

**Company: Lamont Doherty**  
**Well: IODP EXP 306 Site 1313 B**  
**Field: Ice-Rafted Debris**  
**Country: Portugal**  
**Ocean: Atlantic Ocean**

<b>HLDS/APS Porosity</b>		Rig- Joides Resolution Elev.: K.B. 11.3 m G.L. -3424.6 m D.F. 11 m	
Permanent Datum: _____ Log Measured From: _____ Drilling Measured From: _____		GROUND LEVEL DES _____ DES _____	
API Serial No.	Max. Hole Devi.	Longitude 32.95736 W	Latitude 41 N
Elev.: 0 m 11.3 m above Perm. Datum			

Country:	Portugal		
Field:	Ice-Rafted Debris		
Location:	Rig- Joides Resolution		
Well:	IODP EXP 306 Site 1313 B		
Company:	Lamont Doherty		
Logging Date	3/31/05		
Run Number	1		
Depth Driller	3727 m		
Schlumberger Depth	3724 m		
Bottom Log Interval	3724 m		
Top Log Interval	3409 m		
Casing Driller Size @ Depth	0.000 in @ 3489.9 m		
Casing Schlumberger	3489 m		
Bit Size	11.438 in		
Type Fluid In Hole	Septolite		
Density	Viscosity		
Fluid Loss	PH		
Source Of Sample	1.066 g/cm3		
	0 cm3		
RM @ Measured Temperature	0.322 ohm.m	@	23 degC
RMF @ Measured Temperature		@	
RMC @ Measured Temperature		@	
Source RMF	RMC		
RM @ MRT	RMF @ MRT	@	@
	0.362 @ 18		@ 18
Maximum Recorded Temperatures	18 degC		
Circulation Stopped	Time		1800
Logger On Bottom	Time	3/31/05	See Log
Unit Number	Location	99	Houston
Recorded By		Steve Kittredge	
Witnessed By		Sean Higgins	

	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			
Density	Viscosity		
Fluid Loss	PH		
Source Of Sample			
RM @ Measured Temperature		@	
RMF @ Measured Temperature		@	
RMC @ Measured Temperature		@	
Source RMF	RMC		
RM @ MRT	RMF @ MRT	@	@
	0.362 @ 18		@ 18
Maximum Recorded Temperatures	18 degC		
Circulation Stopped	Time		1800
Logger On Bottom	Time	3/31/05	See Log
Unit Number	Location	99	Houston
Recorded By		Steve Kittredge	
Witnessed By		Sean Higgins	

**DISCLAIMER**  
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**OTHER SERVICES1**  
 OS1: none  
 OS2:  
 OS3:  
 OS4:  
 OS5:

**OTHER SERVICES2**  
 OS1:  
 OS2:  
 OS3:  
 OS4:  
 OS5:

**REMARKS: RUN NUMBER 1**  
 Hole Cored With APC.  
 All depths in Meters Below Rig Floor (MBRF).  
 Hole flushed with Sepiolite  
 Sea Floor Driller 3424.6 MBRF.  
 Sea Floor Logger- 3423 MBRF.  
 Total Depth Driller- 3727 MBRF.  
 Total Depth Logger- 3724 MBRF.  
 Casing Bottom Driller-3489.9 MBRF.  
 Casing Bottom Logger- 3489 MBRF.  
 No Repeat.  
 Winch test performed.

**REMARKS: RUN NUMBER 2**

**RUN 1**  
 SERVICE ORDER #:  
 PROGRAM VERSION: 12C0-301  
 FLUID LEVEL:

**RUN 2**  
 SERVICE ORDER #:  
 PROGRAM VERSION:  
 FLUID LEVEL:

LOGGED INTERVAL	START	STOP

LOGGED INTERVAL	START	STOP

## EQUIPMENT DESCRIPTION






**RUN 1**

**SURFACE EQUIPMENT**

SFT-281 6250  
 SFT-178 6250  
 GSR-U 135  
 WITM (DTS)-A

**RUN 2**

**DOWNHOLE EQUIPMENT**

LEH-QT  29.91  
 LEH-QT  
 DTC-H  28.74  
 ECH-KC  28.11  
 HNGS-BA  27.41  
 HNGS-BA 77  27.19

CTEM 28.02  
 TelStatus  
 ToolStatu  
 Upper\_1 28.11  
 Lower\_2

INPLC-A 79

HNSH-BA 79

ILE-D  
ILE-D 25

APS-C  
APH-AC 104  
APS-C 202  
MNTR-F 5124

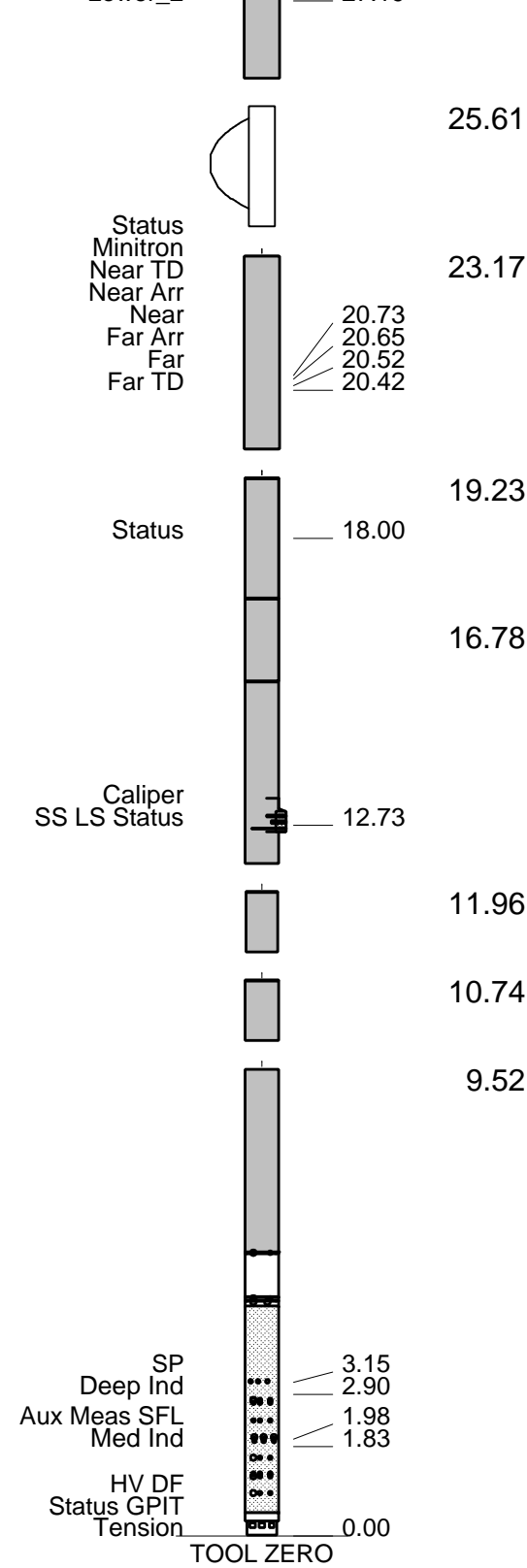
NPLC-B  
NPLC-B 79  
NPH-B 82

HLDS  
GSR-Z 2326  
HLDV-D 35  
HLDS-D 35  
HEH-H 35  
HLDP-C 35

DTA-A  
ECH-KE 8231  
DTA-A 8231

GPIT-A/B  
GPIC-A 719  
GPIH-A

DIT-E  
DIC-EB 438  
MIH-ZA 417  
DIS-HB 442



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

## Input DLIS Files

DEFAULT      PI\_LDL\_APS\_NGS\_062LUP      FN:10    PRODUCER    31-Mar-2005 07:28    3723.9 M    3409.3 M

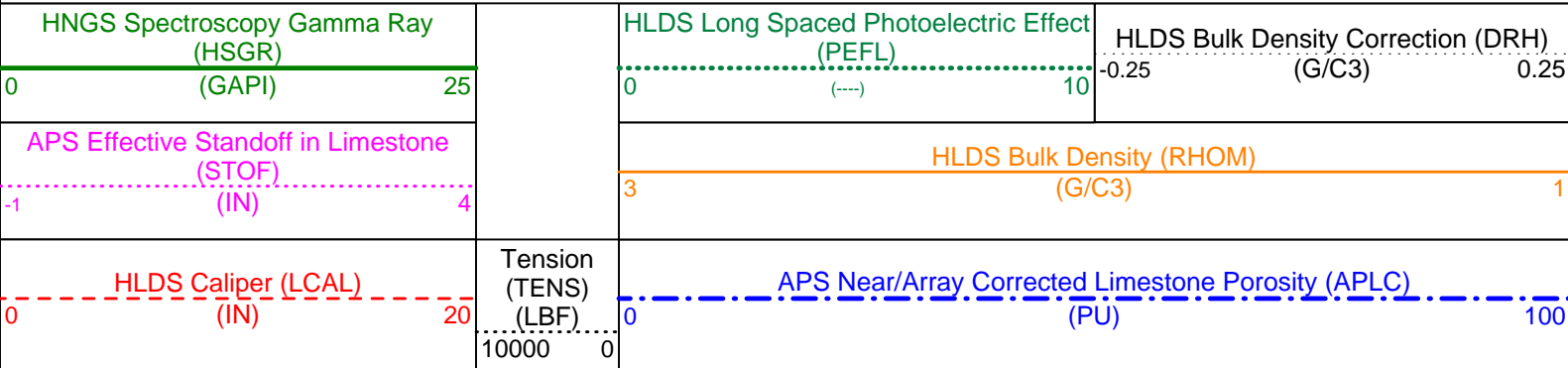
OP System Version: 12C0-301  
MCM

Main Up Log

DIT-E	12C0-301	GPIT-A/B	12C0-301
DTA-A	12C0-301	HLDS	12C0-301
NPLC-B	12C0-301	APS-C	12C0-301
HNGS-BA	12C0-301	DTC-H	12C0-301

### PIP SUMMARY

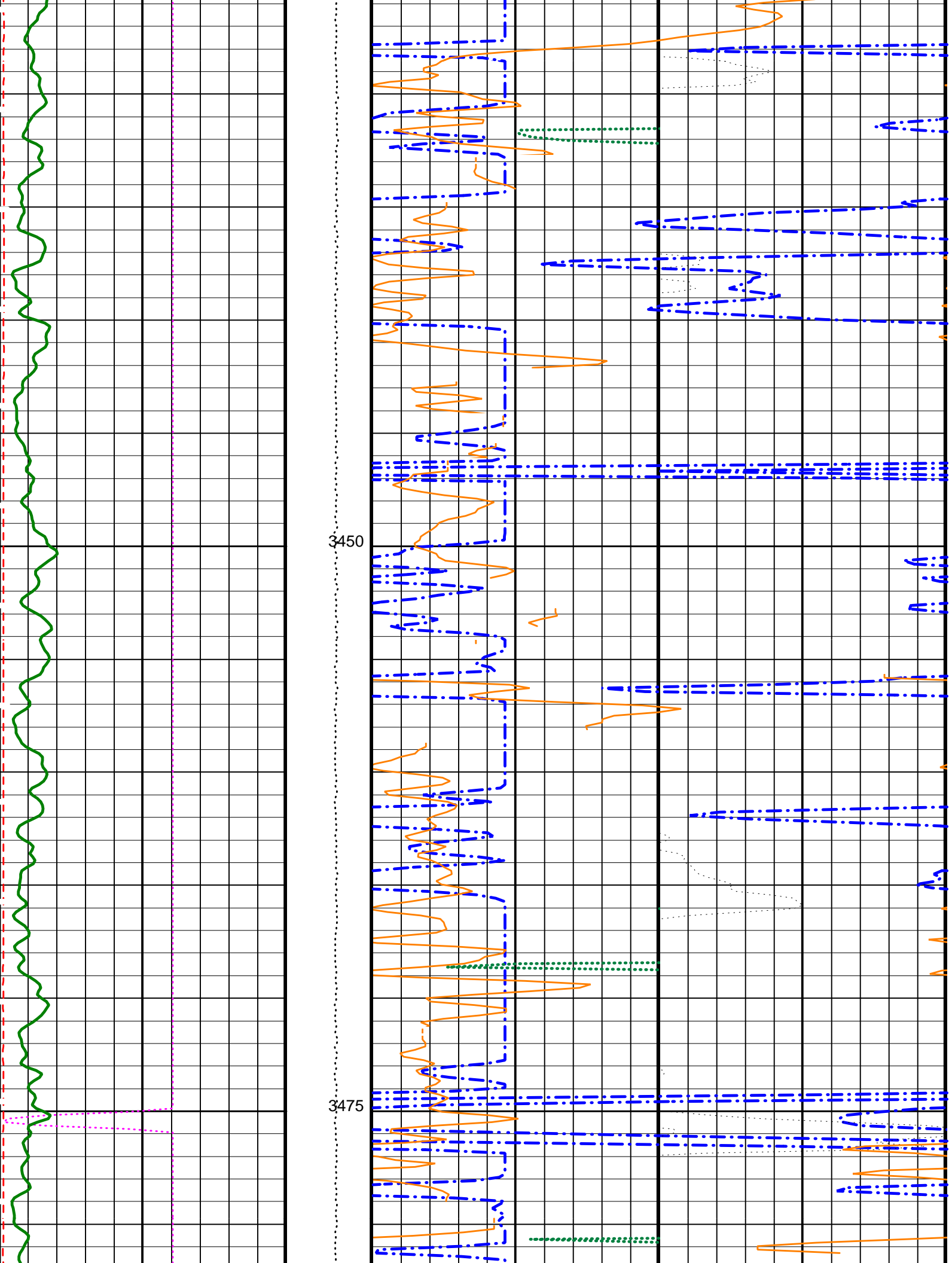
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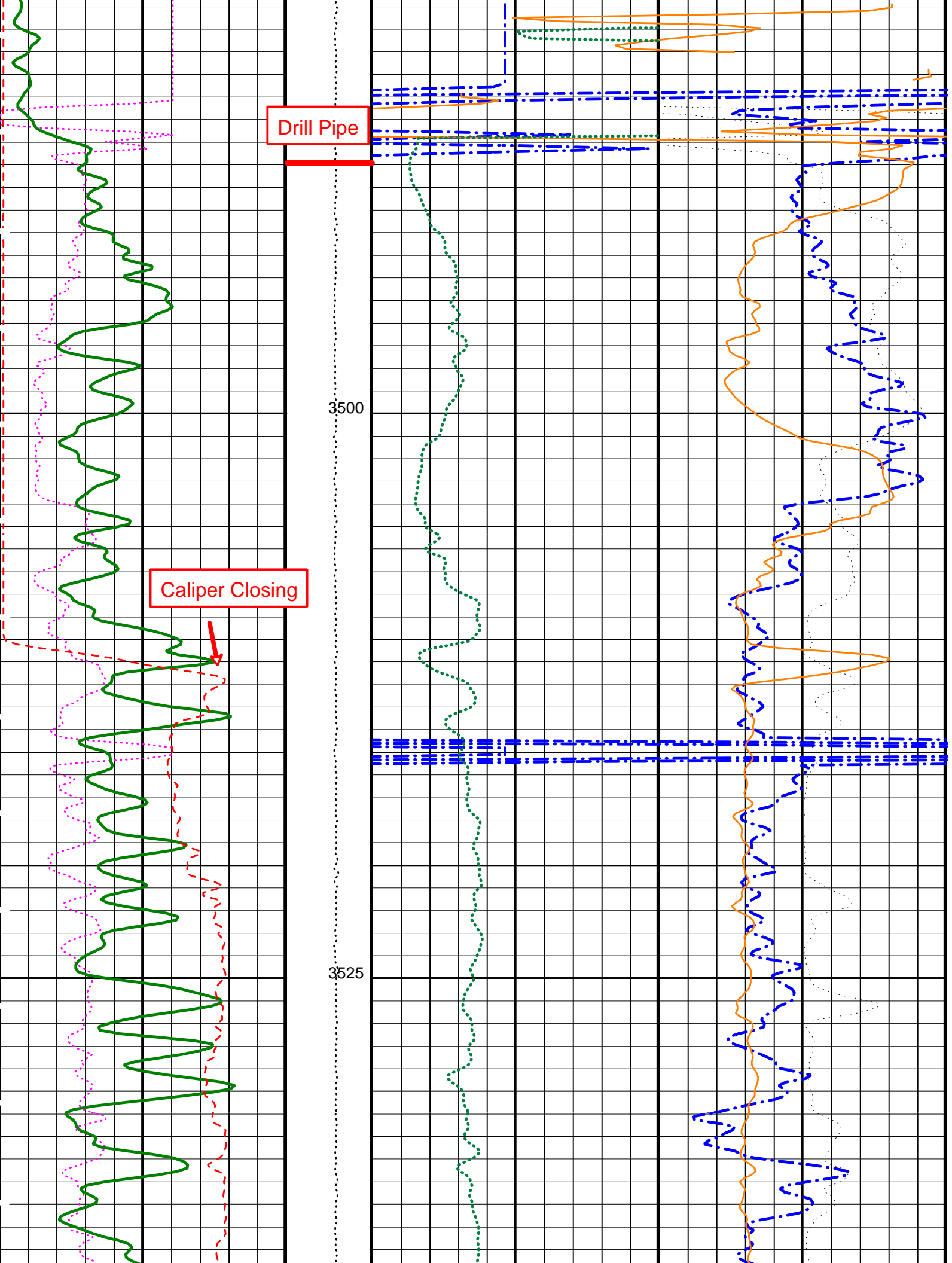


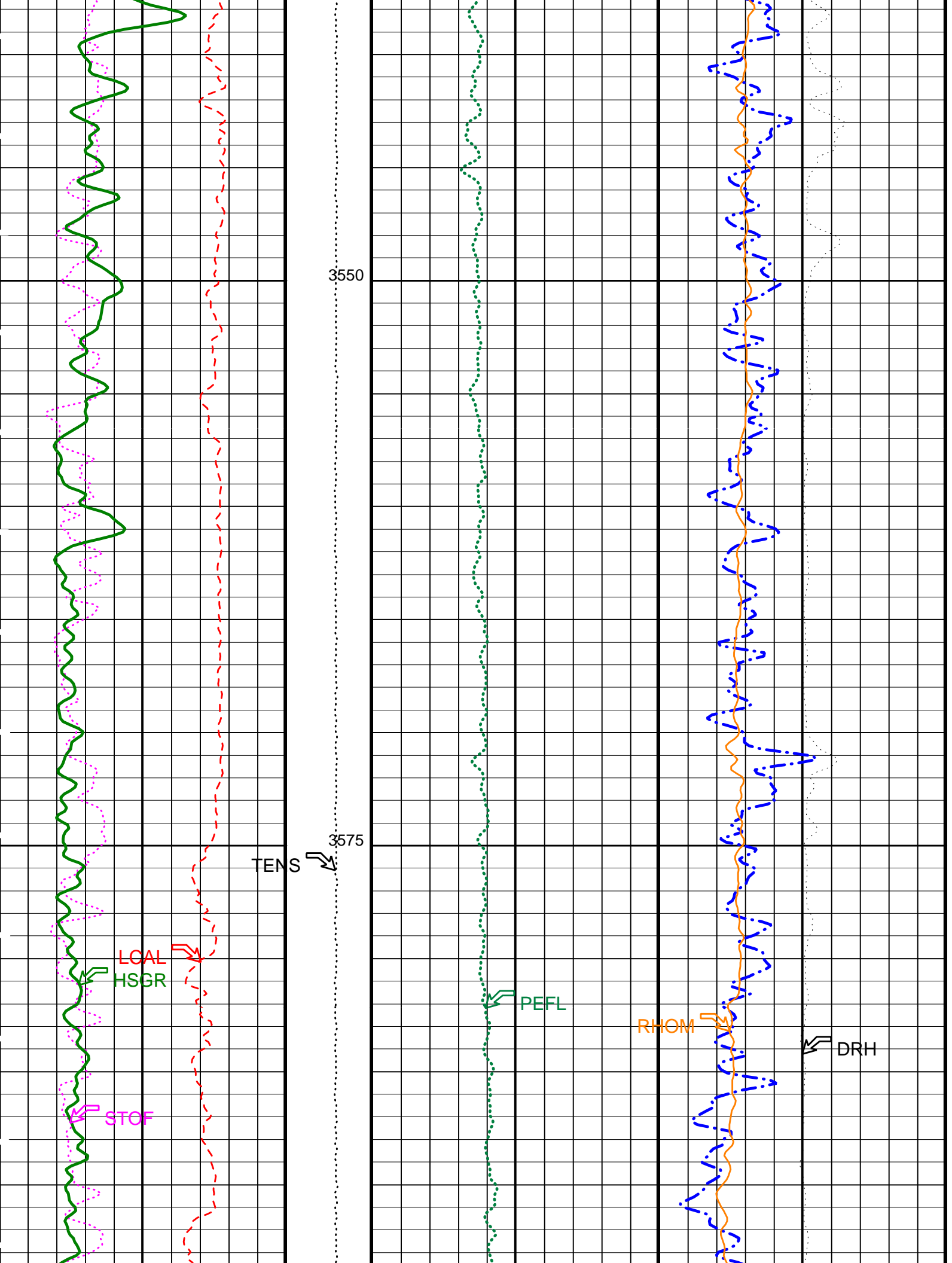
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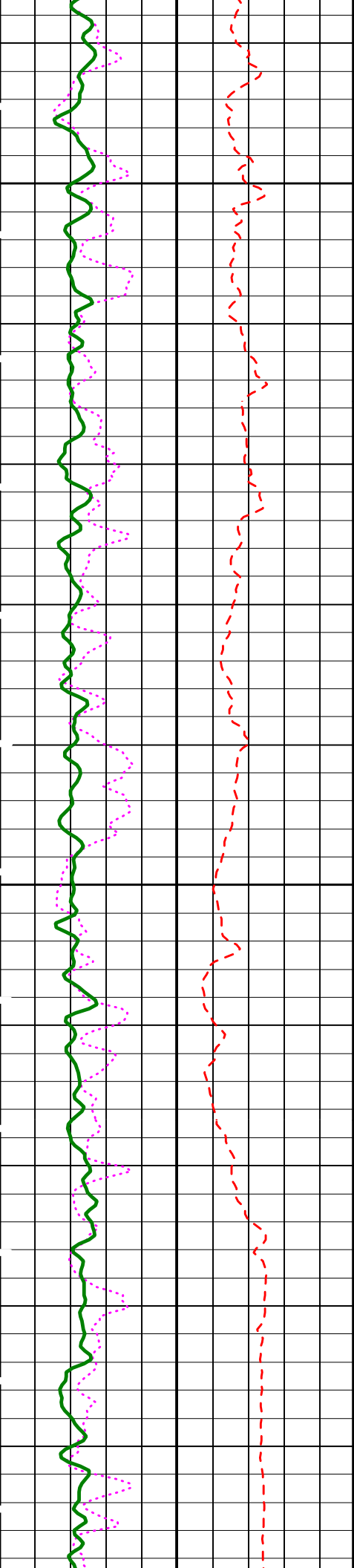
Sea Floor

3425



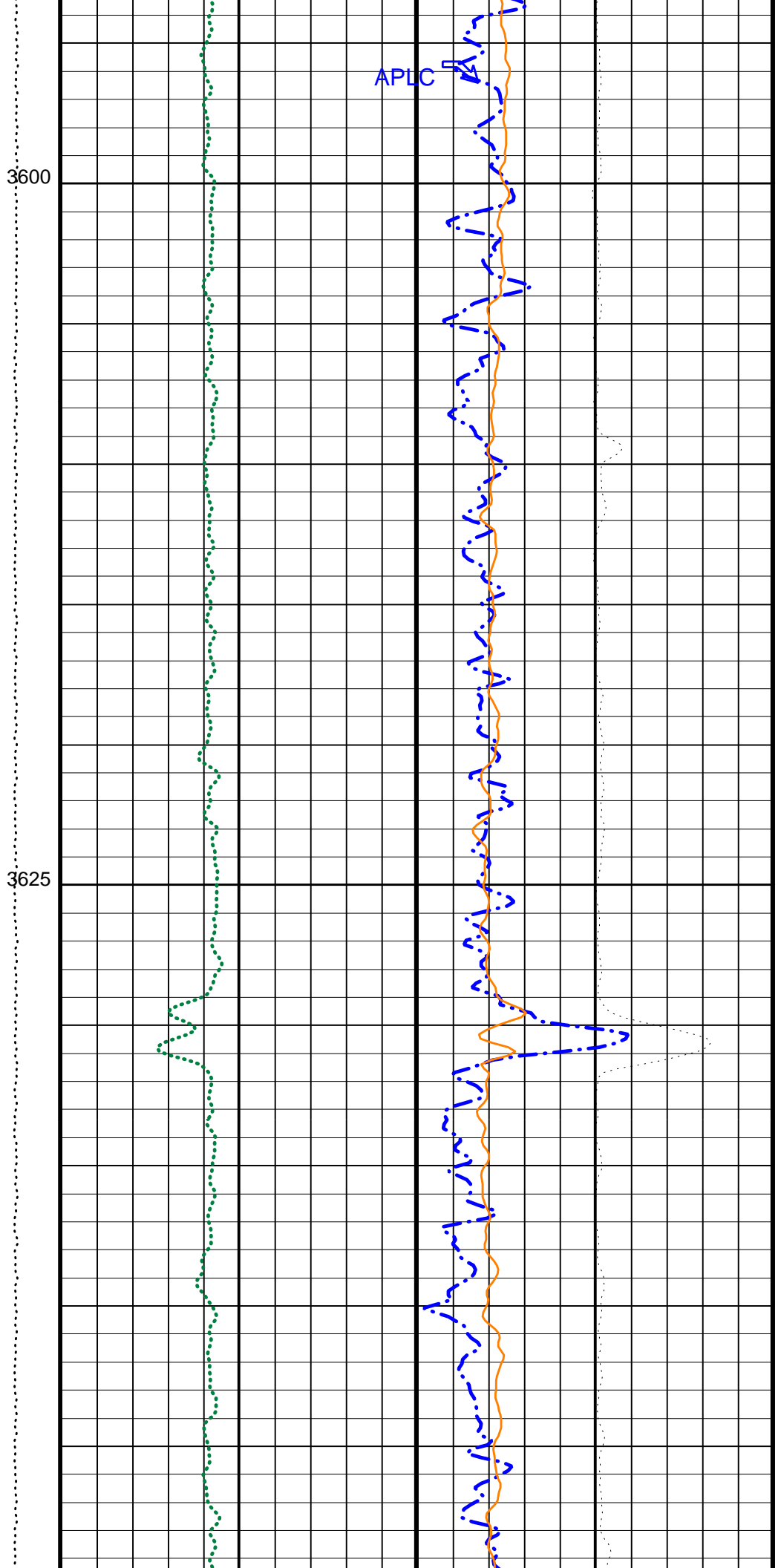






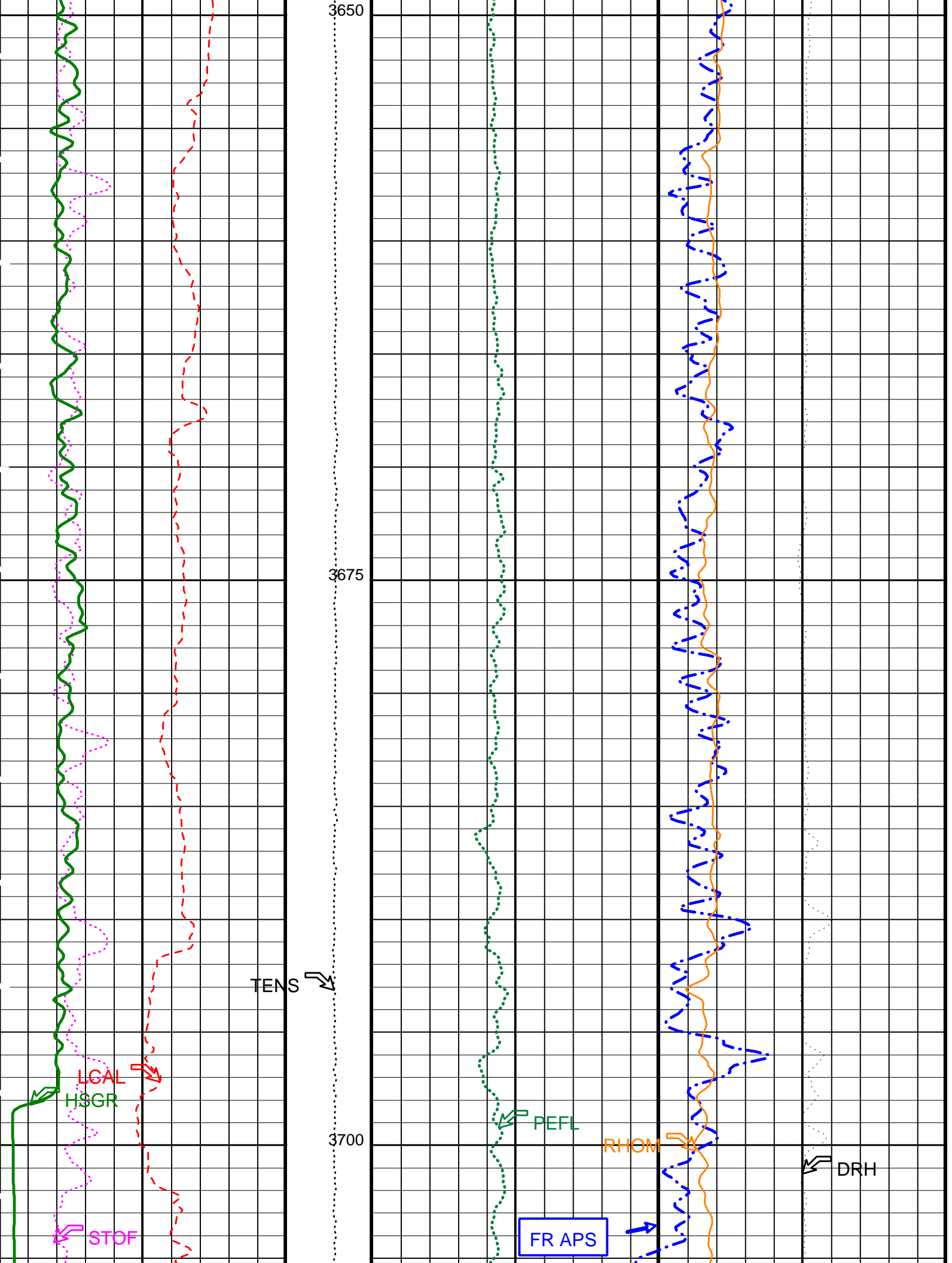
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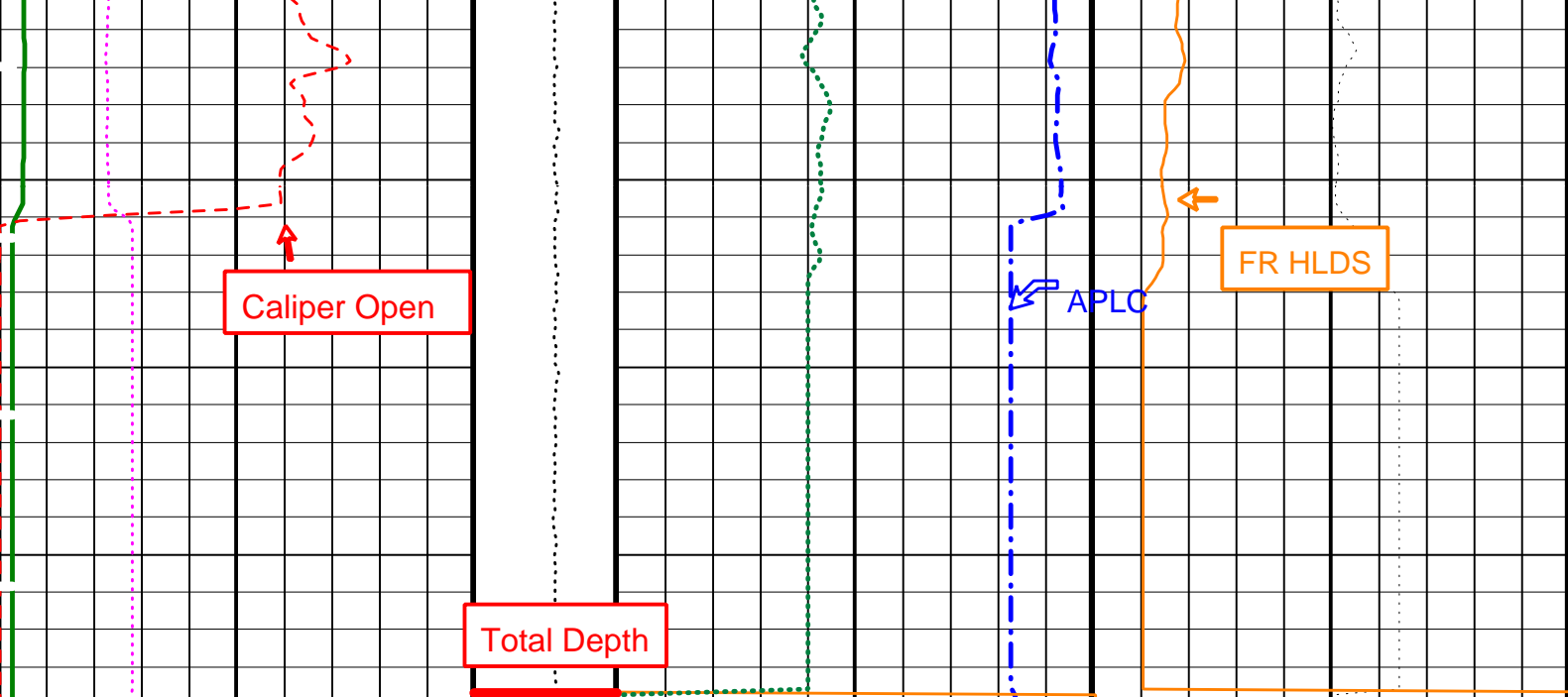
3625



APLC







HLDS Caliper (LCAL) (IN)	Tension (TENS) (LBF)	APS Near/Array Corrected Limestone Porosity (APLC) (PU)
0 20	10000 0	0 100
APS Effective Standoff in Limestone (STOF) (IN)		HLDS Bulk Density (RHOM) (G/C3)
-1 4		3 1
HNGS Spectroscopy Gamma Ray (HSGR) (GAPI)	HLDS Long Spaced Photoelectric Effect (PEFL) (---)	HLDS Bulk Density Correction (DRH) (G/C3)
0 25	0 10	-0.25 0.25

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
DIT-E: Dual Induction - E		
BHS	Borehole Status	OPEN
BHT	Bottom Hole Temperature (used in calculations)	12 DEGC
GCSE	Generalized Caliper Selection	BS
GDEV	Average Angular Deviation of Borehole from Normal	0 DEG
GGRD	Geothermal Gradient	0.018227 DC/M
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE
SHT	Surface Hole Temperature	20 DEGC
HLDS: Hostile Litho-Density Sonde		
DHC	Density Hole Correction	BS
DPPM	Density Porosity Processing Mode	HIRS
FD	Fluid Density	1.07 G/C3
LATC	HLDS Activation Correction	ON
MDEN	Matrix Density	2.71 G/C3
APS-C: Accelerator-Porosity Tool		
AASD	APS Software Version	5
ADSO	APS Thermal and Array Detectors High Voltage Setting	1972.6 V
AFSD	APS Array Detectors Data Source Switch	Both
AHCS	APS Far Detector High Voltage Setting	2081.84 V
AHSS	APS Holesize Correction Source	GCSE
AMTY	APS Holesize Correction Switch	ON
ANSO	APS Environmental Corrections Mud Type	WaterBaseBarite
ASOS	APS Near Detector High Voltage Setting	1741.14 V
ATSS	APS Standoff Correction Switch	ON
BHS	APS Temperature-Pressure-Salinity Correction Switch	OFF
BHT	Borehole Status	OPEN
BHT	Bottom Hole Temperature (used in calculations)	12 DEGC
DPPM	Density Porosity Processing Mode	HIRS
FSAL	Formation Salinity	35000 PPM
GCSE	Generalized Caliper Selection	BS
GDEV	Average Angular Deviation of Borehole from Normal	0 DEG
GGRD	Geothermal Gradient	0.018227 DC/M
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE

GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
NARC	APS Near/Array Calibration Ratio	0.991434	
NFRC	APS Near/Far Calibration Ratio	0.962525	
SHT	Surface Hole Temperature	20	DEGC
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	
BHT	Bottom Hole Temperature (used in calculations)	12	DEGC
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	BS	
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	-0.000377132	
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	
SHT	Surface Hole Temperature	20	DEGC
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.00133	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.916166	
HOLEV: Integrated Hole/Cement Volume			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	12	DEGC
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
SHT	Surface Hole Temperature	20	DEGC
System and Miscellaneous			
BS	Bit Size	11.438	IN
BSAL	Borehole Salinity	35000.00	PPM
CSIZ	Current Casing Size	0.000	IN
CWEI	Casing Weight	0.00	LB/F
DFD	Drilling Fluid Density	1.07	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	NORMAL	
TD	Total Depth	3727.3	M

Format: APSLiquidPorosity\_1 Vertical Scale: 1:200 Graphics File Created: 02-Apr-2005 12:36

### OP System Version: 12C0-301 MCM

DIT-E	12C0-301	GPIT-A/B	12C0-301
DTA-A	12C0-301	HLDS	12C0-301
NPLC-B	12C0-301	APS-C	12C0-301
HNGS-BA	12C0-301	DTC-H	12C0-301

### Input DLIS Files

DEFAULT	PI_LDL_APS_NGS_062LUP	FN:10	PRODUCER	31-Mar-2005 07:28	3723.9 M	3409.3 M
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Company: Lamont Doherty  
Well: IODP EXP 306 Site 1313 B  
Field: Ice-Rafted Debris  
Country: Portugal  
Ocean: Atlantic Ocean



HLDS/APS Porosity

