

Depth logged:	844.50 m To 3122.63 m	Mag decl:	13.23°	Other services:
Date logged:	6-Mar-05 To 13-Mar-05	Mag dip:	-68.65°	Directional Drilling, D&I

Hole size	from	to	Size	Density	from	to
8 1/2 in.	844.5 m	3142.0 m	9 5/8 in.	40.0 lb/ft	Surface	844.5 m

[illegible]

Type	Mud record		Borehole deviation record			
	from	to	Min	Max	from	to
KCL/PHPA/Glycol	844.5 m	3142.0 m	29.04°	70.90°	844.5 m	3142.0 m

Unit	OLU-FB-924	IDEAL w/s	ID9_1C_02	
Depth system	DES-CA	SPM	HSPM9_2C_08	

	LWD	N/A	
	MWD	V70C00	

<p style="text-align: center;"><b>DISCLAIMER</b></p> <p>THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE OF AND RELIANCE UPON THE RECORDED-DATA; AND (c) CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISION MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA.</p>		
<p>OTHER SERVICES FOR RUN1</p> <p>Directional Drilling</p> <p>Directional Surveys</p>	<p>OTHER SERVICES FOR RUN</p>	<p>OTHER SERVICES FOR RUN</p>
<p>REMARKS: RUN NUMBER 1</p> <p>8-1/2 in. hole was drilled from 844.5m to 3142.0m MD.</p> <p>Depth is referenced to Driller's Depth.</p> <p>Gamma Ray corrected for Tool Size, Bit Size and Mud Weight.</p> <p>Mud Type is KCL/PHPA/Glycol.</p> <p>POOH due to TD of TNA A14A.</p>	<p>REMARKS: RUN NUMBER</p>	<p>REMARKS: RUN NUMBER</p>

Thank You for Choosing Schlumberger









EQUIPMENT DESCRIPTION

RUN1

RUN

RUN

DOWNHOLE EQUIPMENT

6-3/4 in. PowerPulse* MDC: V875 MEC: 1533-BB MDI: 1565-CA MGR: 565-AA DHS: 7.0C00		24.39
D&I		20.01
GR		19.37
		
6-5/8 in. NM Pony S/N: ASS15700		15.87
8-3/8 in. NM Roller Reamer S/N: GU2298		14.31
6-3/8 in. NM Pony S/N: ANA98-007		12.23
6-11/16 in. Float Sub S/N: CMP1544		9.59
7 in. PowerPak* Motor A700GT 7:8 S/N: 3380 1.41 deg. Bent Housing 8-3/8 in. Motor Sleeve		9.14



0.00

0.22

Smith PDC Bit  
OD: 8–1/2 in.  
S73VPX S/N: JT7330

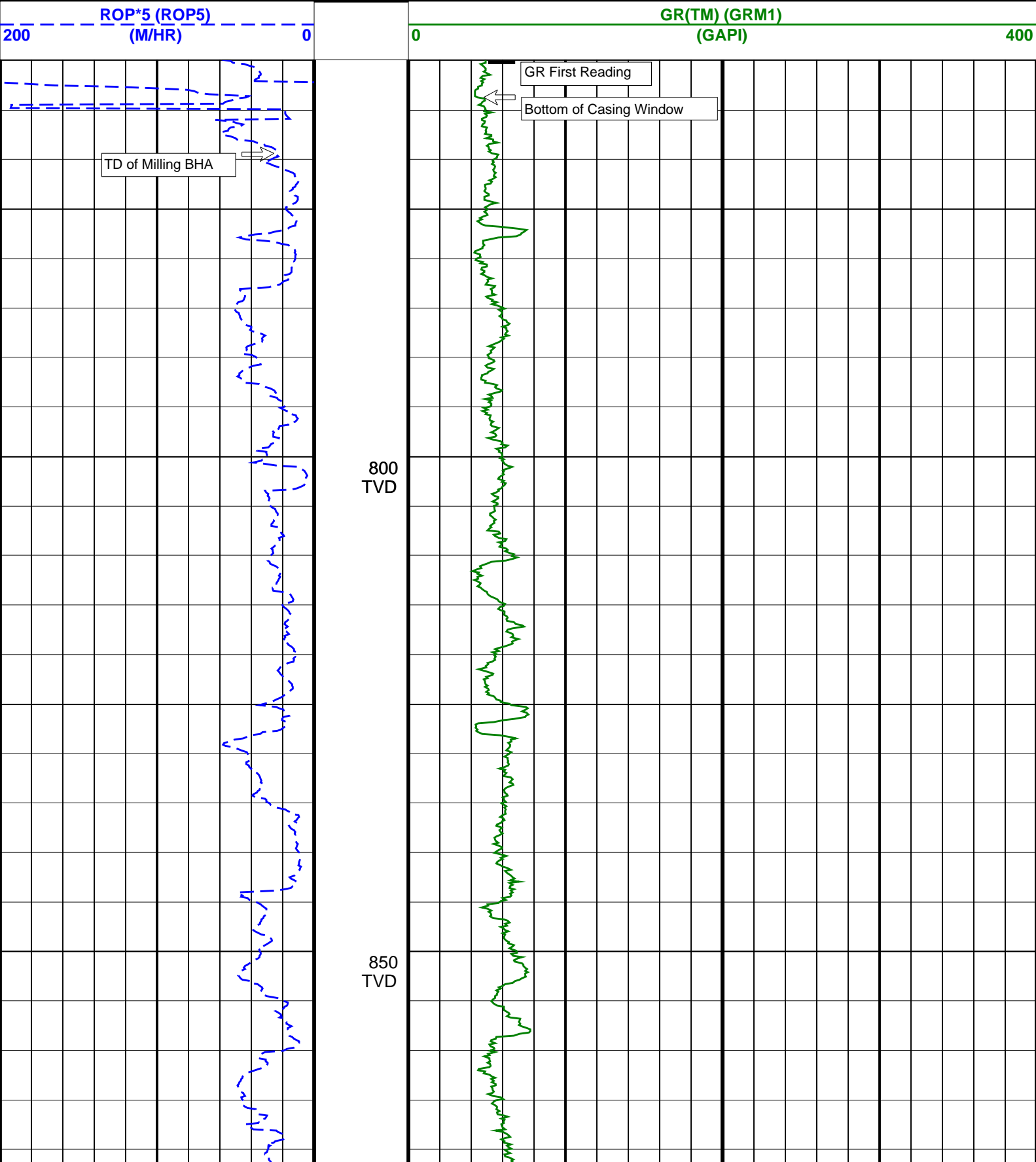
Maximum string diameter 8.50 in.  
All lengths in Meters

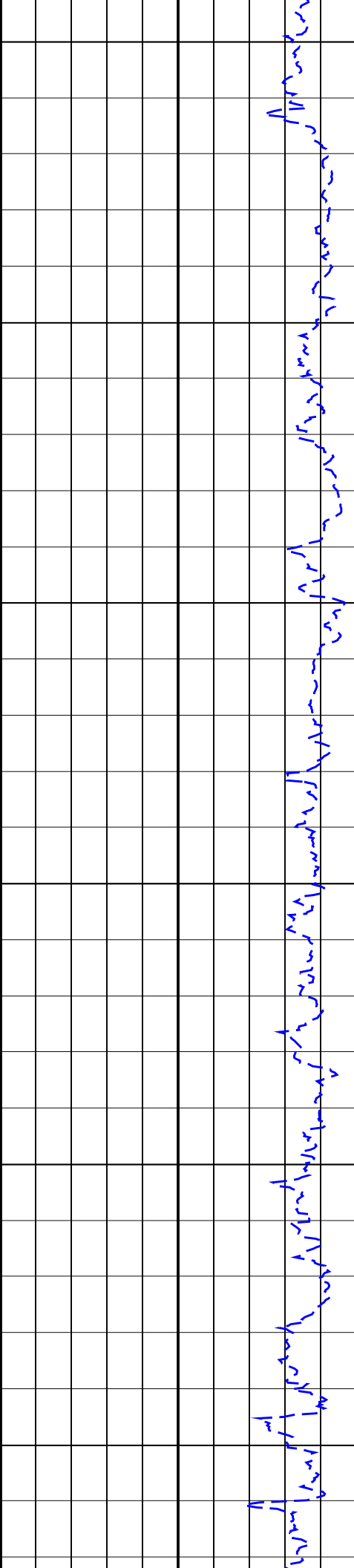
# Bit Run Summary

Run number		1									
Bit size	in.	8.5									
Bit start depth	m	844.5									
Bit end depth	m	3142.0									
Top interval logged	m	844.5									
Bottom interval logged	m	3122.6									
Begin log: time		18:30									
Begin log: date		5–Mar–05									
End log: time		14:10									
End log: date		13–Mar–05									
Mud data											
Depth	m	3142.0									
Type		KCl/PHPA/Gly.									
Mud weight	ppg	10.05									
Solids	%	9.4									
Chlorides	mg/L	43,000									
Rm		N/A									
Rmf		N/A									
Rmc		N/A									
Potassium	%	4.2									
Environmental data											
GR											
Mud weight	ppg	10.05									
Bit size	in.	8.5									
Resistivity											
Neutron porosity											
Hole Size											
Mud weight											
Temperature											
Mud salinity											
Formation salinity											
Recording rate 1	SEC	4.14									
Recording rate 2	SEC	N/A									
Filtering GR		3 pt.									
Filtering density		N/A									
Filtering Neutron		N/A									
Company representative		G. Steel	W. Westman	B. Davis							
Anadrill personnel		D. Hastie	L. Johnston	C. Cocks	T. Auger						

# TNA A14A RT 1:500TVD

IDEAL Version: ID9\_1C\_02 <TVD> Vertical Scale: 1:500 Graphics File Created: 15-Mar-2005 11:48

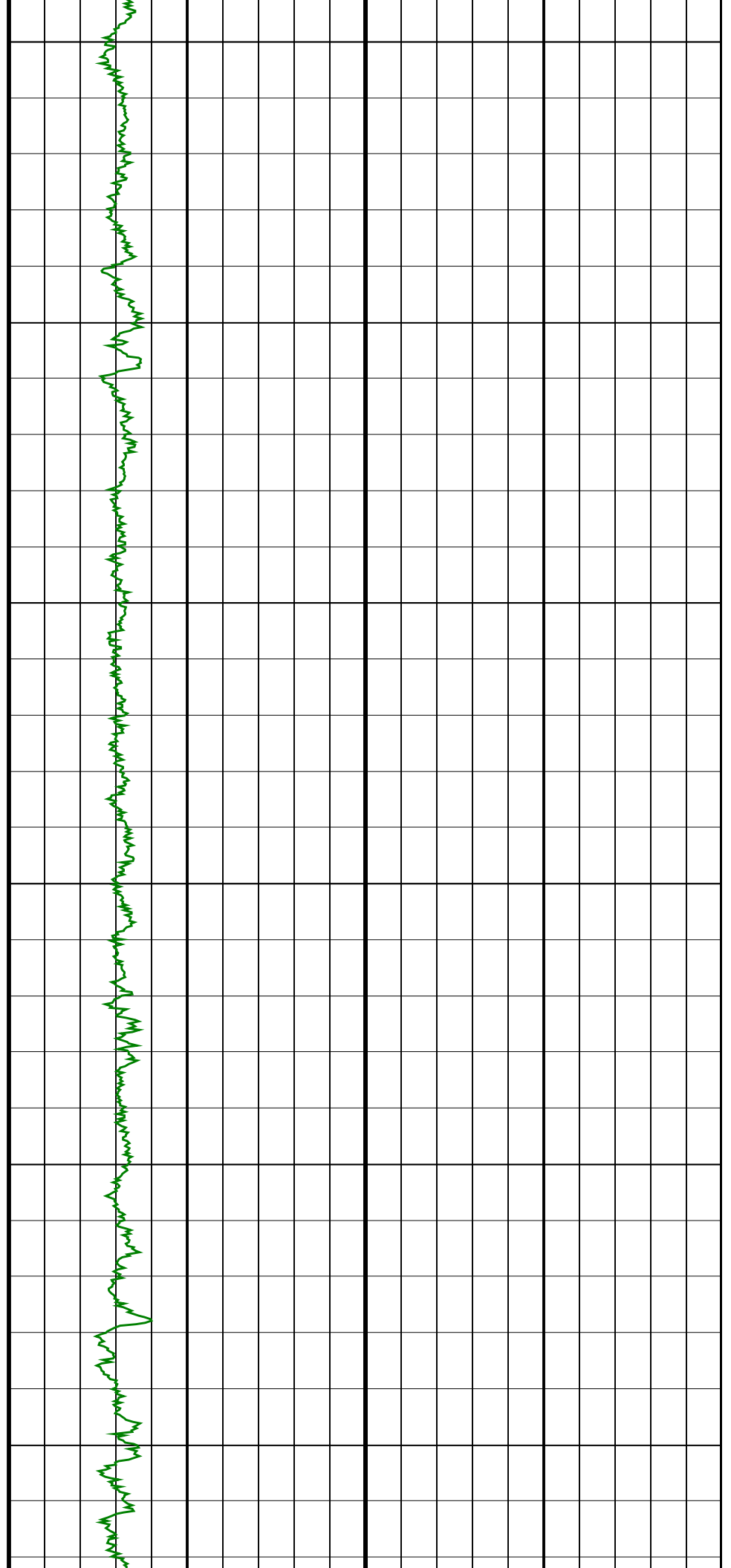


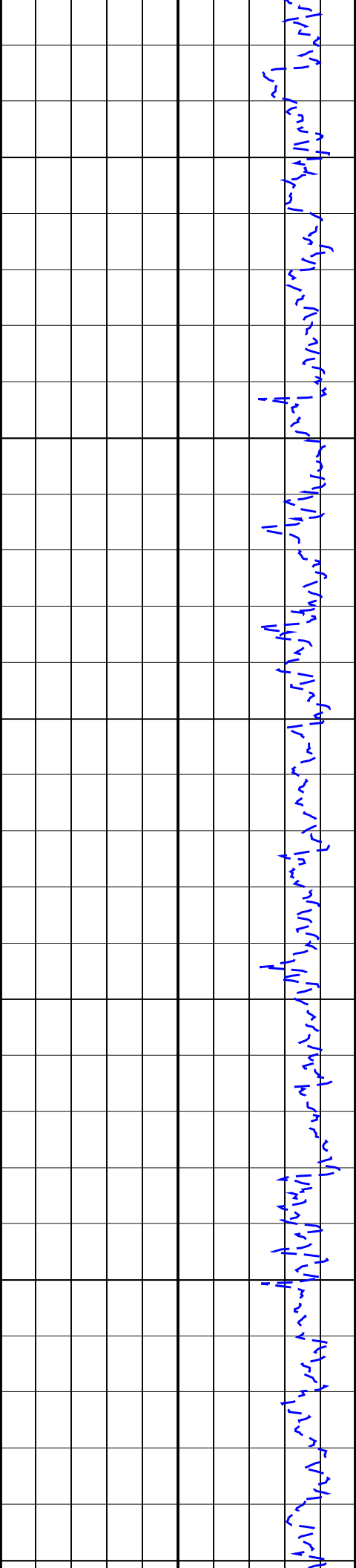


900  
TVD

950  
TVD

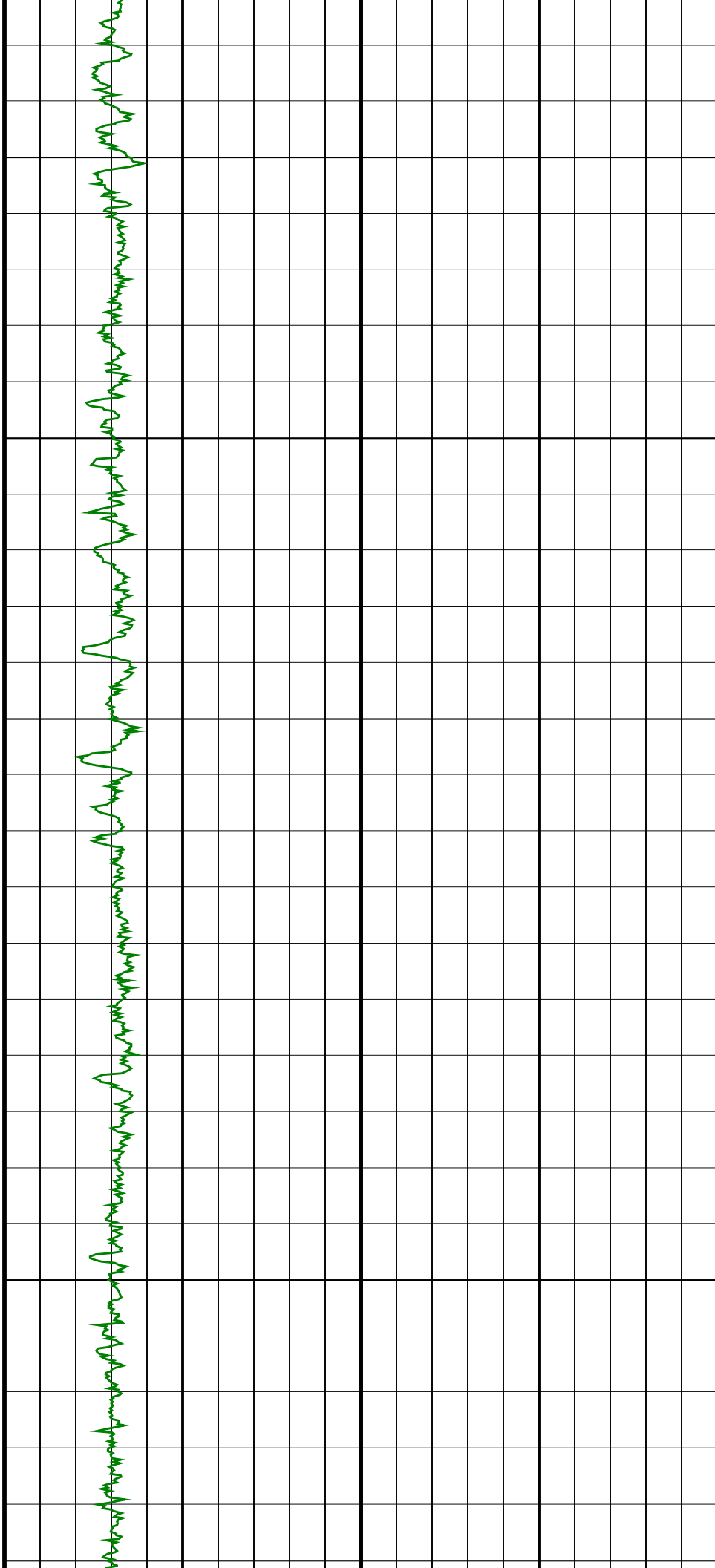
1000  
TVD

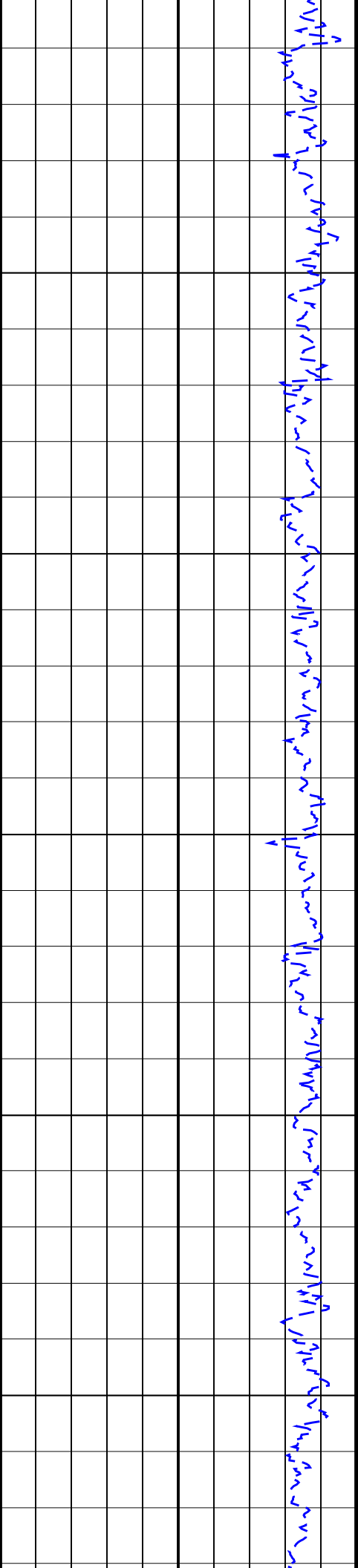




1050  
TVD

1100  
TVD

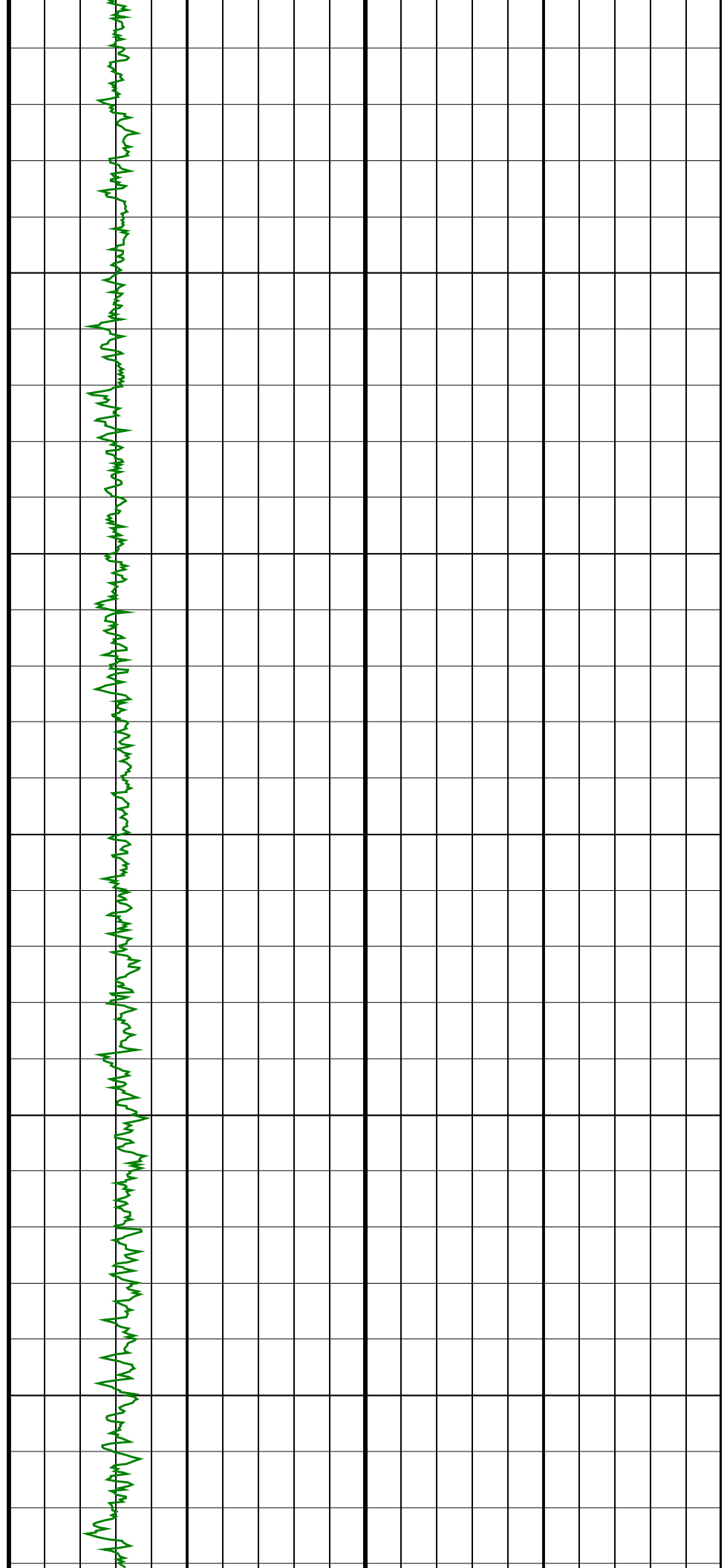


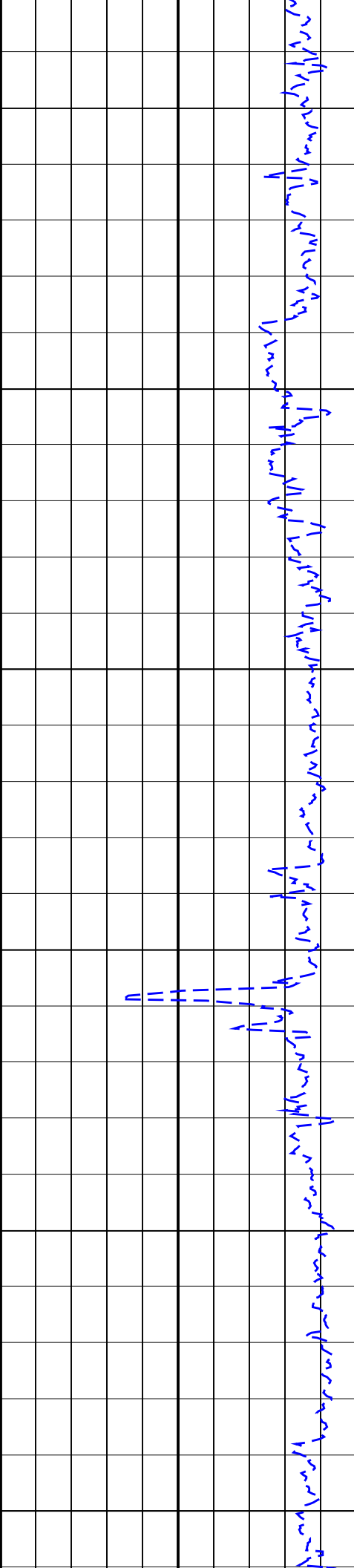


1150  
TVD

1200  
TVD

1250  
TVD

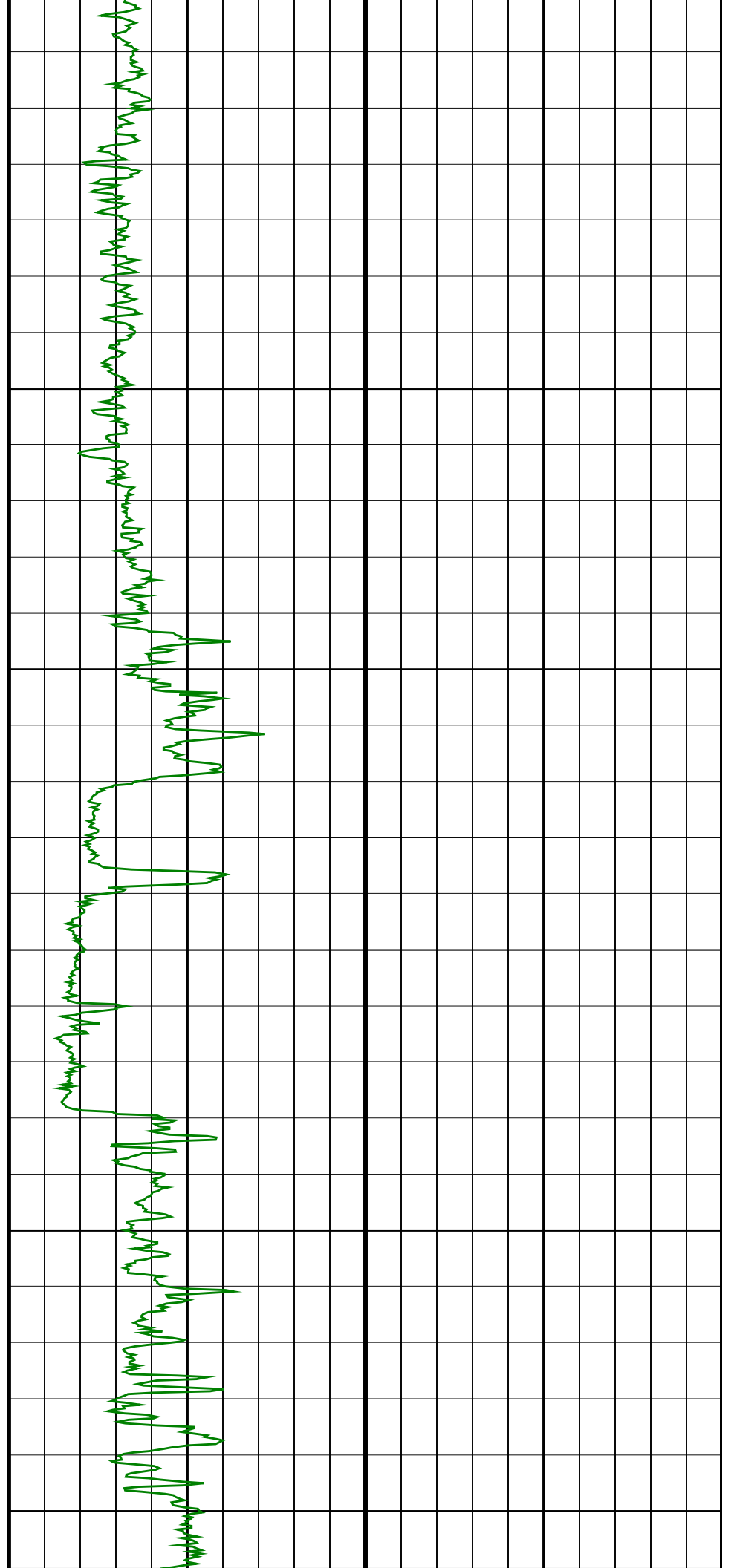




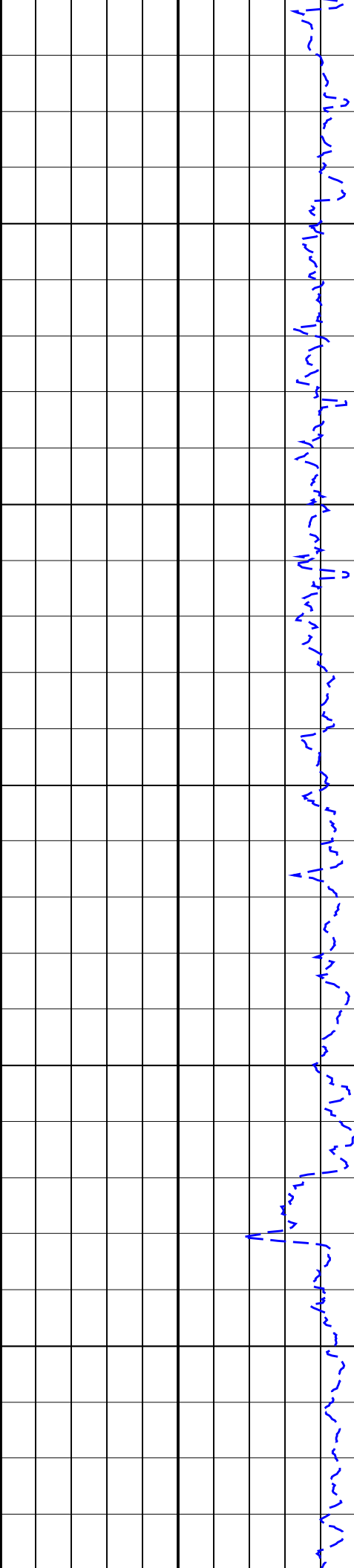
1300  
TVD

1350  
TVD

1400  
TVD



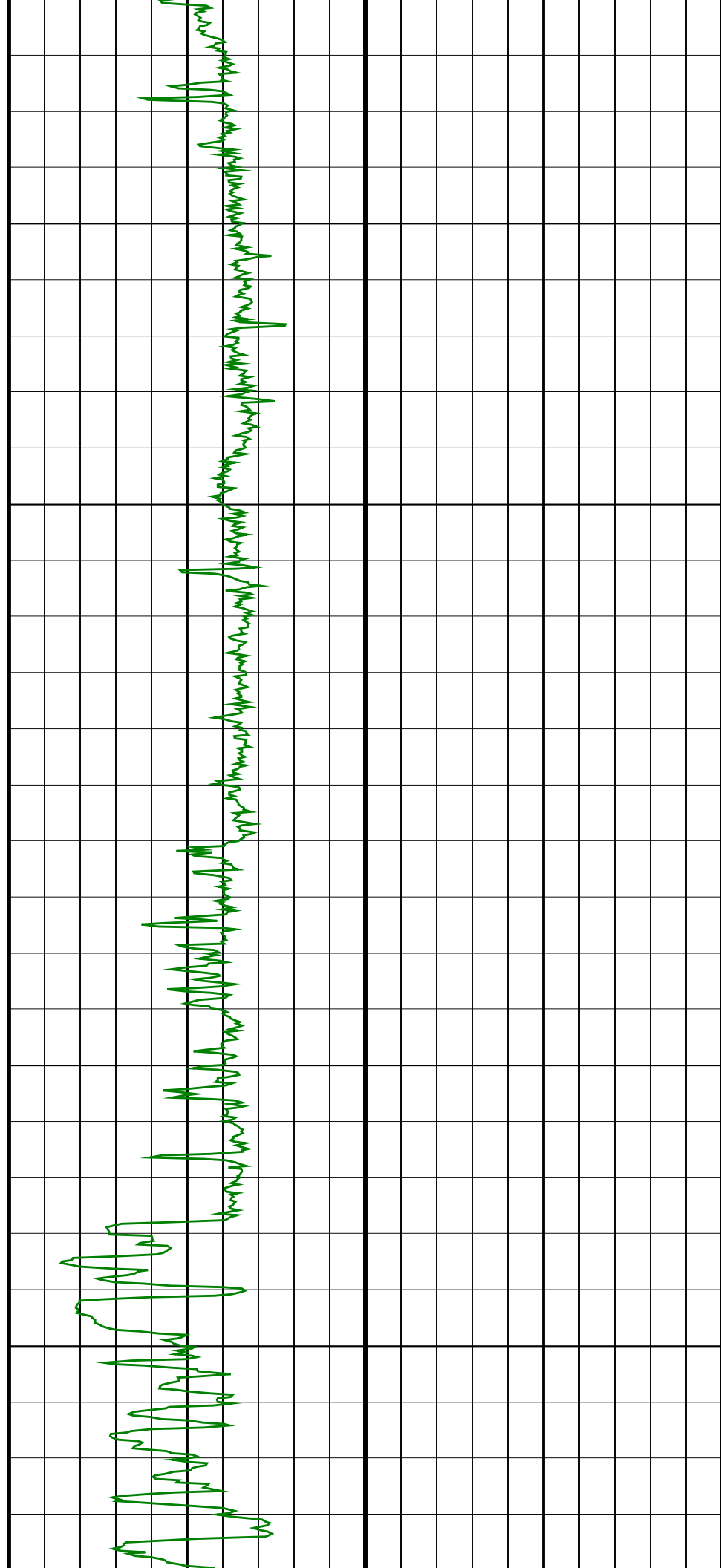


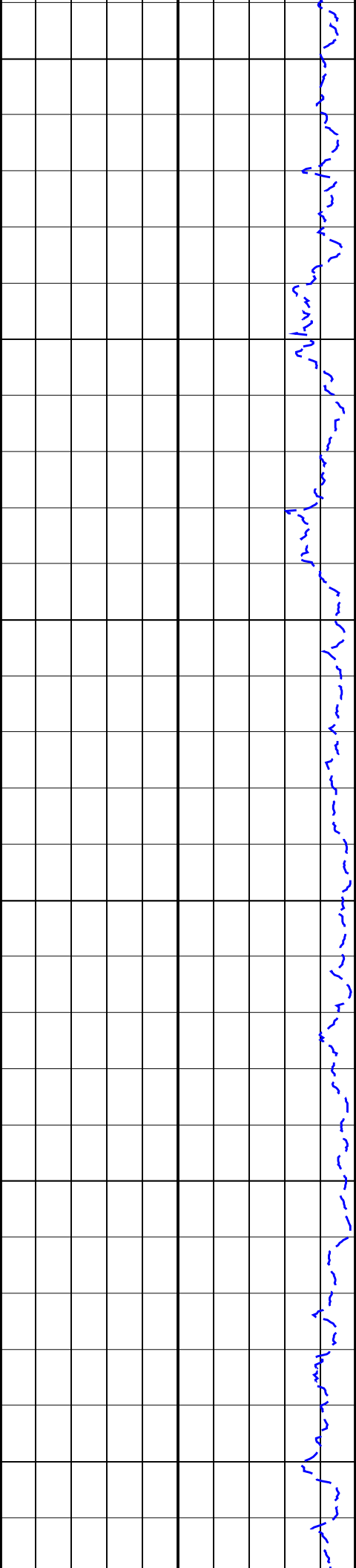


1450  
TVD

1500  
TVD

1550  
TVD

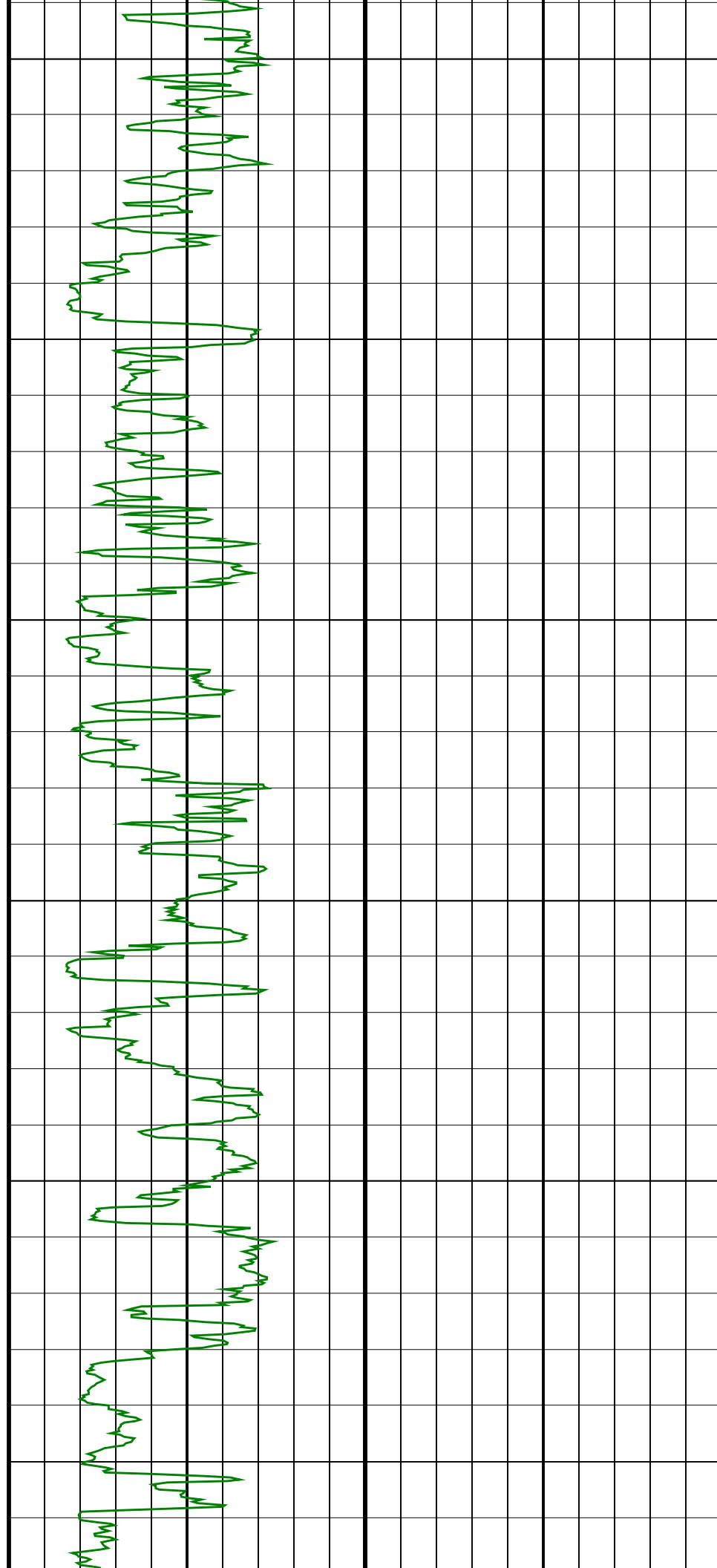


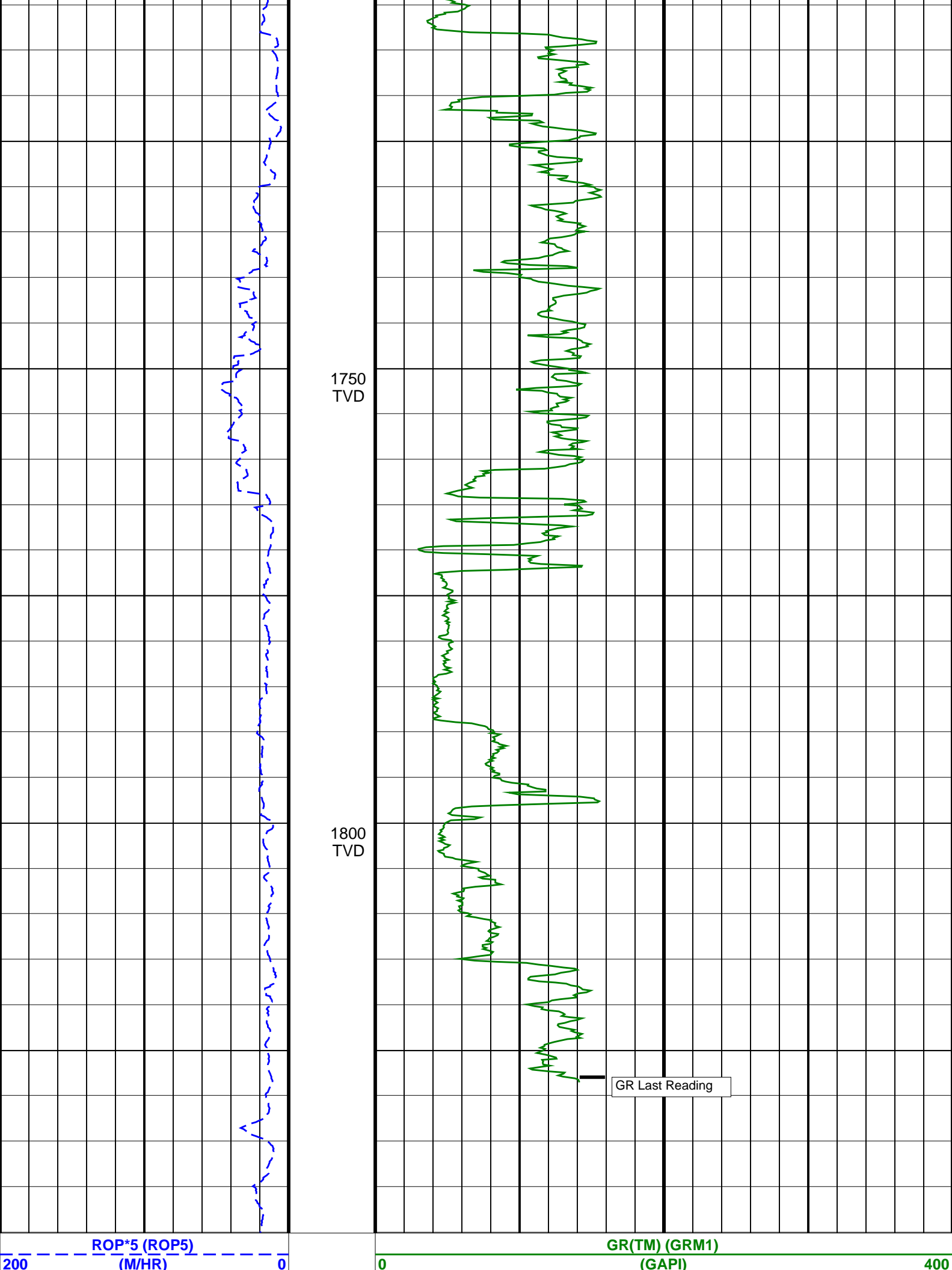


1600  
TVD

1650  
TVD

1700  
TVD





## SCHLUMBERGER

Survey report

14-Mar-2005 14:37:49

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

Well.....: TNA A14A  
API number.....: N/A  
Engineer.....: D.Hastie, L.Johnston

Rig: ISDL 453.....: ISDL 453  
STATE:.....: Victoria

Spud date.....: 04-March-2005  
Last survey date.....: 14-Mar-05  
Total accepted surveys...: 81  
MD of first survey.....: 843.00 m  
MD of last survey.....: 3142.00 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.....: -59.40 m  
KB above permanent.....: TopDrive  
DF above permanent.....: 31.32 m

----- Vertical section origin-----  
Latitude (+N/S-).....: -2.74 m  
Departure (+E/W-).....: 8.64 m

----- Platform reference point-----  
Latitude (+N/S-).....: 5774406.73 m  
Departure (+E/W-).....: 624345.81 m

Azimuth from Vsect Origin to target: 265.87 degrees

----- Geomagnetic data -----  
Magnetic model.....: BGGM version 2004  
Magnetic date.....: 01-Mar-2005  
Magnetic field strength...: 1198.15 HCNT  
Magnetic dec (+E/W-).....: 13.23 degrees  
Magnetic dip.....: -68.65 degrees

----- MWD survey Reference Criteria -----  
Reference G.....: 1000.02 mGal  
Reference H.....: 1198.15 HCNT  
Reference Dip.....: -68.65 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-)..: -0.88 degrees  
Total az corr (+E/W-).....: 14.11 degrees  
(Total az corr = magnetic dec - grid conv)  
Survey Correction Type ...:  
I=Sag Corrected Inclination  
M=Schlumberger Magnetic Correction  
S=Shell Magnetic Correction  
F=Failed Axis Correction  
R=Magnetic Resonance Tool Correction  
D=Dmag Magnetic Correction

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SCHLUMBERGER Survey Report

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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	843.00	47.28	220.03	0.00	758.68	187.26	-230.69	-162.65	282.26	215.19	0.00	TIP	None
2	904.39	45.25	234.86	61.39	801.24	221.76	-260.59	-195.08	325.52	216.82	5.41	MWD	None
3	932.94	46.21	242.14	28.55	821.18	239.90	-271.25	-212.49	344.57	218.07	5.66	MWD	None
4	961.56	48.15	247.66	28.62	840.64	259.49	-280.14	-231.49	363.41	219.57	4.78	MWD	None
5	990.36	48.81	250.14	28.80	859.74	280.11	-287.90	-251.61	382.35	221.15	2.09	MWD	None
6	1019.18	48.70	250.09	28.82	878.74	300.97	-295.27	-271.99	401.45	222.65	0.12	MWD	None
7	1047.69	50.03	253.45	28.51	897.31	321.94	-302.03	-292.53	420.47	224.09	3.07	MWD	None
8	1076.29	52.44	256.80	28.60	915.22	343.85	-307.74	-314.08	439.72	225.58	3.79	MWD	None
9	1105.25	55.16	260.93	28.96	932.32	367.03	-312.24	-337.00	459.41	227.18	4.53	MWD	None
10	1133.90	59.28	264.13	28.65	947.83	391.07	-315.35	-360.88	479.25	228.85	5.23	MWD	None
11	1162.43	62.50	265.83	28.53	961.71	415.99	-317.53	-385.70	499.59	230.54	3.79	MWD	None
12	1191.18	64.47	268.24	28.75	974.55	441.71	-318.85	-411.39	520.49	232.22	3.10	MWD	None
13	1219.97	66.62	271.12	28.79	986.47	467.85	-318.99	-437.59	541.52	233.91	3.59	MWD	None
14	1248.60	69.79	272.56	28.63	997.10	494.29	-318.13	-464.16	562.72	235.57	3.66	MWD	None
15	1277.32	69.17	272.58	28.72	1007.16	521.00	-316.93	-491.03	584.43	237.16	0.66	MWD	None
16	1306.12	69.56	274.04	28.80	1017.31	547.72	-315.37	-517.94	606.40	238.66	1.50	MWD	None
17	1334.83	70.05	274.73	28.71	1027.23	574.37	-313.31	-544.80	628.47	240.10	0.86	MWD	None
18	1363.85	69.53	274.43	29.02	1037.25	601.29	-311.14	-571.95	651.10	241.45	0.62	MWD	None
19	1392.58	68.71	275.05	28.73	1047.49	627.81	-308.92	-598.70	673.70	242.71	1.07	MWD	None
20	1421.35	69.78	276.09	28.77	1057.69	654.33	-306.31	-625.47	696.45	243.91	1.53	MWD	None
21	1450.10	69.67	276.71	28.75	1067.65	680.84	-303.30	-652.27	719.34	245.06	0.63	MWD	None
22	1478.89	69.16	276.67	28.79	1077.77	707.32	-300.16	-679.04	742.43	246.15	0.54	MWD	None
23	1507.71	69.56	276.63	28.82	1087.93	733.81	-297.04	-705.83	765.79	247.18	0.42	MWD	None
24	1536.23	68.92	277.18	28.52	1098.04	759.99	-293.83	-732.31	789.06	248.14	0.88	MWD	None
25	1564.74	69.96	277.23	28.51	1108.05	786.16	-290.48	-758.79	812.49	249.05	1.11	MWD	None
26	1593.29	70.90	275.73	28.55	1117.61	812.60	-287.45	-785.52	836.46	249.90	1.81	MWD	None
27	1621.92	70.06	275.64	28.63	1127.18	839.19	-284.78	-812.37	860.84	250.68	0.90	MWD	None
28	1650.59	70.56	275.91	28.67	1136.84	865.78	-282.06	-839.22	885.36	251.42	0.60	MWD	None
29	1679.03	69.62	275.89	28.44	1146.53	892.11	-279.31	-865.82	909.76	252.12	1.01	MWD	None
30	1707.84	69.72	275.31	28.81	1156.54	918.74	-276.68	-892.71	934.60	252.78	0.59	MWD	None

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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	1736.55	68.90	275.04	28.71	1166.68	945.24	-274.25	-919.46	959.49	253.39	0.91	MWD	None
32	1765.30	69.06	276.26	28.75	1176.99	971.69	-271.61	-946.16	984.38	253.98	1.22	MWD	None
33	1794.27	69.60	275.64	28.97	1187.22	998.37	-268.80	-973.12	1009.56	254.56	0.83	MWD	None
34	1823.11	69.04	275.44	28.84	1197.40	1024.97	-266.20	-999.98	1034.80	255.09	0.62	MWD	None

35	1852.03	69.53	275.65	28.92	1207.63	1051.64	-263.58	-1026.90	1060.19	255.60	0.56	MWD	None
36	1880.90	69.77	275.83	28.87	1217.67	1078.31	-260.87	-1053.83	1085.64	256.10	0.31	MWD	None
37	1909.68	69.52	275.54	28.78	1227.68	1104.89	-258.20	-1080.68	1111.10	256.56	0.39	MWD	None
38	1938.26	69.13	275.50	28.58	1237.77	1131.25	-255.63	-1107.30	1136.42	257.00	0.42	MWD	None
39	1967.35	69.26	276.18	29.09	1248.11	1158.04	-252.86	-1134.35	1162.19	257.43	0.68	MWD	None
40	1995.91	68.72	276.16	28.56	1258.35	1184.27	-250.00	-1160.86	1187.47	257.85	0.58	MWD	None
41	2024.54	68.39	276.92	28.63	1268.81	1210.46	-246.96	-1187.33	1212.74	258.25	0.83	MWD	None
42	2052.95	70.07	277.52	28.41	1278.89	1236.50	-243.62	-1213.68	1237.89	258.65	1.90	MWD	None
43	2081.73	69.89	277.68	28.78	1288.74	1262.97	-240.05	-1240.49	1263.50	259.05	0.25	MWD	None
44	2110.54	69.42	276.26	28.81	1298.76	1289.48	-236.77	-1267.30	1289.23	259.42	1.49	MWD	None
45	2138.95	68.78	275.98	28.41	1308.89	1315.60	-233.94	-1293.69	1314.67	259.75	0.74	MWD	None
46	2167.43	69.07	276.01	28.48	1319.13	1341.76	-231.16	-1320.12	1340.20	260.07	0.31	MWD	None
47	2196.16	69.34	275.78	28.73	1329.33	1368.21	-228.40	-1346.83	1366.06	260.38	0.37	MWD	None
48	2225.13	69.84	276.05	28.97	1339.44	1394.94	-225.61	-1373.84	1392.24	260.67	0.59	MWD	None
49	2253.85	69.45	275.97	28.72	1349.43	1421.45	-222.79	-1400.62	1418.23	260.96	0.42	MWD	None
50	2282.44	68.89	276.00	28.59	1359.59	1447.75	-220.00	-1427.20	1444.05	261.24	0.60	MWD	None
51	2311.22	68.00	275.66	28.78	1370.17	1474.12	-217.28	-1453.82	1469.97	261.50	1.00	MWD	None
52	2339.17	68.65	275.96	27.95	1380.49	1499.70	-214.65	-1479.66	1495.15	261.75	0.77	MWD	None
53	2368.77	69.10	276.88	29.60	1391.16	1526.84	-211.57	-1507.10	1521.88	262.01	1.00	MWD	None
54	2397.42	69.70	276.63	28.65	1401.24	1553.18	-208.41	-1533.73	1547.83	262.26	0.69	MWD	None
55	2425.56	69.55	276.48	28.14	1411.03	1579.10	-205.40	-1559.94	1573.40	262.50	0.22	MWD	None
56	2454.30	69.27	276.20	28.74	1421.14	1605.56	-202.43	-1586.68	1599.54	262.73	0.41	MWD	None
57	2482.37	69.45	276.06	28.07	1431.04	1631.41	-199.62	-1612.80	1625.10	262.94	0.24	MWD	None
58	2511.08	69.69	275.84	28.71	1441.06	1657.90	-196.83	-1639.56	1651.33	263.15	0.34	MWD	None
59	2539.79	69.40	275.87	28.71	1451.09	1684.39	-194.09	-1666.32	1677.58	263.36	0.31	MWD	None
60	2568.91	69.36	275.81	29.12	1461.35	1711.23	-191.32	-1693.43	1704.20	263.55	0.07	MWD	None
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SCHLUMBERGER Survey Report													
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Page 4 of 4													
Seq	Measured	Incl	Azimuth	Course	TVD	Vertical	Displ	Displ	Total	At	DLS	Srvy	Tool
#	depth	angle	angle	length	depth	section	+N/S-	+E/W-	displ	Azim	(deg/	tool	Corr
-	(m)	(deg)	(deg)	(m)	(m)	(m)	(m)	(m)	(m)	(deg)	100f)	type	(deg)
61	2597.17	69.11	275.50	28.26	1471.36	1737.27	-188.71	-1719.72	1730.05	263.74	0.41	MWD	None
62	2625.95	69.02	275.27	28.78	1481.65	1763.78	-186.19	-1746.49	1756.38	263.91	0.25	MWD	None
63	2654.26	66.44	274.97	28.31	1492.38	1789.64	-183.85	-1772.58	1782.09	264.08	2.79	MWD	None
64	2682.92	63.10	274.75	28.66	1504.59	1815.24	-181.66	-1798.41	1807.56	264.23	3.56	MWD	None
65	2711.56	61.05	274.81	28.64	1518.00	1840.24	-179.55	-1823.62	1832.44	264.38	2.18	MWD	None
66	2740.20	57.50	275.87	28.64	1532.63	1864.52	-177.26	-1848.13	1856.61	264.52	3.90	MWD	None
67	2769.36	52.88	277.77	29.16	1549.28	1888.02	-174.43	-1871.90	1880.01	264.68	5.10	MWD	None
68	2798.03	49.82	277.78	28.67	1567.18	1909.92	-171.40	-1894.08	1901.82	264.83	3.25	MWD	None
69	2826.93	47.30	276.02	28.90	1586.31	1931.18	-168.79	-1915.58	1923.00	264.96	3.00	MWD	None
70	2855.51	44.39	274.85	28.58	1606.21	1951.40	-166.84	-1935.99	1943.17	265.07	3.23	MWD	None
71	2883.79	41.24	275.02	28.28	1626.96	1970.38	-165.19	-1955.14	1962.10	265.17	3.40	MWD	None
72	2912.11	38.64	274.19	28.32	1648.67	1988.35	-163.73	-1973.26	1980.04	265.26	2.86	MWD	None
73	2941.26	35.57	274.11	29.15	1671.91	2005.75	-162.46	-1990.80	1997.41	265.33	3.21	MWD	None
74	2970.11	32.14	274.48	28.85	1695.87	2021.64	-161.26	-2006.82	2013.29	265.41	3.63	MWD	None
75	2998.82	29.63	274.67	28.71	1720.50	2036.21	-160.08	-2021.51	2027.84	265.47	2.67	MWD	None
76	3027.33	29.25	274.48	28.51	1745.33	2050.06	-158.96	-2035.48	2041.68	265.53	0.42	MWD	None
77	3055.52	29.04	274.60	28.19	1769.95	2063.63	-157.88	-2049.16	2055.24	265.59	0.24	MWD	None
78	3084.06	29.42	274.47	28.54	1794.86	2077.41	-156.77	-2063.06	2069.01	265.65	0.41	MWD	None
79	3112.84	29.69	274.29	28.78	1819.89	2091.45	-155.69	-2077.21	2083.04	265.71	0.30	MWD	None
80	3121.10	29.93	274.33	8.26	1827.06	2095.51	-155.38	-2081.31	2087.10	265.73	0.89	MWD	None
81	3142.00	29.97	274.40	20.90	1845.17	2105.84	-154.58	-2091.72	2105.84	265.77	0.08	Projection to TD	
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Company:
ESSO Australia Pty. Ltd.

Well:
TNA A14A

Field:
Tuna

Rig:
ISDL 453

State:
Victoria

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

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