

Company: ENCANA OIL & GAS (USA) INC.

Well: GMR 8-5C1 (K8W)

Field: MAMM CREEK

County: GARFIELD

State: COLORADO

TEMPERATURE LOG
CCL- TEMP

County: GARFIELD

Field: MAMM CREEK

Location: SHL: NESW 1899 FSL & 1971' FNL

Well: GMR 8-5C1 (K8W)

Company: ENCANA OIL & GAS (USA) INC.

LOCATION

SHL: NESW 1899 FSL & 1971' FNL
BHL: SWNW 140' FWL & 2470' FNL

Elev.: K.B. 7858.00 ft
G.L. 7826.00 ft
D.F. 7857.00 ft

Permanent Datum: _____
Log Measured From: KELLY BUSHING
Drilling Measured From: KELLY BUSHING

Elev.: 7826.00 ft
32.00 ft above Perm. Datum

API Serial No.
05-045-19149

Section
8

Township
7S

Range
93W

PVT DATA				Run 1	Run 2	Run 3
Oil Density						
Water Salinity						
Gas Gravity						
Bo						
Bw						
1/Bg						
Bubble Point Pressure						
Bubble Point Temperature						
Solution GOR						
Maximum Deviation						
CEMENTING DATA						
Primary/Squeeze				Primary		
Casing String No						
Lead Cement Type						
Volume						
Density						
Water Loss						
Additives						
Tail Cement Type						
Volume						
Density						
Water Loss						
Additives						
Expected Cement Top						

Logging Date25-Feb-2011

Run Number1

Depth Driller10049 ft

Schlumberger Depth9946 ft

Bottom Log Interval9945 ft

Top Log Interval200 ft

Casing Fluid TypeFRESH WATER

Salinity

Density8.4 lbm/gal

Fluid Level1 ft

BIT/CASING/TUBING STRING

Bit Size8.750 in

From32 ft

To10172 ft

Casing/Tubing Size10172 ft

Weight0 lbm/ft

Grade

From32 ft

To10172 ft

Maximum Recorded Temperatures218 degF

Logger On Bottom25-Feb-201113:31

Unit Number3017GRAND JUNCTION

Recorded ByDAVID PATE

Witnessed ByUNATTENDED

Logging Date	25-Feb-2011			
Run Number	1			
Depth Driller	10049 ft			
Schlumberger Depth	9946 ft			
Bottom Log Interval	9945 ft			
Top Log Interval	200 ft			
Casing Fluid Type	FRESH WATER			
Salinity				
Density	8.4 lbm/gal			
Fluid Level	1 ft			
BIT/CASING/TUBING STRING				
Bit Size	8.750 in			
From	32 ft			
To	10172 ft			
Casing/Tubing Size	10172 ft			
Weight	0 lbm/ft			
Grade				
From	32 ft			
To	10172 ft			
Maximum Recorded Temperatures	218 degF			
Logger On Bottom	25-Feb-2011	13:31		
Unit Number	3017	GRAND JUNCTION		
Recorded By	DAVID PATE			
Witnessed By	UNATTENDED			

DEPTH SUMMARY LISTING

Date Created: 25-FEB-2011 13:43:21

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW-B	Type:	CMTD-B/A	Type:	1-25ZT
Serial Number:	5783	Serial Number:	1058	Serial Number:	3017
Calibration Date:	9-SEPT-2010	Calibration Date:	15-FEB-2011	Length:	24000 FT
Calibrator Serial Number:	33	Calibrator Serial Number:	1150	Conveyance Method:	Wireline
Calibration Cable Type:	1-25ZT	Number of Calibration Points:	10	Rig Type:	LAND
Wheel Correction 1:	-3	Calibration RMS:	6		
Wheel Correction 2:	-3	Calibration Peak Error:	11		

Depth Control Parameters

Log Sequence:	First Log In the Well
Rig Up Length At Surface:	246.00 FT
Rig Up Length At Bottom:	245.00 FT
Rig Up Length Correction:	1.00 FT
Stretch Correction:	6.00 FT
Tool Zero Check At Surface:	1.60 FT

Depth Control Remarks

1. ALL SCHLUMBERGER DEPTH CONTROL POLICIES FOLLOWED
2. IDW USED AS PRIMARY DEPTH CONTROL, Z-CHART USED AS SECONDARY DEPTH CONTROL
- 3.
- 4.
- 5.
- 6.

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 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 OS1: NONE OS2: OS3: OS4: OS5:	OTHER SERVICES2 OS1: OS2: OS3: OS4: OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
THIS IS THE FIRST LOG IN THE WELL	
TOOL RAN AS PER TOOL SKETCH	
TD TAGGED AT: 9946 FT	
MAX PRESSURE AT TD: 4150 PSIA	
MAX TEMPERATURE AT TD: 218 DEGF	

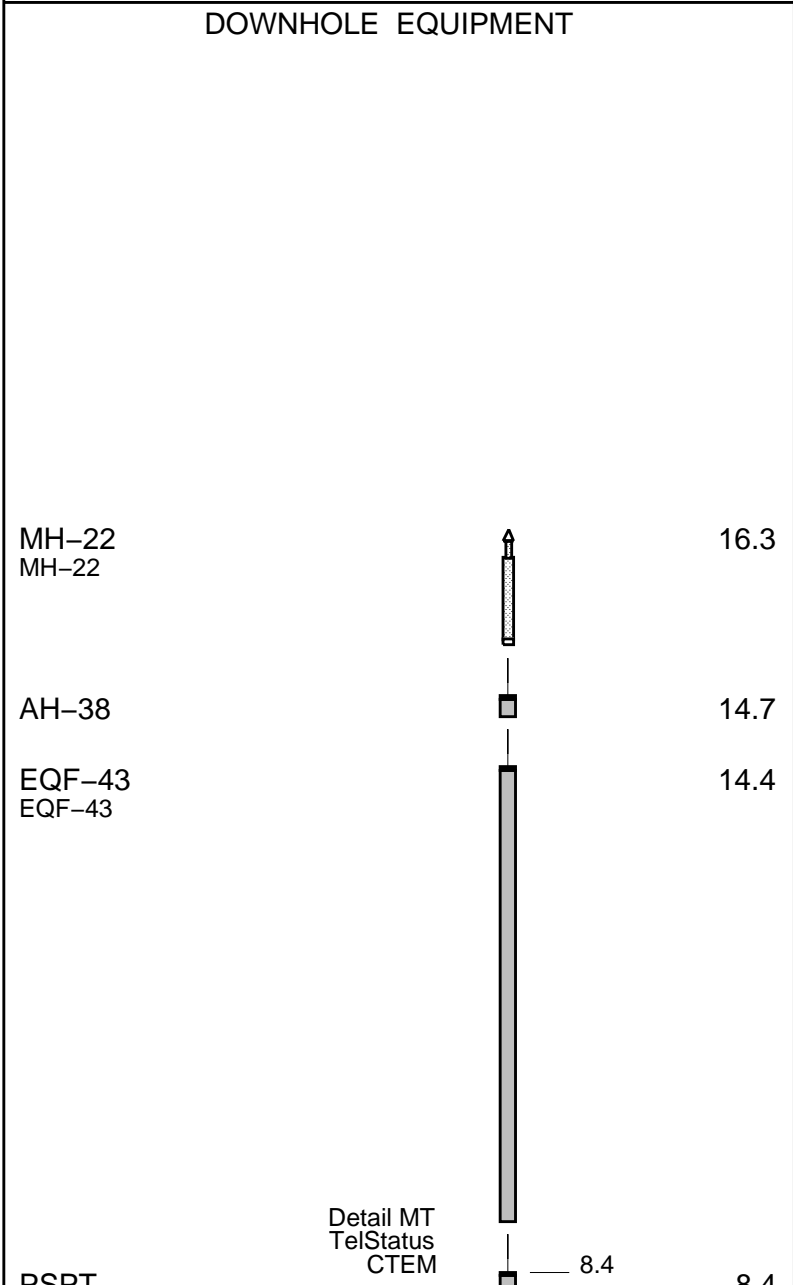
THANK YOU FOR CHOOSING SCHLUMBERGER!	
YOUR CREW: DAVID P & WALEED A	

RUN 1			RUN 2		
SERVICE ORDER #:		BIHS-000	SERVICE ORDER #:		
PROGRAM VERSION:		18C0-147	PROGRAM VERSION:		
FLUID LEVEL:		1 ft	FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

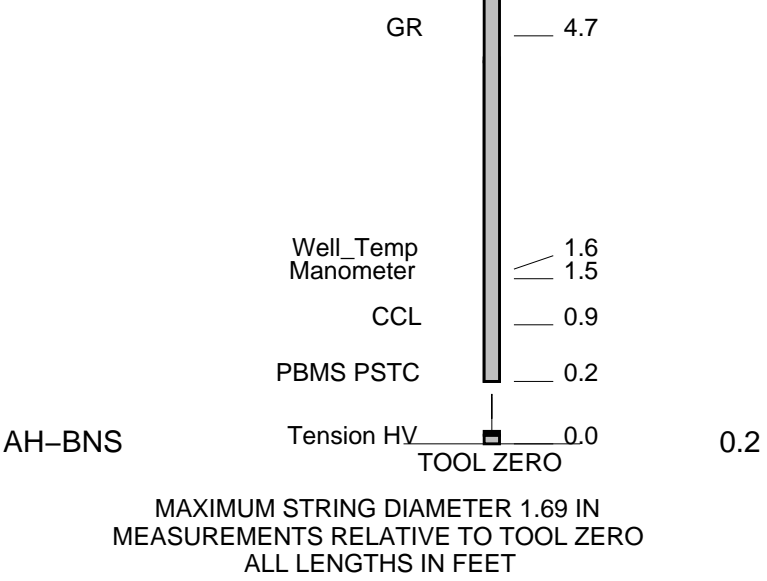
EQUIPMENT DESCRIPTION					
RUN 1			RUN 2		

SURFACE EQUIPMENT

WITM-A
PSC_16MHZ



PSPT
PSC-A
PSPT-A
PSTC-A
PBMS-A 1978
10k_Sapphire_Mano
RTD_Thermometer
GR
CCL
PBMS



Schlumberger

TEMPERATURE LOG

MAXIS Field Log

Company: ENCANA OIL & GAS (USA) INC.

Well: GMR 8-5C1 (K8W)

Input DLIS Files

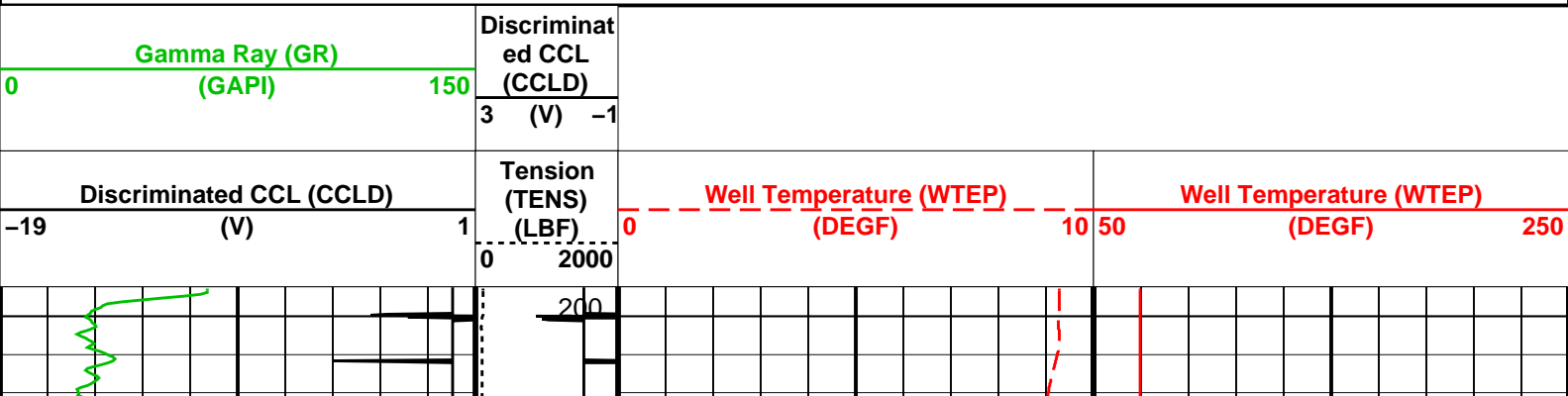
DEFAULT	Flip_PSP_006LUP	PRODUCER	25-Feb-2011 13:29	9995.0 FT	192.0 FT
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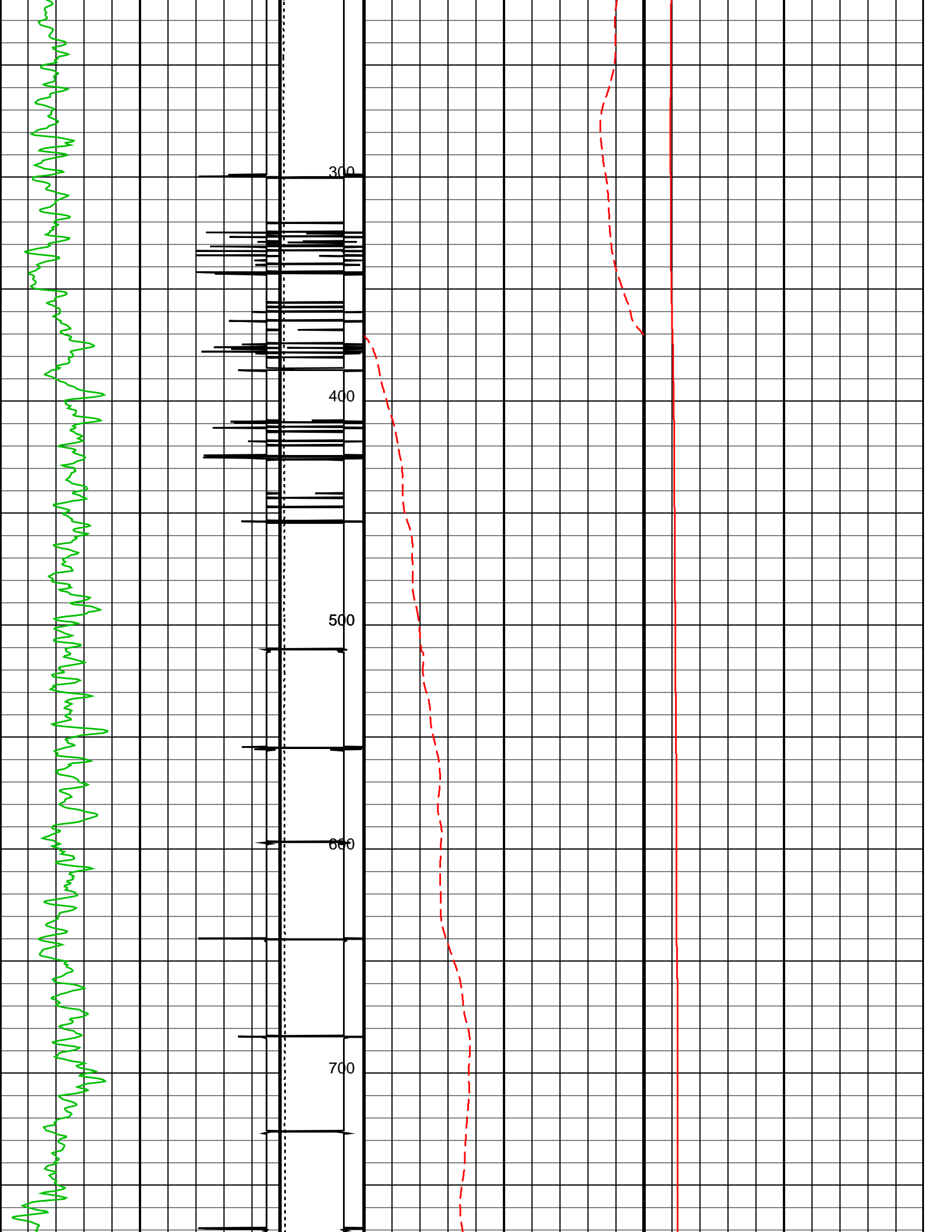
Output DLIS Files

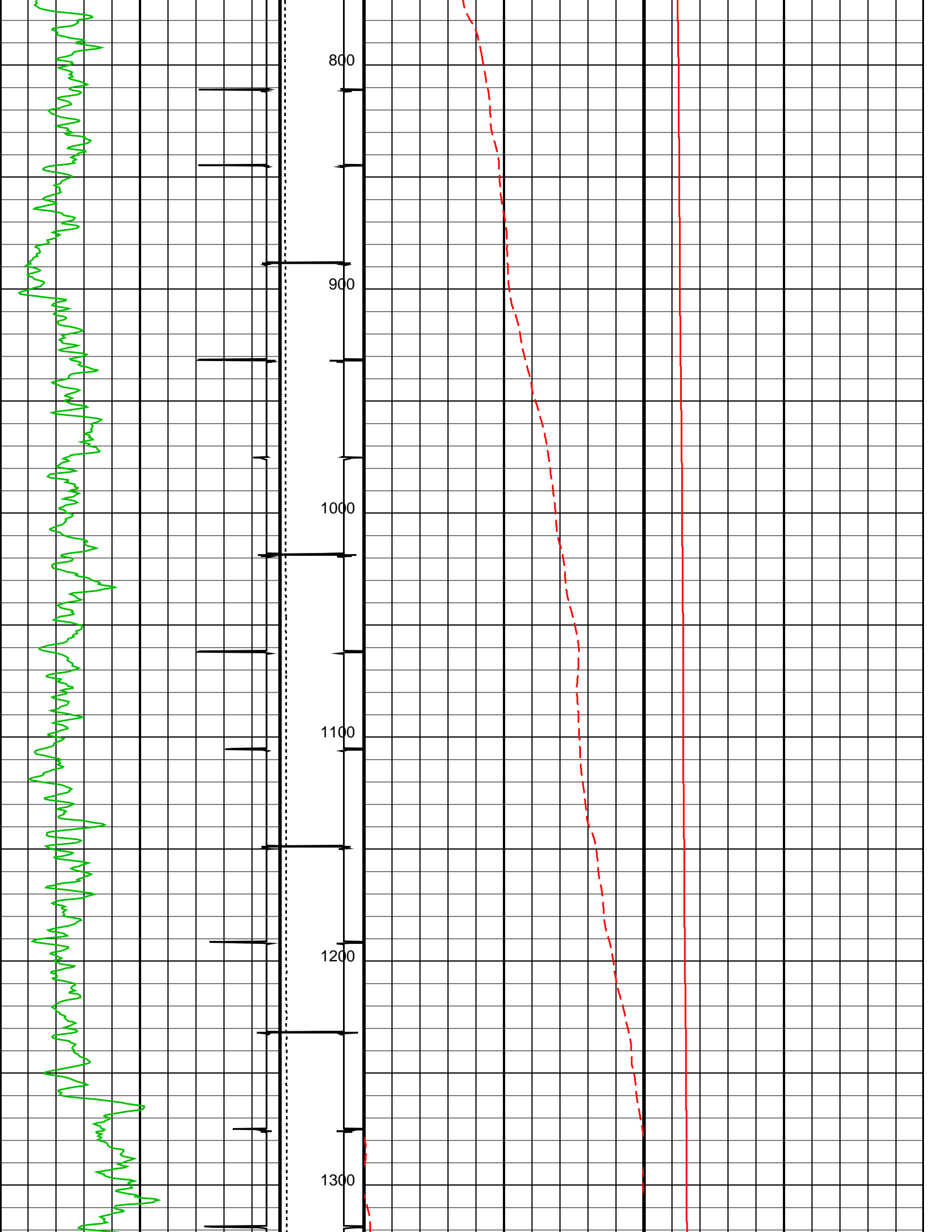
DEFAULT	PSP_007PUP	FN:5	PRODUCER	25-Feb-2011 13:29	9995.0 FT	192.0 FT
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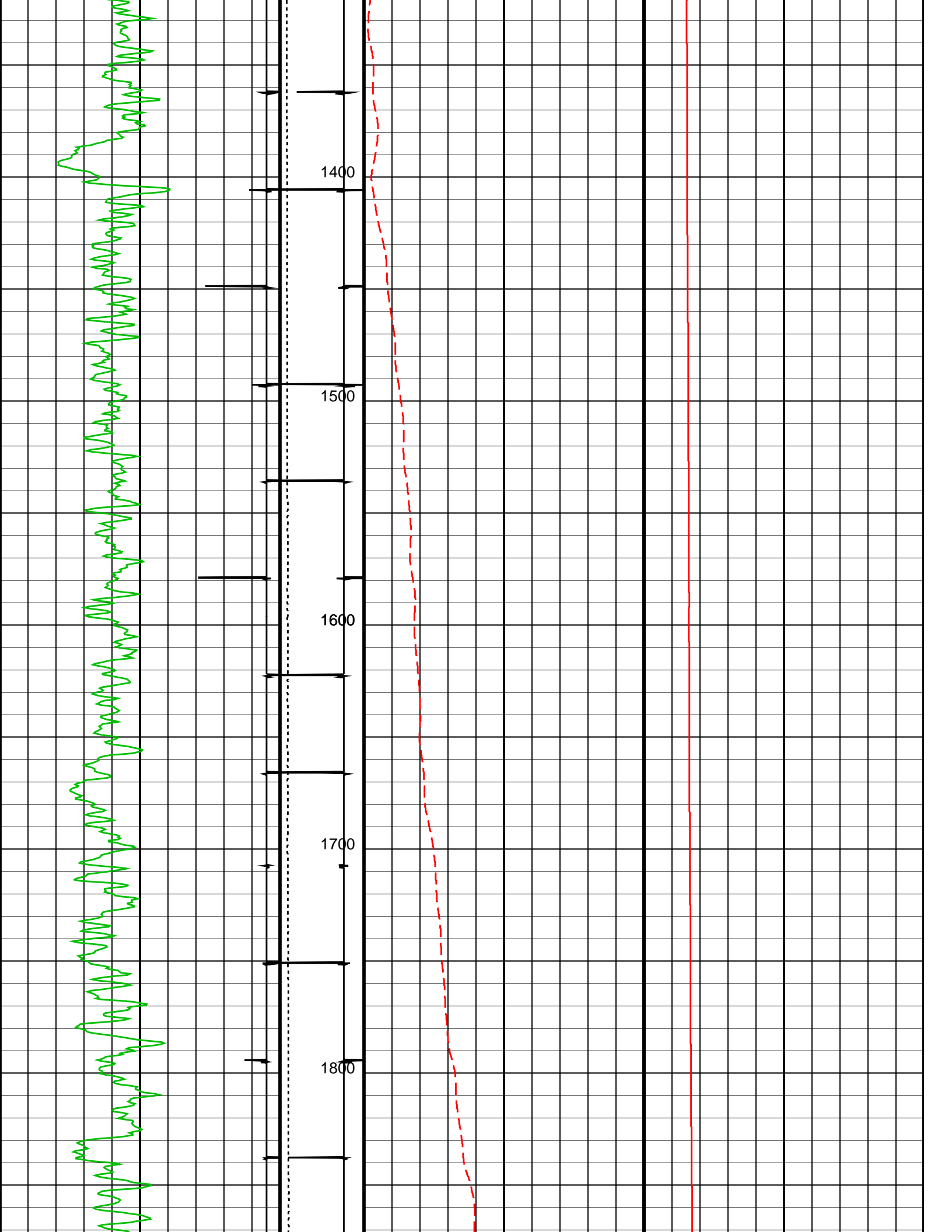
OP System Version: 18C0-147

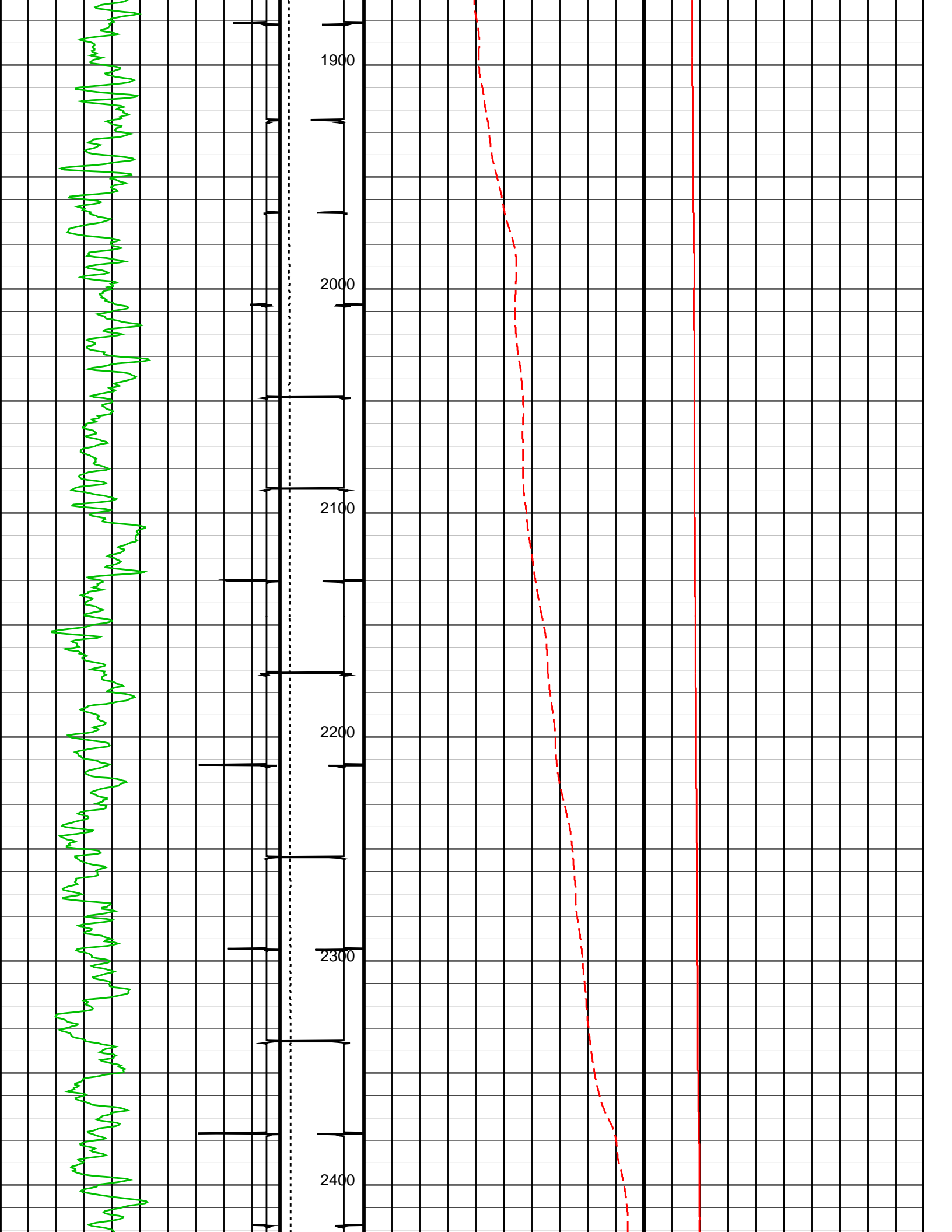
PSPT 18C0-147

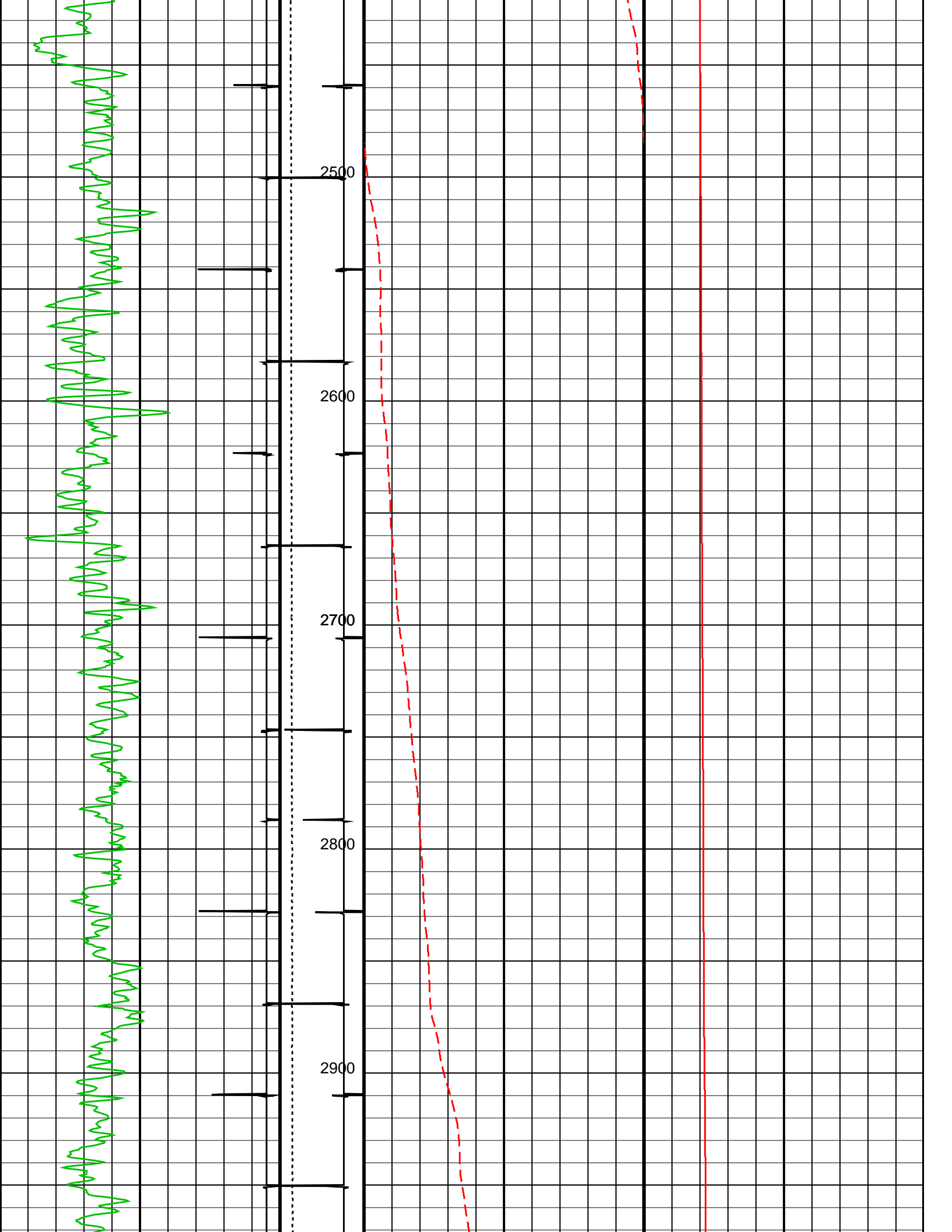


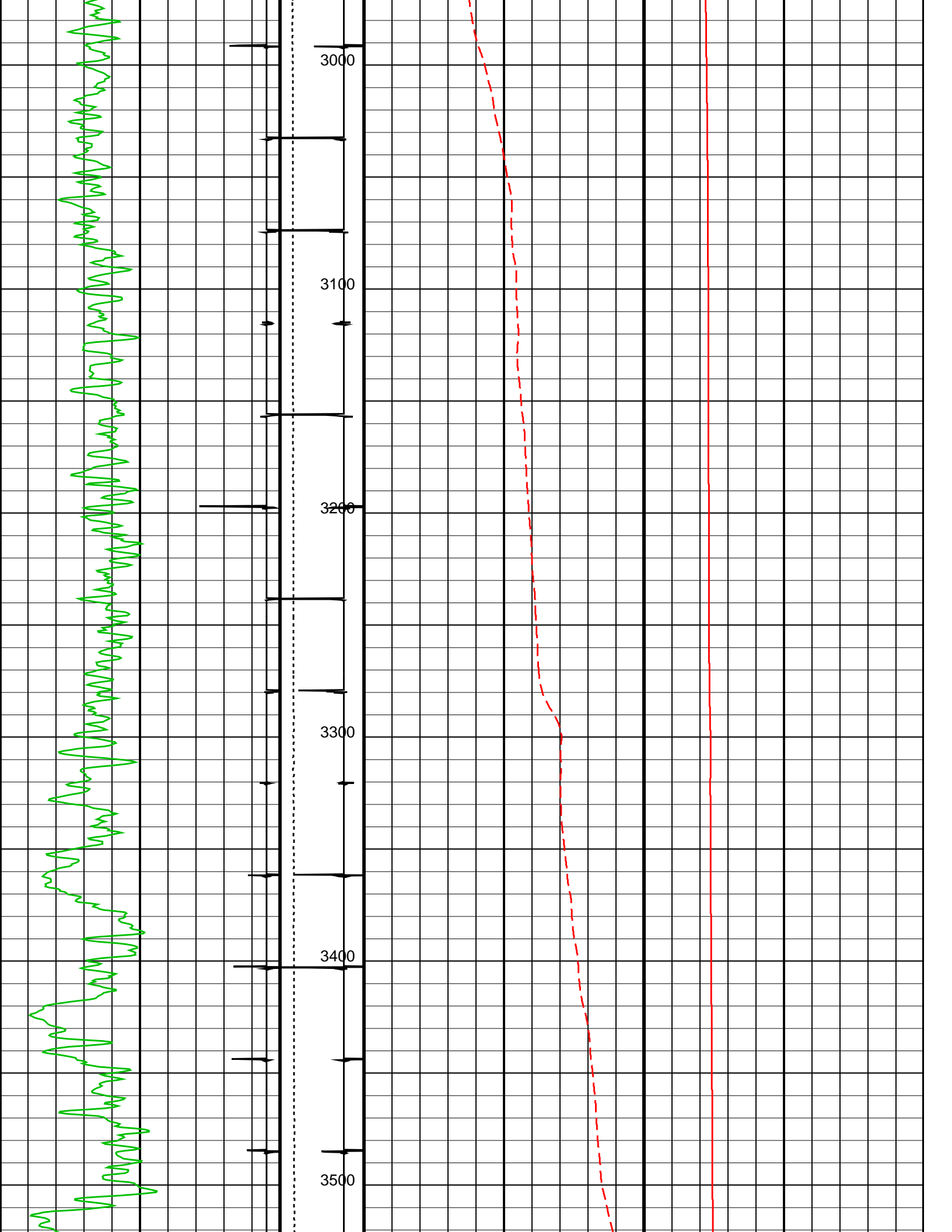


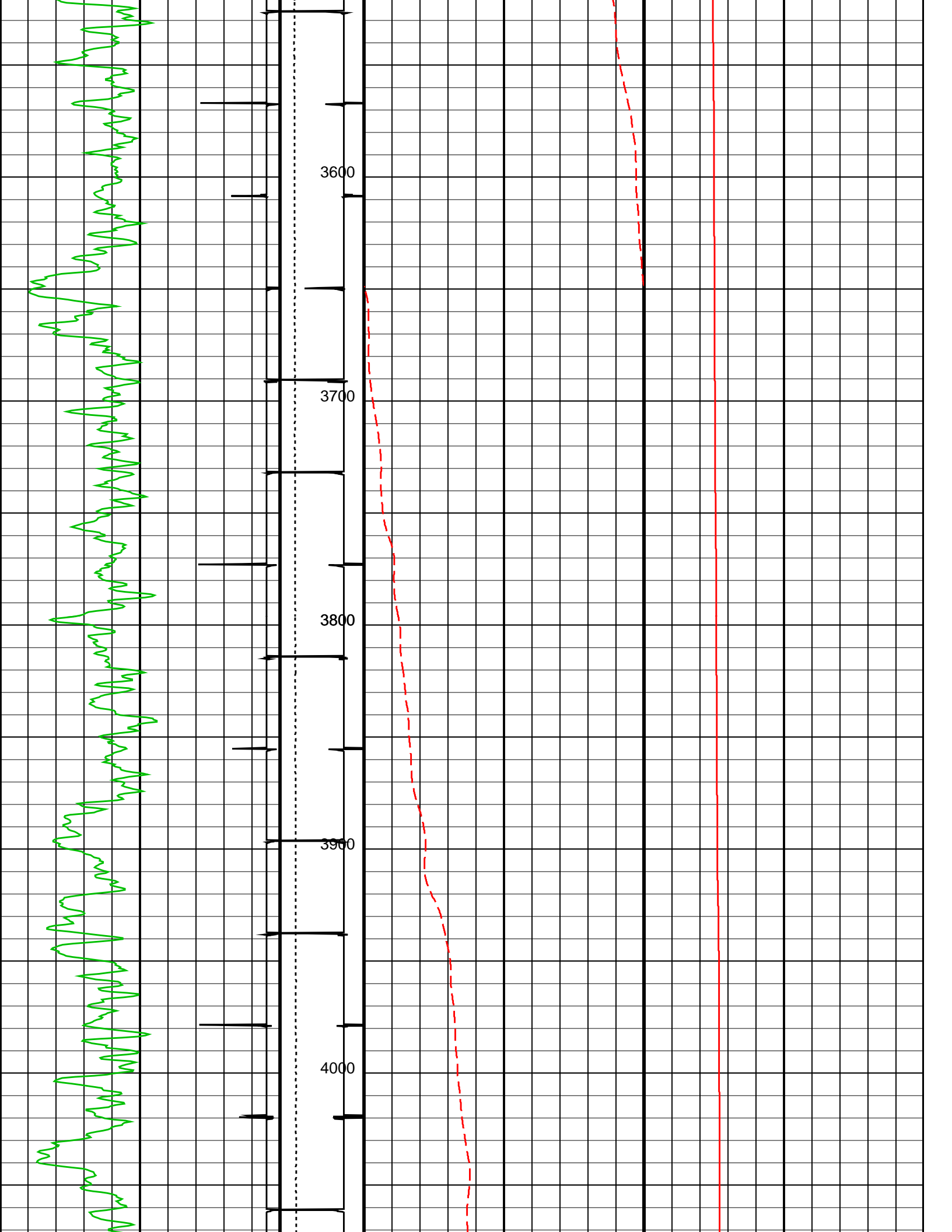


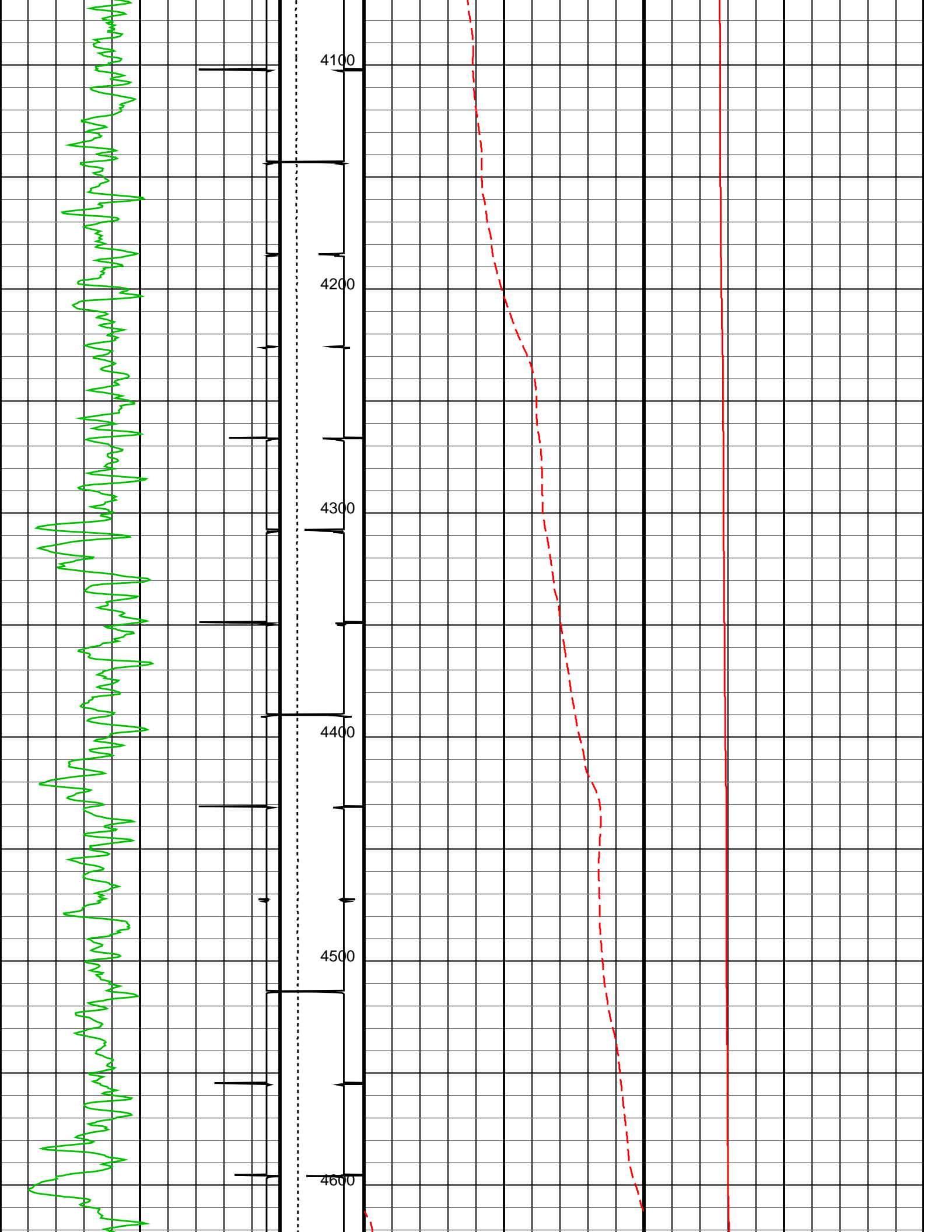


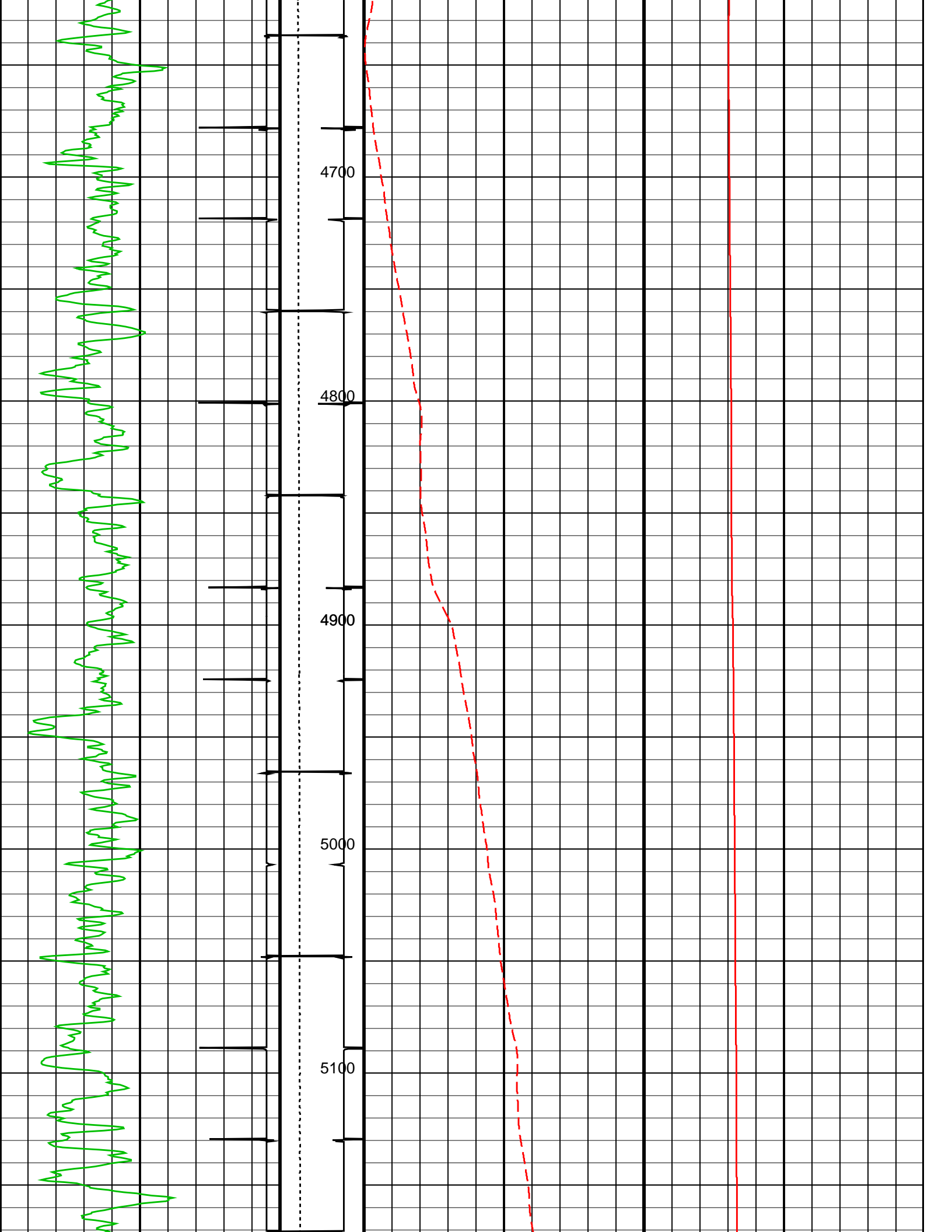


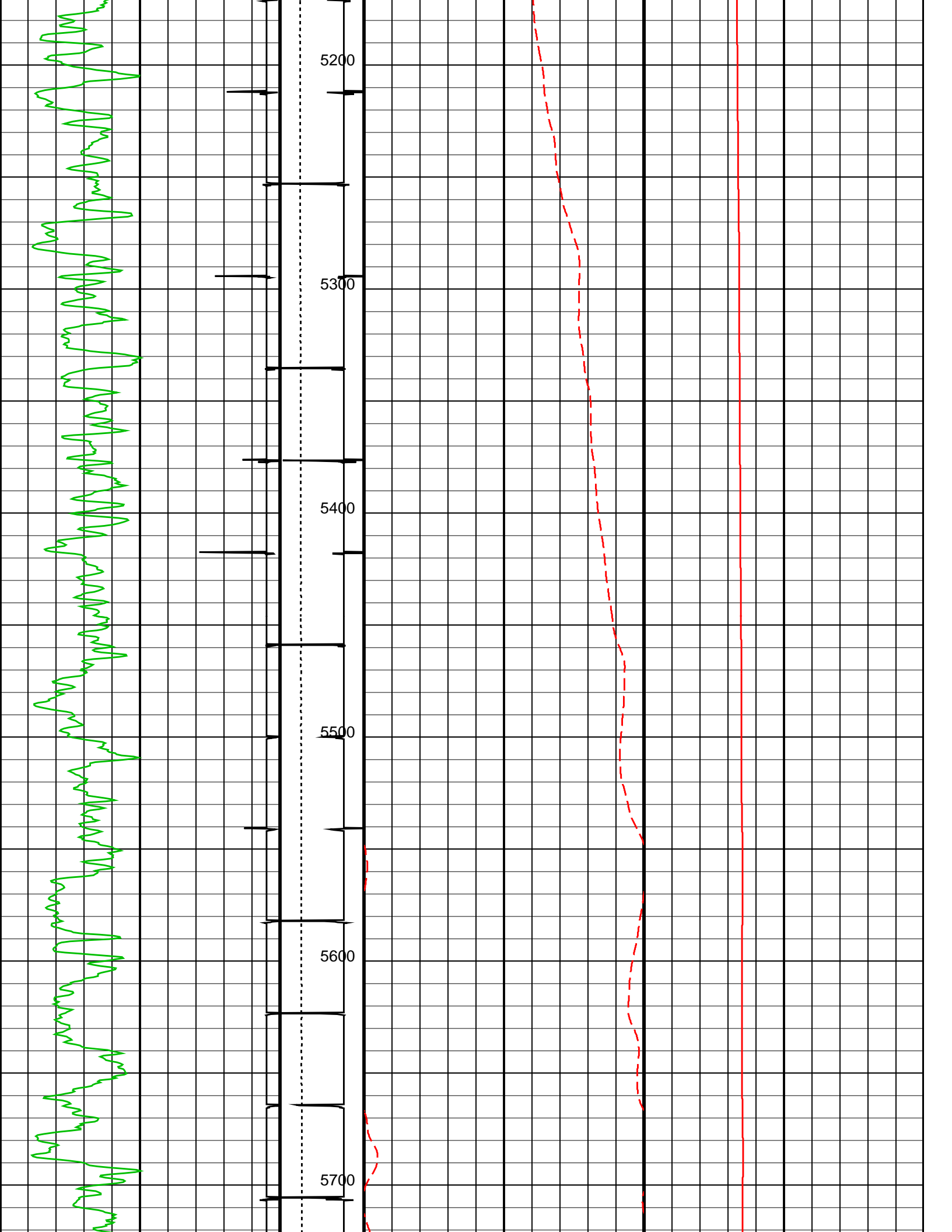


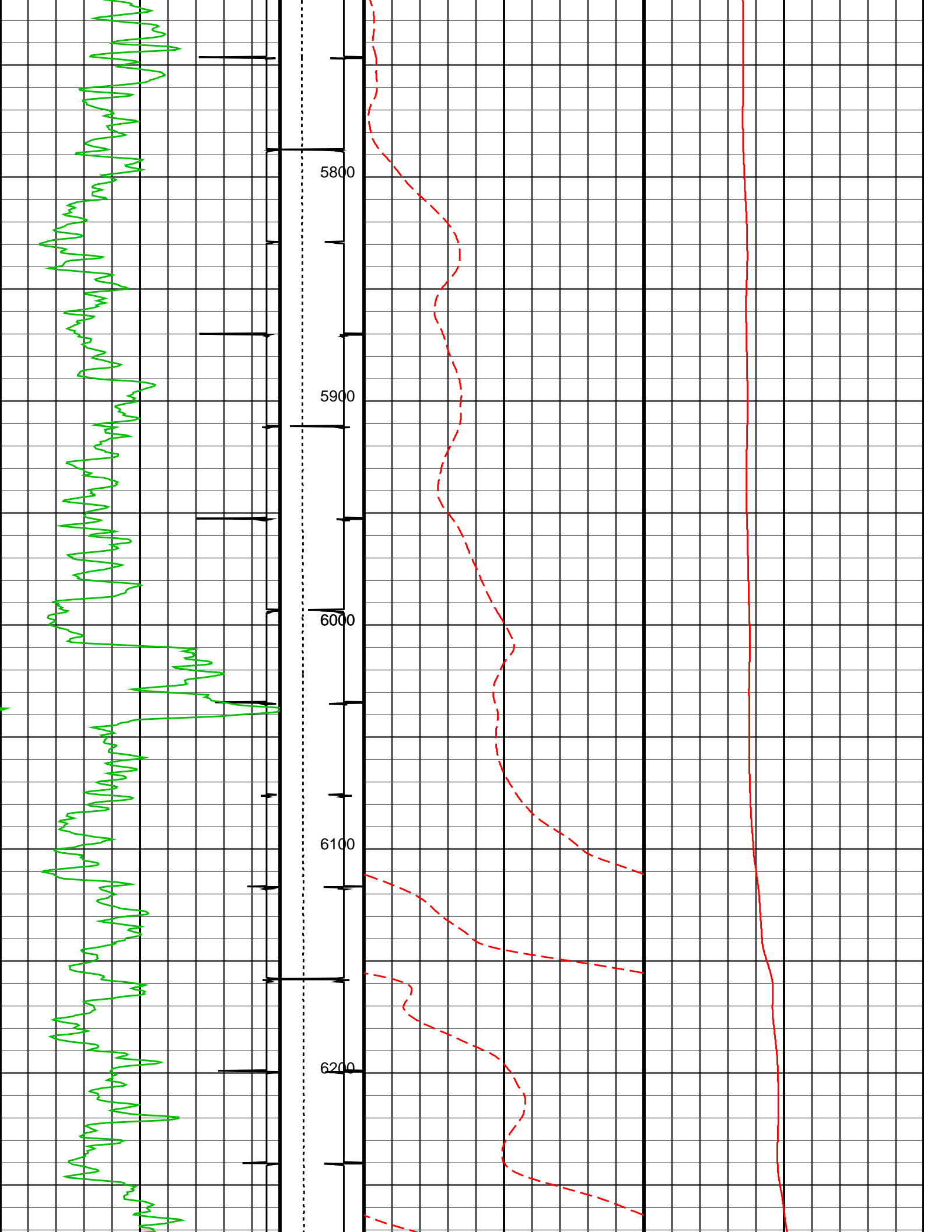


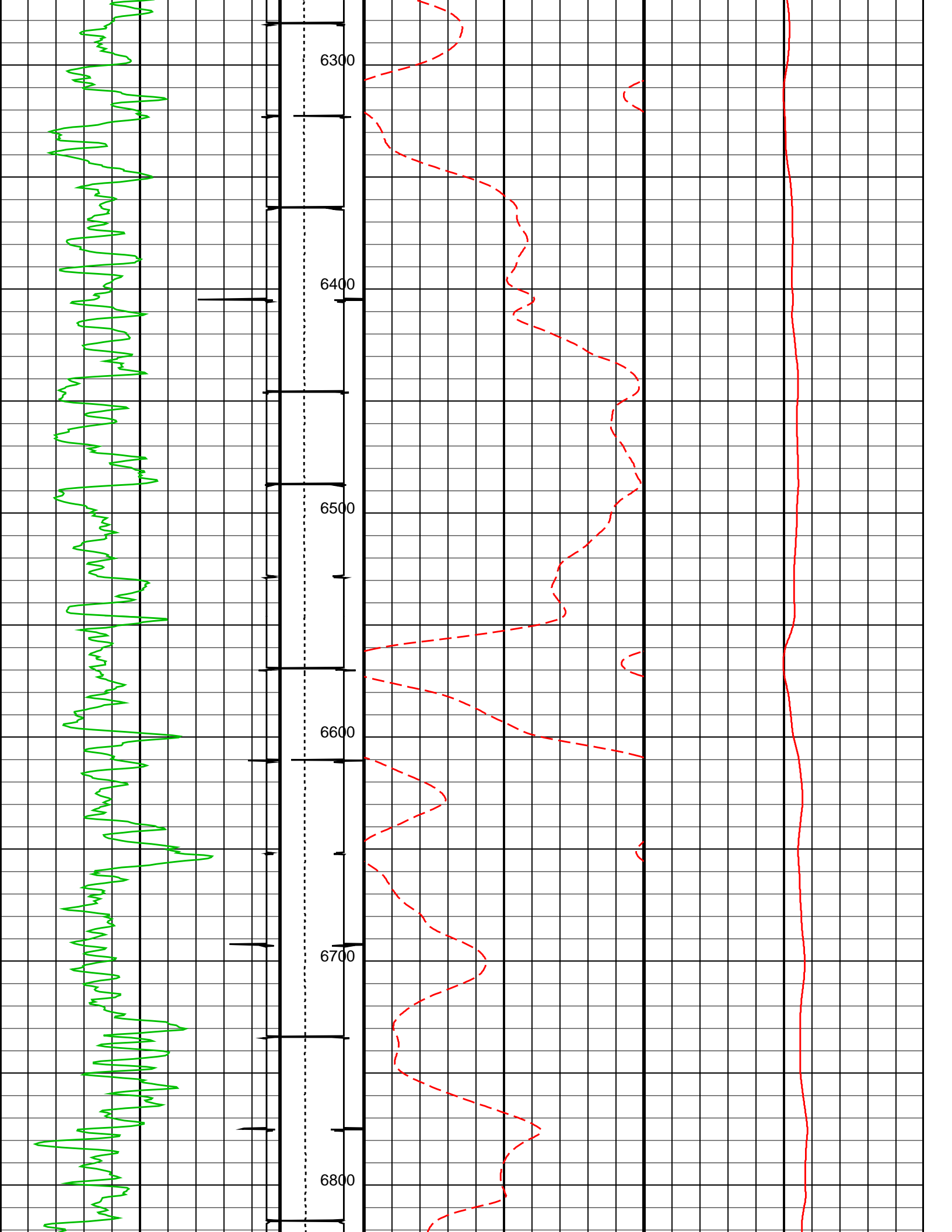


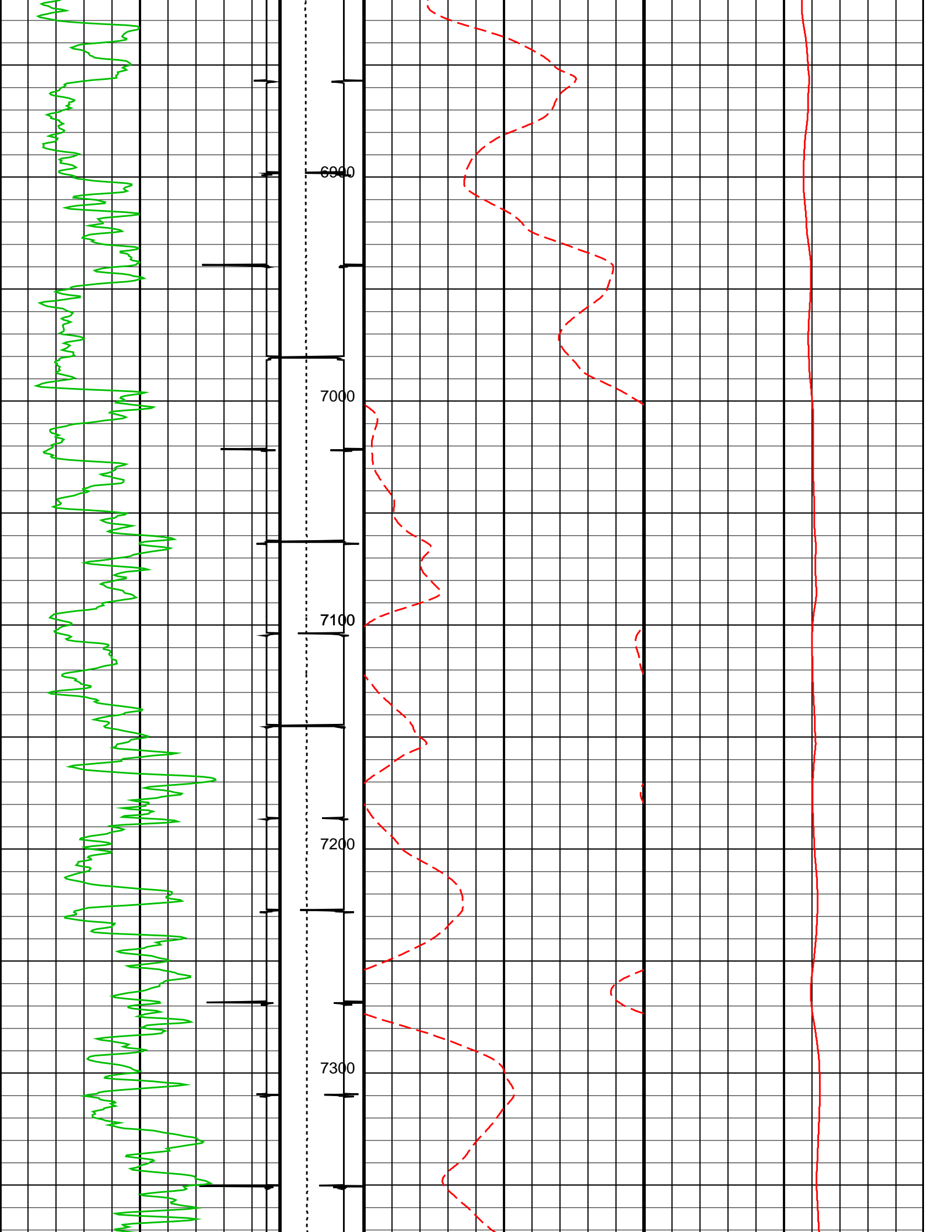


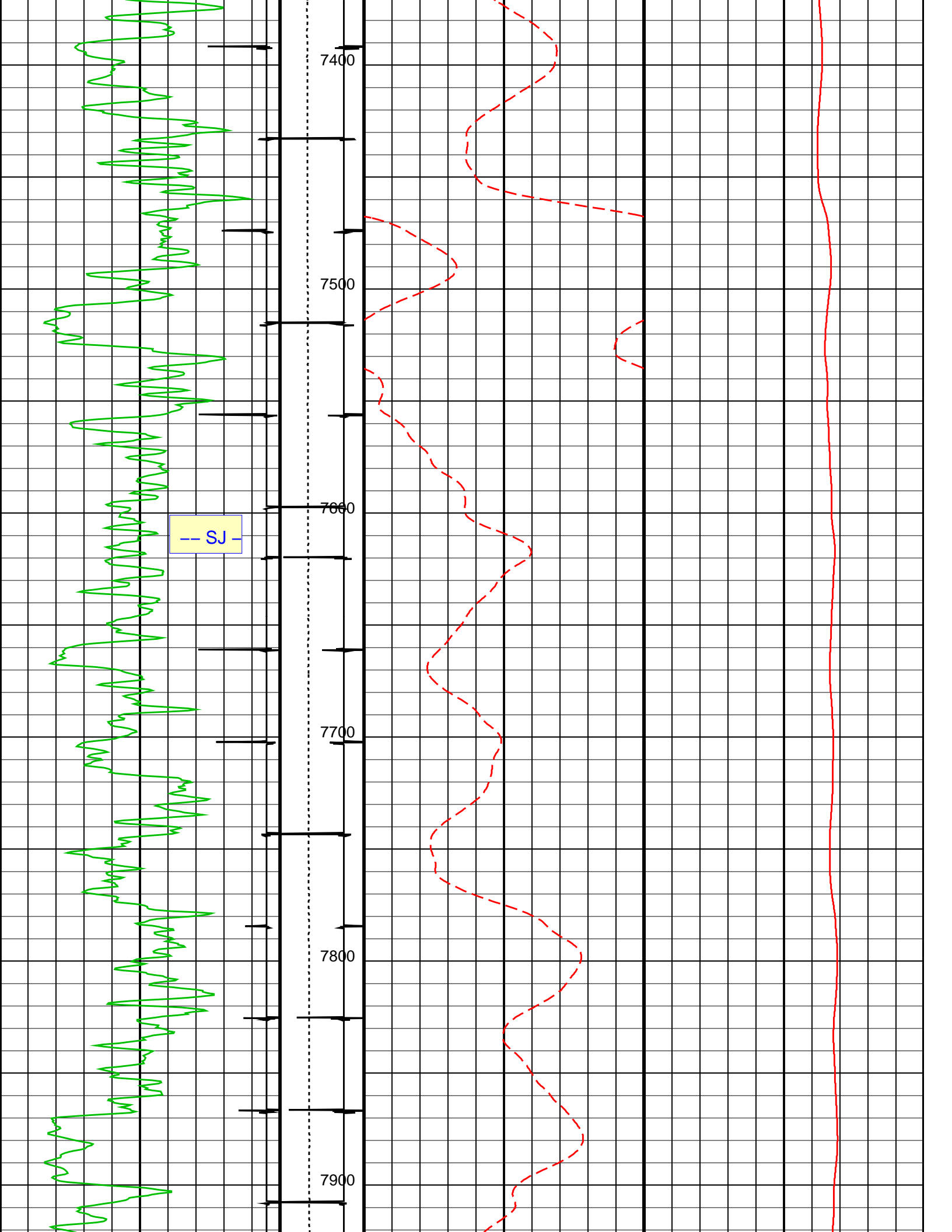


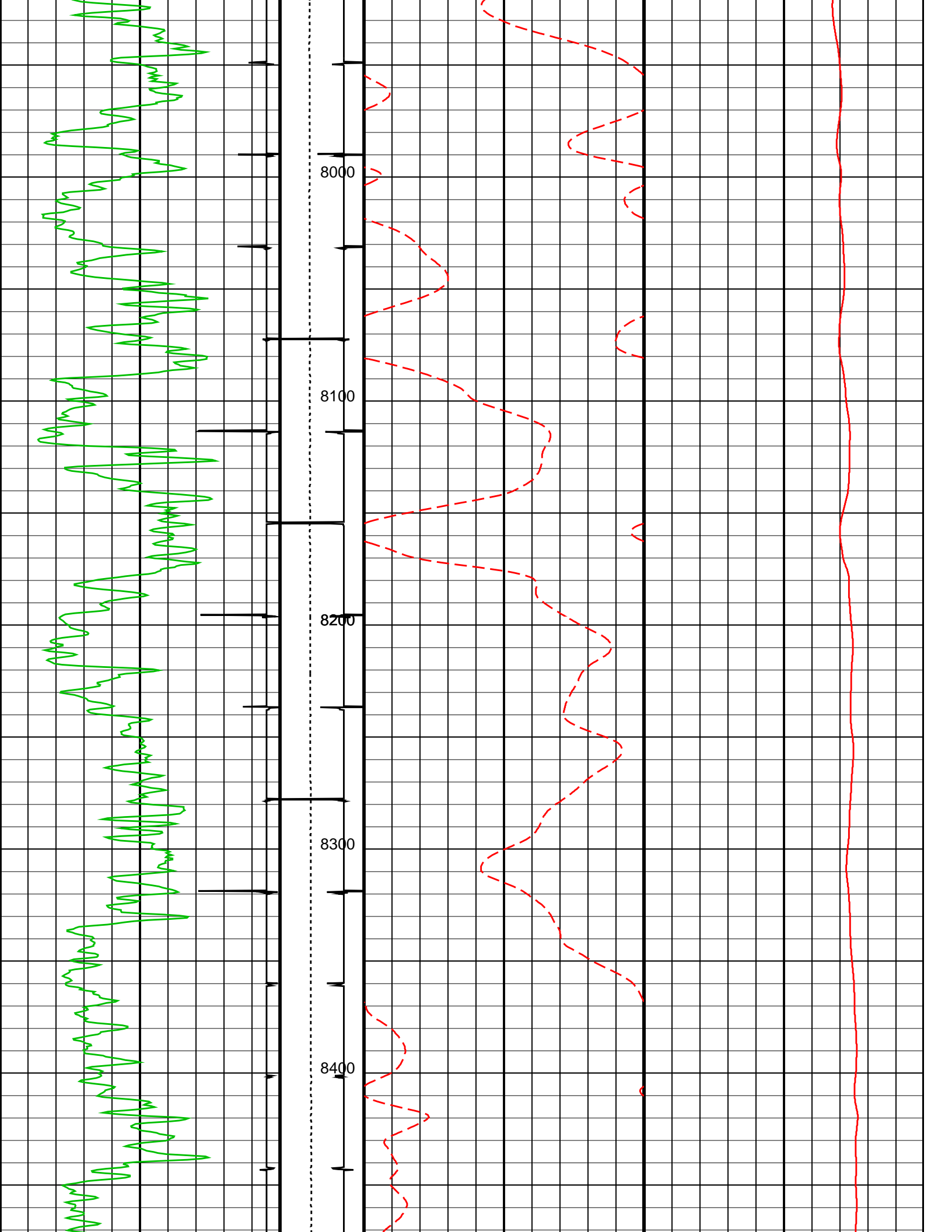


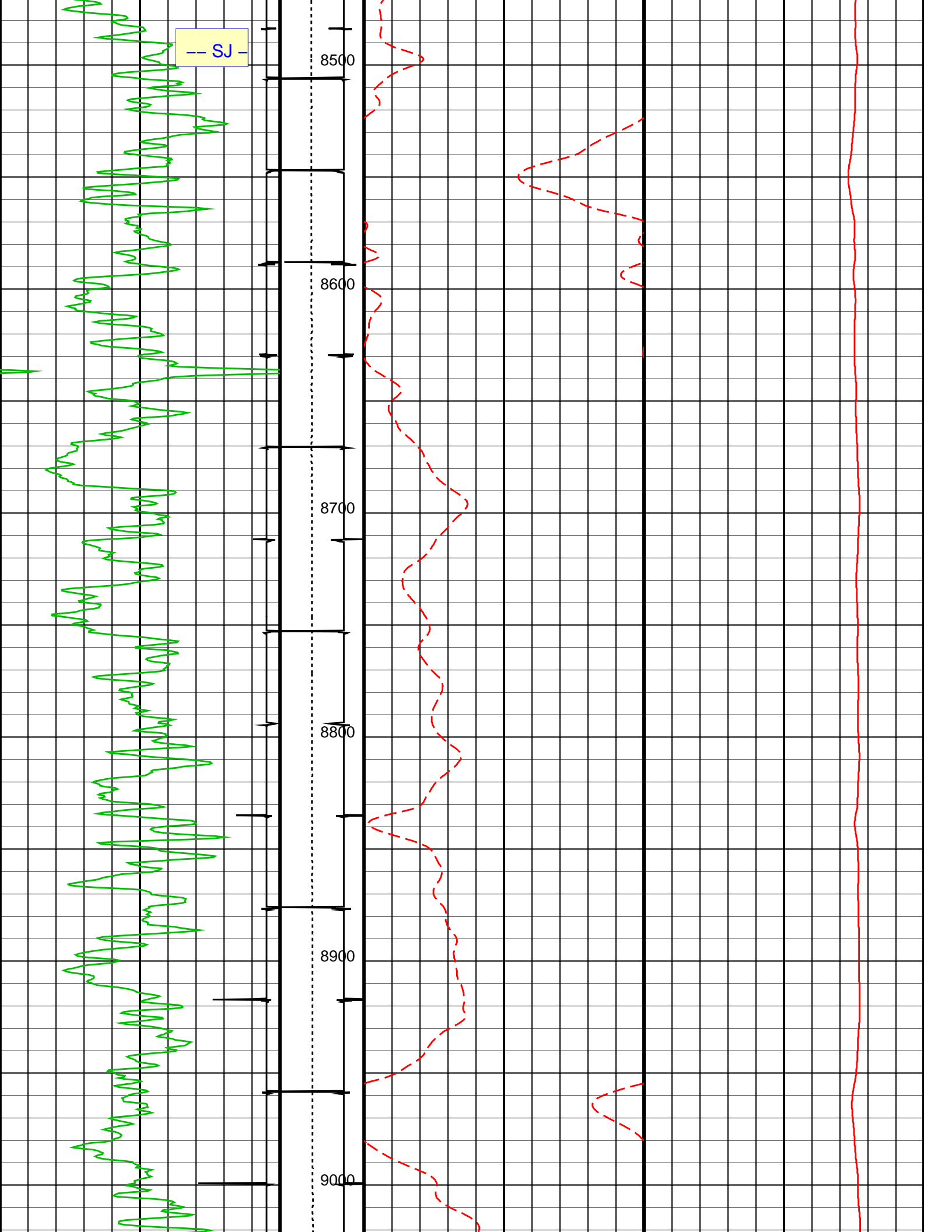


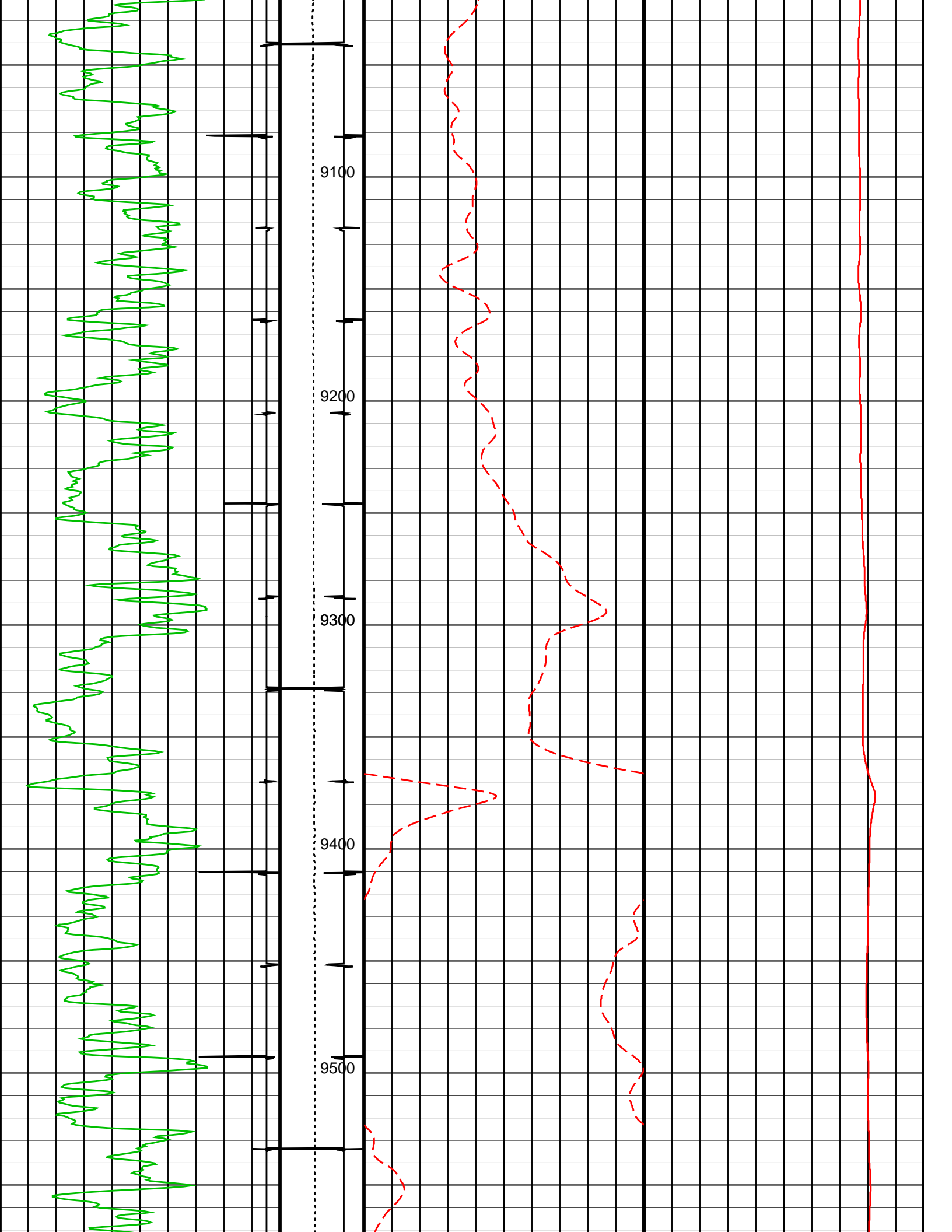


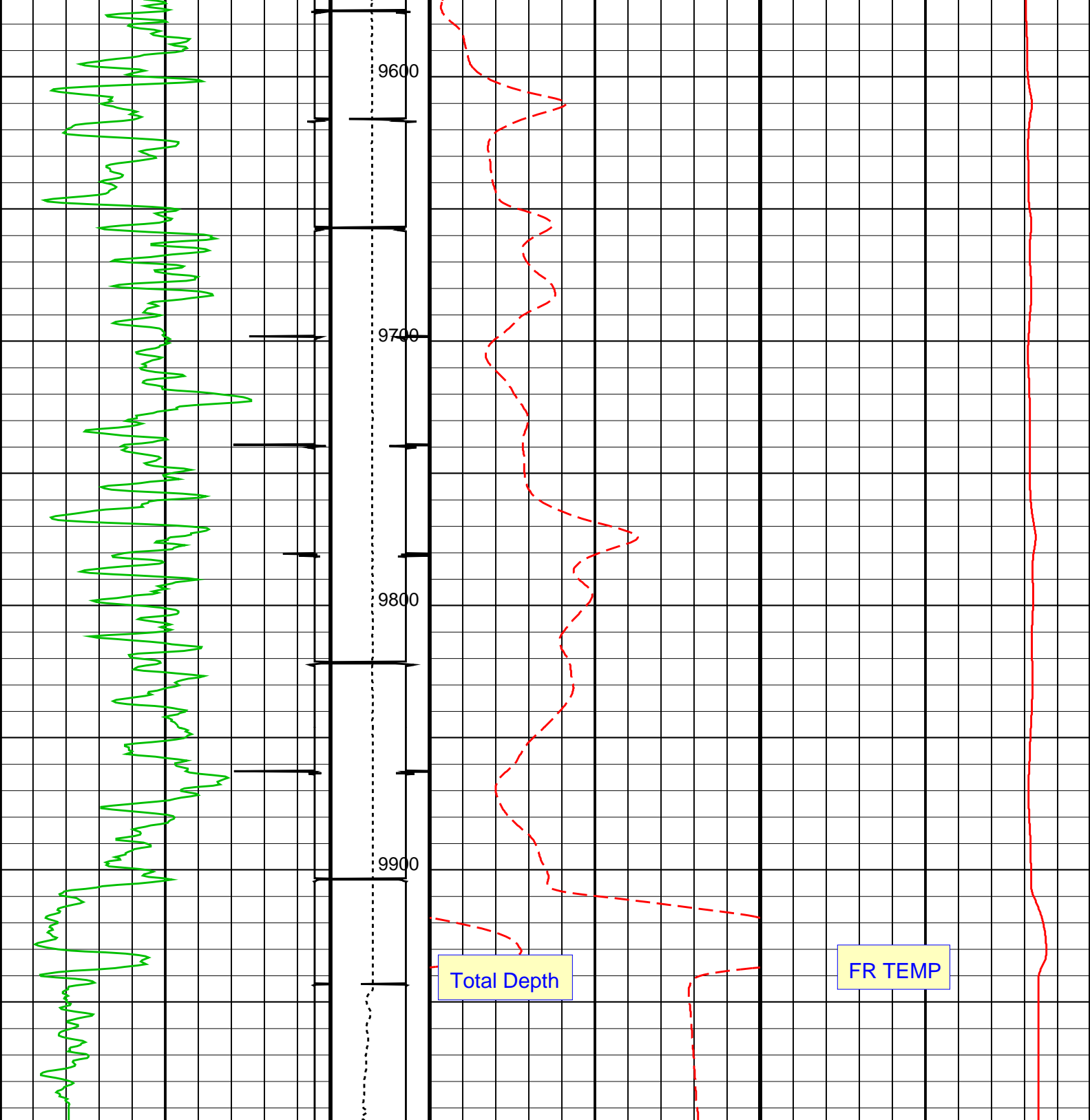












Discriminated CCL (CCLD) (V)		Tension (TENS) (LBF)	Well Temperature (WTEP) (DEGF)		Well Temperature (WTEP) (DEGF)	
-19	1	0 2000	0	10 50	250	
Gamma Ray (GR) (GAPI)		Discriminated CCL (CCLD) (V)				
0	150	3 -1				

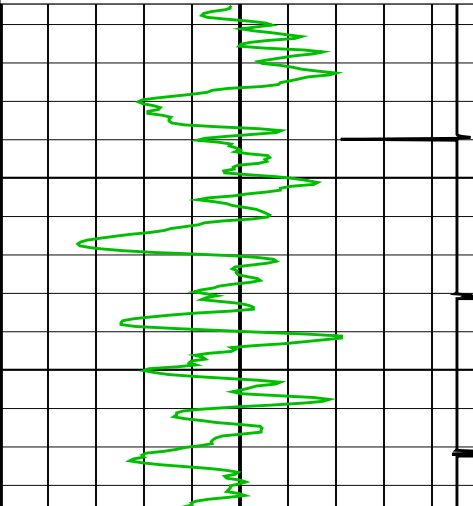
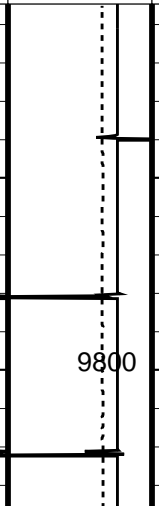
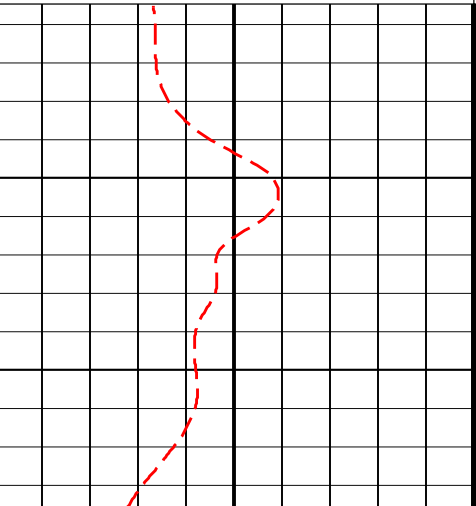
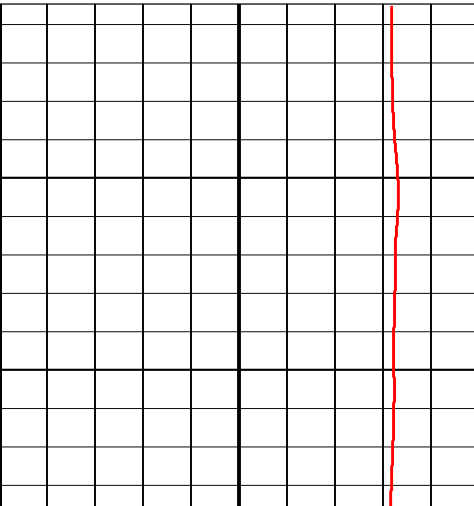
Parameters		
DLIS Name	Description	Value
System and Miscellaneous		
DO	Depth Offset for Playback	0.0 FT

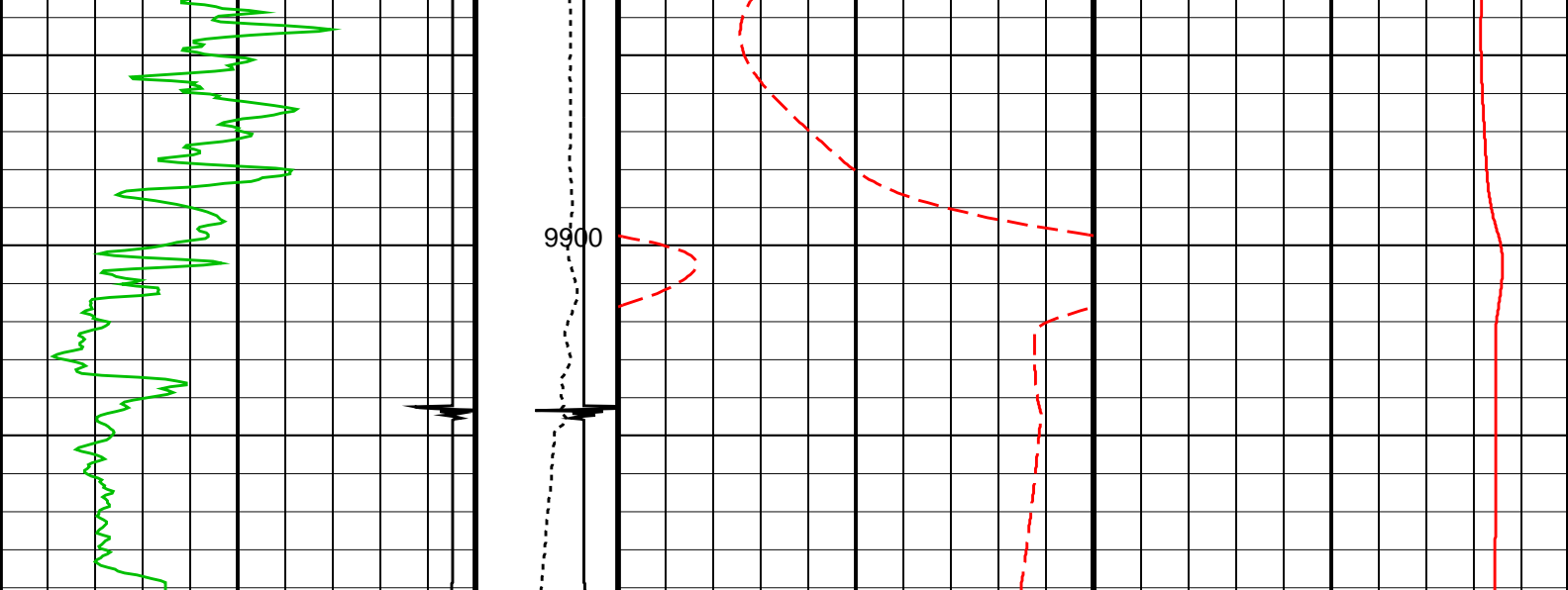
PP	Playback Processing	NORMAL
Format: TEMPERATURE_S2	Vertical Scale: 2" per 100'	Graphics File Created: 25-Feb-2011 13:29
OP System Version: 18C0-147		
PSPT	18C0-147	
Input DLIS Files		
DEFAULT	Flip_PSP_006LUP	PRODUCER 25-Feb-2011 13:29 9995.0 FT 192.0 FT
Output DLIS Files		
DEFAULT	PSP_007PUP	FN:5 PRODUCER 25-Feb-2011 13:29



REPEAT PASS 0 PSI

MAXIS Field Log

Company: ENCANA OIL & GAS (USA) INC.				Well: GMR 8-5C1 (K8W)			
Input DLIS Files							
DEFAULT	PSP_005LUP	FN:4	PRODUCER	25-Feb-2011 13:26	9985.0 FT	9698.5 FT	
Output DLIS Files							
DEFAULT	PSP_009PUP	FN:7	PRODUCER	25-Feb-2011 13:38	9991.0 FT	9704.5 FT	
OP System Version: 18C0-147							
PSPT		18C0-147					
Gamma Ray (GR) (GAPI)		Discriminat ed CCL (CCLD)					
0150		3 (V) -1					
Discriminated CCL (CCLD) (V)		Tension (TENS) (LBF)		Well Temperature (WTEP) (DEGF)		Well Temperature (WTEP) (DEGF)	
-191		02000		01050		250	
							



Discriminated CCL (CCLD) (V)	1	Tension (TENS) (LBF)	0	2000	Well Temperature (WTEP) (DEGF)	10	50	Well Temperature (WTEP) (DEGF)	250
Gamma Ray (GR) (GAPI)	0	Discriminat ed CCL (CCLD) (V)	3	-1					

Parameters

DLIS Name

Description

Value

System and Miscellaneous
DO
PP
Depth Offset for Playback
Playback Processing

6.0 FT
NORMAL

Format: TEMPERATURE_S2

Vertical Scale: 2" per 100'

Graphics File Created: 25-Feb-2011 13:38

OP System Version: 18C0-147

PSPT 18C0-147

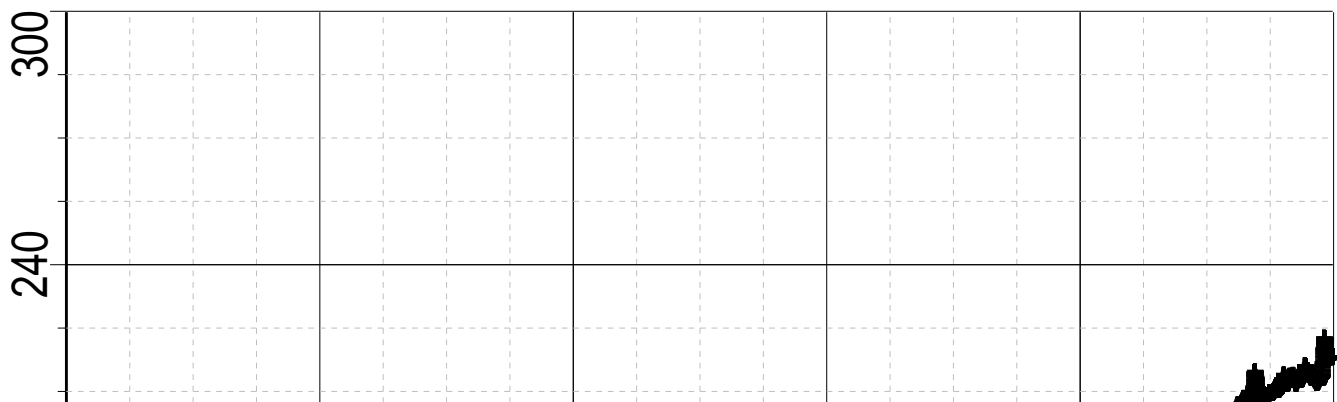
Input DLIS Files

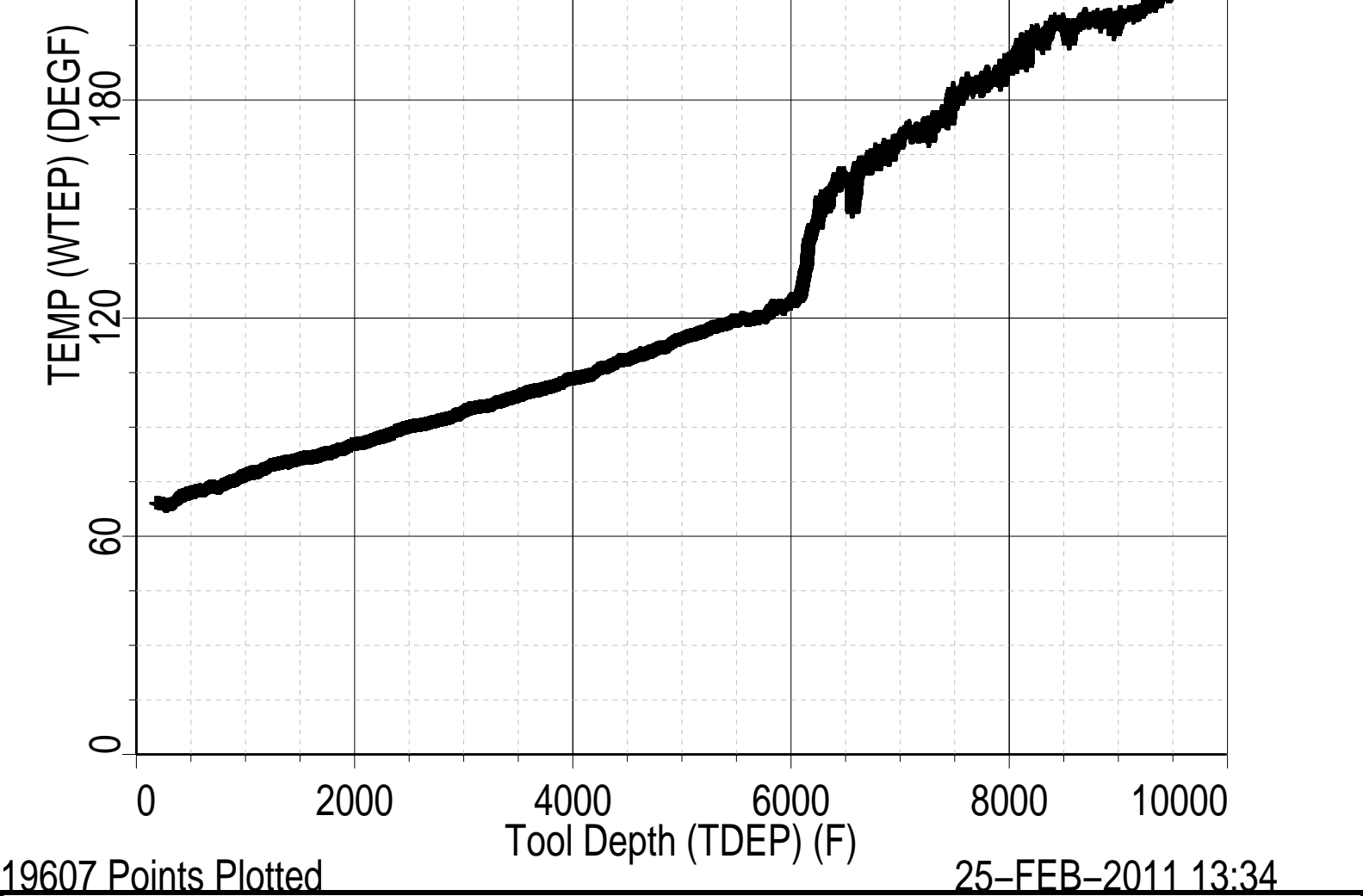
DEFAULT	PSP_005LUP	FN:4	PRODUCER	25-Feb-2011 13:26	9985.0 FT	9698.5 FT
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Output DLIS Files

DEFAULT	PSP_009PUP	FN:7	PRODUCER	25-Feb-2011 13:38
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Index: 9995.0 – 192.0 FT





TEMPERATURE PLOT

MAXIS Field Log

Client: ENCANA OIL & GAS (USA) INC.
Field: MAMM CREEK
Well: GMR 8-5C1 (K8W)
Run date: 25-Feb-2011

Tool: PSP
Sub Type: PBMS
Sensor: Clock Model

PBMS Digitalization Clock

Sonde Serial NB
Sensor Serial NB 1978
Calib Date ddmmyy 130504
Matrix Size 16
Coeff CRC 5CEA

Clock Coeff

Temp**0 Temp**1 Temp**2

130504130504130504	130504130504130504	130504130504130504
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Temp**0	+.139219320676E+03	-.138627001935E+02	+.859431879586E-01
	Temp**3	Temp**4	Temp**5
Temp**0	-.628682621982E-03	+.587736032514E-05	0.0

Client:	ENCANA OIL & GAS (USA) INC.	Tool:	PSP
Field:	MAMM CREEK	Sub Type:	PBMS
Well:	GMR 8-5C1 (K8W)	Sensor:	Sapphire
Run date:	25-Feb-2011		

PBMS Sapphire 10kPsi Gauge
 Sonde Serial NB
 Sensor Serial NB
 Calib Date ddmmyy
 Matrix Size
 Coeff CRC
 Pres Coeff

COEFFICIENTS FOR SAPPHIRE PBMS-A.1978 S/N:
 1978
 130504
 66
 CDB8

	Tt**0	Tt**1	Tt**2
Tp**0	+.176118433328E+04	-.114287760602E+04	-.552370640019E+01
Tp**1	+.120179654956E+04	-.105787675261E+03	+.243351719860E+03
Tp**2	-.276897941898E+00	+.404822139973E+01	-.190479536297E+01
Tp**3	-.147302668483E+01	+.399735413314E+00	0.0
Tp**4	0.0	0.0	0.0
Tp**5	0.0	0.0	0.0

	Tt**3	Tt**4	Tt**5
Tp**0	+.592195962840E+01	-.283456312509E+00	0.0
Tp**1	-.411392114946E+02	+.252907770718E+01	0.0
Tp**2	0.0	0.0	0.0
Tp**3	0.0	0.0	0.0
Tp**4	0.0	0.0	0.0
Tp**5	0.0	0.0	0.0

PBMS Sapphire 10kPsi Gauge

Sonde Serial NB :
Sensor Serial NB 1978
Calib Date ddmmyy 130504
Matrix Size 66
Coeff CRC C63C

Temp Coeff

	Tp**0	Tp**1	Tp**2
Tt**0	-.312130144190E+03	-.991353418536E+01	+.262069872186E+01
Tt**1	+.825200782509E+02	+.441891383076E+01	-.786445782885E+00
Tt**2	+.292218390302E+01	-.621848824564E+00	+.320809923263E-01
Tt**3	-.233514234771E-03	+.356573701346E-01	0.0
Tt**4	0.0	0.0	0.0
Tt**5	0.0	0.0	0.0

	Tp**3	Tp**4	Tp**5
Tt**0	-.435390293847E+00	+.337053545744E-01	0.0
Tt**1	+.111454341512E+00	-.879511001042E-02	0.0
Tt**2	0.0	0.0	0.0
Tt**3	0.0	0.0	0.0
Tt**4	0.0	0.0	0.0
Tt**5	0.0	0.0	0.0

Client: ENCANA OIL & GAS (USA) INC.
Field: MAMM CREEK
Well: GMR 8-5C1 (K8W)
Run date: 25-Feb-2011

Tool: PSP
Sub Type: PBMS
Sensor: GR

PBMS Gamma Ray

Sonde Serial NB RESISTORS FOR GR SENSOR N.33694,TOOL PBMS-AA1978. SENSOR S/N:
Sensor Serial NB 33694
Calib Date ddmmyy 240104
Matrix Size 12
Coeff CRC 5389

GR HV Rt

	Rt**0	Rt**1
Rt**0	+.200000000000e+04	+.541000000000e+04

Client: ENCANA OIL & GAS (USA) INC.

Field: MAMM CREEK

Well: GMR 8–5C1 (K8W)

Run date: 25–Feb–2011

Tool: PSP

Sub Type: PBMS

Sensor: WellTemp RTD

PBMS RTD Well Thermometer

Sonde Serial NB

Sensor Serial NB

Calib Date ddmmyy

Matrix Size

Coeff CRC

COEFFICIENTS FOR RTD THERMOMETER PBMS–A.1978 S/N:

1978

130504

16

D8B1

WTemp Coeff

	Tt**0	Tt**1	Tt**2
Tt**0	–.455775326834E+03	+.220445340590E+03	–.461516288003E+02
	Tt**3	Tt**4	Tt**5
Tt**0	+.789507566154E+01	–.475635460399E+00	0.0

Company: ENCANA OIL & GAS (USA) INC.



Well: GMR 8–5C1 (K8W)

Field: MAMM CREEK

County: GARFIELD

State: COLORADO

