COMPANY: Lamont Doherty

WELL: ODP Leg 200, Site 1224F

FIELD: H20

COUNTY: Joides Resolution STATE: Pacific Ocean

COUNTY: Joides Resolution
Field: H20
Location: Joides Resolution
Well: ODP Leg 200, Site 1224F
Company: Lamont Doherty

Schlumberger

DITE/HLDT/APS/HNGS LOG

LOCATION

H2O

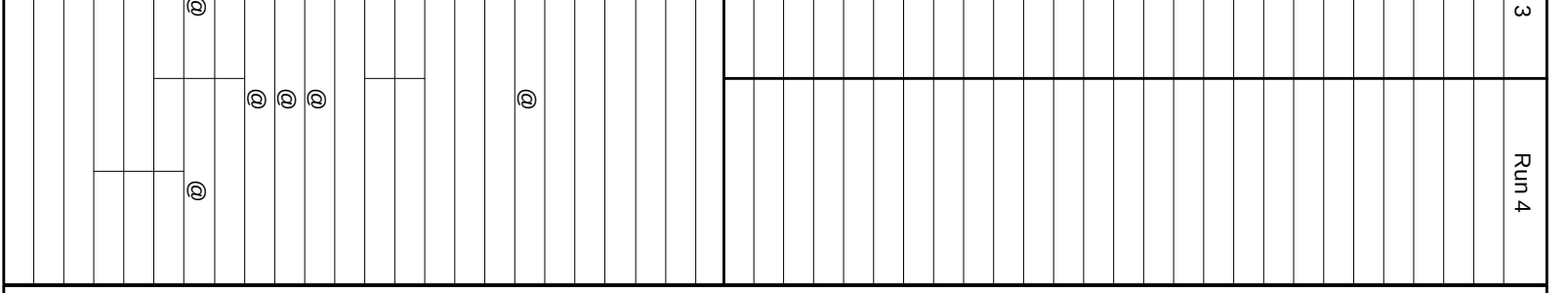
Elev.: K.B. 11.3 m
G.L. -4978 m
D.F. 11 m

Permanent Datum: GROUND LEVEL Elev.: 0 m
Log Measured From: DES above Perm. Datum
Drilling Measured From: DES

API Serial No.	Max. Hole Devi.	Longitude	Latitude
		141 58.7580 W	27 53.3630 N

Logging Date									
Run Number		1							
Depth Driller		5152.5 m							
Schlumberger Depth		5152 m							
Bottom Log Interval		5150 m							
Top Log Interval		4958.3 m							
Casing Driller Size @ Depth		0.000 in	@	5012.5 m		@			
Casing Schlumberger		5113.5 m							
Bit Size		9.875 in							
Type Fluid In Hole		Sepiolite							
MUD Density	Viscosity	1.066 g/cm3							
MUD Fluid Loss	PH								
MUD Source Of Sample									
RM @ Measured Temperature			@			@			
RMF @ Measured Temperature			@			@			
RMC @ Measured Temperature			@			@			
Source RMF	RMC								
RM @ MRT	RMF @ MRT	@		@		@		@	
Maximum Recorded Temperatures									
Circulation Stopped	Time	1/20/02		0100					
Logger On Bottom	Time	1/20/02		See Log					
Unit Number	Location	99	Houston						
Recorded By		Steve Kittredge							
Witnessed By		Yue-Feng Sun, Hartley Hoskins							

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



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OTHER SERVICES1	OTHER SERVICES2
OS1: MESTB/DSI	OS1:
OS2:	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:

REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
Hole Core with RCB.	
All depths in Meters Below Rig Floor (MBRF).	
Lamont Temperature tool was run	
WHC was run.	
Sea Floor at 4978 MBRF.	
Total Depth Driller- 5152.5 MBRF.	
Total Depth Logger- 5152 MBRF.	
Drill Pipe Driller- 5012.5 MBRF.	
Drill Pipe Logger- 5013.5 MBRF.	

RUN 1

SERVICE ORDER #:
PROGRAM VERSION: 9C2-303
FLUID LEVEL:

LOGGED INTERVAL	START	STOP

RUN 2

SERVICE ORDER #:
PROGRAM VERSION:
FLUID LEVEL:

LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

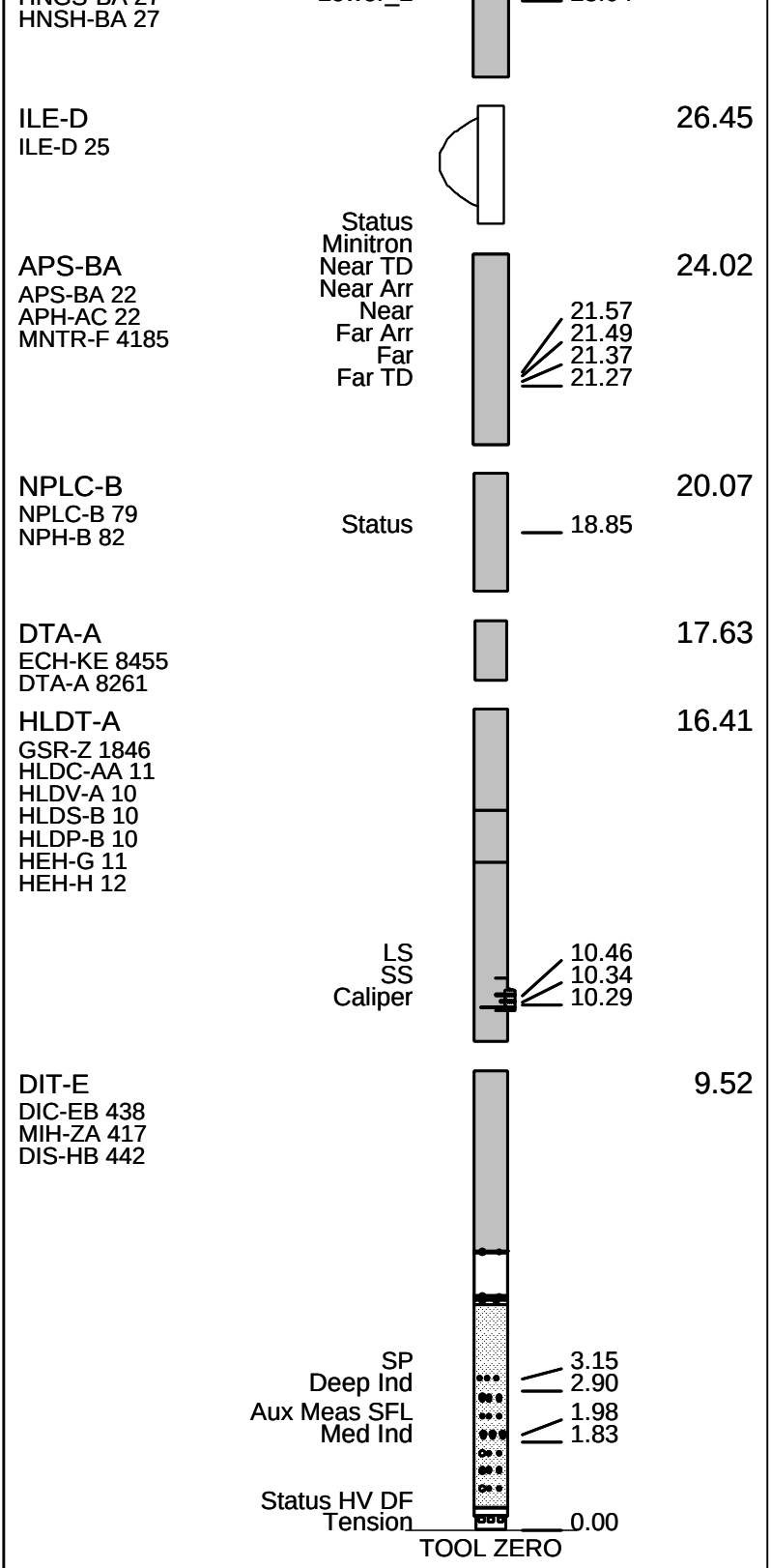
RUN 1 RUN 2

SURFACE EQUIPMENT

SFT-281 24
SFT-178 4722
GSR-U 135
WITM (DTS)-A

DOWNHOLE EQUIPMENT

LEH-QT LEH-QT 1726			30.76
DTC-H ECH-KC 9350	CTEM TelStatus ToolStatu	29.59 28.95	29.87
HNGS-BA HNGS-BA 27	Upper_1 Lower_2	28.25 28.04	28.95



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

Output DLIS Files

DEFAULT	PI_LDL_APS_HNGS_029LUP	FN:4	PRODUCER	20-Jan-2002 11:22	5152.6 M	4958.3 M
TCOMB_CUST	PI_LDL_APS_HNGS_029LUP	FN:5	PRODUCER	20-Jan-2002 11:22	5152.6 M	4958.3 M

OP System Version: 9C2-303

MCM

Main Up Log

DIT-E	9C2-303	HLDT-A	9
DTA-A	9C2-303	NPLC-B	9
APS-BA	9C2-303	HNGS-BA	9C2-303
DTC-H	9C2-303		

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
DFD	1.07 G/C3	-50000.00 G/C3	5124.4 11:23:13

PIP SUMMARY

Time Mark Every 60 S

SFL_ QUAL From D3T to SFQF

IM_QUAL From SFQF to IMQF

SFL Unaveraged (SFLU)
0.2 (OHMM) 2000

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

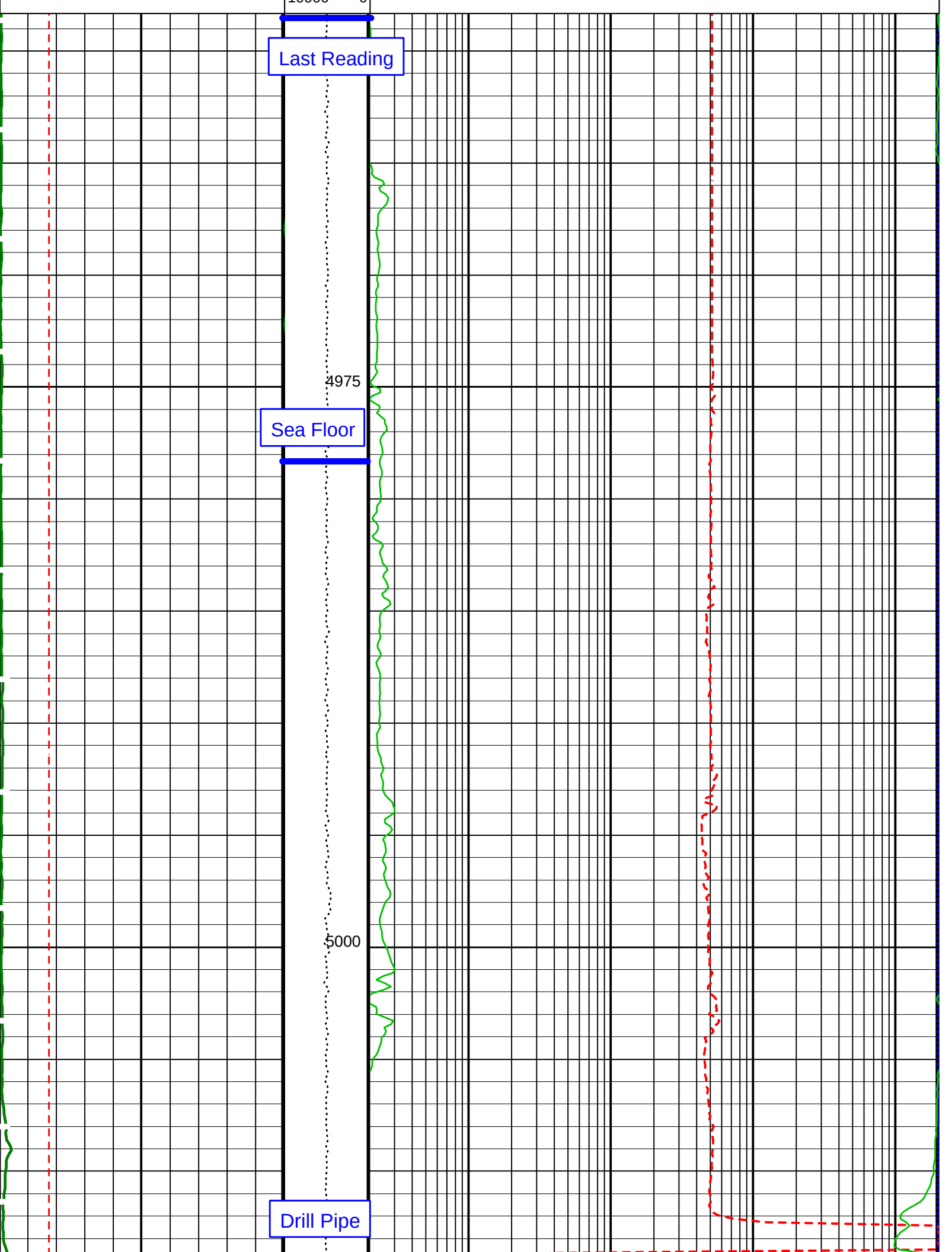
ID_QUAL From IMQF to IDQF

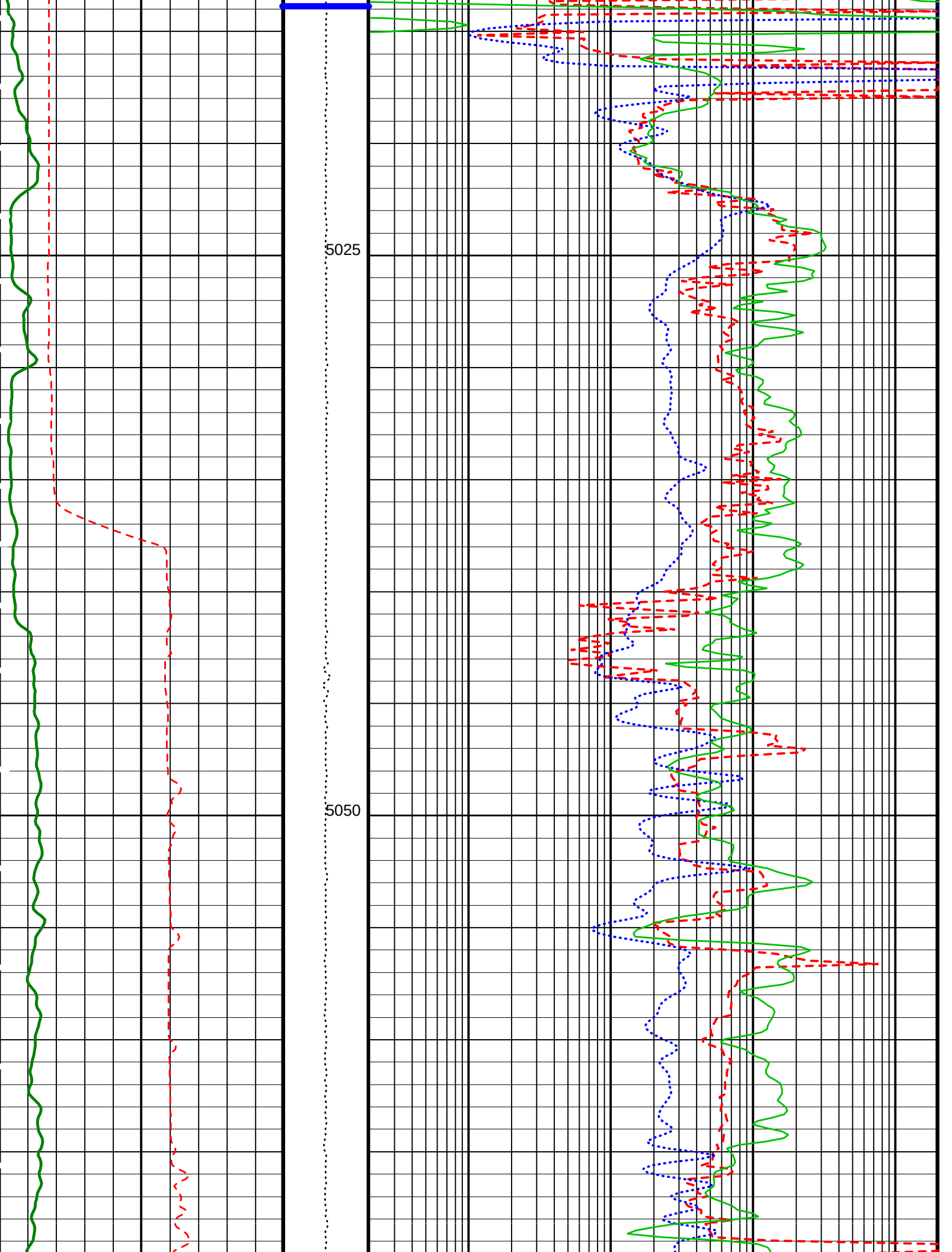
Medium Induction Phasor-processed Resistivity (IMPH)
0.2 (OHMM) 2000

Caliper (CALI)
0 (IN) 20

Tension (TENS)
(LBF)
10000 0

Deep Induction Phasor-processed Resistivity (IDPH)
0.2 (OHMM) 2000


Last Reading
4975
Sea Floor
5000
Drill Pipe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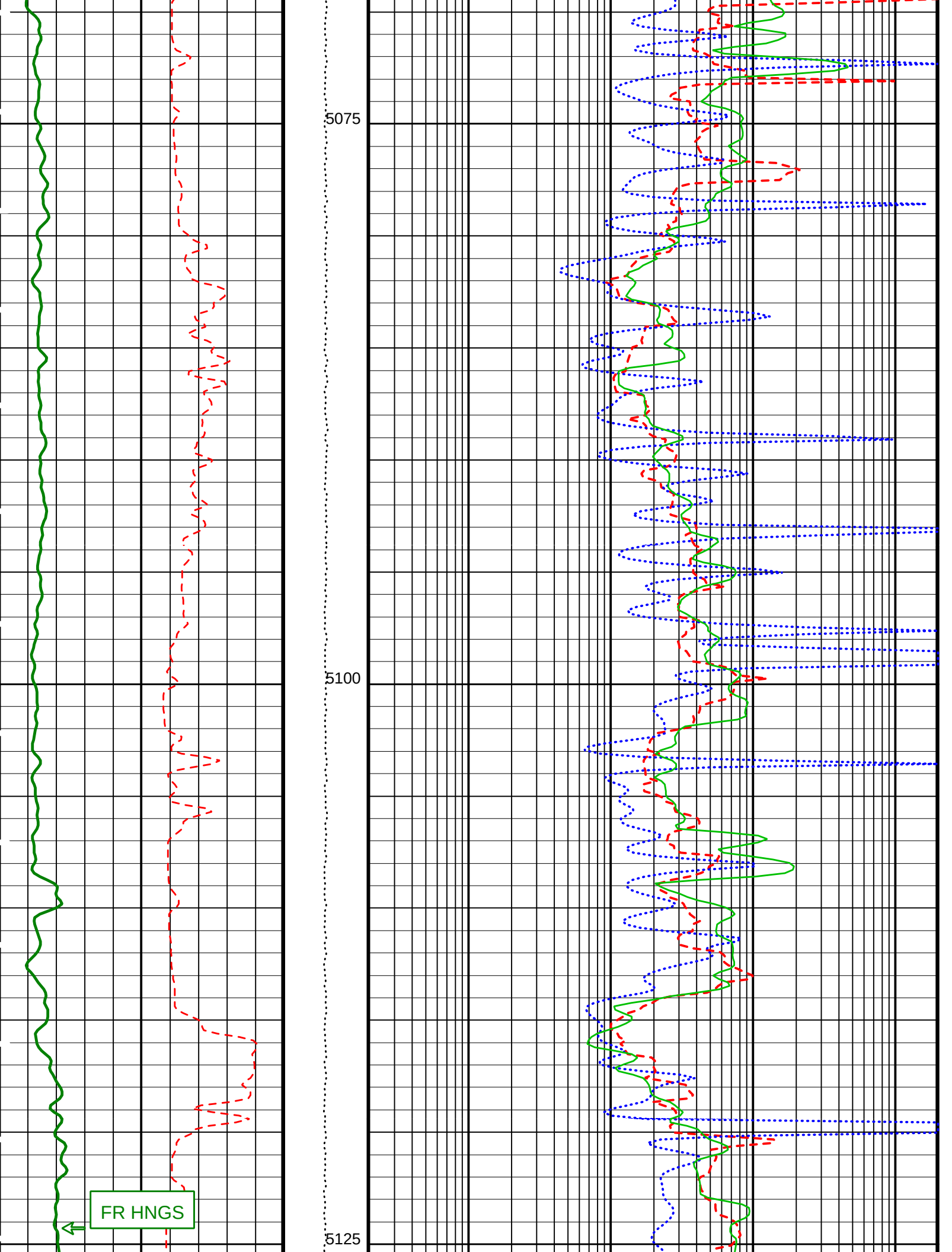
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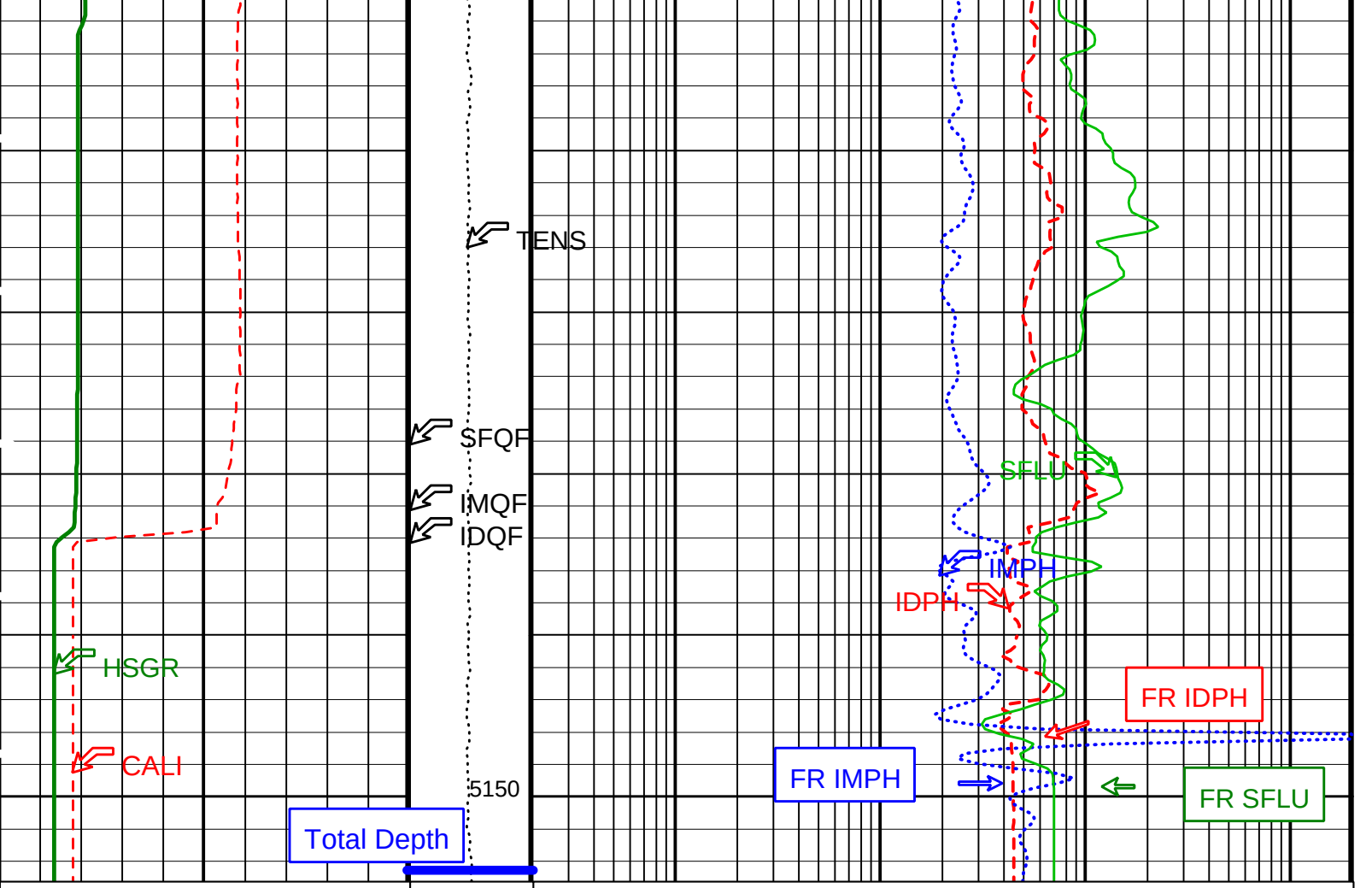
5100
5125
FR HNGS



Caliper (CALI)
0 (IN) 20

Tension (TENS) (LBF)
10000 0

Deep Induction Phasor-processed Resistivity (IDPH)
0.2 (OHMM) 2000

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

ID_QUAL From IMQF to IDQF

Medium Induction Phasor-processed Resistivity (IMPH)
0.2 (OHMM) 2000

IM_QUAL From SFQF to IMQF

SFL Unaveraged (SFLU)
0.2 (OHMM) 2000

SFL_ QUAL From D3T to SFQF

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
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	
BHT	Bottom Hole Temperature (used in calculations)	10	DEGC
BKSF	HNGS Borehole Fluid Excluder Sleeve Algorithm Factor	1	
BKSH	HNGS Borehole Fluid Excluder Sleeve Algorithm High Channel	245	
BKSL	HNGS Borehole Fluid Excluder Sleeve Algorithm Low Channel	17	
BS	Bit Size	9.875	IN
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer 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
D1PR	HNGS Detector 1 Calibration Thorium Peak Resolution	8.14548	%
D1TC	HNGS Detector 1 Calibration Temperature	31.7288	DEGC
D1TL	HNGS Detector 1 Calibration Thorium Peak Location	210.552	
D2PR	HNGS Detector 2 Calibration Thorium Peak Resolution	7.20033	%
D2TC	HNGS Detector 2 Calibration Temperature	30.7679	DEGC
D2TL	HNGS Detector 2 Calibration Thorium Peak Location	209.474	
DBCC	HNGS Barite Constant Correction Flag	NONE	
DFD	Drilling Fluid Density	-50000.00	G/C3
DGF2	Deep 20 kHz Gain Factor	1.00789	
DPH2	Deep 20 kHz Phase Shift	-0.152394	DEG
DRE2	Deep Real 20 kHz Sonde Error Correction	16.357	MM/M
DSR2	Deep Sigma Reference (20 kHz)	1843	MM/M
DXE2	Deep Quad 20 kHz Sonde Error Correction	64.6326	MM/M
GCF1_START	HNGS Detector 1 GCF Constant	1	
GCF2_START	HNGS Detector 2 GCF Constant	1	
GCSE	Generalized Caliper Selection	CALI	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
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	
HALF	HNGS Alpha Filter Length	60	IN
HATIM	HNGS Marquardt Accumulation Time	600	S
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
HSLV	HNGS Borehole Fluid Excluder Sleeve Status	NO	
HSVN	HNGS Spectral Standards Version Number	1.07846e-031	
IFRS	DIT-E Induction Frequency Selector	20	
IPHA	DIT-E Phasor Processing Mode	ALL	
IPRO	DIT-E Induction Processing Selector	PHASOR	
ITEN	DIT-E Temperature Enable	ENABLE	
MARQ_START	HNGS Marquardt Start-up Mode	INTERNAL	
MGF2	Medium 20 kHz Gain Factor	1.02964	
MPH2	Medium 20 kHz Phase Shift	-0.933067	DEG
MRE2	Medium Real 20 kHz Sonde Error Correction	-1.78642	MM/M
MSR2	Medium Sigma Reference (20 kHz)	3250	MM/M
MXE2	Medium Quad 20 kHz Sonde Error Correction	-34.2041	MM/M
RDF1_START	HNGS Detector 1 RDF Constant	0	
RDF2_START	HNGS Detector 2 RDF Constant	0	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S1NA	HNGS Detector 1 Calibration Sodium Count Rate	17.8279	CPS
S1NG	HNGS Detector 1 Calibration End-On / Side-On Gain Ratio	0.98377	
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
S2NA	HNGS Detector 2 Calibration Sodium Count Rate	18.2379	CPS
S2NG	HNGS Detector 2 Calibration End-On / Side-On Gain Ratio	0.981503	
SABK	HNGS Statistical Uncertainty in Borehole Potassium Running Average	0	
SFCR	SFL Channel Ratio	1000	
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES	
SHT	Surface Hole Temperature	20	DEGC
TD	Total Depth	5152.5	M
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0	

Format: DITE_LogPhasor Vertical Scale: 1:200 Graphics File Created: 20-Jan-2002 11:22

OP System Version: 9C2-303

MCM

DIT-E	9C2-303	HLDT-A	9C2-303
DTA-A	9C2-303	NPLC-B	9C2-303
APS-BA	9C2-303	HNGS-BA	9C2-303
DTC-H	9C2-303		

Output DLIS Files

DEFAULT	PI_LDL_APS_HNGS_029LUP	FN:4	PRODUCER	20-Jan-2002 11:22	
TCOMB_CUST	PI_LDL_APS_HNGS_029LUP	FN:5	PRODUCER	20-Jan-2002 11:22	

Output DLIS Files

DEFAULT	PI_LDL_APS_HNGS_029LUP	FN:4	PRODUCER	20-Jan-2002 11:22	5152.6 M	4958.3 M
TCOMB_CUST	PI_LDL_APS_HNGS_029LUP	FN:5	PRODUCER	20-Jan-2002 11:22	5152.6 M	4958.3 M

OP System Version: 9C2-303

MCM

DIT-E	9C2-303	HLDT-A	9C2-303
DTA-A	9C2-303	NPLC-B	9C2-303
APS-BA	9C2-303	HNGS-BA	9C2-303
DTC-H	9C2-303		

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
DFD	1.07 G/C3	-50000.00 G/C3	5124.4 11:23:13

PIP SUMMARY

Time Mark Every 60 S

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

Bulk Density (RHOB)
3 (G/C3) 1

APS Effective Standoff in Limestone (STOF)
-1 (IN) 4

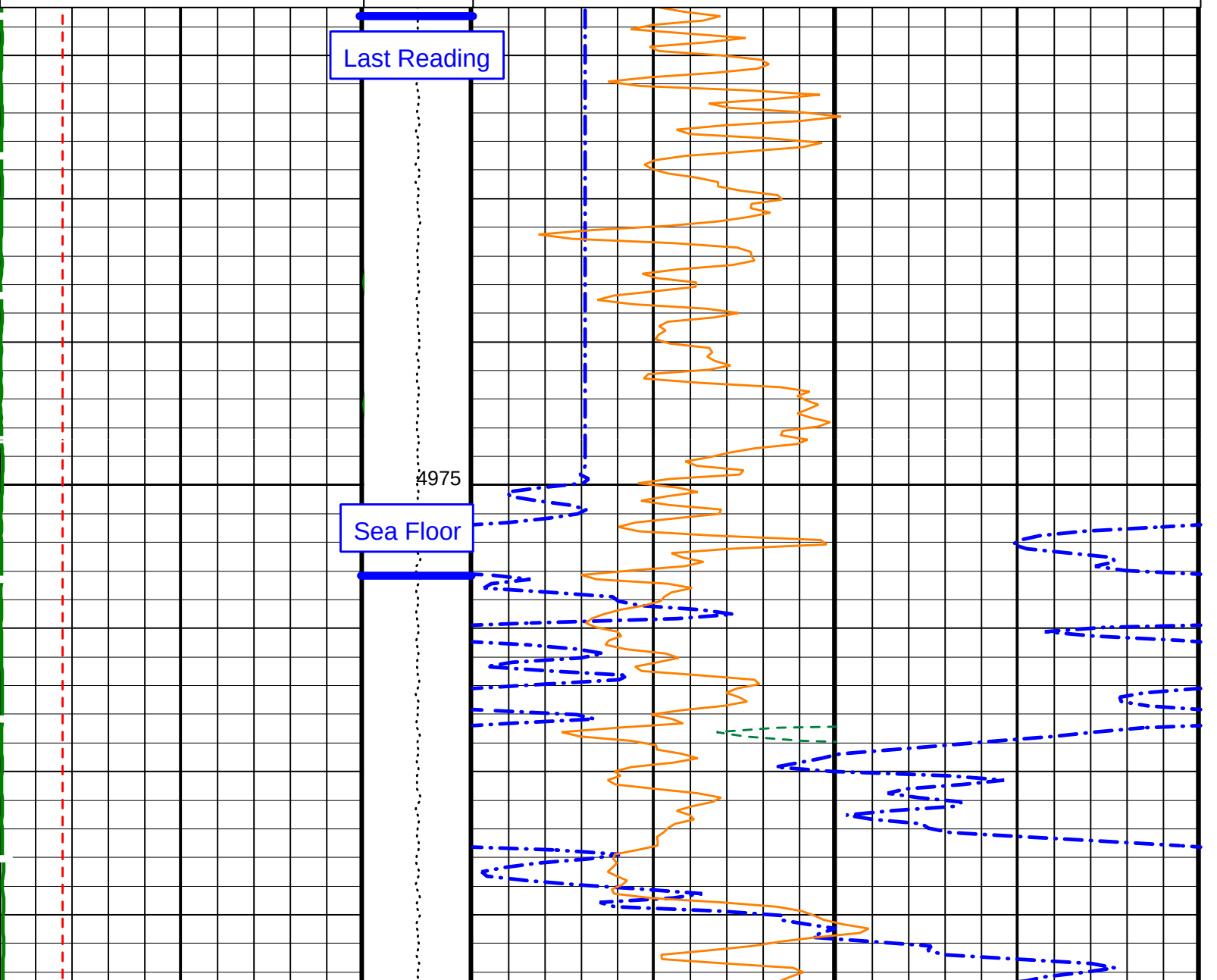
PhotoElectric Factor (PEF)
0 (----) 10

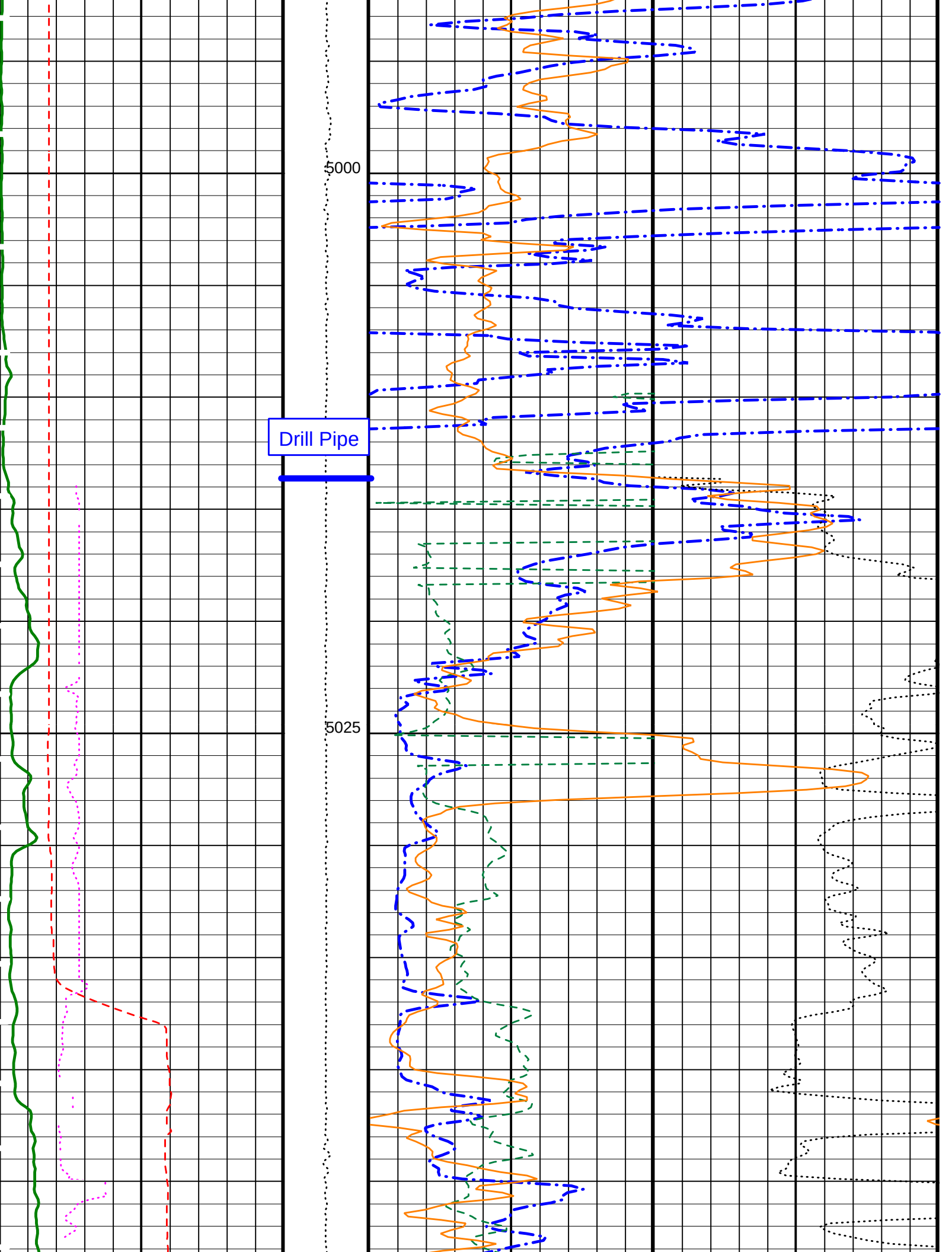
Bulk Density Correction (DRHO)
-0.25 (G/C3) 0.25

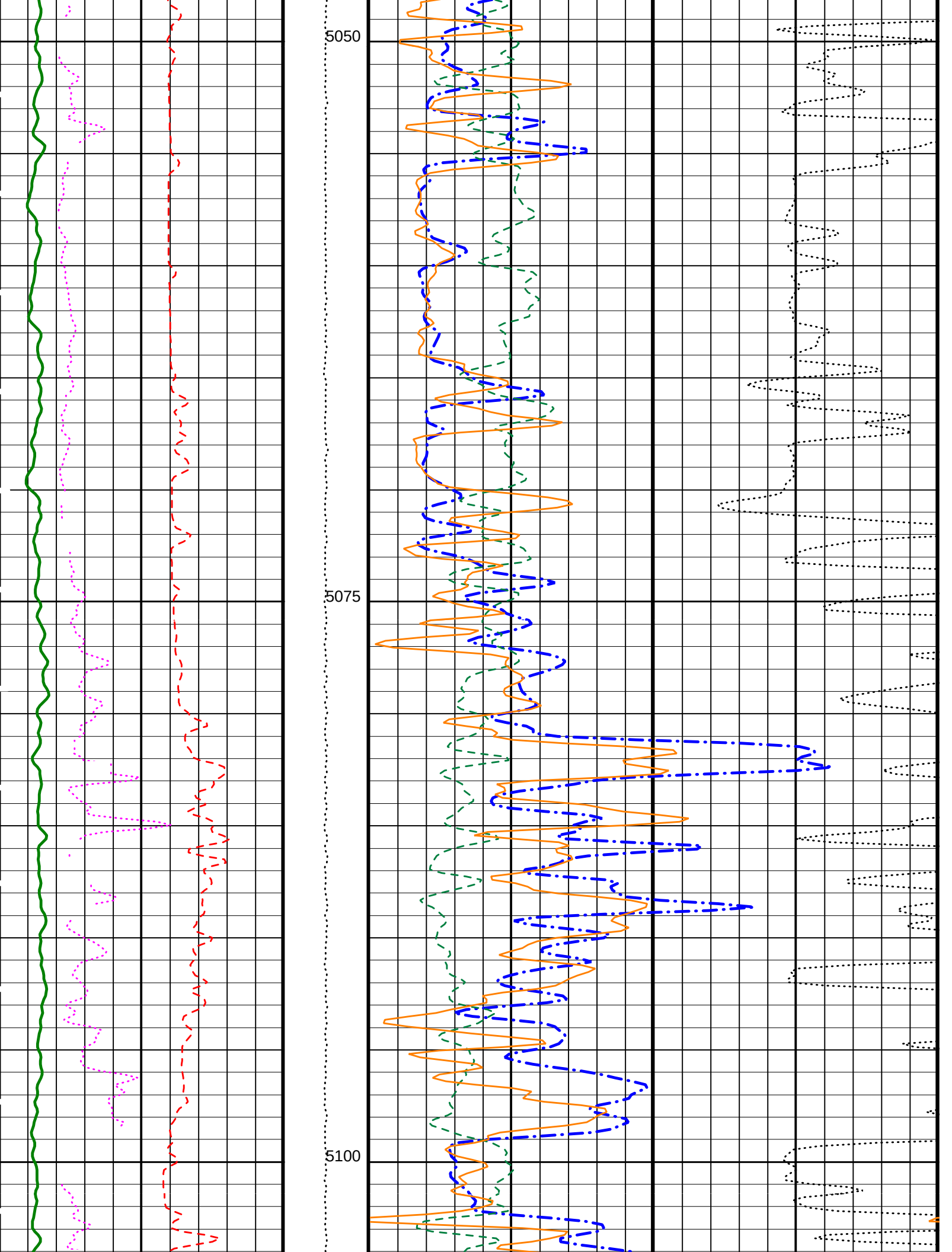
Caliper (CALI)
0 (IN) 20

Tension (TENS) (LBF)
10000 0

APS Near/Array Corrected Limestone Porosity (APLC)
0 (PU) 100




5000
Drill Pipe
5025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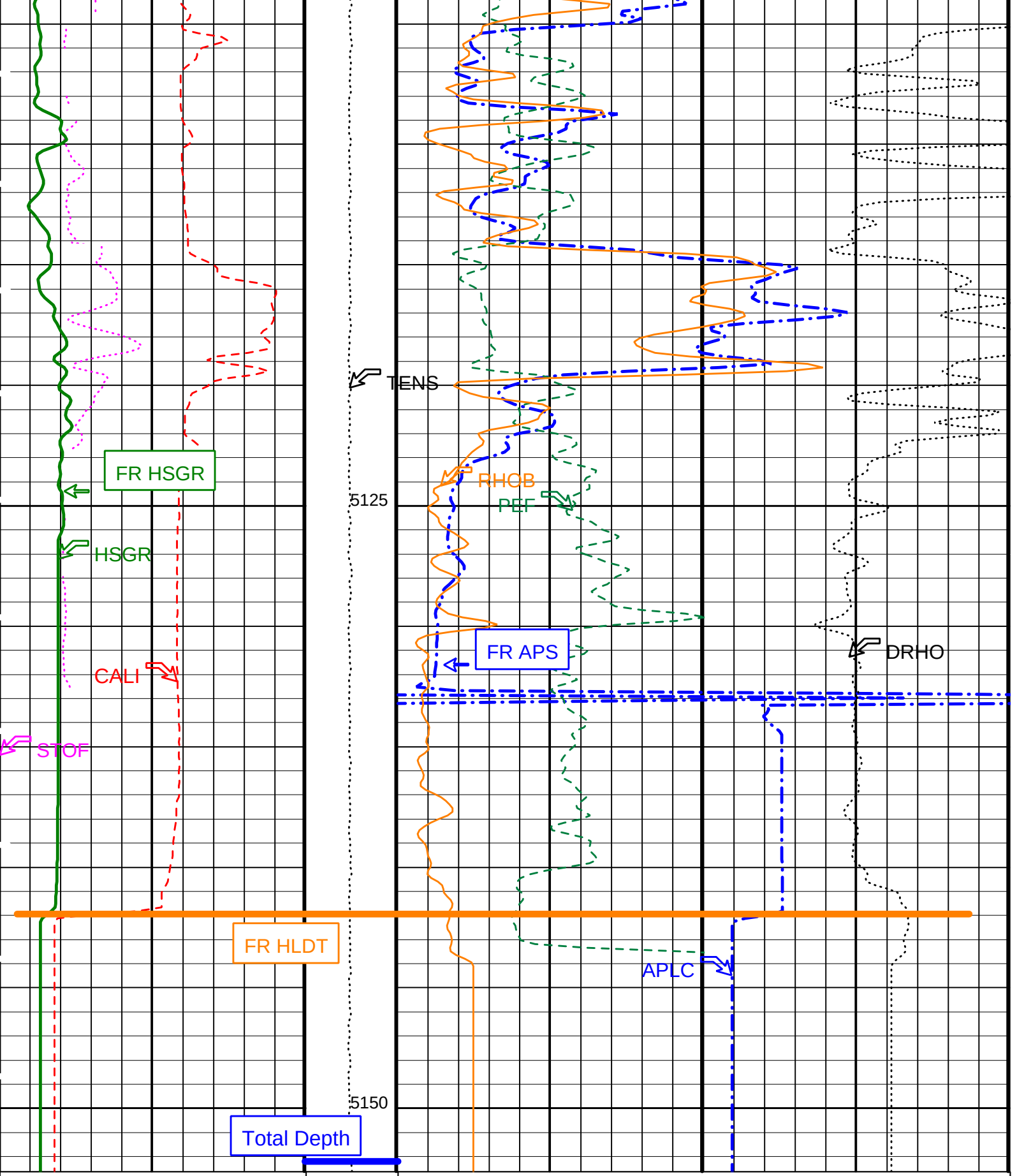


Caliper (CALI)
0 (IN) 20

Tension (TENS) (LBF)
10000 0

APS Near/Array Corrected Limestone Porosity (APLC)
0 (PU) 100

APS Effective Standoff in Limestone (STOF)
-1 (IN) 4

PhotoElectric Factor (PEF)
0 (----) 10

Bulk Density Correction (DRHO)
-0.25 (G/C3) 0.25

HNGS Spectroscopy Gamma Ray

HNGS Spectroscopy Gamma Ray (HSGR)

0 (GAPI) 100

Bulk Density (RHOB)

3 (G/C3) 1

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	APS Software Version	5	
	Apparent Thickness of Cement	0	IN
	APS Cement Thickness Source	COMPUTED	
AASD	APS Thermal and Array Detectors High Voltage Setting	1968.98	V
ABOS	APS Neutron Burst-Off Background Subtraction Switch	ON	
ADSO	APS Array Detectors Data Source Switch	Both	
AFSD	APS Far Detector High Voltage Setting	2052.03	V
AHCS	APS Holesize Correction Source	GCSE	
AHSS	APS Holesize Correction Switch	ON	
AMTY	APS Environmental Corrections Mud Type	WaterBaseBarite	
ANSD	APS Near Detector High Voltage Setting	1748.3	V
ASOS	APS Standoff Correction Switch	OFF	
ATSS	APS Temperature-Pressure-Salinity Correction Switch	OFF	
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	
BHT	Bottom Hole Temperature (used in calculations)	10	DEGC
BKSF	HNGS Borehole Fluid Excluder Sleeve Algorithm Factor	1	
BKSH	HNGS Borehole Fluid Excluder Sleeve Algorithm High Channel	245	
BKSL	HNGS Borehole Fluid Excluder Sleeve Algorithm Low Channel	17	
BS	Bit Size	9.875	IN
BSAL	Borehole Salinity	-50000.00	PPM
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSIZ	Current Casing Size	0.000	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
CWEI	Casing Weight	0.00	LB/F
D1PR	HNGS Detector 1 Calibration Thorium Peak Resolution	8.14548	%
D1TC	HNGS Detector 1 Calibration Temperature	31.7288	DEGC
D1TL	HNGS Detector 1 Calibration Thorium Peak Location	210.552	
D2PR	HNGS Detector 2 Calibration Thorium Peak Resolution	7.20033	%
D2TC	HNGS Detector 2 Calibration Temperature	30.7679	DEGC
D2TL	HNGS Detector 2 Calibration Thorium Peak Location	209.474	
DBCC	HNGS Barite Constant Correction Flag	NONE	
DFD	Drilling Fluid Density	-50000.00	G/C3
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
FSAL	Formation Salinity	32000	PPM
GCF1_START	HNGS Detector 1 GCF Constant	1	
GCF2_START	HNGS Detector 2 GCF Constant	1	
GCSE	Generalized Caliper Selection	CALI	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
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	
HALF	HNGS Alpha Filter Length	60	IN
HATIM	HNGS Marquardt Accumulation Time	600	S
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
HSLV	HNGS Borehole Fluid Excluder Sleeve Status	NO	
HSVN	HNGS Spectral Standards Version Number	1.07846e-031	
MARQ_START	HNGS Marquardt Start-up Mode	INTERNAL	
NARC	APS Near/Array Calibration Ratio	1.06194	
NFRC	APS Near/Far Calibration Ratio	0.900712	
QPPS	Quicklook Processing Pe Select	PEFL	
RDF1_START	HNGS Detector 1 RDF Constant	0	
RDF2_START	HNGS Detector 2 RDF Constant	0	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S1NA	HNGS Detector 1 Calibration Sodium Count Rate	17.8279	CPS
S1NG	HNGS Detector 1 Calibration End-On / Side-On Gain Ratio	0.98377	
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
S2NA	HNGS Detector 2 Calibration Sodium Count Rate	18.2379	CPS
S2NG	HNGS Detector 2 Calibration End-On / Side-On Gain Ratio	0.981503	
SABK	HNGS Statistical Uncertainty in Borehole Potassium Running Average	0	
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES	
SHT	Surface Hole Temperature	20	DEGC
TD	Total Depth	5152.5	M

TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0	
WMUD	Mud Weight	0.994556	G/C3

Format: APSLiquidPorosity_1 Vertical Scale: 1:200 Graphics File Created: 20-Jan-2002 11:22

OP System Version: 9C2-303

MCM

DIT-E	9C2-303	HLDT-A	9C2-303
DTA-A	9C2-303	NPLC-B	9C2-303
APS-BA	9C2-303	HNGS-BA	9C2-303
DTC-H	9C2-303		

Output DLIS Files

DEFAULT	PI_LDL_APS_HNGS_029LUP	FN:4	PRODUCER	20-Jan-2002 11:22	
TCOMB_CUST	PI_LDL_APS_HNGS_029LUP	FN:5	PRODUCER	20-Jan-2002 11:22	

Output DLIS Files

DEFAULT	PI_LDL_APS_HNGS_029LUP	FN:4	PRODUCER	20-Jan-2002 11:22	5152.6 M	4958.3 M
TCOMB_CUST	PI_LDL_APS_HNGS_029LUP	FN:5	PRODUCER	20-Jan-2002 11:22	5152.6 M	4958.3 M

OP System Version: 9C2-303

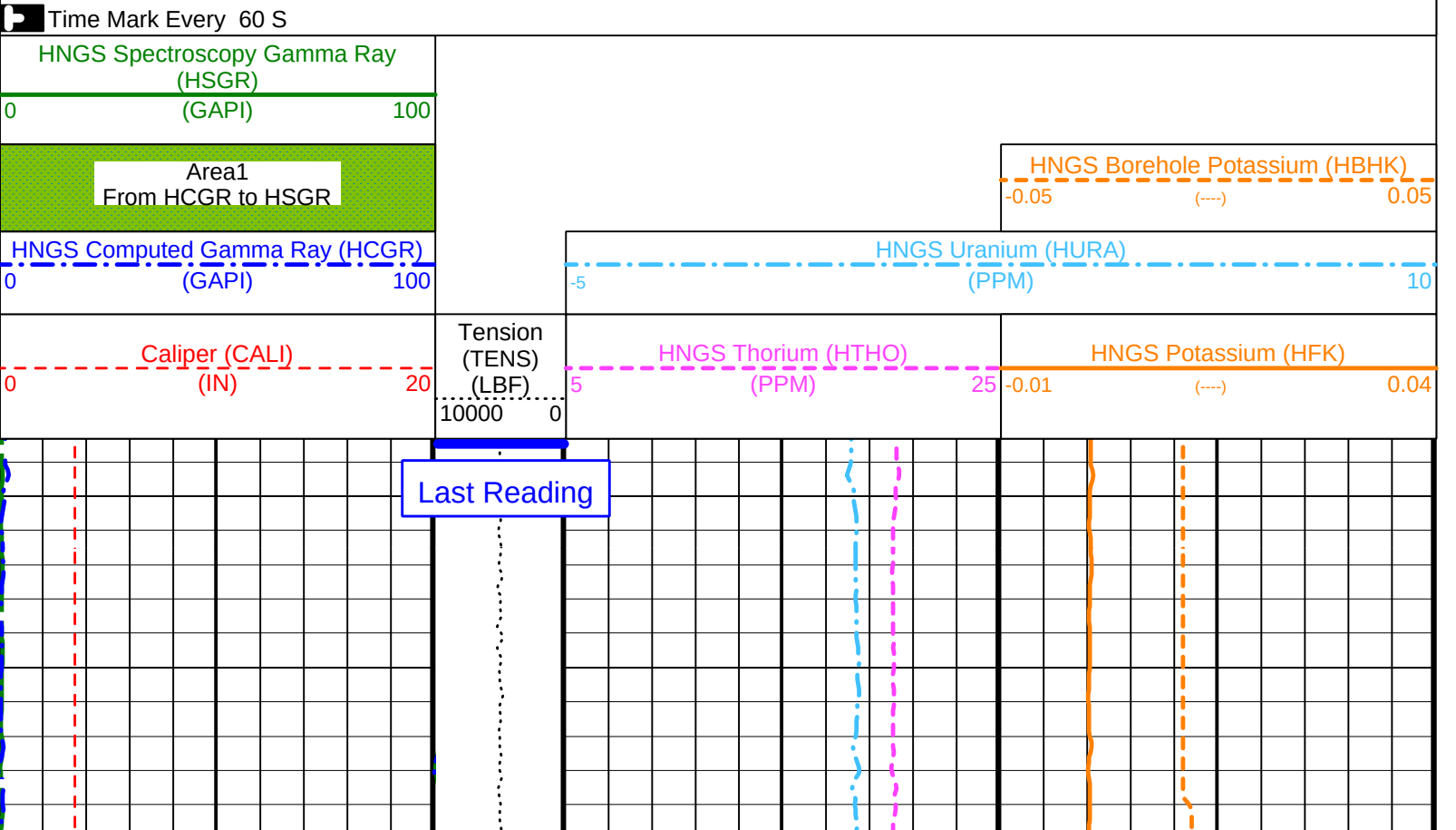
MCM

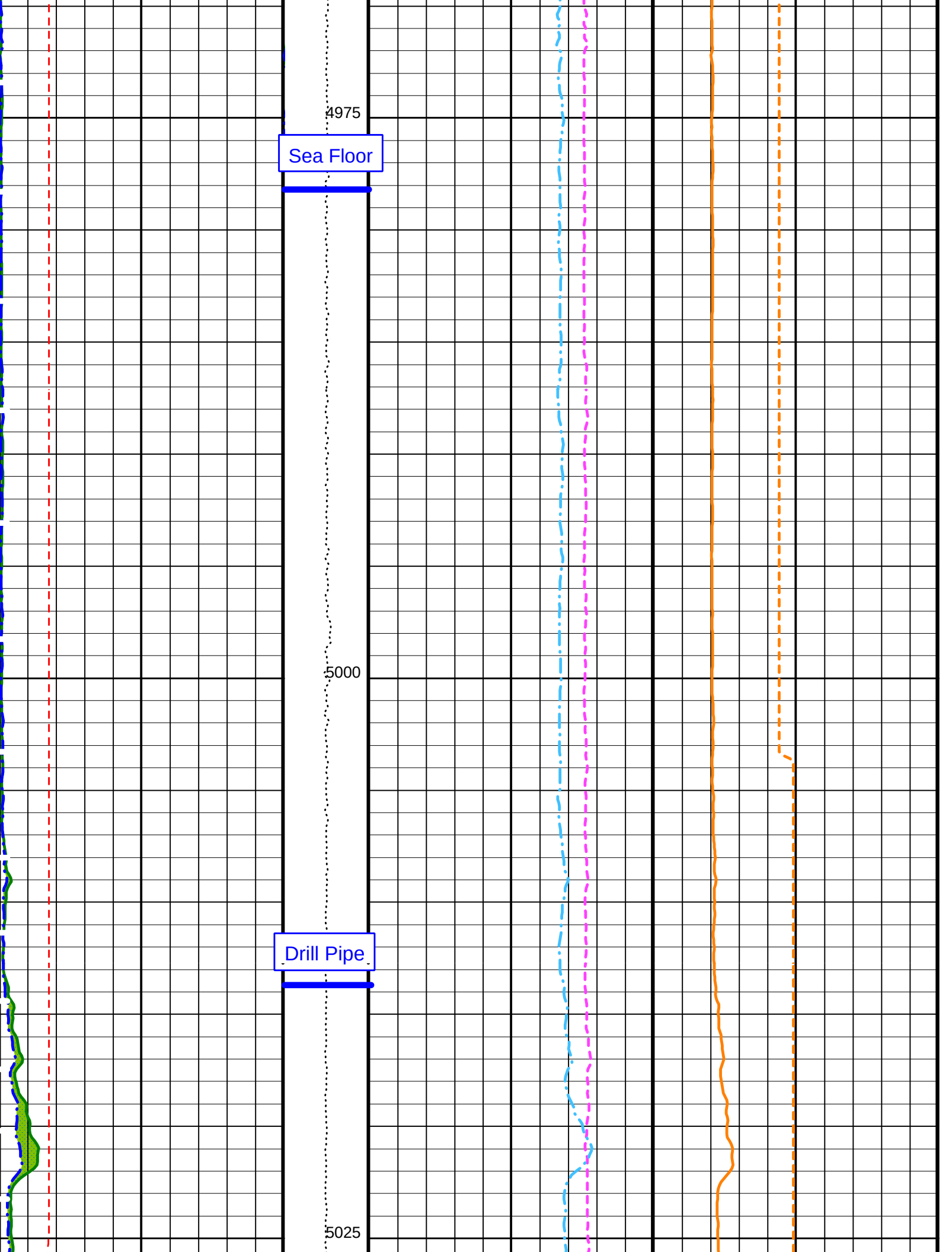
DIT-E	9C2-303	HLDT-A	9C2-303
DTA-A	9C2-303	NPLC-B	9C2-303
APS-BA	9C2-303	HNGS-BA	9C2-303
DTC-H	9C2-303		

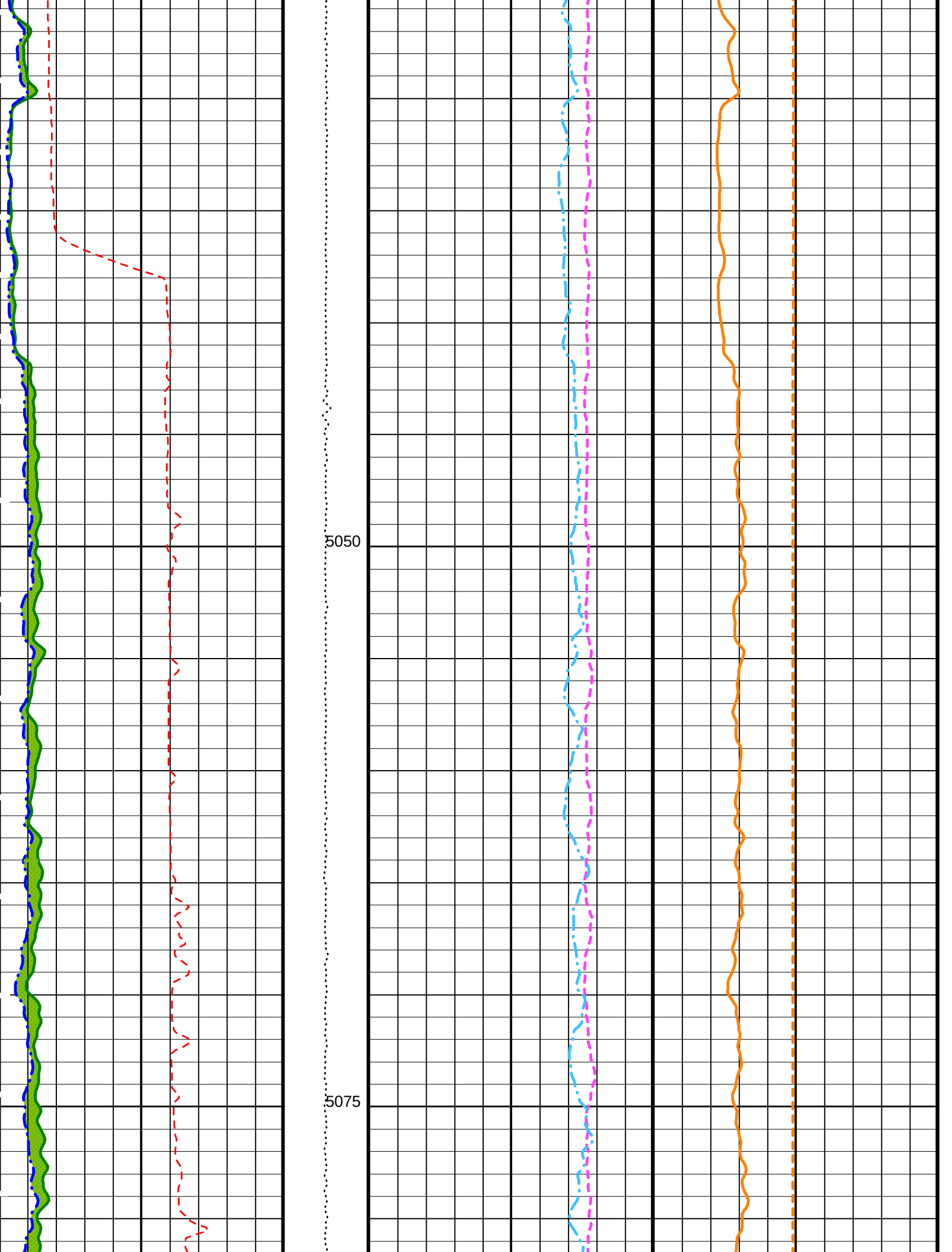
Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
DFD	1.07 G/C3	-50000.00 G/C3	5124.4 11:23:13

PIP SUMMARY




4975
Sea Floor
5000
Drill Pipe
5025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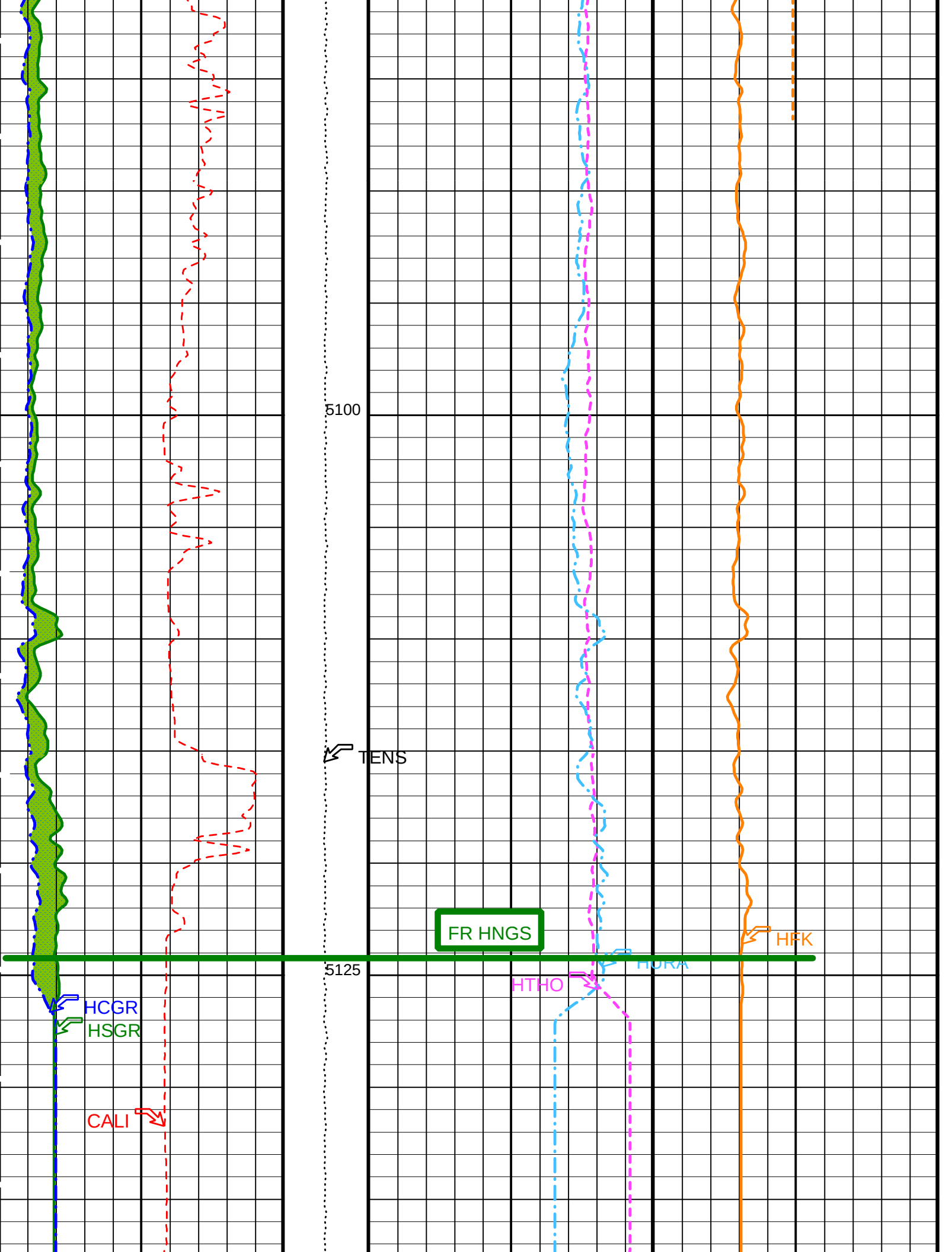
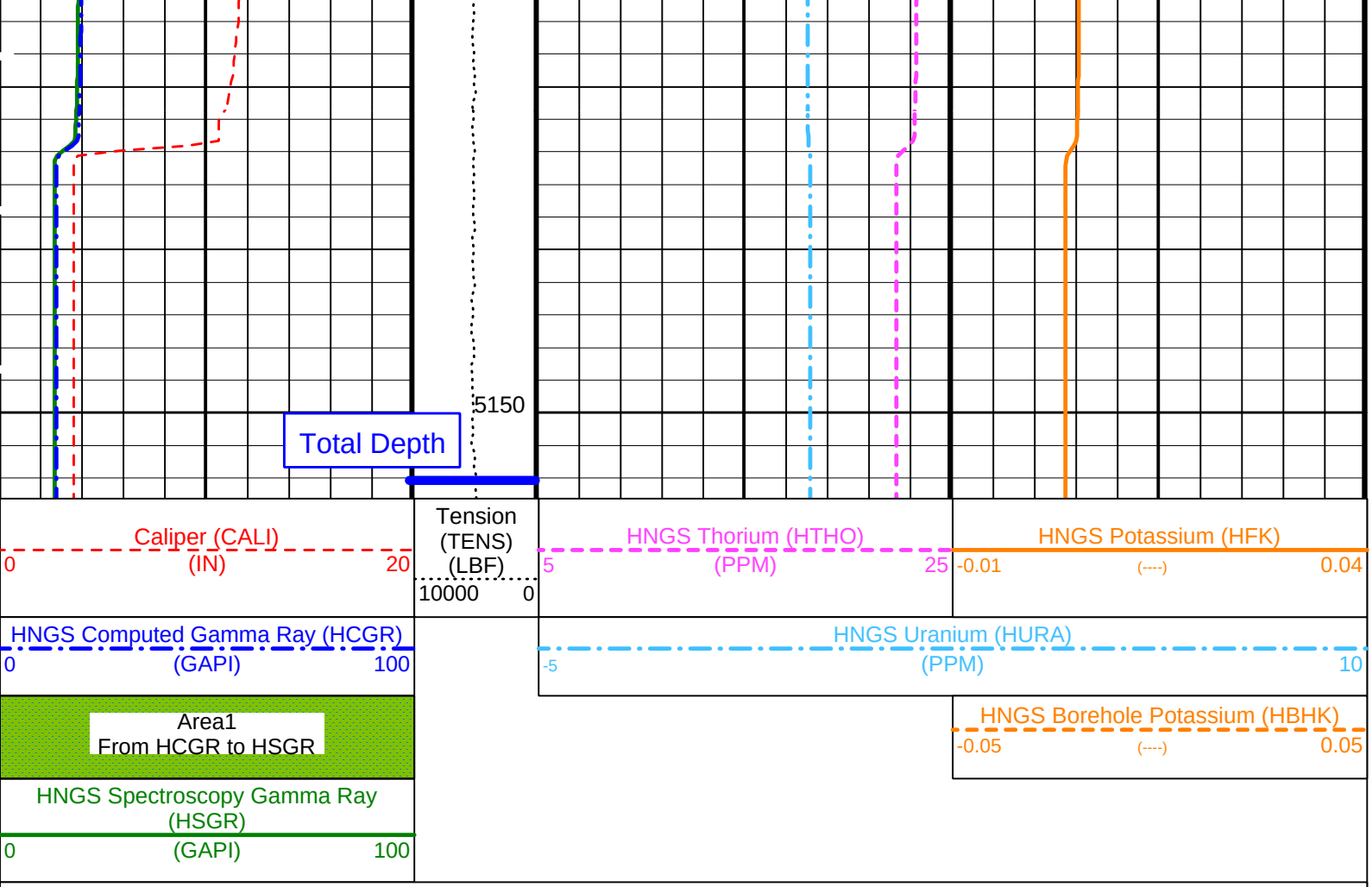

5100
TENS
FR HNGS
5125
HFK
HURA
HTHO
HCGR
HSGR
CALI



Parameters

DLIS Name	Description	Value	
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	
BKSF	HNGS Borehole Fluid Excluder Sleeve Algorithm Factor	1	
BKSH	HNGS Borehole Fluid Excluder Sleeve Algorithm High Channel	245	
BKSL	HNGS Borehole Fluid Excluder Sleeve Algorithm Low Channel	17	
BS	Bit Size	9.875	IN
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
D1PR	HNGS Detector 1 Calibration Thorium Peak Resolution	8.14548	%
D1TC	HNGS Detector 1 Calibration Temperature	31.7288	DEGC
D1TL	HNGS Detector 1 Calibration Thorium Peak Location	210.552	
D2PR	HNGS Detector 2 Calibration Thorium Peak Resolution	7.20033	%
D2TC	HNGS Detector 2 Calibration Temperature	30.7679	DEGC
D2TL	HNGS Detector 2 Calibration Thorium Peak Location	209.474	
DBCC	HNGS Barite Constant Correction Flag	NONE	
DFD	Drilling Fluid Density	-50000.00	G/C3
GCF1_START	HNGS Detector 1 GCF Constant	1	
GCF2_START	HNGS Detector 2 GCF Constant	1	
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	
HALF	HNGS Alpha Filter Length	60	IN
HATIM	HNGS Marquardt Accumulation Time	600	S
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
HSLV	HNGS Borehole Fluid Excluder Sleeve Status	NO	
HSVN	HNGS Spectral Standards Version Number	1.07846e-031	
MARQ_START	HNGS Marquardt Start-up Mode	INTERNAL	
RDF1_START	HNGS Detector 1 RDF Constant	0	

RDF2_START	HNGS Detector 2 RDF Constant	0	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S1NA	HNGS Detector 1 Calibration Sodium Count Rate	17.8279	CPS
S1NG	HNGS Detector 1 Calibration End-On / Side-On Gain Ratio	0.98377	
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
S2NA	HNGS Detector 2 Calibration Sodium Count Rate	18.2379	CPS
S2NG	HNGS Detector 2 Calibration End-On / Side-On Gain Ratio	0.981503	
SABK	HNGS Statistical Uncertainty in Borehole Potassium Running Average	0	
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES	
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0	

Format: HNGSYields Vertical Scale: 1:200 Graphics File Created: 20-Jan-2002 11:22

OP System Version: 9C2-303

MCM

DIT-E	9C2-303	HLDT-A	9C2-303
DTA-A	9C2-303	NPLC-B	9C2-303
APS-BA	9C2-303	HNGS-BA	9C2-303
DTC-H	9C2-303		

Output DLIS Files

DEFAULT	PI_LDL_APS_HNGS_029LUP	FN:4	PRODUCER	20-Jan-2002 11:22
TCOMB_CUST	PI_LDL_APS_HNGS_029LUP	FN:5	PRODUCER	20-Jan-2002 11:22

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
Hostile Environment Litho Density - A Wellsite Calibration - Background Measurement							
Master: 7-Dec-2001 21:39 Before: 30-Dec-2001 11:04 After: 20-Jan-2002 15:40							
LSW1 Background	100.0	89.56	87.86	88.41	0.5419	3.000	CPS
LSW2 Background	105.0	93.91	91.73	93.91	2.182	3.150	CPS
LSW3 Background	210.0	179.0	176.2	180.2	4.002	6.300	CPS
LSW4 Background	290.0	240.3	237.5	238.2	0.6737	8.700	CPS
LSW5 Background	610.0	528.5	525.7	527.3	1.616	18.30	CPS
SSW1 Background	100.0	85.71	85.20	84.95	-0.2536	3.000	CPS
SSW2 Background	200.0	166.9	166.7	167.4	0.7260	6.000	CPS
SSW3 Background	530.0	447.7	444.3	445.9	1.583	15.90	CPS
SSW4 Background	280.0	234.6	237.7	234.0	-3.714	8.400	CPS
SSW5 Background	205.0	176.5	176.2	173.5	-2.678	6.150	CPS
Hostile Environment Litho Density - A Wellsite Calibration - Tool Quality Control Information High Voltage							
Master: 7-Dec-2001 21:39 Before: 30-Dec-2001 11:04 After: 20-Jan-2002 15:40							
LS Bkg. High Voltage	1134	1134	1127	1131	3.542	N/A	V
SS Bkg. High Voltage	1178	1178	1173	1171	-2.018	N/A	V
Hostile Environment Litho Density - A Wellsite Calibration - Detectors Resolution From BKG Measurments							
Master: 7-Dec-2001 21:39 Before: 30-Dec-2001 11:04 After: 20-Jan-2002 15:40							
LS Background Resolution	1.000	1.039	1.034	1.029	-0.004734	N/A	
SS Background Resolution	1.000	0.9501	0.9416	0.9389	-0.002698	N/A	
Hostile Environment Litho Density - A Wellsite Calibration - Caliper Calibration							
Before: 30-Dec-2001 11:19							
Caliper Small Ring	3.500	N/A	4.990	N/A	N/A	N/A	IN
Caliper Large Ring	18.00	N/A	23.86	N/A	N/A	N/A	IN
Accelerator-Porosity Tool Wellsite Calibration - Detector Background							
Master: 30-Nov-2001 20:30 Before: 30-Dec-2001 16:13 After: 20-Jan-2002 15:42							
Near Det Bkg Cntrate	30.00	32.33	32.70	31.84	-0.8649	N/A	CPS
Far Det Bkg Cntrate	30.00	33.17	34.18	34.18	-0.007690	N/A	CPS
Array-1 Det Bkg Cntrate	30.00	30.17	28.64	28.45	-0.1975	N/A	CPS
Array-2 Det Bkg Cntrate	30.00	31.43	30.85	28.83	-2.023	N/A	CPS
Array Therm Det Bkg Cntrate	30.00	32.29	32.67	32.38	-0.2912	N/A	CPS
Accelerator-Porosity Tool Wellsite Calibration - Calibration Ratios							
Master: 30-Nov-2001 20:32							
Near/Far Calibration Ratio	0.9250	0.9007	N/A	N/A	N/A	N/A	
Near/Array Calibration Ratio	1.030	1.062	N/A	N/A	N/A	N/A	
Hostile Natural Gamma Ray Sonde Wellsite Calibration - Detector 1 Check							
Master: 1-Dec-2001 16:38 Before: 30-Dec-2001 14:16 After: 20-Jan-2002 15:40							

Na 511 Peak Loc	40.00	40.72	40.73	40.63	-0.09391	1.000	
Na 511 Peak Res	15.50	16.42	16.55	16.58	0.03551	2.000	%
High Voltage	1150	1100	1105	1111	5.656	30.00	V
Na 1785 Peak Loc	142.6	145.6	145.7	146.1	0.4283	7.000	
Na 1785 Peak Res	8.500	9.899	9.918	9.195	-0.7231	2.000	%
Temperature	15.50	31.73	23.93	21.20	-2.730	N/A	DEGC
Na Count Rate	45.00	17.83	17.33	16.68	-0.6540	8.000	CPS

Hostile Natural Gamma Ray Sonde Wellsite Calibration - Detector 2 Check
Master: 1-Dec-2001 16:38 Before: 30-Dec-2001 14:16 After: 20-Jan-2002 15:40

Na 511 Peak Loc	40.00	40.60	40.65	40.68	0.03064	1.000	
Na 511 Peak Res	15.50	14.50	13.91	14.92	1.012	2.000	%
High Voltage	1150	1188	1192	1198	6.168	30.00	V
Na 1785 Peak Loc	142.6	145.7	144.5	144.8	0.2887	7.000	
Na 1785 Peak Res	8.500	8.146	9.248	8.474	-0.7739	2.000	%
Temperature	15.50	30.79	22.87	21.20	-1.670	N/A	DEGC
Na Count Rate	45.00	18.24	17.51	16.81	-0.7019	8.000	CPS

Hostile Natural Gamma Ray Sonde Wellsite Calibration - Ratio Of Detector 1 To Detector 2
Master: 1-Dec-2001 16:38 Before: 30-Dec-2001 14:16 After: 20-Jan-2002 15:40

Coincidence Count Rate Ratio	1.000	0.9779	0.9909	0.9907	-0.0002206	0.05000

Accelerator-Porosity Tool - Detector Plateau Settings :

Near Detector Plateau Setting 1748 V
Far Detector Plateau Setting 2052 V
Array Detector Plateau Setting 1969 V

Dual Induction - E / Equipment Identification

Primary Equipment:		
Dual Induction Sonde	DIS - HB	442
Dual Induction Cartridge	DIC - EB	438
Auxiliary Equipment:		
Mass Isolated Housing	MIH - ZA	417

Dual Induction - E Wellsite Calibration
Induction Electronics (10 kHz)

Phase	ID Elect Real Offset 10 kHz MM/M	Value
Before		36.43
-262.8 (Minimum)	37.15 (Nominal)	337.2 (Maximum)

Phase	ID Elect Real Gain 10 kHz	Value
Before		0.9730
0.8294 (Minimum)	0.9794 (Nominal)	1.171 (Maximum)

Phase	ID Elect Phase 10 kHz DEG	Value
Before		11.40
0.6325 (Minimum)	10.63 (Nominal)	20.63 (Maximum)

Phase	ID Elect Quad Offset 10 kHz MM/M	Value
Before		21.09
-277.5 (Minimum)	22.53 (Nominal)	322.5 (Maximum)

Phase	ID Elect Quad Gain 10 kHz	Value
Before		0.9617
0.8193 (Minimum)	0.9693 (Nominal)	1.157 (Maximum)

Phase	IM Elect Phase 10 kHz DEG	Value
Before		13.13
3.310 (Minimum)	13.31 (Nominal)	23.31 (Maximum)

Phase	IM Elect Real Offset 10 kHz MM/M	Value
Before		94.54
-453.5 (Minimum)	96.54 (Nominal)	646.5 (Maximum)

Phase	IM Elect Real Gain 10 kHz	Value
Before		0.9604
0.8074 (Minimum)	0.9574 (Nominal)	1.140 (Maximum)

Phase	IM Elect Quad Offset 10 kHz MM/M	Value
Before		92.64
-454.8 (Minimum)	95.18 (Nominal)	645.2 (Maximum)

Phase	IM Elect Quad Gain 10 kHz	Value
Before		0.9577
0.8055 (Minimum)	0.9555 (Nominal)	1.137 (Maximum)

Before: 20-Jan-2002 11:17

Dual Induction - E Wellsite Calibration
Induction Electronics (20 kHz)

Phase	ID Elect Real Offset 20 kHz MM/M	Value
Before		14.52
-110.3 (Minimum)	14.68 (Nominal)	139.7 (Maximum)

Phase	ID Elect Real Gain 20 kHz	Value
Before		1.010
0.8551 (Minimum)	1.005 (Nominal)	1.207 (Maximum)

Phase	ID Elect Phase 20 kHz DEG	Value
Before		8.903
-5.718 (Minimum)	9.282 (Nominal)	24.28 (Maximum)

Phase	ID Elect Quad Offset 20 kHz MM/M	Value
Before		8.559
-115.9 (Minimum)	9.089 (Nominal)	134.1 (Maximum)

Phase	ID Elect Quad Gain 20 kHz	Value
Before		0.9983
0.8445 (Minimum)	0.9945 (Nominal)	1.192 (Maximum)

Phase	IM Elect Phase 20 kHz DEG	Value
Before		11.15
-2.653 (Minimum)	12.35 (Nominal)	27.35 (Maximum)

Phase	IM Elect Real Offset 20 kHz MM/M			Value	Phase	IM Elect Real Gain 20 kHz			Value
Before				39.34	Before				1.018
	-184.7 (Minimum)	40.31 (Nominal)	265.3 (Maximum)			0.8587 (Minimum)	1.009 (Nominal)	1.212 (Maximum)	
Phase	IM Elect Quad Offset 20 kHz MM/M			Value	Phase	IM Elect Quad Gain 20 kHz			Value
Before				38.62	Before				1.015
	-185.2 (Minimum)	39.80 (Nominal)	264.8 (Maximum)			0.8566 (Minimum)	1.007 (Nominal)	1.209 (Maximum)	

Before: 20-Jan-2002 11:18

Dual Induction - E Wellsite Calibration

Induction Electronics (40 kHz)

Phase	ID Elect Real Offset 40 kHz MM/M			Value	Phase	ID Elect Real Gain 40 kHz			Value	Phase	ID Elect Phase 40 kHz DEG			Value
Before				9.552	Before				0.9994	Before				25.85
	-75.43 (Minimum)	9.570 (Nominal)	94.57 (Maximum)			0.8395 (Minimum)	0.9895 (Nominal)	1.185 (Maximum)			9.068 (Minimum)	29.07 (Nominal)	49.07 (Maximum)	
Phase	ID Elect Quad Offset 40 kHz MM/M			Value	Phase	ID Elect Quad Gain 40 kHz			Value	Phase	IM Elect Phase 40 kHz DEG			Value
Before				5.620	Before				0.9865	Before				28.93
	-79.10 (Minimum)	5.897 (Nominal)	90.90 (Maximum)			0.8281 (Minimum)	0.9781 (Nominal)	1.169 (Maximum)			12.68 (Minimum)	32.68 (Nominal)	52.68 (Maximum)	
Phase	IM Elect Real Offset 40 kHz MM/M			Value	Phase	IM Elect Real Gain 40 kHz			Value					
Before				25.62	Before				1.031					
	-103.8 (Minimum)	26.19 (Nominal)	156.2 (Maximum)			0.8673 (Minimum)	1.017 (Nominal)	1.224 (Maximum)						
Phase	IM Elect Quad Offset 40 kHz MM/M			Value	Phase	IM Elect Quad Gain 40 kHz			Value					
Before				25.20	Before				1.027					
	-104.1 (Minimum)	25.92 (Nominal)	155.9 (Maximum)			0.8649 (Minimum)	1.015 (Nominal)	1.221 (Maximum)						

Before: 20-Jan-2002 11:19

Dual Induction - E Wellsite Calibration

SFL Electronics

Phase	SFL Voltage Offset MV			Value	Phase	SFL Voltage Gain			Value
Before				1.129	Before				1.012
	-15.00 (Minimum)	0 (Nominal)	15.00 (Maximum)			0.8500 (Minimum)	1.000 (Nominal)	1.200 (Maximum)	
Phase	SFL Current Offset MA			Value	Phase	SFL Current Gain			Value
Before				0.005406	Before				0.9916
	-0.6000 (Minimum)	0 (Nominal)	0.6000 (Maximum)			0.8500 (Minimum)	1.000 (Nominal)	1.200 (Maximum)	

Before: 20-Jan-2002 11:20

Dual Induction - E Wellsite Calibration

Electronics Calibration Changes Files/Depth Intervals: 29: 5152.6 - 4958.3

Phase	ID (R > 27 OHM-M) MM/M			Value	Phase	ID (R < 27 OHM-M) %			Value	Phase	SFL (R < 1 OHM-M) OHMM			Value
After				0.02506	After				0.0005157	After				0
	0 (Minimum)	0 (Nominal)	0.7500 (Maximum)			0 (Minimum)	0 (Nominal)	2.000 (Maximum)			0 (Minimum)	0 (Nominal)	0.02000 (Maximum)	
Phase	IM (R > 27 OHM-M) MM/M			Value	Phase	IM (R < 27 OHM-M) %			Value					
After				0.03341	After				0.0006893					
	0 (Minimum)	0 (Nominal)	0.7500 (Maximum)			0 (Minimum)	0 (Nominal)	2.000 (Maximum)						
Phase	SFL (R > 27 OHM-M) MM/M			Value	Phase	SFL (R < 27 OHM-M) %			Value					
After				0.002502	After				0.0001672					
	0 (Minimum)	0 (Nominal)	0.7500 (Maximum)			0 (Minimum)	0 (Nominal)	2.000 (Maximum)						

After: 20-Jan-2002 12:16

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
Master		89.56
Before		87.86
After		88.41

65.00 (Minimum) 100.0 (Nominal) 125.0 (Maximum)

Phase	LSW2 Background CPS	Value
Master		93.91
Before		91.73
After		93.91

70.00 (Minimum) 105.0 (Nominal) 130.0 (Maximum)

Phase	LSW3 Background CPS	Value
Master		179.0
Before		176.2
After		180.2

150.0 (Minimum) 210.0 (Nominal) 250.0 (Maximum)

Phase	LSW4 Background CPS	Value
Master		240.3
Before		237.5
After		238.2

220.0 (Minimum) 290.0 (Nominal) 330.0 (Maximum)

Phase	LSW5 Background CPS	Value
Master		528.5
Before		525.7
After		527.3

430.0 (Minimum) 610.0 (Nominal) 730.0 (Maximum)

Phase	SSW1 Background CPS	Value
Master		85.71
Before		85.20
After		84.95

70.00 (Minimum) 100.0 (Nominal) 120.0 (Maximum)

Phase	SSW2 Background CPS	Value
Master		166.9
Before		166.7
After		167.4

140.0 (Minimum) 200.0 (Nominal) 240.0 (Maximum)

Phase	SSW3 Background CPS	Value
Master		447.7
Before		444.3
After		445.9

380.0 (Minimum) 530.0 (Nominal) 630.0 (Maximum)

Phase	SSW4 Background CPS	Value
Master		234.6
Before		237.7
After		234.0

190.0 (Minimum) 280.0 (Nominal) 340.0 (Maximum)

Phase	SSW5 Background CPS	Value
Master		176.5
Before		176.2
After		173.5

140.0 (Minimum) 205.0 (Nominal) 250.0 (Maximum)

Master: 7-Dec-2001 21:39 Before: 30-Dec-2001 11:04 After: 20-Jan-2002 15:40

Hostile Environment Litho Density - A Wellsite Calibration

Detectors Resolution From BKG Measurments

Phase	LS Background Resolution	Value
Master		1.039
Before		1.034
After		1.029

0.7000 (Minimum) 1.000 (Nominal) 1.111 (Maximum)

Phase	SS Background Resolution	Value
Master		0.9501
Before		0.9416
After		0.9389

0.7000 (Minimum) 1.000 (Nominal) 1.111 (Maximum)

Master: 7-Dec-2001 21:39 Before: 30-Dec-2001 11:04

After: 20-Jan-2002 15:40

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:

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
Master		32.33
Before		32.70
After		31.84

0 (Minimum) 30.00 (Nominal) 50.00 (Maximum)

Phase	Far Det Bkg Cntrate CPS	Value
Master		33.17
Before		34.18
After		34.18

0 (Minimum) 30.00 (Nominal) 50.00 (Maximum)

Phase	Array-1 Det Bkg Cntrate CPS	Value
Master		30.17
Before		28.64
After		28.45

0 (Minimum) 30.00 (Nominal) 50.00 (Maximum)

Phase	Array-2 Det Bkg Cntrate CPS	Value
Master		31.43
Before		30.85
After		28.83

0 (Minimum) 30.00 (Nominal) 50.00 (Maximum)

Phase	Array Therm Det Bkg Cntrate CPS	Value
Master		32.29
Before		32.67
After		32.38

0 (Minimum) 30.00 (Nominal) 50.00 (Maximum)

Master: 30-Nov-2001 20:30 Before: 30-Dec-2001 16:13 After: 20-Jan-2002 15:42

Accelerator-Porosity Tool Wellsite Calibration

Calibration Ratios

Phase	Near/Far Calibration Ratio	Value
Master		0.9007

0.8000 (Minimum) 0.9250 (Nominal) 1.050 (Maximum)

Phase	Near/Array Calibration Ratio	Value
Master		1.062

0.9000 (Minimum) 1.030 (Nominal) 1.150 (Maximum)

Master: 30-Nov-2001 20:32

Hostile Natural Gamma Ray Sonde / Equipment Identification

Primary Equipment:

HNGS Sonde	HNGS - BA	27

Auxiliary Equipment:

HNGS Sonde Housing	HNSH - BA	27
Gamma Source Radioactive	GSR - U	135

Hostile Natural Gamma Ray Sonde Wellsite Calibration

Detector 1 Check

Phase	Na 511 Peak Loc	Value
Master		40.72
Before		40.73
After		40.63

37.50 (Minimum) 40.00 (Nominal) 42.50 (Maximum)

Phase	Na 511 Peak Res %	Value
Master		16.42
Before		16.55
After		16.58

12.00 (Minimum) 15.50 (Nominal) 19.00 (Maximum)

Phase	High Voltage V	Value
Master		1100
Before		1105
After		1111

900.0 (Minimum) 1150 (Nominal) 1600 (Maximum)

Phase	Na 1785 Peak Loc	Value
Master		145.6
Before		145.7
After		146.1

135.0 (Minimum) 142.6 (Nominal) 150.3 (Maximum)

Phase	Na 1785 Peak Res %	Value
Master		9.899
Before		9.918
After		9.195

7.000 (Minimum) 8.500 (Nominal) 11.00 (Maximum)

Phase	Temperature DEGC	Value
Master		31.73
Before		23.93
After		21.20

-28.89 (Minimum) 15.50 (Nominal) 60.00 (Maximum)

Phase	Na Count Rate CPS	Value
Master		17.83
Before		17.33
After		16.68

15.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)

Master: 1-Dec-2001 16:38 Before: 30-Dec-2001 14:16 After: 20-Jan-2002 15:40

Hostile Natural Gamma Ray Sonde Wellsite Calibration

Detector 2 Check

Phase	Na 511 Peak Loc	Value
Master		40.60
Before		40.65
After		40.68

37.50 (Minimum) 40.00 (Nominal) 42.50 (Maximum)

Phase	Na 511 Peak Res %	Value
Master		14.50
Before		13.91
After		14.92

12.00 (Minimum) 15.50 (Nominal) 19.00 (Maximum)

Phase	High Voltage V	Value
Master		1188
Before		1192
After		1198

900.0 (Minimum) 1150 (Nominal) 1600 (Maximum)

Phase	Na 1785 Peak Loc	Value
Master		145.7
Before		144.5
After		144.8

135.0 (Minimum) 142.6 (Nominal) 150.3 (Maximum)

Phase	Na 1785 Peak Res %	Value
Master		8.146
Before		9.248
After		8.474

7.000 (Minimum) 8.500 (Nominal) 11.00 (Maximum)

Phase	Temperature DEGC	Value
Master		30.79
Before		22.87
After		21.20

-28.89 (Minimum) 15.50 (Nominal) 60.00 (Maximum)

Phase	Na Count Rate CPS	Value
Master		18.24
Before		17.51
After		16.81

15.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)

Master: 1-Dec-2001 16:38 Before: 30-Dec-2001 14:16 After: 20-Jan-2002 15:40

Hostile Natural Gamma Ray Sonde Wellsite Calibration

Ratio Of Detector 1 To Detector 2

Phase	Coincidence Count Rate Ratio	Value
Master		0.9779
Before		0.9909
After		0.9907

0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)

Master: 1-Dec-2001 16:38
Before: 30-Dec-2001 14:16
After: 20-Jan-2002 15:40

COMPANY:	Lamont Doherty
WELL:	ODP Leg 200, Site 1224F
FIELD:	H20
COUNTY:	Joides Resolution
STATE:	Pacific Ocean

BOTTOM LOG INTERVAL	5150 m
SCHLUMBERGER DEPTH	5152 m
DEPTH DRILLER	5152.5 m
KELLY BUSHING	11.3 m
DRILL FLOOR	11 m
GROUND LEVEL	-4978 m

Schlumberger

DITE/HLDT/APS/HNGS LOG