



Well: **Expedition 395C, Site U1555I**
Field: **North Atlantic Mantle Convection&Climate**
Rig: **JOIDES Resolution** Ocean: **Atlantic**

| | | | | | |
|-----------|---------------------------------------|--|--|--|------------------------|
| Rig: | JOIDES Resolution | | | | |
| Field: | North Atlantic Mantle Convection | | | | |
| Location: | Latitude: N 60.22816 | | | | |
| Well: | Expedition 395C, Site U1555I | | | | |
| Company: | International Ocean Discovery Program | | | | |
| | | High Resolution Laterolog (HRLA) Litho Density (HLDS) / (APS) Porosity Natural Gamma / MSS (HNGS) | | | |
| | | Latitude: N 60.22816 Longitude: W 28.49997 | | Elev.: K.B. 0.00 m G.L. -1534.60 m D.F. 0.00 m | |
| | | Permanent Datum: <u>Sea Floor</u> Log Measured From: <u>Rig Floor</u> Drilling Measured From: <u>Rig Floor</u> | | Elev.: <u>-1534.60 m</u> 1534.60 m above Perm. Datum | |
| | | API Serial No. | | Max. Hole Devi. 4 deg | Longitude W28.49997 |
| | | | | | Latitude N 60.2281 |

| | | | | | |
|-------------------------------|----------------------------|---------------------------|-----------------------|-------|---|
| Logging Date | | 22-Jun-2021 | | | |
| Run Number | | 1 | | | |
| Depth Driller | | 1911 m | | | |
| Schlumberger Depth | | 1904 m | | | |
| Bottom Log Interval | | 1904 m | | | |
| Top Log Interval | | 1534 m | | | |
| Casing Driller Size @ Depth | | 5.500 in @ 1622 m | | @ | |
| Casing Schlumberger | | 1620 m | | | |
| Bit Size | | 9.875 in | | | |
| Type Fluid In Hole | | Sepiolite Barite weighted | | | |
| MUD | Density | Viscosity | 1.023 g/cm3 | | |
| | Fluid Loss | PH | | 8.07 | |
| | Source Of Sample | | Mudpit | | |
| | RM @ Measured Temperature | | 0.220 ohm.m @ 23 degC | | @ |
| | RMF @ Measured Temperature | | @ | | @ |
| RMC @ Measured Temperature | | @ | | @ | |
| Source RMF | RMC | N/A | N/A | | |
| RM @ MRT | RMF @ MRT | 0.323 @ 9 | @ 9 | @ | @ |
| Maximum Recorded Temperatures | | 9 degC | | | |
| Circulation Stopped | | Time | 22-Jun-2021 | 11:00 | |
| Logger On Bottom | | Time | 22-Jun-2021 | 19:00 | |
| Unit Number | Location | 627314 | Larose, LA | | |
| Recorded By | | K. Swain | | | |
| Witnessed By | | Z. Mateo | | | |






[illegible]

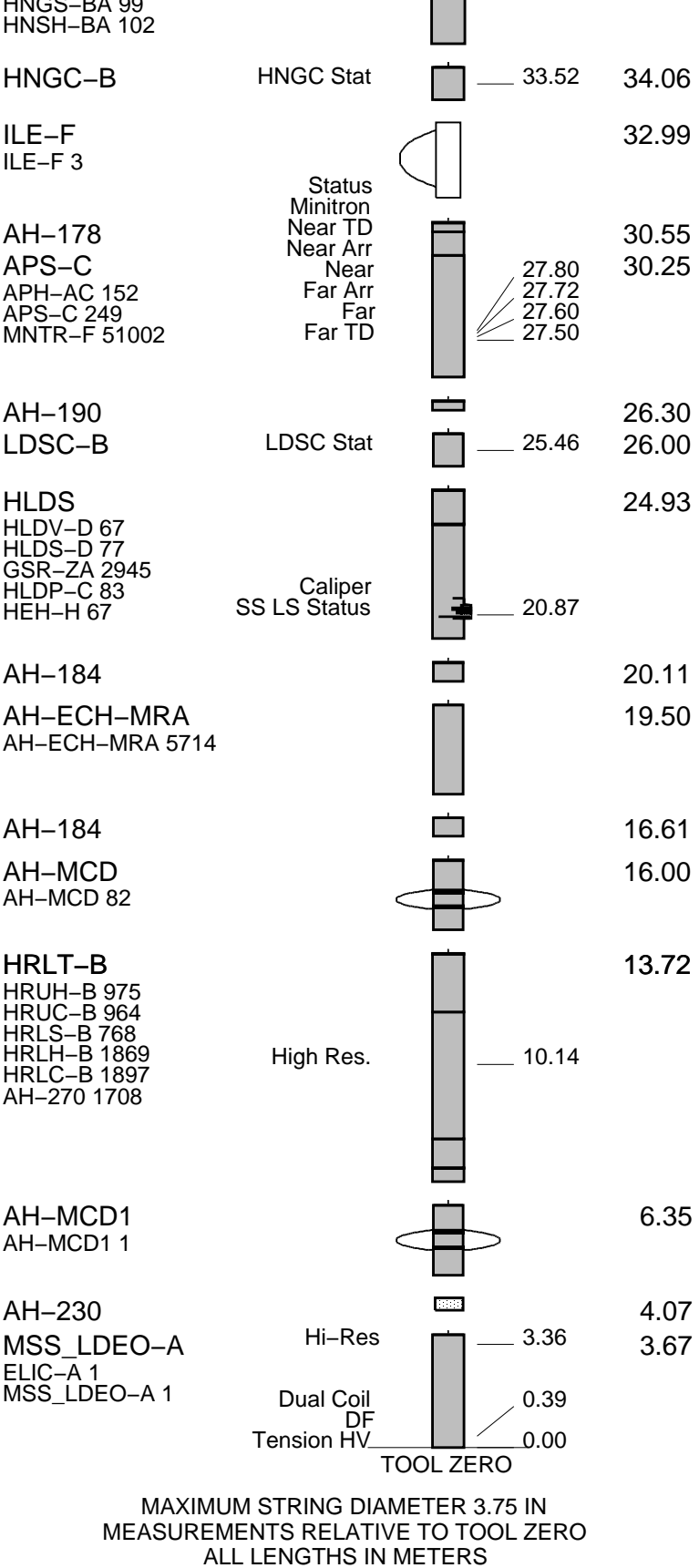
Run 4

THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE OF AND RELIANCE UPON THE RECORDED-DATA; AND (c) CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISION MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA.

| OTHER SERVICES1 | | | OTHER SERVICES2 | | |
|---|-------|------|-----------------------|-------|------|
| OS1: Fishing | | | OS1: | | |
| OS2: | | | OS2: | | |
| OS3: | | | OS3: | | |
| OS4: | | | OS4: | | |
| OS5: | | | OS5: | | |
| REMARKS: RUN NUMBER 1 | | | REMARKS: RUN NUMBER 2 | | |
| Hole drilled with RCB bottom hole assembly (BHA) at 9-7/8" BS | | | | | |
| | | | | | |
| Drill pipe set at 1622 mbrf. | | | | | |
| | | | | | |
| Fluid type was seawater displaced in the hole prior to logging. | | | | | |
| Depth recorded from drill floor; logs presented as-logged without depth corrections or shifts, as per client instructions. | | | | | |
| All logs presented in wireline measured depth below rig floor (MDBRF). | | | | | |
| Caliper opened during upward passes; closed inside pipe and while logging down. | | | | | |
| Hole size corrections made using caliper measurements for upward passes bit size used for downlog corrections. | | | | | |
| AHC used from TD then switched off to facilitate pipe entry. | | | | | |
| 8.537 lb/gal seawater pumped in hole prior to logging. | | | | | |
| Pulled tight from surface between 1775 to 1756 mbrf, final depth of stuck tools (from tool bottom) is 1756m. Tools fished by cut and thread and circulation to free and tools pulled to surface. Logging terminated for the hole. | | | | | |
| Downlog flipped and note the caliper closed logging down. | | | | | |
| RUN 1 | | | RUN 2 | | |
| SERVICE ORDER #: | | | SERVICE ORDER #: | | |
| PROGRAM VERSION: 19C0-187 | | | PROGRAM VERSION: | | |
| FLUID LEVEL: | | | FLUID LEVEL: | | |
| LOGGED INTERVAL | START | STOP | LOGGED INTERVAL | START | STOP |
| | | | | | |
| | | | | | |
| | | | | | |

RUN 1 RUN 2

| SURFACE EQUIPMENT | | | |
|--------------------|-----------|---|-------|
| SFT-281 | 1 | | |
| SFT-178 | 1 | | |
| GSR-U | 6098 | | |
| WITM (DTS)-A | | | |
| DOWNHOLE EQUIPMENT | | | |
| LEH-QT | |  | 38.79 |
| AH-369 | CTEM |  | 37.19 |
| DTC-H | TelStatus |  | 37.91 |
| | ToolStatu |  | 36.56 |
| HNGS-BA | Upper_1 |  | 37.47 |
| UNGS-BA-00 | Lower_2 | | 35.86 |
| | | | 35.64 |

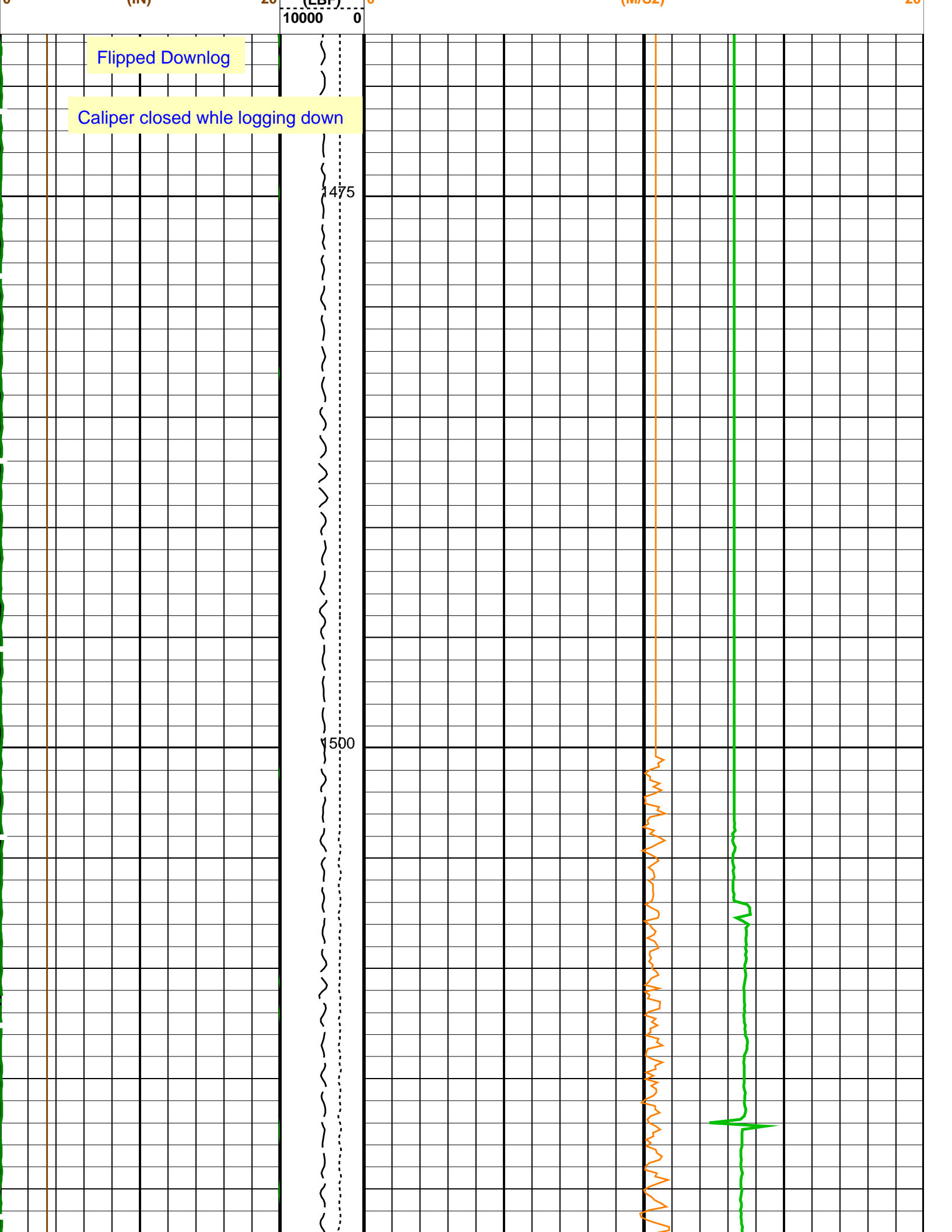


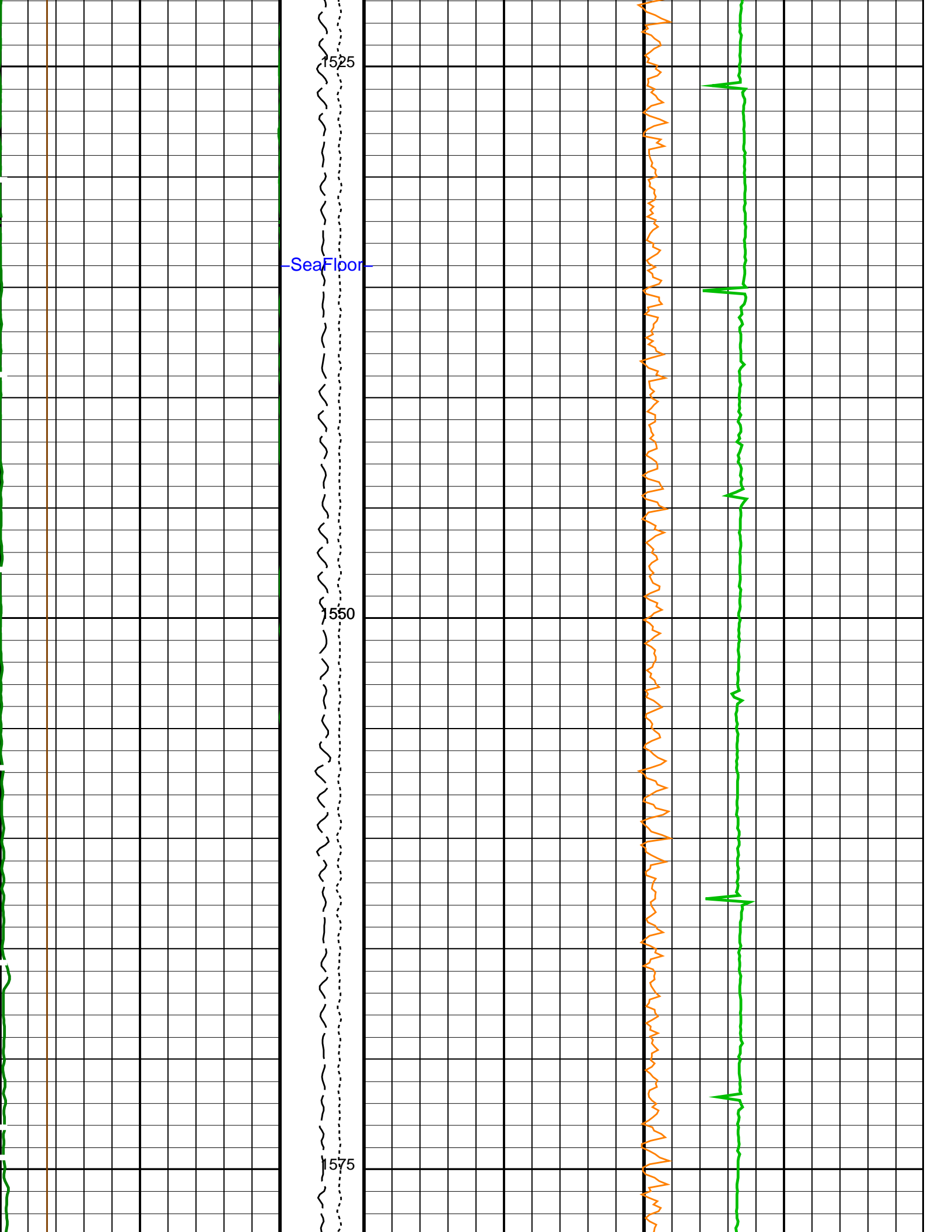
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|-------------------|------|-----|----------------|-----|------|---------------|
| Production String | (in) | (M) | Well Schematic | (M) | (in) | Casing String |
| | OD | ID | MD | MD | OD | ID |

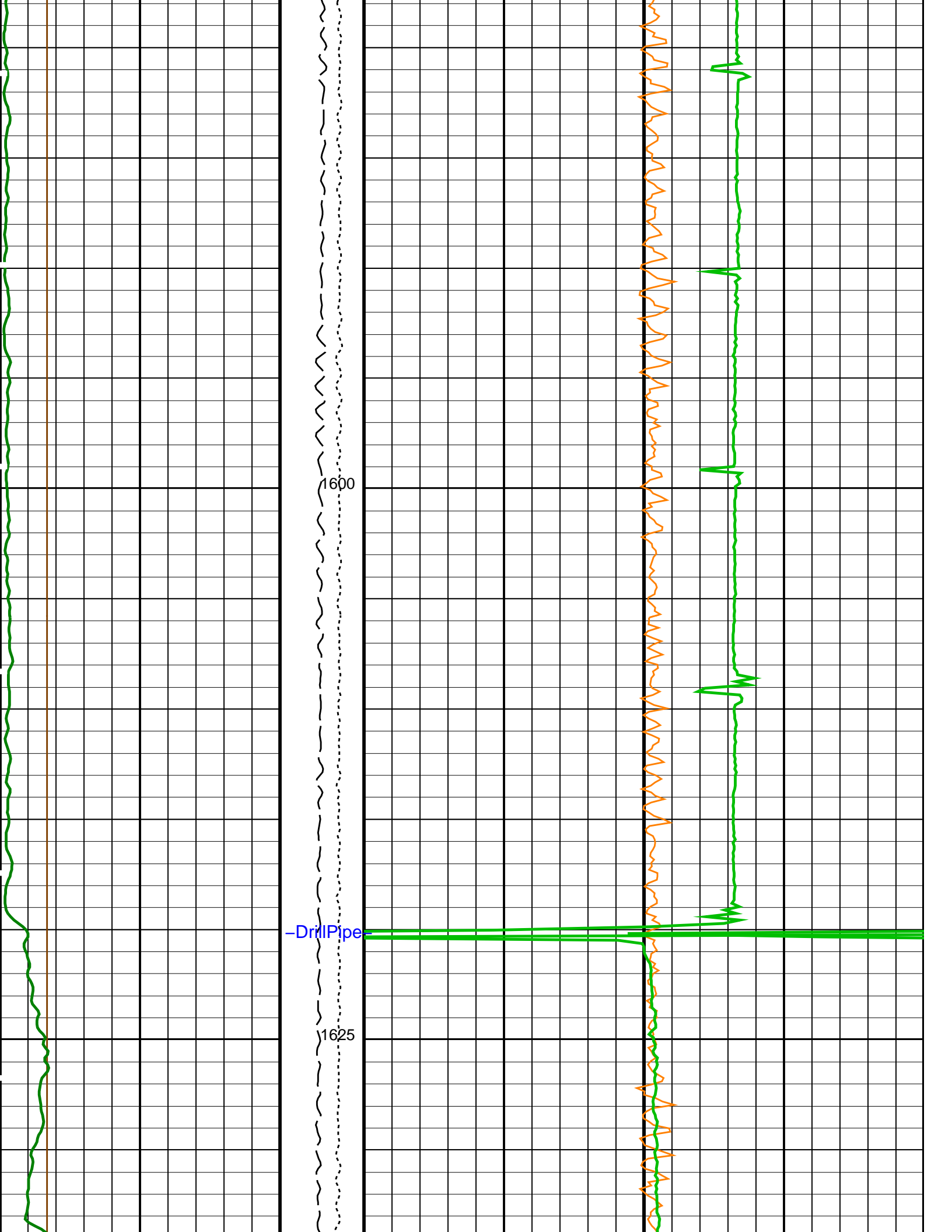
| Well Name | Well Number | Well Type | Well Status | Well Depth (ft) | Well Completion | Well Production | Well Notes |
|-------------------------|-------------|-----------|-------------|-----------------|-----------------|-----------------|-------------|
| Kelly Bushing Elevation | 0 | | | | | | |
| Derrick Floor Elevation | 0 | | | | | | |
| Mean Sea Level | 11 | | | | | | |
| | | | | 4.1 | | | |
| | | | | 1534 | 4.1 | | Sea Floor |
| | | | | 1614 | 9.875 | | Open Hole |
| | | | | 1911 | | | Total Depth |

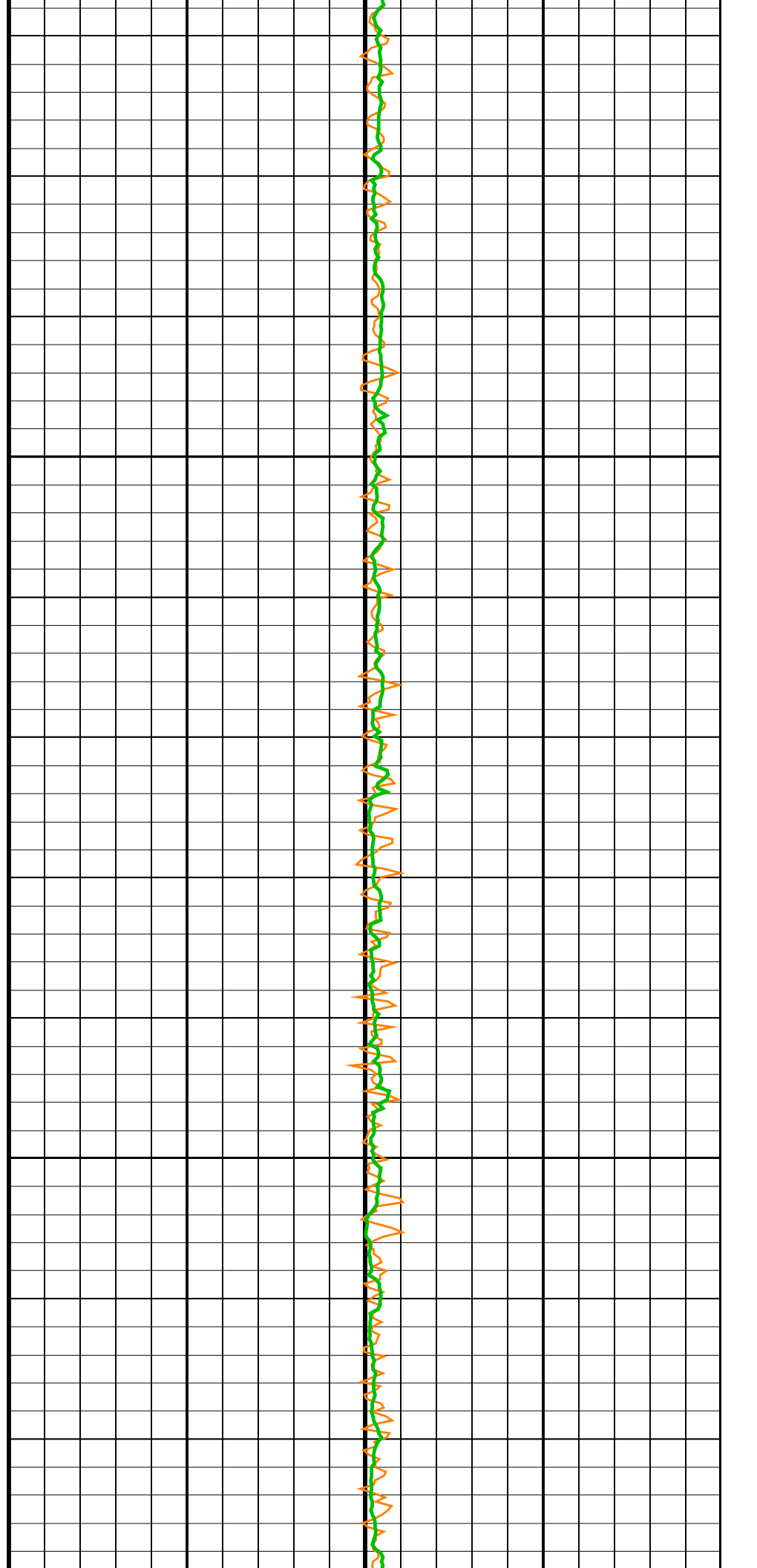
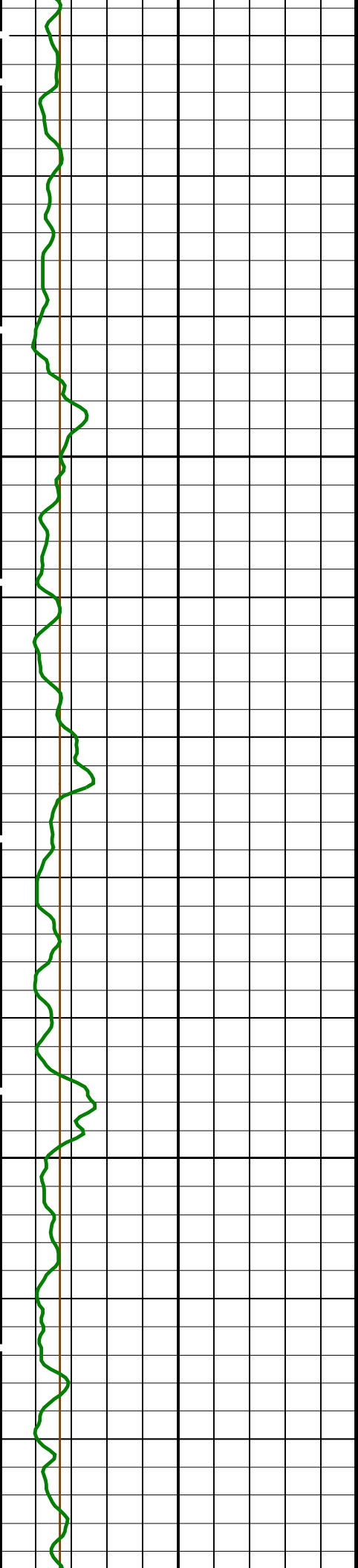
| Input DLIS Files | | | | | | |
|-----------------------------|---------------------------|----------|-------------------|-------------------|----------|----------|
| DEFAULT | Flip_MSS_LDEO_HRLA_027LUP | PRODUCER | 23-Jun-2021 15:40 | 1906.2 M | 1467.6 M | |
| Output DLIS Files | | | | | | |
| DEFAULT | MSS_LDEO_HRLA_LDL_028PUP | FN:35 | PRODUCER | 24-Jun-2021 19:53 | 1906.2 M | 1467.6 M |
| BACKKUP | MSS_LDEO_HRLA_LDL_028PUP | FN:36 | PRODUCER | 24-Jun-2021 19:53 | 1906.2 M | 1467.6 M |
| OP System Version: 19C0-187 | | | | | | |
| MSS_LDEO-A | 19C0-187 | HRLT-B | 19C0-187 | | | |
| HLDS | 19C0-187 | LDSC-B | 19C0-187 | | | |
| APS-C | 19C0-187 | HNGC-B | 19C0-187 | | | |
| HNGS-BA | 19C0-187 | DTC-H | 19C0-187 | | | |

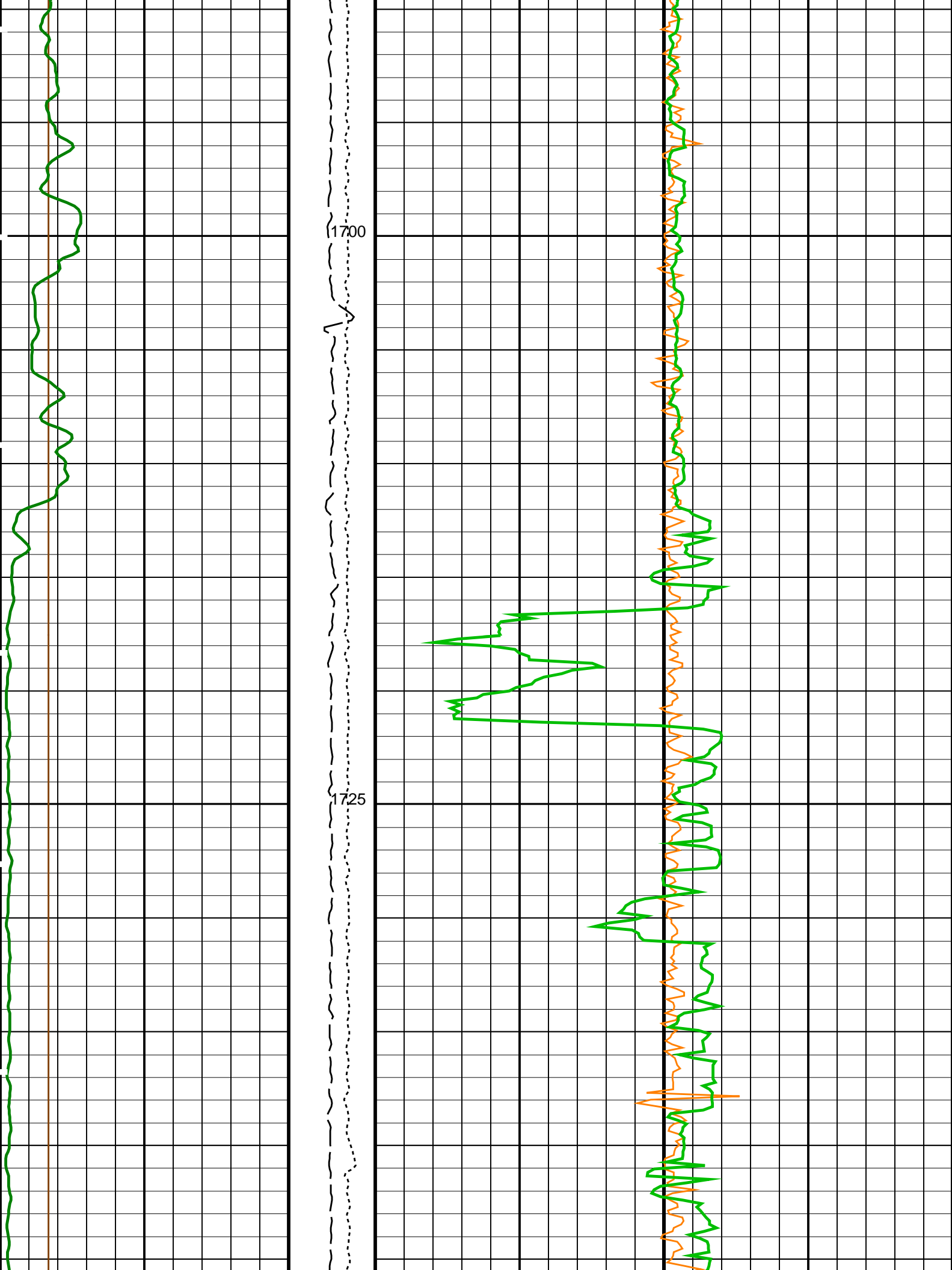
| PIP SUMMARY | | | | | | |
|------------------------------------|--|--|---------------------------------------|--|--|--|
| Time Mark Every 60 S | | | | | | |
| HNGS Spectroscopy Gamma Ray (HSGR) | | | Calibrated Downhole Force (CDF) (LBF) | Dual-Coil Susceptibility (MSSL SUS_LDEO) | | |
| 0 (GAPI) 100 | | | | -10000 (PPM) 10000 | | |
| | | | | | | |
| | | | 3000 0 | | | |
| HLDS Caliper (LCAL) | | | Tension (TENS) (LBF) | Axial Acceleration (MSSZACC_LDEO) | | |
| 0 (IN) 20 | | | | 0 (M/S2) 20 | | |
| | | | | | | |

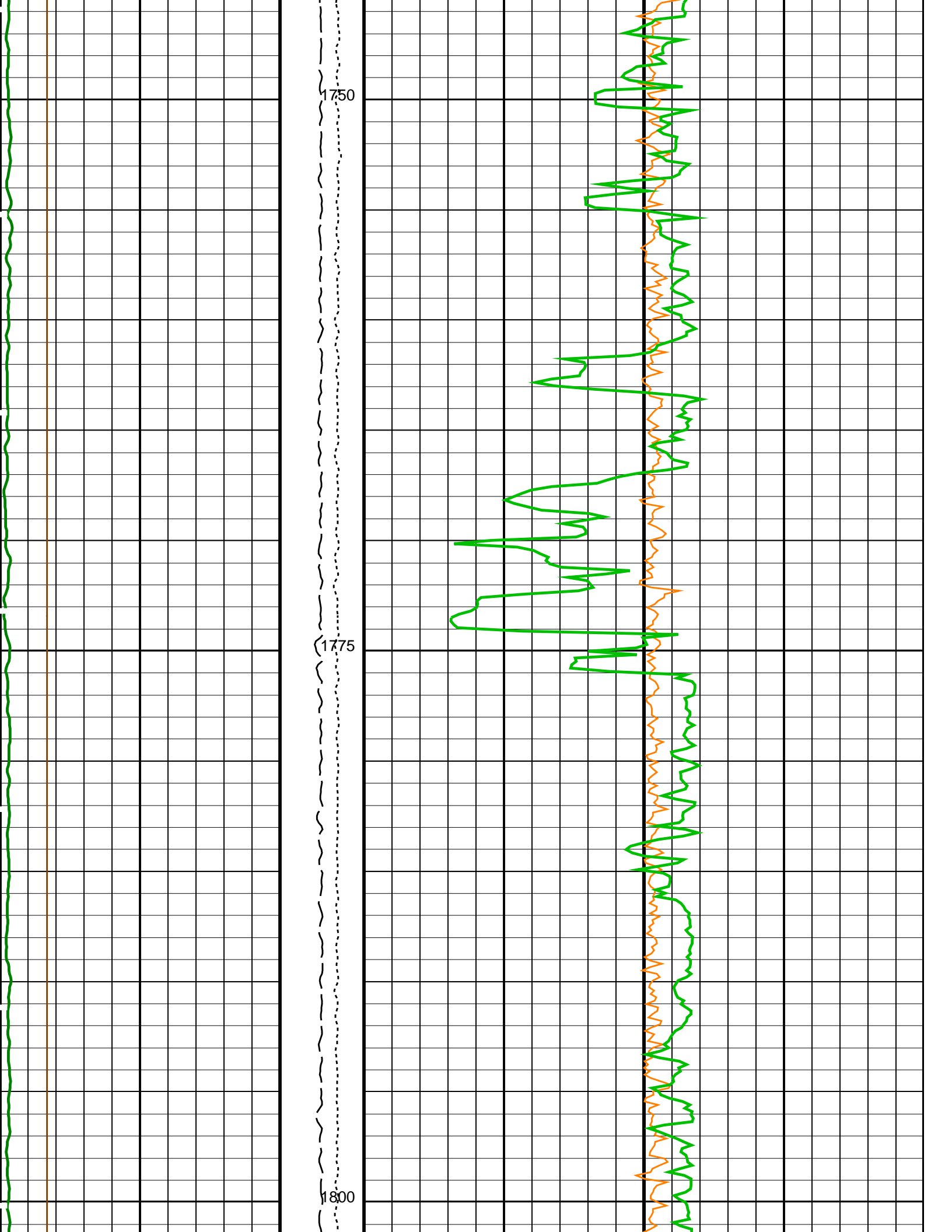


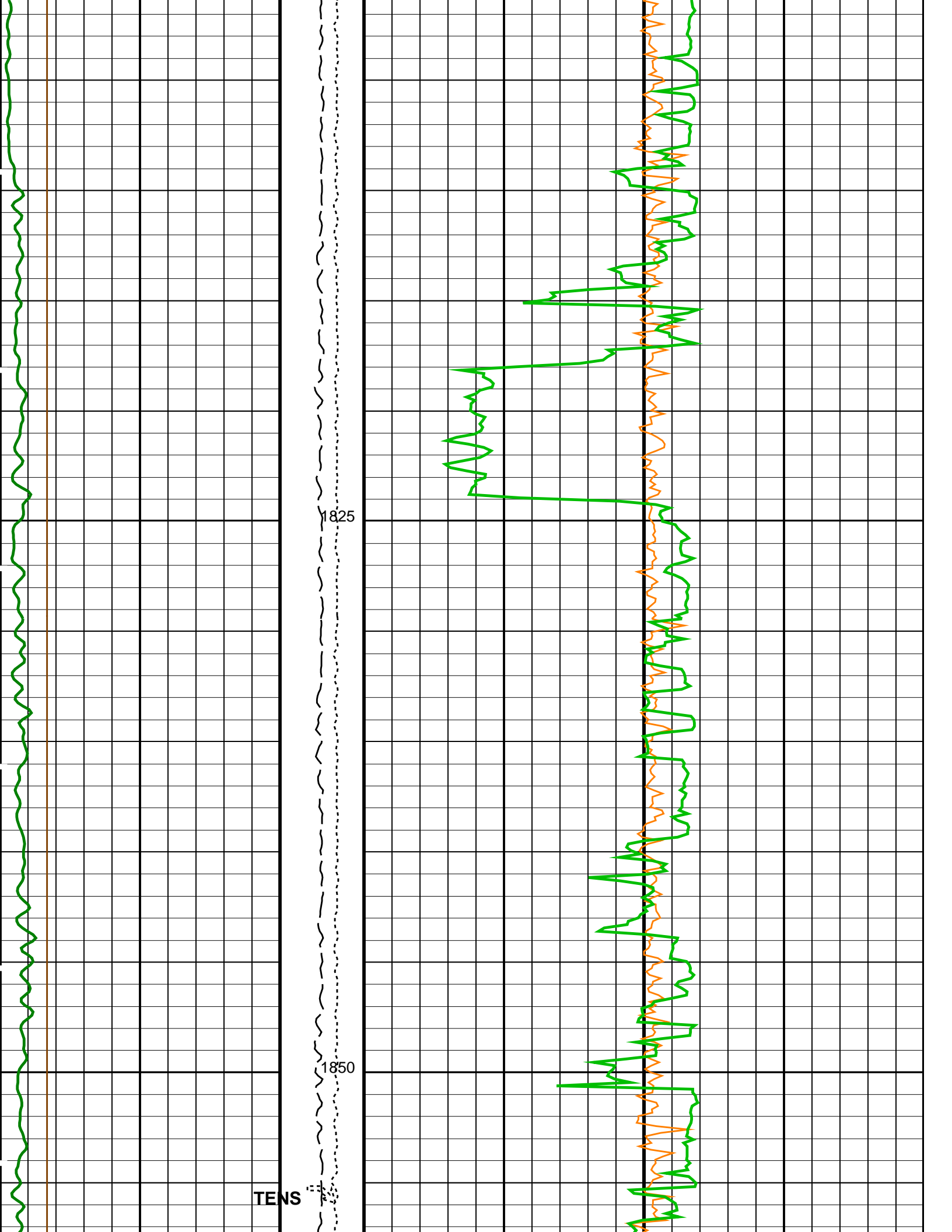


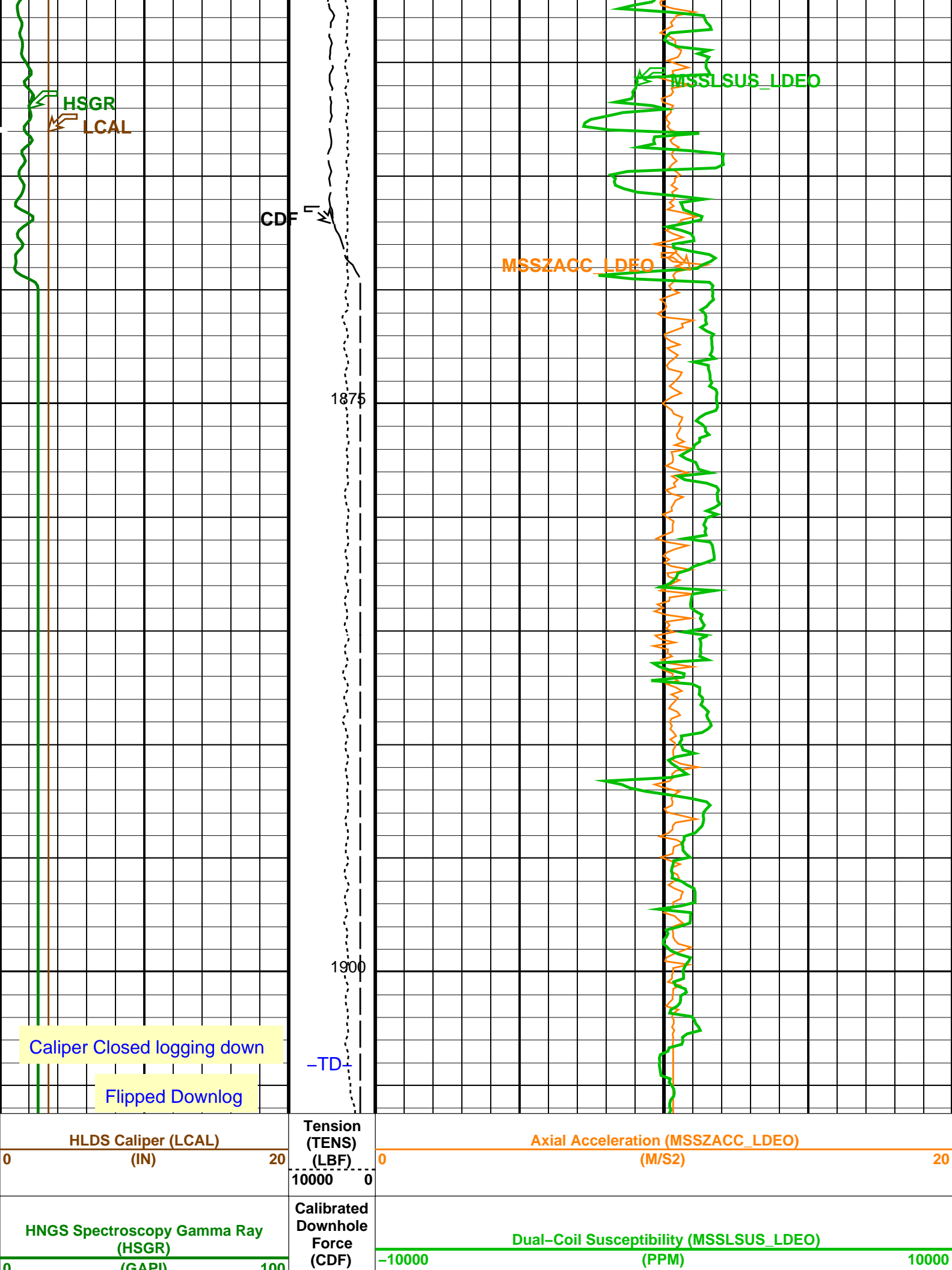












PIP SUMMARY

Time Mark Every 60 S

Parameters

| DLIS Name | Description | Value | |
|---|--|-----------------|------|
| HRLT-B: High Resolution Laterolog Array – B | | | |
| BHS | Borehole Status | OPEN | |
| BHT | Bottom Hole Temperature (used in calculations) | 25 | DEGC |
| CALSTAT | HRLTB Calibration Status | SHALLOW_DONE | |
| CALTEMP | HRLTB Calibration Temperature | 9.22677 | DEGC |
| FREQ0 | HRLT Frequency Index for Mode 0 | 32 | |
| FREQ1 | HRLT Frequency Index for Mode 1 | 128 | |
| FREQ2 | HRLT Frequency Index for Mode 2 | 104 | |
| FREQ3 | HRLT Frequency Index for Mode 3 | 86 | |
| FREQ4 | HRLT Frequency Index for Mode 4 | 56 | |
| FREQ5 | HRLT Frequency Index for Mode 5 | 44 | |
| FREQ6 | HRLT Frequency Index for Mode 6 | 116 | |
| GCSE | Generalized Caliper Selection | BS | |
| GDEV | Average Angular Deviation of Borehole from Normal | 0 | DEG |
| GGRD | Geothermal Gradient | 0.018227 | DC/M |
| GRSE | Generalized Mud Resistivity Selection | CHART_GEN 9 | |
| GTSE | Generalized Temperature Selection | LINEAR_ESTIMATE | |
| ISSBAR | Barite Mud Switch | NOBARITE | |
| KFAC_HRLT | HRLT K Factor Option | SONDE | |
| LOOPCOEF_S | HRLT Loop Coefficient for Shallow Modes | LOW | |
| LOOPMOD0 | HRLT Mode 0 Loop Mode | OFF | |
| LOOPMOD1 | HRLT Mode 1 Loop Mode | OFF | |
| LOOPMOD2 | HRLT Mode 2 Loop Mode | OFF | |
| LOOPMOD3 | HRLT Mode 3 Loop Mode | OFF | |
| LOOPMOD4 | HRLT Mode 4 Loop Mode | OFF | |
| LOOPMOD5 | HRLT Mode 5 Loop Mode | OFF | |
| LOOPMOD6 | HRLT Mode 6 Loop Mode | OFF | |
| MATR | Rock Matrix for Neutron Porosity Corrections | LIMESTONE | |
| PROCINV | Inversion Selection | ON | |
| PROCMFL | Inversion Micro-Resistivity Selection | NO_EXTERNAL_RXO | |
| PROCMSO | Mechanical Standoff Fin Size | 0 | IN |
| PROCRM | Processing Mud Resistivity Select | HRLT_Compute | |
| PROCSPO | Sonde Position | Centered | |
| SHT | Surface Hole Temperature | 20 | DEGC |
| HLDS: Hostile Litho-Density Sonde | | | |
| CLCL | HLDS LS Control Loop Controller Mode | AUTO_DEFAULT | |
| CLCS | HLDS SS Control Loop Controller Mode | AUTO_DEFAULT | |
| CLLS | HLDS Mode Loop Long Spacing | AUTO | |
| CLSS | HLDS Mode Loop Short Spacing | AUTO | |
| DHC | Density Hole Correction | BS | |
| DPPM | Density Porosity Processing Mode | HIRS | |
| FD | Fluid Density | 1 | G/C3 |
| LATC | HLDS Activation Correction | OFF | |
| LLDL | HLDS LS Low Level Discriminator DAC | 14000 | |
| LLDS | HLDS SS Low Level Discriminator DAC | 14000 | |
| LLML | HLDS LS Low Level Discriminator Mode | AUTO | |
| LLMS | HLDS SS Low Level Discriminator Mode | AUTO | |
| MDEN | Matrix Density | 2.6 | G/C3 |
| PHVL | HLDS Long Spacing High Voltage Setting | 1000 | V |
| PHVS | HLDS Short Spacing High Voltage Setting | 1500 | V |
| PSDL | HLDS LS Pulse Shape Compensation DAC | 30000 | |
| PSDS | HLDS SS Pulse Shape Compensation DAC | 30000 | |
| PSML | HLDS LS Pulse Shape Compensation Mode | AUTO | |
| PSMS | HLDS SS Pulse Shape Compensation Mode | AUTO | |
| APS-C: Accelerator-Porosity Tool | | | |
| AASD | APS Software Version | 5 | |
| ADSO | APS Thermal and Array Detectors High Voltage Setting | 1976.24 | V |
| AFSD | APS Array Detectors Data Source Switch | Both | |
| AHCS | APS Far Detector High Voltage Setting | 2067.55 | V |
| AHSS | APS Holesize Correction Source | GCSE | |
| AMTY | APS Holesize Correction Switch | ON | |
| ANSO | APS Environmental Corrections Mud Type | WaterBaseBarite | |
| ASOS | APS Near Detector High Voltage Setting | 1737.8 | V |
| ATSS | APS Standoff Correction Switch | ON | |
| BHFL_APS | APS Temperature-Pressure-Salinity Correction Switch | ON | |
| BHS | APS TNPH Borehole Fluid Type | WATER | |
| BHT | Borehole Status | OPEN | |
| BSCO_APS | Bottom Hole Temperature (used in calculations) | 25 | DEGC |
| DPPM | APS TNPH Borehole Salinity Correction Option | NO | |
| DSCO_APS | Density Porosity Processing Mode | HIRS | |
| FSAL | APS TNPH Density Source Correction Option | MEASURED | |
| FSCO_APS | Formation Salinity | -50000 | PPM |
| | APS TNPH Formation Salinity Correction Option | NO | |

| | | | |
|--|--|---------------------|------|
| GCSE | Generalized Caliper Selection | BS | |
| GDEV | Average Angular Deviation of Borehole from Normal | 0 | DEG |
| GGRD | Geothermal Gradient | 0.018227 | DC/M |
| GRSE | Generalized Mud Resistivity Selection | CHART_GEN 9 | |
| GTSE | Generalized Temperature Selection | LINEAR_ESTIMATE | |
| HSCO_APS | APS TNPH Hole Size Correction Option | YES | |
| ISSBAR | Barite Mud Switch | NOBARITE | |
| MATR | Rock Matrix for Neutron Porosity Corrections | LIMESTONE | |
| MCCO_APS | APS TNPH Mud Cake Correction Option | YES | |
| MCOR_APS | APS TNPH Mud Correction | NATU | |
| MWCO_APS | APS TNPH Mud Weight Correction Option | YES | |
| NARC | APS Near/Array Calibration Ratio | 1.08341 | |
| NFRC | APS Near/Far Calibration Ratio | 0.942369 | |
| PTCO_APS | APS TNPH Pressure/Temperature Correction Option | NO | |
| SHT | Surface Hole Temperature | 20 | DEGC |
| TNCO_APS | APS TNPH Computation Option | YES | |
| 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 | BS | |
| GDEV | Average Angular Deviation of Borehole from Normal | 0 | DEG |
| GGRD | Geothermal Gradient | 0.018227 | DC/M |
| GRSE | Generalized Mud Resistivity Selection | CHART_GEN 9 | |
| 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 | -0.000378258 | |
| HALF | HNGS Alpha Filter Length | 60 | IN |
| HCRB | HNGS Apply Borehole Potassium Correction | NONE | |
| HMWM | Mud Weighting Material | NATU | |
| HNPE | HNGS Processing Enable | YES | |
| ISSBAR | Barite Mud Switch | NOBARITE | |
| MATR | Rock Matrix for Neutron Porosity Corrections | LIMESTONE | |
| 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 | 1.11451 | |
| VBA2 | HNGS Detector 2 Variable Barite Factor Running Average | 1.21062 | |
| System and Miscellaneous | | | |
| ALTDCHAN | Name of alternate depth channel | SpeedCorrectedDepth | |
| BS | Bit Size | 9.875 | IN |
| BSAL | Borehole Salinity | 38000.00 | PPM |
| CSIZ | Current Casing Size | 5.500 | IN |
| CWEI | Casing Weight | 168.00 | LB/F |
| DFD | Drilling Fluid Density | 1.02 | G/C3 |
| DO | Depth Offset for Playback | 0.0 | M |
| FLEV | Fluid Level | -50000.00 | M |
| MST | Mud Sample Temperature | 23.00 | DEGC |
| PBVSADP | Use alternate depth channel for playback | NO | |
| PP | Playback Processing | NORMAL | |
| RMFS | Resistivity of Mud Filtrate Sample | -50000.0000 | OHMM |
| RW | Resistivity of Connate Water | 1.0000 | OHMM |
| TD | Total Depth | 6069.55 | FT |
| TDD | Total Depth - Driller | 1911.00 | M |
| TDL | Total Depth - Logger | 1911.00 | M |
| TWS | Temperature of Connate Water Sample | 37.78 | DEGC |

Format: MSS_Logging Vertical Scale: 1:200 Graphics File Created: 24-Jun-2021 19:53

OP System Version: 19C0-187

| | | | |
|------------|----------|--------|----------|
| MSS_LDEO-A | 19C0-187 | HRLT-B | 19C0-187 |
| HLDS | 19C0-187 | LDSC-B | 19C0-187 |
| APS-C | 19C0-187 | HNGC-B | 19C0-187 |
| HNGS-BA | 19C0-187 | DTC-H | 19C0-187 |

Input DLIS Files

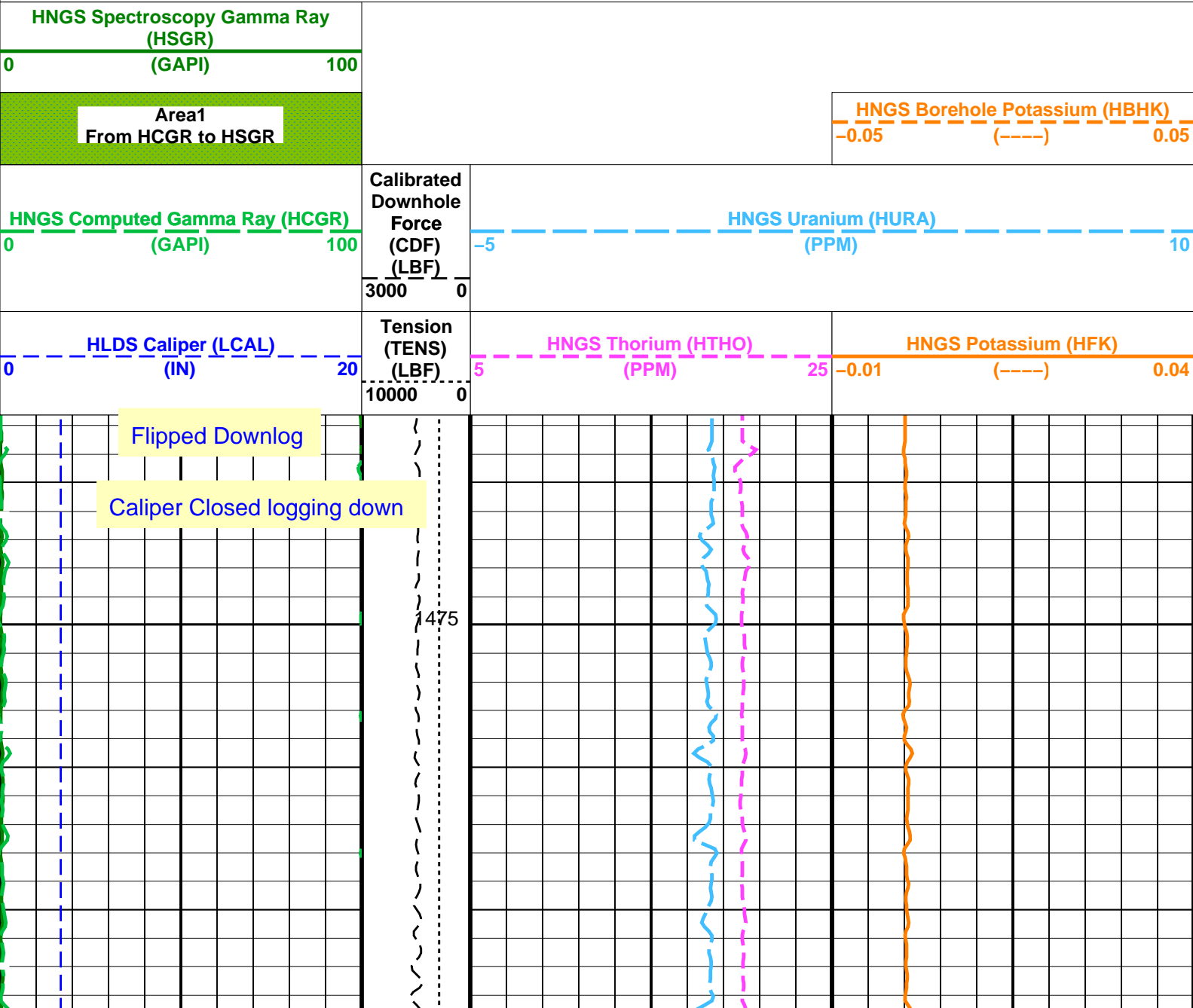
DEFAULT Flip_MSS_LDEO_HRLA_027LUP PRODUCER 23-Jun-2021 15:40 1906.2 M 1467.6 M

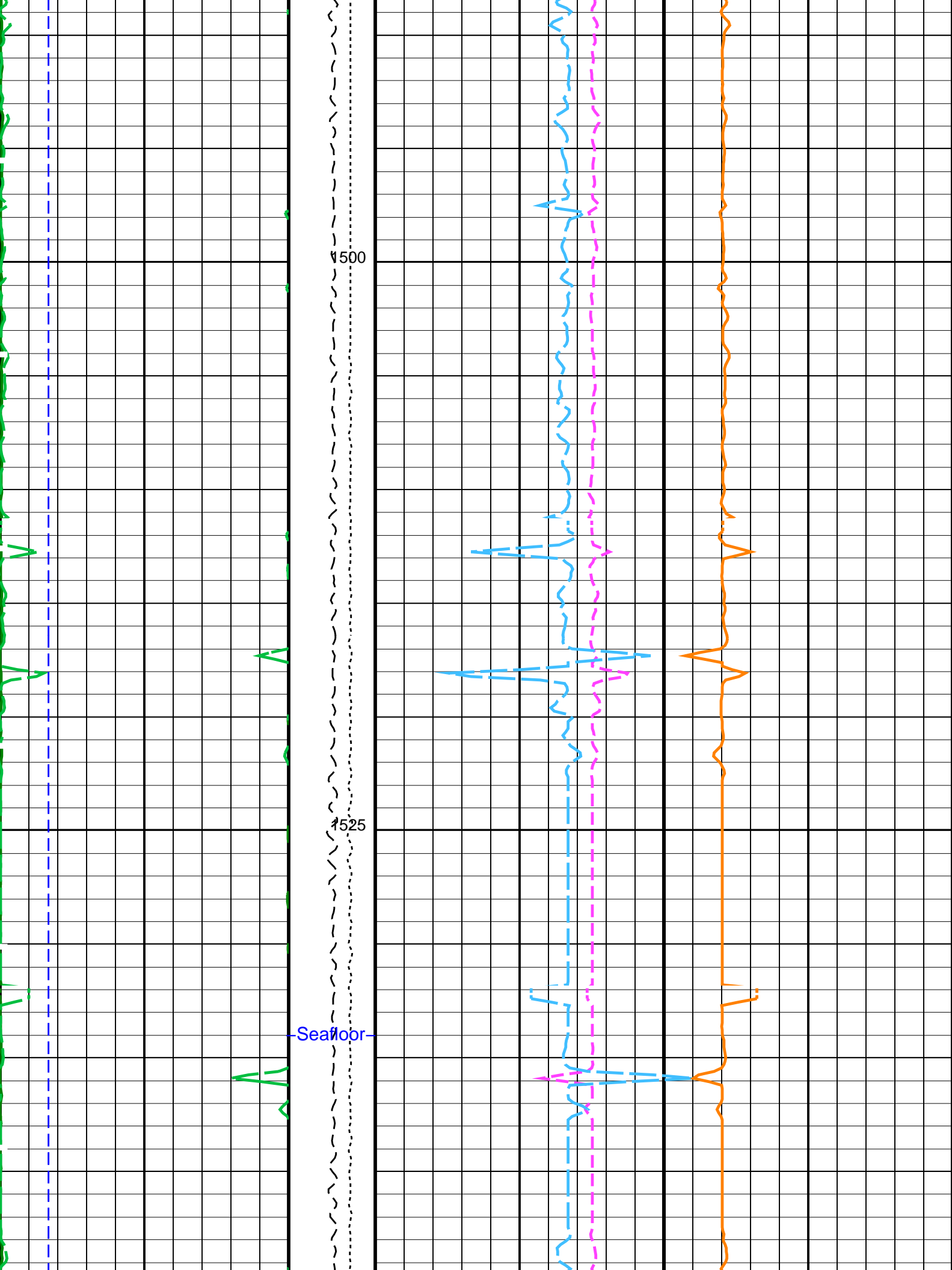
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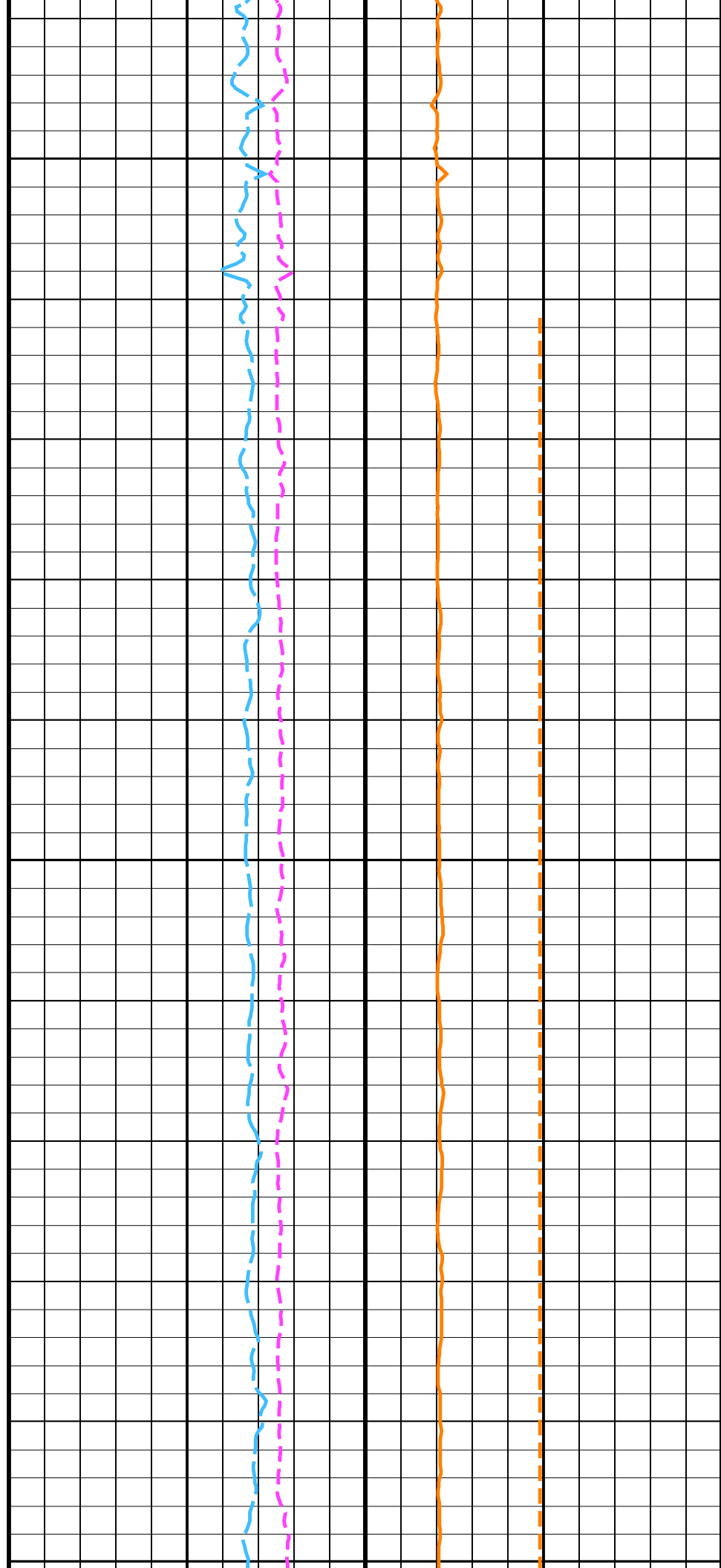
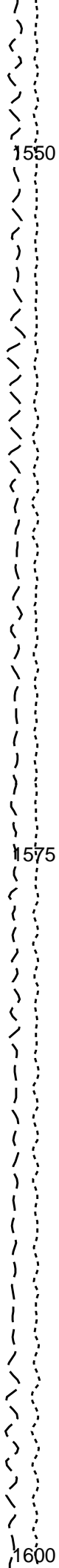
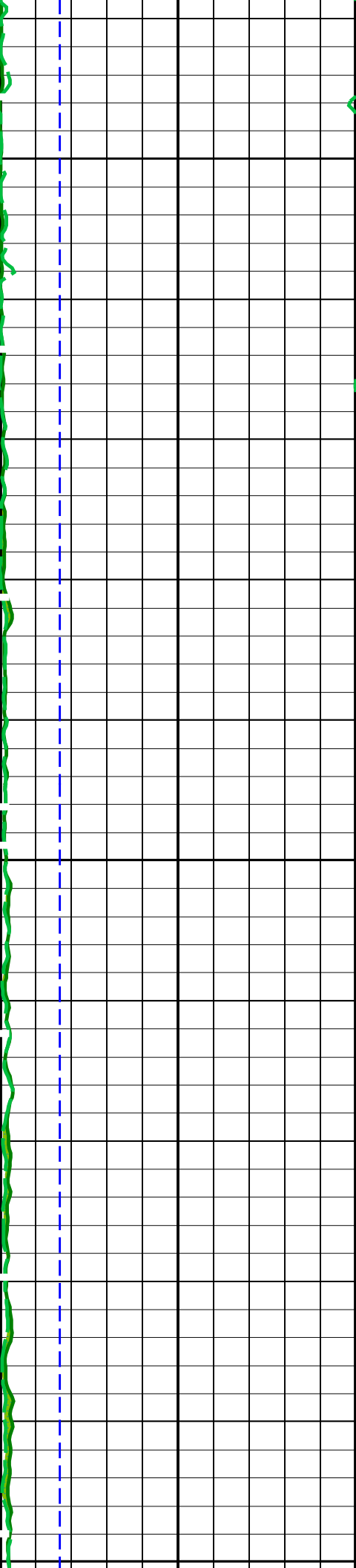
| Output DEIO Files | | | | |
|-------------------|--------------------------|-------|----------|-------------------|
| DEFAULT | MSS_LDEO_HRLA_LDL_028PUP | FN:35 | PRODUCER | 24-Jun-2021 19:53 |
| BACKKUP | MSS_LDEO_HRLA_LDL_028PUP | FN:36 | PRODUCER | 24-Jun-2021 19:53 |

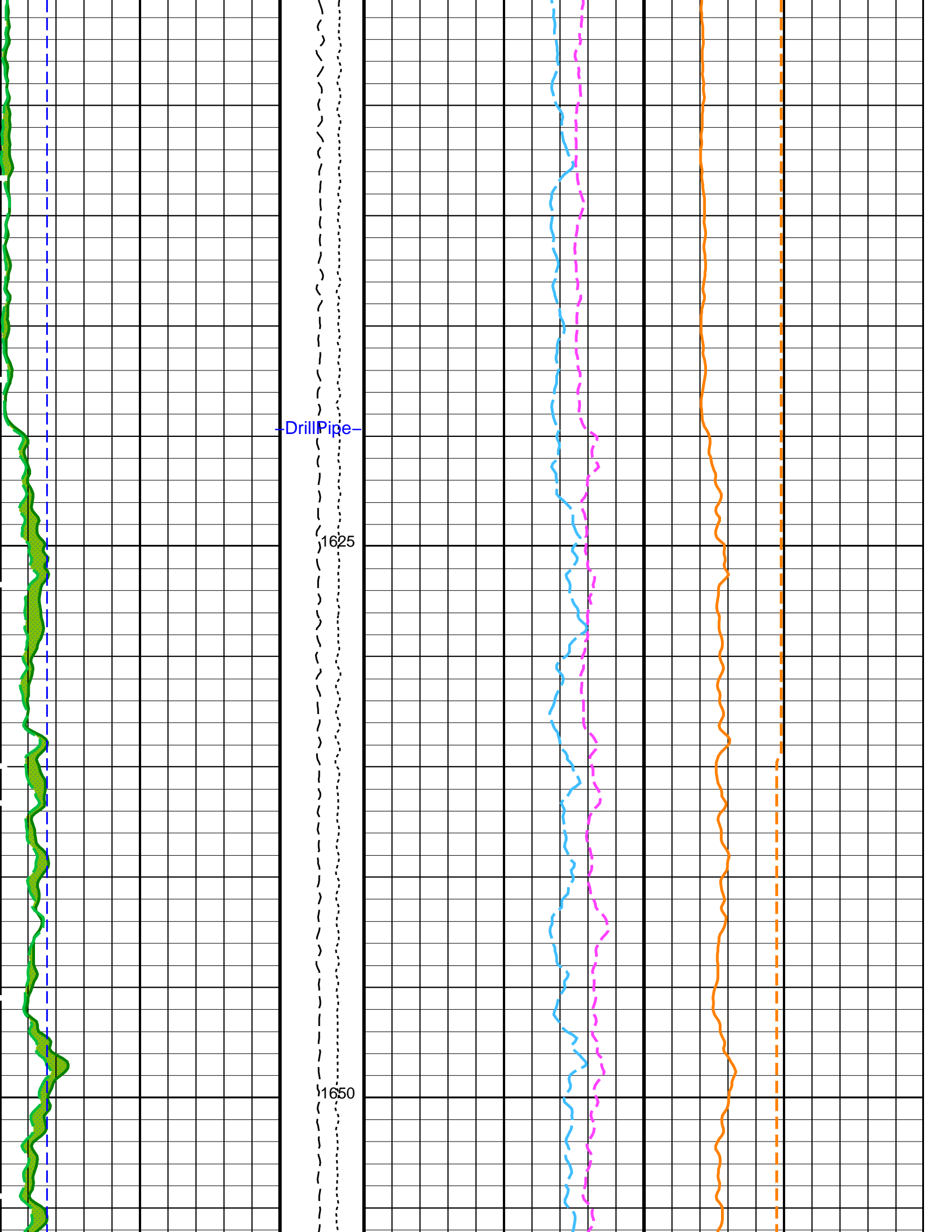
| OP System Version: 19C0-187 | | | |
|-----------------------------|----------|--------|----------|
| MSS_LDEO-A | 19C0-187 | HRLT-B | 19C0-187 |
| HLDS | 19C0-187 | LDSC-B | 19C0-187 |
| APS-C | 19C0-187 | HNGC-B | 19C0-187 |
| HNGS-BA | 19C0-187 | DTC-H | 19C0-187 |

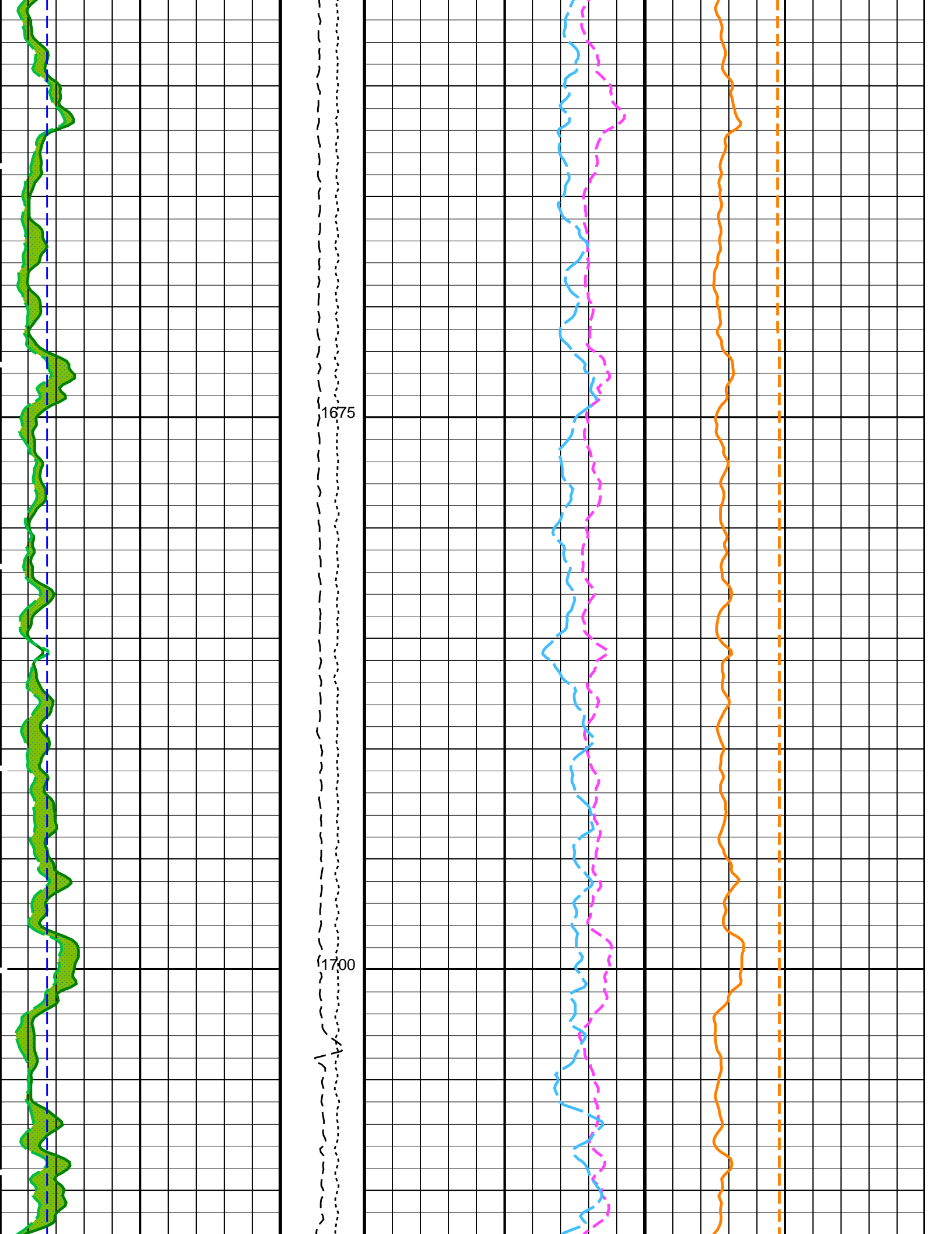
PIP SUMMARY

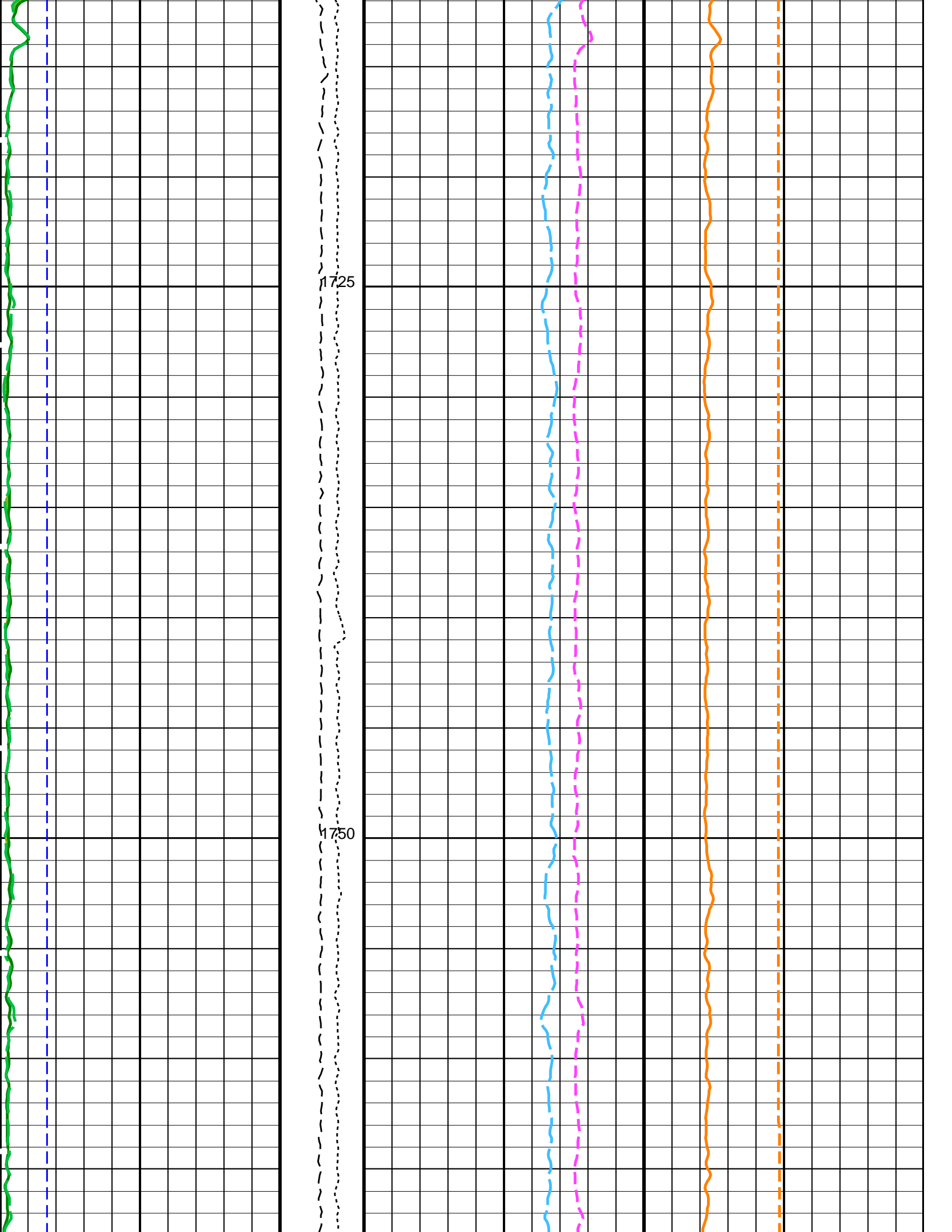


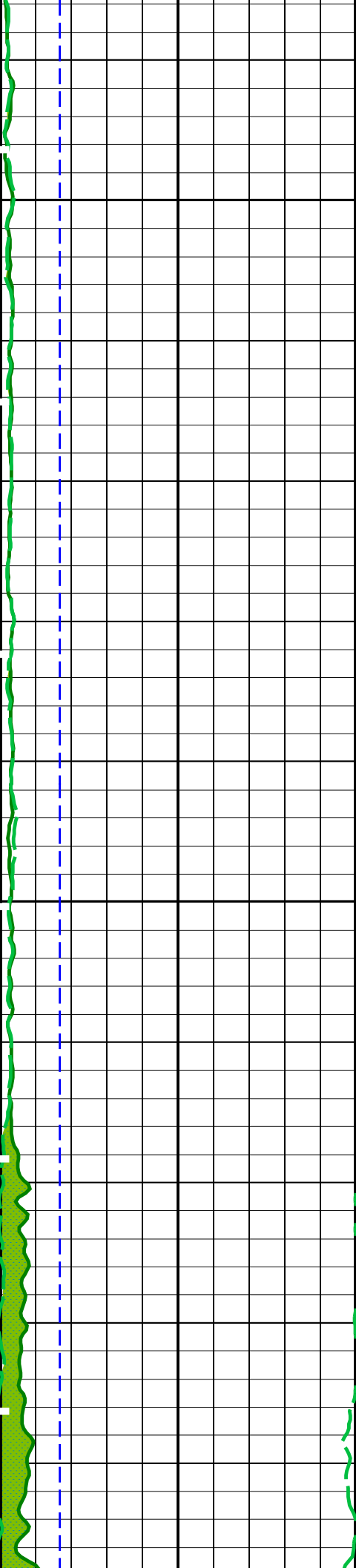




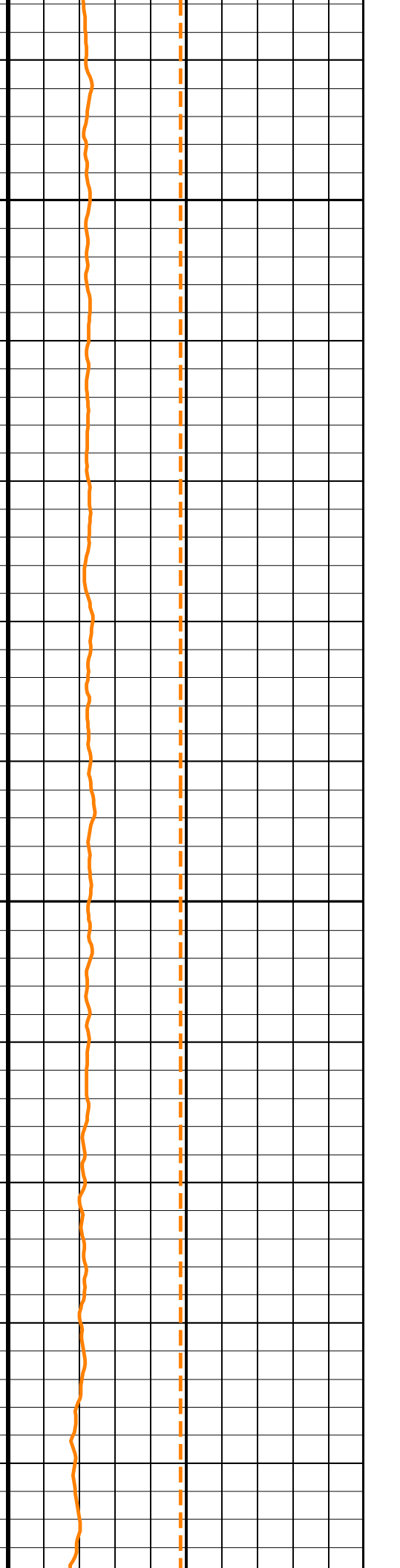
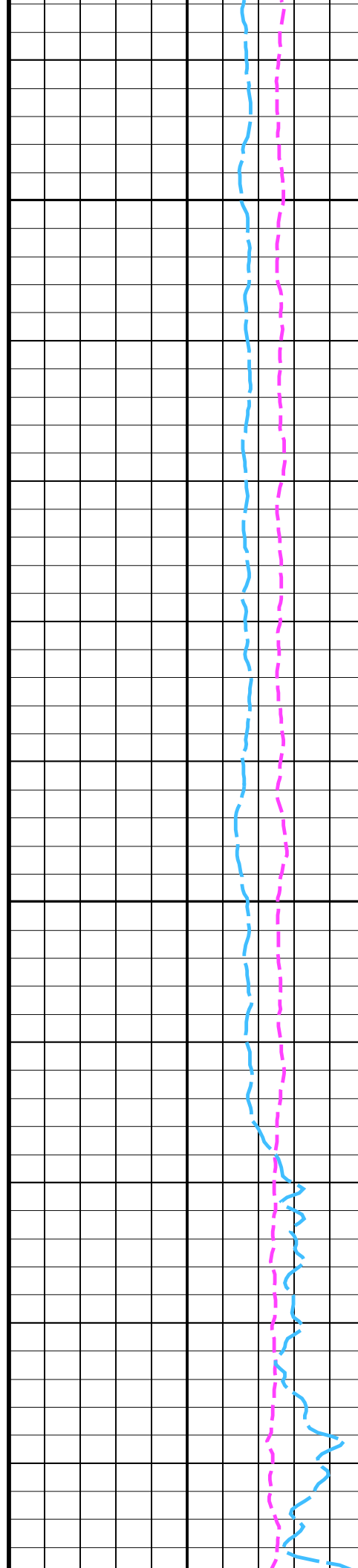


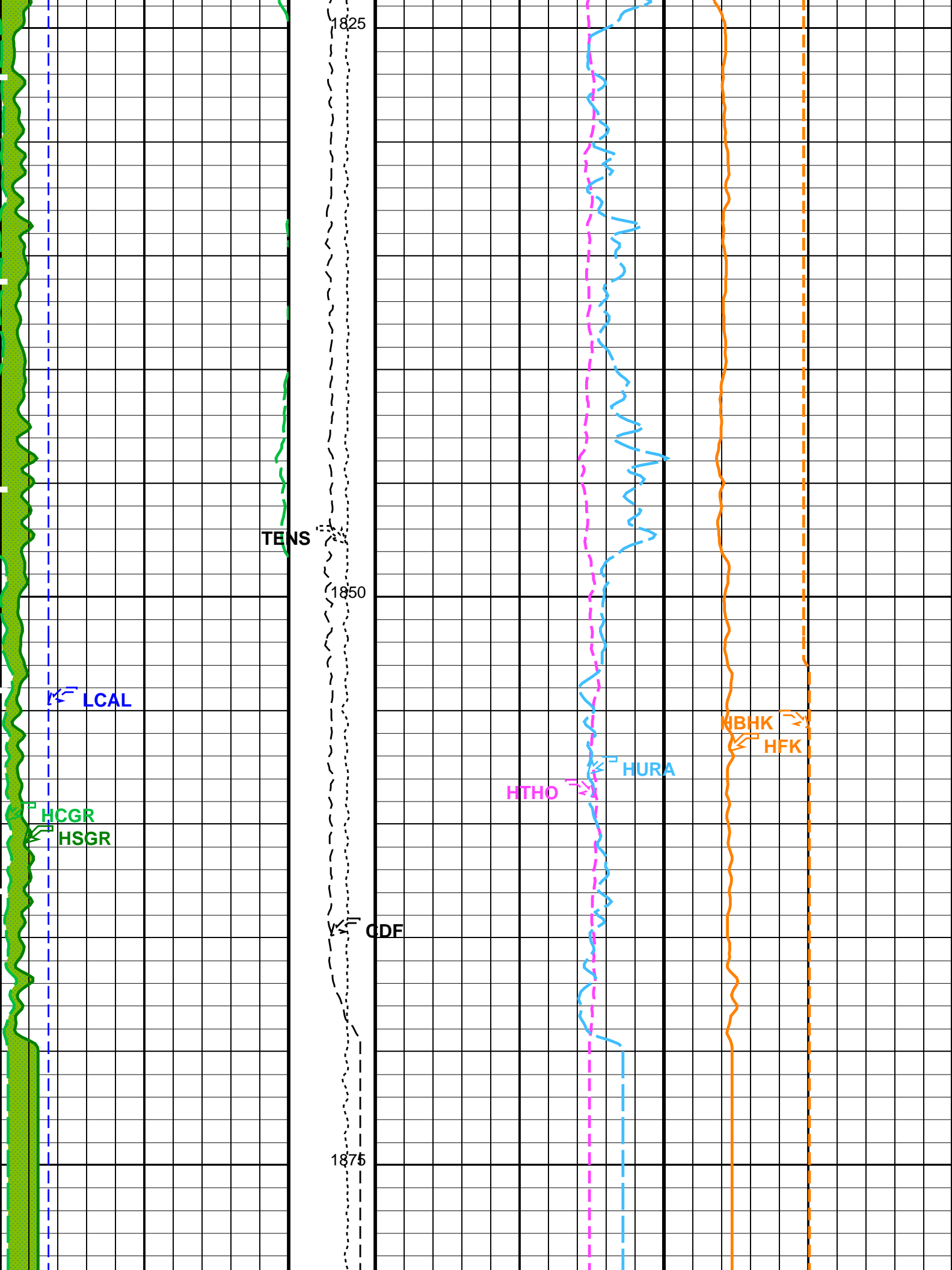


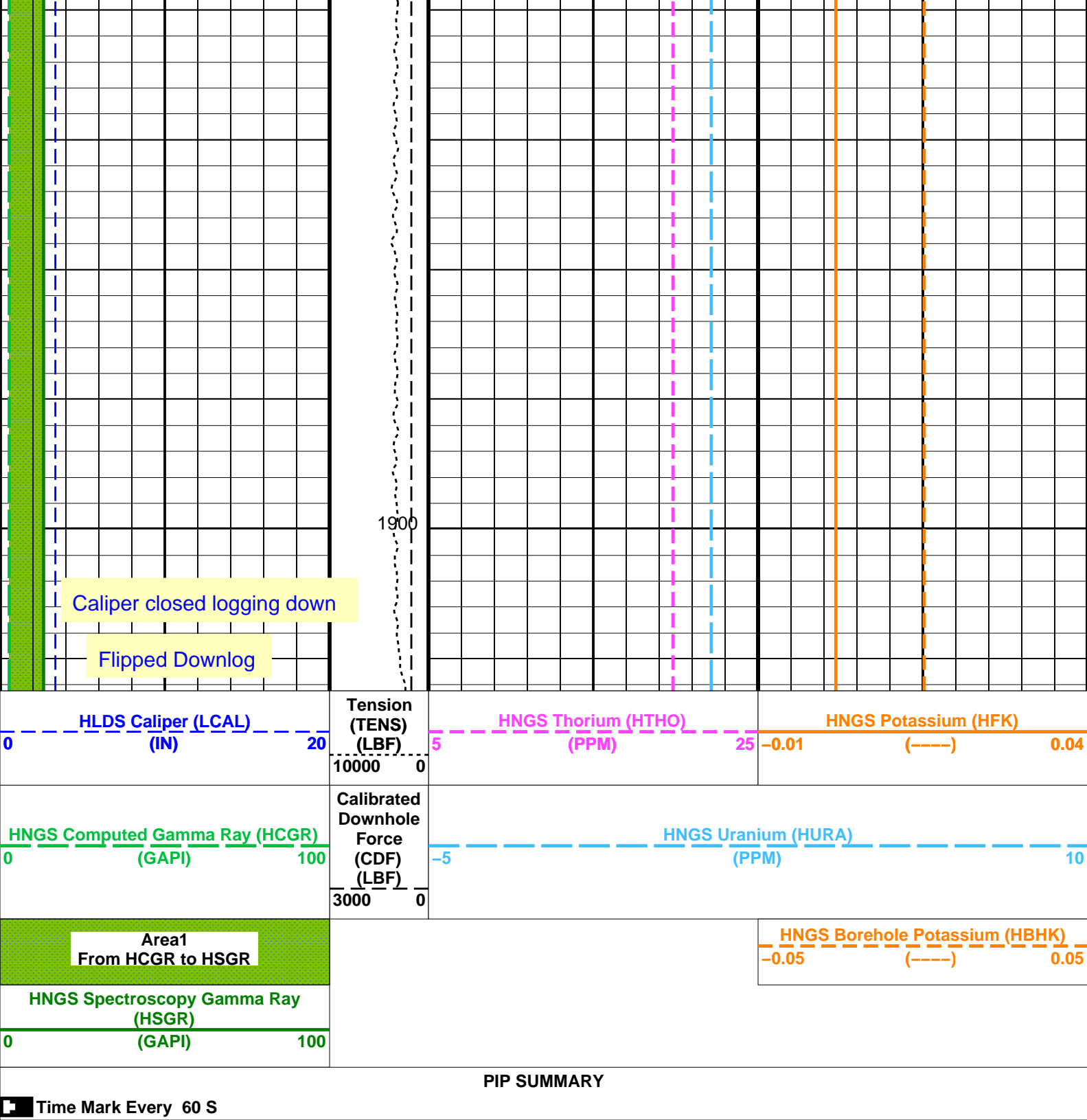




1775
1800







| Parameters | | |
|------------|--|--------|
| DLIS Name | Description | Value |
| BHS | HRLT-B: High Resolution Laterolog Array – B | |
| GCSE | Borehole Status | OPEN |
| | Generalized Caliper Selection | BS |
| BHS | APS-C: Accelerator-Porosity Tool | |
| GCSE | Borehole Status | OPEN |
| | Generalized Caliper Selection | BS |
| | 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 |
| CSD1 | Inner Casing Outer Diameter | 0 IN |
| CSD2 | Outer Casing Outer Diameter | 0 IN |
| CSW1 | Inner Casing Weight | 0 LB/F |

| | | | |
|--------------------------|--|--------------|------|
| CSW1 | Inner Casing Weight | 0 | LB/F |
| CSW2 | Outer Casing Weight | 0 | |
| DBCC | HNGS Barite Constant Correction Flag | NONE | |
| GCSE | Generalized Caliper Selection | BS | |
| H1P | HNGS Detector 1 Allow/Disallow In Processing | ALLOW | |
| H2P | HNGS Detector 2 Allow/Disallow In Processing | ALLOW | |
| HABK | HNGS Borehole Potassium Running Average | -0.000378258 | |
| 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 | |
| TPOS | Tool Position | ECCE | |
| VBA1 | HNGS Detector 1 Variable Barite Factor Running Average | 1.11451 | |
| VBA2 | HNGS Detector 2 Variable Barite Factor Running Average | 1.21062 | |
| System and Miscellaneous | | | |
| BS | Bit Size | 9.875 | IN |
| DFD | Drilling Fluid Density | 1.02 | G/C3 |
| DO | Depth Offset for Playback | 0.0 | M |
| PP | Playback Processing | NORMAL | |

Format: HNGSYields Vertical Scale: 1:200 Graphics File Created: 24-Jun-2021 19:53

OP System Version: 19C0-187

| | | | |
|------------|----------|--------|----------|
| MSS_LDEO-A | 19C0-187 | HRLT-B | 19C0-187 |
| HLDS | 19C0-187 | LDSC-B | 19C0-187 |
| APS-C | 19C0-187 | HNGC-B | 19C0-187 |
| HNGS-BA | 19C0-187 | DTC-H | 19C0-187 |

Input DLIS Files

| | | | | | |
|---------|---------------------------|----------|-------------------|----------|----------|
| DEFAULT | Flip_MSS_LDEO_HRLA_027LUP | PRODUCER | 23-Jun-2021 15:40 | 1906.2 M | 1467.6 M |
|---------|---------------------------|----------|-------------------|----------|----------|

Output DLIS Files

| | | | | |
|---------|--------------------------|-------|----------|-------------------|
| DEFAULT | MSS_LDEO_HRLA_LDL_028PUP | FN:35 | PRODUCER | 24-Jun-2021 19:53 |
| BACKKUP | MSS_LDEO_HRLA_LDL_028PUP | FN:36 | PRODUCER | 24-Jun-2021 19:53 |

Input DLIS Files

| | | | | | |
|---------|---------------------------|----------|-------------------|----------|----------|
| DEFAULT | Flip_MSS_LDEO_HRLA_027LUP | PRODUCER | 23-Jun-2021 15:40 | 1906.2 M | 1467.6 M |
|---------|---------------------------|----------|-------------------|----------|----------|

Output DLIS Files

| | | | | | | |
|---------|--------------------------|-------|----------|-------------------|----------|----------|
| DEFAULT | MSS_LDEO_HRLA_LDL_028PUP | FN:35 | PRODUCER | 24-Jun-2021 19:53 | 1906.2 M | 1467.6 M |
| BACKKUP | MSS_LDEO_HRLA_LDL_028PUP | FN:36 | PRODUCER | 24-Jun-2021 19:53 | 1906.2 M | 1467.6 M |

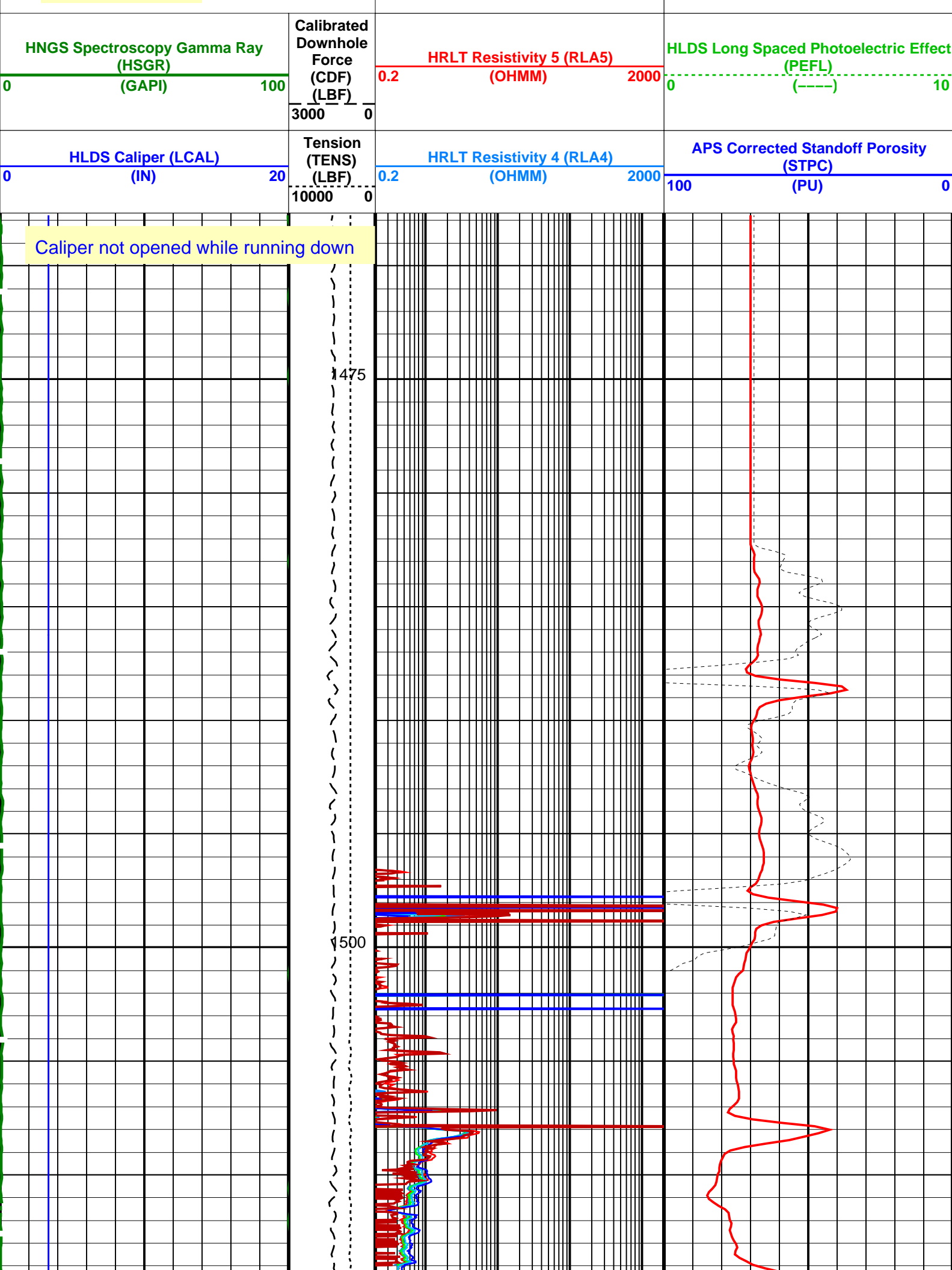
OP System Version: 19C0-187

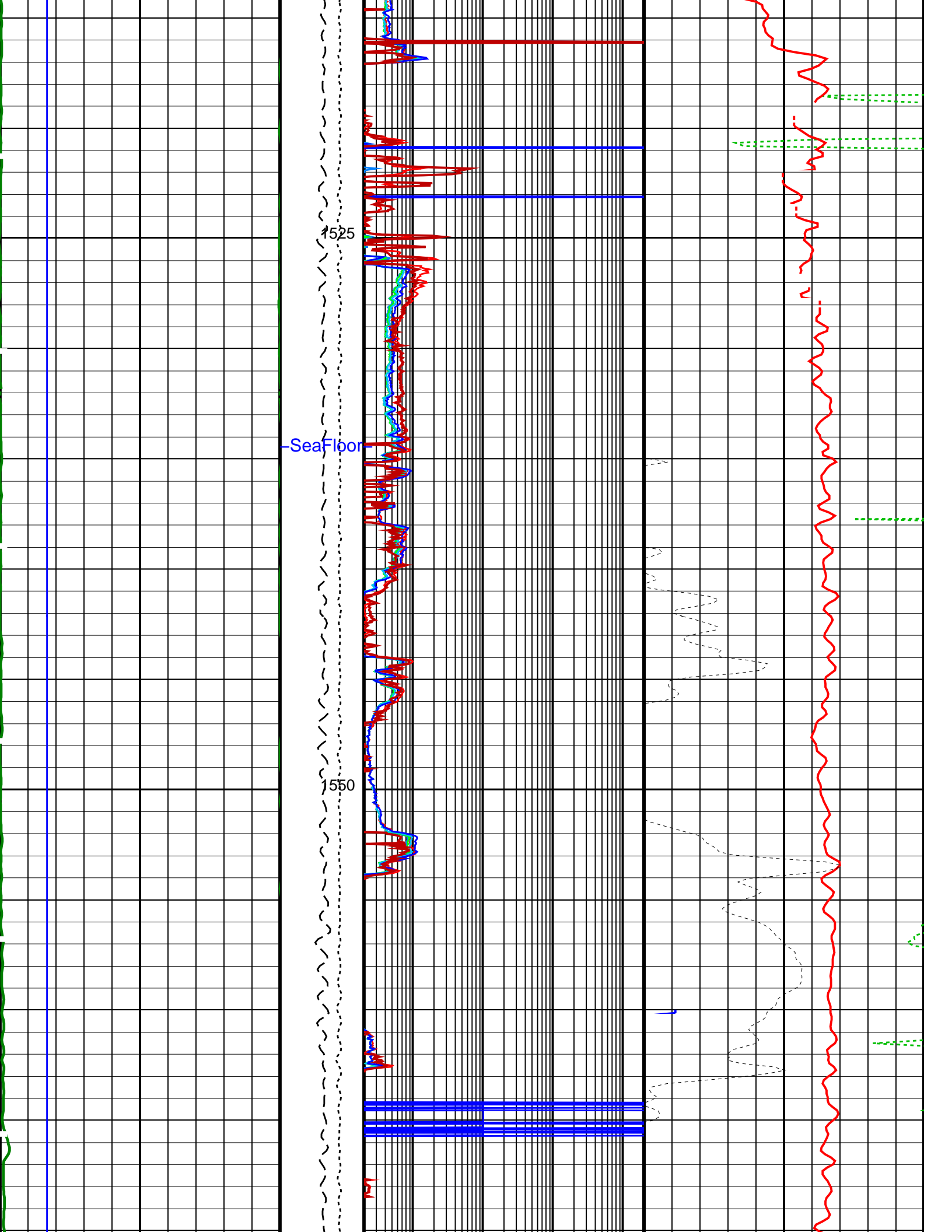
| | | | |
|------------|----------|--------|----------|
| MSS_LDEO-A | 19C0-187 | HRLT-B | 19C0-187 |
| HLDS | 19C0-187 | LDSC-B | 19C0-187 |
| APS-C | 19C0-187 | HNGC-B | 19C0-187 |
| HNGS-BA | 19C0-187 | DTC-H | 19C0-187 |

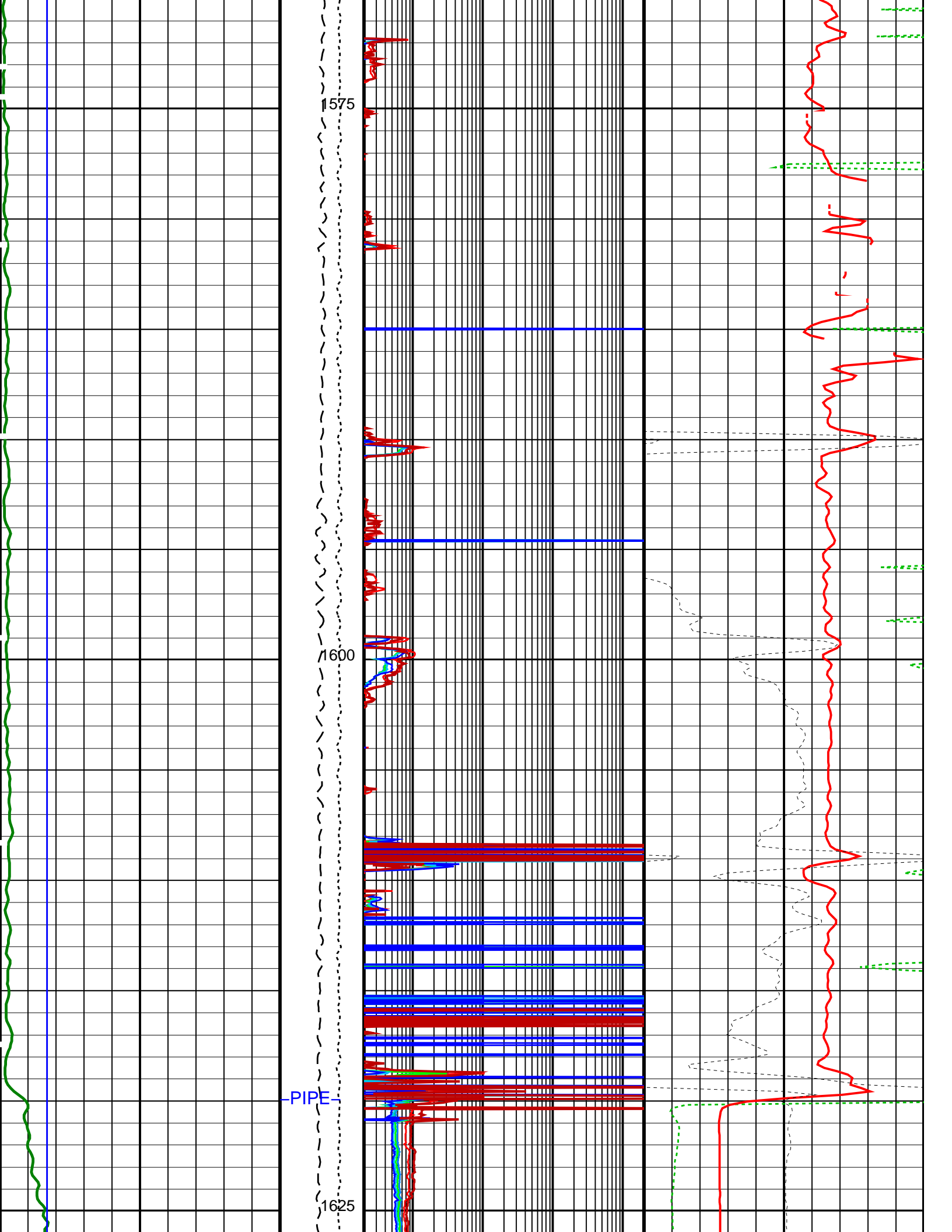
PIP SUMMARY

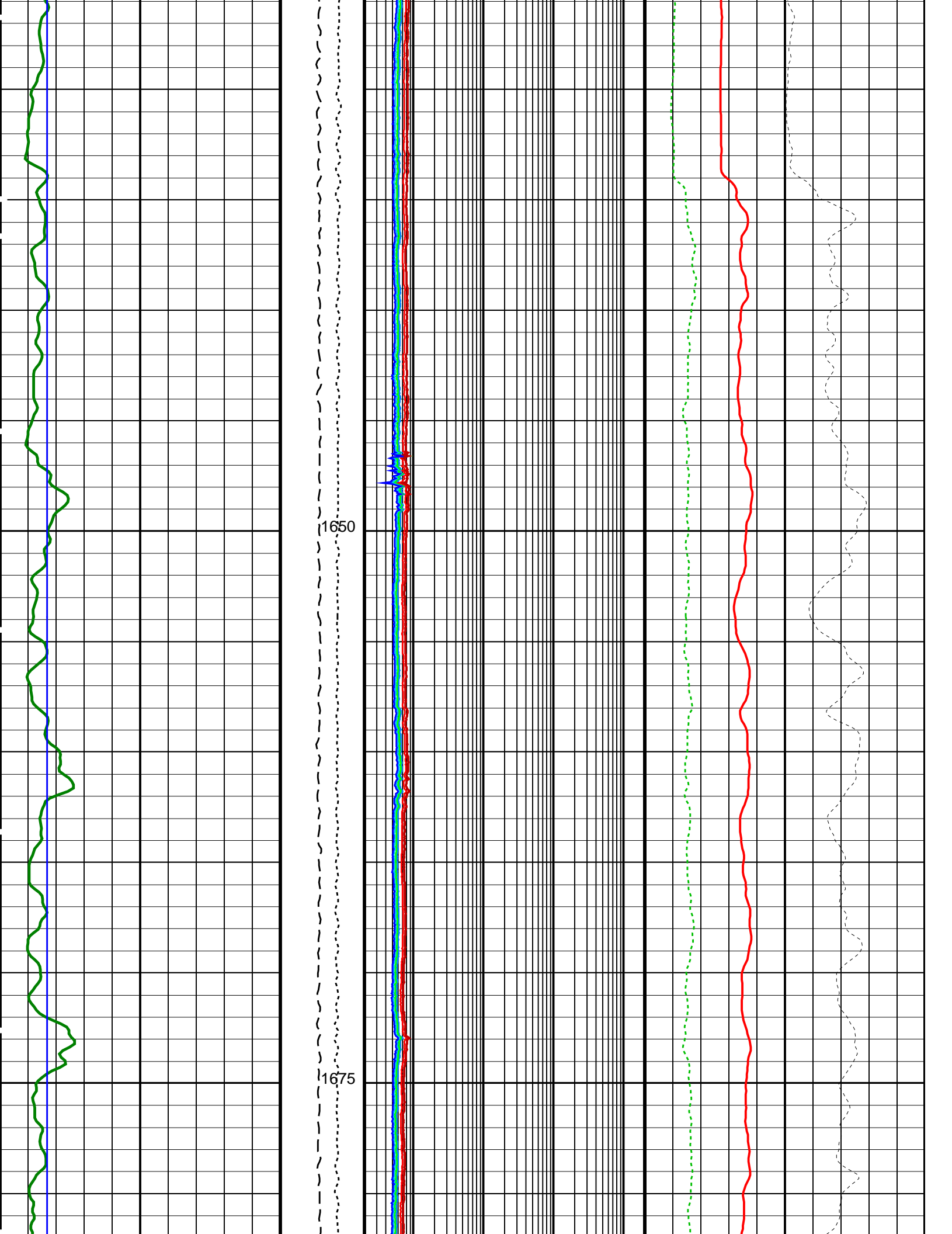
 Time Mark Every 60 S

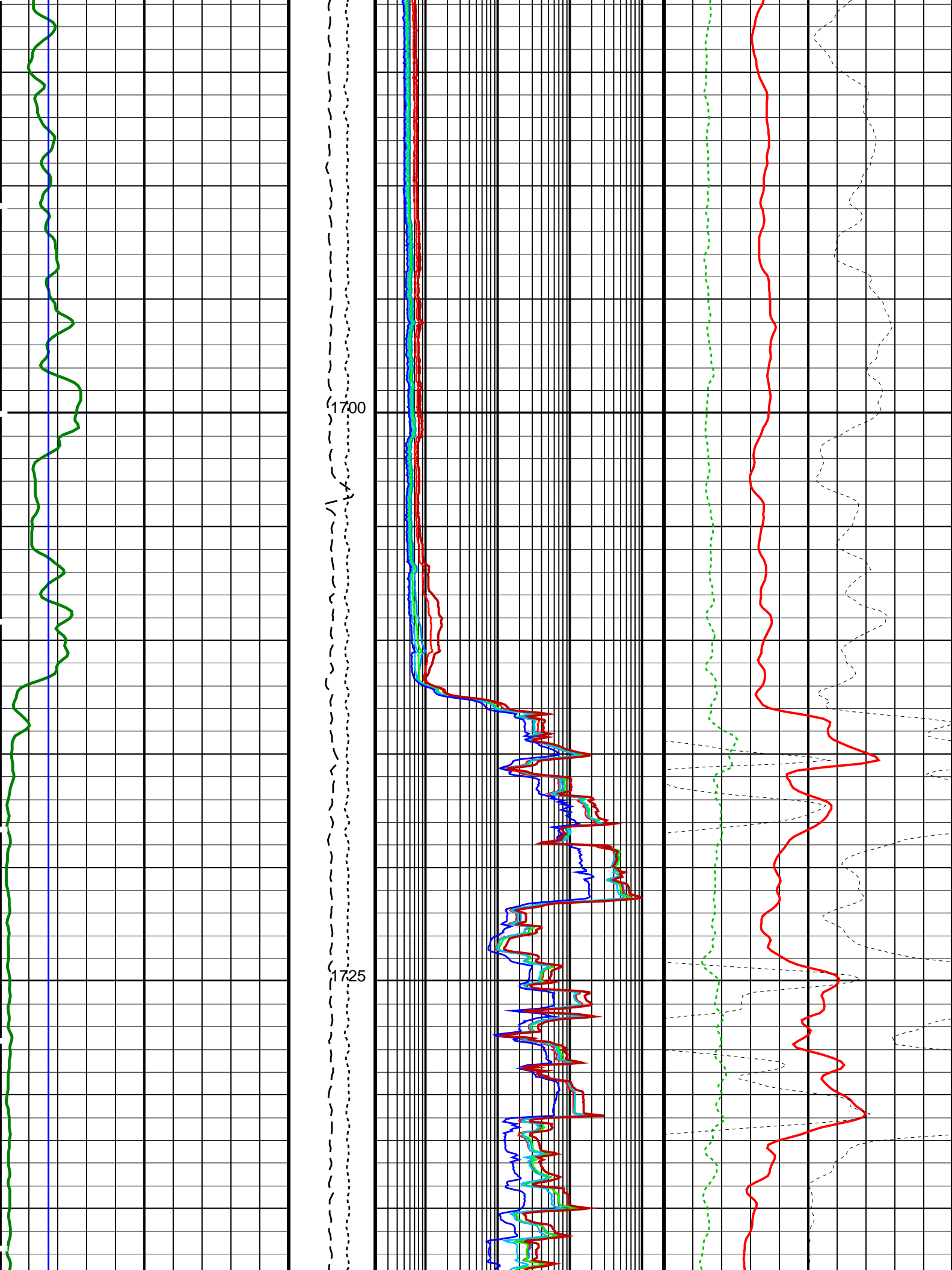
| | | | | | |
|---------------------------------|--------|------|------------------------------------|--------|------|
| HRLT True Resistivity (RT_HRLT) | | | | | |
| 0.2 | (OHMM) | 2000 | | | |
| HRLT Resistivity 1 (RLA1) | | | | | |
| 0.2 | (OHMM) | 2000 | | | |
| HRLT Resistivity 2 (RLA2) | | | HLDS Bulk Density Correction (DRH) | | |
| 0.2 | (OHMM) | 2000 | -0.25 | (G/C3) | 0.25 |
| HRLT Resistivity 3 (RLA3) | | | HLDS Bulk Density (RHOM) | | |
| 0.2 | (OHMM) | 2000 | 0 | (G/C3) | 4 |

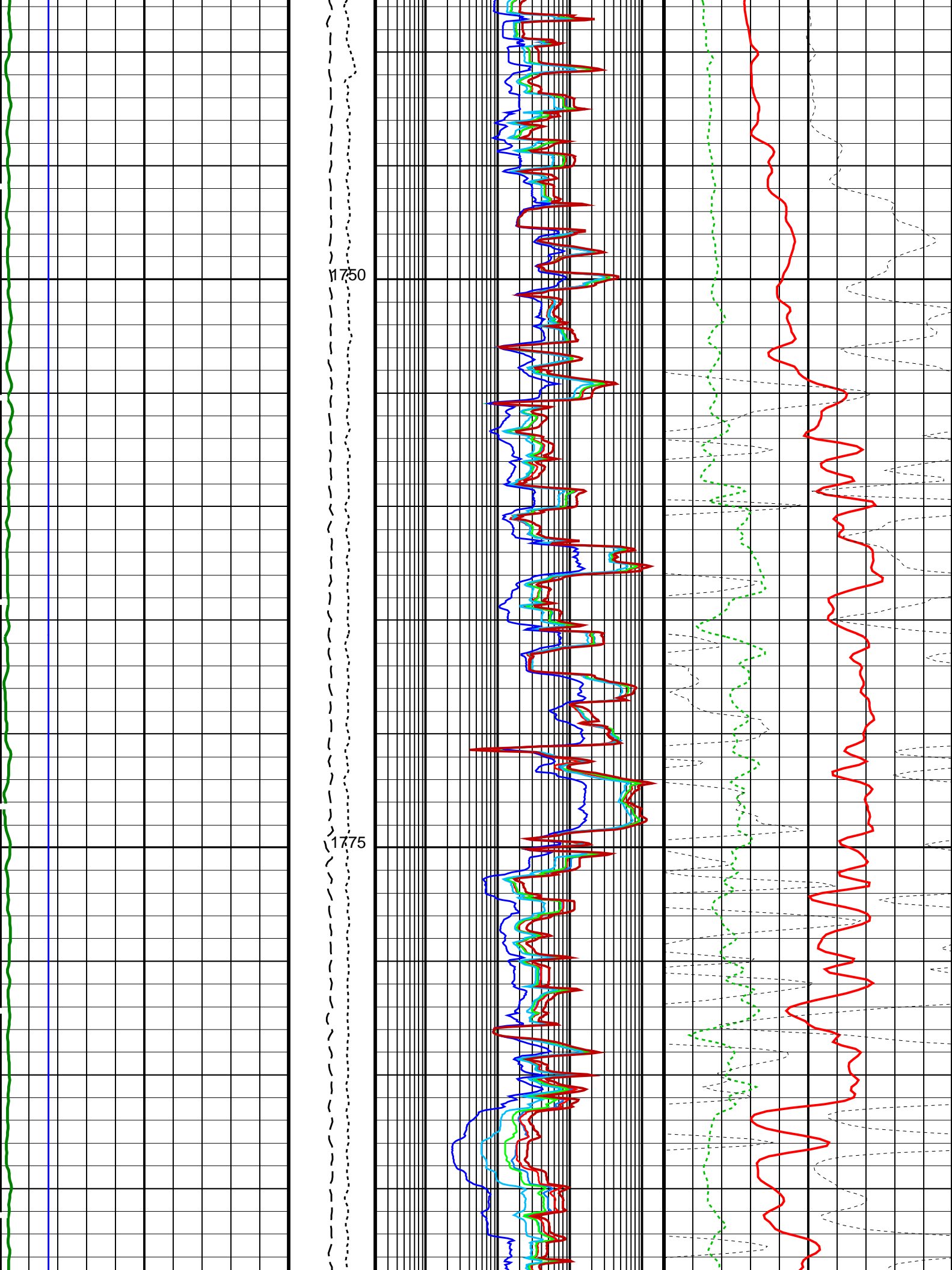


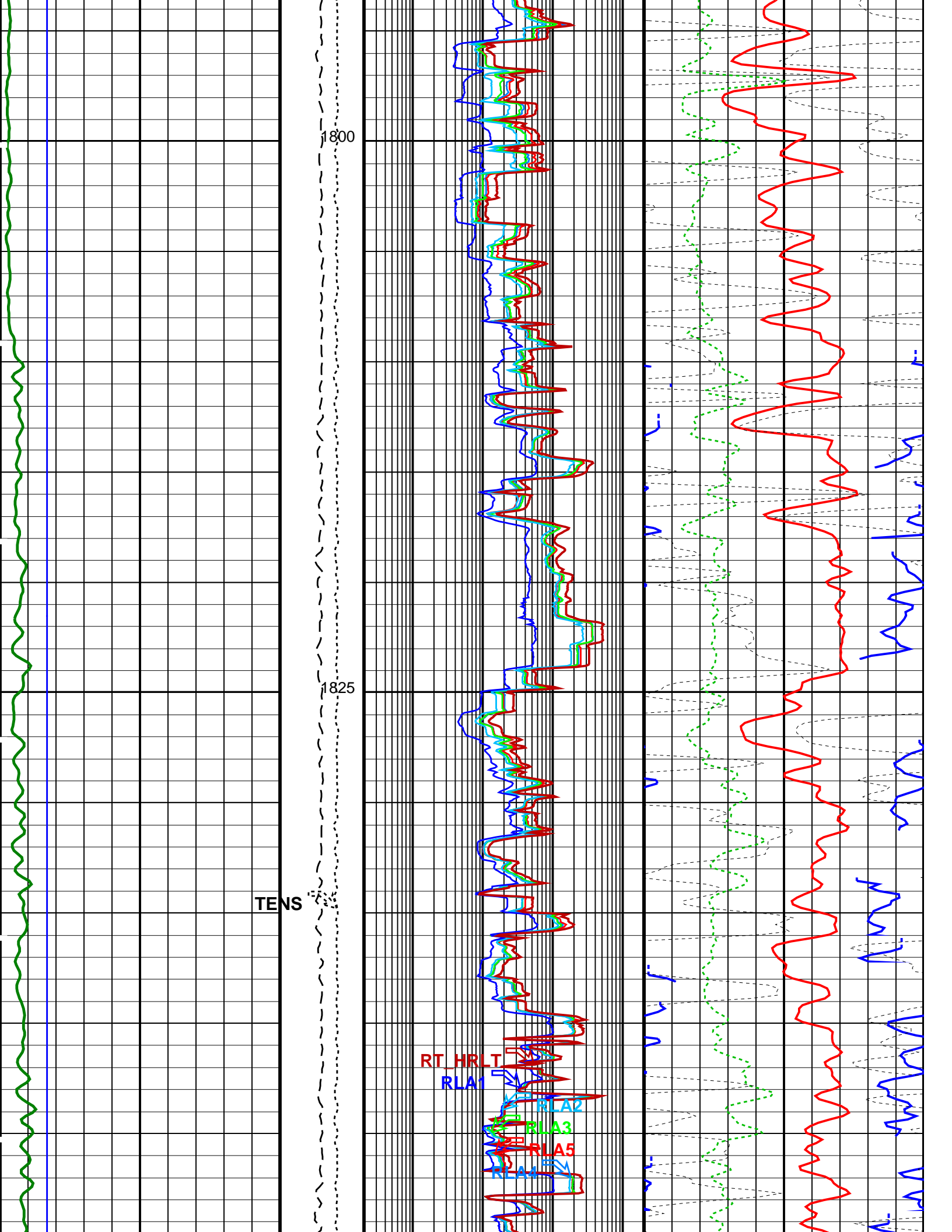


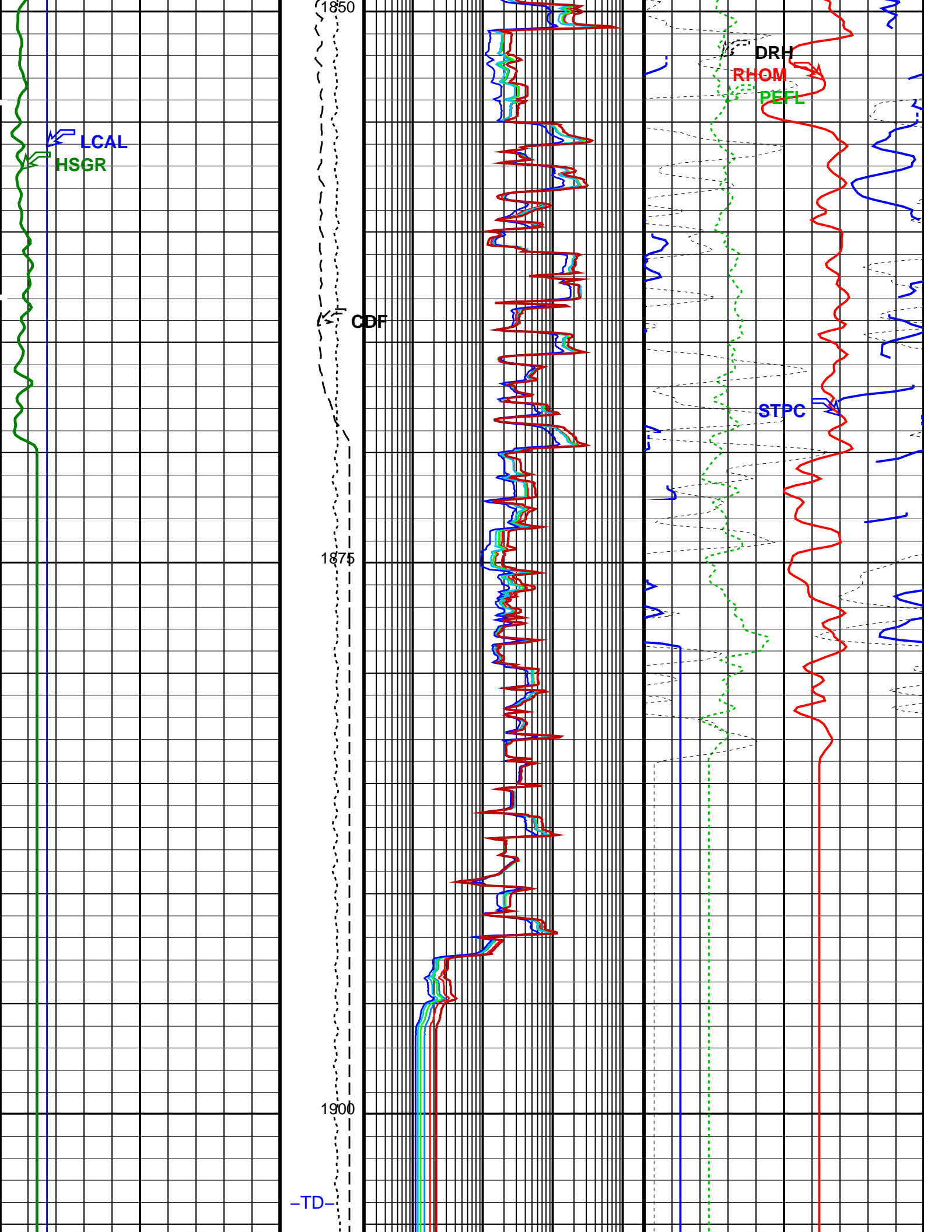












| | | | | |
|---|--|---|---|--|
| <div>HLDS Caliper (LCAL)</div> <div>0 (IN) 20</div> | | <div>Tension (TENS)</div> <div>(LBF)</div> <div>10000 0</div> | <div>HRLT Resistivity 4 (RLA4)</div> <div>0.2 (OHMM) 2000</div> | <div>APS Corrected Standoff Porosity (STPC)</div> <div>100 (PU) 0</div> |
| <div>HNGS Spectroscopy Gamma Ray (HSGR)</div> <div>0 (GAPI) 100</div> | | <div>Calibrated Downhole Force (CDF)</div> <div>(LBF)</div> <div>3000 0</div> | <div>HRLT Resistivity 5 (RLA5)</div> <div>0.2 (OHMM) 2000</div> | <div>HLDS Long Spaced Photoelectric Effect (PEFL)</div> <div>0 (----) 10</div> |
| <div>Caliper not opened while running down</div> | | | <div>HRLT Resistivity 3 (RLA3)</div> <div>0.2 (OHMM) 2000</div> | <div>HLDS Bulk Density (RHOM)</div> <div>0 (G/C3) 4</div> |
| <div>Flipped Downlog</div> | | | <div>HRLT Resistivity 2 (RLA2)</div> <div>0.2 (OHMM) 2000</div> | <div>HLDS Bulk Density Correction (DRH)</div> <div>-0.25 (G/C3) 0.25</div> |
| | | | <div>HRLT Resistivity 1 (RLA1)</div> <div>0.2 (OHMM) 2000</div> | |
| | | | <div>HRLT True Resistivity (RT_HRLT)</div> <div>0.2 (OHMM) 2000</div> | |

PIP SUMMARY

Time Mark Every 60 S

Parameters

| DLIS Name | Description | Value | |
|---|---|-----------------|------|
| HRLT-B: High Resolution Laterolog Array – B | | | |
| BHS | Borehole Status | OPEN | |
| BHT | Bottom Hole Temperature (used in calculations) | 25 | DEGC |
| CALSTAT | HRLTB Calibration Status | SHALLOW_DONE | |
| CALTEMP | HRLTB Calibration Temperature | 9.22677 | DEGC |
| FREQ0 | HRLT Frequency Index for Mode 0 | 32 | |
| FREQ1 | HRLT Frequency Index for Mode 1 | 128 | |
| FREQ2 | HRLT Frequency Index for Mode 2 | 104 | |
| FREQ3 | HRLT Frequency Index for Mode 3 | 86 | |
| FREQ4 | HRLT Frequency Index for Mode 4 | 56 | |
| FREQ5 | HRLT Frequency Index for Mode 5 | 44 | |
| FREQ6 | HRLT Frequency Index for Mode 6 | 116 | |
| GCSE | Generalized Caliper Selection | BS | |
| GDEV | Average Angular Deviation of Borehole from Normal | 0 | DEG |
| GGRD | Geothermal Gradient | 0.018227 | DC/M |
| GRSE | Generalized Mud Resistivity Selection | CHART_GEN_9 | |
| GTSE | Generalized Temperature Selection | LINEAR_ESTIMATE | |
| ISSBAR | Barite Mud Switch | NOBARITE | |
| KFAC_HRLT | HRLT K Factor Option | SONDE | |
| LOOPCOEF_S | HRLT Loop Coefficient for Shallow Modes | LOW | |
| LOOPMOD0 | HRLT Mode 0 Loop Mode | OFF | |
| LOOPMOD1 | HRLT Mode 1 Loop Mode | OFF | |
| LOOPMOD2 | HRLT Mode 2 Loop Mode | OFF | |
| LOOPMOD3 | HRLT Mode 3 Loop Mode | OFF | |
| LOOPMOD4 | HRLT Mode 4 Loop Mode | OFF | |
| LOOPMOD5 | HRLT Mode 5 Loop Mode | OFF | |
| LOOPMOD6 | HRLT Mode 6 Loop Mode | OFF | |
| MATR | Rock Matrix for Neutron Porosity Corrections | LIMESTONE | |
| PROGINV | Inversion Selection | ON | |
| PROCMFL | Inversion Micro-Resistivity Selection | NO_EXTERNAL_RXO | |
| PROCMSO | Mechanical Standoff Fin Size | 0 | IN |
| PROCRM | Processing Mud Resistivity Select | HRLT_Compute | |
| PROCSPO | Sonde Position | Centered | |
| SHT | Surface Hole Temperature | 20 | DEGC |
| HLDS: Hostile Litho-Density Sonde | | | |
| CLCL | HLDS LS Control Loop Controller Mode | AUTO_DEFAULT | |
| CLCS | HLDS SS Control Loop Controller Mode | AUTO_DEFAULT | |
| CLLS | HLDS Mode Loop Long Spacing | AUTO | |
| CLSS | HLDS Mode Loop Short Spacing | AUTO | |
| DHC | Density Hole Correction | BS | |
| DPPM | Density Porosity Processing Mode | HIRS | |
| FD | Fluid Density | 1 | G/C3 |
| LATC | HLDS Activation Correction | OFF | |
| LLDL | HLDS LS Low Level Discriminator DAC | 14000 | |
| LLDS | HLDS SS Low Level Discriminator DAC | 14000 | |
| LLML | HLDS LS Low Level Discriminator Mode | AUTO | |
| LLMS | HLDS SS Low Level Discriminator Mode | AUTO | |

| | | | |
|--|--|---------------------|------|
| MDEN | Matrix Density | 2.6 | G/C3 |
| PHVL | HLDS Long Spacing High Voltage Setting | 1000 | V |
| PHVS | HLDS Short Spacing High Voltage Setting | 1500 | V |
| PSDL | HLDS LS Pulse Shape Compensation DAC | 30000 | |
| PSDS | HLDS SS Pulse Shape Compensation DAC | 30000 | |
| PSML | HLDS LS Pulse Shape Compensation Mode | AUTO | |
| PSMS | HLDS SS Pulse Shape Compensation Mode | AUTO | |
| APS-C: Accelerator-Porosity Tool | | | |
| | APS Software Version | 5 | |
| AASD | APS Thermal and Array Detectors High Voltage Setting | 1976.24 | V |
| ADSO | APS Array Detectors Data Source Switch | Both | |
| AFSD | APS Far Detector High Voltage Setting | 2067.55 | V |
| AHCS | APS Holesize Correction Source | GCSE | |
| AHSS | APS Holesize Correction Switch | ON | |
| AMTY | APS Environmental Corrections Mud Type | WaterBaseBarite | |
| ANSD | APS Near Detector High Voltage Setting | 1737.8 | V |
| ASOS | APS Standoff Correction Switch | ON | |
| ATSS | APS Temperature-Pressure-Salinity Correction Switch | ON | |
| BHFL_APS | APS TNPH Borehole Fluid Type | WATER | |
| BHS | Borehole Status | OPEN | |
| BHT | Bottom Hole Temperature (used in calculations) | 25 | DEGC |
| BSCO_APS | APS TNPH Borehole Salinity Correction Option | NO | |
| DPPM | Density Porosity Processing Mode | HIRS | |
| DSCO_APS | APS TNPH Density Source Correction Option | MEASURED | |
| FSAL | Formation Salinity | -50000 | PPM |
| FSCO_APS | APS TNPH Formation Salinity Correction Option | NO | |
| GCSE | Generalized Caliper Selection | BS | |
| GDEV | Average Angular Deviation of Borehole from Normal | 0 | DEG |
| GGRD | Geothermal Gradient | 0.018227 | DC/M |
| GRSE | Generalized Mud Resistivity Selection | CHART_GEN 9 | |
| GTSE | Generalized Temperature Selection | LINEAR_ESTIMATE | |
| HSCO_APS | APS TNPH Hole Size Correction Option | YES | |
| ISSBAR | Barite Mud Switch | NOBARITE | |
| MATR | Rock Matrix for Neutron Porosity Corrections | LIMESTONE | |
| MCCO_APS | APS TNPH Mud Cake Correction Option | YES | |
| MCOR_APS | APS TNPH Mud Correction | NATU | |
| MWCO_APS | APS TNPH Mud Weight Correction Option | YES | |
| NARC | APS Near/Array Calibration Ratio | 1.08341 | |
| NFRC | APS Near/Far Calibration Ratio | 0.942369 | |
| PTCO_APS | APS TNPH Pressure/Temperature Correction Option | NO | |
| SHT | Surface Hole Temperature | 20 | DEGC |
| TNCO_APS | APS TNPH Computation Option | YES | |
| 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 | BS | |
| GDEV | Average Angular Deviation of Borehole from Normal | 0 | DEG |
| GGRD | Geothermal Gradient | 0.018227 | DC/M |
| GRSE | Generalized Mud Resistivity Selection | CHART_GEN 9 | |
| 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 | -0.000378258 | |
| HALF | HNGS Alpha Filter Length | 60 | IN |
| HCRB | HNGS Apply Borehole Potassium Correction | NONE | |
| HMWM | Mud Weighting Material | NATU | |
| HNPE | HNGS Processing Enable | YES | |
| ISSBAR | Barite Mud Switch | NOBARITE | |
| MATR | Rock Matrix for Neutron Porosity Corrections | LIMESTONE | |
| 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 | 1.11451 | |
| VBA2 | HNGS Detector 2 Variable Barite Factor Running Average | 1.21062 | |
| System and Miscellaneous | | | |
| ALTDPCCHAN | Name of alternate depth channel | SpeedCorrectedDepth | |
| BS | Bit Size | 9.875 | IN |
| BSAL | Borehole Salinity | 38000.00 | PPM |
| CSIZ | Current Casing Size | 5.500 | IN |
| CWEI | Casing Weight | 168.00 | LB/F |
| DFD | Drilling Fluid Density | 1.02 | G/C3 |
| DO | Depth Offset for Playback | 0.0 | M |
| FLEV | Fluid Level | -50000.00 | M |
| MST | Mud Sample Temperature | 23.00 | DEGC |
| PRYSADD | Use alternate depth channel for playback | NO | |

| | | | |
|-------|--|-------------|------|
| PBVSA | Use alternate depth channel for playback | NO | |
| ADP | Playback Processing | NORMAL | |
| PP | Resistivity of Mud Filtrate Sample | -50000.0000 | OHMM |
| RMFS | Resistivity of Connate Water | 1.0000 | OHMM |
| RW | Total Depth | 6069.55 | FT |
| TD | Total Depth - Driller | 1911.00 | M |
| TDD | Total Depth - Logger | 1911.00 | M |
| TDL | Temperature of Connate Water Sample | 37.78 | DEGC |
| TWS | | | |

Format: TripleCombo
Vertical Scale: 1:200
Graphics File Created: 24-Jun-2021 19:53

| OP System Version: 19C0-187 | | | |
|-----------------------------|----------|--------|----------|
| MSS_LDEO-A | 19C0-187 | HRLT-B | 19C0-187 |
| HLDS | 19C0-187 | LDSC-B | 19C0-187 |
| APS-C | 19C0-187 | HNGC-B | 19C0-187 |
| HNGS-BA | 19C0-187 | DTC-H | 19C0-187 |

| Input DLIS Files | | | | | |
|-------------------|---------------------------|----------|-------------------|-------------------|----------|
| DEFAULT | Flip_MSS_LDEO_HRLA_027LUP | PRODUCER | 23-Jun-2021 15:40 | 1906.2 M | 1467.6 M |
| Output DLIS Files | | | | | |
| DEFAULT | MSS_LDEO_HRLA_LDL_028PUP | FN:35 | PRODUCER | 24-Jun-2021 19:53 | |
| BACKKUP | MSS_LDEO_HRLA_LDL_028PUP | FN:36 | PRODUCER | 24-Jun-2021 19:53 | |

Company: International Ocean Discovery Program
Well: Expedition 395C, Site U1555I

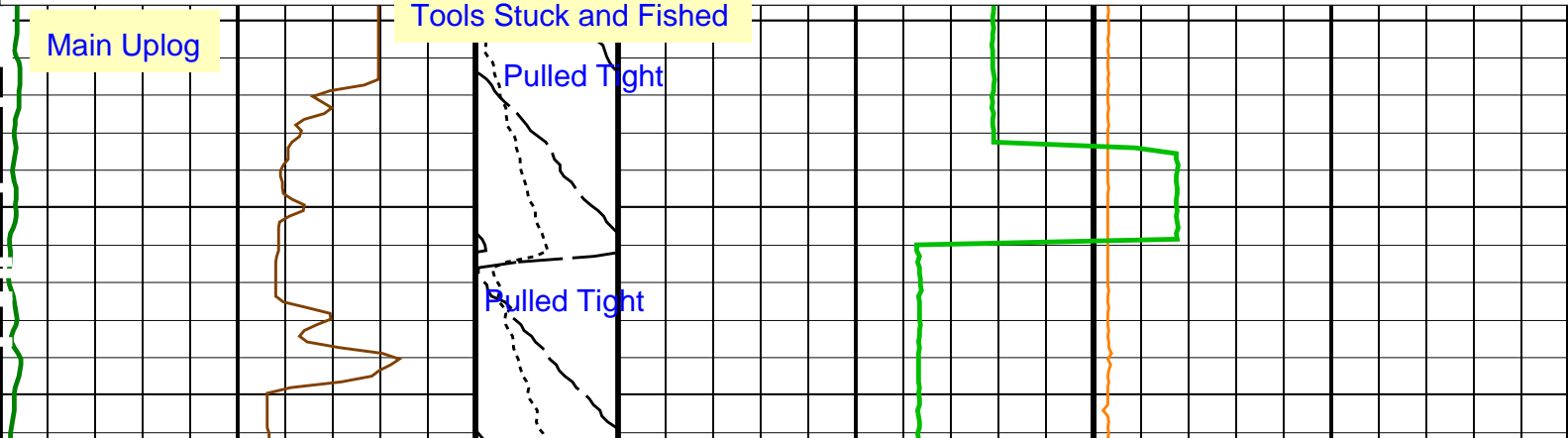
| Output DLIS Files | | | | | |
|-------------------|--------------------------|-------|----------|-------------------|----------|
| DEFAULT | MSS_LDEO_HRLA_LDL_026LUP | FN:33 | PRODUCER | 22-Jun-2021 18:58 | 1906.5 M |
| BACKKUP | MSS_LDEO_HRLA_LDL_026LUP | FN:34 | PRODUCER | 22-Jun-2021 18:58 | 1906.5 M |

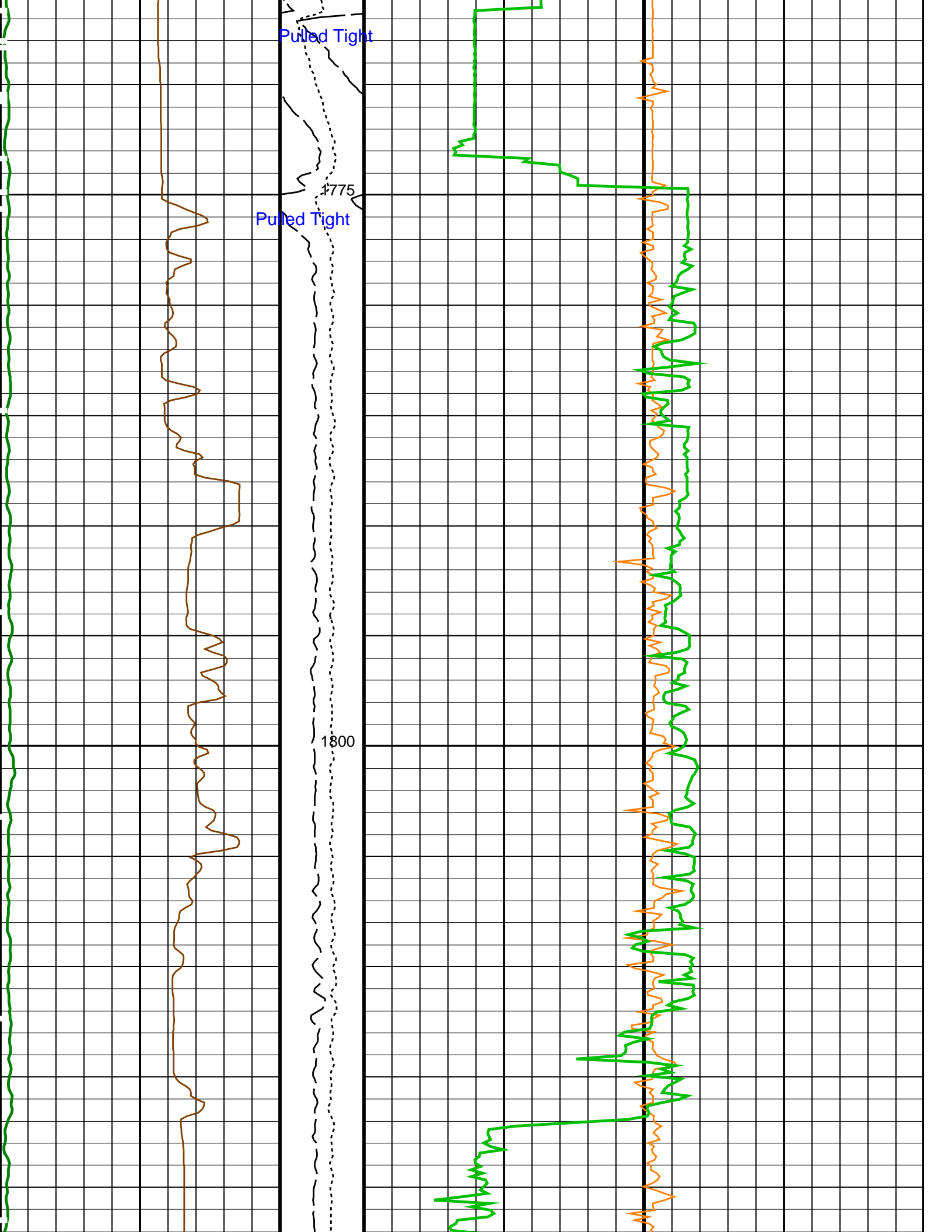
| OP System Version: 19C0-187 | | | |
|-----------------------------|----------|--------|----------|
| MSS_LDEO-A | 19C0-187 | HRLT-B | 19C0-187 |
| HLDS | 19C0-187 | LDSC-B | 19C0-187 |
| APS-C | 19C0-187 | HNGC-B | 19C0-187 |
| HNGS-BA | 19C0-187 | DTC-H | 19C0-187 |

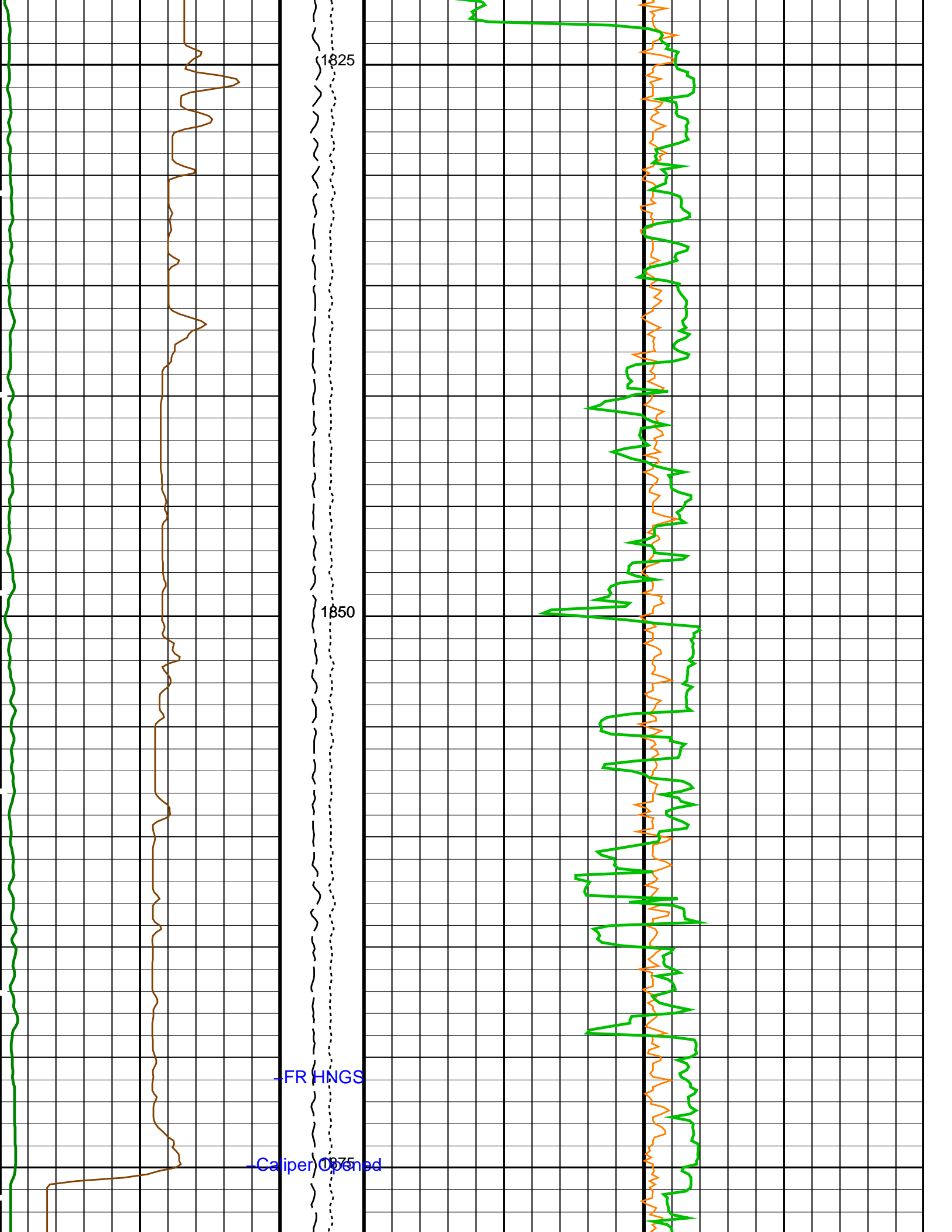
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Time Mark Every 60 S

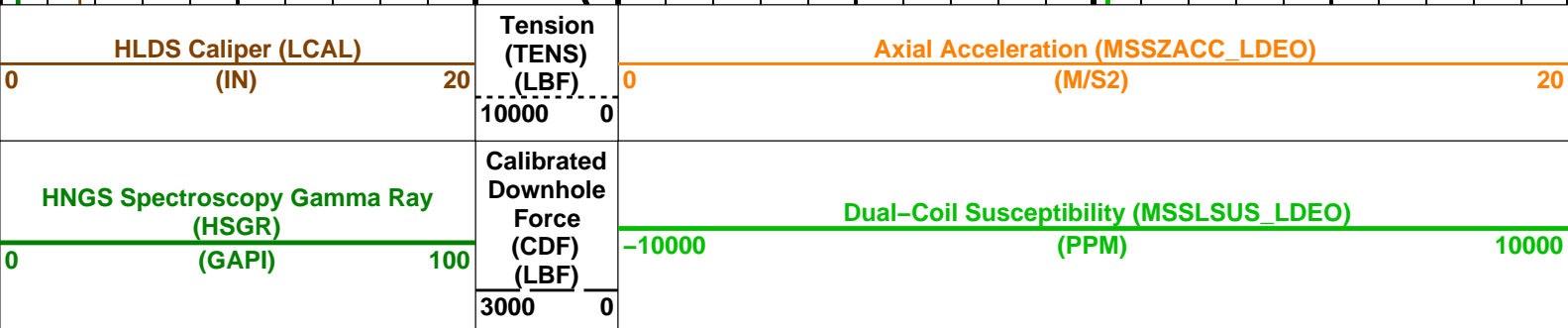
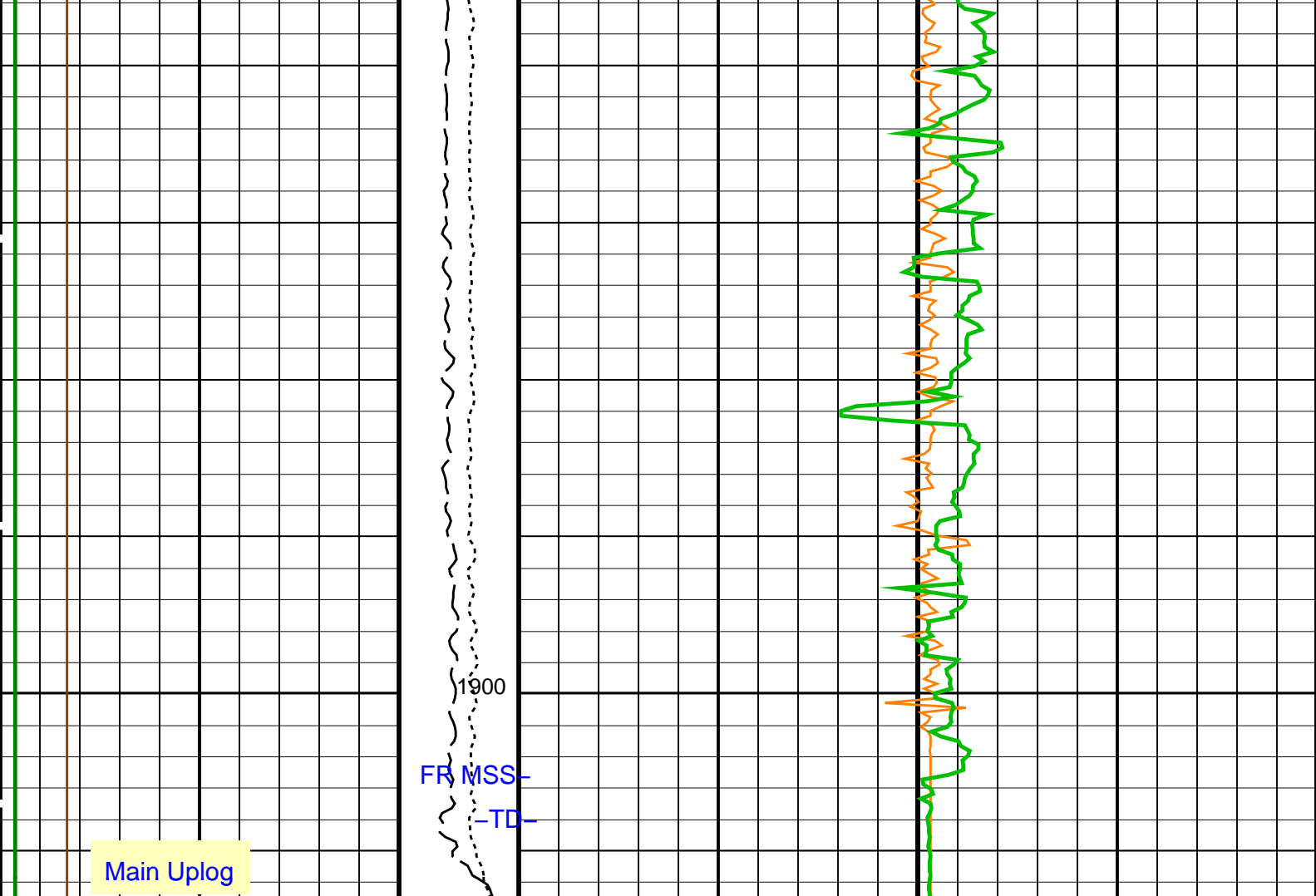
PIP SUMMARY

| HNGS Spectroscopy Gamma Ray (HSGR) (GAPI) | Calibrated Downhole Force (CDF) (LBF) | Dual-Coil Susceptibility (MSSLSUS_LDEO) (PPM) |
|---|---|--|
| 0100 | 30000 | -1000010000 |
| HLDS Caliper (LCAL) (IN) | Tension (TENS) (LBF) | Axial Acceleration (MSSZACC_LDEO) (M/S2) |
| 020 | 100000 | 020 |









PIP SUMMARY

Time Mark Every 60 S

| Parameters | | | |
|---|---|-----------------|------|
| DLIS Name | Description | Value | |
| HRLT-B: High Resolution Laterolog Array – B | | | |
| BHS | Borehole Status | OPEN | |
| BHT | Bottom Hole Temperature (used in calculations) | 25 | DEGC |
| CALSTAT | HRLTB Calibration Status | SHALLOW_DONE | |
| CALTEMP | HRLTB Calibration Temperature | 9.22677 | DEGC |
| FREQ0 | HRLT Frequency Index for Mode 0 | 32 | |
| FREQ1 | HRLT Frequency Index for Mode 1 | 128 | |
| FREQ2 | HRLT Frequency Index for Mode 2 | 104 | |
| FREQ3 | HRLT Frequency Index for Mode 3 | 86 | |
| FREQ4 | HRLT Frequency Index for Mode 4 | 56 | |
| FREQ5 | HRLT Frequency Index for Mode 5 | 44 | |
| FREQ6 | HRLT Frequency Index for Mode 6 | 116 | |
| GCSE | Generalized Caliper Selection | LCAL | |
| GDEV | Average Angular Deviation of Borehole from Normal | 0 | DEG |
| GGRD | Geothermal Gradient | 0.018227 | DC/M |
| GRSE | Generalized Mud Resistivity Selection | CHART_GEN 9 | |
| GTSE | Generalized Temperature Selection | LINEAR_ESTIMATE | |
| ISSBAR | Barite Mud Switch | NOBARITE | |
| KFAC_HRLT | HRLT K Factor Option | SONDE | |

| | | | |
|--|--|-----------------|------|
| LOOPCOEF_S | HRLT Coefficient for Shallow Modes | LOW | |
| LOOPMOD0 | HRLT Mode 0 Loop Mode | AUTO | |
| LOOPMOD1 | HRLT Mode 1 Loop Mode | AUTO | |
| LOOPMOD2 | HRLT Mode 2 Loop Mode | AUTO | |
| LOOPMOD3 | HRLT Mode 3 Loop Mode | AUTO | |
| LOOPMOD4 | HRLT Mode 4 Loop Mode | AUTO | |
| LOOPMOD5 | HRLT Mode 5 Loop Mode | AUTO | |
| LOOPMOD6 | HRLT Mode 6 Loop Mode | AUTO | |
| MATR | Rock Matrix for Neutron Porosity Corrections | LIMESTONE | |
| PROCINV | Inversion Selection | ON | |
| PROCMFL | Inversion Micro-Resistivity Selection | NO_EXTERNAL_RXO | |
| PROCMSO | Mechanical Standoff Fin Size | 0 | IN |
| PROCRM | Processing Mud Resistivity Select | HRLT_Compute | |
| PROCSP0 | Sonde Position | Centered | |
| SHT | Surface Hole Temperature | 20 | DEGC |
| HLDS: Hostile Litho-Density Sonde | | | |
| CLCL | HLDS LS Control Loop Controller Mode | AUTO_DEFAULT | |
| CLCS | HLDS SS Control Loop Controller Mode | AUTO_DEFAULT | |
| CLLS | HLDS Mode Loop Long Spacing | AUTO | |
| CLSS | HLDS Mode Loop Short Spacing | AUTO | |
| DHC | Density Hole Correction | BS | |
| DPPM | Density Porosity Processing Mode | HIRS | |
| FD | Fluid Density | 1 | G/C3 |
| LATC | HLDS Activation Correction | OFF | |
| LLDL | HLDS LS Low Level Discriminator DAC | 14000 | |
| LLDS | HLDS SS Low Level Discriminator DAC | 14000 | |
| LLML | HLDS LS Low Level Discriminator Mode | AUTO | |
| LLMS | HLDS SS Low Level Discriminator Mode | AUTO | |
| MDEN | Matrix Density | 2.6 | G/C3 |
| PHVL | HLDS Long Spacing High Voltage Setting | 1000 | V |
| PHVS | HLDS Short Spacing High Voltage Setting | 1500 | V |
| PSDL | HLDS LS Pulse Shape Compensation DAC | 30000 | |
| PSDS | HLDS SS Pulse Shape Compensation DAC | 30000 | |
| PSML | HLDS LS Pulse Shape Compensation Mode | AUTO | |
| PSMS | HLDS SS Pulse Shape Compensation Mode | AUTO | |
| APS-C: Accelerator-Porosity Tool | | | |
| | APS Software Version | 5 | |
| AASD | APS Thermal and Array Detectors High Voltage Setting | 1976.24 | V |
| ADSO | APS Array Detectors Data Source Switch | Both | |
| AFSD | APS Far Detector High Voltage Setting | 2067.55 | V |
| AHCS | APS Holesize Correction Source | GCSE | |
| AHSS | APS Holesize Correction Switch | ON | |
| AMTY | APS Environmental Corrections Mud Type | WaterBaseBarite | |
| ANSD | APS Near Detector High Voltage Setting | 1737.8 | V |
| ASOS | APS Standoff Correction Switch | ON | |
| ATSS | APS Temperature-Pressure-Salinity Correction Switch | ON | |
| BHFL_APS | APS TNPH Borehole Fluid Type | WATER | |
| BHS | Borehole Status | OPEN | |
| BHT | Bottom Hole Temperature (used in calculations) | 25 | DEGC |
| BSCO_APS | APS TNPH Borehole Salinity Correction Option | NO | |
| DPPM | Density Porosity Processing Mode | HIRS | |
| DSCO_APS | APS TNPH Density Source Correction Option | MEASURED | |
| FSAL | Formation Salinity | -50000 | PPM |
| FSCO_APS | APS TNPH Formation Salinity Correction Option | NO | |
| GCSE | Generalized Caliper Selection | LCAL | |
| GDEV | Average Angular Deviation of Borehole from Normal | 0 | DEG |
| GGRD | Geothermal Gradient | 0.018227 | DC/M |
| GRSE | Generalized Mud Resistivity Selection | CHART_GEN 9 | |
| GTSE | Generalized Temperature Selection | LINEAR_ESTIMATE | |
| HSCO_APS | APS TNPH Hole Size Correction Option | YES | |
| ISSBAR | Barite Mud Switch | NOBARITE | |
| MATR | Rock Matrix for Neutron Porosity Corrections | LIMESTONE | |
| MCCO_APS | APS TNPH Mud Cake Correction Option | YES | |
| MCOR_APS | APS TNPH Mud Correction | NATU | |
| MWCO_APS | APS TNPH Mud Weight Correction Option | YES | |
| NARC | APS Near/Array Calibration Ratio | 1.08341 | |
| NFRC | APS Near/Far Calibration Ratio | 0.942369 | |
| PTCO_APS | APS TNPH Pressure/Temperature Correction Option | NO | |
| SHT | Surface Hole Temperature | 20 | DEGC |
| TNCO_APS | APS TNPH Computation Option | YES | |
| 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 |
| GRSE | Generalized Mud Resistivity Selection | CHART_GEN 9 | |

| | | | |
|--------------------------|--|---------------------|------|
| 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 | -0.0015721 | |
| HALF | HNGS Alpha Filter Length | 60 | IN |
| HCRB | HNGS Apply Borehole Potassium Correction | NONE | |
| HMWM | Mud Weighting Material | NATU | |
| HNPE | HNGS Processing Enable | YES | |
| ISSBAR | Barite Mud Switch | NOBARITE | |
| MATR | Rock Matrix for Neutron Porosity Corrections | LIMESTONE | |
| 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 | -2.02758 | |
| VBA2 | HNGS Detector 2 Variable Barite Factor Running Average | 0.644252 | |
| System and Miscellaneous | | | |
| ALTDPCCHAN | Name of alternate depth channel | SpeedCorrectedDepth | |
| BS | Bit Size | 9.875 | IN |
| BSAL | Borehole Salinity | 38000.00 | PPM |
| CSIZ | Current Casing Size | 5.500 | IN |
| CWEI | Casing Weight | 168.00 | LB/F |
| DFD | Drilling Fluid Density | 1.02 | G/C3 |
| FLEV | Fluid Level | -50000.00 | M |
| MST | Mud Sample Temperature | 23.00 | DEGC |
| PBVSADP | Use alternate depth channel for playback | NO | |
| RMFS | Resistivity of Mud Filtrate Sample | -50000.0000 | OHMM |
| RW | Resistivity of Connate Water | 1.0000 | OHMM |
| TD | Total Depth | 6069.55 | FT |
| TDD | Total Depth - Driller | 1911.00 | M |
| TDL | Total Depth - Logger | 1911.00 | M |
| TWS | Temperature of Connate Water Sample | 37.78 | DEGC |

Format: MSS_Logging Vertical Scale: 1:200 Graphics File Created: 22-Jun-2021 18:58

OP System Version: 19C0-187

| | | | |
|------------|----------|--------|----------|
| MSS_LDEO-A | 19C0-187 | HRLT-B | 19C0-187 |
| HLDS | 19C0-187 | LDSC-B | 19C0-187 |
| APS-C | 19C0-187 | HNGC-B | 19C0-187 |
| HNGS-BA | 19C0-187 | DTC-H | 19C0-187 |

Output DLIS Files

| | | | | |
|---------|--------------------------|-------|----------|-------------------|
| DEFAULT | MSS_LDEO_HRLA_LDL_026LUP | FN:33 | PRODUCER | 22-Jun-2021 18:58 |
| BACKKUP | MSS_LDEO_HRLA_LDL_026LUP | FN:34 | PRODUCER | 22-Jun-2021 18:58 |

Output DLIS Files

| | | | | | | |
|---------|--------------------------|-------|----------|-------------------|----------|----------|
| DEFAULT | MSS_LDEO_HRLA_LDL_026LUP | FN:33 | PRODUCER | 22-Jun-2021 18:58 | 1906.5 M | 1754.6 M |
| BACKKUP | MSS_LDEO_HRLA_LDL_026LUP | FN:34 | PRODUCER | 22-Jun-2021 18:58 | 1906.5 M | 1754.6 M |

OP System Version: 19C0-187

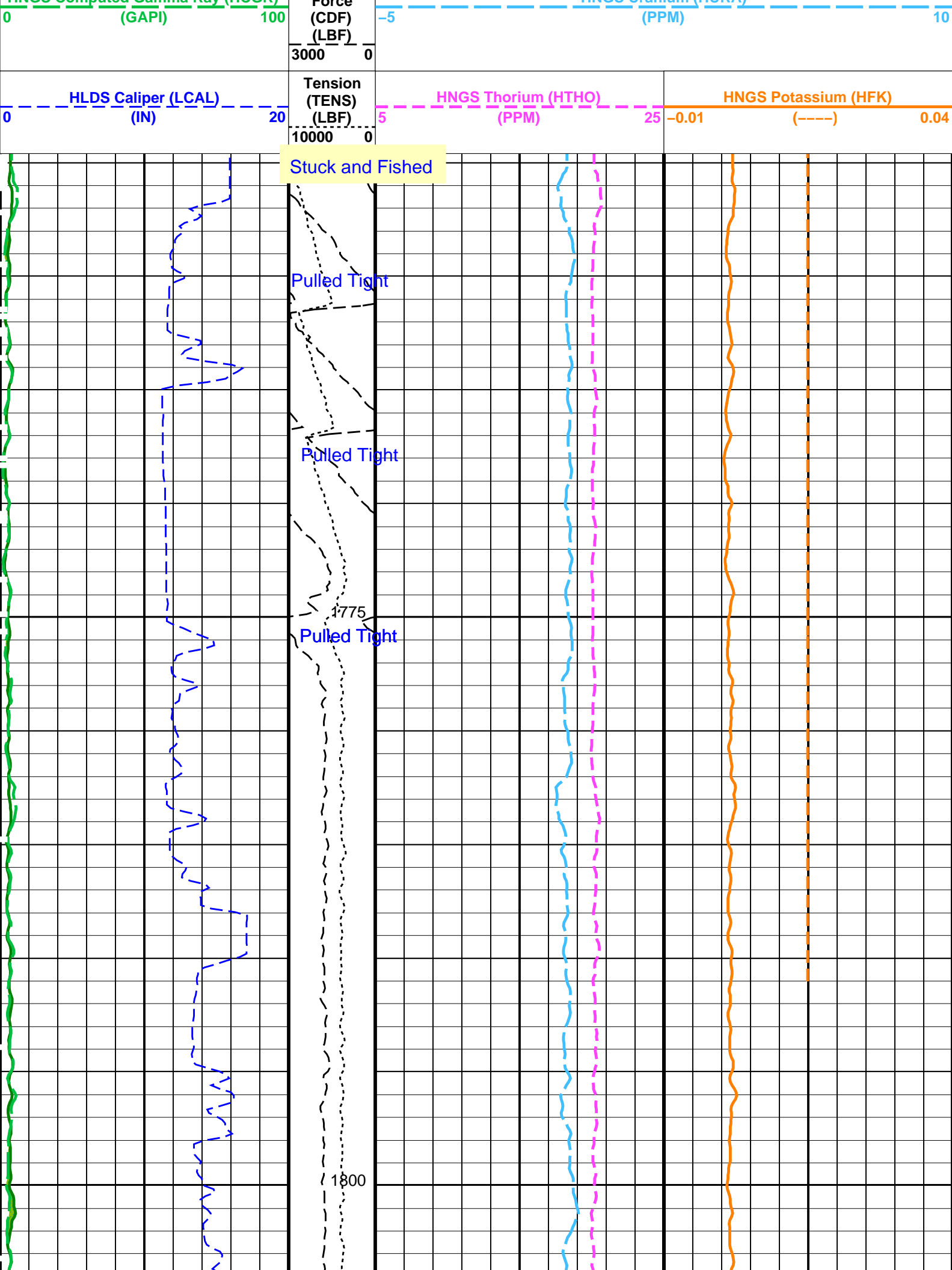
| | | | |
|------------|----------|--------|----------|
| MSS_LDEO-A | 19C0-187 | HRLT-B | 19C0-187 |
| HLDS | 19C0-187 | LDSC-B | 19C0-187 |
| APS-C | 19C0-187 | HNGC-B | 19C0-187 |
| HNGS-BA | 19C0-187 | DTC-H | 19C0-187 |

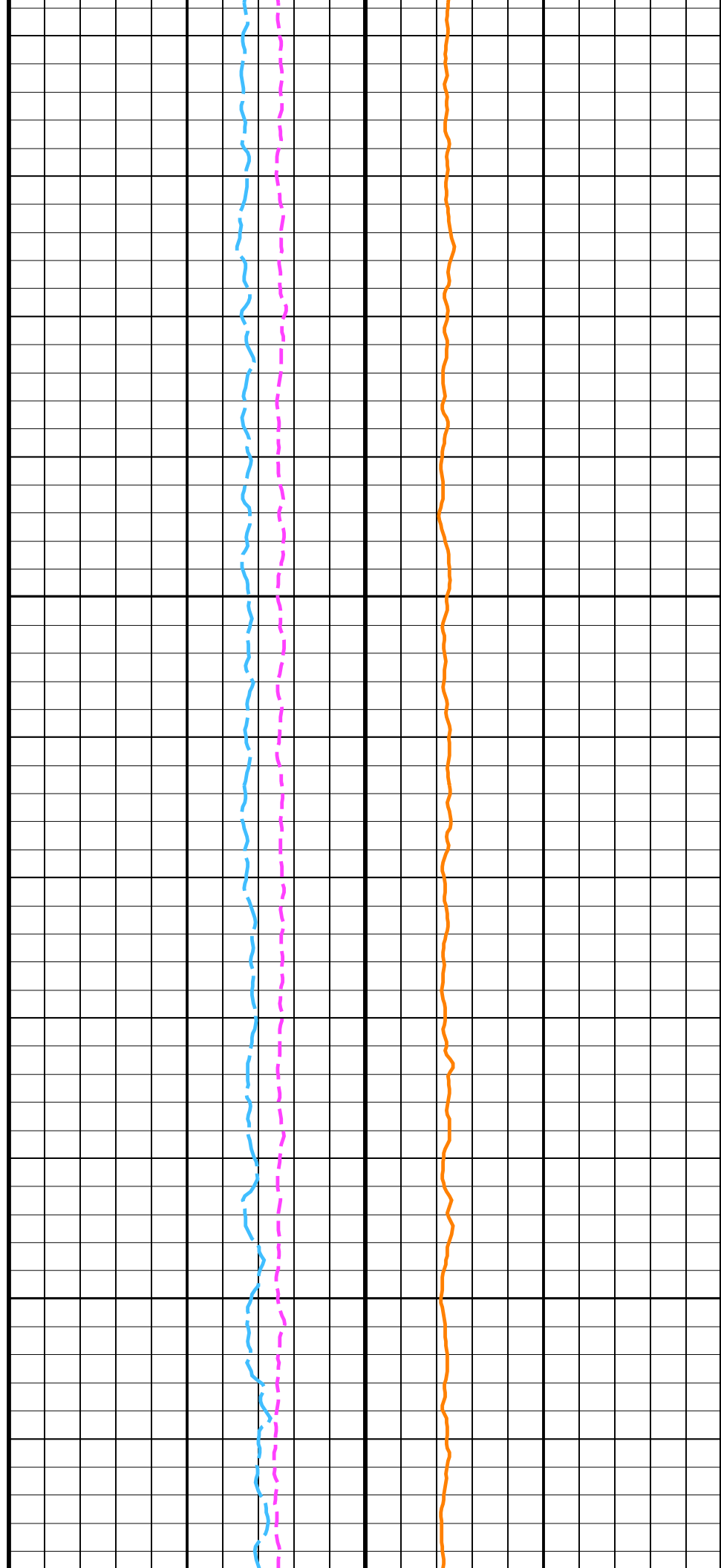
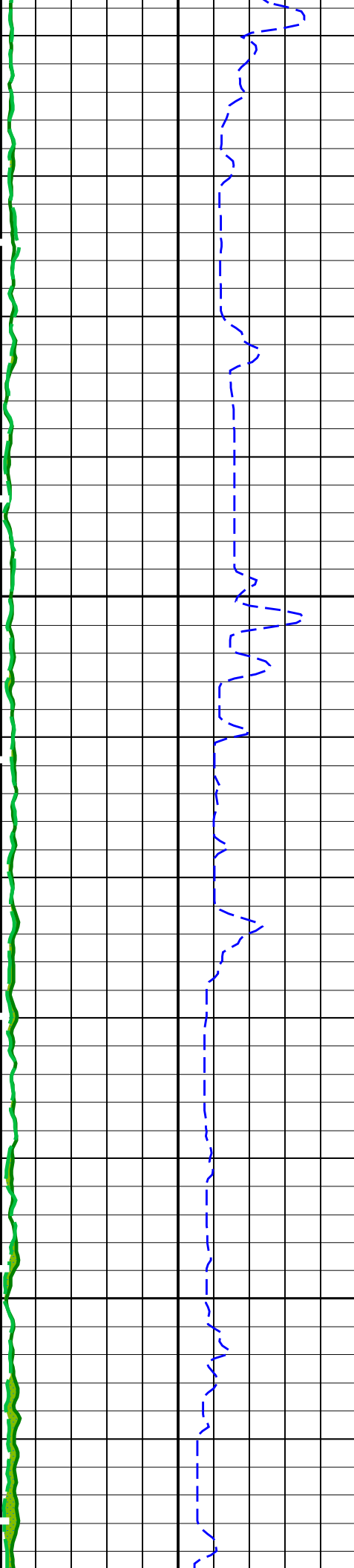
PIP SUMMARY

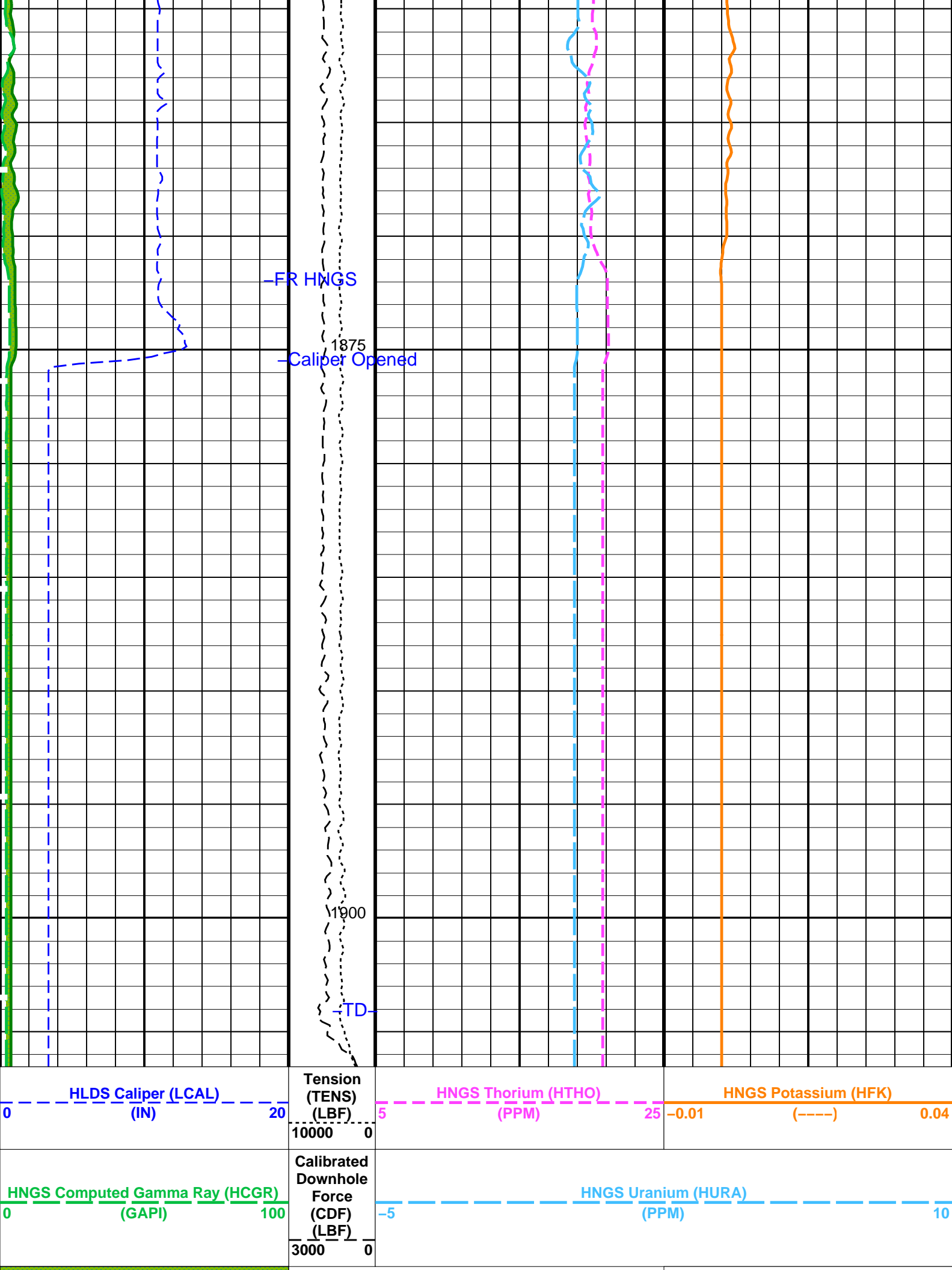
☒ Time Mark Every 60 S



| | | |
|--------------------------------|---------------------------|---------------------|
| HNGS Computed Gamma Ray (HCGR) | Calibrated Downhole Force | HNGS Uranium (HURA) |
|--------------------------------|---------------------------|---------------------|

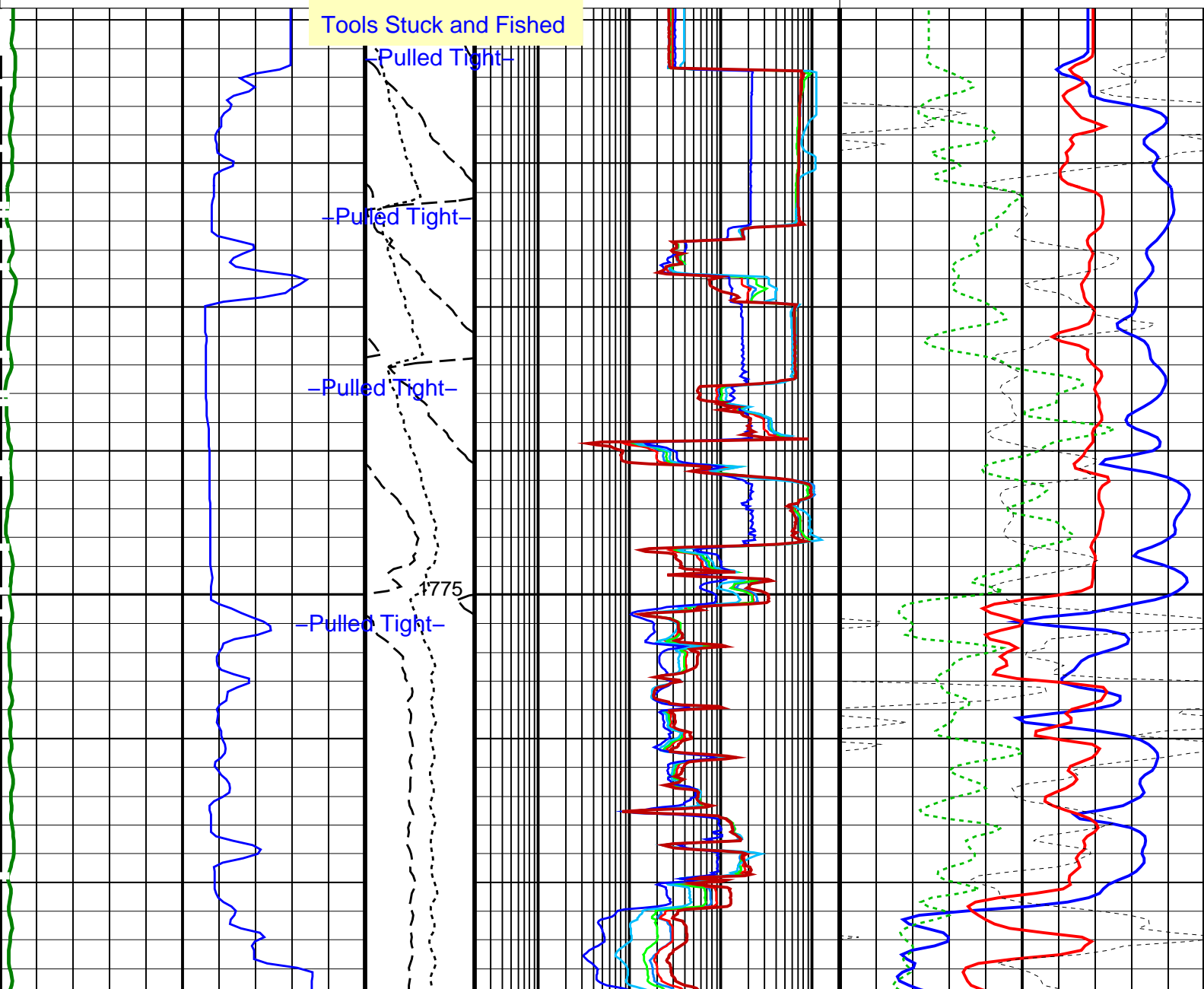


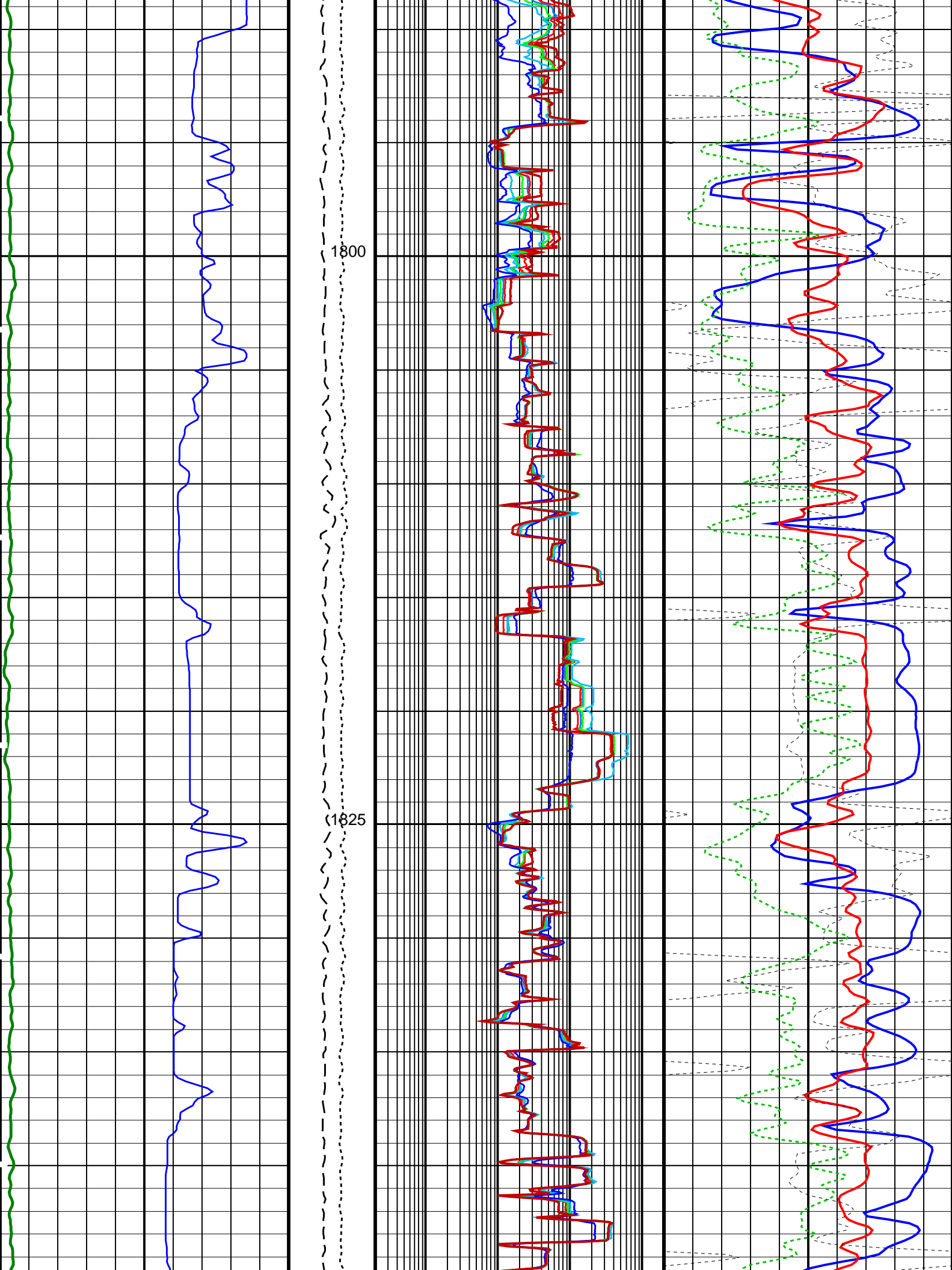


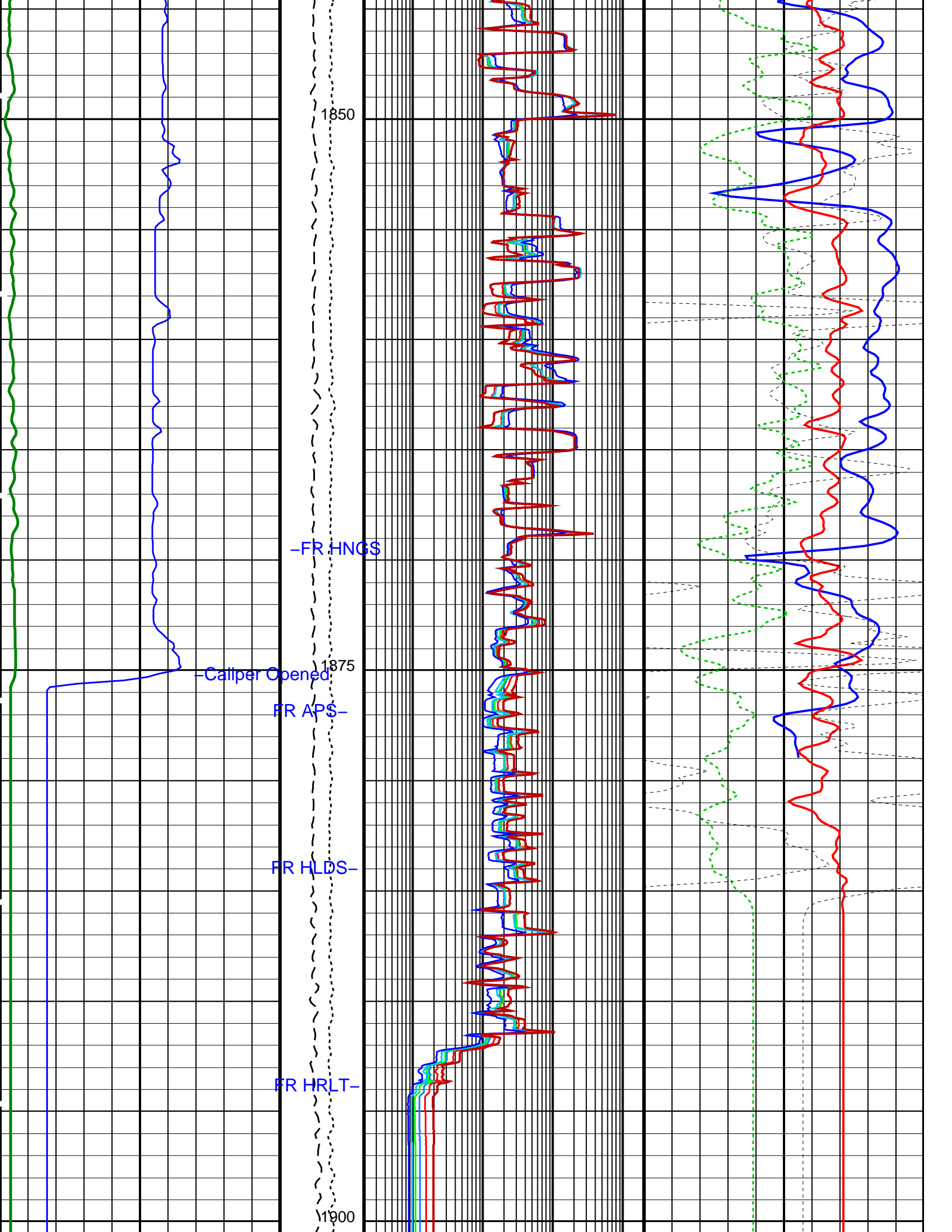


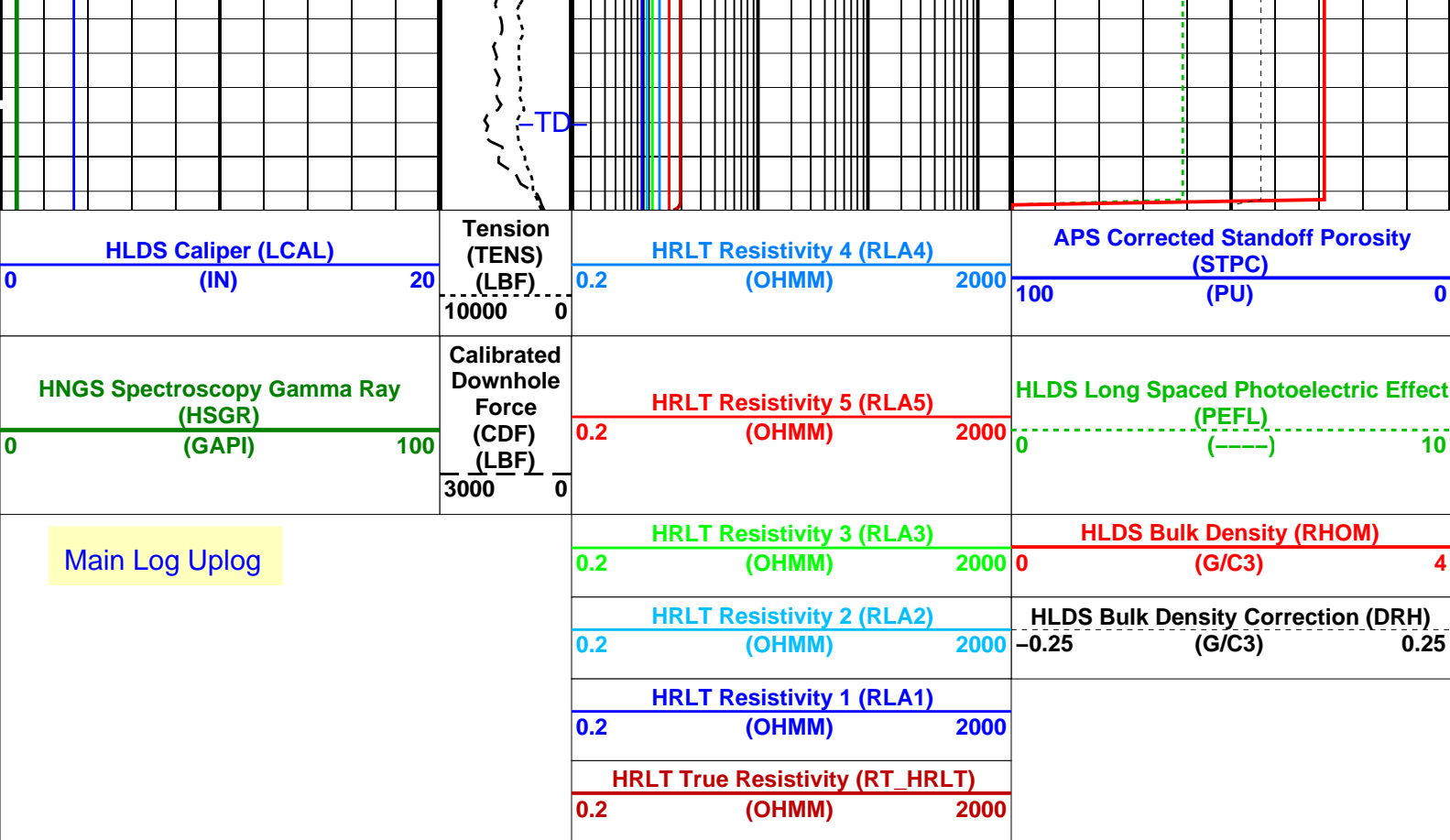
| | | | | | |
|---|--------------------------|--|----------|--|-------------------|
| Area1 From HCGR to HSGR | | Main Uplog | | HNGS Borehole Potassium (HBHK) -0.05 (-----) 0.05 | |
| HNGS Spectroscopy Gamma Ray (HSGR) | | | | | |
| 0 | (GAPI) | 100 | | | |
| PIP SUMMARY | | | | | |
| Time Mark Every 60 S | | | | | |
| Parameters | | | | | |
| DLIS Name | | Description | | Value | |
| HRLT-B: High Resolution Laterolog Array – B | | | | | |
| BHS | | Borehole Status | | OPEN | |
| GCSE | | Generalized Caliper Selection | | LCAL | |
| APS-C: Accelerator-Porosity Tool | | | | | |
| BHS | | Borehole Status | | OPEN | |
| GCSE | | Generalized Caliper Selection | | LCAL | |
| 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 | |
| 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 | |
| H1P | | HNGS Detector 1 Allow/Disallow In Processing | | ALLOW | |
| H2P | | HNGS Detector 2 Allow/Disallow In Processing | | ALLOW | |
| HABK | | HNGS Borehole Potassium Running Average | | -0.0015721 | |
| 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 | |
| TPOS | | Tool Position | | ECCE | |
| VBA1 | | HNGS Detector 1 Variable Barite Factor Running Average | | -2.02758 | |
| VBA2 | | HNGS Detector 2 Variable Barite Factor Running Average | | 0.644252 | |
| System and Miscellaneous | | | | | |
| BS | | Bit Size | | 9.875 | IN |
| DFD | | Drilling Fluid Density | | 1.02 | G/C3 |
| Format: HNGSYields | | Vertical Scale: 1:200 | | Graphics File Created: 22-Jun-2021 18:58 | |
| OP System Version: 19C0-187 | | | | | |
| MSS_LDEO-A | 19C0-187 | HRLT-B | 19C0-187 | | |
| HLDS | 19C0-187 | LDSC-B | 19C0-187 | | |
| APS-C | 19C0-187 | HNGC-B | 19C0-187 | | |
| HNGS-BA | 19C0-187 | DTC-H | 19C0-187 | | |
| Output DLIS Files | | | | | |
| DEFAULT | MSS_LDEO_HRLA_LDL_026LUP | FN:33 | PRODUCER | 22-Jun-2021 18:58 | |
| BACKKUP | MSS_LDEO_HRLA_LDL_026LUP | FN:34 | PRODUCER | 22-Jun-2021 18:58 | |
| Output DLIS Files | | | | | |
| DEFAULT | MSS_LDEO_HRLA_LDL_026LUP | FN:33 | PRODUCER | 22-Jun-2021 18:58 | 1906.5 M 1755.6 M |
| BACKKUP | MSS_LDEO_HRLA_LDL_026LUP | FN:34 | PRODUCER | 22-Jun-2021 18:58 | 1906.5 M 1755.6 M |
| OP System Version: 19C0-187 | | | | | |
| MSS_LDEO-A | 19C0-187 | HRLT-B | 19C0-187 | | |
| HLDS | 19C0-187 | LDSC-B | 19C0-187 | | |
| APS-C | 19C0-187 | HNGC-B | 19C0-187 | | |

| PIP SUMMARY | | | | | | |
|------------------------------------|--|---------------------------------------|---------------------------|------------------------------------|--|--|
| Time Mark Every 60 S | | | | | | |
| Main Log Uplog | | HRLT True Resistivity (RT_HRLT) | | | | |
| | | 0.2 (OHMM) 2000 | | | | |
| | | HRLT Resistivity 1 (RLA1) | | | | |
| | | 0.2 (OHMM) 2000 | | | | |
| | | HRLT Resistivity 2 (RLA2) | | HLDS Bulk Density Correction (DRH) | | |
| 0.2 (OHMM) 2000 | | -0.25 (G/C3) 0.25 | | | | |
| HRLT Resistivity 3 (RLA3) | | HLDS Bulk Density (RHOM) | | | | |
| 0.2 (OHMM) 2000 | | 0 (G/C3) 4 | | | | |
| HNGS Spectroscopy Gamma Ray (HSGR) | | Calibrated Downhole Force (CDF) (LBF) | HRLT Resistivity 5 (RLA5) | | HLDS Long Spaced Photoelectric Effect (PEFL) | |
| 0 (GAPI) 100 | | | 0.2 (OHMM) 2000 | | 0 (----) 10 | |
| | | 3000 0 | | | | |
| HLDS Caliper (LCAL) | | Tension (TENS) (LBF) | HRLT Resistivity 4 (RLA4) | | APS Corrected Standoff Porosity (STPC) | |
| 0 (IN) 20 | | | 0.2 (OHMM) 2000 | | 100 (PU) 0 | |
| | | 10000 0 | | | | |









PIP SUMMARY

Time Mark Every 60 S

Parameters

| DLIS Name | Description | Value |
|---|---|-----------------|
| HRLT-B: High Resolution Laterolog Array - B | | |
| BHS | Borehole Status | OPEN |
| BHT | Bottom Hole Temperature (used in calculations) | 25 DEGC |
| CALSTAT | HRLTB Calibration Status | SHALLOW_DONE |
| CALTEMP | HRLTB Calibration Temperature | 9.22677 DEGC |
| FREQ0 | HRLT Frequency Index for Mode 0 | 32 |
| FREQ1 | HRLT Frequency Index for Mode 1 | 128 |
| FREQ2 | HRLT Frequency Index for Mode 2 | 104 |
| FREQ3 | HRLT Frequency Index for Mode 3 | 86 |
| FREQ4 | HRLT Frequency Index for Mode 4 | 56 |
| FREQ5 | HRLT Frequency Index for Mode 5 | 44 |
| FREQ6 | HRLT Frequency Index for Mode 6 | 116 |
| GCSE | Generalized Caliper Selection | LCAL |
| GDEV | Average Angular Deviation of Borehole from Normal | 0 DEG |
| GGRD | Geothermal Gradient | 0.018227 DC/M |
| GRSE | Generalized Mud Resistivity Selection | CHART_GEN 9 |
| GTSE | Generalized Temperature Selection | LINEAR_ESTIMATE |
| ISSBAR | Barite Mud Switch | NOBARITE |
| KFAC_HRLT | HRLT K Factor Option | SONDE |
| LOOPCOEF_S | HRLT Loop Coefficient for Shallow Modes | LOW |
| LOOPMOD0 | HRLT Mode 0 Loop Mode | AUTO |
| LOOPMOD1 | HRLT Mode 1 Loop Mode | AUTO |
| LOOPMOD2 | HRLT Mode 2 Loop Mode | AUTO |
| LOOPMOD3 | HRLT Mode 3 Loop Mode | AUTO |
| LOOPMOD4 | HRLT Mode 4 Loop Mode | AUTO |
| LOOPMOD5 | HRLT Mode 5 Loop Mode | AUTO |
| LOOPMOD6 | HRLT Mode 6 Loop Mode | AUTO |
| MATR | Rock Matrix for Neutron Porosity Corrections | LIMESTONE |
| PROGINV | Inversion Selection | ON |
| PROCMFL | Inversion Micro-Resistivity Selection | NO_EXTERNAL_RXO |
| PROCMSO | Mechanical Standoff Fin Size | 0 IN |
| PROCRM | Processing Mud Resistivity Select | HRLT_Compute |
| PROCSPO | Sonde Position | Centered |
| SHT | Surface Hole Temperature | 20 DEGC |
| HLDS: Hostile Litho-Density Sonde | | |
| CLCL | HLDS LS Control Loop Controller Mode | AUTO_DEFAULT |
| CLCS | HLDS SS Control Loop Controller Mode | AUTO_DEFAULT |
| CLLS | HLDS Mode Loop Long Spacing | AUTO |
| CLSS | HLDS Mode Loop Short Spacing | AUTO |

| | | | |
|--|--|---------------------|------|
| DHC | Density Hole Correction | BS | |
| DPPM | Density Porosity Processing Mode | HIRS | |
| FD | Fluid Density | 1 | G/C3 |
| LATC | HLDS Activation Correction | OFF | |
| LLDL | HLDS LS Low Level Discriminator DAC | 14000 | |
| LLDS | HLDS SS Low Level Discriminator DAC | 14000 | |
| LLML | HLDS LS Low Level Discriminator Mode | AUTO | |
| LLMS | HLDS SS Low Level Discriminator Mode | AUTO | |
| MDEN | Matrix Density | 2.6 | G/C3 |
| PHVL | HLDS Long Spacing High Voltage Setting | 1000 | V |
| PHVS | HLDS Short Spacing High Voltage Setting | 1500 | V |
| PSDL | HLDS LS Pulse Shape Compensation DAC | 30000 | |
| PSDS | HLDS SS Pulse Shape Compensation DAC | 30000 | |
| PSML | HLDS LS Pulse Shape Compensation Mode | AUTO | |
| PSMS | HLDS SS Pulse Shape Compensation Mode | AUTO | |
| APS-C: Accelerator-Porosity Tool | | | |
| | APS Software Version | 5 | |
| AASD | APS Thermal and Array Detectors High Voltage Setting | 1976.24 | V |
| ADSO | APS Array Detectors Data Source Switch | Both | |
| AFSD | APS Far Detector High Voltage Setting | 2067.55 | V |
| AHCS | APS Holesize Correction Source | GCSE | |
| AHSS | APS Holesize Correction Switch | ON | |
| AMTY | APS Environmental Corrections Mud Type | WaterBaseBarite | |
| ANSD | APS Near Detector High Voltage Setting | 1737.8 | V |
| ASOS | APS Standoff Correction Switch | ON | |
| ATSS | APS Temperature-Pressure-Salinity Correction Switch | ON | |
| BHFL_APS | APS TNPH Borehole Fluid Type | WATER | |
| BHS | Borehole Status | OPEN | |
| BHT | Bottom Hole Temperature (used in calculations) | 25 | DEGC |
| BSCO_APS | APS TNPH Borehole Salinity Correction Option | NO | |
| DPPM | Density Porosity Processing Mode | HIRS | |
| DSCO_APS | APS TNPH Density Source Correction Option | MEASURED | |
| FSAL | Formation Salinity | -50000 | PPM |
| FSCO_APS | APS TNPH Formation Salinity Correction Option | NO | |
| GCSE | Generalized Caliper Selection | LCAL | |
| GDEV | Average Angular Deviation of Borehole from Normal | 0 | DEG |
| GGRD | Geothermal Gradient | 0.018227 | DC/M |
| GRSE | Generalized Mud Resistivity Selection | CHART_GEN 9 | |
| GTSE | Generalized Temperature Selection | LINEAR_ESTIMATE | |
| HSCO_APS | APS TNPH Hole Size Correction Option | YES | |
| ISSBAR | Barite Mud Switch | NOBARITE | |
| MATR | Rock Matrix for Neutron Porosity Corrections | LIMESTONE | |
| MCCO_APS | APS TNPH Mud Cake Correction Option | YES | |
| MCOR_APS | APS TNPH Mud Correction | NATU | |
| MWCO_APS | APS TNPH Mud Weight Correction Option | YES | |
| NARC | APS Near/Array Calibration Ratio | 1.08341 | |
| NFRC | APS Near/Far Calibration Ratio | 0.942369 | |
| PTCO_APS | APS TNPH Pressure/Temperature Correction Option | NO | |
| SHT | Surface Hole Temperature | 20 | DEGC |
| TNCO_APS | APS TNPH Computation Option | YES | |
| 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 |
| GRSE | Generalized Mud Resistivity Selection | CHART_GEN 9 | |
| 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 | -0.0015721 | |
| HALF | HNGS Alpha Filter Length | 60 | IN |
| HCRB | HNGS Apply Borehole Potassium Correction | NONE | |
| HMWM | Mud Weighting Material | NATU | |
| HNPE | HNGS Processing Enable | YES | |
| ISSBAR | Barite Mud Switch | NOBARITE | |
| MATR | Rock Matrix for Neutron Porosity Corrections | LIMESTONE | |
| 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 | -2.02758 | |
| VBA2 | HNGS Detector 2 Variable Barite Factor Running Average | 0.644252 | |
| System and Miscellaneous | | | |
| ALTDPC | Name of alternate depth channel | SpeedCorrectedDepth | |
| RS | Bit Size | 0.875 | IN |

| | | | |
|---------|--|-------------|------|
| BS | Bit Size | 3.875 | IN |
| BSAL | Borehole Salinity | 38000.00 | PPM |
| CSIZ | Current Casing Size | 5.500 | IN |
| CWEI | Casing Weight | 168.00 | LB/F |
| DFD | Drilling Fluid Density | 1.02 | G/C3 |
| FLEV | Fluid Level | -50000.00 | M |
| MST | Mud Sample Temperature | 23.00 | DEGC |
| PBVSADP | Use alternate depth channel for playback | NO | |
| RMFS | Resistivity of Mud Filtrate Sample | -50000.0000 | OHMM |
| RW | Resistivity of Connate Water | 1.0000 | OHMM |
| TD | Total Depth | 6069.55 | FT |
| TDD | Total Depth - Driller | 1911.00 | M |
| TDL | Total Depth - Logger | 1911.00 | M |
| TWS | Temperature of Connate Water Sample | 37.78 | DEGC |

Format: TripleCombo Vertical Scale: 1:200 Graphics File Created: 22-Jun-2021 18:58

OP System Version: 19C0-187

| | | | |
|------------|----------|--------|----------|
| MSS_LDEO-A | 19C0-187 | HRLT-B | 19C0-187 |
| HLDS | 19C0-187 | LDSC-B | 19C0-187 |
| APS-C | 19C0-187 | HNGC-B | 19C0-187 |
| HNGS-BA | 19C0-187 | DTC-H | 19C0-187 |

Output DLIS Files

| | | | | |
|---------|--------------------------|-------|----------|-------------------|
| DEFAULT | MSS_LDEO_HRLA_LDL_026LUP | FN:33 | PRODUCER | 22-Jun-2021 18:58 |
| BACKKUP | MSS_LDEO_HRLA_LDL_026LUP | FN:34 | PRODUCER | 22-Jun-2021 18:58 |

Calibration and Check Summary

| Measurement | Nominal | Master | Before | After | Change | Limit | Units |
|---|---------|--------|--------|-------|--------|-------|-------|
| High Resolution Laterolog Array - B Wellsite Calibration - HRLT M01 | | | | | | | |
| Before: 22-Jun-2021 16:32 | | | | | | | |
| HRLT M0-M1 Voltage Plus - 0 | 0 | N/A | -318.5 | N/A | N/A | 9.681 | UV |
| HRLT M0-M1 Voltage Plus - 1 | 0 | N/A | -329.5 | N/A | N/A | 9.681 | UV |
| HRLT M0-M1 Voltage Plus - 2 | 0 | N/A | -337.5 | N/A | N/A | 9.681 | UV |
| HRLT M0-M1 Voltage Plus - 3 | 0 | N/A | -328.0 | N/A | N/A | 9.681 | UV |
| HRLT M0-M1 Voltage Plus - 4 | 0 | N/A | -319.6 | N/A | N/A | 9.681 | UV |
| HRLT M0-M1 Voltage Plus - 5 | 0 | N/A | -321.4 | N/A | N/A | 9.681 | UV |
| HRLT M0-M1 Voltage Plus - 6 | 0 | N/A | 318.8 | N/A | N/A | 9.681 | UV |
| HRLT M0-M1 Voltage Plus - 7 | 0 | N/A | -322.7 | N/A | N/A | 9.681 | UV |
| High Resolution Laterolog Array - B Wellsite Calibration - HRLT M12 | | | | | | | |
| Before: 22-Jun-2021 16:32 | | | | | | | |
| HRLT M1-M2 Voltage Plus - 0 | 0 | N/A | 1738 | N/A | N/A | 53.42 | UV |
| HRLT M1-M2 Voltage Plus - 1 | 0 | N/A | 1805 | N/A | N/A | 53.42 | UV |
| HRLT M1-M2 Voltage Plus - 2 | 0 | N/A | 1842 | N/A | N/A | 53.42 | UV |
| HRLT M1-M2 Voltage Plus - 3 | 0 | N/A | 1788 | N/A | N/A | 53.42 | UV |
| HRLT M1-M2 Voltage Plus - 4 | 0 | N/A | 1741 | N/A | N/A | 53.42 | UV |
| HRLT M1-M2 Voltage Plus - 5 | 0 | N/A | 1752 | N/A | N/A | 53.42 | UV |
| HRLT M1-M2 Voltage Plus - 6 | 0 | N/A | -1755 | N/A | N/A | 53.42 | UV |
| HRLT M1-M2 Voltage Plus - 7 | 0 | N/A | 1781 | N/A | N/A | 53.42 | UV |
| High Resolution Laterolog Array - B Wellsite Calibration - HRLT M23 | | | | | | | |
| Before: 22-Jun-2021 16:32 | | | | | | | |
| HRLT M2-M3 Voltage Plus - 0 | 0 | N/A | 1731 | N/A | N/A | 53.42 | UV |
| HRLT M2-M3 Voltage Plus - 1 | 0 | N/A | 1808 | N/A | N/A | 53.42 | UV |
| HRLT M2-M3 Voltage Plus - 2 | 0 | N/A | 1846 | N/A | N/A | 53.42 | UV |
| HRLT M2-M3 Voltage Plus - 3 | 0 | N/A | 1797 | N/A | N/A | 53.42 | UV |
| HRLT M2-M3 Voltage Plus - 4 | 0 | N/A | 1744 | N/A | N/A | 53.42 | UV |
| HRLT M2-M3 Voltage Plus - 5 | 0 | N/A | 1756 | N/A | N/A | 53.42 | UV |
| HRLT M2-M3 Voltage Plus - 6 | 0 | N/A | -1747 | N/A | N/A | 53.42 | UV |
| HRLT M2-M3 Voltage Plus - 7 | 0 | N/A | 1781 | N/A | N/A | 53.42 | UV |
| High Resolution Laterolog Array - B Wellsite Calibration - HRLT V34 | | | | | | | |
| Before: 22-Jun-2021 16:32 | | | | | | | |
| HRLT A3-A4 Voltage Plus - 0 | 0 | N/A | 68590 | N/A | N/A | 2100 | UV |
| HRLT A3-A4 Voltage Plus - 1 | 0 | N/A | 71460 | N/A | N/A | 2100 | UV |
| HRLT A3-A4 Voltage Plus - 2 | 0 | N/A | 73310 | N/A | N/A | 2100 | UV |
| HRLT A3-A4 Voltage Plus - 3 | 0 | N/A | 71570 | N/A | N/A | 2100 | UV |
| HRLT A3-A4 Voltage Plus - 4 | 0 | N/A | 69410 | N/A | N/A | 2100 | UV |
| HRLT A3-A4 Voltage Plus - 5 | 0 | N/A | 69900 | N/A | N/A | 2100 | UV |
| HRLT A3-A4 Voltage Plus - 6 | 0 | N/A | 68220 | N/A | N/A | 2100 | UV |
| HRLT A3-A4 Voltage Plus - 7 | 0 | N/A | 68220 | N/A | N/A | 2100 | UV |

| | | | | | | | |
|---|---|-----|--------|-----|-----|------|----|
| HRLT A3-A4 Voltage Plus - 6 | 0 | N/A | -68090 | N/A | N/A | 2100 | UV |
| HRLT A3-A4 Voltage Plus - 7 | 0 | N/A | 70000 | N/A | N/A | 2100 | UV |
| High Resolution Laterolog Array - B Wellsite Calibration - HRLT V45 | | | | | | | |
| Before: 22-Jun-2021 16:32 | | | | | | | |
| HRLT A4-A5 Voltage Plus - 0 | 0 | N/A | 68670 | N/A | N/A | 2100 | UV |
| HRLT A4-A5 Voltage Plus - 1 | 0 | N/A | 71670 | N/A | N/A | 2100 | UV |
| HRLT A4-A5 Voltage Plus - 2 | 0 | N/A | 73490 | N/A | N/A | 2100 | UV |
| HRLT A4-A5 Voltage Plus - 3 | 0 | N/A | 71730 | N/A | N/A | 2100 | UV |
| HRLT A4-A5 Voltage Plus - 4 | 0 | N/A | 69530 | N/A | N/A | 2100 | UV |
| HRLT A4-A5 Voltage Plus - 5 | 0 | N/A | 70000 | N/A | N/A | 2100 | UV |
| HRLT A4-A5 Voltage Plus - 6 | 0 | N/A | -68300 | N/A | N/A | 2100 | UV |
| HRLT A4-A5 Voltage Plus - 7 | 0 | N/A | 70000 | N/A | N/A | 2100 | UV |

| | | | | | | | |
|---|---|-----|--------|-----|-----|------|----|
| High Resolution Laterolog Array - B Wellsite Calibration - HRLT V56 | | | | | | | |
| Before: 22-Jun-2021 16:32 | | | | | | | |
| HRLT A5-A6 Voltage Plus - 0 | 0 | N/A | 68510 | N/A | N/A | 2100 | UV |
| HRLT A5-A6 Voltage Plus - 1 | 0 | N/A | 71530 | N/A | N/A | 2100 | UV |
| HRLT A5-A6 Voltage Plus - 2 | 0 | N/A | 73320 | N/A | N/A | 2100 | UV |
| HRLT A5-A6 Voltage Plus - 3 | 0 | N/A | 71580 | N/A | N/A | 2100 | UV |
| HRLT A5-A6 Voltage Plus - 4 | 0 | N/A | 69390 | N/A | N/A | 2100 | UV |
| HRLT A5-A6 Voltage Plus - 5 | 0 | N/A | 69850 | N/A | N/A | 2100 | UV |
| HRLT A5-A6 Voltage Plus - 6 | 0 | N/A | -68140 | N/A | N/A | 2100 | UV |
| HRLT A5-A6 Voltage Plus - 7 | 0 | N/A | 70000 | N/A | N/A | 2100 | UV |

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|---|---|-----|--------|-----|-----|------|----|
| High Resolution Laterolog Array - B Wellsite Calibration - HRLT VTP | | | | | | | |
| Before: 22-Jun-2021 16:32 | | | | | | | |
| HRLT Torpedo-M0 Voltage - 0 | 0 | N/A | -68060 | N/A | N/A | 2100 | UV |
| HRLT Torpedo-M0 Voltage - 1 | 0 | N/A | -71330 | N/A | N/A | 2100 | UV |
| HRLT Torpedo-M0 Voltage - 2 | 0 | N/A | -73180 | N/A | N/A | 2100 | UV |
| HRLT Torpedo-M0 Voltage - 3 | 0 | N/A | -71500 | N/A | N/A | 2100 | UV |
| HRLT Torpedo-M0 Voltage - 4 | 0 | N/A | -69360 | N/A | N/A | 2100 | UV |
| HRLT Torpedo-M0 Voltage - 5 | 0 | N/A | -69830 | N/A | N/A | 2100 | UV |
| HRLT Torpedo-M0 Voltage - 6 | 0 | N/A | 67900 | N/A | N/A | 2100 | UV |
| HRLT Torpedo-M0 Voltage - 7 | 0 | N/A | -70000 | N/A | N/A | 2100 | UV |

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|---|---|-----|--------|-----|-----|------|----|
| High Resolution Laterolog Array - B Wellsite Calibration - HRLT VBD | | | | | | | |
| Before: 22-Jun-2021 16:32 | | | | | | | |
| HRLT Bridle#9-M0 Voltage - 0 | 0 | N/A | -68090 | N/A | N/A | 2100 | UV |
| HRLT Bridle#9-M0 Voltage - 1 | 0 | N/A | -71410 | N/A | N/A | 2100 | UV |
| HRLT Bridle#9-M0 Voltage - 2 | 0 | N/A | -73260 | N/A | N/A | 2100 | UV |
| HRLT Bridle#9-M0 Voltage - 3 | 0 | N/A | -71560 | N/A | N/A | 2100 | UV |
| HRLT Bridle#9-M0 Voltage - 4 | 0 | N/A | -69400 | N/A | N/A | 2100 | UV |
| HRLT Bridle#9-M0 Voltage - 5 | 0 | N/A | -69860 | N/A | N/A | 2100 | UV |
| HRLT Bridle#9-M0 Voltage - 6 | 0 | N/A | 67980 | N/A | N/A | 2100 | UV |
| HRLT Bridle#9-M0 Voltage - 7 | 0 | N/A | -70000 | N/A | N/A | 2100 | UV |

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|---|---|-----|-------|-----|-----|-------|----|
| High Resolution Laterolog Array - B Wellsite Calibration - HRLT ISO | | | | | | | |
| Before: 22-Jun-2021 16:32 | | | | | | | |
| HRLT Source Current Plus - 0 | 0 | N/A | 284.1 | N/A | N/A | 8.520 | UA |
| HRLT Source Current Plus - 1 | 0 | N/A | 281.1 | N/A | N/A | 8.520 | UA |
| HRLT Source Current Plus - 2 | 0 | N/A | 281.1 | N/A | N/A | 8.520 | UA |
| HRLT Source Current Plus - 3 | 0 | N/A | 281.1 | N/A | N/A | 8.520 | UA |
| HRLT Source Current Plus - 4 | 0 | N/A | 281.1 | N/A | N/A | 8.520 | UA |
| HRLT Source Current Plus - 5 | 0 | N/A | 281.1 | N/A | N/A | 8.520 | UA |
| HRLT Source Current Plus - 6 | 0 | N/A | 281.1 | N/A | N/A | 8.520 | UA |
| HRLT Source Current Plus - 7 | 0 | N/A | 281.1 | N/A | N/A | 8.520 | UA |









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|--|---|-----|--------|-----|-----|-------|----|
| High Resolution Laterolog Array - B Wellsite Calibration - HRLT MV | | | | | | | |
| Before: 22-Jun-2021 16:32 | | | | | | | |
| HRLT Vertical Voltage PI - 0 | 0 | N/A | -320.6 | N/A | N/A | 9.681 | UV |
| HRLT Vertical Voltage PI - 1 | 0 | N/A | -324.6 | N/A | N/A | 9.681 | UV |
| HRLT Vertical Voltage PI - 2 | 0 | N/A | -331.2 | N/A | N/A | 9.681 | UV |
| HRLT Vertical Voltage PI - 3 | 0 | N/A | -320.1 | N/A | N/A | 9.681 | UV |
| HRLT Vertical Voltage PI - 4 | 0 | N/A | -308.9 | N/A | N/A | 9.681 | UV |
| HRLT Vertical Voltage PI - 5 | 0 | N/A | -325.6 | N/A | N/A | 9.681 | UV |
| HRLT Vertical Voltage PI - 6 | 0 | N/A | 326.7 | N/A | N/A | 9.681 | UV |
| HRLT Vertical Voltage PI - 7 | 0 | N/A | -322.7 | N/A | N/A | 9.681 | UV |






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|---|-------|-------|-------|-----|-----|-------|-----|
| Hostile Litho-Density Sonde Wellsite Calibration - Background Measurement | | | | | | | |
| Master: 2-May-2021 7:20 Before: 13-Jun-2021 9:35 | | | | | | | |
| SS Cs Resolution Bkg | 9.000 | 7.698 | 7.636 | N/A | N/A | 1.800 | % |
| LS Cs Resolution Bkg | 9.000 | 7.989 | 8.009 | N/A | N/A | 1.800 | % |
| LSW1 Background | 100.0 | 71.96 | 69.84 | N/A | N/A | 3.000 | CPS |
| LSW2 Background | 100.0 | 65.02 | 62.91 | N/A | N/A | 3.000 | CPS |
| LSW3 Background | 200.0 | 146.1 | 144.3 | N/A | N/A | 6.000 | CPS |
| LSW4 Background | 250.0 | 183.2 | 181.3 | N/A | N/A | 7.500 | CPS |
| LSW5 Background | 600.0 | 424.9 | 423.4 | N/A | N/A | 18.00 | CPS |
| SSW1 Background | 100.0 | 68.97 | 68.69 | N/A | N/A | 3.000 | CPS |
| SSW2 Background | 200.0 | 118.2 | 119.0 | N/A | N/A | 6.000 | CPS |
| SSW3 Background | 500.0 | 331.3 | 330.7 | N/A | N/A | 15.00 | CPS |
| SSW4 Background | 270.0 | 178.4 | 176.8 | N/A | N/A | 8.100 | CPS |

| | | | | | | | |
|--|--------|--------|-------|-----|-----|-------|------|
| SSW5 Background | 200.0 | 127.4 | 128.1 | N/A | N/A | 6.000 | CPS |
| Hostile Litho–Density Sonde Wellsite Calibration – Aluminum Measurement | | | | | | | |
| Master: 2–May–2021 7:46 | | | | | | | |
| LSW1 Aluminum | 600.0 | 437.4 | N/A | N/A | N/A | N/A | CPS |
| LSW2 Aluminum | 900.0 | 651.2 | N/A | N/A | N/A | N/A | CPS |
| LSW3 Aluminum | 1100 | 787.2 | N/A | N/A | N/A | N/A | CPS |
| LSW4 Aluminum | 580.0 | 396.8 | N/A | N/A | N/A | N/A | CPS |
| LSW5 Aluminum | 570.0 | 364.1 | N/A | N/A | N/A | N/A | CPS |
| SSW1 Aluminum | 2800 | 2070 | N/A | N/A | N/A | N/A | CPS |
| SSW2 Aluminum | 8000 | 5832 | N/A | N/A | N/A | N/A | CPS |
| SSW3 Aluminum | 11600 | 8191 | N/A | N/A | N/A | N/A | CPS |
| SSW4 Aluminum | 5000 | 3322 | N/A | N/A | N/A | N/A | CPS |
| SSW5 Aluminum | 660.0 | 384.2 | N/A | N/A | N/A | N/A | CPS |
| Hostile Litho–Density Sonde Wellsite Calibration – Lithology Measurement | | | | | | | |
| Master: 2–May–2021 7:41 | | | | | | | |
| LSW1 Iron | 400.0 | 298.6 | N/A | N/A | N/A | N/A | CPS |
| LSW2 Iron | 730.0 | 524.2 | N/A | N/A | N/A | N/A | CPS |
| LSW3 Iron | 1000 | 699.6 | N/A | N/A | N/A | N/A | CPS |
| LSW4 Iron | 520.0 | 360.1 | N/A | N/A | N/A | N/A | CPS |
| LSW5 Iron | 470.0 | 333.9 | N/A | N/A | N/A | N/A | CPS |
| SSW1 Iron | 2100 | 1520 | N/A | N/A | N/A | N/A | CPS |
| SSW2 Iron | 6800 | 4870 | N/A | N/A | N/A | N/A | CPS |
| SSW3 Iron | 10800 | 7479 | N/A | N/A | N/A | N/A | CPS |
| SSW4 Iron | 4600 | 3030 | N/A | N/A | N/A | N/A | CPS |
| SSW5 Iron | 580.0 | 343.3 | N/A | N/A | N/A | N/A | CPS |
| Hostile Litho–Density Sonde Wellsite Calibration – Caliper Calibration | | | | | | | |
| Before: 2–May–2021 8:12 | | | | | | | |
| HLDS Caliper Small Ring | 12.00 | N/A | 16.10 | N/A | N/A | N/A | IN |
| HLDS Caliper Large Ring | 15.19 | N/A | 20.13 | N/A | N/A | N/A | IN |
| Accelerator–Porosity Tool Wellsite Calibration – Detector Background | | | | | | | |
| Master: 3–May–2021 6:13 Before: 22–Jun–2021 16:37 | | | | | | | |
| Near Det Bkg Cntrate | 30.00 | 25.16 | 25.43 | N/A | N/A | N/A | CPS |
| Far Det Bkg Cntrate | 30.00 | 24.05 | 23.68 | N/A | N/A | N/A | CPS |
| Array–1 Det Bkg Cntrate | 30.00 | 23.15 | 22.61 | N/A | N/A | N/A | CPS |
| Array–2 Det Bkg Cntrate | 30.00 | 23.93 | 23.16 | N/A | N/A | N/A | CPS |
| Array Therm Det Bkg Cntrate | 30.00 | 26.33 | 24.17 | N/A | N/A | N/A | CPS |
| Accelerator–Porosity Tool Wellsite Calibration – Calibration Ratios | | | | | | | |
| Master: 3–May–2021 6:15 | | | | | | | |
| Near/Far Calibration Ratio | 0.9250 | 0.9424 | N/A | N/A | N/A | N/A | |
| Near/Array Calibration Ratio | 1.030 | 1.083 | N/A | N/A | N/A | N/A | |
| Near/Array Cal Ratio Up/Down | 1.000 | 1.016 | N/A | N/A | N/A | N/A | |
| Accelerator–Porosity Tool Wellsite Calibration – Tank Check | | | | | | | |
| Master: 3–May–2021 6:16 | | | | | | | |
| Array–1 Standoff Porosity | 11.75 | 11.04 | N/A | N/A | N/A | N/A | PU |
| Array–2 Standoff Porosity | 11.75 | 10.88 | N/A | N/A | N/A | N/A | PU |
| Average Slowing Down Time | 6.000 | 5.997 | N/A | N/A | N/A | N/A | US |
| Array–1 SDT Ratio Up/Down | 1.000 | 0.9943 | N/A | N/A | N/A | N/A | |
| Array–2 SDT Ratio Up/Down | 1.000 | 0.9896 | N/A | N/A | N/A | N/A | |
| Sigma Formation | 27.50 | 27.71 | N/A | N/A | N/A | N/A | CU |
| Accelerator–Porosity Tool Wellsite Calibration – CCR7 signal boxes | | | | | | | |
| Master: 3–May–2021 5:26 | | | | | | | |
| Near Detector Plateau Setting | 1650 | 1738 | N/A | N/A | N/A | N/A | V |
| Far Detector Plateau Setting | 2000 | 2068 | N/A | N/A | N/A | N/A | V |
| Array Detector Plateau Setting | 2000 | 1976 | N/A | N/A | N/A | N/A | V |
| Hostile Natural Gamma Ray Sonde Wellsite Calibration – Detector 1 Check | | | | | | | |
| Master: 2–May–2021 10:04 Before: 13–Jun–2021 9:44 | | | | | | | |
| Na 511 Peak Loc | 40.00 | 39.25 | 39.64 | N/A | N/A | 1.000 | |
| Na 511 Peak Res | 15.50 | 16.53 | 14.84 | N/A | N/A | 2.000 | % |
| High Voltage | 1150 | 1197 | 1168 | N/A | N/A | N/A | V |
| Na 1785 Peak Loc | 142.6 | 141.8 | 143.3 | N/A | N/A | 7.000 | |
| Na 1785 Peak Res | 8.500 | 8.905 | 7.709 | N/A | N/A | 2.000 | % |
| Temperature | 15.50 | 26.59 | 11.69 | N/A | N/A | N/A | DEGC |
| Na Count Rate | 45.00 | 12.01 | 12.89 | N/A | N/A | 8.000 | CPS |
| Hostile Natural Gamma Ray Sonde Wellsite Calibration – Detector 2 Check | | | | | | | |
| Master: 2–May–2021 10:04 Before: 13–Jun–2021 9:44 | | | | | | | |
| Na 511 Peak Loc | 40.00 | 39.88 | 39.51 | N/A | N/A | 1.000 | |
| Na 511 Peak Res | 15.50 | 15.29 | 15.27 | N/A | N/A | 2.000 | % |
| High Voltage | 1150 | 1122 | 1090 | N/A | N/A | N/A | V |
| Na 1785 Peak Loc | 142.6 | 142.6 | 140.8 | N/A | N/A | 7.000 | |
| Na 1785 Peak Res | 8.500 | 8.040 | 9.507 | N/A | N/A | 2.000 | % |
| Temperature | 15.50 | 27.21 | 12.30 | N/A | N/A | N/A | DEGC |
| Na Count Rate | 45.00 | 12.32 | 13.60 | N/A | N/A | 8.000 | CPS |

| | | | | | | | |
|--|--------|--------|--------|-----|-----|---------|-----|
| Hostile Natural Gamma Ray Sonde Wellsite Calibration – Ratio Of Detector 1 To Detector 2 | | | | | | | |
| Master: 2–May–2021 10:04 Before: 13–Jun–2021 9:44 | | | | | | | |
| Coincidence Count Rate Ratio | 1.000 | 0.9728 | 0.9527 | N/A | N/A | 0.05000 | |
| Hostile Natural Gamma Ray Sonde Master Calibration – Detector 1 Calibration | | | | | | | |
| Master: 2–May–2021 10:00 | | | | | | | |
| Na 511 Peak Set Point | 40.00 | 41.00 | -- | -- | -- | -- | |
| Th Peak Loc | 209.6 | 209.6 | -- | -- | -- | -- | |
| Th Peak Res | 7.000 | 6.625 | -- | -- | -- | -- | % |
| Background Count Rate | 142.5 | 17.82 | -- | -- | -- | -- | CPS |
| Gain Ratio | 1.000 | 1.015 | -- | -- | -- | -- | |
| Hostile Natural Gamma Ray Sonde Master Calibration – Detector 2 Calibration | | | | | | | |
| Master: 2–May–2021 10:00 | | | | | | | |
| Na 511 Peak Set Point | 40.00 | 41.00 | -- | -- | -- | -- | |
| Th Peak Loc | 209.6 | 208.8 | -- | -- | -- | -- | |
| Th Peak Res | 7.000 | 7.662 | -- | -- | -- | -- | % |
| Background Count Rate | 142.5 | 16.78 | -- | -- | -- | -- | CPS |
| Gain Ratio | 1.000 | 0.9961 | -- | -- | -- | -- | |
| Accelerator–Porosity Tool – Detector Plateau Settings : | | | | | | | |
| Near Detector Plateau Setting | 1738 V | | | | | | |
| Far Detector Plateau Setting | 2068 V | | | | | | |
| Array Detector Plateau Setting | 1976 V | | | | | | |

| | | |
|--|----------|------|
| High Resolution Laterolog Array – B / Equipment Identification | | |
| Primary Equipment: | | |
| HRLT Sonde | HRLS – B | 768 |
| Auxiliary Equipment: | | |
| HRLT lower Housing | HRLH – B | 1869 |
| HRLT Lower Cartridge | HRLC – B | 1897 |
| HRLT upper Housing | HRUH – B | 975 |
| HRLT Upper Cartridge | HRUC – B | 964 |

| High Resolution Laterolog Array – B Wellsite Calibration | | | | | | |
|--|--------|---|--------|---------|---------|---------|
| HRLT M01 | | | | | | |
| Idx | Phase | HRLT M0–M1 Voltage Plus UV | Value | Nominal | Maximum | Minimum |
| 0 | Before |  | –318.5 | –322.7 | –280.7 | –379.7 |
| 1 | Before |  | –329.5 | –322.7 | –280.7 | –379.7 |
| 2 | Before |  | –337.5 | –322.7 | –280.7 | –379.7 |
| 3 | Before |  | –328.0 | –322.7 | –280.7 | –379.7 |
| 4 | Before |  | –319.6 | –322.7 | –280.7 | –379.7 |
| 5 | Before |  | –321.4 | –322.7 | –280.7 | –379.7 |
| 6 | Before |  | 318.8 | 322.7 | 379.7 | 280.7 |
| 7 | Before |  | –322.7 | –322.7 | –280.7 | –379.7 |
| | | (Minimum) (Nominal) (Maximum) | | | | |
| Before: 22–Jun–2021 16:32 | | | | | | |

| High Resolution Laterolog Array – B Wellsite Calibration | | | | | | |
|--|--------|---|-------|---------|---------|---------|
| HRLT M12 | | | | | | |
| Idx | Phase | HRLT M1–M2 Voltage Plus UV | Value | Nominal | Maximum | Minimum |
| 0 | Before |  | 1738 | 1781 | 2095 | 1549 |
| 1 | Before |  | 1805 | 1781 | 2095 | 1549 |
| 2 | Before |  | 1842 | 1781 | 2095 | 1549 |
| 3 | Before |  | 1788 | 1781 | 2095 | 1549 |
| 4 | Before |  | 1741 | 1781 | 2095 | 1549 |
| 5 | Before | | 1752 | 1781 | 2095 | 1549 |









| | | | | | | |
|---------------------------|--------|-------------------------------|-------|-------|-------|-------|
| Before | | | 1732 | 1781 | 2095 | 1549 |
| 6 | Before | | -1755 | -1781 | -1549 | -2095 |
| 7 | Before | | 1781 | 1781 | 2095 | 1549 |
| | | (Minimum) (Nominal) (Maximum) | | | | |
| Before: 22-Jun-2021 16:32 | | | | | | |









| High Resolution Laterolog Array – B Wellsite Calibration | | | | | | |
|--|--------|-------------------------------|-------|---------|---------|---------|
| HRLT M23 | | | | | | |
| Idx | Phase | HRLT M2-M3 Voltage Plus UV | Value | Nominal | Maximum | Minimum |
| 0 | Before | | 1731 | 1781 | 2095 | 1549 |
| 1 | Before | | 1808 | 1781 | 2095 | 1549 |
| 2 | Before | | 1846 | 1781 | 2095 | 1549 |
| 3 | Before | | 1797 | 1781 | 2095 | 1549 |
| 4 | Before | | 1744 | 1781 | 2095 | 1549 |
| 5 | Before | | 1756 | 1781 | 2095 | 1549 |
| 6 | Before | | -1747 | -1781 | -1549 | -2095 |
| 7 | Before | | 1781 | 1781 | 2095 | 1549 |
| | | (Minimum) (Nominal) (Maximum) | | | | |
| Before: 22-Jun-2021 16:32 | | | | | | |









| High Resolution Laterolog Array – B Wellsite Calibration | | | | | | |
|--|--------|-------------------------------|--------|---------|---------|---------|
| HRLT V34 | | | | | | |
| Idx | Phase | HRLT A3-A4 Voltage Plus UV | Value | Nominal | Maximum | Minimum |
| 0 | Before | | 68590 | 70000 | 82360 | 60900 |
| 1 | Before | | 71460 | 70000 | 82360 | 60900 |
| 2 | Before | | 73310 | 70000 | 82360 | 60900 |
| 3 | Before | | 71570 | 70000 | 82360 | 60900 |
| 4 | Before | | 69410 | 70000 | 82360 | 60900 |
| 5 | Before | | 69900 | 70000 | 82360 | 60900 |
| 6 | Before | | -68090 | -70000 | -60900 | -82360 |
| 7 | Before | | 70000 | 70000 | 82360 | 60900 |
| | | (Minimum) (Nominal) (Maximum) | | | | |
| Before: 22-Jun-2021 16:32 | | | | | | |








| High Resolution Laterolog Array – B Wellsite Calibration | | | | | | |
|--|--------|-------------------------------|--------|---------|---------|---------|
| HRLT V45 | | | | | | |
| Idx | Phase | HRLT A4-A5 Voltage Plus UV | Value | Nominal | Maximum | Minimum |
| 0 | Before | | 68670 | 70000 | 82360 | 60900 |
| 1 | Before | | 71670 | 70000 | 82360 | 60900 |
| 2 | Before | | 73490 | 70000 | 82360 | 60900 |
| 3 | Before | | 71730 | 70000 | 82360 | 60900 |
| 4 | Before | | 69530 | 70000 | 82360 | 60900 |
| 5 | Before | | 70000 | 70000 | 82360 | 60900 |
| 6 | Before | | -68300 | -70000 | -60900 | -82360 |
| 7 | Before | | 70000 | 70000 | 82360 | 60900 |
| | | (Minimum) (Nominal) (Maximum) | | | | |
| Before: 22-Jun-2021 16:32 | | | | | | |


| High Resolution Laterolog Array – B Wellsite Calibration | | | | | | |
|--|-------|----------------------------|-------|---------|---------|---------|
| HRLT V56 | | | | | | |
| Idx | Phase | HRLT A5-A6 Voltage Plus UV | Value | Nominal | Maximum | Minimum |

| | | | | | | |
|-------------------------------|--------|---|--------|--------|--------|--------|
| 0 | Before |  | 68510 | 70000 | 82360 | 60900 |
| 1 | Before |  | 71530 | 70000 | 82360 | 60900 |
| 2 | Before |  | 73320 | 70000 | 82360 | 60900 |
| 3 | Before |  | 71580 | 70000 | 82360 | 60900 |
| 4 | Before |  | 69390 | 70000 | 82360 | 60900 |
| 5 | Before |  | 69850 | 70000 | 82360 | 60900 |
| 6 | Before |  | -68140 | -70000 | -60900 | -82360 |
| 7 | Before |  | 70000 | 70000 | 82360 | 60900 |
| (Minimum) (Nominal) (Maximum) | | | | | | |
| Before: 22-Jun-2021 16:32 | | | | | | |









| High Resolution Laterolog Array – B Wellsite Calibration | | | | | | |
|--|--------|--|--------|---------|---------|---------|
| HRLT VTP | | | | | | |
| Idx | Phase | HRLT Torpedo-M0 Voltage Plus UV | Value | Nominal | Maximum | Minimum |
| 0 | Before |  | -68060 | -70000 | -60900 | -82360 |
| 1 | Before |  | -71330 | -70000 | -60900 | -82360 |
| 2 | Before |  | -73180 | -70000 | -60900 | -82360 |
| 3 | Before |  | -71500 | -70000 | -60900 | -82360 |
| 4 | Before |  | -69360 | -70000 | -60900 | -82360 |
| 5 | Before |  | -69830 | -70000 | -60900 | -82360 |
| 6 | Before |  | 67900 | 70000 | 82360 | 60900 |
| 7 | Before |  | -70000 | -70000 | -60900 | -82360 |
| (Minimum) (Nominal) (Maximum) | | | | | | |
| Before: 22-Jun-2021 16:32 | | | | | | |

| High Resolution Laterolog Array – B Wellsite Calibration | | | | | | |
|--|--------|---|--------|---------|---------|---------|
| HRLT VBD | | | | | | |
| Idx | Phase | HRLT Bridle#9-M0 Voltage Plus UV | Value | Nominal | Maximum | Minimum |
| 0 | Before |  | -68090 | -70000 | -60900 | -82360 |
| 1 | Before |  | -71410 | -70000 | -60900 | -82360 |
| 2 | Before |  | -73260 | -70000 | -60900 | -82360 |
| 3 | Before |  | -71560 | -70000 | -60900 | -82360 |
| 4 | Before |  | -69400 | -70000 | -60900 | -82360 |
| 5 | Before |  | -69860 | -70000 | -60900 | -82360 |
| 6 | Before |  | 67980 | 70000 | 82360 | 60900 |
| 7 | Before |  | -70000 | -70000 | -60900 | -82360 |
| (Minimum) (Nominal) (Maximum) | | | | | | |
| Before: 22-Jun-2021 16:32 | | | | | | |

| High Resolution Laterolog Array – B Wellsite Calibration | | | | | | |
|--|--------|---|-------|---------|---------|---------|
| HRLT ISO | | | | | | |
| Idx | Phase | HRLT Source Current Plus UA | Value | Nominal | Maximum | Minimum |
| 0 | Before |  | 284.1 | 284.0 | 334.1 | 247.0 |
| 1 | Before |  | 281.1 | 281.1 | 330.7 | 244.4 |
| 2 | Before |  | 281.1 | 281.1 | 330.7 | 244.4 |
| 3 | Before |  | 281.1 | 281.1 | 330.7 | 244.4 |
| 4 | Before |  | 281.1 | 281.1 | 330.7 | 244.4 |
| 5 | Before |  | 281.1 | 281.1 | 330.7 | 244.4 |
| 6 | Before |  | 281.1 | 281.1 | 330.7 | 244.4 |





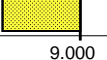





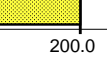
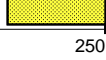



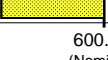
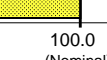
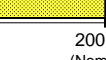



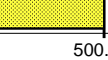

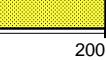
| | | | | | | |
|---|--------|--|-------|-------|-------|-------|
| 7 | Before |  | 281.1 | 281.1 | 330.7 | 244.4 |
| | | (Minimum) (Nominal) (Maximum) | | | | |

Before: 22-Jun-2021 16:32




| High Resolution Laterolog Array – B Wellsite Calibration | | | | | | |
|--|--------|---|--------|---------|---------|---------|
| HRLT MV | | | | | | |
| Idx | Phase | HRLT Vertical Voltage Plus UV | Value | Nominal | Maximum | Minimum |
| 0 | Before |  | -320.6 | -322.7 | -280.7 | -379.7 |
| 1 | Before |  | -324.6 | -322.7 | -280.7 | -379.7 |
| 2 | Before |  | -331.2 | -322.7 | -280.7 | -379.7 |
| 3 | Before |  | -320.1 | -322.7 | -280.7 | -379.7 |
| 4 | Before |  | -308.9 | -322.7 | -280.7 | -379.7 |
| 5 | Before |  | -325.6 | -322.7 | -280.7 | -379.7 |
| 6 | Before |  | 326.7 | 322.7 | 379.7 | 280.7 |
| 7 | Before |  | -322.7 | -322.7 | -280.7 | -379.7 |
| | | (Minimum) (Nominal) (Maximum) | | | | |

Before: 22-Jun-2021 16:32

| Hostile Litho-Density Sonde / Equipment Identification | | |
|--|----------|------|
| Primary Equipment: | | |
| Gamma Source Radioactive | GSR – ZA | 2945 |
| Hostile Litho Density Sonde | HLDS – D | 77 |
| Hostile Litho Density High Voltage | HLDV – D | 67 |
| Auxiliary Equipment: | | |
| Hostile Litho Density High Voltage Housi | HEH – H | 67 |
| Hostile Litho Density Pad | HLDP – C | 83 |

| 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 |  | 7.698 | Master |  | 7.989 | Master |  | 71.96 |
| Before |  | 7.636 | Before |  | 8.009 | Before |  | 69.84 |
| | 7.000 (Minimum) 9.000 (Nominal) 11.00 (Maximum) | | | 7.000 (Minimum) 9.000 (Nominal) 11.00 (Maximum) | | | 55.00 (Minimum) 100.0 (Nominal) 150.0 (Maximum) | |
| Phase | LSW2 Background CPS | Value | Phase | LSW3 Background CPS | Value | Phase | LSW4 Background CPS | Value |
| Master |  | 65.02 | Master |  | 146.1 | Master |  | 183.2 |
| Before |  | 62.91 | Before |  | 144.3 | Before |  | 181.3 |
| | 50.00 (Minimum) 100.0 (Nominal) 140.0 (Maximum) | | | 110.0 (Minimum) 200.0 (Nominal) 290.0 (Maximum) | | | 140.0 (Minimum) 250.0 (Nominal) 360.0 (Maximum) | |
| Phase | LSW5 Background CPS | Value | Phase | SSW1 Background CPS | Value | Phase | SSW2 Background CPS | Value |
| Master |  | 424.9 | Master |  | 68.97 | Master |  | 118.2 |
| Before |  | 423.4 | Before |  | 68.69 | Before |  | 119.0 |
| | 330.0 (Minimum) 600.0 (Nominal) 830.0 (Maximum) | | | 55.00 (Minimum) 100.0 (Nominal) 150.0 (Maximum) | | | 100.0 (Minimum) 200.0 (Nominal) 260.0 (Maximum) | |
| Phase | SSW3 Background CPS | Value | Phase | SSW4 Background CPS | Value | Phase | SSW5 Background CPS | Value |
| Master |  | 331.3 | Master |  | 178.4 | Master |  | 127.4 |
| Before |  | 330.7 | Before |  | 176.8 | Before |  | 128.1 |
| | 280.0 (Minimum) 500.0 (Nominal) 700.0 (Maximum) | | | 150.0 (Minimum) 270.0 (Nominal) 380.0 (Maximum) | | | 110.0 (Minimum) 200.0 (Nominal) 270.0 (Maximum) | |

Master: 2-May-2021 7:20 Before: 13-Jun-2021 9:35



| Hostile Litho-Density Sonde Master Calibration | | | | | | | | |
|--|---|-------|--------|---|-------|--------|---|-------|
| Detector Background Measurement | | | | | | | | |
| Phase | LSW1 Background CPS | Value | Phase | LSW2 Background CPS | Value | Phase | LSW3 Background CPS | Value |
| Master |  | 71.96 | Master |  | 65.02 | Master |  | 146.1 |

| | | | | | | | | |
|-------------------------|---------------------|--------------------|--------------------|---------------------|--------------------|--------------------|------------------------|--------------------|
| 55.00 (Minimum) | 100.0 (Nominal) | 150.0 (Maximum) | 50.00 (Minimum) | 100.0 (Nominal) | 140.0 (Maximum) | 110.0 (Minimum) | 200.0 (Nominal) | 290.0 (Maximum) |
| Phase | LSW4 Background CPS | Value | Phase | LSW5 Background CPS | Value | Phase | LS Cs Resolution Bkg % | Value |
| Master | | 183.2 | Master | | 424.9 | Master | | 7.989 |
| 140.0 (Minimum) | 250.0 (Nominal) | 360.0 (Maximum) | 330.0 (Minimum) | 600.0 (Nominal) | 830.0 (Maximum) | 7.000 (Minimum) | 9.000 (Nominal) | 11.00 (Maximum) |
| Phase | SSW1 Background CPS | Value | Phase | SSW2 Background CPS | Value | Phase | SSW3 Background CPS | Value |
| Master | | 68.97 | Master | | 118.2 | Master | | 331.3 |
| 55.00 (Minimum) | 100.0 (Nominal) | 150.0 (Maximum) | 100.0 (Minimum) | 200.0 (Nominal) | 260.0 (Maximum) | 280.0 (Minimum) | 500.0 (Nominal) | 700.0 (Maximum) |
| Phase | SSW4 Background CPS | Value | Phase | SSW5 Background CPS | Value | Phase | SS Cs Resolution Bkg % | Value |
| Master | | 178.4 | Master | | 127.4 | Master | | 7.698 |
| 150.0 (Minimum) | 270.0 (Nominal) | 380.0 (Maximum) | 110.0 (Minimum) | 200.0 (Nominal) | 270.0 (Maximum) | 7.000 (Minimum) | 9.000 (Nominal) | 11.00 (Maximum) |
| Master: 2-May-2021 7:20 | | | | | | | | |

| Hostile Litho–Density Sonde Master Calibration | | | | | | | | | | | |
|---|--------------------------|--------------------|--------------------|--|--------------------------|--------------------|--------------------|--------|--------------------------|-------------------|-------------------|
| Detector Aluminum Measurement (bkgd–subtracted) | | | | | | | | | | | |
| Phase | LSW1 Aluminum CPS | | Value | Phase | LSW2 Aluminum CPS | | Value | Phase | LSW3 Aluminum CPS | | Value |
| Master | | | 437.4 | Master | | | 651.2 | Master | <div>EXCEEDS LIMIT</div> | | 787.2 |
| | 420.0 (Minimum) | 600.0 (Nominal) | 770.0 (Maximum) | | 650.0 (Minimum) | 900.0 (Nominal) | 1150 (Maximum) | | 800.0 (Minimum) | 1100 (Nominal) | 1450 (Maximum) |
| Phase | LSW4 Aluminum CPS | | Value | Phase | LSW5 Aluminum CPS | | Value | Phase | SSW1 Aluminum CPS | | Value |
| Master | <div>EXCEEDS LIMIT</div> | | 396.8 | Master | <div>EXCEEDS LIMIT</div> | | 364.1 | Master | | | 2070 |
| | 410.0 (Minimum) | 580.0 (Nominal) | 740.0 (Maximum) | | 410.0 (Minimum) | 570.0 (Nominal) | 740.0 (Maximum) | | 2000 (Minimum) | 2800 (Nominal) | 3200 (Maximum) |
| Phase | SSW2 Aluminum CPS | | Value | Phase | SSW3 Aluminum CPS | | Value | Phase | SSW4 Aluminum CPS | | Value |
| Master | | | 5832 | Master | <div>EXCEEDS LIMIT</div> | | 8191 | Master | <div>EXCEEDS LIMIT</div> | | 3322 |
| | 5800 (Minimum) | 8000 (Nominal) | 9300 (Maximum) | | 8300 (Minimum) | 11600 (Nominal) | 13500 (Maximum) | | 3500 (Minimum) | 5000 (Nominal) | 5800 (Maximum) |
| Phase | SSW5 Aluminum CPS | | Value | HLDS Counts low due to weak source but density unaffected. | | | | | | | |
| Master | <div>EXCEEDS LIMIT</div> | | 384.2 | | | | | | | | |
| | 430.0 (Minimum) | 660.0 (Nominal) | 770.0 (Maximum) | | | | | | | | |
| Master: 2–May–2021 7:46 | | | | | | | | | | | |









| Hostile Litho-Density Sonde Master Calibration | | | | | | | | | | | |
|---|--------------------------|--------------------|--------------------|--|--------------------------|--------------------|--------------------|--------|--------------------------|-------------------|-------------------|
| Detector Litholog Measurement (bkgd-subtracted) | | | | | | | | | | | |
| Phase | LSW1 Iron CPS | | Value | Phase | LSW2 Iron CPS | | Value | Phase | LSW3 Iron CPS | | Value |
| Master | | | 298.6 | Master | | | 524.2 | Master | <div>EXCEEDS LIMIT</div> | | 699.6 |
| | 290.0 (Minimum) | 400.0 (Nominal) | 560.0 (Maximum) | | 520.0 (Minimum) | 730.0 (Nominal) | 950.0 (Maximum) | | 720.0 (Minimum) | 1000 (Nominal) | 1350 (Maximum) |
| Phase | LSW4 Iron CPS | | Value | Phase | LSW5 Iron CPS | | Value | Phase | SSW1 Iron CPS | | Value |
| Master | <div>EXCEEDS LIMIT</div> | | 360.1 | Master | <div>EXCEEDS LIMIT</div> | | 333.9 | Master | | | 1520 |
| | 370.0 (Minimum) | 520.0 (Nominal) | 700.0 (Maximum) | | 340.0 (Minimum) | 470.0 (Nominal) | 750.0 (Maximum) | | 1500 (Minimum) | 2100 (Nominal) | 2400 (Maximum) |
| Phase | SSW2 Iron CPS | | Value | Phase | SSW3 Iron CPS | | Value | Phase | SSW4 Iron CPS | | Value |
| Master | <div>EXCEEDS LIMIT</div> | | 4870 | Master | <div>EXCEEDS LIMIT</div> | | 7479 | Master | <div>EXCEEDS LIMIT</div> | | 3030 |
| | 4900 (Minimum) | 6800 (Nominal) | 7900 (Maximum) | | 7800 (Minimum) | 10800 (Nominal) | 12600 (Maximum) | | 3300 (Minimum) | 4600 (Nominal) | 5400 (Maximum) |
| Phase | SSW5 Iron CPS | | Value | HLDS Counts low due to weak source but density unaffected. | | | | | | | |
| Master | <div>EXCEEDS LIMIT</div> | | 343.3 | | | | | | | | |
| | 420.0 (Minimum) | 580.0 (Nominal) | 680.0 (Maximum) | | | | | | | | |
| Master: 2-May-2021 7:41 | | | | | | | | | | | |





| | | | | | | | | |
|--|------------------------|--------------------|--------------------|------------------------|--------------------|---------------------|------------------------|---------------------|
| Hostile Litho-Density Sonde Master Calibration | | | | | | | | |
| Quality Ratios | | | | | | | | |
| Phase | AL CALIBRATION RATIO 1 | Value | Phase | AL CALIBRATION RATIO 2 | Value | Phase | AL CALIBRATION RATIO 3 | Value |
| Master | | 1.035 | Master | | 2.210 | Master | | 0.5748 |
| 0.9000 (Minimum) | 1.000 (Nominal) | 1.100 (Maximum) | 1.900 (Minimum) | 2.100 (Nominal) | 2.300 (Maximum) | 0.4500 (Minimum) | 0.5500 (Nominal) | 0.6500 (Maximum) |
| Phase | AL CALIBRATION RATIO 4 | Value | Phase | Pad-Wear SS Ratio | Value | Phase | Pad-Wear LS Ratio | Value |
| Master | | 0.5585 | Master | | 0.9916 | Master | | 0.9894 |







| | | | | | | | | |
|-------------------------|--|---------------------|---------------------|---------------------|--|---------------------|---------------------|---------------------|
| 0.4000 (Minimum) | 0.5500 (Nominal) | 0.6500 (Maximum) | 0.9800 (Minimum) | 0.9880 (Nominal) | 0.9960 (Maximum) | 0.9800 (Minimum) | 0.9880 (Nominal) | 0.9960 (Maximum) |
| Phase | Pad-Position SS Ratio | | Value | Phase | Pad-Position LS Ratio | | Value | |
| Master |  | | 1.006 | Master |  | | 0.9871 | |
| 0.9900 (Minimum) | 0.9940 (Nominal) | 1.015 (Maximum) | | 0.9850 (Minimum) | 0.9940 (Nominal) | 1.010 (Maximum) | | |
| Master: 2-May-2021 7:36 | | | | | | | | |





| | | |
|---|----------|-----|
| Litho-Density Spectroscopy Cartridge – B / Equipment Identification | | |
| Primary Equipment: LDSC Cartridge | LDSC – B | 521 |
| Auxiliary Equipment: LDSC Housing | LDSH – A | 319 |

| | | |
|--|------------------------------------|---------------|
| Accelerator-Porosity Tool / Equipment Identification | | |
| Primary Equipment: Accelerator-Porosity Sonde APS Minitron | APS – C MNTR – F | 249 51002 |
| Auxiliary Equipment: Accelerator-Porosity Housing APS Calibration Water Tank APS Aluminum Calibrator Sleeve | APH – AC SFT – 178 SFT – 281 | 152 1 1 |







| | | | | |
|--|---|--------------------|---------------------------|---|
| Accelerator-Porosity Tool Wellsite Calibration | | | | |
| Detector Background | | | | |
| Phase | Near Det Bkg Cntrate CPS | Value | Phase | Far Det Bkg Cntrate CPS |
| Master |  | 25.16 | Master |  |
| Before |  | 25.43 | Before |  |
| 1.000 (Minimum) | 30.00 (Nominal) | 50.00 (Maximum) | 1.000 (Minimum) | 30.00 (Nominal) |
| Phase | Array-2 Det Bkg Cntrate CPS | Value | Phase | Array Therm Det Bkg Cntrate CPS |
| Master |  | 23.93 | Master |  |
| Before |  | 23.16 | Before |  |
| 1.000 (Minimum) | 30.00 (Nominal) | 50.00 (Maximum) | 1.000 (Minimum) | 30.00 (Nominal) |
| Master: 3-May-2021 6:13 | | | Before: 22-Jun-2021 16:37 | |

| | | | | |
|--|---|--------------------|---------------------|---|
| Accelerator-Porosity Tool Wellsite Calibration | | | | |
| Calibration Ratios | | | | |
| Phase | Near/Far Calibration Ratio | Value | Phase | Near/Array Calibration Ratio |
| Master |  | 0.9424 | Master |  |
| 0.8000 (Minimum) | 0.9250 (Nominal) | 1.050 (Maximum) | 0.9000 (Minimum) | 1.030 (Nominal) |
| Phase | Near/Array Cal Ratio Up/Down | Value | Phase | Near/Array Cal Ratio Up/Down |
| Master |  | 1.016 | Master |  |
| 0.9700 (Minimum) | 1.000 (Nominal) | 1.030 (Maximum) | | |
| Master: 3-May-2021 6:15 | | | | |

| | | | | |
|--|---|--------------------|---------------------|---|
| Accelerator-Porosity Tool Wellsite Calibration | | | | |
| Tank Check | | | | |
| Phase | Array-1 Standoff Porosity PU | Value | Phase | Array-2 Standoff Porosity PU |
| Master |  | 11.04 | Master |  |
| 9.900 (Minimum) | 11.75 (Nominal) | 13.60 (Maximum) | 9.900 (Minimum) | 11.75 (Nominal) |
| Phase | Array-1 SDT Ratio Up/Down | Value | Phase | Array-2 SDT Ratio Up/Down |
| Master |  | 0.9943 | Master |  |
| 0.9500 (Minimum) | 1.000 (Nominal) | 1.050 (Maximum) | 0.9500 (Minimum) | 1.000 (Nominal) |
| Phase | Sigma Formation CU | Value | Phase | Sigma Formation CU |
| Master |  | 27.71 | Master |  |
| 20.00 (Minimum) | 27.50 (Nominal) | 35.00 (Maximum) | | |
| Master: 3-May-2021 6:16 | | | | |

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|--|---|--------------------|---------------------|---|
| Accelerator-Porosity Tool Master Calibration | | | | |
| Detector Calibration | | | | |
| Phase | Near/Far Calibration Ratio | Value | Phase | Near/Array Calibration Ratio |
| Master |  | 0.9424 | Master |  |
| 0.8000 (Minimum) | 0.9250 (Nominal) | 1.050 (Maximum) | 0.9000 (Minimum) | 1.030 (Nominal) |
| Phase | Near/Array Cal Ratio Up/Down | Value | Phase | Near/Array Cal Ratio Up/Down |
| Master |  | 1.016 | Master |  |
| 0.9700 (Minimum) | 1.000 (Nominal) | 1.030 (Maximum) | | |

| Value | Minimum | Nominal | Maximum | Value | Minimum | Nominal | Maximum | Value | Minimum | Nominal | Maximum |
|-------------------------|---------|---------|---------------------|---------------------|---------|---------|--------------------|---------------------|---------|---------|--------------------|
| Master | | 0.9424 | Master | | 1.083 | Master | | 1.016 | | | |
| 0.8000 (Minimum) | | | 0.9250 (Nominal) | 0.9000 (Minimum) | | | 1.030 (Nominal) | 0.9700 (Minimum) | | | 1.030 (Maximum) |
| Master: 3-May-2021 6:15 | | | | | | | | | | | |









| Accelerator-Porosity Tool Master 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 |  | | | 11.04 | Master |  | | | 10.88 | Master |  | | | 5.997 |
| 9.900 (Minimum) 11.75 (Nominal) 13.60 (Maximum) | | | | | 9.900 (Minimum) 11.75 (Nominal) 13.60 (Maximum) | | | | | 5.500 (Minimum) 6.000 (Nominal) 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 |  | | | 0.9943 | Master |  | | | 0.9896 | Master |  | | | 27.71 |
| 0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum) | | | | | 0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum) | | | | | 20.00 (Minimum) 27.50 (Nominal) 35.00 (Maximum) | | | | |
| Master: 3-May-2021 6:16 | | | | | | | | | | | | | | |



| Hostile Natural Gamma Ray Cartridge – B / Equipment Identification | | |
|--|----------|-----|
| Primary Equipment: HNGC Cartridge | HNGC – B | 304 |
| Auxiliary Equipment: HNGC Housing | HNGH – A | 3 |

| Hostile Natural Gamma Ray Sonde / Equipment Identification | | |
|--|-----------|------|
| Primary Equipment: HNGS Sonde | HNGS – BA | 99 |
| Auxiliary Equipment: HNGS Sonde Housing | HNSH – BA | 102 |
| Gamma Source Radioactive | GSR – U | 6098 |

| 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 | <div><div></div></div> | | 39.25 | Master | <div><div></div></div> | | 16.53 | Master | <div><div></div></div> | | 1197 |
| Before | <div><div></div></div> | | 39.64 | Before | <div><div></div></div> | | 14.84 | Before | <div><div></div></div> | | 1168 |
| 37.50 (Minimum) | | | 40.00 (Nominal) | 12.00 (Minimum) | | | 15.50 (Nominal) | 900.0 (Minimum) | | | 1600 (Maximum) |
| 43.50 (Maximum) | | | | 19.00 (Maximum) | | | | 1150 (Nominal) | | | |
| Phase | Na 1785 Peak Loc | | Value | Phase | Na 1785 Peak Res % | | Value | Phase | Temperature DEGC | | Value |
| Master | <div><div></div></div> | | 141.8 | Master | <div><div></div></div> | | 8.905 | Master | <div><div></div></div> | | 26.59 |
| Before | <div><div></div></div> | | 143.3 | Before | <div><div></div></div> | | 7.709 | Before | <div><div></div></div> | | 11.69 |
| 135.0 (Minimum) | | | 142.6 (Nominal) | 7.000 (Minimum) | | | 8.500 (Nominal) | -28.89 (Minimum) | | | 60.00 (Maximum) |
| 150.3 (Maximum) | | | | 11.00 (Maximum) | | | | 15.50 (Nominal) | | | |
| Phase | Na Count Rate CPS | | Value | | | | | | | | |
| Master | <div><div></div></div> | | 12.01 | | | | | | | | |
| Before | <div><div></div></div> | | 12.89 | | | | | | | | |
| 10.00 (Minimum) | | | 45.00 (Nominal) | | | | | | | | |
| Master: 2-May-2021 10:04 Before: 13-Jun-2021 9:44 | | | | | | | | | | | |

| 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 | | | 39.88 | Master | | | 15.29 | Master | | | 1122 |
| Before | | | 39.51 | Before | | | 15.27 | Before | | | 1090 |
| 37.50 (Minimum) | | | 40.00 (Nominal) | 12.00 (Minimum) | | | 15.50 (Nominal) | 900.0 (Minimum) | | | 1600 (Maximum) |
| | | | 43.50 (Maximum) | | | | 19.00 (Maximum) | | | | |
| Phase | Na 1785 Peak Loc | | Value | Phase | Na 1785 Peak Res % | | Value | Phase | Temperature DEGC | | Value |
| Master | | | 26.59 | Master | | | 8.905 | Master | | | 26.59 |
| Before | | | 11.69 | Before | | | 7.709 | Before | | | 11.69 |
| -28.89 (Minimum) | | | 15.50 (Nominal) | 7.000 (Minimum) | | | 8.500 (Nominal) | -28.89 (Minimum) | | | 60.00 (Maximum) |

| | | | | | | | | |
|--------------------------|--|--------------------|--------------------------|---|--------------------|---------------------|---|--------------------|
| Master |  | 142.6 | Master |  | 8.040 | Master |  | 27.21 |
| Before |  | 140.8 | Before |  | 9.507 | Before |  | 12.30 |
| 135.0 (Minimum) | 142.6 (Nominal) | 150.3 (Maximum) | 7.000 (Minimum) | 8.500 (Nominal) | 11.00 (Maximum) | -28.89 (Minimum) | 15.50 (Nominal) | 60.00 (Maximum) |
| Phase | Na Count Rate CPS | | Value | | | | | |
| Master |  | | 12.32 | | | | | |
| Before |  | | 13.60 | | | | | |
| 10.00 (Minimum) | 45.00 (Nominal) | 100.0 (Maximum) | | | | | | |
| Master: 2-May-2021 10:04 | | | Before: 13-Jun-2021 9:44 | | | | | |

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|--|---|--------------------|
| Hostile Natural Gamma Ray Sonde Wellsite Calibration | | |
| Ratio Of Detector 1 To Detector 2 | | |
| Phase | Coincidence Count Rate Ratio | Value |
| Master |  | 0.9728 |
| Before |  | 0.9527 |
| 0.9500 (Minimum) | 1.000 (Nominal) | 1.050 (Maximum) |
| Master: 2-May-2021 10:04 | | |
| Before: 13-Jun-2021 9:44 | | |

| Hostile Natural Gamma Ray Sonde Master Calibration | | | | | | | | | | | | |
|--|---------------------------|--|--------------------|---------------------|------------------------|--|--------------------|--------------------|------------------------|--|--------------------|--------------------|
| Detector 1 Calibration | | | | | | | | | | | | |
| Phase | Na 511 Peak Set Point | | Value | Phase | Th Peak Loc | | Value | Phase | Th Peak Res % | | Value | |
| Master | <div><div></div></div> | | 41.00 | Master | <div><div></div></div> | | 209.6 | Master | <div><div></div></div> | | 6.625 | |
| 38.00 (Minimum) | | | 40.00 (Nominal) | 201.0 (Minimum) | | | 209.6 (Nominal) | 5.000 (Minimum) | | | 7.000 (Nominal) | 9.000 (Maximum) |
| Phase | Background Count Rate CPS | | Value | Phase | Gain Ratio | | Value | | | | | |
| Master | <div><div></div></div> | | 17.82 | Master | <div><div></div></div> | | 1.015 | | | | | |
| 10.00 (Minimum) | | | 142.5 (Nominal) | 0.9400 (Minimum) | | | 1.000 (Nominal) | | | | | |
| Master: 2-May-2021 10:00 | | | | | | | | | | | | |

| Hostile Natural Gamma Ray Sonde Master Calibration | | | | | | | | | | | | |
|--|---------------------------|--|--------------------|---------------------|------------------------|--|--------------------|--------------------|------------------------|--|--------------------|--------------------|
| Detector 2 Calibration | | | | | | | | | | | | |
| Phase | Na 511 Peak Set Point | | Value | Phase | Th Peak Loc | | Value | Phase | Th Peak Res % | | Value | |
| Master | <div><div></div></div> | | 41.00 | Master | <div><div></div></div> | | 208.8 | Master | <div><div></div></div> | | 7.662 | |
| 38.00 (Minimum) | | | 40.00 (Nominal) | 201.0 (Minimum) | | | 209.6 (Nominal) | 5.000 (Minimum) | | | 7.000 (Nominal) | 9.000 (Maximum) |
| 43.00 (Maximum) | | | | 218.3 (Maximum) | | | | | | | | |
| Phase | Background Count Rate CPS | | Value | Phase | Gain Ratio | | Value | | | | | |
| Master | <div><div></div></div> | | 16.78 | Master | <div><div></div></div> | | 0.9961 | | | | | |
| 10.00 (Minimum) | | | 142.5 (Nominal) | 0.9400 (Minimum) | | | 1.000 (Nominal) | | | | | |
| 265.0 (Maximum) | | | | 1.060 (Maximum) | | | | | | | | |
| Master: 2-May-2021 10:00 | | | | | | | | | | | | |

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|---|----------|------|
| DTS Telemetry Tool / Equipment Identification | | |
| Primary Equipment: | | |
| DTC-H Auxiliary Cartridge | DTCH – A | 8799 |
| DTC-H Telemetry Cartridge | DTCH – A | 8799 |
| Auxiliary Equipment: | | |
| DTCH Telemetry Cartridge Housing | ECH – KC | 9842 |

Well: **Expedition 395C, Site U1555I**
Field: **North Atlantic Mantle Convection&Climate**
Rig: **JOIDES Resolution**
Ocean: **Atlantic**

High Resolution Laterolog (HRLA)
Litho Density (HLDS) / (APS) Porosity
Natural Gamma / MSS (HNGS)