



CROSS-MULTIPOLE ARRAY ACOUSTIC LOG
GAMMA RAY LOG
CALIPER LOG

Baker Atlas

FILE NO:	COMPANY	NALCOR ENERGY
API NO:	WELL	NALCOR ET AL FINNEGAN #1
	FIELD	FINNEGAN
	PROVINCE	NEWFOUNDLAND AND LABRADOR
Ver. 3.87	LOCATION:	OTHER SERVICES DZDL-CN-GR-XYCAL HDIL-GR-CAL DLL-GR RCOR VSP / SBT
LICENSE: 2010-128-04	LAT 49.92 N LONG 63.33 W	ELEVATIONS: KB 125.00 M DF GL 118.75 M
PERMANENT DATUM LOG MEASURED FROM DRILL MEAS. FROM	G.L. ELEVATION 118.75 M K.B. 6.25 M ABOVE P.D. KELLY BUSHING	

DATE	27-NOV-2010		
RUN	2	TRIP	1
SERVICE ORDER	CA209243		
DEPTH DRILLER	3130.0 M		
DEPTH LOGGER	NA		
BOTTOM LOGGED INTERVAL	2898.4 M		
TOP LOGGED INTERVAL	2275.0 M		
CASING DRILLER	244.5 MM		
CASING LOGGER	2275.0 M		
BIT SIZE	216.0 MM		
TYPE OF FLUID IN HOLE	GELCHEM		
DENSITY	1245.0 G/L	82.0 S	
PH	10.0	5.7 ML	
SOURCE OF SAMPLE	TOOL MEASURED		
RM AT MEAS. TEMP.	0.674 OHMM	47.4 DEGC	
RMF AT MEAS. TEMP.	0.583 OHMM	47.4 DEGC	
RMC AT MEAS. TEMP.	0.809 OHMM	47.4 DEGC	
SOURCE OF RMF	CALCULATED	CALCULATED	
RM AT BHT	0.601 OHMM	54.0 DEGC	
TIME SINCE CIRCULATION	8.7 HOURS		
MAX. RECORDED TEMP.	54.0 DEGC		
EQUIP. NO.	HL4291	OH NISKU	
RECORDED BY	S.CREWE\J.HOUSE		
WITNESSED BY	R.STRICKLAND\N.WATSON		

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.

BOREHOLE RECORD		
BIT SIZE	FROM	TO
444.5 MM	0.0 M	570.0 M
311.0 MM	570.0 M	2285.0 M
216.0 MM	2285.0 M	3130.0 M

CASING RECORD				
SIZE	WEIGHT	GRADE	FROM	TO
339.7 MM	81.1 KG/M	K-55	0.0 M	570.0 M
244.5 MM	64.7 KG/M	NA	570.0 M	2276.0 M
177.8 MM				

REMARKS

RUN 2 TRIP 1 : TIME STOPPED CIRCULATION: 27-NOV-2010 09:30 AM

TD NOT LOGGED DUE TO DOWNHOLE CONDITIONS

SAMPLE MEASURED:

RM 0.955 @ 15.2 DEG
RMF 0.825 @ 15.2 DEG
RMC 1.146 @ 15.2 DEG

INTEGRATED TRANSIT TIME TICS EVERY: 1.0, 10.0, & 100.0 μSEC.

RIG: STONEHAM 11

CREW: S.CREWE, J.HOUSE, L.BAZIAN, J.HENNESSEY, C.DROVER, J.WOODS, J.JEWEL

EQUIPMENT DATA

RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
2	1	SWIVEL	3944XB	73682	FREE
2	1	DHPA	4430XB	10152148	FREE
2	1	TIMA	3981XB	370721	FREE
2	1	COMM	3514XB	150740	FREE
2	1	WTS DGR/SU	1329XB	370830	FREE
2	1	ACOUSTIC EL	1677EA	10149056	CENTRALIZED
2	1	XMAC RX MDR	1678WB	10039363	CENTRALIZED
2	1	XMAC ISO	1678PB	10148319	FREE
2	1	XMAC TX ELC	1678BA	370862	CENTRALIZED
2	1	XMAC TX ELC	1678FA	10051497	CENTRALIZED
2	1	ORIT	4401XB	10119993	FREE
2	1	WTS DBL KNJ	3939XA	10238695	FREE
2	1	STAR II PS	1022PA	10569170	FREE
2	1	F/ GOM	1036EA	10103726	FREE
2	1	STAR MANDRE	4236MA	10103666	6-PAD DEVICE

INSTRUMENT CONFIGURATION

Source File: /dat1a/pass/nalcor_finn_run2/r2t11-tdg

CABLEHEAD

Diameter : 8.6 cm
 Length : 167.6 cm
 Weight : 10.9 kg
 Series : CABL338
 Mnemonic : CBLH

SWIVEL

Diameter : 8.6 cm
 Length : 101.6 cm
 Weight : 30.0 kg
 Series : 3944XB
 Mnemonic : SWVL

DOWNHOLE POWER ADAPTER

Diameter : 9.2 cm
 Length : 160.7 cm
 Weight : 39.1 kg
 Series : 4430XB
 Mnemonic : DHPA

TTRM SUB

Diameter : 9.2 cm
 Length : 116.8 cm
 Weight : 28.2 kg
 Series : 3981XA
 Mnemonic : TTRM
 Tensile Str. : 16818 kg

WTS COMMON REMOTE

Diameter : 9.2 cm
 Length : 194.0 cm
 Weight : 57.3 kg
 Series : 3514XB
 Mnemonic : WTS
 Tensile Str. : 35455 kg
 Compressive : 51818 kg

DIGITAL SPECTRALOG

Diameter : 9.2 cm
 Length : 222.8 cm
 Weight : 59.1 kg
 Series : 1329XA

34.74 m

CABLEHEAD TOP 33.90 m

 TEMP MP 29.69 m
 RM MP 29.82 m

Mnemonic : DSL
Tensile Str. : 35455 kg
Compressive : 38636 kg

GR MP 25.59 m

ARRAY ACOUSTILOG ELECTRONICS, 8 CHANNEL

Diameter : 8.6 cm
Length : 238.3 cm
Weight : 46.4 kg
Series : 1677EA
Mnemonic : XMAC
Tensile Str. : 23636 kg
Compressive : 32727 kg

CROSS MULTIPOLE ARRAY ACOUSTILOG

Diameter : 9.8 cm
Length : 332.4 cm
Weight : 101.8 kg
Series : 167BMB
Mnemonic : XMAC
Tensile Str. : 13636 kg
Compressive : 13636 kg

R8 21.07 m
R7 20.92 m
R6 20.77 m
R5 20.62 m
R4 20.46 m
R3 20.31 m
R2 20.16 m
R1 20.01 m

SHEAR WAVE ACOUSTILOG

Diameter : 9.2 cm
Length : 152.4 cm
Weight : 61.4 kg
Series : 167BFB
Mnemonic : XMAC
Tensile Str. : 20455 kg
Compressive : 20455 kg

MULTI-POLE ARRAY ACOUSTIC

Diameter : 9.8 cm
Length : 241.3 cm
Weight : 77.3 kg
Series : 167BBA
Mnemonic : XMAC
Tensile Str. : 13636 kg
Compressive : 13636 kg

MONOPOLE T2 17.42 m
QUADRUPOLE T5 17.42 m

X-DIPOLE T3 16.88 m
Y-DIPOLE T4 16.88 m

MONOPOLE T1 16.35 m

MULTI-POLE ARRAY ACOUSTIC

Diameter : 8.6 cm
Length : 131.6 cm
Weight : 26.4 kg
Series : 167BFA
Mnemonic : MAC
Tensile Str. : 35455 kg

DIGITAL ORIENTATION

Diameter : 8.6 cm
Length : 329.4 cm
Weight : 50.0 kg
Series : 4401XB
Mnemonic : ORIT
Tensile Str. : 35455 kg

ORIENT MP 10.85 m

KNUCKLE JOINT (DOUBLE)

Diameter : 8.6 cm
Length : 141.8 cm
Weight : 40.9 kg
Series : 3939XA
Mnemonic : KN.IT

Tensile Str. : 14545 kg
Compressive : Borehole Size Dependent

C6PC IMAGER POWER SUPPLY

Diameter : 9.2 cm
Length : 278.9 cm
Weight : 52.7 kg
Series : 1022PA
Mnemonic : C6PC
Tensile Str. : 35455 kg
Compressive : 25455 kg

C6PC IMAGER ELECTRONICS

Diameter : 9.2 cm
Length : 278.9 cm
Weight : 42.7 kg
Series : 1036EA
Mnemonic : C6PC
Tensile Str. : 35455 kg
Compressive : Borehole Size Dependent

C6PC IMAGER MANDREL

Diameter : 13.3 cm
Length : 381.0 cm
Weight : 126.4 kg
Series : 4236MA
Mnemonic : C6PC

BULL PLUG 3 3/8

TOTAL LENGTH: 34.74 m
TOTAL WEIGHT: 859.5 kg
MAX DIAMETER: 13.3 cm

PAD MP 1.09 m

0.00 m

MAIN LOG - UPPER PRESENTATION

ECLIPS 6.1i Aug 06, 2010
Patches: 1

Sat Nov 27 17:10:44 2010

Perplt /main/62

Cplot

Pdf_Cpp /main/16

Fileview 5.50

PARAMETER AND FILTER SUMMARY REPORT

FILE: /data/pass/nalcor_finn_run2/m837a_xmac01.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 2245.919 m BOTTOM DEPTH: 3018.968 m

SYMMETRIC FILTER

MEASUREMENT TYPE PARAMETER VALUE UNITS INTERVAL (-)

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CHT	FILTER ()	medium (1)		TOP	BOTTOM
TENSION	FILTER ()	medium (1)		''	''
GR	FILTER ()	medium (1)		''	''
DT24	FILTER ()	light (2)		''	''

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
BIT SIZE	BIT SIZE	216.000	mm	TOP	BOTTOM

ACOUSTIC AVAN CORRELATION

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
MONOPOLE DELTA T	FORMATION TYPE	GENERIC (MEDIUM)		TOP	BOTTOM
	CORRELATION METHOD	NTH ROOT		''	''
	RESET TAPERS			''	''
	TAPER - LEFT END	95	us/m	''	''
	TAPER - RIGHT END	250	us/m	''	''
MONOPOLE COMPRESSIONAL	FLOOR (UNIV. OPTION)	0.050		''	''
	FORMATION TYPE	GENERIC (MEDIUM)		''	''
	CORRELATION METHOD	NTH ROOT		''	''
	RESET TAPERS			''	''
	TAPER - LEFT END	95	us/m	''	''
	TAPER - RIGHT END	200	us/m	TOP	2971.571
		226	us/m	BOTTOM	BOTTOM
	FLOOR (UNIV. OPTION)	0.050		TOP	BOTTOM

ACOUSTIC POROSITY

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
DELTA T CURVE SELECTION	DT24 SOURCE	AVAN DT24		TOP	BOTTOM

ACOUSTIC WAVEFORM FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
WAVEFORM FILTER - DELTA T	SURFACE WAVE FILTER	ON		TOP	BOTTOM
	LOW FREQ CUTOFF	7000	Hz	''	''
	HIGH FREQ CUTOFF	22500	Hz	''	''
WAVEFORM FILTER - FULLWAVE	SURFACE WAVE FILTER	ON		''	''
	LOW FREQ CUTOFF	2000	Hz	''	''
	HIGH FREQ CUTOFF	20000	Hz	''	''

ACOUSTIC TCC CONTROL PARAMETERS

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
GENERAL TCC PARAMETERS	AGC	ON		TOP	BOTTOM
	SUBCYCLE LENGTH	50		''	''
	SUBSET	1		''	''
GENERAL MONOPOLE TCC PARAMETERS	STACK LEVEL	2		''	''
	DSP FILTER	ON		''	''
DELTA T TCC PARAMETERS	ACG WINDOW	1088	us	TOP	2950.540
		1200	us	BOTTOM	BOTTOM
	MOVEOUT	16	us/ft	TOP	BOTTOM
	SAMPLE PERIOD	16		''	''
	RX DELAY	192	us	''	''
FULL WAVE MONOPOLE TCC PARAMETERS	ACG WINDOW	8064	us	''	''
	SAMPLE PERIOD	24		''	''
	RX DELAY	0	us	''	''

CURVE DESCRIPTION REPORT

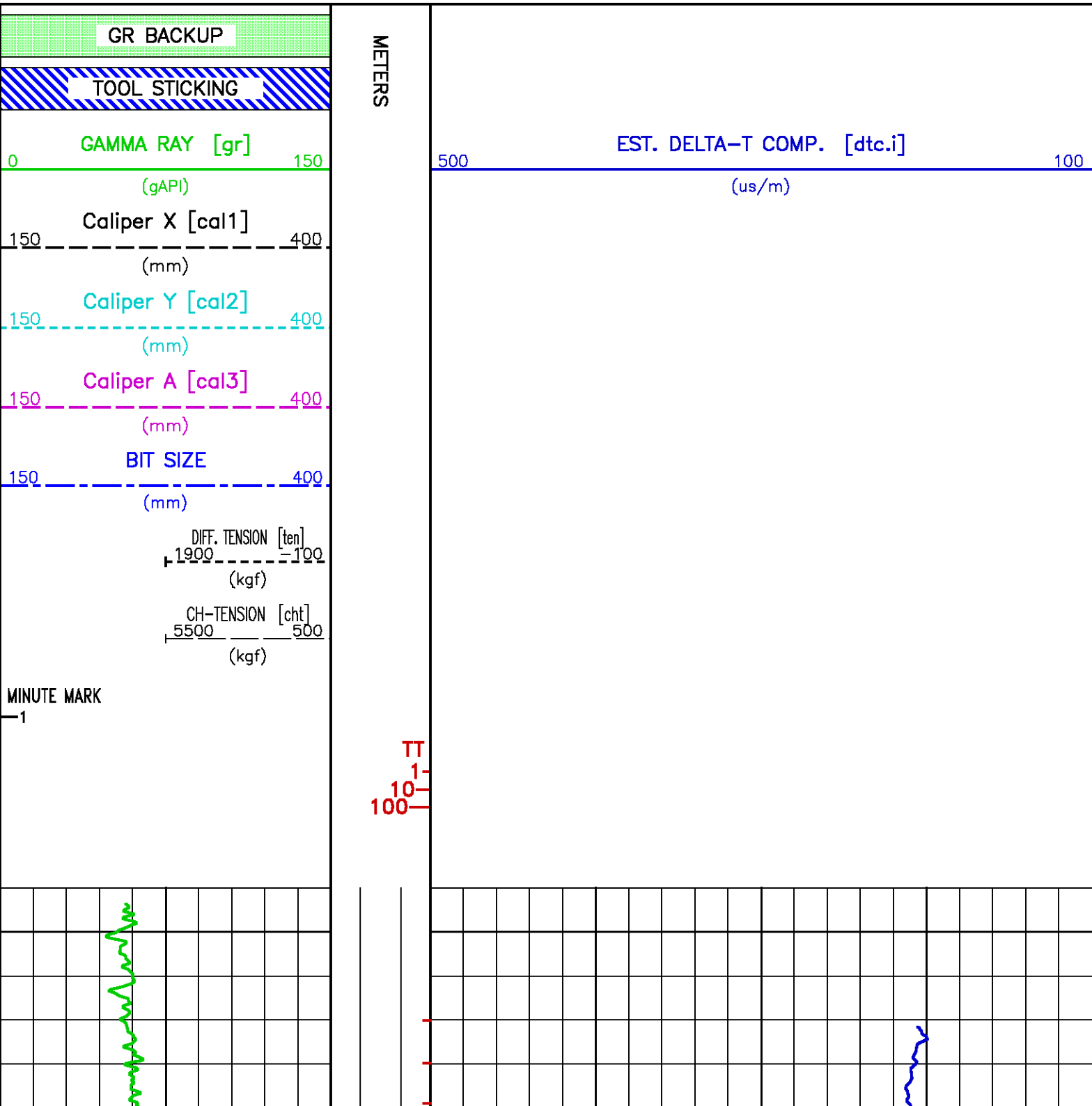
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:BIT	Nov 27 14:41:47 2010	BIT SIZE
F1:CAL1	Nov 27 14:41:47 2010	DIAMETER FROM PAD 1 AND ITS OPPOSITE
F1:CAL2	Nov 27 14:41:47 2010	DIAMETER FROM PAD 2 AND ITS OPPOSITE
F1:CAL3	Nov 27 14:41:47 2010	DIAMETER FROM PAD 3 AND ITS OPPOSITE
F1:CHT	Nov 27 14:41:47 2010	CABLE HEAD TENSION
F1:DTCQI	Nov 27 14:41:47 2010	COMPRESSIONAL WAVE SLOWNESS
F1:GR	Nov 27 14:41:47 2010	GAMMA RAY
F1:MMRK	Nov 27 14:41:47 2010	MINUTE MARK
F1:TEN	Nov 27 14:41:47 2010	DIFFERENTIAL TENSION
F1:TTQI	Nov 27 14:41:47 2010	INTEGRATED TRAVELTIME FROM ACOUSTIC SLOWNESS

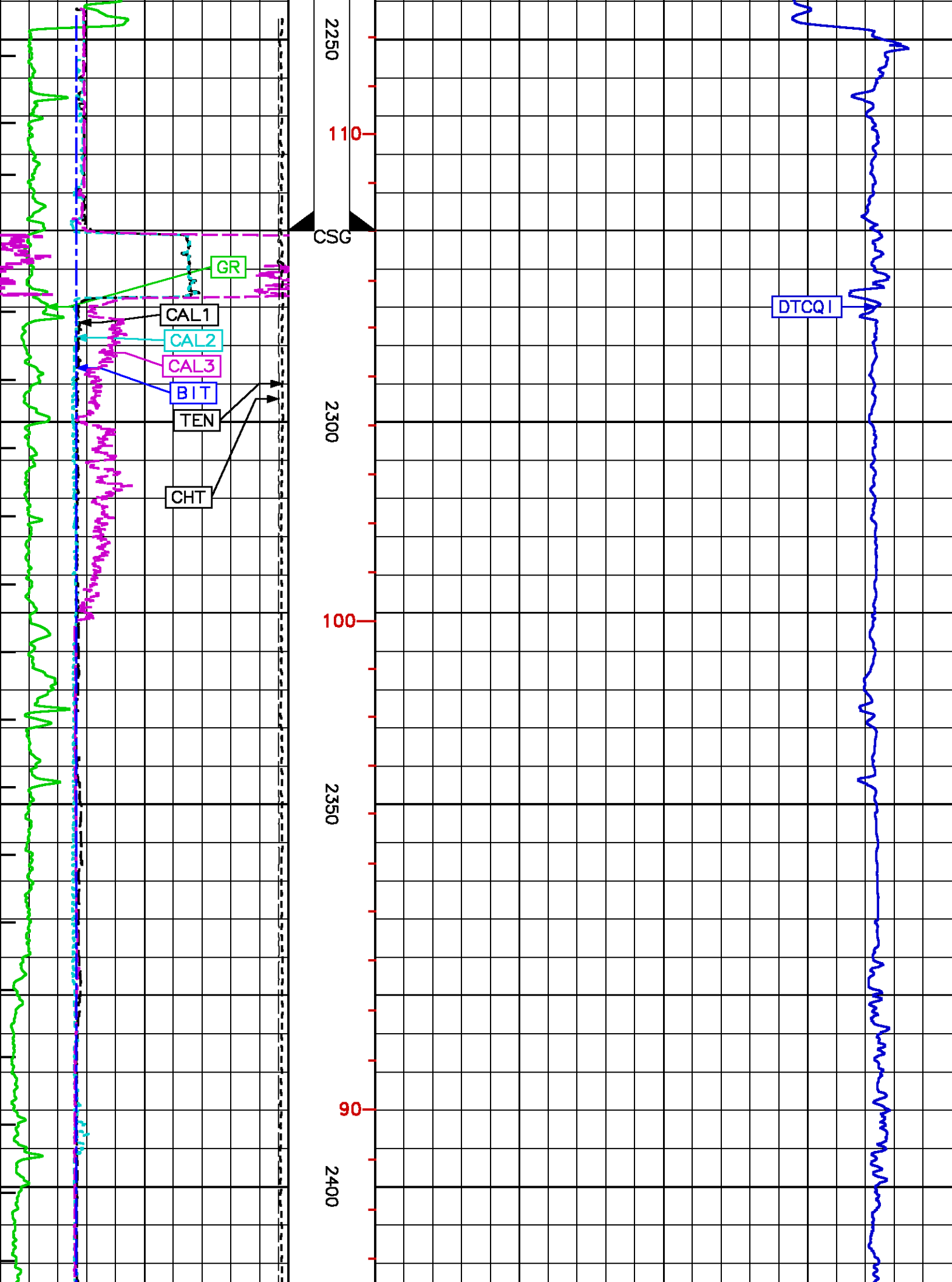
CURVE MEASURE POINT OFFSET

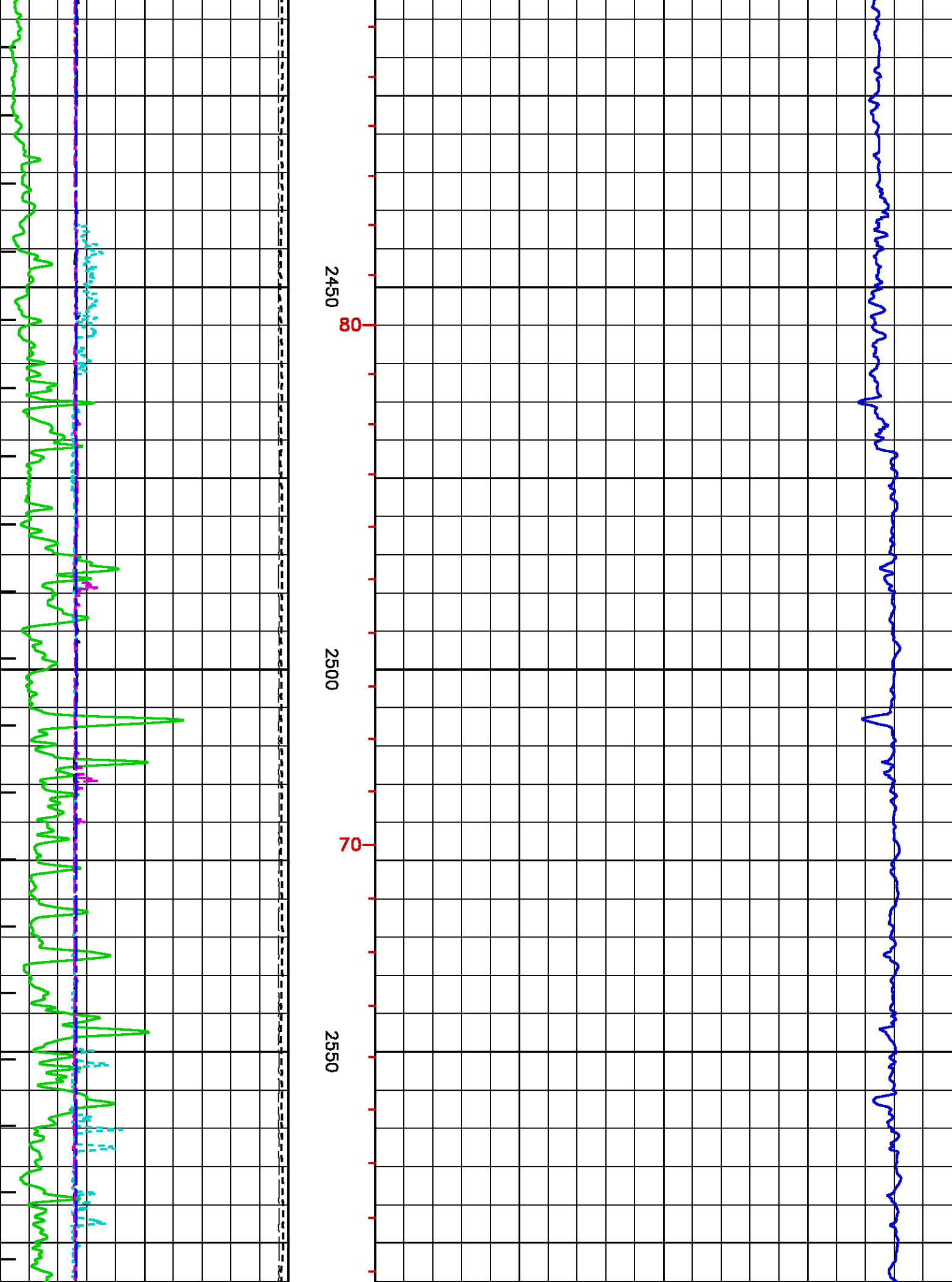
CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)
BIT CAL1	0.00 0.99	CAL2 CAL3	0.99 0.99	CHT DTCQ1	0.00 20.42	GR TEN	25.49 0.00

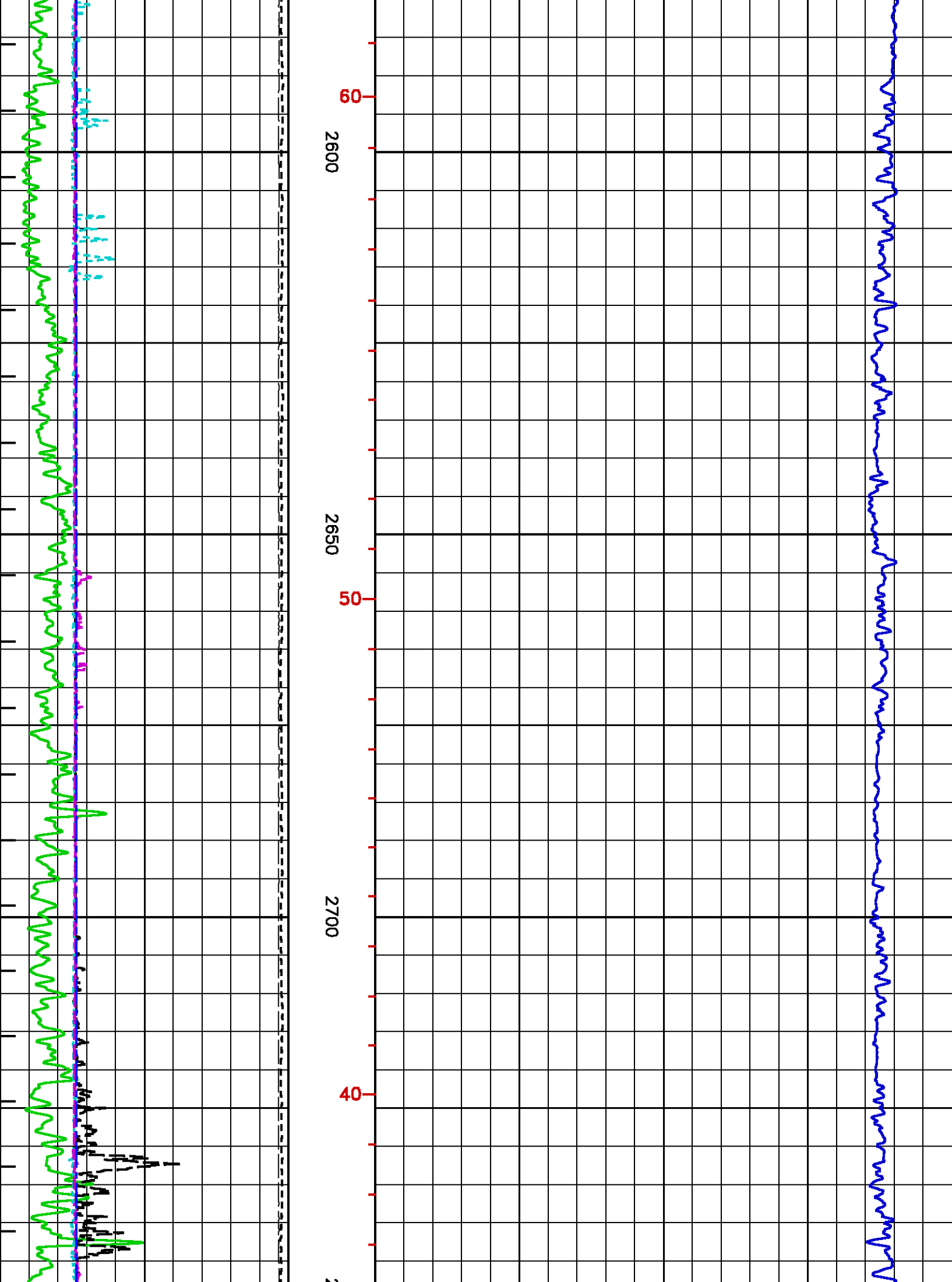
Presentation : cpu1:/dat1a/pass/nalcor_finn_run2/mac_upper100-500.pdf [1:600 Scale]
 Plot Interval : 2221.76 - 3040 Meters

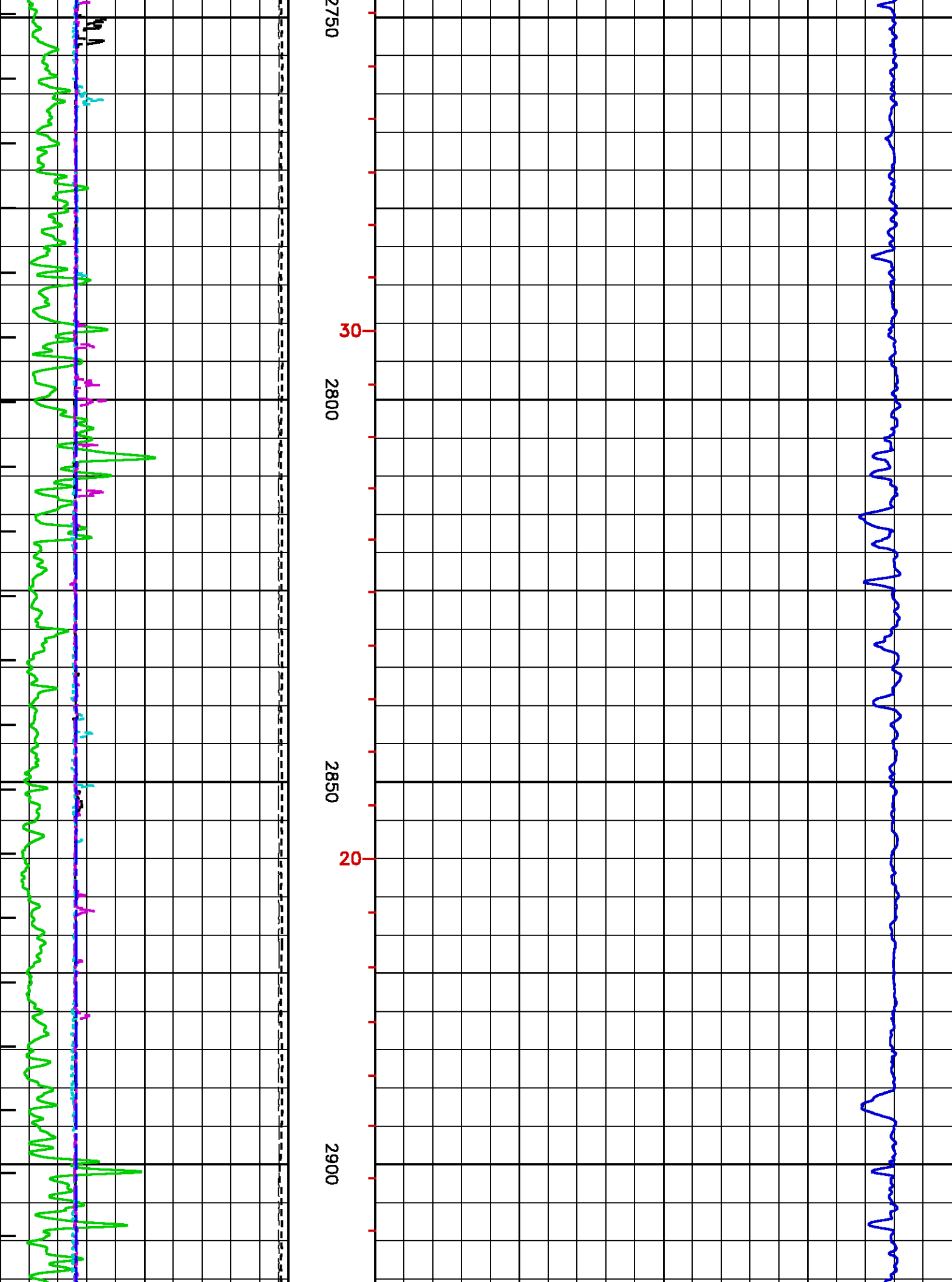
Data File 1 : F1 : cpu1:/dat1a/pass/nalcor_finn_run2/r2t1_main.xtf
 Created On : Nov 27 14:41:47 2010
 Company : NALCOR ENERGY
 Well : NALCOR ET AL FINNEGAN 1
 Field : FINNEGAN
 File Interval : 2217.42 - 3020.11 Meters
 Oct : m837c_xm

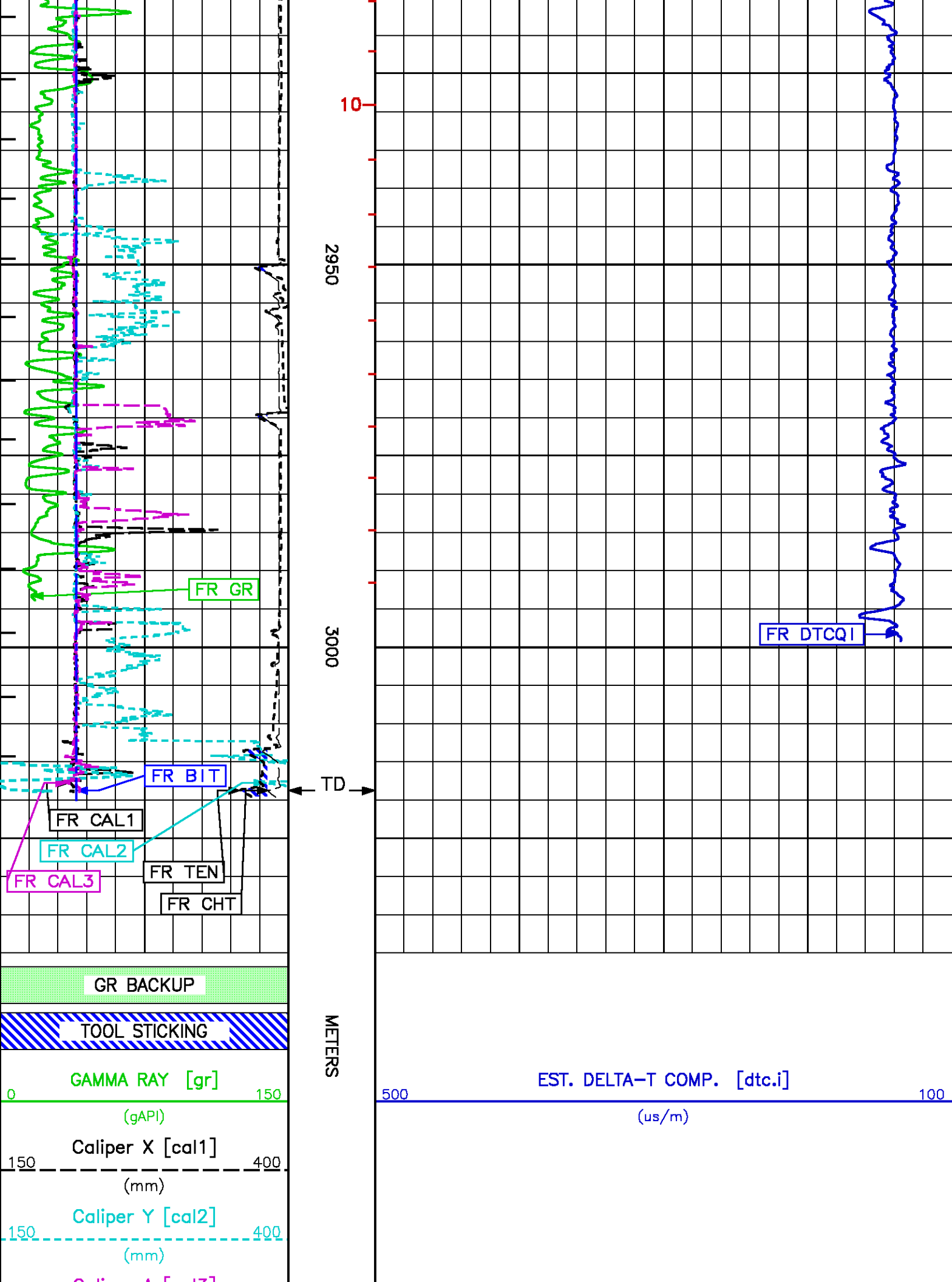


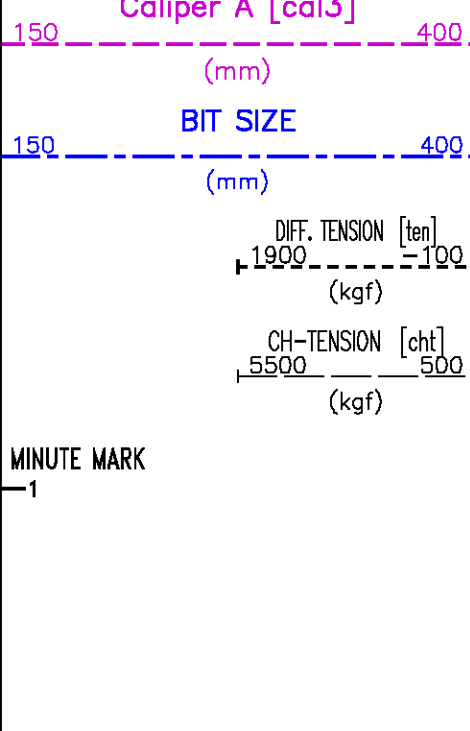












TT
1-
10-
100-

MAIN LOG 500:100 SCALE

ECLIPS 6.1i Aug 06, 2010
Patches: 1

Sat Nov 27 17:13:21 2010

Perplt /main/62

Cplot

Pdf_Cpp /main/16

Fileview 5.50

PARAMETER AND FILTER SUMMARY REPORT

FILE: /data/pass/nalcor_finn_run2/m837c_xmac01.prm
LOGGING MODE: DEPTH
TOP DEPTH: 2245.919 m

DIRECTION: UP
BOTTOM DEPTH: 3018.968 m

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CHT	FILTER ()	medium (1)		TOP	BOTTOM
TENSION	FILTER ()	medium (1)		"	"
GR	FILTER ()	medium (1)		"	"
DT24	FILTER ()	light (2)		"	"

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
BIT SIZE	BIT SIZE	216.000	mm	TOP	BOTTOM

ACOUSTIC AVAN CORRELATION

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
MONOPOLE DELTA T	FORMATION TYPE	GENERIC (MEDIUM)		TOP	BOTTOM
	CORRELATION METHOD	NTH ROOT		"	"
	RESET TAPERS			"	"
	TAPER - LEFT END	95	us/m	"	"
	TAPER - RIGHT END	250	us/m	"	"
MONOPOLE COMPRESSIONAL	FLOOR (UNIV. OPTION)	0.050		"	"
	FORMATION TYPE	GENERIC (MEDIUM)		"	"
	CORRELATION METHOD	NTH ROOT		"	"
	RESET TAPERS			"	"
				"	"

RESET TAPERS	95	us/m	''	''
TAPER - LEFT END	200	us/m	TOP	2971.571
TAPER - RIGHT END	226	us/m	2971.571	BOTTOM
FLOOR (UNIV. OPTION)	0.050		TOP	BOTTOM

ACOUSTIC POROSITY

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
DELTA T CURVE SELECTION	DT24 SOURCE	AVAN DT24		TOP	BOTTOM

ACOUSTIC WAVEFORM FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
WAVEFORM FILTER - DELTA T	SURFACE WAVE FILTER	ON		TOP	BOTTOM
	LOW FREQ CUTOFF	7000	Hz	''	''
	HIGH FREQ CUTOFF	22500	Hz	''	''
WAVEFORM FILTER - FULLWAVE	SURFACE WAVE FILTER	ON		''	''
	LOW FREQ CUTOFF	2000	Hz	''	''
	HIGH FREQ CUTOFF	20000	Hz	''	''

ACOUSTIC TCC CONTROL PARAMETERS

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
GENERAL TCC PARAMETERS	AGC	ON		TOP	BOTTOM
	SUBCYCLE LENGTH	50		''	''
	SUBSET	1		''	''
GENERAL MONOPOLE TCC PARAMETERS	STACK LEVEL	2		''	''
	DSP FILTER	ON		''	''
DELTA T TCC PARAMETERS	ACG WINDOW	1088	us	TOP	2950.540
		1200	us	2950.540	BOTTOM
	MOVEOUT	16	us/ft	TOP	BOTTOM
	SAMPLE PERIOD	16		''	''
	RX DELAY	192	us	''	''
FULL WAVE MONOPOLE TCC PARAMETERS	ACG WINDOW	8064	us	''	''
	SAMPLE PERIOD	24		''	''
	RX DELAY	0	us	''	''

CURVE DESCRIPTION REPORT

CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:BIT	Nov 27 14:41:47 2010	BIT SIZE
F1:CAL1	Nov 27 14:41:47 2010	DIAMETER FROM PAD 1 AND ITS OPPOSITE
F1:CAL2	Nov 27 14:41:47 2010	DIAMETER FROM PAD 2 AND ITS OPPOSITE
F1:CAL3	Nov 27 14:41:47 2010	DIAMETER FROM PAD 3 AND ITS OPPOSITE
F1:CHT	Nov 27 14:41:47 2010	CABLE HEAD TENSION
F1:DTCQI	Nov 27 14:41:47 2010	COMPRESSIONAL WAVE SLOWNESS
F1:GR	Nov 27 14:41:47 2010	GAMMA RAY
F1:MMRK	Nov 27 14:41:47 2010	MINUTE MARK
F1:TEN	Nov 27 14:41:47 2010	DIFFERENTIAL TENSION
F1:TTQI	Nov 27 14:41:47 2010	INTEGRATED TRAVELTIME FROM ACOUSTIC SLOWNESS

CURVE MEASURE POINT OFFSET

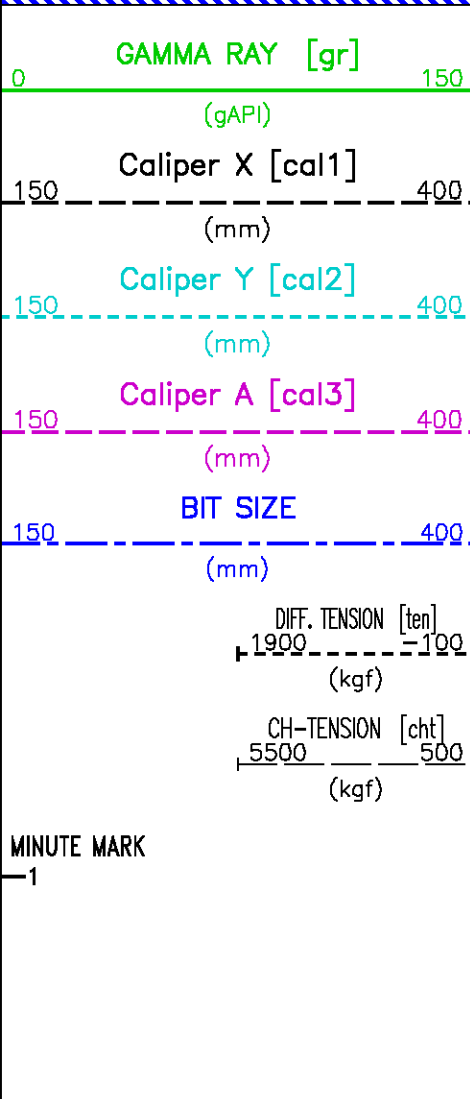
CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)
BIT	0.00	CAL2	0.99	CHT	0.00	GR	25.49
CAL1	0.99	CAL3	0.99	DTCQI	20.42	TEN	0.00

Presentation : cpu1:/dat1a/pass/nalcor_finn_run2/mac_main100-500.pdf [1:240 Scale]
Plot Interval : 2265 - 3030 Meters

Data File 1 : F1 : cpu1:/dat1a/pass/nalcor_finn_run2/r2t1_main.xtf
Created On : Nov 27 14:41:47 2010
Company : NALCOR ENERGY
Well : NALCOR ET AL FINNEGAN 1
Field : FINNEGAN
File Interval : 2217.42 - 3020.11 Meters
Oct : m837c_xm

GR BACKUP
TOOL STICKING

METER



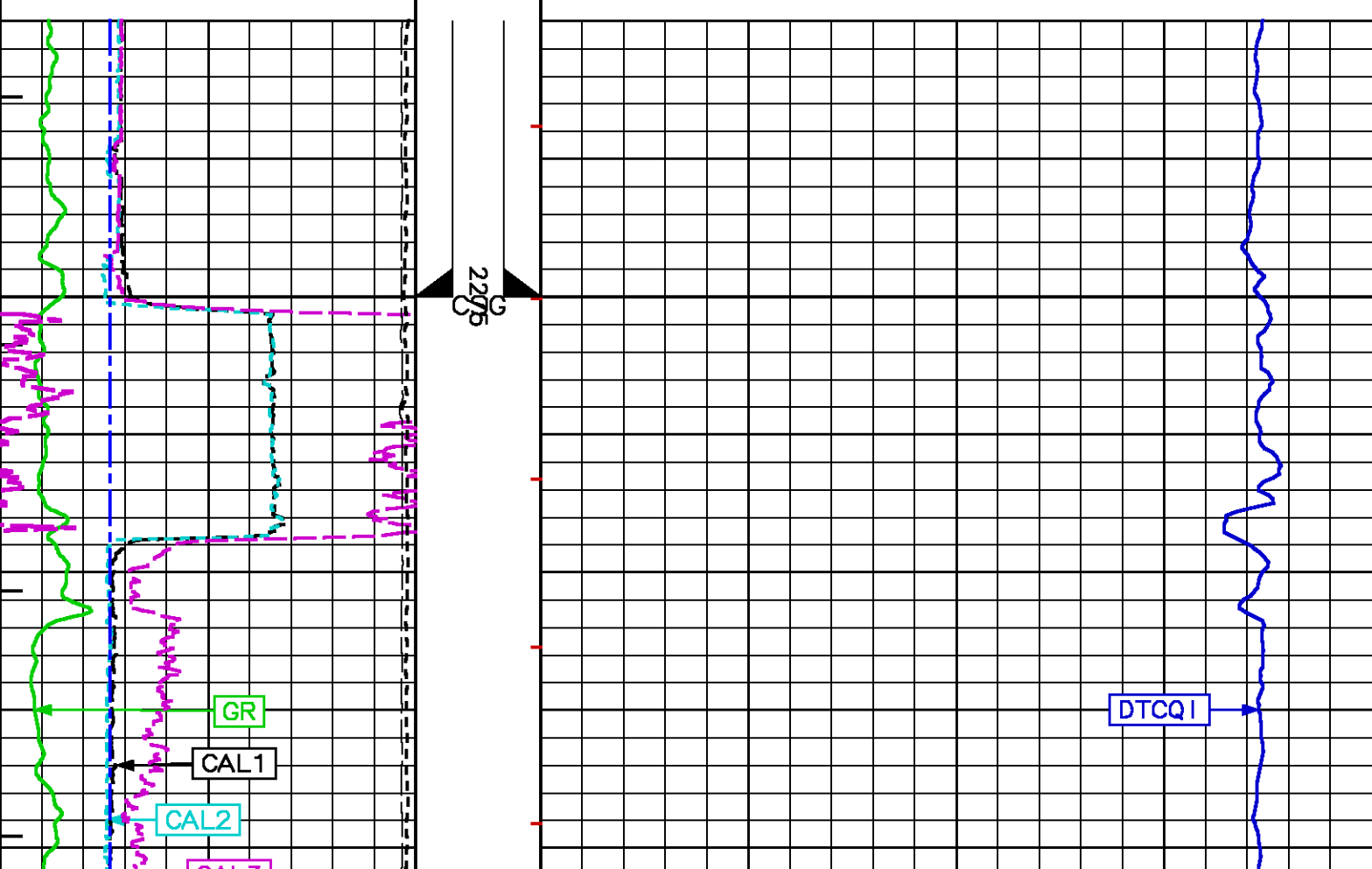
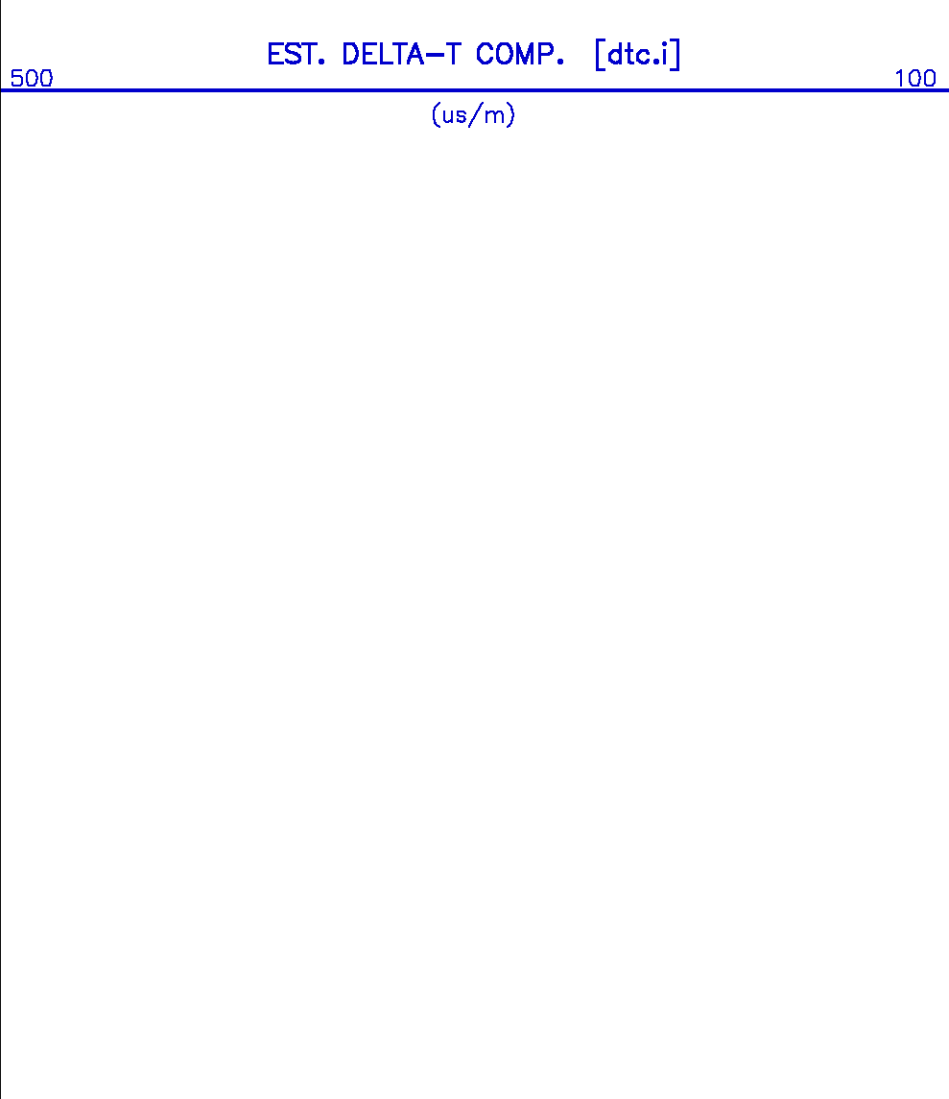
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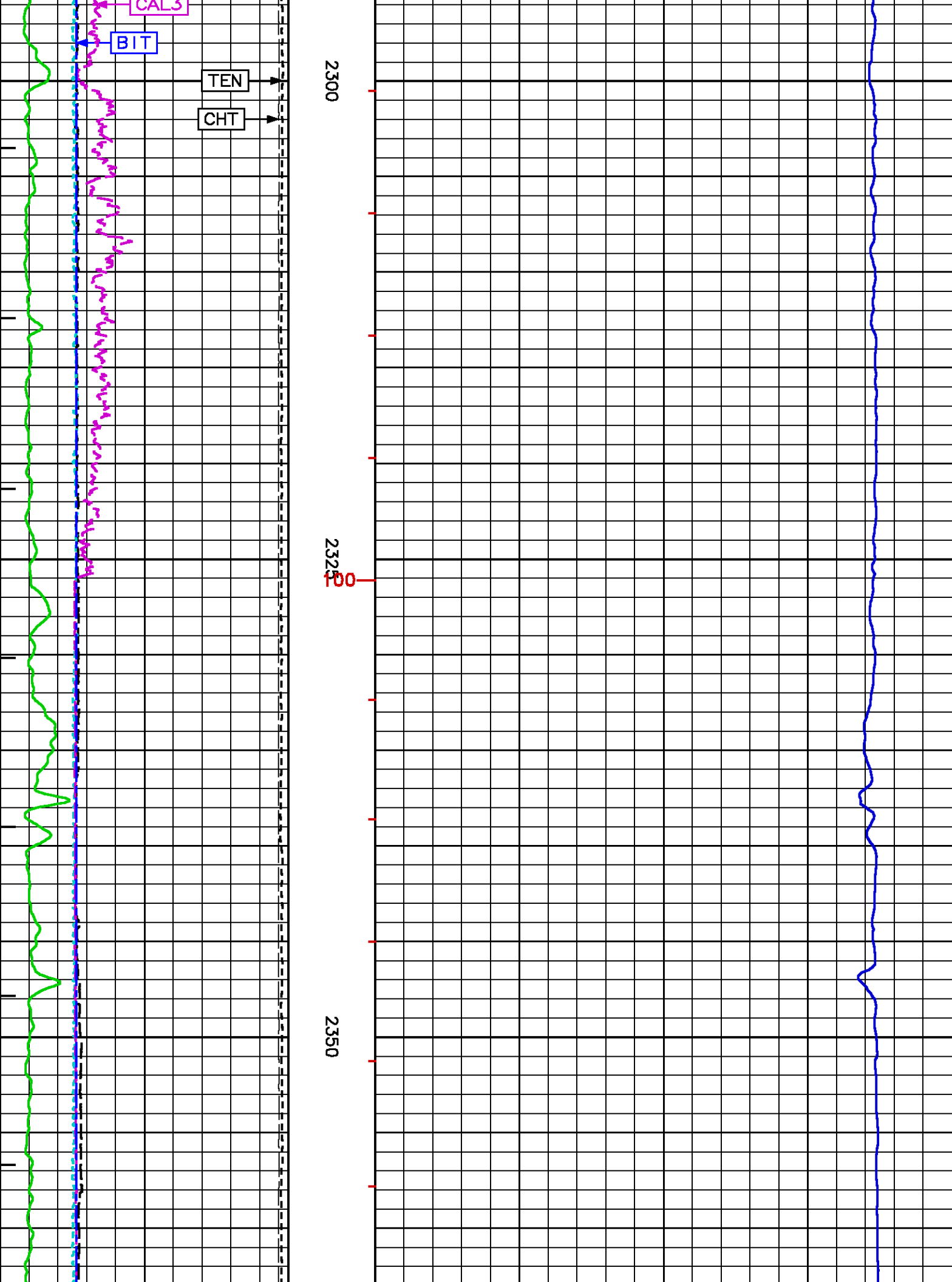
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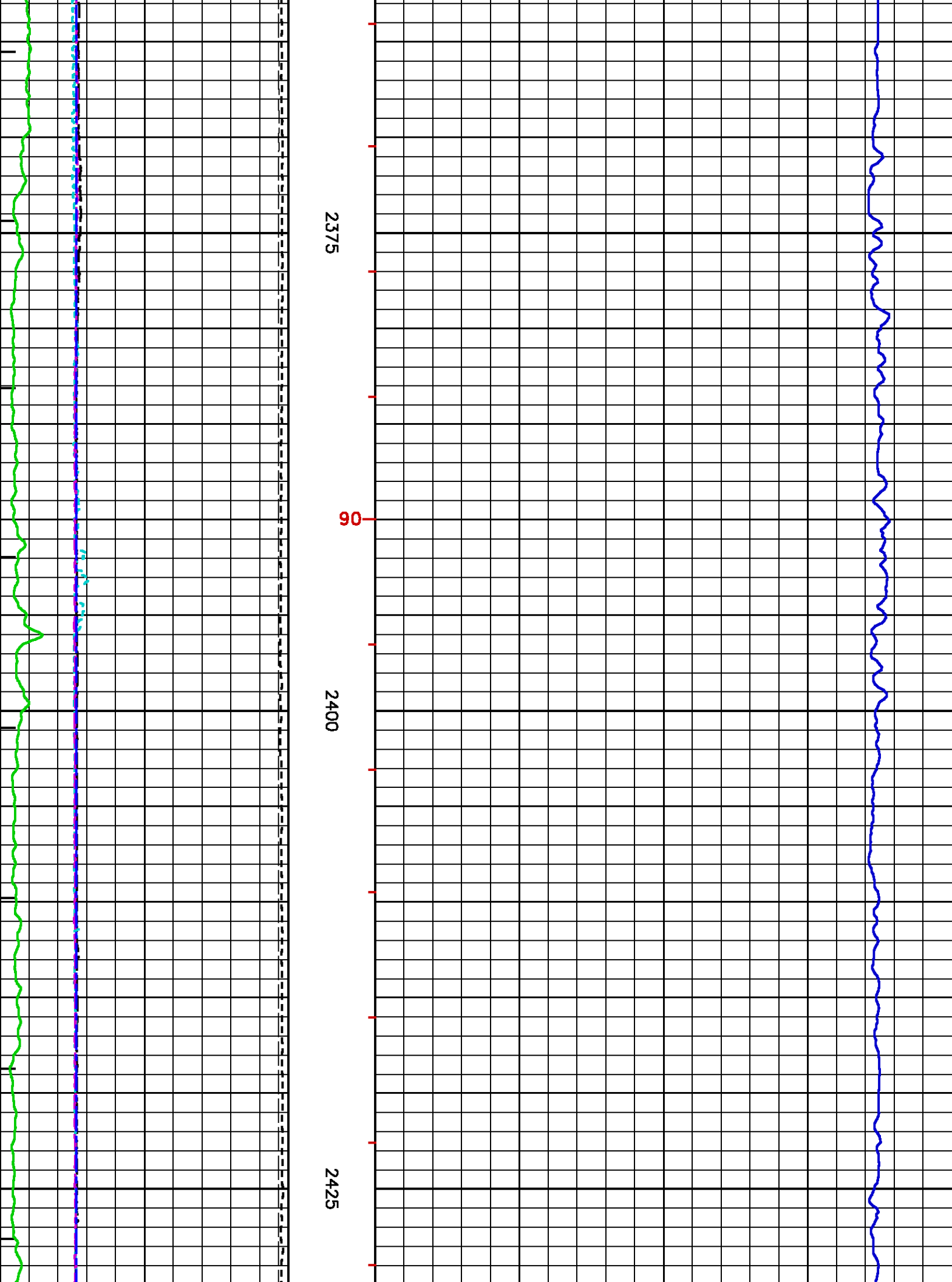
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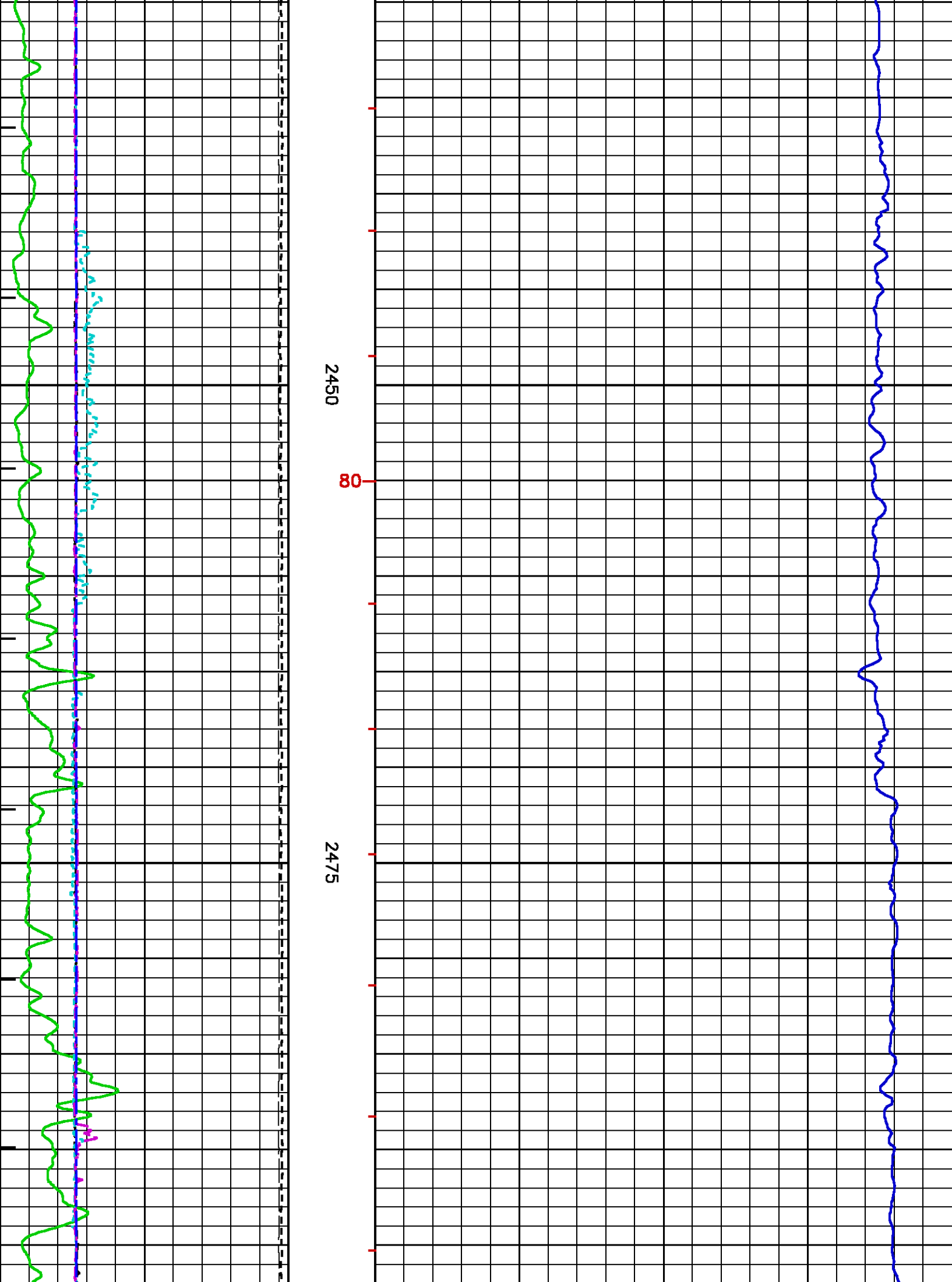
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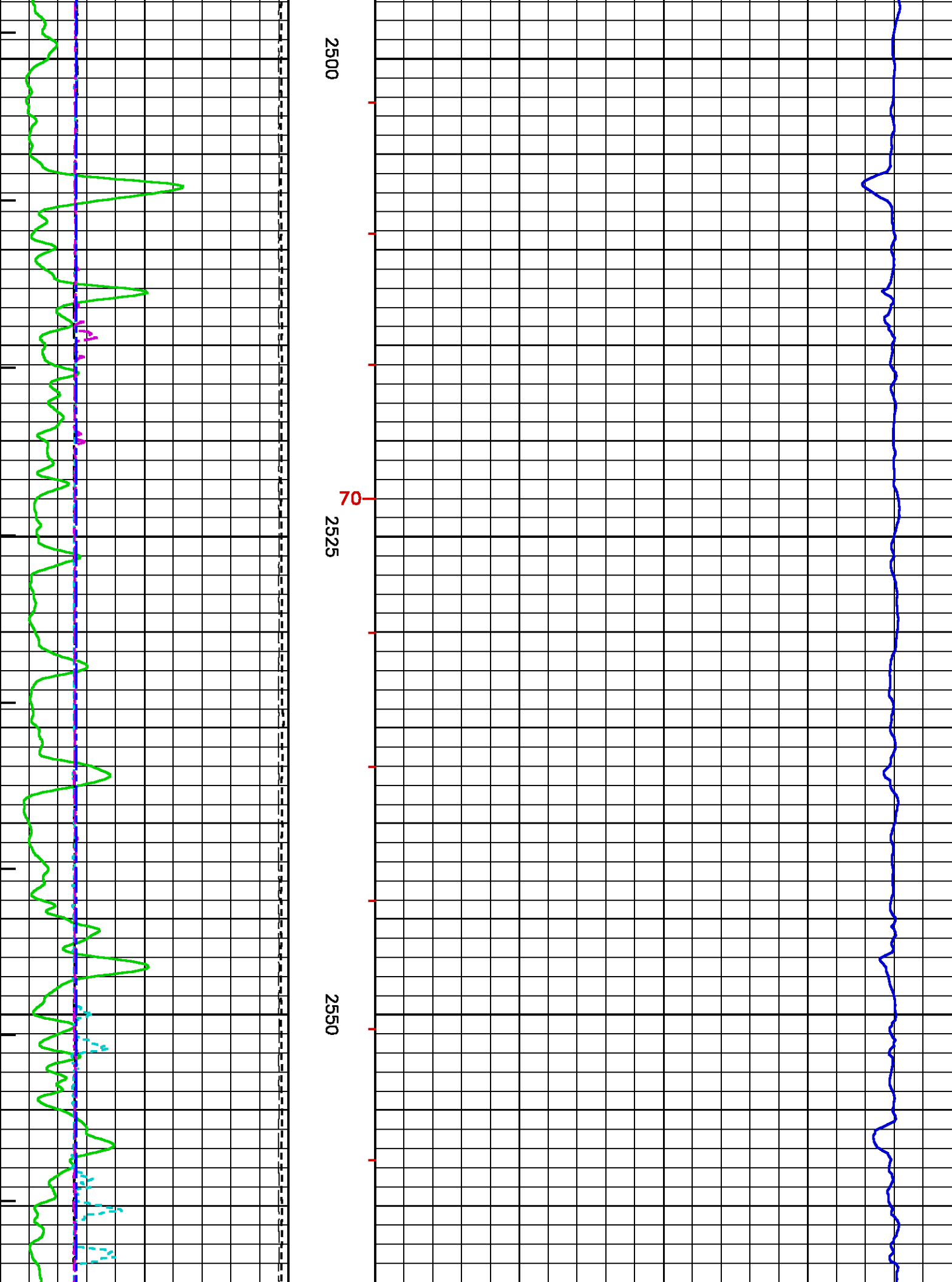
2295

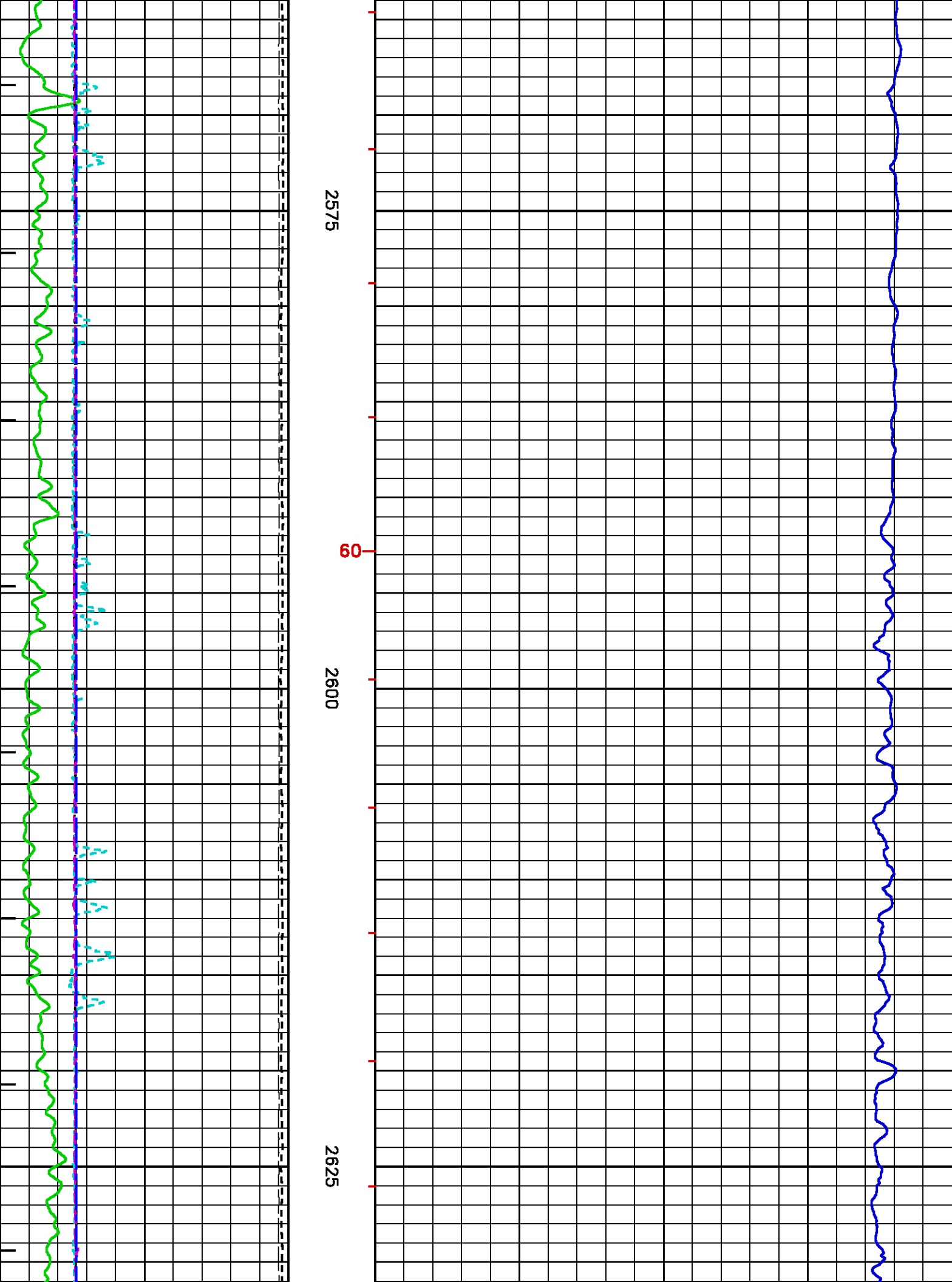


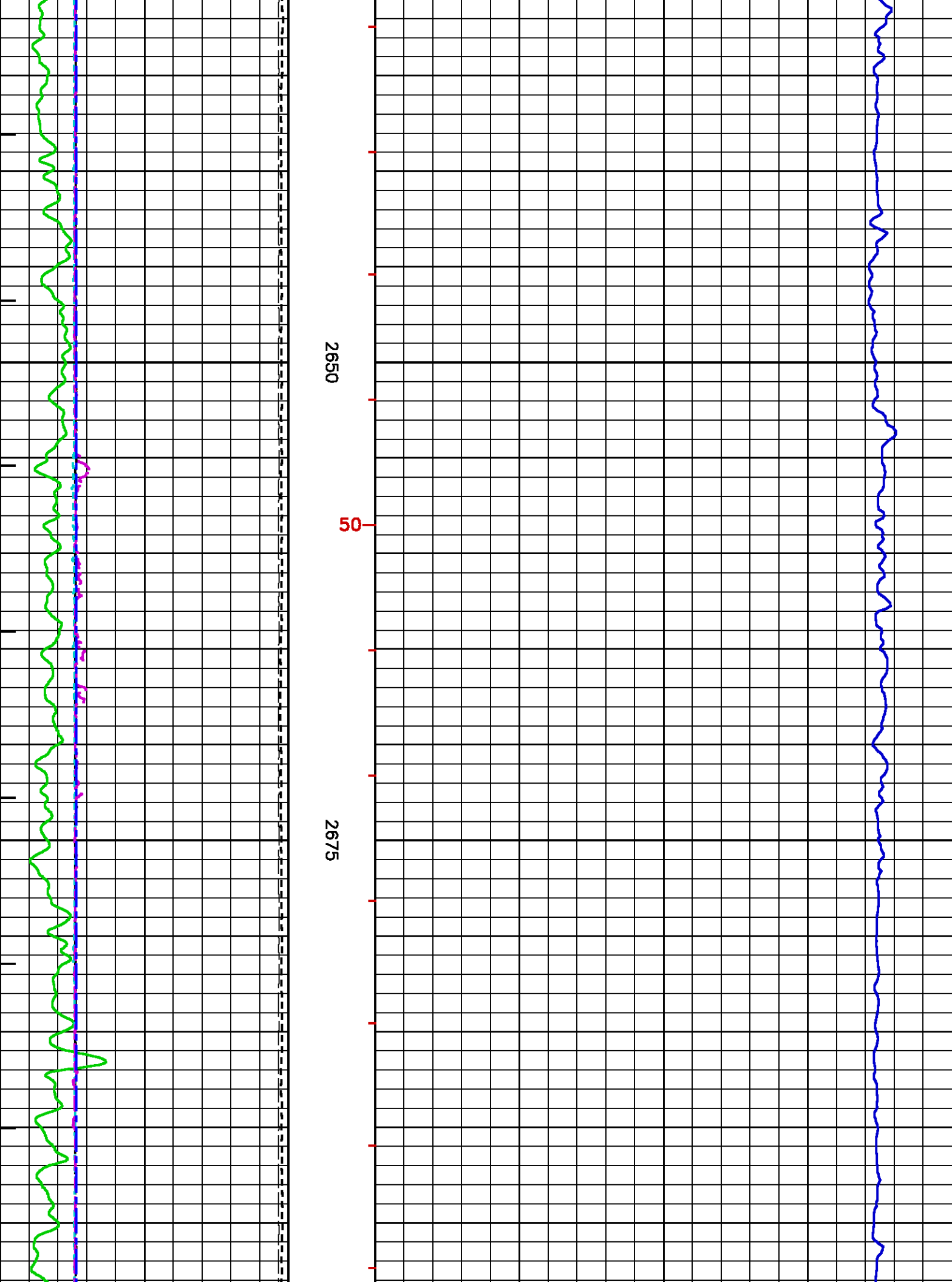


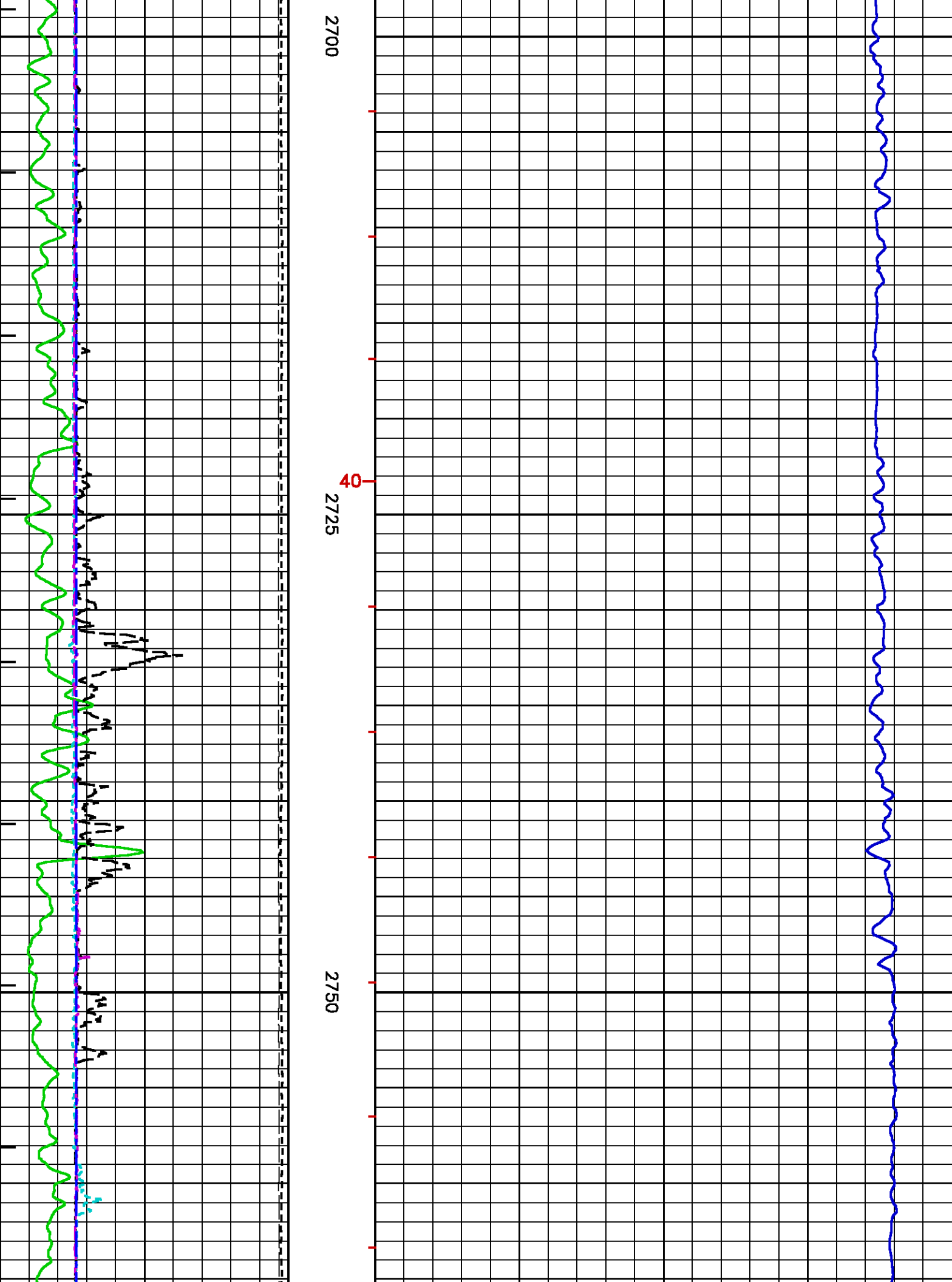


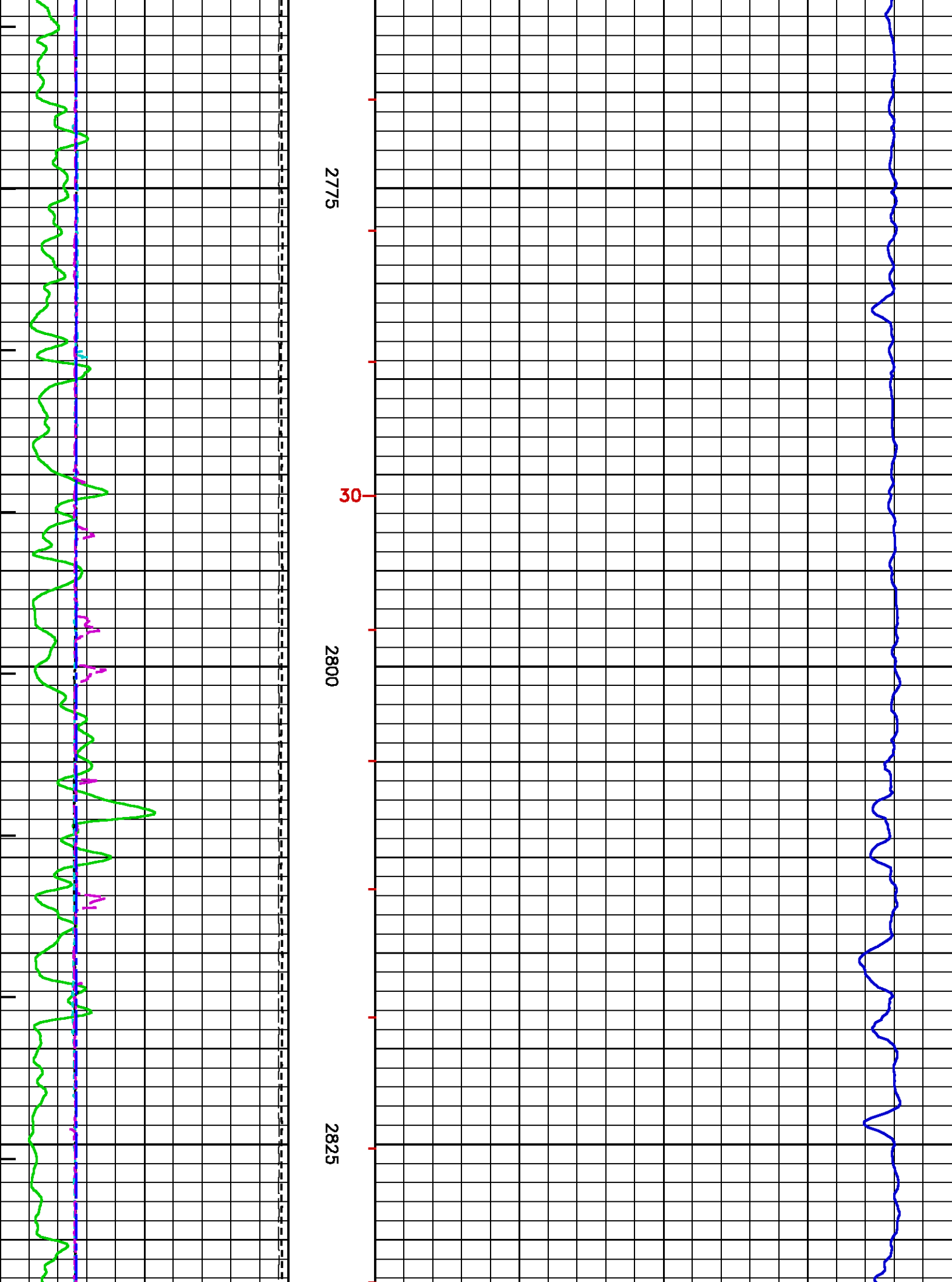


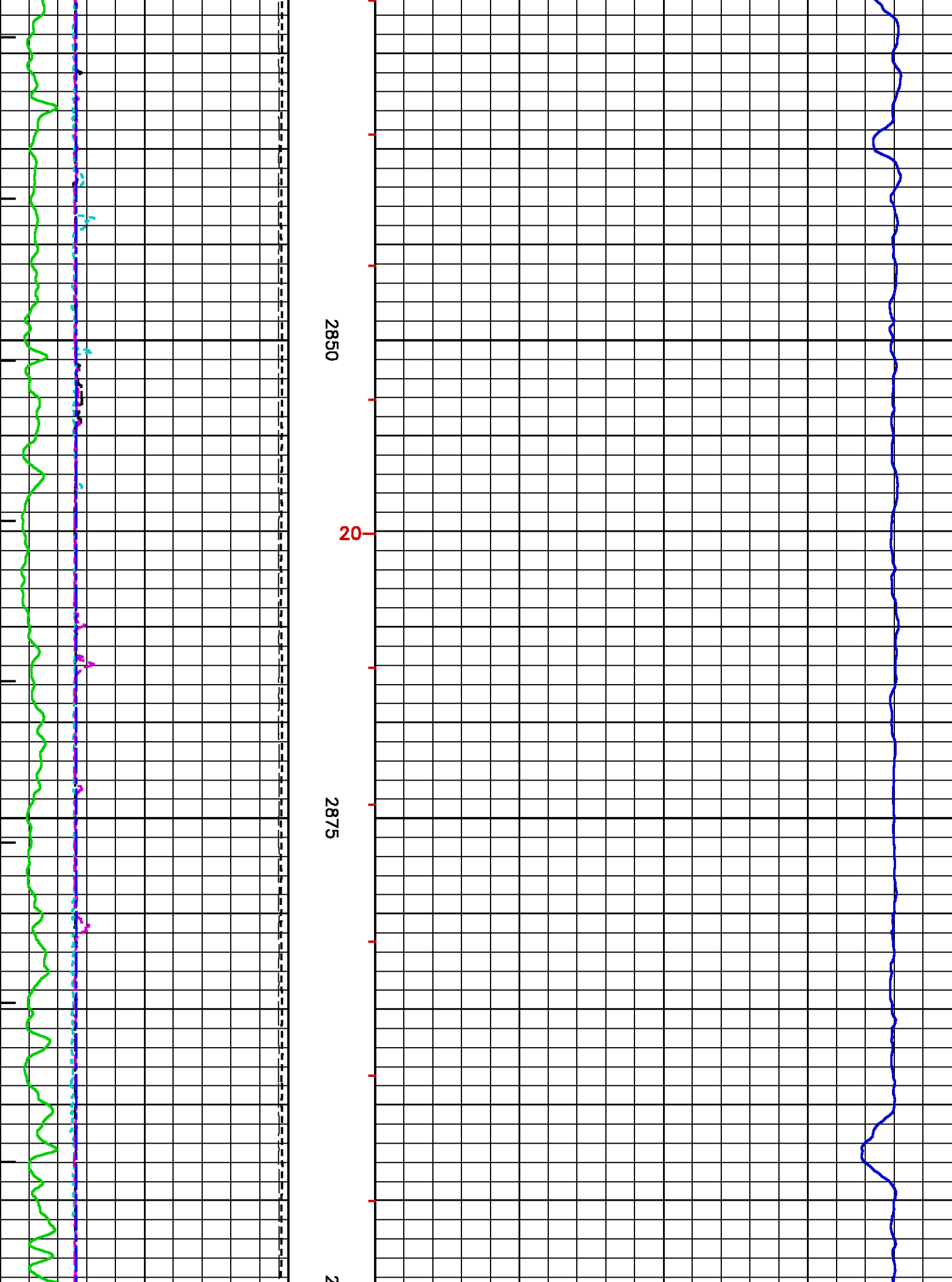


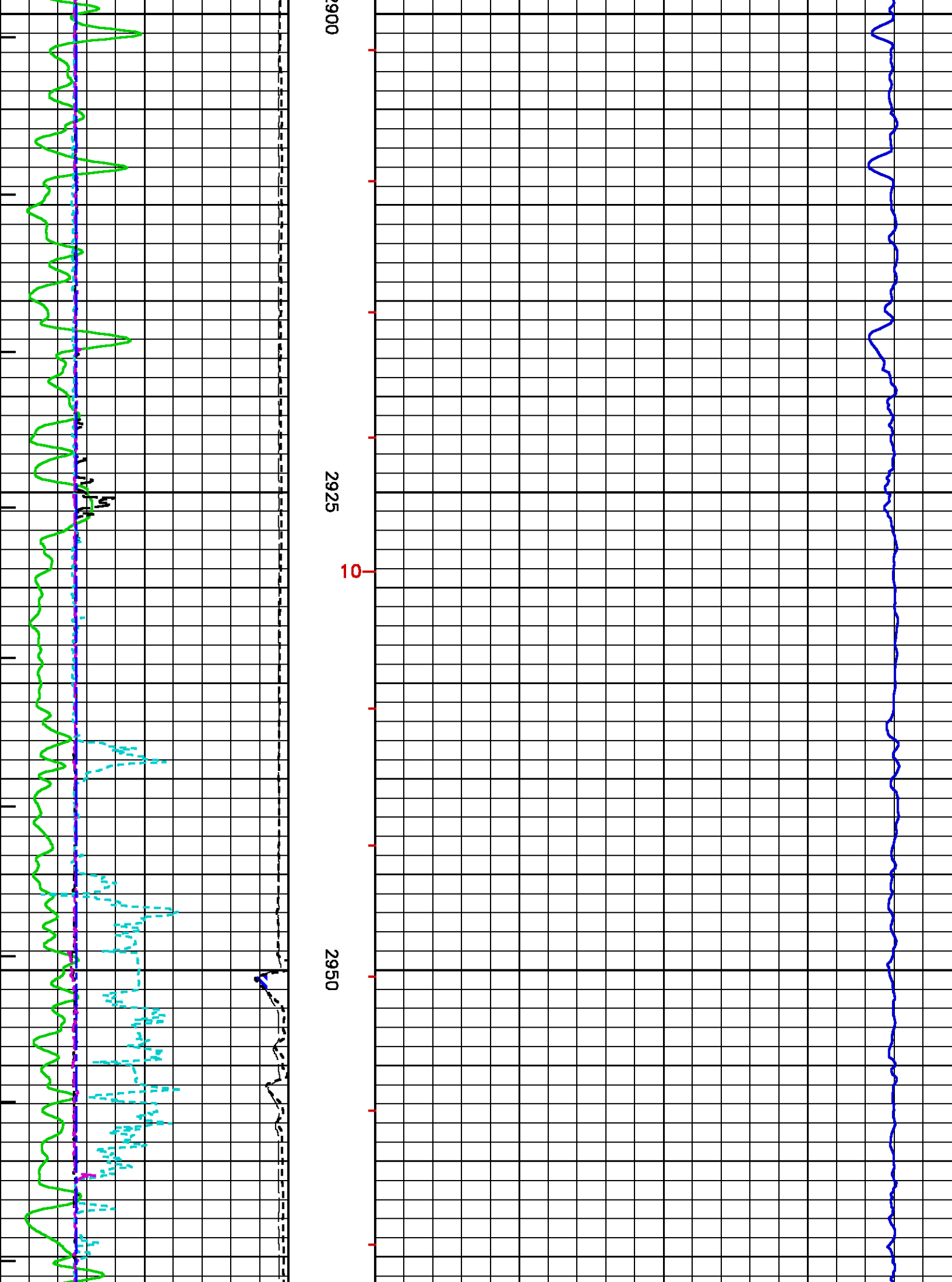


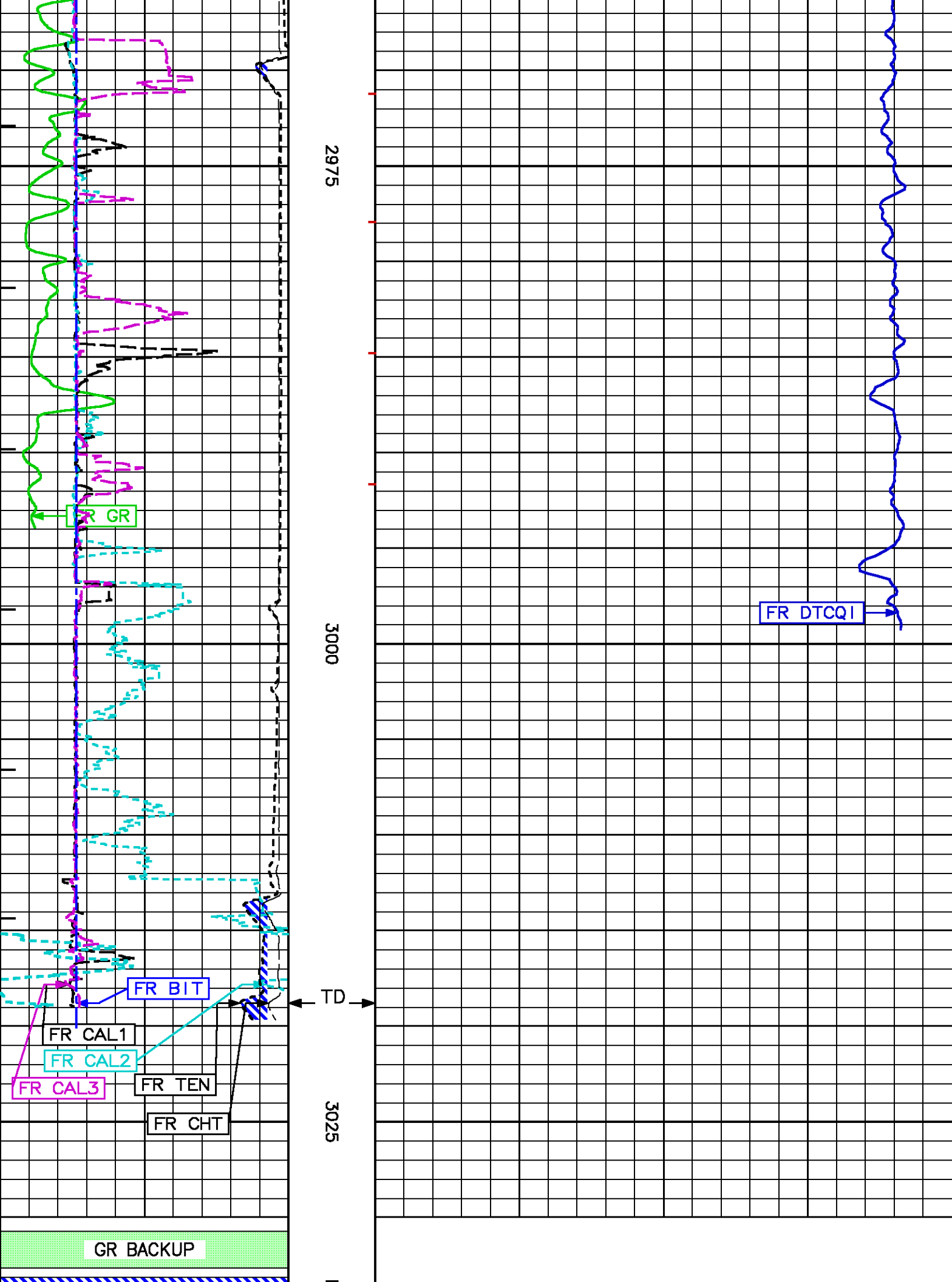


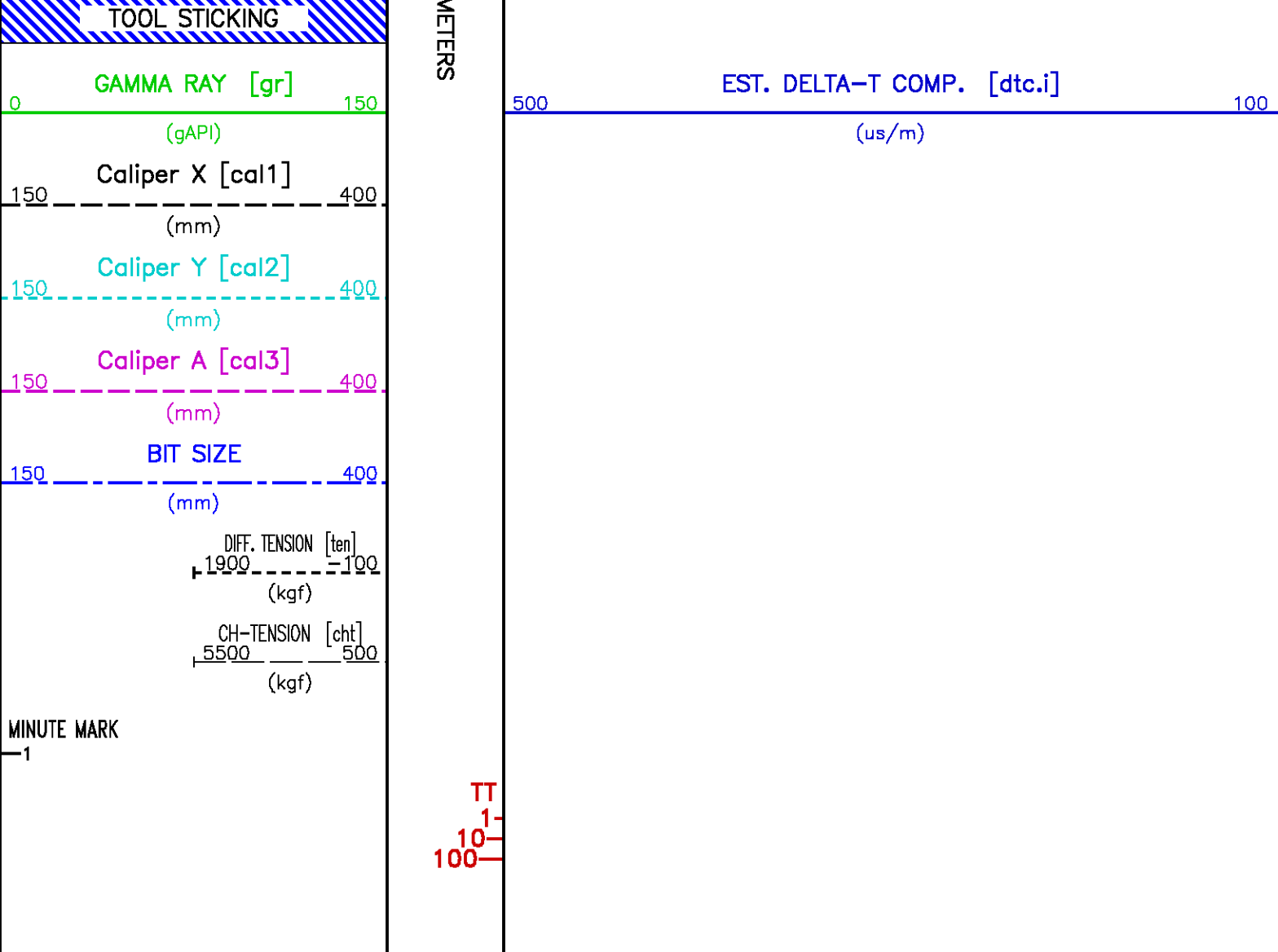












MAIN LOG 300:100 SCALE

ECLIPS 6.1i Aug 06, 2010
Patches: 1

Sat Nov 27 17:14:52 2010

Pcrplt /main/62

Cplot

Pdf_Cpp /main/16

Fileview 5.50

PARAMETER AND FILTER SUMMARY REPORT

FILE: /data/pass/nalcor_finn_run2/m837c_xmac01.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 2245.919 m BOTTOM DEPTH: 3018.968 m

SYMMETRIC FILTER

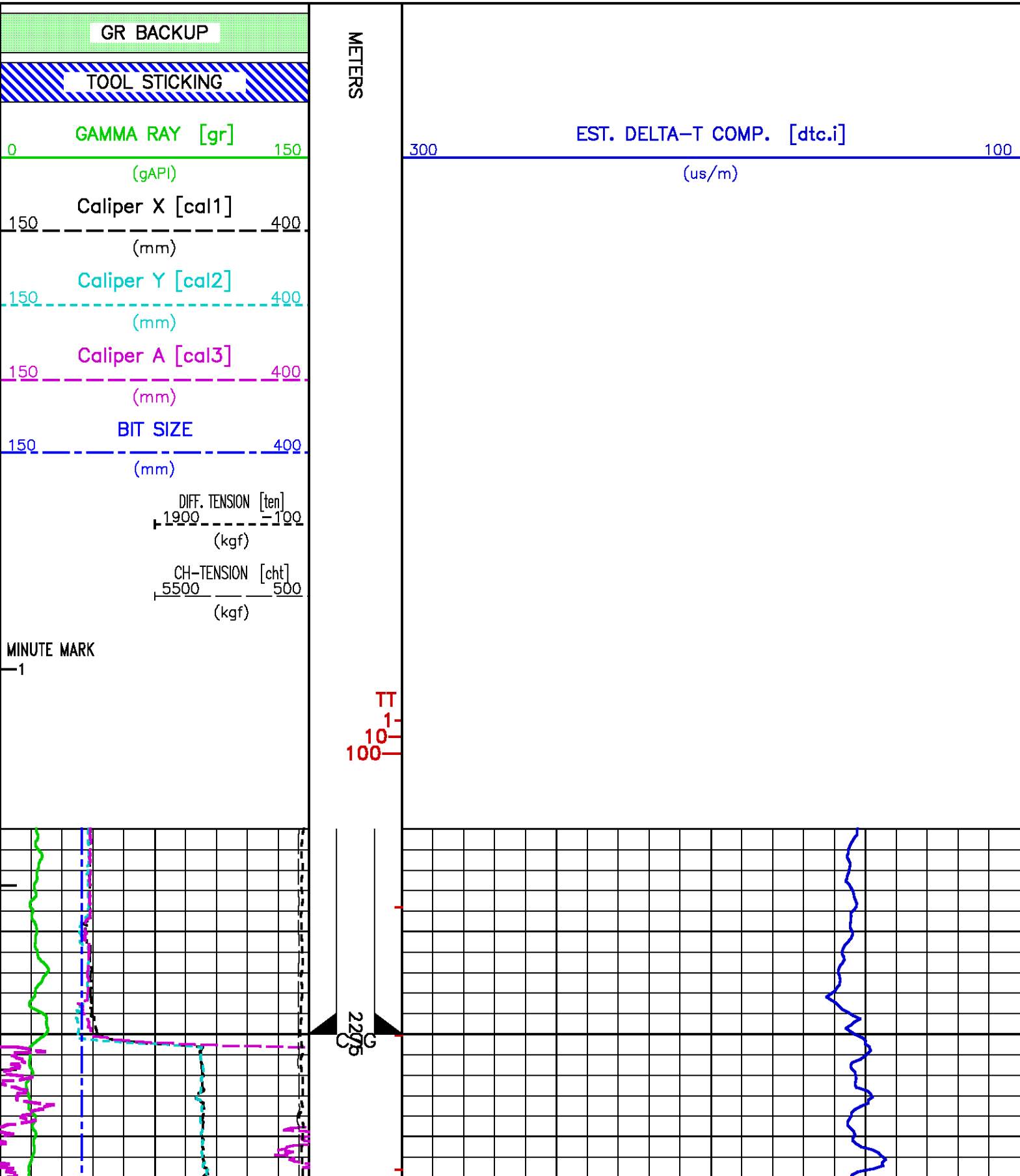
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CHT TENSION GR DT24	FILTER ()	medium (1)		TOP	BOTTOM
	FILTER ()	medium (1)		"	"
	FILTER ()	medium (1)		"	"
	FILTER ()	light (2)		"	"

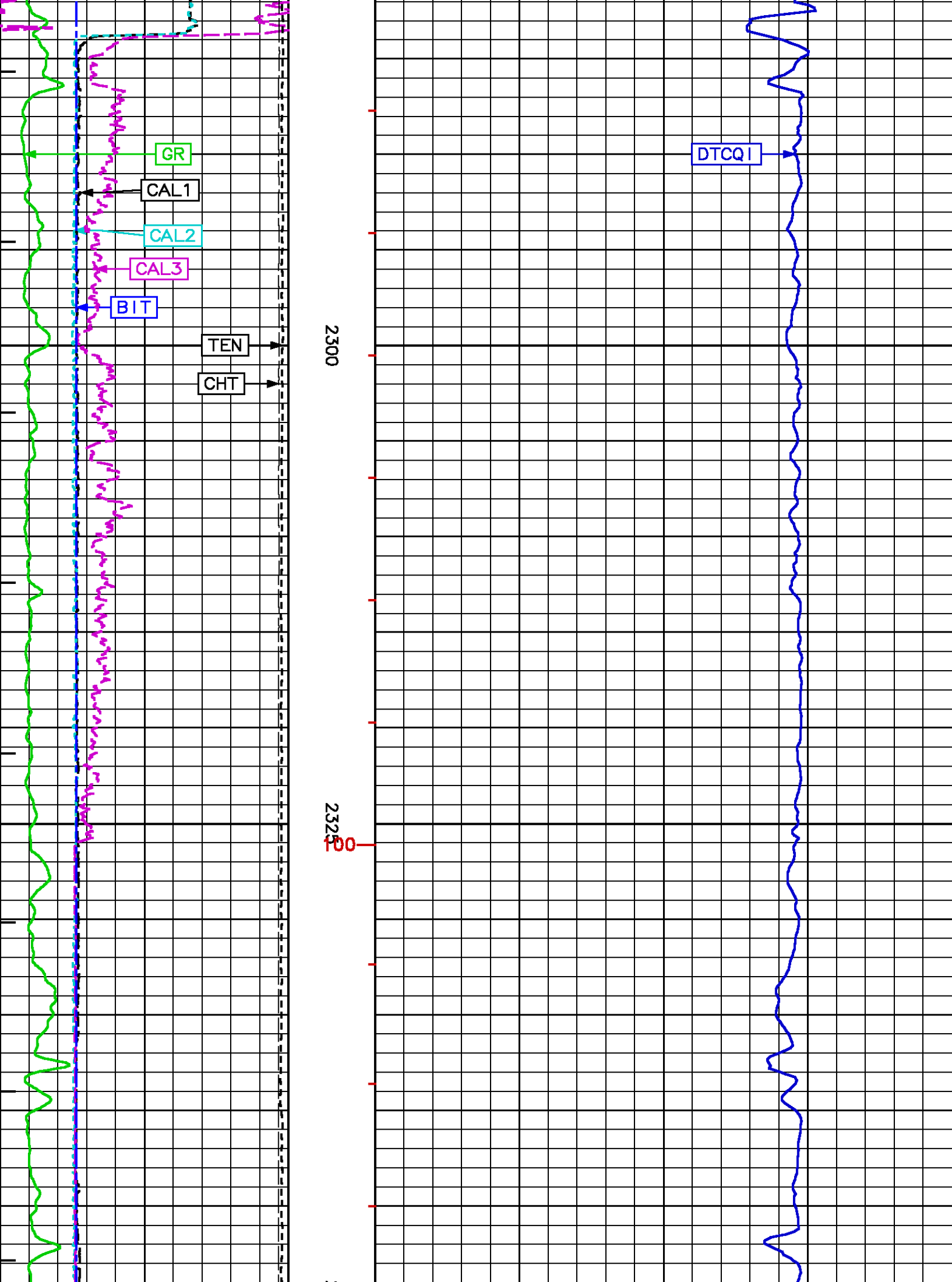
BOREHOLE & CEMENT

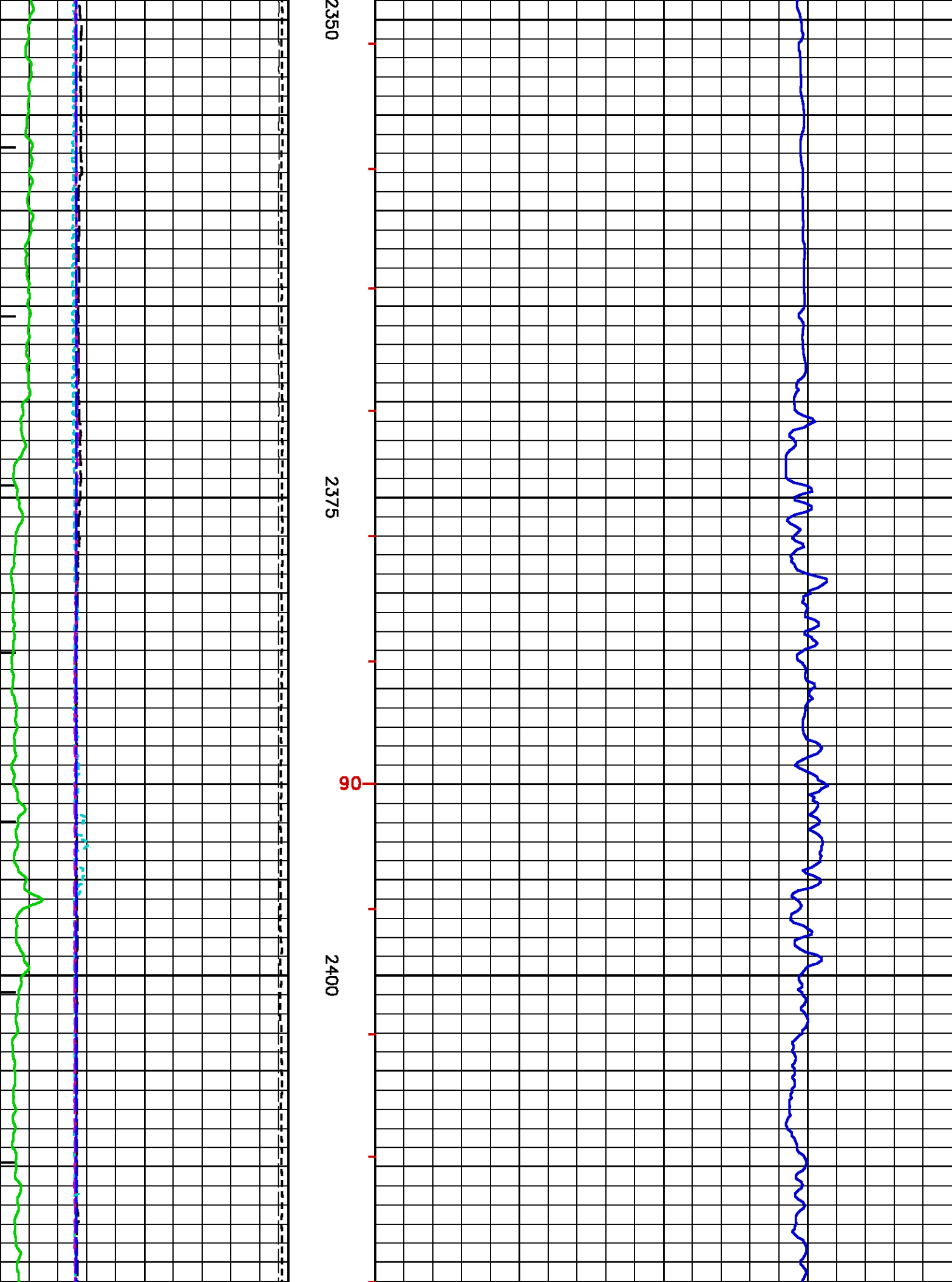
MEASUREMENT TYPE		PARAMETER	VALUE	UNITS	INTERVAL (m)		
BIT SIZE		BIT SIZE	216.000	mm	TOP	BOTTOM	
ACOUSTIC AVAN CORRELATON							
MEASUREMENT TYPE		PARAMETER	VALUE	UNITS	INTERVAL (m)		
MONOPOLE DELTA T	FORMATION TYPE		GENERIC (MEDIUM)		TOP	BOTTOM	
	CORRELATION METHOD		NTH ROOT		''	''	
	RESET TAPERS				''	''	
	TAPER - LEFT END		95	us/m	''	''	
	TAPER - RIGHT END		250	us/m	''	''	
MONOPOLE COMPRESSIONAL	FLOOR (UNIV. OPTION)		0.050		''	''	
	FORMATION TYPE		GENERIC (MEDIUM)		''	''	
	CORRELATION METHOD		NTH ROOT		''	''	
	RESET TAPERS				''	''	
	TAPER - LEFT END		95	us/m	''	''	
	TAPER - RIGHT END		200	us/m	TOP	2971.571	
			226	us/m	2971.571	BOTTOM	
FLOOR (UNIV. OPTION)		0.050		TOP	BOTTOM		
ACOUSTIC POROSITY							
MEASUREMENT TYPE		PARAMETER	VALUE	UNITS	INTERVAL (m)		
DELTA T CURVE SELECTION		DT24 SOURCE	AVAN DT24		TOP	BOTTOM	
ACOUSTIC WAVEFORM FILTER							
MEASUREMENT TYPE		PARAMETER	VALUE	UNITS	INTERVAL (m)		
WAVEFORM FILTER - DELTA T	SURFACE WAVE FILTER		ON		TOP	BOTTOM	
	LOW FREQ CUTOFF		7000	Hz	''	''	
	HIGH FREQ CUTOFF		22500	Hz	''	''	
WAVEFORM FILTER - FULLWAVE	SURFACE WAVE FILTER		ON		''	''	
	LOW FREQ CUTOFF		2000	Hz	''	''	
	HIGH FREQ CUTOFF		20000	Hz	''	''	
ACOUSTIC TCC CONTROL PARAMETERS							
MEASUREMENT TYPE		PARAMETER	VALUE	UNITS	INTERVAL (m)		
GENERAL TCC PARAMETERS	AGC		ON		TOP	BOTTOM	
	SUBCYCLE LENGTH		50		''	''	
	SUBSET		1		''	''	
GENERAL MONOPOLE TCC PARAMETERS	STACK LEVEL		2		''	''	
	DSP FILTER		ON		''	''	
DELTA T TCC PARAMETERS	ACG WINDOW		1088	us	TOP	2950.540	
			1200	us	2950.540	BOTTOM	
	MOVEOUT		16	us/ft	TOP	BOTTOM	
	SAMPLE PERIOD		16		''	''	
	RX DELAY		192	us	''	''	
FULL WAVE MONOPOLE TCC PARAMETERS	ACG WINDOW		8064	us	''	''	
	SAMPLE PERIOD		24		''	''	
	RX DELAY		0	us	''	''	
CURVE DESCRIPTION REPORT							
CURVE NAME	CREATION DATE	CURVE DESCRIPTION					
F1:BIT	Nov 27 14:41:47 2010	BIT SIZE					
F1:CAL1	Nov 27 14:41:47 2010	DIAMETER FROM PAD 1 AND ITS OPPOSITE					
F1:CAL2	Nov 27 14:41:47 2010	DIAMETER FROM PAD 2 AND ITS OPPOSITE					
F1:CAL3	Nov 27 14:41:47 2010	DIAMETER FROM PAD 3 AND ITS OPPOSITE					
F1:CHT	Nov 27 14:41:47 2010	CABLE HEAD TENSION					
F1:DTCQI	Nov 27 14:41:47 2010	COMPRESSIONAL WAVE SLOWNESS					
F1:GR	Nov 27 14:41:47 2010	GAMMA RAY					
F1:MMRK	Nov 27 14:41:47 2010	MINUTE MARK					
F1:TEN	Nov 27 14:41:47 2010	DIFFERENTIAL TENSION					
F1:TTQI	Nov 27 14:41:47 2010	INTEGRATED TRAVELTIME FROM ACOUSTIC SLOWNESS					
CURVE MEASURE POINT OFFSET							
CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)
BIT	0.00	CAL2	0.99	CHT	0.00	GR	25.49
CAL1	0.99	CAL3	0.99	DTCQI	20.42	TEN	0.00

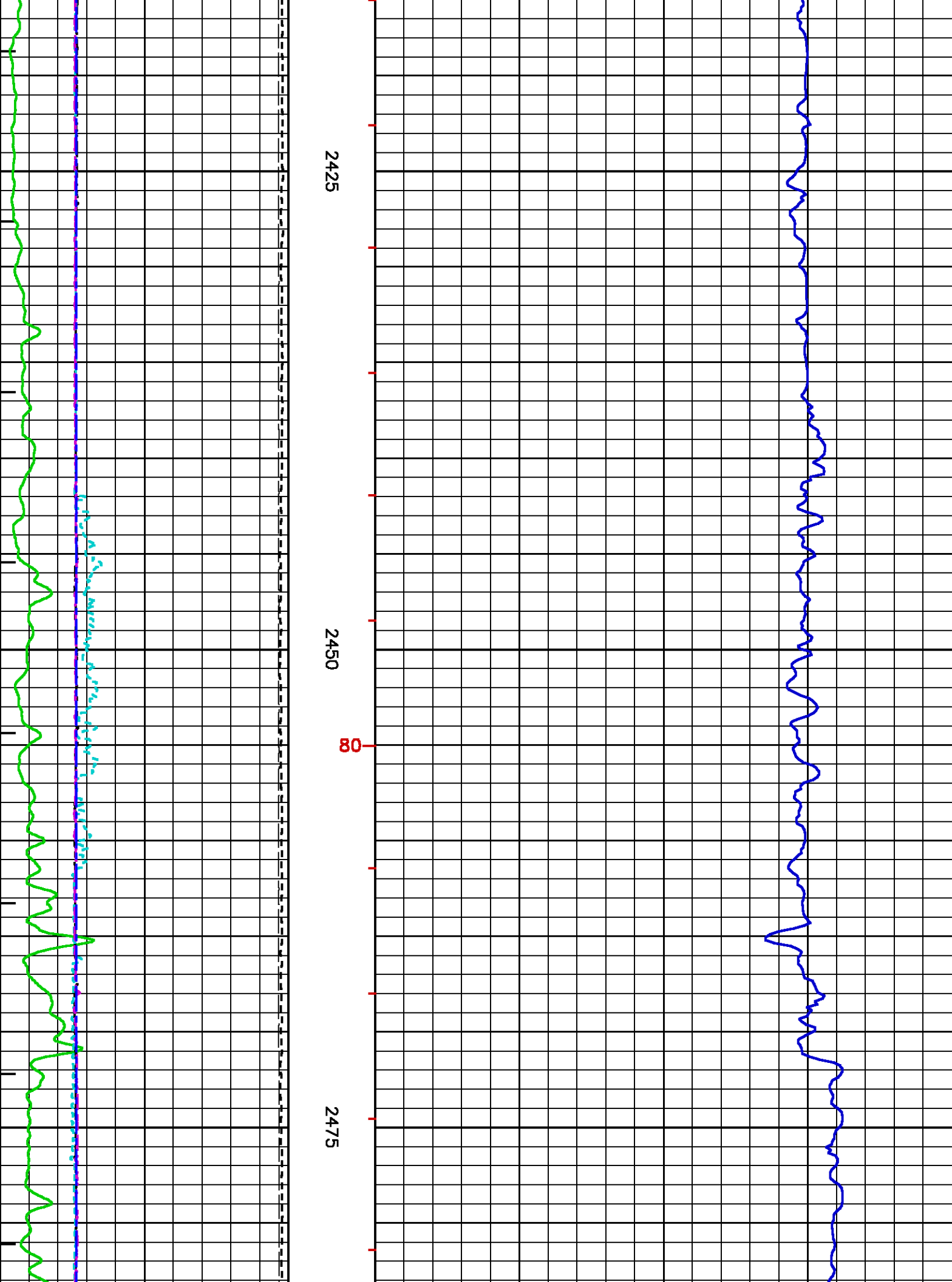
Presentation : cpu1:/dat1a/pass/nalc0r_finn_run2/mac_main100-300.pdf [1:240 Scale]
Plot Interval : 2265 - 3030 Meters

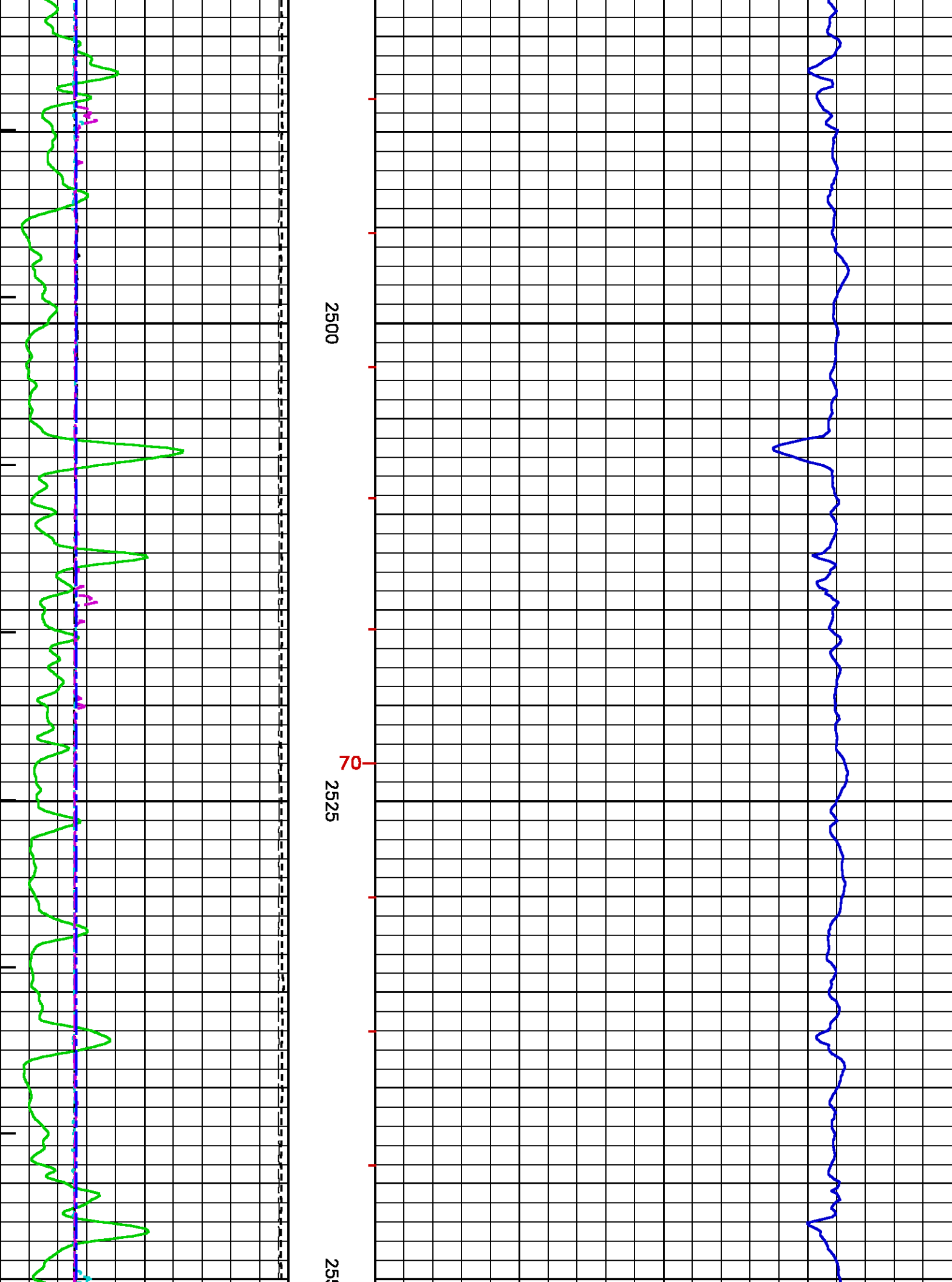
Data File 1 : F1 : cpu1:/dat1a/pass/nalc0r_finn_run2/r2t1_main.xtf
Created On : Nov 27 14:41:47 2010
Company : NALCOR ENERGY
Well : NALCOR ET AL FINNEGAN 1
Field : FINNEGAN
File Interval : 2217.42 - 3020.11 Meters
Oct : m837c_xm

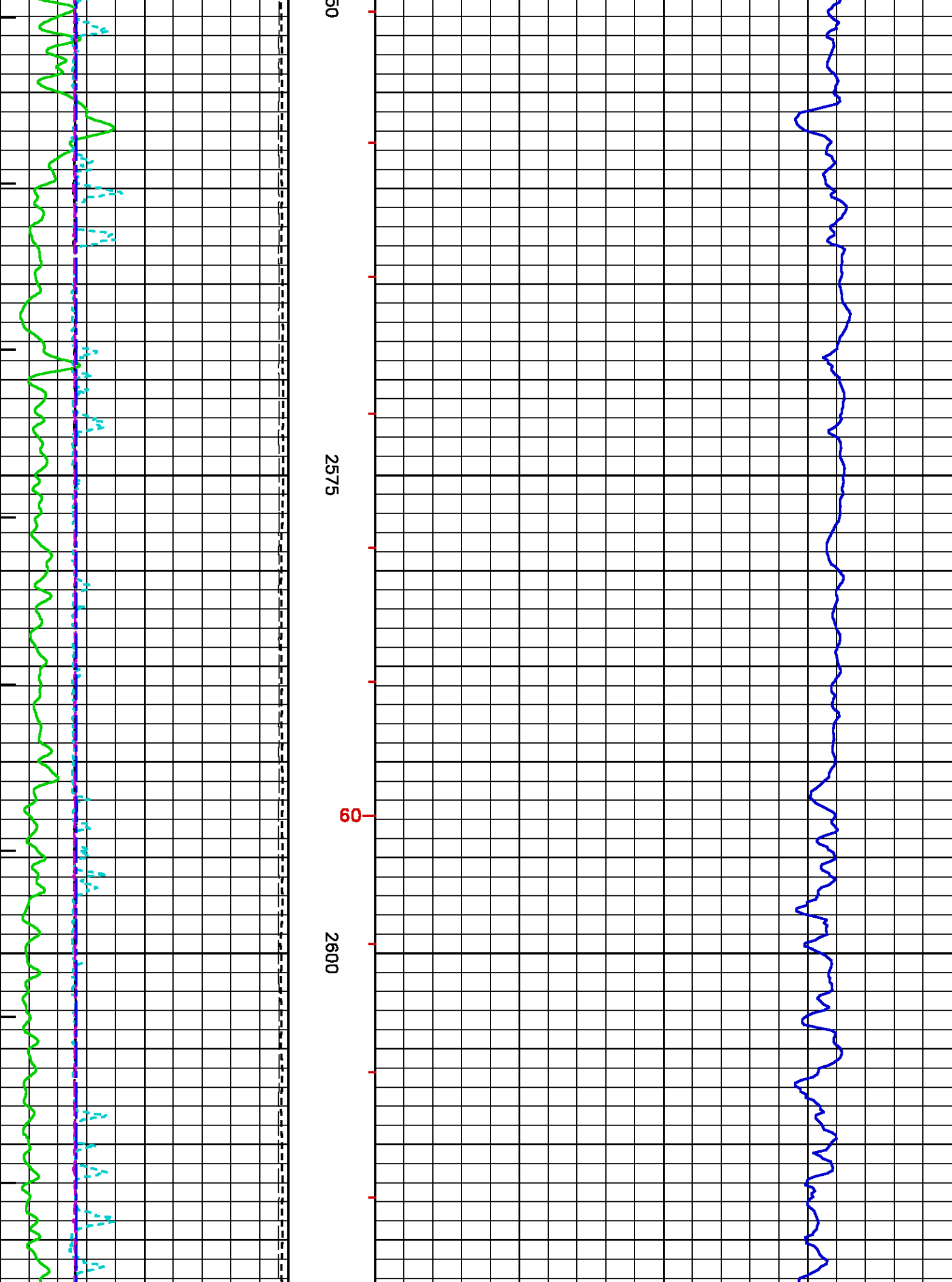


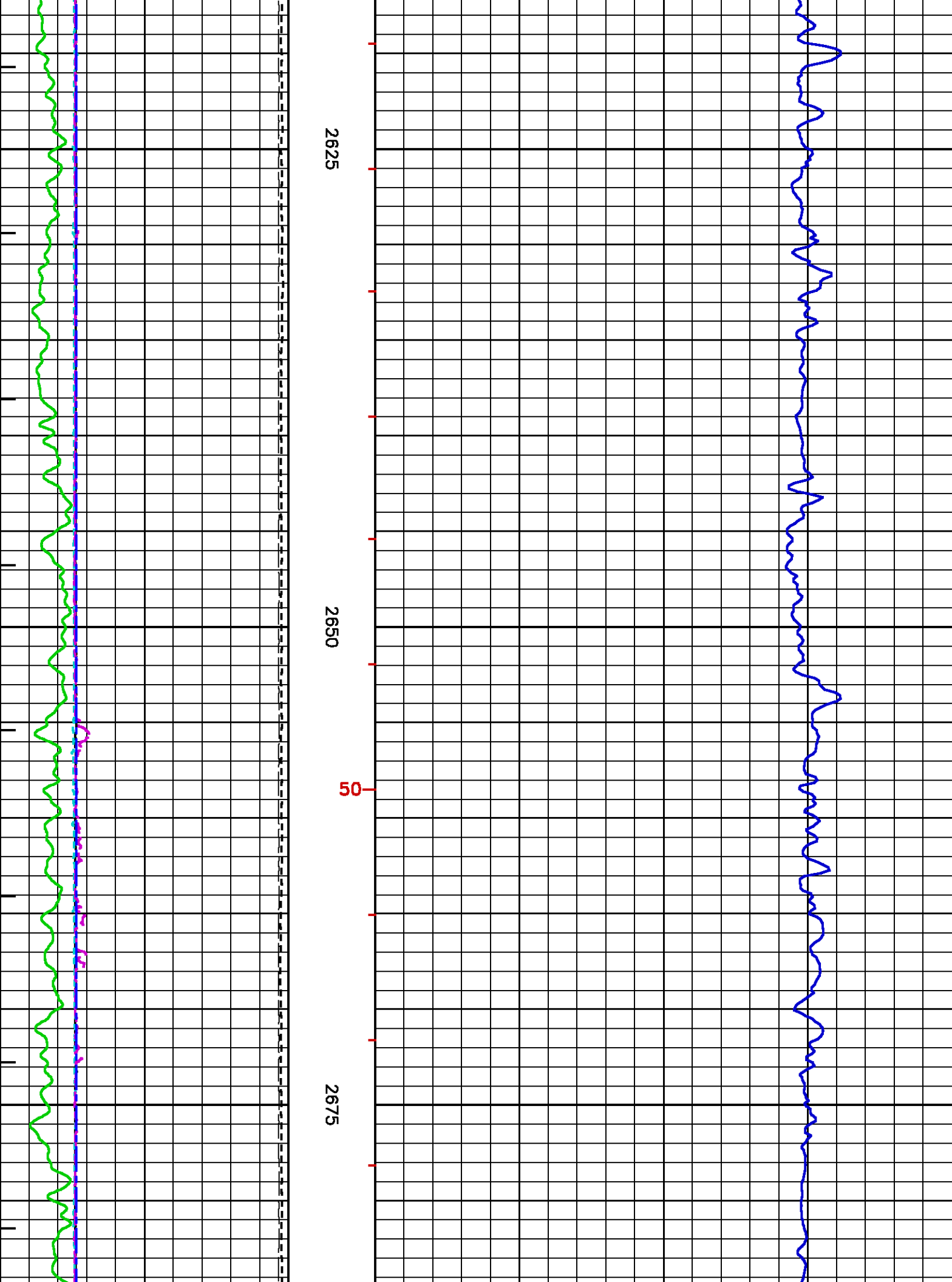


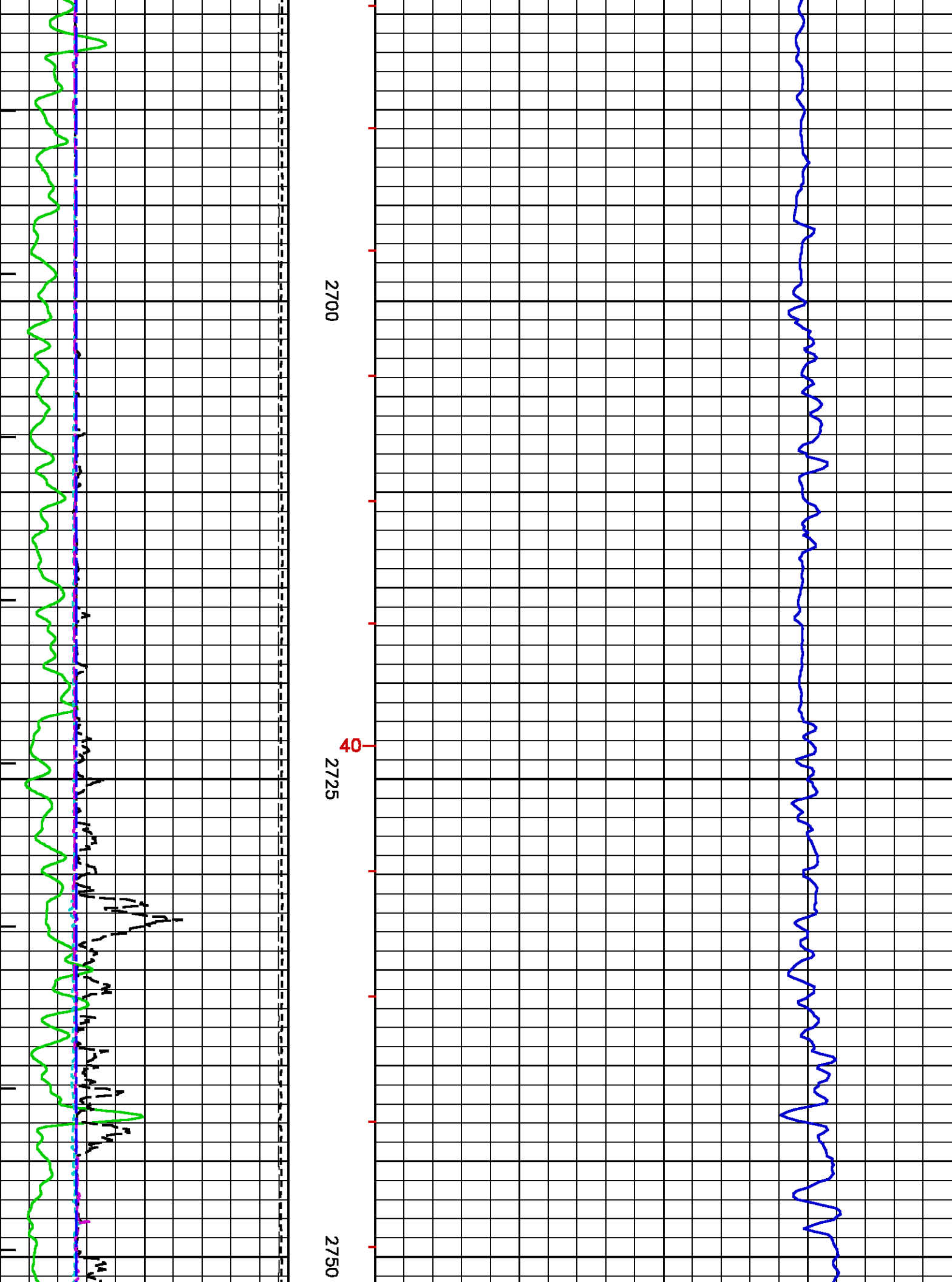


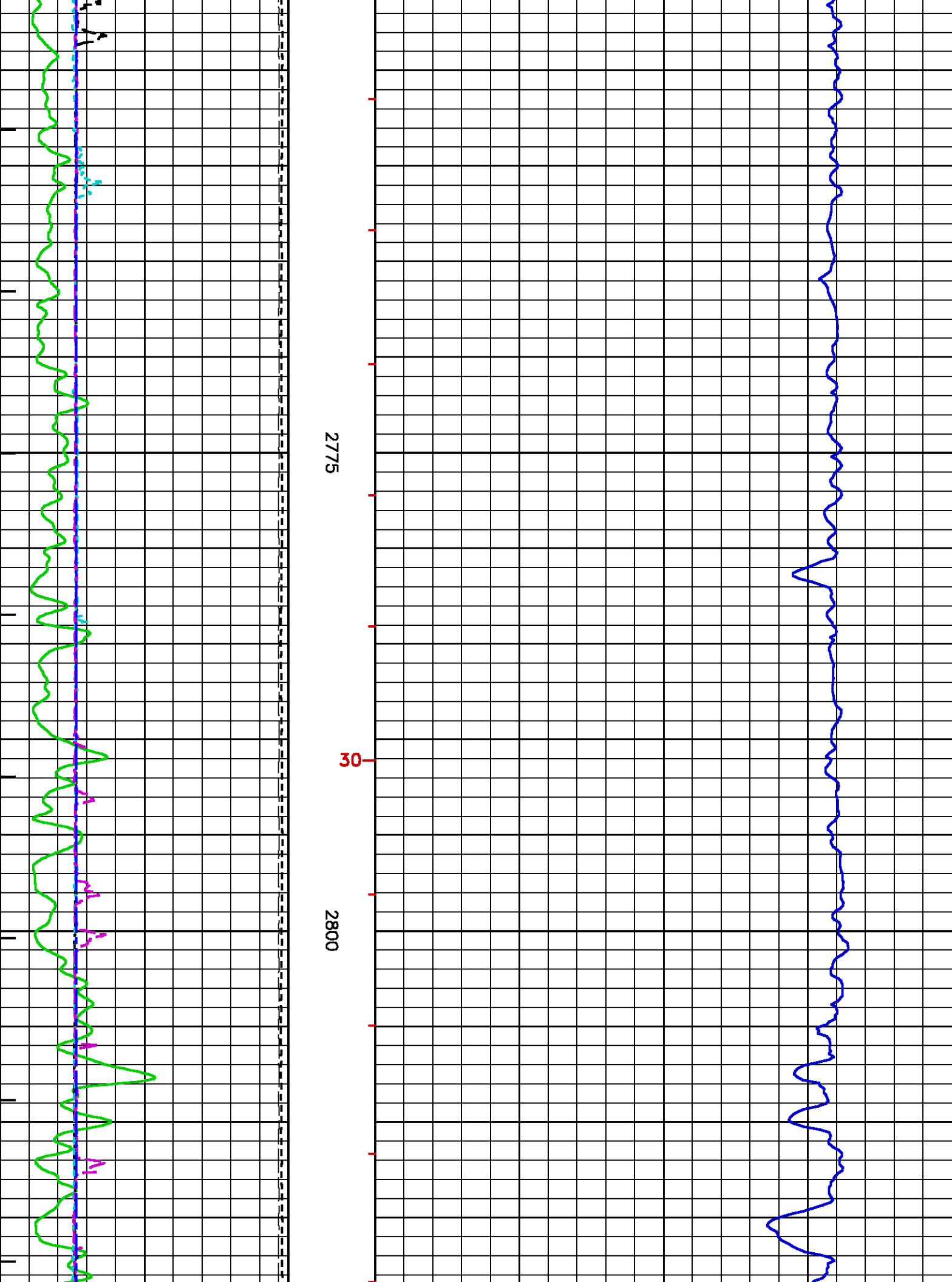


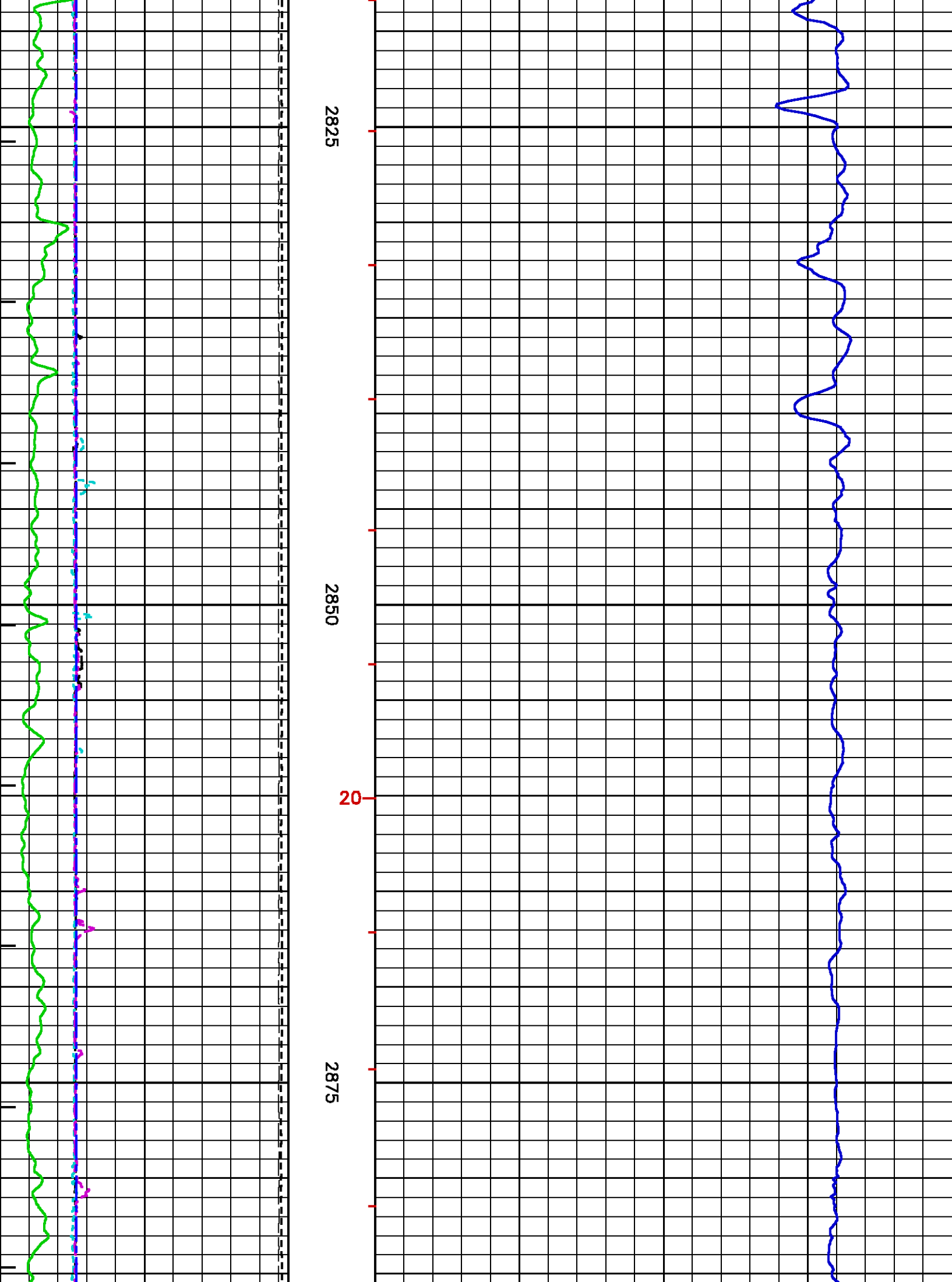


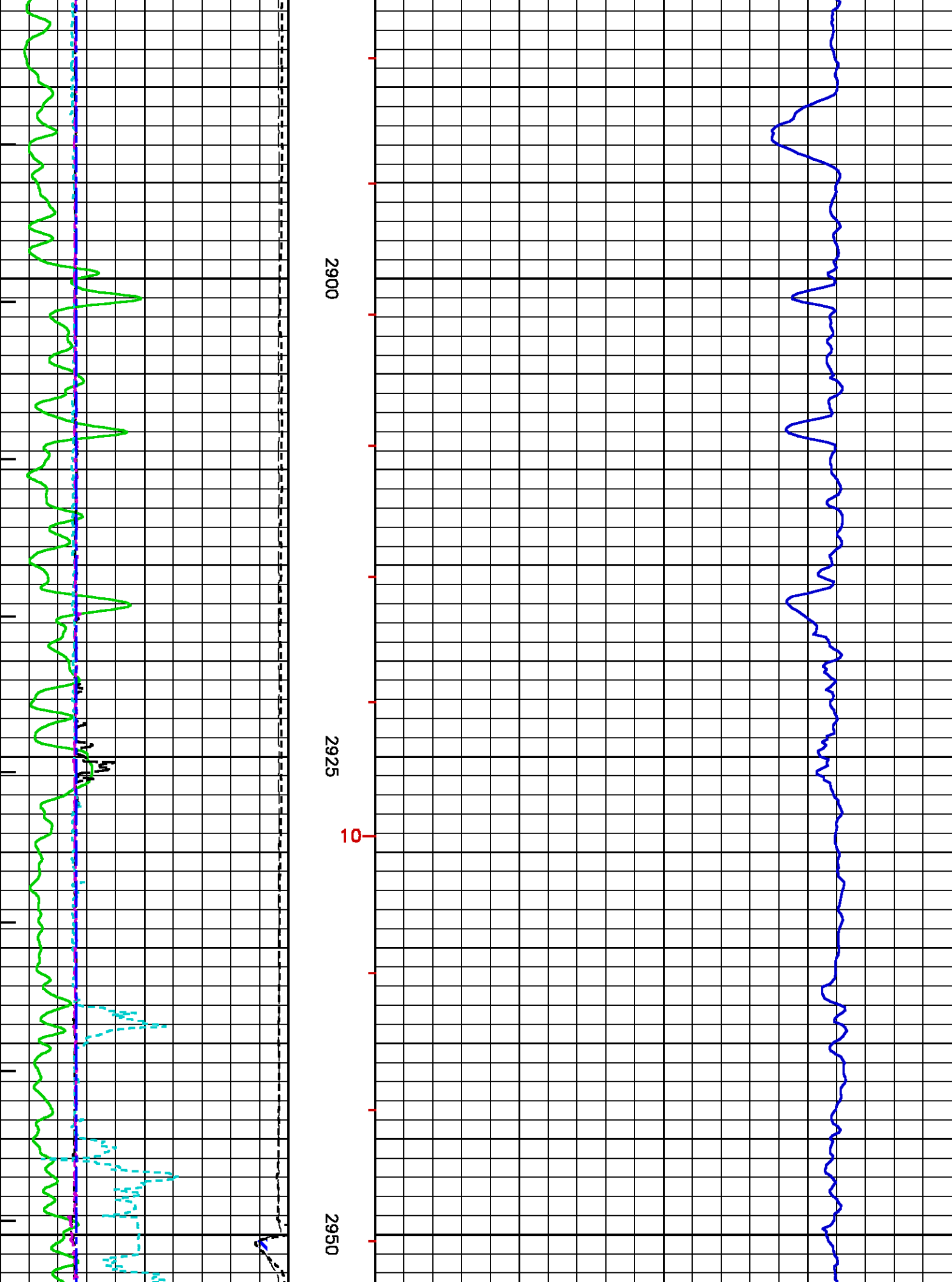


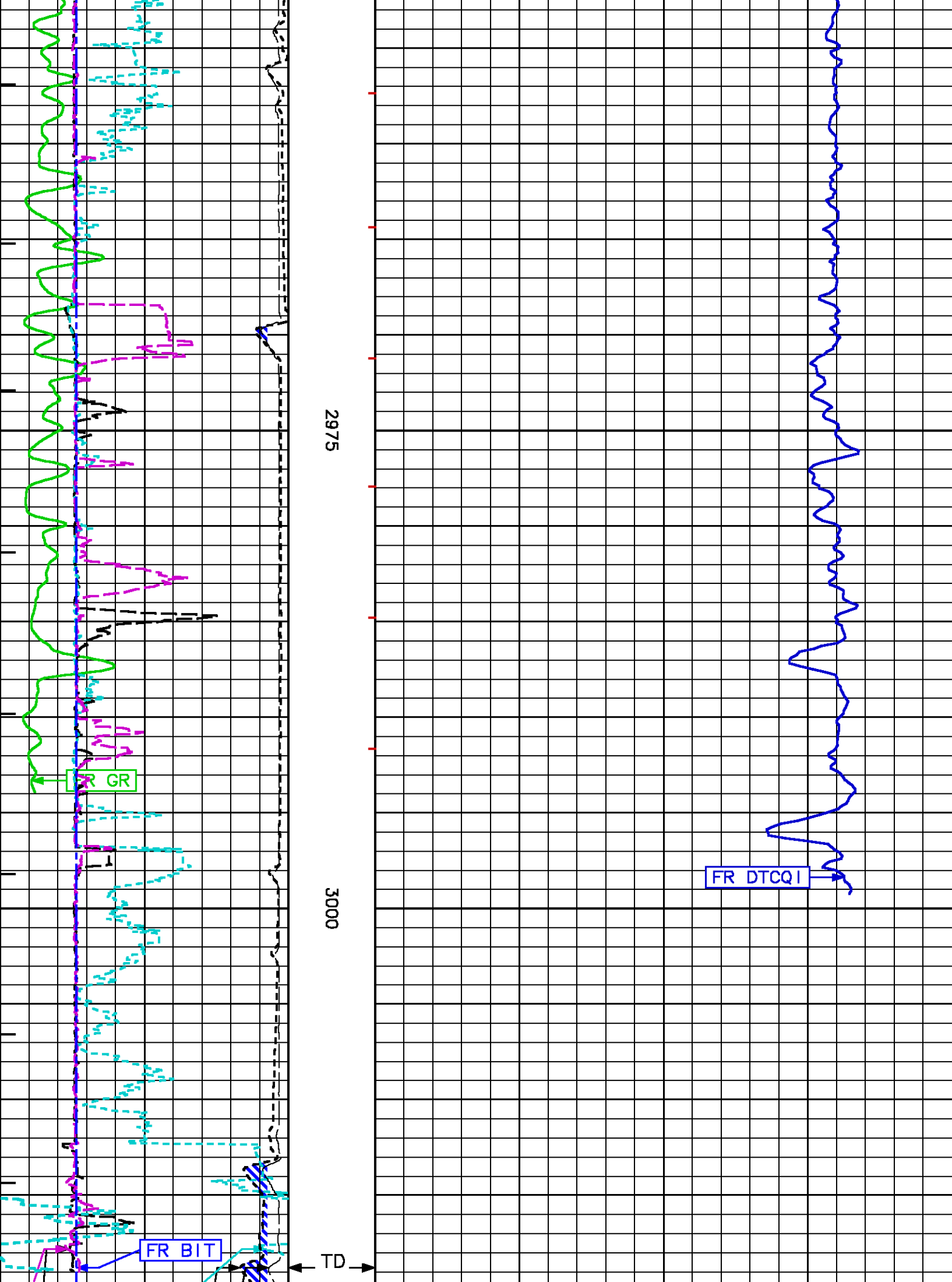


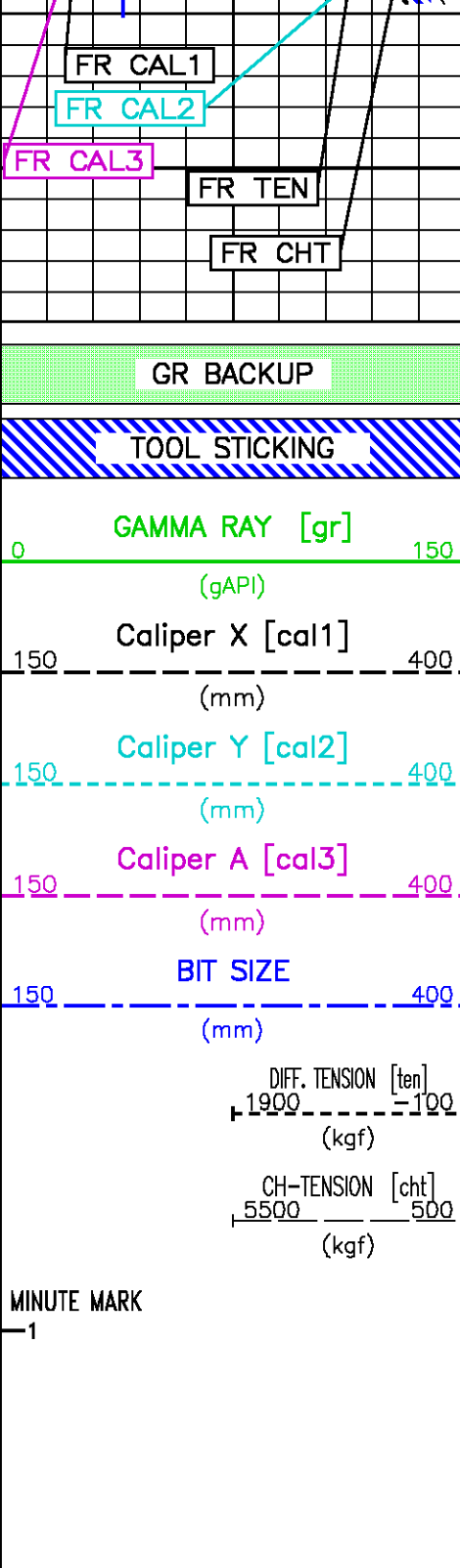








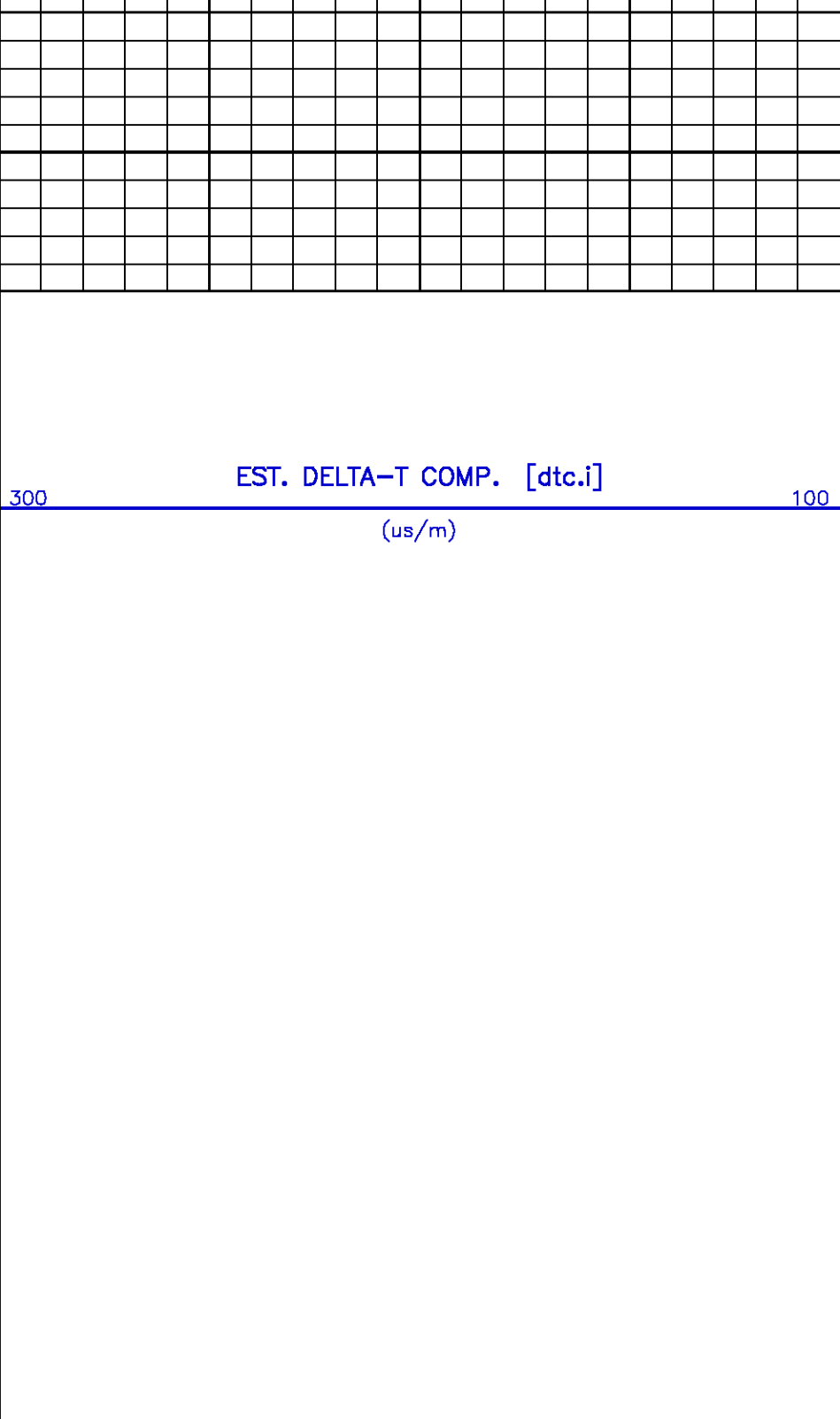




3025

METERS

TT
1
10
100



REPEAT LOG

PARAMETER AND FILTER SUMMARY REPORT

FILE: /data/pass/nalcor_finn_run2/m840103.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 2247.524 m BOTTOM DEPTH: 2370.756 m

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CHT	FILTER ()	medium (1)		TOP	BOTTOM
TENSION	FILTER ()	medium (1)		''	''
GR	FILTER ()	medium (1)		''	''

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
BIT SIZE	BIT SIZE	216.000	mm	TOP	BOTTOM

ACOUSTIC AVAN CORRELATION

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
MONOPOLE COMPRESSIONAL	FORMATION TYPE	GENERIC (MEDIUM)		TOP	BOTTOM
	CORRELATION METHOD	NTH ROOT		''	''
	RESET TAPERS			''	''
	TAPER - LEFT END	95	us/m	''	''
	TAPER - RIGHT END	280	us/m	''	''
	FLOOR (UNIV. OPTION)	0.050		''	''

ACOUSTIC WAVEFORM FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
WAVEFORM FILTER - FULLWAVE	SURFACE WAVE FILTER	ON		TOP	BOTTOM
	LOW FREQ CUTOFF	2000	Hz	''	''
	HIGH FREQ CUTOFF	20000	Hz	''	''

ACOUSTIC TCC CONTROL PARAMETERS

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
GENERAL TCC PARAMETERS	AGC	ON		TOP	BOTTOM
	SUBCYCLE LENGTH	50		''	''
	SUBSET	1		''	''
GENERAL MONOPOLE TCC PARAMETERS	STACK LEVEL	2		''	''
	DSP FILTER	ON		''	''
FULL WAVE MONOPOLE TCC PARAMETERS	ACG WINDOW	8064	us	''	''
	SAMPLE PERIOD	24		''	''
	RX DELAY	0	us	''	''

CURVE DESCRIPTION REPORT

CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:BIT	Nov 27 13:33:00 2010	BIT SIZE
F1:CAL1	Nov 27 13:33:00 2010	DIAMETER FROM PAD 1 AND ITS OPPOSITE
F1:CAL2	Nov 27 13:33:00 2010	DIAMETER FROM PAD 2 AND ITS OPPOSITE
F1:CAL3	Nov 27 13:33:00 2010	DIAMETER FROM PAD 3 AND ITS OPPOSITE
F1:CHT	Nov 27 13:33:00 2010	CABLE HEAD TENSION
F1:DTCQI	Nov 27 13:33:00 2010	COMPRESSIONAL WAVE SLOWNESS
F1:GR	Nov 27 13:33:00 2010	GAMMA RAY
F1:MMRK	Nov 27 13:33:00 2010	MINUTE MARK
F1:TEN	Nov 27 13:33:00 2010	DIFFERENTIAL TENSION

CURVE MEASURE POINT OFFSET

CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)
BIT	0.00	CAL2	1.01	CHT	0.00	GR	25.49
CAL1	1.01	CAL3	1.01	DTCQI	20.42	TEN	0.00

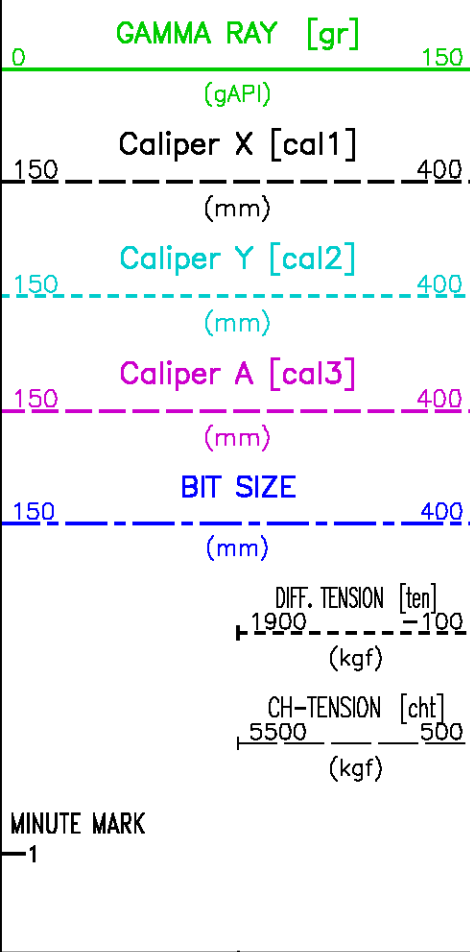
Presentation : cpu1:/data/pass/nalcor_finn_run2/mac_rpt100-300.pdf [1:240 Scale]
 Plot Interval : 2223.21 - 2370.73 Meters

Data File 1 : F1 : cpu1:/data/pass/nalcor_finn_run2/r2t1_repeat.xtf
 Created On : Nov 27 13:33:00 2010
 Company : NALCOR ENERGY

Well : NALCOR ET AL FINNEGAN 1
Field : FINNEGAN
File Interval : 2219.1 - 2370.73 Meters
Oct : m840j

GR BACKUP

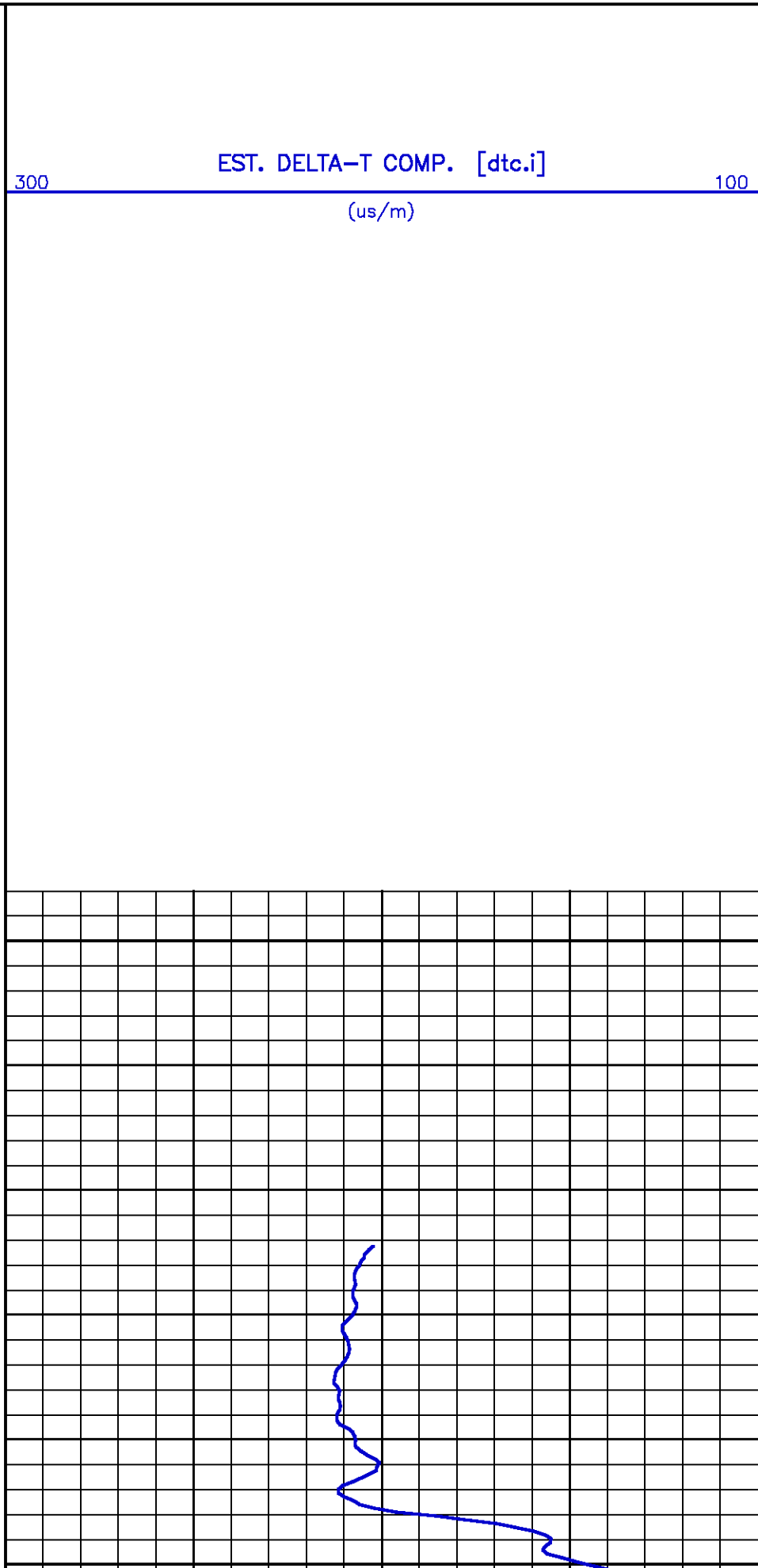
TOOL STICKING

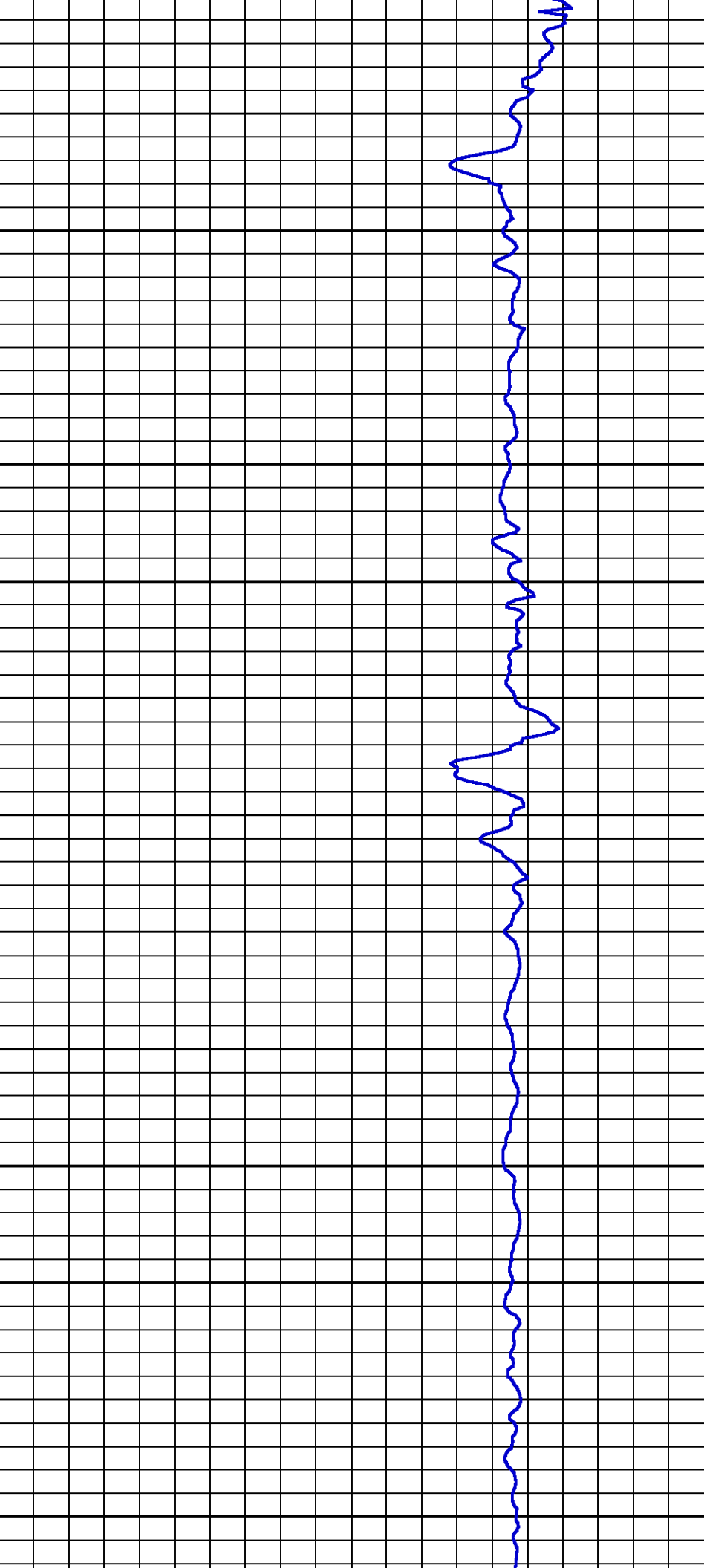


METERS

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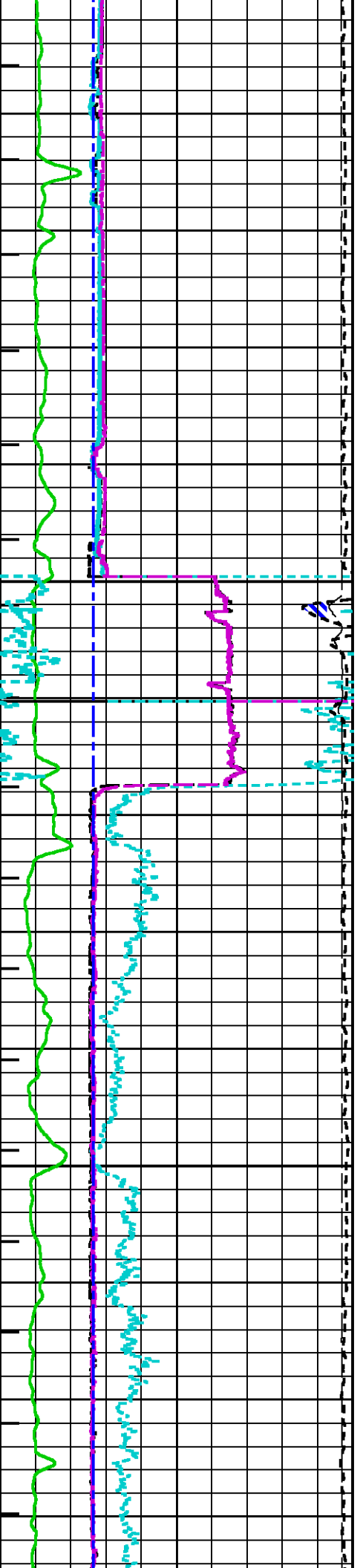




50

2275

2300

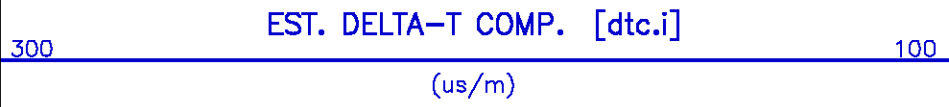
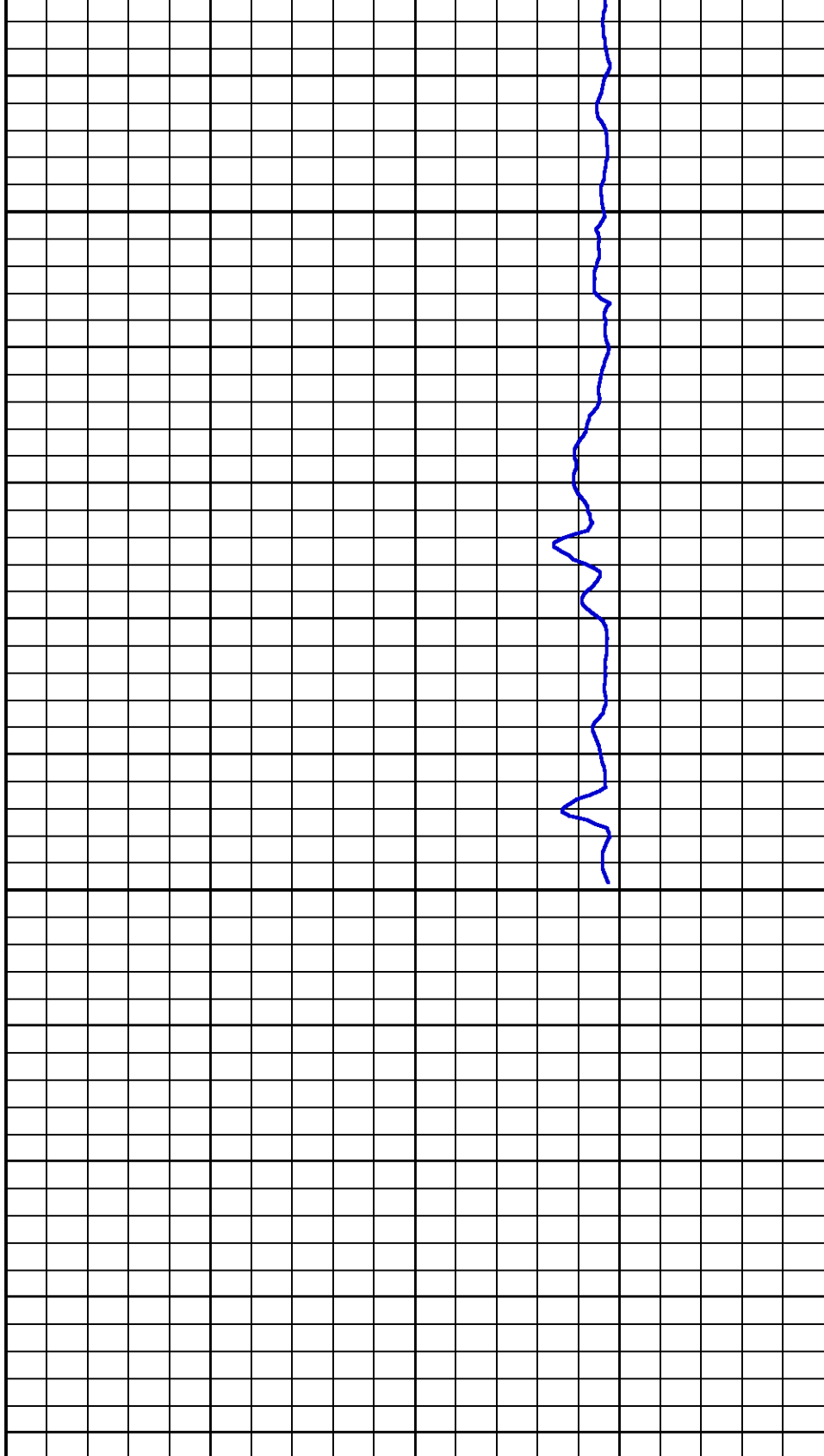
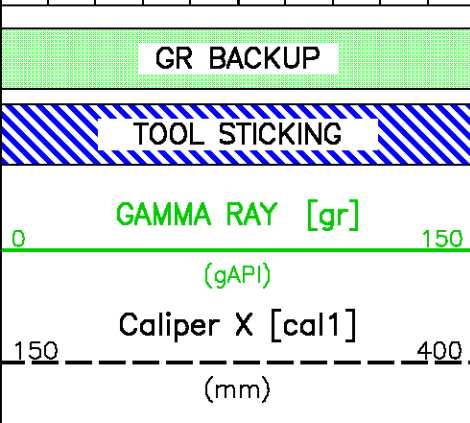


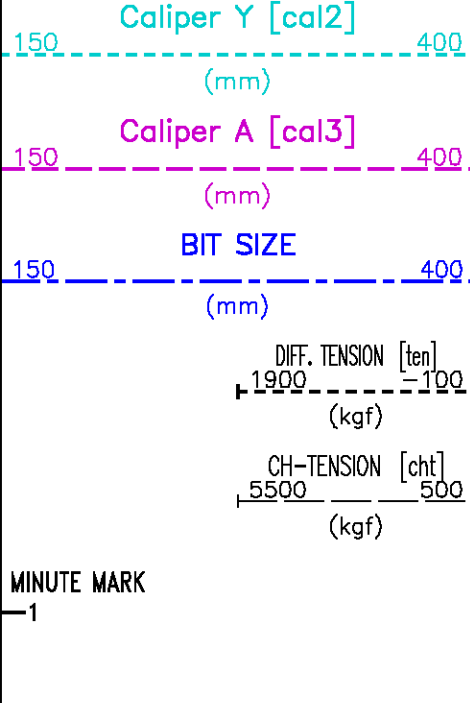


2325

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METERS





QUALITY CONTROL PRESENTATION

ECLIPS 6.1i Aug 06, 2010
Patches: 1

Sat Nov 27 16:39:39 2010

Pcrplt /main/62

Cplot

Pdf_Cpp /main/16

Fileview 5.50

PARAMETER AND FILTER SUMMARY REPORT

FILE: /data/pass/nalcor_finn_run2/m837c_xmac01.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 2245.919 m BOTTOM DEPTH: 3018.968 m

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CHT TENSION GR DT24	FILTER ()	medium (1)		TOP	BOTTOM
	FILTER ()	medium (1)		"	"
	FILTER ()	medium (1)		"	"
	FILTER ()	light (2)		"	"

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	177.800	mm	TOP	BOTTOM
MULTI-ARM (6) CALIPER PROCESSING	CALC. METHOD	CHAD (SPLINE FIT)		"	"
BIT SIZE	BIT SIZE	216.000	mm	"	"
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (acbh*)	USE CALIPER		"	"
BOREHOLE CORR DIAMETER	FIXED DIAMETER (acbh*)	216.000	mm	"	"

ACOUSTIC AVAN CORRELATION

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
MONOPOLE DELTA T	FORMATION TYPE	GENERIC (MEDIUM)		TOP	BOTTOM
	CORRELATION METHOD	NTH ROOT		"	"
	RESET TAPERS			"	"
	TAPER - LEFT END	95	us/m	"	"
	TAPER - RIGHT END	250	us/m	"	"

MONOPOLE COMPRESSIONAL	FLOOR (UNIV. OPTION)	0.050	us/m	''	''
	FORMATION TYPE	GENERIC (MEDIUM)		''	''
	CORRELATION METHOD	NTH ROOT		''	''
	RESET TAPERS			''	''
	TAPER - LEFT END	95	us/m	''	''
	TAPER - RIGHT END	200	us/m	TOP	2971.571
		226	us/m	2971.571	BOTTOM
MONOPOLE SHEAR	FLOOR (UNIV. OPTION)	0.050		TOP	BOTTOM
	FORMATION TYPE	GENERIC (MEDIUM)		''	''
	GUIDE CURVE	DO NOT USE GUIDE		''	''
	RESET TAPERS			''	''
	TAPER - LEFT END	200	us/m	TOP	2955.569
		225	us/m	2955.569	BOTTOM
	TAPER - RIGHT END	375	us/m	TOP	2954.807
		450	us/m	2954.807	BOTTOM

ACOUSTIC POROSITY

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
ACOUSTIC POROSITY	DTfluid	623.36	us/m	TOP	BOTTOM
DELTA T CURVE SELECTION	DT24 SOURCE	AVAN DT24		''	''

ACOUSTIC PICK CONTROL

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
DELTA-T REJECTION RANGE	REJECTION DTmin	131	us/m	TOP	BOTTOM
	REJECTION DTmax	591	us/m	''	''
FIRST ARRIVAL PICK	SEARCH START OFFSET {sfan1*}	0	us	''	''
	SEARCH START OFFSET {sfan2*}	0	us	''	''
	SEARCH START OFFSET {sfan3*}	0	us	''	''
	SEARCH START OFFSET {sfan4*}	0	us	''	''
	SEARCH WINDOW LENGTH	1200	us	''	''
	THRESHOLD FACTOR	0.30		''	''
	THRESHOLD MINIMUM {sfan1*}	1.8	pct	''	''
	THRESHOLD MINIMUM {sfan2*}	1.8	pct	''	''
	THRESHOLD MINIMUM {sfan3*}	1.8	pct	''	''
	THRESHOLD MINIMUM {sfan4*}	1.8	pct	''	''
	E3 THRESHOLD	OFF		''	''

ACOUSTIC QUALITY CONTROL

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CYCLE SKIP LIMIT	CYCLE SKIP LIMIT	100	us	TOP	BOTTOM
ACOUSTIC DIFF TEN LIMIT	DIFF TENSION LIMIT	227	kgf	''	''

ACOUSTIC WAVEFORM FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
WAVEFORM FILTER - DELTA T	SURFACE WAVE FILTER	ON		TOP	BOTTOM
	LOW FREQ CUTOFF	7000	Hz	''	''
	HIGH FREQ CUTOFF	22500	Hz	''	''
WAVEFORM FILTER - FULLWAVE	SURFACE WAVE FILTER	ON		''	''
	LOW FREQ CUTOFF	2000	Hz	''	''
	HIGH FREQ CUTOFF	20000	Hz	''	''

ACOUSTIC TCC CONTROL PARAMETERS

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
GENERAL TCC PARAMETERS	AGC	ON		TOP	BOTTOM
	SUBCYCLE LENGTH	50		''	''
	SUBSET	1		''	''
GENERAL MONOPOLE TCC PARAMETERS	STACK LEVEL	2		''	''
	DSP FILTER	ON		''	''
DELTA T TCC PARAMETERS	ACG WINDOW	1088	us	TOP	2950.540
		1200	us	2950.540	BOTTOM
	MOVEOUT	16	us/ft	TOP	BOTTOM
	SAMPLE PERIOD	16		''	''
	RX DELAY	192	us	''	''
FULL WAVE MONOPOLE TCC PARAMETERS	ACG WINDOW	8064	us	''	''
	SAMPLE PERIOD	24		''	''
	RX DELAY	0	us	''	''

CURVE DESCRIPTION REPORT

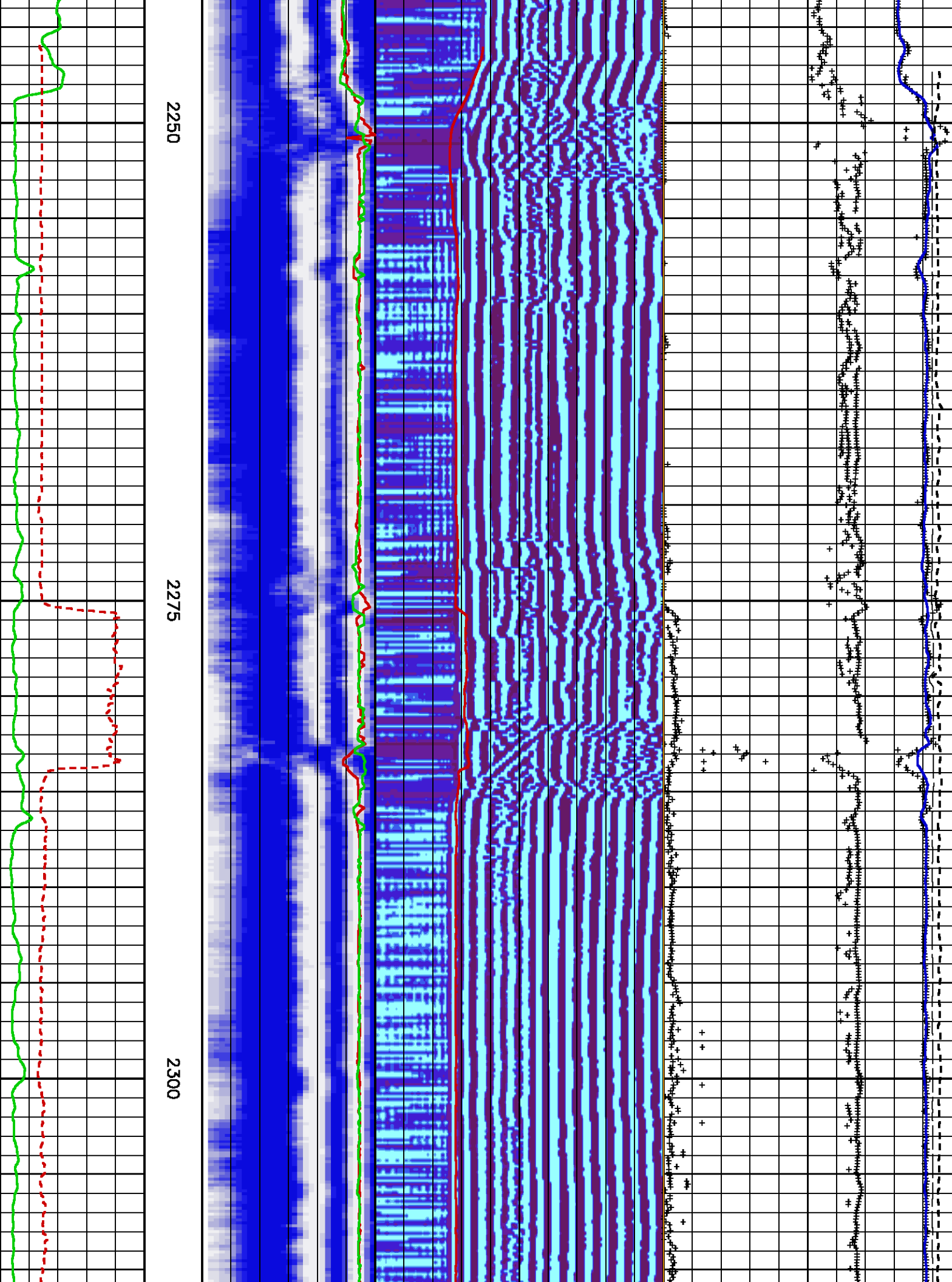
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
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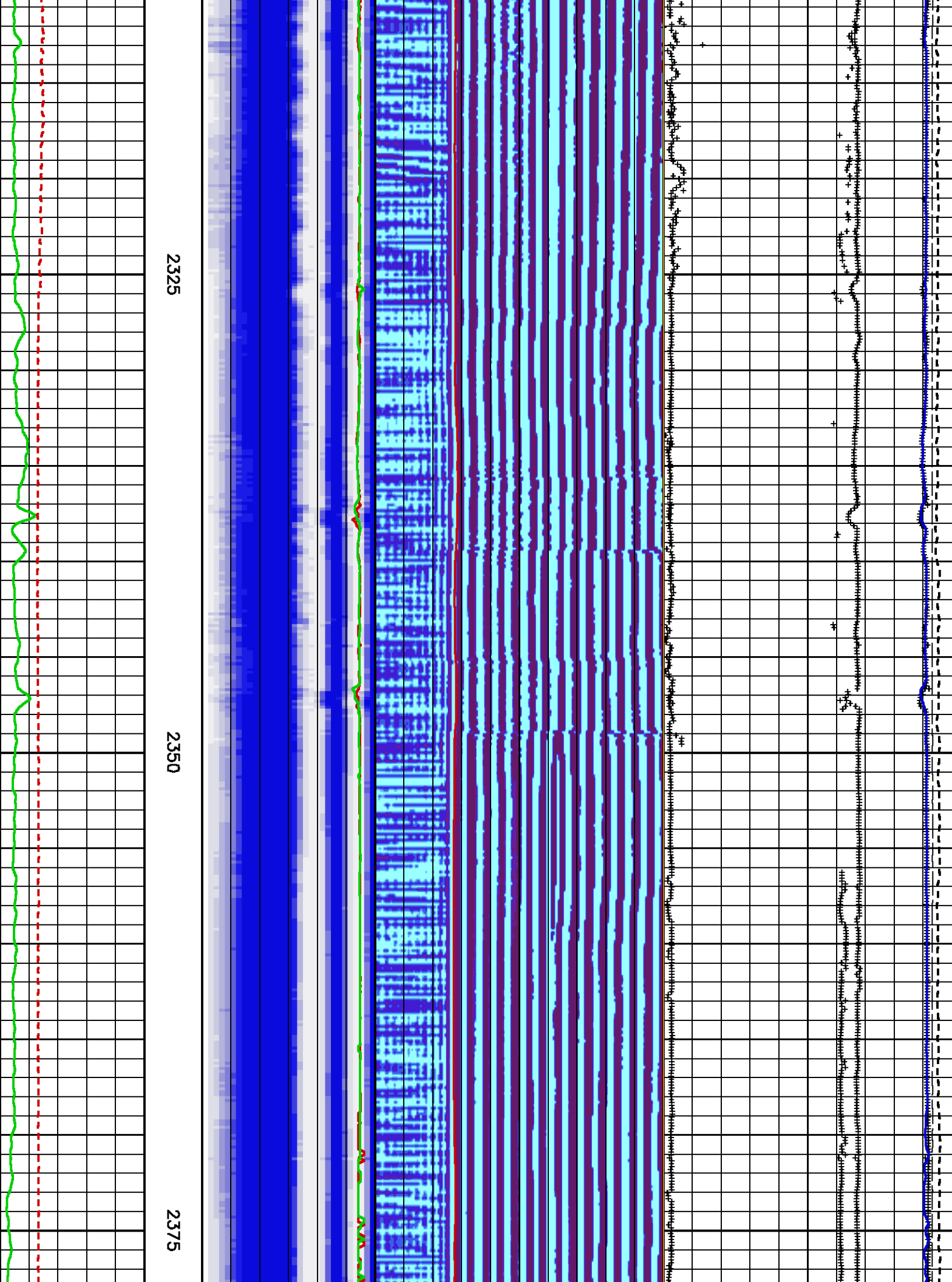
Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------

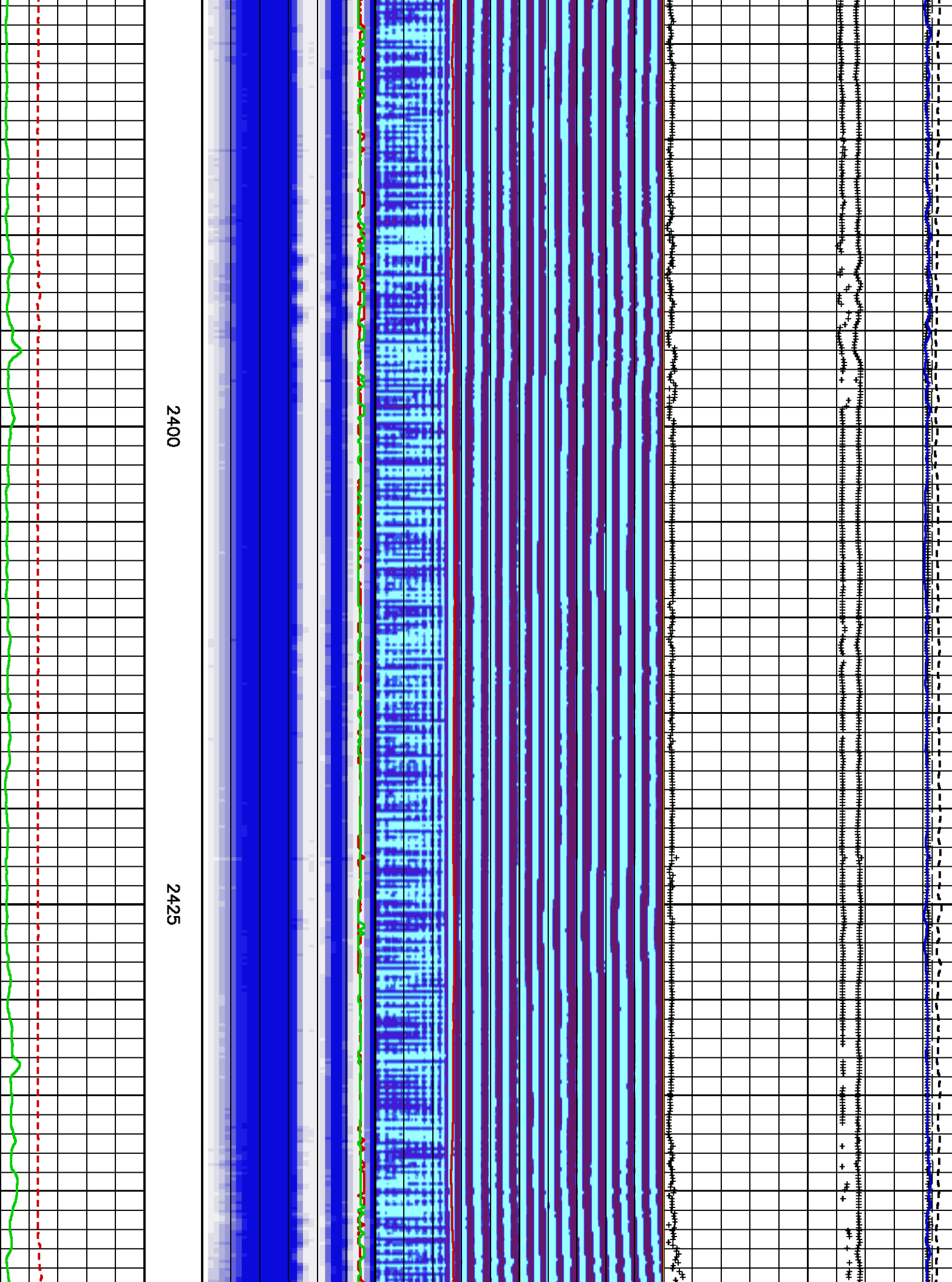
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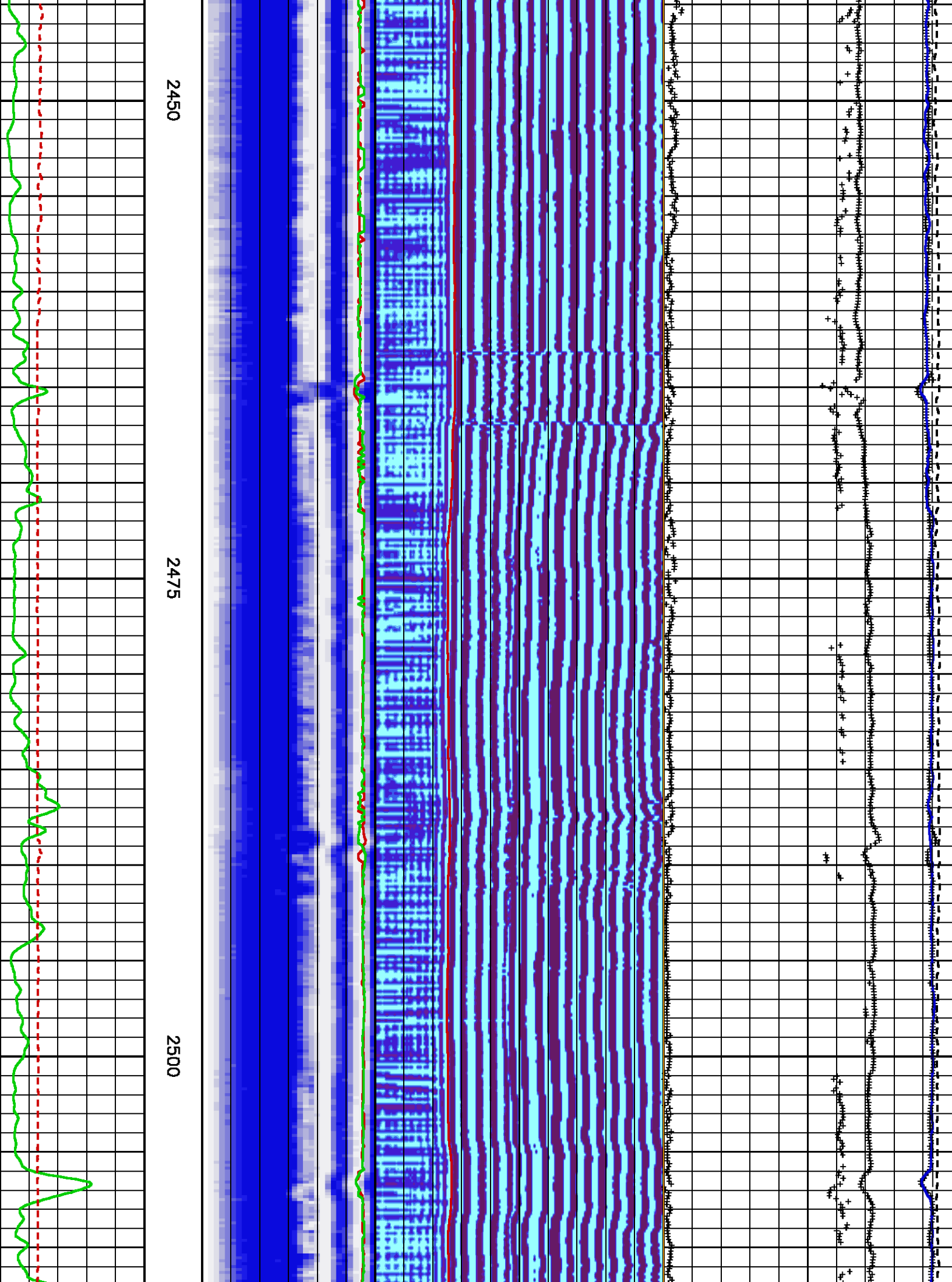
11/11/2017 11:11:11 AM

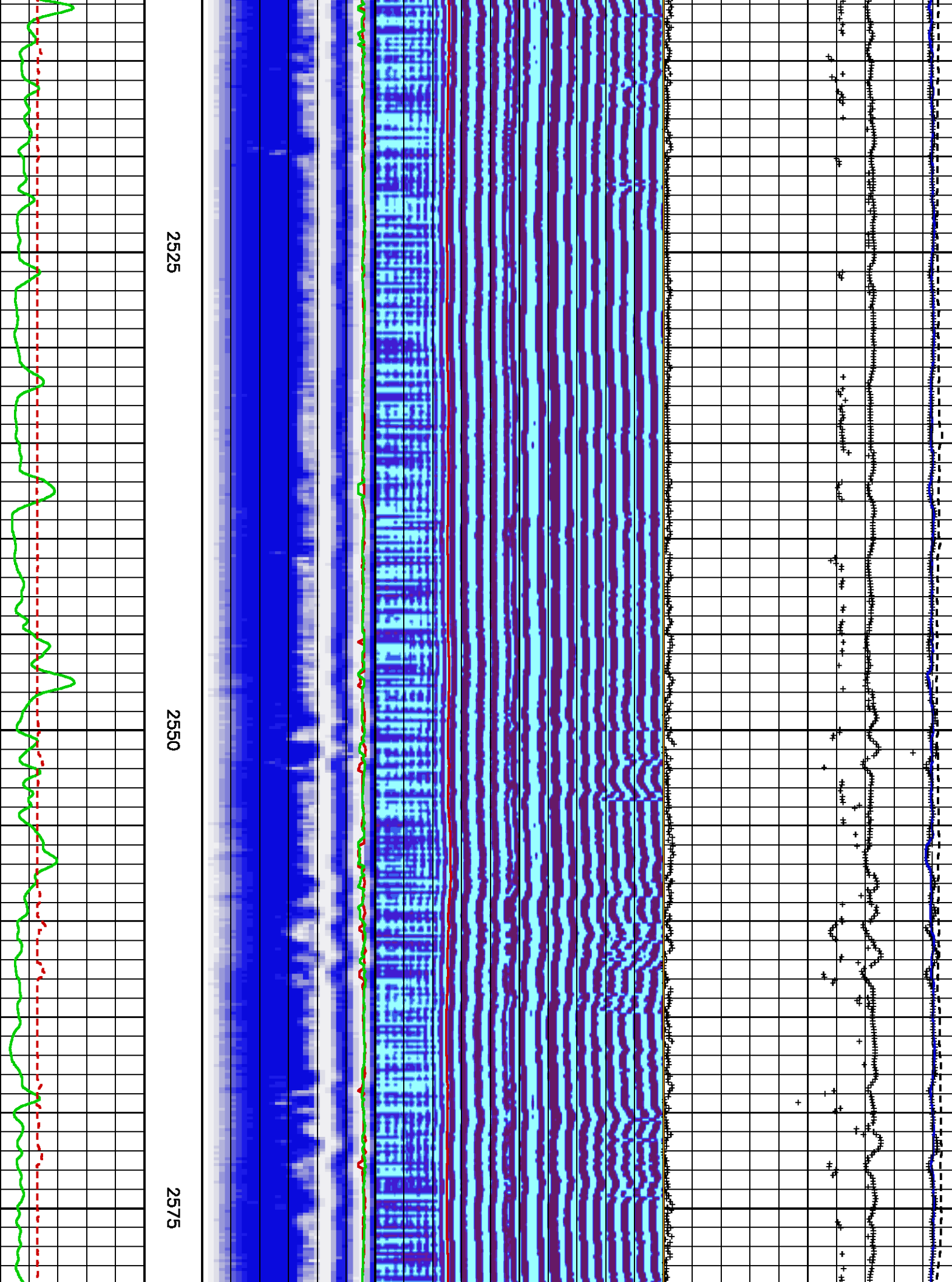
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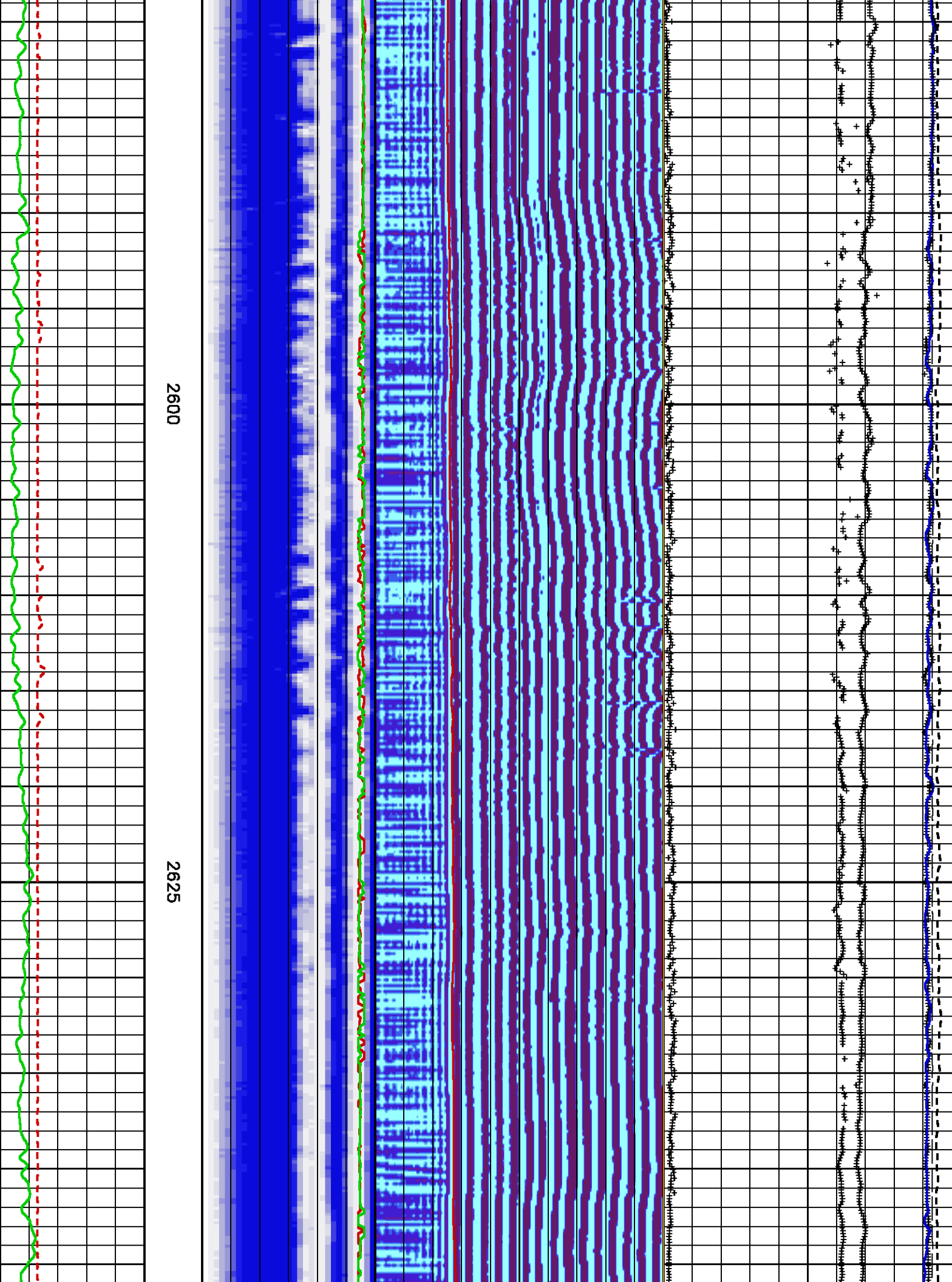


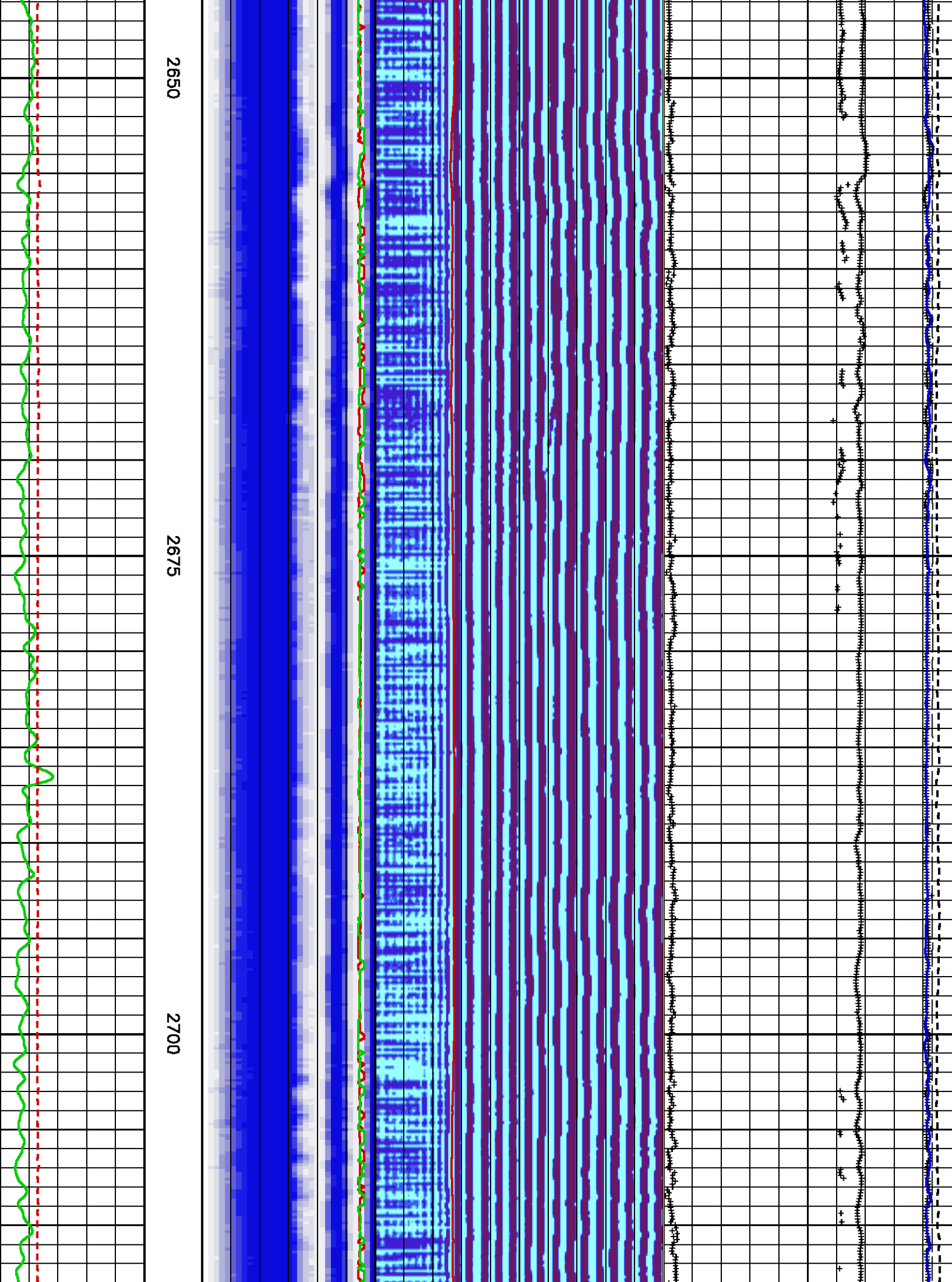


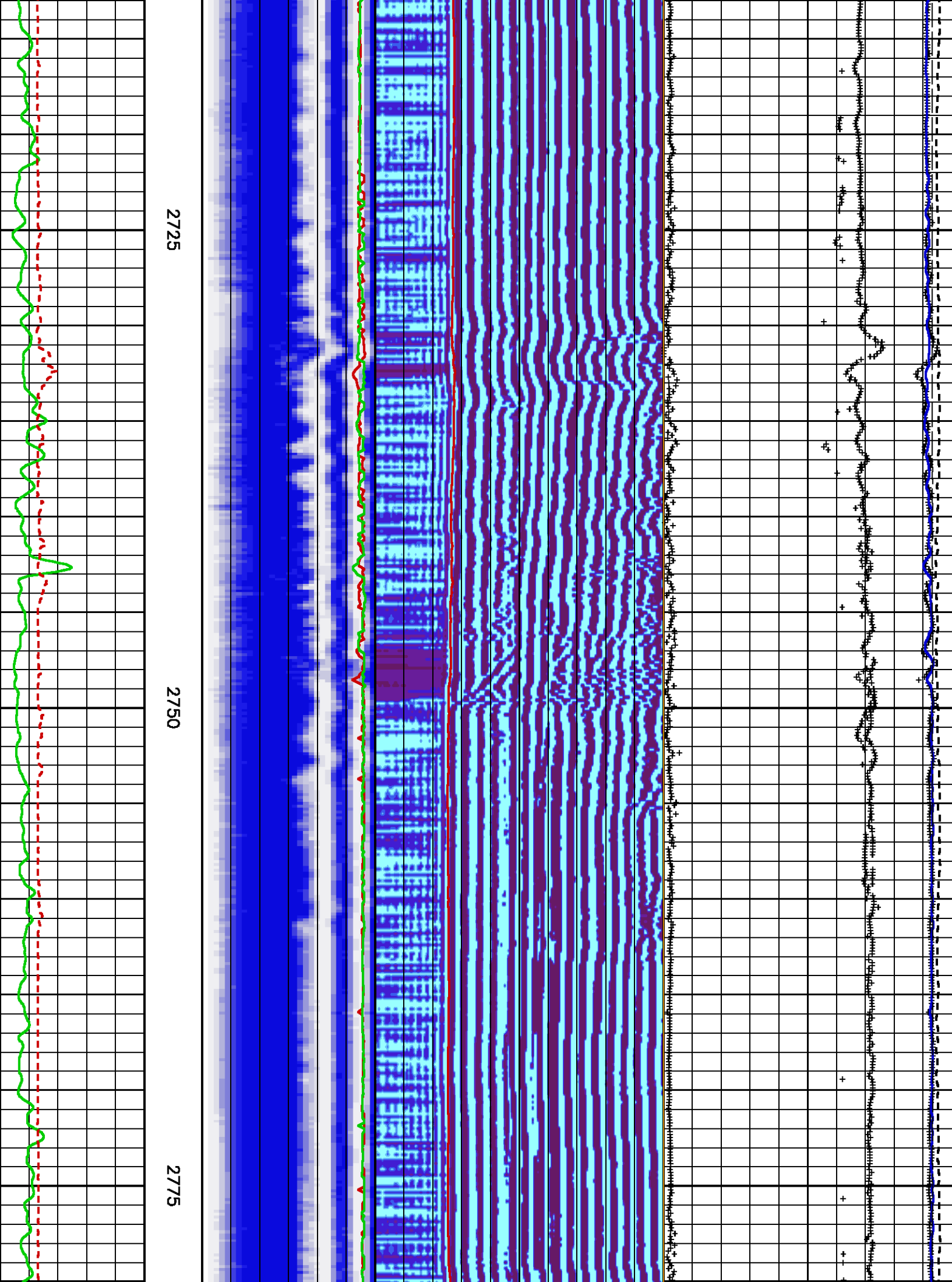


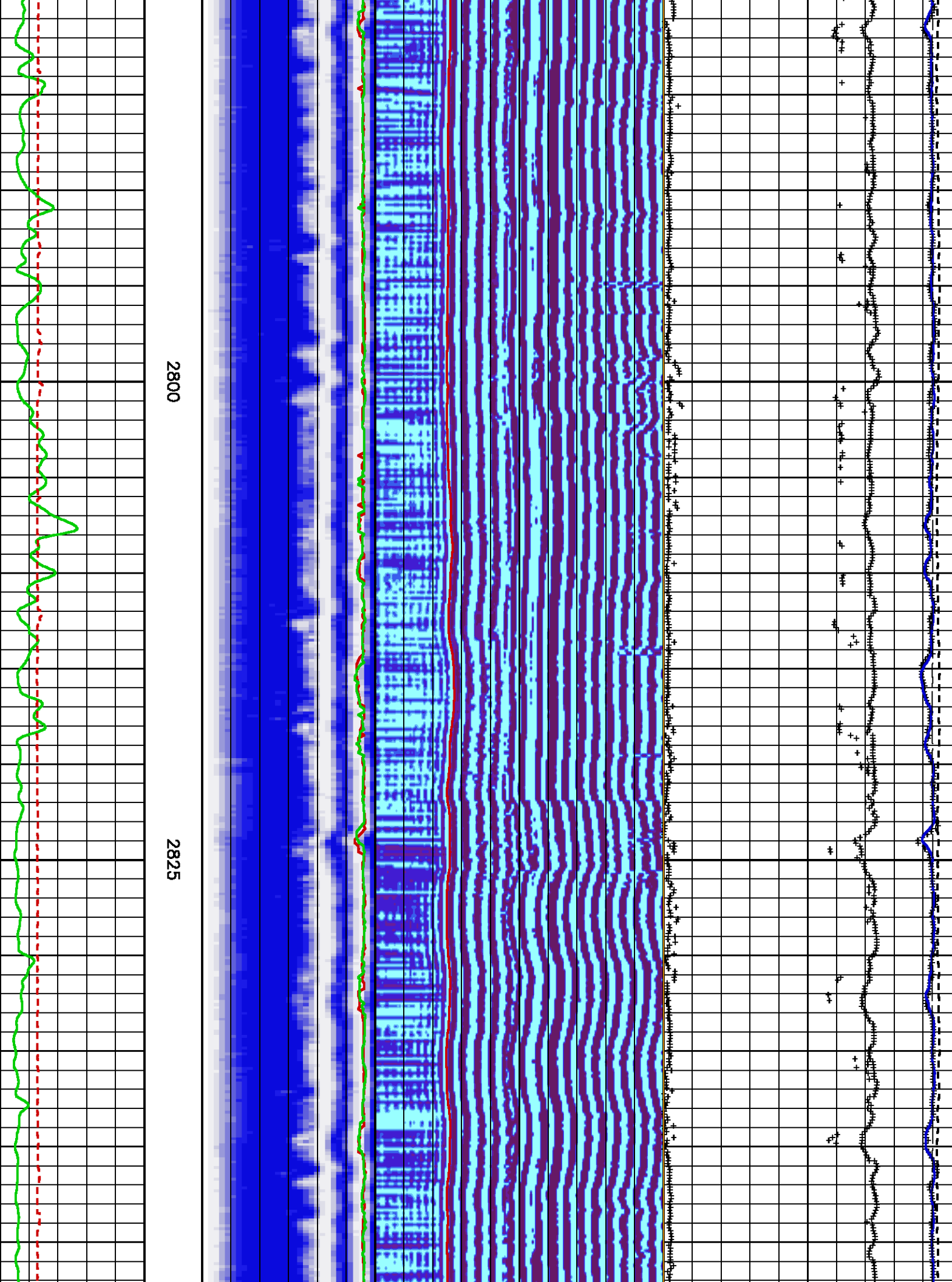


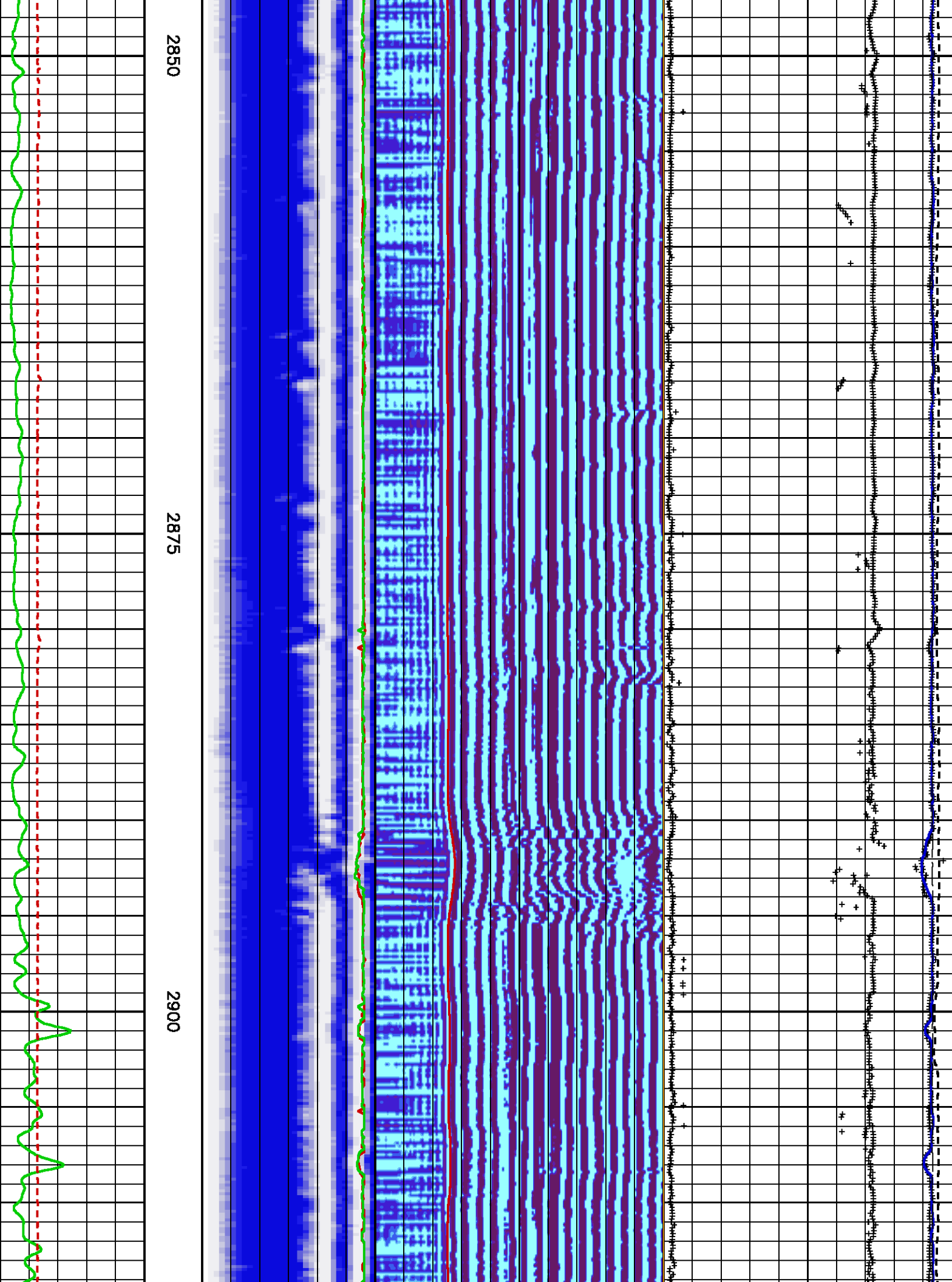


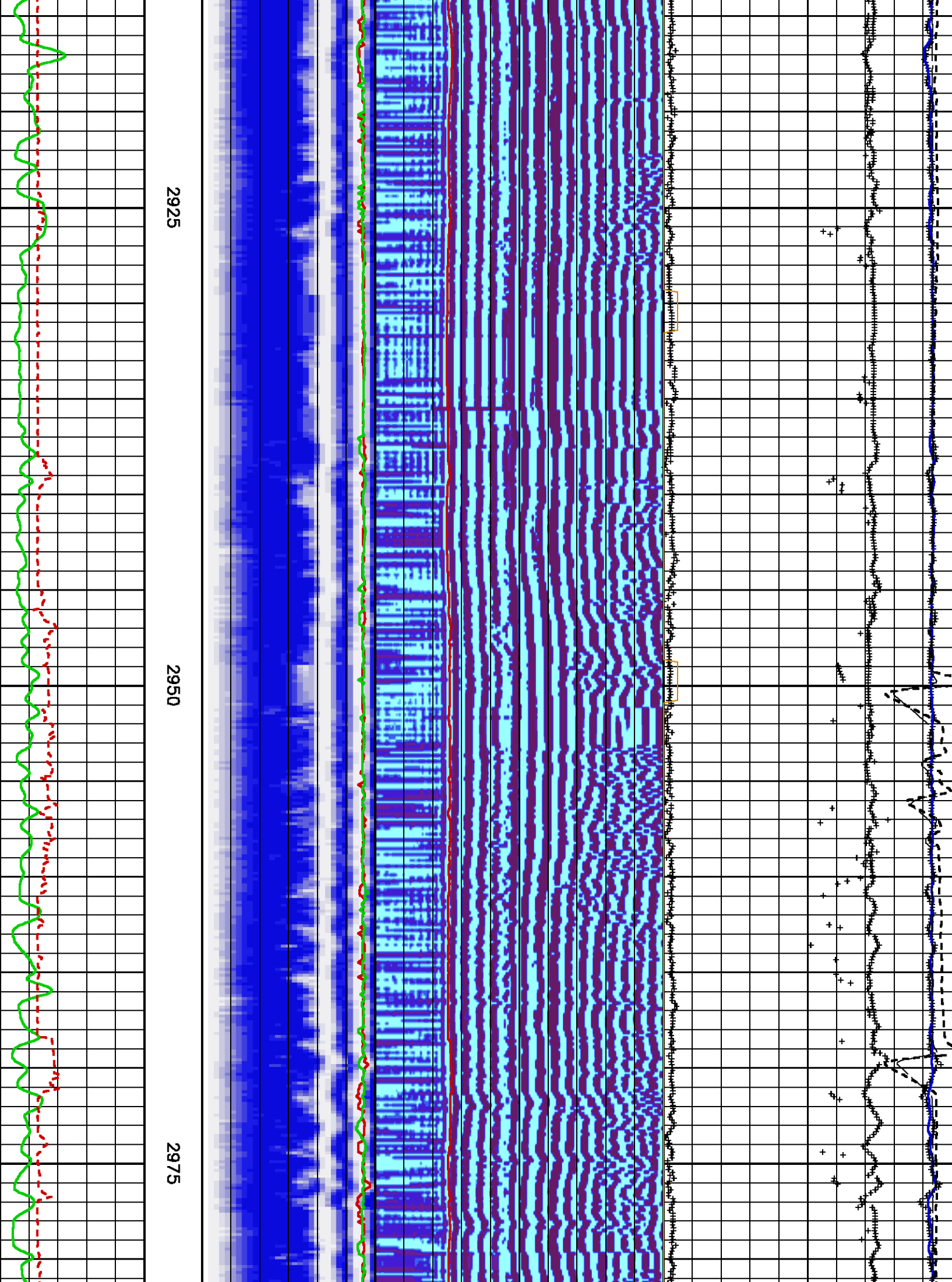








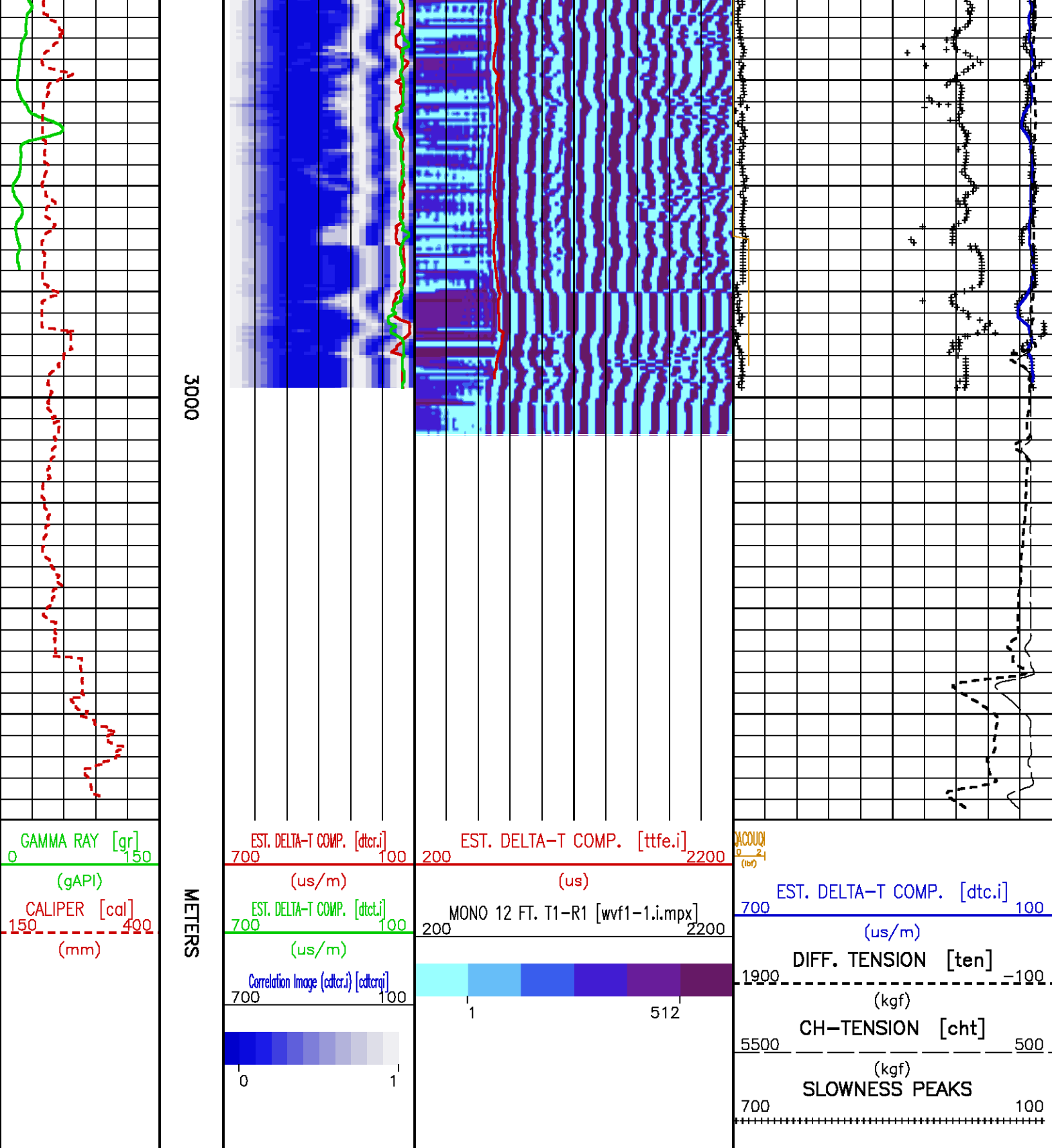




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CALIBRATION / VERIFICATION SUMMARY

GR PRIMARY CALIBRATION SUMMARY

TOOL #: 1329XA 370830

DATE/TIME PERFORMED: Sun Nov 21 15:11:44 2010

UNIT #: 3885TF 004291

CALB JIG #: 4702NK DA-549

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	CR DIFF (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	CALBRTR (gAPI)
GR	313.38	1248.40	935.0	0.160	50.27	200.27	150
			850.0 960.0				

GR PRIMARY VERIFICATION SUMMARY

TOOL #: 1329XA 370830

DATE/TIME PERFORMED: Sun Nov 21 15:16:00 2010

UNIT #: 3885TF 004291

VERI JIG #: 4702NK DA-549

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	310.42	1234.20	0.160	49.80	198.00	148.20
						140.00 160.00

GR BEFORE LOG VERIFICATION SUMMARY

TOOL #: 1329XA 370830

DATE/TIME PERFORMED: Sat Nov 27 12:29:10 2010

DAYS SINCE CAL: 5

UNIT #: 3885TF 004291

VERI JIG #: 4702NK DA-549

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	139.69	1015.67	0.160	22.41	162.94	140.53
						138.20 158.20

GR AFTER LOG VERIFICATION SUMMARY

TOOL #: 1329XA 370830

DATE/TIME PERFORMED: Sat Nov 27 16:59:08 2010

DAYS SINCE CAL: 6

UNIT #: 3885TF 004291

VERI JIG #: 4702NK DA-549

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	133.62	1031.93	0.160	21.44	165.55	144.11
						130.53 150.53

XMACE_OR PRIMARY CALIBRATION SUMMARY

TOOL #: 1678MB 10039363

DATE/TIME PERFORMED: Sun Nov 21 14:24:04 2010

UNIT #: 3885TF 004291

ORIENTATION #: 4401XB 10119993

	DEV (deg)	QA (mG)	MEAS RB (deg)	RB OFFSET (deg)	ROTATED RB (deg)
ORIT TBM CHECK	90.0	1001.0	360.0		
		990.0 1010.0	357.5 2.5		
XMAC-Elite ORIENT			241.6	241.6	0.0

STARCAL PRIMARY CALIBRATION SUMMARY

TOOL #: 4236MA 10103666

DATE/TIME PERFORMED: Sun Nov 21 14:35:34 2010

UNIT #: 3885TF 004291

	SMALL RING (row)	LARGE RING (row)	MULT (mm/row)	ADD (mm)	SMALL RING (mm)	LARGE RING (mm)
RADIUS 1	1222.2	2550.8	0.0526	37.3462	101.600	171.450
RADIUS 2	1252.4	2587.9	0.0523	36.0917	101.600	171.450
RADIUS 3	1213.4	2583.0	0.0510	39.7186	101.600	171.450
RADIUS 4	1198.7	2558.8	0.0514	40.0377	101.600	171.450
RADIUS 5	1200.9	2608.4	0.0496	42.0003	101.600	171.450
RADIUS 6	1192.6	2548.8	0.0515	40.1747	101.600	171.450
CALIPER 1					203.200	342.900
CALIPER 2					203.200	342.900
CALIPER 3					203.200	342.900

SMALL RING LARGE RING

PAD FORCE % 9.630 10.172

DC MOTOR V 1.6 1.6

STARCAL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 4236MA 10103666

DATE/TIME PERFORMED: Sat Nov 27 14:06:16 2010

DAYS SINCE CAL: 5

UNIT #: 3885TF 004291

I.D. (mm)	MULT	ADD	I.D. (mm)	CASING SIZE (mm)
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	(row)				(mm pct V)	(mm)
RADIUS 1	1450.4	0.05257	37.34620	113.601		
RADIUS 2	1236.6	0.05230	36.09169	100.770		
RADIUS 3	1199.5	0.05100	39.71860	100.890		
RADIUS 4	1305.2	0.05136	40.03770	107.067		
RADIUS 5	1559.6	0.04963	42.00031	119.399		
RADIUS 6	1585.9	0.05150	40.17473	121.857		
CALIPER 1				220.668	222.400	
CALIPER 2				220.169		
CALIPER 3				222.747		
PAD FORCE				5.635		
DC MOTOR V				1.6		

STARCAL AFTER LOG VERIFICATION SUMMARY

TOOL #: 4236MA 10103666 DATE/TIME PERFORMED: Sat Nov 27 16:13:31 2010 DAYS SINCE CAL: 6

UNIT #: 3885TF 004291

	I.D. (row)	MULT	ADD	I.D. (mm pct V)	CASING SIZE (mm)
RADIUS 1	1315.9	0.05257	37.34620	106.529	
RADIUS 2	1311.8	0.05230	36.09169	104.703	
RADIUS 3	1335.4	0.05100	39.71860	107.825	
RADIUS 4	1347.6	0.05136	40.03770	109.248	
RADIUS 5	1476.1	0.04963	42.00031	115.255	
RADIUS 6	1384.5	0.05150	40.17473	111.483	
CALIPER 1				215.777 207.968 233.568	222.400
CALIPER 2				219.958 207.469 232.869	
CALIPER 3				219.309 210.047 235.447	
PAD FORCE				6.124	
DC MOTOR V				1.9	

 Baker Atlas 	COMPANY WELL FIELD PROVINCE	<u>NALCOR ENERGY</u> <u>NALCOR ET AL FINNEGAN #1</u> <u>FINNEGAN</u> <u>NEWFOUNDLAND AND LABRADOR</u>		FILE NO: API NO:
	LOCATION: LAT <u>49.92 N</u> LONG <u>63.33 W</u>	ELEVATIONS: KB <u>125.00 M</u> DF GL <u>118.75 M</u> DATE <u>27-NOV-2010</u>	LICENSE: <u>2010-128-04</u>	