



FILE NO:	COMPANY	HUSKY OIL OPERATIONS LIMITED
API NO:	WELL	LITTLE BEAR H-64
	FIELD	SLATER RIVER
	PROVINCE	NORTHWEST TERRITORIES
Ver. 3.87	LOCATION:	OTHER SERVICES
UID:	SURF LOC:	HDIL-GR-CAL, C/L
300H6500126000	LAT 64.53' 28.5"N LONG 126 11' 20.3"W	XUAC-GR, FLEX-DSL
LICENSE:	BH LOC, LSD:	DSL, EI-CRIL-GR
482	LAT 64.53' 28.5"N LONG 126 11' 20.3"W	IMEX, DIRSR, CBL
PERMANENT DATUM	G.L.	ELEVATION
LOG MEASURED FROM	K.B.	178.0 M
DRILL MEAS. FROM	5.2 M	ABOVE P.D.
	KELLY BUSHING	ELEVATIONS:
		KB 183.2 M
		DF
		GL 178.0 M

DATE	06-MAR-2012			
RUN	TRIP	1	1	
SERVICE ORDER	CA212311			
DEPTH DRILLER	1341.0 M			
DEPTH LOGGER	1340.2 M			
BOTTOM LOGGED INTERVAL	1313.9 M			
TOP LOGGED INTERVAL	0.0 M			
CASING DRILLER	244.5 MM	●	510.0 M	●
CASING LOGGER	510.0 M			
BIT SIZE	222.0 MM			
TYPE OF FLUID IN HOLE	INVERT			
DENSITY	VISCOSITY	1240.0 G/L	47.0 S	
PH	FLUID LOSS	NA	NA	
SOURCE OF SAMPLE	NO SAMPLE			
RM AT MEAS. TEMP.	NA	●	NA	●
RMF AT MEAS. TEMP.	NA	●	NA	●
RMC AT MEAS. TEMP.	NA	●	NA	●
SOURCE OF RMF	RMC	NO SAMPLE	NO SAMPLE	
RM AT BHT	NA	●	NA	●
TIME SINCE CIRCULATION	8.0 HOURS			
MAX. RECORDED TEMP.	53.2 DEGC			
EDUP. NO.	LOCATION	Z008672	OH CANADA	
RECORDED BY	J. COLLIER/D. DOUCETT			
WITNESSED BY	H. BARENHAGEN			

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
311.0 MM	0.0 M	510.0 M
222.0 MM	510.0 M	1341.0 M

CASING RECORD				
SIZE	WEIGHT	GRADE	FROM	TO
244.5 MM	53.6 KG/M	NA	0.0 M	510.0 M

REMARKS

RUN 1 TRIP 1: TIME STOPPED CIRCULATION: 06-MAR-2012 02:30 PM

CNC IS ZDL CALIPER CORRECTED.
 CNC AND PORZ PRESENTED IN LIMESTONE MATRIX 2.71G/CM3.
 CNC IS CORRECTED FOR 311.0 MM BIT SIZE BEHIND CASING FROM 510.0 M TO SURFACE AND PRESENTED ABOVE CAL/VER SECTION.

HIGH RESOLUTION PASS PRESENTED BELOW REPEAT PASS

RIG: NABORS 23

CREW: J. COLLIER, D. DOUCETT, D. KIRMAN, D. SCHNEIDER, N. WODERWID, P. ARENBURG

EQUIPMENT DATA

RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
1	1	SWIVEL	3844XD	11908288	FREE
1	1	DHPA	4430XB	12111382	FREE
1	1	TIRM SUB	3881XB	11760038	FREE
1	1	COMM	3514XC	12079095	FREE
1	1	WTS DGR/SU	1329XB	11756874	FREE
1	1	CH	2448XA	12068884	DECENTRALIZED
1	1	ZDEN	2234XA	168004	POD DEVICE
1	1	WTS DBL KWI	3838XA	10283200	FREE
1	1	ORT	4401XB	Z168978	FREE
1	1	ACOUSTIC FL	1677FA	12045828	CENTRALIZED
1	1	XMAC RX MDR	1678MC	12002082	CENTRALIZED
1	1	XMAC ISO	1678PB	12083102	FREE
1	1	XMAC TX FLC	1678FA	12083108	CENTRALIZED
1	1	XMAC TX FLC	1678FA	12111386	CENTRALIZED
1	1	HDIL FLCNS	1515FA	12032417	STANDOFF
1	1	HDIL MANDRI	1515MA	11987988	STANDOFF
1	1	SWIVEL	3844XD	11848158	FREE
1	1	DHPA	4430XB	12088588	FREE
1	1	TIRM SUB	3881XA	Z173348	FREE
1	1	COMM	3514XB	Z186132	FREE
1	1	WTS DGR/SU	1329XB	Z179402	FREE
1	1	CH	2448XA	12068881	DECENTRALIZED
1	1	ZDEN	2234XA	Z172840	POD DEVICE
1	1	WTS DBL KWI	3838XA	167184	FREE
1	1	ORT	4401XB	12039483	FREE
1	1	ACOUSTIC FL	1677FA	11881885	CENTRALIZED
1	1	XMAC RX MDR	1678MC	12138283	CENTRALIZED
1	1	XMAC ISO	1678PB	11870838	FREE
1	1	XMAC TX FLC	1678FA	12103884	CENTRALIZED
1	1	XMAC TX FLC	1678FA	12111385	CENTRALIZED
1	1	HDIL FLCNS	1515FA	11988830	STANDOFF
1	1	HDIL MANDRI	1515MA	12022611	STANDOFF
1	1	CENTRALIZER	4341XA	Z173361	CENTRALIZED

INSTRUMENT CONFIGURATION

Source File: /dat1a/humky_CA212311/run1-tdg

CABLEHEAD

Diameter : 8.8 cm
 Length : 187.8 cm
 Weight : 10.8 kg
 Series : CABLE338
 Insonia : CBLH
 Measure Point: 83.8 cm: CABLEHEAD TOP

SWIVEL

Diameter : 8.8 cm
 Length : 108.7 cm
 Weight : 30.8 kg
 Series : 384-6XD

KEMBLE FIBER ADAPTER

Diameter : 9.2 cm
 Length : 180.7 cm
 Weight : 38.1 kg
 Series : 4430XB
 Insonia : DHPA

TIRM SUB

Diameter : 9.2 cm
 Length : 118.8 cm
 Weight : 25.2 kg
 Series : 3881XA
 Insonia : TIRM
 Measure Point: 42.2 cm: TEMP MP

WTS COMMON REMOTE

Diameter : 9.2 cm
 Length : 184.0 cm
 Weight : 35.2 kg
 Series : 381-6XD
 Insonia : WTS



40.70 m

CABLEHEAD TOP 38.88 m

TEMP MP 38.80 m
RM MP 38.83 m

DIGITAL SPECTRALOG

Diameter : 9.2 cm
 Length : 222.8 cm
 Weight : 88.1 kg
 Series : 13280A
 Inesonix : DSI
 Measure Points : 48.8 cm: OR MP

OR MP : 31.80 m

COMPENSATED NEUTRON

Diameter : 9.2 cm
 Length : 231.4 cm
 Weight : 86.2 kg
 Series : 24480A
 Inesonix : CN
 Measure Points : 80.3 cm: LSN MP
 Measure Points : 88.2 cm: SSN MP

LSN MP : 28.93 m
 SSN MP : 28.36 m

Z-DETECTLOG

Diameter : 12.4 cm
 Length : 341.0 cm
 Weight : 163.8 kg
 Series : 22380A
 Inesonix : ZDL
 Measure Points : 87.3 cm: CAL MP
 Measure Points : 78.4 cm: LBD MP
 Measure Points : 63.2 cm: SBD MP

CAL MP : 28.25 m
 LBD MP : 28.04 m
 SBD MP : 27.81 m

KNUCKLE JOINT (DOUBLE)

Diameter : 8.8 cm
 Length : 141.8 cm
 Weight : 40.8 kg
 Series : 38380A
 Inesonix : KJUT

DIGITAL ORIENTATION

Diameter : 8.8 cm
 Length : 328.4 cm
 Weight : 50.0 kg
 Series : 4401KB
 Inesonix : ORIT
 Measure Points : 0.0 cm: ORIENT MP

ORIENT MP : 20.57 m

ARMY ACQUISILOR ELECTRONICS, 8 CHANNEL

Diameter : 8.8 cm
 Length : 238.3 cm
 Weight : 48.4 kg
 Series : 18780A
 Inesonix : KMAC

CROSS MULTIPOLE ARMY ACQUISILOR

Diameter : 9.8 cm
 Length : 332.4 cm
 Weight : 101.8 kg
 Series : 18780C
 Inesonix : KMP1
 Measure Points : 187.8 cm: R8
 Measure Points : 182.4 cm: R7
 Measure Points : 137.2 cm: R6
 Measure Points : 121.0 cm: R5
 Measure Points : 109.7 cm: R4
 Measure Points : 81.4 cm: R3
 Measure Points : 79.2 cm: R2
 Measure Points : 61.0 cm: R1

R8 : 18.84 m
 R7 : 18.36 m
 R6 : 16.23 m
 R5 : 16.05 m
 R4 : 15.83 m
 R3 : 15.70 m
 R2 : 15.63 m
 R1 : 15.47 m

SHEAR WAVE ACQUISILOR

Diameter : 9.2 cm
 Length : 188.4 cm
 Weight : 81.4 kg
 Series : 18780B
 Inesonix : KMAC

MONOPOLE T2 : 12.88 m
 QUADRUPOLE T8 : 12.88 m

X-DIPOLE T3 : 12.38 m
 Y-DIPOLE T4 : 12.38 m

MONOPOLE T1 : 11.82 m

MULTI-POLE ARMY ACQUISILOR

Diameter : 9.8 cm
 Length : 241.3 cm
 Weight : 77.3 kg
 Series : 18780A
 Inesonix : KMAC
 Measure Points : 188.8 cm: QUADRUPOLE T8
 Measure Points : 180.8 cm: MONOPOLE T2
 Measure Points : 142.2 cm: Y-DIPOLE T4
 Measure Points : 140.2 cm: X-DIPOLE T3

Measure Point: 88.8 cm: MONOPOLE T1
MULTI-POLE ARMY ACQUATIC
 Diameter : 8.6 cm
 Length : 131.8 cm
 Weight : 38.4 kg
 Series : 187BFA
 Memoirs : M40

HIGH DEFINITION INDUCTION TOOL
 Diameter : 9.2 cm
 Length : 827.0 cm
 Weight : 188.8 kg
 Series : 181BKA
 Memoirs : HDIL
 Measure Point: 483.8 cm: SP MP
 Measure Point: 328.8 cm: KITE MP

4 ARM ROE SPRING CENTRALIZER
 Diameter : 8.6 cm
 Length : 128.8 cm
 Weight : 32.7 kg
 Series : 4341KA
 Memoirs : CENT

BULL PLUG 3 3/8

TOTAL LENGTH: 40.70 m
 TOTAL WEIGHT: 1100.8 kg
 MAX DIAMETER: 12.4 cm



MAIN LOG - UPPER PRESENTATION

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

Wed Mar 7 01:25:17 2012

Perfl /main/62

Cplot

Pdf_Cpp /main/16

Fileview 5.51

PARAMETER AND FILTER SUMMARY REPORT

File: /data/husky_CA212311/m77evh_xc03.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 487.566 m BOTTOM DEPTH: 1340.828 m

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CHT	FILTER ()	medium (1)		TOP	BOTTOM
TENSION	FILTER ()	medium (1)		"	"
GR	FILTER ()	medium (1)		"	"
CALIPER	FILTER ()	medium (1)		"	"
ZDL MED RES	FILTER (hrd1*)	medium		"	"
	FILTER (hrd1*)	medium		"	"

FILTER (hrd2*)	medium	..	..
FILTER (hrd2s*)	medium	..	..
FILTER (soft*)	medium	..	..

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
BIT SIZE	BIT SIZE	222.000	mm	TOP	BOTTOM

ZDL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
ZDL	DENK TRACKING	ON		TOP	BOTTOM

CURVE DESCRIPTION REPORT

CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:BIT	Mar 6 22:18:03 2012	BIT SIZE
F1:CALX	Mar 6 22:18:03 2012	CALIPER FROM X-AXIS OF XY CALIPER(S)
F1:CHT	Mar 6 22:18:03 2012	CABLE HEAD TENSION
F1:GR	Mar 6 22:18:03 2012	GAMMA RAY
F1:MARK	Mar 6 22:18:03 2012	MINUTE MARK
F1:PE	Mar 6 22:18:03 2012	PHOTO ELECTRIC CROSS-SECTION
F1:TEN	Mar 6 22:18:03 2012	DIFFERENTIAL TENSION
F1:ZCOR	Mar 6 22:18:03 2012	DENSITY CORRECTION
F1:ZDEN	Mar 6 22:18:03 2012	FORMATION BULK DENSITY

CURVE MEASURE POINT OFFSET

CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)
BIT	0.00	CHT	0.00	PE	25.95	ZCOR	25.95
CALX	26.17	GR	31.39	TEN	0.00	ZDEN	25.95

Presentation : opuz\data/husky_CA212311/zdl_upper.pdf [1:600 Scale]

Plot Interval : 480 - 1340.99 Meters

Data File 1 : F1 : opuz\data/husky_CA212311/m77wh_xe03.xtf

Created On : Mar 6 22:18:03 2012

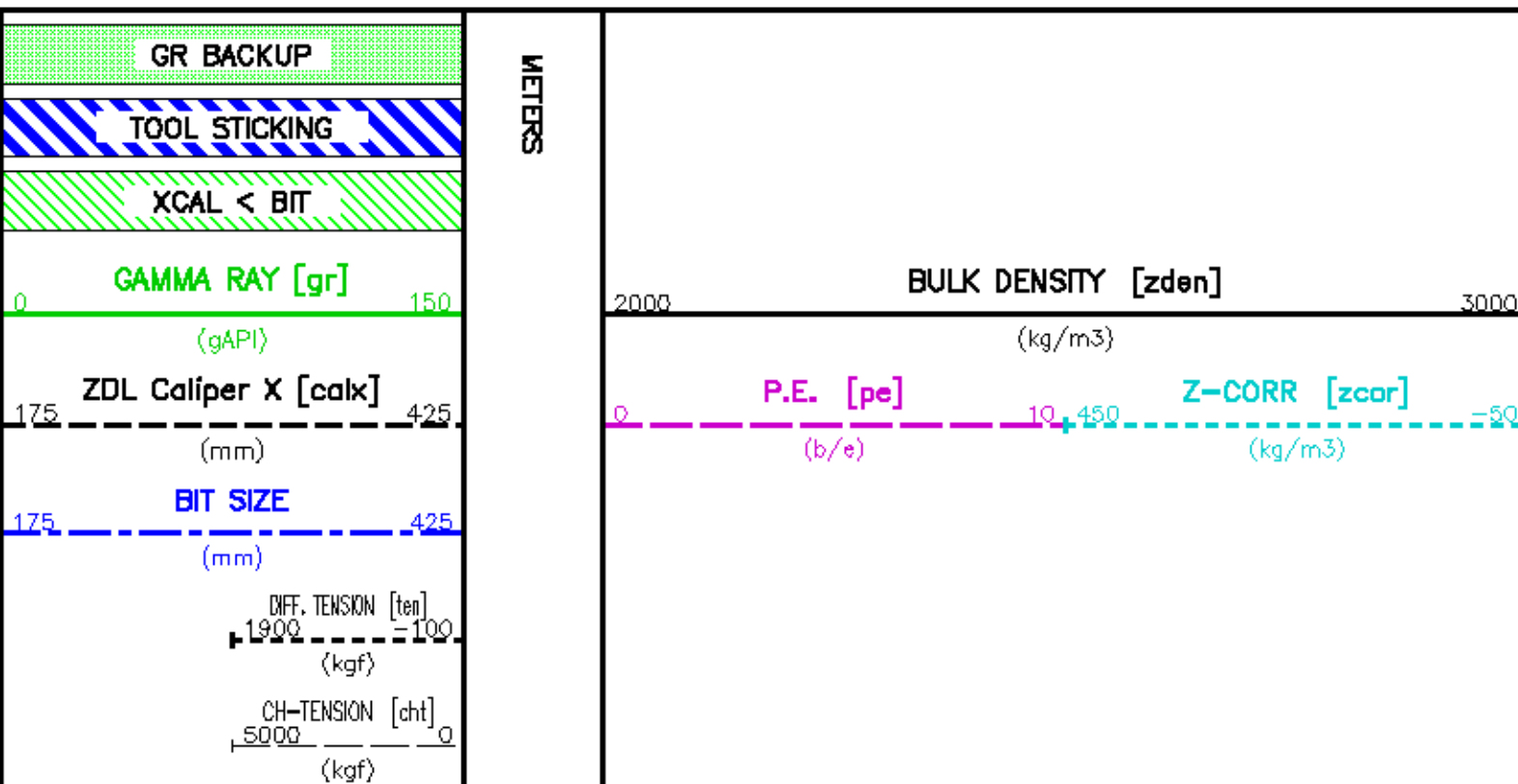
Company : HUSKY OIL OPERATIONS LIMITED

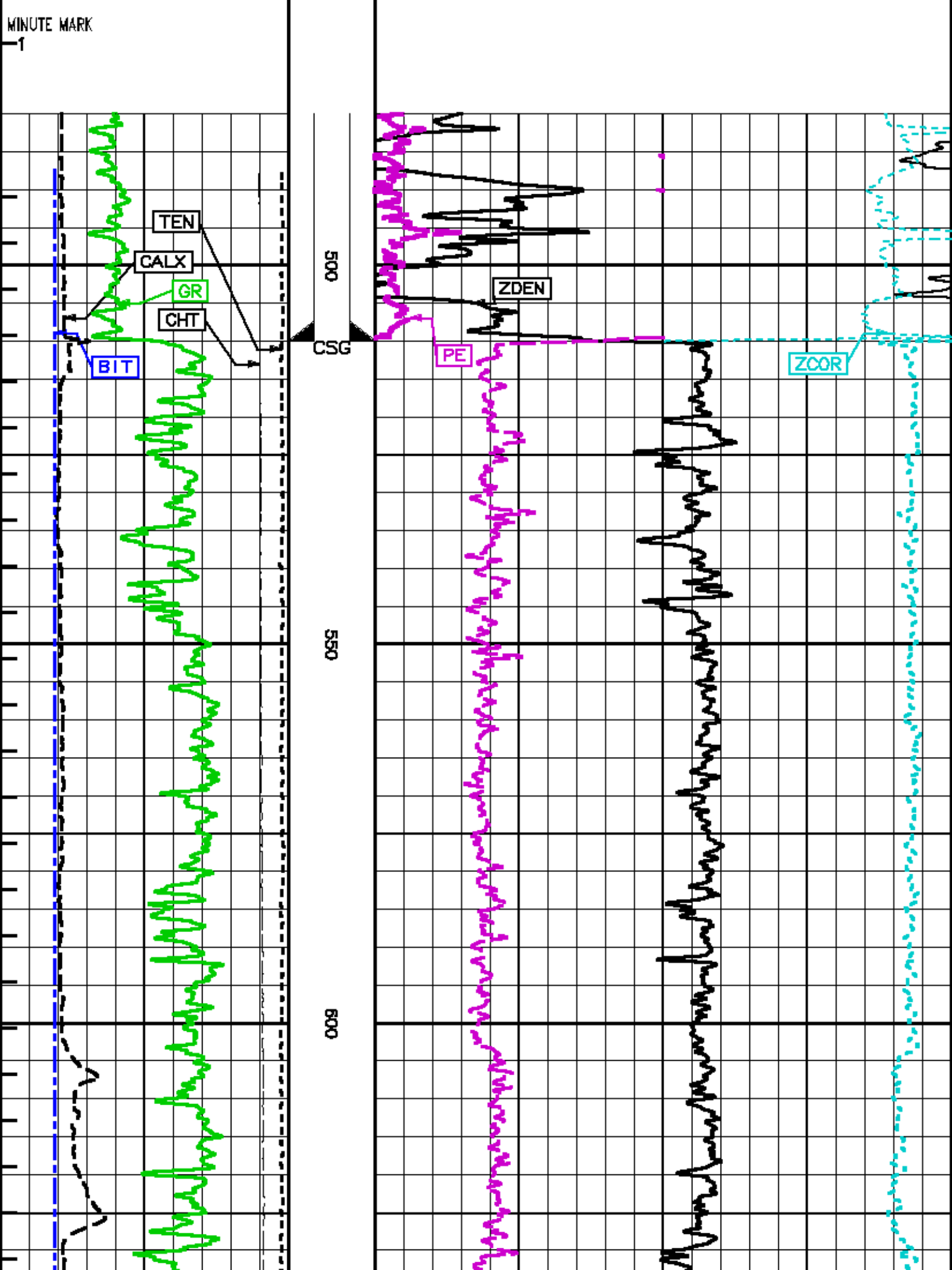
Well : LITTLE BEAR H-64

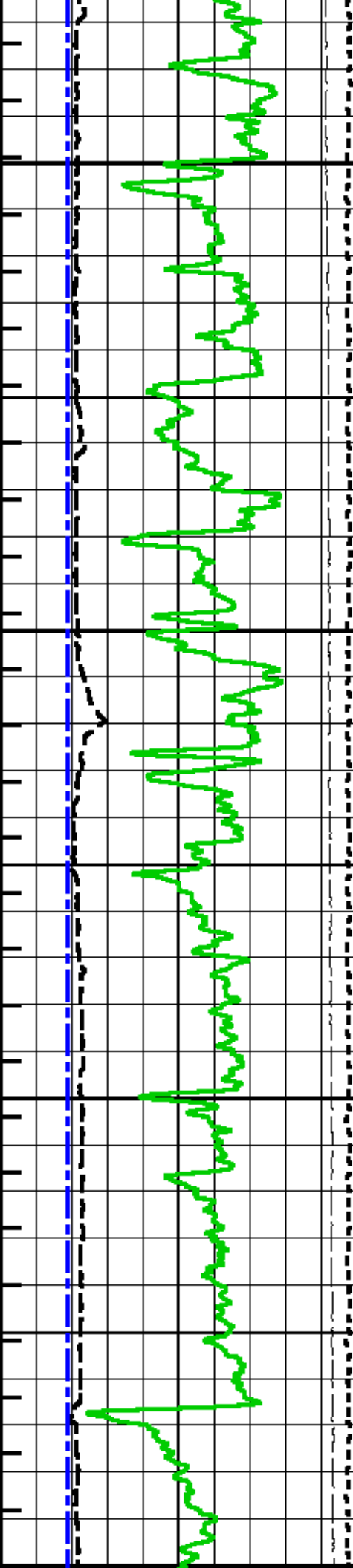
Field : SLATER RIVER

File Interval : 452.247 - 1340.93 Meters

Out : m77wh_x





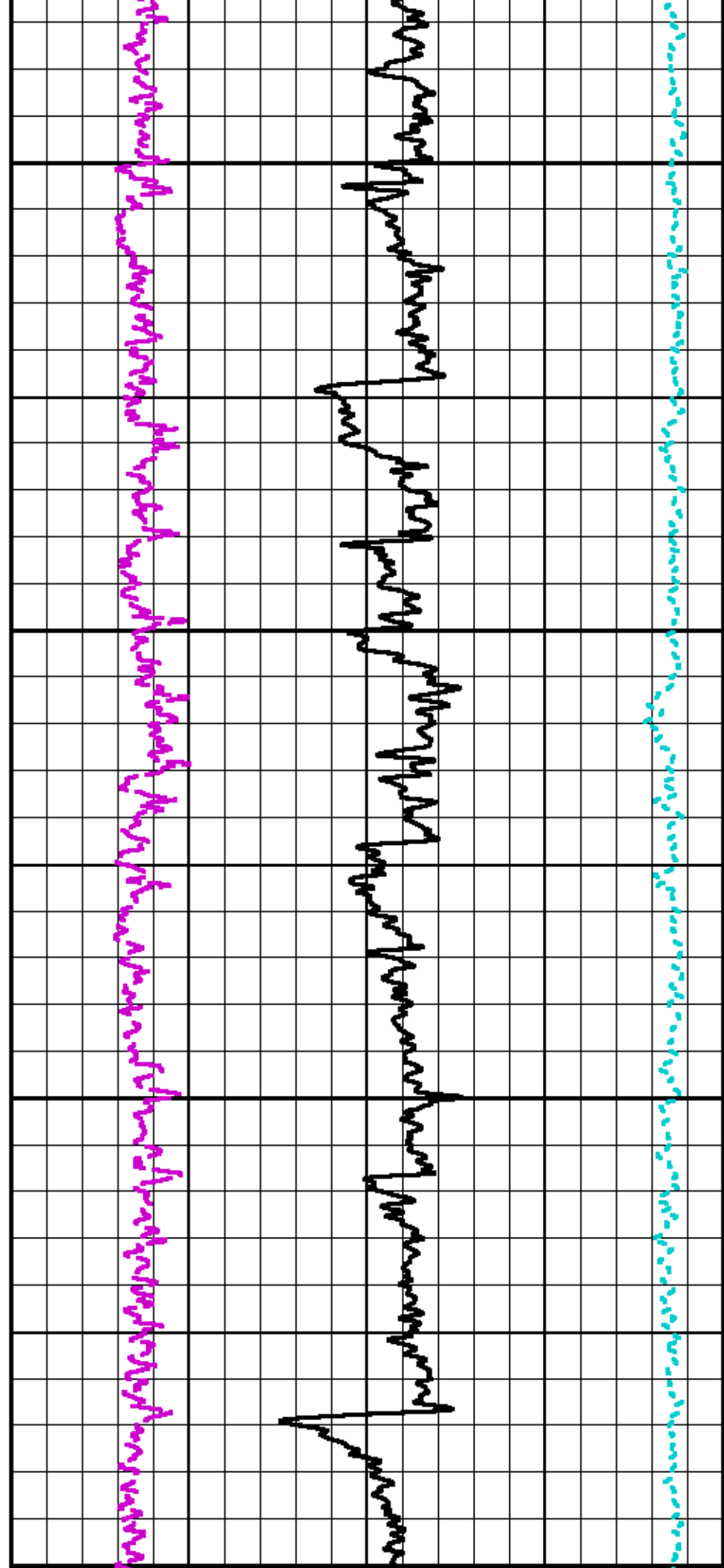


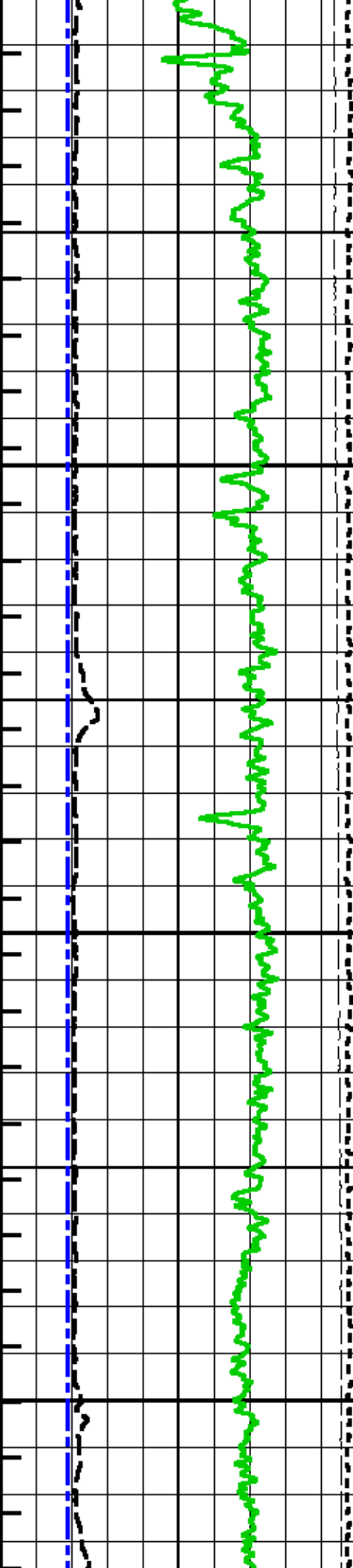
650

700

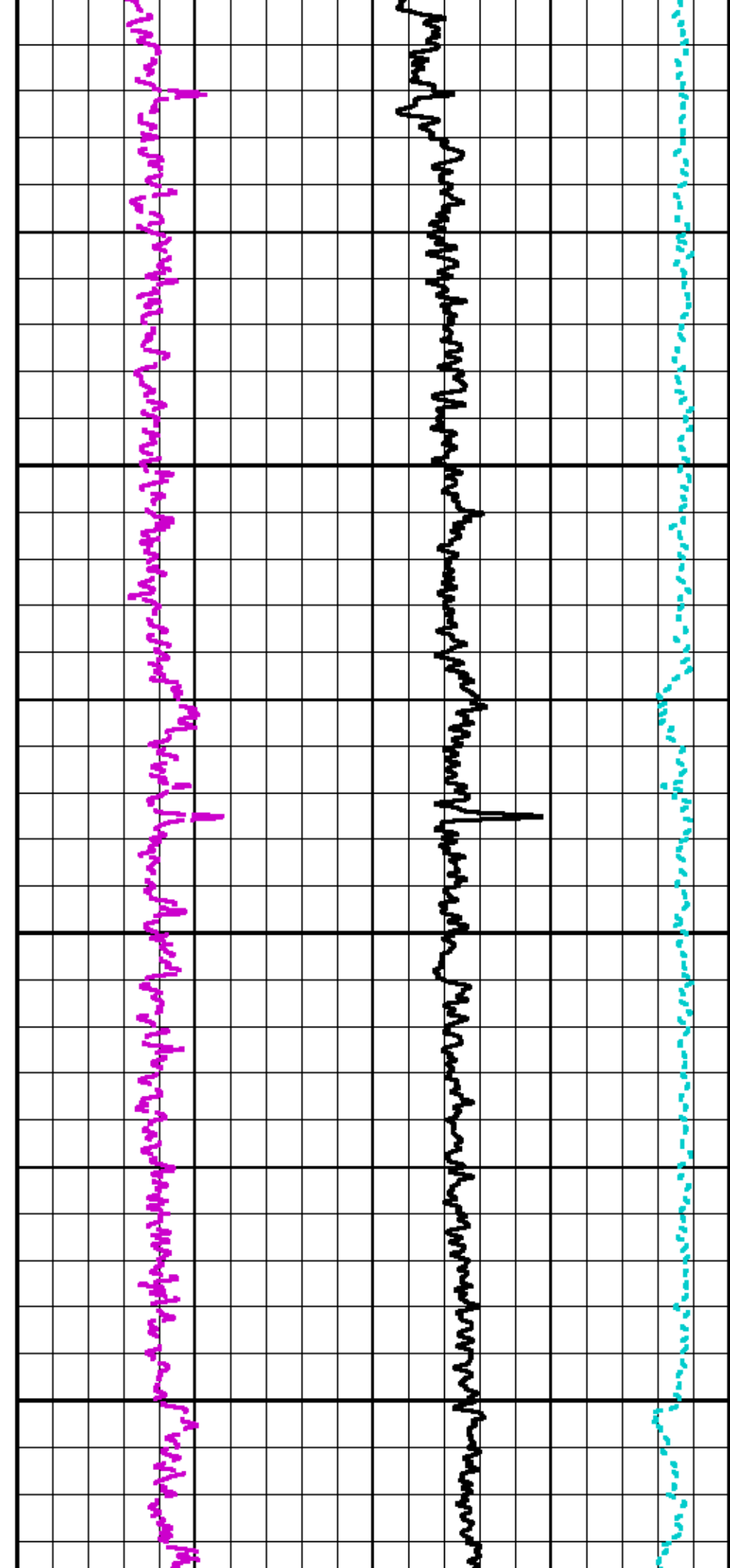
750

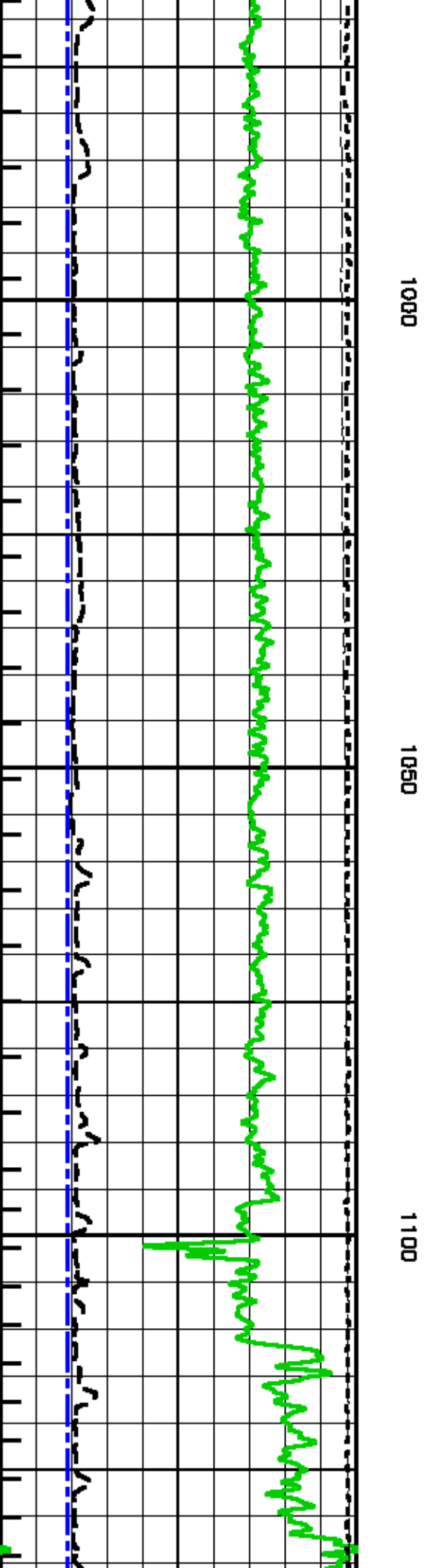
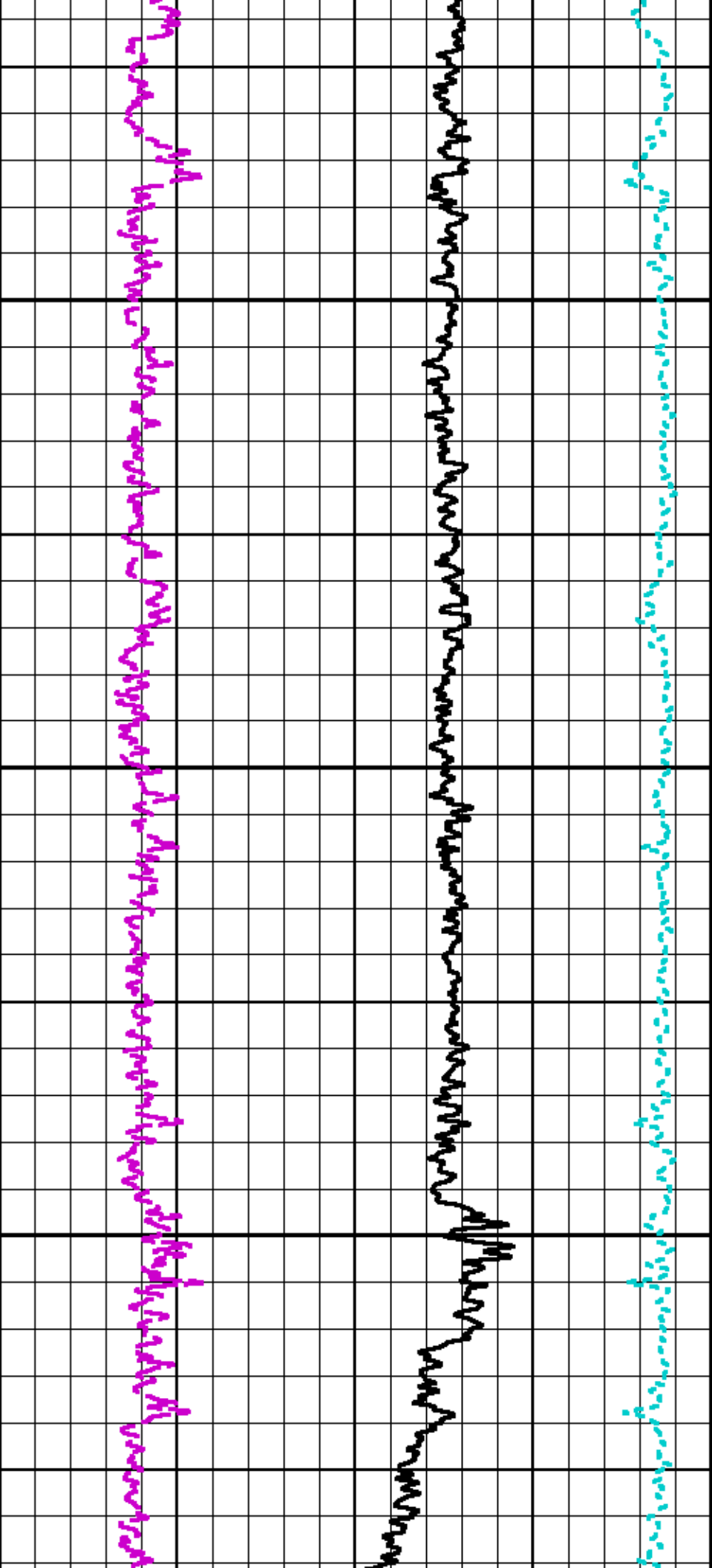
BC

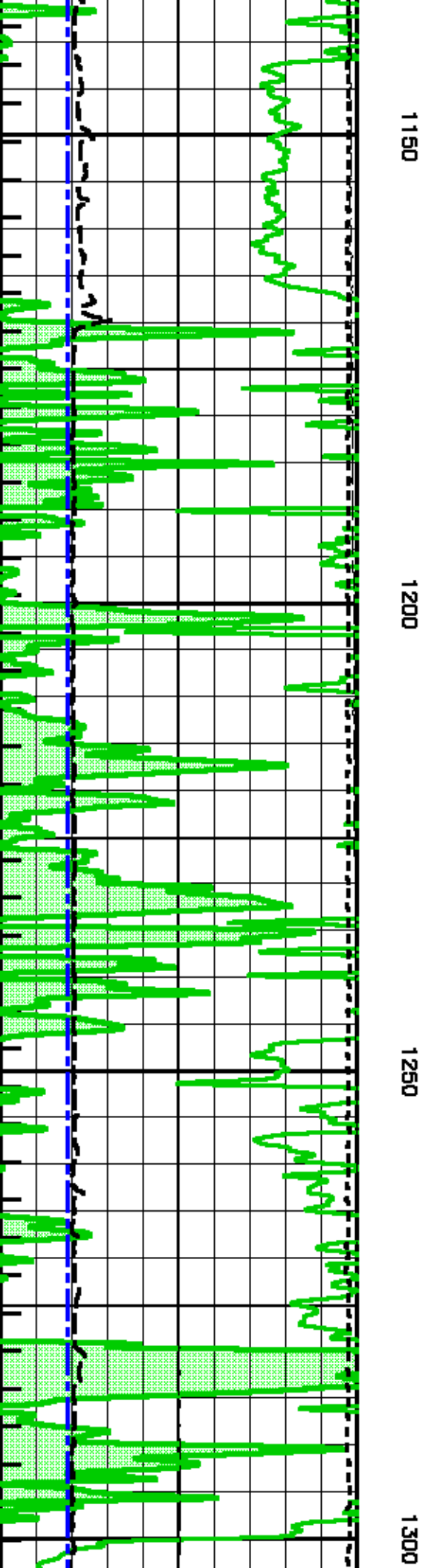
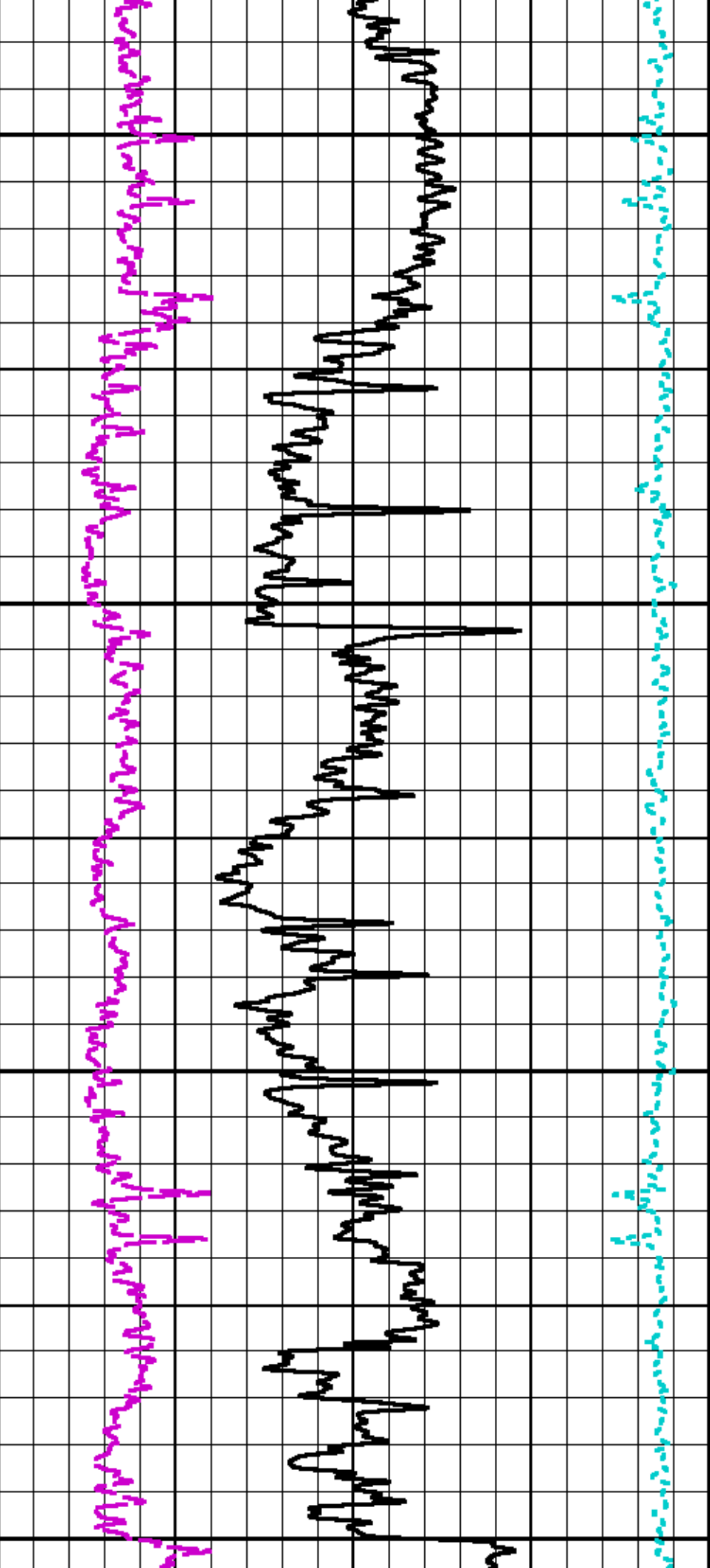




096 950 960 965 970 975 980 985 990 995 1000







FILE: /opt/daq/husky_CA212511/m77wrh_xe03.pdf
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 487.566 m BOTTOM DEPTH: 1340.829 m

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
Y AXIS CALIPER	FILTER ()	medium (1)		TOP	BOTTOM
TENSION	FILTER ()	medium (1)		"	"
GR	FILTER ()	medium (1)		"	"
CN	FILTER ()	medium (1)		"	"
CALIPER	FILTER ()	medium (1)		"	"
	FILTER (.h)	medium (1)		"	"
	FILTER (.l)	medium (1)		"	"
ZDL MED RES	FILTER (hrd1*)	medium		"	"
	FILTER (hrd1a*)	medium		"	"
	FILTER (hrd2*)	medium		"	"
	FILTER (hrd2a*)	medium		"	"
	FILTER (soft*)	medium		"	"

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	177.800	mm	TOP	BOTTOM
	CASING THICKNESS	8.000	mm	"	"
BIT SIZE	BIT SIZE	222.000	mm	"	"
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (cnbh*)	USE CALIPER		"	"
BOREHOLE CORR DIAMETER	FIXED DIAMETER (cnbh*)	222.000	mm	"	"

CN PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CN SALINITY CORRECTION	SALINITY	0	ppm	TOP	BOTTOM
CN CASING & CEMENT CORRECTION	CORRECTION	OFF		"	"
	BIT SIZE BEHIND CSNG	311.000	mm	"	"

ZDL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
DENSITY POROSITY	RHOfluid	1.000	g/cm3	TOP	BOTTOM
	RHOmatrix (line)	2.710	g/cm3	"	"
ZDL	DENK TRACKING	ON		"	"

CURVE DESCRIPTION REPORT

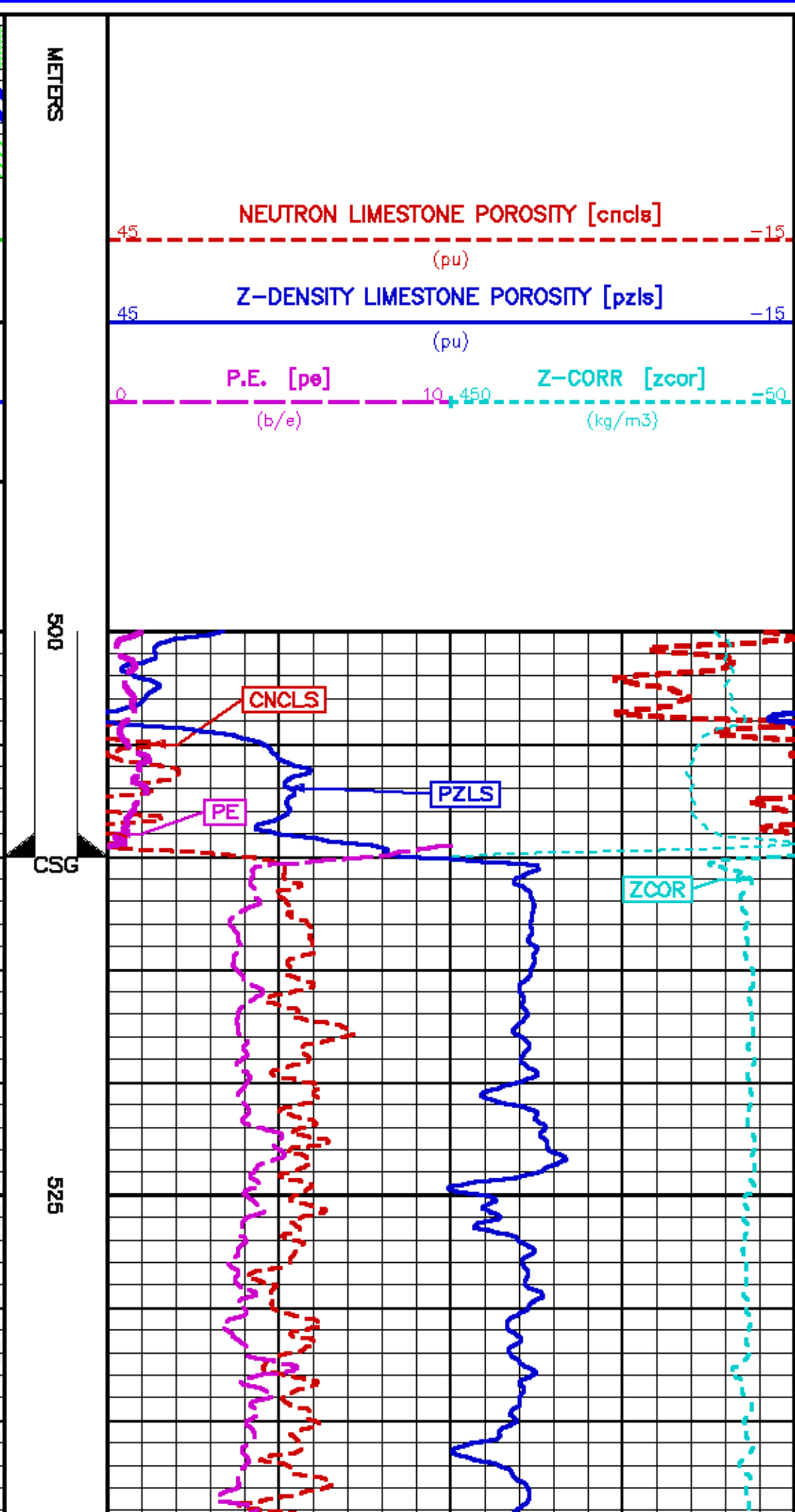
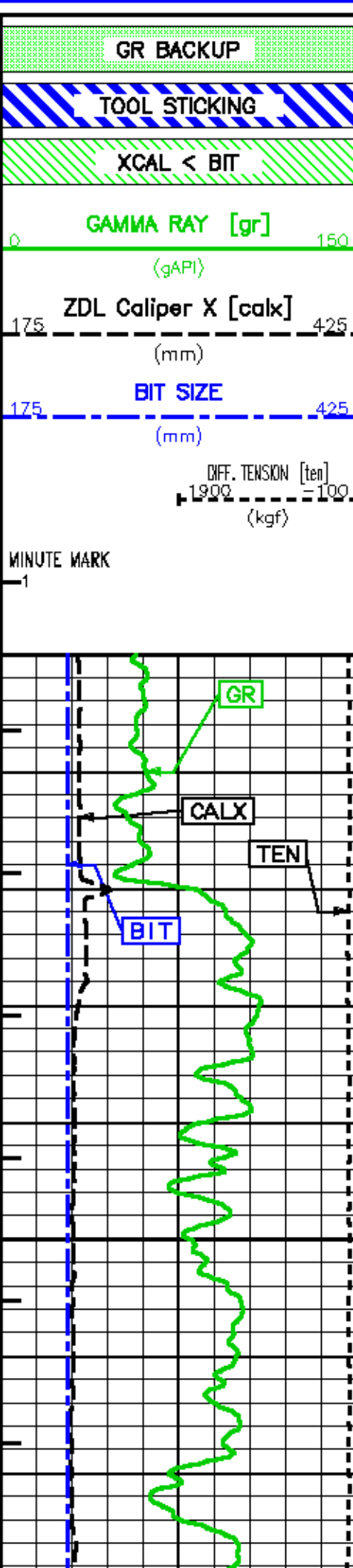
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:BIT	Mar 6 22:18:03 2012	BIT SIZE
F1:CALX	Mar 6 22:18:03 2012	CALIPER FROM X-AXIS OF XY CALIPER(S)
F1:CNCLS	Mar 6 22:18:03 2012	BOREHOLE SIZE CORRECTED LIMESTONE COMPENSATED NEU POROSITY
F1:GR	Mar 6 22:18:03 2012	GAMMA RAY
F1:MMRK	Mar 6 22:18:03 2012	MINUTE MARK
F1:PE	Mar 6 22:18:03 2012	PHOTO ELECTRIC CROSS-SECTION
F1:PZLS	Mar 6 22:18:03 2012	POROSITY FOR LIMESTONE MATRIX
F1:TEN	Mar 6 22:18:03 2012	DIFFERENTIAL TENSION
F1:ZCOR	Mar 6 22:18:03 2012	DENSITY CORRECTION

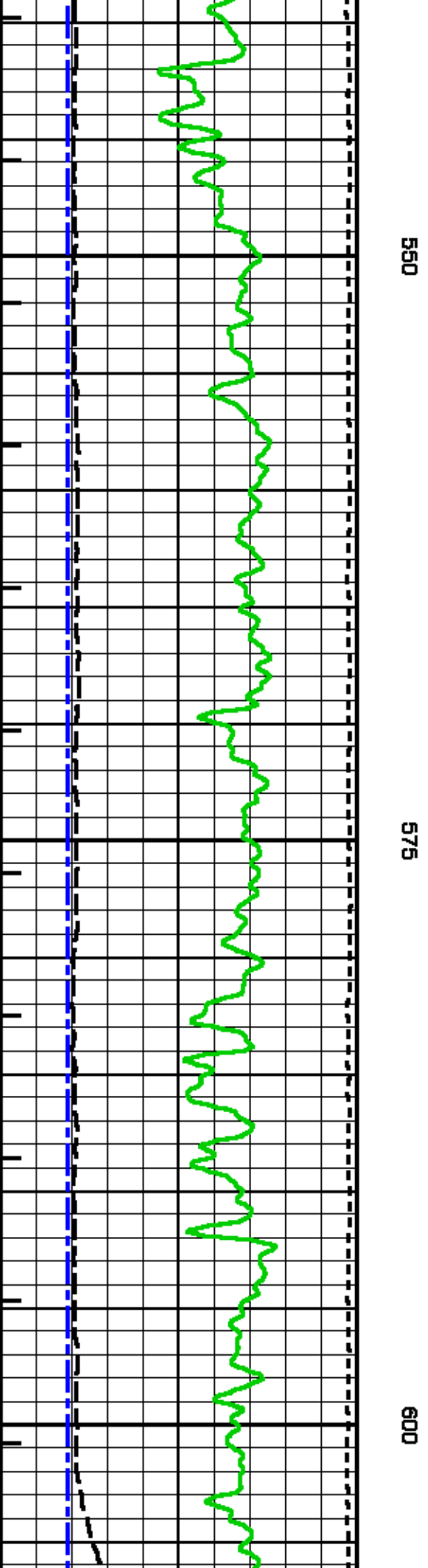
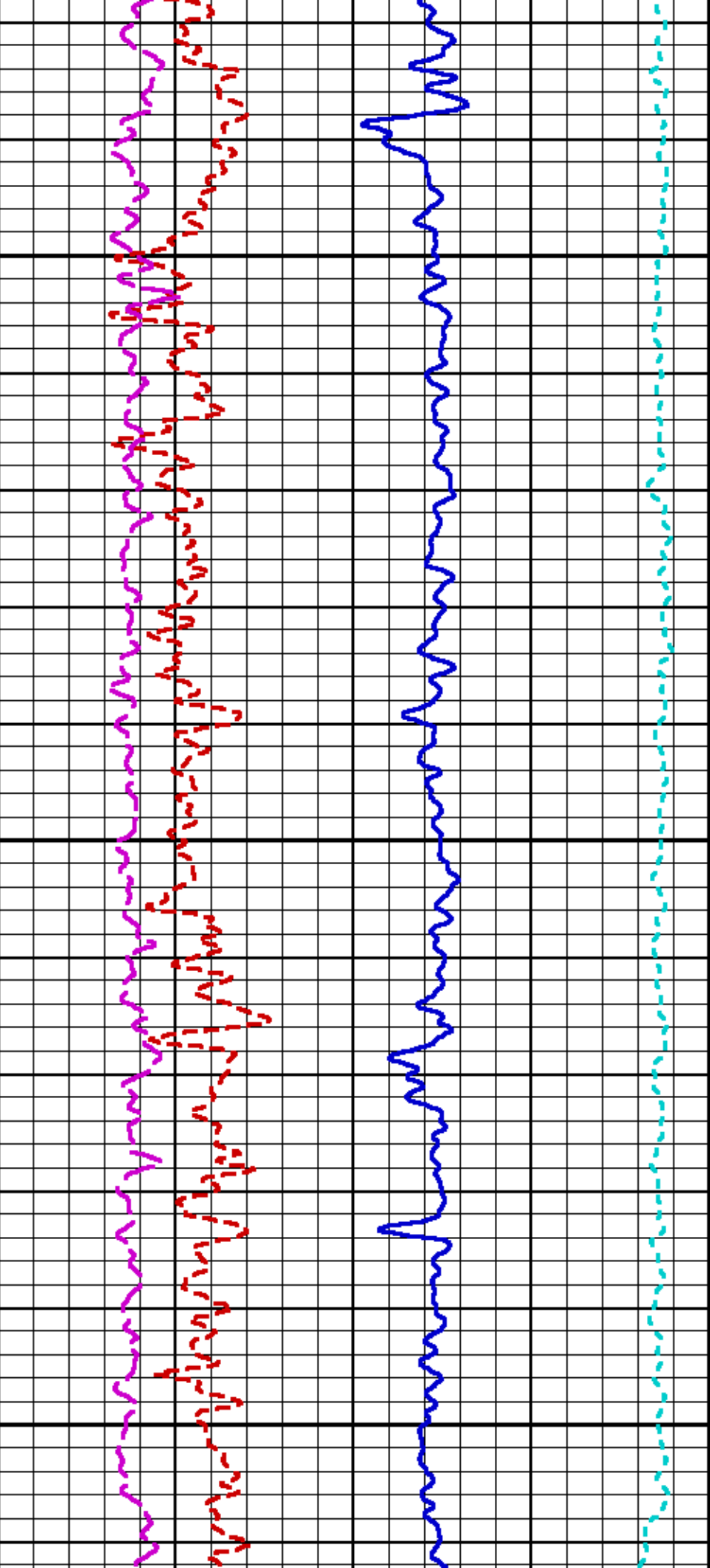
CURVE MEASURE POINT OFFSET

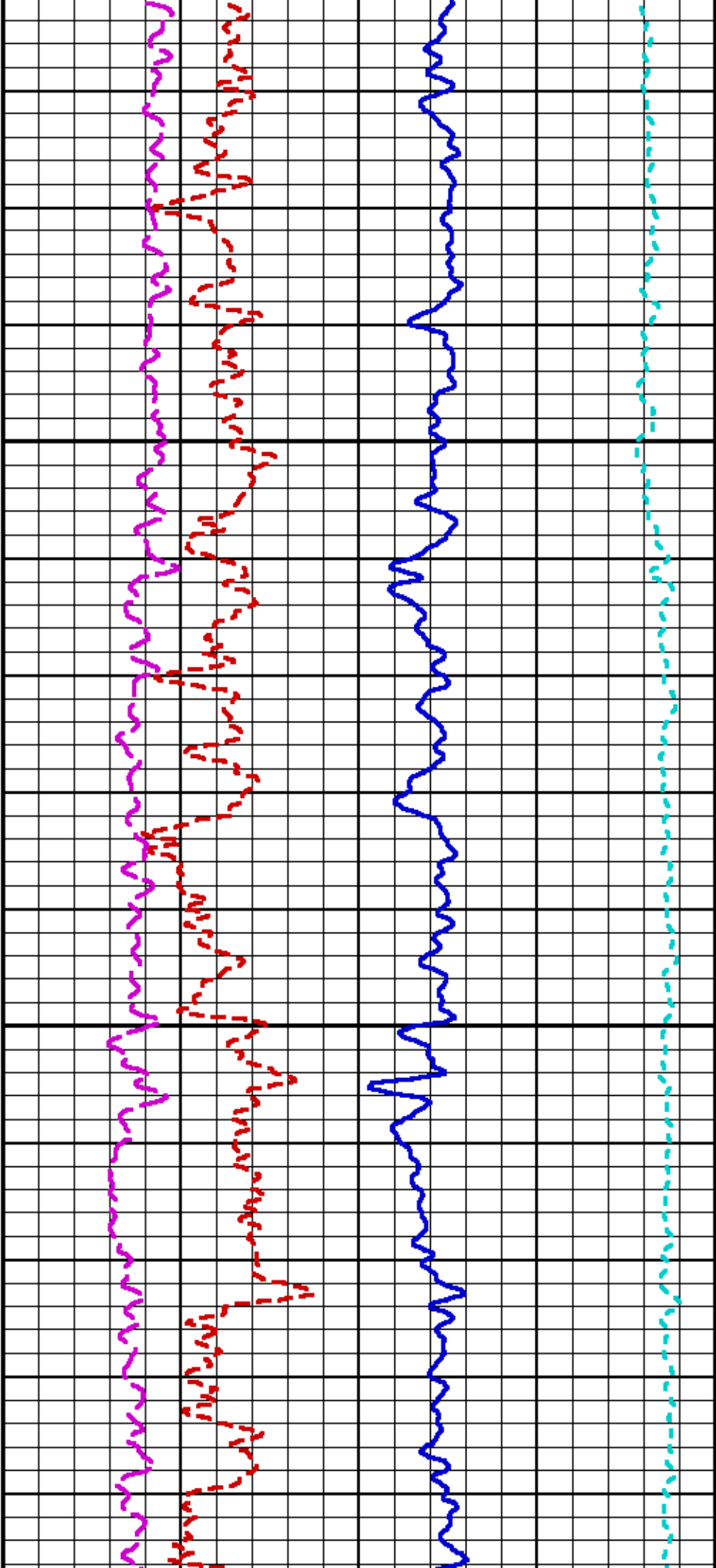
CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)
BIT	0.00	CNCLS	29.50	PE	25.95	TEN	0.00
CALX	26.17	GR	31.39	PZLS	25.95	ZCOR	25.95

Presentation : opuz:/data/husky_CA212511/zdl_mah_js.pdf [1:240 Scale]
 Plot Interval : 500 - 1340.89 Meters

Data File 1 : F1 : opuz:/data/husky_CA212511/m77wrh_xe03.xtf
 Created On : Mar 6 22:18:03 2012
 Company : HUSKY OIL OPERATIONS LIMITED
 Well : LITTLE BEAR H-64
 Field : SLATER RIVER
 File Interval : 432.247 - 1340.95 Meters
 Out : m77wrh_x

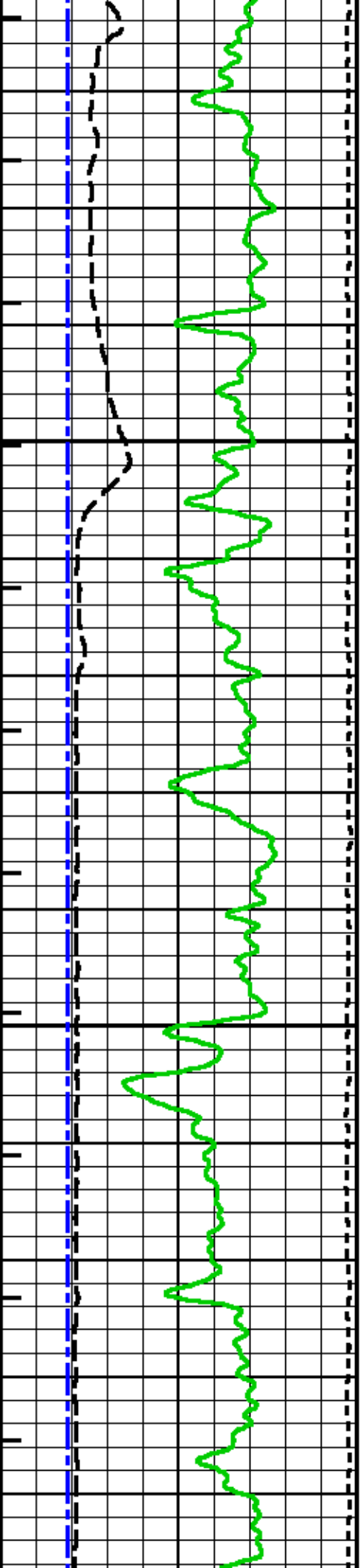


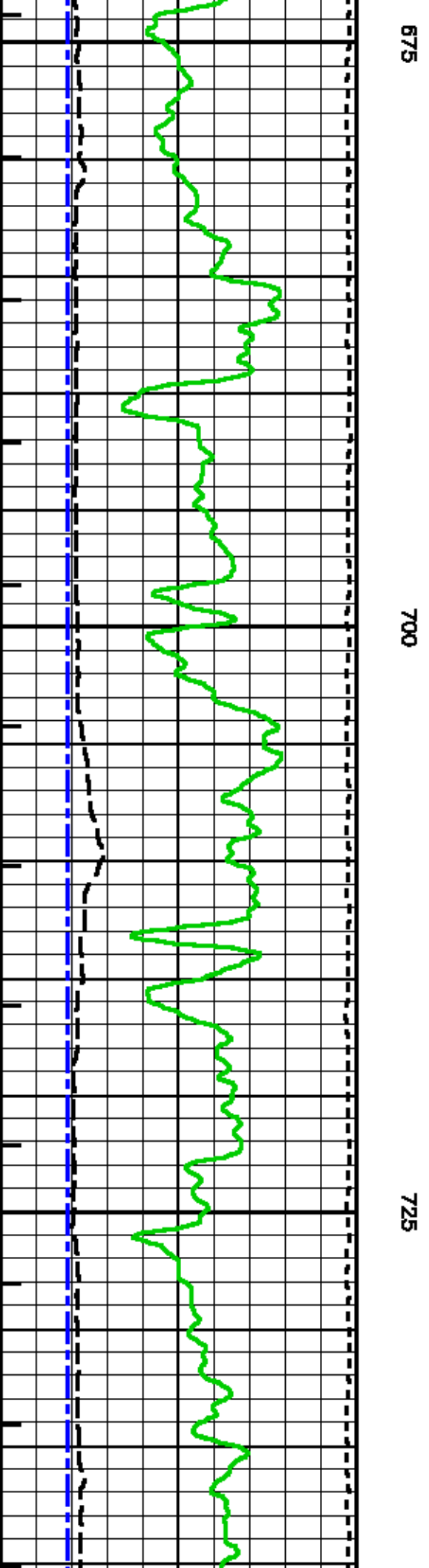
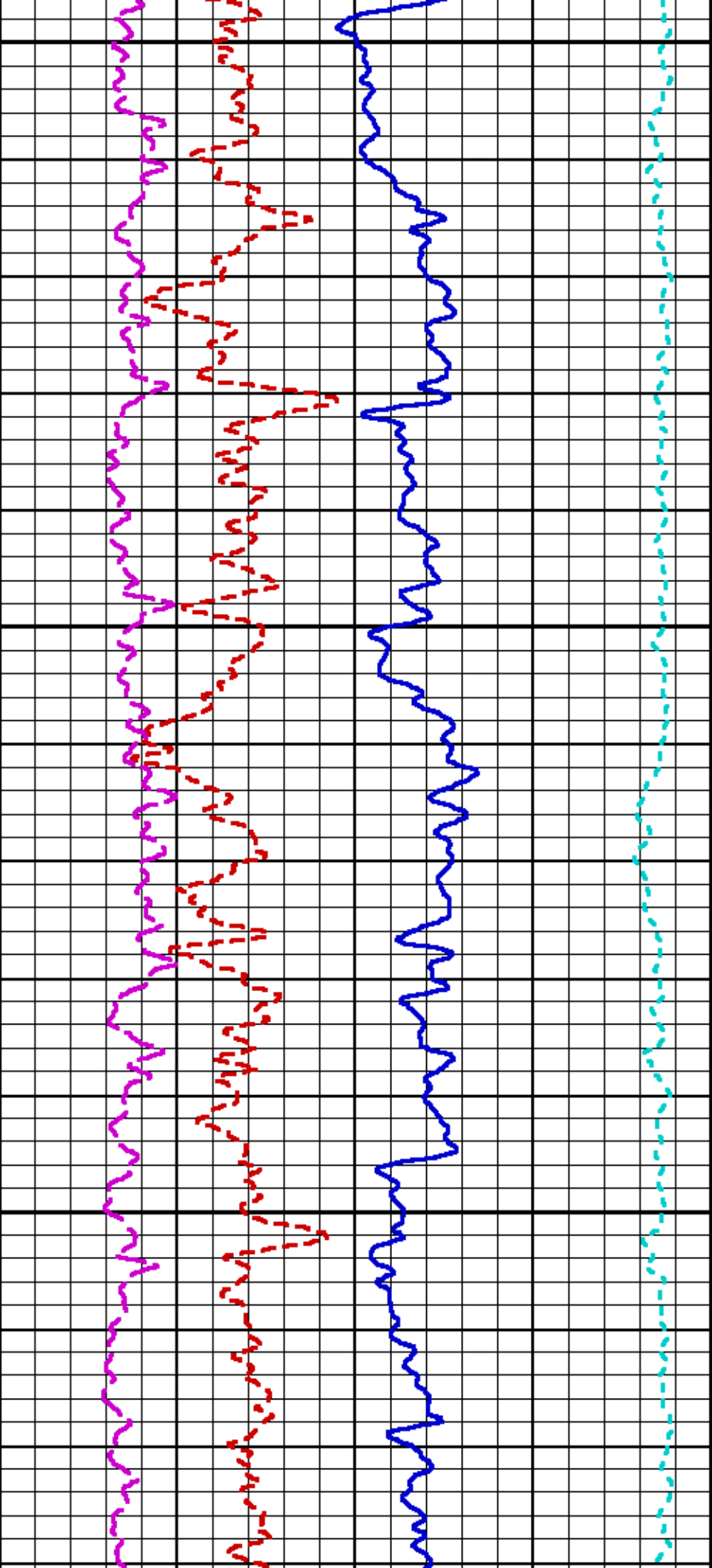


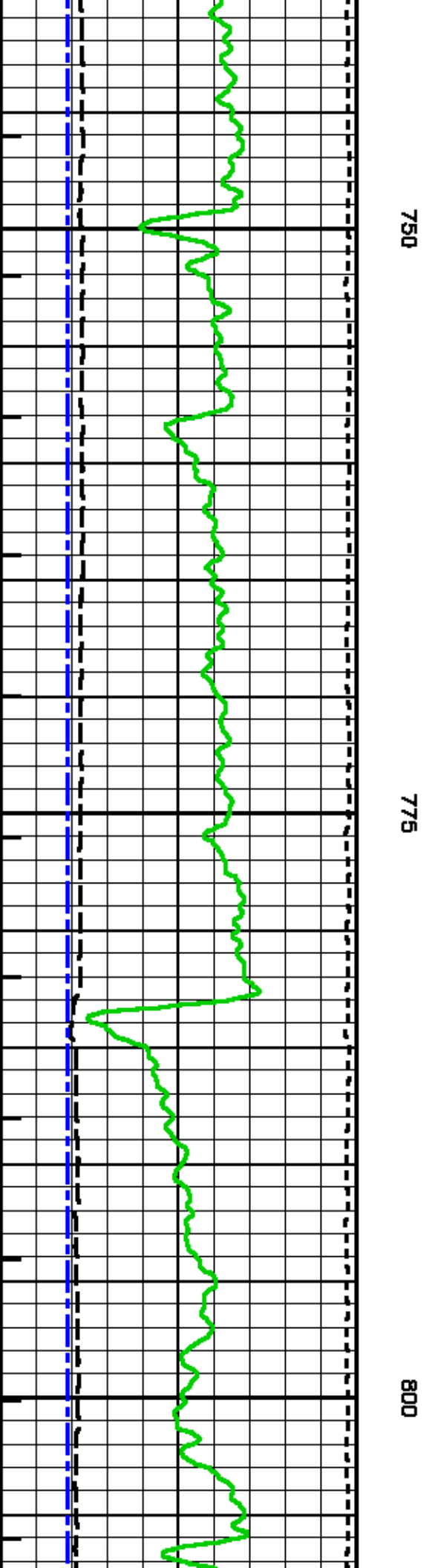
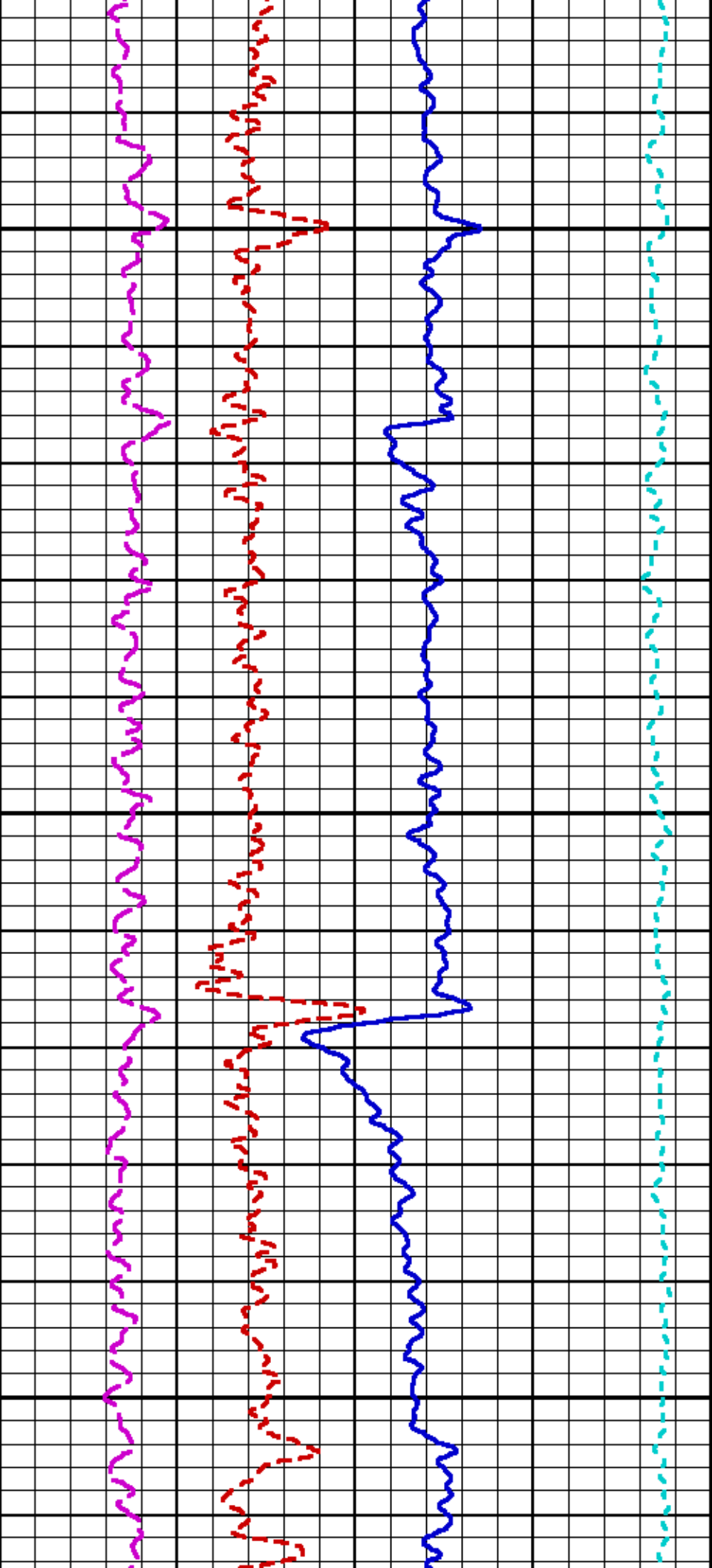


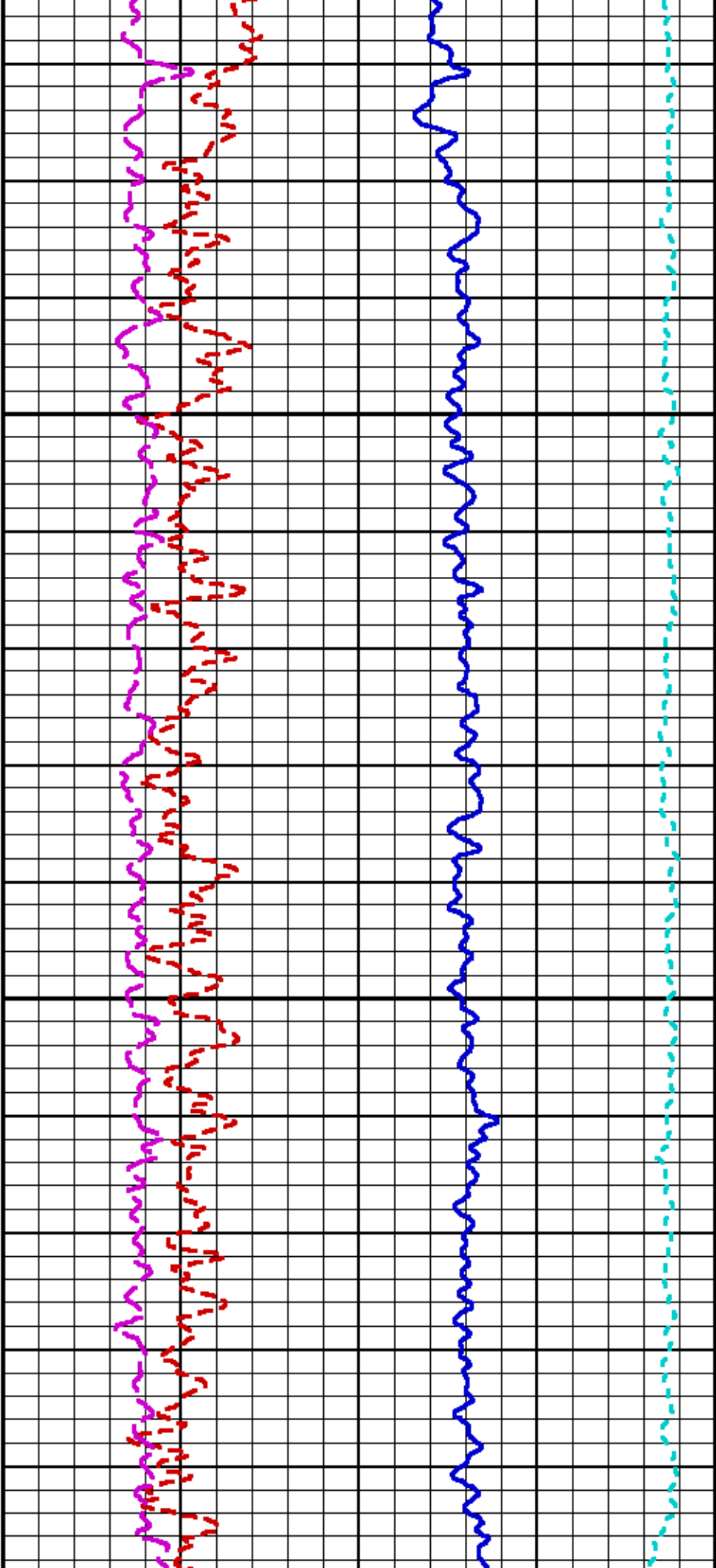
625

650



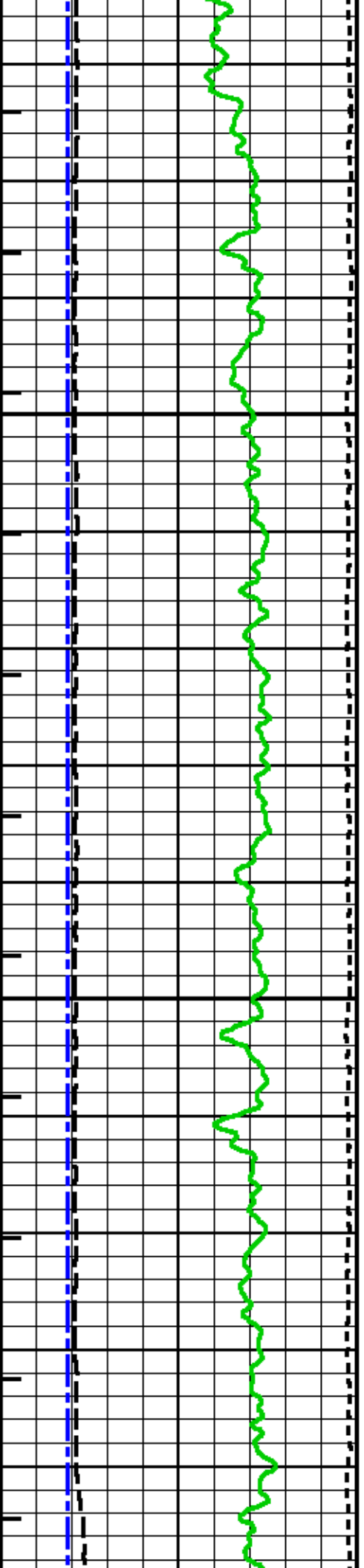


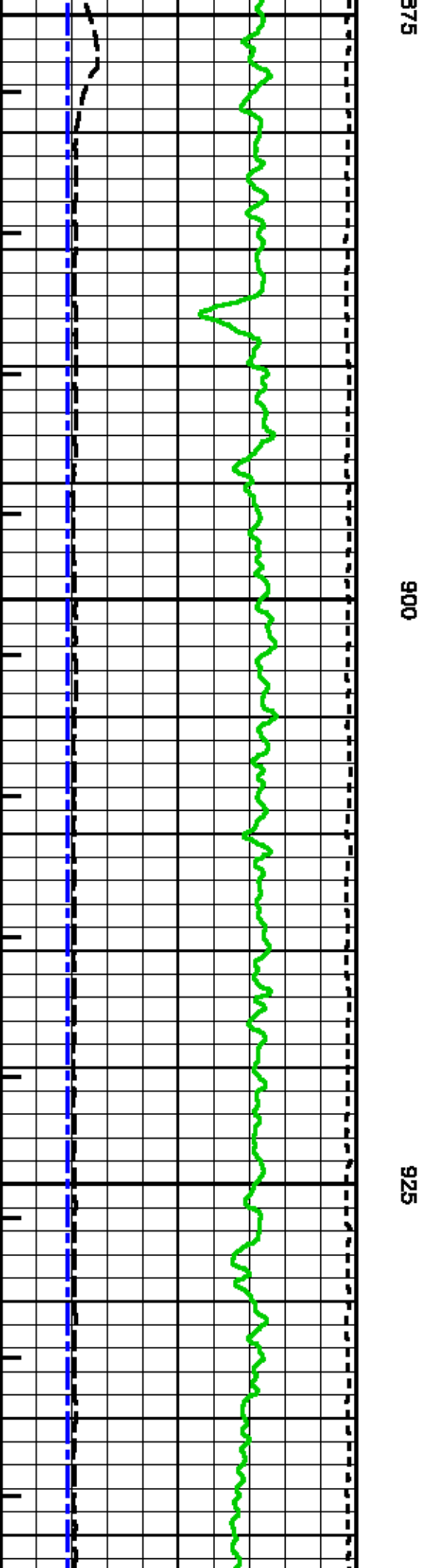
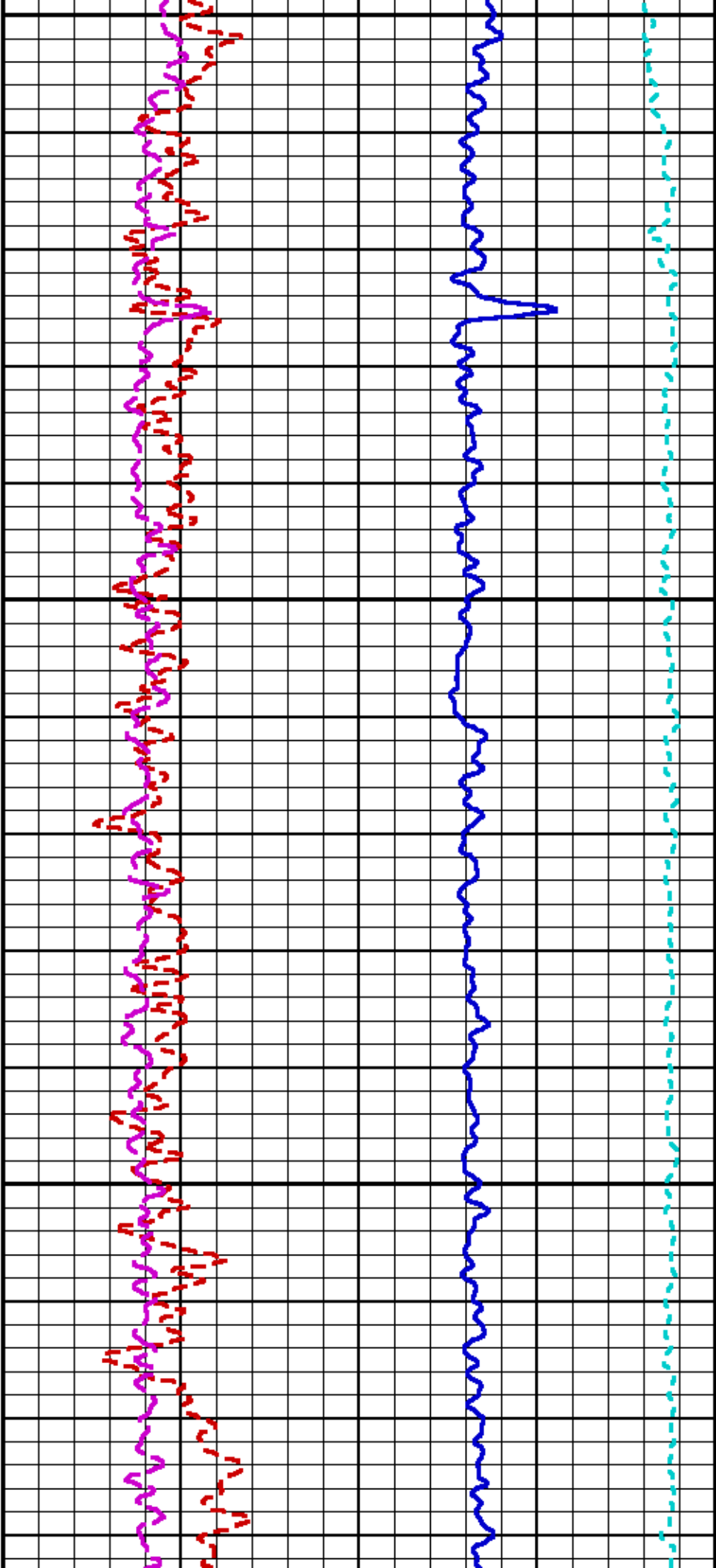


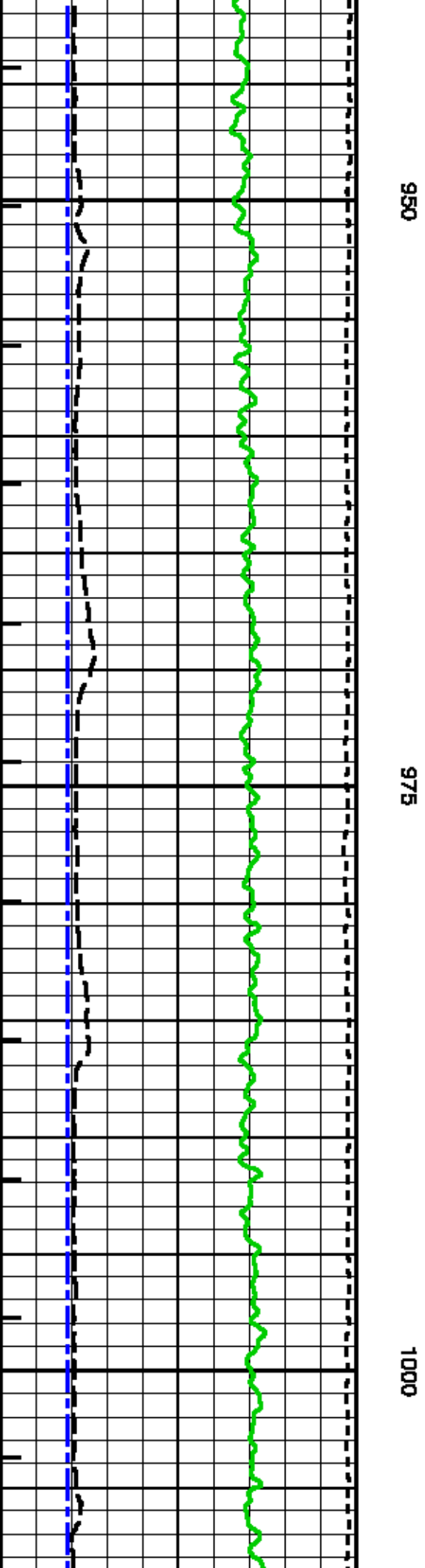
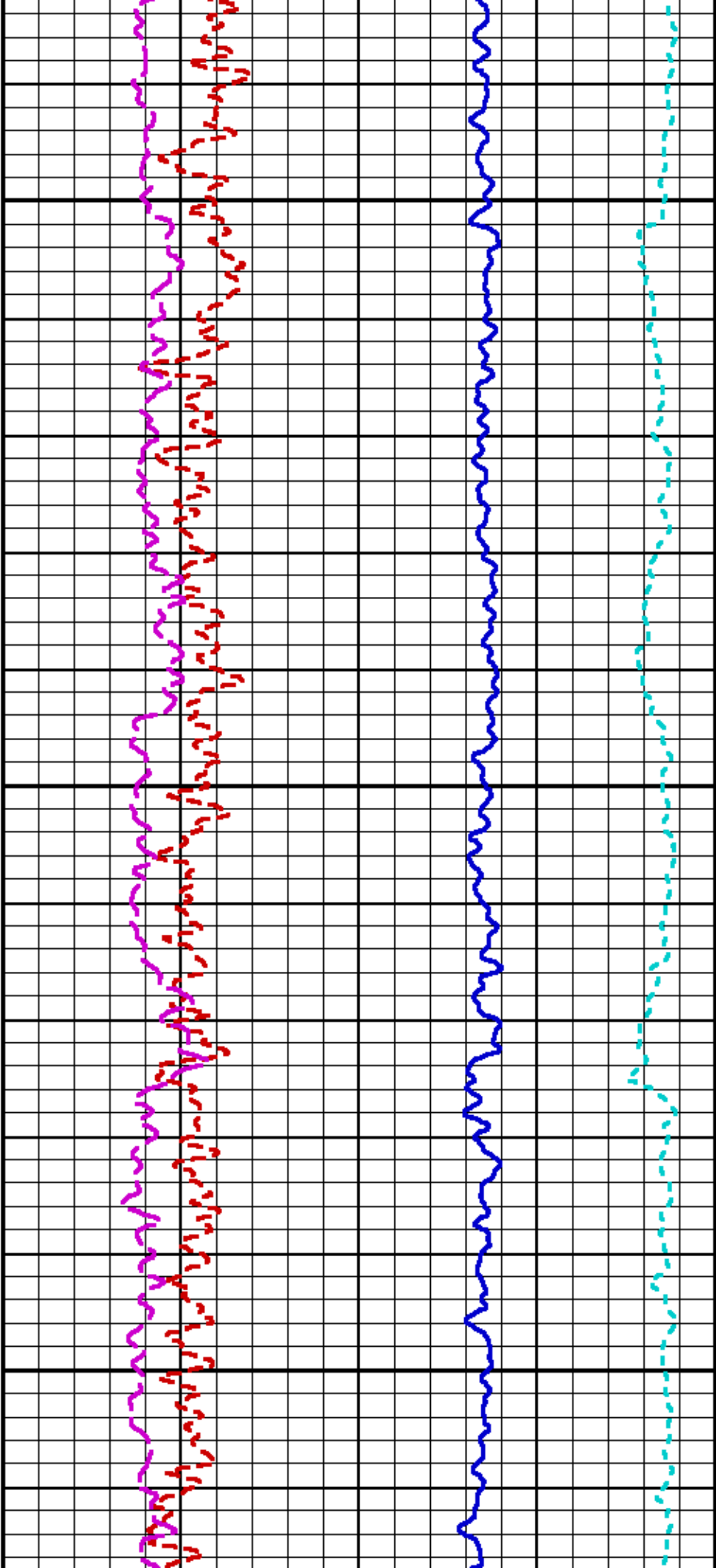


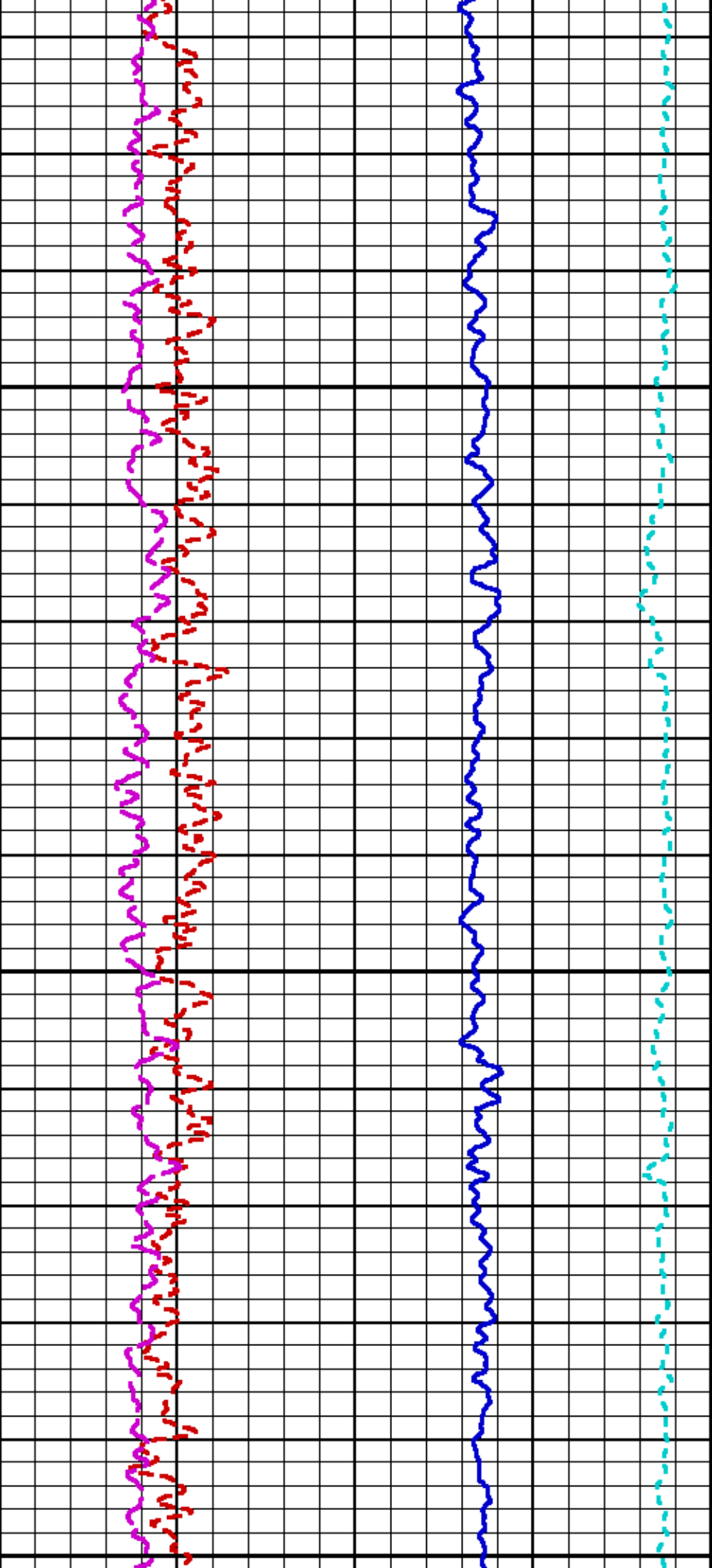
825

850





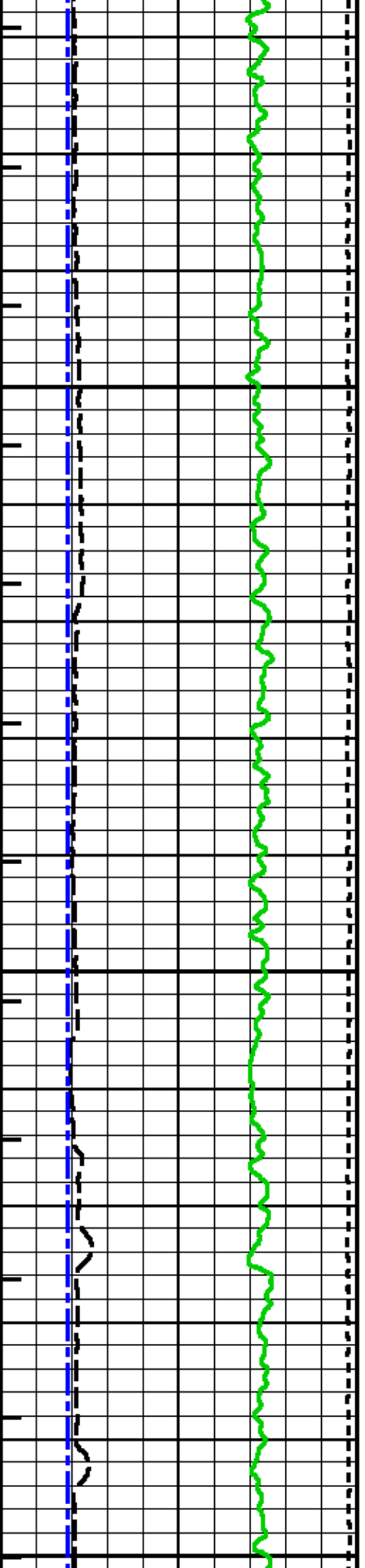


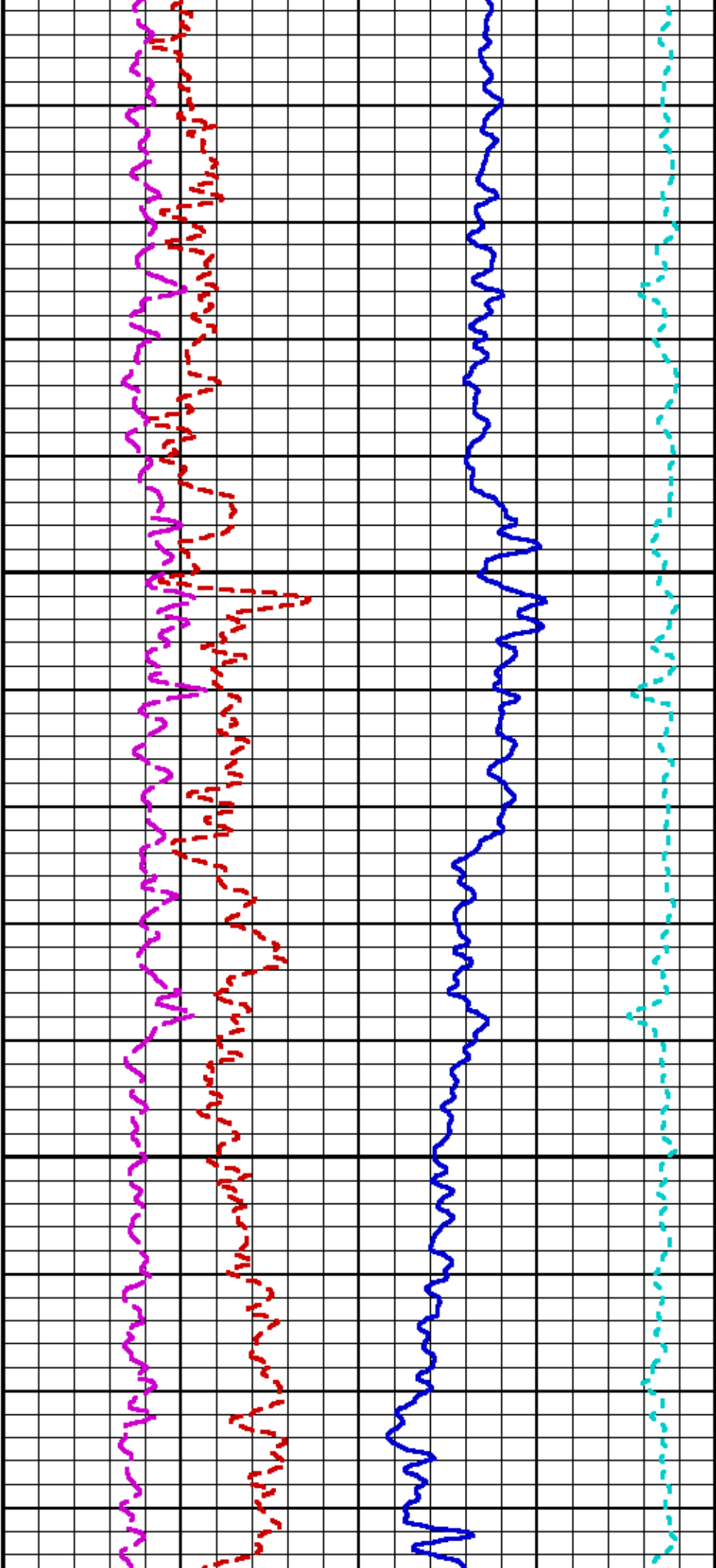


1025

1050

1075

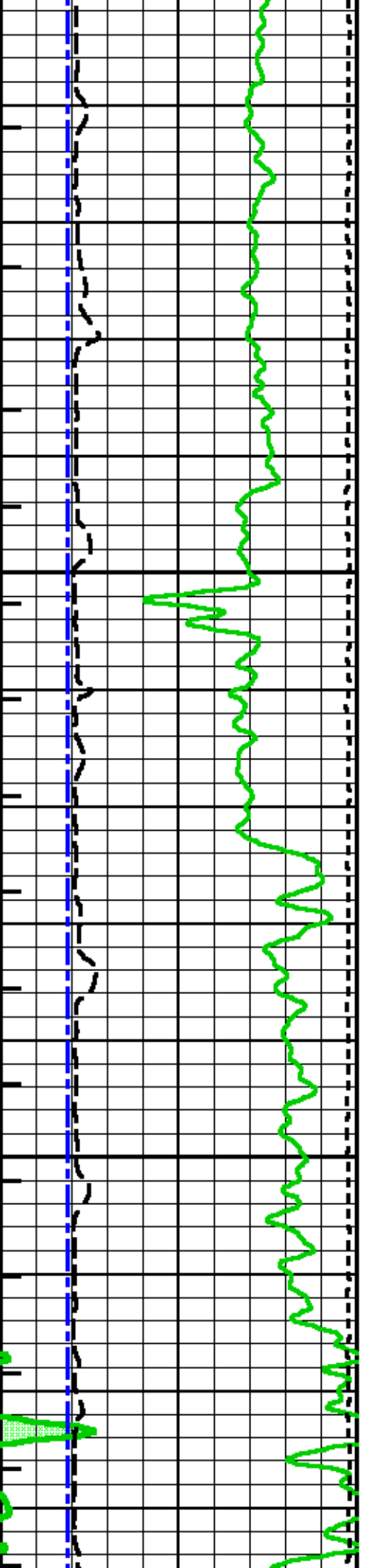


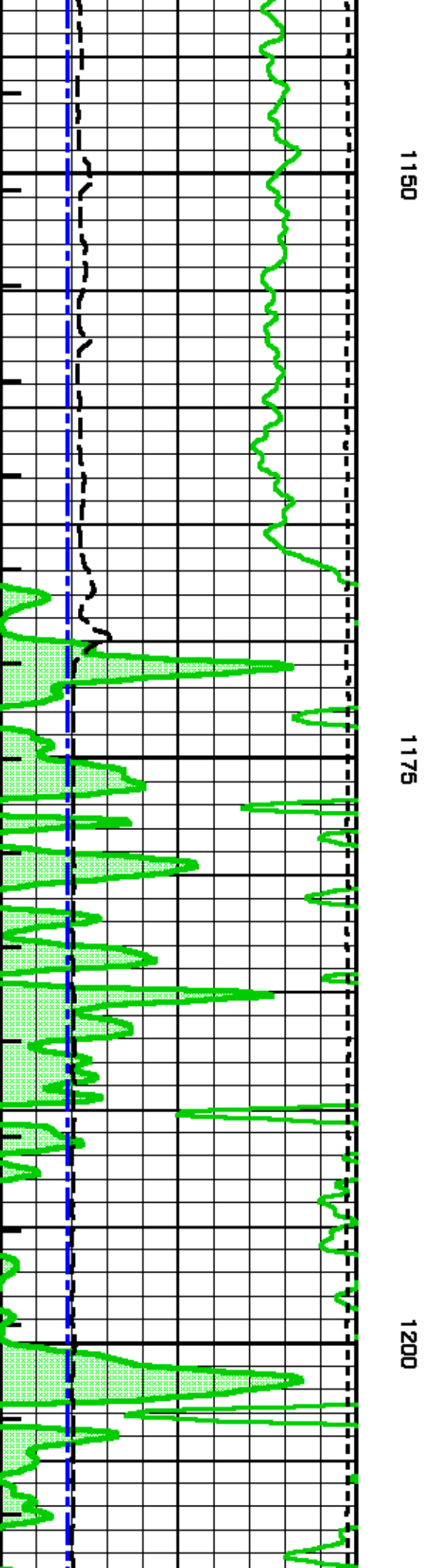
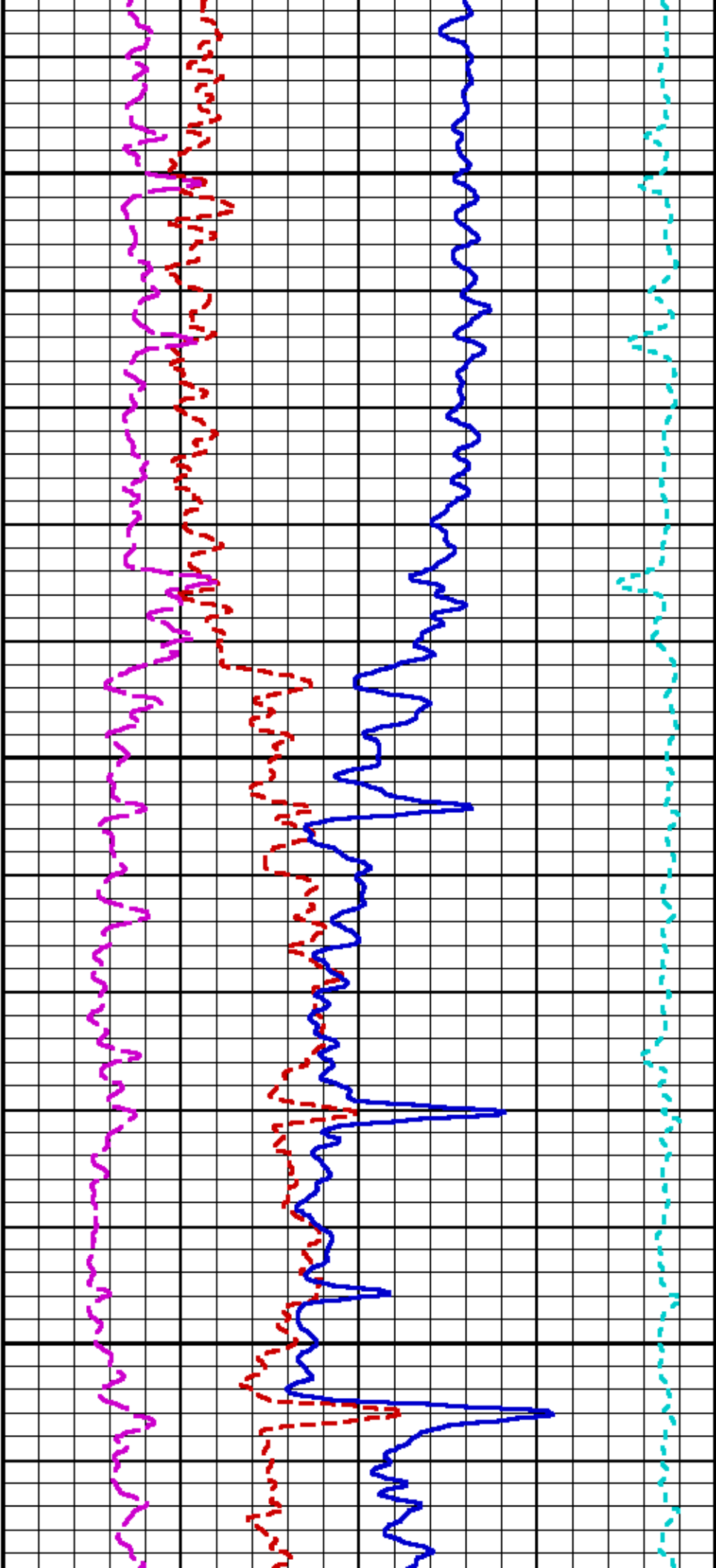


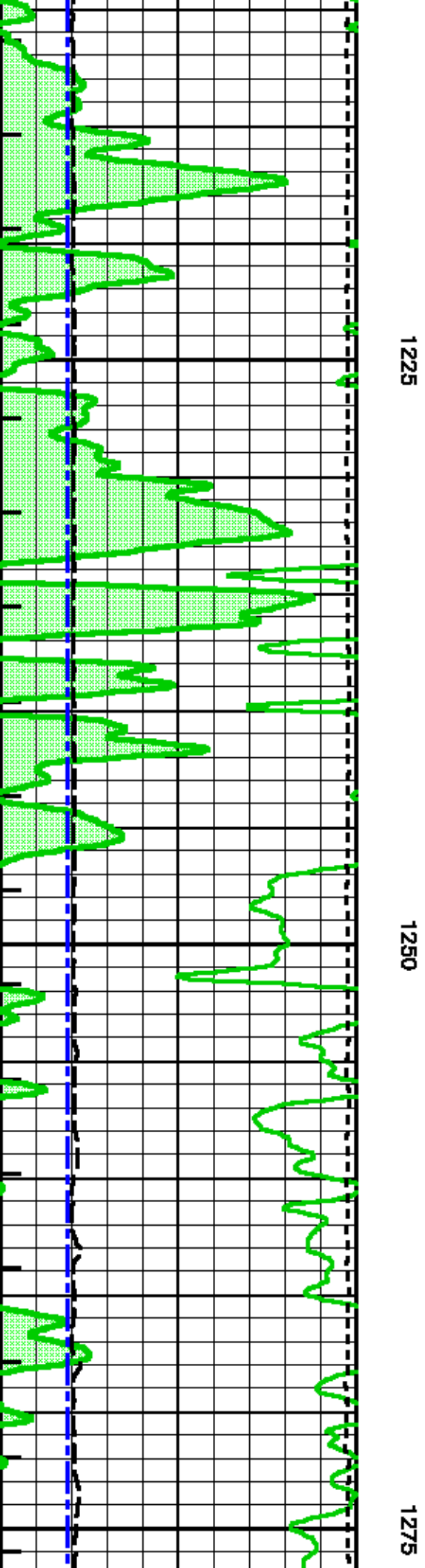
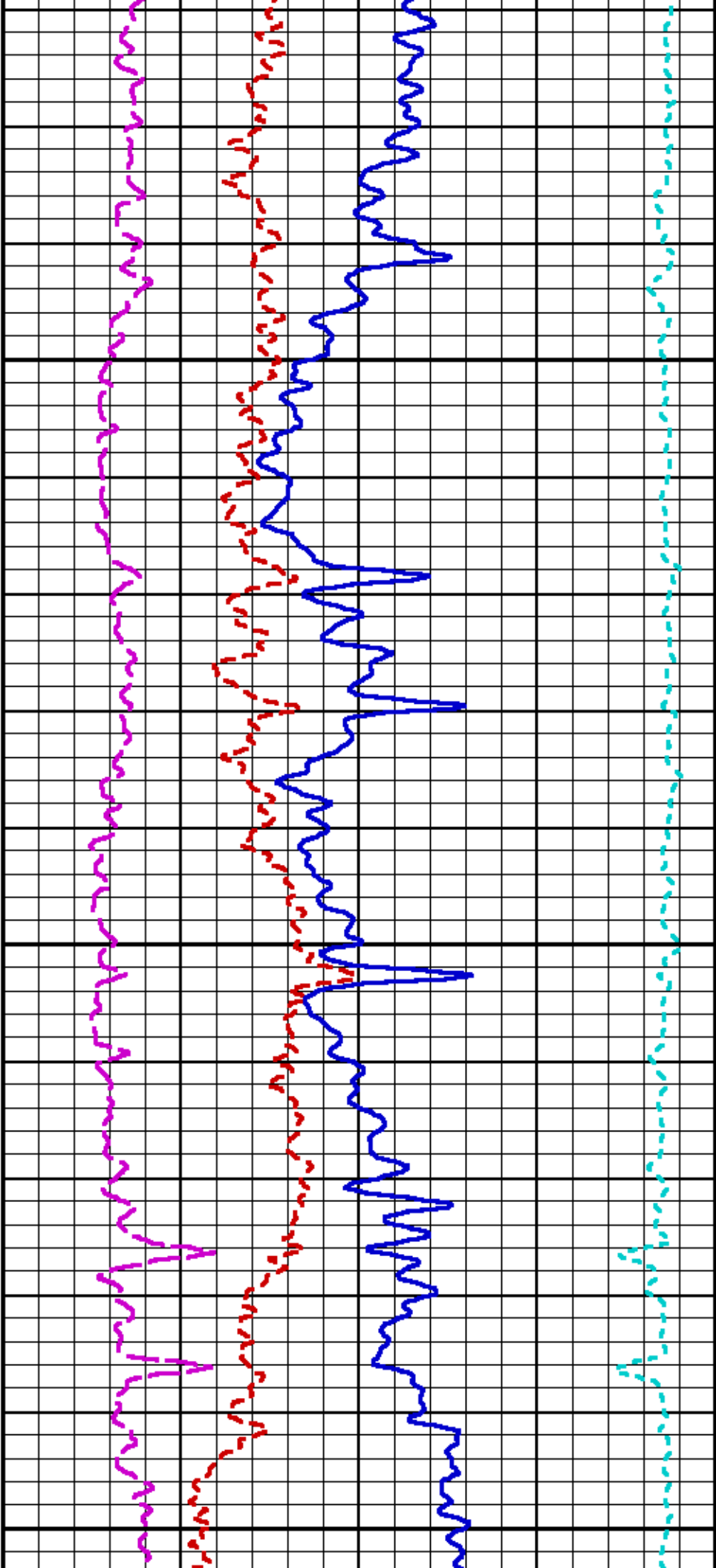
5

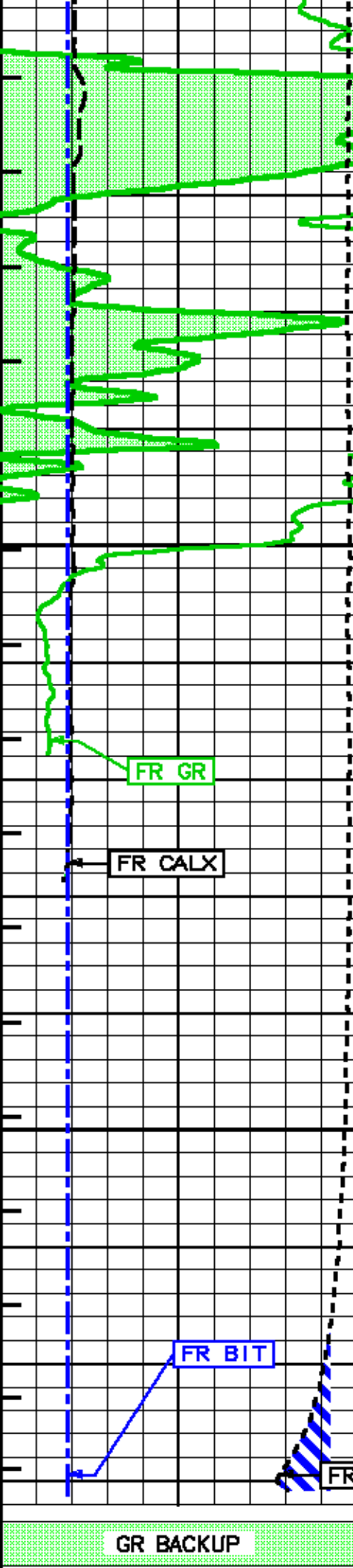
1100

1125



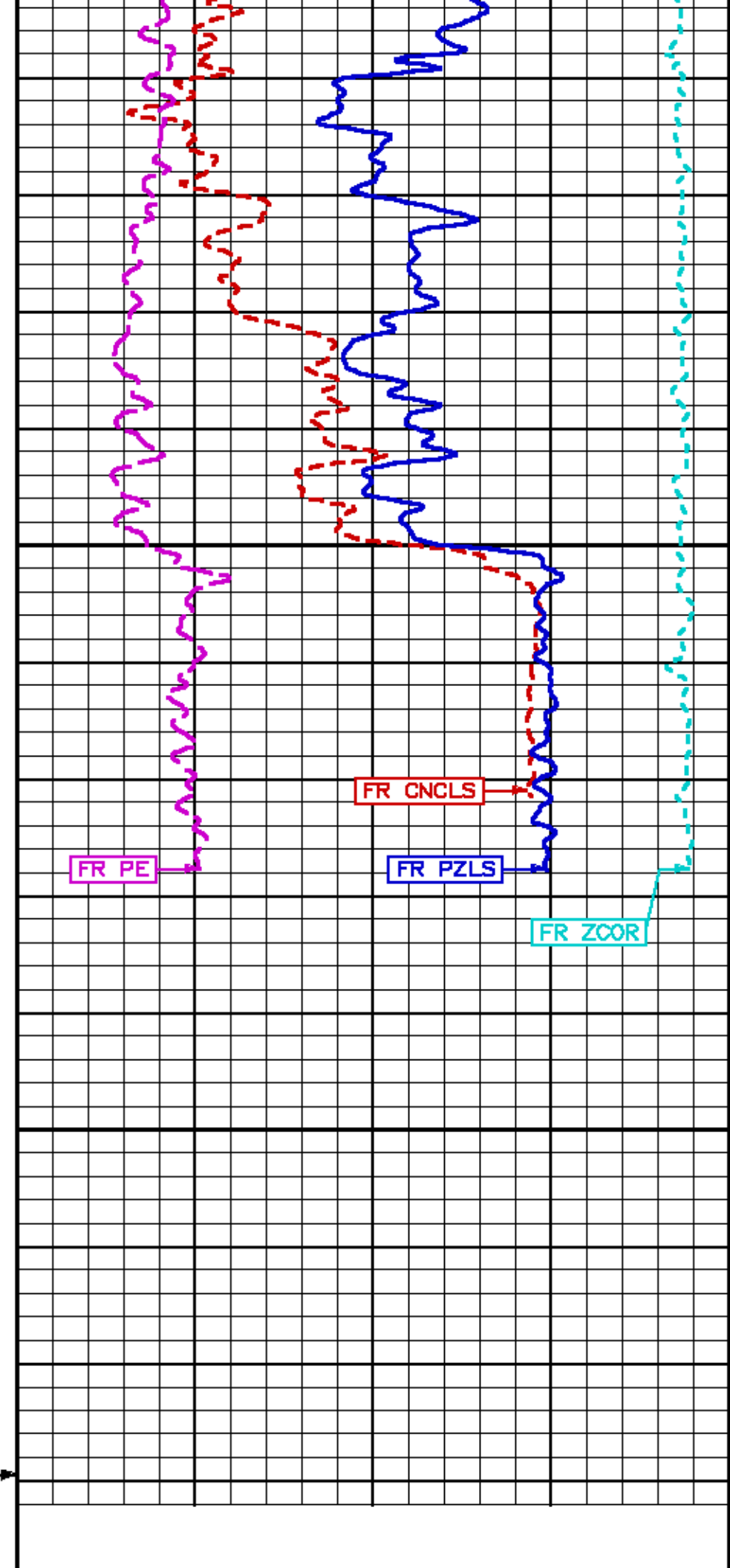


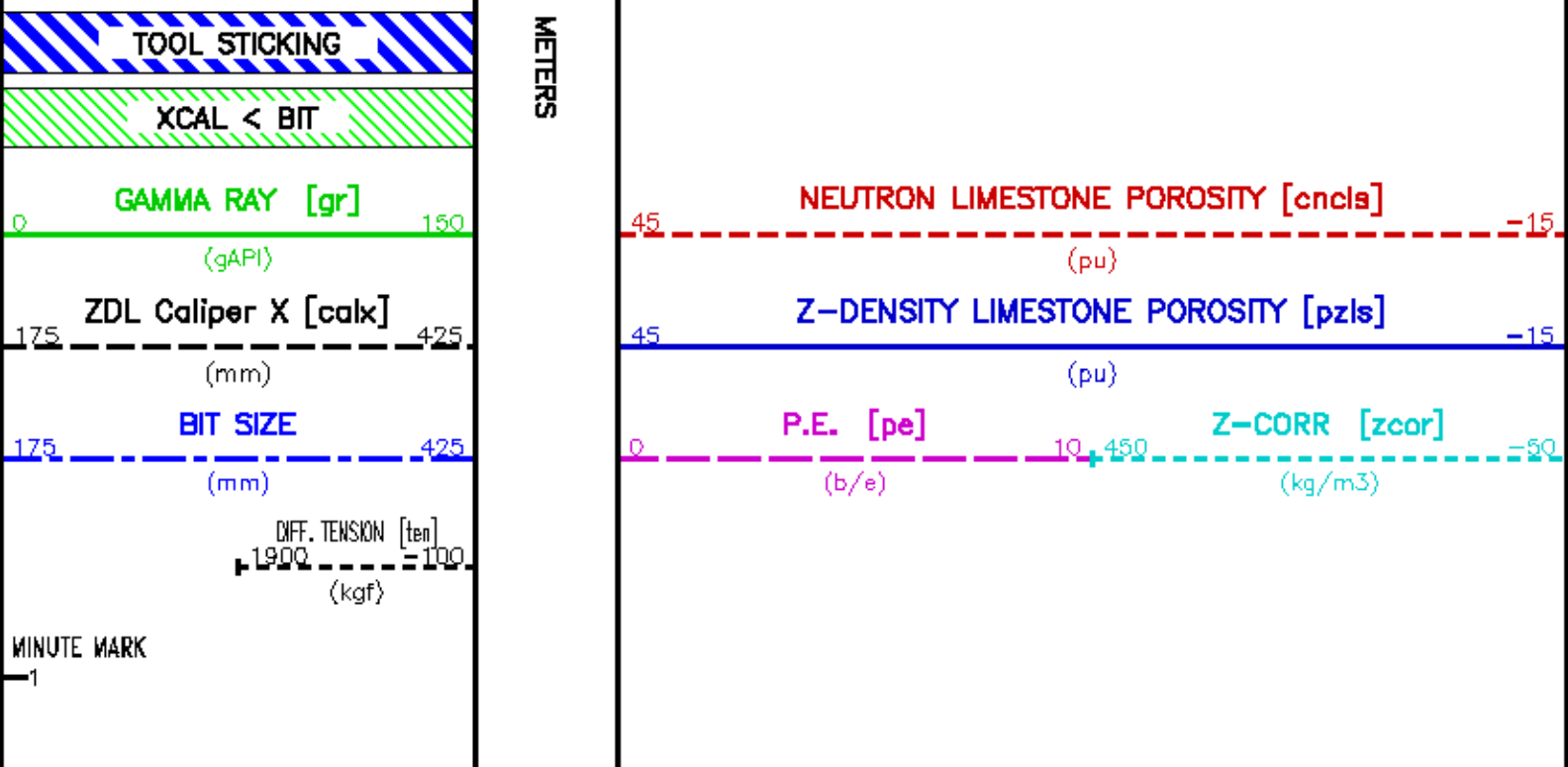




1300

1325





REPEAT LOG - LIMESTONE MATRIX

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

Tue Mar 6 23:23:44 2012

Perpllt /main/62

Cplot

Pdf_Cpp /main/16

Fileview 5.51

PARAMETER AND FILTER SUMMARY REPORT

File: /dat1a/husky_CA212311/m77evh_xc02.prm
Logging Mode: DEPTH DIRECTION: UP
TOP DEPTH: 1212.808 m BOTTOM DEPTH: 1340.828 m

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
Y AXIS CALIPER TENSION GR CN CALIPER	FILTER ()	medium (1)		TOP	BOTTOM
	FILTER ()	medium (1)		"	"
	FILTER ()	medium (1)		"	"
	FILTER ()	medium (1)		"	"
	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		"	"

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	177.800	mm	TOP	BOTTOM
	CASING THICKNESS	8.000	mm	"	"
BIT SIZE	BIT SIZE	222.000	mm	"	"
BOREHOLE CORR DIAMETER SOURCE	CALIBER/FIXED DIA (cmh0)	USE CALIBER		"	"

BOREHOLE CORR DIAMETER SOURCE
FIXED DIAMETER (anbh*)
222.000
mm
''
''

USE CALIPER
222.000

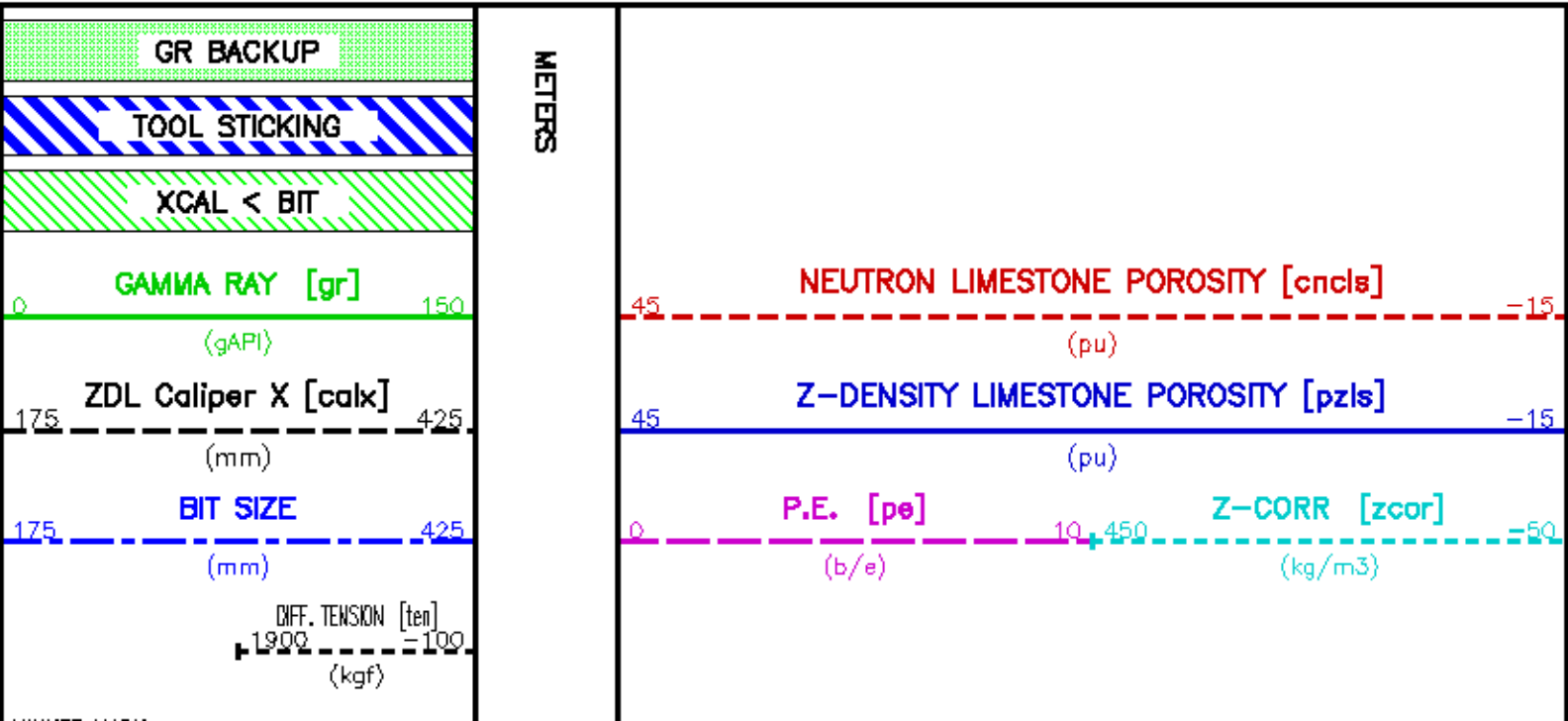
CN PROCESSING					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CN SALINITY CORRECTION	SALINITY	0	ppm	TOP	BOTTOM
CN CASING & CEMENT CORRECTION	CORRECTION	OFF		''	''
	BIT SIZE BEHIND CSNG	311.000	mm	''	''

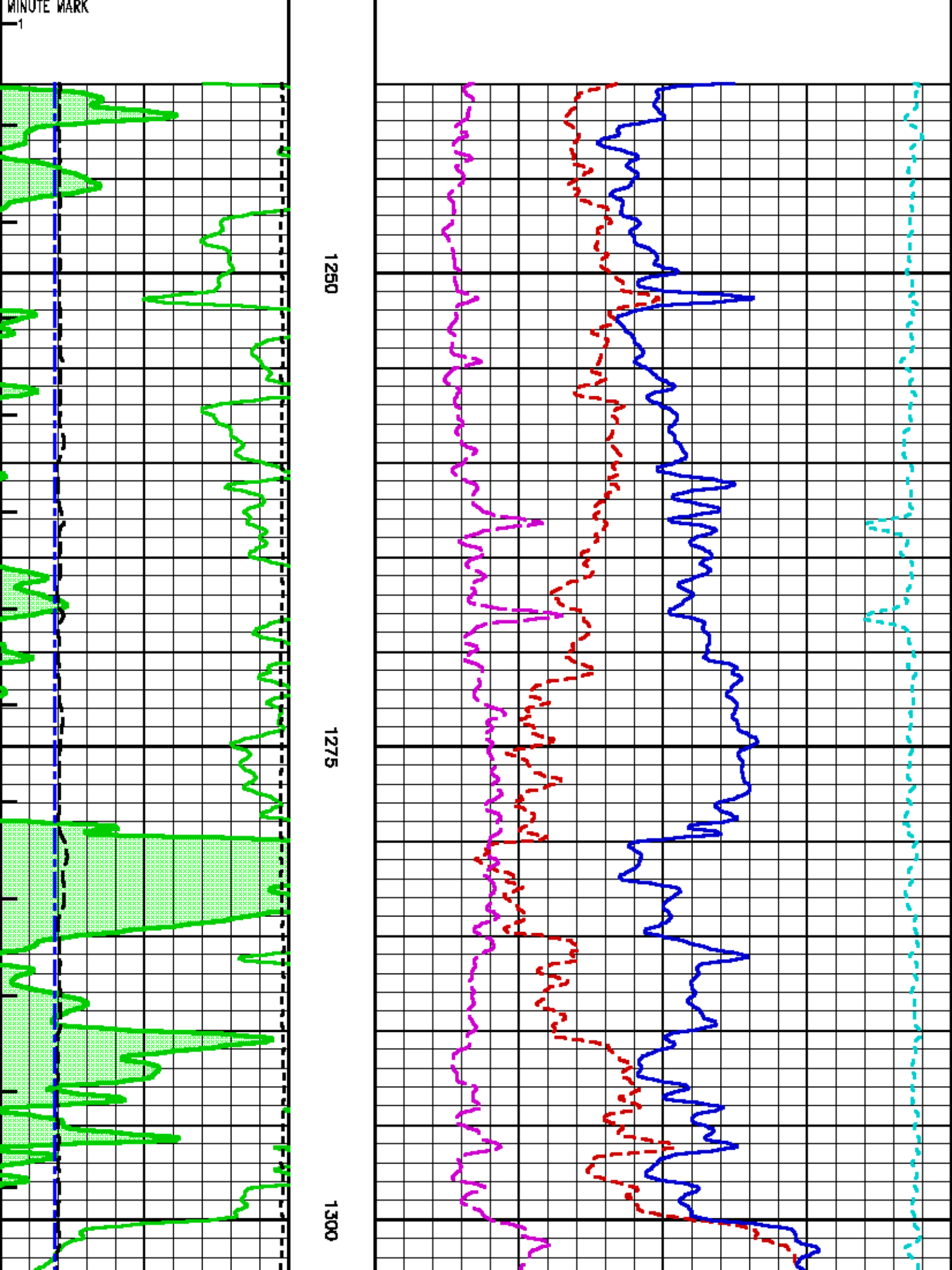
ZDL PROCESSING					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
DENSITY POROSITY	RHDfluid	1.000	g/cm3	TOP	BOTTOM
	RHDmatrix (lms)	2.710	g/cm3	''	''
ZDL	DENS TRACKING	ON		''	''

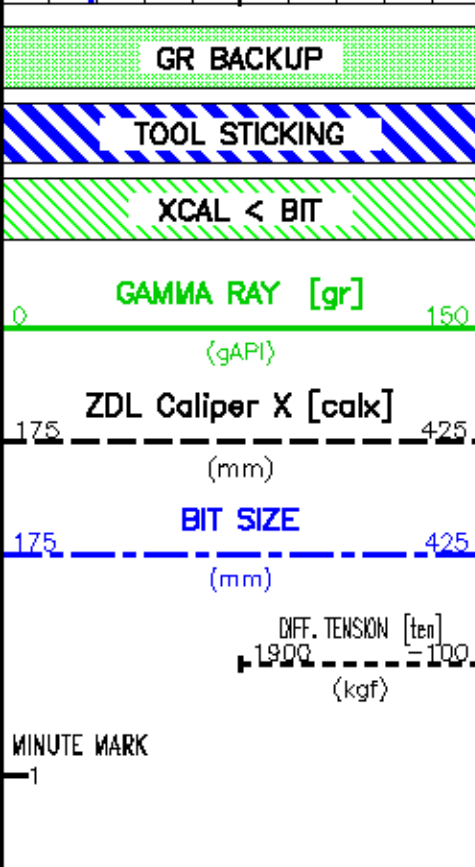
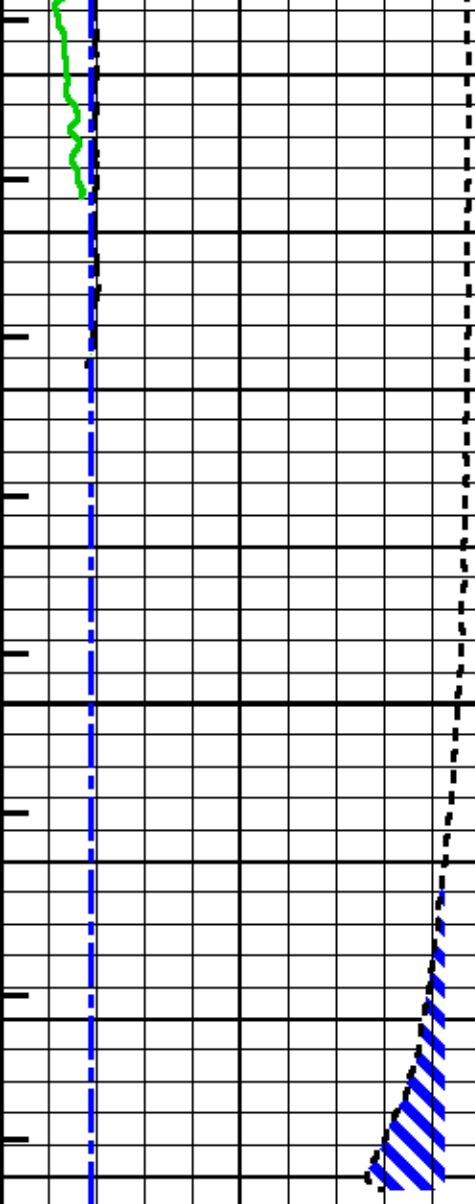
CURVE DESCRIPTION REPORT			
CURVE NAME	CREATION DATE	CURVE DESCRIPTION	
F1:BIT	Mar 6 21:45:09 2012	BIT SIZE	
F1:CALX	Mar 6 21:45:09 2012	CALIPER FROM X-AXIS OF XY CALIPER(S)	
F1:CNCLS	Mar 6 21:45:09 2012	BOREHOLE SIZE CORRECTED LIMESTONE COMPENSATED NEU POROSITY	
F1:GR	Mar 6 21:45:09 2012	GAMMA RAY	
F1:MMRK	Mar 6 21:45:09 2012	MINUTE MARK	
F1:PE	Mar 6 21:45:09 2012	PHOTO ELECTRIC CROSS-SECTION	
F1:PZLS	Mar 6 21:45:09 2012	POROSITY FOR LIMESTONE MATRIX	
F1:TEN	Mar 6 21:45:09 2012	DIFFERENTIAL TENSION	
F1:ZCOR	Mar 6 21:45:09 2012	DENSITY CORRECTION	

CURVE MEASURE POINT OFFSET							
CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)
BIT	0.00	CNCLS	29.50	PE	25.95	TEN	0.00
CALX	26.17	GR	31.59	PZLS	25.95	ZCOR	25.95

Presentation	: opuz:/data/husky_CA212311/zdl_rpt_ls.pdf [1:240 Scale]
Plot Interval	: 1240 - 1340.99 Meters
Data File 1	: F1 : opuz:/data/husky_CA212311/m77wh_xe02.off
Created On	: Mar 6 21:45:09 2012
Company	: HUSKY OIL OPERATIONS LIMITED
Well	: LITTLE BEAR H-64
Field	: SLATER RIVER
File Interval	: 1177.06 - 1340.95 Meters
Out	: m77wh_x

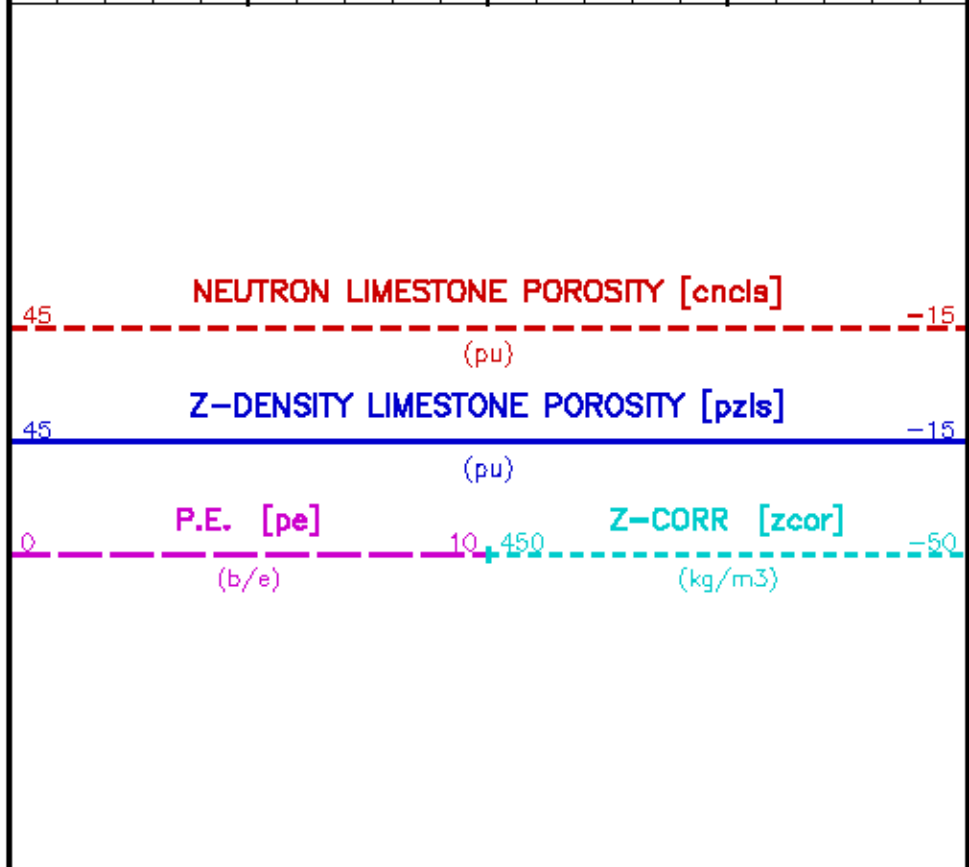
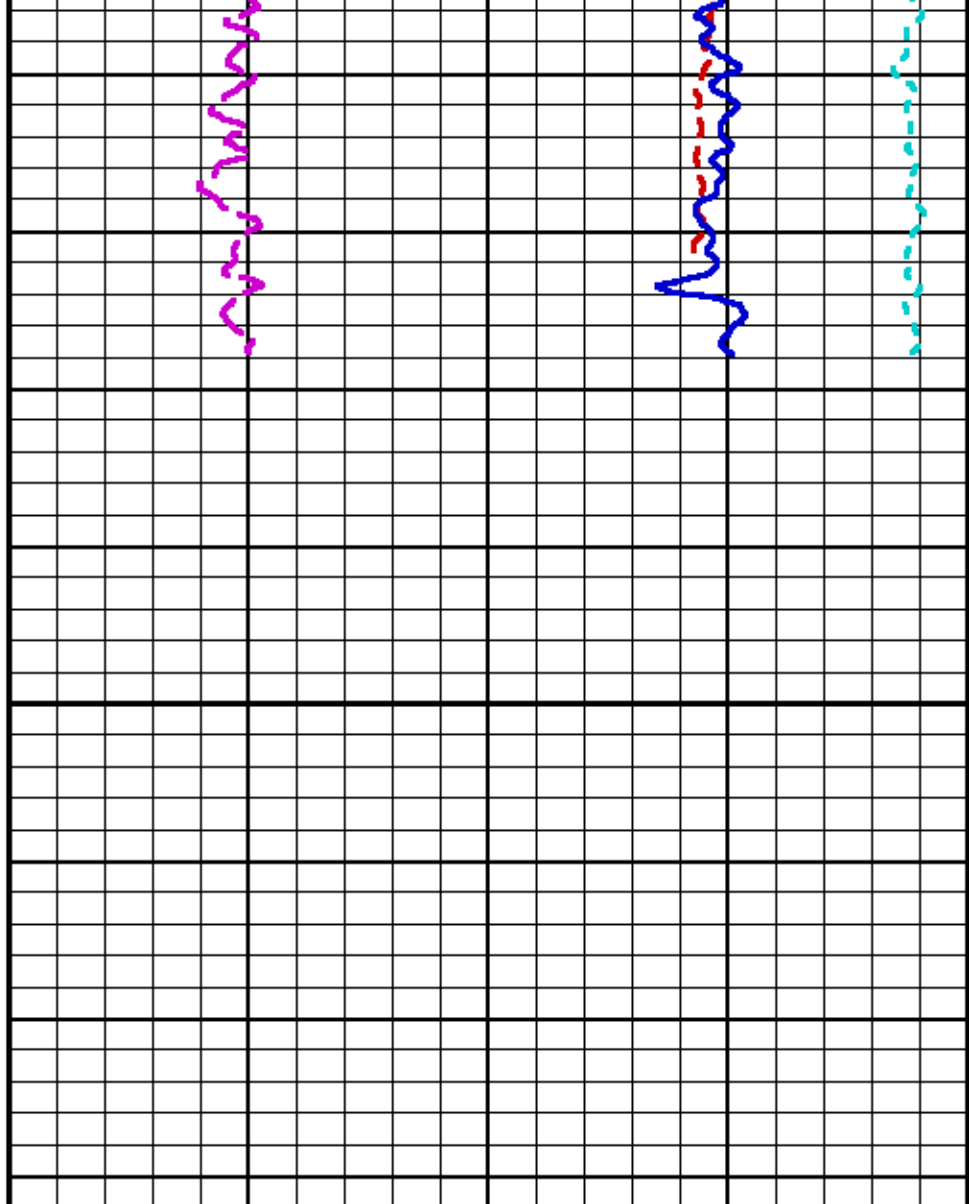






1325

METERS



HIGH RESOLUTION LOG - LIMESTONE MATRIX

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

Wed Mar 7 01:57:31 2012

Perplt /main/62

Cplot

Pdf_Cpp /main/16

Fileview 5.51

PARAMETER AND FILTER SUMMARY REPORT

File: /data/husky_CA212511/m77evh_xc03.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 487.588 m BOTTOM DEPTH: 1340.829 m

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
Y AXIS CALIPER	FILTER ()	medium (1)		TOP	BOTTOM
TENSION	FILTER ()	medium (1)		"	"
GR	FILTER (.h)	medium (1)		"	"
CN	FILTER (.h)	medium (1)		"	"
CALIPER	FILTER ()	medium (1)		"	"
	FILTER (.h)	medium (1)		"	"
	FILTER (.l)	medium (1)		"	"
ZDL HIGH RES	FILTER (hrd1*)	light		"	"
	FILTER (hrd1a*)	light		"	"
	FILTER (hrd2*)	light		"	"
	FILTER (hrd2a*)	light		"	"
	FILTER (soft*)	light		"	"

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	177.800	mm	TOP	BOTTOM
	CASING THICKNESS	8.000	mm	"	"
BIT SIZE	BIT SIZE	222.000	mm	"	"
MUD DENSITY	MUD DENSITY	1.24	g/cm3	"	"
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (cnbh*)	USE CALIPER		"	"
	CALIPER/FIXED DIA. (zdbh*)	USE CALIPER		"	"
BOREHOLE CORR DIAMETER	FIXED DIAMETER (cnbh*)	222.000	mm	"	"

CN PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CN SALINITY CORRECTION	SALINITY	0	ppm	TOP	BOTTOM
CN CASING & CEMENT CORRECTION	CORRECTION	OFF		"	"
	BIT SIZE BEHIND CSNG	311.000	mm	"	"

ZDL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
DENSITY POROSITY	RHOfluid	1.000	g/cm3	TOP	BOTTOM
	RHOmatrix (line)	2.710	g/cm3	"	"

CURVE DESCRIPTION REPORT

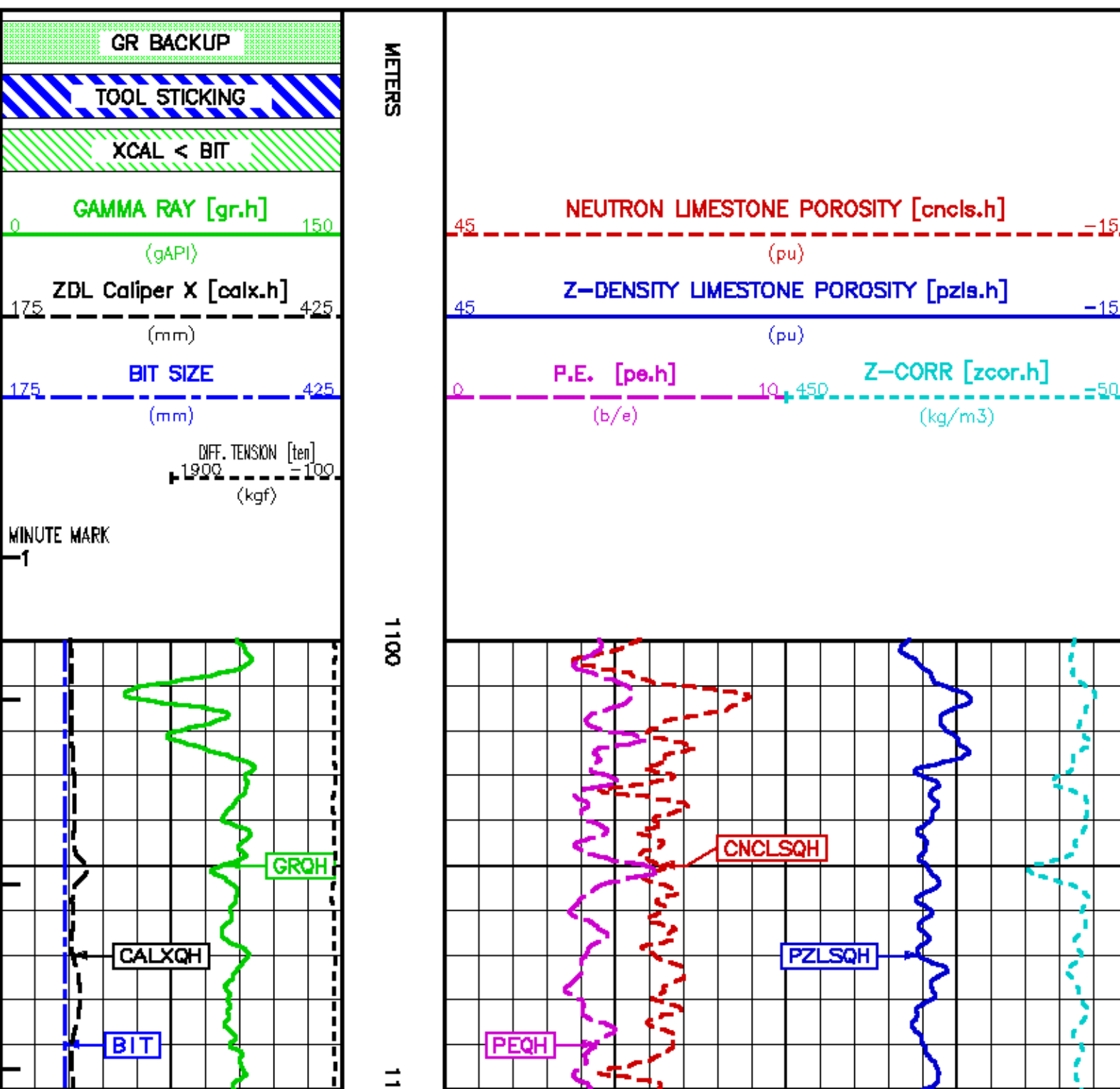
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:BIT	Mar 6 22:18:03 2012	BIT SIZE
F1:CALXQH	Mar 6 22:18:03 2012	CALIPER FROM X-AXIS OF XY CALIPER(S)
F1:CNCLSCH	Mar 6 22:18:03 2012	BOREHOLE SIZE CORRECTED LIMESTONE COMPENSATED NEU POROSITY
F1:GRQH	Mar 6 22:18:03 2012	GAMMA RAY
F1:MARK	Mar 6 22:18:03 2012	MINUTE MARK
F1:PEQH	Mar 6 22:18:03 2012	PHOTO ELECTRIC CROSS-SECTION
F1:PZLSCH	Mar 6 22:18:03 2012	POROSITY FOR LIMESTONE MATRIX

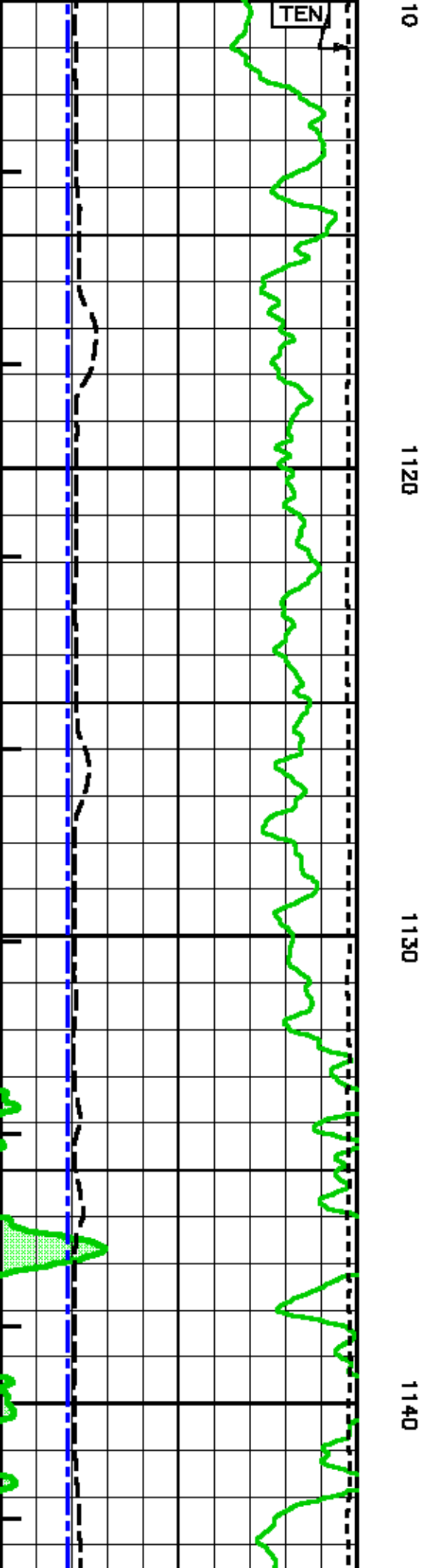
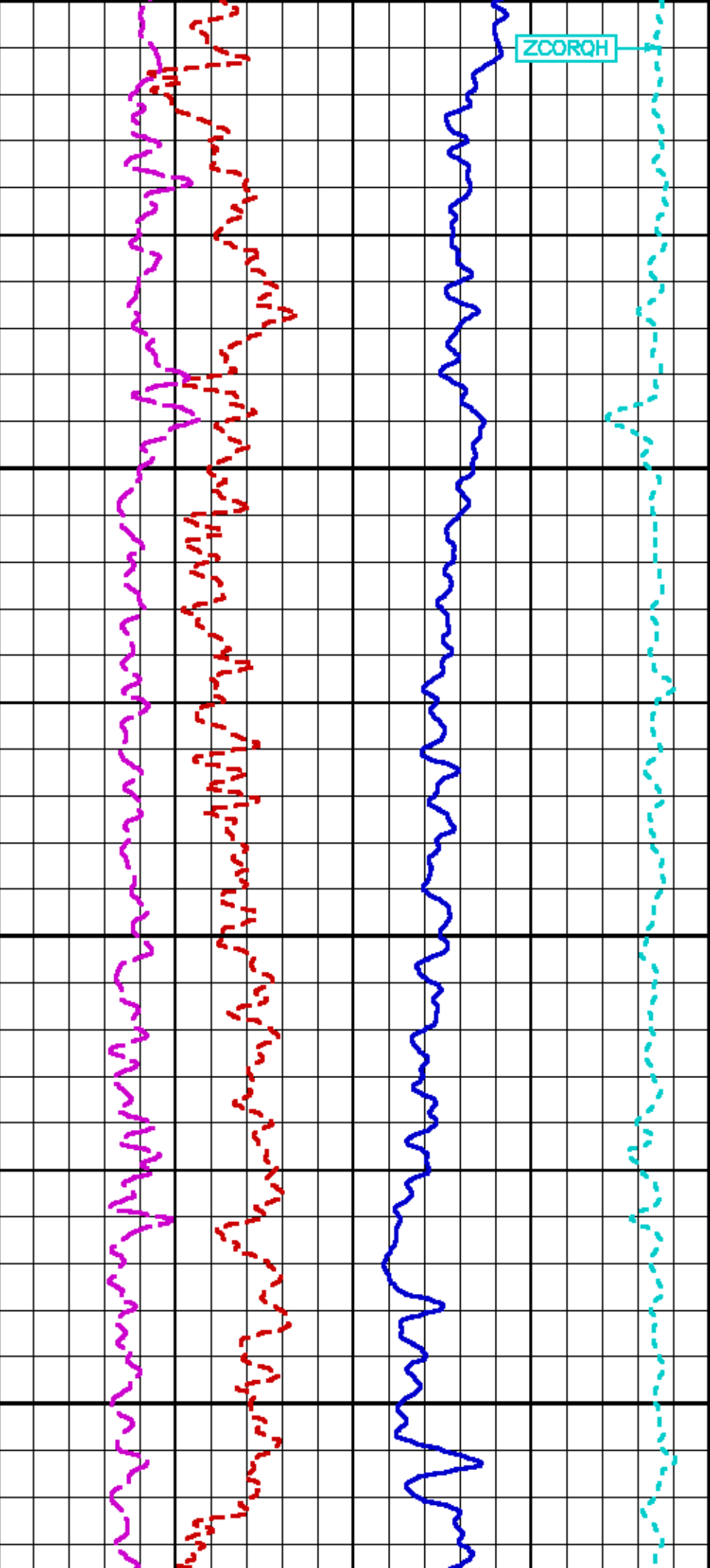
CURVE MEASURE POINT OFFSET

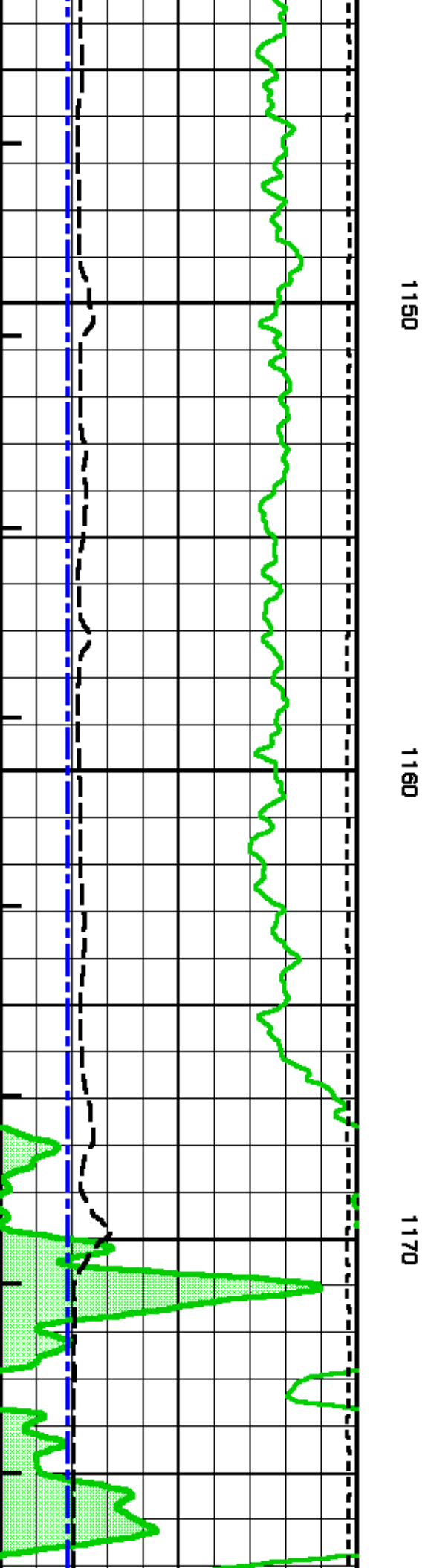
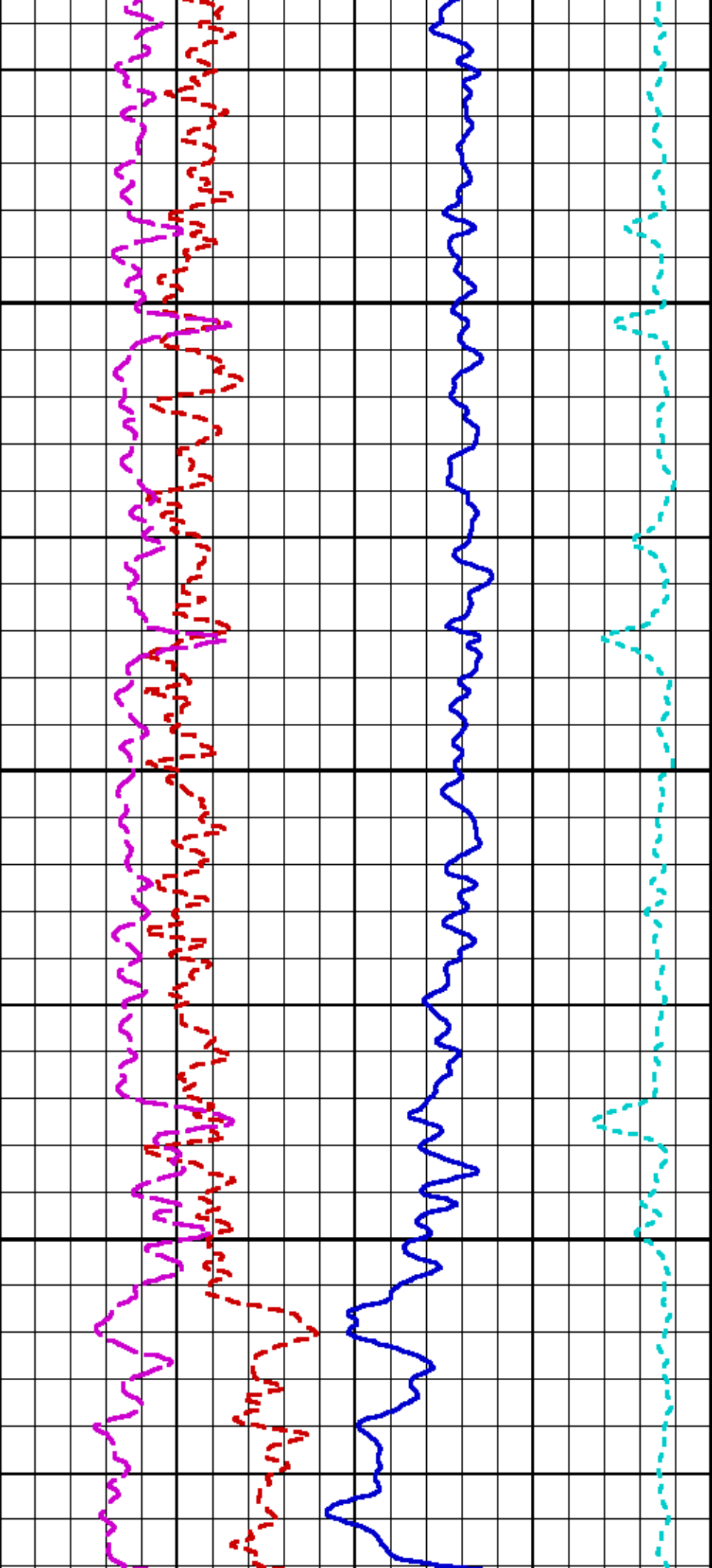
CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)
BIT	0.00	CNCLSQH	29.30	PEQH	25.85	TEN	0.00
CALXQH	26.17	GRQH	31.43	PZLSQH	25.85	ZCORQH	25.85

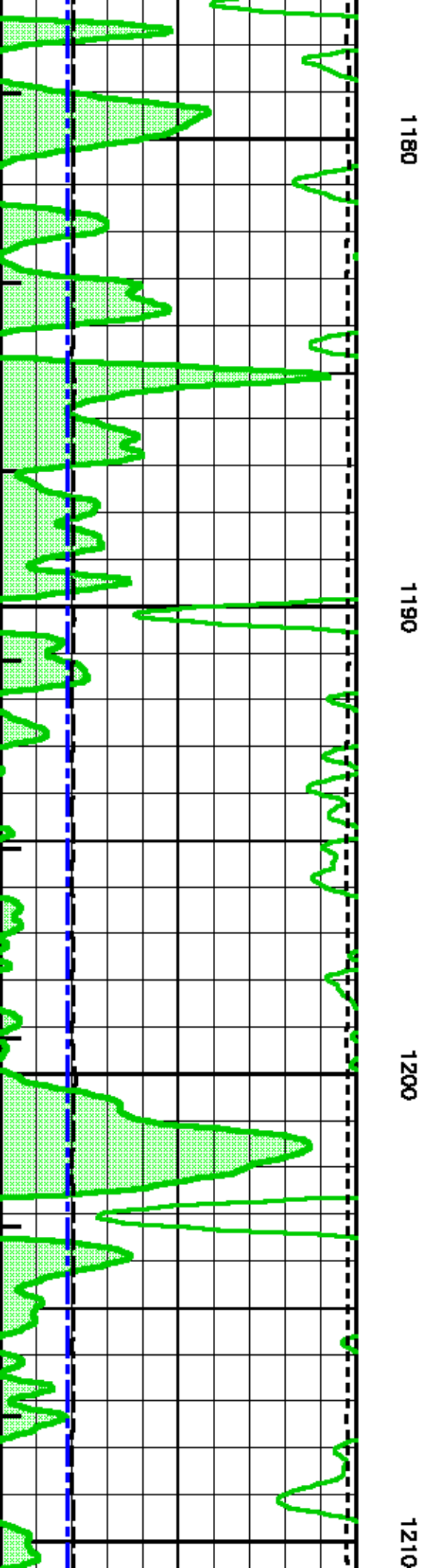
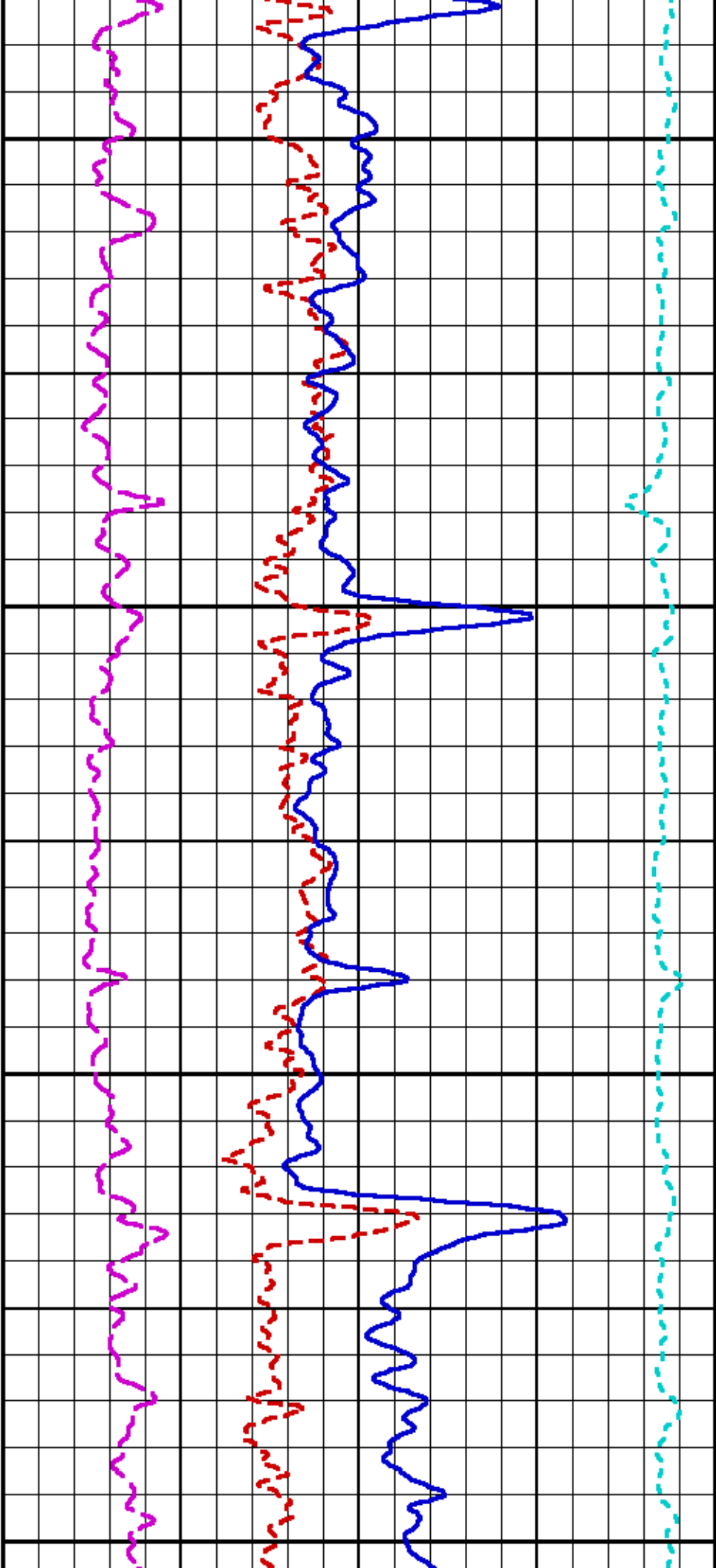
Presentation : epuzz/dot1a/husky_CA212311/zdl_hlres_hu.pdf [1:120 Scale]
Plot Interval : 1100 - 1340.89 Meters

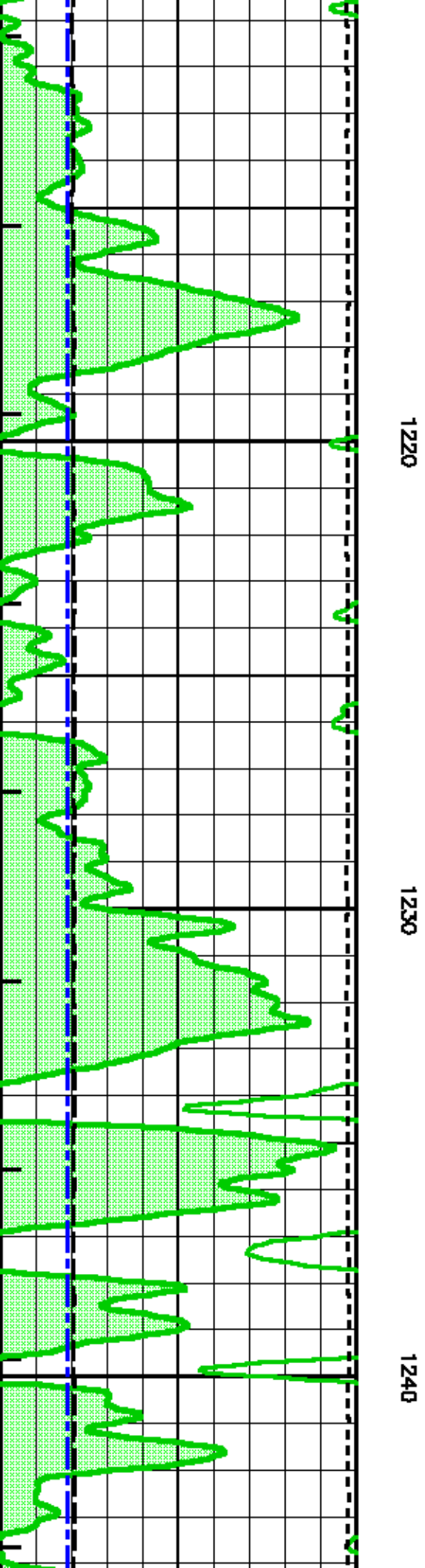
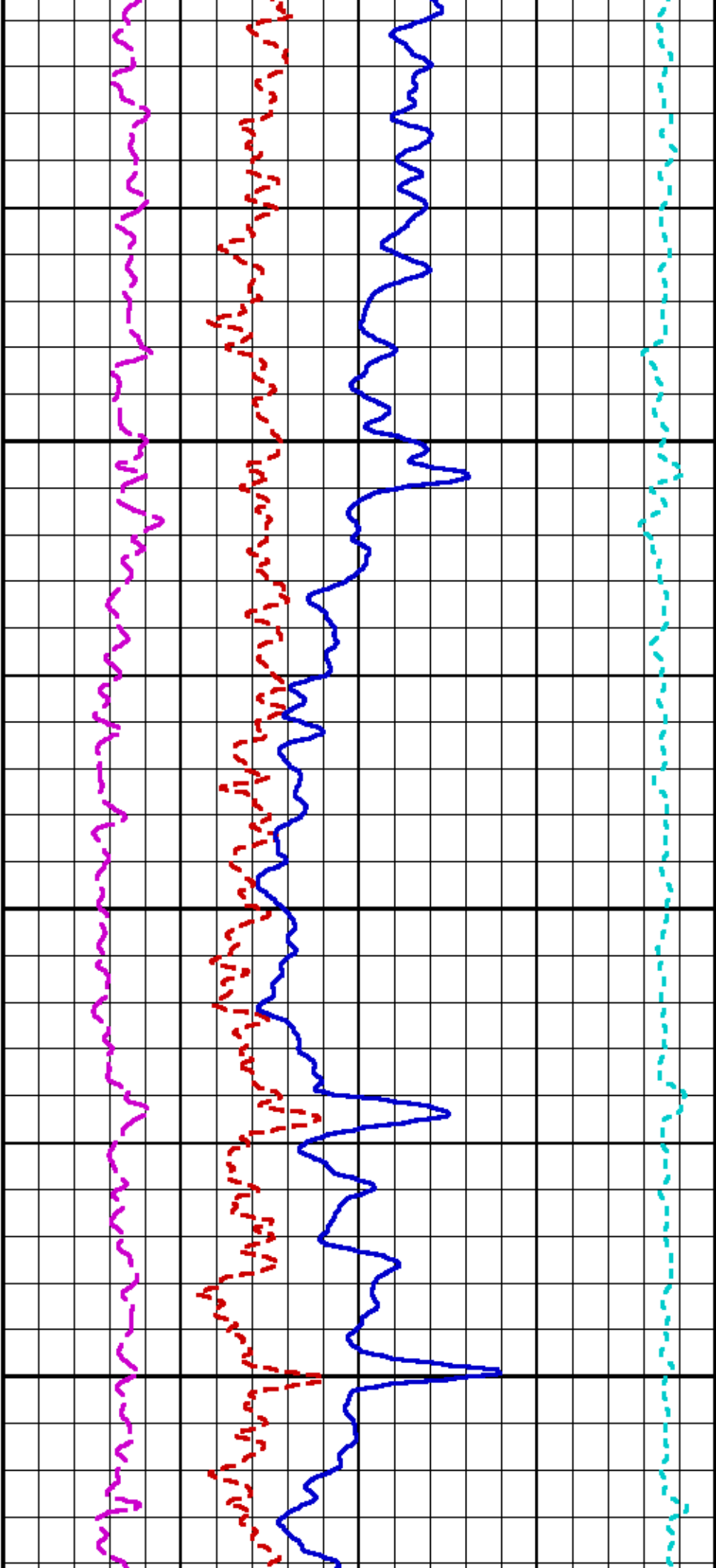
Data File 1 : F1 : epuzz/dot1a/husky_CA212311/m77wrh_xc03.nff
Created On : Mar 6 22:18:03 2012
Company : HUSKY OIL OPERATIONS LIMITED
Well : LITTLE BEAR H-64
Field : SLATER RIVER
File Interval : 452.018 - 1340.83 Meters
Oct : m77wrh_x

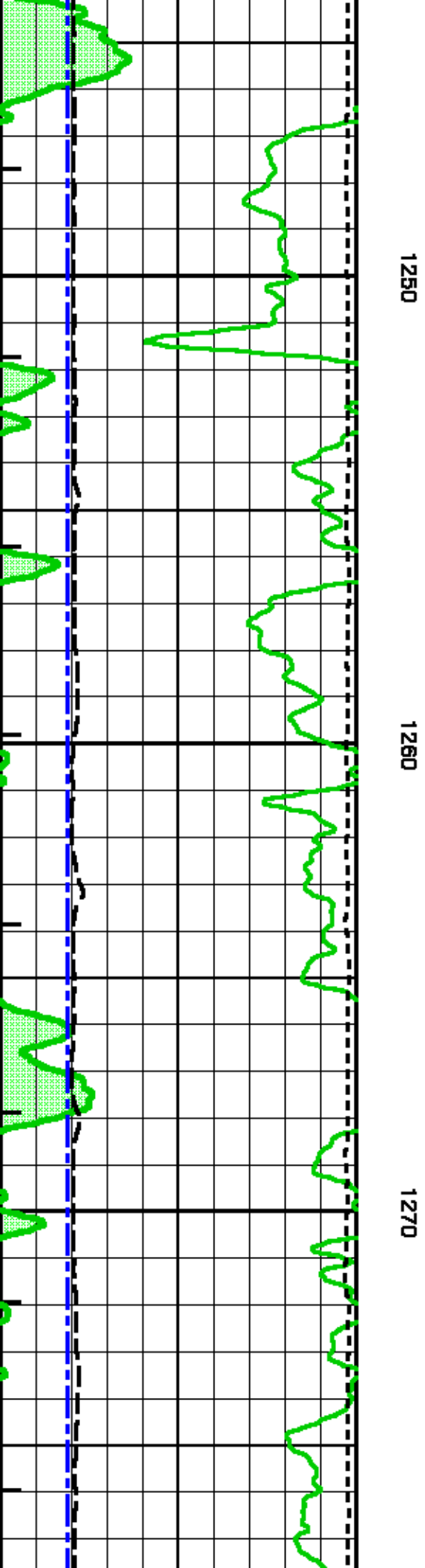
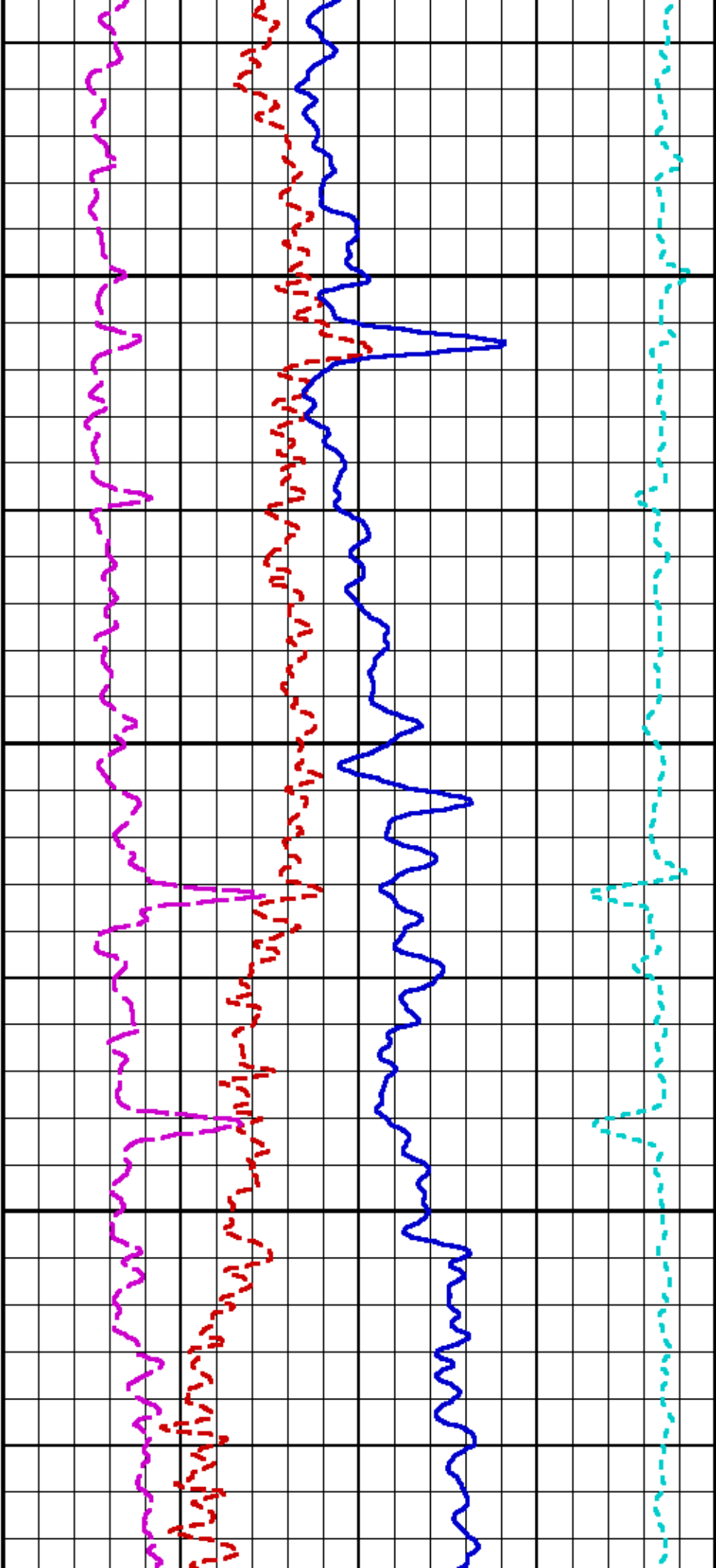


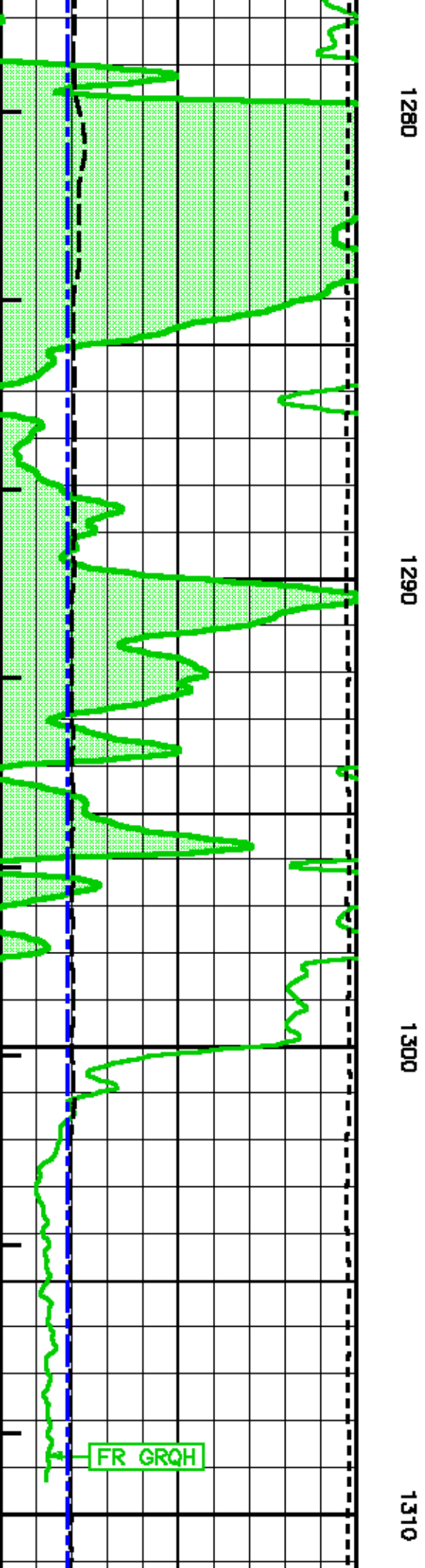
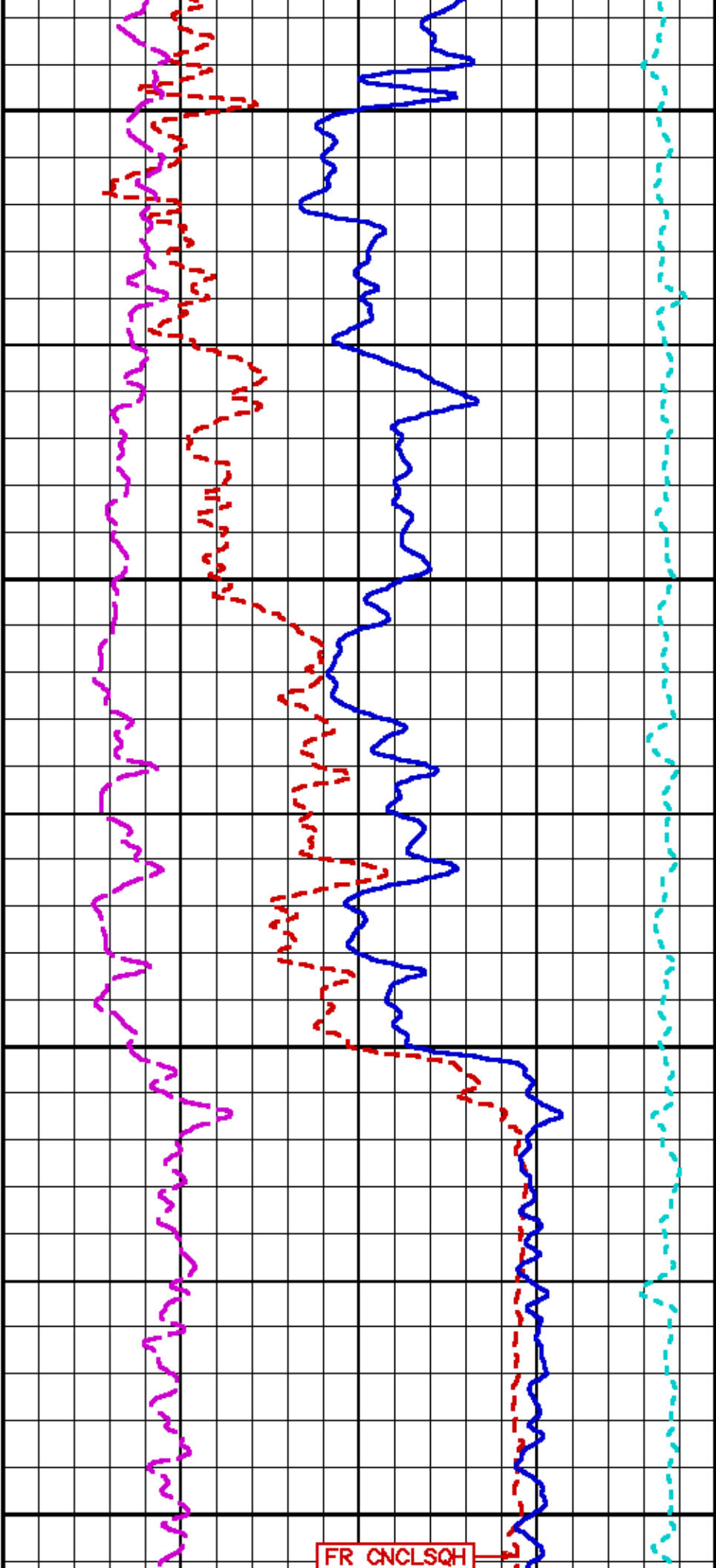


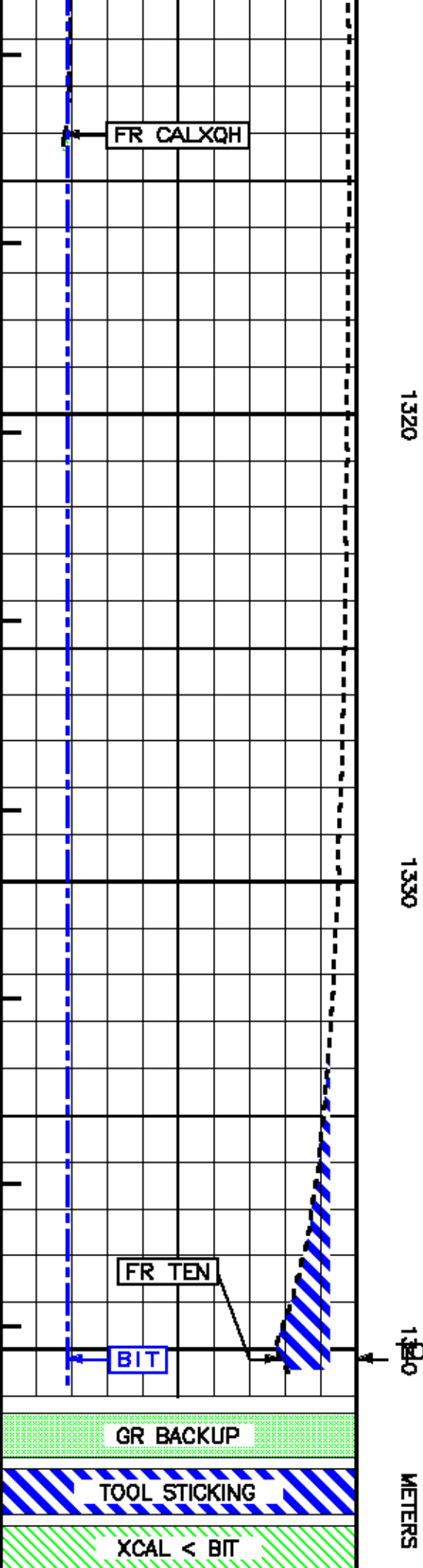










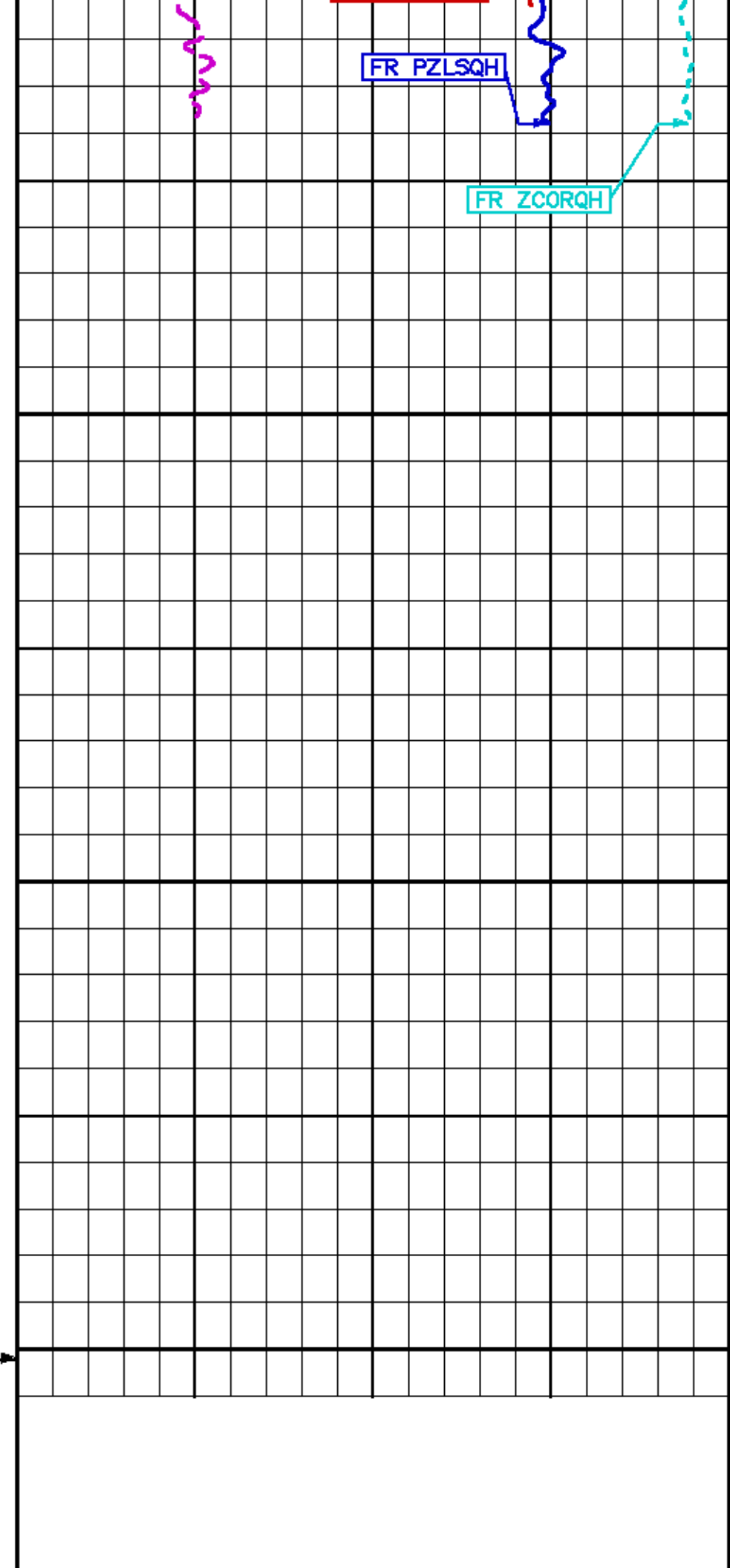


1320

1330

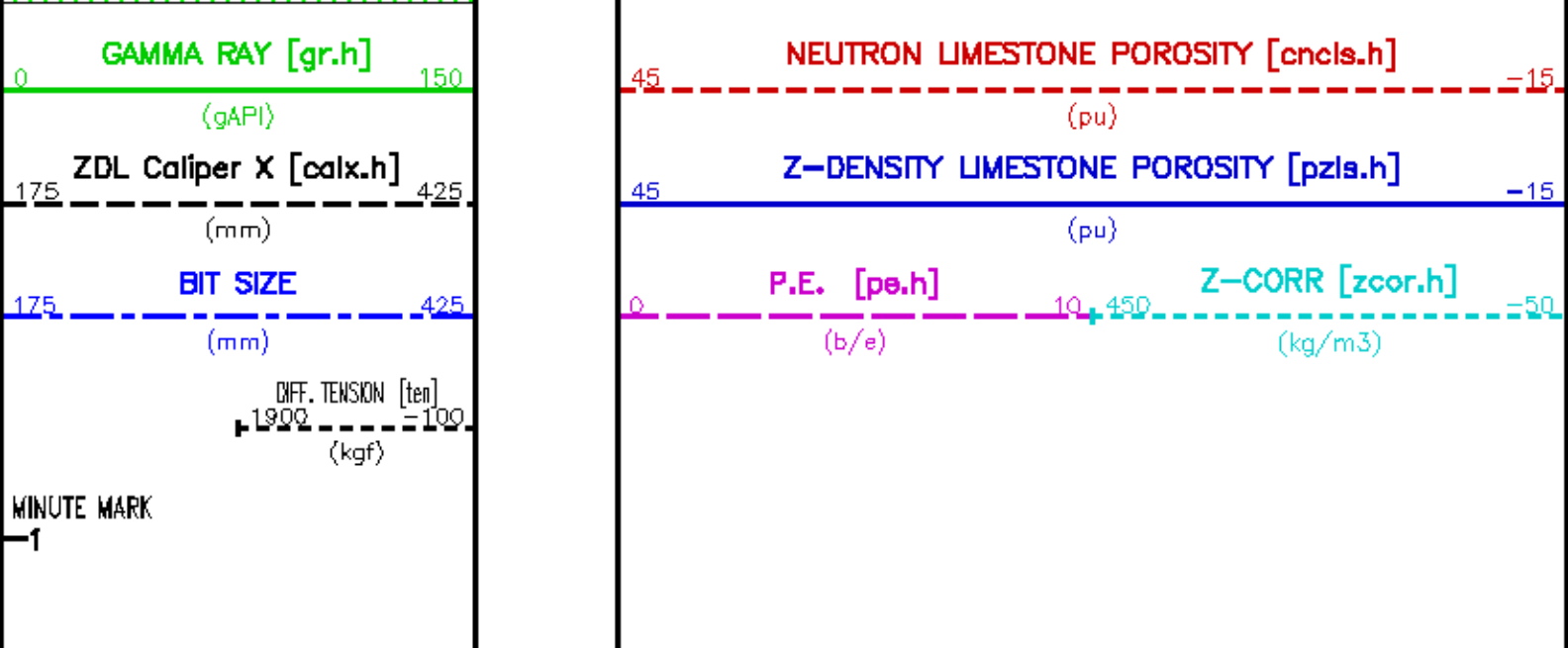
1340

METERS



FR PZLSQH

FR ZCORQH



GR/CN THROUGH CASING

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

Wed Mar 7 02:46:35 2012

Perpl /main/62

Cplot

Pdf_Cpp /main/16

Fileview 5.51

PARAMETER AND FILTER SUMMARY REPORT

File: /data/husky_CA212511/m77evh_xc04.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 29.527 m BOTTOM DEPTH: 552.468 m

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
Y AXIS CALIPER	FILTER ()	medium (1)		TOP	BOTTOM
TENSION	FILTER ()	medium (1)		"	"
GR	FILTER ()	medium (1)		"	"
CN	FILTER ()	medium (1)		"	"
CALIPER	FILTER ()	medium (1)		"	"
	FILTER (.h)	medium (1)		"	"
	FILTER (.l)	medium (1)		"	"

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	177.800	mm	TOP	BOTTOM
	CASING THICKNESS	8.000	mm	"	"
BIT SIZE	BIT SIZE	222.000	mm	"	"
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (cnbh*)	USE FIXED SIZE		"	"
BOREHOLE CORR DIAMETER	FIXED DIAMETER (cnbh*)	226.600	mm	"	"

CN PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CN SALINITY CORRECTION	SALINITY	0	ppm	TOP	BOTTOM
CN CASING & CEMENT CORRECTION	CORRECTION	ON		"	"
	BIT SIZE BEHIND CSNG	311.000	mm	"	"

CURVE DESCRIPTION REPORT

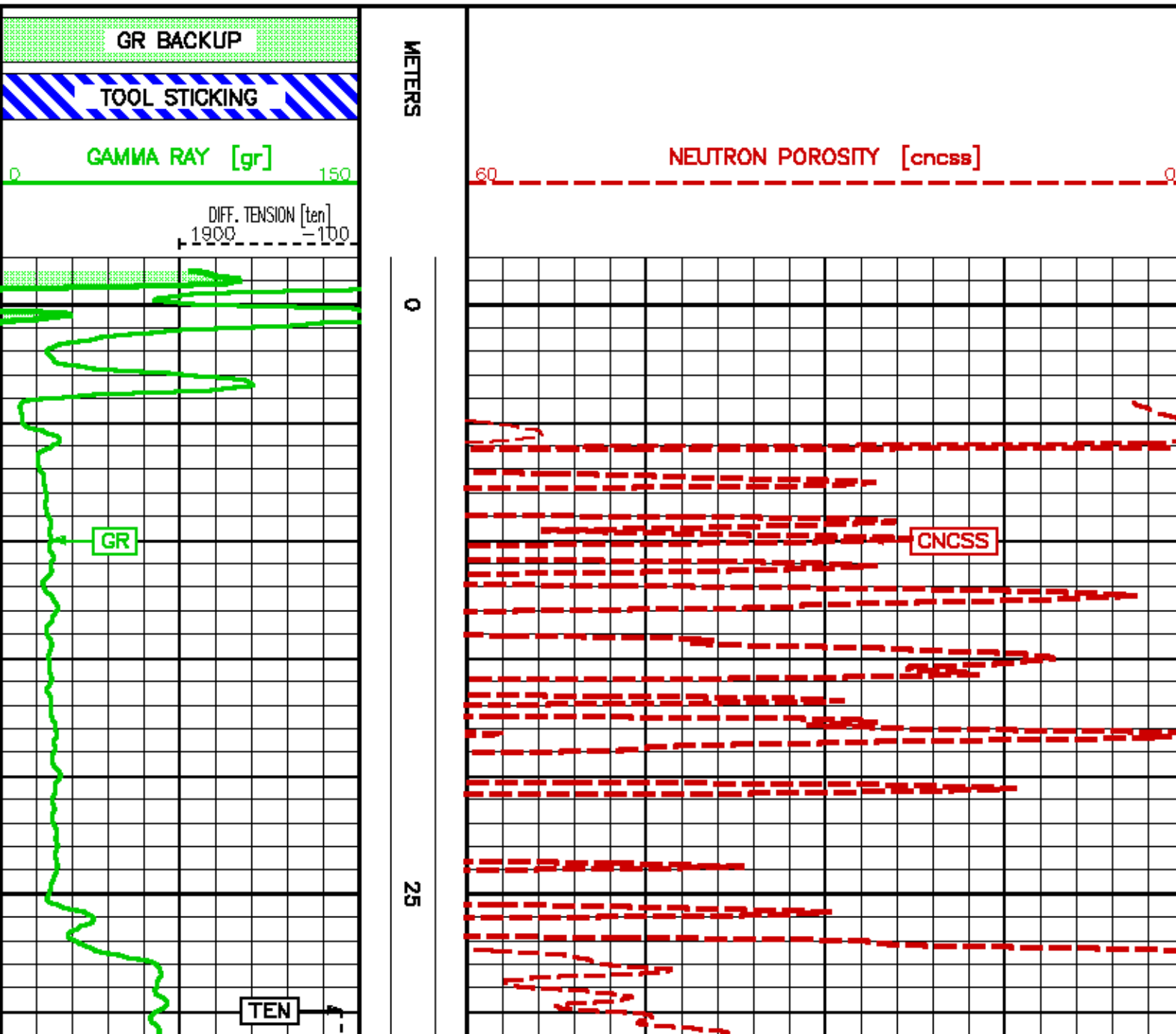
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:CNCSS	Mar 7 01:08:43 2012	BOREHOLE SIZE CORRECTED SANDSTONE COMPENSATED NEU POROSITY
F1:GR	Mar 7 01:08:43 2012	GAMMA RAY
F1:TEN	Mar 7 01:08:43 2012	DIFFERENTIAL TENSION

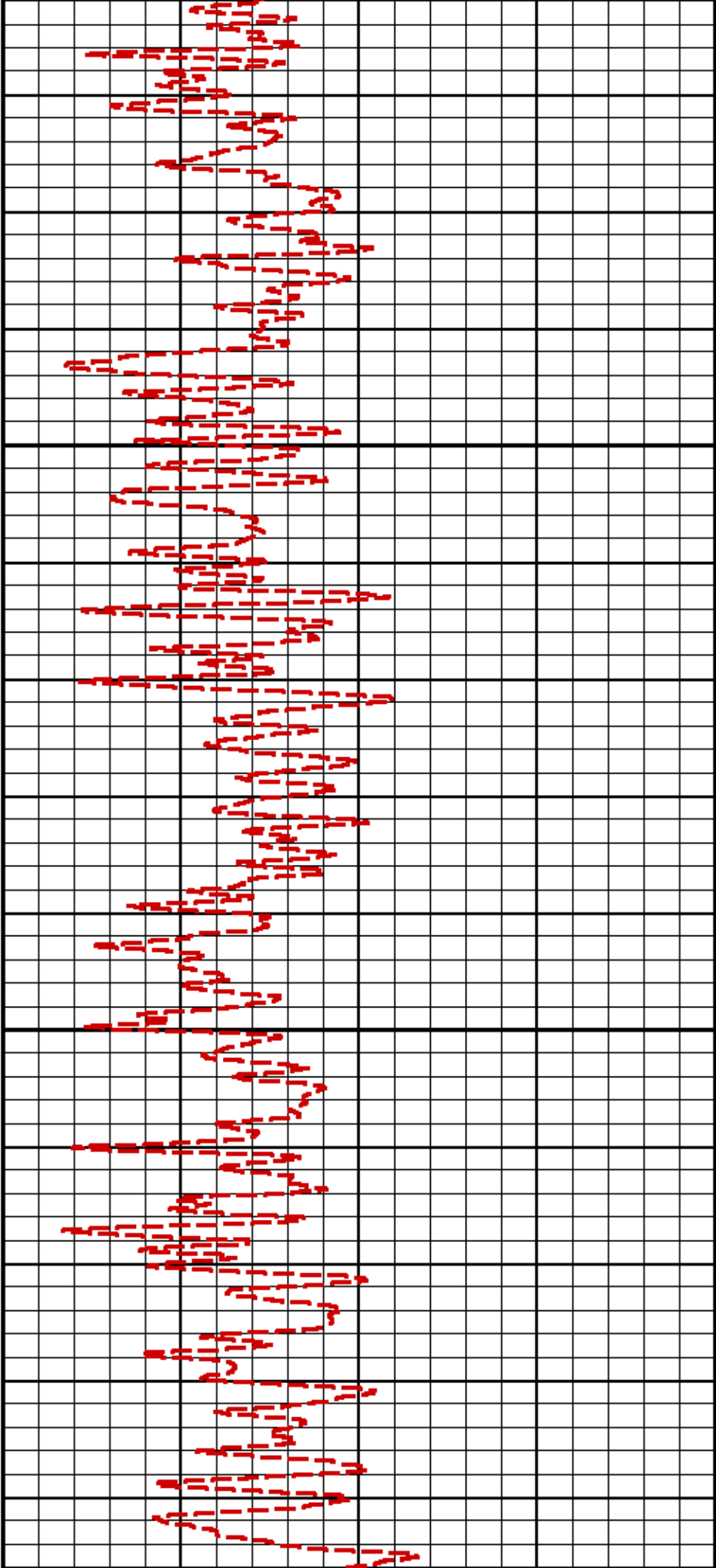
CURVE MEASURE POINT OFFSET

CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)
CNCSS	29.30	GR	31.39	TEN	0.00		

Presentation : epuz\data/husky_CA212311/cr_main.pdf [1:240 Scale]
Plot Interval : -1.4478 - 552.088 Meters

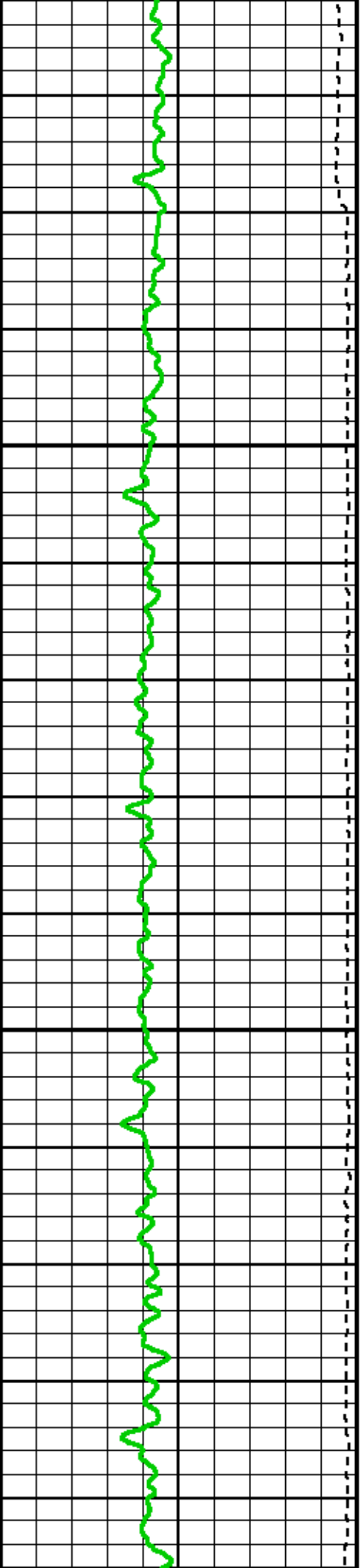
Data File 1 : F1 : epuz\data/husky_CA212311/m77wh_xc04.nff
Created On : Mar 7 01:08:43 2012
Company : HUSKY OIL OPERATIONS LIMITED
Well : LITTLE BEAR H-64
Field : SLATER RIVER
File Interval : -5.8438 - 552.488 Meters
Oct : m77wh_x

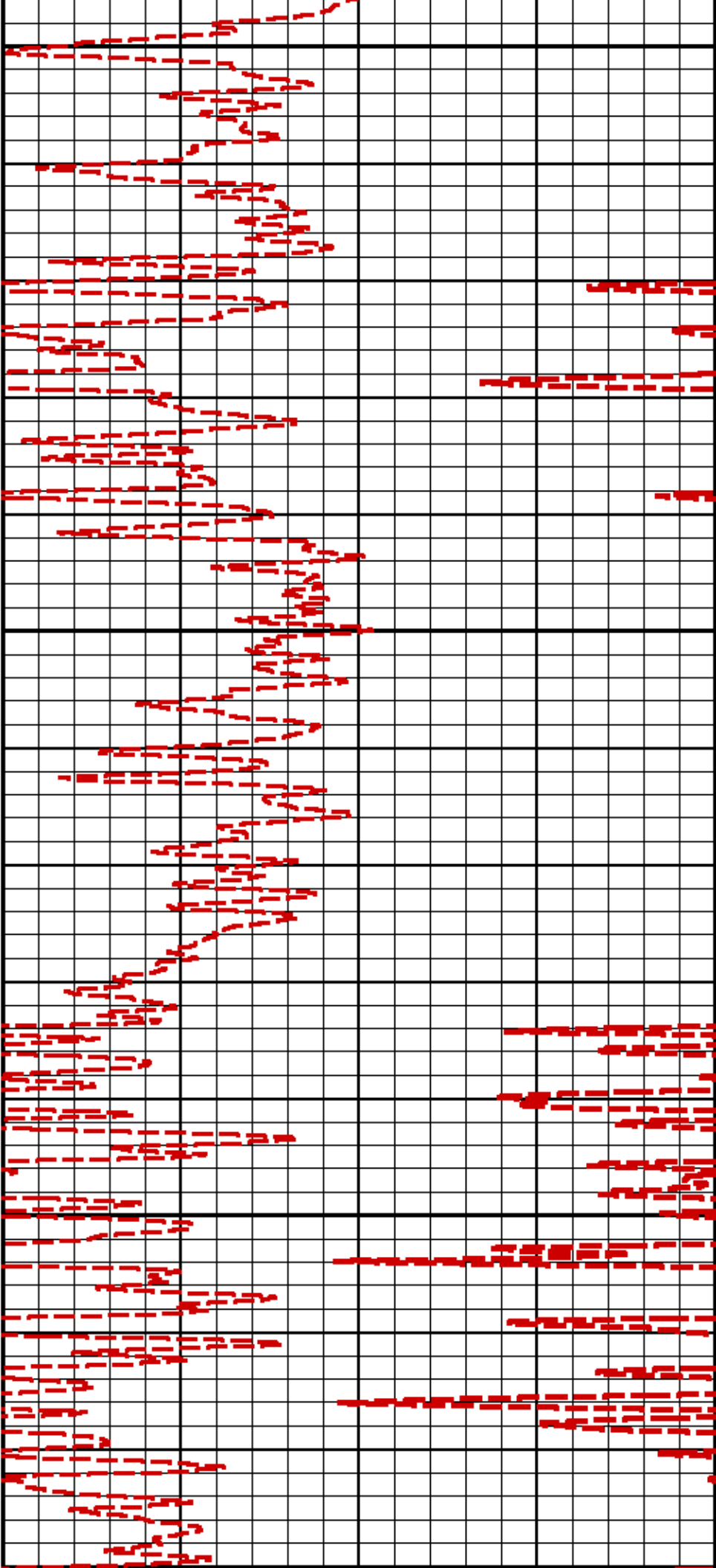




50

52

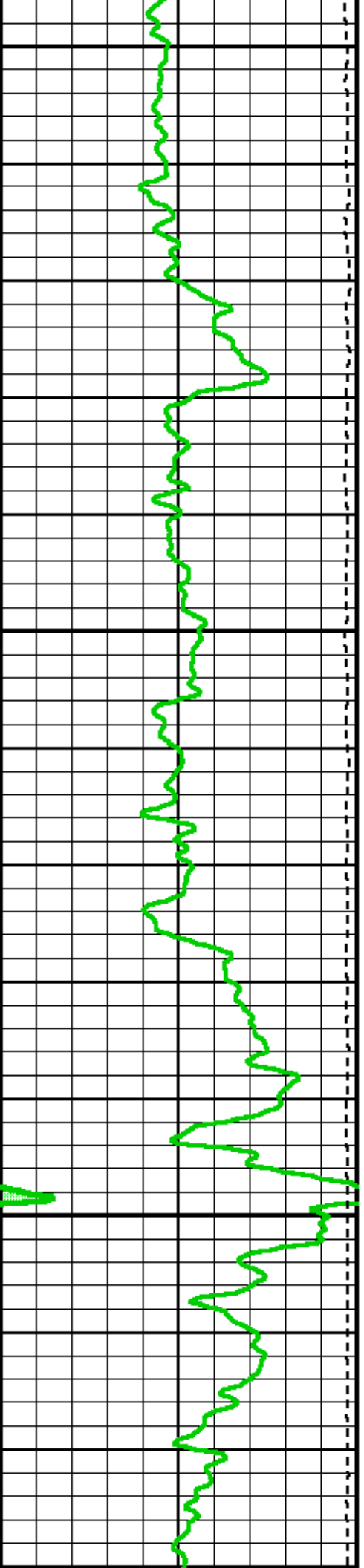


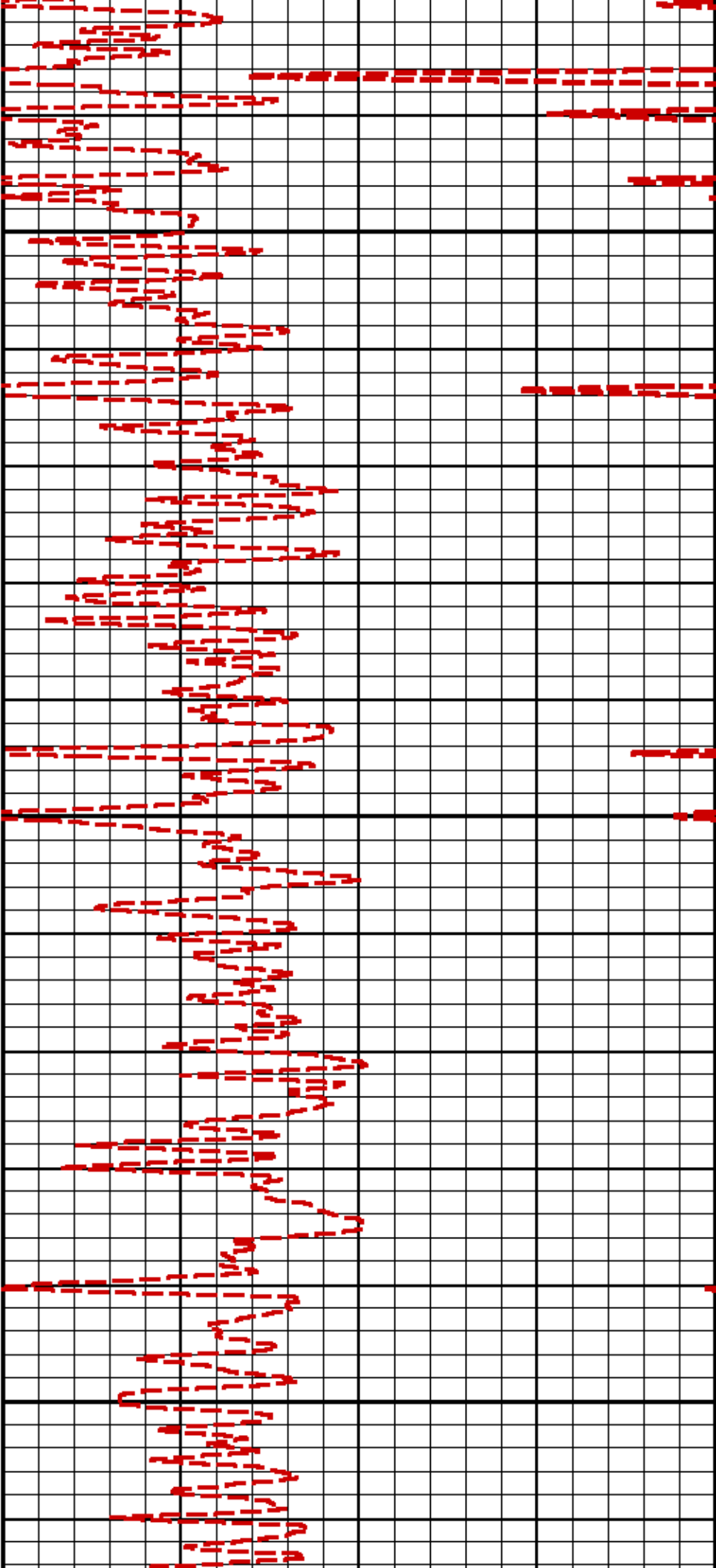


100

125

150

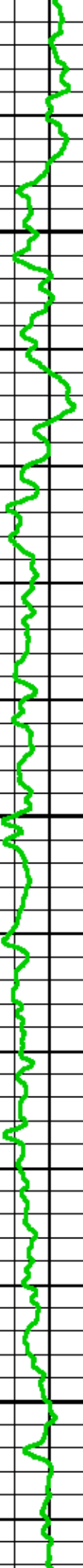


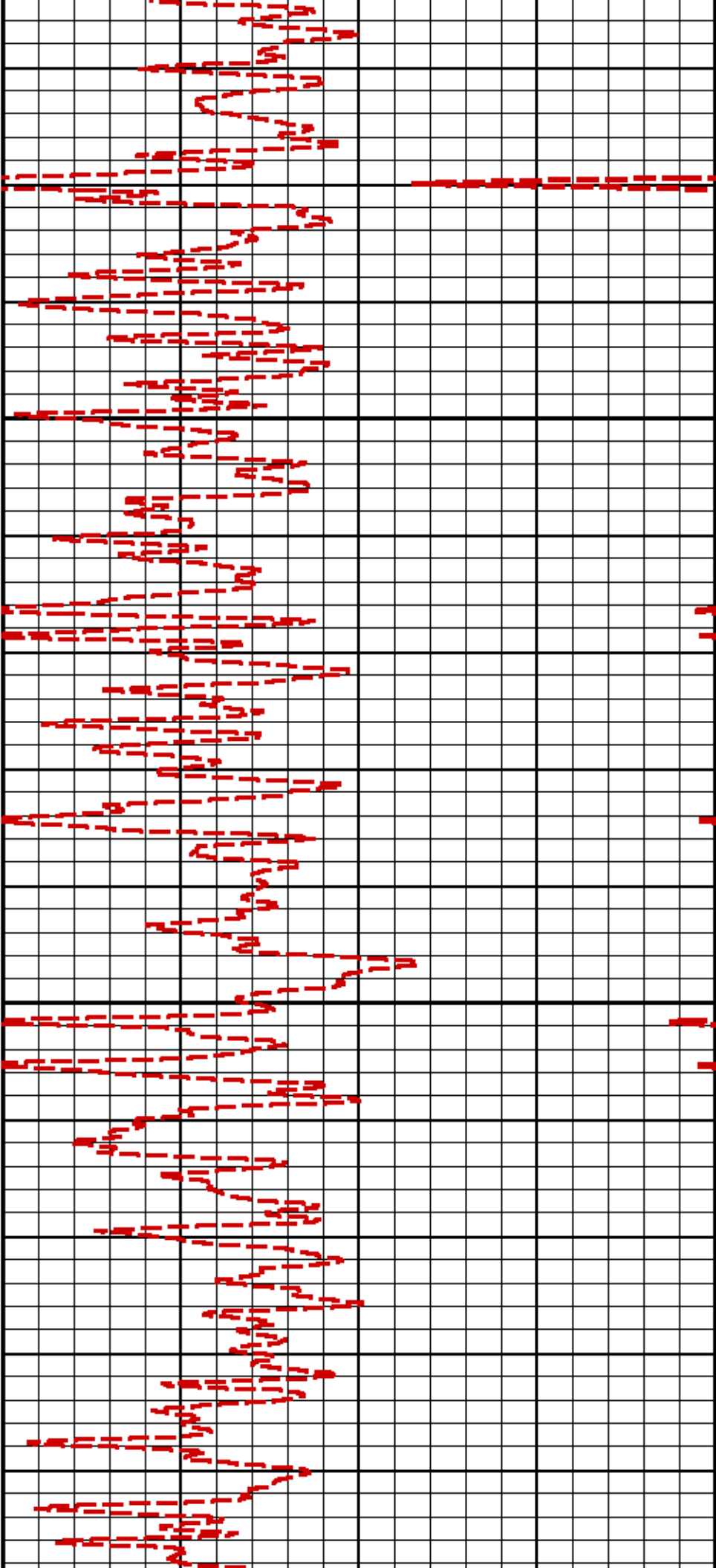


175

200

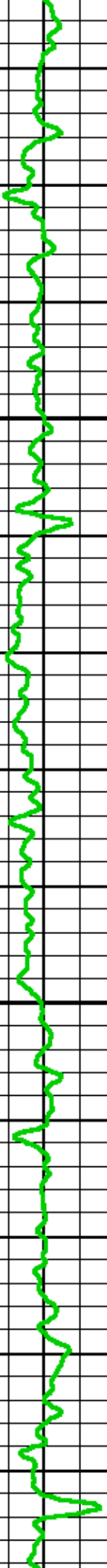
225

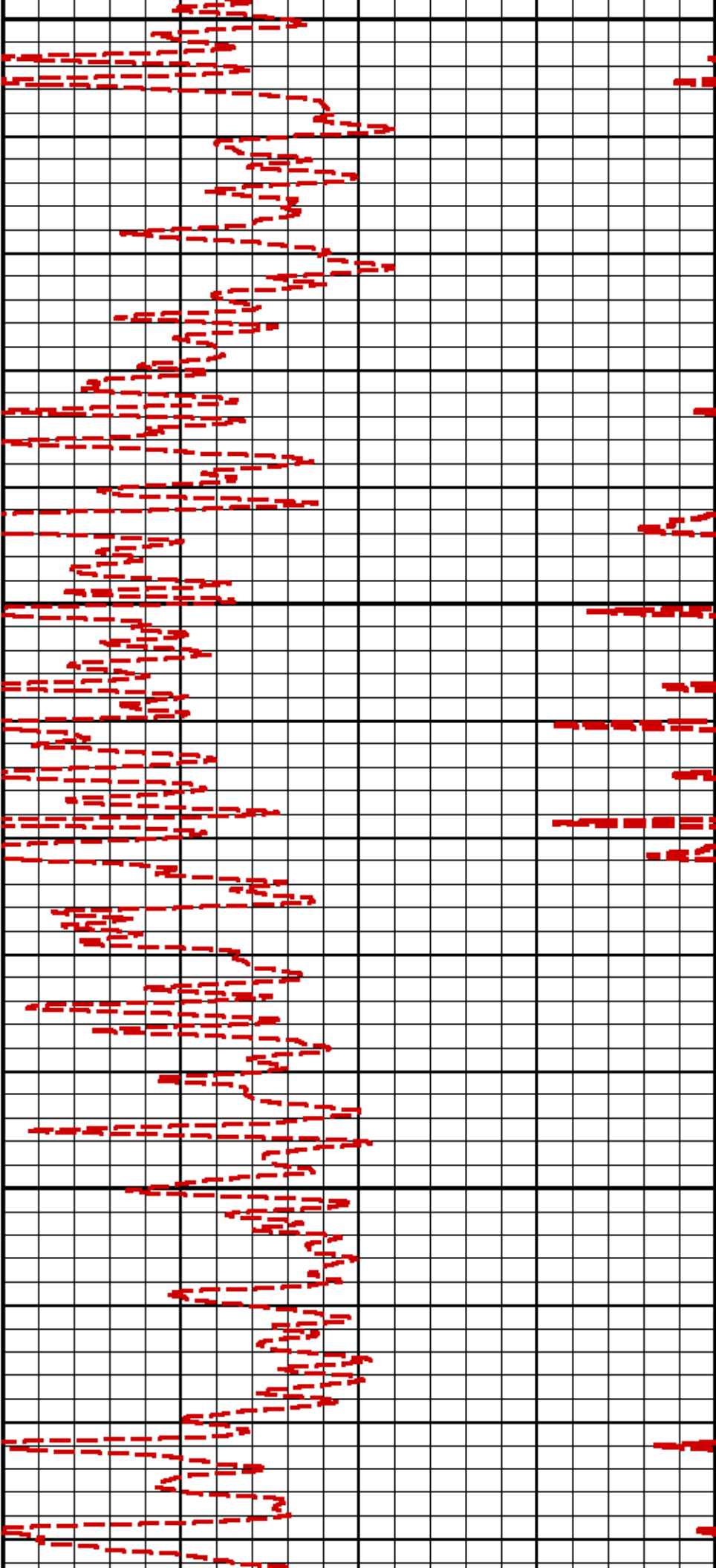




250

275

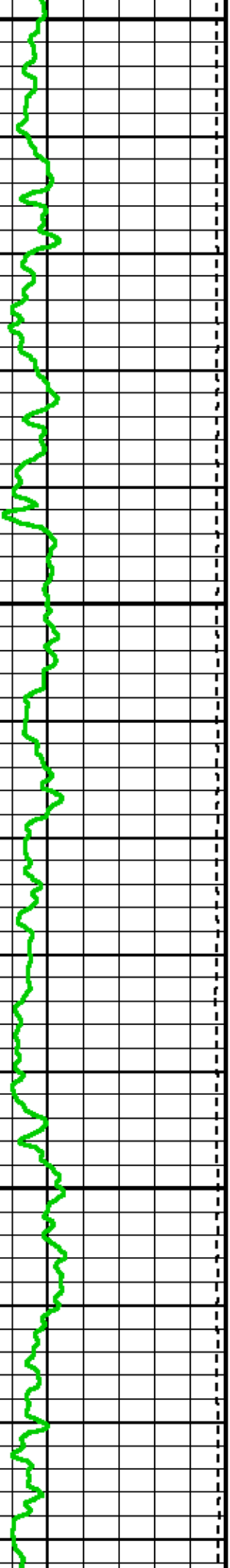


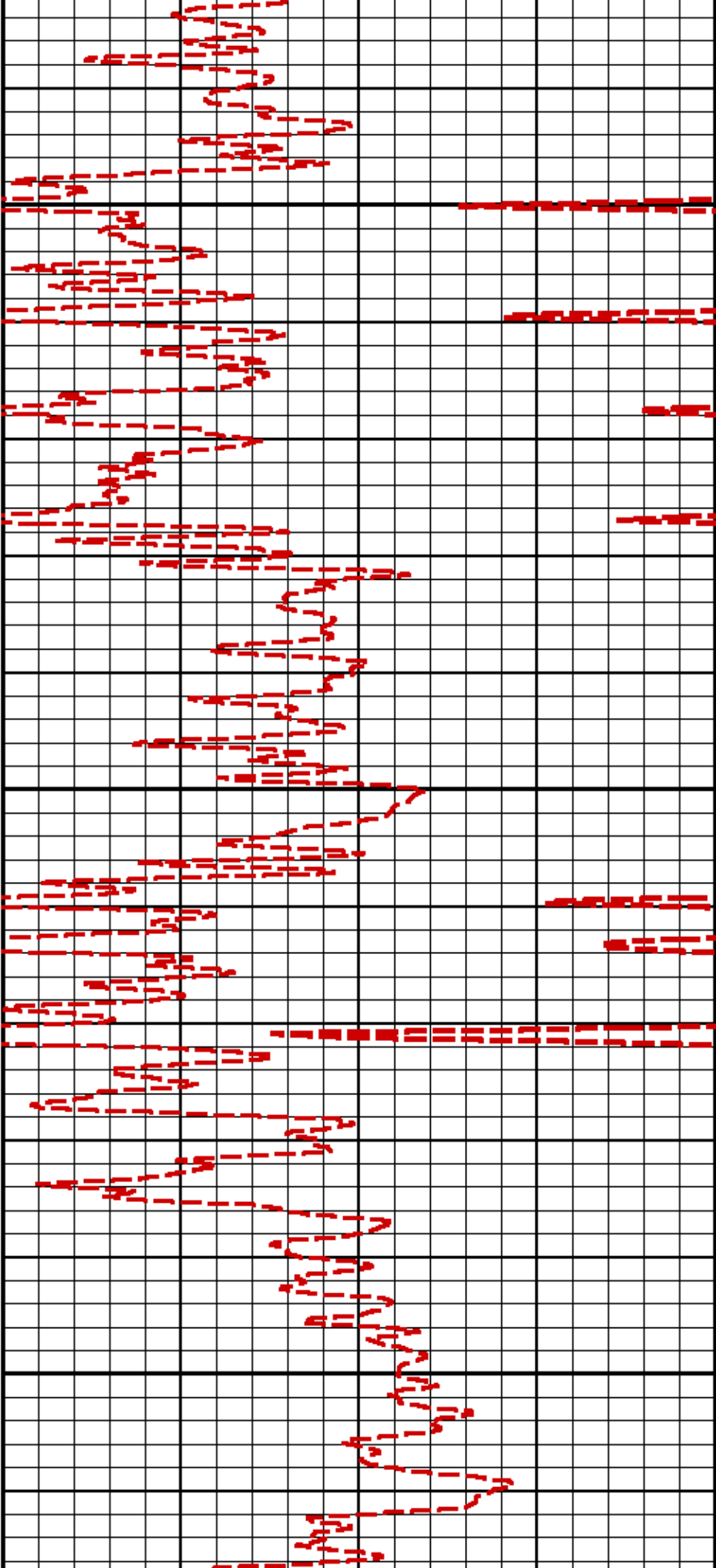


300

325

350

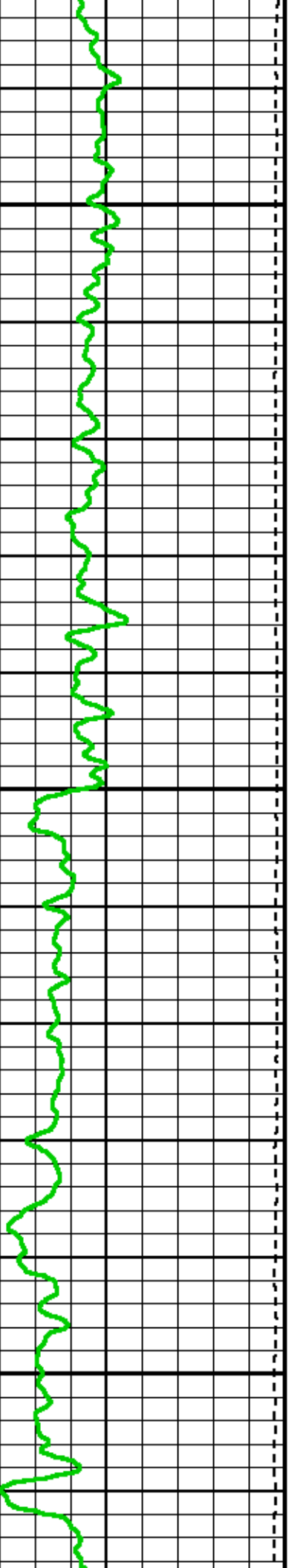


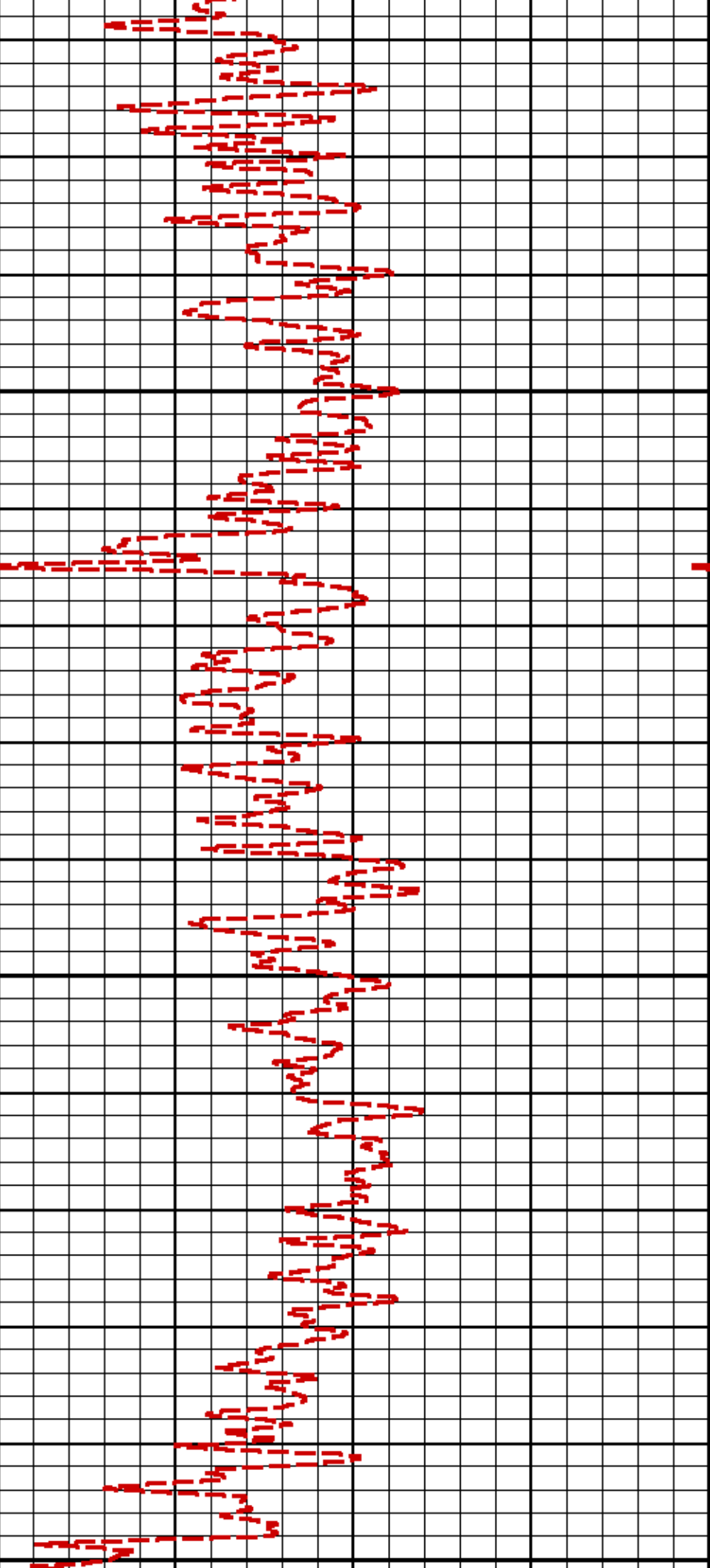


375

400

425

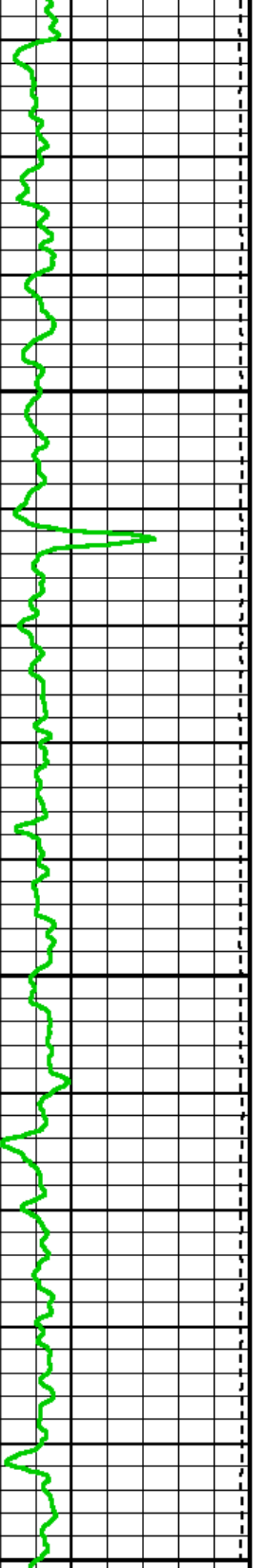


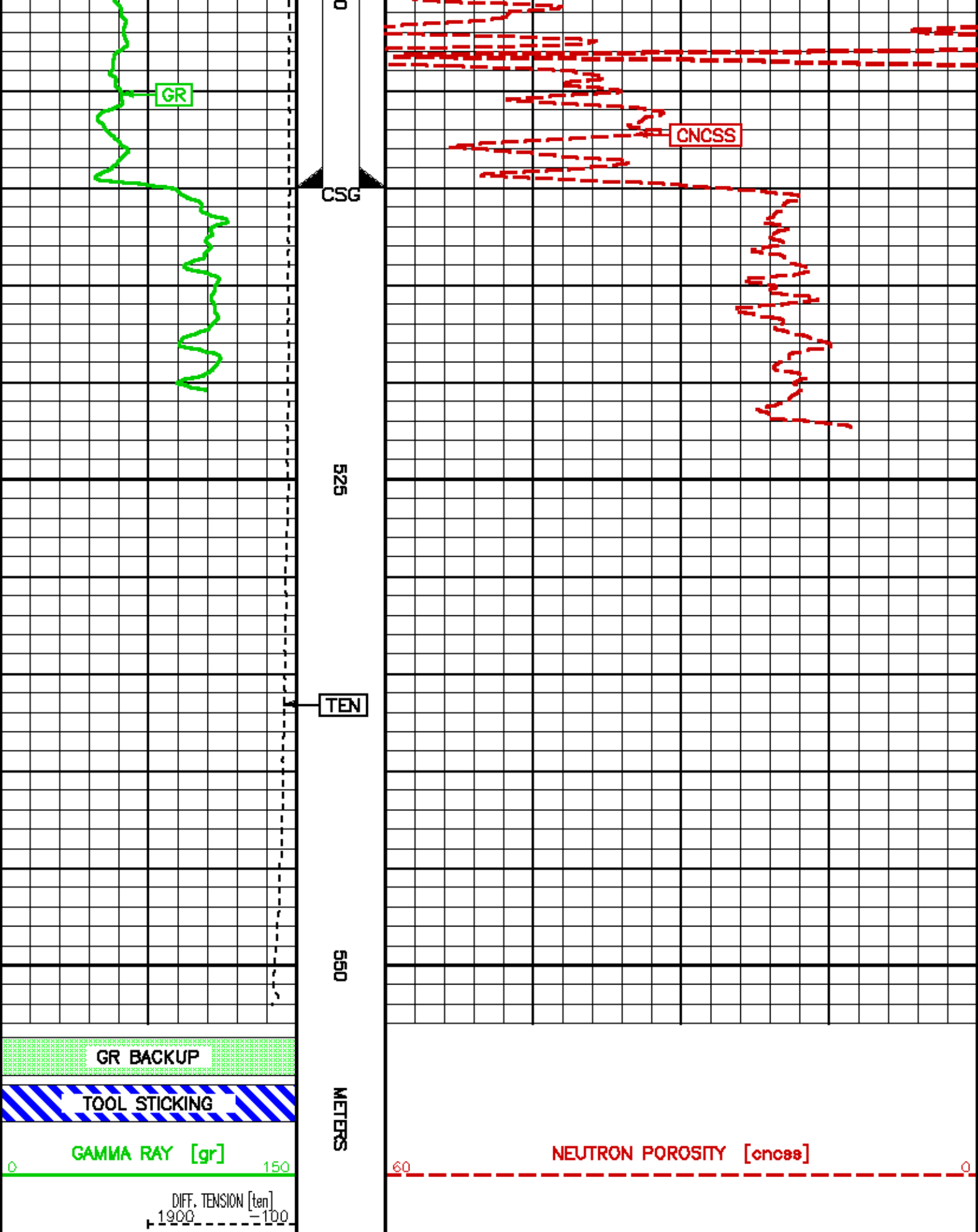


450

475

50





CALIBRATION / VERIFICATION SUMMARY

Source File: /data/husky_CA212511/m77wh_x2.tp2

GR PRIMARY CALIBRATION SUMMARY

TOOL #: 1329XA 11756674 DATE/TIME PERFORMED: Mon Feb 27 20:16:08 2012

UNIT #: 5753XB 10108816 CALB JIG #: 4702NK DA-554

UNIT #: 5753XB 10108816 CALB JIG #: 4702NK DA-554

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	CR DIFF (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	CALBRTR (gAPI)
GR	147.84	1025.36	877.5	0.171	25.27	175.27	150
			830.0 980.0				

GR PRIMARY VERIFICATION SUMMARY	
GR	GR PRIMARY VERIFICATION SUMMARY

TOOL #: 1329XA 11756674 DATE/TIME PERFORMED: Mon Feb 27 20:21:47 2012

UNIT #: 5753XB 10108816 VERI JIG #: 4702NK DA-554

UNIT #: 5753XB 10108816 VERI JIG #: 4702NK DA-554

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	147.64	1027.87	0.171	25.24	175.70	150.46
						140.00 160.00

GR BEFORE LOG VERIFICATION SUMMARY

TOOL #: 1329XA 11756674 DATE/TIME PERFORMED: Mon Mar 5 17:29:14 2012 DAYS SINCE CAL: 6
UNIT #: 3854SA 008672 VERI JIG #: 4702NK DA-554

UNIT #: 3854SA 008672 VERI JIG #: 4702NK DA-554

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	44.80	951.49	0.171	7.66	162.65	154.99
						140.48 160.48

GR AFTER LOG VERIFICATION SUMMARY					
-----------------------------------	--	--	--	--	--

TOOL #: 1329XA 11756674 DATE/TIME PERFORMED: Wed Mar 7 02:34:48 2012 DAYS SINCE CAL: 8

UNIT #: 3854SA 008672 VERI JIG #: 4702NK DA-554

UNIT #: 3854SA 008672 VERI JIG #: 4702NK DA-554

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	59.27	927.44	0.171	10.13	158.54	148.40

CN PRIMARY CALIBRATION SUMMARY

TOOL #: 2446XA 12088884

DATE/TIME PERFORMED: Sun Feb 26 11:34:46 2012

UNIT #: 5753XB 10108816

CALIBRATOR #: 2437XB 112675

SOURCE #: 4717XS 42201B

	MEASURED CPS	DEADTIME CORR CPS	DTC SSN/LSN	NOMINAL SSN/LSN	CORRECTION FACTOR	POROSITY (pu)
LSN	566.30	574.10				
SSN	1441.22	1483.99				
RATIO			2.58490	2.75100	1.06426 0.97000 1.07000	
CN						21.358

CN PRIMARY VERIFICATION SUMMARY

TOOL #: 2446XA 12088884

DATE/TIME PERFORMED: Sun Feb 26 11:56:32 2012

UNIT #: 5753XB 10108816

ICE BLOCK #: 4717ND D-0216

	MEASURED CPS	DEADTIME CORR CPS	DTC SSN/LSN	CORRECTION FACTOR	DTC CORR SSN/LSN	POROSITY (pu)
LSN	956.23	978.71				
SSN	1589.37	1641.58				
RATIO			1.67730	1.06426	1.78663	
CN						8.944

CN BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2446XA 12088884

DATE/TIME PERFORMED: Tue Mar 6 09:20:11 2012

DAYS SINCE CAL: 8

UNIT #: 3854SA 008672

ICE BLOCK #: 4717ND D-0216

	MEASURED CPS	DEADTIME CORR CPS	DTC SSN/LSN	CORRECTION FACTOR	DTC CORR SSN/LSN	POROSITY (pu)
LSN	891.17	910.66				
SSN	1533.13	1581.66				
RATIO			1.73683	1.06426	1.85002	
CN						0.600

CN

9.090
6.944 10.944

CN AFTER LOG VERIFICATION SUMMARY

TOOL #: 2446XA 12088884 DATE/TIME PERFORMED: Wed Mar 7 02:29:56 2012 DAYS SINCE CAL: 9

UNIT #: 3854SA 008672 ICE BLOCK #: 4717ND D-0216

	MEASURED CPS	DEADTIME CPS	CORR	DTC SSN/LSN	CORRECTION FACTOR	DTC CORR SSN/LSN	POROSITY (pu)
LSN	879.84	898.84					
SSN	1632.22	1687.34					
RATIO				1.87724	1.06426	1.99981	
CN							11.483 7.890 11.890

CAL PRIMARY CALIBRATION SUMMARY

TOOL #: 2234XA 168004 DATE/TIME PERFORMED: Sat Feb 25 11:34:06 2012

UNIT #: 5753XB 10108816

	SMALL RING	LARGE RING	MULT	ADD	SMALL RING (mm)	LARGE RING (mm)
CALIPER	882.0	1550.0	0.19461	3.35328	175.000	305.000

CAL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2234XA 168004 DATE/TIME PERFORMED: Tue Mar 6 21:09:56 2012 DAYS SINCE CAL: 10

UNIT #: 3854SA 008672

	I.D.	MULT	ADD	I.D. (mm)
CALIPER	1155.6	0.19461	3.35328	228.246

CAL AFTER LOG VERIFICATION SUMMARY

TOOL #: 2234XA 168004 DATE/TIME PERFORMED: Wed Mar 7 01:02:41 2012 DAYS SINCE CAL: 10

UNIT #: 3854SA 008672

I.D.	MULT	ADD	I.D.
------	------	-----	------

CALIPER 1154.4 0.19461 3.35328 228.012
215.546 240.946

ZDL PRIMARY CALIBRATION SUMMARY

TOOL: 2234XA 168004 DATE/TIME PERFORMED: Sat Feb 25 13:46:40 2012

UNIT: 5753XB 10108816 CALB BLKS: 2225XA 094290 CS SRC: 4703NT 16050B

	SS CS PK (Channel)	LS CS PK (Channel)	SS_BKGD (cps)	LS BKGD (cps)		
	225.0	225.6	1265.3	1693.8		
	220.0 230.0	220.0 230.0				
	SS (cps)	LS (cps)	SHR	DEN (kg/m3)	CORR (kg/m3)	PE (b/e)
MG (LO PE)	21668.0	11350.7	0.620	1697.000	2.000	2.140
			0.565 0.685			
AL	12664.6	1148.7		2700.000	-4.000	
AL + SHIM	17452.7	1981.9		2614.000	157.000	
MG + SHIM (HI PE)	10532.1	5374.3	0.251			8.550
			0.210 0.270			
RATIO AL + SHIM/AL	1.38	1.73				
	1.32 1.42	1.64 1.84				
RATIO MG/AL	1.71	9.88				
	1.65 1.78	9.40 10.20				

ZDL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2234XA 168004 DATE/TIME PERFORMED: Tue Mar 6 09:34:45 2012 DAYS SINCE CAL: 9

UNIT #: 3854SA 008672

	TOTAL (cps)	CSPK (Channel)	HV (V)
LS	1696.2	226.5	1261.4
	1593.8 1793.8	220.0 230.0	1100.0 1550.0
SS	1280.2	227.1	1278.1
	1165.3 1365.3	220.0 230.0	1100.0 1550.0
	LV (V)	PAD CURRENT (mA)	
	5.0	96.1	
	4.8 5.2	50.0 120.0	

ZDL AFTER LOG VERIFICATION SUMMARY

TOOL #: 2234XA 168004 DATE/TIME PERFORMED: Wed Mar 7 02:27:16 2012 DAYS SINCE CAL: 10

UNIT #: 3854SA 008672

	TOTAL (cps)	CSPK (Channel)	HV (V)
LS	1675.3	225.5	1210.0
	1593.8 1793.8	220.0 230.0	1100.0 1550.0
SS	1249.2	225.3	1218.0
	1165.3 1365.3	220.0 230.0	1100.0 1550.0
	LV (V)	PAD CURRENT (mA)	
	5.0	64.0	
	4.8 5.2	50.0 120.0	



COMPANY
WELL
FIELD
PROVINCE

HUSKY OIL OPERATIONS LIMITED
LITTLE BEAR H-64
SLATER RIVER
NORTHWEST TERRITORIES

FILE NO:

API NO:

HUGHES

PROVINCE

NORTHWEST TERRITORIES

LOCATION:

SURF LOC:

LAT 64 53' 28.5"N LONG 126 11' 20.3"W

BH LOC. LSD:

LAT 64 53' 28.5"N LONG 126 11' 20.3"W

ELEVATIONS:

KB 183.2 M

DF

GL 178.0 M

UID:

300H64500126000

LICENSE:

462

DATE

06-MAR-2012