

Schlumberger

Company: Lamont Doherty

Well: IODP EXP 308 Site 1320A

Field: Brazos Trinity Basin

Country: USA Ocean: Gulf Of Mexico

Phasor Induction-HNGS

Country: USA
 Field: Brazos Trinity Basin
 Location: Rig- Joides Resolution
 Well: IODP EXP 308 Site 1320A
 Company: Lamont Doherty

LOCATION		Elev.:	
Rig- Joides Resolution		K.B. 11.3 m	
Permanent Datum:	GROUND LEVEL	G.L. -1480.4 m	
Log Measured From: DES		D.F. 0 m	
Drilling Measured From: DES		Elev.: 0 m	
		11.3 m above Perm. Datum	
API Serial No.	Max. Hole Devi.	Longitude W 94 23.2524	Latitude N 27 18.0816

Logging Date	
Run Number	1
Depth Driller	1780 m
Schlumberger Depth	1776 m
Bottom Log Interval	1774 m
Top Log Interval	1461 m
Casing Driller Size @ Depth	0.000 in @ 1541.9 m
Casing Schlumberger	1540 m
Bit Size	9.875 in
Type Fluid In Hole	Sepiolite
Density	1.066 g/cm3
Fluid Loss	0 cm3
Source Of Sample	
RM @ Measured Temperature	0.177 ohm.m @ 23 degC
RMF @ Measured Temperature	0.158 ohm.m @
RMC @ Measured Temperature	0.149 ohm.m @
Source RMF	RMC
RM @ MRT	0.199 @ 18 @ 18
Maximum Recorded Temperatures	18 degC
Circulation Stopped	6/9/05 1800
Logger On Bottom	6/10/05 See Log
Unit Number	99 Houston
Recorded By	Steve Kittredge
Witnessed By	Gerry Iturnino

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	RMC		
RM @ MRT	@	@	
Maximum Recorded Temperatures			
Circulation Stopped			
Logger On Bottom			
Unit Number			
Recorded By			
Witnessed By			

DISCLAIMER

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OTHER SERVICES1 OS1: MESTB/DSI/SGTN OS2: WSTA 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- 1480.4 MBRF. Sea Floor Logger- 1478 MBRF. Total Depth Driller- 1780 MBRF. Total Depth Logger- 1776 MBRF. Casing Bottom Driller- 1541.9 MBRF. Casing Bottom Logger- 1540 MBRF. Had Problems getting past washout at 1654.5 MBRF. Had some overpull coming through the sealbore with Go-Devil on bottom. After entering pipe the WHC was accidentally turned off allowing the sheave wheel to stroke out. This put the tool off depth 3 meters making the DITE sea floor measurement too shallow.	REMARKS: RUN NUMBER 2
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RUN 1			RUN 2		
SERVICE ORDER #:			SERVICE ORDER #:		
PROGRAM VERSION:		12C0-301	PROGRAM VERSION:		
FLUID LEVEL:			FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

RUN 1		RUN 2	
SURFACE EQUIPMENT			
SFT-281 6250			
SFT-178 6250			
GSR-U 135			
WITM (DTS)-A			

DOWNHOLE EQUIPMENT			
LEH-QT		29.91	
LEH-QT			
DTC-H	CTEM	28.74	29.02
ECH-KC 9841	TelStatus ToolStatu	28.11	
HNGS-BA	Upper_1	27.41	28.11
HNGS-BA 27	Lower_2	27.19	

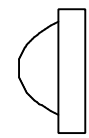
INGS-BA 27

HNSH-BA 27

Lower 2

27.15

ILE-D
ILE-D 25



25.61

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

Status
Minitron
Near TD
Near Arr
Near
Far Arr
Far
Far TD

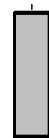


23.17

20.73
20.65
20.52
20.42

NPLC-B
NPLC-B 79
NPH-B 82

Status

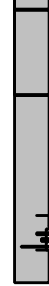


18.00

19.23

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

Caliper
SS LS Status



12.73

16.78

DTA-A
ECH-KE
DTA-A 8261



11.96

GPIT-A/B
GPIC-A 840
GPIH-A



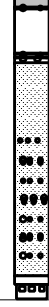
10.74

DIT-E
DIC-EB 171
MIH-ZA 174
DIS-HB 129



9.52

SP
Deep Ind
Aux Meas SFL
Med Ind



3.15
2.90
1.98
1.83

HV DF
Status GPIT
Tension

0.00

TOOL ZERO

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

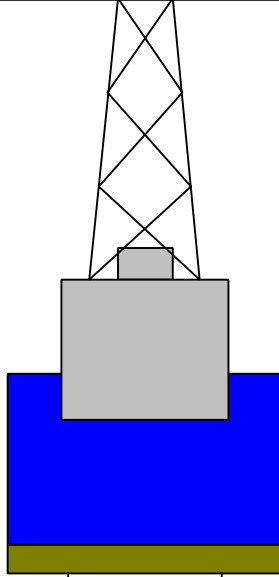
Production String	(in)	(m)	Well Schematic	(m)	(in)	Casing String
	OD	ID		MD	MD	

Kelly Bushing Elevation

11.3

Mean Sea Level

0.0



0.0 5.500 4.000

Casing String

1480.4 5.500 4.000
1480.4 9.875

Casing Shoe
Borehole Segment

1780.0 9.875

Borehole Segment Bottom



Schlumberger

MAIN PASS

MAXIS Field Log

Output DLIS Files

DEFAULT	PI_LDL_APS_NGS_029LUP	FN:10	PRODUCER	10-Jun-2005 00:18	1776.2 M	1461.1 M
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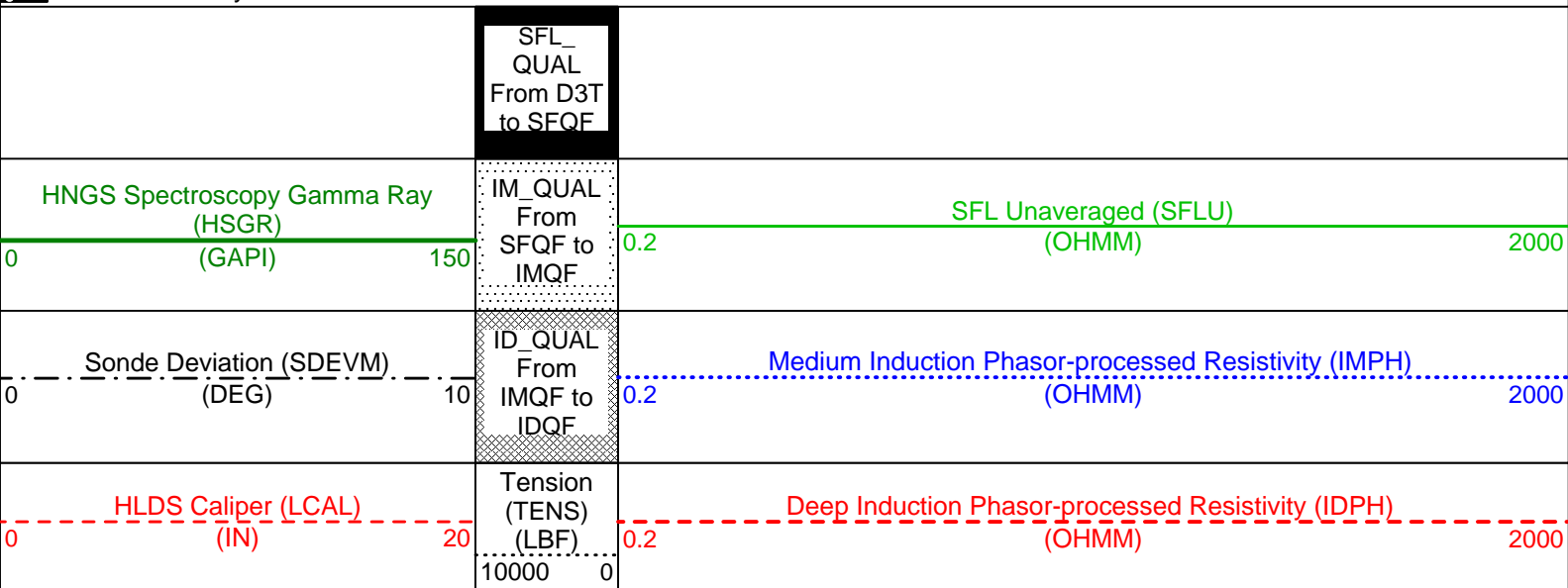
OP System Version: 12C0-301
MCM

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

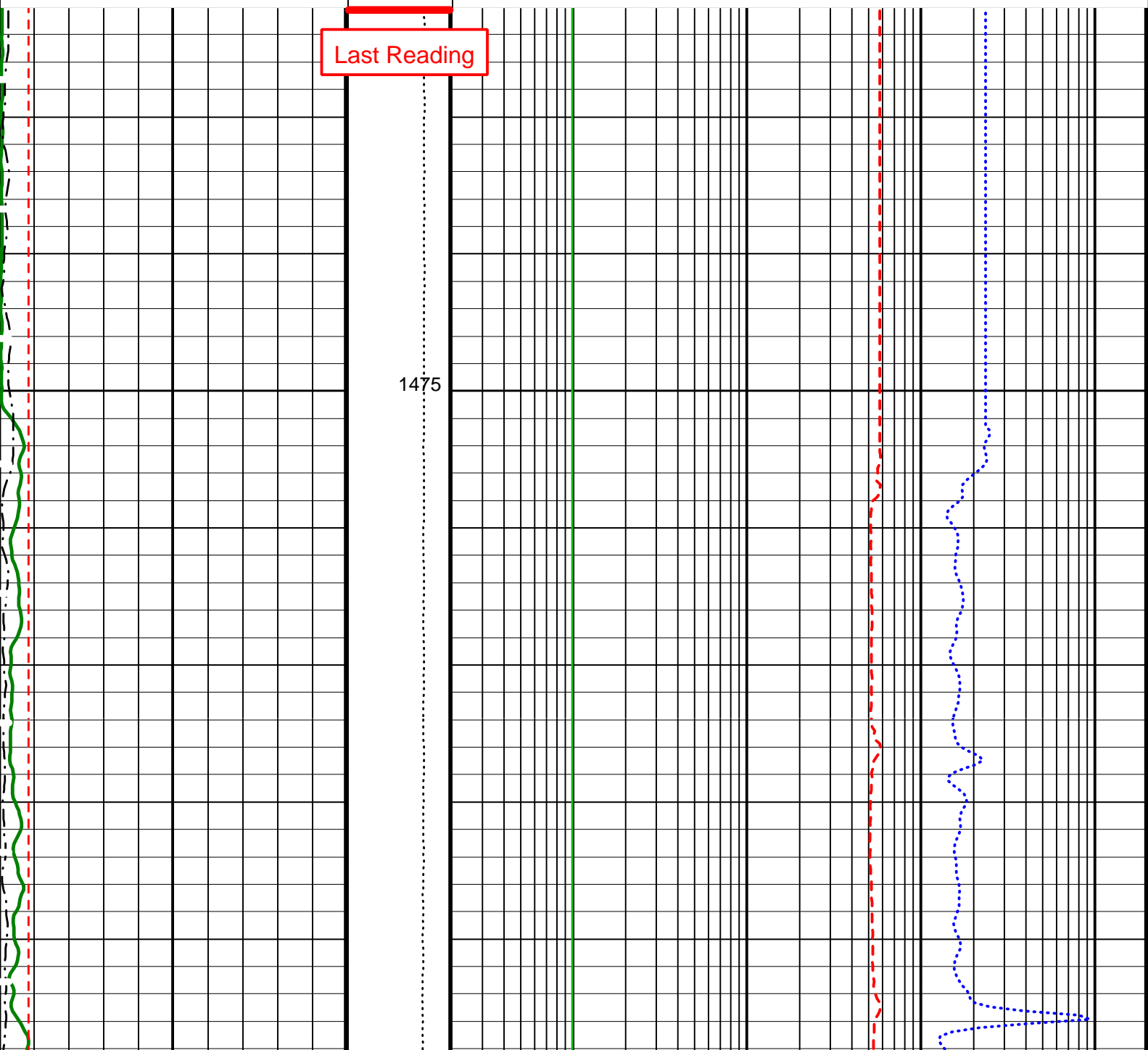
Changed Parameter Summary

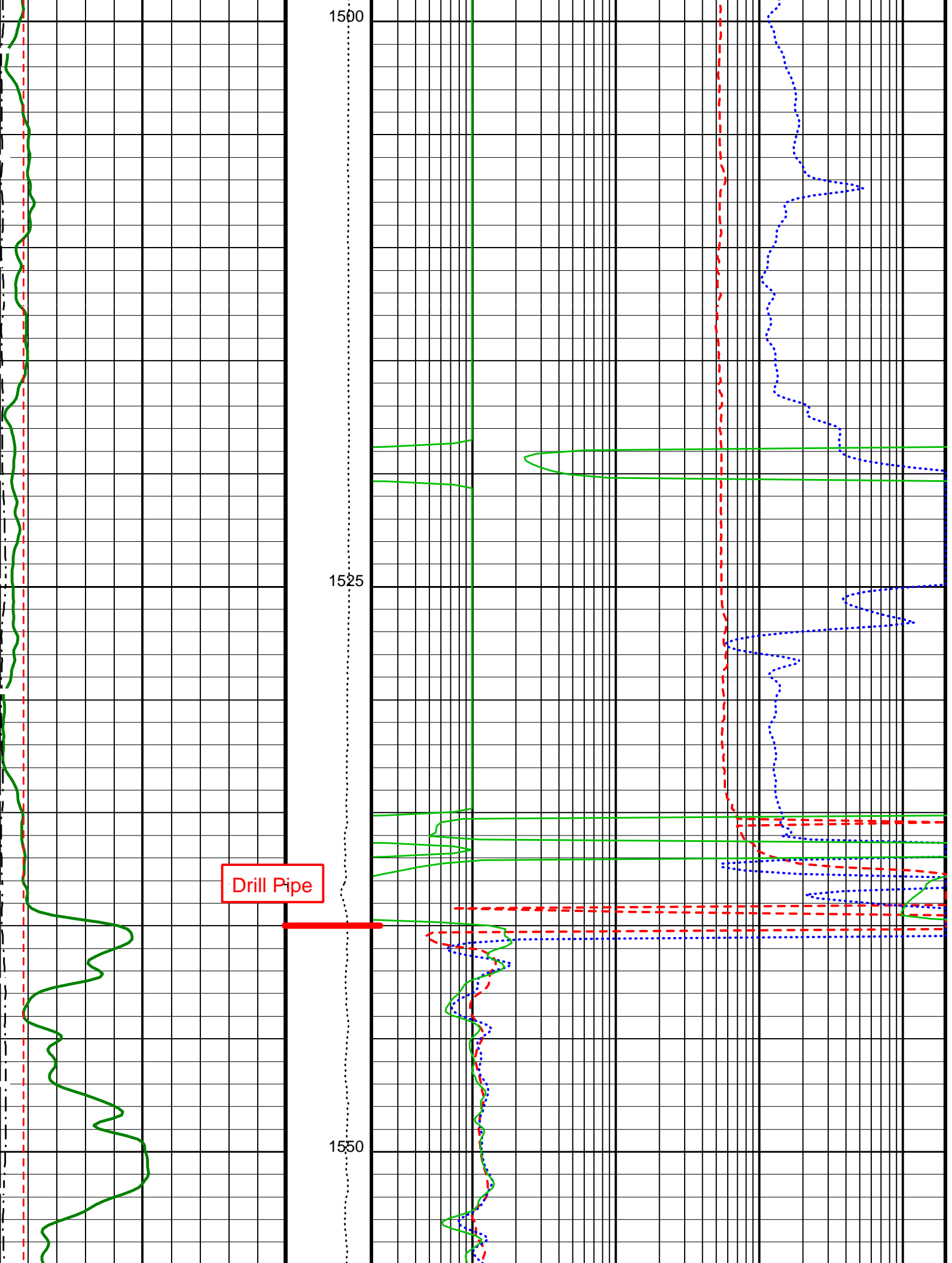
DLIS Name	New Value	Previous Value	Depth & Time
GCSE	BS	LCAL	1577.1 01:06:44

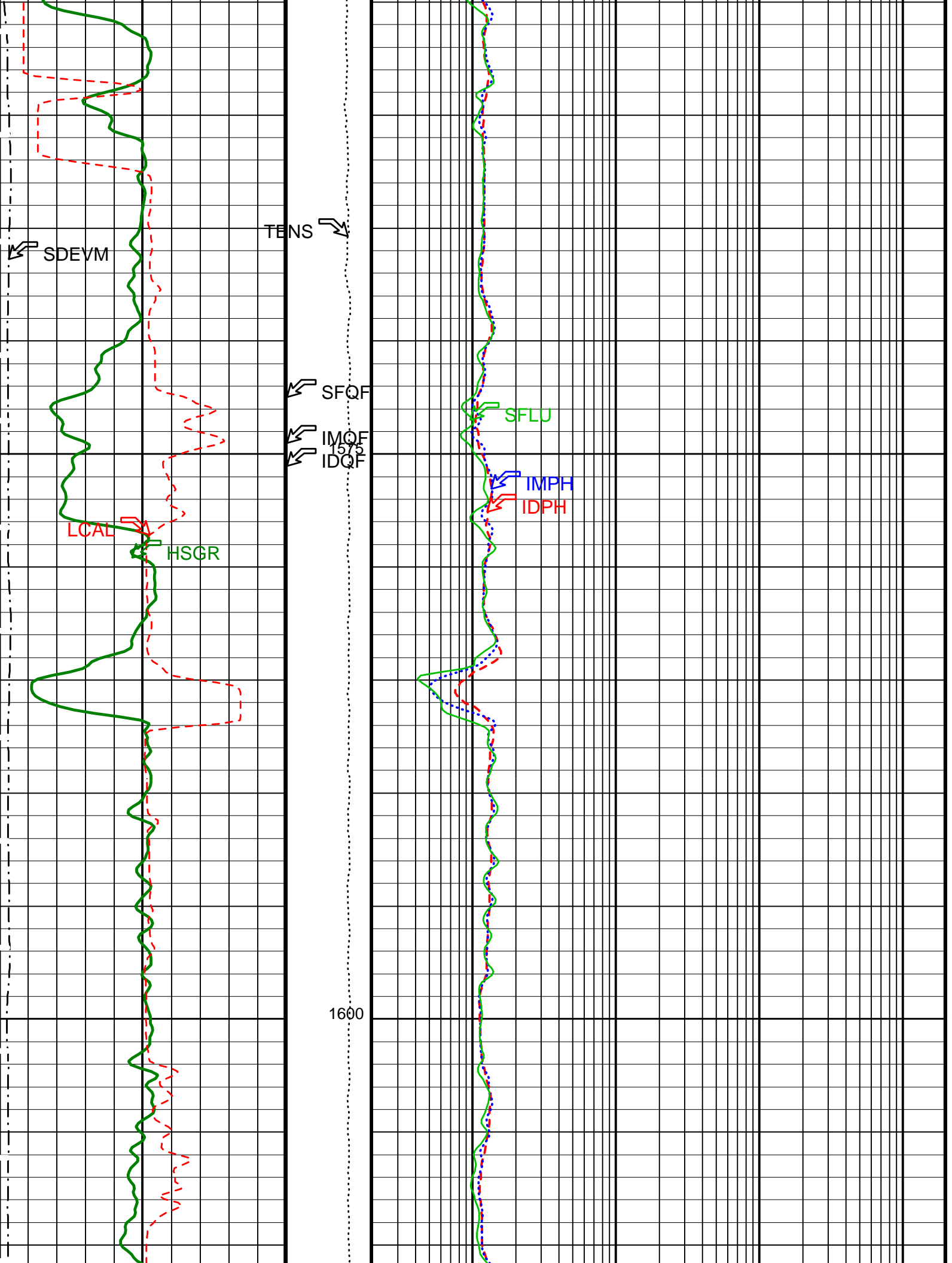
Time Mark Every 60 S

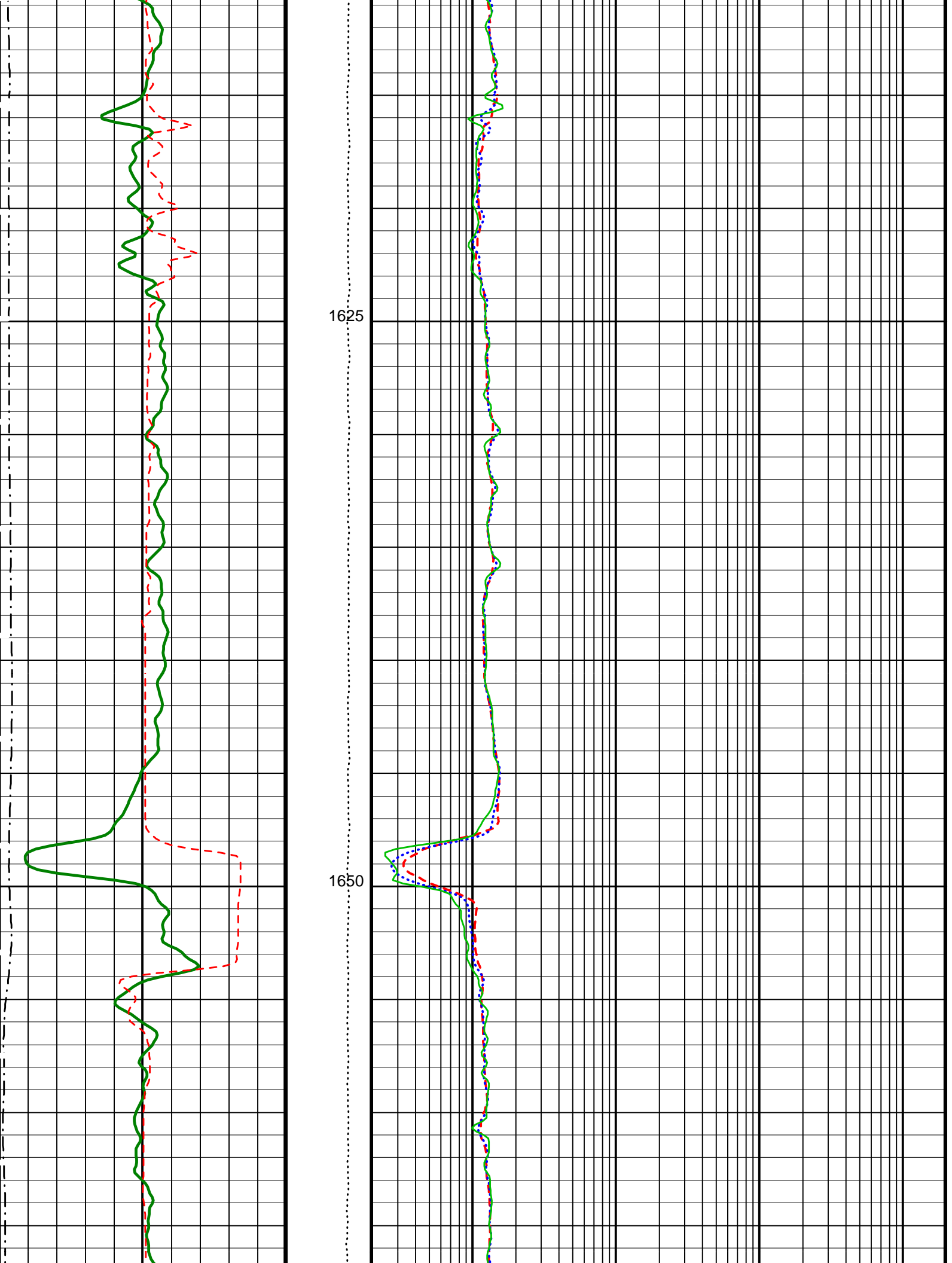


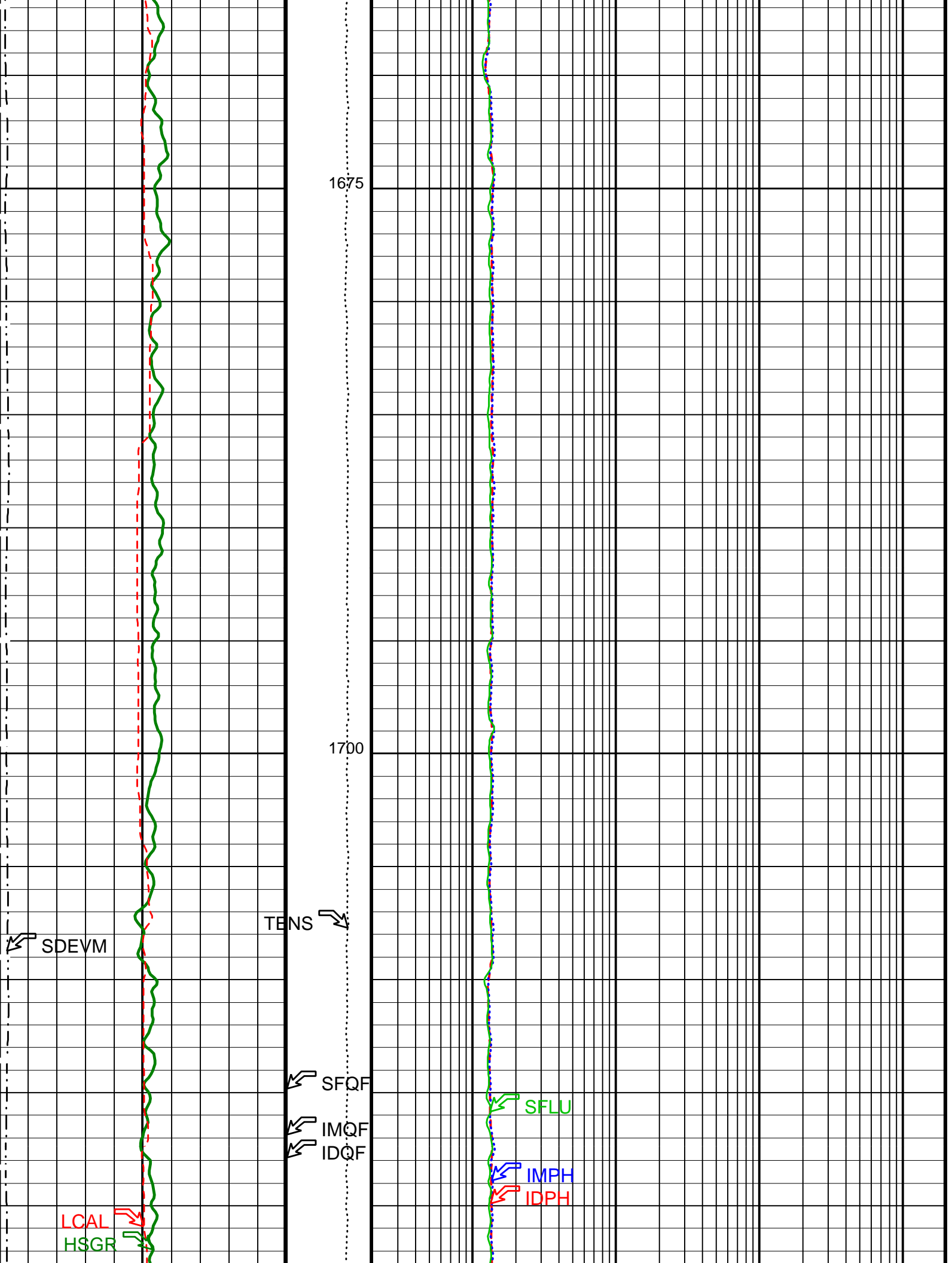
Last Reading

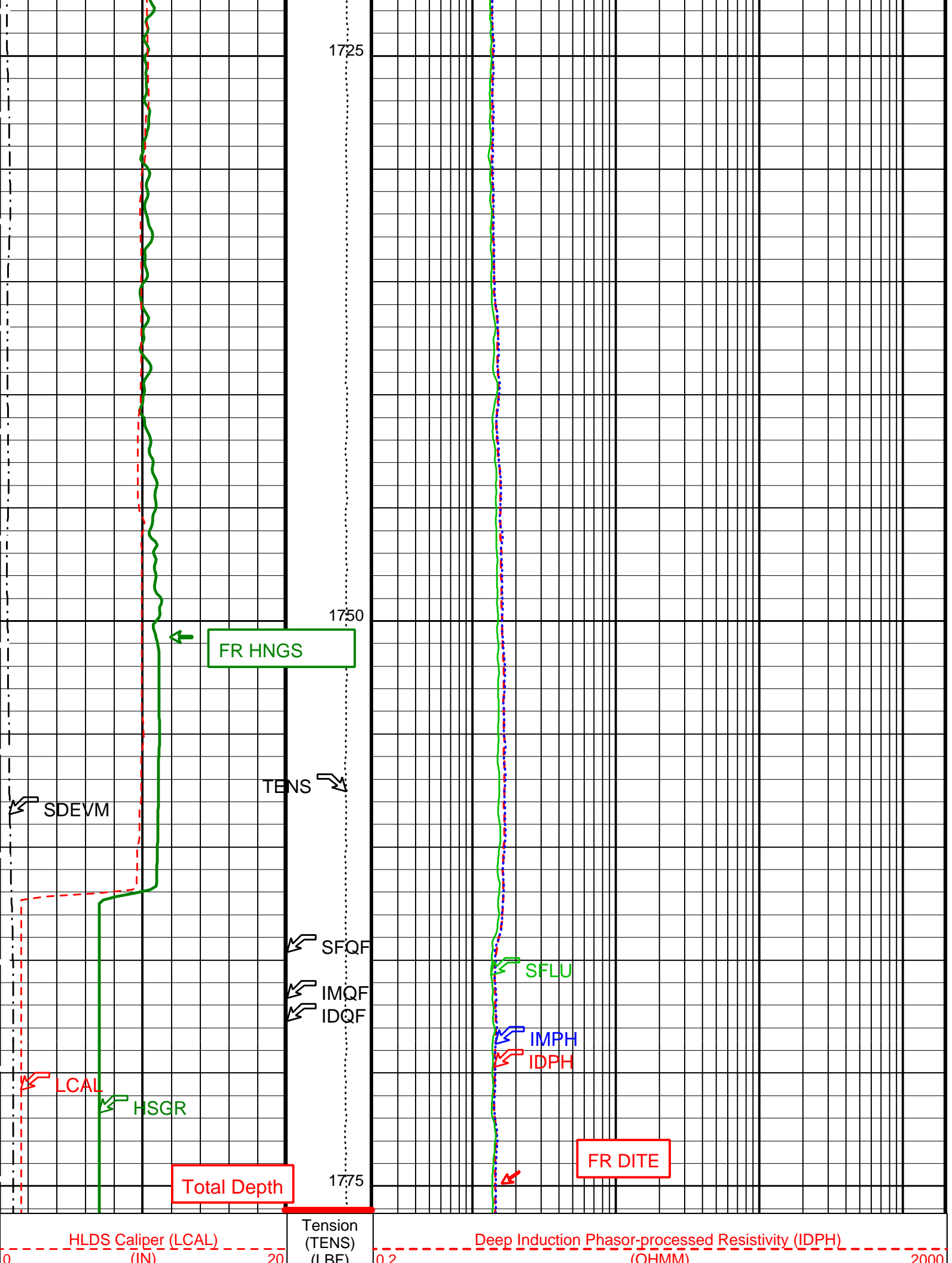












1725

1750

1775

FR HNGS

TENS

SDEVM

SFQF

IMQF

IDQF

SFLU

IMPH

IDPH

Total Depth

FR DITE

HLDS Caliper (LCAL)
(IN)

Tension
(TENS)
(LBF)

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

200

	10000	0		
Sonde Deviation (SDEV) (DEG)	ID_QUAL From IMQF to IDQF	0.2	Medium Induction Phasor-processed Resistivity (IMPH) (OHMM)	2000
HNGS Spectroscopy Gamma Ray (HSGR) (GAPI)	IM_QUAL From SFQF to IMQF	0.2	SFL Unaveraged (SFLU) (OHMM)	2000
	SFL_QUAL From D3T to SFQF			

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)	25	DEGC
DGF2	Deep 20 kHz Gain Factor	0.995355	
DPH2	Deep 20 kHz Phase Shift	-0.0922008	DEG
DRE2	Deep Real 20 kHz Sonde Error Correction	16.9993	MM/M
DSR2	Deep Sigma Reference (20 kHz)	1843	MM/M
DXE2	Deep Quad 20 kHz Sonde Error Correction	136.258	MM/M
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
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	
MGF2	Medium 20 kHz Gain Factor	1.00569	
MPH2	Medium 20 kHz Phase Shift	-0.95492	DEG
MRE2	Medium Real 20 kHz Sonde Error Correction	10.0198	MM/M
MSR2	Medium Sigma Reference (20 kHz)	3250	MM/M
MXE2	Medium Quad 20 kHz Sonde Error Correction	179.002	MM/M
SFCR	SFL Channel Ratio	1000	
SHT	Surface Hole Temperature	20	DEGC
GPIT-A/B: General Purpose Inclinometer			
AFMO	Accelerometer Filtering Mode	MOVING_AVERAGE	
ICMO	Inclinometry Computation Mode	AUTOMATIC_SELECTION	
MDEC	Magnetic Field Declination	3.64412	DEG
APS-C: Accelerator-Porosity Tool			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	25	DEGC
GCSE	Generalized Caliper Selection	LCAL	
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
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)	25	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	LCAL	
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	-0.000855322	
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	0.996435	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.979892	
HOLEV: Integrated Hole/Cement Volume			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	25	DEGC
GCSE	Generalized Caliper Selection	LCAL	
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	9.875	IN
DFD	Drilling Fluid Density	1.07	G/C3
TD	Total Depth	1780	M

Format: DITE_LogPhasor Vertical Scale: 1:200 Graphics File Created: 10-Jun-2005 00:18

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

Output DLIS Files			
DEFAULT	PI_LDL_APS_NGS_029LUP	FN:10	PRODUCER 10-Jun-2005 00:18



REPEAT SECTION

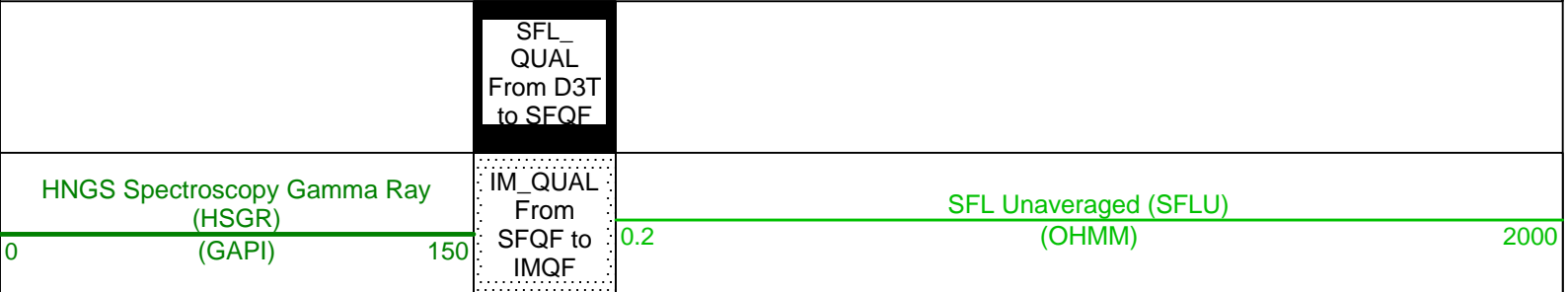
MAXIS Field Log

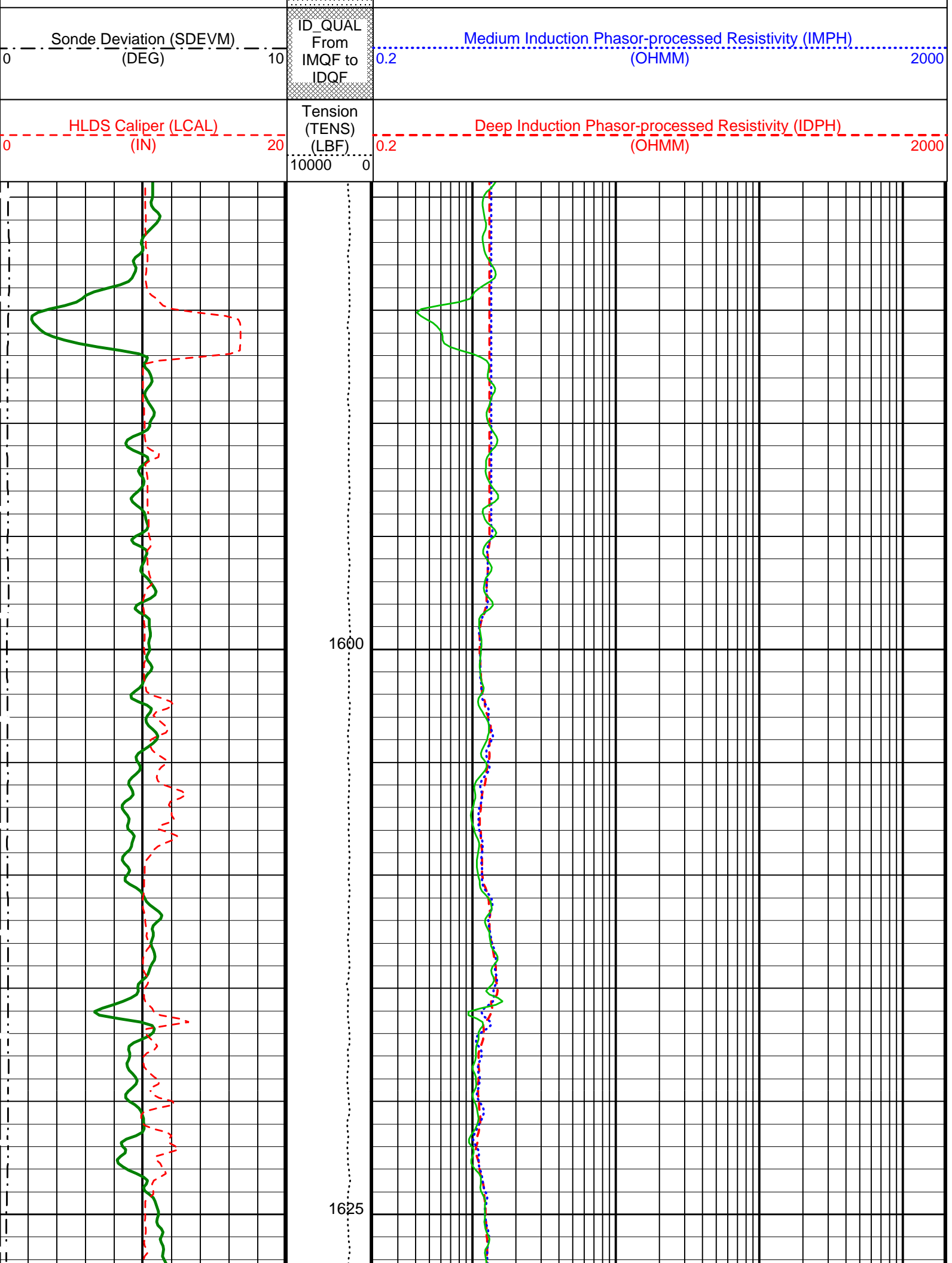
Output DLIS Files					
DEFAULT	PI_LDL_APS_NGS_028LUP	FN:9	PRODUCER	09-Jun-2005 23:53	1652.8 M 1579.6 M

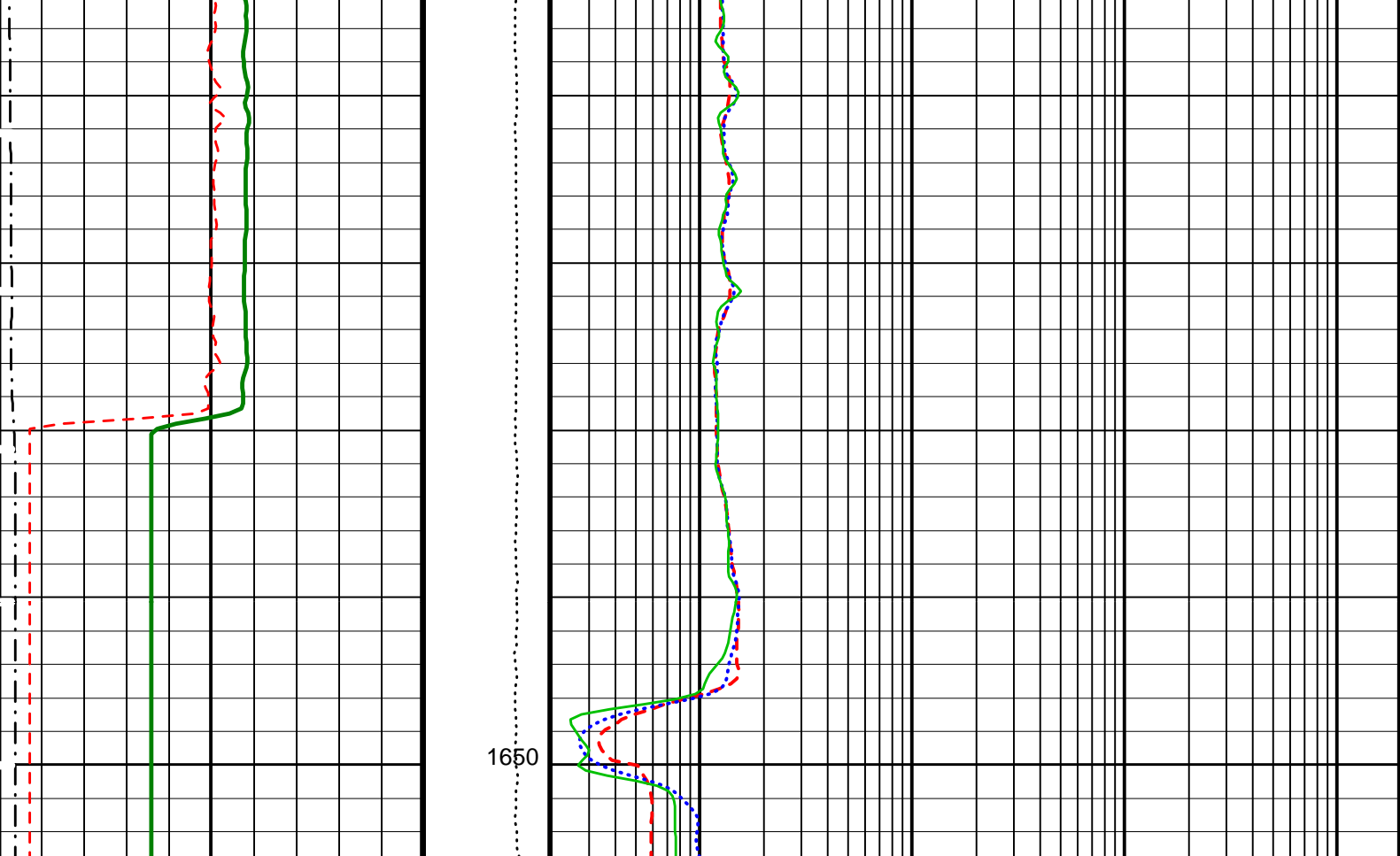
OP System Version: 12C0-301			
MCM			
DIT-E	12C0-301	GPIT-A/B	12C0-301
DTA-A	12C0-301	HLDS	12C0-301
NPLC-B	12C0-301	APS-C	12C0-301
HNGS-BA	12C0-301	DTC-H	12C0-301

PIP SUMMARY

Time Mark Every 60 S







HLDS Caliper (LCAL) (IN)	Tension (TENS) (LBF)	Deep Induction Phasor-processed Resistivity (IDPH) (OHMM)
0 20	10000 0	0.2 2000
Sonde Deviation (SDEVM) (DEG)	ID_QUAL From IMQF to IDQF	Medium Induction Phasor-processed Resistivity (IMPH) (OHMM)
0 10		0.2 2000
HNGS Spectroscopy Gamma Ray (HSGR) (GAPI)	IM_QUAL From SFQF to IMQF	SFL Unaveraged (SFLU) (OHMM)
0 150		0.2 2000
	SFL_QUAL From D3T to SFQF	

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)	25 DEGC
DGF2	Deep 20 kHz Gain Factor	0.995355
DPH2	Deep 20 kHz Phase Shift	-0.0922008 DEG
DRE2	Deep Real 20 kHz Sonde Error Correction	16.9993 MM/M
DSR2	Deep Sigma Reference (20 kHz)	1843 MM/M
DXE2	Deep Quad 20 kHz Sonde Error Correction	136.258 MM/M
GCSE	Generalized Caliper Selection	LCAL
GDEV	Average Angular Deviation of Borehole from Normal	0 DEG
GGRD	Geothermal Gradient	0.018227 DC/M
GTSE	Geothermal Temperature Selection	LINEAR_ESTIMATE
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	
MGF2	Medium 20 kHz Gain Factor	1.00569	
MPH2	Medium 20 kHz Phase Shift	-0.95492	DEG
MRE2	Medium Real 20 kHz Sonde Error Correction	10.0198	MM/M
MSR2	Medium Sigma Reference (20 kHz)	3250	MM/M
MXE2	Medium Quad 20 kHz Sonde Error Correction	179.002	MM/M
SFCR	SFL Channel Ratio	1000	
SHT	Surface Hole Temperature	20	DEGC
GPIT-A/B: General Purpose Inclinometer			
AFMO	Accelerometer Filtering Mode	MOVING_AVERAGE	
ICMO	Inclinometry Computation Mode	AUTOMATIC_SELECTION	
MDEC	Magnetic Field Declination	3.64412	DEG
APS-C: Accelerator-Porosity Tool			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	25	DEGC
GCSE	Generalized Caliper Selection	LCAL	
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
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)	25	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	LCAL	
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	-0.0269119	
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	0.987532	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.979116	
HOLEV: Integrated Hole/Cement Volume			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	25	DEGC
GCSE	Generalized Caliper Selection	LCAL	
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	9.875	IN
DFD	Drilling Fluid Density	1.07	G/C3
TD	Total Depth	1780	M

Format: DITE_LogPhasor Vertical Scale: 1:200 Graphics File Created: 09-Jun-2005 23:53

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

Output DLIS Files

DEFAULT PI_LDL_APS_NGS_028LUP FN:9 PRODUCER 09-Jun-2005 23:53

MAXIS Field Log

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
General Purpose Inclinometer Wellsite Calibration - CROUZET ACCELEROMETER			PROM HAS BEEN READ CORRECTLY				
Before: 9-Jun-2005 22:29							
TEMPERATURE REFERENCE :	N/A	N/A	20	N/A	N/A	N/A	DEGC
YEAR OF CALIBRATION :	N/A	N/A	92	N/A	N/A	N/A	
MONTH OF CALIBRATION :	N/A	N/A	10	N/A	N/A	N/A	
SERIAL NUMBER :	N/A	N/A	448	N/A	N/A	N/A	
General Purpose Inclinometer Wellsite Calibration - CROUZET MAGNETOMETER			PROM HAS BEEN READ CORRECTLY				
Before: 9-Jun-2005 22:29							
TEMPERATURE REFERENCE :	N/A	N/A	19	N/A	N/A	N/A	DEGC
YEAR OF CALIBRATION :	N/A	N/A	99	N/A	N/A	N/A	
MONTH OF CALIBRATION :	N/A	N/A	12	N/A	N/A	N/A	
SERIAL NUMBER :	N/A	N/A	428	N/A	N/A	N/A	
Hostile Litho-Density Sonde Wellsite Calibration - Background Measurement							
Master: 8-Jun-2005 21:27 Before: 8-Jun-2005 22:31 After: 10-Jun-2005 2:19							
SS Cs Resolution Bkg	9.000	8.486	8.550	8.451	-0.09881	1.800	%
LS Cs Resolution Bkg	9.000	8.045	8.053	8.041	-0.01164	1.800	%
LSW1 Background	100.0	81.67	80.78	80.91	0.1335	3.000	CPS
LSW2 Background	100.0	74.98	74.25	73.57	-0.6748	3.000	CPS
LSW3 Background	200.0	168.3	166.2	167.3	1.049	6.000	CPS
LSW4 Background	250.0	207.3	206.2	208.1	1.888	7.500	CPS
LSW5 Background	600.0	468.3	469.5	467.5	-1.980	18.00	CPS
SSW1 Background	100.0	78.39	79.71	78.95	-0.7557	3.000	CPS
SSW2 Background	200.0	140.3	140.0	140.6	0.5310	6.000	CPS
SSW3 Background	500.0	372.4	374.3	373.0	-1.299	15.00	CPS
SSW4 Background	270.0	200.9	201.3	203.0	1.709	8.100	CPS
SSW5 Background	200.0	145.5	146.6	144.8	-1.732	6.000	CPS
Hostile Litho-Density Sonde Wellsite Calibration - Aluminum Measurement							
Master: 8-Jun-2005 22:09							
LSW1 Aluminum	600.0	569.0	N/A	N/A	N/A	N/A	CPS
LSW2 Aluminum	900.0	859.8	N/A	N/A	N/A	N/A	CPS
LSW3 Aluminum	1100	1046	N/A	N/A	N/A	N/A	CPS
LSW4 Aluminum	580.0	525.6	N/A	N/A	N/A	N/A	CPS
LSW5 Aluminum	570.0	493.5	N/A	N/A	N/A	N/A	CPS
SSW1 Aluminum	2800	2435	N/A	N/A	N/A	N/A	CPS
SSW2 Aluminum	8000	7039	N/A	N/A	N/A	N/A	CPS
SSW3 Aluminum	11600	10230	N/A	N/A	N/A	N/A	CPS
SSW4 Aluminum	5000	4397	N/A	N/A	N/A	N/A	CPS
SSW5 Aluminum	660.0	611.2	N/A	N/A	N/A	N/A	CPS
Hostile Litho-Density Sonde Wellsite Calibration - Lithology Measurement							
Master: 8-Jun-2005 21:59							
LSW1 Iron	400.0	385.9	N/A	N/A	N/A	N/A	CPS
LSW2 Iron	730.0	687.9	N/A	N/A	N/A	N/A	CPS
LSW3 Iron	1000	922.6	N/A	N/A	N/A	N/A	CPS
LSW4 Iron	520.0	475.6	N/A	N/A	N/A	N/A	CPS
LSW5 Iron	470.0	446.1	N/A	N/A	N/A	N/A	CPS
SSW1 Iron	2100	1806	N/A	N/A	N/A	N/A	CPS
SSW2 Iron	6800	5873	N/A	N/A	N/A	N/A	CPS
SSW3 Iron	10800	9273	N/A	N/A	N/A	N/A	CPS
SSW4 Iron	4600	3980	N/A	N/A	N/A	N/A	CPS
SSW5 Iron	580.0	534.1	N/A	N/A	N/A	N/A	CPS
Hostile Litho-Density Sonde Wellsite Calibration - Caliper Calibration							
Before: 8-Jun-2005 22:36							
HLDS Caliper Small Ring	8.000	N/A	11.25	N/A	N/A	N/A	IN
HLDS Caliper Large Ring	12.00	N/A	15.38	N/A	N/A	N/A	IN
Accelerator-Porosity Tool Wellsite Calibration - Detector Background							
Master: 8-Jun-2005 23:32 Before: 8-Jun-2005 23:39 After: 10-Jun-2005 2:19							

Near Det Bkg Cntrate	30.00	24.44	24.68	25.72	1.041	N/A	CPS
Far Det Bkg Cntrate	30.00	26.92	26.28	26.16	-0.1246	N/A	CPS
Array-1 Det Bkg Cntrate	30.00	28.26	27.53	27.84	0.3162	N/A	CPS
Array-2 Det Bkg Cntrate	30.00	26.08	25.71	26.81	1.096	N/A	CPS
Array Therm Det Bkg Cntrate	30.00	25.92	25.37	26.08	0.7069	N/A	CPS

Accelerator-Porosity Tool Wellsite Calibration - Calibration Ratios

Master: 8-Jun-2005 23:32

Near/Far Calibration Ratio	0.9250	0.9547	N/A	N/A	N/A	N/A
Near/Array Calibration Ratio	1.030	0.9879	N/A	N/A	N/A	N/A
Near/Array Cal Ratio Up/Down	1.000	1.005	N/A	N/A	N/A	N/A

Accelerator-Porosity Tool Wellsite Calibration - Tank Check

Master: 8-Jun-2005 23:32

Array-1 Standoff Porosity	11.75	11.62	N/A	N/A	N/A	N/A	PU
Array-2 Standoff Porosity	11.75	11.51	N/A	N/A	N/A	N/A	PU
Average Slowing Down Time	6.000	5.843	N/A	N/A	N/A	N/A	US
Array-1 SDT Ratio Up/Down	1.000	0.9816	N/A	N/A	N/A	N/A	
Array-2 SDT Ratio Up/Down	1.000	0.9849	N/A	N/A	N/A	N/A	
Sigma Formation	27.50	27.30	N/A	N/A	N/A	N/A	CU

Accelerator-Porosity Tool Wellsite Calibration - CCR7 signal boxes

Master: 22-Mar-2005 19:02

Near Detector Plateau Setting	1650	1741	N/A	N/A	N/A	N/A	V
Far Detector Plateau Setting	2000	2082	N/A	N/A	N/A	N/A	V
Array Detector Plateau Setting	2000	1973	N/A	N/A	N/A	N/A	V

Hostile Natural Gamma Ray Sonde Wellsite Calibration - Detector 1 Check

Master: 8-Jun-2005 14:36 Before: 8-Jun-2005 15:47 After: 10-Jun-2005 2:24

Na 511 Peak Loc	40.00	40.63	40.59	40.49	-0.1000	1.000	
Na 511 Peak Res	15.50	16.75	16.49	18.04	1.554	2.000	%
High Voltage	1150	1107	1105	1115	9.487	N/A	V
Na 1785 Peak Loc	142.6	146.3	145.4	145.6	0.1412	7.000	
Na 1785 Peak Res	8.500	9.914	9.171	9.644	0.4733	2.000	%
Temperature	15.50	-26.97	-26.90	-26.65	0.2556	N/A	DEGC
Na Count Rate	45.00	37.06	36.25	37.24	0.9953	8.000	CPS

Hostile Natural Gamma Ray Sonde Wellsite Calibration - Detector 2 Check

Master: 8-Jun-2005 14:36 Before: 8-Jun-2005 15:47 After: 10-Jun-2005 2:24

Na 511 Peak Loc	40.00	40.54	40.67	40.64	-0.03411	1.000	
Na 511 Peak Res	15.50	15.55	14.72	14.63	-0.09497	2.000	%
High Voltage	1150	1189	1189	1198	9.439	N/A	V
Na 1785 Peak Loc	142.6	145.6	144.8	145.7	0.9152	7.000	
Na 1785 Peak Res	8.500	9.109	8.776	9.541	0.7650	2.000	%
Temperature	15.50	30.50	30.91	33.38	2.464	N/A	DEGC
Na Count Rate	45.00	37.33	36.61	37.54	0.9299	8.000	CPS

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

Master: 8-Jun-2005 14:36 Before: 8-Jun-2005 15:47 After: 10-Jun-2005 2:24

Coincidence Count Rate Ratio	1.000	0.9935	0.9911	0.9911	-0.00001496	0.05000	
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Accelerator-Porosity Tool - Detector Plateau Settings :

Near Detector Plateau Setting	1741 V
Far Detector Plateau Setting	2082 V
Array Detector Plateau Setting	1973 V

Dual Induction - E / Equipment Identification

Primary Equipment:

Dual Induction Sonde	DIS - HB	129
Dual Induction Cartridge	DIC - EB	171

Auxiliary Equipment:

Mass Isolated Housing	MIH - ZA	174
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Dual Induction - E Wellsite Calibration

Induction Electronics (10 kHz)

Phase	ID Elect Real Offset 10 kHz MM/M	Value	Phase	ID Elect Real Gain 10 kHz	Value	Phase	ID Elect Phase 10 kHz DEG	Value
Before		30.02	Before		0.9352	Before		9.018

Phase	ID Elect Quad Offset 10 kHz MM/M	Value	Phase	ID Elect Quad Gain 10 kHz	Value	Phase	ID Elect Phase 10 kHz DEG	Value
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Before		24.33	Before		0.9504	Before		8.837
	-300.0 (Minimum) 0 (Nominal) 300.0 (Maximum)			0.8500 (Minimum) 1.000 (Nominal) 1.200 (Maximum)			-10.00 (Minimum) 0 (Nominal) 10.00 (Maximum)	
Phase	IM Elect Real Offset 10 kHz MM/M	Value	Phase	IM Elect Real Gain 10 kHz	Value			
Before		83.16	Before		0.9446			
	-550.0 (Minimum) 0 (Nominal) 550.0 (Maximum)			0.8500 (Minimum) 1.000 (Nominal) 1.200 (Maximum)				
Phase	IM Elect Quad Offset 10 kHz MM/M	Value	Phase	IM Elect Quad Gain 10 kHz	Value			
Before		44.82	Before		0.9260			
	-550.0 (Minimum) 0 (Nominal) 550.0 (Maximum)			0.8500 (Minimum) 1.000 (Nominal) 1.200 (Maximum)				

Before: 9-Jun-2005 23:48

Dual Induction - E Wellsite Calibration									
Induction Electronics (20 kHz)									
Phase	ID Elect Real Offset 20 kHz MM/M	Value	Phase	ID Elect Real Gain 20 kHz	Value	Phase	ID Elect Phase 20 kHz DEG	Value	
Before		11.86	Before		0.9626	Before		4.258	
	-125.0 (Minimum) 0 (Nominal) 125.0 (Maximum)			0.8500 (Minimum) 1.000 (Nominal) 1.200 (Maximum)			-15.00 (Minimum) 0 (Nominal) 15.00 (Maximum)		
Phase	ID Elect Quad Offset 20 kHz MM/M	Value	Phase	ID Elect Quad Gain 20 kHz	Value	Phase	IM Elect Phase 20 kHz DEG	Value	
Before		9.853	Before		0.9809	Before		4.633	
	-125.0 (Minimum) 0 (Nominal) 125.0 (Maximum)			0.8500 (Minimum) 1.000 (Nominal) 1.200 (Maximum)			-15.00 (Minimum) 0 (Nominal) 15.00 (Maximum)		
Phase	IM Elect Real Offset 20 kHz MM/M	Value	Phase	IM Elect Real Gain 20 kHz	Value				
Before		34.13	Before		0.9881				
	-225.0 (Minimum) 0 (Nominal) 225.0 (Maximum)			0.8500 (Minimum) 1.000 (Nominal) 1.200 (Maximum)					
Phase	IM Elect Quad Offset 20 kHz MM/M	Value	Phase	IM Elect Quad Gain 20 kHz	Value				
Before		18.52	Before		0.9685				
	-225.0 (Minimum) 0 (Nominal) 225.0 (Maximum)			0.8500 (Minimum) 1.000 (Nominal) 1.200 (Maximum)					

Before: 9-Jun-2005 23:49

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		7.717	Before		0.9442	Before		14.99	
	-85.00 (Minimum) 0 (Nominal) 85.00 (Maximum)			0.8500 (Minimum) 1.000 (Nominal) 1.200 (Maximum)			-20.00 (Minimum) 0 (Nominal) 20.00 (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		6.563	Before		0.9713	Before		14.73	
	-85.00 (Minimum) 0 (Nominal) 85.00 (Maximum)			0.8500 (Minimum) 1.000 (Nominal) 1.200 (Maximum)			-20.00 (Minimum) 0 (Nominal) 20.00 (Maximum)		
Phase	IM Elect Real Offset 40 kHz MM/M	Value	Phase	IM Elect Real Gain 40 kHz	Value				
Before		21.93	Before		0.9864				
	-130.0 (Minimum) 0 (Nominal) 130.0 (Maximum)			0.8500 (Minimum) 1.000 (Nominal) 1.200 (Maximum)					
Phase	IM Elect Quad Offset 40 kHz MM/M	Value	Phase	IM Elect Quad Gain 40 kHz	Value				
Before		11.98	Before		0.9665				
	-130.0 (Minimum) 0 (Nominal) 130.0 (Maximum)			0.8500 (Minimum) 1.000 (Nominal) 1.200 (Maximum)					

Before: 9-Jun-2005 23:50

Dual Induction - E Wellsite Calibration					
SFL Electronics					
Phase	SFL Voltage Offset MV	Value	Phase	SFL Voltage Gain	Value
Before		0.1399	Before		0.9953
	-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		0.03357	Before		1.006
	-0.6000 (Minimum) 0 (Nominal) 0.6000 (Maximum)			0.8500 (Minimum) 1.000 (Nominal) 1.200 (Maximum)	

Before: 9-Jun-2005 23:50

Dual Induction - E Wellsite Calibration

Electronics Calibration Changes Files/Depth Intervals: 25: 0.0 - 0.0 26: 1458.5 - 1626.0 28: 1652.8 - 1579.3 29: 1776.2 - 1461.1

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		0.0001698	After			0.0006472
0	0	0.7500		0	0	2.000	0	0	0.02000	
(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)	(Minimum)	(Nominal)	(Maximum)	
Phase	IM (R > 27 OHM-M)	MM/M	Value	Phase	IM (R < 27 OHM-M) %	Value				
After			0	After		0.0001354				
0	0	0.7500		0	0	2.000				
(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)				
Phase	SFL (R > 27 OHM-M)	MM/M	Value	Phase	SFL (R < 27 OHM-M) %	Value				
After			0	After		0.0005234				
0	0	0.7500		0	0	2.000				
(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)				

After: 10-Jun-2005 1:35

General Purpose Inclinometer / Equipment Identification

Primary Equipment:
GPIT Cartridge - A

GPIC - A 840

Auxiliary Equipment:
GPIT Housing

GPIH - A

Hostile Litho-Density Sonde / Equipment Identification

Primary Equipment:

Hostile Litho Density Sonde
Hostile Litho Density High Voltage
Gamma Source Radioactive

HLDS - D 35
HLDV - D 35
GSR - Z 2326

Auxiliary Equipment:

Hostile Litho Density Pad
Hostile Litho Density High Voltage Housi

HLDP - C 35
HEH - H 35

Hostile Litho-Density Sonde Wellsite Calibration

Background Measurement

Phase	SS Cs Resolution Bkg %	Value	Phase	LS Cs Resolution Bkg %	Value	Phase	LSW1 Background CPS	Value
Master		8.486	Master		8.045	Master		81.67
Before		8.550	Before		8.053	Before		80.78
After		8.451	After		8.041	After		80.91
7.000	9.000	11.00	7.000	9.000	11.00	55.00	100.0	150.0
(Minimum)	(Nominal)	(Maximum)	(Minimum)	(Nominal)	(Maximum)	(Minimum)	(Nominal)	(Maximum)
Phase	LSW2 Background CPS	Value	Phase	LSW3 Background CPS	Value	Phase	LSW4 Background CPS	Value
Master		74.98	Master		168.3	Master		207.3
Before		74.25	Before		166.2	Before		206.2
After		73.57	After		167.3	After		208.1
50.00	100.0	140.0	110.0	200.0	290.0	140.0	250.0	360.0
(Minimum)	(Nominal)	(Maximum)	(Minimum)	(Nominal)	(Maximum)	(Minimum)	(Nominal)	(Maximum)
Phase	LSW5 Background CPS	Value	Phase	SSW1 Background CPS	Value	Phase	SSW2 Background CPS	Value
Master		468.3	Master		78.39	Master		140.3
Before		469.5	Before		79.71	Before		140.0
After		467.5	After		78.95	After		140.6
330.0	600.0	830.0	55.00	100.0	150.0	100.0	200.0	260.0
(Minimum)	(Nominal)	(Maximum)	(Minimum)	(Nominal)	(Maximum)	(Minimum)	(Nominal)	(Maximum)
Phase	SSW3 Background CPS	Value	Phase	SSW4 Background CPS	Value	Phase	SSW5 Background CPS	Value
Master		372.4	Master		200.9	Master		145.5
Before		374.3	Before		201.3	Before		146.6
After		373.0	After		203.0	After		144.8

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 - C	202	
APS Minitron	MNTR - F	5124	
Auxiliary Equipment:			
Accelerator-Porosity Housing	APH - AC	104	
APS Calibration Water Tank	SFT - 178	6250	
APS Aluminum Calibrator Sleeve	SFT - 281	6250	

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		24.44	Master		26.92	Master		28.26
Before		24.68	Before		26.28	Before		27.53
After		25.72	After		26.16	After		27.84
	1.000 (Minimum)			1.000 (Minimum)			1.000 (Minimum)	
	30.00 (Nominal)			30.00 (Nominal)			30.00 (Nominal)	
	50.00 (Maximum)			50.00 (Maximum)			50.00 (Maximum)	

Phase	Array-2 Det Bkg Cntrate CPS	Value	Phase	Array Therm Det Bkg Cntrate CPS	Value
Master		26.08	Master		25.92
Before		25.71	Before		25.37
After		26.81	After		26.08
	1.000 (Minimum)			1.000 (Minimum)	
	30.00 (Nominal)			30.00 (Nominal)	
	50.00 (Maximum)			50.00 (Maximum)	

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		0.9547	Master		0.9879	Master		1.005
	0.8000 (Minimum)			0.9000 (Minimum)			0.9700 (Minimum)	
	0.9250 (Nominal)			1.030 (Nominal)			1.000 (Nominal)	
	1.050 (Maximum)			1.170 (Maximum)			1.030 (Maximum)	

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		11.62	Master		11.51	Master		5.843
	9.900 (Minimum)			9.900 (Minimum)			5.500 (Minimum)	
	11.75 (Nominal)			11.75 (Nominal)			6.000 (Nominal)	
	13.60 (Maximum)			13.60 (Maximum)			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		0.9816	Master		0.9849	Master		27.30
	0.9500 (Minimum)			0.9500 (Minimum)			20.00 (Minimum)	
	1.000 (Nominal)			1.000 (Nominal)			27.50 (Nominal)	
	1.050 (Maximum)			1.050 (Maximum)			35.00 (Maximum)	

Hostile Natural Gamma Ray Sonde / Equipment Identification

Primary Equipment:

Primary Equipment:
 HNGS Sonde
 Auxiliary Equipment:
 HNGS Sonde Housing
 Gamma Source Radioactive

HNGS - BA 27
 HNSH - BA 27
 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		40.63	Master		16.75	Master		1107	
Before		40.59	Before		16.49	Before		1105	
After		40.49	After		18.04	After		1115	
	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		146.3	Master		9.914	Master		-26.97	
Before		145.4	Before		9.171	Before		-26.90	
After		145.6	After		9.644	After		-26.65	
	135.0 (Minimum) 142.6 (Nominal) 150.3 (Maximum)			7.000 (Minimum) 8.500 (Nominal) 11.000 (Maximum)			-28.89 (Minimum) 15.50 (Nominal) 60.00 (Maximum)		
Phase	Na Count Rate CPS	Value							
Master		37.06							
Before		36.25							
After		37.24							
	10.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)								
Master: 8-Jun-2005 14:36			Before: 8-Jun-2005 15:47			After: 10-Jun-2005 2:24			

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		40.54	Master		15.55	Master		1189	
Before		40.67	Before		14.72	Before		1189	
After		40.64	After		14.63	After		1198	
	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		145.6	Master		9.109	Master		30.50	
Before		144.8	Before		8.776	Before		30.91	
After		145.7	After		9.541	After		33.38	
	135.0 (Minimum) 142.6 (Nominal) 150.3 (Maximum)			7.000 (Minimum) 8.500 (Nominal) 11.000 (Maximum)			-28.89 (Minimum) 15.50 (Nominal) 60.00 (Maximum)		
Phase	Na Count Rate CPS	Value							
Master		37.33							
Before		36.61							
After		37.54							
	10.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)								
Master: 8-Jun-2005 14:36			Before: 8-Jun-2005 15:47			After: 10-Jun-2005 2:24			

Hostile Natural Gamma Ray Sonde Wellsite Calibration		
Ratio Of Detector 1 To Detector 2		
Phase	Coincidence Count Rate Ratio	Value
Master		0.9935
Before		0.9911
After		0.9911
	0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)	

Master: 8-Jun-2005 14:36
Before: 8-Jun-2005 15:47
After: 10-Jun-2005 2:24

Company: Lamont Doherty

Schlumberger

Well: IODP EXP 308 Site 1320A

Field: Brazos Trinity Basin

Country: USA

Ocean: Gulf Of Mexico

Phasor Induction-HNGS