



FILE NO: 625561  
API NO: 05045217550000  
COMPANY: WPX ENERGY INC  
WELL: STRAIT SG 442-22  
FIELD: GRAND VALLEY  
COUNTY: GARFIELD STATE: CO

Ver. 3.87  
S22 T75 R98W  
PAD: SG 42-22  
RIG: CYCLONE 17  
LOCATION: SHL: 1525' FNL 279' FEL  
BHL: 2254' FNL 1115' FEL  
SEC 22 TWP 7S RGE 98W  
OTHER SERVICES:

PERMANENT DATUM: GL ELEVATION 5222 FT  
LOG MEASURED FROM: KB 21 FT ABOVE P.D.  
DRILL MEAS. FROM: KB  
ELEVATIONS: KB 5243 FT  
DF 5243 FT  
GL 5222 FT

DATE	07-Jul-2013
RUN	1
TRIP	1
SERVICE ORDER	625561
DEPTH DRILLER	5640 FT
DEPTH LOGGER	5634 FT
BOTTOM LOGGED INTERVAL	5631 FT
TOP LOGGED INTERVAL	0 FT
CASING DRILLER	9.625 IN @ 1515 FT
CASING LOGGER	1515 FT
BIT SIZE	8.75 IN
TYPE OF FLUID IN HOLE	LSND
DENSITY	10.2 LB/G
VISCOSITY	55 CP
PH	9.7
FLUID LOSS	7.2 G3
SOURCE OF SAMPLE	FLOWLINE
RM AT MEAS. TEMP.	1.26 OHMM @ 77 DEGF
RMF AT MEAS. TEMP.	.95 OHMM @ 72 DEGF
RMC AT MEAS. TEMP.	1.58 OHMM @ 72 DEGF
SOURCE OF RMF	CALCULATED
RMC	CALCULATED
RM AT BHT	1.21 OHMM @ 153 DEGF
TIME SINCE CIRCULATION	8 HR
MAX. RECORDED TEMP.	158 DEGF
EQUIP. NO.	6670
LOCATION	GRAND JCT
RECORDED BY	D. SMITH
WITNESSED BY	A. DUNHOO

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	1515 FT	5640 FT

CASING RECORD				
SIZE	WEIGHT	GRADE	FROM	TO
9.625 IN	30.30 LB/F		0 FT	1515 FT

### REMARKS

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

BVOL/CVOL CALCULATED IN CUBIC FEET  
BVOL/CVOL CALCULATED USING PROPOSED 4.5 INCH CASING  
CALIPER VERIFIED INSIDE CASING

REPEAT SECTION RECORDED FROM 200 FT BELOW SURFACE CASING

CN MATRIX = SANDSTONE

RHO MATRIX = 2.68 GM/CC  
RHO FLUID = 1.00

HDIL RAN AT 1.5 INCH STANDOFF

THANK YOU FOR CHOOSING BAKER HUGHES WIRELINE SERVICES  
CREW: SMITH/OLSON/COATE  
RIG: CYCLONE 17

#### EQUIPMENT DATA

RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
1	1	TTRM	3980	10142233	FREE
1	1	TELE/GR	3518EB	10411092	FREE
1	1	CN	2436XA	10124366	DECENTRALIZED
1	1	ZDL	2223XA	10090664	PAD DEVICE
1	1	HDIL	1530	10120519	OFFSET

### MAIN LOG 2"/100FT SCALE

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

Plotted: Wed Jul 10 12:22:31 2013

#### PARAMETER AND FILTER SUMMARY REPORT

File: /dat1a/625561/n970a02.prm  
LOGGING MODE: DEPTH DIRECTION: UP  
TOP DEPTH: 1378.000 ft BOTTOM DEPTH: 5650.652 ft

#### SYMMETRIC FILTER

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

#### BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
BIT SIZE	BIT SIZE	8.750	in	TOP	BOTTOM
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (mbh*)	USE CALIPER		"	"
BOREHOLE CORR DIAMETER	FIXED DIAMETER (mbh*)	8.750	in	"	"
MUD SAMPLE RESISTIVITY	MUD SAMPLE TEMP	77.0	degF	"	"
	MUD SAMPLE RES	1.260	ohm.m	"	"
BH MUD RESISTIVITY SOURCE	RMUD SOURCE (HDIL)	TOOL MEASURED		"	"
BOREHOLE TEMP from GRADIENT	Known BH REF TEMP	77.0	degF	"	"
	at BH REF DEPTH	0.0	ft	"	"
	with TEMP GRADIENT	1.200	0.01 degF/ft	"	"

#### ACCELERATION PROCESSING

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

#### 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		"	"

## CURVE DESCRIPTION REPORT

CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:GR	Jul 7 12:18:22 2013	GAMMA RAY
F1:MOC6	Jul 7 12:18:22 2013	FOCUSED CONDUCTIVITY, 60-INCH DOI
F1:MOR2	Jul 7 12:18:22 2013	TRUE FOCUSED RESISTIVITY FOR HDIL, 20-INCH DOI
F1:MOR6	Jul 7 12:18:22 2013	TRUE FOCUSED RESISTIVITY FOR HDIL, 60-INCH DOI
F1:SP	Jul 7 12:18:22 2013	SPONTANEOUS POTENTIAL
F1:TEN	Jul 7 12:18:22 2013	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:WPX\_2IN\_FINAL.fvpdf [2"/100' Scale]

Plot Interval : 1480 - 5667.5 Feet

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Created On : Jul 7 12:18:22 2013

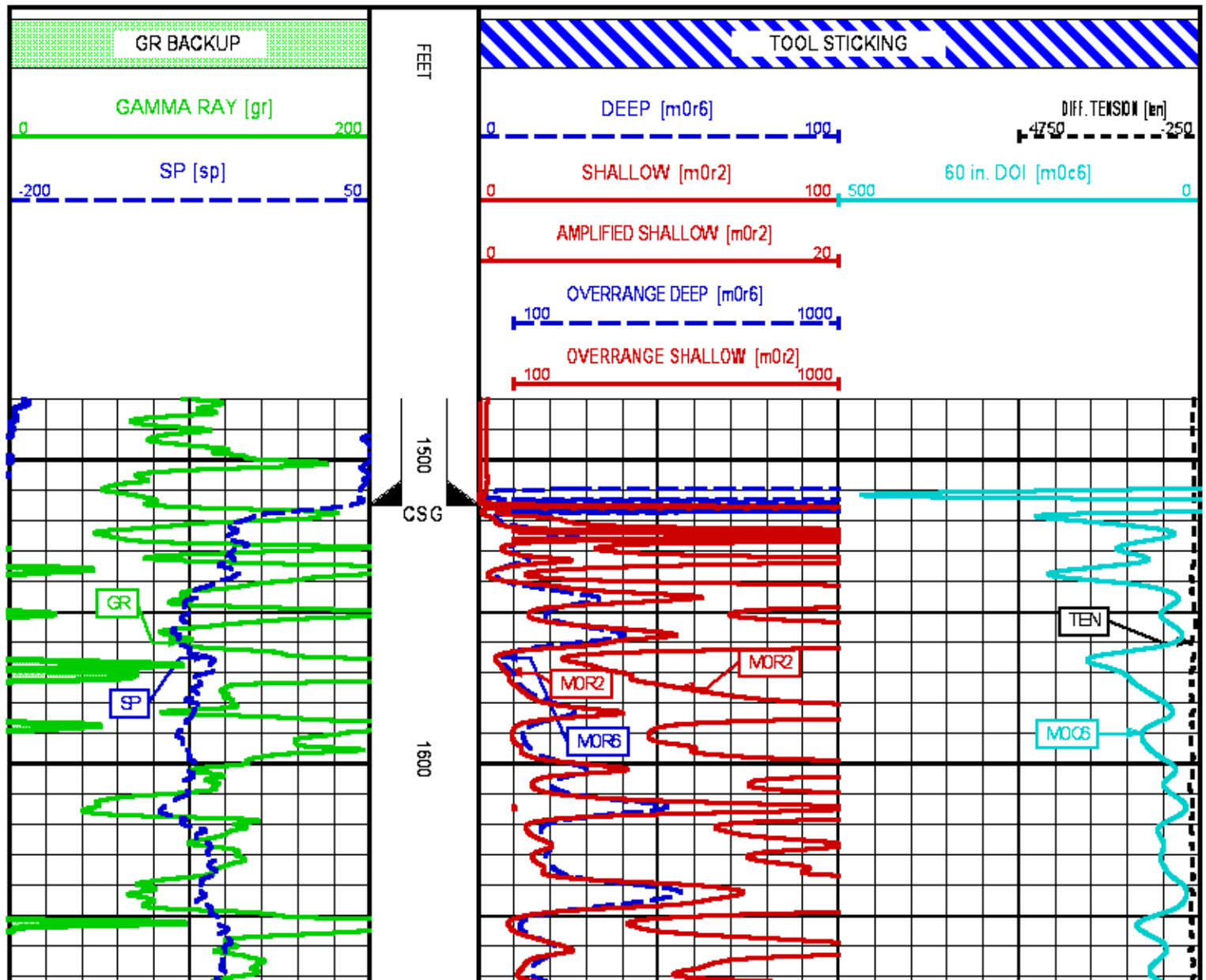
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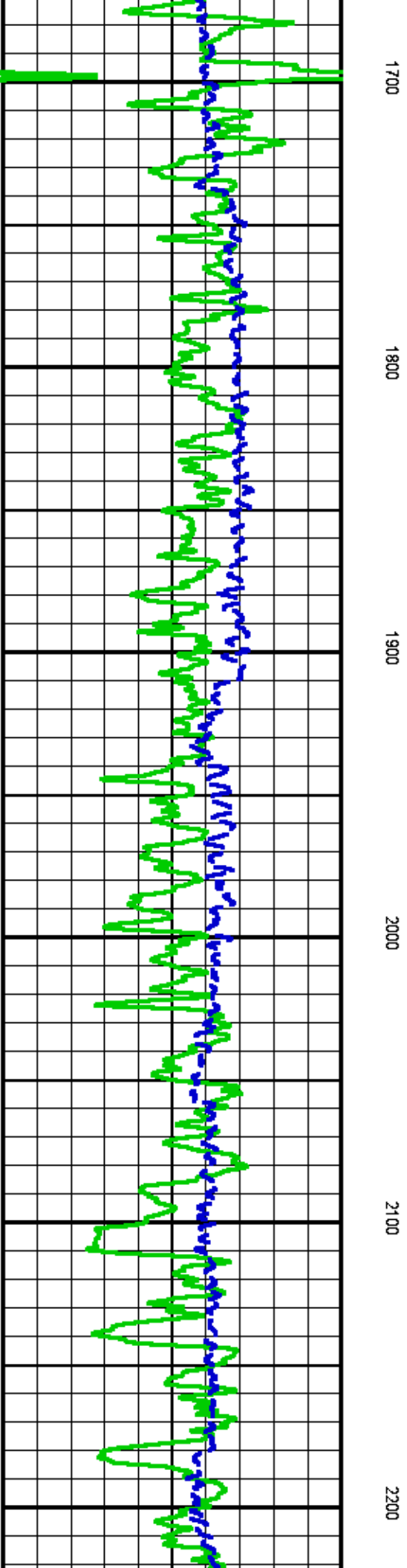
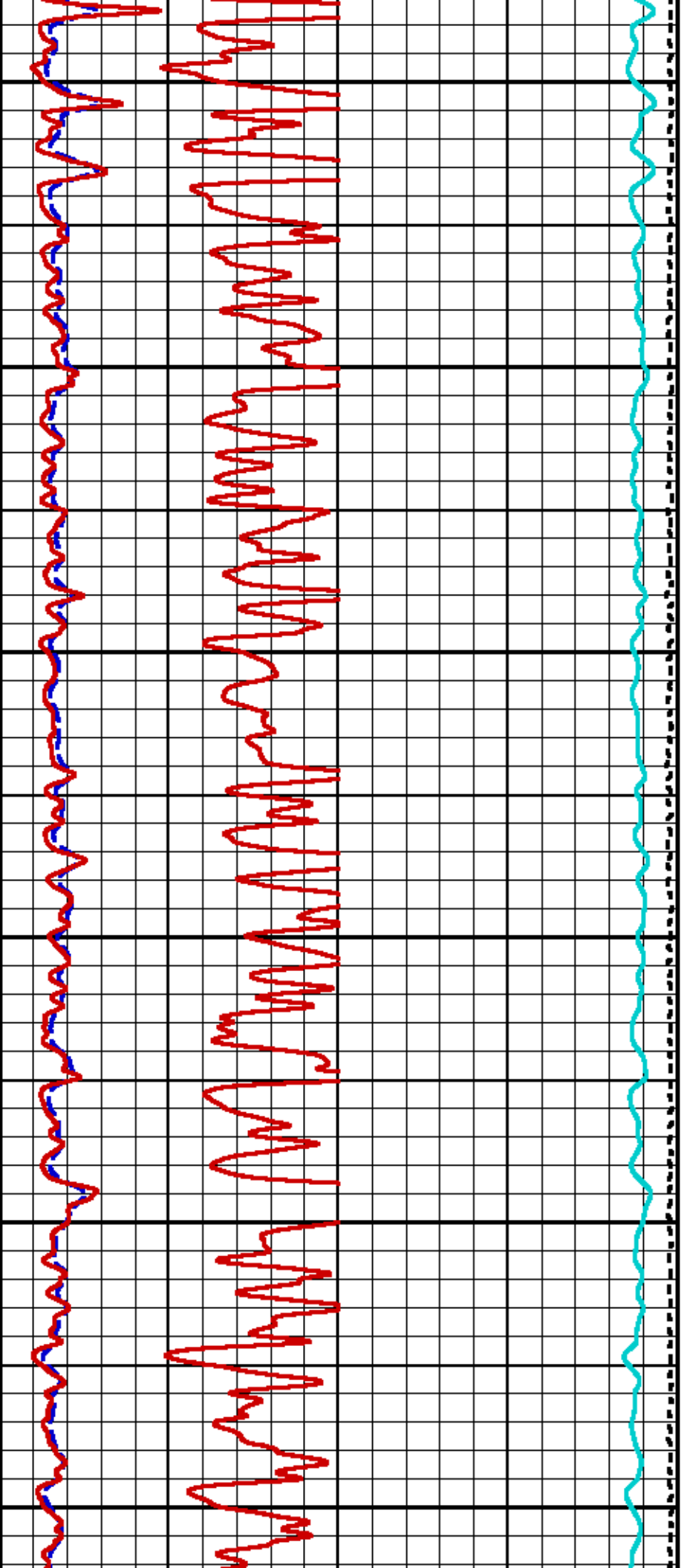
Well : STRAIT SG 442-22

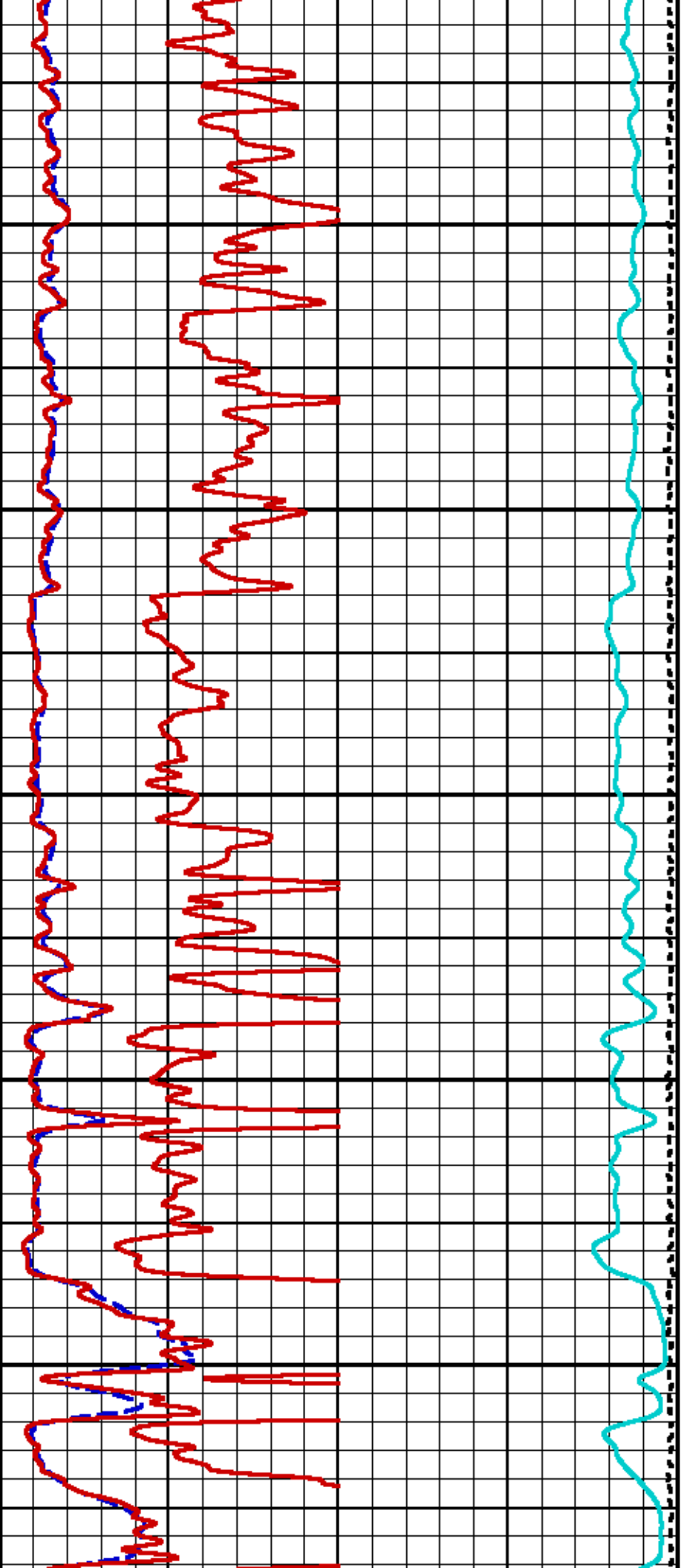
Field : GRAND VALLEY

File Interval : -5.5 - 5667.5 Feet

OCT : n970a







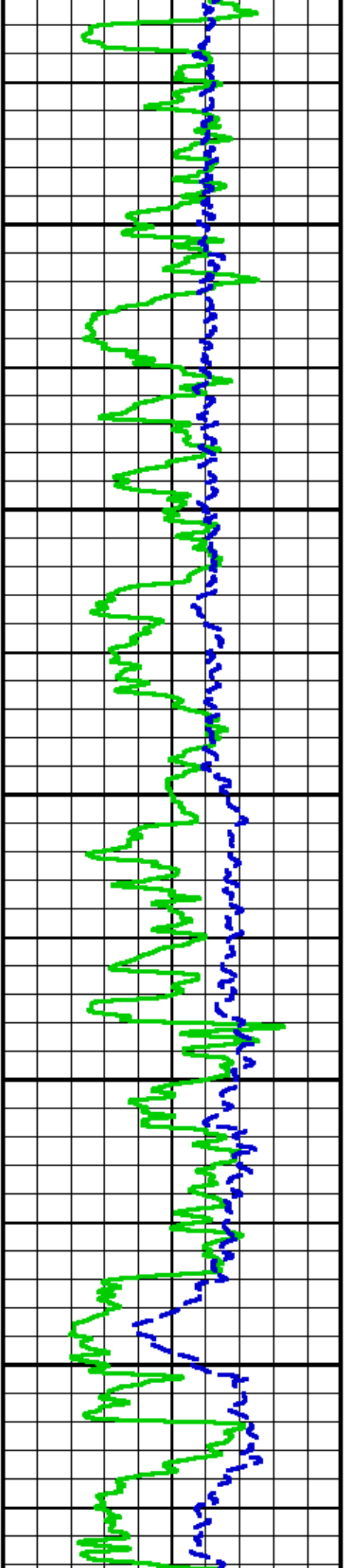
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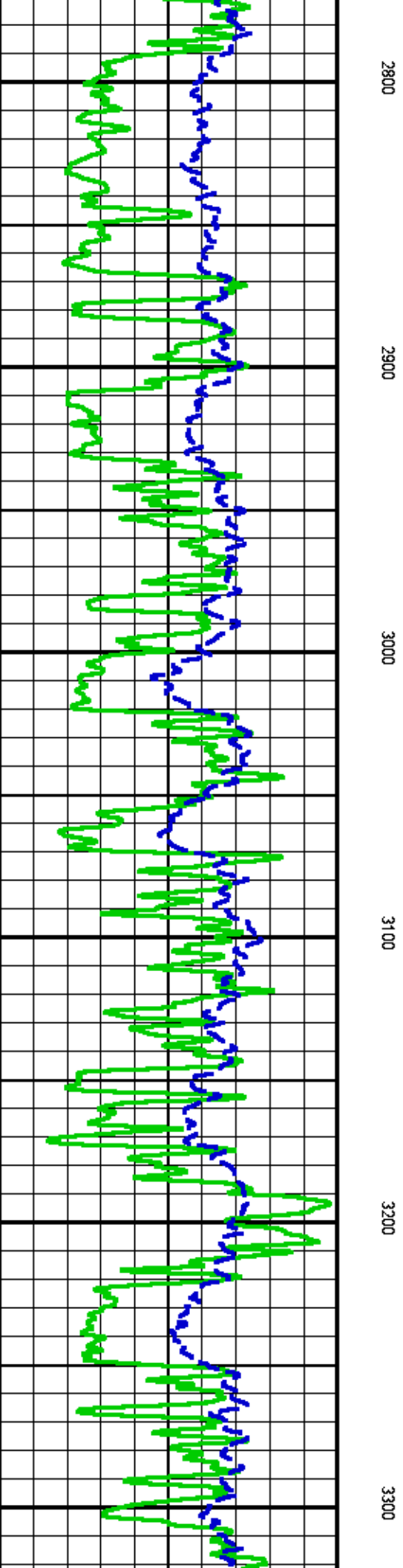
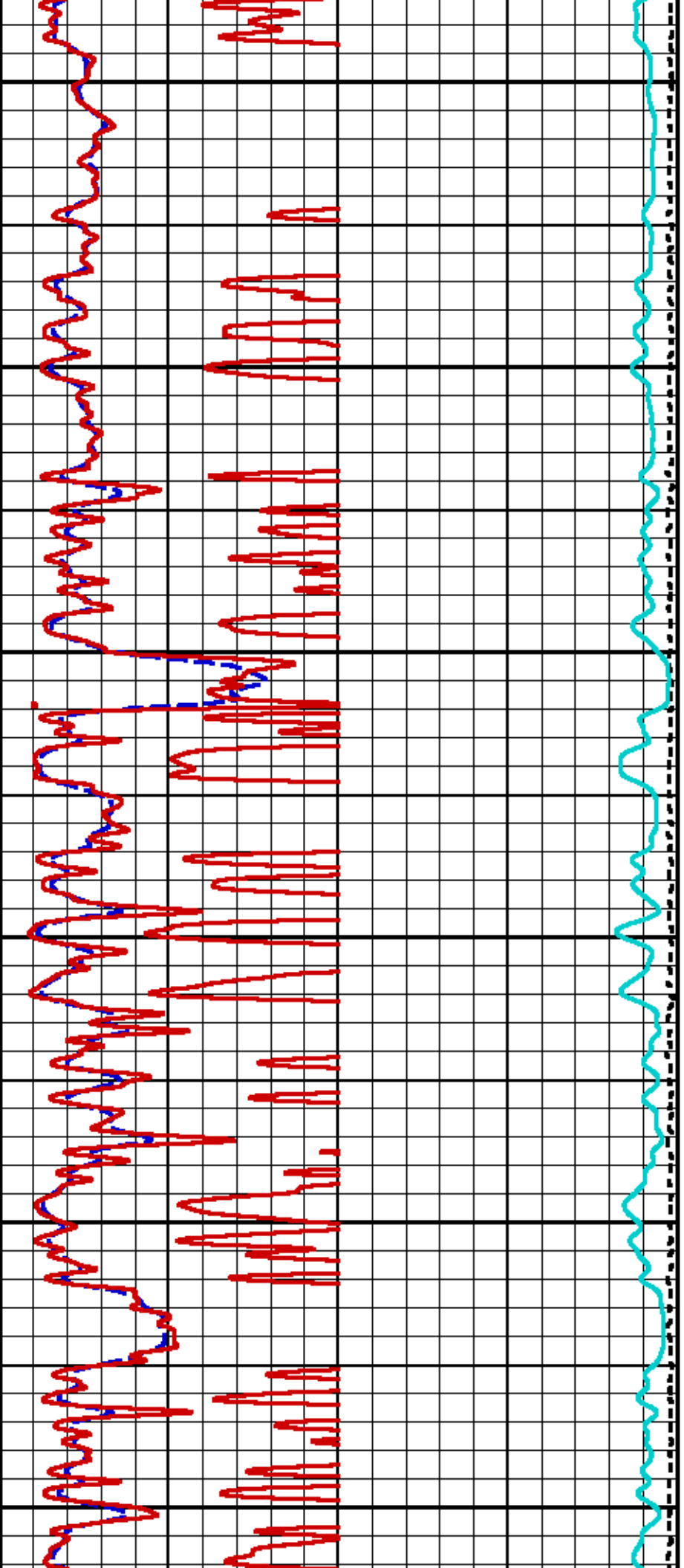
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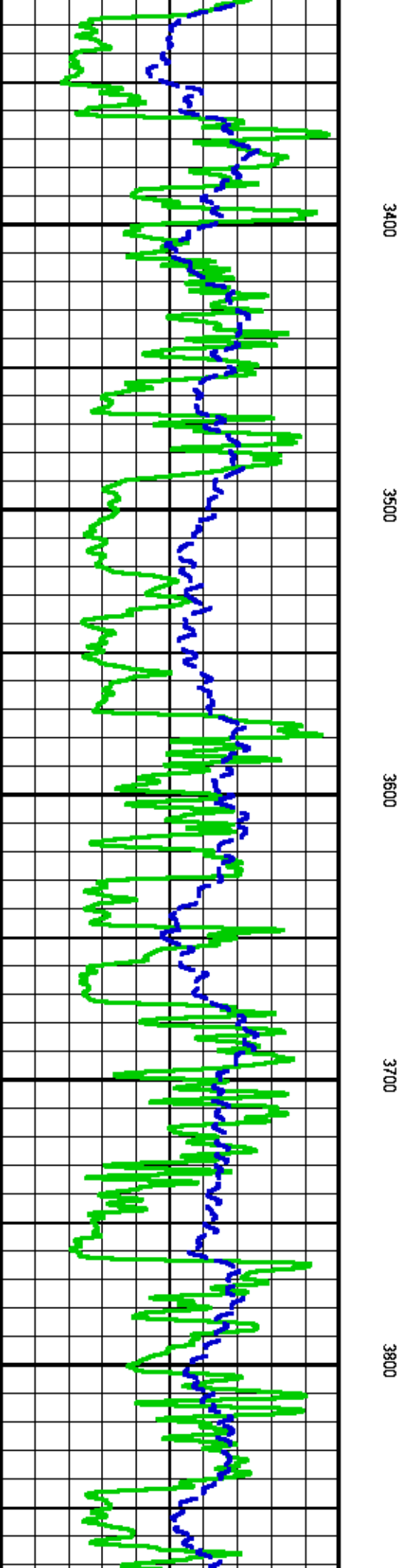
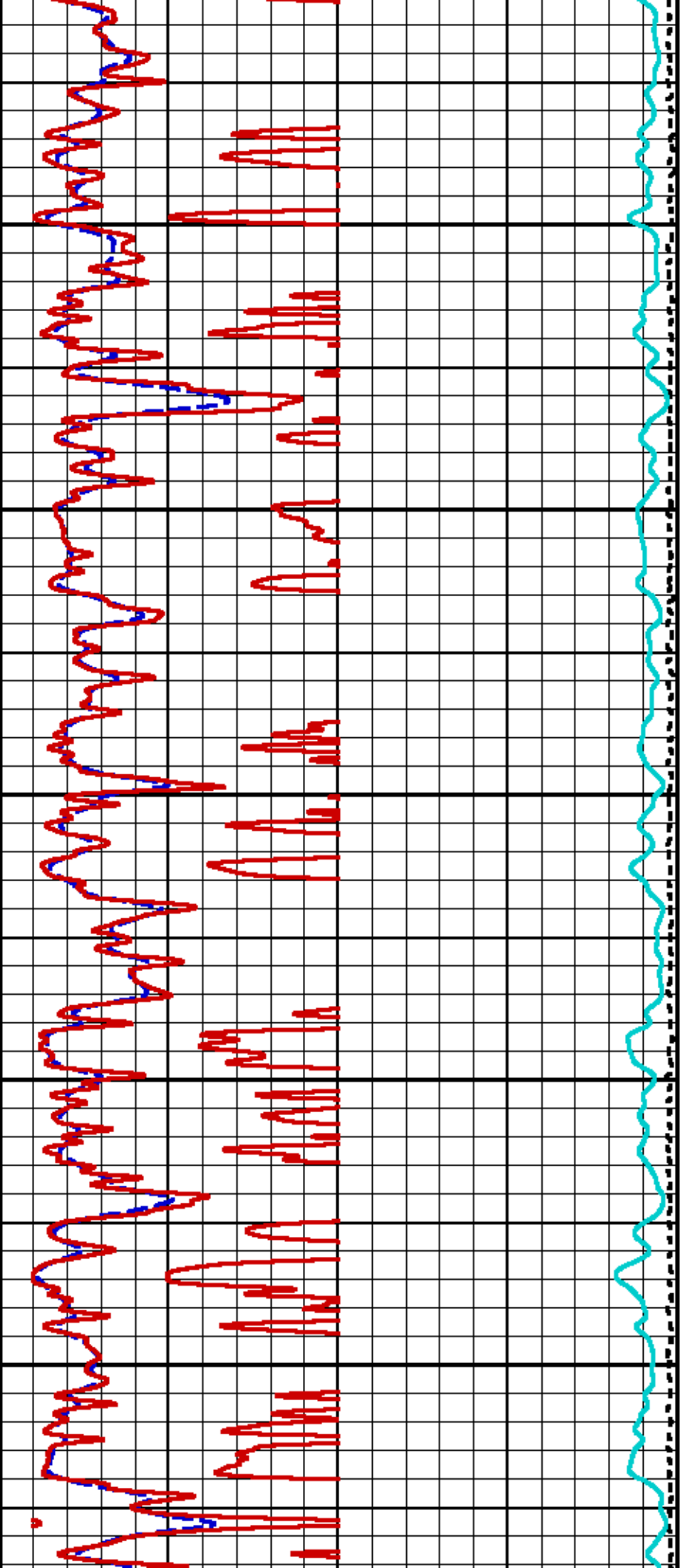
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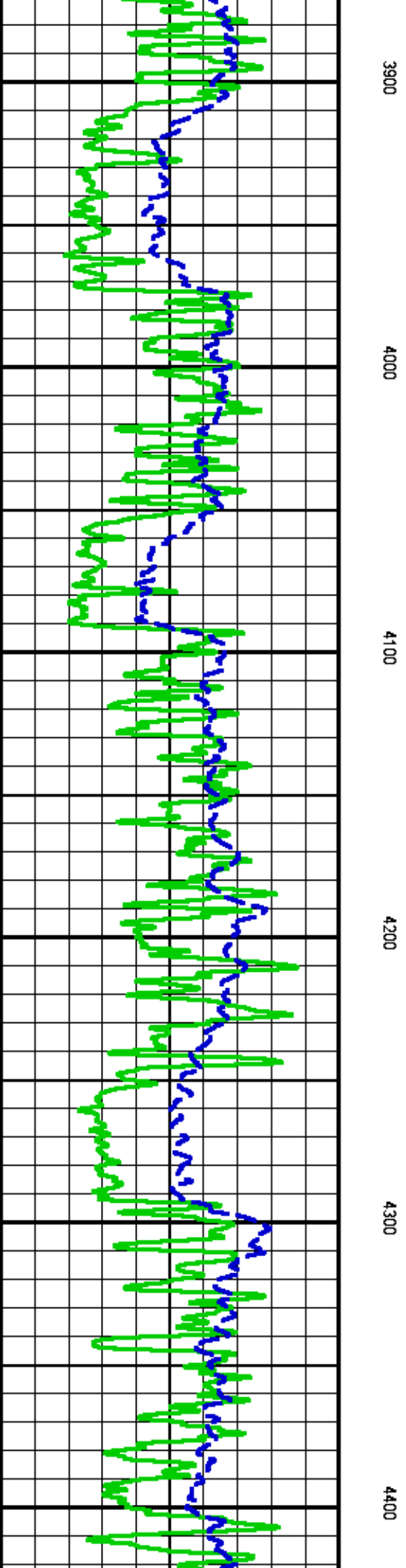
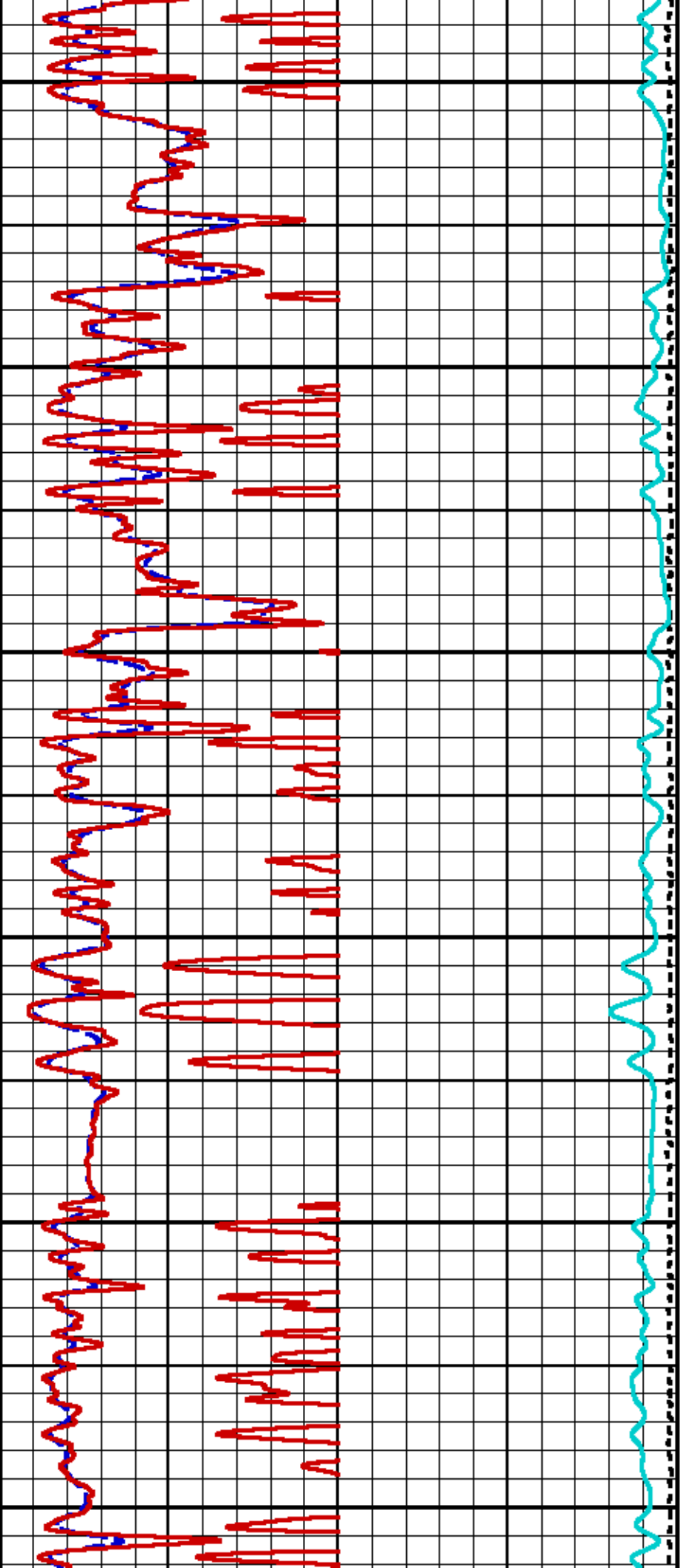
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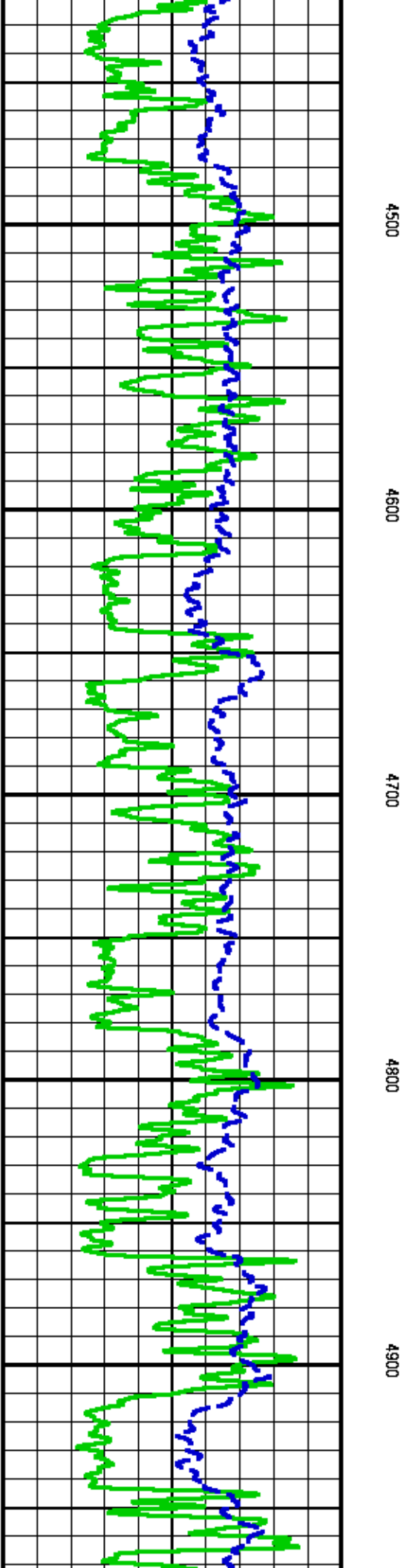
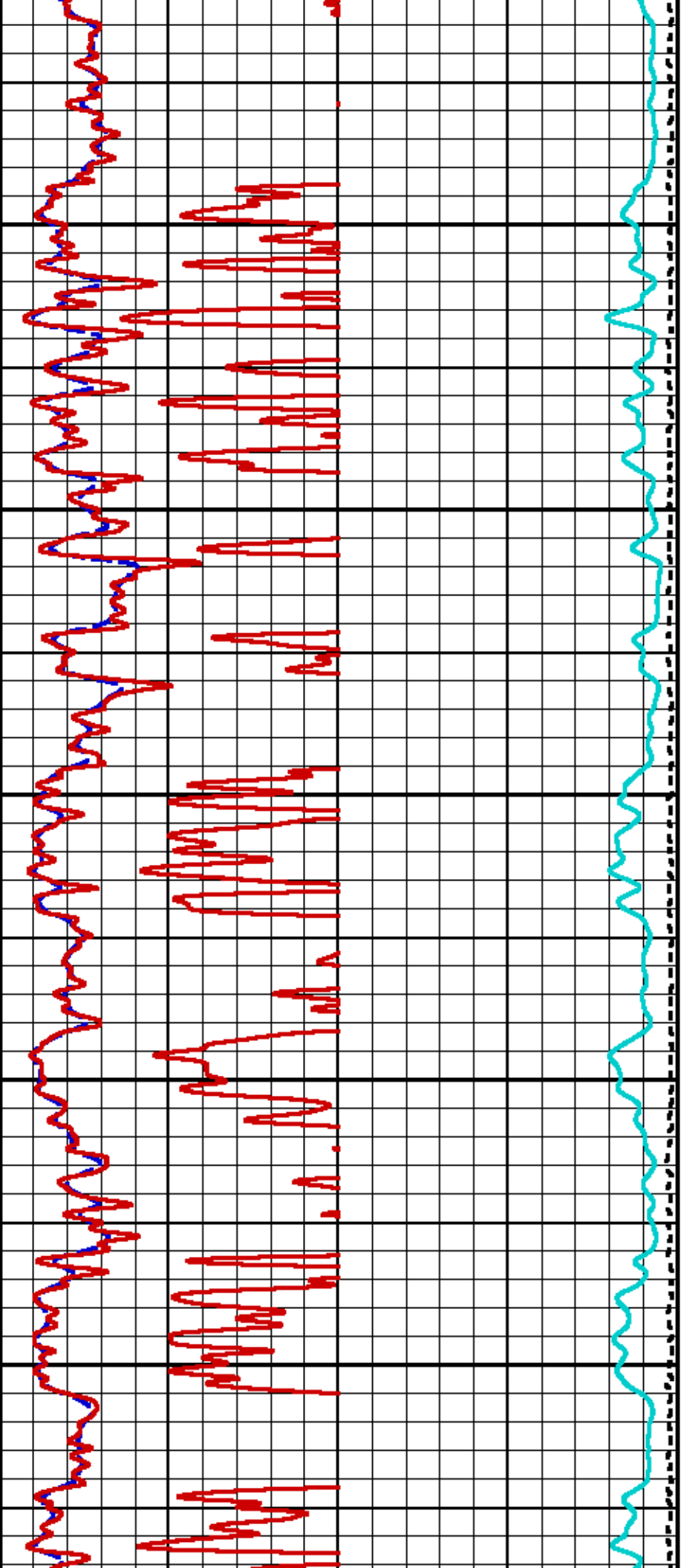


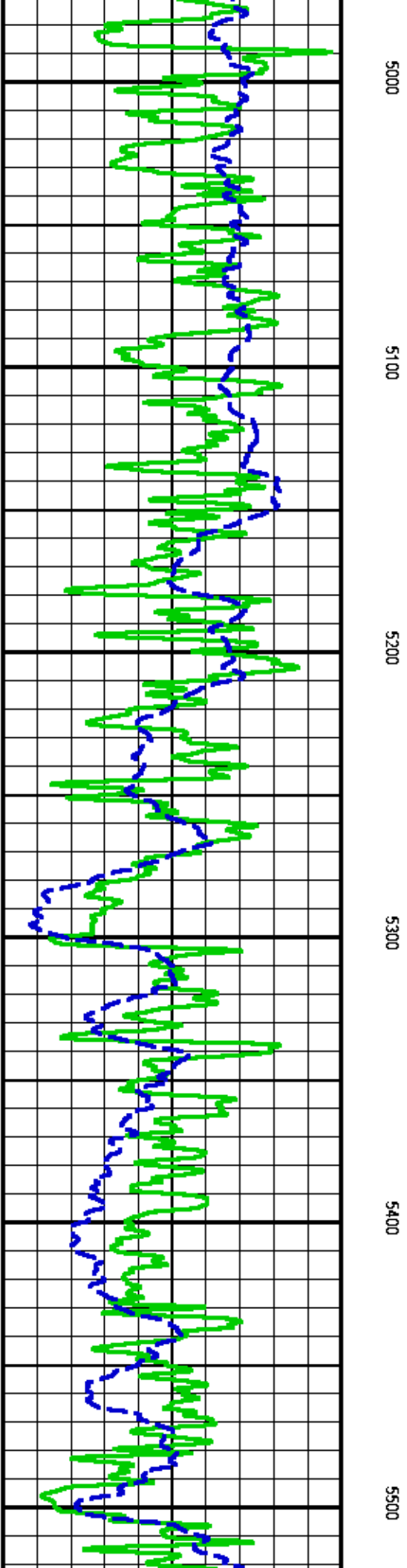
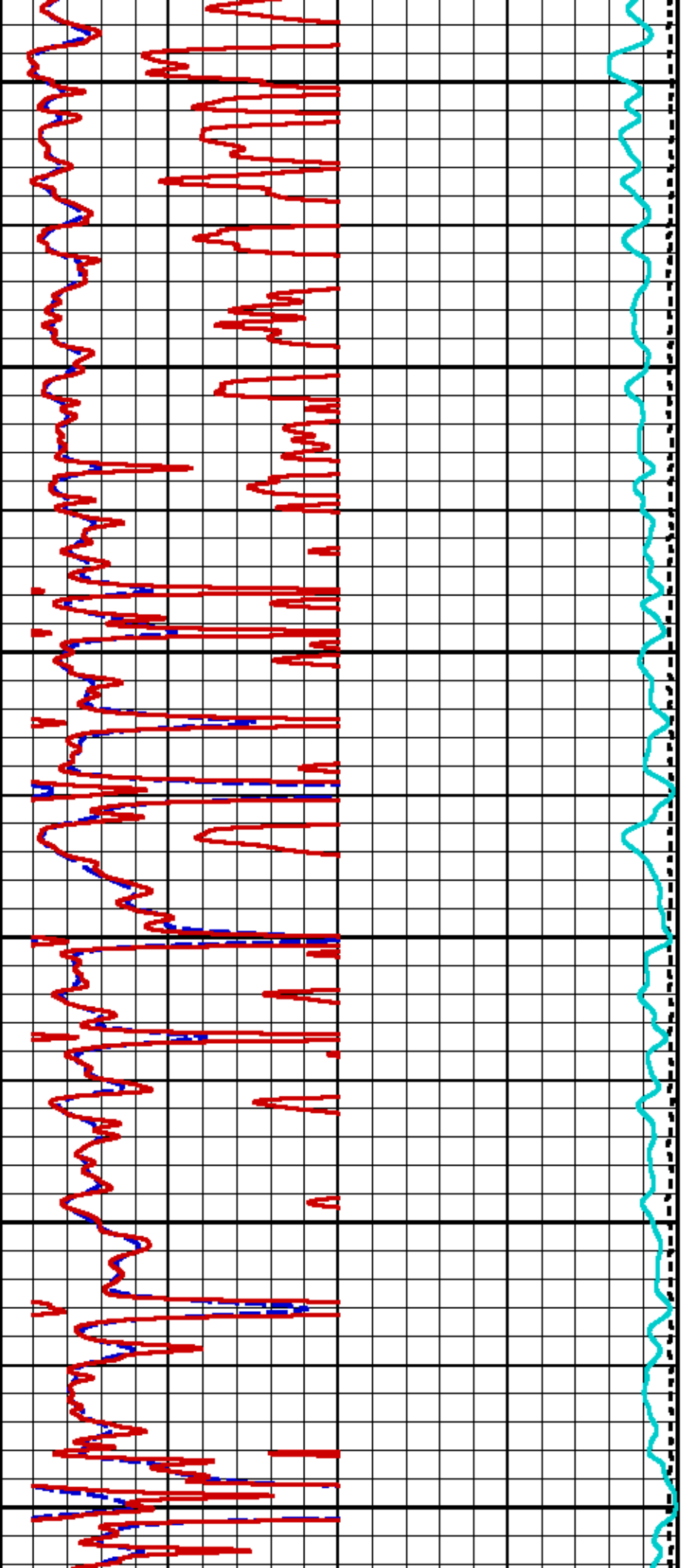


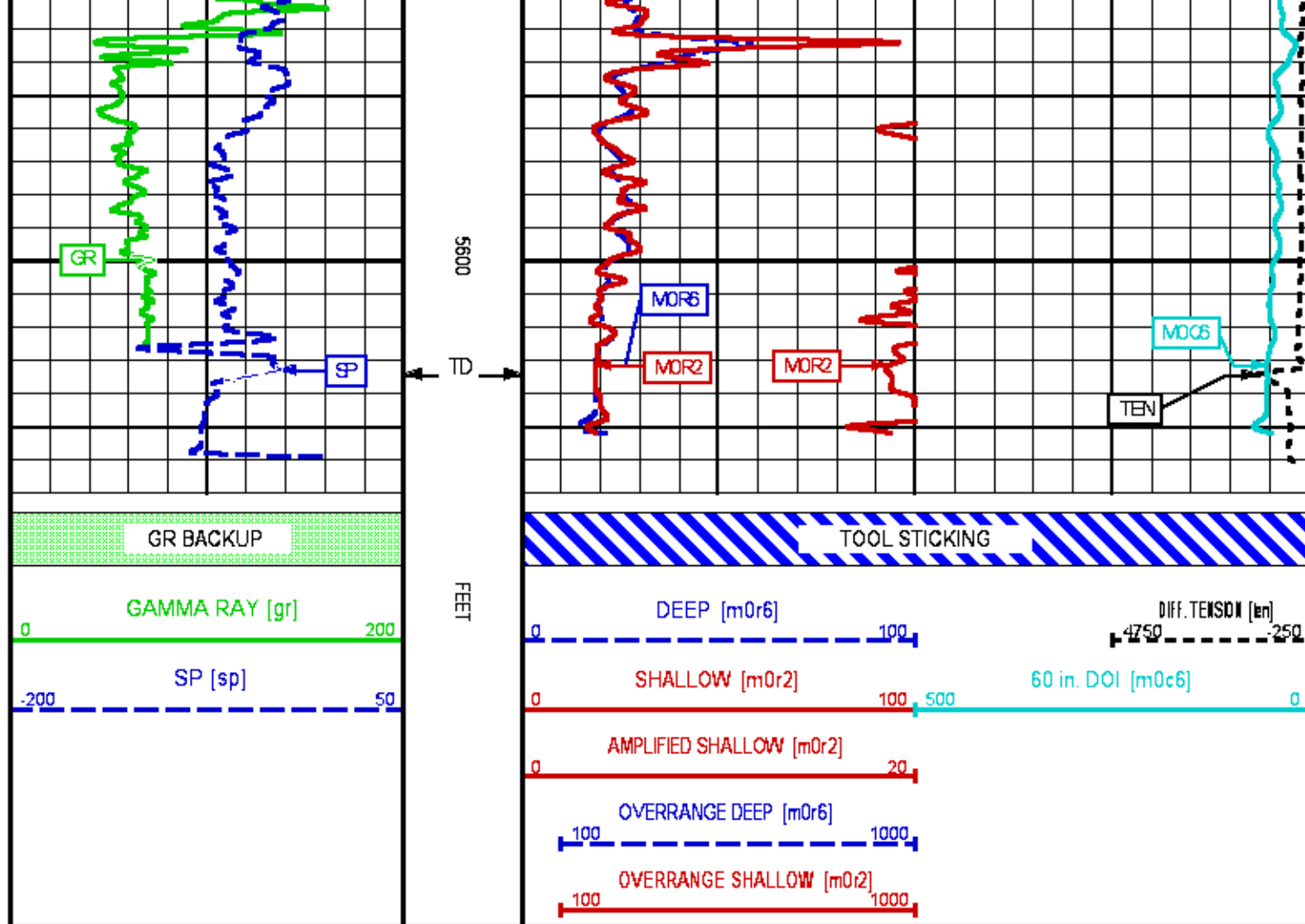












## MAIN LOG 5"/100FT SCALE

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

Plotted: Wed Jul 10 12:16:14 2013

### PARAMETER AND FILTER SUMMARY REPORT

File: /dat1a/625561/n970a02.prm  
 LOGGING MODE: DEPTH DIRECTION: UP  
 TOP DEPTH: 1378.000 ft BOTTOM DEPTH: 5650.652 ft

#### SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
GR MED RES	FILTER ( )	medium (1)		TOP	BOTTOM
CALIPER	FILTER ( )	medium (1)		"	"
TENSION	FILTER ( )	medium (1)		"	"
CN MED RES	FILTER ( )	medium (1)		"	"
ZDL MED RES	FILTER (hrd1*)	medium		"	"
	FILTER (hrd1*)	medium		"	"
	FILTER (hrd2*)	medium		"	"
	FILTER (hrd2*)	medium		"	"
	FILTER (soft*)	medium		"	"

SP-SPDH	FILTER Q	heavy (3)	"	"	
BOREHOLE & CEMENT					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	4.500	in	TOP	BOTTOM
	CASING THICKNESS	0.000	in	"	"
BIT SIZE	BIT SIZE	8.750	in	"	"
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (cnbh*)	USE CALIPER		"	"
	CALIPER/FIXED DIA. (mbh*)	USE CALIPER		"	"
BOREHOLE CORR DIAMETER	FIXED DIAMETER (cnbh*)	8.750	in	"	"
	FIXED DIAMETER (mbh*)	8.750	in	"	"
MUD SAMPLE RESISTIVITY	MUD SAMPLE TEMP	77.0	degF	"	"
	MUD SAMPLE RES	1.260	ohm.m	"	"
BH MUD RESISTIVITY SOURCE	RMUD SOURCE (HDIL)	TOOL MEASURED		"	"
BOREHOLE TEMP from GRADIENT	Known BH REF TEMP	77.0	degF	"	"
	at BH REF DEPTH	0.0	ft	"	"
	with TEMP GRADIENT	1.200	0.01 degF/ft	"	"
ACCELERATION PROCESSING					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
ACCEL CORR SWITCH	ACCEL DEPTH CORR	CORRECTION ON		TOP	BOTTOM
CN PROCESSING					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CN MATRIX	2436 MATRIX	SANDSTONE		TOP	BOTTOM
CN BOREHOLE CORRECTION	SALINITY	2523	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	13.500	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	Jul 7 12:18:22 2013	BIT SIZE			
F1:BVOL	Jul 7 12:18:22 2013	BOREHOLE VOLUME			
F1:CAL	Jul 7 12:18:22 2013	CALIPER			
F1:CNCF	Jul 7 12:18:22 2013	FIELD NORMALIZED COMPENSATED NEUTRON POROSITY			
F1:CVOL	Jul 7 12:18:22 2013	CEMENT VOLUME			
F1:GR	Jul 7 12:18:22 2013	GAMMA RAY			
F1:M2R1	Jul 7 12:18:22 2013	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 10-INCH DOI			
F1:M2R6	Jul 7 12:18:22 2013	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 60-INCH DOI			
F1:M2R9	Jul 7 12:18:22 2013	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 90-INCH DOI			
F1:PE	Jul 7 12:18:22 2013	PHOTO ELECTRIC CROSS-SECTION			
F1:PORZ	Jul 7 12:18:22 2013	POROSITY FOR SELECTABLE MATRIX			
F1:SP	Jul 7 12:18:22 2013	SPONTANEOUS POTENTIAL			
F1:TEN	Jul 7 12:18:22 2013	DIFFERENTIAL TENSION			
F1:ZCOR	Jul 7 12:18:22 2013	DENSITY CORRECTION			
CURVE MEASURE POINT OFFSET					

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

Presentation
: HL6670:WPX\_MAIN\_FINAL.fvpdf [5"/100" Scale]

Plot Interval
: -5.5 - 5667.5 Feet

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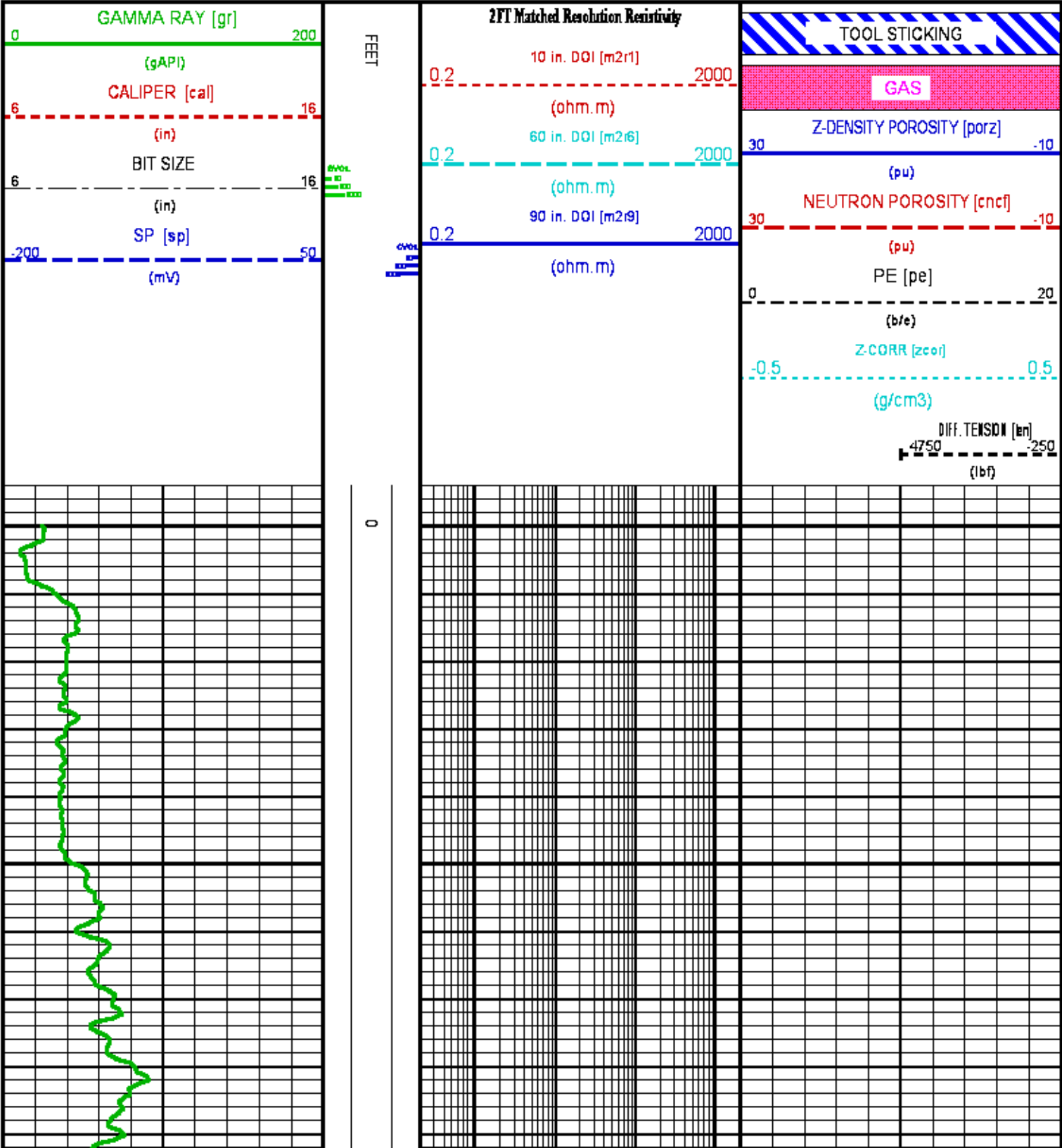
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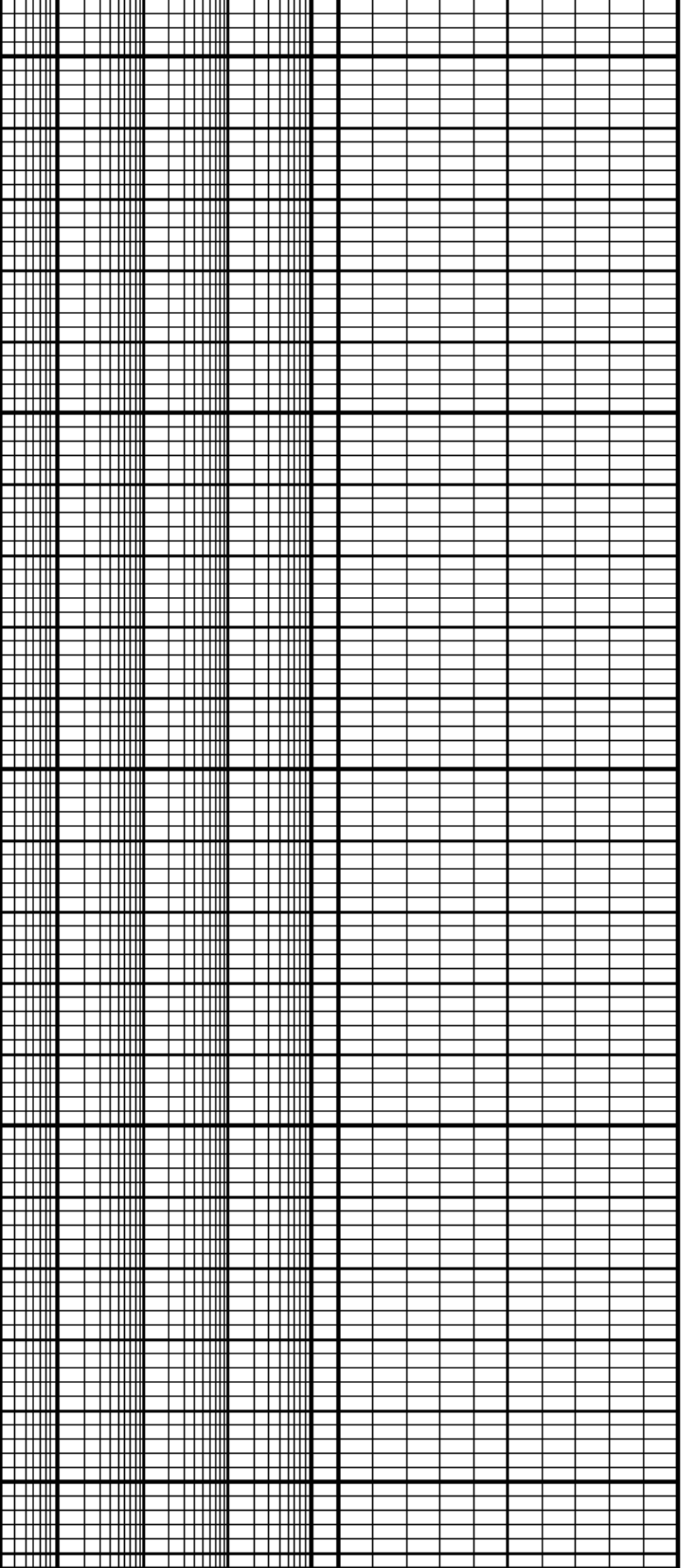
Well
: STRAIT SG 442-22

Field
: GRAND VALLEY

File Interval
: -5.5 - 5667.5 Feet

OCT
: n970a





100

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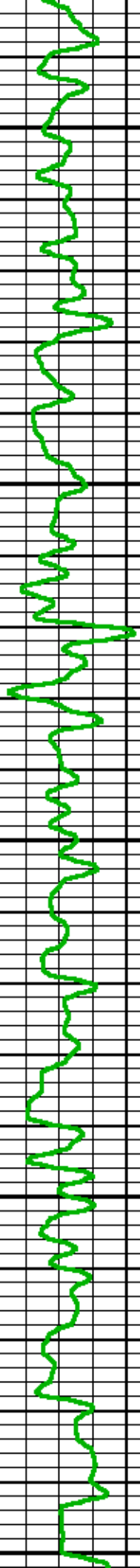
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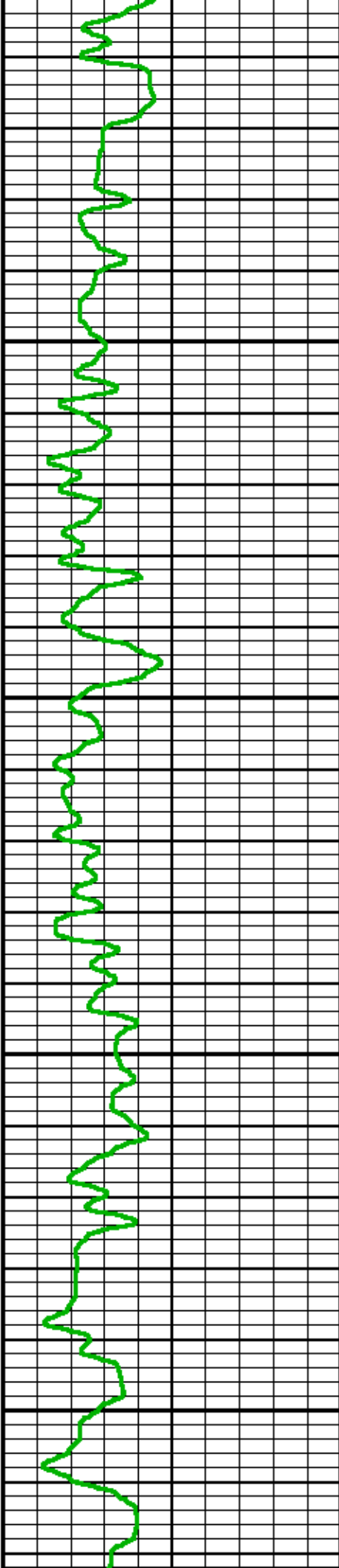


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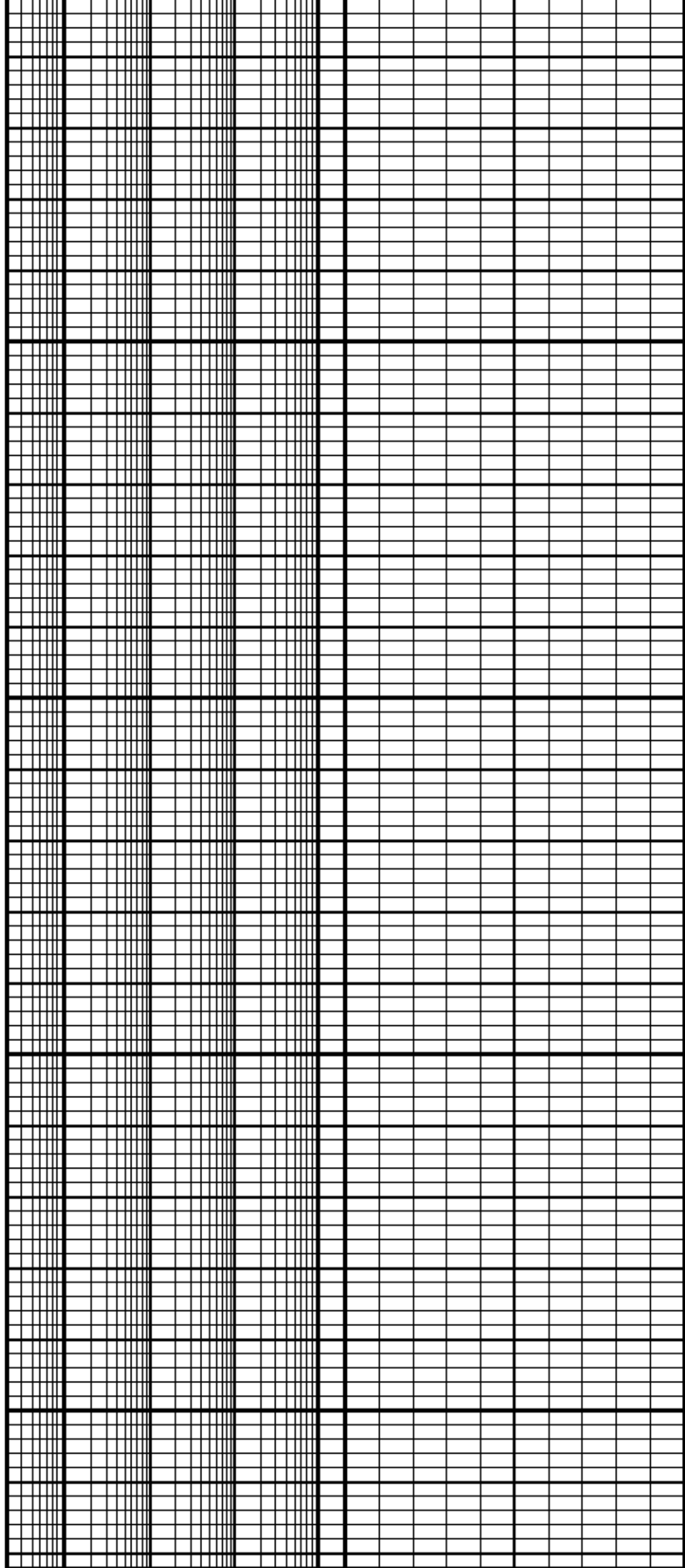






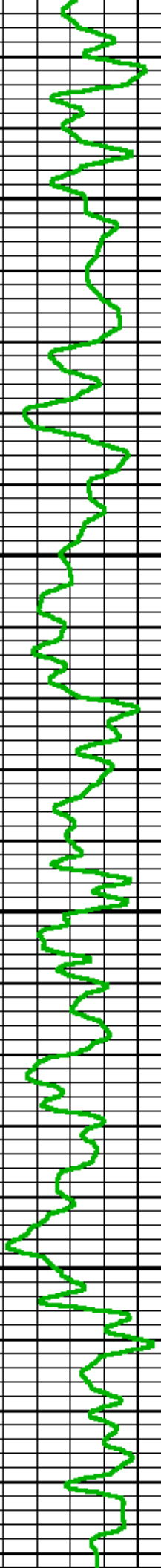
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008



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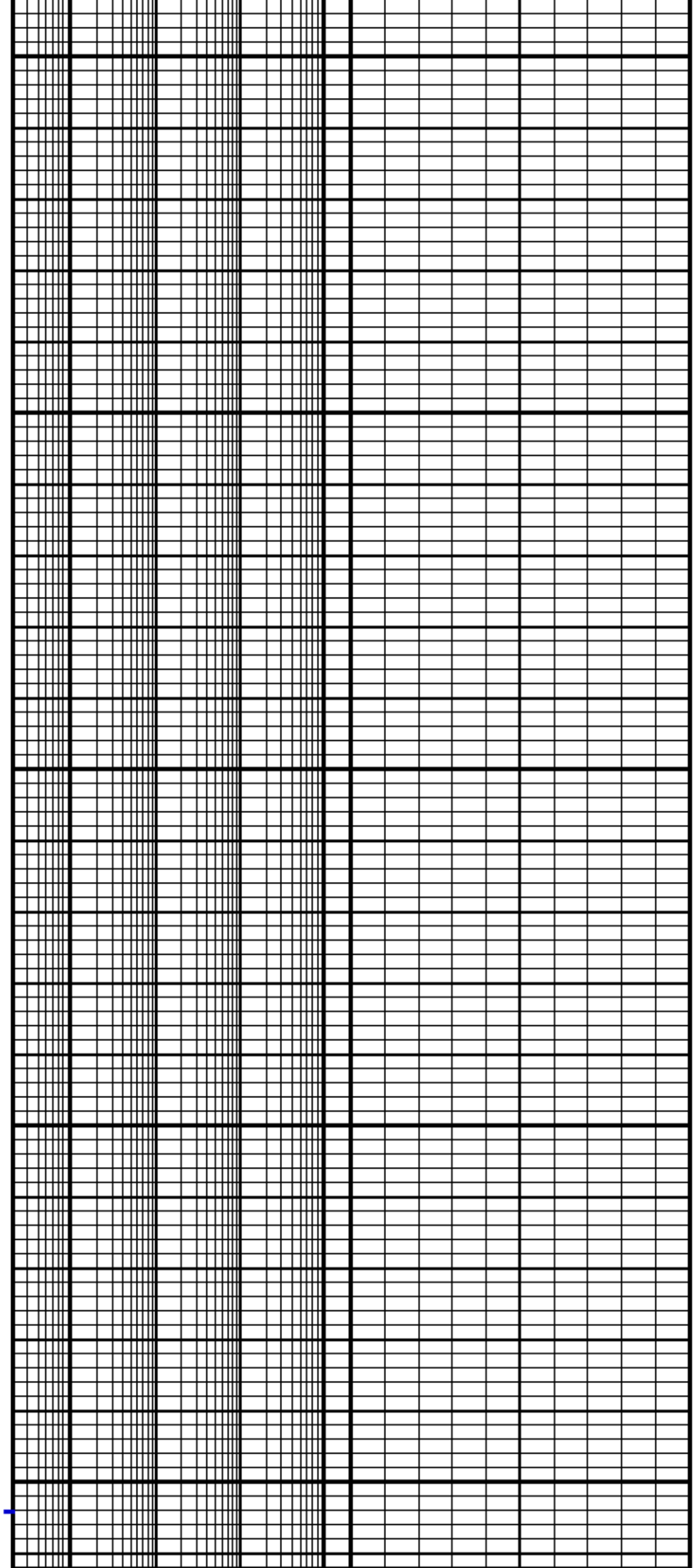
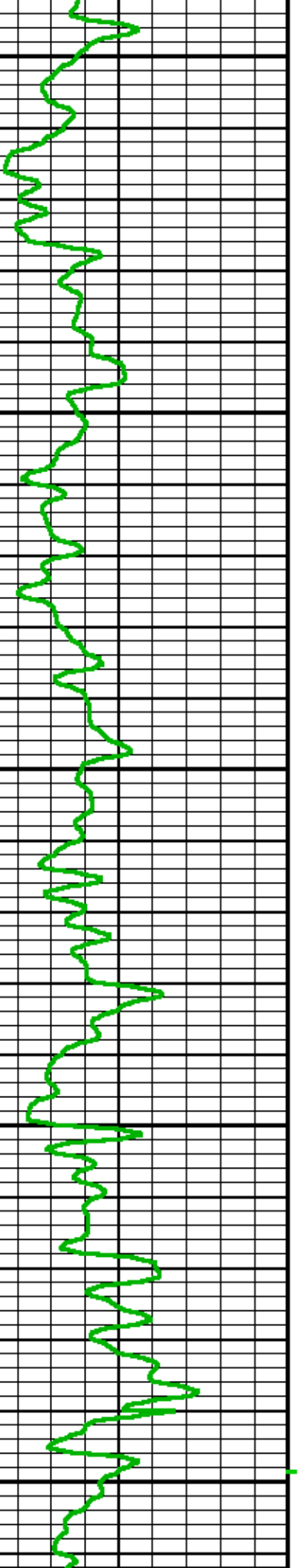
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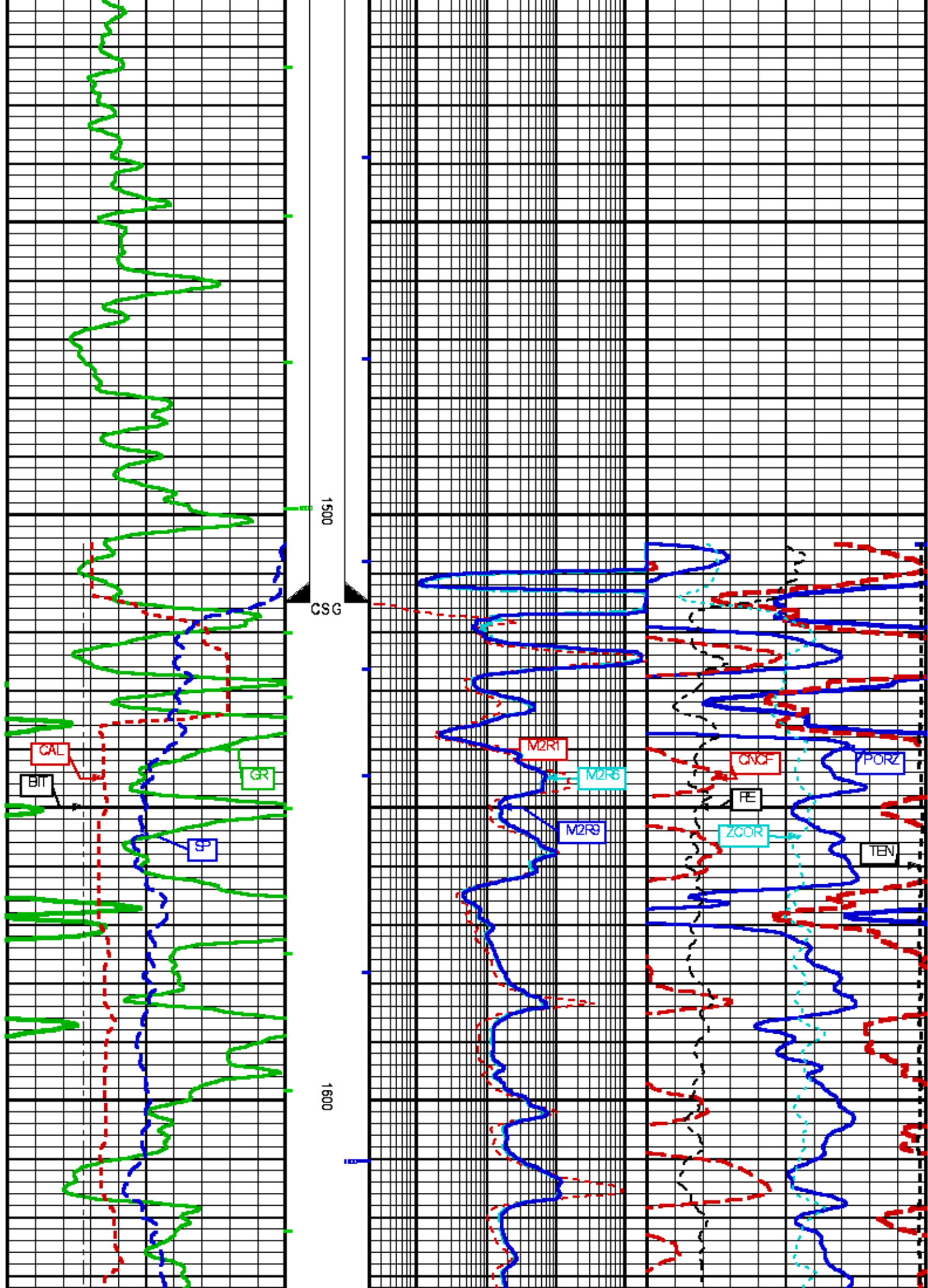


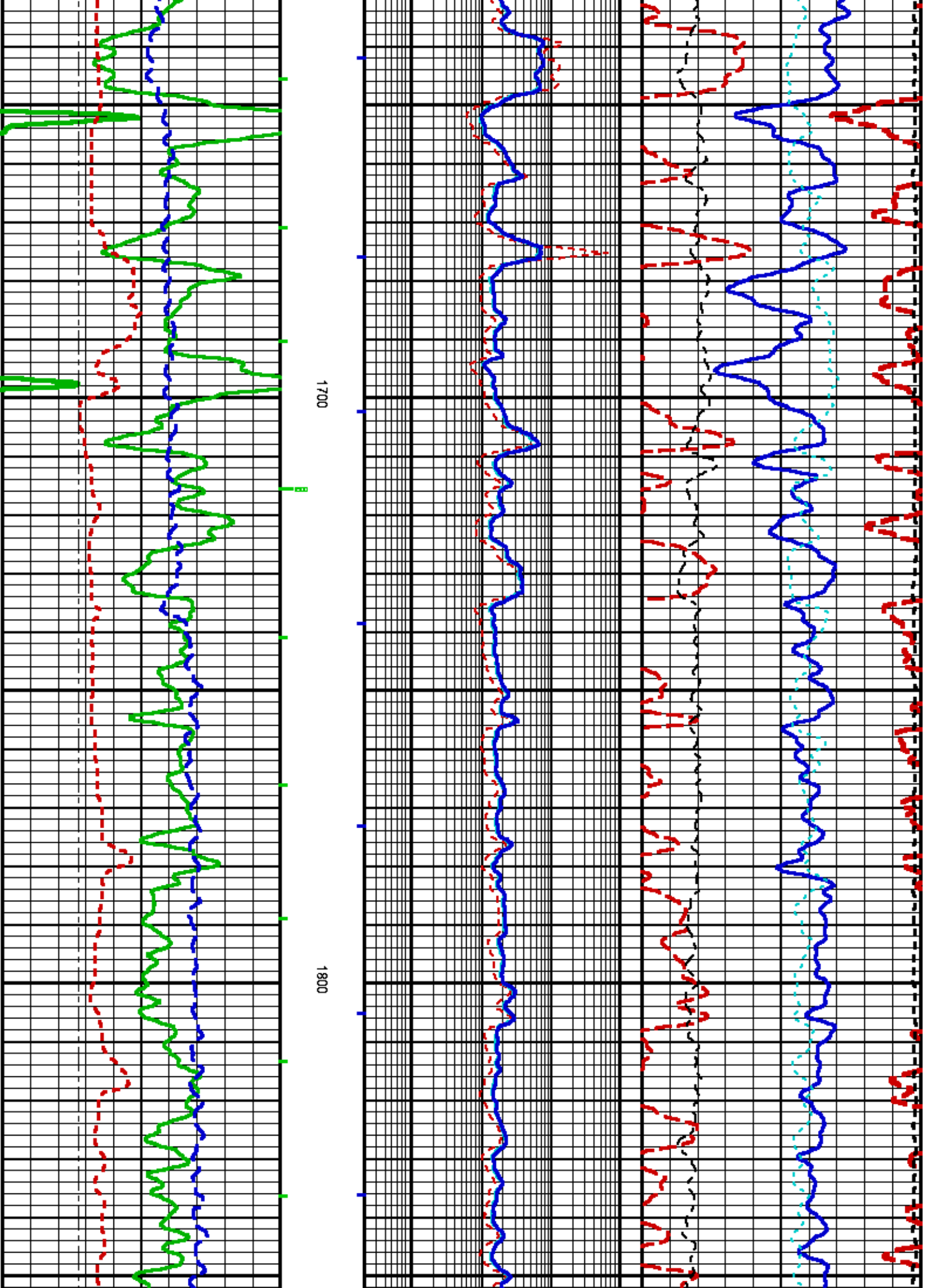
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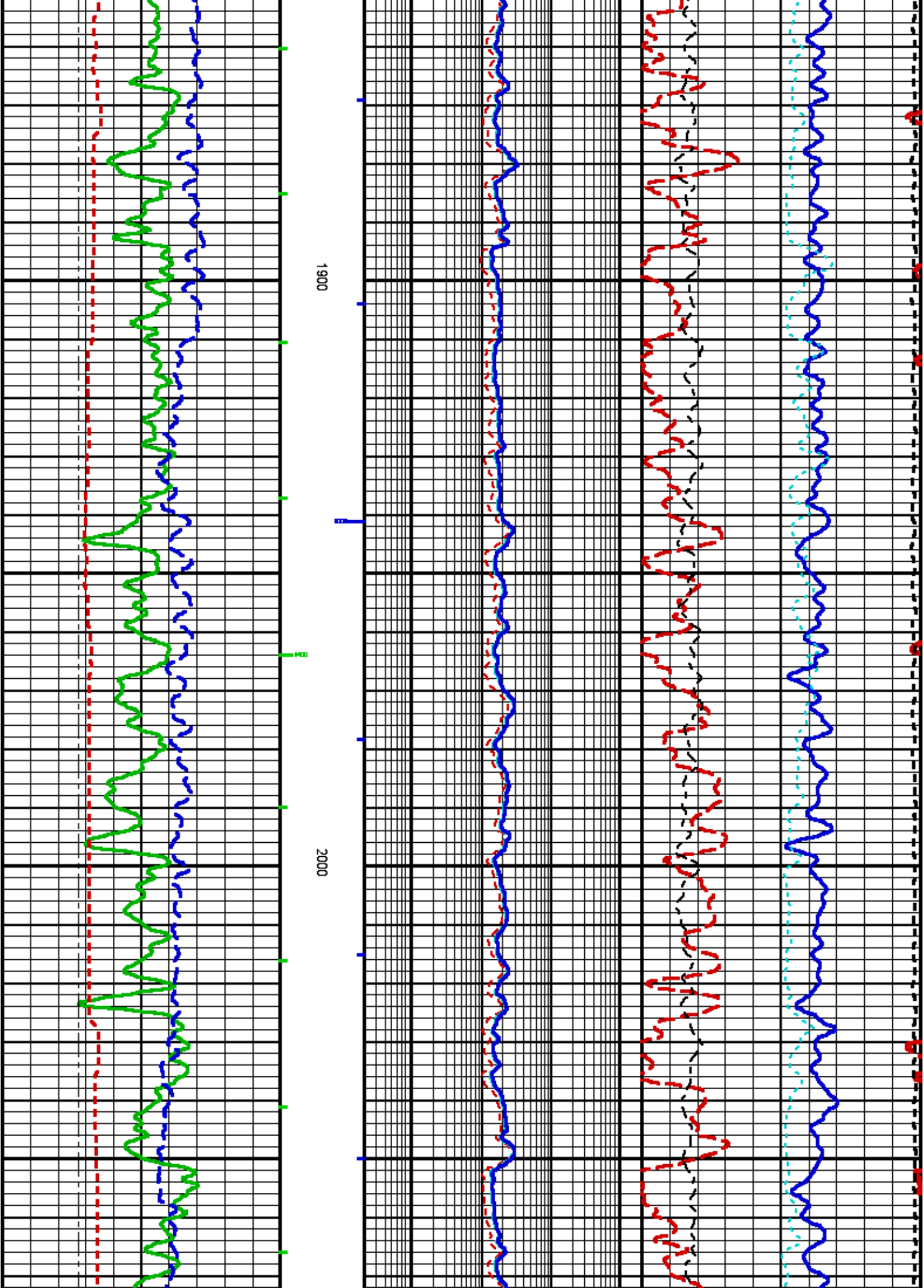
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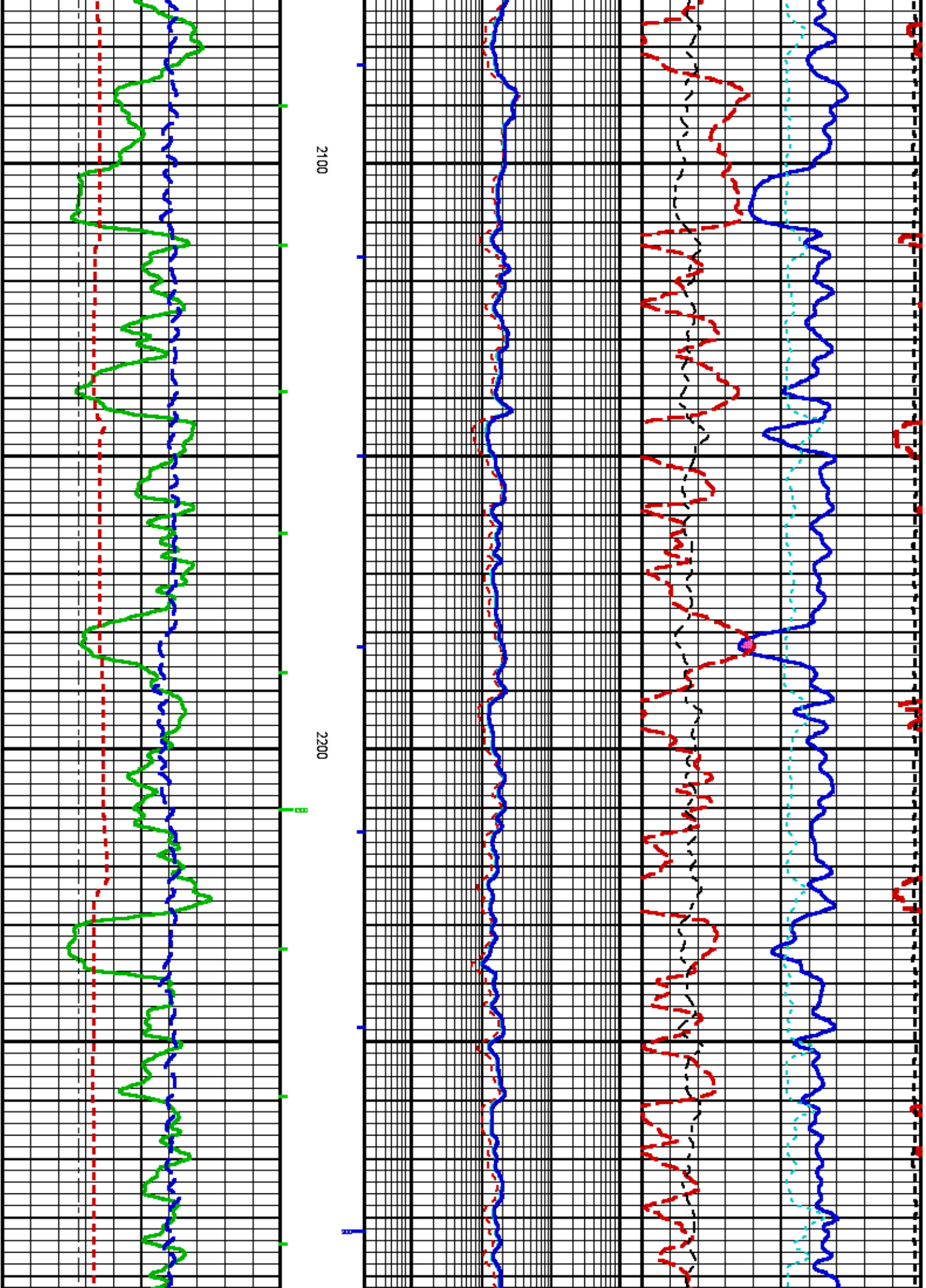


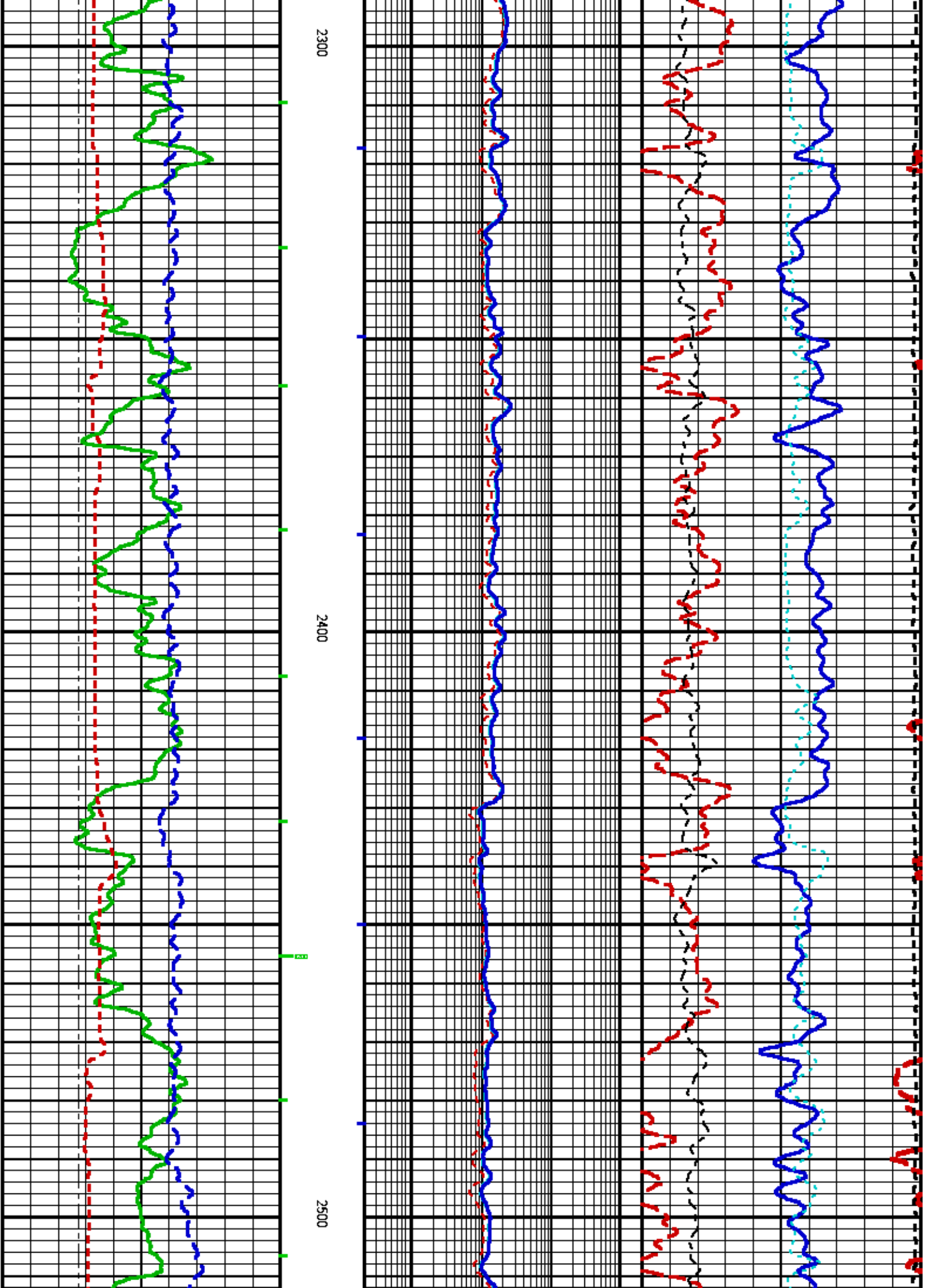




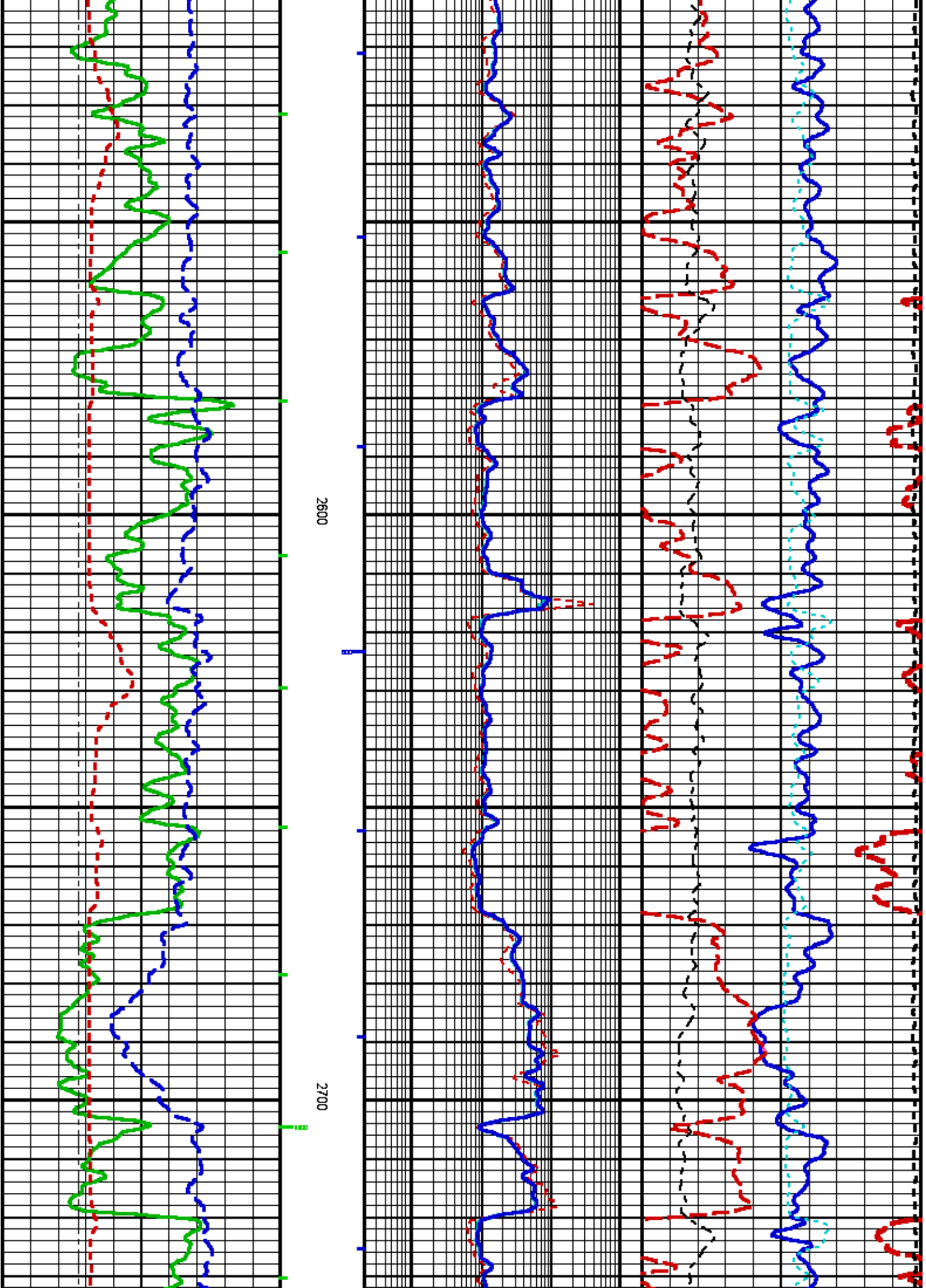


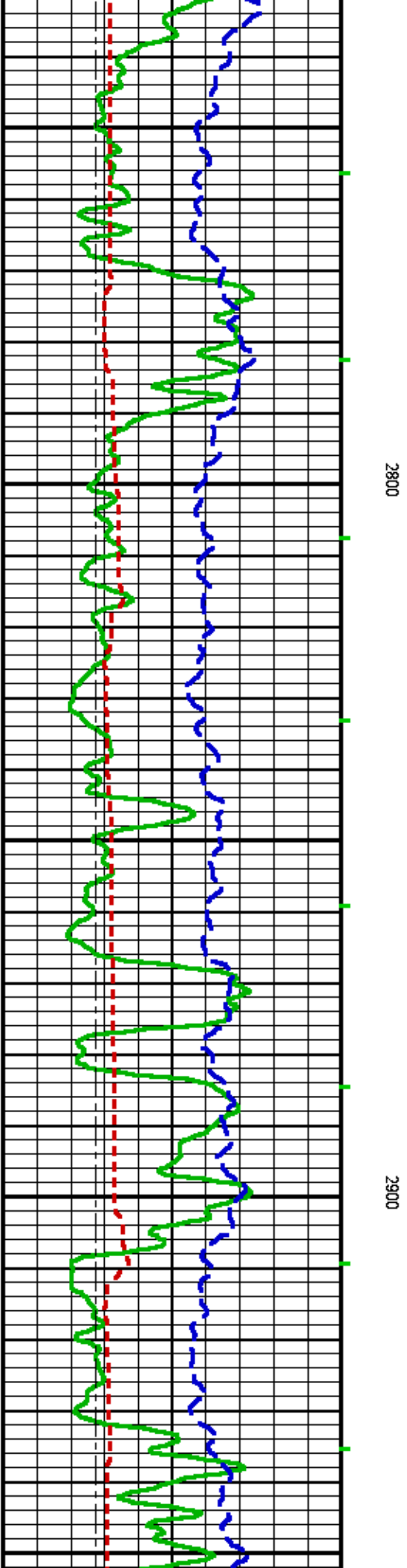
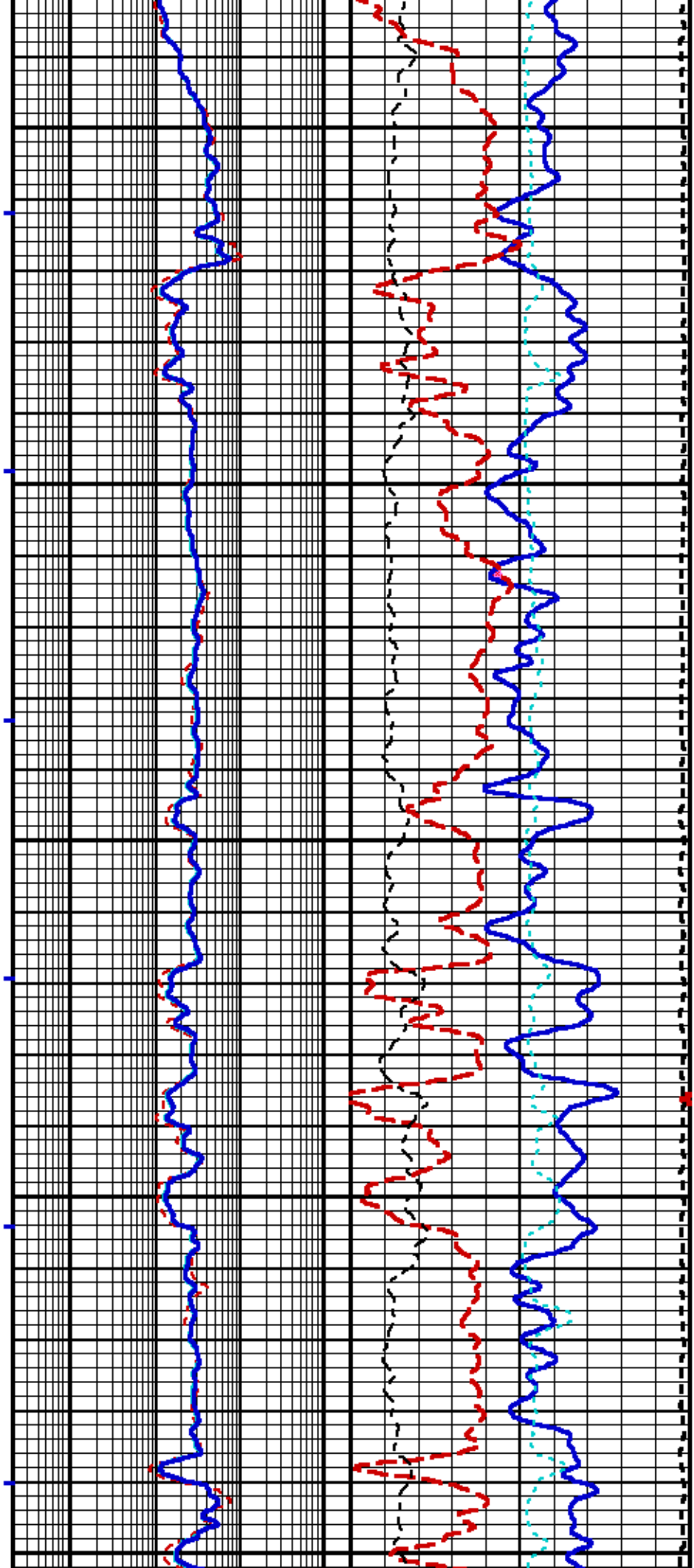


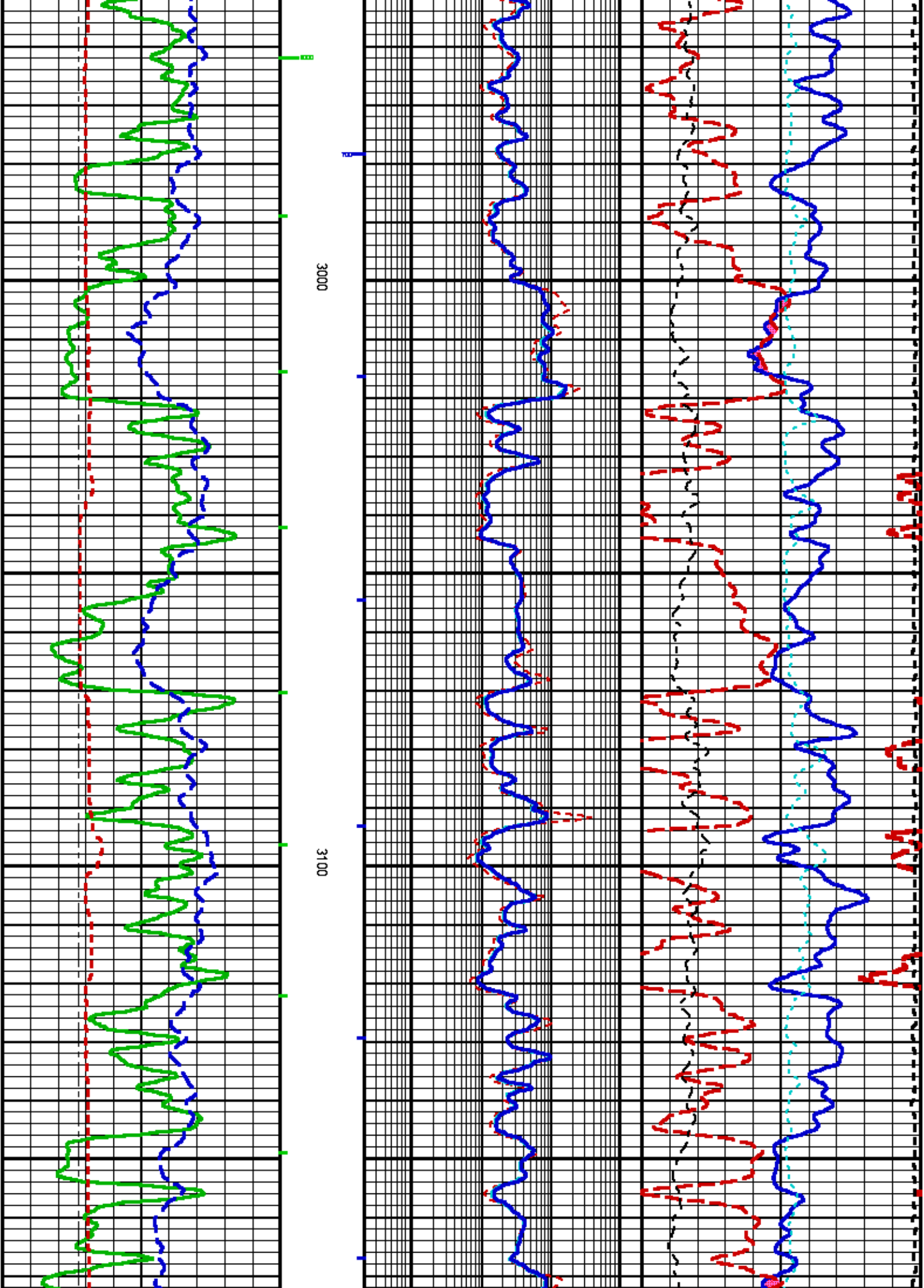


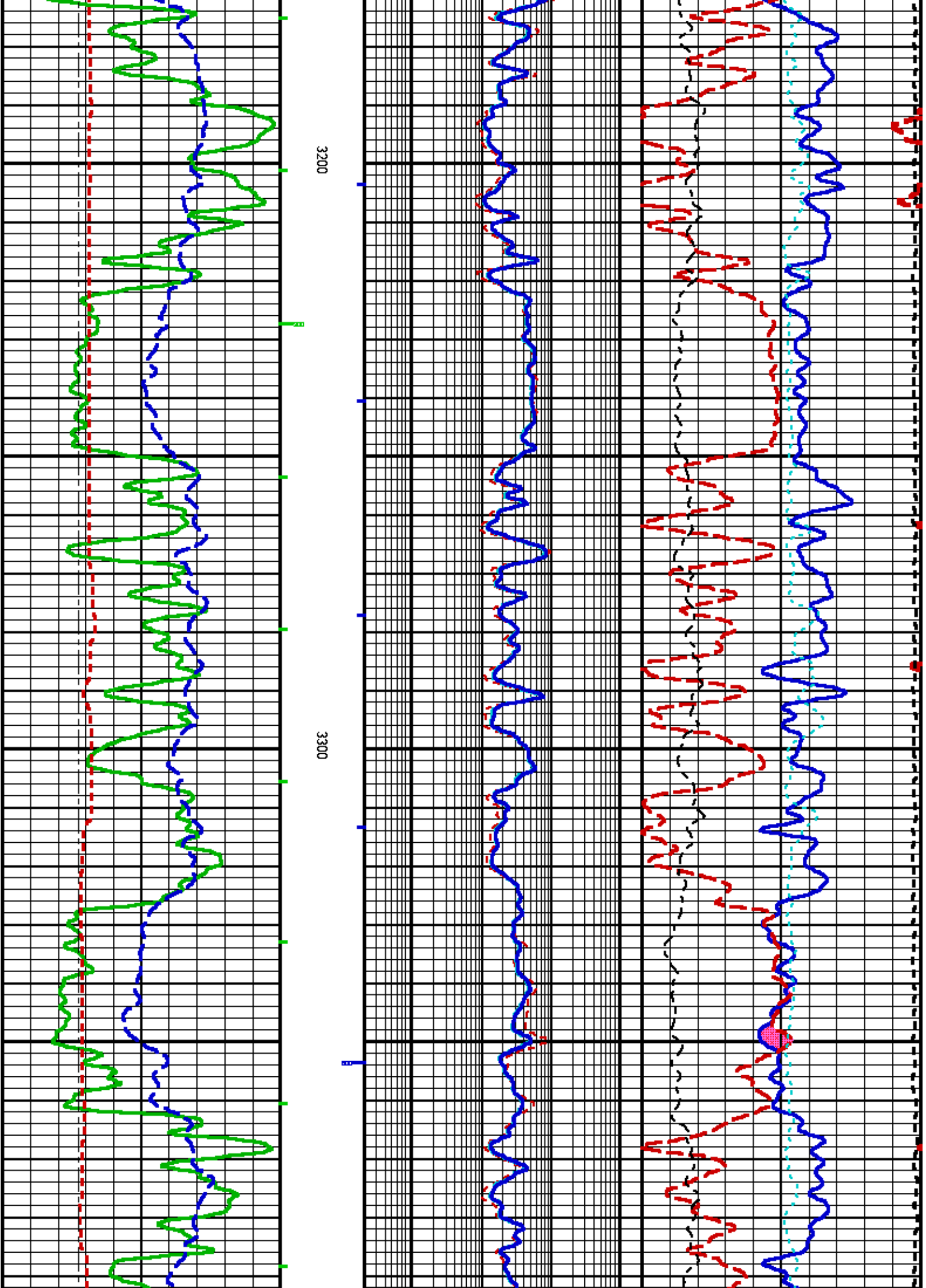


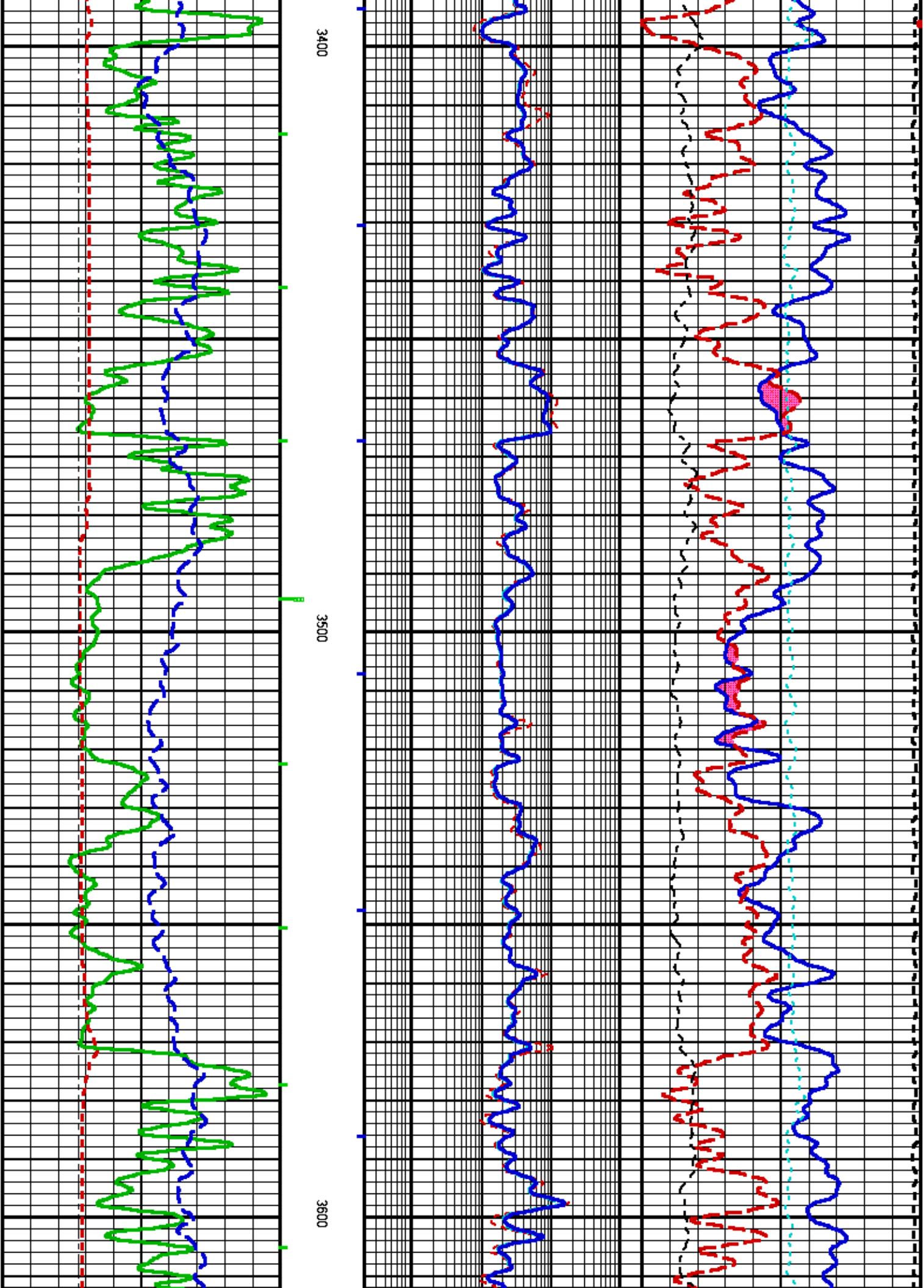




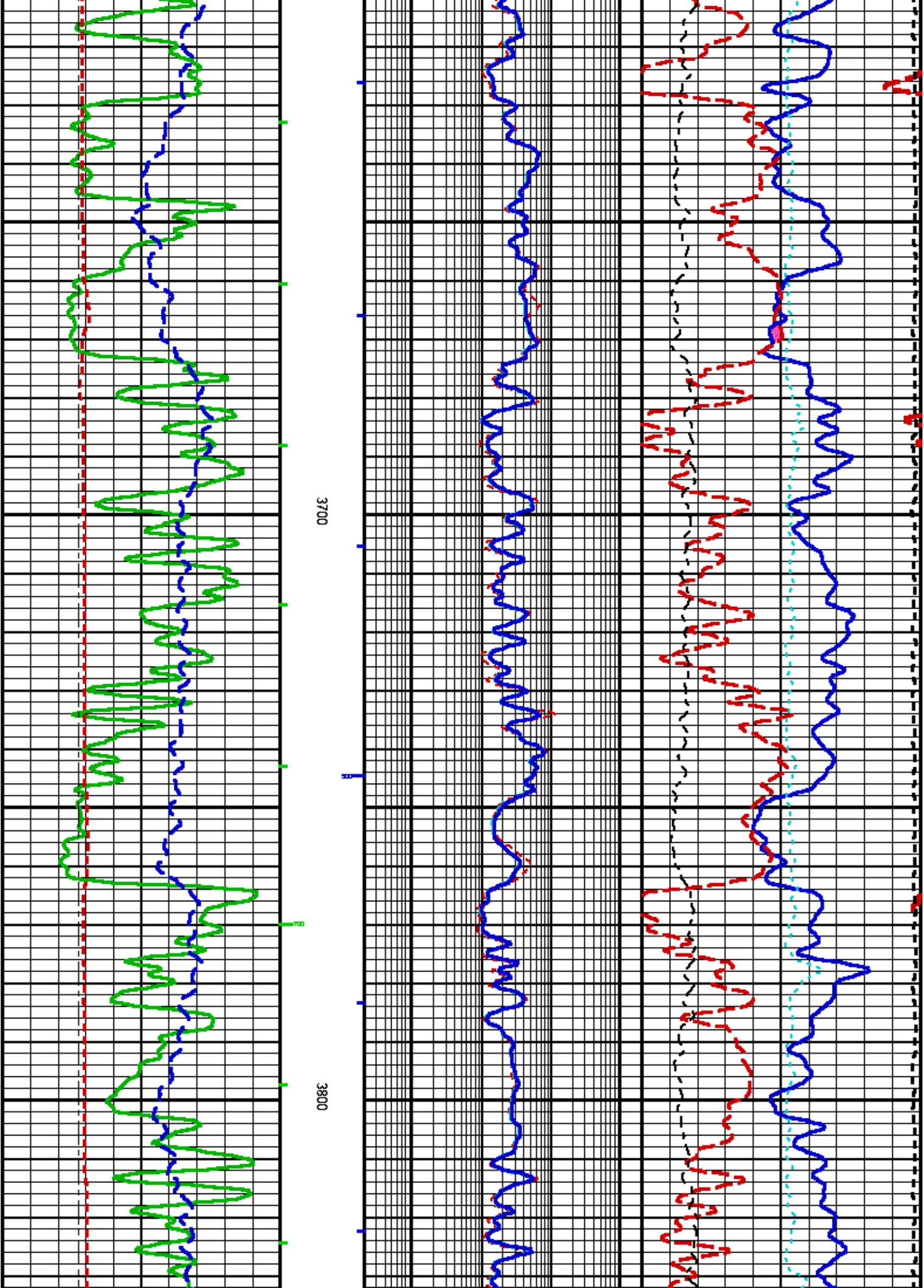


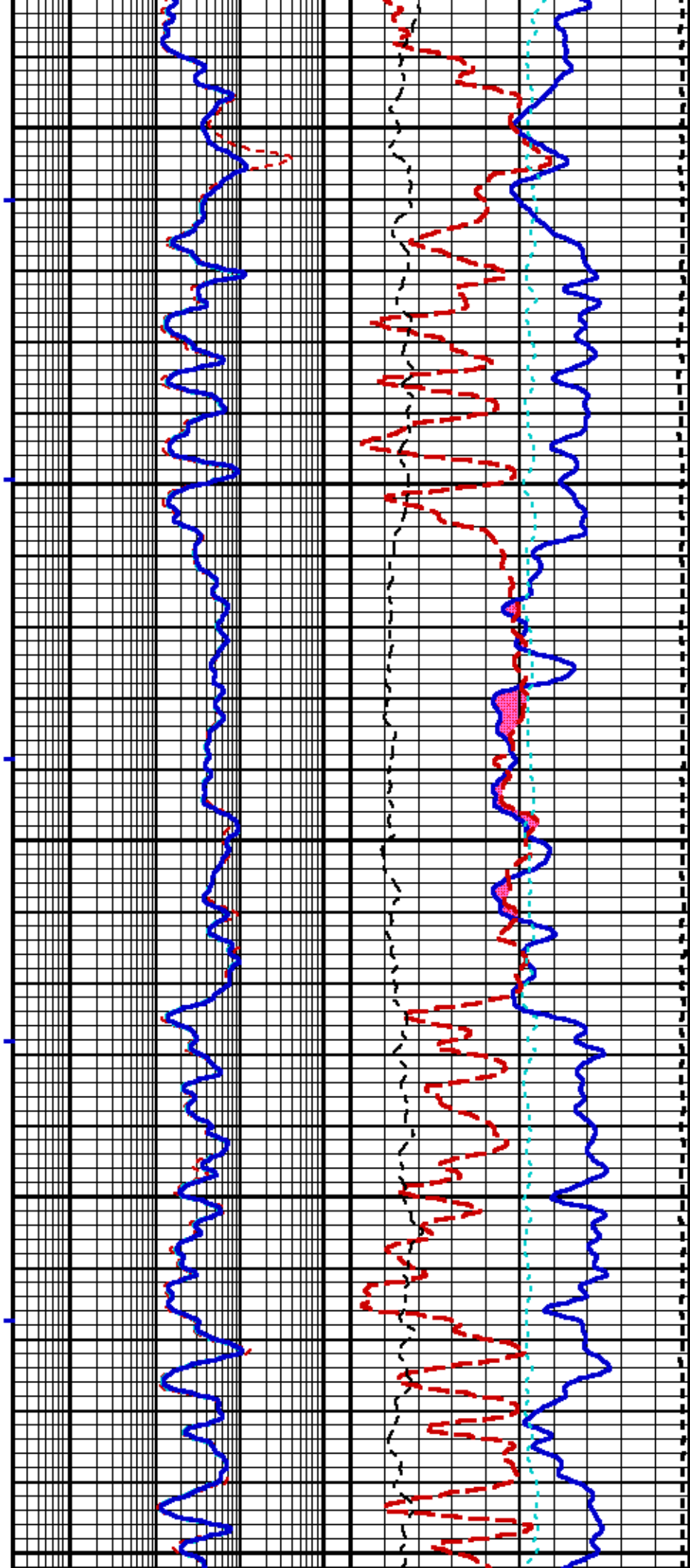






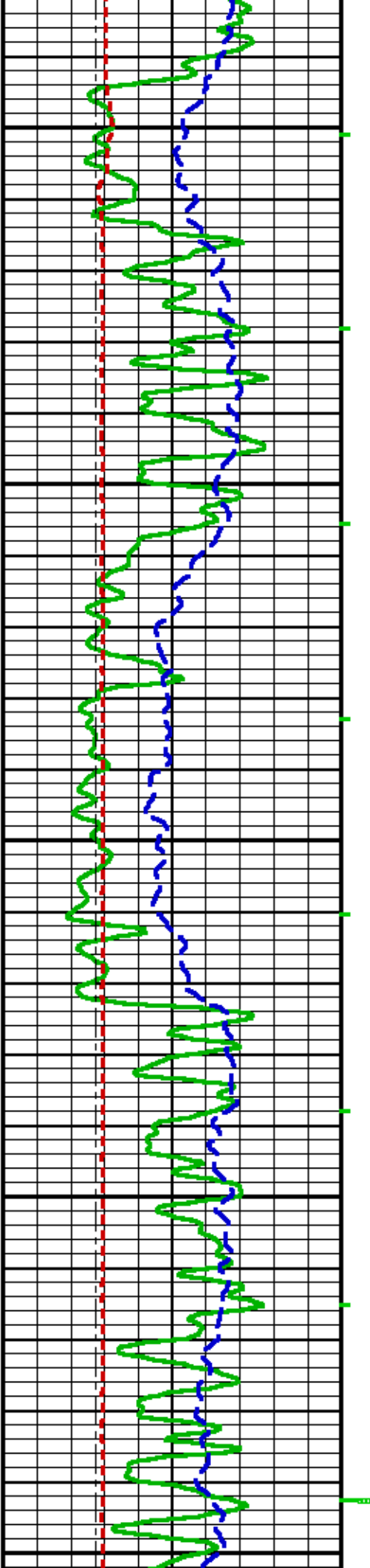


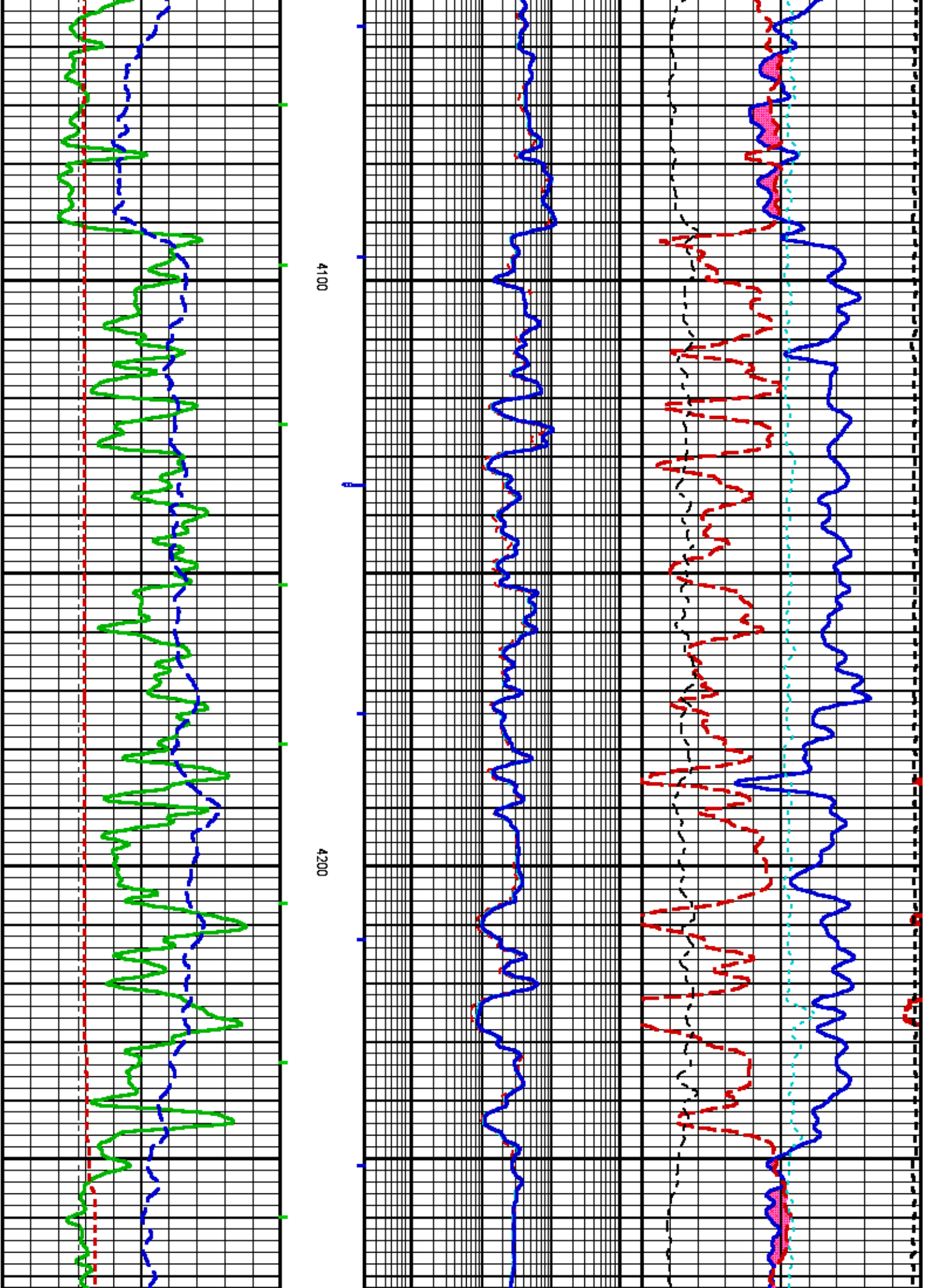




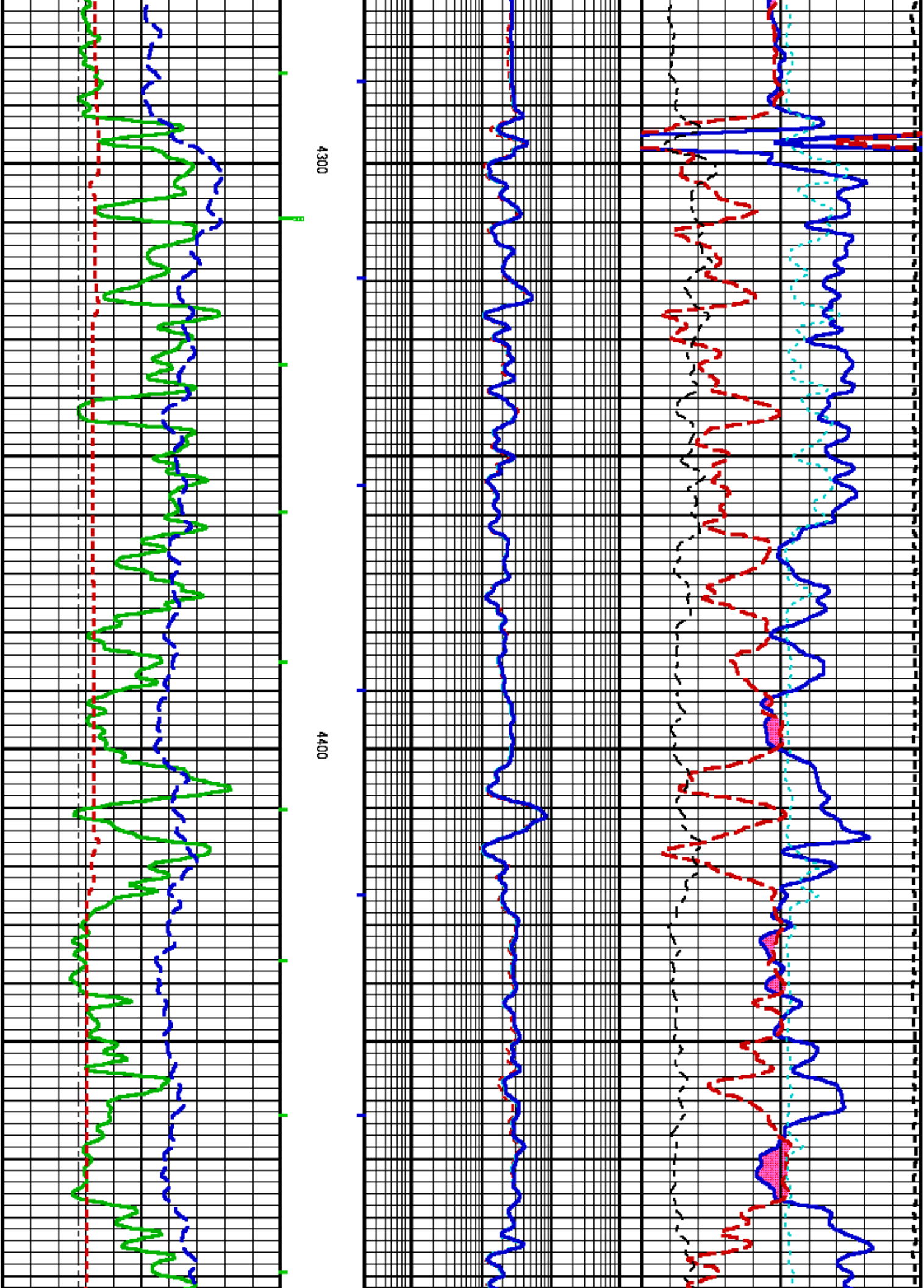
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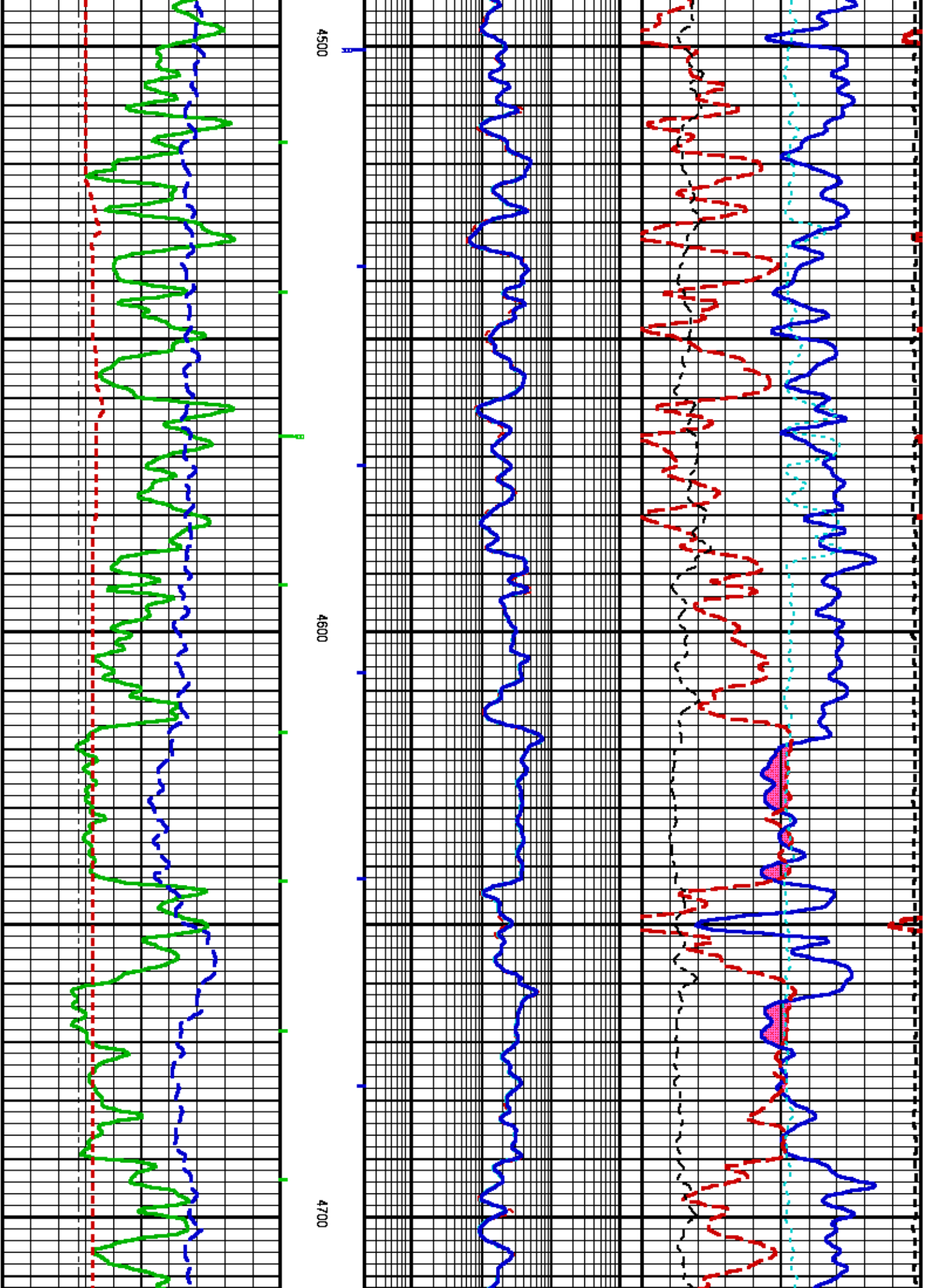
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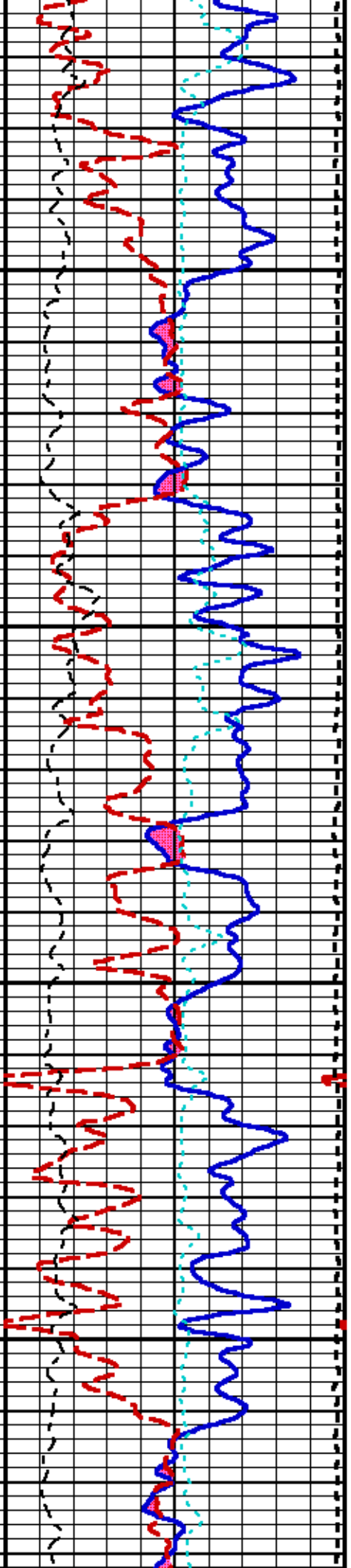






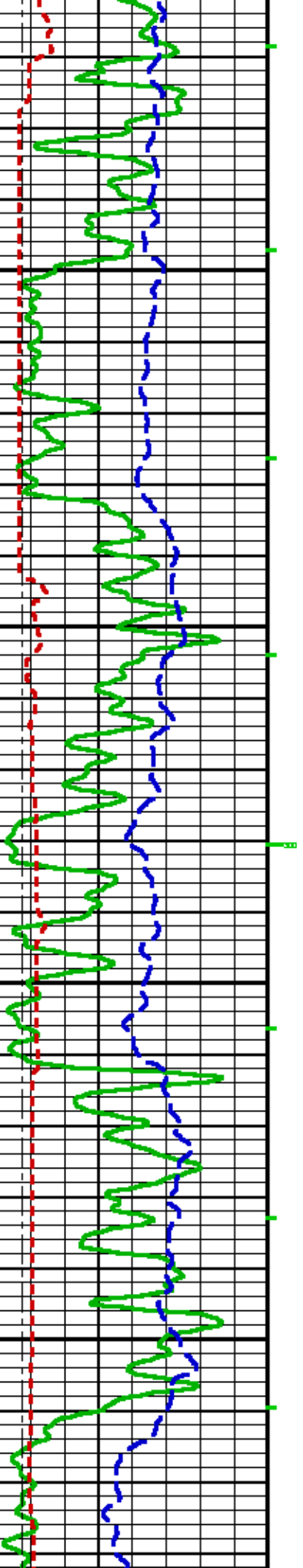


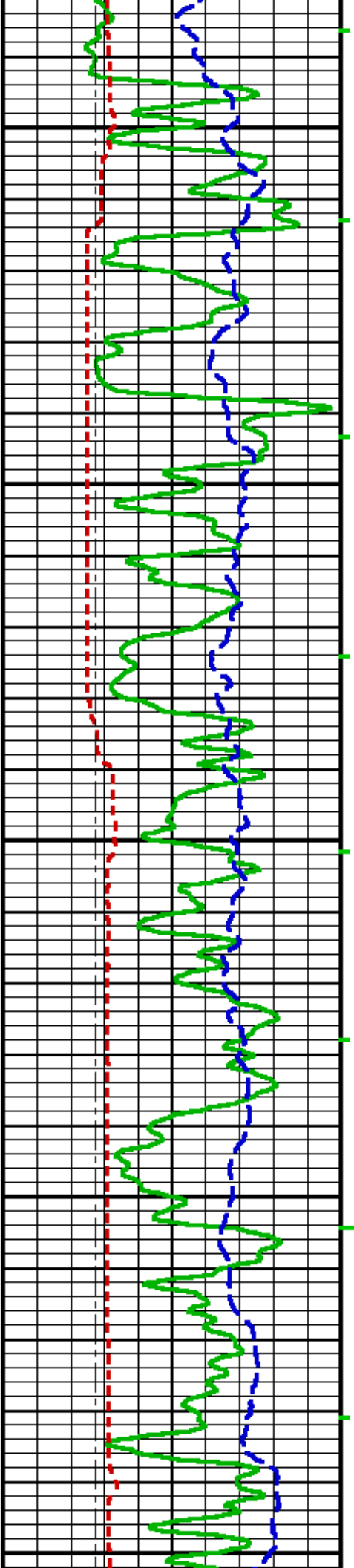




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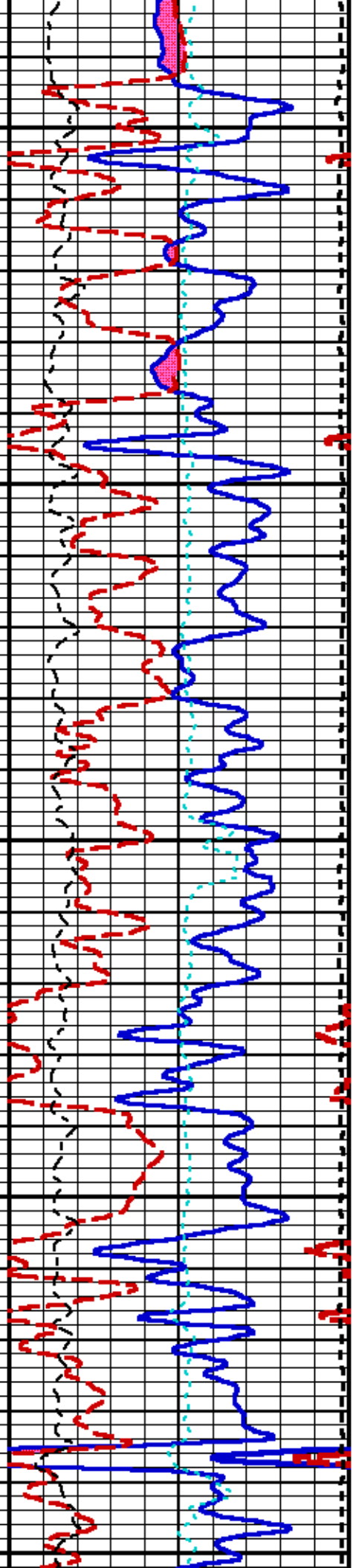
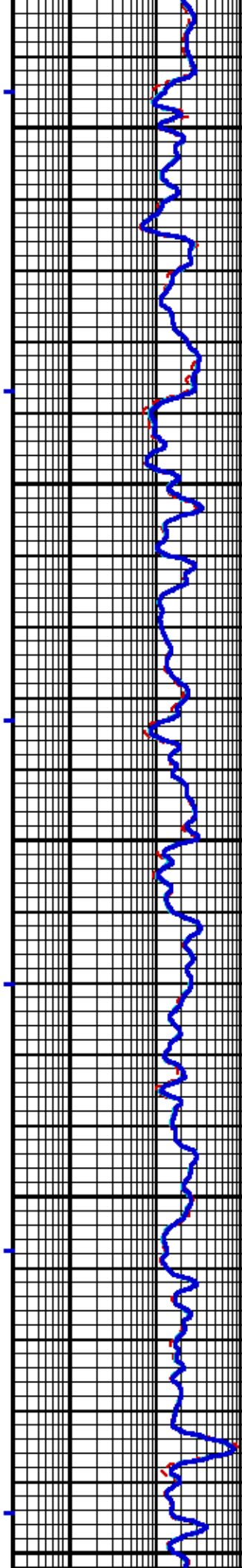
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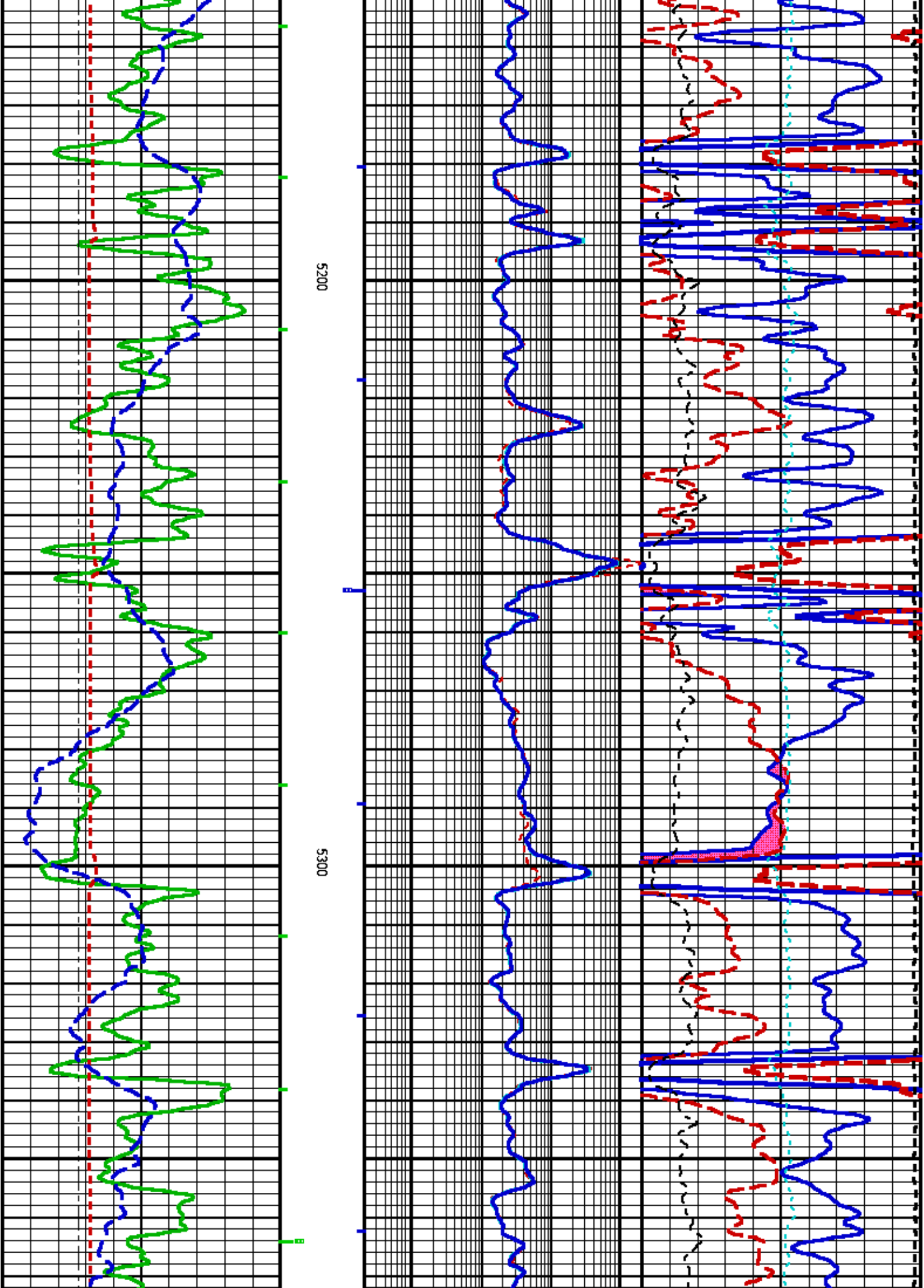




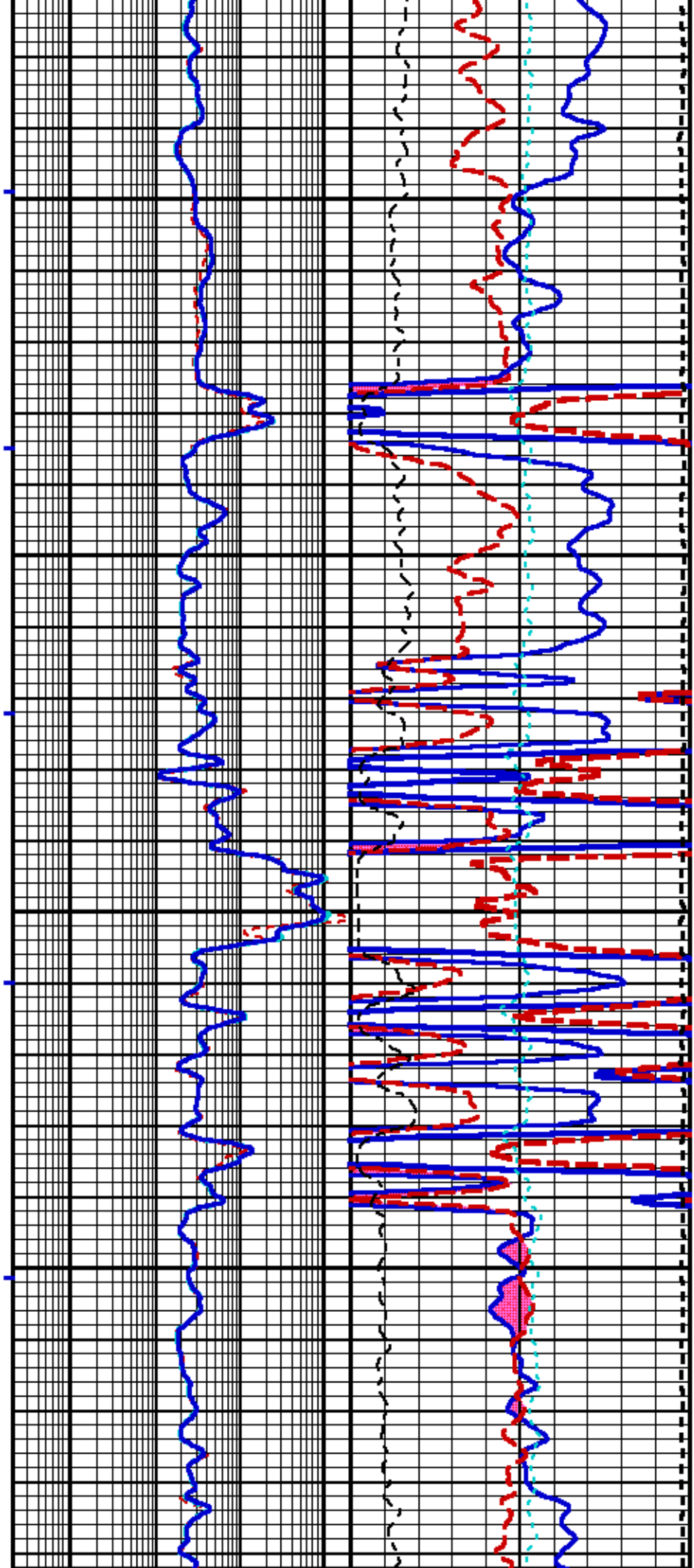
5000

5100



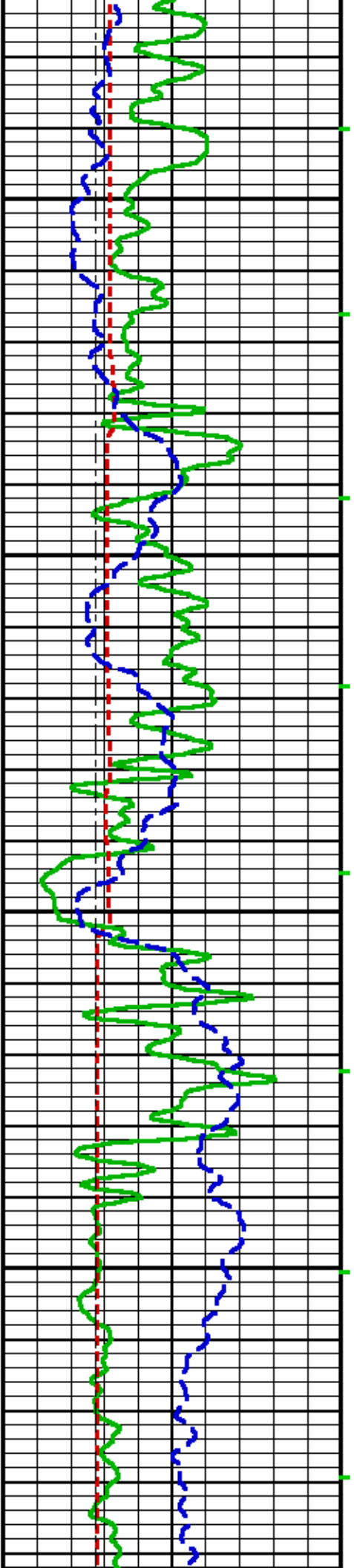


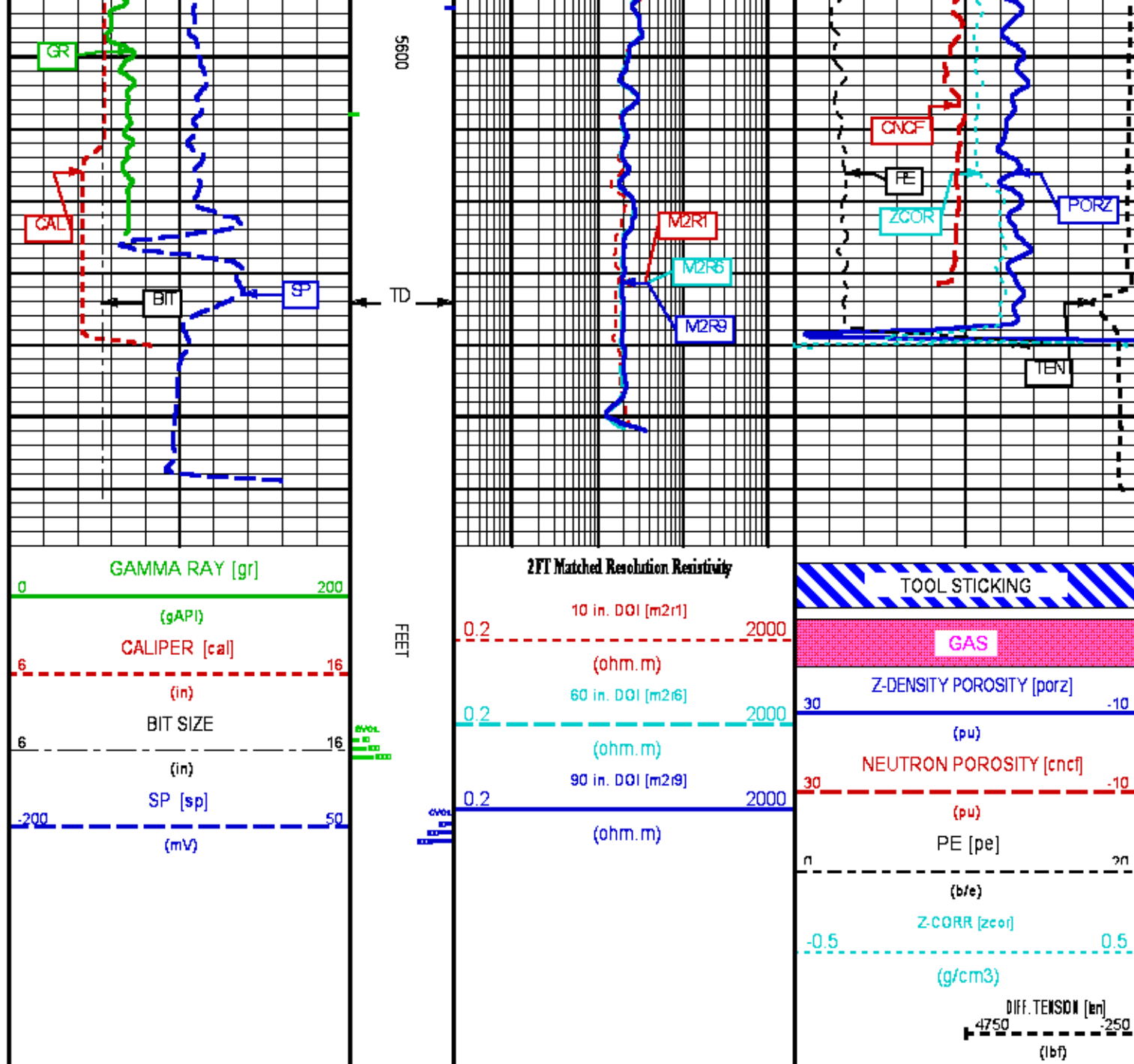




5400

5500





REPEAT LOG

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

Plotted: Wed Jul 10 12:02:08 2013

## PARAMETER AND FILTER SUMMARY REPORT

File: /dat1a/625561/n970a01.prm  
 LOGGING MODE: DEPTH DIRECTION: UP  
 TOP DEPTH: 1367.500 ft BOTTOM DEPTH: 1798.685 ft

SYMMETRIC FILTER

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 (soft*)	medium		"	"
SP-SPDH	FILTER Q	heavy (3) medium (1)		TOP 1667.350	1667.350 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	77.0	degF	"	"
	MUD SAMPLE RES	1.260	ohm.m	"	"
BH MUD RESISTIVITY SOURCE	RMUD SOURCE (HDIL)	TOOL MEASURED		"	"
BOREHOLE TEMP from GRADIENT	Known BH REF TEMP	77.0	degF	"	"
	at BH REF DEPTH	0.0	ft	"	"
	with TEMP GRADIENT	1.200	0.01 degF/ft	"	"

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

CN PROCESSING					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CN MATRIX	2436 MATRIX	SANDSTONE		TOP	BOTTOM
CN BOREHOLE CORRECTION	SALINITY	2523	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	13.500	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	Jul 7 11:41:53 2013	BIT SIZE
F1:BVOL	Jul 7 11:41:53 2013	BOREHOLE VOLUME
F1:CAL	Jul 7 11:41:53 2013	CALIPER
F1:CNRES	Jul 7 11:41:53 2013	FIELD NORMALIZED COMPENSATED NEUTRON POROSITY



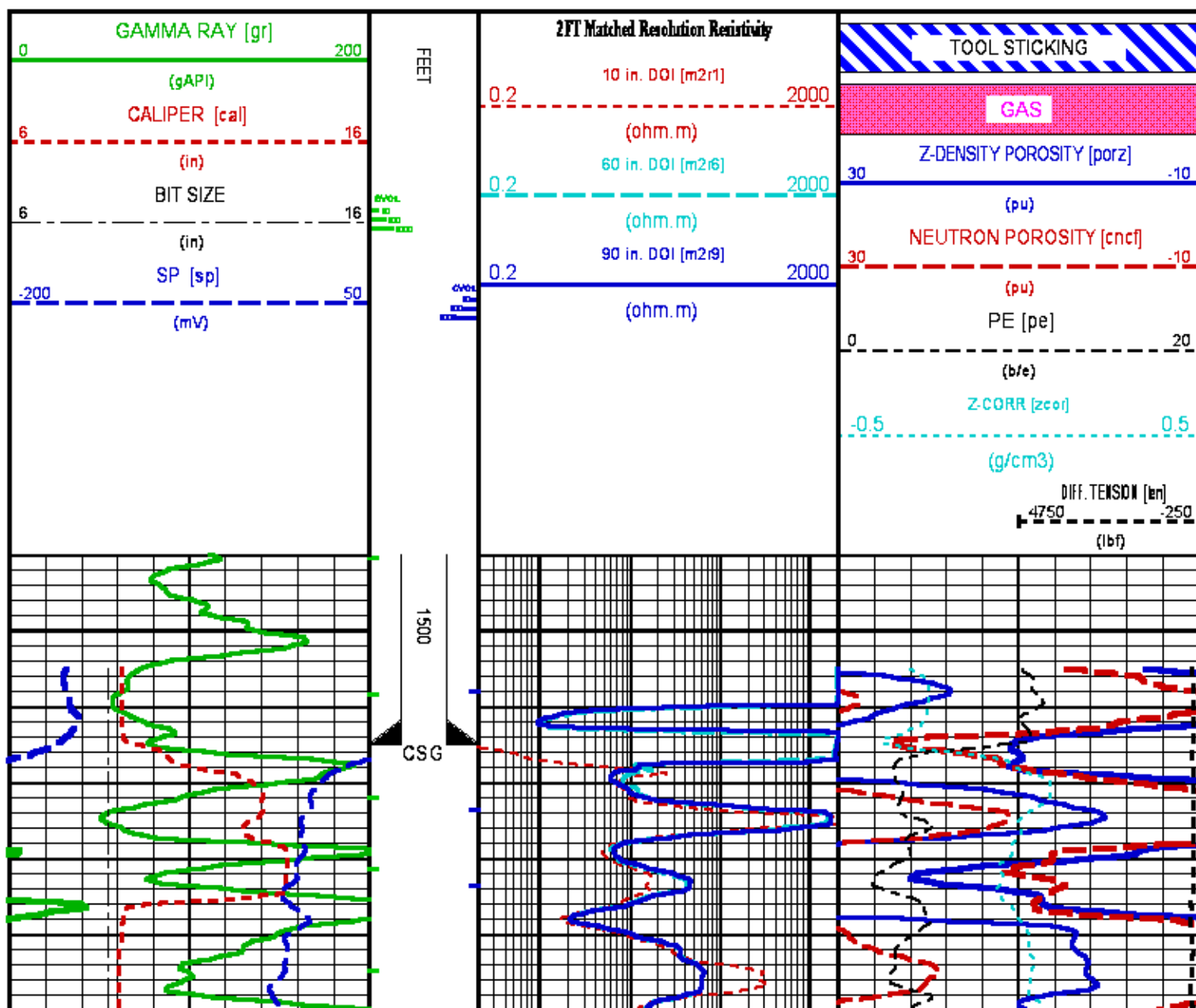
F1:CNCF	Jul 7 11:41:53 2013	FIELD NORMALIZED COMPENSATED NEUTRON POROSITY
F1:CVOL	Jul 7 11:41:53 2013	CEMENT VOLUME
F1:GR	Jul 7 11:41:53 2013	GAMMA RAY
F1:M2R1	Jul 7 11:41:53 2013	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 10-INCH DOI
F1:M2R6	Jul 7 11:41:53 2013	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 60-INCH DOI
F1:M2R9	Jul 7 11:41:53 2013	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 90-INCH DOI
F1:PE	Jul 7 11:41:53 2013	PHOTO ELECTRIC CROSS-SECTION
F1:PORZ	Jul 7 11:41:53 2013	POROSITY FOR SELECTABLE MATRIX
F1:SP	Jul 7 11:41:53 2013	SPONTANEOUS POTENTIAL
F1:TEN	Jul 7 11:41:53 2013	DIFFERENTIAL TENSION
F1:ZCOR	Jul 7 11:41:53 2013	DENSITY CORRECTION

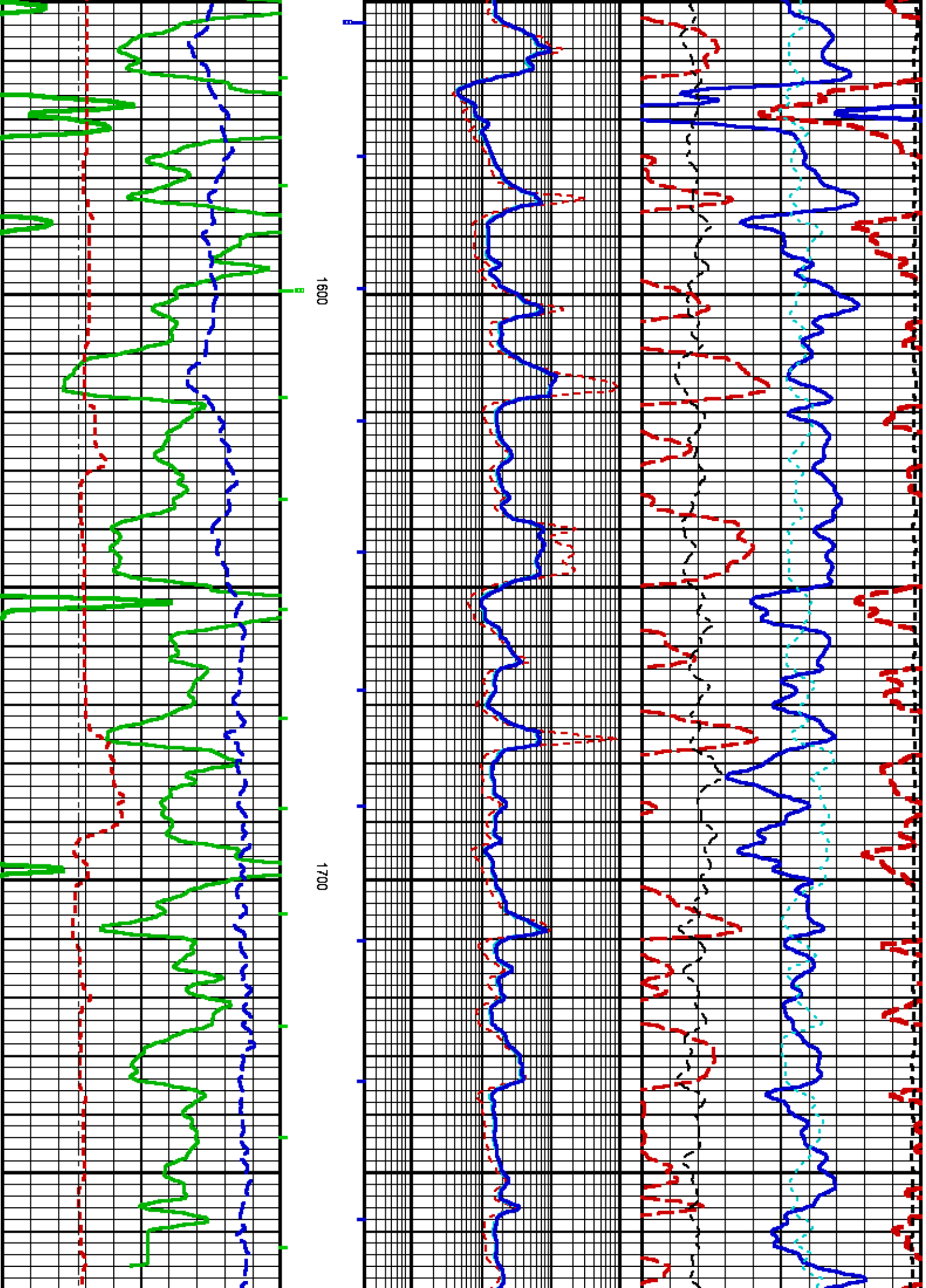
### CURVE MEASURE POINT OFFSET

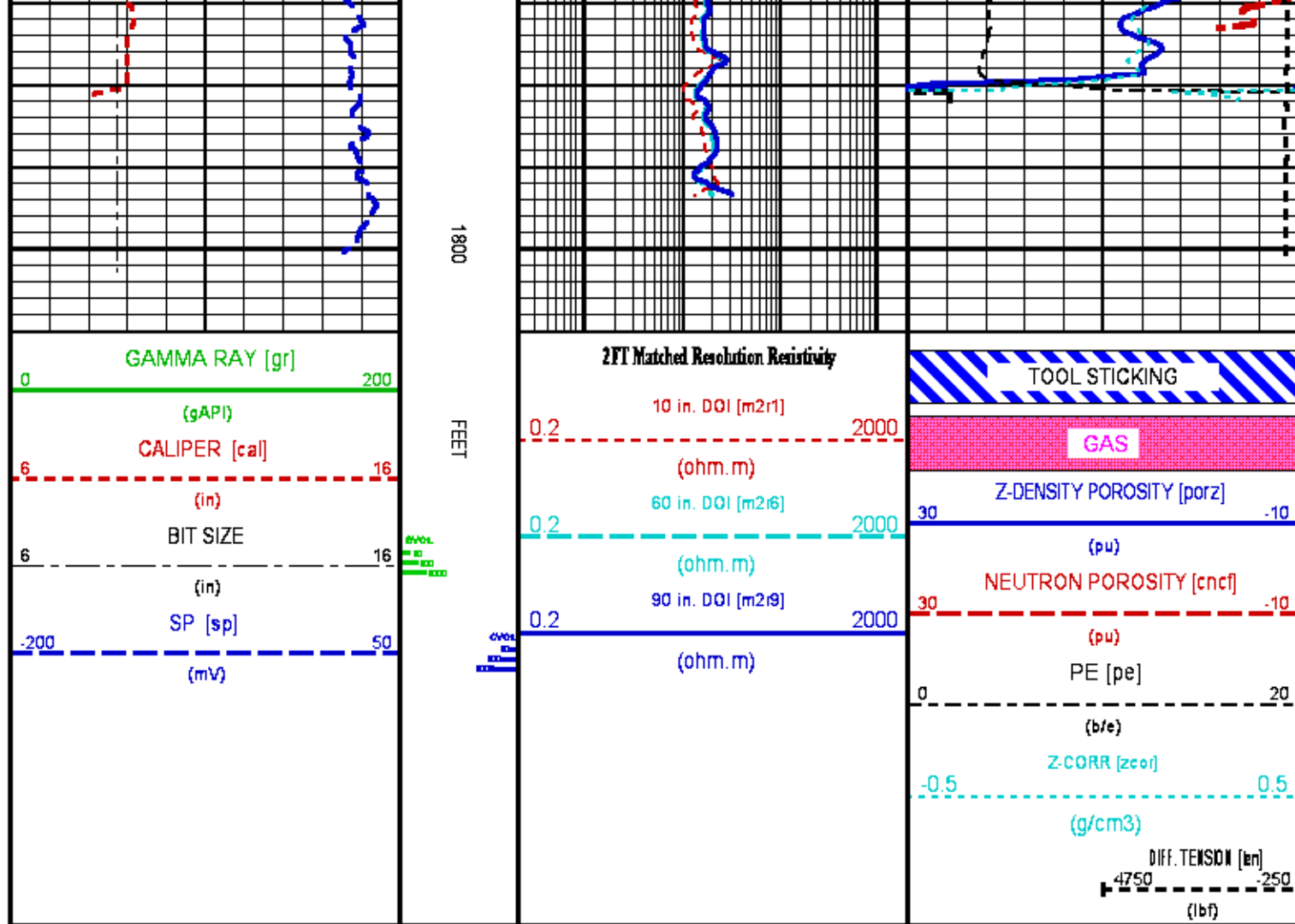
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
BIT	0.00	GR	35.00	M2R9	2.75	SP	1.25
CAL	18.12	M2R1	2.75	PE	18.00	TEN	0.00
CNCF	27.38	M2R6	2.75	PORZ	18.00	ZCOR	18.00

**Presentation** : HL6670:WPX\_REPEAT.fvpdf [5"/100' Scale]  
**Plot Interval** : 1490 - 1808.75 Feet

**Data File 1** : F1: HL6670:/dat1a/625561/n970a01.xtf  
**Created On** : Jul 7 11:41:53 2013  
**Company** : WPX ENERGY INC  
**Well** : STRAIT SG 442-22  
**Field** : GRAND VALLEY  
**File Interval** : 1336 - 1808.75 Feet  
**OCT** : n970a







## CALIBRATION / VERIFICATION SUMMARY

Source File: /dat1a/625561/625561.tp1

## TTMA PRIMARY CALIBRATION SUMMARY

TOOL #: 3980XA 10142233

DATE/TIME PERFORMED:

Thu Aug 11 09:14:18 2011

UNIT #: 3885TD ML4230

ACCEL #: 3980XA 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 #: 3980XA 10142233      DATE/TIME PERFORMED: Sun Jul 7 11:32:32 2013      DAYS SINCE CAL: 696

UNIT #: 3880TA HL6670

	CHT (lbf)	MUD TEMP (degF)	RES M Q (ohm)	ACCEL Q
CAL	19754 <small>1897.5    2057.5</small>	497.82 <small>489.20    503.60</small>	9.96 <small>8.00    12.00</small>	1001.40 <small>980.00    1020.00</small>
ZERO	-24785 <small>-25995    -23595</small>	-436.02 <small>-443.20    -428.80</small>	0.248 <small>0.200    0.300</small>	1000.544 <small>980.000    1020.000</small>

## TTMA AFTER LOG VERIFICATION SUMMARY

TOOL #: 3980XA 10142233      DATE/TIME PERFORMED: Sun Jul 7 13:36:32 2013      DAYS SINCE CAL: 696

UNIT #: 3880TA HL6670

	CHT (lbf)	MUD TEMP (degF)	RES M Q (ohm)	ACCEL Q
CAL	19738 <small>1897.5    2057.5</small>	498.84 <small>489.20    503.60</small>	9.92 <small>8.00    12.00</small>	1000.75 <small>980.00    1020.00</small>
ZERO	-24785 <small>-25995    -23595</small>	-436.02 <small>-443.20    -428.80</small>	0.247 <small>0.200    0.300</small>	1000.906 <small>980.000    1020.000</small>

## GR PRIMARY CALIBRATION SUMMARY

Tool #: 3518EG 10411092      DATE/TIME PERFORMED: Fri May 31 17:25:12 2013

Unit #: 3880TA HL6670      Jig Series: 4702NK VBA-905

Background	Calibrator ON	Jig Value (gAPI)	Mult	Background (gAPI)	Calibrator ON (gAPI)
55.65	762.77	185	0.262 <small>0.200    0.300</small>	14.56	199.56

## GR BEFORE LOG VERIFICATION SUMMARY

TOOL #: 3518EG 10411092      DATE/TIME PERFORMED: Sun Jul 7 11:32:49 2013      DAYS SINCE CAL: 36

UNIT #: 3880TA HL6670      Jig: INTRNL N/A

Counts	TEMP (degF)	HV (V)
976.67 <small>929.00    1027.00</small>	107.13 <small>936.00    1237.00</small>	1363.22 <small>1237.00    1512.00</small>

## GR AFTER LOG VERIFICATION SUMMARY

TOOL #: 3518EG 10411092      DATE/TIME PERFORMED: Sun Jul 7 13:36:14 2013      DAYS SINCE CAL: 36

UNIT #: 3880TA HL6670      Jig: INTRNL N/A

Counts	TEMP (degF)	HV (V)
976.67	131.69	1366.91
529.00    1027.00	536.00	1237.00    1512.00

## CN PRIMARY CALIBRATION SUMMARY

TOOL #: 2436XA 10124366      DATE/TIME PERFORMED: Fri Jun 14 11:00:22 2013

UNIT #: 3880TA HL6670      CALIBRATOR #: 2437XB 112674      SOURCE #: 4718XA N-0897

SSN DT CPS	LSN DT CPS	SSN/LSN	MCF	CNRATIO	CN PU
4673.28	809.30	5.77451	0.99350	5.73700	25.241
			0.95000    1.05000		

## CN BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2436XA 10124366      DATE/TIME PERFORMED: Sun Jul 7 11:33:09 2013      DAYS SINCE CAL: 23

UNIT #: 3880TA HL6670      CALIBRATOR #: INTRNL N/A

SSN DT CPS	LSN DT CPS	SSN/LSN	TEMP (degF)	HV (V)	LV (V)
990.73	993.09	0.99762	101.4	1367.4	4.599
		0.95000    1.05000	280.4	1250.0    1450.0	4.300    5.000

## CN AFTER LOG VERIFICATION SUMMARY

TOOL #: 2436XA 10124366      DATE/TIME PERFORMED: Sun Jul 7 13:35:40 2013      DAYS SINCE CAL: 23

UNIT #: 3880TA HL6670      CALIBRATOR #: INTRNL N/A

SSN DT CPS	LSN DT CPS	SSN/LSN	TEMP (degF)	HV (V)	LV (V)
991.74	994.10	0.99762	129.5	1367.4	4.599
		0.95000    1.05000	280.4	1250.0    1450.0	4.300    5.000

## CAL PRIMARY CALIBRATION SUMMARY

TOOL #: 2223XA 10090664

DATE/TIME PERFORMED:

Thu Jun 27 15:14:50 2013

UNIT #: 3880TA HL6670

	SIZE (in)	VALUE	MULTIPLIER	ADD
SMALL RING (Arm)	7.000	1248.0		
LARGE RING (Arm)	11.000	2392.0	0.00350	2.63636
PAD CLOSED		1535.6	0.00250	-3.83900

## CAL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2223XA 10090664

DATE/TIME PERFORMED:

Sun Jul 7 11:50:32 2013

DAYS SINCE CAL:

9

UNIT #: 3880TA HL6670

	VALUE	MULTIPLIER	ADD	SIZE (in)
ARM	1944.0	0.00350	2.63636	9.4
PAD	1712.0	0.00250	-3.83900	0.4

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

## ZDL PRIMARY CALIBRATION SUMMARY

TOOL: 2223XA 10090664

DATE/TIME PERFORMED:

Thu Jun 27 15:04:26 2013

UNIT: 3880TA HL6670

CALB BLKS: 2225XA 094292F

CS SRC: 4705XA 16068B

PAD TYPE: PADTYP 7.5" PAD

	SS CS PK (Channel)	LS CS PK (Channel)	SS_BKGD (cps)	LS BKGD (cps)		
	225.1	226.6	1281.5	1683.8		
	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)	32232.2	11335.5	0.771	1.679	0.000	1.900
			0.720	0.880		
AL	20133.9	1289.4		2.667	-0.016	
AL + SHIM	26405.3	2167.5		2.558	0.098	

MG + SHIM (HI PE)

15809.8

5410.3

0.304

8.550

0.280 0.360

RATIO AL + SHIM/AL

1.31

1.68

1.30 1.40

1.60 1.80

RATIO MG/AL

1.60

8.79

1.58 1.70

8.55 9.55

## ZDL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2223XA 10090664

DATE/TIME PERFORMED: Sun Jul 7 11:33:35 2013

DAYS SINCE CAL: 9

UNIT #: 3880TA HL6670

	TOTAL (cps)	CSPK (Channel)	HV (V)
LS	3342.1	224.9	1383.0
	3332.1 3352.1	220.0 230.0	1250.0 1500.0
SS	22354.8	224.2	1362.0
	22344.8 22364.8	220.0 230.0	1250.0 1500.0
	LV (V)	PAD CURRENT (mA)	
	5.0	75.2	
	4.8 5.2	50.0 120.0	

## ZDL AFTER LOG VERIFICATION SUMMARY

TOOL #: 2223XA 10090664

DATE/TIME PERFORMED: Sun Jul 7 13:35:58 2013

DAYS SINCE CAL: 9

UNIT #: 3880TA HL6670

	TOTAL (cps)	CSPK (Channel)	HV (V)
LS	3342.1	225.4	1403.9
	3332.1 3352.1	220.0 230.0	1250.0 1500.0
SS	22355.0	224.1	1370.2
	22344.8 22364.8	220.0 230.0	1250.0 1500.0
	LV (V)	PAD CURRENT (mA)	
	5.0	78.4	
	4.8 5.2	50.0 120.0	

## HDIL PRIMARY CALIBRATION SUMMARY

TOOL #: 1530XA 10120519

DATE/TIME PERFORMED: Fri Jul 5 11:37:29 2013

UNIT #: 3880TA HL6670

GRCOND ID &amp; DATE: 30 101801

ZERO DATA(mv) 10 KHz 30 KHz 50 KHz 70 KHz 90 KHz 110 KHz 130 KHz 150 KHz



Coil 0 R	0.0063 -0.2000 0.2000	-0.0002 -0.1000 0.1000	-0.0008 -0.1000 0.1000	0.0002 -0.1000 0.1000	0.0000 -0.1000 0.1000	0.0001 -0.1000 0.1000	-0.0002 -0.1000 0.1000	-0.0002 -0.1000 0.1000
Coil 0 Q	0.0018 -0.5000 0.5000	-0.0014 -0.2000 0.2000	0.0003 -0.1000 0.1000	0.0005 -0.1000 0.1000	-0.0002 -0.1000 0.1000	0.0006 -0.1000 0.1000	0.0005 -0.1000 0.1000	-0.0003 -0.1000 0.1000
Coil 1 R	0.0172 -0.2000 0.2000	0.0020 -0.1000 0.1000	-0.0012 -0.1000 0.1000	0.0025 -0.1000 0.1000	0.0002 -0.1000 0.1000	-0.0004 -0.1000 0.1000	-0.0003 -0.1000 0.1000	-0.0005 -0.1000 0.1000
Coil 1 Q	0.0084 -0.5000 0.5000	-0.0040 -0.2000 0.2000	0.0006 -0.1000 0.1000	0.0011 -0.1000 0.1000	-0.0007 -0.1000 0.1000	0.0012 -0.1000 0.1000	-0.0002 -0.1000 0.1000	-0.0005 -0.1000 0.1000
Coil 2 R	0.0119 -0.2000 0.2000	0.0016 -0.1000 0.1000	-0.0016 -0.1000 0.1000	0.0007 -0.1000 0.1000	-0.0028 -0.1000 0.1000	-0.0009 -0.1000 0.1000	0.0010 -0.1000 0.1000	0.0005 -0.1000 0.1000
Coil 2 Q	0.0122 -0.5000 0.5000	-0.0003 -0.2000 0.2000	0.0023 -0.1000 0.1000	-0.0001 -0.1000 0.1000	-0.0003 -0.1000 0.1000	-0.0027 -0.1000 0.1000	-0.0002 -0.1000 0.1000	-0.0003 -0.1000 0.1000
Coil 3 R	0.0517 -0.3000 0.3000	-0.0044 -0.1000 0.1000	-0.0019 -0.1000 0.1000	0.0055 -0.1000 0.1000	-0.0017 -0.1000 0.1000	-0.0028 -0.1000 0.1000	0.0016 -0.1000 0.1000	0.0020 -0.1000 0.1000
Coil 3 Q	0.0356 -0.5000 0.5000	-0.0147 -0.2000 0.2000	-0.0002 -0.1000 0.1000	0.0009 -0.1000 0.1000	0.0033 -0.1000 0.1000	0.0008 -0.1000 0.1000	-0.0005 -0.1000 0.1000	0.0003 -0.1000 0.1000
Coil 4 R	0.1383 -0.5000 0.5000	-0.0025 -0.2000 0.2000	-0.0063 -0.2000 0.2000	0.0064 -0.2000 0.2000	-0.0060 -0.2000 0.2000	-0.0019 -0.2000 0.2000	0.0021 -0.2000 0.2000	-0.0001 -0.2000 0.2000
Coil 4 Q	0.0634 -1.0000 1.0000	-0.0354 -0.4000 0.4000	0.0149 -0.2000 0.2000	0.0007 -0.2000 0.2000	-0.0065 -0.2000 0.2000	0.0107 -0.2000 0.2000	0.0038 -0.2000 0.2000	-0.0070 -0.2000 0.2000
Coil 5 R	0.3048 -1.2000 1.2000	0.0114 -0.4000 0.4000	-0.0393 -0.4000 0.4000	0.0226 -0.4000 0.4000	-0.0156 -0.4000 0.4000	-0.0041 -0.4000 0.4000	0.0032 -0.4000 0.4000	-0.0005 -0.4000 0.4000
Coil 5 Q	0.1837 -1.5000 1.5000	-0.0772 -0.6000 0.6000	0.0049 -0.4000 0.4000	-0.0076 -0.4000 0.4000	-0.0079 -0.4000 0.4000	0.0068 -0.4000 0.4000	-0.0067 -0.4000 0.4000	-0.0017 -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	163.01 136.00 186.00	161.55 134.00 184.00	158.64 131.00 181.00	154.30 126.00 176.00	148.62 122.00 170.00	141.64 118.00 161.00	133.46 112.00 150.00	124.09 105.00 139.00
Coil 0 P	7.735 6.000 9.000	25.443 21.000 30.000	42.708 35.000 50.000	59.923 49.000 71.000	77.144 63.000 91.000	94.373 77.000 109.000	111.621 92.000 130.000	128.851 105.000 151.000
Coil 1 M	282.41 239.00 329.00	279.84 235.00 325.00	274.69 230.00 320.00	266.99 225.00 312.00	256.84 218.00 302.00	244.34 208.00 289.00	229.70 195.00 266.00	212.90 184.00 244.00
Coil 1 P	7.793 6.000 9.000	25.646 21.000 30.000	43.061 35.000 51.000	60.434 49.000 71.000	77.806 63.000 92.000	95.182 78.000 112.000	112.541 93.000 130.000	129.846 107.000 151.000
Coil 2 M	560.30 479.00 659.00	555.10 474.00 654.00	544.74 463.00 643.00	529.36 450.00 629.00	509.30 432.00 602.00	484.72 412.00 572.00	456.09 390.00 540.00	423.35 359.00 499.00
Coil 2 P	7.706 6.000 9.000	25.401 21.000 31.000	42.640 35.000 51.000	59.819 49.000 71.000	76.985 63.000 92.000	94.153 76.000 115.000	111.322 92.000 135.000	128.449 105.000 156.000
Coil 3 M	918.18 772.00 1060.00	909.15 764.00 1050.00	891.03 752.00 1030.00	864.23 729.00 1010.00	829.32 700.00 970.00	786.95 665.00 925.00	737.70 629.00 869.00	682.41 599.00 799.00
Coil 3 P	8.004 6.000 10.000	26.204 21.000 30.000	43.959 35.000 51.000	61.648 49.000 72.000	79.292 63.000 93.000	96.908 76.000 114.000	114.475 90.000 135.000	131.947 104.000 156.000
Coil 4 M	1421.1 1210.0 1700.0	1409.0 1205.0 1690.0	1384.5 1180.0 1690.0	1347.5 1140.0 1690.0	1298.9 1120.0 1630.0	1238.6 1070.0 1450.0	1167.0 1000.0 1350.0	1085.1 942.0 1240.0
Coil 4 P	7.777 6.000 10.000	25.610 21.000 31.000	43.008 35.000 52.000	60.385 49.000 73.000	77.776 63.000 93.000	95.199 77.000 114.000	112.639 91.000 135.000	130.098 105.000 156.000
Coil 5 M	2952.6 2450.0 3450.0	2928.6 2420.0 3400.0	2877.3 2410.0 3320.0	2800.6 2390.0 3200.0	2699.2 2300.0 3090.0	2573.1 2150.0 2950.0	2424.6 2020.0 2750.0	2253.2 1870.0 2570.0
Coil 5 P	7.853 6.000 10.000	25.815 20.000 31.000	43.370 35.000 52.000	60.874 49.000 73.000	78.404 63.000 94.000	95.967 79.000 113.000	113.517 93.000 134.000	131.059 105.000 156.000

AM Factor      10 KHz      30 KHz      50 KHz      70 KHz      90 KHz      110 KHz      130 KHz      150 KHz

Coil 0 R	-928 -3200 540	-610 -1400 -50	-492 -500 -150	-424 -260 -160	-377 -600 -130	-343 -600 -120	-316 -550 -110	-295 -520 -50
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Coil 0 Q	429 -15000 11000	-143 -5900 3600	-216 -3700 2100	-245 -2700 1400	-261 -3200 1000	-274 -1800 790	-285 -1600 620	-295 -1500 490
Coil 1 R	-114 -750 460	-137 -360 89	-133 -280 9	-126 -230 -10	-119 -200 -25	-111 -180 -35	-105 -160 -46	-99 -150 -49
Coil 1 Q	356 -3300 3300	87 -1100 960	33 -630 530	5 -470 360	-12 -380 260	-23 -330 190	-31 -280 150	-36 -260 120
Coil 2 R	-2.3 -85.0 76.0	-30.6 -64.0 -0.4	-32.8 -57.0 -12.0	-31.5 -51.0 -16.0	-29.1 -46.0 -17.0	-26.7 -42.0 -16.0	-24.8 -39.0 -15.0	-22.8 -37.0 -13.0
Coil 2 Q	143.3 -1500.0 1900.0	48.7 -500.0 610.0	26.9 -290.0 350.0	17.2 -230.0 260.0	12.7 -160.0 190.0	9.7 -140.0 160.0	9.3 -110.0 130.0	9.2 -99.0 120.0
Coil 3 R	-2.2 -23.0 21.0	-9.1 -32.0 1.6	-9.8 -21.0 -1.3	-9.7 -20.0 -1.8	-8.9 -19.0 -2.0	-8.4 -19.0 -1.3	-7.8 -19.0 -0.8	-7.2 -19.0 -0.0
Coil 3 Q	84.0 -540.0 530.0	31.3 -180.0 180.0	21.6 -100.0 110.0	18.9 -71.0 81.0	18.2 -51.0 66.0	18.9 -37.0 59.0	20.3 -29.0 53.0	21.9 -21.0 51.0
Coil 4 R	-0.93 -18.00 13.00	-2.31 -12.00 2.70	-2.11 -11.00 1.50	-2.36 -9.80 0.52	-2.60 -9.90 0.96	-1.54 -10.00 1.50	-1.65 -11.00 2.30	-1.67 -11.00 2.60
Coil 4 Q	27.85 -250.00 260.00	11.03 -79.00 99.00	8.54 -43.00 64.00	7.96 -27.00 51.00	11.51 -18.00 46.00	9.69 -11.00 42.00	11.03 -5.50 42.00	11.69 -1.00 42.00
Coil 5 R	0.41 -56.00 51.00	-0.81 -8.40 3.60	-1.25 -6.90 1.10	-0.89 -6.90 1.20	-4.53 -9.30 2.90	-1.16 -14.00 6.30	-0.44 -19.00 9.60	-0.73 -24.00 13.00
Coil 5 Q	3.44 -88.00 69.00	2.06 -26.00 27.00	2.86 -14.00 22.00	3.88 -7.00 22.00	3.06 -2.50 24.00	6.47 1.10 26.00	7.26 4.10 29.00	8.48 7.10 32.00

MM Factor      10 KHz      30 KHz      50 KHz      70 KHz      90 KHz      110 KHz      130 KHz      150 KHz

Coil 0 M	0.965 0.850 1.100	0.973 0.860 1.100	0.977 0.870 1.100	0.979 0.880 1.100	0.981 0.880 1.100	0.981 0.880 1.100	0.981 0.880 1.100	0.981 0.880 1.100
Coil 0 P	-0.305 -1.500 1.500	-0.468 -1.500 1.500	-0.374 -1.500 1.500	-0.258 -1.500 1.500	-0.175 -1.500 1.500	-0.121 -1.500 1.500	-0.057 -1.500 1.500	-0.021 -1.500 1.500
Coil 1 M	0.959 0.850 1.100	0.967 0.860 1.100	0.971 0.870 1.100	0.973 0.880 1.100	0.974 0.880 1.100	0.974 0.880 1.100	0.975 0.880 1.100	0.973 0.880 1.100
Coil 1 P	-0.259 -1.500 1.500	-0.449 -1.500 1.500	-0.344 -1.500 1.500	-0.231 -1.500 1.500	-0.141 -1.500 1.500	-0.087 -1.500 1.500	-0.051 -1.500 1.500	-0.012 -1.500 1.500
Coil 2 M	0.984 0.880 1.100	0.984 0.880 1.100	0.984 0.880 1.100	0.984 0.880 1.100	0.983 0.880 1.100	0.983 0.880 1.100	0.983 0.880 1.100	0.982 0.880 1.100
Coil 2 P	0.059 -1.500 1.500	0.045 -1.500 1.500	0.075 -1.500 1.500	0.099 -1.500 1.500	0.116 -1.500 1.500	0.138 -1.500 1.500	0.157 -1.500 1.500	0.133 -1.500 1.500
Coil 3 M	0.989 0.900 1.100	0.990 0.900 1.100	0.990 0.900 1.100	0.989 0.900 1.100	0.989 0.900 1.100	0.989 0.900 1.100	0.988 0.900 1.100	0.987 0.900 1.100
Coil 3 P	0.057 -1.500 1.500	0.075 -1.500 1.500	0.105 -1.500 1.500	0.157 -1.500 1.500	0.185 -1.500 1.500	0.228 -1.500 1.500	0.252 -1.500 1.500	0.249 -1.500 1.500
Coil 4 M	0.995 0.900 1.100	0.995 0.900 1.100	0.996 0.900 1.100	0.996 0.900 1.100	0.997 0.900 1.100	0.997 0.900 1.100	0.997 0.900 1.100	0.998 0.900 1.100
Coil 4 P	0.685 -1.500 1.500	0.273 -1.500 1.500	0.238 -1.500 1.500	0.259 -1.500 1.500	0.251 -1.500 1.500	0.340 -1.500 1.500	0.367 -1.500 1.500	0.467 -1.500 1.500
Coil 5 M	1.040 0.900 1.100	1.038 0.900 1.100	1.039 0.900 1.100	1.040 0.900 1.100	1.046 0.900 1.100	1.045 0.900 1.100	1.048 0.900 1.100	1.050 0.900 1.100
Coil 5 P	0.097 -1.500 1.500	0.099 -1.500 1.500	0.220 -1.500 1.500	0.288 -1.500 1.500	0.469 -1.500 1.500	0.559 -1.500 1.500	0.620 -1.500 1.500	0.736 -1.500 1.500

PARMS

TCID 0

TCID 1

Cal Temp

T Factor

(degF)

IDs

2.733

0.716

85.1

1.00

# HDIL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 1530XA 10120519

DATE/TIME PERFORMED:

Sun Jul 7 11:34:38 2013

DAYS SINCE CAL:

1

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	0.004 -0.200 0.200	0.001 -0.100 0.100	-0.001 -0.100 0.100	-0.000 -0.100 0.100	-0.000 -0.100 0.100	-0.000 -0.100 0.100	0.001 -0.100 0.100	0.000 -0.100 0.100
Coil 0 Q	0.002 -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	0.018 -0.200 0.200	0.000 -0.100 0.100	-0.002 -0.100 0.100	0.001 -0.100 0.100	-0.001 -0.100 0.100	0.000 -0.100 0.100	0.001 -0.100 0.100	-0.000 -0.100 0.100
Coil 1 Q	0.008 -0.500 0.500	-0.005 -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	0.000 -0.100 0.100	-0.000 -0.100 0.100
Coil 2 R	0.016 -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	-0.001 -0.100 0.100	0.001 -0.100 0.100
Coil 2 Q	0.012 -0.500 0.500	-0.001 -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	-0.002 -0.100 0.100	-0.001 -0.100 0.100
Coil 3 R	0.050 -0.300 0.300	-0.001 -0.100 0.100	-0.002 -0.100 0.100	0.002 -0.100 0.100	-0.001 -0.100 0.100	-0.003 -0.100 0.100	0.002 -0.100 0.100	-0.002 -0.100 0.100
Coil 3 Q	0.033 -0.500 0.500	-0.011 -0.200 0.200	0.007 -0.100 0.100	0.001 -0.100 0.100	-0.001 -0.100 0.100	0.002 -0.100 0.100	-0.000 -0.100 0.100	-0.001 -0.100 0.100
Coil 4 R	0.145 -0.500 0.500	0.000 -0.200 0.200	-0.011 -0.200 0.200	0.012 -0.200 0.200	-0.008 -0.200 0.200	-0.001 -0.200 0.200	0.000 -0.200 0.200	0.004 -0.200 0.200
Coil 4 Q	0.055 -1.000 1.000	-0.030 -0.400 0.400	0.010 -0.200 0.200	0.002 -0.200 0.200	-0.016 -0.200 0.200	-0.007 -0.200 0.200	-0.002 -0.200 0.200	0.001 -0.200 0.200
Coil 5 R	0.317 -1.200 1.200	0.024 -0.400 0.400	-0.034 -0.400 0.400	0.010 -0.400 0.400	0.001 -0.400 0.400	0.006 -0.400 0.400	0.018 -0.400 0.400	0.006 -0.400 0.400
Coil 5 Q	0.130 -1.500 1.500	-0.081 -0.800 0.800	0.030 -0.400 0.400	0.017 -0.400 0.400	-0.018 -0.400 0.400	0.007 -0.400 0.400	-0.007 -0.400 0.400	-0.009 -0.400 0.400

ELEC. GAINS	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 M	162.69 136.00 186.00	161.25 134.00 184.00	158.33 131.00 181.00	154.03 126.00 176.00	148.37 122.00 170.00	141.40 118.00 161.00	133.22 112.00 150.00	123.86 106.00 139.00
Coil 0 P	7.473 -1.000 12.000	25.388 19.000 30.000	42.719 36.000 50.000	59.973 49.000 71.000	77.233 63.000 91.000	94.512 77.000 110.000	111.790 92.000 130.000	129.092 106.000 151.000
Coil 1 M	282.57 237.00 327.00	280.03 236.00 326.00	274.89 230.00 320.00	267.26 226.00 312.00	257.12 218.00 302.00	244.59 208.00 289.00	229.84 196.00 266.00	213.20 184.00 244.00
Coil 1 P	7.539 -1.000 12.000	25.585 19.000 30.000	43.055 36.000 51.000	60.463 49.000 71.000	77.869 63.000 92.000	95.288 77.000 112.000	112.674 92.000 132.000	130.027 106.000 153.000
Coil 2 M	559.95 479.00 659.00	554.81 474.00 654.00	544.49 463.00 643.00	529.24 460.00 622.00	509.28 432.00 602.00	484.61 412.00 572.00	455.90 380.00 540.00	423.32 369.00 499.00
Coil 2 P	7.424 -1.000 12.000	25.327 19.000 31.000	42.624 36.000 51.000	59.841 49.000 71.000	77.042 63.000 92.000	94.243 77.000 114.000	111.460 92.000 136.000	128.648 106.000 156.000
Coil 3 M	917.98 772.00 1060.00	909.02 764.00 1050.00	890.98 752.00 1030.00	864.38 728.00 1010.00	829.51 700.00 970.00	787.21 666.00 926.00	738.03 628.00 868.00	682.74 589.00 799.00
Coil 3 P	7.754 -2.000 13.000	26.139 19.000 31.000	43.945 36.000 52.000	61.664 49.000 72.000	79.338 63.000 93.000	96.984 77.000 114.000	114.588 92.000 136.000	132.110 106.000 156.000
Coil 4 M	1423.8 1210.0 1700.0	1411.8 1206.0 1690.0	1387.2 1180.0 1660.0	1350.6 1140.0 1590.0	1302.0 1120.0 1530.0	1241.1 1070.0 1450.0	1169.6 1000.0 1360.0	1087.1 942.0 1240.0
Coil 4 P	7.527 -2.000 13.000	25.553 19.000 31.000	43.009 36.000 52.000	60.414 49.000 73.000	77.841 63.000 93.000	95.301 78.000 114.000	112.795 92.000 136.000	130.272 106.000 156.000
Coil 5 M	2050.0 1760.0 2340.0	2026.2 1736.0 2316.0	2076.0 1786.0 2366.0	2700.0 2310.0 3090.0	2607.2 2217.0 2997.0	2671.6 2281.0 3061.0	2422.8 2032.0 2812.0	2261.1 1871.0 2651.0

Coil 0 M	2950.0	2920.3	2873.9	2799.0	2697.3	2571.3	2422.6	2231.1
	2450.0	3450.0	2430.0	3400.0	2410.0	3350.0	2350.0	3300.0
Coil 5 P	7.616	25.760	43.353	60.895	78.463	96.041	113.667	131.225
	-2.000	13.000	19.000	31.000	35.000	52.000	49.000	73.000
	63.000	94.000	79.000	114.000	93.000	135.000	106.000	156.000

## HDIL AFTER LOG VERIFICATION SUMMARY

TOOL #: 1530XA 10120519 DATE/TIME PERFORMED: Sun Jul 7 13:35:49 2013 DAYS SINCE CAL: 2

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	0.005 -0.076 0.084	0.000 -0.059 0.061	-0.001 -0.031 0.029	0.001 -0.030 0.030	0.001 -0.030 0.030	-0.001 -0.030 0.030	0.001 -0.029 0.031	0.000 -0.030 0.030
Coil 0 Q	0.001 -0.038 0.042	-0.001 -0.121 0.119	0.001 -0.030 0.030	0.000 -0.030 0.030	-0.001 -0.030 0.030	0.001 -0.030 0.030	0.001 -0.030 0.030	-0.001 -0.030 0.030
Coil 1 R	0.022 -0.062 0.098	-0.001 -0.050 0.050	-0.002 -0.032 0.028	0.002 -0.029 0.031	-0.000 -0.031 0.029	0.000 -0.030 0.030	-0.000 -0.029 0.031	-0.000 -0.030 0.030
Coil 1 Q	0.009 -0.352 0.408	-0.004 -0.105 0.095	0.001 -0.038 0.032	-0.000 -0.030 0.030	-0.001 -0.032 0.029	0.001 -0.029 0.031	-0.001 -0.030 0.030	-0.000 -0.030 0.030
Coil 2 R	0.017 -0.054 0.086	-0.003 -0.032 0.028	-0.003 -0.030 0.030	0.002 -0.032 0.028	0.003 -0.029 0.031	0.002 -0.034 0.026	-0.000 -0.031 0.029	0.001 -0.029 0.031
Coil 2 Q	0.012 -0.338 0.362	0.002 -0.101 0.099	0.000 -0.029 0.031	0.001 -0.031 0.029	0.003 -0.031 0.029	0.001 -0.028 0.032	0.001 -0.032 0.028	0.001 -0.031 0.029
Coil 3 R	0.057 0.010 0.090	-0.003 -0.041 0.039	-0.003 -0.042 0.038	0.008 -0.038 0.042	-0.001 -0.041 0.039	0.000 -0.043 0.037	-0.002 -0.038 0.042	0.000 -0.042 0.038
Coil 3 Q	0.030 -0.167 0.233	-0.012 -0.091 0.069	0.003 -0.033 0.047	0.002 -0.039 0.041	0.001 -0.041 0.039	0.004 -0.038 0.042	-0.002 -0.040 0.040	-0.002 -0.041 0.039
Coil 4 R	0.150 0.095 0.205	-0.002 -0.030 0.030	-0.012 -0.071 0.049	0.007 -0.048 0.072	-0.005 -0.038 0.052	0.006 -0.051 0.059	0.007 -0.030 0.030	0.002 -0.055 0.064
Coil 4 Q	0.059 -0.245 0.355	-0.033 -0.130 0.070	0.008 -0.050 0.070	0.004 -0.058 0.052	-0.010 -0.076 0.044	0.002 -0.067 0.053	-0.003 -0.052 0.058	-0.002 -0.059 0.051
Coil 5 R	0.330 0.197 0.437	0.017 -0.026 0.144	-0.036 -0.154 0.086	0.024 -0.110 0.130	-0.018 -0.119 0.121	-0.017 -0.114 0.126	0.011 -0.102 0.138	0.002 -0.114 0.126
Coil 5 Q	0.134 -0.470 0.730	-0.076 -0.331 0.189	0.021 -0.050 0.150	0.011 -0.103 0.137	-0.008 -0.138 0.102	0.007 -0.113 0.127	-0.006 -0.127 0.113	-0.007 -0.129 0.111

ELEC. GAINS	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 M	162.39 159.44 165.95	160.95 159.02 164.47	158.04 155.17 161.50	153.74 150.95 157.11	148.10 145.41 151.34	141.12 138.57 144.23	132.91 130.55 135.88	123.54 121.39 125.34
Coil 0 P	7.063 4.473 10.473	25.292 22.368 28.368	42.708 39.719 45.719	60.030 56.973 62.973	77.322 74.233 80.233	94.643 91.512 97.512	111.961 108.790 114.790	129.296 125.052 132.052
Coil 1 M	282.59 276.52 288.22	280.06 274.43 285.63	274.92 269.40 280.39	267.32 261.91 272.60	257.18 251.98 262.25	244.65 239.70 249.48	229.86 225.24 234.44	213.18 208.94 217.46
Coil 1 P	7.138 4.538 10.538	25.482 22.595 28.595	43.033 40.055 46.055	60.495 57.463 63.463	77.950 74.869 80.869	95.396 92.288 98.288	112.827 109.674 115.674	130.206 127.027 133.027
Coil 2 M	559.42 548.76 571.15	554.30 543.72 565.91	543.98 533.60 555.38	528.75 518.65 539.62	508.80 499.09 519.46	484.18 474.52 494.31	455.44 446.79 465.02	422.76 414.86 431.79
Coil 2 P	6.985 4.424 10.424	25.215 22.327 28.327	42.600 39.624 45.624	59.868 56.841 62.841	77.110 74.042 80.042	94.350 91.243 97.243	111.605 108.460 114.460	128.817 125.648 131.648
Coil 3 M	917.24 899.62 936.34	908.32 890.84 927.20	890.29 873.16 908.80	863.74 847.09 881.66	828.97 812.92 846.10	786.63 771.47 802.96	737.31 723.27 752.79	681.99 669.09 695.40
Coil 3 P	7.345 4.751 10.751	26.032 23.470 28.470	43.921 40.915 46.915	61.692 58.651 64.651	79.395 75.795 82.795	97.071 93.471 100.471	114.711 111.071 118.471	132.286 128.548 136.448

Coil 4 M

4.754	10.754	25.135	25.135	40.545	40.545	56.884	56.884	73.335	73.335	89.584	89.584	117.585	117.585	125.710	133.710
1295.3	1452.2	1363.5	1440.0	1359.4	1414.9	1323.5	1377.5	1275.9	1329.0	1216.2	1265.9	1146.2	1193.0	1085.4	1108.9

Coil 4 P

7.133	25.451	42.994	60.448	77.911	95.400	112.934	130.456								
4.527	10.527	22.553	28.553	40.009	46.009	57.414	63.414	74.841	80.841	92.301	98.301	109.795	115.795	127.272	133.272

Coil 5 M

2945.9	2922.3	2871.4	2795.1	2694.9	2568.3	2418.1	2247.2								
2891.0	3009.0	2867.8	2984.8	2818.4	2933.4	2743.1	2855.0	2643.3	2751.2	2520.1	2629.0	2374.3	2471.2	2236.1	2296.1

Coil 5 P

7.232		25.660		43.330		60.924		78.503		96.150		113.768		131.379	
4.616	10.616	22.760	28.760	40.353	46.353	57.895	63.895	75.463	81.463	93.041	99.041	110.667	116.667	128.225	134.225

## INSTRUMENT CONFIGURATION

Source File: /dat1a/625561/625561.tdg

52.34'

### FOCUS CABLEHEAD

Diameter : 3.12"  
 Length : 3.17'  
 Weight : 15 lbs  
 Series : CABL318  
 Mnemonic : CBLH

### FOCUS SWIVEL

Diameter : 3.13"  
 Length : 2.58'  
 Weight : 50 lbs  
 Series : 3950XA  
 Mnemonic : SWVL

### FOCUS TFN/TFMP/MUN RES/ACCFI

Diameter : 3.13"  
 Length : 4.31'  
 Weight : 61 lbs  
 Series : 3980XA  
 Mnemonic : TTMA

### FOCUS TELEMETRY (POWER SECTION)

Diameter : 3.13"  
 Length : 3.71'  
 Weight : 48 lbs  
 Series : 3518FB  
 Mnemonic : TMGR

### FOCUS EB/EG TELEMETRY GAMMA RAY

Diameter : 3.12"  
 Length : 5.83'  
 Weight : 67 lbs

GR MP 36.97'

Weight : 65 lbs  
Series : 3518EG  
Mnemonic : GR  
Measure Point: 4.24': GR MP

FOCUS COMPENSATED NEUTRON

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

LSN MP — 29.83'  
SSN MP — 29.38'

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

CR1 MP — 22.67'

LSD / CR2 MP — 20.02'  
SSD MP — 19.63'

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 : HDTI

COIL 5 MP — 9.17'

Measure Point: 7.17': COIL 5 MP  
Measure Point: 5.67': COIL 4 MP  
Measure Point: 4.17': COIL 3 MP  
Measure Point: 3.67': COIL 2 MP  
Measure Point: 3.17': COIL 1 MP  
Measure Point: 2.67': COIL 0 MP  
Measure Point: 1.14': SP MP

COIL 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'

FOCUS PINEAPPLE / CABBAGE

HOLE FINDER

Diameter : 2.62"  
Length : 1.50'  
Weight : 7 lbs  
Series : HFND18

TOTAL LENGTH: 52.34'  
TOTAL WEIGHT: 703 lbs  
MAX DIAMETER: 0'6.13'



0.00'





COMPANY	WPX ENERGY INC	FILE NO:	625561
WELL	STRAIT SG 442-22	API NO:	05045217550000
FIELD	GRAND VALLEY		
COUNTY	GARFIELD	STATE	CO
LOCATION:		ELEVATIONS:	S22 T7S R96W
SHL: 1525' FNL 279' FEL		KB 5243 FT	PAD: SG 42-22
BHL: 2254' FNL 1115' FEL		DF 5243 FT	RIG: CYCLONE 17
GL 5222 FT			
SEC	22	TWP	7S
RGE	96W	DATE	07-Jul-2013