



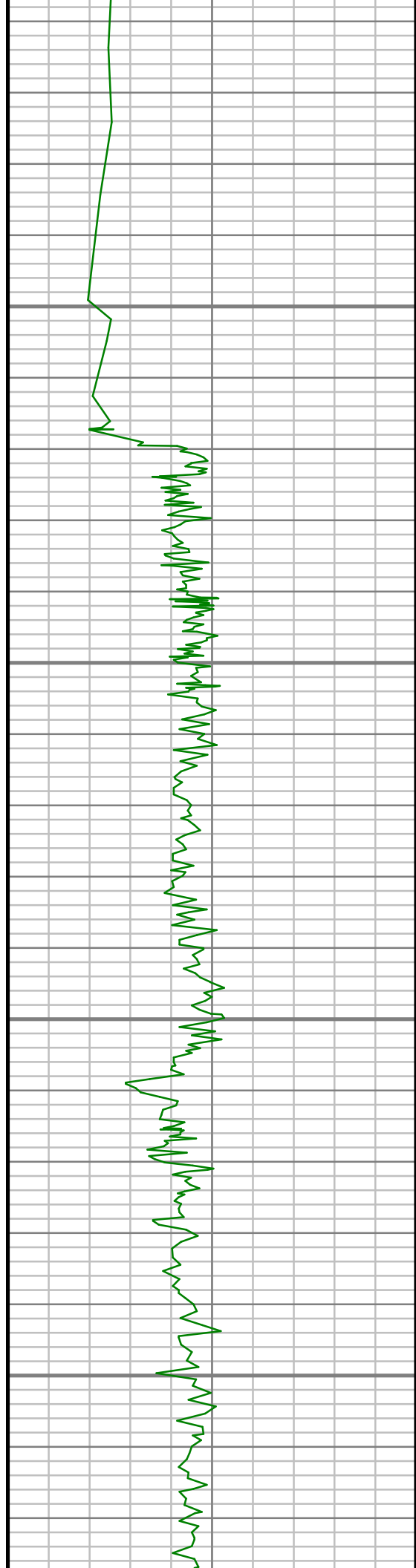
5" = 100' FEET TVD

COMPANY : ENCANA OIL AND GAS (U.S.A.) INC									
WELL : NEWNAM 2K-32H-C264									
FIELD : WATTENBERG									
COUNTY : WELD									
STATE : COLORADO									
COUNTRY : U.S.A.									
UWI : 05-123-40228									
OTHER SERVICES									
WELL LOCATION									
LAT:40°6'5.274"N LONG:104°34'42.064"W									
N:1281147.88 ft E:3257814.48 ft									
SEC:32 TWP:2N RANGE:64W									
DIRECTIONAL									
ROP									
DEPTH REF. : RKB									
REF. HEIGHT : 13.000 ft									
RKB to Ground Level									
GROUND LEVEL : 4956.000 ft									
G.L. to MEAN SEA LEVEL									
BOREHOLE RECORD						DEVIATION RECORD			
HOLE SIZE in	FROM ft	TO ft	INCLINATION deg	FROM ft	TO ft				
12.25	0	1145	0 - 10	0	1145				
8.75	1145	7418	10 - 85	1145	7418				
6.125	7418	11388	85 - 91	7418	11388				
CASING RECORD									
CASING SIZE in	FROM ft	TO ft							
9.625	0	1130							
7	0	7390							
DRILLING CO.: ENSIGN									
RIG: 124									
LMD UNIT NO.: C70-EM4#8DISTRICT: CASPER									
SPUD DATE: 01/31/2015									
LMD START DATE: 02/02/2015						DEPTH: 5000 ft			
LMD END DATE: 02/07/2015						DEPTH: 11388 ft			
TOTAL DEPTH: 11388 ft									

Remarks
ENCANA OIL AND GAS (U.S.A.) INC PRODUCTION AFE# 14182693
SCIENTIFIC DRILLING INTERNATIONAL JOB# 251348
ALL REFERENCES IN THE DEPTH TRACK ARE AT BIT DEPTH.
ALL DATA IS MEMORY DATA UNLESS STATED OTHERWISE.
FLAT AVERAGE FILTER OF 1.00 FT APPLIED TO RATE OF PENETRATION CURVE
RUN #1: MWD / DIRECTIONAL RUN
SENSORS S/N: PULSER = 128-020 / CONT = 227 / MWD EYE = 0646
BIT TO SENSOR OFFSET: SURVEY = 61.41 FT.
RUN #2: MWD / GAMMA RAY LOGGING RUN
SENSORS S/N: PULSER = 128-157 / CONT = 844 / MWD EYE = 0661 / GAMMA RAY = 1403
BIT TO SENSOR OFFSETS: SURVEY = 61.14 FT. / GAMMA RAY = 57.08 FT.
RUN #3: MWD / GAMMA RAY LOGGING RUN
SENSORS S/N: PULSER = 78-139 / CONT = 227 / MWD EYE = 0646 / GAMMA RAY = 1053
BIT TO SENSOR OFFSETS: SURVEY = 60.81 FT. / GAMMA RAY = 56.18 FT.
MNEMONICS LIST:
GR = GAMMA RAY
ROP = RATE OF PENETRATION

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 interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions as set out in our current price schedule.

ENCANA OIL AND GAS (U.S.A.) INC NEWNAM 2K-32H-C264 WATTENBERG FIELD WELD COUNTY, COLORADO 05-123-40228					
Gamma Ray (GR) <div>0Unit = aapi150</div>		TRUE VERTICAL DEPTH 1:240 (ft)	Rate of Penetration (ROP) <div>600Unit = ft/hr0</div>		Comments
					
		1100			

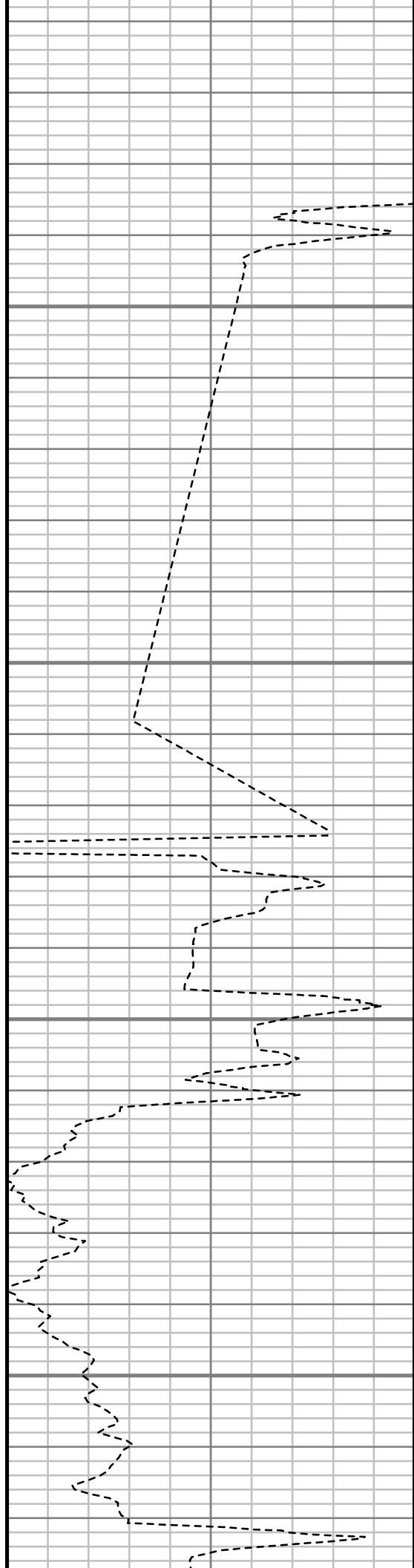


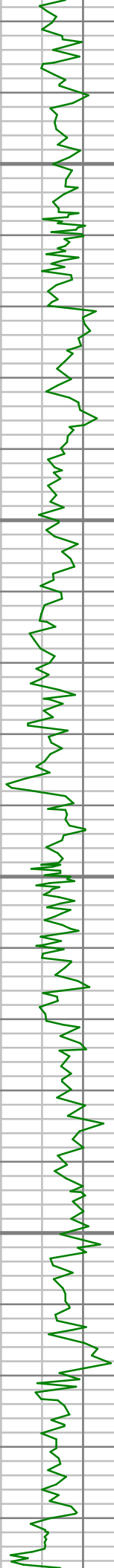
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1200

1250

1300



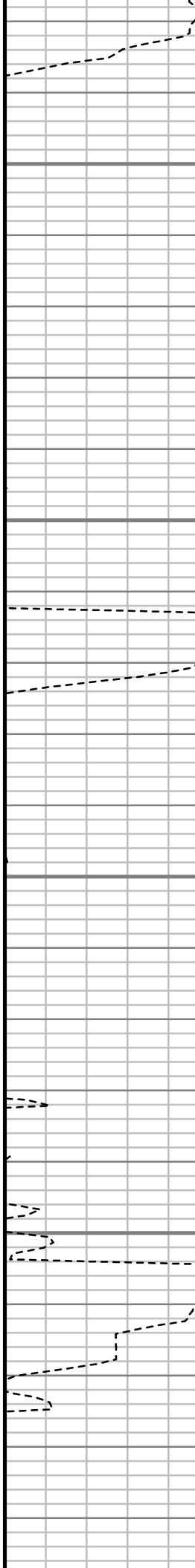


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1450

1500





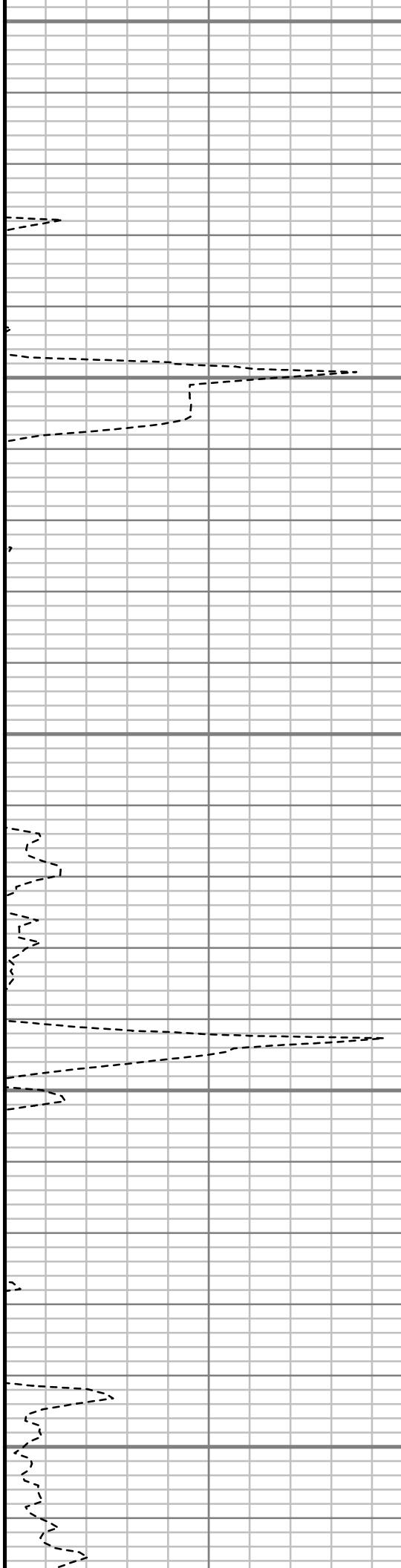
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1700

1750



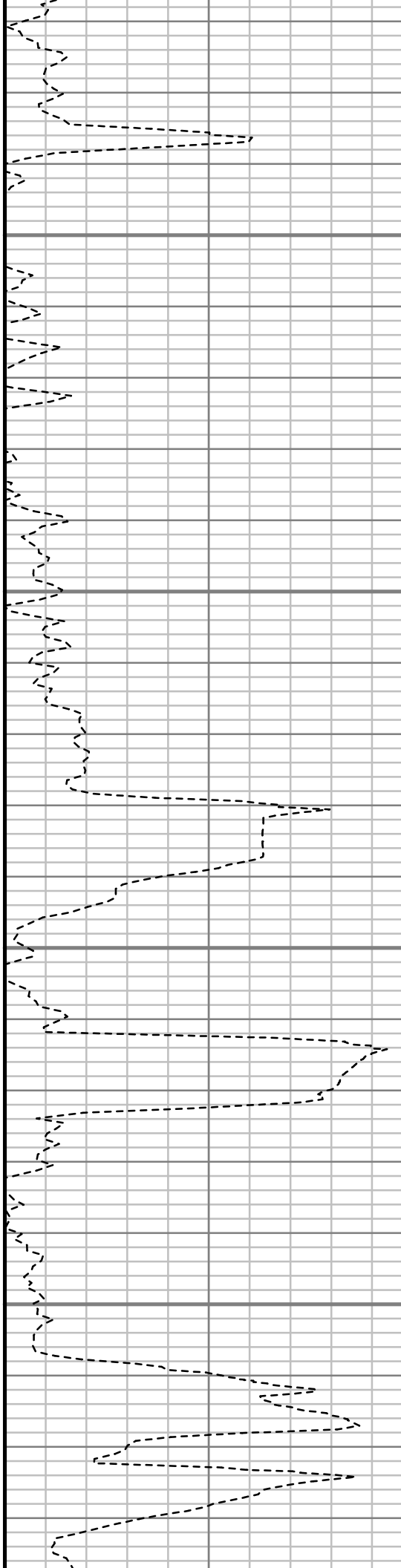


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1950





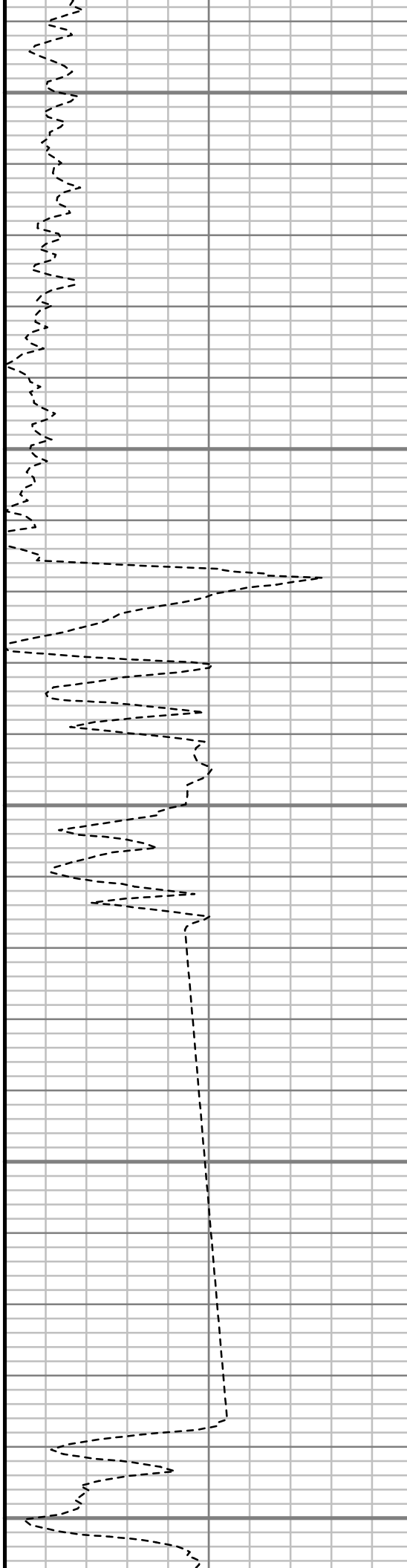
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2150

2200



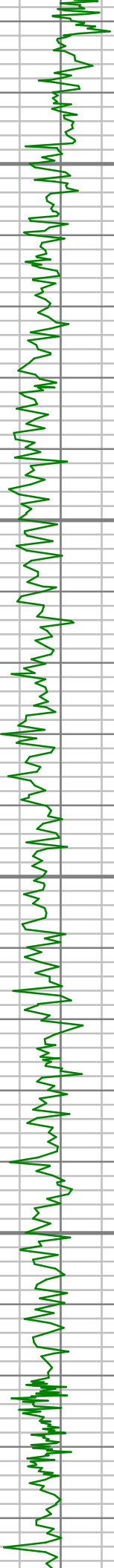


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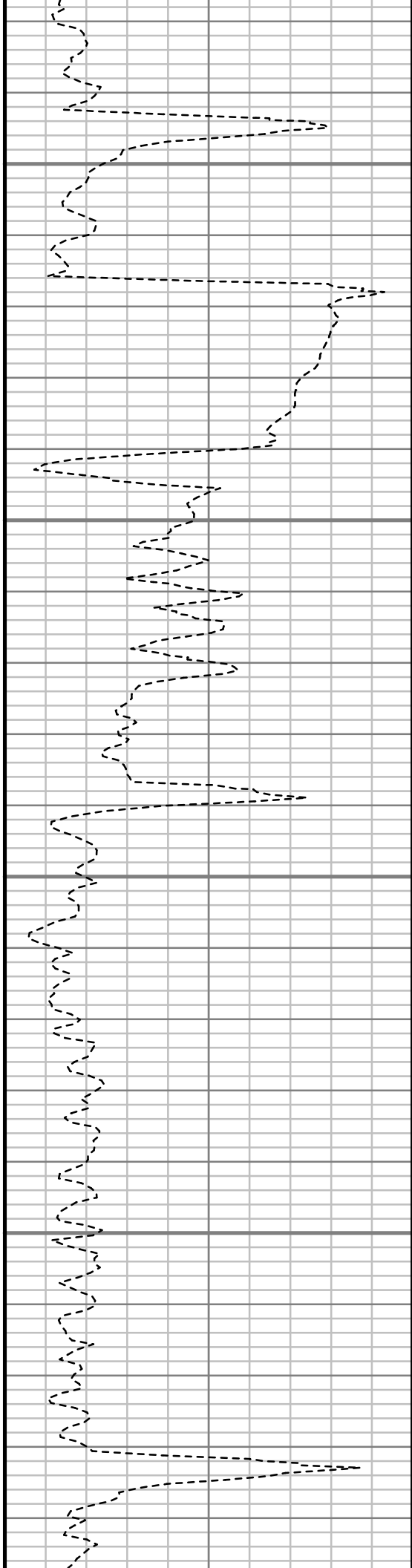


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2600





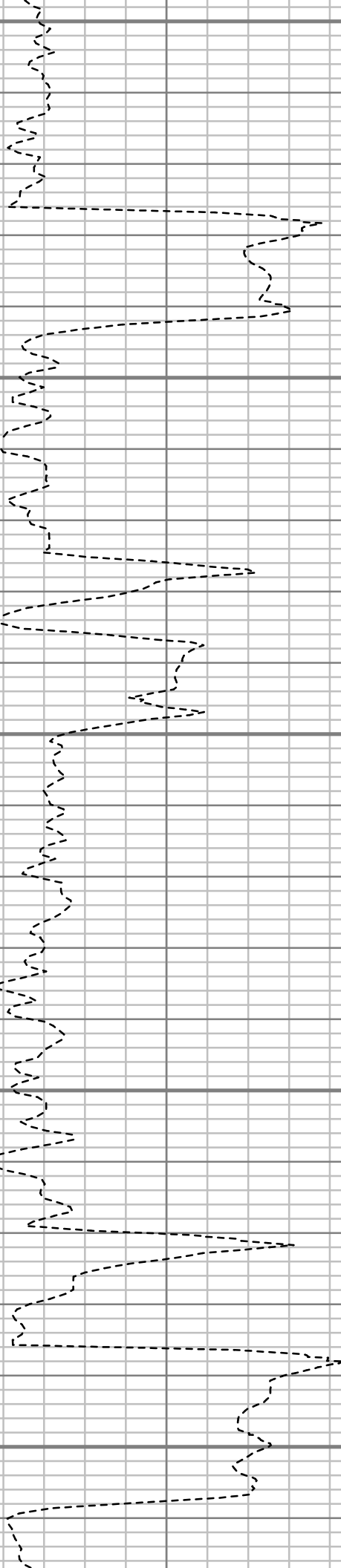
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2850



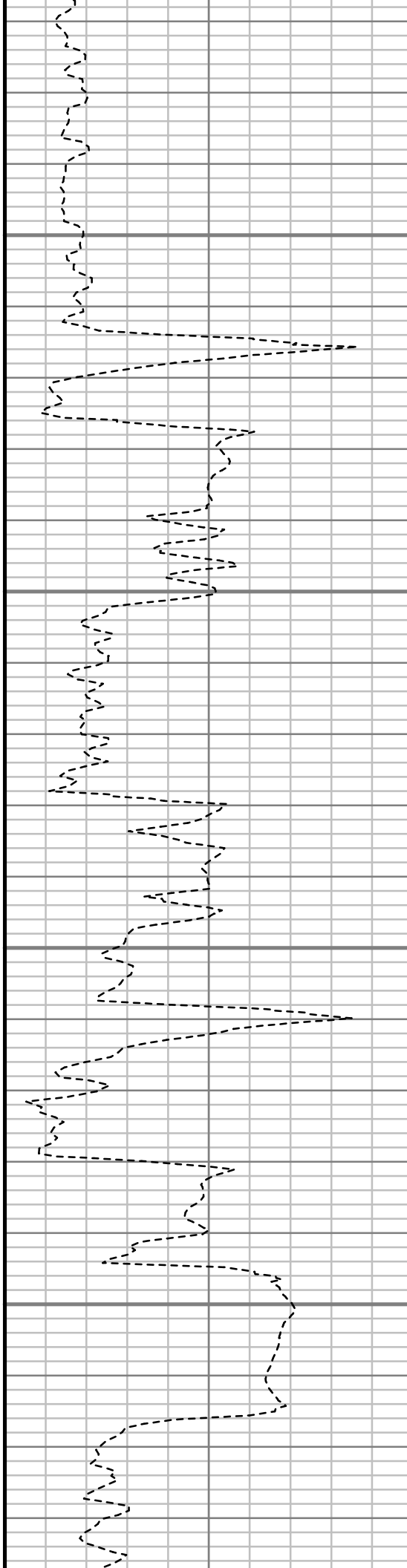


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2950

3000

3050





3100

3150

3200

3250

3300



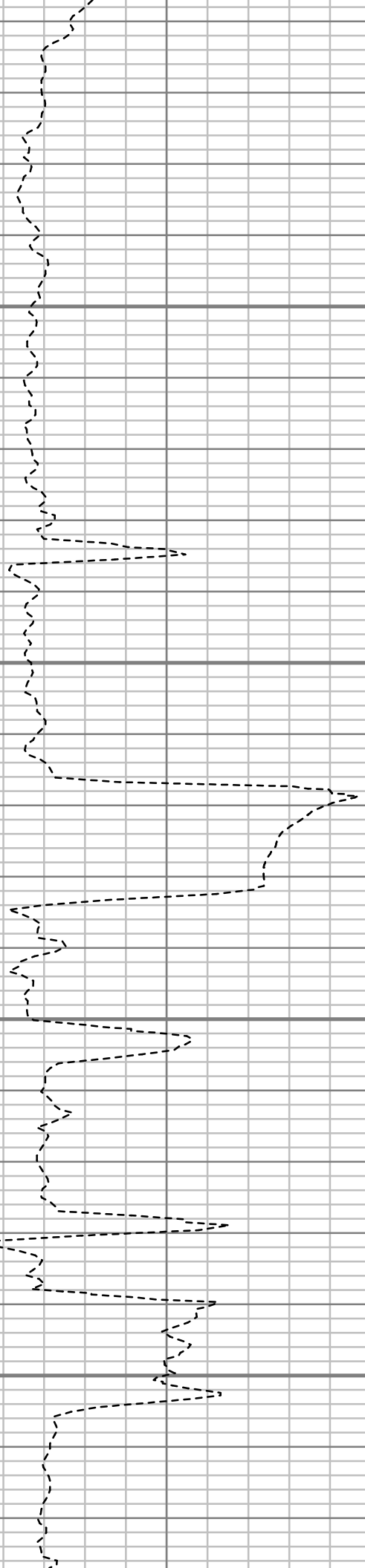


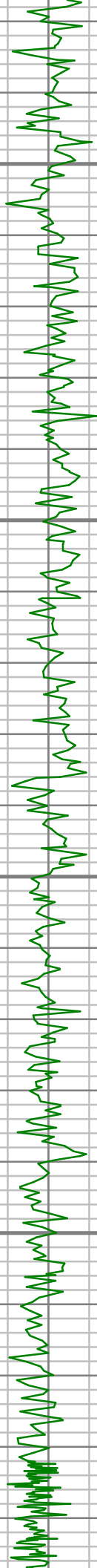
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3500



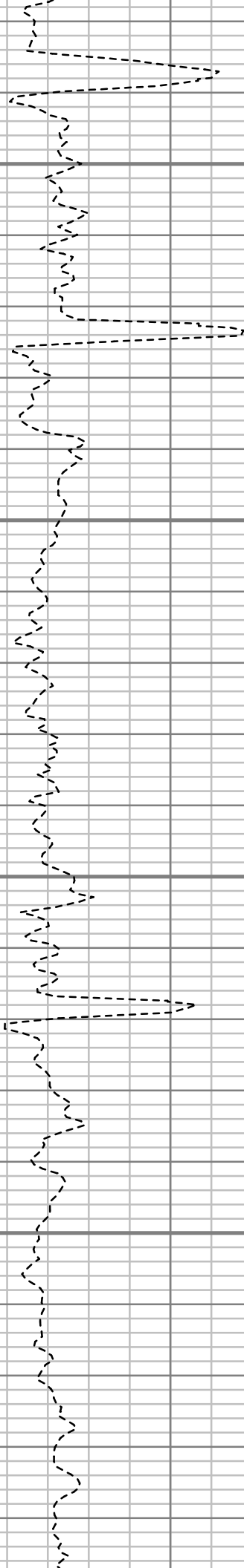


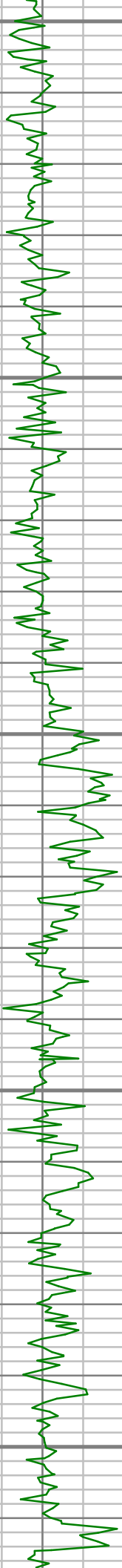
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3700





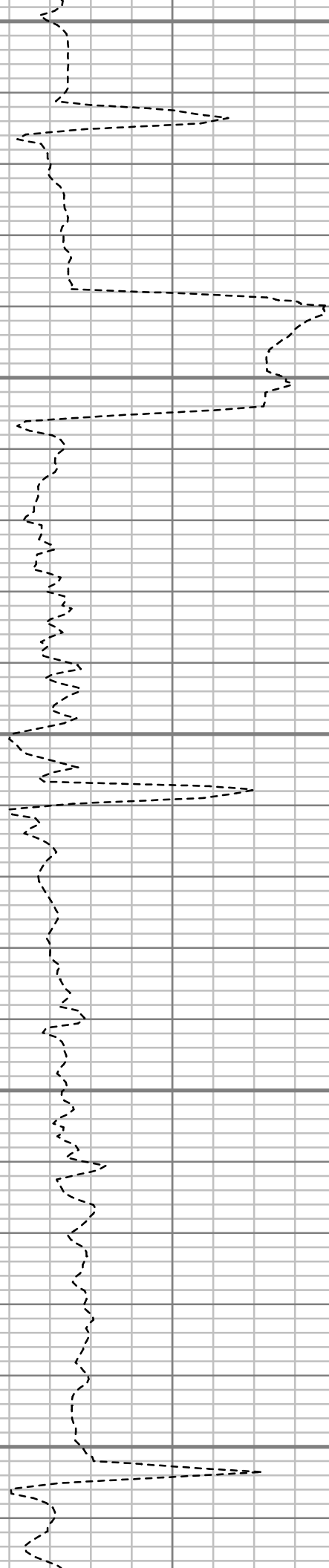
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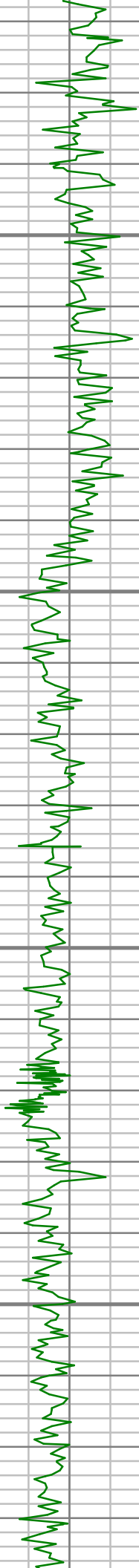
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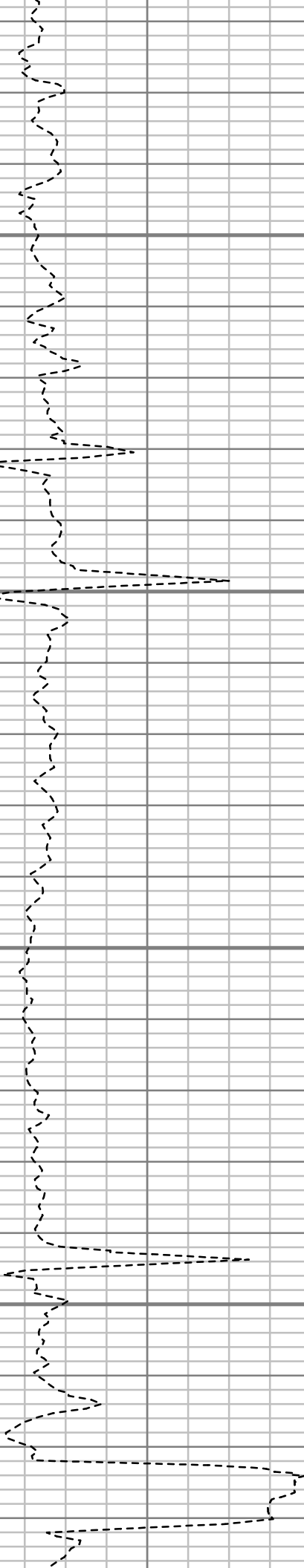


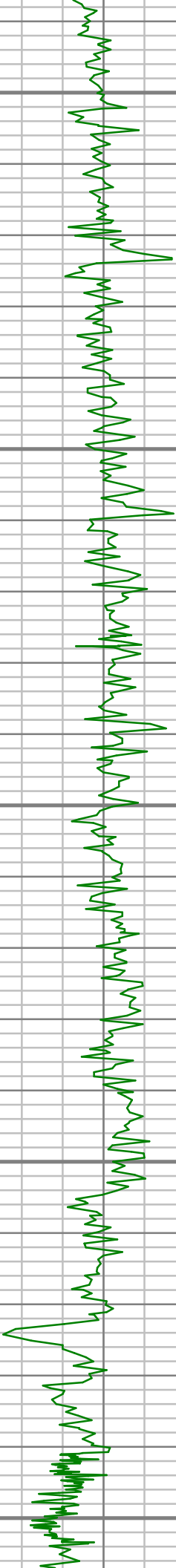
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4050

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4150





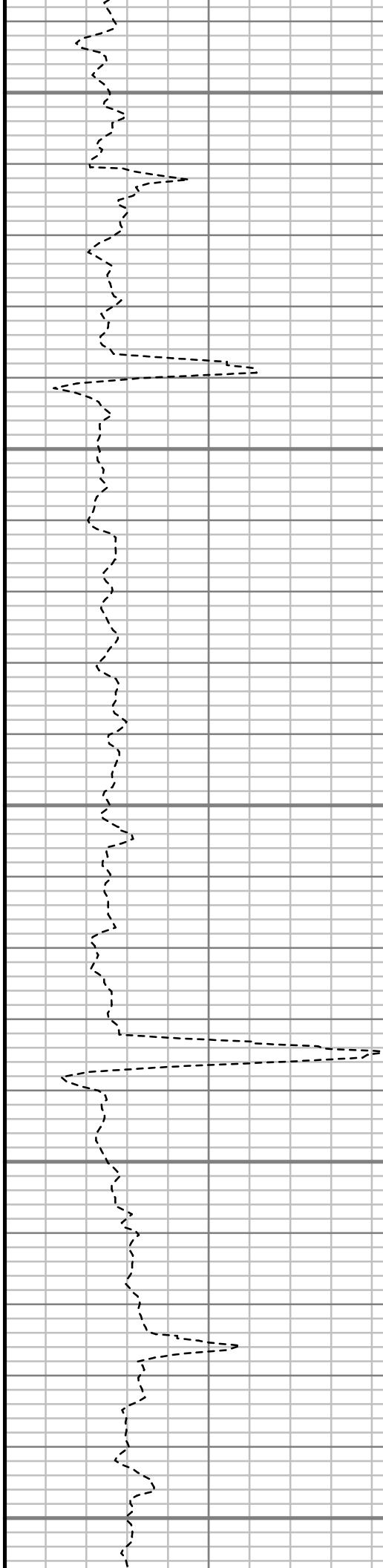
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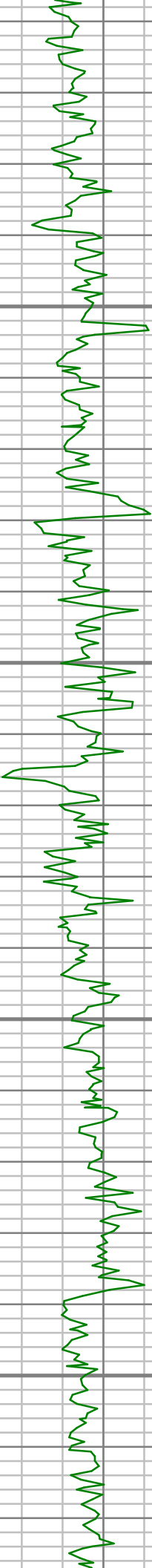
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4400



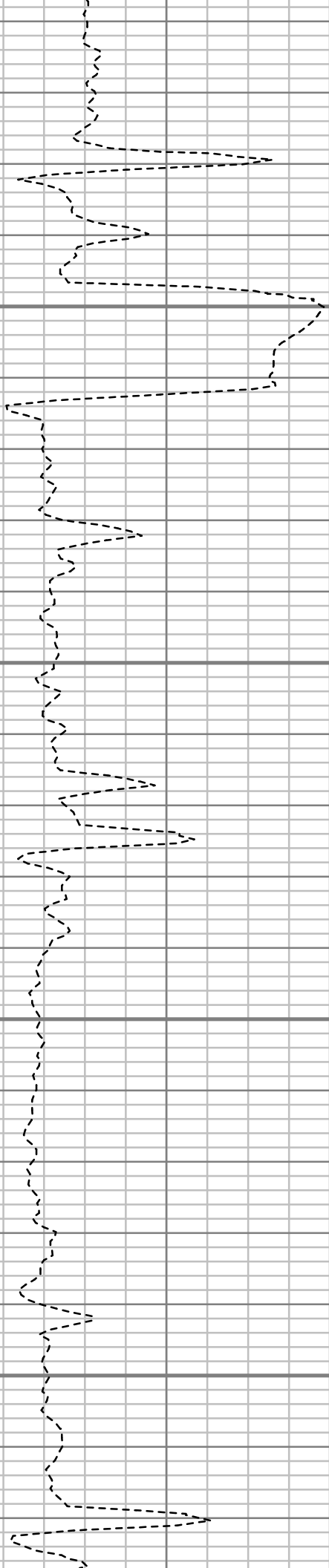


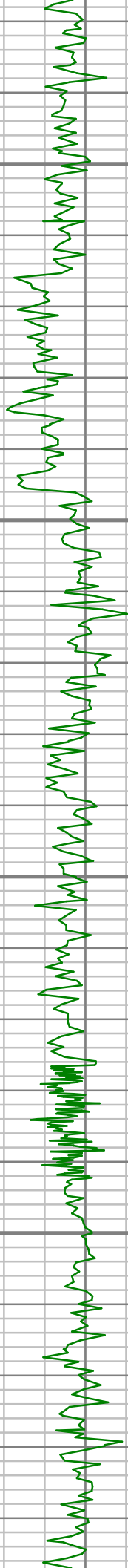
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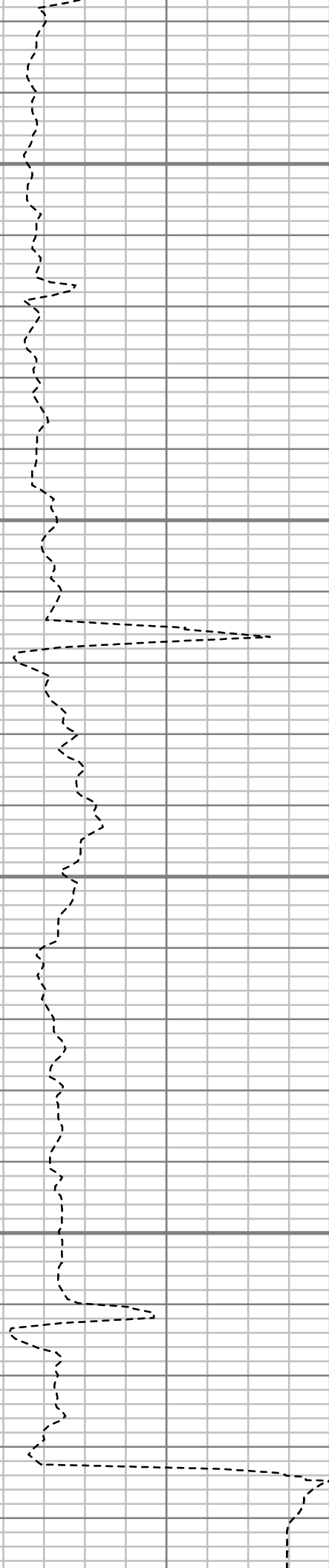


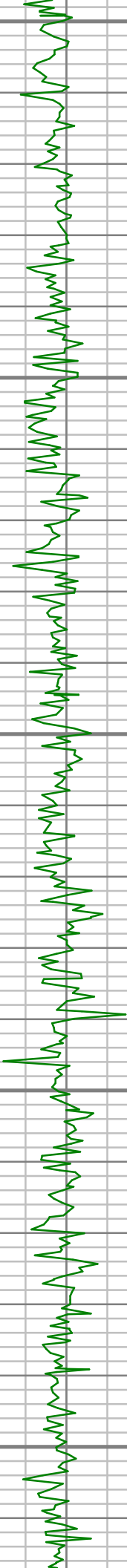
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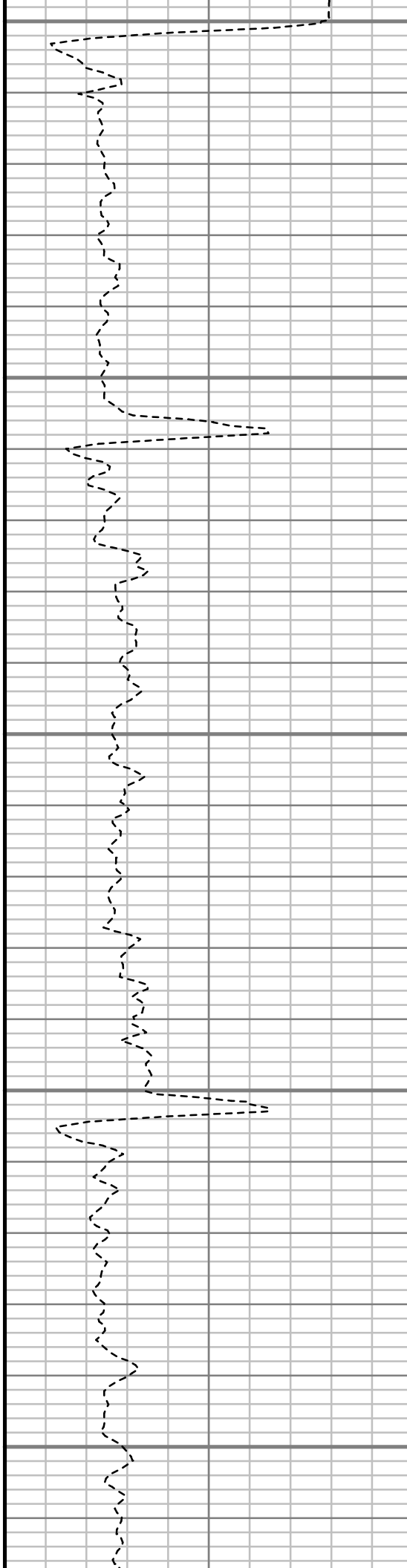
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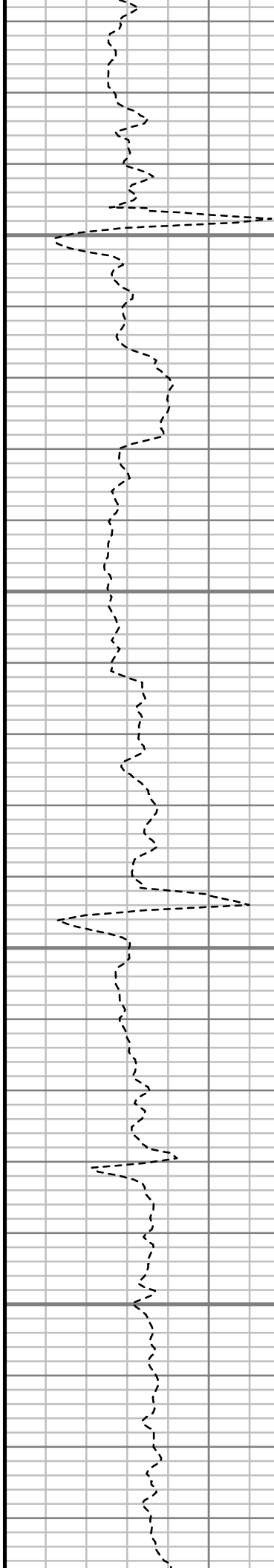


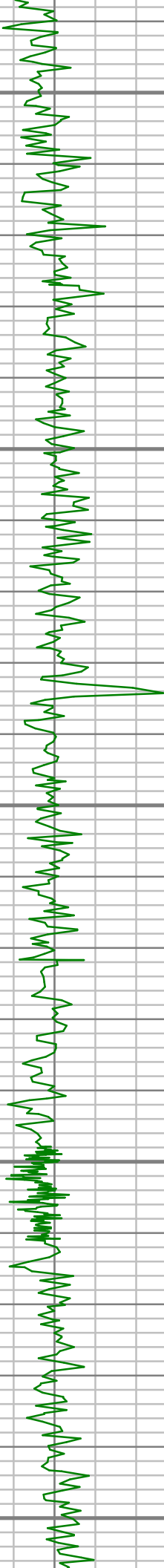
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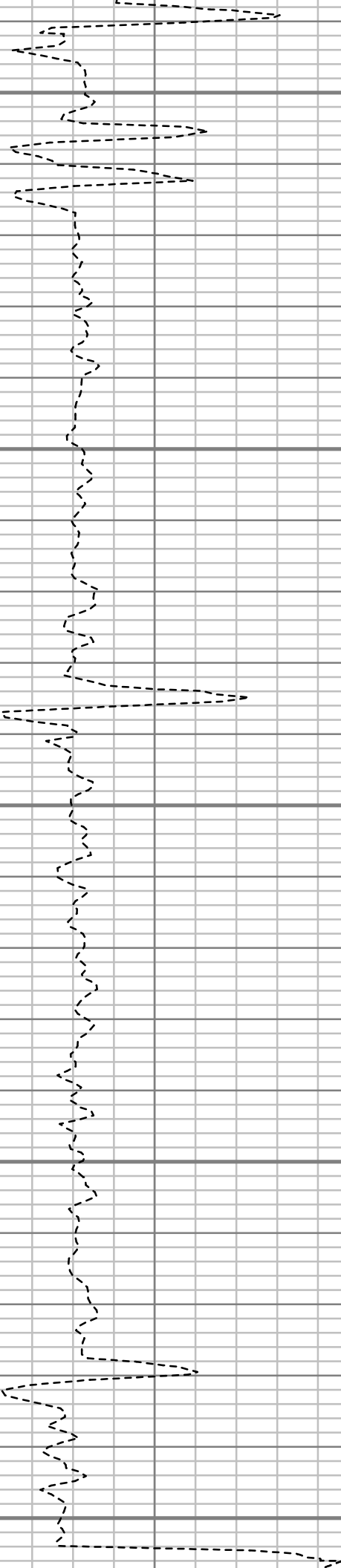
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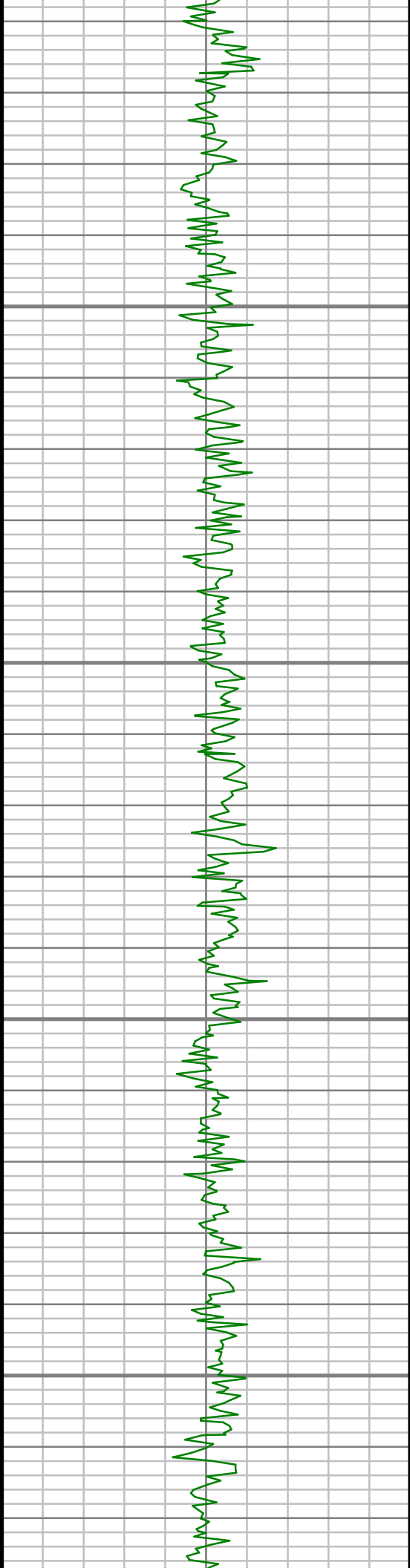
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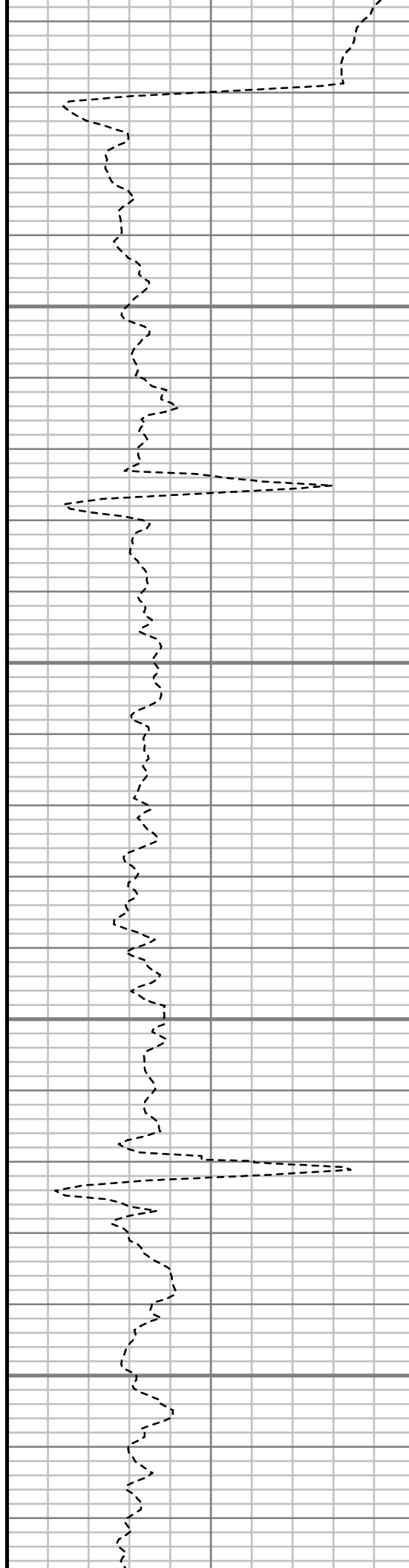


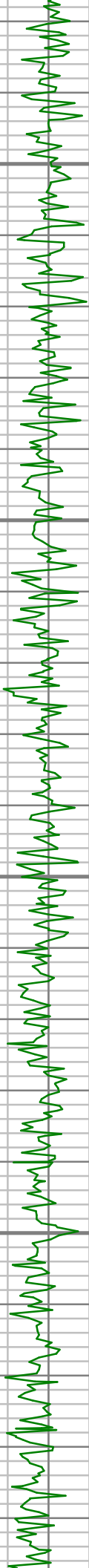
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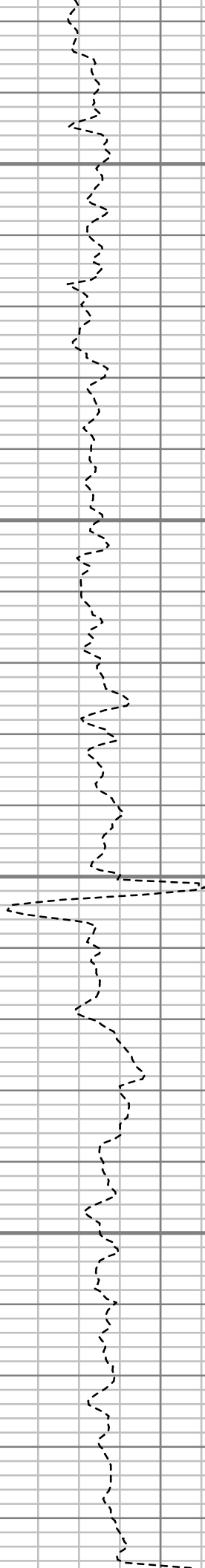


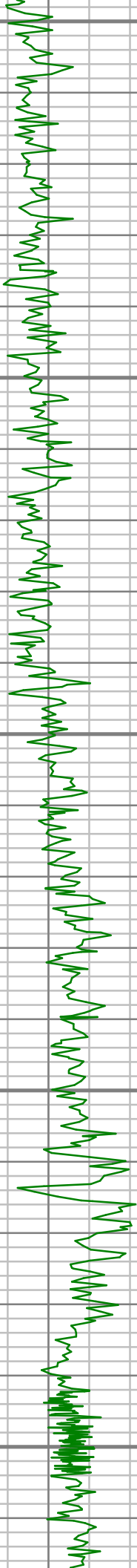
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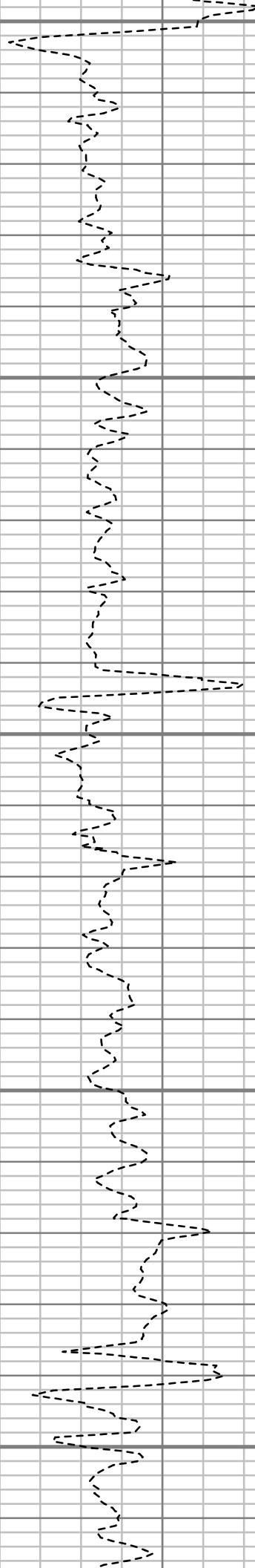
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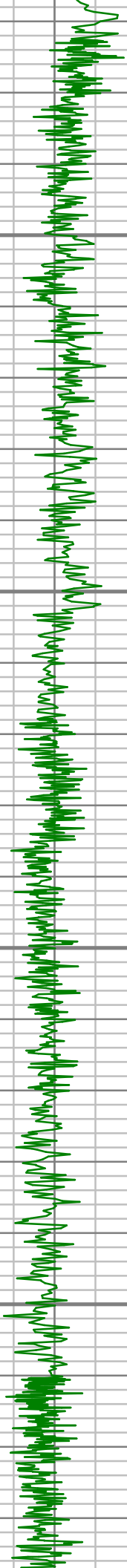
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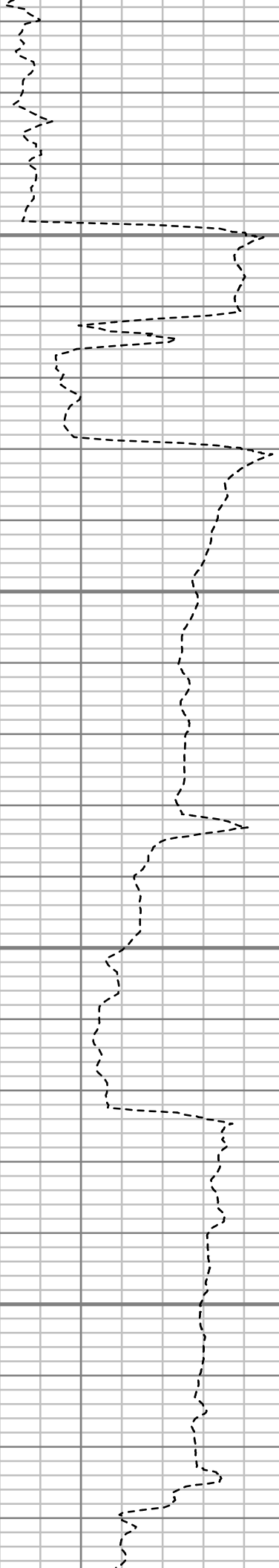


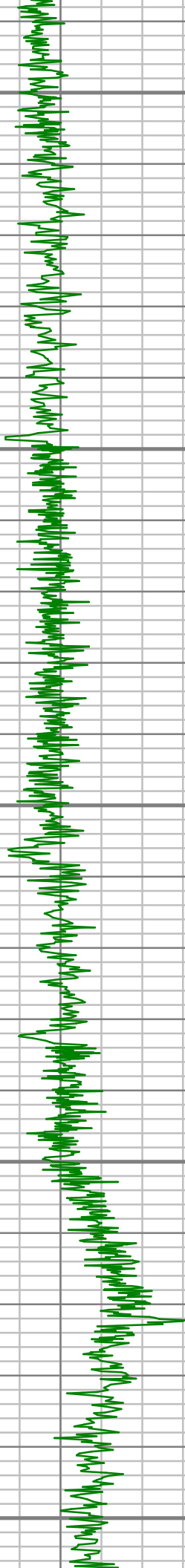
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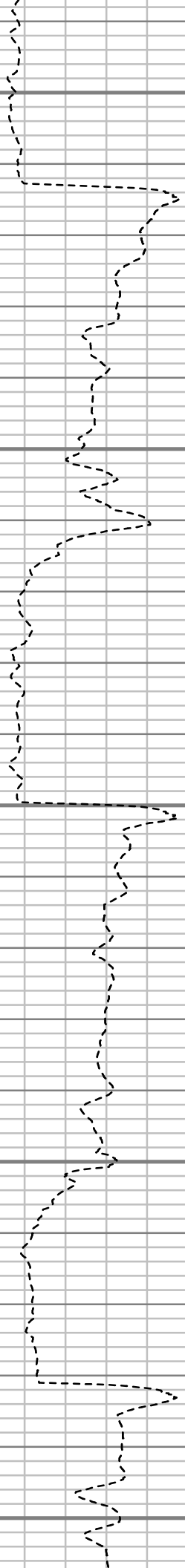
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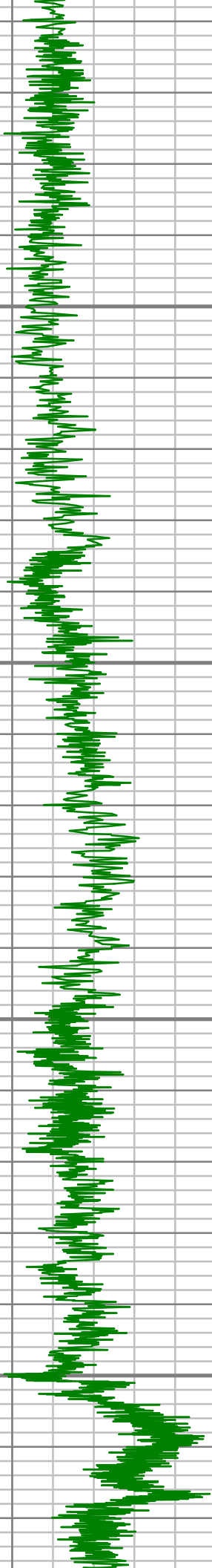
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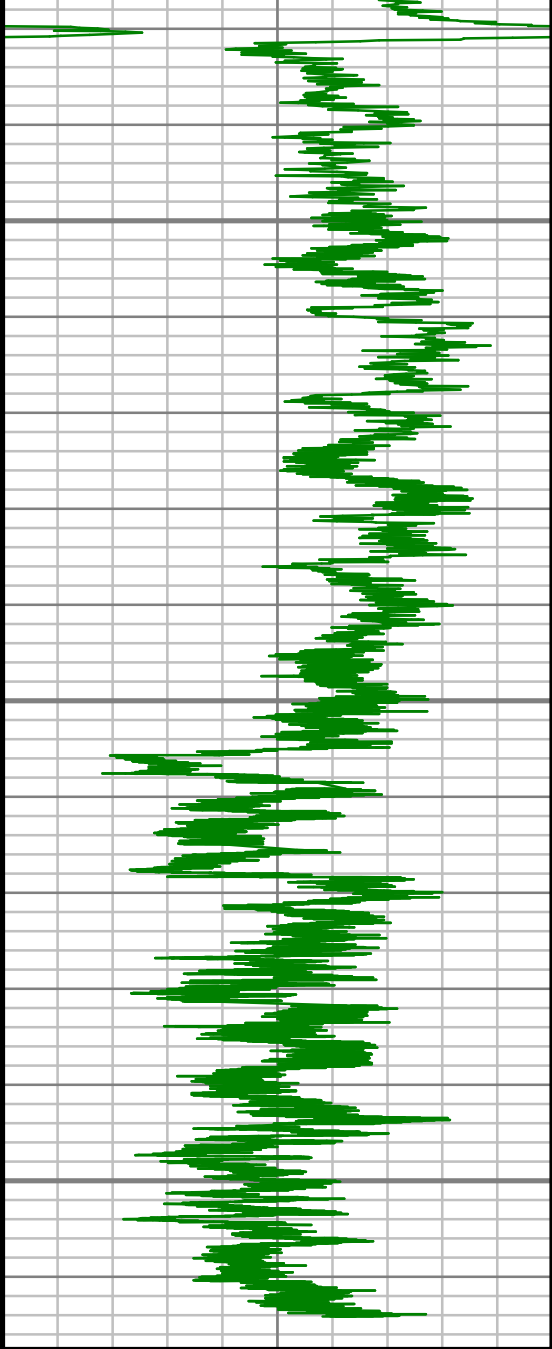
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6700

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6800





Gamma Ray (GR)

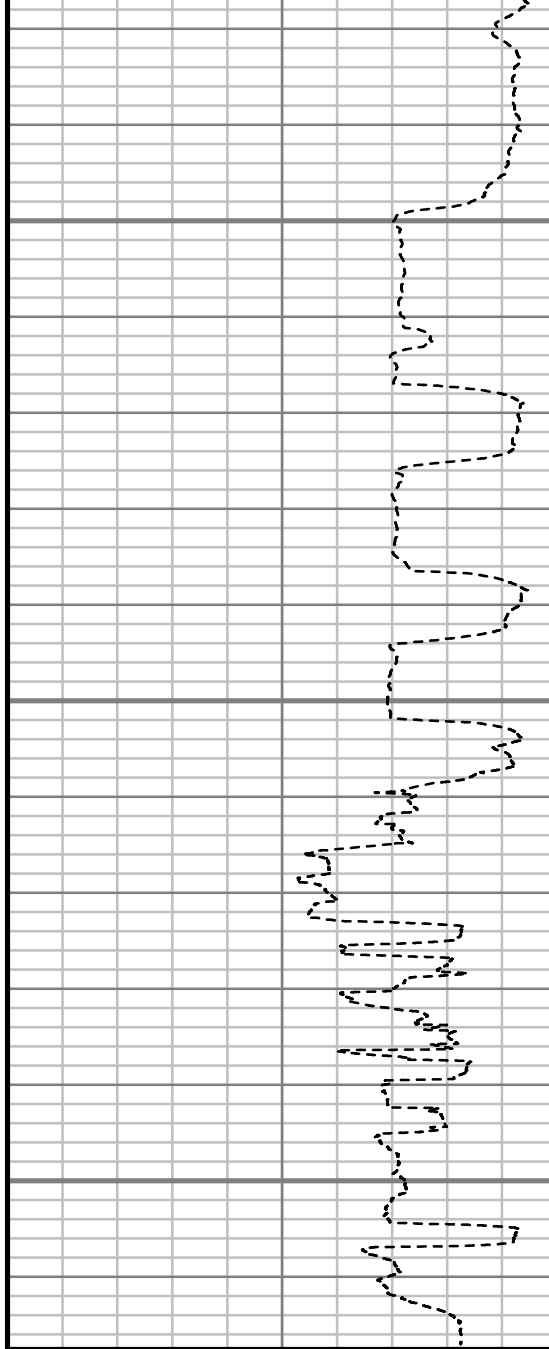
0 Unit = aapi 150

6850

6900

6950

TRUE VERTICAL DEPTH
1,240 (ft)



Rate of Penetration (ROP)

600 Unit = ft/hr 0

Comments



MWD Survey Report

Well Location	NEWNAM
Well Name	NEWNAM 2K-32H-C264
Survey Date	1/31/2015
Latitude	40°6'5.274"N
Longitude	104°34'42.064"W
Btotal	52493 nT
Dip	66.71 deg
Magnetic Declination	8.36 deg
North Reference	True North
Grid Correction	None
Depth Reference	RKB (13.00 ft)
Calculation Method	Minimum Curvature
Section (VS) Ref	0.00N (ft), 0.00E (ft), 180.00Azim (deg)
Operator(s)	J. PARISEE, M. SMITH

Well Notes

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Direction	Closure Distance	DLS
ft	deg	deg	ft	ft	ft	ft	deg	ft	"/100ft
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Invalid
100.00	0.35	132.85	100.00	0.21	-0.21	0.22	132.85	0.31	0.35
200.00	0.85	73.01	199.99	0.20	-0.20	1.16	99.74	1.17	0.74
300.00	3.10	55.19	299.93	-1.56	1.56	4.09	69.09	4.38	2.31
400.00	4.92	66.64	399.68	-4.81	4.81	10.24	64.87	11.32	1.98
500.00	6.10	73.19	499.22	-8.04	8.04	19.27	67.34	20.88	1.34
600.00	7.83	79.15	598.48	-10.86	10.86	31.04	70.72	32.89	1.87
700.00	10.29	79.19	697.22	-13.82	13.82	46.51	73.45	48.52	2.46
800.00	10.76	75.17	795.54	-17.88	17.88	64.31	74.46	66.75	0.87
900.00	10.06	70.71	893.90	-23.16	23.16	81.58	74.15	84.80	1.07
1000.00	9.31	67.10	992.47	-29.19	29.19	97.27	73.29	101.56	0.96
1060.00	9.20	64.44	1051.69	-33.15	33.15	106.07	72.64	111.13	0.74
1272.00	10.64	64.00	1260.51	-49.05	49.05	138.96	70.56	147.36	0.68
1458.00	10.39	62.73	1443.39	-64.27	64.27	169.31	69.21	181.10	0.18
1649.00	10.71	61.45	1631.16	-80.64	80.64	200.21	68.06	215.84	0.20
1839.00	11.11	59.24	1817.73	-98.44	98.44	231.44	66.96	251.51	0.31
2030.00	10.49	62.67	2005.34	-115.84	115.84	262.70	66.21	287.11	0.47
2220.00	10.19	61.57	2192.26	-131.78	131.78	292.85	65.77	321.13	0.19
2411.00	8.27	74.71	2380.80	-143.45	143.45	320.97	65.92	351.56	1.49

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Direction	Closure Distance	DLS
ft	deg	deg	ft	ft	ft	ft	deg	ft	°/100ft
2602.00	9.83	68.09	2569.42	-153.16	153.16	349.36	66.33	381.46	0.98
2792.00	9.03	71.02	2756.85	-164.06	164.06	378.51	66.57	412.53	0.49
2983.00	9.71	71.59	2945.30	-174.02	174.02	407.95	66.90	443.52	0.36
3173.00	11.12	66.48	3132.17	-186.39	186.39	439.95	67.04	477.80	0.89
3364.00	9.50	66.59	3320.08	-200.00	200.00	471.30	67.01	511.98	0.84
3554.00	9.51	58.21	3507.48	-214.50	214.50	499.03	66.74	543.18	0.73
3744.00	6.52	57.42	3695.61	-228.57	228.57	521.46	66.33	569.35	1.57
3935.00	6.20	76.71	3885.46	-236.77	236.77	540.62	66.35	590.20	1.12
4125.00	4.52	84.79	4074.62	-239.81	239.81	558.05	66.75	607.40	0.97
4316.00	3.16	74.00	4265.19	-241.95	241.95	570.61	67.02	619.79	0.80
4506.00	1.22	71.28	4455.04	-244.04	244.04	577.56	67.09	627.00	1.03
4697.00	1.41	24.92	4646.00	-246.82	246.82	580.47	66.96	630.77	0.55
4887.00	0.50	280.78	4835.98	-249.10	249.10	580.64	66.78	631.81	0.85
5078.00	0.98	302.87	5026.96	-250.14	250.14	578.45	66.61	630.21	0.28
5268.00	1.54	314.23	5216.92	-252.79	252.79	575.26	66.28	628.36	0.32
5458.00	1.99	351.47	5406.83	-257.83	257.83	572.95	65.77	628.29	0.63
5648.00	0.14	89.60	5596.79	-261.09	261.09	572.70	65.49	629.40	1.06
5838.00	0.13	270.13	5786.79	-261.09	261.09	572.71	65.49	629.42	0.15

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Direction	Closure Distance	DLS
ft	deg	deg	ft	ft	ft	ft	deg	ft	°/100ft
6028.00	0.41	271.12	5976.79	-261.11	261.11	571.81	65.46	628.60	0.14
6218.00	0.48	132.36	6166.79	-260.59	260.59	571.72	65.50	628.30	0.44
6313.00	9.42	164.10	6261.34	-252.83	252.83	574.14	66.23	627.35	9.49
6408.00	17.61	163.59	6353.63	-231.54	231.54	580.34	68.25	624.83	8.62
6503.00	24.34	167.99	6442.29	-198.57	198.57	588.49	71.35	621.08	7.27
6598.00	29.70	176.59	6526.93	-155.88	155.88	593.97	75.29	614.08	6.97
6693.00	36.75	179.80	6606.36	-103.90	103.90	595.47	80.10	604.46	7.66
6789.00	44.57	180.96	6679.12	-41.40	41.40	595.00	86.02	596.44	8.18
6884.00	52.69	183.26	6741.86	29.77	-29.77	592.28	92.88	593.03	8.74
6979.00	58.80	181.07	6795.31	108.20	-108.20	589.37	100.40	599.22	6.71
7075.00	67.08	181.17	6838.95	193.60	-193.60	587.70	108.23	618.77	8.63
7170.00	73.44	181.77	6871.02	282.94	-282.94	585.40	115.80	650.19	6.71
7265.00	79.56	180.86	6893.18	375.24	-375.24	583.29	122.75	693.57	6.51
7355.00	85.16	180.11	6905.14	464.41	-464.41	582.54	128.56	745.00	6.28
7440.00	90.30	179.43	6908.50	549.31	-549.31	582.88	133.30	800.93	6.10
7533.00	90.03	179.73	6908.23	642.31	-642.31	583.56	137.74	867.82	0.43
7626.00	88.86	180.76	6909.13	735.30	-735.30	583.16	141.58	938.48	1.68
7719.00	88.99	182.11	6910.87	828.25	-828.25	580.84	144.96	1011.62	1.45

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Direction	Closure Distance	DLS
ft	deg	deg	ft	ft	ft	ft	deg	ft	°/100ft
7812.00	89.03	182.10	6912.48	921.17	-921.17	577.42	147.92	1087.19	0.04
7907.00	89.73	181.37	6913.51	1016.12	-1016.12	574.54	150.52	1167.31	1.07
8002.00	89.87	182.76	6913.84	1111.06	-1111.06	571.12	152.80	1249.25	1.46
8097.00	89.23	181.45	6914.59	1205.99	-1205.99	567.64	154.79	1332.90	1.53
8192.00	90.87	182.15	6914.51	1300.94	-1300.94	564.66	156.54	1418.20	1.88
8288.00	90.03	181.27	6913.75	1396.89	-1396.89	561.80	158.09	1505.63	1.26
8382.00	89.53	180.44	6914.11	1490.88	-1490.88	560.39	159.40	1592.72	1.03
8477.00	88.79	179.39	6915.50	1585.87	-1585.87	560.53	160.53	1682.01	1.36
8572.00	88.49	179.10	6917.76	1680.83	-1680.83	561.78	161.52	1772.23	0.44
8668.00	87.55	178.62	6921.08	1776.75	-1776.75	563.69	162.40	1864.03	1.10
8763.00	88.29	179.87	6924.53	1871.68	-1871.68	564.94	163.20	1955.08	1.53
8858.00	88.22	180.43	6927.43	1966.64	-1966.64	564.69	163.98	2046.10	0.59
8954.00	89.43	180.49	6929.39	2062.61	-2062.61	563.92	164.71	2138.31	1.26
9049.00	89.43	179.97	6930.34	2157.61	-2157.61	563.54	165.36	2229.99	0.55
9144.00	89.53	180.07	6931.21	2252.60	-2252.60	563.51	165.96	2322.02	0.15
9239.00	91.58	180.16	6930.29	2347.59	-2347.59	563.32	166.51	2414.23	2.16
9335.00	90.71	180.62	6928.38	2443.57	-2443.57	562.67	167.03	2507.51	1.03
9430.00	89.83	178.41	6927.93	2538.56	-2538.56	563.48	167.49	2600.34	2.50

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Direction	Closure Distance	DLS
ft	deg	deg	ft	ft	ft	ft	deg	ft	°/100ft
9525.00	88.22	179.18	6929.54	2633.52	-2633.52	565.47	167.88	2693.54	1.88
9621.00	89.19	180.28	6931.71	2729.49	-2729.49	565.92	168.29	2787.54	1.53
9716.00	89.33	179.71	6932.94	2824.48	-2824.48	565.92	168.67	2880.62	0.62
9811.00	89.39	178.44	6934.00	2919.46	-2919.46	567.45	169.00	2974.10	1.34
9906.00	89.70	178.47	6934.75	3014.43	-3014.43	570.01	169.29	3067.85	0.32
10001.00	89.56	180.74	6935.36	3109.41	-3109.41	570.67	169.60	3161.35	2.39
10096.00	88.62	179.88	6936.87	3204.40	-3204.40	570.15	169.91	3254.73	1.34
10192.00	89.26	181.24	6938.65	3300.38	-3300.38	569.21	170.21	3349.10	1.56
10287.00	88.86	180.75	6940.21	3395.35	-3395.35	567.56	170.51	3442.46	0.67
10382.00	88.82	179.68	6942.13	3490.33	-3490.33	567.20	170.77	3536.11	1.12
10477.00	89.66	180.52	6943.39	3585.32	-3585.32	567.03	171.01	3629.88	1.25
10573.00	89.93	180.16	6943.73	3681.31	-3681.31	566.46	171.25	3724.64	0.47
10668.00	89.76	179.75	6943.98	3776.31	-3776.31	566.54	171.47	3818.57	0.47
10763.00	90.64	178.77	6943.64	3871.30	-3871.30	567.76	171.66	3912.72	1.38
10858.00	88.62	179.16	6944.25	3966.28	-3966.28	569.48	171.83	4006.95	2.16
10954.00	87.72	179.89	6947.32	4062.23	-4062.23	570.27	172.01	4102.06	1.20
11049.00	87.01	179.88	6951.69	4157.12	-4157.12	570.46	172.19	4196.08	0.75
11144.00	87.81	180.42	6955.97	4252.03	-4252.03	570.21	172.36	4290.09	1.02

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Direction	Closure Distance	DLS
ft	deg	deg	ft	ft	ft	ft	deg	ft	°/100ft
11240.00	87.61	180.74	6959.80	4347.95	-4347.95	569.23	172.54	4385.05	0.39
11325.00	87.05	180.79	6963.76	4432.85	-4432.85	568.10	172.70	4469.10	0.67

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Direction	Closure Distance	DLS
ft	deg	deg	ft	ft	ft	ft	deg	ft	°/100ft

5" = 100' FEET TVD