

FILE NO: US625064
API NO: 05045219780000
COMPANY: WPX ENERGY INC
WELL: SAVAGE RWF 314-25
FIELD: RULISON
COUNTY: GARFIELD STATE CO

Ver. 3.87
25 T6S R94W
RWF 23-25
NABORS 577
LOCATION: SHL: 1617' FSL: 2304' FWL
BHL: 1231' FSL: 922' FWL
SEC 25 TWP 6S RGE 94W
OTHER SERVICES: NONE

PERMANENT DATUM: GL ELEVATION 6096 FT
LOG MEASURED FROM: KB 26 FT ABOVE P.D.
DRILL MEAS. FROM: KB
ELEVATIONS: KB 6122 FT
DF
GL 6096 FT

DATE	28-Feb-2014
RUN	1
SERVICE ORDER	625064
DEPTH DRILLER	8761 FT
DEPTH LOGGER	8752 FT
BOTTOM LOGGED INTERVAL	8752 FT
TOP LOGGED INTERVAL	0 FT
CASING DRILLER	9.625 IN @ 1175 FT
CASING LOGGER	1160 FT
BIT SIZE	8.75 IN
TYPE OF FLUID IN HOLE	LSND
DENSITY	11.7 LB/G
PH	9.9
SOURCE OF SAMPLE	FLOWLINE
RM AT MEAS. TEMP.	2.1 OHMM @ 65 DEGF
RMF AT MEAS. TEMP.	1.57 OHMM @ 65 DEGF
RMC AT MEAS. TEMP.	2.63 OHMM @ 65 DEGF
SOURCE OF RMF	CALCULATED
RM AT BHT	185.8 OHMM @ 1.425 DEGF
TIME SINCE CIRCULATION	5 HRS
MAX. RECORDED TEMP.	189 DEGF
EQUIP. NO.	6670
RECORDED BY	PATTON
WITNESSED BY	L. HUBBARD

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
8.75 IN	0 FT	8761 FT

CASING RECORD				
SIZE	WEIGHT	GRADE	FROM	TO
9.625 IN	32.3 LB/F		0 FT	1175 FT

REMARKS

RUN 1 TRIP 1: HDIL ZDL CN GR RAN IN COMBINATION

PULLED 50% AT 5508' CLOSED CALIPER TO PULL THROUGH

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
ABC TO CALCULATE: MUD CONDUCTIVITY

THANK YOU FOR CHOOSING BAKER HUGHES WIRELINE SERVICES
CREW: PATTON/HOLLAR/GOATE
RIG: NABORS 577

EQUIPMENT DATA

RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
1	1	SWIVEL	3950XA	10119949	FREE
1	1	TTMA	3980XA	10142233	FREE
1	1	TEL/GR	3518EB/EG	10137522/10127973	FREE
1	1	CN	2436XA	10362459	DECENTRALIZED
1	1	ZDL	2223XA	10090664	PAD DEVICE
1	1	KJCT	3930XA	10139406/10087279	FREE
1	1	HDIL	1530XA	10121806	STOOD OFF

MAIN LOG 2"/100FT SCALE

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

Updates: 31 Patches: 5

Plotted: Fri Feb 28 07:12:39 2014

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/625064/n970a02.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 949.500 ft BOTTOM DEPTH: 8810.193 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)		"	"
SP-SPDH	FILTER Q	heavy (3) medium (1)		TOP 8537.500	8537.500 BOTTOM

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	"	"
MUD SAMPLE RESISTIVITY	MUD SAMPLE TEMP	65.0	degF	"	"
	MUD SAMPLE RES	2.100	ohm.m	"	"
BH MUD RESISTIVITY SOURCE	RMUD SOURCE (HDIL)	TOOL MEASURED		"	"
BOREHOLE TEMP from GRADIENT	Known BH REF TEMP	65.0	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

HDIL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
HDIL TEMPERATURE CORRECTION	TEMP CORRECTION	ON		TOP	BOTTOM
ADAPTIVE BOREHOLE CORRECTION	ADP BOREHOLE CORRECTION	ON		"	"

ADAPTIVE BOREHOLE CORRECTION	ABC PROCESSING	ON	"	"
STANDOFF	ABC to CALCULATE	MUD CONDUCTIVITY	"	"
TOOL POSITION	1.50	in	"	"
Rmud MULTIPLIER	ECCENTERED	"	"	"
	1.000	"	"	"

CURVE DESCRIPTION REPORT

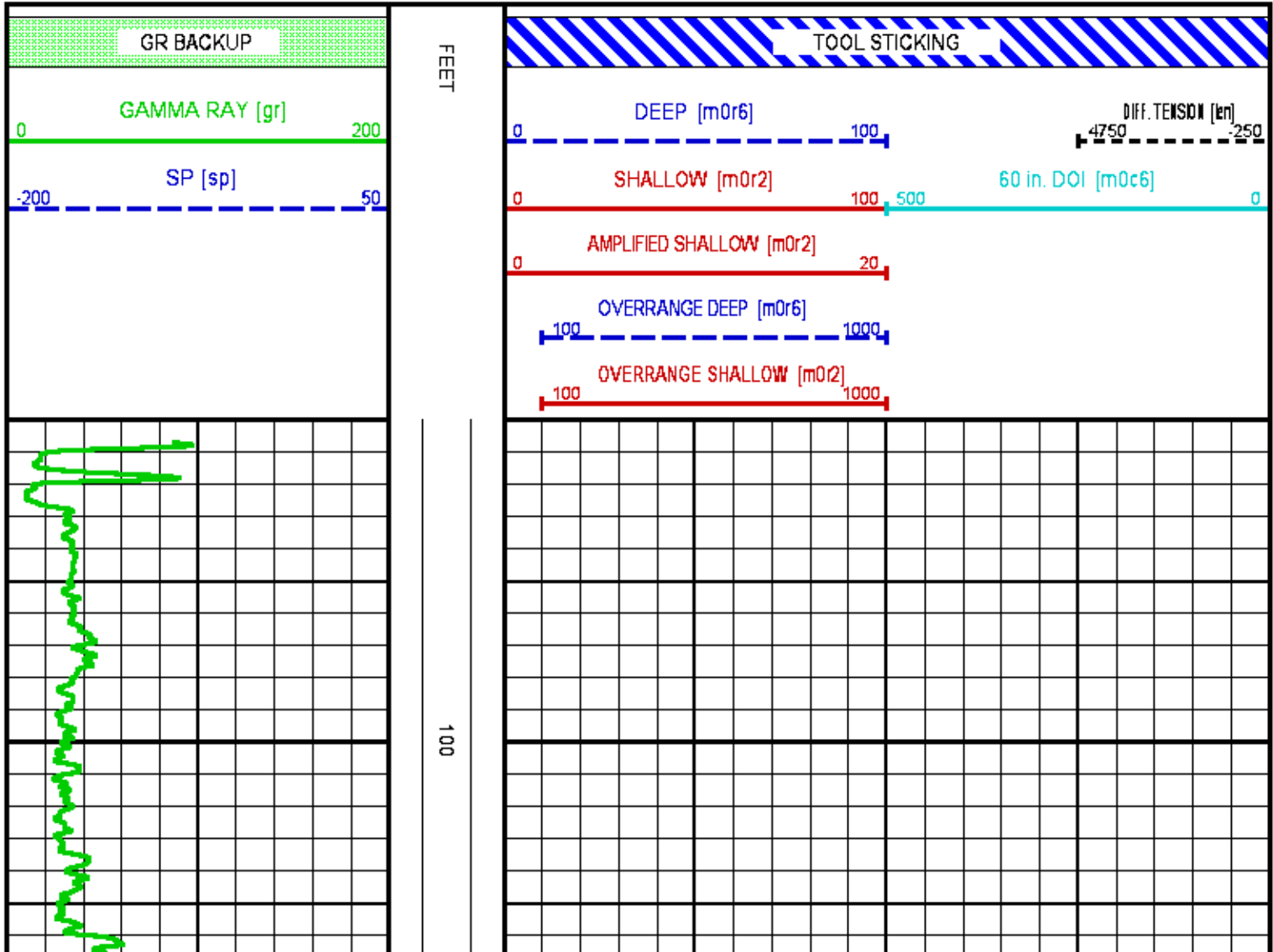
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
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F1:MOC6	Feb 28 04:35:01 2014	FOCUSED CONDUCTIVITY, 60-INCH DOI
F1:MOR2	Feb 28 04:35:01 2014	TRUE FOCUSED RESISTIVITY FOR HDIL, 20-INCH DOI
F1:MOR6	Feb 28 04:35:01 2014	TRUE FOCUSED RESISTIVITY FOR HDIL, 60-INCH DOI
F1:SP	Feb 28 04:35:01 2014	SPONTANEOUS POTENTIAL
F1:TEN	Feb 28 04:35:01 2014	DIFFERENTIAL TENSION

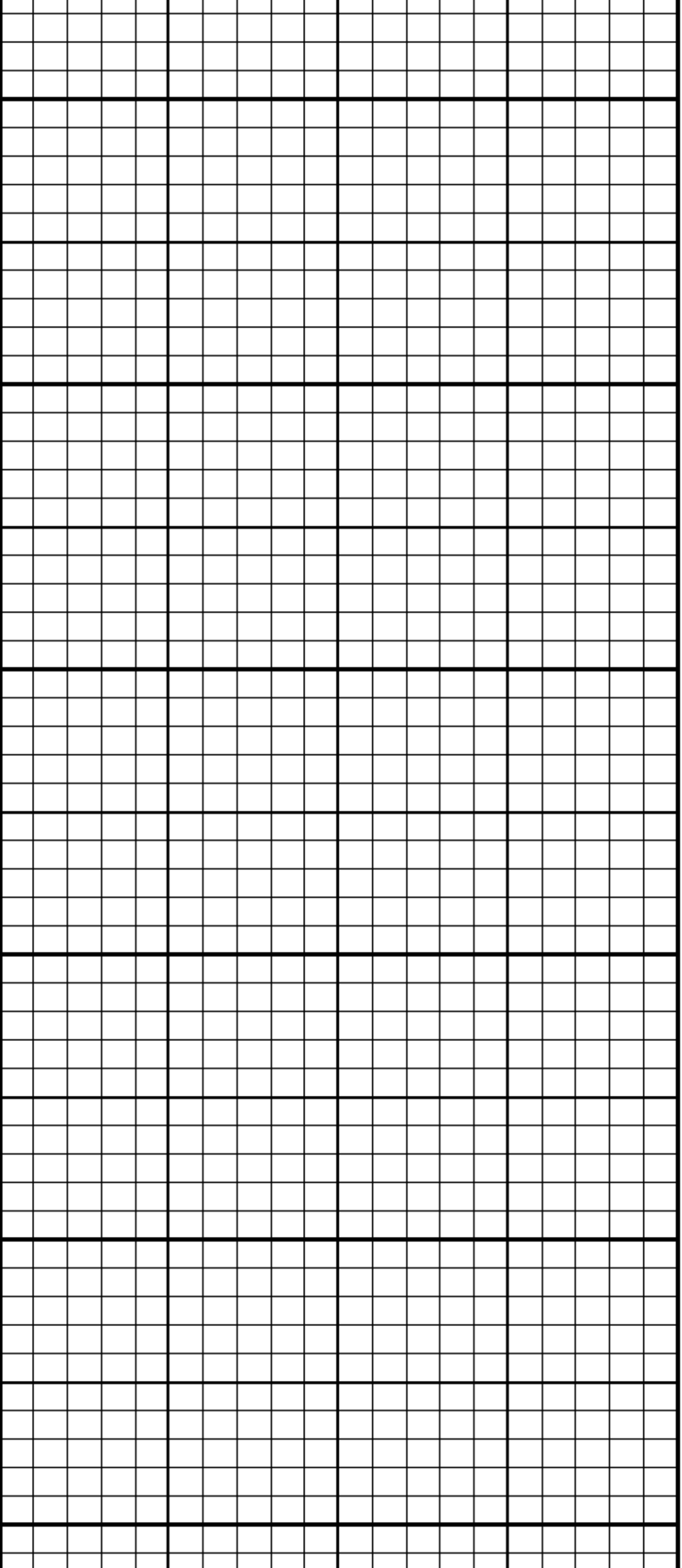
CURVE MEASURE POINT OFFSET

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		

Presentation : HL6670:/dat1a/625064/WPX_2IN.fvpdf [2"/100' Scale]
Plot Interval : 934.75 - 8805.75 Feet

Data File 1 : F1 : HL6670:/dat1a/625064/n970a02-MAIN.xtf
Created On : Feb 28 04:35:01 2014
Company : WPX ENERGY INC
Well : RWF 314-25
Field : RULISON
File Interval : 0 - 8811.75 Feet
OCT : n970a





200

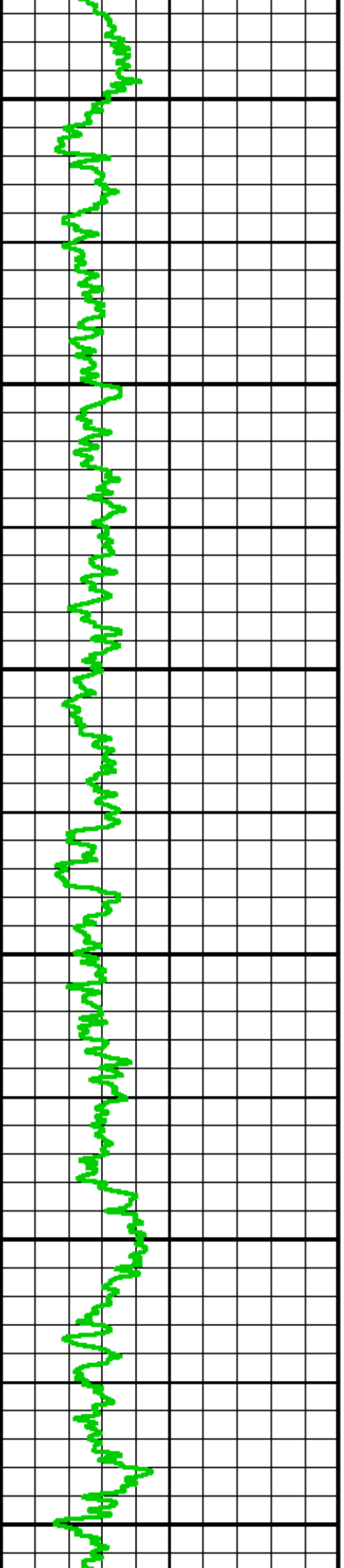
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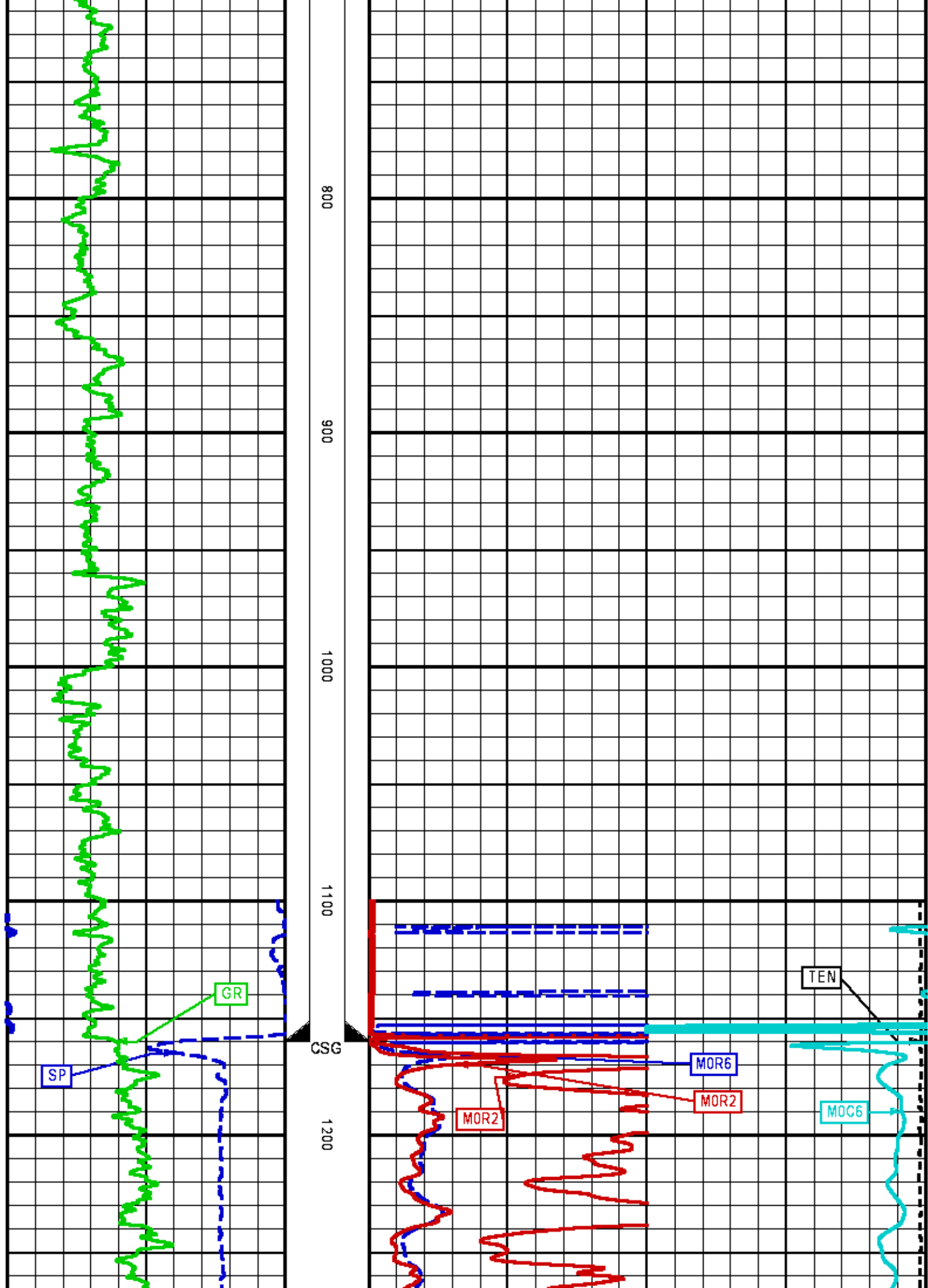
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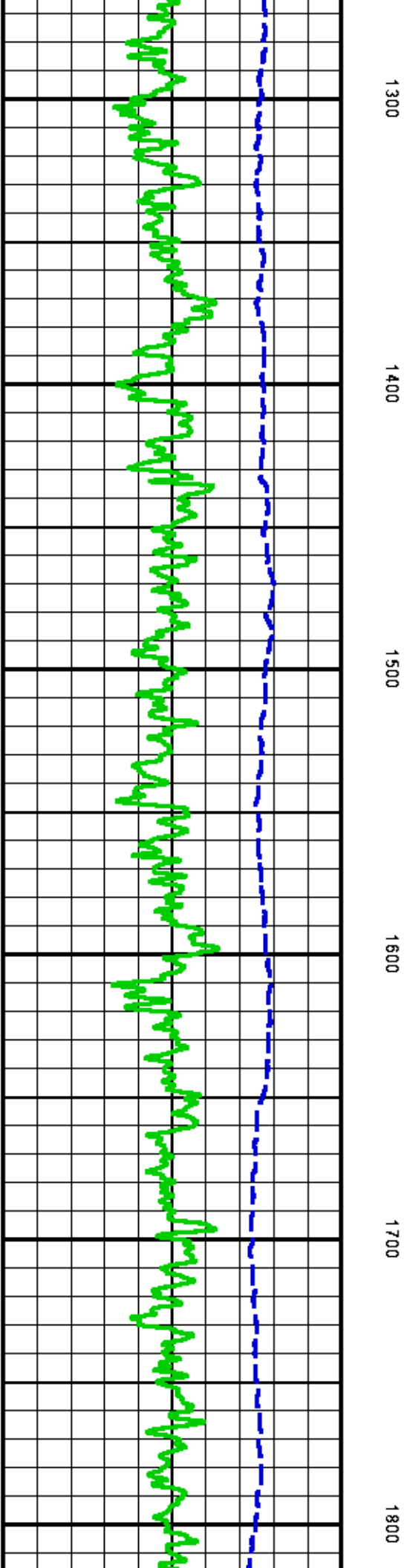
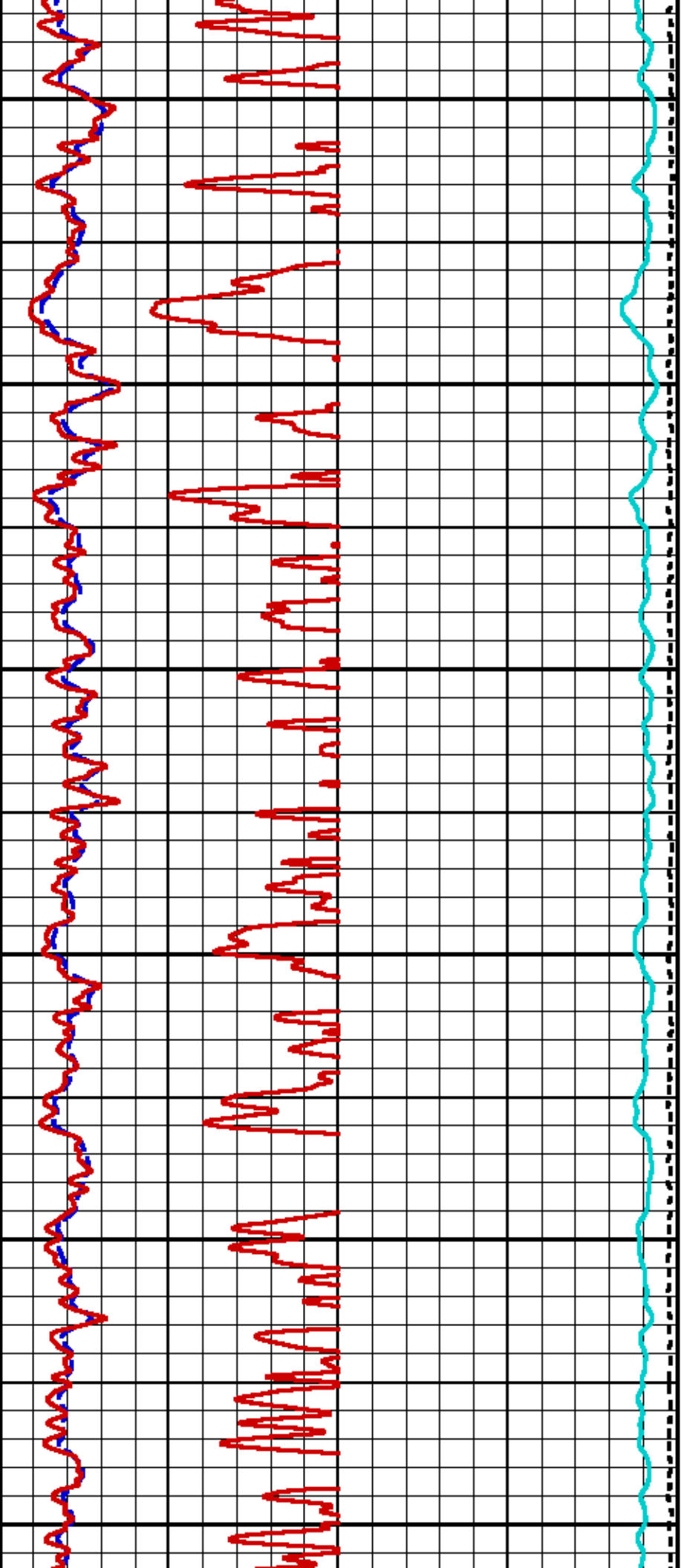
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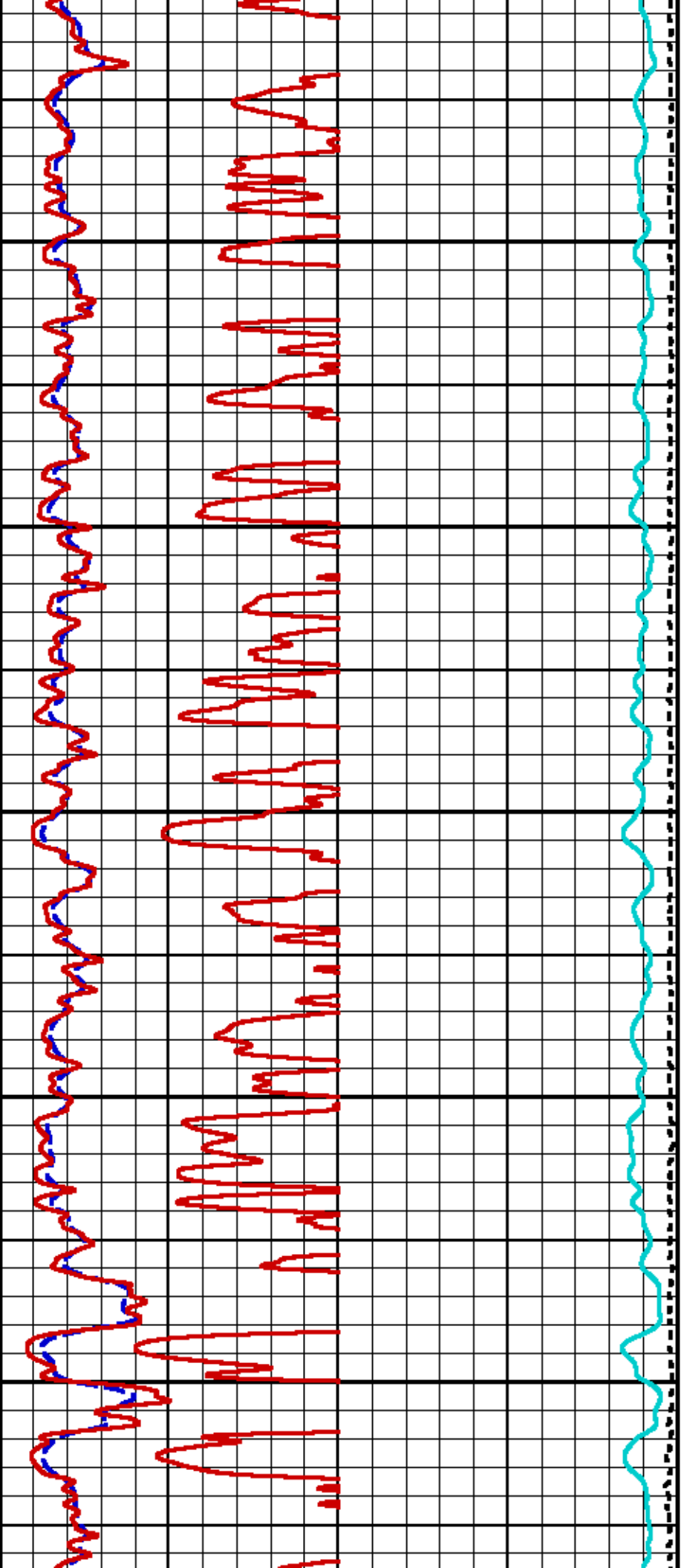
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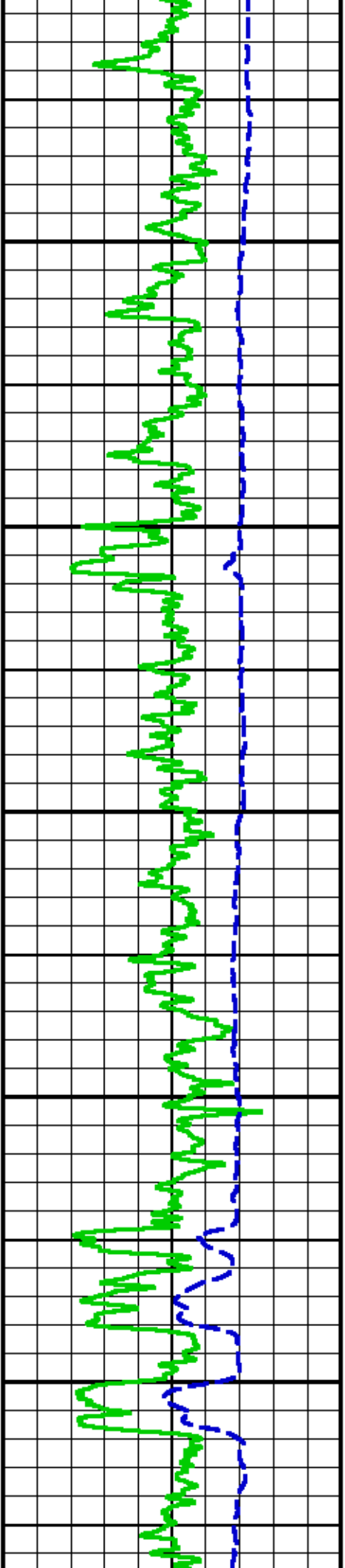
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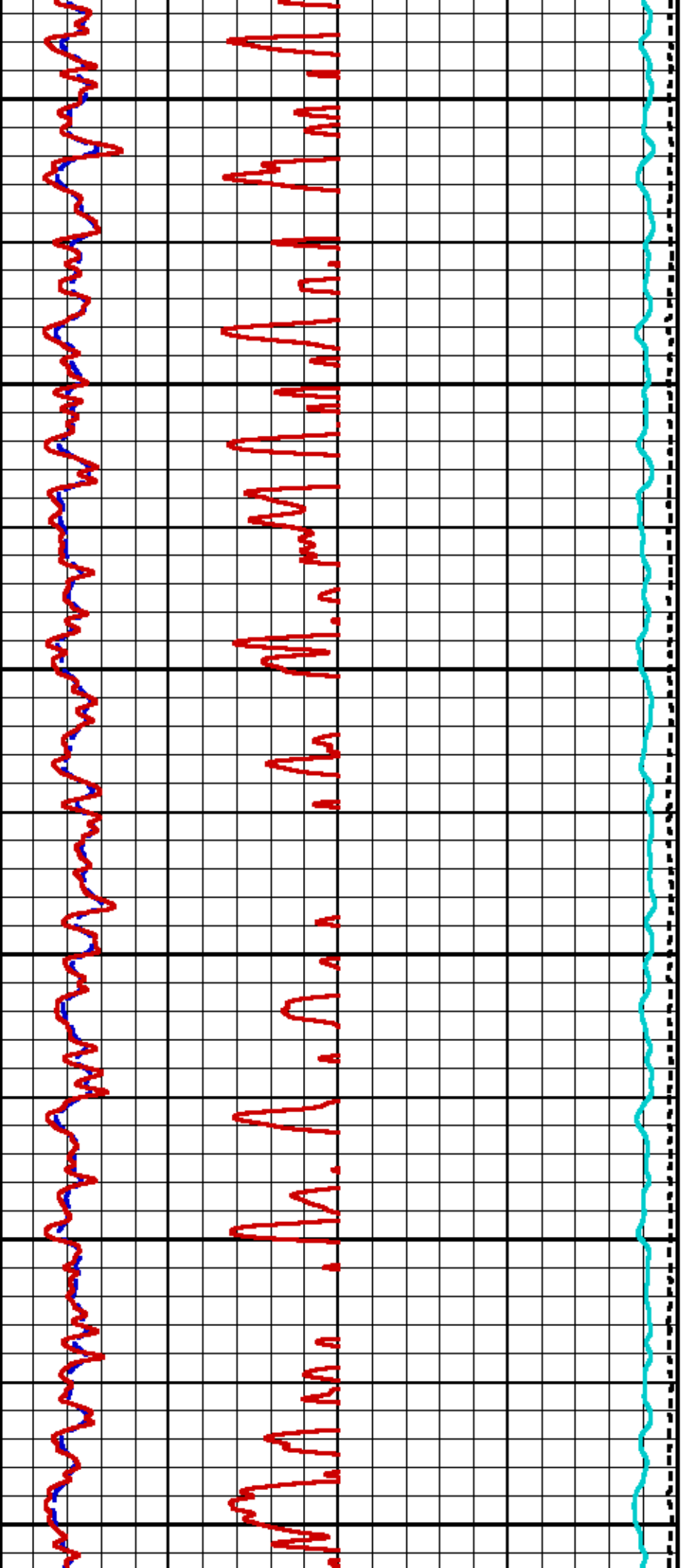
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2100

2200

2300





2400

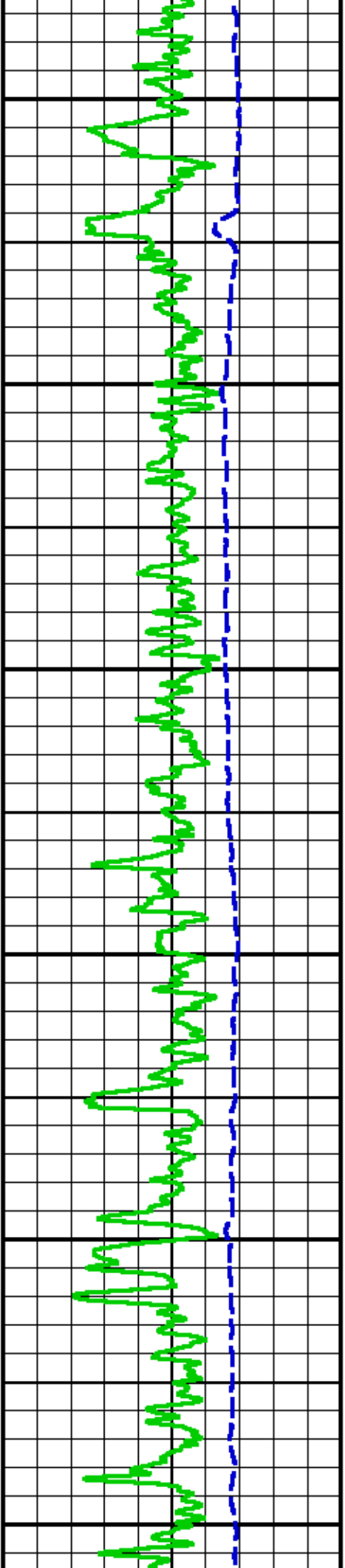
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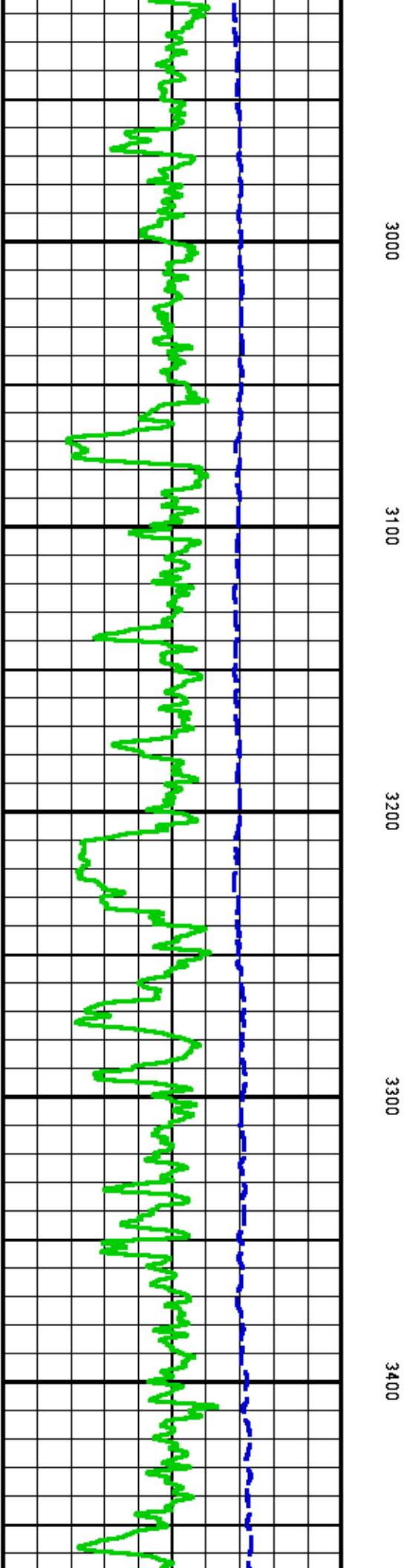
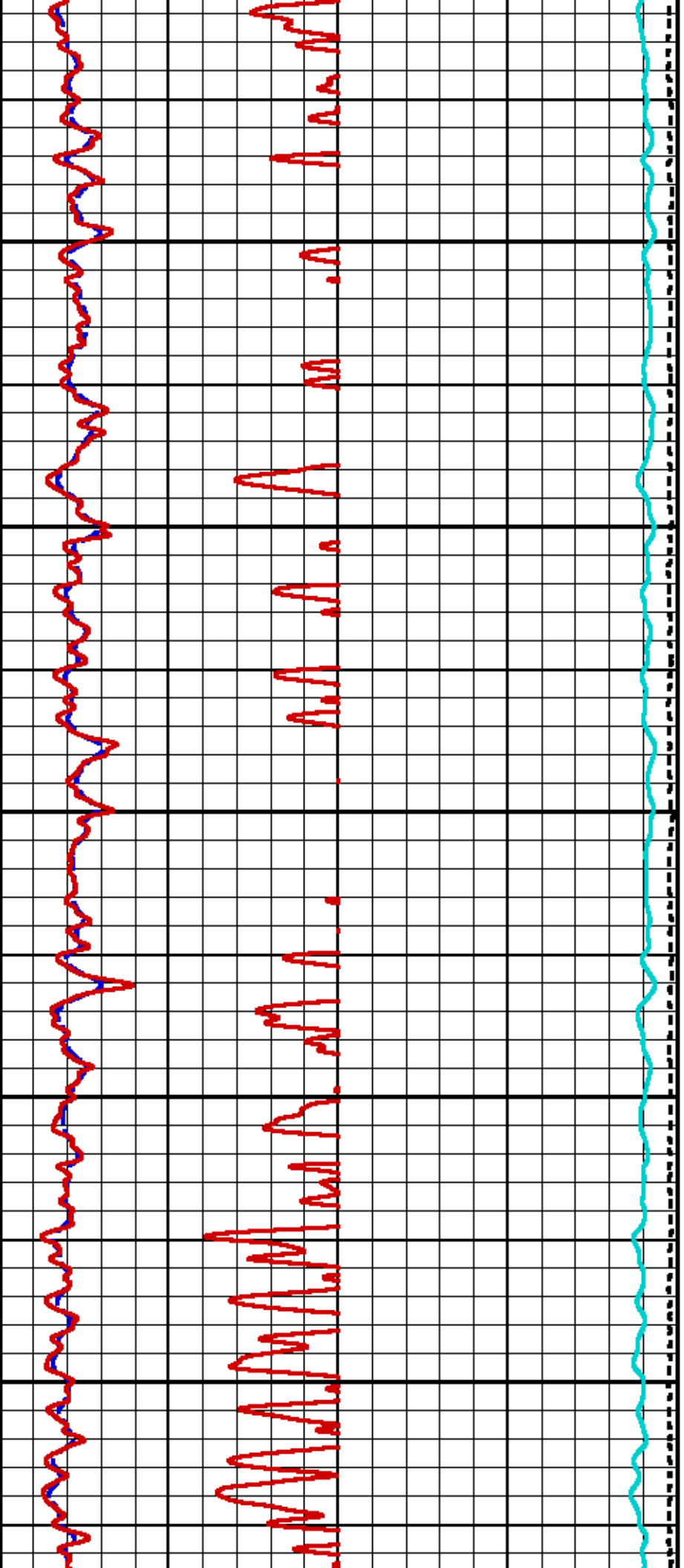
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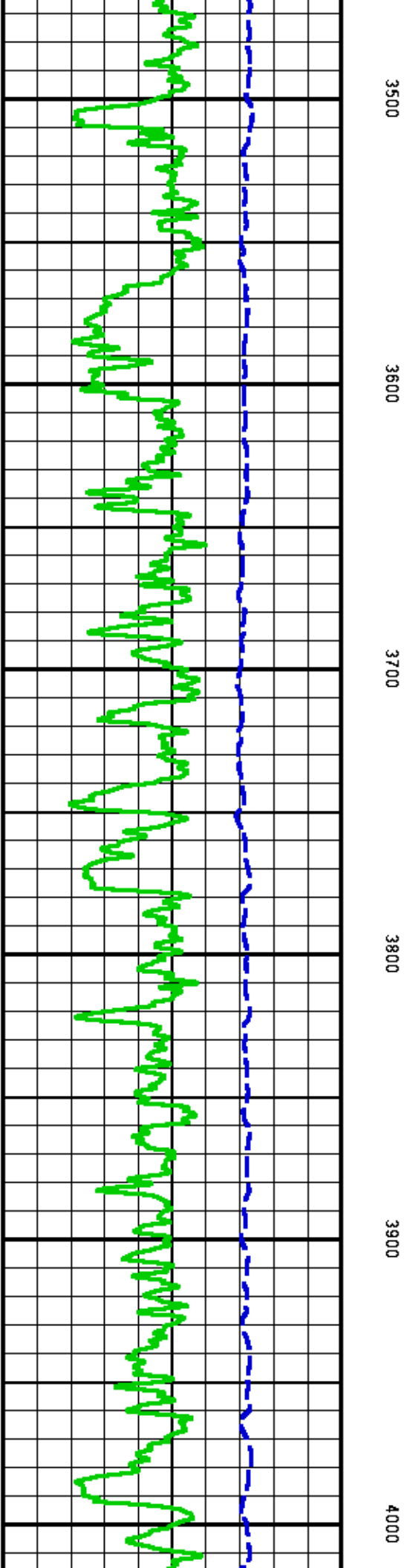
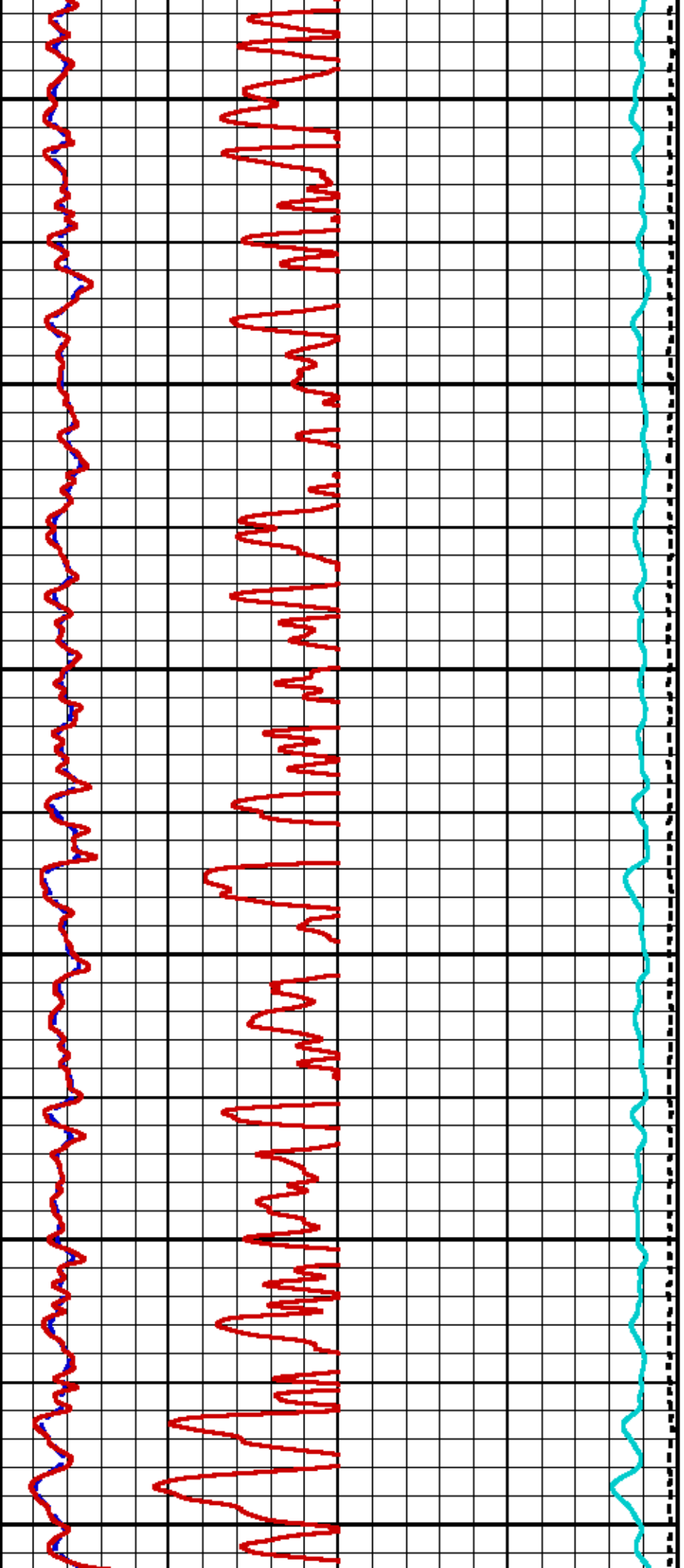
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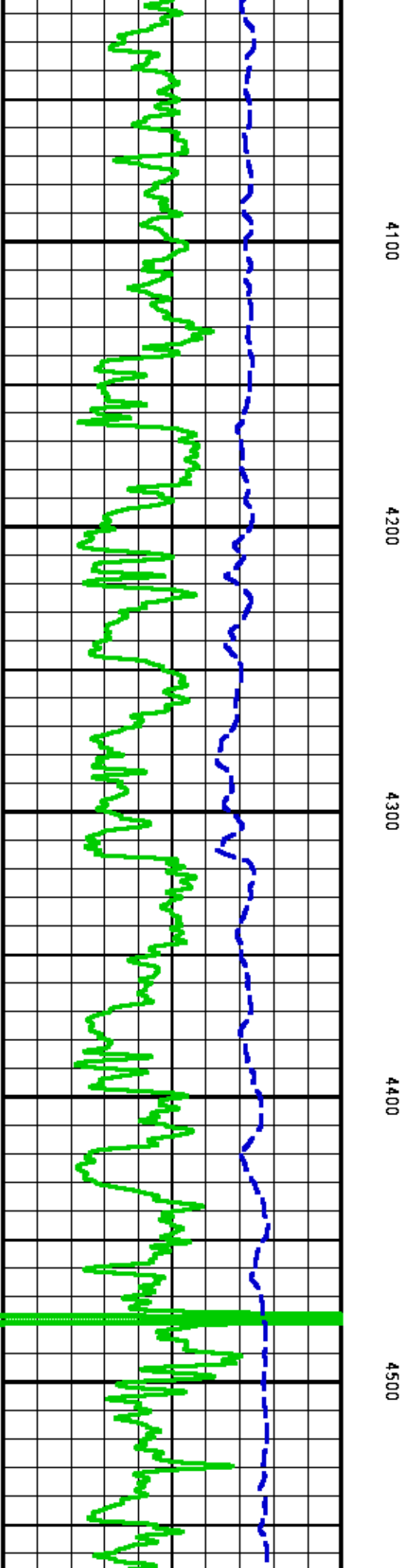
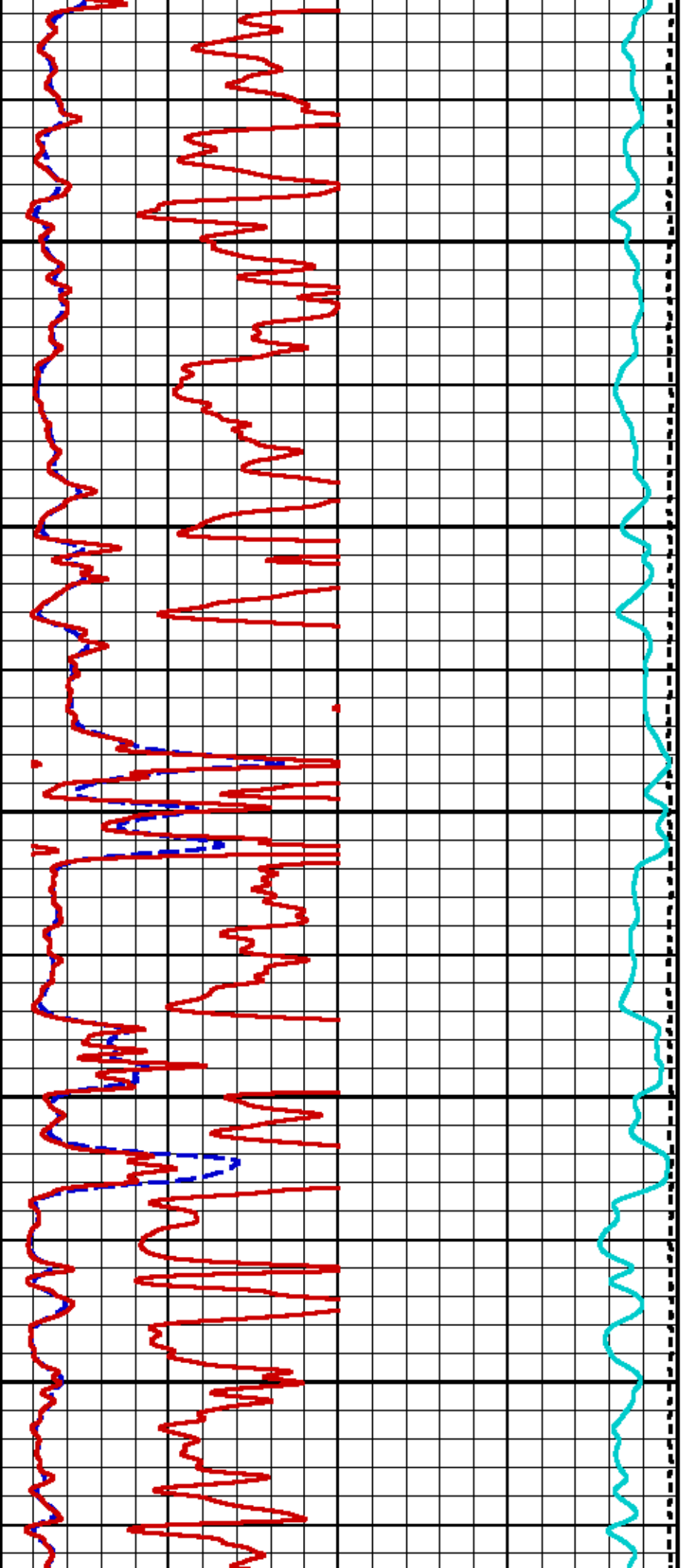
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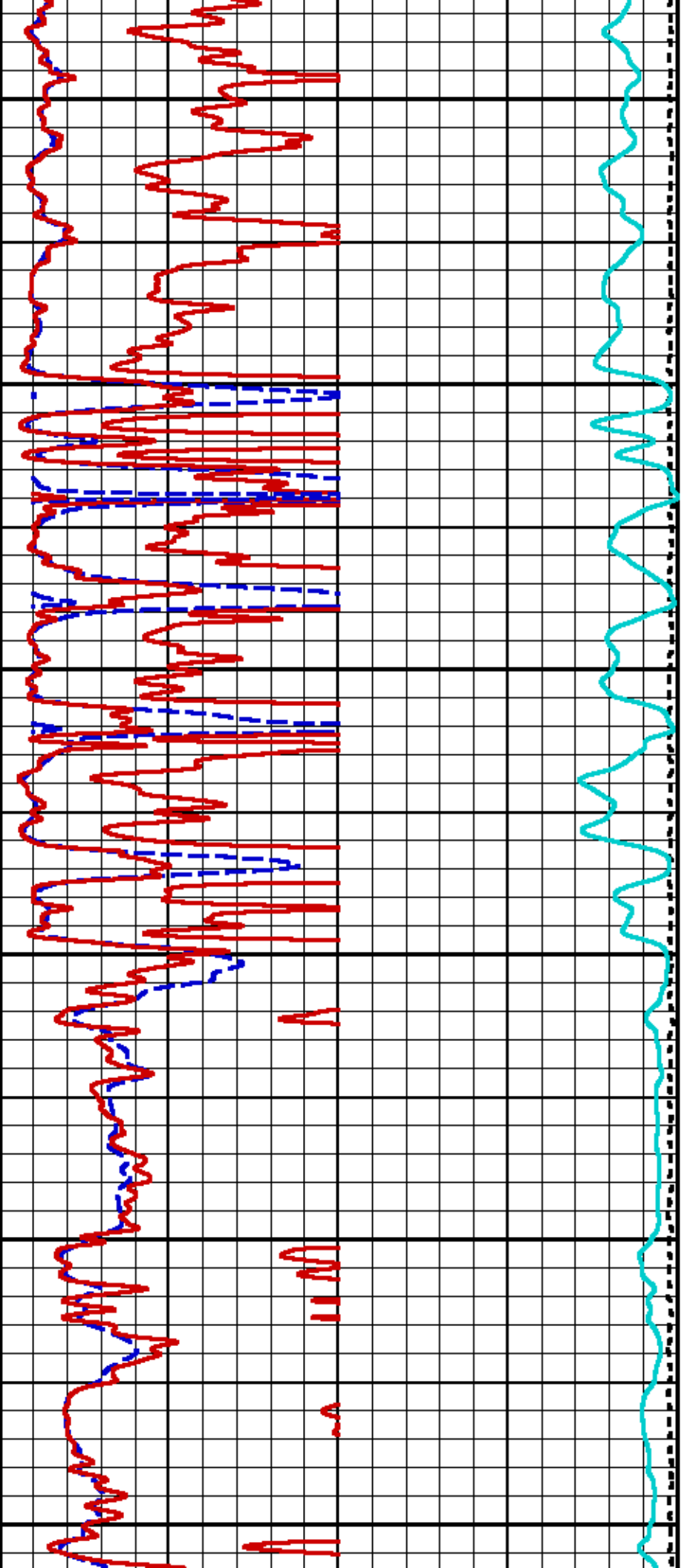
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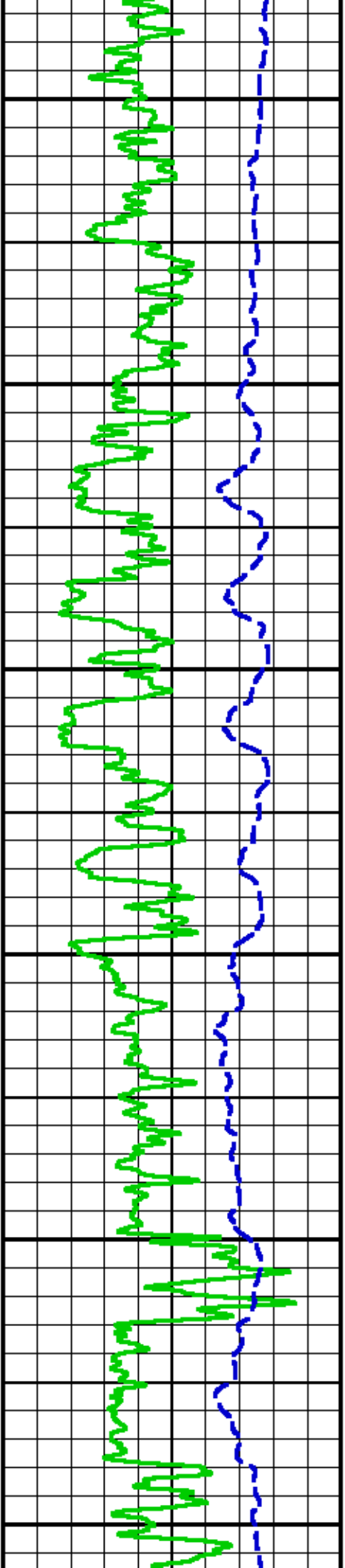
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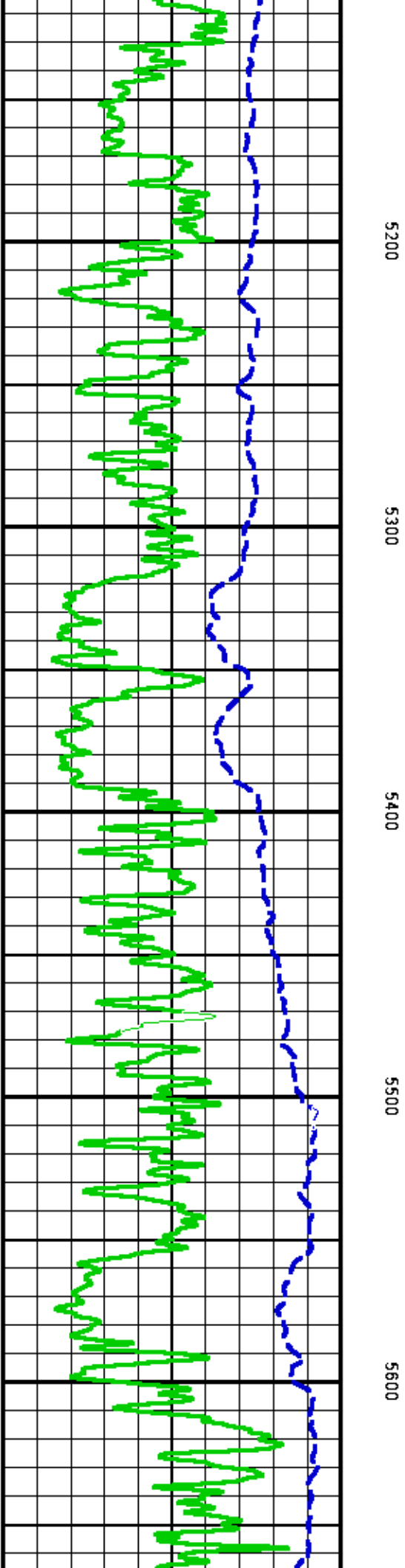
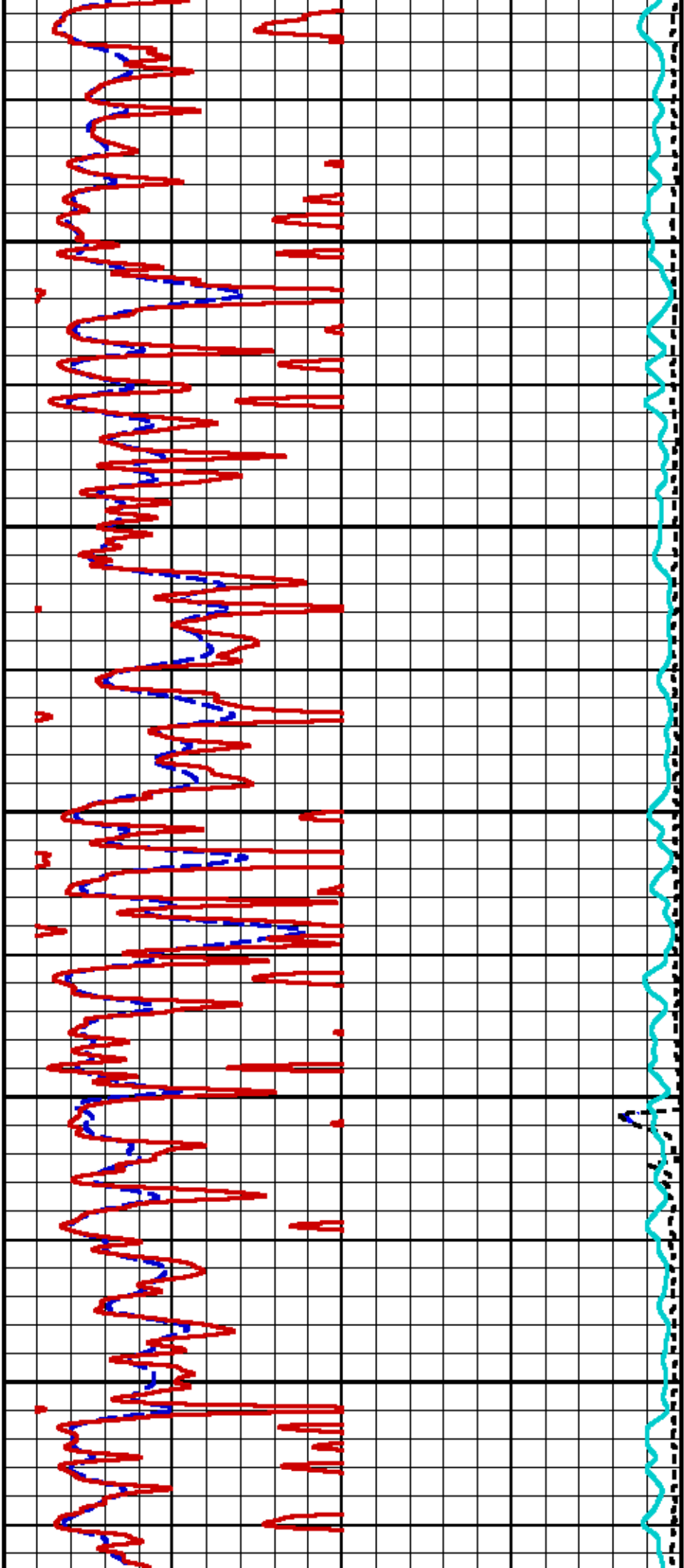
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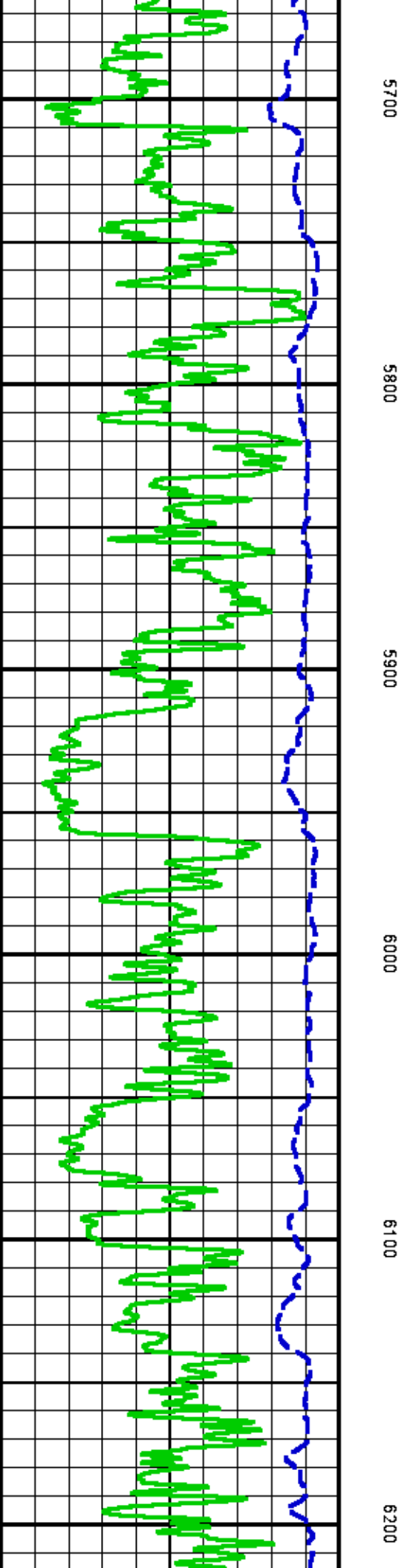
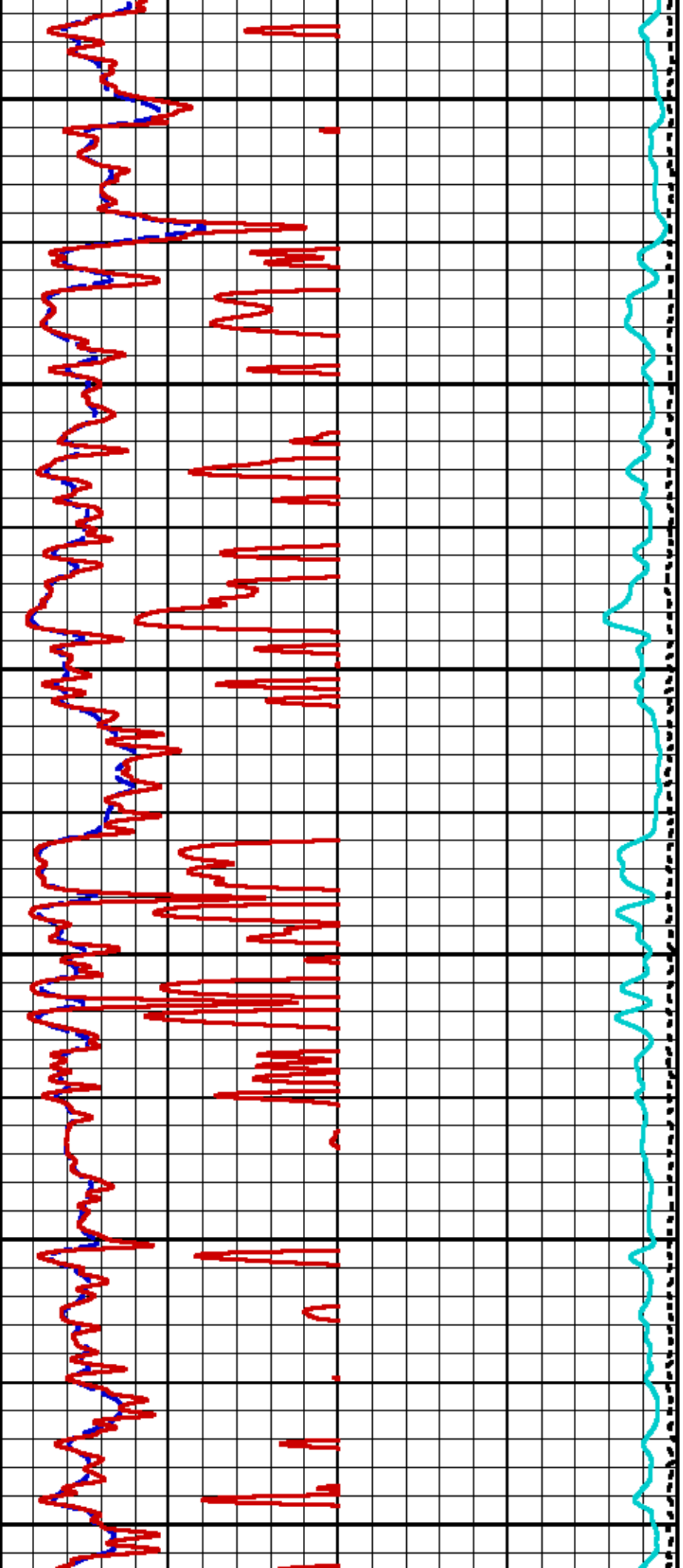
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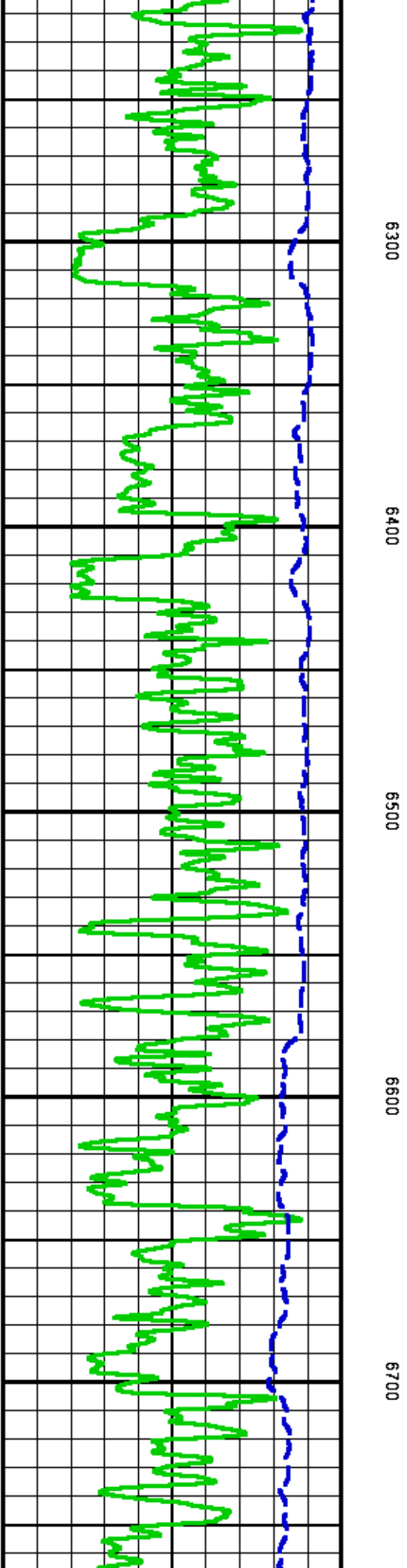
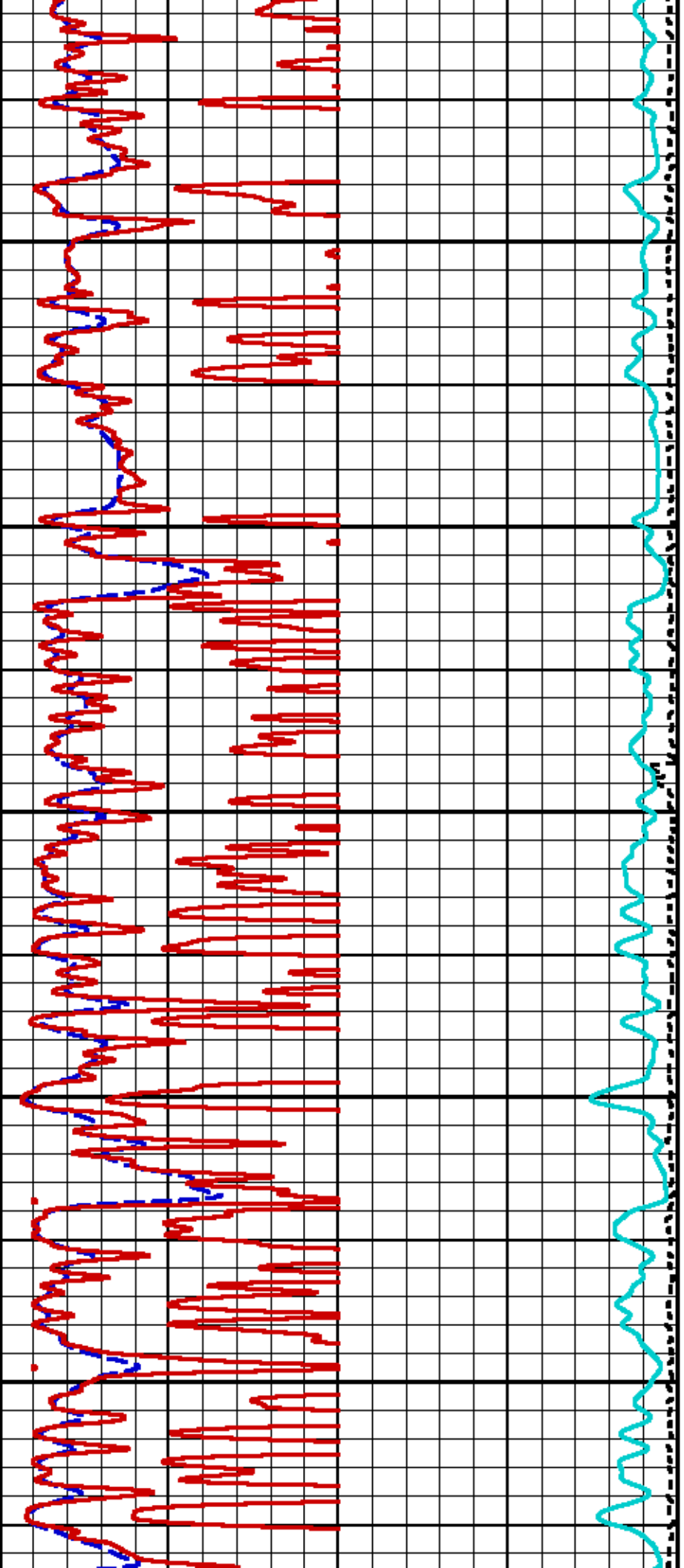
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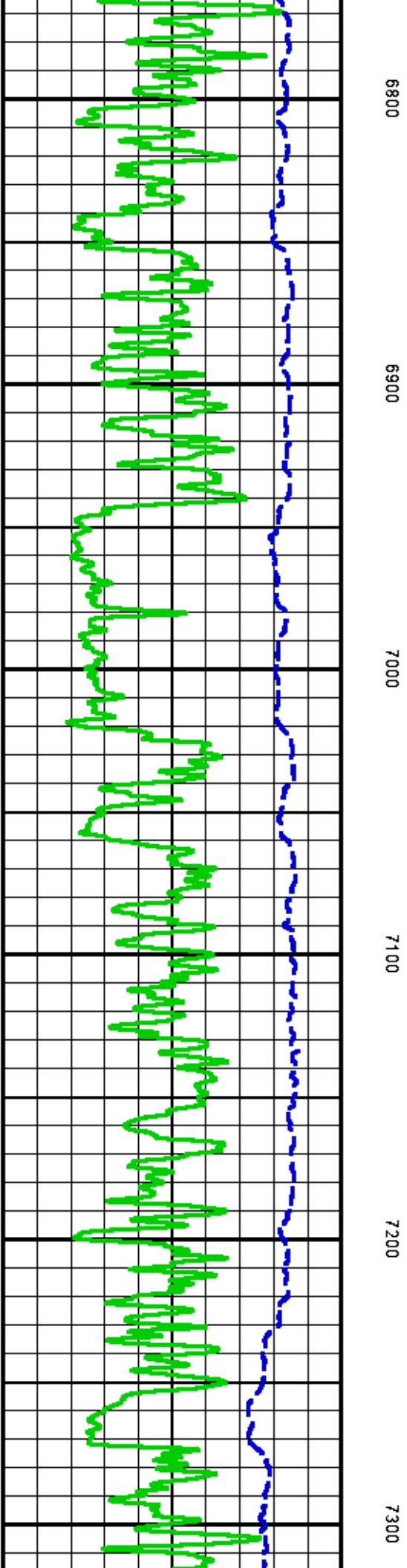
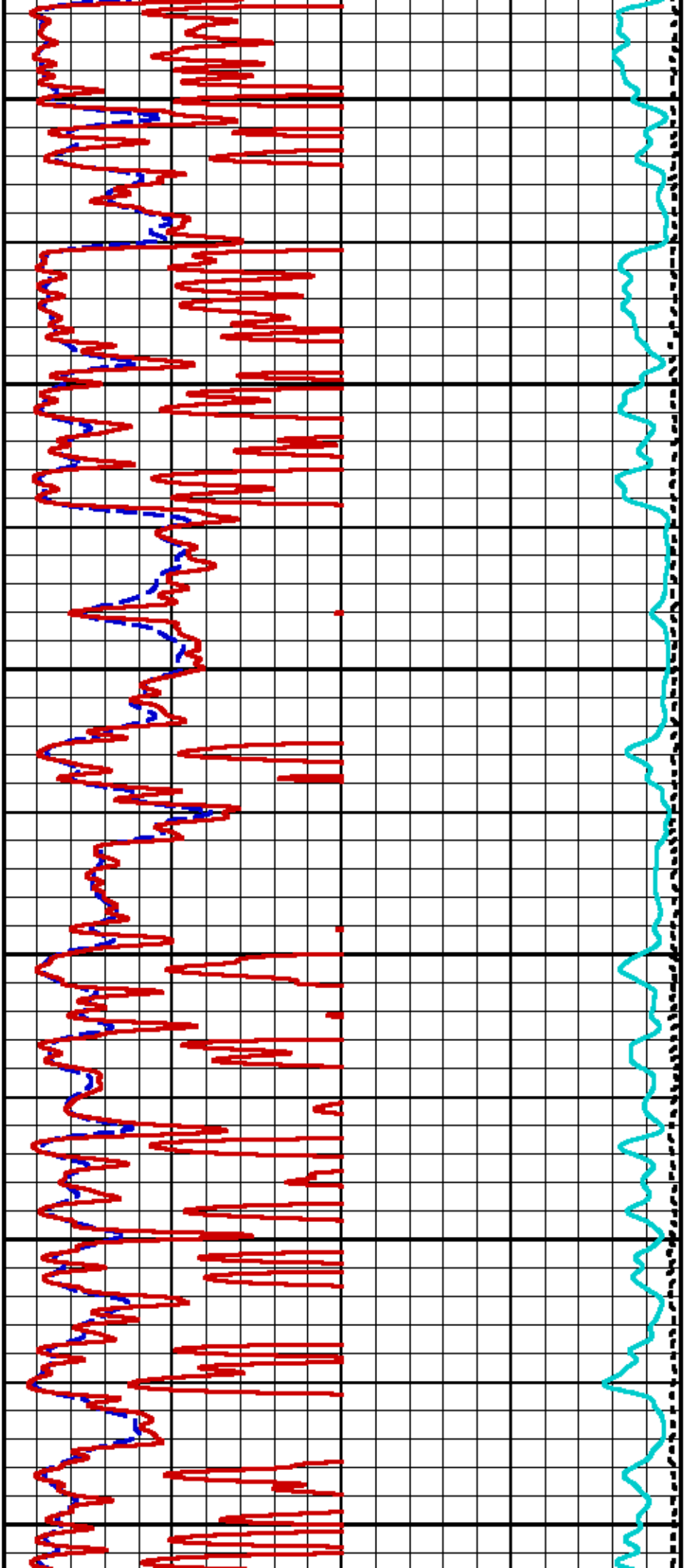
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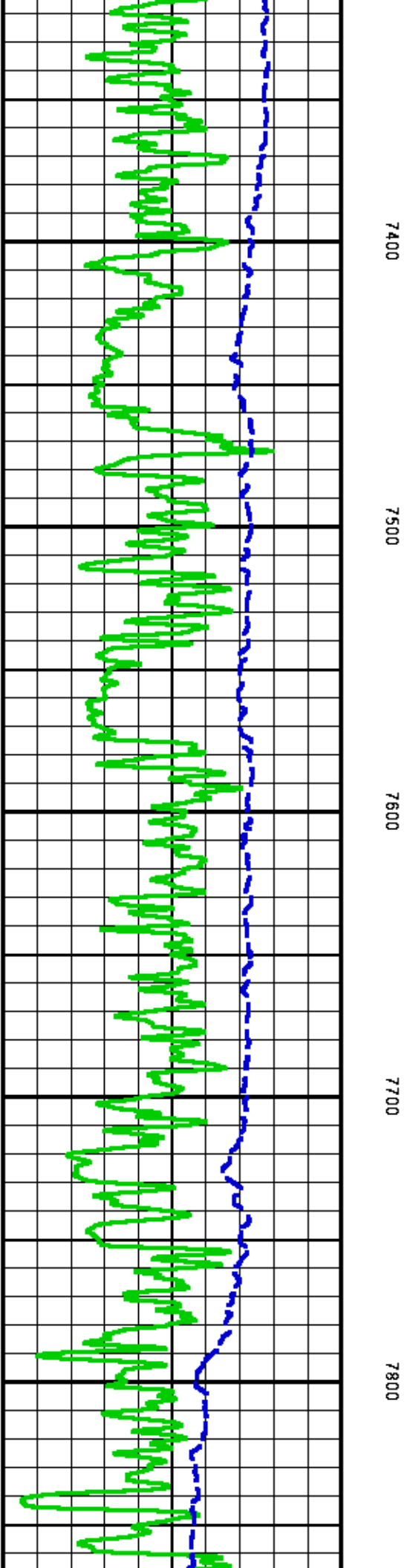
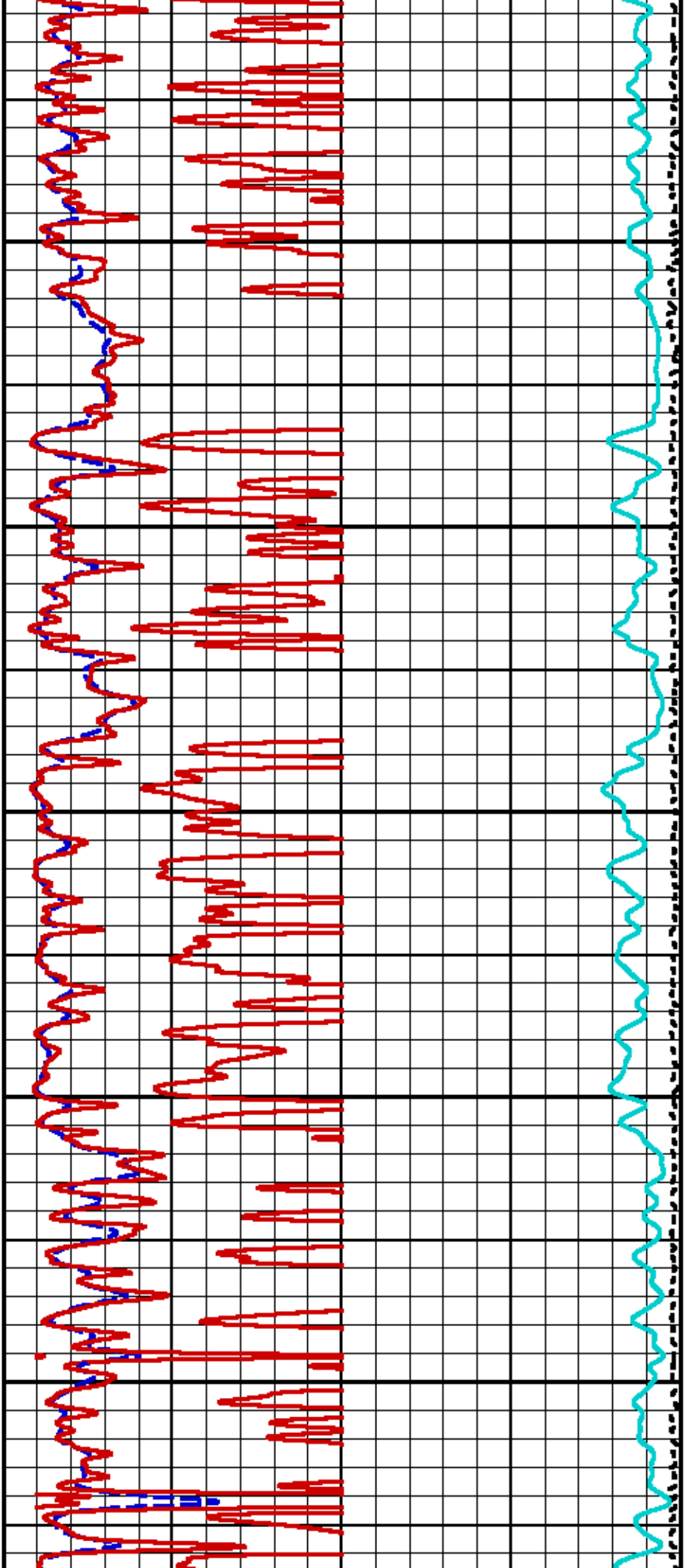


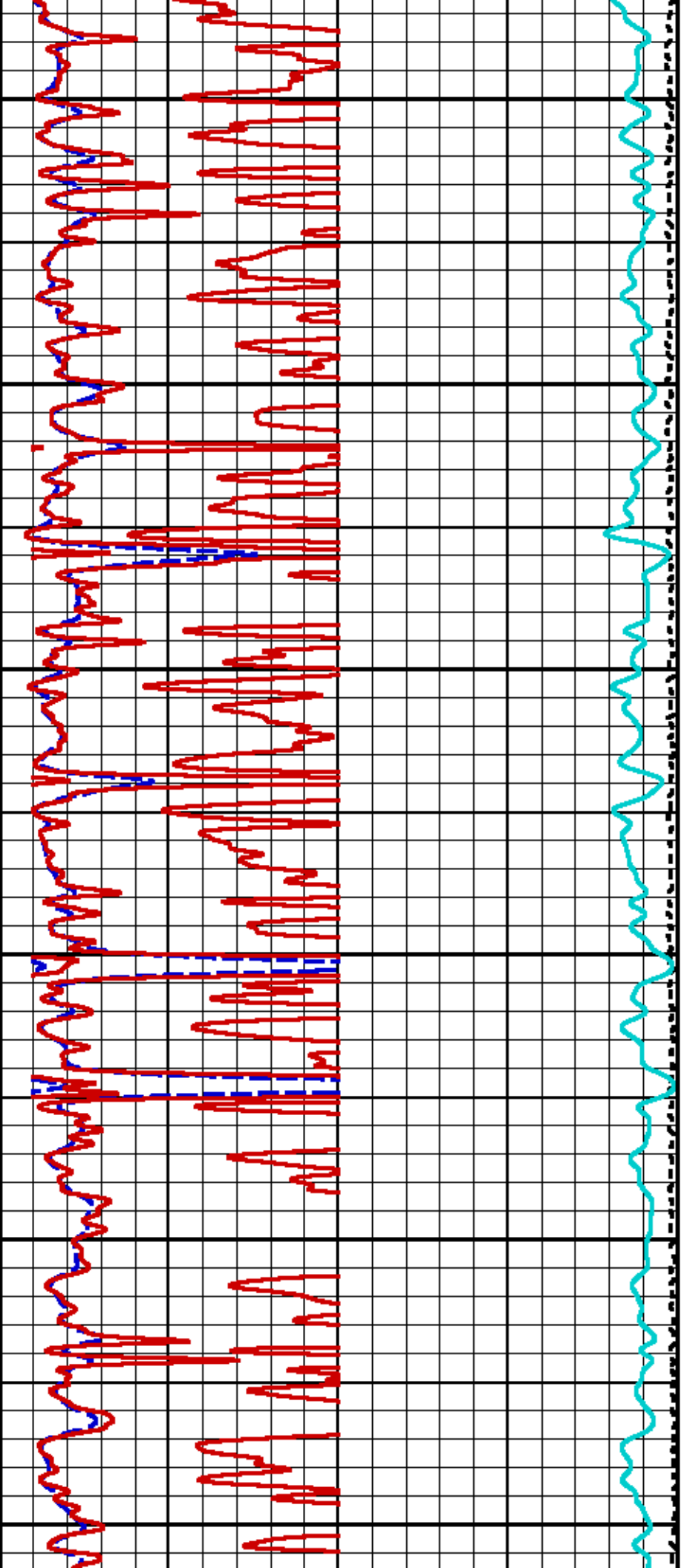












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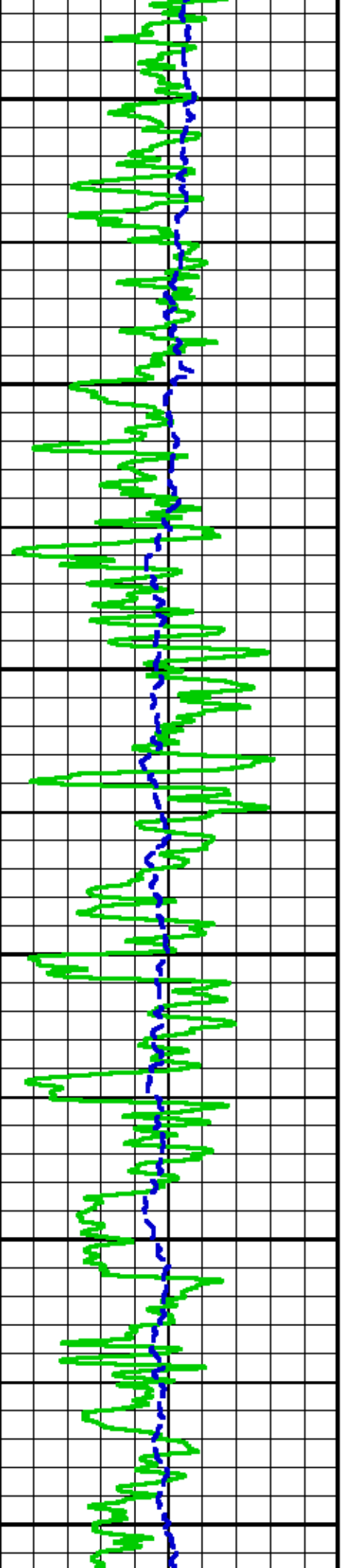
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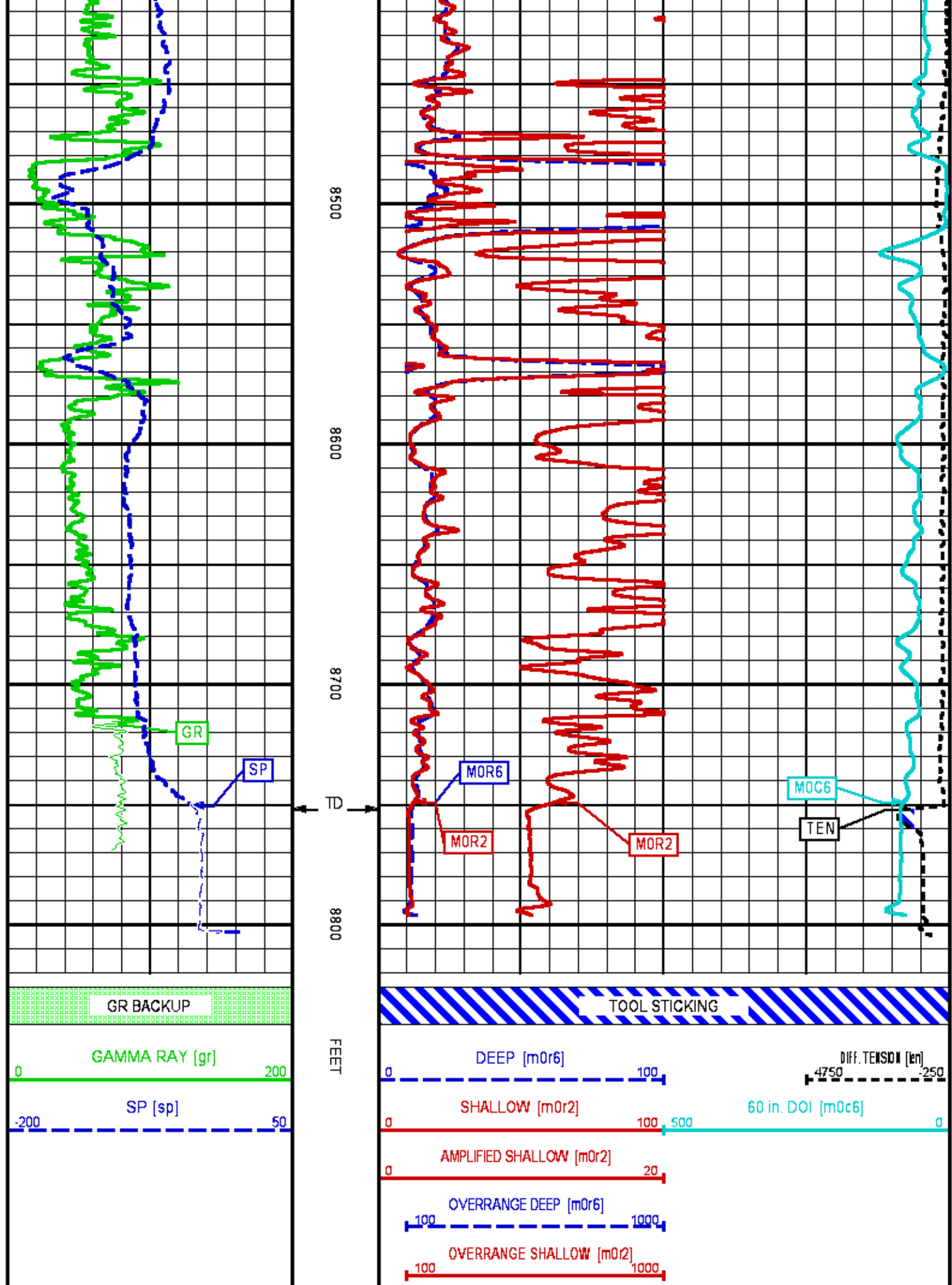
8100

8200

8300

8400





MAIN LOG 5"/100FT SCALE

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

Updates: 31 Patches: 5

Plotted: Fri Feb 28 07:46:05 2014

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/625064/n970a02.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 949.500 ft BOTTOM DEPTH: 8810.193 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 (hrd1st)	medium		"	"
	FILTER (hrd2*)	medium		"	"
	FILTER (hrd2st)	medium		"	"
	FILTER (soft*)	medium		"	"
SP-SPDH	FILTER Q	heavy (3) medium (1)		TOP 8537.500	8537.500 BOTTOM

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	"	"
MUD SAMPLE RESISTIVITY	MUD SAMPLE TEMP	65.0	degF	"	"
	MUD SAMPLE RES	2.100	ohm.m	"	"
BH MUD RESISTIVITY SOURCE	RMUD SOURCE (HDIL)	TOOL MEASURED		"	"
BOREHOLE TEMP from GRADIENT	Known BH REF TEMP	65.0	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	700	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	7.875	in	"	"

ZDL PROCESSING

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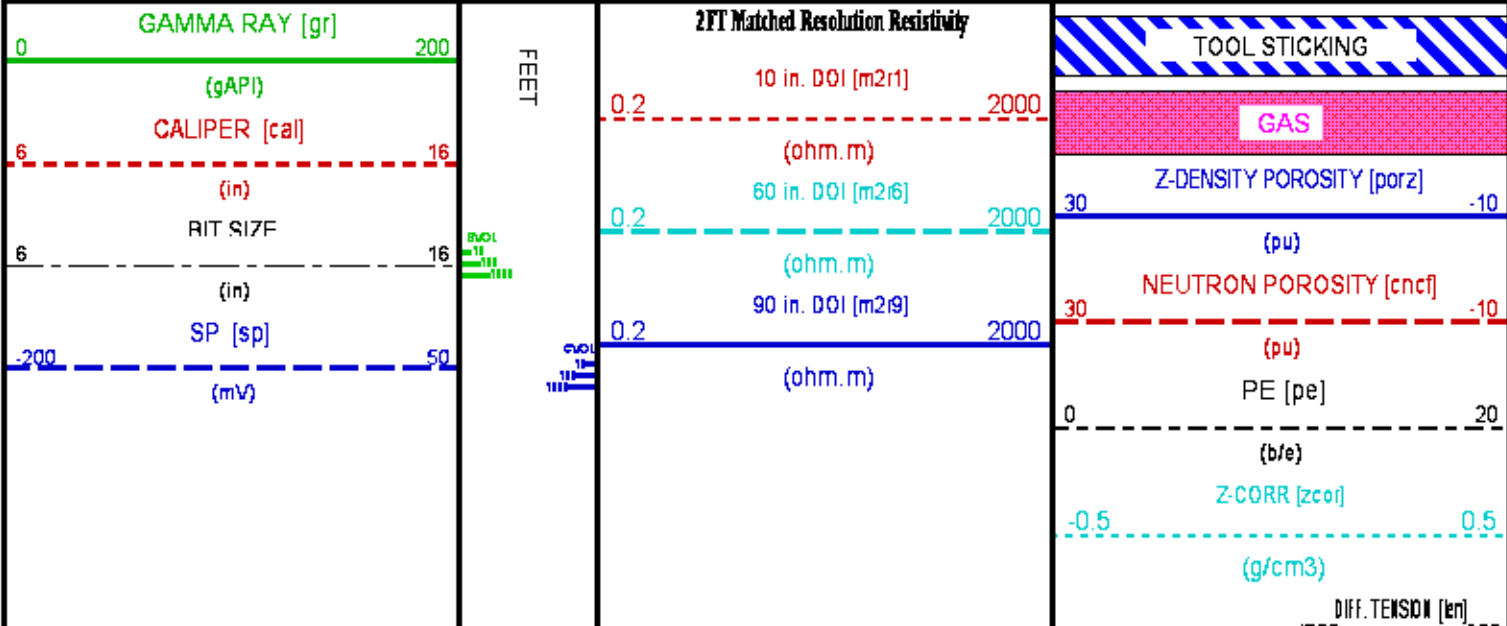
DENSITY POROSITY		Air Filled Borehole	NO		TOP	BOTTOM
		RHOmatrix	2.680	g/cm3	"	"
		RHOfluid	1.000	g/cm3	"	"

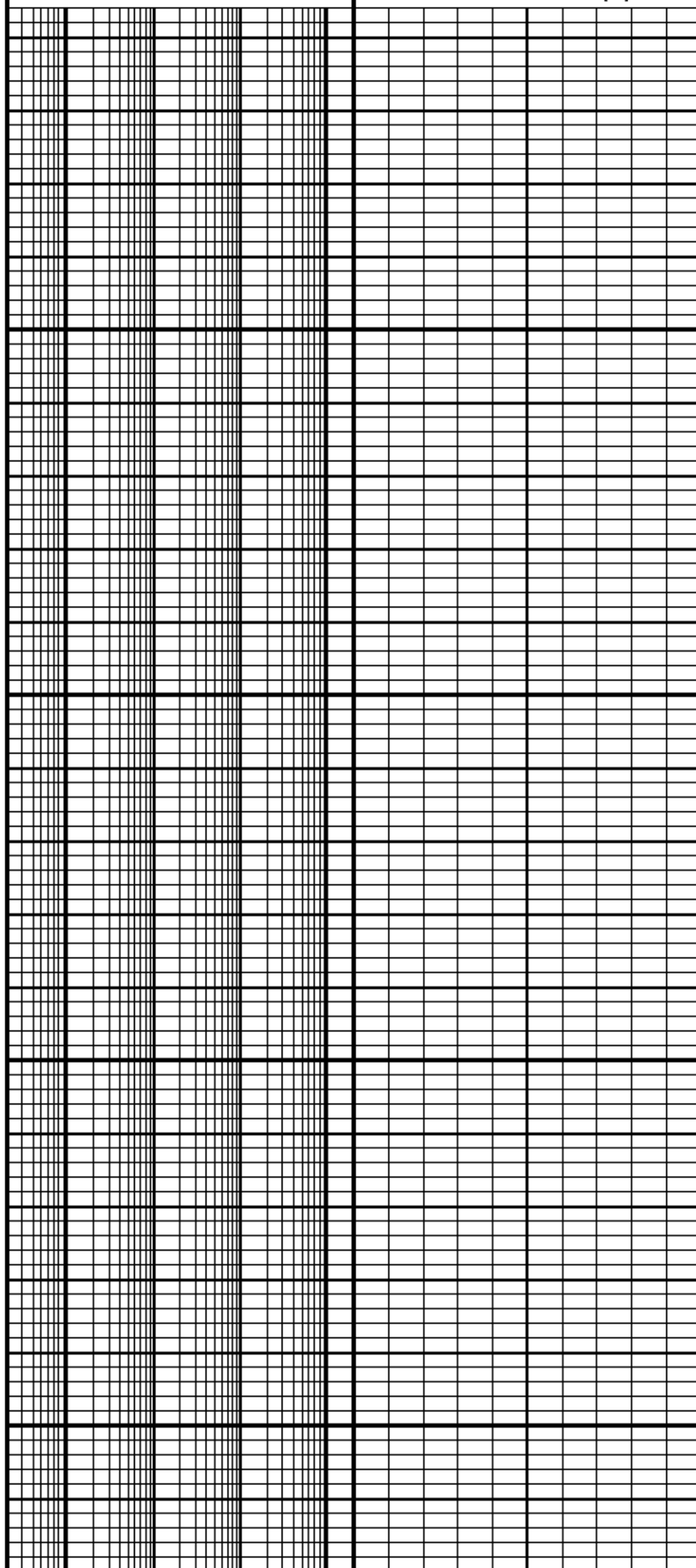
HDIL PROCESSING					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
HDIL TEMPERATURE CORRECTION	TEMP CORRECTION	ON		TOP	BOTTOM
ADAPTIVE BOREHOLE CORRECTION	ABC PROCESSING	ON		"	"
	ABC to CALCULATE	MUD CONDUCTIVITY		"	"
	STANDOFF	1.50	in	"	"
	TOOL POSITION	ECCENTERED		"	"
	Rmud MULTIPLIER	1.000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

CURVE DESCRIPTION REPORT		
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:BIT	Feb 28 04:35:01 2014	BIT SIZE
F1:BVOL	Feb 28 04:35:01 2014	BOREHOLE VOLUME
F1:CAL	Feb 28 04:35:01 2014	CALIPER
F1:CNCF	Feb 28 04:35:01 2014	FIELD NORMALIZED COMPENSATED NEUTRON POROSITY
F1:CVOL	Feb 28 04:35:01 2014	CEMENT VOLUME
F1:GR	Feb 28 04:35:01 2014	GAMMA RAY
F1:M2R1	Feb 28 04:35:01 2014	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 10-INCH DOI
F1:M2R6	Feb 28 04:35:01 2014	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 60-INCH DOI
F1:M2R9	Feb 28 04:35:01 2014	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 90-INCH DOI
F1:PE	Feb 28 04:35:01 2014	PHOTO ELECTRIC CROSS-SECTION
F1:PORZ	Feb 28 04:35:01 2014	POROSITY FOR SELECTABLE MATRIX
F1:SP	Feb 28 04:35:01 2014	SPONTANEOUS POTENTIAL
F1:TEN	Feb 28 04:35:01 2014	DIFFERENTIAL TENSION
F1:ZCOR	Feb 28 04:35:01 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

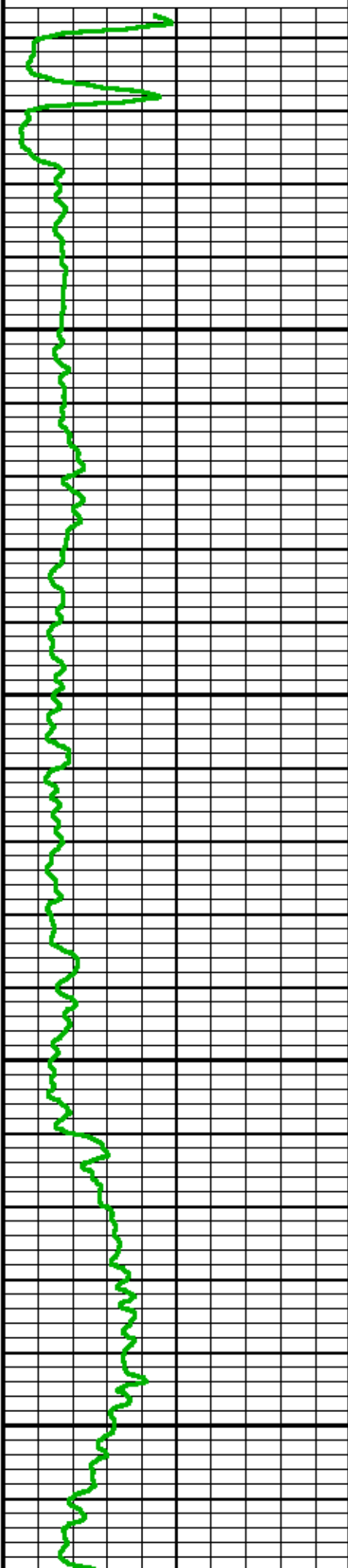
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Plot Interval	: 7 - 8811.75 Feet
Data File 1	: F1 : HL6670:/dat1a/625064/n970a02-MAIN.xtf
Created On	: Feb 28 07:13:10 2014
Company	: WPX ENERGY INC
Well	: RWF 314-25
Field	: RULISON
File Interval	: 0 - 8811.75 Feet
OCT	: n970a

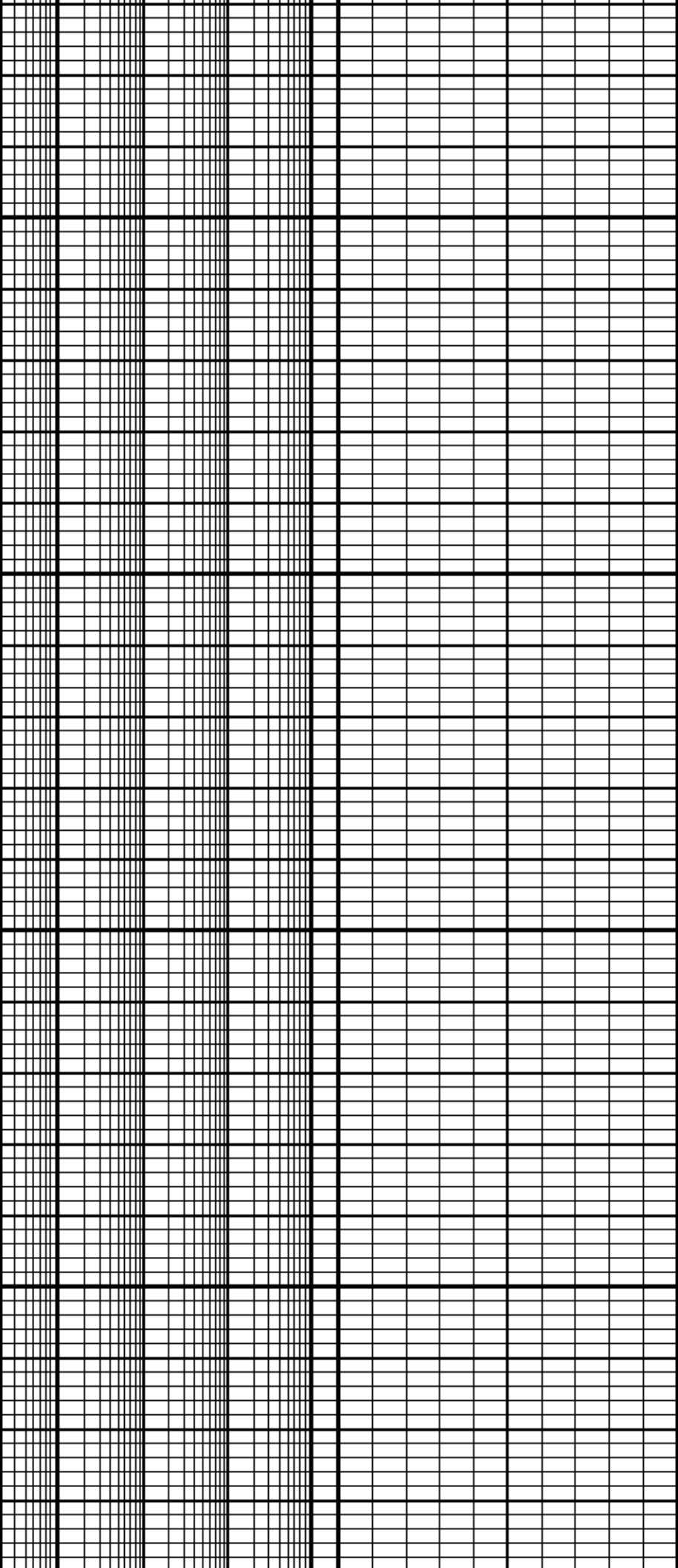




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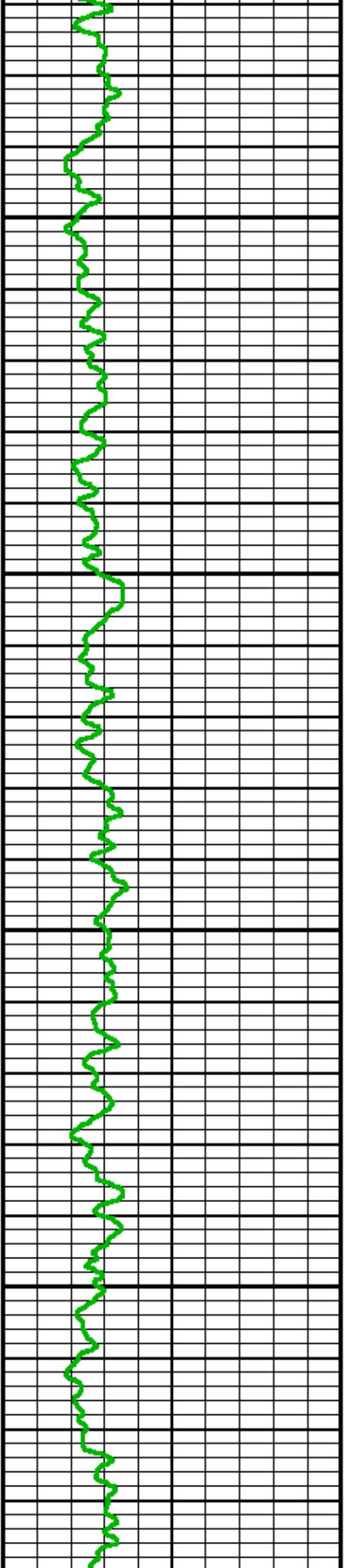
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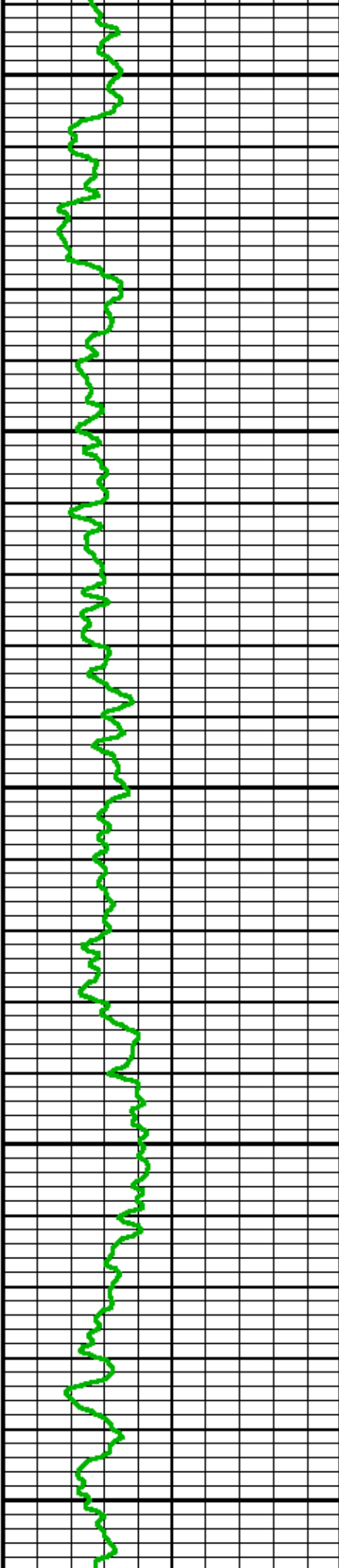




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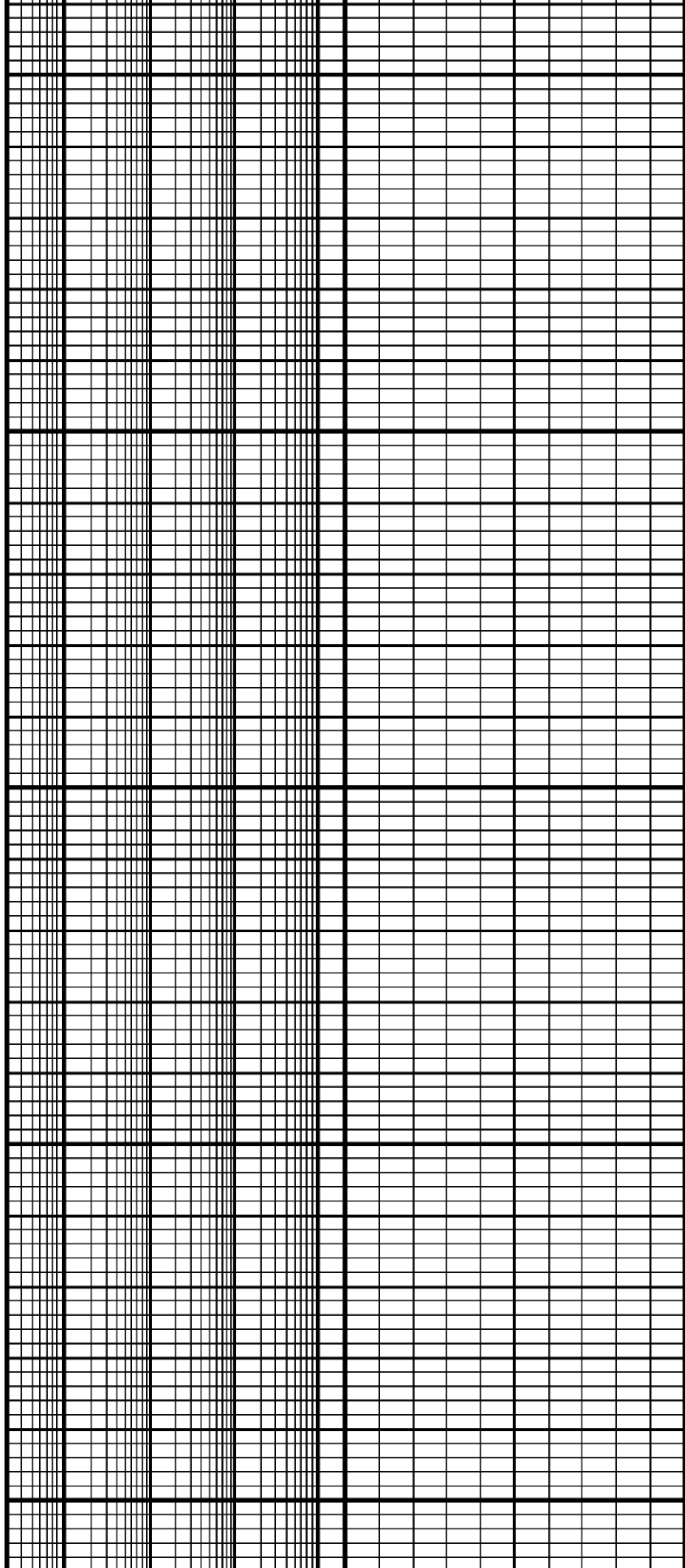
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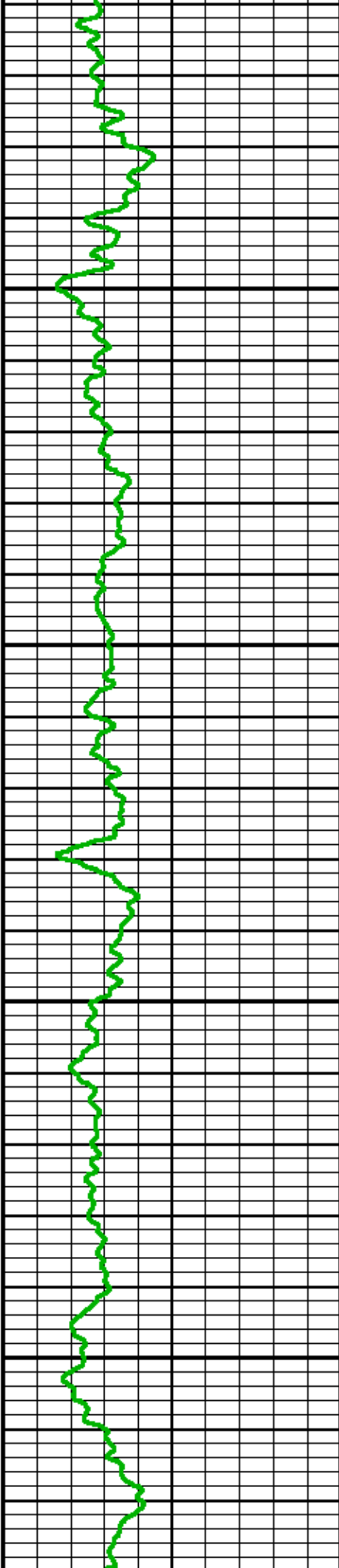




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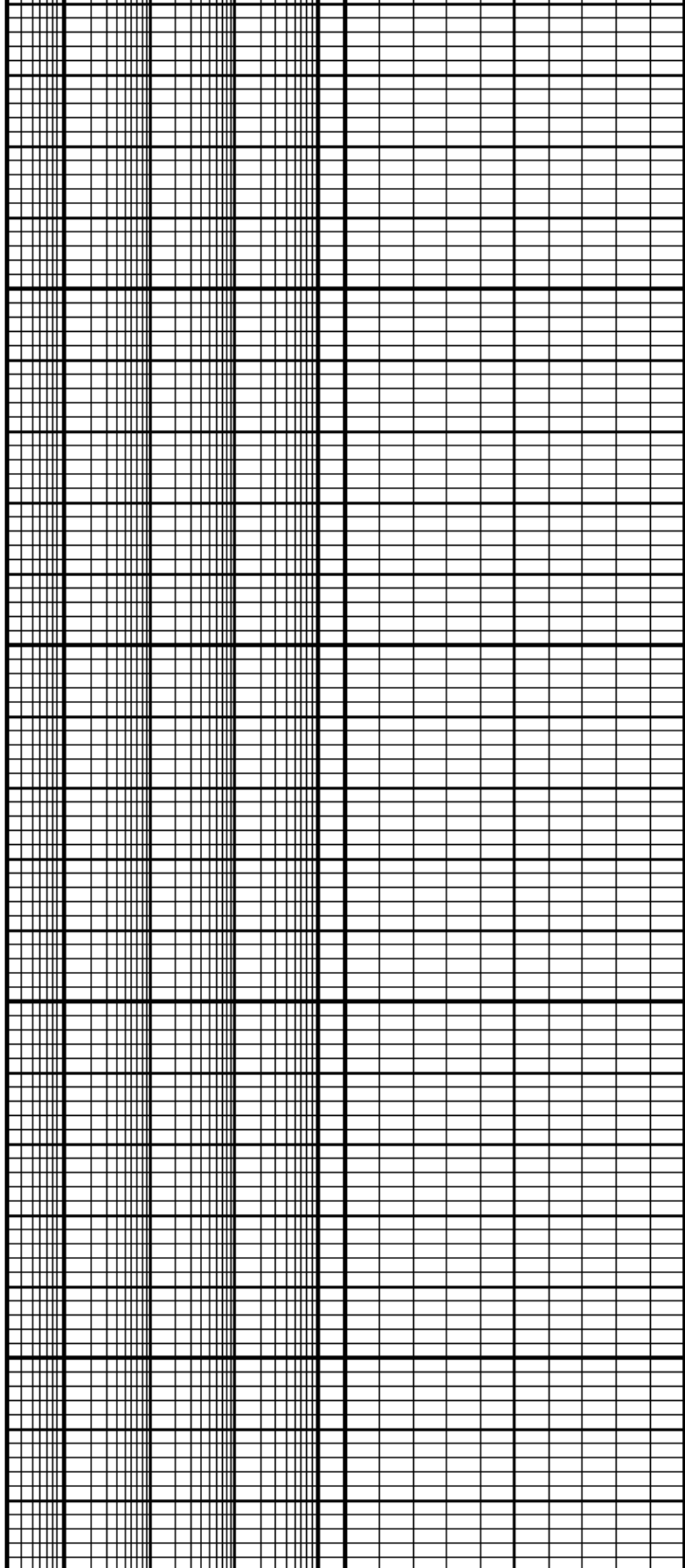
600





700

800



900

1000

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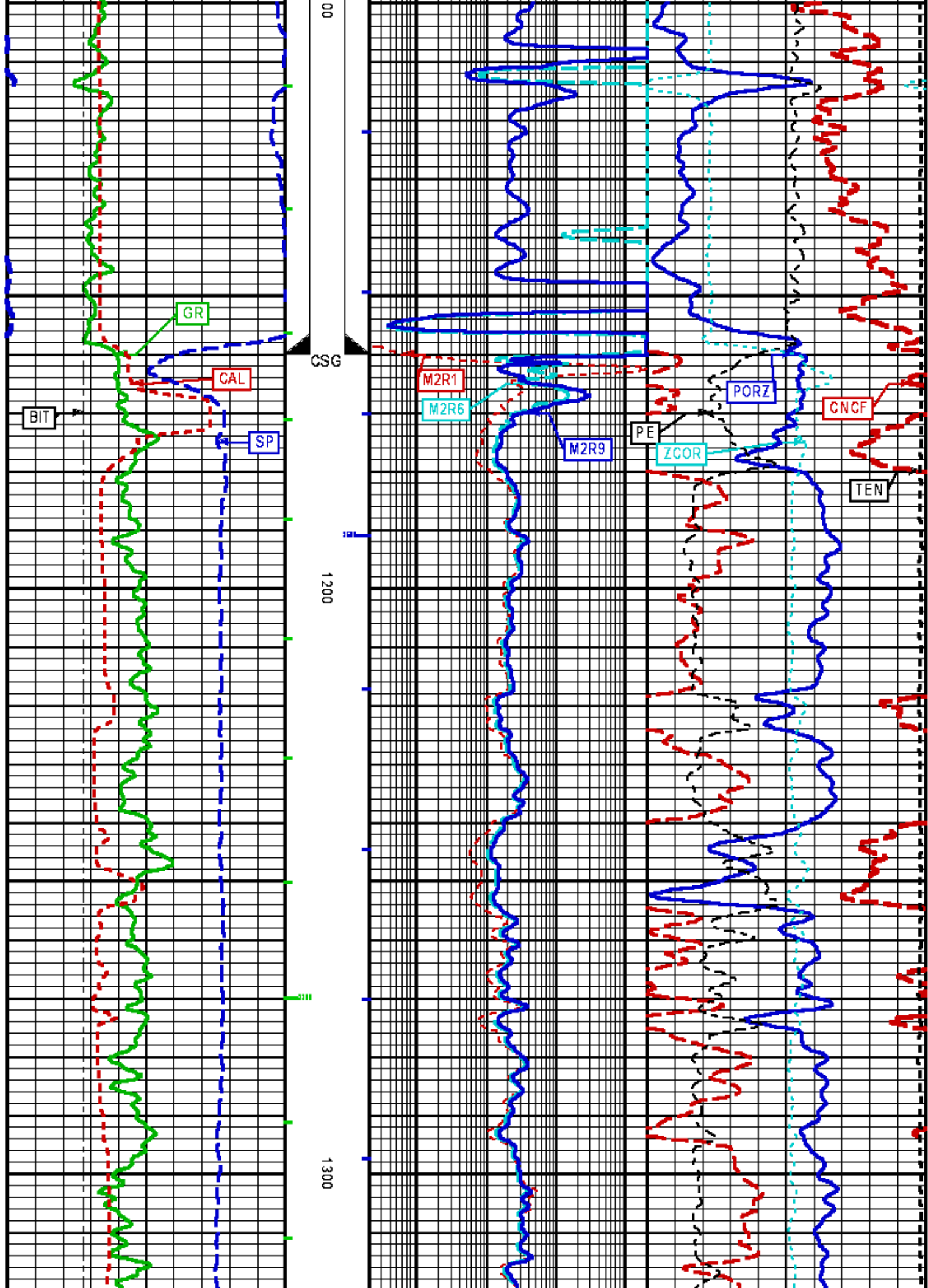
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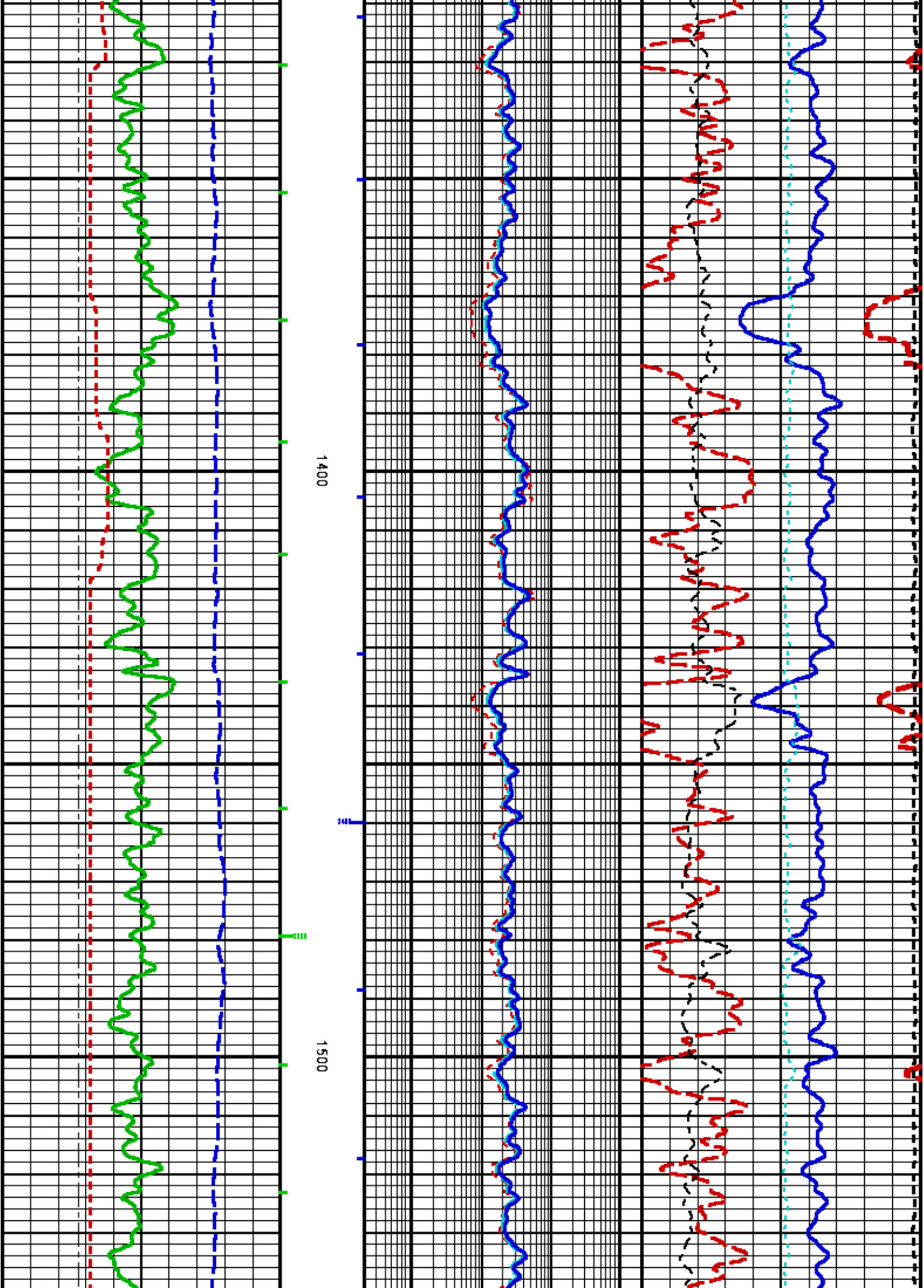
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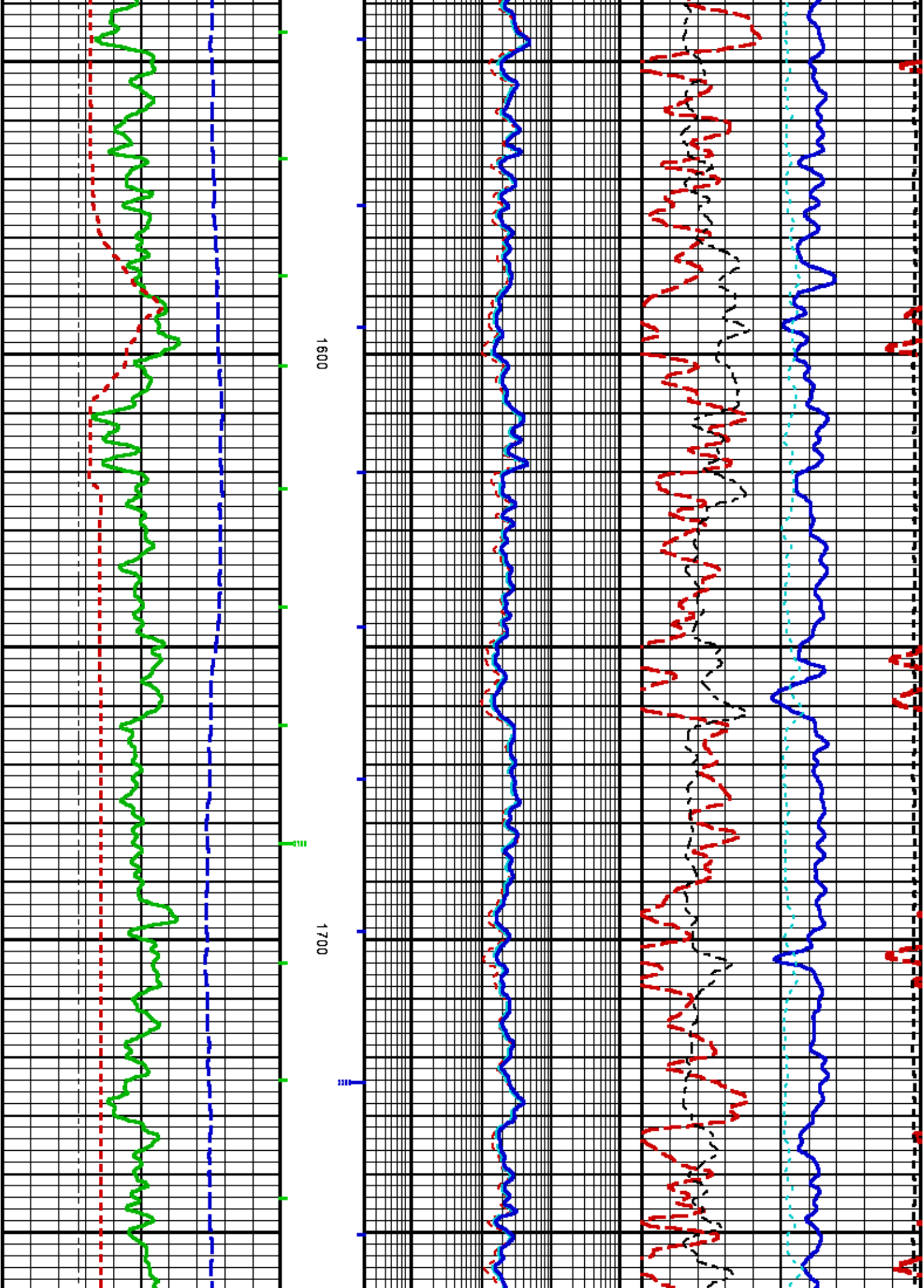
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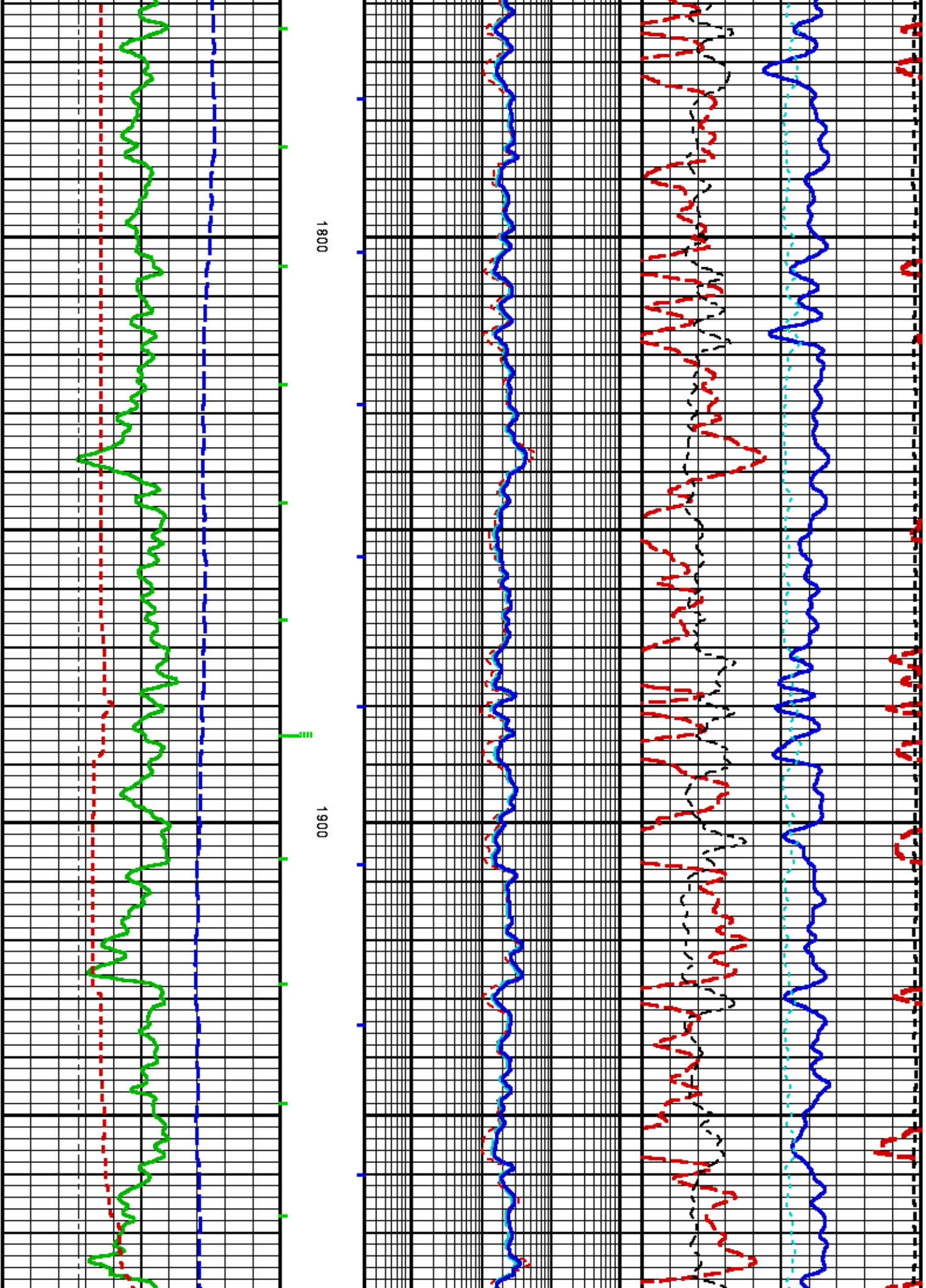
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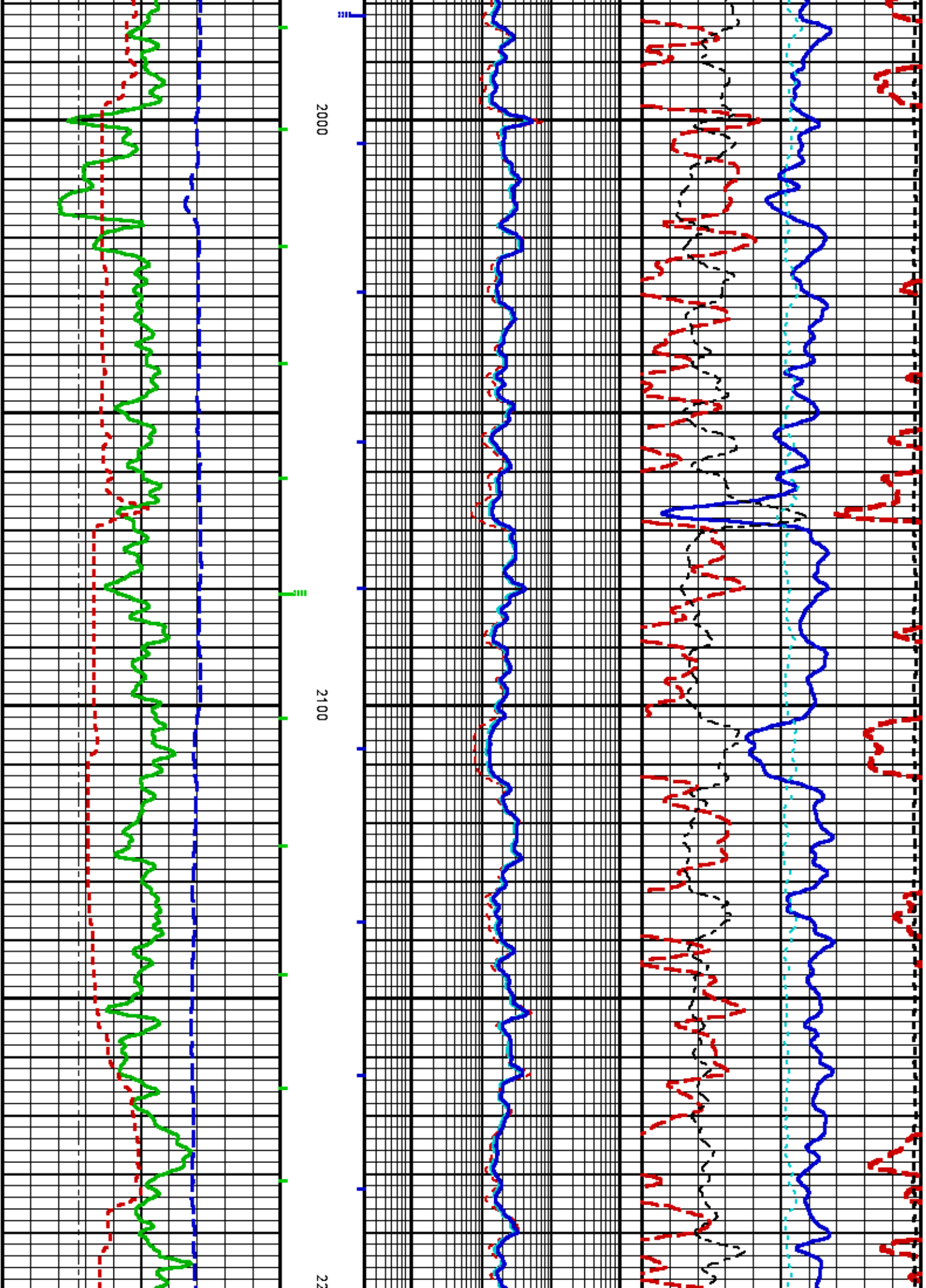
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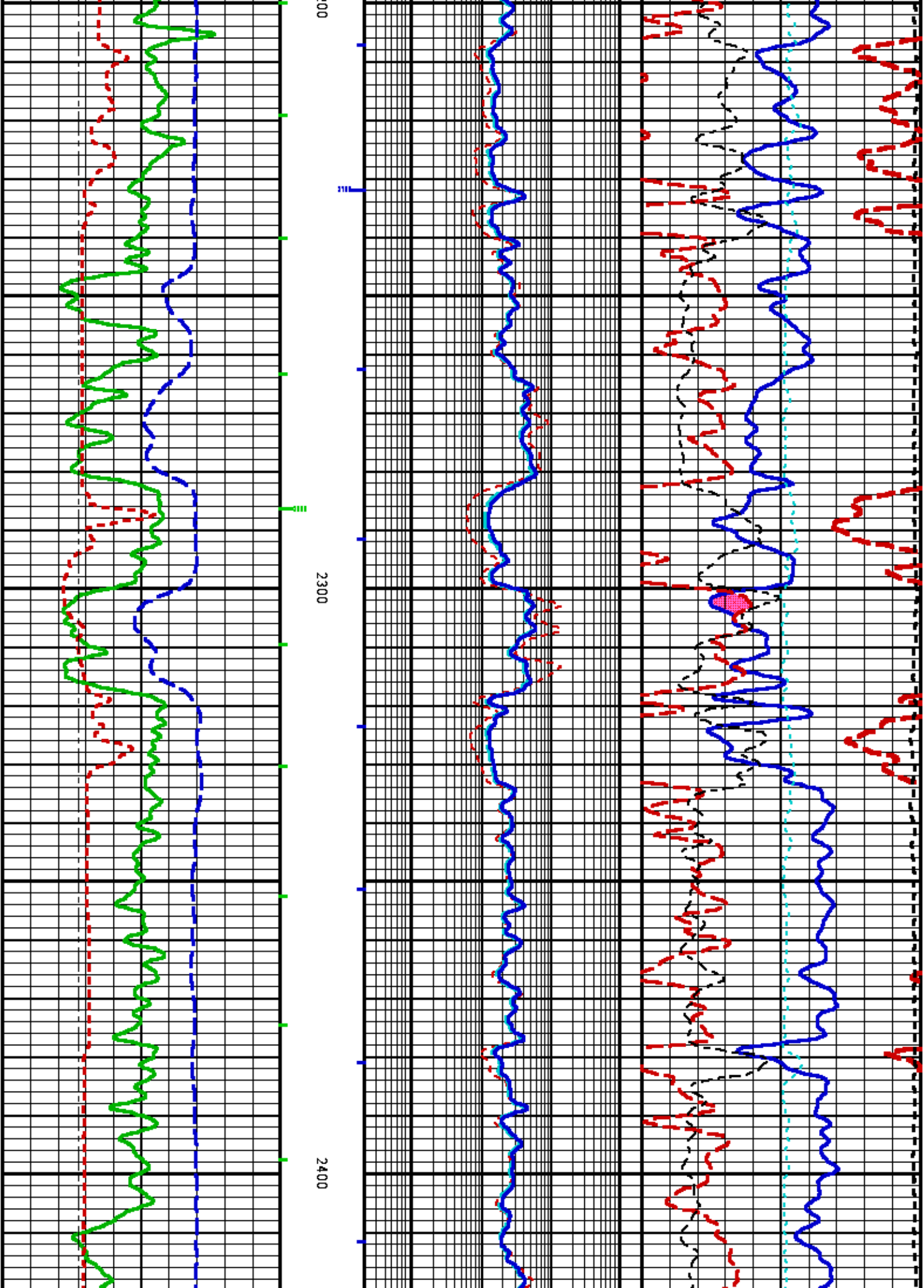


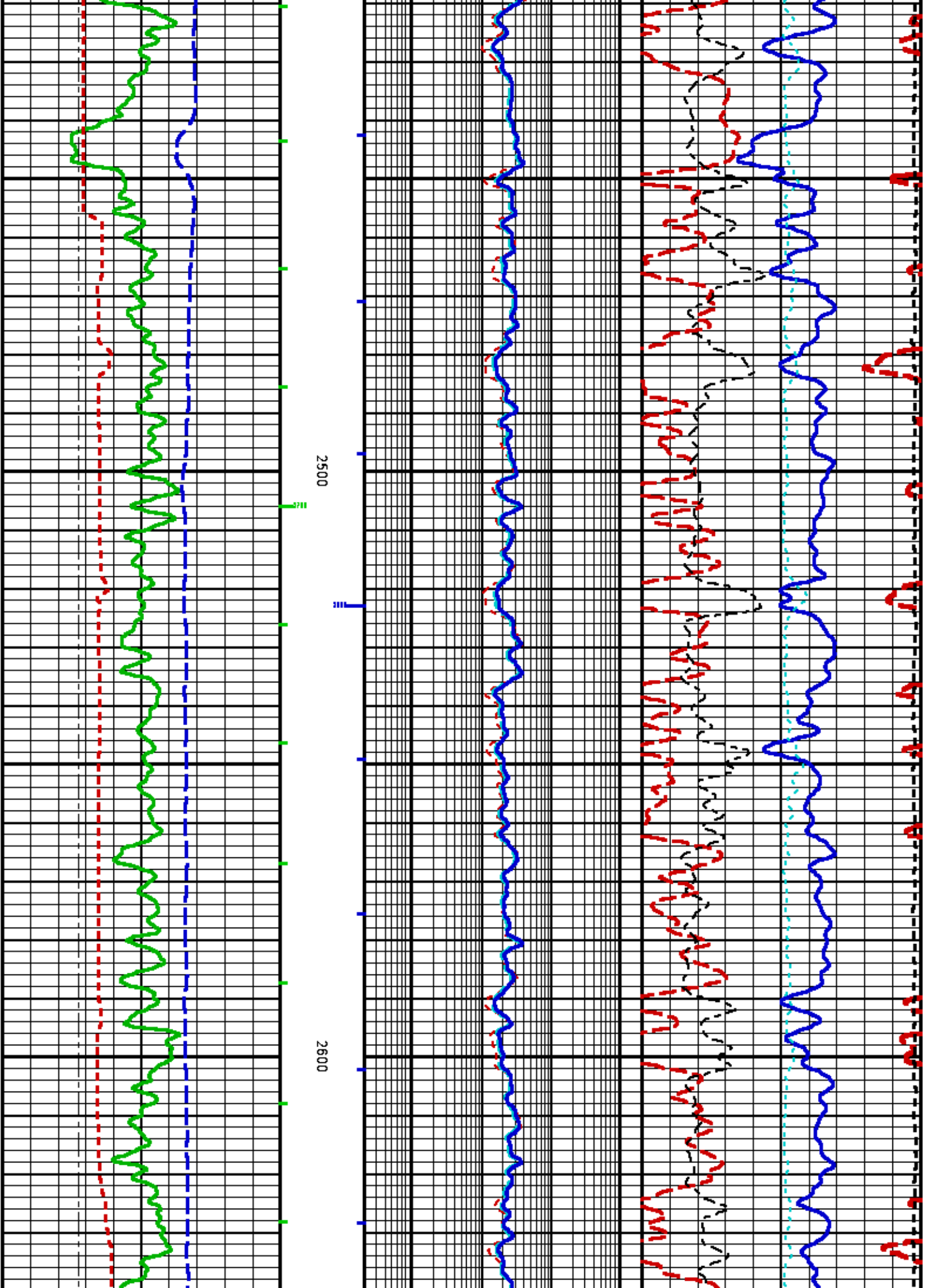


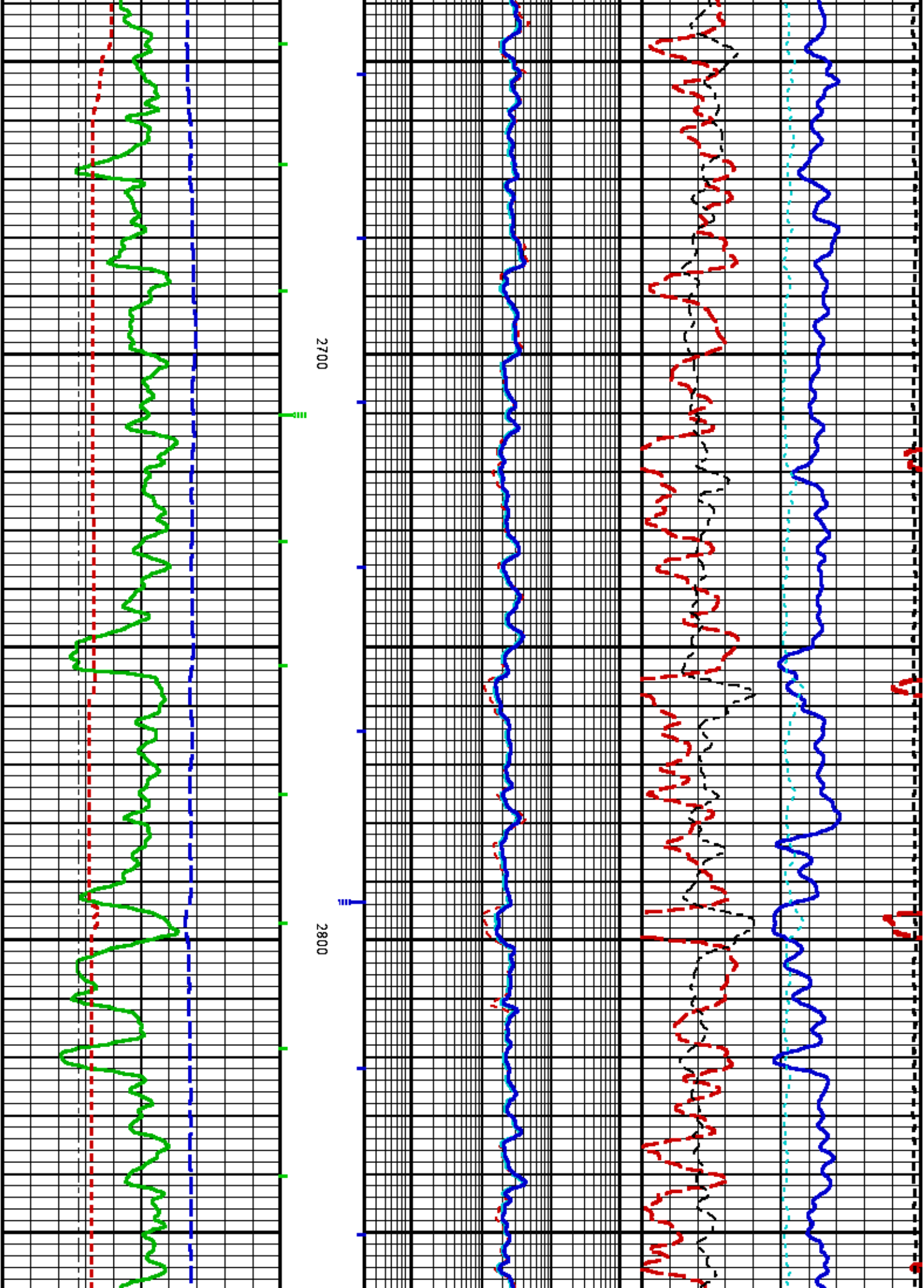


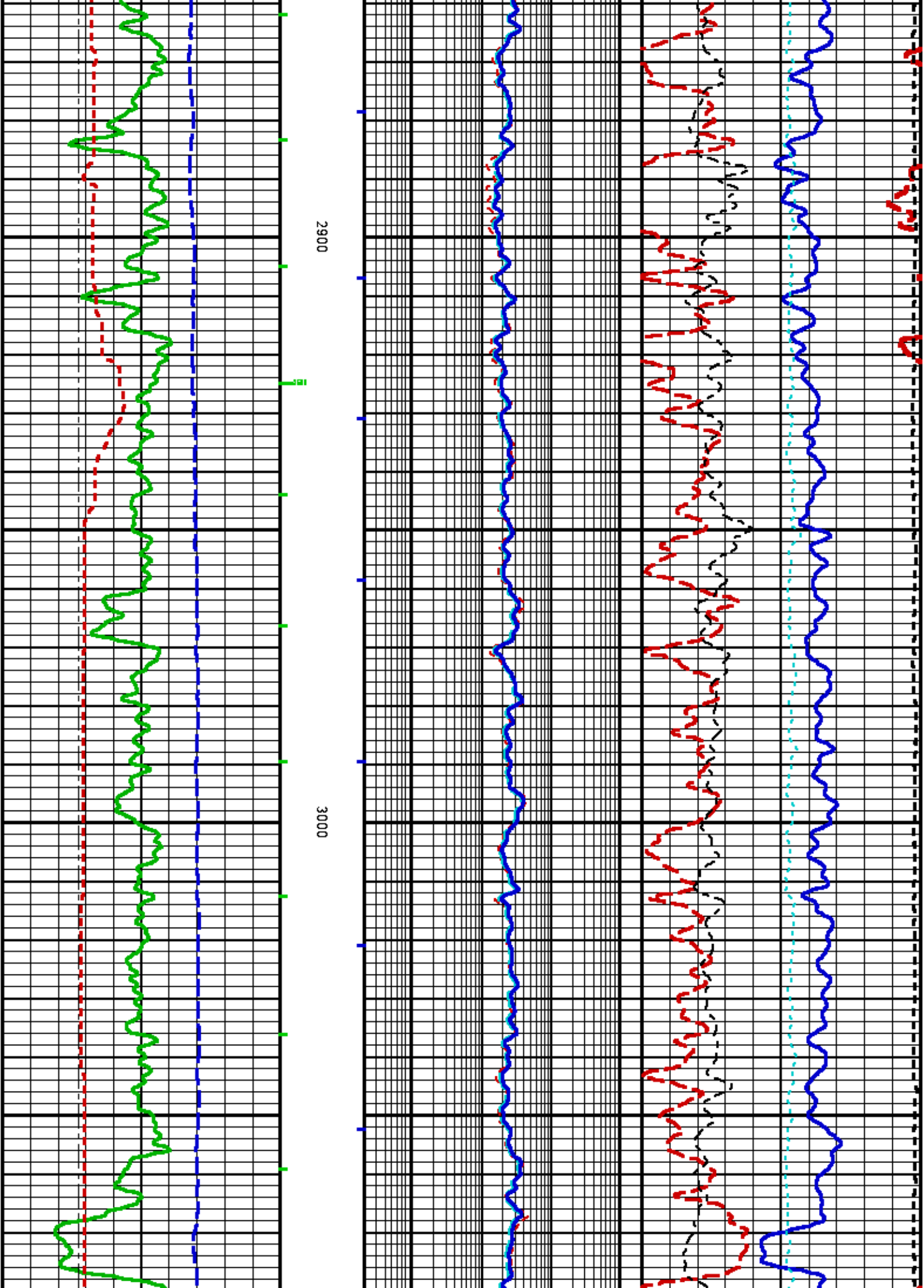


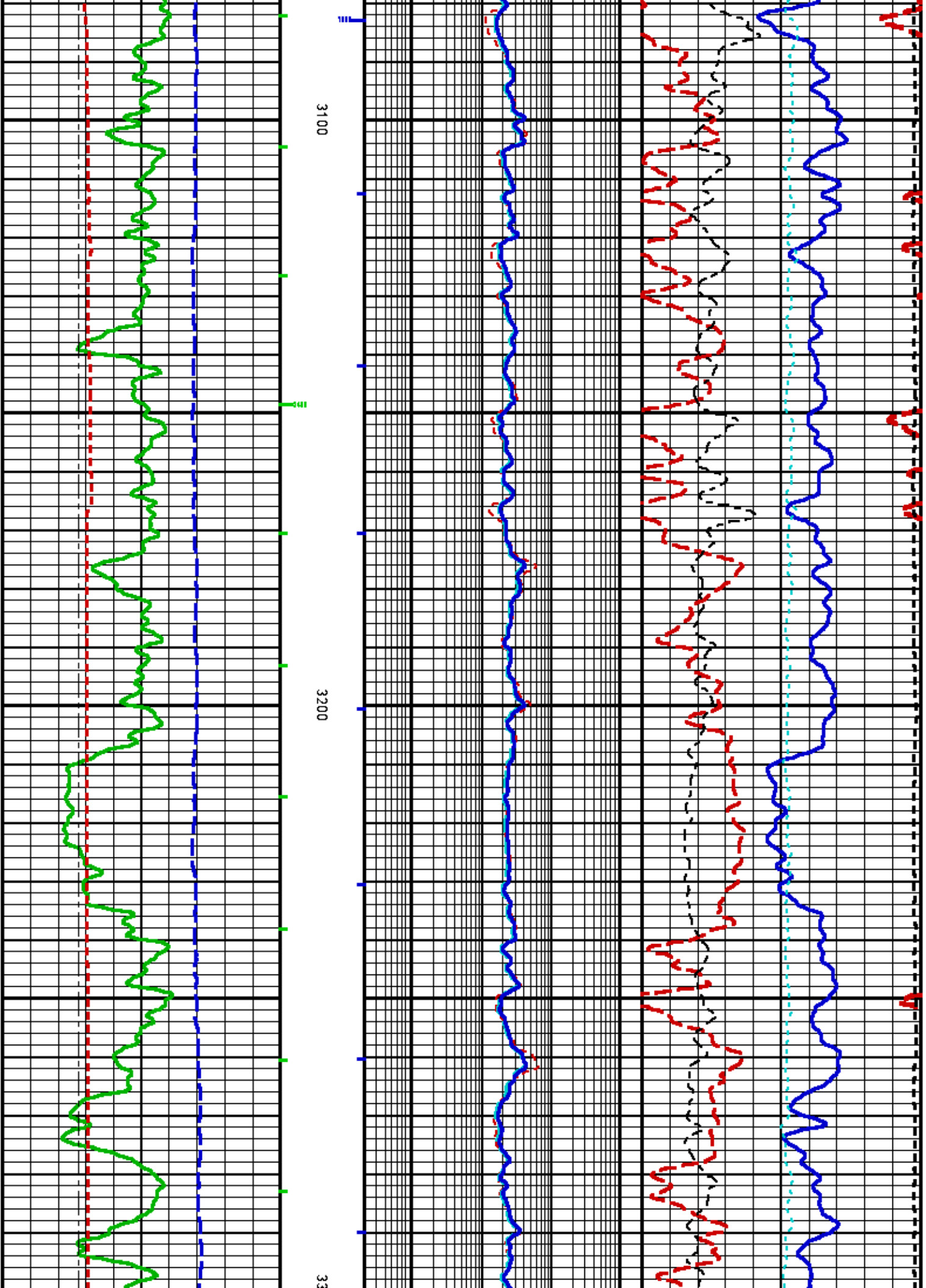


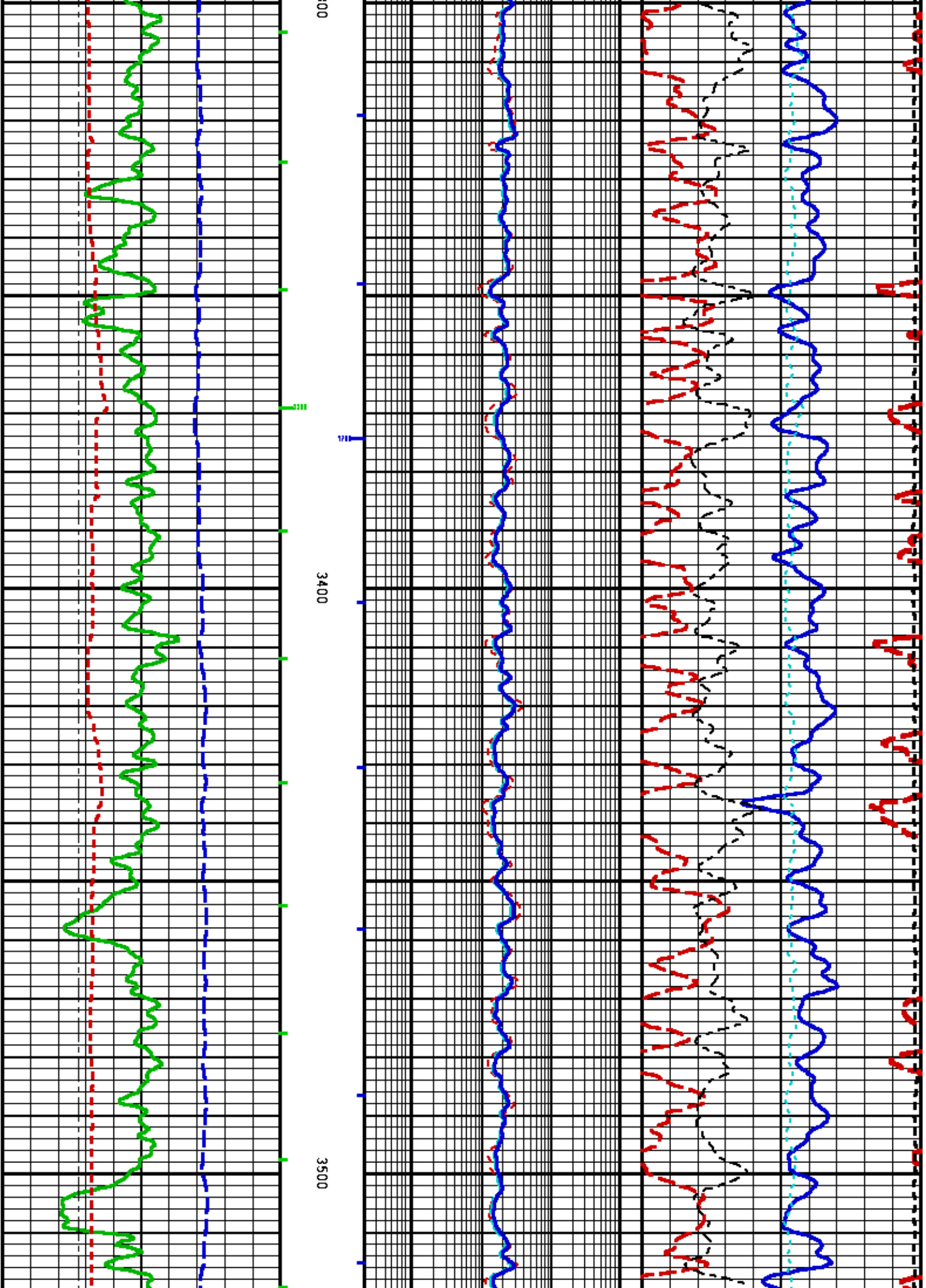


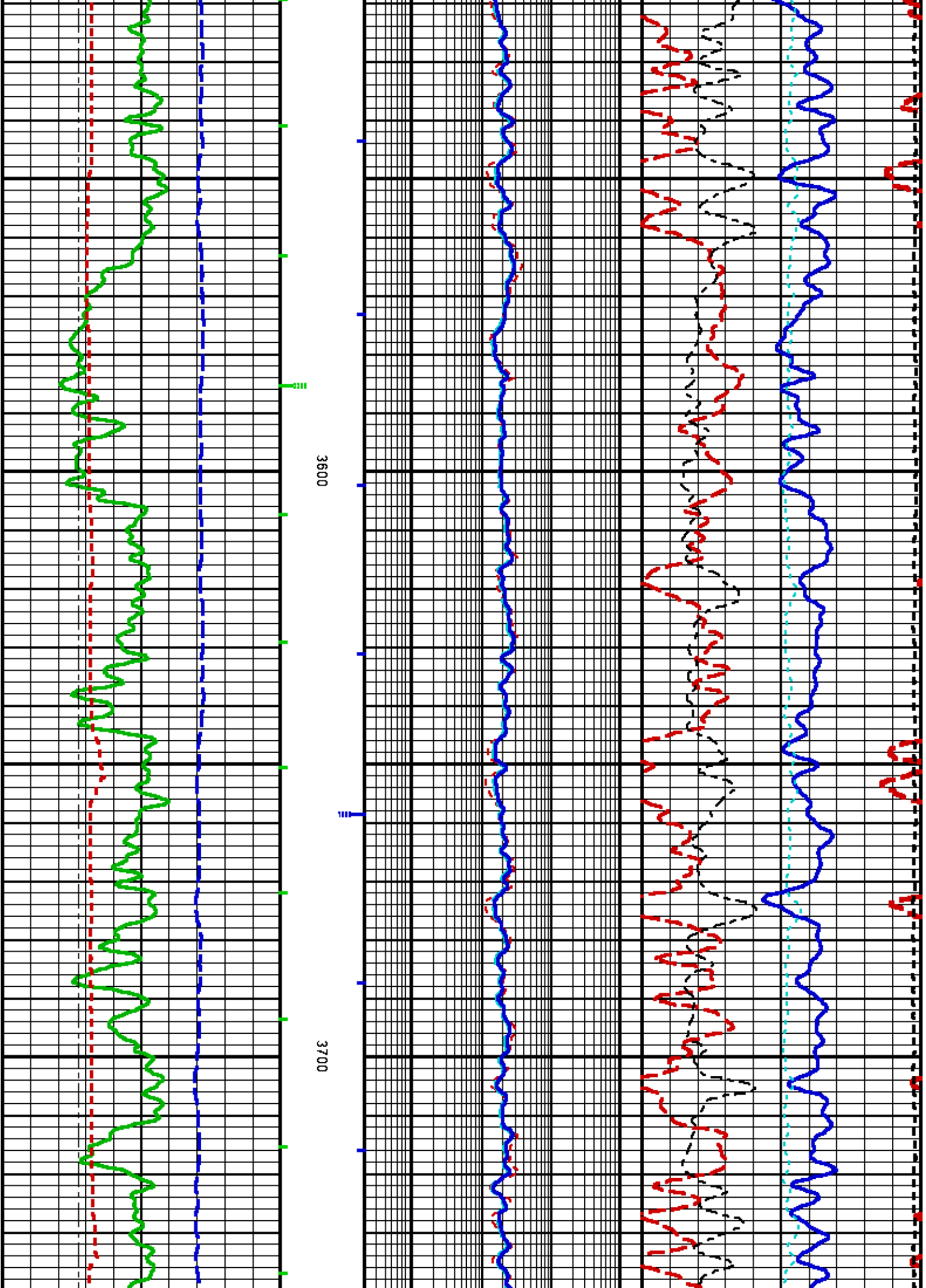


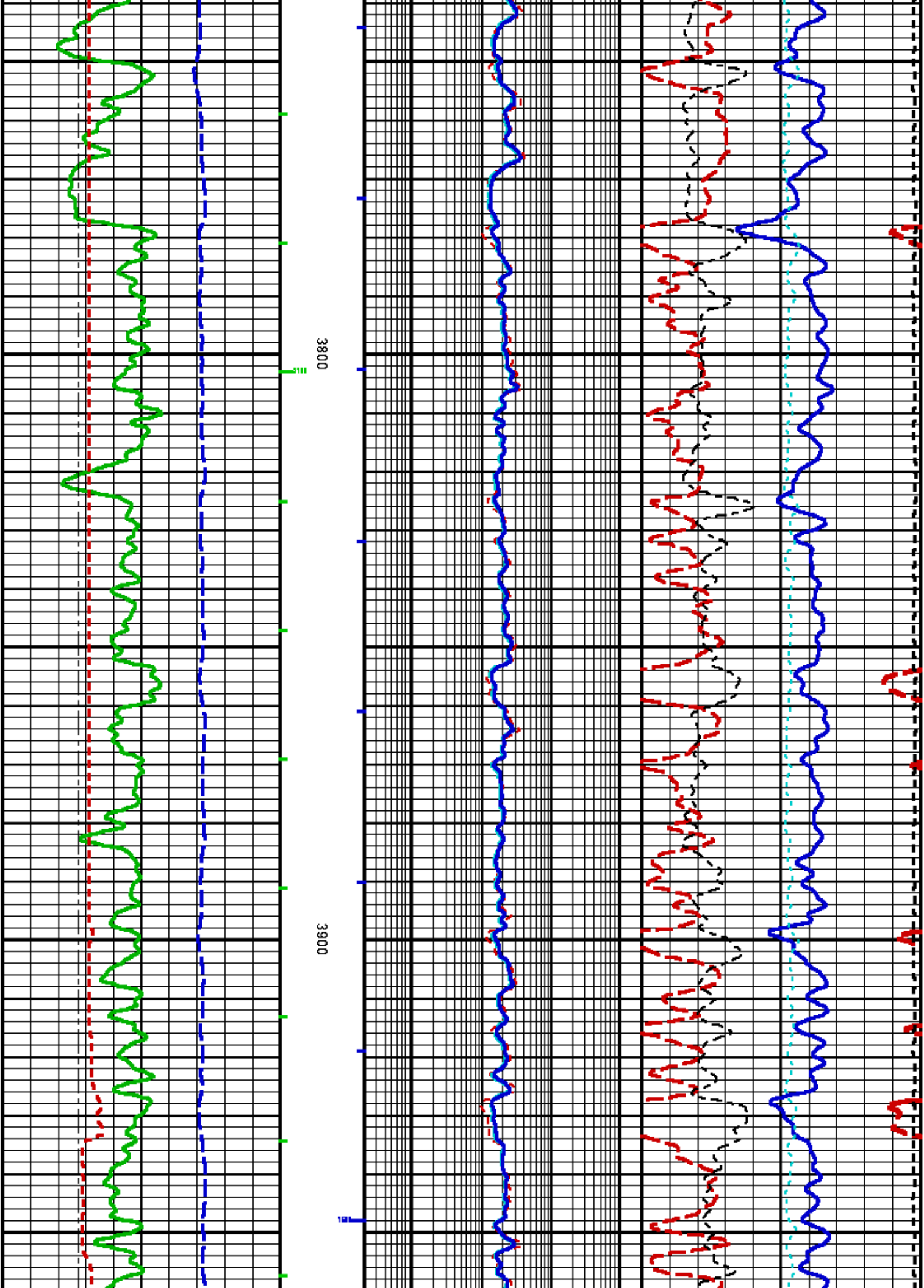


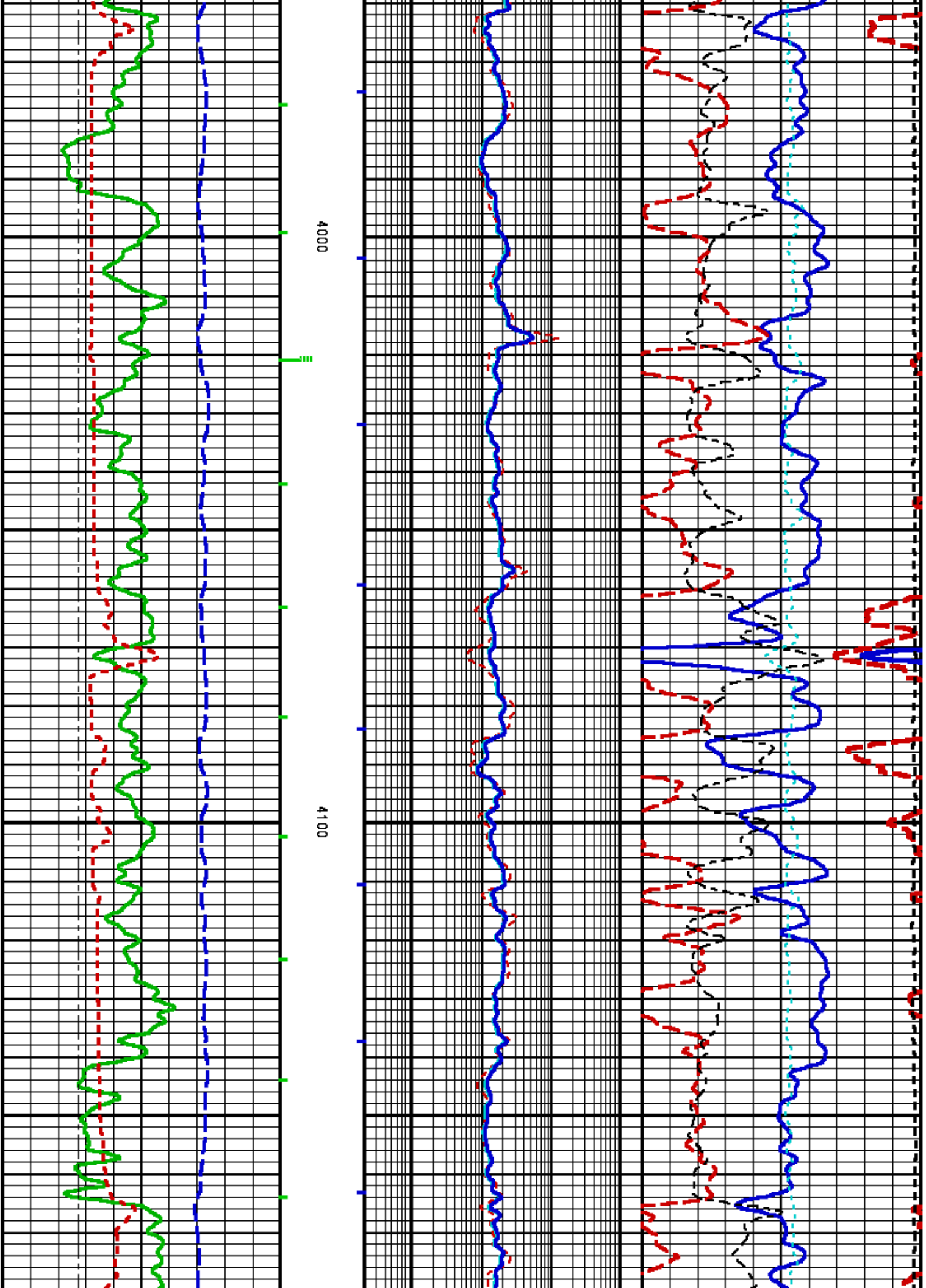


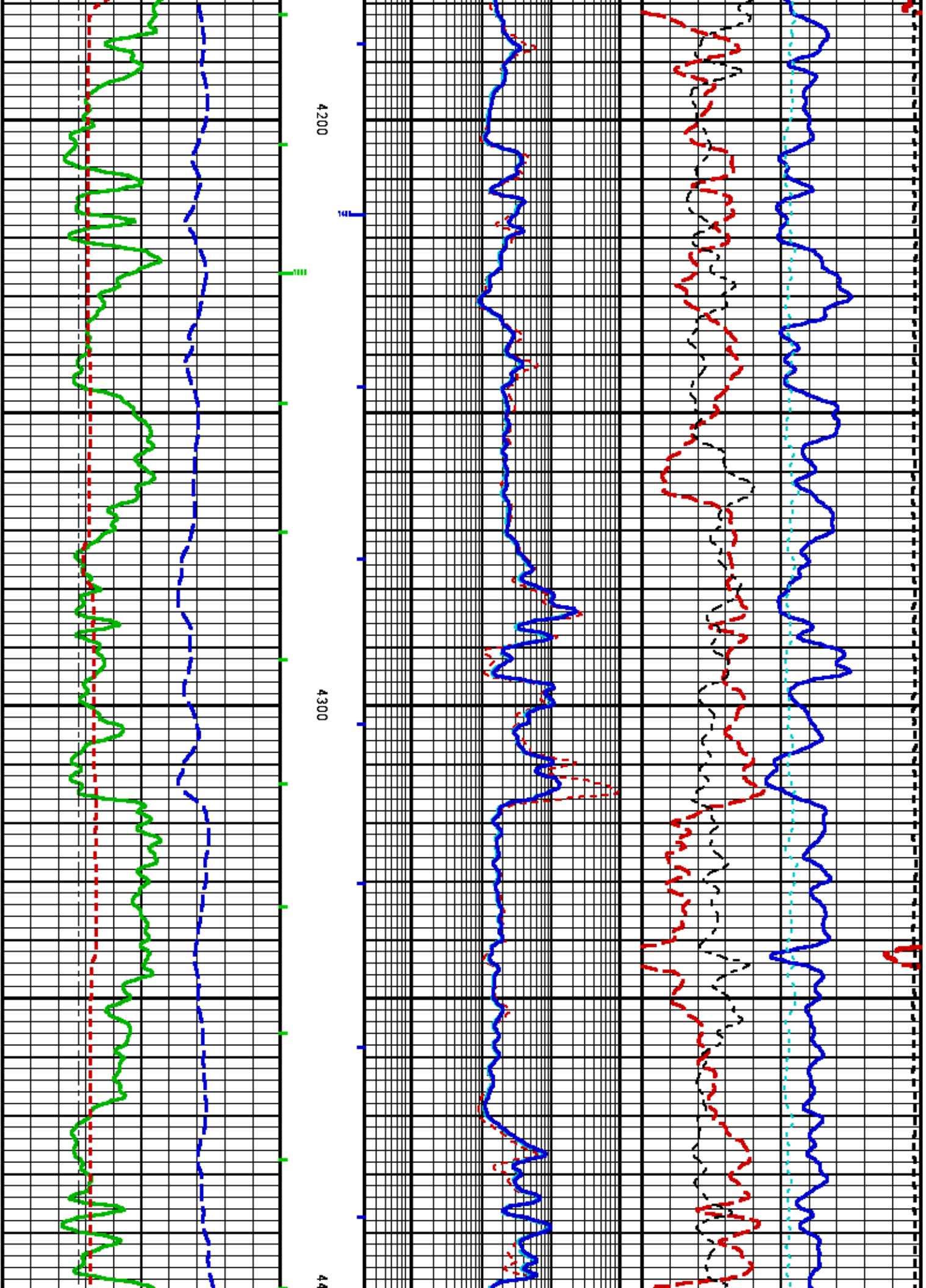


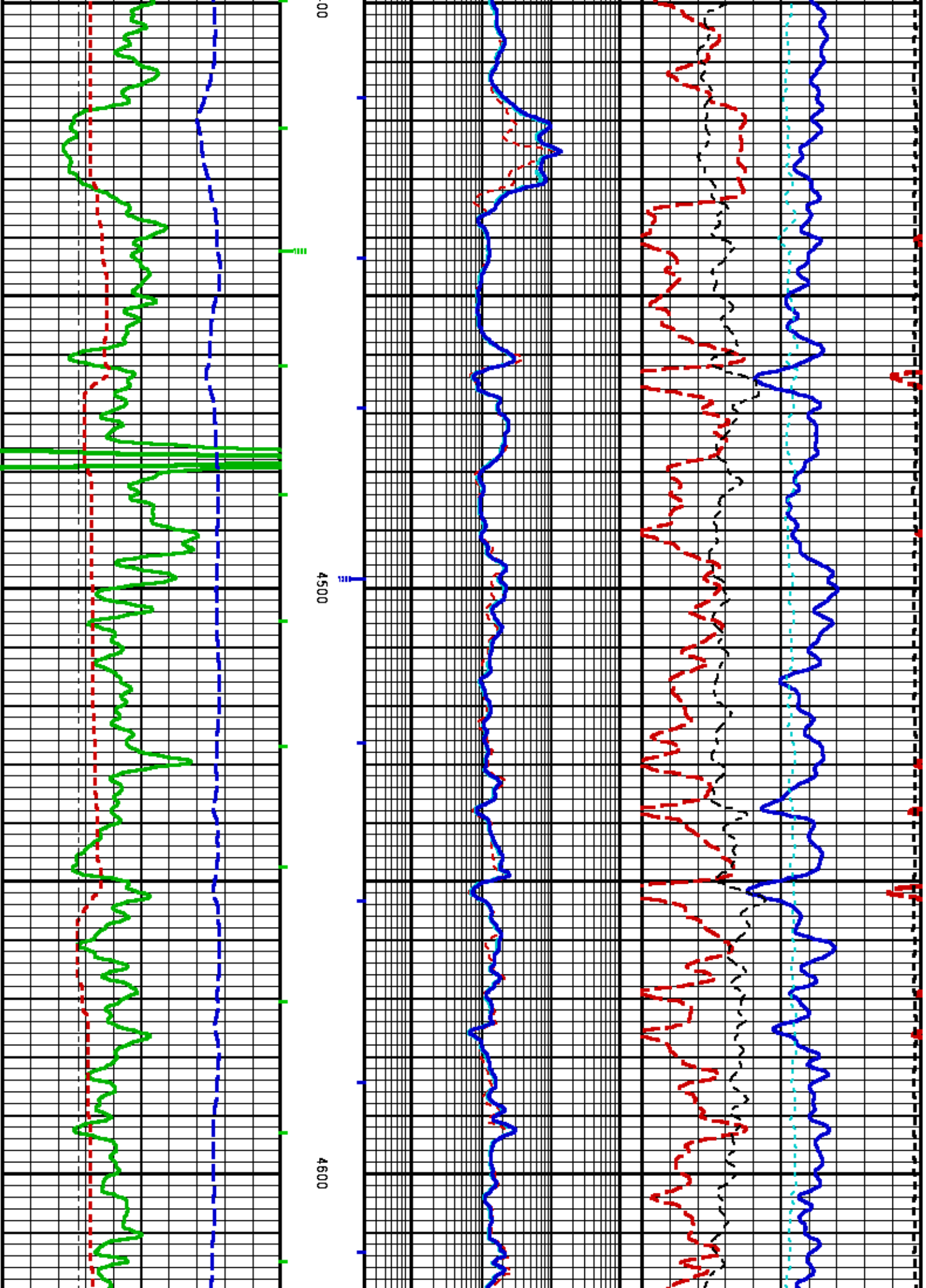


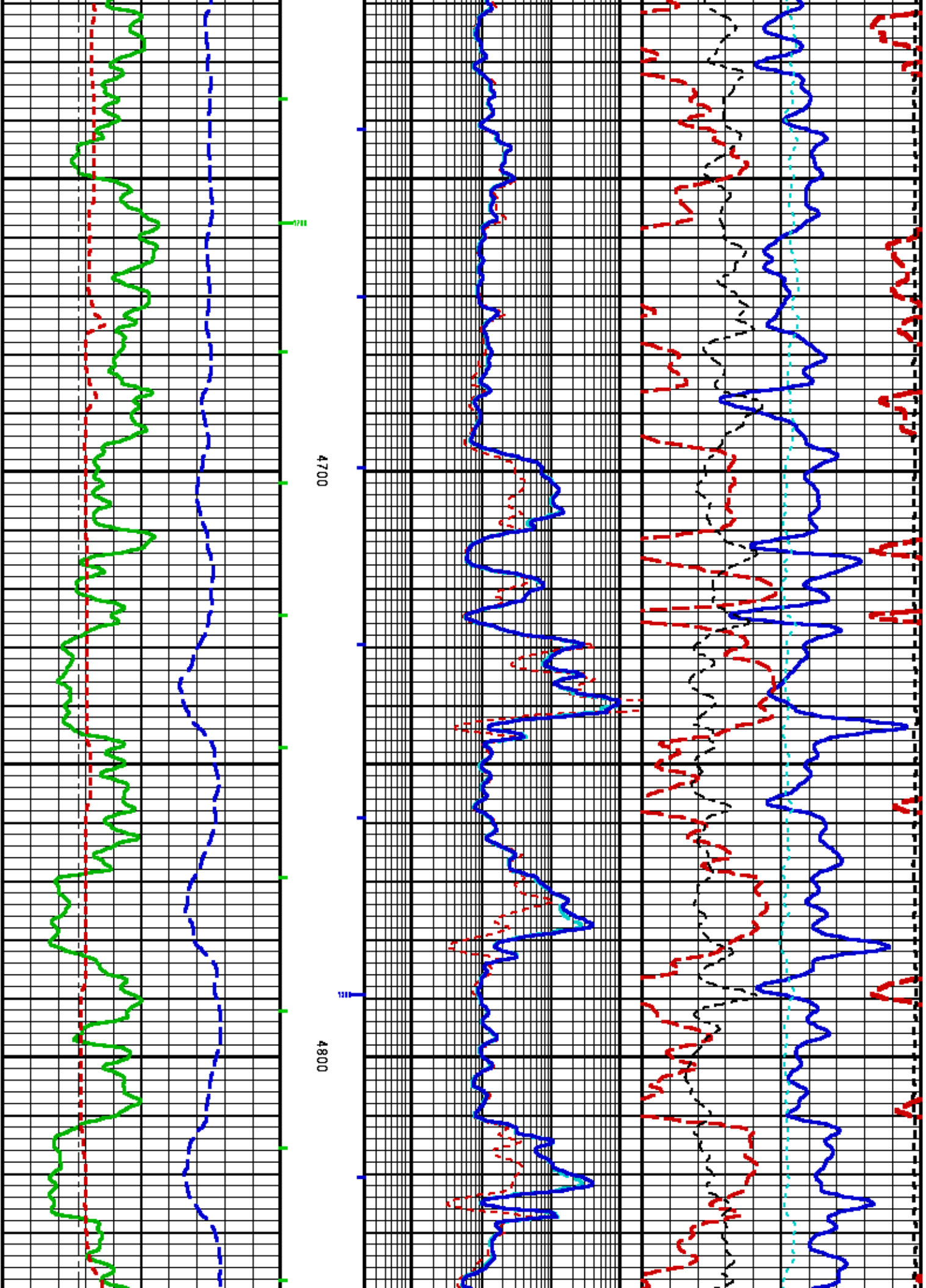


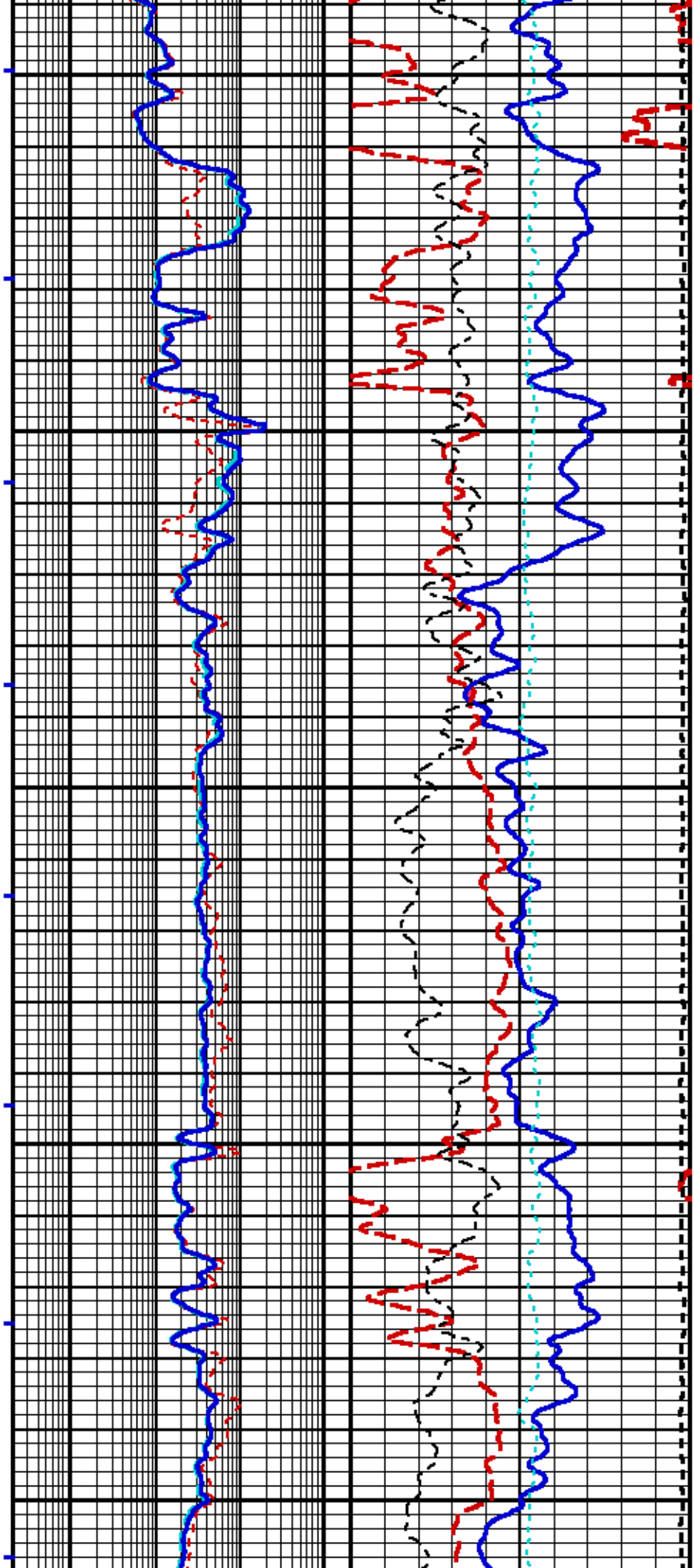






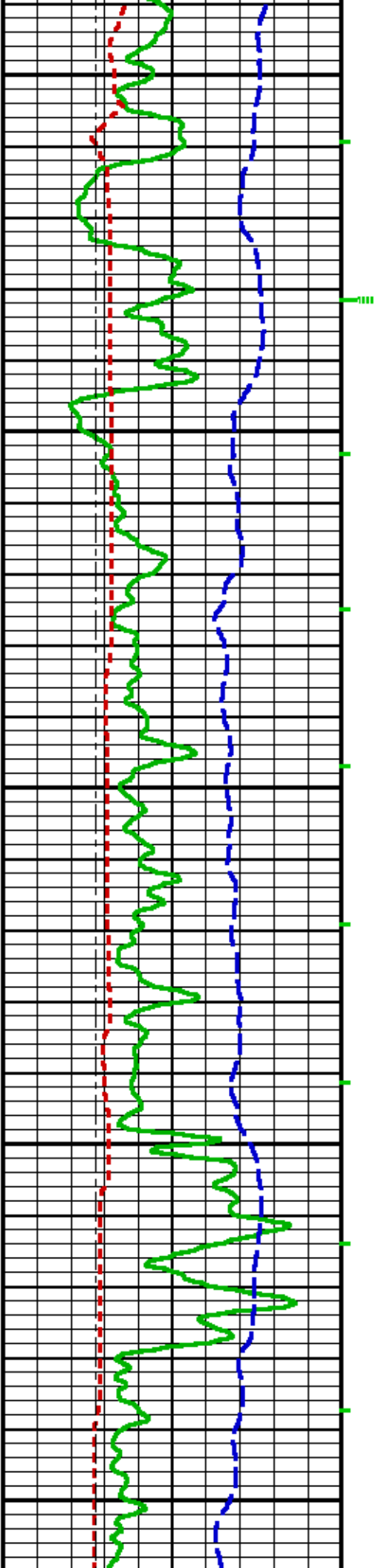


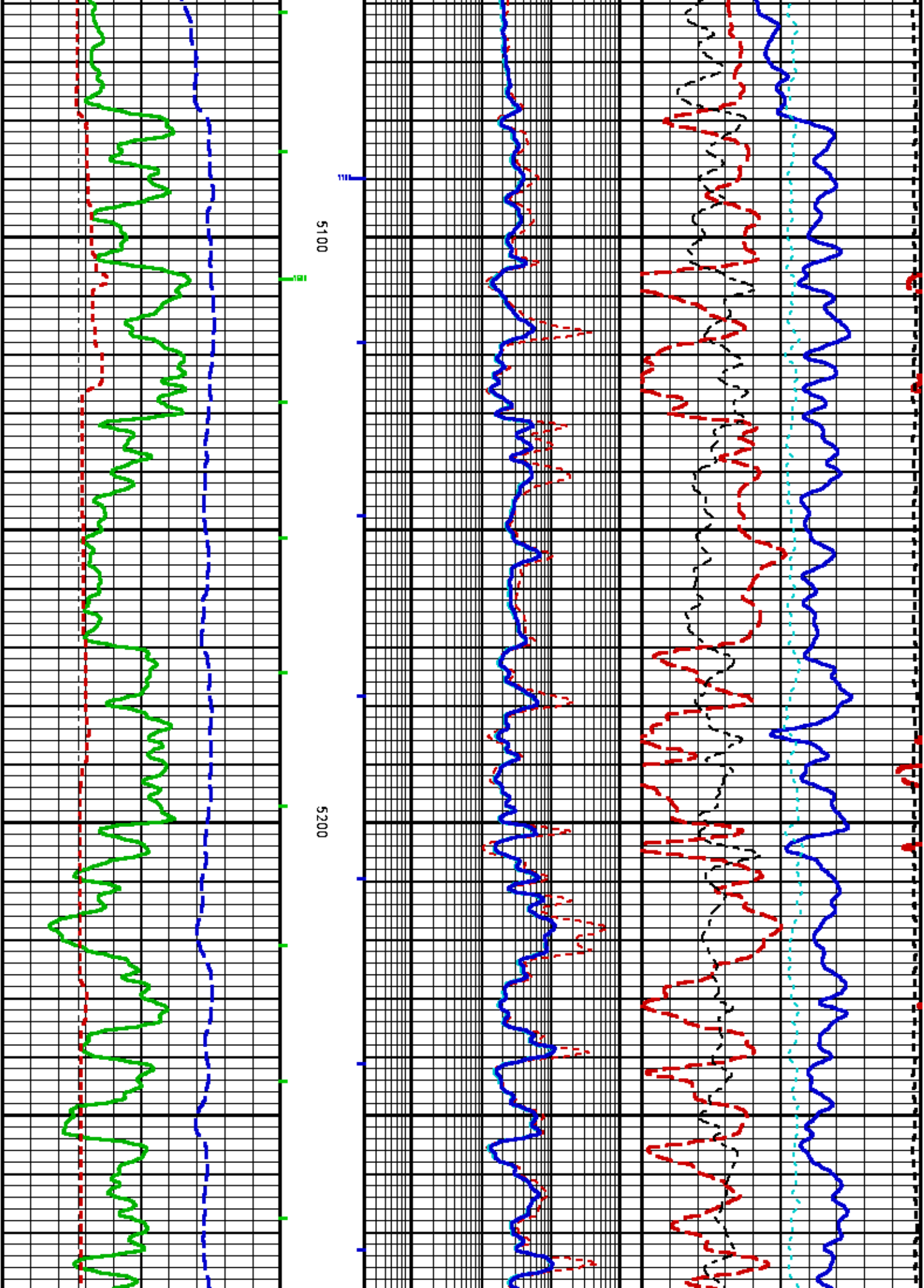


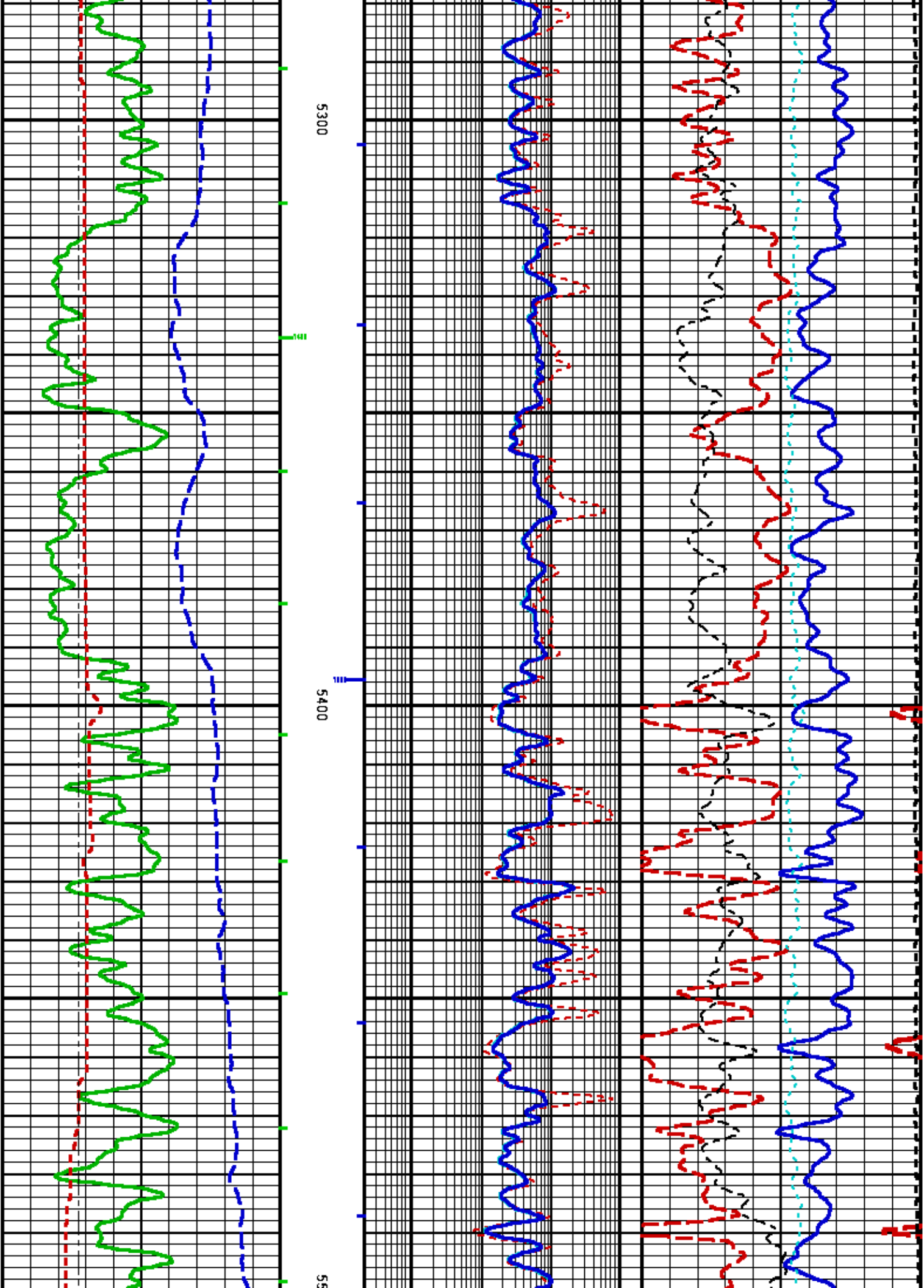


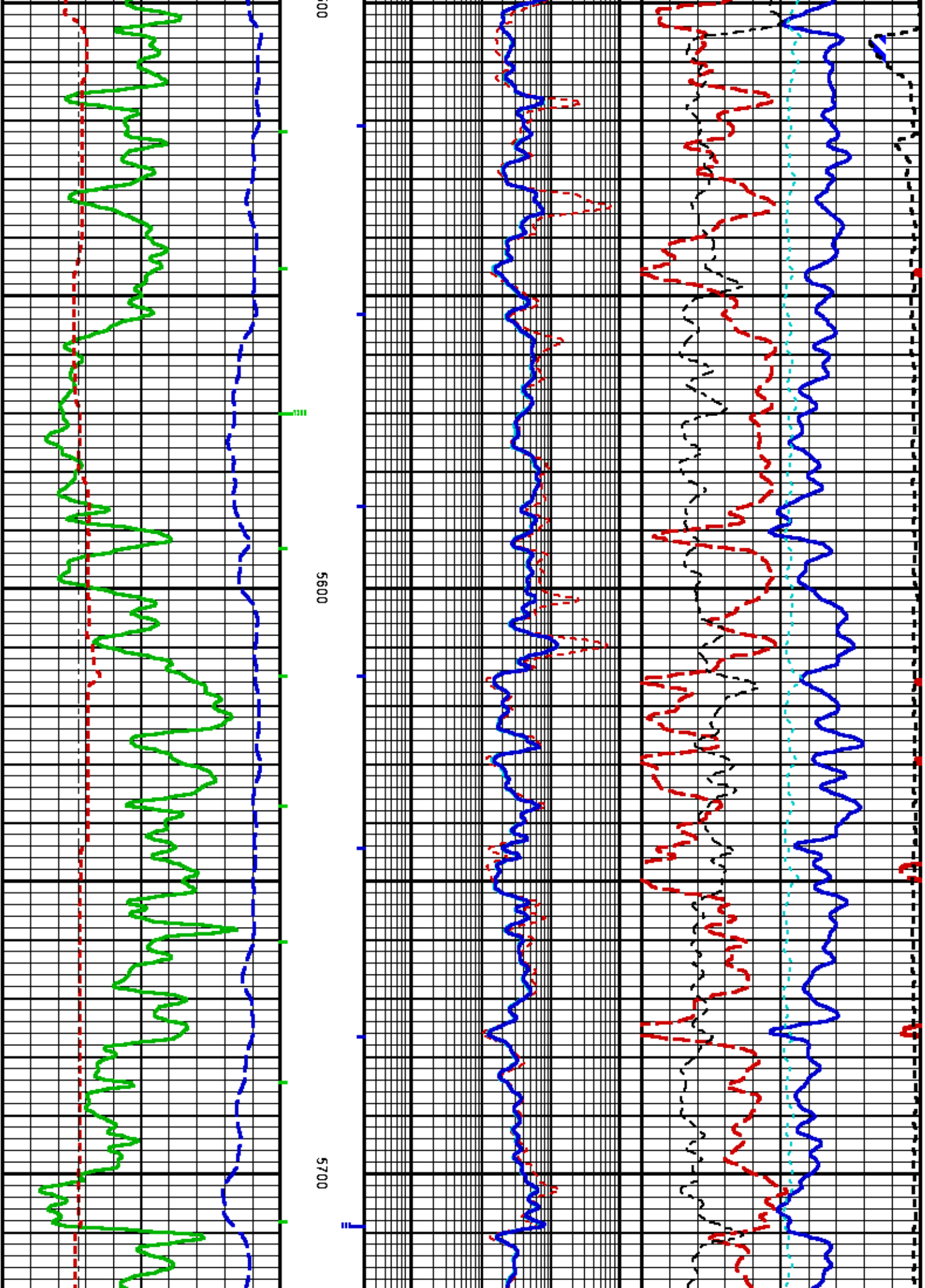
4900

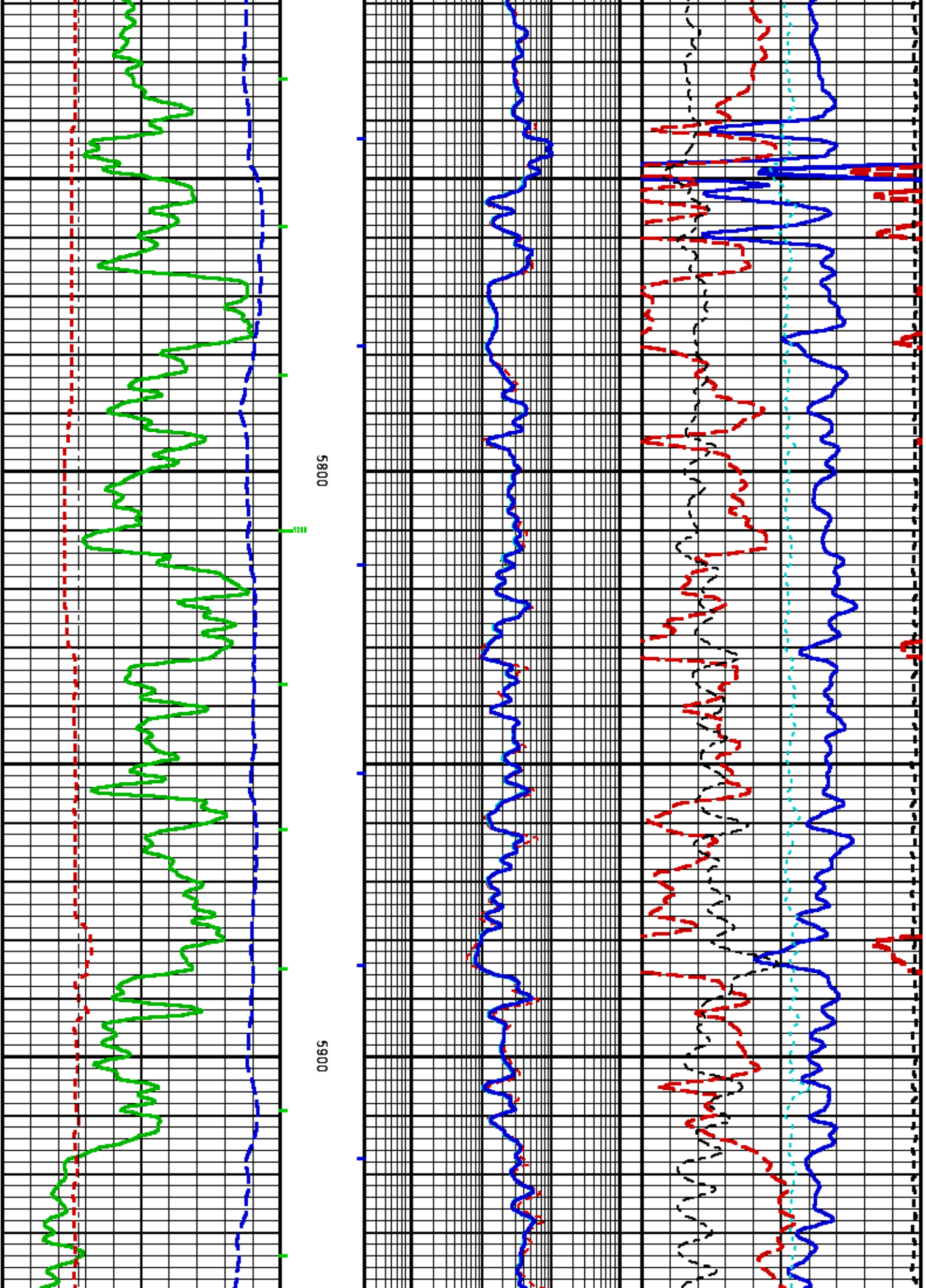
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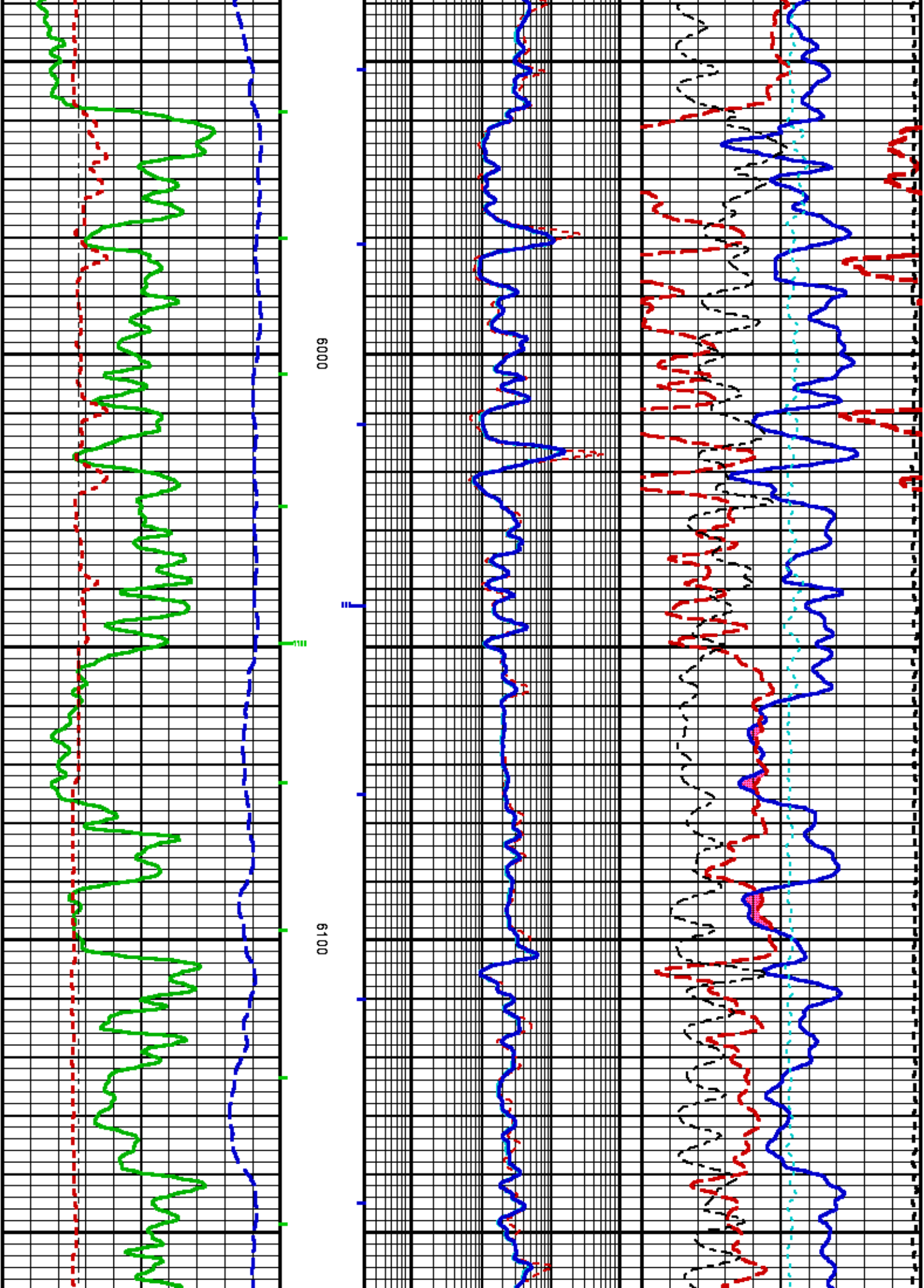


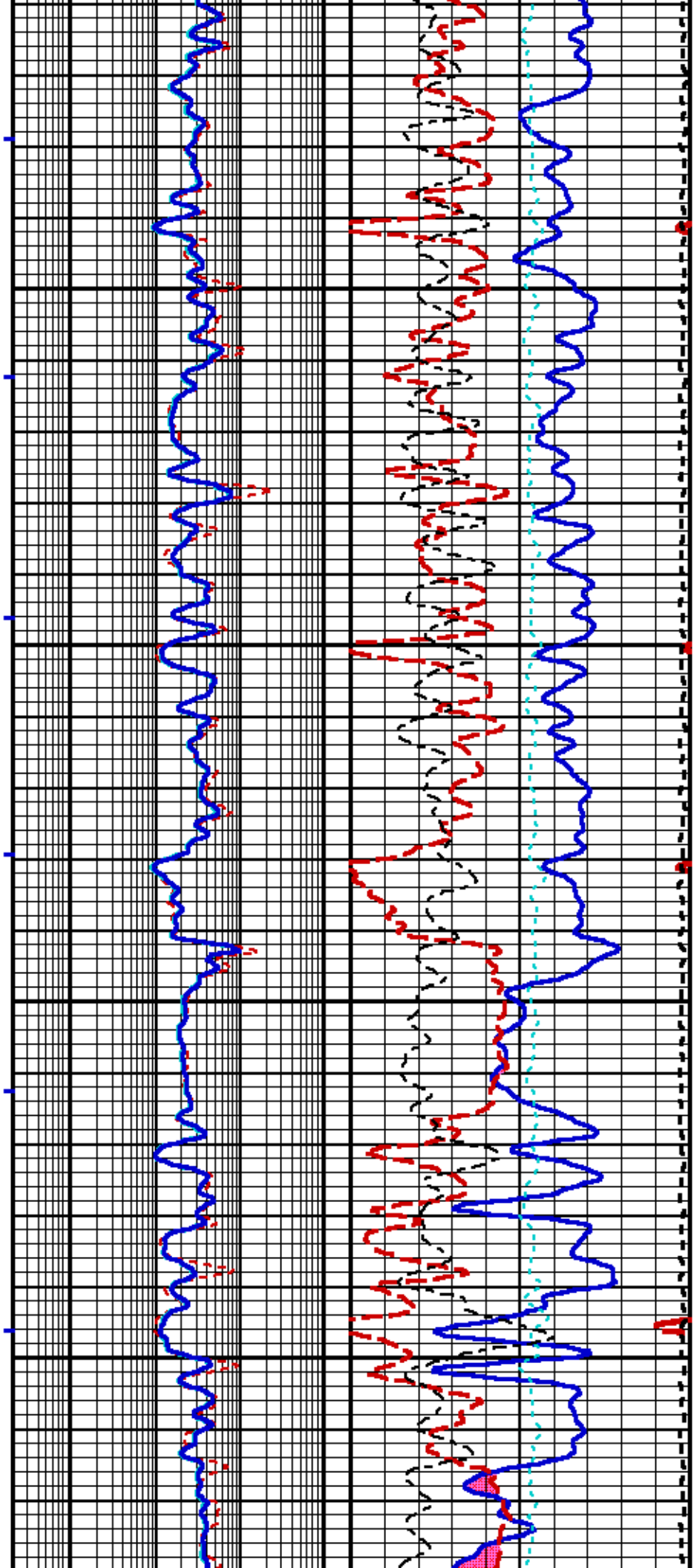






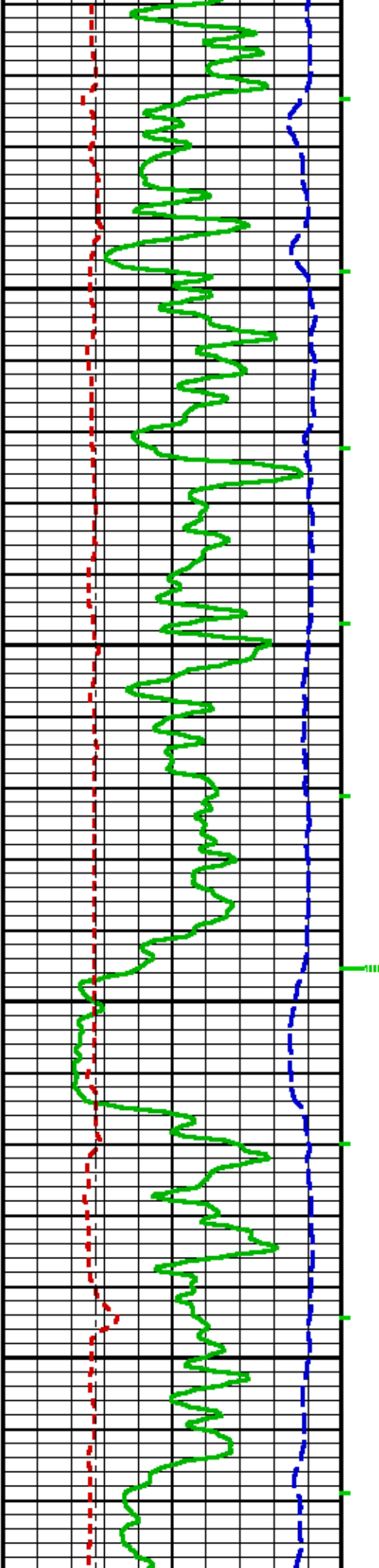


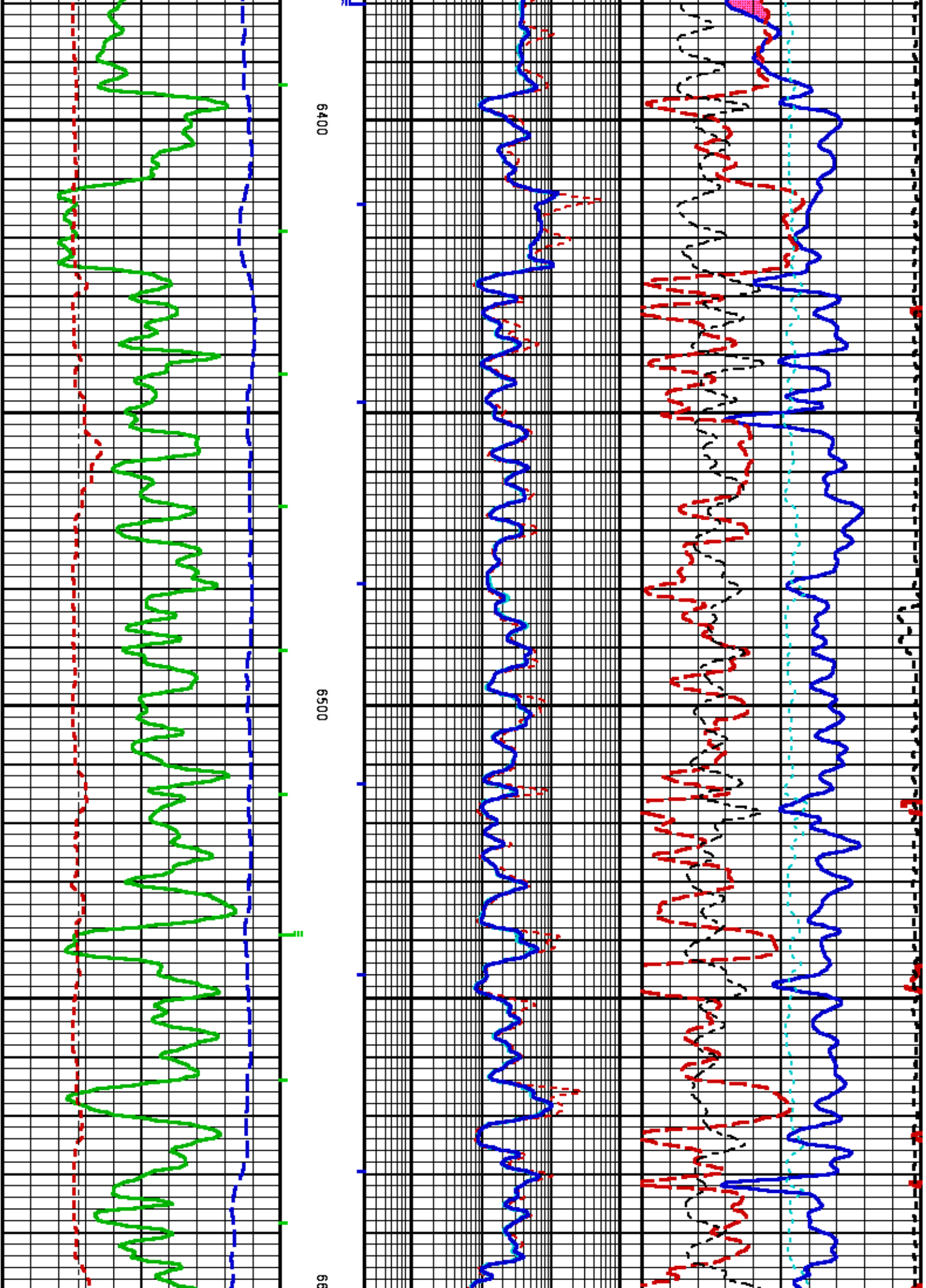


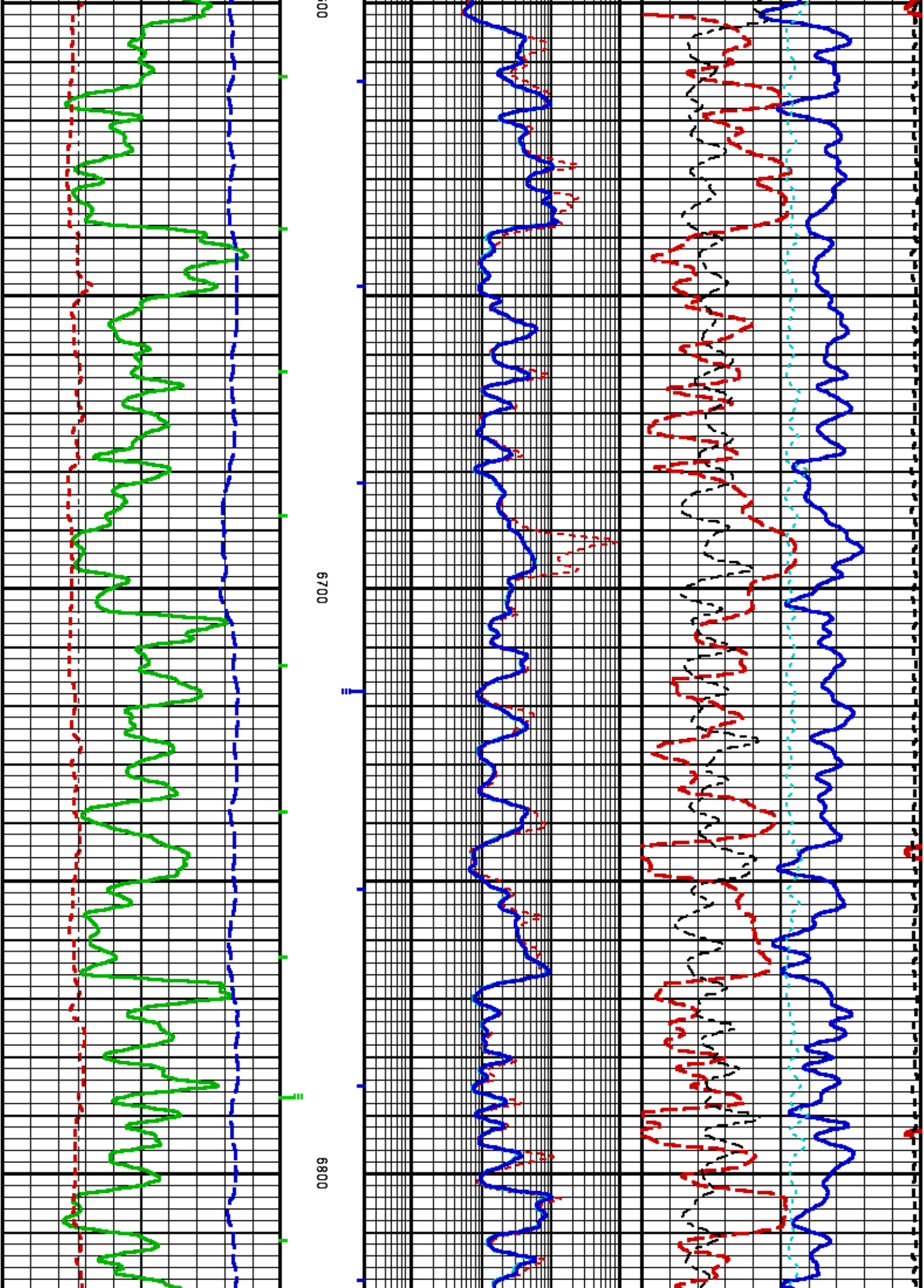


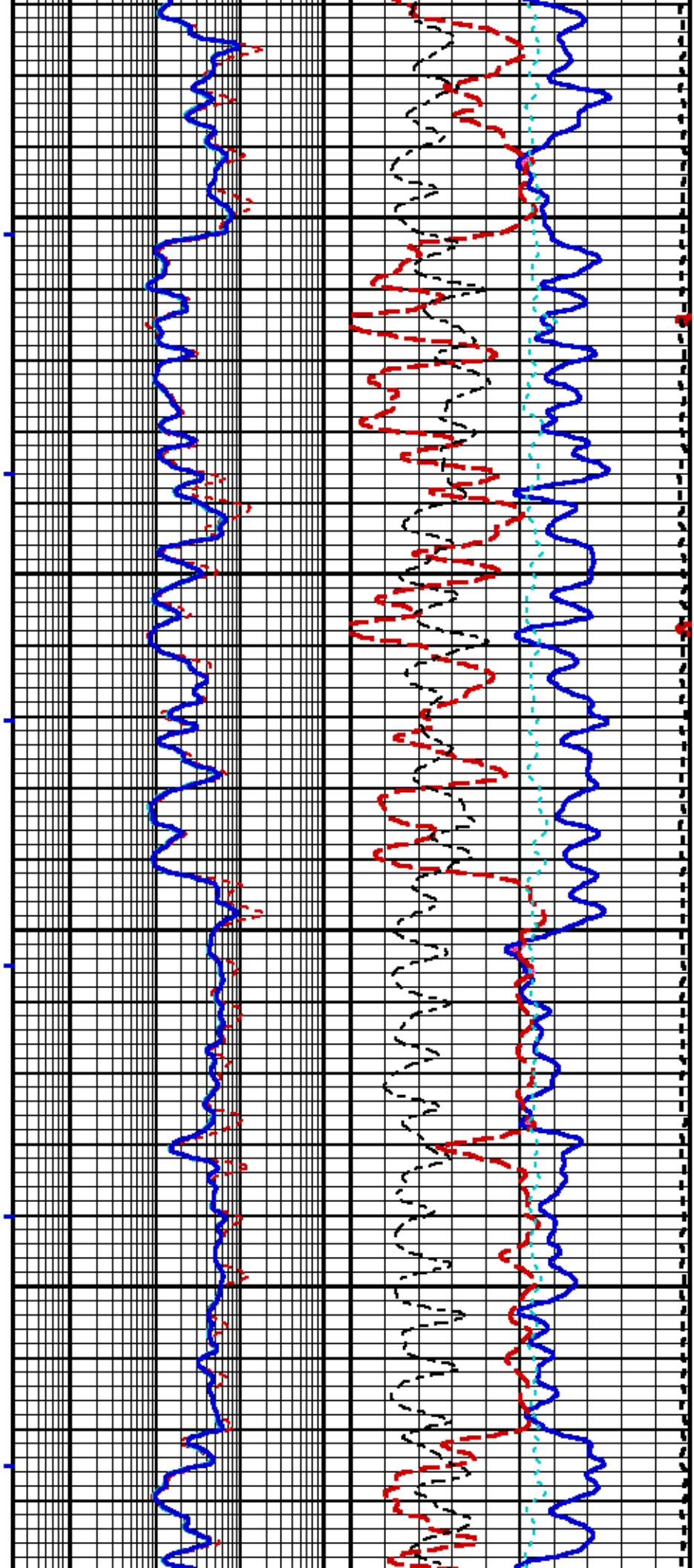
6200

6300



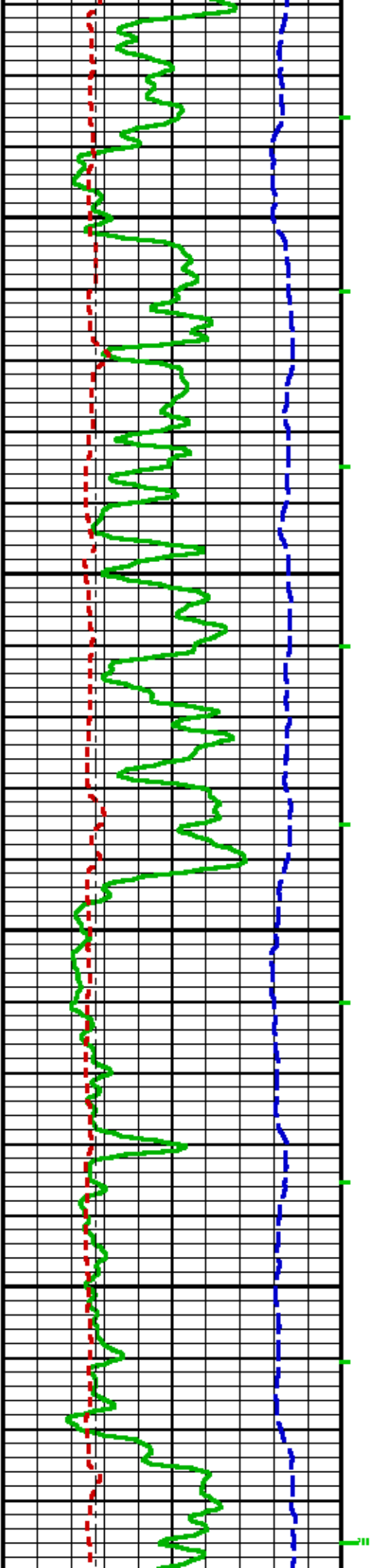


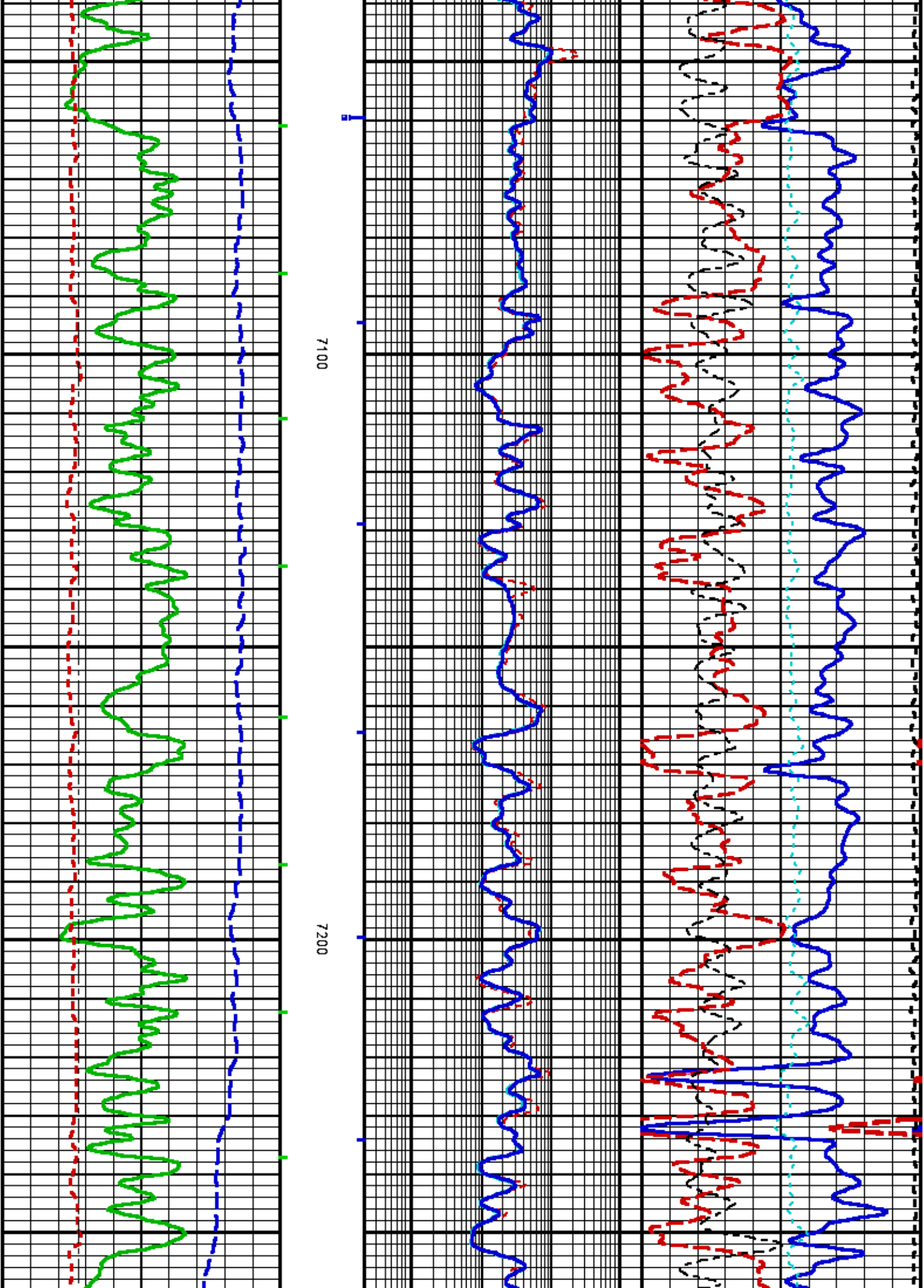


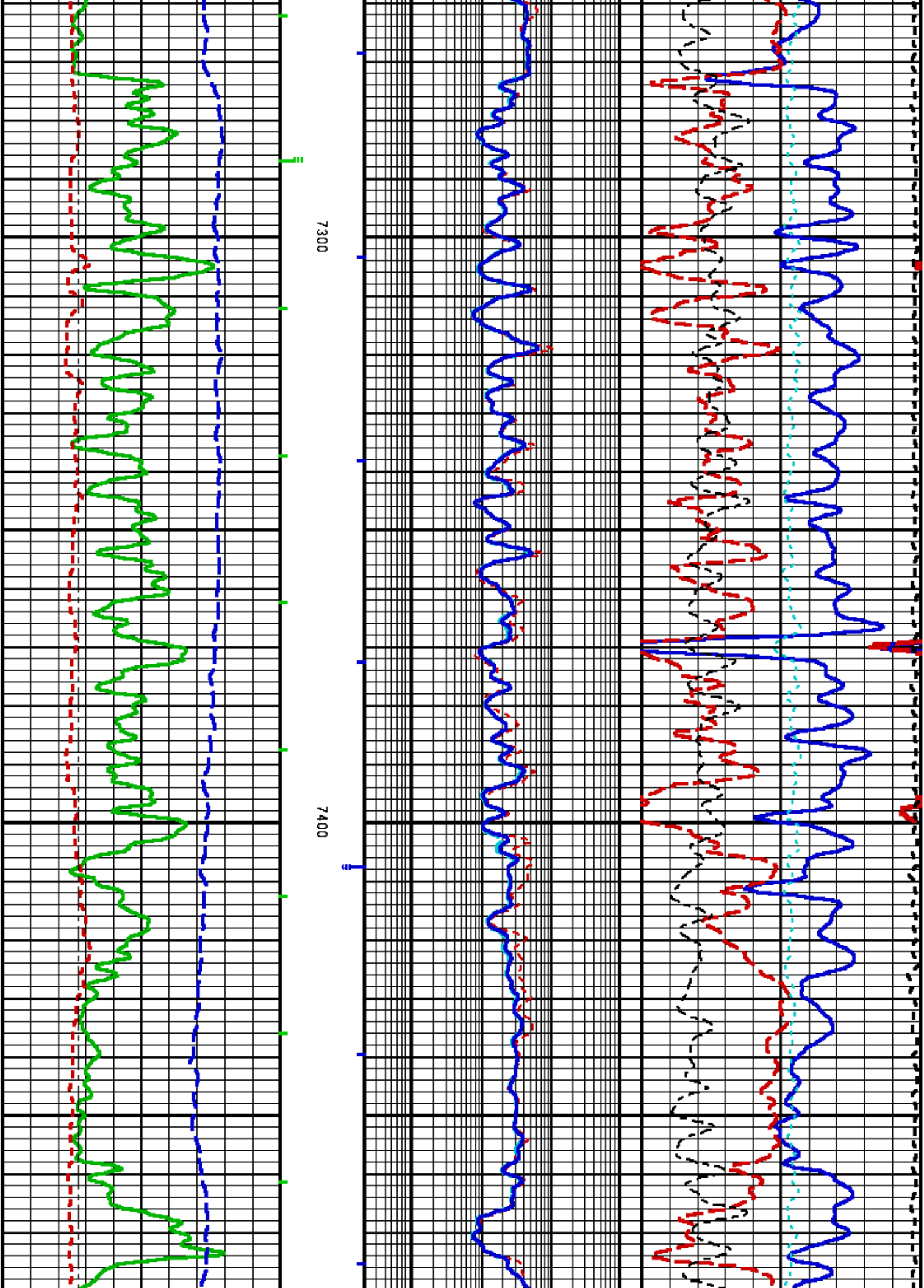


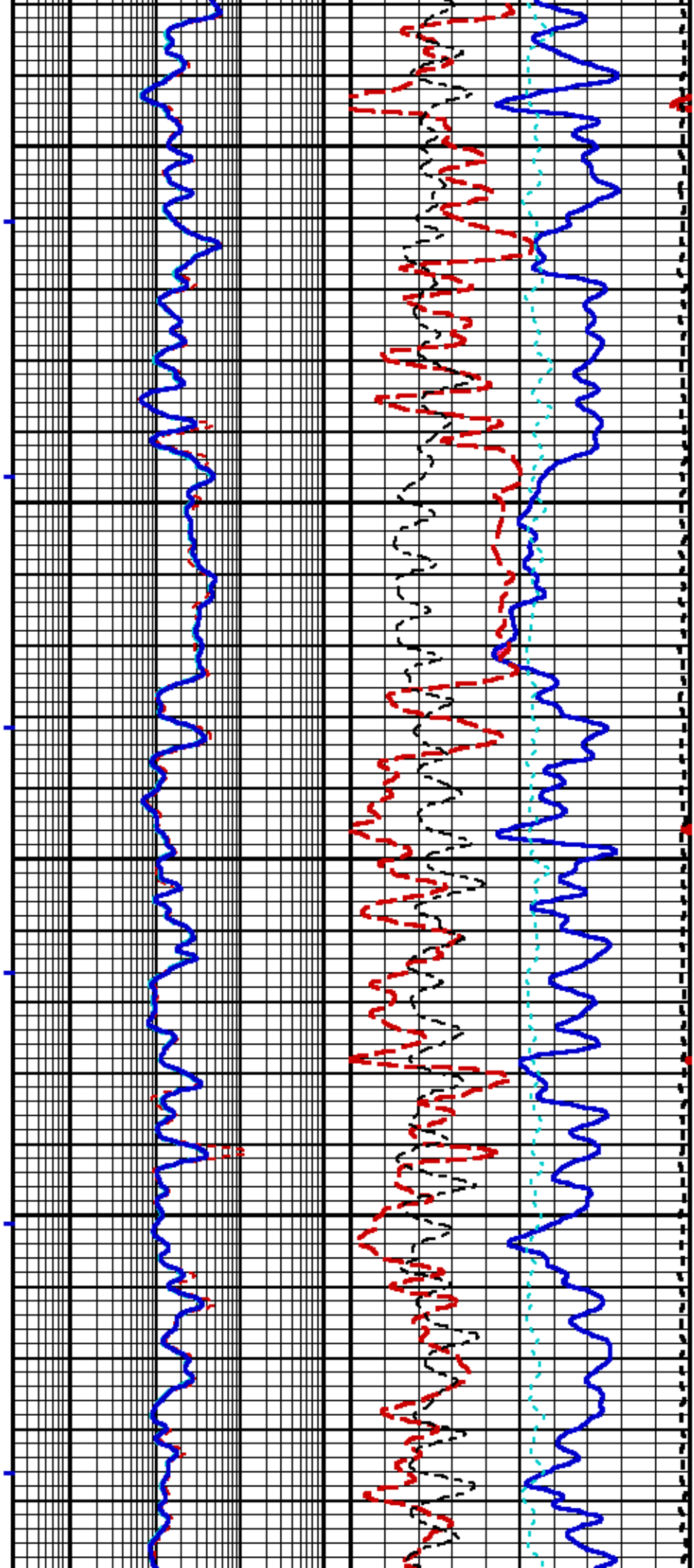
6900

7000





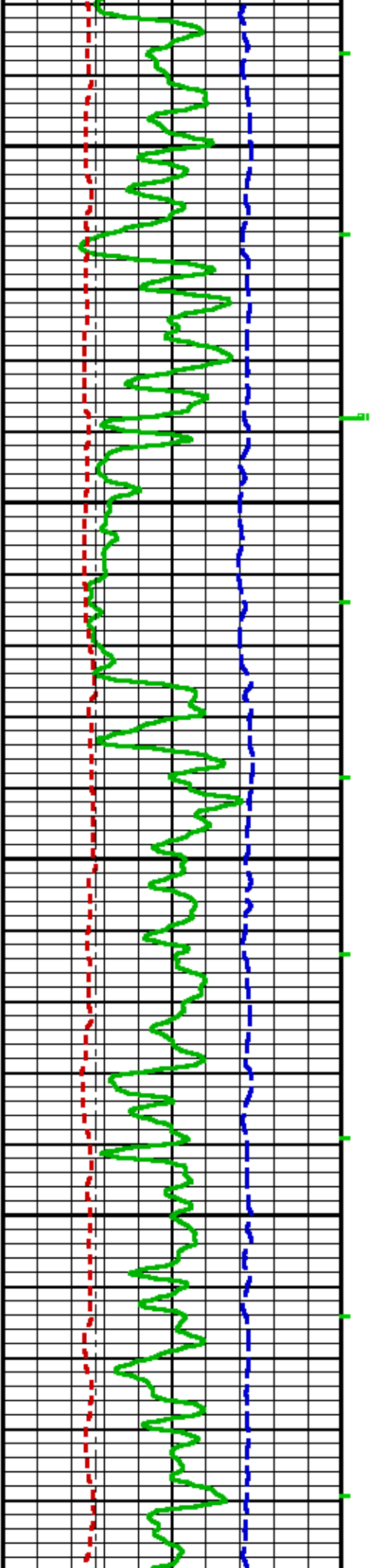




7500

7600

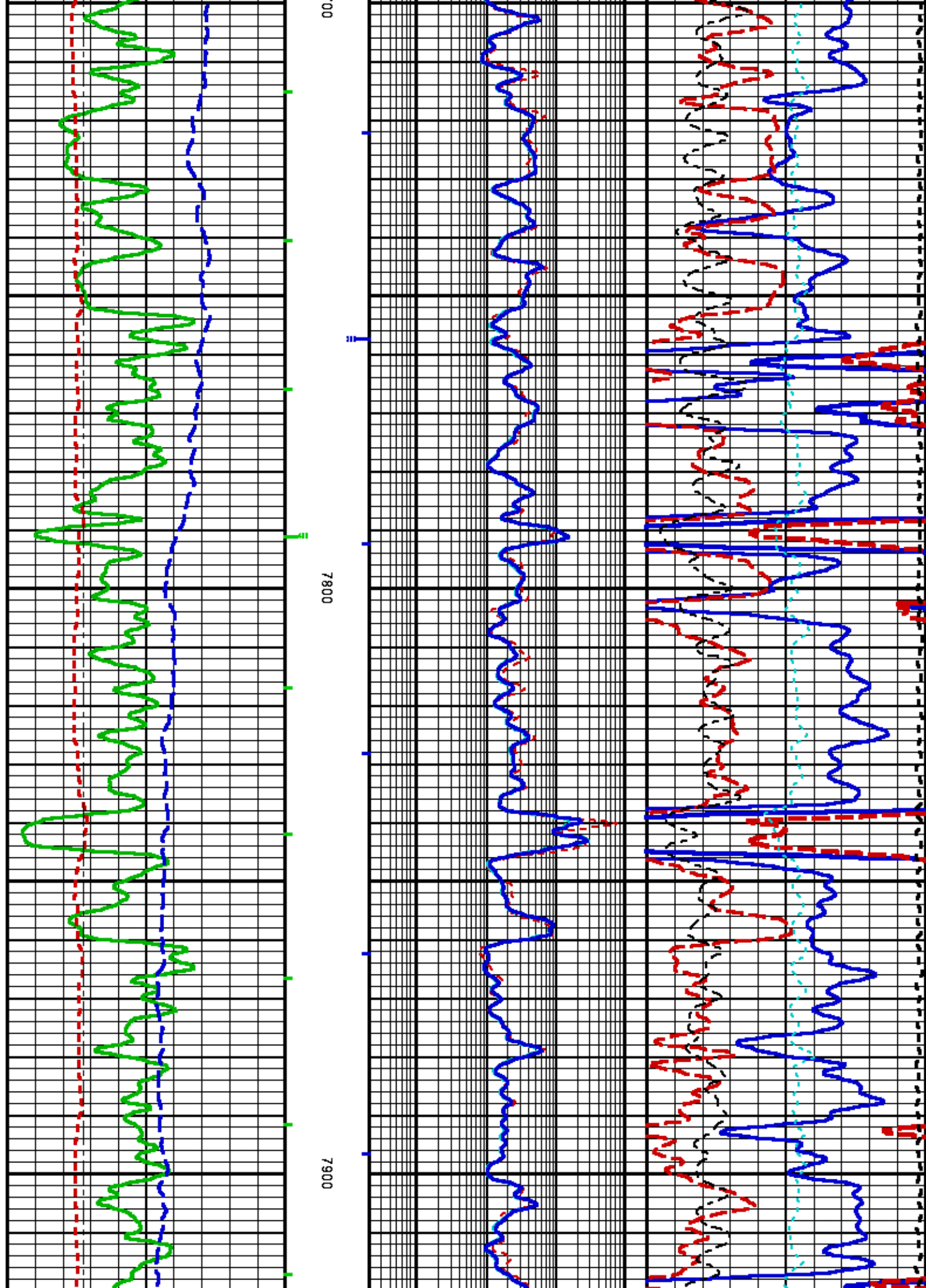
77

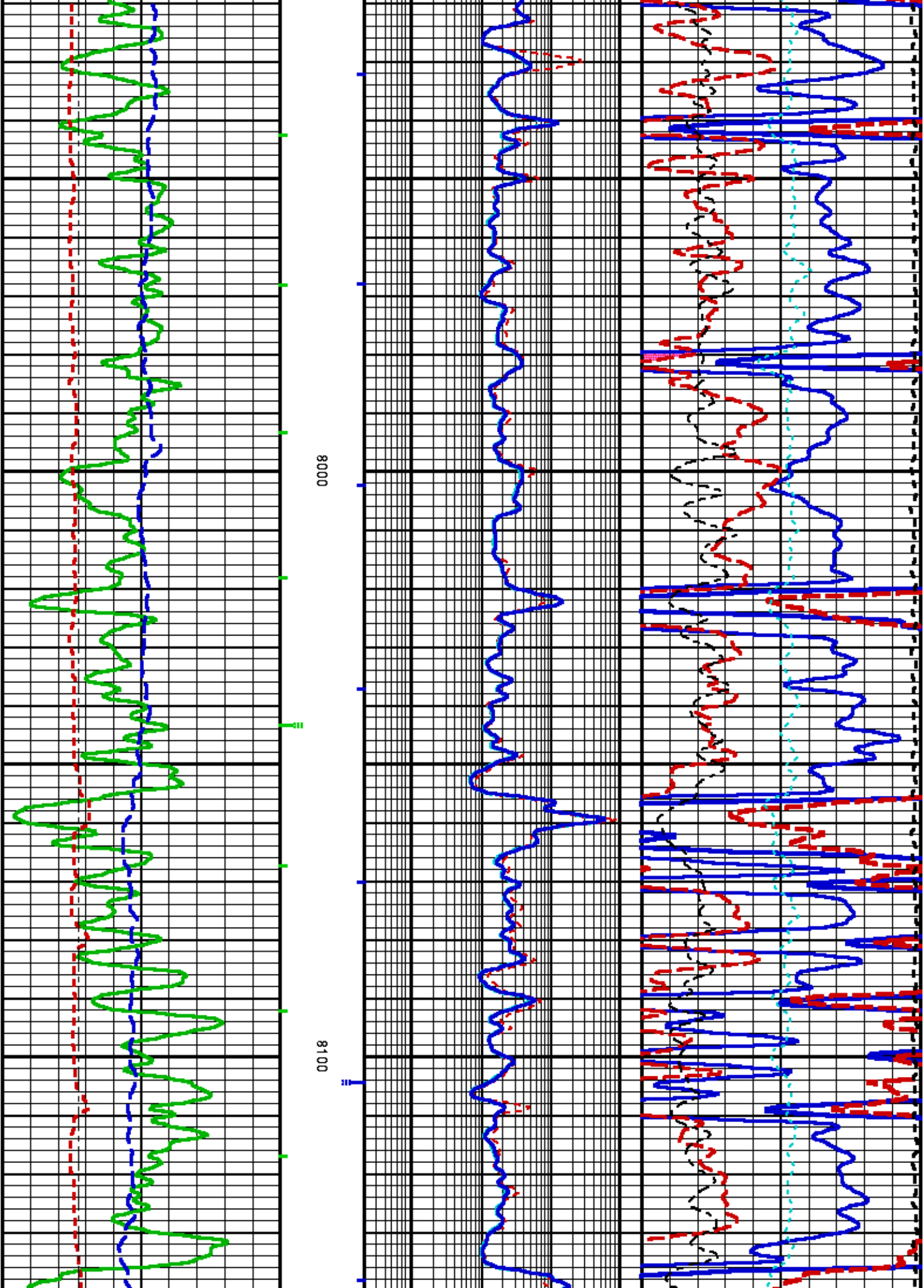


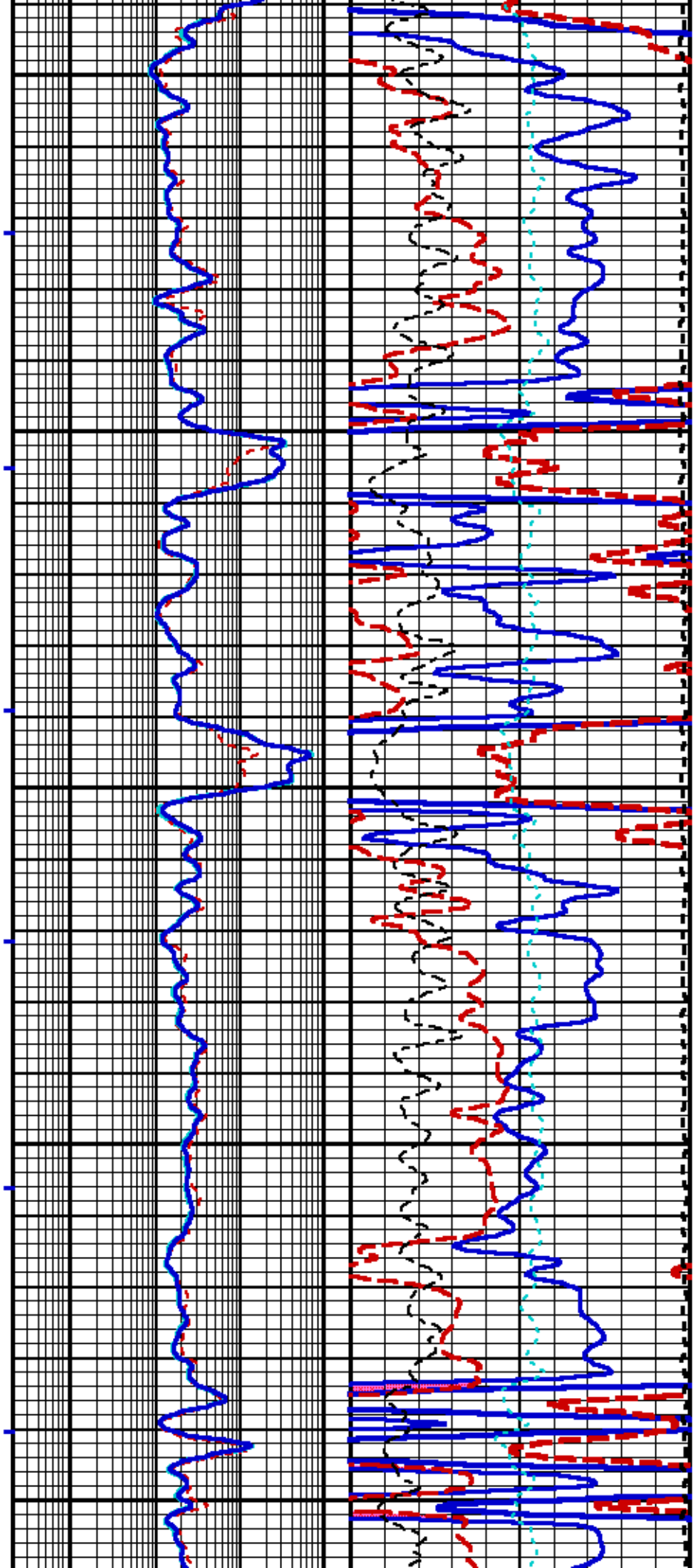
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7800

7900

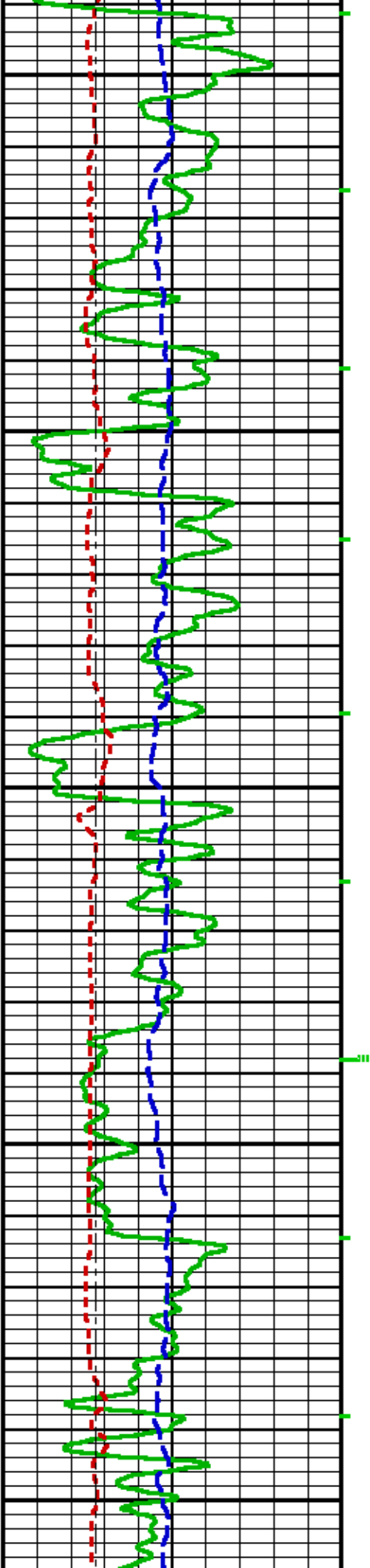


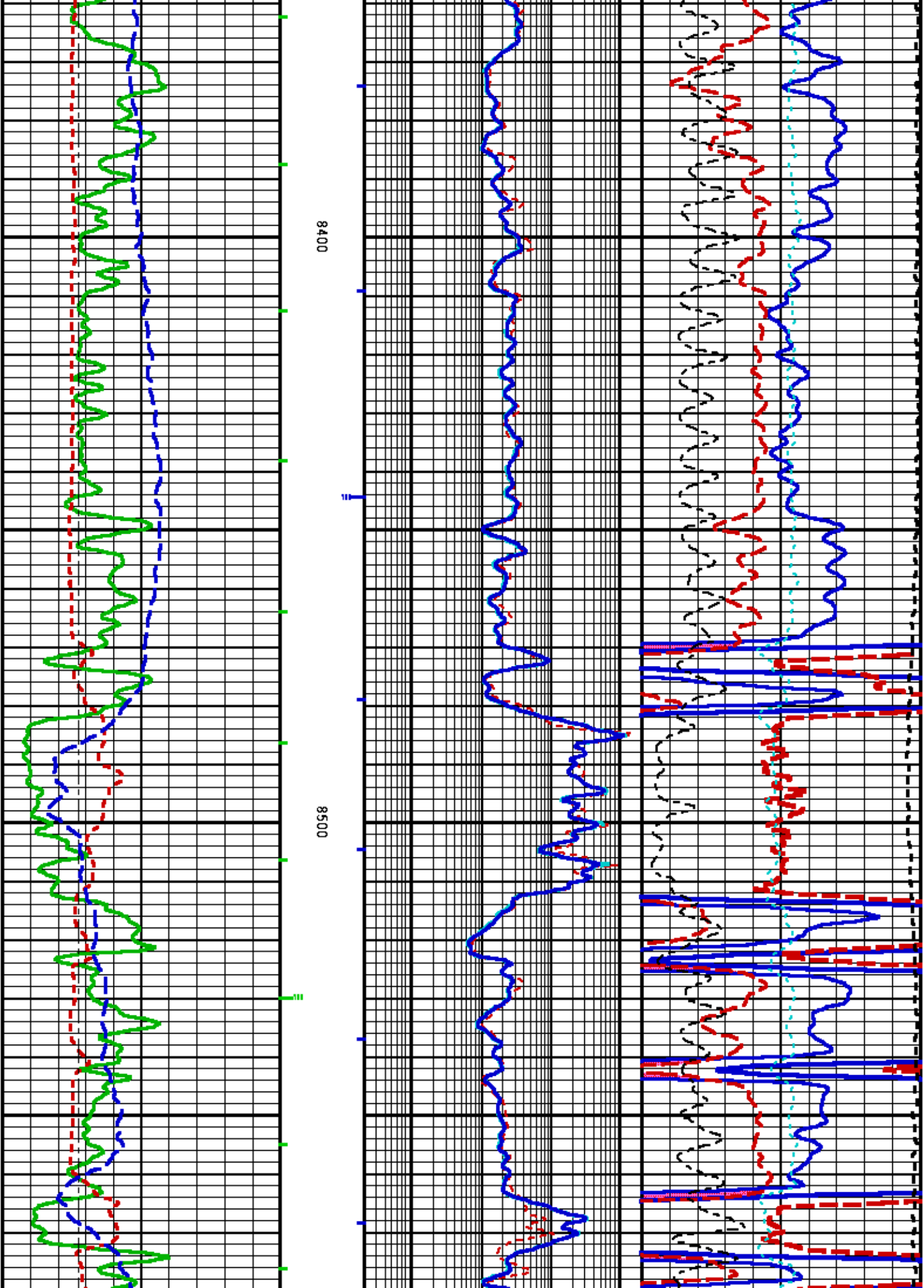


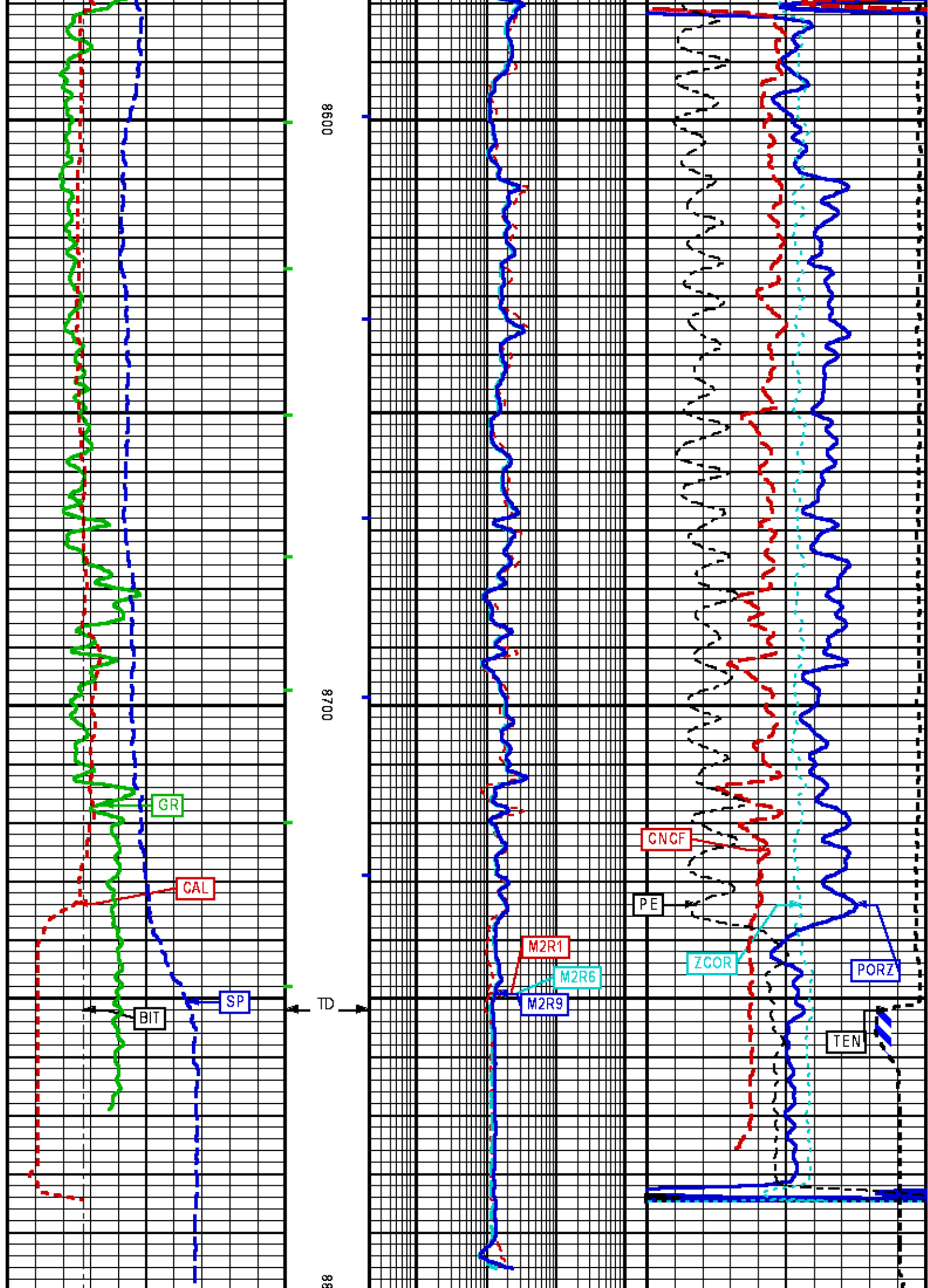


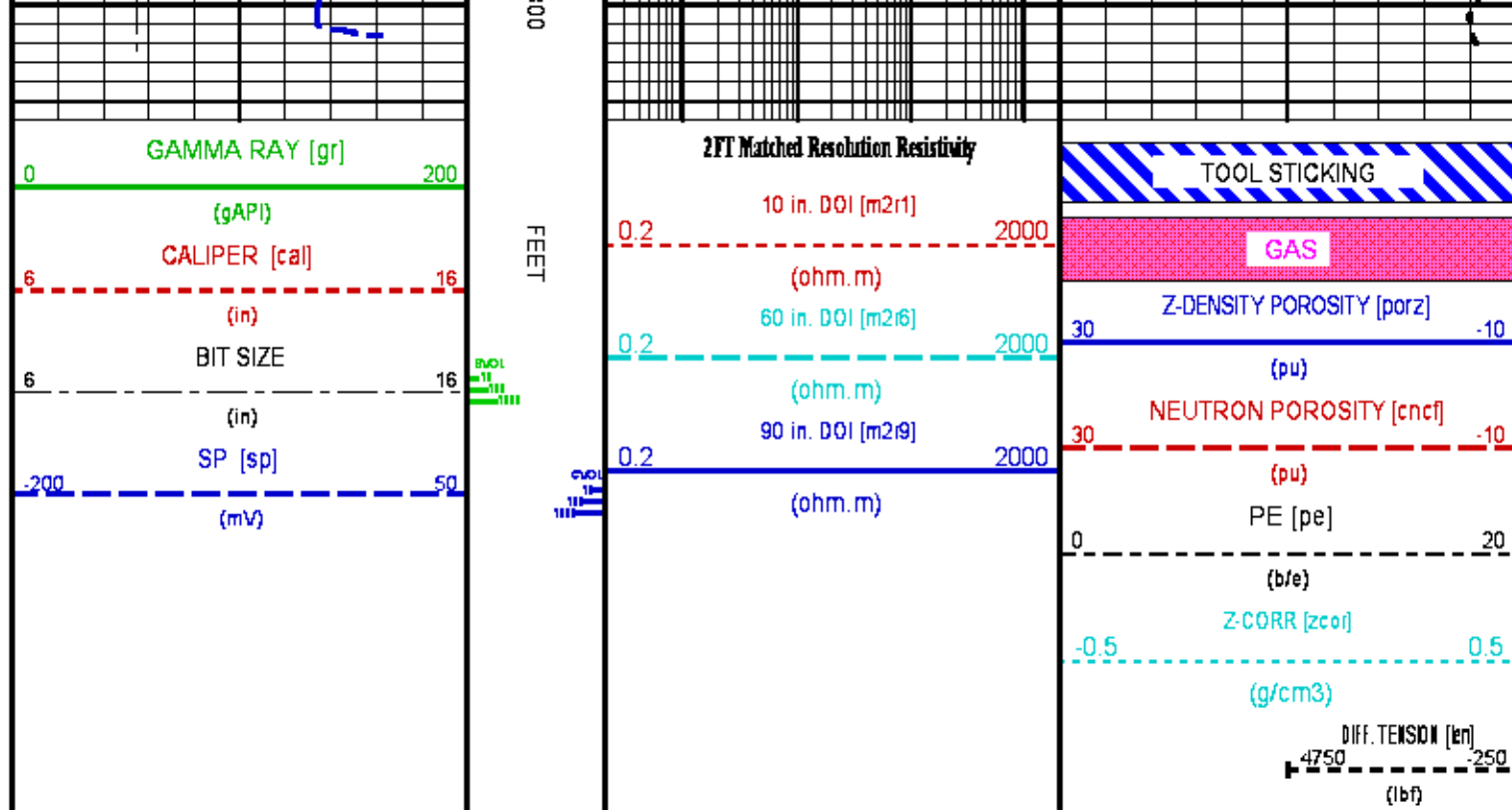
8200

8300









REPEAT LOG 5"/100FT SCALE

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

Updates: 31 Patches: 5

Plotted: Fri Feb 28 04:05:32 2014

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/625064/n970aR01.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 975.250 ft BOTTOM DEPTH: 1457.118 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 (hrd1s*)	medium		"	"
	FILTER (hrd2*)	medium		"	"
	FILTER (hrd2s*)	medium		"	"
	FILTER (soff*)	medium		"	"
SP-SPDH	FILTER Q	medium (1)		"	"

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	"	"
MUD SAMPLE RESISTIVITY	MUD SAMPLE TEMP	65.0	degF	"	"
	MUD SAMPLE RES	2.100	ohm.m	"	"
BH MUD RESISTIVITY SOURCE	RMUD SOURCE (HDIL)	TOOL MEASURED		"	"
BOREHOLE TEMP from GRADIENT	Known BH REF TEMP	65.0	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	700	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	7.875	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	"	"

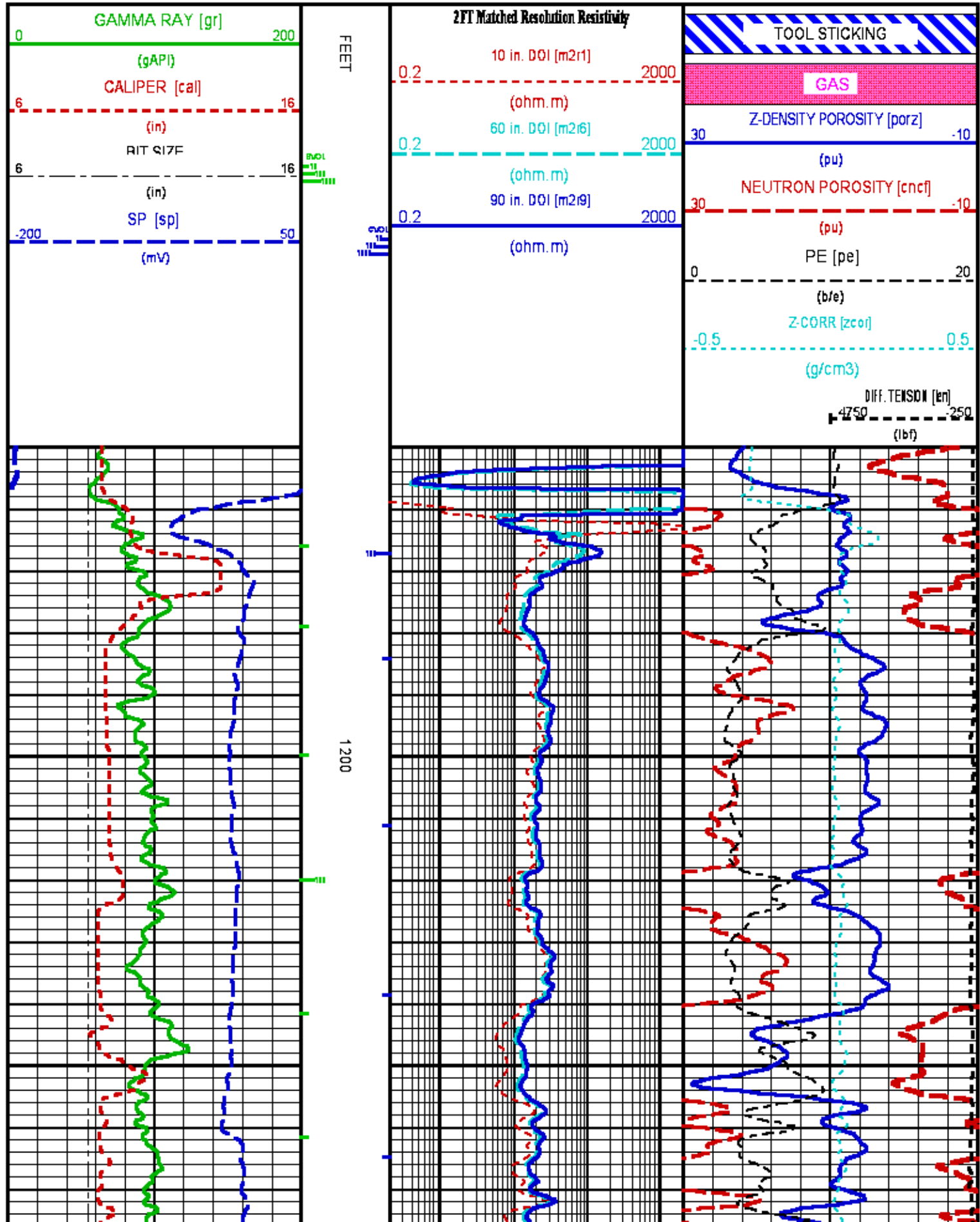
HDIL PROCESSING					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
HDIL TEMPERATURE CORRECTION	TEMP CORRECTION	ON		TOP	BOTTOM
ADAPTIVE BOREHOLE CORRECTION	ABC PROCESSING	ON		"	"
	ABC to CALCULATE	MUD CONDUCTIVITY		"	"
	STANDOFF	1.50	in	"	"
	TOOL POSITION	ECCENTERED		"	"
	Rmud MULTIPLIER	1.000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

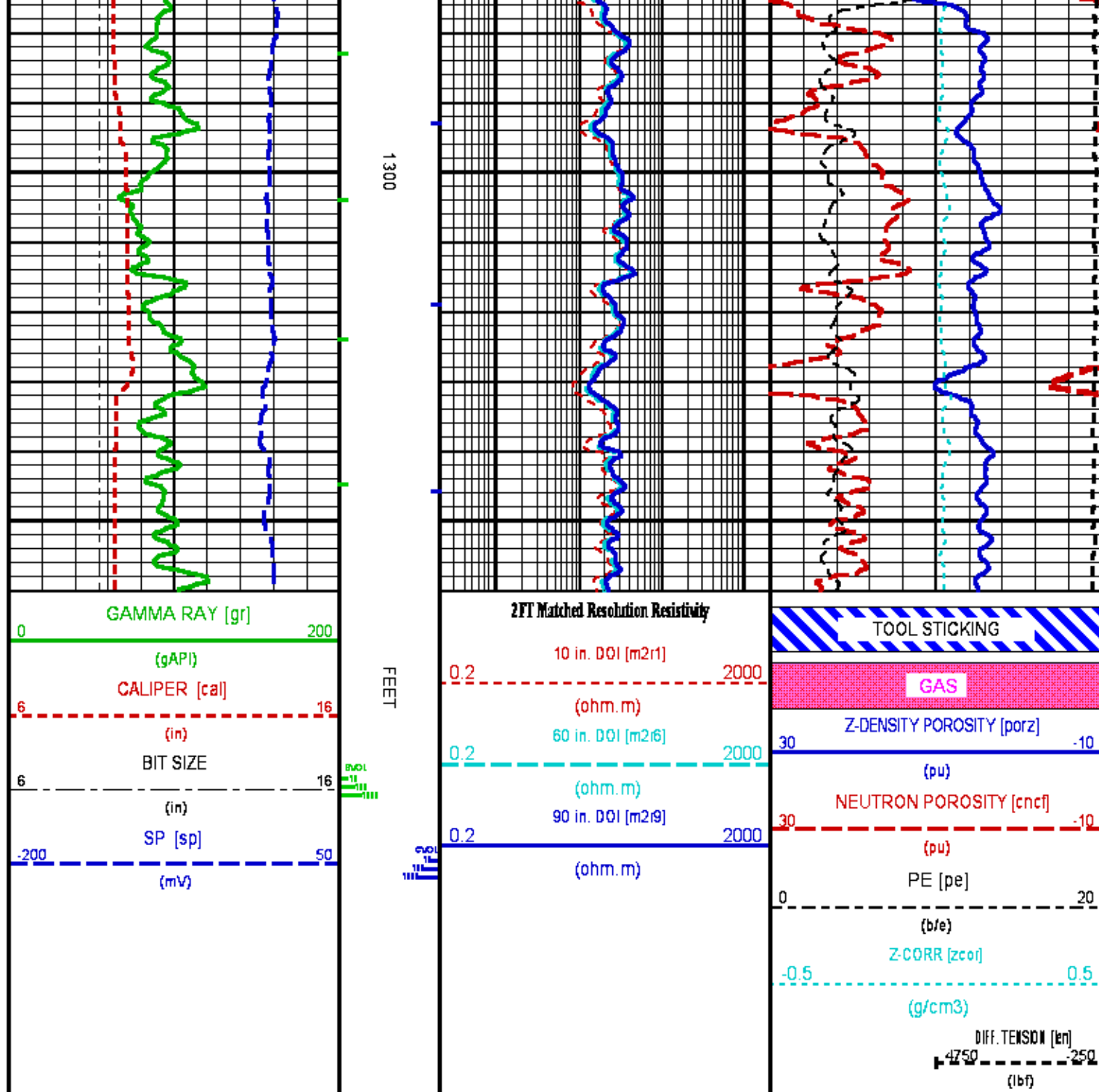
CURVE DESCRIPTION REPORT		
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:BIT	Feb 28 04:03:26 2014	BIT SIZE
F1:BVOL	Feb 28 04:03:26 2014	BOREHOLE VOLUME
F1:CAL	Feb 28 04:03:26 2014	CALIPER
F1:CNCf	Feb 28 04:03:26 2014	FIELD NORMALIZED COMPENSATED NEUTRON POROSITY
F1:CVOL	Feb 28 04:03:26 2014	CEMENT VOLUME
F1:GR	Feb 28 04:03:26 2014	GAMMA RAY
F1:M2R1	Feb 28 04:03:26 2014	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 10-INCH DOI
F1:M2R6	Feb 28 04:03:26 2014	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 60-INCH DOI
F1:M2R9	Feb 28 04:03:26 2014	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 90-INCH DOI
F1:PE	Feb 28 04:03:26 2014	PHOTO ELECTRIC CROSS-SECTION
F1:PORZ	Feb 28 04:03:26 2014	POROSITY FOR SELECTABLE MATRIX
F1:SP	Feb 28 04:03:26 2014	SPONTANEOUS POTENTIAL
F1:TEN	Feb 28 04:03:26 2014	DIFFERENTIAL TENSION
F1:ZCOR	Feb 28 04:03:26 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:/dat1a/625064/WPX_REPEAT.fvpdf [5"/100' Scale]
Plot Interval	: 1150 - 1360 Feet

Data File 1 : F1 : HL6670:/dat1a/625064/n970aR01-REPEAT.xtf
Created On : Feb 28 04:03:26 2014
Company : WPX ENERGY INC
Well : RWF 314-25
Field : RULISON
File Interval : 0 - 1459.25 Feet
OCT : n970a





CALIBRATION / VERIFICATION SUMMARY

Source File: /dat1a/625064/n970a.tp1

TTMA PRIMARY CALIBRATION SUMMARY

TOOL #: 398DXA 10142233

DATE/TIME PERFORMED:

Thu Aug 11 09:14:18 2011

UNIT #: 3985TD ML4230

ACCEL #: 398DXA 10142233

ACCEL CAL DATE:

14:22 02/02/2005

GAIN

OFFSET

(ohm.m)

Rm K Factors

0.14570

-0.01679

	Sig Low (ohm)	Sig High (ohm)	Mult Factor	Add Factor	Engr Low (ohm)	Engr High (ohm)
Rm Measurements	0.25	9.94	1.005530	0.000031	0.25	10.00

TTMA BEFORE LOG VERIFICATION SUMMARY

TOOL #: 398DXA 10142233 DATE/TIME PERFORMED: Fri Feb 28 03:24:54 2014 DAYS SINCE CAL: 931

UNIT #: 388DTA HL667D

	CHT (lbf)	MUD TEMP (degF)	RES M Q (ohm)	ACCEL Q
CAL	19781	496.22	9.95	1001.66
	18975 20575	489.20 503.60	9.00 12.00	990.00 1020.00
ZERO	-24785	-436.02	0.250	1001.473
	-25995 -23695	-443.20 -428.80	0.200 0.300	990.000 1020.000

TTMA AFTER LOG VERIFICATION SUMMARY

TOOL #: 398DXA 10142233 DATE/TIME PERFORMED: Fri Feb 28 06:59:07 2014 DAYS SINCE CAL: 931

UNIT #: 388DTA HL667D

	CHT (lbf)	MUD TEMP (degF)	RES M Q (ohm)	ACCEL Q
CAL	19755	498.11	9.95	1000.19
	18975 20575	489.20 503.60	9.00 12.00	990.00 1020.00
ZERO	-24785	-436.02	0.249	1001.000
	-25995 -23695	-443.20 -428.80	0.200 0.300	990.000 1020.000

GR PRIMARY CALIBRATION SUMMARY

Tool #: 3518EG 10127973 DATE/TIME PERFORMED: Thu Feb 20 15:08:59 2014

Unit #: 388DTA HL667D Jig Series: 4702NK VBA-905

Background	Calibrator ON	Jig Value (gAPI)	Mult	Background (gAPI)	Calibrator ON (gAPI)
75.24	757.14	185	0.271	20.41	205.41
			0.250 0.250		

GR BEFORE LOG VERIFICATION SUMMARY

TOOL #: 3518EG 10127973 DATE/TIME PERFORMED: Fri Feb 28 03:24:49 2014 DAYS SINCE CAL: 7

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

Counts	TEMP (degF)	HV (V)
977.00	38.18	1361.74
929.00 1027.00	536.00	1237.00 1512.00

GR AFTER LOG VERIFICATION SUMMARY

TOOL #: 3518EG 10127973 DATE/TIME PERFORMED: Fri Feb 28 06:58:20 2014 DAYS SINCE CAL: 7

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

Counts	TEMP (degF)	HV (V)
976.67	108.64	1363.96
929.00 1027.00	536.00	1237.00 1512.00

CN PRIMARY CALIBRATION SUMMARY

TOOL #: 2436YA 10262469 DATE/TIME PERFORMED: Fri Dec 6 09:14:53 2013

TOOL #: 2436XA 10362459 DATE/TIME PERFORMED: Fri Feb 06 14:52 2014
UNIT #: 388QTA HL667D CALIBRATOR #: 2437XB 112674 SOURCE #: 4718XA N-0897

SSN DT CPS	LSN DT CPS	SSN/LSN	MCF	CNRATIO	CN PU
4483.84	802.70	5.58597	1.02704 0.95000 1.05000	5.73700	25.241

CN BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2436XA 10362459 DATE/TIME PERFORMED: Fri Feb 28 03:30:12 2014 DAYS SINCE CAL: 83

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

SSN DT CPS	LSN DT CPS	SSN/LSN	TEMP (degF)	HV (V)	LV (V)
991.41	993.42	0.99797 0.95000 1.05000	26.0 260.4	1346.9 1250.0 1450.0	4.644 4.300 5.000

CN AFTER LOG VERIFICATION SUMMARY

TOOL #: 2436XA 10362459 DATE/TIME PERFORMED: Fri Feb 28 06:59:12 2014 DAYS SINCE CAL: 83

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

SSN DT CPS	LSN DT CPS	SSN/LSN	TEMP (degF)	HV (V)	LV (V)
992.43	994.45	0.99797 0.95000 1.05000	95.2 260.4	1345.4 1250.0 1450.0	4.648 4.300 5.000

CAL PRIMARY CALIBRATION SUMMARY

TOOL #: 2223XA 10090664 DATE/TIME PERFORMED: Wed Feb 12 14:25:59 2014

UNIT #: 388QTA HL667D

	SIZE (in)	VALUE	MULTIPLIER	ADD
SMALL RING (Arm)	7.000	1128.0		
LARGE RING (Arm)	11.000	2368.0	0.00323	3.36129
PAD CLOSED		2016.0	0.00250	-5.04000

CAL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2223XA 10090664 DATE/TIME PERFORMED: Fri Feb 28 03:36:34 2014 DAYS SINCE CAL: 15

UNIT #: 388QTA HL667D

	VALUE	MULTIPLIER	ADD	SIZE (in)
ARM	1752.0	0.00323	3.36129	9.0
PAD	2004.0	0.00250	-5.04000	-0.0

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

CAL AFTER LOG VERIFICATION SUMMARY

TOOL #: 2223XA 10090664 DATE/TIME PERFORMED: Fri Feb 28 06:58:36 2014 DAYS SINCE CAL: 15

UNIT #: 388QTA HL667D

VALUE	MULTIPLIER	ADD	SIZE (in)
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ARM	1751.6	0.00323	3.36129	9.0
PAD	1835.6	0.00250	-5.04000	-0.5
		ACTUAL	MEASURED	
		(in)	(in)	
DIAMETER (arm+pad)		9.001	9.0	
			8.6	9.4

ZDL PRIMARY CALIBRATION SUMMARY

TOOL: 2223XA 10090664

DATE/TIME PERFORMED: Wed Feb 26 14:48:04 2014

UNIT: 3880TA HL667D

CALB BLKS: 2225XA 094292F

CS SRC: 47D5XA 16068B

PAD TYPE: PADTYP 7.5" PAD

	SS CS PK (Channel)	LS CS PK (Channel)	SS_BKGD (cps)	LS BKGD (cps)		
	226.4	224.8	1263.4	1640.7		
	230.0	230.0	230.0	230.0		
	SS (cps)	LS (cps)	SHR	DEN (g/cm3)	CORR (g/cm3)	PE (b/e)
MG (LO PE)	34332.4	12527.7	0.770	1.679	0.000	1.900
			0.730	0.890		
AL	21534.4	1414.6		2.667	-0.016	
AL + SHIM	28565.2	2445.7		2.558	0.098	
MG + SHIM (HI PE)	16856.0	5941.1	0.304			8.550
			0.280	0.360		
RATIO AL + SHIM/AL	1.33	1.73				
	1.30	1.40	1.60	1.80		
RATIO MG/AL	1.59	8.86				
	1.58	1.70	8.55	9.55		

ZDL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2223XA 10090664

DATE/TIME PERFORMED: Fri Feb 28 03:30:01 2014

DAYS SINCE CAL: 1

UNIT #: 3880TA HL667D

	TOTAL (cps)	CSPK (Channel)	HV (V)
LS	3342.1	224.9	1427.0
	3332.1	3352.1	230.0
	230.0	230.0	1250.0
SS	22354.8	224.2	1376.3
	22344.8	22364.8	230.0
	230.0	230.0	1250.0
	1550.0	1550.0	
	LV (V)	PAD CURRENT (mA)	
	5.0	76.8	
	4.8	52	50.0
			120.0

ZDL AFTER LOG VERIFICATION SUMMARY

TOOL #: 2223XA 10090664

DATE/TIME PERFORMED: Fri Feb 28 06:57:45 2014

DAYS SINCE CAL: 1

UNIT #: 3880TA HL667D

	TOTAL (cps)	CSPK (Channel)	HV (V)
LS	3342.1	225.2	1405.7
	3332.1	3352.1	230.0
	230.0	230.0	1250.0
SS	22354.8	224.1	1367.0
	22344.8	22364.8	230.0
	230.0	230.0	1250.0
	1550.0	1550.0	
	LV (V)	PAD CURRENT (mA)	
	5.0	75.2	
	4.8	52	50.0
			120.0

HDIL PRIMARY CALIBRATION SUMMARY

TOOL #: 1530XA 10121806

DATE/TIME PERFORMED: Tue Jan 7 14:33:41 2014

UNIT #: 3880TA HL6670

GRCOND ID & DATE: 94 101801

ZERO DATA(mv)	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 R	0.0037 -0.2000 0.2000	-0.0008 -0.1000 0.1000	-0.0003 -0.1000 0.1000	0.0007 -0.1000 0.1000	-0.0014 -0.1000 0.1000	0.0002 -0.1000 0.1000	-0.0004 -0.1000 0.1000	-0.0000 -0.1000 0.1000
Coil 0 Q	-0.0039 -0.5000 0.5000	-0.0008 -0.2000 0.2000	0.0005 -0.1000 0.1000	-0.0012 -0.1000 0.1000	0.0004 -0.1000 0.1000	0.0003 -0.1000 0.1000	0.0000 -0.1000 0.1000	-0.0004 -0.1000 0.1000
Coil 1 R	0.0008 -0.2000 0.2000	-0.0004 -0.1000 0.1000	0.0018 -0.1000 0.1000	-0.0009 -0.1000 0.1000	-0.0004 -0.1000 0.1000	-0.0003 -0.1000 0.1000	-0.0002 -0.1000 0.1000	0.0006 -0.1000 0.1000
Coil 1 Q	-0.0178 -0.5000 0.5000	-0.0015 -0.2000 0.2000	0.0010 -0.1000 0.1000	-0.0012 -0.1000 0.1000	0.0008 -0.1000 0.1000	-0.0007 -0.1000 0.1000	-0.0006 -0.1000 0.1000	-0.0011 -0.1000 0.1000
Coil 2 R	0.0055 -0.2000 0.2000	-0.0012 -0.1000 0.1000	0.0043 -0.1000 0.1000	-0.0024 -0.1000 0.1000	0.0006 -0.1000 0.1000	-0.0000 -0.1000 0.1000	-0.0000 -0.1000 0.1000	0.0016 -0.1000 0.1000
Coil 2 Q	-0.0108 -0.5000 0.5000	-0.0007 -0.2000 0.2000	-0.0037 -0.1000 0.1000	-0.0003 -0.1000 0.1000	-0.0013 -0.1000 0.1000	-0.0013 -0.1000 0.1000	0.0006 -0.1000 0.1000	-0.0012 -0.1000 0.1000
Coil 3 R	0.0113 -0.3000 0.3000	-0.0008 -0.1000 0.1000	-0.0016 -0.1000 0.1000	0.0012 -0.1000 0.1000	0.0002 -0.1000 0.1000	0.0008 -0.1000 0.1000	0.0033 -0.1000 0.1000	0.0012 -0.1000 0.1000
Coil 3 Q	-0.0126 -0.5000 0.5000	0.0028 -0.2000 0.2000	0.0037 -0.1000 0.1000	-0.0006 -0.1000 0.1000	-0.0010 -0.1000 0.1000	-0.0014 -0.1000 0.1000	0.0038 -0.1000 0.1000	0.0020 -0.1000 0.1000
Coil 4 R	0.0190 -0.5000 0.5000	-0.0089 -0.2000 0.2000	-0.0002 -0.2000 0.2000	0.0046 -0.2000 0.2000	0.0026 -0.2000 0.2000	-0.0029 -0.2000 0.2000	0.0066 -0.2000 0.2000	0.0043 -0.2000 0.2000
Coil 4 Q	-0.0187 -1.0000 1.0000	-0.0122 -0.4000 0.4000	0.0007 -0.2000 0.2000	0.0041 -0.2000 0.2000	0.0051 -0.2000 0.2000	0.0076 -0.2000 0.2000	-0.0023 -0.2000 0.2000	0.0004 -0.2000 0.2000
Coil 5 R	0.0512 -1.2000 1.2000	-0.0214 -0.4000 0.4000	-0.0173 -0.4000 0.4000	0.0092 -0.4000 0.4000	0.0079 -0.4000 0.4000	-0.0070 -0.4000 0.4000	0.0171 -0.4000 0.4000	0.0147 -0.4000 0.4000
Coil 5 Q	-0.0400 -1.5000 1.5000	-0.0261 -0.8000 0.8000	0.0143 -0.4000 0.4000	-0.0158 -0.4000 0.4000	0.0060 -0.4000 0.4000	-0.0097 -0.4000 0.4000	0.0083 -0.4000 0.4000	-0.0060 -0.4000 0.4000

ELEC. GAINS	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 M	163.06 136.00 186.00	161.65 134.00 184.00	158.79 131.00 181.00	154.56 126.00 176.00	148.96 122.00 170.00	142.06 118.00 161.00	133.99 112.00 150.00	124.73 105.00 139.00
Coil 0 P	7.674 6.000 9.000	25.240 21.000 30.000	42.370 35.000 50.000	59.458 49.000 71.000	76.552 63.000 91.000	93.666 77.000 109.000	110.821 92.000 130.000	127.954 106.000 151.000
Coil 1 M	281.66 239.00 329.00	279.14 235.00 325.00	274.04 230.00 320.00	266.44 225.00 312.00	256.48 218.00 302.00	244.13 209.00 299.00	229.67 196.00 256.00	213.18 184.00 244.00
Coil 1 P	7.844 6.000 9.000	25.720 21.000 30.000	43.167 35.000 51.000	60.580 49.000 71.000	77.996 63.000 92.000	95.415 78.000 112.000	112.883 93.000 130.000	130.299 107.000 151.000
Coil 2 M	578.47 479.00 699.00	573.60 474.00 664.00	563.68 463.00 643.00	548.89 450.00 622.00	529.31 432.00 602.00	504.78 412.00 572.00	475.98 390.00 540.00	442.89 359.00 499.00
Coil 2 P	7.964 6.000 9.000	26.114 21.000 31.000	43.846 35.000 51.000	61.558 49.000 71.000	79.291 63.000 92.000	97.067 76.000 115.000	114.892 92.000 135.000	132.704 106.000 155.000
Coil 3 M	925.75 772.00 1090.00	917.66 764.00 1050.00	901.13 752.00 1030.00	876.42 728.00 1010.00	844.08 700.00 970.00	803.95 665.00 925.00	756.94 628.00 869.00	702.73 599.00 799.00
Coil 3 P	7.767 6.000 10.000	25.546 21.000 30.000	42.898 35.000 51.000	60.208 49.000 72.000	77.518 63.000 93.000	94.862 76.000 114.000	112.225 90.000 135.000	129.553 104.000 155.000
Coil 4 M	1453.6 1210.0 1700.0	1440.2 1205.0 1690.0	1412.5 1180.0 1690.0	1371.6 1140.0 1590.0	1318.0 1120.0 1530.0	1252.6 1070.0 1450.0	1176.7 1000.0 1350.0	1090.2 942.0 1240.0
Coil 4 P	7.866 6.000 10.000	25.838 21.000 31.000	43.376 35.000 52.000	60.844 49.000 73.000	78.277 63.000 93.000	95.713 77.000 114.000	113.107 91.000 135.000	130.407 106.000 155.000
Coil 5 M	2983.3 2450.0 3450.0	2960.7 2420.0 3400.0	2911.3 2410.0 3320.0	2836.3 2350.0 3200.0	2735.9 2280.0 3090.0	2611.5 2150.0 2990.0	2463.8 2020.0 2750.0	2292.2 1870.0 2570.0
Coil 5 P	7.916 6.000 10.000	26.013 20.000 31.000	43.723 35.000 52.000	61.396 49.000 73.000	79.117 63.000 94.000	96.902 79.000 113.000	114.759 93.000 134.000	132.605 106.000 156.000

AM Factor	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 R	-1097 -3000 940	-658 -1400 -20	-537 -800 -150	-464 -760 -160	-412 -660 -130	-373 -600 -120	-342 -550 -110	-318 -520 -82
Coil 0 Q	-1163 -15000 11000	-686 -5900 3600	-547 -3700 2100	-490 -2700 1400	-460 -3200 1000	-442 -1800 750	-431 -1600 620	-425 -1500 480
Coil 1 R	-141 -750 460	-154 -360 69	-148 -260 9	-134 -230 -10	-123 -200 -25	-114 -180 -35	-106 -160 -46	-99 -150 -49
Coil 1 Q	-121 -3000 3000	-79 -1100 960	-75 -630 530	-77 -470 360	-78 -380 260	-79 -300 190	-79 -250 150	-80 -260 120
Coil 2 R	2.3 -85.0 76.0	-34.0 -64.0 -0.4	-36.0 -57.0 -12.0	-33.9 -51.0 -16.0	-31.1 -46.0 -17.0	-28.4 -42.0 -16.0	-25.6 -39.0 -15.0	-23.7 -37.0 -13.0
Coil 2 Q	422.6 -1500.0 1900.0	141.1 -500.0 610.0	80.2 -290.0 390.0	54.6 -220.0 290.0	40.6 -160.0 190.0	32.6 -140.0 160.0	27.9 -110.0 130.0	25.4 -89.0 120.0
Coil 3 R	1.3 -29.0 21.0	-7.5 -22.0 1.6	-8.9 -21.0 -1.3	-8.6 -20.0 -1.8	-9.0 -19.0 -2.0	-8.1 -19.0 -1.3	-7.8 -19.0 -0.8	-7.5 -19.0 -0.0
Coil 3 Q	124.6 -540.0 530.0	45.6 -180.0 180.0	31.0 -100.0 110.0	25.3 -71.0 81.0	23.3 -51.0 66.0	23.0 -37.0 59.0	23.2 -38.0 53.0	24.6 -21.0 51.0
Coil 4 R	0.46 -1.500 1.500	-1.57 -0.800 0.800	-1.66 -0.800 0.800	-1.72 -0.800 0.800	-3.24 -1.500 1.500	-1.70 -0.800 0.800	-1.38 -0.600 0.600	-1.38 -0.600 0.600

Coil 1 R	1.07 -18.00 13.00	1.07 -12.00 2.70	1.03 -11.00 1.50	1.72 -9.90 0.52	0.21 -9.90 0.96	1.72 -10.00 1.50	1.00 -9.90 2.30	1.00 -11.00 2.60
Coil 4 Q	1.20 -250.00 250.00	2.60 -79.00 98.00	3.65 -43.00 64.00	4.85 -27.00 51.00	7.87 -18.00 46.00	8.01 -11.00 42.00	9.87 -5.90 42.00	10.34 -1.00 42.00
Coil 5 R	1.03 -56.00 51.00	0.44 -8.40 3.60	-0.40 -6.90 1.10	-0.20 -6.90 1.20	-1.64 -9.30 2.90	-0.31 -14.00 6.30	-0.38 -19.00 9.60	0.29 -24.00 13.00
Coil 5 Q	0.20 -88.00 69.00	2.11 -25.00 27.00	3.66 -14.00 22.00	4.49 -7.00 22.00	3.78 -2.50 24.00	6.86 1.10 26.00	8.64 4.10 29.00	9.90 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	0.966 0.850 1.100	0.975 0.860 1.100	0.979 0.870 1.100	0.981 0.880 1.100	0.982 0.880 1.100	0.982 0.880 1.100	0.983 0.880 1.100	0.982 0.880 1.100
Coil D P	-0.316 -1.500 1.500	-0.485 -1.500 1.500	-0.379 -1.500 1.500	-0.260 -1.500 1.500	-0.175 -1.500 1.500	-0.101 -1.500 1.500	-0.026 -1.500 1.500	-0.005 -1.500 1.500
Coil 1 M	0.961 0.850 1.100	0.970 0.860 1.100	0.974 0.870 1.100	0.976 0.880 1.100	0.977 0.880 1.100	0.977 0.880 1.100	0.977 0.880 1.100	0.977 0.880 1.100
Coil 1 P	-0.296 -1.500 1.500	-0.476 -1.500 1.500	-0.360 -1.500 1.500	-0.238 -1.500 1.500	-0.134 -1.500 1.500	-0.087 -1.500 1.500	-0.032 -1.500 1.500	0.016 -1.500 1.500
Coil 2 M	0.986 0.850 1.100	0.987 0.850 1.100	0.987 0.850 1.100	0.986 0.850 1.100	0.986 0.850 1.100	0.985 0.850 1.100	0.985 0.850 1.100	0.985 0.850 1.100
Coil 2 P	0.044 -1.500 1.500	0.046 -1.500 1.500	0.090 -1.500 1.500	0.134 -1.500 1.500	0.151 -1.500 1.500	0.175 -1.500 1.500	0.211 -1.500 1.500	0.219 -1.500 1.500
Coil 3 M	0.994 0.900 1.100	0.994 0.900 1.100	0.994 0.900 1.100	0.994 0.900 1.100	0.993 0.900 1.100	0.992 0.900 1.100	0.992 0.900 1.100	0.990 0.900 1.100
Coil 3 P	0.048 -1.500 1.500	0.082 -1.500 1.500	0.138 -1.500 1.500	0.198 -1.500 1.500	0.236 -1.500 1.500	0.286 -1.500 1.500	0.334 -1.500 1.500	0.350 -1.500 1.500
Coil 4 M	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	1.000 0.900 1.100	1.000 0.900 1.100	0.999 0.900 1.100
Coil 4 P	0.116 -1.500 1.500	0.124 -1.500 1.500	0.210 -1.500 1.500	0.286 -1.500 1.500	0.396 -1.500 1.500	0.454 -1.500 1.500	0.525 -1.500 1.500	0.577 -1.500 1.500
Coil 5 M	1.003 0.900 1.100	1.002 0.900 1.100	1.003 0.900 1.100	1.003 0.900 1.100	1.002 0.900 1.100	1.005 0.900 1.100	1.007 0.900 1.100	1.007 0.900 1.100
Coil 5 P	0.040 -1.500 1.500	0.106 -1.500 1.500	0.264 -1.500 1.500	0.377 -1.500 1.500	0.561 -1.500 1.500	0.694 -1.500 1.500	0.775 -1.500 1.500	0.910 -1.500 1.500

PARMS

TCID 0

TCID 1

Cal Temp

T Factor

IDs

2.831

0.846

(degF)

50.4

1.00

HDIL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 153DXA 1D121806

DATE/TIME PERFORMED: Fri Feb 28 03:26:04 2014

DAYS SINCE CAL: 51

UNIT #: 388DTA HL667D

ZERO DATA(mv)	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil D R	0.003 -0.200 0.200	0.000 -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	-0.000 -0.100 0.100	-0.001 -0.100 0.100
Coil D Q	-0.004 -0.500 0.500	-0.001 -0.200 0.200	0.000 -0.100 0.100	0.000 -0.100 0.100	-0.000 -0.100 0.100	0.000 -0.100 0.100	-0.000 -0.100 0.100	-0.000 -0.100 0.100
Coil 1 R	0.002 -0.200 0.200	-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	0.001 -0.100 0.100	-0.000 -0.100 0.100
Coil 1 Q	-0.018 -0.500 0.500	-0.001 -0.200 0.200	-0.001 -0.100 0.100	0.002 -0.100 0.100	0.002 -0.100 0.100	-0.001 -0.100 0.100	-0.000 -0.100 0.100	0.000 -0.100 0.100
Coil 2 R	0.005 -0.200 0.200	-0.004 -0.100 0.100	0.000 -0.100 0.100	0.003 -0.100 0.100	0.002 -0.100 0.100	0.005 -0.100 0.100	0.005 -0.100 0.100	0.001 -0.100 0.100
Coil 2 Q	-0.010 -0.500 0.500	0.006 -0.200 0.200	-0.001 -0.100 0.100	0.001 -0.100 0.100	0.002 -0.100 0.100	-0.001 -0.100 0.100	0.003 -0.100 0.100	-0.000 -0.100 0.100
Coil 3 R	0.013 -0.300 0.300	-0.006 -0.100 0.100	-0.003 -0.100 0.100	-0.001 -0.100 0.100	-0.006 -0.100 0.100	0.005 -0.100 0.100	-0.002 -0.100 0.100	0.003 -0.100 0.100
Coil 3 Q	-0.017 -0.500 0.500	-0.000 -0.200 0.200	0.004 -0.100 0.100	-0.000 -0.100 0.100	-0.003 -0.100 0.100	0.001 -0.100 0.100	-0.003 -0.100 0.100	0.003 -0.100 0.100
Coil 4 R	0.013 -0.500 0.500	-0.006 -0.200 0.200	0.000 -0.200 0.200	0.009 -0.200 0.200	0.005 -0.200 0.200	-0.009 -0.200 0.200	0.001 -0.200 0.200	-0.003 -0.200 0.200
Coil 4 Q	-0.011 -1.000 1.000	-0.007 -0.400 0.400	-0.001 -0.200 0.200	-0.009 -0.200 0.200	0.005 -0.200 0.200	0.011 -0.200 0.200	0.000 -0.200 0.200	0.008 -0.200 0.200
Coil 5 R	0.039 -1.200 1.200	-0.013 -0.400 0.400	-0.015 -0.400 0.400	-0.003 -0.400 0.400	-0.014 -0.400 0.400	0.005 -0.400 0.400	0.014 -0.400 0.400	-0.002 -0.400 0.400
Coil 5 Q	-0.011 -1.500 1.500	-0.029 -0.800 0.800	0.015 -0.400 0.400	-0.008 -0.400 0.400	-0.013 -0.400 0.400	0.005 -0.400 0.400	-0.019 -0.400 0.400	0.000 -0.400 0.400

ELEC. GAINS	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil D M	163.15 136.00 186.00	161.75 134.00 184.00	158.87 131.00 181.00	154.81 126.00 176.00	149.00 122.00 170.00	142.10 118.00 161.00	133.99 112.00 160.00	124.73 105.00 139.00
Coil D P	7.671 -1.000 12.000	25.234 -19.000 30.000	42.363 -36.000 50.000	59.446 -48.000 71.000	76.544 -63.000 81.000	93.656 77.000 110.000	110.775 92.000 130.000	127.917 105.000 151.000

Coil 1 M	281.81 237.00 327.00	279.10 235.00 325.00	273.96 230.00 320.00	266.36 225.00 312.00	256.32 218.00 302.00	243.99 209.00 299.00	229.49 196.00 286.00	212.99 184.00 244.00
Coil 1 P	7.834 -1.000 12.000	25.715 19.000 30.000	43.166 35.000 51.000	60.574 48.000 71.000	77.993 63.000 92.000	95.420 77.000 112.000	112.844 92.000 132.000	130.267 105.000 153.000
Coil 2 M	578.75 479.00 659.00	573.91 471.00 654.00	563.99 463.00 643.00	549.14 450.00 632.00	529.44 432.00 602.00	504.98 412.00 572.00	476.01 380.00 540.00	442.80 359.00 499.00
Coil 2 P	7.971 -1.000 12.000	26.107 19.000 31.000	43.835 35.000 51.000	61.538 49.000 71.000	79.266 63.000 92.000	97.039 77.000 114.000	114.833 92.000 135.000	132.640 105.000 156.000
Coil 3 M	925.91 772.00 1060.00	917.86 764.00 1050.00	901.27 752.00 1030.00	876.51 739.00 1010.00	843.99 700.00 970.00	803.94 665.00 925.00	756.55 639.00 899.00	702.68 599.00 799.00
Coil 3 P	7.773 -2.000 13.000	25.542 19.000 31.000	42.890 35.000 52.000	60.195 48.000 72.000	77.503 63.000 93.000	94.837 77.000 114.000	112.179 92.000 135.000	129.503 105.000 156.000
Coil 4 M	1452.6 1210.0 1700.0	1439.3 1205.0 1690.0	1411.5 1180.0 1660.0	1370.6 1140.0 1590.0	1316.6 1120.0 1530.0	1251.5 1070.0 1490.0	1174.7 1000.0 1350.0	1089.0 942.0 1240.0
Coil 4 P	7.856 -2.000 13.000	25.830 19.000 31.000	43.364 35.000 52.000	60.825 49.000 73.000	78.257 63.000 93.000	95.697 78.000 114.000	113.057 92.000 135.000	130.354 105.000 156.000
Coil 5 M	2983.6 2450.0 3450.0	2961.1 2430.0 3400.0	2911.5 2410.0 3320.0	2835.5 2360.0 3300.0	2737.0 2280.0 3080.0	2611.3 2150.0 2950.0	2463.9 2030.0 2790.0	2291.9 1870.0 2570.0
Coil 5 P	7.903 -2.000 13.000	26.006 19.000 31.000	43.702 35.000 52.000	61.376 49.000 73.000	79.098 63.000 94.000	96.868 79.000 114.000	114.669 93.000 135.000	132.487 106.000 156.000

HDIL AFTER LOG VERIFICATION SUMMARY

TOOL #: 153DXA 10121806

DATE/TIME PERFORMED: Fri Feb 28 06:59:17 2014

DAYS SINCE CAL: 51

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	0.003 -0.077 0.083	-0.001 -0.060 0.050	-0.001 -0.030 0.030	0.000 -0.031 0.029	0.000 -0.029 0.031	-0.000 -0.030 0.030	-0.001 -0.030 0.030	0.001 -0.031 0.029
Coil 0 Q	-0.005 -0.044 0.036	-0.000 -0.121 0.119	-0.001 -0.030 0.030	-0.000 -0.030 0.030	0.000 -0.030 0.030	0.000 -0.030 0.030	-0.000 -0.030 0.030	0.000 -0.030 0.030
Coil 1 R	0.003 -0.078 0.082	-0.001 -0.051 0.049	-0.003 -0.030 0.030	0.001 -0.029 0.031	-0.001 -0.029 0.031	-0.000 -0.030 0.030	0.002 -0.029 0.031	-0.000 -0.030 0.030
Coil 1 Q	-0.015 -0.418 0.382	0.001 -0.101 0.099	0.000 -0.031 0.029	-0.001 -0.029 0.032	-0.003 -0.029 0.032	-0.000 -0.031 0.029	0.001 -0.030 0.030	-0.001 -0.030 0.030
Coil 2 R	0.006 -0.025 0.075	-0.005 -0.034 0.026	0.004 -0.030 0.030	0.000 -0.027 0.033	0.005 -0.028 0.032	0.003 -0.025 0.026	-0.003 -0.025 0.026	0.001 -0.029 0.031
Coil 2 Q	-0.005 -0.360 0.340	0.001 -0.094 0.106	-0.001 -0.031 0.029	0.001 -0.029 0.031	-0.003 -0.029 0.032	0.002 -0.031 0.029	0.002 -0.027 0.033	-0.001 -0.030 0.030
Coil 3 R	0.011 -0.027 0.053	-0.008 -0.046 0.034	0.002 -0.043 0.037	-0.002 -0.041 0.039	-0.004 -0.046 0.034	-0.002 -0.036 0.045	0.007 -0.042 0.038	-0.002 -0.037 0.043
Coil 3 Q	-0.013 -0.217 0.183	-0.008 -0.080 0.080	0.010 -0.036 0.044	-0.014 -0.040 0.040	0.007 -0.043 0.037	0.004 -0.039 0.041	-0.002 -0.043 0.037	0.000 -0.037 0.043
Coil 4 R	0.014 -0.047 0.073	-0.005 -0.066 0.054	-0.010 -0.060 0.060	-0.002 -0.051 0.069	0.003 -0.065 0.065	0.003 -0.069 0.061	-0.005 -0.069 0.061	-0.010 -0.063 0.057
Coil 4 Q	-0.020 -0.311 0.269	-0.007 -0.107 0.093	-0.003 -0.051 0.059	0.002 -0.039 0.051	-0.009 -0.065 0.065	0.004 -0.048 0.071	-0.008 -0.060 0.060	0.001 -0.052 0.058
Coil 5 R	0.041 -0.081 0.159	-0.014 -0.139 0.107	-0.014 -0.135 0.105	0.001 -0.129 0.117	0.019 -0.134 0.105	-0.016 -0.115 0.125	0.002 -0.105 0.134	-0.001 -0.122 0.118
Coil 5 Q	-0.055 -0.611 0.599	-0.027 -0.279 0.221	0.021 -0.105 0.135	-0.004 -0.128 0.112	0.002 -0.139 0.107	0.010 -0.115 0.125	-0.028 -0.139 0.101	0.003 -0.120 0.120

ELEC. GAINS	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 M	162.44 159.89 166.41	161.00 159.51 164.98	158.13 155.69 162.05	153.89 151.52 157.70	148.25 146.02 151.98	141.40 139.26 144.95	133.32 131.31 135.67	124.11 122.24 127.23
Coil 0 P	7.494 4.671 10.671	25.273 22.234 28.234	42.508 39.363 45.363	59.664 56.446 62.446	76.834 73.544 79.544	94.010 90.666 96.666	111.191 107.775 113.775	128.404 124.917 130.917
Coil 1 M	281.77 275.97 287.24	279.20 273.52 284.68	274.07 268.48 279.44	266.51 261.03 271.68	256.44 251.19 261.45	244.10 239.11 248.87	229.64 224.90 234.08	213.20 208.73 217.25
Coil 1 P	7.672 4.834 10.834	25.742 22.715 28.715	43.279 40.166 46.166	60.751 57.574 63.574	78.230 74.993 80.993	95.709 92.420 98.420	113.211 109.844 115.844	130.702 127.267 133.267
Coil 2 M	577.31 567.17 590.32	572.34 562.43 585.39	562.42 552.71 575.27	547.63 538.16 560.12	527.92 518.85 540.03	503.53 494.88 515.07	474.72 466.49 485.53	441.66 433.94 451.65
Coil 2 P	7.769 4.971 10.971	26.144 23.107 29.107	43.978 40.836 46.836	61.760 58.538 64.538	79.576 76.266 82.266	97.407 94.039 100.039	115.276 111.833 117.833	133.166 129.640 135.640
Coil 3 M	924.98 907.39 944.43	916.75 899.50 936.21	900.05 883.24 919.30	875.33 859.98 894.04	842.58 827.11 860.87	802.47 787.86 820.02	755.15 741.42 771.68	701.16 688.62 716.73
Coil 3 P	7.543 4.773 10.773	25.580 22.542 28.542	43.040 39.890 45.890	60.425 57.195 63.195	77.826 74.503 80.503	95.230 91.837 97.837	112.652 109.179 115.179	130.056 126.503 132.503
Coil 4 M	1457.5 1429.6 1481.7	1443.7 1410.5 1469.1	1415.7 1383.3 1449.8	1374.7 1343.2 1398.1	1320.8 1290.2 1342.9	1254.9 1225.5 1276.5	1178.9 1151.2 1198.2	1092.6 1067.3 1110.8
Coil 4 P	7.696 4.866 10.866	25.882 22.830 28.830	43.512 40.364 46.364	61.055 57.825 63.825	78.564 75.257 81.257	96.050 92.697 98.697	113.496 110.057 116.057	130.899 127.364 133.364
Coil 5 M	2980.1 2923.9 3043.3	2956.7 2901.9 3000.3	2907.3 2853.3 2959.7	2832.0 2778.8 2882.2	2731.2 2682.3 2791.8	2607.3 2569.0 2663.5	2458.3 2414.5 2513.2	2286.8 2246.0 2337.7
Coil 5 P	7.740 4.910 10.910	26.004 23.000 29.000	43.010 40.000 46.000	61.873 58.873 64.873	79.613 76.613 82.613	97.300 94.300 100.300	115.258 112.258 118.258	133.105 130.105 136.105

INSTRUMENT CONFIGURATION

Source File: /data/625064/n970a~tdg

FOCUS CABLEHEAD

Diameter : 3.13"
Length : 3.17'
Weight : 15 lbs
Series : CABL31B
Mnemonic : CBLH

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 : 351BFB
Mnemonic : TMGR

FOCUS EB/EG TELEMETRY GAMMA RAY

Diameter : 3.13"
Length : 5.83'
Weight : 63 lbs
Series : 351BEG
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

52.34'

GR MP 36.97'

LSN MP 29.83'

SSN MP 29.38'

CR1 MP 22.67'

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

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

FOCUS PINEAPPLE / CABBAGE

HOLE FINDER

Diameter : 3.63"
Length : 1.50'
Weight : 7 lbs
Series : HFND1B

TOTAL LENGTH: 53.34'
TOTAL WEIGHT: 703 lbs
MAX DIAMETER: 0'6.13"

LSD / CR3 MP : 30.03'
SSD MP : 19.63'

COIL 5 MP : 9.17'

COIL 4 MP : 7.67'

COIL 3 MP : 6.17'


COIL 2 MP : 5.67'

COIL 1 MP : 5.17'

COIL 0 MP : 4.67'

SP MP : 3.14'

0.00'

	COMPANY	WPX ENERGY INC		FILE NO:	US625064
	WELL	SAVAGE RWF 314-25		API NO:	05045219780000
	FIELD	RULISON			
	COUNTY	GARFIELD	STATE	CO	
	LOCATION:	SHL: 1617' FSL; 2304' FWL BHL: 1231' FSL; 922' FWL		ELEVATIONS:	25 T6S R94W
				KB 6122 FT	RWF 23-25
				DF	NABORS 577
				GL 6096 FT	
	SEC 25 TWP 6S RGE 94W			DATE	28-Feb-2014