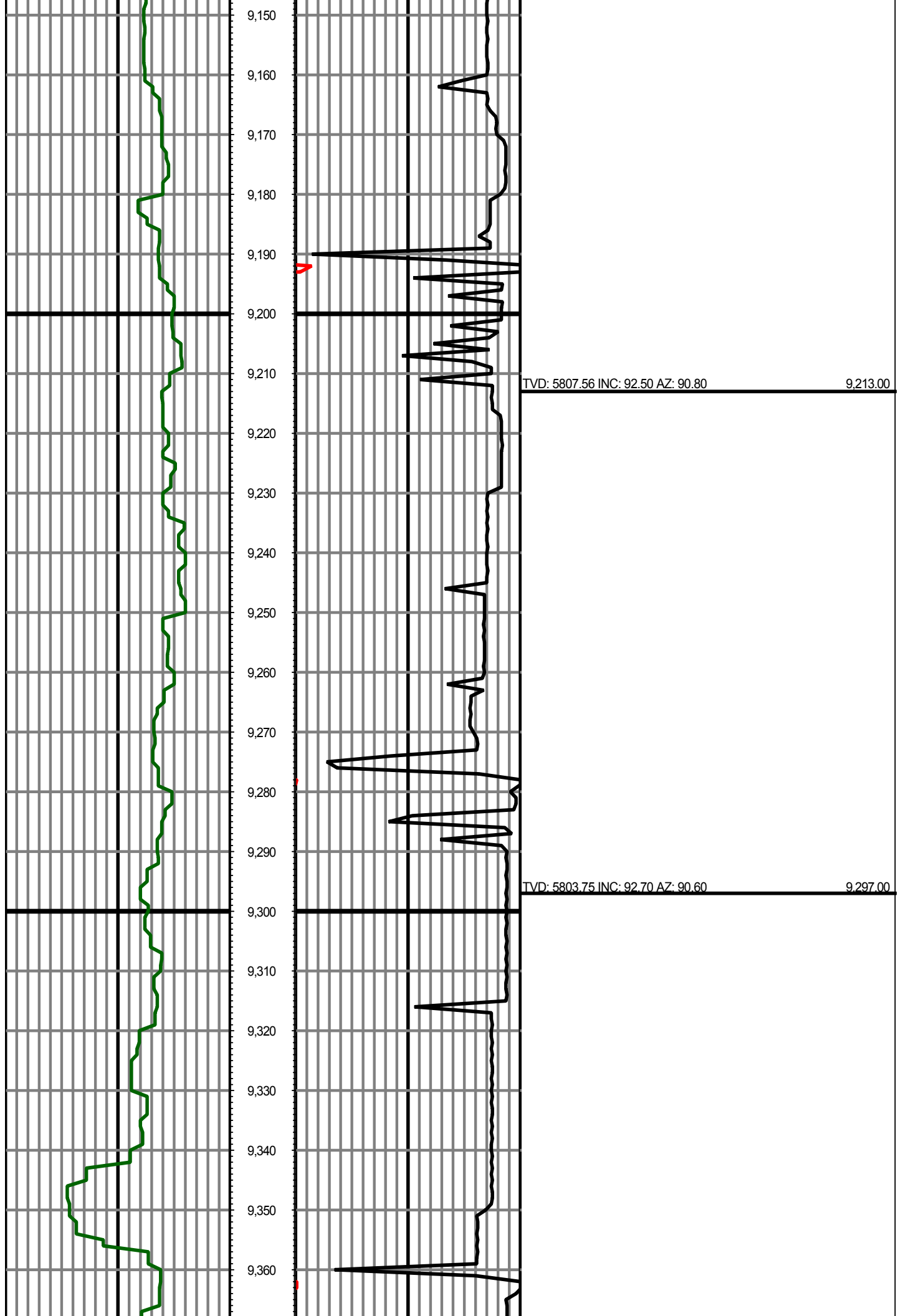


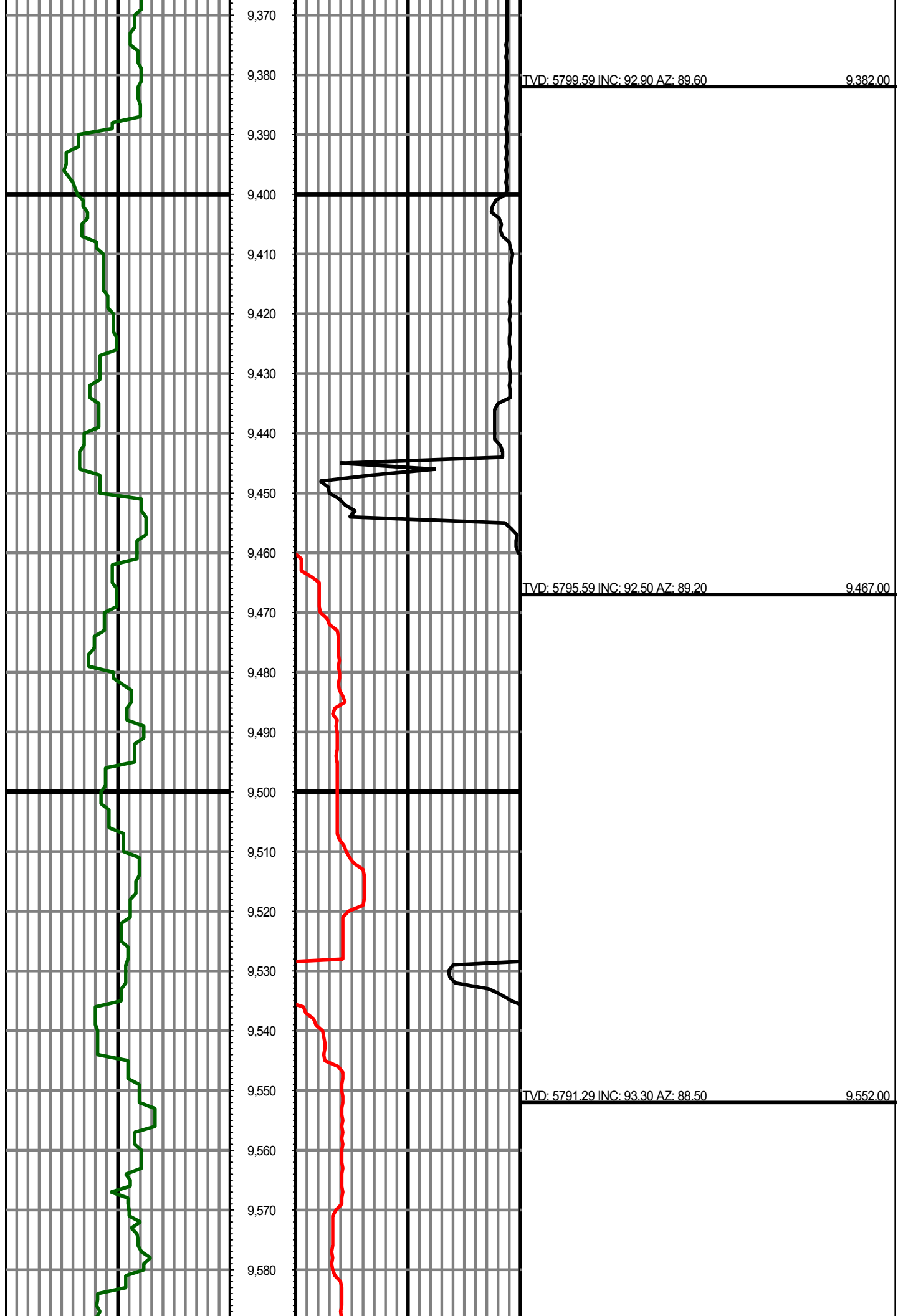


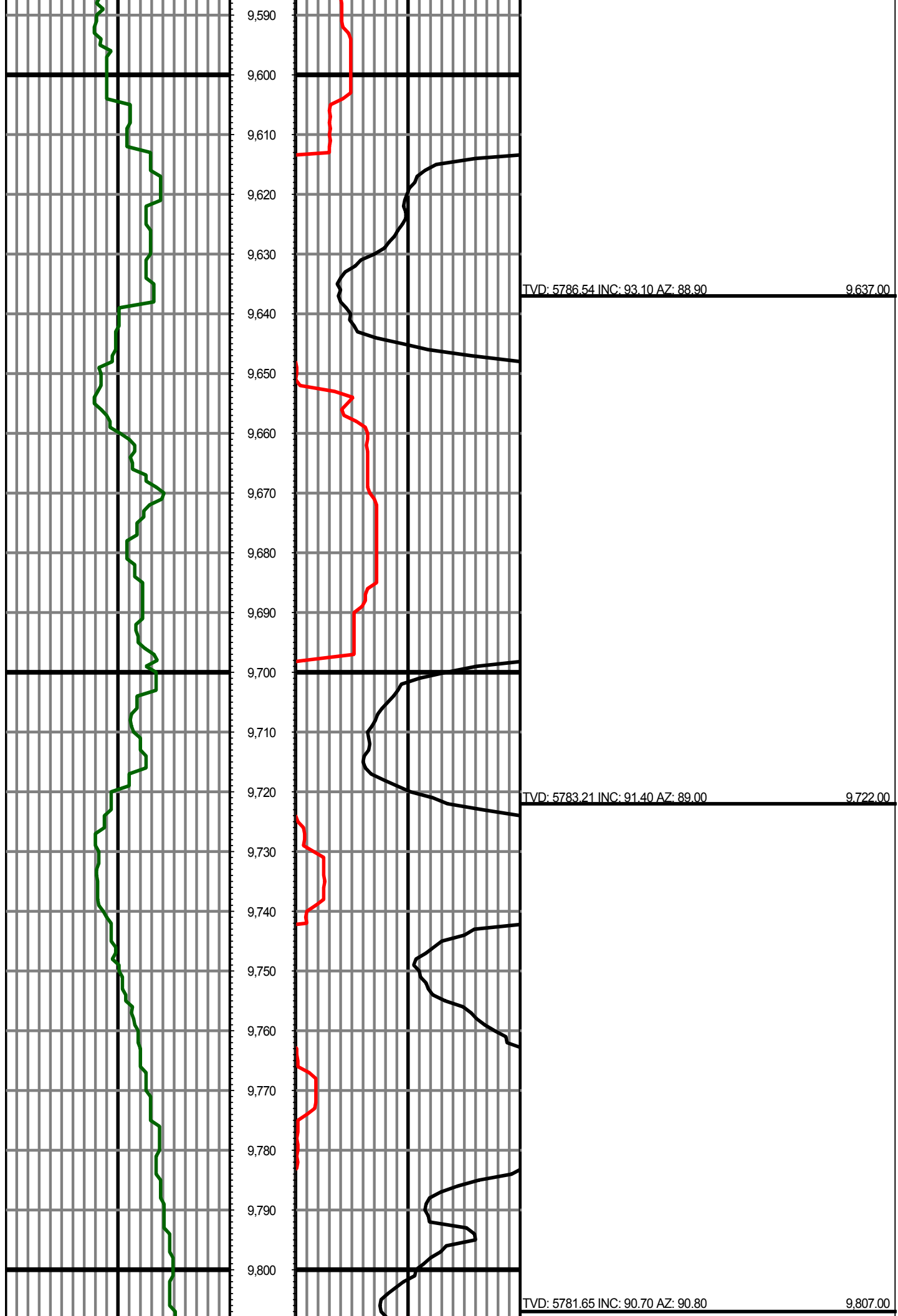












TVD: 5781.65 INC: 90.70 AZ: 90.80

9,807.00

TVD: 5780.04 INC: 91.50 AZ: 90.50

9,891.00

TVD: 5777.81 INC: 91.50 AZ: 90.30

9,976.00

