COMPANY: Lamont Doherty

WELL: ODP Leg 193, Site 1188F (PCM-2A)

FIELD: Manus Basin

COUNTY: Offshore STATE: Bismarck Sea

COUNTY: Offshore
Field: Manus Basin
Location:
Well: ODP Leg 193, Site 1188F (PCM-
Company: Lamont Doherty

Schlumberger

Phasor Induction
Gamma Ray

LOCATION

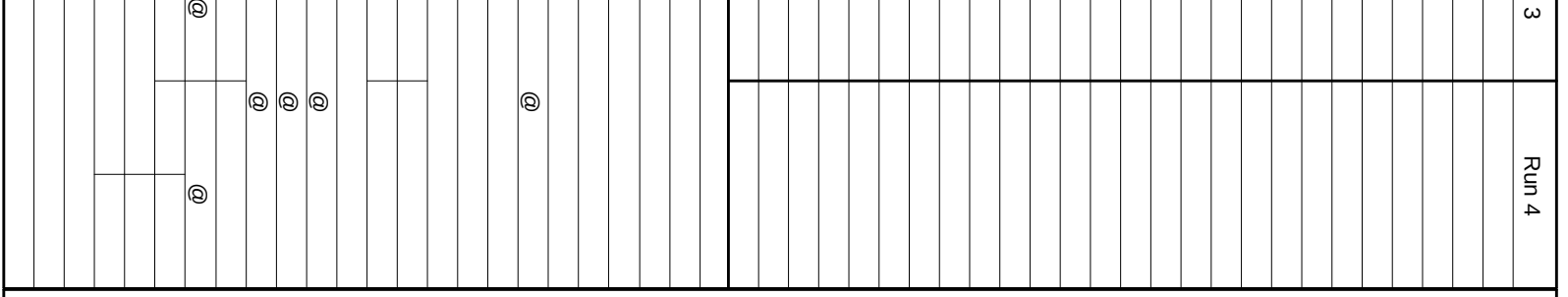
Elev.: K.B. 11.3 m
G.L. -1653 m
D.F. 11 m

Permanent Datum: MSL — Elev.: 0 m
Log Measured From: Drill Floor — 11.0 m above Perm. Datum
Drilling Measured From: Drill Floor

API Serial No.	LATITUDE: 03* 43.6850' S	LONGITUDE: 151* 40.1909' E	RIG: JOIDES Resolution

Logging Date			21-DEC-2000						
Run Number			1						
Depth Driller			2039.7 m						
Schlumberger Depth			2008 m						
Bottom Log Interval			2006 m						
Top Log Interval			1652 m						
Casing Driller Size @ Depth			0.000 in	@	1843 m		@		
Casing Schlumberger			1843 m						
Bit Size			7.250 in						
Type Fluid In Hole			Seawater						
MUD Density	Viscosity		1.1 g/cm3						
MUD Fluid Loss	PH								
MUD Source Of Sample			Seawater						
RM @ Measured Temperature			0.180 ohm.m	@	30 degC		@		
RMF @ Measured Temperature				@			@		
RMC @ Measured Temperature				@			@		
Source RMF	RMC								
RM @ MRT	RMF @ MRT		0.086 @ 86		@ 86		@		@
Maximum Recorded Temperatures			86 degC						
Circulation Stopped	Time		20-Dec-2000		22:00				
Logger On Bottom	Time		21-DEC-2000		4:00				
Unit Number	Location		99	Houston ODP					
Recorded By			Kerry M. Swain						
Witnessed By			Gerardo Iturrino, Anne Bartetzko						

	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: FMS	OS1:
OS2: APS/HLDS	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:

REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
HGTC (HighTemp/High Pressure Gamma Ray Telemetry Cartridge) used for Temperature	
with LEH-QO head and MTEM sensor.	
Log presented in meters below rig floor. Sea floor at 1652 mbrf.	
Wireline heave compensator used on all descents.	
Sea water used as mud in hole.	
Log TD at 2008 mbrf and tool could not reach drillers depth of 2039.7 mbrf.	
Maximum temperature recorded from MTEM sensor in head.	
Toolstring-DITE/DTA/HGTC/LEHQO, Mud weight does not affect processing of DITE or HGTC.	
Induction Medium curve spiking due to tool problems.	

RUN 1

SERVICE ORDER #:
PROGRAM VERSION: 9C1-303
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

WITM (DTS)-A

DOWNHOLE EQUIPMENT

LEH-MT 14.96
LEH-MT 1

Mud Tempe — 14.00

HTGC-B 14.00
UDFH-KL 1062

STGC0-A 8038
STGC1-BH 8038
MTEM 1

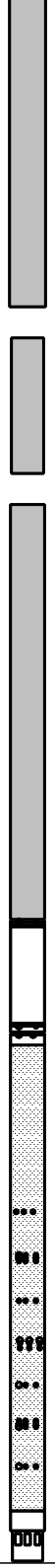
Gamma Ray — 12.97

CTEM — 12.10

TelStatus — 10.74

DTA-A — 10.74
ECH-KE 8455
DTA-A 8261

DIT-E — 9.52
DIC-EB 398
MIH-ZA 390
DIS-HB 433



SP — 3.15

Deep Ind — 2.90

Aux Meas SFL — 1.98

Med Ind — 1.83

HV DF

Status ACCZ

Tension — 0.00

TOOL ZERO

MAXIMUM STRING DIAMETER 3.75 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN METERS

Output DLIS Files

DEFAULT	DITE .007	FN:10	PRODUCER	21-Dec-2000 03:36	2010.0 M	1821.2 M
LAMONT	DITE .007	FN:11	PRODUCER	21-Dec-2000 03:36	2010.0 M	1821.2 M

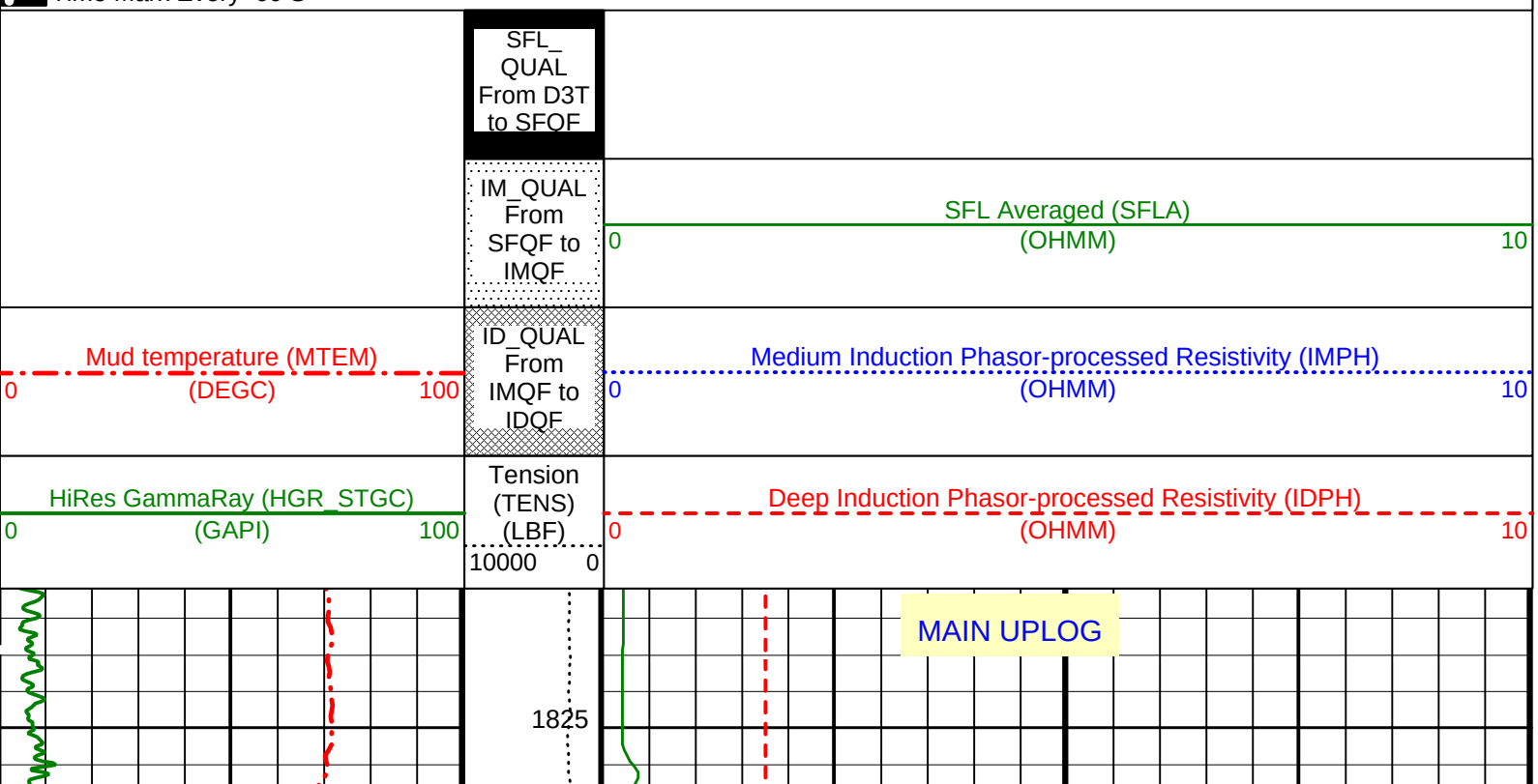
OP System Version: 9C1-303

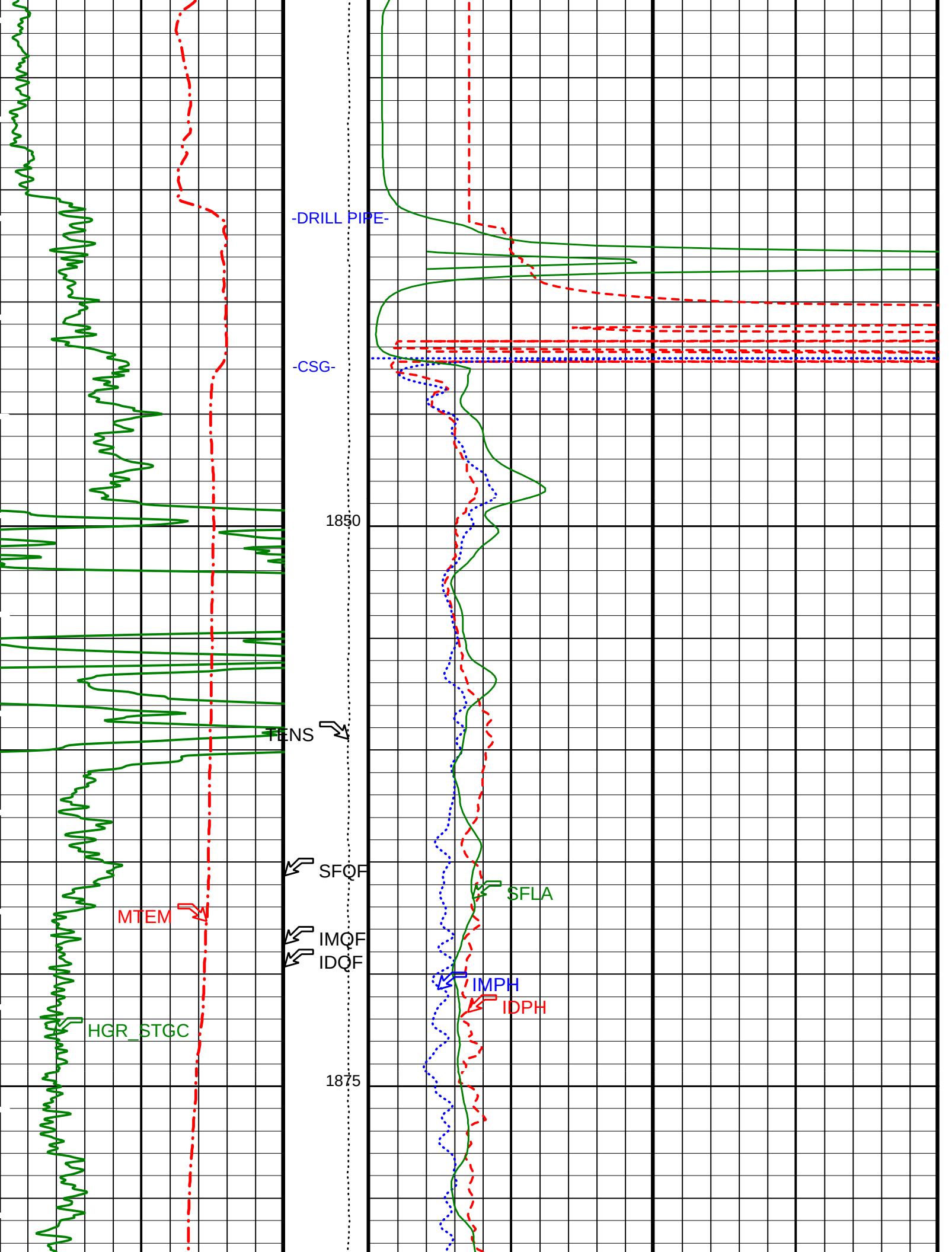
MCM

DIT-E	OP91-kp2	DTA-A	OP91-kp2
HTGC-B	OP91-kp2		

PIP SUMMARY

Time Mark Every 60 S




-DRILL PIPE-
-CSG-
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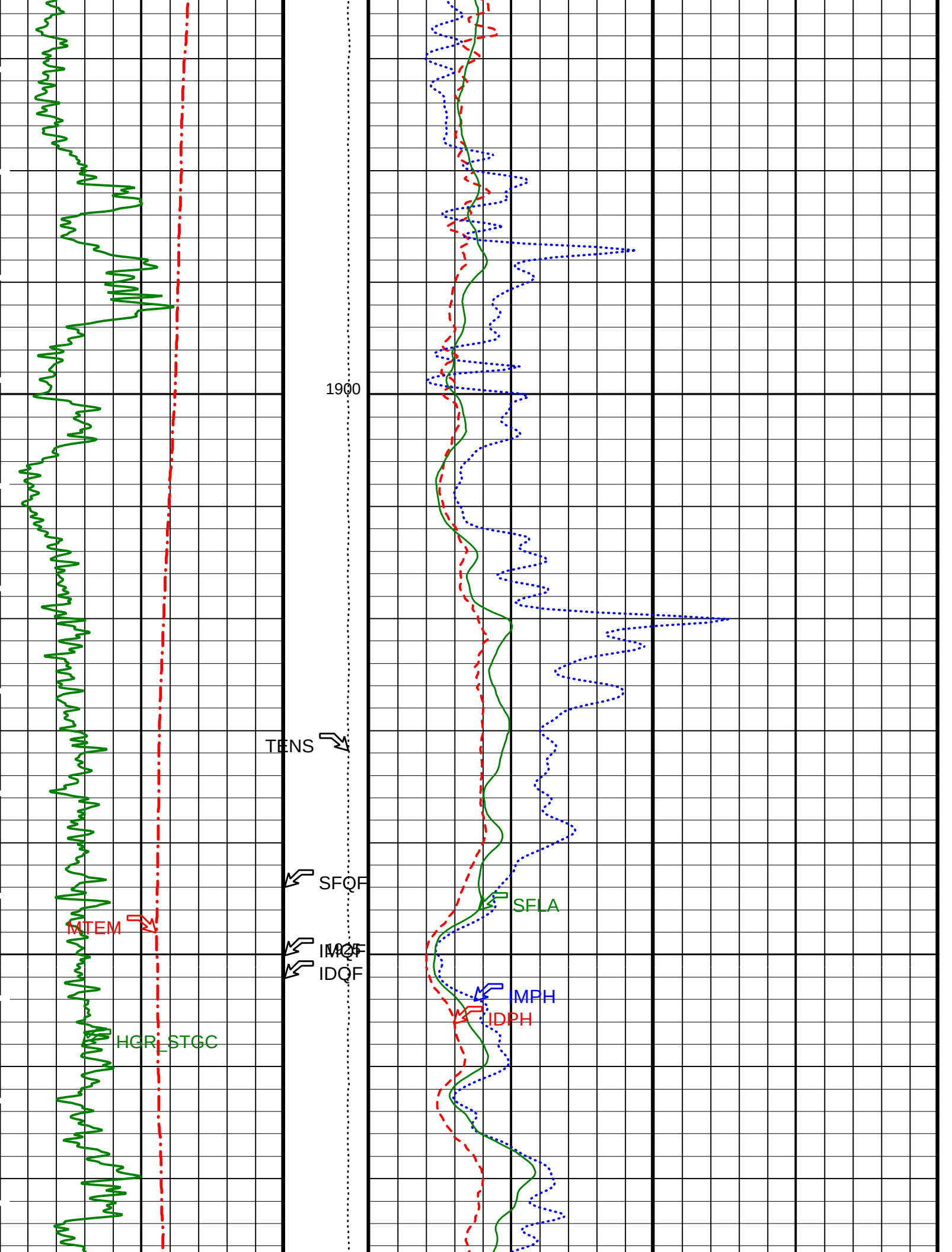
TENS
SFQF
SFLA
MTEM
IMQF
IDQF
IMPH
IDPH
HGR_STGC
1875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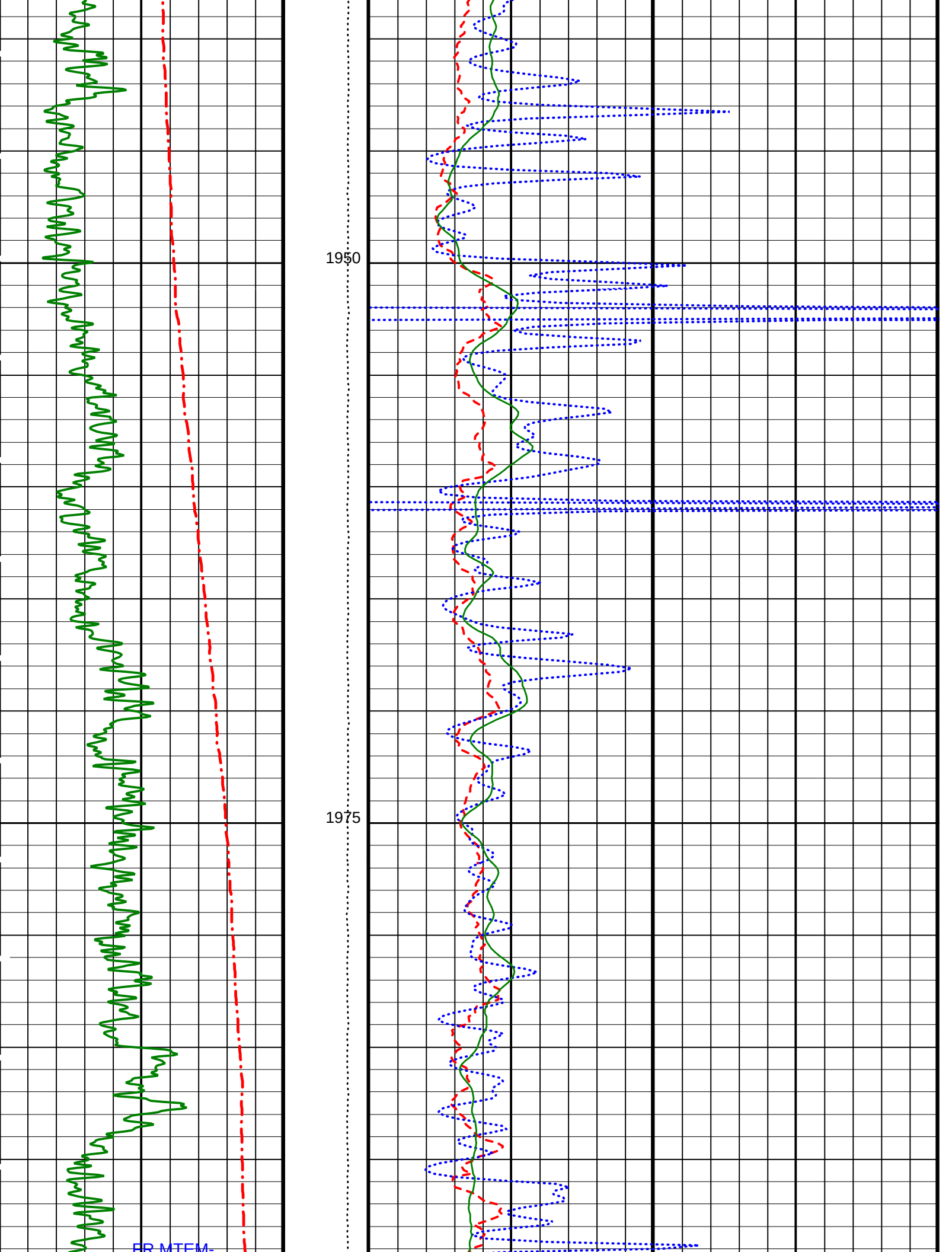
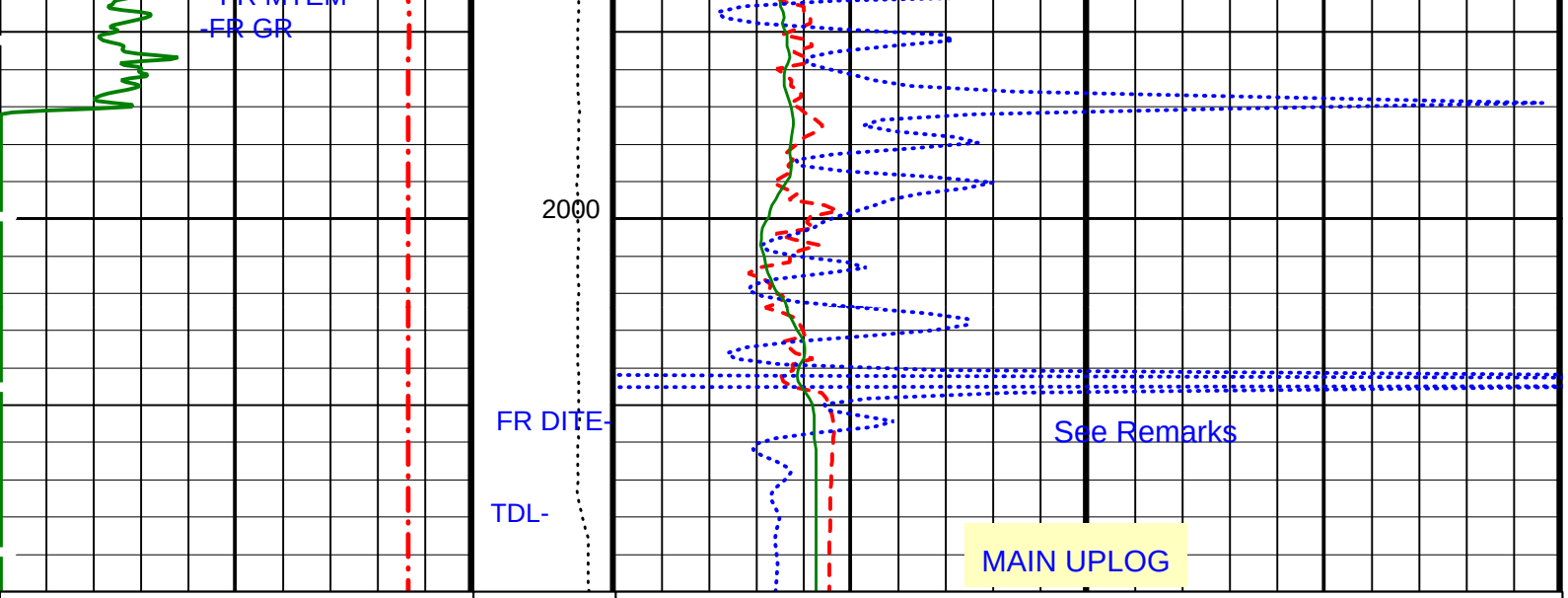
TENS
SFQF
SFLA
MTEM
IMQF
IDQF
IMPH
IDPH
HGR_STGC


1950
1975
RR MTEM-



HiRes GammaRay (HGR_STGC)
0 (GAPI) 100

Tension (TENS) (LBF)
10000 0

Deep Induction Phasor-processed Resistivity (IDPH)
0 (OHMM) 10

Mud temperature (MTEM)
0 (DEGC) 100

ID_QUAL From IMQF to IDQF

Medium Induction Phasor-processed Resistivity (IMPH)
0 (OHMM) 10

IM_QUAL From SFQF to IMQF

SFL Averaged (SFLA)
0 (OHMM) 10

SFL_ QUAL From D3T to SFQF

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
ALTDPCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	212	DEGF
BS	Bit Size	7.250	IN
BSAL	Borehole Salinity	-50000.00	PPM
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
CONTYP	Conveyance Type	Wireline	
CSIZ	Current Casing Size	0.000	IN
CWEI	Casing Weight	0.00	LB/F
DEPREM1	Depth Remark 1		
DEPREM2	Depth Remark 2		
DEPREM3	Depth Remark 3		
DEPREM4	Depth Remark 4		
DEPREM5	Depth Remark 5		
DEPREM6	Depth Remark 6		
DFD	Drilling Fluid Density	8.30	G/C3
DGF1	Deep 10 kHz Gain Factor	1.02478	
DGF2	Deep 20 kHz Gain Factor	1.03796	
DGF4	Deep 40 kHz Gain Factor	1.04684	
DPH1	Deep 10 kHz Phase Shift	0.337829	DEG
DPH2	Deep 20 kHz Phase Shift	0.0287995	DEG
DPH4	Deep 40 kHz Phase Shift	-1.17906	DEG
DPPM	Density Porosity Processing Mode	HIRS	
DRE1	Deep Real 10 kHz Sonde Error Correction	36.2922	MM/M
DRE2	Deep Real 20 kHz Sonde Error Correction	12.4119	MM/M
DRE4	Deep Real 40 kHz Sonde Error Correction	1.3799	MM/M

DRIM	DIT-E Radial Invasion Mode	Rxo>Rt	
DSR1	Deep Sigma Reference (10 kHz)	7637	MM/M
DSR2	Deep Sigma Reference (20 kHz)	1843	MM/M
DSR4	Deep Sigma Reference (40 kHz)	405	MM/M
DSTA	DIT-E Transversal Standoff	0	IN
DXE1	Deep Quad 10 kHz Sonde Error Correction	103.078	MM/M
DXE2	Deep Quad 20 kHz Sonde Error Correction	66.4513	MM/M
DXE4	Deep Quad 40 kHz Sonde Error Correction	49.4736	MM/M
FSAL	Formation Salinity	-50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HSCO	Hole Size Correction Option	YES	
IDWCD	IDW Calibration Date (dd-MMM-yyyy)	dd-MMM-yyyy	
IDWCSN	IDW Calibrator Serial Number	-999	
IDWLCN	IDW Calibration Cable Type	7-46P	
IDWSN	IDW Serial Number	-999	
IDWTYP	IDW Type	IDW-B	
IDWWC1	IDW Wheel Corrrection 1	1	
IDWWC2	IDW Wheel Corrrection 2	1	
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	
LCSN	Logging Cable Serial Number	-999	
LOGSEQ	Log Sequence	First_Log_In_Well	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	NATU	
MGF1	Medium 10 kHz Gain Factor	1	
MGF2	Medium 20 kHz Gain Factor	1	
MGF4	Medium 40 kHz Gain Factor	1	
MPH1	Medium 10 kHz Phase Shift	0	DEG
MPH2	Medium 20 kHz Phase Shift	0	DEG
MPH4	Medium 40 kHz Phase Shift	0	DEG
MRE1	Medium Real 10 kHz Sonde Error Correction	51.8723	MM/M
MRE2	Medium Real 20 kHz Sonde Error Correction	11.6535	MM/M
MRE4	Medium Real 40 kHz Sonde Error Correction	1.84624	MM/M
MSR1	Medium Sigma Reference (10 kHz)	13520	MM/M
MSR2	Medium Sigma Reference (20 kHz)	3250	MM/M
MSR4	Medium Sigma Reference (40 kHz)	685	MM/M
MST	Mud Sample Temperature	-50000.00	DEGC
MWCO	Mud Weight Correction Option	NO	
MXE1	Medium Quad 10 kHz Sonde Error Correction	211.774	MM/M
MXE2	Medium Quad 20 kHz Sonde Error Correction	119.446	MM/M
MXE4	Medium Quad 40 kHz Sonde Error Correction	86.3989	MM/M
PBVSADP	Use alternate depth channel for playback	NO	
PTCO	Pressure/Temperature Correction Option	NO	
RIGTYP	Rig Type	Offshore_Floater_with_WMC	
RLDT	Reference Log Date (dd-MMM-yyyy)	dd-MMM-yyyy	
RLNM	Reference Log Name		
RLRN	Reference Log Run Number		
RMFS	Resistivity of Mud Filtrate Sample	-50000.0000	OHMM
RULB	Rig Up Length at Bottom	0	FT
RULS	Rig Up Length at Surface	0	FT
RW	Resistivity of Connate Water	1.0000	OHMM
SBR	Shoulder Bed Resistivity Factor	1	OHMM
SCORR	Stretch Correction	-50000	FT
SDAT	Standoff Data Source	SOCN	
SFCR	SFL Channel Ratio	1000	
SFLE	SFL Enable	ENABLE	
SHT	Surface Hole Temperature	68	DEGF
SOCN	Standoff Distance	0	IN
SOCO	Standoff Correction Option	NO	
SPAE	DIT-E SPARC Processing Enable	ENABLE	
SPNV	SP Next Value	0	MV
STDLC	Subsequent Trip Down Log Correction	-50000	FT
TD	Total Depth	6691.9	FT
TDD	Total Depth - Driller	-50000.00	M
TDL	Total Depth - Logger	-50000.00	M
TNDCD	Tension Device Calibration Date (dd-MMM-yyyy)	dd-MMM-yyyy	
TNDCSN	Tension Device Calibrator Serial Number	-999	
TNDGN	Tension Device GAIN	1	
TNDOFF	Tension Device Offset	0	
TNDSN	Tension Device Serial Number	-999	
TNDTYP	Tension Device	CMTD-B/A	
TPOS_STGC	Tool Centered/Eccentered	Eccentered	
TWS	Temperature of Connate Water Sample	37.78	DEGC
ZRCS	Tool Zero Reference Check at Surface	-50000	FT

OP System Version: 9C1-303

MCM

DIT-E	OP91-kp2	DTA-A	OP91-kp2
HTGC-B	OP91-kp2		

Output DLIS Files

DEFAULT	DITE .007	FN:10	PRODUCER	21-Dec-2000 03:36	
LAMONT	DITE .007	FN:11	PRODUCER	21-Dec-2000 03:36	

Output DLIS Files

DEFAULT	DITE .008	FN:12	PRODUCER	21-Dec-2000 04:49	1914.8 M	1614.0 M
LAMONT	DITE .008	FN:13	PRODUCER	21-Dec-2000 04:49	1914.8 M	1614.1 M

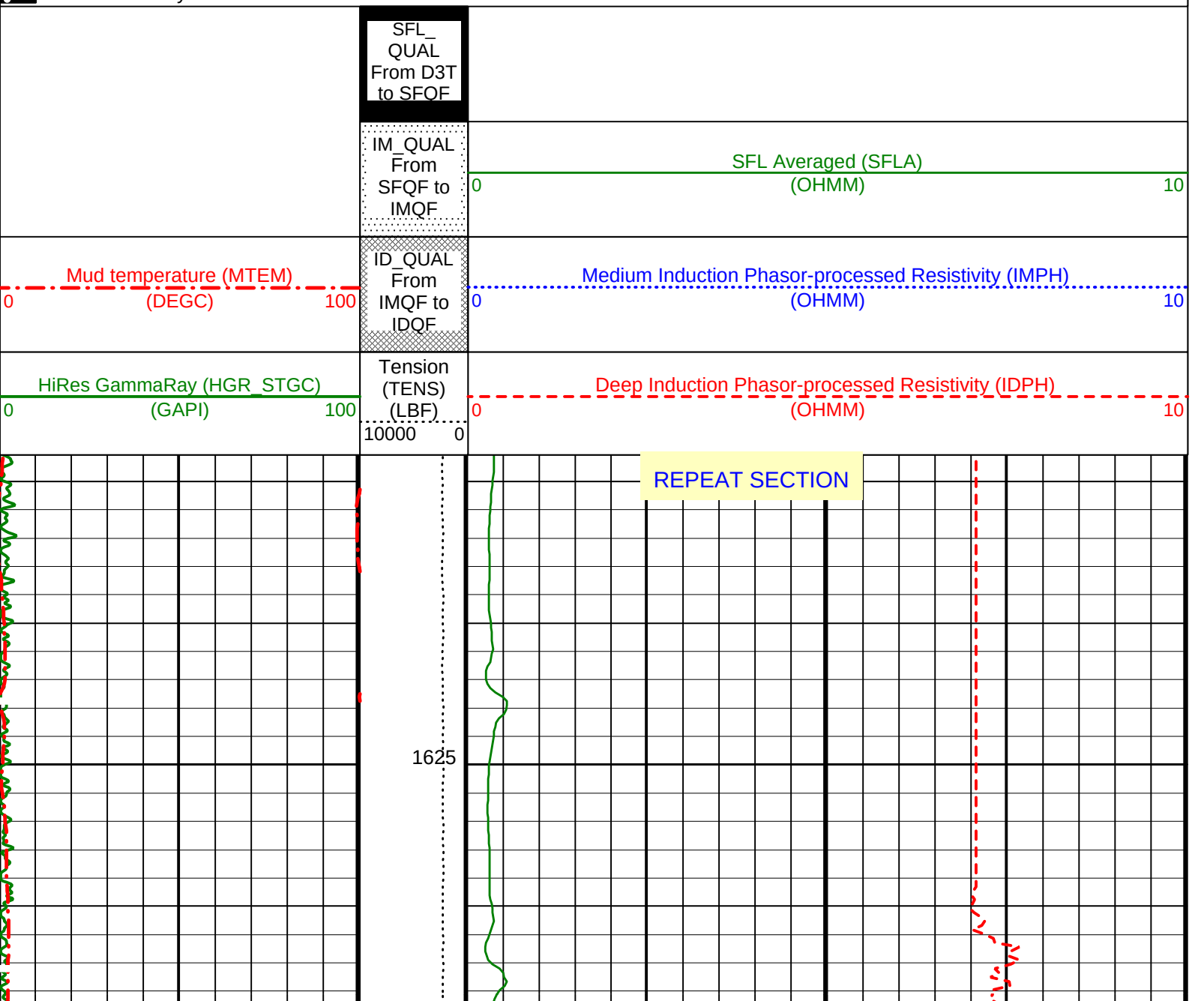
OP System Version: 9C1-303

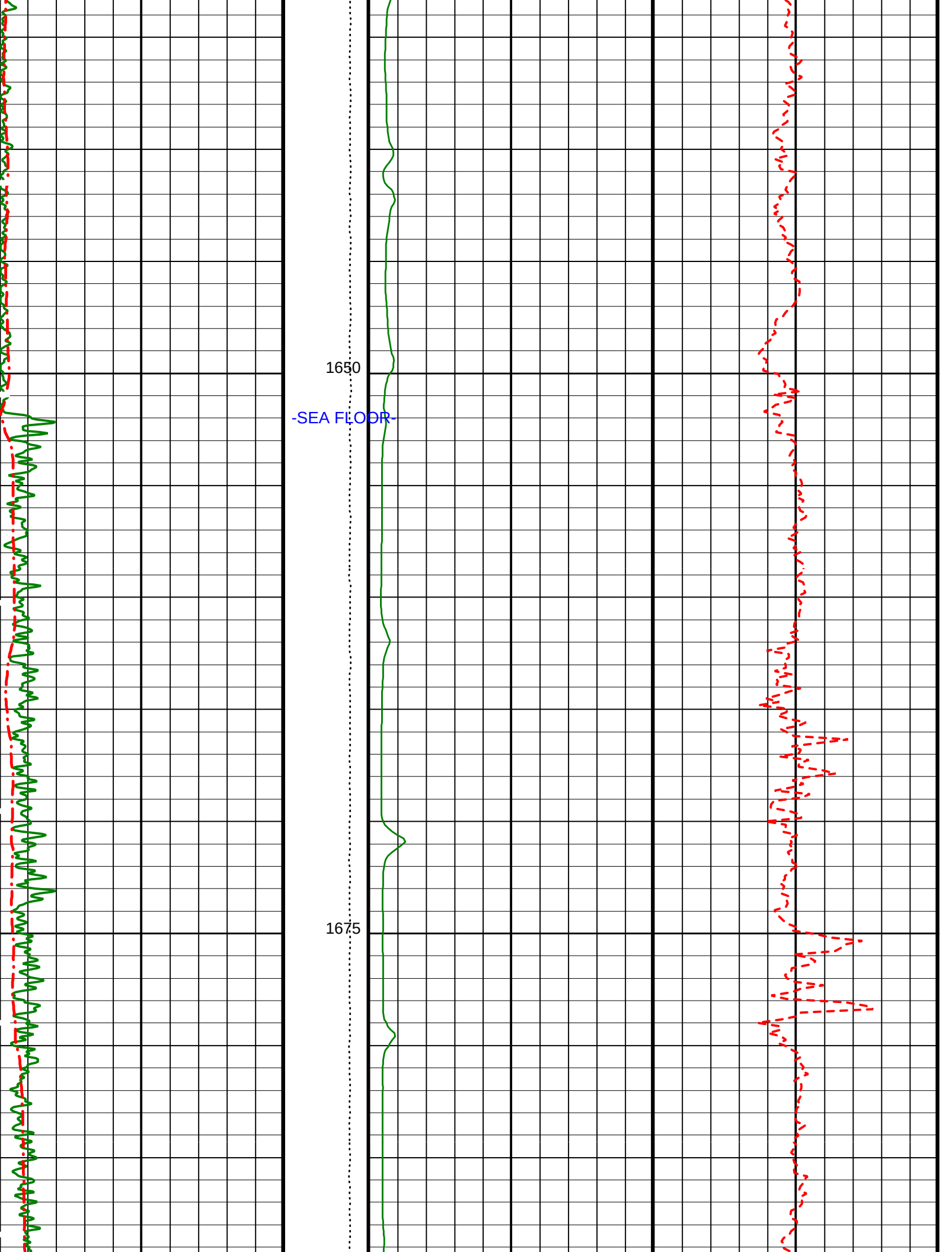
MCM

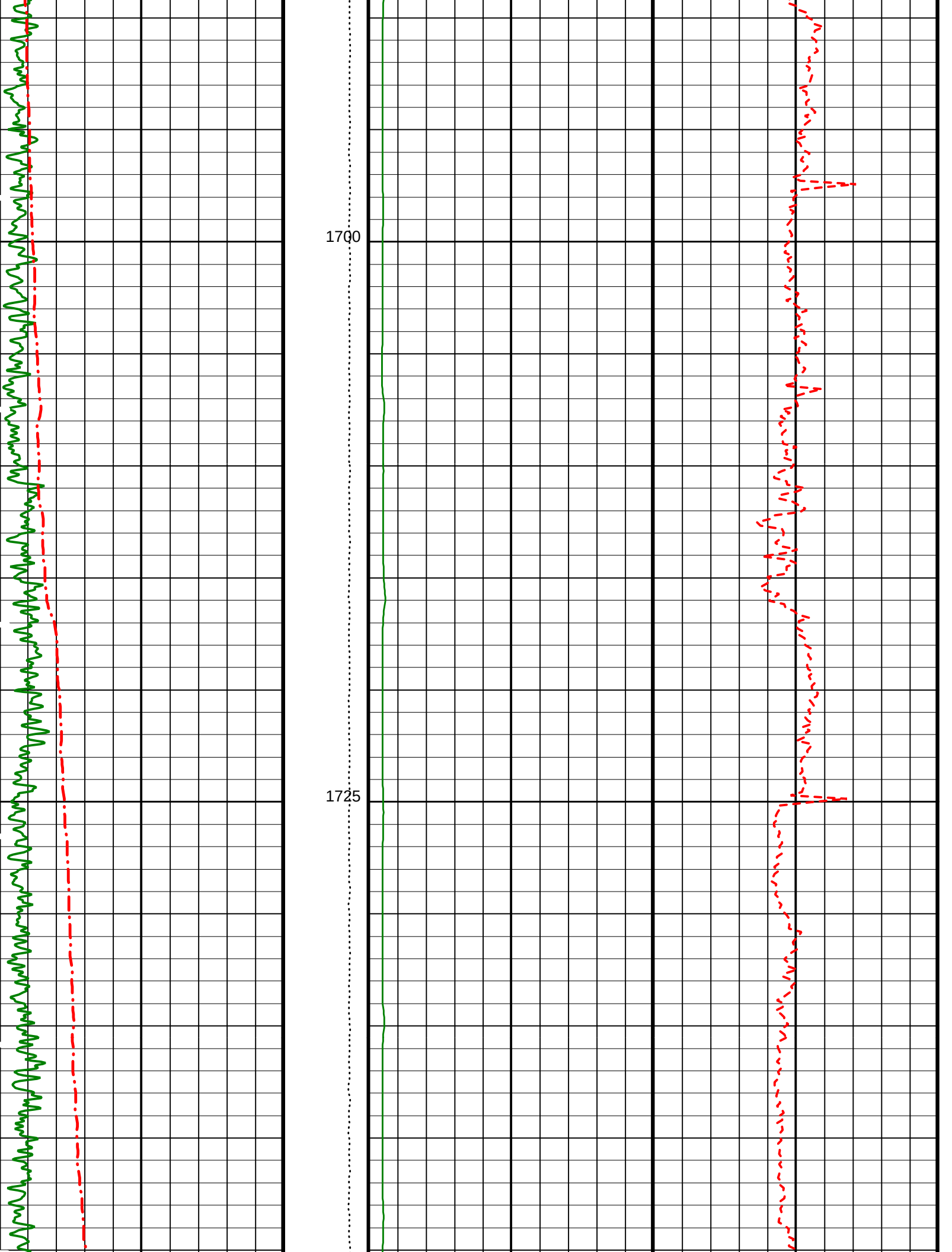
DIT-E	OP91-kp2	DTA-A	OP91-kp2
HTGC-B	OP91-kp2		

PIP SUMMARY

Time Mark Every 60 S




1650
-SEA FLOOR-
1675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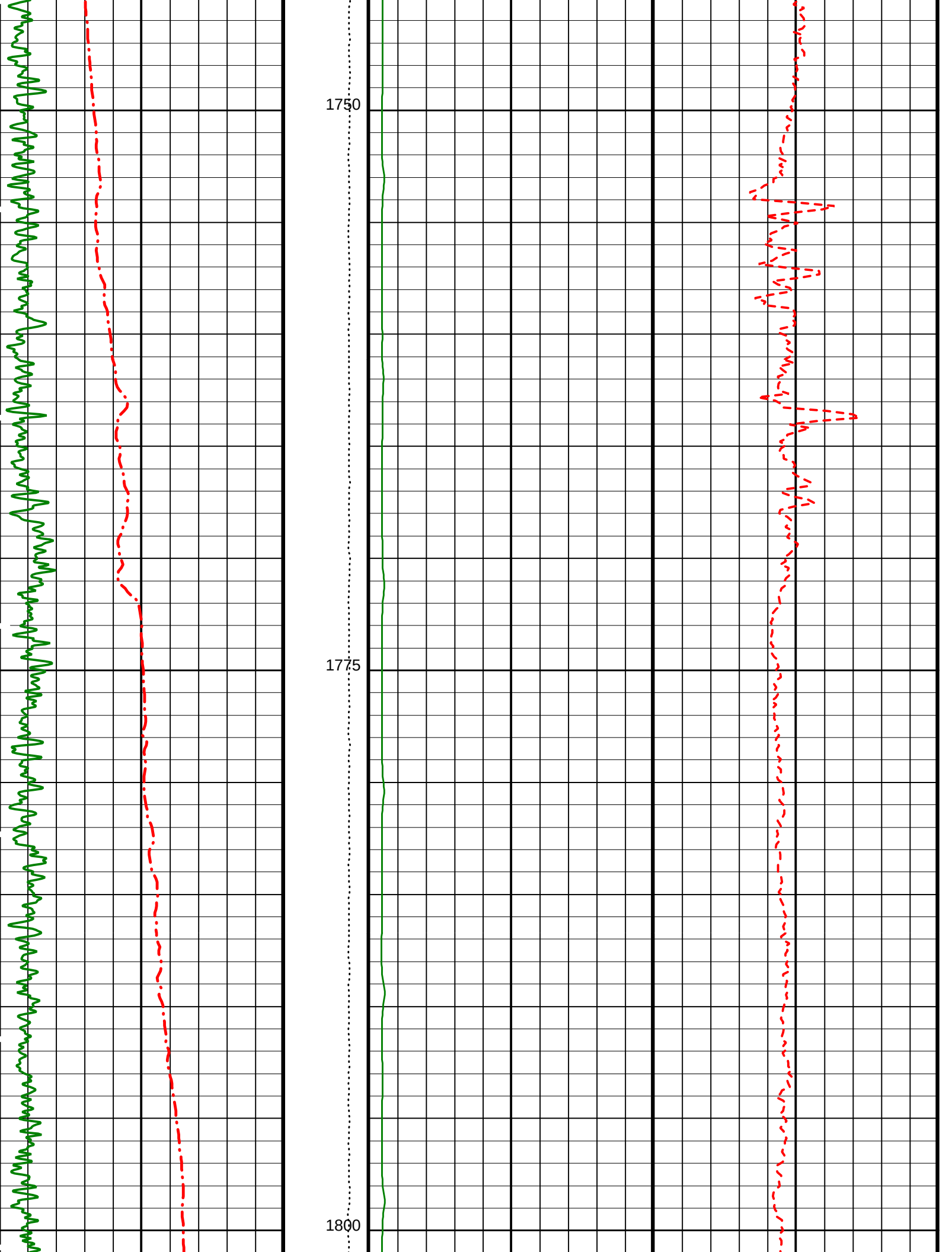
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1775
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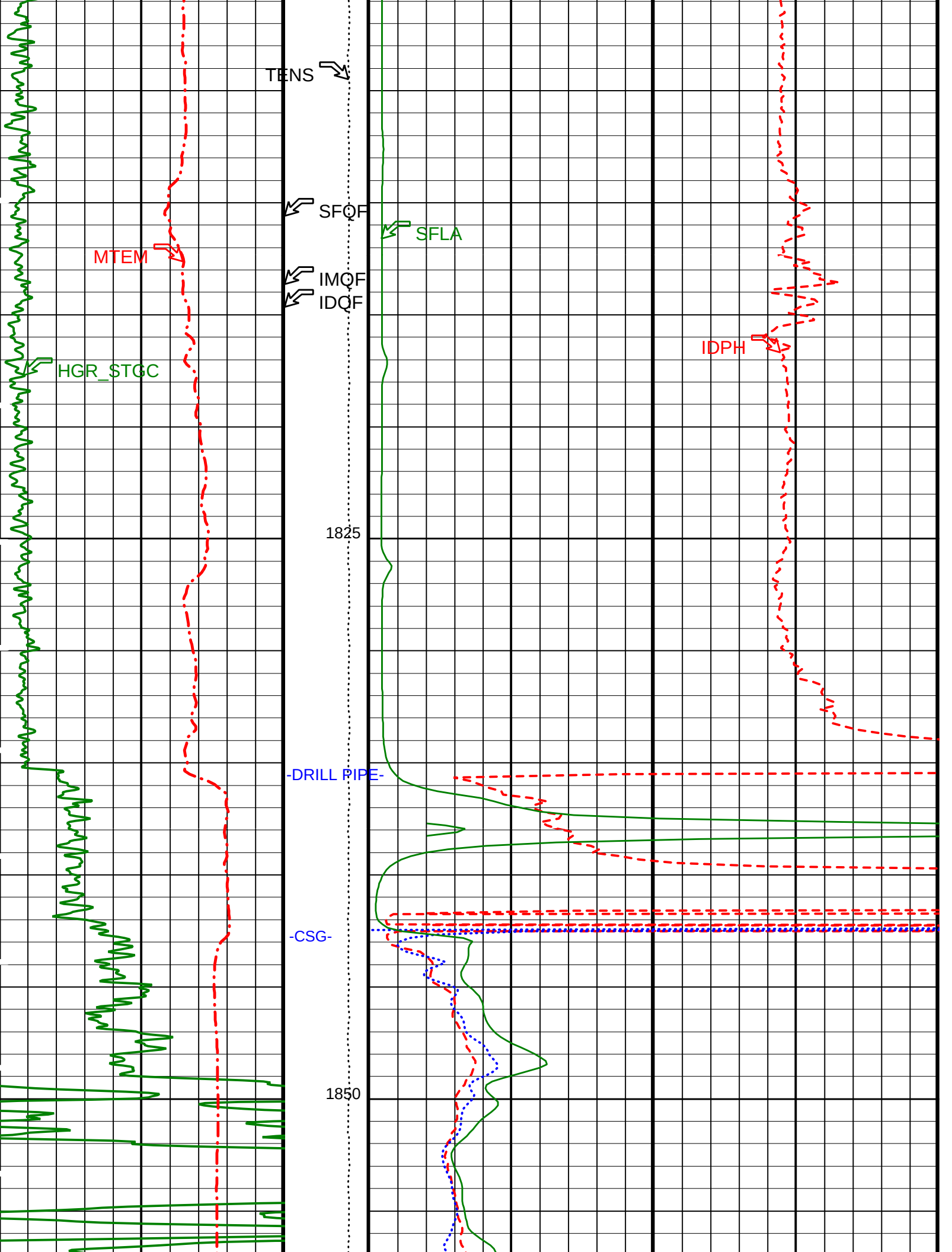
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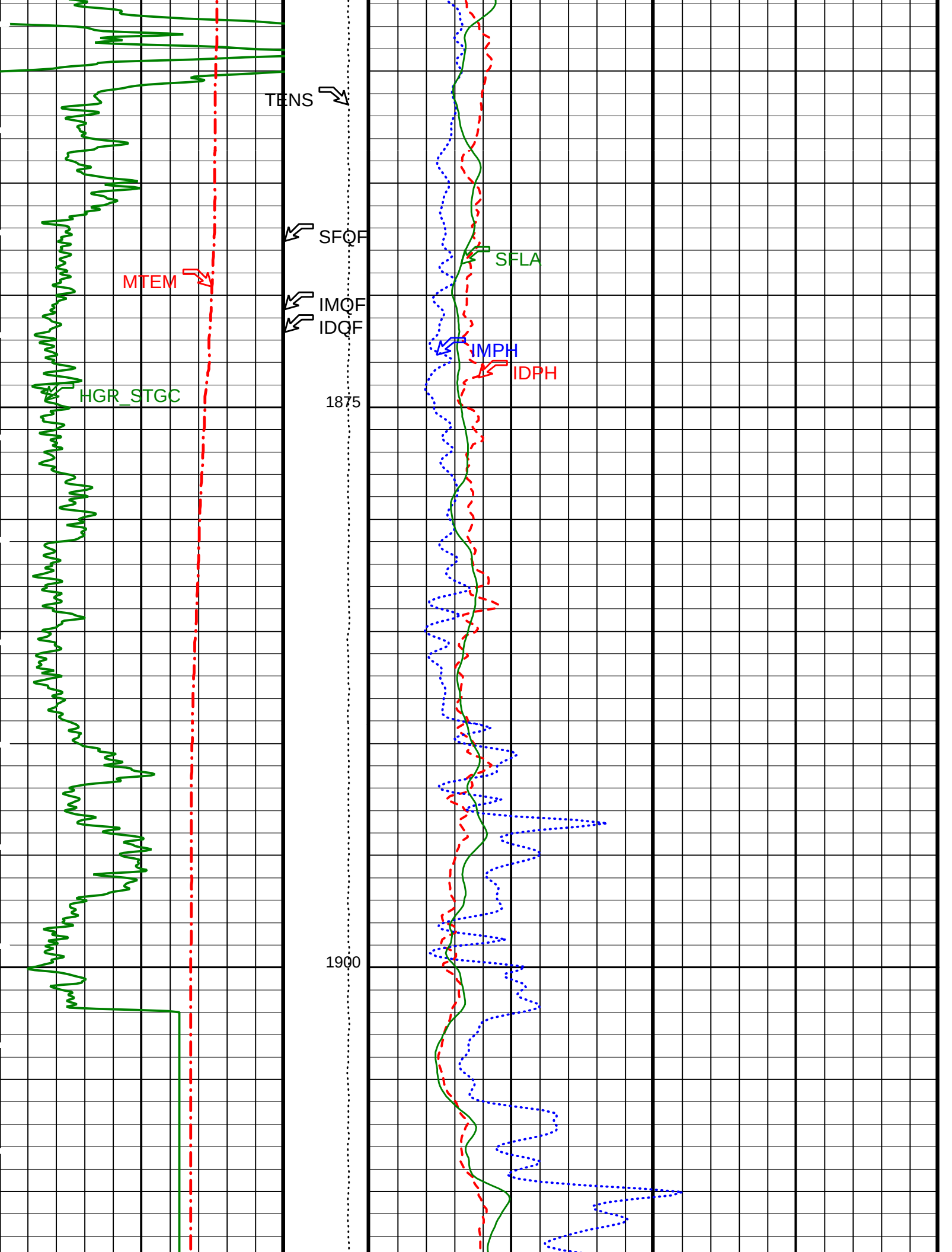
SFQF
SFLA
MTEM
IMQF
IDQF
IDPH
HGR_STGC
1825
-DRILL PIPE-
-CSG-
1850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HGR_STGC
1875
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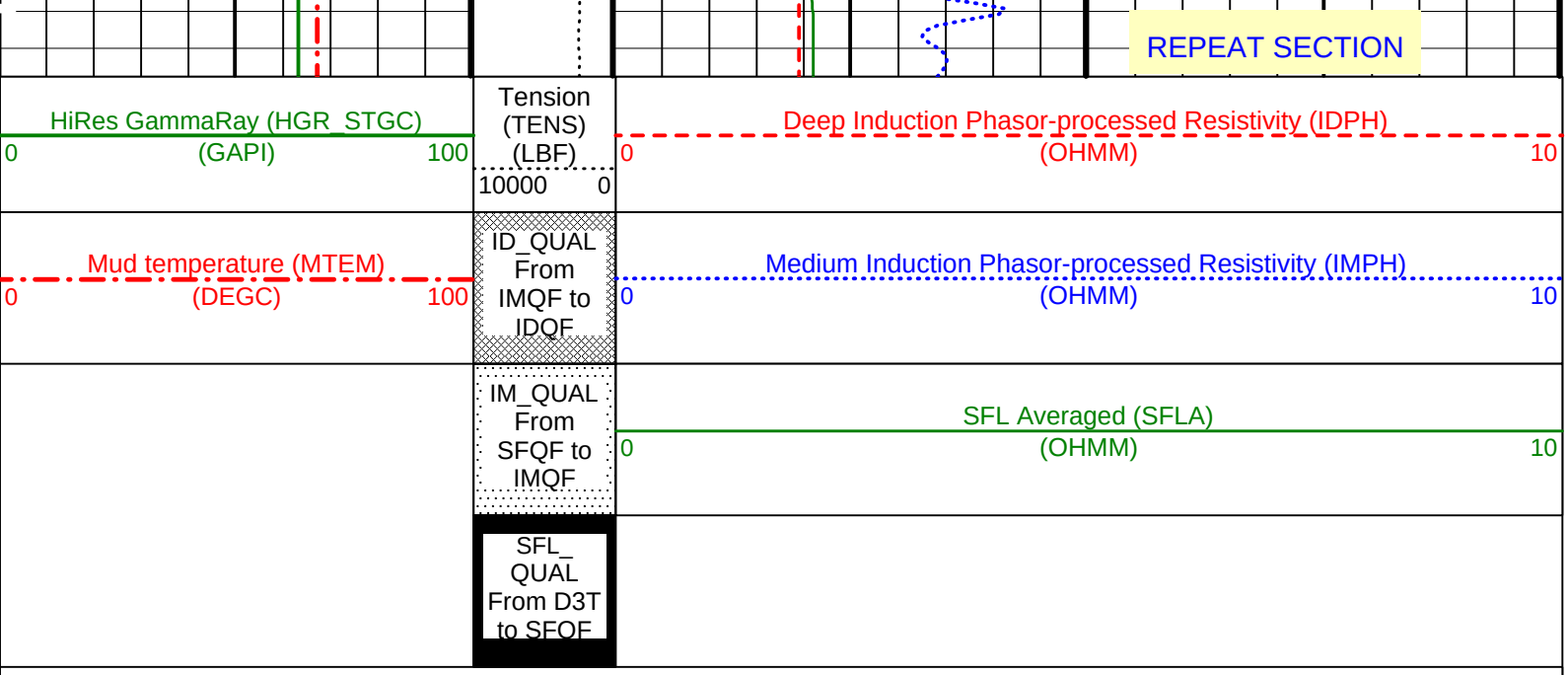

Parameters

DLIS Name	Description	Value	
ALTDPCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	212	DEGF
BS	Bit Size	7.250	IN
BSAL	Borehole Salinity	-50000.00	PPM
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
CONTYP	Conveyance Type	Wireline	
CSIZ	Current Casing Size	0.000	IN
CWEI	Casing Weight	0.00	LB/F
DEPREM1	Depth Remark 1		
DEPREM2	Depth Remark 2		
DEPREM3	Depth Remark 3		
DEPREM4	Depth Remark 4		
DEPREM5	Depth Remark 5		
DEPREM6	Depth Remark 6		
DFD	Drilling Fluid Density	8.30	G/C3
DGF1	Deep 10 kHz Gain Factor	1.02478	
DGF2	Deep 20 kHz Gain Factor	1.03796	
DGF4	Deep 40 kHz Gain Factor	1.04684	
DPH1	Deep 10 kHz Phase Shift	0.337829	DEG
DPH2	Deep 20 kHz Phase Shift	0.0287995	DEG
DPH4	Deep 40 kHz Phase Shift	-1.17906	DEG
DPPM	Density Porosity Processing Mode	HIRS	
DRE1	Deep Real 10 kHz Sonde Error Correction	36.2922	MM/M
DRE2	Deep Real 20 kHz Sonde Error Correction	12.4119	MM/M
DRE4	Deep Real 40 kHz Sonde Error Correction	1.3799	MM/M
DRIM	DIT-E Radial Invasion Mode	Rxo>Rt	
DSR1	Deep Sigma Reference (10 kHz)	7637	MM/M
DSR2	Deep Sigma Reference (20 kHz)	1843	MM/M
DSR4	Deep Sigma Reference (40 kHz)	405	MM/M
DSTA	DIT-E Transversal Standoff	0	IN
DXE1	Deep Quad 10 kHz Sonde Error Correction	103.078	MM/M
DXE2	Deep Quad 20 kHz Sonde Error Correction	66.4513	MM/M
DXE4	Deep Quad 40 kHz Sonde Error Correction	49.4736	MM/M
FSAL	Formation Salinity	-50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HSCO	Hole Size Correction Option	YES	
IDWCD	IDW Calibration Date (dd-MMM-yyyy)	dd-MMM-yyyy	
IDWCSN	IDW Calibrator Serial Number	-999	
IDWLCN	IDW Calibration Cable Type	7-46P	
IDWSN	IDW Serial Number	-999	
IDWTYP	IDW Type	IDW-B	

IDWWC1	IDW Wheel Corrrection 1	1	
IDWWC2	IDW Wheel Corrrection 2	1	
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	
LCSN	Logging Cable Serial Number	-999	
LOGSEQ	Log Sequence	First_Log_In_Well	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	NATU	
MGF1	Medium 10 kHz Gain Factor	1	
MGF2	Medium 20 kHz Gain Factor	1	
MGF4	Medium 40 kHz Gain Factor	1	
MPH1	Medium 10 kHz Phase Shift	0	DEG
MPH2	Medium 20 kHz Phase Shift	0	DEG
MPH4	Medium 40 kHz Phase Shift	0	DEG
MRE1	Medium Real 10 kHz Sonde Error Correction	51.8723	MM/M
MRE2	Medium Real 20 kHz Sonde Error Correction	11.6535	MM/M
MRE4	Medium Real 40 kHz Sonde Error Correction	1.84624	MM/M
MSR1	Medium Sigma Reference (10 kHz)	13520	MM/M
MSR2	Medium Sigma Reference (20 kHz)	3250	MM/M
MSR4	Medium Sigma Reference (40 kHz)	685	MM/M
MST	Mud Sample Temperature	-50000.00	DEGC
MWCO	Mud Weight Correction Option	NO	
MXE1	Medium Quad 10 kHz Sonde Error Correction	211.774	MM/M
MXE2	Medium Quad 20 kHz Sonde Error Correction	119.446	MM/M
MXE4	Medium Quad 40 kHz Sonde Error Correction	86.3989	MM/M
PBVSADP	Use alternate depth channel for playback	NO	
PTCO	Pressure/Temperature Correction Option	NO	
RIGTYP	Rig Type	Offshore_Floater_with_WMC	
RLDT	Reference Log Date (dd-MMM-yyyy)	dd-MMM-yyyy	
RLNM	Reference Log Name		
RLRN	Reference Log Run Number		
RMFS	Resistivity of Mud Filtrate Sample	-50000.0000	OHMM
RULB	Rig Up Length at Bottom	0	FT
RULS	Rig Up Length at Surface	0	FT
RW	Resistivity of Connate Water	1.0000	OHMM
SBR	Shoulder Bed Resistivity Factor	1	OHMM
SCORR	Stretch Correction	-50000	FT
SDAT	Standoff Data Source	SOCN	
SFCR	SFL Channel Ratio	1000	
SFLE	SFL Enable	ENABLE	
SHT	Surface Hole Temperature	68	DEGF
SOCN	Standoff Distance	0	IN
SOCO	Standoff Correction Option	NO	
SPAE	DIT-E SPARC Processing Enable	ENABLE	
SPNV	SP Next Value	0	MV
STDLC	Subsequent Trip Down Log Correction	-50000	FT
TD	Total Depth	6691.9	FT
TDD	Total Depth - Driller	-50000.00	M
TDL	Total Depth - Logger	-50000.00	M
TNDCD	Tension Device Calibration Date (dd-MMM-yyyy)	dd-MMM-yyyy	
TNDCSN	Tension Device Calibrator Serial Number	-999	
TNDGN	Tension Device GAIN	1	
TNDOFF	Tension Device Offset	0	
TNDSN	Tension Device Serial Number	-999	
TNDTYP	Tension Device	CMTD-B/A	
TPOS_STGC	Tool Centered/Eccentered	Eccentered	
TWS	Temperature of Connate Water Sample	37.78	DEGC
ZRCS	Tool Zero Reference Check at Surface	-50000	FT

Format: DITE_LinPhasor Vertical Scale: 1:200 Graphics File Created: 21-Dec-2000 04:49

OP System Version: 9C1-303

MCM

DIT-E	OP91-kp2	DTA-A	OP91-kp2
HTGC-B	OP91-kp2		

Output DLIS Files

DEFAULT	DITE .008	FN:12	PRODUCER	21-Dec-2000 04:49
LAMONT	DITE .008	FN:13	PRODUCER	21-Dec-2000 04:49

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units

Measurement	Nominal	Master	Before	After	Change	Limit	Units
HPHT Telemetry Gamma-ray Cartridge - B Wellsite Calibration - Detector Calibration							
Before: Calibration out of date 20-NOV-2000 3:46							
Gamma Ray (Jig - Bkg)	147.6	N/A	147.6	N/A	N/A	13.42	GAPI
Gamma Ray (Calibrated)	160.1	N/A	160.1	N/A	N/A	15.00	GAPI

Dual Induction - E / Equipment Identification

Primary Equipment:		
Dual Induction Sonde	DIS - HB	433
Dual Induction Cartridge	DIC - EB	398
Auxiliary Equipment:		
Mass Isolated Housing	MIH - ZA	390

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

Phase	ID Elect Real Offset 10 kHz MM/M	Value	ID Elect Real Gain 10 kHz	Value	ID Elect Phase 10 kHz DEG	Value
Before		64.88		0.9580		10.59
	-270.2 (Minimum) / 29.79 (Nominal) / 329.8 (Maximum)		0.8003 (Minimum) / 0.9503 (Nominal) / 1.130 (Maximum)		0.6755 (Minimum) / 10.68 (Nominal) / 20.68 (Maximum)	

Phase	ID Elect Quad Offset 10 kHz MM/M	Value	ID Elect Quad Gain 10 kHz	Value	IM Elect Phase 10 kHz DEG	Value
Before		17.72		0.9316		12.45
	-264.5 (Minimum) / 35.50 (Nominal) / 335.5 (Maximum)		0.7988 (Minimum) / 0.9488 (Nominal) / 1.128 (Maximum)		2.570 (Minimum) / 12.57 (Nominal) / 22.57 (Maximum)	

Phase	IM Elect Real Offset 10 kHz MM/M	Value	IM Elect Real Gain 10 kHz	Value
Before		46.52		1.131
	-496.5 (Minimum) / 53.51 (Nominal) / 603.5 (Maximum)		0.9623 (Minimum) / 1.112 (Nominal) / 1.359 (Maximum)	

Phase	IM Elect Quad Offset 10 kHz MM/M	Value	IM Elect Quad Gain 10 kHz	Value
Before		45.73		1.131
	-504.3 (Minimum) / 45.70 (Nominal) / 595.7 (Maximum)		0.9611 (Minimum) / 1.111 (Nominal) / 1.357 (Maximum)	

Before: 28-OCT-2000 3:22

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

Phase	ID Elect Real Offset 20 kHz MM/M	Value	ID Elect Real Gain 20 kHz	Value	ID Elect Phase 20 kHz DEG	Value
Before		26.55		0.9662		9.254
	-113.6 (Minimum) / 11.45 (Nominal) / 136.4 (Maximum)		0.8053 (Minimum) / 0.9553 (Nominal) / 1.137 (Maximum)		-5.594 (Minimum) / 9.406 (Nominal) / 24.41 (Maximum)	

Phase	ID Elect Quad Offset 20 kHz MM/M	Value	ID Elect Quad Gain 20 kHz	Value	IM Elect Phase 20 kHz DEG	Value
Before		7.831		0.9391		9.736
	-111.0 (Minimum) / 14.04 (Nominal) / 139.0 (Maximum)		0.8036 (Minimum) / 0.9536 (Nominal) / 1.134 (Maximum)		-5.157 (Minimum) / 9.843 (Nominal) / 24.84 (Maximum)	

Phase	IM Elect Real Offset 20 kHz MM/M	Value	IM Elect Real Gain 20 kHz	Value
Before		21.40		1.182
	-203.2 (Minimum) / 21.79 (Nominal) / 246.8 (Maximum)		1.001 (Minimum) / 1.151 (Nominal) / 1.412 (Maximum)	

Phase	IM Elect Quad Offset 20 kHz MM/M	Value	IM Elect Quad Gain 20 kHz	Value
Before		20.86		1.182
	-206.3 (Minimum) / 18.74 (Nominal) / 243.7 (Maximum)		0.9993 (Minimum) / 1.149 (Nominal) / 1.411 (Maximum)	

Before: 21-DEC-2000 3:32

Dual Induction - E Wellsite Calibration
Induction Electronics (40 kHz)

Phase	ID Elect Real Offset 40 kHz MM/M	Value	ID Elect Real Gain 40 kHz	Value	ID Elect Phase 40 kHz DEG	Value
Before		16.63		0.9385		25.54
	-77.55 (Minimum) / 7.453 (Nominal) / 92.45 (Maximum)		0.7913 (Minimum) / 0.9413 (Nominal) / 1.117 (Maximum)		8.305 (Minimum) / 28.30 (Nominal) / 48.30 (Maximum)	

Phase	ID Elect Quad Offset 40 kHz MM/M	Value	ID Elect Quad Gain 40 kHz	Value	IM Elect Phase 40 kHz DEG	Value
Before		4.482		0.9115		23.48

-75.75 (Minimum)	9.250 (Nominal)	94.25 (Maximum)	0.7887 (Minimum)	0.9387 (Nominal)	1.114 (Maximum)	6.129 (Minimum)	26.13 (Nominal)	46.13 (Maximum)

Phase	IM Elect Real Offset 40 kHz MM/M	Value	Phase	IM Elect Real Gain 40 kHz	Value
Before		11.99	Before		1.159
-116.0 (Minimum)	13.98 (Nominal)	144.0 (Maximum)	0.9943 (Minimum)	1.144 (Nominal)	1.404 (Maximum)
Phase	IM Elect Quad Offset 40 kHz MM/M	Value	Phase	IM Elect Quad Gain 40 kHz	Value
Before		11.95	Before		1.160
-117.9 (Minimum)	12.05 (Nominal)	142.1 (Maximum)	0.9929 (Minimum)	1.143 (Nominal)	1.402 (Maximum)

Before: 28-OCT-2000 3:25

Dual Induction - E Wellsite Calibration

SFL Electronics

Phase	SFL Voltage Offset MV	Value	Phase	SFL Voltage Gain	Value
Before		0.1317	Before		0.9855
-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		0.08772	Before		1.003
-0.6000 (Minimum)	0 (Nominal)	0.6000 (Maximum)	0.8500 (Minimum)	1.000 (Nominal)	1.200 (Maximum)

Before: 21-DEC-2000 3:32

Dual Induction - E Wellsite Calibration

Electronics Calibration Changes

Files/Depth Intervals: 4: 1106.0 - 1214.9 5: 1256.7 - 1859.0 7: 2010.0 - 1821.2 8: 1914.8 - 1614.1 10: 2010.0 - 1821.2 11: 2010.0 - 1821.2

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	After		0.0001702	After		0.0002263
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		0.02915	After		0.0001727			
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	After		0.0005140			
0 (Minimum)	0 (Nominal)	0.7500 (Maximum)	0 (Minimum)	0 (Nominal)	2.000 (Maximum)			

After: 21-DEC-2000 5:57

Dual Induction - E Master Calibration

Test Loop Calibration: Calibration of Internal Reference to Test Loop Standard

Phase	Deep 10 kHz Gain Factor	Value	Phase	Deep 20 kHz Gain Factor	Value	Phase	Deep 40 kHz Gain Factor	Value
Master		1.025	Master		1.038	Master		1.047
0.9000 (Minimum)	1.000 (Nominal)	1.100 (Maximum)	0.9000 (Minimum)	1.000 (Nominal)	1.100 (Maximum)	0.9000 (Minimum)	1.000 (Nominal)	1.100 (Maximum)
Phase	Medium 10 kHz Gain Factor	Value	Phase	Medium 20 kHz Gain Factor	Value	Phase	Medium 40 kHz Gain Factor	Value
Master		1.000	Master		1.000	Master		1.000
0.9000 (Minimum)	1.000 (Nominal)	1.100 (Maximum)	0.9000 (Minimum)	1.000 (Nominal)	1.100 (Maximum)	0.9000 (Minimum)	1.000 (Nominal)	1.100 (Maximum)
Phase	Deep 10 kHz Phase Shift	Value	Phase	Deep 20 kHz Phase Shift	Value	Phase	Deep 40 kHz Phase Shift	Value
Master		0.3378	Master		0.02880	Master		-1.179
-1.500 (Minimum)	0 (Nominal)	1.500 (Maximum)	-2.000 (Minimum)	0 (Nominal)	2.000 (Maximum)	-4.000 (Minimum)	-1.000 (Nominal)	2.000 (Maximum)
Phase	Medium 10 kHz Phase Shift	Value	Phase	Medium 20 kHz Phase Shift	Value	Phase	Medium 40 kHz Phase Shift	Value
Master		0	Master		0	Master		0
-1.500 (Minimum)	0 (Nominal)	1.500 (Maximum)	-3.000 (Minimum)	-1.000 (Nominal)	1.000 (Maximum)	-5.000 (Minimum)	-2.000 (Nominal)	1.000 (Maximum)

Master: Calibration out of date 11-JUN-1999 19:36

Dual Induction - E Master Calibration

Sonde Error Corrections: Correction for sonde response in zero conductivity environment. (Normalized to 25C).

Phase	Real Deep 10 kHz S.E. Corr.	Value	Phase	Real Deep 20 kHz S.E. Corr.	Value	Phase	Real Deep 40 kHz S.E. Corr.	Value
Master		36.29	Master		12.41	Master		1.380

Phase	Quad Deep 10 kHz S.E. Corr.	Value
Master		103.1
	-250.0 (Minimum) 0 (Nominal) 350.0 (Maximum)	

Phase	Quad Deep 20 kHz S.E. Corr.	Value
Master		66.45
	-125.0 (Minimum) 0 (Nominal) 200.0 (Maximum)	

Phase	Quad Deep 40 kHz S.E. Corr.	Value
Master		49.47
	-75.00 (Minimum) 0 (Nominal) 125.0 (Maximum)	

Phase	Real Medium 10 kHz S.E. Corr.	Value
Master		51.87
	-50.00 (Minimum) 0 (Nominal) 140.0 (Maximum)	

Phase	Real Medium 20 kHz S.E. Corr.	Value
Master		11.65
	-50.00 (Minimum) 0 (Nominal) 50.00 (Maximum)	

Phase	Real Medium 40 kHz S.E. Corr.	Value
Master		1.846
	-30.00 (Minimum) 0 (Nominal) 30.00 (Maximum)	

Phase	Quad Medium 10 kHz S.E. Corr.	Value
Master		211.8
	-1300 (Minimum) 0 (Nominal) 1300 (Maximum)	

Phase	Quad Medium 20 kHz S.E. Corr.	Value
Master		119.4
	-650.0 (Minimum) 0 (Nominal) 650.0 (Maximum)	

Phase	Quad Medium 40 kHz S.E. Corr.	Value
Master		86.40
	-350.0 (Minimum) 0 (Nominal) 350.0 (Maximum)	

Master: Calibration out of date 11-JUN-1999 19:58

HPHT Telemetry Gamma-ray Cartridge - B / Equipment Identification

Primary Equipment:

STGC Gamma-ray & Accelerometer Cartridge	STGC - BH	8038
Mud Temperature Sensor	MTEM -	1
STGC Telemetry Cartridge	STGC - A	8038

Auxiliary Equipment:

HPHT/STGC Dewar Flask Housing	UDFH - KL	1062

HPHT Telemetry Gamma-ray Cartridge - B Wellsite Calibration

Detector Calibration

Phase	Gamma Ray Background GAPI	Value
Before		6.202
	0 (Minimum) 30.00 (Nominal) 120.0 (Maximum)	

Phase	Gamma Ray (Jig - Bkg) GAPI	Value
Before		147.6
	134.2 (Minimum) 147.6 (Nominal) 161.0 (Maximum)	

Phase	Gamma Ray (Calibrated) GAPI	Value
Before		160.1
	145.1 (Minimum) 160.1 (Nominal) 175.1 (Maximum)	

Before: Calibration out of date 20-NOV-2000 3:46

COMPANY:	Lamont Doherty
WELL:	ODP Leg 193, Site 1188F (PCM-2A)
FIELD:	Manus Basin
COUNTY:	Offshore
STATE:	Bismarck Sea

BOTTOM LOG INTERVAL	2006 m
SCHLUMBERGER DEPTH	2008 m
DEPTH DRILLER	2039.7 m
KELLY BUSHING	11.3 m
DRILL FLOOR	11 m
GROUND LEVEL	-1653 m

Schlumberger

Phasor Induction
Gamma Ray