**Schlumberger**

Company: Lamont Doherty

Well: ODP Leg 209, Site 1272A
Field: Mid Atlantic Ridge
Country: Ocean: Atlantic

Phasor Induction
Natural Gamma Ray

Country: Mid Atlantic Ridge
Field: Rig- Joides Resolution
Location: ODP Leg 209, Site 1272A
Well: Lamont Doherty
Company:

LOCATION

Rig- Joides Resolution
15 Deg 5.6682 ' N
44 Deg 58.2994 ' W

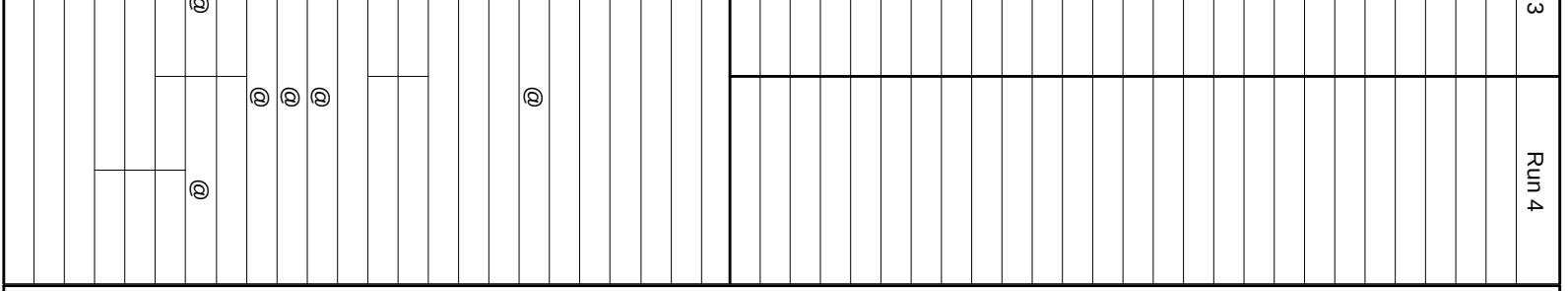
Elev.: K.B. 11.3 m
G.L. -2571 m
D.F. 11 m

Permanent Datum: MSL — Elev.: 0 m
Log Measured From: DES — 11.3 m above Perm. Datum
Drilling Measured From: DES

| API Serial No. | Max. Hole Devi. | Longitude 91.9343 W | Latitude 6.7365 N |
|---|---|---|---|
| | | | |

| | Run 1 | Run 2 | Run 3 |
|---|---|---|---|
| Logging Date | 11-Jun-2003 | | |
| Run Number | 1 | | |
| Depth Driller | 2702 m | | |
| Schlumberger Depth | 2695 m | | |
| Bottom Log Interval | 2693 m | | |
| Top Log Interval | 2600 m | | |
| Casing Driller Size @ Depth | 0.000 in @ 2612 m | @ | @ |
| Casing Schlumberger | 2610 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 | 0.322 ohm.m @ 73 degC | @ | @ |
| RMF @ Measured Temperature | @ | @ | @ |
| RMC @ Measured Temperature | @ | @ | @ |
| Source RMF / RMC | | | |
| RM @ MRT / RMF @ MRT | 0.945 @ 11 | @ 11 | @ @ |
| Maximum Recorded Temperatures | 11 degC | | |
| Circulation Stopped / Time | 11-Jun-2003 | | |
| Logger On Bottom / Time | 11-Jun-2003 | See Log | |
| Unit Number / Location | 99 | Houston | |
| Recorded By | K. Swain | | |
| Witnessed By | G. Iturrino | | |

| | Run 1 | Run 2 | Run 3 |
|---|---|---|---|
| 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: HLDS | OS1: |
| OS2: DSST | OS2: |
| OS3: FMS | OS3: |
| OS4: | OS4: |
| OS5: | OS5: |

| REMARKS: RUN NUMBER 1 | REMARKS: RUN NUMBER 2 |
|---|---|
| Hole cored with RCB 9 7/8" bit. | |
| All depths in Meters Below Rig Floor (MBRF). | |
| Sepiolite mud was used. | |
| WHC was run. | |
| See logging report for more information. | |
| 10khz and 40khz not used with DITE | |
| Low background countrate for HNGS does not affect measurement...indication of | |
| weak background sources only. | |

| RUN 1 | | RUN 2 | |
|---|---|---|---|
| SERVICE ORDER #: | | SERVICE ORDER #: | |
| PROGRAM VERSION: | 10C0-306 | PROGRAM VERSION: | |
| FLUID LEVEL: | | FLUID LEVEL: | |

| LOGGED INTERVAL | START | STOP | LOGGED INTERVAL | START | STOP |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

# EQUIPMENT DESCRIPTION

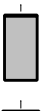
RUN 1 RUN 2

## SURFACE EQUIPMENT

GSR-U 135
WITM (DTS)-A

## DOWNHOLE EQUIPMENT

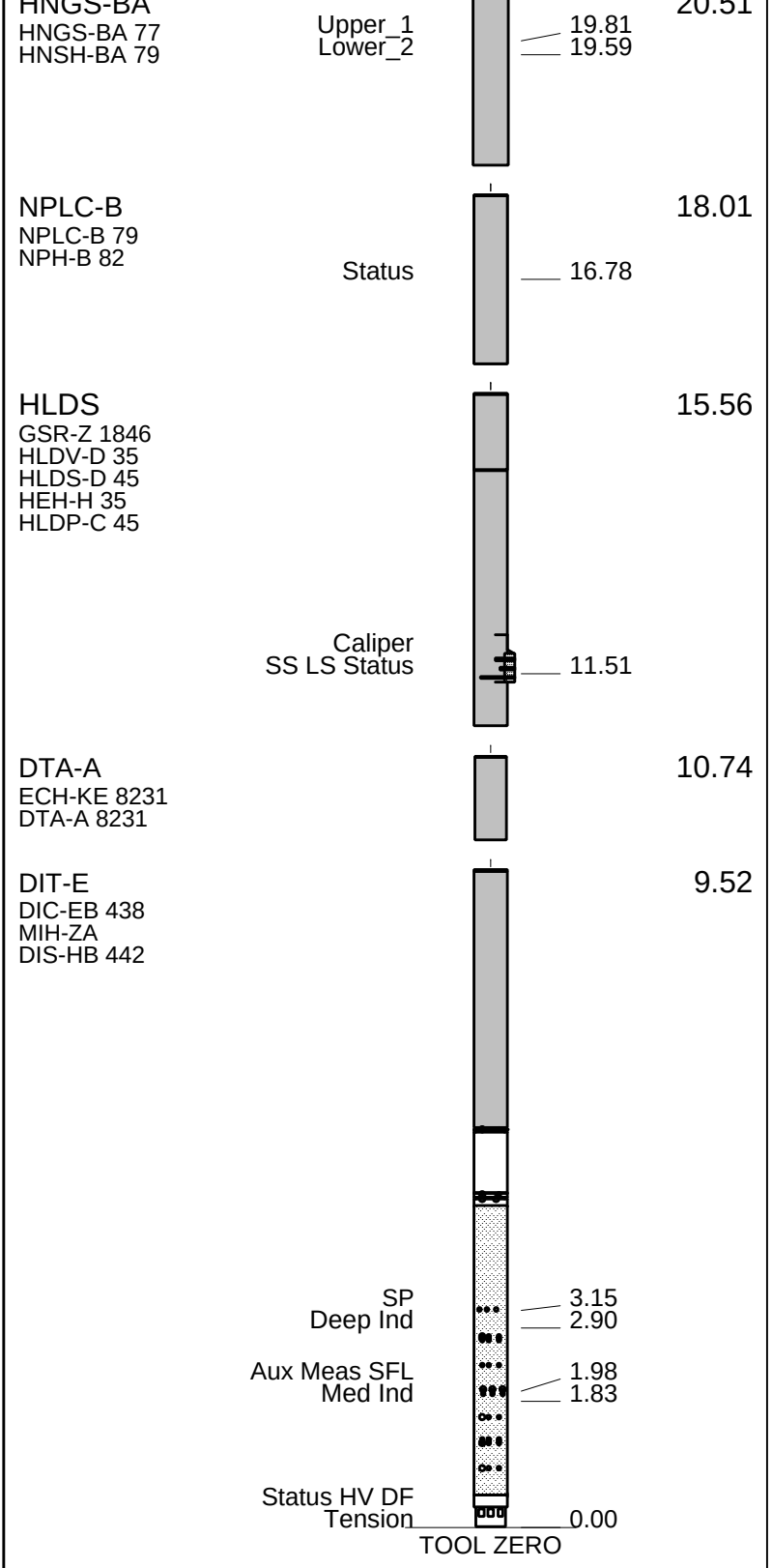
LEH-QT 22.31
LEH-QT



DTC-H 21.42
ECH-KC 9343
DTCH0-A

CTEM 21.14
TelStatus
ToolStatu 20.51

HNGS-BA 20.51




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

## Output DLIS Files

| | | | | | | |
|---|---|---|---|---|---|---|
| DEFAULT | PI_LDL_NGS_006LUP | FN:6 | PRODUCER | 11-Jun-2003 18:23 | 2695.2 M | 2550.1 M |
| REDUCED | PI_LDL_NGS_006LUP | FN:7 | PRODUCER | 11-Jun-2003 18:23 | 2695.2 M | 2550.1 M |

## OP System Version: 10C0-306

MCM

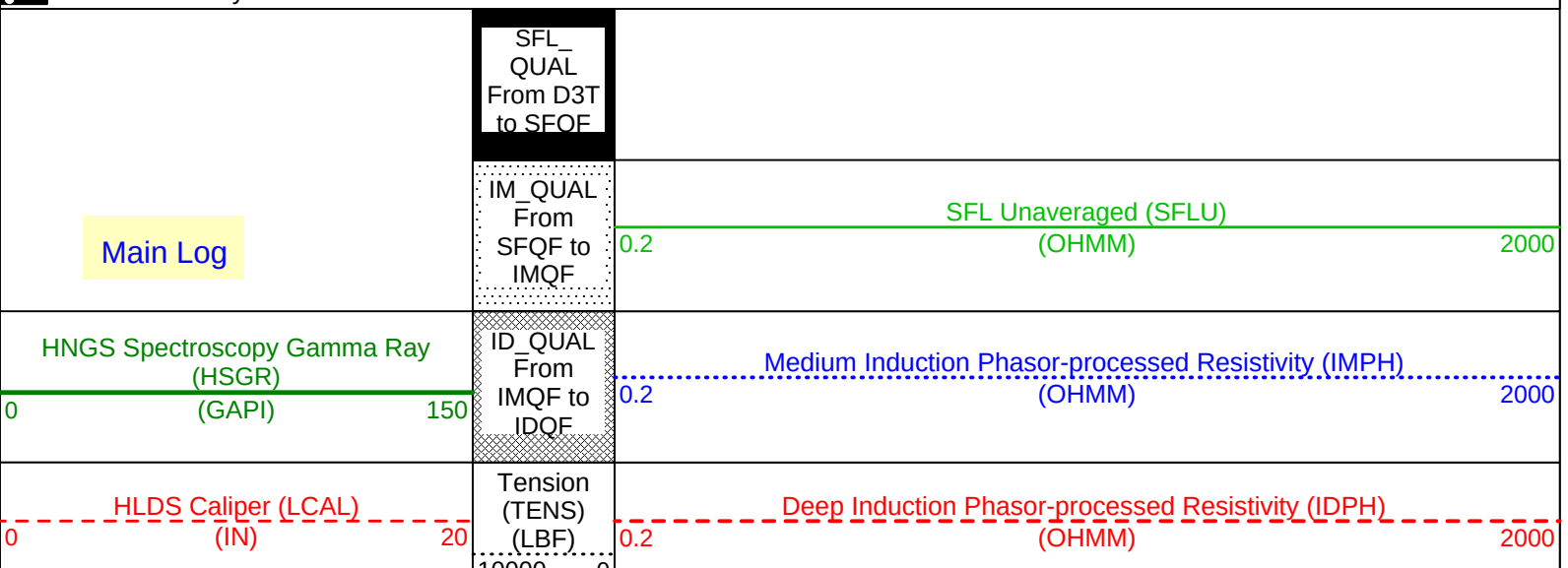
| | | | |
|---|---|---|---|
| DIT-E | 10C0-306 | DTA-A | 10C0-306 |
| HLDS | SPC-2277-NUCL_b | NPLC-B | OP10-KP1 |
| HNGS-BA | SPC-2277-NUCL_b | DTC-H | 10C0-306 |

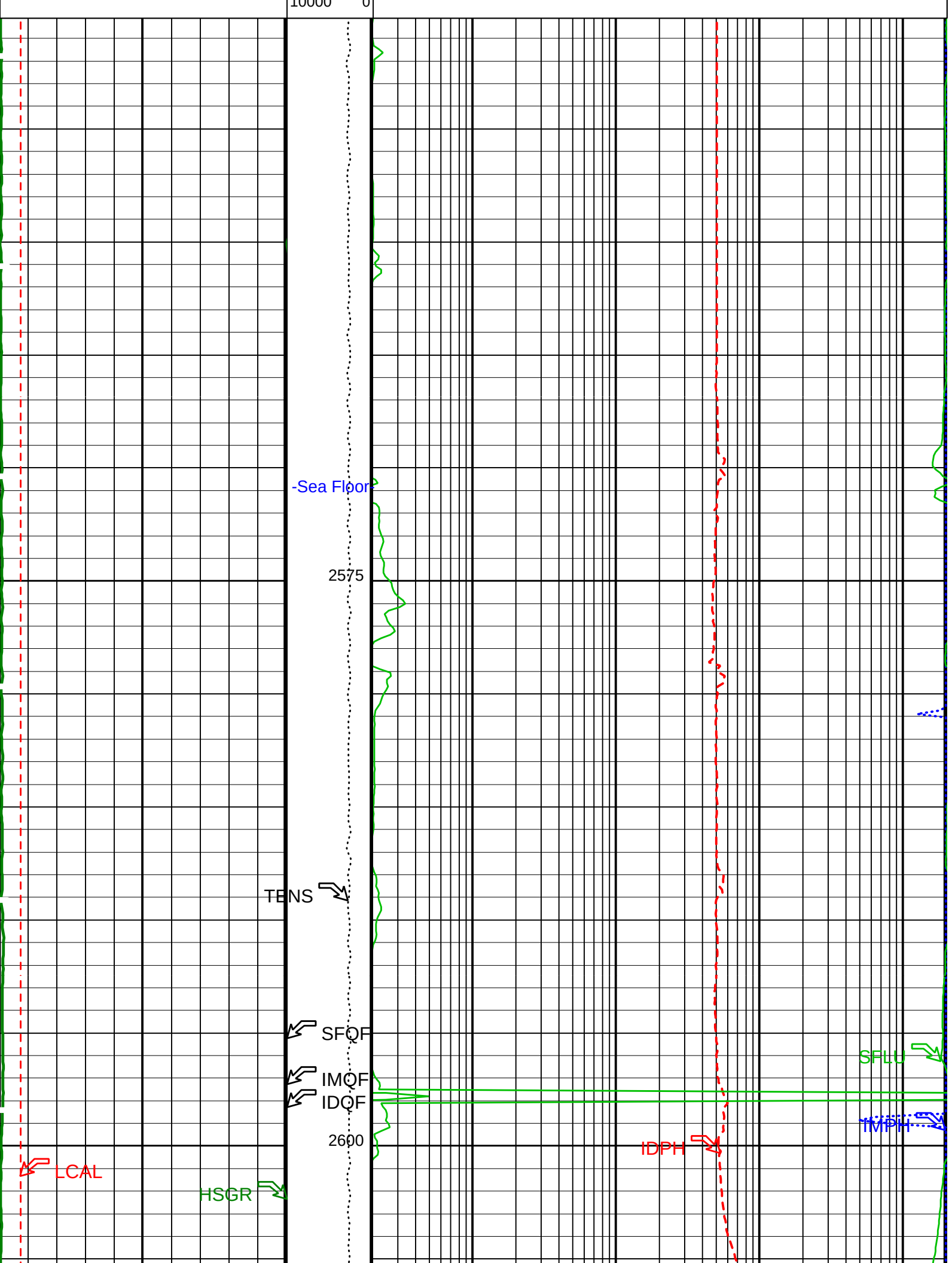
## Changed Parameter Summary

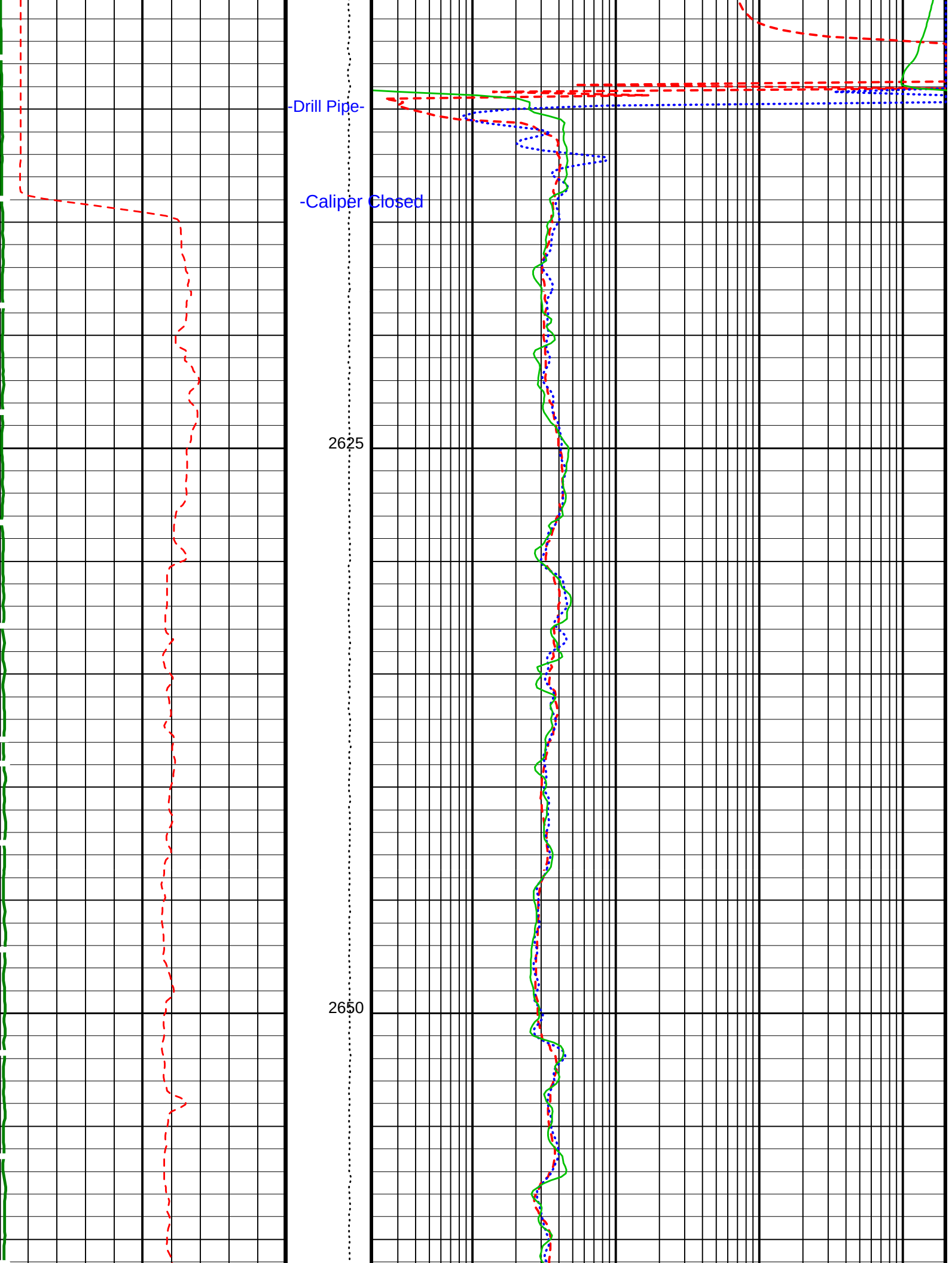
| DLIS Name | New Value | Previous Value | Depth & Time |
|---|---|---|---|
| GCSE | BS | BS | 2692.0 18:25:08 |
| | LCAL | BS | 2691.1 18:25:18 |

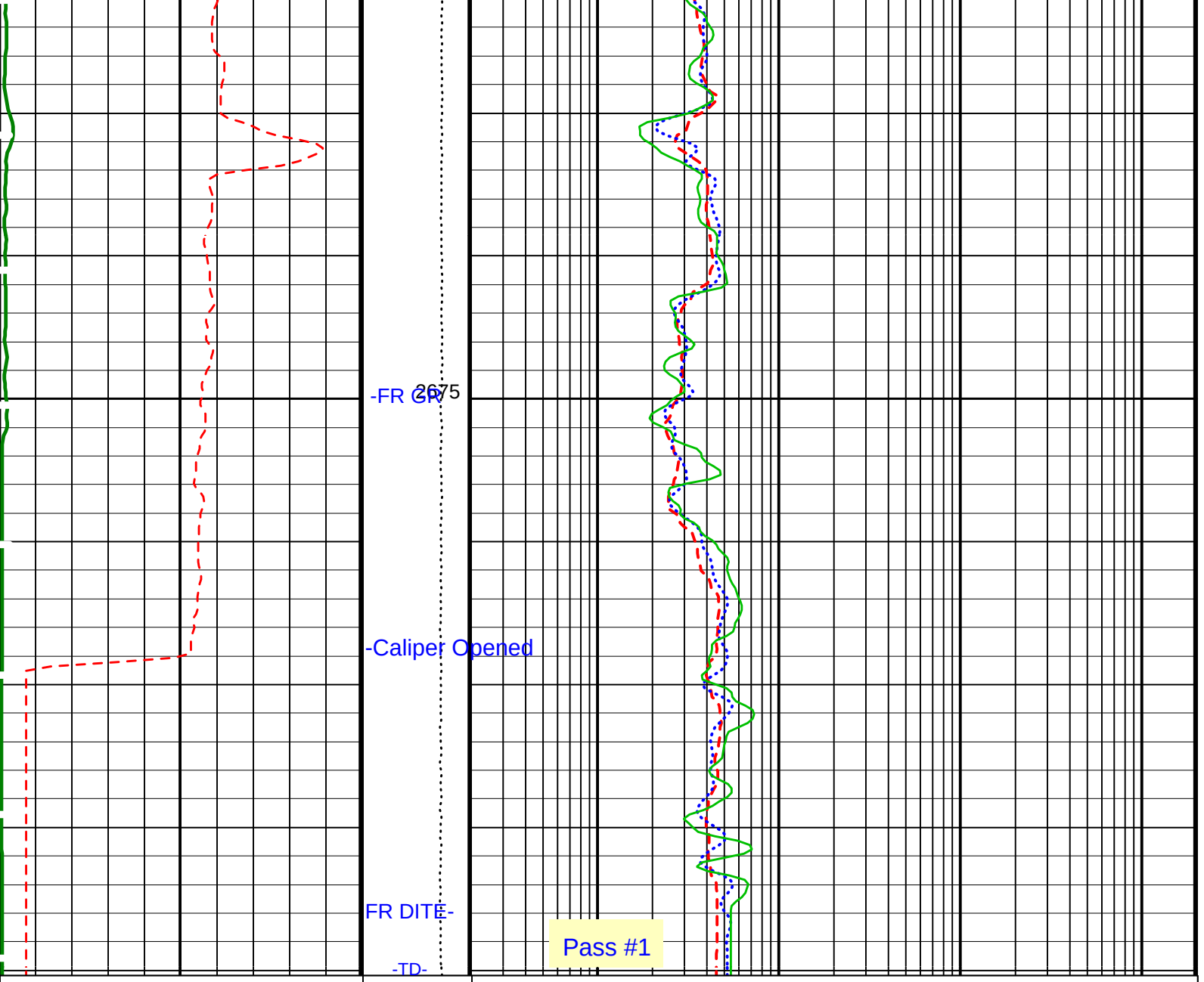
PIP SUMMARY

Time Mark Every 60 S




10000
0
-Sea Floor
2575
TENS
SFQF
IMQF
IDQF
2600
LCAL
HSGR
IDPH
SFLU
IMPH


-Drill Pipe-
-Caliper Closed
2625
2650




HLDS Caliper (LCAL)
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) 150

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

Main Log

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) | 15 | DEGC |
| 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 |
| 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 | |
| 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 | 1.02964 | |
| 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 |
| SFCR | SFL Channel Ratio | 1000 | |
| 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) | 15 | 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 | -0.00262528 | |
| 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 | 1.4421 | |
| VBA2 | HNGS Detector 2 Variable Barite Factor Running Average | 3.72744 | |
| System and Miscellaneous | | | |
| BS | Bit Size | 9.875 | IN |
| DFD | Drilling Fluid Density | 1.07 | G/C3 |
| TD | Total Depth | 2710 | M |

Format: DITE_LogPhasor Vertical Scale: 1:200 Graphics File Created: 11-Jun-2003 18:23

## OP System Version: 10C0-306

MCM

| | | | |
|---|---|---|---|
| DIT-E | 10C0-306 | DTA-A | 10C0-306 |
| HLDS | SPC-2277-NUCL_b | NPLC-B | OP10-KP1 |
| HNGS-BA | SPC-2277-NUCL_b | DTC-H | 10C0-306 |

## Output DLIS Files

| | | | | | | |
|---|---|---|---|---|---|---|
| DEFAULT | PI_LDL_NGS_006LUP | FN:6 | PRODUCER | 11-Jun-2003 18:23 | | |
| REDUCED | PI_LDL_NGS_006LUP | FN:7 | PRODUCER | 11-Jun-2003 18:23 | | |

## Output DLIS Files

| | | | | | | |
|---|---|---|---|---|---|---|
| DEFAULT | PI_LDL_NGS_007LUP | FN:8 | PRODUCER | 11-Jun-2003 18:51 | 2695.2 M | 2592.3 M |
| REDUCED | PI_LDL_NGS_007LUP | FN:9 | PRODUCER | 11-Jun-2003 18:51 | 2695.2 M | 2591.0 M |

## OP System Version: 10C0-306

MCM

MCM

| | | | |
|---|---|---|---|
| DIT-E | 10C0-306 | DTA-A | 10C0-306 |
| HLDS | SPC-2277-NUCL_b | NPLC-B | OP10-KP1 |
| HNGS-BA | SPC-2277-NUCL_b | DTC-H | 10C0-306 |

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) 150

ID_QUAL From IMQF to IDQF

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

HLDS Caliper (LCAL)
0 (IN) 20

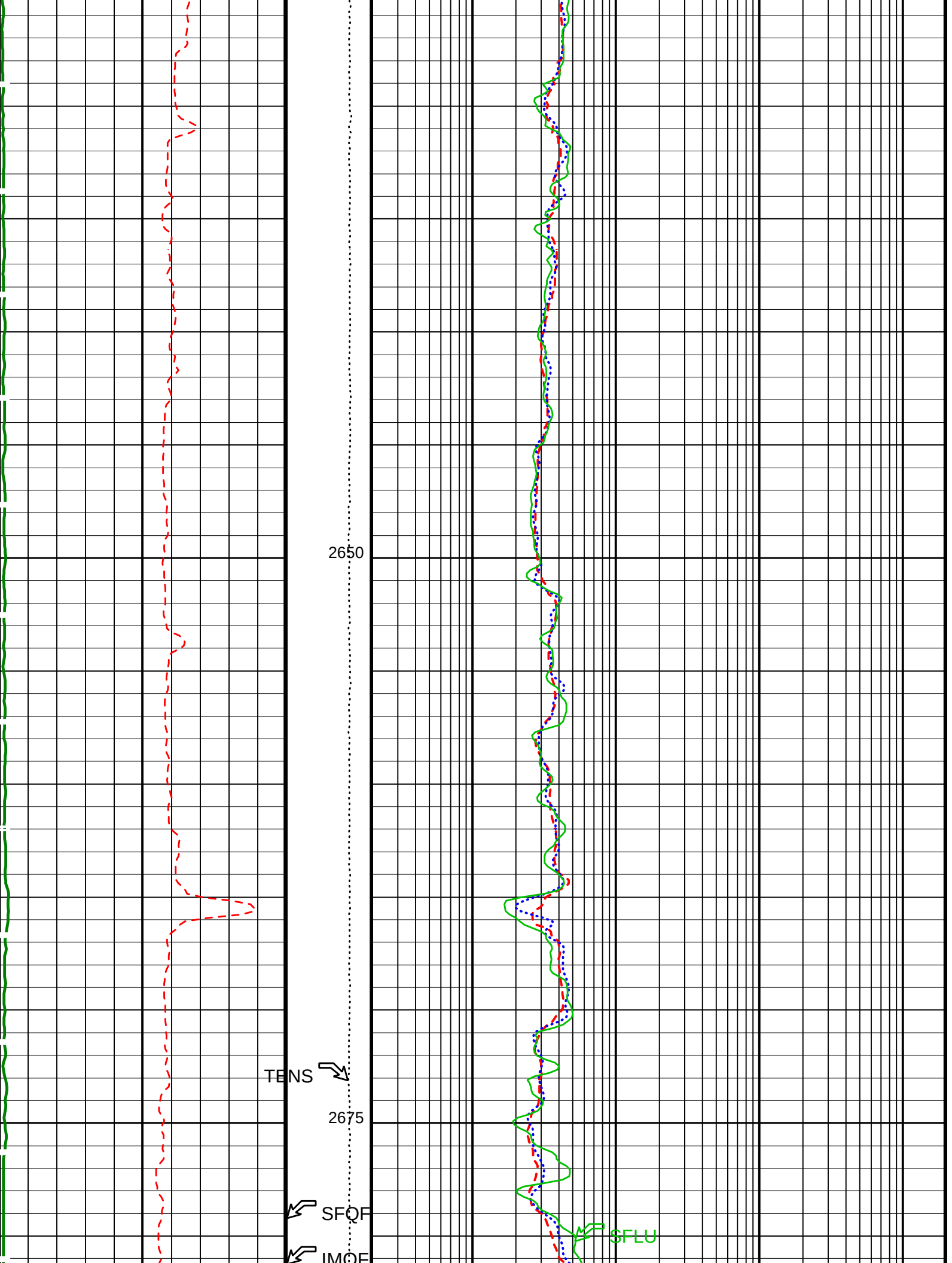
Tension (TENS) (LBF)
10000 0

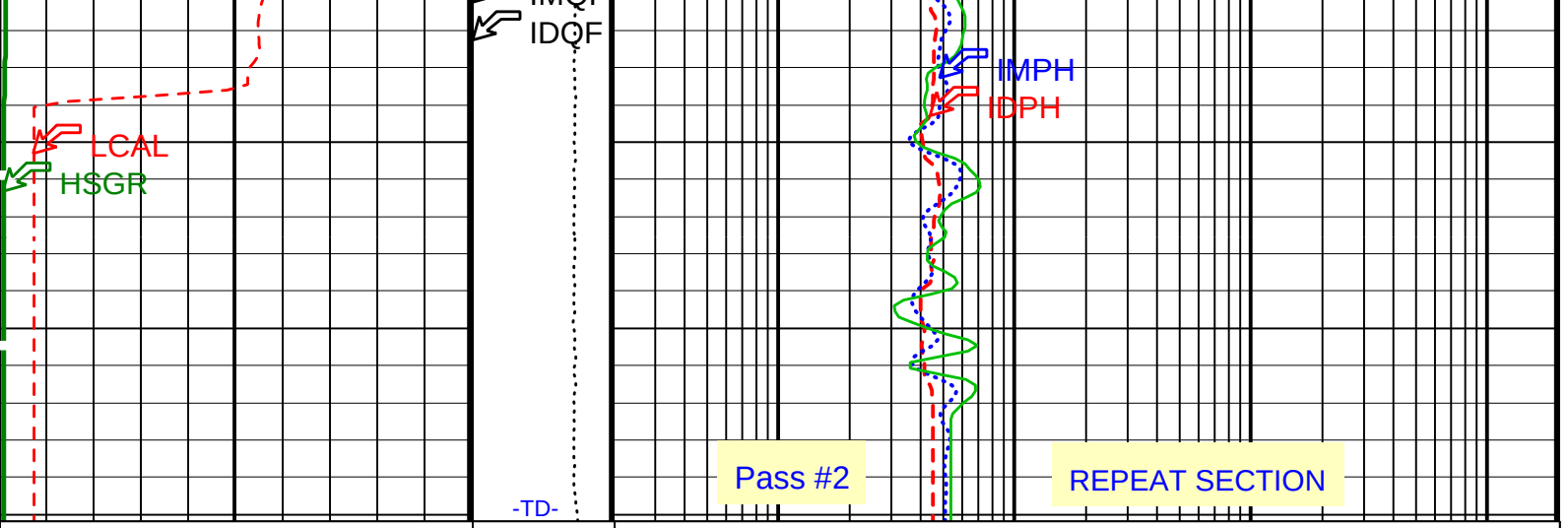
Deep Induction Phasor-processed Resistivity (IDPH)
0.2 (OHMM) 2000

REPEAT SECTION

2600

2625


2650
TENS
2675
SFQF
IMQF
SFLU




HLDS Caliper (LCAL)
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) 150

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 | |
|---|---|---|---|
| | DIT-E: Dual Induction - E | | |
| BHS | Borehole Status | OPEN | |
| BHT | Bottom Hole Temperature (used in calculations) | 15 | DEGC |
| 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 |
| 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 | 1.02964 | |
| 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 |
| SFCR | SFL Channel Ratio | 1000 | |
| 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) | 15 | 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 | -0.00443434 | |
| 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 | 1.09098 | |
| VBA2 | HNGS Detector 2 Variable Barite Factor Running Average | 1.38912 | |
| System and Miscellaneous | | | |
| BS | Bit Size | 9.875 | IN |
| DFD | Drilling Fluid Density | 1.07 | G/C3 |
| TD | Total Depth | 2710 | M |

Format: DITE_LogPhasor Vertical Scale: 1:200 Graphics File Created: 11-Jun-2003 18:51

## OP System Version: 10C0-306

MCM

| | | | |
|---|---|---|---|
| DIT-E | 10C0-306 | DTA-A | 10C0-306 |
| HLDS | SPC-2277-NUCL_b | NPLC-B | OP10-KP1 |
| HNGS-BA | SPC-2277-NUCL_b | DTC-H | 10C0-306 |

## Output DLIS Files

| | | | | |
|---|---|---|---|---|
| DEFAULT | PI_LDL_NGS_007LUP | FN:8 | PRODUCER | 11-Jun-2003 18:51 |
| REDUCED | PI_LDL_NGS_007LUP | FN:9 | PRODUCER | 11-Jun-2003 18:51 |

Calibration and Check Summary

| Measurement | Nominal | Master | Before | After | Change | Limit | Units |
|---|---|---|---|---|---|---|---|
| Hostile Litho-Density Sonde Wellsite Calibration - Background Measurement | | | | | | | |
| Master: 23-Apr-2003 17:32 Before: 18-May-2003 20:52 After: 11-Jun-2003 21:44 | | | | | | | |
| SS Cs Resolution Bkg | 9.000 | 8.094 | 8.097 | 8.005 | -0.09238 | 1.800 | % |
| LS Cs Resolution Bkg | 9.000 | 8.143 | 8.212 | 8.247 | 0.03477 | 1.800 | % |
| LSW1 Background | 100.0 | 86.47 | 86.14 | 86.02 | -0.1230 | 0.03000 | CPS |
| LSW2 Background | 100.0 | 80.63 | 80.44 | 80.53 | 0.09354 | 0.03000 | CPS |
| LSW3 Background | 200.0 | 177.7 | 178.3 | 177.1 | -1.207 | 0.03000 | CPS |
| LSW4 Background | 250.0 | 218.9 | 217.1 | 218.1 | 0.9930 | 0.03000 | CPS |
| LSW5 Background | 600.0 | 499.0 | 499.9 | 499.6 | -0.3034 | 0.03000 | CPS |
| SSW1 Background | 100.0 | 97.29 | 95.44 | 95.90 | 0.4648 | 0.03000 | CPS |
| SSW2 Background | 200.0 | 175.4 | 174.0 | 174.0 | -0.01474 | 0.03000 | CPS |
| SSW3 Background | 500.0 | 475.0 | 475.2 | 472.2 | -3.004 | 0.03000 | CPS |
| SSW4 Background | 270.0 | 242.4 | 242.8 | 241.6 | -1.130 | 0.03000 | CPS |
| SSW5 Background | 200.0 | 176.0 | 175.7 | 174.9 | -0.7180 | 0.03000 | CPS |
| Hostile Litho-Density Sonde Wellsite Calibration - Aluminum Measurement | | | | | | | |
| Master: 23-Apr-2003 18:33 | | | | | | | |
| LSW1 Aluminum | 600.0 | 604.1 | N/A | N/A | N/A | N/A | CPS |
| LSW2 Aluminum | 900.0 | 860.3 | N/A | N/A | N/A | N/A | CPS |
| LSW3 Aluminum | 1100 | 1017 | N/A | N/A | N/A | N/A | CPS |
| LSW4 Aluminum | 580.0 | 498.2 | N/A | N/A | N/A | N/A | CPS |
| LSW5 Aluminum | 570.0 | 473.1 | N/A | N/A | N/A | N/A | CPS |
| SSW1 Aluminum | 2800 | 2618 | N/A | N/A | N/A | N/A | CPS |
| SSW2 Aluminum | 8000 | 7129 | N/A | N/A | N/A | N/A | CPS |
| SSW3 Aluminum | 11600 | 9926 | N/A | N/A | N/A | N/A | CPS |
| SSW4 Aluminum | 5000 | 4181 | N/A | N/A | N/A | N/A | CPS |
| SSW5 Aluminum | 660.0 | 547.6 | N/A | N/A | N/A | N/A | CPS |
| Hostile Litho-Density Sonde Wellsite Calibration - Lithology Measurement | | | | | | | |
| Master: 23-Apr-2003 18:29 | | | | | | | |
| LSW1 Iron | 400.0 | 418.2 | N/A | N/A | N/A | N/A | CPS |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| LSW2 Iron | 730.0 | 721.5 | N/A | N/A | N/A | N/A | CPS |
| LSW3 Iron | 1000 | 941.8 | N/A | N/A | N/A | N/A | CPS |
| LSW4 Iron | 520.0 | 481.5 | N/A | N/A | N/A | N/A | CPS |
| LSW5 Iron | 470.0 | 449.9 | N/A | N/A | N/A | N/A | CPS |
| SSW1 Iron | 2100 | 1956 | N/A | N/A | N/A | N/A | CPS |
| SSW2 Iron | 6800 | 6092 | N/A | N/A | N/A | N/A | CPS |
| SSW3 Iron | 10800 | 9264 | N/A | N/A | N/A | N/A | CPS |
| SSW4 Iron | 4600 | 3922 | N/A | N/A | N/A | N/A | CPS |
| SSW5 Iron | 580.0 | 501.5 | N/A | N/A | N/A | N/A | CPS |

Hostile Litho-Density Sonde Wellsite Calibration - Caliper Calibration
Before: 18-May-2003 20:24

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| HLDS Caliper Small Ring | 12.00 | N/A | 14.48 | N/A | N/A | N/A | IN |
| HLDS Caliper Large Ring | 15.00 | N/A | 17.56 | N/A | N/A | N/A | IN |

Hostile Natural Gamma Ray Sonde Wellsite Calibration - Detector 1 Check
Master: 10-Jun-2003 9:13 Before: 8-Apr-2003 2:33 After: 11-Jun-2003 21:45

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Na 511 Peak Loc | 40.00 | 40.65 | 40.63 | 40.56 | -0.07085 | 1.000 | |
| Na 511 Peak Res | 15.50 | 16.98 | 16.69 | 16.31 | -0.3779 | 2.000 | % |
| High Voltage | 1150 | 1208 | 1207 | 1208 | 0.6575 | 30.00 | V |
| Na 1785 Peak Loc | 142.6 | 145.2 | 145.2 | 144.9 | -0.2784 | 7.000 | |
| Na 1785 Peak Res | 8.500 | 8.982 | 9.496 | 9.778 | 0.2824 | 2.000 | % |
| Temperature | 15.50 | 33.02 | 27.12 | 31.28 | 4.158 | N/A | DEGC |
| Na Count Rate | 45.00 | 40.11 | 41.75 | 39.73 | -2.015 | 8.000 | CPS |

Hostile Natural Gamma Ray Sonde Wellsite Calibration - Detector 2 Check
Master: 10-Jun-2003 9:13 Before: 8-Apr-2003 2:33 After: 11-Jun-2003 21:45

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Na 511 Peak Loc | 40.00 | 40.56 | 40.51 | 40.64 | 0.1261 | 1.000 | |
| Na 511 Peak Res | 15.50 | 17.13 | 16.55 | 16.78 | 0.2294 | 2.000 | % |
| High Voltage | 1150 | 1234 | 1235 | 1234 | -0.9994 | 30.00 | V |
| Na 1785 Peak Loc | 142.6 | 144.4 | 144.2 | 144.7 | 0.5310 | 7.000 | |
| Na 1785 Peak Res | 8.500 | 9.188 | 9.586 | 9.068 | -0.5173 | 2.000 | % |
| Temperature | 15.50 | 32.54 | 26.30 | 31.70 | 5.397 | N/A | DEGC |
| Na Count Rate | 45.00 | 40.04 | 41.81 | 39.37 | -2.441 | 8.000 | CPS |

Hostile Natural Gamma Ray Sonde Wellsite Calibration - Ratio Of Detector 1 To Detector 2
Master: 10-Jun-2003 9:13 Before: 8-Apr-2003 2:33 After: 11-Jun-2003 21:45

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Coincidence Count Rate Ratio | 1.000 | 1.001 | 0.9991 | 1.008 | 0.009050 | 0.05000 | |

Hostile Natural Gamma Ray Sonde Master Calibration - Detector 1 Calibration
Master: 10-Jun-2003 8:55

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Na 511 Peak Set Point | 40.00 | 41.00 | -- | -- | -- | -- | |
| Th Peak Loc | 209.6 | 209.0 | -- | -- | -- | -- | |
| Th Peak Res | 7.000 | 8.425 | -- | -- | -- | -- | % |
| Background Count Rate | 142.5 | 19.30 | -- | -- | -- | -- | CPS |
| Gain Ratio | 1.000 | 0.9783 | -- | -- | -- | -- | |

Hostile Natural Gamma Ray Sonde Master Calibration - Detector 2 Calibration
Master: 10-Jun-2003 8:55

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Na 511 Peak Set Point | 40.00 | 41.00 | -- | -- | -- | -- | |
| Th Peak Loc | 209.6 | 209.4 | -- | -- | -- | -- | |
| Th Peak Res | 7.000 | 8.230 | -- | -- | -- | -- | % |
| Background Count Rate | 142.5 | 18.75 | -- | -- | -- | -- | CPS |
| Gain Ratio | 1.000 | 0.9823 | -- | -- | -- | -- | |

## 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 | |

## Dual Induction - E Wellsite Calibration

Induction Electronics (10 kHz)

| Phase | ID Elect Real Offset 10 kHz MM/M | Value |
|---|---|---|
| Before | | 39.11 |
| | -300.0 (Minimum) 0 (Nominal) 300.0 (Maximum) | |

| Phase | ID Elect Real Gain 10 kHz | Value |
|---|---|---|
| Before | | 1.008 |
| | 0.8500 (Minimum) 1.000 (Nominal) 1.200 (Maximum) | |

| Phase | ID Elect Phase 10 kHz DEG | Value |
|---|---|---|
| Before | | 8.931 |
| | -10.00 (Minimum) 0 (Nominal) 10.00 (Maximum) | |

| Phase | ID Elect Quad Offset 10 kHz MM/M | Value |
|---|---|---|
| Before | | 24.21 |
| | -300.0 (Minimum) 0 (Nominal) 300.0 (Maximum) | |

| Phase | ID Elect Quad Gain 10 kHz | Value |
|---|---|---|
| Before | | 0.9961 |
| | 0.8500 (Minimum) 1.000 (Nominal) 1.200 (Maximum) | |

| Phase | IM Elect Phase 10 kHz DEG | Value |
|---|---|---|
| Before | EXCEEDS LIMIT | 13.46 |
| | -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 | | 97.65 | Before | | 0.9505 |
| | -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 | | 96.54 | Before | | 0.9481 |
| | -550.0 (Minimum) 0 (Nominal) 550.0 (Maximum) | | | 0.8500 (Minimum) 1.000 (Nominal) 1.200 (Maximum) | |

10khz not used

Before: 18-May-2003 20:19

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 | | 15.17 | Before | | 1.018 | Before | | 7.778 |
| | -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 | | 9.581 | Before | | 1.006 | Before | | 12.48 |
| | -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 | | 40.79 | Before | | 1.011 | | | |
| | -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 | | 40.43 | Before | | 1.009 | | | |
| | -225.0 (Minimum) 0 (Nominal) 225.0 (Maximum) | | | 0.8500 (Minimum) 1.000 (Nominal) 1.200 (Maximum) | | | | |

Before: 18-May-2003 20:20

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 | | 9.909 | Before | | 0.9935 | Before | EXCEEDS LIMIT | 28.32 |
| | -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 | | 6.231 | Before | | 0.9807 | Before | EXCEEDS LIMIT | 32.92 |
| | -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 | | 26.67 | Before | | 1.026 | | | |
| | -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 | | 26.51 | Before | | 1.023 | | | |
| | -130.0 (Minimum) 0 (Nominal) 130.0 (Maximum) | | | 0.8500 (Minimum) 1.000 (Nominal) 1.200 (Maximum) | | | | |

40khz not used

Before: 18-May-2003 20:21

Dual Induction - E Wellsite Calibration

SFL Electronics

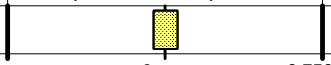
| Phase | SFL Voltage Offset MV | Value | Phase | SFL Voltage Gain | Value |
|---|---|---|---|---|---|
| Before | | 1.302 | Before | | 1.020 |
| | -15.00 (Minimum) 0 (Nominal) 15.00 (Maximum) | | | 0.8500 (Minimum) 1.000 (Nominal) 1.200 (Maximum) | |
| Phase | SFL Current Offset MA | Value | Phase | SFL Current Gain | Value |
| Before | | 0.005040 | Before | | 0.9969 |
| | -0.6000 (Minimum) 0 (Nominal) 0.6000 (Maximum) | | | 0.8500 (Minimum) 1.000 (Nominal) 1.200 (Maximum) | |

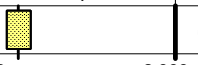
Before: 18-May-2003 20:22

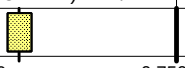
Dual Induction - E Wellsite Calibration

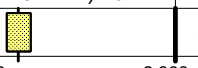
Electronics Calibration Changes Files/Depth Intervals:

| Phase | ID (R > 27 OHM-M) MM/M | Value | Phase | ID (R < 27 OHM-M) % | Value | Phase | SFL (R < 1 OHM-M) OHMM | Value |
|---|---|---|---|---|---|---|---|---|

| Phase | IM (R > 27 OHM-M) MM/M | Value |
|---|---|---|
| After |  | 0 |
| 0 (Minimum) | 0 (Nominal) | 0.7500 (Maximum) |

| Phase | IM (R < 27 OHM-M) % | Value |
|---|---|---|
| After |  | 0.0002466 |
| 0 (Minimum) | 0 (Nominal) | 2.000 (Maximum) |

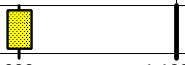
| Phase | SFL (R > 27 OHM-M) MM/M | Value |
|---|---|---|
| After |  | 0 |
| 0 (Minimum) | 0 (Nominal) | 0.7500 (Maximum) |

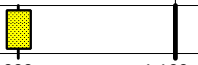
| Phase | SFL (R < 27 OHM-M) % | Value |
|---|---|---|
| After |  | 0.0002716 |
| 0 (Minimum) | 0 (Nominal) | 2.000 (Maximum) |

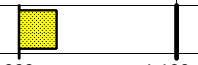
After: 11-Jun-2003 20:17

## Dual Induction - E Master Calibration

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

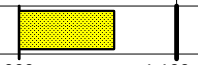
| Phase | Deep 10 kHz Gain Factor | Value |
|---|---|---|
| Master |  | 0.9956 |
| 0.9000 (Minimum) | 1.000 (Nominal) | 1.100 (Maximum) |

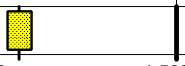
| Phase | Deep 20 kHz Gain Factor | Value |
|---|---|---|
| Master |  | 1.008 |
| 0.9000 (Minimum) | 1.000 (Nominal) | 1.100 (Maximum) |

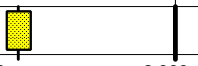
| Phase | Deep 40 kHz Gain Factor | Value |
|---|---|---|
| Master |  | 1.026 |
| 0.9000 (Minimum) | 1.000 (Nominal) | 1.100 (Maximum) |

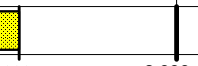
| Phase | Medium 10 kHz Gain Factor | Value |
|---|---|---|
| Master |  | 1.022 |
| 0.9000 (Minimum) | 1.000 (Nominal) | 1.100 (Maximum) |

| Phase | Medium 20 kHz Gain Factor | Value |
|---|---|---|
| Master |  | 1.030 |
| 0.9000 (Minimum) | 1.000 (Nominal) | 1.100 (Maximum) |

| Phase | Medium 40 kHz Gain Factor | Value |
|---|---|---|
| Master |  | 1.061 |
| 0.9000 (Minimum) | 1.000 (Nominal) | 1.100 (Maximum) |

| Phase | Deep 10 kHz Phase Shift | Value |
|---|---|---|
| Master |  | 0.1143 |
| -1.500 (Minimum) | 0 (Nominal) | 1.500 (Maximum) |

| Phase | Deep 20 kHz Phase Shift | Value |
|---|---|---|
| Master |  | -0.1524 |
| -2.000 (Minimum) | 0 (Nominal) | 2.000 (Maximum) |

| Phase | Deep 40 kHz Phase Shift | Value |
|---|---|---|
| Master |  | -1.426 |
| -4.000 (Minimum) | -1.000 (Nominal) | 2.000 (Maximum) |

| Phase | Medium 10 kHz Phase Shift | Value |
|---|---|---|
| Master |  | -0.2558 |
| -1.500 (Minimum) | 0 (Nominal) | 1.500 (Maximum) |

| Phase | Medium 20 kHz Phase Shift | Value |
|---|---|---|
| Master |  | -0.9331 |
| -3.000 (Minimum) | -1.000 (Nominal) | 1.000 (Maximum) |

| Phase | Medium 40 kHz Phase Shift | Value |
|---|---|---|
| Master |  | -2.461 |
| -5.000 (Minimum) | -2.000 (Nominal) | 1.000 (Maximum) |

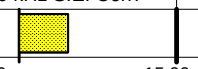
Master: Calibration out of date 5-Oct-2001 19:50

## Dual Induction - E Master Calibration

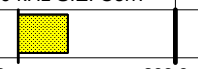
Sonde Error Corrections: Correction for sonde response in zero conductivity environment. (Normalized to 25C).

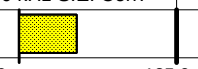
| Phase | Real Deep 10 kHz S.E. Corr. | Value |
|---|---|---|
| Master |  | 44.95 |
| -50.00 (Minimum) | 0 (Nominal) | 125.0 (Maximum) |

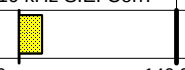
| Phase | Real Deep 20 kHz S.E. Corr. | Value |
|---|---|---|
| Master |  | 16.36 |
| -30.00 (Minimum) | 0 (Nominal) | 30.00 (Maximum) |

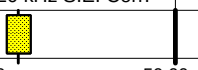
| Phase | Real Deep 40 kHz S.E. Corr. | Value |
|---|---|---|
| Master |  | 4.690 |
| -15.00 (Minimum) | 0 (Nominal) | 15.00 (Maximum) |

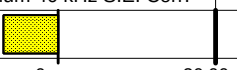
| Phase | Quad Deep 10 kHz S.E. Corr. | Value |
|---|---|---|
| Master |  | 108.9 |
| -250.0 (Minimum) | 0 (Nominal) | 350.0 (Maximum) |

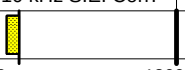
| Phase | Quad Deep 20 kHz S.E. Corr. | Value |
|---|---|---|
| Master |  | 64.63 |
| -125.0 (Minimum) | 0 (Nominal) | 200.0 (Maximum) |

| Phase | Quad Deep 40 kHz S.E. Corr. | Value |
|---|---|---|
| Master |  | 46.10 |
| -75.00 (Minimum) | 0 (Nominal) | 125.0 (Maximum) |

| Phase | Real Medium 10 kHz S.E. Corr. | Value |
|---|---|---|
| Master |  | 20.73 |
| -50.00 (Minimum) | 0 (Nominal) | 140.0 (Maximum) |

| Phase | Real Medium 20 kHz S.E. Corr. | Value |
|---|---|---|
| Master |  | -1.786 |
| -50.00 (Minimum) | 0 (Nominal) | 50.00 (Maximum) |

| Phase | Real Medium 40 kHz S.E. Corr. | Value |
|---|---|---|
| Master |  | -10.46 |
| -30.00 (Minimum) | 0 (Nominal) | 30.00 (Maximum) |

| Phase | Quad Medium 10 kHz S.E. Corr. | Value |
|---|---|---|
| Master |  | -105.8 |
| -1300 (Minimum) | 0 (Nominal) | 1300 (Maximum) |

| Phase | Quad Medium 20 kHz S.E. Corr. | Value |
|---|---|---|
| Master |  | -34.20 |
| -650.0 (Minimum) | 0 (Nominal) | 650.0 (Maximum) |

| Phase | Quad Medium 40 kHz S.E. Corr. | Value |
|---|---|---|
| Master |  | 11.45 |
| -350.0 (Minimum) | 0 (Nominal) | 350.0 (Maximum) |

Master: Calibration out of date 5-Oct-2001 20:22

## Hostile Litho-Density Sonde / Equipment Identification

| | | |
|---|---|---|
| Primary Equipment: | | |
| Hostile Litho Density Sonde | HLDS - D | 45 |
| Hostile Litho Density High Voltage | HLDV - D | 35 |
| Gamma Source Radioactive | GSR - Z | 1846 |
| Auxiliary Equipment: | | |
| Hostile Litho Density Pad | HLDP - C | 45 |
| Hostile Litho Density High Voltage Housi | HEH - H | 35 |

## Nuclear Porosity Lithology Cartridge - B / Equipment Identification

| | | |
|---|---|---|
| Primary Equipment: | | |
| NPLC Cartridge | NPLC - B | 79 |
| Auxiliary Equipment: | | |
| NPLC Housing | NPH - B | 82 |

## Hostile Natural Gamma Ray Sonde / Equipment Identification

| | | |
|---|---|---|
| Primary Equipment: | | |
| HNGS Sonde | HNGS - BA | 77 |
| Auxiliary Equipment: | | |
| HNGS Sonde Housing | HNSH - BA | 79 |
| Gamma Source Radioactive | GSR - U | 135 |

## Hostile Natural Gamma Ray Sonde Wellsite Calibration

### Detector 1 Check

| Phase | Na 511 Peak Loc | Value |
|---|---|---|
| Master | | 40.65 |
| Before | | 40.63 |
| After | | 40.56 |
| 37.50 (Minimum) | 40.00 (Nominal) | 42.50 (Maximum) |

| Phase | Na 511 Peak Res % | Value |
|---|---|---|
| Master | | 16.98 |
| Before | | 16.69 |
| After | | 16.31 |
| 12.00 (Minimum) | 15.50 (Nominal) | 19.00 (Maximum) |

| Phase | High Voltage V | Value |
|---|---|---|
| Master | | 1208 |
| Before | | 1207 |
| After | | 1208 |
| 900.0 (Minimum) | 1150 (Nominal) | 1600 (Maximum) |

| Phase | Na 1785 Peak Loc | Value |
|---|---|---|
| Master | | 145.2 |
| Before | | 145.2 |
| After | | 144.9 |
| 135.0 (Minimum) | 142.6 (Nominal) | 150.3 (Maximum) |

| Phase | Na 1785 Peak Res % | Value |
|---|---|---|
| Master | | 8.982 |
| Before | | 9.496 |
| After | | 9.778 |
| 7.000 (Minimum) | 8.500 (Nominal) | 11.00 (Maximum) |

| Phase | Temperature DEGC | Value |
|---|---|---|
| Master | | 33.02 |
| Before | | 27.12 |
| After | | 31.28 |
| -28.89 (Minimum) | 15.50 (Nominal) | 60.00 (Maximum) |

| Phase | Na Count Rate CPS | Value |
|---|---|---|
| Master | | 40.11 |
| Before | | 41.75 |
| After | | 39.73 |
| 10.00 (Minimum) | 45.00 (Nominal) | 100.0 (Maximum) |

Master: 10-Jun-2003 9:13 Before: 8-Apr-2003 2:33 After: 11-Jun-2003 21:45

## Hostile Natural Gamma Ray Sonde Wellsite Calibration

### Detector 2 Check

| Phase | Na 511 Peak Loc | Value |
|---|---|---|
| Master | | 40.56 |
| Before | | 40.51 |
| After | | 40.64 |
| 37.50 (Minimum) | 40.00 (Nominal) | 42.50 (Maximum) |

| Phase | Na 511 Peak Res % | Value |
|---|---|---|
| Master | | 17.13 |
| Before | | 16.55 |
| After | | 16.78 |
| 12.00 (Minimum) | 15.50 (Nominal) | 19.00 (Maximum) |

| Phase | High Voltage V | Value |
|---|---|---|
| Master | | 1234 |
| Before | | 1235 |
| After | | 1234 |
| 900.0 (Minimum) | 1150 (Nominal) | 1600 (Maximum) |

| Phase | Na 1785 Peak Loc | Value |
|---|---|---|
| Master | | 144.4 |
| Before | | 144.2 |
| After | | 144.7 |
| 135.0 (Minimum) | 142.6 (Nominal) | 150.3 (Maximum) |

| Phase | Na 1785 Peak Res % | Value |
|---|---|---|
| Master | | 9.188 |
| Before | | 9.586 |
| After | | 9.068 |
| 7.000 (Minimum) | 8.500 (Nominal) | 11.00 (Maximum) |

| Phase | Temperature DEGC | Value |
|---|---|---|
| Master | | 32.54 |
| Before | | 26.30 |
| After | | 31.70 |
| -28.89 (Minimum) | 15.50 (Nominal) | 60.00 (Maximum) |

| Phase | Na Count Rate CPS | Value |
|---|---|---|
| Master | | 40.04 |
| Before | | 41.81 |
| After | | 39.37 |

| 10.00 (Minimum) | 45.00 (Nominal) | 100.0 (Maximum) |
|---|---|---|

Master: 10-Jun-2003 9:13 Before: 8-Apr-2003 2:33 After: 11-Jun-2003 21:45

## Hostile Natural Gamma Ray Sonde Wellsite Calibration

### Ratio Of Detector 1 To Detector 2

| Phase | Coincidence Count Rate Ratio | Value |
|---|---|---|
| Master | | 1.001 |
| Before | | 0.9991 |
| After | | 1.008 |
| | 0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum) | |

Master: 10-Jun-2003 9:13
Before: 8-Apr-2003 2:33
After: 11-Jun-2003 21:45

## Hostile Natural Gamma Ray Sonde Master Calibration

### Detector 1 Calibration

| Phase | Na 511 Peak Set Point | Value |
|---|---|---|
| Master | | 41.00 |
| | 38.00 (Minimum) 40.00 (Nominal) 42.00 (Maximum) | |

| Phase | Th Peak Loc | Value |
|---|---|---|
| Master | | 209.0 |
| | 201.0 (Minimum) 209.6 (Nominal) 218.3 (Maximum) | |

| Phase | Th Peak Res % | Value |
|---|---|---|
| Master | | 8.425 |
| | 5.000 (Minimum) 7.000 (Nominal) 9.000 (Maximum) | |

| Phase | Background Count Rate CPS | Value |
|---|---|---|
| Master | EXCEEDS LIMIT | 19.30 |
| | 20.00 (Minimum) 142.5 (Nominal) 265.0 (Maximum) | |

| Phase | Gain Ratio | Value |
|---|---|---|
| Master | | 0.9783 |
| | 0.9400 (Minimum) 1.000 (Nominal) 1.060 (Maximum) | |

Master: 10-Jun-2003 8:55

## Hostile Natural Gamma Ray Sonde Master Calibration

### Detector 2 Calibration

| Phase | Na 511 Peak Set Point | Value |
|---|---|---|
| Master | | 41.00 |
| | 38.00 (Minimum) 40.00 (Nominal) 42.00 (Maximum) | |

| Phase | Th Peak Loc | Value |
|---|---|---|
| Master | | 209.4 |
| | 201.0 (Minimum) 209.6 (Nominal) 218.3 (Maximum) | |

| Phase | Th Peak Res % | Value |
|---|---|---|
| Master | | 8.230 |
| | 5.000 (Minimum) 7.000 (Nominal) 9.000 (Maximum) | |

| Phase | Background Count Rate CPS | Value |
|---|---|---|
| Master | EXCEEDS LIMIT | 18.75 |
| | 20.00 (Minimum) 142.5 (Nominal) 265.0 (Maximum) | |

| Phase | Gain Ratio | Value |
|---|---|---|
| Master | | 0.9823 |
| | 0.9400 (Minimum) 1.000 (Nominal) 1.060 (Maximum) | |

Master: 10-Jun-2003 8:55

Company: Lamont Doherty

Schlumberger

Well: ODP Leg 209, Site 1272A
Field: Mid Atlantic Ridge
Country:
Ocean: Atlantic

Phasor Induction
Natural Gamma Ray