

Company: Lamont Doherty

Well: ODP Leg 206, Site 1256D

Field: Fast Spreading Crust

Country: Coata Rica **Ocean:** Pacific Ocean

DLL/HNGS LOG

Country: Coata Rica
Field: Fast Spreading Crust
Location: Rig- Joides Resolution
Well: ODP Leg 206, Site 1256D
Company: Lamont Doherty

LOCATION			
Rig- Joides Resolution		Elev.:	K.B. 11.3 m
Permanent Datum:	GROUND LEVEL	G.L.	-3645.4 m
Log Measured From: DES		D.F.	11 m
Drilling Measured From: DES		Elev.:	0 m
			11.3 m above Perm. Datum
API Serial No.	Max. Hole Devi.	Longitude	Latitude
		91.9343 W	6.7365 N

Logging Date	
Run Number	1
Depth Driller	4397.4 m
Schlumberger Depth	4392.5 m
Bottom Log Interval	4387.5 m
Top Log Interval	3881 m
Casing Driller Size @ Depth	0.000 in @ 3914.47 m
Casing Schlumberger	3912 m
Bit Size	9.875 in
Type Fluid In Hole	SALT WATER
Density	1.066 g/cm3
Fluid Loss	PH
Source Of Sample	
RM @ Measured Temperature	0.322 ohm.m @ 23 degC
RMF @ Measured Temperature	@ @
RMC @ Measured Temperature	@ @
Source RMF	RMC
RM @ MRT	0.362 @ 18 @ 18 @
Maximum Recorded Temperatures	18 degC
Circulation Stopped	Time 12/27/02 1100
Logger On Bottom	Time 12/28/02 See Log
Unit Number	99 Houston
Recorded By	Steve Kittredge
Witnessed By	FLORENCE EINAUDI

Logging Date		Run 1	Run 2	Run
Run Number				
Depth Driller				
Schlumberger Depth				
Bottom Log Interval				
Top Log Interval				
Casing Driller Size @ Depth				
Casing Schlumberger				
Bit Size				
Type Fluid In Hole				
Density				
Fluid Loss				
Source Of Sample				
RM @ Measured Temperature				
RMF @ Measured Temperature				
RMC @ Measured Temperature				
Source RMF				
RM @ MRT				
Maximum Recorded Temperatures				
Circulation Stopped				
Logger On Bottom				
Unit Number				
Recorded By				
Witnessed By				

DISCLAIMER




THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE OF AND RELIANCE UPON THE RECORDED-DATA; AND (c) CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISION MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA.

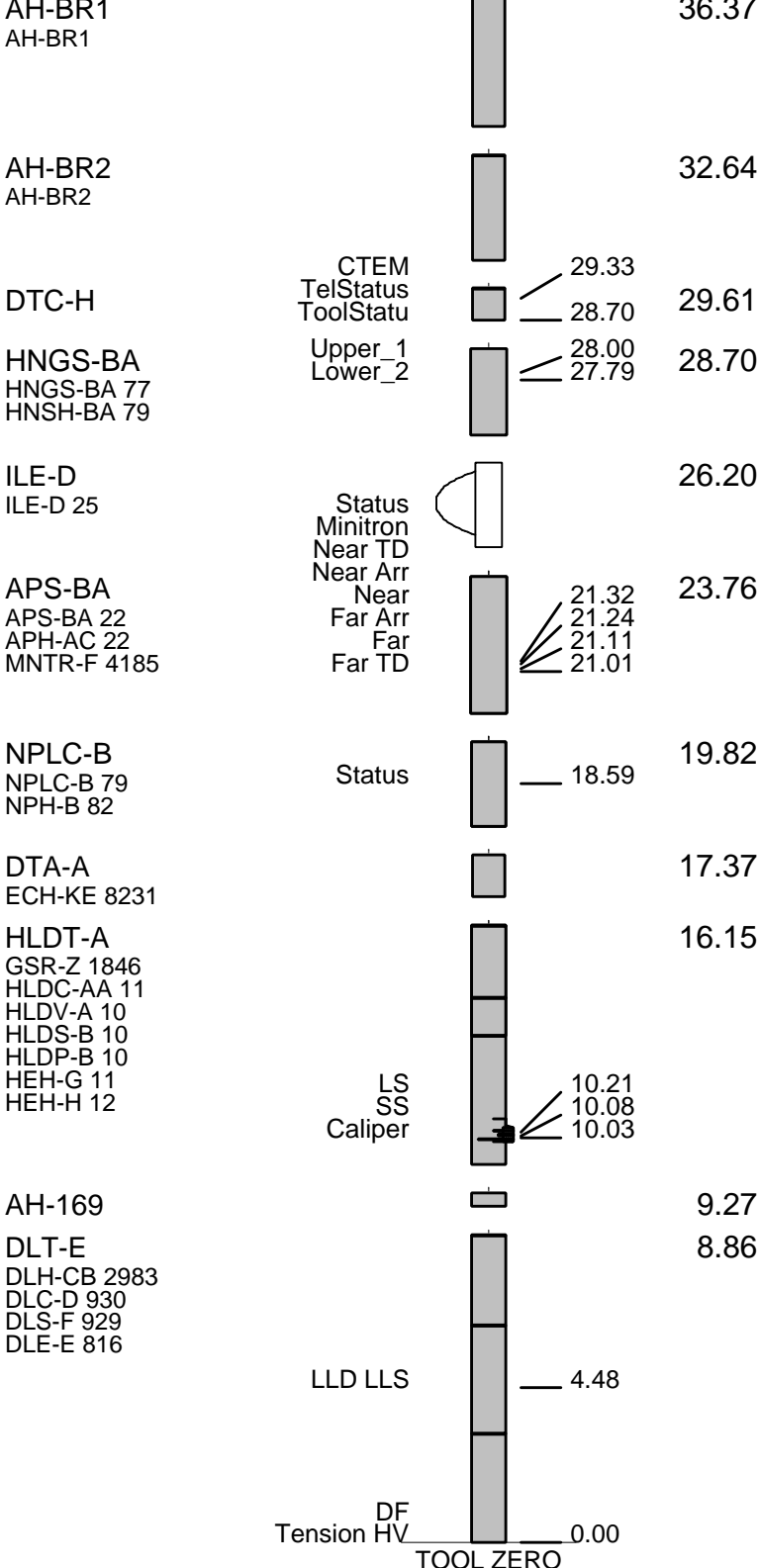
OTHER SERVICES1 OS1: MESTB/SGTN/DSI OS2: UBI OS3: WST OS4: OS5:	OTHER SERVICES2 OS1: OS2: OS3: OS4: OS5:
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REMARKS: RUN NUMBER 1 Hole cored with RCB All depths in Meters Below Rig Floor (MBRF). SEA WATER USED TO FILL THE HOLE. WHC was run. Sea Floor- 3645.4 MBRF Total Depth Driller- 4397.4 MBRF. Total Depth Logger- 4392.5 MBRF. Casing Driller-3914.47 MBRF.	REMARKS: RUN NUMBER 2
CASING LOGGER- 3912 MBRF. SEA FLOOR DRILLER- 3645.4 MBRF.	

RUN 1			RUN 2		
SERVICE ORDER #:			SERVICE ORDER #:		
PROGRAM VERSION:		10C0-306	PROGRAM VERSION:		
FLUID LEVEL:			FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

RUN 1		RUN 2	
SURFACE EQUIPMENT			
LCM-AA 909 SFT-281 24 SFT-178 4722 GSR-U 135 WITM (DTS)-A			
DOWNHOLE EQUIPMENT			
BSP BRT-S		61.64	
SP SPARC		40.59	
LEH-QT		37.26	



MAXIMUM STRING DIAMETER 3.88 IN
 MEASUREMENTS RELATIVE TO TOOL ZERO
 ALL LENGTHS IN METERS

Output DLIS Files

DEFAULT	DLL_LDL_APS_NGS_027LUP	FN:21	PRODUCER	28-Dec-2002 15:18	4153.7 M	4091.6 M
DLL_CUST	DLL_LDL_APS_NGS_027LUP	FN:22	PRODUCER	28-Dec-2002 15:18	4153.7 M	4091.6 M

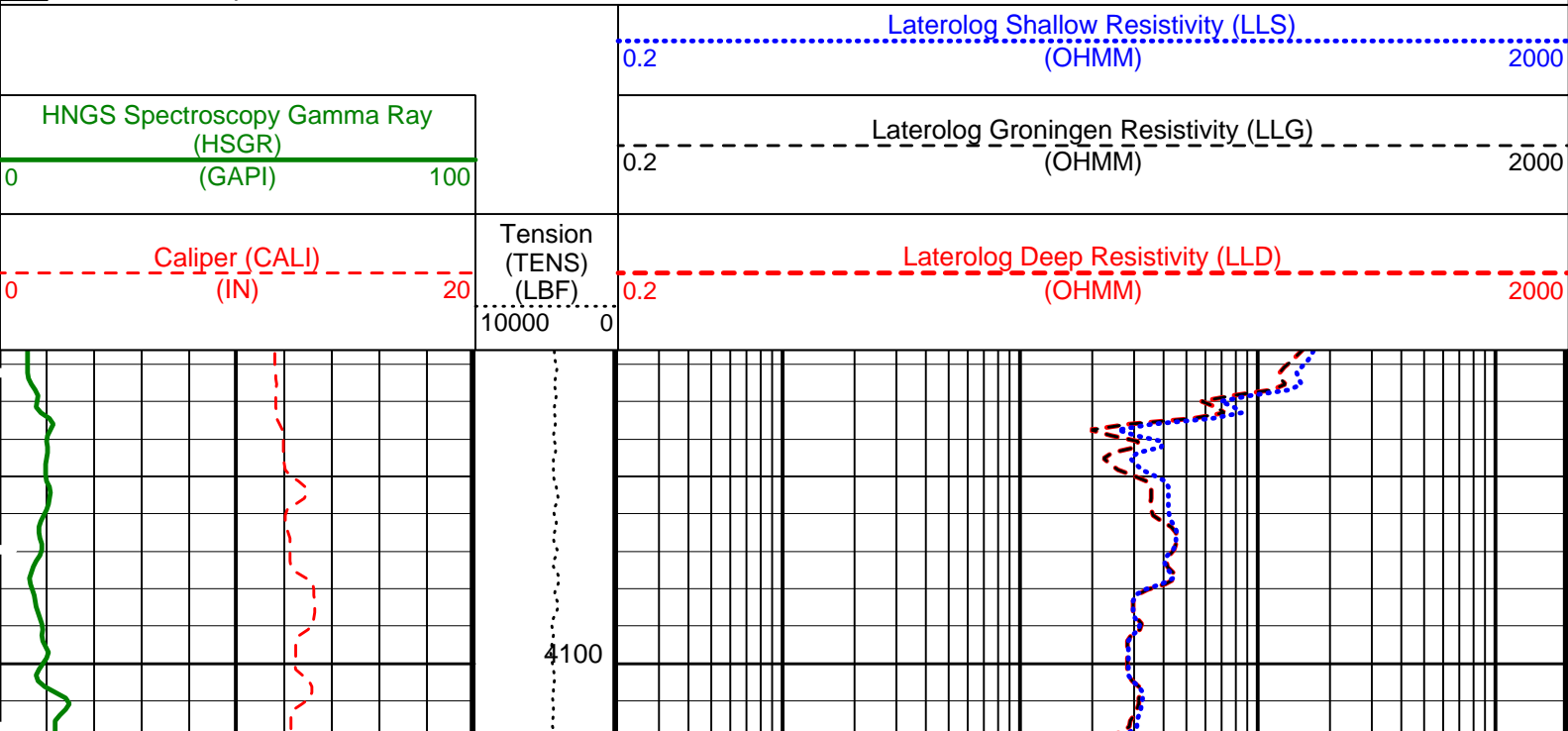
OP System Version: 10C0-306
MCM

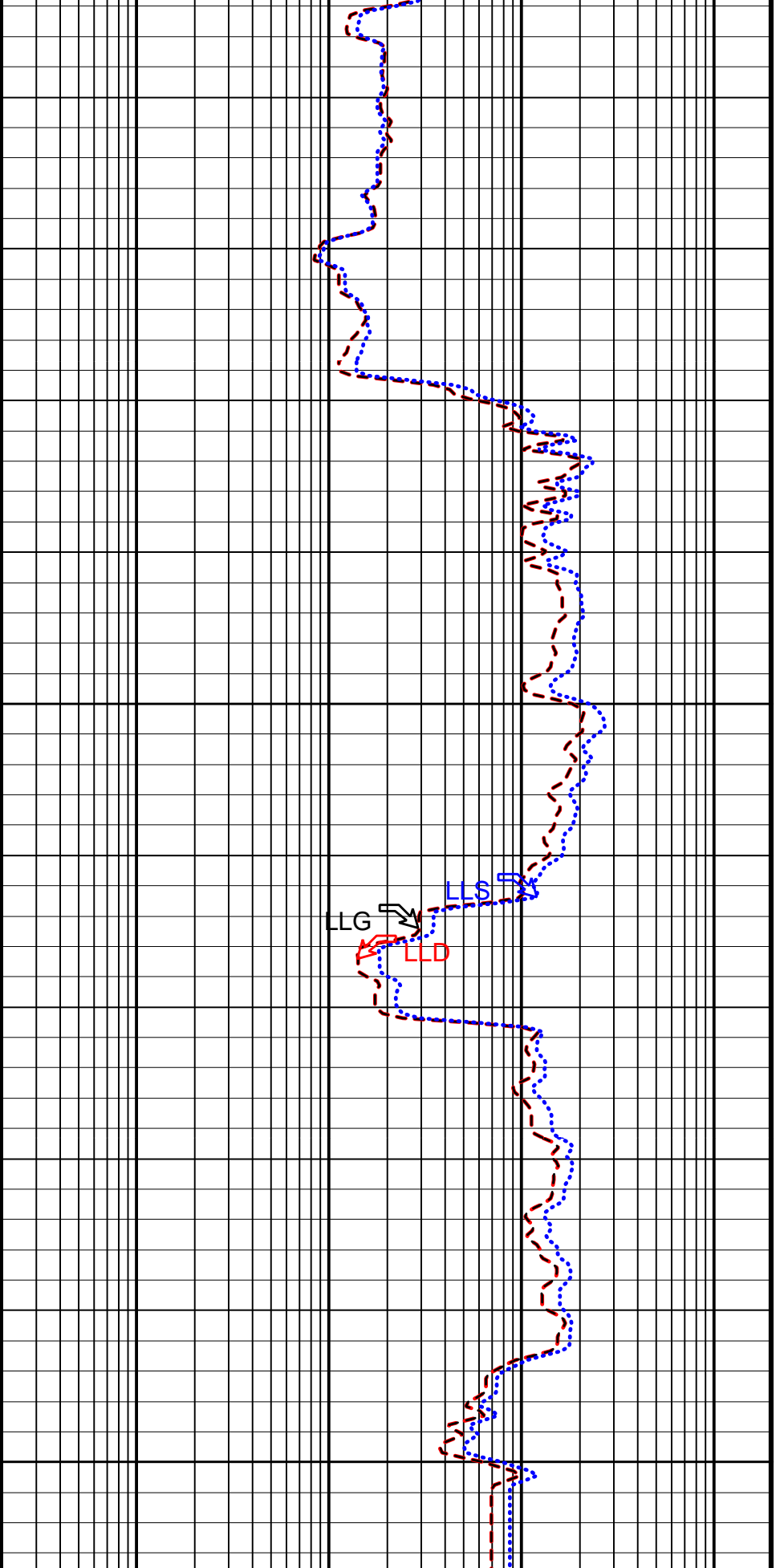
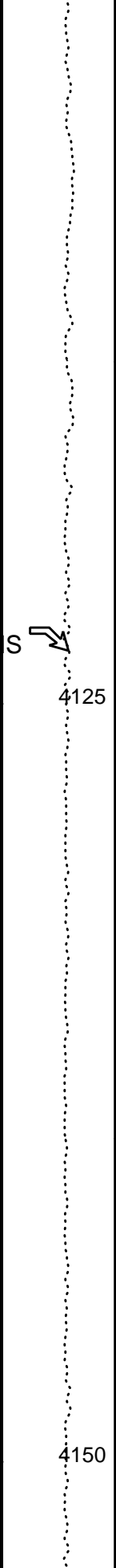
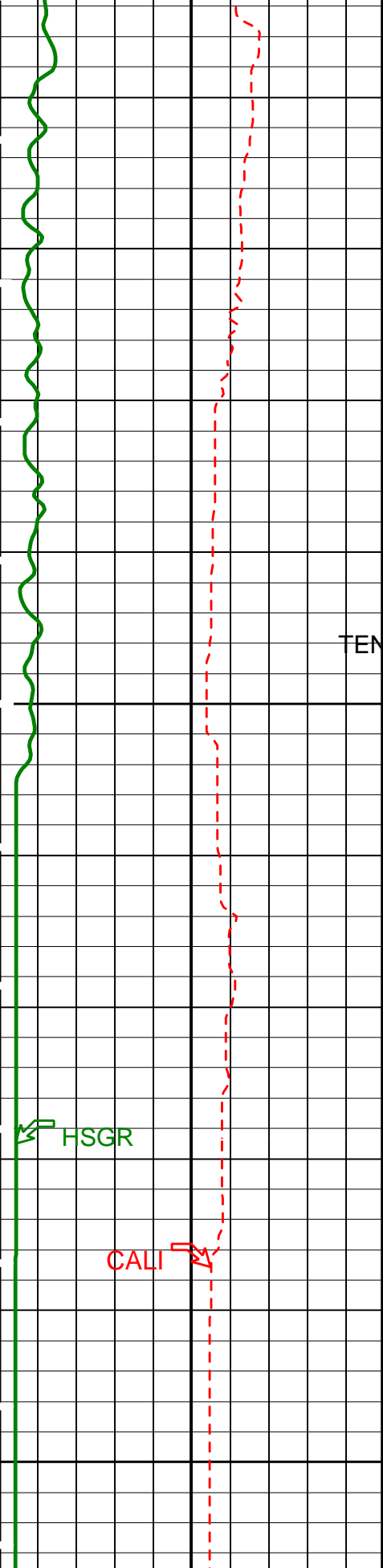
REPEAT UP LOG

DLT-E	10C0-306	HLDT-A	10C0-306
DTA-A	10C0-306	NPLC-B	OP10-KP1
APS-BA	OP10-KP1	HNGS-BA	OP10-KP1
DTC-H	10C0-306	BSP	10C0-306

PIP SUMMARY

Time Mark Every 60 S





Caliper (CALI)
 (IN)

Tension
 (TENS)
 (LBF)

Laterolog Deep Resistivity (LLD)
 (OHMM)

0 20 10000 0 0.2 2000

HNGS Spectroscopy Gamma Ray (HSGR)	
0	100
(GAPI)	

0.2	Laterolog Groningen Resistivity (LLG) (OHMM)	2000
0.2	Laterolog Shallow Resistivity (LLS) (OHMM)	2000

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
DLT-E: DUAL LATEROLOG - E			
DPRF	DEEP REFERENCE POWER	550	NW
KFAC	K FACTOR	SOND	
LLOO	LATEROLOG LOOP	OFF	
PLRM	POWER LOOP REFERENCE MODE	DEEP	
SPRF	SHALLOW REFERENCE POWER	550	NW
APS-BA: Accelerator-Porosity Tool			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	CALI	
HNGS-BA: Hostile Natural Gamma Ray Sonde			
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	CALI	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	-0.00235704	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES	
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.00989	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.13112	
System and Miscellaneous			
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.07	G/C3

Format: DLL_Logrith Vertical Scale: 1:200 Graphics File Created: 28-Dec-2002 15:18

OP System Version: 10C0-306
MCM

DLT-E	10C0-306	HLDT-A	10C0-306
DTA-A	10C0-306	NPLC-B	OP10-KP1
APS-BA	OP10-KP1	HNGS-BA	OP10-KP1
DTC-H	10C0-306	BSP	10C0-306

Output DLIS Files

DEFAULT	DLL_LDL_APS_NGS_027LUP	FN:21	PRODUCER	28-Dec-2002 15:18
DLL_CUST	DLL_LDL_APS_NGS_027LUP	FN:22	PRODUCER	28-Dec-2002 15:18

Output DLIS Files

DEFAULT	DLL_LDL_APS_NGS_026LUP	FN:19	PRODUCER	28-Dec-2002 13:14	4393.7 M	3881.6 M
DLL_CUST	DLL_LDL_APS_NGS_026LUP	FN:20	PRODUCER	28-Dec-2002 13:15	4393.7 M	3881.7 M

OP System Version: 10C0-306
MCM

MAIN UP LOG

DLT-E	10C0-306	HLDT-A	10C0-306
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DTA-A
APS-BA
DTC-H

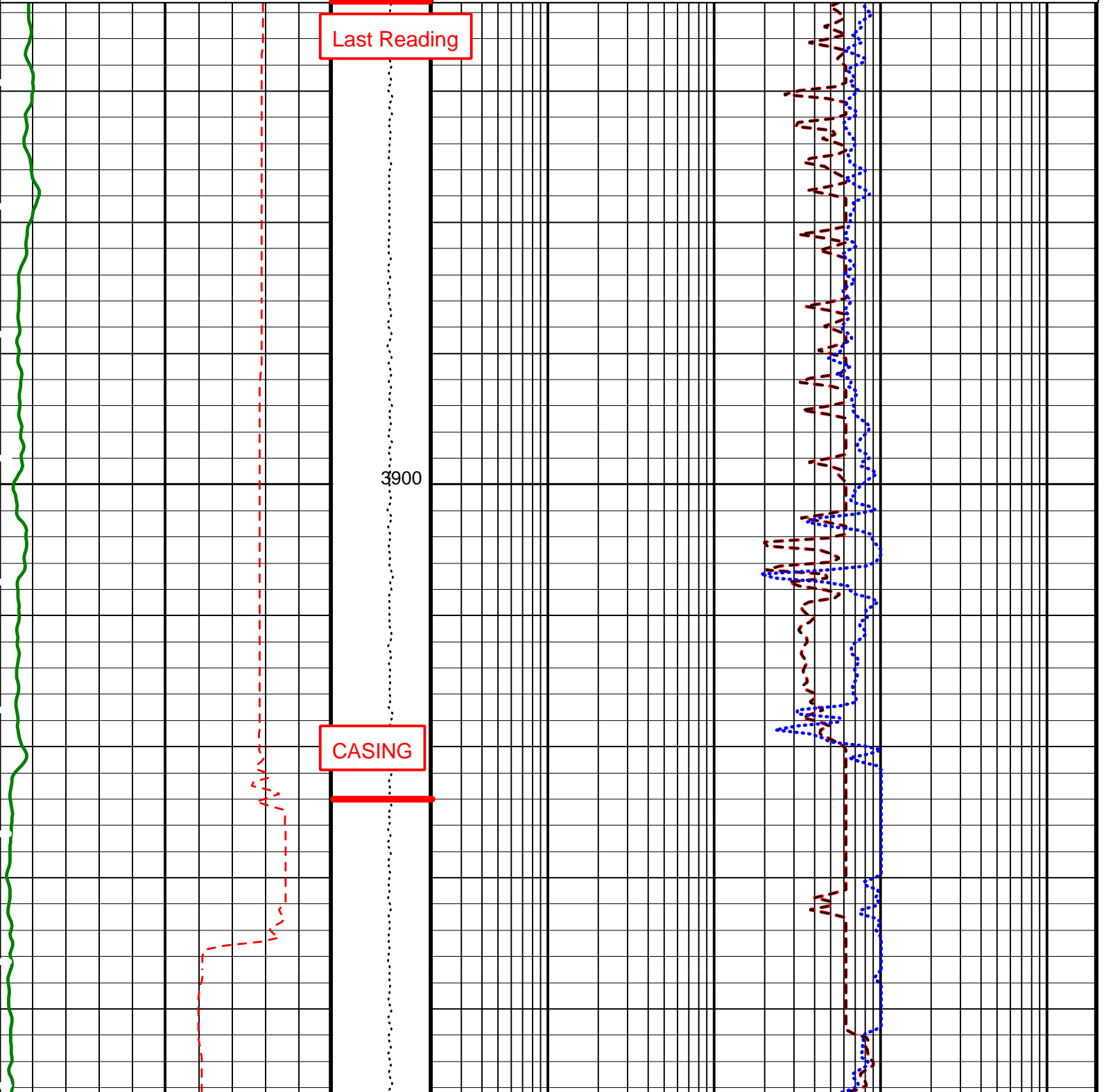
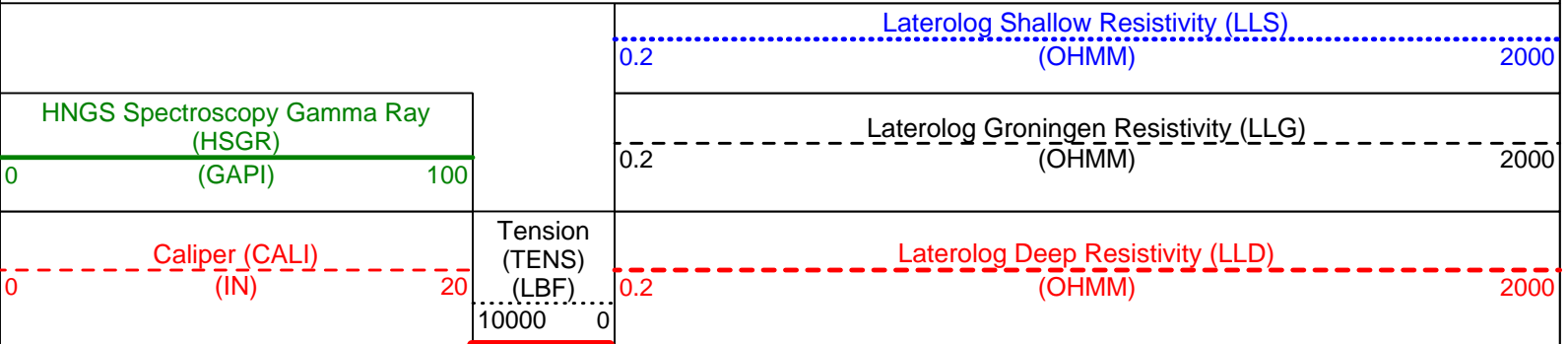
10C0-306
OP10-KP1
10C0-306

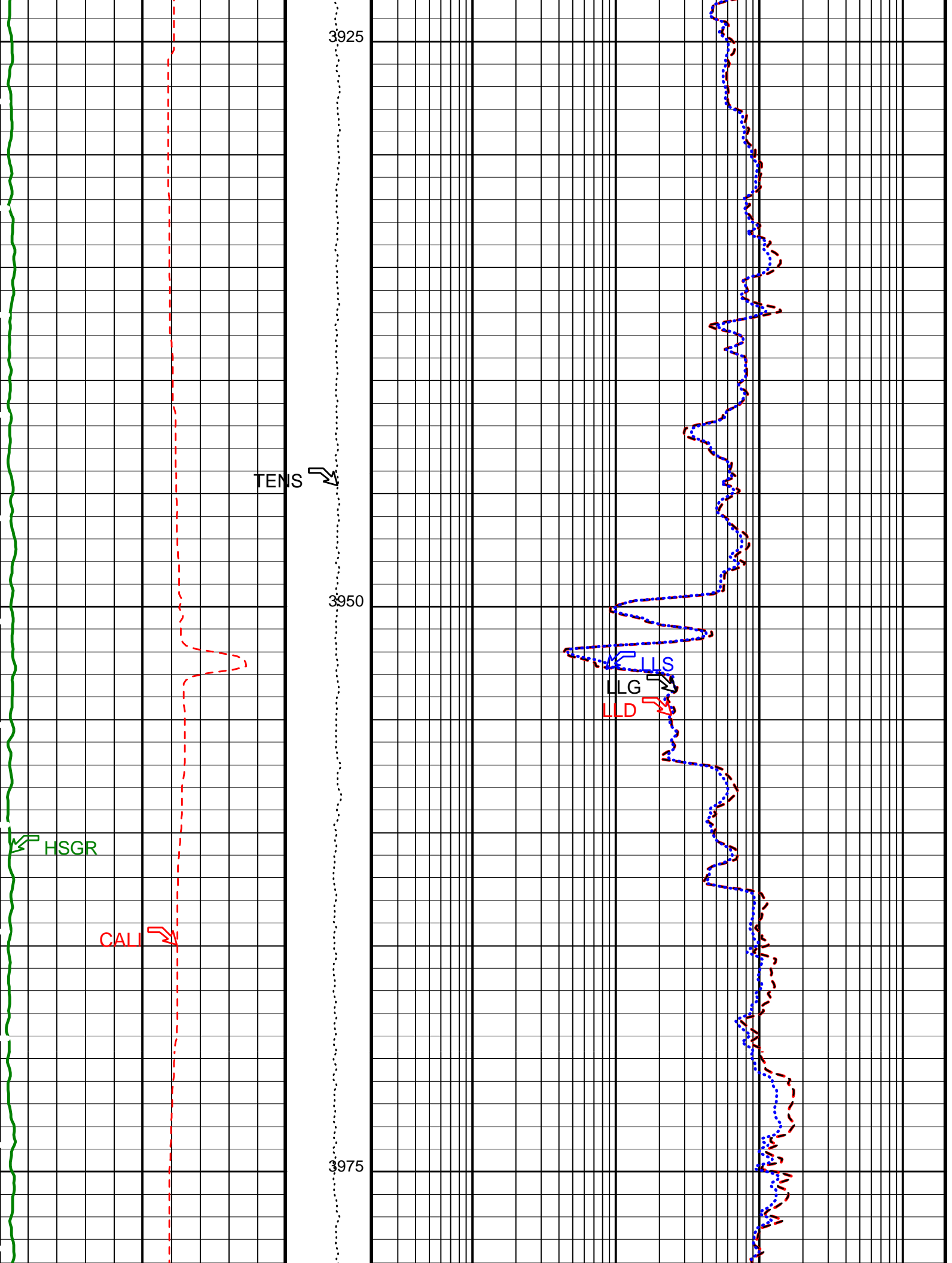
NPLC-B
HNGS-BA
BSP

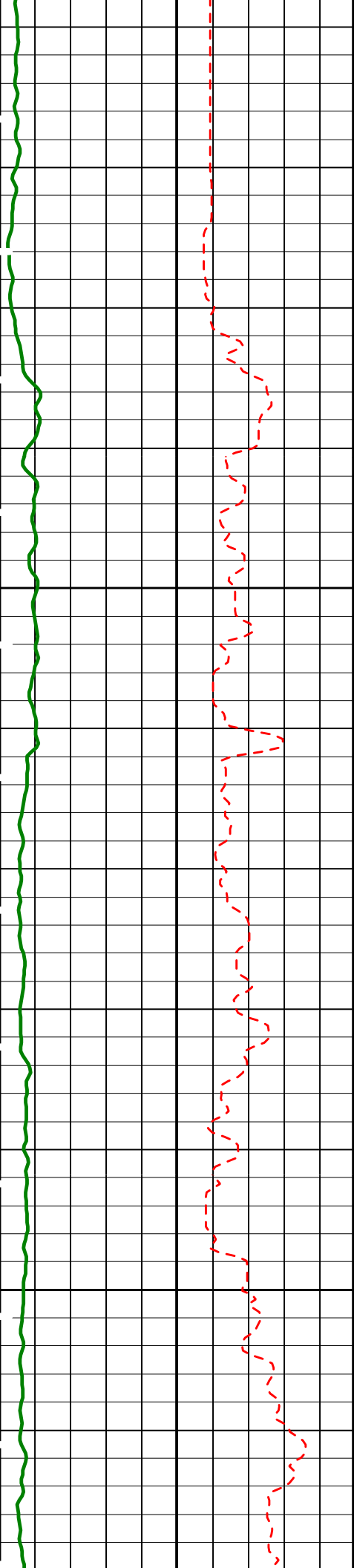
OP10-KP1
OP10-KP1
10C0-306

PIP SUMMARY

Time Mark Every 60 S

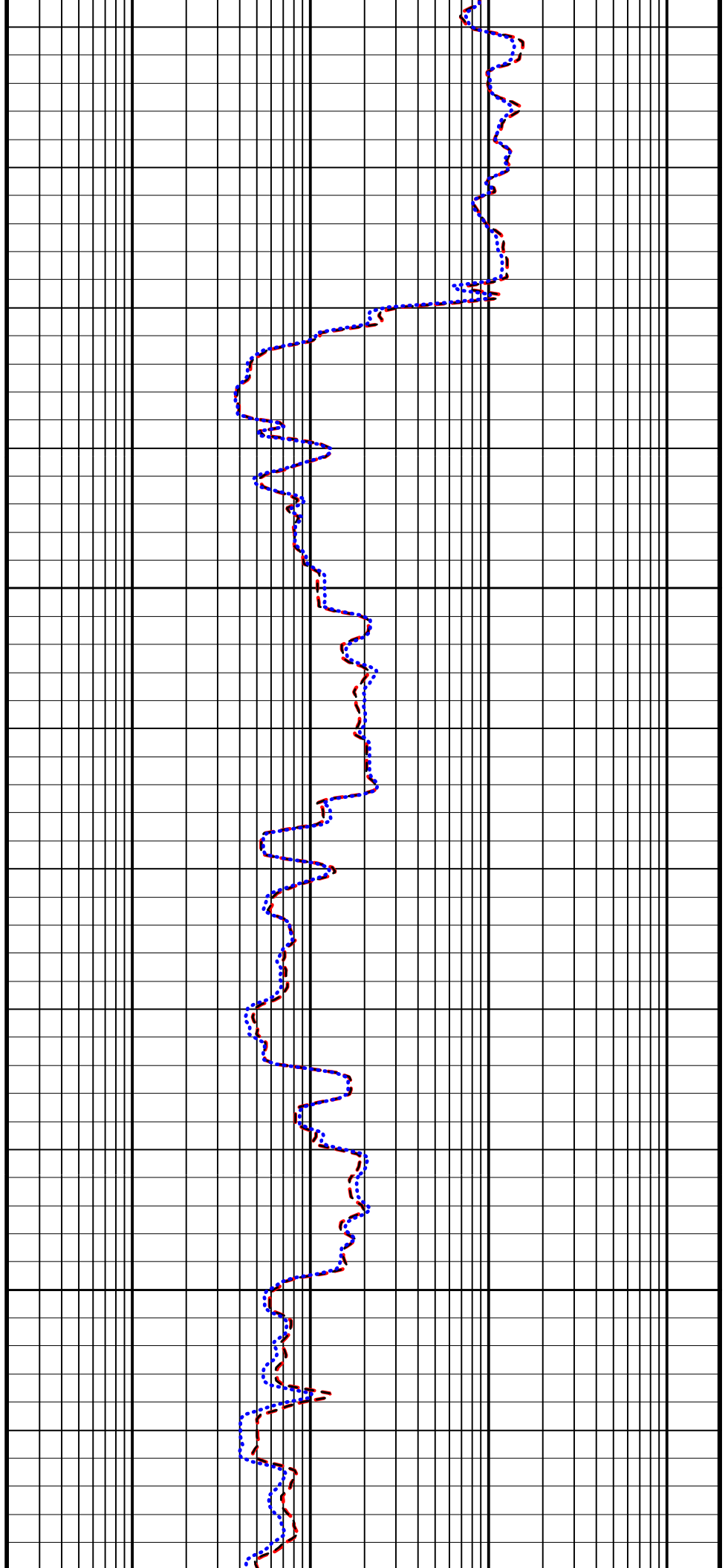


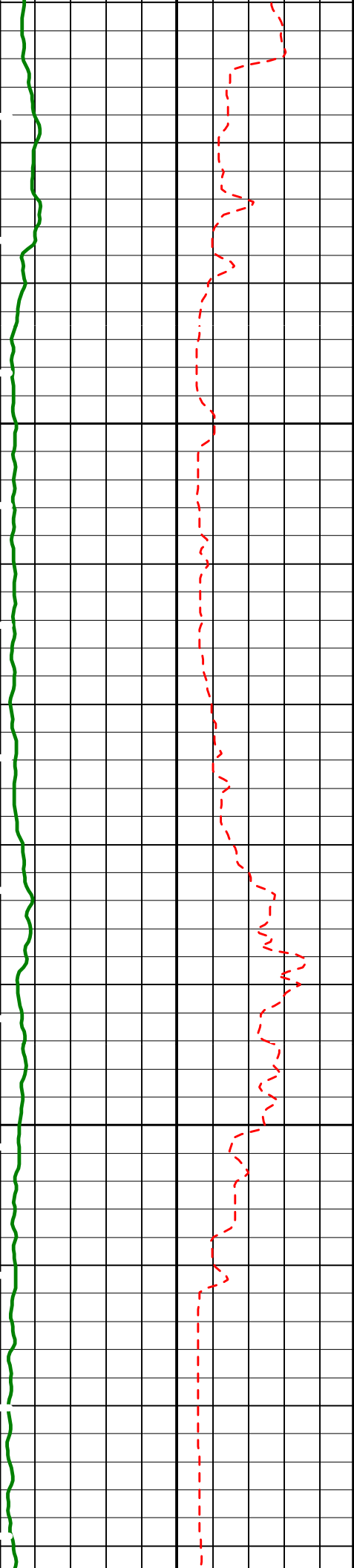




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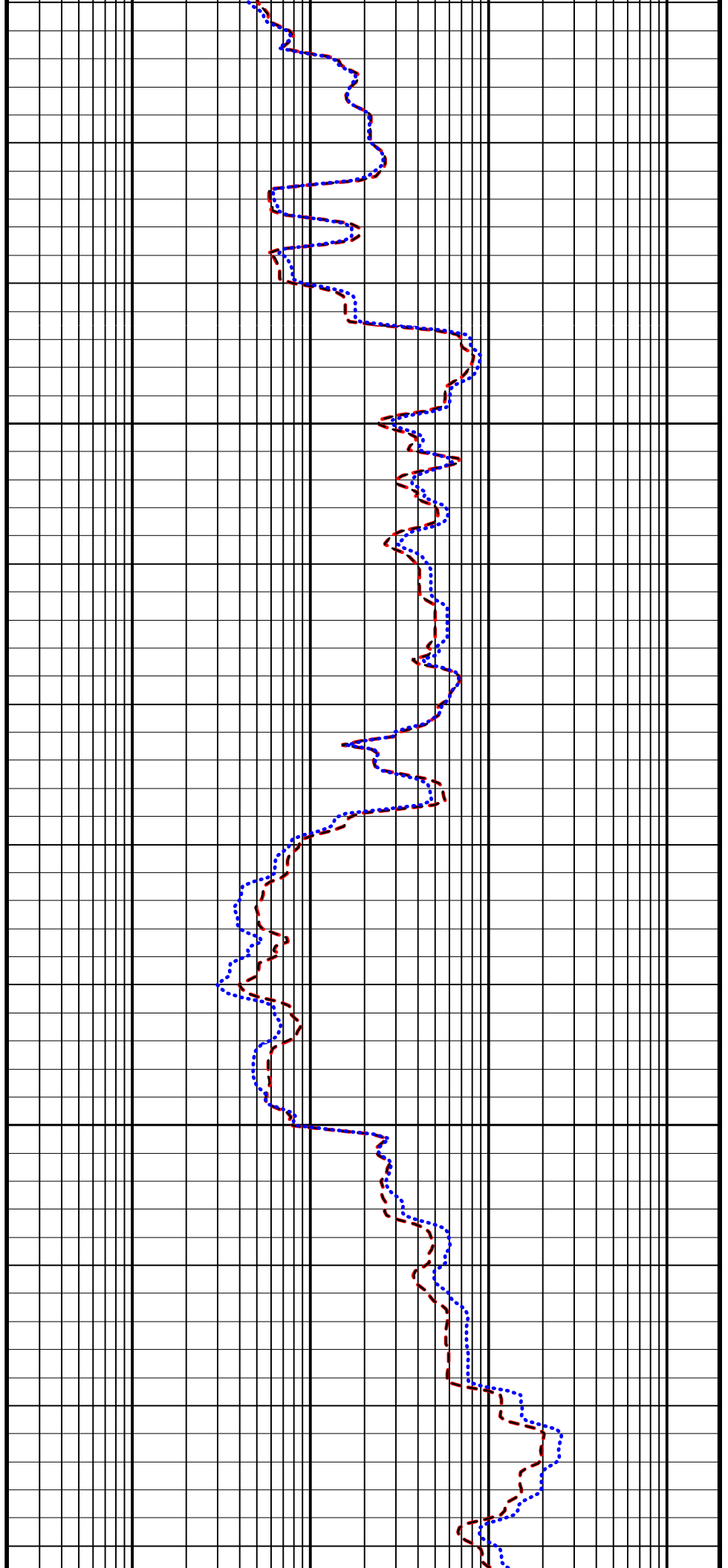
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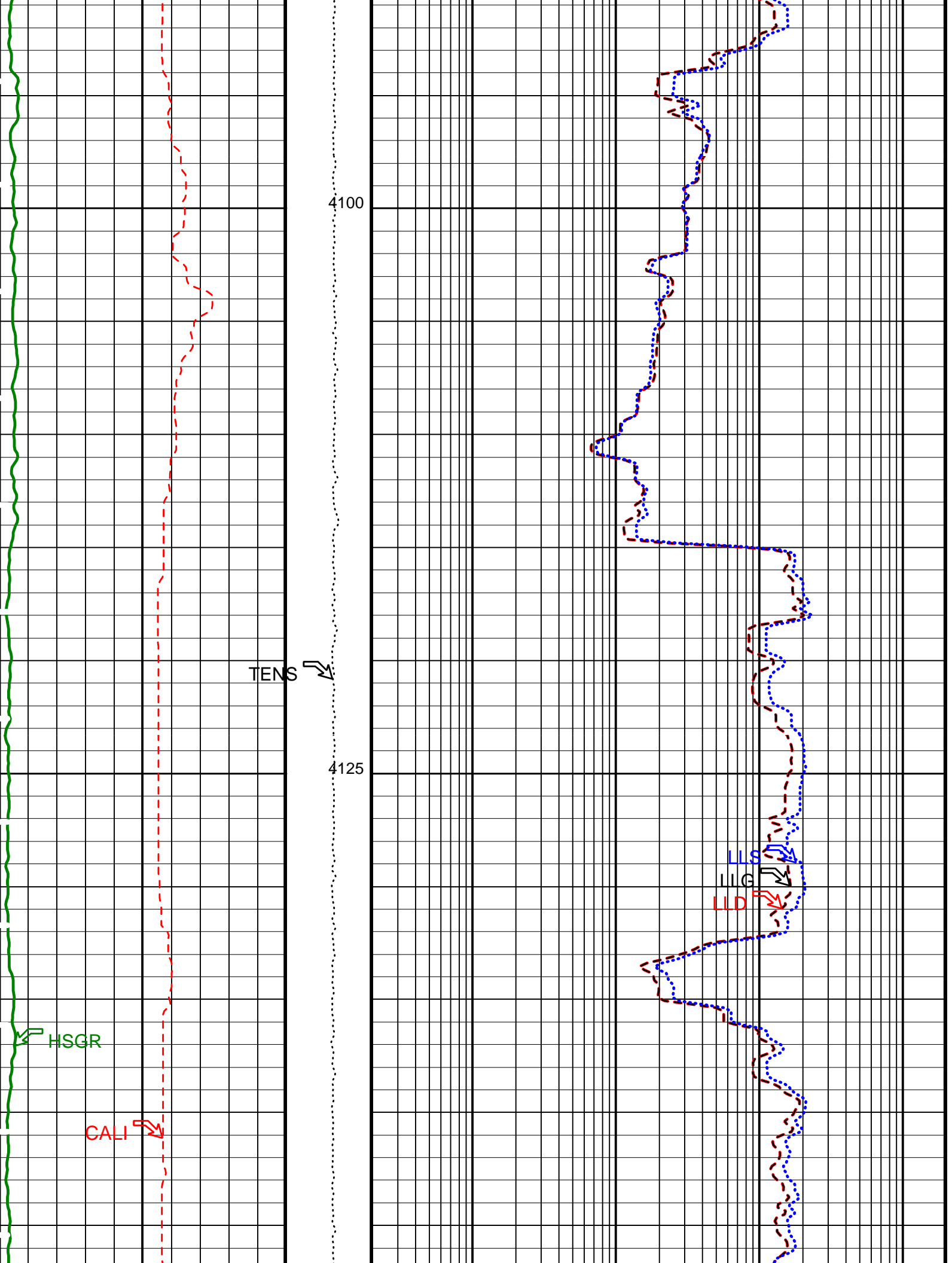


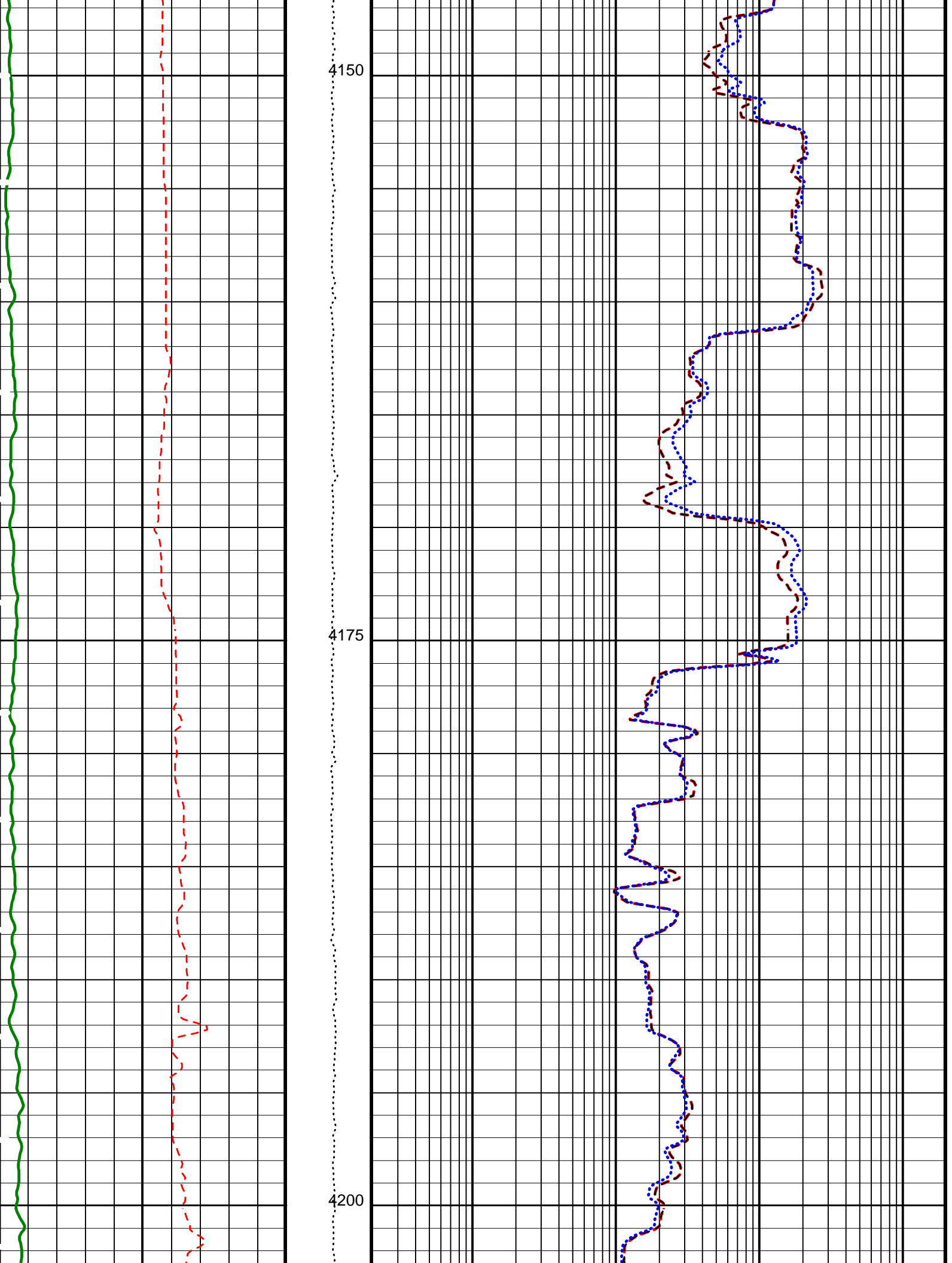


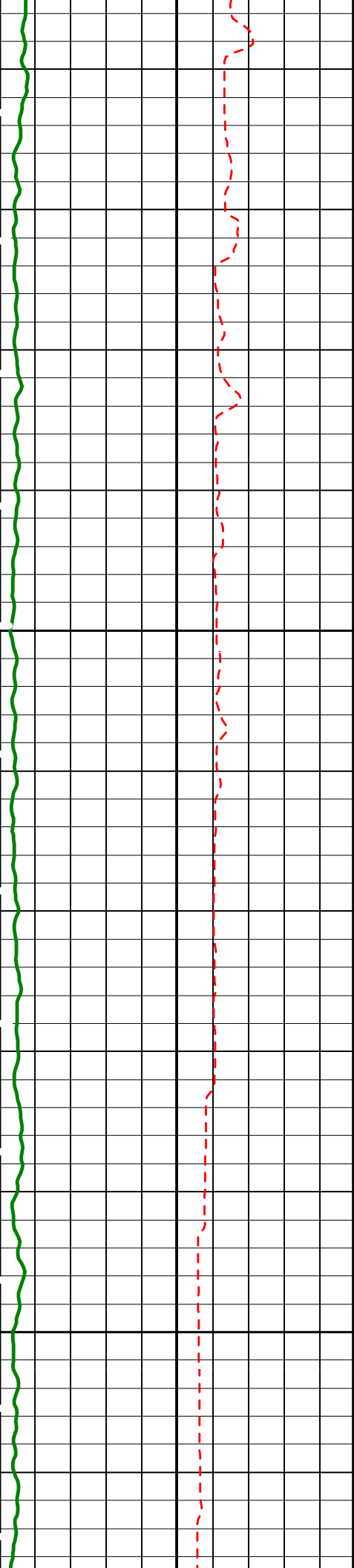
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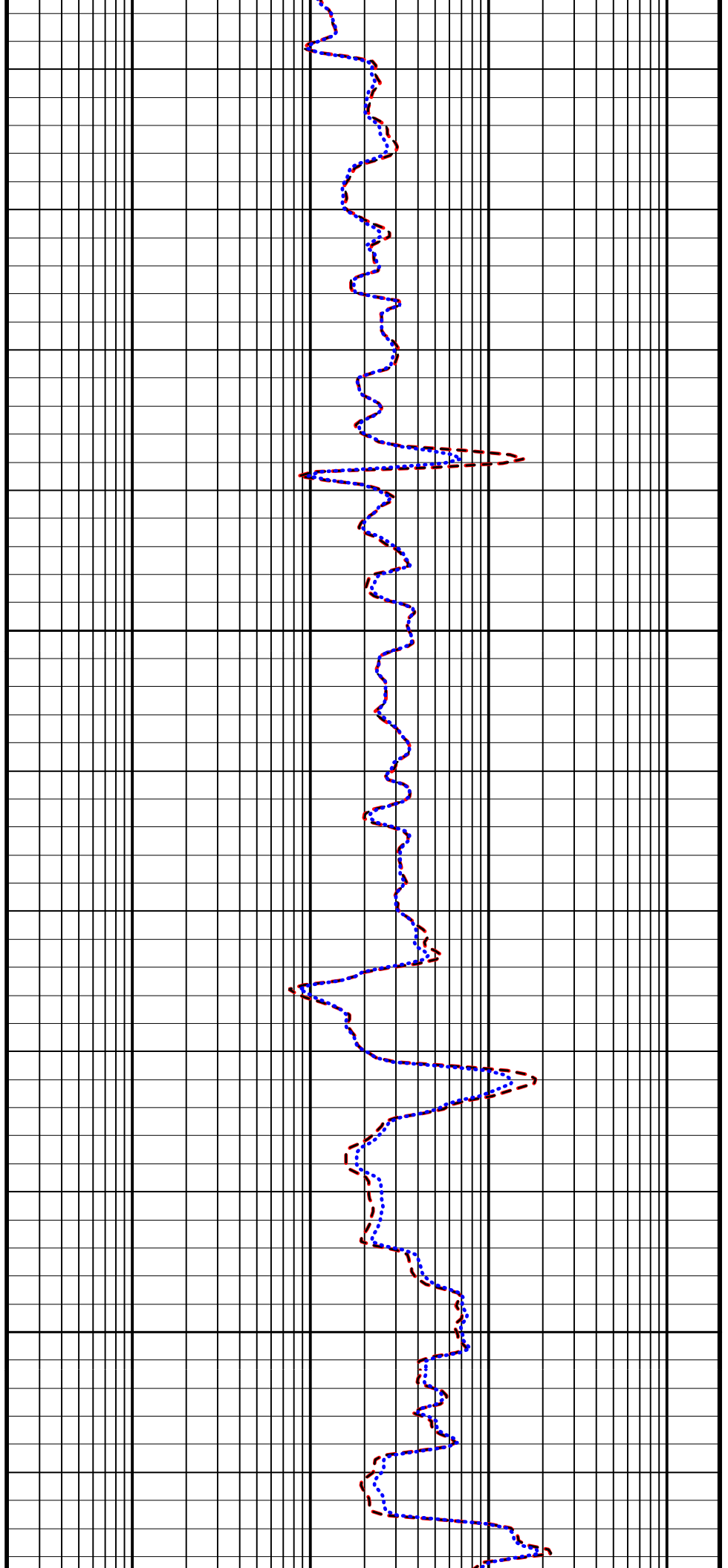


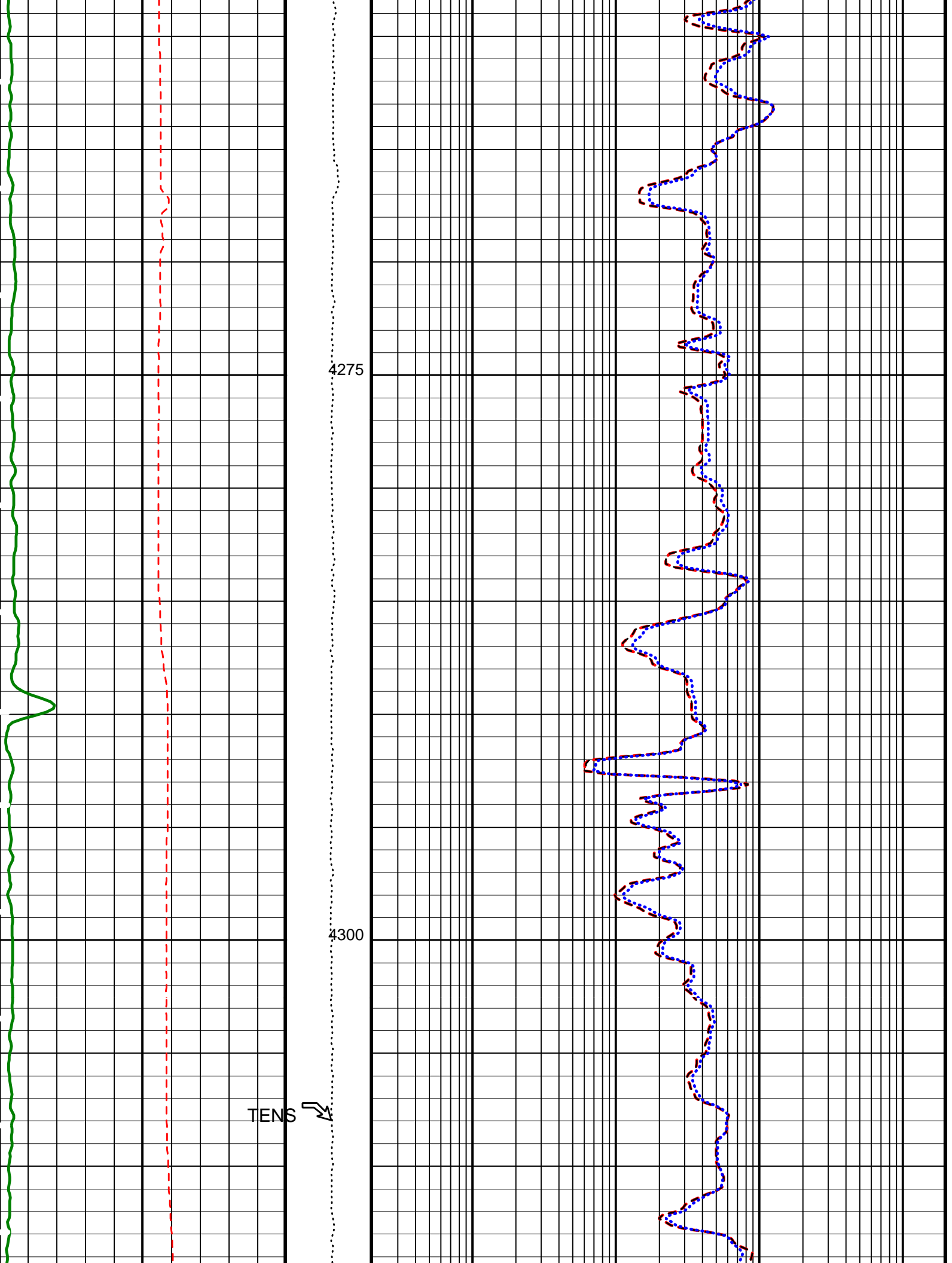


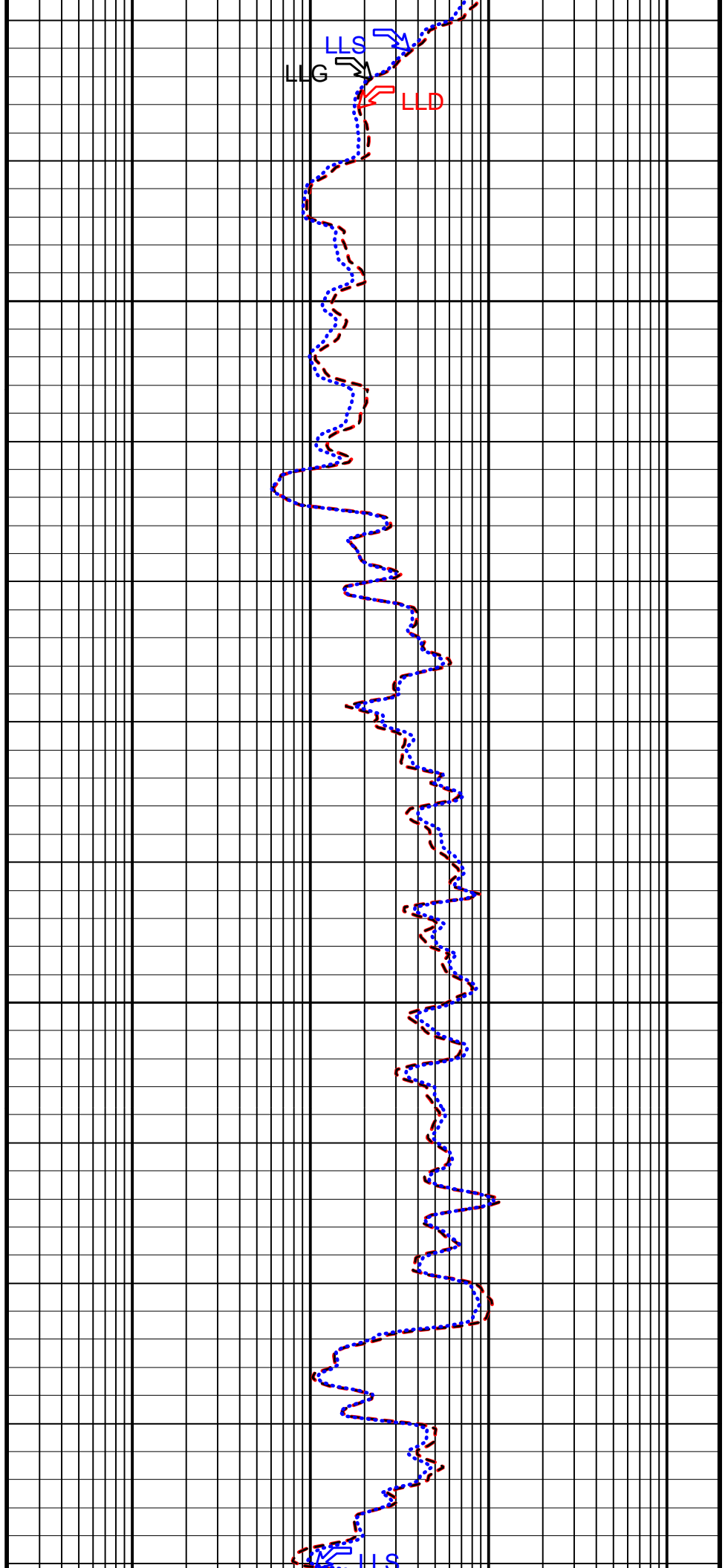
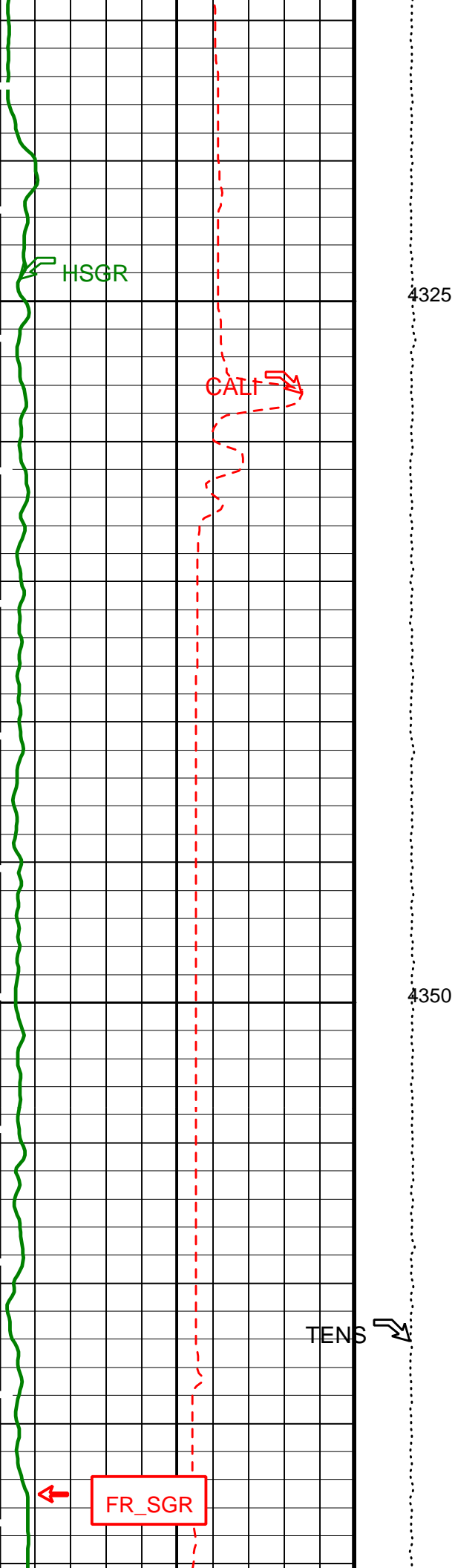


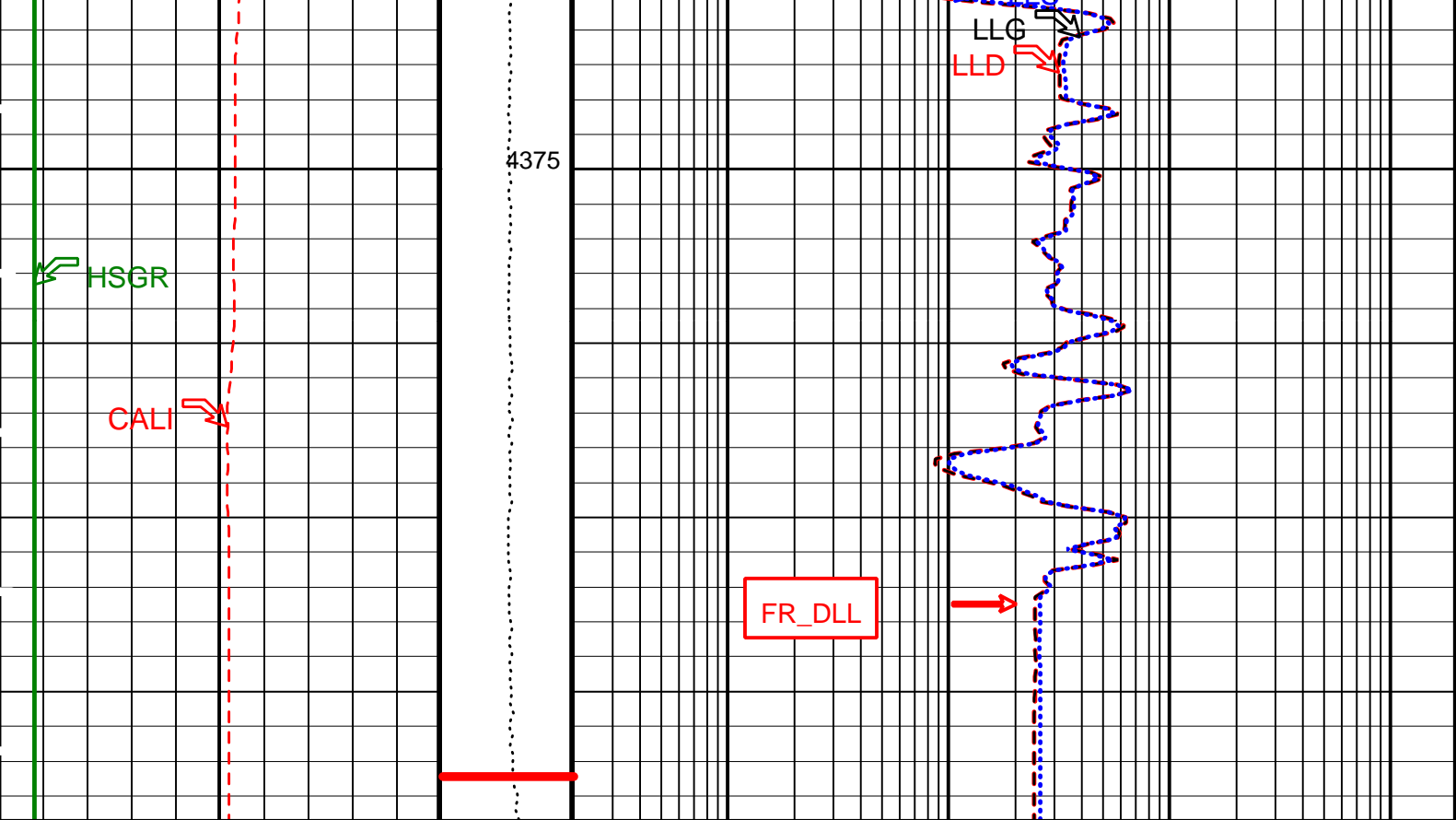
4225

4250









Caliper (CALI) (IN)	0	20	Tension (TENS) (LBF)	10000	0	Laterolog Deep Resistivity (LLD) (OHMM)	0.2	2000
HNGS Spectroscopy Gamma Ray (HSGR) (GAPI)	0	100				Laterolog Groningen Resistivity (LLG) (OHMM)	0.2	2000
						Laterolog Shallow Resistivity (LLS) (OHMM)	0.2	2000

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
DLT-E: DUAL LATEROLOG - E		
DPRF	DEEP REFERENCE POWER	550
KFAC	K FACTOR	SOND
LLOO	LATEROLOG LOOP	OFF
PLRM	POWER LOOP REFERENCE MODE	DEEP
SPRF	SHALLOW REFERENCE POWER	550
APS-BA: Accelerator-Porosity Tool		
BHS	Borehole Status	OPEN
GCSE	Generalized Caliper Selection	CALI
HNGS-BA: Hostile Natural Gamma Ray Sonde		
BAR1	HNGS Detector 1 Barite Constant	1
BAR2	HNGS Detector 2 Barite Constant	1
BHK	HNGS Borehole Potassium Correction Concentration	0
BHS	Borehole Status	OPEN
CSD1	Inner Casing Outer Diameter	0
CSD2	Outer Casing Outer Diameter	0
CSW1	Inner Casing Weight	0
CSW2	Outer Casing Weight	0
DBCC	HNGS Barite Constant Correction Flag	NONE
GCSE	Generalized Caliper Selection	CALI
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW
HABK	HNGS Borehole Potassium Running Average	-0.0089739
HALF	HNGS Alpha Filter Length	60
HCRB	HNGS Apply Borehole Potassium Correction	NONE
HMWM	Mud Weighting Material	NATU

HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES	
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.833538	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.846703	
System and Miscellaneous			
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.07	G/C3

Format: DLL_Logrith Vertical Scale: 1:200 Graphics File Created: 28-Dec-2002 13:15

OP System Version: 10C0-306

MCM

DLT-E	10C0-306	HLDT-A	10C0-306
DTA-A	10C0-306	NPLC-B	OP10-KP1
APS-BA	OP10-KP1	HNGS-BA	OP10-KP1
DTC-H	10C0-306	BSP	10C0-306

Output DLIS Files

DEFAULT	DLL_LDL_APS_NGS_026LUP	FN:19	PRODUCER	28-Dec-2002 13:14
DLL_CUST	DLL_LDL_APS_NGS_026LUP	FN:20	PRODUCER	28-Dec-2002 13:15

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
DUAL LATEROLOG - E Wellsite Calibration - DLT ELECTRONICS CALIBRATION Laterolog Measurement							
Master: Calibration out of date 22-Nov-2002 2:09 After: 28-Dec-2002 17:14							
MEASURED LLD	31.62	N/A	31.96	32.01	0.05611	0.9000	OHMM
MEASURED LLS	31.62	N/A	31.04	31.27	0.2260	0.9000	OHMM
Hostile Environment Litho Density - A Wellsite Calibration - Background Measurement							
Master: Calibration out of date 10-Aug-2002 17:41 Before: 14-Nov-2002 16:50 After: 28-Dec-2002 17:11							
LSW1 Background	100.0	87.71	86.85	86.55	-0.3015	3.000	CPS
LSW2 Background	105.0	92.23	90.00	90.24	0.2405	3.150	CPS
LSW3 Background	210.0	178.9	173.1	175.4	2.334	6.300	CPS
LSW4 Background	290.0	237.2	232.7	233.5	0.7836	8.700	CPS
LSW5 Background	610.0	515.8	517.2	512.3	-4.879	18.30	CPS
SSW1 Background	100.0	85.59	83.68	84.19	0.5094	3.000	CPS
SSW2 Background	200.0	165.7	164.0	163.6	-0.4192	6.000	CPS
SSW3 Background	530.0	437.0	433.7	435.5	1.824	15.90	CPS
SSW4 Background	280.0	232.7	229.5	228.7	-0.8012	8.400	CPS
SSW5 Background	205.0	174.6	172.9	172.5	-0.4229	6.150	CPS
Hostile Environment Litho Density - A Wellsite Calibration - Tool Quality Control Information High Voltage							
Master: Calibration out of date 10-Aug-2002 17:41 Before: 14-Nov-2002 16:50 After: 28-Dec-2002 17:11							
LS Bkg. High Voltage	1131	1131	1131	1136	5.018	N/A	V
SS Bkg. High Voltage	1175	1175	1180	1180	-0.1941	N/A	V
Hostile Environment Litho Density - A Wellsite Calibration - Detectors Resolution From BKG Measurements							
Master: Calibration out of date 10-Aug-2002 17:41 Before: 14-Nov-2002 16:50 After: 28-Dec-2002 17:11							
LS Background Resolution	1.000	1.033	1.034	1.023	-0.01076	N/A	
SS Background Resolution	1.000	0.9460	0.9539	0.9435	-0.01043	N/A	
Hostile Environment Litho Density - A Wellsite Calibration - Caliper Calibration							
Before: 14-Nov-2002 16:55							
Caliper Small Ring	12.00	N/A	16.98	N/A	N/A	N/A	IN
Caliper Large Ring	15.00	N/A	21.03	N/A	N/A	N/A	IN
Accelerator-Porosity Tool Wellsite Calibration - Detector Background							
Master: Calibration out of date 14-Sep-2002 4:44 Before: 14-Nov-2002 16:15 After: 28-Dec-2002 17:13							
Near Det Bkg Cntrate	30.00	32.07	33.13	33.27	0.1329	N/A	CPS
Far Det Bkg Cntrate	30.00	32.26	31.56	32.84	1.280	N/A	CPS
Array-1 Det Bkg Cntrate	30.00	29.47	29.09	29.36	0.2658	N/A	CPS
Array-2 Det Bkg Cntrate	30.00	30.06	30.65	29.91	-0.7476	N/A	CPS
Array Therm Det Bkg Cntrate	30.00	32.24	34.16	30.97	-3.192	N/A	CPS
Accelerator-Porosity Tool Wellsite Calibration - Calibration Ratios							
Master: Calibration out of date 14-Sep-2002 4:44							
Near/Far Calibration Ratio	0.9250	0.8936	N/A	N/A	N/A	N/A	
Near/Array Calibration Ratio	1.030	1.057	N/A	N/A	N/A	N/A	

Near/Array Cal Ratio Up/Down 1.000 1.010 N/A N/A N/A N/A

Accelerator-Porosity Tool Wellsite Calibration - Tank Check

Master: Calibration out of date 14-Sep-2002 4:44

Array-1 Standoff Porosity	11.75	11.34	N/A	N/A	N/A	N/A	PU
Array-2 Standoff Porosity	11.75	11.40	N/A	N/A	N/A	N/A	PU
Average Slowing Down Time	6.000	5.887	N/A	N/A	N/A	N/A	US
Array-1 SDT Ratio Up/Down	1.000	0.9786	N/A	N/A	N/A	N/A	
Array-2 SDT Ratio Up/Down	1.000	0.9907	N/A	N/A	N/A	N/A	
Sigma Formation	27.50	27.97	N/A	N/A	N/A	N/A	CU

Hostile Natural Gamma Ray Sonde Wellsite Calibration - Detector 1 Check

Master: Calibration out of date 13-Sep-2002 22:26 Before: 14-Nov-2002 16:14 After: 28-Dec-2002 17:12

Na 511 Peak Loc	40.00	40.54	40.62	40.64	0.02782	1.000	
Na 511 Peak Res	15.50	16.41	16.78	16.51	-0.2707	2.000	%
High Voltage	1150	1213	1211	1213	2.648	30.00	V
Na 1785 Peak Loc	142.6	145.3	145.6	145.2	-0.4034	7.000	
Na 1785 Peak Res	8.500	9.453	9.390	10.28	0.8946	2.000	%
Temperature	15.50	25.85	32.34	30.68	-1.656	N/A	DEGC
Na Count Rate	45.00	49.09	46.08	44.81	-1.266	8.000	CPS

Hostile Natural Gamma Ray Sonde Wellsite Calibration - Detector 2 Check

Master: Calibration out of date 13-Sep-2002 22:26 Before: 14-Nov-2002 16:14 After: 28-Dec-2002 17:12

Na 511 Peak Loc	40.00	40.59	40.60	40.58	-0.01353	1.000	
Na 511 Peak Res	15.50	16.13	16.57	16.54	-0.02980	2.000	%
High Voltage	1150	1241	1238	1240	2.407	30.00	V
Na 1785 Peak Loc	142.6	145.1	143.6	144.6	0.9985	7.000	
Na 1785 Peak Res	8.500	9.614	9.986	9.699	-0.2876	2.000	%
Temperature	15.50	25.04	31.77	31.13	-0.6418	N/A	DEGC
Na Count Rate	45.00	48.66	45.54	44.66	-0.8798	8.000	CPS

Hostile Natural Gamma Ray Sonde Wellsite Calibration - Ratio Of Detector 1 To Detector 2

Master: Calibration out of date 13-Sep-2002 22:26 Before: 14-Nov-2002 16:14 After: 28-Dec-2002 17:12

Coincidence Count Rate Ratio	1.000	1.009	1.012	1.004	-0.008332	0.05000	
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Accelerator-Porosity Tool - Detector Plateau Settings :

Near Detector Plateau Setting 1728 V
 Far Detector Plateau Setting 2073 V
 Array Detector Plateau Setting 1958 V

DUAL LATEROLOG - E / Equipment Identification

Primary Equipment:

Auxiliary Equipment:

Dual Laterolog Electrode	DLE - E	816
Dual Laterolog Sonde	DLS - F	929
Dual Laterolog Housing	DLH - CB	2983
Dual Laterolog Cartridge	DLC - D	930
Laterolog Control Module	LCM - AA	909

DUAL LATEROLOG - E Wellsite Calibration

DLT ELECTRONICS CALIBRATION Laterolog Measurement

Phase	MEASURED LLD OHMM	Value	Phase	MEASURED LLS OHMM	Value
Before		31.96	Before		31.04
After		32.01	After		31.27
29.00 (Minimum)		31.62 (Nominal)	40.00 (Maximum)		
29.00 (Minimum)		31.62 (Nominal)	40.00 (Maximum)		

Before: Calibration out of date 22-Nov-2002 2:09 After: 28-Dec-2002 17:14

DUAL LATEROLOG - E Wellsite Calibration

DLT Electronics Calibration Plus Measurement

Phase	Deep Current Plus UA	Value	Phase	Deep Voltage Plus MV	Value	Phase	Groningen Voltage Plus MV	Value
Before		341.2	Before		10.90	Before		11.38
After		341.1	After		10.92	After		11.40
317.5 (Minimum)		342.5 (Nominal)	367.5 (Maximum)			9.830 (Minimum)		10.83 (Nominal)
317.5 (Minimum)		342.5 (Nominal)	367.5 (Maximum)			9.830 (Minimum)		10.83 (Nominal)
317.5 (Minimum)		342.5 (Nominal)	367.5 (Maximum)			9.830 (Minimum)		10.83 (Nominal)
317.5 (Minimum)		342.5 (Nominal)	367.5 (Maximum)			9.830 (Minimum)		10.83 (Nominal)

Before		344.7	Before		10.70
After		343.9	After		10.75
317.5 (Minimum)		342.5 (Nominal)	367.5 (Maximum)		
9.830 (Minimum)		10.83 (Nominal)	11.83 (Maximum)		

Before: Calibration out of date 22-Nov-2002 2:09 After: 28-Dec-2002 17:14

DUAL LATEROLOG - E Wellsite Calibration									
DLT Electronics Calibration Zero Measurement									
Phase	Deep Current Zero UA	Value	Phase	Deep Voltage Zero MV	Value	Phase	Groningen Voltage Zero MV	Value	
Before		-0.1316	Before		-0.01129	Before		-0.007646	
After		-0.09296	After		-0.01142	After		-0.003849	
-1.000 (Minimum)		0 (Nominal)	1.000 (Maximum)			-0.1000 (Minimum)		0 (Nominal)	0.1000 (Maximum)
Phase	Shallow Current Zero UA	Value	Phase	Shallow Voltage Zero MV	Value				
Before		-0.1279	Before		-0.009940				
After		-0.1271	After		-0.007697				
-1.000 (Minimum)		0 (Nominal)	1.000 (Maximum)						

Before: Calibration out of date 22-Nov-2002 0:26 After: 28-Dec-2002 17:14

Hostile Environment Litho Density - A / Equipment Identification			
Primary Equipment:			
HOSTILE ENVIRONMENT LITHO DENSITY HIGH V	HLDV - A	10	
HOSTILE ENVIRONMENT LITHO DENSITY CARTRI	HLDC - AA	11	
Gamma Source Radioactive	GSR - Z	1846	
Auxiliary Equipment:			
HOSTILE ENVIRONMENT LITHO DENSITY SONDE	HLDS - B	10	
HOSTILE ENVIRONMENT ELECTRONICS CARTRIDG	HEH - H	12	
HOSTILE ENVIRONMENT ELECTRONICS CARTRIDG	HEH - G	11	
HOSTILE ENVIRONMENT LITHO DENSITY PAD	HLDP - B	10	

Hostile Environment Litho Density - A Wellsite Calibration									
Background Measurement									
Phase	LSW1 Background CPS	Value	Phase	LSW2 Background CPS	Value	Phase	LSW3 Background CPS	Value	
Master		87.71	Master		92.23	Master		178.9	
Before		86.85	Before		90.00	Before		173.1	
After		86.55	After		90.24	After		175.4	
65.00 (Minimum)		100.0 (Nominal)	125.0 (Maximum)			70.00 (Minimum)		105.0 (Nominal)	130.0 (Maximum)
150.0 (Minimum)		210.0 (Nominal)	250.0 (Maximum)						
Phase	LSW4 Background CPS	Value	Phase	LSW5 Background CPS	Value	Phase	SSW1 Background CPS	Value	
Master		237.2	Master		515.8	Master		85.59	
Before		232.7	Before		517.2	Before		83.68	
After		233.5	After		512.3	After		84.19	
220.0 (Minimum)		290.0 (Nominal)	330.0 (Maximum)			430.0 (Minimum)		610.0 (Nominal)	730.0 (Maximum)
70.00 (Minimum)		100.0 (Nominal)	120.0 (Maximum)						
Phase	SSW2 Background CPS	Value	Phase	SSW3 Background CPS	Value	Phase	SSW4 Background CPS	Value	
Master		165.7	Master		437.0	Master		232.7	
Before		164.0	Before		433.7	Before		229.5	
After		163.6	After		435.5	After		228.7	
140.0 (Minimum)		200.0 (Nominal)	240.0 (Maximum)			380.0 (Minimum)		530.0 (Nominal)	630.0 (Maximum)
190.0 (Minimum)		280.0 (Nominal)	340.0 (Maximum)						
Phase	SSW5 Background CPS	Value							
Master		174.6							
Before		172.9							
After		172.5							
140.0 (Minimum)		205.0 (Nominal)	250.0 (Maximum)						

Master: Calibration out of date 10-Aug-2002 17:41 Before: 14-Nov-2002 16:50 After: 28-Dec-2002 17:11

Hostile Environment Litho Density - A Wellsite Calibration									
Detectors Resolution From BKG Measurements									
Phase	LS Background Resolution		Value	Phase	SS Background Resolution		Value		
Master			1.033	Master			0.9460		
Before			1.034	Before			0.9539		
After			1.023	After			0.9435		
0.7000 (Minimum)			1.000 (Nominal)	1.111 (Maximum)	0.7000 (Minimum)			1.000 (Nominal)	1.111 (Maximum)
Master: Calibration out of date			10-Aug-2002 17:41	Before: 14-Nov-2002 16:50					
After: 28-Dec-2002 17:11									

Nuclear Porosity Lithology Cartridge - B / Equipment Identification		
Primary Equipment:		
NPLC Cartridge	NPLC - B	79
Auxiliary Equipment:		
NPLC Housing	NPH - B	82

Accelerator-Porosity Tool / Equipment Identification		
Primary Equipment:		
Accelerator-Porosity Sonde	APS - BA	22
APS Minitron	MNTR - F	4185
Auxiliary Equipment:		
Accelerator-Porosity Housing	APH - AC	22
APS Calibration Water Tank	SFT - 178	4722
APS Aluminium Calibrator Sleeve	SFT - 281	24

Accelerator-Porosity Tool Wellsite Calibration														
Detector Background														
Phase	Near Det Bkg Cntrate CPS		Value	Phase	Far Det Bkg Cntrate CPS		Value	Phase	Array-1 Det Bkg Cntrate CPS		Value			
Master			32.07	Master			32.26	Master			29.47			
Before			33.13	Before			31.56	Before			29.09			
After			33.27	After			32.84	After			29.36			
0 (Minimum)			30.00 (Nominal)	50.00 (Maximum)	0 (Minimum)			30.00 (Nominal)	50.00 (Maximum)	0 (Minimum)			30.00 (Nominal)	50.00 (Maximum)
Phase	Array-2 Det Bkg Cntrate CPS		Value	Phase	Array Therm Det Bkg Cntrate CPS		Value							
Master			30.06	Master			32.24							
Before			30.65	Before			34.16							
After			29.91	After			30.97							
0 (Minimum)			30.00 (Nominal)	50.00 (Maximum)	0 (Minimum)			30.00 (Nominal)	50.00 (Maximum)					
Master: Calibration out of date			14-Sep-2002 4:44	Before: 14-Nov-2002 16:15			After: 28-Dec-2002 17:13							

Accelerator-Porosity Tool Wellsite Calibration														
Calibration Ratios														
Phase	Near/Far Calibration Ratio		Value	Phase	Near/Array Calibration Ratio		Value	Phase	Near/Array Cal Ratio Up/Down		Value			
Master			0.8936	Master			1.057	Master			1.010			
0.8000 (Minimum)			0.9250 (Nominal)	1.050 (Maximum)	0.9000 (Minimum)			1.030 (Nominal)	1.170 (Maximum)	0.9700 (Minimum)			1.000 (Nominal)	1.030 (Maximum)
Master: Calibration out of date						14-Sep-2002 4:44								

Accelerator-Porosity Tool Wellsite Calibration														
Tank Check														
Phase	Array-1 Standoff Porosity PU		Value	Phase	Array-2 Standoff Porosity PU		Value	Phase	Average Slowing Down Time US		Value			
Master			11.34	Master			11.40	Master			5.887			
9.900 (Minimum)			11.75 (Nominal)	13.60 (Maximum)	9.900 (Minimum)			11.75 (Nominal)	13.60 (Maximum)	5.500 (Minimum)			6.000 (Nominal)	6.250 (Maximum)

Phase	Array-1 SDT Ratio Up/Down	Value	Phase	Array-2 SDT Ratio Up/Down	Value	Phase	Sigma Formation CU	Value
Master		0.9786	Master		0.9907	Master		27.97
	0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)			0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)			20.00 (Minimum) 27.50 (Nominal) 35.00 (Maximum)	

Master: Calibration out of date 14-Sep-2002 4:44

Hostile Natural Gamma Ray Sonde / Equipment Identification		
Primary Equipment:	HNGS Sonde	HNGS - BA 77
Auxiliary Equipment:	HNGS Sonde Housing	HNSH - BA 79
	Gamma Source Radioactive	GSR - U 135

Hostile Natural Gamma Ray Sonde Wellsite Calibration								
Detector 1 Check								
Phase	Na 511 Peak Loc	Value	Phase	Na 511 Peak Res %	Value	Phase	High Voltage V	Value
Master		40.54	Master		16.41	Master		1213
Before		40.62	Before		16.78	Before		1211
After		40.64	After		16.51	After		1213
	37.50 (Minimum) 40.00 (Nominal) 42.50 (Maximum)			12.00 (Minimum) 15.50 (Nominal) 19.00 (Maximum)			900.0 (Minimum) 1150 (Nominal) 1600 (Maximum)	
Phase	Na 1785 Peak Loc	Value	Phase	Na 1785 Peak Res %	Value	Phase	Temperature DEGC	Value
Master		145.3	Master		9.453	Master		25.85
Before		145.6	Before		9.390	Before		32.34
After		145.2	After		10.28	After		30.68
	135.0 (Minimum) 142.6 (Nominal) 150.3 (Maximum)			7.000 (Minimum) 8.500 (Nominal) 11.00 (Maximum)			-28.89 (Minimum) 15.50 (Nominal) 60.00 (Maximum)	
Phase	Na Count Rate CPS	Value						
Master		49.09						
Before		46.08						
After		44.81						
	10.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)							

Master: Calibration out of date 13-Sep-2002 22:26

Before: 14-Nov-2002 16:14




After: 28-Dec-2002 17:12

Hostile Natural Gamma Ray Sonde Wellsite Calibration								
Detector 2 Check								
Phase	Na 511 Peak Loc	Value	Phase	Na 511 Peak Res %	Value	Phase	High Voltage V	Value
Master		40.59	Master		16.13	Master		1241
Before		40.60	Before		16.57	Before		1238
After		40.58	After		16.54	After		1240
	37.50 (Minimum) 40.00 (Nominal) 42.50 (Maximum)			12.00 (Minimum) 15.50 (Nominal) 19.00 (Maximum)			900.0 (Minimum) 1150 (Nominal) 1600 (Maximum)	
Phase	Na 1785 Peak Loc	Value	Phase	Na 1785 Peak Res %	Value	Phase	Temperature DEGC	Value
Master		145.1	Master		9.614	Master		25.04
Before		143.6	Before		9.986	Before		31.77
After		144.6	After		9.699	After		31.13
	135.0 (Minimum) 142.6 (Nominal) 150.3 (Maximum)			7.000 (Minimum) 8.500 (Nominal) 11.00 (Maximum)			-28.89 (Minimum) 15.50 (Nominal) 60.00 (Maximum)	
Phase	Na Count Rate CPS	Value						
Master		48.66						
Before		45.54						
After		44.66						
	10.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)							

Master: Calibration out of date 13-Sep-2002 22:26

Before: 14-Nov-2002 16:14

After: 28-Dec-2002 17:12

Hostile Natural Gamma Ray Sonde Wellsite Calibration		
Ratio Of Detector 1 To Detector 2		
Phase	Coincidence Count Rate Ratio	Value
Master		1.009
Before		1.012
After		1.004
	0.9500 (Minimum)	1.050 (Maximum)
1.000 (Nominal)		
Master: Calibration out of date 13-Sep-2002 22:26		
Before: 14-Nov-2002 16:14		
After: 28-Dec-2002 17:12		

Company: Lamont Doherty

Schlumberger

Well: ODP Leg 206, Site 1256D

Field: Fast Spreading Crust

Country: Coata Rica

Ocean: Pacific Ocean

DLL/HNGS LOG