BAKER HUGHES

HIGH DEFINITION INDUCTION LOG℠
COMPENSATED NEUTRON LOG
COMPENSATED Z-DENSILOG℠
GAMMA RAY LOG
CALIPER LOG

FILE NO:	OH095187
API NO:	05045224310000
COMPANY	WPX ENERGY INC
WELL	GM 728-14-33-HN1
FIELD	GRAND VALLEY
COUNTY	GARFIELD
STATE	CO

Ver. 4.01
SEC 33 T6S R96W
PAD: GR 14-28
NABORS X21

LOCATION:
SHL: 592'FSL 385'FWL SEC 28 T6S R96W
BHL: 192'FSL 654'FWL SEC 33 T6S R96W

SEC 33 TWP 6S RGE 96W

OTHER SERVICES
NA

PERMANENT DATUM GL ELEVATION 5518 FT
LOG MEASURED FROM KB 33 FT ABOVE P.D.
DRILL. MEAS. FROM KB

ELEVATIONS:
KB 5551 FT
DF 5550 FT
GL 5518 FT

DATE		16-Mar-2015			
RUN	TRIP	1	1		
SERVICE ORDER		OH095187			
DEPTH DRILLER		9788 FT			
DEPTH LOGGER		9787 FT			
BOTTOM LOGGED INTERVAL		9784 FT			
TOP LOGGED INTERVAL		0 FT			
CASING DRILLER		13.375 IN	@ 2662 FT		@
CASING LOGGER		2657 FT			
BIT SIZE		12.25 IN			
TYPE OF FLUID IN HOLE		LSND			
DENSITY	VISCOSITY	13.1 LB/G	60 CP		
PH	FLUID LOSS	9.2	5.4 C3		
SOURCE OF SAMPLE		FLOWLINE			
RM AT MEAS. TEMP.		1.7 OHMM	@ 57 DEGF		@
RMF AT MEAS. TEMP.		1.275 OHMM	@ 52 DEGF		@
RMC AT MEAS. TEMP.		2.125 OHMM	@ 52 DEGF		@
SOURCE OF RMF	RMC	CALCULATED	CALCULATED		
RM AT BHT		.613 OHMM	@ 235 DEGF		@
TIME SINCE CIRCULATION		12 HR			
MAX. RECORDED TEMP.		240 DEGF			
EQUIP. NO.	LOCATION	6685	GRAND JCT		
RECORDED BY		D SMITH			
WITNESSED BY		A HARDT			

BOREHOLE RECORD		
BIT SIZE	FROM	TO
24 IN	0 FT	80 FT
17.5 IN	80 FT	2662 FT
12.25 IN	2662 FT	9788 FT

CASING RECORD				
SIZE	WEIGHT	GRADE	FROM	TO
20 IN	NA	NA	0 FT	80 FT
13.375 IN	68 LB/F	NA	0 FT	2662 FT

REMARKS

RUN 1 TRIP 1: HDIL ZDL CN GR IN COMBINATION

BVOL CVOL CALCULATED IN CUBIC FT
CVOL CALCULATED USING PROPOSED 9.625" 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 STAND OFF

BRIEFLY CLOSED CALIPER TO FREE TOOL AT 9673'/TOOL FREED UP/OPENED CALIPER/
CONTINUED LOGGING/CLOSED AND OPENED CALIPER AGAIN AT 7895' & 6728'

THANK YOU FOR CHOOSING BAKER HUGHES WIRELINE SERVICES

CREW: OLSON/EDWARDS/COAT/SMITH

RIG: NABORS X21

EQUIPMENT DATA

RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
1	1	SWIVEL	3944XD	10195796	FREE
1	1	TTRM	3981XB	10516527	FREE
1	1	TELE	3514XB	10197691	FREE
1	1	GR	1329XB	10196895	FREE
1	1	CN	2446XA	101968895	DECENTRALIZED
1	1	DENSITY	2234XA	10211833	DECENTRALIZED
1	1	DBL KNCKL	3939XA	10399278	FREE
1	1	HDIL EA	1515EA	10318637	STOOD OFF
1	1	HDIL MA	1515MA	10037719	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: 1 Patches: 6

Plotted: Mon Mar 16 09:49:55 2015

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/OH095187/n777q02.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 2548.750 ft BOTTOM DEPTH: 9806.779 ft

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
TTRM	FILTER ()	medium (1)		TOP	BOTTOM
	FILTER (.h)	medium (1)		"	"
	FILTER (.i)	medium (1)		"	"
Y AXIS CALIPER	FILTER ()	medium (1)		"	"
TENSION	FILTER ()	medium (1)		"	"
GR	FILTER ()	medium (1)		"	"
CALIPER	FILTER ()	medium (1)		"	"
	FILTER (.h)	medium (1)		"	"
	FILTER (.i)	medium (1)		"	"
SP-SPDH	FILTER ()	heavy (3)		"	"

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
BIT SIZE	BIT SIZE	12.250	in	TOP	BOTTOM
MUD SAMPLE RESISTIVITY	MUD SAMPLE TEMP	57.0	degF	"	"
	MUD SAMPLE RES	1.700	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	"	"
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (mbh*)	USE CALIPER		"	"
BOREHOLE CORR DIAMETER	FIXED DIAMETER (mbh*)	12.250	in	"	"

BH MUD RESISTIVITY SOURCE	RMUD SOURCE (HDIL)	TOOL MEASURED		"	"

SP CONTROL

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
SP CONTROL	Tool/Bridle	TOOL		TOP	BOTTOM

HDIL PROCESSING

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

CURVE DESCRIPTION REPORT

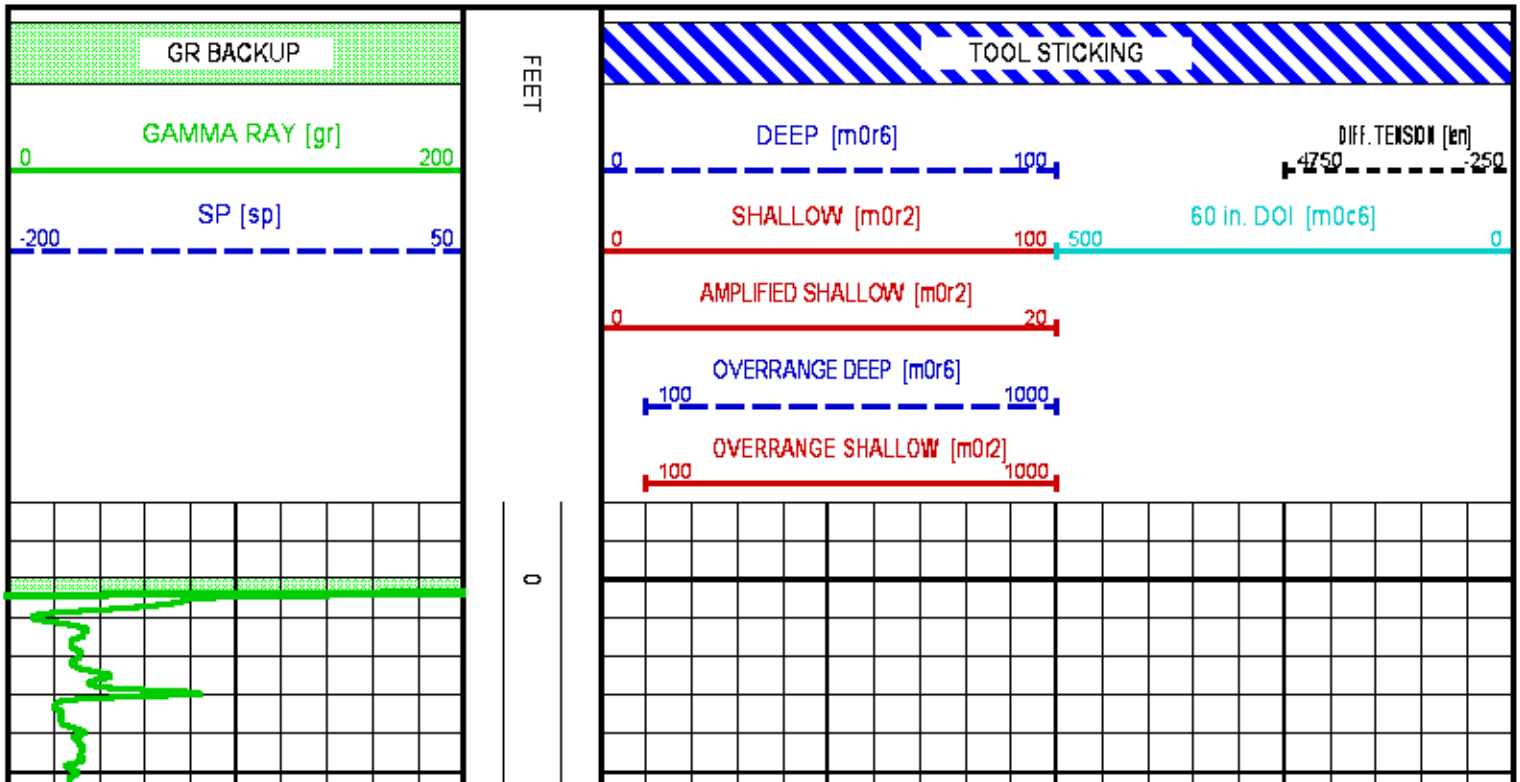
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:GR	Mar 16 05:57:28 2015	GAMMA RAY
F1:M0C6	Mar 16 05:57:28 2015	FOCUSED CONDUCTIVITY, 60-INCH DOI
F1:M0R2	Mar 16 05:57:28 2015	TRUE FOCUSED RESISTIVITY FOR HDIL, 20-INCH DOI
F1:M0R6	Mar 16 05:57:28 2015	TRUE FOCUSED RESISTIVITY FOR HDIL, 60-INCH DOI
F1:SP	Mar 16 05:57:28 2015	SPONTANEOUS POTENTIAL
F1:TEN	Mar 16 05:57:28 2015	DIFFERENTIAL TENSION

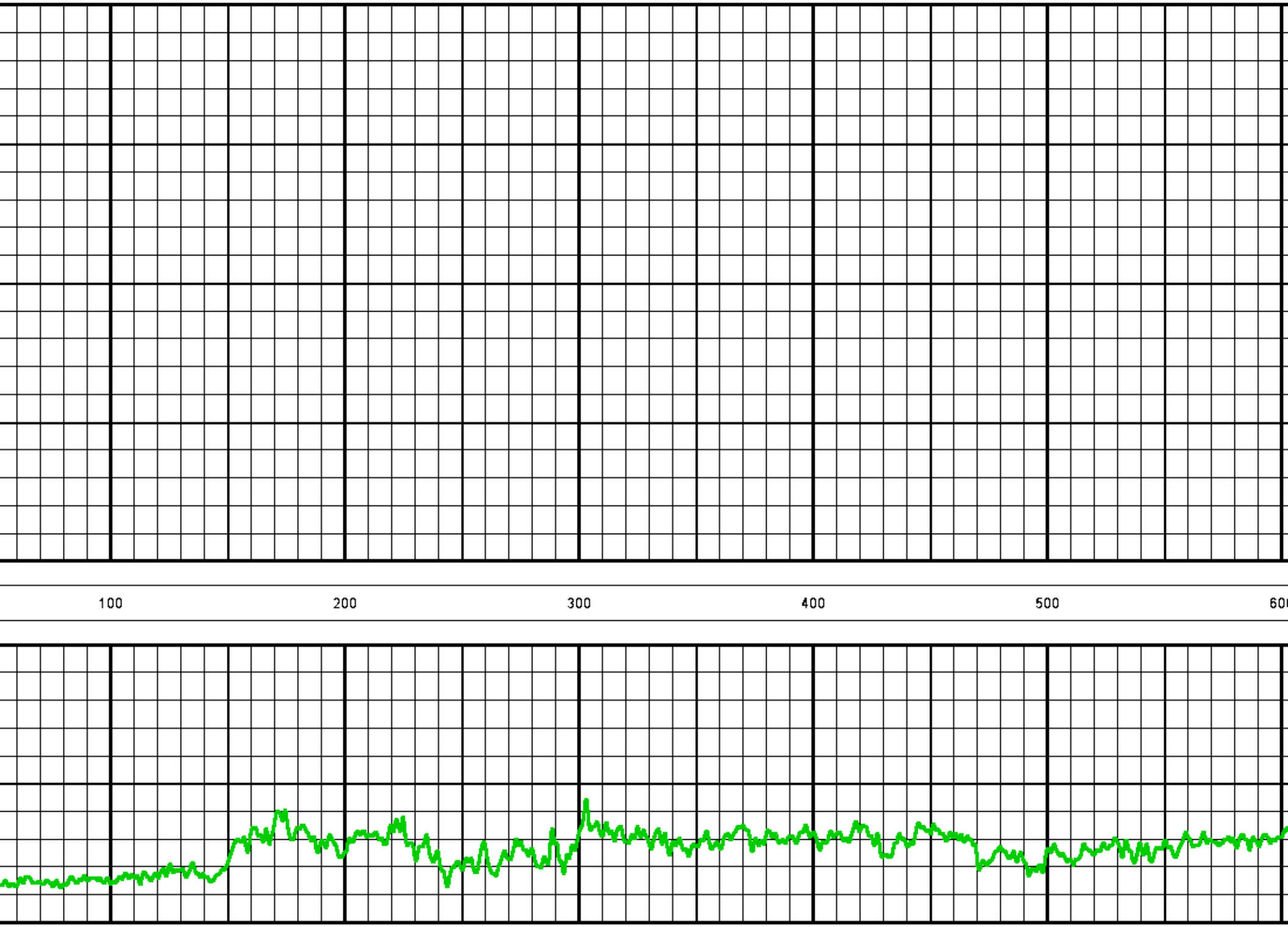
CURVE MEASURE POINT OFFSET

CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
GR	52.25	M0R2	8.00	SP	14.00		
M0C6	8.00	M0R6	8.00	TEN	0.00		

Presentation : **cas6685:WPX_2IN.fvpdf [2"/100' Scale]**
Plot Interval : **-13 - 9803 Feet**

Data File 1 : **F1 : cas6685:/dat1a/OH095187/MAIN.xtf**
Created On : **Mar 16 09:44:14 2015**
Company : **WPX ENERGY INC**
Well : **GM 728-14-33-HN1**
Field : **GRAND VALLEY**
File Interval : **-13 - 9803 Feet**
OCT : **n777q**

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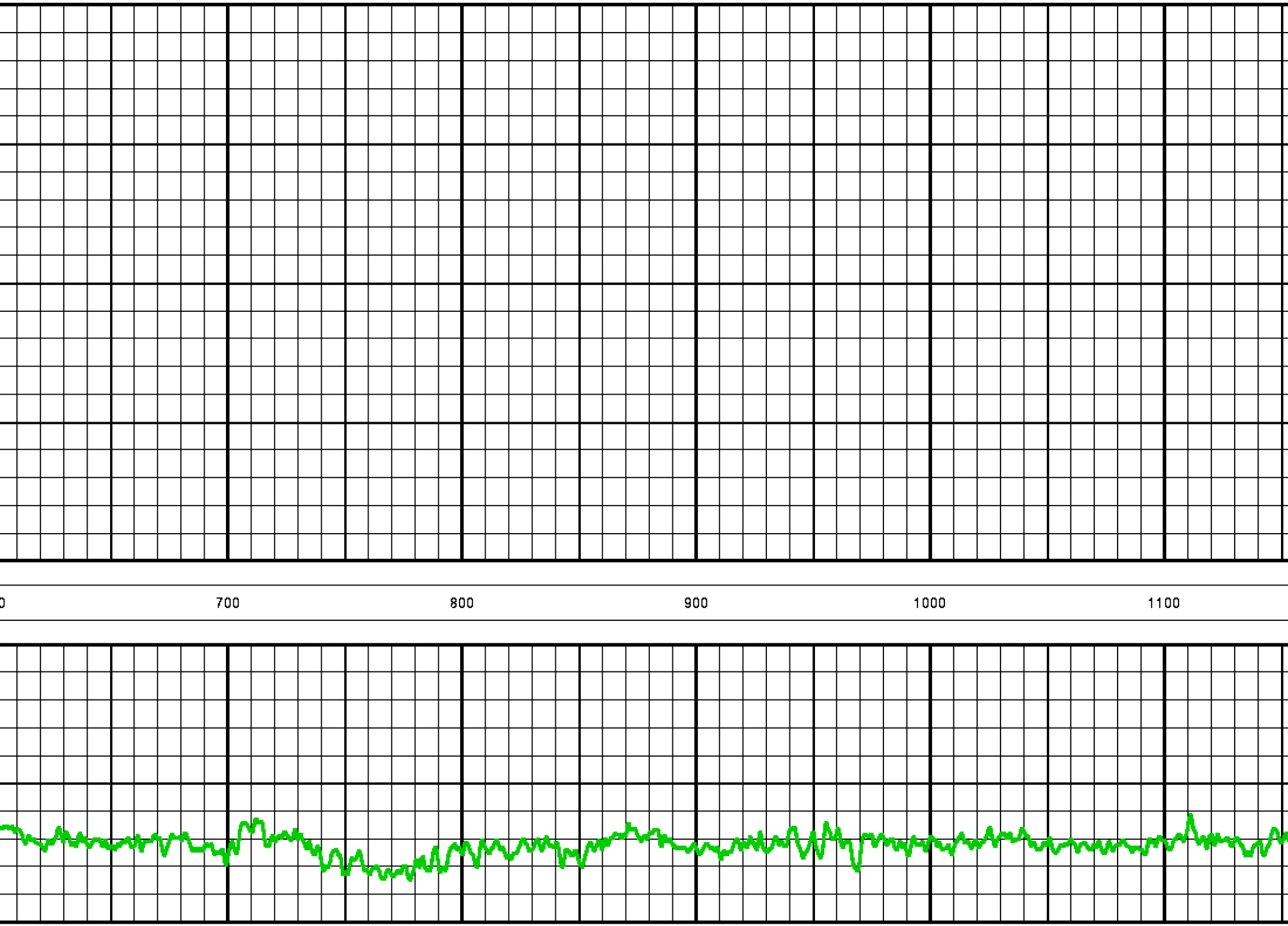
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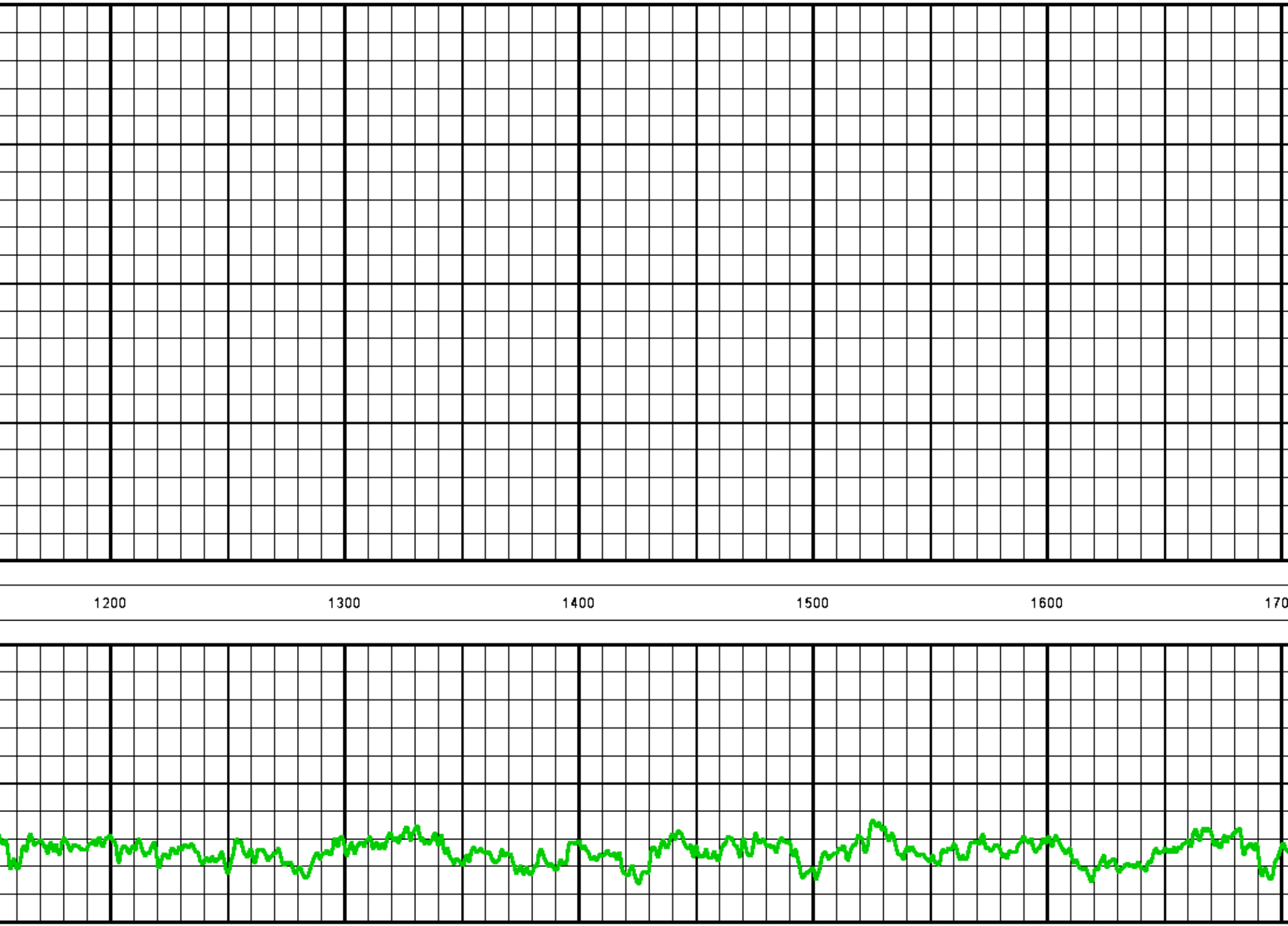
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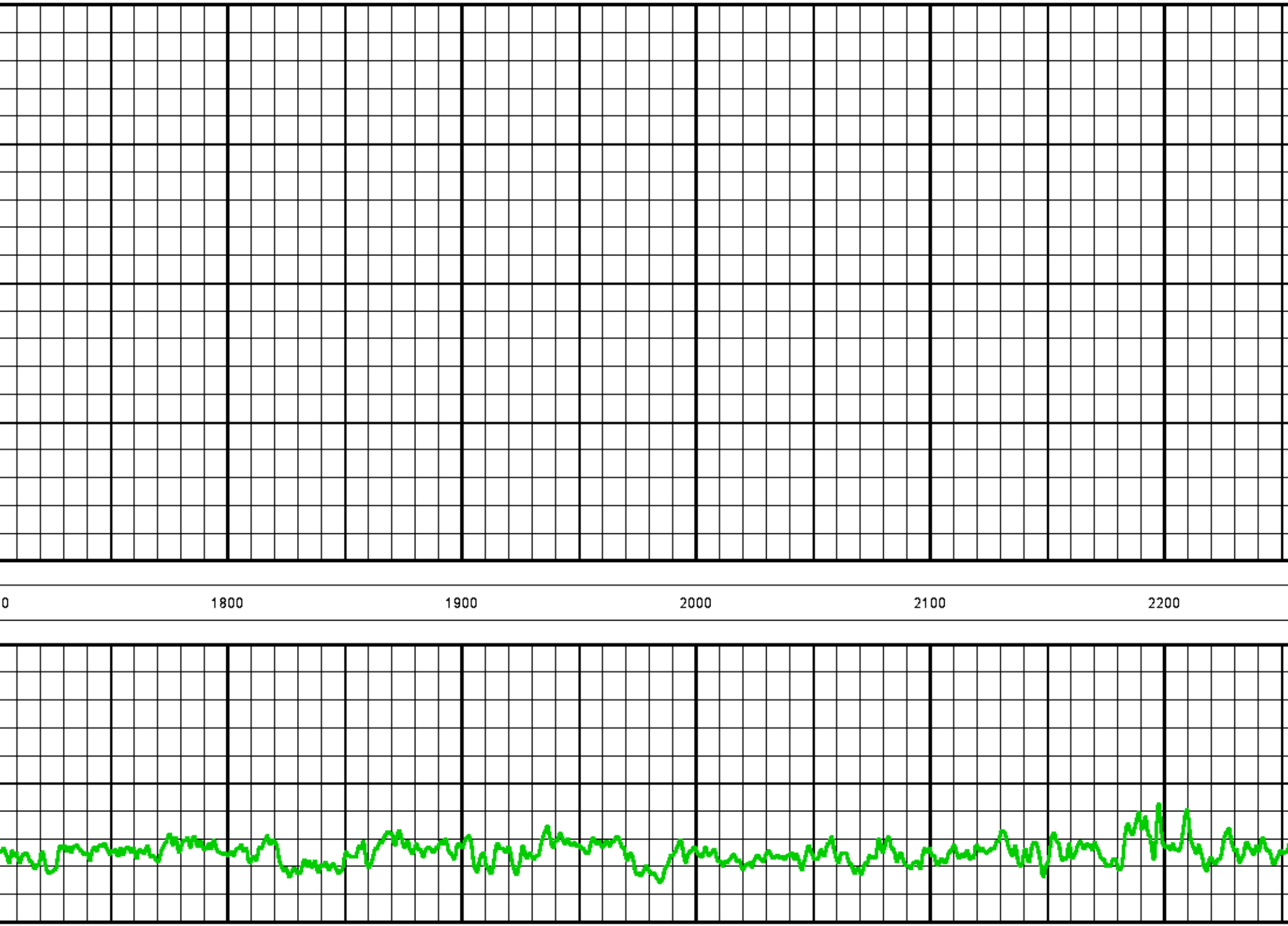
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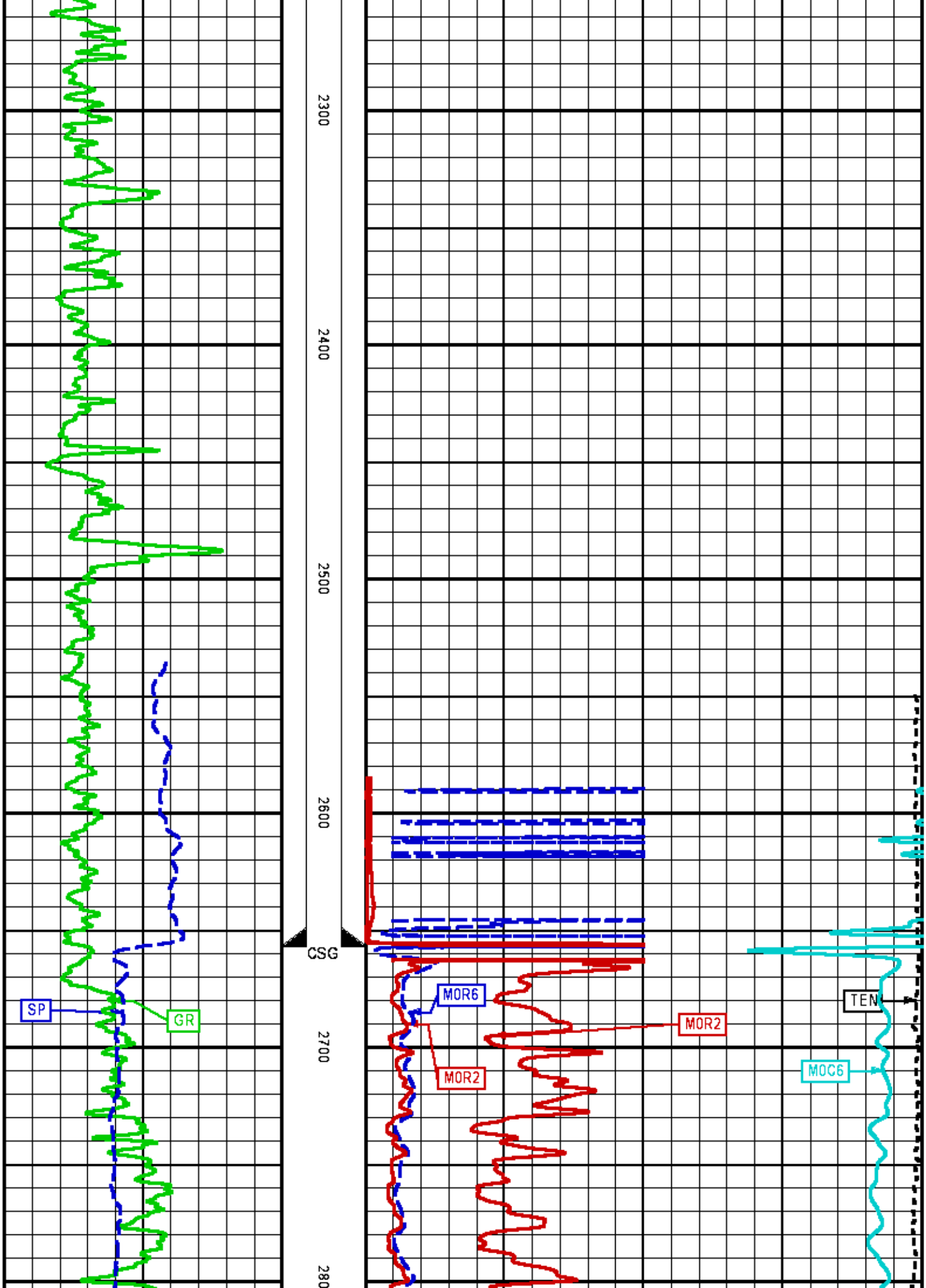
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2600
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CSG
SP
GR
M0R6
M0R2
M0R2
TEN
M0C6

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3300

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3500
3600
3700
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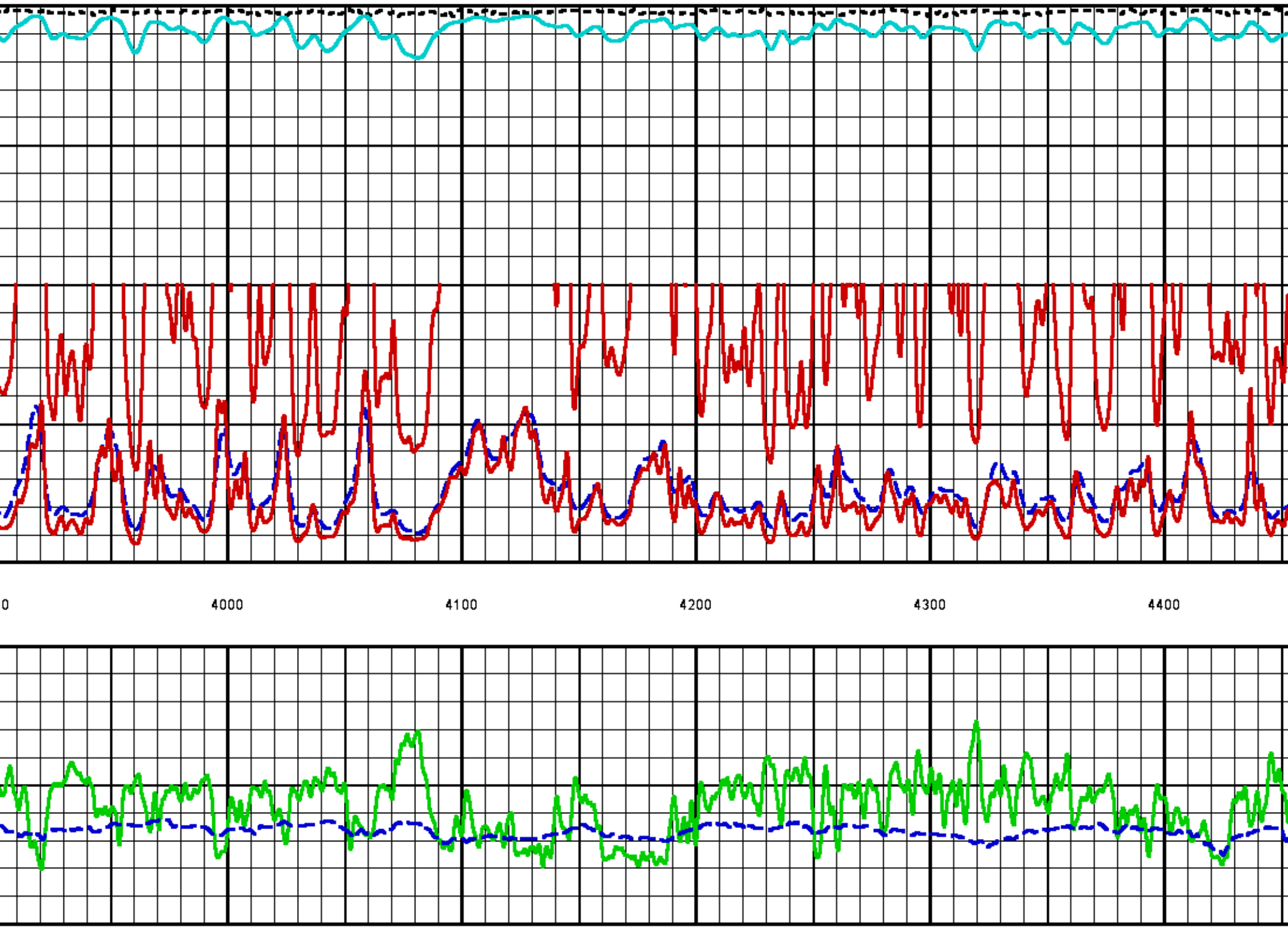
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4900

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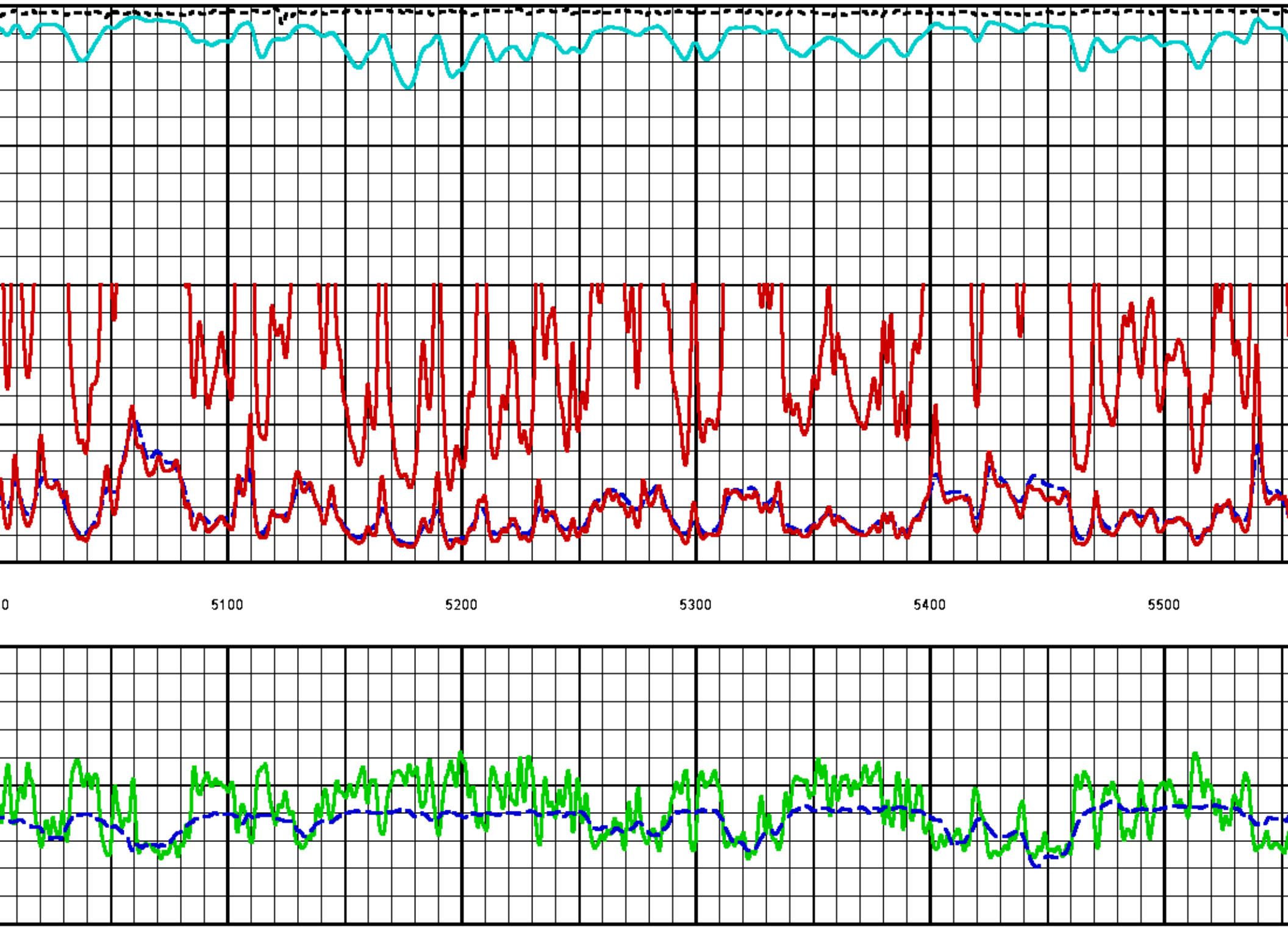
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6700
6800
6900
7000
7100

7300
7400
7500
7600
7700

7800
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8800

8900
9000
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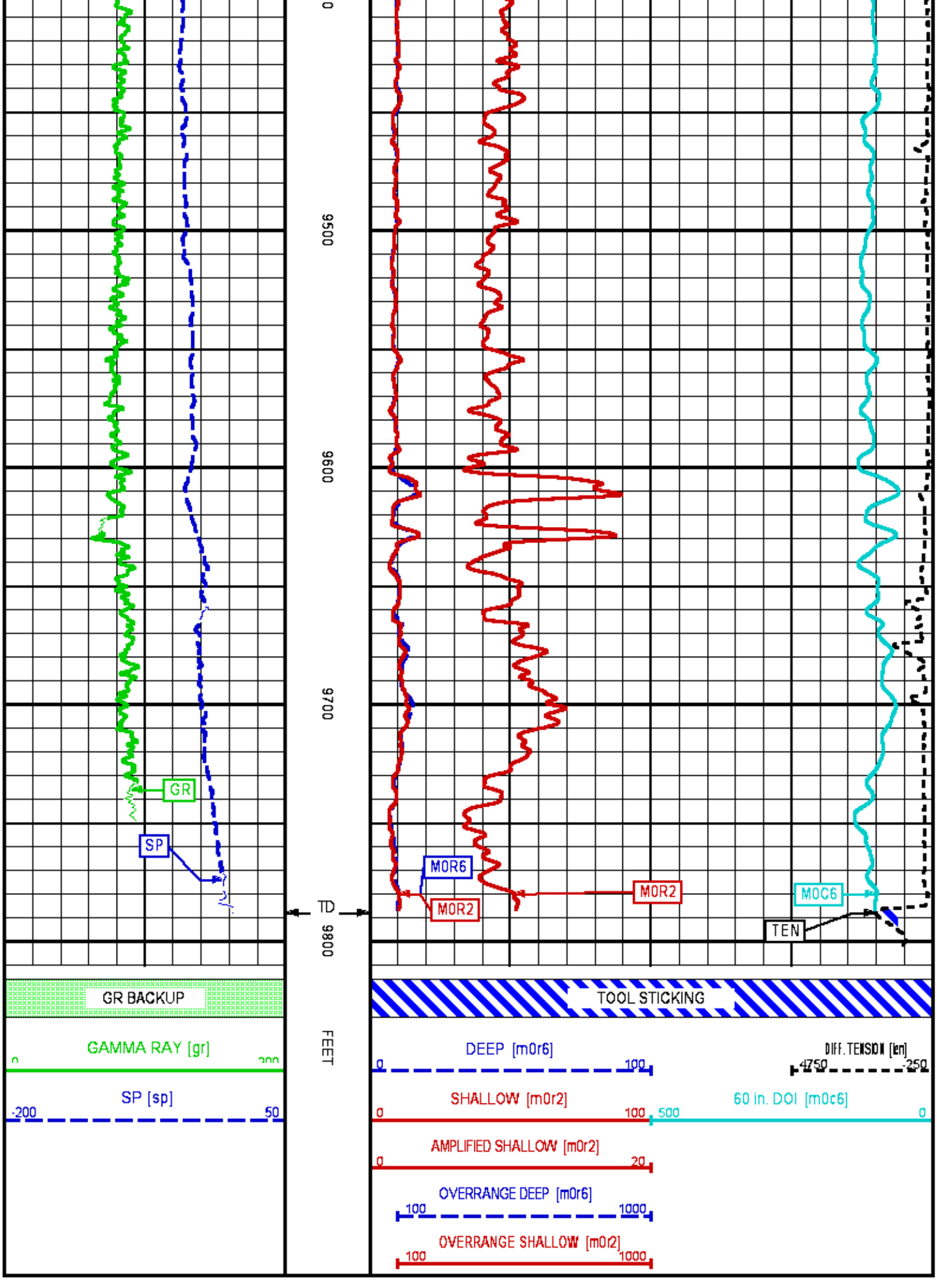
9300


9500
9600
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9800
TD
FEET
GR
SP
M0R6
M0R2
M0R2
M0C6
TEN
GR BACKUP
TOOL STICKING
GAMMA RAY [gr]
0
200
SP [sp]
-200
50
DEEP [m0r6]
0
100
SHALLOW [m0r2]
0
100
AMPLIFIED SHALLOW [m0r2]
0
20
OVERRANGE DEEP [m0r6]
100
1000
OVERRANGE SHALLOW [m0r2]
100
1000
DIFF. TENSION [ten]
-4750
-250
60 in. DOI [m0c6]
500
0

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: 6

Plotted: Mon Mar 16 09:47:21 2015

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/OH095187/n777q02.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 2548.750 ft BOTTOM DEPTH: 9806.779 ft

SYMMETRIC FILTER

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

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft) TOP	BOTTOM
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	9.625	in	TOP	BOTTOM
	CASING THICKNESS	0.000	in	"	"
BIT SIZE	BIT SIZE	12.250	in	"	"
MUD SAMPLE RESISTIVITY	MUD SAMPLE TEMP	57.0	degF	"	"
	MUD SAMPLE RES	1.700	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	"	"
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (cnbh*)	USE CALIPER		"	"
	CALIPER/FIXED DIA. (mbh*)	USE CALIPER		"	"
BOREHOLE CORR DIAMETER	FIXED DIAMETER (cnbh*)	12.250	in	"	"
	FIXED DIAMETER (mbh*)	12.250	in	"	"
BH MUD RESISTIVITY SOURCE	RMUD SOURCE (HDIL)	TOOL MEASURED		"	"

SP CONTROL

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft) TOP	BOTTOM
SP CONTROL	Tool/Bridle	TOOL		TOP	BOTTOM

CN PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft) TOP	BOTTOM
2446 CN MATRIX	2446 MATRIX	SANDSTONE		TOP	BOTTOM
CN SALINITY CORRECTION	SALINITY	850	ppm	"	"
CN TOOL STANDOFF	ENABLE STANDOFF CORR	OFF		"	"
	STANDOFF AMOUNT	0.00	in	"	"
CN CASING & CEMENT CORRECTION	CORRECTION	OFF		"	"

BIT SIZE BEHIND CSNG	13.500	in	"	"

ZDL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
DENSITY POROSITY	RHOmatrix	2.680	g/cm3	TOP	BOTTOM
	RHOfluid	1.000	g/cm3	"	"
ZDL	DENX TRACKING	ON		"	"
TRACKING TIME	Logging Spd for Gain	Over 10 ft/min		"	"

HDIL PROCESSING

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

CURVE DESCRIPTION REPORT

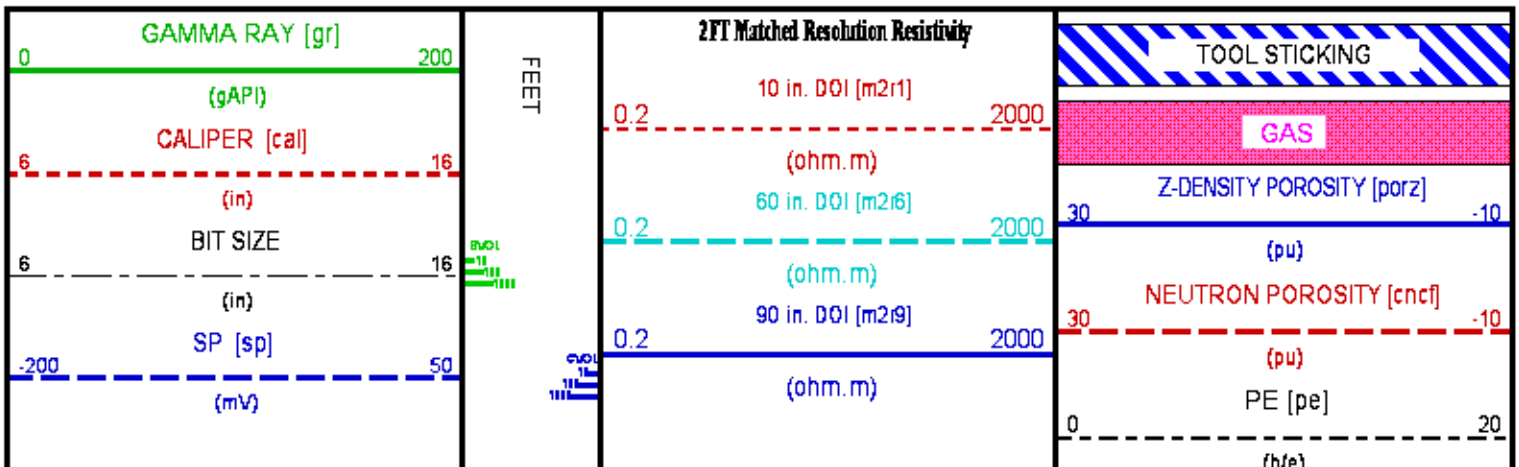
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:BIT	Mar 16 05:57:28 2015	BIT SIZE
F1:BVOL	Mar 16 05:57:28 2015	BOREHOLE VOLUME
F1:CAL	Mar 16 05:57:28 2015	CALIPER
F1:CNCF	Mar 16 05:57:28 2015	FIELD NORMALIZED COMPENSATED NEUTRON POROSITY
F1:CVOL	Mar 16 05:57:28 2015	CEMENT VOLUME
F1:GR	Mar 16 05:57:28 2015	GAMMA RAY
F1:M2R1	Mar 16 05:57:28 2015	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 10-INCH DOI
F1:M2R6	Mar 16 05:57:28 2015	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 60-INCH DOI
F1:M2R9	Mar 16 05:57:28 2015	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 90-INCH DOI
F1:PE	Mar 16 05:57:28 2015	PHOTO ELECTRIC CROSS-SECTION
F1:PORZ	Mar 16 05:57:28 2015	POROSITY FOR SELECTABLE MATRIX
F1:SP	Mar 16 05:57:28 2015	SPONTANEOUS POTENTIAL
F1:TEN	Mar 16 05:57:28 2015	DIFFERENTIAL TENSION
F1:ZCOR	Mar 16 05:57:28 2015	DENSITY CORRECTION

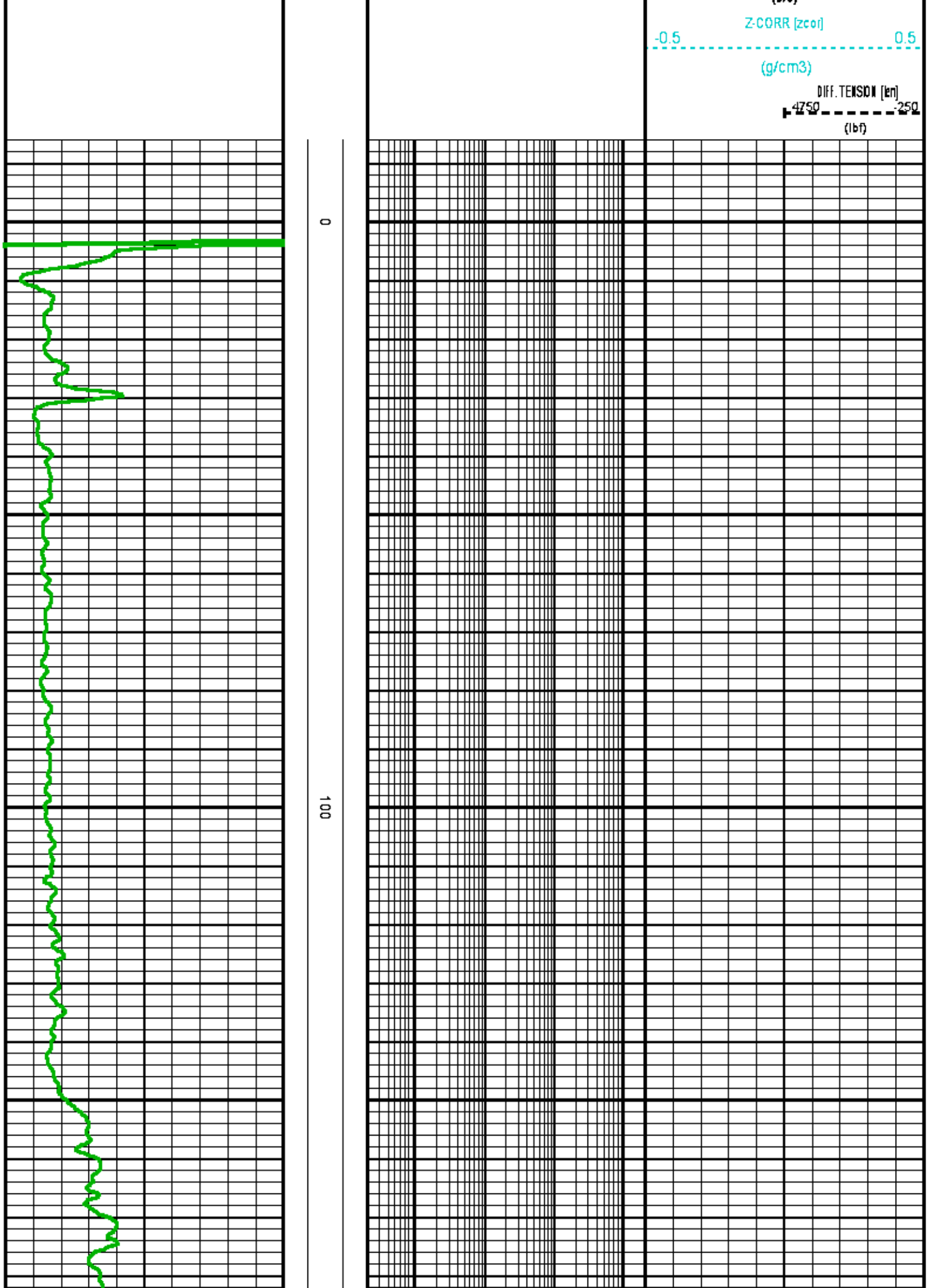
CURVE MEASURE POINT OFFSET

CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
BIT	0.00	GR	52.25	M2R9	8.00	SP	14.00
CAL	35.00	M2R1	8.00	PE	34.25	TEN	0.00
CNCF	45.25	M2R6	8.00	PORZ	34.25	ZCOR	34.25

Presentation : **cas6685:HDIL_ZDL_CN_GR.fvpdf [5"/100' Scale]**
Plot Interval : **-13 - 9803 Feet**

Data File 1 : **F1 : cas6685:/dat1a/OH095187/MAIN.xtf**
Created On : **Mar 16 09:44:14 2015**
Company : **WPX ENERGY INC**
Well : **GM 728-14-33-HN1**
Field : **GRAND VALLEY**
File Interval : **-13 - 9803 Feet**
OCT : **n777q**

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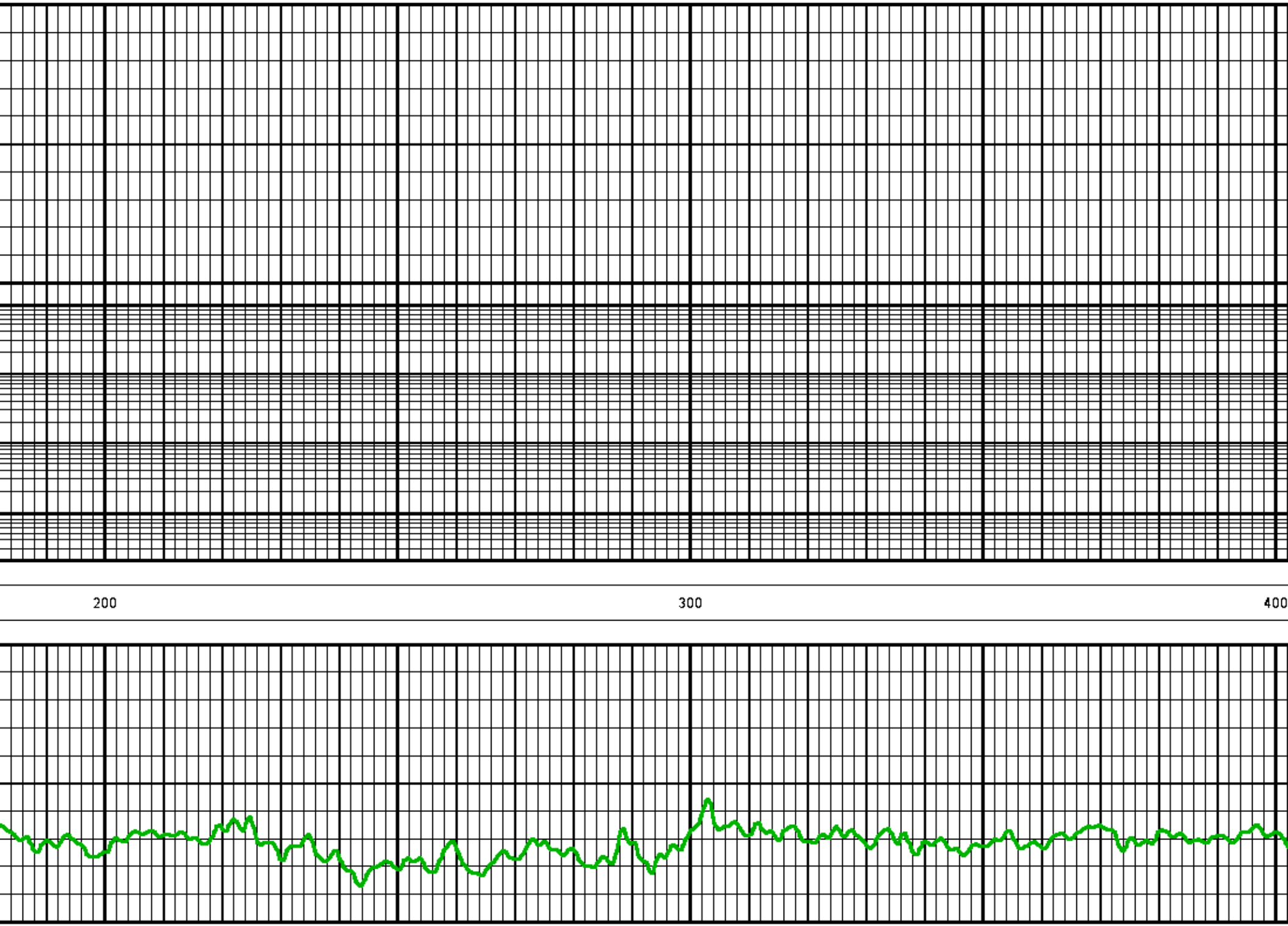
-0.5
0.5
(g/cm3)
DIFF. TENSION [ten]
4750
-250
(lbf)
0
100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600

700

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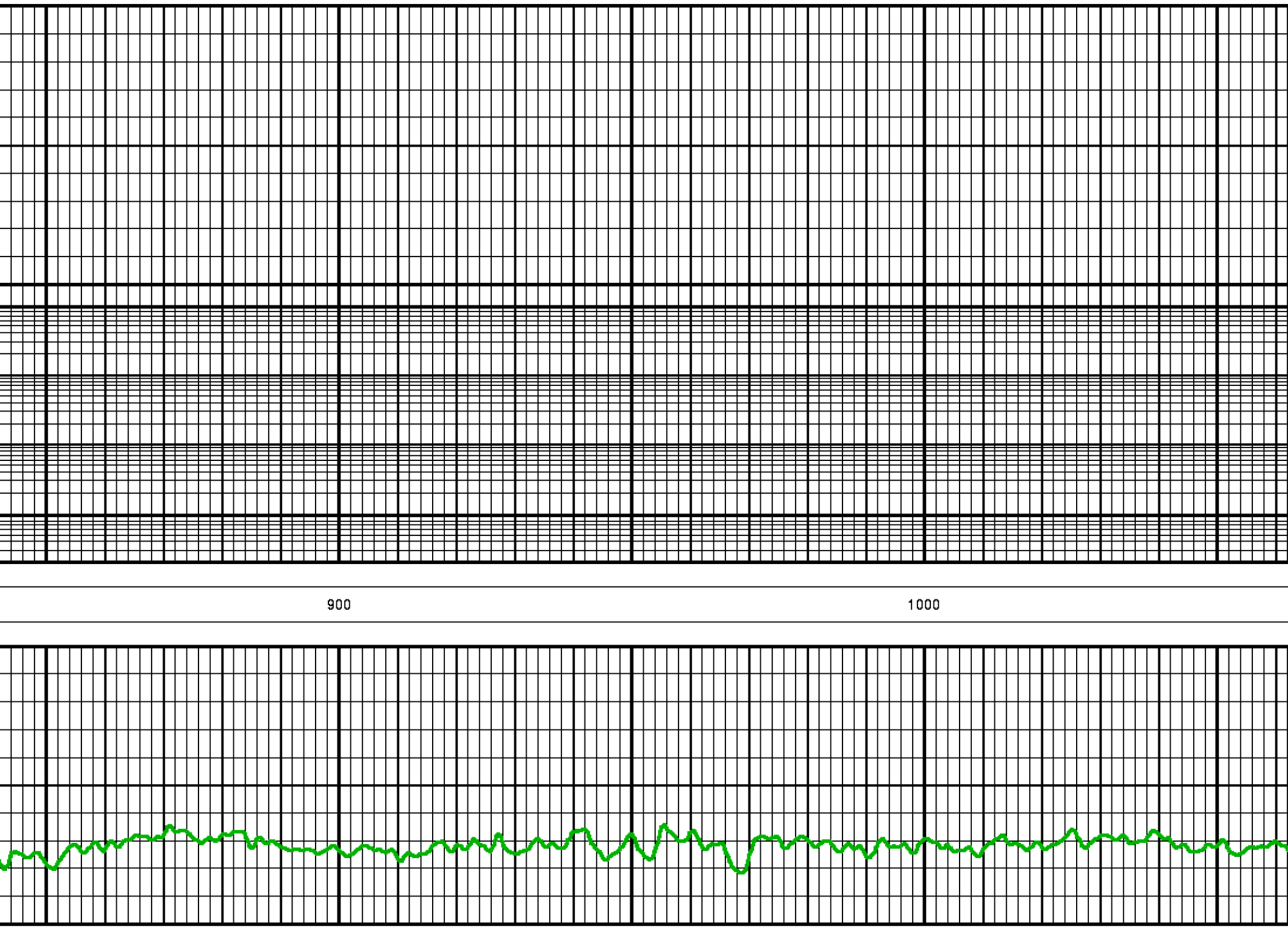
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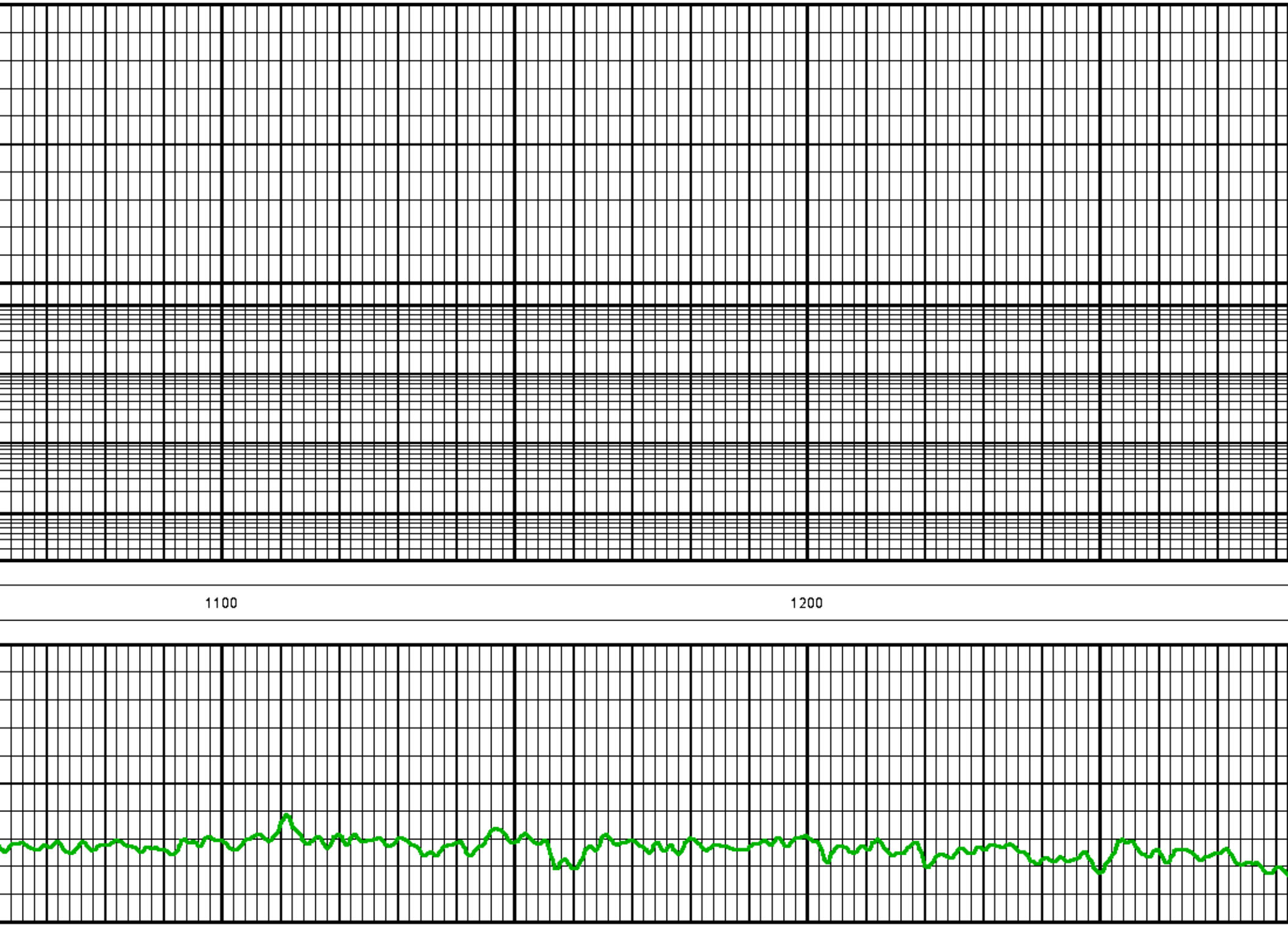
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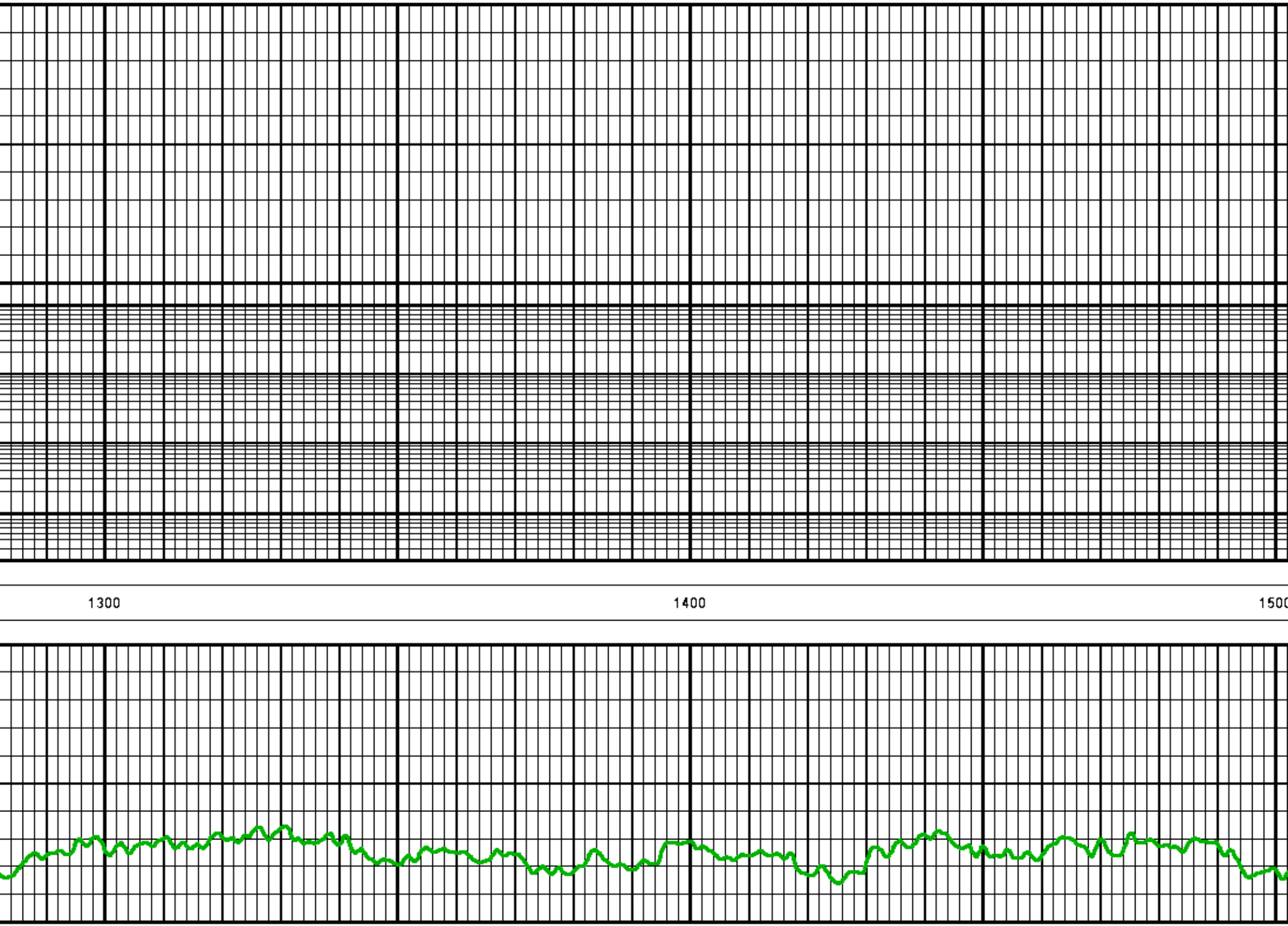
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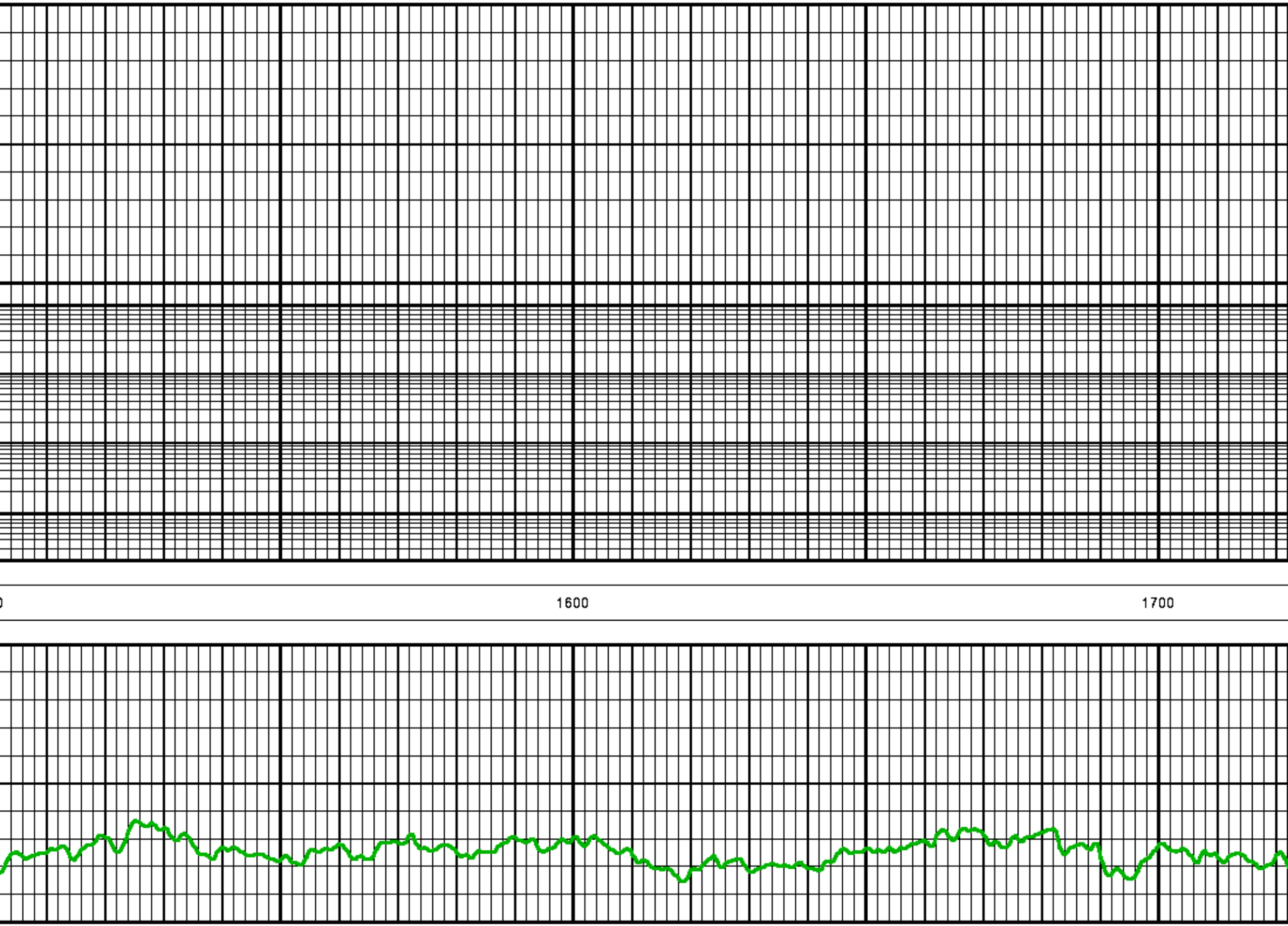
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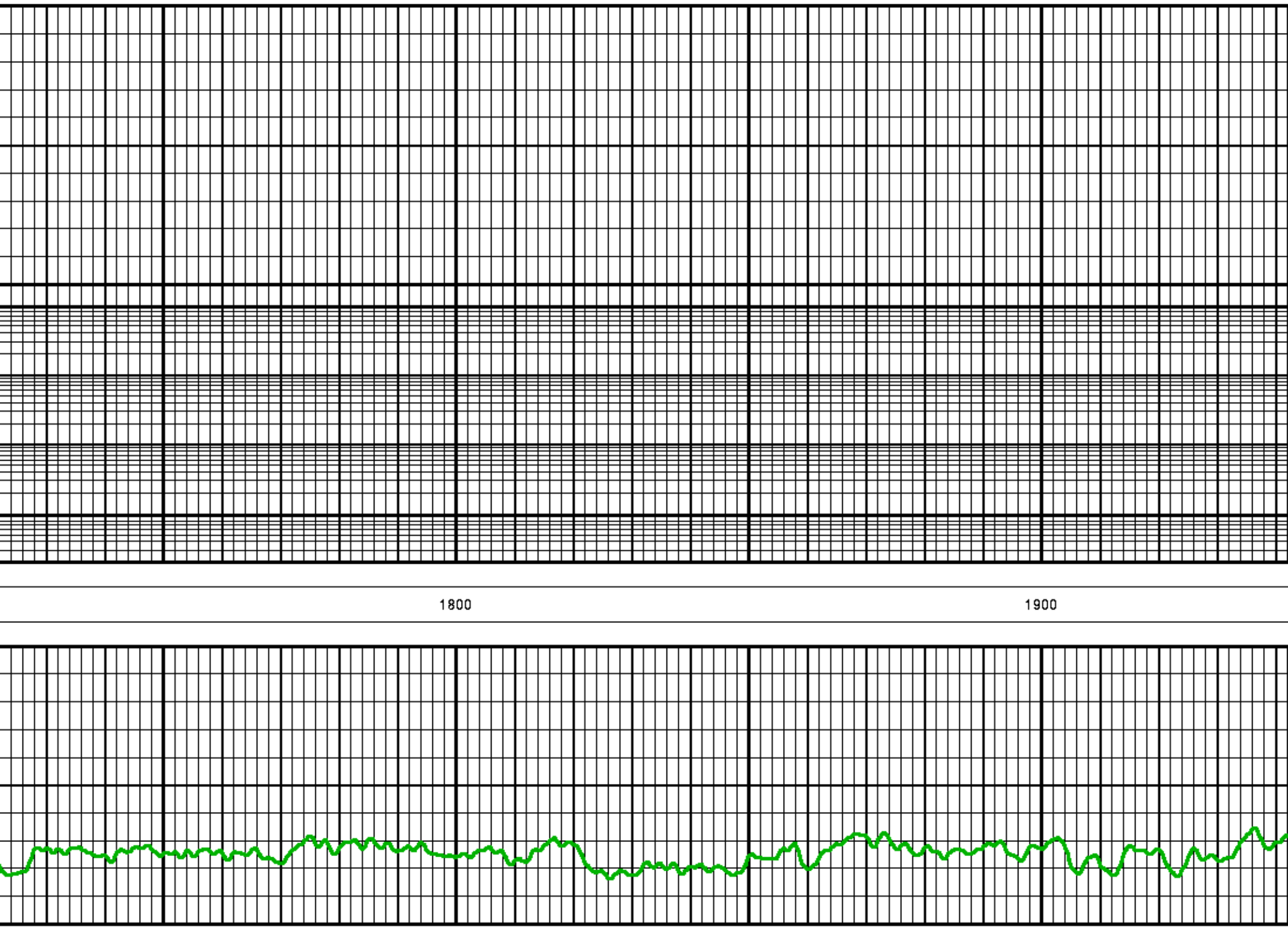
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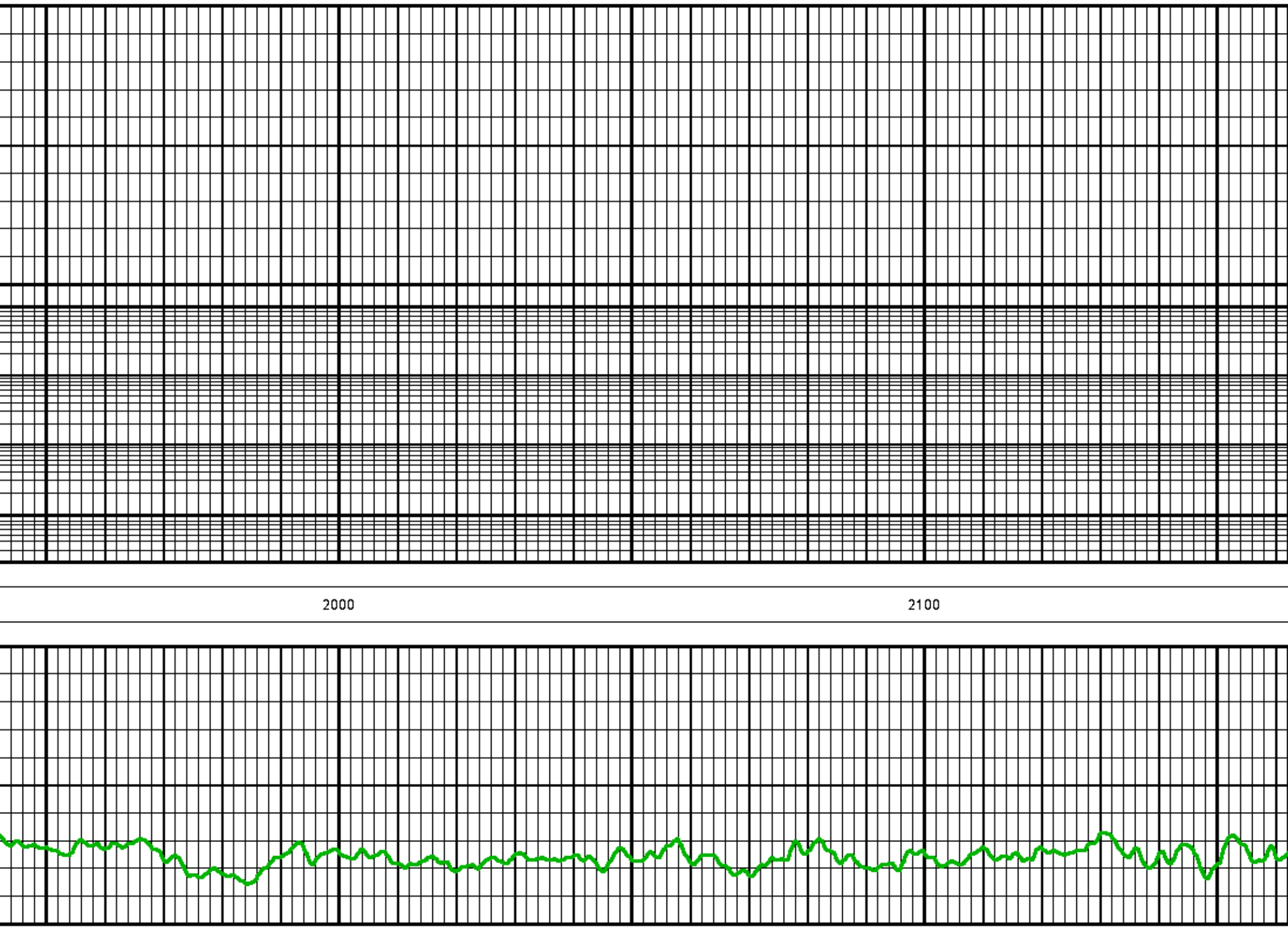
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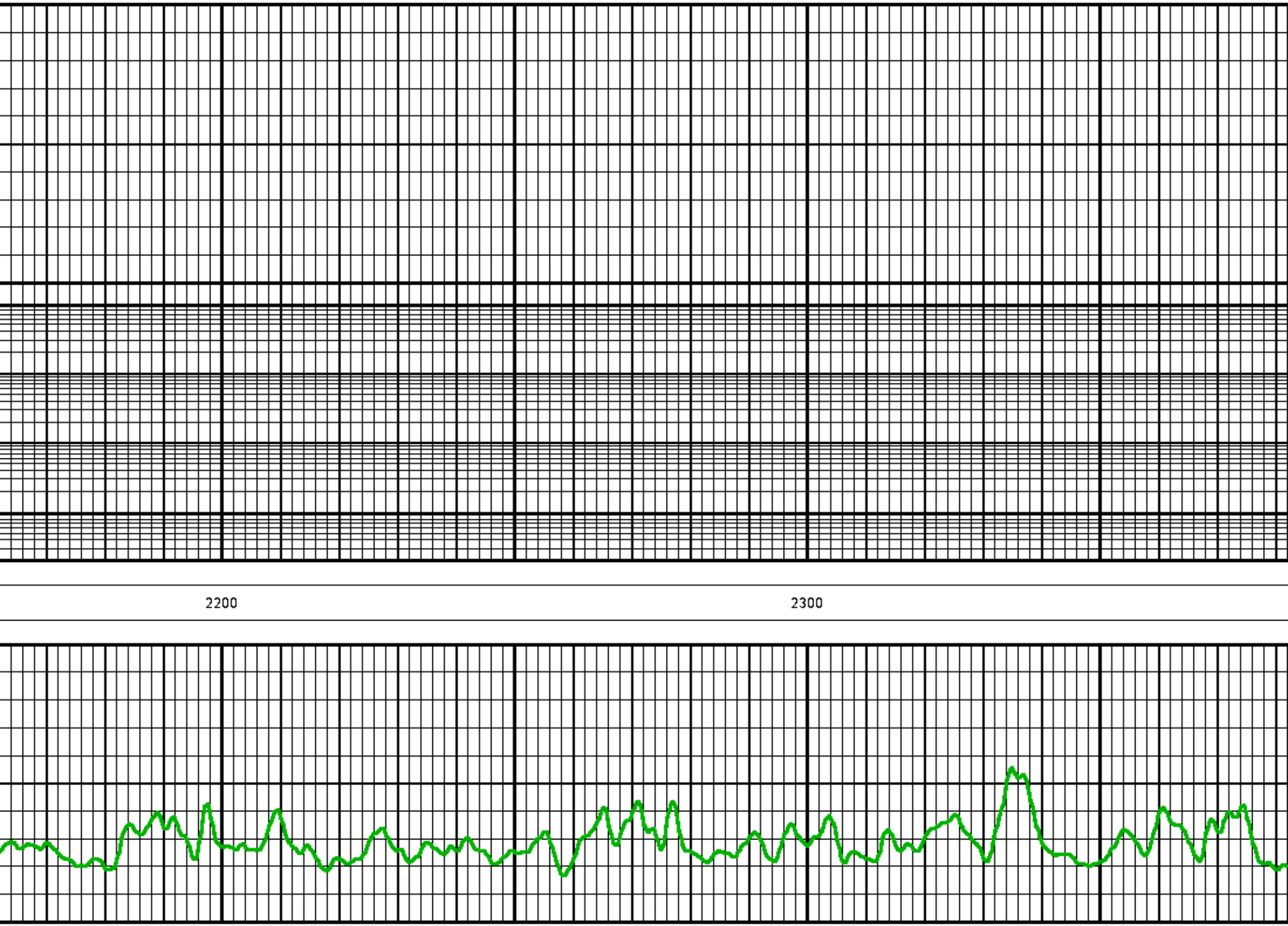
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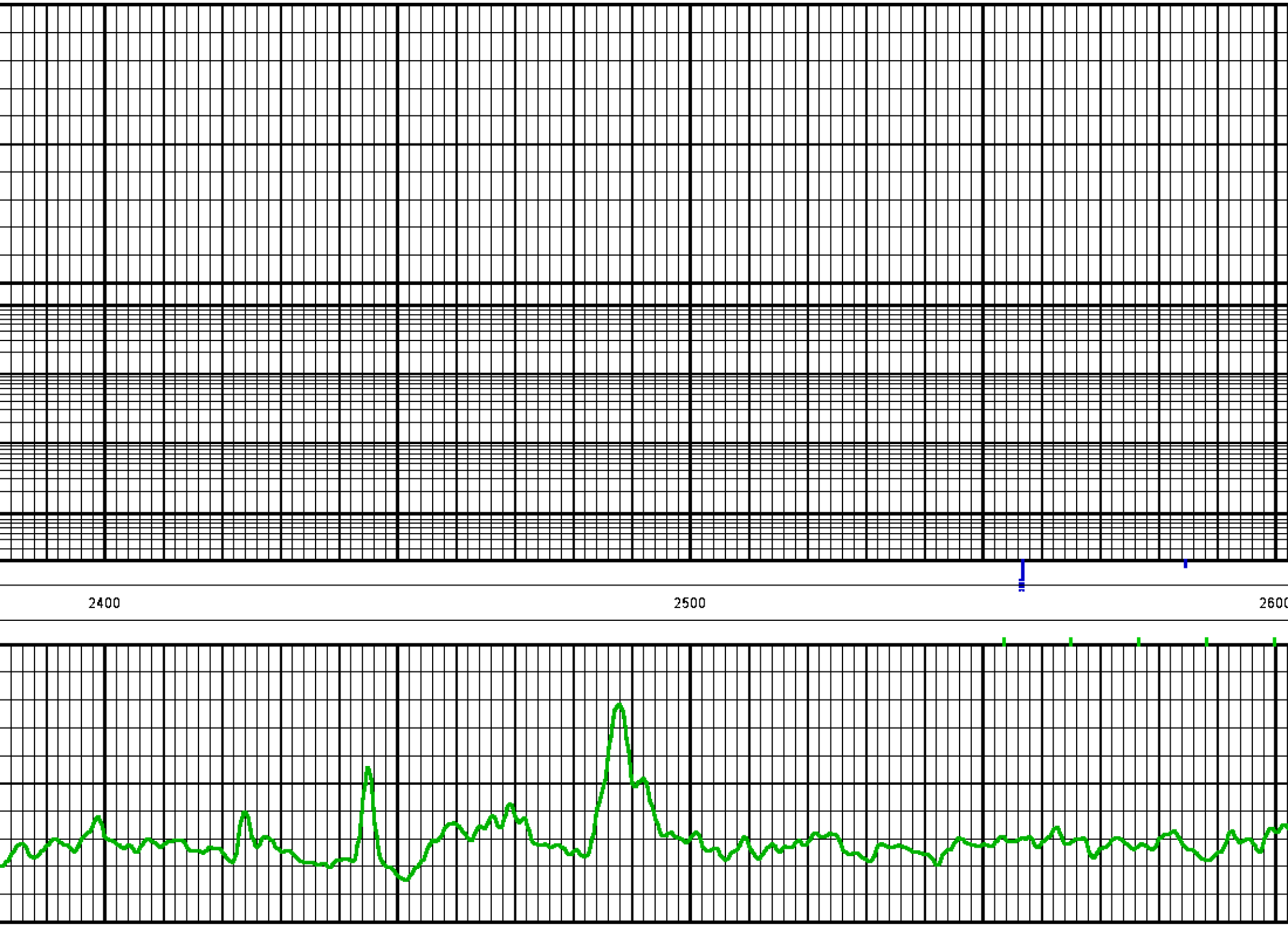
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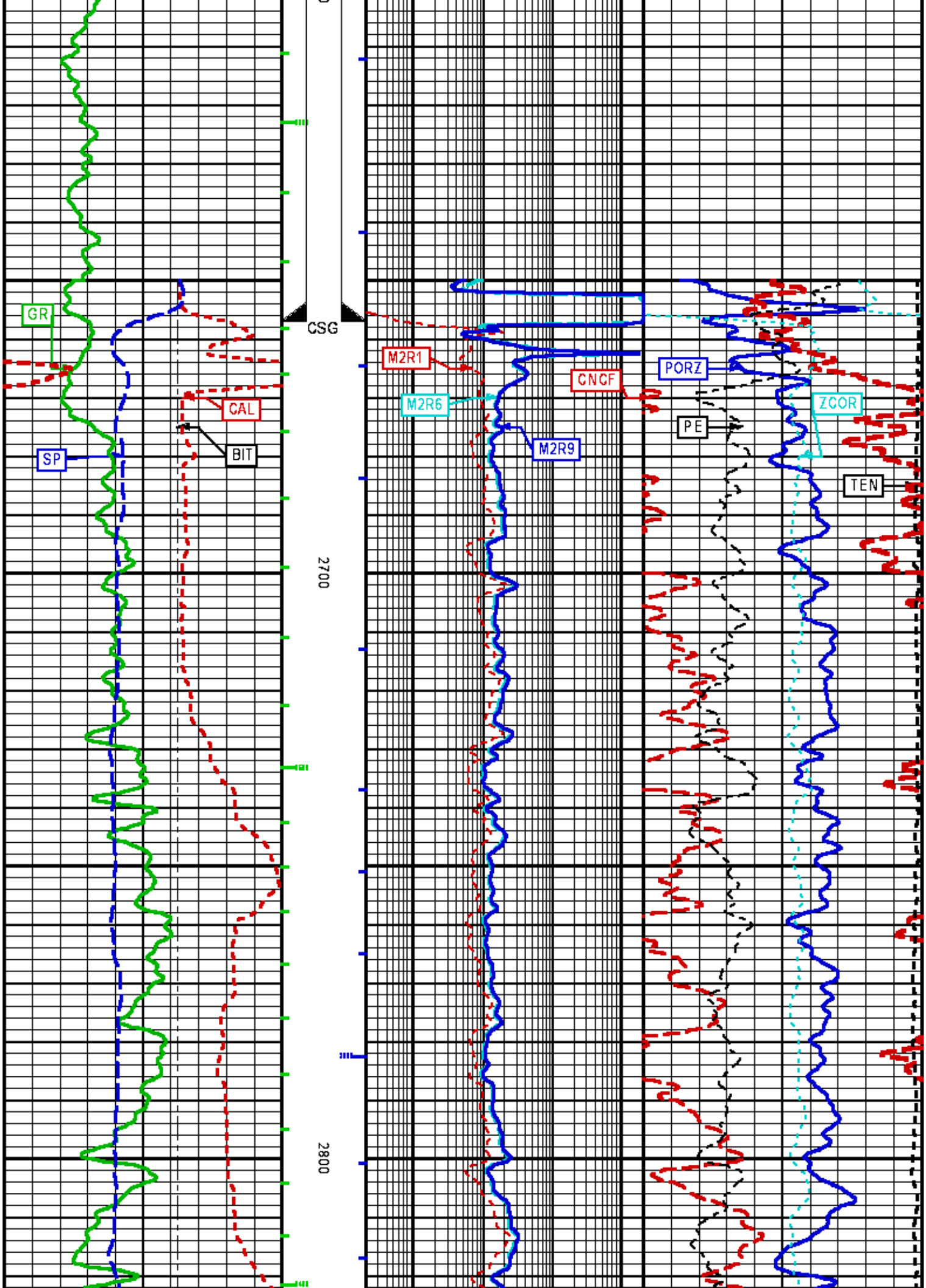
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PE
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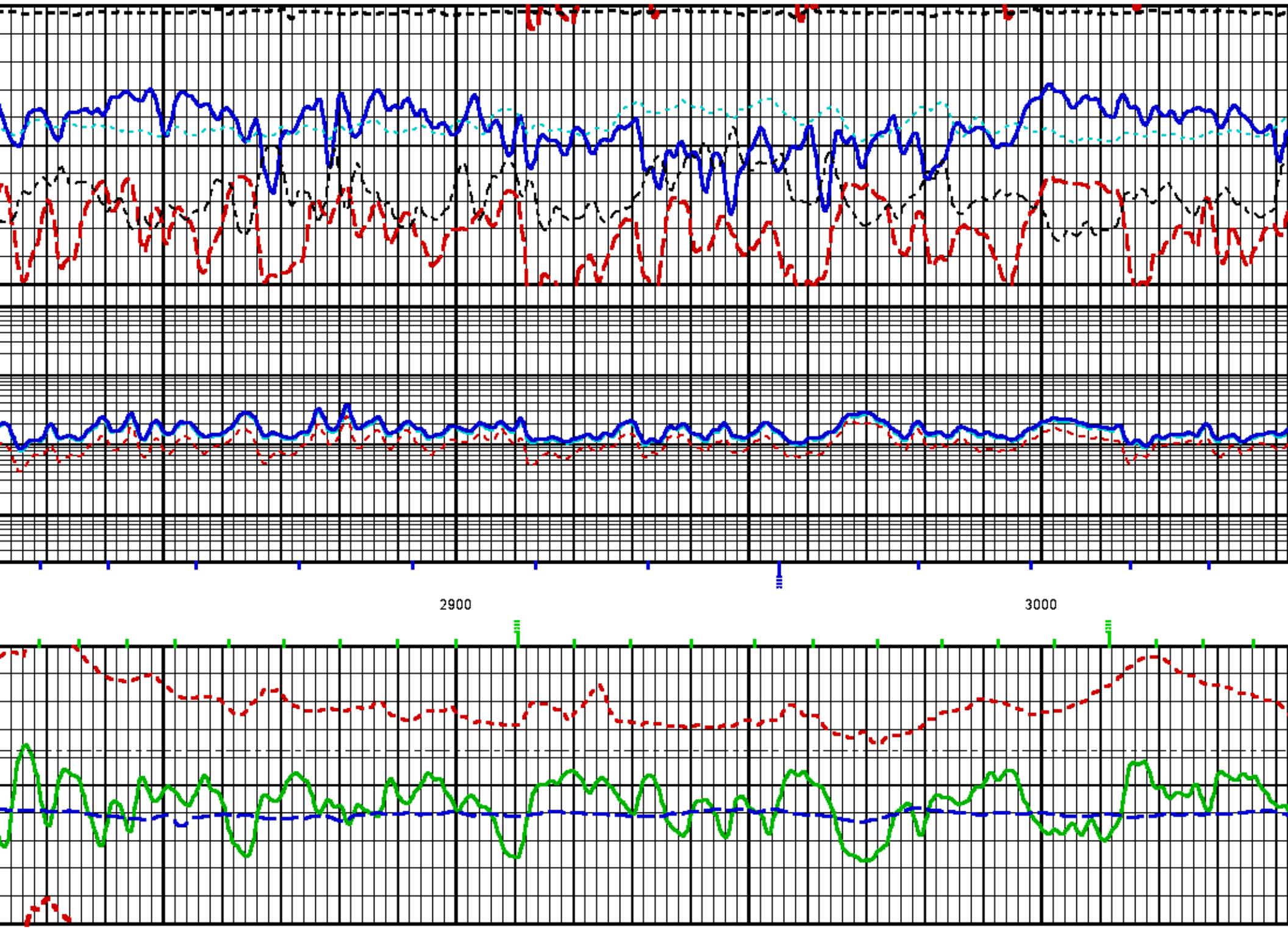
M2R9
TEN
2700
2800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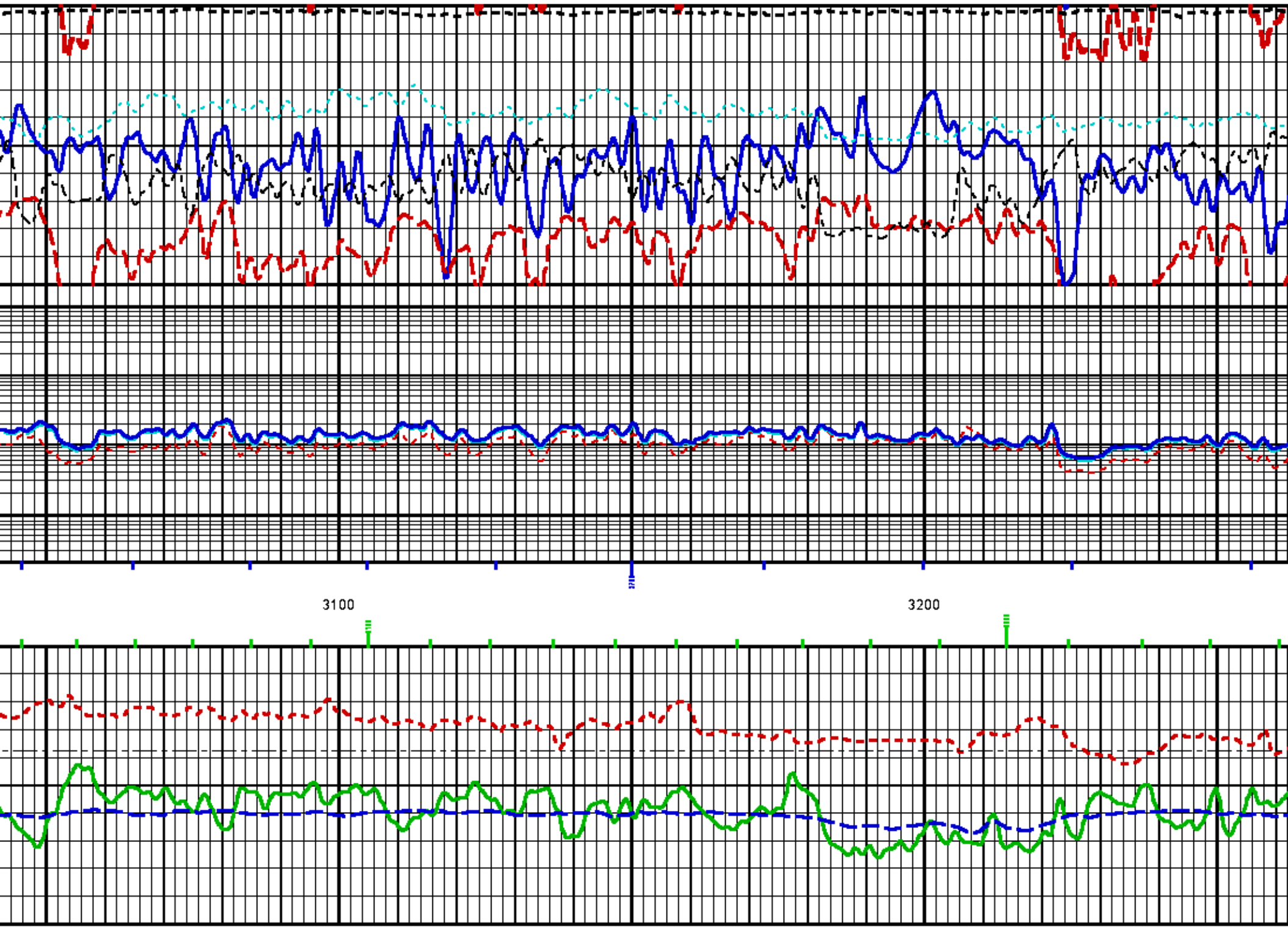
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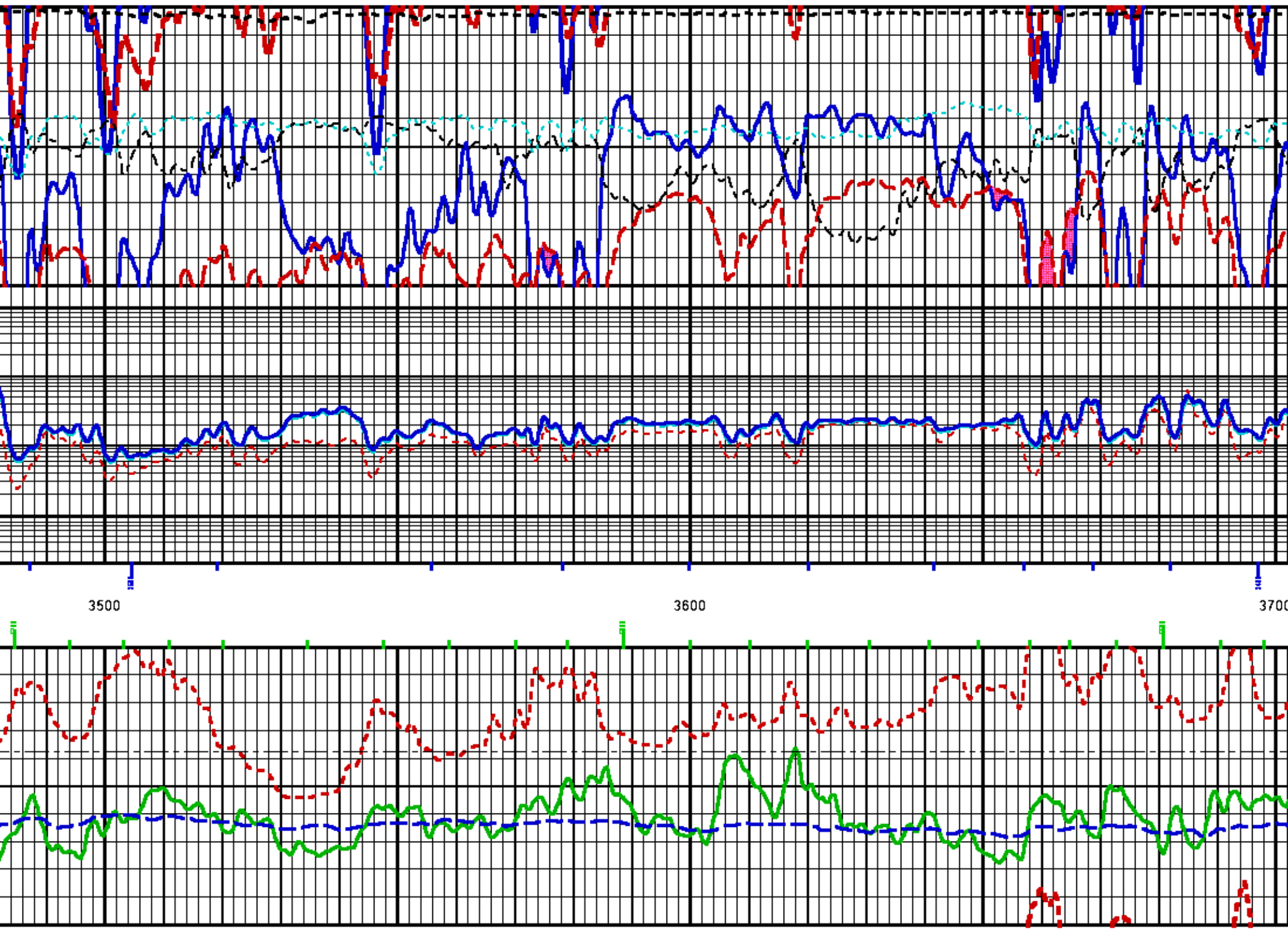
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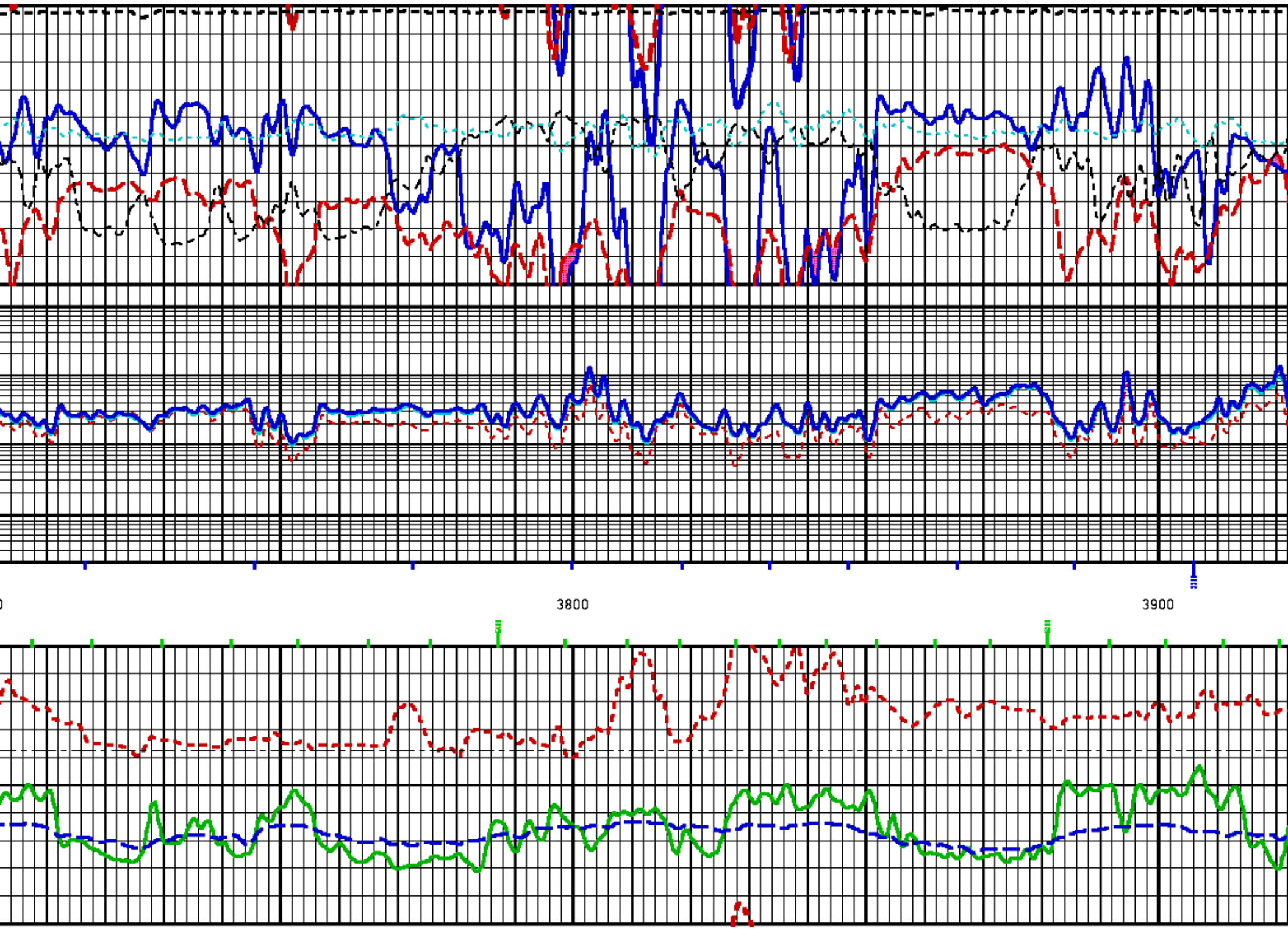
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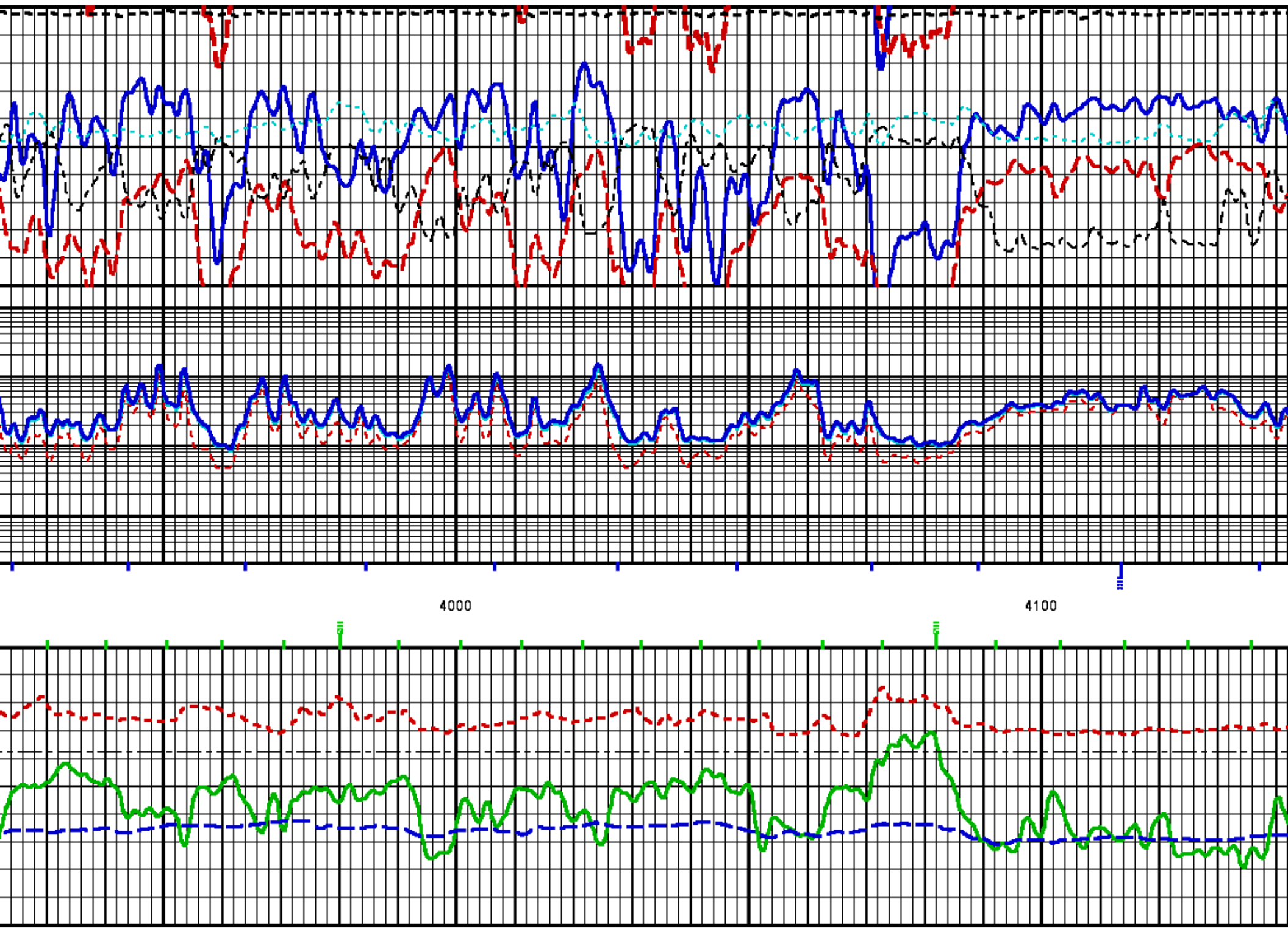
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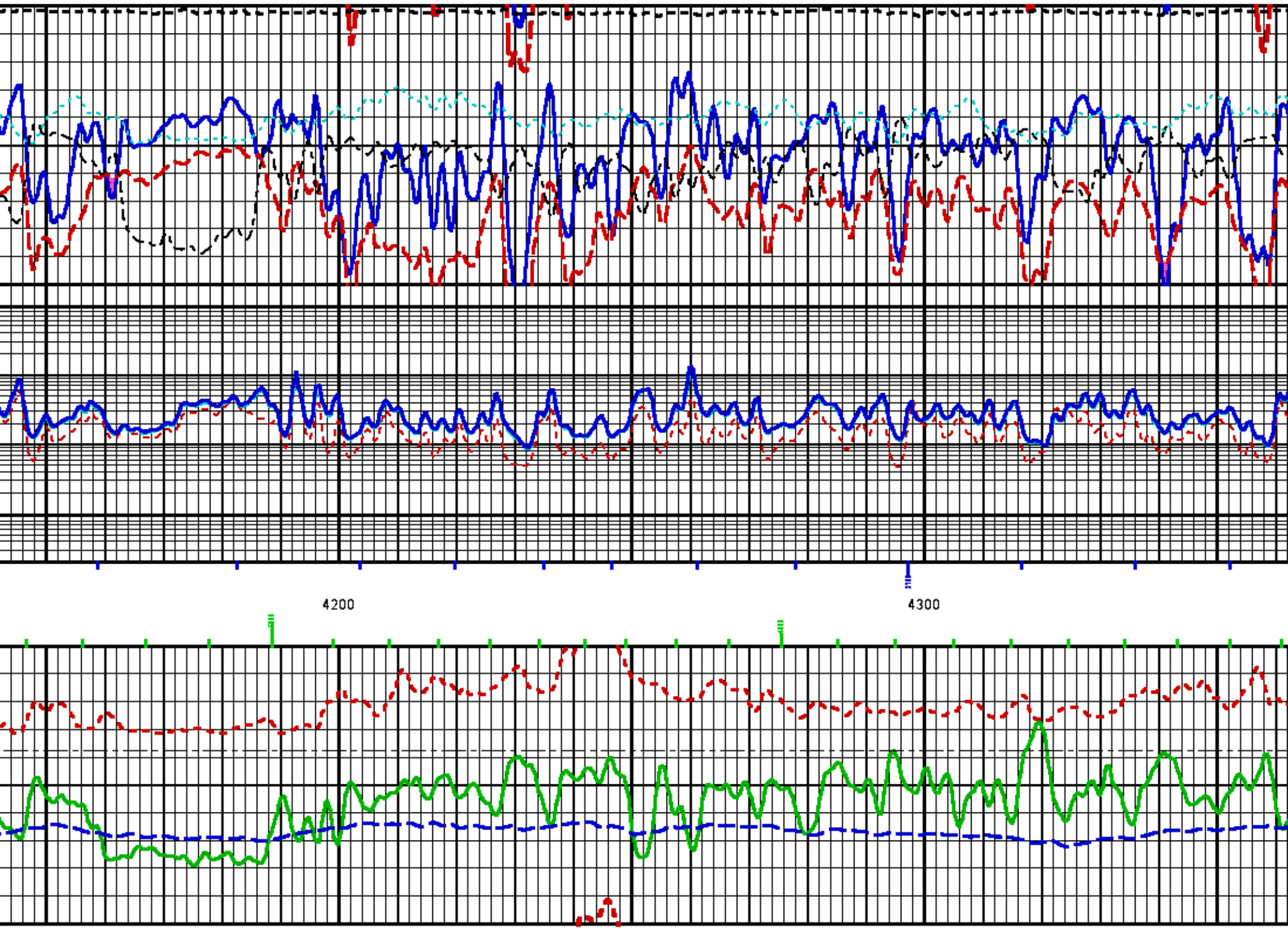
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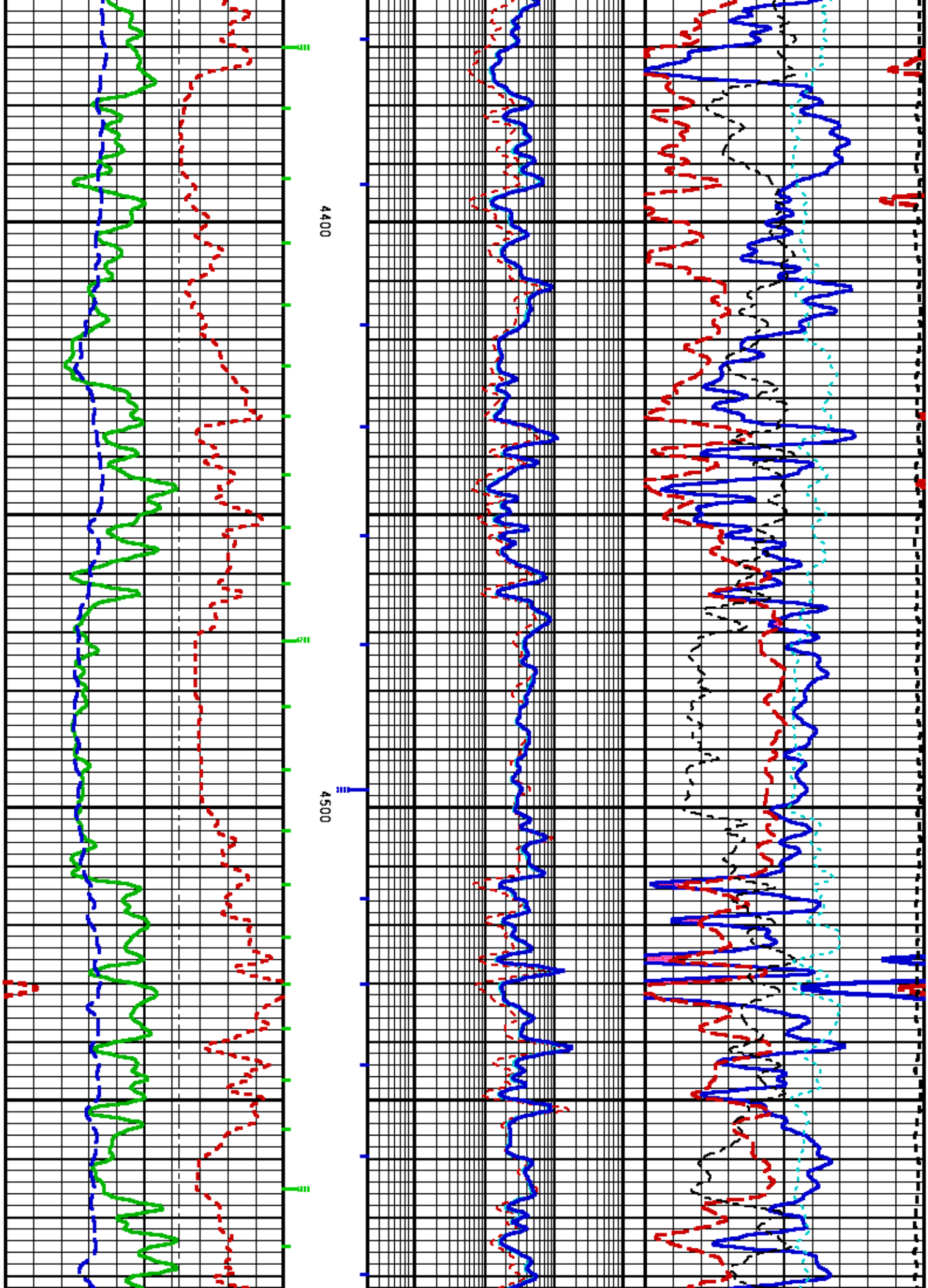
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4700
4800

4900
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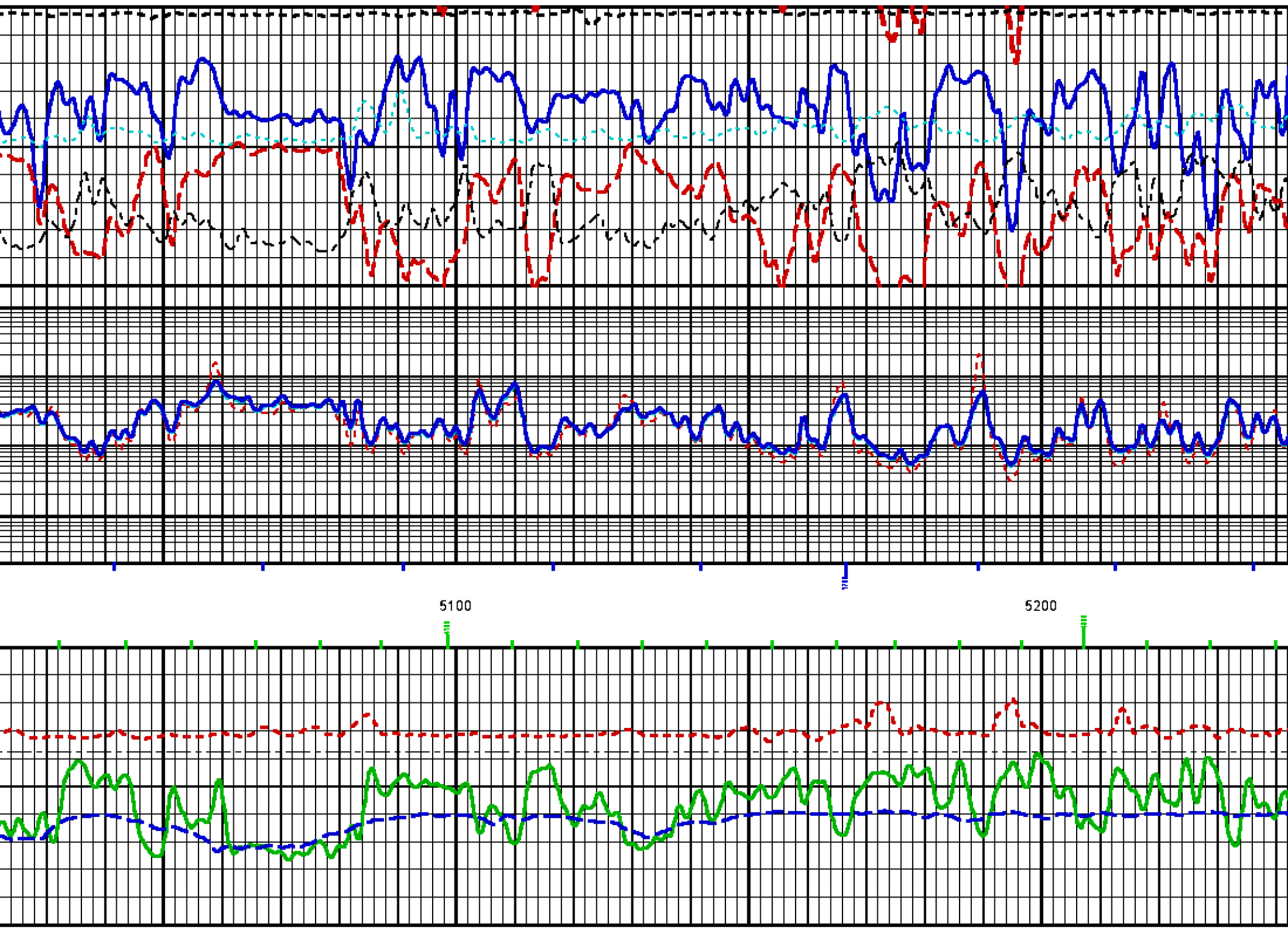
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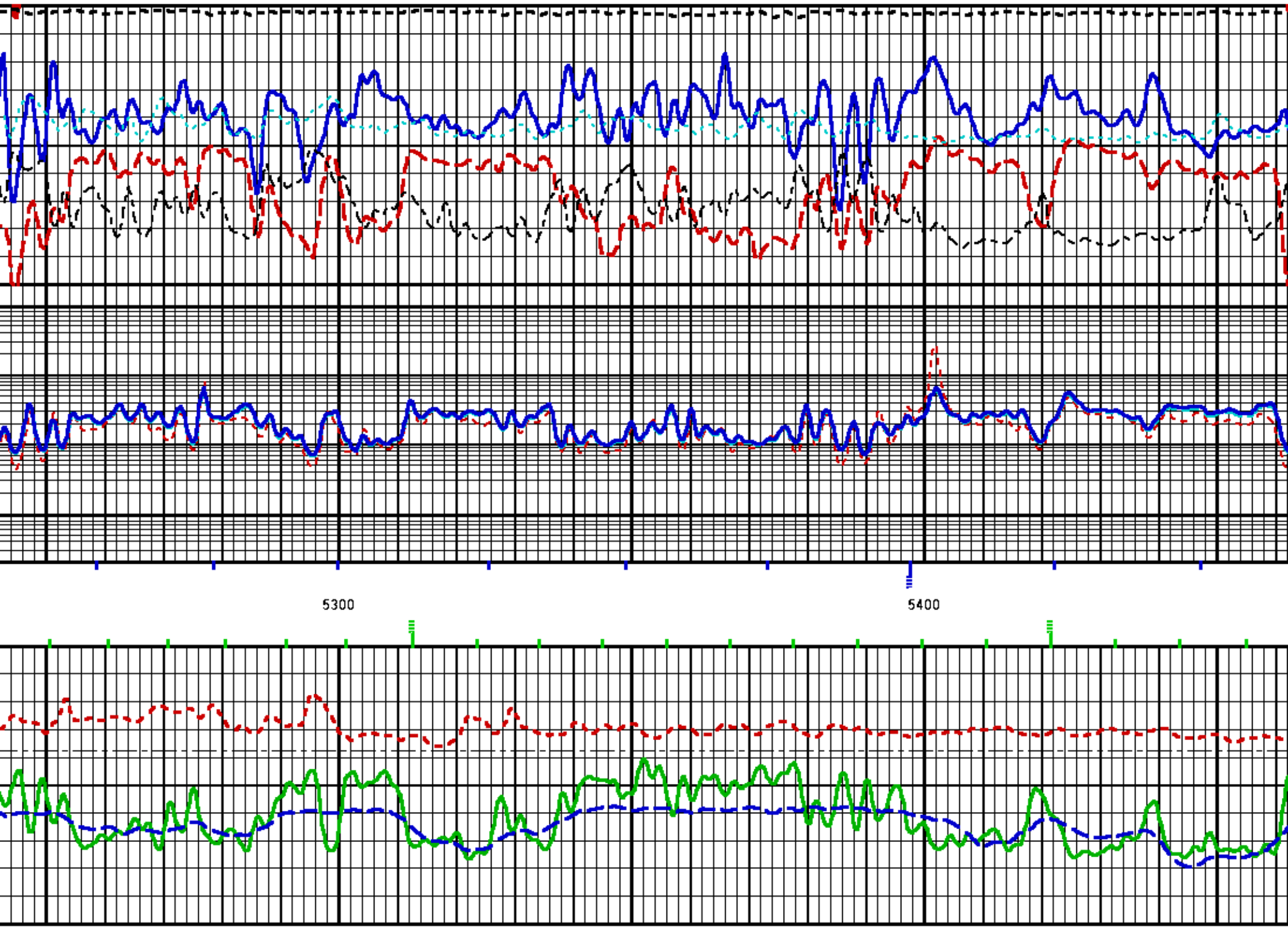
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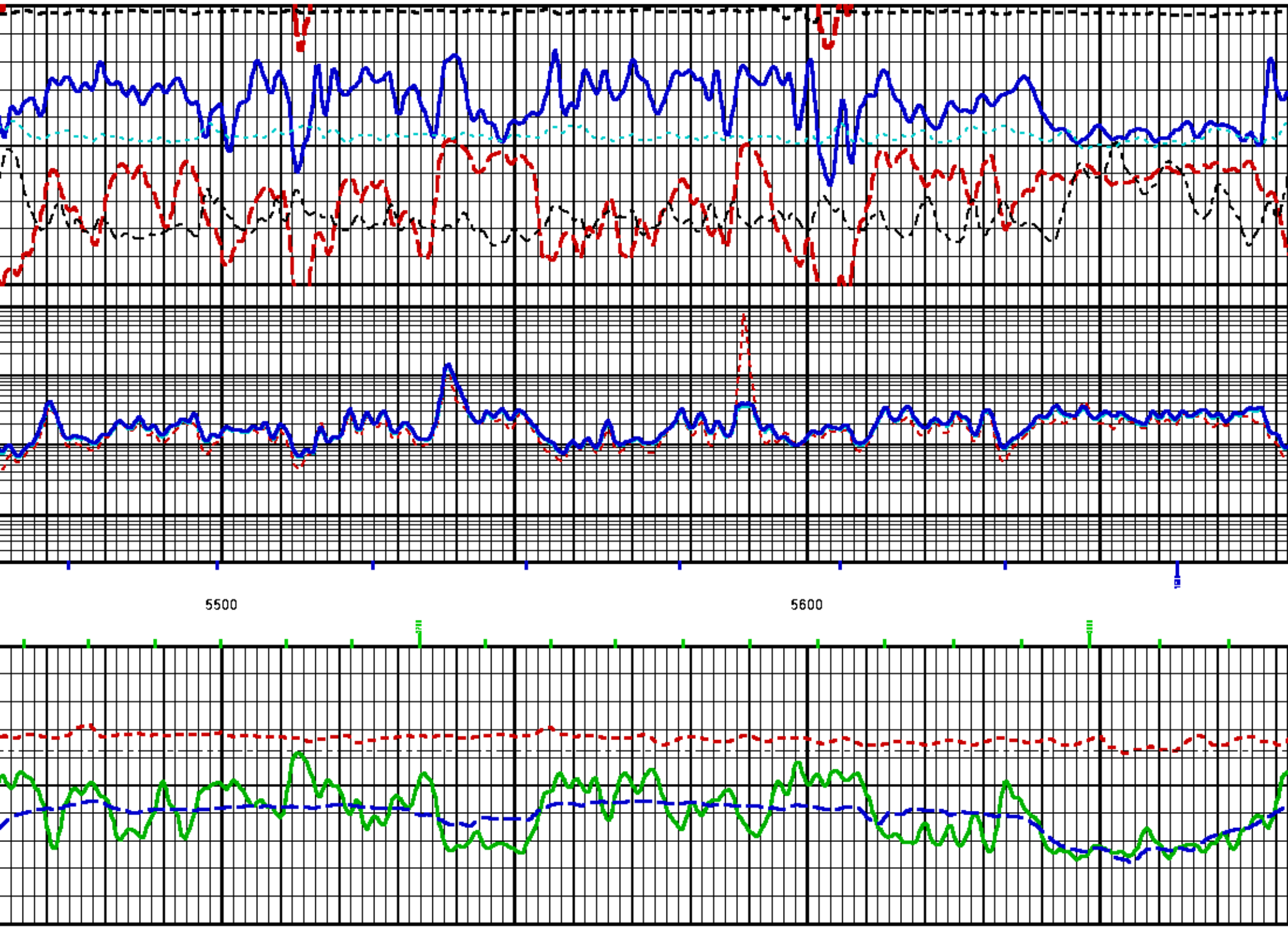
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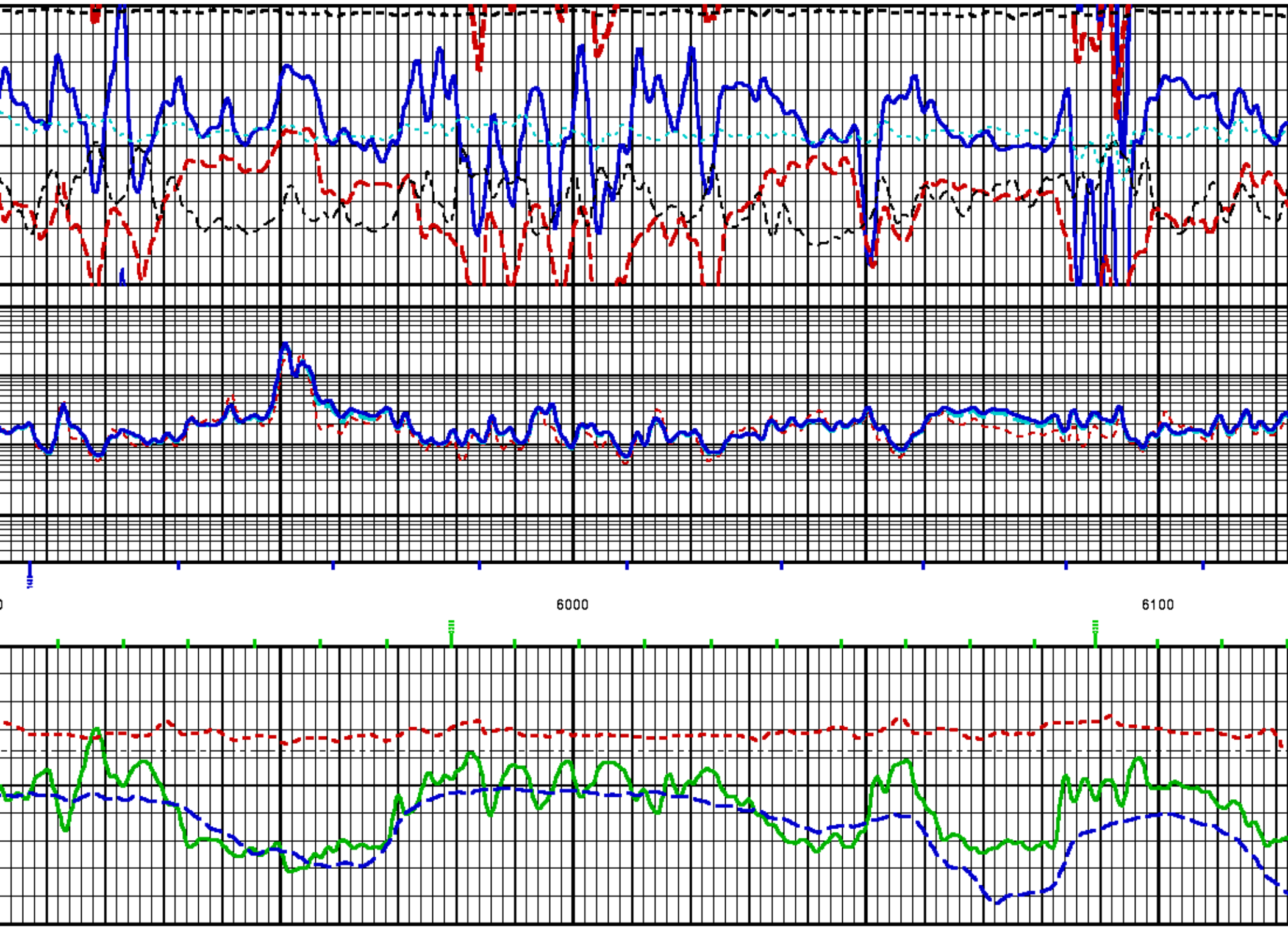
5900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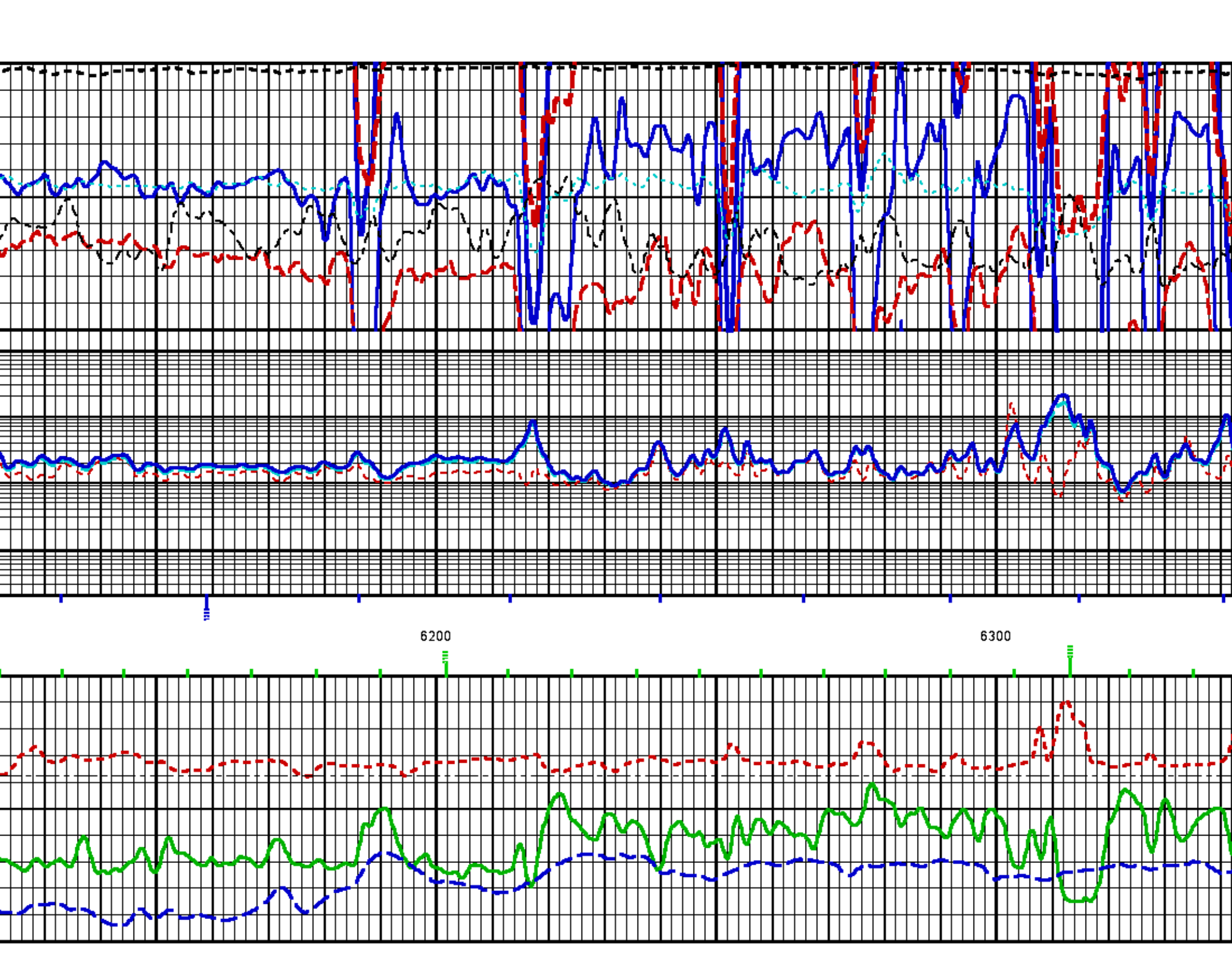
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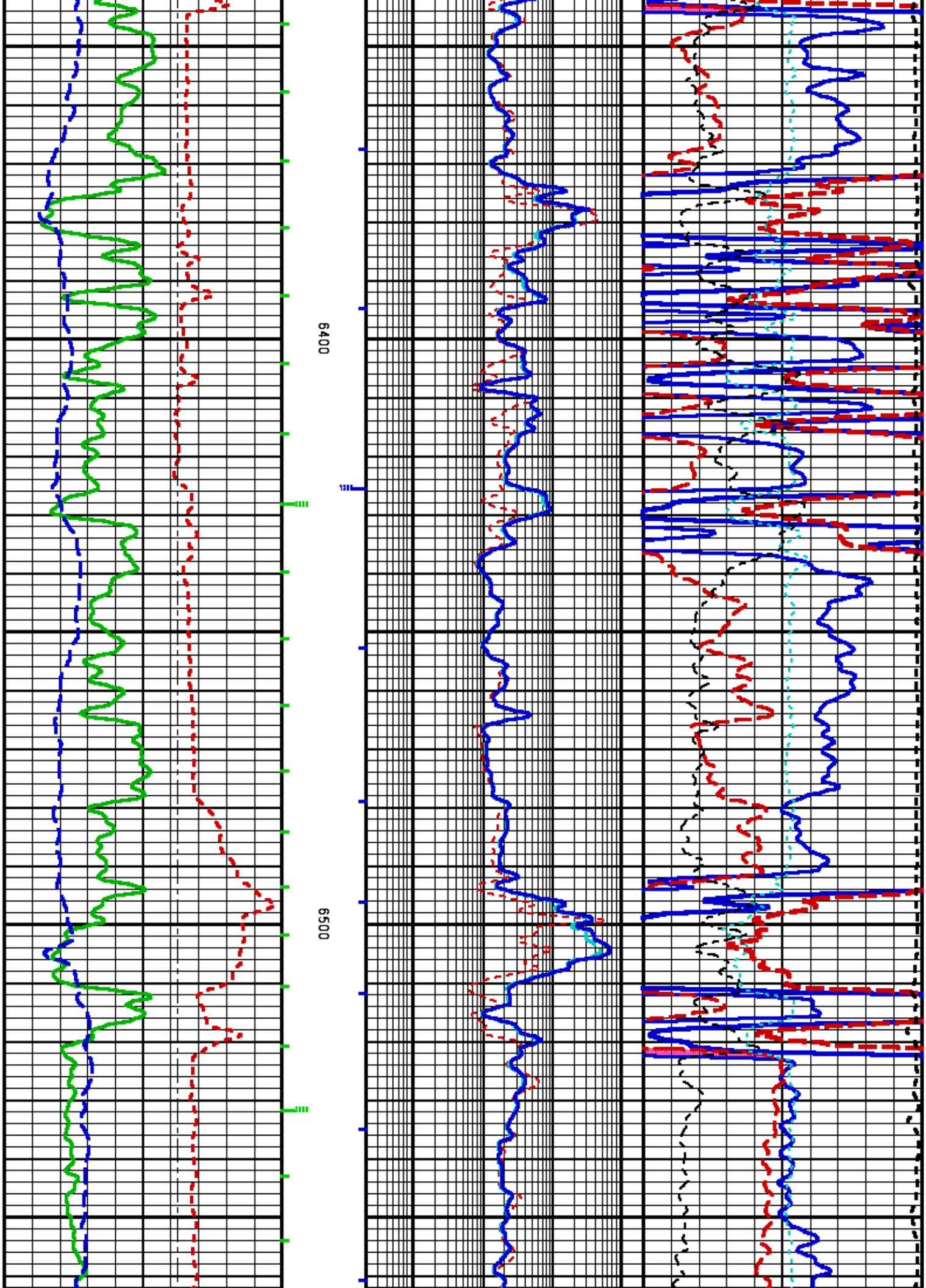
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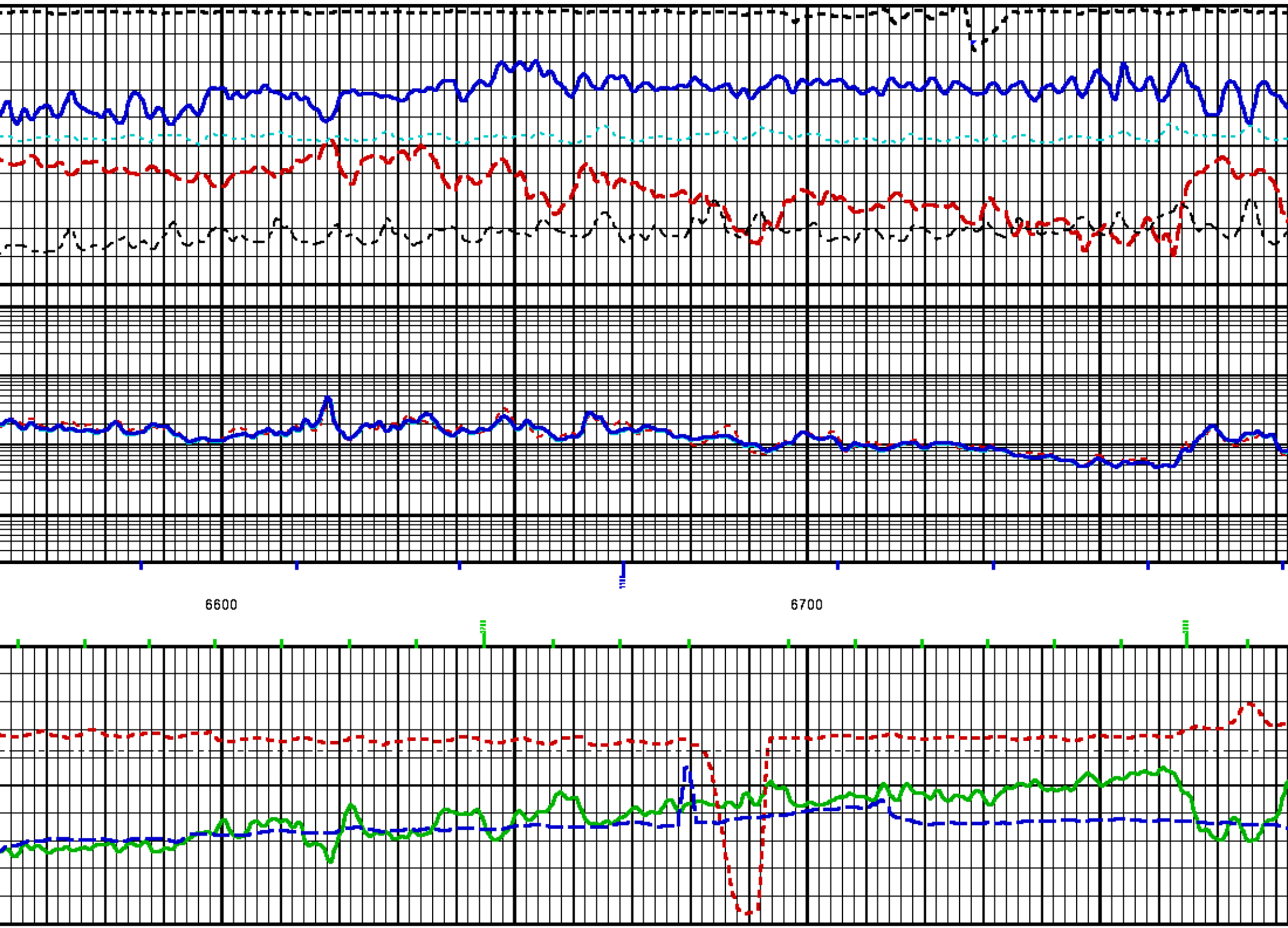
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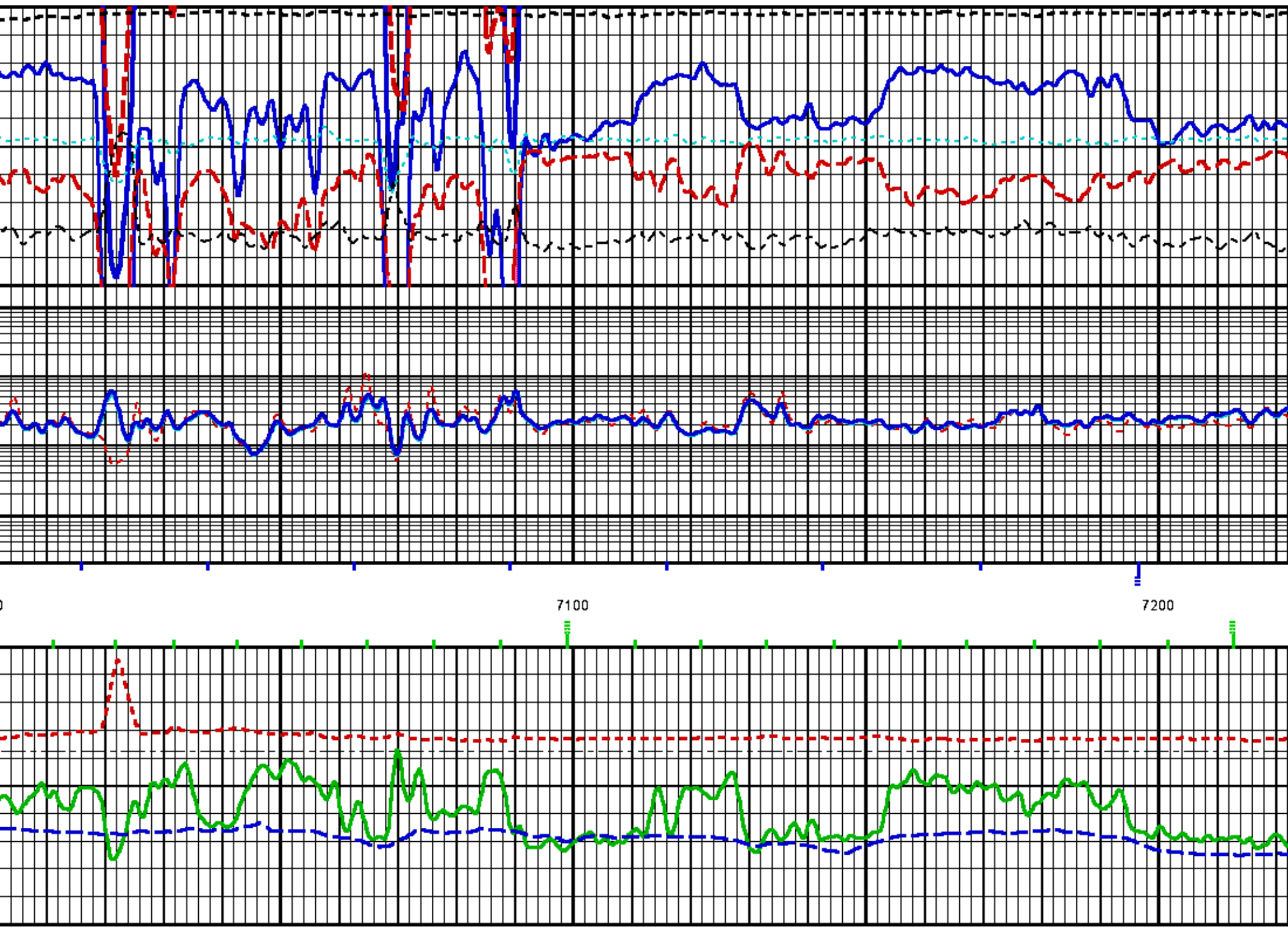
6700

6800
6900
7000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7200

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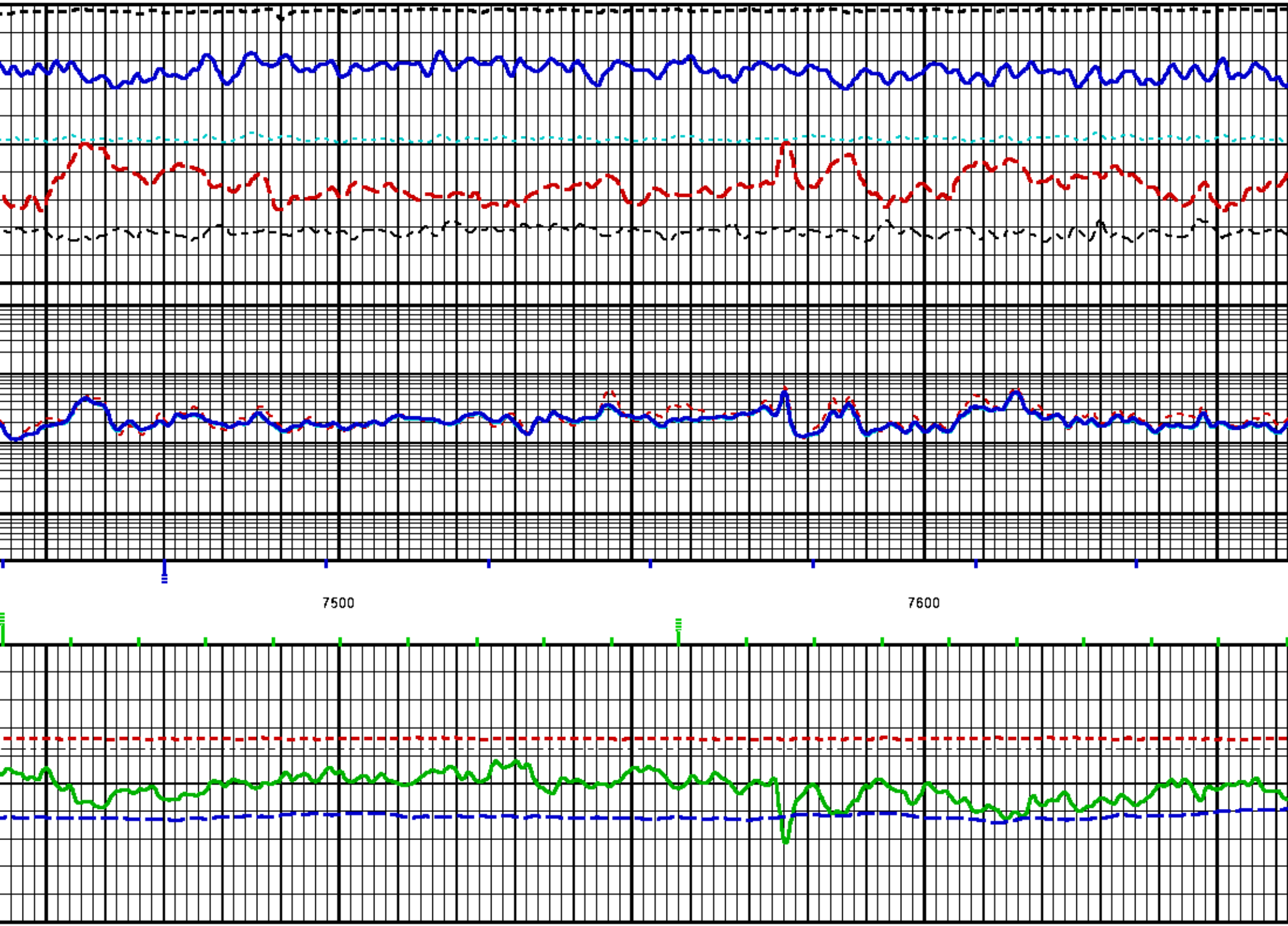
7400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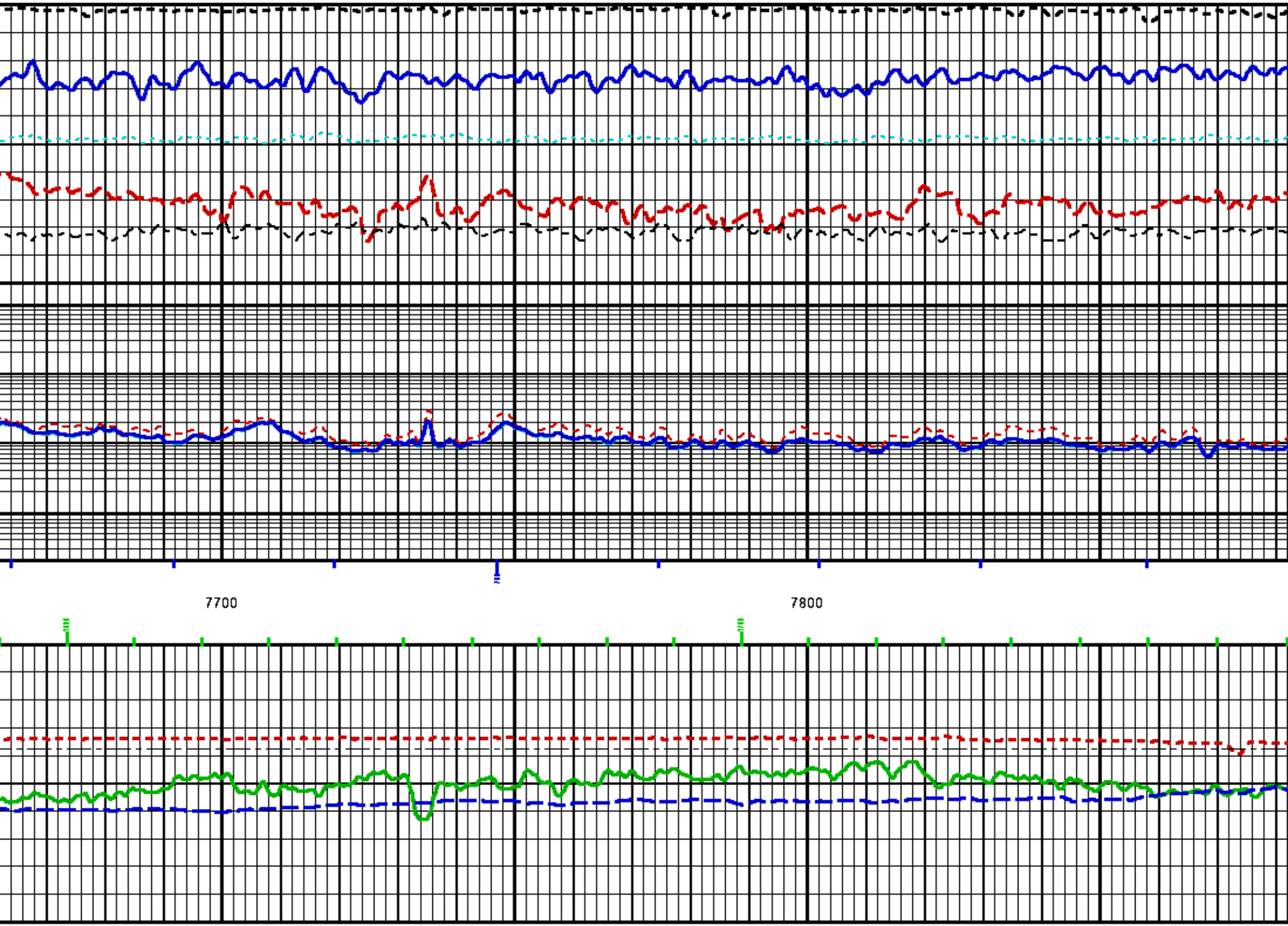
7600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7800

7900
8000
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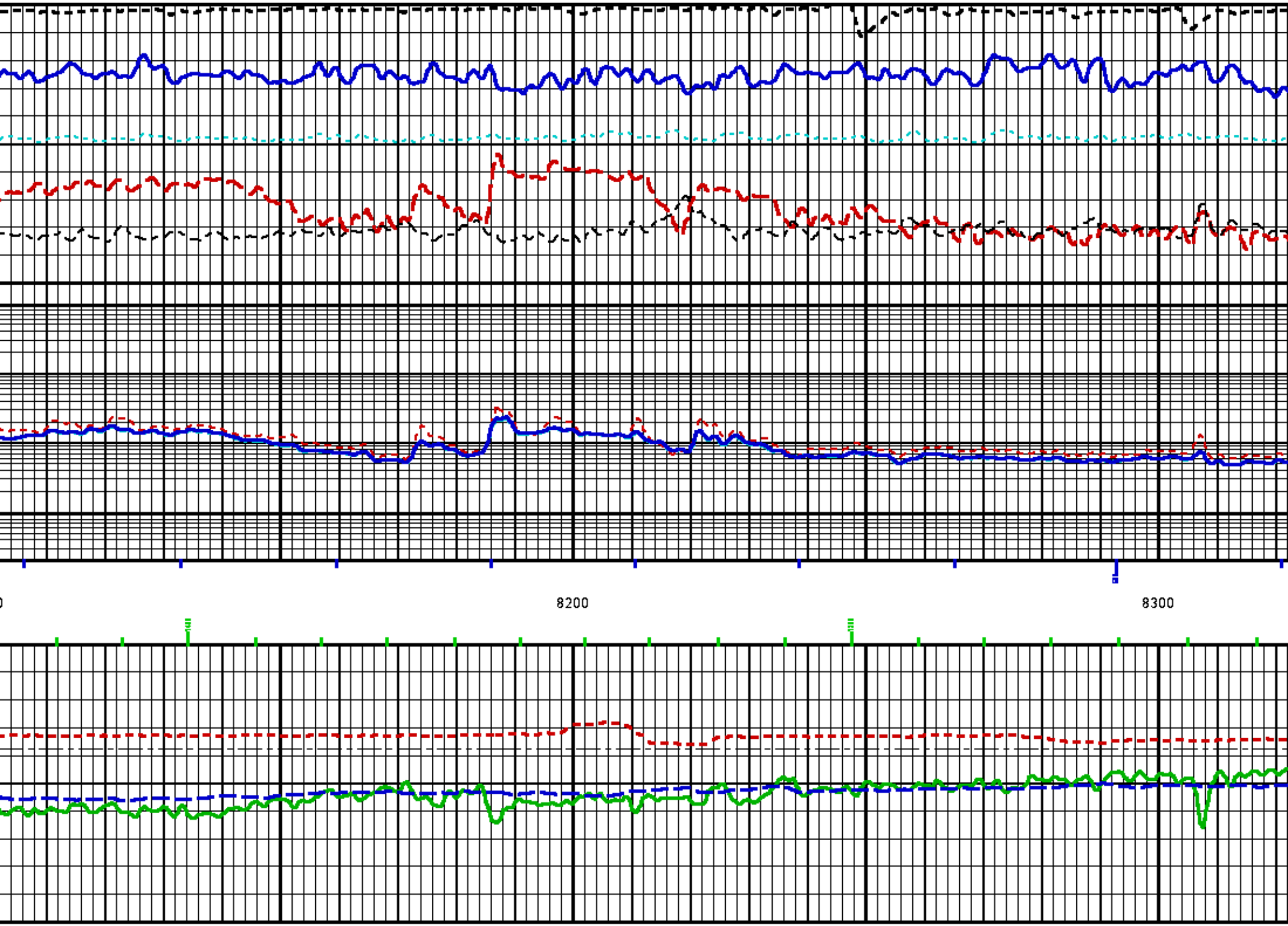
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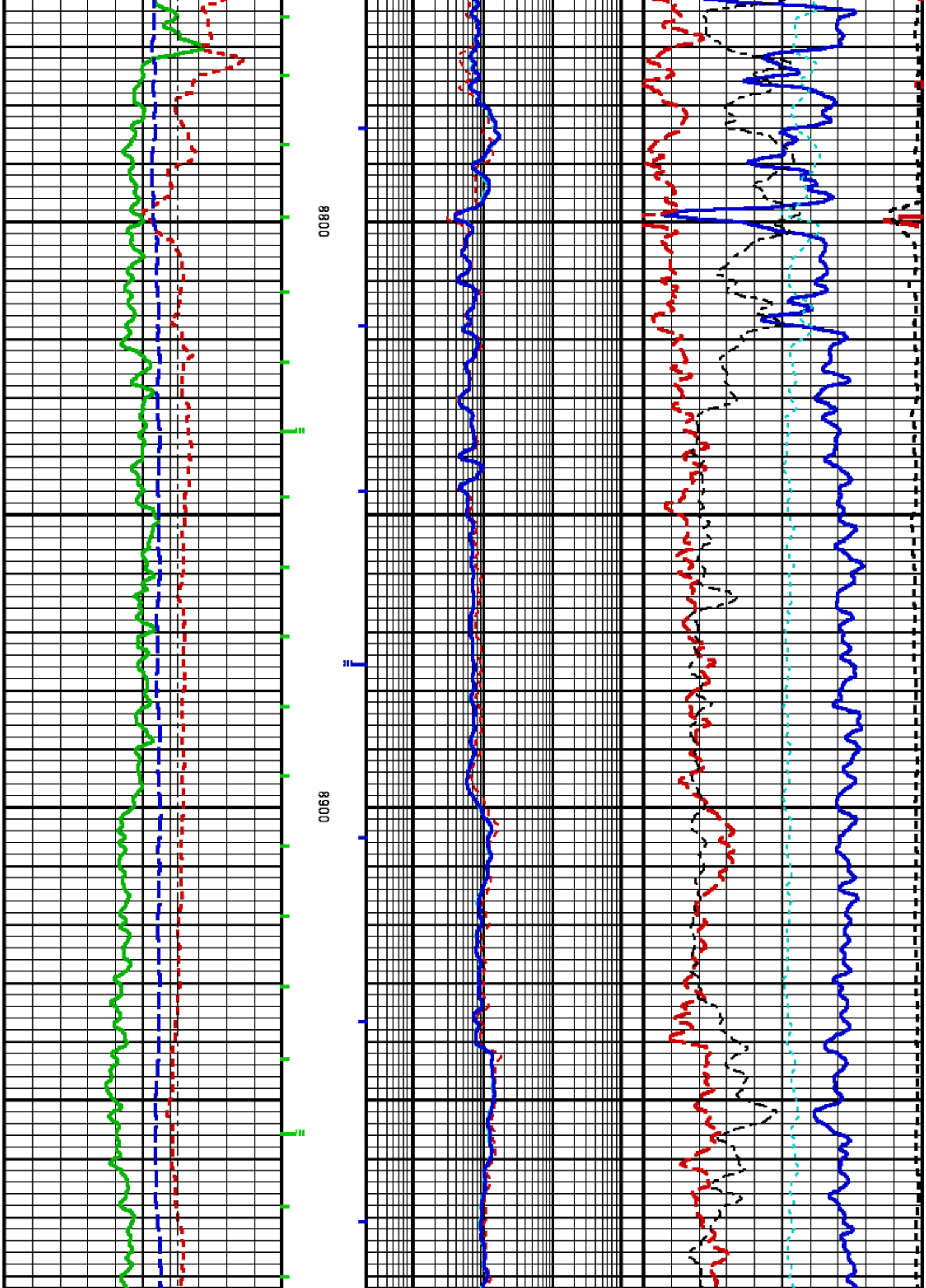
8400

8500

8600

8700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8900

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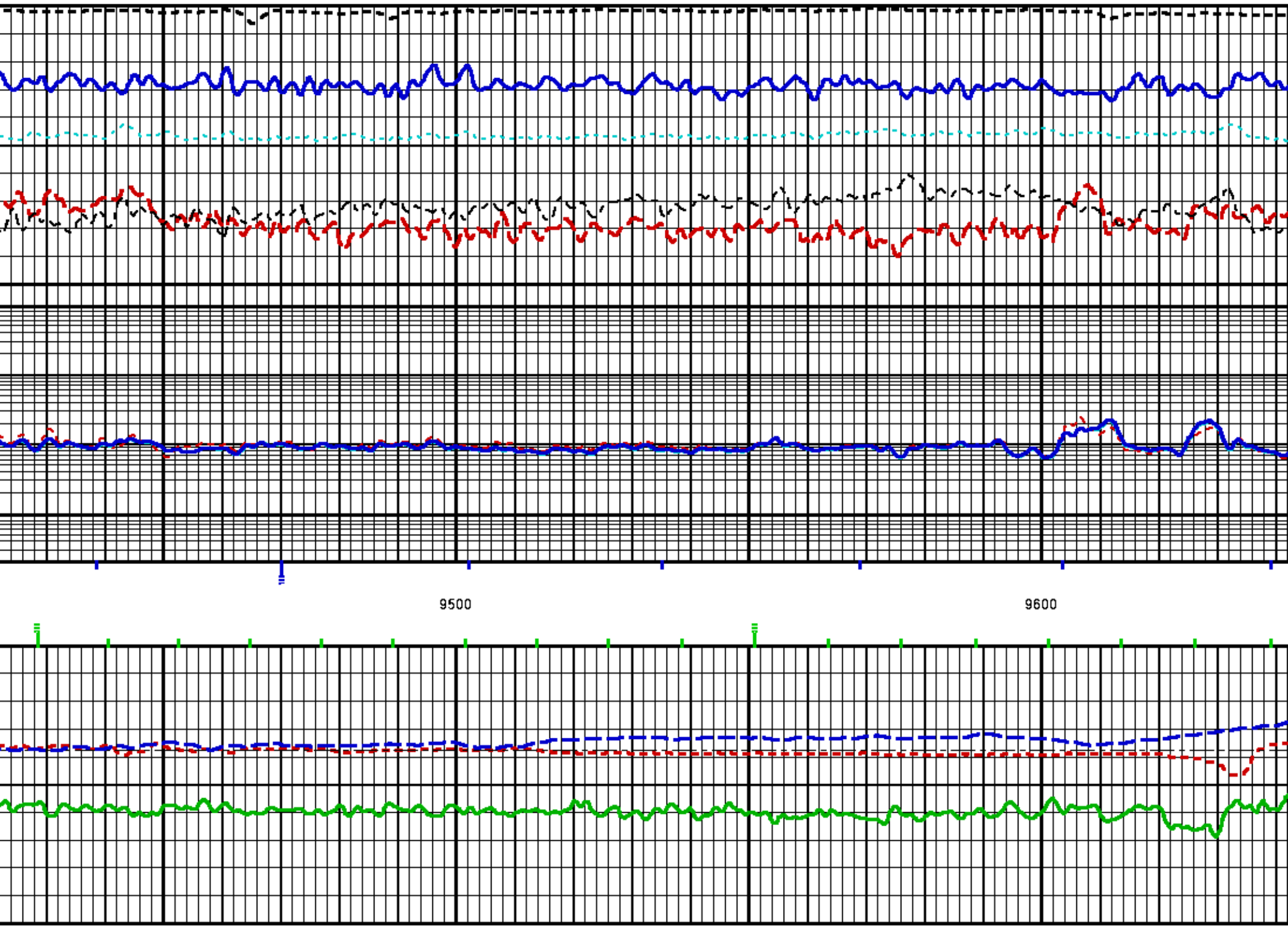
9100
9200

9300
9400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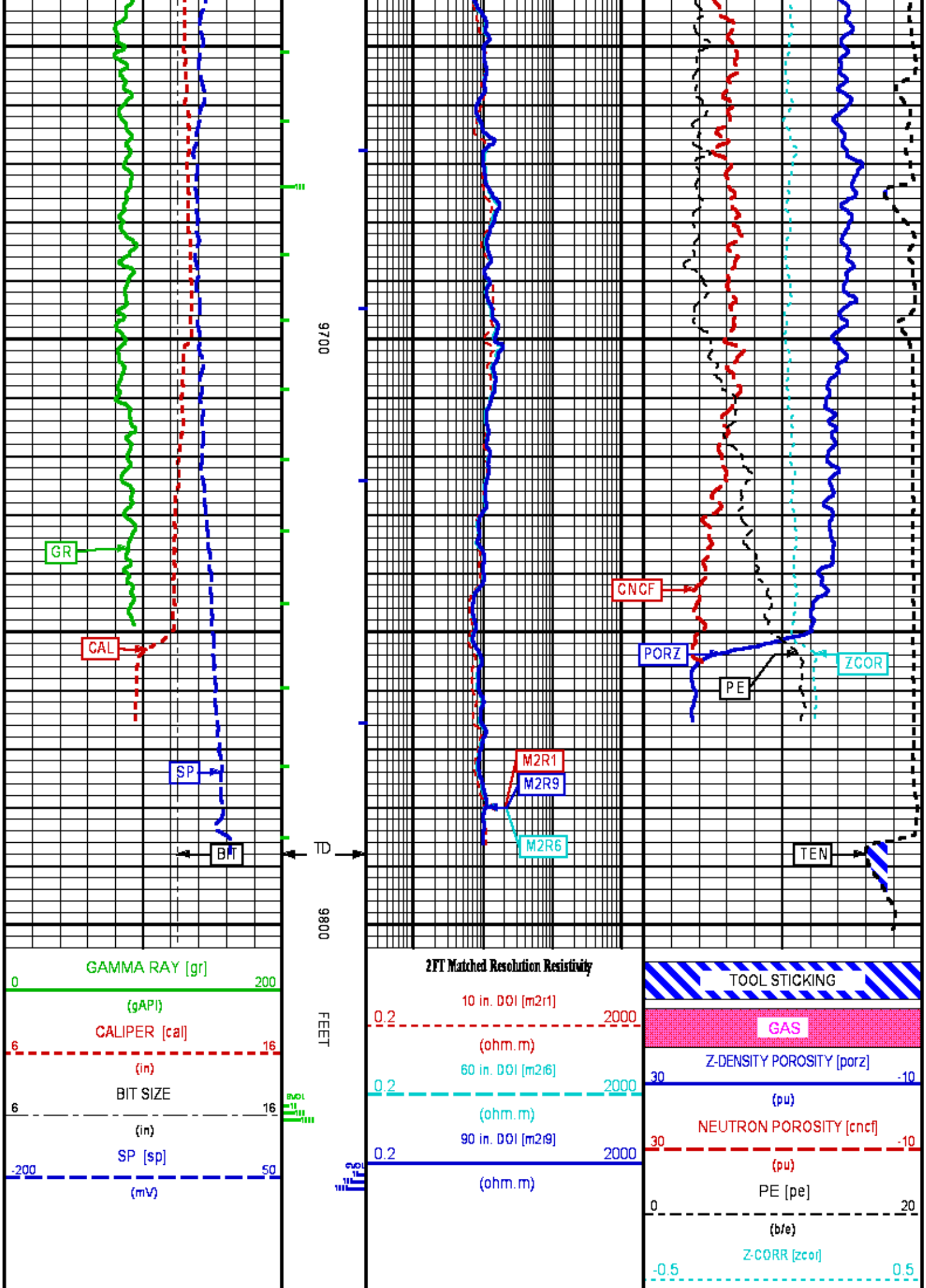

9700
9800
FEET
GR
CAL
SP
BIT
TD
M2R1
M2R9
M2R6
CNCF
PORZ
PE
ZCOR
TEN
GAMMA RAY [gr]
0
200
(gAPI)
CALIPER [cal]
6
16
(in)
BIT SIZE
6
16
(in)
SP [sp]
-200
50
(mV)
2FT Matched Resolution Resistivity
10 in. DOI [m2r1]
0.2
2000
(ohm.m)
60 in. DOI [m2r6]
0.2
2000
(ohm.m)
90 in. DOI [m2r9]
0.2
2000
(ohm.m)
TOOL STICKING
GAS
Z-DENSITY POROSITY [porz]
30
-10
(pu)
NEUTRON POROSITY [cncf]
30
-10
(pu)
PE [pe]
0
20
(b/e)
Z-CORR [zcor]
-0.5
0.5

(g/cm3)

DIFF. TENSION [ten]
4750 ------ 250
(lbf)

REPEAT LOG

ECLIPS 6.2i ECLIPS General Release Rel 6.2i Wed Jun 12 12:21:40 CDT 2013
Updates: 1 Patches: 6

Plotted: Mon Mar 16 09:07:30 2015

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/OH095187/n777q01.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 2593.250 ft BOTTOM DEPTH: 2989.599 ft

SYMMETRIC FILTER

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

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	9.625	in	TOP	BOTTOM
	CASING THICKNESS	0.000	in	"	"
BIT SIZE	BIT SIZE	12.250	in	"	"
MUD SAMPLE RESISTIVITY	MUD SAMPLE TEMP	57.0	degF	TOP	2965.750
		77.0	degF	2965.750	BOTTOM
	MUD SAMPLE RES	1.700	ohm.m	TOP	2960.217
		1.000	ohm.m	2960.217	BOTTOM
BOREHOLE TEMP from GRADIENT	Known BH REF TEMP	77.0	degF	TOP	BOTTOM
	at BH REF DEPTH	0.0	ft	"	"
	with TEMP GRADIENT	1.200	0.01 degF/ft	"	"
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (cnbh^)	USE CALIPER		"	"
	CALIPER/FIXED DIA. (mbh^)	USE CALIPER		"	"
BOREHOLE CORR DIAMETER	FIXED DIAMETER (cnbh^)	12.250	in	"	"
	FIXED DIAMETER (mbh^)	12.250	in	"	"
BH MUD RESISTIVITY SOURCE	RMUD SOURCE (HDIL)	TOOL MEASURED		"	"

SP CONTROL

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
SP CONTROL	Tool/Bridle	TOOL		TOP	BOTTOM

CN PROCESSING

CN PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
2446 CN MATRIX	2446 MATRIX	SANDSTONE		TOP	BOTTOM
CN SALINITY CORRECTION	SALINITY	850	ppm	"	"
CN TOOL STANDOFF	ENABLE STANDOFF CORR	OFF		"	"
	STANDOFF AMOUNT	0.00	in	"	"
CN CASING & CEMENT CORRECTION	CORRECTION	OFF		"	"
	BIT SIZE BEHIND CSNG	13.500	in	"	"

ZDL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
DENSITY POROSITY	RHOmatrix	2.680	g/cm3	TOP	BOTTOM
	RHOfluid	1.000	g/cm3	"	"
ZDL	DENX TRACKING	ON		"	"
TRACKING TIME	Logging Spd for Gain	Over 10 ft/min		"	"

HDIL PROCESSING

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

CURVE DESCRIPTION REPORT

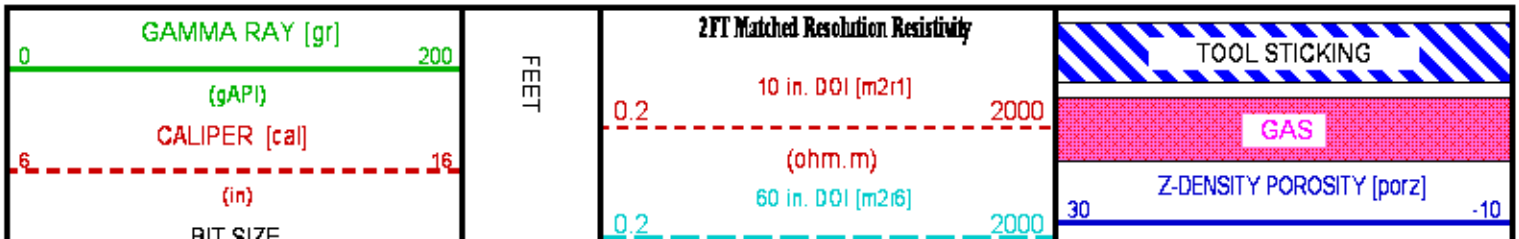
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:BIT	Mar 16 09:01:27 2015	BIT SIZE
F1:BVOL	Mar 16 09:01:27 2015	BOREHOLE VOLUME
F1:CAL	Mar 16 09:01:27 2015	CALIPER
F1:CNCF	Mar 16 09:01:27 2015	FIELD NORMALIZED COMPENSATED NEUTRON POROSITY
F1:CVOL	Mar 16 09:01:27 2015	CEMENT VOLUME
F1:GR	Mar 16 09:01:27 2015	GAMMA RAY
F1:M2R1	Mar 16 09:01:27 2015	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 10-INCH DOI
F1:M2R6	Mar 16 09:01:27 2015	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 60-INCH DOI
F1:M2R9	Mar 16 09:01:27 2015	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 90-INCH DOI
F1:PE	Mar 16 09:01:27 2015	PHOTO ELECTRIC CROSS-SECTION
F1:PORZ	Mar 16 09:01:27 2015	POROSITY FOR SELECTABLE MATRIX
F1:SP	Mar 16 09:01:27 2015	SPONTANEOUS POTENTIAL
F1:TEN	Mar 16 09:01:27 2015	DIFFERENTIAL TENSION
F1:ZCOR	Mar 16 09:01:27 2015	DENSITY CORRECTION

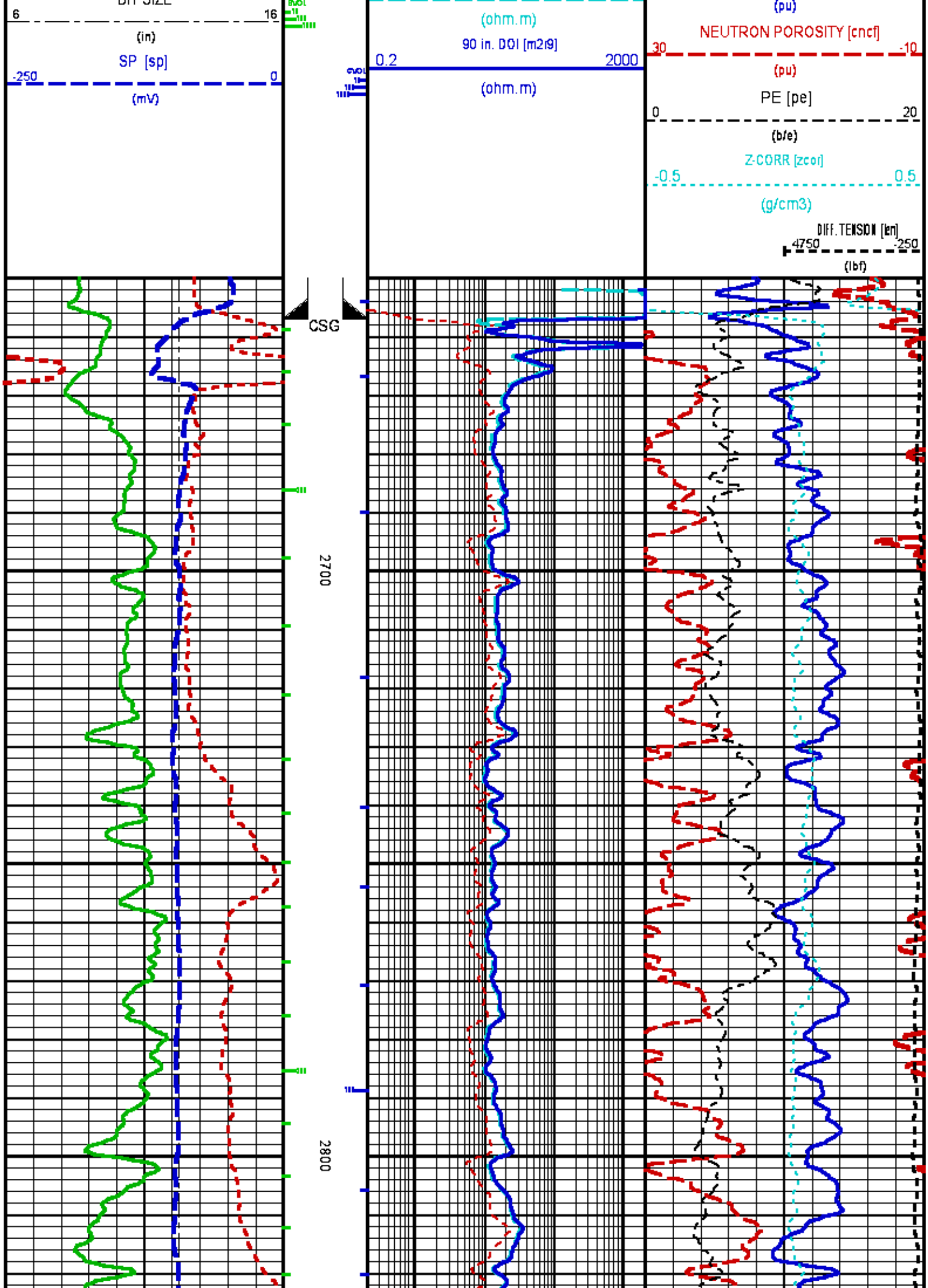
CURVE MEASURE POINT OFFSET

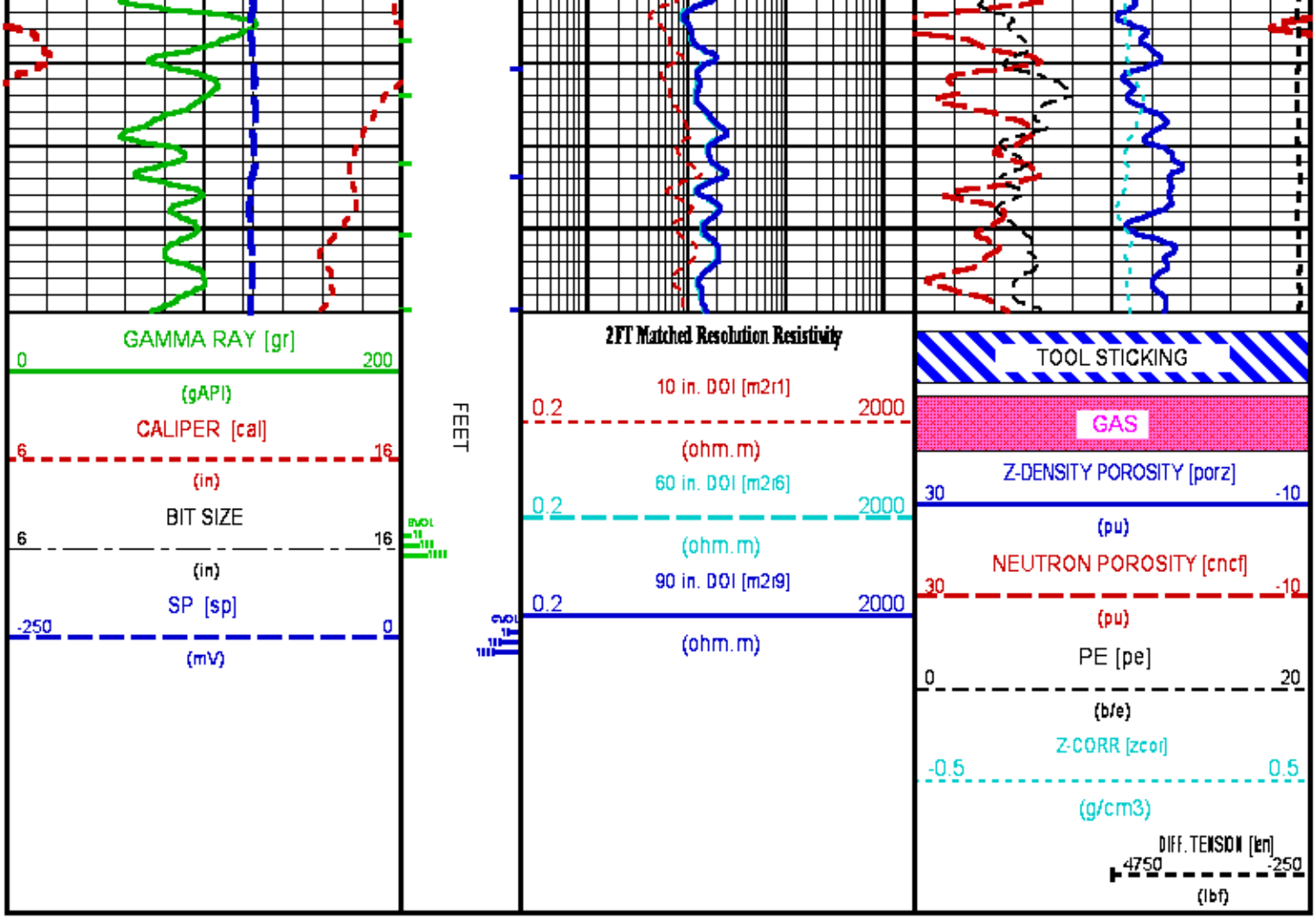
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
BIT	0.00	GR	52.25	M2R9	8.00	SP	14.00
CAL	35.00	M2R1	8.00	PE	34.25	TEN	0.00
CNCF	45.25	M2R6	8.00	PORZ	34.25	ZCOR	34.25

Presentation : **cas6685:WPX_REPEAT.fvpdf [5"/100' Scale]**
Plot Interval : **2650 - 2860 Feet**

Data File 1 : **F1 : cas6685:/dat1a/OH095187/REPEAT.xtf**
Created On : **Mar 16 09:01:27 2015**
Company : **WPX ENERGY INC**
Well : **GM 728-14-33-HN1**
Field : **GRAND VALLEY**
File Interval : **2525.25 - 2988.75 Feet**
OCT : **n777q**




BIT SIZE
6
16
(in)
SP [sp]
-250
0
(mV)
(ohm.m)
90 in. DOI [m2r9]
0.2
2000
(ohm.m)
(pu)
NEUTRON POROSITY [cncf]
30
-10
(pu)
PE [pe]
0
20
(b/e)
Z-CORR [zcor]
-0.5
0.5
(g/cm3)
DIFF. TENSION [ten]
4750
-250
(lbf)
CSG
2700
2800



CALIBRATION / VERIFICATION SUMMARY

Source File: /data1a/OH095187/n777qF.tp1

CHT PRIMARY CALIBRATION SUMMARY

TOOL #: 3981XA 10516527 DATE/TIME PERFORMED: Sun Feb 8 13:02:35 2015

UNIT #: 3885TC 6685

	Signal Low (raw)	Signal High (raw)	Scale Mult	Scale Add	Engr Low (lbf)	Engr High (lbf)
CHT	-151.45	501.03	3.98	403.51	-200.00	2400.00

GR PRIMARY CALIBRATION SUMMARY

TOOL #: 1329XA 10196895 DATE/TIME PERFORMED: Mon Mar 2 06:54:58 2015

UNIT #: 3885TC 6685 CALB JIG #: 4702NK VBA-905

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	CR DIFF (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	CALBRTR (gAPI)
GR	87.67	992.47	904.8 (800.0 – 980.0)	0.166	14.53	164.53	150

GR PRIMARY VERIFICATION SUMMARY

GR PRIMARY VERIFICATION SUMMARY

TOOL #: 1329XA 10196895 DATE/TIME PERFORMED: Mon Mar 2 06:57:05 2015

UNIT #: 3885TC 6685 VERI JIG #: 4702NK VBA-905

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	90.42	987.71	0.166	14.99	163.75	148.75
						140.00 160.00

GR BEFORE LOG VERIFICATION SUMMARY

TOOL #: 1329XA 10196895 DATE/TIME PERFORMED: Mon Mar 16 04:12:29 2015 DAYS SINCE CAL: 13

UNIT #: 3885TC 6685 VERI JIG #: 4702NK VBA-905

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	123.09	1031.40	0.166	20.41	170.99	150.58
						139.75 159.75

GR AFTER LOG VERIFICATION SUMMARY

TOOL #: 1329XA 10196895 DATE/TIME PERFORMED: Mon Mar 16 09:37:07 2015 DAYS SINCE CAL: 14

UNIT #: 3885TC 6685 VERI JIG #: 4702NK VBA-905

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	177.02	1025.89	0.166	29.35	170.07	140.73
						140.58 160.58

CN PRIMARY CALIBRATION SUMMARY

TOOL #: 2446XA 10202048 DATE/TIME PERFORMED: Thu Mar 12 10:41:37 2015

UNIT #: 3880TA HL6670 CALIBRATOR #: 2437XB 112674 SOURCE #: 4717XS N-1026

	MEASURED CPS	DEADTM CORR CPS	DTC SSN/LSN	NOMINAL SSN/LSN	CORRECTION FACTOR	POROSITY (pu)
LSN	587.28	595.67				
SSN	1539.40	1588.30				
RATIO			2.66640	2.75100	1.03173	
					0.97000 1.07000	
CN						21.358

CN PRIMARY VERIFICATION SUMMARY

TOOL #: 2446XA 10202048 DATE/TIME PERFORMED: Thu Mar 12 10:50:36 2015

UNIT #: 3880TA HL6670 ICE BLOCK #: 4717ND VD-147

	MEASURED CPS	DEADTM CORR CPS	DTC SSN/LSN	CORRECTION FACTOR	DTC CORR SSN/LSN	POROSITY (pu)
LSN	1507.05	1563.63				
SSN	3608.92	3889.76				
RATIO			2.48764	1.03173	2.56819	
CN						18.791

CN BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2446XA 10202048 DATE/TIME PERFORMED: Mon Mar 16 04:15:29 2015 DAYS SINCE CAL: 3

UNIT #: [illegible] ICE BLOCK #: [illegible]

UNIT #: 3885TC 6685 ICE BLOCK #: 4717ND VD-147

	MEASURED CPS	DEADTM CORR CPS	DTC SSN/LSN	CORRECTION FACTOR	DTC CORR SSN/LSN	POROSITY (pu)
LSN	1513.96	1571.08				
SSN	3600.66	3880.15				
RATIO			2.46973	1.03173	2.54989	
CN						18.540 (16.791 – 20.791)

CN AFTER LOG VERIFICATION SUMMARY

TOOL #: 2446XA 10202048 DATE/TIME PERFORMED: Mon Mar 16 09:30:38 2015 DAYS SINCE CAL: 3

UNIT #: 3885TC 6685 ICE BLOCK #: 4717ND VD-147

	MEASURED CPS	DEADTM CORR CPS	DTC SSN/LSN	CORRECTION FACTOR	DTC CORR SSN/LSN	POROSITY (pu)
LSN	1486.08	1541.07				
SSN	3587.07	3864.36				
RATIO			2.50758	1.03173	2.58858	
CN						19.069 (16.540 – 20.540)

CAL PRIMARY CALIBRATION SUMMARY

TOOL #: 2234XA 10211833 DATE/TIME PERFORMED: Fri Mar 13 09:31:46 2015

UNIT #: 3885TC 6685

	SMALL RING	LARGE RING	MULT	ADD	SMALL RING (in)	LARGE RING (in)
CALIPER	1812.0	2329.6	0.00773	-7.00309	7.000	11.000

CAL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2234XA 10211833 DATE/TIME PERFORMED: Mon Mar 16 04:35:48 2015 DAYS SINCE CAL: 2

UNIT #: 3885TC 6685

	I.D.	MULT	ADD	I.D. (in)
CALIPER	2520.0	0.00773	-7.02449	12.450

CAL AFTER LOG VERIFICATION SUMMARY

TOOL #: 2234XA 10211833 DATE/TIME PERFORMED: Mon Mar 16 08:46:04 2015 DAYS SINCE CAL: 2

UNIT #: 3885TC 6685

	I.D.	MULT	ADD	I.D. (in)
CALIPER	2540.8	0.00773	-7.02449	12.611 (11.950 – 12.950)

ZDL PRIMARY CALIBRATION SUMMARY

TOOL: 2234XA 10211833 DATE/TIME PERFORMED: Fri Mar 13 09:57:04 2015

UNIT: 3885TC 6685 CALB BLKS: 2225XA 094292 CS SRC: 4703NT 34631B

	SS CS PK	LS CS PK	SS BKGD	LS BKGD

	(Channel)	(Channel)	(cps)	(cps)
	225.3 (220.0 – 230.0)	225.1 (220.0 – 230.0)	1299.6	1601.5

	SS (cps)	LS (cps)	SHR	DEN (g/cm3)	CORR (g/cm3)	PE (b/e)
MG (LO PE)	23162.2	12590.4	0.588 (0.565 – 0.665)	1.697	0.002	2.300
AL	13514.8	1265.0		2.717	-0.004	
AL + SHIM	18687.7	2219.5		2.629	0.157	
MG + SHIM (HI PE)	11147.4	5833.0	0.231 (0.210 – 0.270)			8.730
RATIO AL + SHIM/AL	1.38 (1.32 – 1.42)	1.75 (1.64 – 1.84)				
RATIO MG/AL	1.71 (1.65 – 1.78)	9.95 (9.40 – 10.20)				

ZDL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2234XA 10211833 DATE/TIME PERFORMED: Mon Mar 16 04:20:48 2015 DAYS SINCE CAL: 2

UNIT #: 3885TC 6685

	TOTAL (cps)	CSPK (Channel)	HV (V)
LS	1610.4 (1501.5 – 1701.5)	223.6 (220.0 – 230.0)	1208.0 (1100.0 – 1550.0)
SS	1308.2 (1199.6 – 1399.6)	224.9 (220.0 – 230.0)	1296.0 (1100.0 – 1550.0)

LV (V)	PAD CURRENT (mA)
5.0 (4.8 – 5.2)	74.4 (90.0 – 120.0)

ZDL AFTER LOG VERIFICATION SUMMARY

TOOL #: 2234XA 10211833 DATE/TIME PERFORMED: Mon Mar 16 09:32:53 2015 DAYS SINCE CAL: 2

UNIT #: 3885TC 6685

	TOTAL (cps)	CSPK (Channel)	HV (V)
LS	1570.2 (1501.5 – 1701.5)	228.4 (220.0 – 230.0)	1198.0 (1100.0 – 1550.0)
SS	1298.1 (1199.6 – 1399.6)	224.3 (220.0 – 230.0)	1270.0 (1100.0 – 1550.0)

LV (V)	PAD CURRENT (mA)
5.0 (4.8 – 5.2)	64.6 (90.0 – 120.0)

HDIL PRIMARY CALIBRATION SUMMARY

TOOL #: 1515MA 10037719 DATE/TIME PERFORMED: Thu Nov 13 09:50:32 2014

UNIT #: 3885TC 6685 GRCOND ID & DATE: 86 082996

ZERO DATA(mv)	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 R	-0.014 (-0.200 – 0.200)	-0.007 (-0.100 – 0.100)	-0.004 (-0.100 – 0.100)	-0.005 (-0.100 – 0.100)	-0.007 (-0.100 – 0.100)	-0.004 (-0.100 – 0.100)	-0.005 (-0.100 – 0.100)	-0.007 (-0.100 – 0.100)
Coil 0 Q	0.007 (-1.000 – 1.000)	0.010 (-0.200 – 0.200)	0.003 (-0.100 – 0.100)	0.000 (-0.100 – 0.100)	0.003 (-0.100 – 0.100)	0.001 (-0.100 – 0.100)	-0.001 (-0.100 – 0.100)	0.001 (-0.100 – 0.100)
Coil 1 R	0.003 (-0.200 – 0.200)	0.001 (-0.100 – 0.100)	0.001 (-0.100 – 0.100)	0.005 (-0.100 – 0.100)	0.005 (-0.100 – 0.100)	0.000 (-0.100 – 0.100)	-0.001 (-0.100 – 0.100)	-0.003 (-0.100 – 0.100)
Coil 1 Q	-0.005 (-1.000 – 1.000)	-0.005 (-0.200 – 0.200)	-0.004 (-0.100 – 0.100)	0.000 (-0.100 – 0.100)	0.002 (-0.100 – 0.100)	0.003 (-0.100 – 0.100)	0.003 (-0.100 – 0.100)	0.001 (-0.100 – 0.100)
Coil 2 R	-0.003 (-0.200 – 0.200)	0.004 (-0.100 – 0.100)	0.004 (-0.100 – 0.100)	0.001 (-0.100 – 0.100)	-0.001 (-0.100 – 0.100)	0.001 (-0.100 – 0.100)	0.005 (-0.100 – 0.100)	0.008 (-0.100 – 0.100)
Coil 2 Q	0.000 (-1.000 – 1.000)	0.003 (-0.200 – 0.200)	0.002 (-0.100 – 0.100)	-0.001 (-0.100 – 0.100)	-0.003 (-0.100 – 0.100)	-0.005 (-0.100 – 0.100)	-0.008 (-0.100 – 0.100)	-0.007 (-0.100 – 0.100)

	-1.000 1.000	-0.200 0.200	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100
Coil 3 R	0.008 -0.100 0.100	0.003 -0.100 0.100	0.001 -0.100 0.100	0.000 -0.100 0.100	0.002 -0.100 0.100	-0.003 -0.100 0.100	-0.001 -0.100 0.100	0.003 -0.100 0.100
Coil 3 Q	-0.008 -0.500 0.500	-0.010 -0.200 0.200	-0.001 -0.100 0.100	0.001 -0.100 0.100	-0.001 -0.100 0.100	-0.002 -0.100 0.100	0.001 -0.100 0.100	-0.002 -0.100 0.100
Coil 4 R	-0.018 -0.200 0.200	-0.002 -0.200 0.200	-0.003 -0.200 0.200	0.002 -0.200 0.200	0.000 -0.200 0.200	0.003 -0.200 0.200	0.004 -0.200 0.200	0.004 -0.200 0.200
Coil 4 Q	-0.005 -1.000 1.000	0.000 -0.400 0.400	-0.001 -0.200 0.200	-0.002 -0.200 0.200	-0.002 -0.200 0.200	-0.005 -0.200 0.200	-0.006 -0.200 0.200	-0.001 -0.200 0.200
Coil 5 R	0.006 -0.400 0.400	0.006 -0.400 0.400	0.010 -0.400 0.400	0.004 -0.400 0.400	0.007 -0.400 0.400	0.003 -0.400 0.400	-0.004 -0.400 0.400	0.000 -0.400 0.400
Coil 5 Q	0.002 -2.000 2.000	0.008 -0.800 0.800	0.005 -0.400 0.400	0.006 -0.400 0.400	0.003 -0.400 0.400	0.007 -0.400 0.400	-0.004 -0.400 0.400	-0.003 -0.400 0.400
Coil 6 R	-0.009 -1.000 1.000	0.025 -1.000 1.000	-0.004 -1.000 1.000	-0.010 -1.000 1.000	-0.010 -1.000 1.000	0.007 -1.000 1.000	0.018 -1.000 1.000	0.024 -1.000 1.000
Coil 6 Q	-0.007 -5.000 5.000	-0.009 -2.000 2.000	-0.005 -1.000 1.000	-0.003 -1.000 1.000	-0.009 -1.000 1.000	-0.016 -1.000 1.000	-0.025 -1.000 1.000	-0.019 -1.000 1.000

ELEC. GAINS	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil D M	126.10 100.00 150.00	124.58 100.00 150.00	121.66 98.00 150.00	117.42 96.00 140.00	111.99 92.00 140.00	105.53 87.00 130.00	98.07 82.00 120.00	89.86 76.00 110.00
Coil D P	7.576 6.000 9.000	23.866 19.000 28.000	39.857 32.000 47.000	55.806 44.000 66.000	71.652 57.000 86.000	87.561 70.000 100.000	103.363 82.000 120.000	119.210 95.000 140.000
Coil 1 M	218.74 180.00 270.00	216.13 180.00 270.00	211.04 170.00 260.00	203.71 170.00 250.00	194.40 160.00 240.00	183.22 160.00 230.00	170.23 150.00 220.00	155.86 140.00 200.00
Coil 1 P	7.672 6.000 9.000	24.163 19.000 28.000	40.380 32.000 48.000	56.559 45.000 67.000	72.622 57.000 86.000	88.727 70.000 110.000	104.795 83.000 120.000	120.846 96.000 140.000
Coil 2 M	439.55 360.00 540.00	434.39 360.00 540.00	424.49 350.00 530.00	410.17 340.00 510.00	391.82 330.00 500.00	369.24 310.00 470.00	343.63 300.00 440.00	314.98 270.00 410.00
Coil 2 P	7.854 6.000 9.000	24.676 19.000 29.000	41.254 32.000 48.000	57.796 45.000 67.000	74.247 58.000 87.000	90.778 71.000 110.000	107.177 84.000 130.000	123.719 96.000 140.000
Coil 3 M	710.73 580.00 880.00	701.78 580.00 870.00	684.38 570.00 850.00	659.19 550.00 830.00	627.14 530.00 800.00	589.70 500.00 760.00	546.74 470.00 710.00	500.83 440.00 660.00
Coil 3 P	7.709 6.000 10.000	24.300 20.000 29.000	40.580 33.000 49.000	56.766 46.000 69.000	72.756 59.000 89.000	88.773 72.000 110.000	104.523 86.000 130.000	120.284 98.000 150.000
Coil 4 M	1137.4 900.0 1400.0	1120.8 900.0 1300.0	1088.4 900.0 1300.0	1043.0 850.0 1300.0	986.8 800.0 1200.0	922.5 800.0 1200.0	852.2 750.0 1100.0	778.2 700.0 1000.0
Coil 4 P	7.954 6.000 10.000	25.036 20.000 30.000	41.688 33.000 50.000	58.181 46.000 70.000	74.361 60.000 90.000	90.417 73.000 110.000	106.102 86.000 130.000	121.746 98.000 150.000
Coil 5 M	2337.5 1900.0 2800.0	2315.9 1800.0 2800.0	2272.5 1800.0 2700.0	2207.0 1800.0 2600.0	2118.8 1700.0 2500.0	2007.2 1600.0 2400.0	1872.5 1500.0 2300.0	1719.7 1400.0 2100.0
Coil 5 P	8.016 6.000 10.000	25.325 20.000 31.000	42.420 34.000 51.000	59.616 48.000 72.000	76.841 62.000 93.000	94.241 76.000 110.000	111.617 89.000 130.000	129.106 100.000 150.000
Coil 6 M	6073.4 4700.0 7100.0	5992.9 4700.0 7000.0	5836.8 4600.0 6800.0	5615.4 4400.0 6600.0	5335.5 4200.0 6400.0	5003.9 4000.0 6000.0	4628.6 3700.0 5600.0	4222.2 3400.0 5100.0
Coil 6 P	8.222 7.000 10.000	26.238 22.000 32.000	43.841 36.000 54.000	61.368 51.000 76.000	78.701 65.000 98.000	96.015 80.000 120.000	113.161 94.000 140.000	130.345 110.000 160.000

AM Factor	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil D R	479 -200 800	-87 -500 200	-145 -600 100	-157 -600 50	-158 -500 20	-157 -500 20	-155 -500 20	-153 -500 20
Coil D Q	2068 -3000 6000	739 -1000 2000	408 -1000 1200	251 -500 900	154 -400 700	87 -400 600	34 -400 500	-10 -400 400
Coil 1 R	566 450 650	85 20 130	22 -30 60	0 -50 40	-10 -55 30	-17 -60 20	-20 -60 10	-22 -60 10
Coil 1 Q	1229 0 2500	492 0 900	308 0 600	222 0 450	170 0 350	137 0 300	112 0 250	94 0 250
Coil 2 R	186.8 140.0 230.0	27.0 0.0 51.0	6.6 -10.0 25.0	-0.1 -15.0 15.0	-3.5 -16.0 10.0	-5.8 -16.0 7.0	-6.1 -16.0 5.0	-6.8 -16.0 3.0
Coil 2 Q	417.2 -200.0 1000.0	167.9 0.0 350.0	108.0 0.0 220.0	81.1 0.0 160.0	66.3 0.0 130.0	57.4 0.0 110.0	51.3 0.0 100.0	47.7 0.0 90.0
Coil 3 R	48.6 37.0 62.0	6.6 0.0 12.0	1.7 -3.0 6.0	0.0 -4.0 4.0	-0.6 -5.0 2.0	-1.3 -5.0 1.0	-1.7 -6.0 1.0	-2.3 -6.0 1.0
Coil 3 Q	72.4 -140.0 380.0	33.3 -40.0 100.0	24.4 -20.0 70.0	21.4 -10.0 60.0	20.5 -10.0 50.0	20.6 -10.0 50.0	21.5 -10.0 50.0	22.0 -10.0 50.0
Coil 4 R	11.46 2.00 18.00	0.58 -3.00 6.00	-0.61 -3.50 3.00	-1.21 -3.50 2.00	-1.41 -4.20 2.00	-1.53 -4.50 2.00	-1.52 -4.70 2.00	-1.62 -5.00 2.00
Coil 4 Q	19.94 -100.00 100.00	11.58 -30.00 50.00	11.05 -20.00 40.00	12.40 -10.00 40.00	13.96 -10.00 40.00	15.97 -10.00 45.00	17.82 -10.00 50.00	20.00 -10.00 60.00
Coil 5 R	2.25 -2.00 5.80	-0.29 -3.20 2.40	-0.58 -4.50 3.10	-0.65 -4.70 3.20	-0.70 -4.80 3.20	-0.79 -5.00 3.30	-0.81 -5.20 3.40	-0.82 -5.40 3.50
Coil 5 Q	15.39 -60.00 70.00	8.27 -20.00 30.00	8.73 -20.00 30.00	10.20 -20.00 35.00	12.04 -20.00 45.00	13.94 -20.00 50.00	16.04 -20.00 60.00	18.20 -30.00 70.00
Coil 6 R	-2.45 -4.80 1.00	-1.06 -5.70 3.80	-0.64 -6.50 4.50	-0.51 -6.50 5.40	-0.45 -7.30 5.80	-0.41 -7.50 6.00	-0.48 -7.70 6.10	-0.50 -7.90 6.30
Coil 6 Q	2.63 -30.00 30.00	3.11 -20.00 25.00	5.13 -20.00 35.00	7.39 -30.00 50.00	9.61 -35.00 60.00	11.87 -40.00 70.00	14.01 -50.00 80.00	16.32 -60.00 100.00

MM Factor	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 M	0.999 (0.500 1.100)	0.996 (0.500 1.100)	0.992 (0.500 1.100)	0.991 (0.500 1.100)	0.990 (0.500 1.100)	0.989 (0.500 1.100)	0.989 (0.500 1.100)	0.990 (0.500 1.100)
Coil 0 P	0.132 (-2.000 2.000)	0.245 (-2.000 2.000)	0.318 (-2.000 2.000)	0.274 (-2.000 2.000)	0.226 (-2.000 2.000)	0.171 (-2.000 2.000)	0.131 (-2.000 2.000)	0.084 (-2.000 2.000)
Coil 1 M	0.982 (0.500 1.100)	0.980 (0.500 1.100)	0.976 (0.500 1.100)	0.975 (0.500 1.100)	0.973 (0.500 1.100)	0.972 (0.500 1.100)	0.971 (0.500 1.100)	0.970 (0.500 1.100)
Coil 1 P	0.133 (-2.000 2.000)	0.273 (-2.000 2.000)	0.361 (-2.000 2.000)	0.365 (-2.000 2.000)	0.362 (-2.000 2.000)	0.306 (-2.000 2.000)	0.306 (-2.000 2.000)	0.245 (-2.000 2.000)
Coil 2 M	1.009 (0.500 1.100)	1.006 (0.500 1.100)	1.005 (0.500 1.100)	1.004 (0.500 1.100)	1.003 (0.500 1.100)	1.002 (0.500 1.100)	1.003 (0.500 1.100)	1.001 (0.500 1.100)
Coil 2 P	0.111 (-2.000 2.000)	0.082 (-2.000 2.000)	0.123 (-2.000 2.000)	0.150 (-2.000 2.000)	0.179 (-2.000 2.000)	0.157 (-2.000 2.000)	0.142 (-2.000 2.000)	0.198 (-2.000 2.000)
Coil 3 M	1.013 (0.500 1.100)	1.012 (0.500 1.100)	1.011 (0.500 1.100)	1.009 (0.500 1.100)	1.008 (0.500 1.100)	1.007 (0.500 1.100)	1.008 (0.500 1.100)	1.009 (0.500 1.100)
Coil 3 P	0.048 (-2.000 2.000)	0.110 (-2.000 2.000)	0.182 (-2.000 2.000)	0.212 (-2.000 2.000)	0.185 (-2.000 2.000)	0.162 (-2.000 2.000)	0.101 (-2.000 2.000)	0.150 (-2.000 2.000)
Coil 4 M	1.024 (0.500 1.100)	1.023 (0.500 1.100)	1.023 (0.500 1.100)	1.022 (0.500 1.100)	1.021 (0.500 1.100)	1.020 (0.500 1.100)	1.020 (0.500 1.100)	1.019 (0.500 1.100)
Coil 4 P	0.096 (-2.000 2.000)	0.143 (-2.000 2.000)	0.156 (-2.000 2.000)	0.206 (-2.000 2.000)	0.233 (-2.000 2.000)	0.259 (-2.000 2.000)	0.209 (-2.000 2.000)	0.224 (-2.000 2.000)
Coil 5 M	1.029 (0.500 1.100)	1.028 (0.500 1.100)	1.028 (0.500 1.100)	1.026 (0.500 1.100)	1.024 (0.500 1.100)	1.024 (0.500 1.100)	1.022 (0.500 1.100)	1.021 (0.500 1.100)
Coil 5 P	0.057 (-2.000 2.000)	0.041 (-2.000 2.000)	0.110 (-2.000 2.000)	0.135 (-2.000 2.000)	0.114 (-2.000 2.000)	0.048 (-2.000 2.000)	0.061 (-2.000 2.000)	0.025 (-2.000 2.000)
Coil 6 M	1.029 (0.500 1.100)	1.030 (0.500 1.100)	1.029 (0.500 1.100)	1.026 (0.500 1.100)	1.025 (0.500 1.100)	1.030 (0.500 1.100)	1.030 (0.500 1.100)	1.027 (0.500 1.100)
Coil 6 P	0.051 (-2.000 2.000)	0.196 (-2.000 2.000)	0.173 (-2.000 2.000)	0.301 (-2.000 2.000)	0.215 (-2.000 2.000)	0.140 (-2.000 2.000)	0.156 (-2.000 2.000)	0.059 (-2.000 2.000)

PARMS	TCID 0	TCID 1	Cal Temp (degF)	T Factor
IDs	1.617	0.832	48.8	1.04

HDIL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 1515MA 10037719 DATE/TIME PERFORMED: Mon Mar 16 05:24:48 2015 DAYS SINCE CAL: 122

UNIT #: 3885TC 6685

ZERO DATA(mv)	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 R	-0.010 (-0.200 0.200)	-0.004 (-0.100 0.100)	-0.001 (-0.100 0.100)	-0.003 (-0.100 0.100)	-0.005 (-0.100 0.100)	-0.002 (-0.100 0.100)	-0.003 (-0.100 0.100)	-0.006 (-0.100 0.100)
Coil 0 Q	0.007 (-1.000 1.000)	0.011 (-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)	-0.001 (-0.100 0.100)	0.001 (-0.100 0.100)
Coil 1 R	0.004 (-0.200 0.200)	0.002 (-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)	-0.005 (-0.100 0.100)	-0.006 (-0.100 0.100)
Coil 1 Q	-0.005 (-1.000 1.000)	-0.004 (-0.200 0.200)	-0.003 (-0.100 0.100)	0.002 (-0.100 0.100)	0.004 (-0.100 0.100)	0.003 (-0.100 0.100)	0.003 (-0.100 0.100)	-0.001 (-0.100 0.100)
Coil 2 R	-0.007 (-0.200 0.200)	-0.002 (-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)	0.006 (-0.100 0.100)	0.008 (-0.100 0.100)
Coil 2 Q	-0.000 (-1.000 1.000)	-0.002 (-0.200 0.200)	0.001 (-0.100 0.100)	-0.003 (-0.100 0.100)	-0.005 (-0.100 0.100)	-0.006 (-0.100 0.100)	-0.003 (-0.100 0.100)	-0.003 (-0.100 0.100)
Coil 3 R	0.006 (-0.100 0.100)	0.001 (-0.100 0.100)	-0.002 (-0.100 0.100)	0.002 (-0.100 0.100)	0.004 (-0.100 0.100)	0.002 (-0.100 0.100)	0.001 (-0.100 0.100)	-0.000 (-0.100 0.100)
Coil 3 Q	-0.010 (-0.500 0.500)	-0.009 (-0.200 0.200)	-0.004 (-0.100 0.100)	0.001 (-0.100 0.100)	-0.004 (-0.100 0.100)	-0.000 (-0.100 0.100)	0.001 (-0.100 0.100)	-0.001 (-0.100 0.100)
Coil 4 R	-0.021 (-0.200 0.200)	-0.005 (-0.200 0.200)	-0.003 (-0.200 0.200)	-0.008 (-0.200 0.200)	-0.009 (-0.200 0.200)	-0.001 (-0.200 0.200)	0.001 (-0.200 0.200)	-0.001 (-0.200 0.200)
Coil 4 Q	-0.004 (-1.000 1.000)	0.008 (-0.400 0.400)	0.003 (-0.200 0.200)	-0.001 (-0.200 0.200)	-0.004 (-0.200 0.200)	-0.004 (-0.200 0.200)	-0.004 (-0.200 0.200)	-0.002 (-0.200 0.200)
Coil 5 R	-0.006 (-0.400 0.400)	0.002 (-0.400 0.400)	-0.001 (-0.400 0.400)	0.002 (-0.400 0.400)	-0.009 (-0.400 0.400)	-0.006 (-0.400 0.400)	-0.005 (-0.400 0.400)	-0.010 (-0.400 0.400)
Coil 5 Q	-0.010 (-2.000 2.000)	0.010 (-0.800 0.800)	0.006 (-0.400 0.400)	0.007 (-0.400 0.400)	0.001 (-0.400 0.400)	0.008 (-0.400 0.400)	-0.001 (-0.400 0.400)	0.000 (-0.400 0.400)
Coil 6 R	0.002 (-1.000 1.000)	-0.007 (-1.000 1.000)	0.002 (-1.000 1.000)	0.005 (-1.000 1.000)	0.007 (-1.000 1.000)	-0.015 (-1.000 1.000)	0.004 (-1.000 1.000)	0.025 (-1.000 1.000)
Coil 6 Q	0.009 (-5.000 5.000)	-0.013 (-2.000 2.000)	0.008 (-1.000 1.000)	0.010 (-1.000 1.000)	-0.007 (-1.000 1.000)	-0.015 (-1.000 1.000)	-0.004 (-1.000 1.000)	0.019 (-1.000 1.000)

ELEC. GAINS	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 M	126.02 (100.00 150.00)	124.42 (100.00 150.00)	121.47 (98.00 150.00)	117.17 (96.00 140.00)	111.77 (92.00 140.00)	105.23 (87.00 130.00)	97.86 (82.00 120.00)	89.54 (76.00 110.00)
Coil 0 P	7.651 (6.000 9.000)	24.092 (19.000 28.000)	40.185 (32.000 47.000)	56.244 (44.000 66.000)	72.185 (57.000 85.000)	88.239 (70.000 100.000)	104.138 (82.000 120.000)	120.231 (95.000 140.000)

Coil 1 M	217.44 180.00 270.00	214.53 180.00 270.00	209.46 170.00 260.00	202.04 170.00 250.00	192.78 160.00 250.00	181.61 160.00 230.00	168.92 150.00 220.00	154.66 140.00 200.00
Coil 1 P	7.776 6.000 9.000	24.440 19.000 28.000	40.774 32.000 48.000	57.040 45.000 67.000	73.214 57.000 86.000	89.496 70.000 110.000	105.628 83.000 120.000	121.992 96.000 140.000
Coil 2 M	440.90 360.00 540.00	435.06 360.00 540.00	425.11 350.00 530.00	410.33 340.00 510.00	391.94 330.00 500.00	369.59 310.00 470.00	344.12 300.00 440.00	315.28 270.00 410.00
Coil 2 P	7.958 6.000 9.000	24.963 19.000 29.000	41.642 32.000 48.000	58.273 45.000 67.000	74.826 59.000 87.000	91.491 71.000 110.000	108.043 84.000 130.000	124.796 96.000 140.000
Coil 3 M	713.82 550.00 880.00	704.21 580.00 870.00	686.65 570.00 850.00	660.99 550.00 830.00	629.25 530.00 800.00	591.02 500.00 760.00	548.70 470.00 710.00	502.07 440.00 650.00
Coil 3 P	7.811 6.000 10.000	24.582 20.000 29.000	40.992 33.000 49.000	57.327 46.000 68.000	73.501 59.000 89.000	89.652 72.000 110.000	105.587 86.000 130.000	121.607 98.000 150.000
Coil 4 M	1145.3 900.0 1400.0	1127.3 900.0 1300.0	1094.4 900.0 1300.0	1048.1 850.0 1300.0	992.0 800.0 1200.0	927.4 800.0 1200.0	857.5 750.0 1100.0	782.9 700.0 1000.0
Coil 4 P	8.064 6.000 10.000	25.323 20.000 30.000	42.105 33.000 50.000	58.719 46.000 70.000	75.026 60.000 90.000	91.234 73.000 110.000	107.080 86.000 130.000	122.985 98.000 150.000
Coil 5 M	2346.8 1900.0 2800.0	2324.2 1800.0 2800.0	2281.5 1800.0 2700.0	2215.5 1800.0 2600.0	2127.8 1700.0 2500.0	2015.9 1600.0 2400.0	1883.7 1500.0 2200.0	1729.6 1400.0 2100.0
Coil 5 P	8.065 6.000 10.000	25.516 20.000 31.000	42.719 34.000 51.000	60.009 48.000 72.000	77.352 62.000 93.000	94.919 76.000 110.000	112.427 89.000 130.000	130.188 100.000 150.000
Coil 6 M	6051.6 4700.0 7100.0	5971.1 4700.0 7000.0	5820.5 4600.0 6900.0	5600.9 4400.0 6800.0	5327.7 4200.0 6400.0	4999.5 4000.0 6000.0	4635.0 3700.0 5600.0	4230.7 3400.0 5100.0
Coil 6 P	8.260 7.000 10.000	26.395 22.000 32.000	44.092 36.000 54.000	61.697 51.000 76.000	79.156 65.000 98.000	96.662 80.000 120.000	113.949 94.000 140.000	131.391 110.000 160.000

HDIL AFTER LOG VERIFICATION SUMMARY

TOOL #: 1515MA 10037719 DATE/TIME PERFORMED: Mon Mar 16 09:27:07 2015 DAYS SINCE CAL: 122

UNIT #: 3885TC 6685

ZERO DATA(mv)	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 R	-0.008 -0.090 0.070	-0.003 -0.064 0.056	-0.001 -0.031 0.029	-0.004 -0.033 0.027	-0.007 -0.035 0.025	-0.003 -0.032 0.028	-0.003 -0.033 0.027	-0.006 -0.036 0.024
Coil 0 Q	0.006 -0.039 0.047	0.011 -0.109 0.131	0.003 -0.035 0.034	0.002 -0.030 0.030	0.003 -0.027 0.033	-0.000 -0.029 0.031	-0.002 -0.031 0.029	0.000 -0.029 0.031
Coil 1 R	0.005 -0.076 0.084	0.001 -0.048 0.052	-0.000 -0.030 0.030	0.003 -0.027 0.033	0.002 -0.029 0.031	-0.002 -0.030 0.027	-0.004 -0.035 0.025	-0.005 -0.036 0.024
Coil 1 Q	-0.004 -0.405 0.395	-0.004 -0.104 0.096	-0.003 -0.030 0.027	0.001 -0.028 0.032	0.003 -0.026 0.034	0.002 -0.027 0.030	0.003 -0.027 0.030	-0.000 -0.031 0.029
Coil 2 R	-0.008 -0.077 0.063	-0.002 -0.032 0.028	0.000 -0.030 0.030	-0.003 -0.032 0.028	-0.003 -0.029 0.031	0.003 -0.026 0.034	0.004 -0.024 0.036	0.009 -0.022 0.036
Coil 2 Q	0.000 -0.390 0.390	0.000 -0.102 0.098	0.001 -0.029 0.031	-0.002 -0.030 0.027	-0.005 -0.035 0.025	-0.006 -0.036 0.024	-0.006 -0.033 0.027	-0.005 -0.033 0.027
Coil 3 R	0.007 -0.034 0.048	0.002 -0.039 0.041	0.003 -0.042 0.036	0.004 -0.038 0.042	0.005 -0.036 0.044	0.005 -0.038 0.042	0.007 -0.039 0.041	0.003 -0.040 0.040
Coil 3 Q	-0.009 -0.210 0.190	-0.013 -0.089 0.071	-0.007 -0.044 0.036	-0.004 -0.039 0.041	-0.003 -0.044 0.036	-0.001 -0.040 0.040	0.001 -0.039 0.041	0.001 -0.041 0.039
Coil 4 R	-0.016 -0.081 0.049	-0.003 -0.065 0.059	-0.004 -0.063 0.057	-0.006 -0.068 0.052	-0.005 -0.059 0.051	0.001 -0.061 0.059	-0.002 -0.059 0.061	0.001 -0.061 0.059
Coil 4 Q	-0.002 -0.304 0.296	0.004 -0.092 0.108	-0.005 -0.057 0.063	-0.002 -0.061 0.059	-0.004 -0.064 0.056	-0.004 -0.064 0.056	-0.007 -0.064 0.056	-0.003 -0.062 0.058
Coil 5 R	-0.004 -0.126 0.114	0.001 -0.118 0.122	0.000 -0.121 0.119	-0.000 -0.118 0.122	-0.010 -0.129 0.111	-0.003 -0.126 0.114	-0.011 -0.125 0.115	-0.006 -0.130 0.110
Coil 5 Q	0.007 -0.610 0.590	0.006 -0.240 0.260	0.004 -0.114 0.126	0.015 -0.113 0.127	0.003 -0.119 0.121	0.008 -0.112 0.128	0.000 -0.121 0.119	-0.000 -0.120 0.120
Coil 6 R	0.010 -0.298 0.302	-0.001 -0.307 0.293	0.022 -0.298 0.302	-0.014 -0.295 0.305	-0.016 -0.293 0.307	0.001 -0.315 0.285	0.016 -0.296 0.304	0.011 -0.275 0.325
Coil 6 Q	0.004 -1.491 1.509	0.022 -0.613 0.657	0.003 -0.292 0.308	0.012 -0.290 0.310	-0.012 -0.307 0.293	-0.014 -0.315 0.285	-0.006 -0.304 0.296	-0.005 -0.281 0.319

ELEC. GAINS	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 M	126.17 123.50 128.55	124.69 121.93 126.90	121.85 119.04 123.90	117.55 114.82 119.51	112.19 109.54 114.01	105.65 103.13 107.34	98.20 95.90 99.81	89.82 87.75 91.33
Coil 0 P	7.595 4.651 10.651	23.979 21.052 27.052	40.070 37.185 43.185	56.146 53.244 59.244	72.068 69.185 75.185	88.108 85.239 91.239	103.995 101.138 107.138	120.096 117.231 123.231
Coil 1 M	218.02 213.09 221.78	215.45 210.24 218.82	210.52 205.27 213.65	203.11 198.00 206.08	193.87 188.92 196.63	182.56 177.57 185.24	169.82 165.54 172.29	155.28 151.56 157.75
Coil 1 P	7.699 4.776 10.776	24.301 21.440 27.440	40.642 37.774 43.774	56.937 54.040 60.040	73.082 70.214 76.214	89.372 86.496 92.496	105.503 102.628 108.628	121.855 118.952 124.952
Coil 2 M	441.03 432.08 449.72	435.90 426.36 443.77	426.30 416.60 433.61	411.69 402.12 418.53	393.30 384.10 399.77	370.68 362.20 376.98	344.93 337.24 351.01	315.78 308.97 321.58
Coil 2 P	7.875 4.958 10.958	24.803 21.963 27.963	41.486 38.642 44.642	58.135 55.273 61.273	74.668 71.826 77.826	91.355 88.491 94.491	107.860 105.043 111.043	124.609 121.796 127.796
Coil 3 M	713.43 699.56 728.10	704.52 690.13 718.30	687.48 672.91 700.38	661.76 647.77 674.21	629.83 616.66 641.83	591.77 579.20 602.85	548.98 537.73 559.67	501.98 492.02 512.11
Coil 3 P	7.753	24.451	40.843	57.168	73.284	89.432	105.303	121.295

	4.811 10.811	21.552 27.552	37.552 43.552	54.327 60.327	70.501 76.501	86.652 92.652	102.587 108.587	118.607 124.607
Coil 4 M	1144.1 1122.4 1168.2	1127.4 1104.8 1149.9	1095.5 1072.6 1116.3	1049.2 1027.2 1069.1	993.0 972.2 1011.9	927.9 908.9 946.0	857.3 840.3 874.6	781.9 767.2 796.5
Coil 4 P	7.994 5.064 11.064	25.184 22.323 28.323	41.953 39.105 45.105	58.576 55.719 61.719	74.849 72.026 78.026	91.057 88.234 94.234	106.859 104.080 110.080	122.724 119.965 125.965
Coil 5 M	2344.4 2299.8 2388.7	2322.7 2277.7 2370.7	2280.2 2235.9 2327.1	2213.1 2171.2 2259.8	2124.7 2085.3 2170.4	2010.9 1975.6 2056.3	1876.9 1846.0 1921.4	1720.5 1695.0 1764.2
Coil 5 P	8.057 5.065 11.065	25.474 22.516 28.516	42.688 39.719 45.719	60.008 57.009 63.009	77.309 74.352 80.352	94.860 91.919 97.919	112.325 109.427 115.427	130.041 127.188 133.188
Coil 6 M	6056.0 5930.6 6172.6	5976.4 5851.7 6090.6	5826.5 5704.1 5937.0	5603.8 5488.9 5712.9	5326.4 5221.2 5434.3	4993.4 4899.5 5089.5	4623.4 4542.3 4727.7	4212.6 4146.1 4315.4
Coil 6 P	8.255 5.260 11.260	26.352 23.396 29.396	44.037 41.092 47.092	61.666 58.697 64.697	79.067 76.156 82.156	96.558 93.662 99.662	113.771 110.949 116.949	131.186 128.391 134.391

INSTRUMENT CONFIGURATION

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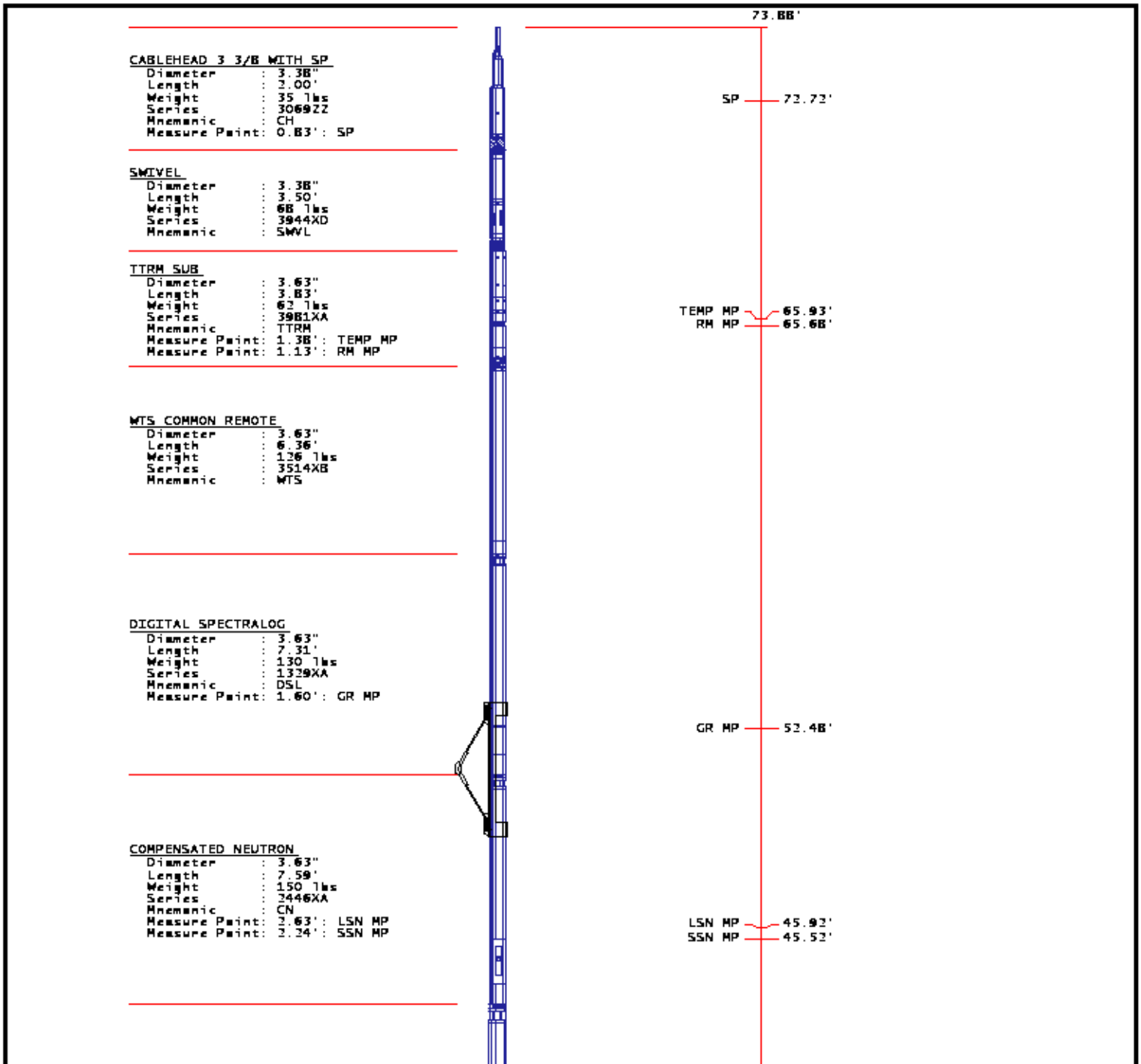

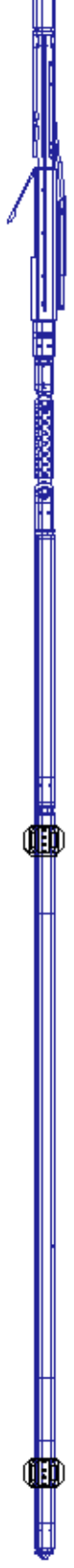

Z-DENSILOG
- Diameter : 4.88"
- Length : 11.22'
- Weight : 360 lbs
- Series : 2234XA
- Mnemonic : ZDL
- Measure Point: 3.19': CAL MP
- Measure Point: 2.47': LSD MP
- Measure Point: 2.07': SSD MP

CAL MP — 35.26'
LSD MP — 34.54'
SSD MP — 34.14'

KNUCKLE JOINT (DOUBLE)
- Diameter : 3.38"
- Length : 4.65'
- Weight : 90 lbs
- Series : 3939XA
- Mnemonic : KNJT

HIGH DEFINITION INDUCTION TOOL
- Diameter : 3.63"
- Length : 27.13'
- Weight : 415 lbs
- Series : 1515XA
- Mnemonic : HDIL
- Measure Point: 13.91': SP MP
- Measure Point: 7.44': XMTR MP

SP MP — 14.19'

XMTR MP — 7.72'

0.00'

BULL PLUG 3 3/8

TOTAL LENGTH: 73.88'
TOTAL WEIGHT: 1457 lbs
MAX DIAMETER: 0'4.88"

BAKER HUGHES

COMPANY	WPX ENERGY INC
WELL	GM 728-14-33-HN1
FIELD	GRAND VALLEY
COUNTY	GARFIELD
STATE	CO

FILE NO: OH095187

API NO: 05045224310000

LOCATION:

SHL: 592'FSL 385'FWL SEC 28 T6S R96W

ELEVATIONS:

KB 5551 FT

SEC 33 T6S R96W
PAD: GR 14-28

BHL: 192'FSL 654'FWL SEC 33 T6S R96W

SEC 33 TWP 6S RGE 96W

DF 5550 FT

GL 5518 FT

NABORS X21

DATE 16-Mar-2015