



COMPENSATED Z-DENSILOGSM
COMPENSATED NEUTRON LOG
GAMMA RAY LOG

FILE NO: MD114429 COMPANY COACHMAN ENERGY OPERATING COMPANY

API NO: 05-103-12274 WELL SHAVETAIL FEDERAL 28-44
FIELD WILDCAT
COUNTY RIO BLANCO STATE COLORADO

Ver. 4.01 LOCATION: 1381' FSL & 380' FEL OTHER SERVICES
FINAL PRINT SEC 28 TWP 1N RGE 103W
HDIL
XMAC

PERMANENT DATUM GL ELEVATION 5690 FT ELEVATIONS:
LOG MEASURED FROM KB 11 FT ABOVE P.D. KB 5601 FT
DRILL. MEAS. FROM KELLY BUSHING DF 5600 FT
GL 5690 FT

DATE	26-AUG-2015	
RUN	TRIP	1
SERVICE ORDER	098516	
DEPTH DRILLER	4730 FT	
DEPTH LOGGER	4721 FT	
BOTTOM LOGGED INTERVAL	4686 FT	
TOP LOGGED INTERVAL	200 FT	
CASING DRILLER	8.625 IN	@ 529 FT
CASING LOGGER	531 FT	
BIT SIZE	7.875 IN	
TYPE OF FLUID IN HOLE	FRESH	
DENSITY	9.2 LB/G	14 CP
PH	8.9	7.6 C3
SOURCE OF SAMPLE	MEASURED	
RM AT MEAS. TEMP.	1.2 OHMM	@ 87 DEGF
RMF AT MEAS. TEMP.	0.9 OHMM	@ 87 DEGF
RMC AT MEAS. TEMP.	1.5 OHMM	@ 87 DEGF
SOURCE OF RMF	RMC	
RM AT BHT	1.39 OHMM	@ 123 DEGF
TIME SINCE CIRCULATION	8 HOURS	
MAX. RECORDED TEMP.	123 DEGF	
EQUIP. NO.	HL6713	ODESSA
RECORDED BY	W. LOUSTALOT	
WITNESSED BY	P. BLACKMER	

IN MAKING INTERPRETATIONS OF LOGS OUR EMPLOYEES WILL GIVE THE CUSTOMER THE BENEFIT OF THEIR BEST JUDGEMENT. BUT SINCE ALL INTERPRETATIONS ARE OPINIONS BASED ON INFERENCES FROM ELECTRICAL OR OTHER MEASUREMENTS, WE CANNOT, AND WE DO NOT GUARANTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATION. WE SHALL NOT BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COST, DAMAGES, OR EXPENSES WHATSOEVER INCURRED OR SUSTAINED BY THE CUSTOMER RESULTING FROM ANY INTERPRETATION MADE BY ANY OF OUR EMPLOYEES.

BOREHOLE RECORD

BIT SIZE	FROM	TO
12.25 IN	0 FT	529 FT
7.875 IN	529 FT	4730 FT

CASING RECORD

SIZE	WEIGHT	GRADE	FROM	TO
8.625 IN	24 LB/F		0 FT	529 FT
4.5 IN	11.6 LB/F			

REMARKS

RUN 1 TRIP 1: NACL: 3879 PPM
CL: 2358 PPM

BOREHOLE & CEMENT VOLUME PRESENTED (TOTAL VOLUME LESS 4.5 CSG)

1 SMALL TICK = 10 CU. FT.
1 MEDIUM TICK = 100 CU. FT.
1 LARGE TICK = 1000 CU. FT.

PORZC & CNC RECORDED ON A LIMESTONE MATRIX
CNC IS CASING AND CALIPER CORRECTED

CREW: J. ORONA, J. BERNARD, J. ESPINOZA
RIG: CAPSTAR 314

EQUIPMENT DATA

RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
1	1	TTRM	3981XA	10295914	FREE
1	1	COMN REMT	3514XB	10391229	FREE
1	1	DSL	1329XA	Z177857	DECENTRALIZED
1	1	CN	2446XA	Z179989	DECENTRALIZED
1	1	ZDL	2234XA	10495292	PAD DEVICE
1	1	KNUCKLE	3939XA	12949575	FREE
1	1	HDIL EA	1515EA	12096519	CENTRALIZED
1	1	HDIL	1515MA	12128131	CENTRALIZED

INSTRUMENT CONFIGURATION

CABLEHEAD

Diameter : 3.38"
 Length : 5.50'
 Weight : 24 lbs
 Series : CABL338
 Mnemonic : CBLH
 Measure Point: 2.75': CABLEHEAD TOP
 Tensile Str. : 120000 lbs

TTRM SUB

Diameter : 3.63"
 Length : 3.83'
 Weight : 62 lbs
 Series : 3981XA
 Mnemonic : TTRM

WTS COMMON REMOTE

Diameter : 3.63"
 Length : 6.36'
 Weight : 126 lbs
 Series : 3514XB
 Mnemonic : WTS
 Tensile Str. : 78000 lbs
 Compressive : 114000 lbs

DIGITAL SPECTRALOG

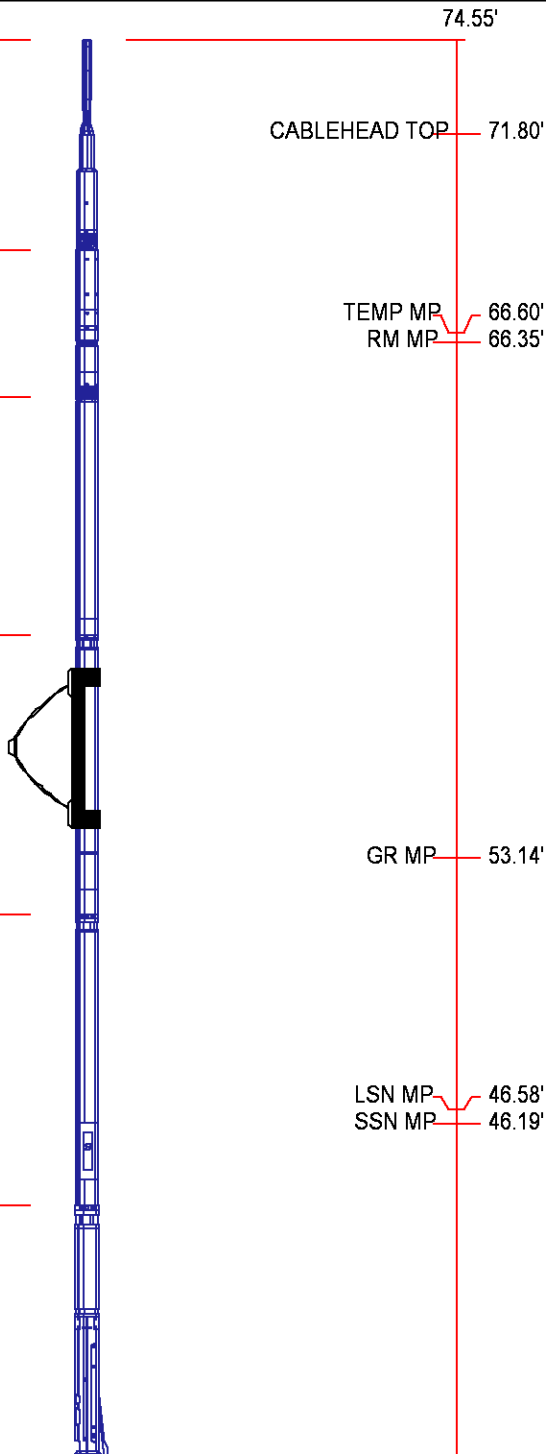
Diameter : 3.63"
 Length : 7.31'
 Weight : 130 lbs
 Series : 1329XA
 Mnemonic : DSL
 Measure Point: 1.60': GR MP
 Tensile Str. : 78000 lbs
 Compressive : 85000 lbs

COMPENSATED NEUTRON

Diameter : 3.63"
 Length : 7.59'
 Weight : 150 lbs
 Series : 2446XA
 Mnemonic : CN
 Measure Point: 2.63': LSN MP
 Measure Point: 2.24': SSN MP
 Tensile Str. : 78000 lbs
 Compressive : 78000 lbs

Z-DENSILOG

Diameter : 4.88"
 Length : 11.22'
 Weight : 360 lbs
 Series : 2234XA
 Mnemonic : ZDL



Measure Point: 3.19': CAL MP
Measure Point: 2.47': LSD MP
Measure Point: 2.07': SSD MP
Tensile Str. : 78000 lbs
Compressive : 74500 lbs

CAL MP 35.93'
LSD MP 35.21'
SSD MP 34.81'

KNUCKLE JOINT (DOUBLE)

Diameter : 3.38"
Length : 4.65'
Weight : 90 lbs
Series : 3939XA
Mnemonic : KNUJ
Tensile Str. : 32000 lbs

HIGH DEFINITION INDUCTION TOOL

Diameter : 3.62"
Length : 27.13'
Weight : 415 lbs
Series : 1515XA
Mnemonic : HDIL
Measure Point: 13.91': SP MP
Measure Point: 7.44': XMTR MP
Tensile Str. : 36000 lbs
Compressive : 1900 lbs

SP MP 14.86'

XMTR MP 8.39'

BULL PLUG 3.3/8

0.00'

TOTAL LENGTH: 74.55'
TOTAL WEIGHT: 1383 lbs
MAX DIAMETER: 0'6.38"

MAIN LOG 2"/100FT SCALE

PARAMETER AND FILTER SUMMARY REPORT

SYMMETRIC FILTER					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
Y AXIS CALIPER TENSION GR CN CALIPER	FILTER ()	medium (1)		TOP	BOTTOM
	FILTER ()	medium (1)		"	"
	FILTER ()	medium (1)		"	"
	FILTER ()	medium (1)		"	"
	FILTER ()	medium (1)		"	"
	FILTER (.h)	medium (1)		"	"
	FILTER (.i)	medium (1)		"	"
ZDL MED RES	FILTER (hrd1*)	medium		"	"
	FILTER (hrd1s*)	medium		"	"
	FILTER (hrd2*)	medium		"	"
	FILTER (hrd2s*)	medium		"	"

BOREHOLE & CEMENT					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	4.500	in	TOP	BOTTOM
	CASING THICKNESS	0.250	in	"	"
BIT SIZE	BIT SIZE	7.875	in	"	"
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (cnbh*)	USE FIXED SIZE USE CALIPER		TOP 443.250	443.250 BOTTOM
	CALIPER/FIXED DIA. (zdbh*)	USE FIXED SIZE USE CALIPER		TOP 442.000	442.000 BOTTOM
BOREHOLE CORR DIAMETER	FIXED DIAMETER (cnbh*)	7.875	in	TOP	BOTTOM
	FIXED DIAMETER (zdbh*)	7.875	in	"	"

CN PROCESSING					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
2446 CN MATRIX	2446 MATRIX	LIMESTONE		TOP	BOTTOM
CN SALINITY CORRECTION	SALINITY	0	ppm	"	"
CN TOOL STANDOFF	ENABLE STANDOFF CORR	OFF		"	"
	STANDOFF AMOUNT	0.00	in	"	"
CN CASING & CEMENT CORRECTION	CORRECTION	ON OFF		TOP 526.000	526.000 BOTTOM
	BIT SIZE BEHIND CSNG	12.250	in	TOP	667.250
		7.875	in	667.250	BOTTOM

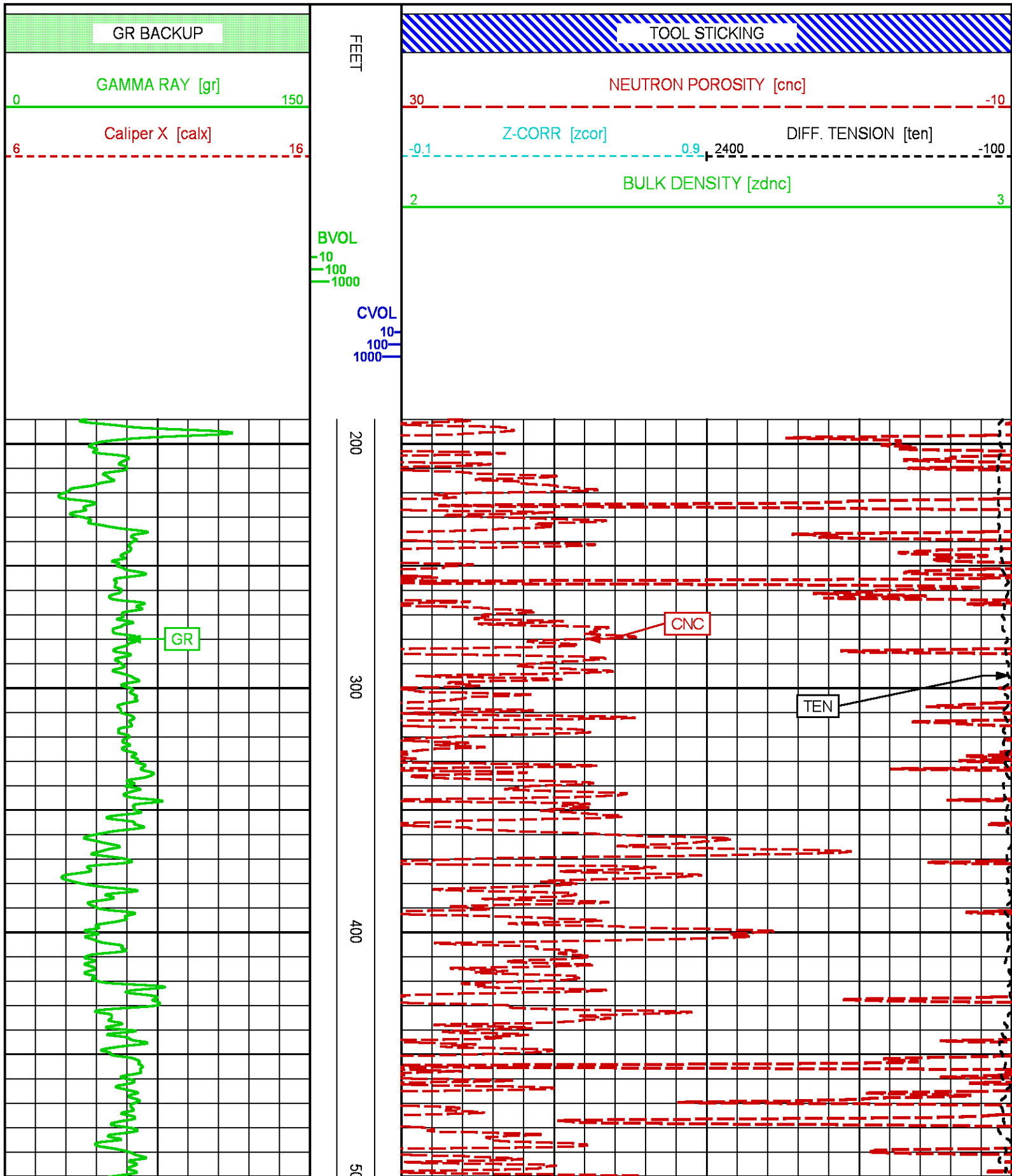
ZDL PROCESSING					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
MUD DENSITY	MUD DENSITY	9.20	lbm/gal	TOP	BOTTOM
ZDL	DENX TRACKING	ON		"	"
TRACKING TIME	Logging Spd for Gain	Over 10 ft/min		"	"

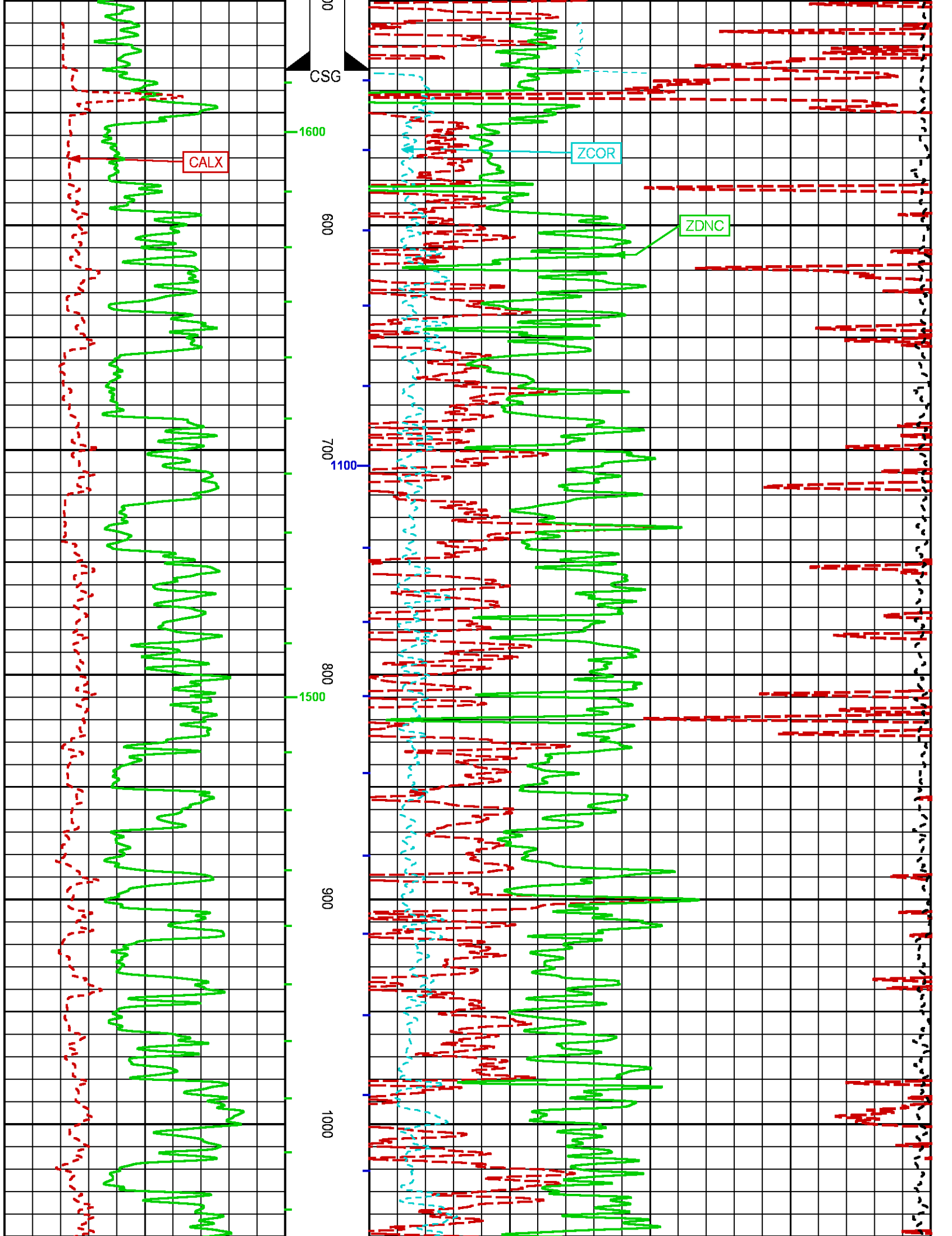
CURVE DESCRIPTION REPORT		
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:BVOL	Aug 26 07:47:17 2015	BOREHOLE VOLUME
F1:CALX	Aug 26 07:47:17 2015	CALIPER FROM X-AXIS OF XY CALIPER(S)
F1:CNC	Aug 26 07:47:17 2015	BOREHOLE SIZE CORRECTED COMPENSATED NEUTRON POROSITY
F1:CVOL	Aug 26 07:47:17 2015	CEMENT VOLUME
F1:GR	Aug 26 07:47:17 2015	GAMMA RAY
F1:TEN	Aug 26 07:47:17 2015	DIFFERENTIAL TENSION
F1:ZCOR	Aug 26 07:47:17 2015	DENSITY CORRECTION
F1:ZDNC	Aug 26 07:47:17 2015	BOREHOLE SIZE/MUD WEIGHT CORRECTED DENSITY

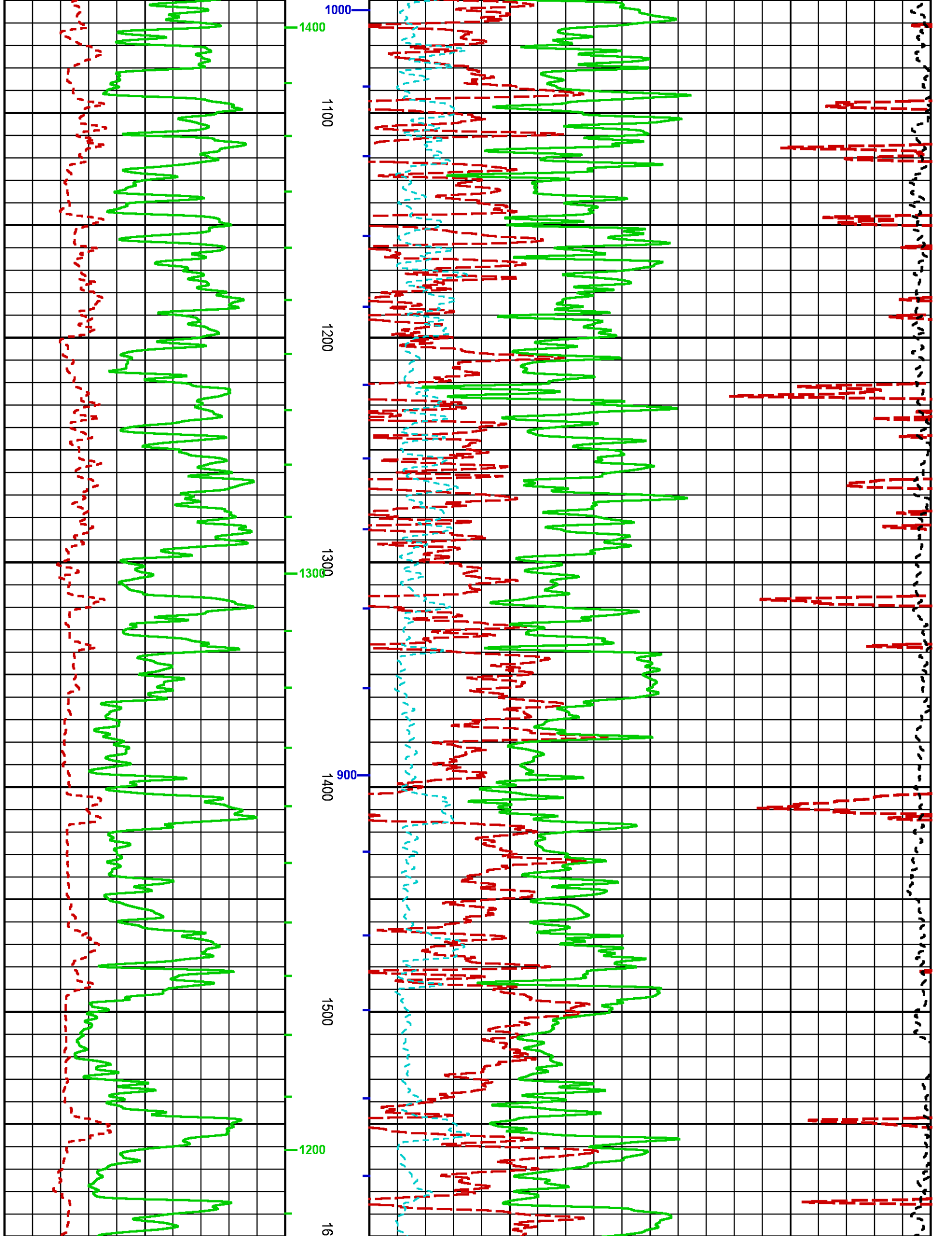
CURVE MEASURE POINT OFFSET							
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
CALX	35.00	GR	52.25	ZCOR	34.25		
CNC	45.25	TEN	0.00	ZDNC	34.25		

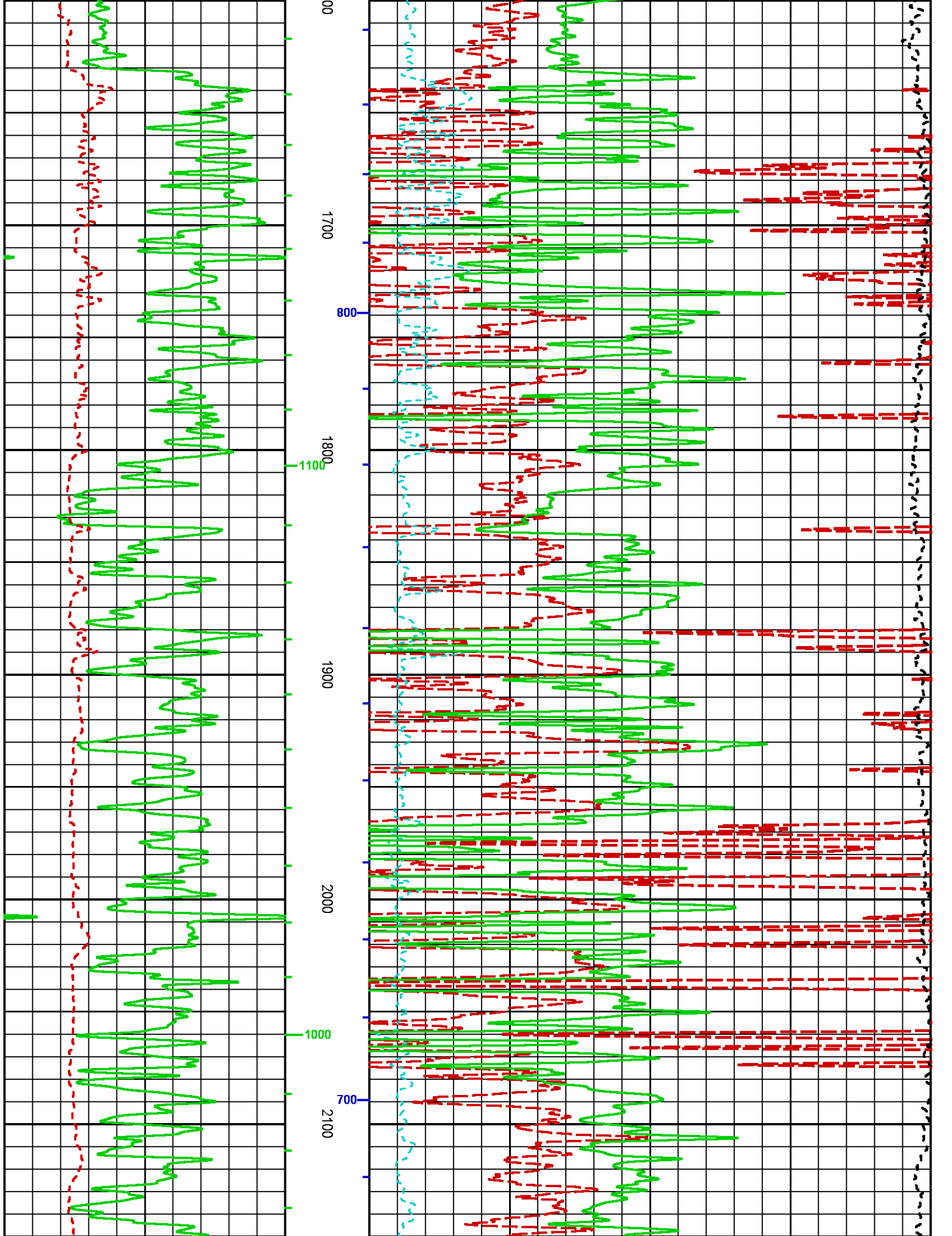
Plot Interval : 190 - 4742.75 Feet

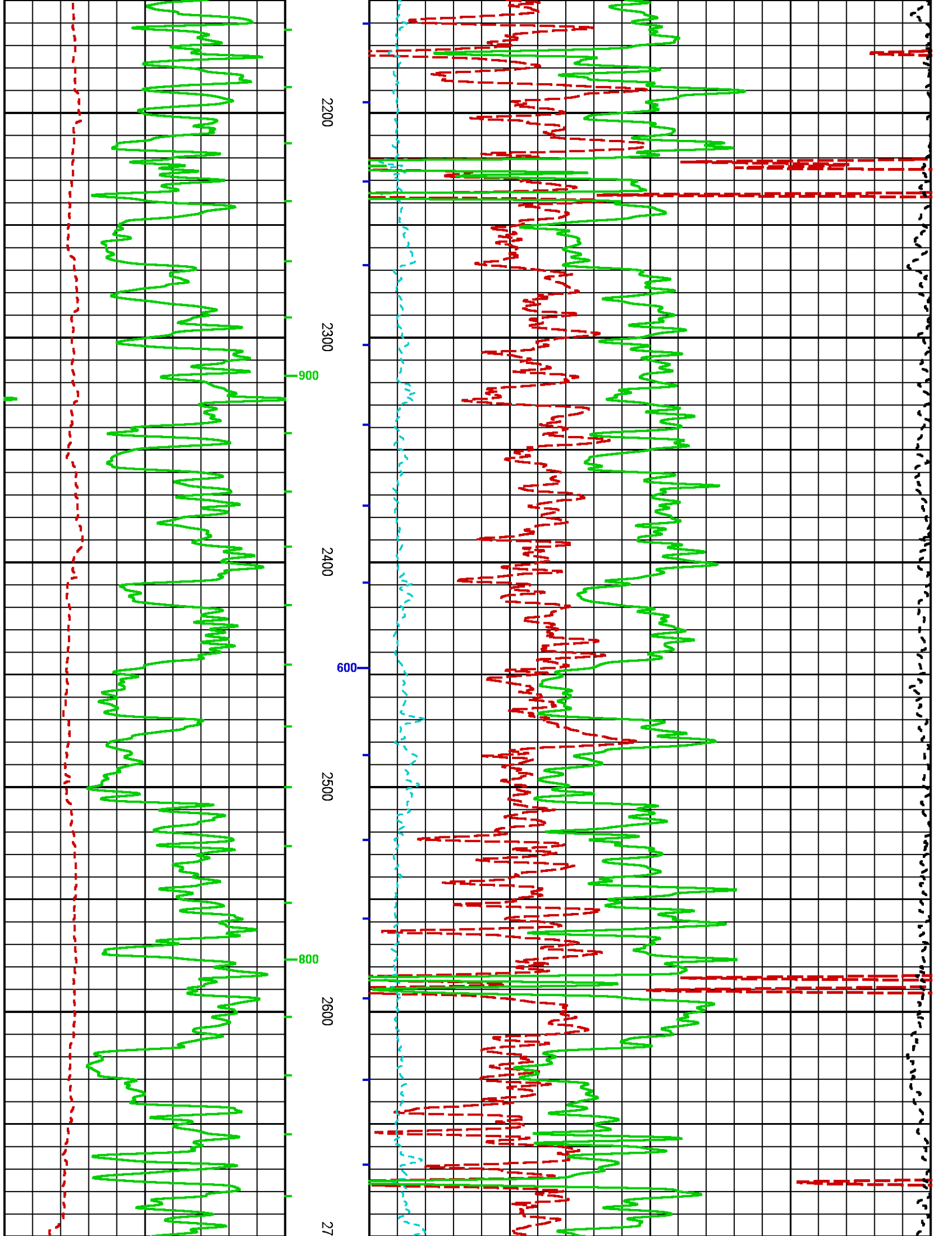
Data File 1 : F1 : sys1:/dat1a/md11429/MAIN.xtf
Created On : Aug 26 07:47:17 2015
Company : COACHMAN ENERGY OPERATING COMPANY
Well : SHAVETAIL FEDERAL 28-44
Field : WILDCAT
File Interval : 190 - 4744 Feet
OCT : CYNO

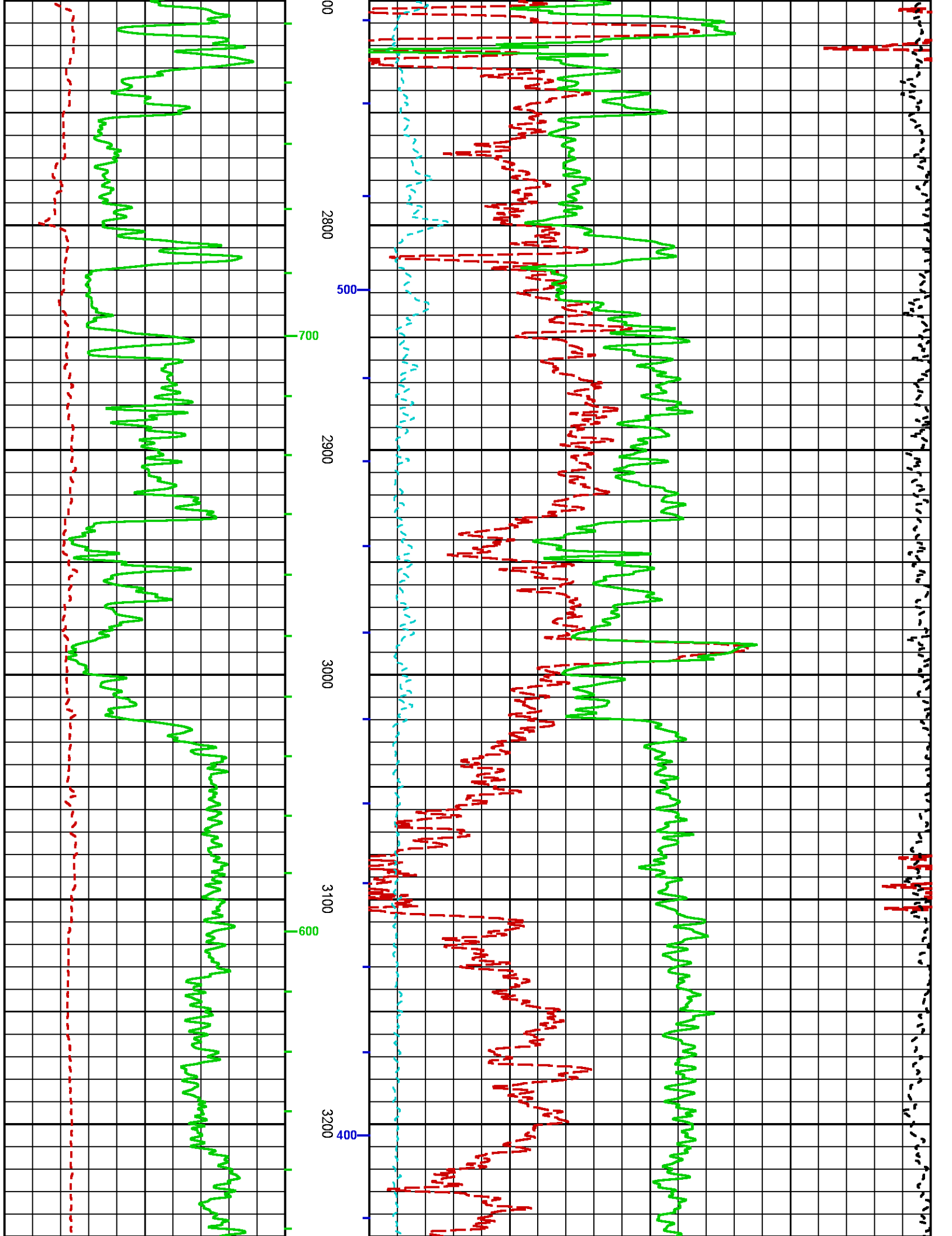


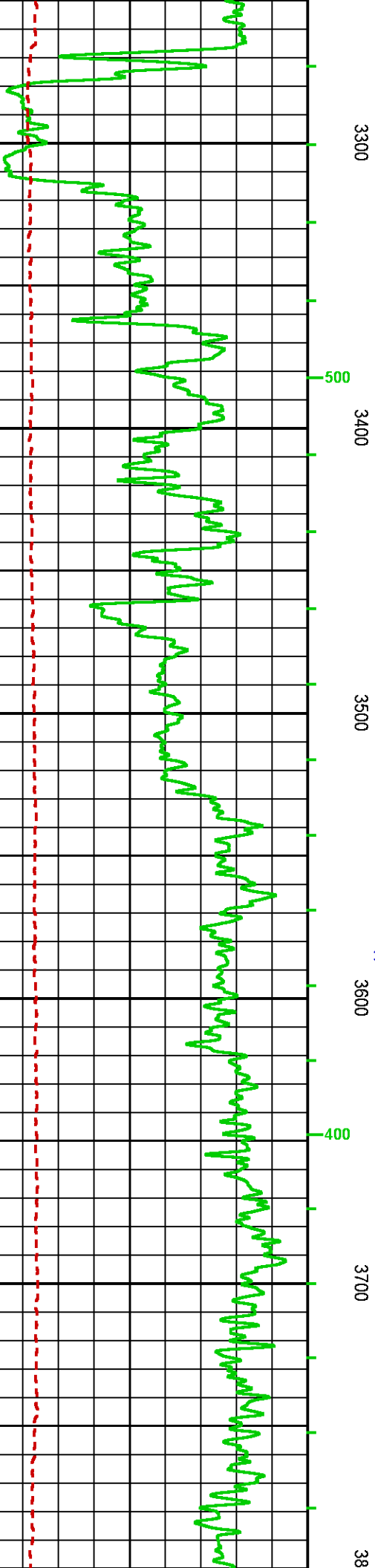
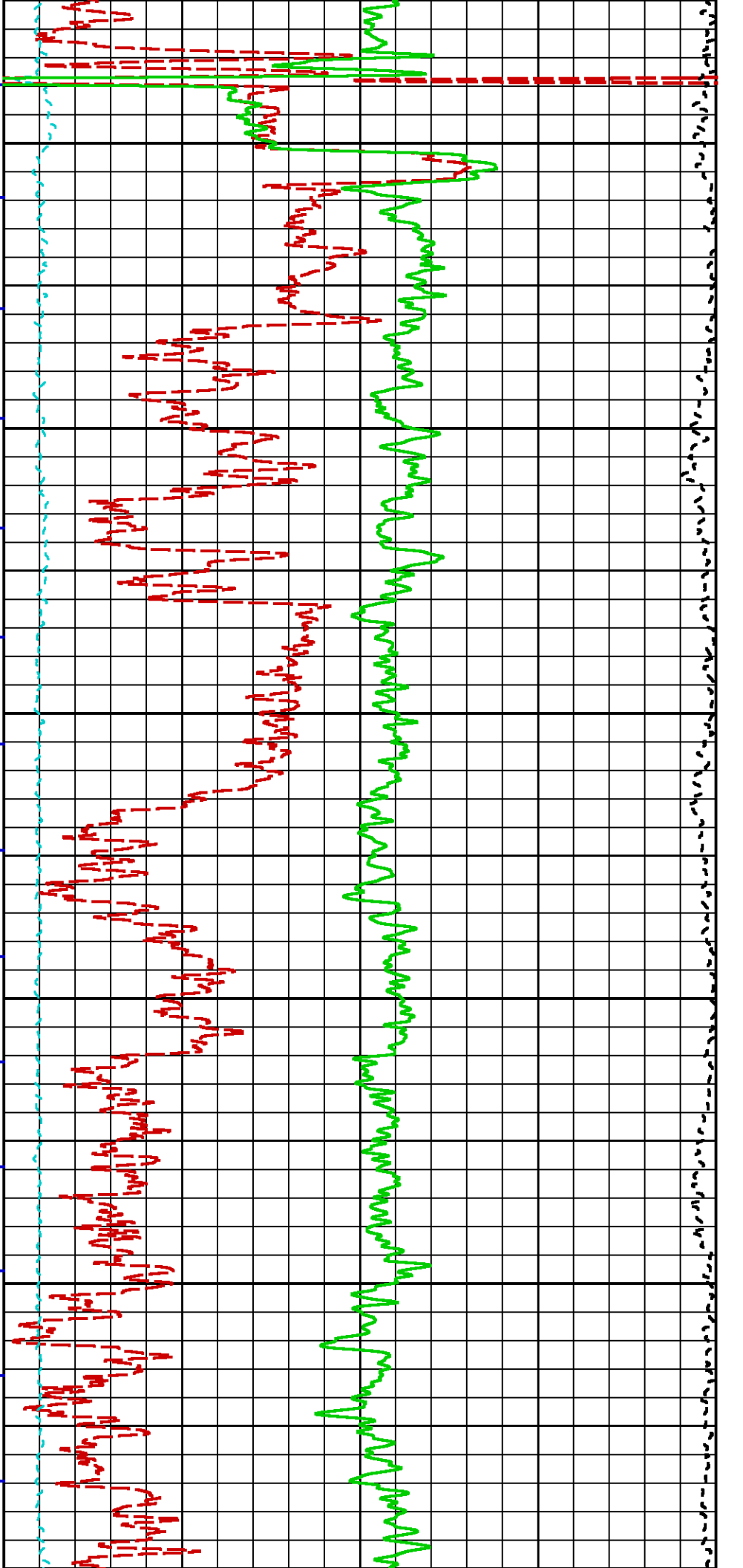


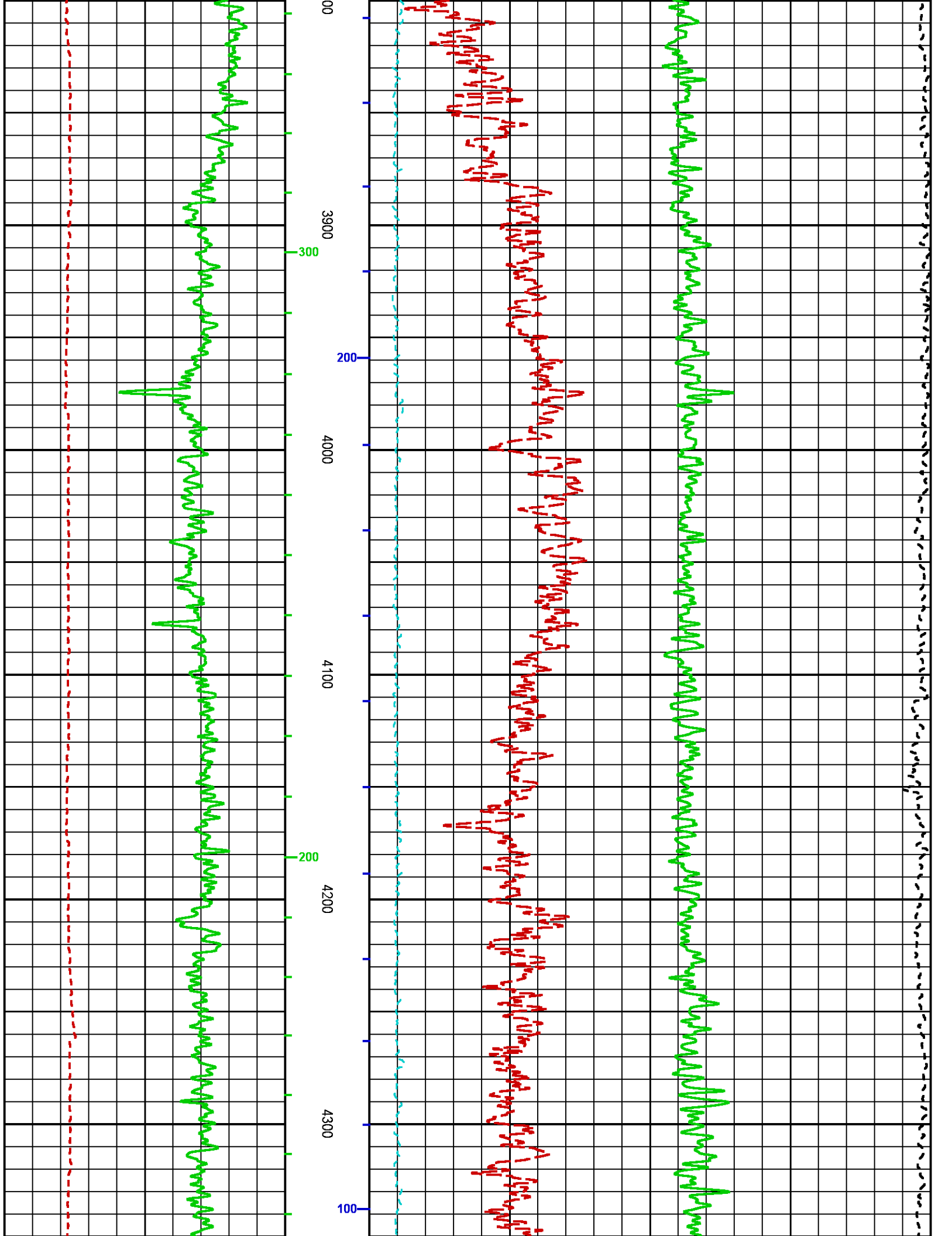


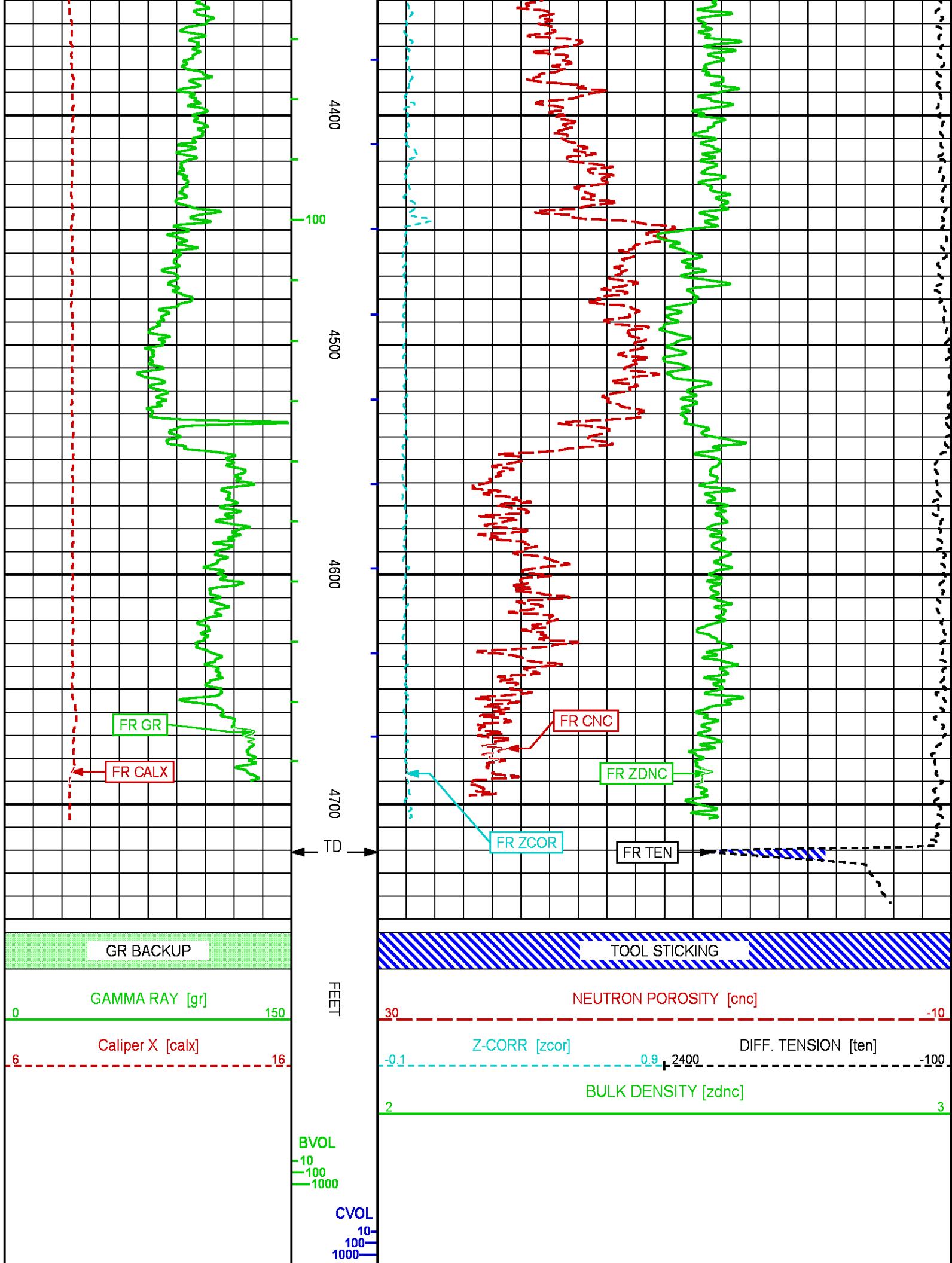












MAIN LOG 5"/100FT SCALE

ECLIPS 6.2i ECLIPS General Release Rel 6.2i Wed Jun 12 12:21:40 CDT 2013

Updates: 1 Patches: 7

Plotted: Wed Aug 26 11:12:57 2015

PARAMETER AND FILTER SUMMARY REPORT

File: /dat1a/md11429/CYNO02.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 78.000 ft BOTTOM DEPTH: 4744.000 ft

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
Y AXIS CALIPER	FILTER ()	medium (1)		TOP	BOTTOM
TENSION	FILTER ()	medium (1)		"	"
GR	FILTER ()	medium (1)		"	"
CN	FILTER ()	medium (1)		"	"
CALIPER	FILTER ()	medium (1)		"	"
	FILTER (.h)	medium (1)		"	"
	FILTER (.i)	medium (1)		"	"
ZDL MED RES	FILTER (hrd1*)	medium		"	"
	FILTER (hrd1s*)	medium		"	"
	FILTER (hrd2*)	medium		"	"
	FILTER (hrd2s*)	medium		"	"
	FILTER (soft*)	medium		"	"

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	4.500	in	TOP	BOTTOM
	CASING THICKNESS	0.250	in	"	"
BIT SIZE	BIT SIZE	7.875	in	"	"
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (cnbh*)	USE FIXED SIZE		TOP	443.250
		USE CALIPER		443.250	BOTTOM
	CALIPER/FIXED DIA. (zdbh*)	USE FIXED SIZE		TOP	442.000
		USE CALIPER		442.000	BOTTOM
BOREHOLE CORR DIAMETER	FIXED DIAMETER (cnbh*)	7.875	in	TOP	BOTTOM
	FIXED DIAMETER (zdbh*)	7.875	in	"	"

CN PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
2446 CN MATRIX	2446 MATRIX	LIMESTONE		TOP	BOTTOM
CN SALINITY CORRECTION	SALINITY	0	ppm	"	"
CN TOOL STANDOFF	ENABLE STANDOFF CORR	OFF		"	"
	STANDOFF AMOUNT	0.00	in	"	"
CN CASING & CEMENT CORRECTION	CORRECTION	ON		TOP	526.000
		OFF		526.000	BOTTOM
	BIT SIZE BEHIND CSNG	12.250	in	TOP	667.250
		7.875	in	667.250	BOTTOM

ZDL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
MUD DENSITY	MUD DENSITY	9.20	lbm/gal	TOP	BOTTOM
DENSITY POROSITY	RHOMatrix	2.710	g/cm3	"	"
	RHOfluid	1.000	g/cm3	"	"

ZDL	DENX TRACKING	ON	"	"
TRACKING TIME	Logging Spd for Gain	Over 10 ft/min	"	"

CURVE DESCRIPTION REPORT

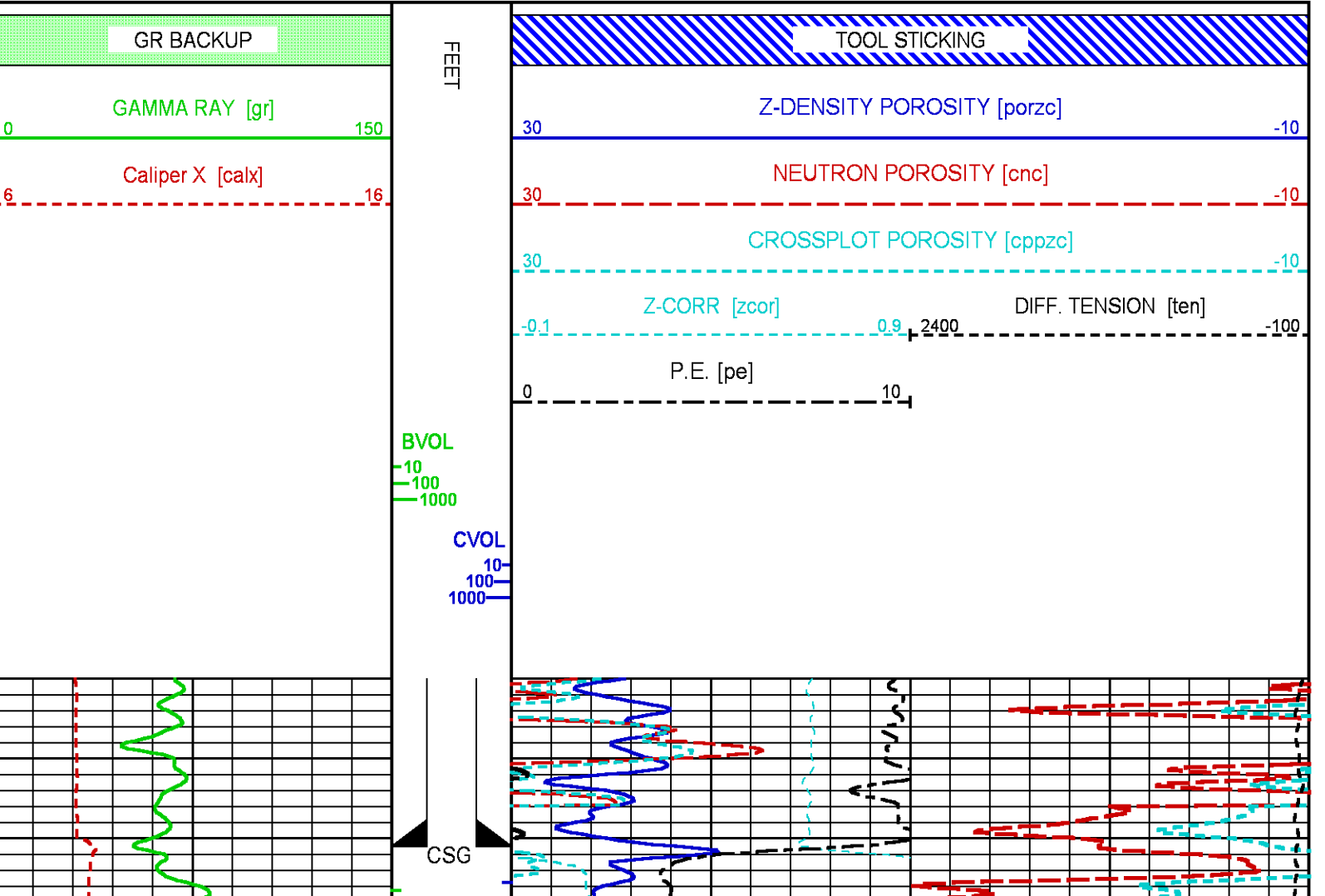
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:BVOL	Aug 26 07:47:17 2015	BOREHOLE VOLUME
F1:CALX	Aug 26 07:47:17 2015	CALIPER FROM X-AXIS OF XY CALIPER(S)
F1:CNC	Aug 26 07:47:17 2015	BOREHOLE SIZE CORRECTED COMPENSATED NEUTRON POROSITY
F1:CPPZC	Aug 26 07:47:17 2015	CROSSPLOT POROSITY FROM ZDEN
F1:CVOL	Aug 26 07:47:17 2015	CEMENT VOLUME
F1:GR	Aug 26 07:47:17 2015	GAMMA RAY
F1:PE	Aug 26 07:47:17 2015	PHOTO ELECTRIC CROSS-SECTION
F1:PORZC	Aug 26 07:47:17 2015	CORRECTED POROSITY
F1:TEN	Aug 26 07:47:17 2015	DIFFERENTIAL TENSION
F1:ZCOR	Aug 26 07:47:17 2015	DENSITY CORRECTION

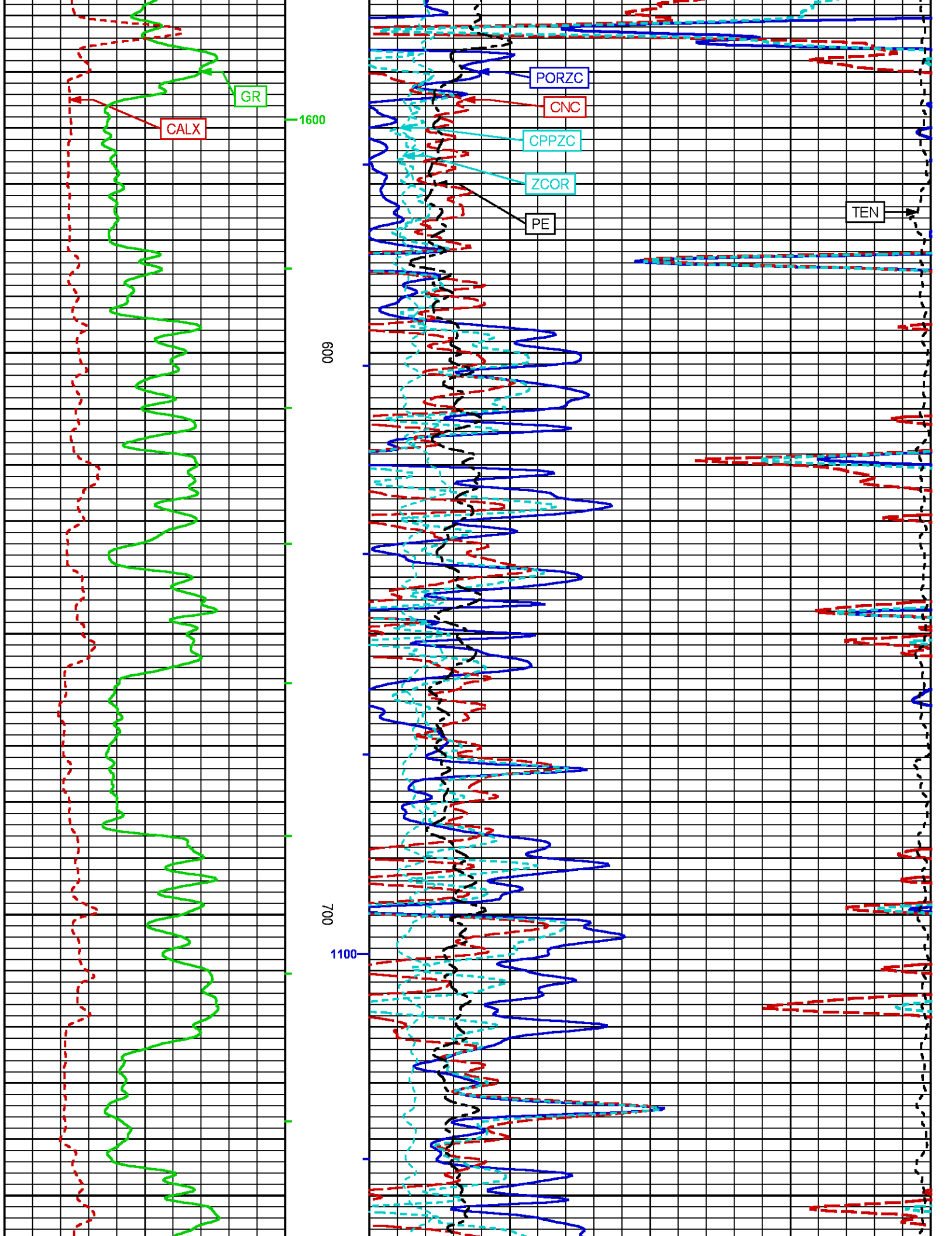
CURVE MEASURE POINT OFFSET

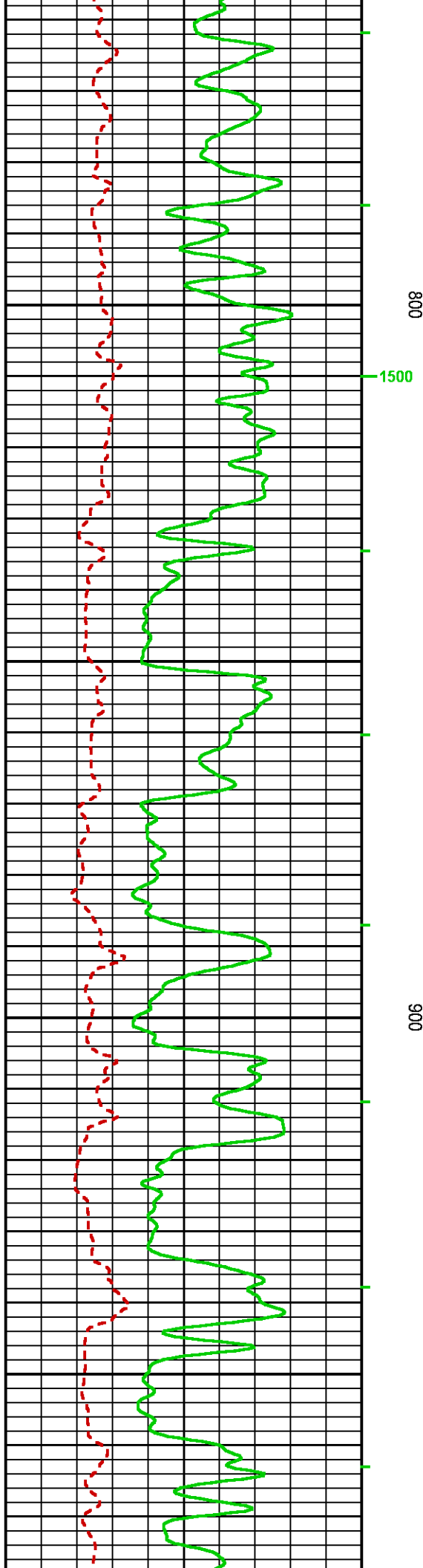
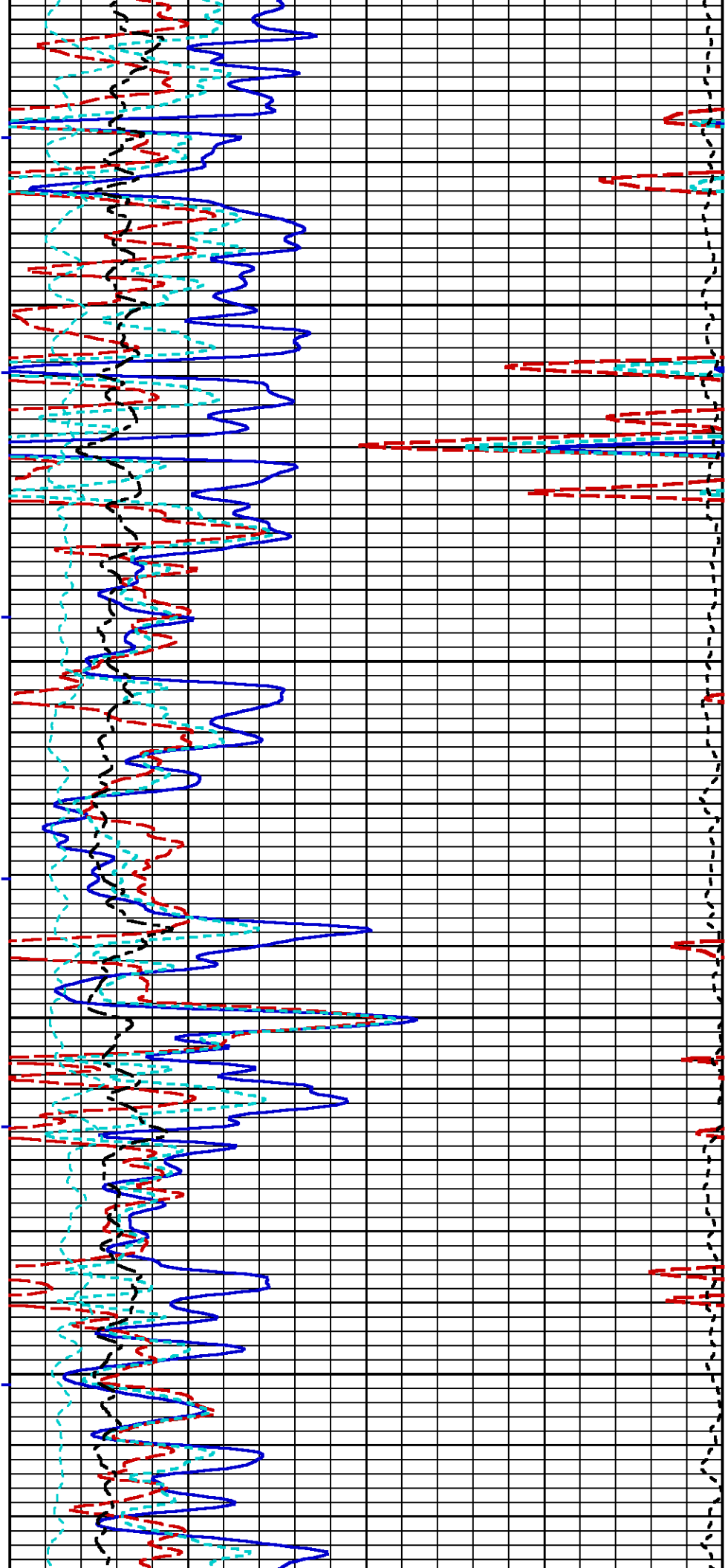
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
CALX	35.00	CPPZC	34.25	PE	34.25	TEN	0.00
CNC	45.25	GR	52.25	PORZC	34.25	ZCOR	34.25

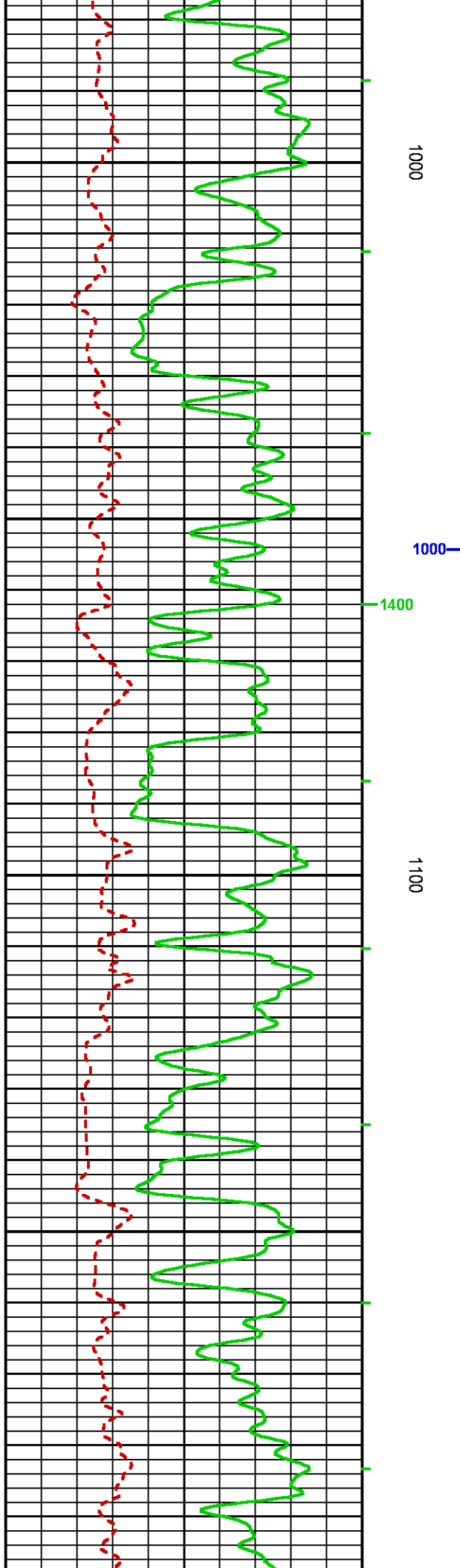
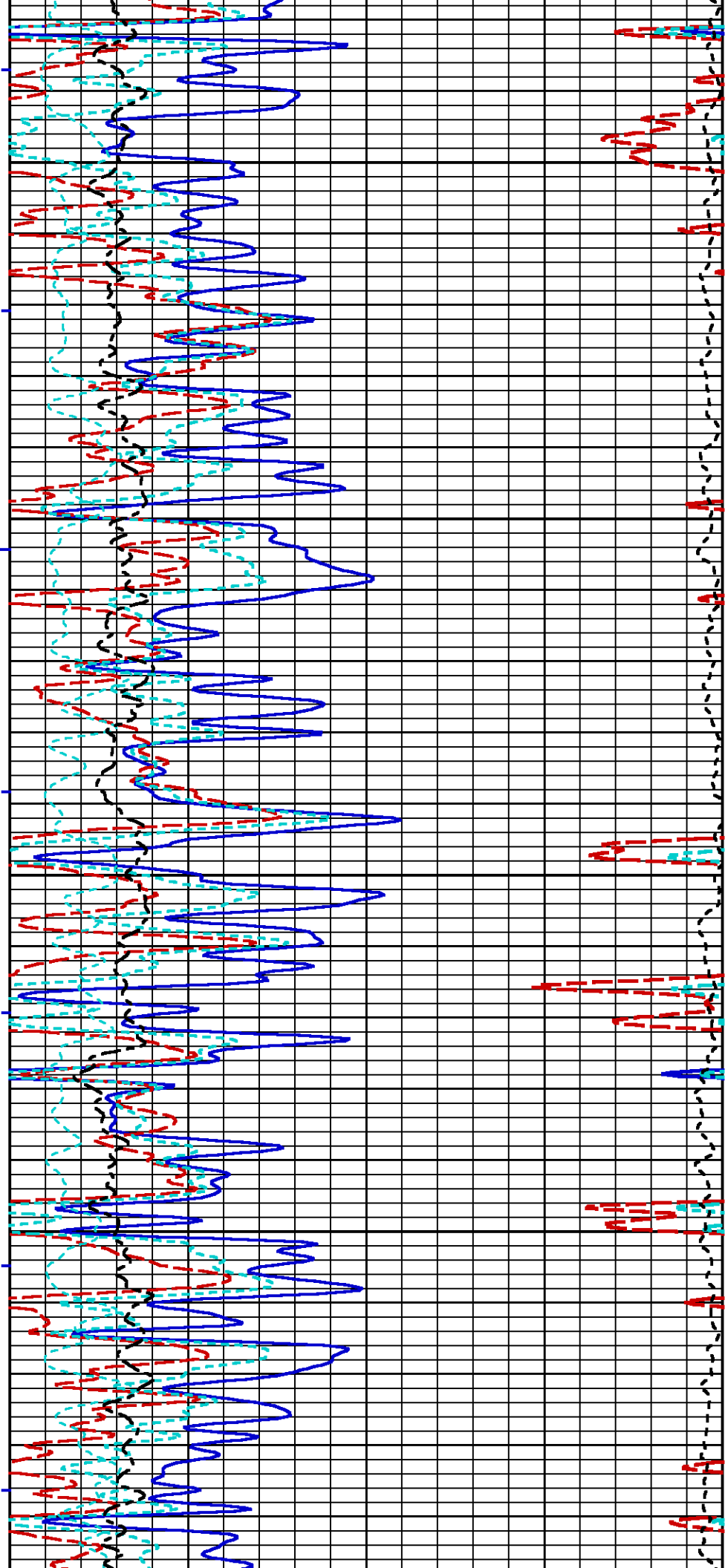
Presentation : sys1:/dat1a/md11429/POR_5.fvpdf [5"/100' Scale]
Plot Interval : 510 - 4742.75 Feet

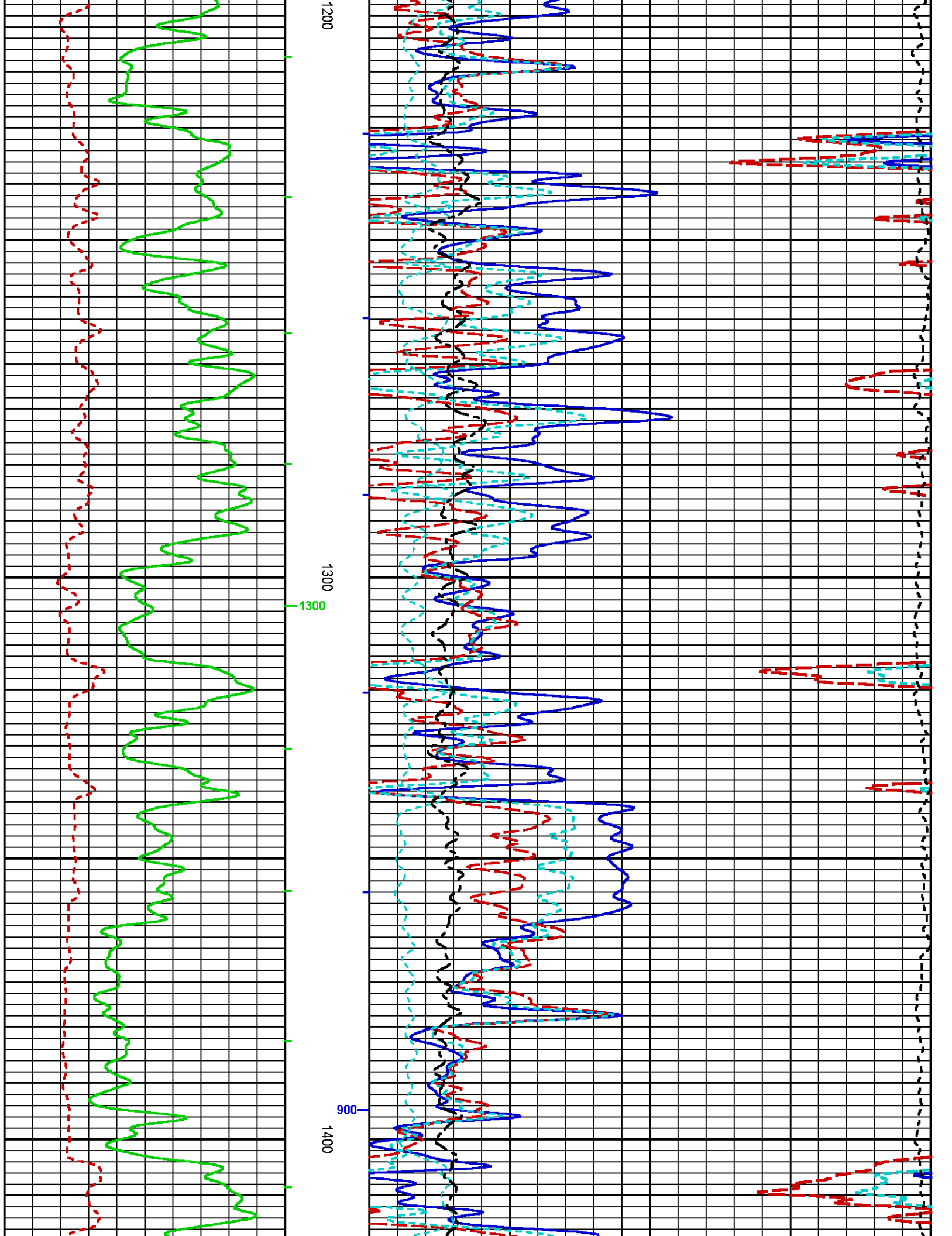
Data File 1 : F1 : sys1:/dat1a/md11429/MAIN.xtf
Created On : Aug 26 07:47:17 2015
Company : COACHMAN ENERGY OPERATING COMPANY
Well : SHAVETAIL FEDERAL 28-44
Field : WILDCAT
File Interval : 190 - 4744 Feet
OCT : CYNO

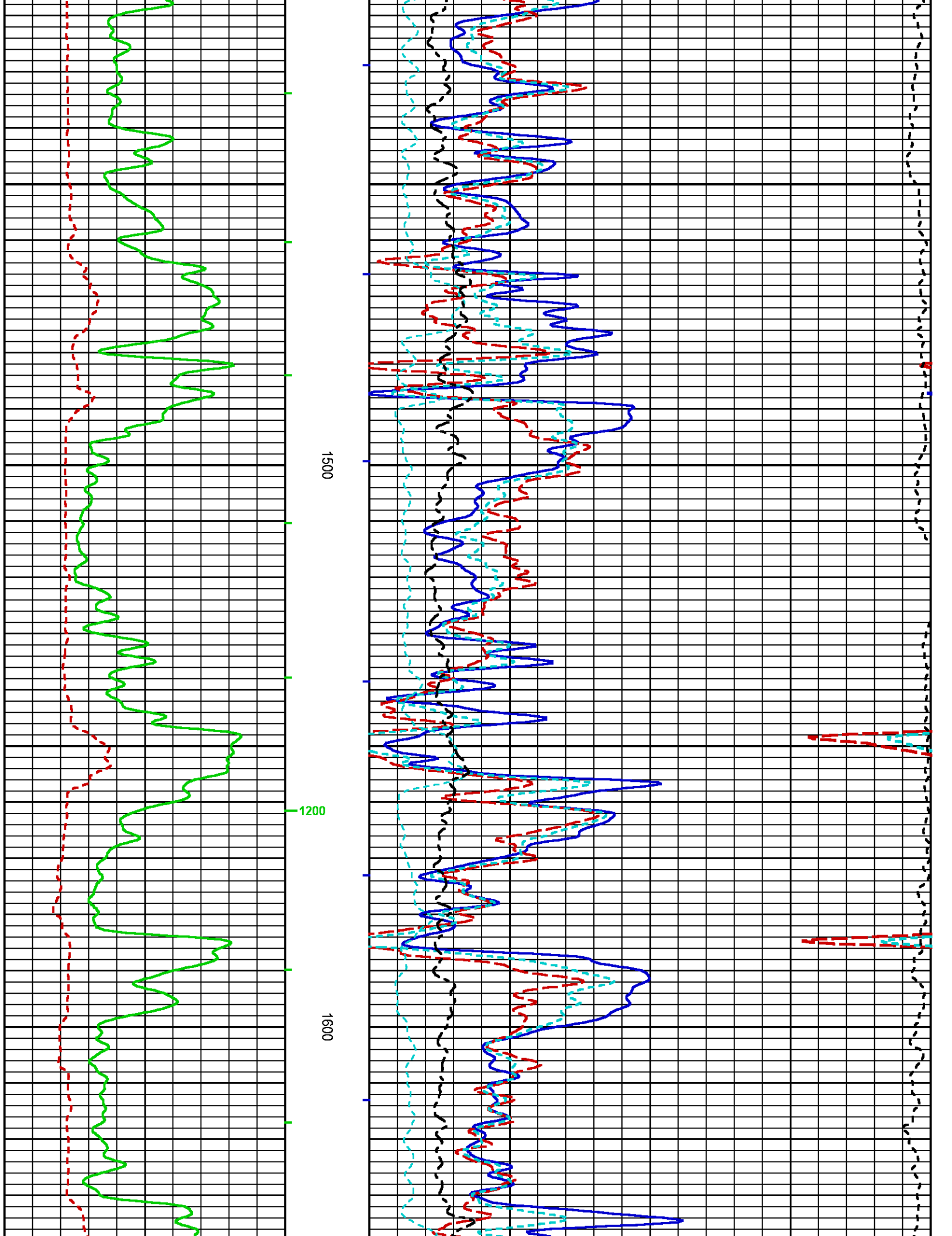


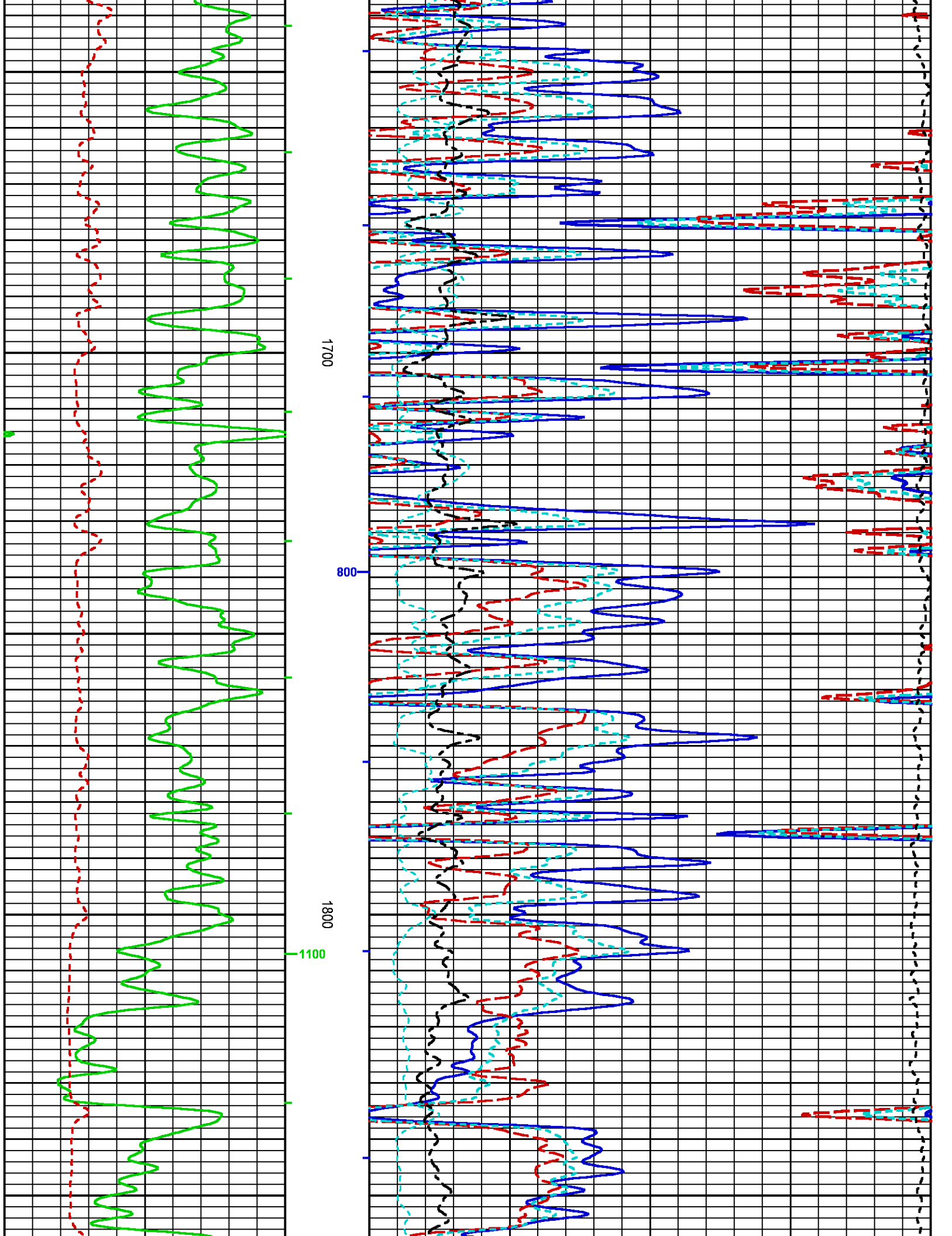


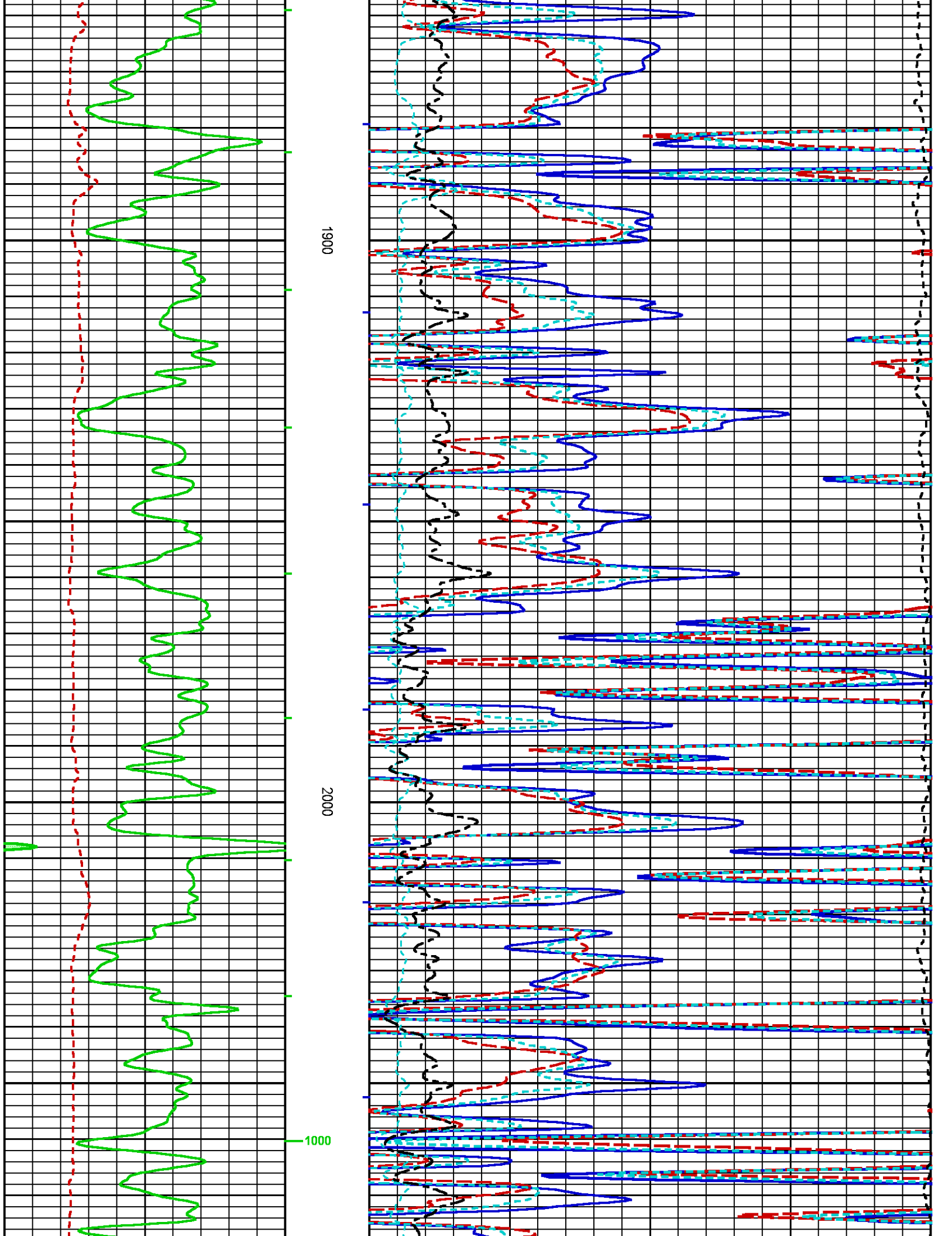


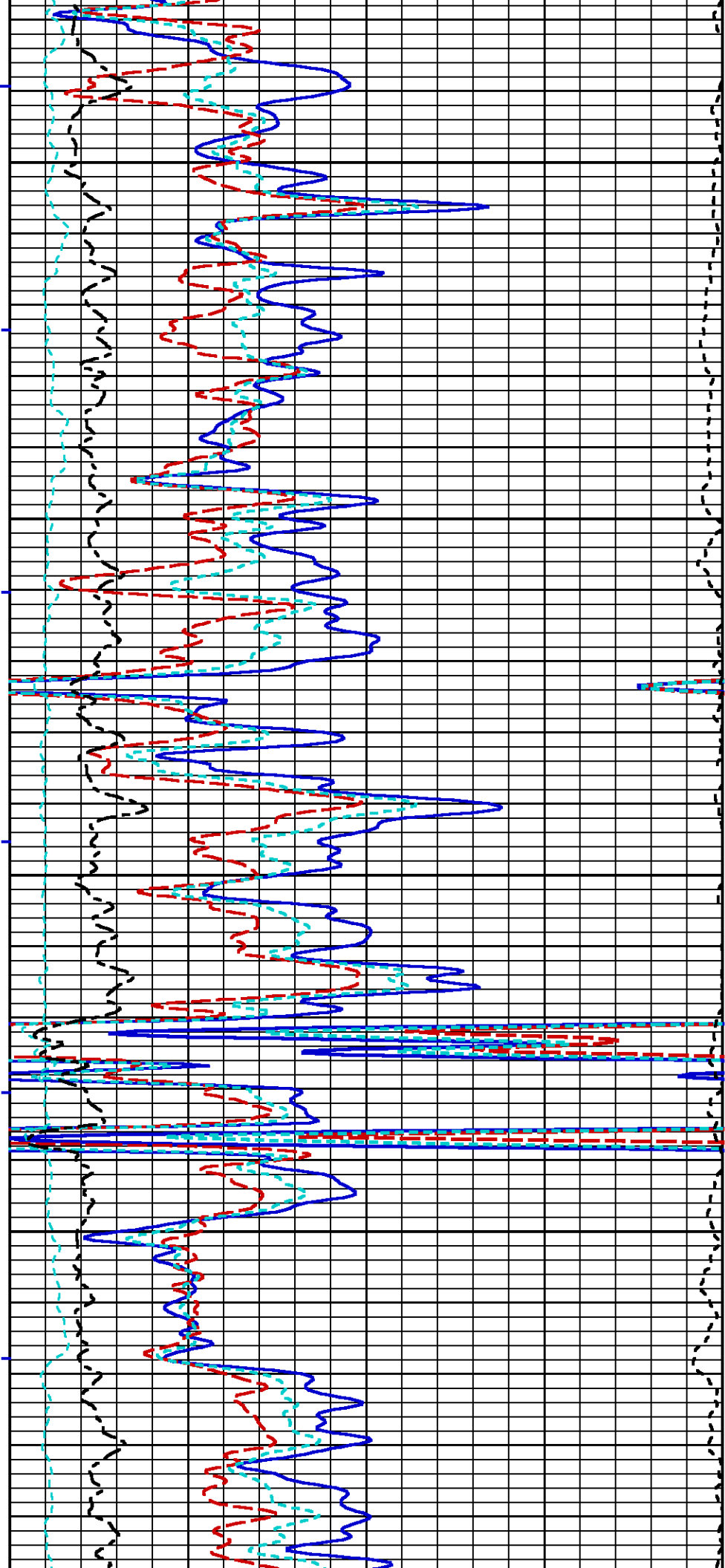








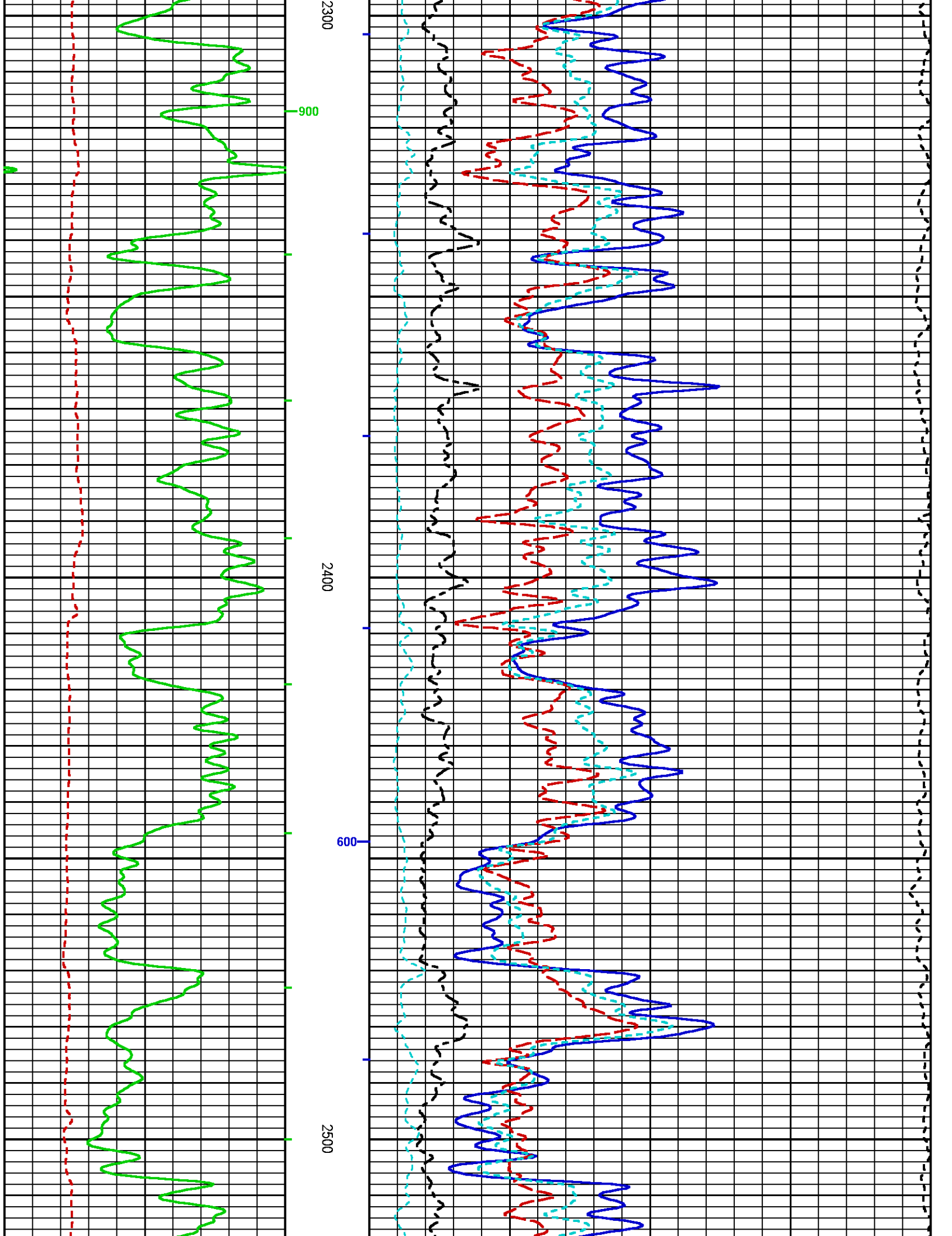


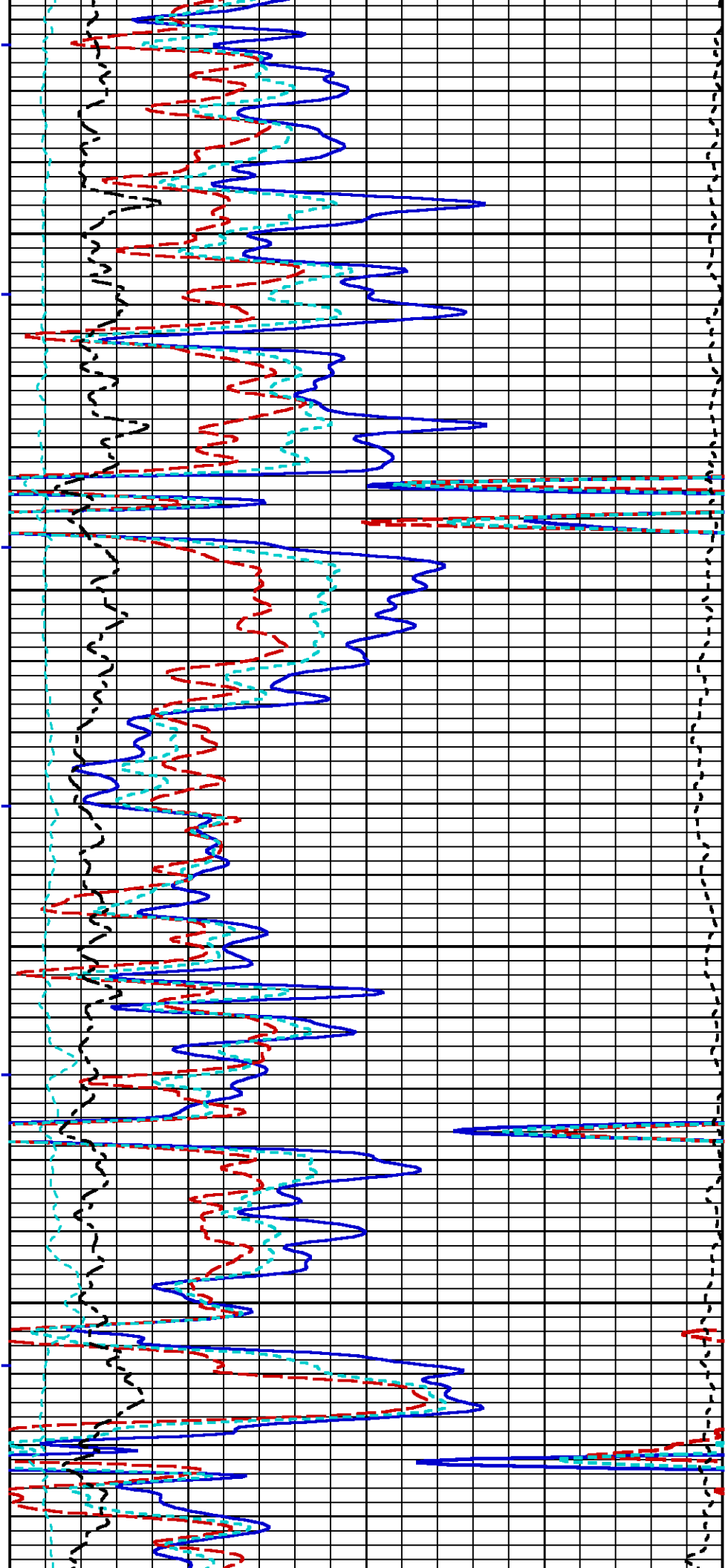


700

2100

2200

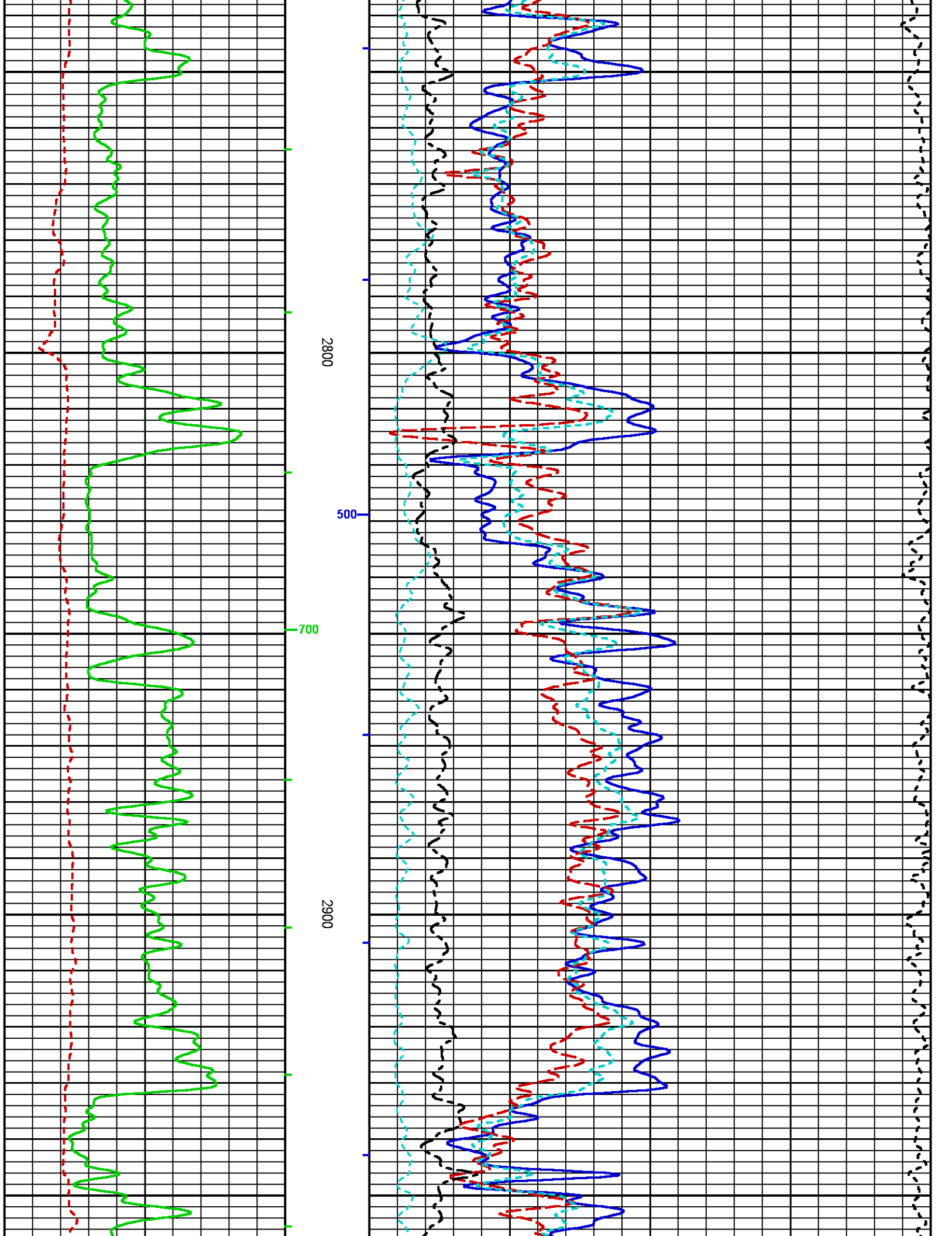


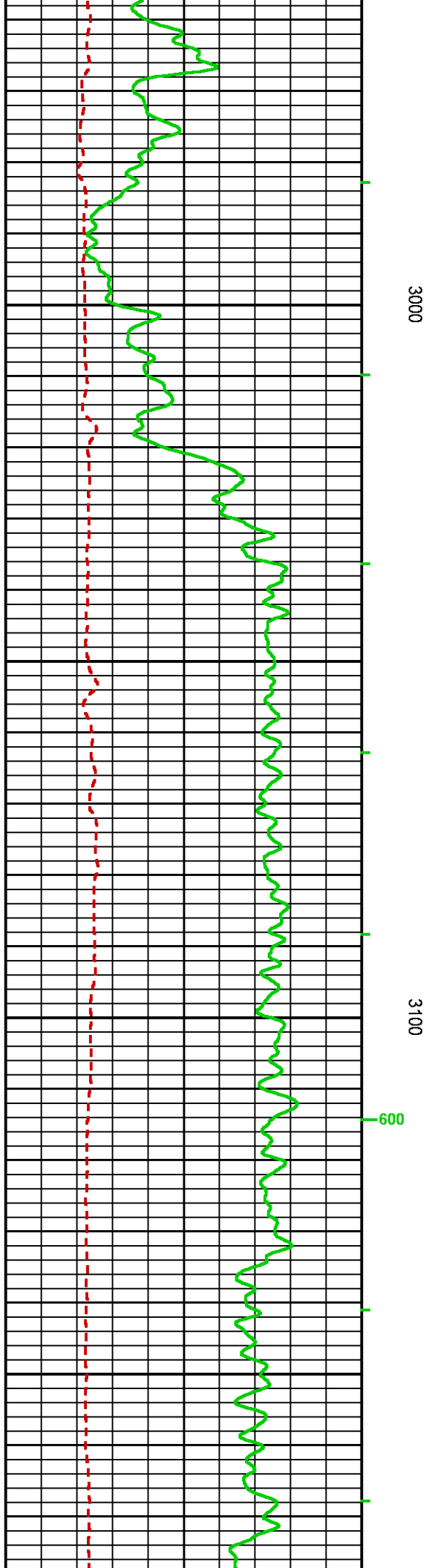
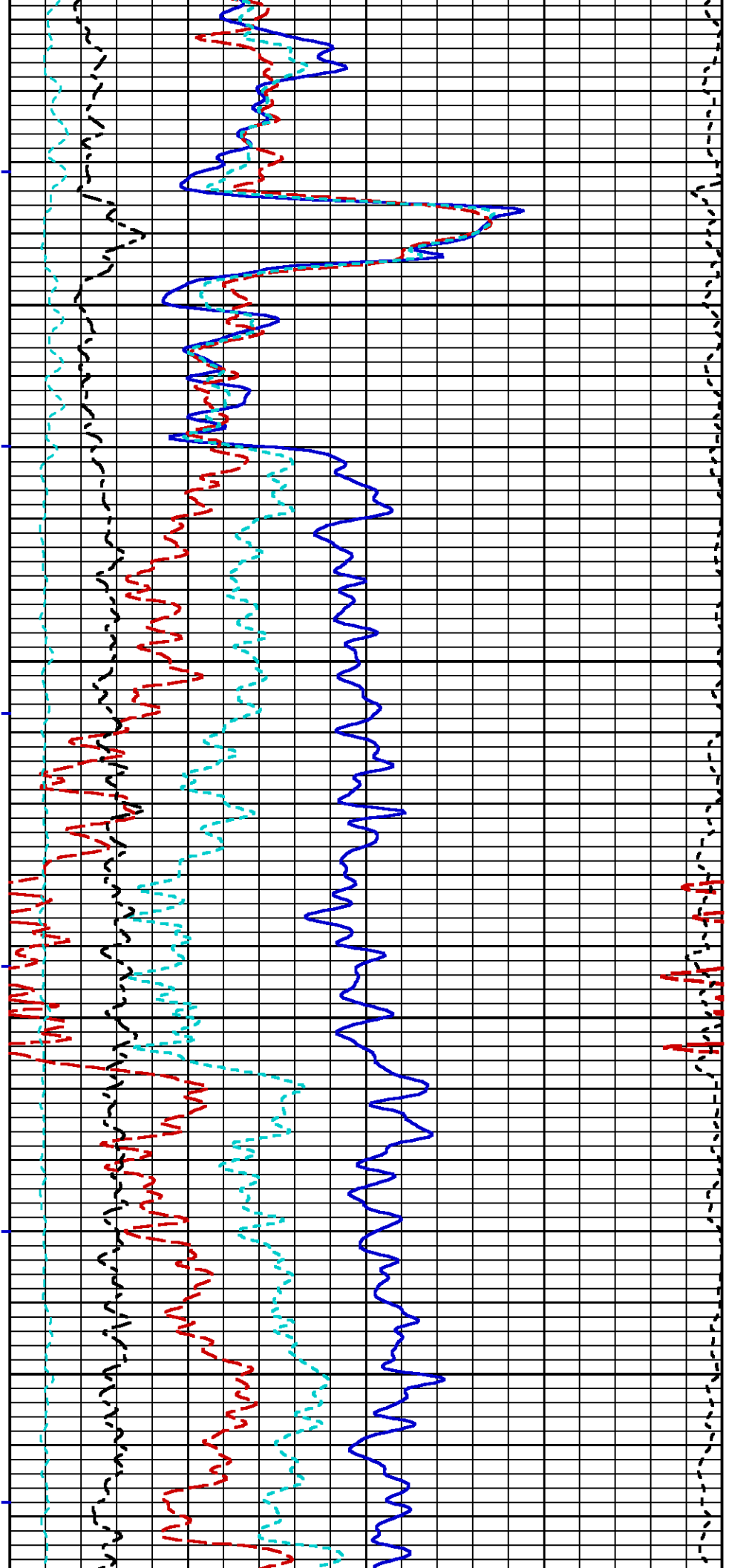


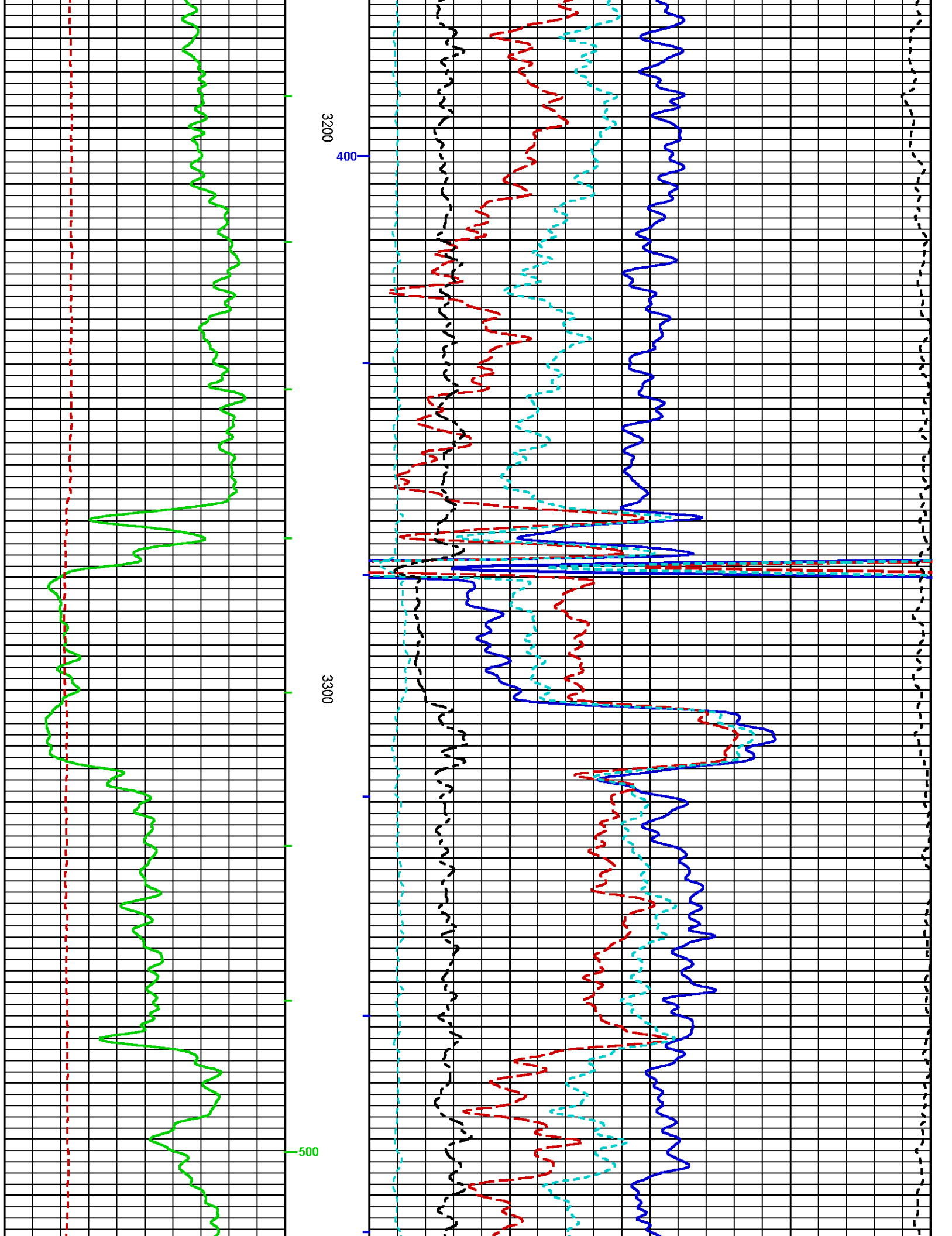
2600

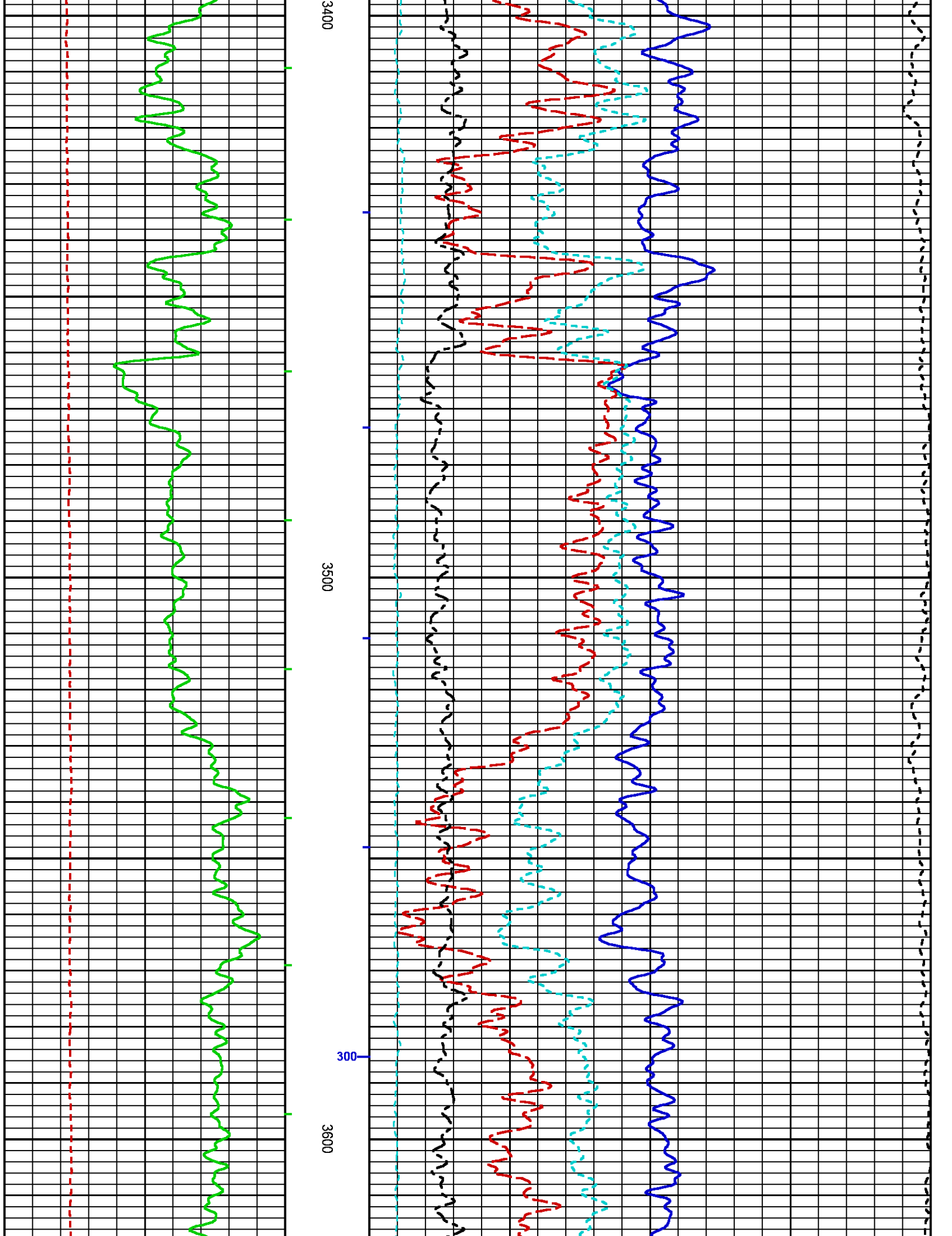
2700

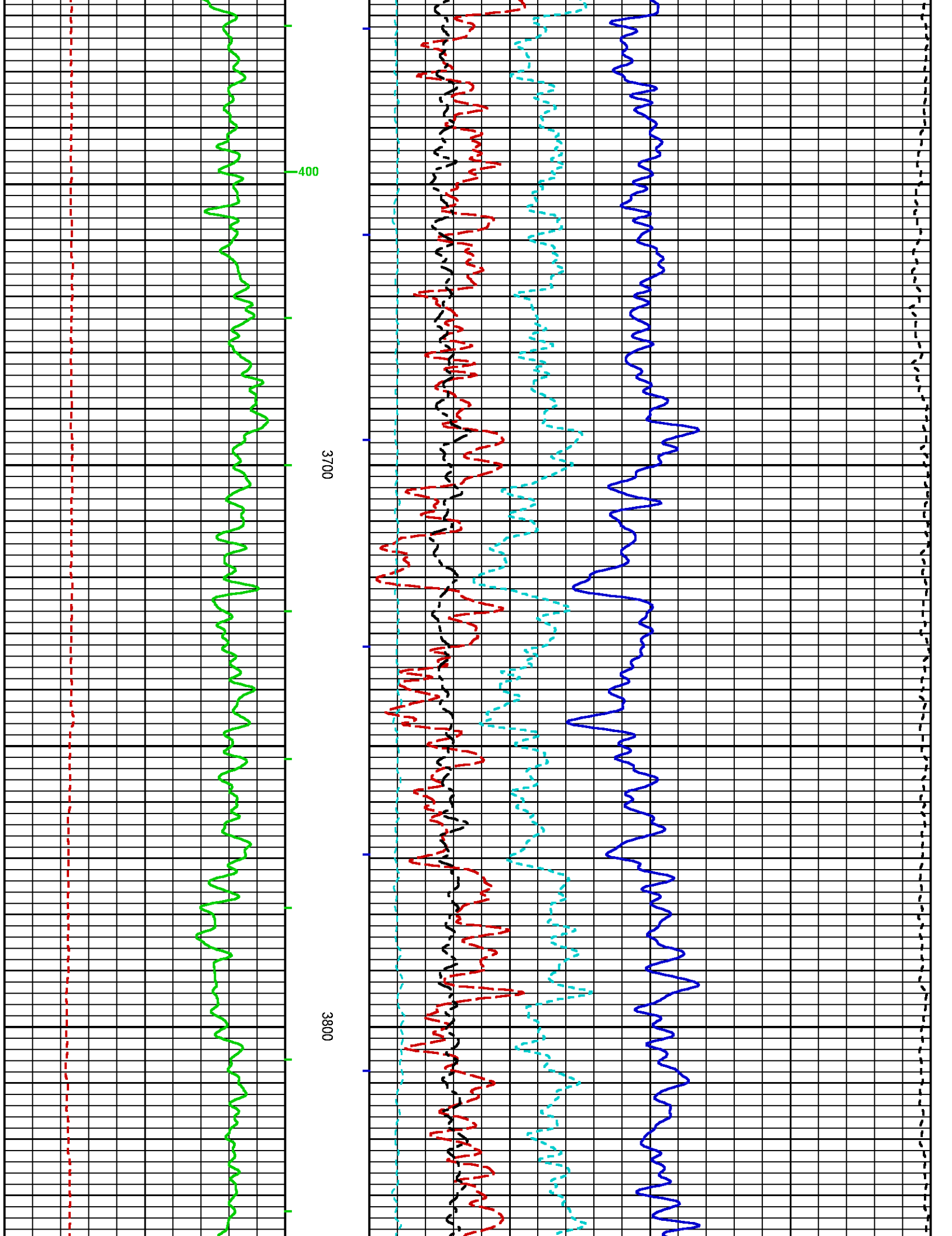
800

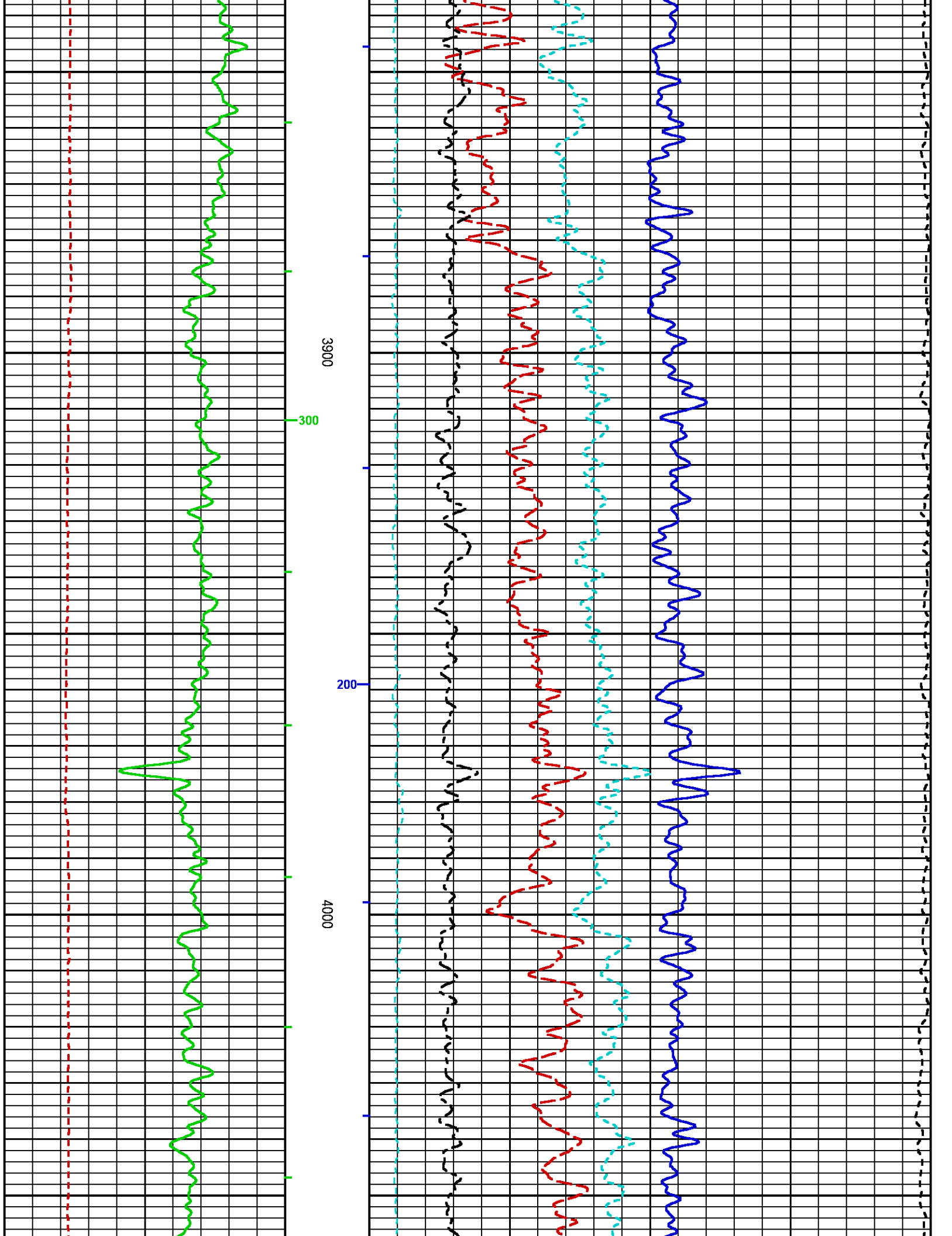


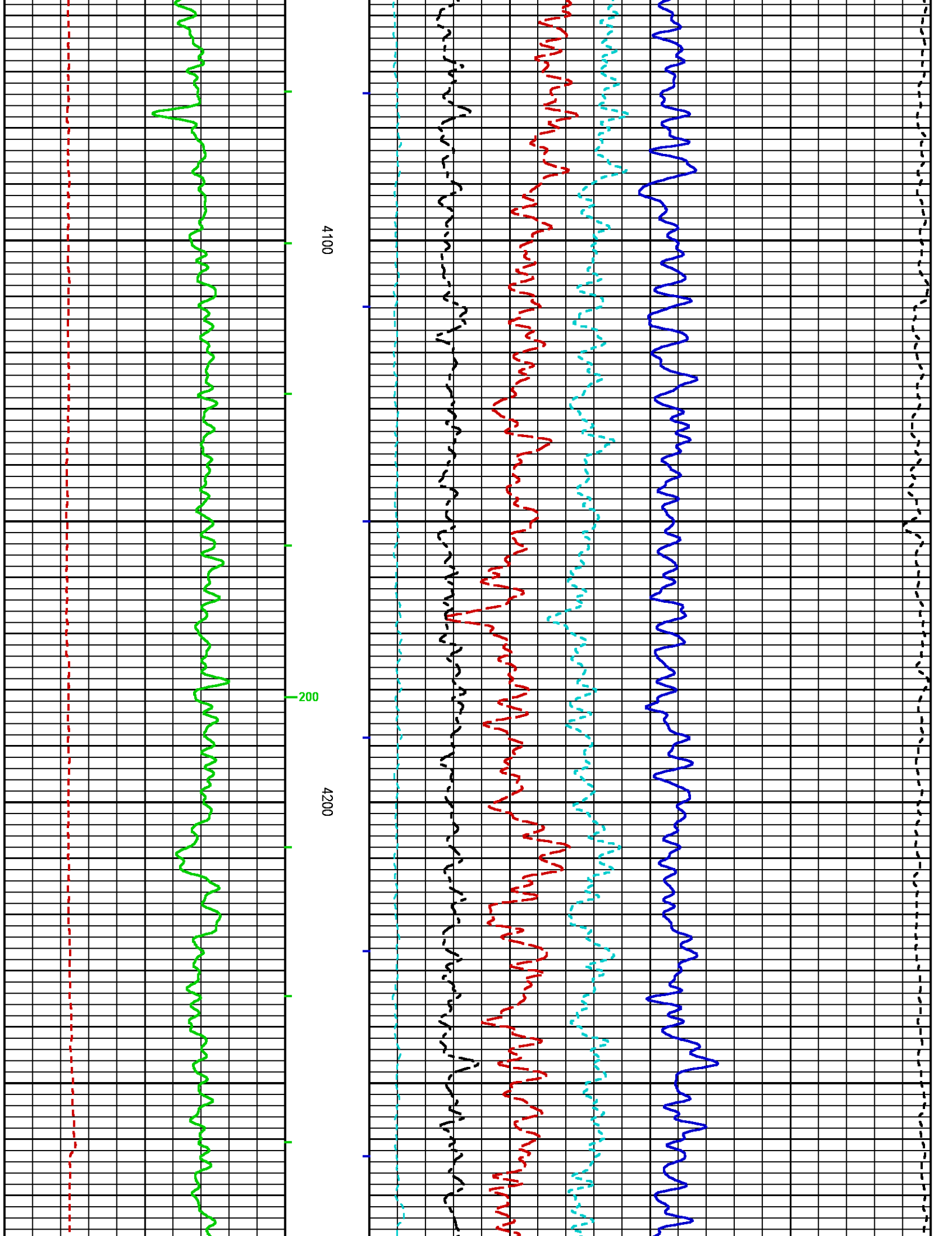


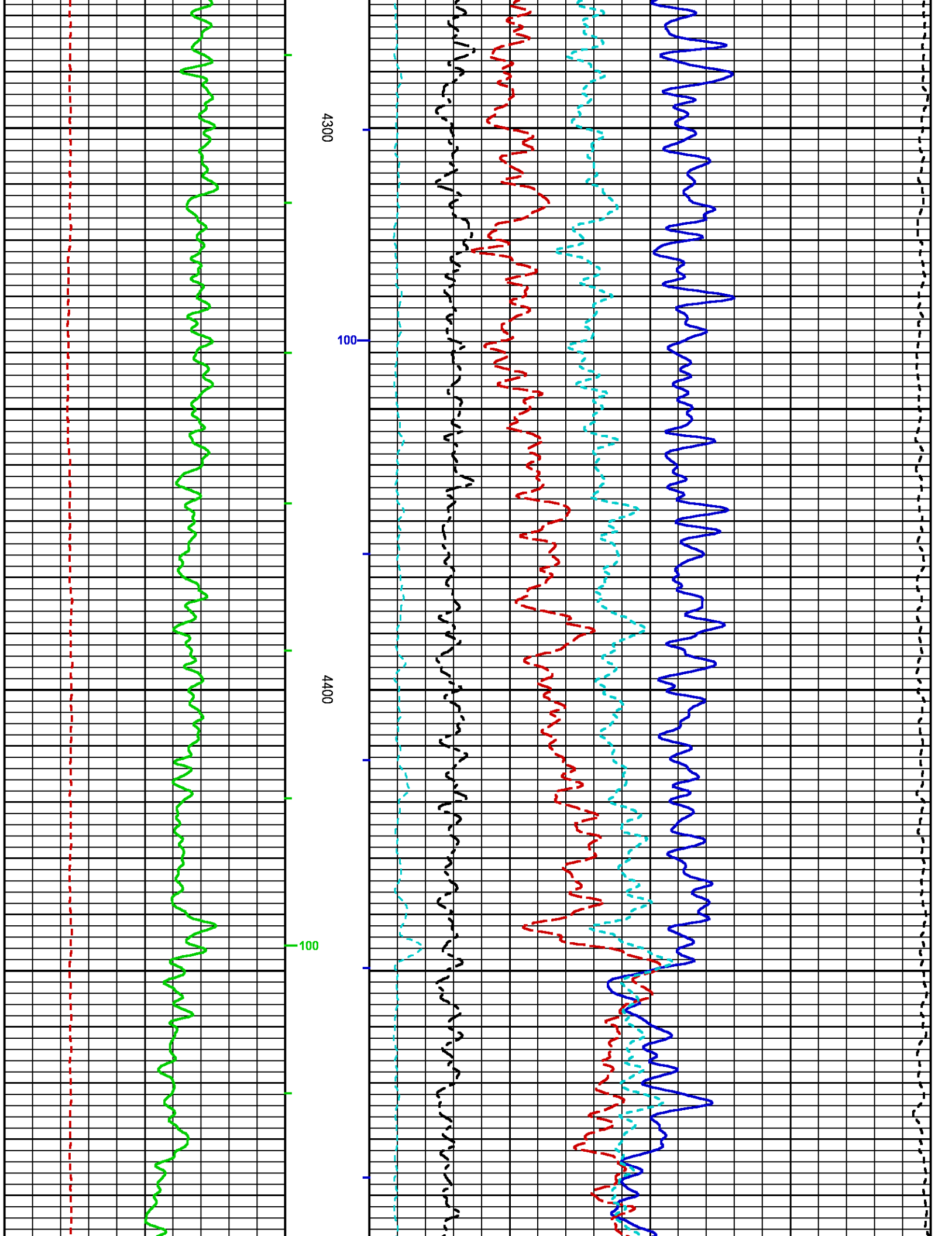








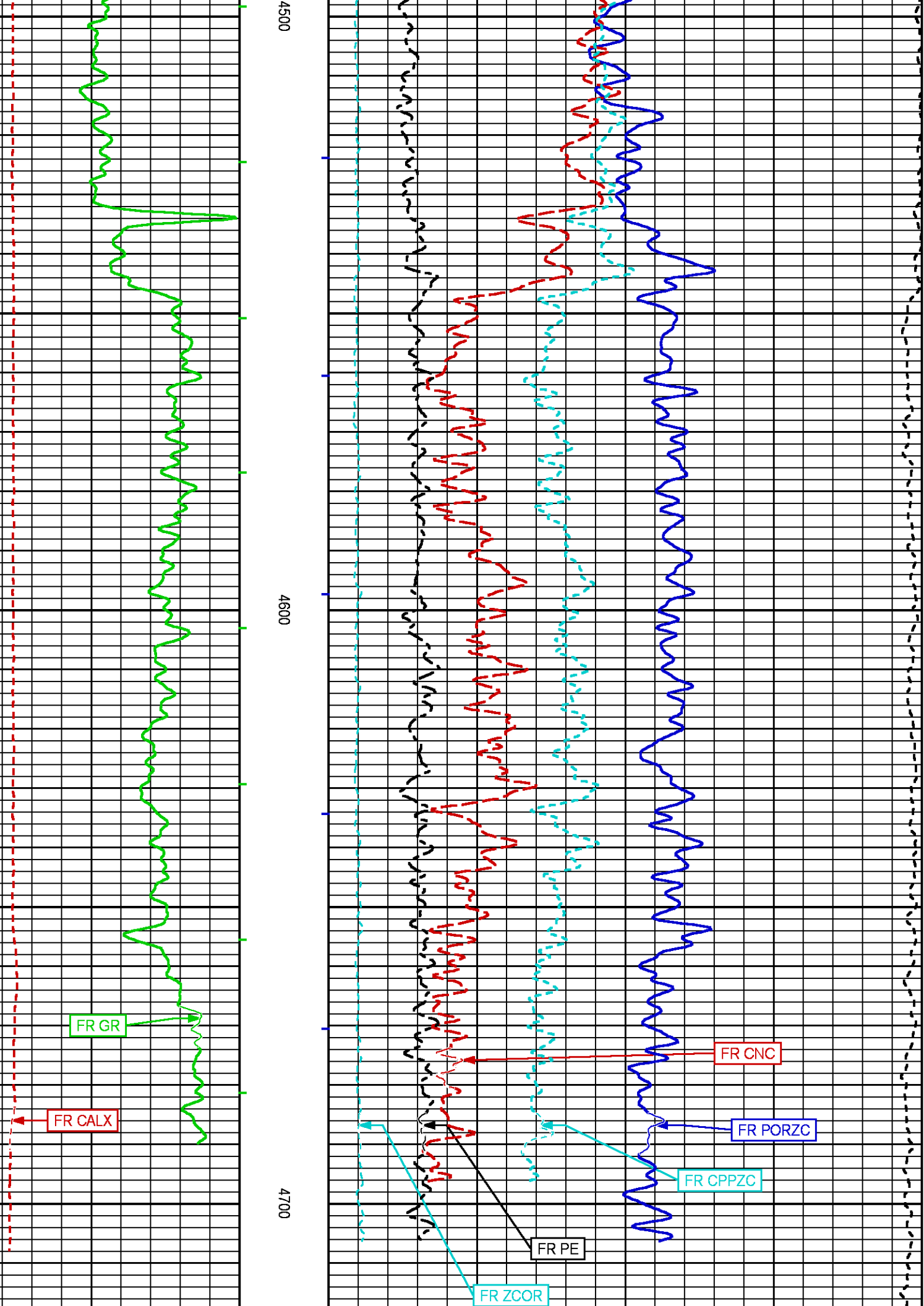


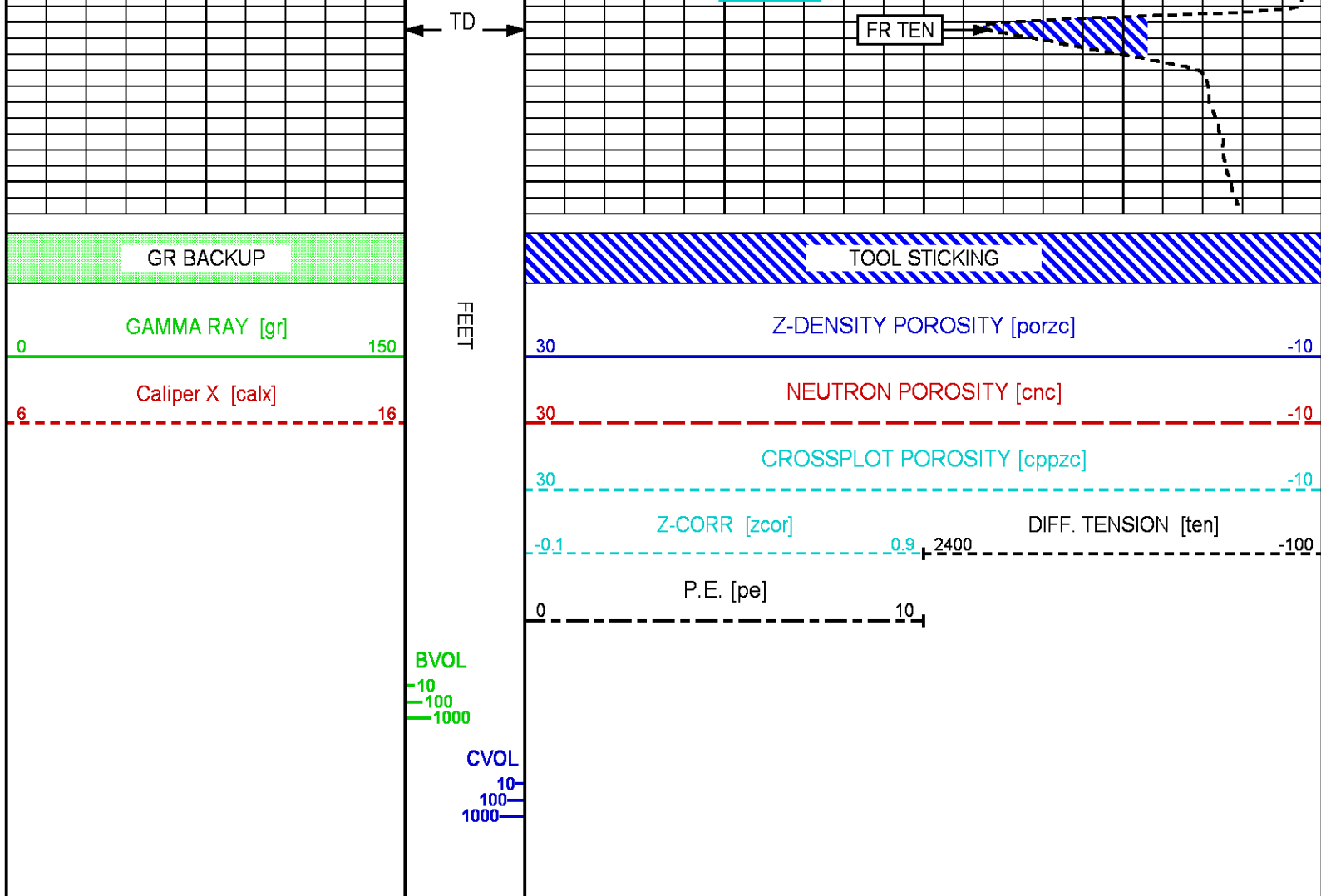


4500

4600

4700





REPEAT LOG

ECLIPS 6.2i ECLIPS General Release Rel 6.2i Wed Jun 12 12:21:40 CDT 2013

Updates: 1 Patches: 7

Plotted: Wed Aug 26 07:45:05 2015

PARAMETER AND FILTER SUMMARY REPORT

File: /dat1a/md11429/CYNO01.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 4314.250 ft BOTTOM DEPTH: 4740.750 ft

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
Y AXIS CALIPER	FILTER ()	medium (1)		TOP	BOTTOM
TENSION	FILTER ()	medium (1)		"	"
GR	FILTER ()	medium (1)		"	"
CN	FILTER ()	medium (1)		"	"
CALIPER	FILTER ()	medium (1)		"	"
	FILTER (.h)	medium (1)		"	"
	FILTER (.i)	medium (1)		"	"
ZDL MED RES	FILTER (hrd1*)	medium		"	"
	FILTER (hrd1s*)	medium		"	"

FILTER (hrd2*)	medium	"	"
FILTER (hrd2s*)	medium	"	"
FILTER (soft*)	medium	"	"

BOREHOLE & CEMENT					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	4.500	in	TOP	BOTTOM
	CASING THICKNESS	0.250	in	"	"
BIT SIZE	BIT SIZE	7.875	in	"	"
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (cnbh*)	USE CALIPER		"	"
	CALIPER/FIXED DIA. (zdbh*)	USE CALIPER		"	"
BOREHOLE CORR DIAMETER	FIXED DIAMETER (cnbh*)	7.875	in	"	"

CN PROCESSING					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
2446 CN MATRIX	2446 MATRIX	LIMESTONE		TOP	BOTTOM
CN SALINITY CORRECTION	SALINITY	0	ppm	"	"
CN TOOL STANDOFF	ENABLE STANDOFF CORR	OFF		"	"
	STANDOFF AMOUNT	0.00	in	"	"
CN CASING & CEMENT CORRECTION	CORRECTION	OFF		"	"
	BIT SIZE BEHIND CSNG	7.875	in	"	"

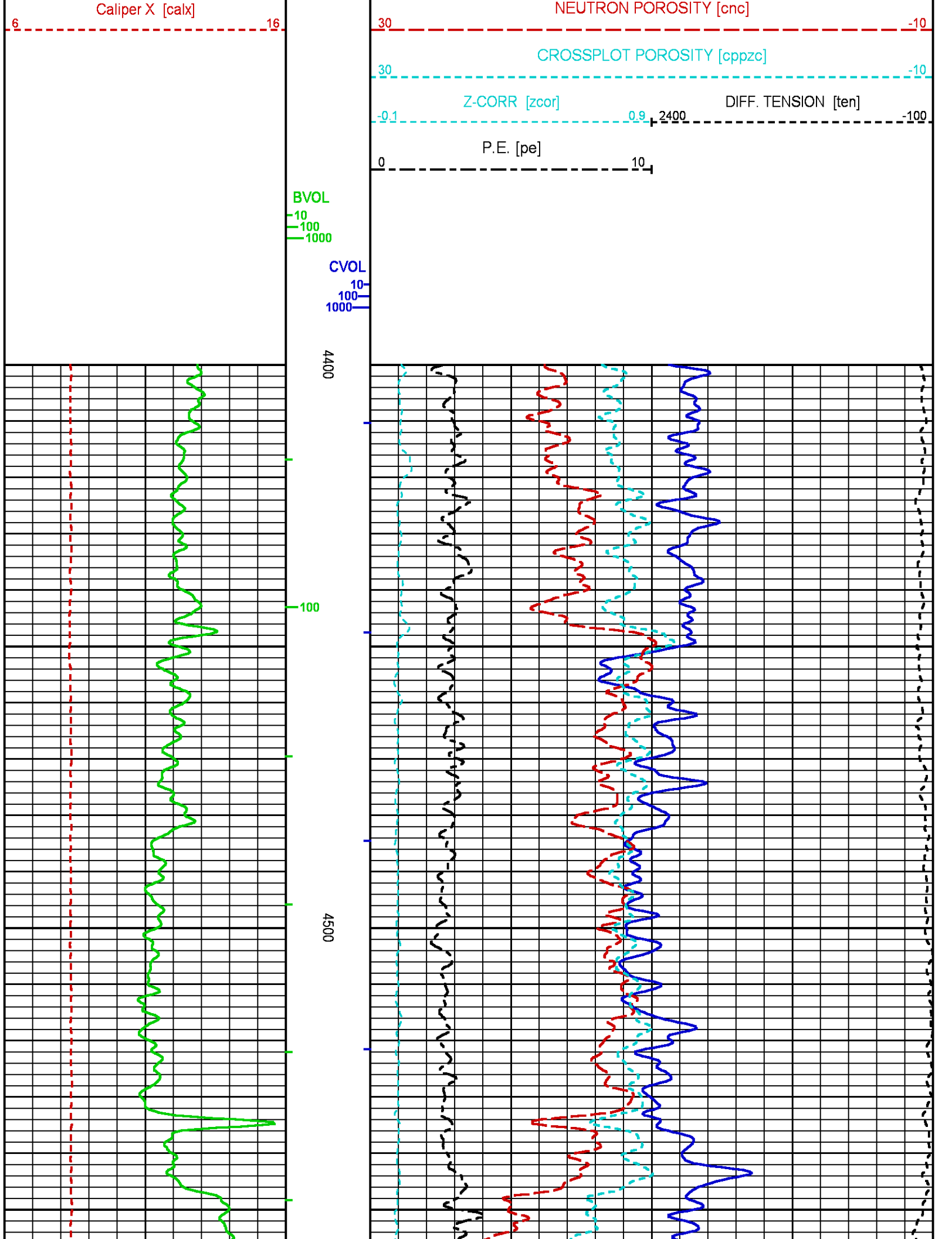
ZDL PROCESSING					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
MUD DENSITY	MUD DENSITY	9.20	lbm/gal	TOP	BOTTOM
DENSITY POROSITY	RHOmatrix	2.710	g/cm3	"	"
	RHOfluid	1.000	g/cm3	"	"
ZDL	DENX TRACKING	ON		"	"
TRACKING TIME	Logging Spd for Gain	Over 10 ft/min		"	"

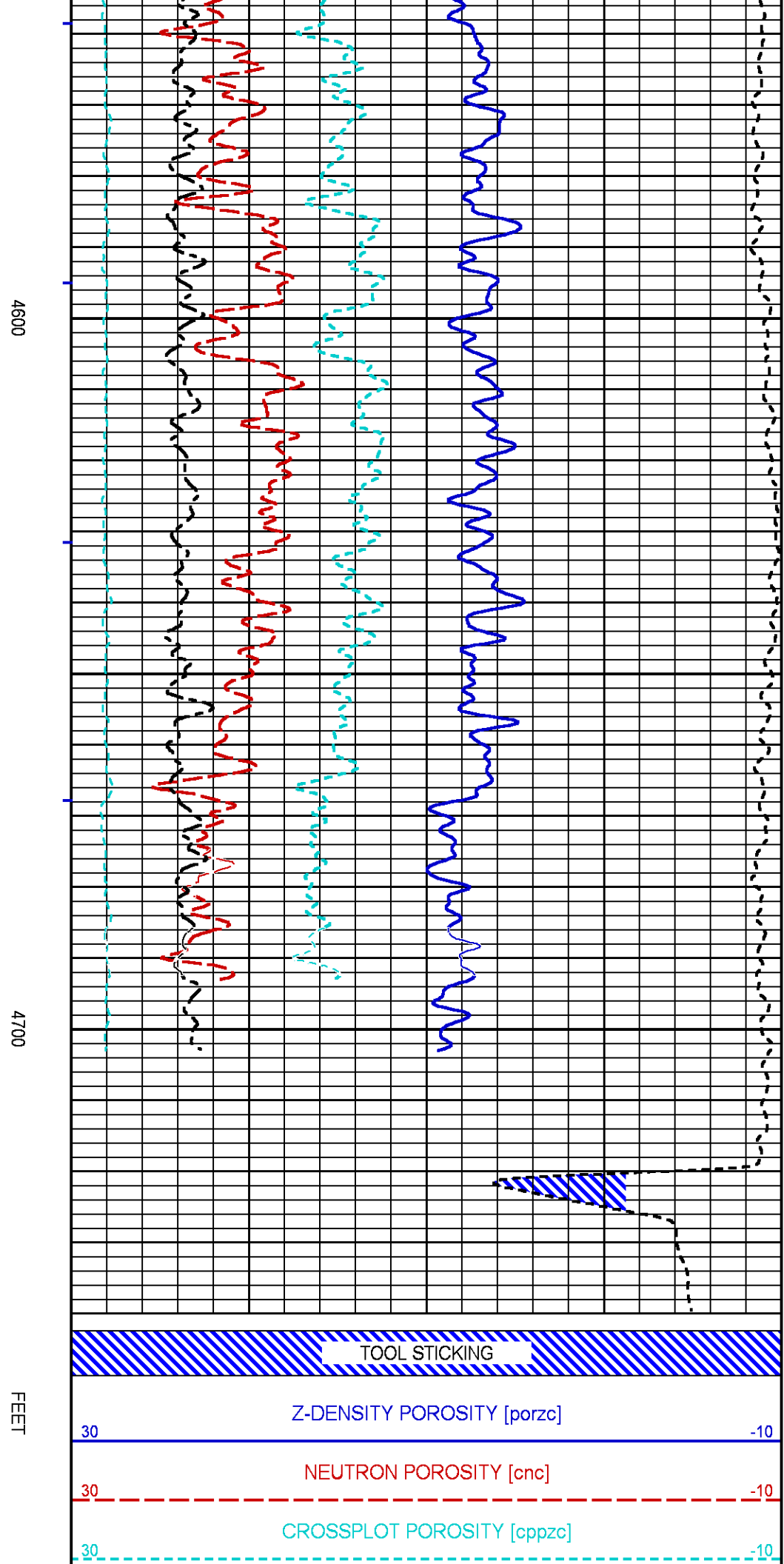
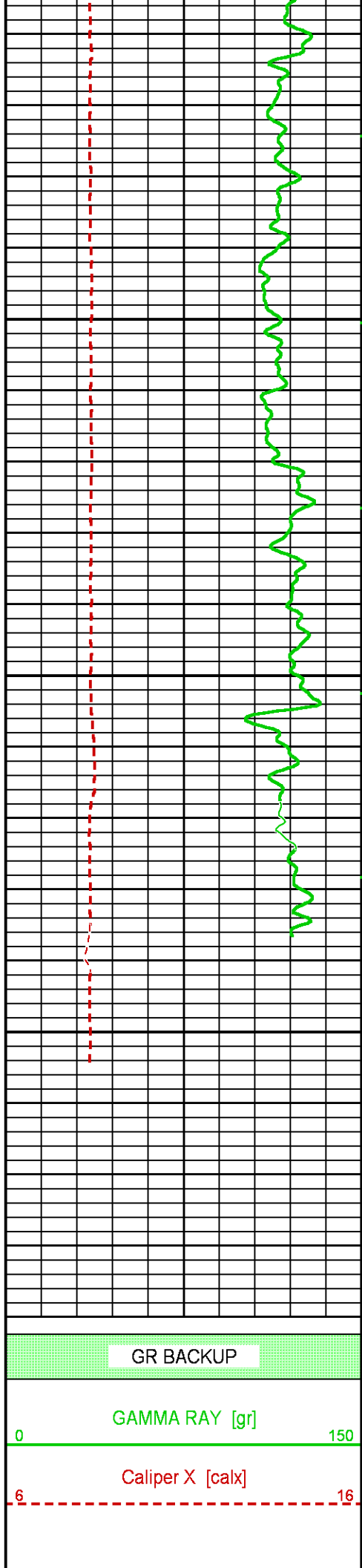
CURVE DESCRIPTION REPORT		
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:BVOL	Aug 26 07:31:45 2015	BOREHOLE VOLUME
F1:CALX	Aug 26 07:31:45 2015	CALIPER FROM X-AXIS OF XY CALIPER(S)
F1:CNC	Aug 26 07:31:45 2015	BOREHOLE SIZE CORRECTED COMPENSATED NEUTRON POROSITY
F1:CPPZC	Aug 26 07:31:45 2015	CROSSPLOT POROSITY FROM ZDEN
F1:CVOL	Aug 26 07:31:45 2015	CEMENT VOLUME
F1:GR	Aug 26 07:31:45 2015	GAMMA RAY
F1:PE	Aug 26 07:31:45 2015	PHOTO ELECTRIC CROSS-SECTION
F1:PORZC	Aug 26 07:31:45 2015	CORRECTED POROSITY
F1:TEN	Aug 26 07:31:45 2015	DIFFERENTIAL TENSION
F1:ZCOR	Aug 26 07:31:45 2015	DENSITY CORRECTION

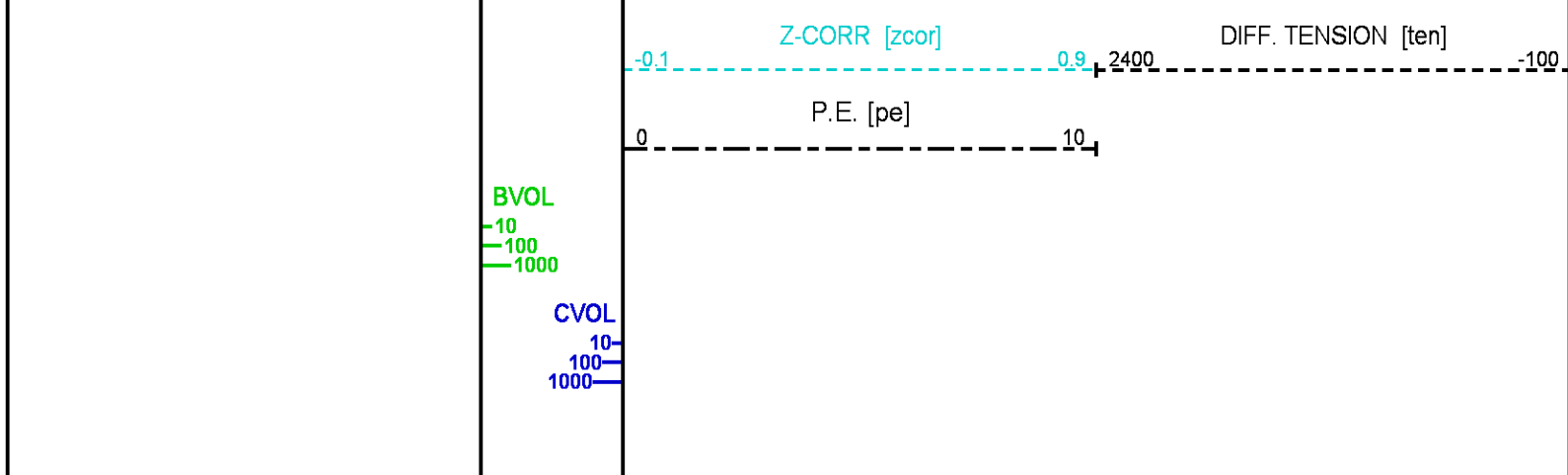
CURVE MEASURE POINT OFFSET							
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
CALX	35.00	CPPZC	34.25	PE	34.25	TEN	0.00
CNC	45.25	GR	52.25	PORZC	34.25	ZCOR	34.25

Presentation	: sys1:/dat1a/md11429/POR_RPT.fvpdf [5"/100' Scale]
Plot Interval	: 4400 - 4739.5 Feet
Data File 1	: F1 : sys1:/dat1a/md11429/REPEAT.xtf
Created On	: Aug 26 07:31:45 2015
Company	: COACHMAN ENERGY OPERATING COMPANY
Well	: SHAVETAIL FEDERAL 28-44
Field	: WILDCAT
File Interval	: 4400 - 4740.75 Feet
OCT	: CYNO

GR BACKUP	FEET	TOOL STICKING
GAMMA RAY [gr]		Z-DENSITY POROSITY [porzc]
0150		30-10







CALIBRATION / VERIFICATION SUMMARY

GR PRIMARY CALIBRATION SUMMARY

TOOL #: 1329XA 177857

DATE/TIME PERFORMED: Tue Jul 21 19:26:51 2015

UNIT #: 3882TD HL6713

CALB JIG #: 4702NK DA-434

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	CR DIFF (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	CALBRTR (gAPI)
GR	163.16	1111.62	948.5	0.158	25.80	175.80	150
			830.0 960.0				

GR PRIMARY VERIFICATION SUMMARY

TOOL #: 1329XA 177857

DATE/TIME PERFORMED: Tue Jul 21 19:28:53 2015

UNIT #: 3882TD HL6713

VERI JIG #: 4702NK DA-434

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	165.16	1112.80	0.158	26.12	175.99	149.87
						140.00 160.00

CN PRIMARY CALIBRATION SUMMARY

TOOL #: 2446XA 179989

DATE/TIME PERFORMED: Tue Jul 21 15:49:43 2015

UNIT #: 3882TD HL6713

CALIBRATOR #: 2437XB 113988

SOURCE #: 4717XS N-919

	MEASURED CPS	DEADTM CORR CPS	DTC SSN/LSN	NOMINAL SSN/LSN	CORRECTION FACTOR	POROSITY (pu)
LSN	658.85	669.43				
SSN	1723.59	1785.13				
RATIO			2.66663	2.75100	1.03164 0.97000 1.07000	
CN						21.358

CN PRIMARY VERIFICATION SUMMARY

TOOL #:	2446XA 179989	DATE/TIME PERFORMED:	Tue Jul 21 16:03:26 2015
UNIT #:	3882TD HL6713	ICE BLOCK #:	4717ND DA--164

	MEASURED CPS	DEADTM CORR CPS	DTC SSN/LSN	CORRECTION FACTOR	DTC CORR SSN/LSN	POROSITY (pu)
LSN	1924.64	2017.89				
SSN	4085.94	4449.66				
RATIO			2.20511	1.03164	2.27579	
CN						14.912

CAL PRIMARY CALIBRATION SUMMARY

TOOL #:	2234XA 10495292	DATE/TIME PERFORMED:	Tue Jul 21 17:27:21 2015
UNIT #:	3882TD HL6713		

	SMALL RING	LARGE RING	MULT	ADD	SMALL RING (in)	LARGE RING (in)
CALIPER	1403.6	1943.6	0.00787	-3.17185	7.875	12.125


ZDL PRIMARY CALIBRATION SUMMARY

TOOL:	2234XA 10495292	DATE/TIME PERFORMED:	Tue Jul 21 18:01:37 2015		
UNIT:	3882TD HL6713	CALB BLKS:	2225XA 114927	CS SRC:	4703NT 10207B

SS CS PK (Channel)	LS CS PK (Channel)	SS_BKGD (cps)	LS BKGD (cps)
224.0	224.4	1349.2	1488.4

220.0 230.0 220.0 230.0

	SS (cps)	LS (cps)	SHR	DEN (g/cm3)	CORR (g/cm3)	PE (b/e)
MG (LO PE)	21282.6	11483.3	0.641	1.703	0.002	2.180
			0.565 0.665			
AL	12529.5	1174.2		2.697	-0.008	
AL + SHIM	17106.1	2025.6		2.617	0.159	
MG + SHIM (HI PE)	10308.8	5439.5	0.249			8.600
			0.210 0.270			
RATIO AL + SHIM/AL	1.37	1.73				
	1.32 1.42	1.64 1.84				
RATIO MG/AL	1.70	9.78				
	1.65 1.78	9.40 10.20				

	COMPANY	COACHMAN ENERGY OPERATING COMPANY		FILE NO:	
	WELL	SHAVETAIL FEDERAL 28-44			MD11429
	FIELD	WILDCAT		API NO:	
	COUNTY	RIO BLANCO	STATE	COLORADO	05-103-12274
LOCATION:				ELEVATIONS:	FINAL PRINT
1381' FSL & 380' FEL				KB 5601 FT	
				DF 5600 FT	
				GL 5590 FT	
SEC 28 TWP 1N RGE 103W				DATE	26-AUG-2015

MAIN LOG 1"/100FT SCALE

ECLIPS 6.2i ECLIPS General Release Rel 6.2i Wed Jun 12 12:21:40 CDT 2013
Updates: 1 Patches: 7

Plotted: Wed Aug 26 11:22:54 2015

PARAMETER AND FILTER SUMMARY REPORT

File: f99talm411429/CYN002.prm
LOGGING MODE: DEPTH: 78.000 ft DIRECTION: UP
TOP DEPTH: 78.000 ft BOTTOM DEPTH: 4744.000 ft

SYMMETRIC FILTER				
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)
Y AXIS CALIPER	FILTER ()	medium (1)		TOP BOTTOM
TENSION	FILTER ()	medium (1)		" "
GR	FILTER ()	medium (1)		" "
CN	FILTER ()	medium (1)		" "
CALIPER	FILTER ()	medium (1)		" "
	FILTER ()	medium (1)		" "
	FILTER ()	medium (1)		" "
ZDL MED RES	FILTER (hid1*)	medium		" "
	FILTER (hid1a*)	medium		" "
	FILTER (hid2*)	medium		" "
	FILTER (hid2a*)	medium		" "

BOREHOLE & CEMENT				
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	4.500	in	TOP BOTTOM
	CASING THICKNESS	0.250	in	" "
BIT SIZE	BIT SIZE	7.875	in	" "
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (cnb*)	USE FIXED SIZE		TOP 443.250
	USE CALIPER	443.250		BOTTOM
	CALIPER/FIXED DIA. (zdb*)	USE FIXED SIZE		TOP 442.000
	USE CALIPER	442.000		BOTTOM
BOREHOLE CORR DIAMETER	FIXED DIAMETER (cnb*)	7.875	in	TOP BOTTOM
	FIXED DIAMETER (zdb*)	7.875	in	" "

CN PROCESSING				
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)
2446 CN MATRIX	2446 MATRIX	LIMESTONE		TOP BOTTOM
CN SALINITY CORRECTION	SALINITY	0	ppm	" "
CN TOOL STANDOFF	ENABLE STANDOFF CORR	OFF		" "

ON CASING & CEMENT CORRECTION	STANDOFF AMOUNT	0.00	in	"	"
	CORRECTION	ON	OFF	TOP	526.000
				BOTTOM	807.000
	BIT SIZE BEHIND CSG	12.250	in	TOP	667.250
		7.675	in	BOTTOM	

ZDL PROCESSING					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
MUD DENSITY	MUD DENSITY	9.20	lbm/gal	TOP	BOTTOM
ZDL	DENX TRACKING	ON	"	"	"
TRACKING TIME	Logging Spd for Gain	Over 10 ft/min	"	"	"

CURVE DESCRIPTION REPORT		
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:BVOL	Aug 26 07:47:17 2015	BOREHOLE VOLUME
F1:CALX	Aug 26 07:47:17 2015	CALIPER FROM X-AXIS OF XY CALIPER(S)
F1:CNC	Aug 26 07:47:17 2015	BOREHOLE SIZE CORRECTED COMPENSATED NEUTRON POROSITY
F1:CVOL	Aug 26 07:47:17 2015	CEMENT VOLUME
F1:GR	Aug 26 07:47:17 2015	GAMMA RAY
F1:TEN	Aug 26 07:47:17 2015	DIFFERENTIAL TENSION
F1:ZCOR	Aug 26 07:47:17 2015	DENSITY CORRECTION
F1:ZDNC	Aug 26 07:47:17 2015	BOREHOLE SIZE/MUD WEIGHT CORRECTED DENSITY

CURVE MEASURE POINT OFFSET					
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
CALX	35.00	GR	52.25	ZCOR	34.25
CNC	45.25	TEN	0.00	ZDNC	34.25

Presentation	: sys1:/data/md11429/POR_1.fvpdf [2"/100' Scale]
Plot Interval	: 180 - 4742.75 Feet
Data File 1	: F1 : sys1:/data/md11429/MAIN.xtf
Created On	: Aug 26 07:47:17 2015
Company	: COACHMAN ENERGY OPERATING COMPANY
Well	: SHAVETAIL FEDERAL 28-44
Field	: WILD CAT
File Interval	: 180 - 4744 Feet
OCT	: CYN0

