

TIGHT HOLE TIGHT HOLE

FILE NO:	COMPANY	ANADARKO PETROLEUM CORPORATION	
API NO:	WELL	HUME NO.28-1	
15187212190000	FIELD	ARROYO	
	COUNTY	STANTON	STATE KANSAS
Ver. 3.87 FINAL	LOCATION:	OTHER SERVICES	
	440' FNL & 1980' FEL	HDIL/GR ZDL/CN/GR	
	SEC 28 TWP 29S RGE 41W		
PERMANENT DATUM	GL	ELEVATION	3363 FT
LOG MEASURED FROM	GL	0 FT	ABOVE P.D.
DRILL. MEAS. FROM	KB		
		ELEVATIONS:	
		KB	3374 FT
		DF	3372 FT
		GL	3363 FT

DATE	31-Dec-2012		
RUN	TRIP	1	1
SERVICE ORDER	631582		
DEPTH DRILLER	5640 FT		
DEPTH LOGGER	5627 FT		
BOTTOM LOGGED INTERVAL	5627 FT		
TOP LOGGED INTERVAL			
CASING DRILLER	8.625 IN	@1619 FT	@
CASING LOGGER			
BIT SIZE	7.875 IN		
TYPE OF FLUID IN HOLE	CHEMICAL		
DENSITY	VISCOSITY	8.3 LB/G	54 S
PH	FLUID LOSS	11	4.8 C3
SOURCE OF SAMPLE	FLOWLINE		
RM AT MEAS. TEMP.	2.40 OHMM	@75 DEGF	@
RMF AT MEAS. TEMP.	1.80 OHMM	@75 DEGF	@
RMC AT MEAS. TEMP.	3.00 OHMM	@75 DEGF	@
SOURCE OF RMF	RMC	CALCULATED	CALCULATED
RM AT BHT	1.53 OHMM	@121 DEGF	@
TIME SINCE CIRCULATION	6.25		
MAX. RECORDED TEMP.	123 DEGF		
EQUIP. NO.	LOCATION	HL-6680	WOODWARD
RECORDED BY	K.SCHADE		
WITNESSED BY	MR. MIKE WATKINS		

IN MAKING INTERPRETATIONS OF LOGS OUR EMPLOYEES WILL GIVE 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.

REMARKS

RUN 1 TRIP 1 : TOOL 0 GROUND LEVEL

Z-DENSITY LOG AND COMPENSATED NEUTRON RECORDED ON LIMESTONE MATRIX
CNC BOREHOLE AND SALINITY CORRECTED
RHO MATRIX = 2.71 G/CC

BVOL = TOTAL BOREHOLE VOLUME
CVOL = TOTAL BOREHOLE VOLUME MINUS 5.5" CASING

RIG: MURFIN 21
CREW: D.MUDD, D.BARNARD
BAKER HUGHES APPRECIATES ANADARKO'S WORK !!!!!

EQUIPMENT DATA

RUN	TRIP	TOOL	SERIES NO	POSITION
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RUN	TRF	TOOL	SERIES NO.	SERIAL NO.	POSITION
1	1	TTRM	3981 YA	178317	FREE
1	1	COMREM	3514 XB	184374	FREE
1	1	DGR	1329 YA	10054779	FREE
1	1	CN	2446 YA	118260	DECENTRALIZED
1	1	ZDL	2234 MA	179939	PAD DEVICE
1	1	DBLKNL	3939 YA	167196	FREE
1	1	HDIL	1515 EA/MA	10037712/10037722	1.5" STANDOFFS

TD-3600'

ECLIPS 6.11 Aug 06, 2010
Updates: 1,2 Patches: 3

Mon Dec 31 03:55:54 2012

Perflt /main/62

Cplot

Pdt_Cpp /main/16

Fileview 5.61

PARAMETER AND FILTER SUMMARY REPORT

FILE: /ddt1a/AMADARKO_HUME_28_1/m876g03.prm
LOGGING MODE: DEPTH UP
TOP DEPTH: 0.000 ft BOTTOM DEPTH: 0.000 ft

SYMMETRIC FILTER

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

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)
BIT SIZE	BIT SIZE	7.875	in	TOP
	MUD SAMPLE RESISTIVITY	75.0	degF	"
	MUD SAMPLE RES	1.520	ohm.m	"
	Known BH REF TEMP	120.0	degF	"
	at BH REF DEPTH	5640.0	ft	"
BOREHOLE TEMP from GRADIENT	with TEMP GRADIENT	1.100	0.01 degF/ft	"
	CALIPER/FIXED DIA. (mbh*)			"
	FIXED DIAMETER (mbh*)			"
	RMUD SOURCE (HDIL)	7.875	in	"
	TOOL MEASURED			"
BOREHOLE CORR DIAMETER SOURCE				
BOREHOLE CORR DIAMETER				
BH MUD RESISTIVITY SOURCE				

HDIL PROCESSING

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

CURVE DESCRIPTION REPORT

CURVE NAME CREATION DATE

CURVE DESCRIPTION

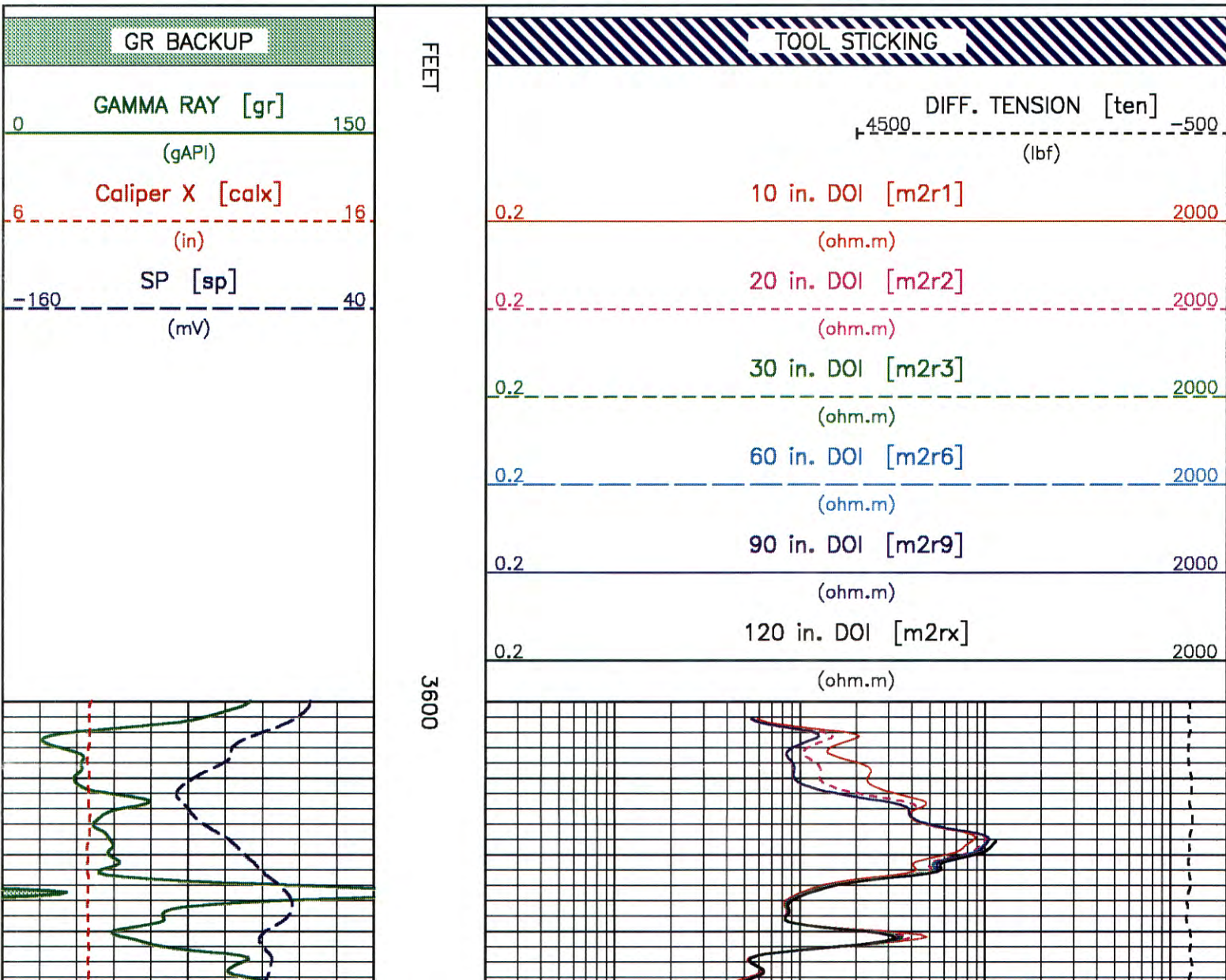
CURVE NAME CREATION DATE CURVE DESCRIPTION

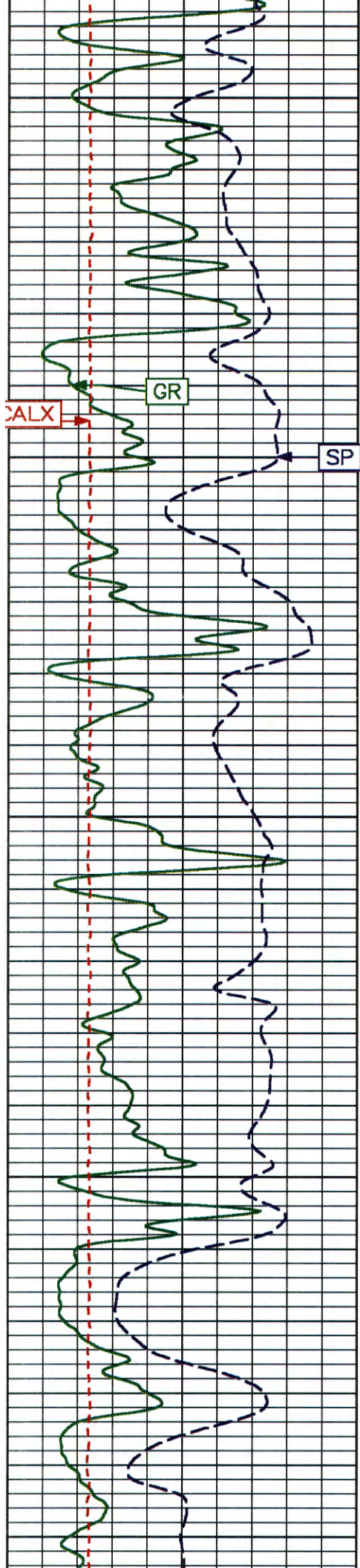
F1:CALX	Dec 31 02:35:39 2012	CALIPER FROM X-AXIS OF XY CALIPER(S)
F1:GR	Dec 31 02:35:39 2012	GAMMA RAY
F1:M2R1	Dec 31 02:35:39 2012	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 10-INCH DOI
F1:M2R2	Dec 31 02:35:39 2012	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 20-INCH DOI
F1:M2R3	Dec 31 02:35:39 2012	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 30-INCH DOI
F1:M2R6	Dec 31 02:35:39 2012	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 60-INCH DOI
F1:M2R9	Dec 31 02:35:39 2012	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 90-INCH DOI
F1:M2RX	Dec 31 02:35:39 2012	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 120-INCH DOI
F1:SP	Dec 31 02:35:39 2012	SPONTANEOUS POTENTIAL
F1:TEN	Dec 31 02:35:39 2012	DIFFERENTIAL TENSION

CURVE MEASURE POINT OFFSET

CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
CALX	35.00	M2R2	8.00	M2R9	8.00	TEN	0.00
GR	52.25	M2R3	8.00	M2RX	8.00		
M2R1	8.00	M2R6	8.00	SP	14.00		

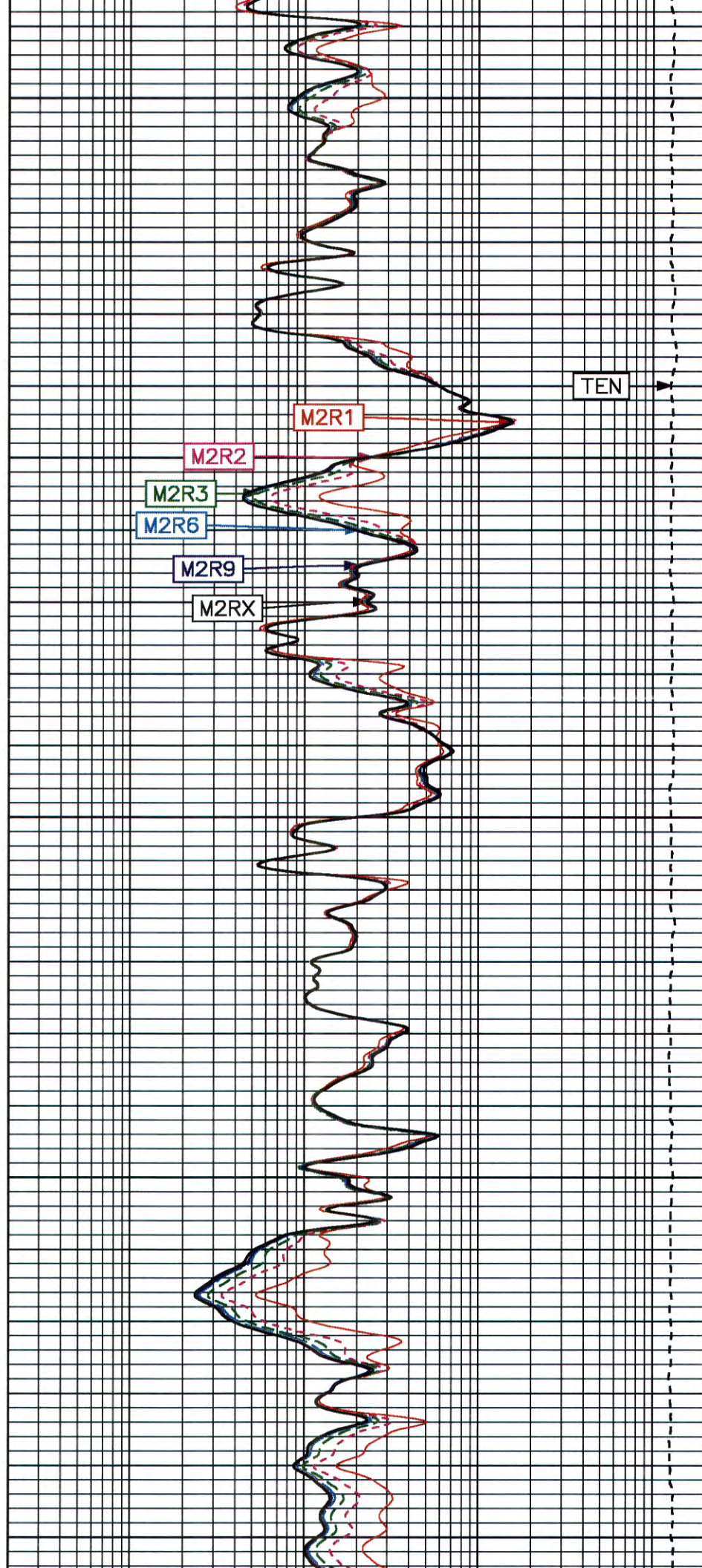
Presentation	: wwdsys71:/data/ANADARKO_HUME_28_1/hdl_res2+01-TD-3600-QUICK-5.pdf [5"/100' Scale]
Plot Interval	: 3600 - 5643.75 Feet
Data File 1	: F1 : wwdsys71:/data/ANADARKO_HUME_28_1/QUICK.xtf
Created On	: Dec 31 02:35:39 2012
Company	: KERR MCGEE OIL & GAS ONSHORE
Well	: HUME NO.28-1
Field	: ARROYO
File Interval	: 3600 - 5645 Feet
Oct	: m876g

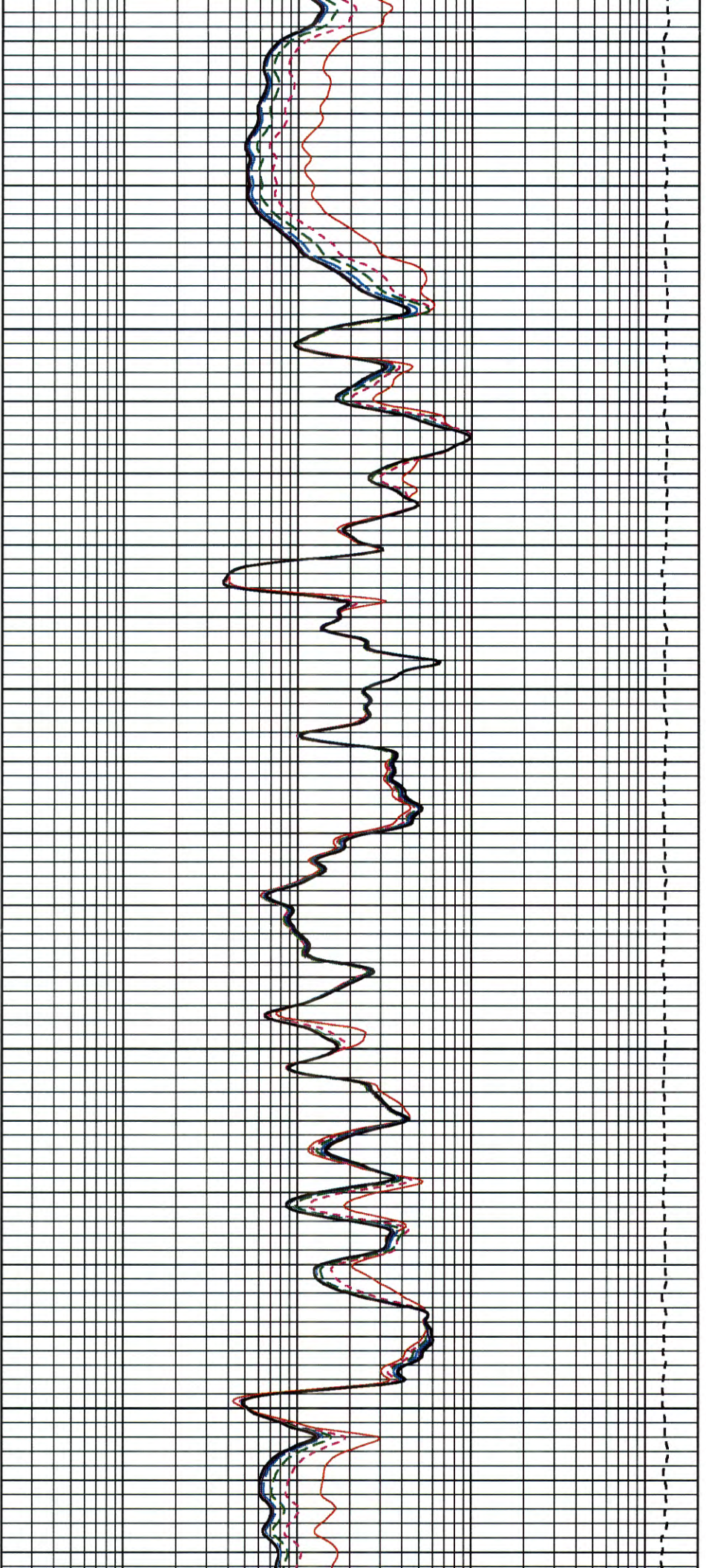




3700

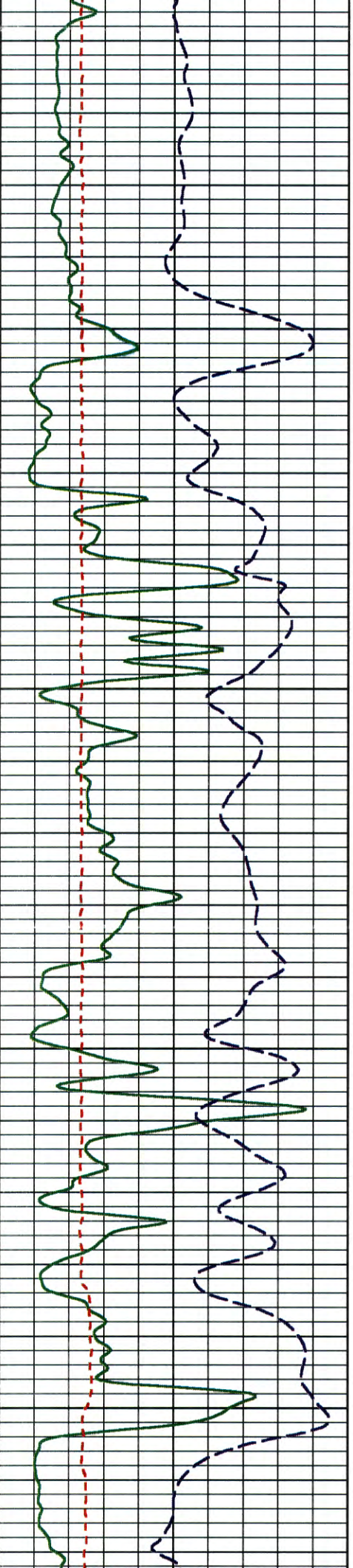
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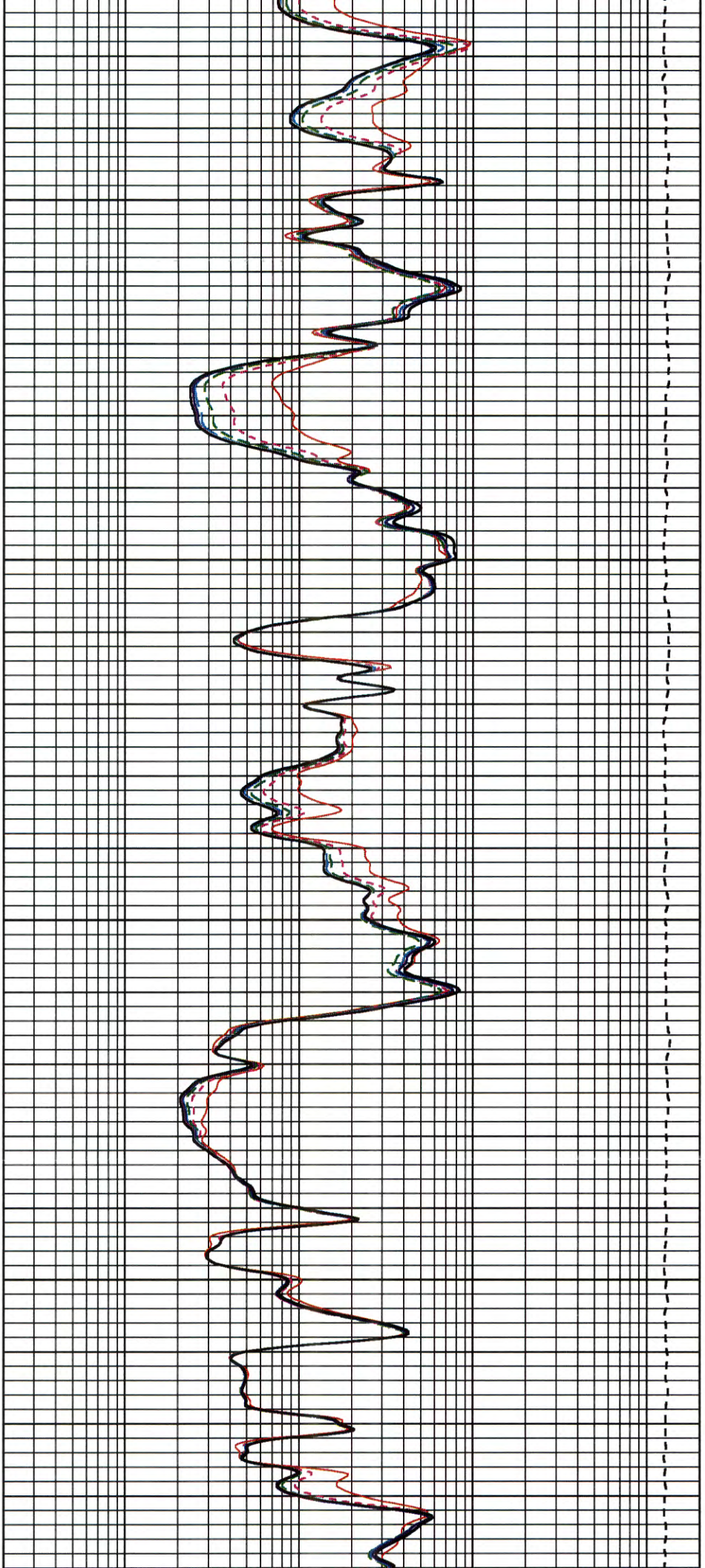




3900

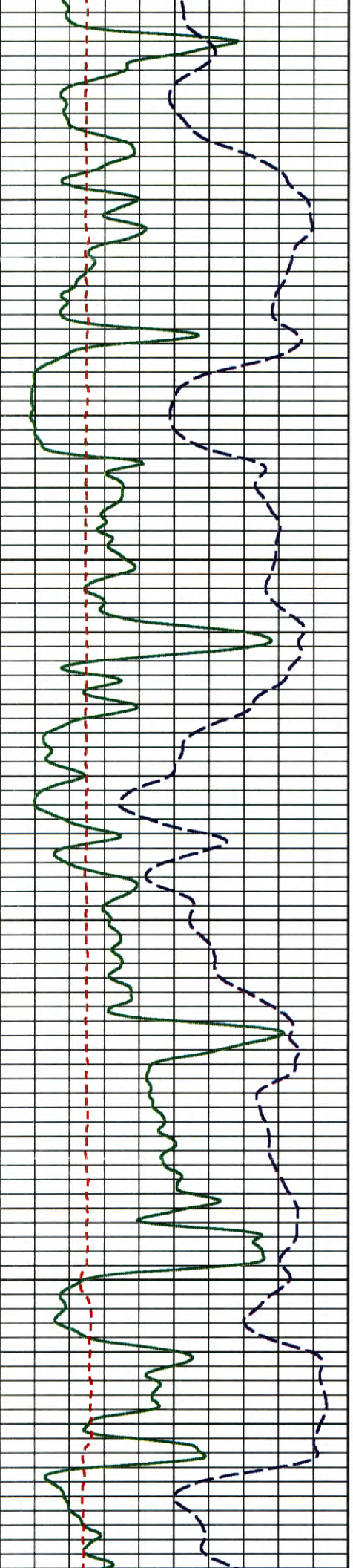
4000

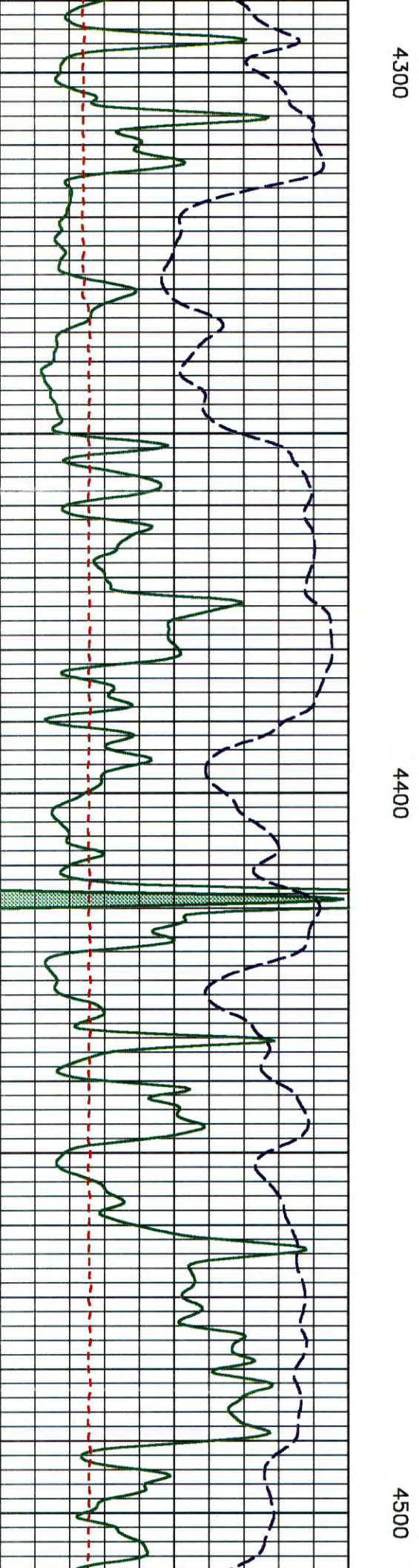
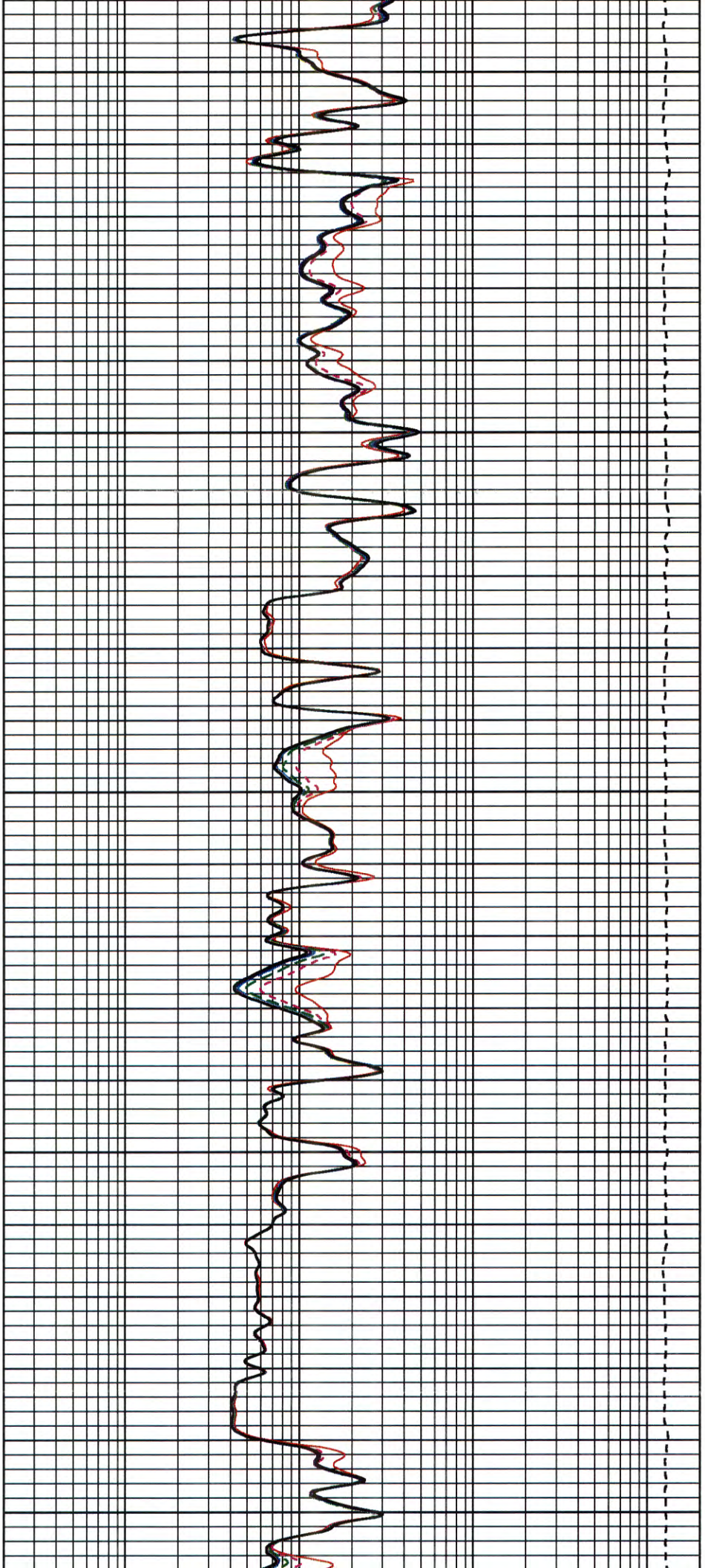


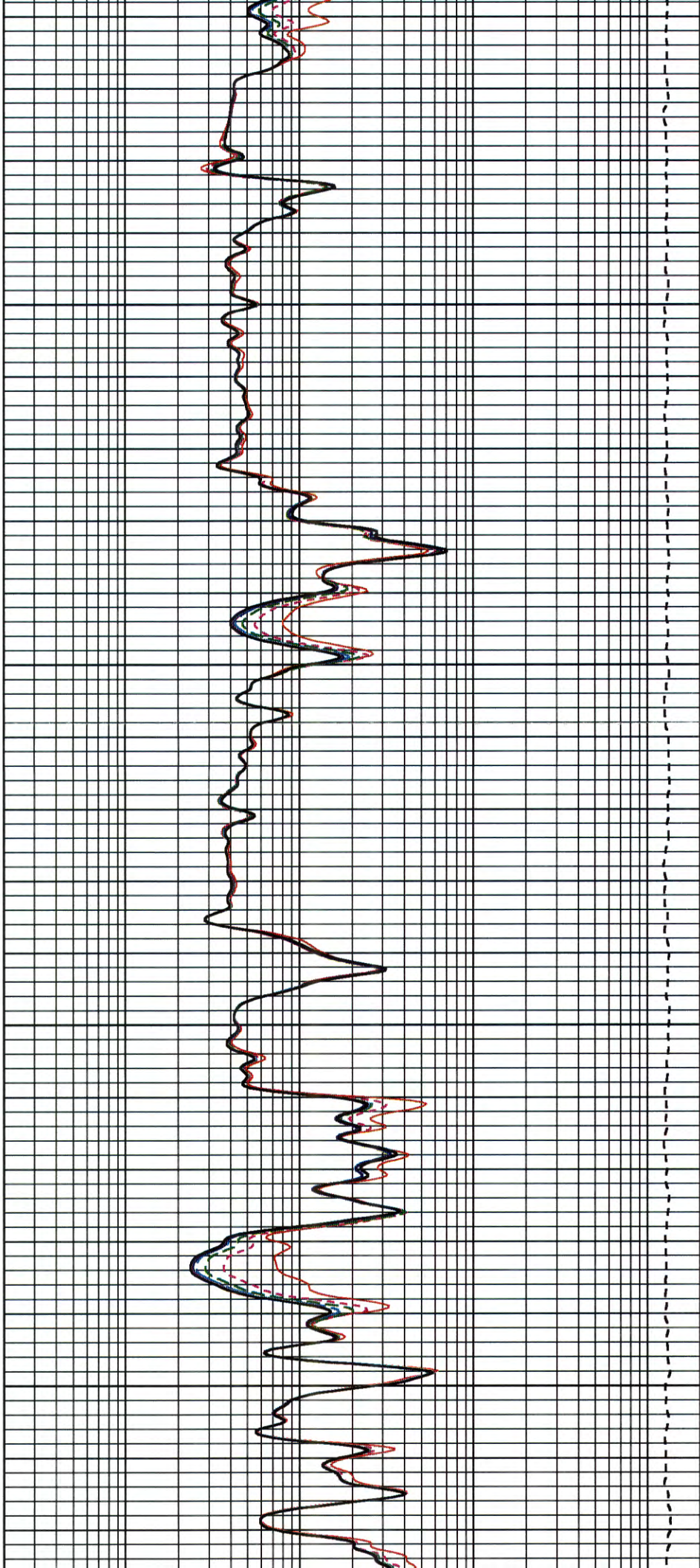


4100

4200

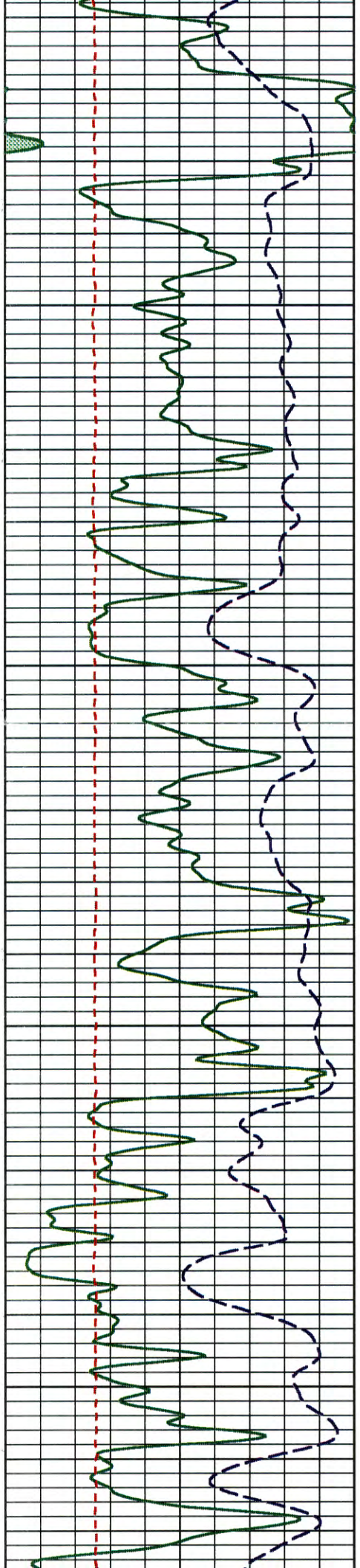


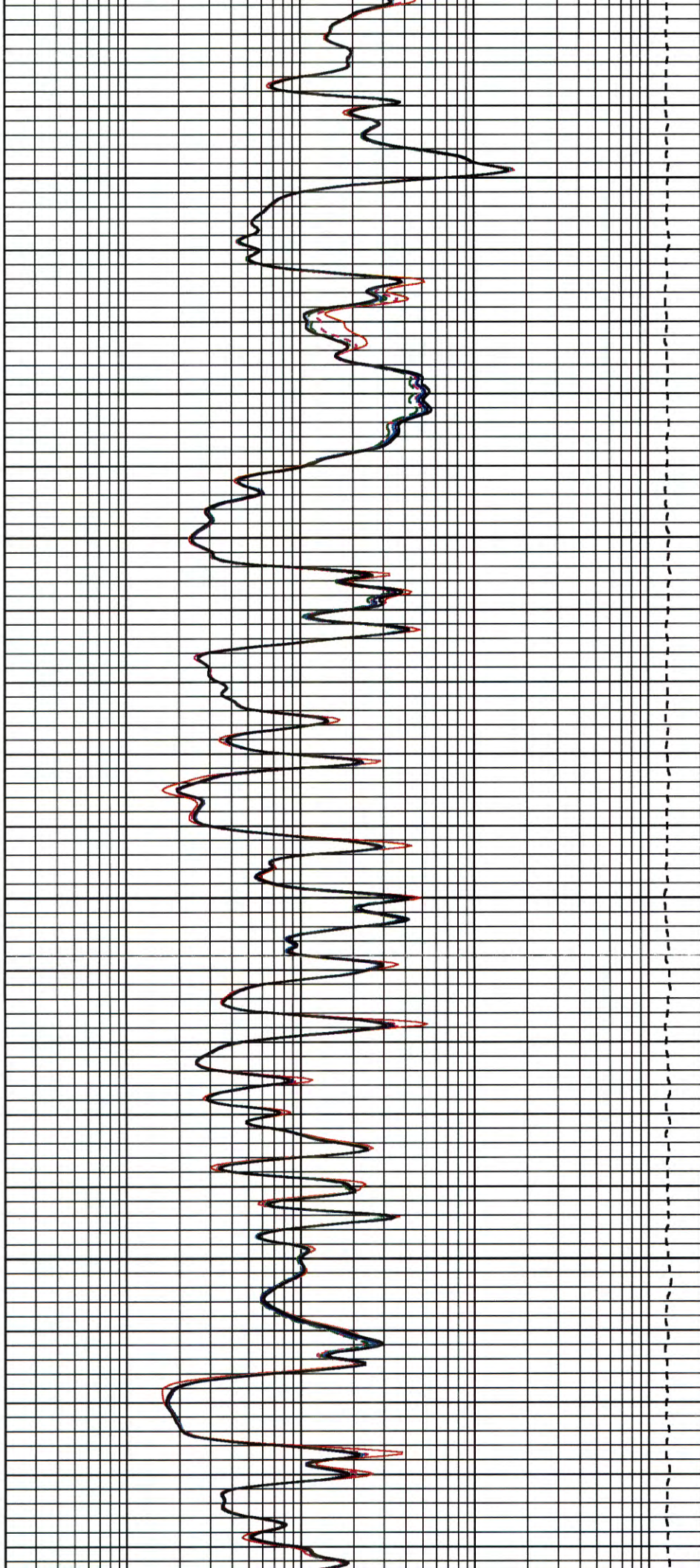




4600

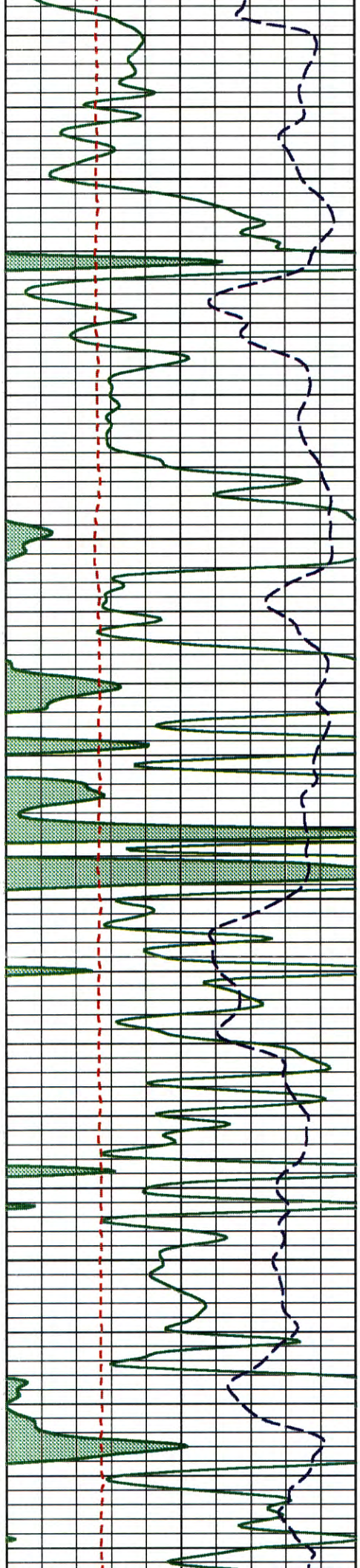
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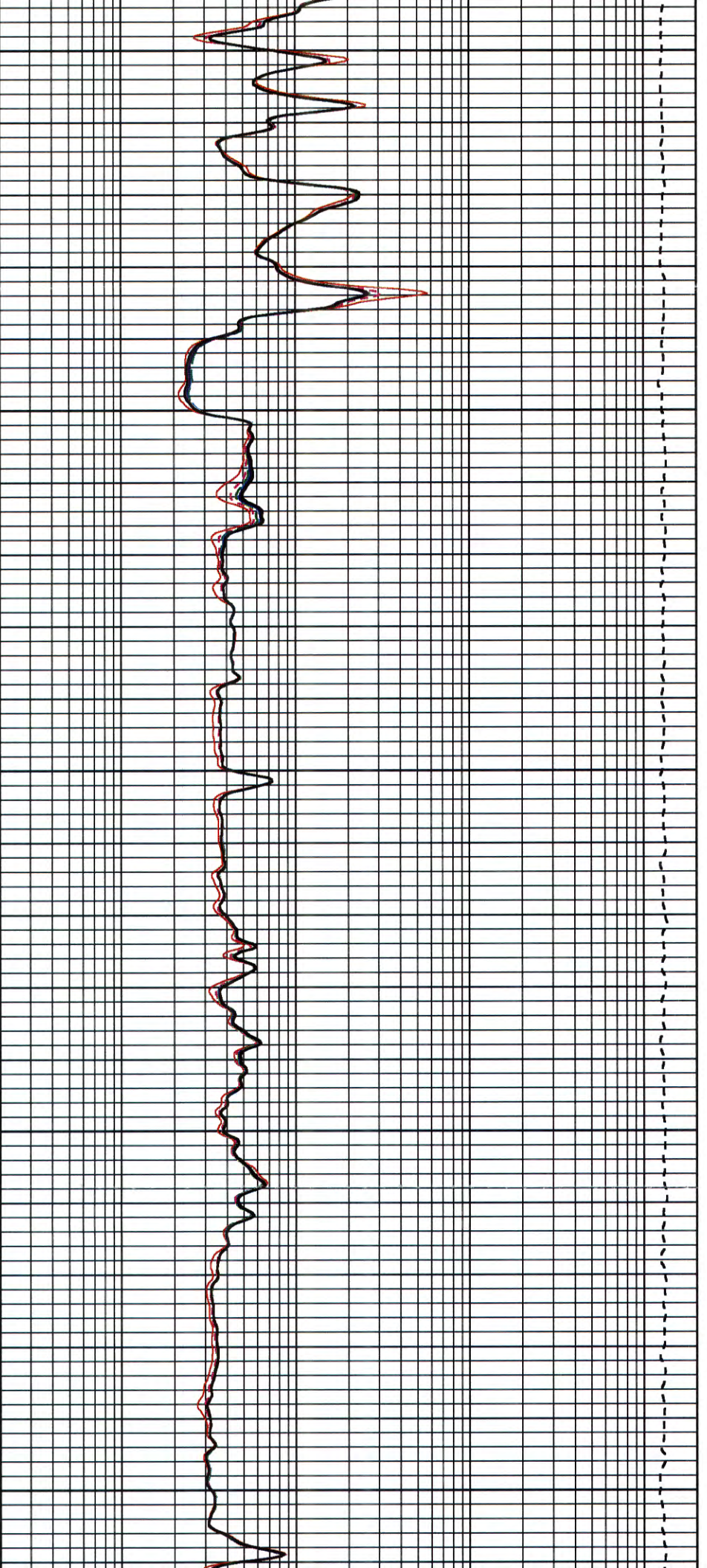




4800

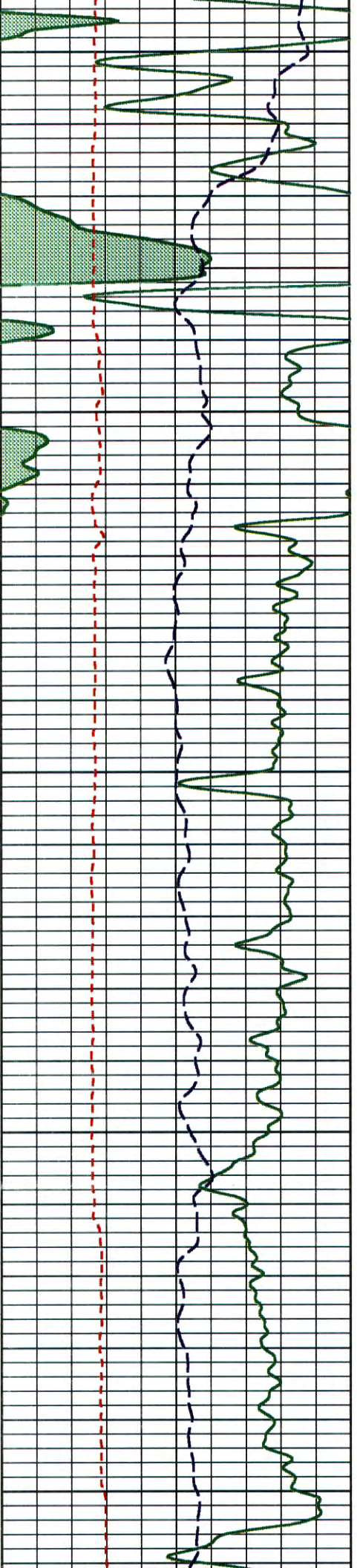
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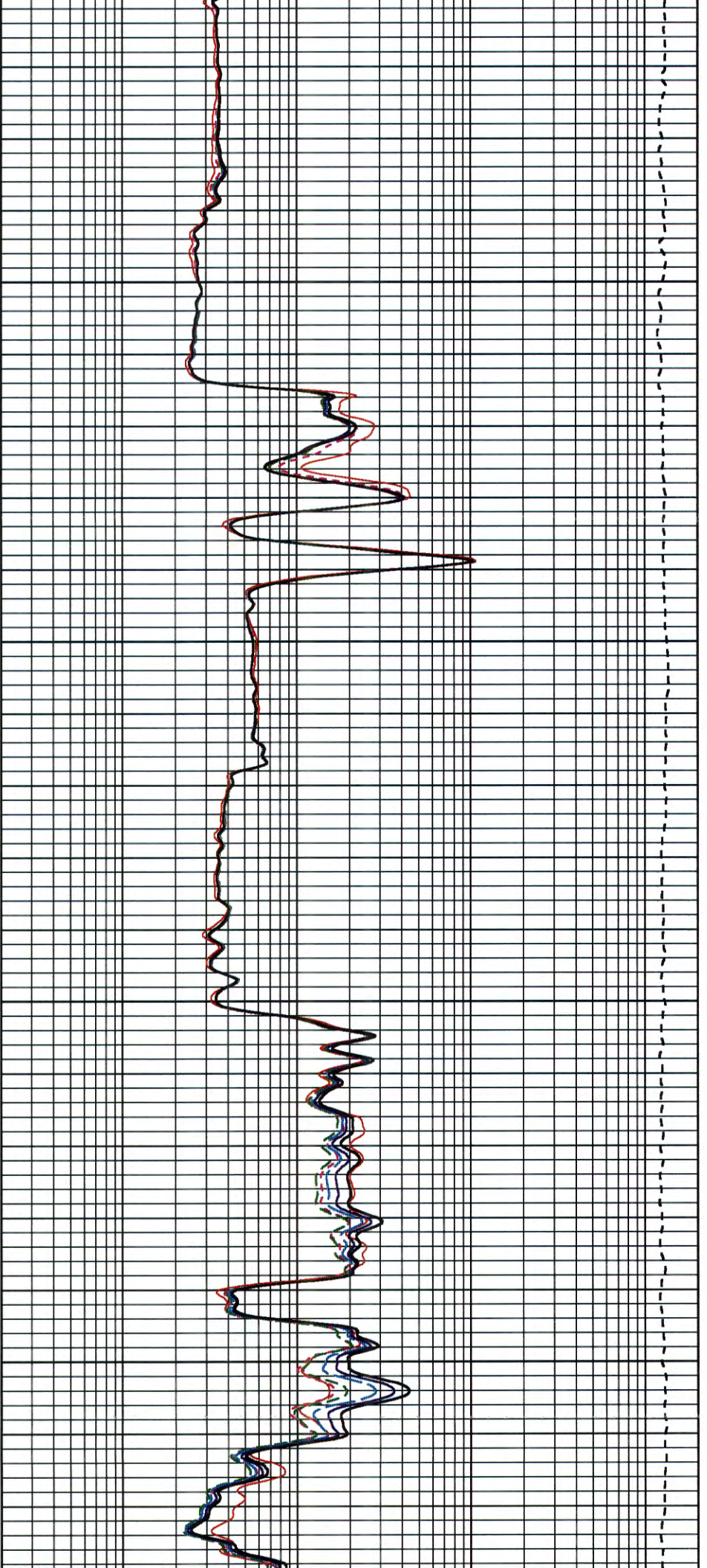




5000

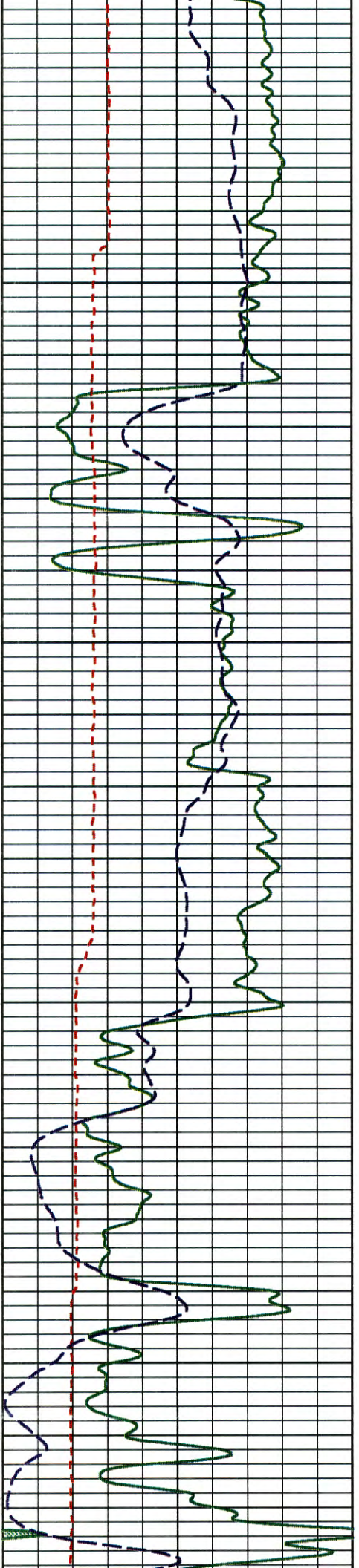
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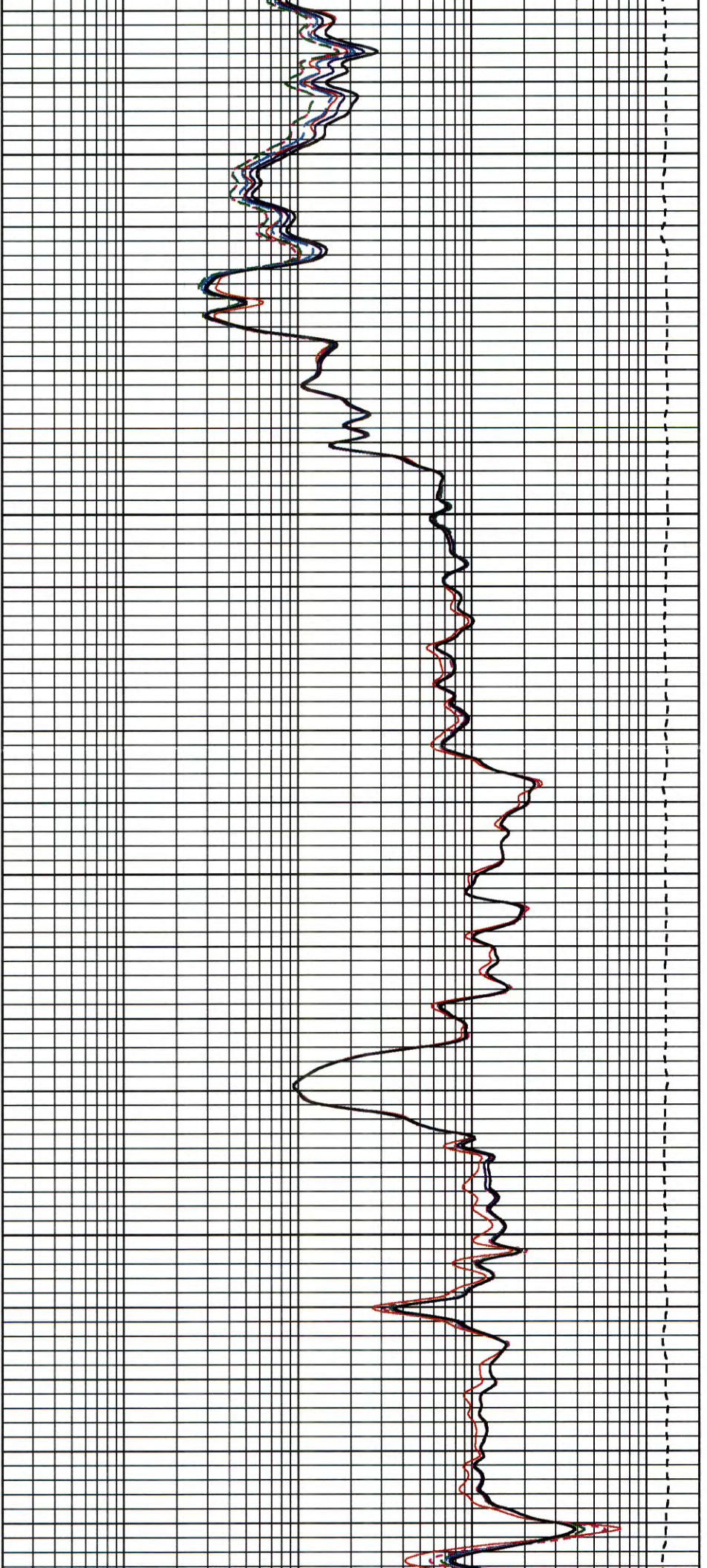




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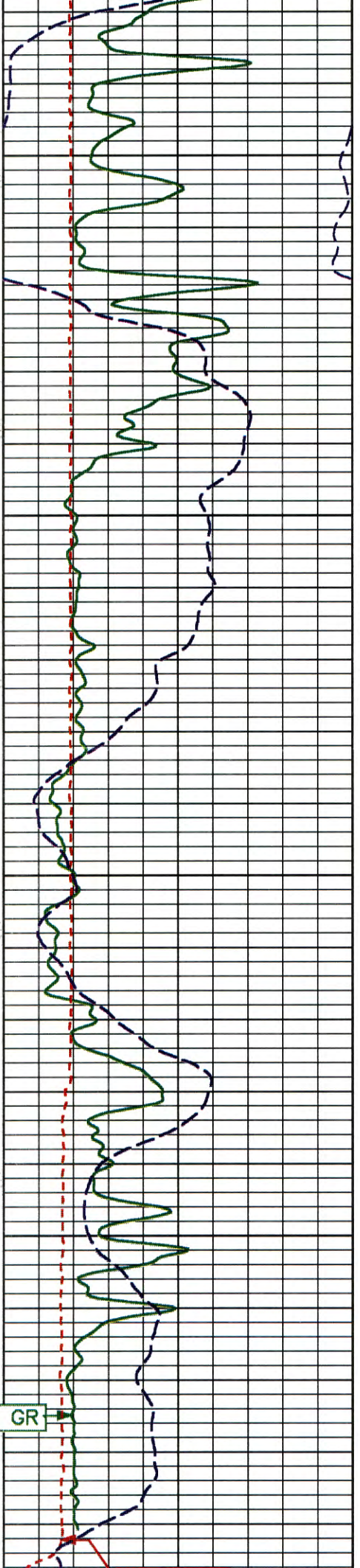
5300



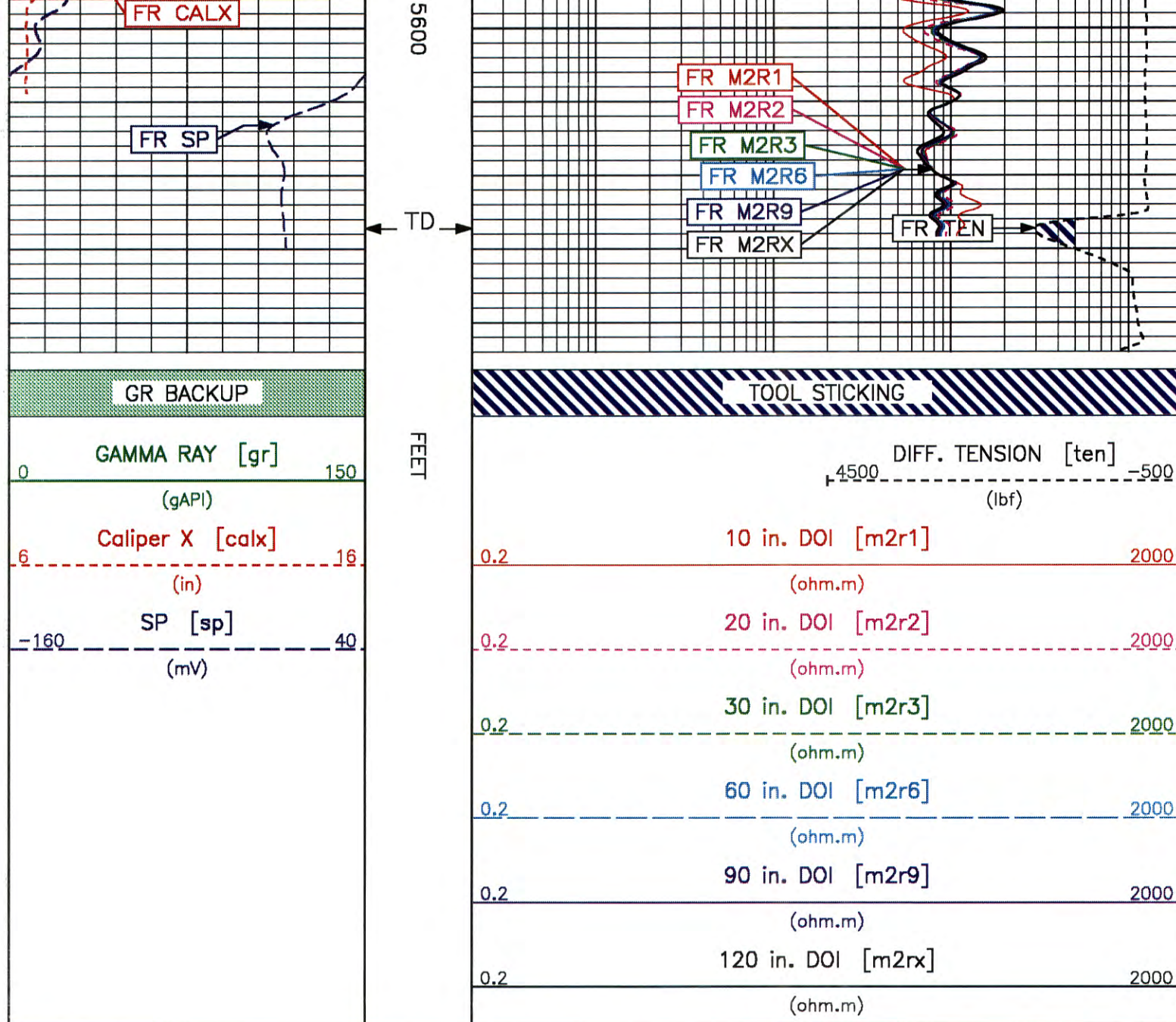


5400

5500



GR



TD-3600' LIMESTONE MATRIX PRESENTATION

ECLIPS 6.1i Aug 06, 2010
Updates: 1,2 Patches: 3

Mon Dec 31 03:53:54 2012

Pcrplt /main/62

Cplot

Pdf_Cpp /main/16

Fileview 5.61

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/ANADARKO_HUME_28_1/m876g03.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 0.000 ft BOTTOM DEPTH: 0.000 ft

SYMMETRIC FILTER

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

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	5.500	in	TOP	BOTTOM
	CASING THICKNESS	0.000	in	"	"
BIT SIZE	BIT SIZE	7.875	in	"	"
MUD DENSITY	MUD DENSITY	8.30	lbm/gal	"	"
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (cnbh*)	USE CALIPER		"	"
	CALIPER/FIXED DIA. (slbh*)	USE CALIPER		"	"
	CALIPER/FIXED DIA. (zdbh*)	USE CALIPER		"	"
BOREHOLE CORR DIAMETER	FIXED DIAMETER (cnbh*)	7.875	in	"	"
	FIXED DIAMETER (slbh*)	7.875	in	"	"

SL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
SL BOREHOLE	OPEN/CASED HOLE	OPEN HOLE		TOP	BOTTOM
	K MUD CONTENT	0.00	pcf	"	"
	K MUD TYPE	KCL		"	"
SL SPECTRUM CALIBRATION	MODE	AUTOMATIC		"	"

CN PROCESSING

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

ZDL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
MUD DENSITY	MUD DENSITY	8.30	lbm/gal	TOP	BOTTOM
DENSITY POROSITY	RHOmatrix	2.710	g/cm3	"	"
	RHOfluid	1.000	g/cm3	"	"
ZDL	DENX TRACKING	ON		"	"

CURVE DESCRIPTION REPORT

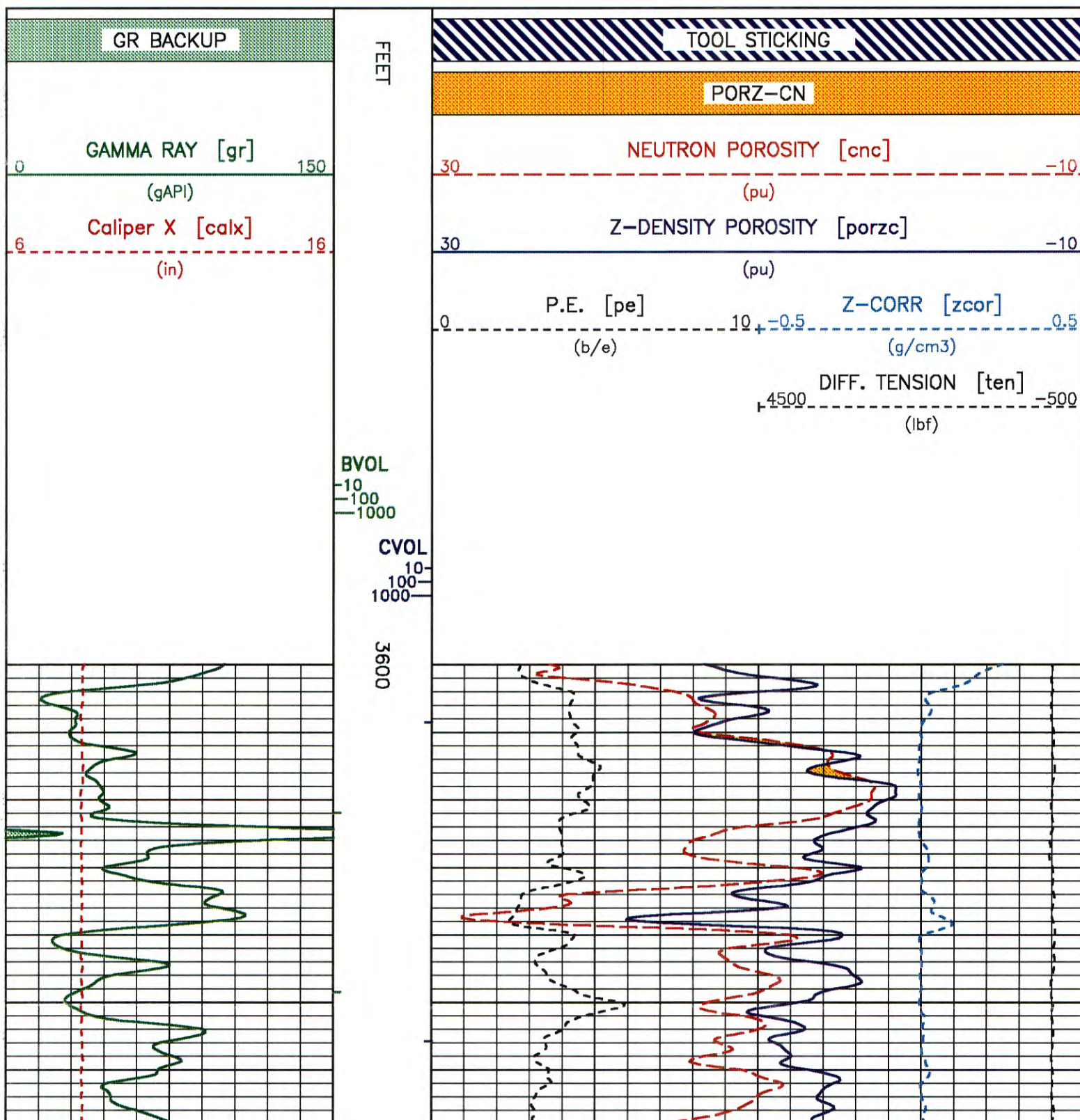
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:BVOL	Dec 31 02:35:39 2012	BOREHOLE VOLUME
F1:CALX	Dec 31 02:35:39 2012	CALIPER FROM X-AXIS OF XY CALIPER(S)
F1:CNC	Dec 31 02:35:39 2012	BOREHOLE SIZE CORRECTED COMPENSATED NEUTRON POROSITY
F1:CVOL	Dec 31 02:35:39 2012	CEMENT VOLUME
F1:GR	Dec 31 02:35:39 2012	GAMMA RAY
F1:PE	Dec 31 02:35:39 2012	PHOTO ELECTRIC CROSS-SECTION
F1:PORZC	Dec 31 02:35:39 2012	CORRECTED POROSITY
F1:TEN	Dec 31 02:35:39 2012	DIFFERENTIAL TENSION
F1:ZCOR	Dec 31 02:35:39 2012	DENSITY CORRECTION

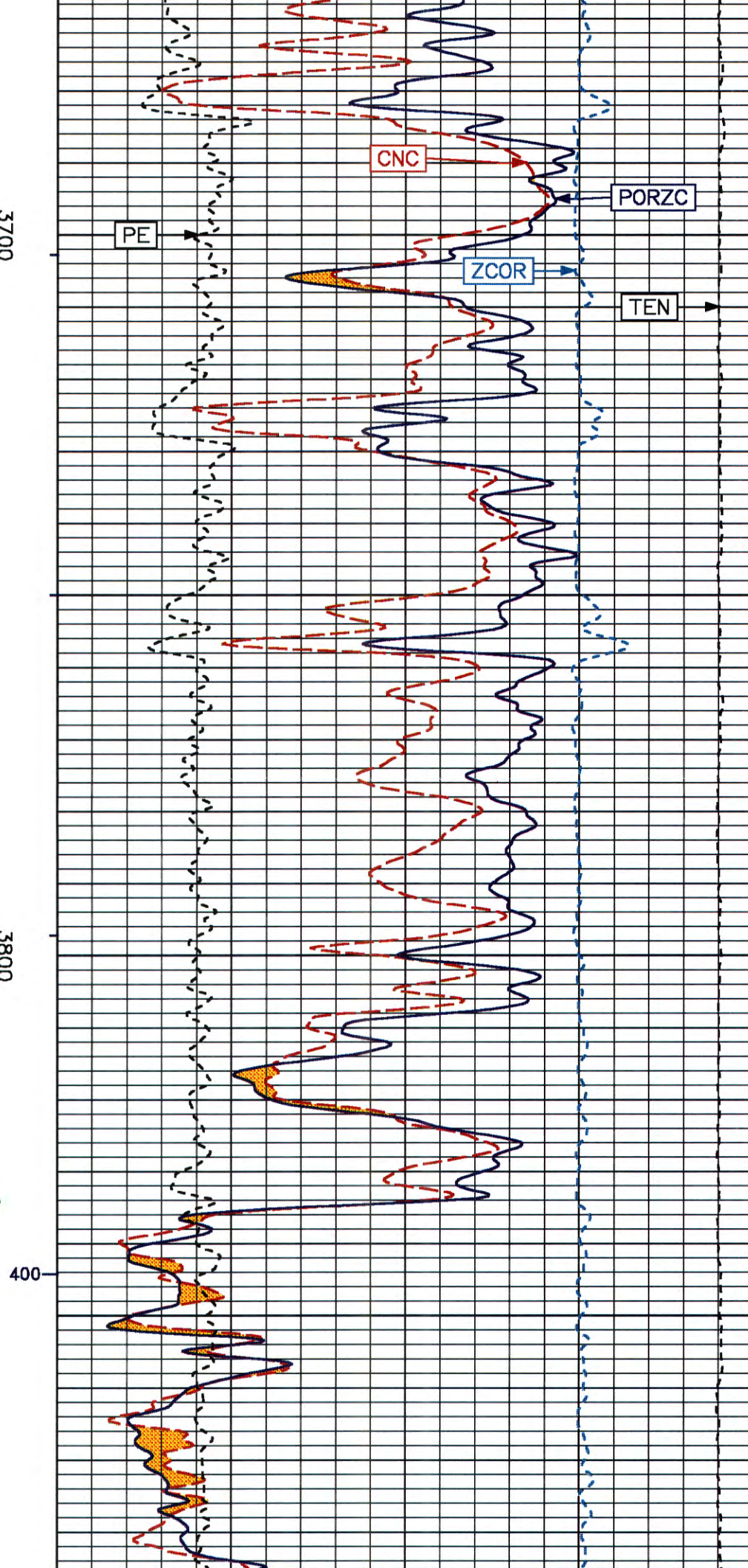
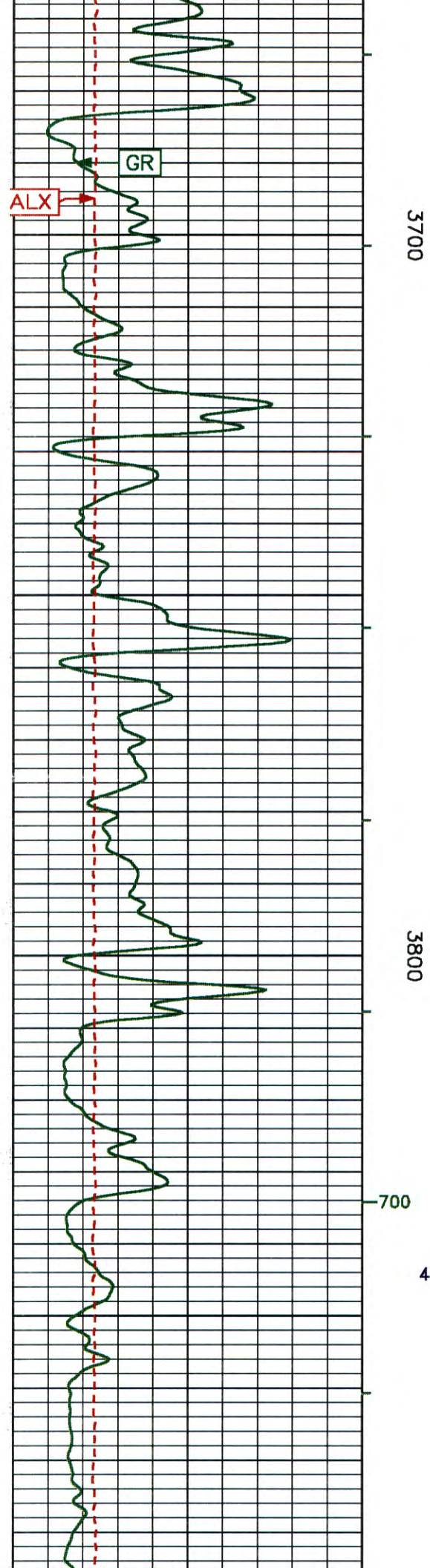
CURVE MEASURE POINT OFFSET

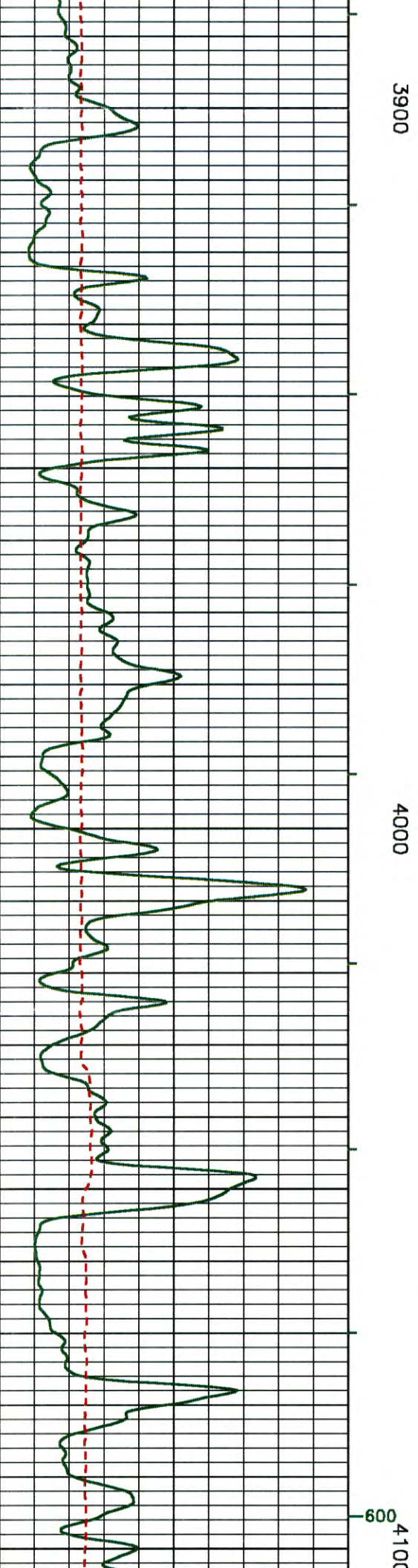
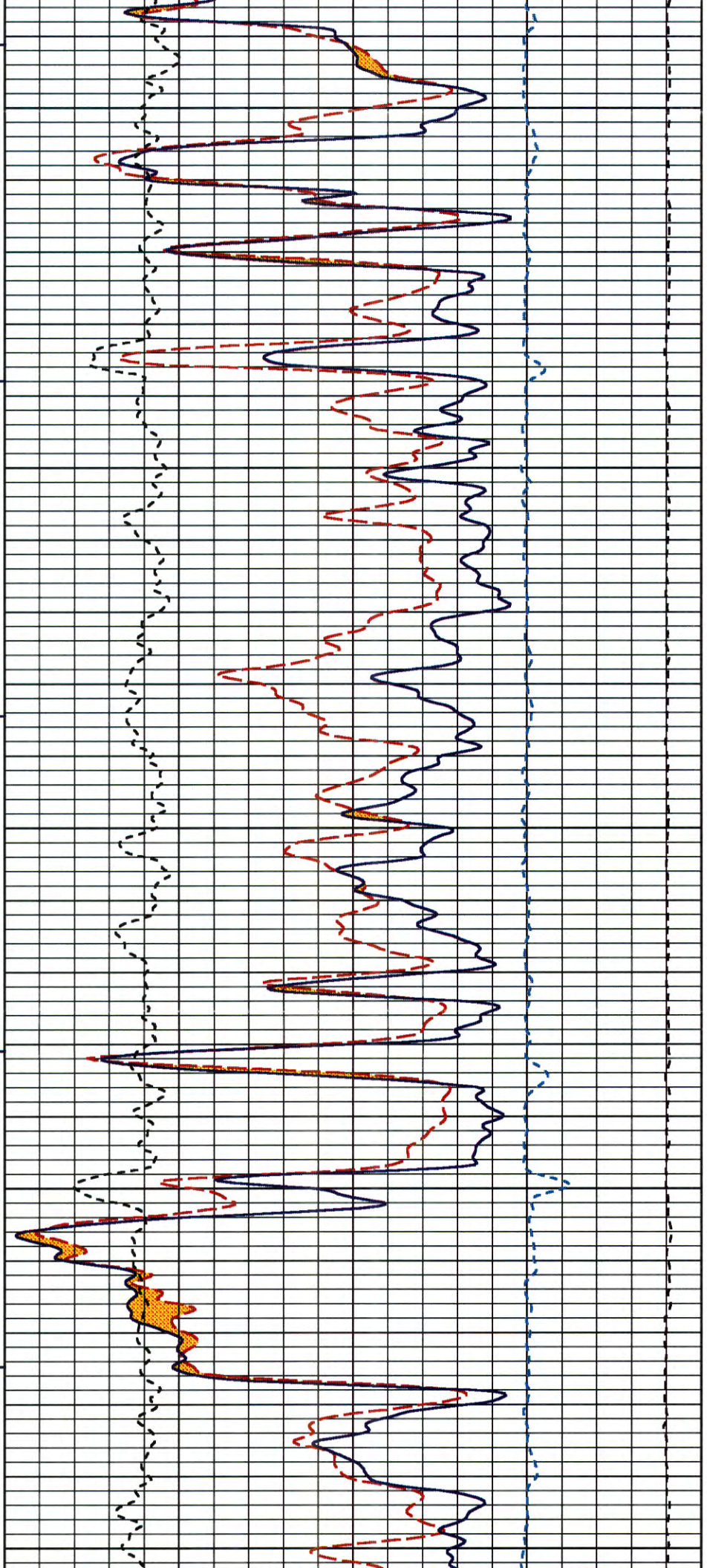
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
CALX	35.00	GR	52.25	PORZC	34.25	ZCOR	34.25
CNC	45.25	PE	34.25	TEN	0.00		

Presentation : wwdsys71:/dat1a/ANADARKO_HUME_28_1/zdl-cn+01-TD-3600-QUICK-5.pdf [5"/100' Scale]
 Plot Interval : 3600 - 5643.75 Feet

Data File 1 : F1 : wwdsys71:/dat1a/ANADARKO_HUME_28_1/QUICK.xtf
 Created On : Dec 31 02:35:39 2012
 Company : KERR MCGEE OIL & GAS ONSHORE
 Well : HUME NO.28-1
 Field : ARROYO
 File Interval : 3600 - 5645 Feet
 Oct : m876g







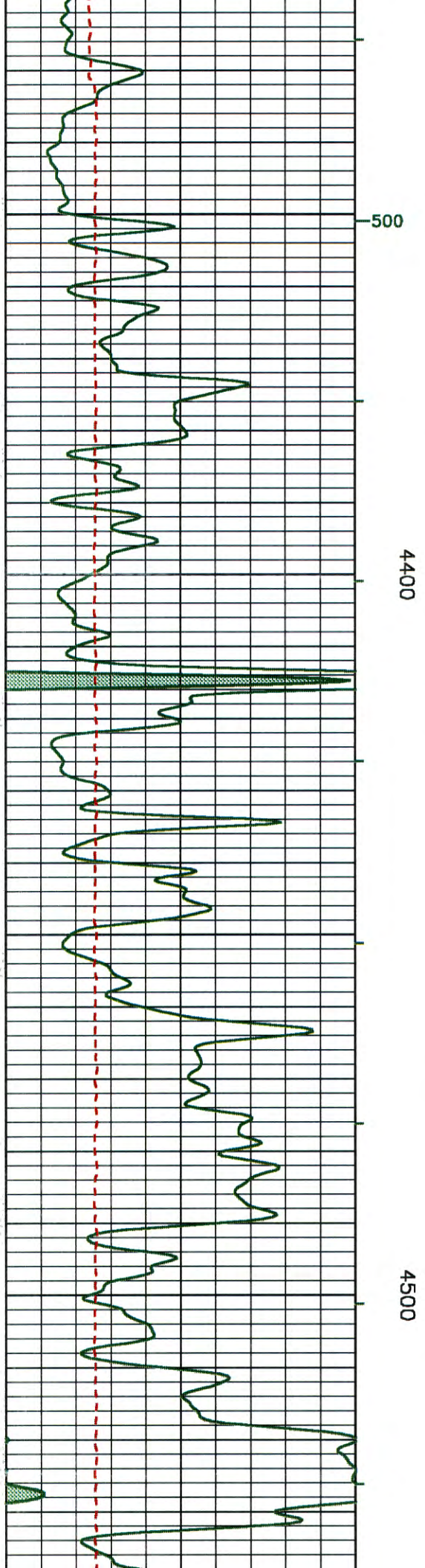
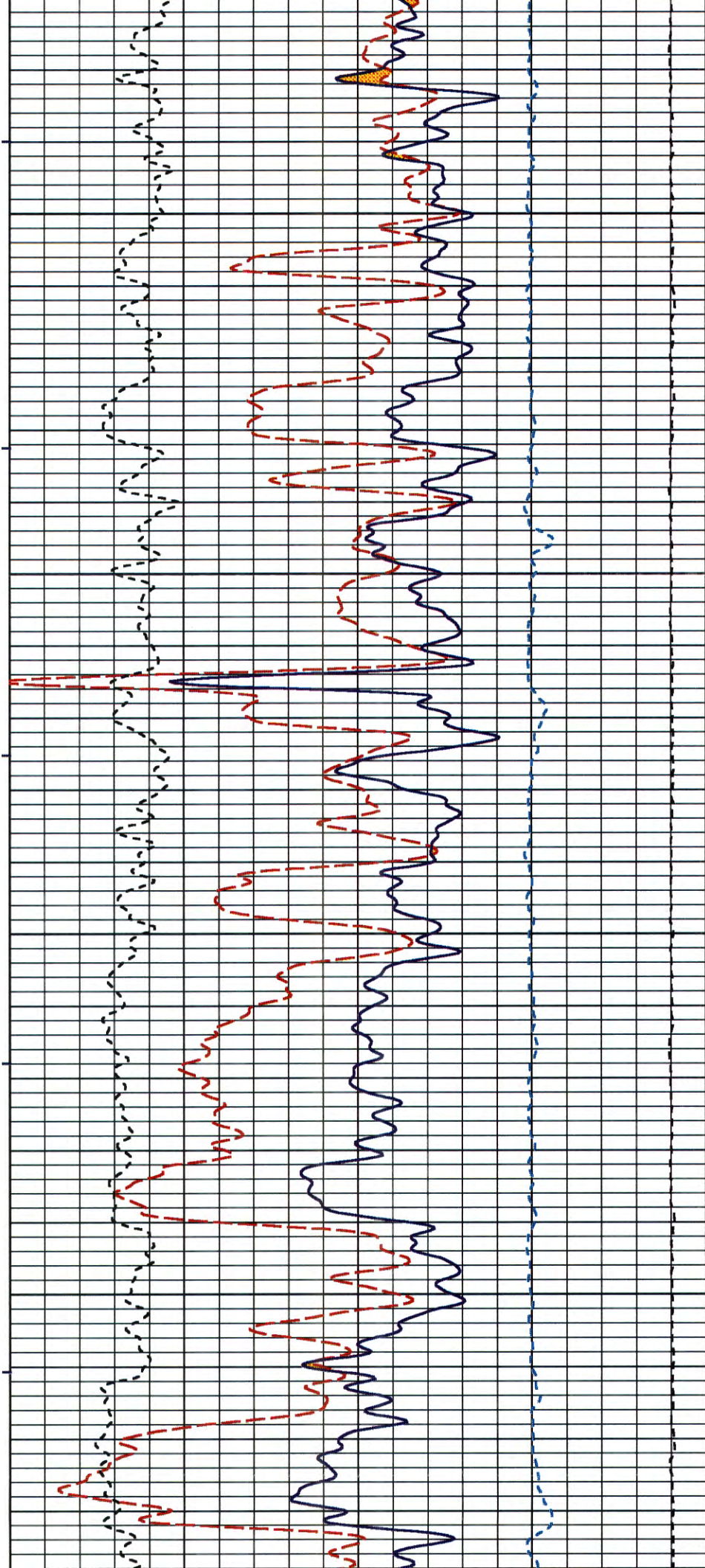
4200

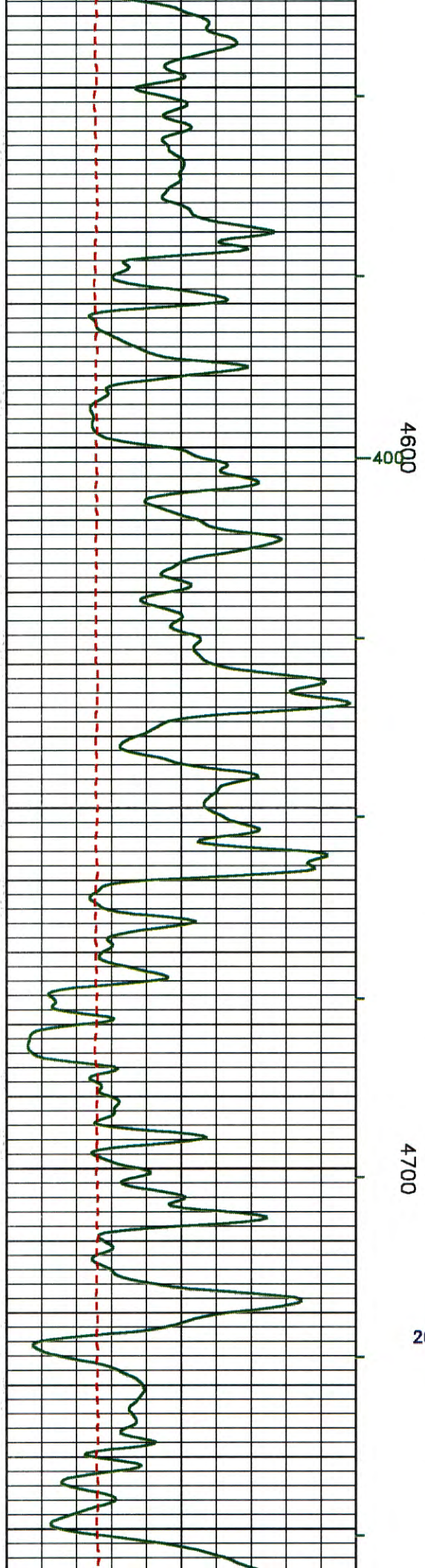
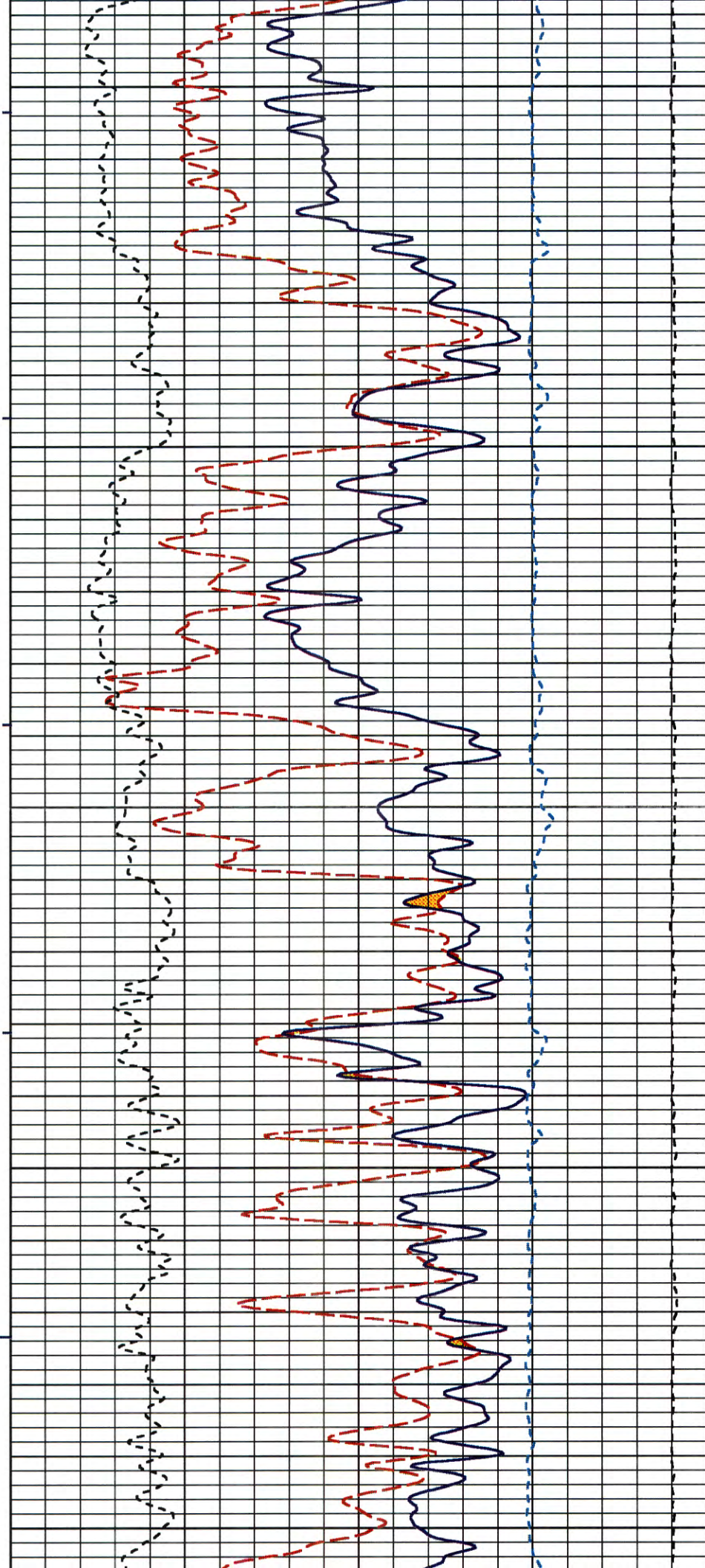
4300

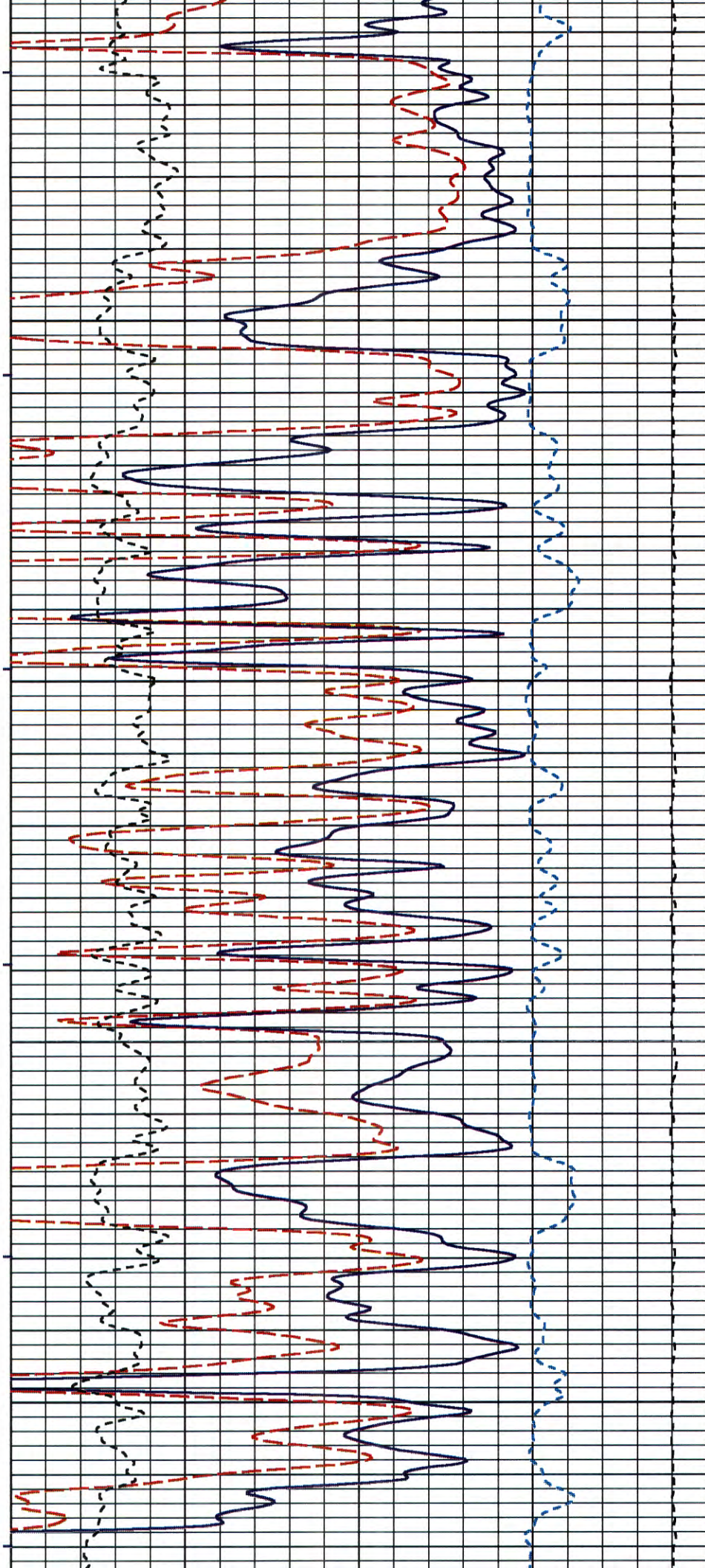
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4300

300



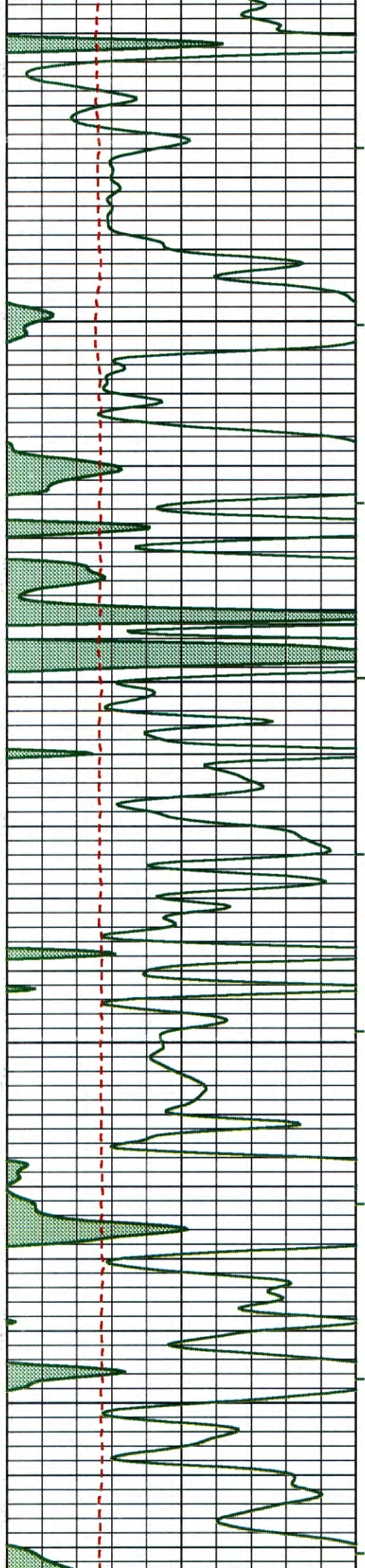


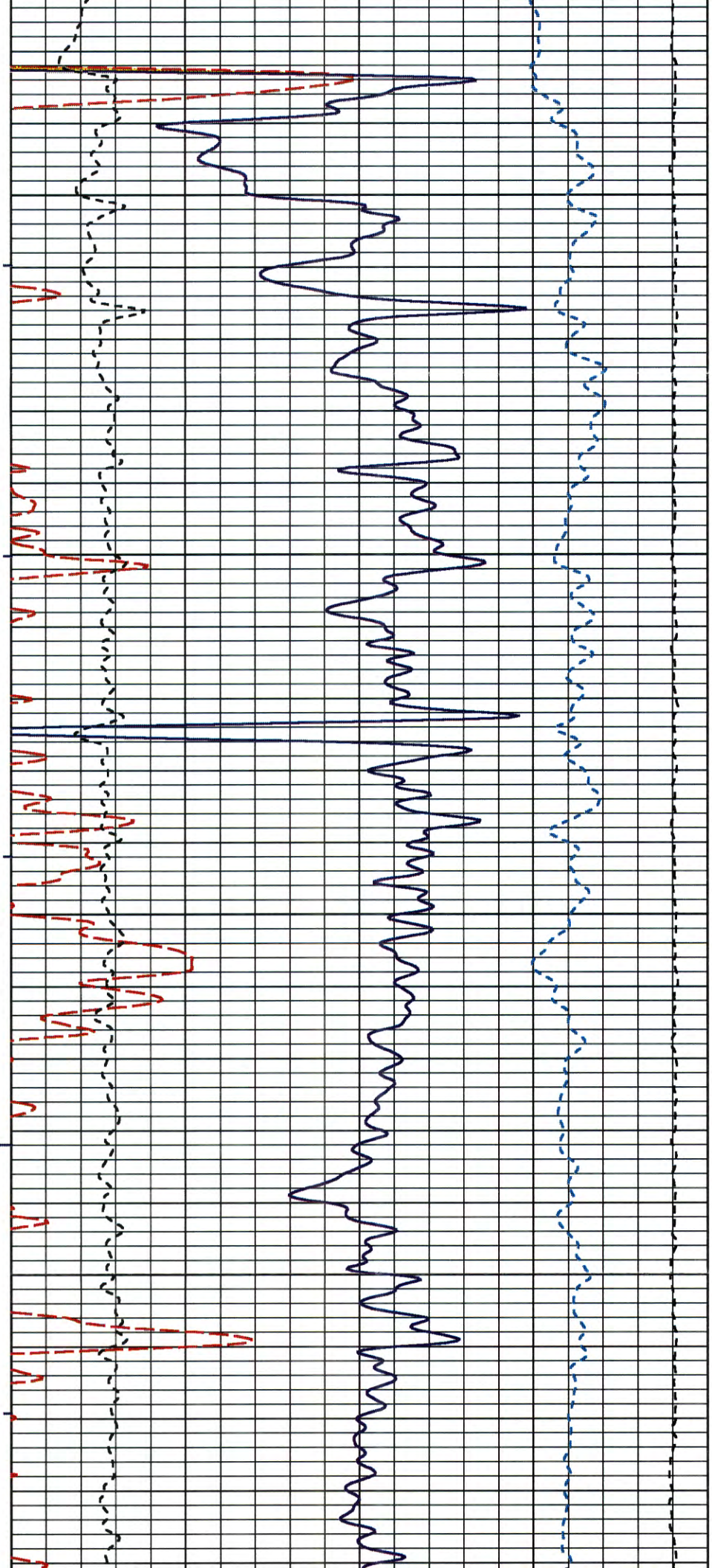


4800

300

4900



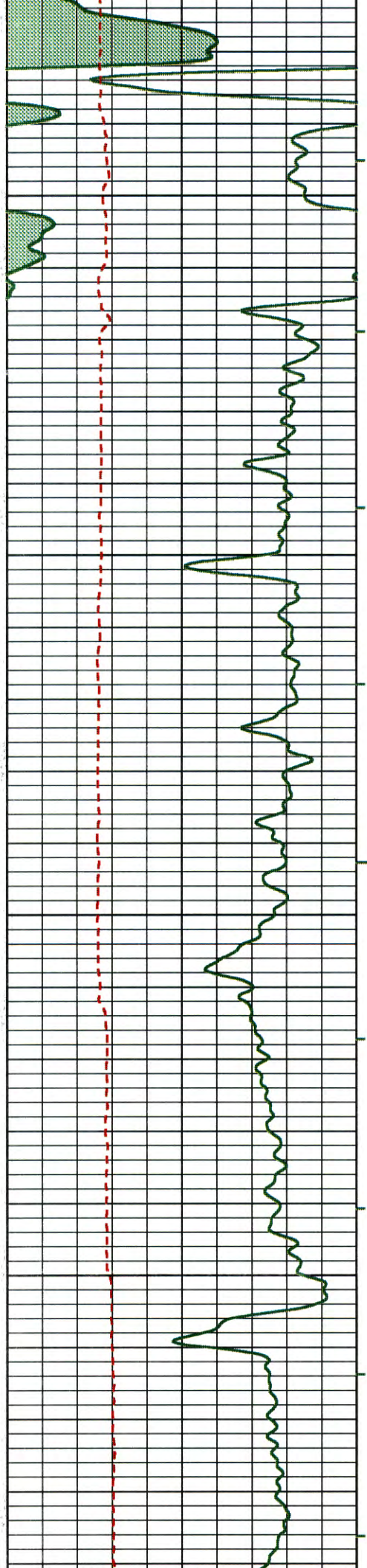


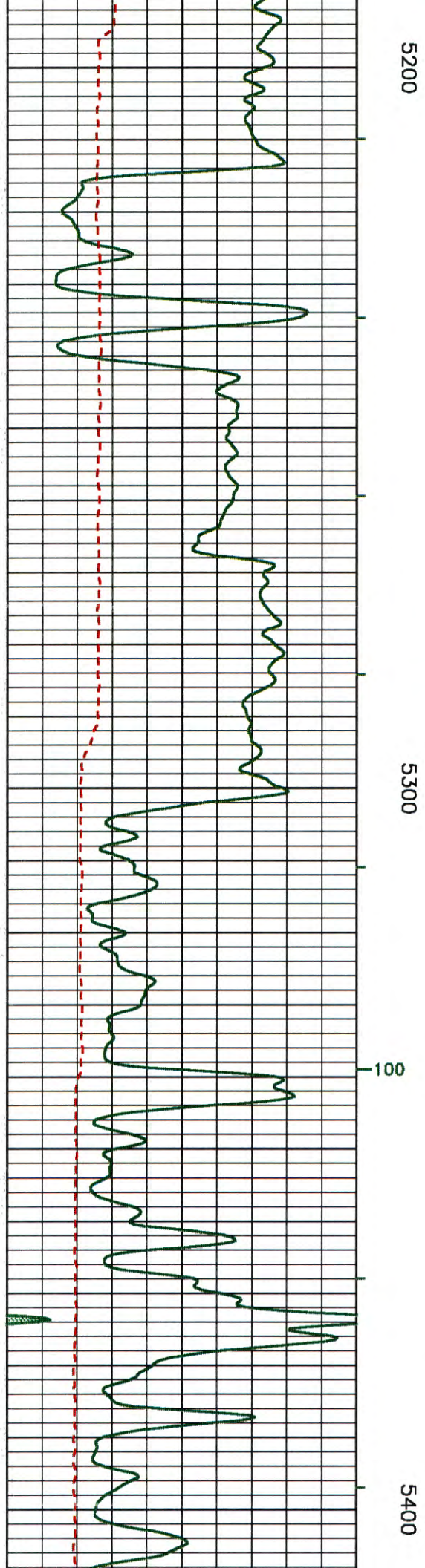
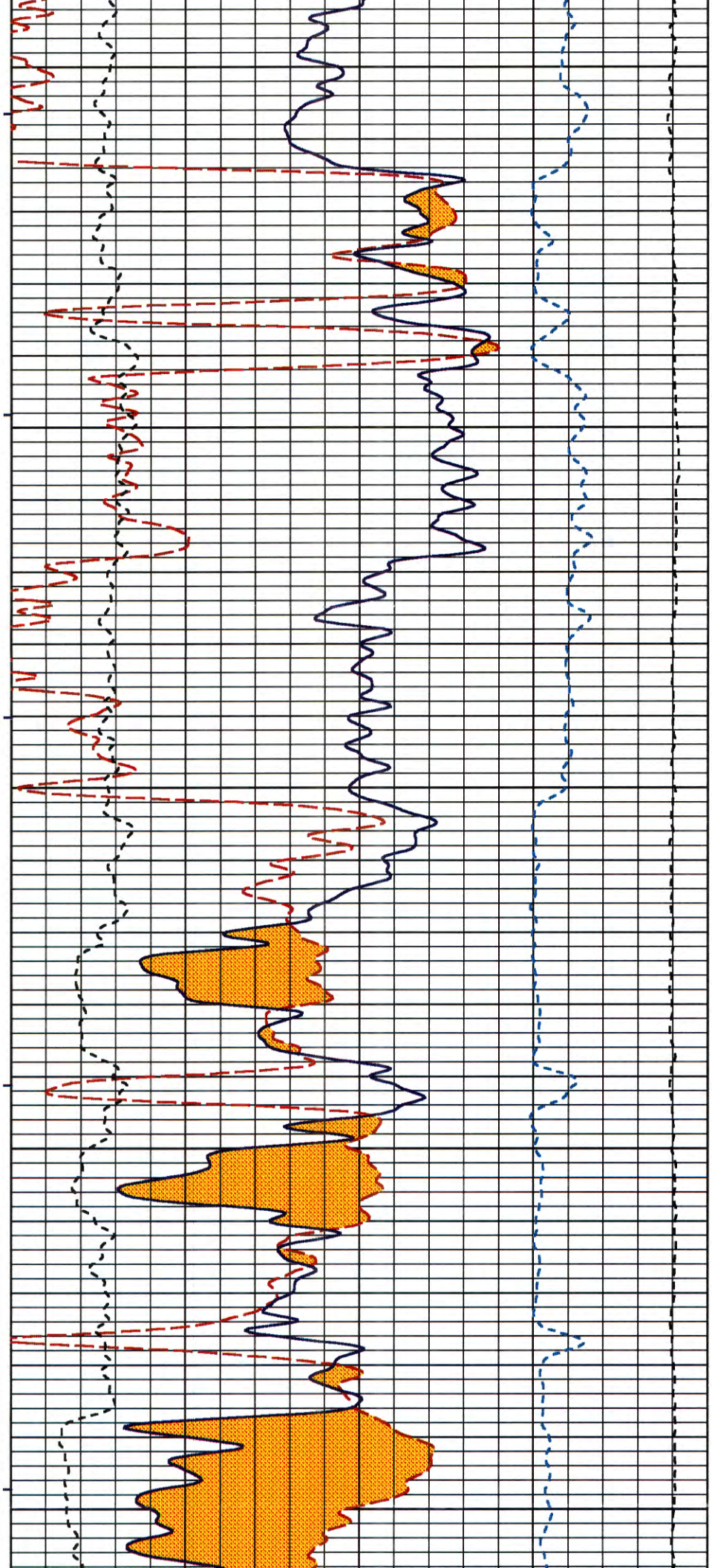
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200

5100

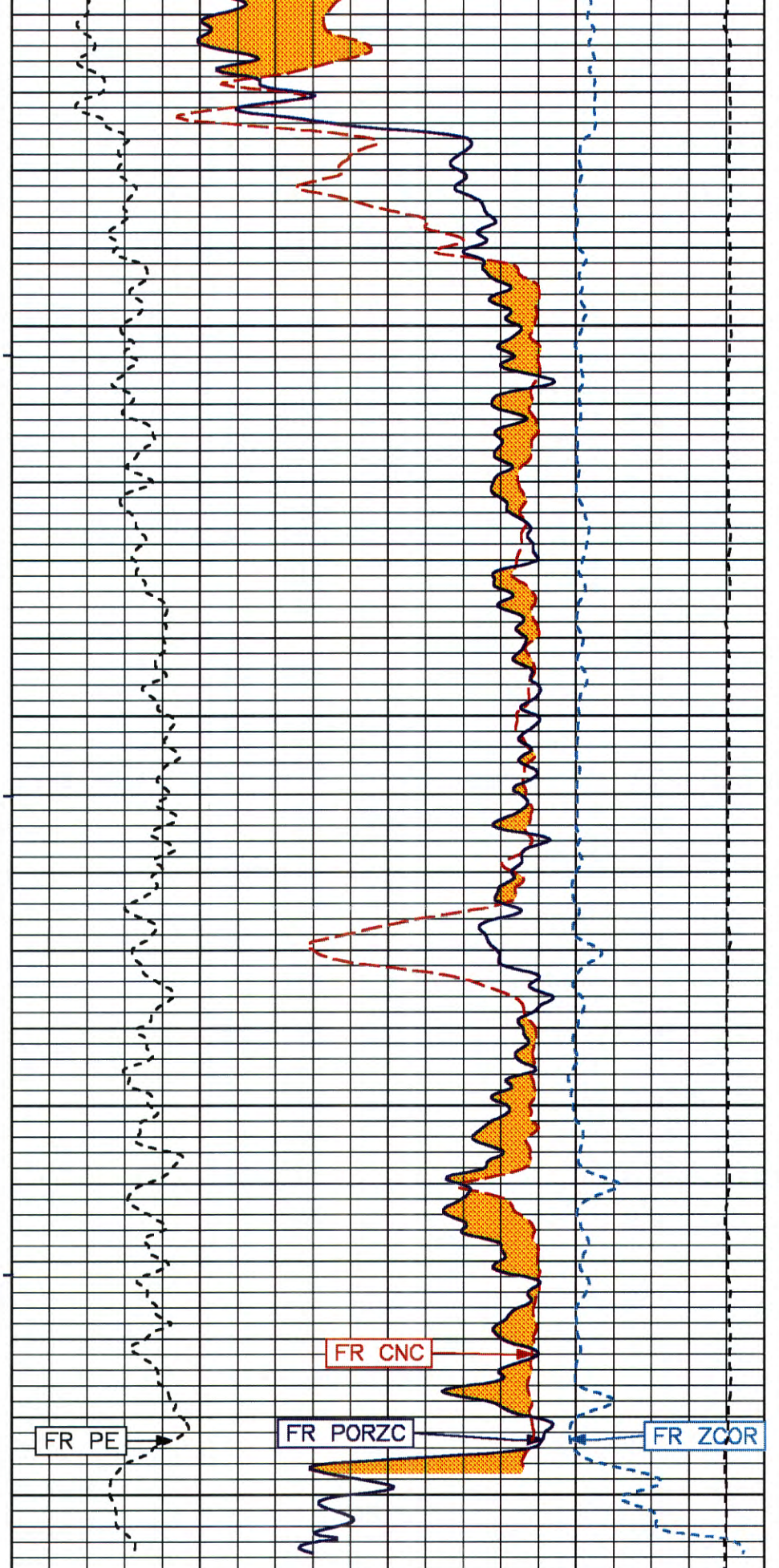
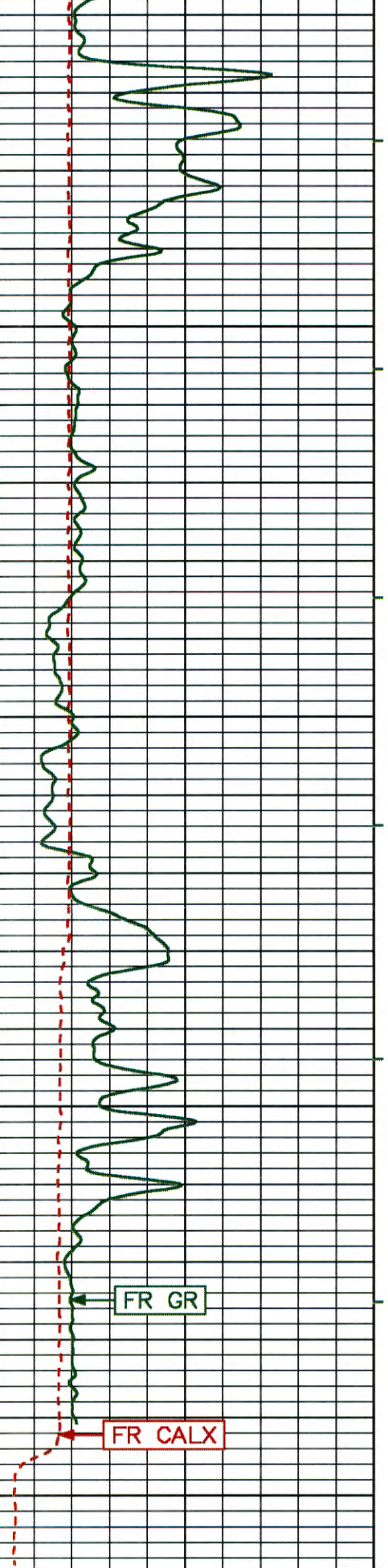
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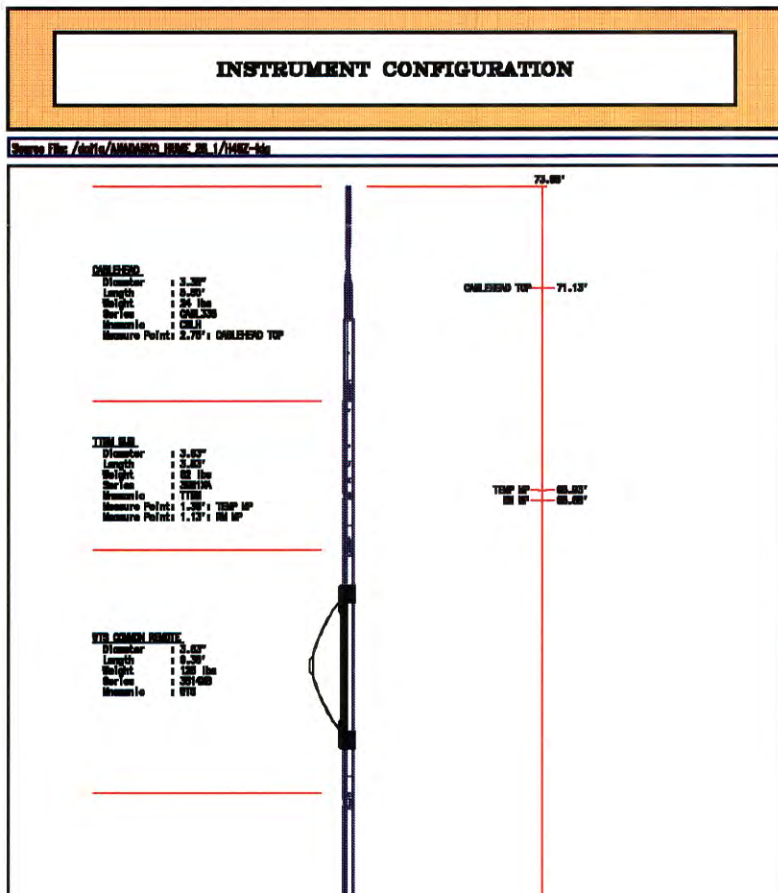
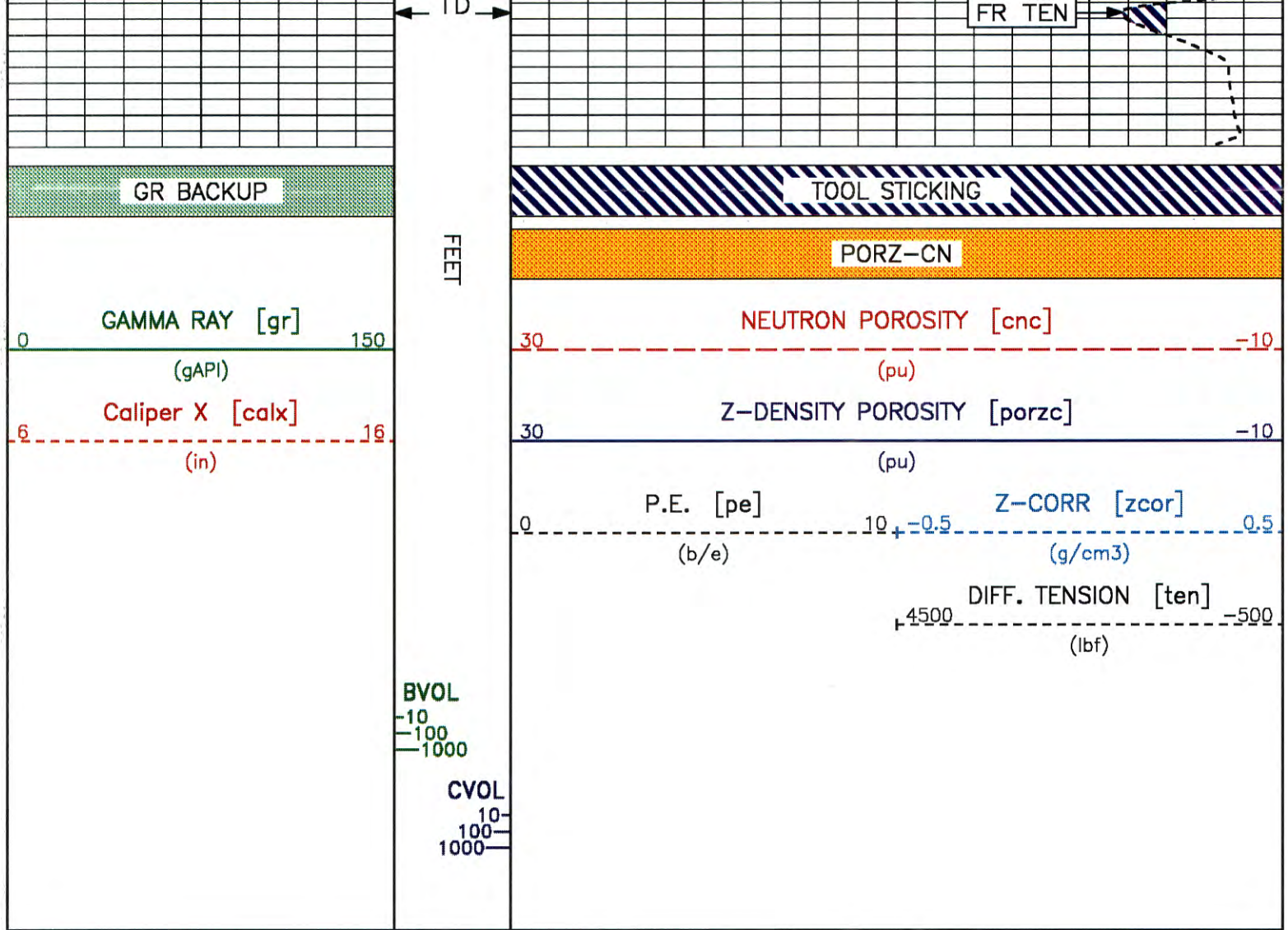




5500

5600





STEEL WASHING
Diameter : 3.50"
Length : 7.21"
Weight : 120 lbs
Series : 12000A
Measure Point: 1.00' END MP

END MP 32.45'

STEEL WASHING
Diameter : 3.50"
Length : 7.21"
Weight : 120 lbs
Series : 12000A
Measure Point: 2.50' END MP

END MP 45.82'
END MP 45.82'

STEEL WASHING
Diameter : 4.00"
Length : 11.25"
Weight : 200 lbs
Series : 20000A
Measure Point: 2.50' END MP

END MP 35.55'
END MP 35.55'
END MP 35.55'

STEEL WASHING
Diameter : 3.50"
Length : 4.00"
Weight : 60 lbs
Series : 10000A
Measure Point: 1.00' END MP

STEEL WASHING
Diameter : 3.50"
Length : 7.21"
Weight : 120 lbs
Series : 12000A
Measure Point: 1.00' END MP

END MP 14.18'

END MP 7.72'

6.00



**BAKER
HUGHES**
ECLIPS

DATE 31-Dec-2012

