

FILE NO: **OH090004**
COMPANY **WPX ENERGY INC**
WELL **CHEVRON GM 311-21**
FIELD **GRAND VALLEY**
COUNTY **GARFIELD** STATE **CO**

Ver. 3.87
SEC 21 T6S R96W
PAD: GM 442-20
RIG: CYCLONE 17
LOCATION: SHL: 2019' FNL 702' FEL S20 T6S R96W
BHL: 654' FNL 691' FWL S21 T6S R96W
SEC 20 TWP 6S RGE 96W
OTHER SERVICES: NONE

PERMANENT DATUM **GL** ELEVATION **5575 FT**
LOG MEASURED FROM **Kb** 21 FT ABOVE P.D.
DRILL MEAS. FROM **Kb** ELEVATIONS: KB 5596 FT, DF, GL 5575 FT

DATE	29-Aug-2014				
RUN	TRIP	1	1		
SERVICE ORDER	OH090004				
DEPTH DRILLER	7314 FT				
DEPTH LOGGER	7314 FT				
BOTTOM LOGGED INTERVAL	7310 FT				
TOP LOGGED INTERVAL	0 FT				
CASING DRILLER	9.625 IN @ 1041 FT			@	
CASING LOGGER	1040 FT				
BIT SIZE	9.75 IN				
TYPE OF FLUID IN HOLE	LSND				
DENSITY	VISCOSITY	11.5 LBG	71 CP		
PH	FLUID LOSS	10.1	6 C3		
SOURCE OF SAMPLE	FLOWLINE				
RM AT MEAS. TEMP.	1.17 OHMM @ 84 DEGF			@	
RMF AT MEAS. TEMP.	877 OHMM @ 79 DEGF			@	
RMC AT MEAS. TEMP.	1.46 OHMM @ 79 DEGF			@	
SOURCE OF RMF	RMC	CALCULATED	CALCULATED		
RM AT BHT	839 OHMM @ 190 DEGF			@	
TIME SINCE CIRCULATION	8 HR				
MAX. RECORDED TEMP.	193 DEGF				
EQUIP. NO.	LOCATION	6670	GRAND JCT		
RECORDED BY	D SMITH				
WITNESSED BY	A. DUNIHOO				

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
13.5 IN	0 FT	1041 FT
8.75 IN	1041 FT	7314 FT

CASING RECORD				
SIZE	WEIGHT	GRADE	FROM	TO
9.625 IN	32 LB/F		0 FT	1041 FT

REMARKS

RUN 1 TRIP 1: HDIL ZDL CN GR RAN IN COMBINATION
BVOL CVOL CALCULATED IN CUBIC FEET
BVOL CALCULATED USING PROPOSED 4.5" CASING
CALIPER VERIFIED INSIDE CASING
RHO MATRIX: 2.68 G/CC
RHO FLUID: 1.00 G/CC
CN MATRIX: SANDSTONE
CN RAN DECENTRALIZED

HDIL RAN WITH 1.5" STANDOFFS
HDIL RAN WITHOUT CABBAGE HD ON HDIL AS PER CO REP INSTRUCTIONS

TD CALCULATED OFF BOTTOM TENSION SPIKE BELOW OVER TENSION WHERE TOOL PULLED
TIGHT

ABC TO CALCULATE: MUD CONDUCTIVITY

THANK YOU FOR CHOOSING BAKER HUGHES WIRELINE SERVICES

CREW: SMITH/HOLLER/FAVORITE

RIG: CYCLONE 17

EQUIPMENT DATA

RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
1	1	SWIVEL	3950XA	10102176	FREE
1	1	TTMA	3980XA	10120299	FREE
1	1	TEL/GR	3518FB/3518EB	10126400/10139870	DECENTRALIZED
1	1	NEUTRON	2436XA	10137930	DECENTRALIZED
1	1	DENSITY	2223XA	10123024	DECENTRALIZED
1	1	KNUCKLE	3930XA	10139400/10087279	FREE
1	1	HDIL	1530XA	10118612	CENTRALIZED

MAIN LOG 2"/100FT SCALE

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

Updates: 1 Patches: 2

Plotted: Fri Aug 29 23:55:39 2014

PARAMETER AND FILTER SUMMARY REPORT

File: /dst1a/OH090004/n970a03.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 927.391 ft BOTTOM DEPTH: 7318.513 ft

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
GR MED RES	FILTER Ø	medium (1)		TOP	BOTTOM
CALIPER	FILTER Ø	medium (1)		"	"
TENSION	FILTER Ø	medium (1)		"	"
SP-SPDH	FILTER Ø	heavy (3)		"	"

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
BIT SIZE	BIT SIZE	8.750	in	TOP	BOTTOM
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (mbh*)	USE CALIPER		"	"
BOREHOLE CORR DIAMETER	FIXED DIAMETER (mbh*)	8.750	in	"	"
BH MUD RESISTIVITY SOURCE	RMUD SOURCE (HDIL)	TOOL MEASURED		"	"
MUD SAMPLE RESISTIVITY	MUD SAMPLE TEMP	84.0	degF	"	"
	MUD SAMPLE RES	1.170	ohm.m	"	"
BOREHOLE TEMP from GRADIENT	Known BH REF TEMP	77.0	degF	"	"
	at BH REF DEPTH	0.0	ft	"	"
	with TEMP GRADIENT	1.200	0.01 degF/ft	"	"

ACCELERATION PROCESSING

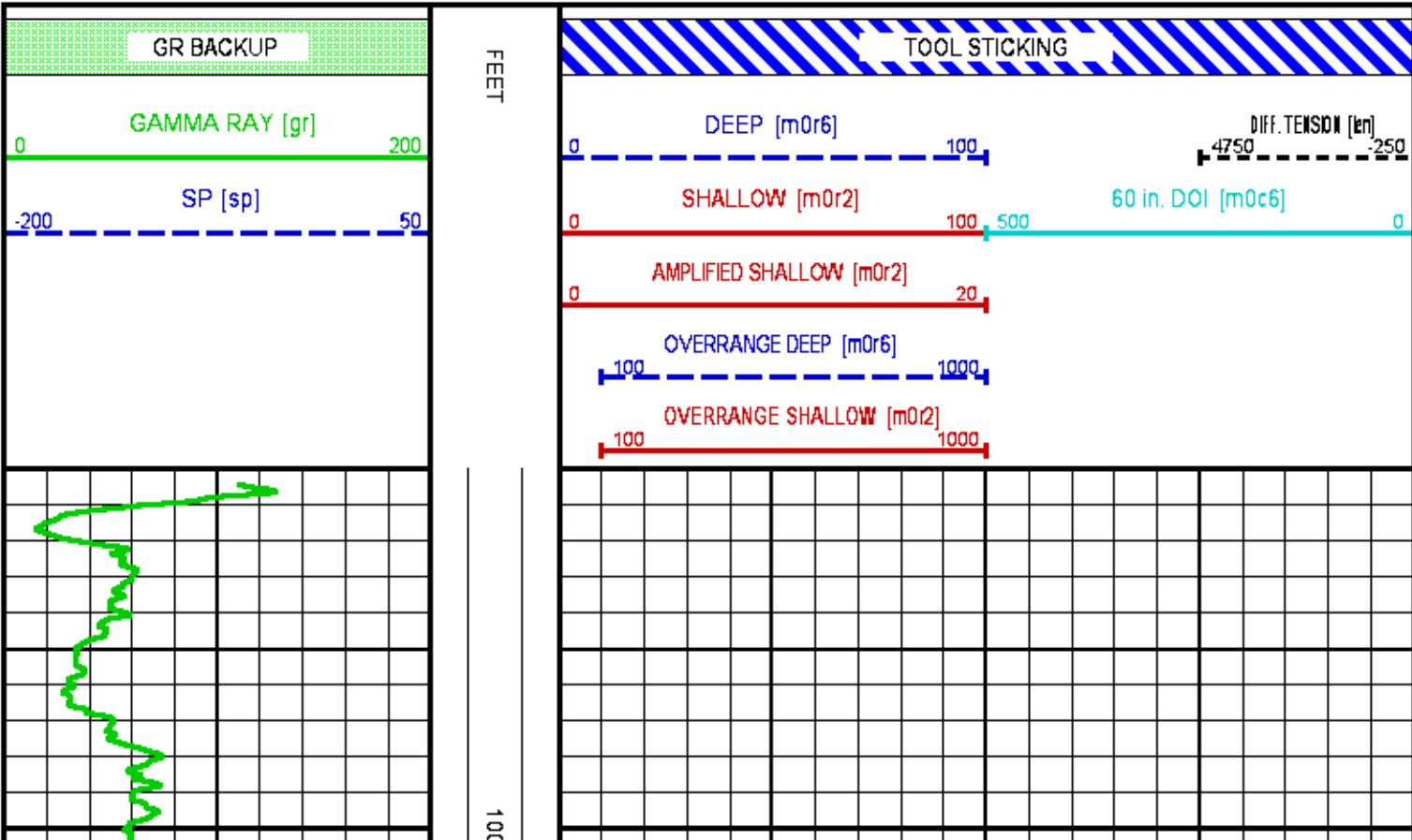
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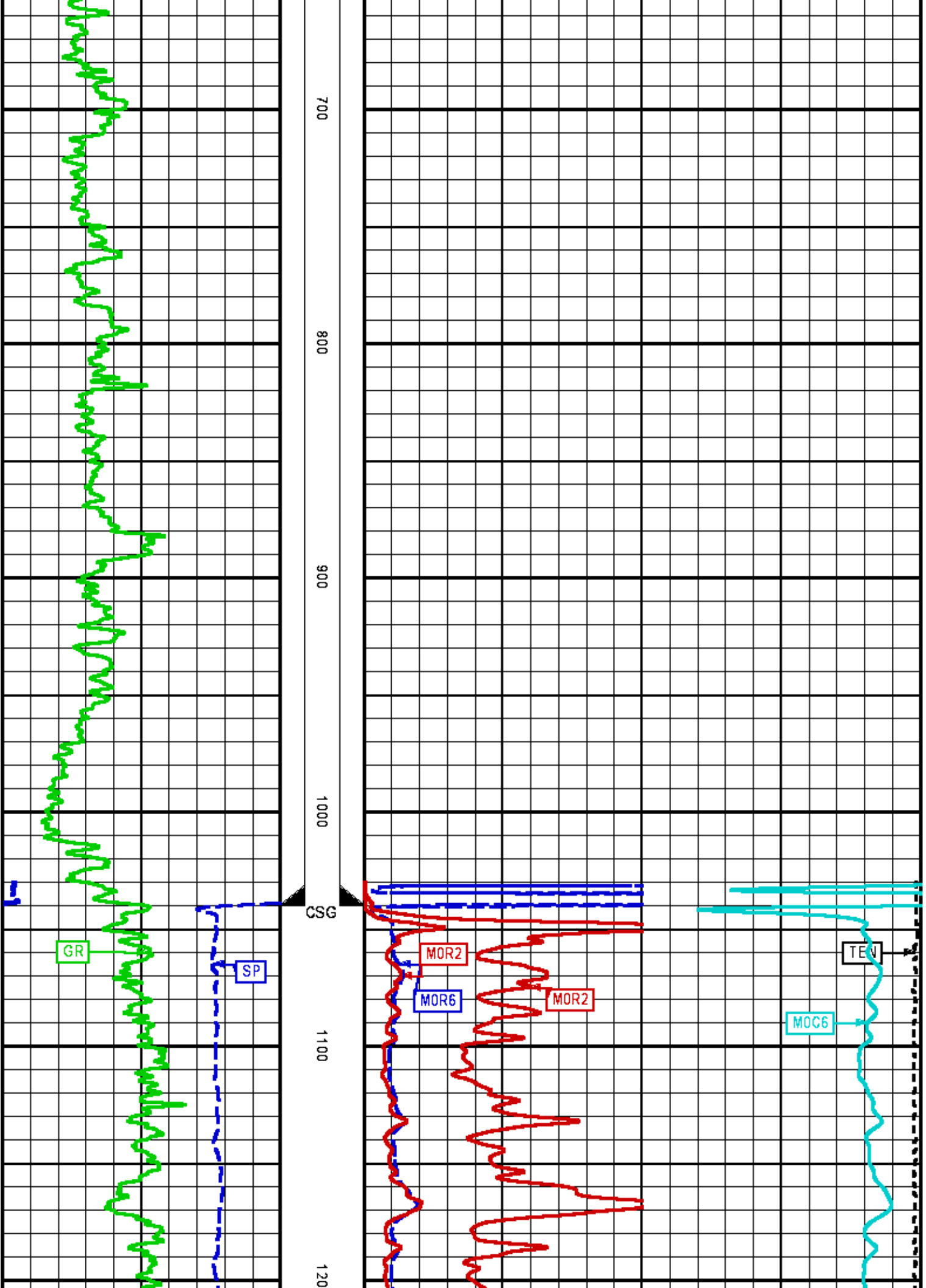
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
ACCEL CORR SWITCH	ACCEL DEPTH CORR	CORRECTION ON		TOP	BOTTOM
HDIL PROCESSING					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
HDIL TEMPERATURE CORRECTION	TEMP CORRECTION	ON		TOP	BOTTOM
ADAPTIVE BOREHOLE CORRECTION	ABC PROCESSING	ON		"	"
	ABC to CALCULATE	MUD CONDUCTIVITY		"	"
	STANDOFF	1.50	in	"	"
	TOOL POSITION	ECCENTERED		"	"
	Rmud MULTIPLIER	1.000		"	"

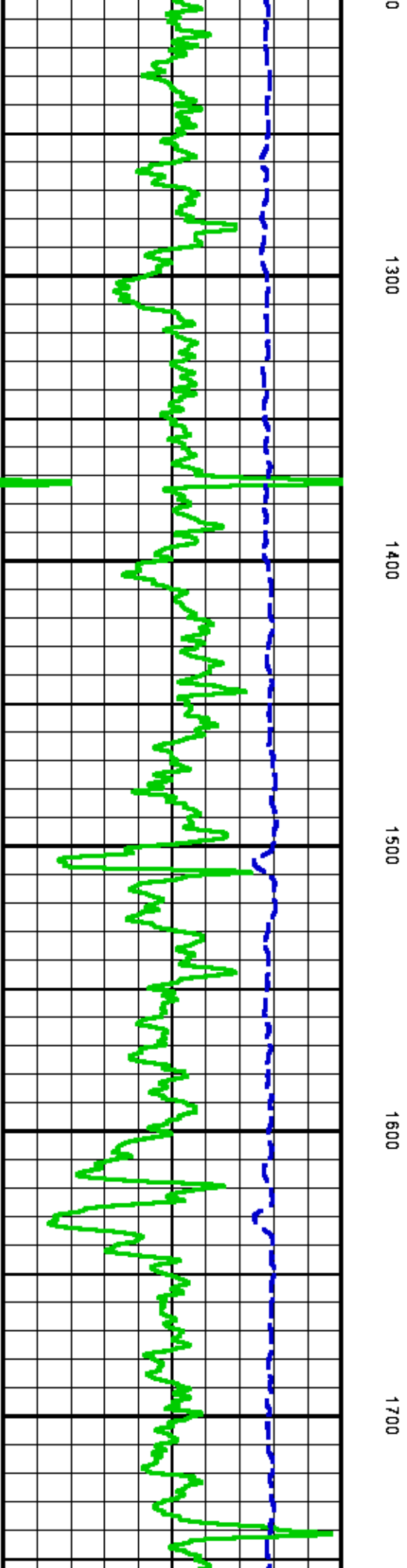
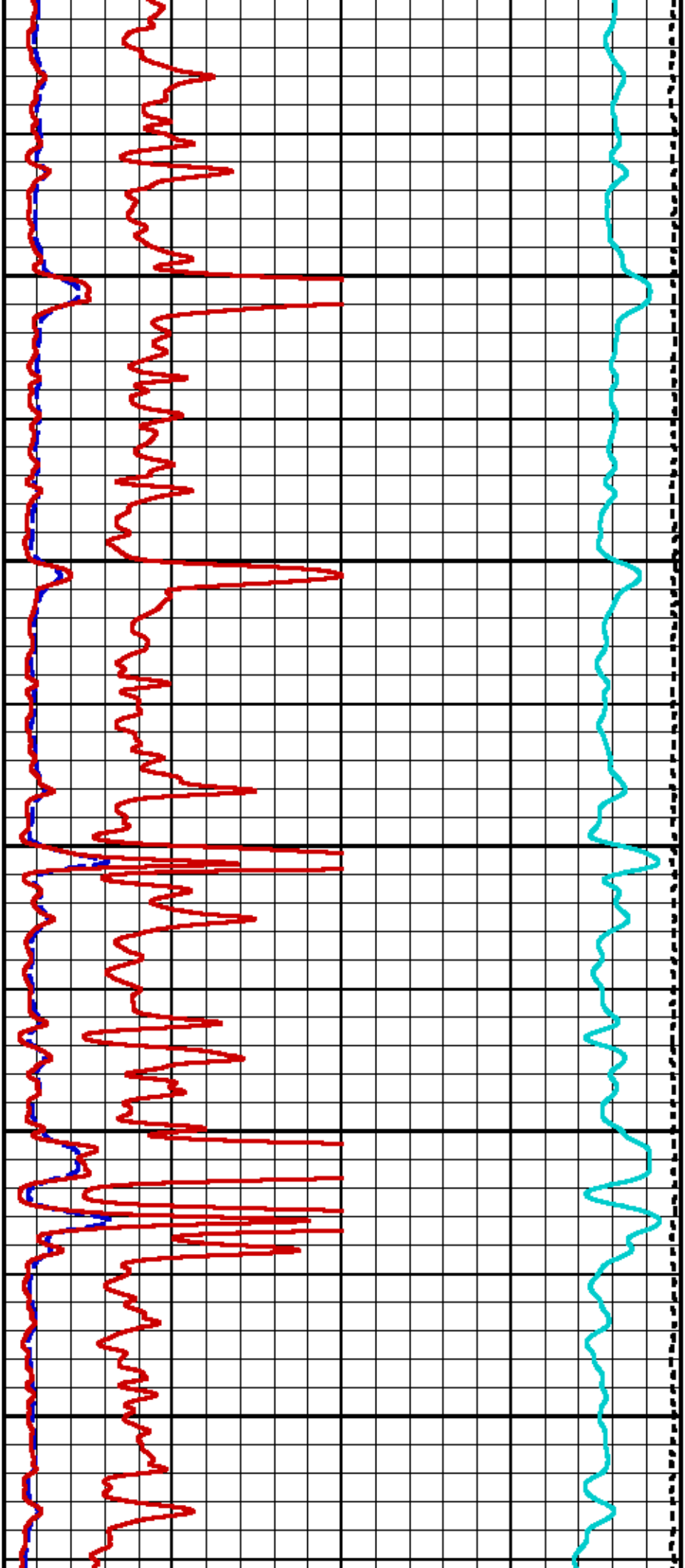
CURVE DESCRIPTION REPORT		
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:GR	Aug 29 20:40:24 2014	GAMMA RAY
F1:MOC6	Aug 29 20:40:24 2014	FOCUSED CONDUCTIVITY, 60-INCH DOI
F1:MOR2	Aug 29 20:40:24 2014	TRUE FOCUSED RESISTIVITY FOR HDIL, 20-INCH DOI
F1:MOR6	Aug 29 20:40:24 2014	TRUE FOCUSED RESISTIVITY FOR HDIL, 60-INCH DOI
F1:SP	Aug 29 20:40:24 2014	SPONTANEOUS POTENTIAL
F1:TEN	Aug 29 20:40:24 2014	DIFFERENTIAL TENSION

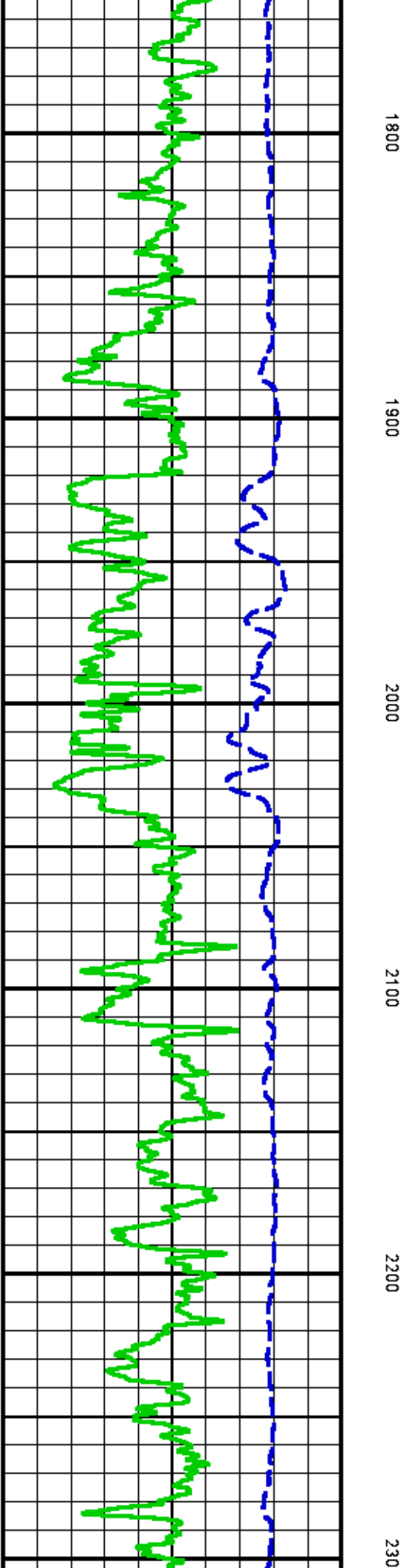
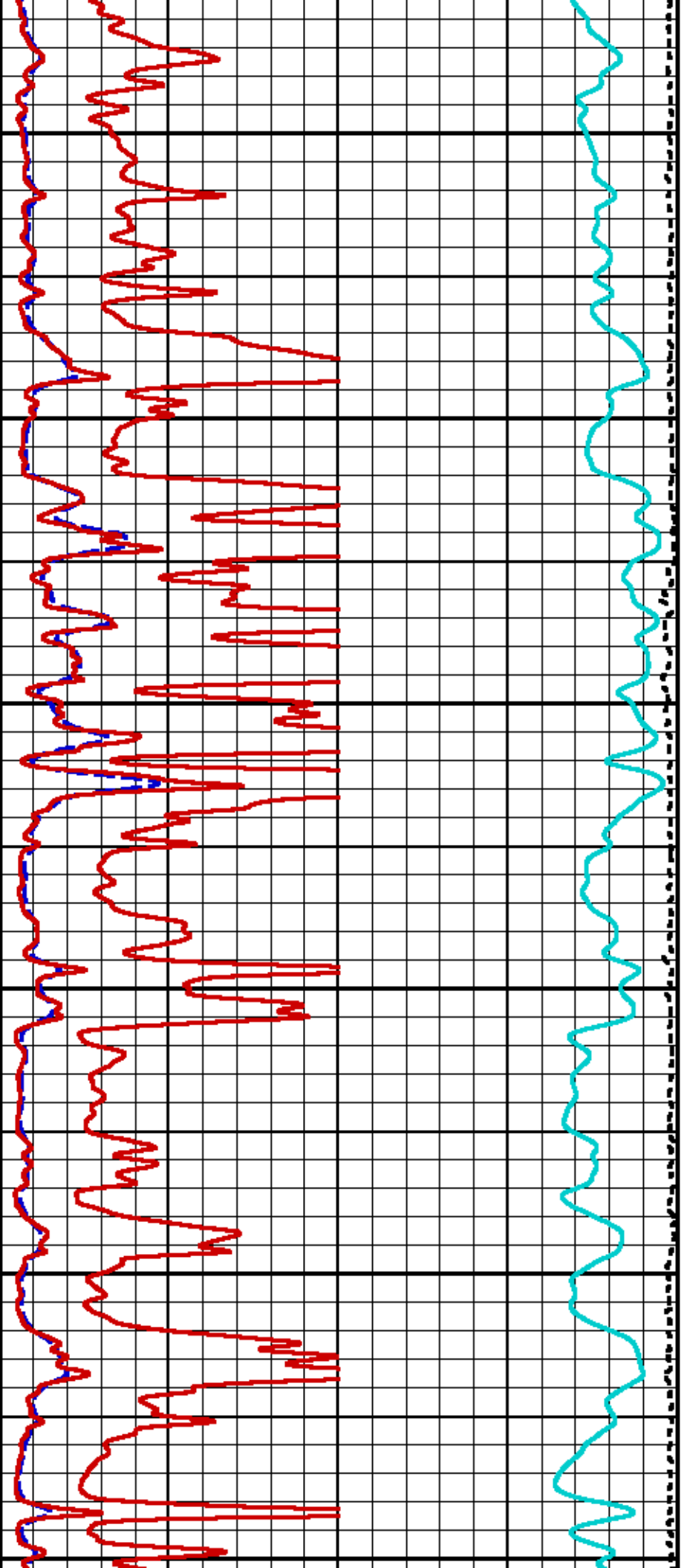
CURVE MEASURE POINT OFFSET							
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
GR	35.00	MOR2	2.75	SP	1.25		
MOC6	2.75	MOR6	2.75	TEN	0.00		

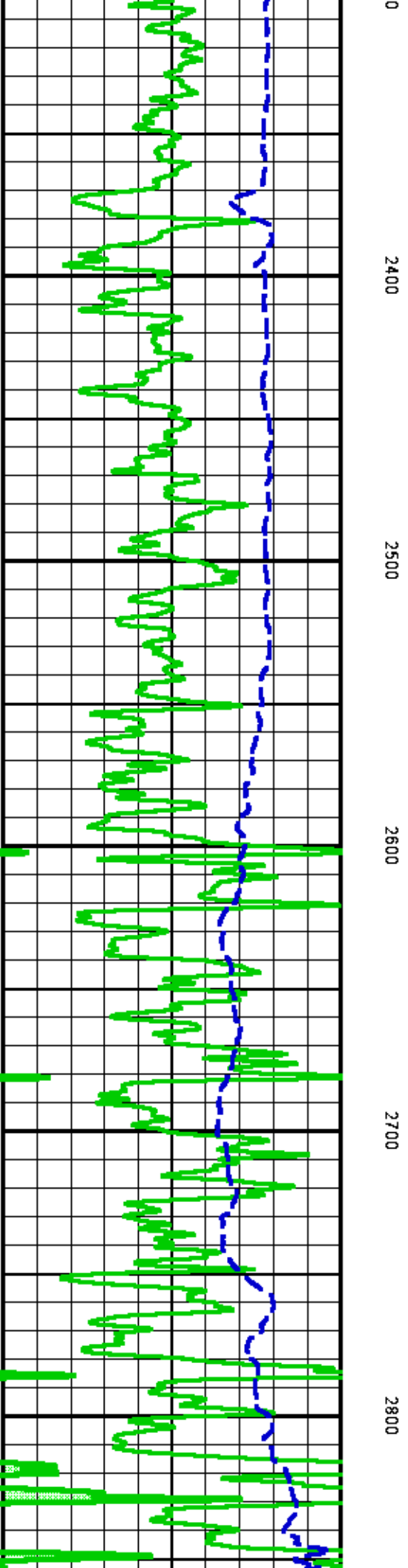
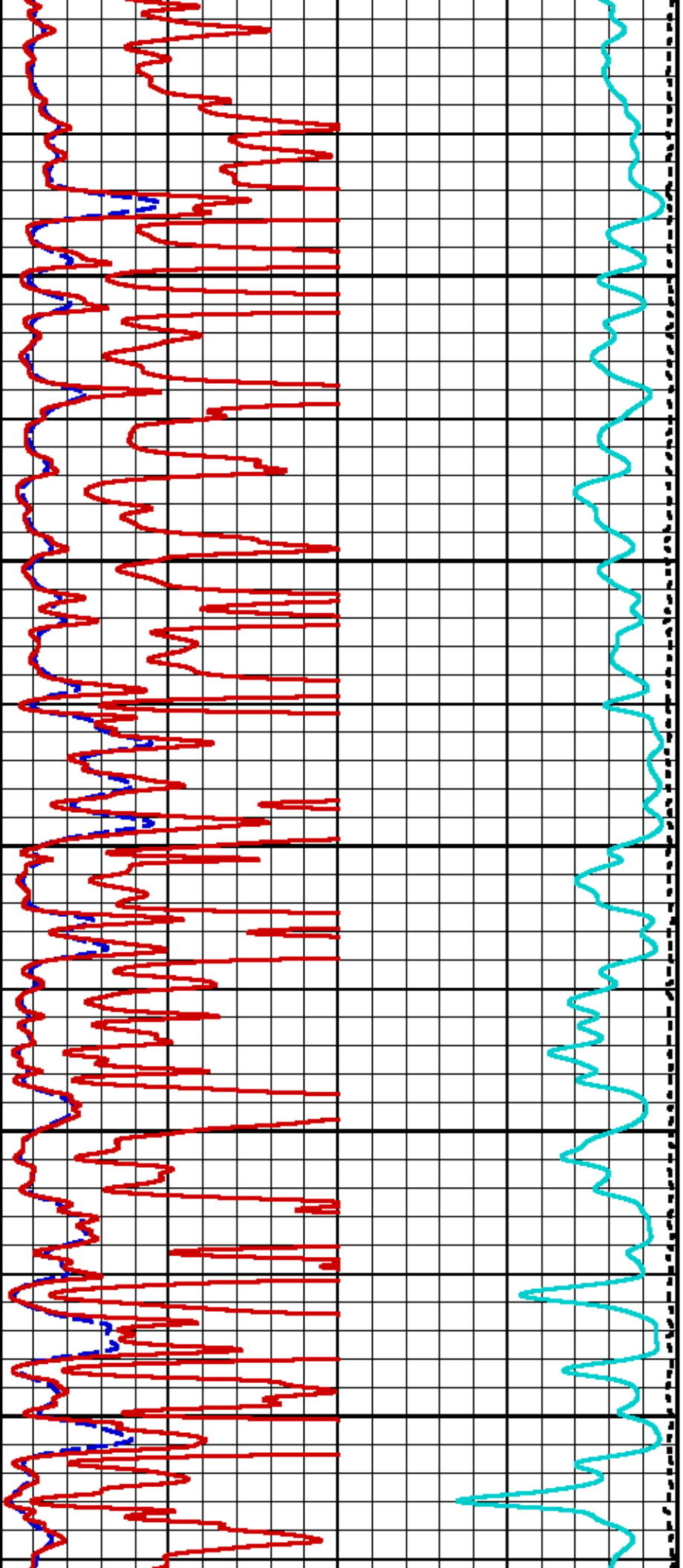
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Plot Interval	: 4.5 - 7322.25 Feet
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Created On	: Aug 29 20:40:24 2014
Company	: WPX ENERGY INC
Well	: CHEVRON GM 311-21
Field	: GRAND VALLEY
File Interval	: 0 - 7322.25 Feet
OCT	: n970a

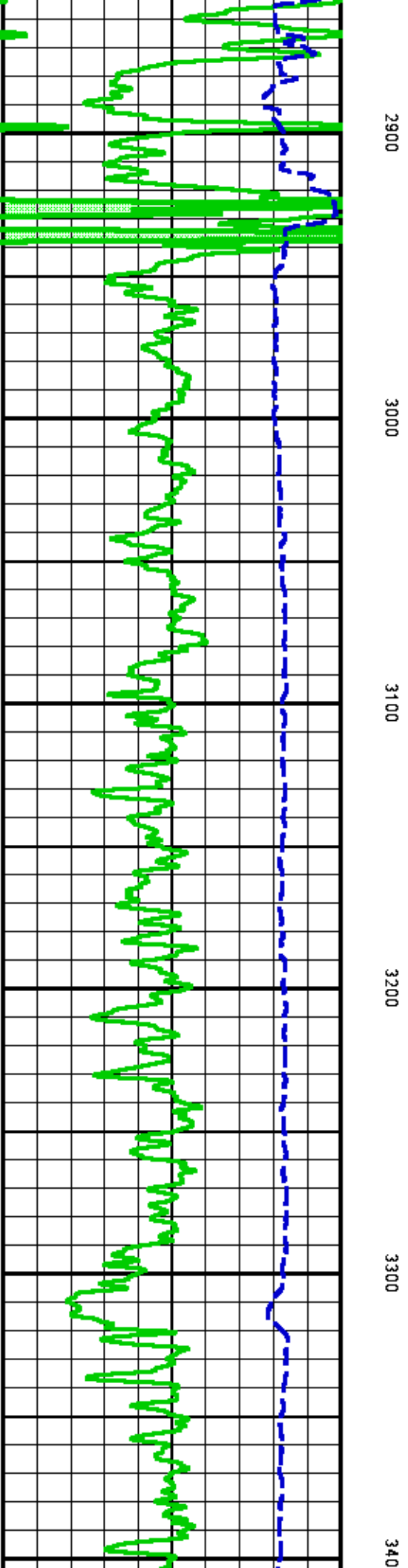
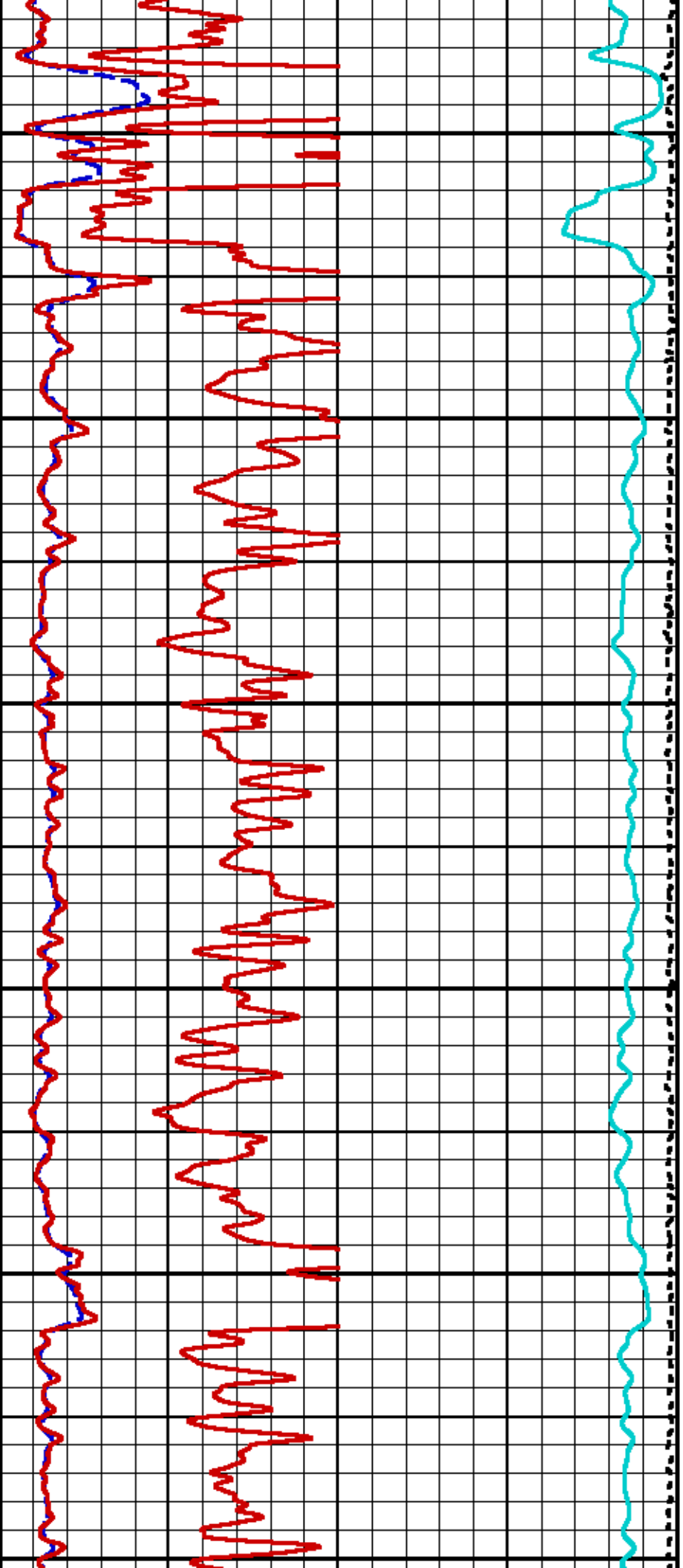


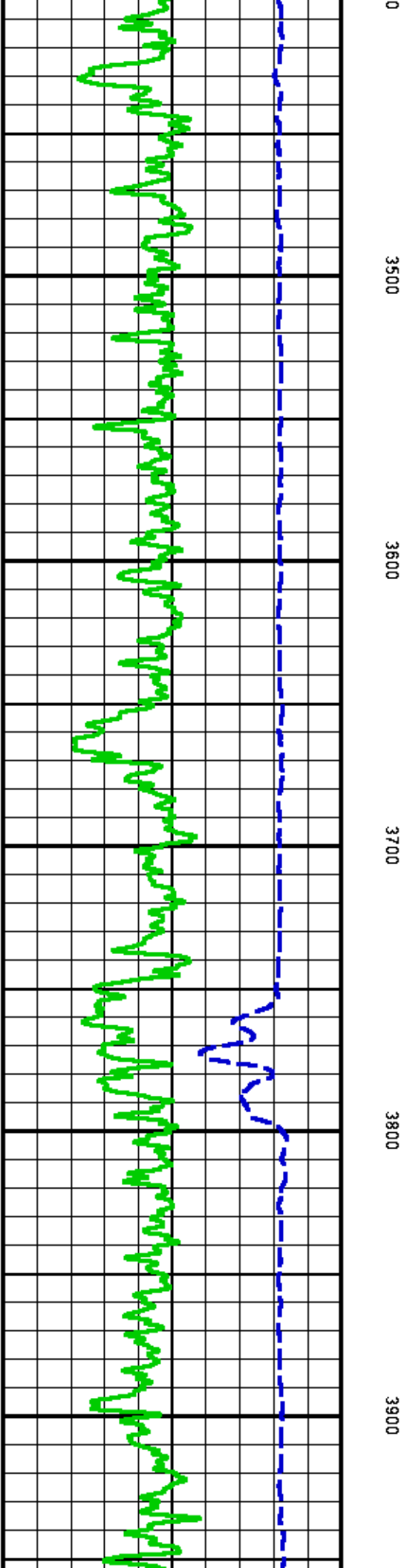
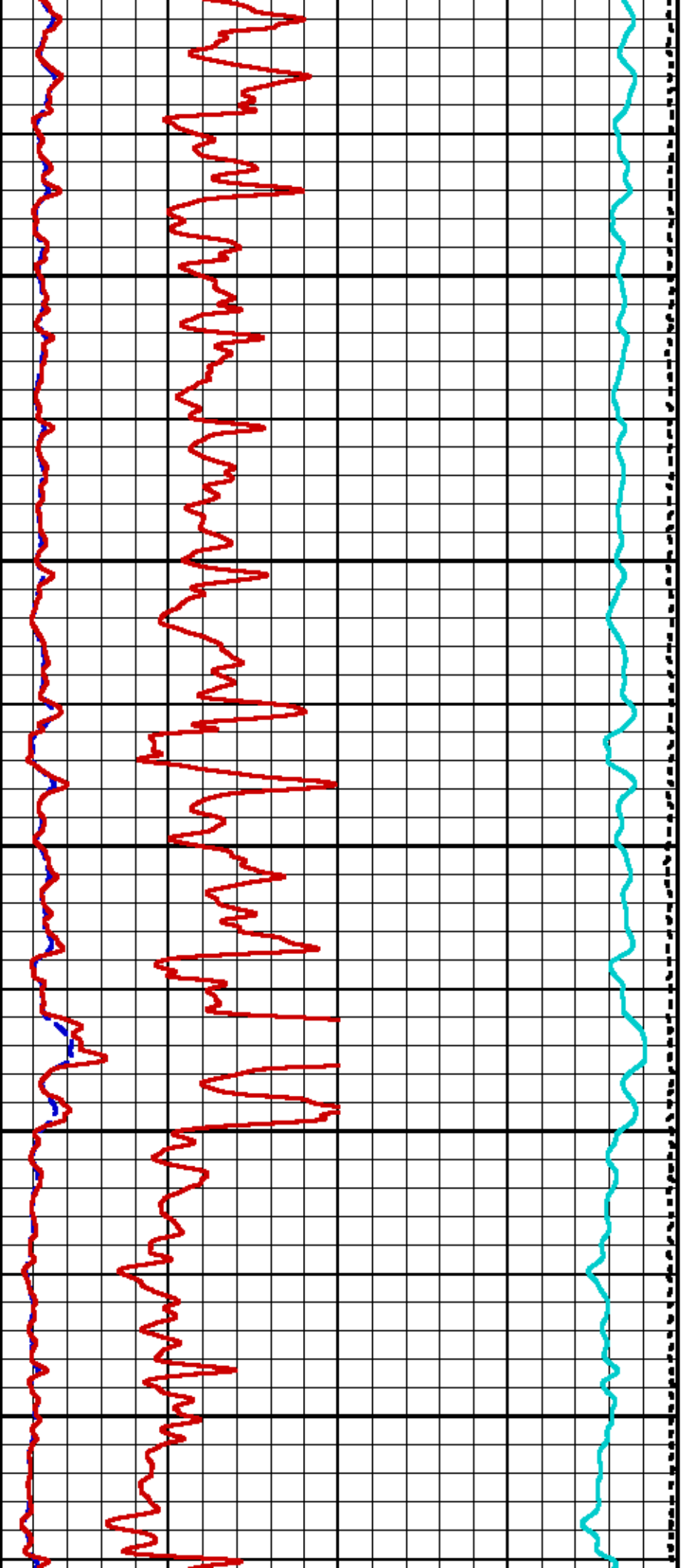


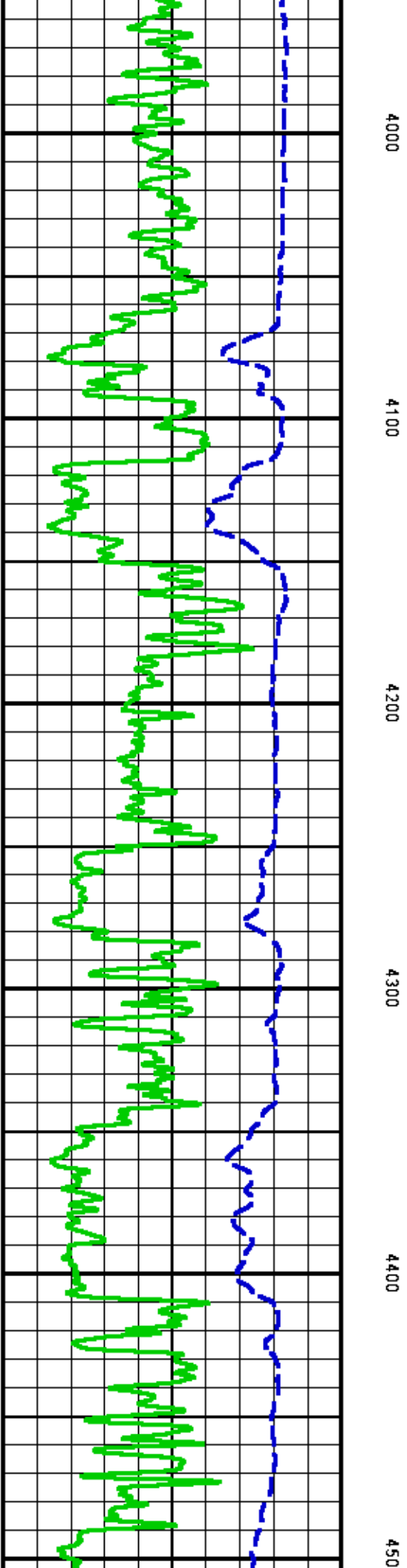
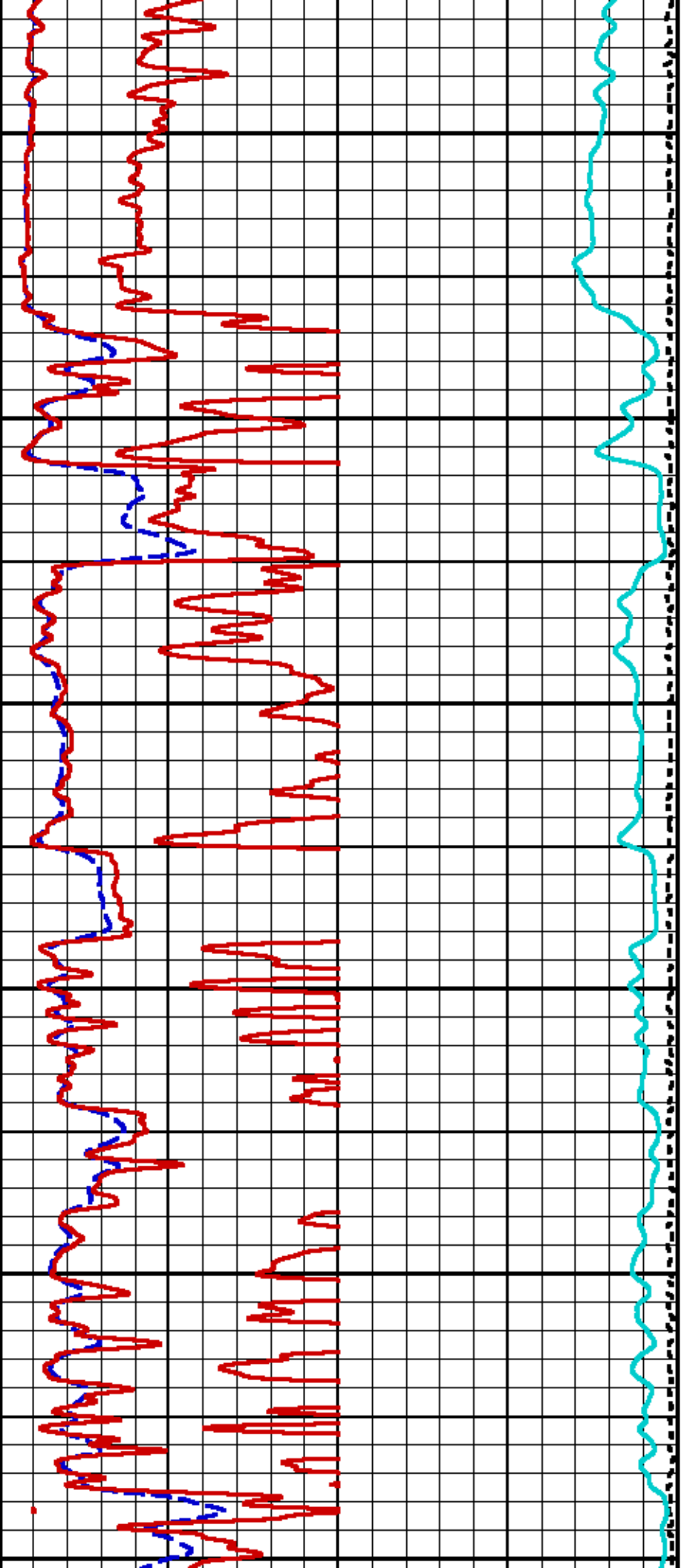


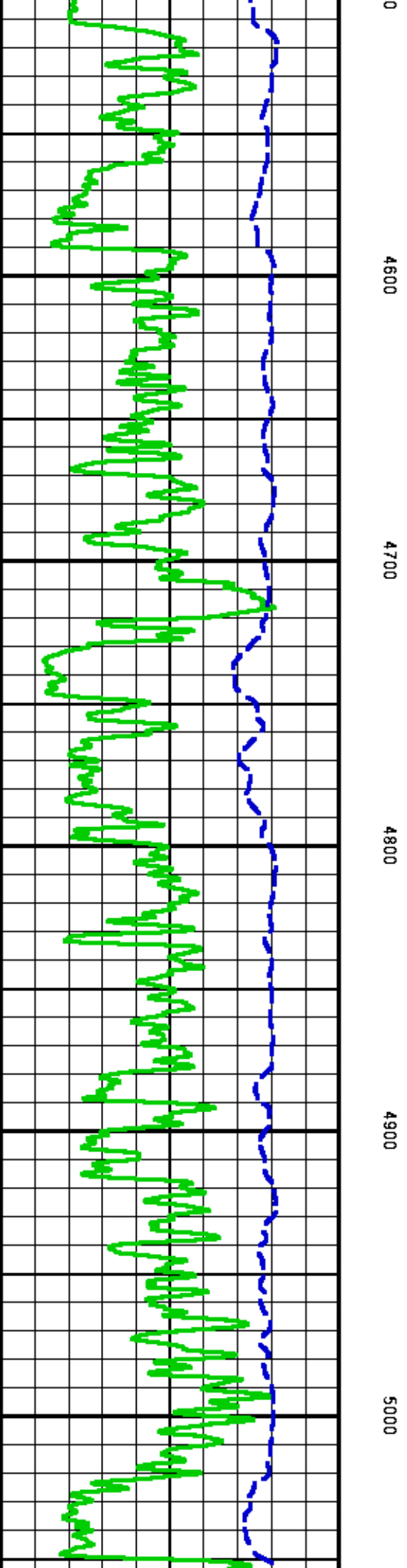
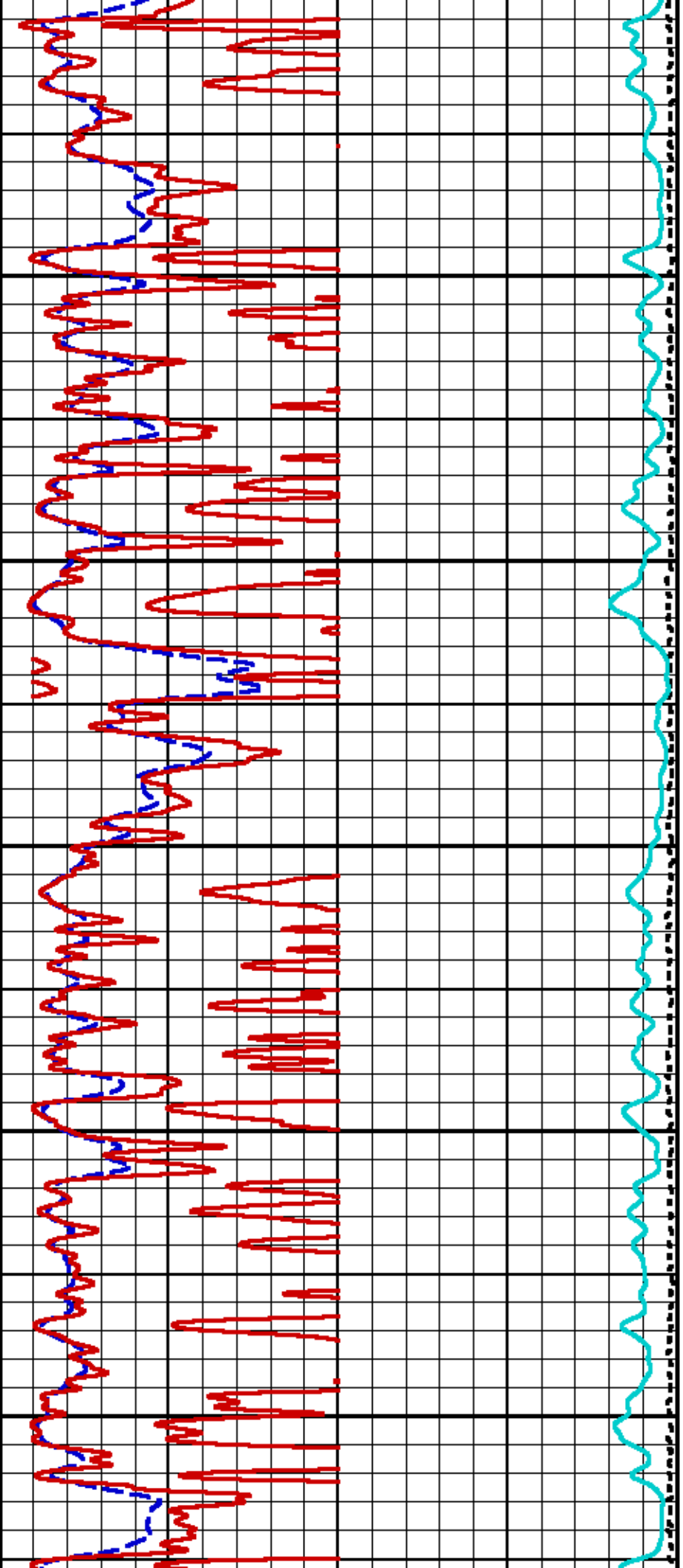


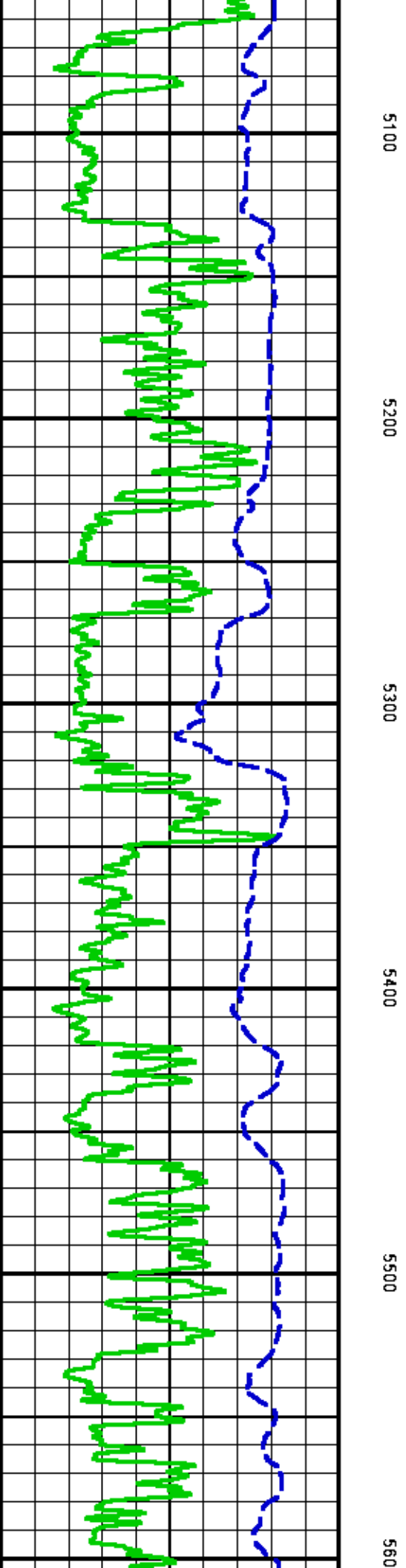
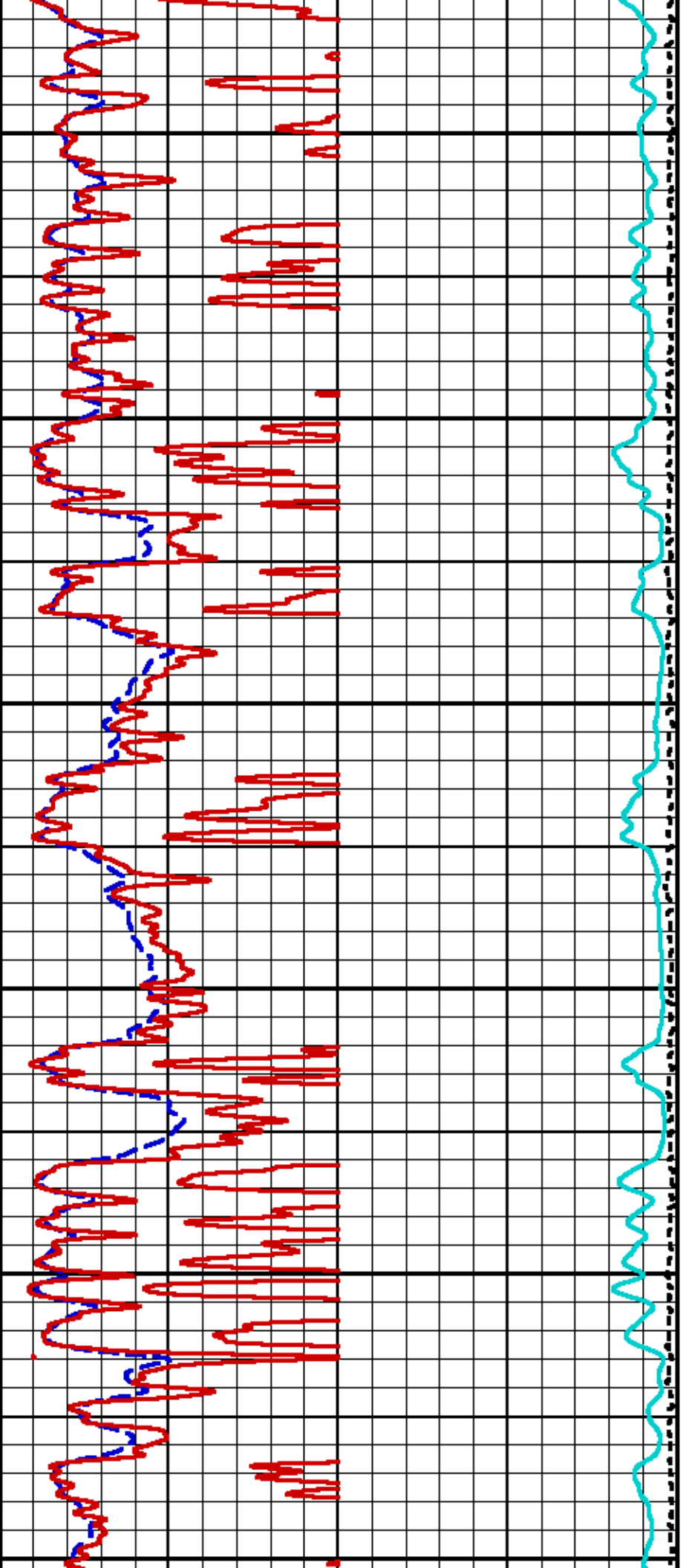


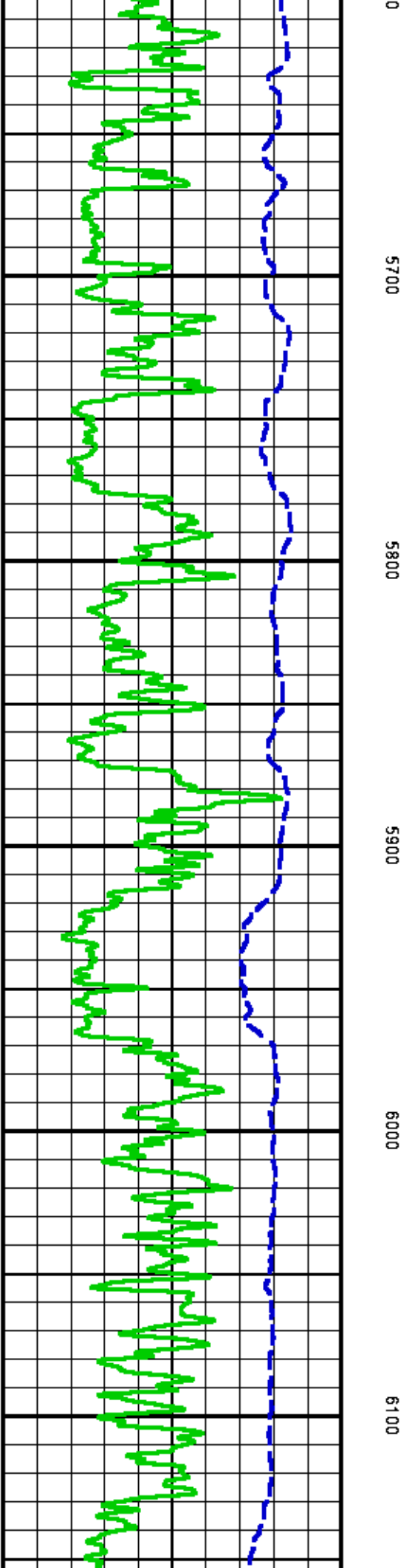
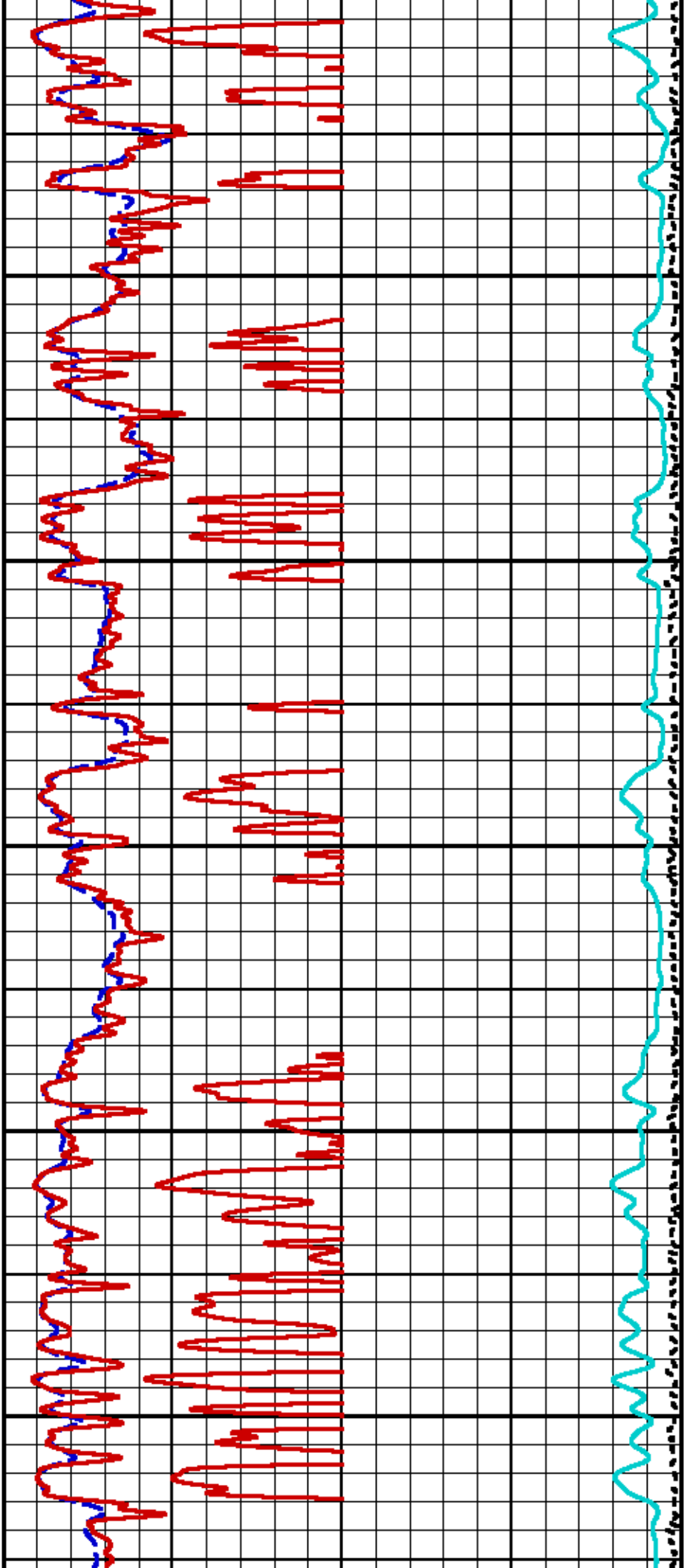


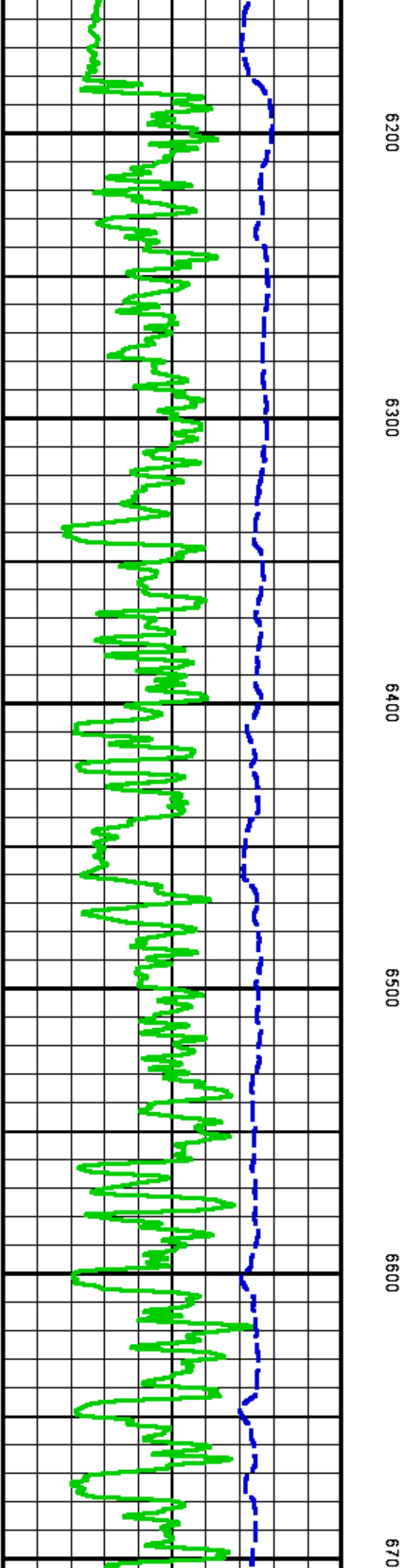
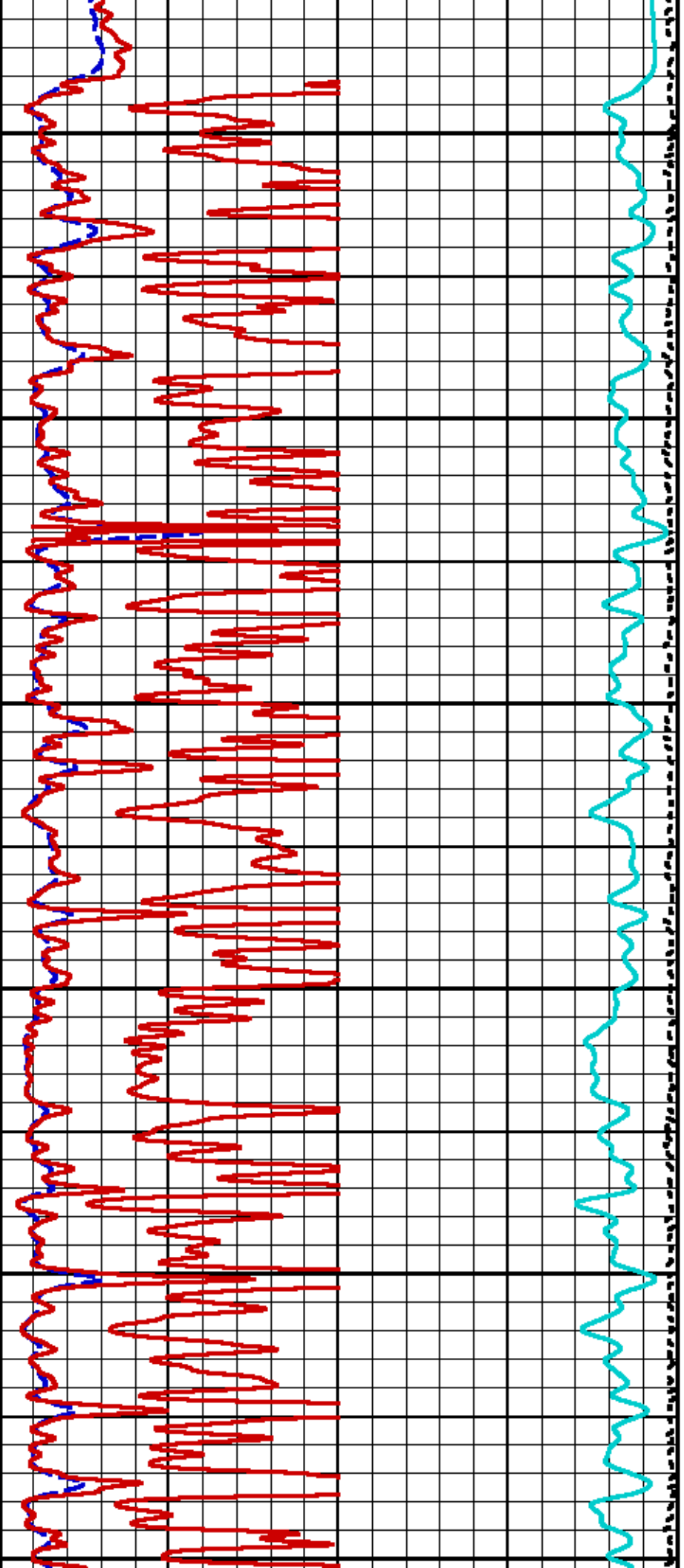


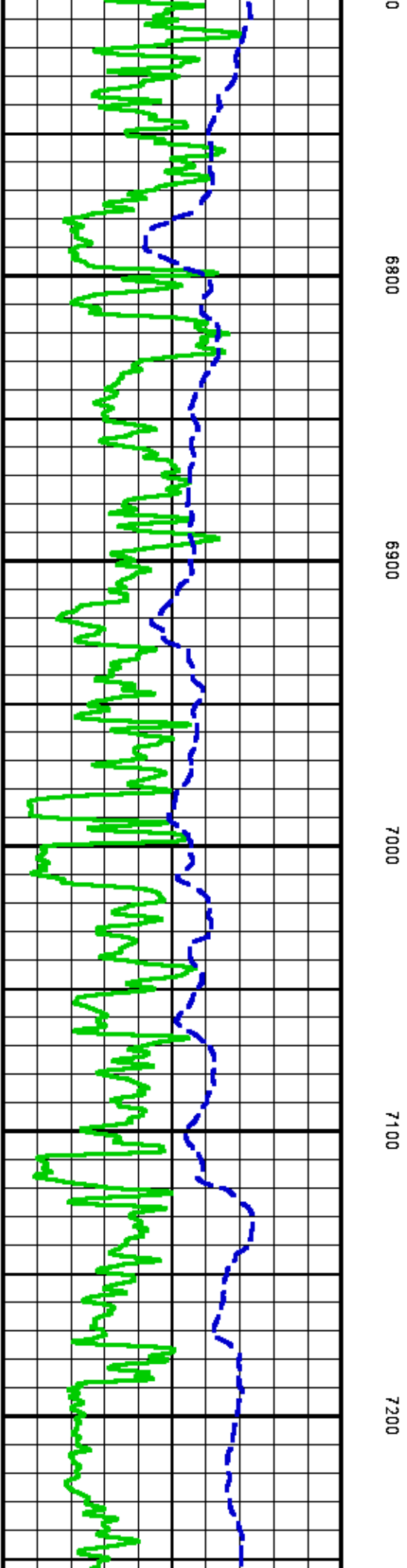
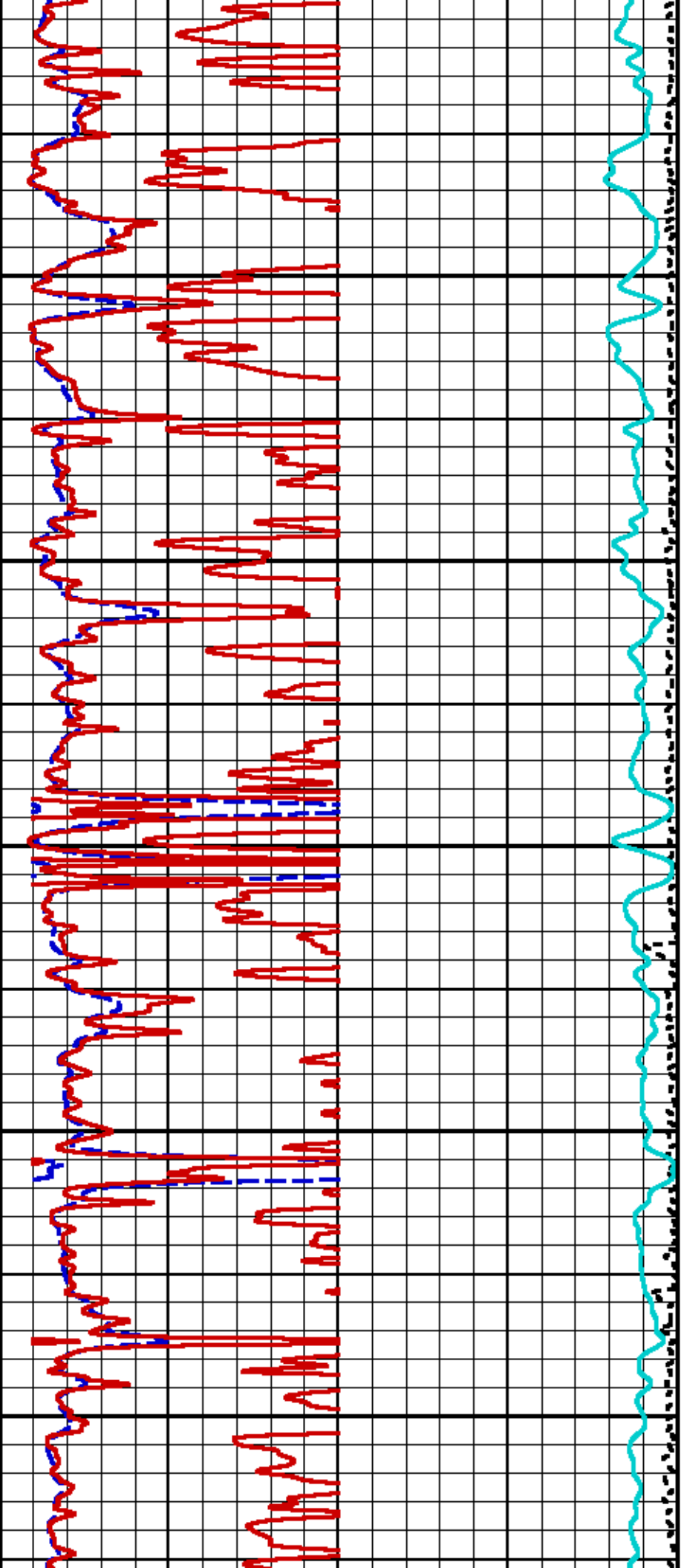


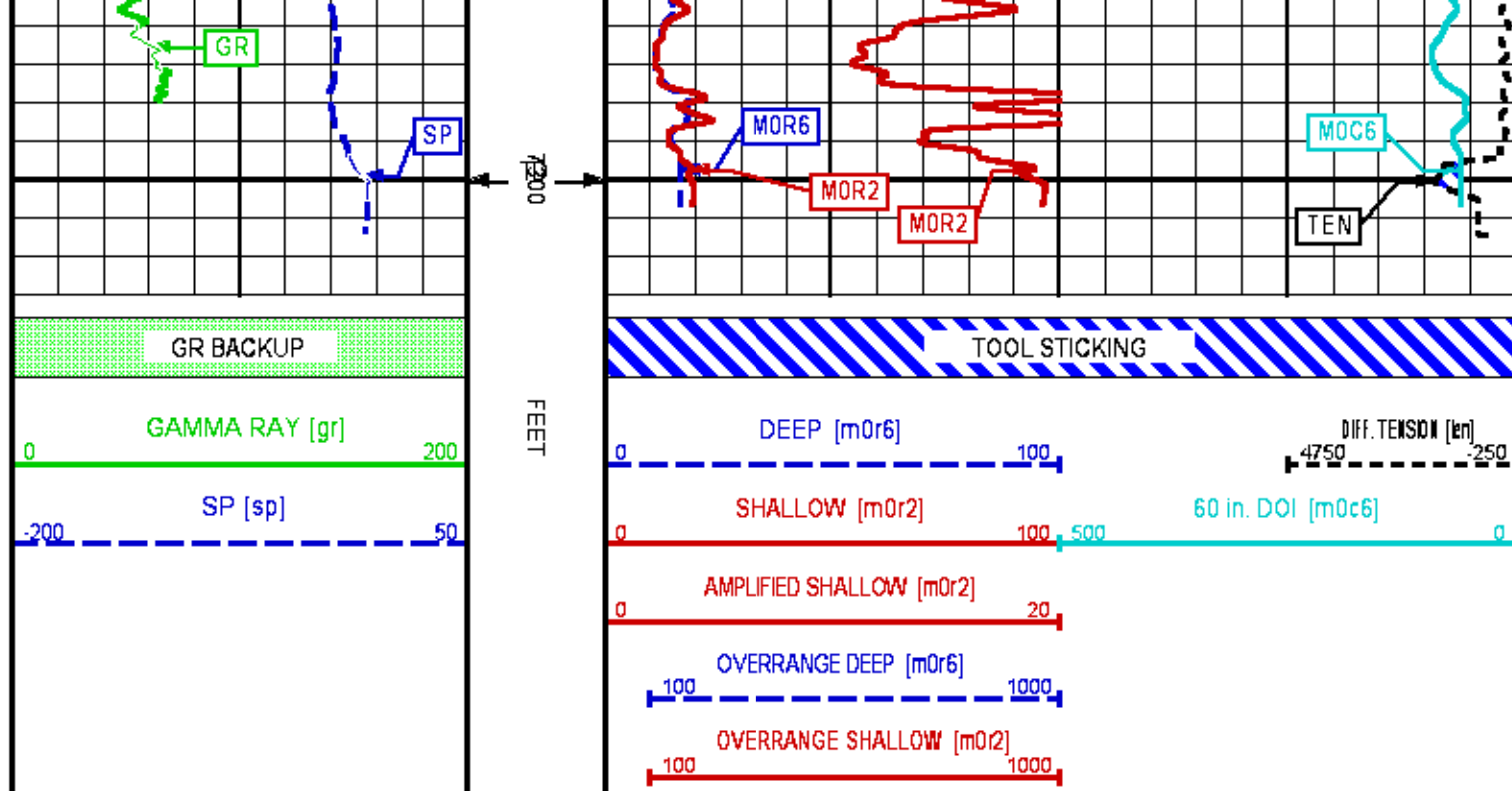












MAIN LOG 5"/100FT SCALE

ECLIPS 6.2i ECLIPS General Release Rel 6.2i Wed Jun 12 12:21:40 CDT 2013
Updates: 1 Patches: 2

Plotted: Fri Aug 29 23:53:54 2014

PARAMETER AND FILTER SUMMARY REPORT

File: /dat1a/GH090004/n970a03.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 927.391 ft BOTTOM DEPTH: 7318.513 ft

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
GR MED RES	FILTER Q	medium (1)		TOP	BOTTOM
CALIPER	FILTER Q	medium (1)		"	"
TENSION	FILTER Q	medium (1)		"	"
CN MED RES	FILTER Q	medium (1)		"	"
ZDL MED RES	FILTER (hrd1*)	medium		"	"
	FILTER (hrd1a*)	medium		"	"
	FILTER (hrd2*)	medium		"	"
	FILTER (hrd2a*)	medium		"	"
	FILTER (soff*)	medium		"	"
SP-SPDH	FILTER Q	heavy (3)		"	"

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	4.500	in	TOP	BOTTOM
	CASING THICKNESS	0.000	in	"	"
BIT SIZE	BIT SIZE	8.750	in	"	"
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (cnbh*)	USE CALIPER		"	"
	CALIPER/FIXED DIA. (cnbh*)	USE CALIPER		"	"

BOREHOLE CORR DIAMETER	CALIPER/FIXED DIA. (mbh*)	8.750	in	"	"
	FIXED DIAMETER (cnbh*)	8.750	in	"	"
BH MUD RESISTIVITY SOURCE	RMUD SOURCE (HDIL)	TOOL MEASURED		"	"
MUD SAMPLE RESISTIVITY	MUD SAMPLE TEMP	84.0	degF	"	"
	MUD SAMPLE RES	1.170	ohm.m	"	"
BOREHOLE TEMP from GRADIENT	Known BH REF TEMP	77.0	degF	"	"
	at BH REF DEPTH	0.0	ft	"	"
	with TEMP GRADIENT	1.200	0.01 degF/ft	"	"

ACCELERATION PROCESSING					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
ACCEL CORR SWITCH	ACCEL DEPTH CORR	CORRECTION ON		TOP	BOTTOM

CN PROCESSING					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CN MATRIX	2436 MATRIX	SANDSTONE		TOP	BOTTOM
CN BOREHOLE CORRECTION	SALINITY	962	ppm	"	"
	BOREHOLE CORRECTION	ON		"	"
CN TOOL STANDOFF	ENABLE STANDOFF CORR	OFF		"	"
	STANDOFF AMOUNT	0.00	in	"	"
CN CASING & CEMENT CORRECTION	CORRECTION	OFF		"	"
	BIT SIZE BEHIND CSNG	8.750	in	"	"

ZDL PROCESSING					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
DENSITY POROSITY	Air Filled Borehole	NO		TOP	BOTTOM
	RHOmatrix	2.680	g/cm3	"	"
	RHOfluid	1.000	g/cm3	"	"

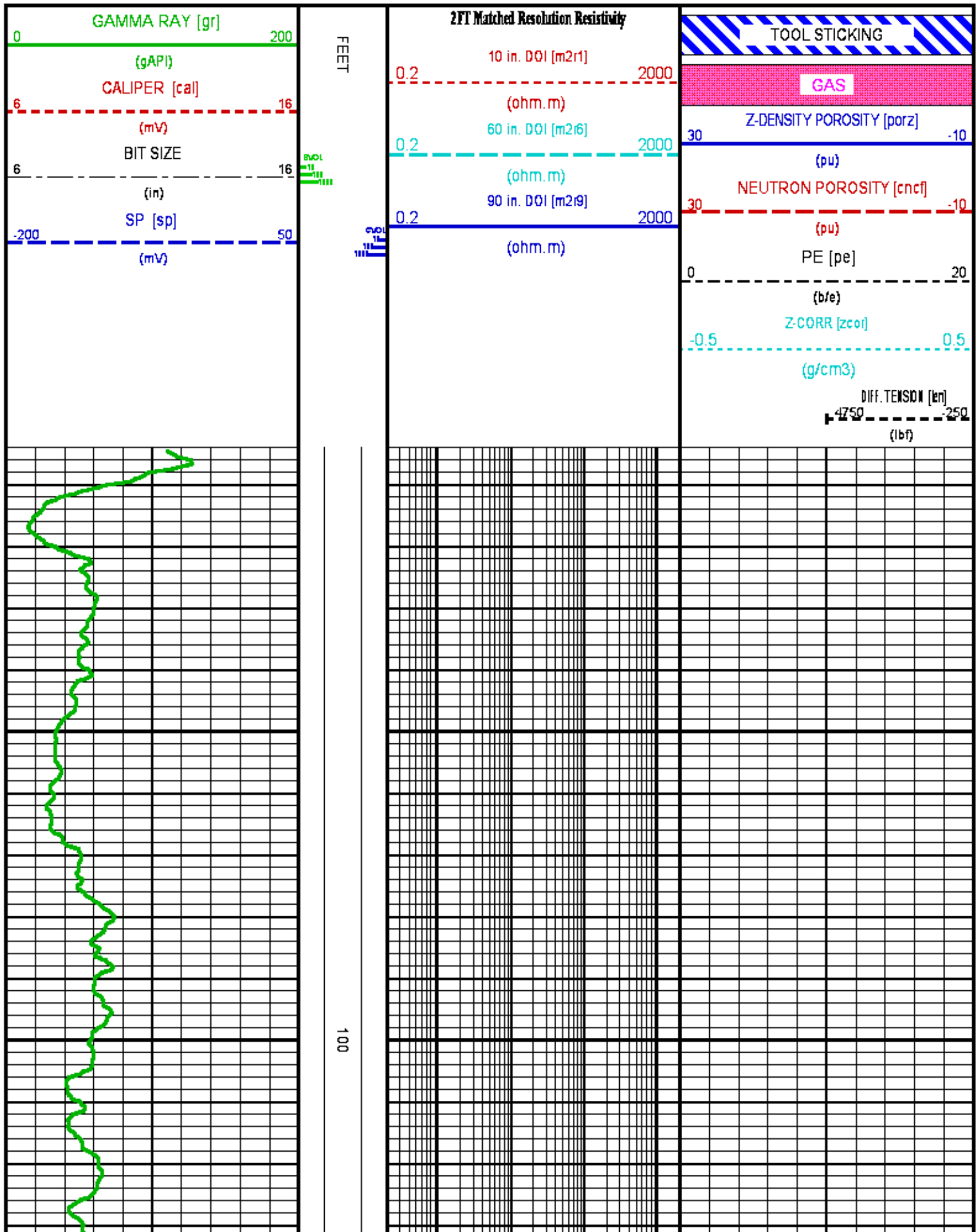
HDIL PROCESSING					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
HDIL TEMPERATURE CORRECTION	TEMP CORRECTION	ON		TOP	BOTTOM
ADAPTIVE BOREHOLE CORRECTION	ABC PROCESSING	ON		"	"
	ABC to CALCULATE	MUD CONDUCTIVITY		"	"
	STANDOFF	1.50	in	"	"
	TOOL POSITION	ECCENTERED		"	"
	Rmud MULTIPLIER	1.000		"	"

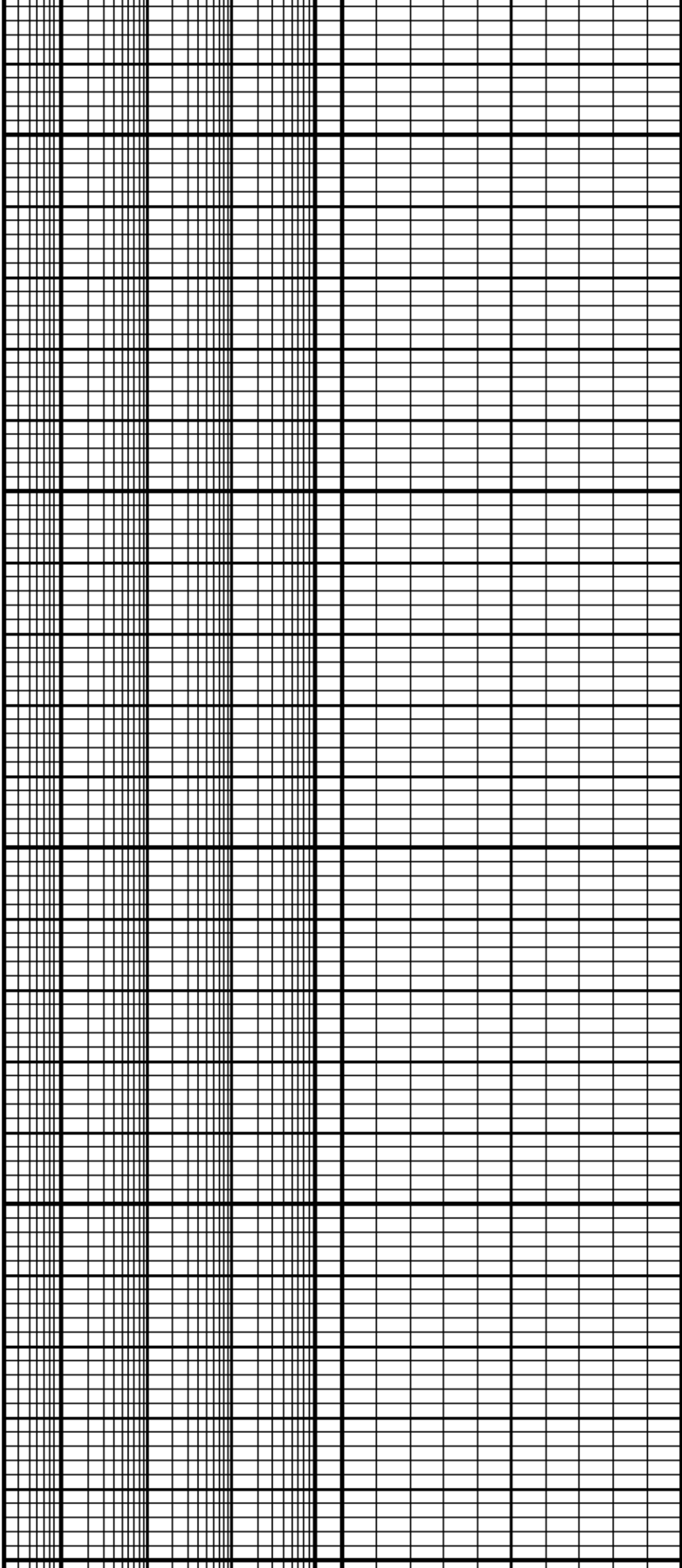
CURVE DESCRIPTION REPORT		
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:BIT	Aug 29 20:40:24 2014	BIT SIZE
F1:BVOL	Aug 29 20:40:24 2014	BOREHOLE VOLUME
F1:CAL	Aug 29 20:40:24 2014	CALIPER
F1:CNCF	Aug 29 20:40:24 2014	FIELD NORMALIZED COMPENSATED NEUTRON POROSITY
F1:CVOL	Aug 29 20:40:24 2014	CEMENT VOLUME
F1:GR	Aug 29 20:40:24 2014	GAMMA RAY
F1:M2R1	Aug 29 20:40:24 2014	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 10-INCH DOI
F1:M2R6	Aug 29 20:40:24 2014	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 60-INCH DOI
F1:M2R9	Aug 29 20:40:24 2014	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 90-INCH DOI
F1:PE	Aug 29 20:40:24 2014	PHOTO ELECTRIC CROSS-SECTION
F1:PORZ	Aug 29 20:40:24 2014	POROSITY FOR SELECTABLE MATRIX
F1:SP	Aug 29 20:40:24 2014	SPONTANEOUS POTENTIAL
F1:TEN	Aug 29 20:40:24 2014	DIFFERENTIAL TENSION
F1:ZCOR	Aug 29 20:40:24 2014	DENSITY CORRECTION

CURVE MEASURE POINT OFFSET							
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
BIT	0.00	GR	35.00	M2R9	2.75	SP	1.25
CAL	18.12	M2R1	2.75	PE	18.00	TEN	0.00
CNCF	27.38	M2R6	2.75	PORZ	18.00	ZCOR	18.00

Presentation	: HL6670:WPX MAIN.fvpdf [5"/100' Scale]
Plot Interval	: 4.5 - 7322.25 Feet
Data File 1	: F1: HL 6670:/dat1a/OH090004/MAIN.vtf

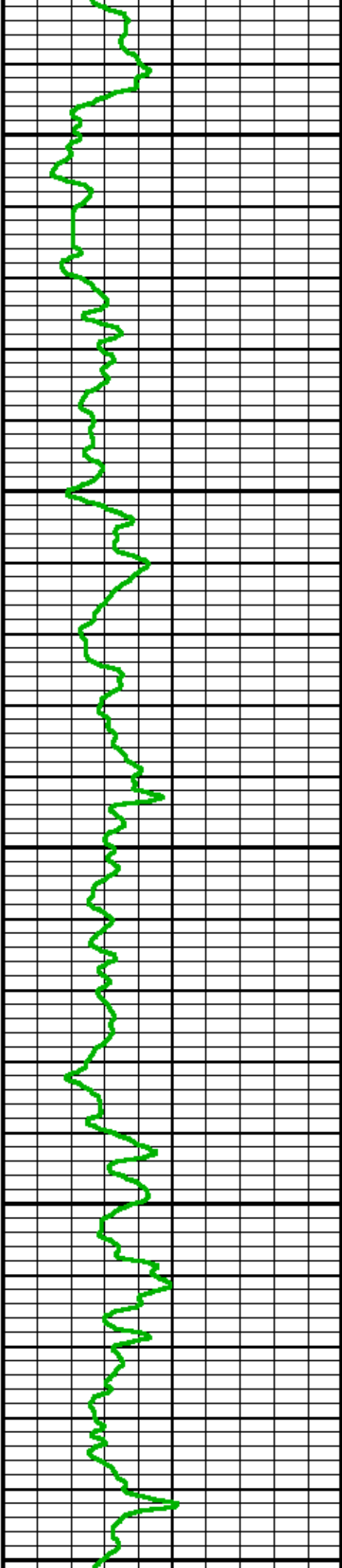
Created On : Aug 29 20:40:24 2014
Company : WPX ENERGY INC
Well : CHEVRON GM 311-21
Field : GRAND VALLEY
File Interval : 0 - 7322.25 Feet
OCT : n970a

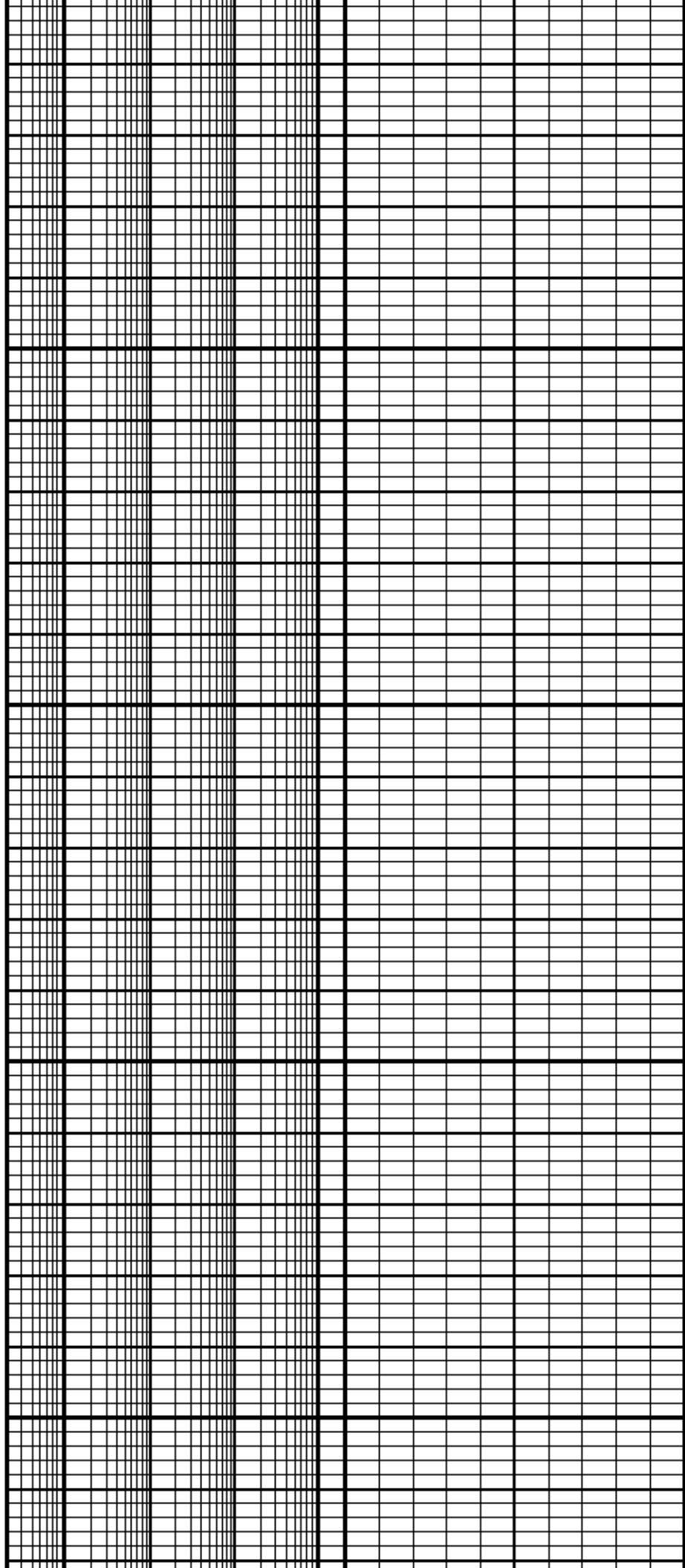




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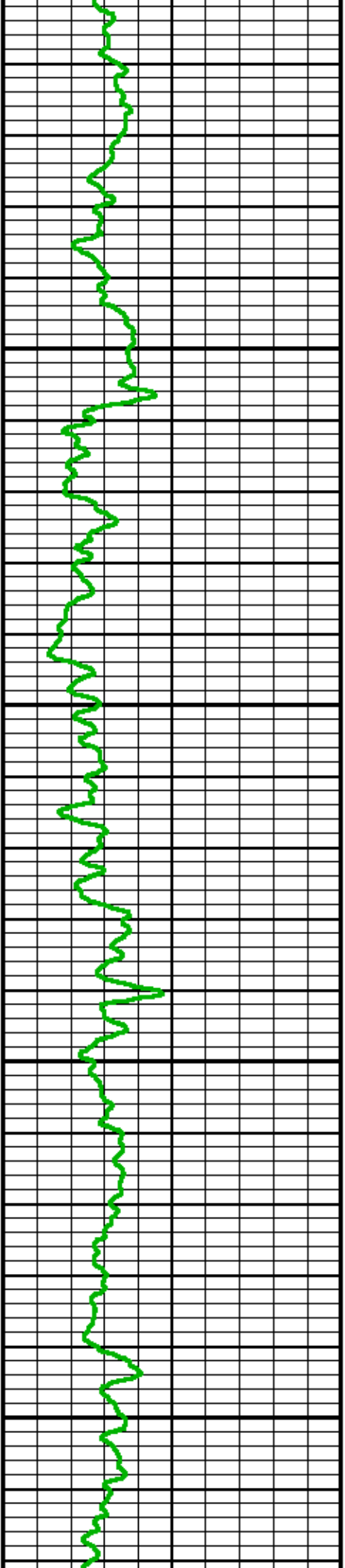
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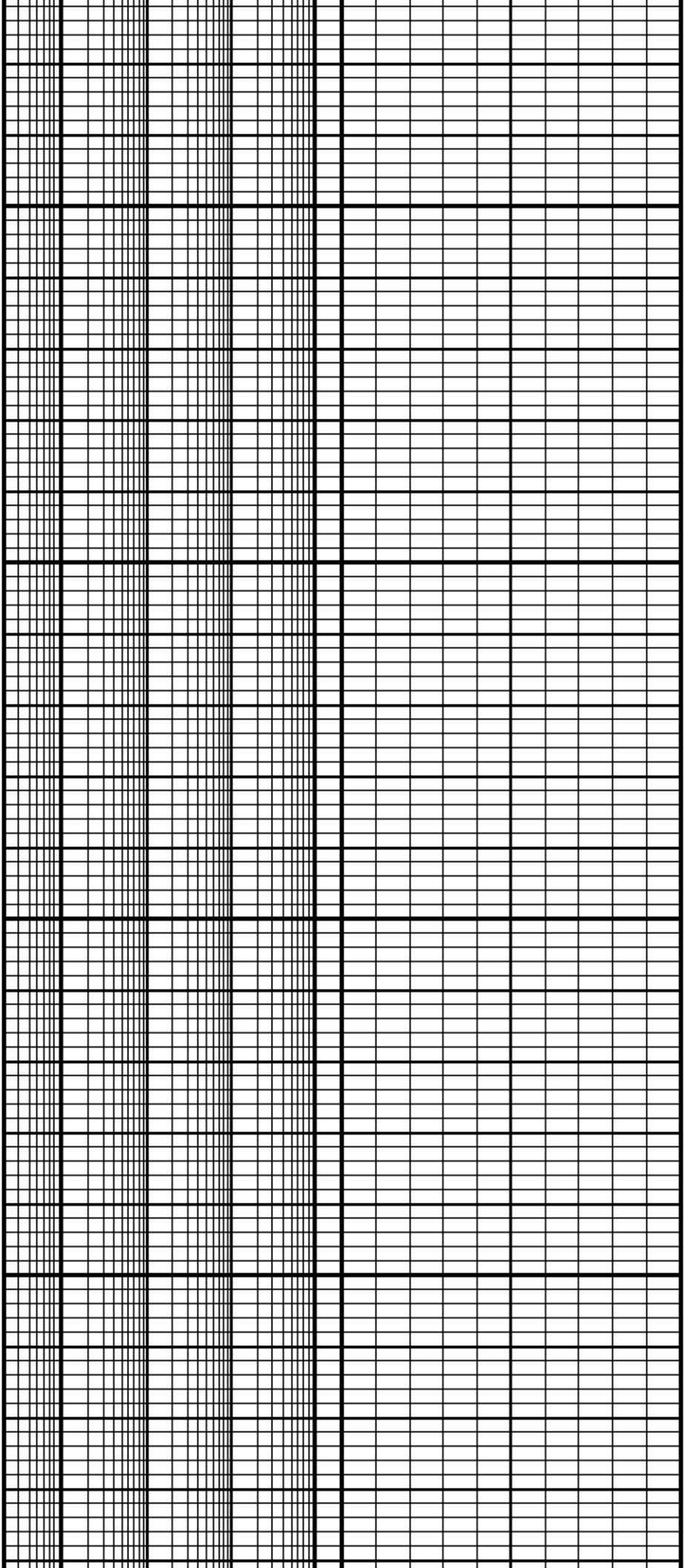
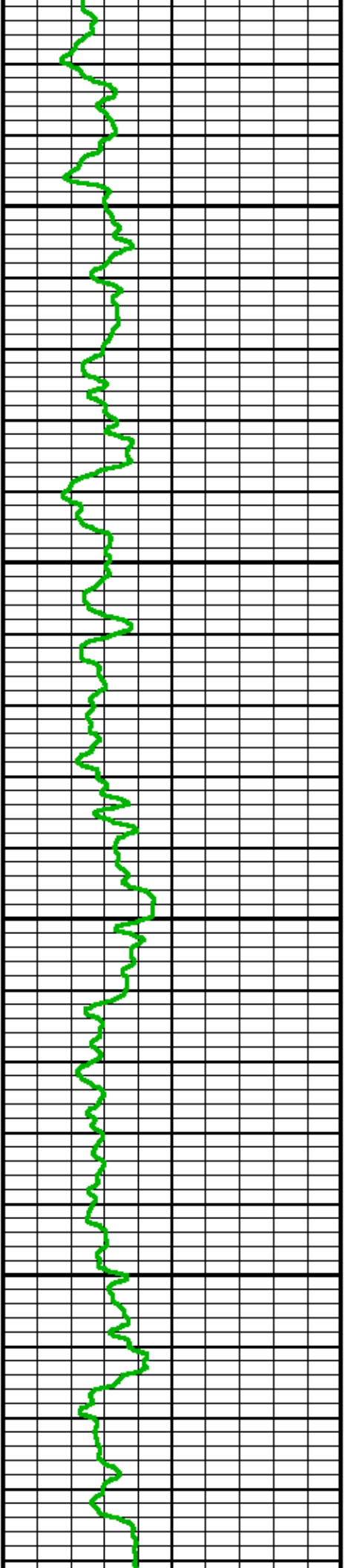
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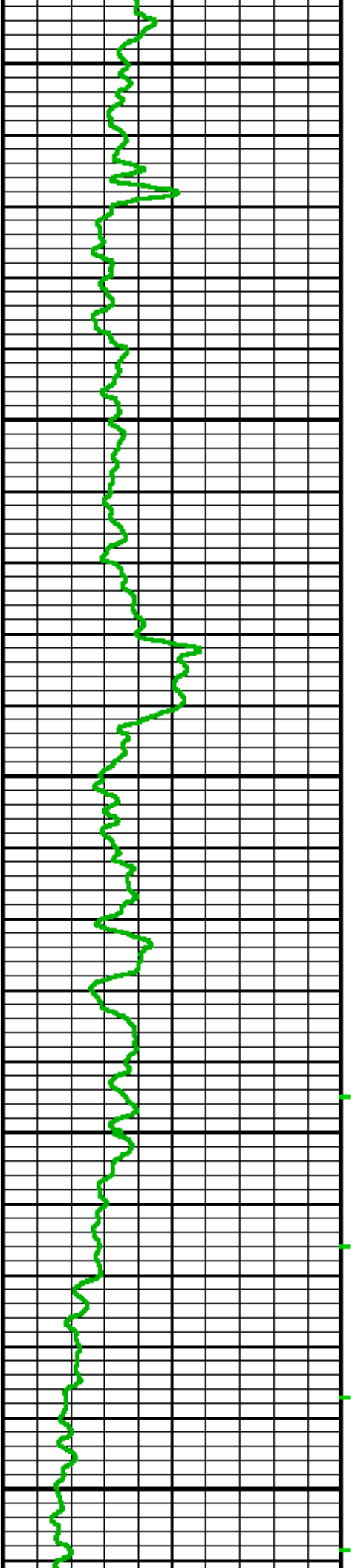
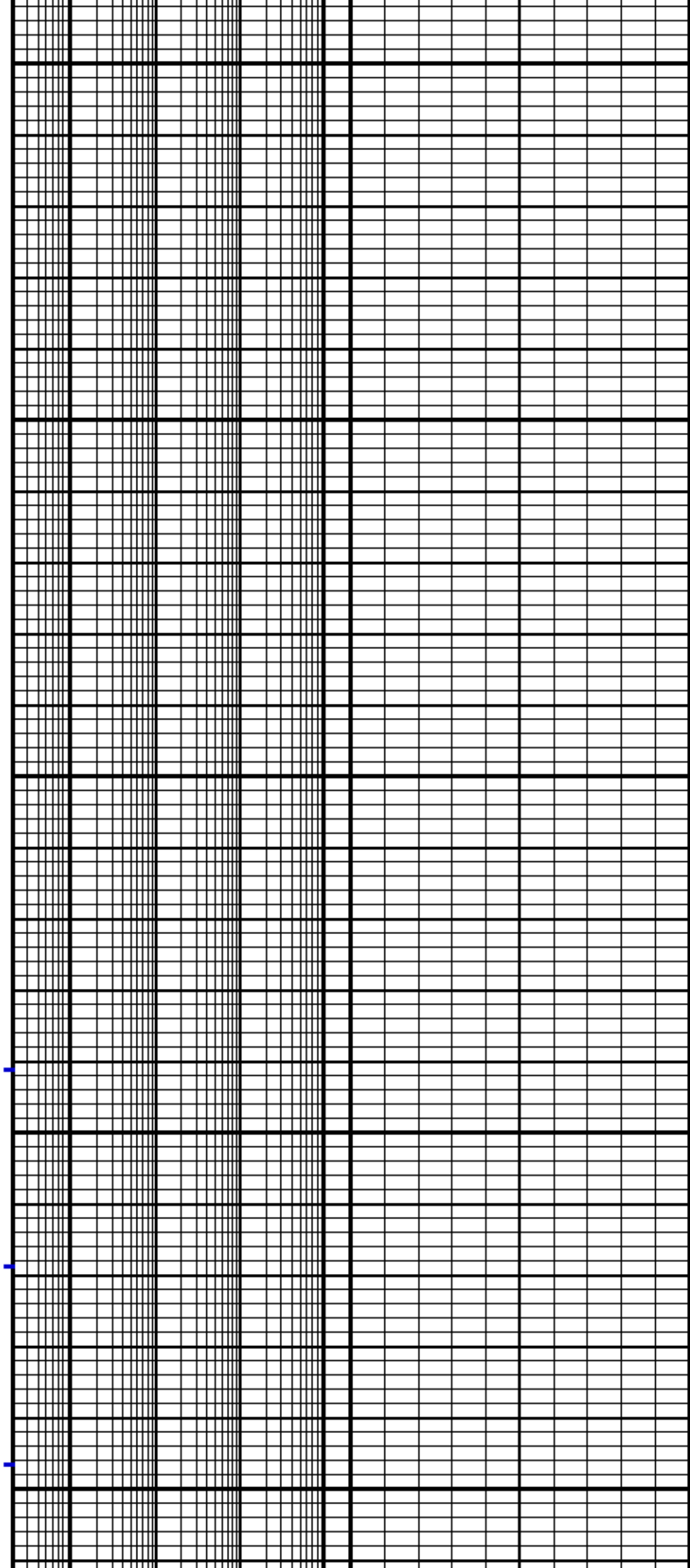
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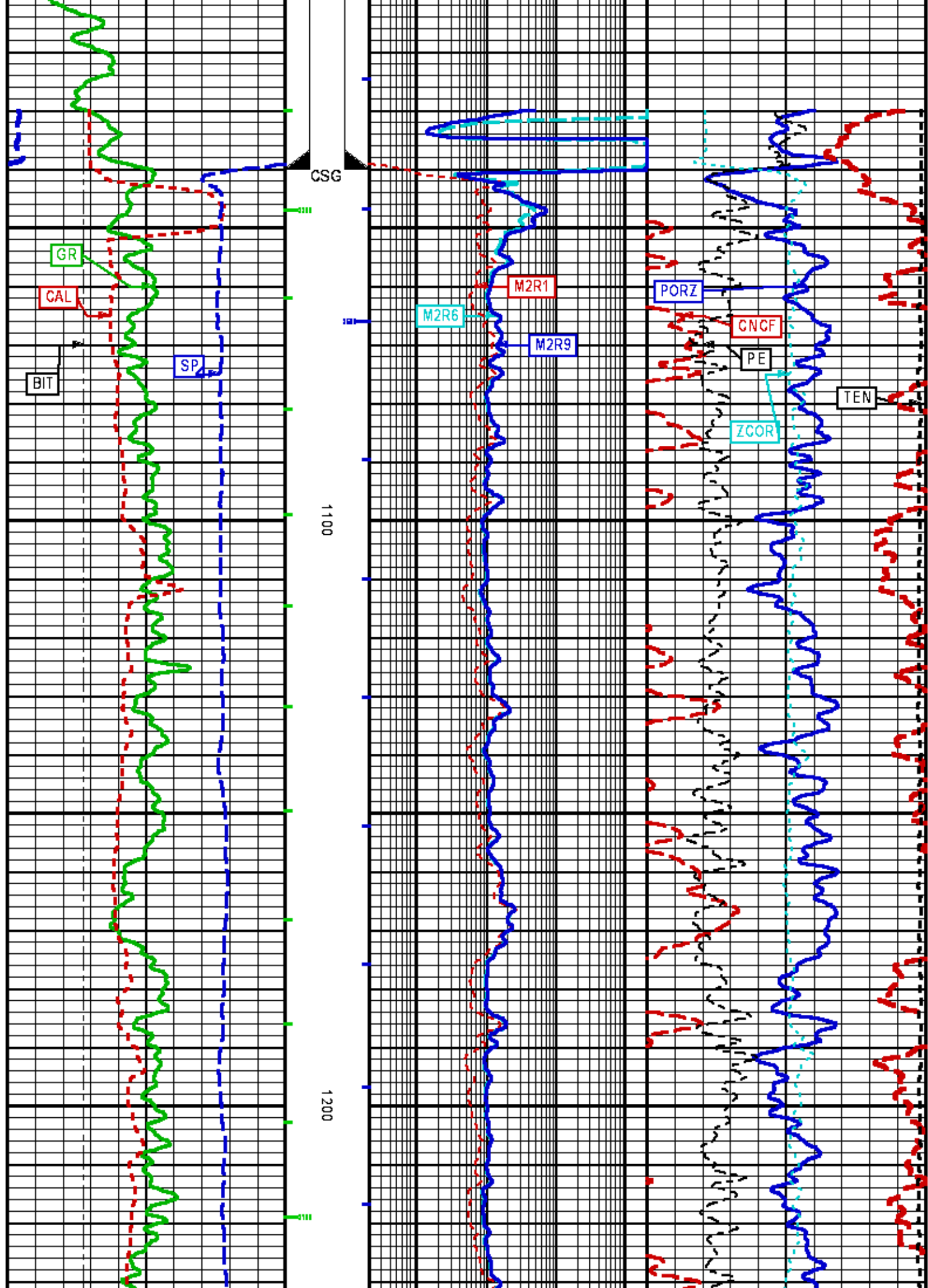


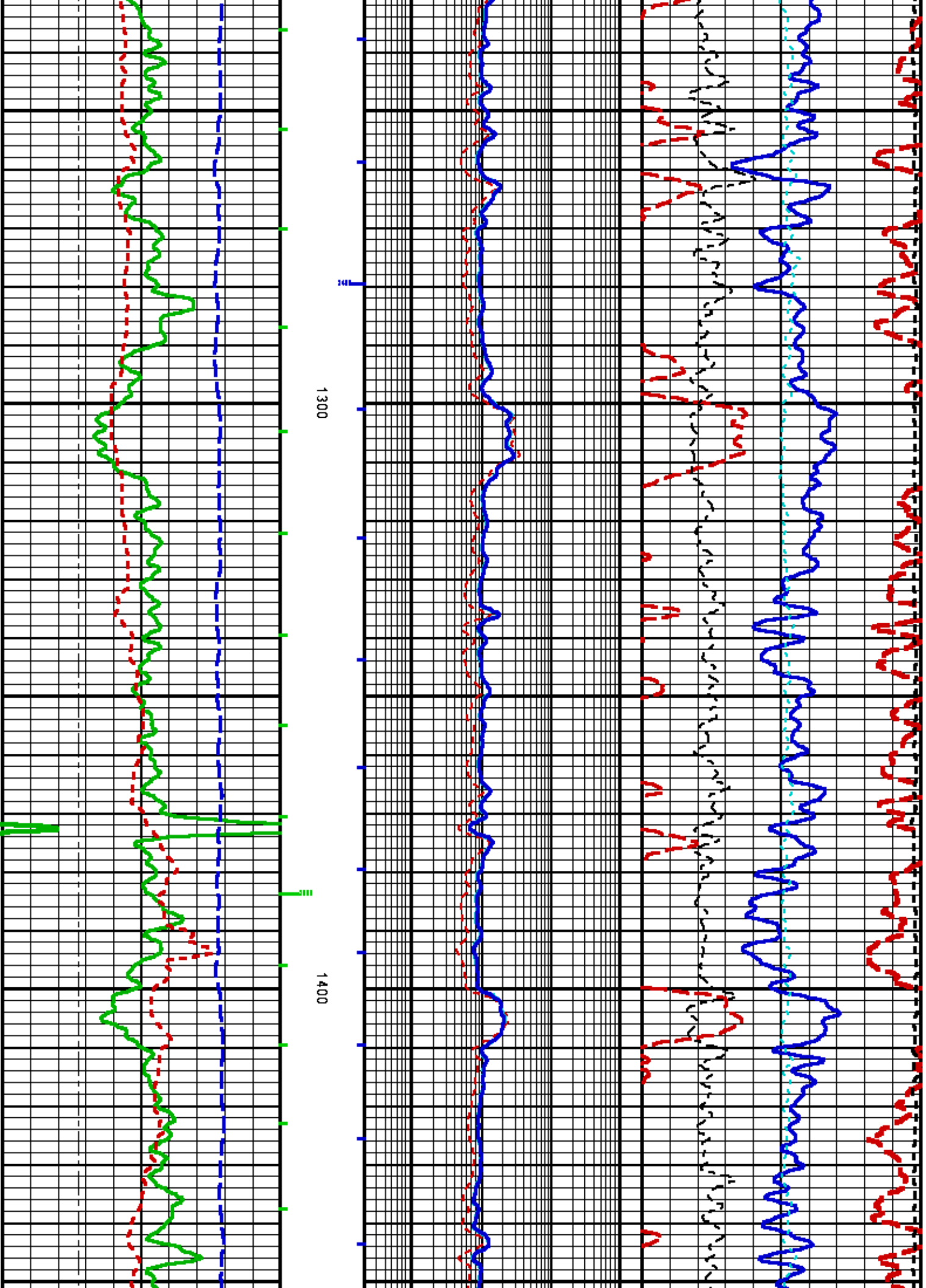
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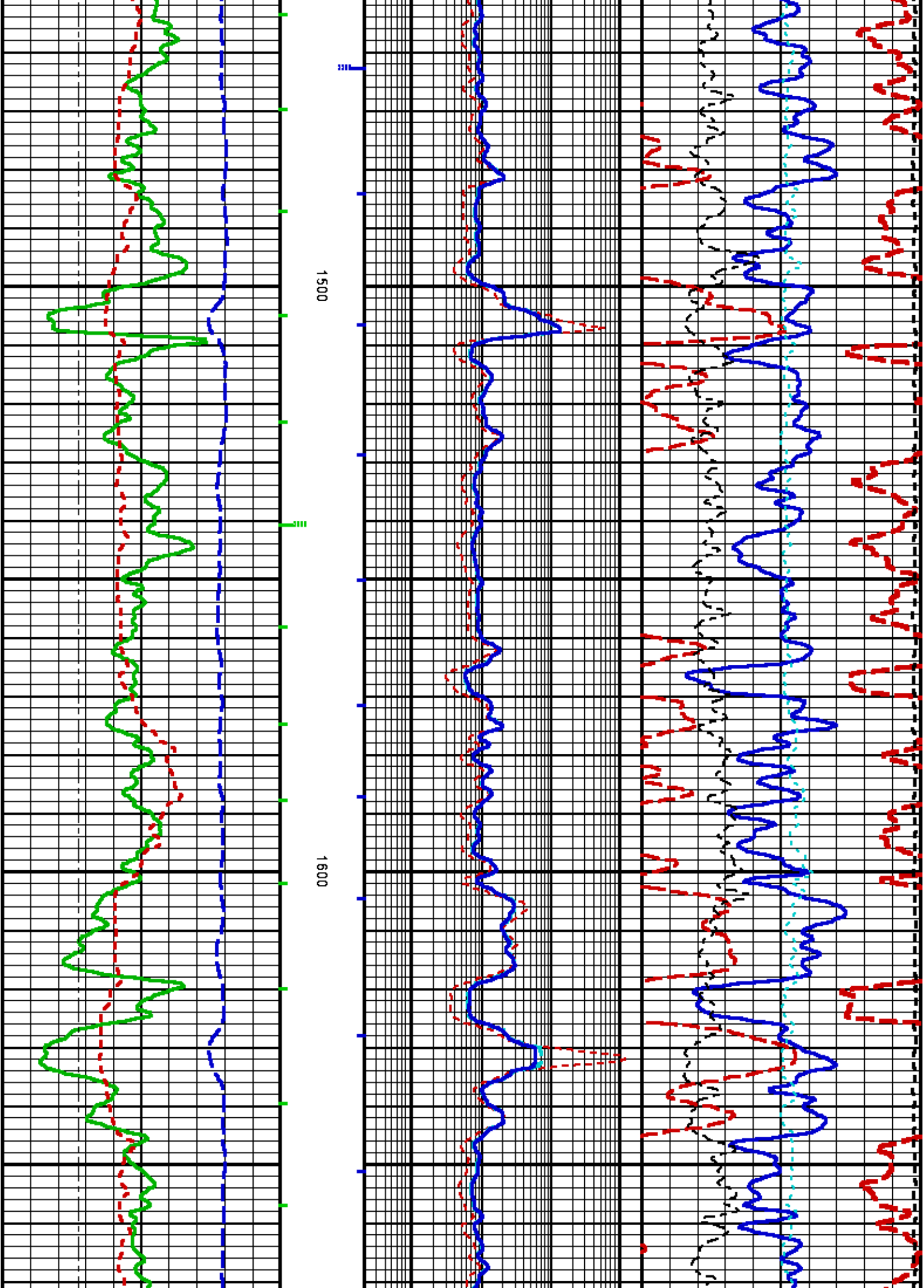
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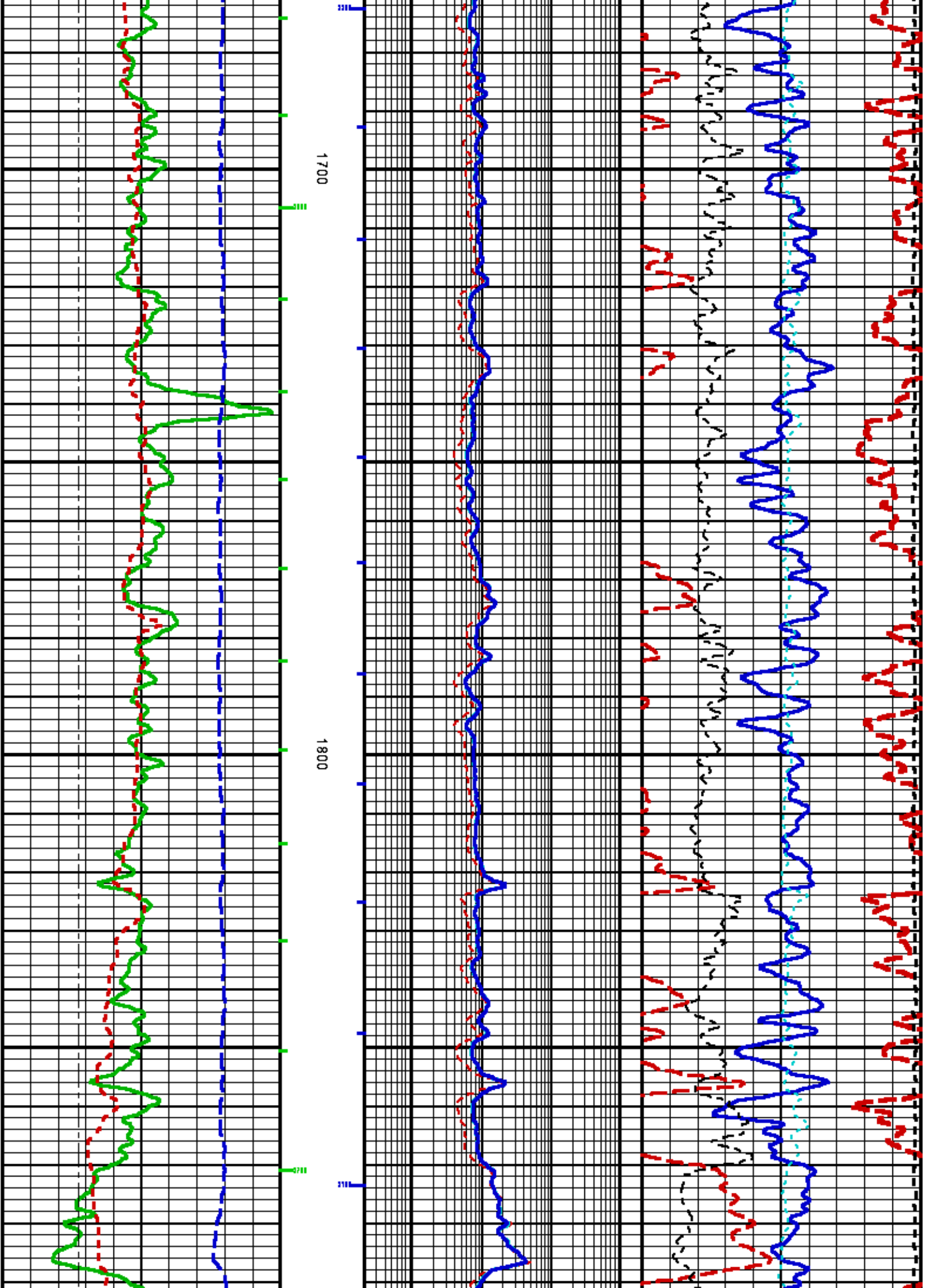
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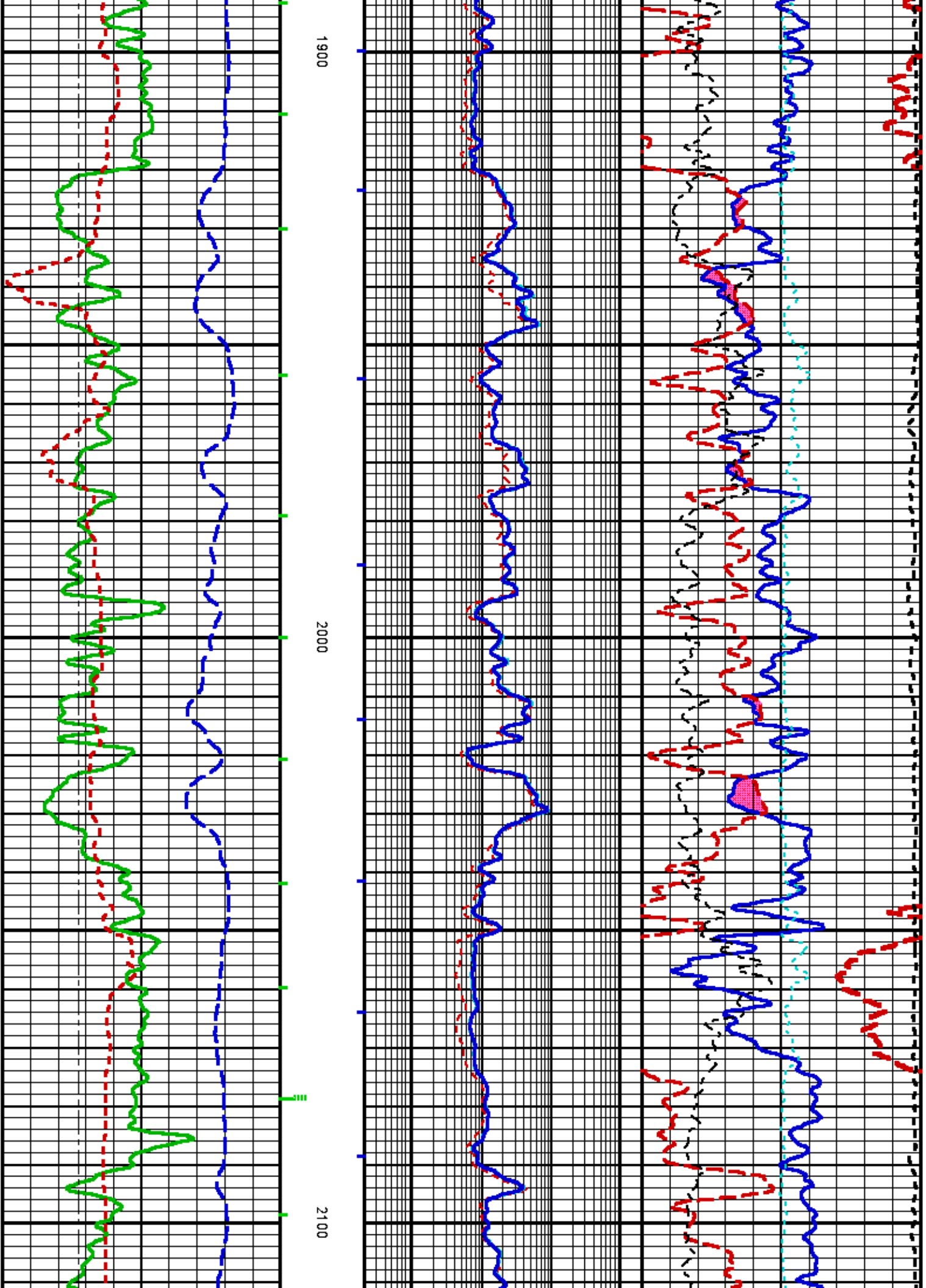


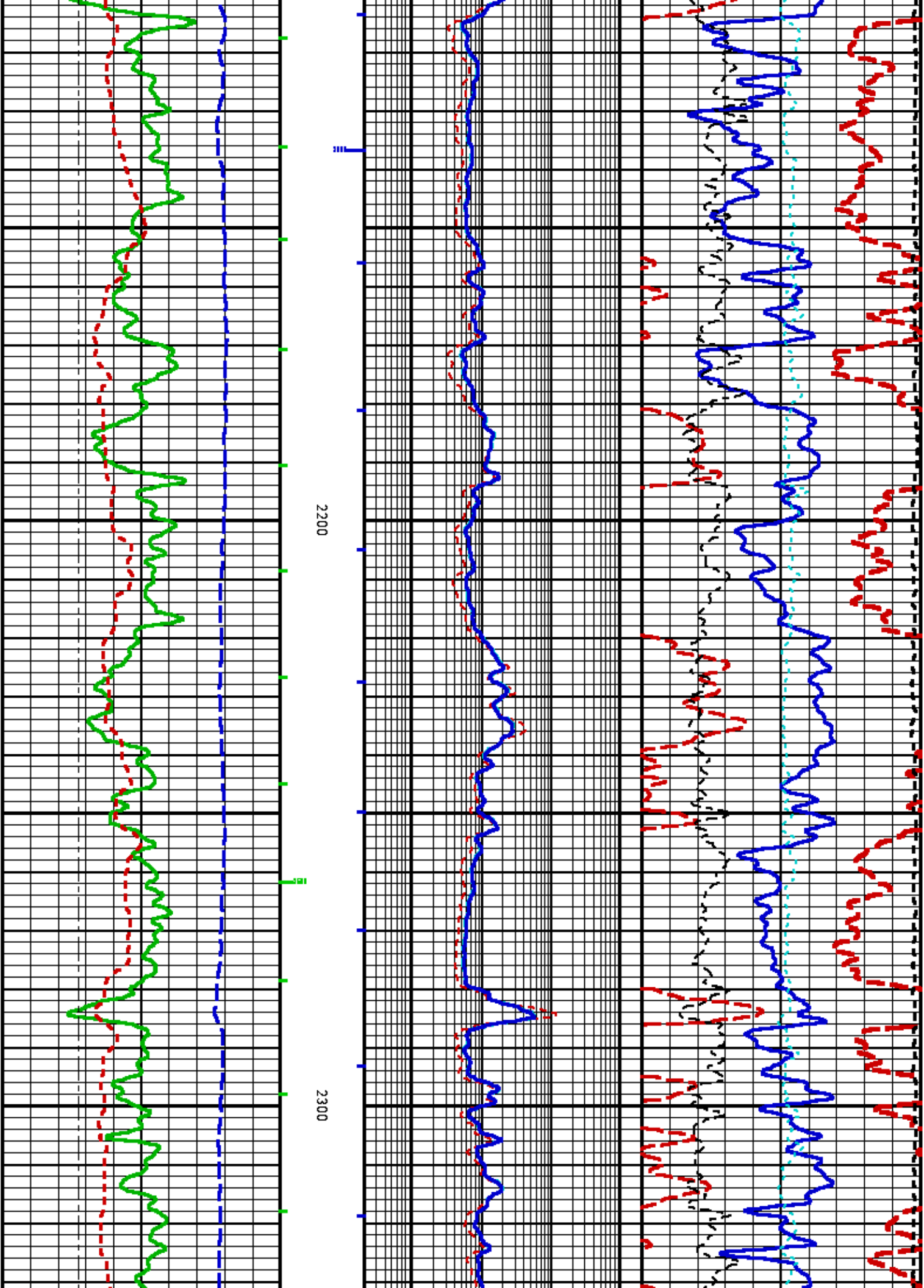


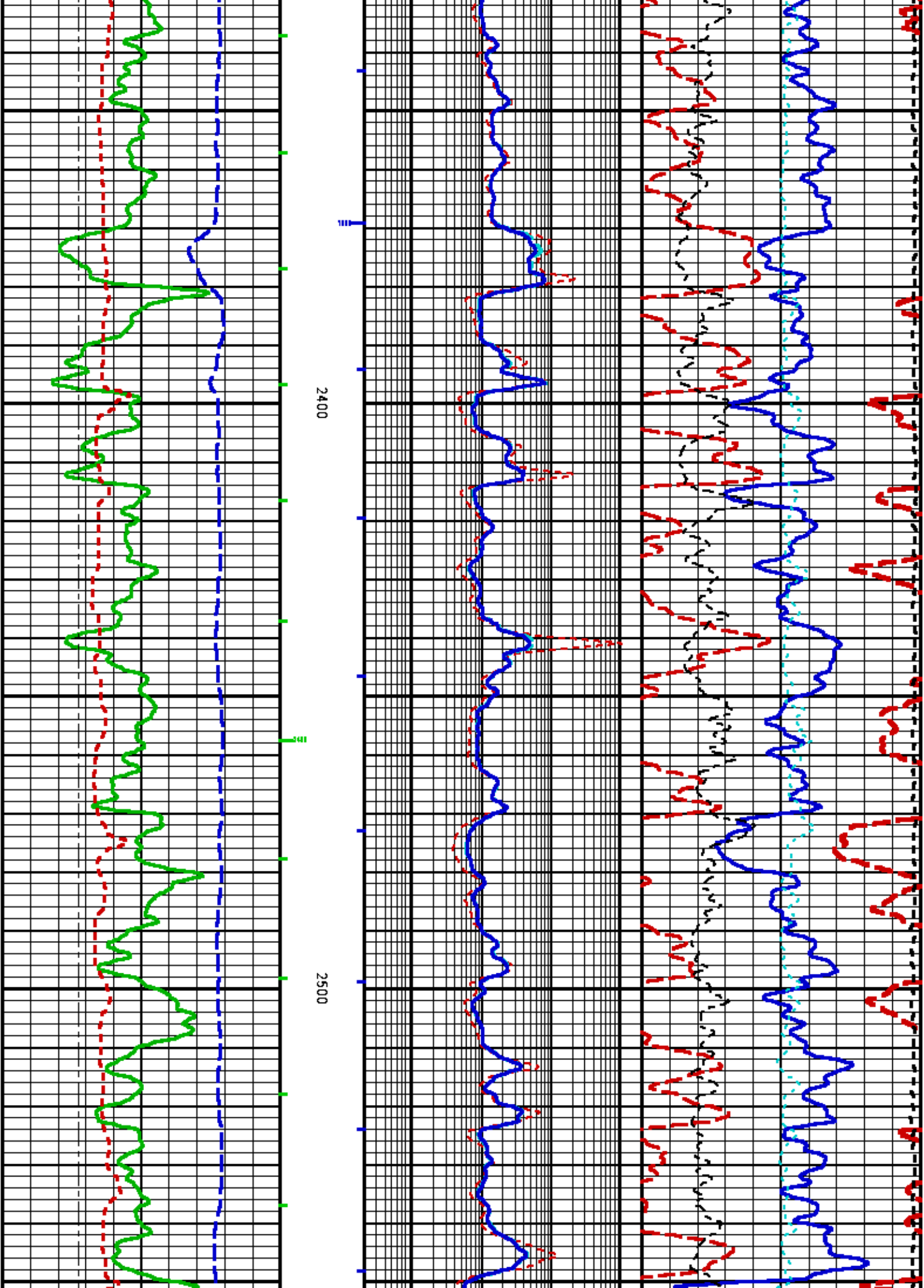


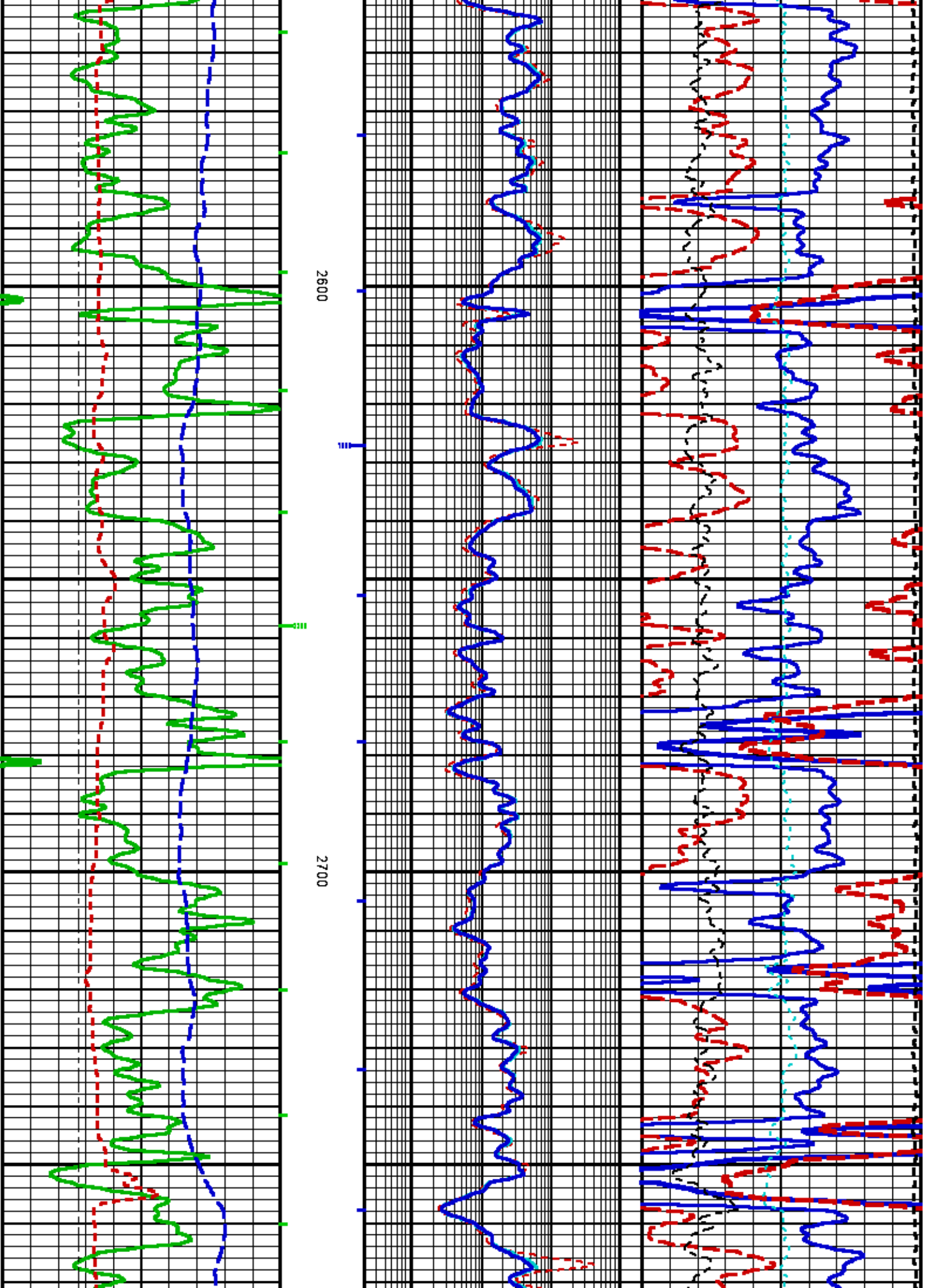


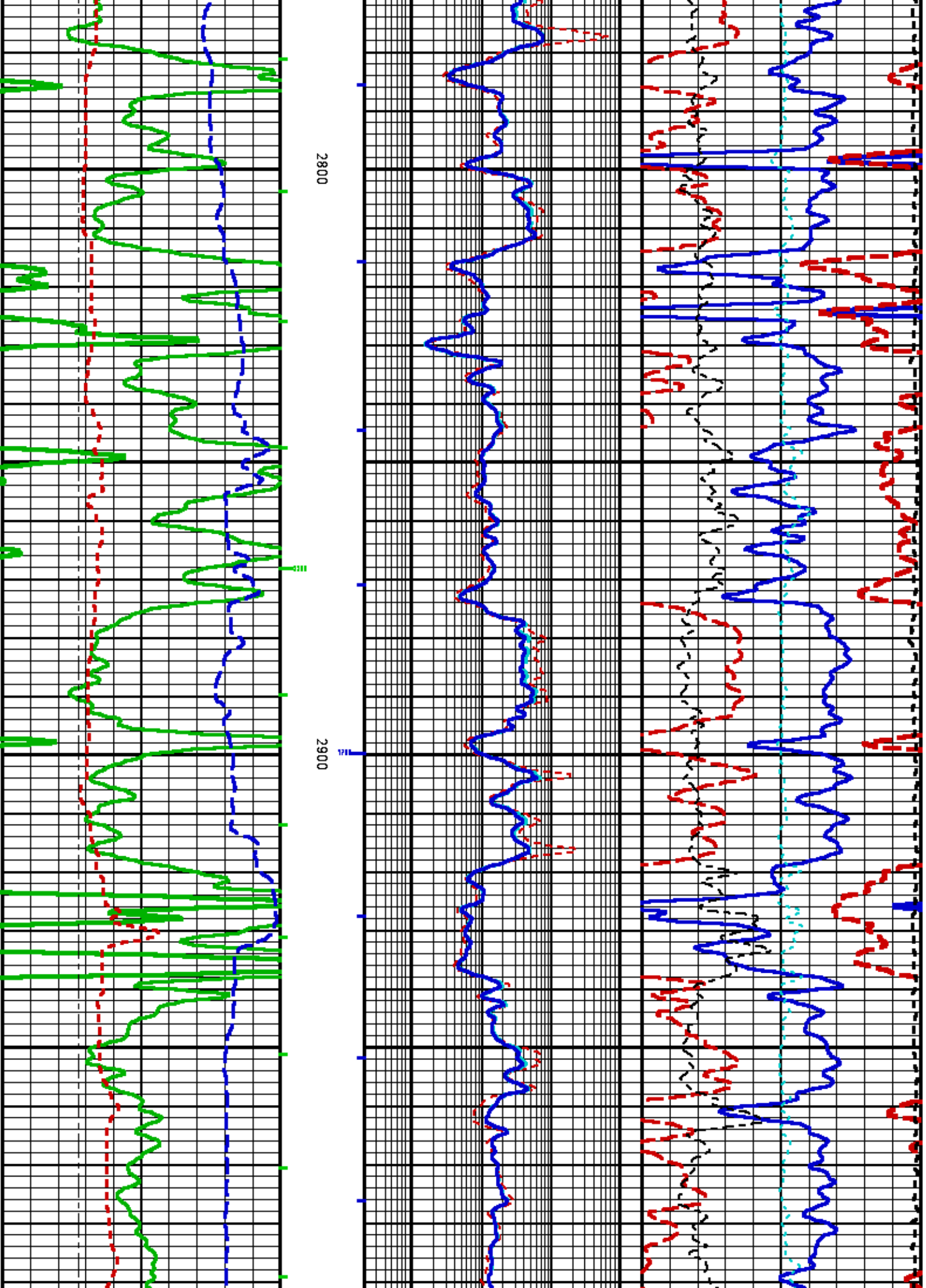


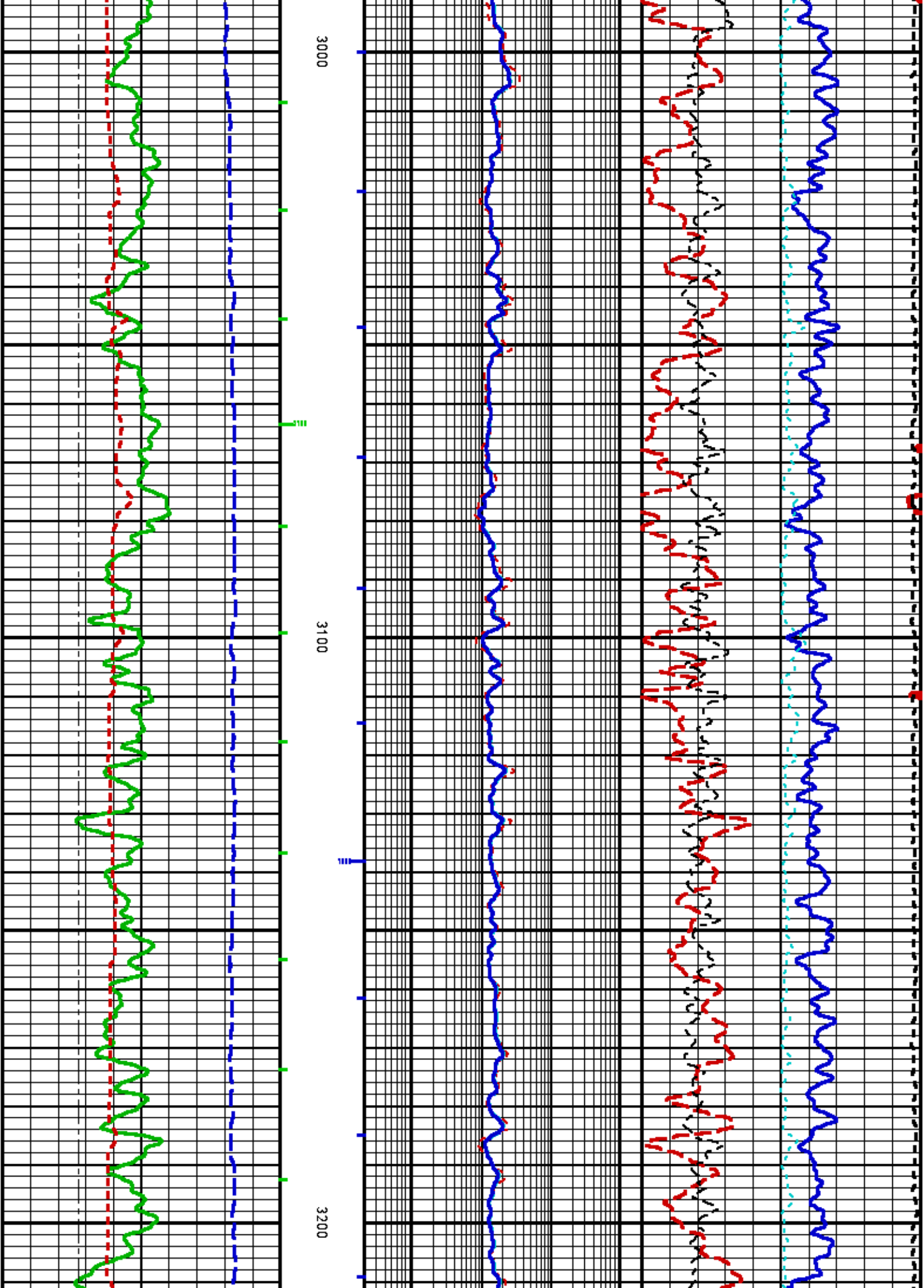


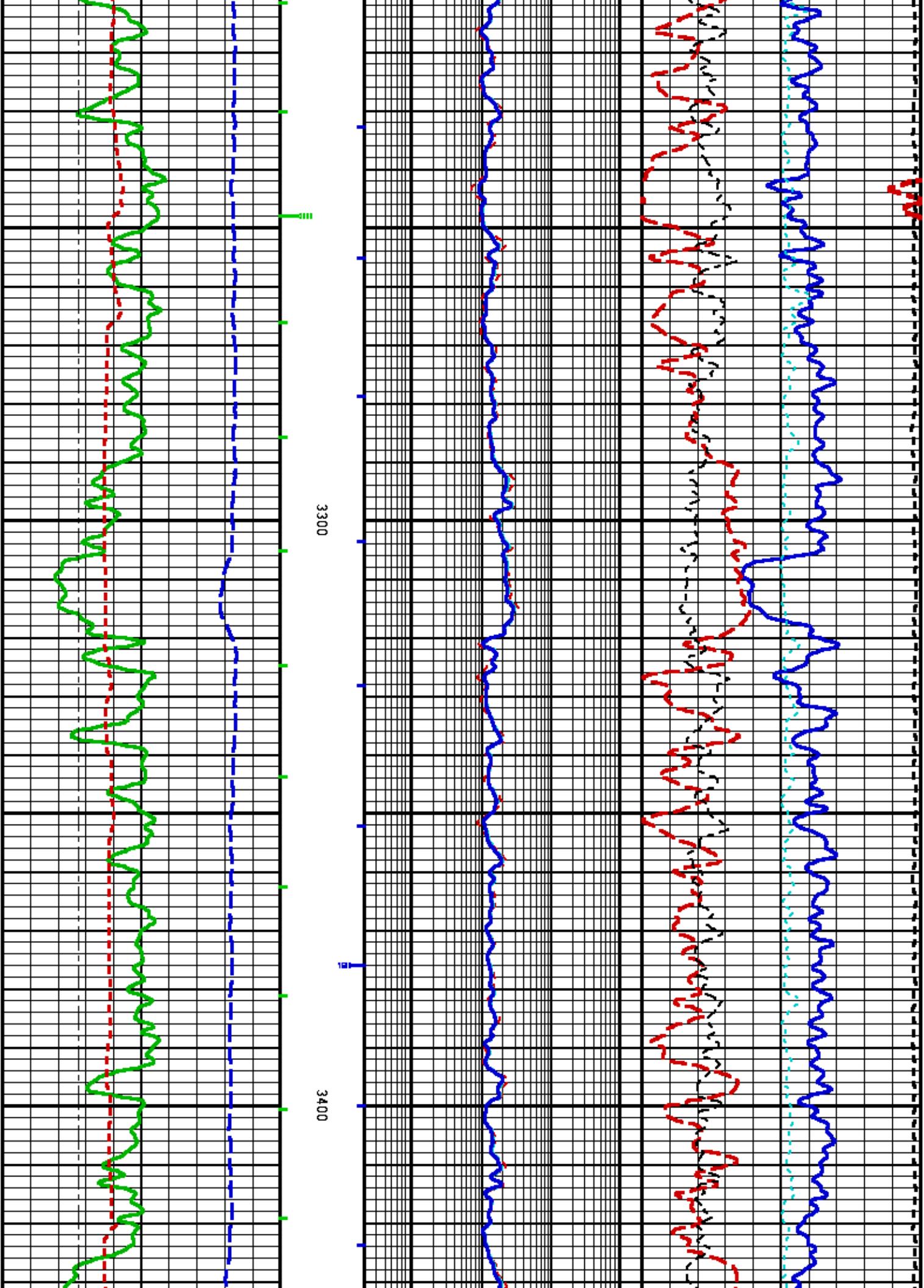


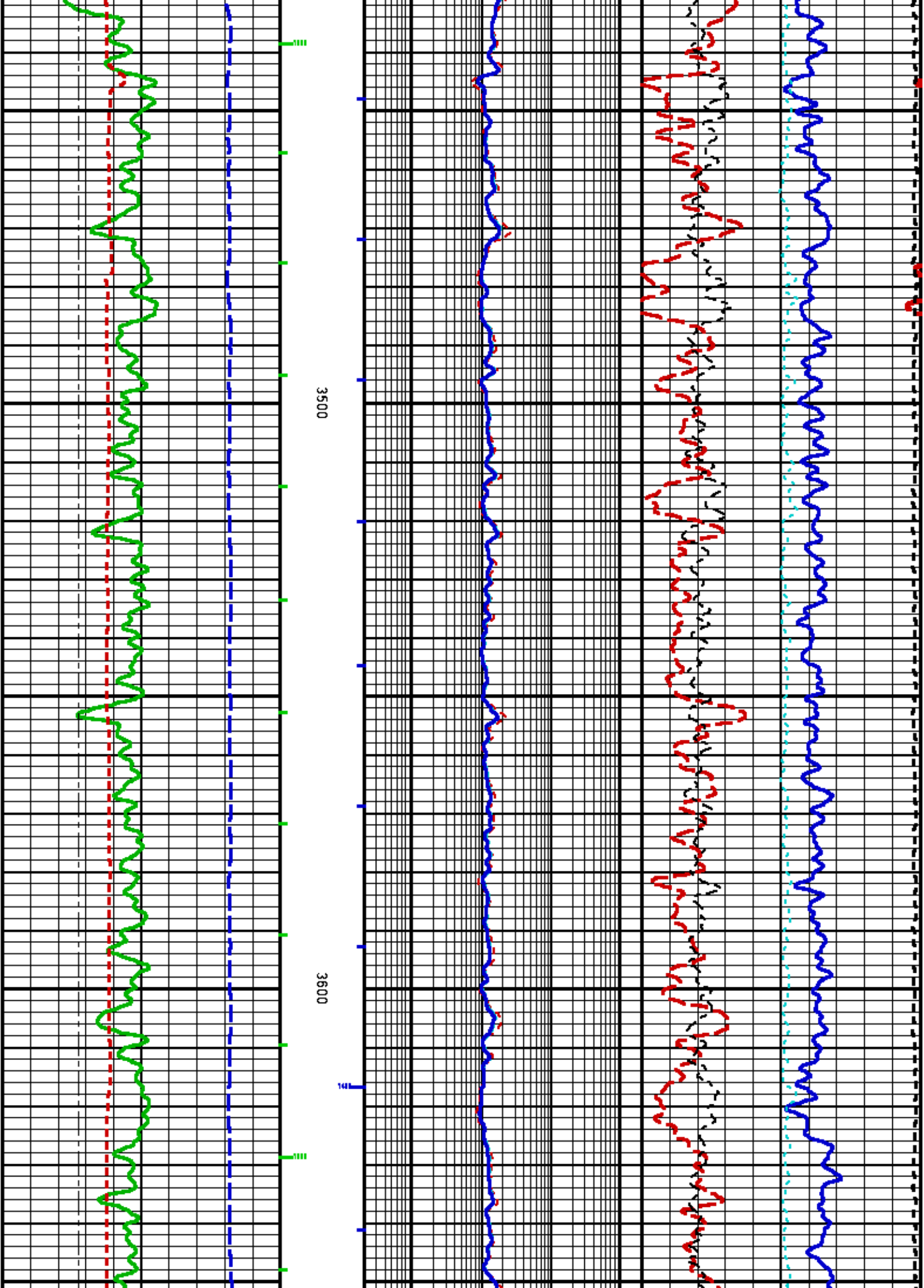


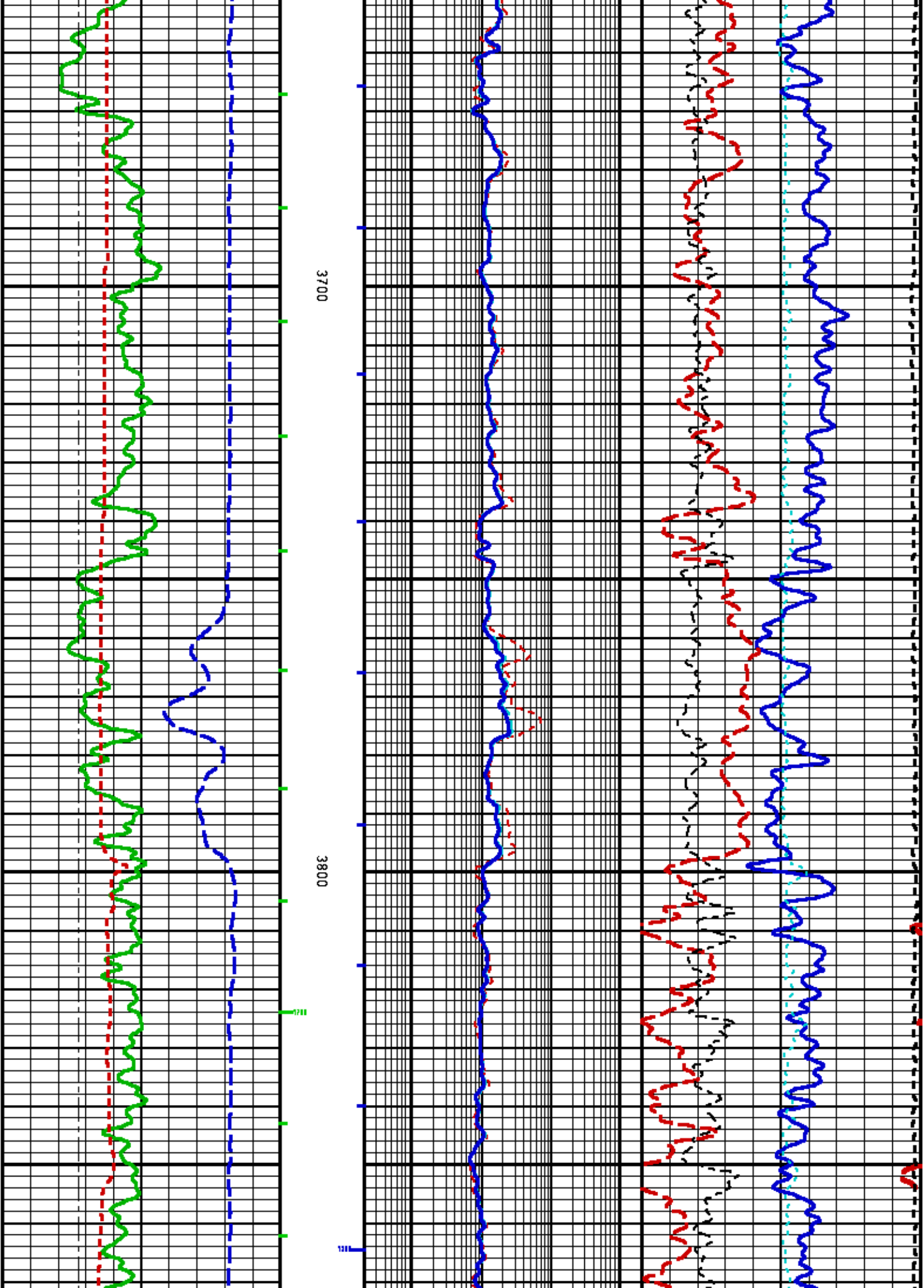


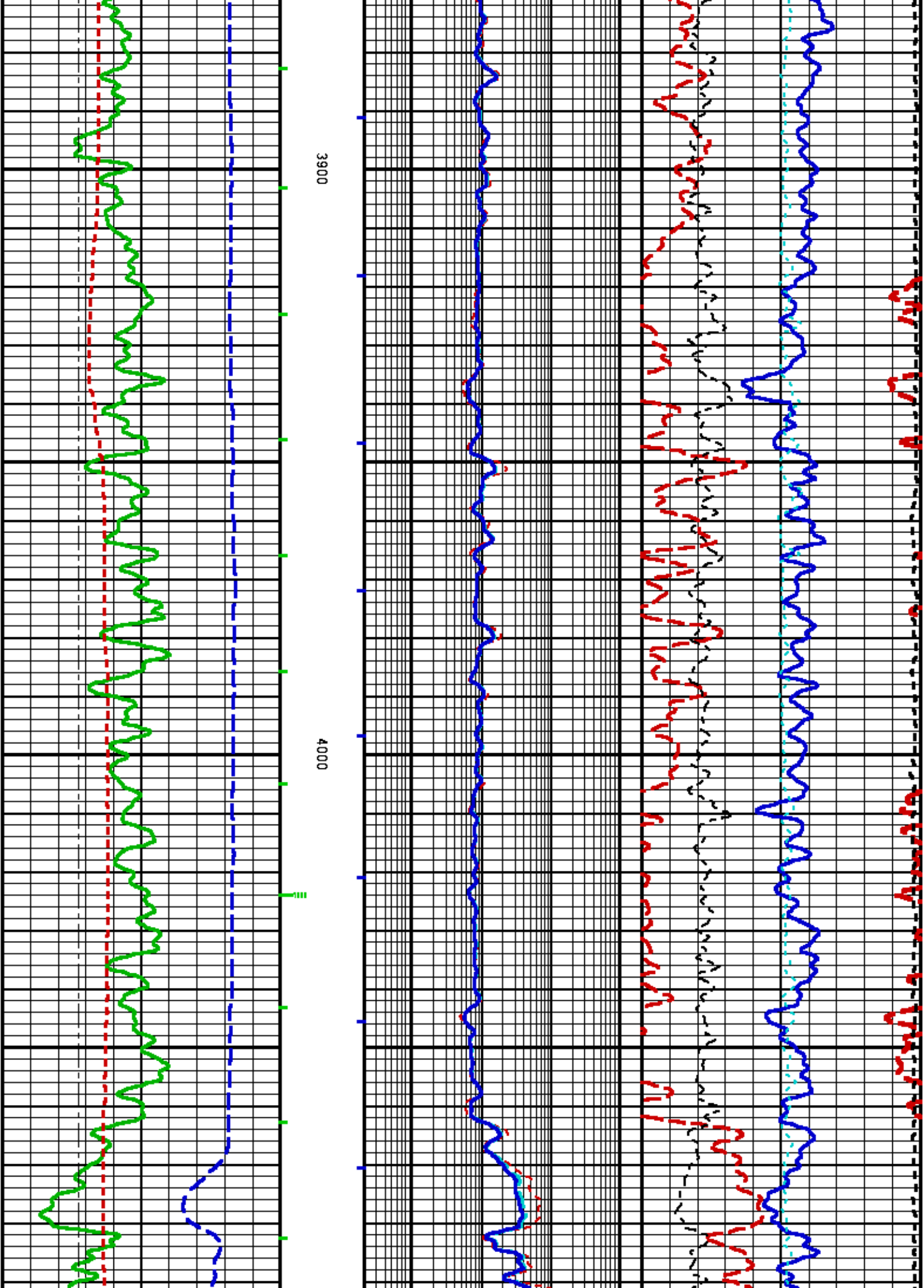


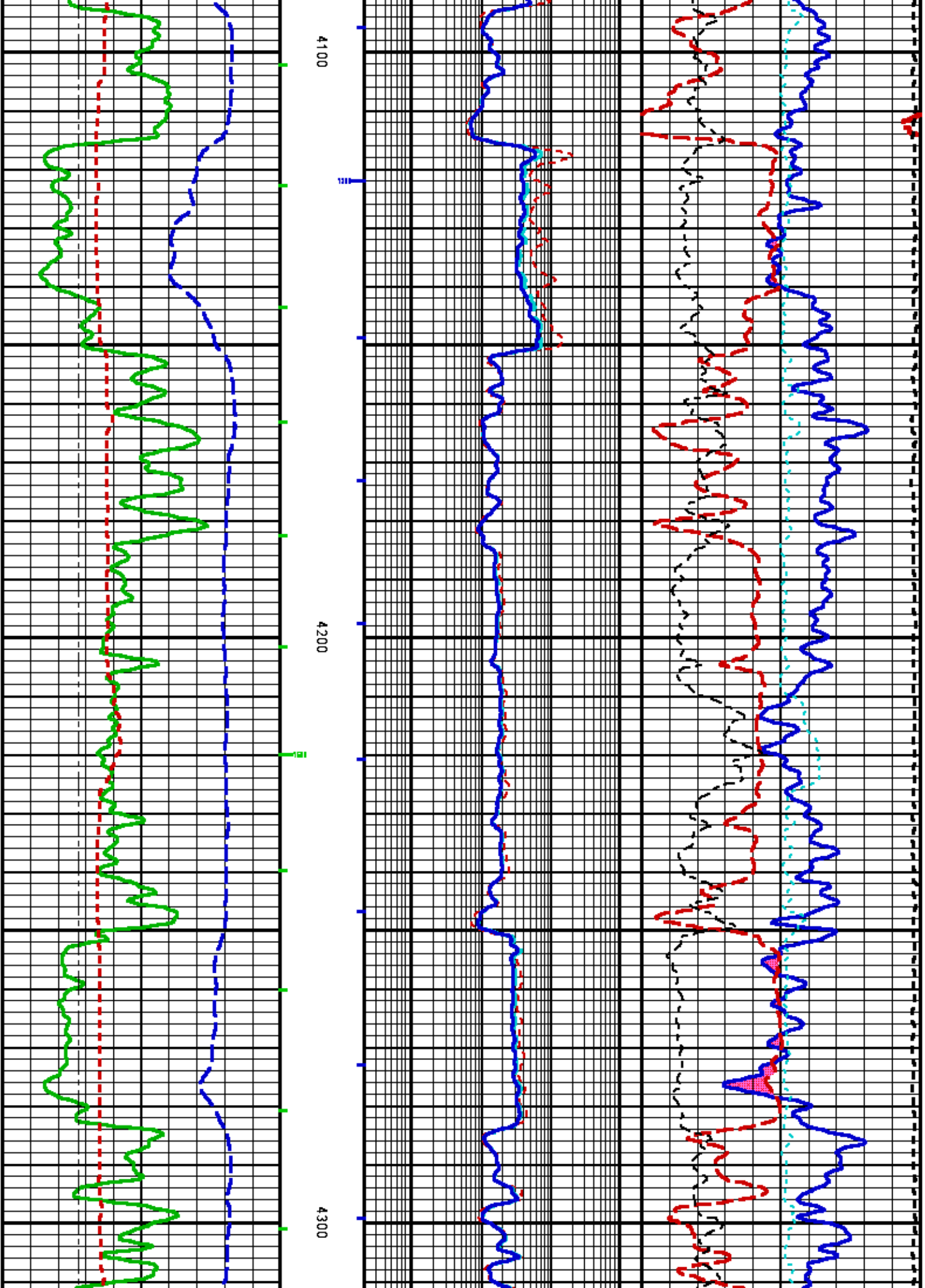


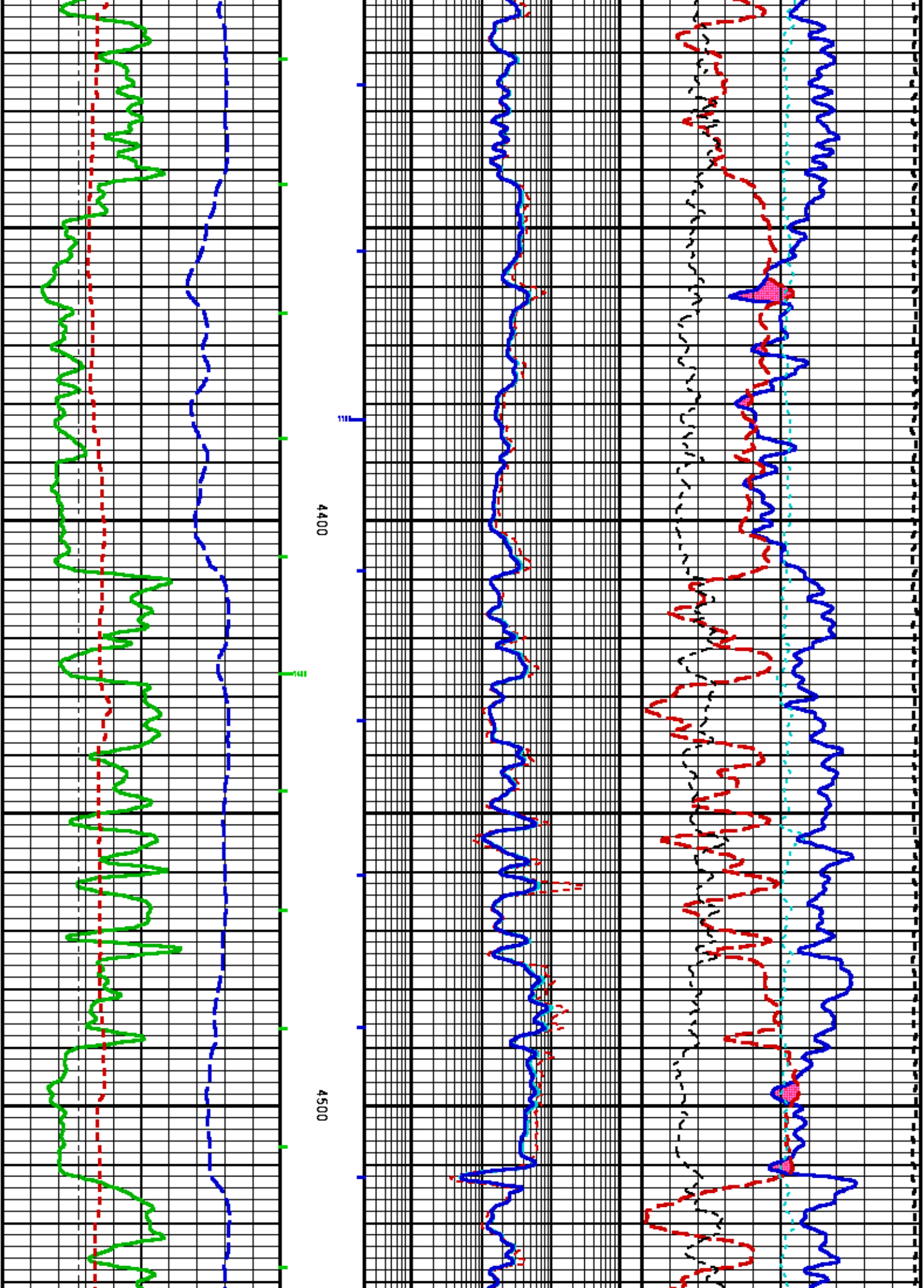


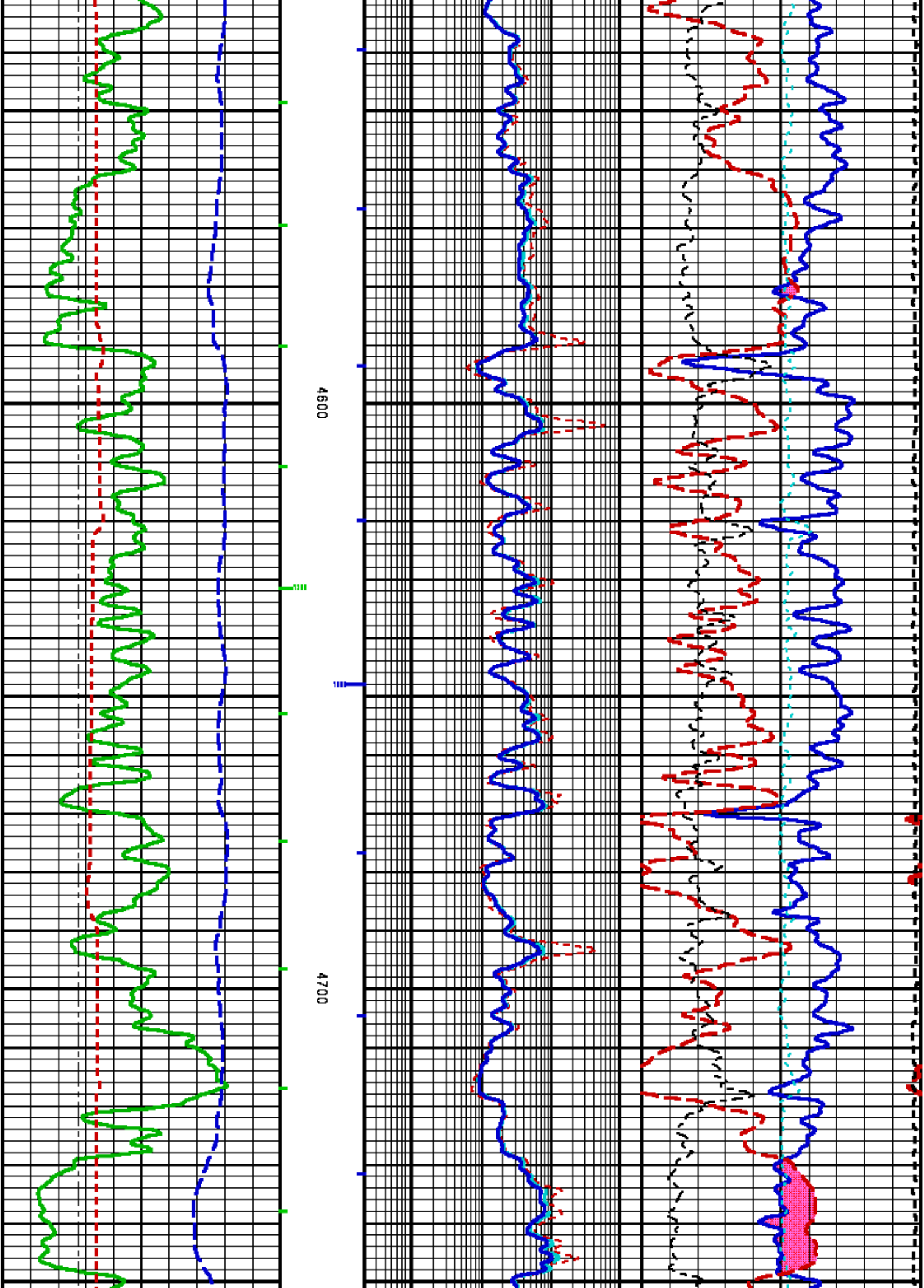


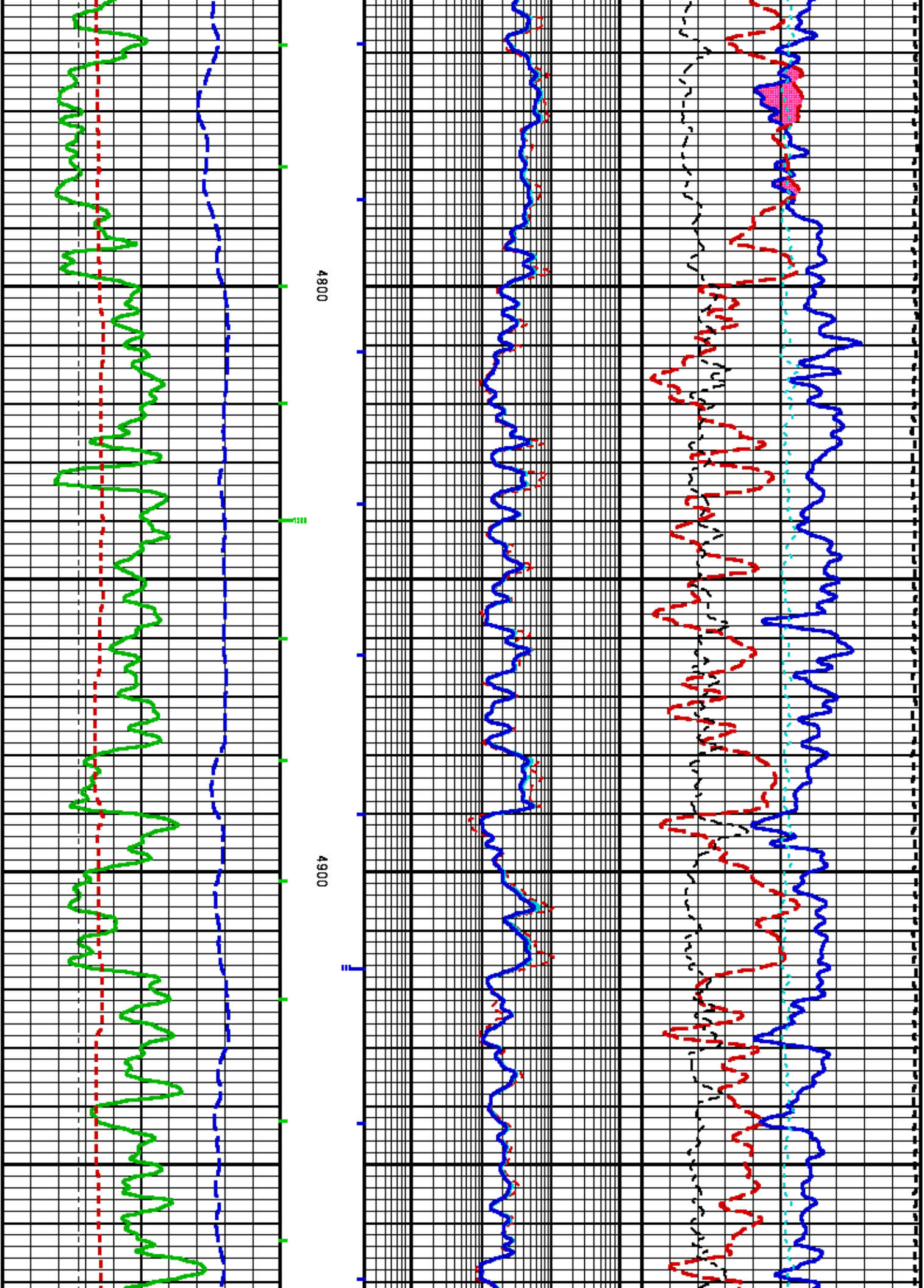


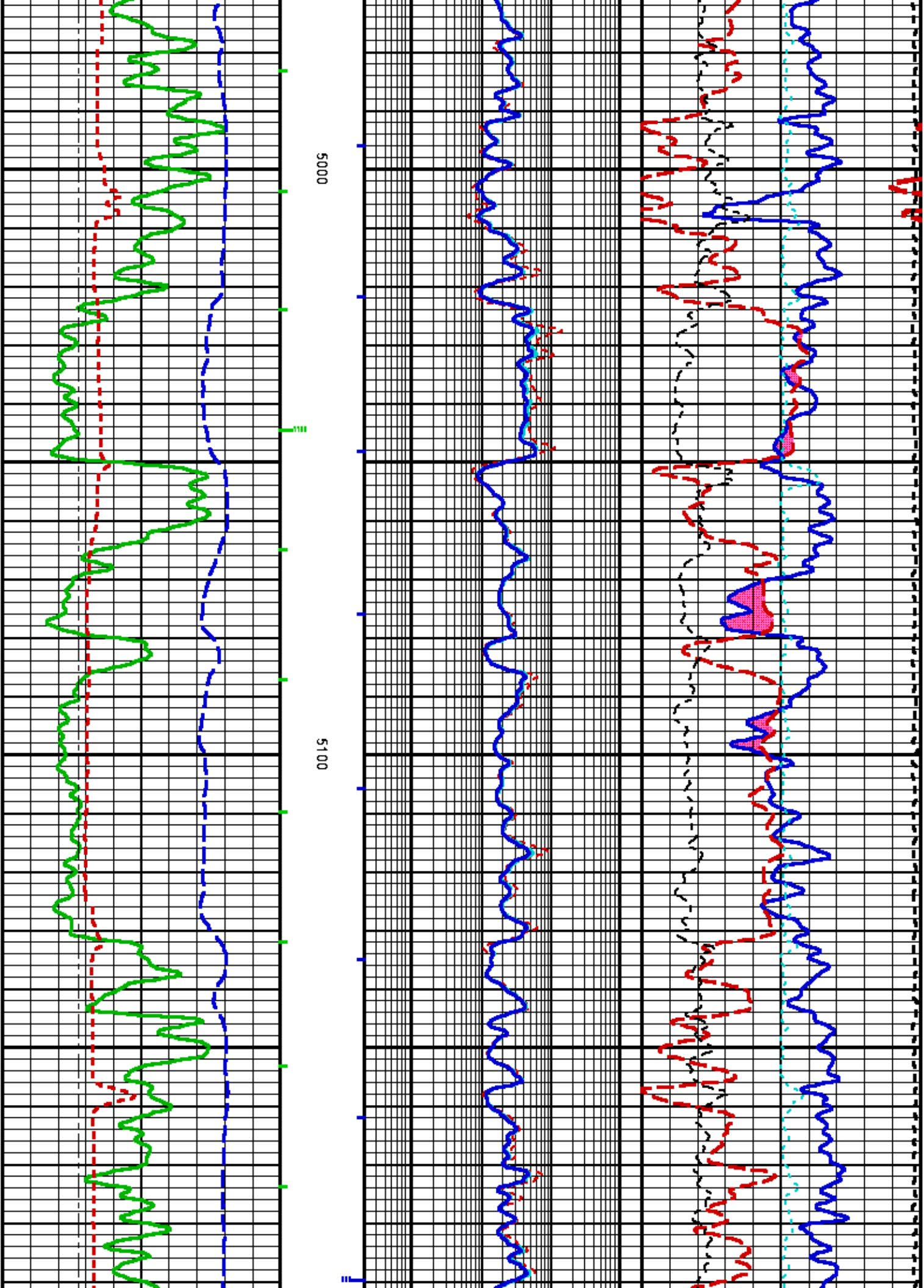


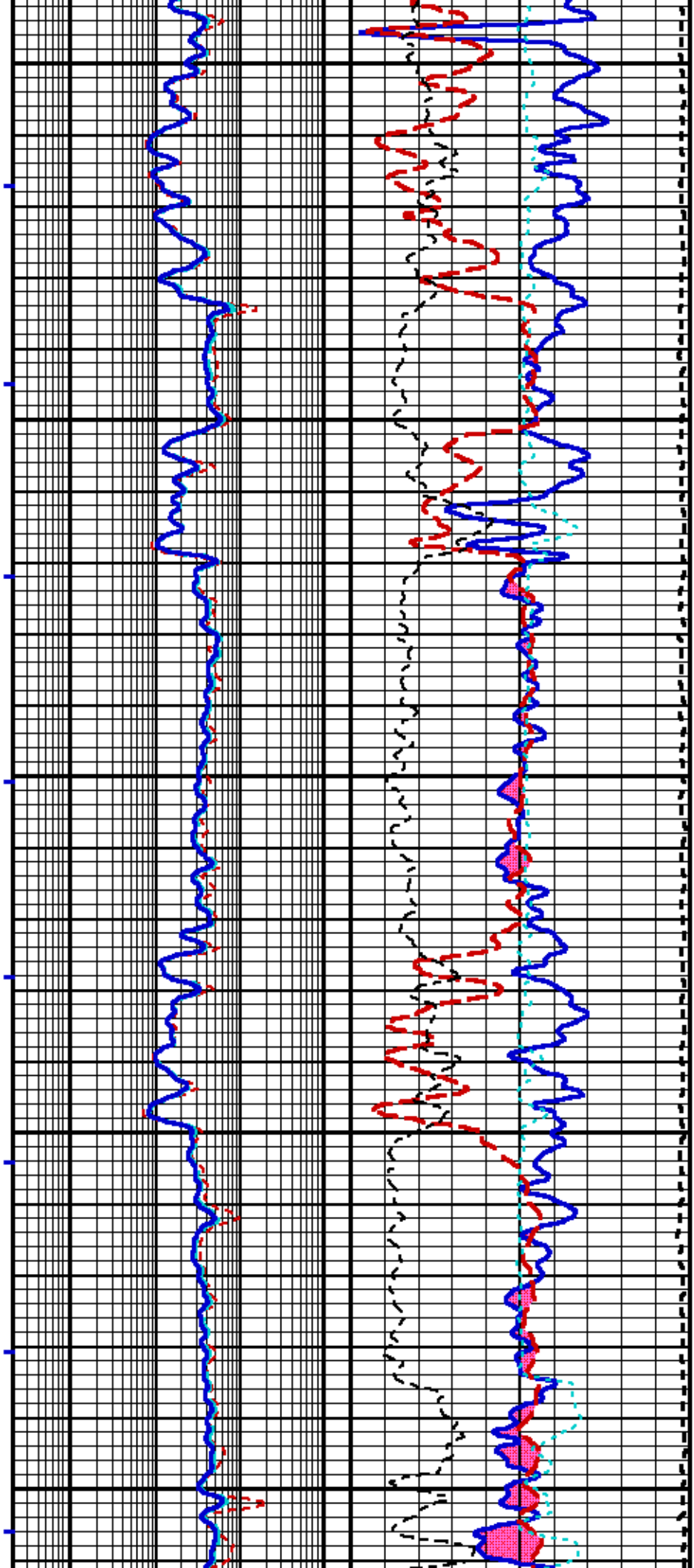








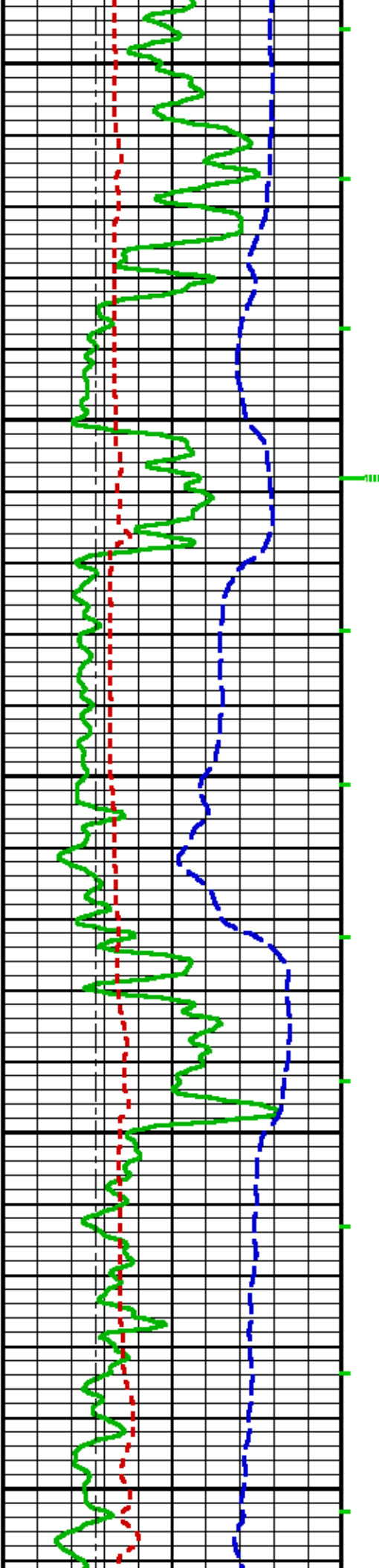


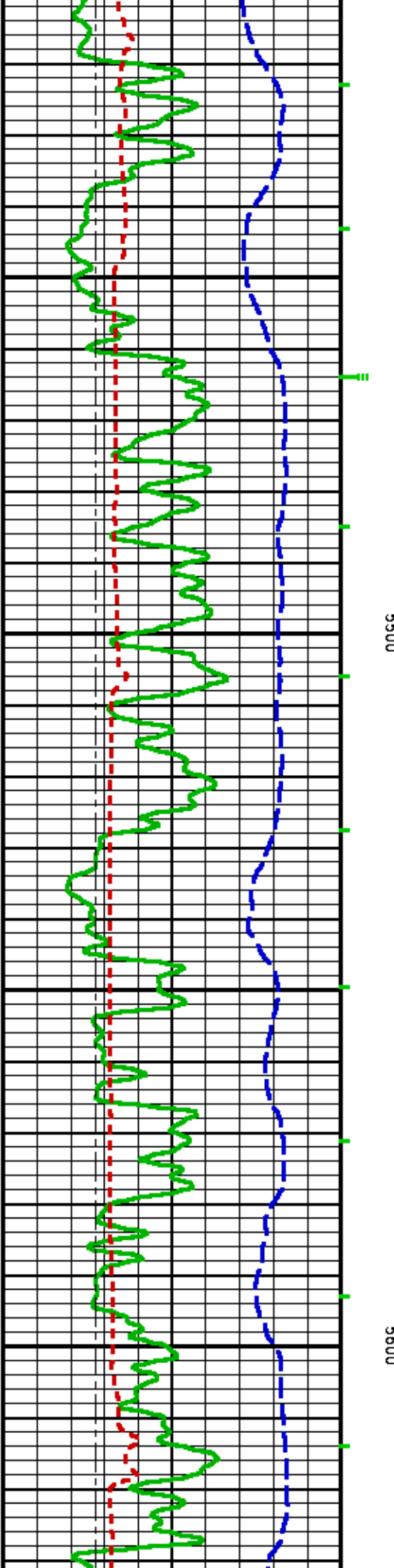
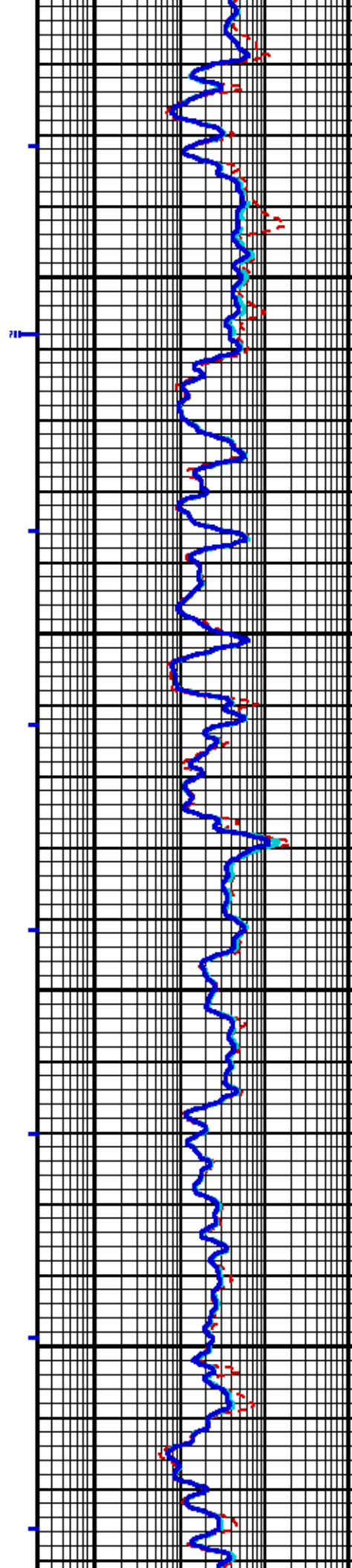
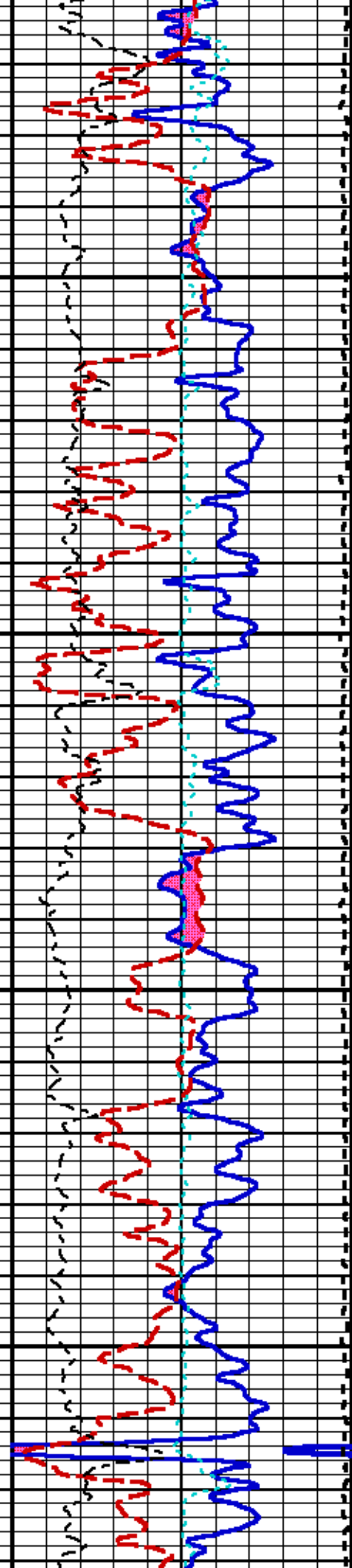


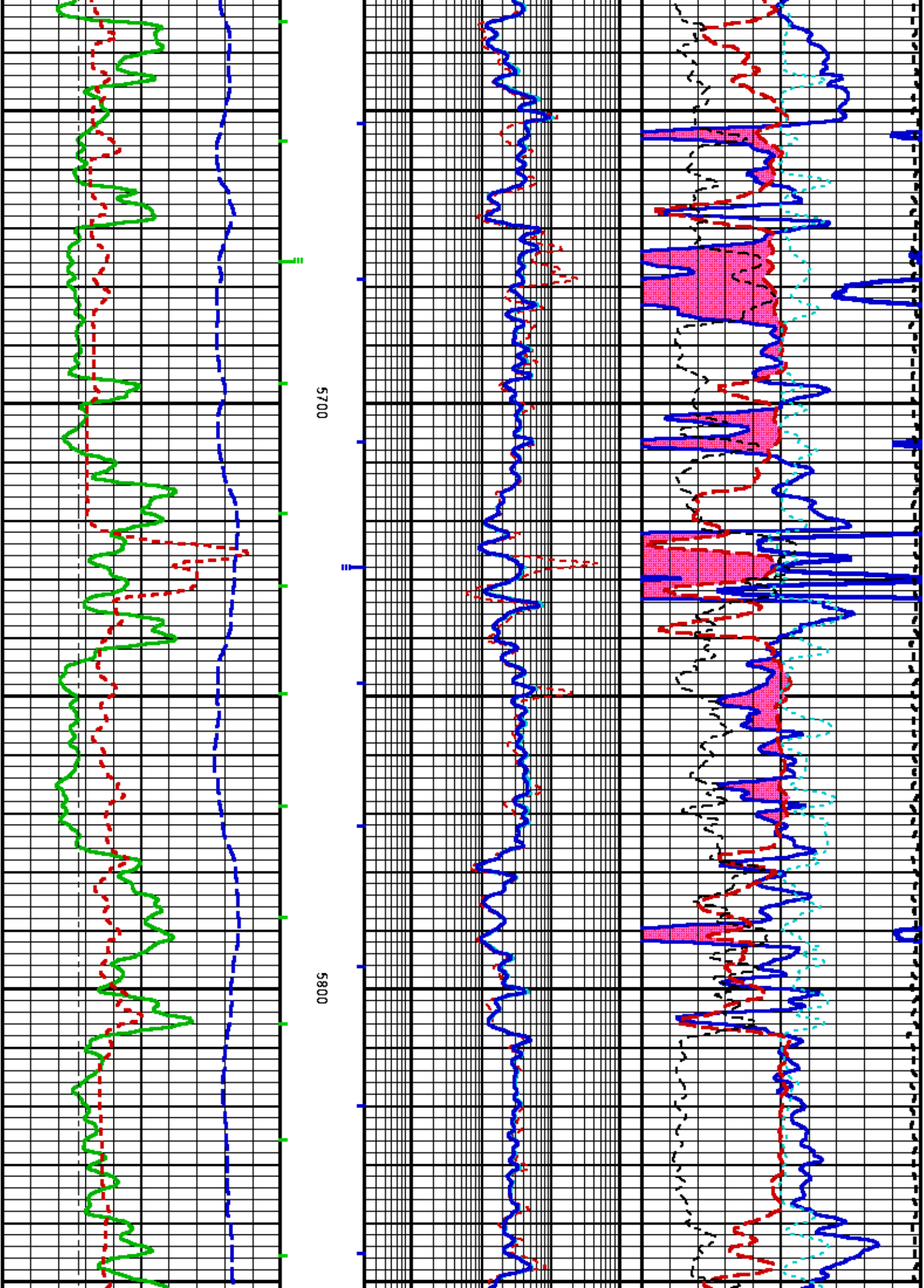
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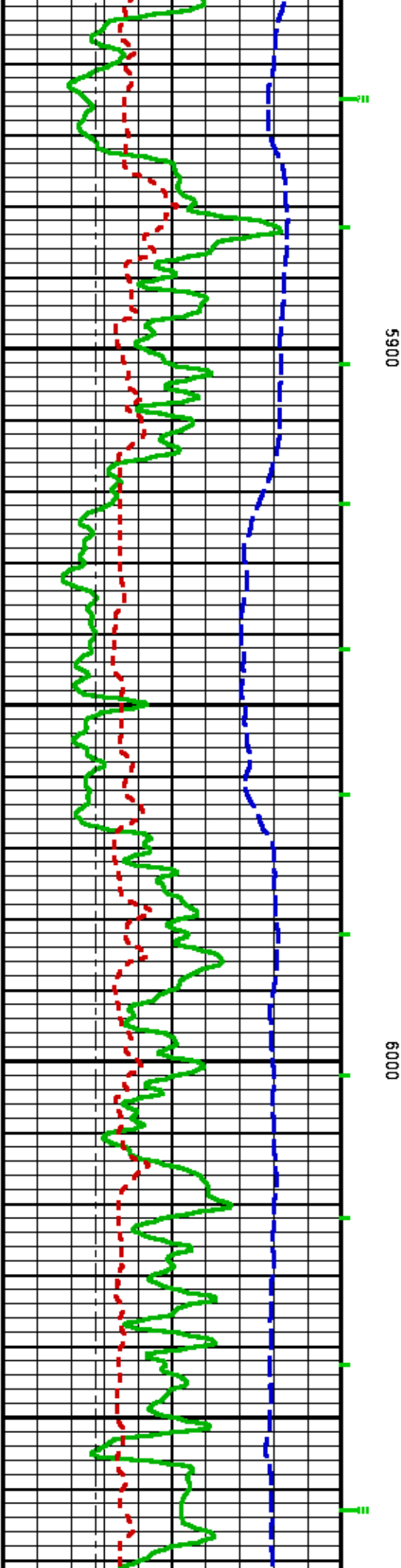
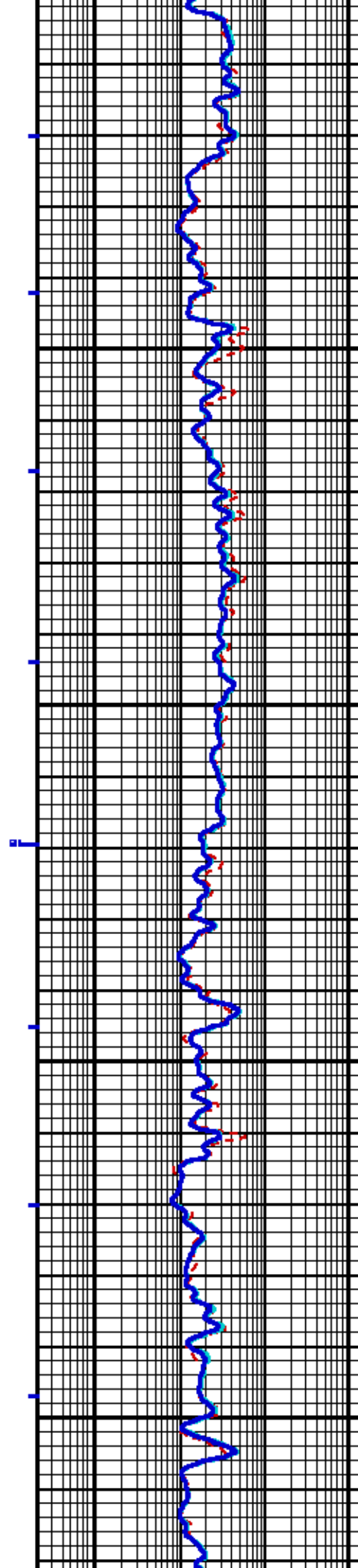
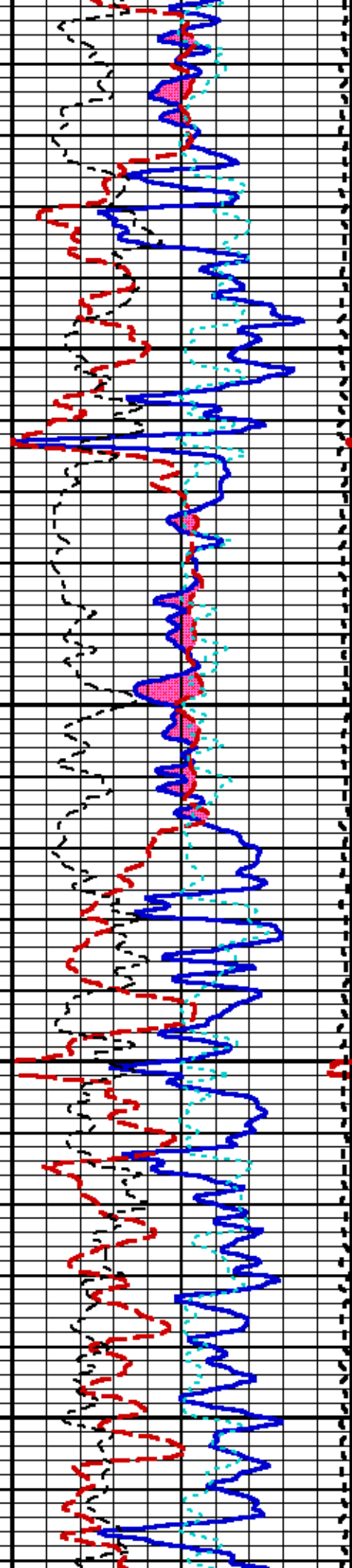
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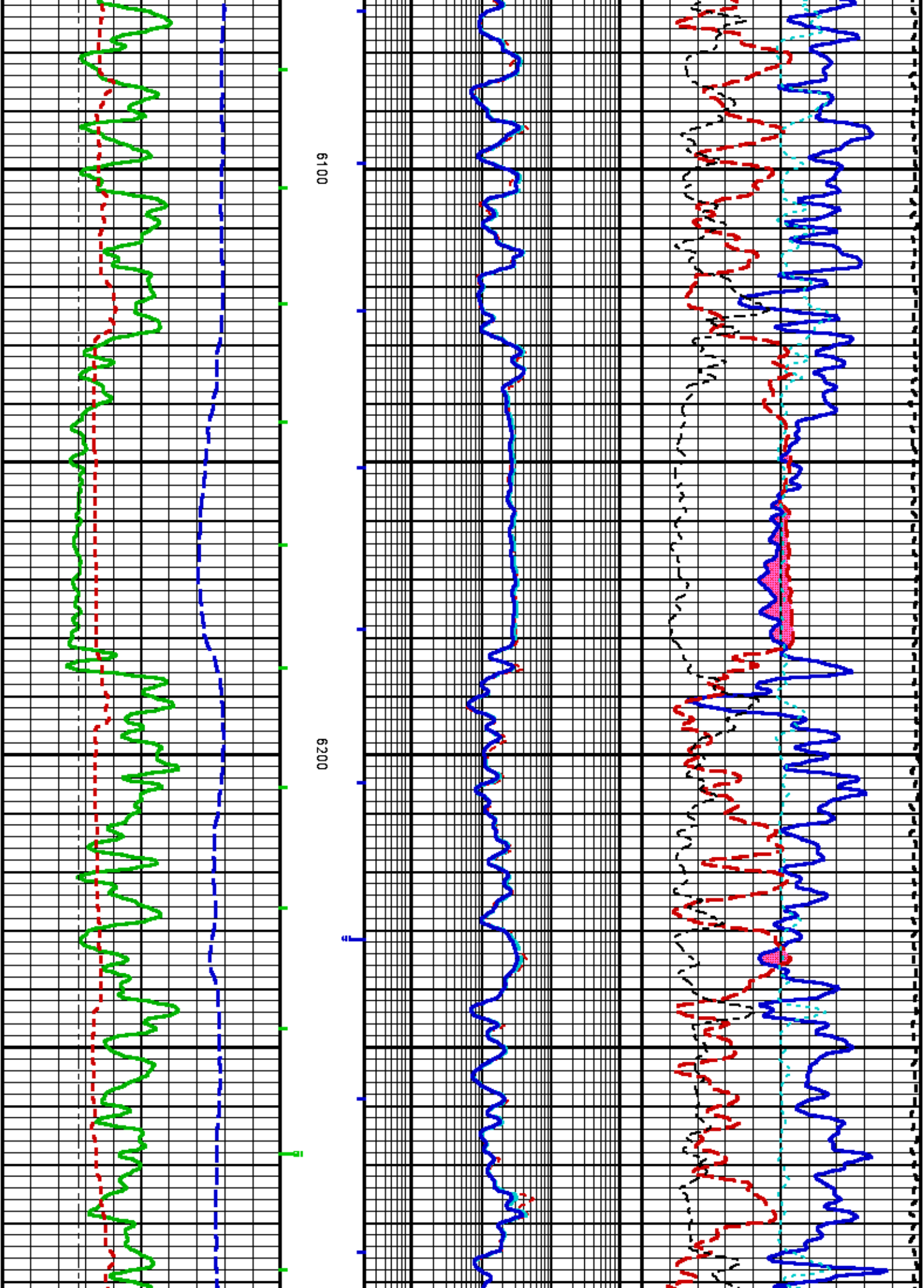
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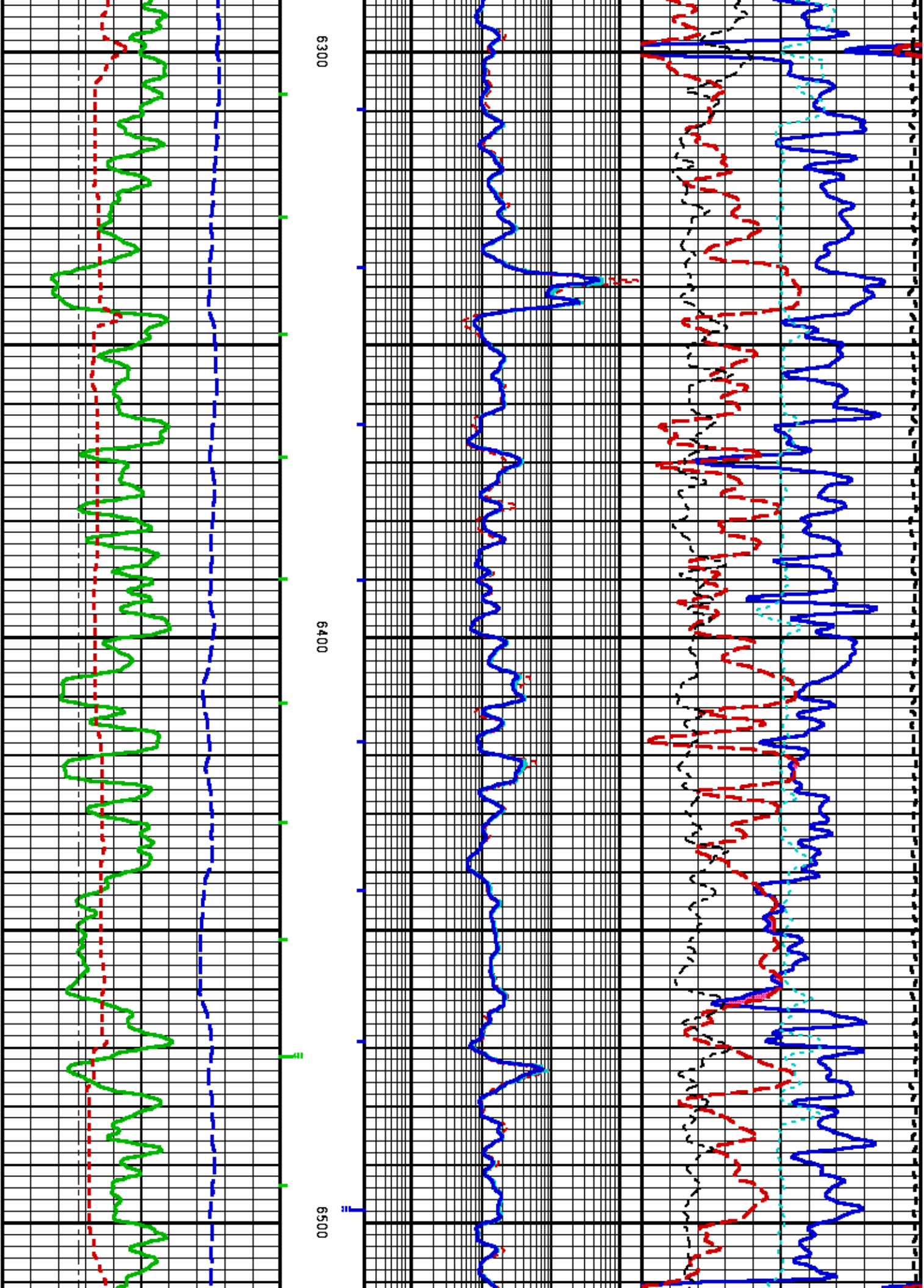


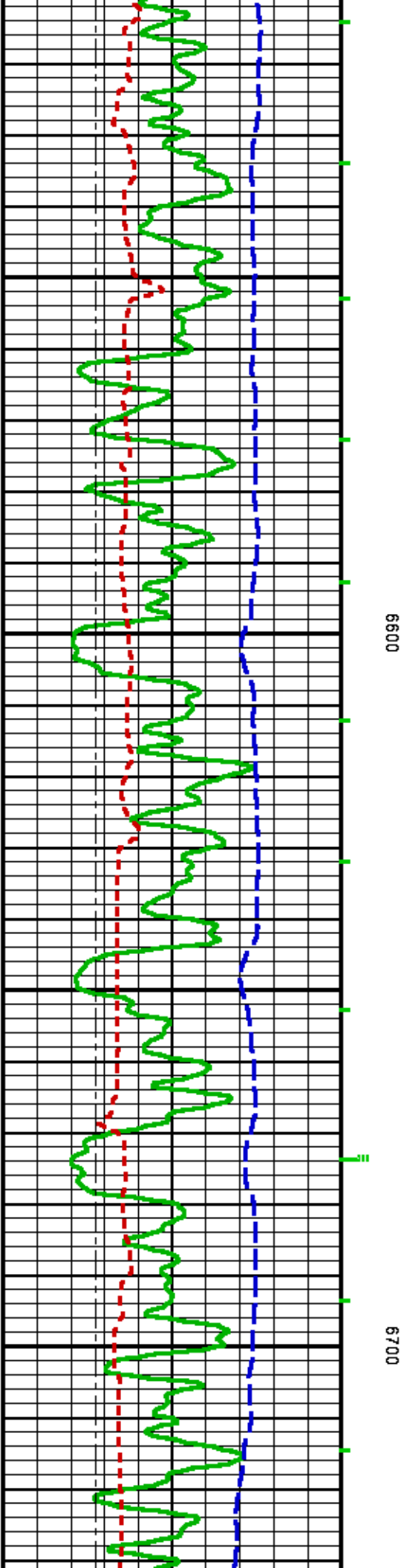
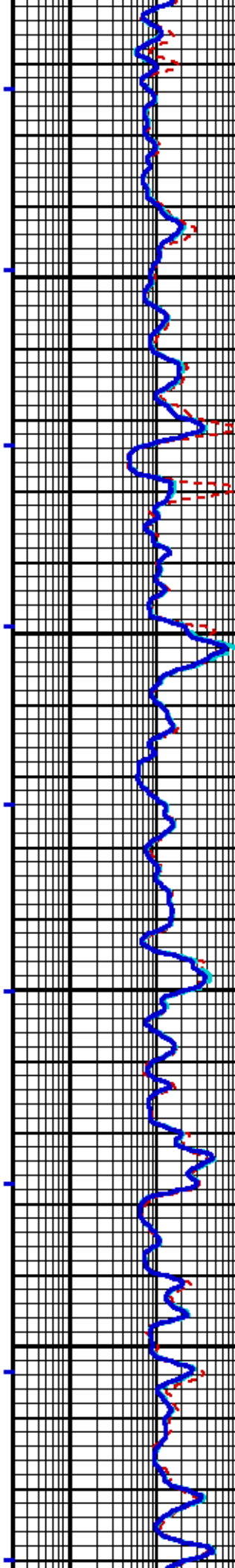
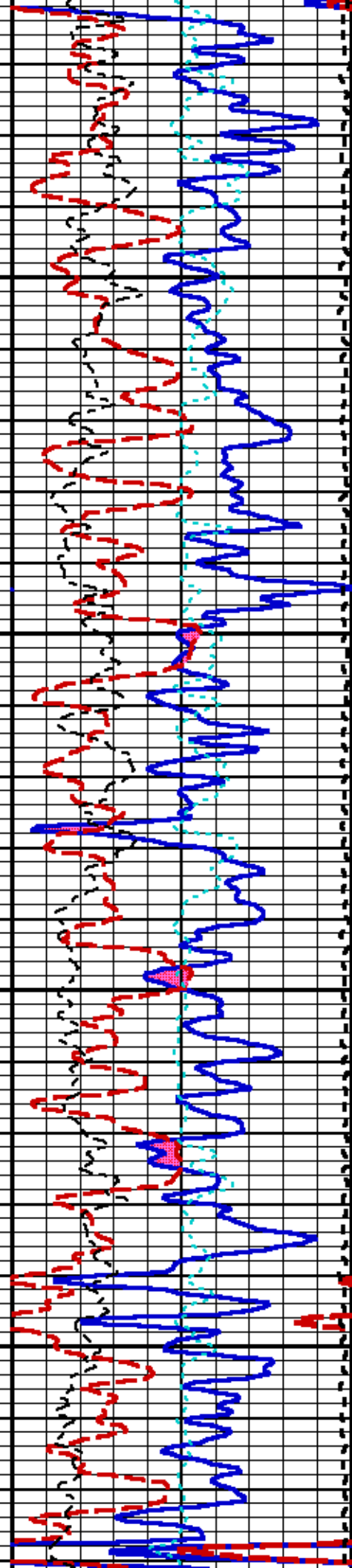


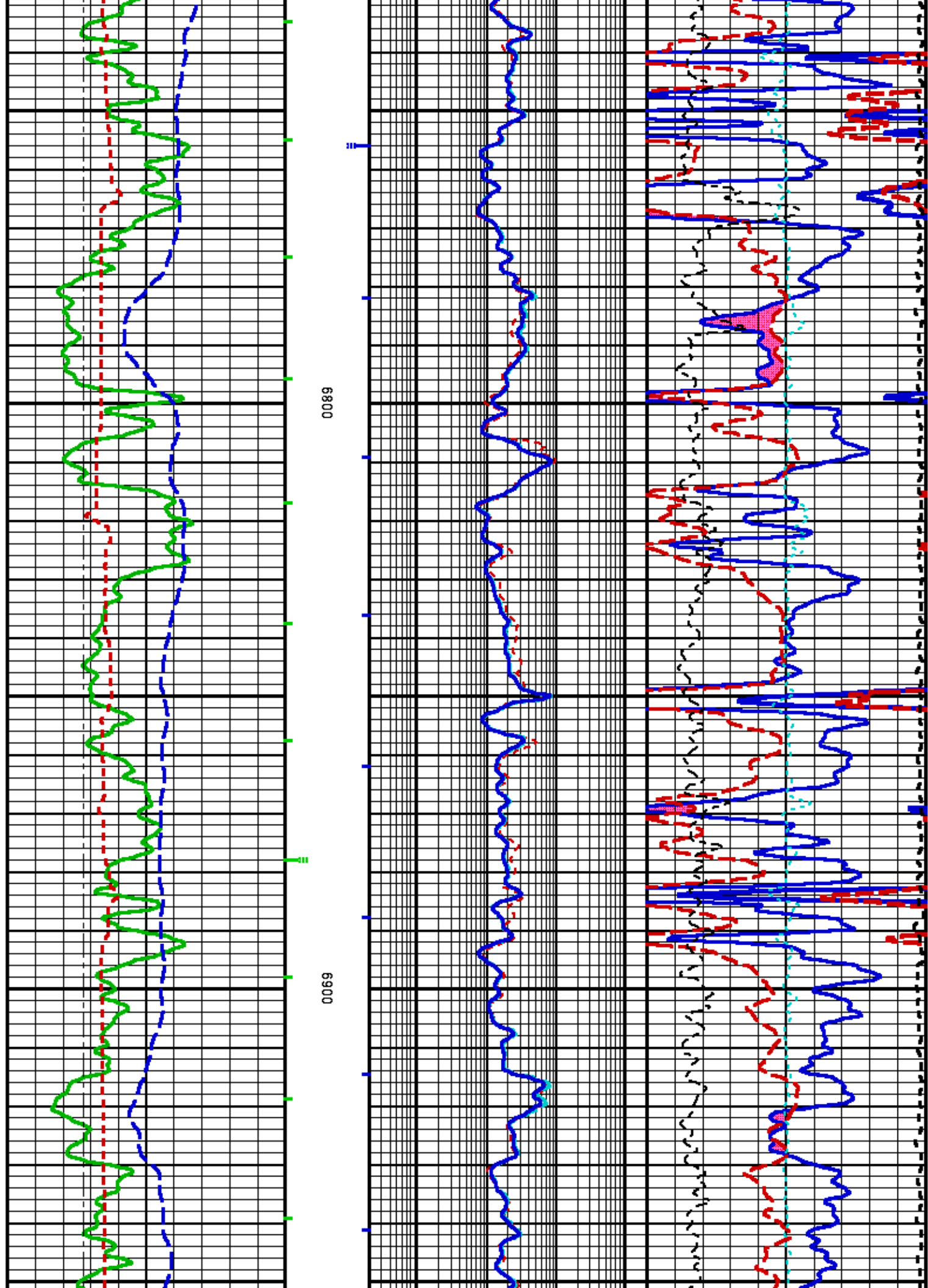


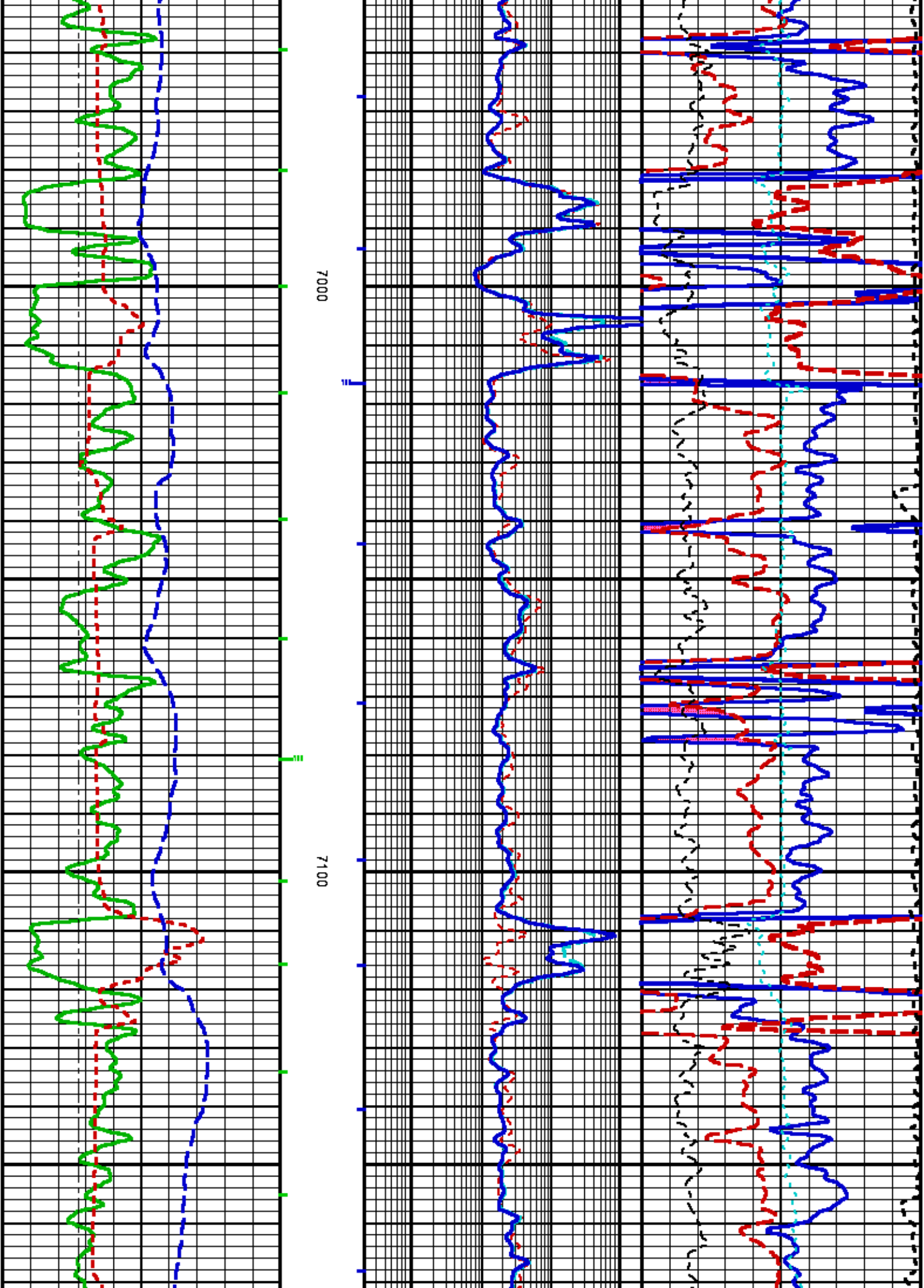


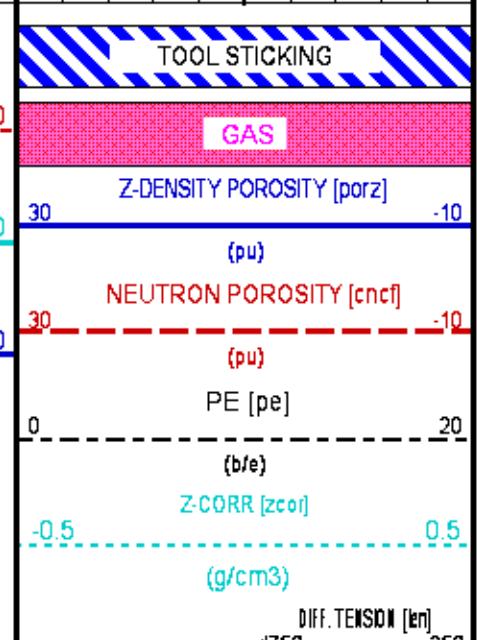
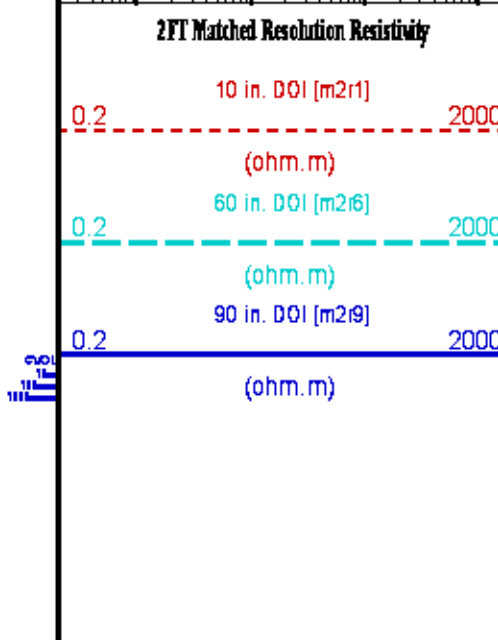
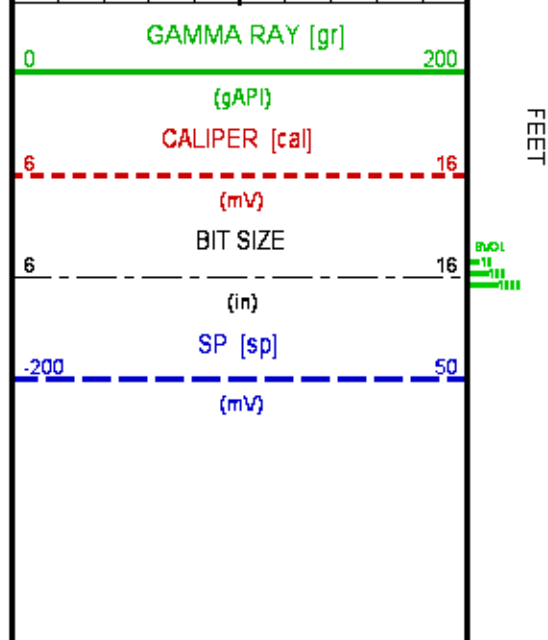
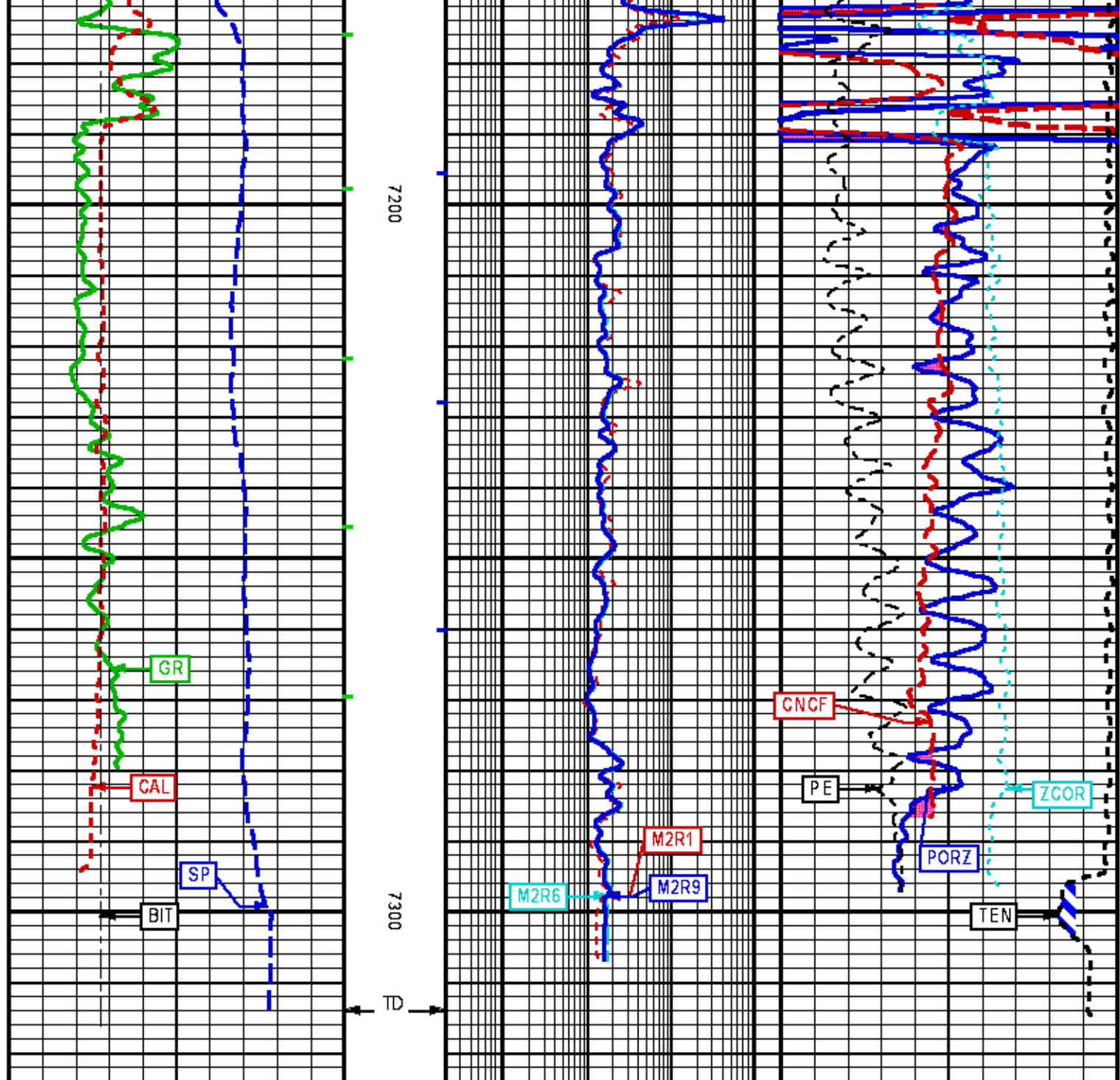












REPEAT LOG

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

Updates: 1 Patches: 2

Plotted: Fri Aug 29 23:56:02 2014

PARAMETER AND FILTER SUMMARY REPORT

File: /dat1a/OH090004/n970a02.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 945.250 ft BOTTOM DEPTH: 1378.773 ft

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
GR MED RES	FILTER ()	medium (1)		TOP	BOTTOM
CALIPER	FILTER ()	medium (1)		"	"
TENSION	FILTER ()	medium (1)		"	"
CN MED RES	FILTER ()	medium (1)		"	"
ZDL MED RES	FILTER (hrd1*)	medium		"	"
	FILTER (hrd1s*)	medium		"	"
	FILTER (hrd2*)	medium		"	"
	FILTER (hrd2s*)	medium		"	"
	FILTER (soft*)	medium		"	"
SP-SPDH	FILTER ()	heavy (3)		"	"

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	4.500	in	TOP	BOTTOM
	CASING THICKNESS	0.000	in	"	"
BIT SIZE	BIT SIZE	8.750	in	"	"
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (cnbh*)	USE CALIPER		"	"
	CALIPER/FIXED DIA. (mbh*)	USE CALIPER		"	"
BOREHOLE CORR DIAMETER	FIXED DIAMETER (cnbh*)	8.750	in	"	"
	FIXED DIAMETER (mbh*)	8.750	in	"	"
BH MUD RESISTIVITY SOURCE	RMUD SOURCE (HDIL)	TOOL MEASURED		"	"
MUD SAMPLE RESISTIVITY	MUD SAMPLE TEMP	84.0	degF	"	"
	MUD SAMPLE RES	1.170	ohm.m	"	"
BOREHOLE TEMP from GRADIENT	Known BH REF TEMP	77.0	degF	"	"
	at BH REF DEPTH	0.0	ft	"	"
	with TEMP GRADIENT	1.200	0.01 degF/ft	"	"

ACCELERATION PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
ACCEL CORR SWITCH	ACCEL DEPTH CORR	CORRECTION ON		TOP	BOTTOM

CN PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CN MATRIX	2436 MATRIX	SANDSTONE		TOP	BOTTOM
CN BOREHOLE CORRECTION	SALINITY	962	ppm	"	"
	BOREHOLE CORRECTION	ON		"	"
CN TOOL STANDOFF	ENABLE STANDOFF CORR	OFF		"	"
	STANDOFF AMOUNT	0.00	in	"	"
CN CASING & CEMENT CORRECTION	CORRECTION	OFF		"	"
	BIT SIZE BEHIND CSNG	8.750	in	"	"

ZDL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
DENSITY POROSITY	Air Filled Borehole	NO		TOP	BOTTOM
	RHOMatrix	2.680	g/cm3	"	"
	RHOfluid	1.000	g/cm3	"	"

HDIL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
HDIL TEMPERATURE CORRECTION	TEMP CORRECTION	ON		TOP	BOTTOM
ADAPTIVE BOREHOLE CORRECTION	ABC PROCESSING	ON		"	"
	ABC to CALCULATE	MUD CONDUCTIVITY		"	"
	STANDOFF	1.50	in	"	"
	TOOL POSITION	ECCENTERED		"	"
	Rmud MULTIPLIER	1.000		"	"

CURVE DESCRIPTION REPORT

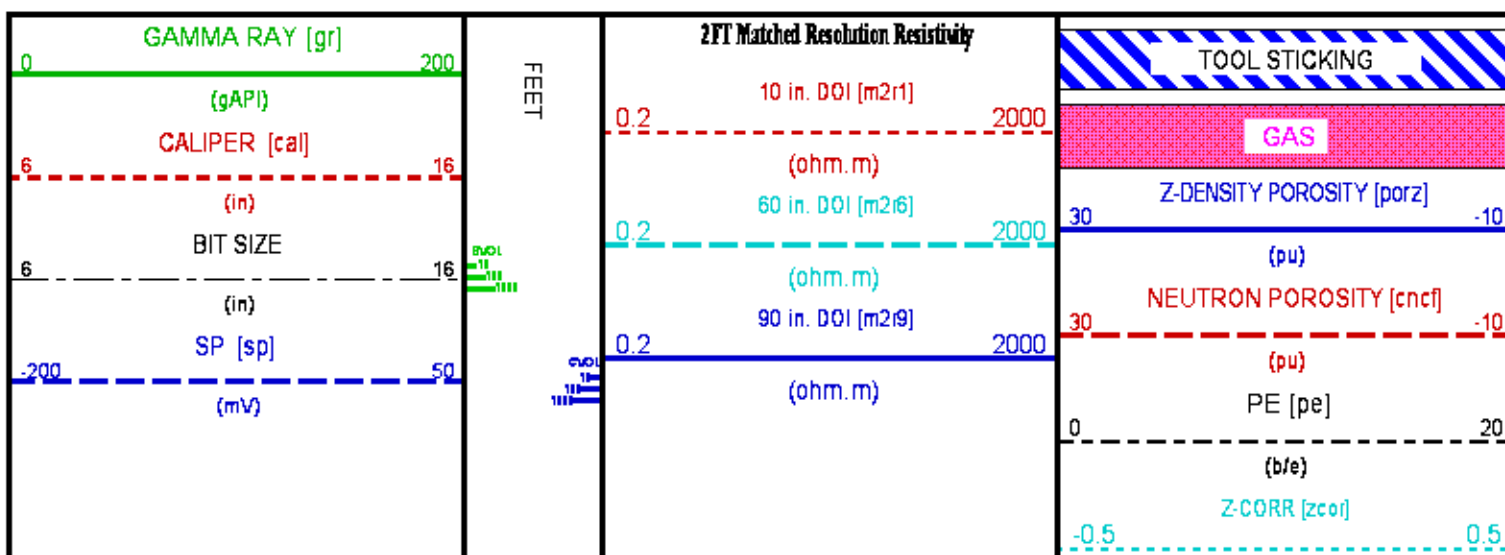
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:BIT	Aug 29 19:48:51 2014	BIT SIZE
F1:BVOL	Aug 29 19:48:51 2014	BOREHOLE VOLUME
F1:CAL	Aug 29 19:48:51 2014	CALIPER
F1:CNCf	Aug 29 19:48:51 2014	FIELD NORMALIZED COMPENSATED NEUTRON POROSITY
F1:CVOL	Aug 29 19:48:51 2014	CEMENT VOLUME
F1:GR	Aug 29 19:48:51 2014	GAMMA RAY
F1:M2R1	Aug 29 19:48:51 2014	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 10-INCH DOI
F1:M2R6	Aug 29 19:48:51 2014	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 60-INCH DOI
F1:M2R9	Aug 29 19:48:51 2014	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 90-INCH DOI
F1:PE	Aug 29 19:48:51 2014	PHOTO ELECTRIC CROSS-SECTION
F1:PORZ	Aug 29 19:48:51 2014	POROSITY FOR SELECTABLE MATRIX
F1:SP	Aug 29 19:48:51 2014	SPONTANEOUS POTENTIAL
F1:TEN	Aug 29 19:48:51 2014	DIFFERENTIAL TENSION
F1:ZCOR	Aug 29 19:48:51 2014	DENSITY CORRECTION

CURVE MEASURE POINT OFFSET

CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
BIT	0.00	GR	35.00	M2R9	2.75	SP	1.25
CAL	18.12	M2R1	2.75	PE	18.00	TEN	0.00
CNCf	27.38	M2R6	2.75	PORZ	18.00	ZCOR	18.00

Presentation : HL6670:WPX_REPEAT.fvpdf [5"/100' Scale]
Plot Interval : 1025 - 1250 Feet

Data File 1 : F1: HL6670:/dat1a/OH090004/REPEAT.xtf
Created On : Aug 29 19:48:51 2014
Company : WPX ENERGY INC
Well : CHEVRON GM 311-21
Field : GRAND VALLEY
File Interval : 0 - 1393.5 Feet
OCT : n970a

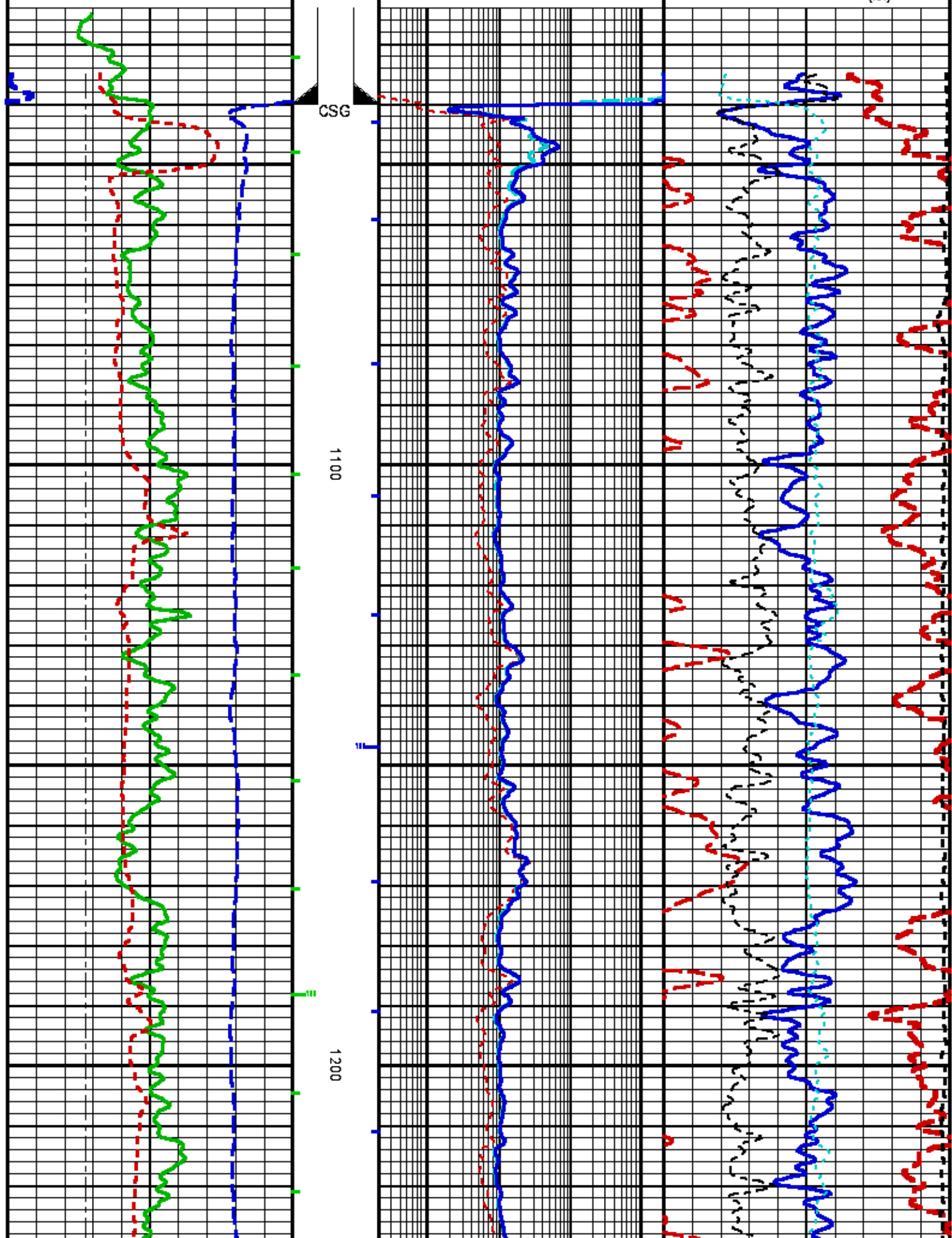


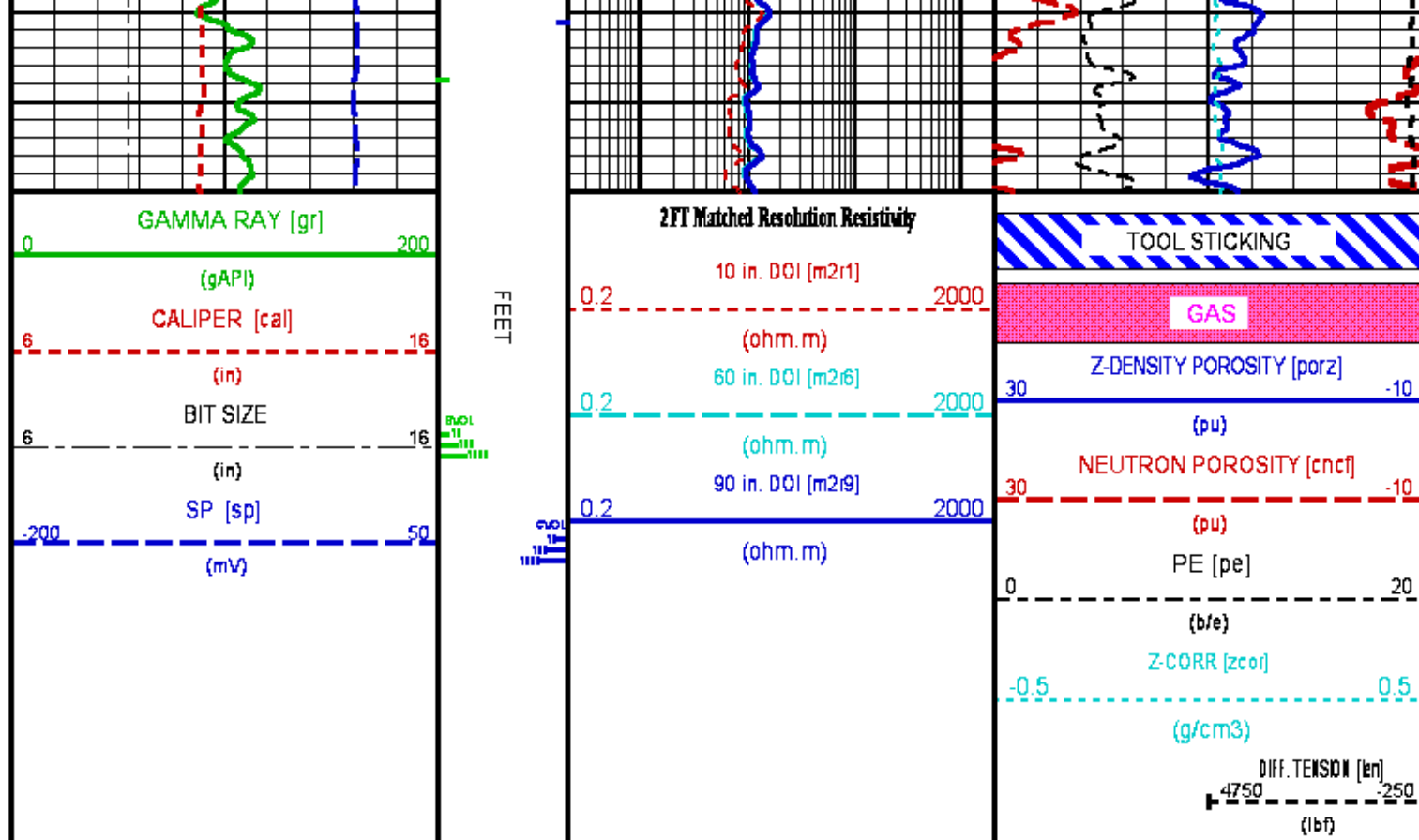
(g/cm³)

DIFF. TENSION (kn)

4750 250

(lbf)





CALIBRATION / VERIFICATION SUMMARY

Source File: /dat1a/OH090004/FINAL.tp1

TTMA PRIMARY CALIBRATION SUMMARY

TOOL #: 398DXA 1D120299

DATE/TIME PERFORMED: Wed Jul 31 10:29:42 2013

UNIT #: 388DTA HL667D

ACCEL #: 398DXA 1D120299

ACCEL CAL DATE: 14:43 05/21/2004

GAIN **OFFSET**
(ohm.m)

Rm K Factors 0.1457D -0.01679

	Sig Low (ohm)	Sig High (ohm)	Mult Factor	Add Factor	Engr Low (ohm)	Engr High (ohm)
Rm Measurements	0.25	9.97	1.003059	0.000362	0.25	10.00

TTMA BEFORE LOG VERIFICATION SUMMARY

TOOL #: 398DXA 1D120299

DATE/TIME PERFORMED: Fri Aug 29 19:26:19 2014

DAYS SINCE CAL: 394

UNIT #: 388DTA HL667D

	CHT (lbf)	MUD TEMP (degF)	RES M Q (ohm)	ACCEL Q
CAL	1883D	498.69	9.97	997.76
	18000 19000	481.36 505.76	8.00 12.00	980.00 1020.00
ZERO	-23331	-436.02	0.249	997.933
	-24131 -22531	-443.20 -428.80	0.200 0.300	980.000 1020.000

TTMA AFTER LOG VERIFICATION SUMMARY

TOOL #: 398DXA 10120299 DATE/TIME PERFORMED: Fri Aug 29 22:35:09 2014 DAYS SINCE CAL: 394

UNIT #: 388DTA HL667D

	CHT (lbf)	MUD TEMP (degF)	RES M Q (ohm)	ACCEL Q
CAL	18838	500.00	9.95	997.94
	18000 19600	491.35 505.76	9.00 12.00	990.00 1020.00
ZERO	-23331	-436.02	0.249	996.248
	-24131 -22531	-443.20 -429.00	0.200 0.300	990.000 1020.000

GR PRIMARY CALIBRATION SUMMARY

Tool #: 3518EG 10139870 DATE/TIME PERFORMED: Fri Aug 29 10:17:37 2014
Unit #: 388DTA HL667D Jig Series: 4702NK DA-D41

Background	Calibrator ON	Jig Value (gAPI)	Mult	Background (gAPI)	Calibrator ON (gAPI)
210.68	843.08	150	0.237	49.97	199.97
			0.200 0.280		

GR BEFORE LOG VERIFICATION SUMMARY

TOOL #: 3518EG 10139870 DATE/TIME PERFORMED: Fri Aug 29 19:26:46 2014 DAYS SINCE CAL: 0
UNIT #: 388DTA HL667D Jig: INTRNL N/A

Counts	TEMP (degF)	HV (V)
976.67	84.56	1362.48
929.00 1027.00	536.00	1237.00 1512.00

GR AFTER LOG VERIFICATION SUMMARY

TOOL #: 3518EG 10139870 DATE/TIME PERFORMED: Fri Aug 29 22:35:23 2014 DAYS SINCE CAL: 0
UNIT #: 388DTA HL667D Jig: INTRNL N/A

Counts	TEMP (degF)	HV (V)
976.67	129.95	1369.13
929.00 1027.00	536.00	1237.00 1512.00

CN PRIMARY CALIBRATION SUMMARY

TOOL #: 2436XA 10137930 DATE/TIME PERFORMED: Tue Jul 1 11:37:32 2014
UNIT #: 3885TC 6685 CALIBRATOR #: 2437XB 112674 SOURCE #: 4718XA N-D897

SSN DT CPS	LSN DT CPS	SSN/LSN	MCF	CNRATIO	CN PU
4694.62	793.23	5.91832	0.96936	5.73700	25.241
			0.95000 1.05000		

CN BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2436XA 10137930 DATE/TIME PERFORMED: Fri Aug 29 19:27:01 2014 DAYS SINCE CAL: 59
UNIT #: 388DTA HL667D CALIBRATOR #: INTRNL N/A

SSN DT CPS	LSN DT CPS	SSN/LSN	TEMP (degF)	HV (V)	LV (V)
991.08	993.42	0.99762	78.1	1358.6	4.612
		0.95000 1.05000	260.4	1250.0 1450.0	4.300 5.000

CN AFTER LOG VERIFICATION SUMMARY

TOOL #: 2436XA 1D13793D DATE/TIME PERFORMED: Fri Aug 29 22:35:40 2014 DAYS SINCE CAL: 59

UNIT #: 388DTA HL667D CALIBRATOR #: INTRNL N/A

SSN DT CPS	LSN DT CPS	SSN/LSN	TEMP (degF)	HV (V)	LV (V)
991.06	993.42	0.99762	122.0	1364.4	4.618
		0.95000 1.05000	280.4	1250.0 1450.0	4.300 5.000

CAL PRIMARY CALIBRATION SUMMARY

TOOL #: 2223XA 1D123024 DATE/TIME PERFORMED: Tue Aug 5 09:45:04 2014

UNIT #: 3885TC 6685

	SIZE (in)	VALUE	MULTIPLIER	ADD
SMALL RING (Arm)	7.000	1481.6		
LARGE RING (Arm)	11.000	2738.0	0.00318	2.28303
PAD CLOSED		1320.0	0.00250	-3.30000

CAL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2223XA 1D123024 DATE/TIME PERFORMED: Fri Aug 29 19:43:01 2014 DAYS SINCE CAL: 24

UNIT #: 388DTA HL667D

	VALUE	MULTIPLIER	ADD	SIZE (in)
ARM	2132.4	0.00318	2.28303	9.1
PAD	1480.0	0.00250	-3.30000	0.3

	ACTUAL (in)	MEASURED (in)
DIAMETER (arm+pad)	9.001	9.0
		8.6 9.4

CAL AFTER LOG VERIFICATION SUMMARY

TOOL #: 2223XA 1D123024 DATE/TIME PERFORMED: Fri Aug 29 22:37:57 2014 DAYS SINCE CAL: 24

UNIT #: 388DTA HL667D

	VALUE	MULTIPLIER	ADD	SIZE (in)
ARM	2138.4	0.00318	2.28303	9.1
PAD	1540.0	0.00250	-3.30000	0.6

	ACTUAL (in)	MEASURED (in)
DIAMETER (arm+pad)	9.001	9.0
		8.6 9.4

ZDL PRIMARY CALIBRATION SUMMARY

TOOL #: 2223XA 1D123024 DATE/TIME PERFORMED: Tue Aug 5 10:25:19 2014

UNIT: 3885TC 6685 CALB BLKS: 2225XA 094292F CS SRC: 47D5XA 16D68B PAD TYPE: PADTYP 7.5" PAD

SS CS PK (Channel)	LS CS PK (Channel)	SS_BKGD (cps)	LS BKGD (cps)
223.7	223.9	1348.7	1362.2
223.5 223.5	223.5 223.5		

	SS (cps)	LS (cps)	SHR	DEN (g/cm ³)	CORR (g/cm ³)	PE (b/e)
MG (LO PE)	31746.7	11803.2	0.732 0.720 0.890	1.679	0.000	1.900
AL	19832.5	1318.8		2.667	-0.016	
AL + SHIM	27179.5	2291.6		2.558	0.098	
MG + SHIM (HI PE)	15604.0	5633.1	0.289 0.280 0.360			8.550
RATIO AL + SHIM/AL	1.37 1.30 1.40	1.74 1.60 1.80				
RATIO MG/AL	1.60 1.58 1.70	8.95 8.55 9.55				

ZDL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2223XA 10123024 DATE/TIME PERFORMED: Fri Aug 29 19:27:53 2014 DAYS SINCE CAL: 24

UNIT #: 3880TA HL6670

	TOTAL (cps)	CSPK (Channel)	HV (V)
LS	3342.1 3332.1 3352.1	225.3 230.0 230.0	1443.0 1250.0 1550.0
SS	22354.8 22344.8 22364.8	224.2 230.0 230.0	1321.0 1250.0 1550.0
LV (V)	5.0 4.8 5.2	PAD CURRENT (mA) 100.8 50.0 120.0	

ZDL AFTER LOG VERIFICATION SUMMARY

TOOL #: 2223XA 10123024 DATE/TIME PERFORMED: Fri Aug 29 22:35:58 2014 DAYS SINCE CAL: 24

UNIT #: 3880TA HL6670

	TOTAL (cps)	CSPK (Channel)	HV (V)
LS	3342.1 3332.1 3352.1	224.9 230.0 230.0	1451.0 1250.0 1550.0
SS	22354.8 22344.8 22364.8	224.1 230.0 230.0	1327.3 1250.0 1550.0
LV (V)	4.9 4.8 5.2	PAD CURRENT (mA) 104.0 50.0 120.0	

HDIL PRIMARY CALIBRATION SUMMARY

TOOL #: 1530XA 10118612 DATE/TIME PERFORMED: Tue Jan 7 13:59:50 2014

UNIT #: 3880TA HL6670 GRCOND ID & DATE: 110 101801

ZERO DATA(mv)	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 R	0.0011 -0.2000 0.2000	0.0008 -0.1000 0.1000	-0.0007 -0.1000 0.1000	-0.0002 -0.1000 0.1000	-0.0002 -0.1000 0.1000	-0.0002 -0.1000 0.1000	0.0009 -0.1000 0.1000	0.0002 -0.1000 0.1000
Coil 0 Q	0.0004 -0.5000 0.5000	-0.0001 -0.2000 0.2000	-0.0003 -0.1000 0.1000	0.0002 -0.1000 0.1000	0.0002 -0.1000 0.1000	-0.0000 -0.1000 0.1000	0.0001 -0.1000 0.1000	-0.0006 -0.1000 0.1000
Coil 1 R	0.0082 -0.2000 0.2000	0.0019 -0.1000 0.1000	-0.0010 -0.1000 0.1000	0.0013 -0.1000 0.1000	-0.0016 -0.1000 0.1000	0.0011 -0.1000 0.1000	-0.0007 -0.1000 0.1000	0.0006 -0.1000 0.1000
Coil 1 Q	0.0032 -0.5000 0.5000	-0.0019 -0.2000 0.2000	0.0007 -0.1000 0.1000	0.0020 -0.1000 0.1000	-0.0006 -0.1000 0.1000	0.0004 -0.1000 0.1000	-0.0002 -0.1000 0.1000	0.0006 -0.1000 0.1000
Coil 2 R	0.0036 -0.2000 0.2000	-0.0014 -0.1000 0.1000	0.0009 -0.1000 0.1000	-0.0004 -0.1000 0.1000	0.0006 -0.1000 0.1000	0.0005 -0.1000 0.1000	-0.0008 -0.1000 0.1000	-0.0023 -0.1000 0.1000
Coil 2 Q	-0.0006 -0.5000 0.5000	0.0020 -0.2000 0.2000	0.0017 -0.1000 0.1000	0.0012 -0.1000 0.1000	0.0002 -0.1000 0.1000	-0.0029 -0.1000 0.1000	-0.0011 -0.1000 0.1000	-0.0014 -0.1000 0.1000
Coil 3 R	0.0267 -0.3000 0.3000	-0.0072 -0.1000 0.1000	0.0035 -0.1000 0.1000	0.0022 -0.1000 0.1000	0.0019 -0.1000 0.1000	0.0003 -0.1000 0.1000	-0.0004 -0.1000 0.1000	0.0038 -0.1000 0.1000

Coil 3 Q	0.0107 -0.5000 0.5000	-0.0026 -0.2000 0.2000	0.0015 -0.1000 0.1000	-0.0009 -0.1000 0.1000	0.0001 -0.1000 0.1000	0.0026 -0.1000 0.1000	-0.0002 -0.1000 0.1000	-0.0020 -0.1000 0.1000
Coil 4 R	0.0672 -0.5000 0.5000	-0.0023 -0.2000 0.2000	-0.0060 -0.2000 0.2000	0.0036 -0.2000 0.2000	-0.0064 -0.2000 0.2000	-0.0030 -0.2000 0.2000	0.0016 -0.2000 0.2000	-0.0012 -0.2000 0.2000
Coil 4 Q	0.0182 -1.0000 1.0000	-0.0158 -0.4000 0.4000	-0.0009 -0.2000 0.2000	-0.0024 -0.2000 0.2000	0.0023 -0.2000 0.2000	0.0017 -0.2000 0.2000	0.0060 -0.2000 0.2000	-0.0105 -0.2000 0.2000
Coil 5 R	0.1609 -1.2000 1.2000	0.0008 -0.4000 0.4000	-0.0374 -0.4000 0.4000	0.0079 -0.4000 0.4000	0.0037 -0.4000 0.4000	-0.0040 -0.4000 0.4000	0.0039 -0.4000 0.4000	0.0089 -0.4000 0.4000
Coil 5 Q	0.0881 -1.5000 1.5000	-0.0472 -0.8000 0.8000	-0.0025 -0.4000 0.4000	-0.0083 -0.4000 0.4000	0.0025 -0.4000 0.4000	-0.0156 -0.4000 0.4000	0.0062 -0.4000 0.4000	-0.0095 -0.4000 0.4000

ELEC. GAINS	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil D M	161.55 136.00 186.00	160.12 134.00 184.00	157.25 131.00 181.00	152.96 126.00 176.00	147.31 122.00 170.00	140.33 118.00 161.00	132.13 112.00 150.00	122.75 105.00 139.00
Coil D P	7.692 6.000 9.000	25.312 21.000 30.000	42.497 35.000 50.000	59.645 49.000 71.000	76.792 63.000 91.000	93.942 77.000 109.000	111.112 92.000 130.000	128.223 105.000 151.000
Coil 1 M	281.61 239.00 329.00	279.28 235.00 325.00	274.54 230.00 320.00	267.48 225.00 312.00	258.14 218.00 302.00	246.57 209.00 299.00	232.86 195.00 296.00	217.14 184.00 244.00
Coil 1 P	7.582 6.000 9.000	25.040 21.000 30.000	42.056 35.000 51.000	59.044 49.000 71.000	76.043 63.000 92.000	93.075 78.000 112.000	110.151 93.000 130.000	127.218 107.000 151.000
Coil 2 M	568.98 479.00 659.00	564.17 474.00 654.00	554.44 463.00 643.00	539.80 450.00 632.00	520.50 432.00 632.00	496.50 412.00 572.00	468.12 390.00 540.00	435.51 359.00 499.00
Coil 2 P	7.769 6.000 9.000	25.508 21.000 31.000	42.830 35.000 51.000	60.121 49.000 71.000	77.437 63.000 92.000	94.775 76.000 115.000	112.170 92.000 135.000	129.548 105.000 155.000
Coil 3 M	921.55 772.00 1050.00	913.14 764.00 1050.00	896.22 752.00 1030.00	871.27 729.00 1010.00	838.32 700.00 970.00	797.74 665.00 925.00	749.97 629.00 869.00	695.43 599.00 799.00
Coil 3 P	7.878 6.000 10.000	25.828 21.000 30.000	43.358 35.000 51.000	60.833 49.000 72.000	78.288 63.000 93.000	95.758 76.000 114.000	113.213 90.000 135.000	130.598 104.000 156.000
Coil 4 M	1447.2 1210.0 1700.0	1433.8 1205.0 1690.0	1406.9 1180.0 1660.0	1366.8 1140.0 1590.0	1314.3 1120.0 1560.0	1249.3 1070.0 1490.0	1173.7 1000.0 1360.0	1088.7 942.0 1240.0
Coil 4 P	7.843 6.000 10.000	25.758 21.000 31.000	43.249 35.000 52.000	60.684 49.000 73.000	78.112 63.000 93.000	95.552 77.000 114.000	112.960 91.000 135.000	130.298 105.000 156.000
Coil 5 M	2940.6 2450.0 3450.0	2919.1 2420.0 3400.0	2873.2 2410.0 3320.0	2804.6 2350.0 3200.0	2711.8 2280.0 3090.0	2596.3 2150.0 2950.0	2459.1 2020.0 2750.0	2301.3 1870.0 2570.0
Coil 5 P	7.588 6.000 10.000	25.060 20.000 31.000	42.133 35.000 52.000	59.180 49.000 73.000	76.279 63.000 94.000	93.467 79.000 113.000	110.713 93.000 134.000	127.975 105.000 156.000

AM Factor	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil D R	-1078 -3200 940	-604 -1400 -20	-481 -830 -150	-419 -760 -160	-378 -660 -130	-347 -600 -120	-322 -560 -110	-302 -520 -82
Coil D Q	402 -15000 11000	-174 -5900 3900	-222 -3700 2100	-244 -2700 1400	-260 -3200 1000	-273 -1800 750	-285 -1600 620	-295 -1500 490
Coil 1 R	-162 -750 480	-154 -360 89	-139 -260 9	-129 -230 -10	-119 -300 -25	-111 -180 -35	-105 -160 -46	-99 -150 -49
Coil 1 Q	411 -3200 3200	85 -1100 960	26 -620 530	-2 -470 360	-17 -360 260	-28 -320 190	-35 -250 150	-40 -320 120
Coil 2 R	6.2 -85.0 76.0	-30.3 -64.0 -0.4	-34.2 -67.0 -12.0	-34.0 -61.0 -16.0	-31.7 -46.0 -17.0	-29.5 -42.0 -16.0	-27.5 -39.0 -15.0	-26.2 -37.0 -13.0
Coil 2 Q	379.1 -1500.0 1900.0	130.3 -500.0 610.0	75.8 -290.0 390.0	51.6 -220.0 260.0	38.3 -160.0 190.0	30.4 -140.0 160.0	26.0 -110.0 130.0	23.4 -99.0 120.0
Coil 3 R	1.9 -23.0 21.0	-7.4 -22.0 1.6	-9.0 -21.0 -1.3	-9.0 -20.0 -1.8	-8.8 -19.0 -2.0	-8.2 -19.0 -1.3	-7.9 -19.0 -0.8	-7.9 -19.0 -0.0
Coil 3 Q	103.0 -540.0 530.0	39.1 -180.0 180.0	26.3 -100.0 110.0	21.9 -71.0 81.0	20.3 -61.0 66.0	20.2 -57.0 59.0	20.9 -53.0 53.0	21.9 -51.0 51.0
Coil 4 R	-0.70 -18.00 13.00	-1.42 -12.00 2.70	-1.59 -11.00 1.90	-1.56 -9.90 0.52	-2.43 -8.90 0.96	-1.59 -10.00 1.50	-1.79 -11.00 2.30	-2.05 -11.00 2.60
Coil 4 Q	5.07 -250.00 260.00	3.70 -79.00 99.00	4.36 -43.00 64.00	5.61 -27.00 51.00	8.03 -18.00 46.00	8.73 -11.00 42.00	9.49 -5.50 42.00	11.43 -1.00 42.00
Coil 5 R	1.19 -56.00 51.00	0.37 -8.40 3.60	-0.06 -6.90 1.10	0.06 -6.90 1.20	-2.12 -9.30 2.90	-0.45 -14.00 6.30	-0.46 -19.00 9.60	-0.72 -24.00 13.00
Coil 5 Q	-0.39 -69.00 69.00	1.71 -25.00 27.00	3.02 -14.00 22.00	4.27 -7.00 22.00	1.68 -2.50 24.00	6.59 1.10 26.00	7.89 4.10 29.00	9.12 7.10 32.00

MM Factor	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil D M	0.976 0.850 1.100	0.980 0.850 1.100	0.981 0.870 1.100	0.981 0.880 1.100	0.981 0.880 1.100	0.980 0.880 1.100	0.980 0.880 1.100	0.978 0.880 1.100
Coil D P	-0.096 -1.500 1.500	-0.096 -1.500 1.500	-0.020 -1.500 1.500	0.030 -1.500 1.500	0.078 -1.500 1.500	0.069 -1.500 1.500	0.113 -1.500 1.500	0.109 -1.500 1.500
Coil 1 M	0.970 0.850 1.100	0.973 0.860 1.100	0.974 0.870 1.100	0.975 0.880 1.100	0.974 0.880 1.100	0.973 0.880 1.100	0.973 0.880 1.100	0.972 0.880 1.100
Coil 1 P	-0.085 -1.500 1.500	-0.095 -1.500 1.500	-0.012 -1.500 1.500	0.043 -1.500 1.500	0.095 -1.500 1.500	0.098 -1.500 1.500	0.115 -1.500 1.500	0.127 -1.500 1.500
Coil 2 M	0.987 0.850 1.100	0.987 0.860 1.100	0.987 0.880 1.100	0.987 0.890 1.100	0.986 0.890 1.100	0.985 0.890 1.100	0.984 0.890 1.100	0.984 0.890 1.100
Coil 2 P	0.033 -1.500 1.500	0.049 -1.500 1.500	0.097 -1.500 1.500	0.124 -1.500 1.500	0.150 -1.500 1.500	0.154 -1.500 1.500	0.172 -1.500 1.500	0.170 -1.500 1.500
Coil 3 M	0.995 -1.500 1.500	0.995 -1.500 1.500	0.995 -1.500 1.500	0.994 -1.500 1.500	0.993 -1.500 1.500	0.993 -1.500 1.500	0.991 -1.500 1.500	0.989 -1.500 1.500

Coil 3 P	0.046 -1.500 1.500	0.080 -1.500 1.500	0.140 -1.500 1.500	0.194 -1.500 1.500	0.226 -1.500 1.500	0.270 -1.500 1.500	0.314 -1.500 1.500	0.300 -1.500 1.500
Coil 4 M	0.998 0.900 1.100	0.999 0.900 1.100	0.999 0.900 1.100	0.999 0.900 1.100	1.000 0.900 1.100	0.999 0.900 1.100	1.000 0.900 1.100	1.001 0.900 1.100
Coil 4 P	0.087 -1.500 1.500	0.100 -1.500 1.500	0.178 -1.500 1.500	0.247 -1.500 1.500	0.313 -1.500 1.500	0.408 -1.500 1.500	0.481 -1.500 1.500	0.553 -1.500 1.500
Coil 5 M	1.002 0.900 1.100	1.002 0.900 1.100	1.003 0.900 1.100	1.004 0.900 1.100	1.006 0.900 1.100	1.007 0.900 1.100	1.010 0.900 1.100	1.013 0.900 1.100
Coil 5 P	-0.239 -1.500 1.500	0.068 -1.500 1.500	0.253 -1.500 1.500	0.386 -1.500 1.500	0.534 -1.500 1.500	0.734 -1.500 1.500	0.867 -1.500 1.500	0.990 -1.500 1.500

PARMS

TCID 0

TCID 1

Cal Temp

T Factor

IDs

2.563

0.840

(degF)

60.0

1.00

HDIL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 1530XA 10118612

DATE/TIME PERFORMED: Fri Aug 29 19:29:10 2014

DAYS SINCE CAL: 234

UNIT #: 3880TA HL6670

ZERO DATA(mv)	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 R	0.001 -0.200 0.200	0.000 -0.100 0.100	-0.000 -0.100 0.100	-0.000 -0.100 0.100	-0.001 -0.100 0.100	0.000 -0.100 0.100	0.000 -0.100 0.100	0.000 -0.100 0.100
Coil 0 Q	0.002 -0.500 0.500	0.000 -0.200 0.200	-0.001 -0.100 0.100	-0.000 -0.100 0.100	0.001 -0.100 0.100	-0.000 -0.100 0.100	0.000 -0.100 0.100	0.000 -0.100 0.100
Coil 1 R	0.007 -0.200 0.200	0.002 -0.100 0.100	-0.001 -0.100 0.100	0.001 -0.100 0.100	-0.001 -0.100 0.100	0.002 -0.100 0.100	-0.002 -0.100 0.100	0.002 -0.100 0.100
Coil 1 Q	0.005 -0.500 0.500	-0.001 -0.200 0.200	0.002 -0.100 0.100	0.001 -0.100 0.100	-0.000 -0.100 0.100	0.001 -0.100 0.100	0.001 -0.100 0.100	0.000 -0.100 0.100
Coil 2 R	0.002 -0.200 0.200	0.000 -0.100 0.100	0.002 -0.100 0.100	0.001 -0.100 0.100	0.001 -0.100 0.100	-0.002 -0.100 0.100	0.002 -0.100 0.100	-0.002 -0.100 0.100
Coil 2 Q	-0.002 -0.500 0.500	0.001 -0.200 0.200	-0.002 -0.100 0.100	0.001 -0.100 0.100	-0.001 -0.100 0.100	-0.002 -0.100 0.100	0.002 -0.100 0.100	-0.001 -0.100 0.100
Coil 3 R	0.020 -0.300 0.300	-0.000 -0.100 0.100	-0.000 -0.100 0.100	0.000 -0.100 0.100	-0.000 -0.100 0.100	-0.002 -0.100 0.100	0.001 -0.100 0.100	0.004 -0.100 0.100
Coil 3 Q	-0.000 -0.500 0.500	-0.002 -0.200 0.200	0.002 -0.100 0.100	0.003 -0.100 0.100	0.002 -0.100 0.100	-0.001 -0.100 0.100	-0.000 -0.100 0.100	-0.002 -0.100 0.100
Coil 4 R	0.058 -0.500 0.500	-0.008 -0.200 0.200	-0.002 -0.200 0.200	0.008 -0.200 0.200	-0.002 -0.200 0.200	0.006 -0.200 0.200	-0.002 -0.200 0.200	0.004 -0.200 0.200
Coil 4 Q	0.007 -1.000 1.000	-0.019 -0.400 0.400	0.004 -0.200 0.200	0.002 -0.200 0.200	-0.003 -0.200 0.200	-0.000 -0.200 0.200	-0.002 -0.200 0.200	-0.002 -0.200 0.200
Coil 5 R	0.148 -1.200 1.200	0.002 -0.400 0.400	-0.007 -0.400 0.400	0.006 -0.400 0.400	0.005 -0.400 0.400	-0.000 -0.400 0.400	0.002 -0.400 0.400	0.005 -0.400 0.400
Coil 5 Q	0.041 -1.500 1.500	-0.016 -0.800 0.800	0.013 -0.400 0.400	0.001 -0.400 0.400	-0.003 -0.400 0.400	-0.002 -0.400 0.400	0.005 -0.400 0.400	-0.013 -0.400 0.400

ELEC. GAINS	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 M	161.35 136.00 186.00	159.93 134.00 184.00	157.05 131.00 181.00	152.77 126.00 176.00	147.13 122.00 170.00	140.16 118.00 161.00	131.95 112.00 150.00	122.61 105.00 139.00
Coil 0 P	7.669 -1.000 12.000	25.329 19.000 30.000	42.542 36.000 50.000	59.703 49.000 71.000	76.863 63.000 91.000	94.051 77.000 110.000	111.217 92.000 130.000	128.385 105.000 151.000
Coil 1 M	281.42 239.00 327.00	279.10 236.00 326.00	274.34 230.00 320.00	267.32 226.00 312.00	257.96 218.00 302.00	246.39 208.00 289.00	232.69 196.00 266.00	216.94 184.00 244.00
Coil 1 P	7.570 -1.000 12.000	25.058 19.000 30.000	42.105 36.000 51.000	59.099 49.000 71.000	76.127 63.000 92.000	93.169 77.000 112.000	110.258 92.000 132.000	127.374 105.000 153.000
Coil 2 M	568.03 479.00 669.00	563.25 474.00 654.00	553.46 463.00 643.00	538.89 450.00 622.00	519.57 432.00 602.00	495.66 412.00 572.00	467.47 380.00 540.00	434.83 369.00 489.00
Coil 2 P	7.730 -1.000 12.000	25.513 19.000 31.000	42.860 36.000 51.000	60.167 49.000 71.000	77.501 63.000 92.000	94.864 77.000 114.000	112.260 92.000 135.000	129.667 105.000 156.000
Coil 3 M	921.41 772.00 1060.00	913.15 764.00 1050.00	896.29 752.00 1030.00	871.22 739.00 1010.00	838.06 700.00 970.00	797.51 666.00 925.00	750.08 638.00 868.00	695.58 599.00 799.00
Coil 3 P	7.840 -2.000 13.000	25.838 19.000 31.000	43.385 36.000 52.000	60.878 49.000 72.000	78.355 63.000 93.000	95.834 77.000 114.000	113.300 92.000 135.000	130.730 105.000 156.000
Coil 4 M	1448.7 1210.0 1700.0	1435.4 1205.0 1680.0	1408.4 1180.0 1660.0	1368.4 1140.0 1590.0	1315.3 1120.0 1530.0	1250.6 1070.0 1460.0	1174.9 1000.0 1360.0	1090.0 942.0 1240.0
Coil 4 P	7.805 -2.000 13.000	25.765 19.000 31.000	43.277 36.000 52.000	60.735 49.000 73.000	78.180 63.000 93.000	95.612 78.000 114.000	113.038 92.000 135.000	130.416 105.000 156.000
Coil 5 M	2938.3 2450.0 3450.0	2916.7 2420.0 3400.0	2870.7 2410.0 3320.0	2801.8 2350.0 3200.0	2709.0 2280.0 3000.0	2594.4 2160.0 2960.0	2456.1 2030.0 2750.0	2298.5 1870.0 2570.0
Coil 5 P	7.568 -2.000 13.000	25.069 19.000 31.000	42.162 36.000 52.000	59.229 49.000 73.000	76.358 63.000 94.000	93.525 79.000 114.000	110.803 93.000 135.000	128.110 105.000 156.000

HDIL AFTER LOG VERIFICATION SUMMARY

TOOL #: 1530XA 10118612

DATE/TIME PERFORMED:

Fri Aug 29 22:37:07 2014

DAYS SINCE CAL:

234

UNIT #:

3880TA HL6670

ZERO DATA(mv)	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 R	0.001 -0.079 0.081	0.002 -0.060 0.060	0.001 -0.030 0.030	-0.001 -0.030 0.030	-0.000 -0.031 0.029	0.001 -0.030 0.030	0.001 -0.030 0.030	0.000 -0.030 0.030
Coil 0 Q	0.002 -0.038 0.042	-0.000 -0.120 0.120	-0.001 -0.031 0.029	-0.000 -0.030 0.030	0.000 -0.029 0.031	-0.000 -0.030 0.030	-0.001 -0.030 0.030	0.000 -0.030 0.030
Coil 1 R	0.006 -0.073 0.087	0.001 -0.048 0.052	-0.000 -0.031 0.029	0.000 -0.029 0.031	-0.000 -0.031 0.029	0.001 -0.028 0.032	0.000 -0.032 0.038	0.001 -0.028 0.032
Coil 1 Q	0.005 -0.395 0.405	-0.001 -0.101 0.099	-0.000 -0.038 0.032	-0.000 -0.029 0.031	-0.001 -0.030 0.030	-0.001 -0.029 0.031	-0.001 -0.029 0.031	0.000 -0.030 0.030
Coil 2 R	-0.000 -0.038 0.072	-0.003 -0.030 0.030	-0.003 -0.038 0.032	0.001 -0.029 0.031	-0.000 -0.029 0.031	0.000 -0.032 0.038	-0.000 -0.028 0.032	-0.003 -0.032 0.038
Coil 2 Q	-0.003 -0.352 0.348	0.006 -0.099 0.101	-0.001 -0.032 0.038	0.001 -0.029 0.031	0.003 -0.031 0.029	0.001 -0.032 0.038	0.001 -0.028 0.032	0.002 -0.031 0.029
Coil 3 R	0.023 -0.030 0.060	-0.007 -0.040 0.040	-0.003 -0.040 0.040	0.005 -0.040 0.040	0.001 -0.040 0.040	-0.002 -0.042 0.038	0.001 -0.038 0.041	-0.002 -0.036 0.044
Coil 3 Q	0.004 -0.200 0.200	-0.000 -0.062 0.078	-0.000 -0.038 0.042	-0.005 -0.037 0.043	0.001 -0.038 0.042	-0.002 -0.041 0.039	0.003 -0.040 0.040	0.001 -0.042 0.038
Coil 4 R	0.065 -0.002 0.118	-0.006 -0.038 0.052	0.001 -0.032 0.058	0.008 -0.052 0.068	0.001 -0.052 0.058	-0.002 -0.054 0.056	0.007 -0.052 0.058	-0.002 -0.055 0.054
Coil 4 Q	0.001 -0.293 0.307	-0.010 -0.119 0.081	0.003 -0.056 0.054	0.002 -0.058 0.052	0.003 -0.063 0.057	0.001 -0.060 0.060	-0.002 -0.062 0.058	-0.000 -0.062 0.058
Coil 5 R	0.144 0.038 0.268	-0.004 -0.118 0.122	0.013 -0.127 0.113	0.015 -0.114 0.126	0.011 -0.115 0.125	0.010 -0.120 0.120	-0.003 -0.118 0.122	0.017 -0.115 0.125
Coil 5 Q	-0.014 -0.569 0.641	-0.038 -0.266 0.234	0.011 -0.107 0.133	-0.013 -0.119 0.121	-0.000 -0.123 0.117	-0.002 -0.122 0.118	0.003 -0.115 0.125	-0.014 -0.133 0.107

ELEC. GAINS	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 M	160.99 198.12 164.88	159.58 196.73 163.13	156.88 193.91 160.19	152.42 149.72 155.83	146.76 144.19 150.07	139.81 137.36 142.97	131.59 129.31 134.98	122.25 120.15 125.05
Coil 0 P	7.181 4.669 10.669	25.228 22.309 28.309	42.556 39.542 45.542	59.786 56.703 62.703	77.017 73.863 79.863	94.253 91.051 97.051	111.487 108.217 114.217	128.670 125.385 131.385
Coil 1 M	281.29 275.79 287.05	278.95 273.51 284.88	274.19 268.86 279.83	267.13 261.97 272.66	257.77 252.80 263.12	246.22 241.46 251.32	232.49 228.04 237.35	216.70 212.60 221.28
Coil 1 P	7.103 4.570 10.570	24.967 22.058 28.058	42.117 39.105 45.105	59.185 56.099 62.099	76.276 73.127 79.127	93.373 90.169 96.169	110.519 107.298 113.298	127.661 124.374 130.374
Coil 2 M	566.35 565.67 579.39	561.54 561.99 574.52	551.83 542.39 564.53	537.29 528.11 549.66	518.01 509.18 529.96	494.24 485.75 505.98	465.91 458.12 476.82	433.25 425.13 443.53
Coil 2 P	7.205 4.730 10.730	25.399 22.513 28.513	42.857 39.880 45.880	60.239 57.167 63.167	77.632 74.501 80.501	95.059 91.864 97.864	112.517 109.260 115.260	129.976 126.667 132.667
Coil 3 M	920.65 902.98 939.84	912.33 894.88 931.41	895.44 878.36 914.21	870.44 853.79 888.64	837.46 821.30 854.82	796.80 781.56 813.46	749.11 735.08 765.08	694.76 681.66 709.49
Coil 3 P	7.328 4.840 10.840	25.721 22.838 28.838	43.386 40.395 46.395	60.944 57.878 63.878	78.490 75.365 81.365	96.035 92.834 98.834	113.551 110.300 116.300	131.027 127.730 133.730
Coil 4 M	1450.1 1419.7 1477.7	1436.7 1406.7 1464.1	1409.6 1380.2 1436.6	1369.3 1341.0 1395.8	1316.2 1289.0 1341.6	1251.3 1225.6 1275.6	1175.2 1151.4 1198.4	1089.9 1068.2 1111.8
Coil 4 P	7.298 4.805 10.805	25.653 22.765 28.765	43.274 40.277 46.277	60.796 57.735 63.735	78.300 75.180 81.180	95.806 92.612 98.612	113.272 110.038 116.038	130.688 127.416 133.416
Coil 5 M	2929.6 2879.5 2997.1	2907.7 2858.3 2975.0	2862.5 2813.3 2908.2	2793.6 2745.8 2857.9	2700.1 2654.8 2763.2	2585.3 2542.5 2646.3	2446.8 2407.0 2505.2	2288.5 2252.6 2344.5
Coil 5 P	7.093 4.568 10.568	24.971 22.069 28.069	42.162 39.162 45.162	59.299 56.229 62.229	76.487 73.368 79.368	93.738 90.525 96.525	111.036 107.803 113.803	128.380 125.110 131.110

INSTRUMENT CONFIGURATION

Source File: /data1a/OH090004/FOCUS-tdg

FOCUS CABLEHEAD
 Diameter : 3.12"
 Length : 3.12'
 Weight : 15 lbs
 Series : CABL31B
 Mnemonic : CBLH



51.84'

FOCUS SWIVEL
Diameter : 3.13"
Length : 3.58'
Weight : 50 lbs
Series : 3950XA
Mnemonic : SWVL

FOCUS TEN/TEMP/MUD RES/ACCEL
Diameter : 3.13"
Length : 4.31'
Weight : 61 lbs
Series : 3980XA
Mnemonic : TTMA

FOCUS TELEMETRY (POWER SECTION)
Diameter : 3.13"
Length : 3.71'
Weight : 48 lbs
Series : 3518FB
Mnemonic : TMGR

FOCUS EB/EG TELEMETRY GAMMA RAY
Diameter : 3.13"
Length : 5.83'
Weight : 63 lbs
Series : 3518EG
Mnemonic : GR
Measure Point: 4.24': GR MP

FOCUS COMPENSATED NEUTRON
Diameter : 3.13"
Length : 4.81'
Weight : 65 lbs
Series : 2436XA
Mnemonic : CN
Measure Point: 1.92': LSN MP
Measure Point: 1.46': SSN MP

FOCUS Z-DENSILOG
Diameter : 3.75"
Length : 9.58'
Weight : 200 lbs
Series : 2223XA
Mnemonic : ZDL
Measure Point: 4.33': CR1 MP
Measure Point: 1.69': LSD / CR2 MP
Measure Point: 1.29': SSD MP

FOCUS KNUCKLE JOINT
Diameter : 3.13"
Length : 1.50'
Weight : 30 lbs
Series : 3930XA

FOCUS KNUCKLE JOINT
Diameter : 3.13"
Length : 1.50'
Weight : 30 lbs
Series : 3930XA

GR MP — 36.47'

LSN MP — 29.33'
SSN MP — 28.88'

CR1 MP — 22.17'

LSD / CR2 MP — 19.52'
SSD MP — 19.13'

FOCUS HIGH DEFINITION INDUCTION TOOL

Diameter : 3.13"
Length : 13.33'
Weight : 115 lbs
Series : 1530XA
Mnemonic : HDIL
Measure Point: 7.17' COIL 5 MP
Measure Point: 5.67' COIL 4 MP
Measure Point: 4.17' COIL 3 MP
Measure Point: 3.67' COIL 2 MP
Measure Point: 3.17' COIL 1 MP
Measure Point: 2.67' COIL 0 MP
Measure Point: 1.14' SP MP

COIL 5 MP 8.67'
COIL 4 MP 7.17'
COIL 3 MP 5.67'
COIL 2 MP 5.17'
COIL 1 MP 4.67'
COIL 0 MP 4.17'

SP MP 2.64'

HOLE FINDER

Diameter : 2.63"
Length : 1.50'
Weight : 7 lbs
Series : HFND1B

TOTAL LENGTH: 51.84'
TOTAL WEIGHT: 706 lbs
MAX DIAMETER: 0'4.00"

0.00'



COMPANY WPX ENERGY INC
WELL CHEVRON GM 311-21
FIELD GRAND VALLEY
COUNTY GARFIELD STATE CO

FILE NO: OH090004
API NO: 05045223530000



LOCATION:

SHL: 2019' FNL 702' FEL S20 T6S R96W
BHL: 654' FNL 691' FVL S21 T6S R96W

SEC 20 TWP 6S RGE 96W

ELEVATIONS:

KB 5596 FT
DF
GL 5575 FT

SEC 21 T6S R96W
PAD: GM 442-20
RIG: CYCLNE 17

DATE 29-Aug-2014