

# Bit Run Summary

Potassium	%	4.42									
<b>Environmental data</b>											
<b>GR</b>											
Mud weight	ppg	9.8									
Bit size	in	8.5									
<b>Resistivity</b>											
<b>Neutron porosity</b>											
Hole Size	in	N/A									
Mud weight	ppg	N/A									
Temperature	°C	N/A									
Mud salinity	ppk	N/A									
Formation salinity											
Recording rate 1	SEC	N/A									
Recording rate 2	SEC	N/A									
Filtering GR		3pt									
Filtering density		3pt									
Filtering Neutron		3pt									
Company representative		B. Davis	C. Stead	B. Steel							
Schlumberger D&M Personnel		R. Borjas	C. Skiba	M. Amarasena	M. Blacker	C. Cocks					

[illegible]

DOWNHOLE EQUIPMENT

6-3/4 in. PowerPulse\*  
MDC: V875  
MEC: 1281  
MDI: 1565  
MGR: 146-AA  
DHS: 8.0C03

D&I  
GR  
APWD

21.12  
20.47  
17.83

6-5/8 in. NM Pony DC  
S/N:ASQ60506

6-5/8 in. NM Float Sub  
S/N: ANA98-007

6-5/8 in. NM Roller Reamer  
S/N: GU2298

7 in. PowerPak\* Motor  
A700GT 7:8  
S/N: N7310  
1.15 deg. Bent Housing

8-1/2 in. Smith PDC Bit  
S616PX  
S/N: JW6578A

0.00

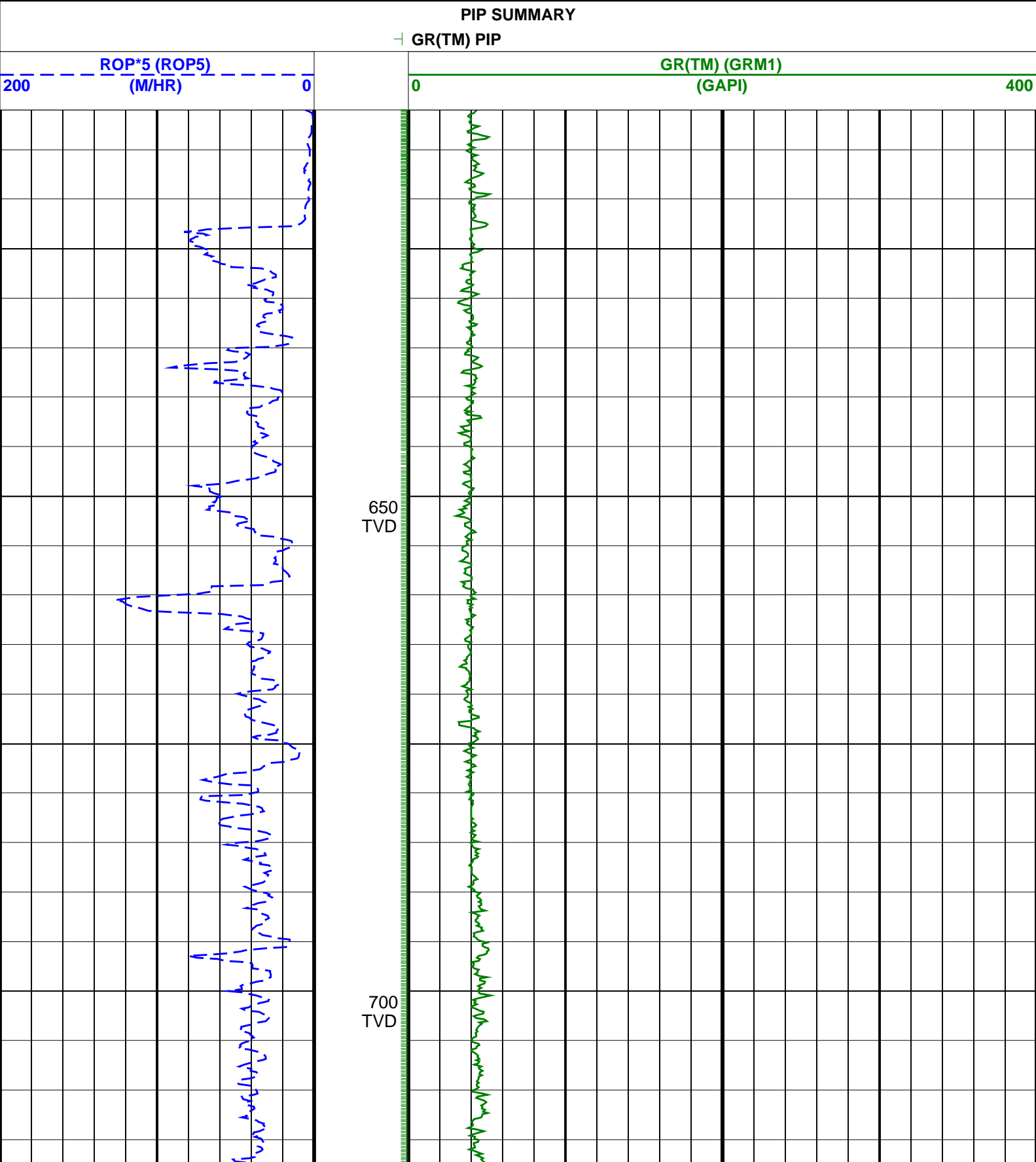
0.22

Maximum string diameter 8.50 in.  
All lengths in Meters

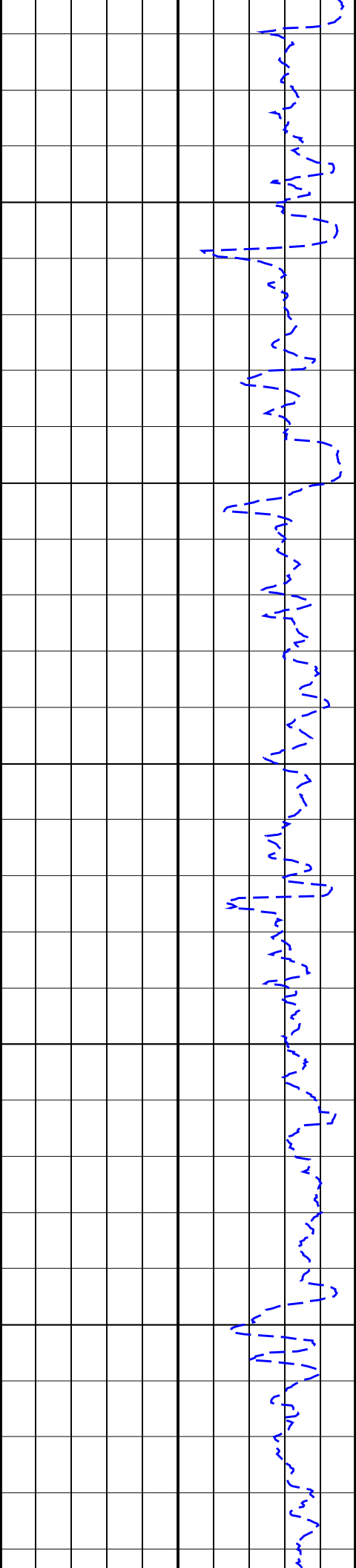
# HLA A2B RT GR 1:500 TVD

IDEAL Version: ID12\_OC\_01 <TVD> Vertical Scale: 1:500

Graphics File Created: 18-Jan-2007 14:07

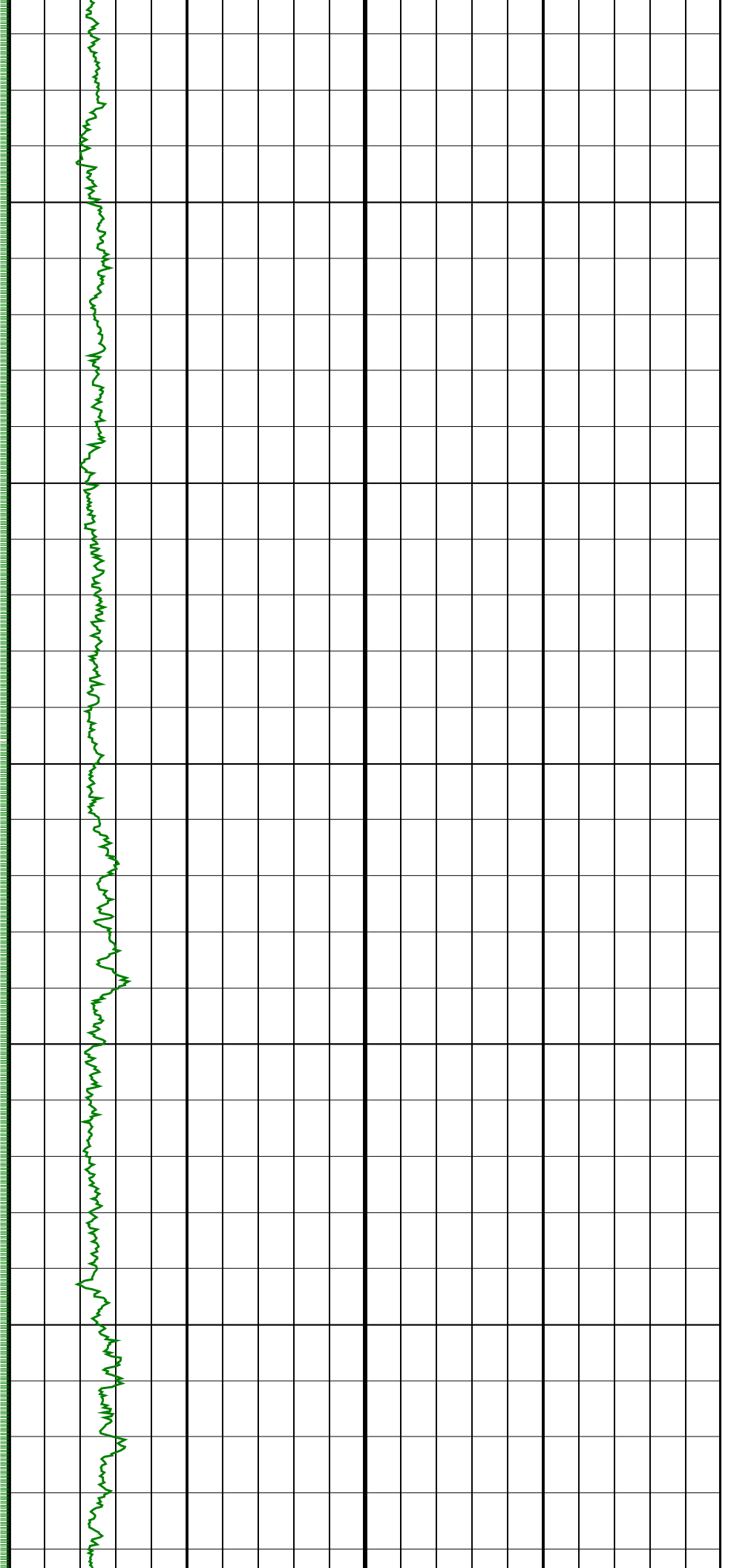


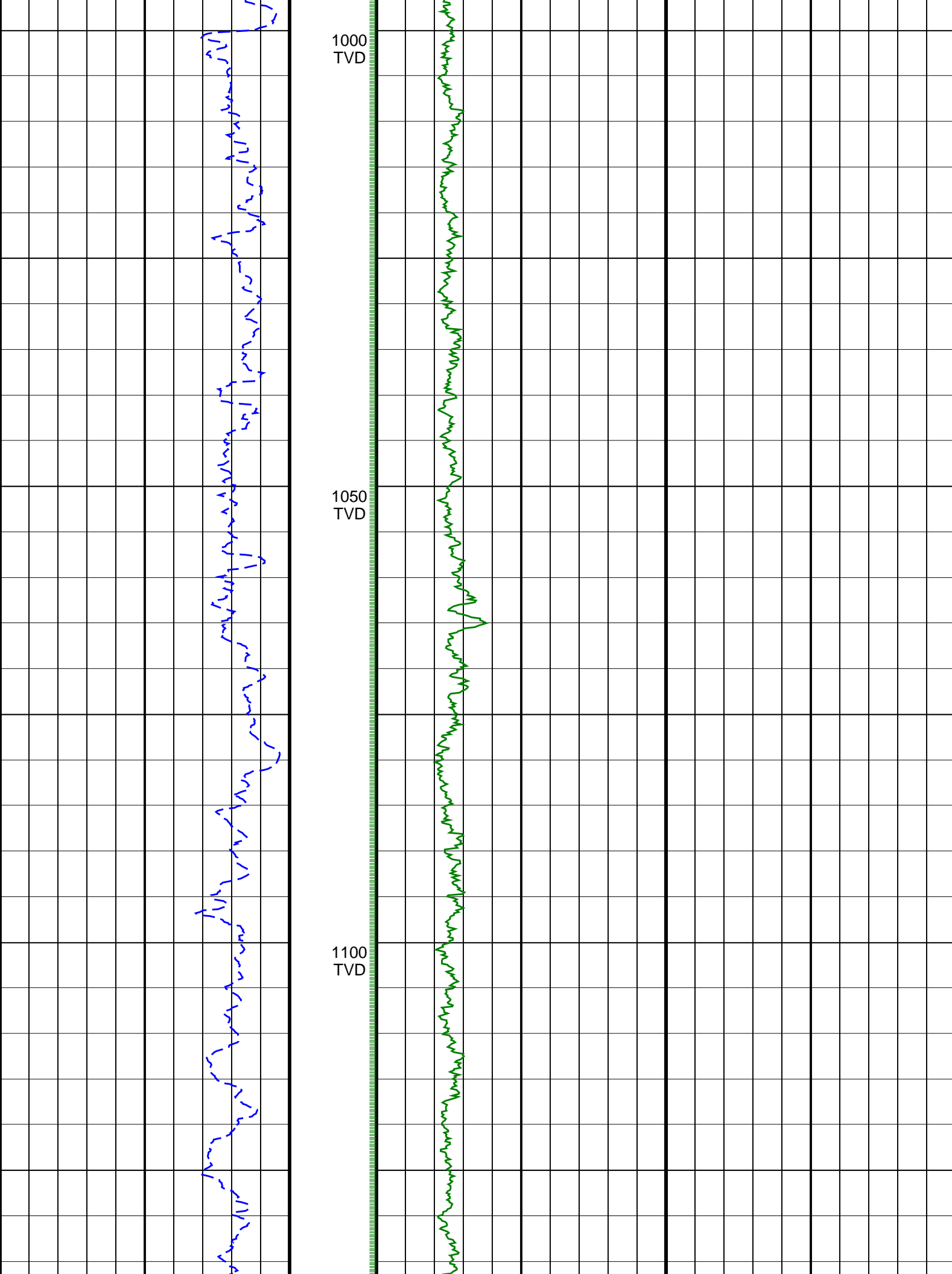


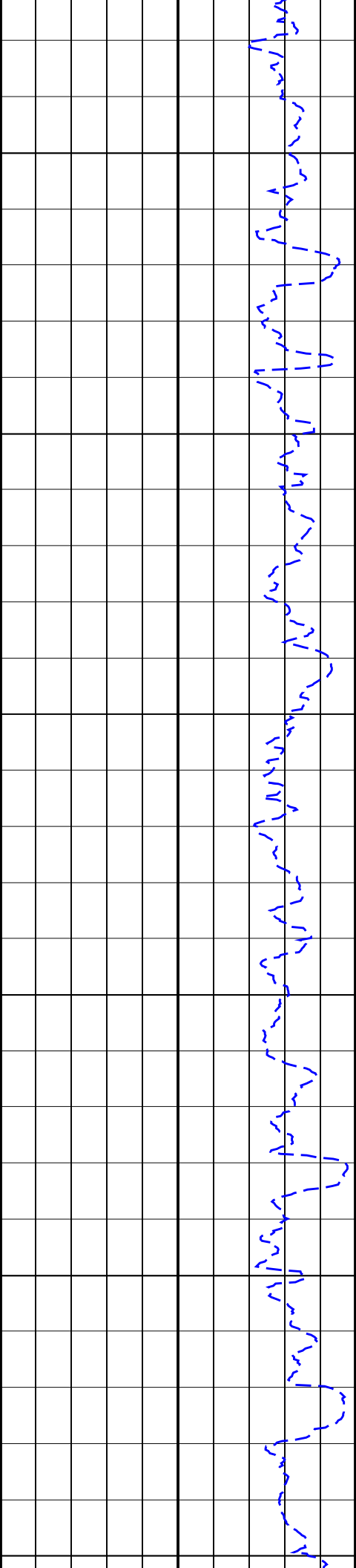


900  
TVD

950  
TVD



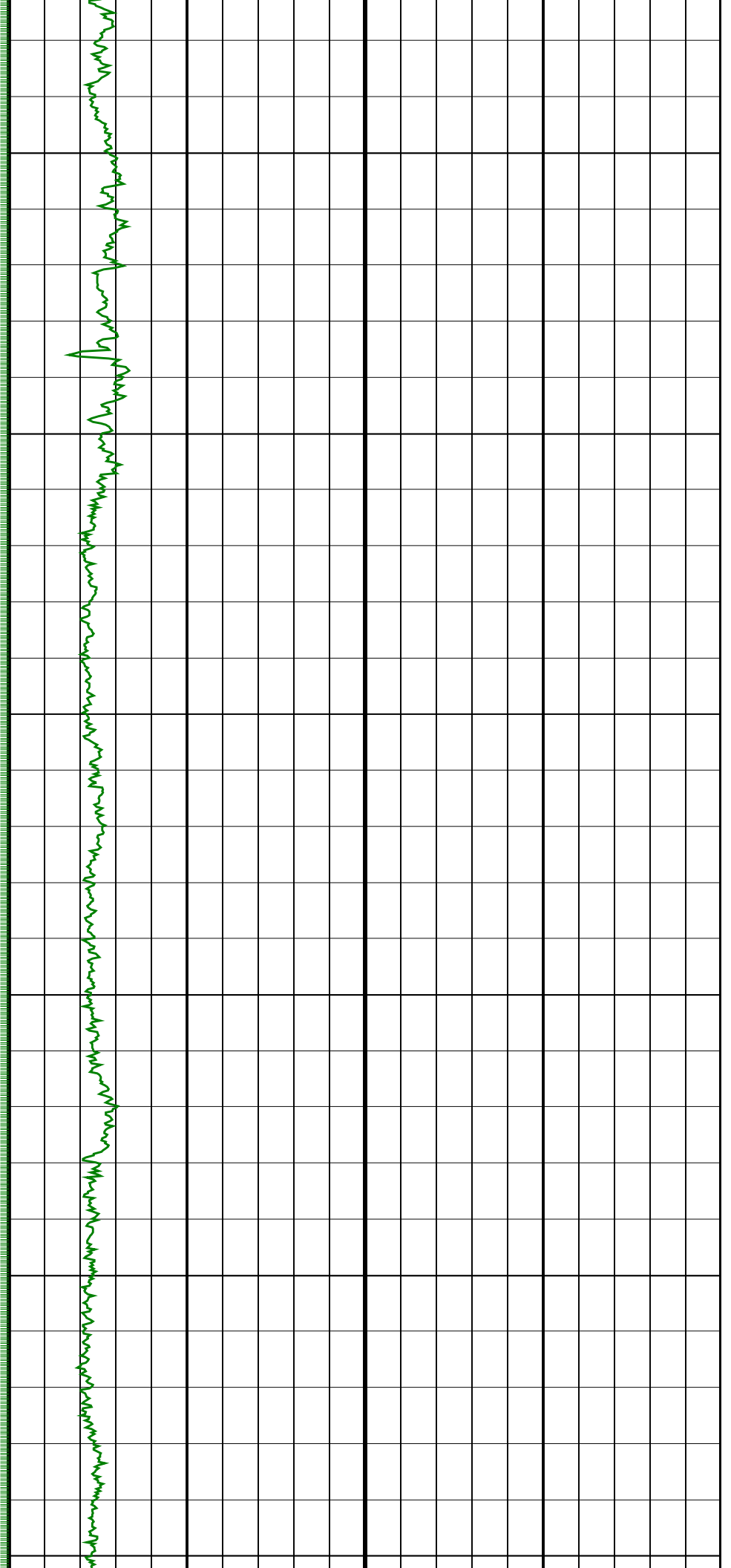




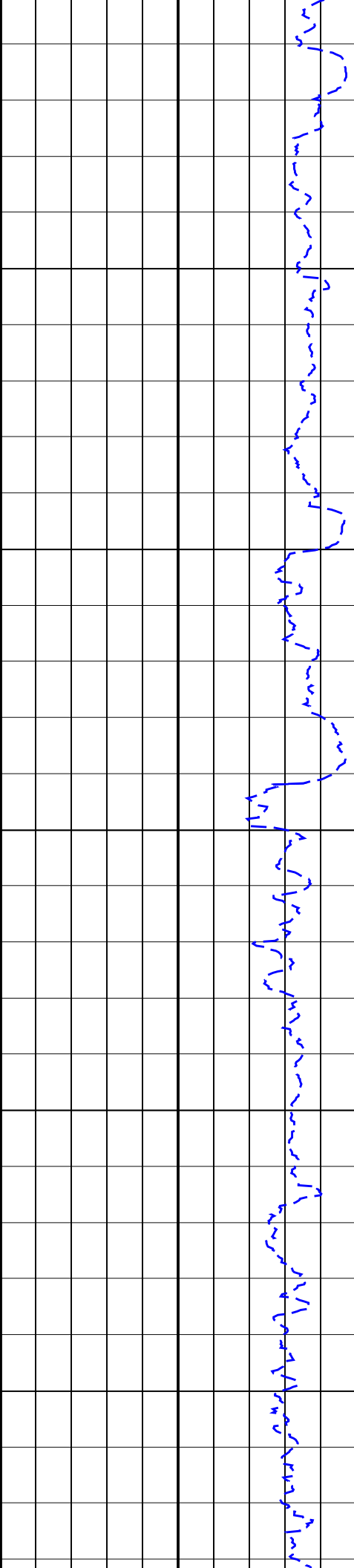
1150  
TVD

1200  
TVD

1250  
TVD



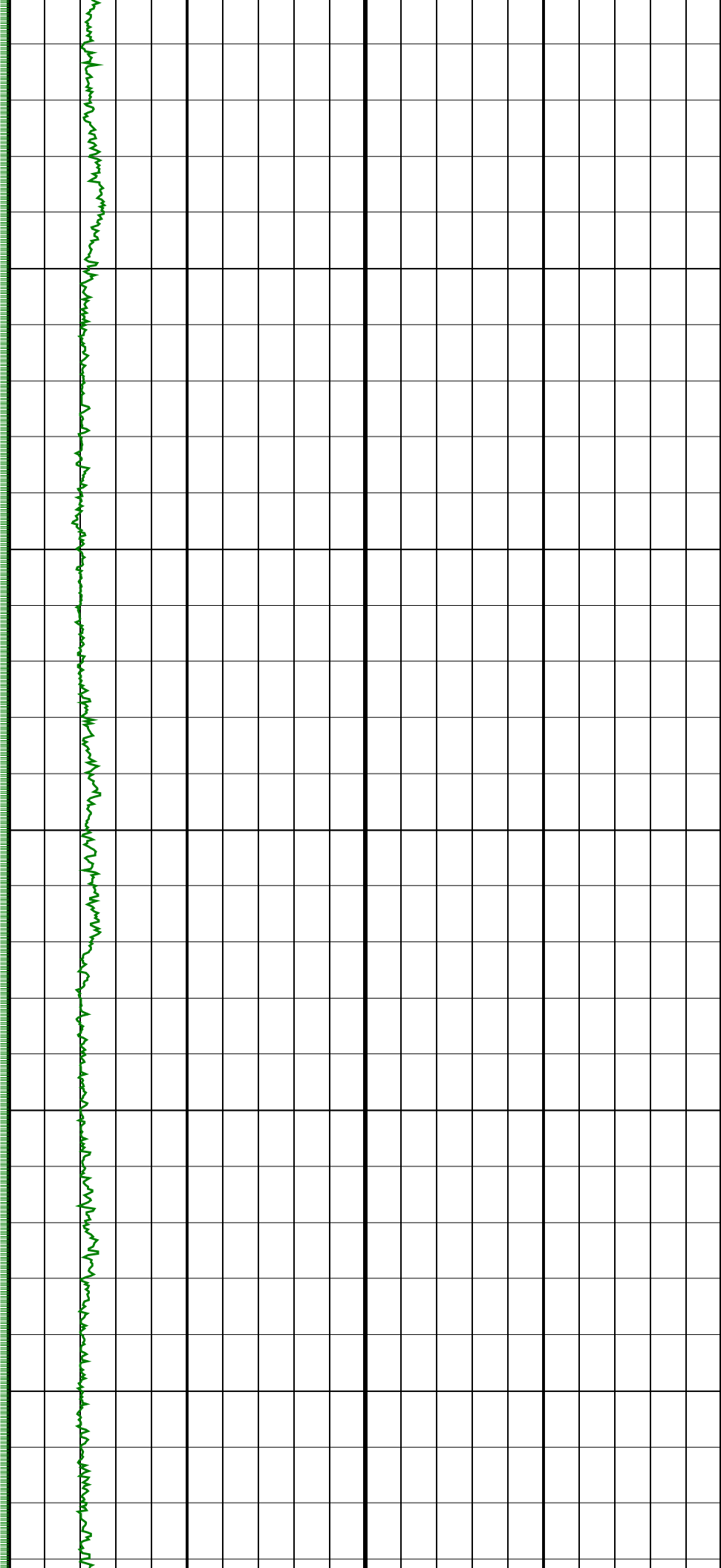


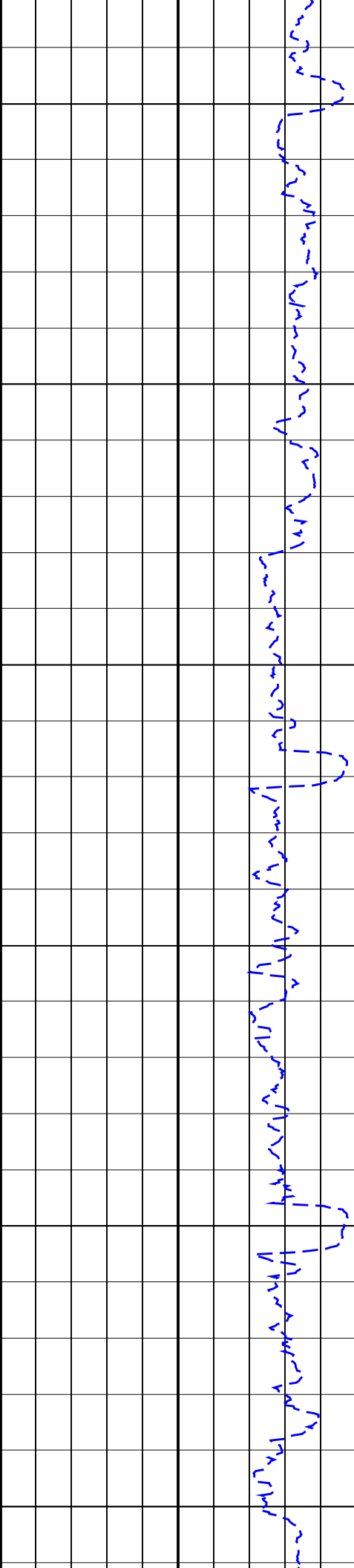


1300  
TVD

1350  
TVD

1400  
TVD

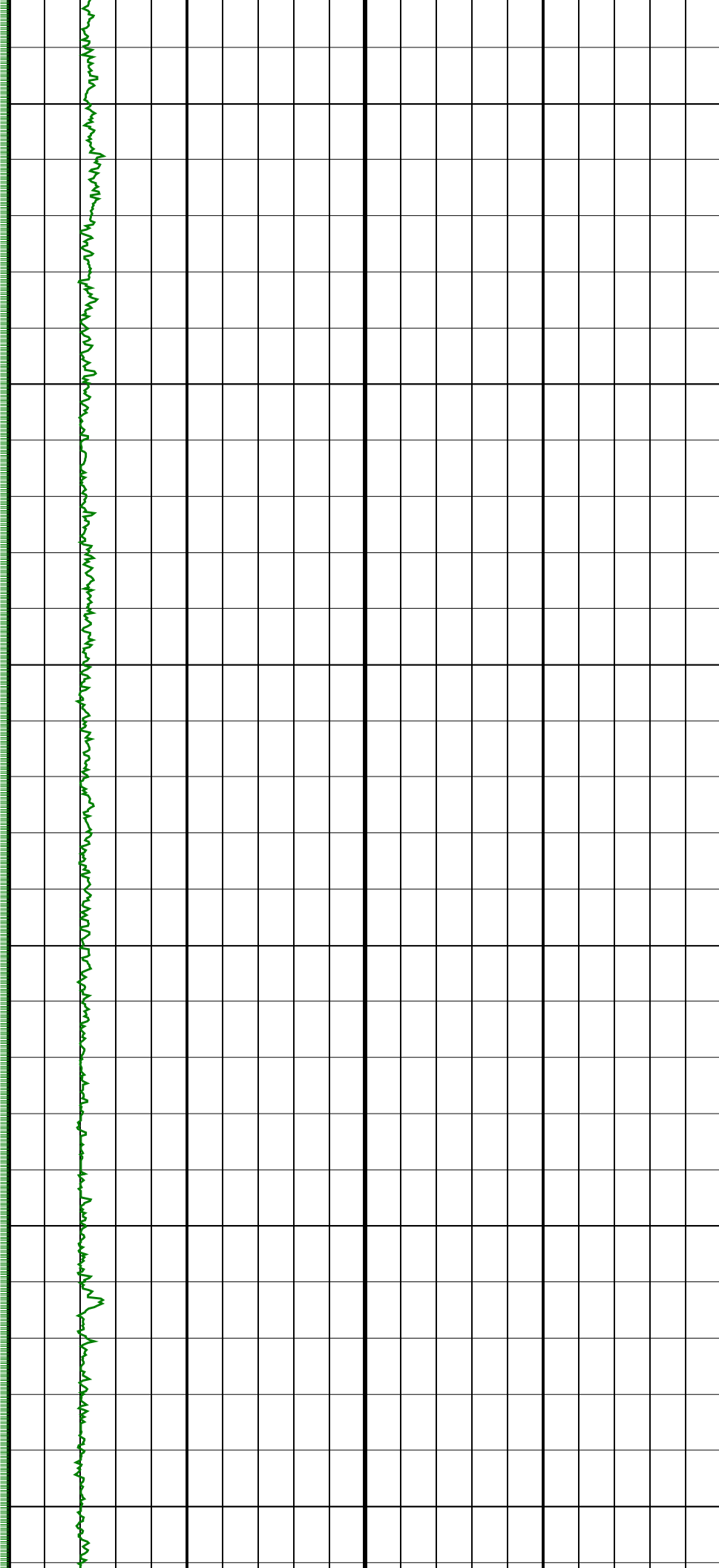


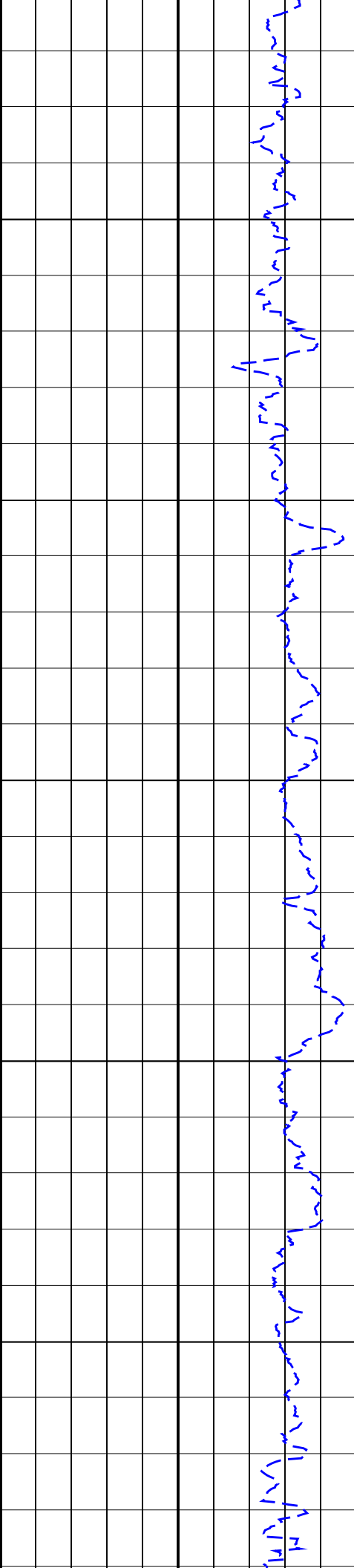


1450  
TVD

1500  
TVD

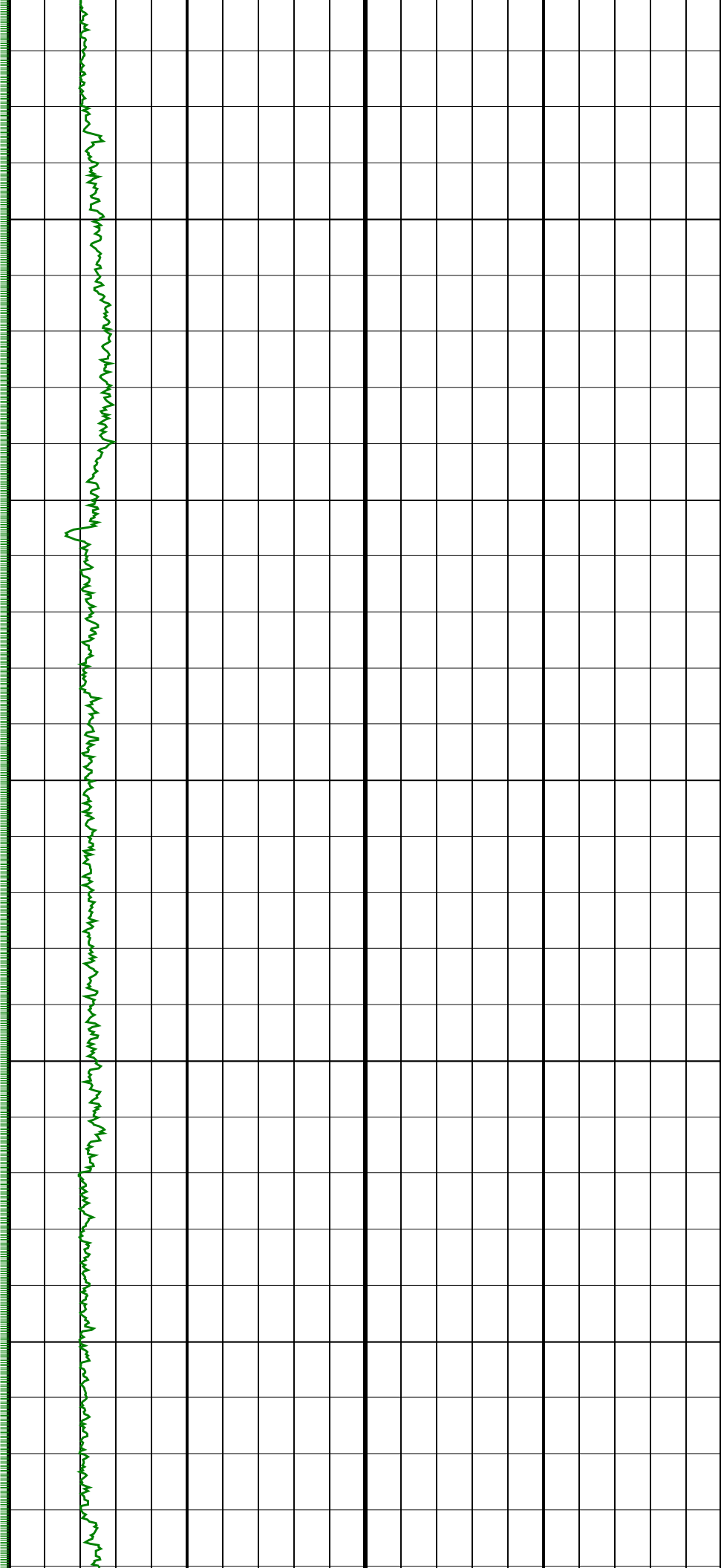
1550  
TVD

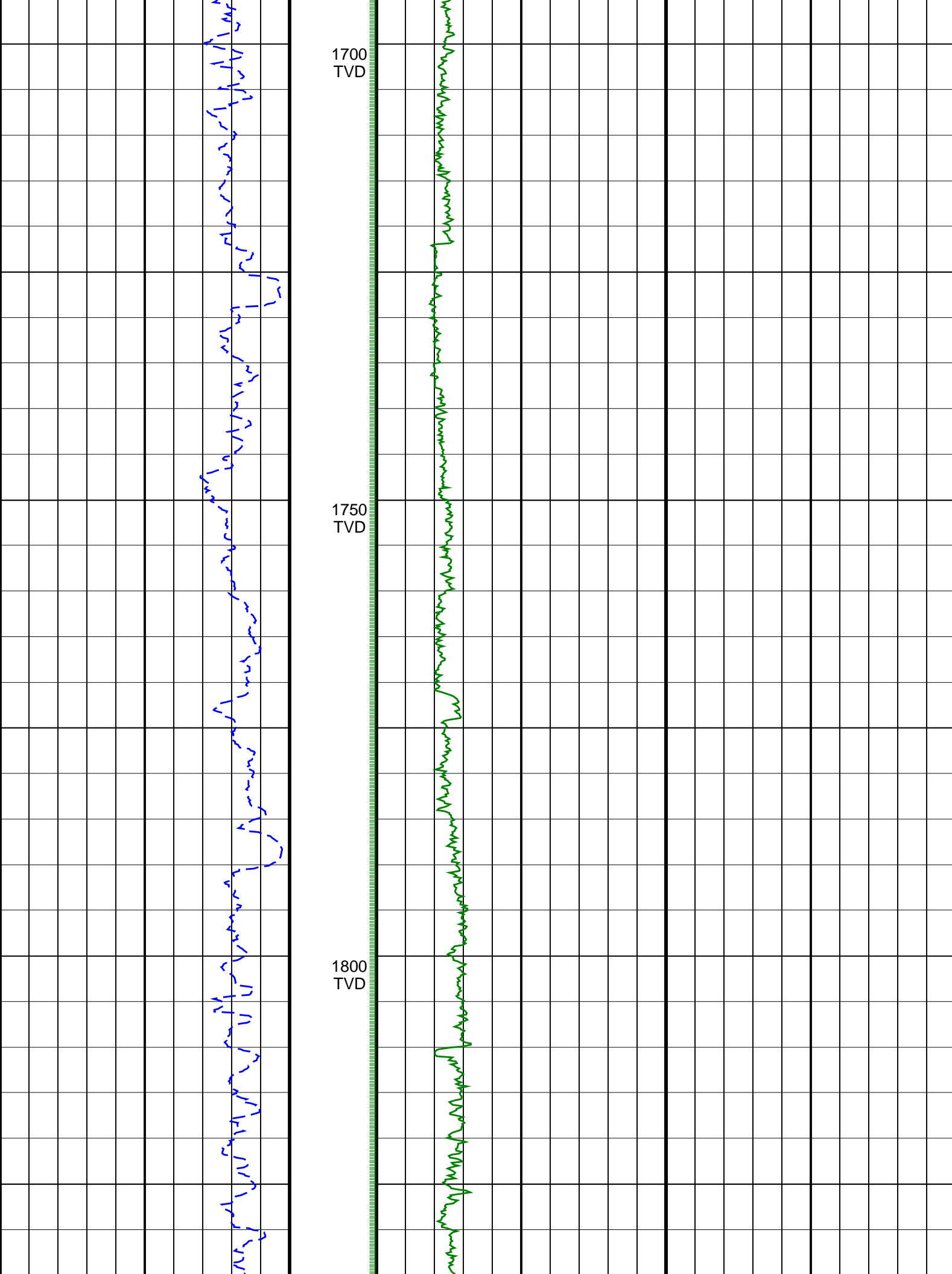


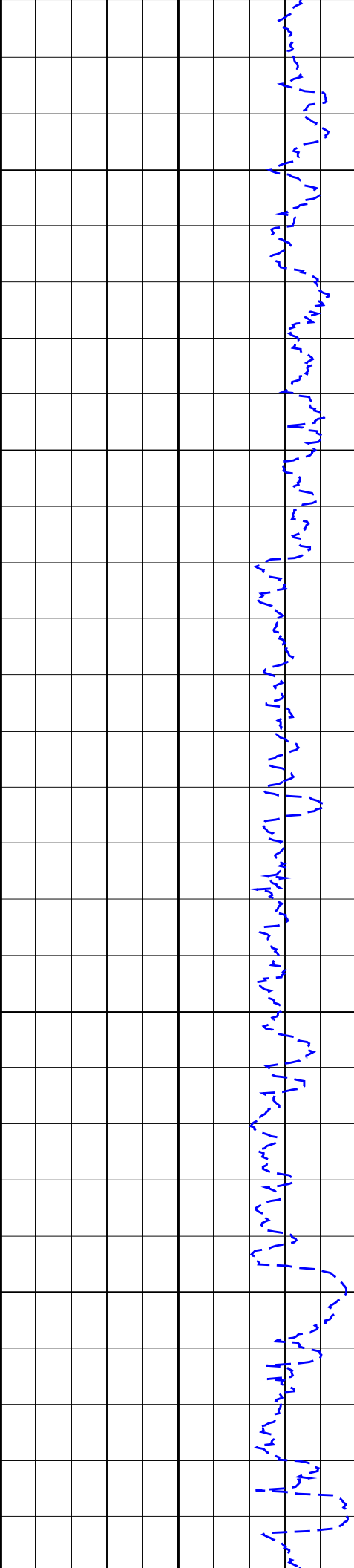


1600  
TVD

1650  
TVD



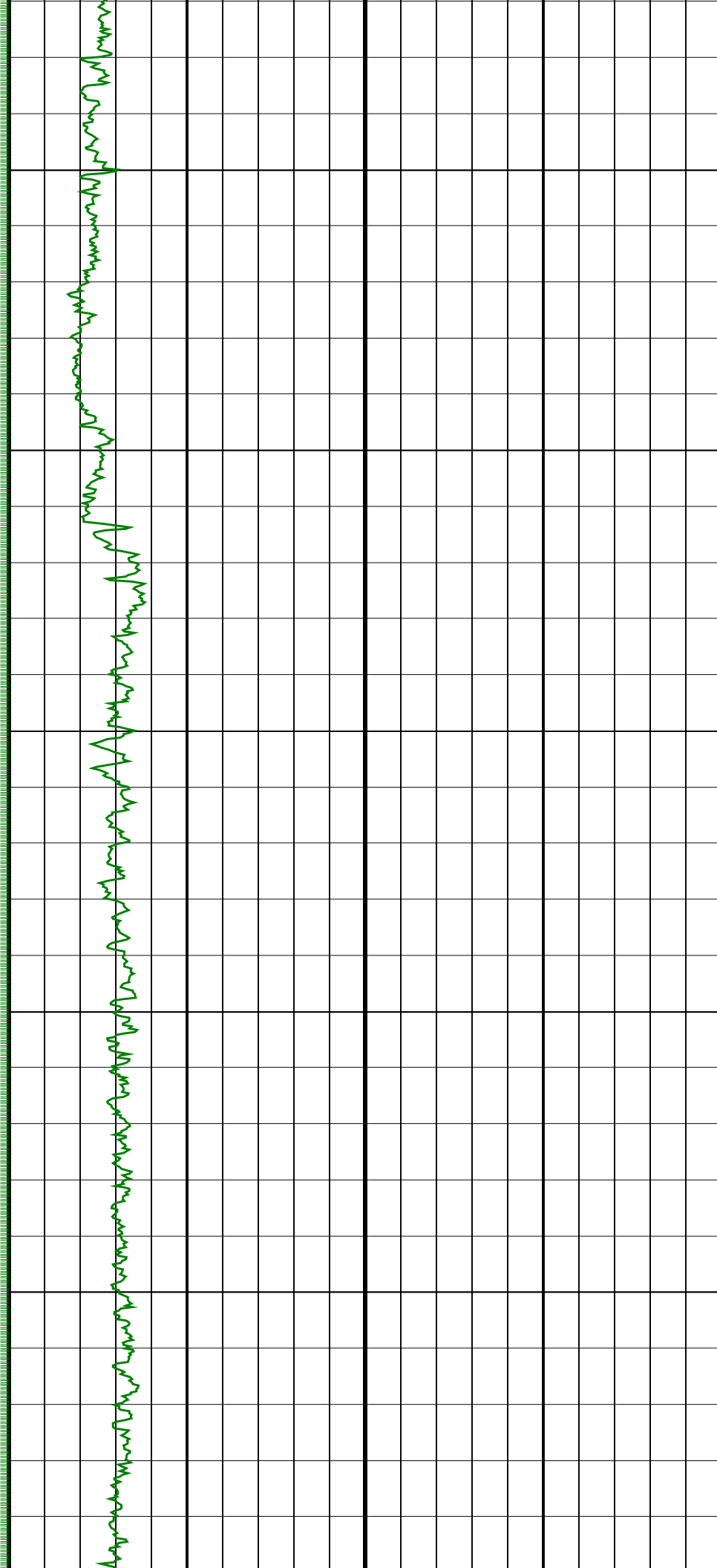




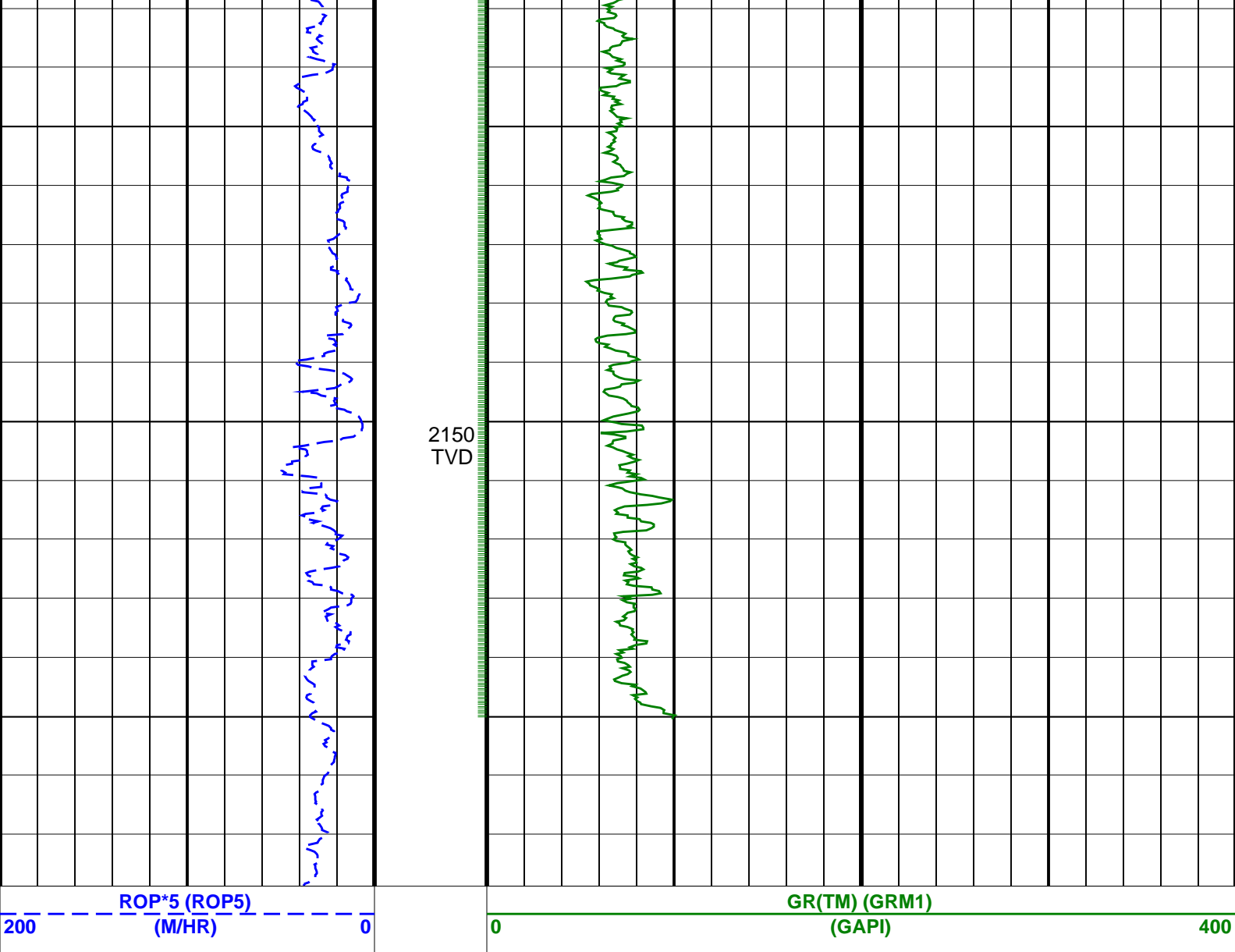
1850  
TVD

1900  
TVD

1950  
TVD







PIP SUMMARY  
+ GR(TM) PIP

SCHLUMBERGER

Survey report

16-Jan-2007 13:33:50

Page 1 of 5

Client.....: ESSO Australia Pty. Ltd.  
Field.....: Halibut

Well.....: HLA A2B  
API number.....: N/A  
Engineer.....: RB, MA, CS

RIG.....: ISDL 453  
STATE.....: Victoria

Spud date.....: 01-Jan-07  
Last survey date.....: 16-Jan-07  
Total accepted surveys...: 95  
MD of first survey.....: 650.00 m  
MD of last survey.....: 3347.00 m

----- Survey calculation methods-----  
Method for positions.....: Minimum curvature  
Method for DLS.....: Mason & Taylor

----- Depth reference -----  
Permanent datum.....: Mean Sea Level  
Depth reference.....: Driller's Depth  
GL above permanent.....: -73.00 m  
KB above permanent.....: Top Drive  
DF above permanent.....: 29.45 m

----- Vertical section origin-----  
Latitude (+N/S-).....: -7.44 m  
Departure (+E/W-).....: 19.72 m

----- Geomagnetic data -----  
Magnetic model.....: BGM version 2006  
Magnetic date.....: 31-Dec-2006  
Magnetic field strength...: 1199.38 HCNT  
Magnetic dec (+E/W-).....: 13.23 degrees  
Magnetic dip.....: -68.86 degrees

----- MWD survey Reference Criteria -----  
Reference G.....: 1000.04 mGal  
Reference H.....: 1199.38 HCNT  
Reference Dip.....: -68.86 degrees  
Tolerance of G.....: (+/-) 2.50 mGal  
Tolerance of H.....: (+/-) 6.00 HCNT  
Tolerance of Dip.....: (+/-) 0.45 degrees

----- Corrections -----  
Magnetic dec (+E/W-).....: 13.23 degrees  
Grid convergence (+E/W-)..: -0.82 degrees  
Total az corr (+E/W-)....: 14.05 degrees  
(Total az corr = magnetic dec - grid conv)  
Survey Correction Type ...:  
I=Sag Corrected Inclination  
M=Schlumberger Magnetic Correction

[(c)2007 IDEAL ID11\_OC\_01]  
SCHLUMBERGER Survey Report

16-Jan-2007 13:33:50

Page 2 of 5

Seq # -	Measured depth (m)	Incl angle (deg)	Azimuth angle (deg)	Course length (m)	TVD depth (m)	Vertical section (m)	Displ +N/S- (m)	Displ +E/W- (m)	Total displ (m)	At Azim (deg)	DLS (deg/ 100f)	Srvy tool type	Tool Corr (deg)
1	650.00	44.36	93.34	0.00	610.86	151.86	-52.68	166.06	174.22	107.60	0.00	TIP	None
2	660.87	45.55	97.43	10.87	618.55	159.51	-53.40	173.70	181.73	107.09	8.76	MWD	None
3	690.39	45.60	98.48	29.52	639.22	180.58	-56.32	194.58	202.57	106.14	0.78	MWD	None
4	732.17	46.07	99.66	41.78	668.33	210.55	-61.05	224.18	232.34	105.23	0.71	MWD	None
5	748.47	46.57	99.46	16.30	679.58	222.34	-63.00	235.80	244.07	104.96	0.97	MWD	None
6	777.68	46.49	99.54	29.21	699.68	243.54	-66.50	256.71	265.18	104.52	0.10	MWD	None
7	806.91	46.40	99.58	29.23	719.82	264.72	-70.02	277.60	286.29	104.16	0.10	MWD	None
8	836.00	45.84	99.58	29.09	739.98	285.69	-73.51	298.27	307.20	103.84	0.59	MWD	None
9	865.64	46.02	98.77	29.64	760.60	306.98	-76.91	319.30	328.43	103.54	0.63	MWD	None
10	894.65	45.53	98.59	29.01	780.83	327.77	-80.04	339.85	349.15	103.25	0.53	MWD	None
11	923.87	46.01	97.74	29.22	801.22	348.70	-83.02	360.57	370.00	102.97	0.81	MWD	None
12	952.87	46.90	97.08	29.00	821.20	369.70	-85.73	381.42	390.93	102.67	1.06	MWD	None
13	982.43	46.53	97.04	29.56	841.46	391.20	-88.37	402.77	412.35	102.38	0.38	MWD	None
14	1011.59	47.03	96.95	29.16	861.43	412.43	-90.96	423.86	433.51	102.11	0.53	MWD	None
15	1040.54	47.09	98.00	28.95	881.15	433.60	-93.72	444.88	454.64	101.90	0.81	MWD	None
16	1069.56	46.95	99.63	29.02	900.94	454.83	-96.97	465.85	475.84	101.76	1.26	MWD	None
17	1098.60	46.55	99.63	29.04	920.84	475.98	-100.51	486.71	496.98	101.67	0.42	MWD	None
18	1127.85	46.31	99.70	29.25	941.00	497.18	-104.07	507.60	518.16	101.59	0.26	MWD	None
19	1156.97	45.95	99.54	29.12	961.18	518.17	-107.57	528.30	539.14	101.51	0.40	MWD	None
20	1186.26	45.49	99.30	29.29	981.63	539.14	-111.01	548.98	560.09	101.43	0.51	MWD	None
21	1215.54	46.11	100.03	29.28	1002.04	560.13	-114.53	569.68	581.08	101.37	0.84	MWD	None
22	1244.64	46.11	100.01	29.10	1022.21	581.10	-118.18	590.33	602.04	101.32	0.02	MWD	None
23	1273.79	46.02	99.60	29.15	1042.44	602.09	-121.75	611.01	623.03	101.27	0.32	MWD	None
24	1302.98	45.78	99.87	29.19	1062.75	623.05	-125.30	631.67	643.98	101.22	0.32	MWD	None
25	1332.25	46.49	100.02	29.27	1083.04	644.16	-128.94	652.46	665.08	101.18	0.75	MWD	None
26	1361.43	46.60	99.96	29.18	1103.11	665.34	-132.62	673.32	686.26	101.14	0.12	MWD	None
27	1390.66	46.57	99.61	29.23	1123.19	686.57	-136.23	694.24	707.48	101.10	0.27	MWD	None
28	1419.85	46.24	99.68	29.19	1143.32	707.71	-139.77	715.09	728.62	101.06	0.35	MWD	None
29	1449.14	46.83	99.06	29.29	1163.47	728.97	-143.23	736.06	749.87	101.01	0.77	MWD	None
30	1478.24	46.59	98.73	29.10	1183.43	750.15	-146.50	756.99	771.03	100.95	0.36	MWD	None

[(c)2007 IDEAL ID11\_OC\_01]  
SCHLUMBERGER Survey Report

16-Jan-2007 13:33:50

Page 3 of 5

Seq # -	Measured depth (m)	Incl angle (deg)	Azimuth angle (deg)	Course length (m)	TVD depth (m)	Vertical section (m)	Displ +N/S- (m)	Displ +E/W- (m)	Total displ (m)	At Azim (deg)	DLS (deg/ 100f)	Srvy tool type	Tool Corr (deg)
31	1507.45	45.96	98.69	29.21	1203.61	771.25	-149.70	777.85	792.13	100.89	0.66	MWD	None
32	1536.68	45.31	98.22	29.23	1224.05	792.15	-152.77	798.52	813.00	100.83	0.76	MWD	None
33	1565.94	45.25	98.54	29.26	1244.64	812.93	-155.80	819.09	833.78	100.77	0.24	MWD	None
34	1595.14	45.45	98.03	29.20	1265.16	833.70	-158.80	839.65	854.53	100.71	0.43	MWD	None
35	1624.31	45.86	98.57	29.17	1285.55	854.55	-161.81	860.29	875.37	100.65	0.59	MWD	None
36	1653.37	45.43	98.47	29.06	1305.87	875.33	-164.89	880.84	896.14	100.60	0.46	MWD	None
37	1682.74	45.98	98.23	29.37	1326.38	896.34	-167.94	901.64	917.14	100.55	0.60	MWD	None
38	1711.90	46.74	99.29	29.16	1346.50	917.44	-171.15	922.49	938.24	100.51	1.13	MWD	None
39	1741.22	46.42	99.68	29.32	1366.66	938.74	-174.66	943.50	959.53	100.49	0.44	MWD	None
40	1770.47	46.21	99.68	29.25	1386.86	959.89	-178.22	964.35	980.68	100.47	0.22	MWD	None
41	1799.73	45.84	99.63	29.26	1407.17	980.95	-181.75	985.11	1001.73	100.45	0.39	MWD	None
42	1828.90	46.20	99.44	29.17	1427.43	1001.94	-185.23	1005.81	1022.72	100.43	0.40	MWD	None
43	1857.65	46.30	99.56	28.75	1447.31	1022.71	-188.66	1026.29	1043.49	100.42	0.14	MWD	None
44	1886.83	46.11	99.49	29.18	1467.51	1043.77	-192.14	1047.06	1064.55	100.40	0.21	MWD	None
45	1915.82	46.47	99.22	28.99	1487.54	1064.72	-195.55	1067.74	1085.50	100.38	0.43	MWD	None
46	1945.32	46.09	99.02	29.50	1507.93	1086.04	-198.93	1088.79	1106.81	100.35	0.42	MWD	None
47	1974.30	46.92	98.99	28.98	1527.87	1107.06	-202.22	1109.55	1127.83	100.33	0.87	MWD	None
48	2003.63	46.86	99.37	29.33	1547.92	1128.48	-205.63	1130.69	1149.24	100.31	0.29	MWD	None
49	2033.24	46.55	99.17	29.61	1568.22	1150.03	-209.11	1151.96	1170.79	100.29	0.35	MWD	None
50	2061.83	46.22	99.16	28.59	1587.94	1170.72	-212.40	1172.40	1191.48	100.27	0.35	MWD	None
51	2091.25	45.91	98.66	29.42	1608.36	1191.91	-215.68	1193.33	1212.66	100.25	0.49	MWD	None
52	2120.20	45.73	98.89	28.95	1628.53	1212.67	-218.85	1213.84	1233.42	100.22	0.26	MWD	None
53	2149.33	46.24	99.33	29.13	1648.77	1233.62	-222.17	1234.53	1254.36	100.20	0.63	MWD	None
54	2178.65	46.11	99.39	29.32	1669.08	1254.77	-225.61	1255.40	1275.51	100.19	0.14	MWD	None
55	2208.26	45.89	99.57	29.61	1689.65	1276.07	-229.12	1276.41	1296.81	100.18	0.26	MWD	None
56	2237.48	45.67	99.37	29.22	1710.02	1297.01	-232.56	1297.06	1317.75	100.17	0.27	MWD	None
57	2266.81	46.26	99.32	29.33	1730.41	1318.09	-235.99	1317.87	1338.83	100.15	0.61	MWD	None
58	2295.72	46.06	99.20	28.91	1750.44	1338.95	-239.34	1338.45	1359.68	100.14	0.23	MWD	None
59	2324.98	45.86	98.95	29.26	1770.78	1359.98	-242.66	1359.22	1380.71	100.12	0.28	MWD	None
60	2354.24	46.61	99.17	29.26	1791.02	1381.11	-245.99	1380.09	1401.84	100.11	0.80	MWD	None

[(c)2007 IDEAL ID11\_OC\_01]  
SCHLUMBERGER Survey Report

16-Jan-2007 13:33:50

Page 4 of 5

Seq # -	Measured depth (m)	Incl angle (deg)	Azimuth angle (deg)	Course length (m)	TVD depth (m)	Vertical section (m)	Displ +N/S- (m)	Displ +E/W- (m)	Total displ (m)	At Azim (deg)	DLS (deg/ 100f)	Srvy tool type	Tool Corr (deg)
61	2383.14	46.76	99.04	28.90	1810.84	1402.13	-249.31	1400.85	1422.86	100.09	0.19	MWD	None



62	2412.46	46.38	98.87	29.32	1831.00	1423.43	-252.63	1421.88	1444.15	100.07	0.42	MWD	None
63	2441.90	46.19	98.96	29.44	1851.34	1444.70	-255.93	1442.91	1465.43	100.06	0.21	MWD	None
64	2471.01	46.19	99.05	29.11	1871.49	1465.71	-259.21	1463.65	1486.43	100.04	0.07	MWD	None
65	2500.16	46.00	98.99	29.15	1891.71	1486.71	-262.51	1484.40	1507.43	100.03	0.20	MWD	None
66	2529.32	45.79	98.47	29.16	1912.00	1507.64	-265.69	1505.09	1528.36	100.01	0.45	MWD	None
67	2558.52	45.49	98.45	29.20	1932.42	1528.52	-268.76	1525.74	1549.23	99.99	0.31	MWD	None
68	2586.28	46.03	98.46	27.76	1951.79	1548.40	-271.68	1545.41	1569.11	99.97	0.59	MWD	None
69	2616.58	46.66	98.87	30.30	1972.70	1570.32	-274.98	1567.09	1591.03	99.95	0.70	MWD	None
70	2645.77	46.32	98.80	29.19	1992.80	1591.49	-278.24	1588.00	1612.20	99.94	0.36	MWD	None
71	2675.07	46.18	98.36	29.30	2013.06	1612.65	-281.39	1608.93	1633.35	99.92	0.36	MWD	None
72	2704.46	46.81	98.75	29.39	2033.29	1633.96	-284.57	1630.01	1654.67	99.90	0.72	MWD	None
73	2733.62	46.61	98.49	29.16	2053.29	1655.18	-287.75	1651.00	1675.89	99.89	0.29	MWD	None
74	2762.48	46.75	99.41	28.86	2073.09	1676.18	-291.01	1671.74	1696.88	99.88	0.72	MWD	None
75	2791.83	46.58	99.52	29.35	2093.23	1697.53	-294.52	1692.80	1718.23	99.87	0.20	MWD	None
76	2820.99	46.35	99.39	29.16	2113.32	1718.67	-298.00	1713.65	1739.37	99.86	0.26	MWD	None
77	2850.67	46.03	99.24	29.68	2133.86	1740.08	-301.46	1734.78	1760.78	99.86	0.35	MWD	None
78	2879.50	46.15	99.40	28.83	2153.86	1760.85	-304.83	1755.28	1781.55	99.85	0.18	MWD	None
79	2905.21	45.91	99.45	25.71	2171.71	1779.36	-307.86	1773.53	1800.05	99.85	0.29	MWD	None
80	2935.38	45.91	98.61	30.17	2192.70	1801.02	-311.26	1794.93	1821.72	99.84	0.61	MWD	None
81	2964.47	45.88	98.78	29.09	2212.94	1821.91	-314.42	1815.58	1842.61	99.82	0.13	MWD	None
82	2993.32	46.28	98.29	28.85	2232.96	1842.69	-317.50	1836.13	1863.38	99.81	0.56	MWD	None
83	3022.29	46.99	98.42	28.97	2252.85	1863.74	-320.56	1856.97	1884.44	99.79	0.75	MWD	None
84	3051.27	47.44	97.96	28.98	2272.53	1885.00	-323.59	1878.02	1905.70	99.78	0.59	MWD	None
85	3079.59	48.42	97.93	28.32	2291.51	1906.02	-326.50	1898.84	1926.71	99.76	1.06	MWD	None
86	3108.69	49.40	97.56	29.10	2310.63	1927.94	-329.45	1920.57	1948.63	99.73	1.07	MWD	None
87	3137.70	51.16	97.25	29.01	2329.17	1950.23	-332.33	1942.70	1970.92	99.71	1.87	MWD	None
88	3166.46	53.04	97.34	28.76	2346.84	1972.90	-335.21	1965.21	1993.59	99.68	1.99	MWD	None
89	3195.74	53.89	97.23	29.28	2364.27	1996.41	-338.19	1988.55	2017.10	99.65	0.89	MWD	None
90	3224.78	53.92	97.10	29.04	2381.38	2019.85	-341.12	2011.83	2040.54	99.62	0.11	MWD	None

[(c)2007 IDEAL ID11\_0C\_01]  
SCHLUMBERGER Survey Report

16-Jan-2007 13:33:50

Page 5 of 5

Seq #	Measured depth (m)	Incl angle (deg)	Azimuth angle (deg)	Course length (m)	TVD depth (m)	Vertical section (m)	Displ +N/S- (m)	Displ +E/W- (m)	Total displ (m)	At Azim (deg)	DLS (deg/100f)	Srvy tool type	Tool Corr (deg)
91	3253.44	54.42	97.03	28.66	2398.15	2043.07	-343.97	2034.89	2063.76	99.59	0.54	MWD	None
92	3282.73	55.34	97.31	29.29	2415.00	2067.00	-346.97	2058.66	2087.69	99.57	0.99	MWD	None
93	3311.71	56.13	96.82	28.98	2431.32	2090.93	-349.91	2082.43	2111.62	99.54	0.93	MWD	None
94	3325.71	56.72	97.11	14.00	2439.06	2102.58	-351.33	2094.01	2123.27	99.52	1.39	MWD	None
95	3347.00	57.20	97.11	21.29	2450.67	2120.41	-353.53	2111.72	2141.10	99.50	0.68	Proj.TD	

[(c)2007 IDEAL ID11\_0C\_01]

Company: **Esso Australia Pty. Ltd.**

**Schlumberger**

Well: **HLA A-2B**

Field: **Halibut**

Rig: **ISDL 453**

State: **Victoria**

**Gamma Ray Service  
1:500 True Vertical Depth  
Real Time Log**

