

Schlumberger	
Company:	Santos
Well:	Netherby 1
Field:	Gas / Oil Exploration
Rig:	Ocean Patriot
Country:	Australia

Santos

Netherby 1

Gas / Oil Exploration

Ocean Patriot Country: **Australia**

HRLT-PEX-HNGS-MSI			
Sonic Scanner			
Scale 1:200			
01CAS3D	Elev.:	D.F.	20.8 m
INL-6790 XLN-3484		G.L.	-66.1 m
Olway Basin Vic/P44			
Permanent Datum:	Elev.: 0 m		
Log Measured From:	20.8 m above Perm. Datum		
Drilling Measured From:			
State:	Max. Well Deviation	Longitude	Latitude
Victoria	35 deg	142° 38' 25.745" E	38° 40' 48.578" S

[illegible]

Logging Date	27-Jul-2008			
Run Number	1			
Depth Driller	1870 m			
Schlumberger Depth	TD not tagged			
Bottom Log Interval	1785 m			
Top Log Interval	633.4 m			
Casing Driller Size @ Depth	13.375 in @ 642.2 m			@
Casing Schlumberger	643.5 m			
Bit Size	12.250 in			
Type Fluid in Hole	KCL			
Density	1.33 g/cm3		59 s	
Fluid Loss	PH		8.7	
Source Of Sample	Mud Pit			
RM @ Measured Temperature	0.112 ohm.m		@ 20 degC	@
RMF @ Measured Temperature	0.089 ohm.m		@ 20 degC	@
RMC @ Measured Temperature	0.134 ohm.m		@ 22 degC	@
Source RMF	RMC		Pressed	
RM @ MRT	RMF @ MRT		0.053 @ 66 0.042 @ 66	@ @
Maximum Recorded Temperatures	66 degC		66	
Circulation Stopped	Time		11:00	
Logger On Bottom	Time		21:00	
Unit Number	Location		1909 AU5L	
Recorded By	Y.Zhuang / A.Ives			
Witnessed By	J. Pitman / D. Adderley			

Logging Date		
Run Number		
Depth Driller		
Schlumberger Depth		
Bottom Log Interval		
Top Log Interval		
Casing Driller Size @ Depth	@	
Casing Schlumberger		
Bit Size		
Type Fluid In Hole		
Density	Viscosity	
Fluid Loss	PH	
Source Of Sample		
RM @ Measured Temperature	@	
RMF @ Measured Temperature	@	
RMC @ Measured Temperature	@	
Source RMF	RMC	
RM @ MRT	RMF @ MRT	@
Maximum Recorded Temperatures		
Circulation Stopped	Time	
Logger On Bottom	Time	
Unit Number	Location	
Recorded By		
Witnessed By		

OTHER SERVICES1	OTHER SERVICES2
OS1:	OS1:
OS2:	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
Tool string run with 2.5 in standoffs on HRLT, MSIP.	
HGNS eccentered using bowspring.	
Platform express run in standard reslution mode.	
Neutron porosity correction applied: Holesize correction using caliper, mud weight, pressure temperature	
formation salinity and borehole salinity correction.	

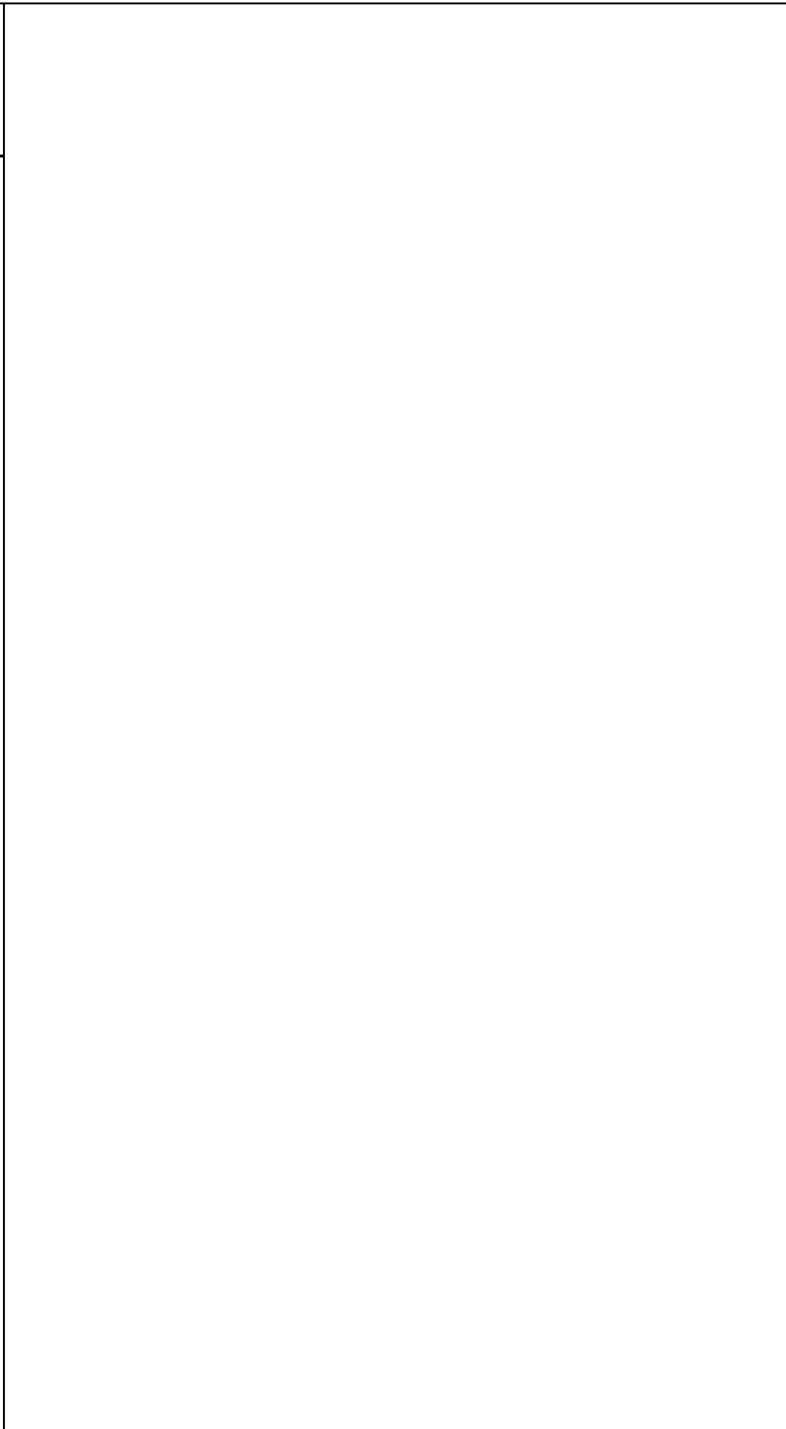
Repeat section not carried as per client request.
MSIP record monopole and dipole from TD to casing shoe.
Barite is added in mud. Barite correction applied.
Tool hold up at 1792.8m, TD could not tagged.
TLC run was carried, hold up at same depth.
Additional mud properites: KCL 8.3%
Glycol content 3.2 % by Vol, Calcium content 800 mg/L

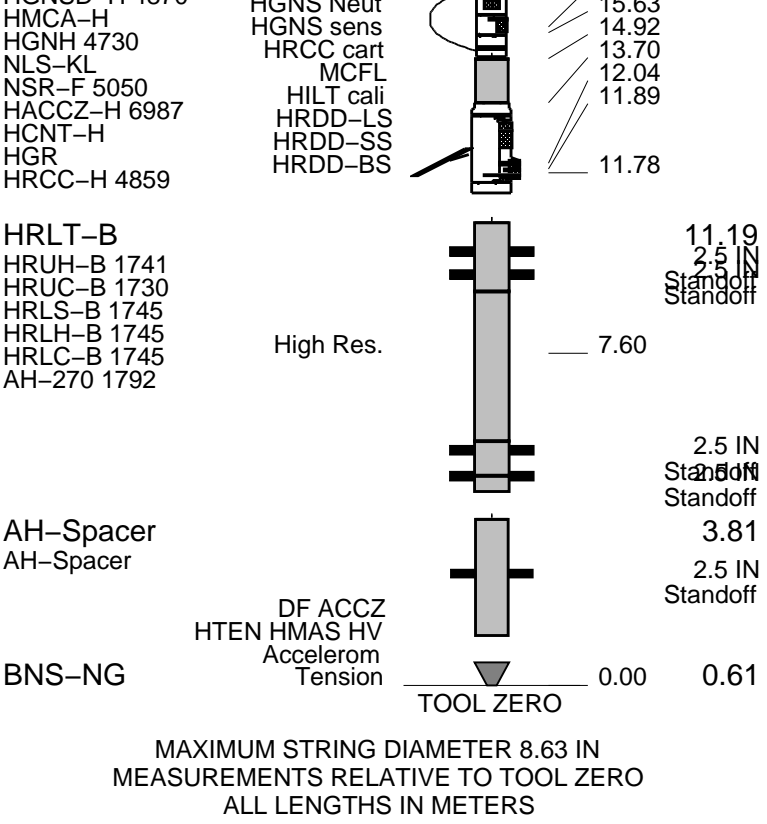
RUN 1			RUN 2		
SERVICE ORDER #:		AUSL 08369043	SERVICE ORDER #:		
PROGRAM VERSION:		15C0-309	PROGRAM VERSION:		
FLUID LEVEL:		0 m	FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION					
RUN 1			RUN 2		

SURFACE EQUIPMENT	
GSR-U 6003	GSR-U 6003
NCT-B	WITM (EDTS)-A 60
CNB-AB	
NCS-VB 5050	

DOWNHOLE EQUIPMENT	
LEH-QT 2809	38.89
SPA-A 753	38.00
<div> <div>AH-369 796</div> <div>Mud Tempe</div> <div>CTEM</div> </div>	37.57
EDTC-B	37.13
EDTH-B 8434	36.07
EDTC-B 8390	35.50
<div> <div>Gamma Ray</div> <div>TelStatus</div> <div>EDTCB Ele</div> </div>	35.15
MAPC-B	35.15
MAPC-BA 8198	
ECH-SF 8198	
MAMS-BA 8201	
MAMS-PS	30.45
MAXS-B	28.74
MAXS-BA 8157	
MAXS-BA 8157	
MAXS-PS	22.57
AH-107 2840	22.57
<div> <div>HNGS-BA</div> <div>Upper_1</div> <div>Lower_2</div> </div>	21.96
HNGS-BA 19	
HNSH-BA 47	
HNGC-B	19.46
HNGH-A 47	
<div> <div>HGNS HTEM</div> <div>HMCA</div> </div>	18.39
AH-107 1817	17.79
HILTH-FTB	17.56
HGNSD-H 4870	15.78
HGNS Neut	15.63



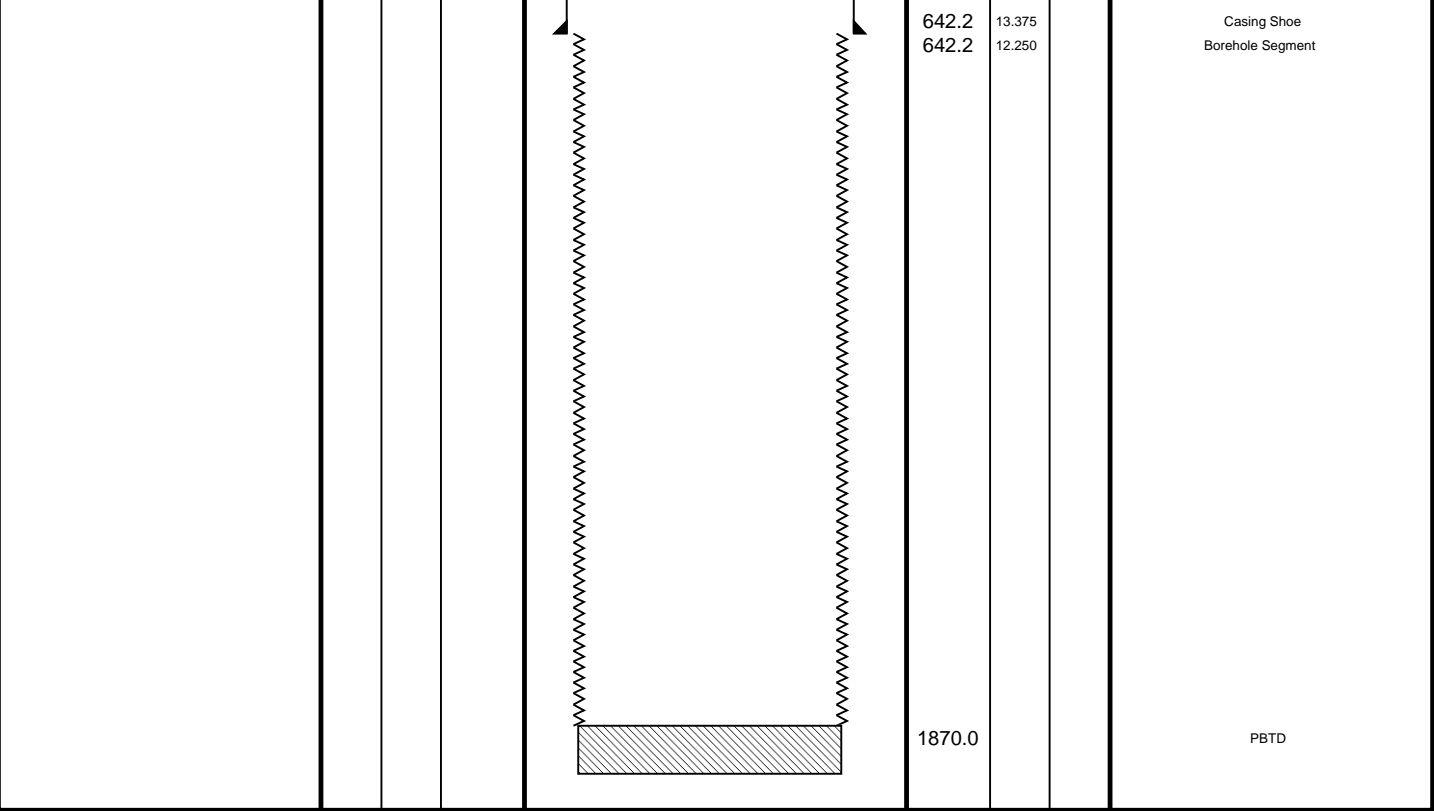


Client: Santos
 Well: Netherby 1
 Field: Gas/Oil Exploration
 State: Victoria
 Country: Australia

Rig Name: Ocean Patriot
 Reference Datum: Mean Sea Level
 Elevation: 0.0 m

Drawing Date: 7/30/2008

Production String	(in) OD	(in) ID	(m) MD	Well Schematic	(m) MD	(in) OD	(in) ID	Casing String
Kelly Bushing Elevation Derrick Floor Elevation Mean Sea Level			0.0 0.0 20.8		13.375			Casing String



Main Pass
1:200

MAXIS Field Log

Company: Santos Well: Netherby 1

Input DLIS Files				
HRLA_TLD_MCFL_CNL_068PUP	FN:120	04-Aug-2008 15:49	1796.9 M	633.4 M

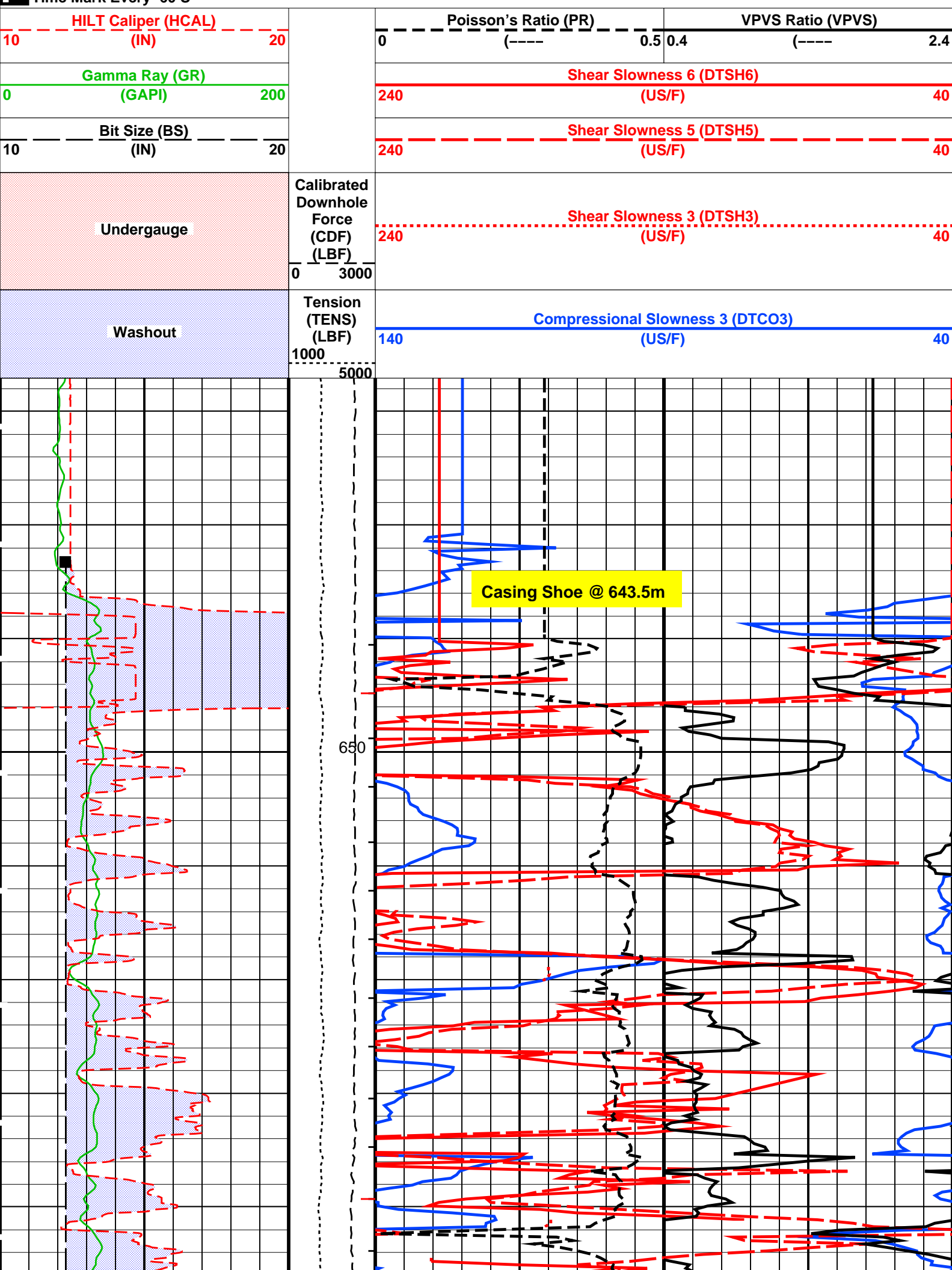
OP System Version: 15C0-309			
MCM			
HRLT	15C0-309	HILTHD	SRPC-3582-Q1_2008_OP15
HNGC-B	15C0-309	HNGS-BA	15C0-309
MAXS	SKK-3562-MAST	MAPC	SKK-3562-MAST
EDTCB	SKK-3493-EDTCB	SPAA	15C0-309

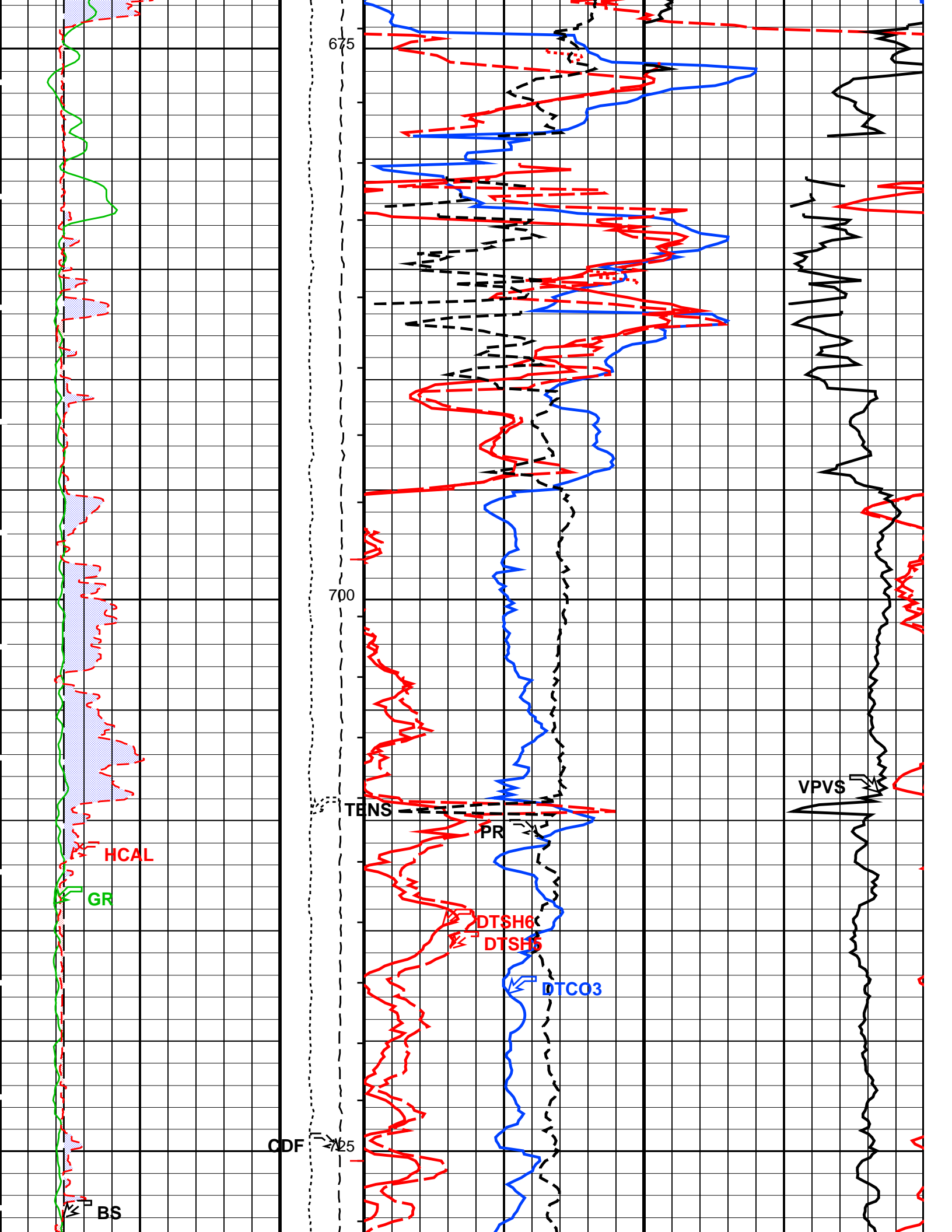
PIP SUMMARY

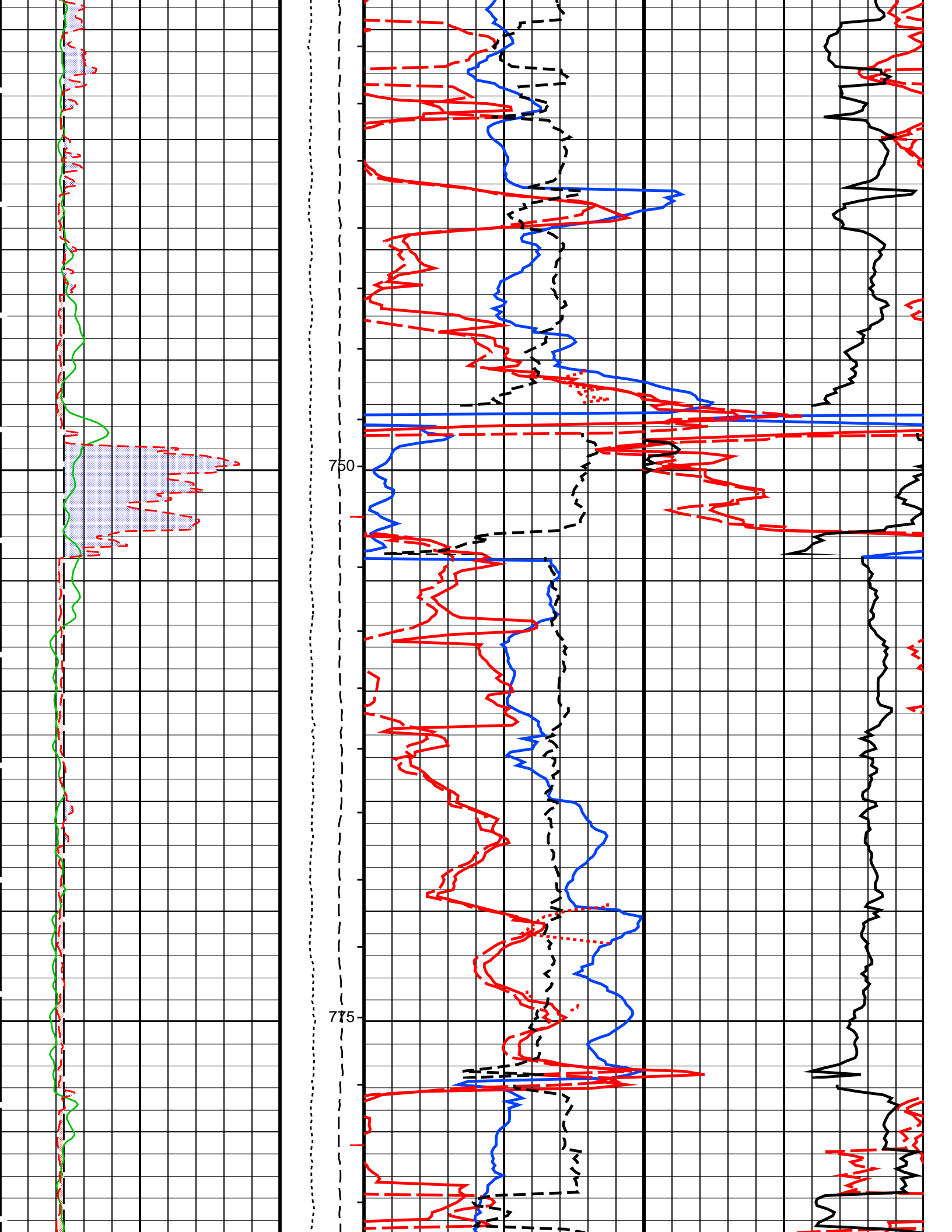
Integrated Transit Time Minor Pip Every 1 MS

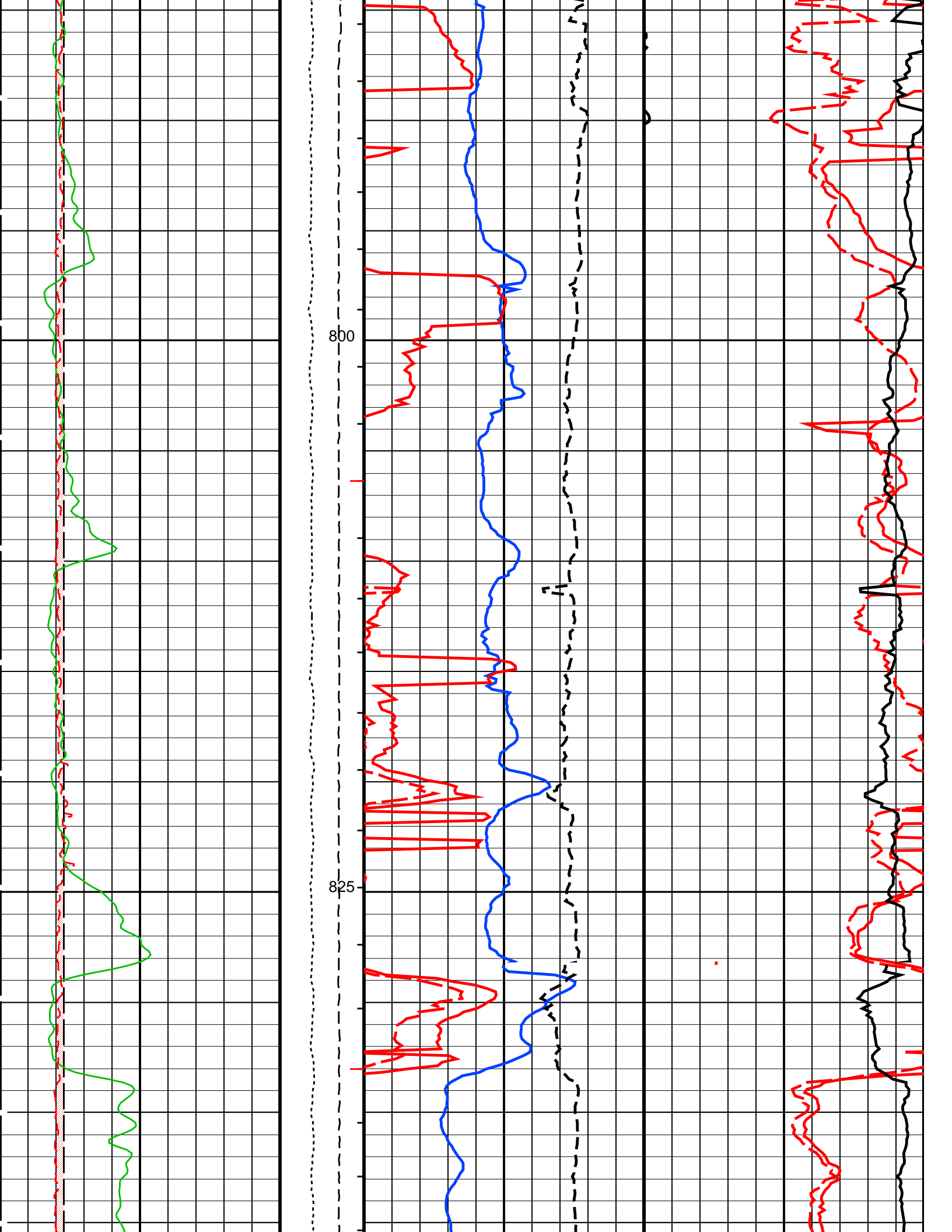
Integrated Transit Time Major Pip Every 10 MS

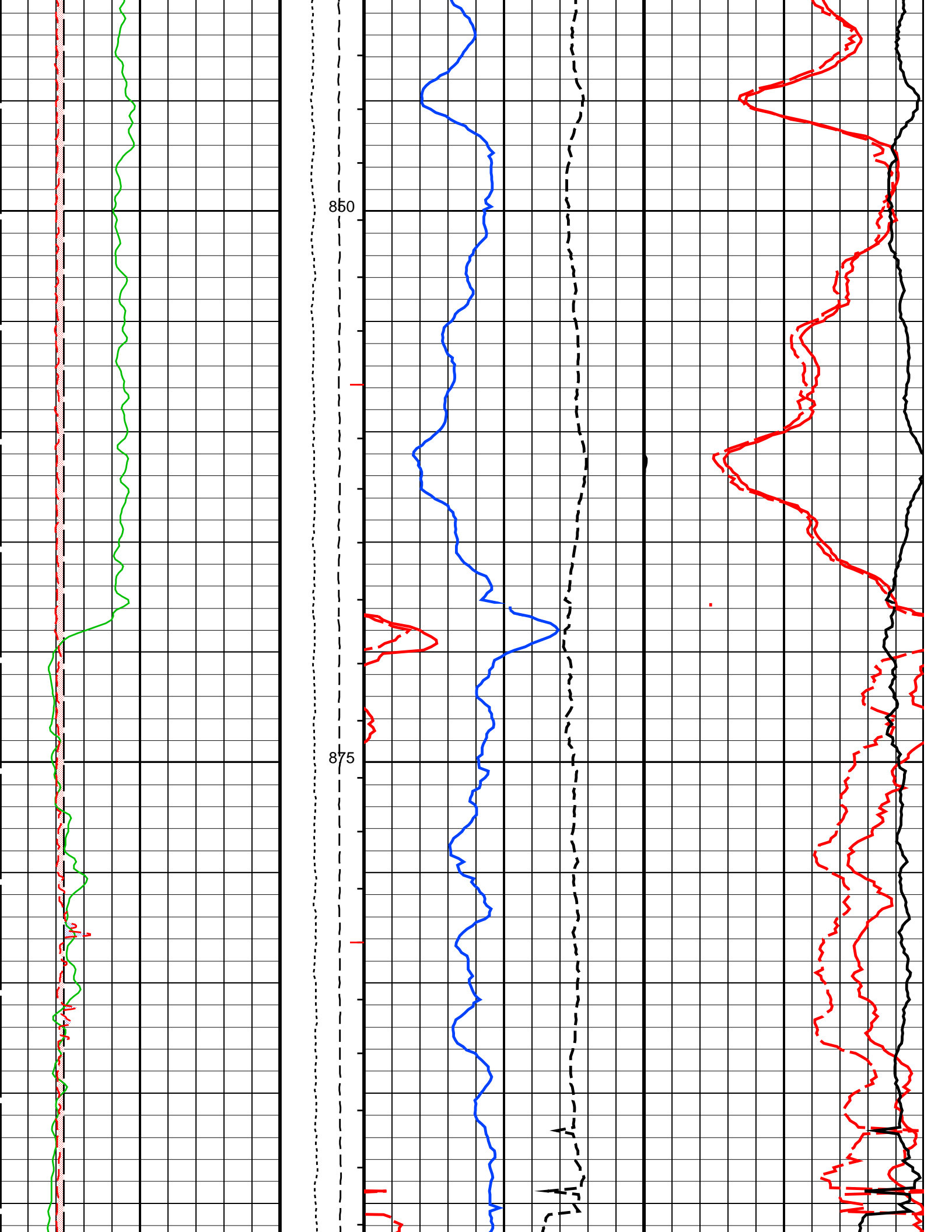
Time Mark Every 60 S

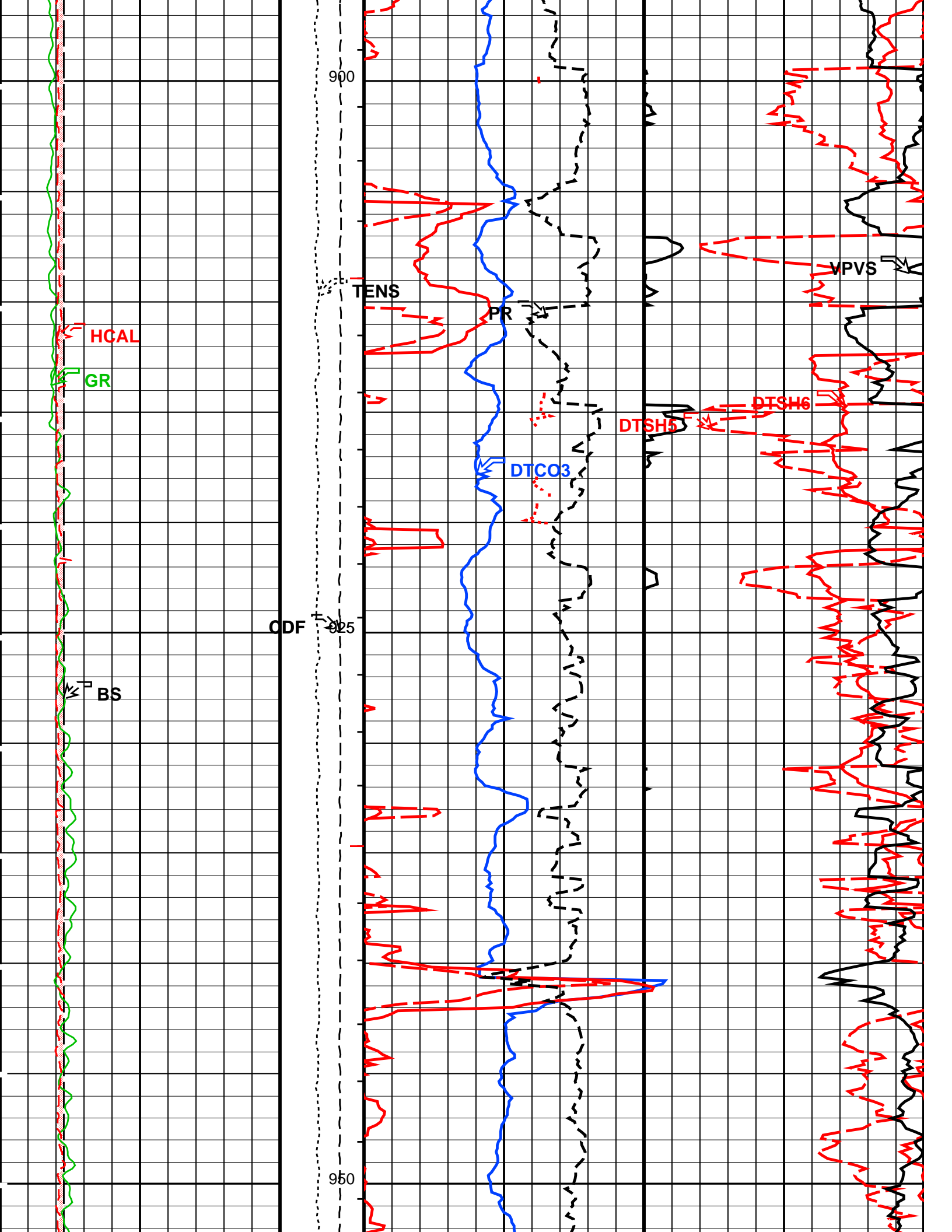


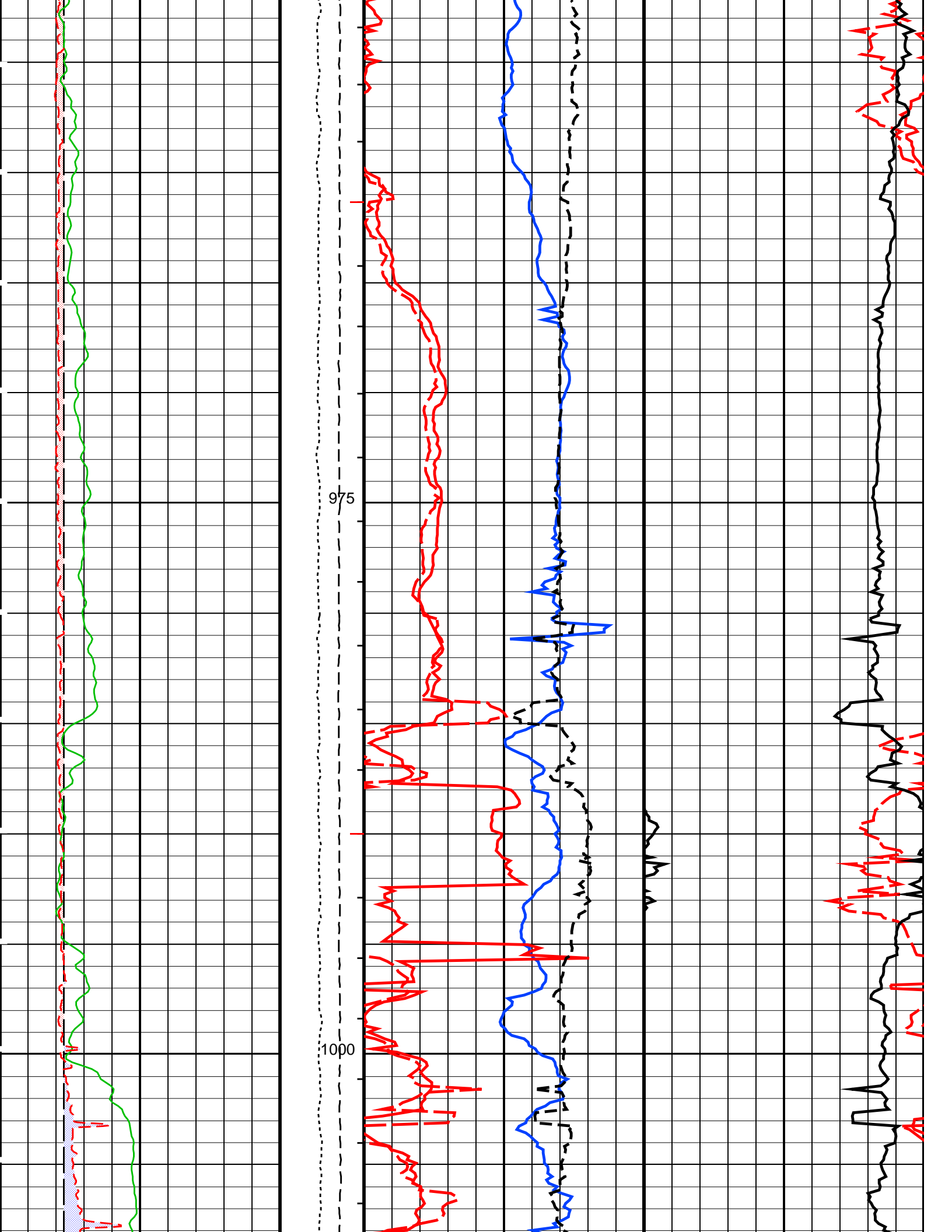


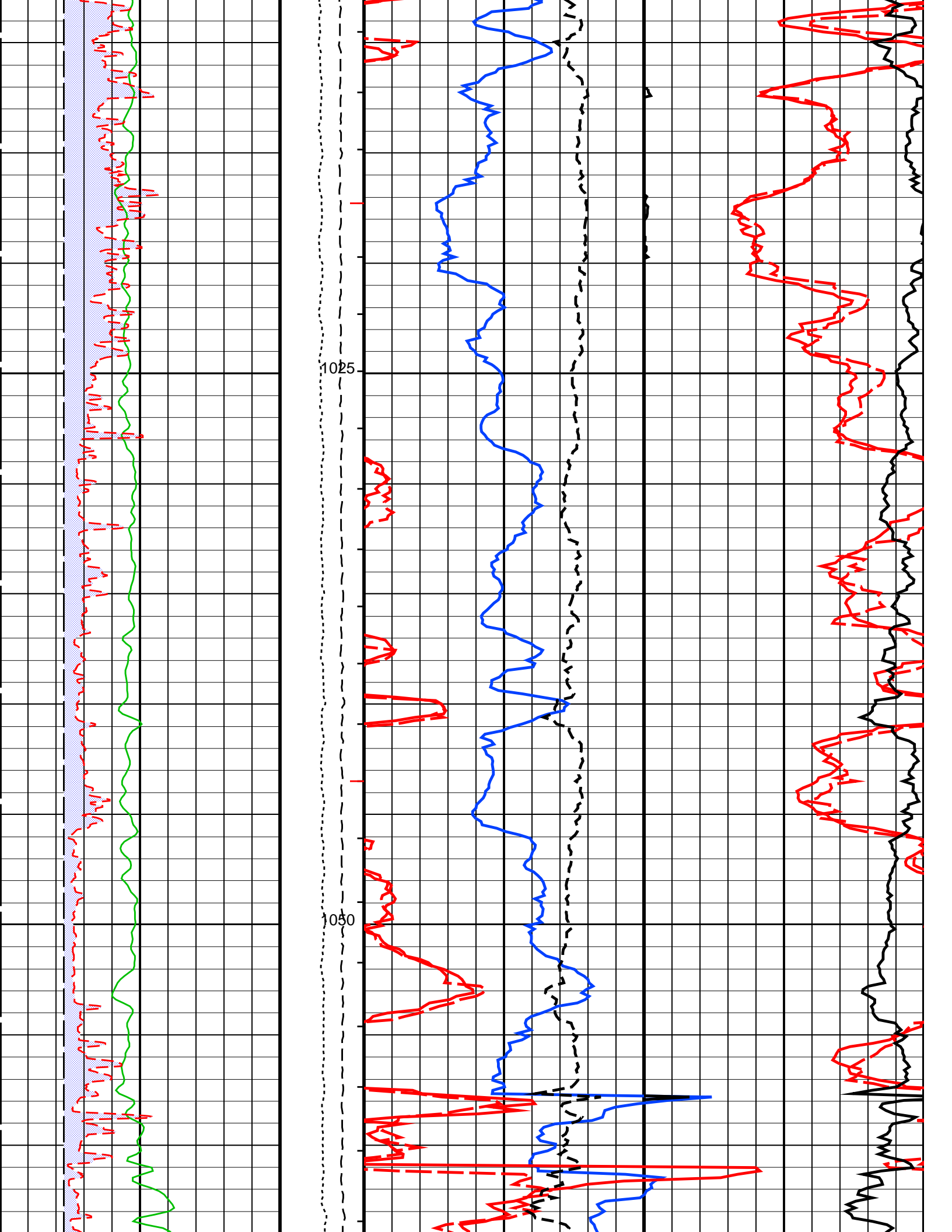


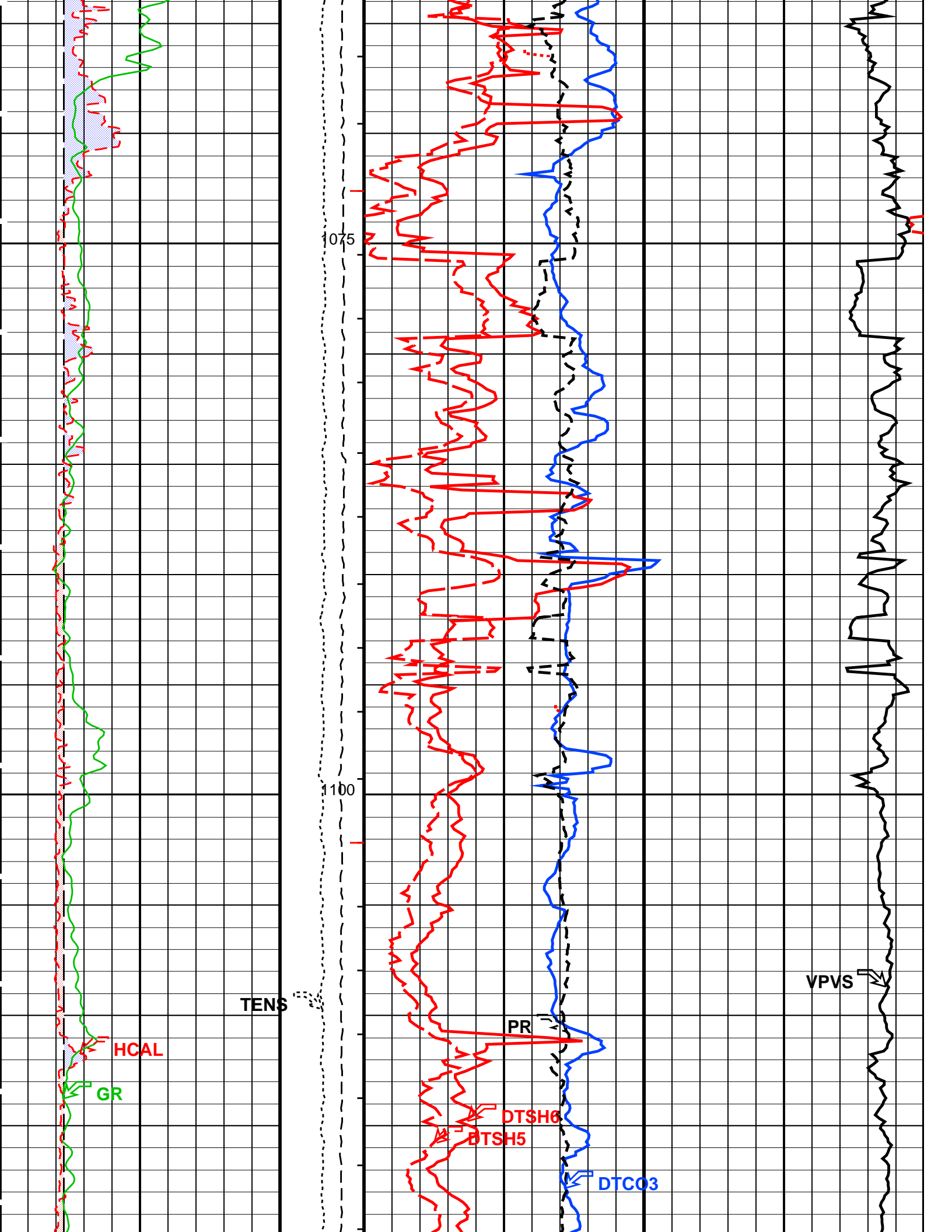


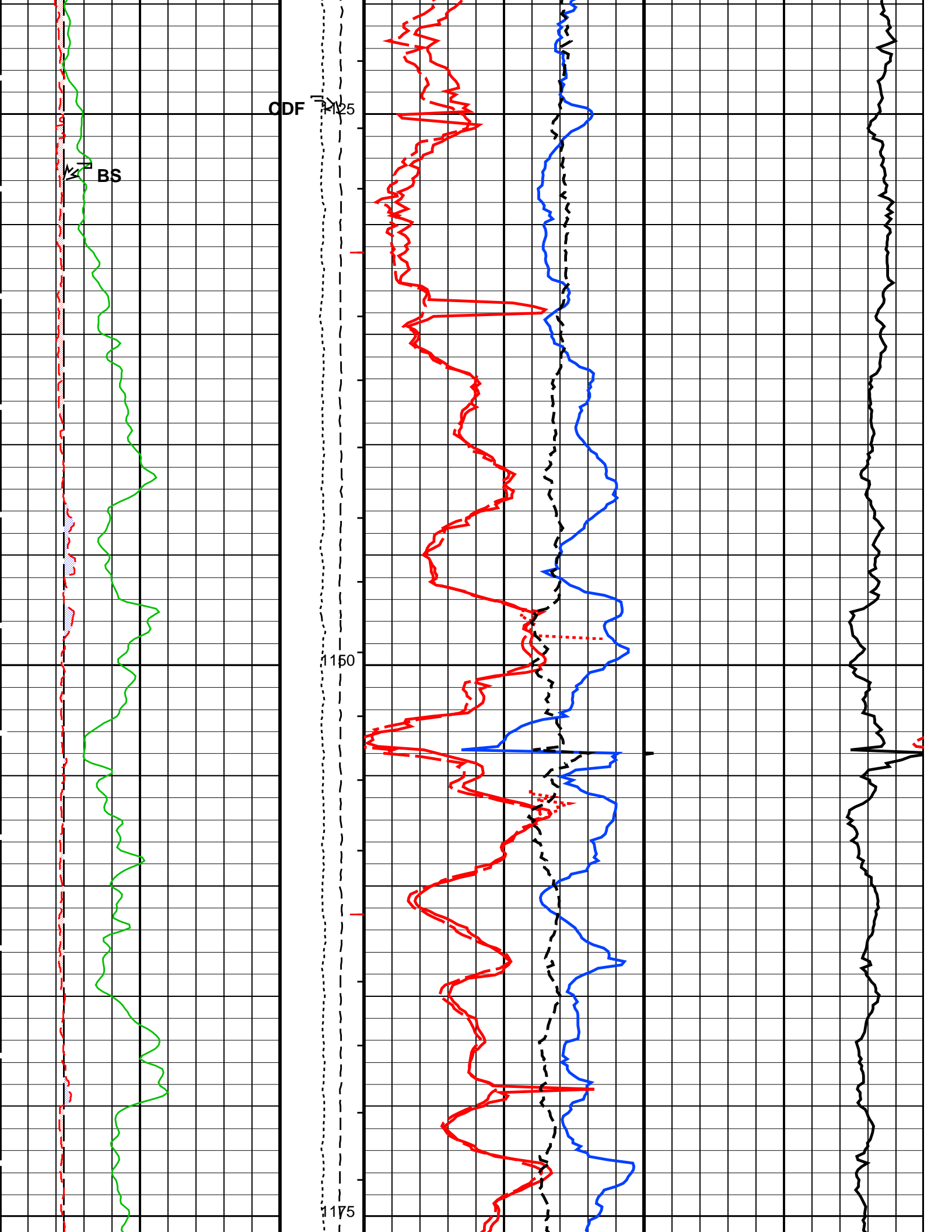


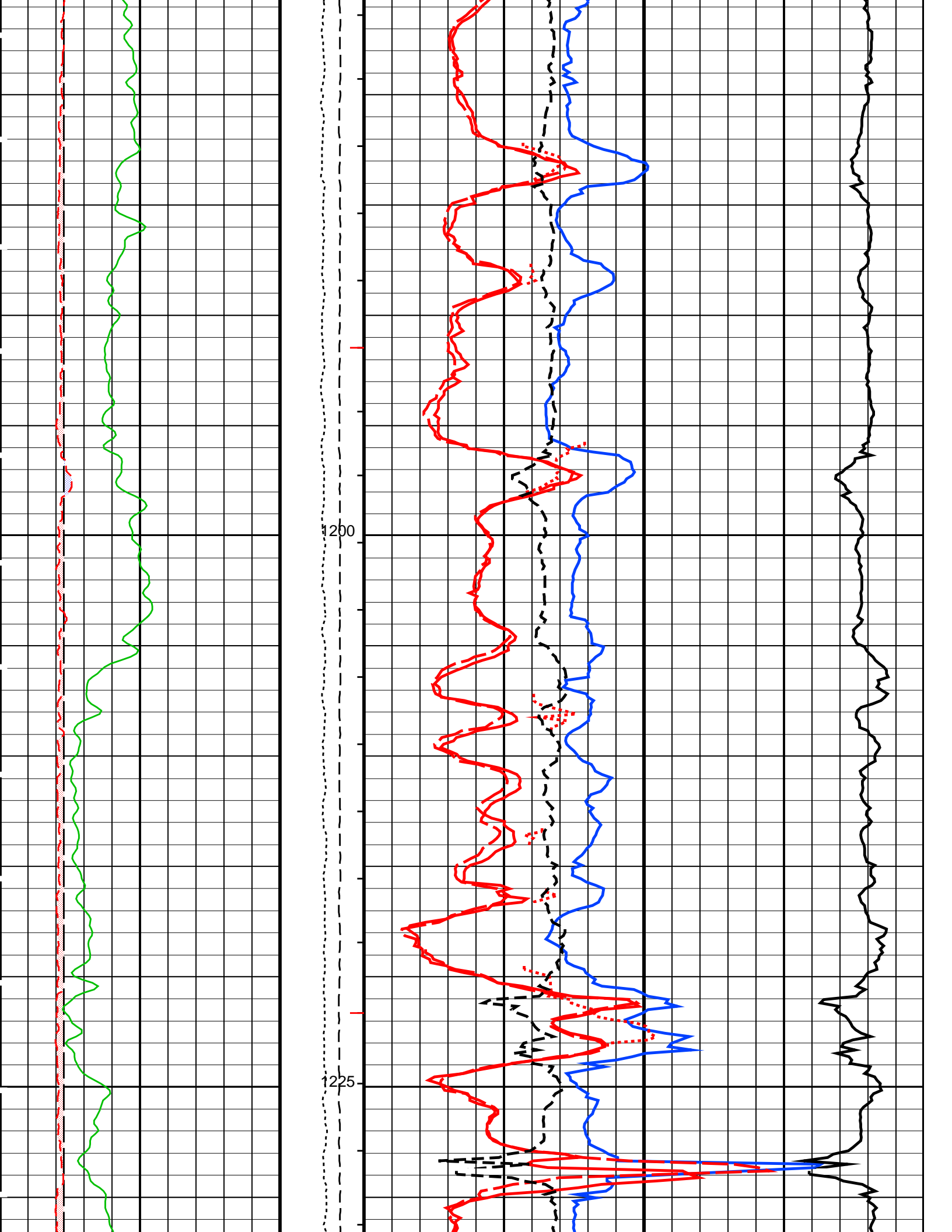


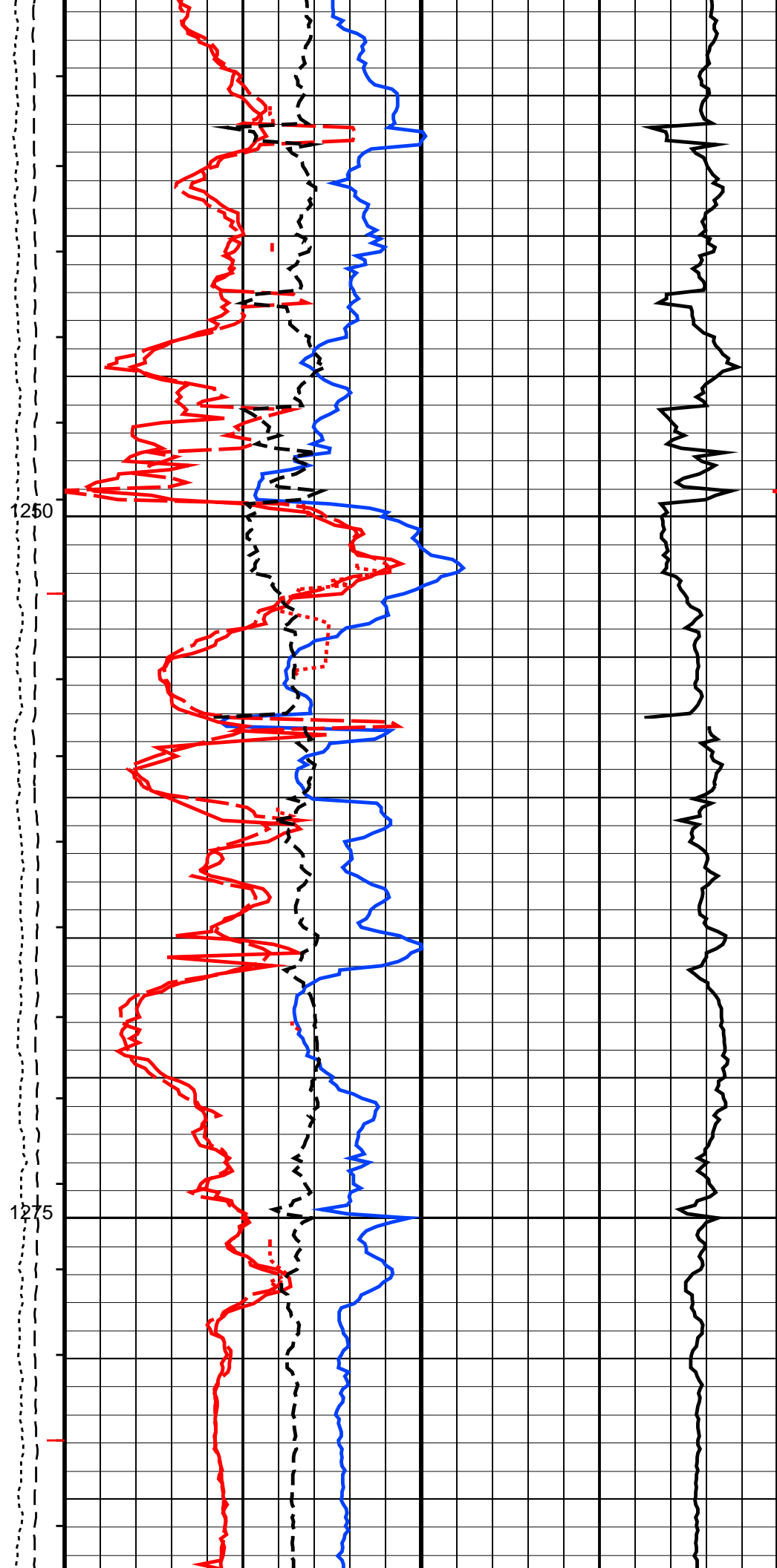
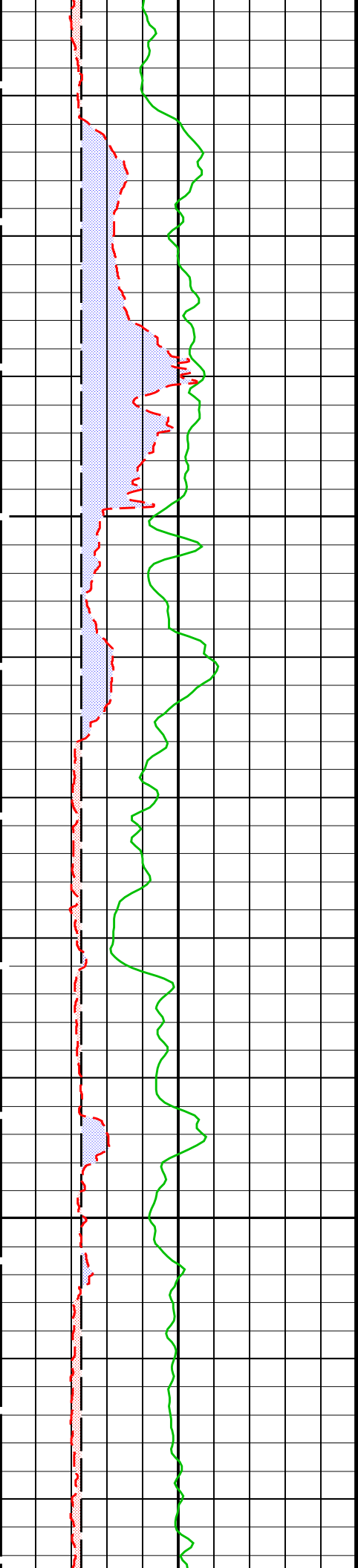


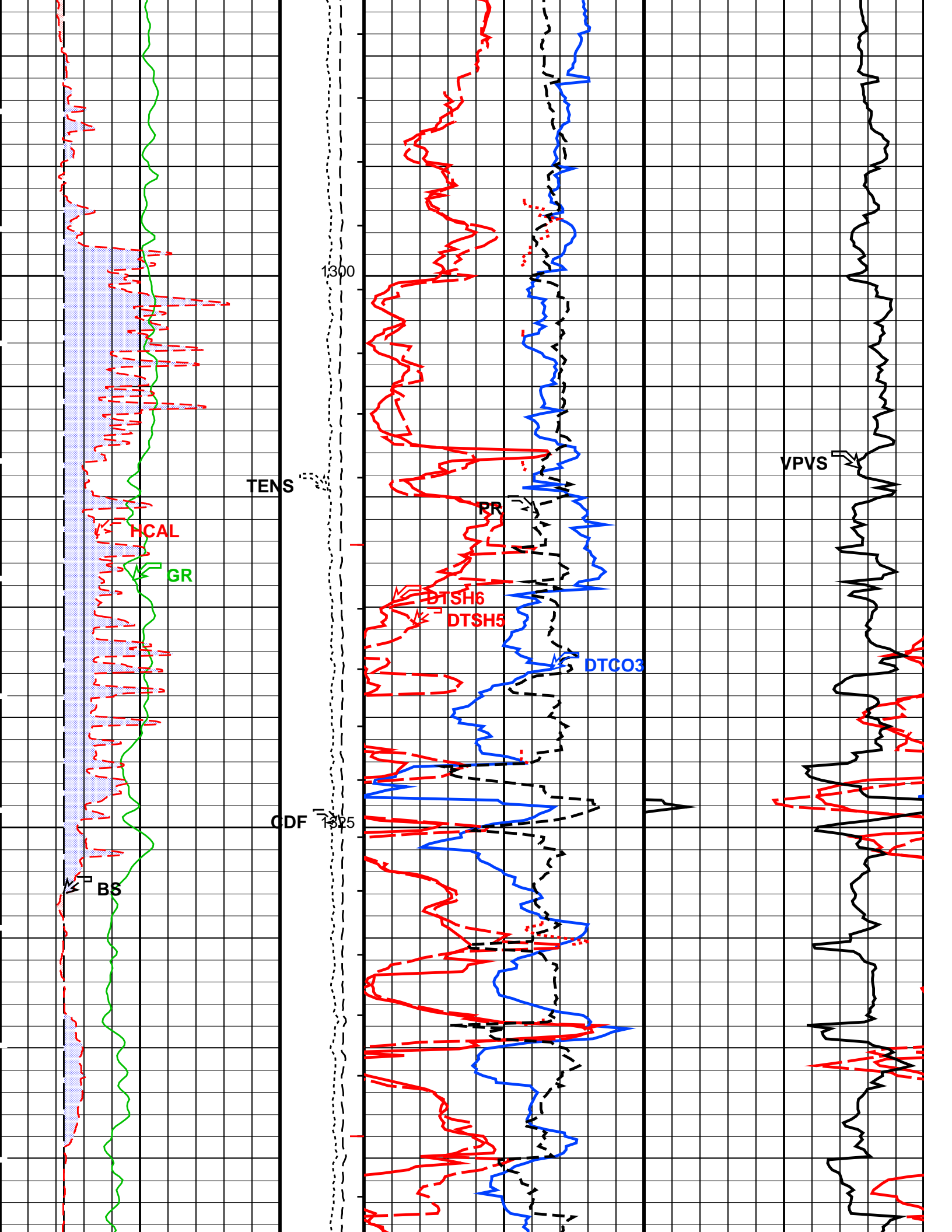


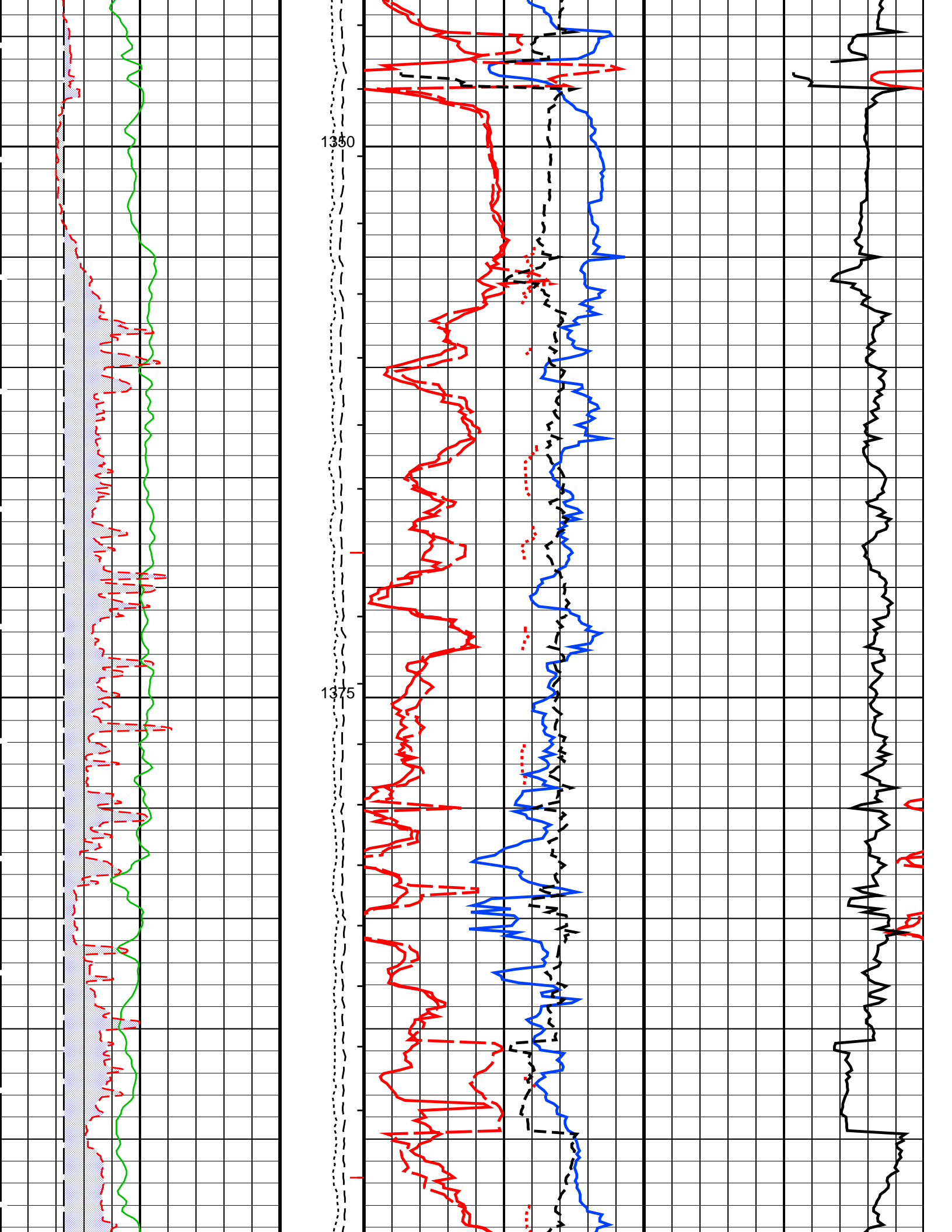


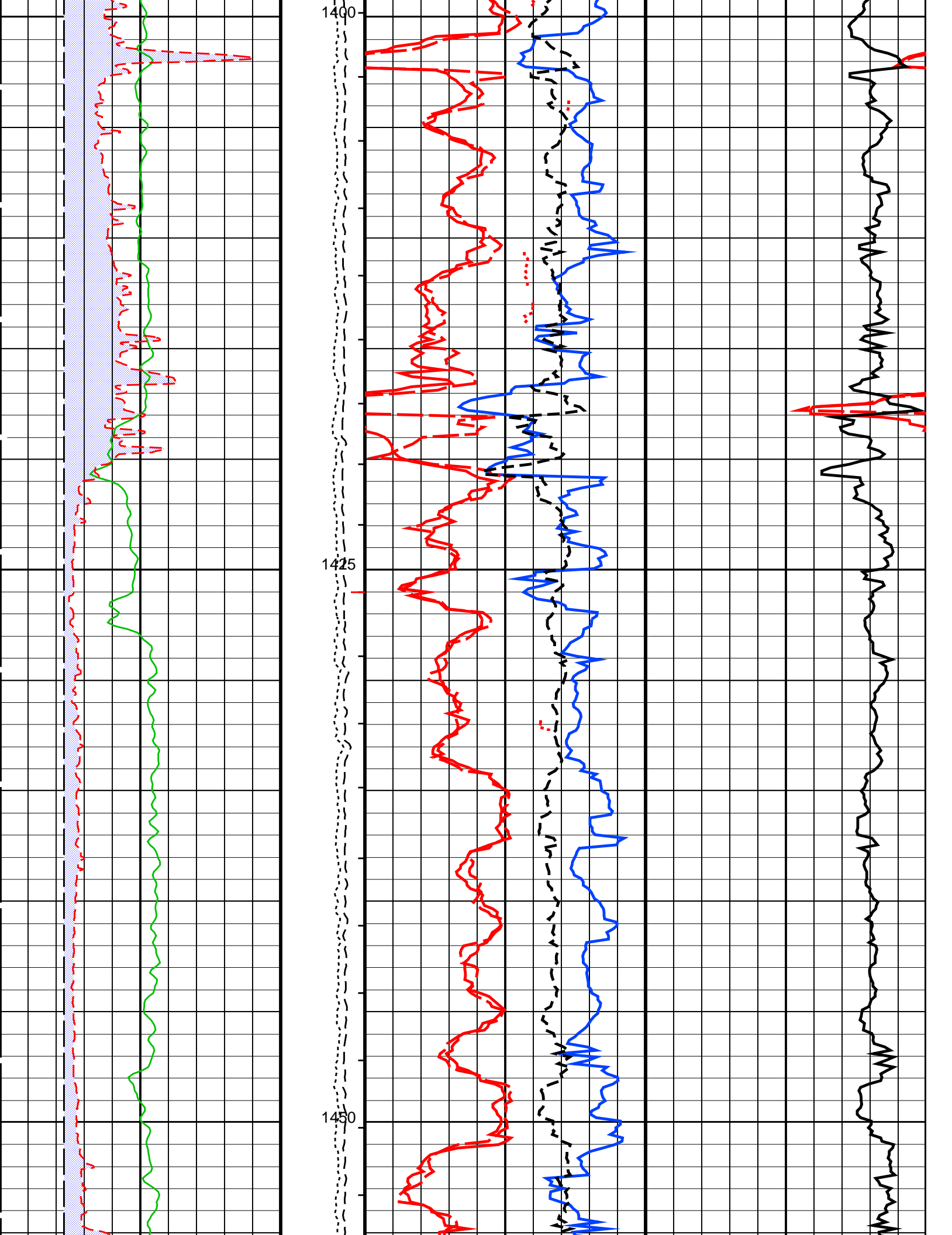


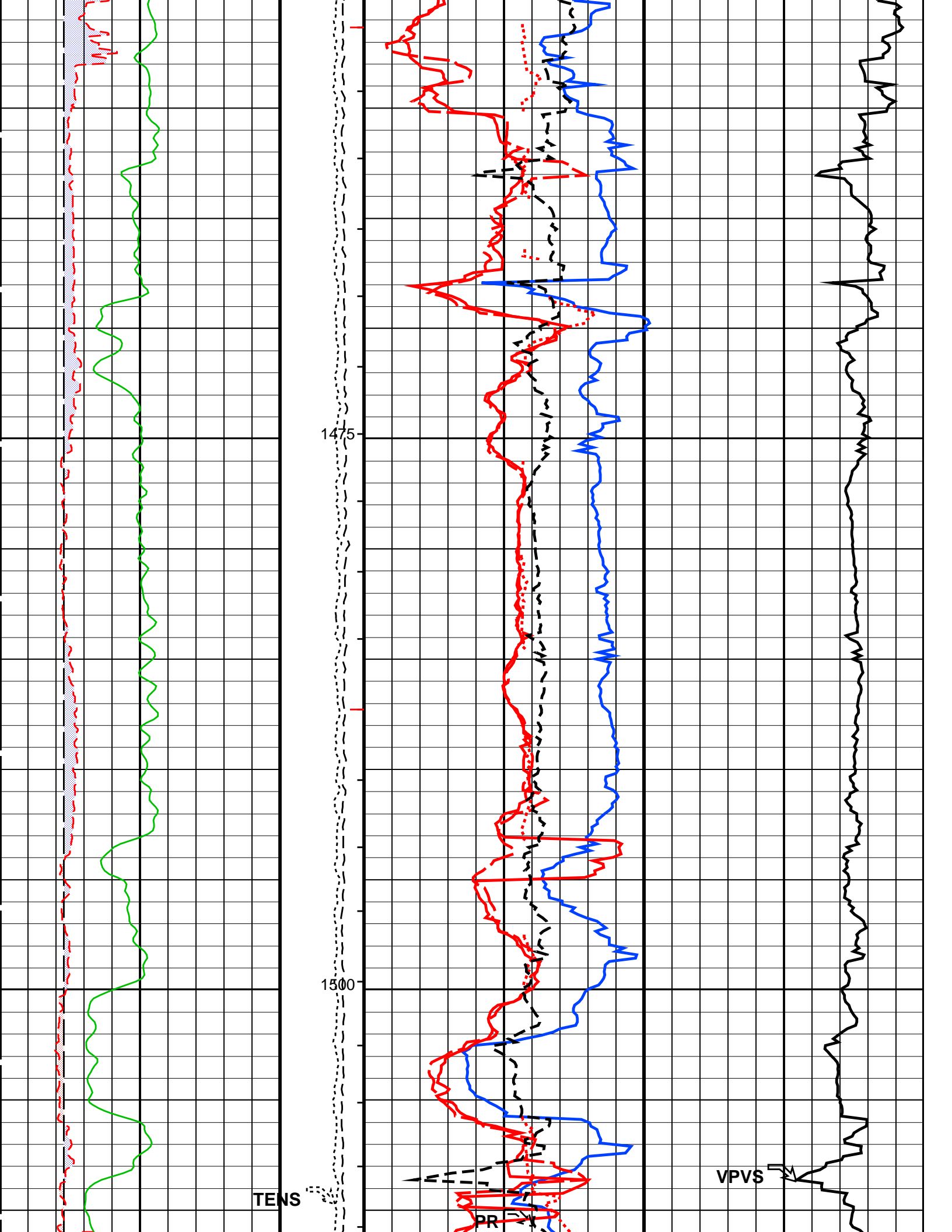


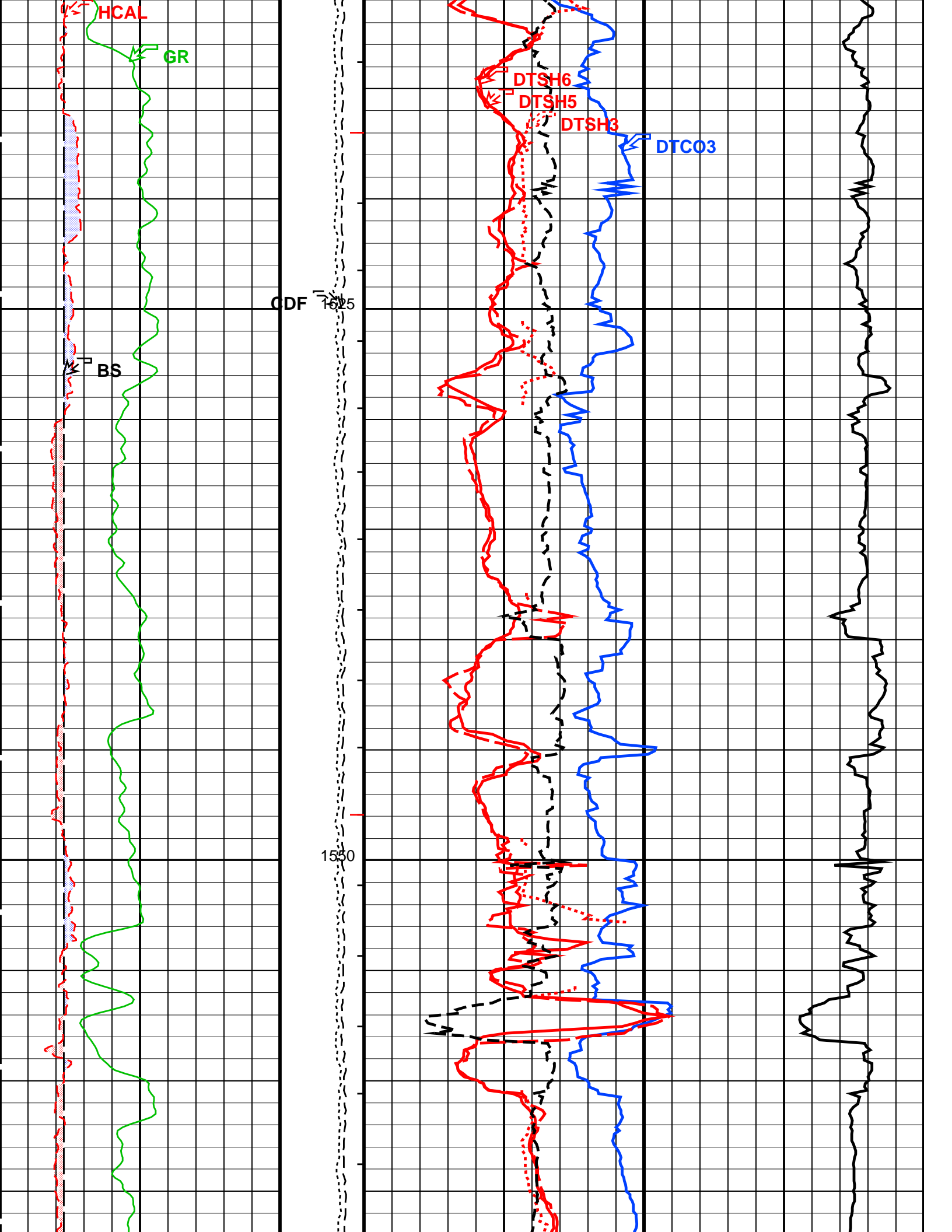


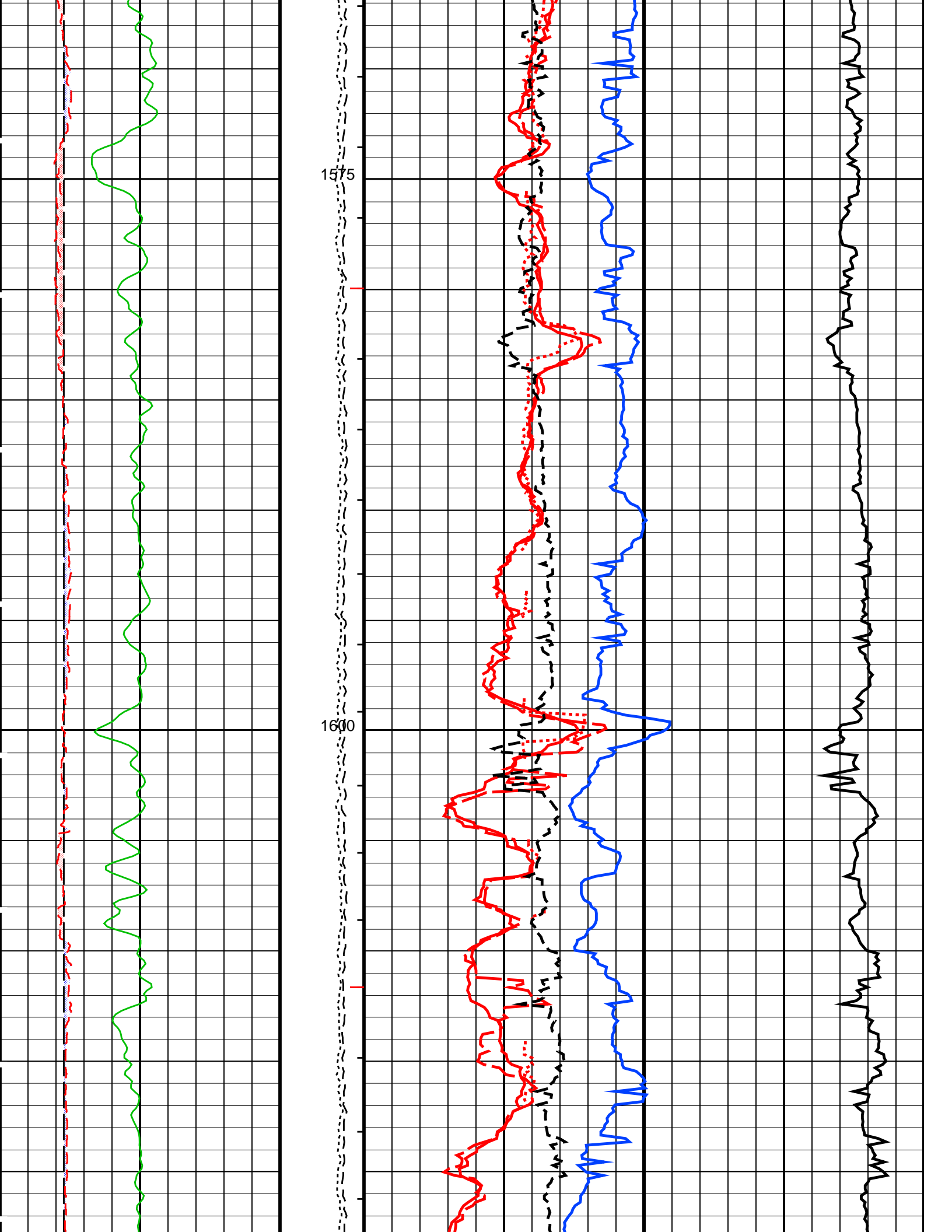


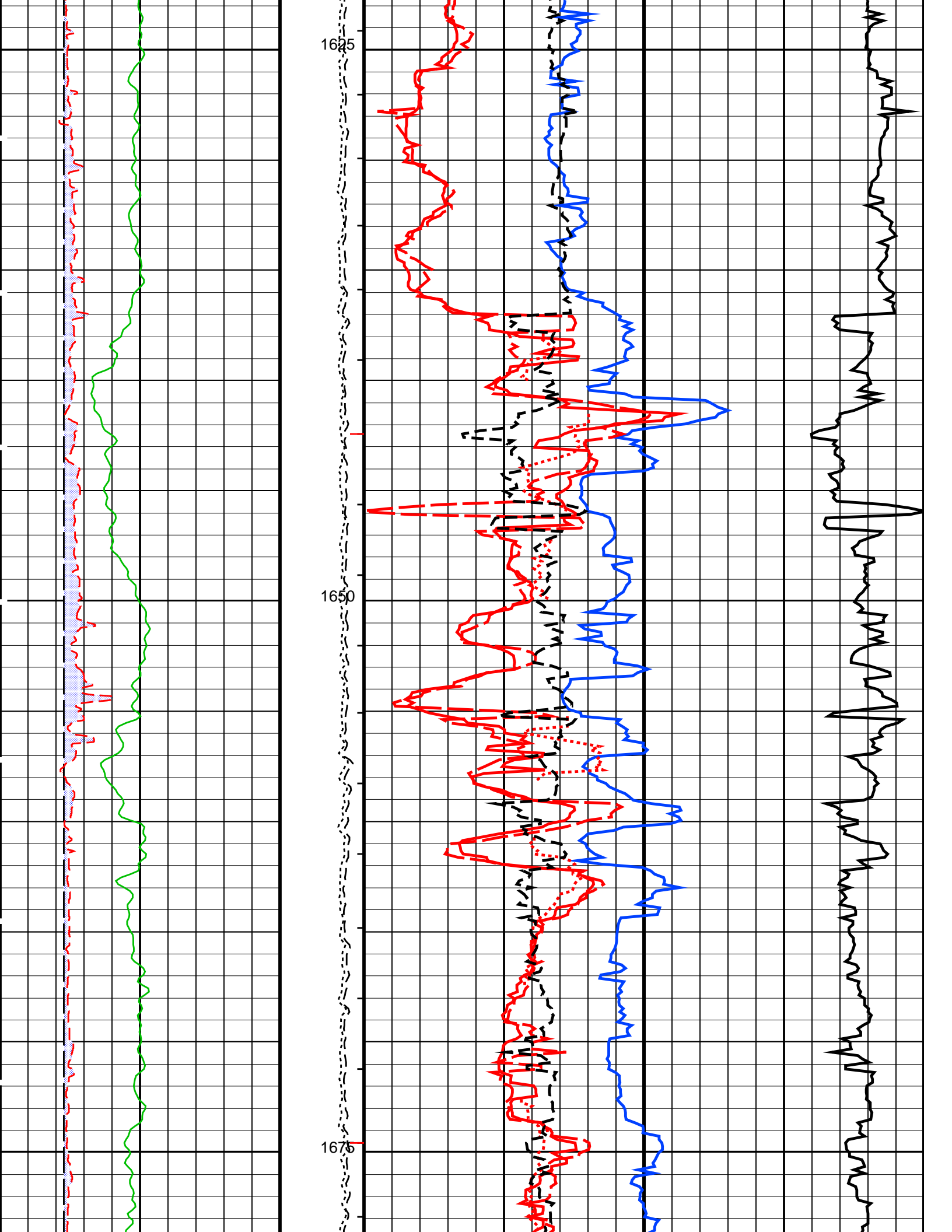


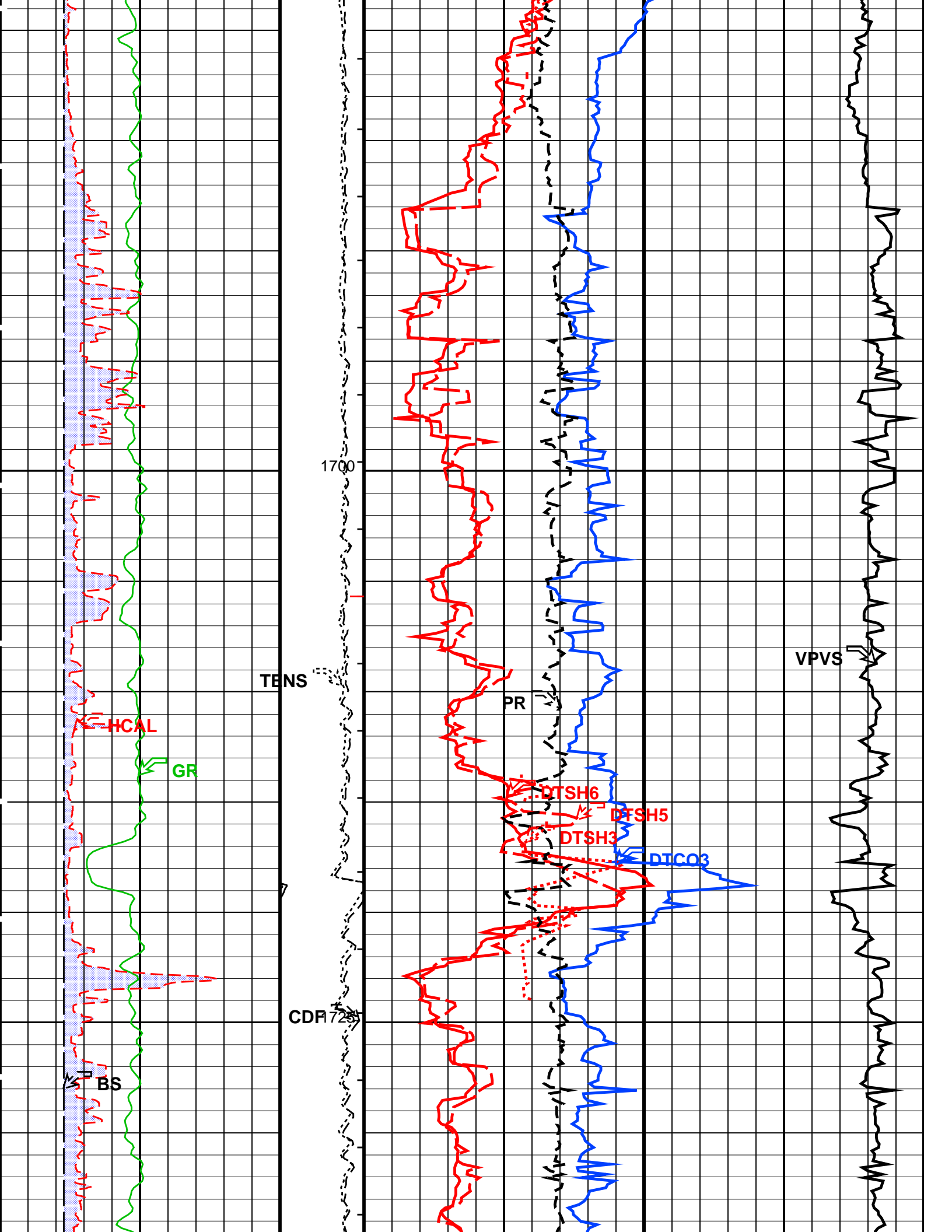


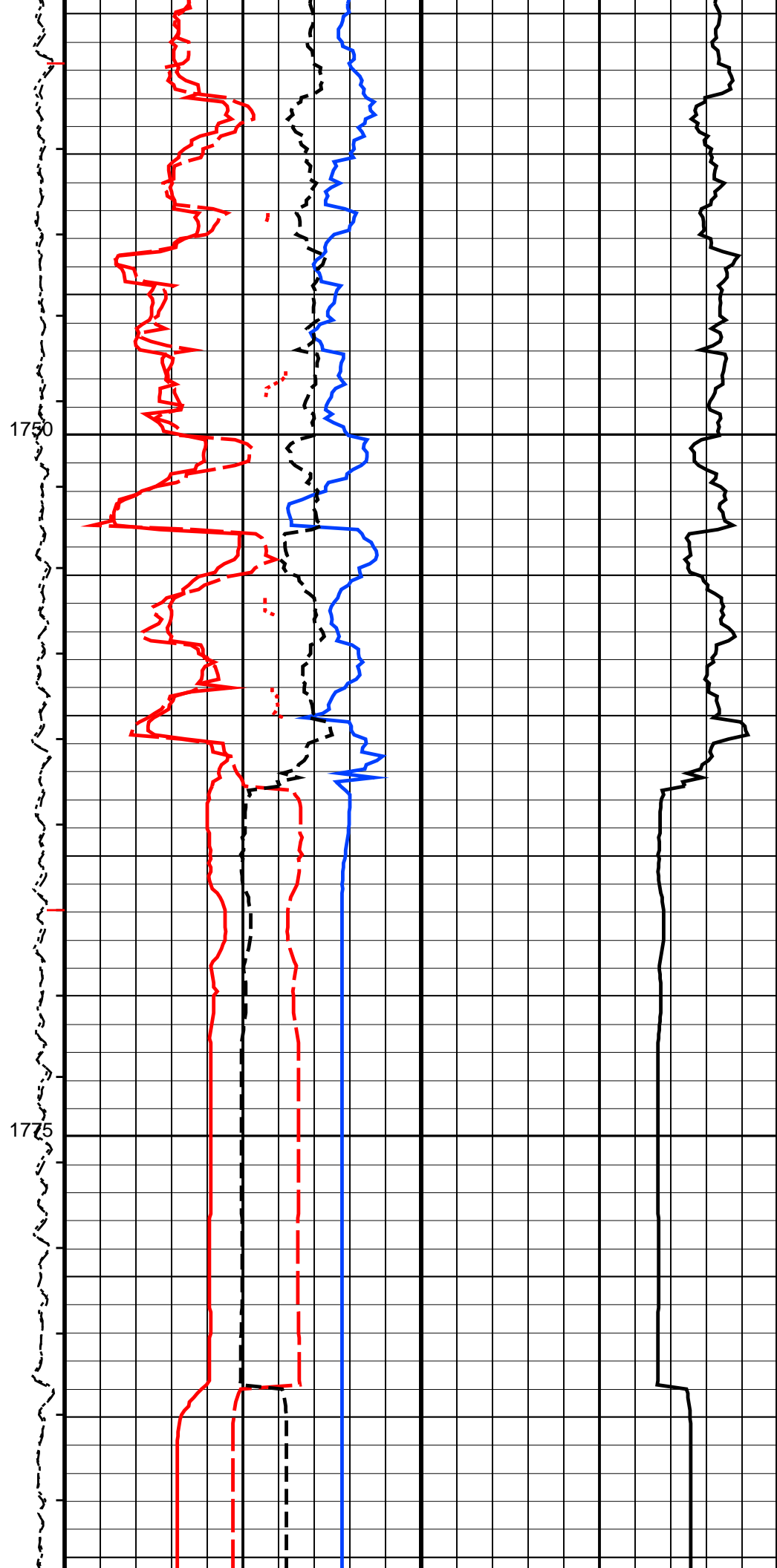
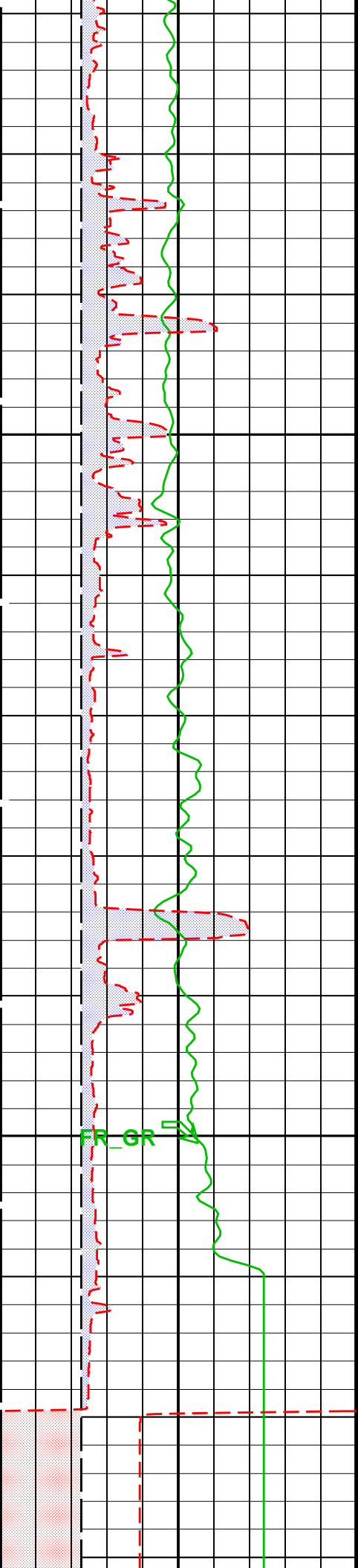




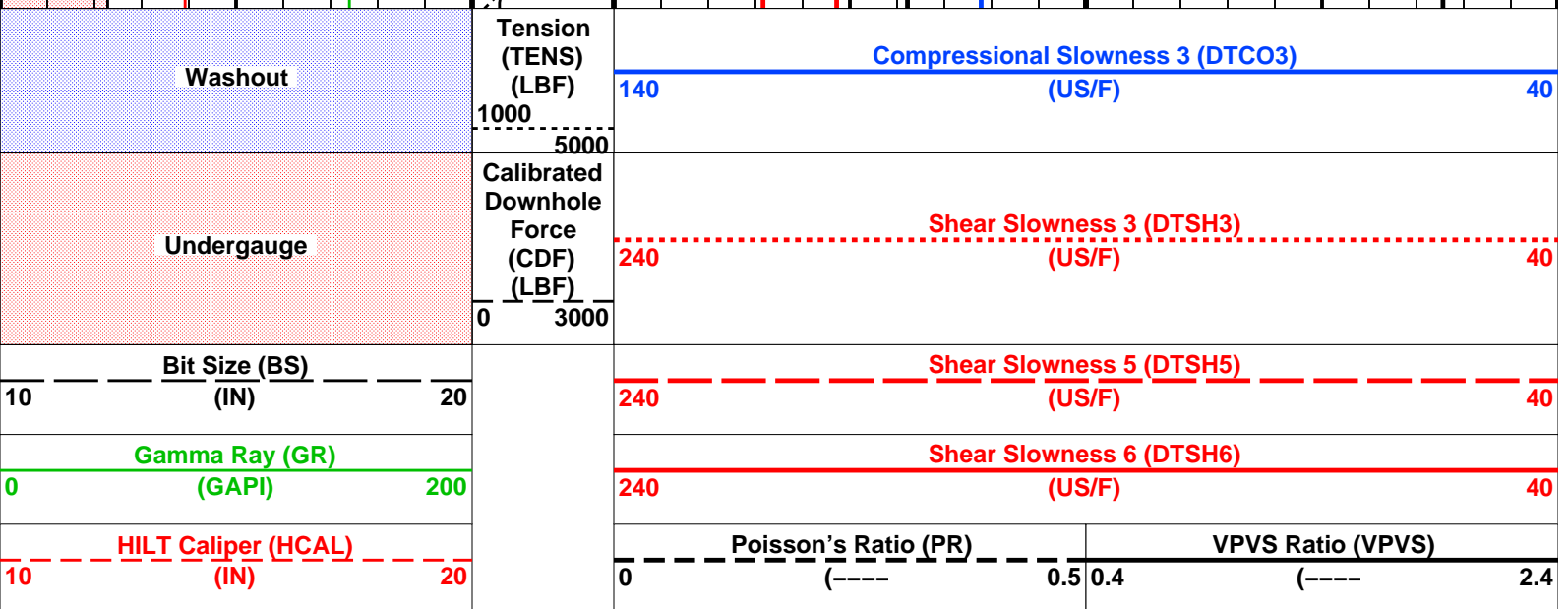








Tool hold up @ 1792.8m, TD could not tagged



PIP SUMMARY

- ↓ Integrated Transit Time Minor Pip Every 1 MS
- Integrated Transit Time Major Pip Every 10 MS

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
BHS	HRLT-B: High Resolution Laterolog Array - E	OPEN
BHS	Borehole Status	
BHS	HILTH-FTB: High resolution Integrated Logging Tool-DTS	OPEN
BHS	Borehole Status	
BHS	HNGS-BA: Hostile Natural Gamma Ray Sonde	OPEN
BHS	Borehole Status	
BHS	MAPC-B: Multimode Array Sonic Power Cartridge	OPEN
BHS	Borehole Status	
BS	Bit Size	12.250 in
DLHS	Hole Diameter Source for SOBS Channel	AUTO
DTCO_SELECT	Delta-T Compressional Selection for DSTC	MF
DTF	Delta-T Fluid	204.5 us/ft
DTSH_SELECT	Delta-T Shear Selection for DSTC	XD
ROTWINDOW_CTRL	Alford Rotation Window Control	ON
ROT_AI	Dipole Waveform Rotation Averaging Depth Interval	1.524 m
ROT_FIL LENG	Alford Rotation Filter Length	101
ROT_TWD	Alford Rotation Window Time Width	1000 us
ROT_TWO	Alford Rotation Window Time Offset	1080 us
ROT_XFH	Alford Rotation Filter High Cutoff	2500.0 Hz
ROT_XFL	Alford Rotation Filter Low Cutoff	1000.0 Hz
BHS	EDTC-B: Enhanced DTS Cartridge	OPEN
BHS	Borehole Status	
BHS	HOLEV: Integrated Hole/Cement Volume	OPEN
BHS	Borehole Status	
CSIZ	System and Miscellaneous	
CWEI	Current Casing Size	13.375 in
	Casing Weight	68.000 lbm/ft

Format: MAST_200 Vertical Scale: 1:200

Graphics File Created: 07-Aug-2008 13:06

OP System Version: 15C0-309

MCM

HRLT	15C0-309	HILTHD	SRPC-3582-Q1_2008_OP15
HNGC-B	15C0-309	HNGS-BA	15C0-309
MAXS	SKK-3562-MAST	MAPC	SKK-3562-MAST
EDTCB	SKK-3493-EDTCB	SPAA	15C0-309

Input DLIS Files

HRLA_TLD_MCFL_CNL_068PUP

FN:120

04-Aug-2008 15:49 1796.9 M

633.4 M

Schlumberger

Sonic Check in Casing

MAXIS Field Log

Company: Santos

Well: Netherby-1

Input DLIS Files

DEFAULT

HRLA_TLD_MCFL_CNL_071LUP

FN:101

PRODUCER

27-Jul-2008 21:07

1792.2 M

615.1 M

OP System Version: 15C0-309

MCM

HRLT 15C0-309
HNGC-B 15C0-309
MAXS SKK-3562-MAST
EDTCB SKK-3493-EDTCB

HILTHD
HNGS-BA
MAPC
SPAA

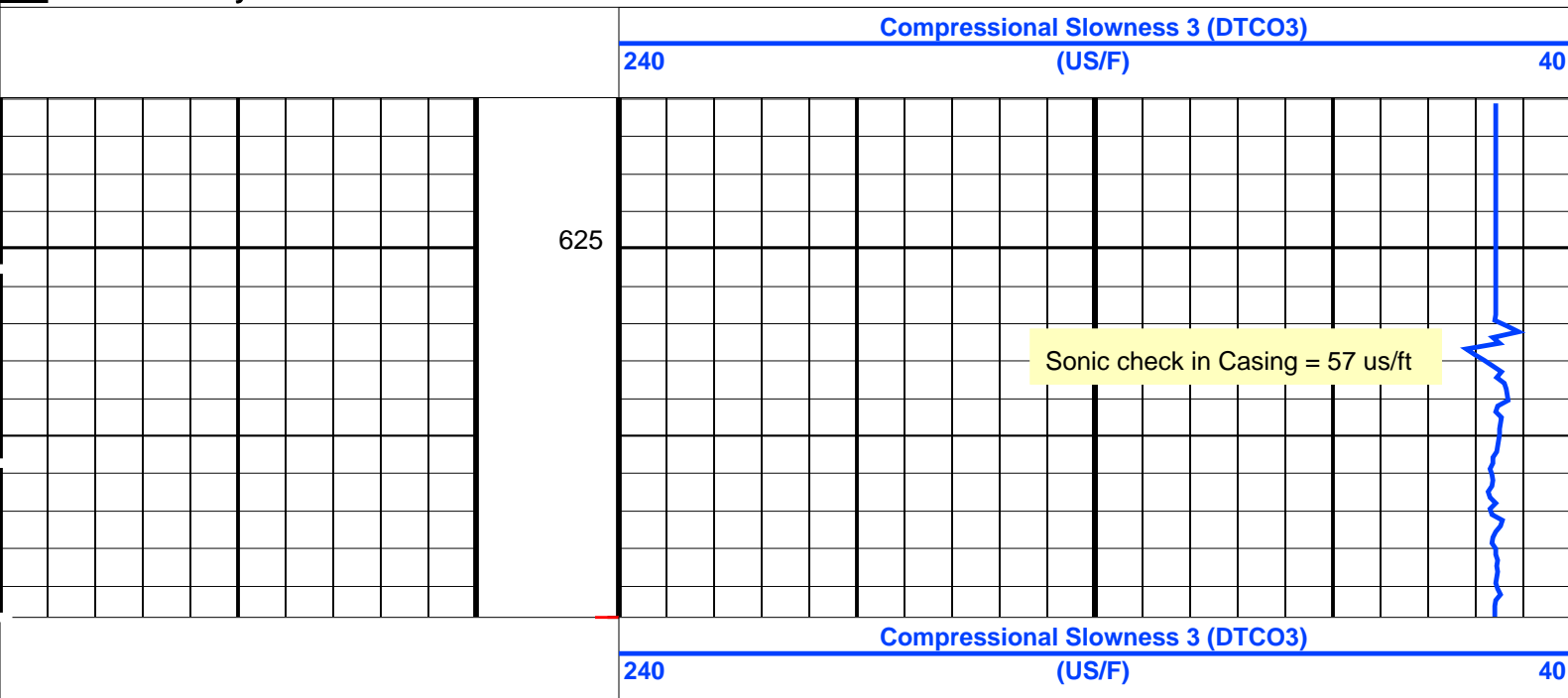
SRPC-3582-Q1_2008_OP15
15C0-309
SKK-3562-MAST
15C0-309

PIP SUMMARY

└ Integrated Transit Time Minor Pip Every 1 MS

└ Integrated Transit Time Major Pip Every 10 MS

Time Mark Every 60 S



PIP SUMMARY

└ Integrated Transit Time Minor Pip Every 1 MS

└ Integrated Transit Time Major Pip Every 10 MS

Time Mark Every 60 S

Parameters

DLIS Name

Description

Value

HRLT-B: High Resolution Laterolog Array - E

DLIS

OPEN

BHS	Borehole Status	OPEN	
DO	Depth Offset	4.8	m
	HILTH-FTB: High resolution Integrated Logging Tool-DTS		
BHS	Borehole Status	OPEN	
DO	Depth Offset	4.8	m
	HNGC-B: Hostile Natural Gamma Ray Cartridge - B		
DO	Depth Offset	4.8	m
	HNGS-BA: Hostile Natural Gamma Ray Sonde		
BHS	Borehole Status	OPEN	
DO	Depth Offset	4.8	m
	MAXS-B: Multimode Array Sonic Xmitter Sonde		
DO	Depth Offset	4.8	m
	MAPC-B: Multimode Array Sonic Power Cartridge		
BHS	Borehole Status	OPEN	
BS	Bit Size	12.250	in
DLHS	Hole Diameter Source for SOBS Channel	AUTO	
DO	Depth Offset	4.8	m
DTF	Delta-T Fluid	204.5	us/ft
	EDTC-B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN	
DO	Depth Offset	4.8	m
	SPA-A: SP ADAPTOR		
DO	Depth Offset	4.8	m
	HOLEV: Integrated Hole/Cement Volume		
BHS	Borehole Status	OPEN	
DO	Depth Offset	4.8	m
	STI: Stuck Tool Indicator		
DO	Depth Offset	4.8	m
	System and Miscellaneous		
CSIZ	Current Casing Size	13.375	in
CWEI	Casing Weight	68.000	lbm/ft
DO	Depth Offset	4.8	m

Format: MAST_200 Vertical Scale: 1:200 Graphics File Created: 30-Jul-2008 17:37

OP System Version: 15C0-309

MCM

HRLT	15C0-309	HILTHD	SRPC-3582-Q1_2008_OP15
HNGC-B	15C0-309	HNGS-BA	15C0-309
MAXS	SKK-3562-MAST	MAPC	SKK-3562-MAST
EDTCB	SKK-3493-EDTCB	SPAA	15C0-309

Input DLIS Files

DEFAULT	HRLA_TLD_MCFL_CNL_071LUP	FN:101	PRODUCER	27-Jul-2008 21:07	1792.2 M	615.1 M
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Schlumberger

Calibration

MAXIS Field Log

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
High Resolution Laterolog Array - B Wellsite Calibration - HRLT M01							
Before: 27-Jul-2008 20:28							
HRLT M0-M1 Voltage Plus - 0	0	N/A	-318.3	N/A	N/A	9.681	UV
HRLT M0-M1 Voltage Plus - 1	0	N/A	-349.3	N/A	N/A	9.681	UV
HRLT M0-M1 Voltage Plus - 2	0	N/A	-355.0	N/A	N/A	9.681	UV
HRLT M0-M1 Voltage Plus - 3	0	N/A	-342.5	N/A	N/A	9.681	UV
HRLT M0-M1 Voltage Plus - 4	0	N/A	-323.0	N/A	N/A	9.681	UV
HRLT M0-M1 Voltage Plus - 5	0	N/A	-330.2	N/A	N/A	9.681	UV
HRLT M0-M1 Voltage Plus - 6	0	N/A	310.3	N/A	N/A	9.681	UV
HRLT M0-M1 Voltage Plus - 7	0	N/A	-322.7	N/A	N/A	9.681	UV

High Resolution Laterolog Array – B Wellsite Calibration – HRLT M12

Before: 27-Jul-2008 20:28

HRLT M1-M2 Voltage Plus – 0	0	N/A	1749	N/A	N/A	53.42	UV
HRLT M1-M2 Voltage Plus – 1	0	N/A	1917	N/A	N/A	53.42	UV
HRLT M1-M2 Voltage Plus – 2	0	N/A	1944	N/A	N/A	53.42	UV
HRLT M1-M2 Voltage Plus – 3	0	N/A	1875	N/A	N/A	53.42	UV
HRLT M1-M2 Voltage Plus – 4	0	N/A	1770	N/A	N/A	53.42	UV
HRLT M1-M2 Voltage Plus – 5	0	N/A	1811	N/A	N/A	53.42	UV
HRLT M1-M2 Voltage Plus – 6	0	N/A	-1711	N/A	N/A	53.42	UV
HRLT M1-M2 Voltage Plus – 7	0	N/A	1781	N/A	N/A	53.42	UV

High Resolution Laterolog Array – B Wellsite Calibration – HRLT M23

Before: 27-Jul-2008 20:28

HRLT M2-M3 Voltage Plus – 0	0	N/A	1731	N/A	N/A	53.42	UV
HRLT M2-M3 Voltage Plus – 1	0	N/A	1902	N/A	N/A	53.42	UV
HRLT M2-M3 Voltage Plus – 2	0	N/A	1931	N/A	N/A	53.42	UV
HRLT M2-M3 Voltage Plus – 3	0	N/A	1869	N/A	N/A	53.42	UV
HRLT M2-M3 Voltage Plus – 4	0	N/A	1760	N/A	N/A	53.42	UV
HRLT M2-M3 Voltage Plus – 5	0	N/A	1803	N/A	N/A	53.42	UV
HRLT M2-M3 Voltage Plus – 6	0	N/A	-1686	N/A	N/A	53.42	UV
HRLT M2-M3 Voltage Plus – 7	0	N/A	1781	N/A	N/A	53.42	UV

High Resolution Laterolog Array – B Wellsite Calibration – HRLT V34

Before: 27-Jul-2008 20:28

HRLT A3-A4 Voltage Plus – 0	0	N/A	68550	N/A	N/A	2100	UV
HRLT A3-A4 Voltage Plus – 1	0	N/A	75660	N/A	N/A	2100	UV
HRLT A3-A4 Voltage Plus – 2	0	N/A	77030	N/A	N/A	2100	UV
HRLT A3-A4 Voltage Plus – 3	0	N/A	74690	N/A	N/A	2100	UV
HRLT A3-A4 Voltage Plus – 4	0	N/A	70140	N/A	N/A	2100	UV
HRLT A3-A4 Voltage Plus – 5	0	N/A	71770	N/A	N/A	2100	UV
HRLT A3-A4 Voltage Plus – 6	0	N/A	-66110	N/A	N/A	2100	UV
HRLT A3-A4 Voltage Plus – 7	0	N/A	70000	N/A	N/A	2100	UV

High Resolution Laterolog Array – B Wellsite Calibration – HRLT V45

Before: 27-Jul-2008 20:28

HRLT A4-A5 Voltage Plus – 0	0	N/A	68390	N/A	N/A	2100	UV
HRLT A4-A5 Voltage Plus – 1	0	N/A	75520	N/A	N/A	2100	UV
HRLT A4-A5 Voltage Plus – 2	0	N/A	76890	N/A	N/A	2100	UV
HRLT A4-A5 Voltage Plus – 3	0	N/A	74520	N/A	N/A	2100	UV
HRLT A4-A5 Voltage Plus – 4	0	N/A	69980	N/A	N/A	2100	UV
HRLT A4-A5 Voltage Plus – 5	0	N/A	71600	N/A	N/A	2100	UV
HRLT A4-A5 Voltage Plus – 6	0	N/A	-65990	N/A	N/A	2100	UV
HRLT A4-A5 Voltage Plus – 7	0	N/A	70000	N/A	N/A	2100	UV

High Resolution Laterolog Array – B Wellsite Calibration – HRLT V56

Before: 27-Jul-2008 20:28

HRLT A5-A6 Voltage Plus – 0	0	N/A	68540	N/A	N/A	2100	UV
HRLT A5-A6 Voltage Plus – 1	0	N/A	75840	N/A	N/A	2100	UV
HRLT A5-A6 Voltage Plus – 2	0	N/A	77150	N/A	N/A	2100	UV
HRLT A5-A6 Voltage Plus – 3	0	N/A	74750	N/A	N/A	2100	UV
HRLT A5-A6 Voltage Plus – 4	0	N/A	70130	N/A	N/A	2100	UV
HRLT A5-A6 Voltage Plus – 5	0	N/A	71730	N/A	N/A	2100	UV
HRLT A5-A6 Voltage Plus – 6	0	N/A	-66280	N/A	N/A	2100	UV
HRLT A5-A6 Voltage Plus – 7	0	N/A	70000	N/A	N/A	2100	UV

High Resolution Laterolog Array – B Wellsite Calibration – HRLT VTP

Before: 27-Jul-2008 20:28

HRLT Torpedo-M0 Voltage – 0	0	N/A	-68100	N/A	N/A	2100	UV
HRLT Torpedo-M0 Voltage – 1	0	N/A	-75530	N/A	N/A	2100	UV
HRLT Torpedo-M0 Voltage – 2	0	N/A	-76940	N/A	N/A	2100	UV
HRLT Torpedo-M0 Voltage – 3	0	N/A	-74640	N/A	N/A	2100	UV
HRLT Torpedo-M0 Voltage – 4	0	N/A	-70130	N/A	N/A	2100	UV
HRLT Torpedo-M0 Voltage – 5	0	N/A	-71750	N/A	N/A	2100	UV
HRLT Torpedo-M0 Voltage – 6	0	N/A	65960	N/A	N/A	2100	UV
HRLT Torpedo-M0 Voltage – 7	0	N/A	-70000	N/A	N/A	2100	UV

High Resolution Laterolog Array – B Wellsite Calibration – HRLT VBD

Before: 27-Jul-2008 20:28

HRLT Bridle#9-M0 Voltage – 0	0	N/A	-68030	N/A	N/A	2100	UV
HRLT Bridle#9-M0 Voltage – 1	0	N/A	-75300	N/A	N/A	2100	UV
HRLT Bridle#9-M0 Voltage – 2	0	N/A	-76720	N/A	N/A	2100	UV
HRLT Bridle#9-M0 Voltage – 3	0	N/A	-74460	N/A	N/A	2100	UV
HRLT Bridle#9-M0 Voltage – 4	0	N/A	-70020	N/A	N/A	2100	UV
HRLT Bridle#9-M0 Voltage – 5	0	N/A	-71680	N/A	N/A	2100	UV
HRLT Bridle#9-M0 Voltage – 6	0	N/A	65750	N/A	N/A	2100	UV
HRLT Bridle#9-M0 Voltage – 7	0	N/A	-70000	N/A	N/A	2100	UV

High Resolution Laterolog Array – B Wellsite Calibration – HRLT ISO

Before: 27-Jul-2008 20:28

HRLT Source Current Plus – 0	0	N/A	283.8	N/A	N/A	8.520	UA
HRLT Source Current Plus – 1	0	N/A	281.1	N/A	N/A	8.520	UA

HRLT Source Current Plus – 2	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus – 3	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus – 4	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus – 5	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus – 6	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus – 7	0	N/A	281.1	N/A	N/A	8.520	UA
High Resolution Laterolog Array – B Wellsite Calibration – HRLT MV							
Before: 27–Jul–2008 20:28							
HRLT Vertical Voltage PI – 0	0	N/A	–320.1	N/A	N/A	9.681	UV
HRLT Vertical Voltage PI – 1	0	N/A	–344.0	N/A	N/A	9.681	UV
HRLT Vertical Voltage PI – 2	0	N/A	–348.2	N/A	N/A	9.681	UV
HRLT Vertical Voltage PI – 3	0	N/A	–334.2	N/A	N/A	9.681	UV
HRLT Vertical Voltage PI – 4	0	N/A	–311.9	N/A	N/A	9.681	UV
HRLT Vertical Voltage PI – 5	0	N/A	–334.2	N/A	N/A	9.681	UV
HRLT Vertical Voltage PI – 6	0	N/A	318.4	N/A	N/A	9.681	UV
HRLT Vertical Voltage PI – 7	0	N/A	–322.7	N/A	N/A	9.681	UV
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Stab Measurement Summary							
Before: 21–Jul–2008 22:31							
BS Window Ratio	0.7367	N/A	0.7376	N/A	N/A	N/A	
BS Window Sum	29900	N/A	29850	N/A	N/A	N/A	CPS
SS Window Ratio	0.4671	N/A	0.4670	N/A	N/A	N/A	
SS Window Sum	13140	N/A	13130	N/A	N/A	N/A	CPS
LS Window Ratio	0.2938	N/A	0.2912	N/A	N/A	N/A	
LS Window Sum	1447	N/A	1440	N/A	N/A	N/A	CPS
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Photo–multiplier High Voltages Calibrations							
Before: 21–Jul–2008 22:31							
BS PM High Voltage (Command)	1340	N/A	1337	N/A	N/A	N/A	V
SS PM High Voltage (Command)	1757	N/A	1768	N/A	N/A	N/A	V
LS PM High Voltage (Command)	1358	N/A	1356	N/A	N/A	N/A	V
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Crystal Quality Resolutions Calibration							
Before: 21–Jul–2008 22:31							
BS Crystal Resolution	10.42	N/A	10.44	N/A	N/A	N/A	%
SS Crystal Resolution	10.00	N/A	10.03	N/A	N/A	N/A	%
LS Crystal Resolution	9.175	N/A	9.248	N/A	N/A	N/A	%
High resolution Integrated Logging Tool–DTS Wellsite Calibration – MCFL Calibration							
Before: 21–Jul–2008 22:36							
Raw B0 Resistivity	3875	N/A	3894	N/A	N/A	N/A	OHMM
Raw B1 Resistivity	3830	N/A	3839	N/A	N/A	N/A	OHMM
Raw B2 Resistivity	3830	N/A	3840	N/A	N/A	N/A	OHMM
High resolution Integrated Logging Tool–DTS Wellsite Calibration – HILT Caliper Calibration							
Before: 21–Jul–2008 22:32							
HILT Caliper Zero Measurement	8.000	N/A	7.864	N/A	N/A	N/A	IN
HILT Caliper Plus Measurement	12.00	N/A	12.25	N/A	N/A	N/A	IN
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Detector Calibration							
Before: 21–Jul–2008 22:25							
Gamma Ray Background	30.00	N/A	4.556	N/A	N/A	N/A	GAPI
Gamma Ray (Jig – Bkg)	169.3	N/A	169.3	N/A	N/A	15.39	GAPI
Gamma Ray (Calibrated)	165.0	N/A	165.0	N/A	N/A	15.00	GAPI
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Zero Measurement							
Master: 3–Jul–2008 14:20 Before: 21–Jul–2008 22:27							
CNTC Background	26.09	26.09	25.52	N/A	N/A	3.914	CPS
CFTC Background	25.45	25.45	25.41	N/A	N/A	3.818	CPS
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Ratio Measurement							
Master: 3–Jul–2008 14:20							
Thermal Near Corr. (Tank)	5800	5058	N/A	N/A	N/A	N/A	CPS
Thermal Far Corr. (Tank)	2400	2075	N/A	N/A	N/A	N/A	CPS
CNTC/CFTC (Tank)	2.159	2.438	N/A	N/A	N/A	N/A	
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Accelerometer Calibration							
Before: 25–Jul–2008 17:35							
Z–Axis Acceleration	9.810	N/A	9.807	N/A	N/A	N/A	M/S2
High resolution Integrated Logging Tool–DTS Master Calibration – Inversion results							
Master: 3–Jul–2008 17:01							
Rho Aluminum	2.596	2.601	---	---	---	---	G/C3
Rho Magnesium	1.686	1.683	---	---	---	---	G/C3
Pe Aluminum	2.570	2.581	---	---	---	---	
Pe Magnesium	2.650	2.632	---	---	---	---	
High resolution Integrated Logging Tool–DTS Master Calibration – Deviation Summary							
Master: 3–Jul–2008 17:01							
BS Average Deviation	0	0.1075	---	---	---	---	%
SS Average Deviation	0	0.0807	---	---	---	---	%

SS Max Deviation	0	0.3697	--	--	--	--	%
SS Average Deviation	0	0.2752	--	--	--	--	%
SS Max Deviation	0	0.7185	--	--	--	--	%
LS Average Deviation	0	0.8851	--	--	--	--	%
LS Max Deviation	0	1.937	--	--	--	--	%

Hostile Natural Gamma Ray Sonde Wellsite Calibration – Detector 1 Check

Master: 15-Jul-2008 13:39 Before: 1-Jul-2008 21:52

Na 511 Peak Loc	40.00	38.59	38.57	N/A	N/A	1.000	
Na 511 Peak Res	15.50	14.88	14.86	N/A	N/A	2.000	%
High Voltage	1150	1127	1129	N/A	N/A	N/A	V
Na 1785 Peak Loc	142.6	139.0	139.4	N/A	N/A	7.000	
Na 1785 Peak Res	8.500	8.384	7.962	N/A	N/A	2.000	%
Temperature	15.50	11.79	14.39	N/A	N/A	N/A	DEGC
Na Count Rate	45.00	37.90	37.39	N/A	N/A	8.000	CPS

Hostile Natural Gamma Ray Sonde Wellsite Calibration – Detector 2 Check

Master: 15-Jul-2008 13:39 Before: 1-Jul-2008 21:52

Na 511 Peak Loc	40.00	40.63	40.71	N/A	N/A	1.000	
Na 511 Peak Res	15.50	16.06	14.91	N/A	N/A	2.000	%
High Voltage	1150	1378	1381	N/A	N/A	N/A	V
Na 1785 Peak Loc	142.6	146.6	146.5	N/A	N/A	7.000	
Na 1785 Peak Res	8.500	8.733	8.625	N/A	N/A	2.000	%
Temperature	15.50	12.04	14.41	N/A	N/A	N/A	DEGC
Na Count Rate	45.00	38.28	37.87	N/A	N/A	8.000	CPS

Hostile Natural Gamma Ray Sonde Wellsite Calibration – Ratio Of Detector 1 To Detector 2

Master: 15-Jul-2008 13:39 Before: 1-Jul-2008 21:52

Coincidence Count Rate Ratio	1.000	0.9810	0.9832	N/A	N/A	0.05000	
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Hostile Natural Gamma Ray Sonde Master Calibration – Detector 1 Calibration

Master: 15-Jul-2008 13:34

Na 511 Peak Set Point	40.00	40.00	--	--	--	--	
Th Peak Loc	209.6	208.6	--	--	--	--	
Th Peak Res	7.000	6.600	--	--	--	--	%
Background Count Rate	142.5	130.3	--	--	--	--	CPS
Gain Ratio	1.000	1.028	--	--	--	--	

Hostile Natural Gamma Ray Sonde Master Calibration – Detector 2 Calibration

Master: 15-Jul-2008 13:34

Na 511 Peak Set Point	40.00	42.00	--	--	--	--	
Th Peak Loc	209.6	211.4	--	--	--	--	
Th Peak Res	7.000	7.252	--	--	--	--	%
Background Count Rate	142.5	133.1	--	--	--	--	CPS
Gain Ratio	1.000	0.9896	--	--	--	--	

Enhanced DTS Cartridge Wellsite Calibration – EDTC Accelerometer Calibration

Before: 25-Jul-2008 17:35

EDTC Z-Axis Acceleration	9.810	N/A	9.857	N/A	N/A	N/A	M/S2
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Enhanced DTS Cartridge Wellsite Calibration – Detector Calibration

Before: 21-Jul-2008 22:25

Gamma Ray (Jig – Bkg)	150.9	N/A	150.9	N/A	N/A	13.72	GAPI
Gamma Ray (Calibrated)	165.0	N/A	165.0	N/A	N/A	15.00	GAPI









The GLS-VJ source activity is acceptable.









The HGNS Neutron Master Calibration was done with the following parameters :









NCT-B Water Temperature 12.0 DEGC.
Thermal Housing Size 3.378 IN.
NSR-F serial number 5050





High Resolution Laterolog Array – B / Equipment Identification









Primary Equipment:		
HRLT Sonde	HRLS – B	1745
Auxiliary Equipment:		
HRLT lower Housing	HRLH – B	1745
HRLT Lower Cartridge	HRLC – B	1745
HRLT upper Housing	HRUH – B	1741
HRLT Upper Cartridge	HRUC – B	1730








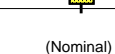
High Resolution Laterolog Array – B Wellsite Calibration						
HRLT M01						
Idx	Phase	HRLT M0–M1 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		–318.3	–322.7	–280.7	–379.7
1	Before		–349.3	–322.7	–280.7	–379.7
2	Before		–355.0	–322.7	–280.7	–379.7
3	Before		–342.5	–322.7	–280.7	–379.7
4	Before		–323.0	–322.7	–280.7	–379.7
5	Before		–330.2	–322.7	–280.7	–379.7
6	Before		310.3	322.7	379.7	280.7
7	Before		–322.7	–322.7	–280.7	–379.7
(Minimum) (Nominal) (Maximum)						
Before: 27–Jul–2008 20:28						









High Resolution Laterolog Array – B Wellsite Calibration						
HRLT M12						
Idx	Phase	HRLT M1–M2 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		1749	1781	2095	1549
1	Before		1917	1781	2095	1549
2	Before		1944	1781	2095	1549
3	Before		1875	1781	2095	1549
4	Before		1770	1781	2095	1549
5	Before		1811	1781	2095	1549
6	Before		–1711	–1781	–1549	–2095
7	Before		1781	1781	2095	1549
(Minimum) (Nominal) (Maximum)						
Before: 27–Jul–2008 20:28						

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT M23						
Idx	Phase	HRLT M2–M3 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		1731	1781	2095	1549
1	Before		1902	1781	2095	1549
2	Before		1931	1781	2095	1549
3	Before		1869	1781	2095	1549
4	Before		1760	1781	2095	1549
5	Before		1803	1781	2095	1549
6	Before		–1686	–1781	–1549	–2095
7	Before		1781	1781	2095	1549
(Minimum) (Nominal) (Maximum)						
Before: 27–Jul–2008 20:28						

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT V34						
Idx	Phase	HRLT A3–A4 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68550	70000	82360	60900
1	Before		75660	70000	82360	60900
2	Before		77030	70000	82360	60900
3	Before		74690	70000	82360	60900

HRLT VBD							
Idx	Phase	HRLT Bridle#9-M0 Voltage Plus UV	Value	Nominal	Maximum	Minimum	
0	Before		-68030	-70000	-60900	-82360	
1	Before		-75300	-70000	-60900	-82360	
2	Before		-76720	-70000	-60900	-82360	
3	Before		-74460	-70000	-60900	-82360	
4	Before		-70020	-70000	-60900	-82360	
5	Before		-71680	-70000	-60900	-82360	
6	Before		65750	70000	82360	60900	
7	Before		-70000	-70000	-60900	-82360	
(Minimum) (Nominal) (Maximum)							
Before: 27-Jul-2008 20:28							

High Resolution Laterolog Array – B Wellsite Calibration							
HRLT ISO							
Idx	Phase	HRLT Source Current Plus UA	Value	Nominal	Maximum	Minimum	
0	Before		283.8	284.0	334.1	247.0	
1	Before		281.1	281.1	330.7	244.4	
2	Before		281.1	281.1	330.7	244.4	
3	Before		281.1	281.1	330.7	244.4	
4	Before		281.1	281.1	330.7	244.4	
5	Before		281.1	281.1	330.7	244.4	
6	Before		281.1	281.1	330.7	244.4	
7	Before		281.1	281.1	330.7	244.4	
(Minimum) (Nominal) (Maximum)							
Before: 27-Jul-2008 20:28							

High Resolution Laterolog Array – B Wellsite Calibration							
HRLT MV							
Idx	Phase	HRLT Vertical Voltage Plus UV	Value	Nominal	Maximum	Minimum	
0	Before		-320.1	-322.7	-280.7	-379.7	
1	Before		-344.0	-322.7	-280.7	-379.7	
2	Before		-348.2	-322.7	-280.7	-379.7	
3	Before		-334.2	-322.7	-280.7	-379.7	
4	Before		-311.9	-322.7	-280.7	-379.7	
5	Before		-334.2	-322.7	-280.7	-379.7	
6	Before		318.4	322.7	379.7	280.7	
7	Before		-322.7	-322.7	-280.7	-379.7	
(Minimum) (Nominal) (Maximum)							
Before: 27-Jul-2008 20:28							

High resolution Integrated Logging Tool-DTS / Equipment Identification

Primary Equipment:

HILT high-Resolution Mechanical Sonde
 HILT Rxo Gamma-ray Device
 HILT Micro Cylindrically Focused Log Dev
 GR Logging Source
 HILT High Res. Control Cartridge
 HILT Gamma-Ray Neutron Sonde-DTS
 HGNS Gamma-Ray Device
 HGNS Neutron Detector with Alpha Source







HRMS – H 4877
 HRGD – H 4969
 MCFL – H
 GLS – J 5374
 HRCC – H 4859
 HGNS – H 4870
 HGR –
 HCNT – H

Auxiliary Equipment:
Neutron Calibration Tank
Gamma Source Radioactive
HGNS Housing

NCT – B
GSR – U
HGNS –
6003
4730




High resolution Integrated Logging Tool–DTS Wellsite Calibration

Stab Measurement Summary

Phase	BS Window Ratio		Value	Phase	SS Window Ratio		Value	Phase	LS Window Ratio		Value					
Before			0.7376	Before			0.4670	Before			0.2912					
0.6999 (Minimum)			0.7367 (Nominal)	0.7735 (Maximum)			0.4438 (Minimum)			0.4671 (Nominal)	0.4905 (Maximum)	0.2791 (Minimum)			0.2938 (Nominal)	0.3085 (Maximum)
Phase	BS Window Sum CPS		Value	Phase	SS Window Sum CPS		Value	Phase	LS Window Sum CPS		Value					
Before			29850	Before			13130	Before			1440					
28400 (Minimum)			29900 (Nominal)	31390 (Maximum)			12480 (Minimum)			13140 (Nominal)	13800 (Maximum)	1375 (Minimum)			1447 (Nominal)	1519 (Maximum)
Before: 21–Jul–2008 22:31																




High resolution Integrated Logging Tool–DTS Wellsite Calibration

Photo–multiplier High Voltages Calibrations

Phase	BS PM High Voltage (Command) V			Value	Phase	SS PM High Voltage (Command) V			Value	Phase	LS PM High Voltage (Command) V			Value
Before				1337	Before				1768	Before				1356
	1240 (Minimum)	1340 (Nominal)	1440 (Maximum)		1657 (Minimum)	1757 (Nominal)	1857 (Maximum)			1258 (Minimum)	1358 (Nominal)	1458 (Maximum)		
Before: 21–Jul–2008 22:31														




High resolution Integrated Logging Tool–DTS Wellsite Calibration

Crystal Quality Resolutions Calibration

Phase	BS Crystal Resolution %		Value	Phase	SS Crystal Resolution %		Value	Phase	LS Crystal Resolution %		Value
Before			10.44	Before			10.03	Before			9.248
	9.423 (Minimum)	10.42 (Nominal)	11.42 (Maximum)		9.003 (Minimum)	10.00 (Nominal)	11.00 (Maximum)		8.175 (Minimum)	9.175 (Nominal)	10.18 (Maximum)
Before: 21–Jul–2008 22:31											



High resolution Integrated Logging Tool–DTS Wellsite Calibration

MCFL Calibration

W1-E-3-2008-22:36											
Phase	Raw B0 Resistivity OHMM		Value	Phase	Raw B1 Resistivity OHMM		Value	Phase	Raw B2 Resistivity OHMM		Value
Before			3894	Before			3839	Before			3840
	3565 (Minimum)	3875 (Nominal)	4185 (Maximum)		3524 (Minimum)	3830 (Nominal)	4136 (Maximum)		3524 (Minimum)	3830 (Nominal)	4136 (Maximum)
Before: 21–Jul–2008 22:36											




High resolution Integrated Logging Tool–DTS Wellsite Calibration

HILT Caliper Calibration

Phase	HILT Caliper Zero Measurement IN		Value	Phase	HILT Caliper Plus Measurement IN		Value
Before			7.864	Before			12.25
	6.000 (Minimum)	8.000 (Nominal)	10.00 (Maximum)		9.000 (Minimum)	12.00 (Nominal)	15.00 (Maximum)
Before: 21–Jul–2008 22:32							





High resolution Integrated Logging Tool–DTS Wellsite Calibration



Detector Calibration


Phase	Gamma Ray Background GAPI	Value	Phase	Gamma Ray (Jig – Bkg) GAPI	Value	Phase	Gamma Ray (Calibrated) GAPI	Value			
Before		4.556	Before		169.3	Before		165.0			
	0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)		153.9 (Minimum)	169.3 (Nominal)	184.7 (Maximum)		150.0 (Minimum)	165.0 (Nominal)	180.0 (Maximum)
Before: 21–Jul–2008 22:25											





High resolution Integrated Logging Tool–DTS Wellsite Calibration





Zero Measurement



Phase	CNTC Background CPS			Value	Phase	CFTC Background CPS			Value
Master				26.09	Master				25.45
Before				25.52	Before				25.41
	5.000 (Minimum)	26.09 (Nominal)	40.00 (Maximum)		5.000 (Minimum)	25.45 (Nominal)	40.00 (Maximum)		
Master: 3–Jul–2008 14:20 Before: 21–Jul–2008 22:27									



High resolution Integrated Logging Tool–DTS Wellsite Calibration									
Ratio Measurement									
Phase	Thermal Near Corr. (Tank) CPS			Value	Phase	Thermal Far Corr. (Tank) CPS			Value
Master				5058	Master				2075
	4700 (Minimum)	5800 (Nominal)	6900 (Maximum)			1900 (Minimum)	2400 (Nominal)	2900 (Maximum)	
Master: 3–Jul–2008 14:20									

High resolution Integrated Logging Tool–DTS			
Wellsite Calibration			
Accelerometer Calibration			
Phase	Z–Axis Acceleration M/S2	Value	
Before		9.807	
	9.610 (Minimum)	9.810 (Nominal)	10.01 (Maximum)
Before: 25–Jul–2008 17:35			

High resolution Integrated Logging Tool–DTS Master Calibration									
Inversion results									
Phase	Rho Aluminum G/C3			Value	Phase	Rho Magnesium G/C3			Value
Master				2.601	Master				1.683
	2.586 (Minimum)	2.596 (Nominal)	2.606 (Maximum)	1.676 (Minimum)		1.686 (Nominal)	1.696 (Maximum)		
Phase	Pe Aluminum			Value	Phase	Pe Magnesium			Value
Master				2.581	Master				2.632
	2.470 (Minimum)	2.570 (Nominal)	2.670 (Maximum)	2.550 (Minimum)		2.650 (Nominal)	2.750 (Maximum)		
Master: 3–Jul–2008 17:01									

High resolution Integrated Logging Tool–DTS Master Calibration									
Deviation Summary									
Phase	BS Average Deviation %			Value	Phase	SS Average Deviation %			Value
Master				0.1075	Master				0.2752
	-0.6000 (Minimum)	0 (Nominal)	0.6000 (Maximum)			-1.000 (Minimum)	0 (Nominal)	1.000 (Maximum)	
Phase	BS Max Deviation %			Value	Phase	SS Max Deviation %			Value
Master				0.3697	Master				0.7185
	-1.600 (Minimum)	0 (Nominal)	1.600 (Maximum)			-2.500 (Minimum)	0 (Nominal)	2.500 (Maximum)	
Master: 3–Jul–2008 17:01									

High resolution Integrated Logging Tool–DTS Master Calibration									
Zero Measurement									
Phase	CNTC Background CPS			Value	Phase	CFTC Background CPS			Value
Master				26.09	Master				25.45
	5.000 (Minimum)	26.09 (Nominal)	40.00 (Maximum)			5.000 (Minimum)	25.45 (Nominal)	40.00 (Maximum)	
Master: 3–Jul–2008 14:20									

High resolution Integrated Logging Tool–DTS Master Calibration									
Tank Measurement									
Phase	Thermal Near Corr. (Tank) CPS			Value	Phase	Thermal Far Corr. (Tank) CPS			Value
Master				5058	Master				2075
	4700 (Minimum)	5800 (Nominal)	6900 (Maximum)			1900 (Minimum)	2400 (Nominal)	2900 (Maximum)	
Master: 3–Jul–2008 14:20									

Hostile Natural Gamma Ray Cartridge – B / Equipment Identification		
Primary Equipment:		
HNGC Cartridge	HNGC – B	221
Auxiliary Equipment:		
HNGC Housing	HNGH – A	47

Hostile Natural Gamma Ray Sonde / Equipment Identification

Primary Equipment:

HNGS Sonde

HNGS – BA

19

19

Auxiliary Equipment:

HNGS Sonde Housing

HNSH – BA

47

Gamma Source Radioactive

GSR – U

6003

Hostile Natural Gamma Ray Sonde Wellsite Calibration

Detector 1 Check

Na 511 Peak Loc			Value	Na 511 Peak Res %			Value	High Voltage V			Value
Master	<div><div></div></div>		38.59	Master	<div><div></div></div>		14.88	Master	<div><div></div></div>		1127
Before	<div><div></div></div>		38.57	Before	<div><div></div></div>		14.86	Before	<div><div></div></div>		1129
37.50 (Minimum)40.00 (Nominal)43.50 (Maximum)				12.00 (Minimum)15.50 (Nominal)19.00 (Maximum)				900.0 (Minimum)1150 (Nominal)1600 (Maximum)			
Na 1785 Peak Loc			Value	Na 1785 Peak Res %			Value	Temperature DEGC			Value
Master	<div><div></div></div>		139.0	Master	<div><div></div></div>		8.384	Master	<div><div></div></div>		11.79
Before	<div><div></div></div>		139.4	Before	<div><div></div></div>		7.962	Before	<div><div></div></div>		14.39
135.0 (Minimum)142.6 (Nominal)150.3 (Maximum)				7.000 (Minimum)8.500 (Nominal)11.00 (Maximum)				−28.89 (Minimum)15.50 (Nominal)60.00 (Maximum)			
Na Count Rate CPS			Value								
Master	<div><div></div></div>		37.90								
Before	<div><div></div></div>		37.39								
10.00 (Minimum)45.00 (Nominal)100.0 (Maximum)											

Master: 15-Jul-2008 13:39

Before: 1-Jul-2008 21:52



Hostile Natural Gamma Ray Sonde Wellsite Calibration

Detector 2 Check

Na 511 Peak Loc			Value	Na 511 Peak Res %			Value	High Voltage V			Value
Master	<div><div></div></div>		40.63	Master	<div><div></div></div>		16.06	Master	<div><div></div></div>		1378
Before	<div><div></div></div>		40.71	Before	<div><div></div></div>		14.91	Before	<div><div></div></div>		1381
37.50 (Minimum)40.00 (Nominal)43.50 (Maximum)				12.00 (Minimum)15.50 (Nominal)19.00 (Maximum)				900.0 (Minimum)1150 (Nominal)1600 (Maximum)			
Na 1785 Peak Loc			Value	Na 1785 Peak Res %			Value	Temperature DEGC			Value
Master	<div><div></div></div>		146.6	Master	<div><div></div></div>		8.733	Master	<div><div></div></div>		12.04
Before	<div><div></div></div>		146.5	Before	<div><div></div></div>		8.625	Before	<div><div></div></div>		14.41
135.0 (Minimum)142.6 (Nominal)150.3 (Maximum)				7.000 (Minimum)8.500 (Nominal)11.00 (Maximum)				−28.89 (Minimum)15.50 (Nominal)60.00 (Maximum)			
Na Count Rate CPS			Value								
Master	<div><div></div></div>		38.28								
Before	<div><div></div></div>		37.87								
10.00 (Minimum)45.00 (Nominal)100.0 (Maximum)											

Master: 15-Jul-2008 13:39

Before: 1-Jul-2008 21:52

Hostile Natural Gamma Ray Sonde Wellsite Calibration		
Ratio Of Detector 1 To Detector 2		
Phase	Coincidence Count Rate Ratio	Value
Master		0.9810
Before		0.9832
<div>0.9500 (Minimum)1.000 (Nominal)1.050 (Maximum)</div>		
Master: 15-Jul-2008 13:39		
Before: 1-Jul-2008 21:52		


Hostile Natural Gamma Ray Sonde Master Calibration

Detector 1 Calibration



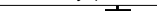
Hostile Natural Gamma Ray Sonde Master Calibration															
Detector 2 Calibration															
Phase	Na 511 Peak Set Point			Value	Phase	Th Peak Loc			Value	Phase	Th Peak Res %			Value	
Master	<div><div></div></div>			42.00	Master	<div><div></div></div>			211.4	Master	<div><div></div></div>			7.252	
38.00 (Minimum)				40.00 (Nominal)	201.0 (Minimum)				209.6 (Nominal)	5.000 (Minimum)				7.000 (Nominal)	9.000 (Maximum)
Phase	Background Count Rate CPS			Value	Phase	Gain Ratio			Value						
Master	<div><div></div></div>			133.1	Master	<div><div></div></div>			0.9896						
20.00 (Minimum)				142.5 (Nominal)	265.0 (Maximum)				0.9400 (Minimum)						1.000 (Nominal)
Master: 15-Jul-2008 13:34															

Multimode Array Sonic Power Cartridge / Equipment Identification		
Primary Equipment:		
Multimode Array Sonic Minimum Service So	MAMS – BA	8201
Multimode Array Sonic Control Cartridge	MAPC – BA	8198
Auxiliary Equipment:		
Electronics Cartridge Housing	ECH – SF	8198

Enhanced DTS Cartridge / Equipment Identification			
Primary Equipment:			
EDTC Gamma Ray Detector	EDTG – A/B		
Enhanced DTS Cartridge	EDTC – B	8390	
Auxiliary Equipment:			
EDTC Housing	EDTH – B	8434	

Enhanced DTS Cartridge Wellsite Calibration		
EDTC Accelerometer Calibration		
Phase	EDTC Z-Axis Acceleration M/S ²	Value
Before		9.857
	<div>9.610 (Minimum)</div> <div>9.810 (Nominal)</div> <div>10.01 (Maximum)</div>	

Before: 25-Jul-2008 17:35

Enhanced DTS Cartridge Wellsite Calibration														
Detector Calibration														
Phase	Gamma Ray Background		GAPI	Value	Phase	Gamma Ray (Jig – Bkg)		GAPI	Value	Phase	Gamma Ray (Calibrated)		GAPI	Value
Before				3.921	Before				150.9	Before				165.0
	0 (Minimum)	30.00 (Nominal)		120.0 (Maximum)		137.2 (Minimum)	150.9 (Nominal)		164.7 (Maximum)		150.0 (Minimum)	165.0 (Nominal)		180.0 (Maximum)
Before: 21–Jul–2008 22:25														

Well: Netherby 1
Field: Gas / Oil Exploration
Rig: Ocean Patriot
Country: Australia

HRLT-PEX-HNGS-MSI
Sonic Scanner
Scale 1:200