

SlimPulse - Gamma Ray

1 in / 100 ft & 5 in / 100 ft True Vertical Depth

Recorded Mode, Composite Log



Company:

Noble Energy

Well:

Rohn State LD03-65-1HN

Field:

Wattenberg

County:

Weld

State:

Colorado

Country:

USA

Section: 04

UWID:

05-123-37467-00

Township: 09N

Rig Name:

H&P 277

Range: 58W

Rig Type:

Top Drive

FL: NAD 83 Colorado State Plane, Northern Zone, US Feet

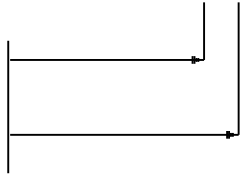
FL1: Latitude: N 40° 46' 43.75" Northing: 1530763.19 ftUS

FL2: Longitude: W 103° 51' 40.86" Easting: 3453804.84 ftUS

Log Measured From: - Drill Floor: 4723.00 ft

Ground Level: 4699.00 ft

Permanent Datum: - Mean Sea Level



Acquisition Dates:

26-Aug-2014 -- 31-Aug-2014

Other Services:

Log Interval:

1224.00(ft)TVD to 5741.00(ft)TVD

Directional Drilling

Index Types:

True Vertical Depth

Surveys / Continuous D&I

Index Scales:

1:1200 1" / 100', 1:240 5" / 100'

Downhole Temperature

Depth Source:

Driller's Depth

Downhole Shocks

Depth Sensor:

PASON

Print Type:

Final

Spud Date:

24-Aug-2014



Disclaimer

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 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.

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Borehole Size/Casing Record						
Bit						
Bit Size (in)	13.5	8.75	6.125			
Top Driller (ft)	0	1224	6086			
Bottom Driller (ft)	1224	6086	10270			
Casing						
Size (in)	9.625	7				
Weight (lbm/ft)	36	32				
Inner Diameter (in)	8.921	6.094				
Grade	J55	P110				
Top Driller (ft) (ft)	0	1213				
Bottom Driller (ft)	1213	6074				

Operational Run Summary						
Parameter (unit)	Run001	Run002	Run003			
Date Log Started	25-Aug-2014	27-Aug-2014	29-Aug-2014			
Time Log Started	10:00:07	03:39:40	15:12:52			
Date Log Finished	26-Aug-2014	28-Aug-2014	31-Aug-2014			
Time Log Finished	23:19:28	07:16:20	16:03:32			
Bit Size (in)	8.750	8.750	6.125			
Bit Start Depth (ft)	1224.00	5133.00	6085.00			
Bit Stop Depth (ft)	5133.00	6085.00	10270.00			
Top Log Interval (ft)	1175.00	5083.00	6028.00			
Bottom Log Interval (ft)	5083.00	6028.00	10205.00			
Max Hole Deviation (deg)	0.00	84.60	93.06			
Azimuth of Max Deviation (deg)	0.00	90.06	92.29			
Logging Unit Number	Command Center	Command Center	Command Center			
Logging Unit Location	Zone 2	Zone 2	Zone 2			
Recorded By	P. Michels	P. Michels	C. Welty			
Witnessed By	T. Pingle	T. Pingle	T. Pingle			
Service Order Number	14CCO0609	14CCO0609	14CCO0609			

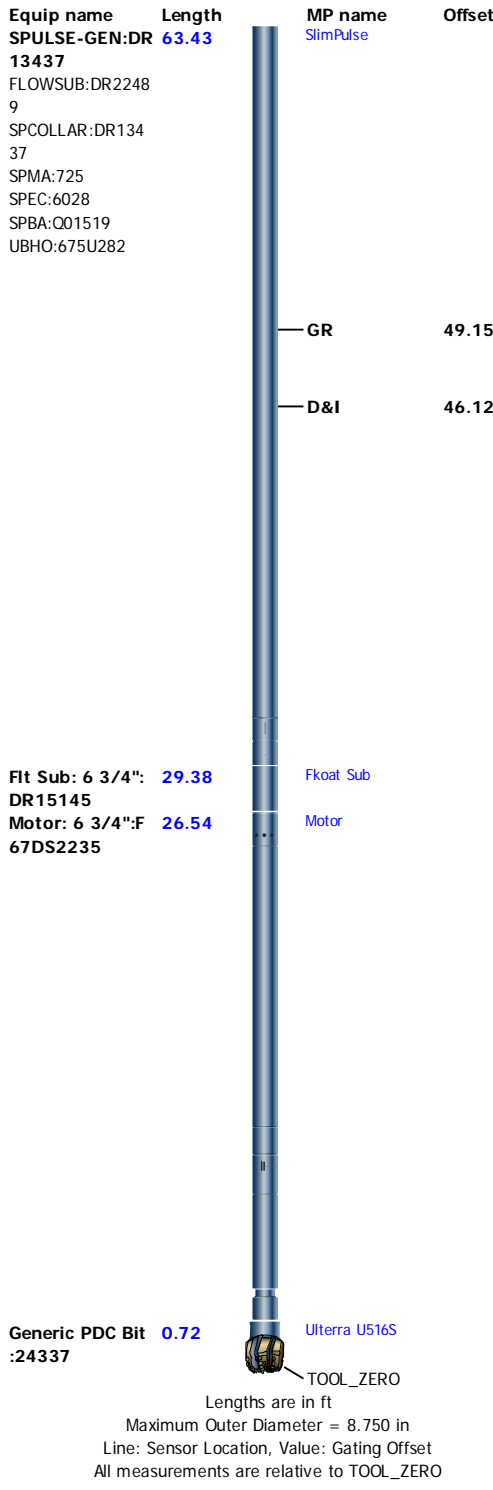
Borehole Fluids						
Parameter(unit)	Run001	Run002	Run003			
Fluid Type	Water	Water	Water			
Fluid Name	Salt Brine	Salt Brine	Salt Brine			
Max Recorded Temperatures (degF)	148.1	163.4	218.3			
Source of Sample	Active Tank	Active Tank	Active Tank			

Salinity (ppm)	907.5	907.5	1155			
Density (lbm/gal)	Zoned	Zoned	Zoned			
Funnel Viscosity (s)	29	47	42			
Fluid Loss (cm3)						
PH	11.9	9.3	9.3			
Source RMF						
RMC	Pressed	Pressed	Pressed			
RM @ Meas Temp (ohm.m@degF)	0.2 @ 68	0.2 @ 68	0.2 @ 68			
RMF @ Meas Temp (ohm.m@degF)	0.15 @ 68	0.15 @ 68	0.15 @ 68			
RMC @ Meas Temp (ohm.m@degF)						
RM @ BHT (ohm.m@degF)	0.07 @ 212	0.07 @ 212	0.07 @ 212			
RMF @ BHT (ohm.m@degF)	0.05 @ 212	0.05 @ 212	0.05 @ 212			
RMC @ BHT (ohm.m@degF)	NaN @ 212	NaN @ 212	NaN @ 212			
Total Solid (%)	1.8	8.8	6.7			
High Gravity Solids (%)	0.7	7.5	3.5			

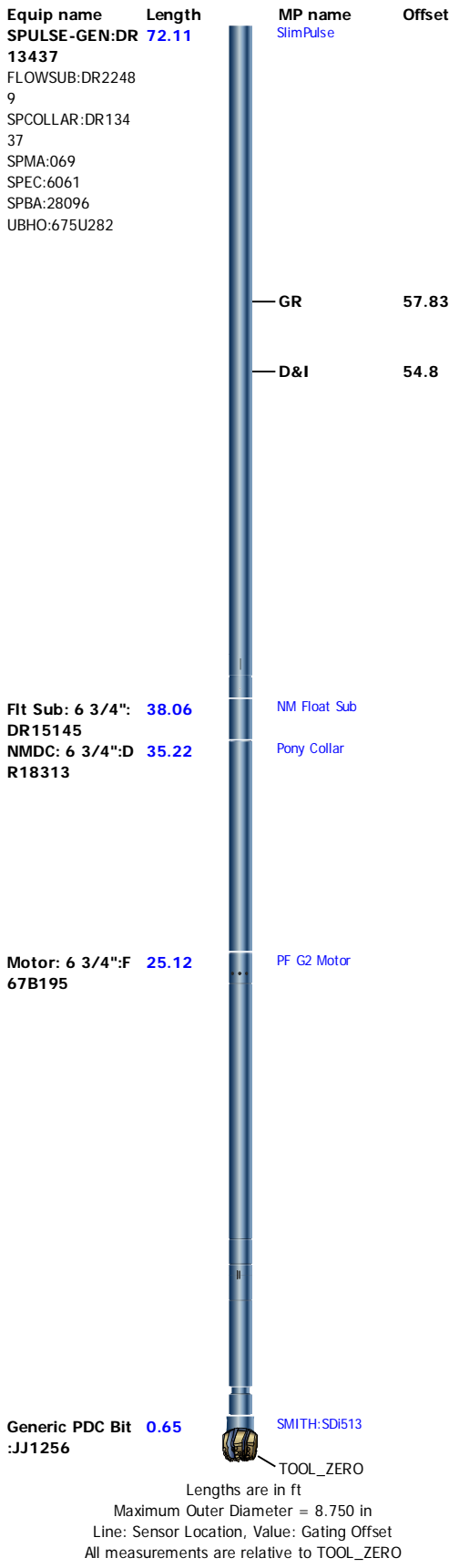
Zoned Borehole Fluids		
Run001		
Parameter	Value	Start
Density	9	8/25/2014 10:00:07 AM
Density	8.65	8/26/2014 3:00:00 AM
Density	8.85	8/26/2014 1:00:00 PM
Run002		
Parameter	Value	Start
Density	9.35	8/27/2014 3:39:40 AM
Density	10.5	8/27/2014 2:00:00 PM
Run003		
Parameter	Value	Start
Density	9.7	8/29/2014 3:12:52 PM
Density	9.9	8/30/2014 3:00:00 AM
Density	9.7	8/30/2014 1:00:00 PM
Density	9.75	8/31/2014 3:00:00 AM

Remarks and Equipment Summary						
Data presented is from tool memory and acquired while drilling from 1224.00 ft to 10270.00 ft.						
Depth Reference: Driller's Depth						
Environmental Corrections: Gamma Ray is corrected for bit size, mud weight, and tool collar thickness. Barite and Potassium in the mud affect Gamma Ray readings.						
Run001: Remarks		Run002: Remarks		Run003: Remarks		
Run Objective: Drill vertical to KOP		Run Objective: Drill curve to the landing point		Run Objective: Drill lateral to well TD		
Bit to Gamma Ray: 49.15 ft Bit to D&I: 46.12 ft		Bit to Gamma Ray: 57.83 ft Bit to D&I: 54.80 ft		Bit to Gamma Ray: 66.49 ft Bit to D&I: 63.46 ft		
Drilled from: 1223.00 ft to 5130.00 ft Logged from: 1175.00 ft to 5083.00 ft		Drilled from: 5130.00 ft to 6085.00 ft Logged from: 5083.00 ft to 6028.00 ft		Drilled from: 6085.00 ft to 10270.00 ft Logged from: 6028.00 ft to 10205.00 ft		
SlimPulse Software: v11.0C00 SlimPulse D&I calibrated on: 1-May-2014 SlimPulse GR calibrated on: 7-May-2014		SlimPulse Software: v11.0C00 SlimPulse D&I calibrated on: 13-Dec-2012 SlimPulse GR calibrated on: 2-Apr-2014		SlimPulse Software: v11.0C00 SlimPulse D&I calibrated on: 16-Aug-2013 SlimPulse GR calibrated on: 24-May-2014		
PathFinder a Schlumberger Co. Personnel: DD: Ruben Guerrero & Jordan Timbs MWD: Tim Pingle & Paul Michaels		PathFinder a Schlumberger Co. Personnel: DD: Ruben Guerrero & Jordan Timbs MWD: Tim Pingle Paul Michaels,		PathFinder a Schlumberger Co. Personnel: DD: Ruben Guerrero & Jordan Timbs MWD: Tim Pingle & Chad Welty		
Reason for POOH: Section TD		Reason for POOH: Section TD		Reason for POOH: Well TD		

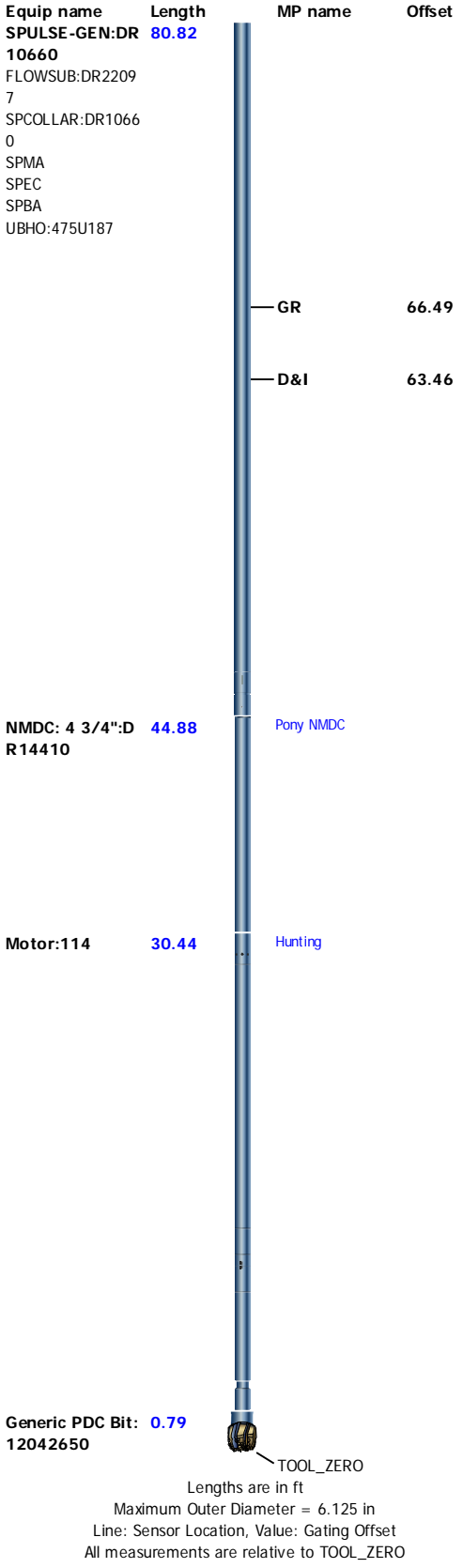
Run001: Toolstring



Run002: Toolstring



Run003: Toolstring



Well Composite

1 in / 100 ft True Vertical Depth

Composite Summary

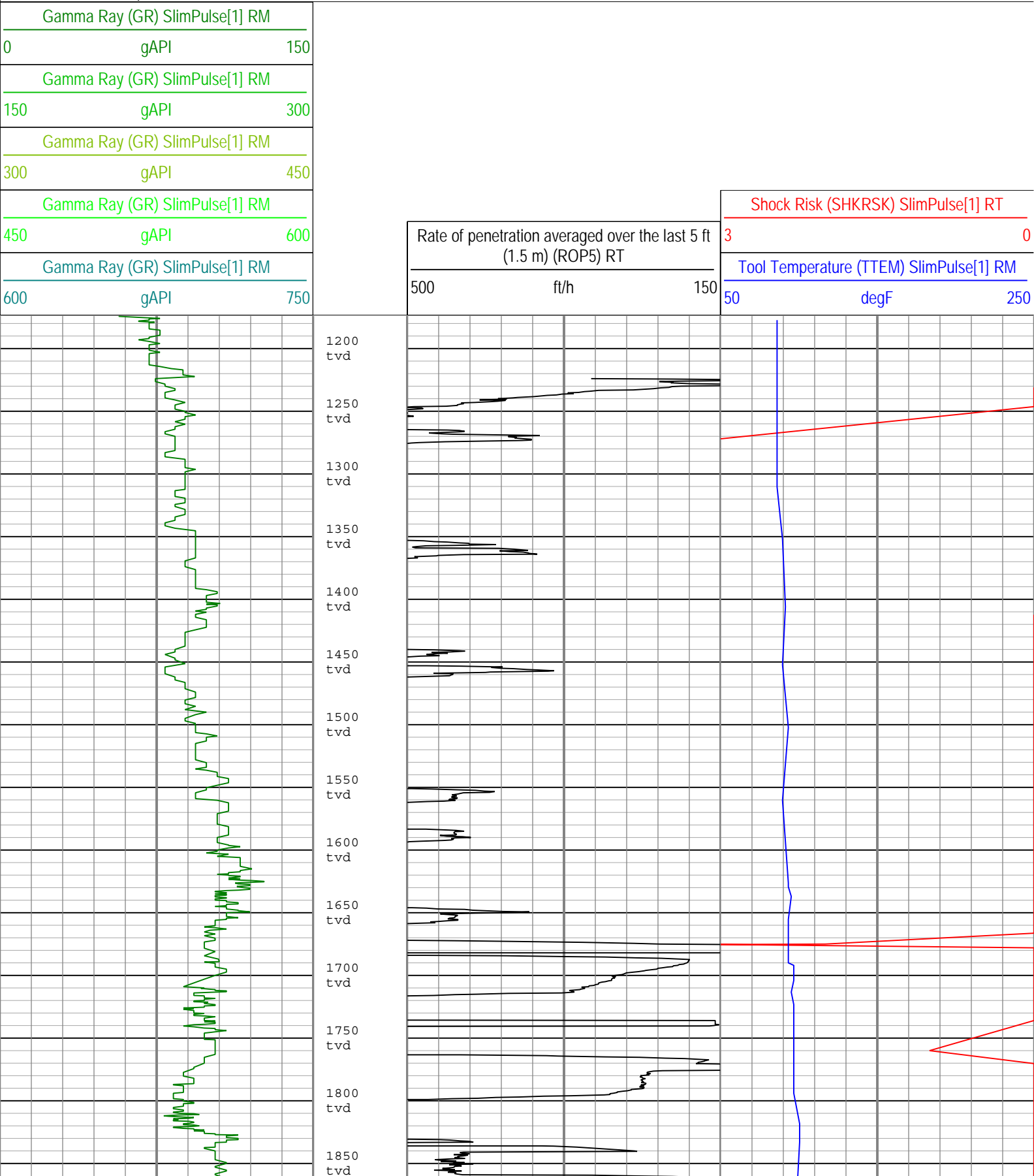
Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	Include Parallel Data
Run001	Drilling	Down	1223.25 ft	5133.00 ft	26-Aug-2014 12:59:17 AM	26-Aug-2014 11:19:28 PM	No

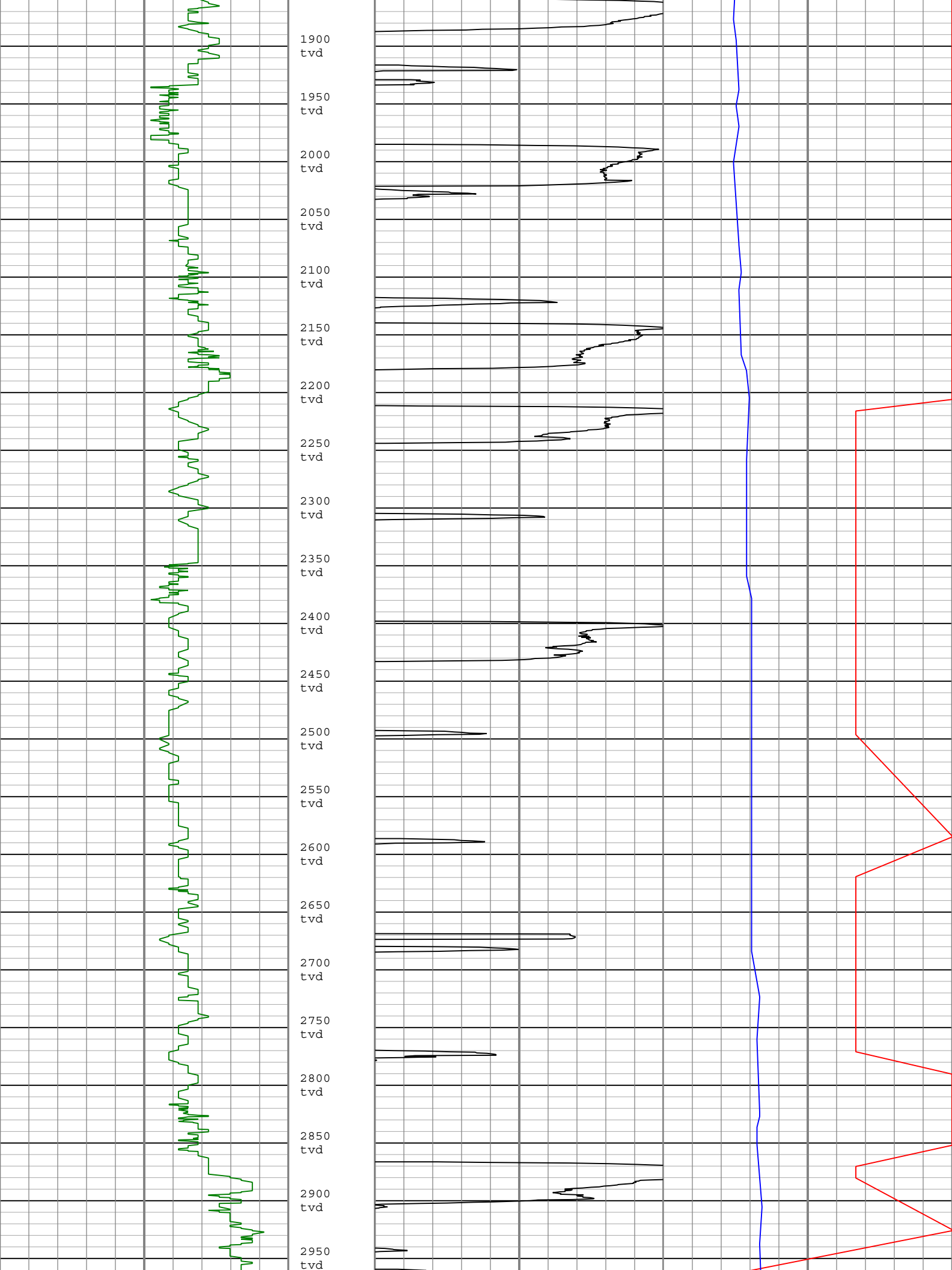
Run002	Drilling	Down	5130.00 ft	6086.75 ft	27-Aug-2014 8:19:52 AM	28-Aug-2014 7:16:20 AM	No
Run003	Drilling	Down	6000.33 ft	10272.25 ft	29-Aug-2014 4:29:47 PM	31-Aug-2014 4:03:32 PM	No

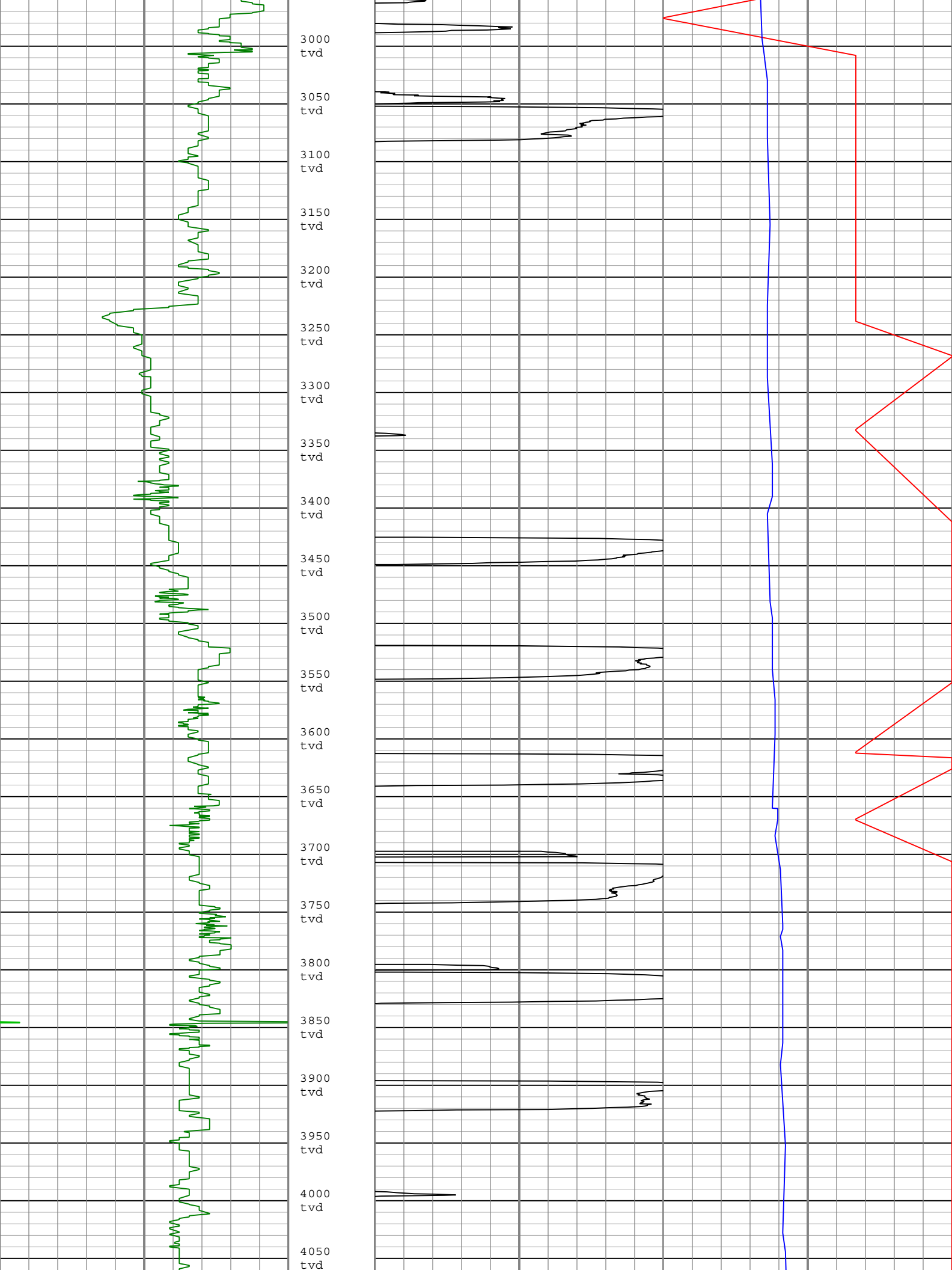
All depths are referenced to toolstring zero

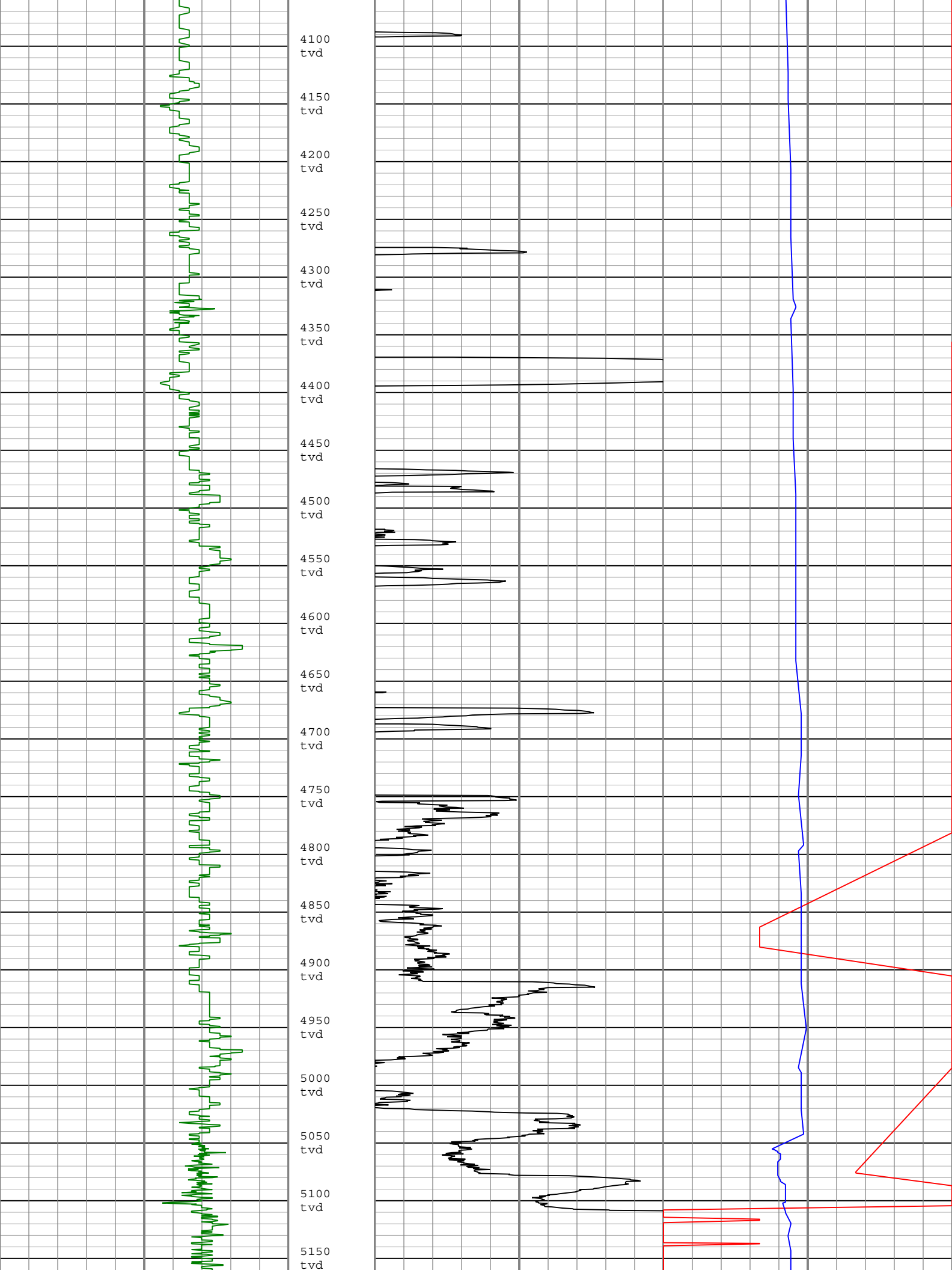
Log	Company:Noble Energy	Well:Rohn State LD03-65-1HN
		Well Composite:S167

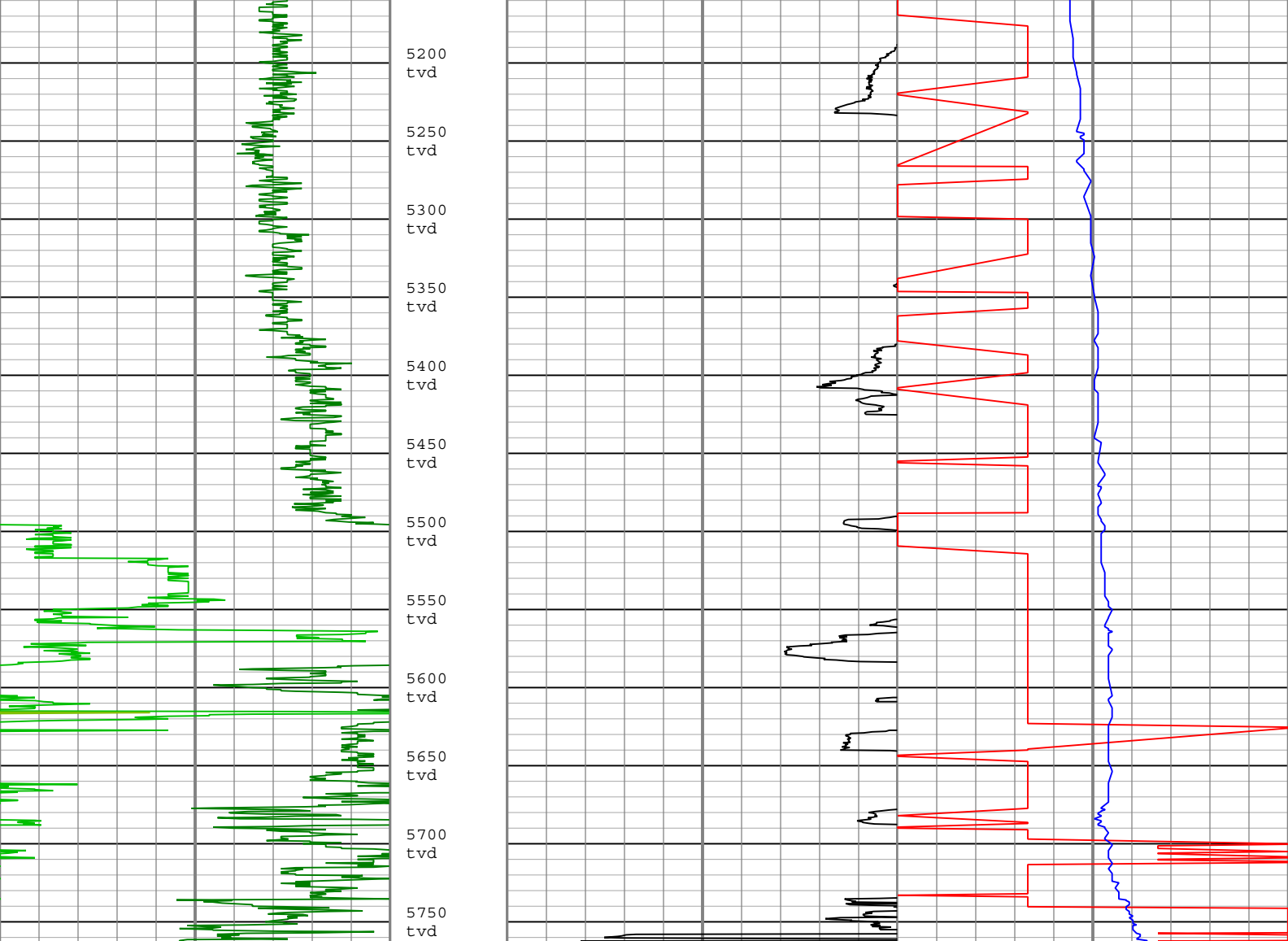
Description: SlimPulse Gamma Ray 1 Format: Log (SlimPulse Gamma Ray Final TVD) Index Scale: 1 in per 100 ft Index Unit: ft Index Type: TVD
Creation Date: 25-Sep-2014 16:07:36











Gamma Ray (GR) SlimPulse[1] RM		
0	gAPI	150
Gamma Ray (GR) SlimPulse[1] RM		
150	gAPI	300
Gamma Ray (GR) SlimPulse[1] RM		
300	gAPI	450
Gamma Ray (GR) SlimPulse[1] RM		
450	gAPI	600
Gamma Ray (GR) SlimPulse[1] RM		
600	gAPI	750

Rate of penetration averaged over the last 5 ft (1.5 m) (ROP5) RT		
500	ft/h	150

Shock Risk (SHKRSK) SlimPulse[1] RT		
3		0
Tool Temperature (TTEM) SlimPulse[1] RM		
50	degF	250

Description: SlimPulse Gamma Ray 1 Format: Log (SlimPulse Gamma Ray Final TVD) Index Scale: 1 in per 100 ft Index Unit: ft Index Type: TVD
Creation Date: 25-Sep-2014 16:07:36

Channel Processing Parameters				
Run001: Parameters				
Parameter	Description	Tool	Value	Unit
BS	Bit Size	DNMSESSION	Depth Zoned	in
DFD	Drilling Fluid Density	Borehole	Time Zoned	lbm/gal
GR_SRC	GR Source Selection	SPULSE-GEN	GAMMA_EXT	
Run001Depth Zoned Parameters				
Parameter	Value	Start (ft)	Stop (ft)	

BS	13.5	1174.07	1223.07
BS	8.75	1223.07	5110.5

All depth are actual.

Run001Time Zoned Parameters

Pass Drilling

Parameter	Value	Start Time	Stop Time	Start Depth (ft)	Stop Depth (ft)
DFD	9	26-Aug-2014 00:59:17	26-Aug-2014 03:00:00	1223.25	1674.92
DFD	8.65	26-Aug-2014 03:00:00	26-Aug-2014 13:00:00	1674.92	3729
DFD	8.85	26-Aug-2014 13:00:00	26-Aug-2014 23:19:28	3729	5133

All depth are at tool zero.

Run002: Parameters

Parameter	Description	Tool	Value	Unit
BS	Bit Size	DNMSESSION	8.75	in
DFD	Drilling Fluid Density	Borehole	Time Zoned	lbm/gal
GR_SRC	GR Source Selection	SPULSE-GEN	GAMMA_EXT	

Run002Time Zoned Parameters

Pass Drilling

Parameter	Value	Start Time	Stop Time	Start Depth (ft)	Stop Depth (ft)
DFD	9.35	27-Aug-2014 08:19:52	27-Aug-2014 14:00:00	5130	5465.58
DFD	10.5	27-Aug-2014 14:00:00	28-Aug-2014 07:16:20	5465.58	6086.75

All depth are at tool zero.

Run003: Parameters

Parameter	Description	Tool	Value	Unit
BS	Bit Size	DNMSESSION	Depth Zoned	in
DFD	Drilling Fluid Density	Borehole	Time Zoned	lbm/gal
GR_SRC	GR Source Selection	SPULSE-GEN	GAMMA_EXT	

Run003Depth Zoned Parameters

Parameter	Value	Start (ft)	Stop (ft)
BS	8.75	5712.22	5741.07
BS	6.125	5741.07	5763.18

All depth are actual.

Run003Time Zoned Parameters

Pass Drilling

Parameter	Value	Start Time	Stop Time	Start Depth (ft)	Stop Depth (ft)
DFD	9.7	29-Aug-2014 16:29:47	30-Aug-2014 03:00:00	6000.33	7406
DFD	9.9	30-Aug-2014 03:00:00	30-Aug-2014 13:00:00	7406	8709.83
DFD	9.7	30-Aug-2014 13:00:00	31-Aug-2014 03:00:00	8709.83	9937.5
DFD	9.75	31-Aug-2014 03:00:00	31-Aug-2014 16:03:32	9937.5	10272.25

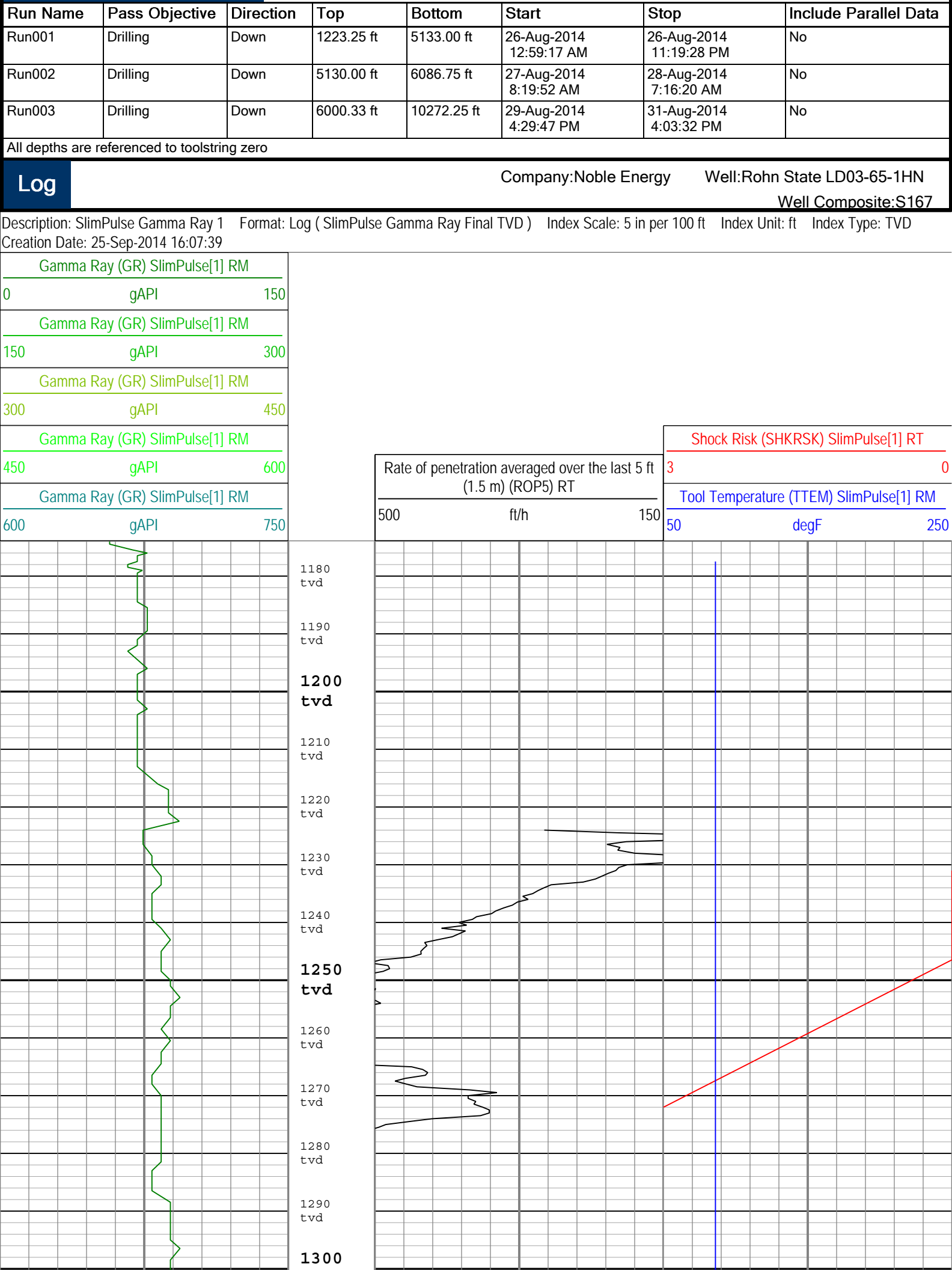
All depth are at tool zero.

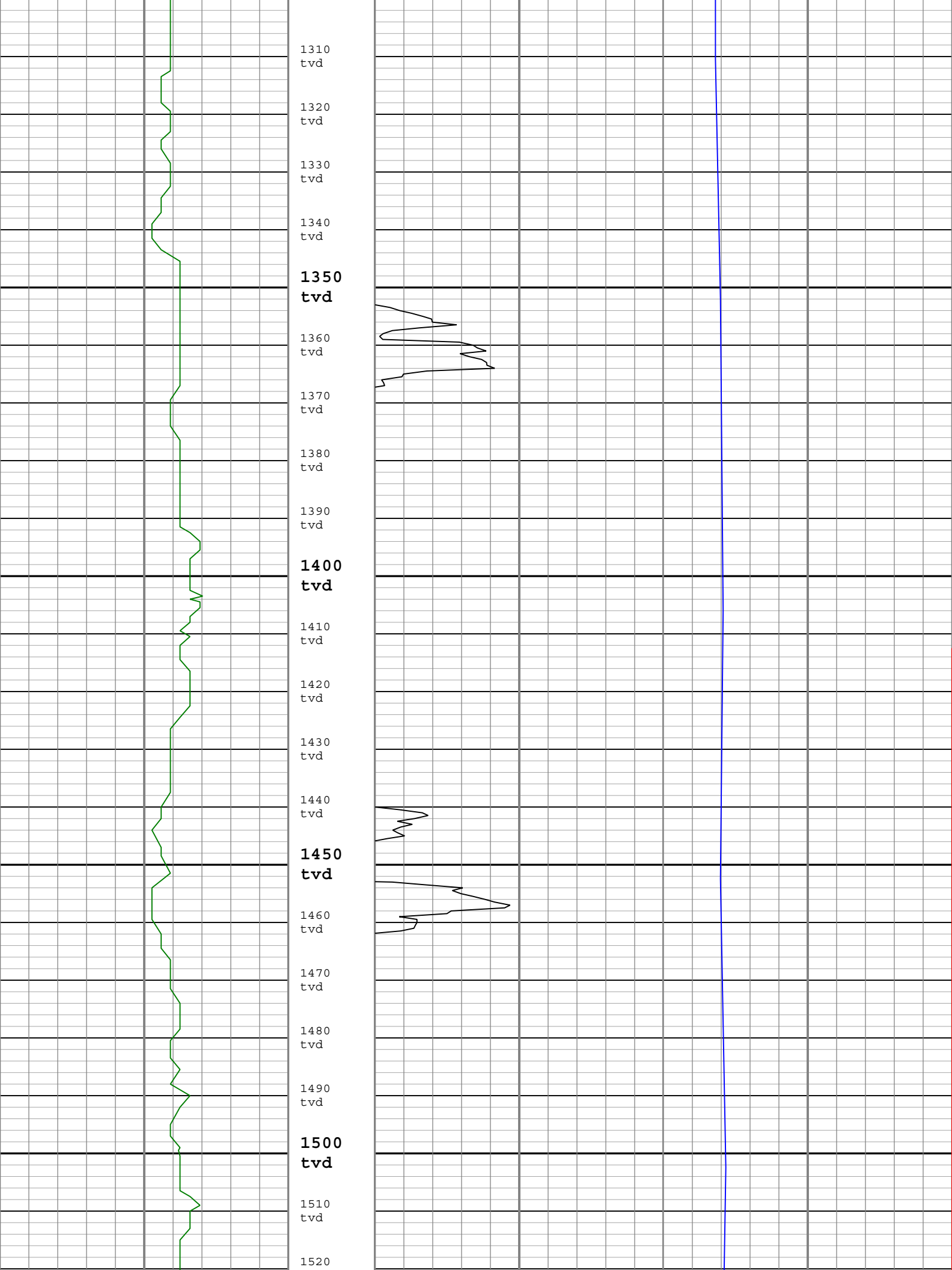
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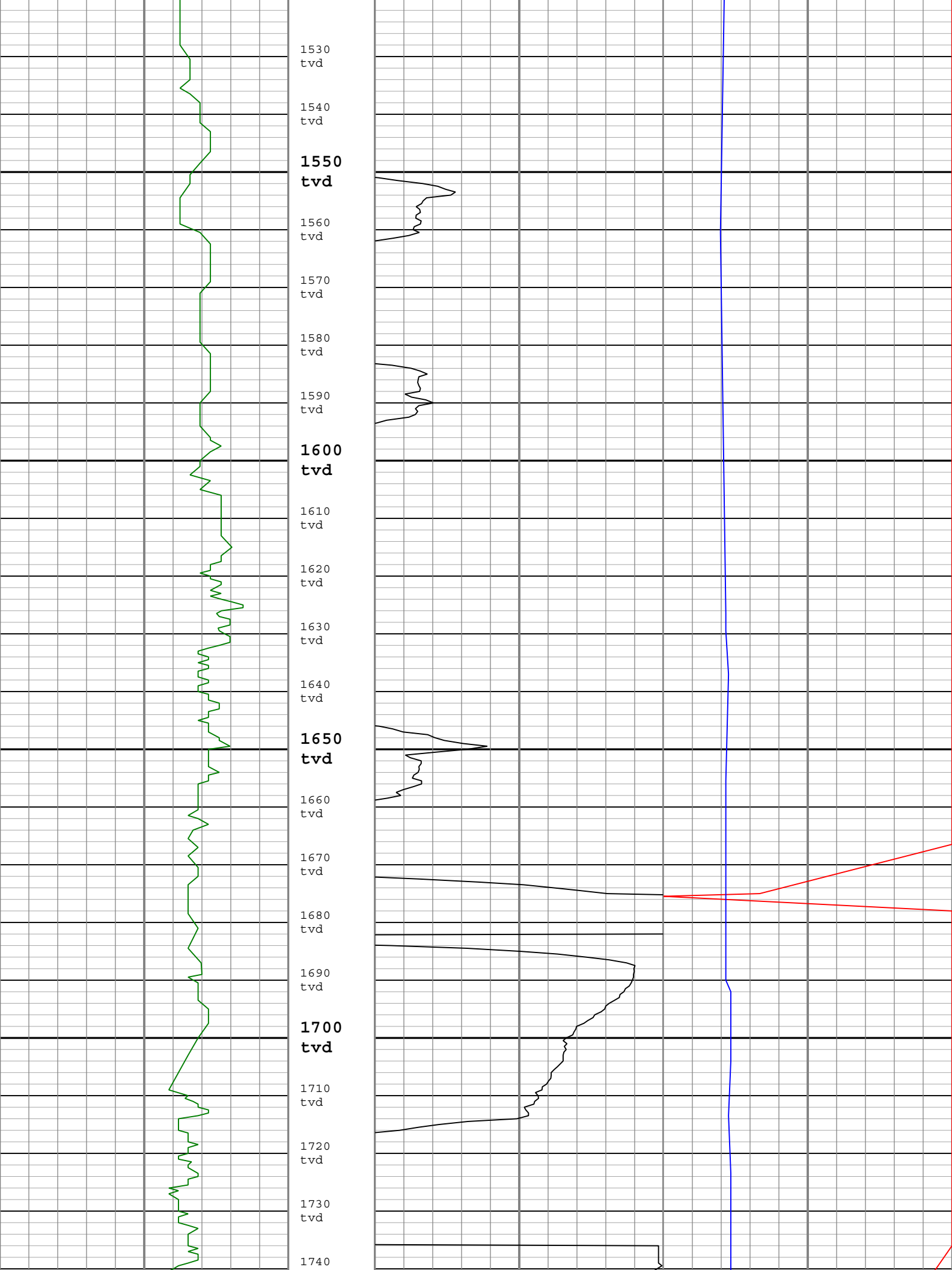
Well Composite

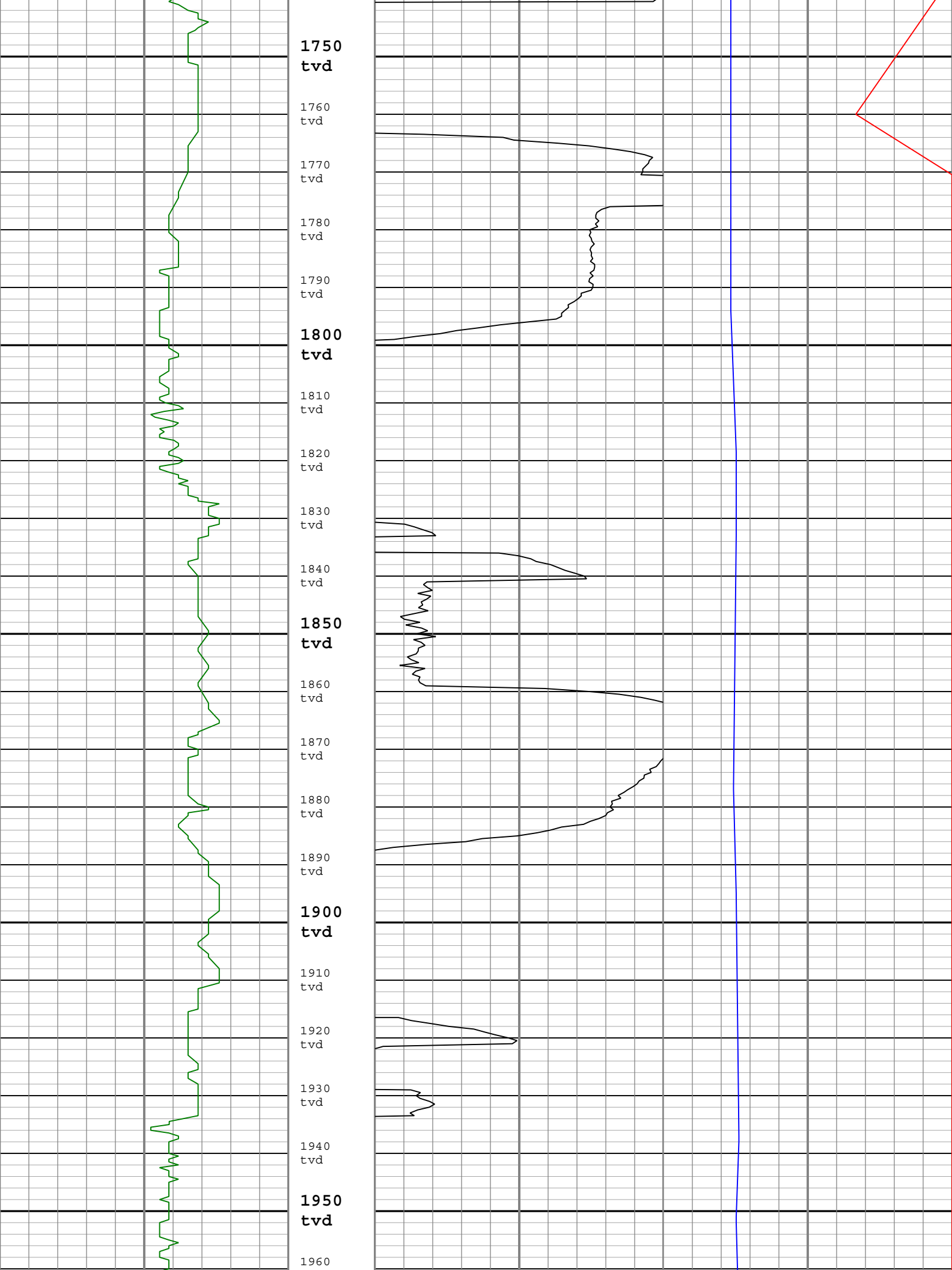
5 in / 100 ft True Vertical Depth

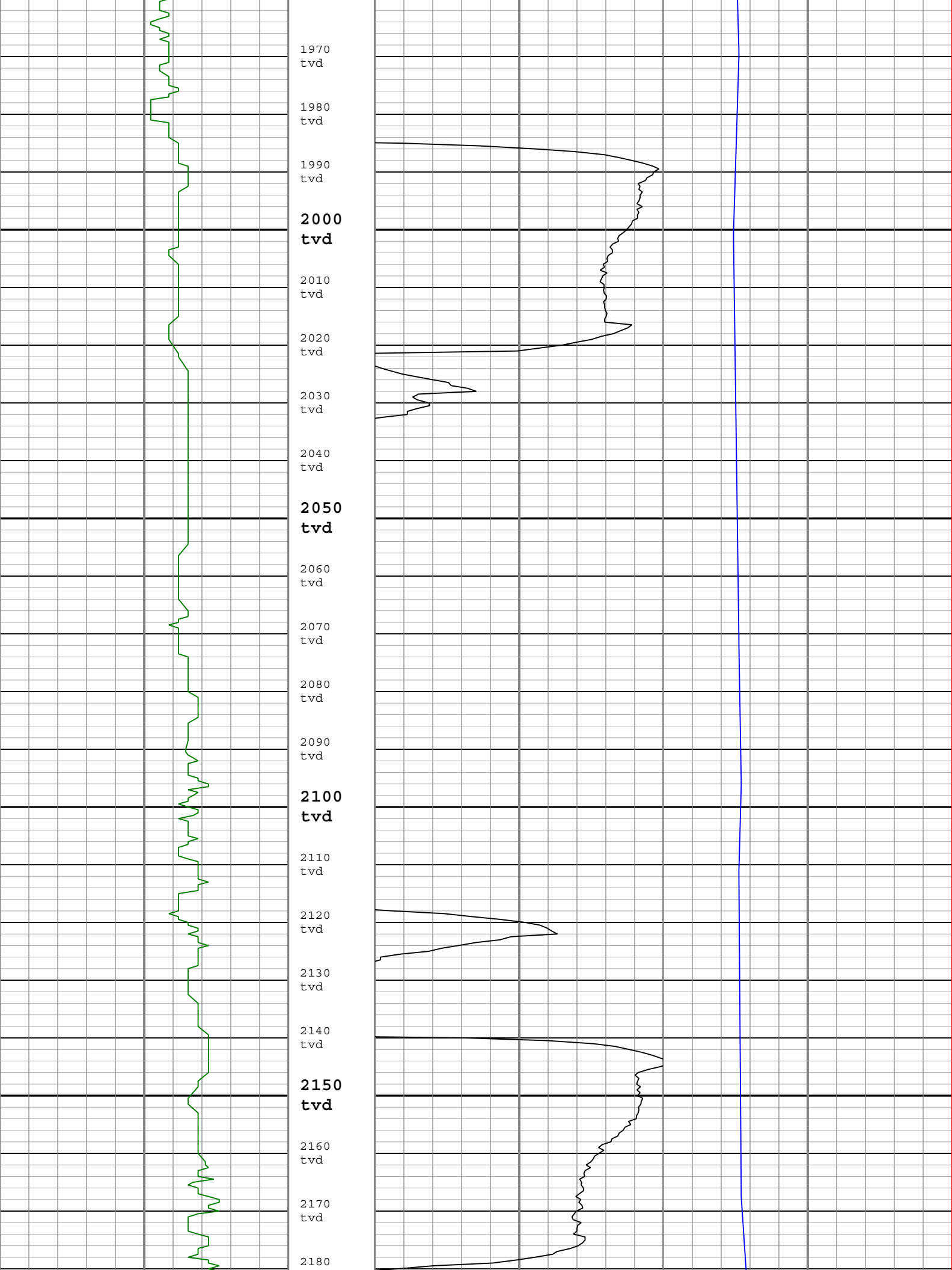
Composite Summary

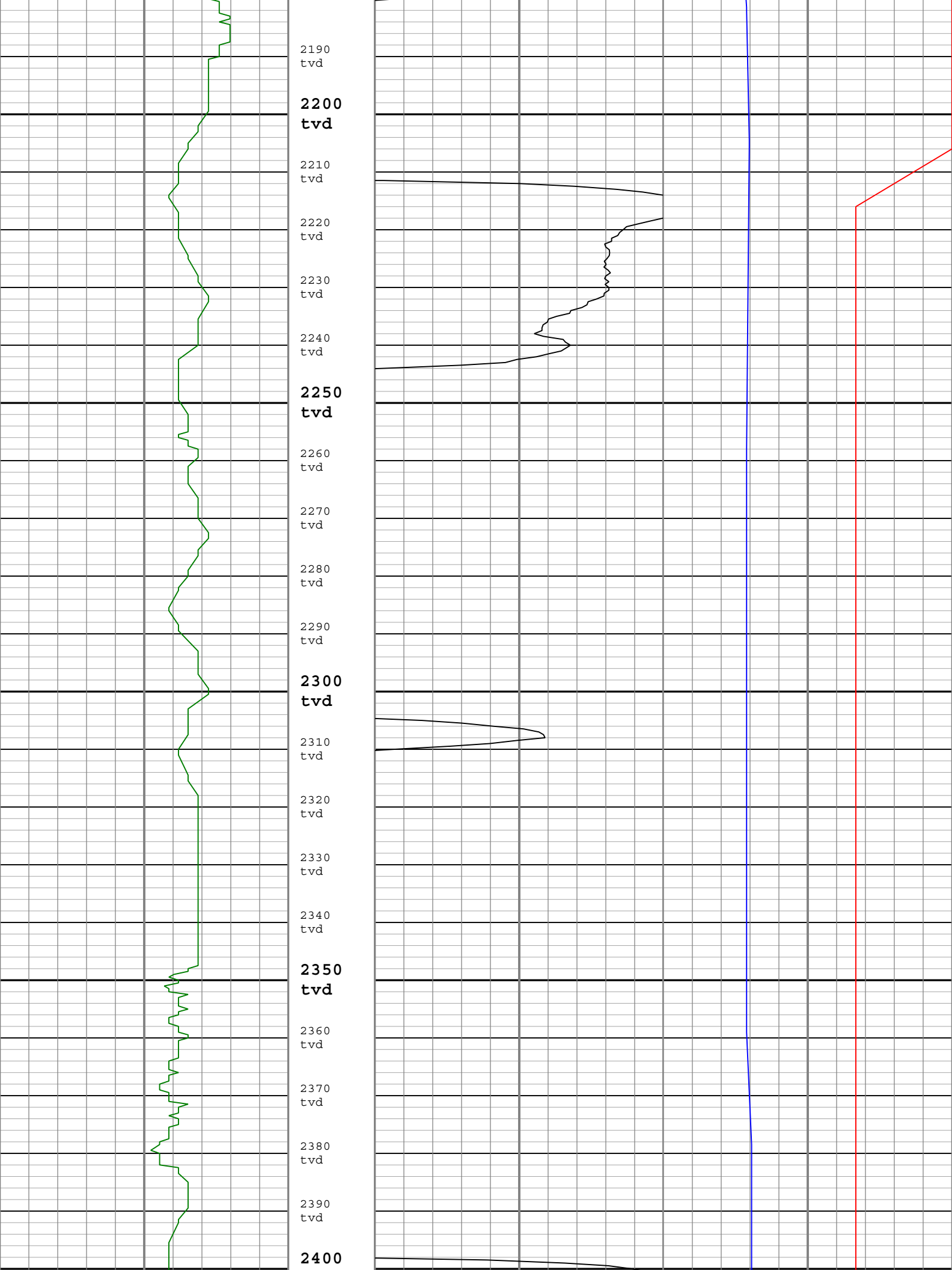


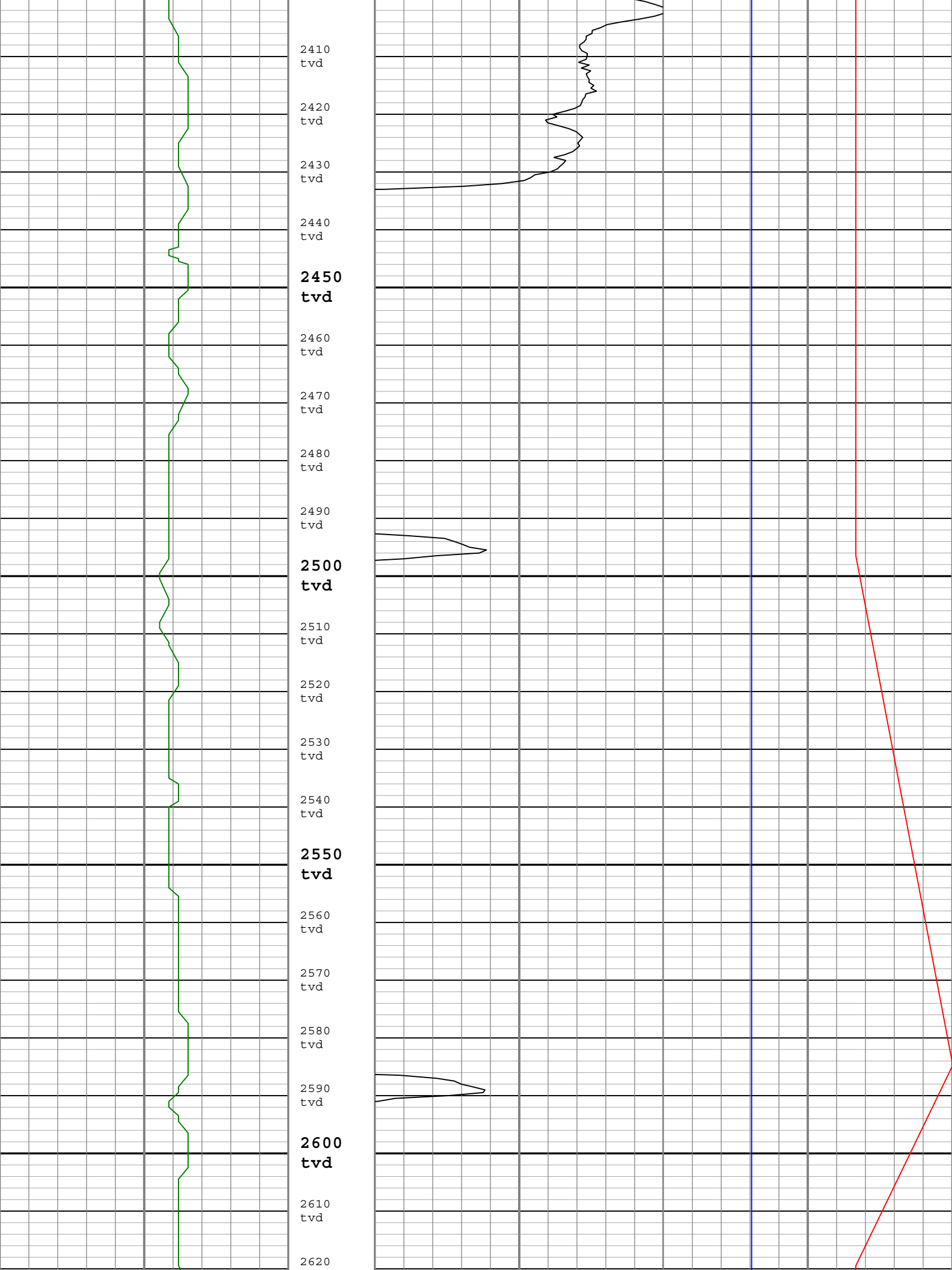


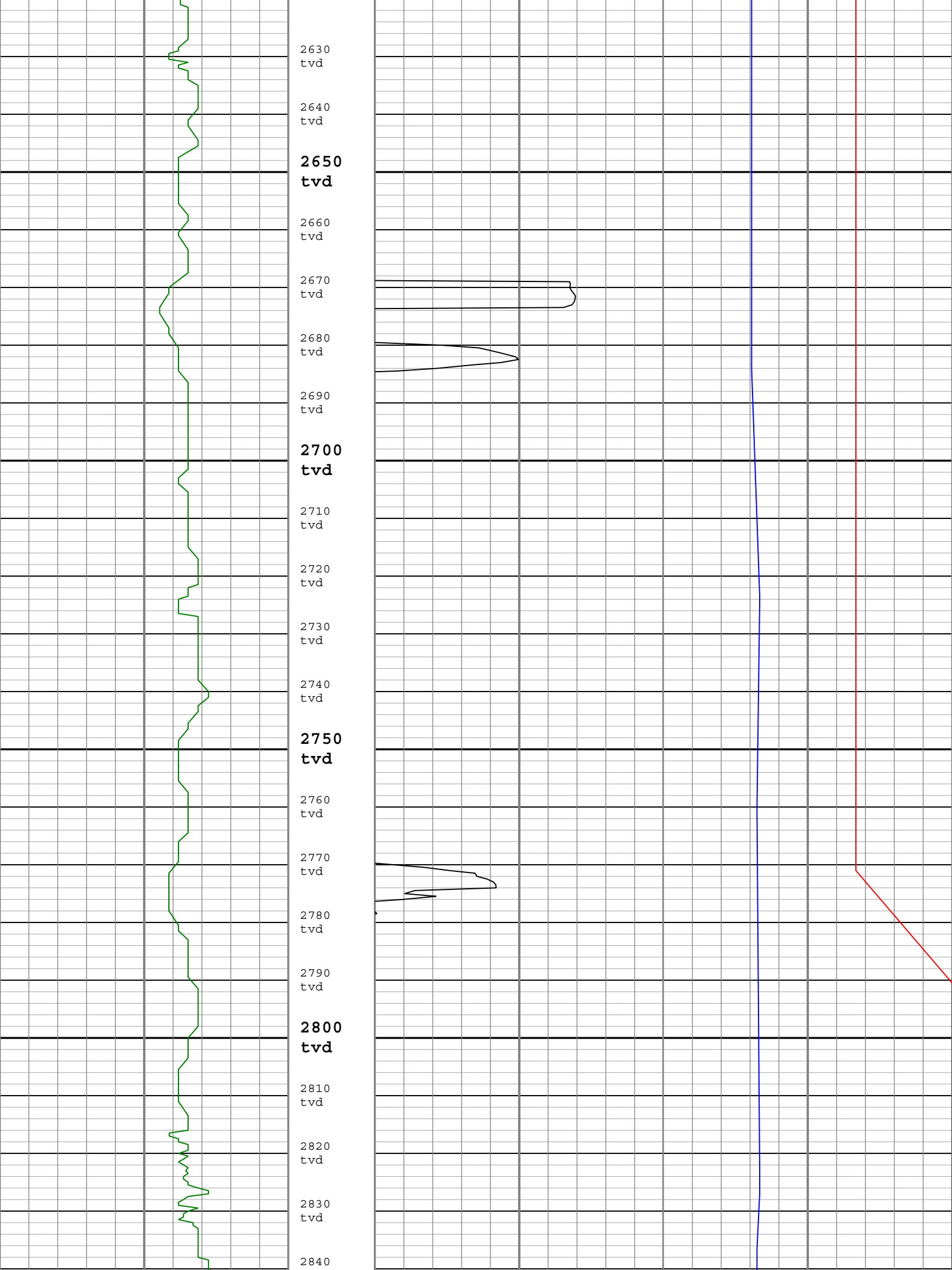


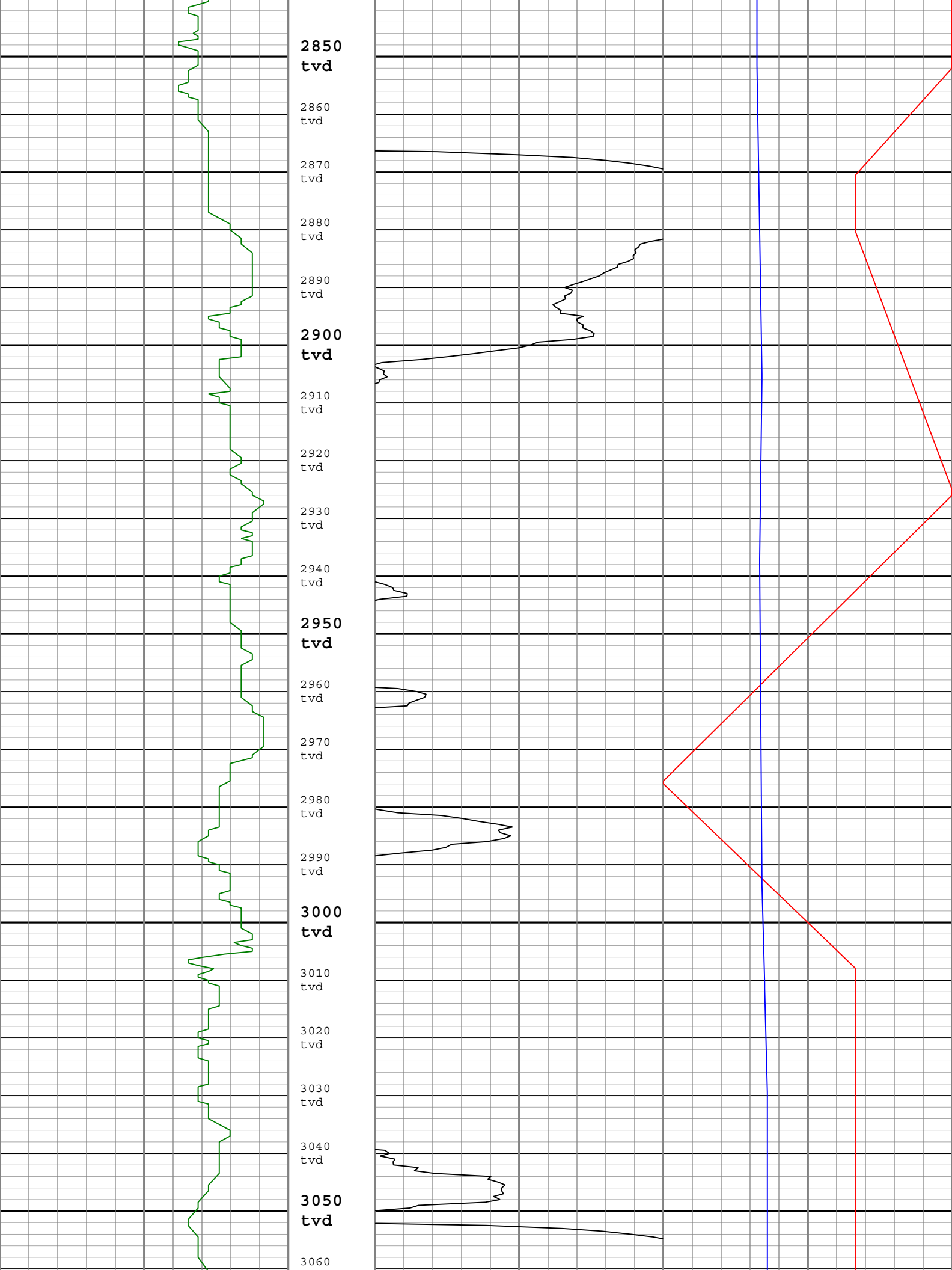


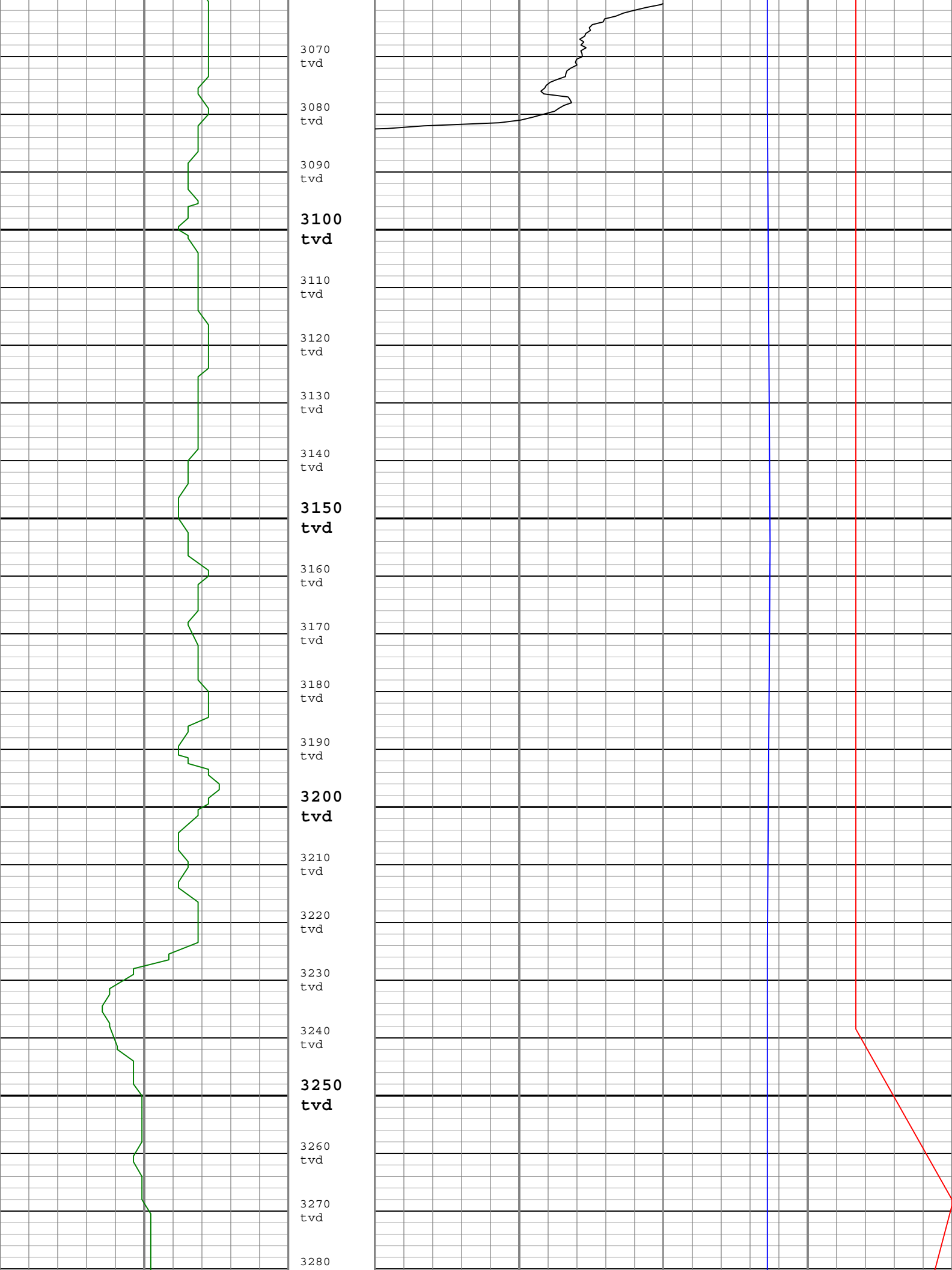


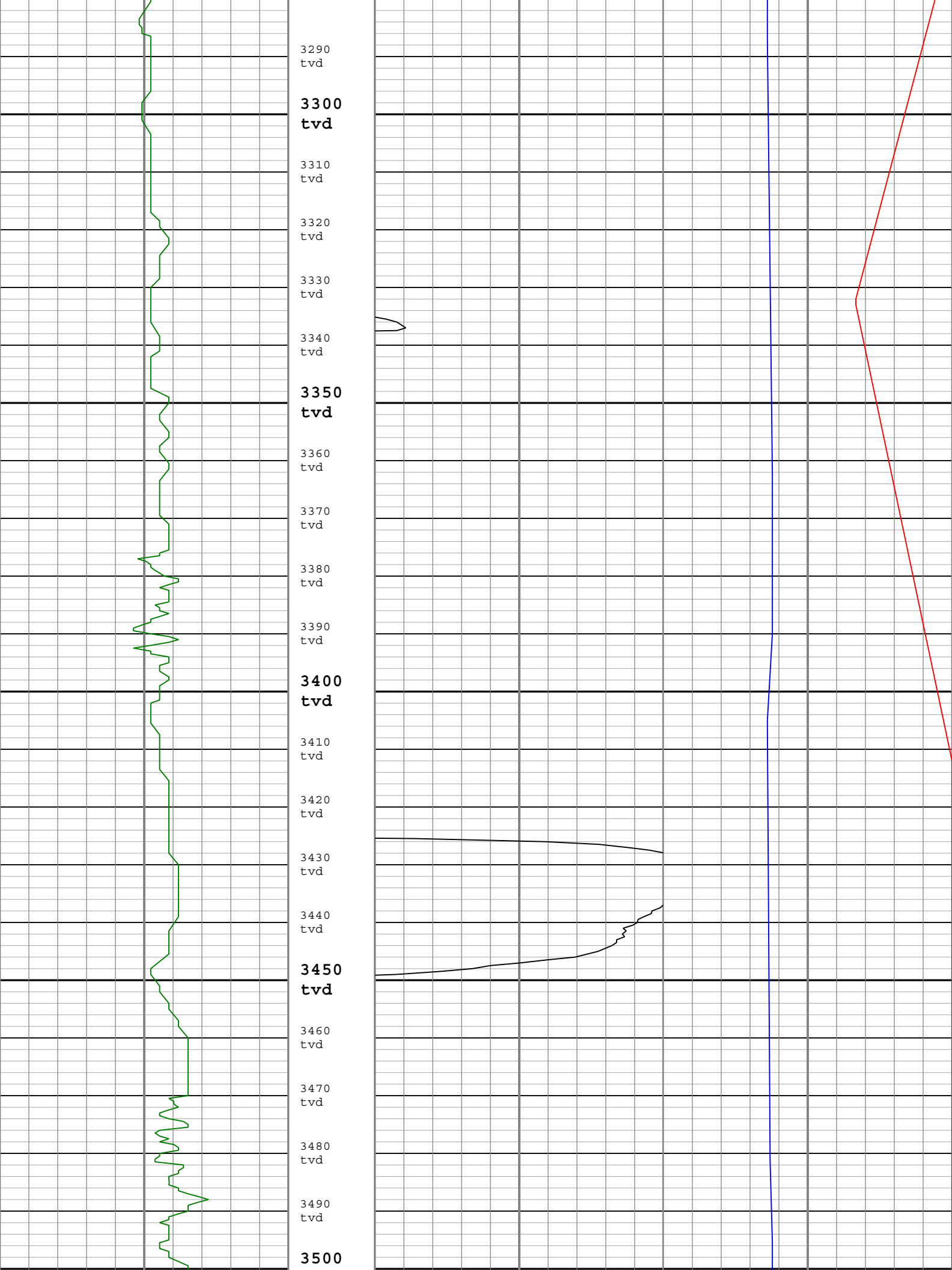


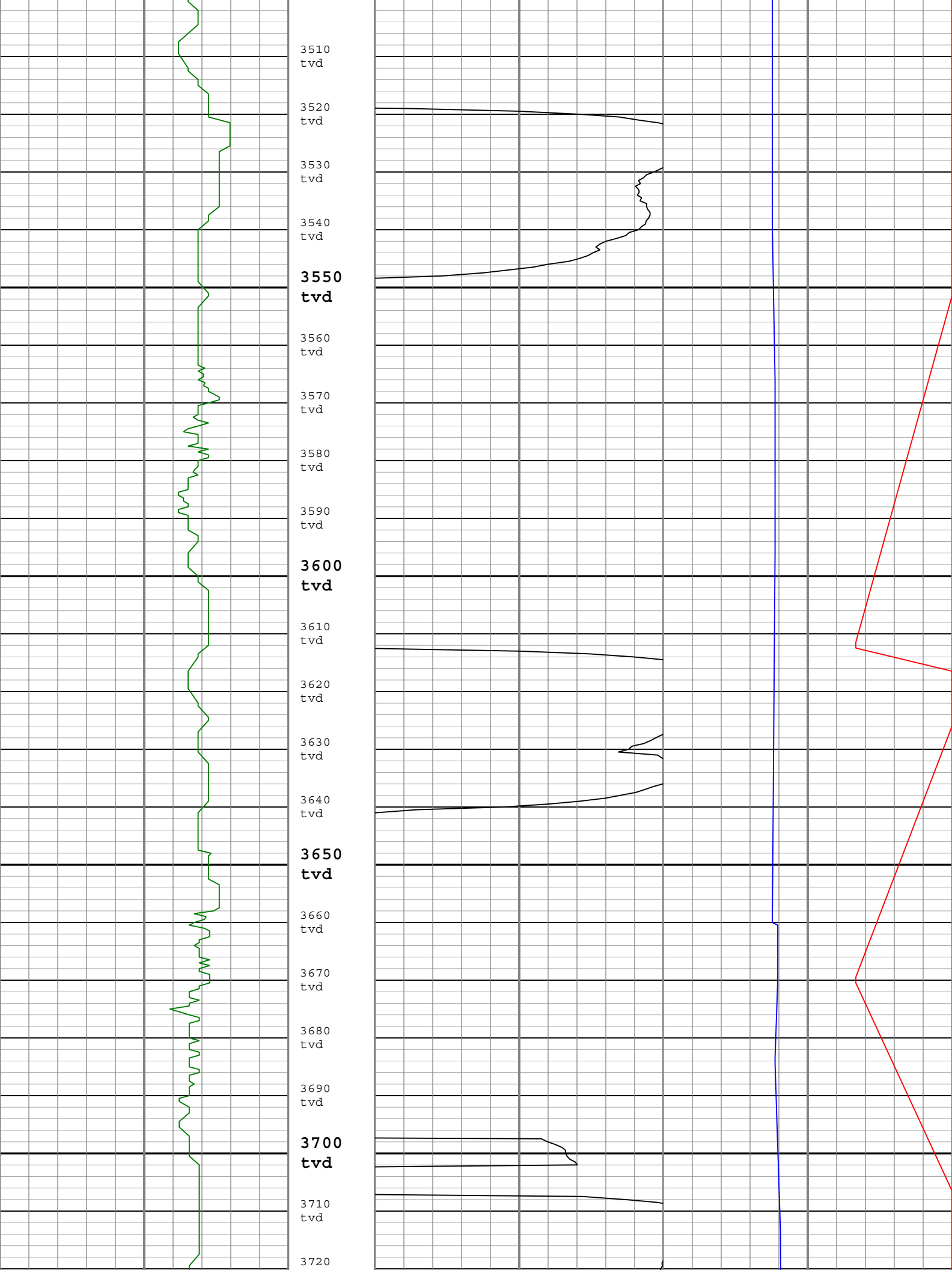


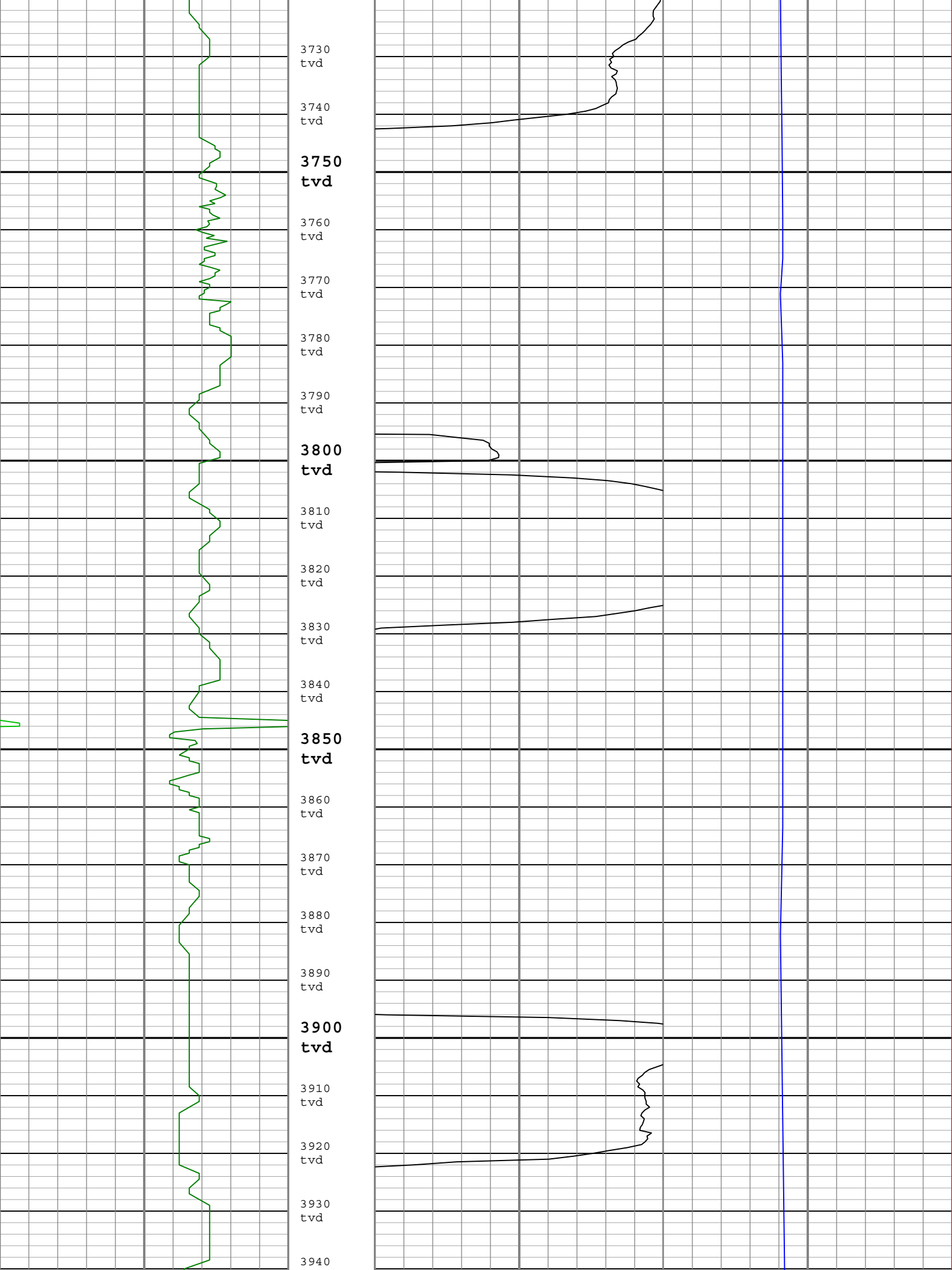


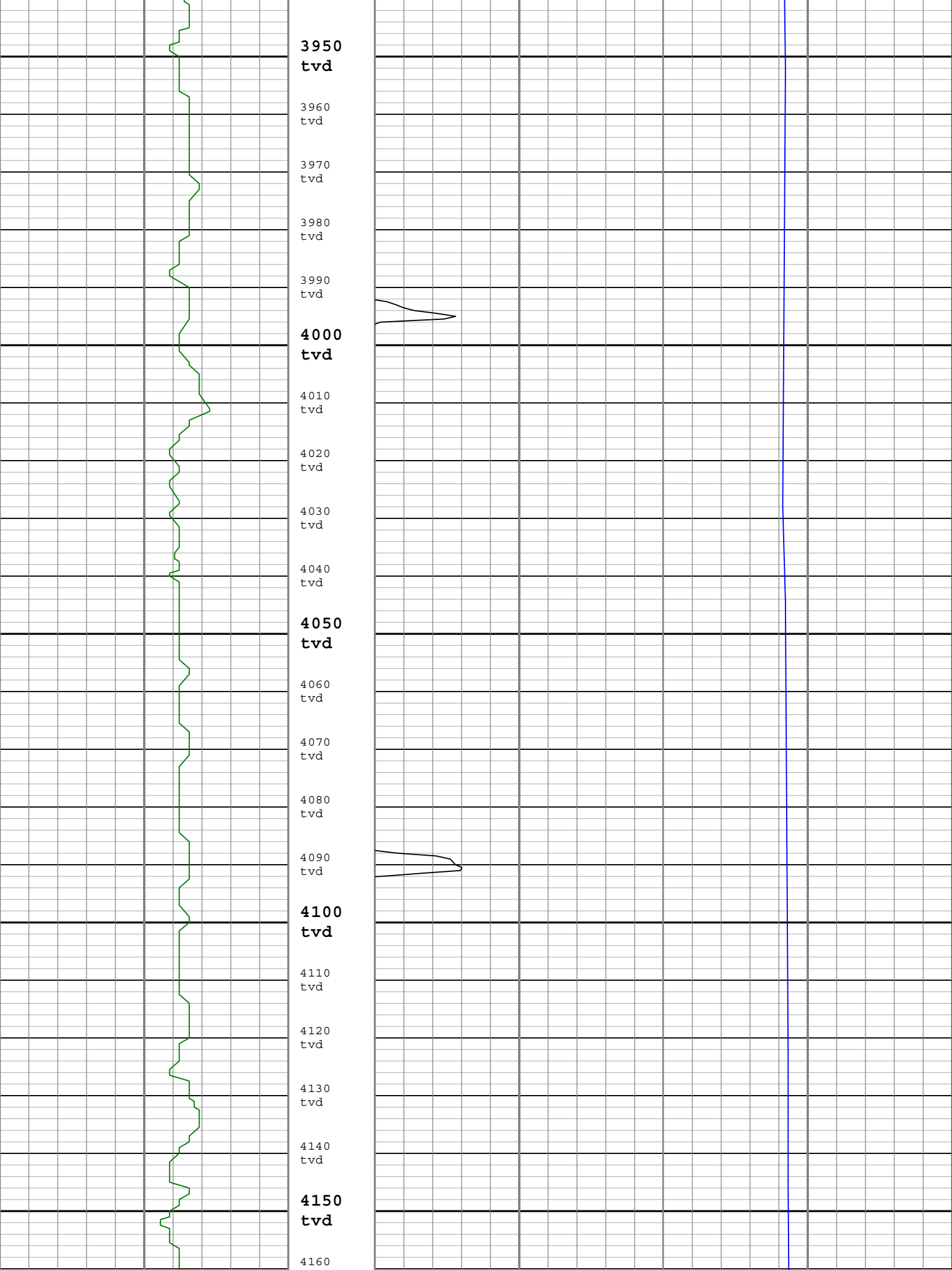


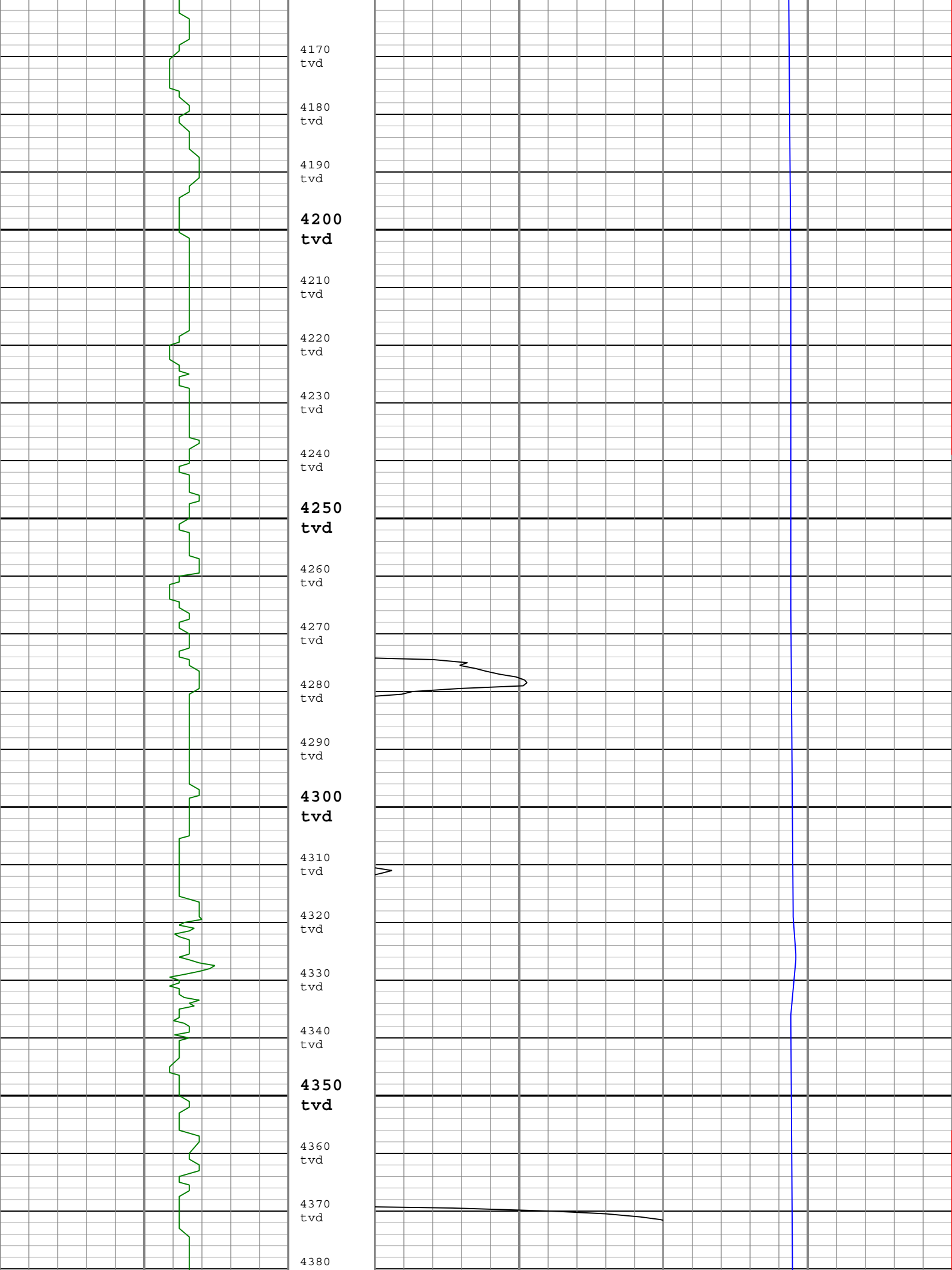


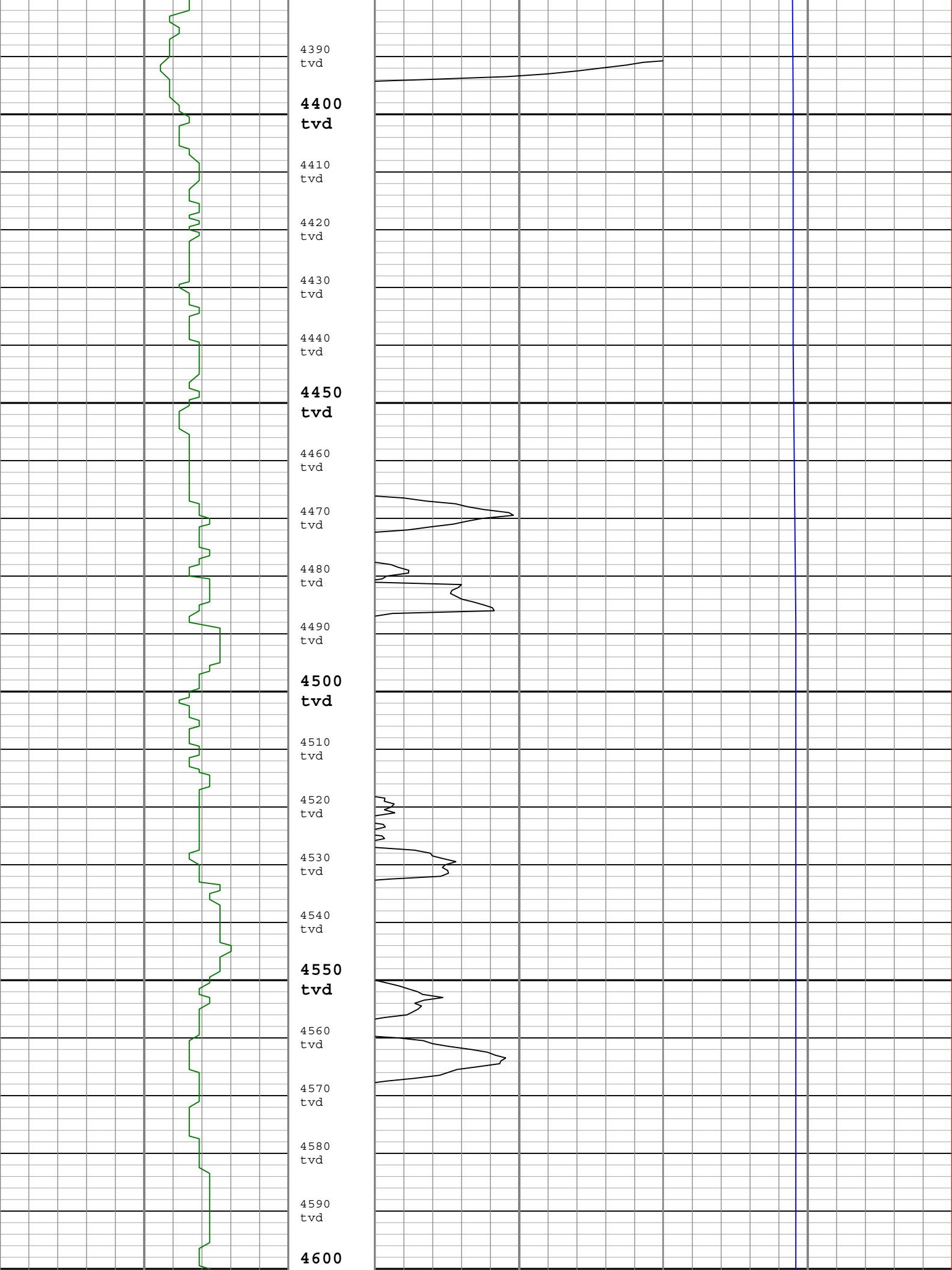


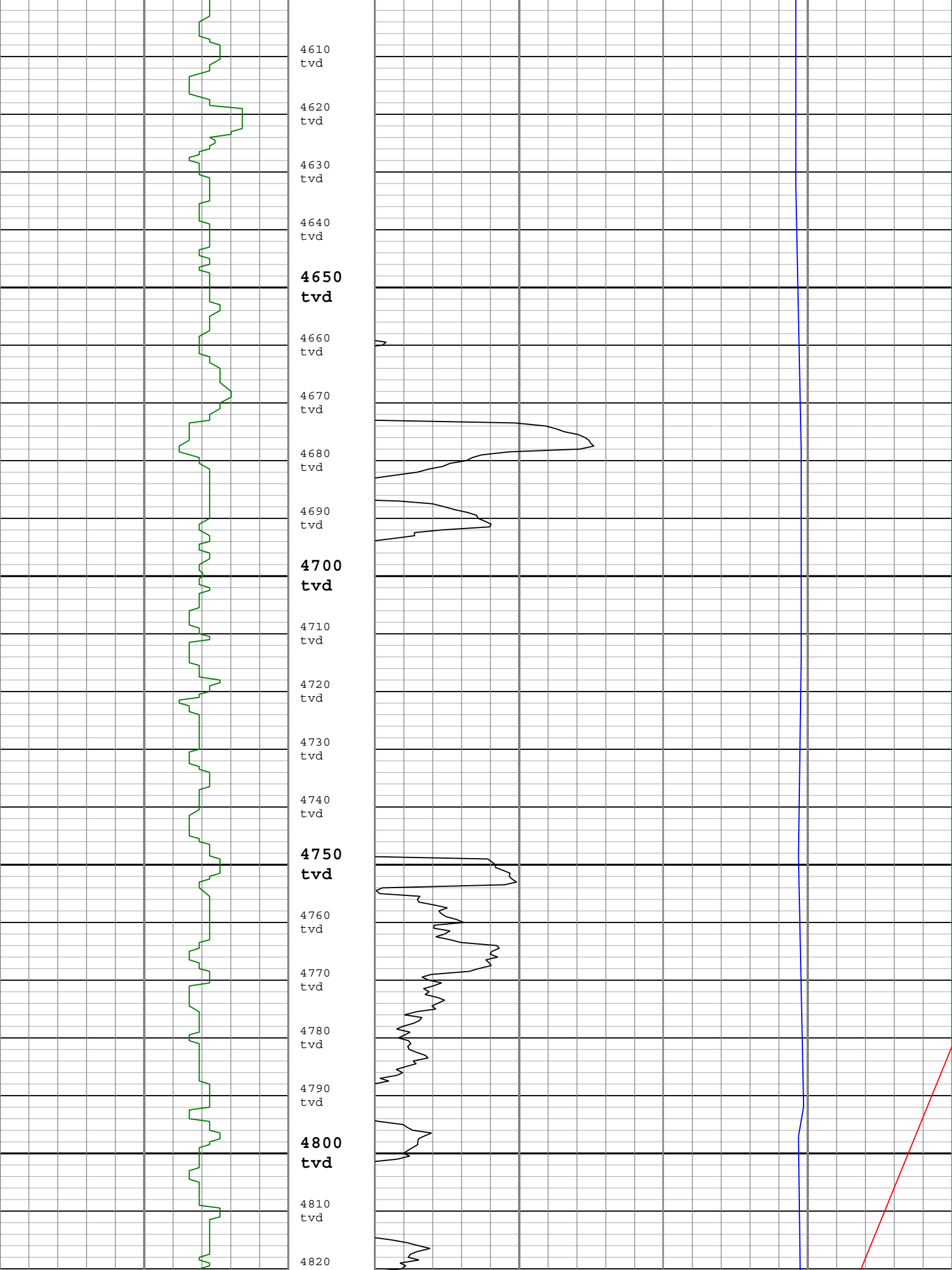


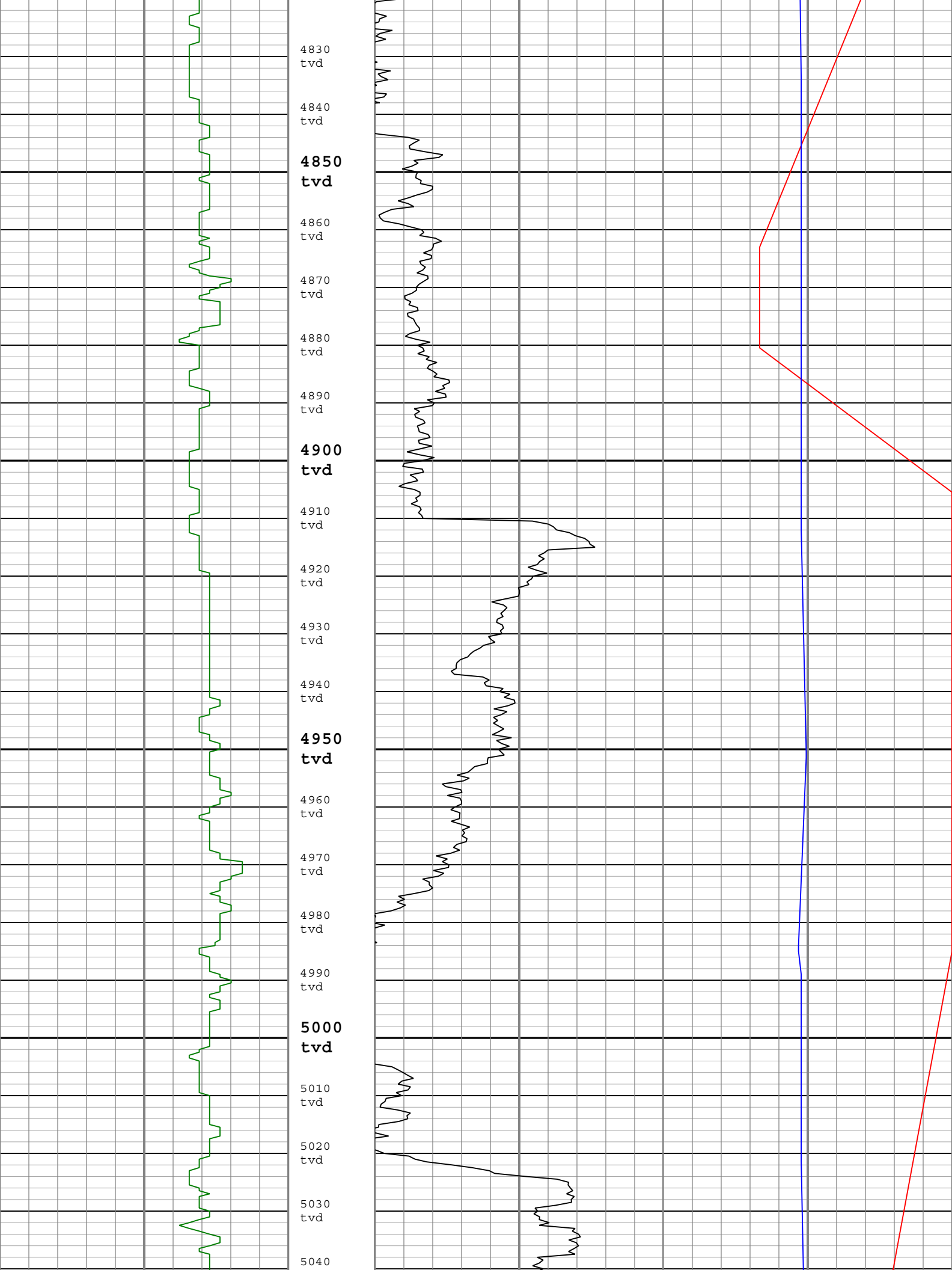


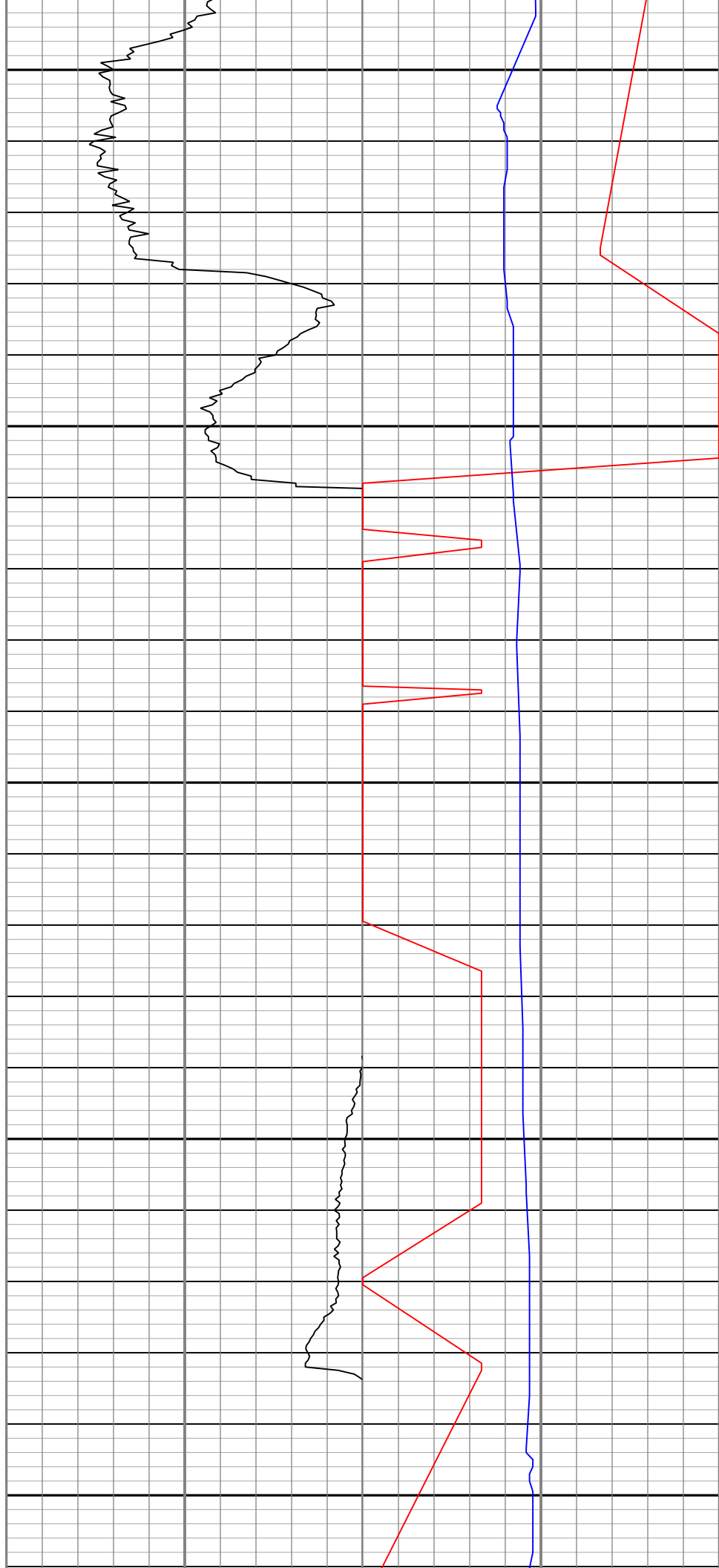
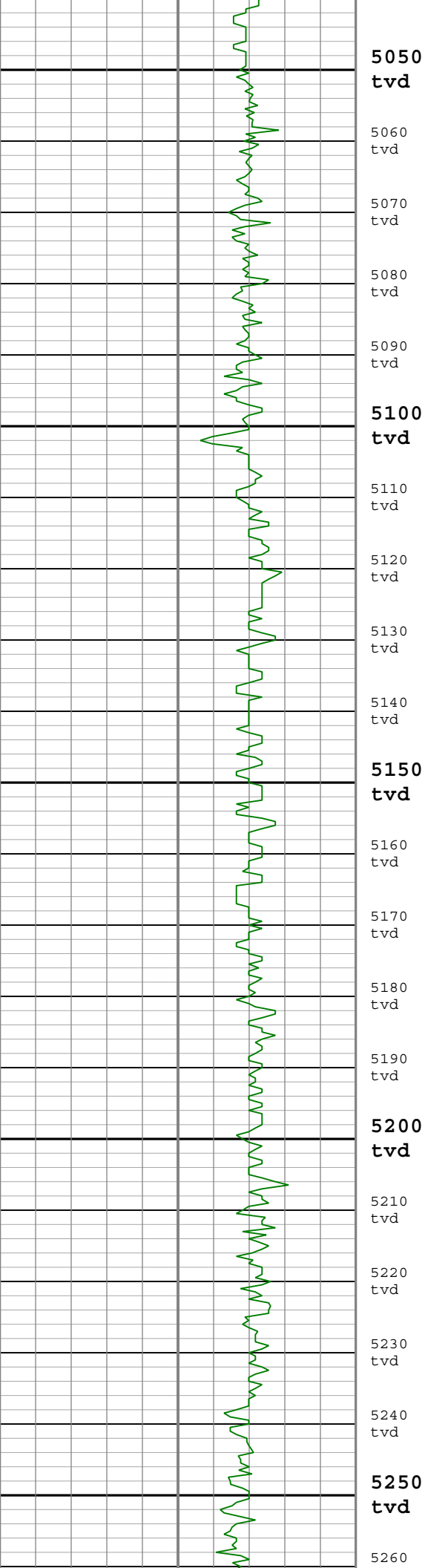


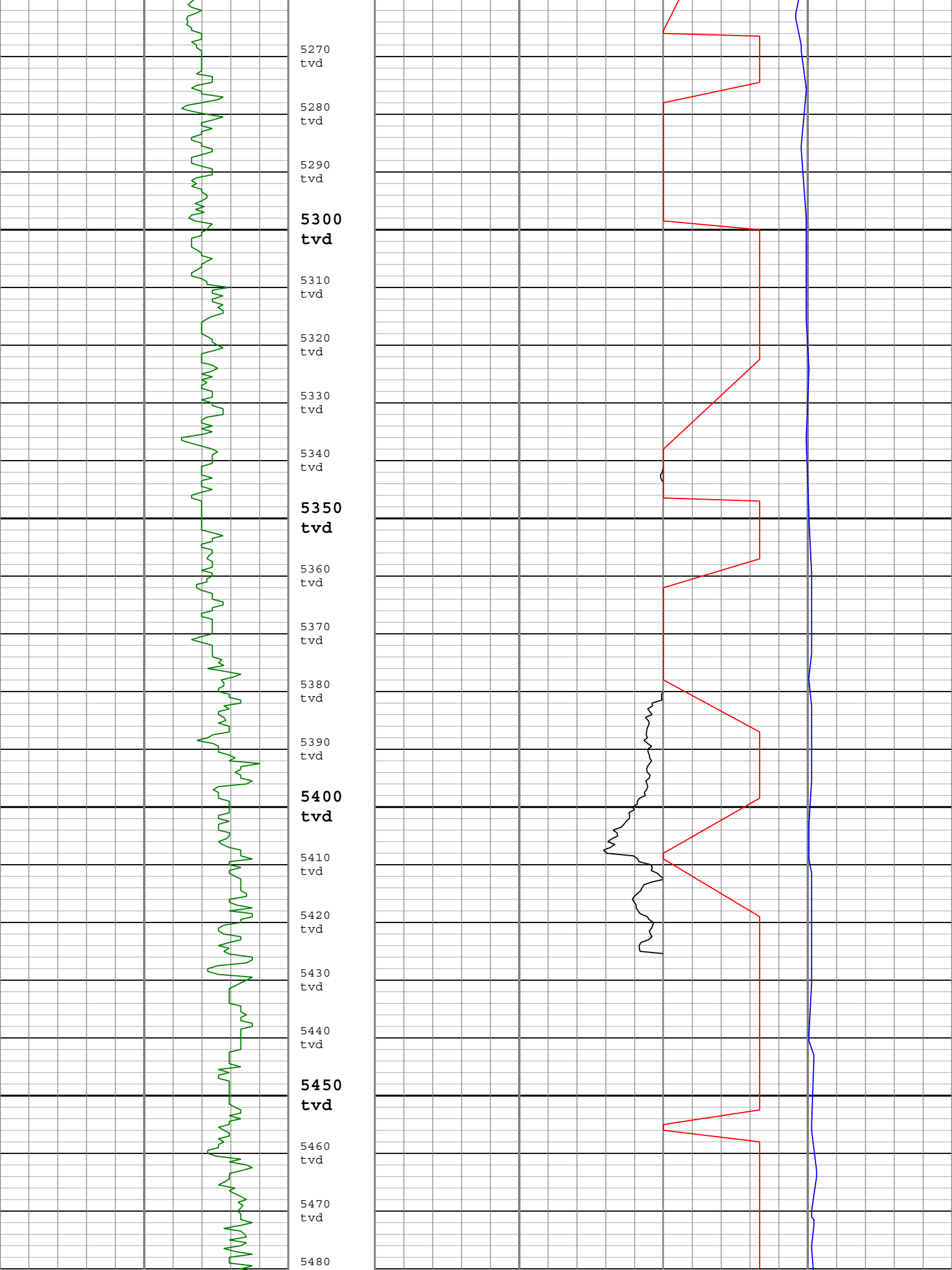


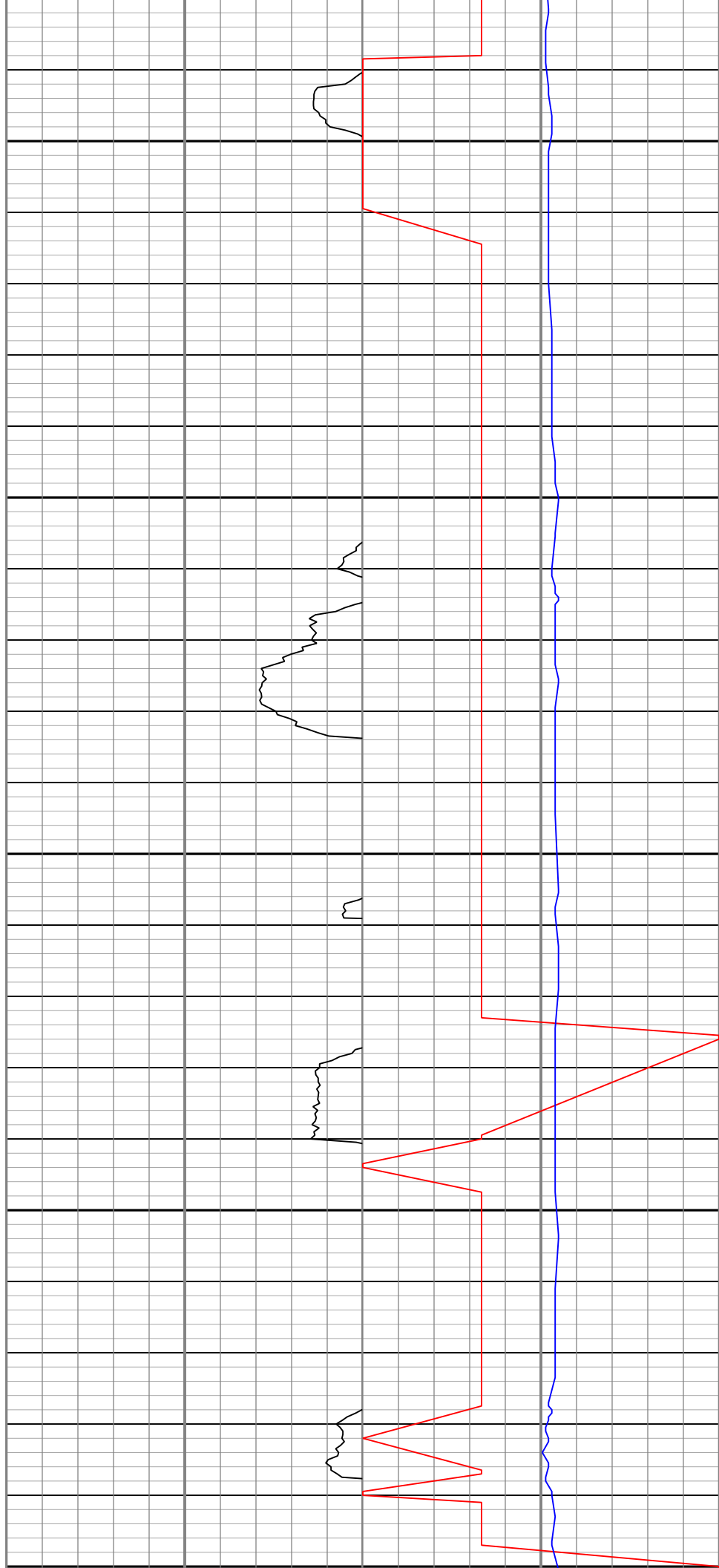
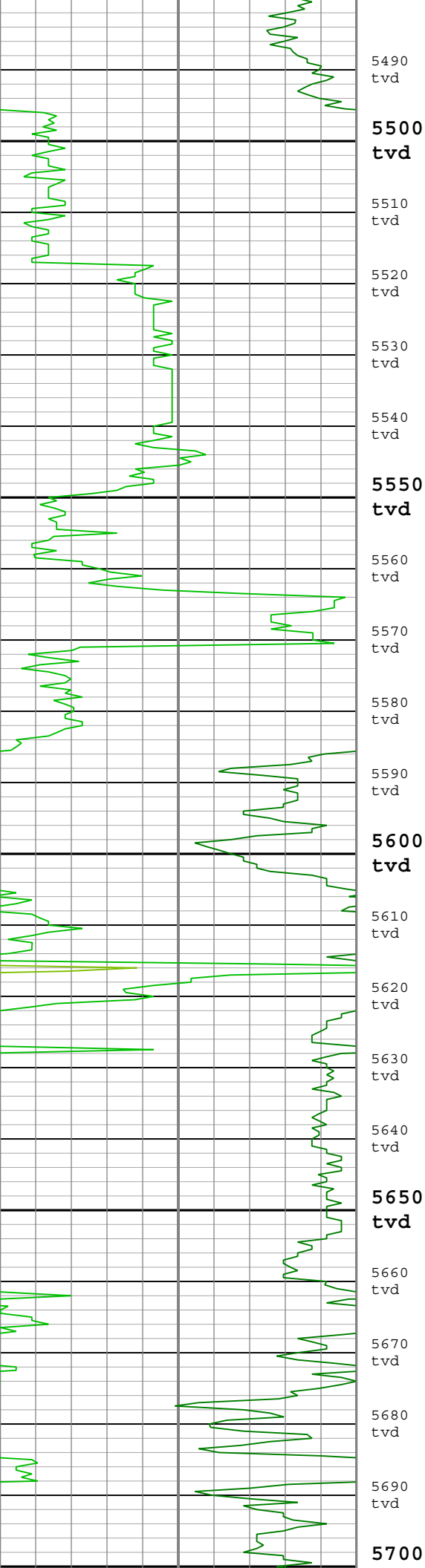


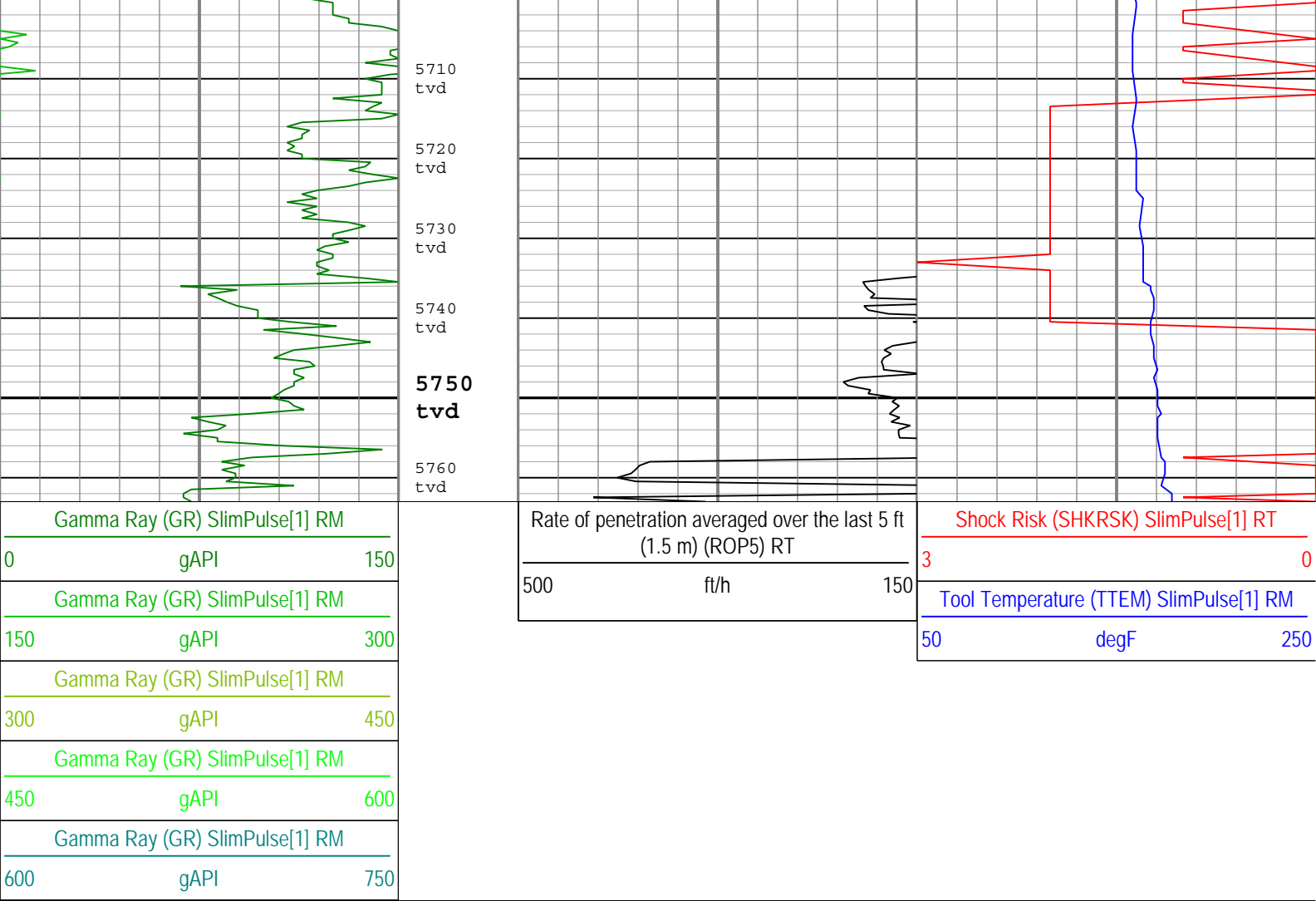












Description: SlimPulse Gamma Ray 1 Format: Log (SlimPulse Gamma Ray Final TVD) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: TVD
Creation Date: 25-Sep-2014 16:07:39

Channel Processing Parameters

Run001: Parameters

Parameter	Description	Tool	Value	Unit
BS	Bit Size	DNMSESSION	Depth Zoned	in
DFD	Drilling Fluid Density	Borehole	Time Zoned	lbm/gal
GR_SRC	GR Source Selection	SPULSE-GEN	GAMMA_EXT	

Run001Depth Zoned Parameters

Parameter	Value	Start (ft)	Stop (ft)
BS	13.5	1174.07	1223.07
BS	8.75	1223.07	5110.5

All depth are actual.

Run001Time Zoned Parameters

Pass Drilling

Parameter	Value	Start Time	Stop Time	Start Depth (ft)	Stop Depth (ft)
DFD	9	26-Aug-2014 00:59:17	26-Aug-2014 03:00:00	1223.25	1674.92
DFD	8.65	26-Aug-2014 03:00:00	26-Aug-2014 13:00:00	1674.92	3729
DFD	8.85	26-Aug-2014 13:00:00	26-Aug-2014 23:19:28	3729	5133

All depth are at tool zero.

Run002: Parameters

Parameter	Description	Tool	Value	Unit
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BS	Bit Size	DNMSESSION	8.75	in
DFD	Drilling Fluid Density	Borehole	Time Zoned	lbm/gal
GR_SRC	GR Source Selection	SPULSE-GEN	GAMMA_EXT	

Run002Time Zoned Parameters

Pass Drilling

Parameter	Value	Start Time	Stop Time	Start Depth (ft)	Stop Depth (ft)
DFD	9.35	27-Aug-2014 08:19:52	27-Aug-2014 14:00:00	5130	5465.58
DFD	10.5	27-Aug-2014 14:00:00	28-Aug-2014 07:16:20	5465.58	6086.75

All depth are at tool zero.

Run003: Parameters

Parameter	Description	Tool	Value	Unit
BS	Bit Size	DNMSESSION	Depth Zoned	in
DFD	Drilling Fluid Density	Borehole	Time Zoned	lbm/gal
GR_SRC	GR Source Selection	SPULSE-GEN	GAMMA_EXT	

Run003Depth Zoned Parameters

Parameter	Value	Start (ft)	Stop (ft)
BS	8.75	5712.22	5741.07
BS	6.125	5741.07	5763.18

All depth are actual.

Run003Time Zoned Parameters

Pass Drilling

Parameter	Value	Start Time	Stop Time	Start Depth (ft)	Stop Depth (ft)
DFD	9.7	29-Aug-2014 16:29:47	30-Aug-2014 03:00:00	6000.33	7406
DFD	9.9	30-Aug-2014 03:00:00	30-Aug-2014 13:00:00	7406	8709.83
DFD	9.7	30-Aug-2014 13:00:00	31-Aug-2014 03:00:00	8709.83	9937.5
DFD	9.75	31-Aug-2014 03:00:00	31-Aug-2014 16:03:32	9937.5	10272.25

All depth are at tool zero.

Tool Control Parameters

Survey Record

Survey Calculation

Method :	Minimum Radius of Curvature	DLS Method :	Lubinski
North Reference :	Grid North	Total Correction Formula :	Magnetic Dec - Grid Convergence
Grid Convergence :	1.06 deg		

Rig Location

Latitude :	40° 46' 43.752" N	Longitude :	103° 51' 40.86" W
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Tie In Point

Measured Depth:	0.00 ft	Inclination:	0.00 deg	Azimuth:	0.00 deg
True Vertical Depth:	0.00 ft	North Displacement:	0.00 ft	East Displacement:	0.00 ft
N/-S VSec Origin:	0.00 ft	E/-W VSec Origin:	0.00 ft	Vertical Section Azimuth:	85.73 deg

D&I Inits Computed and Values Used - Run001

Geomagnetic Model :	BGGM 2014	Geomagnetic Date :	24-Aug-2014
Computed Location B :	52979.29 nT +/- 300.00nT	Used Location B :	52979.29 nT +/- 300.00nT
Computed Location G :	999.58 mgn +/- 2.50mgn	Used Location G :	999.58 mgn +/- 2.50mgn
Computed Magnetic Dip :	67.38 deg +/- 0.45deg	Used Magnetic Dip :	67.38 deg +/- 0.45deg
Computed Magnetic Dec :	8.05 deg	Used Magnetic Dec :	8.05 deg
Computed Total Correction :	6.99 deg	Used Total Correction :	6.99 deg

D&I Inits Computed and Values Used - Run002

Geomagnetic Model :	BGGM 2014	Geomagnetic Date :	27-Aug-2014
Computed Location B :	52979.29 nT +/- 300.00nT	Used Location B :	52979.29 nT +/- 300.00nT
Computed Location G :	999.58 mgn +/- 2.50mgn	Used Location G :	999.58 mgn +/- 2.50mgn
Computed Magnetic Dip :	67.38 deg +/- 0.45deg	Used Magnetic Dip :	67.38 deg +/- 0.45deg
Computed Magnetic Dec :	8.05 deg	Used Magnetic Dec :	8.05 deg
Computed Total Correction :	6.99 deg	Used Total Correction :	6.99 deg

Computed Location B :		52978.17 nT +/- 300.00nT		Used Location B :		52978.17 nT +/- 300.00nT									
Computed Location G :		999.58 mgn +/- 2.50mgn		Used Location G :		999.58 mgn +/- 2.50mgn									
Computed Magnetic Dip :		67.38 deg +/- 0.45deg		Used Magnetic Dip :		67.38 deg +/- 0.45deg									
Computed Magnetic Dec :		8.05 deg		Used Magnetic Dec :		8.05 deg									
Computed Total Correction :		6.99 deg		Used Total Correction :		6.99 deg									
D&I Inits Computed and Values Used - Run003															
Geomagnetic Model :		BGGM 2014		Geomagnetic Date :		29-Aug-2014									
Computed Location B :		52977.43 nT +/- 300.00nT		Used Location B :		52977.43 nT +/- 300.00nT									
Computed Location G :		999.58 mgn +/- 2.50mgn		Used Location G :		999.58 mgn +/- 2.50mgn									
Computed Magnetic Dip :		67.38 deg +/- 0.45deg		Used Magnetic Dip :		67.38 deg +/- 0.45deg									
Computed Magnetic Dec :		8.05 deg		Used Magnetic Dec :		8.05 deg									
Computed Total Correction :		6.99 deg		Used Total Correction :		6.99 deg									
Survey Quality Index															
0 : Long Survey passed all criteria		9 : Manual		28 : Tie-In Point											
Survey Correction Index															
0 : No correction															
Survey Description Index															
0 : Not Flagged Survey		1 : DMAG Corrected Survey		7 : Projection to Bit											
Seq	MD (ft)	Incl (deg)	Azim (deg)	Course (ft)	TVD (ft)	V Sec (ft)	N/ -S (ft)	E/ -W (ft)	Closure (ft)	at Azim (deg)	DLS deg/100ft	Tool Type	QI	CI	DI
1	0.00	0.00	0.00	- - - -	0.00	0.00	0.00	0.00	0.00	90.00	0.00	TIP	28	0	0
2	286.00	0.20	114.69	286.00	286.00	0.44	-0.21	0.45	0.49	114.69	0.07	MultiShot	9	0	0
3	571.00	0.10	27.39	285.00	571.00	1.00	-0.20	1.02	1.05	100.85	0.08	MultiShot	9	0	0
4	855.00	0.30	287.79	284.00	855.00	0.44	0.25	0.43	0.49	59.41	0.12	MultiShot	9	0	0
5	1201.00	0.80	34.79	346.00	1200.99	1.13	2.51	0.94	2.69	20.55	0.27	MultiShot	9	0	0
6	1313.00	0.49	58.14	112.00	1312.98	2.04	3.41	1.79	3.84	27.76	0.36	SlimPulse	0	0	0
7	1407.00	0.64	69.12	94.00	1406.97	2.90	3.80	2.62	4.63	34.59	0.20	SlimPulse	0	0	0
8	1502.00	0.52	64.96	95.00	1501.97	3.81	4.18	3.51	5.45	40.05	0.13	SlimPulse	0	0	0
9	1597.00	0.46	54.52	95.00	1596.97	4.54	4.58	4.21	6.23	42.61	0.12	SlimPulse	0	0	0
10	1691.00	1.83	34.93	94.00	1690.95	5.81	6.03	5.38	8.07	41.74	1.49	SlimPulse	0	0	0
11	1785.00	2.69	28.49	94.00	1784.87	7.95	9.20	7.29	11.75	38.40	0.96	SlimPulse	0	0	0
12	1880.00	3.75	36.14	95.00	1879.72	11.18	13.67	10.19	17.06	36.70	1.20	SlimPulse	0	0	0
13	1975.00	4.42	33.85	95.00	1974.48	15.45	19.22	14.06	23.82	36.19	0.72	SlimPulse	0	0	0
14	2069.00	6.10	32.73	94.00	2068.08	20.69	26.43	18.78	32.41	35.40	1.79	SlimPulse	0	0	0
15	2164.00	7.92	36.15	95.00	2162.37	27.98	35.96	25.37	44.00	35.20	1.96	SlimPulse	0	0	0
16	2258.00	10.01	35.20	94.00	2255.21	37.37	47.87	33.90	58.66	35.31	2.23	SlimPulse	0	0	0
17	2353.00	9.04	34.02	95.00	2348.90	47.25	60.80	42.84	74.38	35.17	1.04	SlimPulse	0	0	0
18	2448.00	10.67	33.54	95.00	2442.49	57.27	74.33	51.88	90.65	34.91	1.72	SlimPulse	0	0	0
19	2543.00	10.61	32.56	95.00	2535.86	67.90	89.03	61.44	108.17	34.61	0.20	SlimPulse	0	0	0
20	2638.00	10.29	32.55	95.00	2629.28	78.23	103.55	70.71	125.39	34.33	0.35	SlimPulse	0	0	0
21	2733.00	9.58	32.23	95.00	2722.86	88.02	117.39	79.50	141.77	34.10	0.74	SlimPulse	0	0	0
22	2827.00	8.54	31.80	94.00	2815.69	96.78	129.94	87.35	156.56	33.91	1.12	SlimPulse	0	0	0
23	2922.00	9.48	35.43	95.00	2909.51	105.93	142.31	95.60	171.42	33.89	1.16	SlimPulse	0	0	0
24	3017.00	8.09	29.52	95.00	3003.40	114.64	154.50	103.43	185.93	33.80	1.75	SlimPulse	0	0	0
25	3112.00	9.44	29.58	95.00	3097.29	122.70	167.09	110.57	200.36	33.49	1.43	SlimPulse	0	0	0
26	3206.00	9.63	27.10	94.00	3189.99	131.09	180.80	117.96	215.88	33.12	0.48	SlimPulse	0	0	0
27	3301.00	9.92	27.88	95.00	3283.61	139.58	195.11	125.40	231.92	32.73	0.33	SlimPulse	0	0	0
28	3396.00	10.31	27.32	95.00	3377.13	148.39	209.89	133.13	248.56	32.39	0.42	SlimPulse	0	0	0
29	3491.00	9.36	32.59	95.00	3470.74	157.48	223.95	141.19	264.73	32.23	1.37	SlimPulse	0	0	0
30	3585.00	7.82	37.04	94.00	3563.68	166.28	235.50	149.16	278.77	32.35	1.79	SlimPulse	0	0	0
31	3680.00	5.80	32.57	95.00	3658.01	173.43	244.70	155.64	289.99	32.46	2.19	SlimPulse	0	0	0
32	3775.00	2.53	58.35	95.00	3752.75	178.17	249.85	160.01	296.69	32.64	3.89	SlimPulse	0	0	0
33	3869.00	1.31	89.35	94.00	3846.70	181.08	250.95	162.84	299.15	32.98	1.66	SlimPulse	0	0	0
34	3964.00	0.45	139.06	95.00	3941.69	182.38	250.68	164.17	299.64	33.22	1.13	SlimPulse	0	0	0
35	4059.00	0.58	152.35	95.00	4036.68	182.80	249.97	164.64	299.31	33.37	0.19	SlimPulse	0	0	0
36	4154.00	1.00	156.26	95.00	4131.67	183.26	248.78	165.20	298.62	33.59	0.44	SlimPulse	0	0	0

	4134.00	1.00	150.20	95.00	4791.67	183.20	246.78	165.20	293.02	33.33	0.44	SlimPulse	0	0	0
37	4248.00	1.75	165.79	94.00	4225.65	183.79	246.63	165.88	297.24	33.92	0.84	SlimPulse	0	0	0
38	4343.00	1.76	173.49	95.00	4320.60	184.09	243.78	166.40	295.14	34.32	0.25	SlimPulse	0	0	0
39	4532.00	1.10	311.55	189.00	4509.57	182.94	242.11	165.37	293.21	34.34	1.42	SlimPulse	0	0	0
40	4627.00	0.76	332.95	95.00	4604.56	182.06	243.27	164.41	293.60	34.05	0.51	SlimPulse	0	0	0
41	4816.00	0.59	351.64	189.00	4793.55	181.51	245.34	163.70	294.95	33.71	0.15	SlimPulse	0	0	0
42	5006.00	0.89	354.43	190.00	4983.53	181.41	247.78	163.41	296.82	33.41	0.16	SlimPulse	0	0	0
43	5082.00	0.98	24.77	76.00	5059.52	181.71	248.96	163.63	297.90	33.32	0.66	SlimPulse	0	0	0
44	5105.00	0.96	25.86	23.00	5082.52	181.90	249.31	163.79	298.29	33.30	0.14	SlimPulse	0	0	0
45	5200.00	10.43	72.97	95.00	5176.96	190.71	252.55	172.38	305.77	34.32	10.31	SlimPulse	0	0	0
46	5295.00	17.67	76.71	95.00	5269.06	213.35	258.39	194.66	323.49	36.99	7.68	SlimPulse	0	0	0
47	5389.00	23.98	86.49	94.00	5356.90	246.58	262.84	227.64	347.70	40.90	7.64	SlimPulse	0	0	0
48	5484.00	31.92	87.94	95.00	5440.76	291.05	264.93	272.08	379.76	45.76	8.40	SlimPulse	0	0	0
49	5579.00	39.91	87.82	95.00	5517.63	346.70	266.99	327.73	422.70	50.83	8.40	SlimPulse	0	0	0
50	5673.00	47.83	88.09	94.00	5585.35	411.73	269.31	392.77	476.25	55.56	8.43	SlimPulse	0	0	0
51	5768.00	55.14	87.14	95.00	5644.47	485.97	272.43	466.99	540.65	59.74	7.73	SlimPulse	0	0	0
52	5815.00	61.18	87.87	47.00	5669.25	525.86	274.16	506.86	576.25	61.59	12.92	SlimPulse	0	0	0
53	5910.00	69.38	88.89	95.00	5708.95	611.99	276.57	593.04	654.36	65.00	8.69	SlimPulse	0	0	0
54	6029.00	84.60	90.06	119.00	5735.66	727.34	277.59	708.64	761.09	68.61	12.82	SlimPulse	0	0	0
55	6173.00	84.39	90.31	144.00	5749.47	870.25	277.13	851.98	895.93	71.98	0.22	SlimPulse	9	0	1
56	6267.00	85.98	91.43	94.00	5757.36	963.53	275.70	945.63	985.01	73.75	2.07	SlimPulse	9	0	1
57	6362.00	88.70	92.90	95.00	5761.77	1057.82	272.12	1040.45	1075.46	75.34	3.25	SlimPulse	9	0	1
58	6456.00	89.62	92.05	94.00	5763.15	1151.16	268.06	1134.35	1165.58	76.70	1.33	SlimPulse	9	0	1
59	6551.00	93.06	92.48	95.00	5760.93	1245.50	264.31	1229.23	1257.32	77.87	3.65	SlimPulse	9	0	1
60	6645.00	92.24	91.64	94.00	5756.58	1338.83	260.93	1323.07	1348.56	78.84	1.25	SlimPulse	9	0	1
61	6740.00	90.48	91.27	95.00	5754.32	1433.32	258.52	1418.01	1441.37	79.67	1.89	SlimPulse	9	0	1
62	6834.00	89.49	91.36	94.00	5754.35	1526.88	256.36	1511.98	1533.56	80.38	1.06	SlimPulse	9	0	1
63	6928.00	89.25	89.26	94.00	5755.38	1620.56	255.86	1605.97	1626.21	80.95	2.25	SlimPulse	9	0	1
64	7022.00	88.56	90.25	94.00	5757.18	1714.31	256.26	1699.95	1719.16	81.43	1.28	SlimPulse	9	0	1
65	7117.00	90.11	89.52	95.00	5758.28	1809.05	256.45	1794.94	1813.16	81.87	1.80	SlimPulse	9	0	1
66	7211.00	88.32	88.27	94.00	5759.57	1902.90	258.26	1888.91	1906.50	82.21	2.32	SlimPulse	9	0	1
67	7306.00	90.73	86.54	95.00	5760.36	1997.84	262.56	1983.80	2001.08	82.46	3.12	SlimPulse	9	0	1
68	7400.00	91.03	85.67	94.00	5758.91	2091.83	268.95	2077.57	2094.91	82.62	0.98	SlimPulse	9	0	1
69	7495.00	89.56	85.69	95.00	5758.42	2186.82	276.10	2172.30	2189.76	82.76	1.55	SlimPulse	9	0	1
70	7589.00	91.38	88.38	94.00	5757.65	2280.78	280.96	2266.15	2283.50	82.93	3.45	SlimPulse	9	0	1
71	7686.00	91.55	88.89	97.00	5755.17	2377.63	283.27	2363.09	2380.02	83.16	0.55	SlimPulse	9	0	1
72	7781.00	89.52	86.87	95.00	5754.29	2472.55	286.79	2458.02	2474.70	83.35	3.01	SlimPulse	9	0	1
73	7876.00	88.56	87.38	95.00	5755.88	2567.50	291.55	2552.88	2569.49	83.48	1.14	SlimPulse	9	0	1
74	7970.00	89.62	87.51	94.00	5757.37	2661.45	295.74	2646.77	2663.25	83.62	1.14	SlimPulse	9	0	1
75	8065.00	90.52	89.42	95.00	5757.25	2756.33	298.29	2741.73	2757.91	83.79	2.22	SlimPulse	9	0	1
76	8160.00	90.04	89.56	95.00	5756.79	2851.13	299.13	2836.73	2852.46	83.98	0.53	SlimPulse	9	0	1
77	8254.00	89.83	91.34	94.00	5756.90	2944.81	298.39	2930.72	2945.87	84.19	1.91	SlimPulse	9	0	1
78	8349.00	91.38	89.34	95.00	5755.89	3039.48	297.83	3025.71	3040.32	84.38	2.66	SlimPulse	9	0	1
79	8444.00	90.69	88.93	95.00	5754.18	3134.30	299.26	3120.68	3135.01	84.52	0.84	SlimPulse	9	0	1
80	8538.00	90.35	88.38	94.00	5753.32	3228.17	301.47	3214.65	3228.74	84.64	0.69	SlimPulse	9	0	1
81	8632.00	88.94	88.49	94.00	5753.91	3322.07	304.04	3308.61	3322.54	84.75	1.50	SlimPulse	9	0	1
82	8728.00	90.35	87.93	96.00	5754.50	3417.97	307.04	3404.56	3418.37	84.85	1.58	SlimPulse	9	0	1
83	8822.00	89.18	87.73	94.00	5754.89	3511.91	310.59	3498.49	3512.24	84.93	1.26	SlimPulse	9	0	1
84	8917.00	91.31	86.46	95.00	5754.48	3606.87	315.41	3593.36	3607.19	84.98	2.61	SlimPulse	9	0	1
85	9012.00	91.00	88.82	95.00	5752.57	3701.79	319.32	3688.25	3702.03	85.05	2.51	SlimPulse	9	0	1
86	9106.00	91.38	91.00	94.00	5750.61	3795.51	319.47	3782.23	3795.70	85.17	2.35	SlimPulse	9	0	1
87	9201.00	90.38	90.44	95.00	5749.15	3890.14	318.27	3877.21	3890.26	85.31	1.21	SlimPulse	9	0	1
88	9296.00	88.87	90.81	95.00	5749.78	3984.79	317.24	3972.20	3984.84	85.43	1.64	SlimPulse	9	0	1
89	9391.00	91.21	89.99	95.00	5749.71	4079.47	316.57	4067.19	4079.49	85.55	2.61	SlimPulse	9	0	1
90	9485.00	89.93	89.78	94.00	5748.78	4173.21	316.76	4161.18	4173.23	85.65	1.38	SlimPulse	9	0	1

91	9580.00	88.97	90.74	95.00	5749.69	4267.91	316.33	4256.17	4267.91	85.75	1.43	SlimPulse	9	0	1
92	9675.00	90.42	89.36	95.00	5750.19	4362.63	316.25	4351.17	4362.63	85.84	2.11	SlimPulse	9	0	1
93	9770.00	90.59	90.04	95.00	5749.36	4457.40	316.75	4446.16	4457.41	85.93	0.74	SlimPulse	9	0	1
94	9865.00	89.32	91.17	95.00	5749.43	4552.06	315.74	4541.15	4552.10	86.02	1.79	SlimPulse	9	0	1
95	9959.00	89.87	88.92	94.00	5750.09	4645.78	315.67	4635.14	4645.87	86.10	2.46	SlimPulse	9	0	1
96	10054.00	89.87	87.00	95.00	5750.31	4740.70	319.05	4730.08	4740.81	86.14	2.02	SlimPulse	9	0	1
97	10149.00	88.70	86.55	95.00	5751.50	4835.68	324.39	4824.92	4835.83	86.15	1.32	SlimPulse	9	0	1
98	10205.00	88.01	87.39	56.00	5753.10	4891.64	327.35	4880.82	4891.77	86.16	1.94	SlimPulse	9	0	1
99	10270.00	88.01	87.40	65.00	5755.36	4956.57	330.31	4945.71	4956.73	86.18	0.02	Other	9	0	7

Calibration Report

SPULSE-GEN (SlimPulse with Generic Collar) Calibration - Run Run001									
Primary Equipment :									
Elec. cartridge, 150C max with GR				SPEC			6028		
GRGain - Gamma Ray: Blanket									
Master (Time Frame File):		12:00:00 07-May-2014							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	<div><div></div><div></div></div>		
Gamma Ray Calibration Gain		Master	1.0000	0.9000	1.0518	1.1000	<div><div></div><div></div><div></div><div></div></div>		

SPULSE-GEN (SlimPulse with Generic Collar) Calibration - Run Run002									
Primary Equipment :									
Elec. cartridge, 150C max with GR				SPEC			6061		
GRGain - Gamma Ray: Blanket									
Master (Time Frame File):		12:00:00 02-Apr-2014							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	<div></div>		
Gamma Ray Calibration Gain		Master	1.0000	0.9000	1.0572	1.1000	<div></div>		

SPULSE-GEN (SlimPulse with Generic Collar) Calibration - Run Run003													
Primary Equipment :													
Elec. cartridge, 150C max with GR				SPEC									
GRGain - Gamma Ray: Blanket													
Master (Time Frame File):		12:00:00 24-May-2014											
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	<table><tr><td></td><td></td></tr></table>						
Gamma Ray Calibration Gain		Master	1.0000	0.9000	1.0645	1.1000	<table><tr><td></td><td></td><td></td><td></td></tr></table>						

Company: Noble Energy

Well: Rohn State LD03-65-1HN

Field: Wattenberg

County: Weld

State: Colorado

Country: USA



Schlumberger

SlimPulse - Gamma Ray

1 in / 100 ft & 5 in / 100 ft True Vertical Depth

Recorded Mode, Composite Log