



LWD MEMORY LOG

Gamma Ray

Scale: Company: Noble Energy

1:240 Well: Gutteresen D23-711

True Vertical Depth Field: Wattenberg

Depth Reference: County: Weld Country: United States

Driller's Depth State: Colorado

Status: Surface Location: Other Services:

Final Print Latitude: 040° 12' 20.484" N

Longitude: 104° 30' 51.012" W

API No: 05-123-48845-00 Directional

Job ID: 109870288 SEC: 23 TWN: 3N RGE: 64W

Permanent Datum (P.D.): Ground Level Elevation: 4810.00 ft Elev. KB: N/A

Log Measured From: Rig Floor Above P.D.: 30.00 ft Elev. DF: 4840.00 ft

Dates Interval Magnetic Field Reference

From: 2019-07-04 Drilled (ft) Logged (ft) Azi Reference North: Grid Dip Angle: (deg) 66.65

To: 2019-07-07 Top: 1952.00 Top: 1952.00 Total Magnetic Field Strength: (nT) 52085

Spud: 2019-06-15 Bottom: 17757.00 Bottom: 17744.00 Mag to Reference North Correction: (deg) 7.44

Borehole Record Casing Record

Hole Size (in) From (ft) To (ft) Size (in) Weight (lb/ft) From (ft) To (ft)

13.500 30.00 1952.00 9.625 36.00 30.00 1942.00

8.500 1952.00 17757.00 30.00 1942.00

Mud Record Deviation Record

Type From (ft) To (ft) Hole Size (in) Interval (ft) Inc | Az (Start) Inc | Az (End)

Oil Based Mud 1952.00 17757.00 8.500 15805.00 0.48 | 14.66 89.85 | 3.16

Acquisition System Software Version Other

Cadence RT 5.2 H&P 517

Pilot Studio 5.2.8472.1 Contractor: Helmerich & Payne Drilling Co Unit: D&E

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Log Run Summary

Run No	Bit Run No.	Bit Size (in)	Bit Type	Bit Gauge Length (in)	Assembly Type	Logged Interval		Bit Depth Interval		Date / Time		Circ. Hours (h)
						Top (ft)	Bottom (ft)	From (ft)	To (ft)	Start Logging	End Logging	
1	1	8.500	PDC	3.00	Rotary Steerable	1952.00	17744.00	1952.00	17757.00	2019-07-04 18:09	2019-07-07 06:10	55.06

Crew

Name	Arrive Wellsite	Depart Wellsite	Name	Arrive Wellsite	Depart Wellsite	Name	Arrive Wellsite	Depart Wellsite
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Adam Schlenz	2019-07-04	2019-07-08									
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Mud Properties Record

Date / Time	Run No.	Depth (ft)	Mud Type	Density (ppg)	Viscosity (cP)	pH	Fluid Loss (cm3)	Oil / Water	Source	Total Chlorides (ppm)	K+ (%)
2019-07-04 11:42	1	1952.00	Oil Based Mud	9.3	12	N/A	19.0	72/18	Active Pit	27211	0.00
2019-07-05 02:15	1	4347.00	Oil Based Mud	9.1	12	N/A	19.0	72/18	Active Pit	27211	0.00
2019-07-05 13:00	1	7284.00	Oil Based Mud	9.5	13	N/A	20.0	70.3/18	Active Pit	27510	0.00
2019-07-06 02:30	1	11005.00	Oil Based Mud	9.5	12	N/A	20.0	70/17	Active Pit	26239	0.00
2019-07-06 13:30	1	13843.00	Oil Based Mud	9.5	13	N/A	22.0	72/15	Active Pit	25267	0.00

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	AutoTrak Curve Steering Unit	14881521	Near Bit Inclination	5.93	6.73	7.000	4.330
1	AutoTrak Curve Steering Unit	14881521	Near Bit VSS	5.93	6.73	7.000	4.330
1	AutoTrak Curve MWD	14313857	Gamma (single)	2.75	12.90	7.000	3.250
1	AutoTrak Curve MWD	14313857	Directional (mag)	12.27	22.42	7.000	3.250

Service and Tool Mnemonics

Mnemonic	Name	Description
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

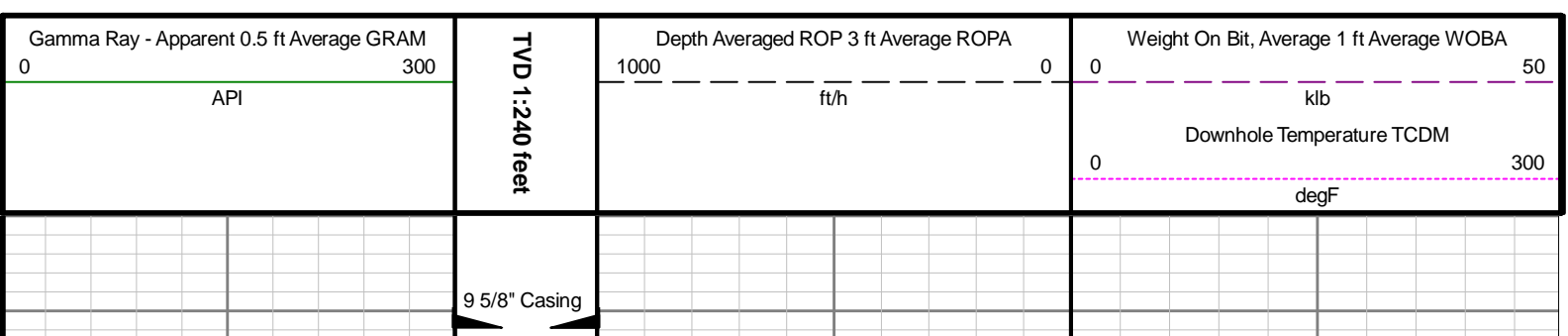
1	Depth measurements were obtained from a depth control system not supplied or operated by Baker Hughes. Due to the lack of control by Baker Hughes, depth calibrations and measurements could not be independently verified.
2	Baker Hughes LWD run 1 utilized a 6.75 inch NaviGamma service (Directional and Gamma Ray) behind a 8.5 inch bit and rotary steerable assembly from 1952 to 17757 feet MD (1952 to 6800 feet TVD).
3	The Gamma Ray Apparent (GRAM) data is presented 0 to 300 API, per the customer's request.

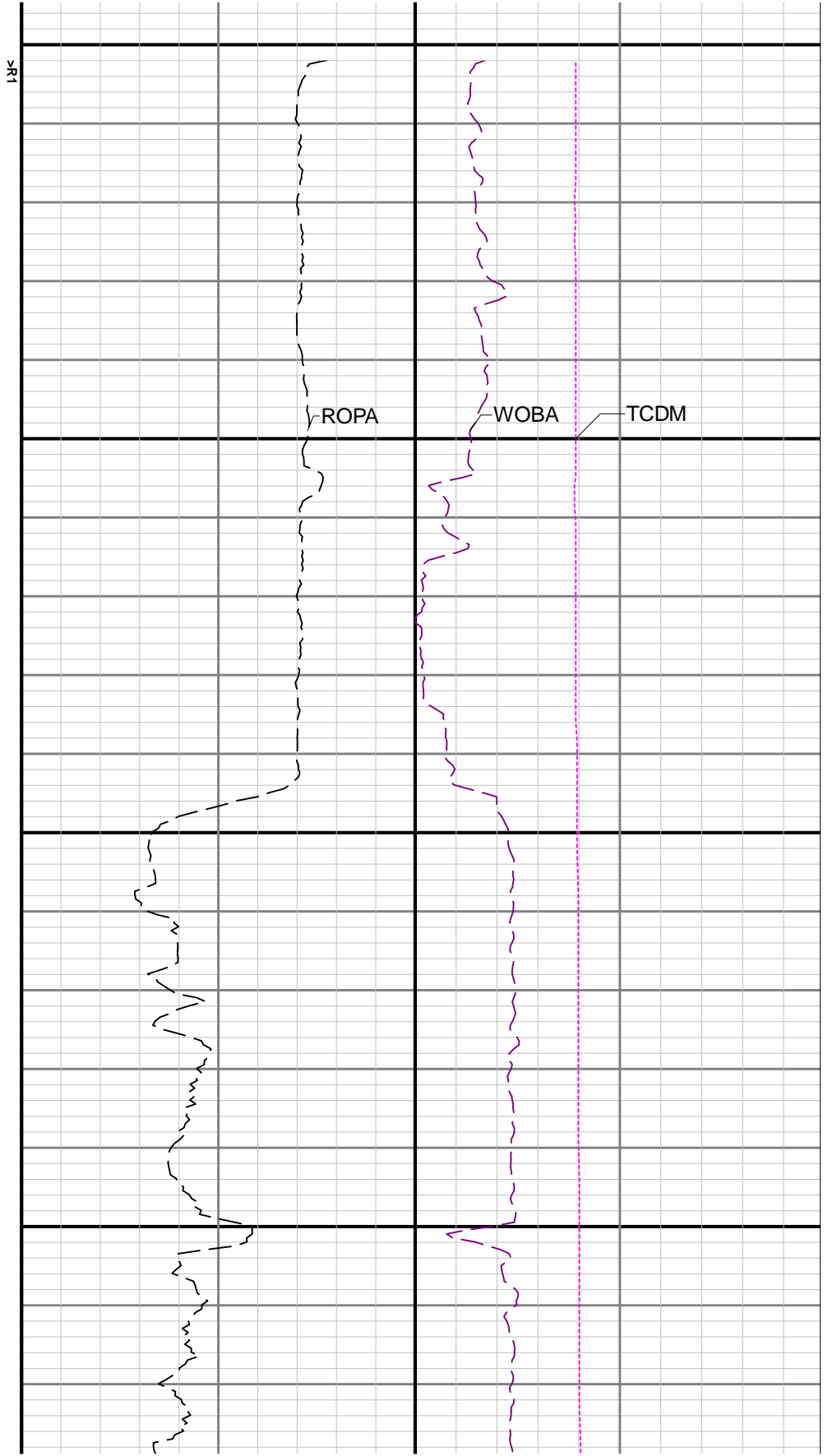
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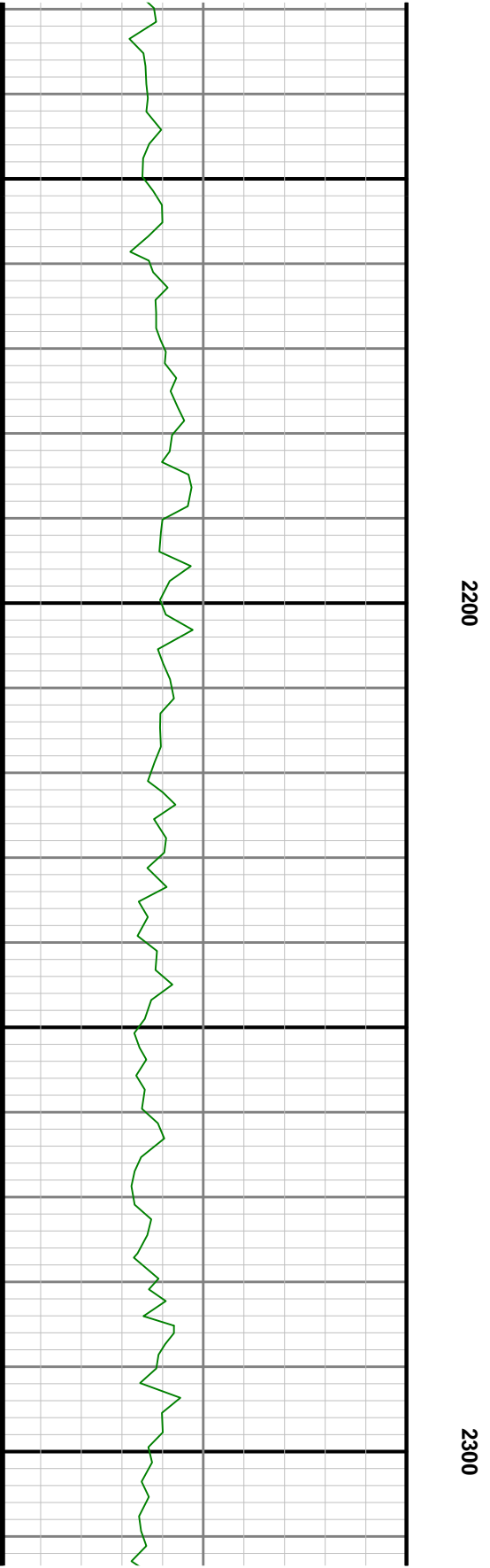
Number	Depth (ft)	Hole Section (in)	Run No.	Remark
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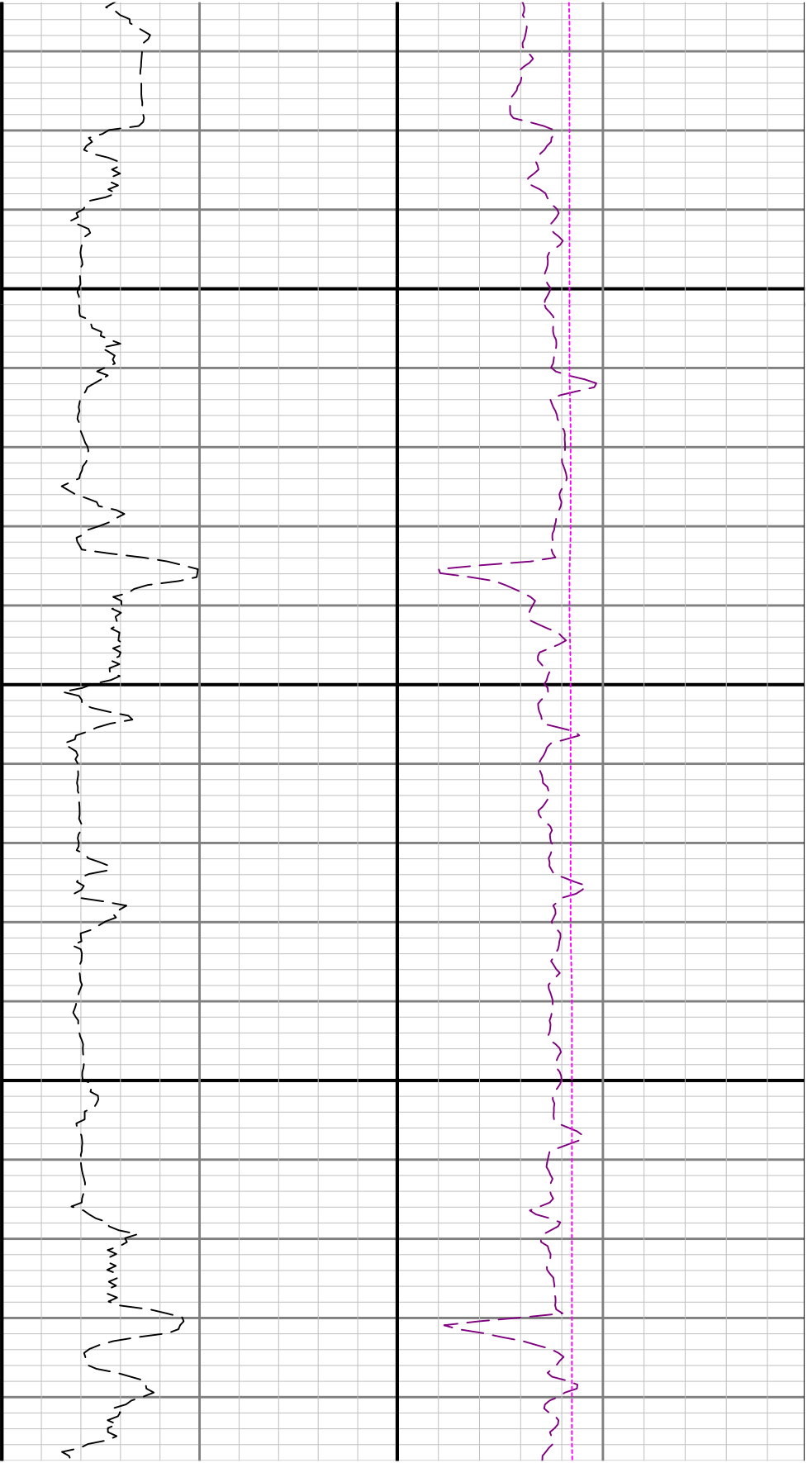
Curve Mnemonics

Presented Curves	Description	Units
ROPA	Depth Averaged ROP 3 ft Average	ft/h
WOBA	Weight On Bit, Average 1 ft Average	klb
GRAM	Gamma Ray - Apparent - Memory 0.5 ft Average	API
TCDM	Directional Real-Time Survey Temperature	degF



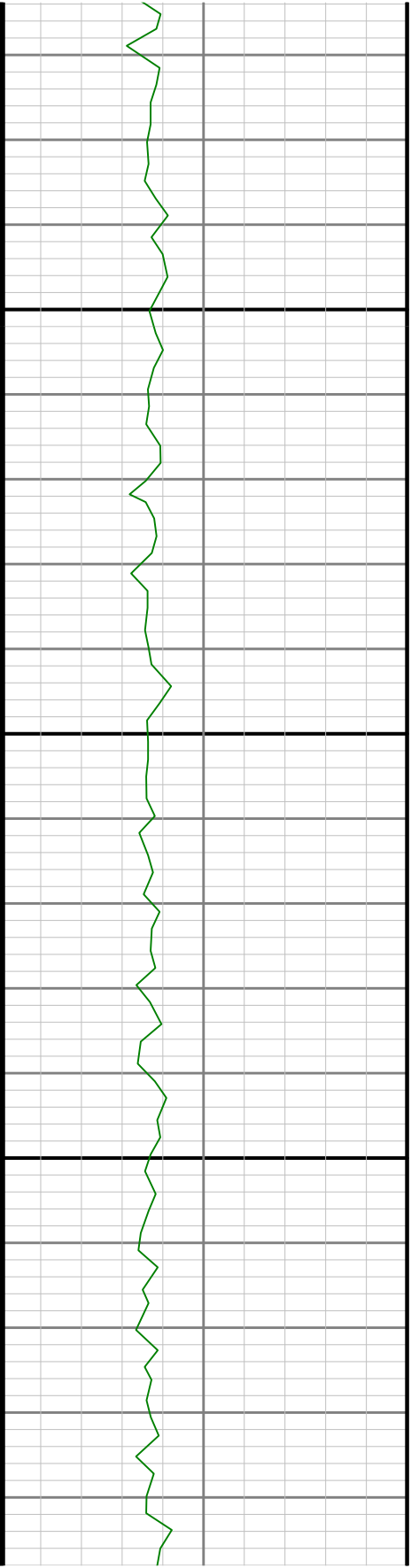


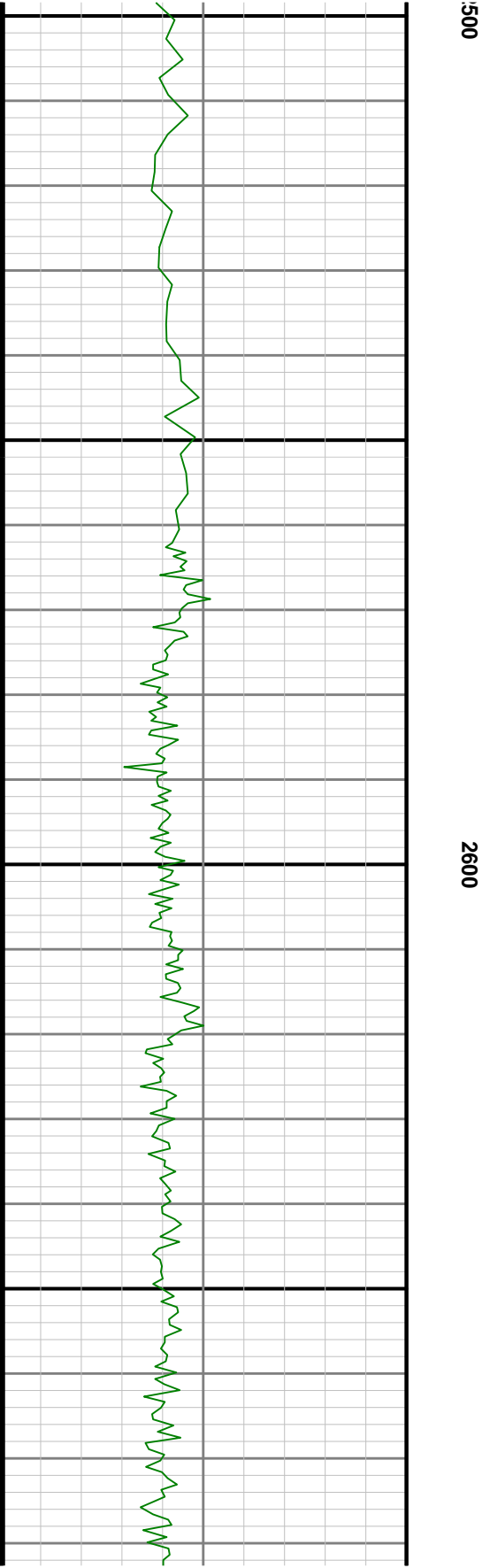
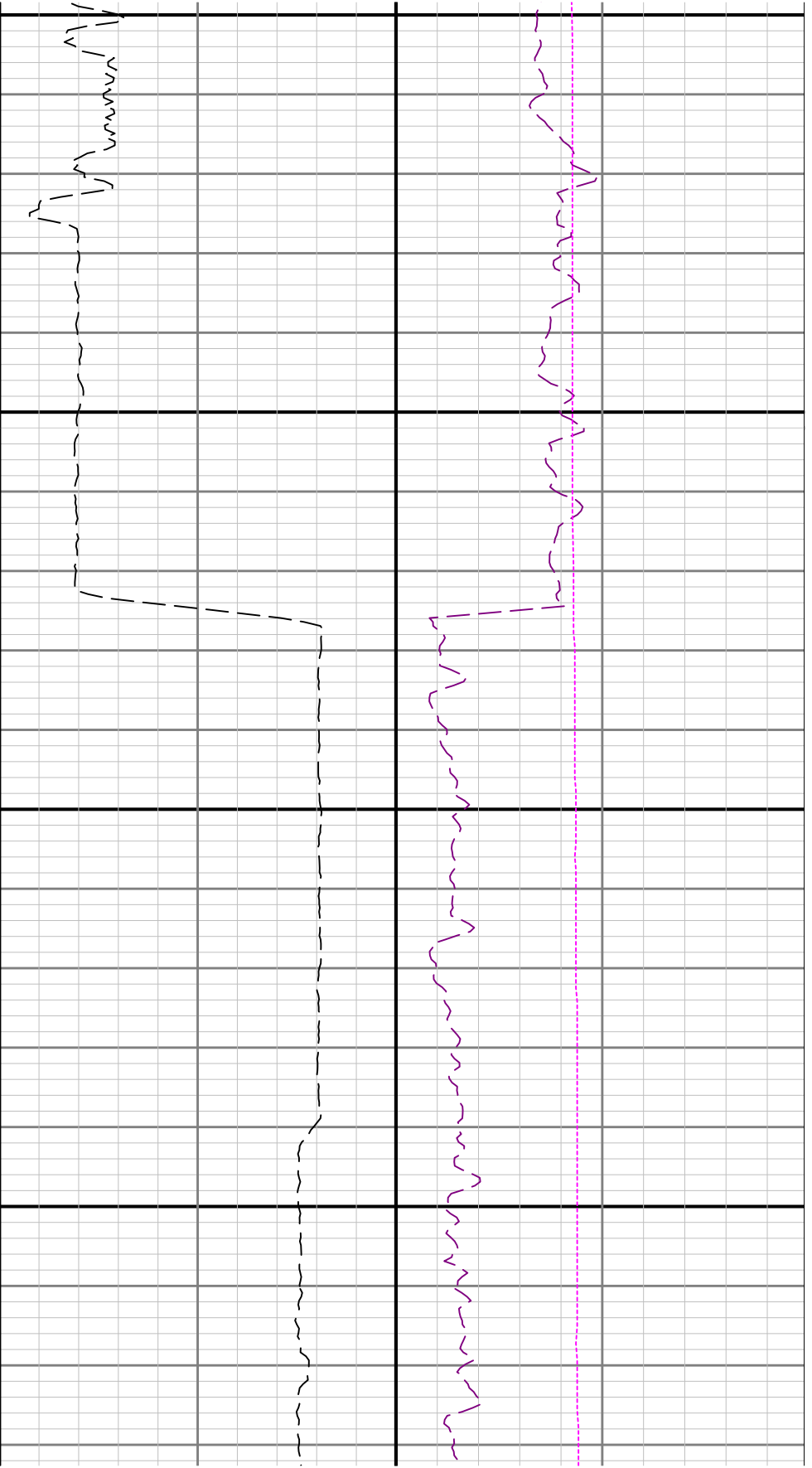


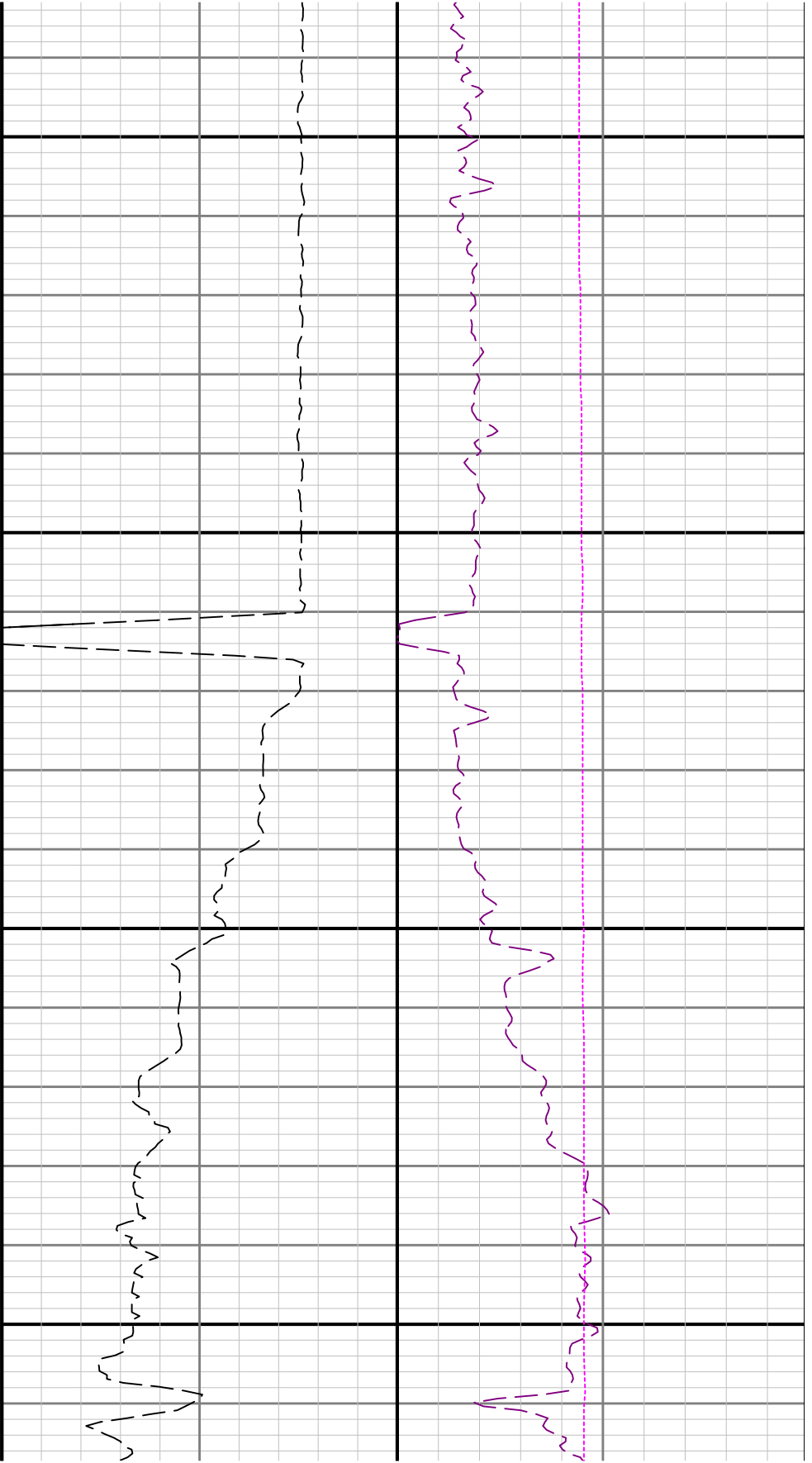


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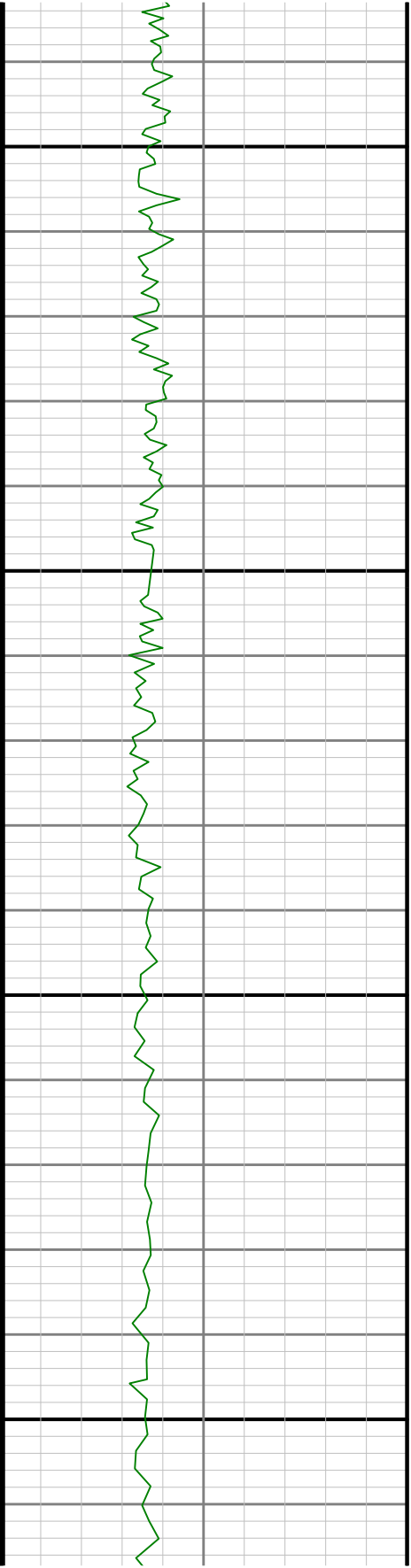


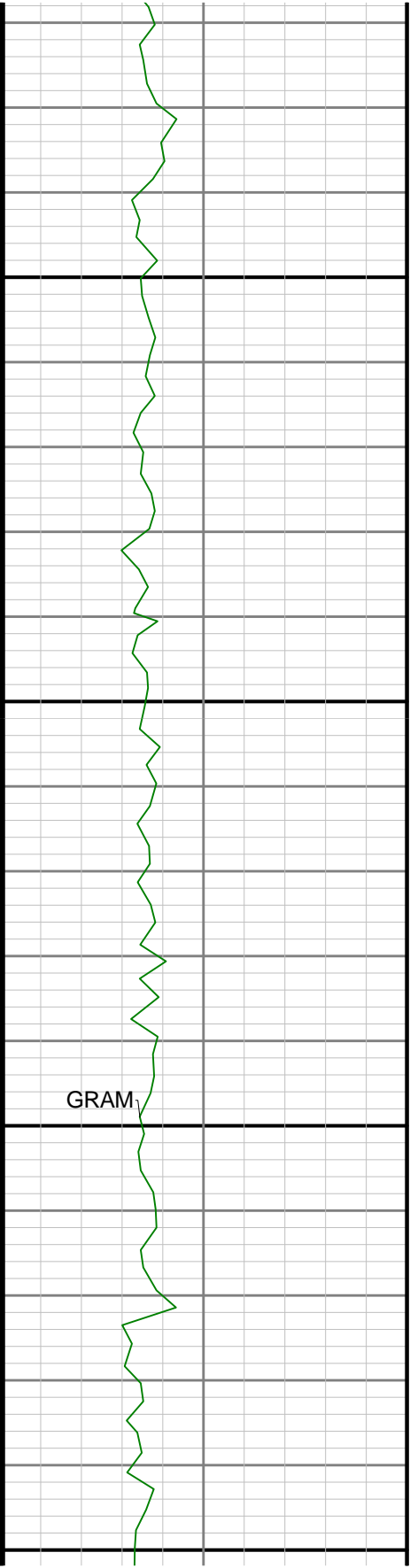




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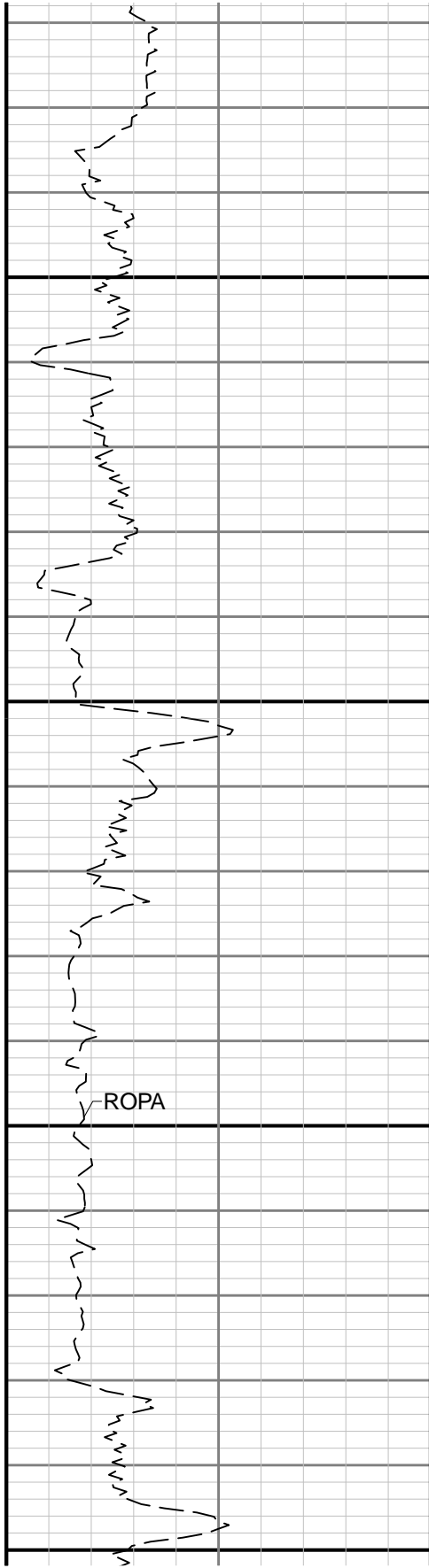
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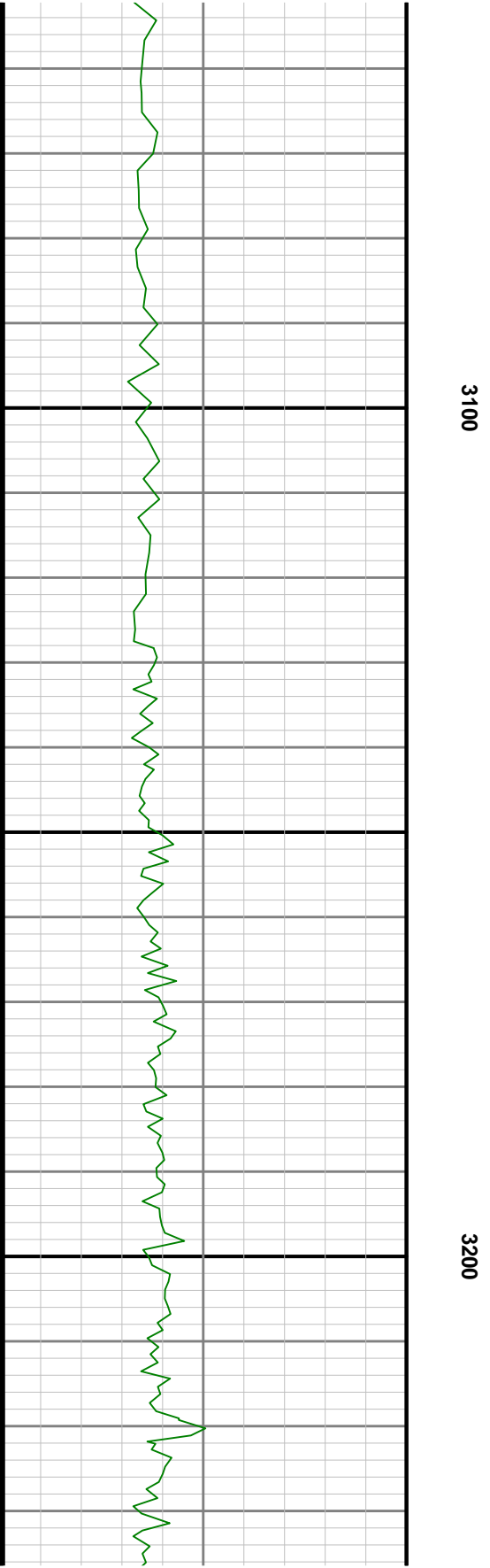
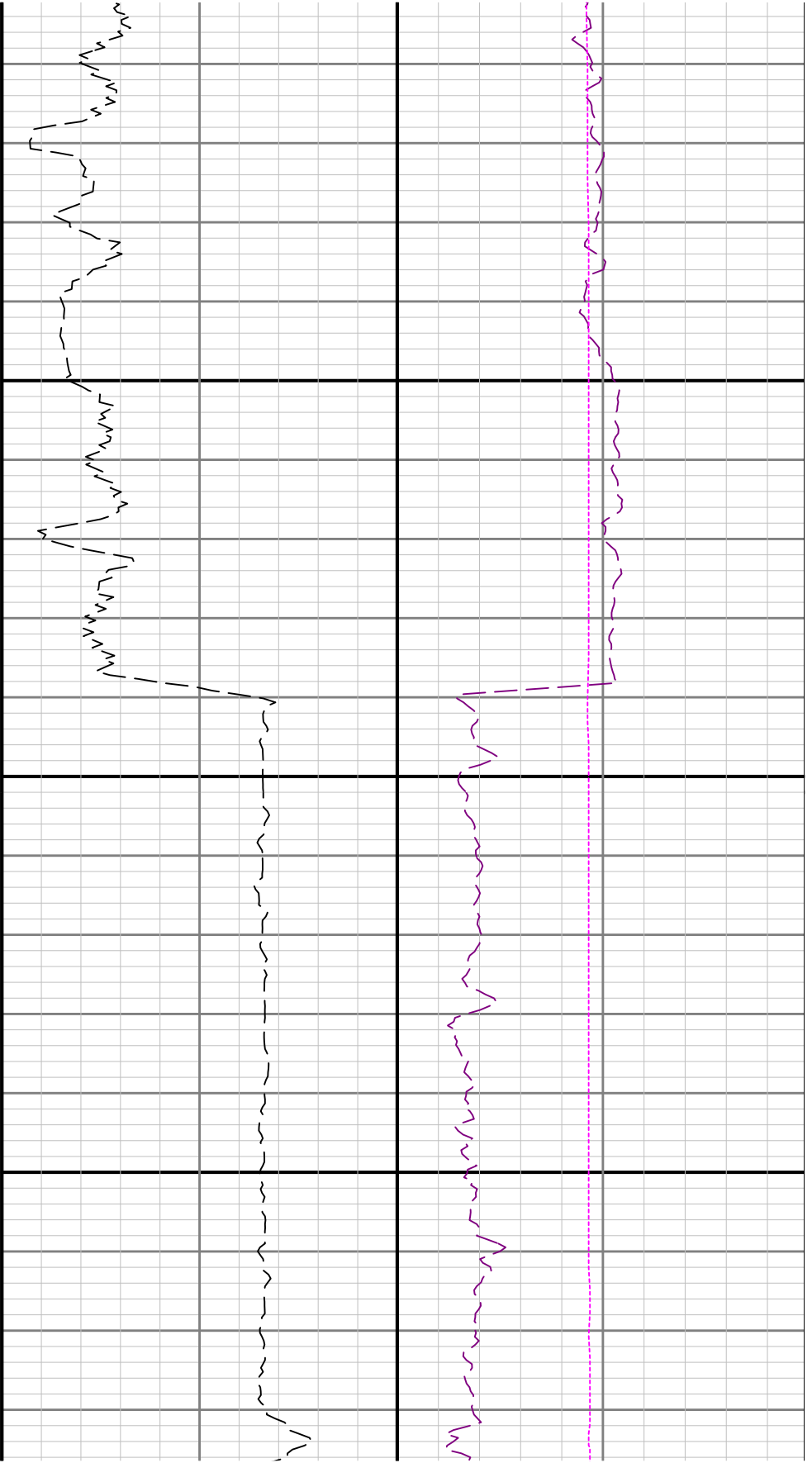


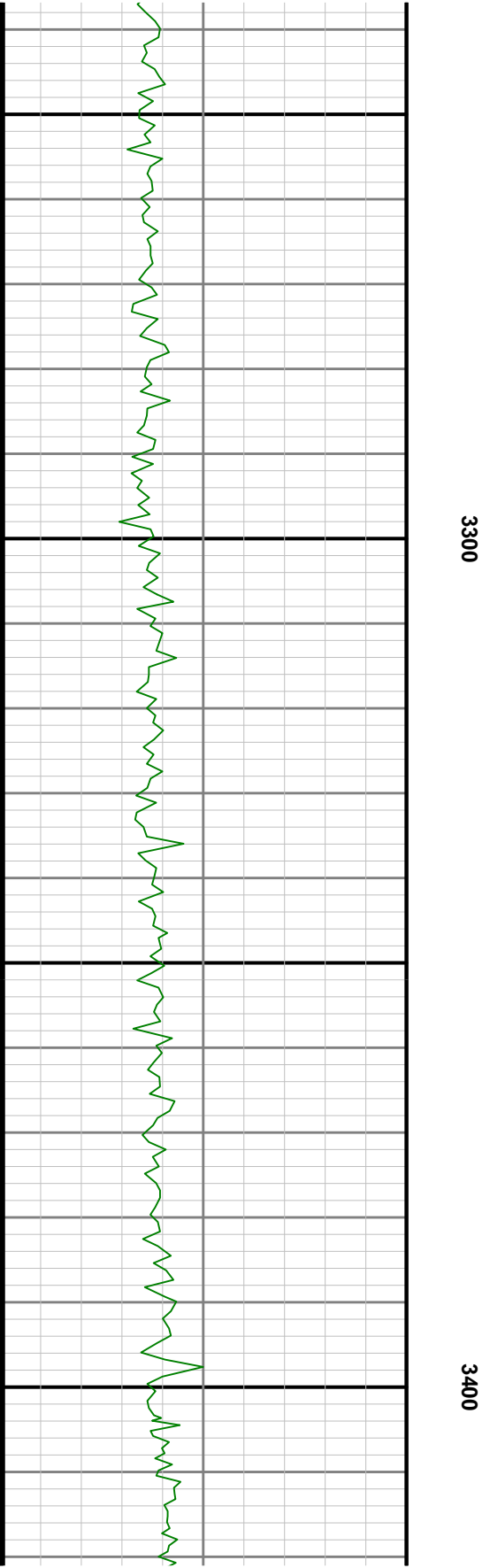
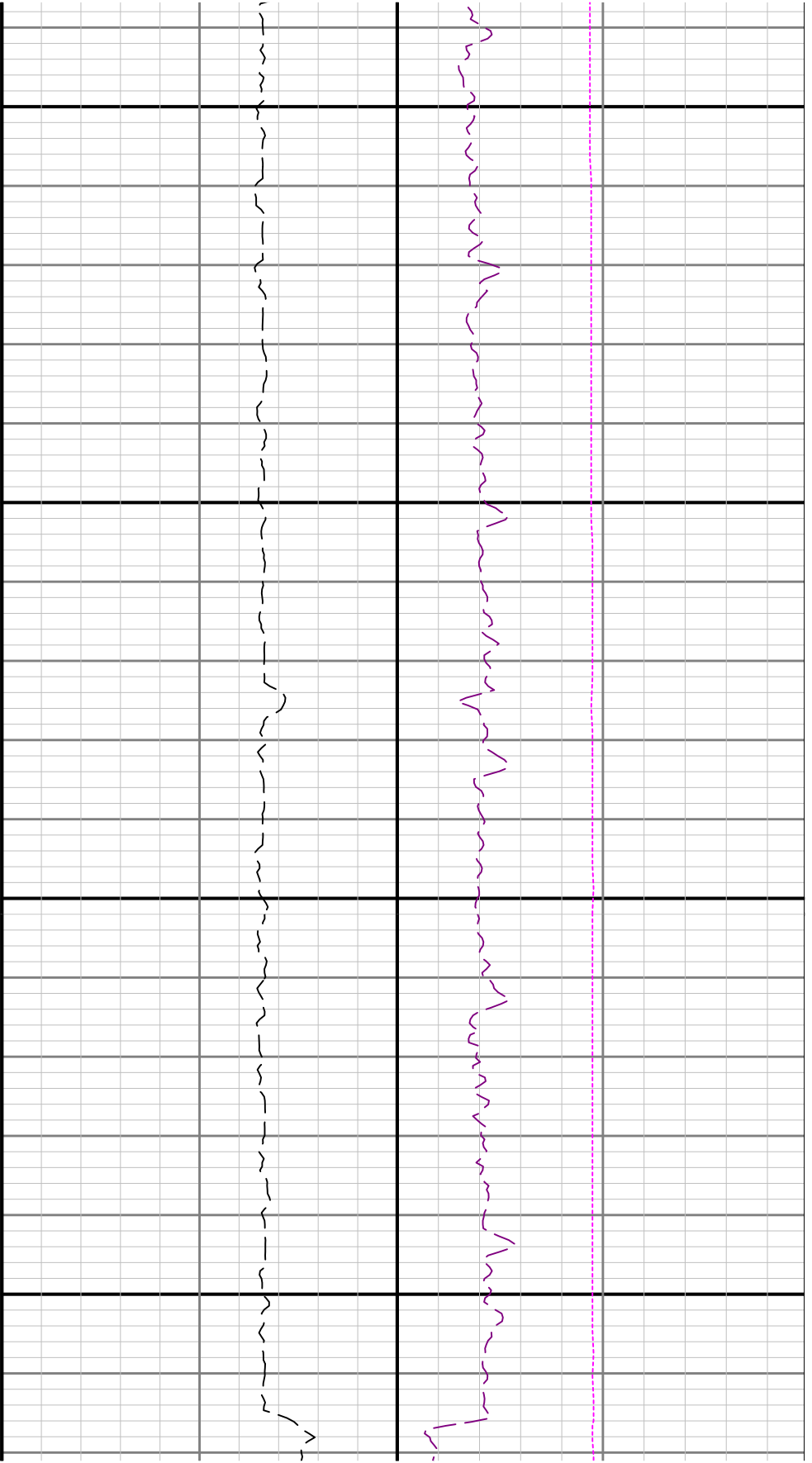


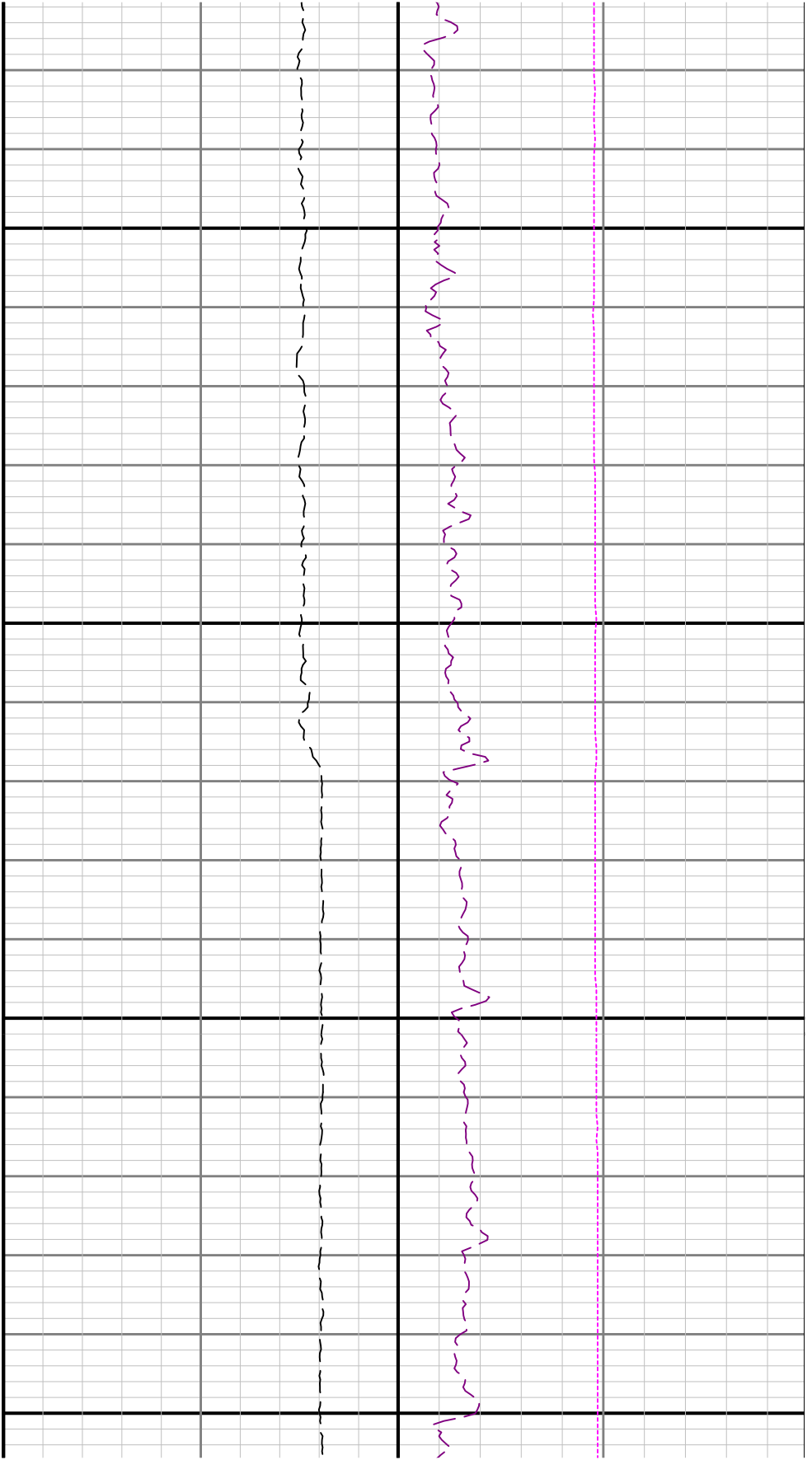
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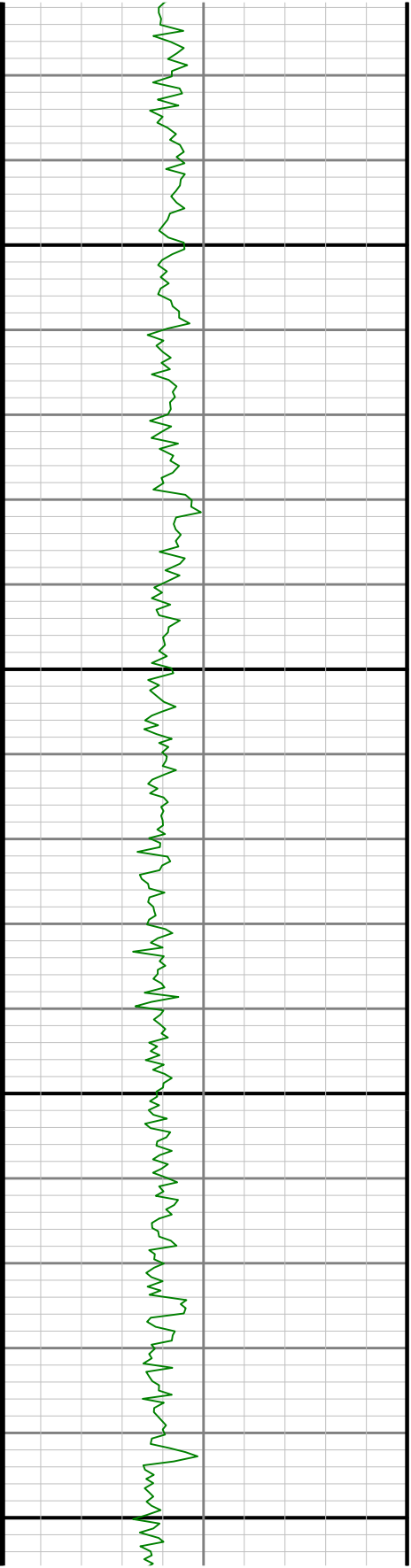


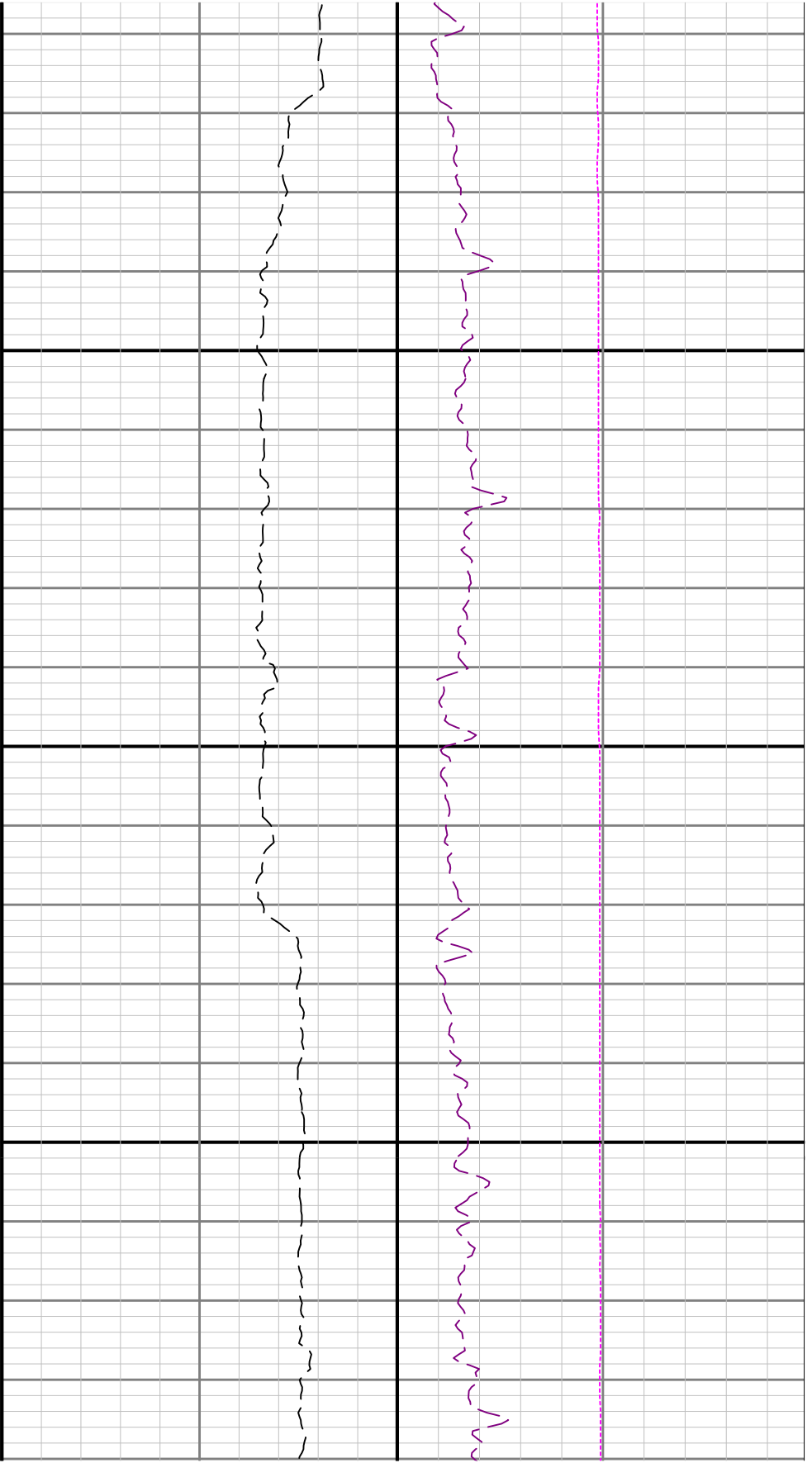




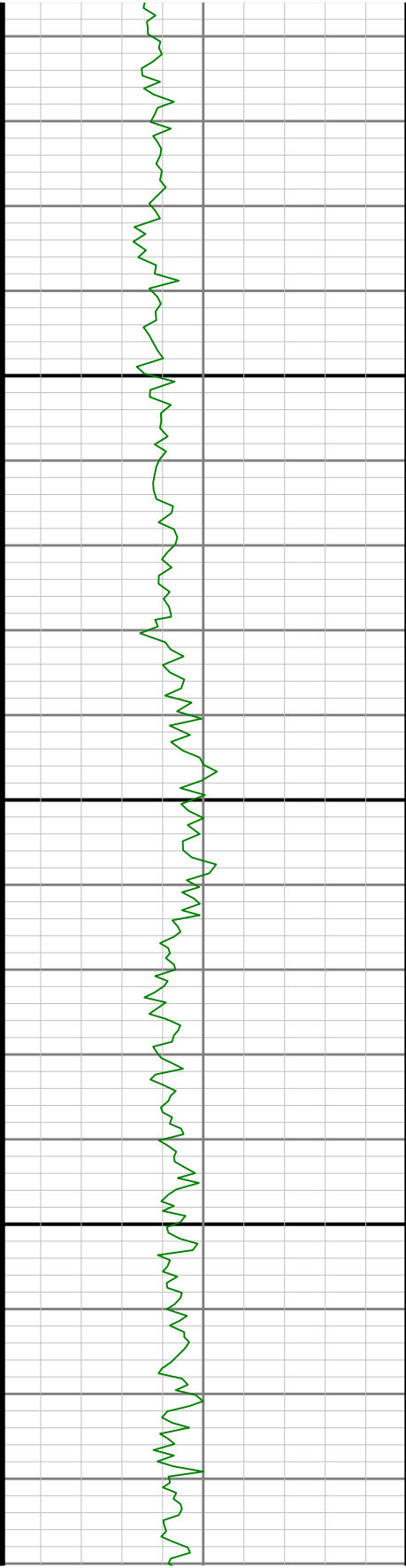
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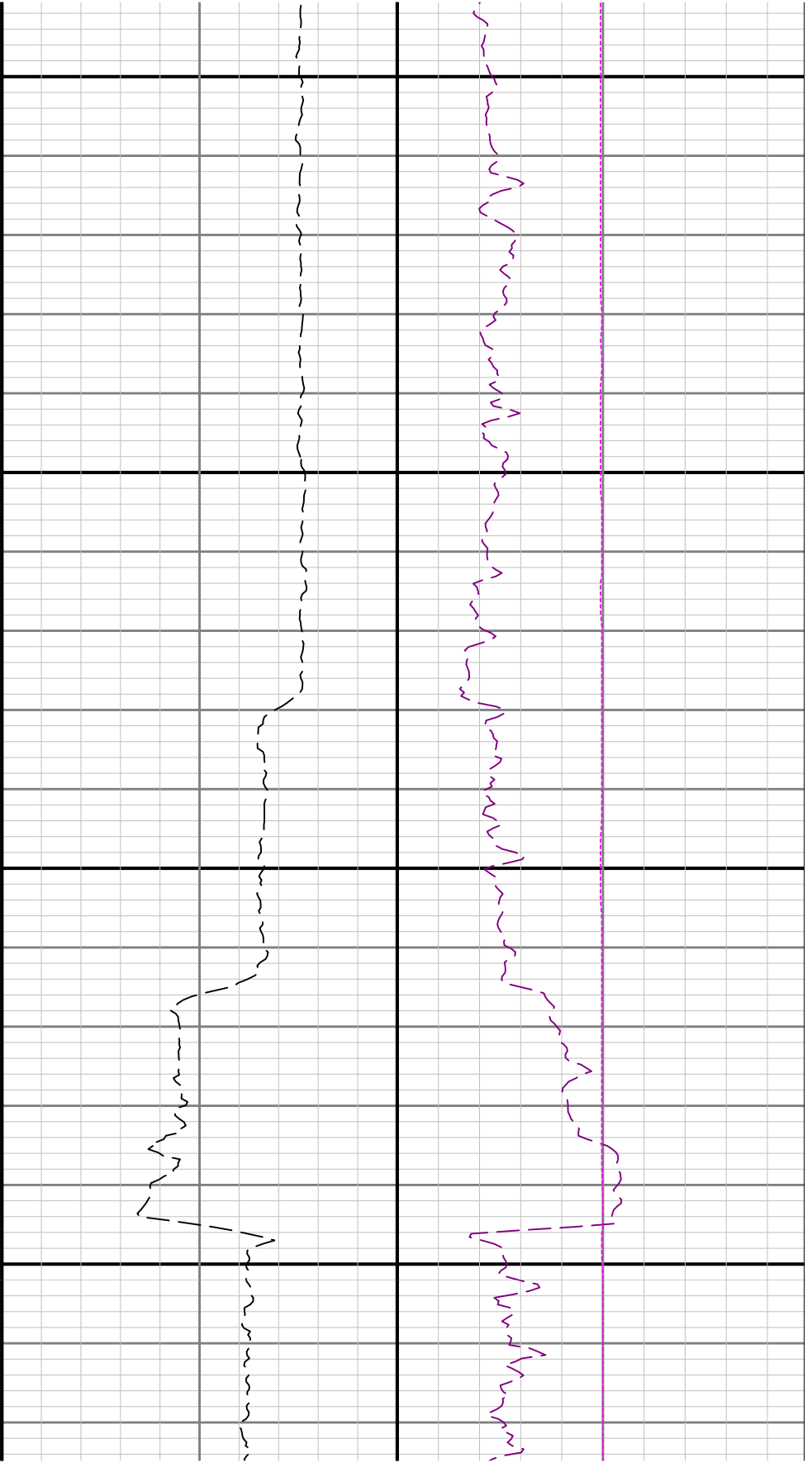
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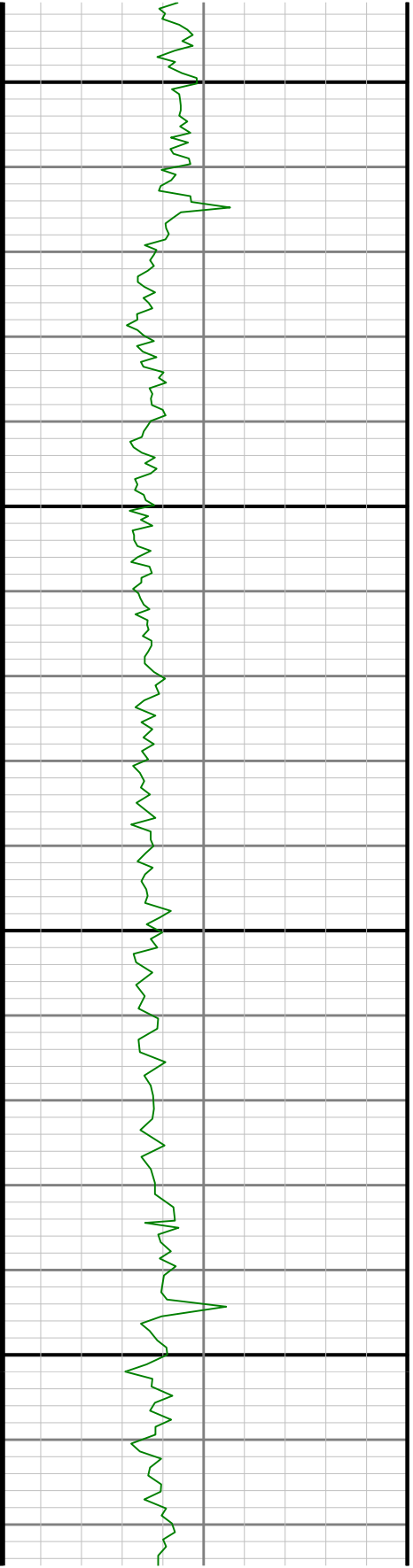
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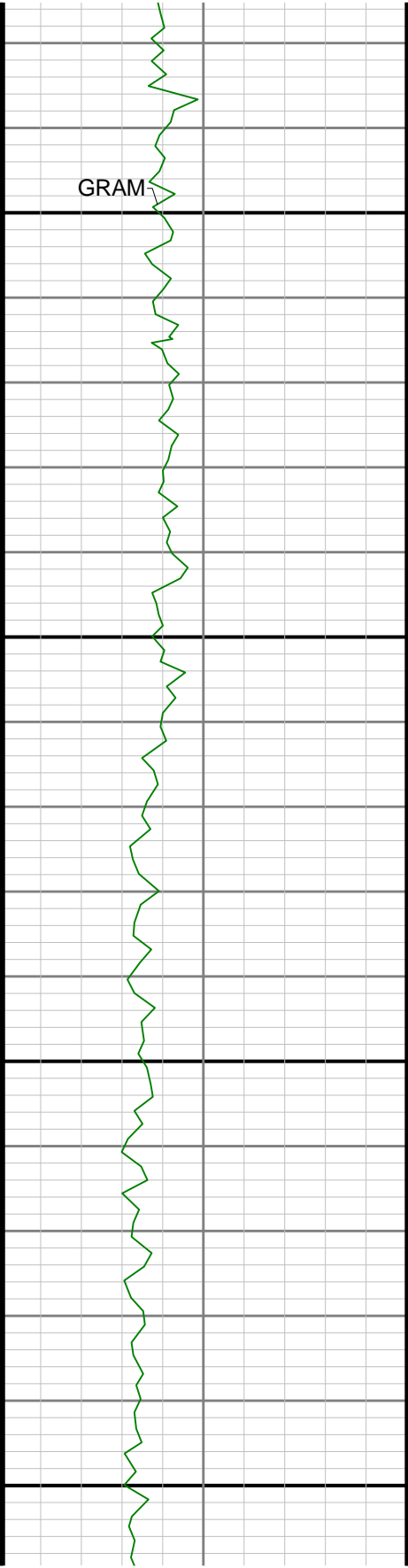




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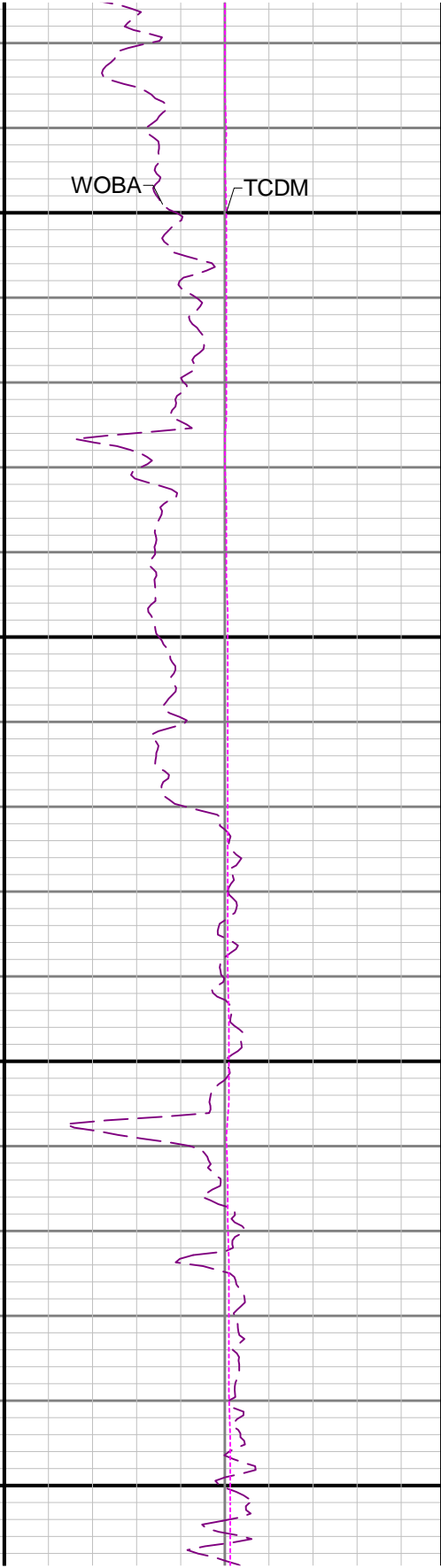
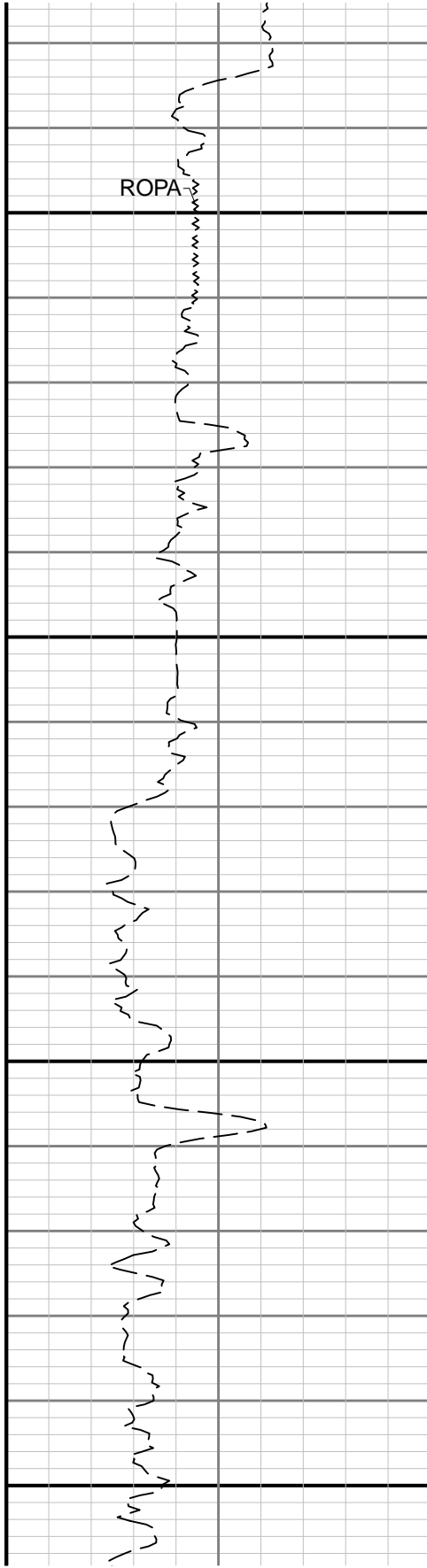
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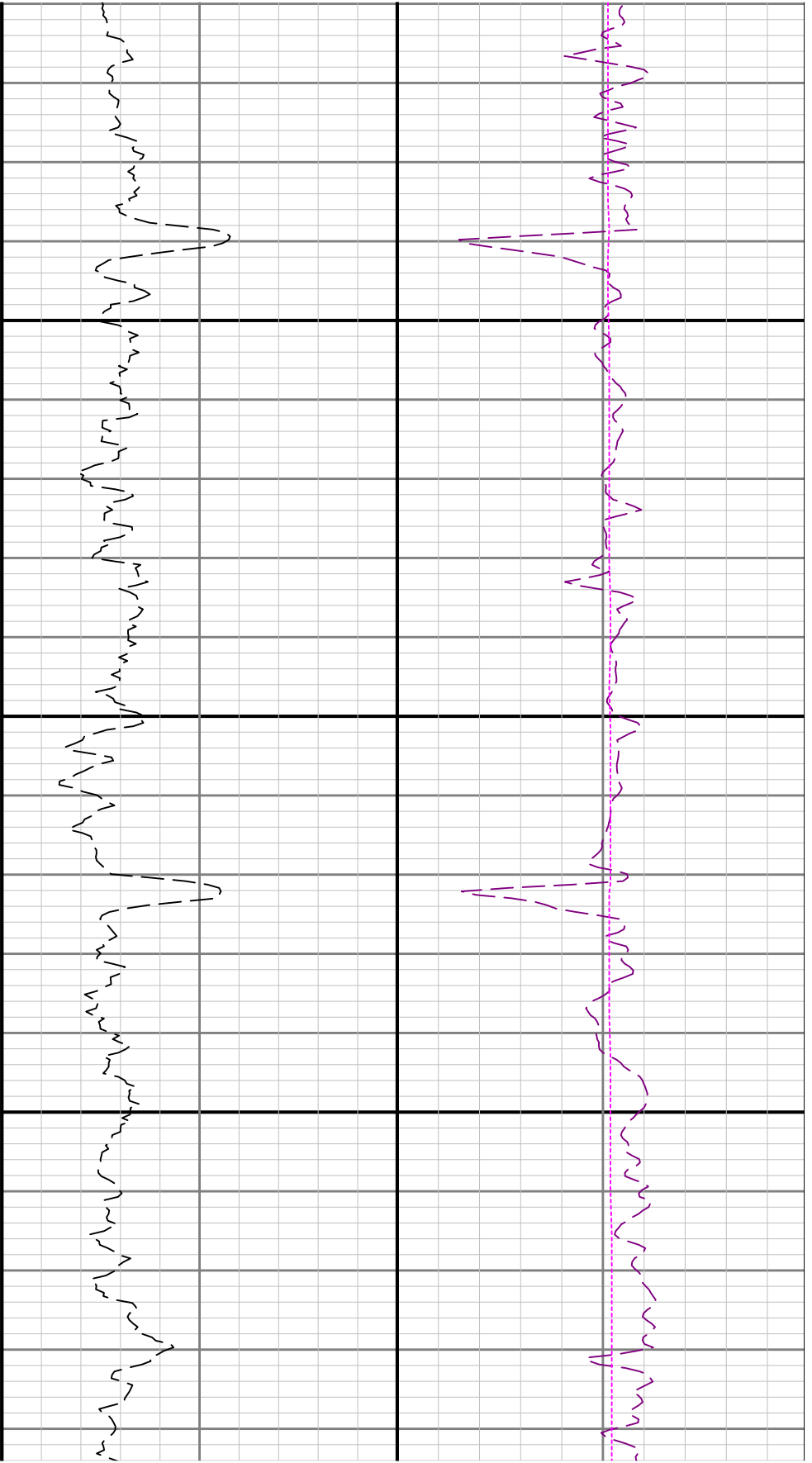




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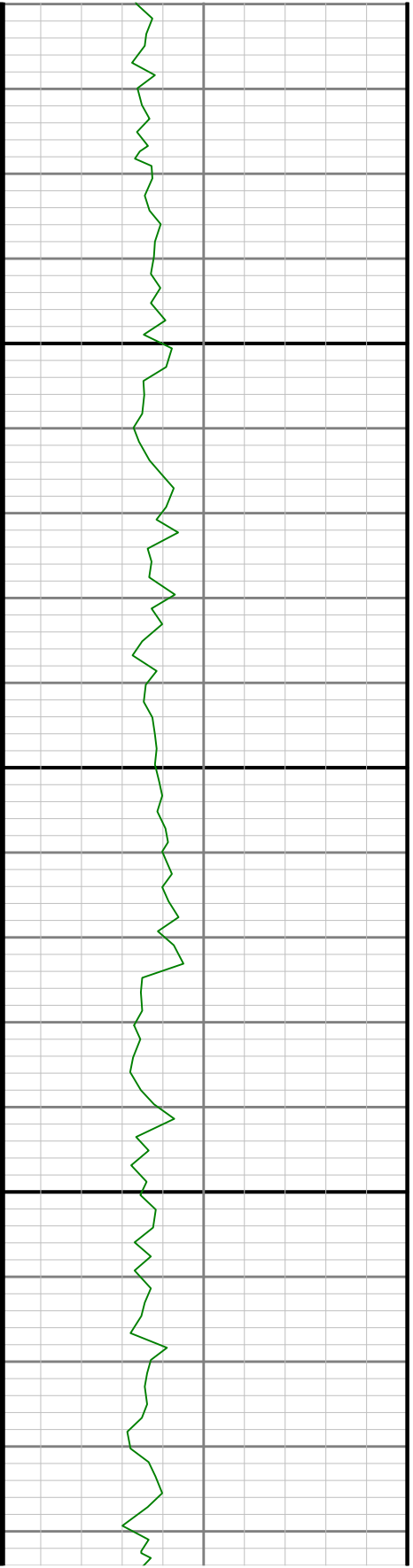
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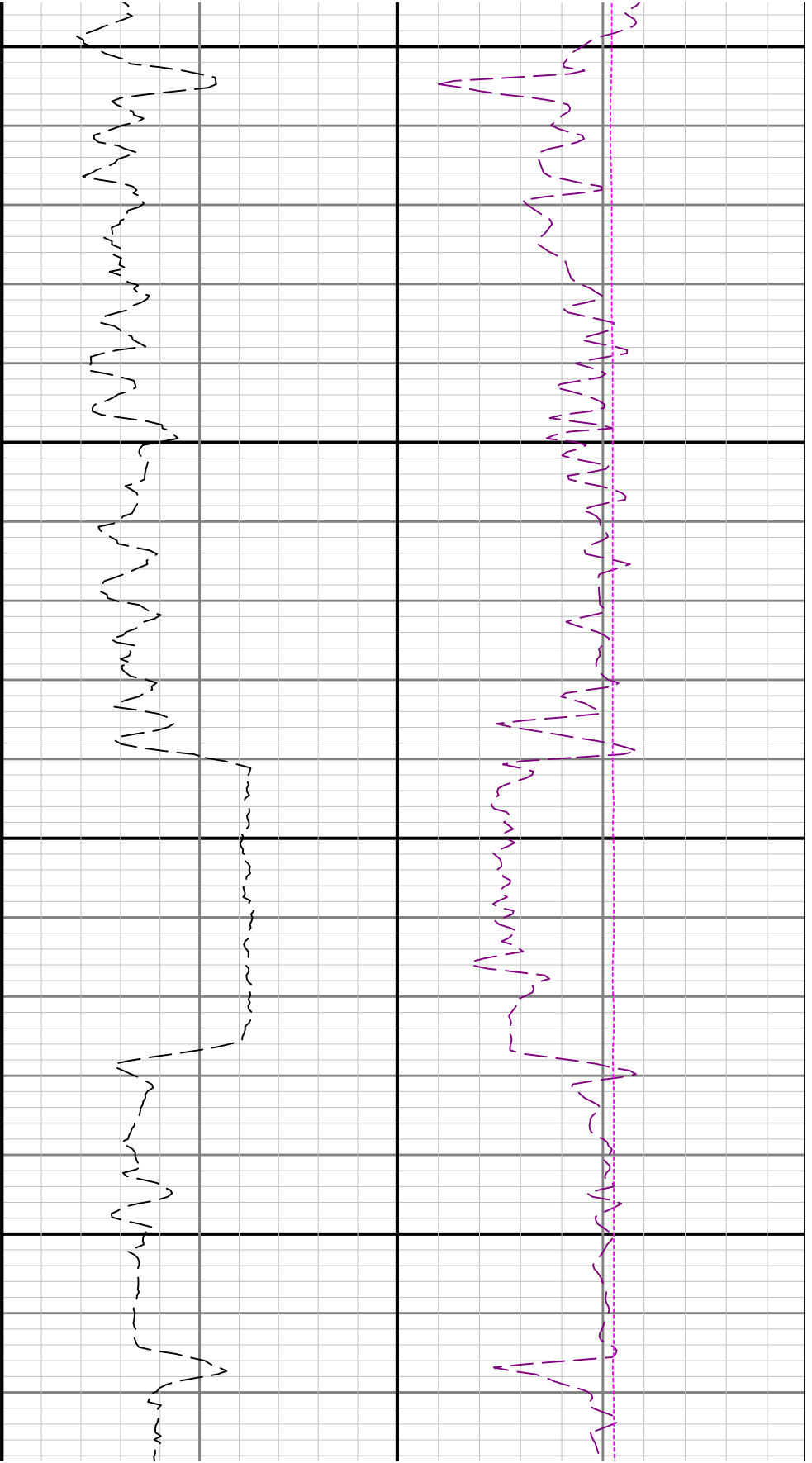




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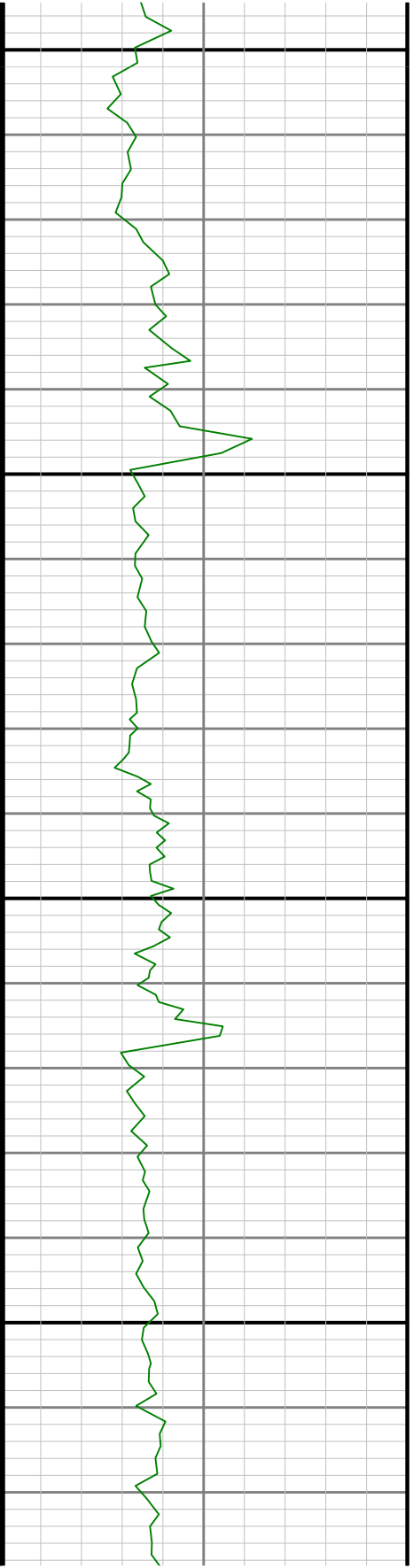
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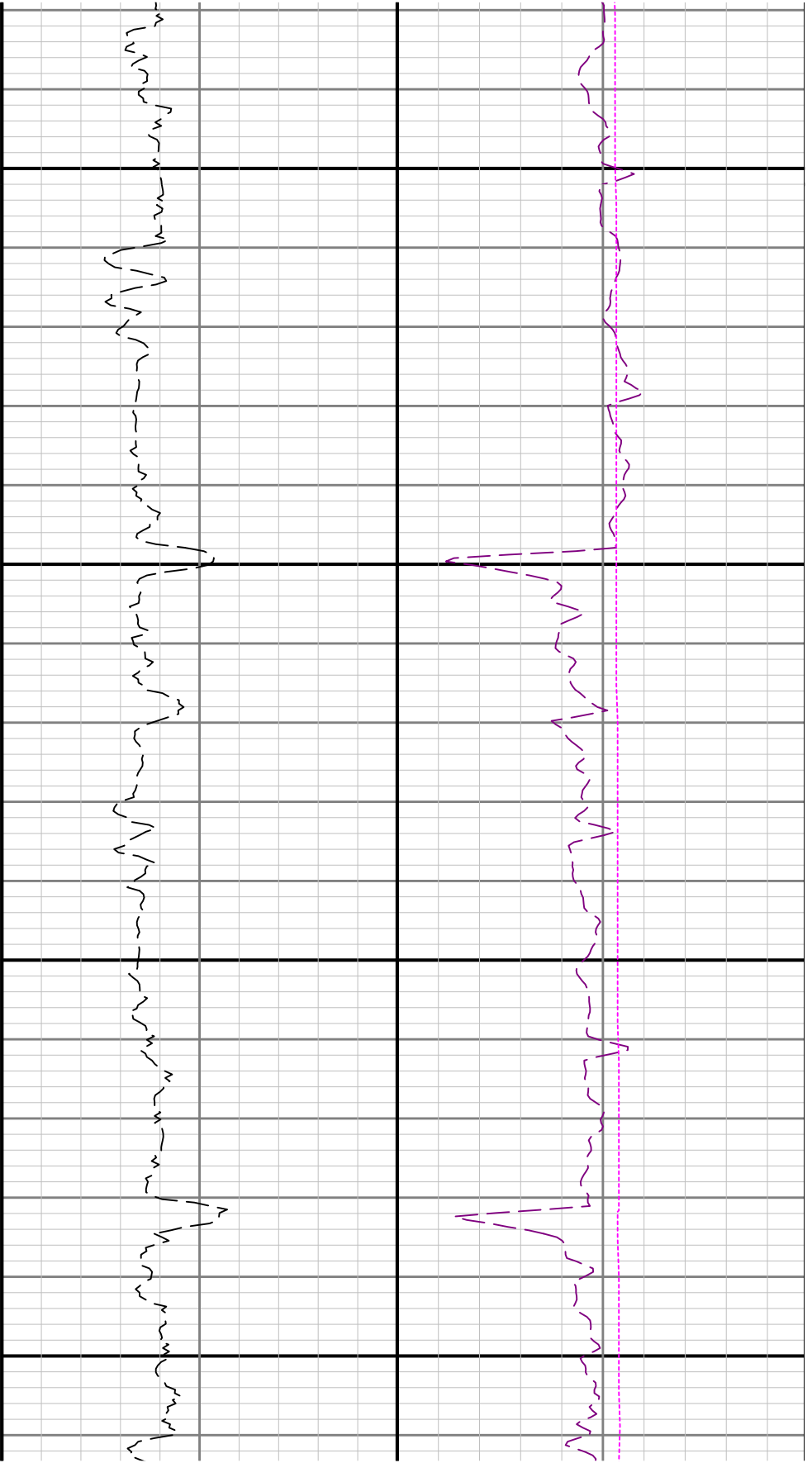




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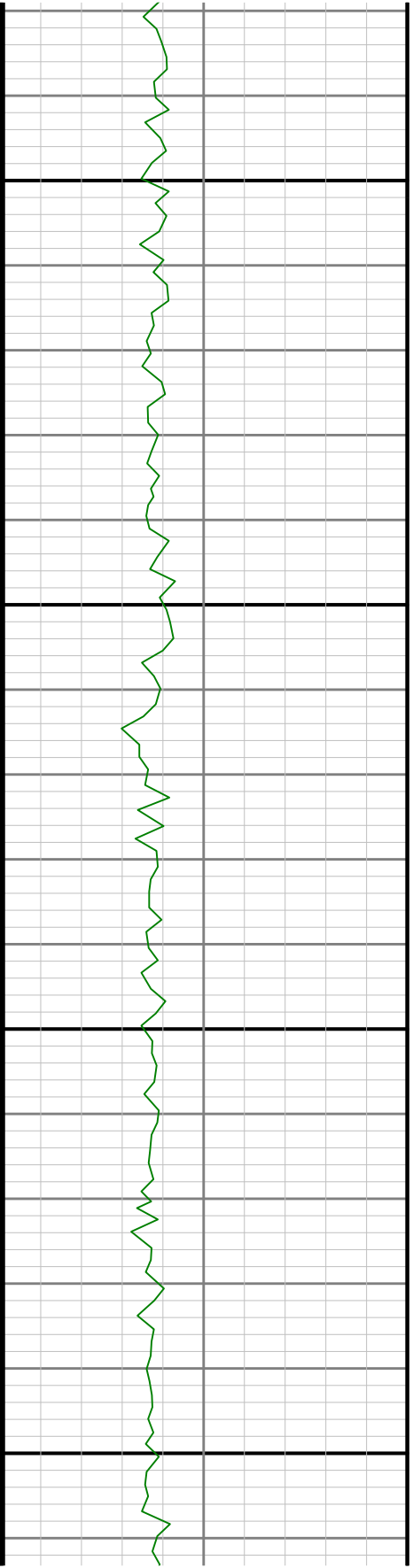
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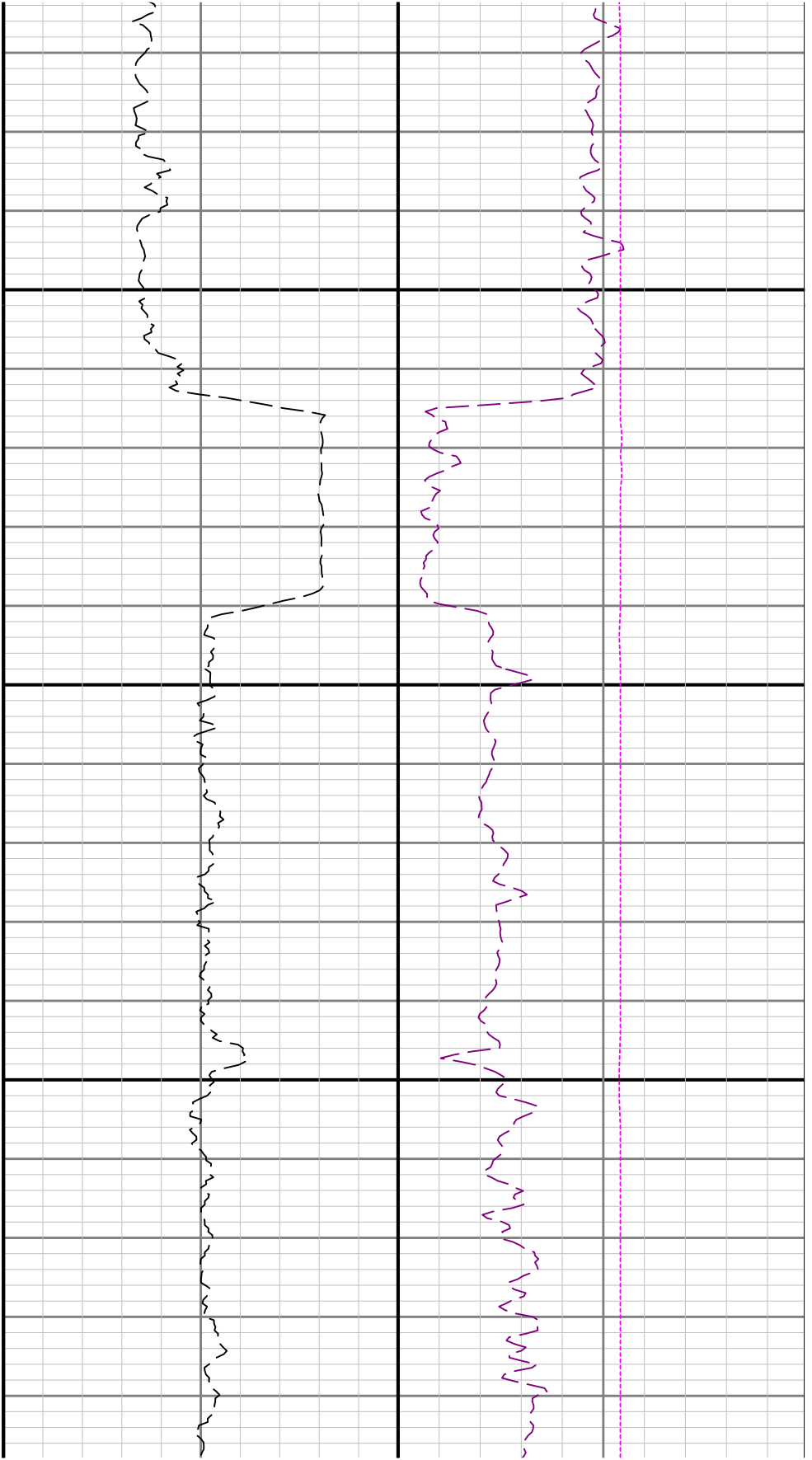




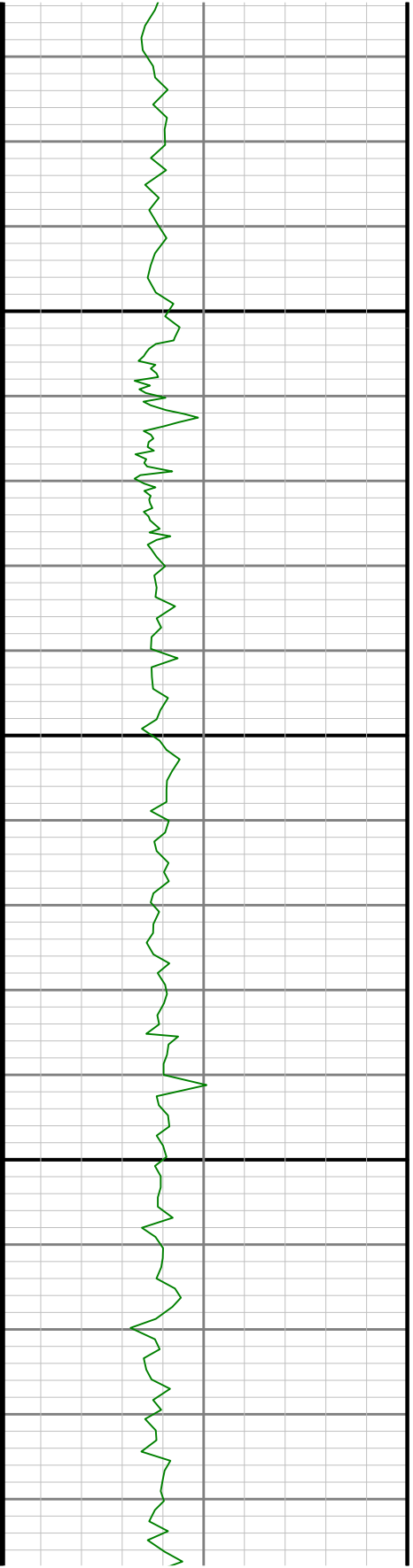
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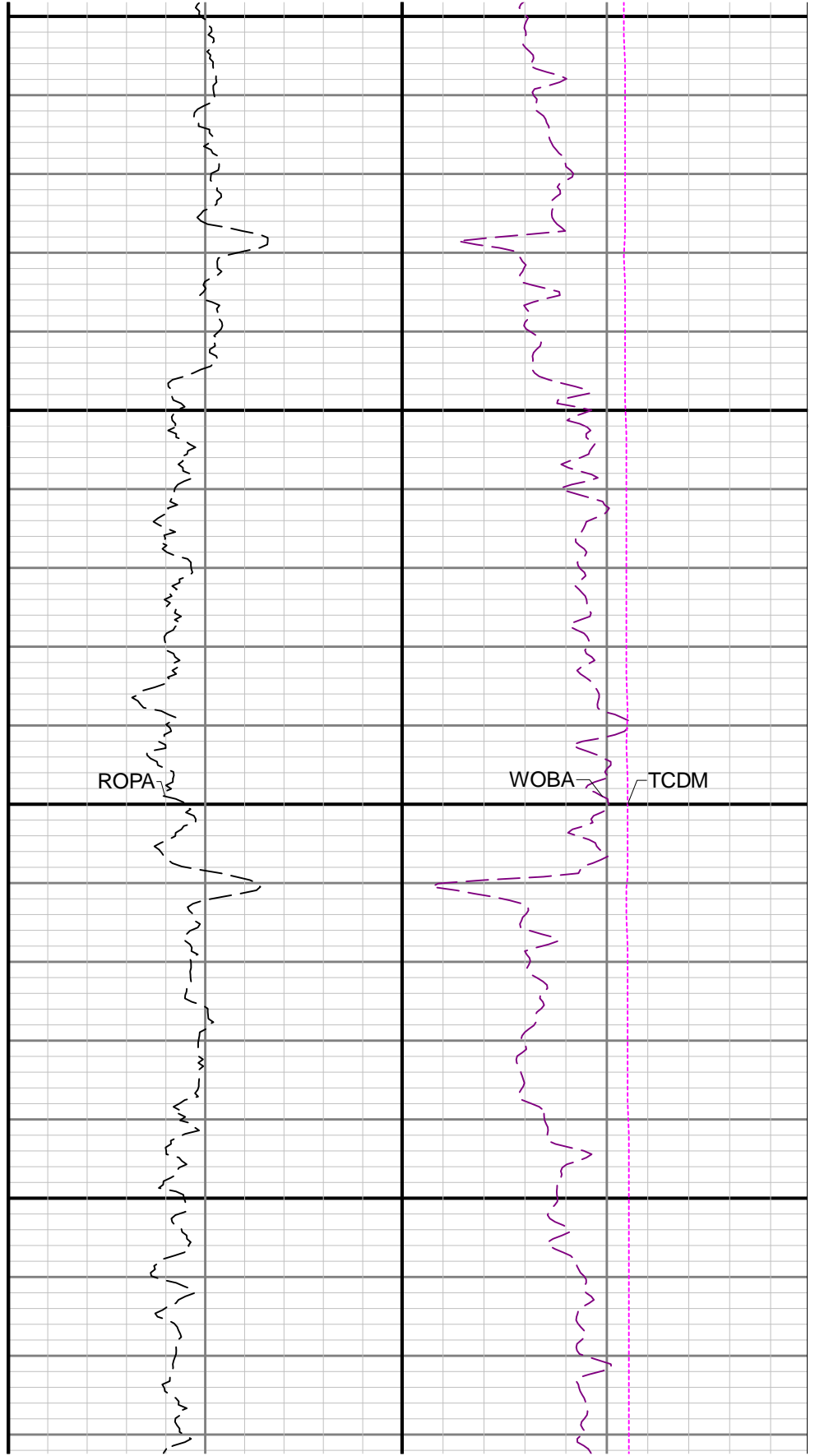
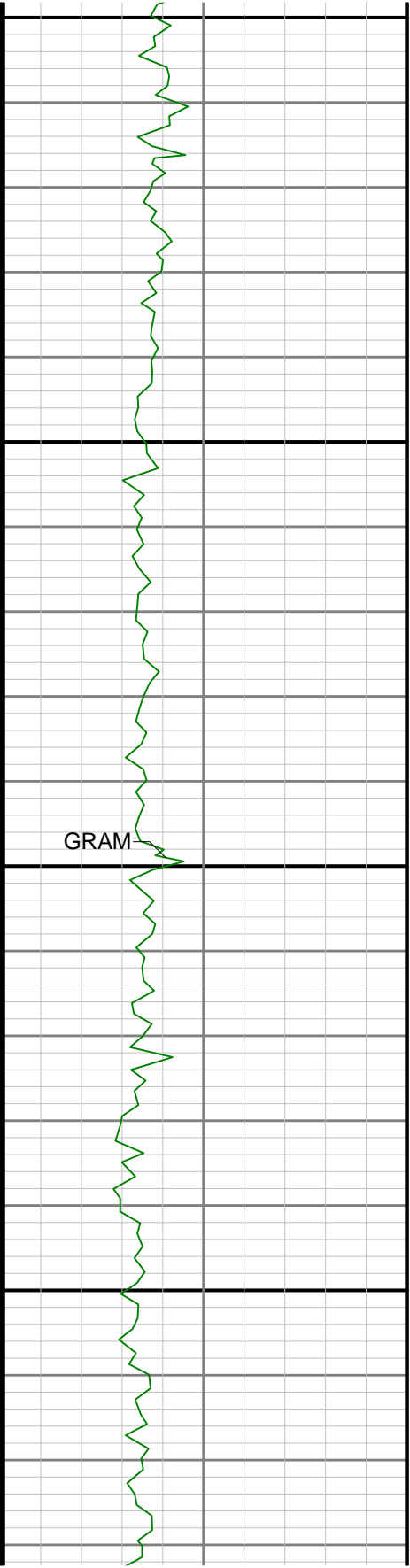
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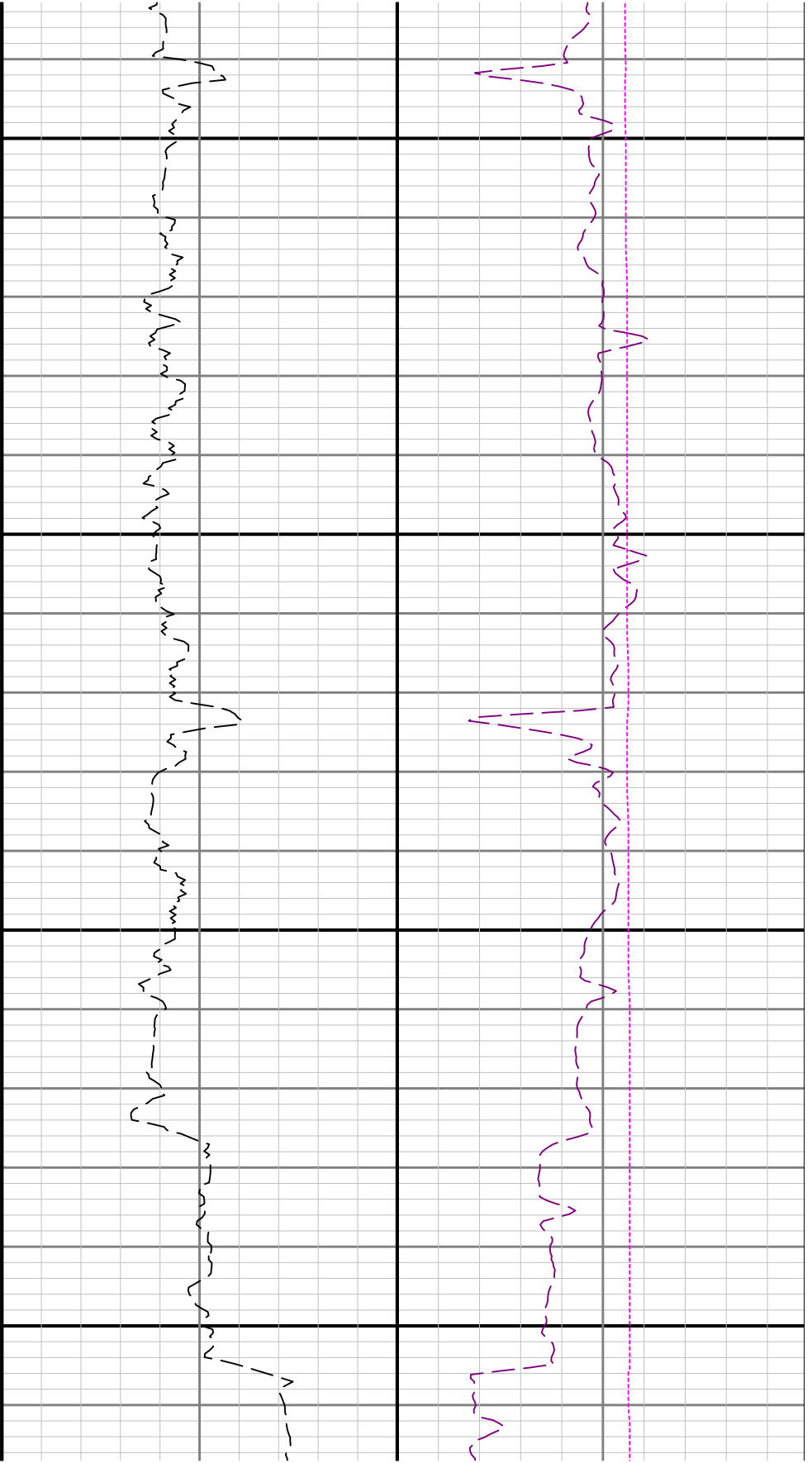




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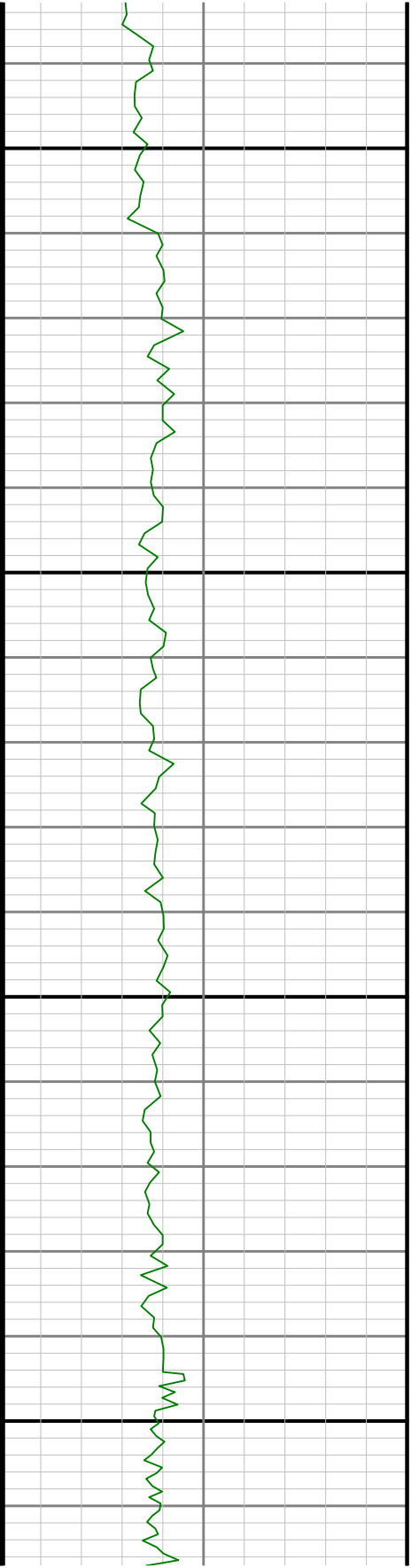


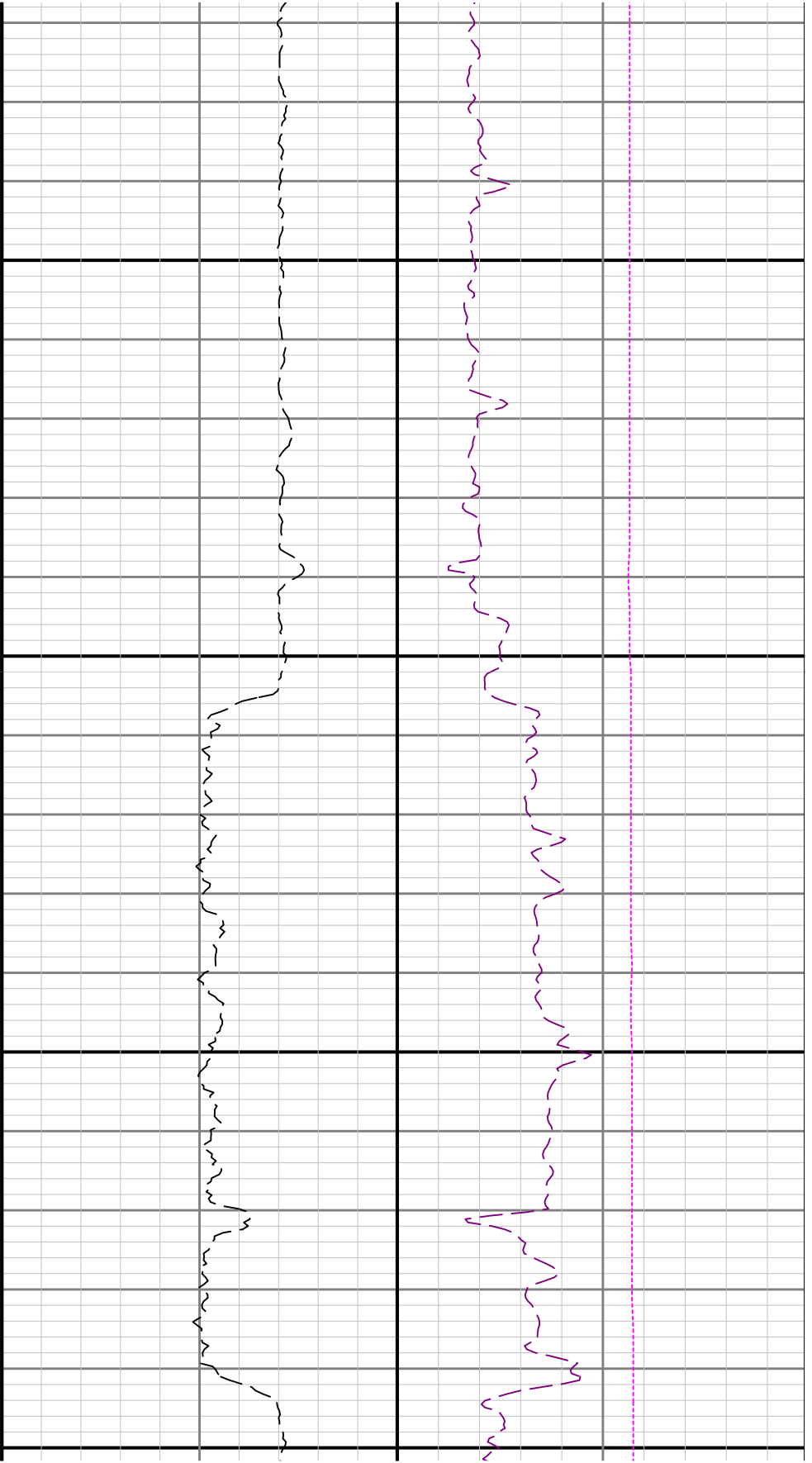




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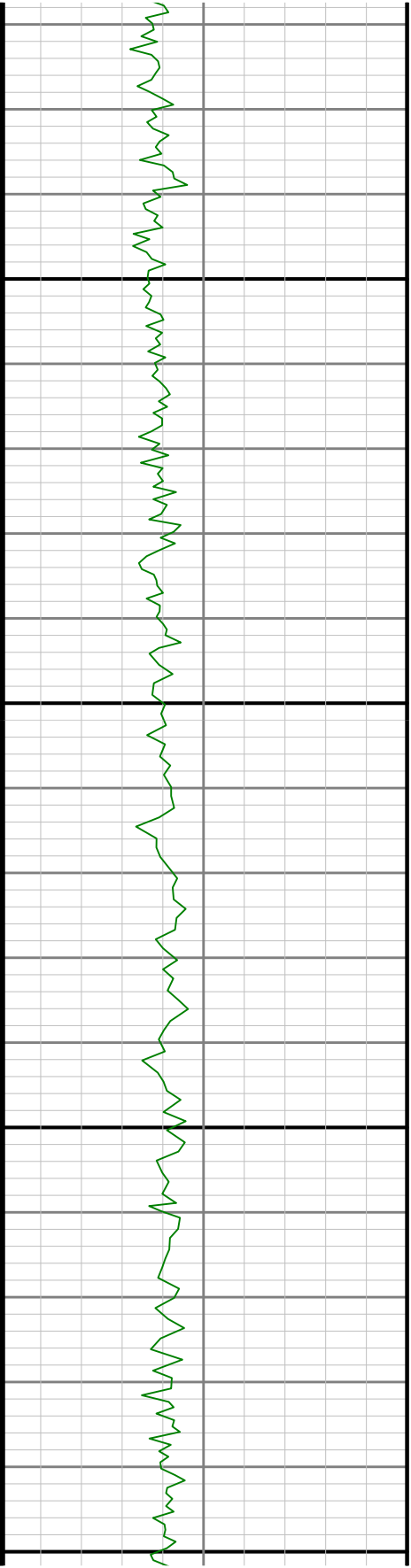
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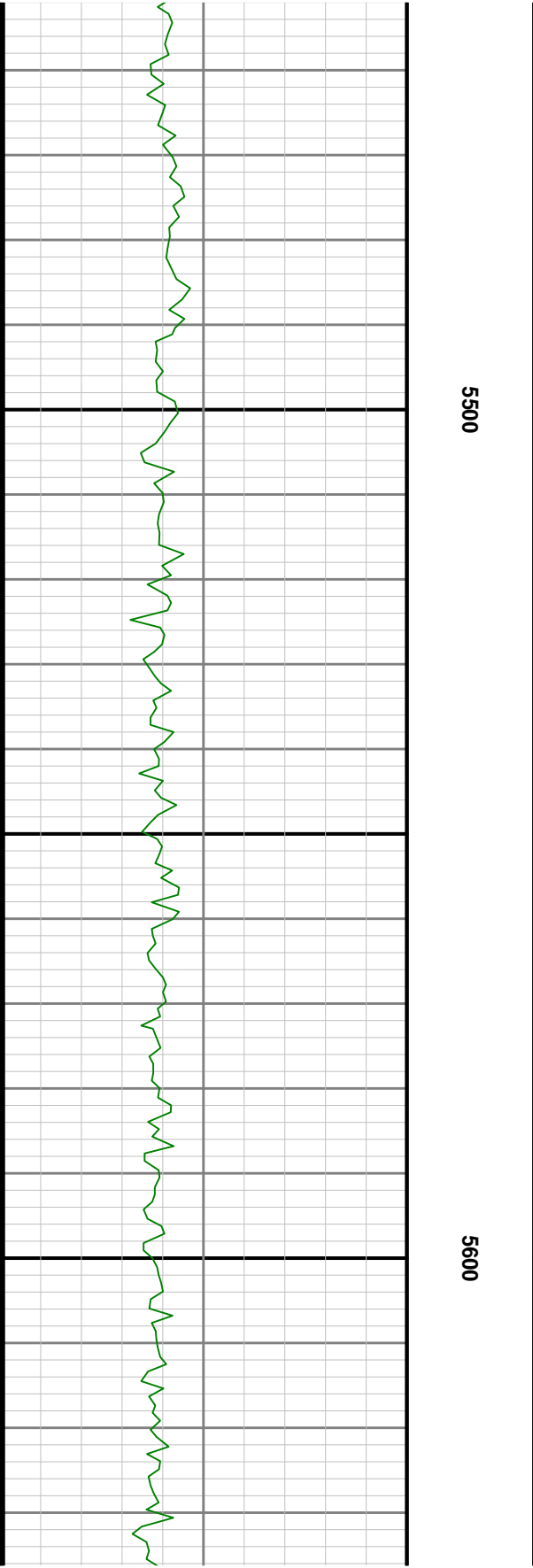
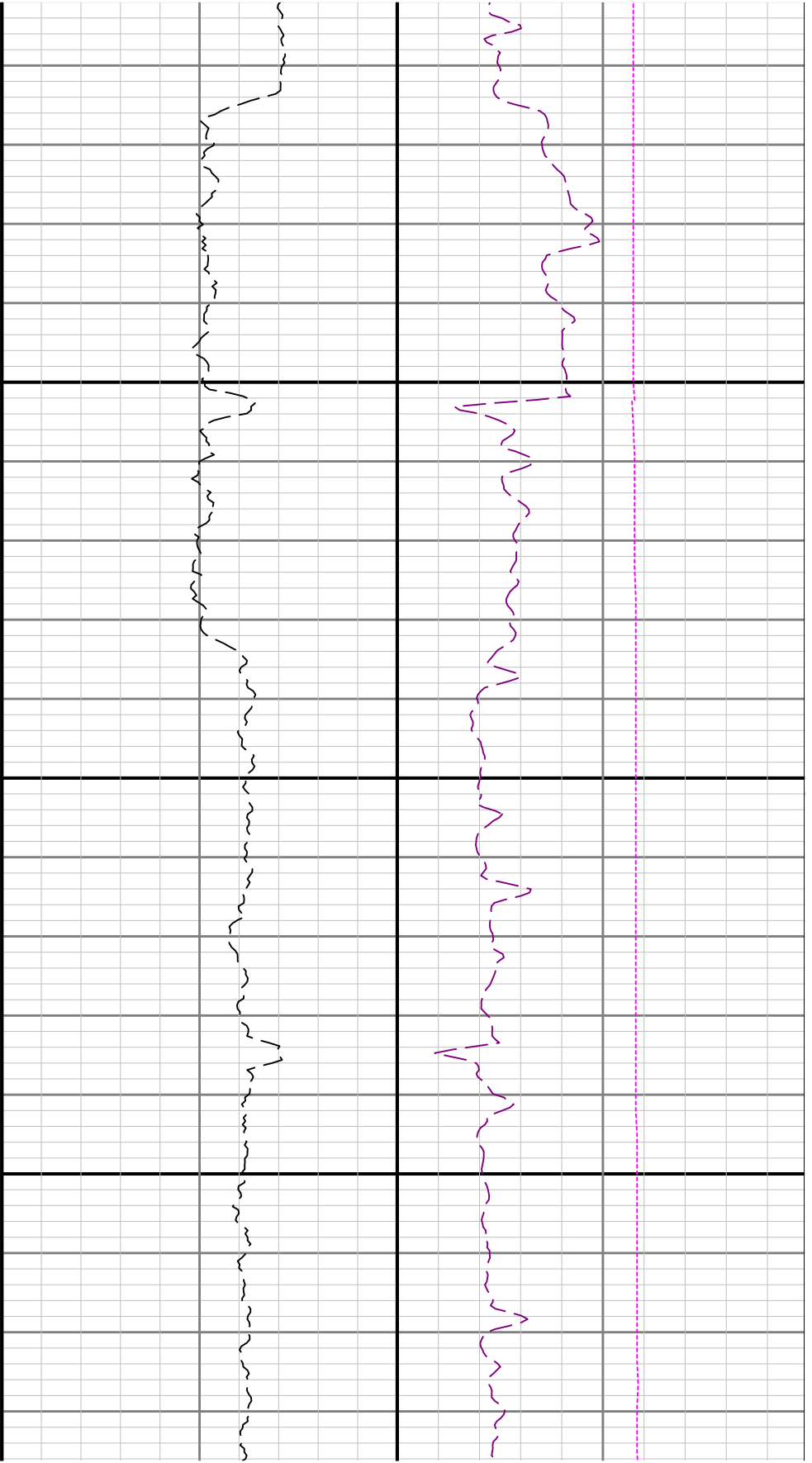


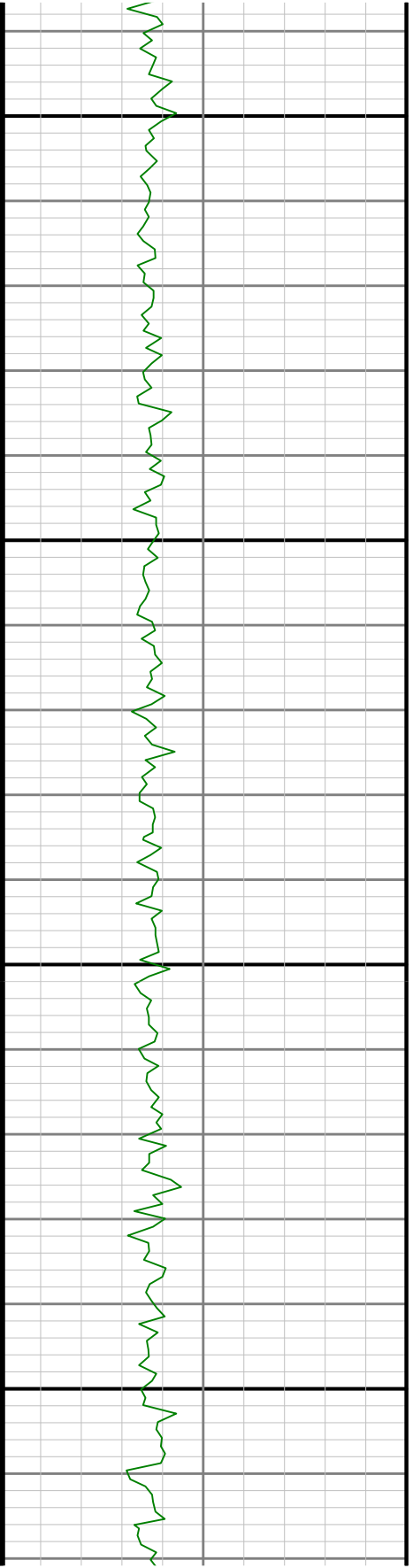
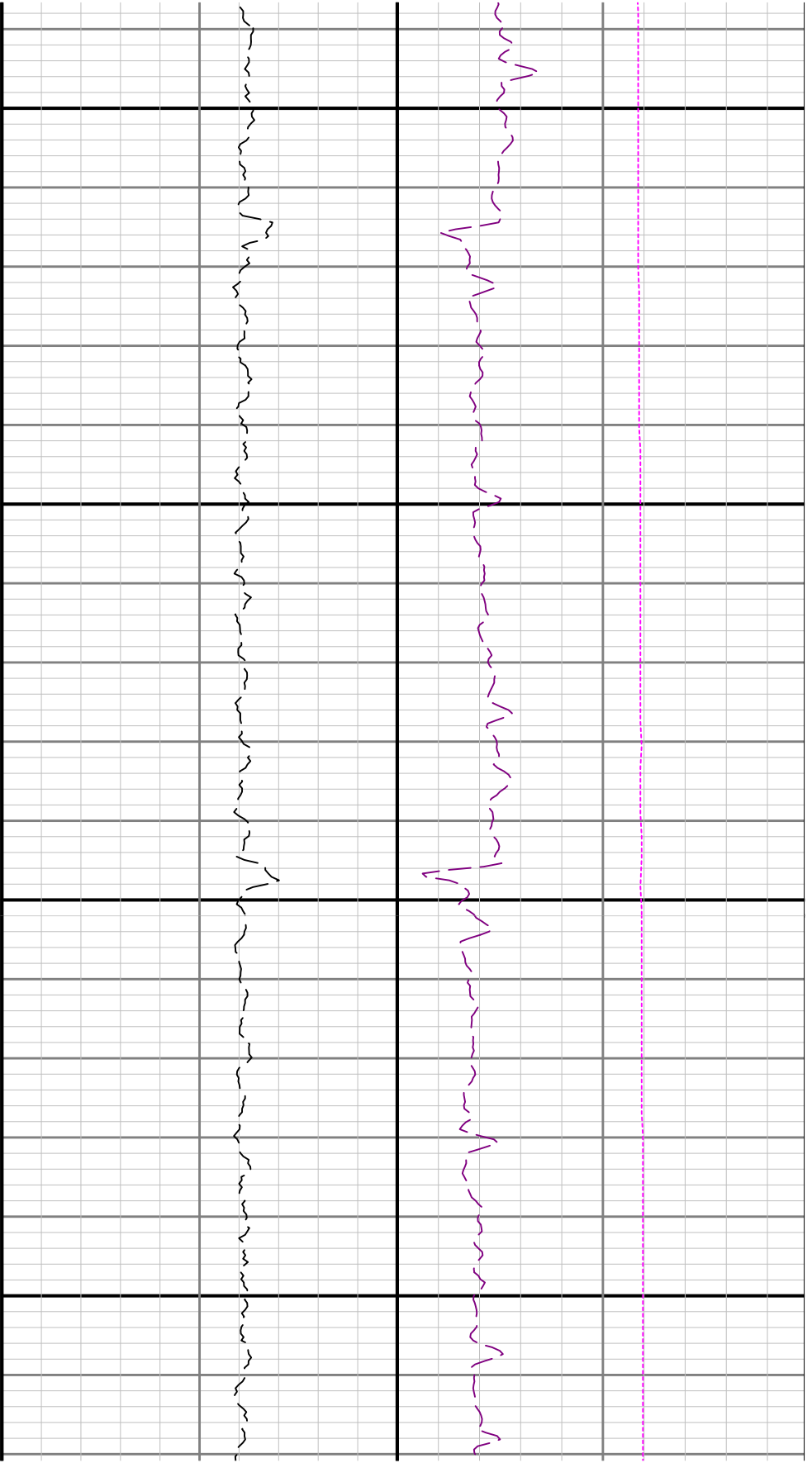


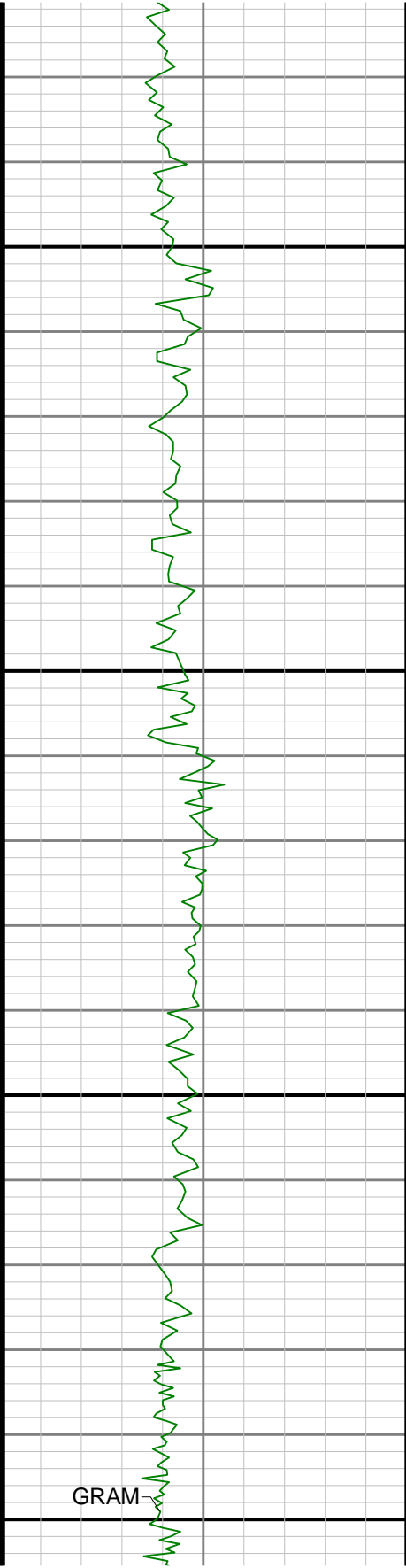
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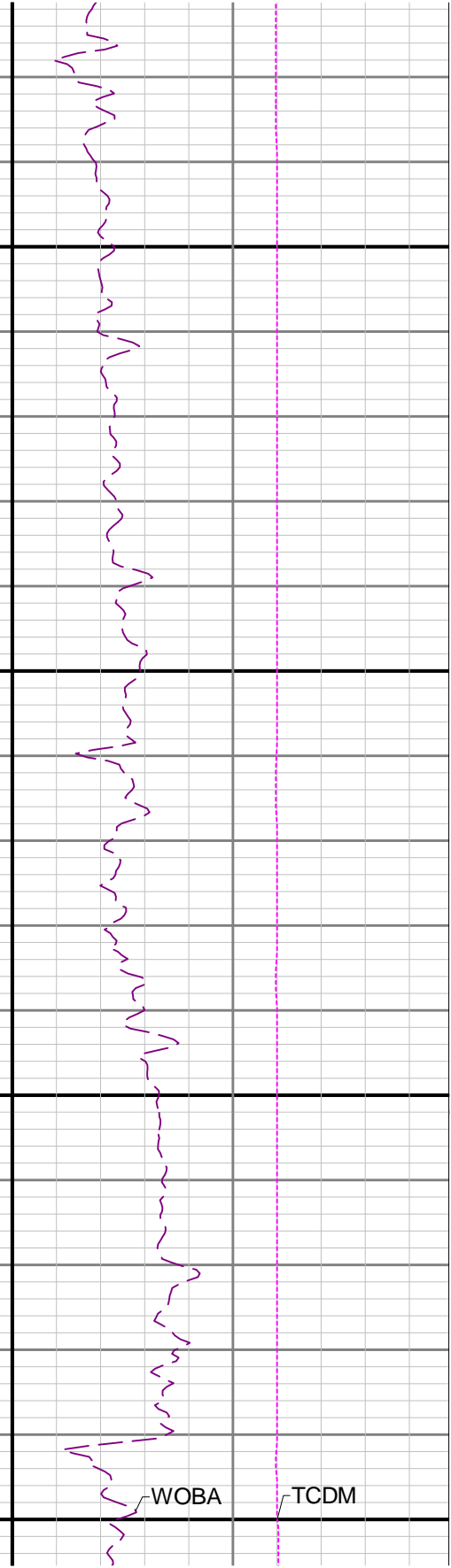
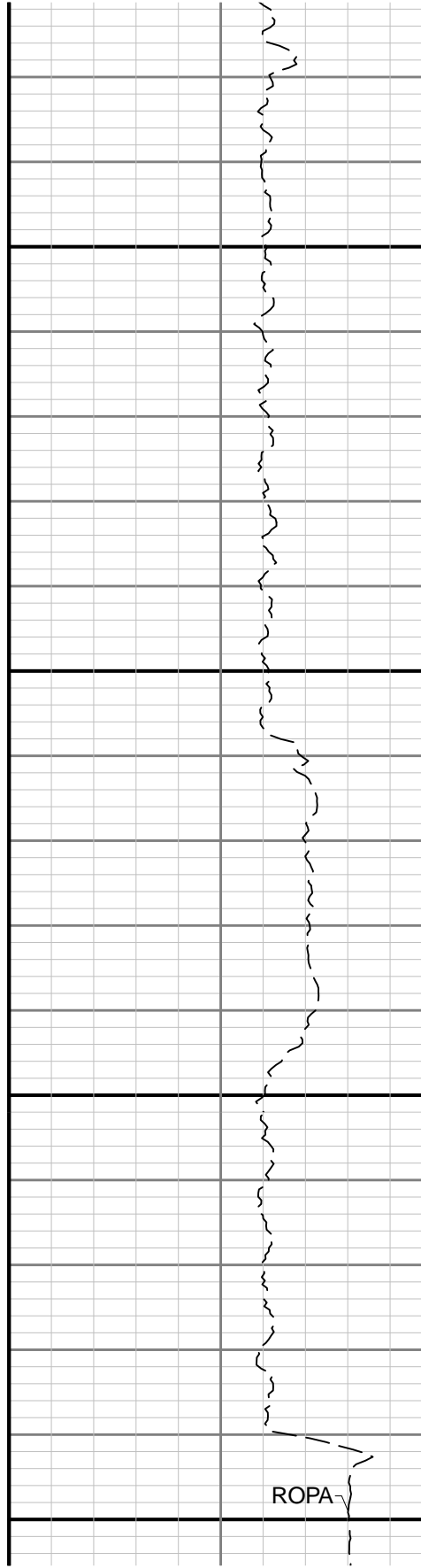


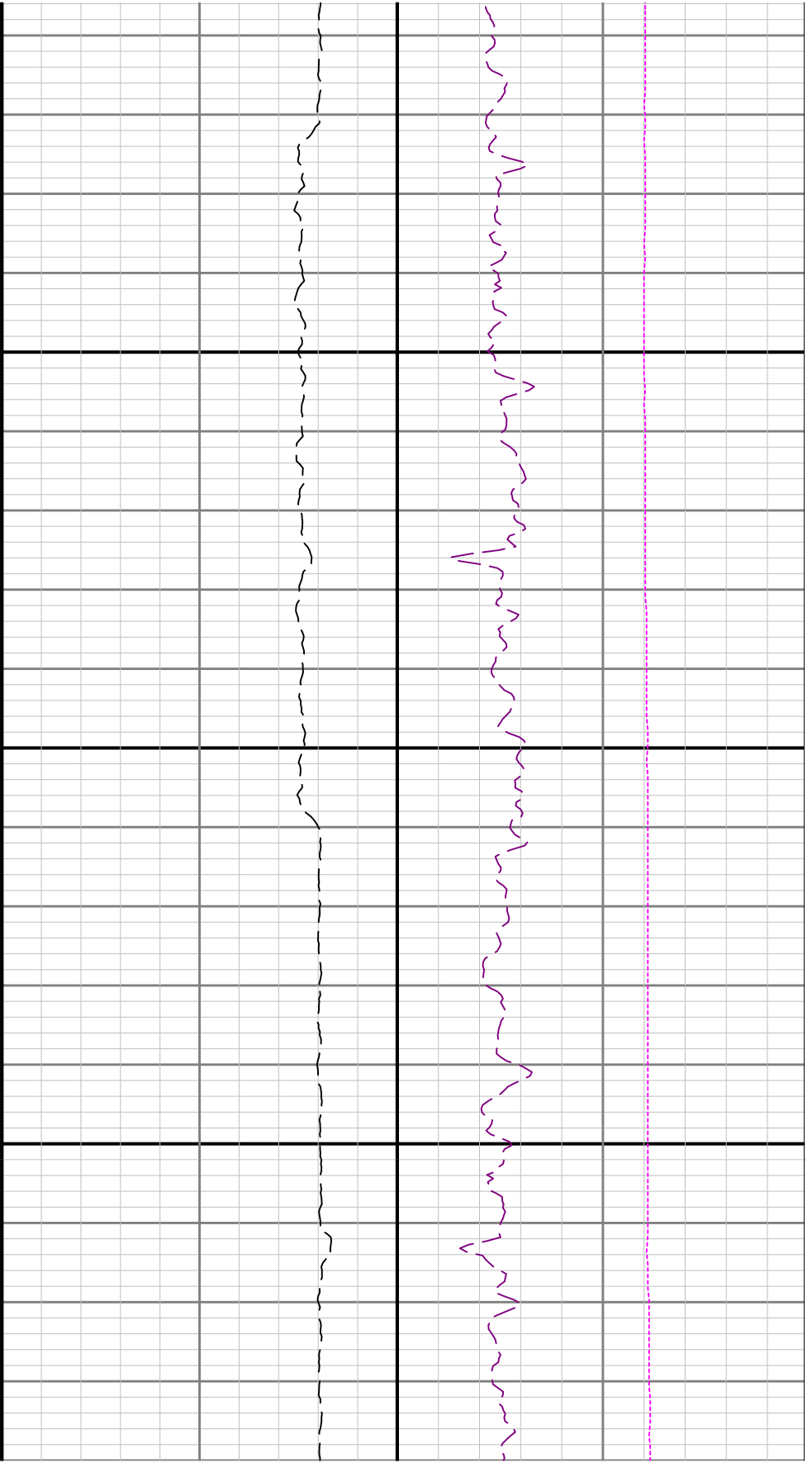




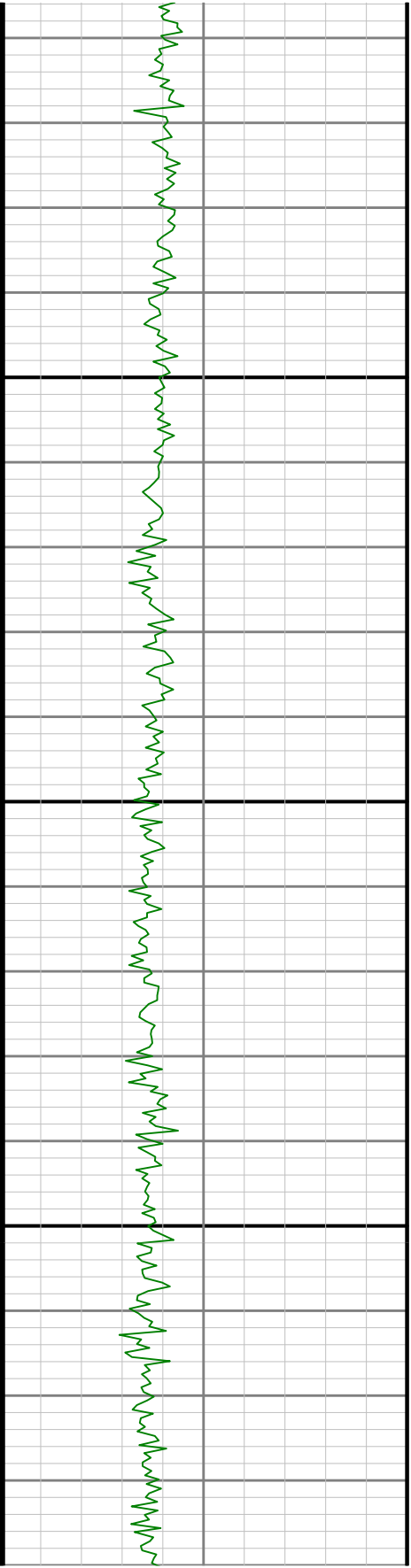
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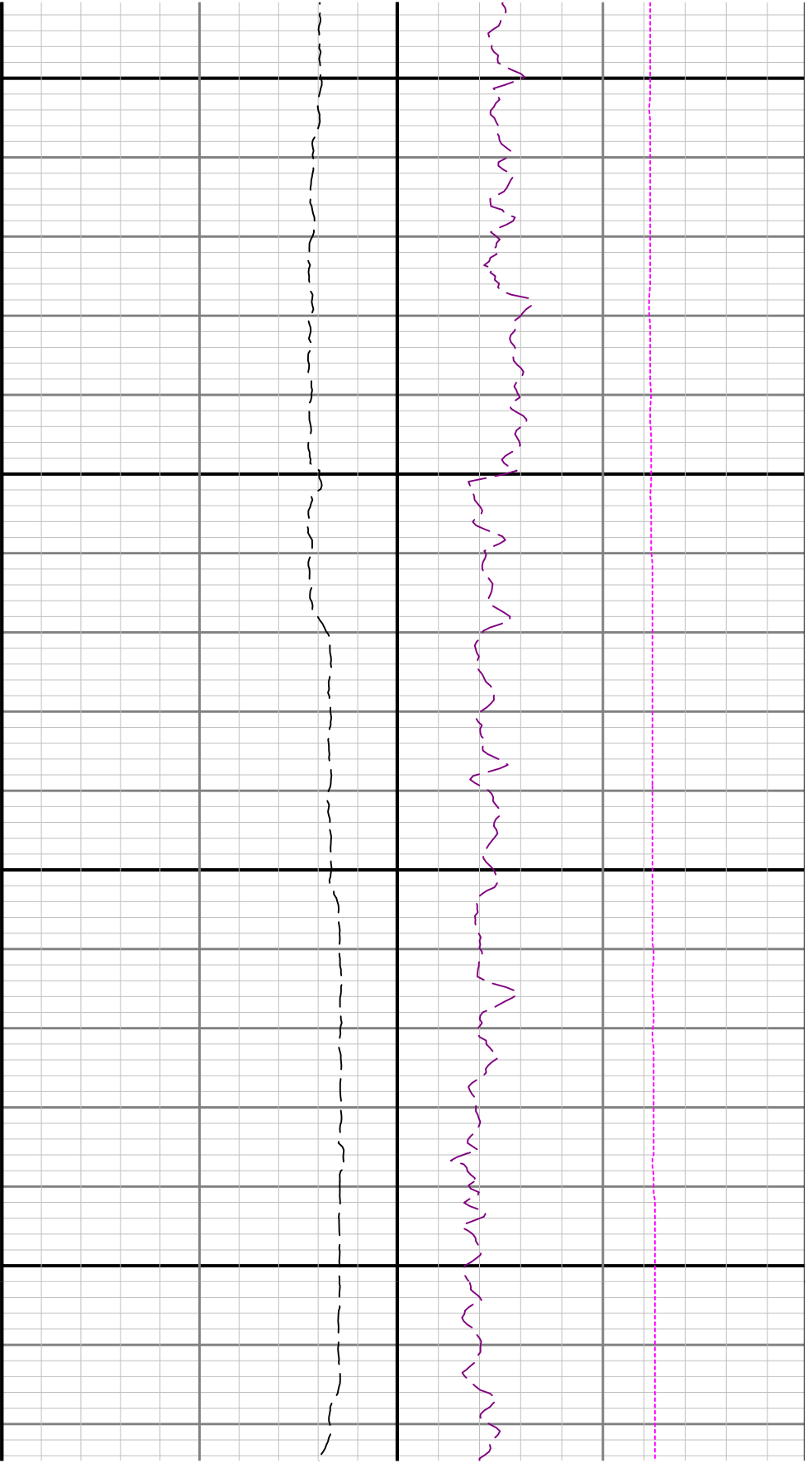
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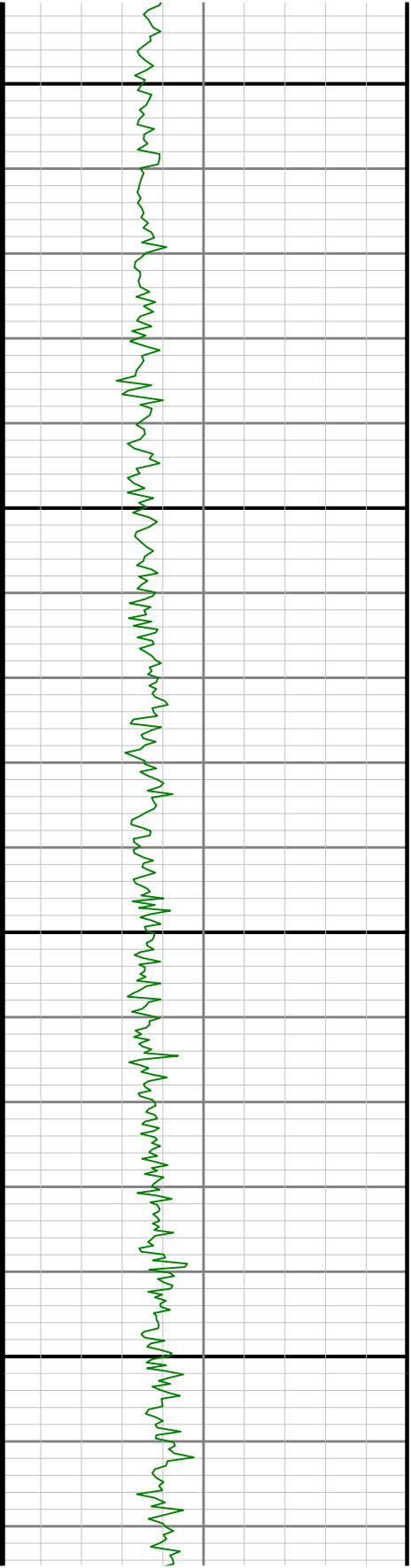
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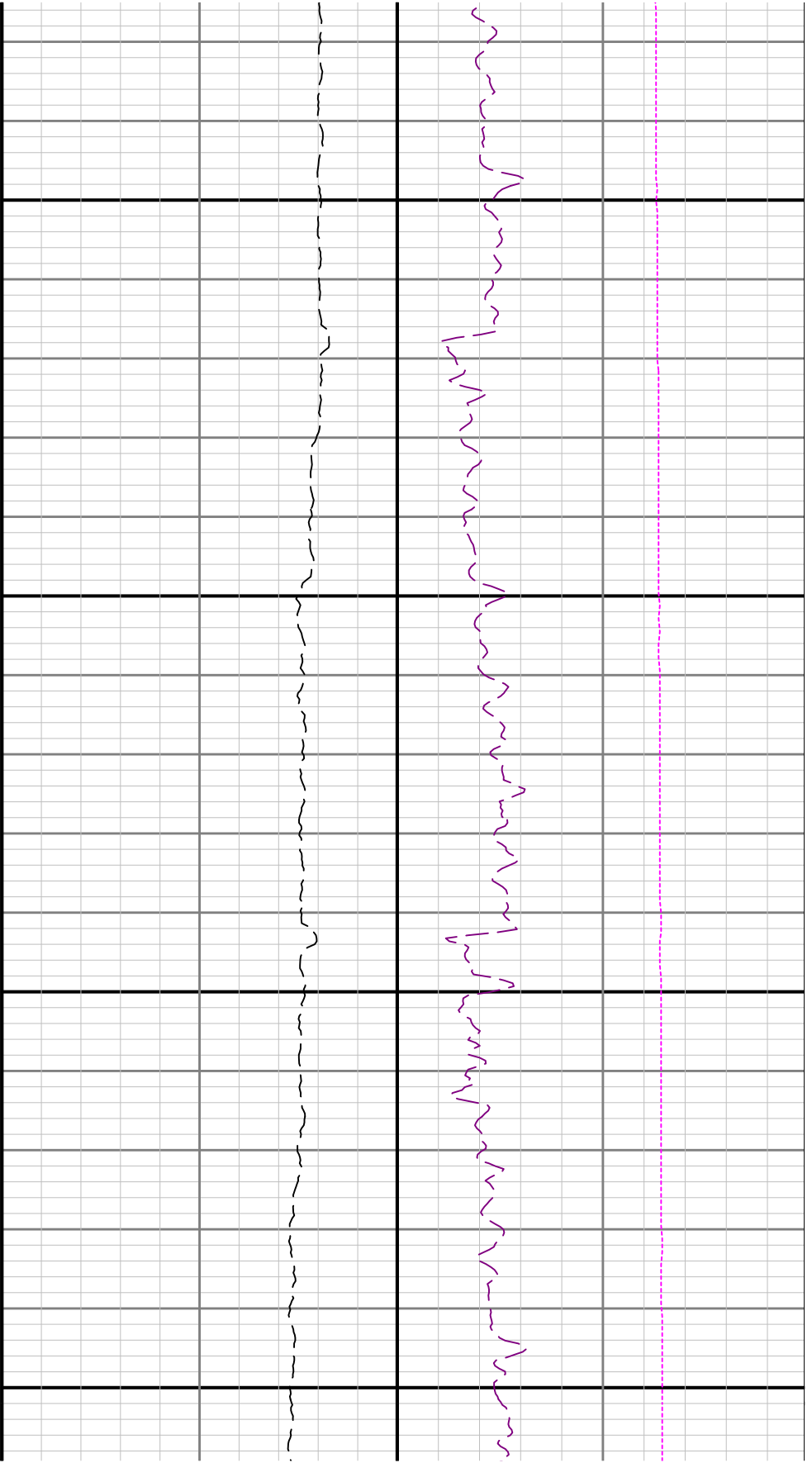




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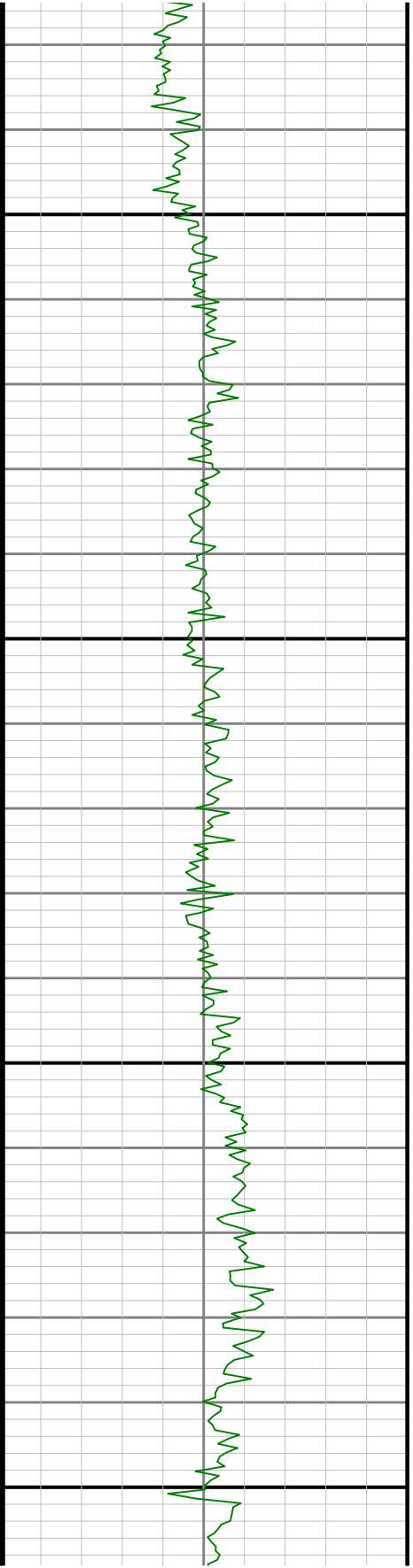
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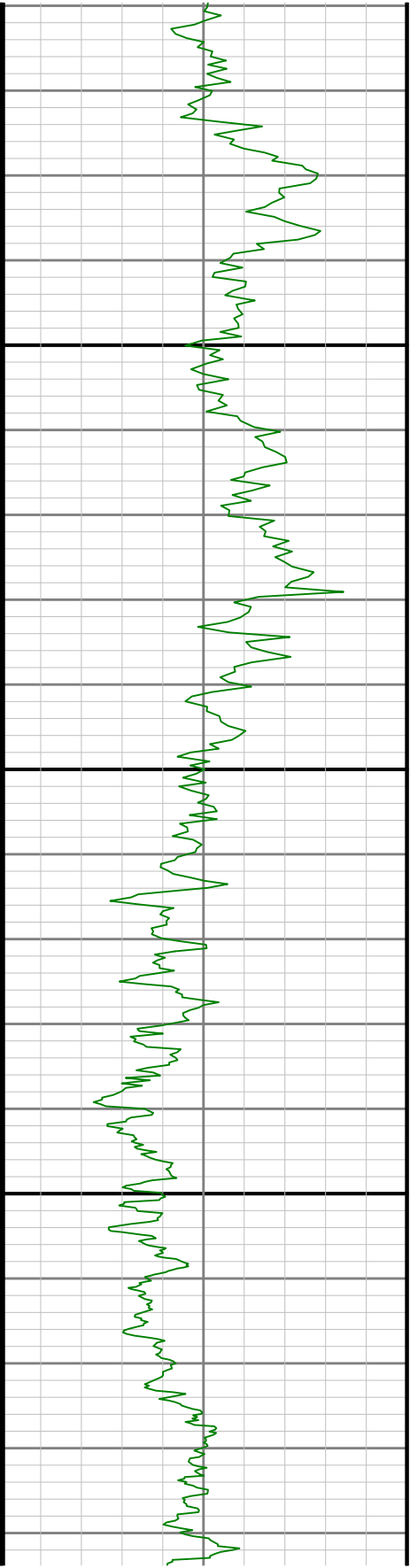




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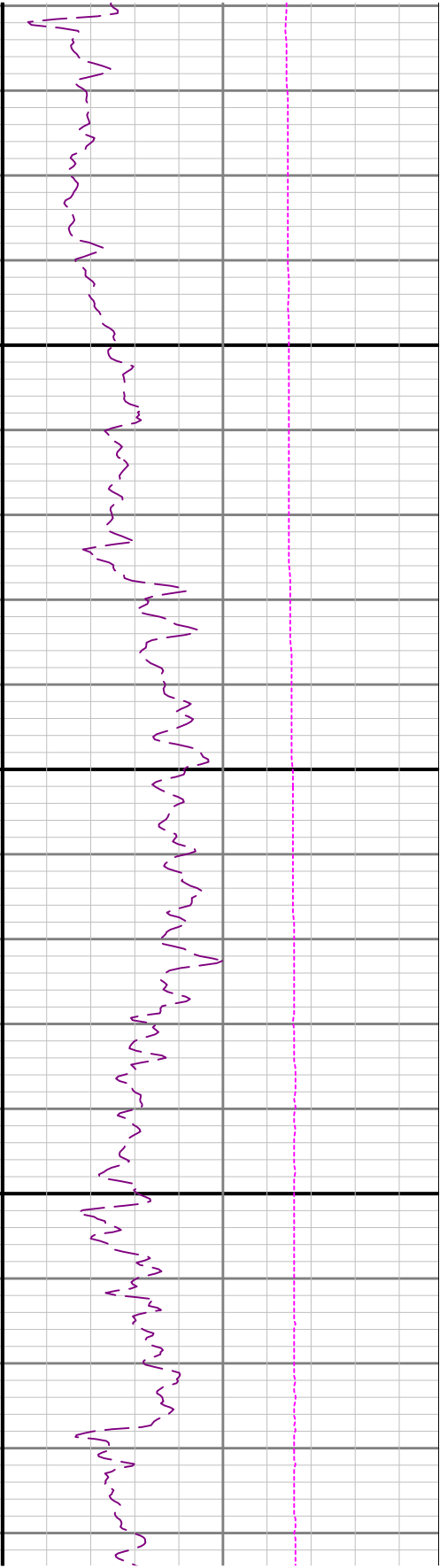
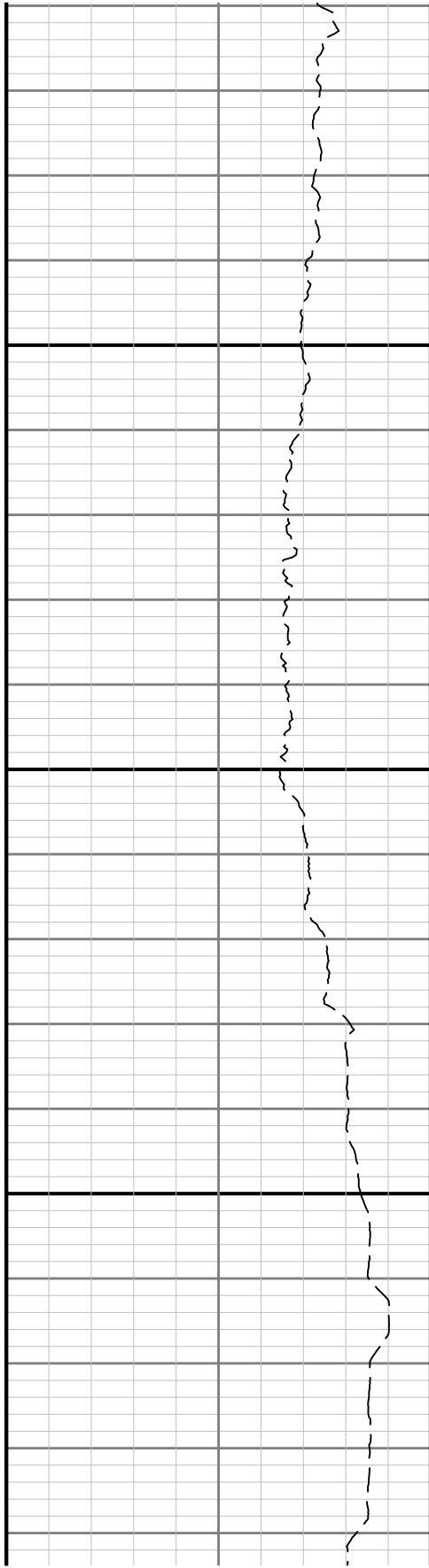
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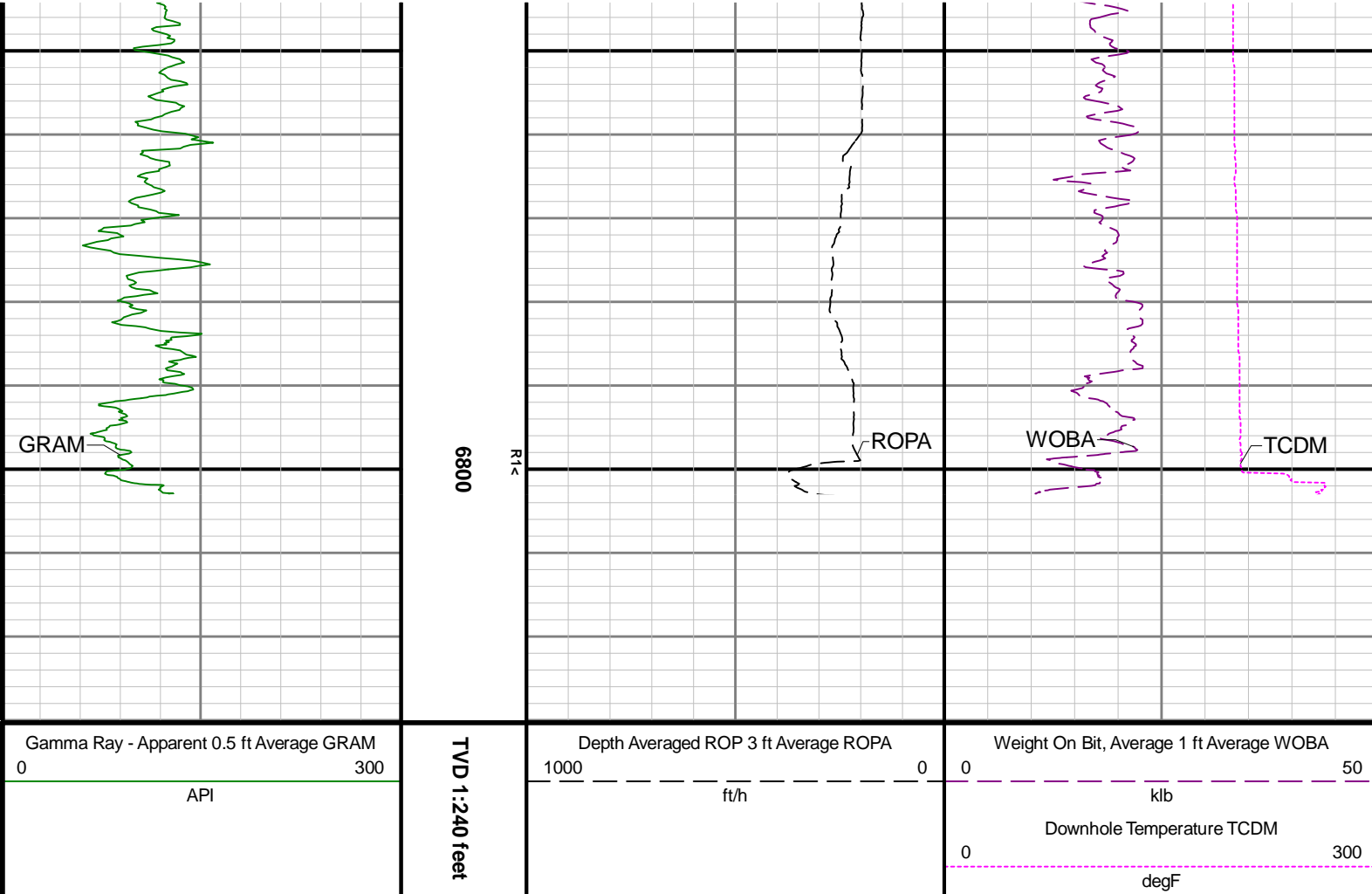




6600

6700





Directional Survey Summary													
Latitude:		040° 12' 20.484" N				Longitude:		104° 30' 51.012" W					
North Reference:		Grid				Drill Depth Zero:		Rig Floor					
Vertical Datum is:		Ground Level				Vertical Datum to DDZ: (ft)		30.00					
Vertical Section North: (ft)		0.00				Vertical Section East: (ft)		0.00					
Vertical Section Azimuth: (deg)		7.93											
Grid Convergence: (deg)		-0.64				Magnetic Declination: (deg)		8.08					
Total Correction: (deg)		7.44				TVD Calculation Method:		Minimum Curvature					
Magnetic Correction:		On				Local Magnetic Field: (nT)		52085					
Local Magnetic Dip Angle: (deg)		66.65				Local Gravity Field: (m/s2)		9.800					
Tie-In / Projection	Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	Temperature (degF)	North (ft)	East (ft)	True Vertical Depth (ft)	TVD Subsea (ft)	Vertical Section (ft)	Course Length (ft)	Dog Leg Severity (deg/100ft)	Build Rate (deg/100ft)	Turn Rate (deg/100ft)
Tie-In	0.00	0.00	0.00	N/A	0.00	0.00	0.00	-4840.00	0.00	0.00	0.00	0.00	0.00
	82.00	0.21	296.49	N/A	0.07	-0.13	82.00	-4758.00	0.05	82.00	0.26	0.26	-77.45
	176.00	0.19	31.63	N/A	0.28	-0.21	176.00	-4664.00	0.25	94.00	0.31	-0.02	101.21
	267.00	0.11	293.65	N/A	0.44	-0.21	267.00	-4573.00	0.41	91.00	0.26	-0.09	-107.67
	330.00	0.28	3.76	N/A	0.62	-0.25	330.00	-4510.00	0.58	63.00	0.42	0.27	111.29
	425.00	0.13	157.84	N/A	0.75	-0.20	425.00	-4415.00	0.72	95.00	0.42	-0.16	162.19
	520.00	0.36	127.59	N/A	0.47	0.08	520.00	-4320.00	0.47	95.00	0.27	0.24	-31.84
	615.00	0.46	252.29	N/A	0.17	-0.05	615.00	-4225.00	0.16	95.00	0.77	0.11	131.26
	709.00	0.41	335.42	N/A	0.36	-0.55	708.99	-4131.01	0.28	94.00	0.62	-0.05	88.44
	804.00	0.26	250.56	N/A	0.60	-0.89	803.99	-4036.01	0.47	95.00	0.49	-0.16	-89.33
	899.00	0.87	155.34	N/A	-0.13	-0.79	898.99	-3941.01	-0.24	95.00	0.98	0.64	-100.23

		993.00	0.70	125.13	N/A	-1.11	-0.03	992.98	-3847.02	-1.10	94.00	0.47	-0.18	-32.14
		1088.00	0.44	164.89	N/A	-1.79	0.54	1087.98	-3752.02	-1.70	95.00	0.48	-0.27	41.85
		1183.00	0.40	123.42	N/A	-2.33	0.92	1182.97	-3657.03	-2.18	95.00	0.32	-0.04	-43.65
		1278.00	0.86	151.31	N/A	-3.14	1.53	1277.97	-3562.03	-2.90	95.00	0.57	0.48	29.36
		1372.00	0.64	125.85	N/A	-4.06	2.30	1371.96	-3468.04	-3.71	94.00	0.42	-0.23	-27.09
		1467.00	0.49	112.45	N/A	-4.53	3.10	1466.96	-3373.04	-4.06	95.00	0.21	-0.16	-14.11
		1562.00	0.51	148.65	N/A	-5.05	3.70	1561.95	-3278.05	-4.49	95.00	0.33	0.02	38.11
		1656.00	0.39	211.92	N/A	-5.67	3.75	1655.95	-3184.05	-5.10	94.00	0.51	-0.13	67.31
		1751.00	0.54	234.76	N/A	-6.21	3.21	1750.95	-3089.05	-5.70	95.00	0.25	0.16	24.04
		1846.00	0.51	246.76	N/A	-6.63	2.46	1845.94	-2994.06	-6.23	95.00	0.12	-0.03	12.63
Tie-In		1919.00	0.42	263.09	N/A	-6.79	1.89	1918.94	-2921.06	-6.47	73.00	0.22	-0.12	22.37
		1983.00	0.48	14.66	117.6	-6.56	1.73	1982.94	-2857.06	-6.26	64.00	1.16	0.09	174.33
		2173.00	0.46	171.38	120.3	-6.55	2.04	2172.94	-2667.06	-6.20	190.00	0.48	-0.01	82.48
		2268.00	0.57	97.55	123.0	-6.98	2.57	2267.93	-2572.07	-6.56	95.00	0.66	0.12	-77.72
		2362.00	0.48	63.17	125.7	-6.87	3.38	2361.93	-2478.07	-6.34	94.00	0.34	-0.10	-36.57
		2457.00	0.65	87.68	128.4	-6.67	4.28	2456.93	-2383.07	-6.01	95.00	0.31	0.18	25.80
		2552.00	0.44	97.57	128.4	-6.69	5.18	2551.92	-2288.08	-5.91	95.00	0.24	-0.22	10.41
		2646.00	2.67	150.32	131.1	-8.64	6.62	2645.88	-2194.12	-7.65	94.00	2.58	2.37	56.12
		2741.00	5.13	153.78	133.8	-14.38	9.59	2740.66	-2099.34	-12.92	95.00	2.60	2.59	3.64
		2835.00	7.33	150.62	136.5	-23.37	14.39	2834.10	-2005.90	-21.16	94.00	2.37	2.34	-3.36
		2930.00	8.81	152.50	139.2	-35.11	20.72	2928.15	-1911.85	-31.91	95.00	1.58	1.56	1.98
		3025.00	9.66	153.45	139.2	-48.69	27.65	3021.92	-1818.08	-44.41	95.00	0.91	0.89	1.00
		3120.00	9.97	155.27	139.2	-63.29	34.65	3115.53	-1724.47	-57.90	95.00	0.46	0.33	1.92
		3215.00	10.69	152.55	141.9	-78.58	42.15	3208.99	-1631.01	-72.01	95.00	0.92	0.76	-2.86
		3309.00	11.84	147.07	141.9	-94.41	51.41	3301.18	-1538.82	-86.42	94.00	1.67	1.22	-5.83
		3404.00	12.03	141.12	144.6	-110.30	62.93	3394.13	-1445.87	-100.56	95.00	1.31	0.20	-6.26
		3498.00	13.30	132.39	144.6	-125.22	77.06	3485.85	-1354.15	-113.39	94.00	2.44	1.35	-9.29
		3593.00	16.81	123.48	144.6	-140.17	96.60	3577.59	-1262.41	-125.50	95.00	4.42	3.69	-9.38
		3688.00	20.21	126.02	160.8	-157.40	121.34	3667.66	-1172.34	-139.16	95.00	3.68	3.58	2.67
		3782.00	21.60	130.73	147.3	-178.24	147.58	3755.48	-1084.52	-156.18	94.00	2.32	1.48	5.01
		3877.00	25.60	134.45	147.3	-204.03	175.50	3842.52	-997.48	-177.87	95.00	4.49	4.21	3.92
		3972.00	31.16	138.70	150.0	-236.90	206.40	3926.08	-913.92	-206.16	95.00	6.22	5.85	4.47
		4067.00	32.49	138.11	150.0	-274.36	239.66	4006.79	-833.21	-238.67	95.00	1.44	1.40	-0.62
		4162.00	30.84	138.30	152.7	-311.54	272.90	4087.65	-752.35	-270.91	95.00	1.74	-1.74	0.20
		4256.00	30.93	137.97	152.7	-347.47	305.10	4168.32	-671.68	-302.06	94.00	0.20	0.10	-0.35
		4351.00	29.56	141.27	155.4	-383.89	336.11	4250.39	-589.61	-333.85	95.00	2.27	-1.44	3.47
		4446.00	30.23	142.46	155.4	-421.14	365.34	4332.75	-507.25	-366.71	95.00	0.94	0.71	1.25
		4541.00	30.98	139.75	158.1	-458.76	395.71	4414.52	-425.48	-399.78	95.00	1.65	0.79	-2.85
		4636.00	30.56	136.55	158.1	-494.96	428.12	4496.15	-343.85	-431.16	95.00	1.78	-0.44	-3.37
		4730.00	28.94	140.46	160.8	-529.85	459.04	4577.77	-262.23	-461.45	94.00	2.69	-1.72	4.16
		4825.00	28.88	142.38	160.8	-565.75	487.68	4660.93	-179.07	-493.06	95.00	0.98	-0.06	2.02
		4920.00	29.08	143.85	163.5	-602.56	515.30	4744.04	-95.96	-525.71	95.00	0.78	0.21	1.55
		5015.00	30.32	140.56	160.8	-639.73	544.16	4826.56	-13.44	-558.54	95.00	2.16	1.31	-3.46
		5109.00	30.84	137.35	163.5	-675.78	575.56	4907.49	67.49	-589.91	94.00	1.82	0.55	-3.41
		5204.00	30.92	135.99	163.5	-711.24	609.01	4989.03	149.03	-620.42	95.00	0.74	0.08	-1.43
		5298.00	30.67	136.04	166.2	-745.87	642.43	5069.77	229.77	-650.10	94.00	0.27	-0.27	0.05
		5393.00	29.82	137.14	168.9	-780.62	675.32	5151.84	311.84	-679.99	95.00	1.07	-0.89	1.16
		5488.00	28.01	136.80	168.9	-814.20	706.66	5235.00	395.00	-708.92	95.00	1.91	-1.91	-0.36
		5582.00	28.76	138.22	168.9	-847.16	736.84	5317.69	477.69	-737.40	94.00	1.07	0.80	1.51
		5677.00	30.27	136.29	171.6	-881.51	768.61	5400.37	560.37	-767.04	95.00	1.88	1.59	-2.03
		5772.00	29.62	137.07	171.6	-916.01	801.15	5482.68	642.68	-796.72	95.00	0.80	-0.68	0.82
		5866.00	30.48	136.75	174.3	-950.38	833.31	5564.05	724.05	-826.33	94.00	0.93	0.91	-0.34
		6056.00	30.57	137.58	177.0	-1021.15	898.92	5727.72	887.72	-887.37	190.00	0.23	0.05	0.44
		6151.00	30.55	136.19	179.7	-1056.41	931.93	5809.52	969.52	-917.73	95.00	0.74	-0.02	-1.46
		6245.00	30.00	138.00	179.7	-1091.11	964.19	5890.70	1050.70	-947.65	94.00	1.13	-0.59	1.93
		6340.00	30.62	135.12	179.7	-1125.90	997.16	5972.72	1132.72	-977.57	95.00	1.66	0.65	-3.03
		6435.00	26.63	124.02	179.7	-1154.99	1031.91	6056.15	1216.15	-1001.58	95.00	6.98	-4.20	-11.68
		6529.00	22.09	107.54	182.5	-1172.13	1066.28	6141.86	1301.86	-1013.82	94.00	8.65	-4.83	-17.53
		6624.00	21.74	87.69	185.2	-1176.82	1100.94	6230.12	1390.12	-1013.67	95.00	7.77	-0.37	-20.89
		6719.00	26.01	70.26	187.9	-1169.06	1138.19	6317.08	1477.08	-1000.85	95.00	8.64	4.49	-18.35
		6813.00	32.77	55.77	187.9	-1147.73	1178.72	6399.03	1559.03	-974.14	94.00	10.39	7.19	-15.41
		6908.00	29.10	44.34	190.6	-1111.72	1221.05	6475.06	1625.06	-932.64	95.00	9.76	6.76	-12.02

		6908.00	39.19	44.34	190.6	-1111.73	1221.05	6475.96	1636.96	-932.64	95.00	9.76	6.76	-12.03
		7003.00	44.94	34.23	193.3	-1062.42	1260.98	6546.54	1706.54	-878.29	95.00	9.34	6.05	-10.64
		7098.00	51.15	24.84	193.3	-1000.97	1295.47	6610.10	1770.10	-812.67	95.00	9.82	6.54	-9.88
		7192.00	55.04	17.10	260.8	-930.85	1322.21	6666.59	1826.59	-739.53	94.00	7.77	4.14	-8.23
		7287.00	60.29	8.15	198.7	-852.63	1339.54	6717.45	1877.45	-659.67	95.00	9.68	5.53	-9.42
		7382.00	69.79	5.36	201.4	-767.20	1349.58	6757.50	1917.50	-573.67	95.00	10.35	10.00	-2.94
		7477.00	77.78	5.98	204.1	-676.50	1358.60	6784.01	1944.01	-482.60	95.00	8.43	8.41	0.65
		7571.00	86.34	6.36	204.1	-584.03	1368.60	6796.98	1956.98	-389.63	94.00	9.12	9.11	0.40
		7666.00	89.63	4.01	206.8	-489.50	1377.17	6800.32	1960.32	-294.82	95.00	4.25	3.46	-2.47
		7761.00	90.25	0.26	206.8	-394.58	1380.71	6800.42	1960.42	-200.32	95.00	4.00	0.65	-3.95
		7855.00	90.25	359.26	212.2	-300.58	1380.32	6800.01	1960.01	-107.27	94.00	1.06	-0.00	-1.06
		8045.00	90.28	359.57	214.9	-110.59	1378.38	6799.13	1959.13	80.63	190.00	0.16	0.02	0.16
		8139.00	90.03	0.11	217.6	-16.59	1378.12	6798.88	1958.88	173.69	94.00	0.63	-0.27	0.57
		8234.00	89.94	358.35	217.6	78.39	1376.84	6798.91	1958.91	267.60	95.00	1.86	-0.09	-1.85
		8329.00	90.12	355.71	220.3	173.26	1371.92	6798.86	1958.86	360.87	95.00	2.79	0.19	-2.78
		8424.00	90.06	354.91	217.6	267.94	1364.15	6798.71	1958.71	453.58	95.00	0.84	-0.06	-0.84
		8518.00	90.18	357.27	220.3	361.71	1357.74	6798.51	1958.51	545.57	94.00	2.51	0.13	2.51
		8613.00	90.00	359.24	220.3	456.66	1354.85	6798.36	1958.36	639.22	95.00	2.08	-0.19	2.07
		8708.00	90.18	1.95	223.0	551.65	1355.83	6798.21	1958.21	733.43	95.00	2.86	0.19	2.85
		8803.00	89.88	3.76	225.7	646.53	1360.57	6798.16	1958.16	828.05	95.00	1.93	-0.32	1.91
		8897.00	89.82	4.46	225.7	740.28	1367.30	6798.41	1958.41	921.84	94.00	0.75	-0.06	0.74
		8992.00	89.78	4.36	228.4	835.00	1374.61	6798.74	1958.74	1016.66	95.00	0.11	-0.04	-0.11
		9087.00	89.82	0.05	228.4	929.91	1378.26	6799.07	1959.07	1111.17	95.00	4.54	0.04	-4.54
		9182.00	89.82	0.15	228.4	1024.91	1378.43	6799.37	1959.37	1205.28	95.00	0.11	0.00	0.11
		9276.00	89.75	356.99	228.4	1118.87	1376.08	6799.72	1959.72	1298.02	94.00	3.36	-0.07	-3.36
		9371.00	89.94	356.39	231.1	1213.71	1370.60	6799.98	1959.98	1391.19	95.00	0.66	0.20	-0.63
		9466.00	89.85	355.23	231.1	1308.45	1363.66	6800.15	1960.15	1484.07	95.00	1.22	-0.09	-1.22
		9561.00	89.88	359.87	231.1	1403.34	1359.60	6800.38	1960.38	1577.49	95.00	4.88	0.03	4.88
		9655.00	89.88	4.90	233.8	1497.23	1363.51	6800.57	1960.57	1671.02	94.00	5.35	-0.00	5.35
		9750.00	90.40	7.21	233.8	1591.69	1373.53	6800.34	1960.34	1765.97	95.00	2.49	0.55	2.43
		9845.00	89.94	2.96	236.5	1686.29	1381.94	6800.06	1960.06	1860.83	95.00	4.50	-0.48	-4.47
		9940.00	89.69	358.99	236.5	1781.26	1383.56	6800.37	1960.37	1955.11	95.00	4.19	-0.26	-4.18
		10034.00	89.78	359.52	236.5	1875.25	1382.34	6800.80	1960.80	2048.03	94.00	0.57	0.10	0.56
		10129.00	89.78	357.98	239.2	1970.23	1380.27	6801.17	1961.17	2141.81	95.00	1.62	0.00	-1.62
		10224.00	89.82	357.14	239.2	2065.14	1376.22	6801.50	1961.50	2235.26	95.00	0.89	0.04	-0.88
		10318.00	90.03	356.91	241.9	2159.01	1371.34	6801.62	1961.62	2327.56	94.00	0.33	0.22	-0.24
		10413.00	90.28	357.32	241.9	2253.89	1366.56	6801.36	1961.36	2420.87	95.00	0.51	0.26	0.43
		10508.00	90.06	357.34	244.6	2348.79	1362.14	6801.08	1961.08	2514.25	95.00	0.23	-0.23	0.02
		10602.00	90.31	359.94	244.6	2442.75	1359.91	6800.78	1960.78	2607.01	94.00	2.78	0.27	2.77
		10697.00	90.06	2.27	244.6	2537.73	1361.74	6800.47	1960.47	2701.33	95.00	2.47	-0.26	2.45
		10792.00	90.09	0.24	247.3	2632.70	1363.82	6800.35	1960.35	2795.68	95.00	2.14	0.03	-2.14
		10886.00	90.06	356.30	247.3	2726.64	1360.98	6800.22	1960.22	2888.33	94.00	4.19	-0.03	-4.19
		10981.00	90.15	357.40	247.3	2821.49	1355.76	6800.05	1960.05	2981.56	95.00	1.16	0.09	1.16
		11076.00	90.03	2.52	247.3	2916.46	1355.69	6799.90	1959.90	3075.61	95.00	5.39	-0.13	5.39
		11171.00	90.03	358.91	247.3	3011.44	1356.88	6799.85	1959.85	3169.84	95.00	3.80	0.00	-3.80
		11266.00	90.15	358.45	250.0	3106.41	1354.69	6799.70	1959.70	3263.60	95.00	0.50	0.13	-0.48
		11360.00	90.18	358.28	250.0	3200.37	1352.01	6799.43	1959.43	3356.30	94.00	0.18	0.03	-0.18
		11455.00	90.12	356.13	250.0	3295.25	1347.38	6799.18	1959.18	3449.63	95.00	2.26	-0.06	-2.26
		11550.00	90.15	357.83	250.0	3390.12	1342.37	6798.96	1958.96	3542.90	95.00	1.79	0.03	1.79
		11644.00	90.43	0.14	252.7	3484.10	1340.71	6798.48	1958.48	3635.75	94.00	2.48	0.30	2.46
		11739.00	90.09	358.25	250.0	3579.08	1339.37	6798.05	1958.05	3729.64	95.00	2.02	-0.36	-1.99
		11834.00	90.06	358.06	252.7	3674.03	1336.31	6797.93	1957.93	3823.26	95.00	0.20	-0.03	-0.20
		11928.00	90.31	2.00	252.7	3768.01	1336.36	6797.62	1957.62	3916.35	94.00	4.20	0.27	4.19
		12023.00	90.12	2.81	252.7	3862.93	1340.35	6797.27	1957.27	4010.91	95.00	0.88	-0.20	0.85
		12118.00	89.75	357.16	255.4	3957.89	1340.32	6797.37	1957.37	4104.96	95.00	5.96	-0.39	-5.95
		12212.00	88.58	355.20	255.4	4051.66	1334.06	6798.74	1958.74	4196.97	94.00	2.43	-1.24	-2.09
		12307.00	90.06	359.14	255.4	4146.52	1329.37	6799.87	1959.87	4290.27	95.00	4.43	1.56	4.15
		12401.00	89.85	1.64	255.4	4240.51	1330.01	6799.95	1959.95	4383.45	94.00	2.67	-0.22	2.66
		12496.00	89.88	359.16	255.4	4335.50	1330.68	6800.17	1960.17	4477.63	95.00	2.61	0.03	-2.61
		12590.00	90.03	0.80	255.4	4429.50	1330.65	6800.24	1960.24	4570.72	94.00	1.75	0.16	1.74
		12685.00	90.00	1.24	258.1	4524.48	1332.34	6800.22	1960.22	4665.03	95.00	0.46	-0.03	0.46
		12780.00	90.00	357.23	258.1	4619.45	1331.07	6800.22	1960.22	4758.92	95.00	4.22	0.00	-4.22

	12874.00	89.66	359.21	260.8	4713.40	1328.15	6800.50	1960.50	4851.57	94.00	2.14	-0.36	2.11
	12969.00	90.31	357.45	260.8	4808.36	1325.38	6800.52	1960.52	4945.23	95.00	1.97	0.68	-1.85
	13063.00	89.75	357.23	260.8	4902.26	1321.02	6800.47	1960.47	5037.63	94.00	0.64	-0.60	-0.23
	13158.00	90.03	0.48	260.8	4997.22	1319.12	6800.66	1960.66	5131.43	95.00	3.43	0.29	3.42
	13253.00	89.57	357.55	258.1	5092.20	1317.49	6800.99	1960.99	5225.27	95.00	3.12	-0.48	-3.08
	13348.00	89.51	353.69	263.5	5186.90	1310.23	6801.75	1961.75	5318.06	95.00	4.06	-0.06	-4.06
	13442.00	89.51	349.98	260.8	5279.93	1296.89	6802.56	1962.56	5408.36	94.00	3.95	0.00	-3.95
	13537.00	89.75	355.24	258.1	5374.10	1284.67	6803.17	1963.17	5499.95	95.00	5.54	0.25	5.54
	13631.00	90.43	358.43	258.1	5467.95	1279.48	6803.02	1963.02	5592.18	94.00	3.47	0.72	3.39
	13726.00	90.28	358.69	263.5	5562.92	1277.09	6802.43	1962.43	5685.91	95.00	0.32	-0.16	0.27
	13821.00	90.40	0.07	266.2	5657.91	1276.07	6801.87	1961.87	5779.85	95.00	1.46	0.13	1.45
	13916.00	90.00	1.20	266.2	5752.90	1277.12	6801.54	1961.54	5874.08	95.00	1.26	-0.42	1.19
	14011.00	90.12	4.32	266.2	5847.78	1281.69	6801.44	1961.44	5968.68	95.00	3.29	0.13	3.28
	14106.00	90.77	6.09	266.2	5942.38	1290.31	6800.70	1960.70	6063.57	95.00	1.98	0.68	1.86
	14200.00	90.40	4.73	269.0	6035.95	1299.17	6799.74	1959.74	6157.47	94.00	1.50	-0.39	-1.45
	14295.00	90.77	4.63	269.0	6130.63	1306.92	6798.77	1958.77	6252.31	95.00	0.40	0.39	-0.11
	14390.00	89.88	3.75	269.0	6225.37	1313.86	6798.23	1958.23	6347.11	95.00	1.32	-0.94	-0.93
	14484.00	89.88	4.81	260.8	6319.11	1320.88	6798.43	1958.43	6440.91	94.00	1.13	0.00	1.13
	14579.00	90.06	4.58	266.2	6413.79	1328.66	6798.48	1958.48	6535.76	95.00	0.31	0.19	-0.24
	14675.00	90.00	359.91	266.2	6509.69	1332.41	6798.43	1958.43	6631.26	96.00	4.86	-0.06	-4.86
	14768.00	89.91	358.68	266.2	6602.68	1331.27	6798.50	1958.50	6723.21	93.00	1.33	-0.10	-1.32
	14863.00	89.94	359.49	266.2	6697.67	1329.75	6798.63	1958.63	6817.08	95.00	0.85	0.03	0.85
	14957.00	89.94	0.96	269.0	6791.66	1330.12	6798.72	1958.72	6910.23	94.00	1.56	-0.00	1.56
	15052.00	90.03	357.95	269.0	6886.65	1329.22	6798.75	1958.75	7004.18	95.00	3.17	0.09	-3.17
	15146.00	90.09	357.94	269.0	6980.59	1325.85	6798.65	1958.65	7096.75	94.00	0.06	0.06	-0.01
	15241.00	90.00	359.45	271.7	7075.56	1323.68	6798.58	1958.58	7190.52	95.00	1.59	-0.09	1.59
	15336.00	89.94	1.08	271.7	7170.56	1324.12	6798.63	1958.63	7284.67	95.00	1.72	-0.06	1.72
	15431.00	89.91	1.79	271.7	7265.53	1326.50	6798.75	1958.75	7379.06	95.00	0.75	-0.03	0.75
	15525.00	89.94	3.13	274.4	7359.44	1330.54	6798.87	1958.87	7472.63	94.00	1.43	0.03	1.43
	15620.00	89.91	2.10	274.4	7454.34	1334.87	6799.00	1959.00	7567.22	95.00	1.08	-0.03	-1.08
	15715.00	89.97	359.66	274.4	7549.32	1336.33	6799.10	1959.10	7661.49	95.00	2.57	0.06	-2.57
	15809.00	89.97	359.77	347.3	7643.32	1335.86	6799.15	1959.15	7754.53	94.00	0.12	-0.00	0.12
	15904.00	89.97	0.28	274.4	7738.32	1335.90	6799.20	1959.20	7848.62	95.00	0.54	-0.00	0.54
	15998.00	90.00	1.51	274.4	7832.30	1337.37	6799.22	1959.22	7941.91	94.00	1.31	0.03	1.31
	16093.00	89.88	3.09	274.4	7927.22	1341.19	6799.32	1959.32	8036.45	95.00	1.67	-0.13	1.66
	16187.00	89.94	3.85	274.4	8021.05	1346.87	6799.47	1959.47	8130.17	94.00	0.81	0.06	0.81
	16282.00	89.94	2.78	304.1	8115.89	1352.37	6799.57	1959.57	8224.86	95.00	1.13	-0.00	-1.13
	16377.00	89.91	4.57	274.4	8210.69	1358.46	6799.69	1959.69	8319.59	95.00	1.88	-0.03	1.88
	16471.00	89.97	5.56	277.1	8304.32	1366.76	6799.79	1959.79	8413.47	94.00	1.06	0.06	1.05
	16566.00	90.09	3.69	274.4	8399.01	1374.42	6799.74	1959.74	8508.31	95.00	1.97	0.13	-1.97
	16661.00	90.06	356.70	277.1	8493.95	1374.74	6799.62	1959.62	8602.39	95.00	7.36	-0.03	-7.36
	16755.00	90.00	353.26	274.4	8587.58	1366.51	6799.57	1959.57	8693.98	94.00	3.66	-0.06	-3.66
	16850.00	89.91	355.81	277.1	8682.14	1357.47	6799.64	1959.64	8786.39	95.00	2.69	-0.09	2.68
	16945.00	90.06	358.63	274.4	8777.01	1352.86	6799.67	1959.67	8879.73	95.00	2.97	0.16	2.97
	17039.00	89.82	1.48	274.4	8871.00	1352.95	6799.76	1959.76	8972.83	94.00	3.04	-0.26	3.03
	17134.00	90.18	2.67	277.1	8965.94	1356.39	6799.76	1959.76	9067.33	95.00	1.31	0.38	1.25
	17229.00	89.94	0.60	279.8	9060.90	1359.10	6799.66	1959.66	9161.76	95.00	2.19	-0.25	-2.18
	17323.00	89.85	359.98	277.1	9154.89	1359.58	6799.84	1959.84	9254.92	94.00	0.67	-0.10	-0.66
	17512.00	90.00	359.27	279.8	9343.89	1358.34	6800.08	1960.08	9441.94	189.00	0.38	0.08	-0.38
	17607.00	89.82	1.52	279.8	9438.88	1358.99	6800.23	1960.23	9536.11	95.00	2.38	-0.19	2.37
	17702.00	89.85	3.16	279.8	9533.80	1362.87	6800.51	1960.51	9630.66	95.00	1.73	0.03	1.73
Projection	17757.00	89.85	3.16	N/A	9588.71	1365.91	6800.65	1960.65	9685.47	55.00	0.00	0.01	-0.00