

Equipment and Service Data

Run No.	Tool	Serial Number	Measurement	Sensor Offset (ft)	Bit Offset (ft)	Max O.D. (in)	Min I.D. (in)
1	NaviTrak	13191955	VSS	14.23	50.20	8.000	0.000
1	NaviTrak	13191955	Directional (mag)	14.23	50.20	8.000	0.000
2	AutoTrak Curve Steering Unit	13993180	Near Bit Inclination	5.93	6.73	7.000	4.330
2	AutoTrak Curve Steering Unit	13993180	Near Bit VSS	5.93	6.73	7.000	4.330
2	AutoTrak Curve MWD	12661246	Gamma (single)	2.72	12.90	7.000	3.250
2	AutoTrak Curve MWD	12661246	Directional (mag)	12.24	22.42	7.000	3.250

Service and Tool Mnemonics

Mnemonic	Name	Description
NTK	NaviTrak	Probe Based Directional Module, NaviTrak Platform
ATC SU	AutoTrak Curve SU	Auto Trak Curve Steering Unit
ATC MWD	AutoTrak Curve MWD	Auto Trak Curve MWD
ATC LCPM	AutoTrak Curve LCPM	Auto Trak Curve LCPM

Comments

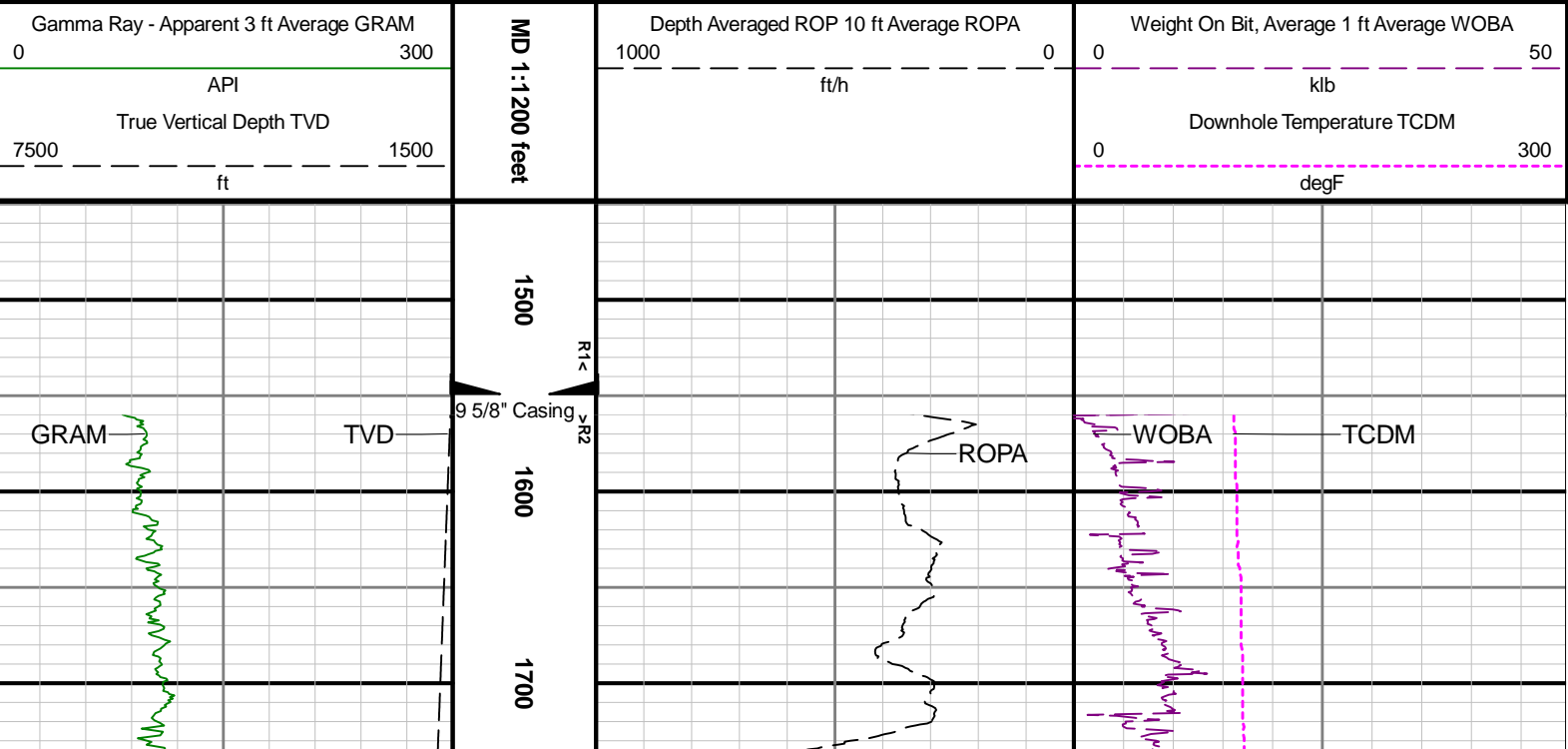
- 1
- Depth measurements were obtained from a depth control system not supplied or operated by Baker Hughes. Due to lack of control by Baker Hughes logging engineers, depth calibrations and measurements could not be independently verified.
- 2
- Baker Hughes LWD Run 1 utilized 6.75 inch NaviTrak Service (Directional) behind a 13.5 inch bit and a steerable assembly from 105 to 1560 feet MD (105 to 1530 feet TVD). No logging data was acquired through out that run.
- 3
- Baker Hughes LWD Run 2 utilized 6.75 inch NaviGamma Service (Gamma Ray and Directional) behind an 8.5 inch bit and a rotary steerable assembly from 1560 to 18150 feet MD (1530 to 7219 feet TVD).
- 4
- The GRAM data is presented on a scale of 0 to 300 API, per the client's request.

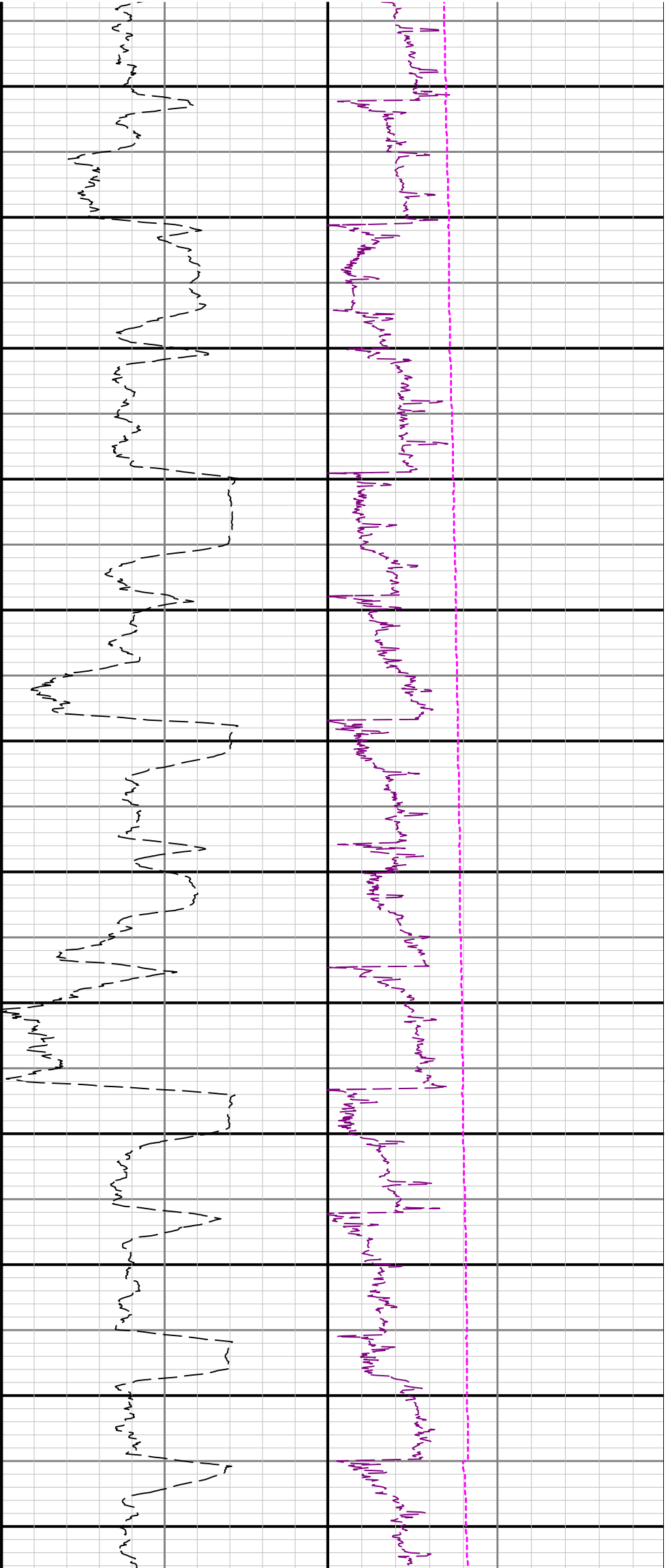
Remarks

Number	Depth (ft)	Hole Section (in)	Run No.	Remark
1	1917.00	8.500	2	There is a gap in the gamma data in the interval from 1917 to 1958 feet MD (1867 to 1906 feet TVD) due to the tool not coming back on after downlinks were sent.
2	4192.00	8.500	2	There is a gap in the gamma data in the interval from 4192 to 4256 feet MD (4029 to 4090 feet TVD) due to the tool not coming back on after downlinks were sent.
3	5450.00	8.500	2	There is a gap in the gamma data in the interval from 5450 to 5484 feet MD (5224 to 5257 feet TVD) due to the tool not coming back on after downlinks were sent.
4	6403.00	8.500	2	There is a gap in the gamma data in the interval from 6403 to 6431 feet MD (6131 to 6158 feet TVD) due to the tool not coming back on after downlinks were sent.
5	18137.00	8.500	2	The interval from 18137 to 18150 feet MD (7219 feet TVD) was not logged after being drilled due to sensor to bit offset at well TD.

Curve Mnemonics

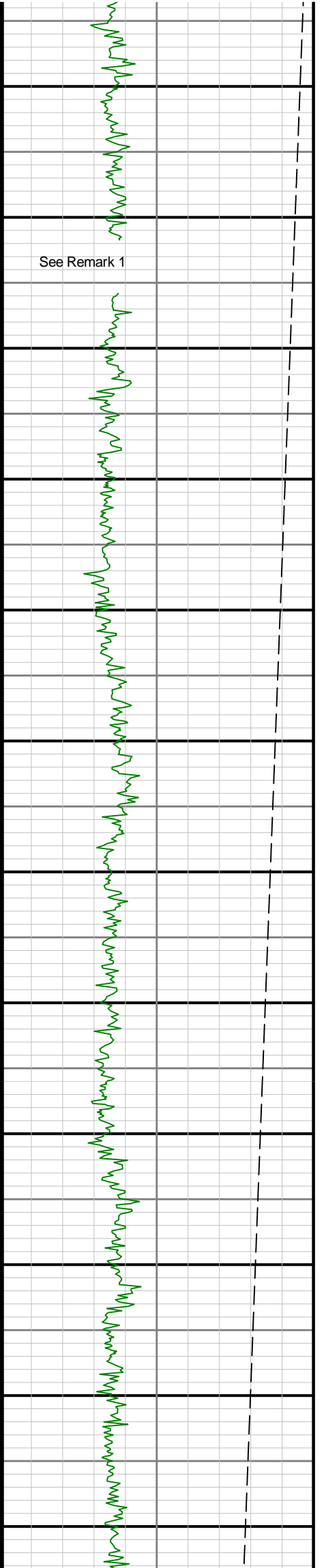
Presented Curves	Description	Units
ROPA	Depth Averaged ROP 10 ft Average	ft/h
TVD	True Vertical Depth	ft
WOBA	Weight On Bit, Average 1 ft Average	klb
GRAM	Gamma Ray - Apparent - Memory 3 ft Average	API
TCDM	Directional Real-Time Survey Temperature	degF

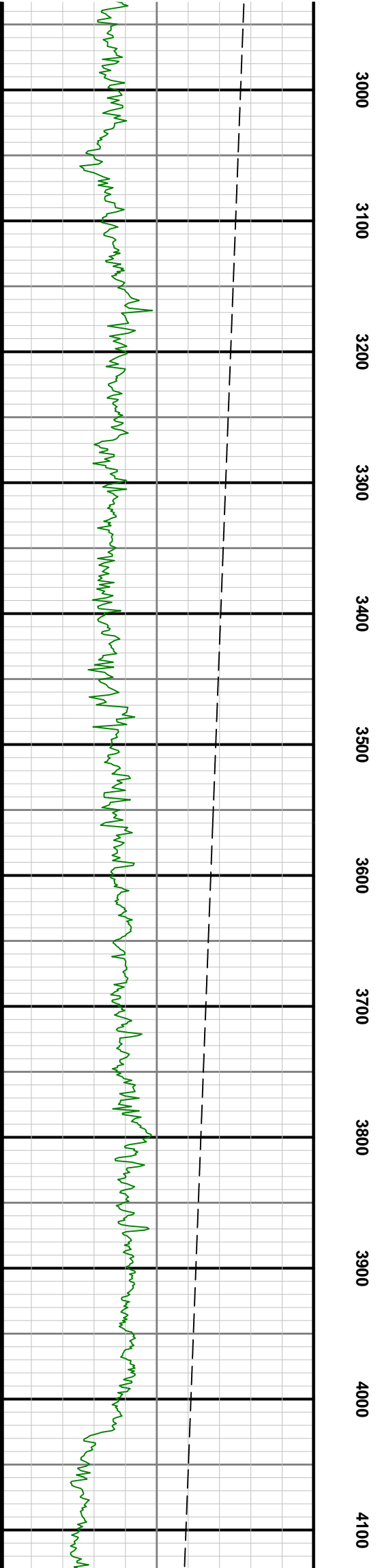
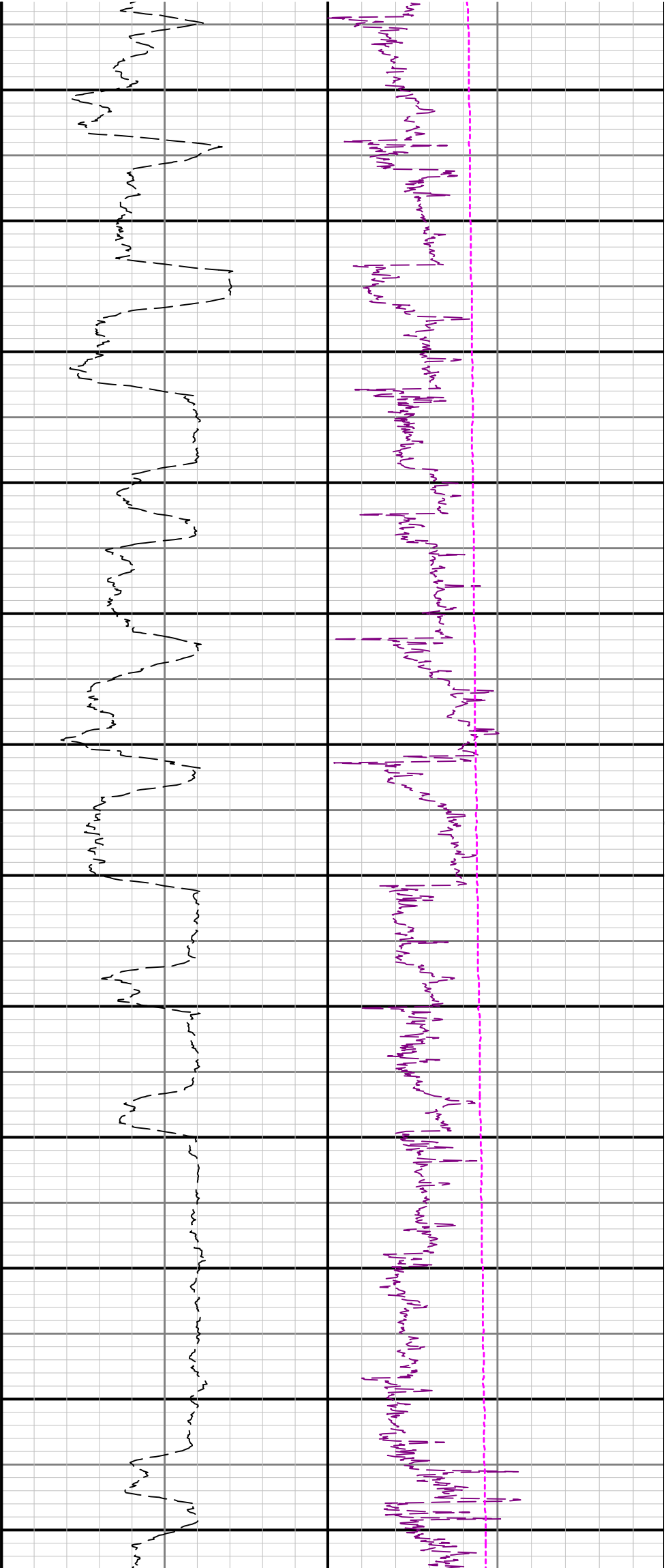


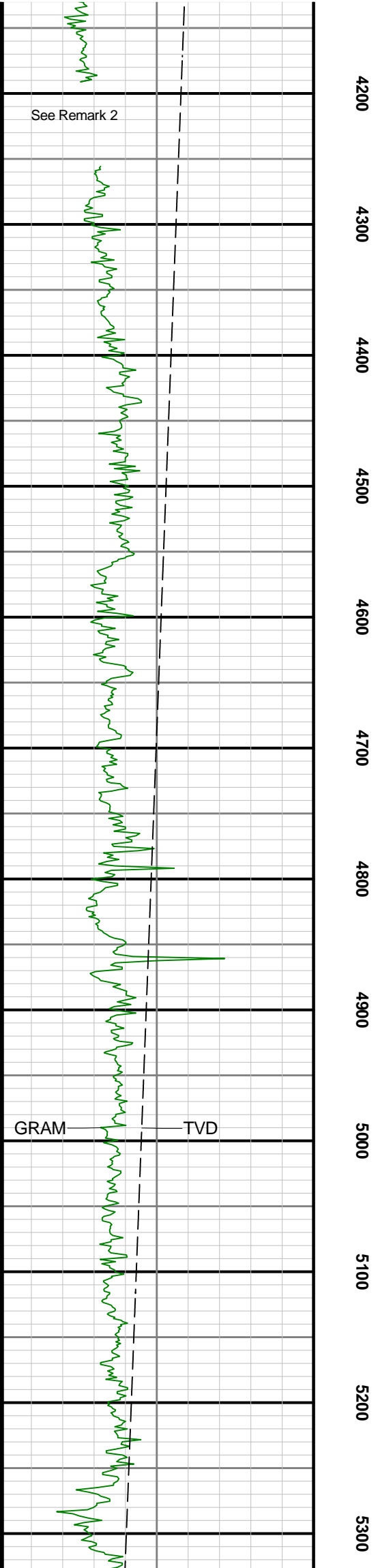
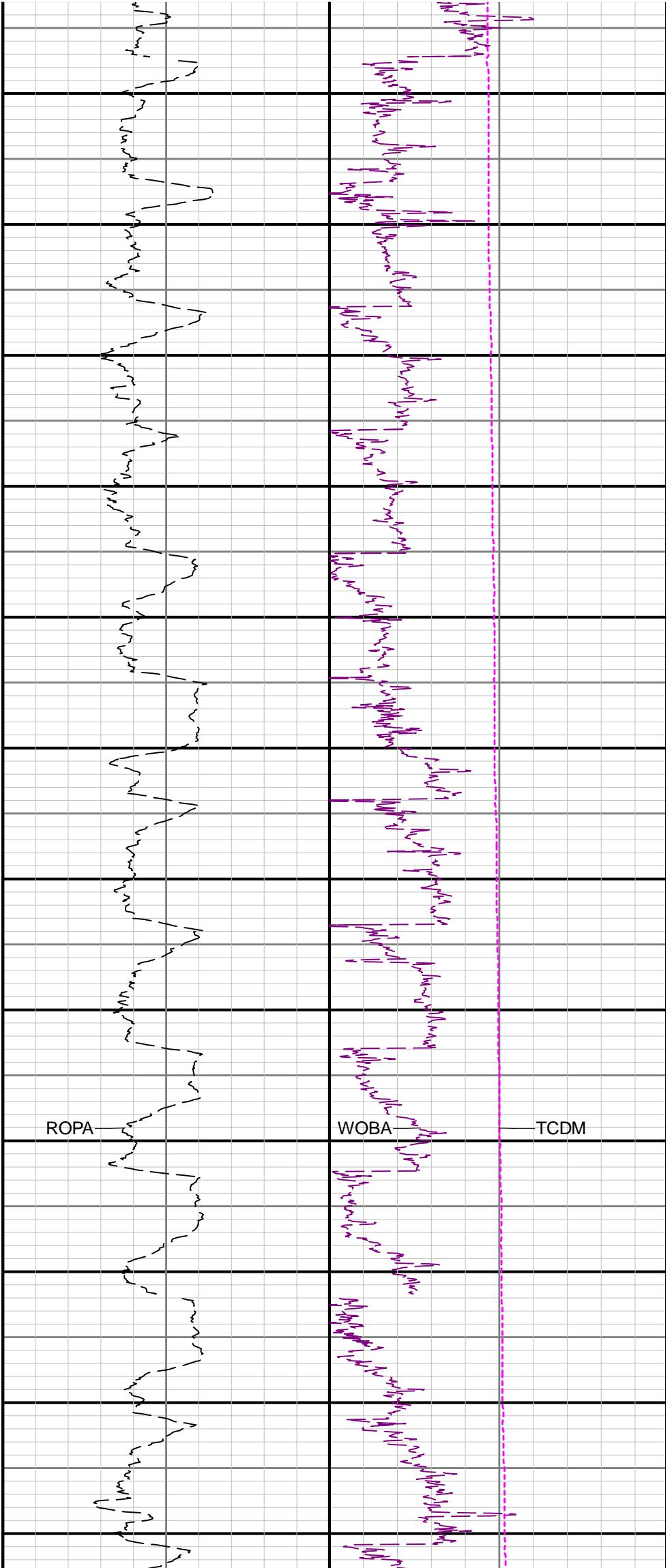


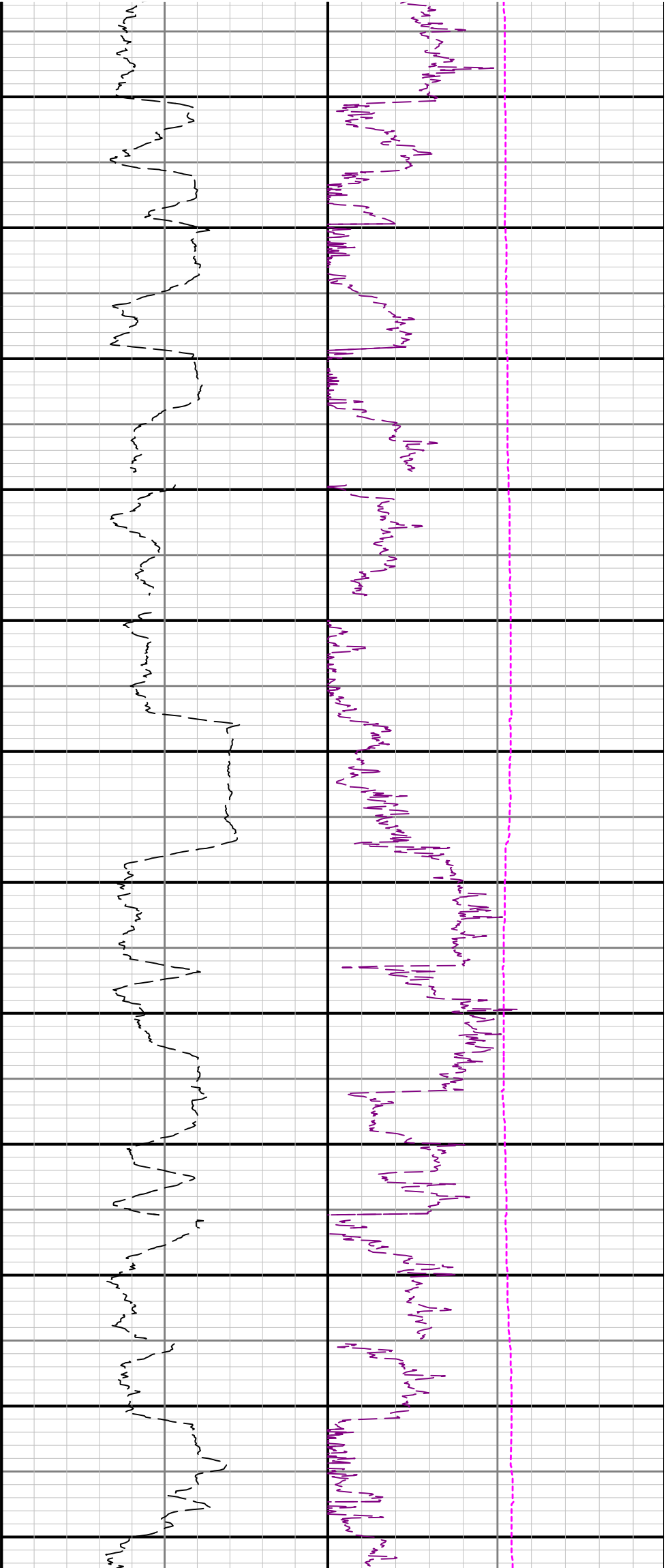
1800 1900 2000 2100 2200 2300 2400 2500 2600 2700 2800 2900

See Remark 1





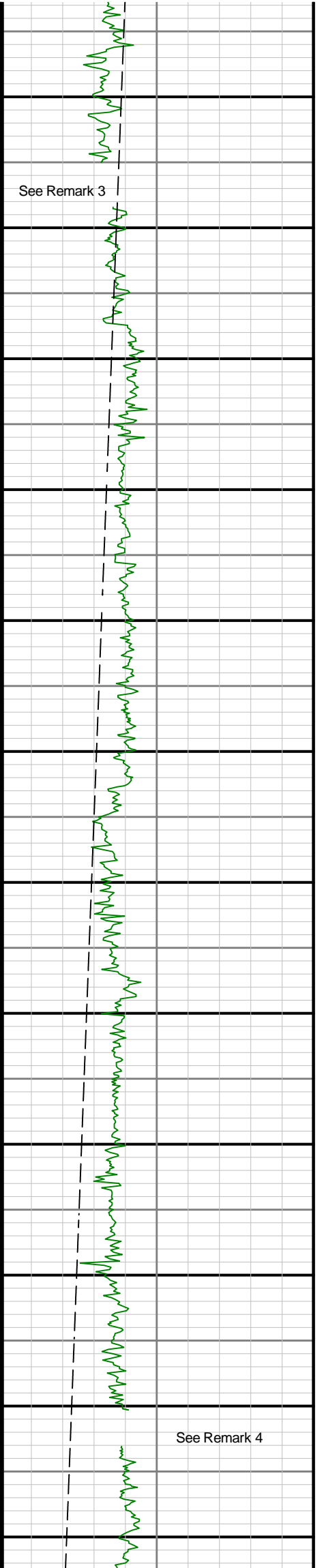


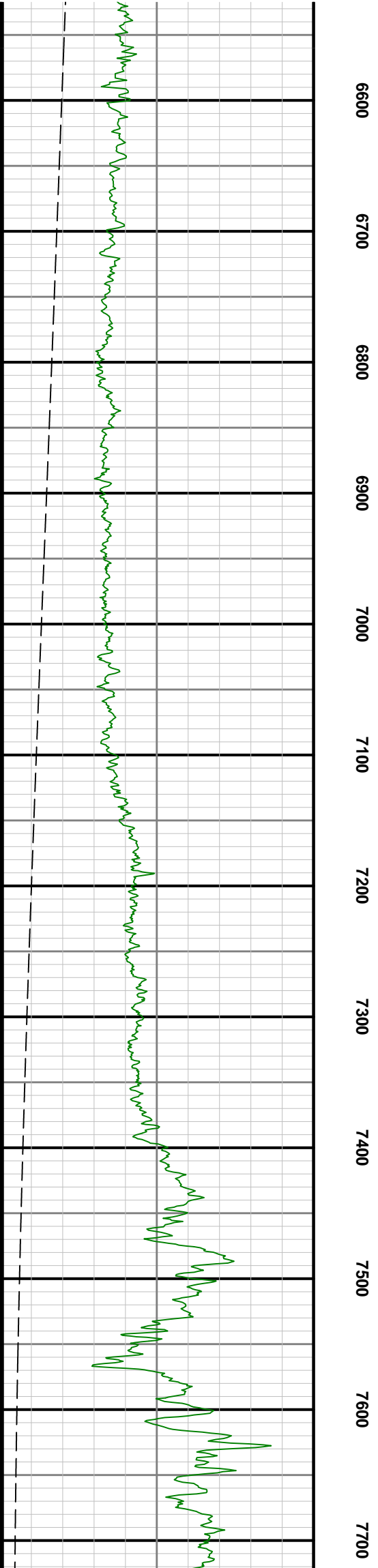
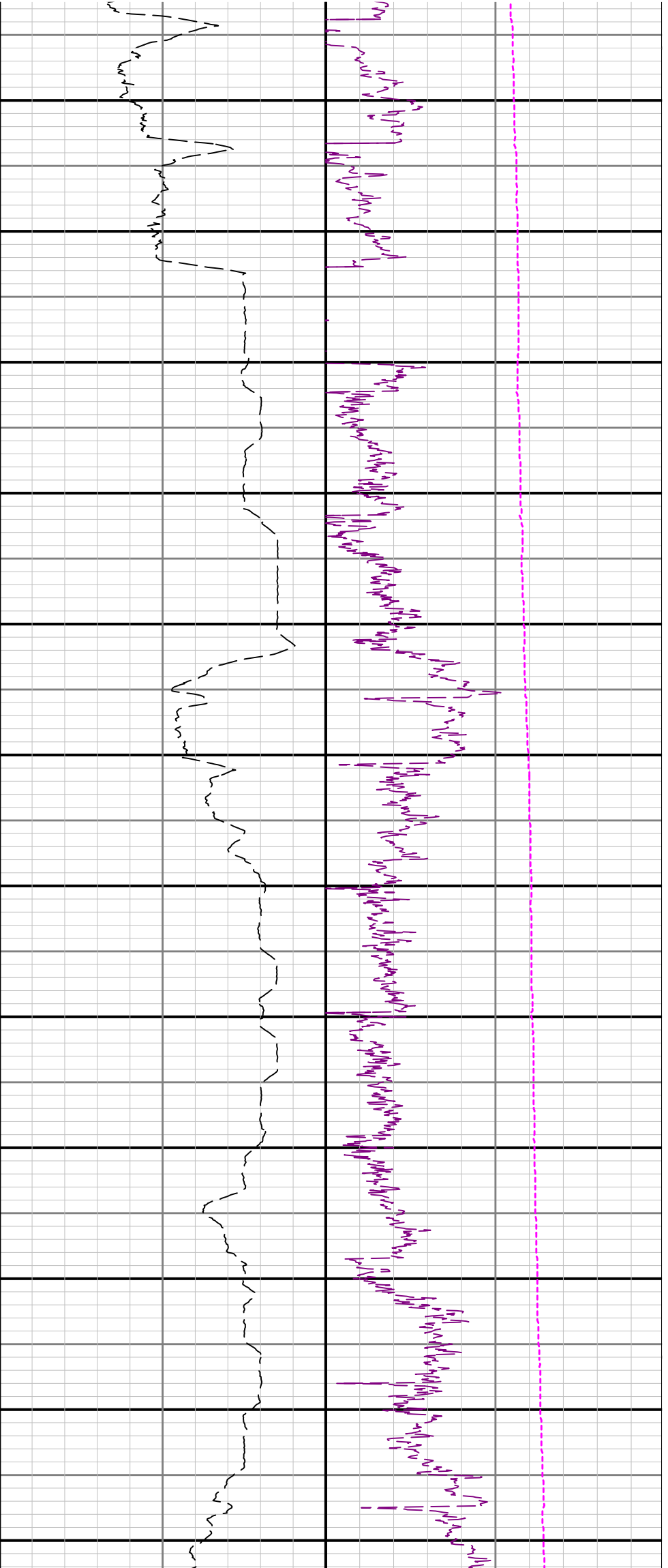


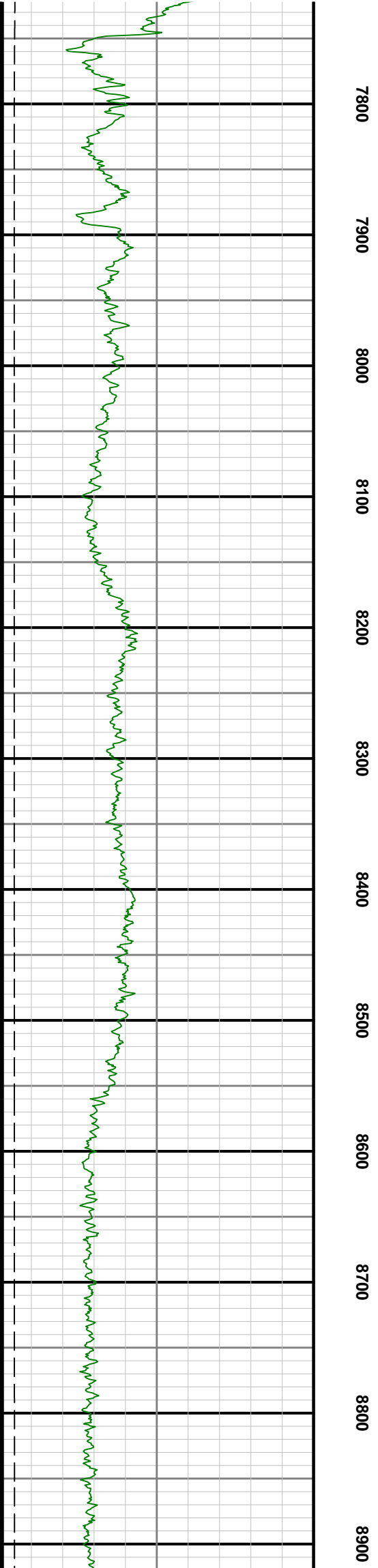
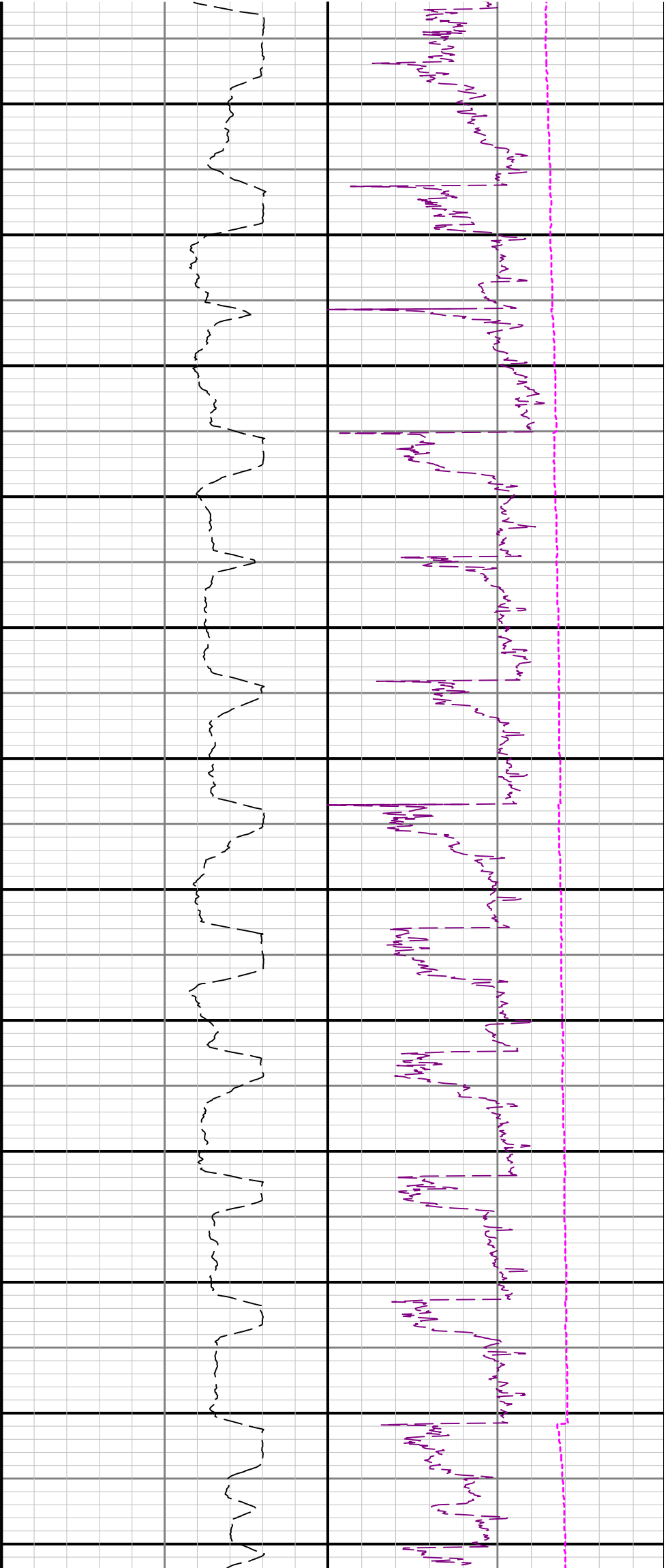
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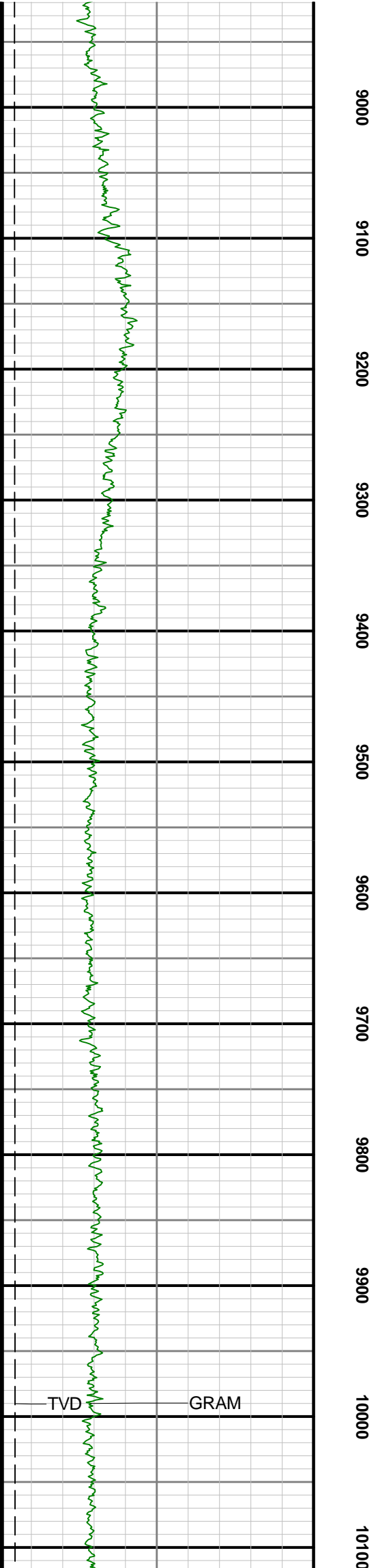
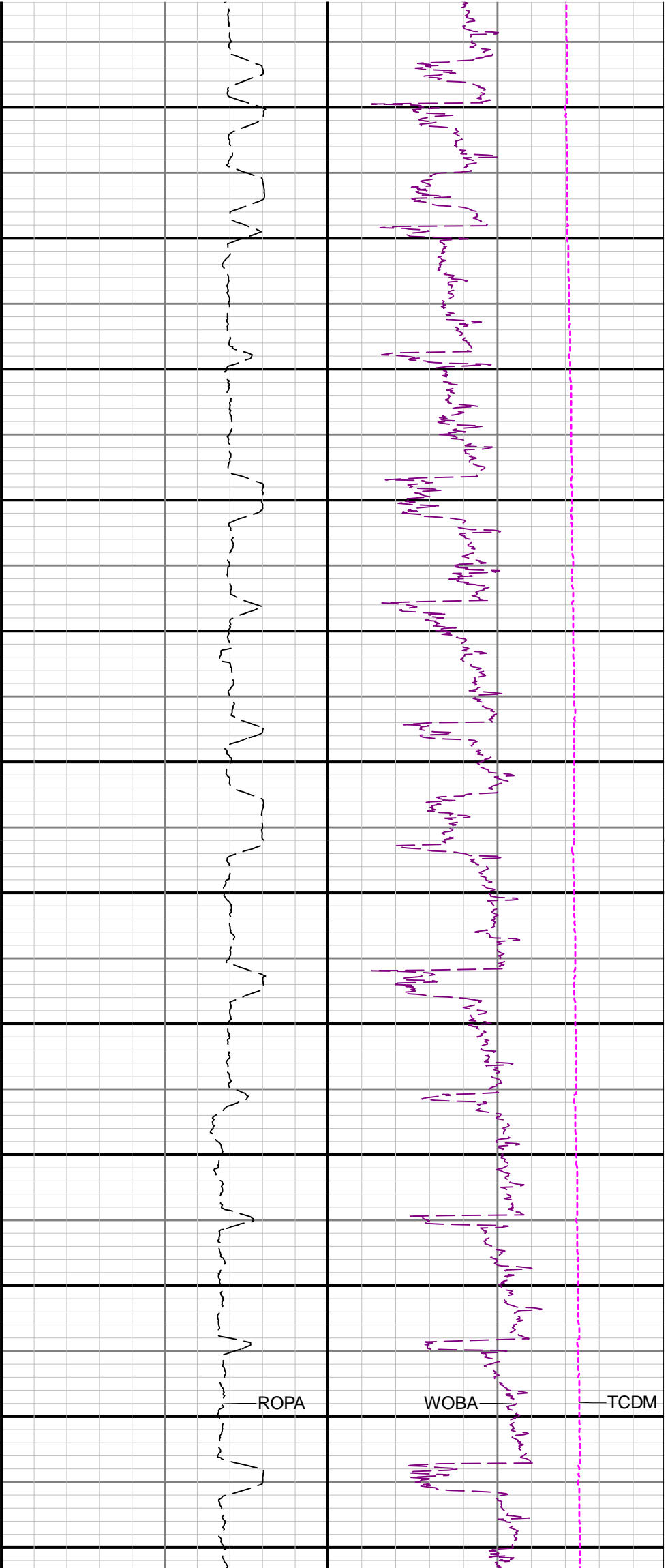
See Remark 3

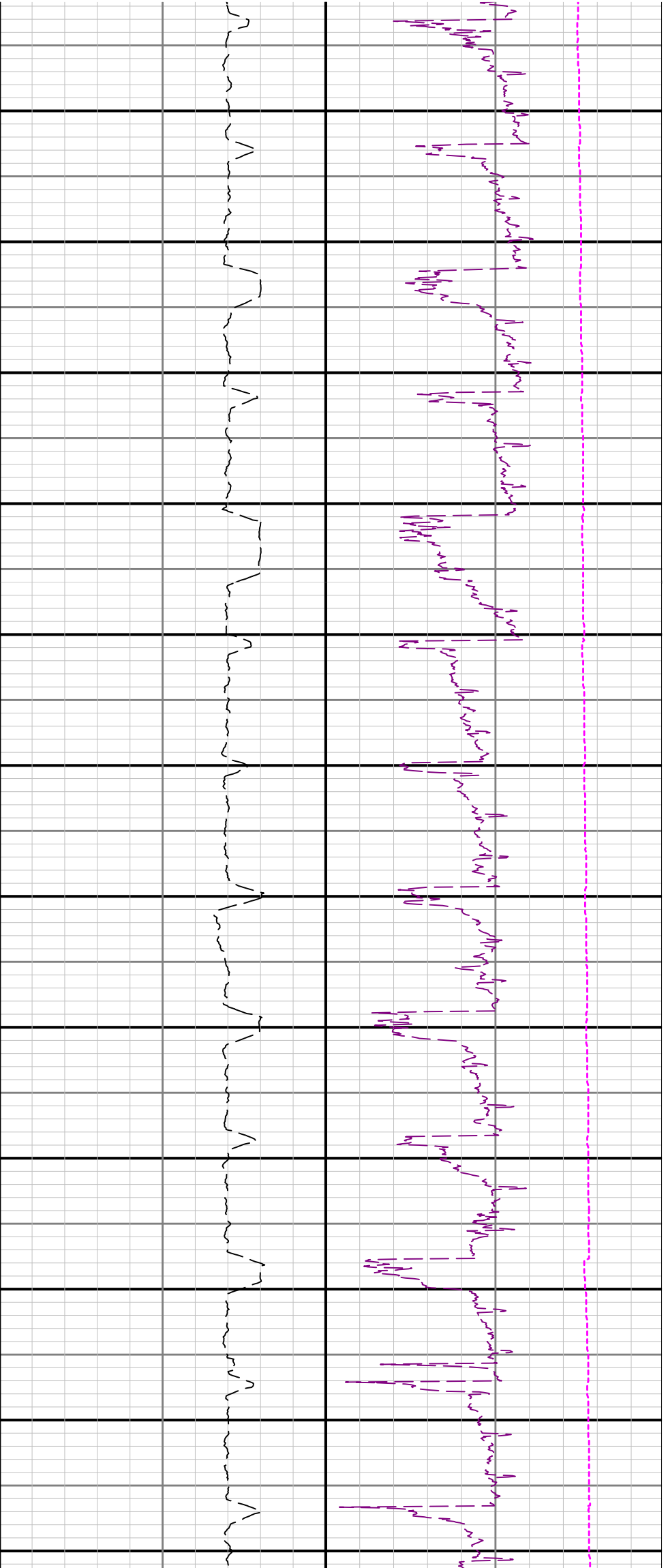
See Remark 4











10200 10300 10400 10500 10600 10700 10800 10900 11000 11100 11200 11300

