

TIMBRO STATE LD16-68-1HN

MD
2":100'

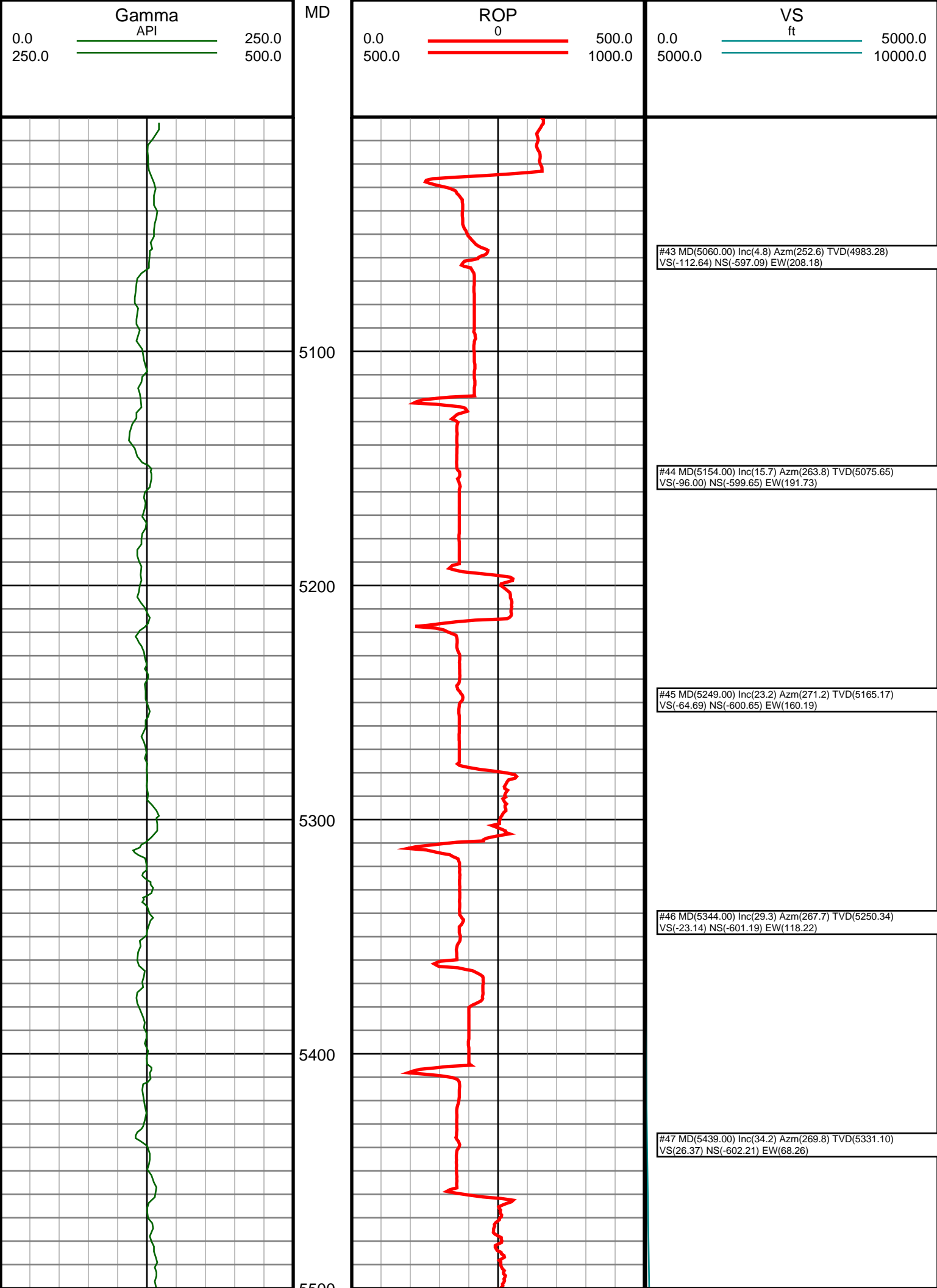
Company: Noble Energy Inc
Well Name: TIMBRO STATE LD16-67HN
UWI or LSD: 05-123-37490
Rig Id: H&P 273
State: Colorado
County/Parish: Weld
Country: USA
Survey Company: Ensign Directional
Job number: 139452
Dir. Driller Days Kody Wood
Dir. Driller Nights Mike David
MWD/LWD Days Tyler Teague
MWD/LWD Nights Jamey House

Log measurements:
Depth measured from:
Maximum temperature: 210.2

Depth **Date**
Start: 1223 ft 11/26/2013
End: 9917 ft 11/30/2013

Casing	Depth	Size	Mud Type:	Elevations
Surface:	1213	9.625	Density:	KB: 4749
Intermediate:	6111	7	Viscosity:	GL: 4725
			Rm:	DF: 4749
			Rmf:	
			Rmc:	

Run	Bit Size	Offsets	Gamma	Survey	Start	Depths	End	Start	Dates	End
1	8.75	-1.00	-1.00		0	1223		11/25/2013		11/26/2013
2	8.75	61.95	56.95		1223	4932		11/26/2013		11/27/2013
3	8.75	61.94	56.94		4932	6119		11/27/2013		11/27/2013
4	6.125	71.50	66.50		6119	9917		11/28/2013		11/30/2013
5										
6										
7										
8										
9										
10										





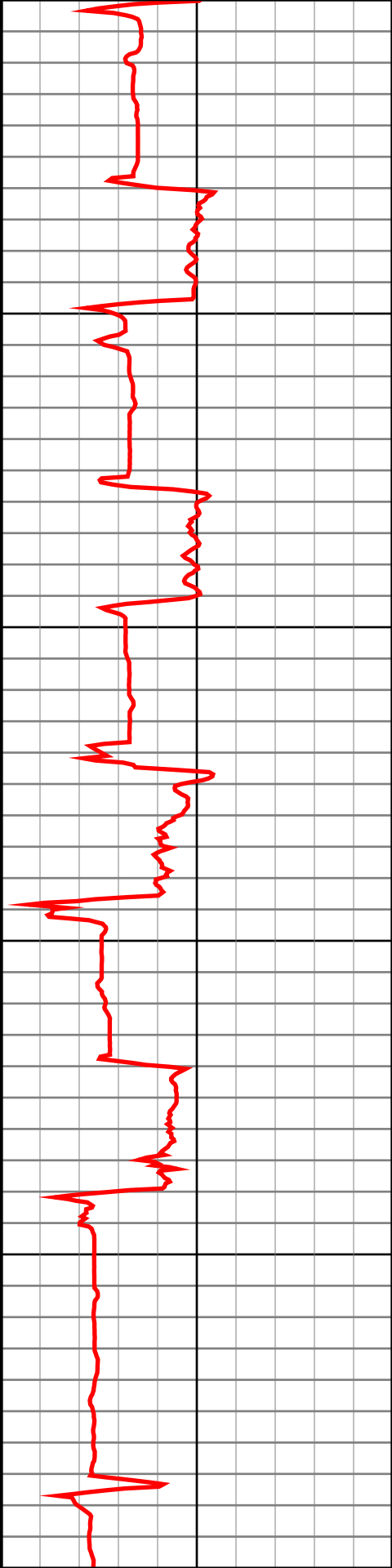
5600

5700

5800

5900

6000



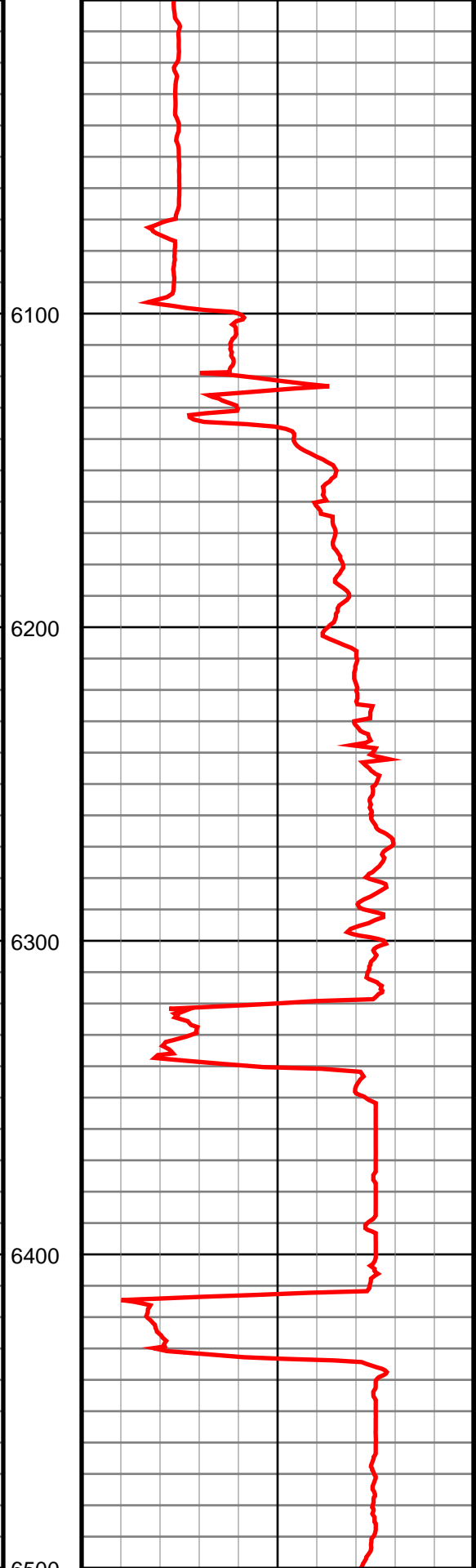
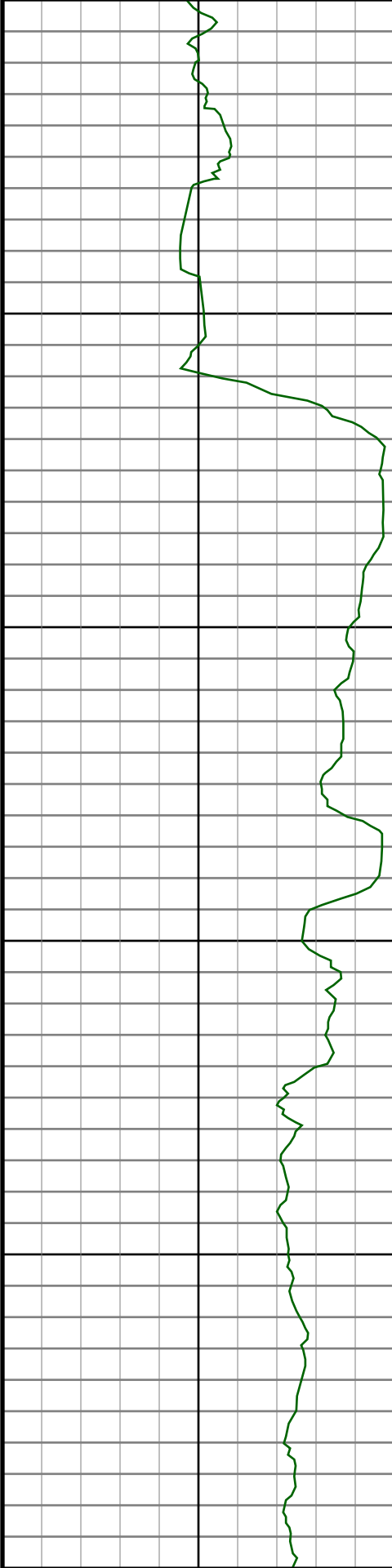
#48 MD(5534.00) Inc(39.3) Azm(270.3) TVD(5407.20)
VS(82.48) NS(-602.15) EW(11.44)

#49 MD(5629.00) Inc(46.3) Azm(267.7) TVD(5476.86)
VS(146.37) NS(-603.37) EW(-53.05)

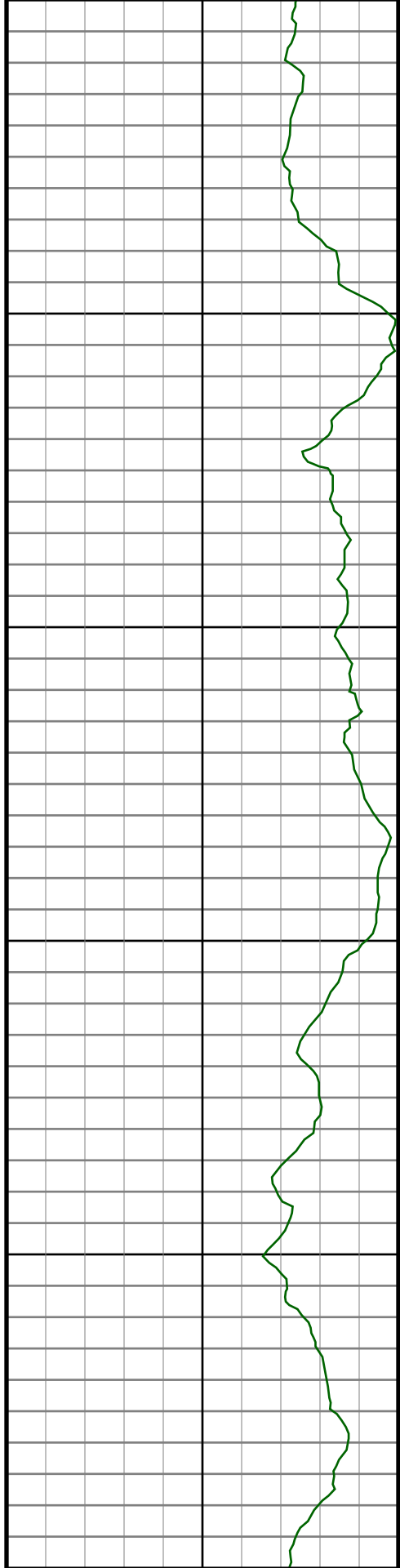
#50 MD(5723.00) Inc(53.0) Azm(267.7) TVD(5537.69)
VS(217.48) NS(-606.25) EW(-124.59)

#51 MD(5818.00) Inc(57.1) Azm(267.0) TVD(5592.10)
VS(294.86) NS(-609.86) EW(-202.35)

#52 MD(5913.00) Inc(61.4) Azm(266.6) TVD(5640.66)
VS(376.08) NS(-614.42) EW(-283.85)



#53 MD(6007.00) Inc(74.4) Azm(267.4) TVD(5675.95) VS(462.51) NS(-618.94) EW(-370.64)
#54 MD(6059.00) Inc(82.4) Azm(268.6) TVD(5686.40) VS(513.03) NS(-620.71) EW(-421.50)
#55 MD(6153.00) Inc(86.7) Azm(269.8) TVD(5695.33) VS(605.63) NS(-622.01) EW(-515.04)
#56 MD(6246.00) Inc(86.8) Azm(270.2) TVD(5700.60) VS(697.35) NS(-622.01) EW(-607.89)
#57 MD(6339.00) Inc(87.8) Azm(271.0) TVD(5704.98) VS(788.96) NS(-621.04) EW(-700.78)
#58 MD(6434.00) Inc(89.6) Azm(271.6) TVD(5707.13) VS(882.41) NS(-618.88) EW(-795.73)



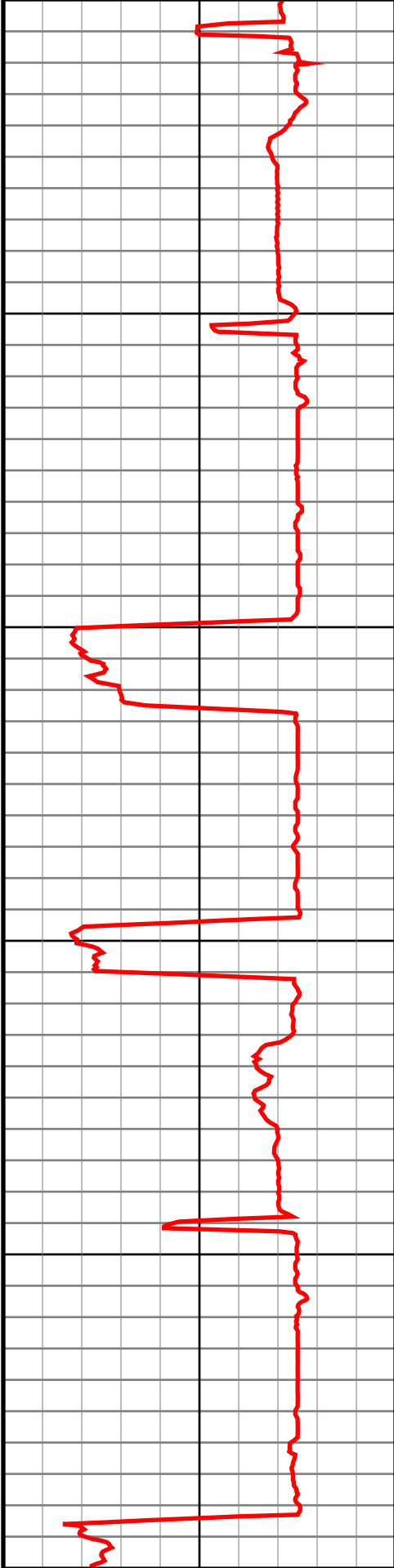
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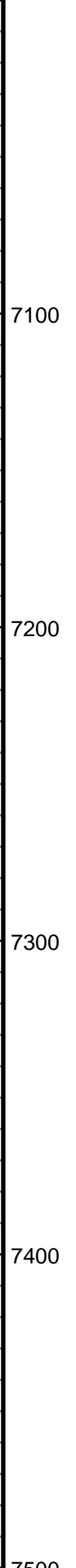
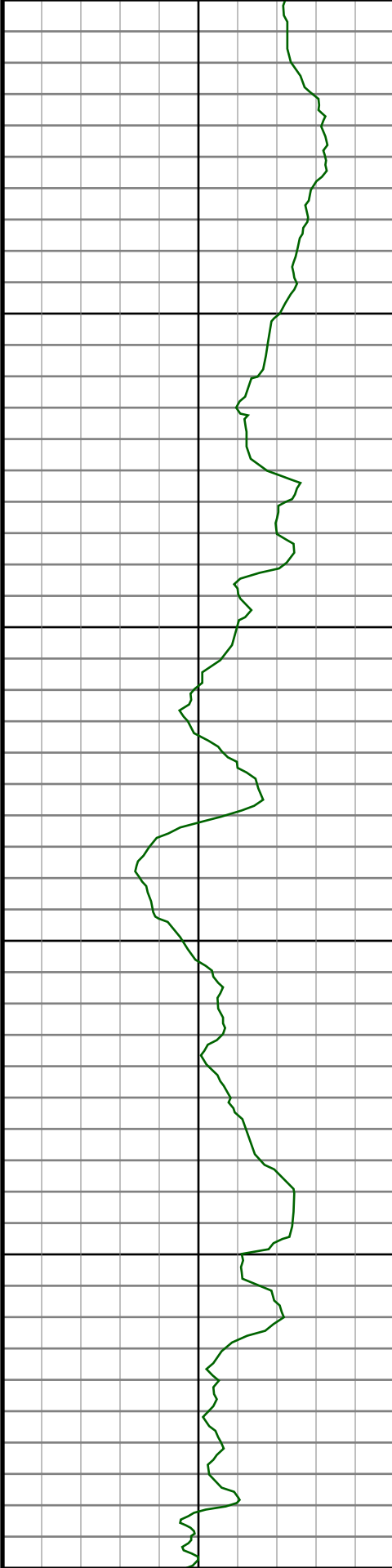
#59 MD(6529.00) Inc(89.7) Azm(271.6) TVD(5707.72)
VS(975.80) NS(-616.23) EW(-890.69)

#60 MD(6624.00) Inc(90.0) Azm(272.3) TVD(5707.96)
VS(1069.08) NS(-613.00) EW(-985.63)

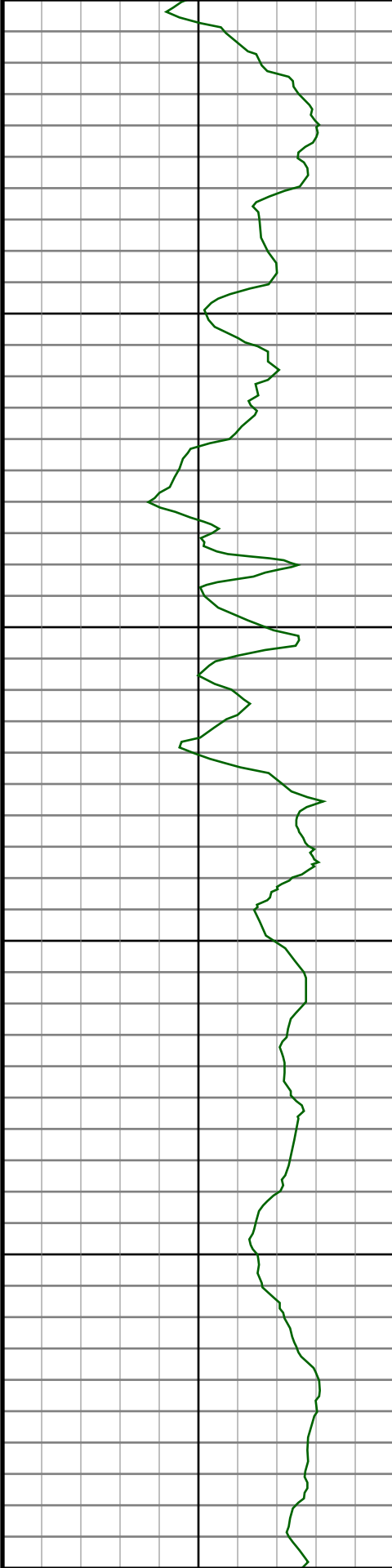
#61 MD(6718.00) Inc(89.5) Azm(270.9) TVD(5708.37)
VS(1161.48) NS(-610.37) EW(-1079.59)

#62 MD(6813.00) Inc(88.9) Azm(269.8) TVD(5709.70)
VS(1255.22) NS(-609.79) EW(-1174.58)

#63 MD(6908.00) Inc(89.2) Azm(270.0) TVD(5711.28)
VS(1349.07) NS(-609.96) EW(-1269.57)



#64 MD(7003.00) Inc(89.2) Azm(268.4) TVD(5712.60) VS(1443.10) NS(-611.29) EW(-1364.55)
#65 MD(7098.00) Inc(89.2) Azm(268.8) TVD(5713.93) VS(1537.27) NS(-613.61) EW(-1459.51)
#66 MD(7193.00) Inc(89.3) Azm(268.8) TVD(5715.17) VS(1631.39) NS(-615.60) EW(-1554.48)
#67 MD(7288.00) Inc(89.5) Azm(268.8) TVD(5716.17) VS(1725.51) NS(-617.59) EW(-1649.45)
#68 MD(7383.00) Inc(89.5) Azm(268.9) TVD(5717.00) VS(1819.63) NS(-619.49) EW(-1744.43)
#69 MD(7478.00) Inc(88.5) Azm(269.5) TVD(5718.65) VS(1913.65) NS(-620.82) EW(-1839.41)



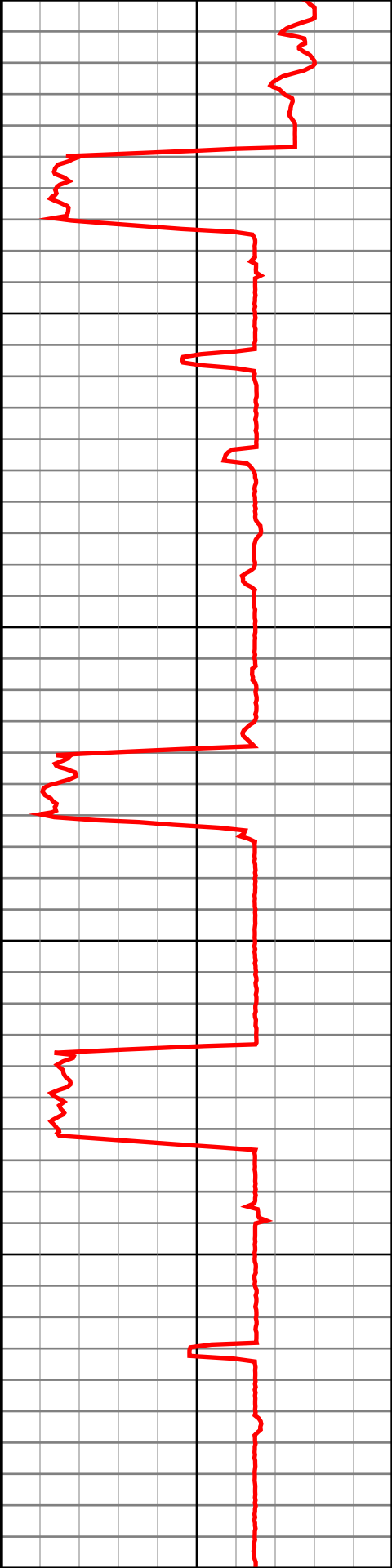
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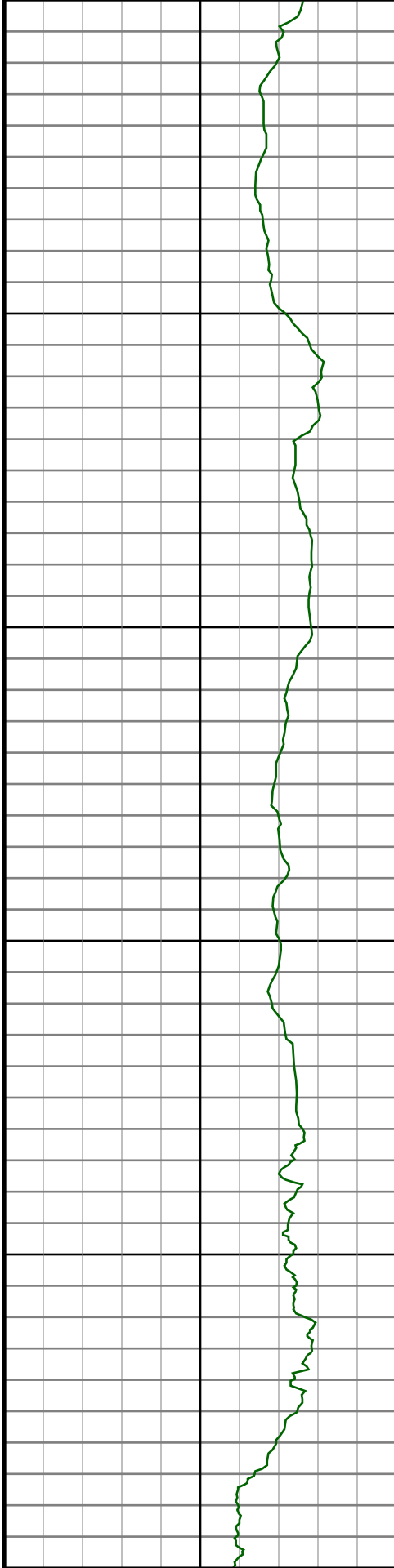
#70 MD(7573.00) Inc(89.9) Azm(268.4) TVD(5719.98)
VS(2007.73) NS(-622.56) EW(-1934.38)

#71 MD(7667.00) Inc(90.8) Azm(268.4) TVD(5719.41)
VS(2100.96) NS(-625.18) EW(-2028.34)

#72 MD(7762.00) Inc(90.7) Azm(268.4) TVD(5718.16)
VS(2195.16) NS(-627.84) EW(-2123.29)

#73 MD(7857.00) Inc(88.2) Azm(267.5) TVD(5719.07)
VS(2289.46) NS(-631.23) EW(-2218.22)

#74 MD(7951.00) Inc(88.0) Azm(267.4) TVD(5722.19)
VS(2382.82) NS(-635.41) EW(-2312.07)



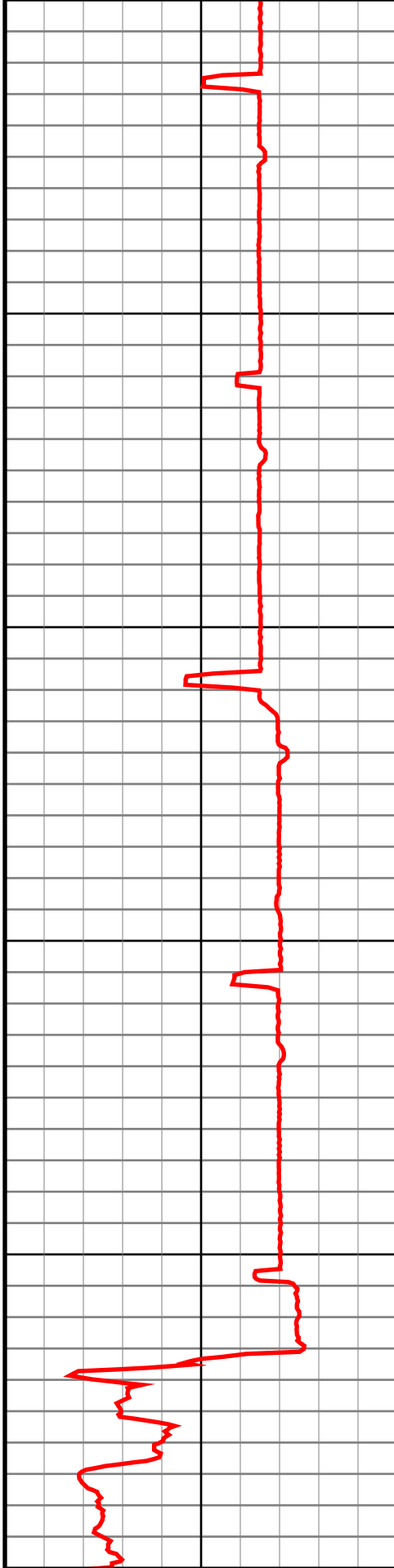
8100

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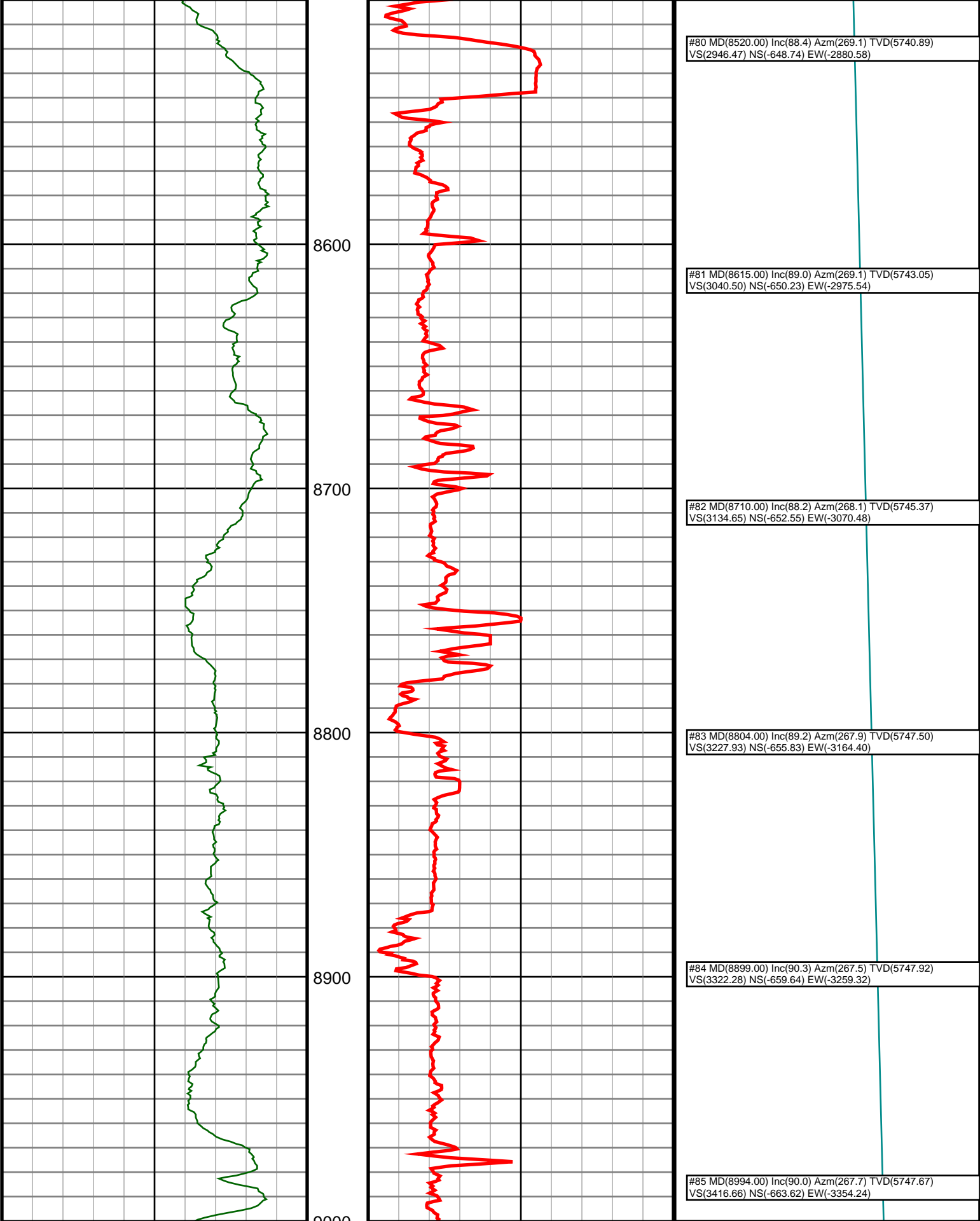
#75 MD(8046.00) Inc(88.1) Azm(268.1) TVD(5725.42)
VS(2477.12) NS(-639.14) EW(-2406.94)

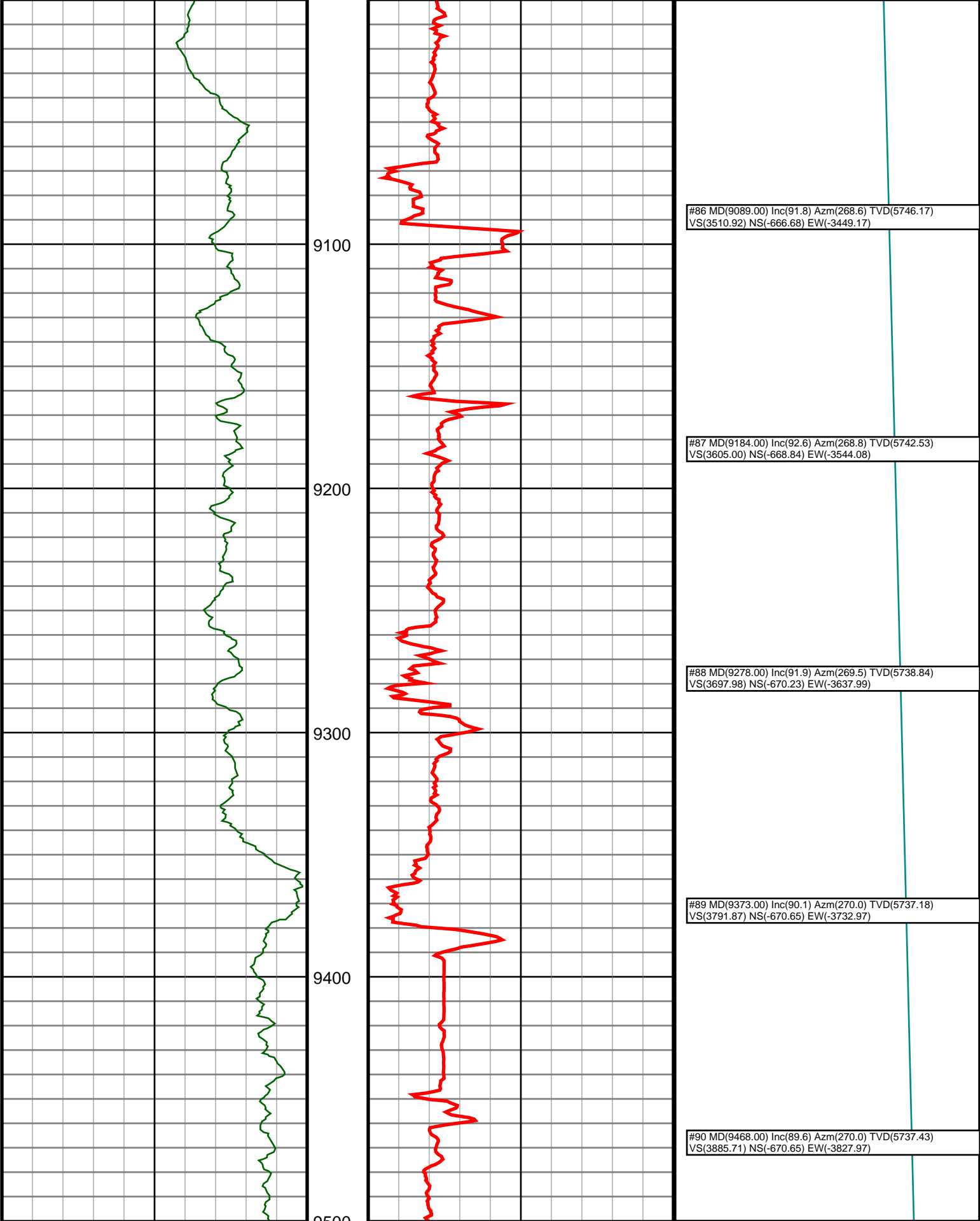
#76 MD(8141.00) Inc(88.0) Azm(268.1) TVD(5728.66)
VS(2571.34) NS(-642.29) EW(-2501.84)

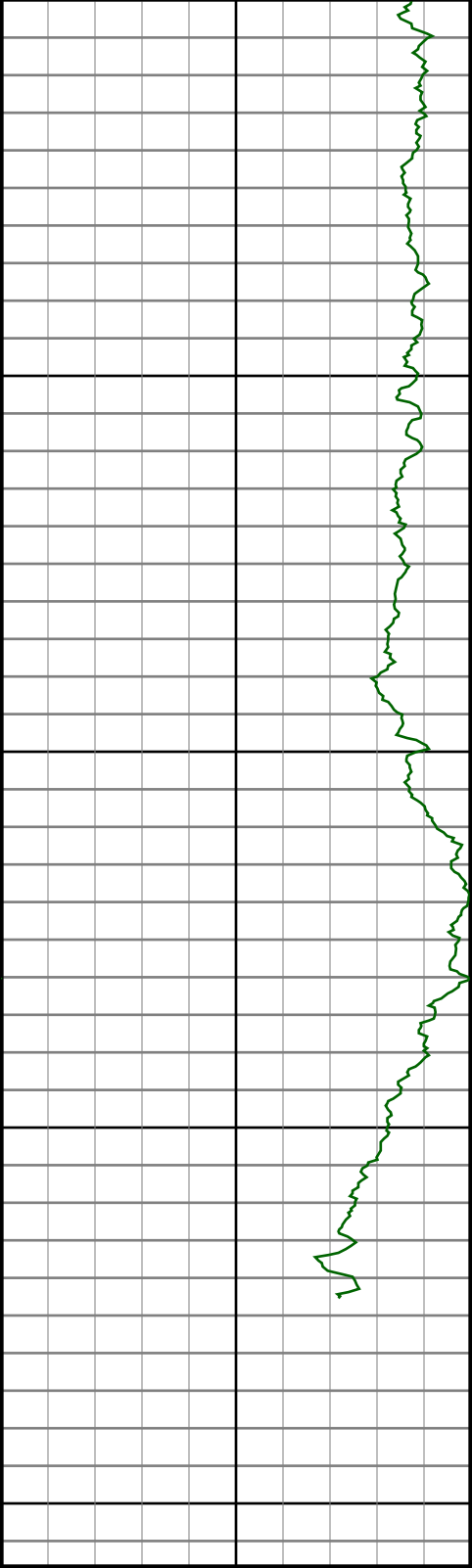
#77 MD(8236.00) Inc(88.5) Azm(269.1) TVD(5731.56)
VS(2665.47) NS(-644.61) EW(-2596.76)

#78 MD(8331.00) Inc(88.0) Azm(269.3) TVD(5734.46)
VS(2759.46) NS(-645.93) EW(-2691.71)

#79 MD(8426.00) Inc(87.9) Azm(269.1) TVD(5737.86)
VS(2853.44) NS(-647.26) EW(-2786.64)





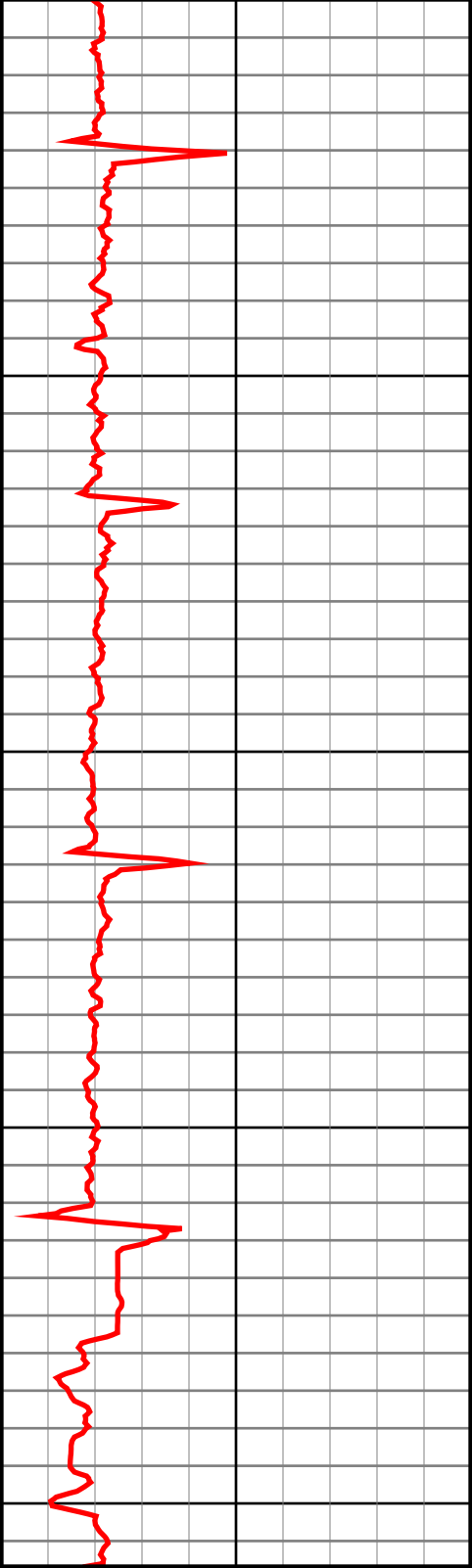


9600

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#91 MD(9563.00) Inc(88.8) Azm(270.3) TVD(5738.75)
VS(3979.50) NS(-670.40) EW(-3922.96)

#92 MD(9658.00) Inc(88.5) Azm(270.3) TVD(5740.99)
VS(4073.24) NS(-669.90) EW(-4017.93)

#93 MD(9753.00) Inc(88.3) Azm(270.3) TVD(5743.64)
VS(4166.96) NS(-669.40) EW(-4112.90)

#94 MD(9847.00) Inc(88.5) Azm(270.3) TVD(5746.37)
9850.0:Bit Projection @9870' INC: 90.3 AZM: 266.1
TVD: 5736.09 VS: 4296.73

0.0 250.0
Gamma API 250.0 500.0

0.0 500.0
ROP 0 500.0 1000.0

0.0 5000.0
VS ft 5000.0 10000.0