

DEPTH SUMMARY LISTING	
-----------------------	--

Date Created: 15-JUN-2008 10:13:25

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW-B	Type:	CMTD-B/A	Type:	7-39P-LXS
Serial Number:	3713	Serial Number:	1431	Serial Number:	4217
Calibration Date:	18-Mar-2008	Calibration Date:	19-May-2008	Length:	8968.00 FT
Calibrator Serial Number:	1	Calibrator Serial Number:	100513		
Calibration Cable Type:	7-39P-LXS	Calibration Gain:	1.09	Conveyance Method:	Wireline
Wheel Correction 1:	-5	Calibration Offset:	510.00	Rig Type:	LAND
Wheel Correction 2:	-5				

Depth Control Parameters

Log Sequence:	First Log In the Well
Rig Up Length At Surface:	0.00 FT
Rig Up Length At Bottom:	0.00 FT
Rig Up Length Correction:	0.00 FT
Stretch Correction:	0.00 FT
Tool Zero Check At Surface:	0.00 FT

Depth Control Remarks

- | |
|--|
| <ol style="list-style-type: none">1. All Schlumberger depth policy procedures applied2. This is the primary depth reference3.4.5.6. |
|--|

<p style="text-align: center;">DISCLAIMER</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>

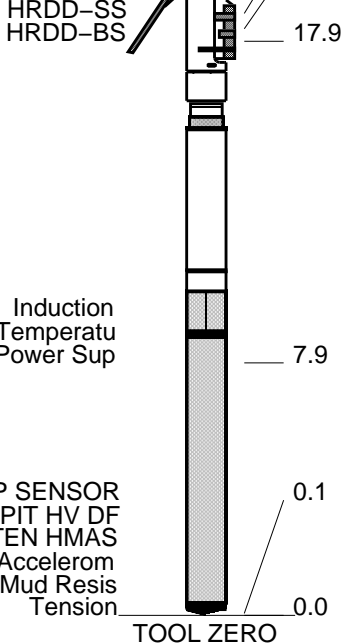
THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (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.

OTHER SERVICES1	OTHER SERVICES2
OS1: TVD	OS1:
OS2:	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
This is first run in hole	
Tool run as per tool sketch	
Matrix is noted on Triple Combo log	

Rig: Cade 22					
Crew: Shane Walker & Jeff Mese					
<div style="text-align: center;">RUN 1</div> <div> <div>SERVICE ORDER #:</div> <div>PROGRAM VERSION:</div> <div>FLUID LEVEL:</div> </div> <div> <div>11989810</div> <div>15C0-309</div> </div>			<div style="text-align: center;">RUN 2</div> <div> <div>SERVICE ORDER #:</div> <div>PROGRAM VERSION:</div> <div>FLUID LEVEL:</div> </div>		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

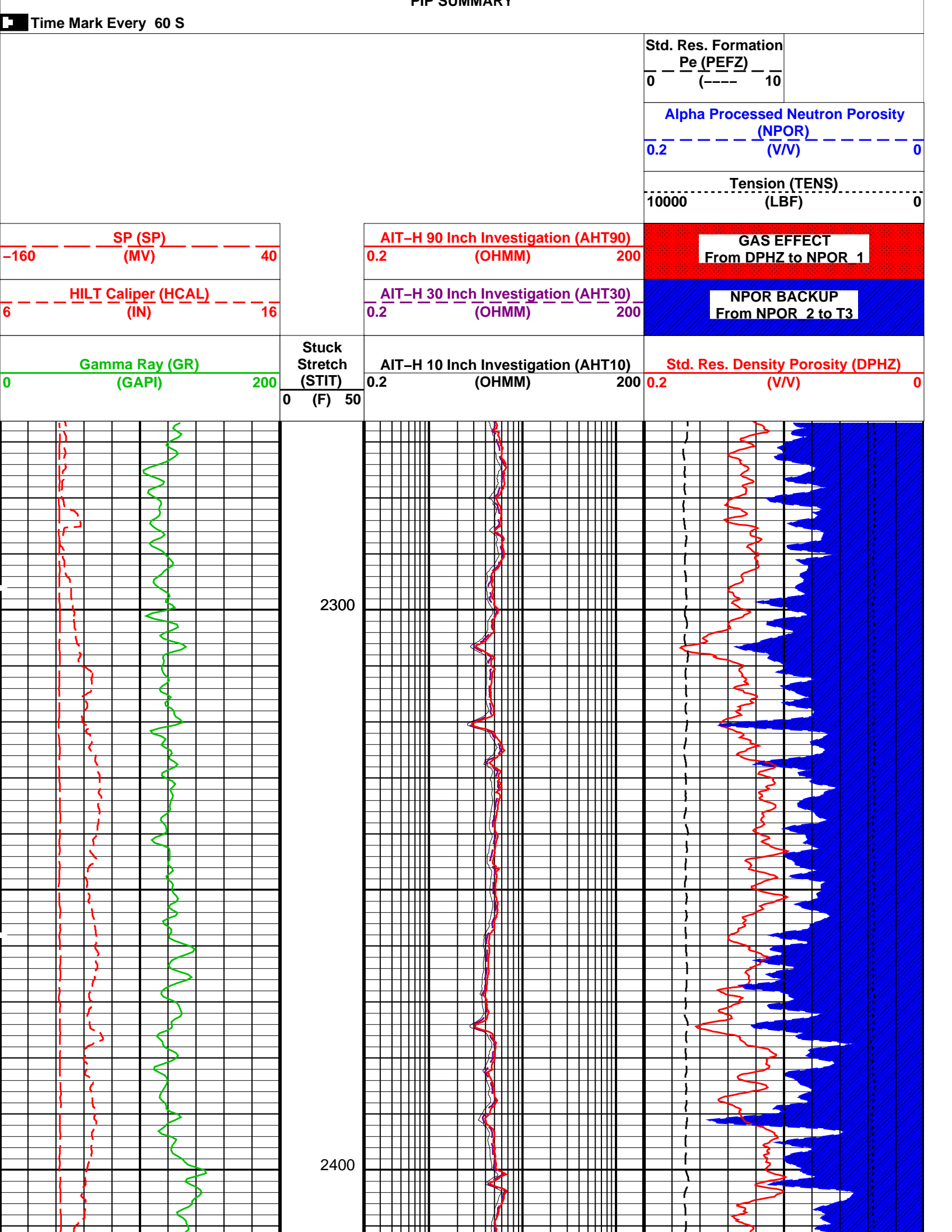
	EQUIPMENT	DESCRIPTION	
RUN 1			RUN 2

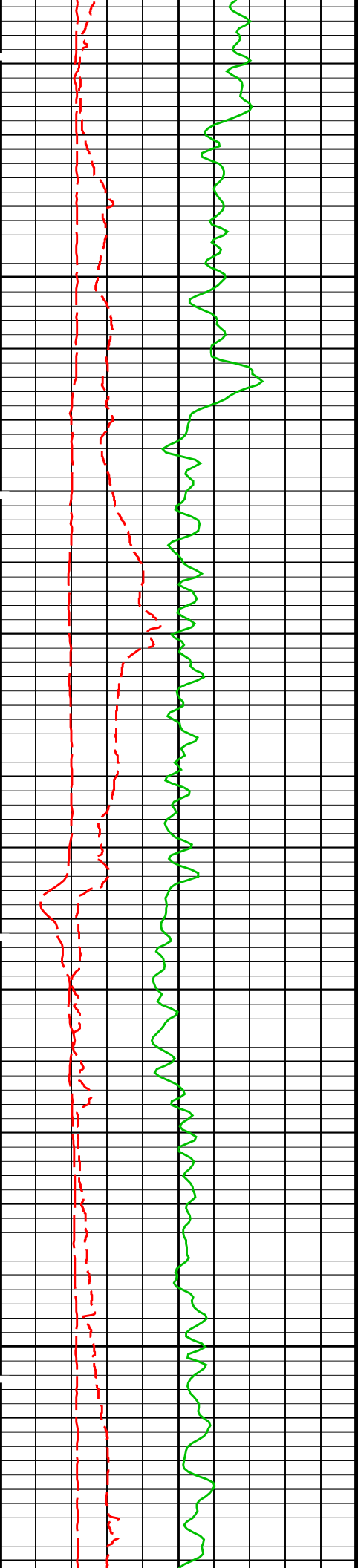
SURFACE EQUIPMENT			
GSR-U/Y	WITM (DTS)-A		
NCT-B			
CNB-AB			
NCS-VB			
DOWNHOLE EQUIPMENT			
LEH-QT			51.6
LEH-QT 8415			
DTC-H	CTEM	47.7	48.6
ECH-KC	TelStatus		
DTCH0-A	ToolStatu	45.6	
DTCH1-A			
AH-NM4			45.6
AH-NM4			
GPIT-C			41.6
GPIC-C			
GPIH-B			
HILTB-FTB	HGNS HTEM	37.6	37.6
HGNSD-B	HMCA	36.9	
HMCA	HGNS Gamm		
HGNH			
NLS-KL			
NSR-F 1369			
HACCZ 430			
HCNT			
HGR	HGNS Neut	31.1	
HRCC-B 932	HGNS Neut	30.6	
HRMS-B 1929			
HRGD-B 885			
GLS-VJ 5363	HGNS sens	28.2	
MCFL Device			
HILT Nucl. LS 42767			
HILT Nucl. SS 42767			
HILT Nucl. BS 42767			
AIT-H 392			
AHIS-BA 392	HRCC cart	24.2	
AHRM-A			
NPV-N			
	MCFL	18.8	
	HILT cali	18.3	
	HRDD-LS		



MAXIMUM STRING DIAMETER 4.63 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN FEET

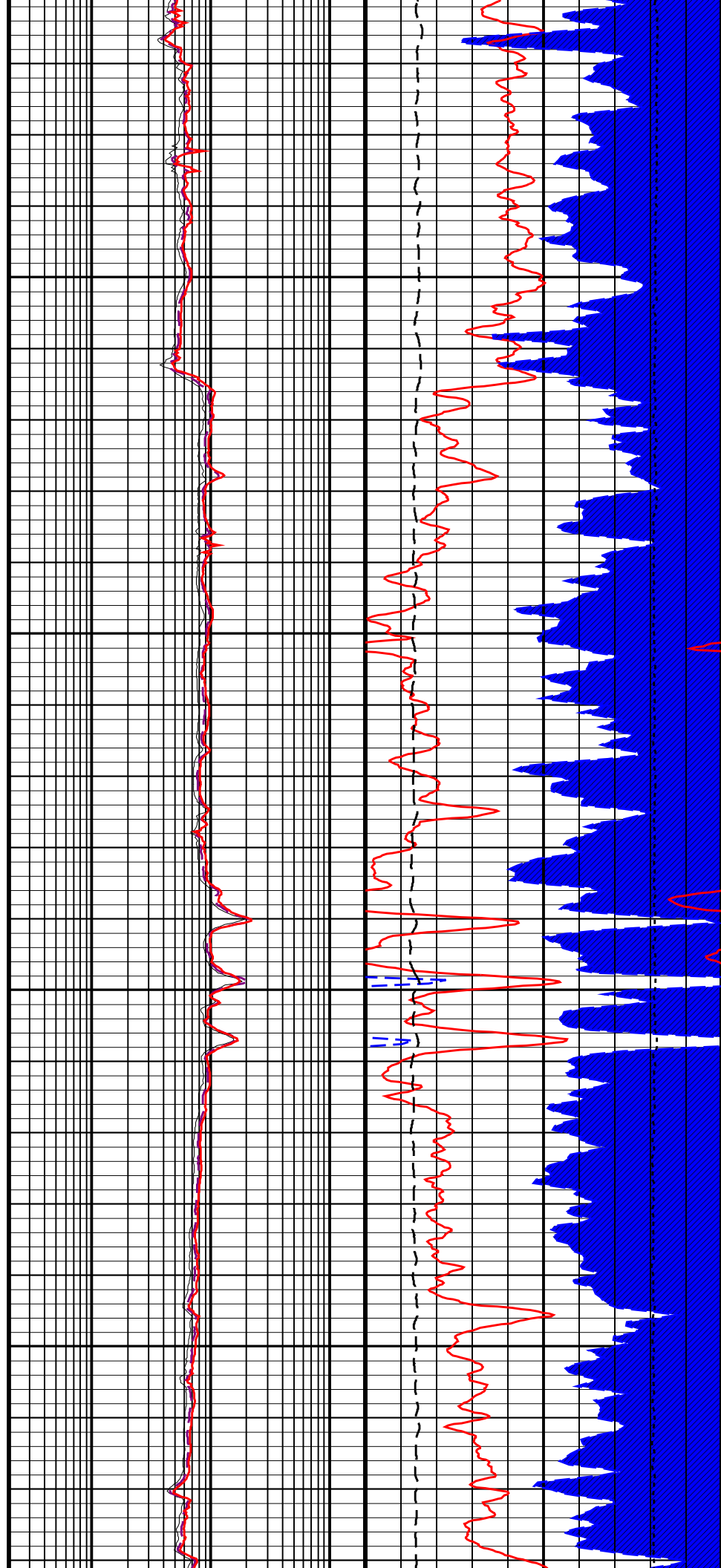
Production String	(in)		(ft)	Well Schematic	(ft)	(in)		Casing String
	OD	ID	MD		MD	OD	ID	
					0.0	8.625		Casing String
					824.0	8.625		Casing Shoe
					824.0	7.875		Borehole Segment

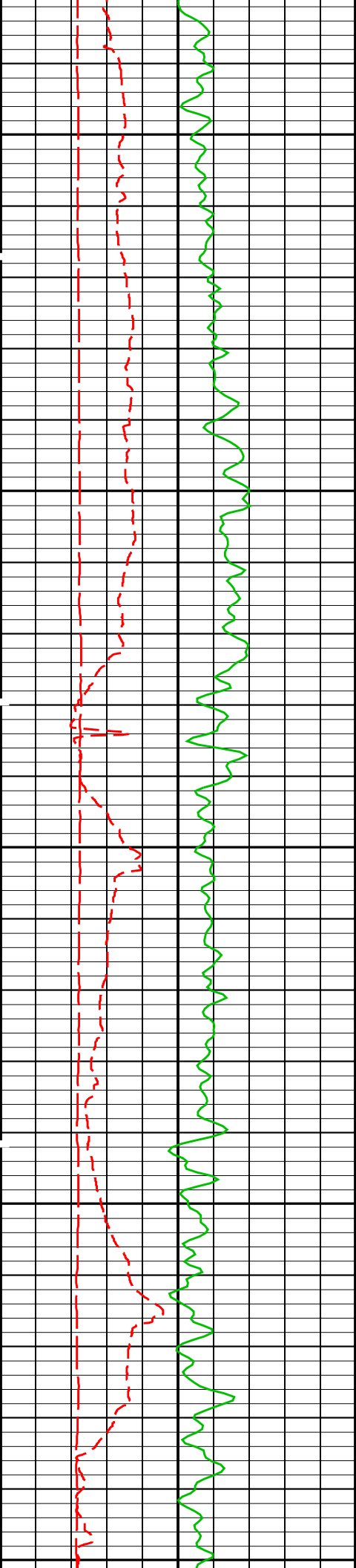




2500

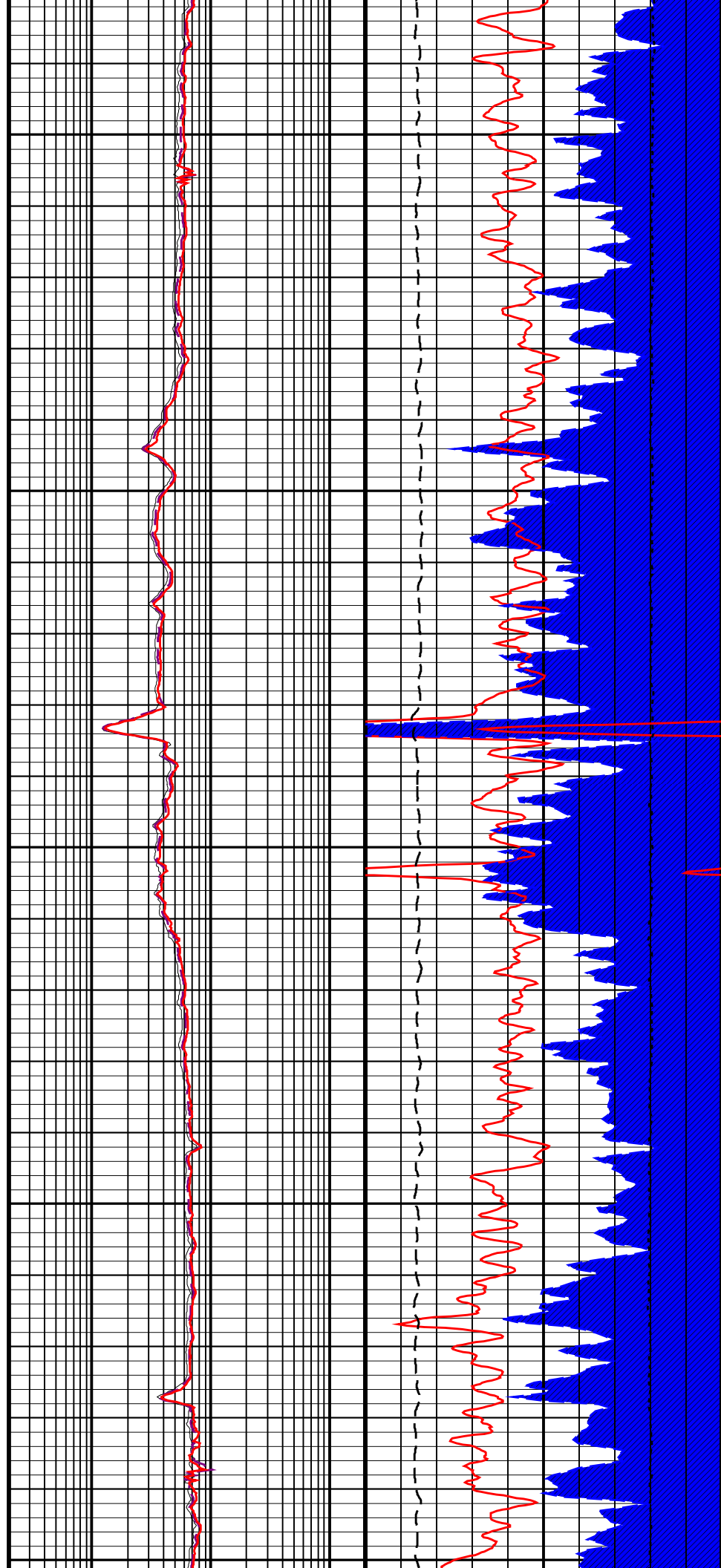
2600

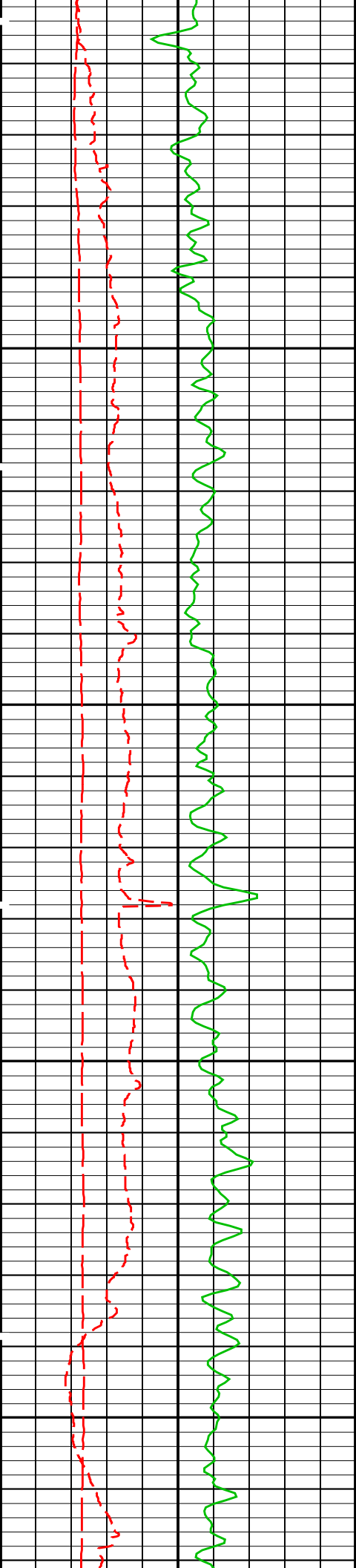




2700

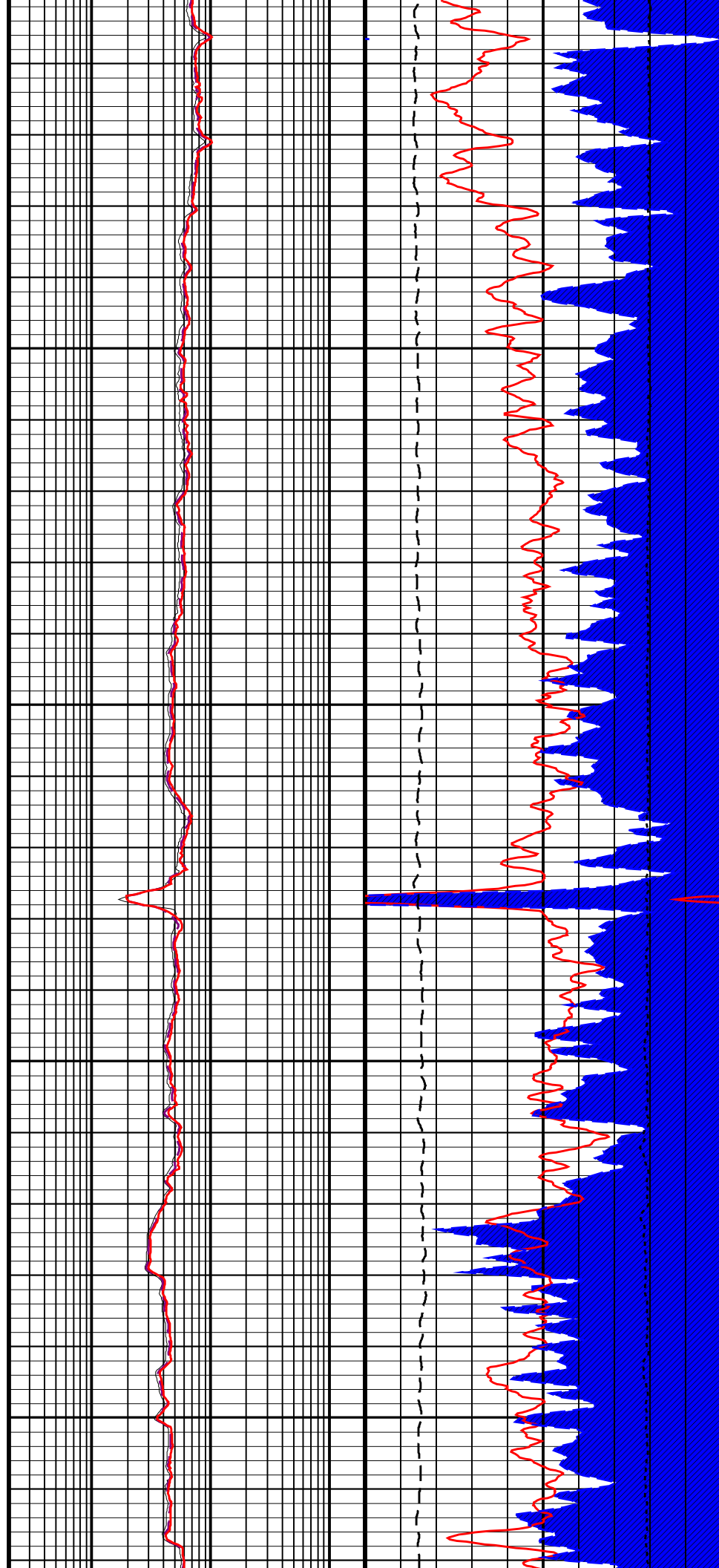
2800

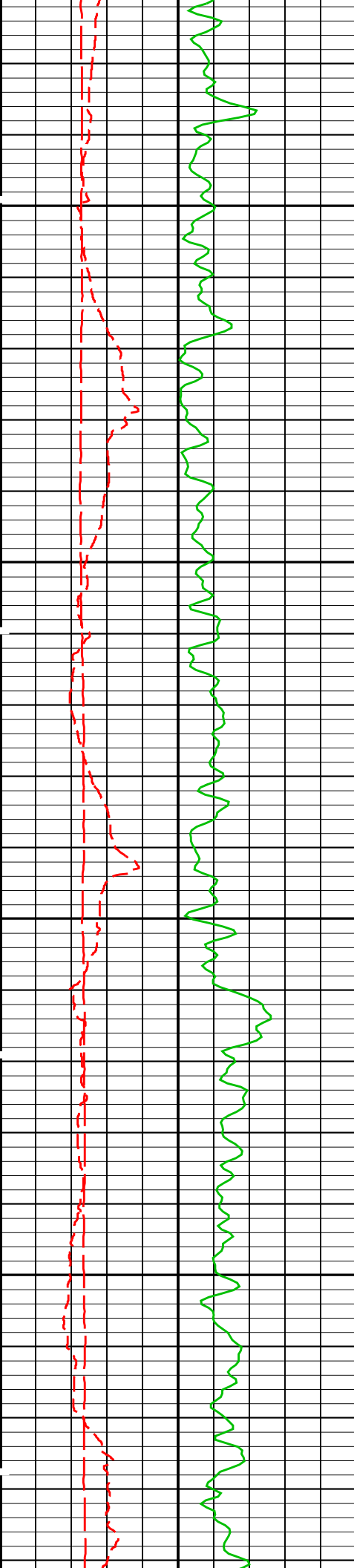




2900

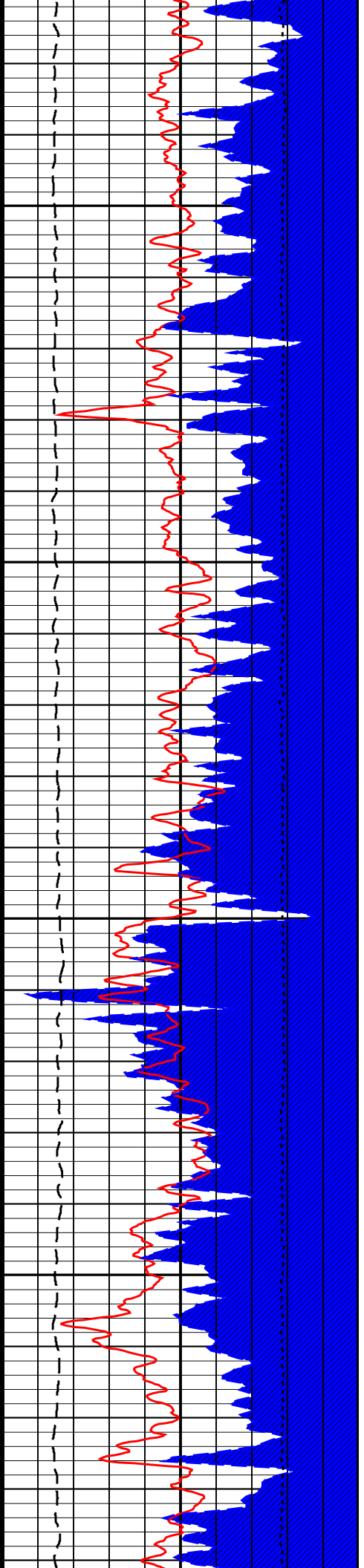
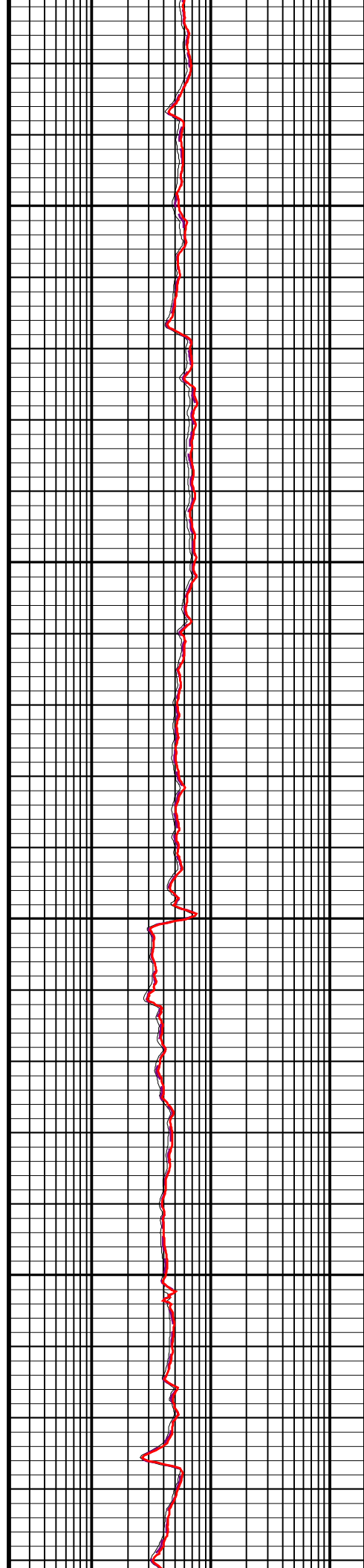
3000

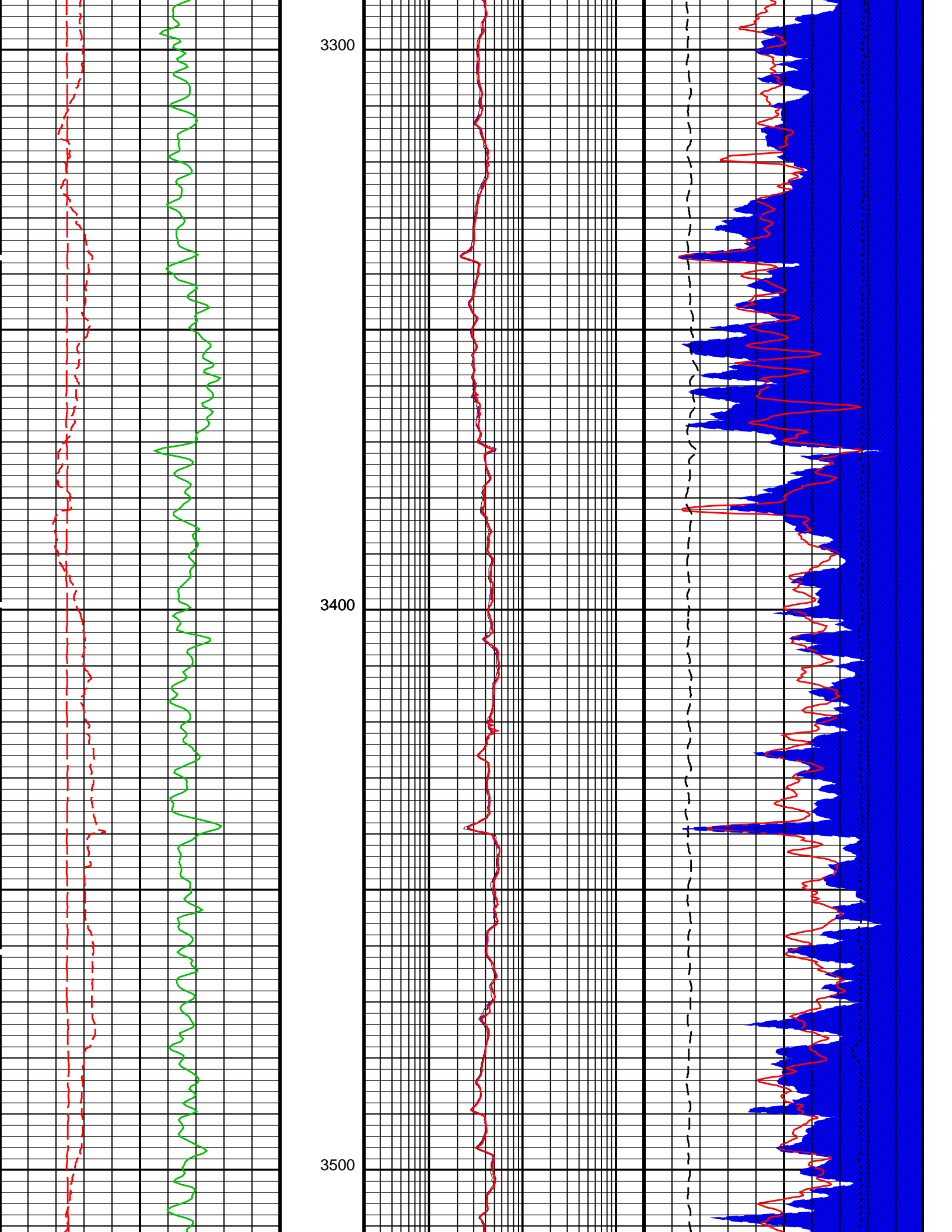


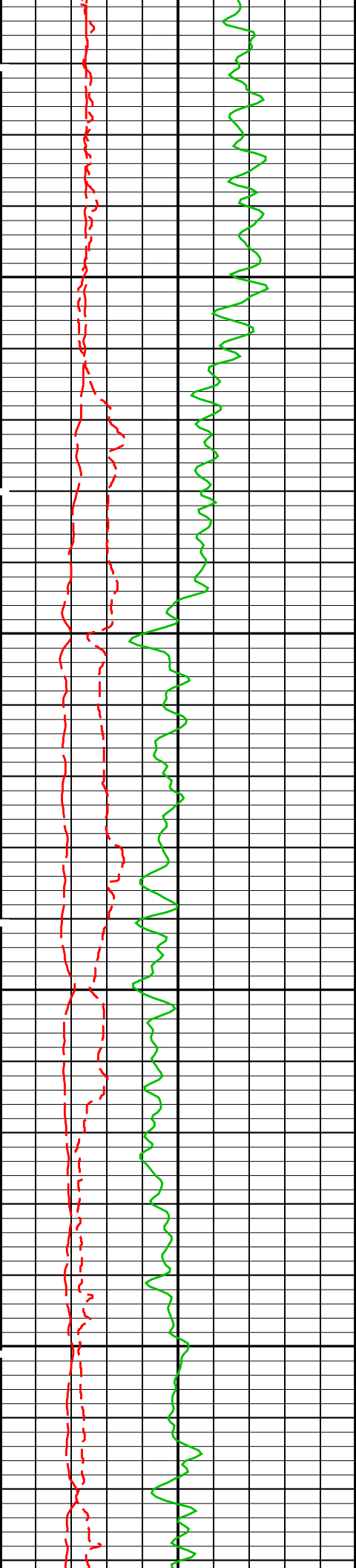


3100

3200

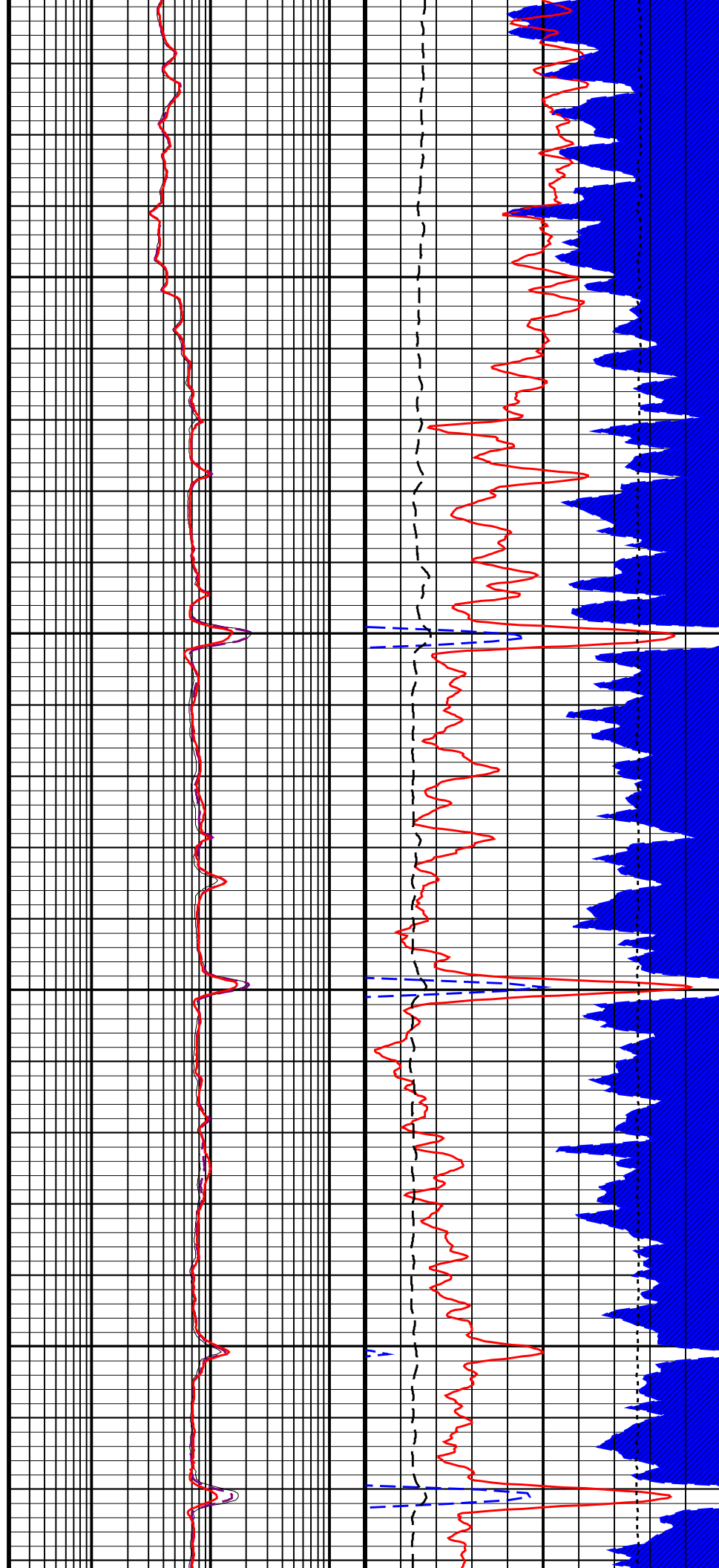


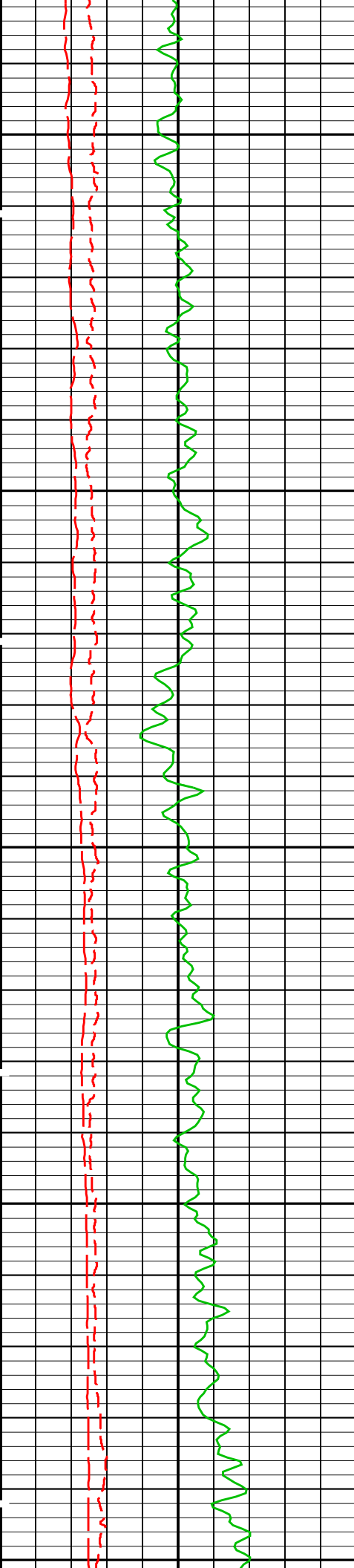




3600

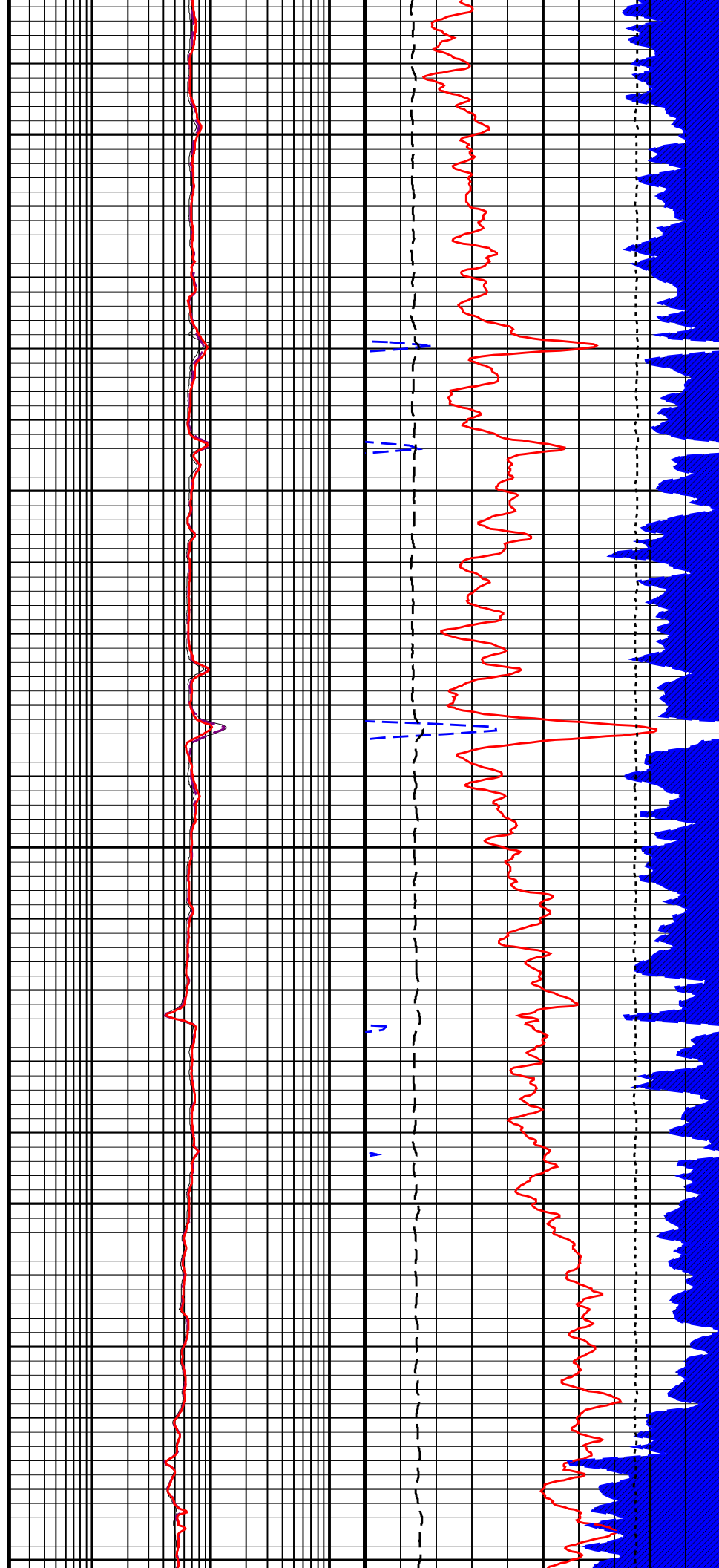
3700

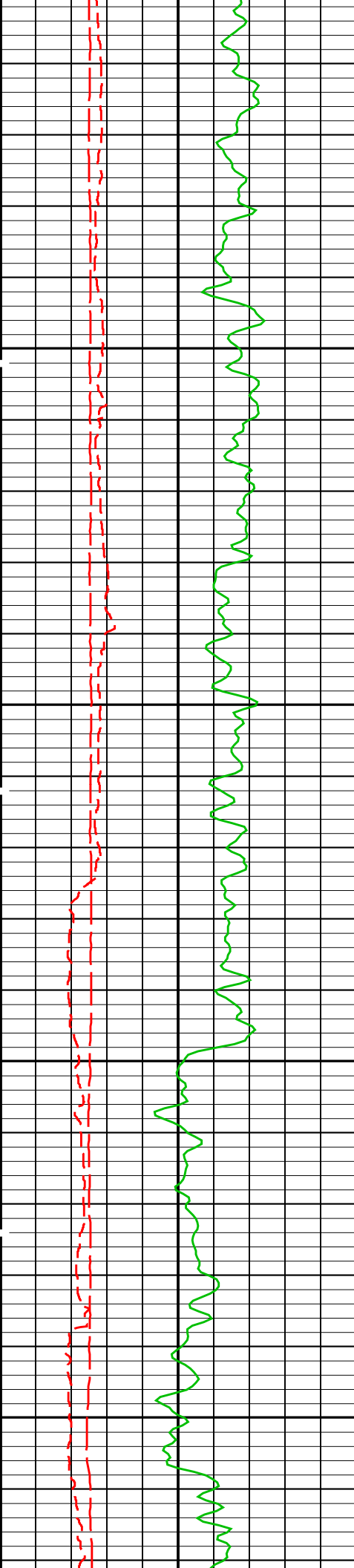




3800

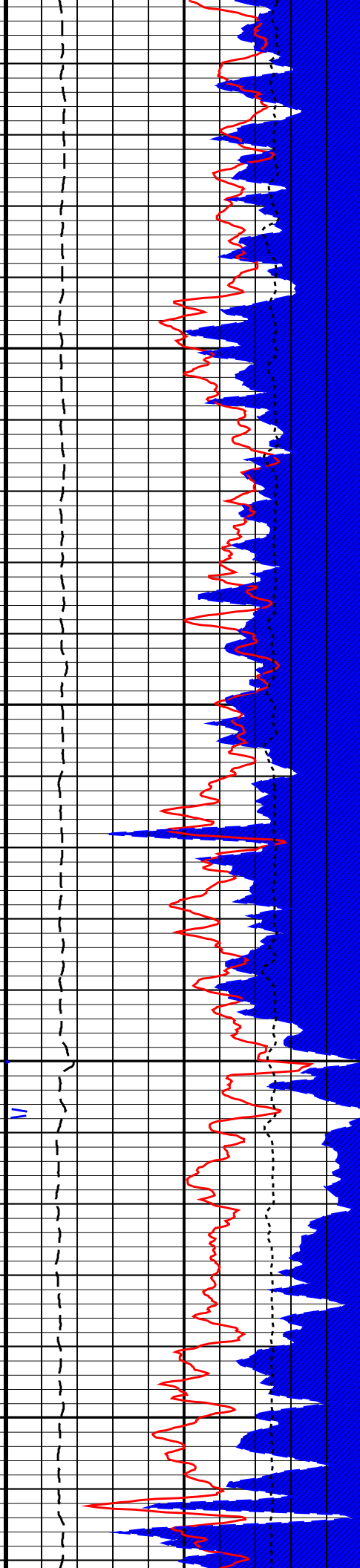
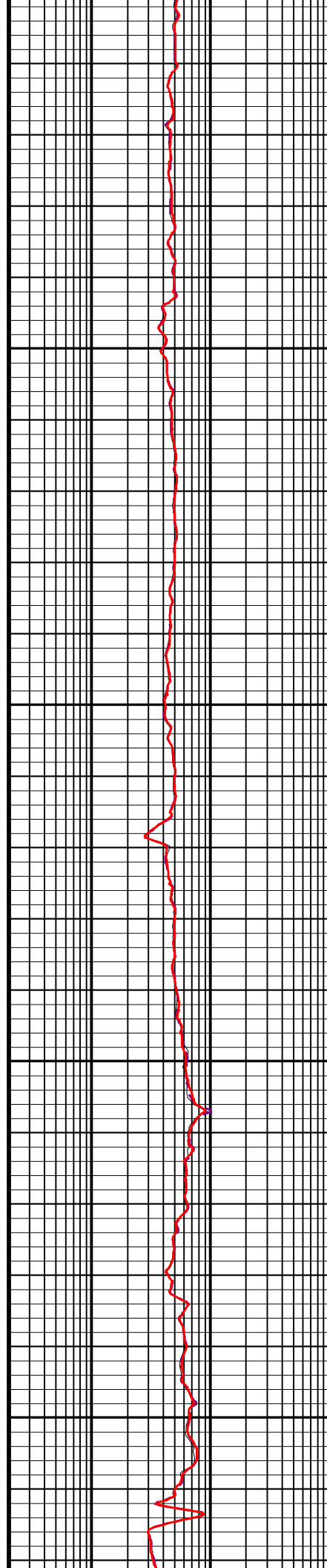
3900

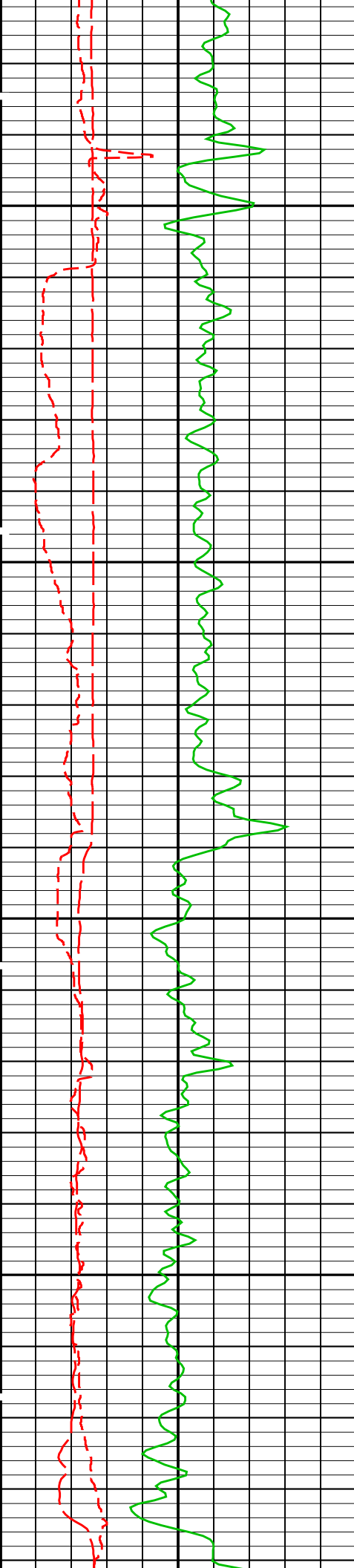




4000

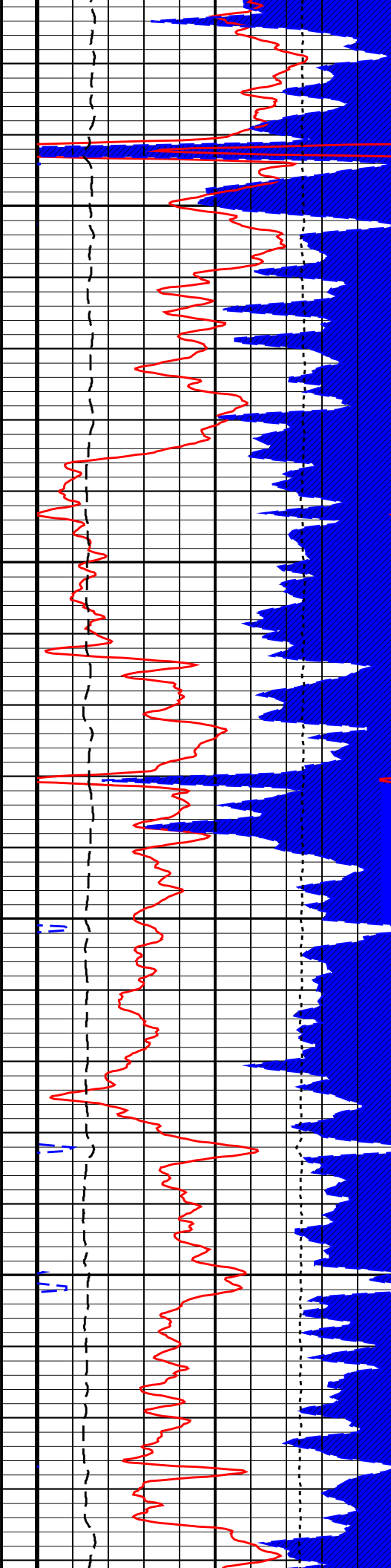
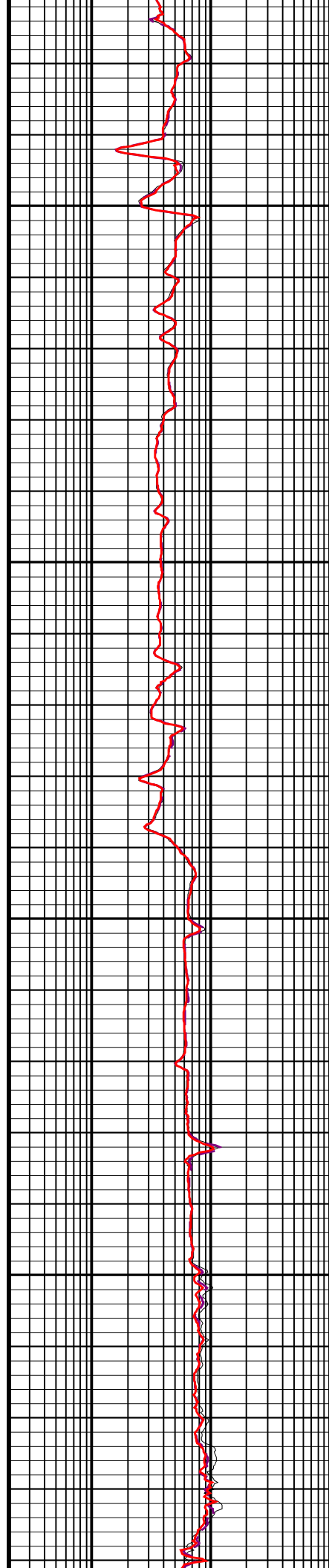
4100

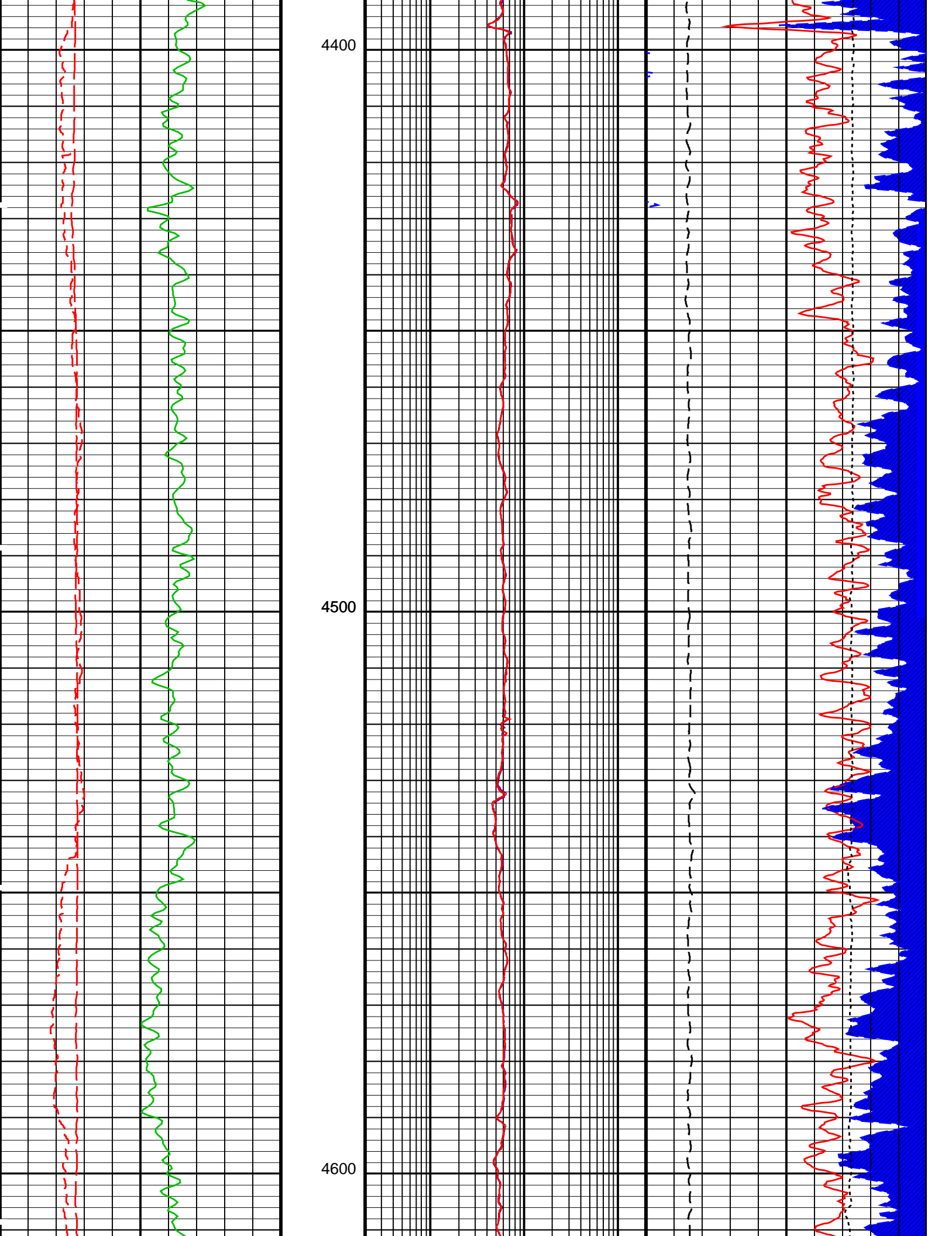


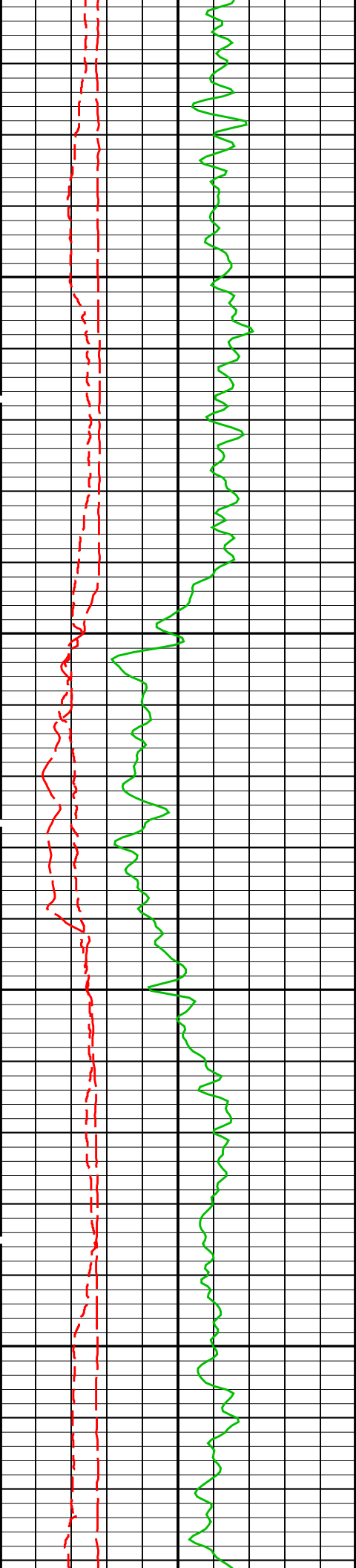


4200

4300

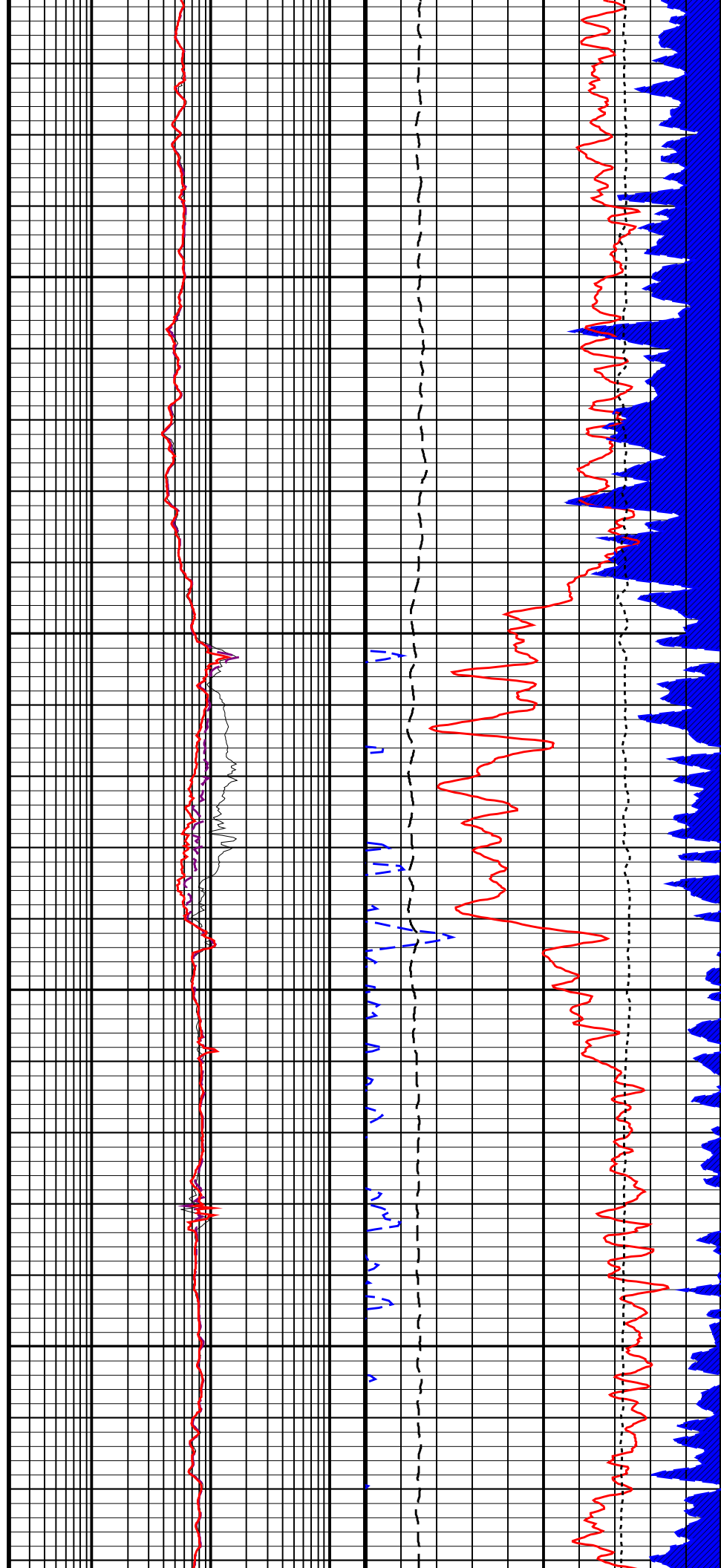


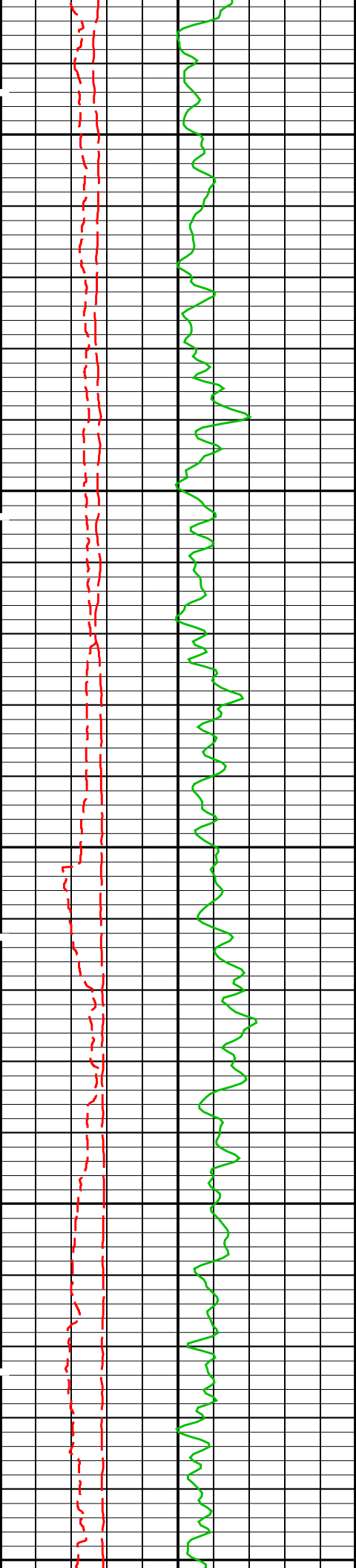




4700

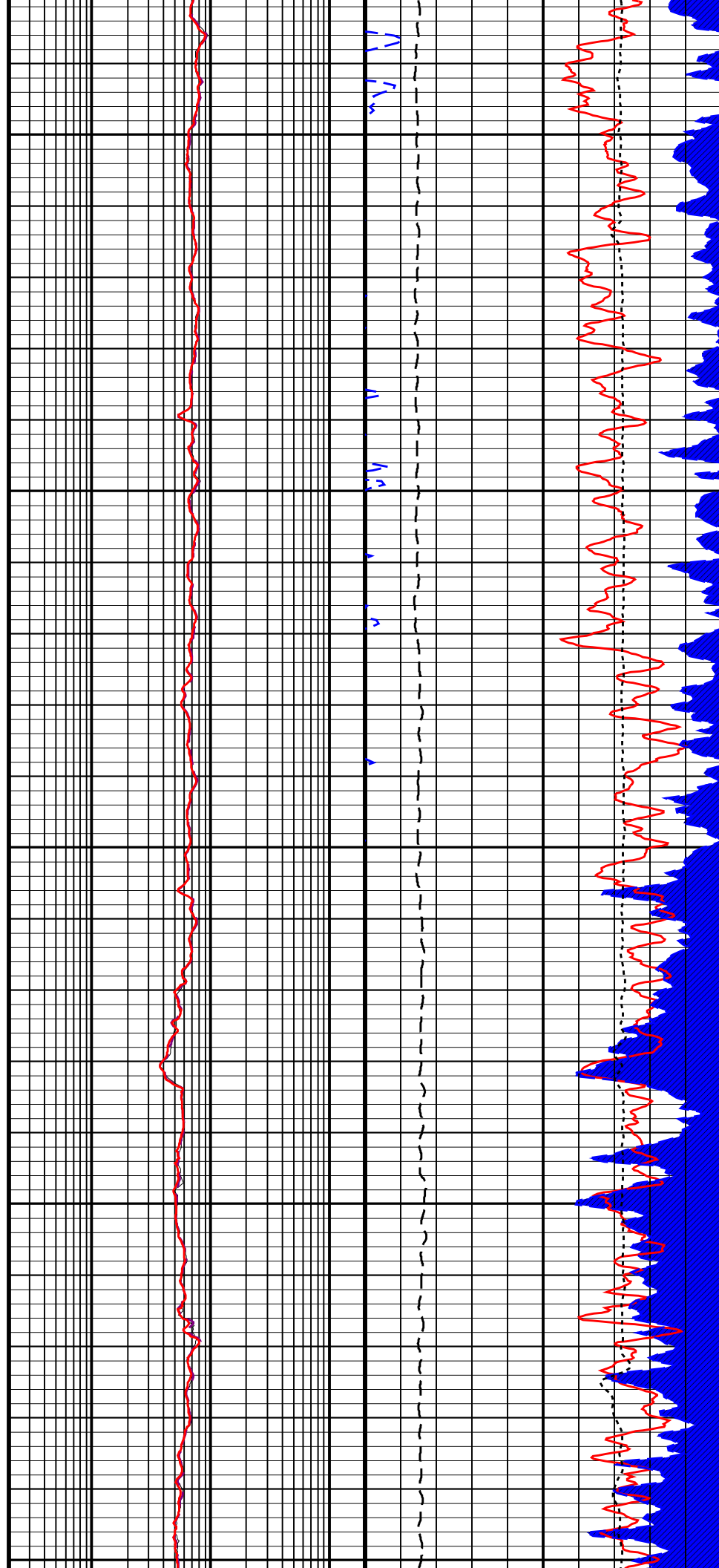
4800

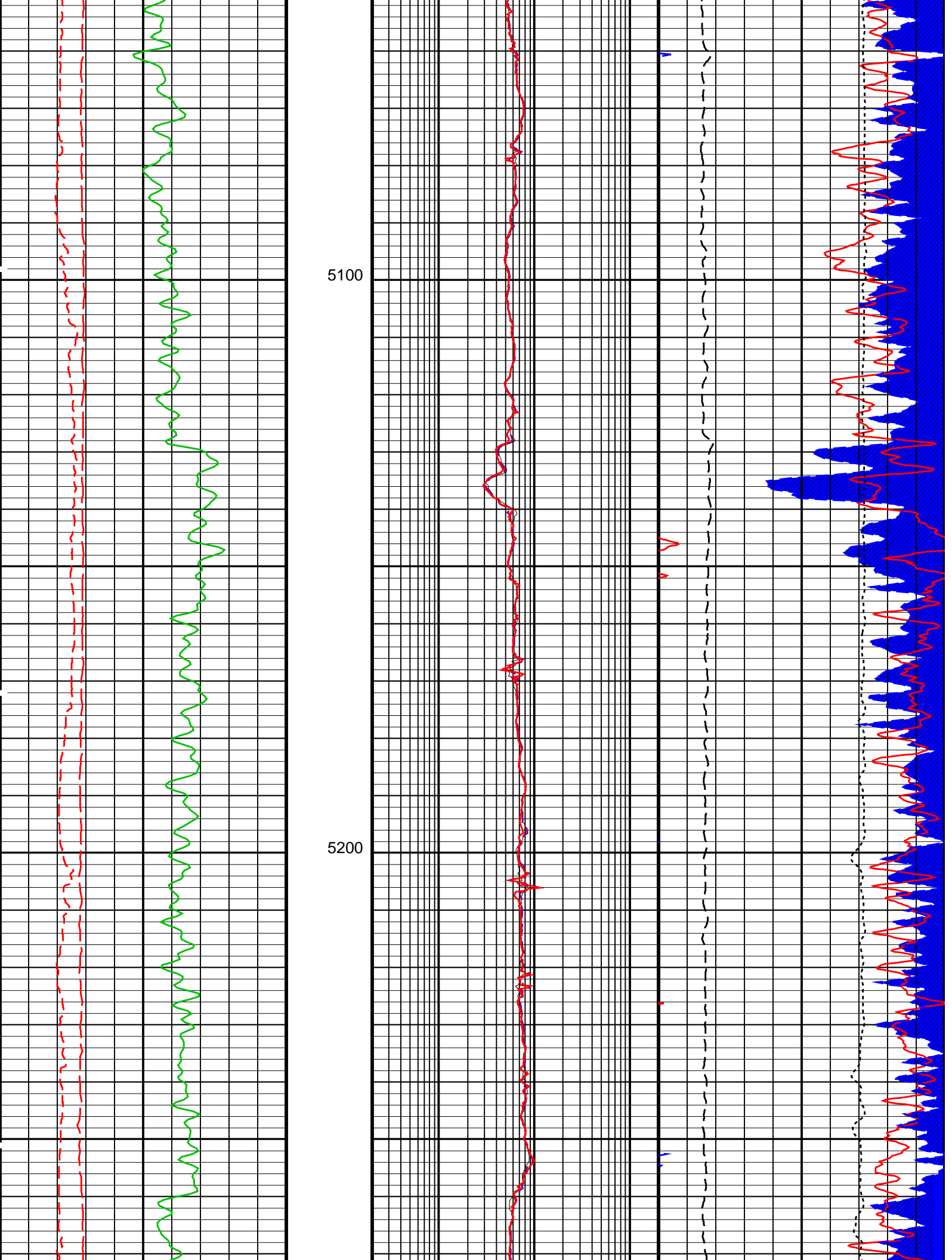


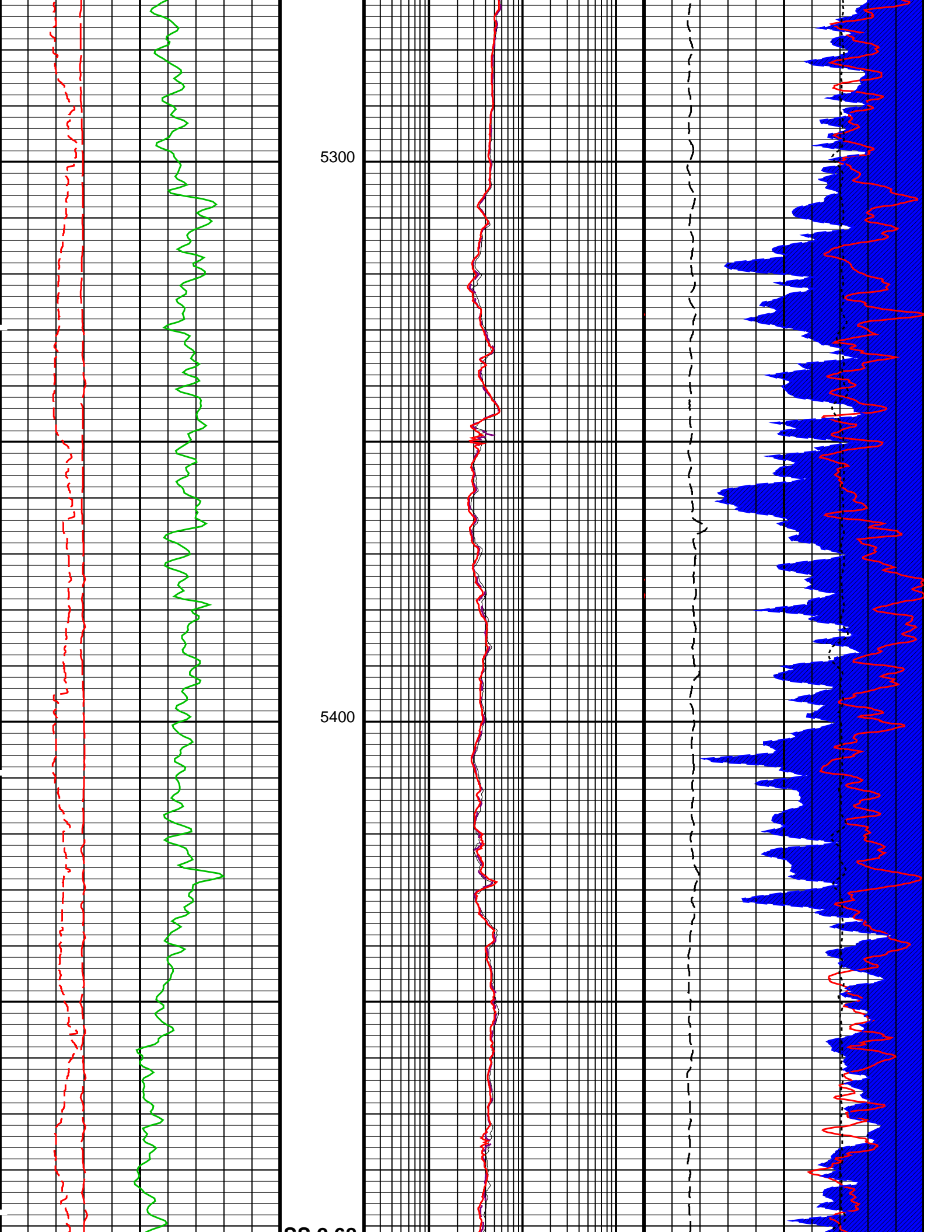


4900

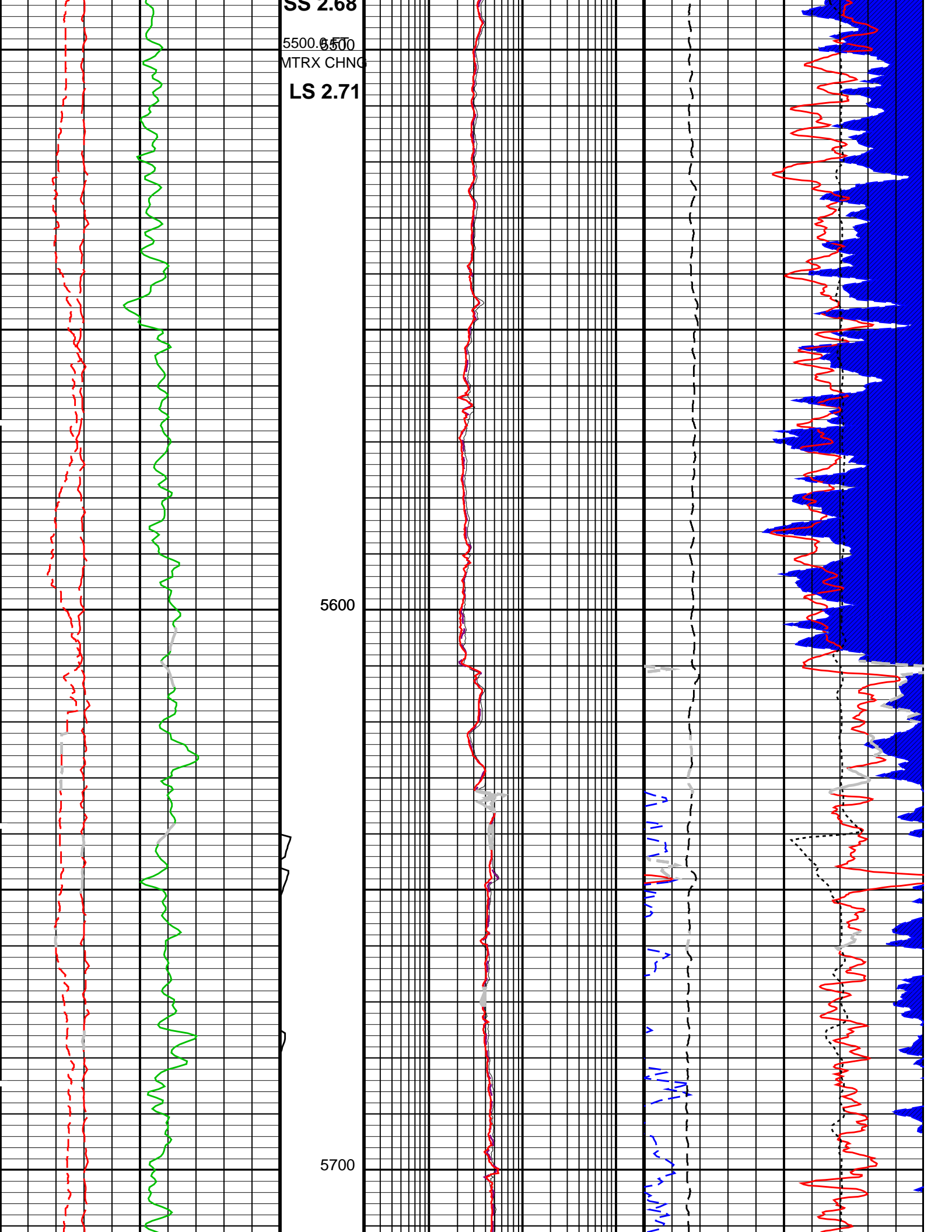
5000

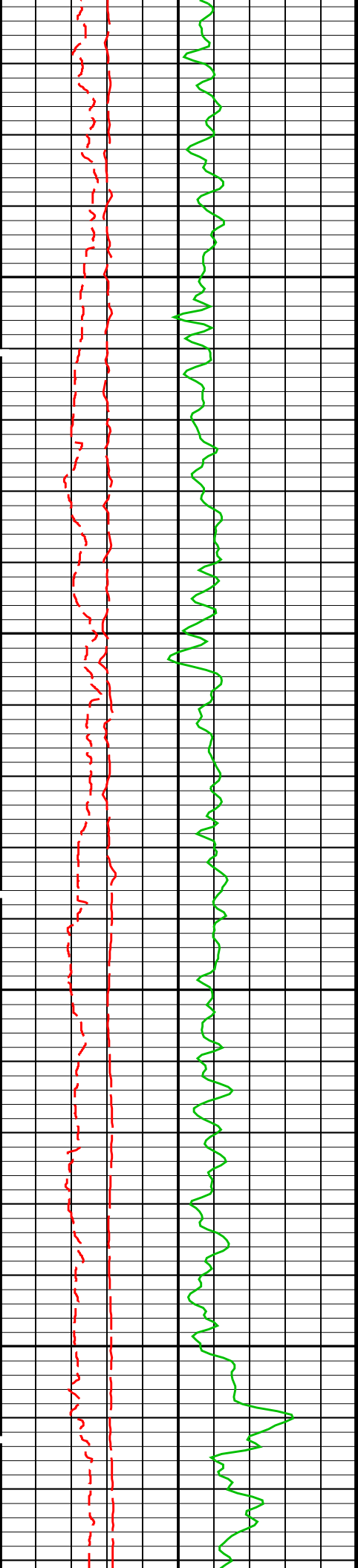






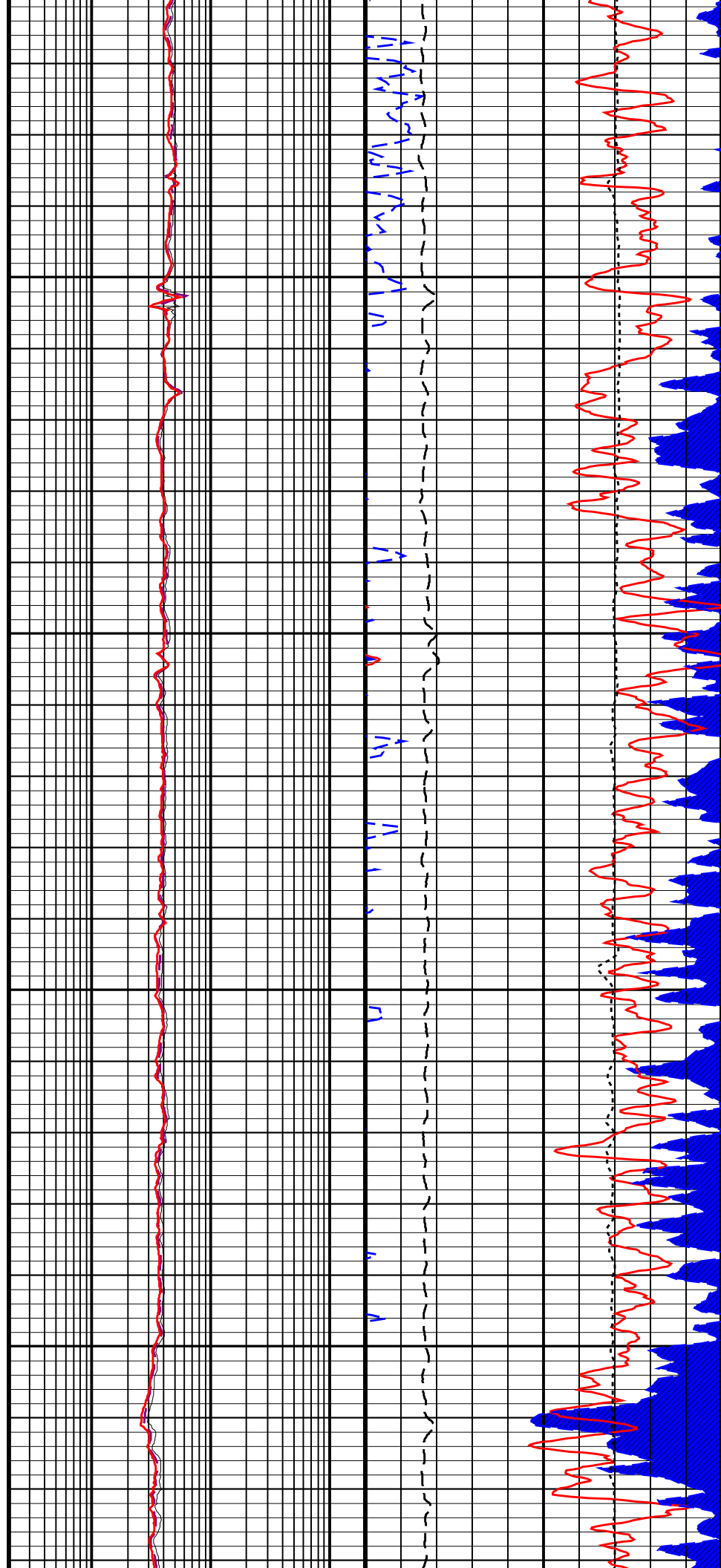
SS 2.68
5500.0500
MTRX CHNG
LS 2.71

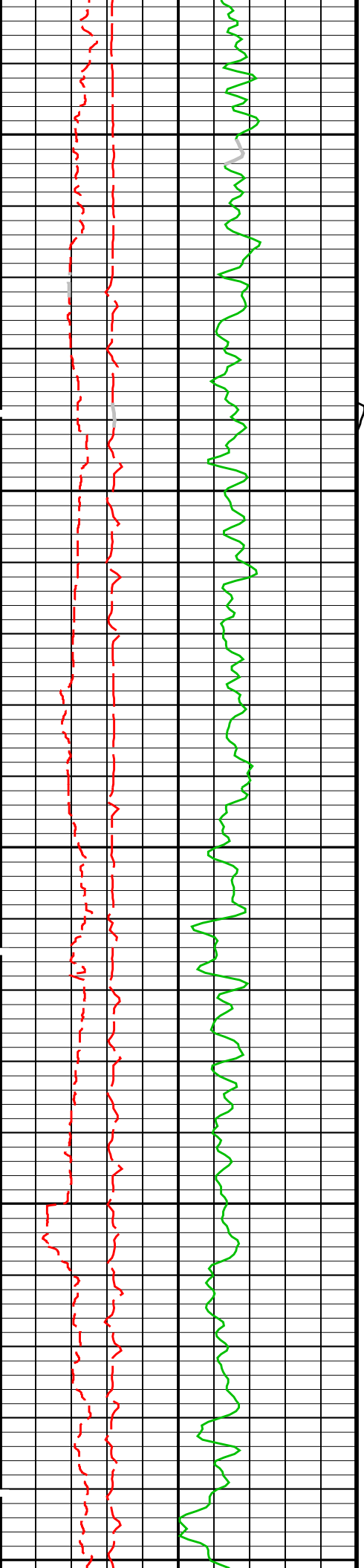




5800

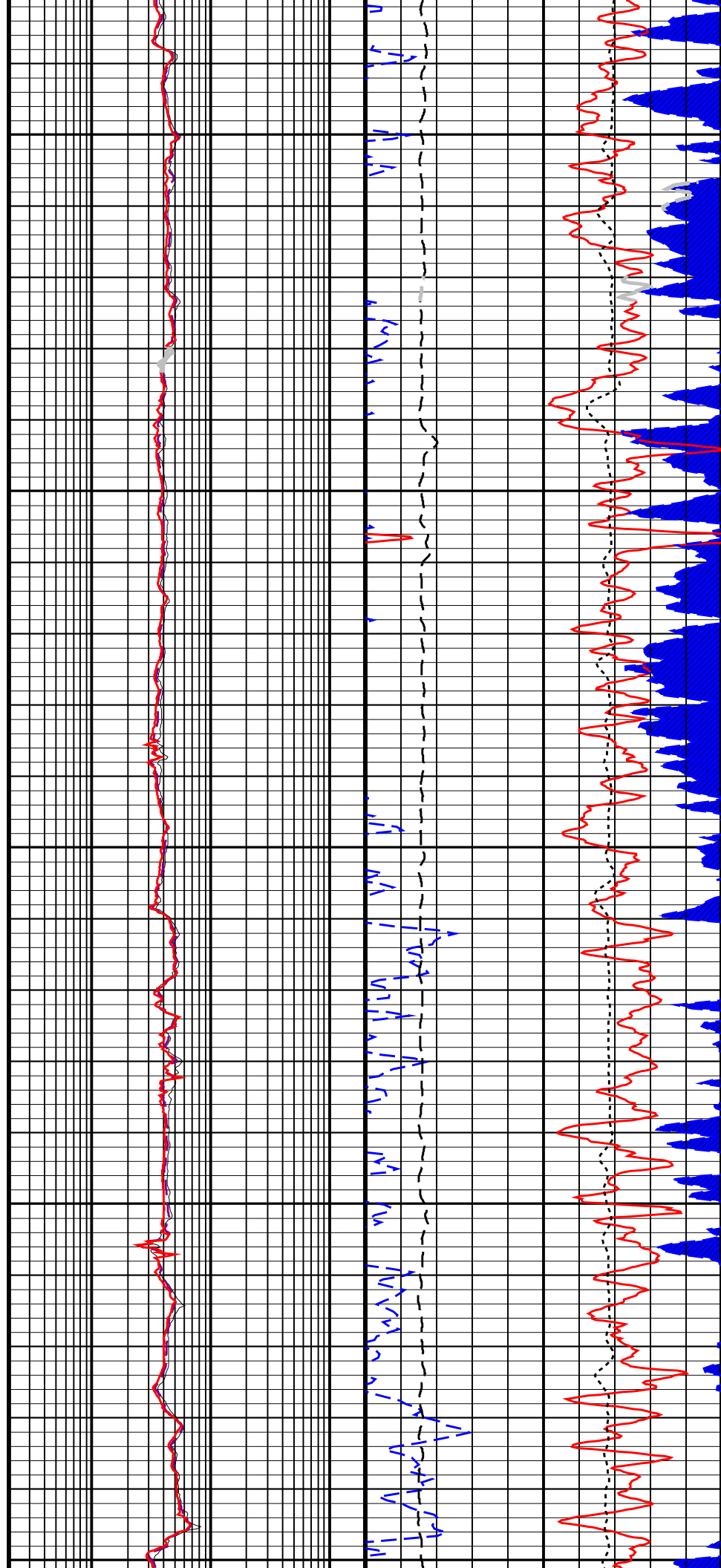
5900

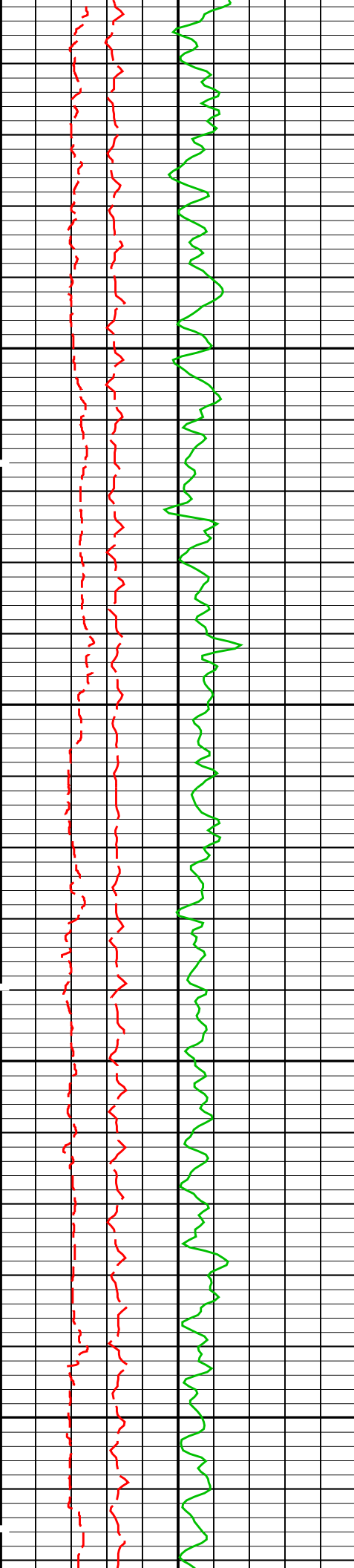




6000

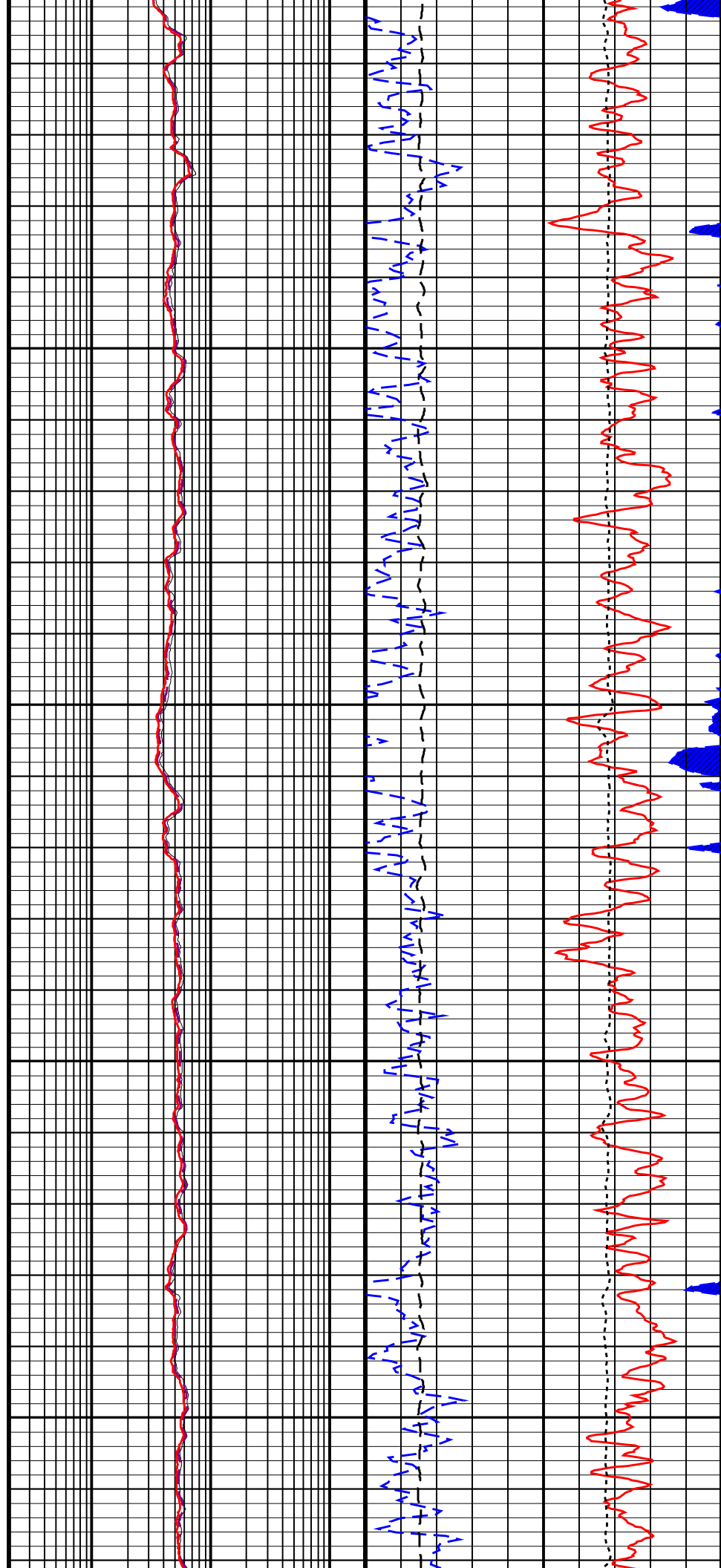
6100

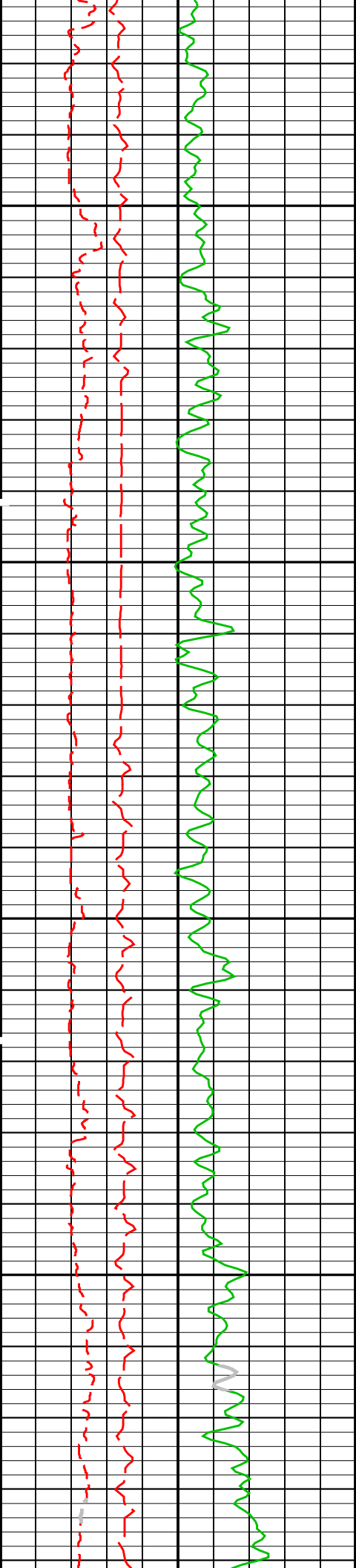




6200

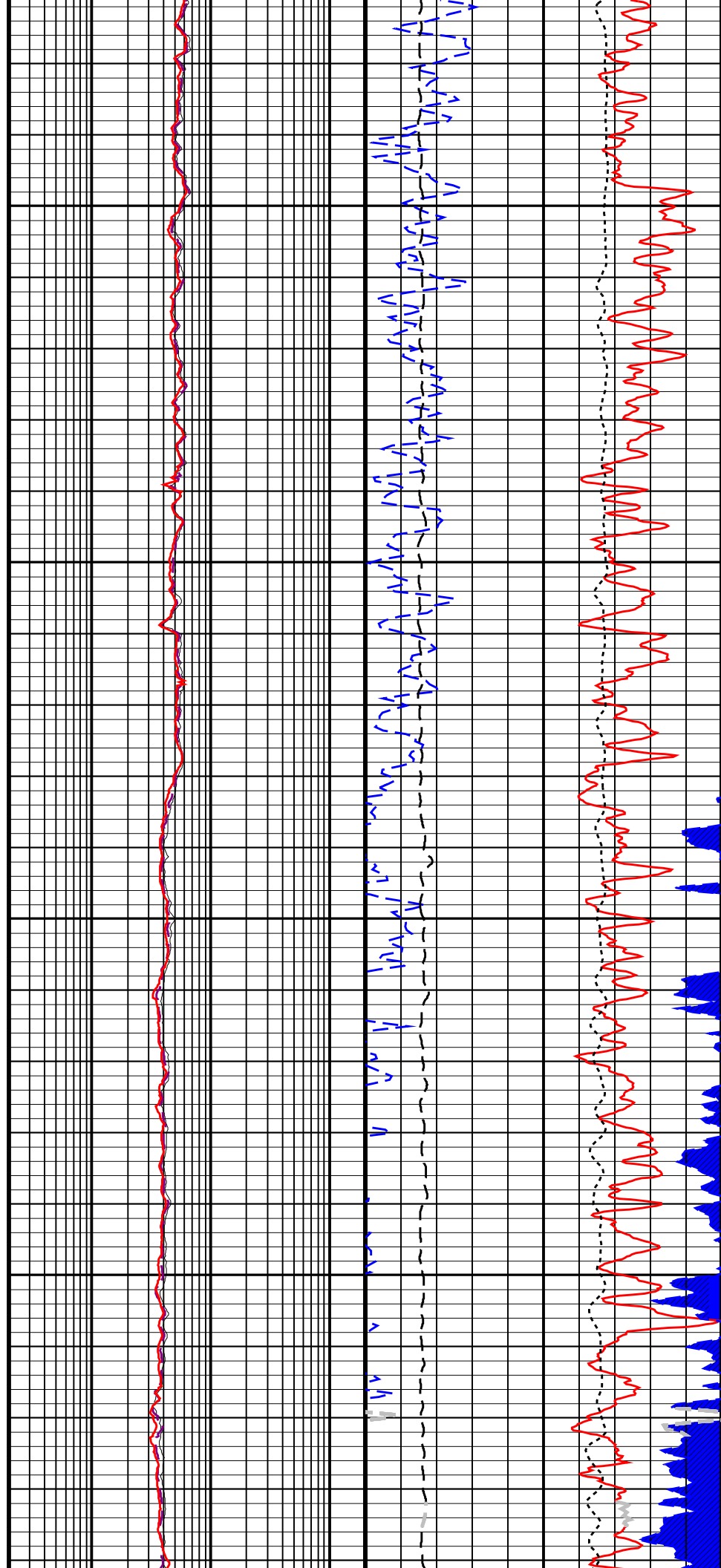
6300

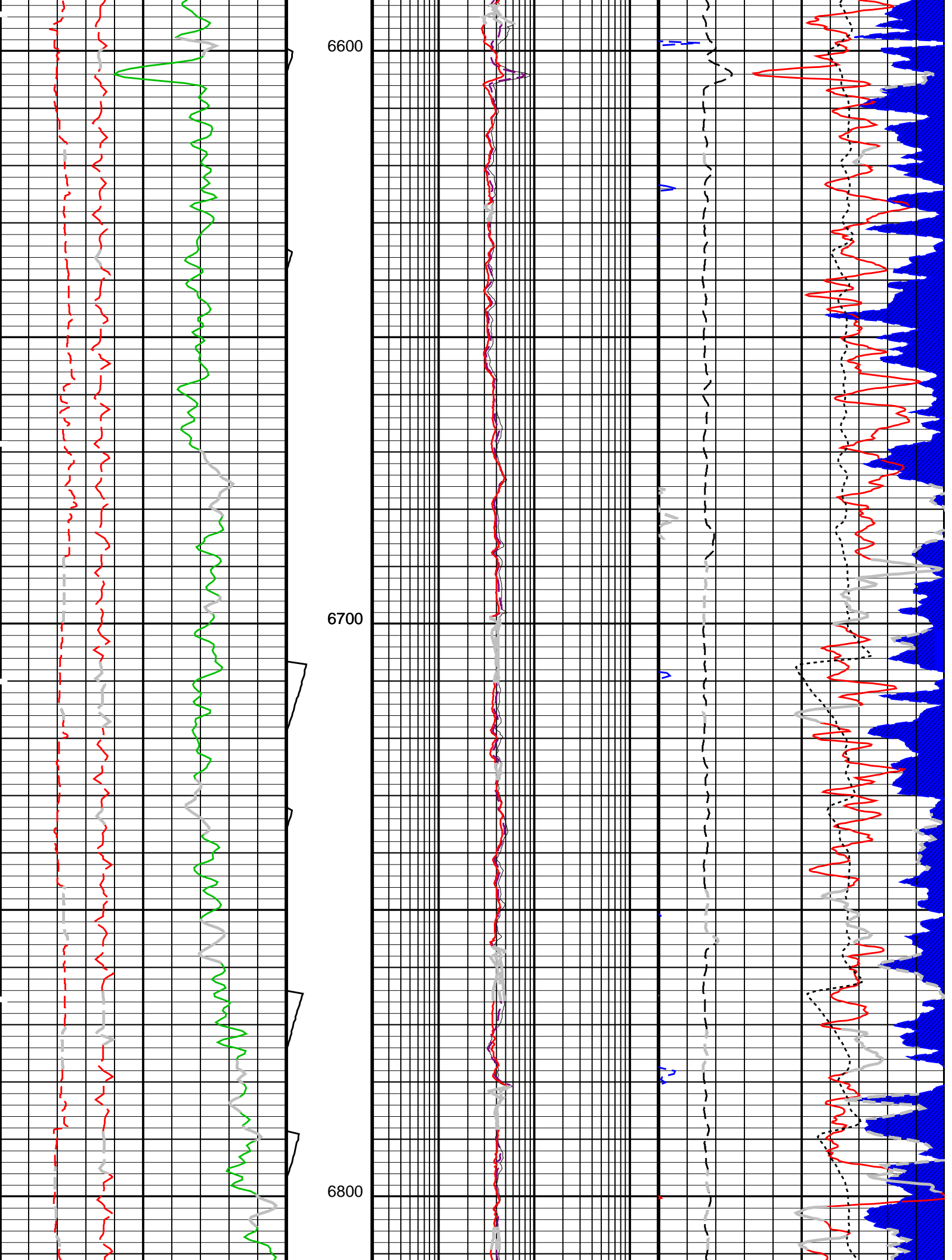


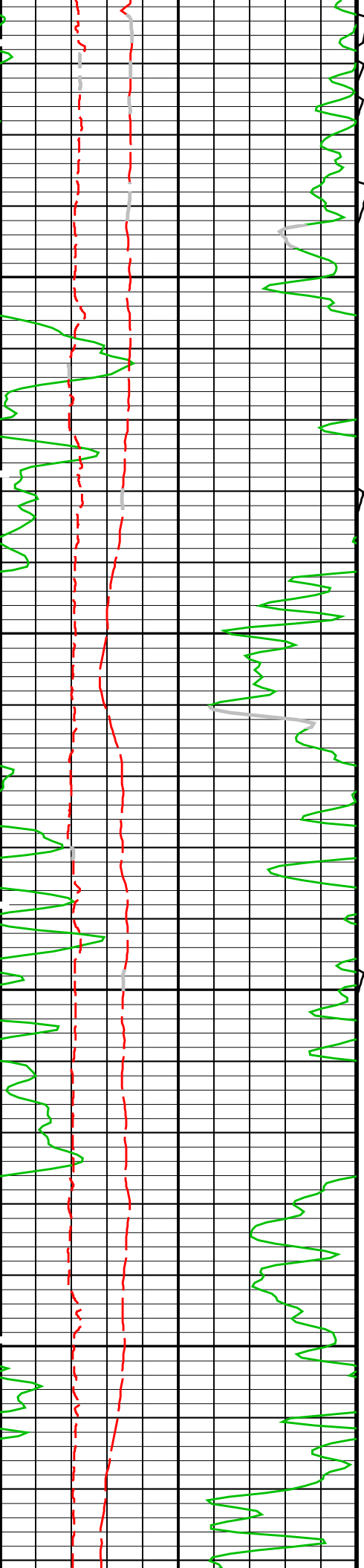


6400

6500

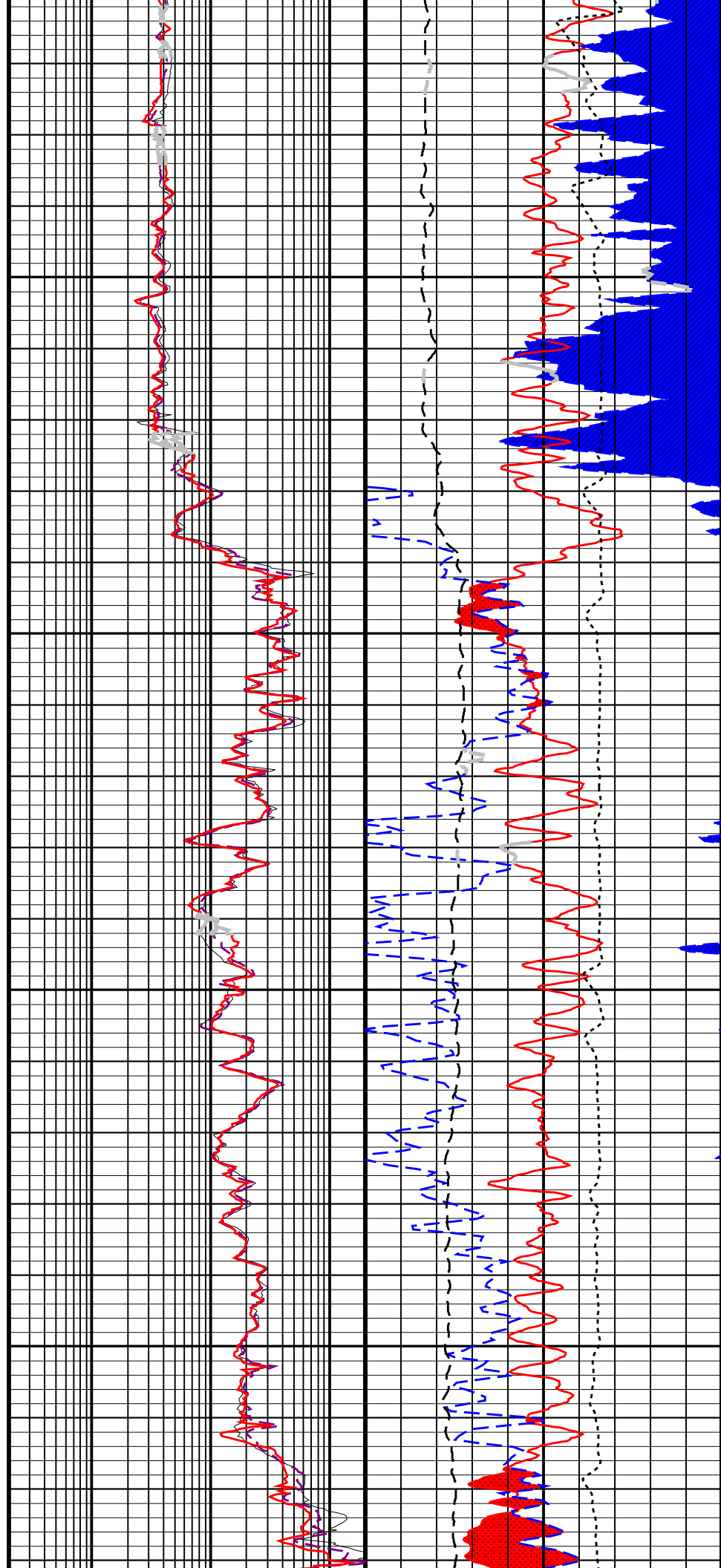


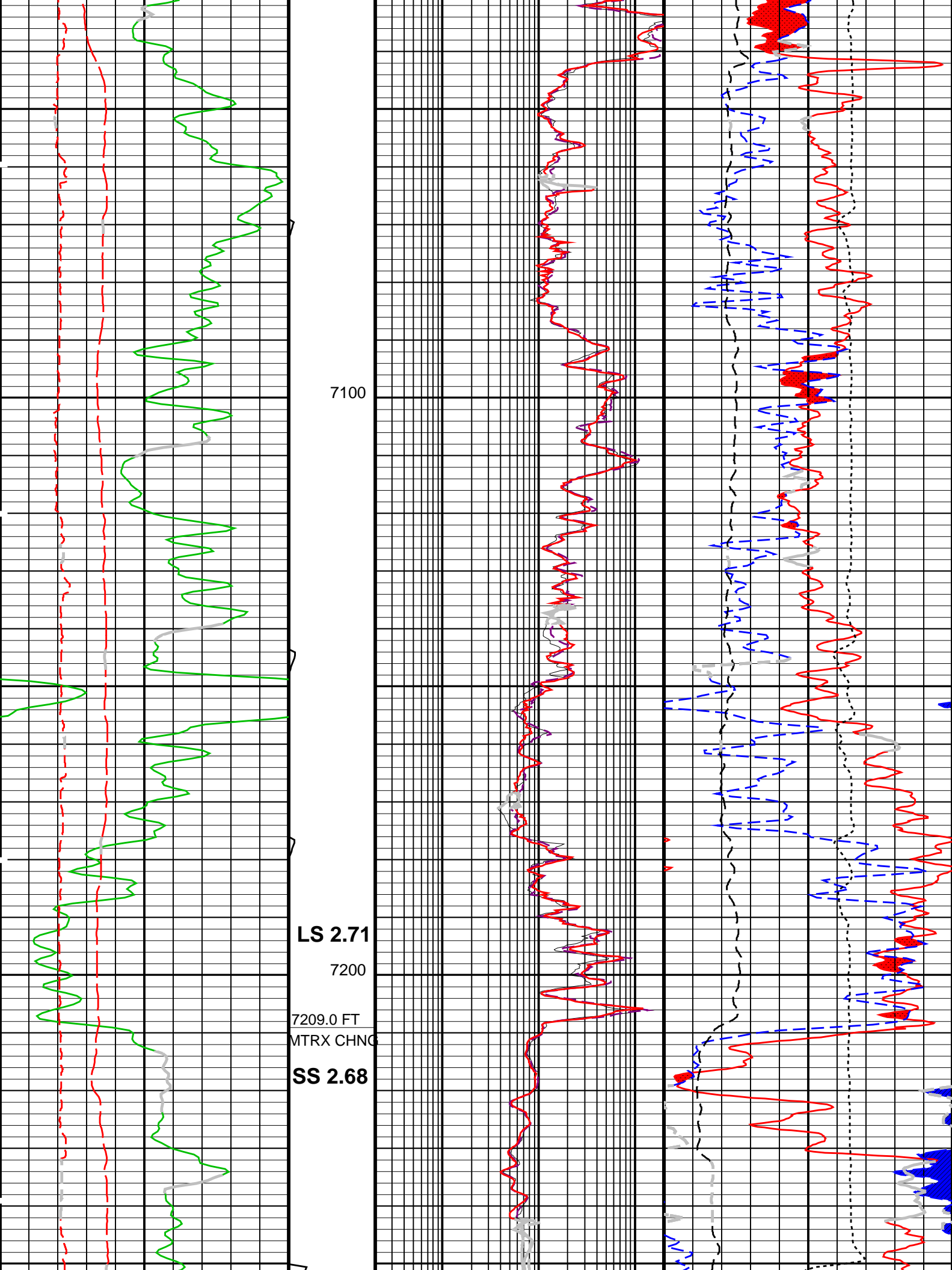


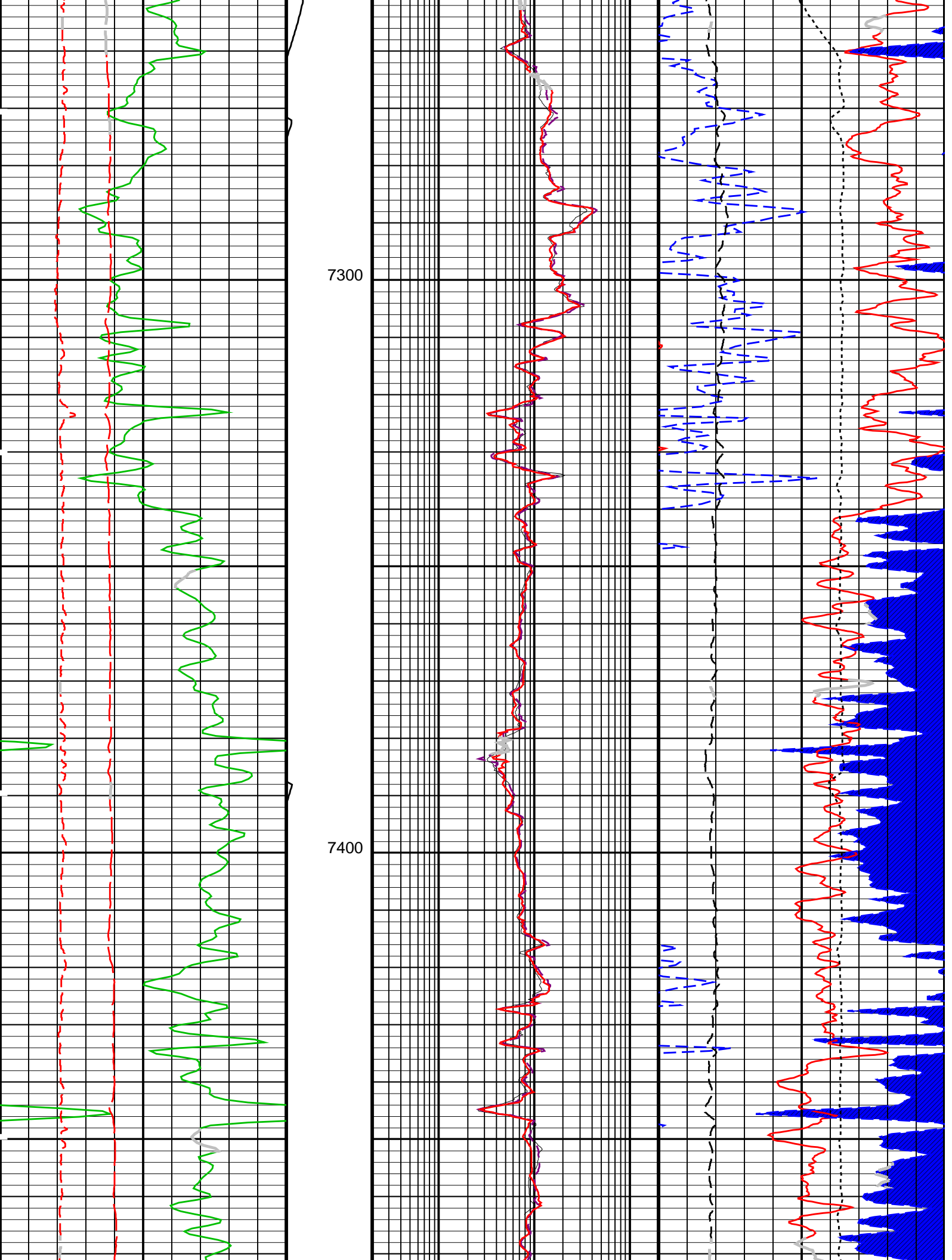


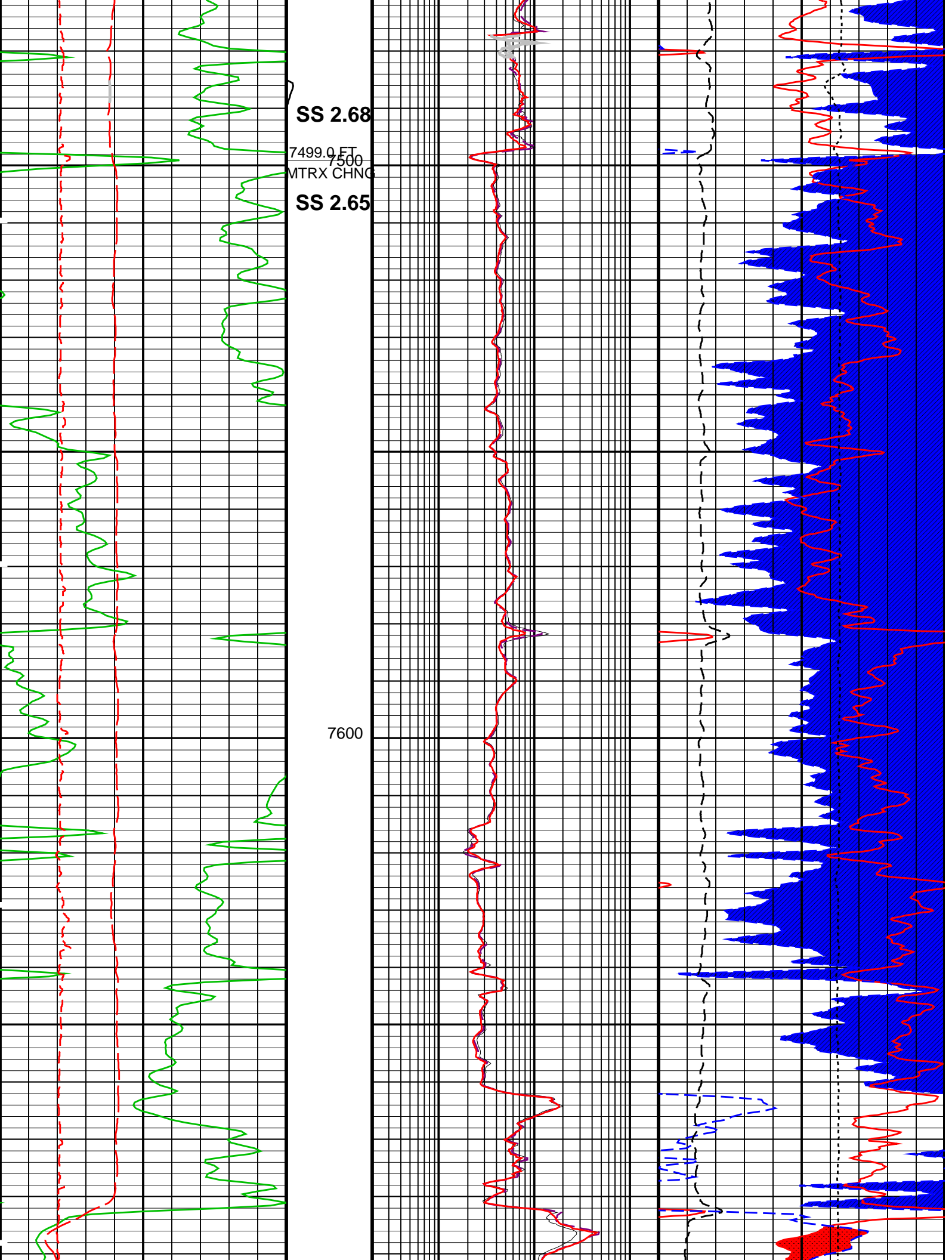
6900

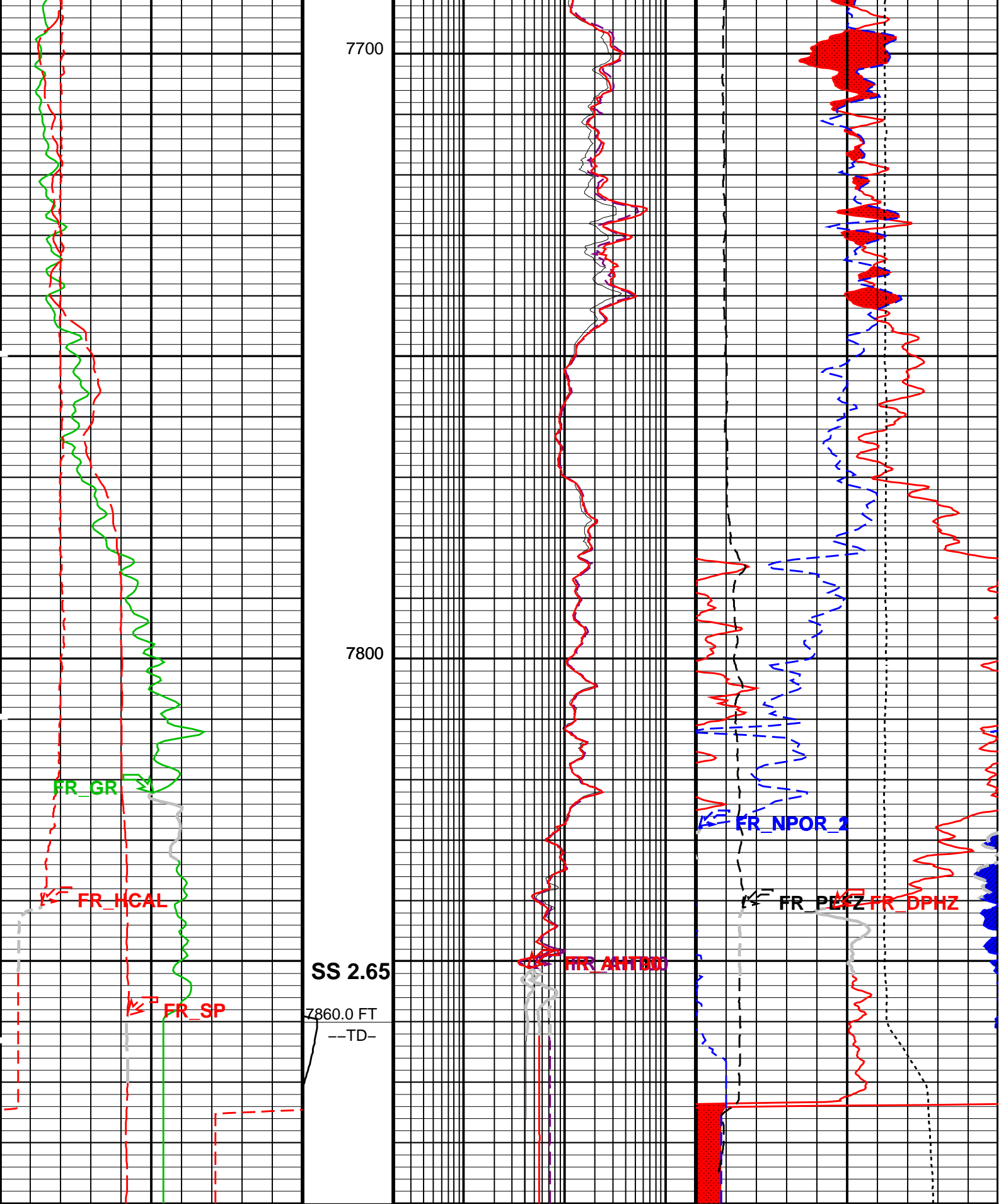
7000











Gamma Ray (GR) (GAPI)	Stuck Stretch (STIT) (F)	AIT-H 10 Inch Investigation (AHT10) (OHMM)	Std. Res. Density Porosity (DPHZ) (V/V)
0 200	0 50	0.2 200	0.2 0

HILT Caliper (HCAL) (IN)	AIT-H 30 Inch Investigation (AHT30) (OHMM)	NPOR BACKUP From NPOR_2 to T2
6 16	0.2 200	

(IN)		16	0.2 (OHMM)		200	From NPOR 2 to 13		
SP (SP)			AIT-H 90 Inch Investigation (AHT90)			GAS EFFECT		
-160 (MV)		40	0.2 (OHMM)		200	From DPHZ to NPOR 1		
						Tension (TENS)		
						10000 (LBF)		0
						Alpha Processed Neutron Porosity		
						(NPOR)		
						0.2 (V/V)		0
Std. Res. Formation								
Pe (PEFZ)								
0 (----						10		

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
HILTB-FTB: High resolution Integrated Logging Tool-DTS			
AHBHM	Array Induction Borehole Correction Mode	2_ComputeStandoff	
AHBHV	Array Induction Borehole Correction Code Version Number	900	
AHBLM	Array Induction Basic Logs Mode	6_One_Two_and_Four	
AHBLV	Array Induction Basic Logs Code Version Number	223	
AHCDE	Array Induction Casing Detection Enable	Yes	
AHCEN	Array Induction Tool Centering Flag (in Borehole)	Eccentered	
AHFRSV	Array Induction Response Set Version for Four ft Resolution	41.70.24.20	
AHMRF	Array Induction Mud Resistivity Factor	1	
AHORSV	Array Induction Response Set Version for One ft Resolution	41.70.24.20	
AHRFV	Array Induction Radial Profiling Code Version Number	701	
AHRPV	Array Induction Radial Parametrization Code Version Number	232	
AHSTA	Array Induction Tool Standoff	0.125	IN
AHTRSV	Array Induction Response Set Version for Two ft Resolution	41.70.24.20	
BHFL	Borehole Fluid Type	WATER	
BHFL_TLD	HILT Nuclear Mud Base	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	225	DEGF
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DHC	Density Hole Correction	BS	
FD	Fluid Density	1	G/C3
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
FSAL	Formation Salinity	-50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCLF	Germany Coal-like Formation Option	NO	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
HSCO	Hole Size Correction Option	YES	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	NATU	
MDEN	Matrix Density	2.68	G/C3
MWCO	Mud Weight Correction Option	NO	
NAAC	HRDD APS Activation Correction	OFF	
NMT	HILT Nuclear Mud Type	NOBARITE	
NPRM	HRDD Processing Mode	StdRes	
NSAR	HRDD Depth Sampling Rate	1	IN
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	68	DEGF
SOCN	Standoff Distance	0.125	IN
SOCO	Standoff Correction Option	YES	
SPNV	SP Next Value	0	MV
FEQL: Formation Evaluation Quick Look			
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
HOLEV: Integrated Hole/Cement Volume			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	225	DEGF
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	

GRSE	Generalized Mud Resistivity Selection	AITH_RESIST		
GTSE	Generalized Temperature Selection	HSTS_HTEM		
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE		
SHT	Surface Hole Temperature	68	DEGF	
PERT: Preliminary Evaluation – Real Time				
BHS	Borehole Status	OPEN		
BHT	Bottom Hole Temperature (used in calculations)	225	DEGF	
FEXP	Form Factor Exponent	2		
FNUM	Form Factor Numerator	1		
GCSE	Generalized Caliper Selection	HCAL		
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG	
GGRD	Geothermal Gradient	0.01	DF/F	
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST		
GTSE	Generalized Temperature Selection	HSTS_HTEM		
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE		
SHT	Surface Hole Temperature	68	DEGF	
STI: Stuck Tool Indicator				
LBFR	Trigger for MAXIS First Reading Label	STI		
STKT	STI Stuck Threshold	2.5	FT	
TDD	Total Depth – Driller	7857.00	FT	
TDL	Total Depth – Logger	7860.00	FT	
System and Miscellaneous				
BS	Bit Size	7.875	IN	
BSAL	Borehole Salinity	-50000.00	PPM	
DORL	Depth Offset for Repeat Analysis	0.0	FT	
TD	Total Depth	7860	FT	

Format: COMBO Vertical Scale: 5" per 100' Graphics File Created: 15-Jun-2008 10:17

OP System Version: 15C0-309

MCM

HILTB-FTB	15C0-309	GPIT-C	15C0-309
DTC-H	15C0-309		

Output DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_010LUP	FN:9	PRODUCER	15-Jun-2008 10:17
---------	-------------------------	------	----------	-------------------

Schlumberger

REPEAT ANALYSIS

MAXIS Field Log

Company: Orr Energy, LLC Well: Lakes 31-32D

Input DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_008PUP	FN:7	PRODUCER	15-Jun-2008 10:15	7896.0 FT	7448.5 FT
---------	-------------------------	------	----------	-------------------	-----------	-----------

Output DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_010LUP	FN:9	PRODUCER	15-Jun-2008 10:17
---------	-------------------------	------	----------	-------------------

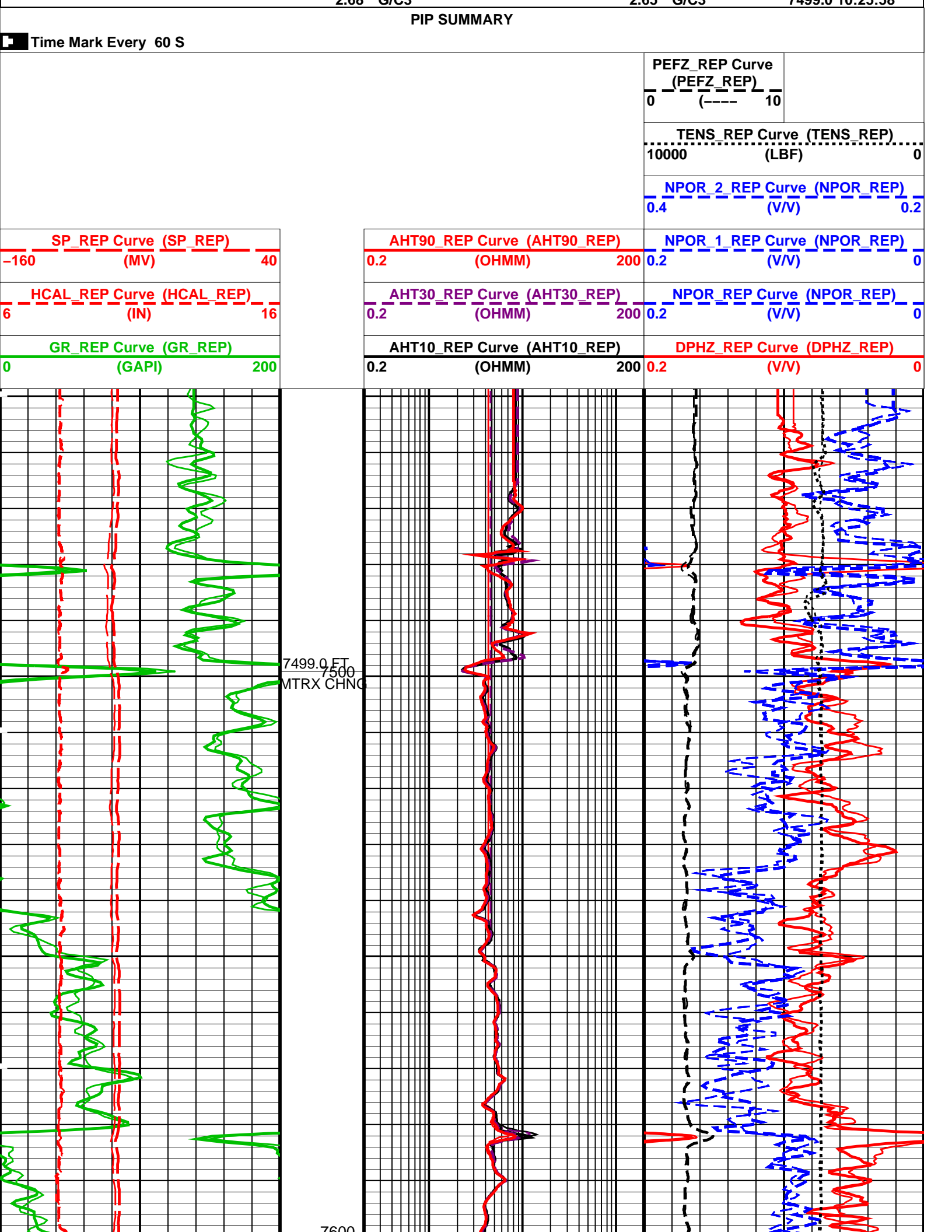
OP System Version: 15C0-309

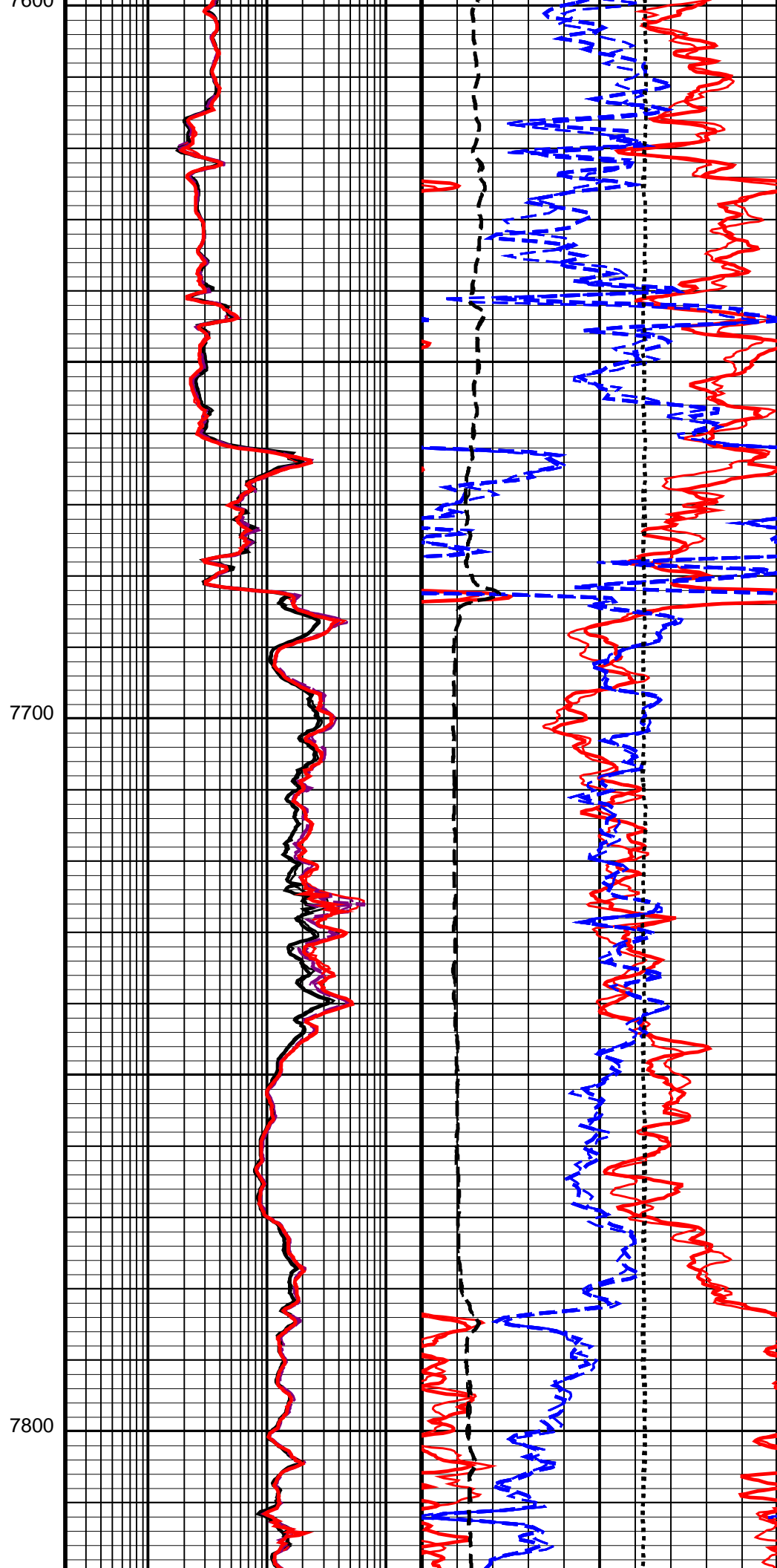
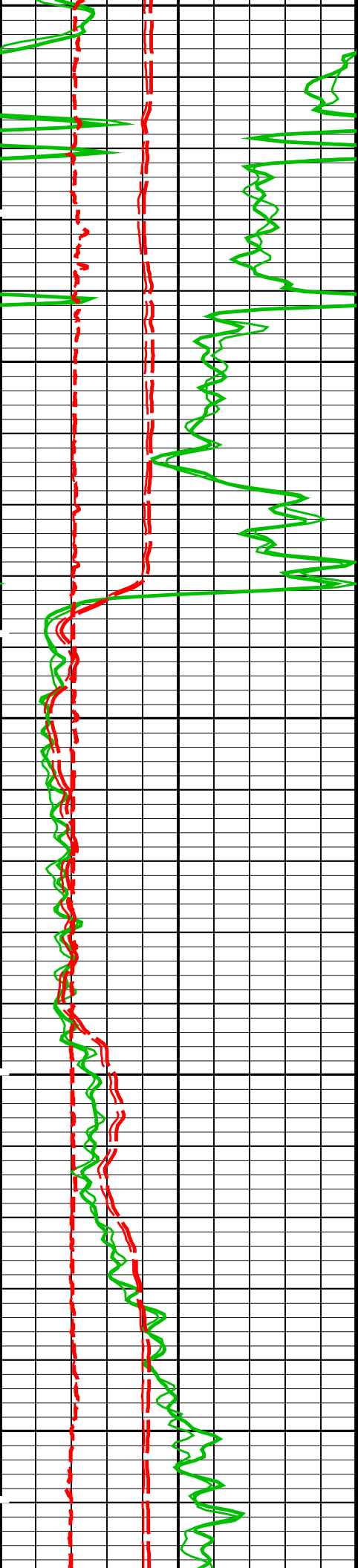
MCM

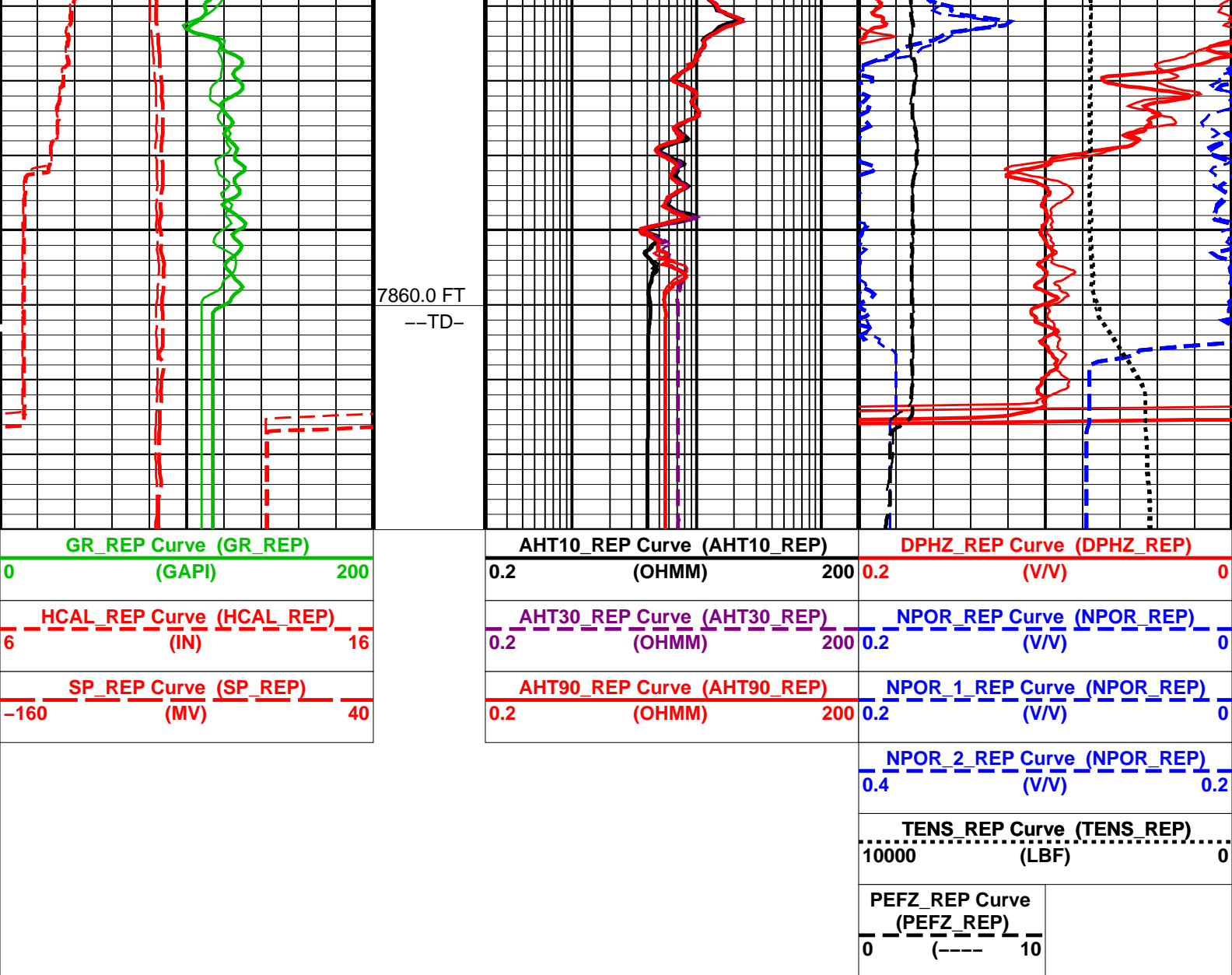
HILTB-FTB	15C0-309	GPIT-C	15C0-309
DTC-H	15C0-309		

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
MATR	SANDSTONE	SANDSTONE	7890.0 10:19:02
MDEN	SANDSTONE	SANDSTONE	7499.0 10:25:58
	2.65 G/C3	2.68 G/C3	7890.0 10:19:02
	2.65 G/C3	2.65 G/C3	7499.0 10:25:58







PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
HILTB-FTB: High resolution Integrated Logging Tool-DTS			
AHBHM	Array Induction Borehole Correction Mode	2_ComputeStandoff	
AHBHV	Array Induction Borehole Correction Code Version Number	900	
AHBLM	Array Induction Basic Logs Mode	6_One_Two_and_Four	
AHBLV	Array Induction Basic Logs Code Version Number	223	
AHCDE	Array Induction Casing Detection Enable	Yes	
AHCEN	Array Induction Tool Centering Flag (in Borehole)	Eccentered	
AHFRSV	Array Induction Response Set Version for Four ft Resolution	41.70.24.20	
AHMRF	Array Induction Mud Resistivity Factor	1	
AHORSV	Array Induction Response Set Version for One ft Resolution	41.70.24.20	
AHRFV	Array Induction Radial Profiling Code Version Number	701	
AHRPV	Array Induction Radial Parametrization Code Version Number	232	
AHSTA	Array Induction Tool Standoff	0.125	IN
AHTRSV	Array Induction Response Set Version for Two ft Resolution	41.70.24.20	
BHFL	Borehole Fluid Type	WATER	
BHFL_TLD	HILT Nuclear Mud Base	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	225	DEGF
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DHC	Density Hole Correction	BS	
FD	Fluid Density	1	G/C3
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
FSAL	Formation Salinity	-50000	PPM
FSCO	Formation Salinity Correction Option	NO	

PSCO	Formation Salinity Correction Option	NO	
GCLF	Germany Coal-like Formation Option	NO	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
HSCO	Hole Size Correction Option	YES	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	NATU	
MDEN	Matrix Density	2.68	G/C3
MWCO	Mud Weight Correction Option	NO	
NAAC	HRDD APS Activation Correction	OFF	
NMT	HILT Nuclear Mud Type	NOBARITE	
NPRM	HRDD Processing Mode	StdRes	
NSAR	HRDD Depth Sampling Rate	1	IN
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	68	DEGF
SOCN	Standoff Distance	0.125	IN
SOCO	Standoff Correction Option	YES	
SPNV	SP Next Value	0	MV
FEQL: Formation Evaluation Quick Look			
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
HOLEV: Integrated Hole/Cement Volume			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	225	DEGF
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
SHT	Surface Hole Temperature	68	DEGF
PERT: Preliminary Evaluation – Real Time			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	225	DEGF
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
SHT	Surface Hole Temperature	68	DEGF
STI: Stuck Tool Indicator			
TDL	Total Depth – Logger	7860.00	FT
System and Miscellaneous			
BS	Bit Size	7.875	IN
BSAL	Borehole Salinity	-50000.00	PPM
DORL	Depth Offset for Repeat Analysis	0.0	FT
TD	Total Depth	7860	FT

Format: COMBO_REP Vertical Scale: 5" per 100' Graphics File Created: 15-Jun-2008 10:17

OP System Version: 15C0-309

MCM

HILTB-FTB	15C0-309	GPIT-C	15C0-309
DTC-H	15C0-309		

Input DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_008PUP	FN:7	PRODUCER	15-Jun-2008 10:15	7896.0 FT	7448.5 FT
---------	-------------------------	------	----------	-------------------	-----------	-----------

Output DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_010LUP	FN:9	PRODUCER	15-Jun-2008 10:17
---------	-------------------------	------	----------	-------------------

Schlumberger

BEFORE CALIBRATIONS

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Electronics Calibration Check – Thru Cal Mag. & Phase							
Master: 20–May–2008 12:49 Before: 14–Jun–2008 20:35							
Thru Cal Magnitude – 0	0	0.6164	0.6164	N/A	N/A	N/A	V
Thru Cal Magnitude – 1	0	1.260	1.260	N/A	N/A	N/A	V
Thru Cal Magnitude – 2	0	0.6289	0.6288	N/A	N/A	N/A	V
Thru Cal Magnitude – 3	0	0.7107	0.7108	N/A	N/A	N/A	V
Thru Cal Magnitude – 4	0	1.324	1.324	N/A	N/A	N/A	V
Thru Cal Magnitude – 5	0	1.929	1.929	N/A	N/A	N/A	V
Thru Cal Magnitude – 6	0	1.928	1.928	N/A	N/A	N/A	V
Thru Cal Magnitude – 7	0	1.374	1.375	N/A	N/A	N/A	V
Phase – 0	0	72.52	72.56	N/A	N/A	N/A	DEG
Phase – 1	0	71.41	71.46	N/A	N/A	N/A	DEG
Phase – 2	0	67.65	67.70	N/A	N/A	N/A	DEG
Phase – 3	0	66.86	66.91	N/A	N/A	N/A	DEG
Phase – 4	0	60.54	60.61	N/A	N/A	N/A	DEG
Phase – 5	0	58.60	58.69	N/A	N/A	N/A	DEG
Phase – 6	0	58.61	58.70	N/A	N/A	N/A	DEG
Phase – 7	0	54.76	54.97	N/A	N/A	N/A	DEG

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Electronics Calibration Check – Auxilliary

Master: 20–May–2008 12:49 Before: 14–Jun–2008 20:35

Array Induction SPA Plus	990.5	992.7	993.1	N/A	N/A	N/A	MV
Array Induction SPA Zero	0	0.06474	0.06837	N/A	N/A	N/A	MV
Array Induction Temperature PI	0.9150	0.9195	0.9199	N/A	N/A	N/A	V
Array Induction Temperature Ze	0	0.00006958	0.00006413	N/A	N/A	N/A	V

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Test Loop Gain Correction

Master: 20–May–2008 12:49

Test Loop Gain Magnitude – 0	0	1.015	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude – 1	0	1.016	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude – 2	0	1.016	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude – 3	0	1.011	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude – 4	0	0.9964	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude – 5	0	0.9901	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude – 6	0	0.9974	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude – 7	0	0.9956	N/A	N/A	N/A	N/A	V
Phase – 0	0	0.3988	N/A	N/A	N/A	N/A	DEG
Phase – 1	0	0.5987	N/A	N/A	N/A	N/A	DEG
Phase – 2	0	–0.05686	N/A	N/A	N/A	N/A	DEG
Phase – 3	0	–0.005376	N/A	N/A	N/A	N/A	DEG
Phase – 4	0	–0.08599	N/A	N/A	N/A	N/A	DEG
Phase – 5	0	–0.2990	N/A	N/A	N/A	N/A	DEG
Phase – 6	0	0.07660	N/A	N/A	N/A	N/A	DEG
Phase – 7	0	–0.3892	N/A	N/A	N/A	N/A	DEG

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Sonde Error Correction

Master: 20–May–2008 12:49

R Sonde Error Correction – 0	0	–83.06	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 1	0	190.2	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 2	0	106.9	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 3	0	65.85	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 4	0	25.28	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 5	0	13.55	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 6	0	9.701	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 7	0	–2.188	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 0	0	–29.15	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 1	0	150.3	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 2	0	–22.00	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 3	0	133.8	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 4	0	–23.61	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 5	0	9.161	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 6	0	–8.682	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 7	0	–4.932	N/A	N/A	N/A	N/A	MM/M

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Mud Gain Correction

Master: 20–May–2008 12:49

Coarse – Mag, Real, Imag – 0	0	0.8354	N/A	N/A	N/A	N/A	
Coarse – Mag, Real, Imag – 1	0	0.8354	N/A	N/A	N/A	N/A	

Coarse – Mag, Real, Imag – 2	0	0.8354	N/A	N/A	N/A	N/A	
Fine – Mag, Real, Imag – 0	0	0.8441	N/A	N/A	N/A	N/A	
Fine – Mag, Real, Imag – 1	0	0.8441	N/A	N/A	N/A	N/A	
Fine – Mag, Real, Imag – 2	0	0.8441	N/A	N/A	N/A	N/A	
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Stab Measurement Summary							
Before: 14–Jun–2008 20:38							
BS Window Ratio	0.7362	N/A	0.7412	N/A	N/A	N/A	
BS Window Sum	10610	N/A	10600	N/A	N/A	N/A	CPS
SS Window Ratio	0.4871	N/A	0.4855	N/A	N/A	N/A	
SS Window Sum	11970	N/A	11950	N/A	N/A	N/A	CPS
LS Window Ratio	0.2912	N/A	0.2919	N/A	N/A	N/A	
LS Window Sum	1169	N/A	1157	N/A	N/A	N/A	CPS
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Photo–multiplier High Voltages Calibrations							
Before: 14–Jun–2008 20:38							
BS PM High Voltage (Command)	1491	N/A	1498	N/A	N/A	N/A	V
SS PM High Voltage (Command)	1571	N/A	1562	N/A	N/A	N/A	V
LS PM High Voltage (Command)	1341	N/A	1341	N/A	N/A	N/A	V
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Crystal Quality Resolutions Calibration							
Before: 14–Jun–2008 20:38							
BS Crystal Resolution	11.71	N/A	11.81	N/A	N/A	N/A	%
SS Crystal Resolution	9.257	N/A	9.091	N/A	N/A	N/A	%
LS Crystal Resolution	8.907	N/A	8.768	N/A	N/A	N/A	%
High resolution Integrated Logging Tool–DTS Wellsite Calibration – MCFL Calibration							
Before: 14–Jun–2008 20:38							
Raw B0 Resistivity	3875	N/A	3853	N/A	N/A	N/A	OHMM
Raw B1 Resistivity	3830	N/A	3811	N/A	N/A	N/A	OHMM
Raw B2 Resistivity	3830	N/A	3803	N/A	N/A	N/A	OHMM
High resolution Integrated Logging Tool–DTS Wellsite Calibration – HILT Caliper Calibration							
Before: 14–Jun–2008 20:32							
HILT Caliper Zero Measurement	8.000	N/A	8.019	N/A	N/A	N/A	IN
HILT Caliper Plus Measurement	12.00	N/A	12.21	N/A	N/A	N/A	IN
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Detector Calibration							
Before: 14–Jun–2008 20:37							
Gamma Ray Background	30.00	N/A	91.49	N/A	N/A	N/A	GAPI
Gamma Ray (Jig – Bkg)	171.3	N/A	171.3	N/A	N/A	15.58	GAPI
Gamma Ray (Calibrated)	165.0	N/A	171.3	N/A	N/A	15.00	GAPI
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Zero Measurement							
Master: Calibration out of date 14–Mar–2008 3:26 Before: 14–Jun–2008 20:34							
CNTC Background	28.08	28.08	28.68	N/A	N/A	4.212	CPS
CFTC Background	32.75	32.75	30.34	N/A	N/A	4.913	CPS
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Ratio Measurement							
Master: Calibration out of date 14–Mar–2008 3:26							
Thermal Near Corr. (Tank)	5800	5083	N/A	N/A	N/A	N/A	CPS
Thermal Far Corr. (Tank)	2400	2158	N/A	N/A	N/A	N/A	CPS
CNTC/CFTC (Tank)	2.159	2.355	N/A	N/A	N/A	N/A	
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Accelerometer Calibration							
Before: 15–Jun–2008 9:31							
Z–Axis Acceleration	32.19	N/A	32.10	N/A	N/A	N/A	F/S2
High resolution Integrated Logging Tool–DTS Master Calibration – Inversion results							
Master: 2–Jun–2008 11:39							
Rho Aluminum	2.596	2.600	---	---	---	---	G/C3
Rho Magnesium	1.686	1.685	---	---	---	---	G/C3
Pe Aluminum	2.570	2.526	---	---	---	---	
Pe Magnesium	2.650	2.650	---	---	---	---	
High resolution Integrated Logging Tool–DTS Master Calibration – Deviation Summary							
Master: 2–Jun–2008 11:39							
BS Average Deviation	0	0.3943	---	---	---	---	%
BS Max Deviation	0	1.011	---	---	---	---	%
SS Average Deviation	0	0.1389	---	---	---	---	%
SS Max Deviation	0	0.6052	---	---	---	---	%
LS Average Deviation	0	0.4021	---	---	---	---	%
LS Max Deviation	0	1.316	---	---	---	---	%
General Purpose Inclinatorometer Wellsite Calibration – CROUZET ACCELEROMETER PROM HAS BEEN READ CORRECTLY							
Before: 14–Jun–2008 20:42							
TEMPERATURE REFERENCE :	N/A	N/A	68	N/A	N/A	N/A	DEGF
YEAR OF CALIBRATION :	N/A	N/A	5	N/A	N/A	N/A	
MONTH OF CALIBRATION :	N/A	N/A	5	N/A	N/A	N/A	
SERIAL NUMBER :	N/A	N/A	905	N/A	N/A	N/A	

















General Purpose Inclinomater Wellsite Calibration – CROUZET MAGNETOMETER PROM HAS BEEN READ CORRECTLY							
Before: 14–Jun–2008 20:42							
TEMPERATURE REFERENCE :	N/A	N/A	72	N/A	N/A	N/A	DEGF
YEAR OF CALIBRATION :	N/A	N/A	1	N/A	N/A	N/A	
MONTH OF CALIBRATION :	N/A	N/A	6	N/A	N/A	N/A	
SERIAL NUMBER :	N/A	N/A	449	N/A	N/A	N/A	
<p>The GLS–VJ source activity is acceptable.</p> <p>The HGNS Neutron Master Calibration was done with the following parameters :</p> <p>NCT–B Water Temperature 60.3 DEGF.</p> <p>Thermal Housing Size 3.366 IN.</p> <p>NSR–F serial number 1369</p>							

















High resolution Integrated Logging Tool–DTS / Equipment Identification			
Primary Equipment:			
Array Induction Tool – H	AIT – H	392	
Rm/SP Bottom Nose	AHRM – A		
Array Induction Sonde	AHIS – BA	392	
HILT high–Resolution Mechanical Sonde	HRMS – B	1929	
HILT Rxo Gamma–ray Device	HRGD – B	885	
HILT Micro Cylindrically Focused Log Dev	MCFL –		
GR Logging Source	GLS – VJ	5363	
HILT High Res. Control Cartridge	HRCC – B	932	
Auxiliary Equipment:			







High resolution Integrated Logging Tool–DTS Wellsite Calibration							
Electronics Calibration Check – Thru Cal Mag. & Phase							
Idx	Phase	Value	Thru Cal Magnitude V	Nominal	Value	Phase DEG	Nominal
0	Master	0.6164		0.6050	72.52		71.00
	Before	0.6164			72.56		
1	Master	1.260		1.270	71.41		70.00
	Before	1.260			71.46		
2	Master	0.6289		0.6230	67.65		66.00
	Before	0.6288			67.70		
3	Master	0.7107		0.7040	66.86		65.00
	Before	0.7108			66.91		
4	Master	1.324		1.337	60.54		59.00
	Before	1.324			60.61		
5	Master	1.929		1.955	58.60		57.00
	Before	1.929			58.69		
6	Master	1.928		1.955	58.61		57.00
	Before	1.928			58.70		
7	Master	1.374		1.415	54.76		53.00
	Before	1.375			54.97		
		60.00 % (Minimum)	(Nominal)	140.0 % (Maximum)	Nom –60.00 (Minimum)	(Nominal)	Nom + 60.00 (Maximum)
Master: 20–May–2008 12:49				Before: 14–Jun–2008 20:35			

High resolution Integrated Logging Tool–DTS Wellsite Calibration					
Electronics Calibration Check – Auxilliary					
Phase	Array Induction SPA Plus MV	Value	Phase	Array Induction SPA Zero MV	Value
Master		992.7	Master		0.06474







Before		993.1	Before		0.06837
941.0 (Minimum)	990.5 (Nominal)	1040 (Maximum)	-50.00 (Minimum)	0 (Nominal)	50.00 (Maximum)
Phase Array Induction Temperature Plus V			Phase Array Induction Temperature Zero V		
Value			Value		
Master		0.9195	Master		6.958E-00
Before		0.9199	Before		6.413E-00
0.8700 (Minimum)	0.9150 (Nominal)	0.9600 (Maximum)	-0.05000 (Minimum)	0 (Nominal)	0.05000 (Maximum)
Master: 20-May-2008 12:49			Before: 14-Jun-2008 20:35		

High resolution Integrated Logging Tool-DTS Wellsite Calibration							
Test Loop Gain Correction							
Idx	Value	Test Loop Gain Magnitude V			Value	Phase DEG	
0	1.015				0.3988		
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
1	1.016				0.5987		
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
2	1.016				-0.05686		
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
3	1.011				-0.005376		
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
4	0.9964				-0.08599		
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
5	0.9901				-0.2990		
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
6	0.9974				0.07660		
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
7	0.9956				-0.3892		
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
Master: 20-May-2008 12:49							





High resolution Integrated Logging Tool-DTS Wellsite Calibration								
Sonde Error Correction								
Idx	Value	R Sonde Error Correction MM/M			Value	X Sonde Error Correction MM/M		
0	-83.06				-29.15			
		-231.0 (Minimum)	-56.00 (Nominal)	119.0 (Maximum)		-2250 (Minimum)	0 (Nominal)	2250 (Maximum)
1	190.2				150.3			
		114.0 (Minimum)	159.0 (Nominal)	204.0 (Maximum)		-625.0 (Minimum)	0 (Nominal)	625.0 (Maximum)
2	106.9				-22.00			
		66.00 (Minimum)	111.0 (Nominal)	156.0 (Maximum)		-350.0 (Minimum)	0 (Nominal)	350.0 (Maximum)
3	65.85				133.8			
		39.00 (Minimum)	64.00 (Nominal)	89.00 (Maximum)		-250.0 (Minimum)	0 (Nominal)	250.0 (Maximum)
4	25.28				-23.61			
		15.00 (Minimum)	25.00 (Nominal)	35.00 (Maximum)		-63.00 (Minimum)	0 (Nominal)	63.00 (Maximum)
5	13.55				9.161			
		4.000 (Minimum)	14.00 (Nominal)	24.00 (Maximum)		-50.00 (Minimum)	0 (Nominal)	50.00 (Maximum)
6	9.701				-8.682			
		5.000 (Minimum)	10.00 (Nominal)	15.00 (Maximum)		-30.00 (Minimum)	0 (Nominal)	30.00 (Maximum)
7	-2.188				-4.932			
		-5.000 (Minimum)	0 (Nominal)	5.000 (Maximum)		-30.00 (Minimum)	0 (Nominal)	30.00 (Maximum)

High resolution Integrated Logging Tool-DTS Wellsite Calibration									
Mud Gain Correction									
Idx	Value	Coarse – Mag, Real, Imag			Value	Fine – Mag, Real, Imag			
0	0.8354				0.8441				
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)	
1	0.8354				0.8441				
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)	
2	0.8354				0.8441				
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)	





Master: 20-May-2008 12:49

High resolution Integrated Logging Tool-DTS Wellsite Calibration									
Stab Measurement Summary									
Phase	BS Window Ratio			Value	Phase	SS Window Ratio			Value
Before				0.7412	Before				0.4855
	0.6994 (Minimum)	0.7362 (Nominal)	0.7730 (Maximum)			0.4628 (Minimum)	0.4871 (Nominal)	0.5115 (Maximum)	
Phase	BS Window Sum CPS			Value	Phase	SS Window Sum CPS			Value
Before				10600	Before				11950
	10080 (Minimum)	10610 (Nominal)	11140 (Maximum)			11370 (Minimum)	11970 (Nominal)	12570 (Maximum)	
Phase	LS Window Ratio			Value	Phase	LS Window Sum CPS			Value
Before				0.2919	Before				1157
	0.2767 (Minimum)	0.2912 (Nominal)	0.3058 (Maximum)			1111 (Minimum)	1169 (Nominal)	1228 (Maximum)	





Before: 14-Jun-2008 20:38

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
Before				1498	Before				1562
	1391 (Minimum)	1491 (Nominal)	1591 (Maximum)			1471 (Minimum)	1571 (Nominal)	1671 (Maximum)	
Phase	LS PM High Voltage (Command) V			Value	Phase	LS PM High Voltage (Command) V			Value
Before				1341	Before				1341
	1241 (Minimum)	1341 (Nominal)	1441 (Maximum)			1241 (Minimum)	1341 (Nominal)	1441 (Maximum)	



Before: 14-Jun-2008 20:38

High resolution Integrated Logging Tool-DTS Wellsite Calibration									
Crystal Quality Resolutions Calibration									
Phase	BS Crystal Resolution %			Value	Phase	SS Crystal Resolution %			Value
Before				11.81	Before				9.091
	10.71 (Minimum)	11.71 (Nominal)	12.71 (Maximum)			8.257 (Minimum)	9.257 (Nominal)	10.26 (Maximum)	
Phase	LS Crystal Resolution %			Value	Phase	LS Crystal Resolution %			Value
Before				8.768	Before				8.768
	7.907 (Minimum)	8.907 (Nominal)	9.907 (Maximum)			7.907 (Minimum)	8.907 (Nominal)	9.907 (Maximum)	





Before: 14-Jun-2008 20:38

High resolution Integrated Logging Tool-DTS Wellsite Calibration									
MCFL Calibration									
Phase	Raw B0 Resistivity OHMM			Value	Phase	Raw B1 Resistivity OHMM			Value
Before				3853	Before				3811
	3565 (Minimum)	3875 (Nominal)	4185 (Maximum)			3524 (Minimum)	3830 (Nominal)	4136 (Maximum)	
Phase	Raw B2 Resistivity OHMM			Value	Phase	Raw B2 Resistivity OHMM			Value
Before				3803	Before				3803
	3524 (Minimum)	3830 (Nominal)	4136 (Maximum)			3524 (Minimum)	3830 (Nominal)	4136 (Maximum)	

Before: 14-Jun-2008 20:38

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				8.019	Before				12.21
	6.000 (Minimum)	8.000 (Nominal)	10.00 (Maximum)			9.000 (Minimum)	12.00 (Nominal)	15.00 (Maximum)	
Before: 14-Jun-2008 20:32									

Before: 14-Jun-2008 20:32

High resolution Integrated Logging Tool-DTS Wellsite Calibration									
Detector Calibration									
Phase	Gamma Ray Background GAPI			Value	Phase	Gamma Ray (Jig – Bkg) GAPI			Value
Before				91.49	Before				171.3
	89.00 (Minimum)	91.49 (Nominal)	93.98 (Maximum)			155.0 (Minimum)	171.3 (Nominal)	187.6 (Maximum)	
Phase	Gamma Ray (Calibrated) GAPI			Value	Phase	Gamma Ray (Calibrated) GAPI			Value
Before				171.3	Before				171.3
	155.0 (Minimum)	171.3 (Nominal)	187.6 (Maximum)			155.0 (Minimum)	171.3 (Nominal)	187.6 (Maximum)	

0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)	155.8 (Minimum)	171.3 (Nominal)	186.9 (Maximum)	150.0 (Minimum)	165.0 (Nominal)	180.0 (Maximum)
Before: 14-Jun-2008 20:37								

High resolution Integrated Logging Tool–DTS Wellsite Calibration									
Zero Measurement									
Phase	CNTC Background CPS			Value	Phase	CFTC Background CPS			Value
Master				28.08	Master				32.75
Before				28.68	Before				30.34
5.000 (Minimum) 28.08 (Nominal) 40.00 (Maximum)					5.000 (Minimum) 32.75 (Nominal) 40.00 (Maximum)				
Master: Calibration out of date 14–Mar–2008 3:26					Before: 14–Jun–2008 20:34				

High resolution Integrated Logging Tool–DTS Wellsite Calibration													
Ratio Measurement													
Phase	Thermal Near Corr. (Tank) CPS			Value	Phase	Thermal Far Corr. (Tank) CPS			Value	Phase	CNTC/CFTC (Tank)		Value
Master	<div><div></div></div>			5083	Master	<div><div></div></div>			2158	Master	<div><div></div></div>		2.355
4700 (Minimum) 5800 (Nominal) 6900 (Maximum)					1900 (Minimum) 2400 (Nominal) 2900 (Maximum)					2.120 (Minimum) 2.159 (Nominal) 2.540 (Maximum)			
Master: Calibration out of date 14–Mar–2008 3:26													

High resolution Integrated Logging Tool–DTS Wellsite Calibration		
Accelerometer Calibration		
Phase	Z–Axis Acceleration F/S2	Value
Before		32.10
31.53 (Minimum)		32.19 (Nominal)
		32.84 (Maximum)
Before: 15-Jun-2008 9:31		

High resolution Integrated Logging Tool–DTS Master Calibration							
Electronics Calibration Check – Thru Cal Mag. & Phase							
Idx	Phase	Value	Thru Cal Magnitude V	Nominal	Value	Phase DEG	Nominal
0	Master	0.6164		0.6050	72.52		71.00
1	Master	1.260		1.270	71.41		70.00
2	Master	0.6289		0.6230	67.65		66.00
3	Master	0.7107		0.7040	66.86		65.00
4	Master	1.324		1.337	60.54		59.00
5	Master	1.929		1.955	58.60		57.00
6	Master	1.928		1.955	58.61		57.00
7	Master	1.374		1.415	54.76		53.00
		60.00 % (Minimum)	(Nominal)	140.0 % (Maximum)	Nom –60.00 (Minimum)	(Nominal)	Nom + 60.00 (Maximum)
Master: 20–May–2008 12:49							

High resolution Integrated Logging Tool–DTS Master Calibration											
Electronics Calibration Check – Auxilliary											
Phase	Array Induction SPA Plus MV			Value	Phase	Array Induction SPA Zero MV			Value		
Master				992.7	Master				0.06474		
941.0 (Minimum)				990.5 (Nominal)	1040 (Maximum)	–50.00 (Minimum)				0 (Nominal)	50.00 (Maximum)
Phase	Array Induction Temperature Plus V			Value	Phase	Array Induction Temperature Zero V			Value		
Master				0.9195	Master				6.958E-00		
0.8700 (Minimum)				0.9150 (Nominal)	0.9600 (Maximum)	–0.05000 (Minimum)				0 (Nominal)	0.05000 (Maximum)
Master: 20–May–2008 12:49											

High resolution Integrated Logging Tool–DTS Master Calibration				
Test Loop Gain Correction				
Idx	Value	Test Loop Gain Magnitude V	Value	Phase DEG
0	1.015		0.3988	
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)
			–3.000 (Minimum)	0 (Nominal)
				3.000 (Maximum)

		(Minimum)	(Nominal)	(Maximum)			(Minimum)	(Nominal)	(Maximum)
1	1.016				0.5987				
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)			-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
2	1.016				-0.05686				
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)			-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
3	1.011				-0.005376				
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)			-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
4	0.9964				-0.08599				
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)			-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
5	0.9901				-0.2990				
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)			-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
6	0.9974				0.07660				
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)			-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
7	0.9956				-0.3892				
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)			-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)





Master: 20-May-2008 12:49

High resolution Integrated Logging Tool-DTS Master Calibration									
Sonde Error Correction									
Idx	Value	R Sonde Error Correction MM/M			Value	X Sonde Error Correction MM/M			
0	-83.06				-29.15				
		-231.0 (Minimum)	-56.00 (Nominal)	119.0 (Maximum)			-2250 (Minimum)	0 (Nominal)	2250 (Maximum)
1	190.2				150.3				
		114.0 (Minimum)	159.0 (Nominal)	204.0 (Maximum)			-625.0 (Minimum)	0 (Nominal)	625.0 (Maximum)
2	106.9				-22.00				
		66.00 (Minimum)	111.0 (Nominal)	156.0 (Maximum)			-350.0 (Minimum)	0 (Nominal)	350.0 (Maximum)
3	65.85				133.8				
		39.00 (Minimum)	64.00 (Nominal)	89.00 (Maximum)			-250.0 (Minimum)	0 (Nominal)	250.0 (Maximum)
4	25.28				-23.61				
		15.00 (Minimum)	25.00 (Nominal)	35.00 (Maximum)			-63.00 (Minimum)	0 (Nominal)	63.00 (Maximum)
5	13.55				9.161				
		4.000 (Minimum)	14.00 (Nominal)	24.00 (Maximum)			-50.00 (Minimum)	0 (Nominal)	50.00 (Maximum)
6	9.701				-8.682				
		5.000 (Minimum)	10.00 (Nominal)	15.00 (Maximum)			-30.00 (Minimum)	0 (Nominal)	30.00 (Maximum)
7	-2.188				-4.932				
		-5.000 (Minimum)	0 (Nominal)	5.000 (Maximum)			-30.00 (Minimum)	0 (Nominal)	30.00 (Maximum)



Master: 20-May-2008 12:49

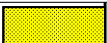


High resolution Integrated Logging Tool-DTS Master Calibration									
Mud Gain Correction									
Idx	Value	Coarse - Mag, Real, Imag			Value	Fine - Mag, Real, Imag			
0	0.8354				0.8441				
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)			0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)
1	0.8354				0.8441				
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)			0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)
2	0.8354				0.8441				
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)			0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)

Master: 20-May-2008 12:49

High resolution Integrated Logging Tool–DTS Master Calibration							
Inversion results							
Phase	Rho Aluminum G/C3		Value	Phase	Rho Magnesium G/C3		Value
Master			2.600	Master			1.685
	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			2.526	Master			2.650
	2.470 (Minimum)	2.570 (Nominal)	2.670 (Maximum)		2.550 (Minimum)	2.650 (Nominal)	2.750 (Maximum)
Master: 2–Jun–2008 11:39							

High resolution Integrated Logging Tool–DTS Master Calibration														
Deviation Summary														
Phase	BS Average Deviation %			Value	Phase	SS Average Deviation %			Value	Phase	LS Average Deviation %			Value
Master	<div><div></div></div>			0.3943	Master	<div><div></div></div>			0.1389	Master	<div><div></div></div>			0.4021
	–0.6000 (Minimum)	0 (Nominal)	0.6000 (Maximum)		–1.000 (Minimum)	0 (Nominal)	1.000 (Maximum)			–1.500 (Minimum)	0 (Nominal)	1.500 (Maximum)		
Phase	BS Max Deviation %			Value	Phase	SS Max Deviation %			Value	Phase	LS Max Deviation %			Value
Master	<div><div></div></div>			1.011	Master	<div><div></div></div>			0.6052	Master	<div><div></div></div>			1.316
	–1.600 (Minimum)	0 (Nominal)	1.600 (Maximum)		–2.500 (Minimum)	0 (Nominal)	2.500 (Maximum)			–3.500 (Minimum)	0 (Nominal)	3.500 (Maximum)		
Master: 2–Jun–2008 11:39														

High resolution Integrated Logging Tool–DTS Master Calibration									
Zero Measurement									
Phase	CNTC Background CPS			Value	Phase	CFTC Background CPS			Value
Master				28.08	Master				32.75
	5.000 (Minimum)	28.08 (Nominal)	40.00 (Maximum)			5.000 (Minimum)	32.75 (Nominal)	40.00 (Maximum)	
Master: Calibration out of date 14–Mar–2008 3:26									

High resolution Integrated Logging Tool–DTS Master Calibration											
Tank Measurement											
Phase	Thermal Near Corr. (Tank) CPS		Value	Phase	Thermal Far Corr. (Tank) CPS		Value	Phase	CNTC/CFTC (Tank)		Value
Master			5083	Master			2158	Master			2.355
	4700 (Minimum)	5800 (Nominal)	6900 (Maximum)		1900 (Minimum)	2400 (Nominal)	2900 (Maximum)		2.120 (Minimum)	2.159 (Nominal)	2.540 (Maximum)
Master: Calibration out of date 14–Mar–2008 3:26											

General Purpose Inclinerometer / Equipment Identification	
Primary Equipment: GPIT Cartridge – C	GPIC – C
Auxiliary Equipment: GPIT Housing	GPIH – B

DTS Telemetry Tool / Equipment Identification	
Primary Equipment: DTC–H Auxiliary Cartridge DTC–H Telemetry Cartridge	DTCH – A DTCH – A
Auxiliary Equipment: DTCH Telemetry Cartridge Housing	ECH – KC

Company: **Orr Energy, LLC**

Schlumberger

Well: **Lakes 31–32D**

Field: **LaPoudre South**

County: **Weld**

State: **Colorado**

Platform Express
Triple Combo