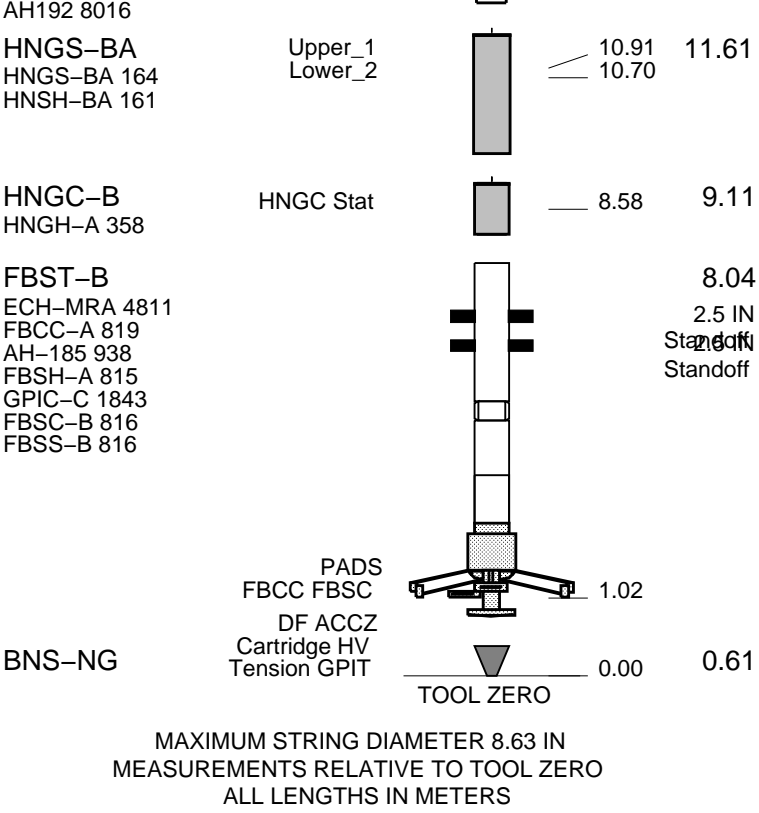


Repeat section was taken from 2900.0m – 2850.0m as per client request.

EMC-B 8027
FCH-KH 8028

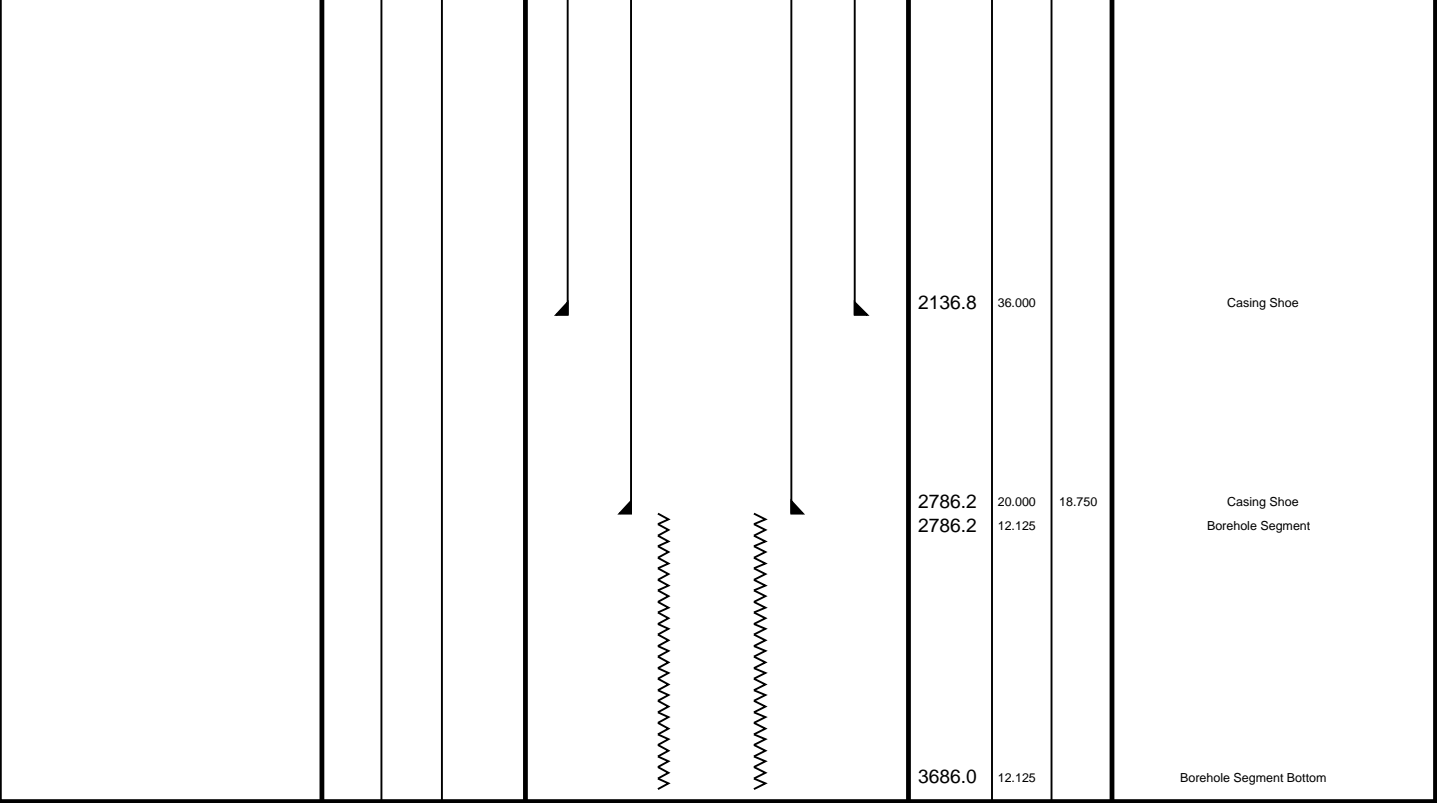


Client: CDEX
 Well: C0009A
 Field: Nankai Trough
 State: Wakayama
 Country: JAPAN

Rig Name: Chikyu
 Reference Datum: Mean Sea Level
 Elevation: 28.3 m

Drawing Date: 7/11/2009

| Production String | (in) | | | Well Schematic | (m) | | | Casing String |
|---|------|----|------|----------------|--------|--------|----|---------------|
| | OD | ID | MD | | MD | OD | ID | |
| Derrick Floor Elevation Mean Sea Level | | | 28.3 | | | | | Casing String |
| | | | 0.0 | | 2082.3 | 36.000 | | |



Main Log
1:200

MAXIS Field Log

Company: CDEX Well: C0009A

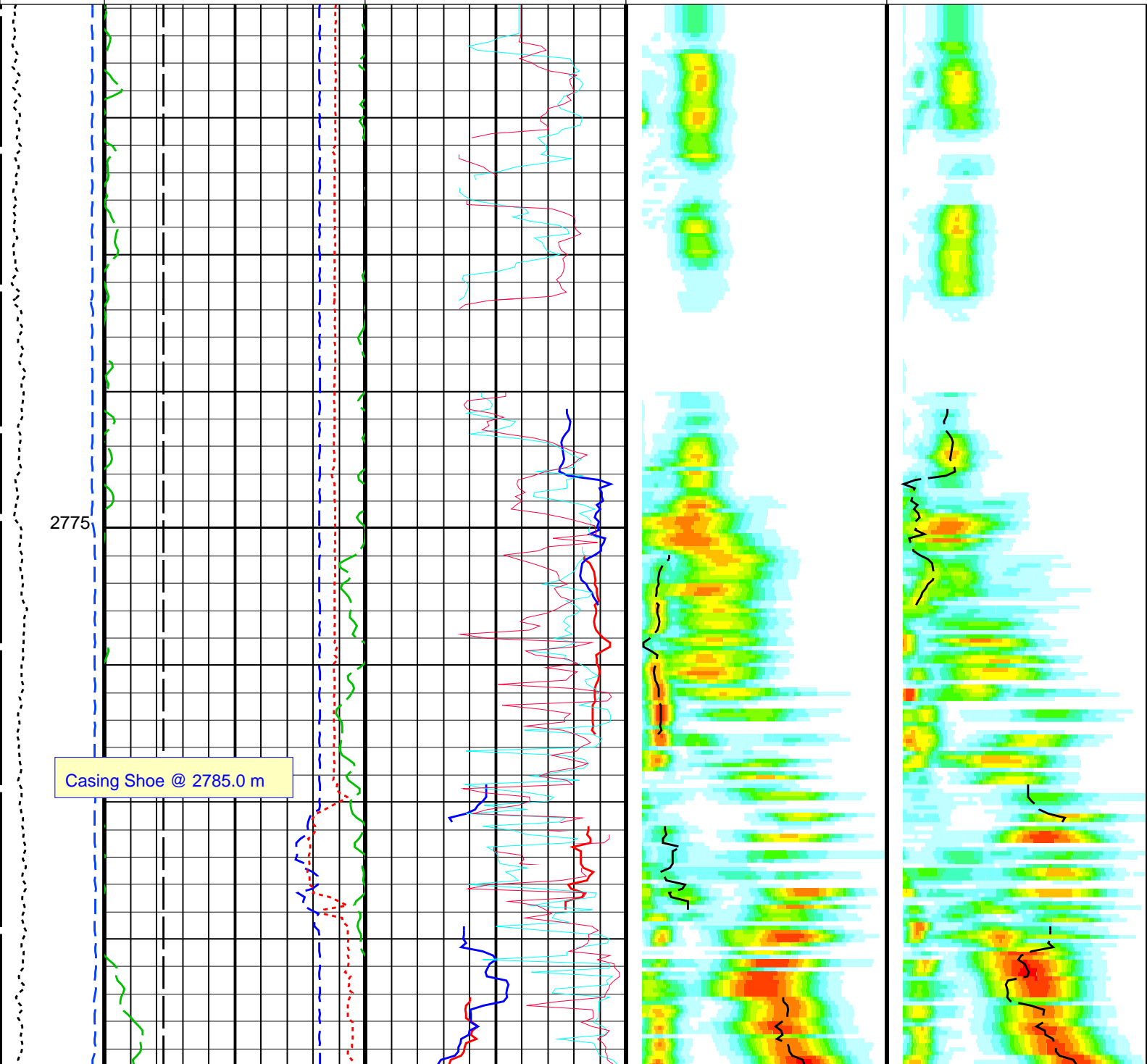
| Input DLIS Files | | | | | | |
|-------------------|--------------------------|--------|----------|-------------------|----------|----------|
| DEFAULT | FMI_NGS_EMS_MAXS_038LUP | FN:114 | PRODUCER | 13-Jul-2009 17:16 | 3659.9 M | 2752.6 M |
| Output DLIS Files | | | | | | |
| DEFAULT | FMI_EMS_MAXS_MAPC_012PUP | FN:42 | PRODUCER | 10-Aug-2009 18:37 | 3662.2 M | 2755.8 M |
| CLIENT | FMI_EMS_MAXS_MAPC_012PUC | FN:43 | CUSTOMER | 10-Aug-2009 18:37 | 3662.2 M | 2755.8 M |

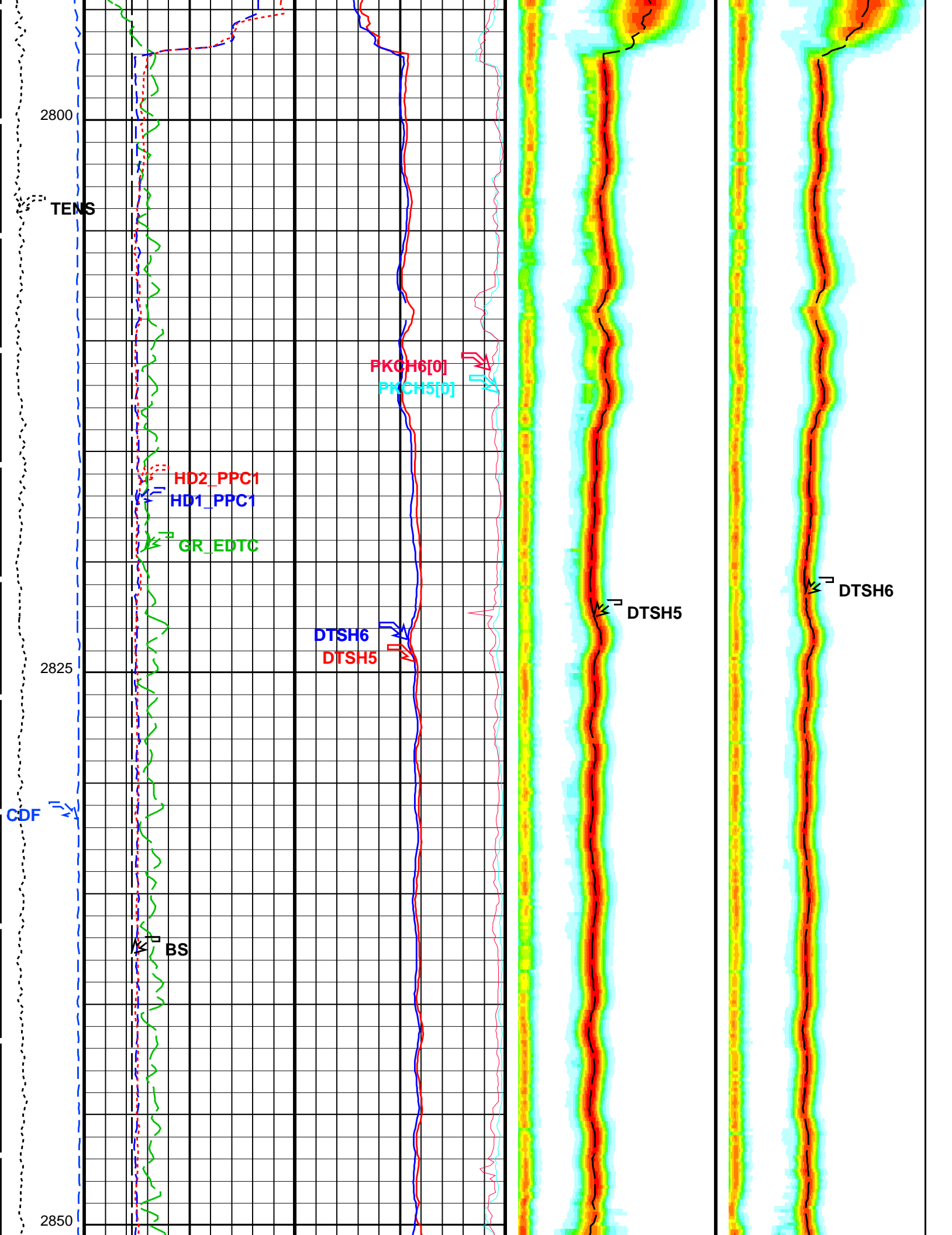
| OP System Version: 17C0-154 | | | |
|-----------------------------|---------------|--------|---------------|
| FBST-B | 17C0-154 | EMS-B | 17C0-154 |
| MAXS-B | SKK-3704-MAST | MAPC-B | SKK-3704-MAST |
| PPC1-B | 17C0-154 | EDTC-B | 17C0-154 |

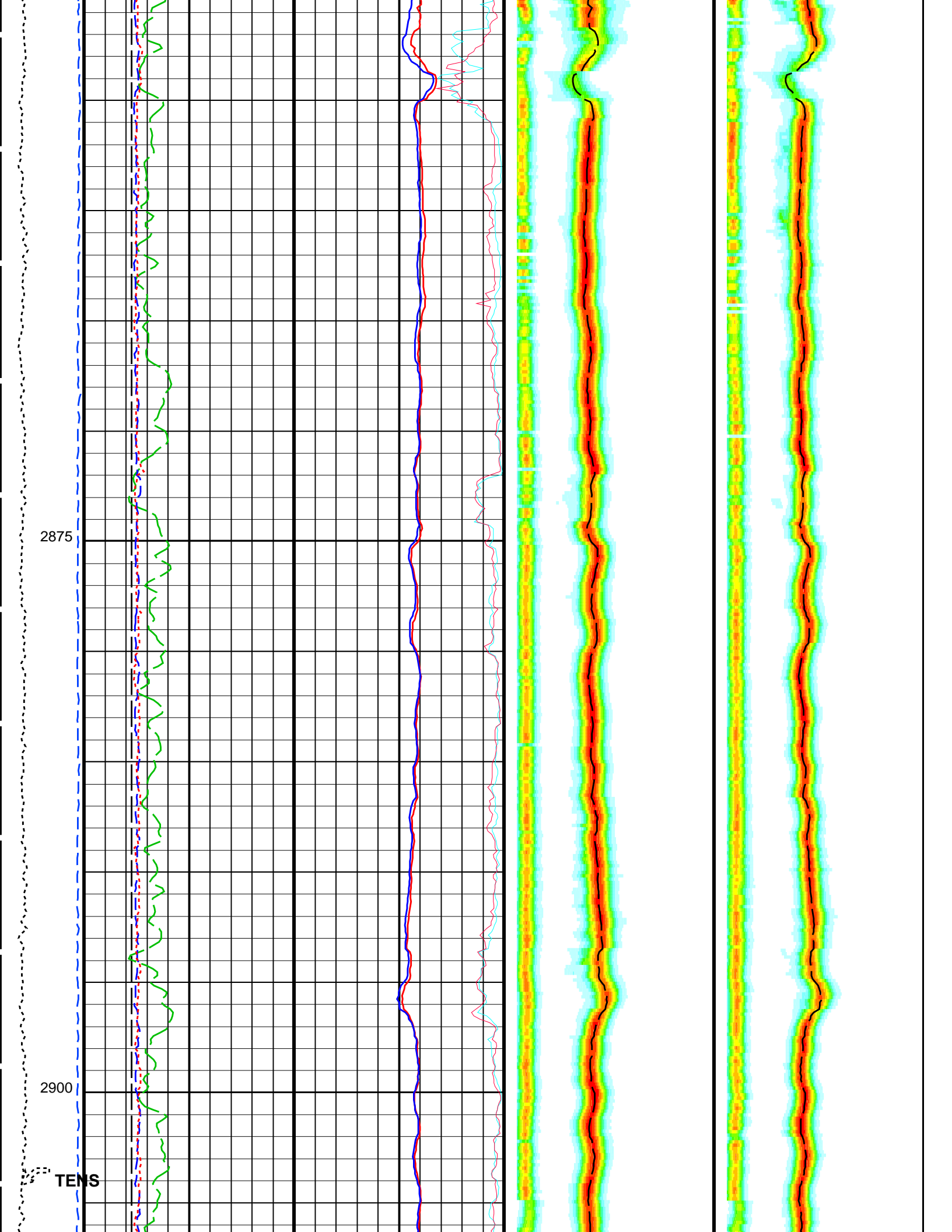
PIP SUMMARY

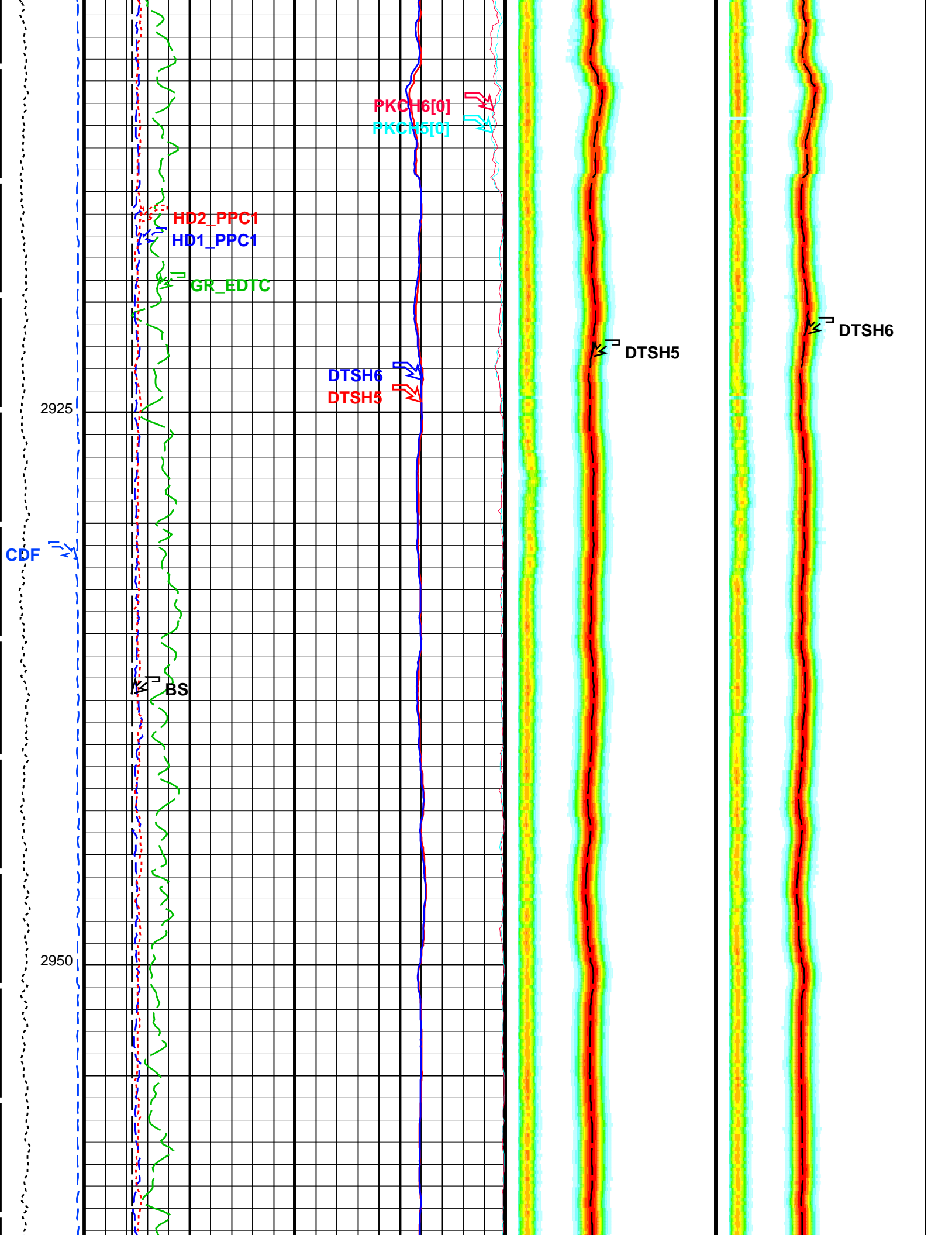
Time Mark Every 60 S

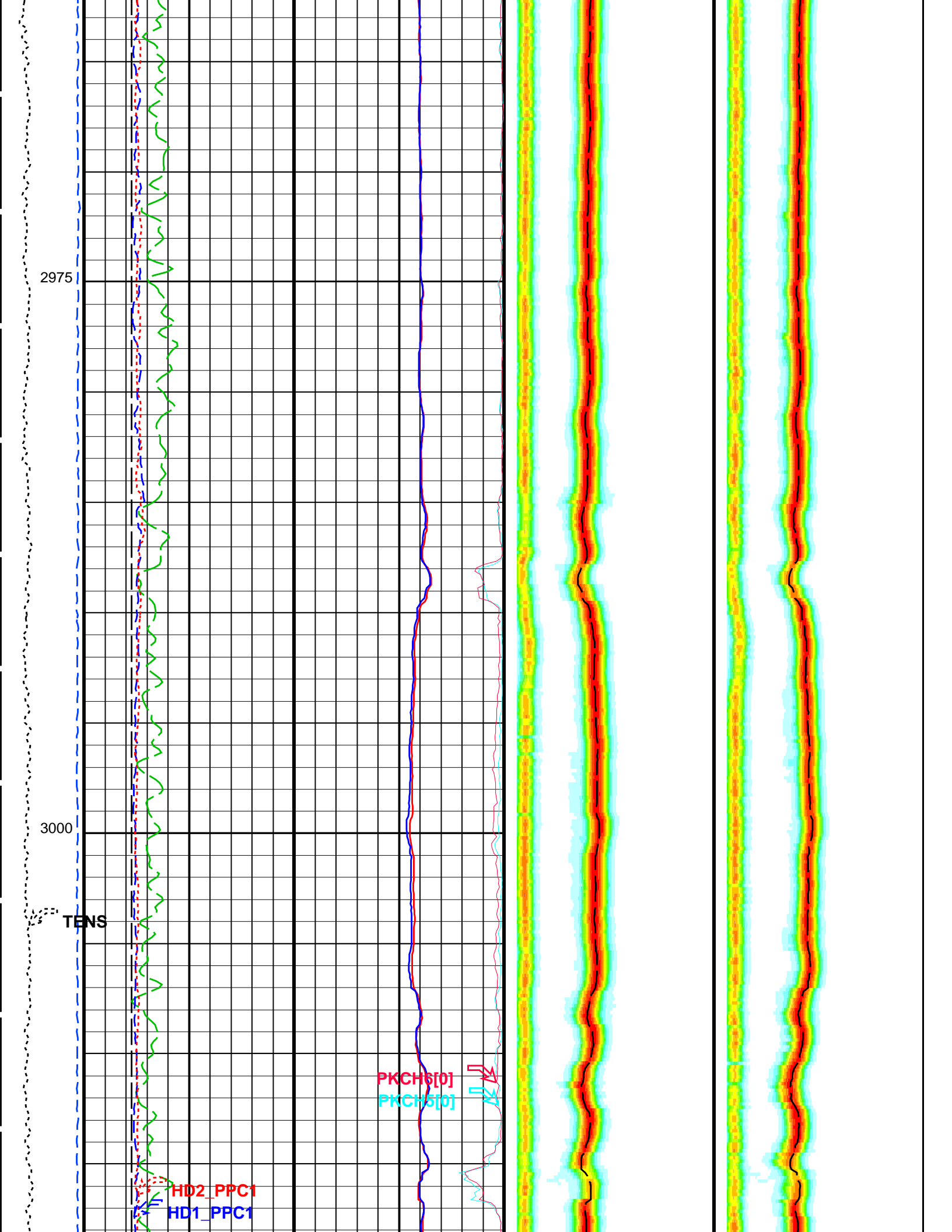
| | | | | |
|--|---|---|--|--|
| | PPC1 Hole Diameter 2 (HD2_ PPC1) 10 (IN) 20 | Peak Coherence PKCH6[0] (PKCH6[0]) 0 (----) 1 | | |
| | PPC1 Hole Diameter 1 (HD1_ PPC1) 10 (IN) 20 | Peak Coherence PKCH5[0] (PKCH5[0]) 0 (----) 1 | | |
| Calibrated Downhole Force (CDF) (LBF) -200 1800 | Gamma Ray (GR_EDTC) (GAPI) 50 150 | Shear Slowness 6 (DTSH6) (US/F) 770 70 | Min Amplitude Max Slowness Projection 5 (SPJ5) (US/F) 70 770 | Min Amplitude Max Slowness Projection 6 (SPJ6) (US/F) 70 770 |
| Tension (TENS) (LBF) 0 2000 | Bit Size (BS) (IN) 10 20 | Shear Slowness 5 (DTSH5) (US/F) 770 70 | Shear Slowness 5 (DTSH5) (US/F) 70 770 | Shear Slowness 6 (DTSH6) (US/F) 70 770 |

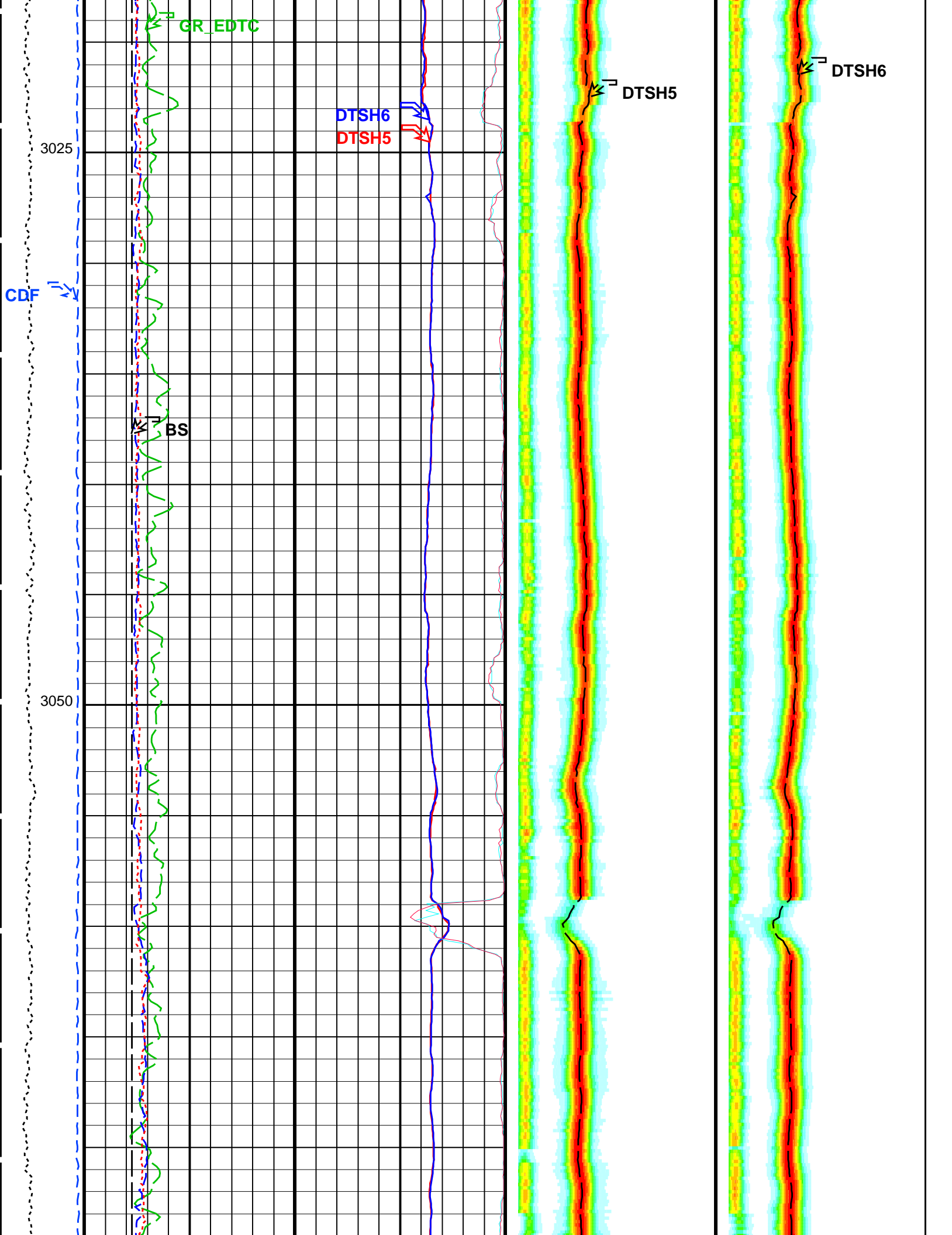


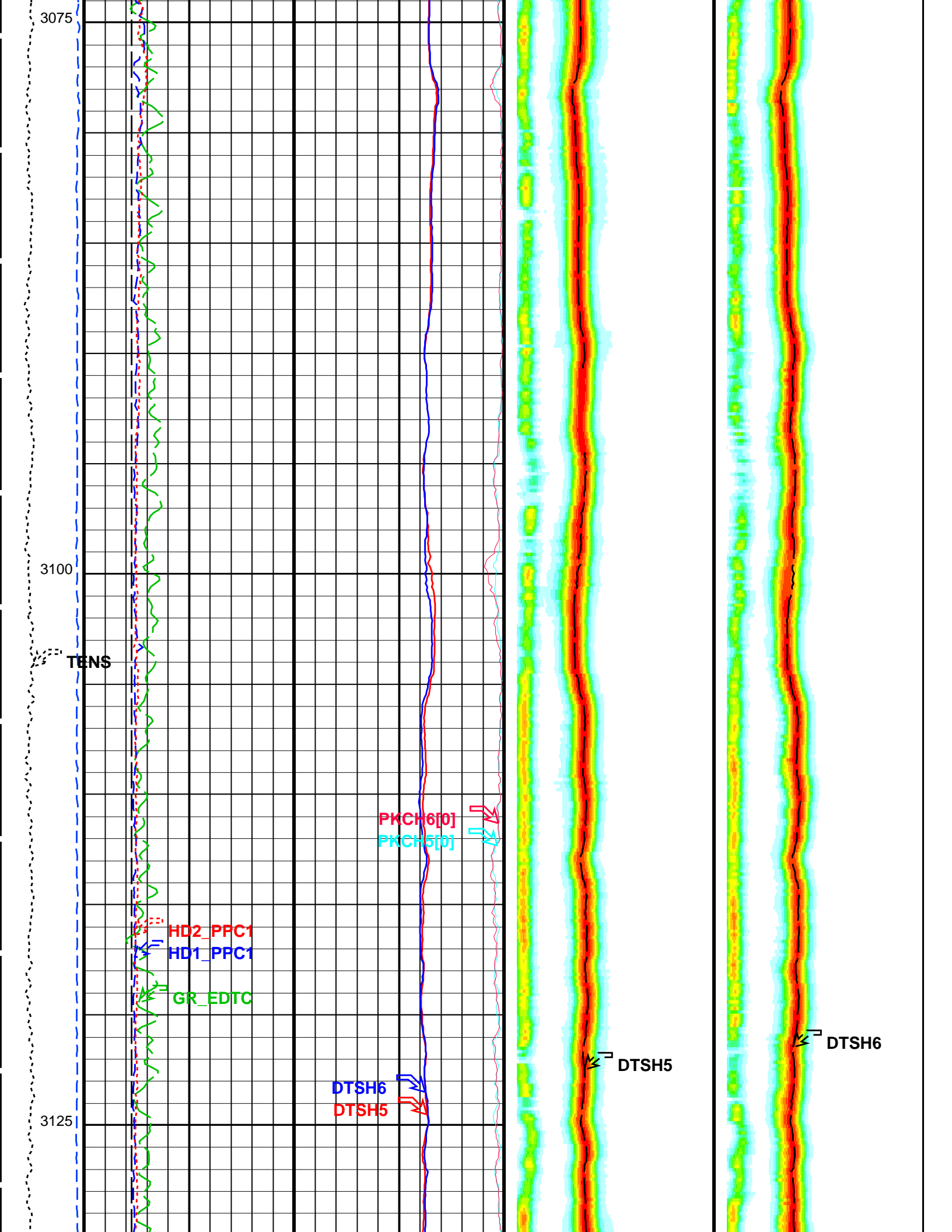


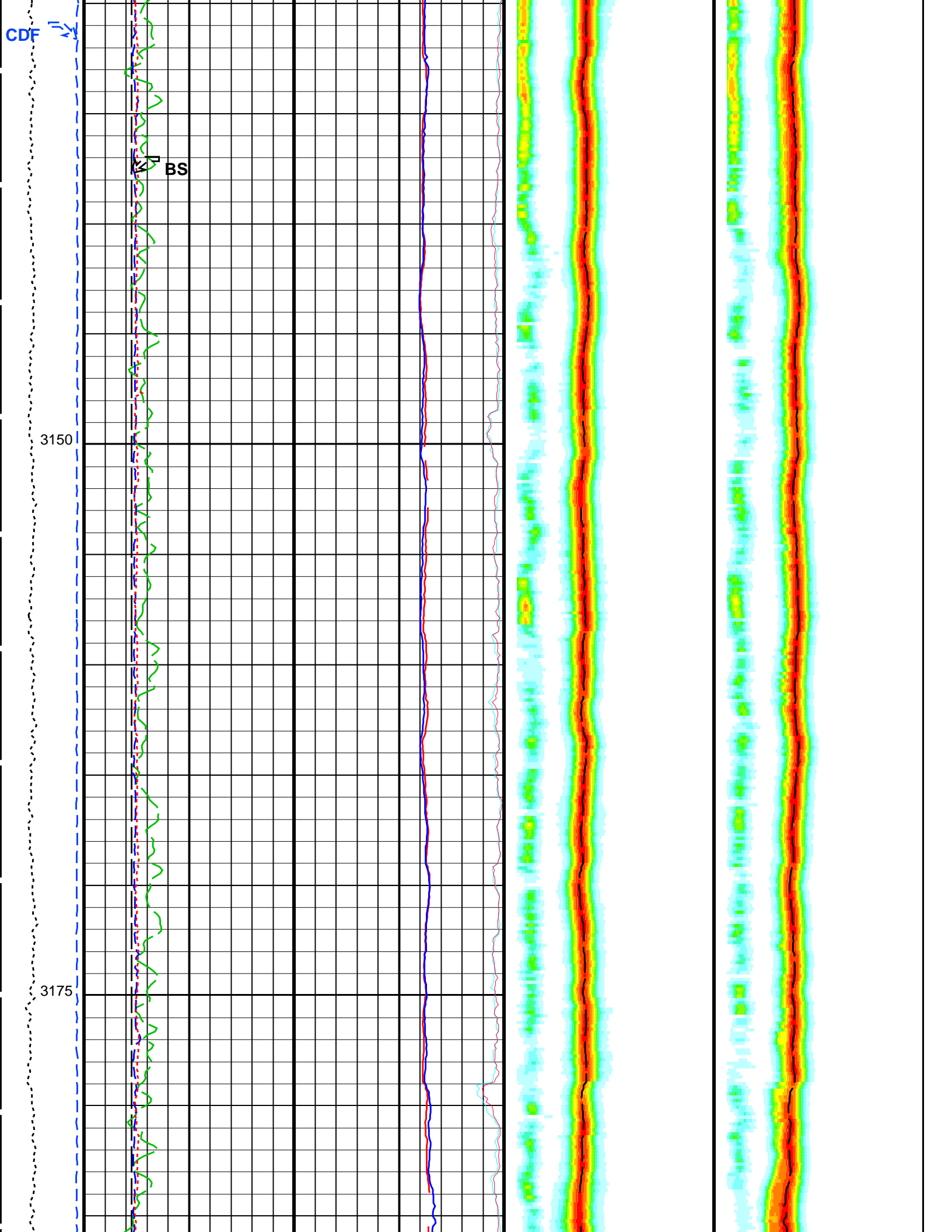


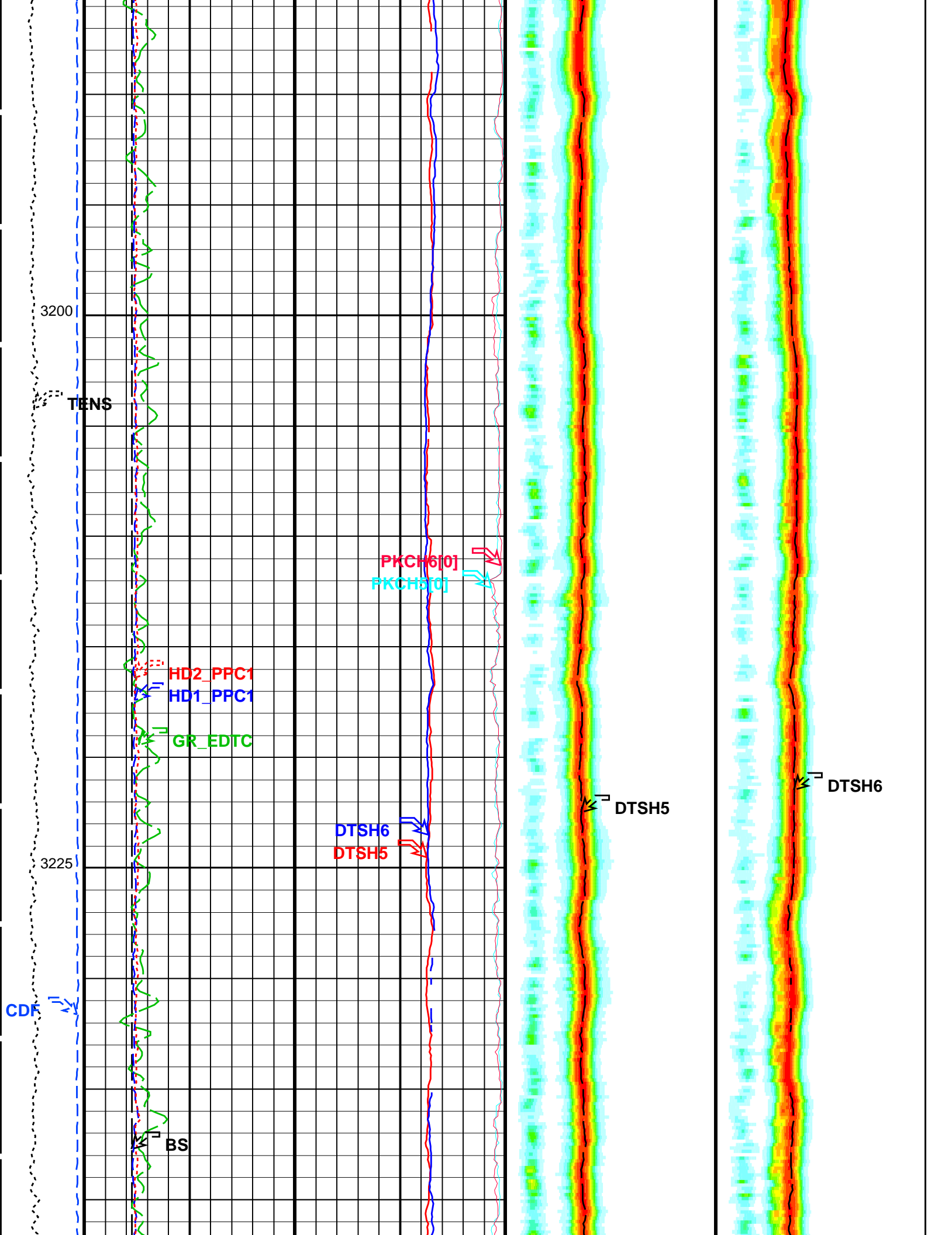


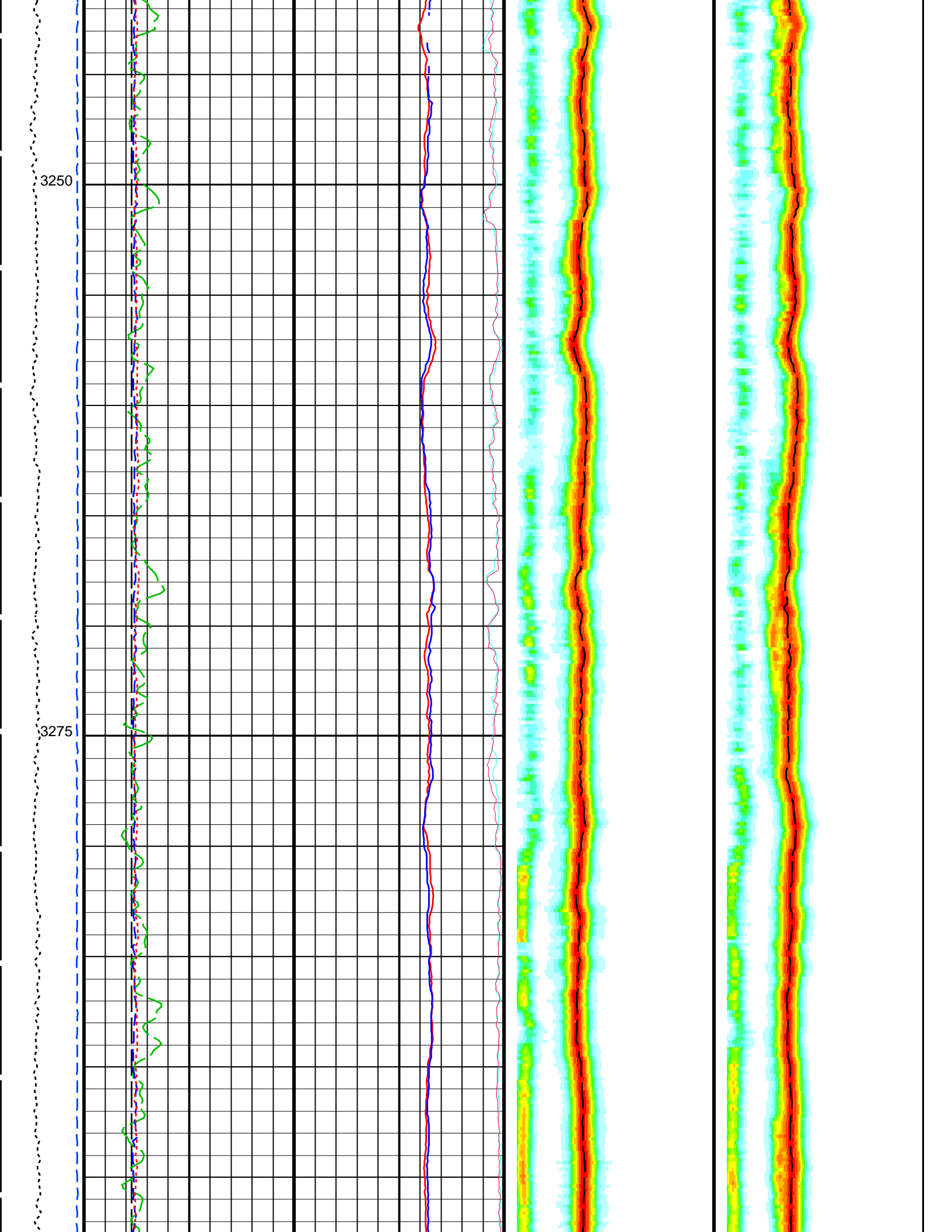


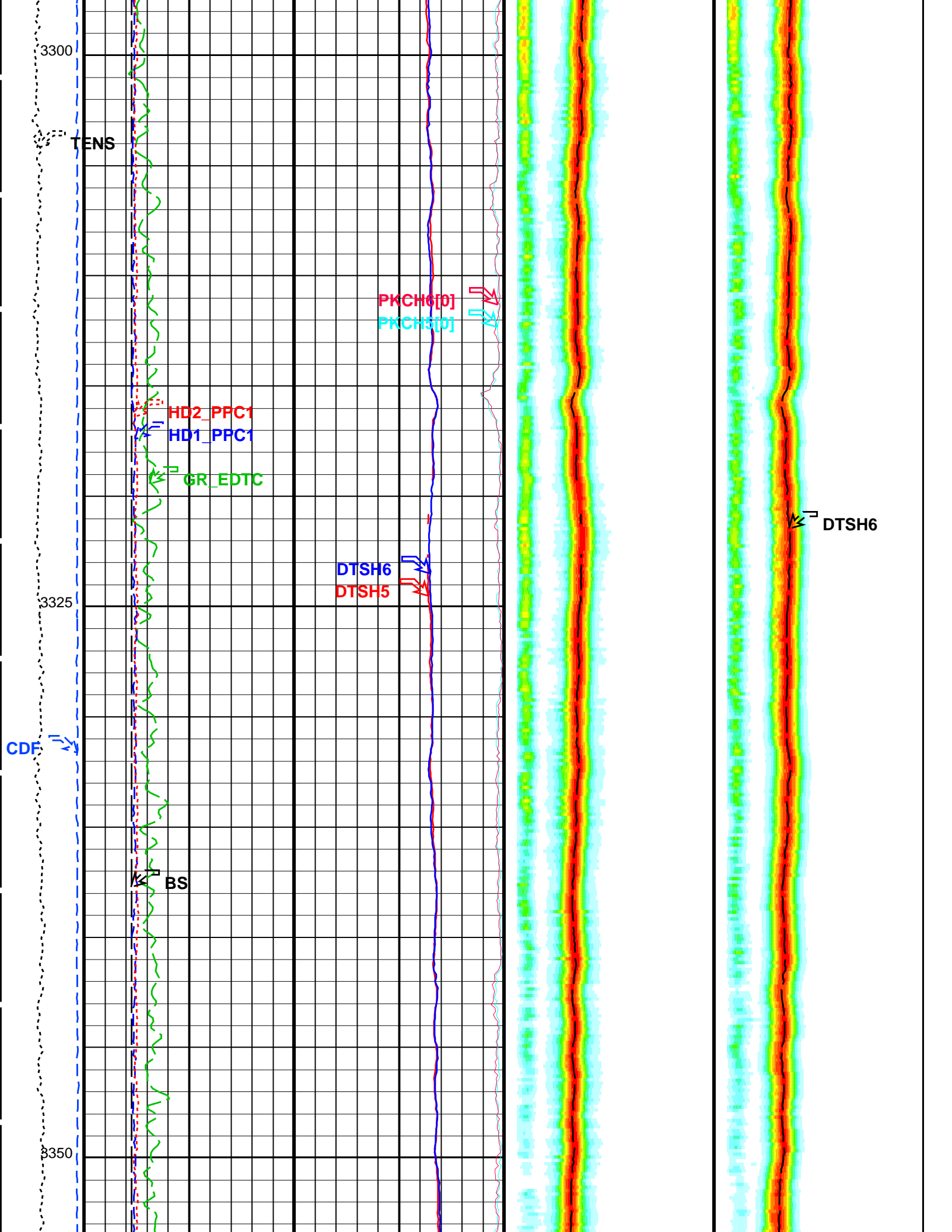


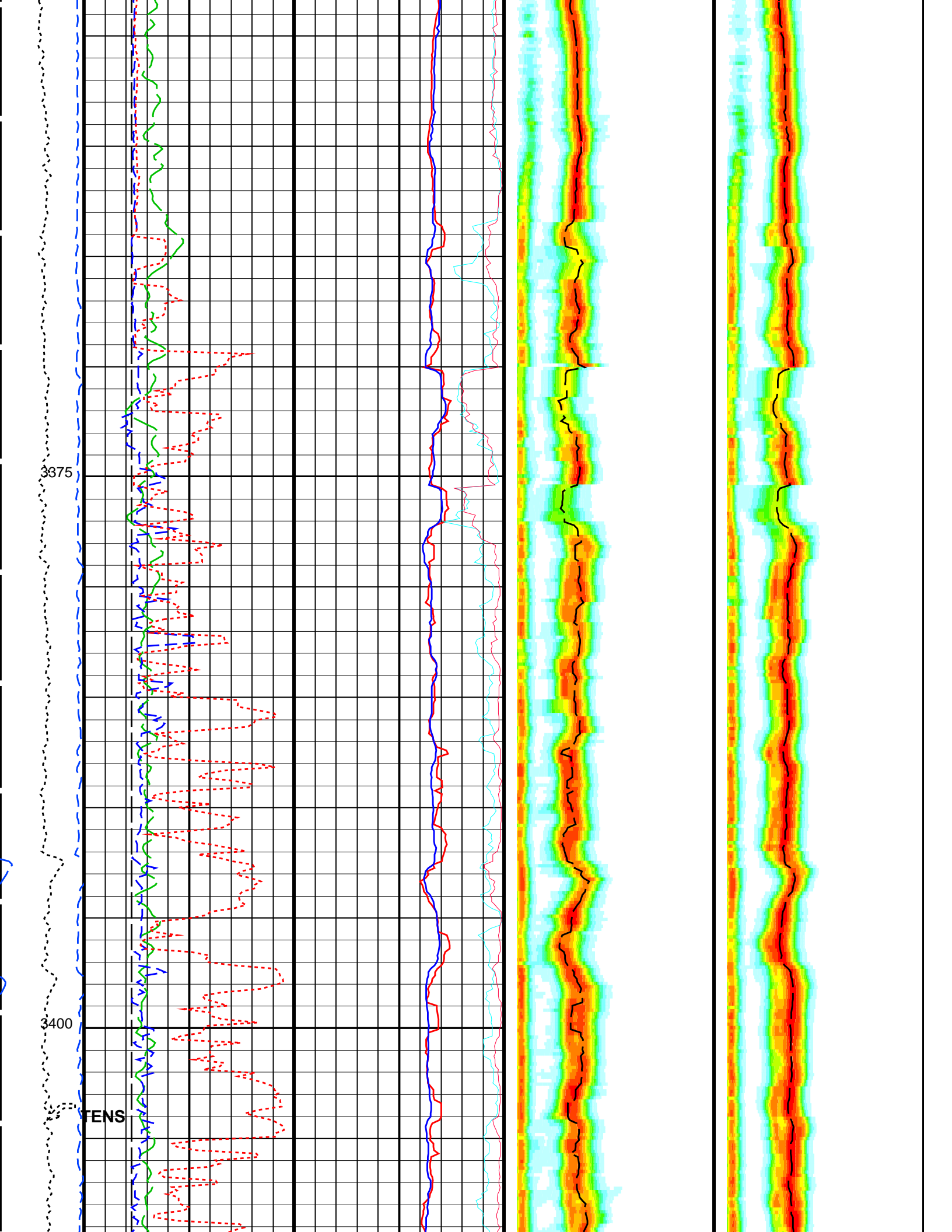


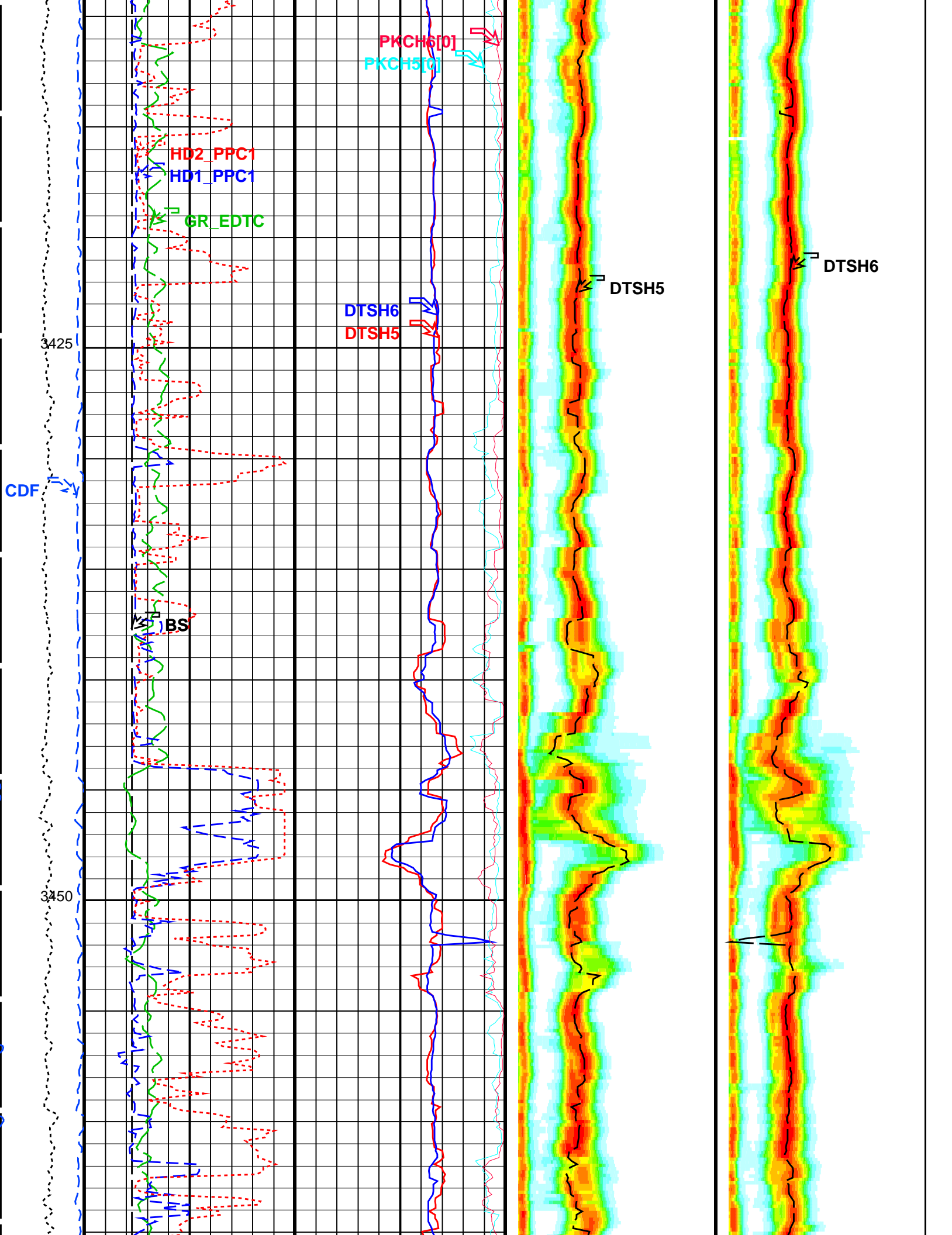


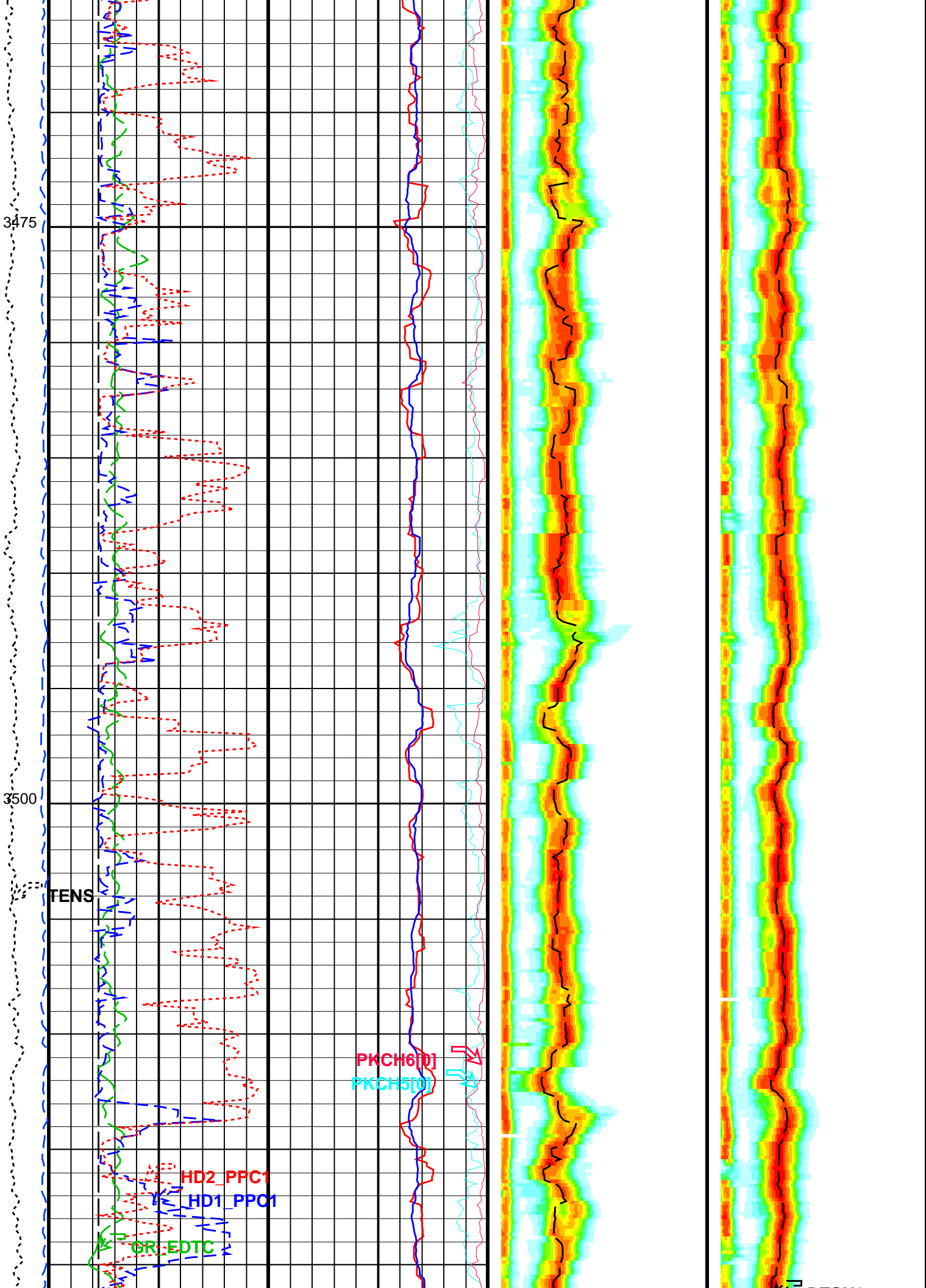


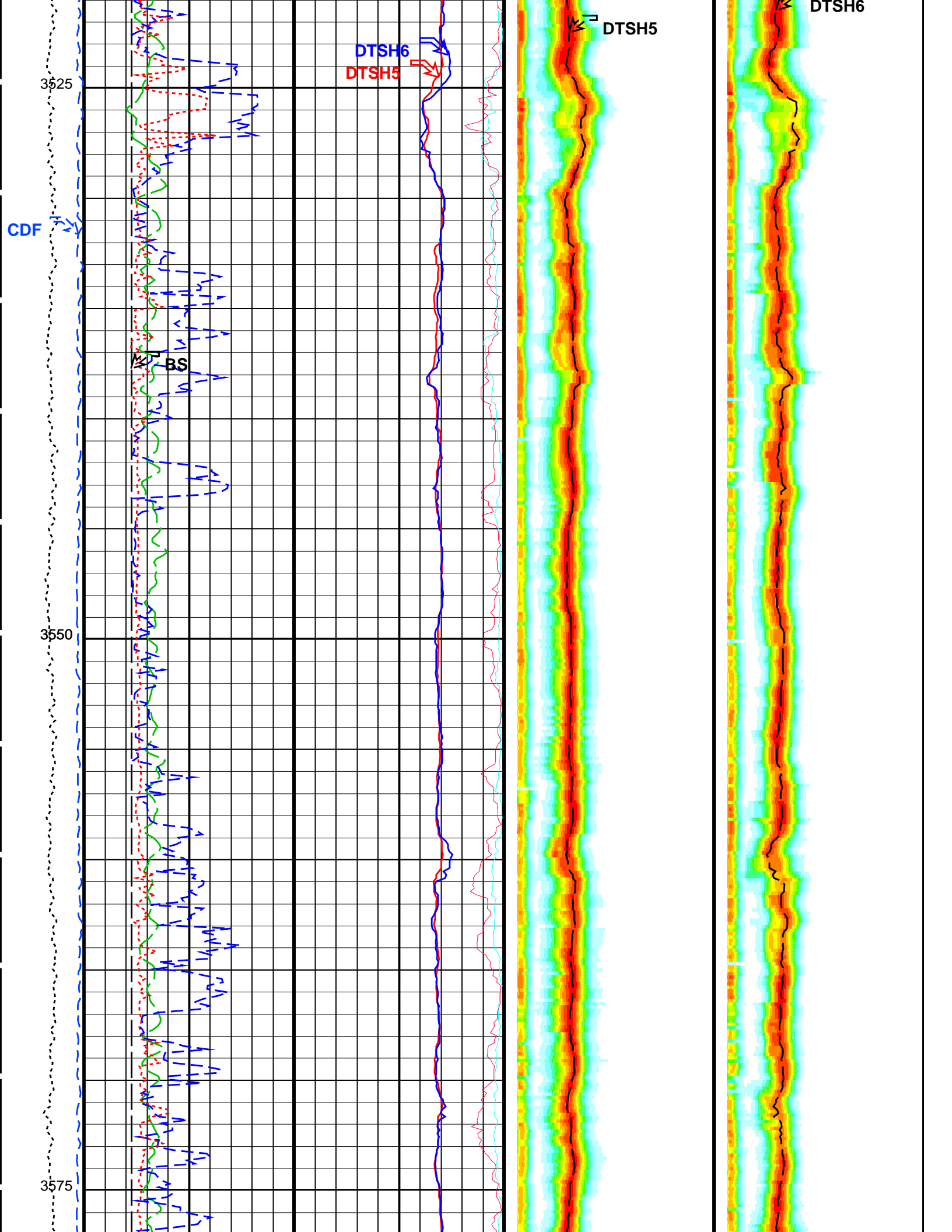


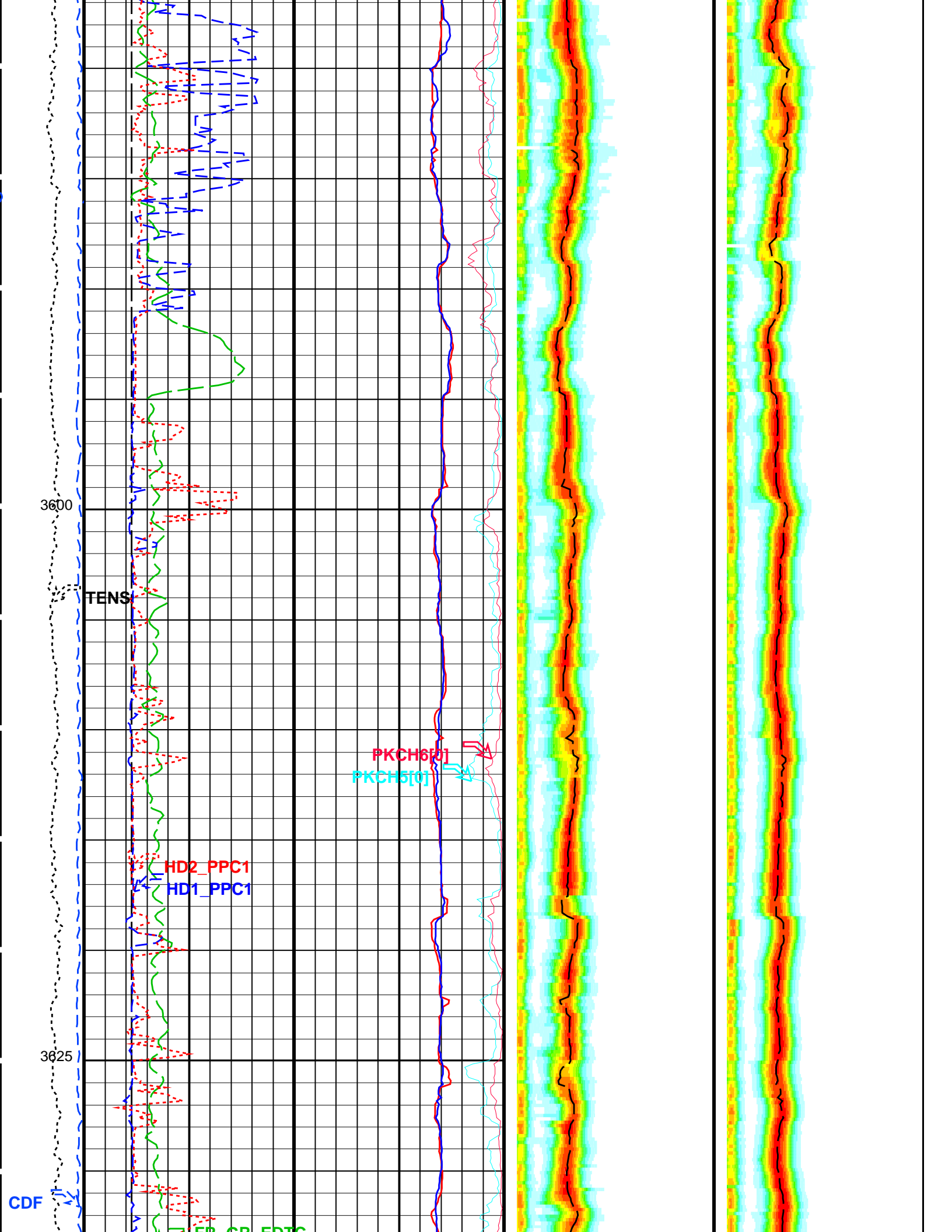


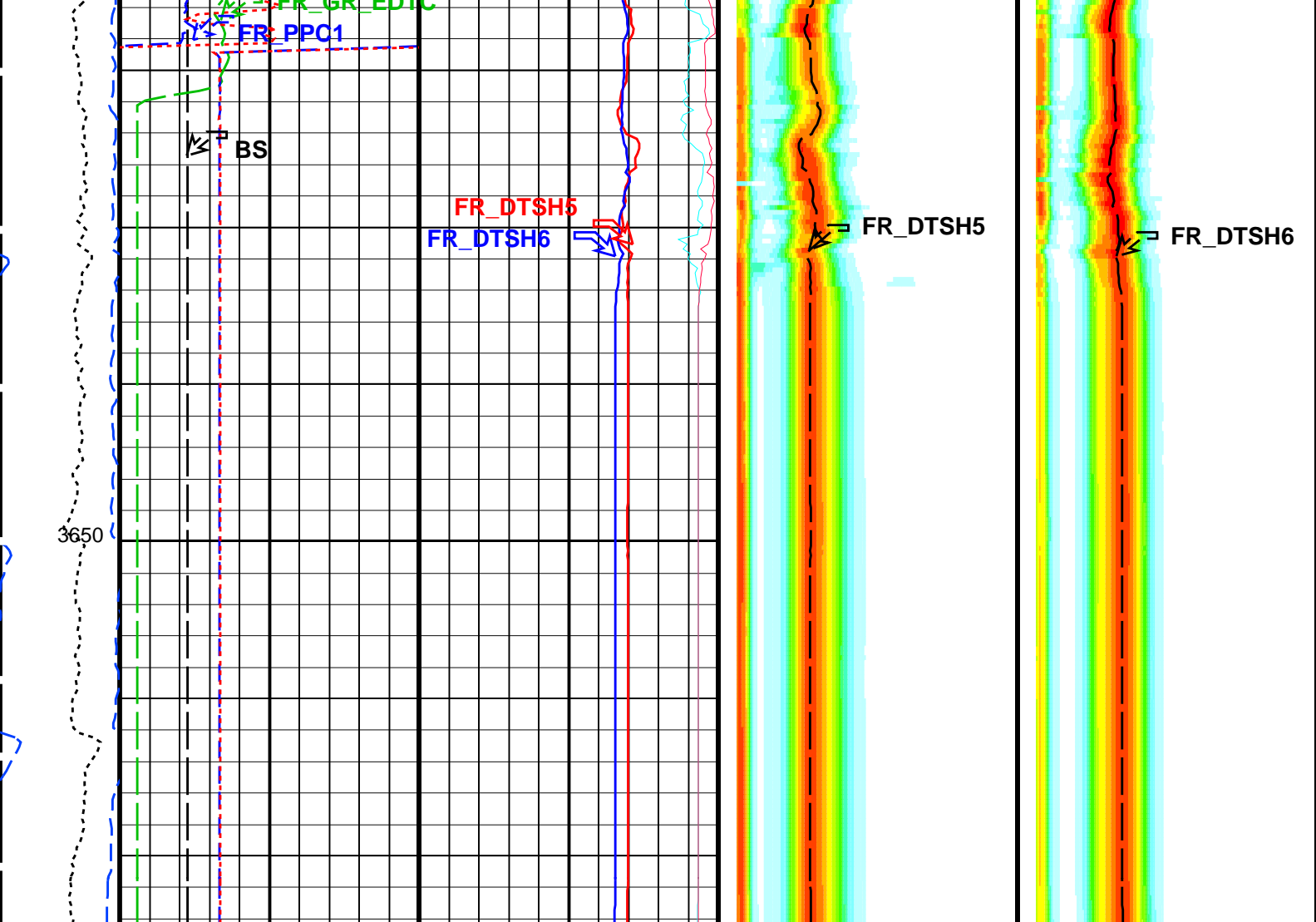












| | | | | | | | | |
|---------------------------------------|---------------------------------|---------------|------------------------------------|---------------|--|---------------|--|--|
| Tension (TENS) (LBF) | Bit Size (BS) | | Shear Slowness 5 (DTSH5) | | Shear Slowness 5 (DTSH5) | | Shear Slowness 6 (DTSH6) | |
| 0 2000 | 10 (IN) 20 | 770 (US/F) 70 | 70 (US/F) 770 | 70 (US/F) 770 | 70 (US/F) 770 | 70 (US/F) 770 | 70 (US/F) 770 | |
| Calibrated Downhole Force (CDF) (LBF) | Gamma Ray (GR_EDTC) (GAPI) | | Shear Slowness 6 (DTSH6) | | Min Amplitude Max | | Min Amplitude Max | |
| -200 1800 | 50 150 | 770 (US/F) 70 | 70 (US/F) 770 | | Slowness Projection 5 (SPJ5) 70 (US/F) 770 | | Slowness Projection 6 (SPJ6) 70 (US/F) 770 | |
| | PPC1 Hole Diameter 1 (HD1_PP01) | | Peak Coherence PKCH5[0] (PKCH5[0]) | | | | | |
| | 10 (IN) 20 | 0 (----) 1 | | | | | | |
| | PPC1 Hole Diameter 2 (HD2_PP01) | | Peak Coherence PKCH6[0] (PKCH6[0]) | | | | | |
| | 10 (IN) 20 | 0 (----) 1 | | | | | | |

PIP SUMMARY

Time Mark Every 60 S

Parameters

| DLIS Name | Description | Value | |
|-------------------------------|---|----------------|------|
| FBST-B: Full-Bore Scanner – B | | | |
| ACPP | Accelerometer PROM Presence | PRESENT | |
| AFMO | Accelerometer Filtering Mode | MOVING_AVERAGE | |
| ART | Accelerometer Reference Temperature | 20 | DEGC |
| EGCO | FMI EMEX and GAIN Correction | NO | |
| FBCD | Correct Dip Buttons Values by EMEX and Gain | OFF | |
| FBEF | FMI EMEX filtering activation | OFF | |
| FBMV | FMI EMEX maximum voltage calculation | OFF | |
| FBRD | FMI Dead Buttons detection | AUTO | |

| | | | |
|---|---|---------------------------|------|
| FDBD | FMI Dead Buttons detection | AUTO | |
| FDBP | FMI Dead Buttons Patching | ON | |
| FDL | FMI DSP Filter Length | 1 | |
| FIEQ | FMI Image Equalisation | ON | |
| FIGA | FMI Image Gain | 1 | |
| FIOF | FMI Image Offset | 0 | |
| FLM | FMI Logging Mode | 8PAD | |
| FPSA | FMI Peak Signal Amplitude for Required Servo Level | ON | |
| GLM | GPIT Logging Mode | DIPM | |
| GMOD | Gain Mode | AUTOLOW | |
| ICMO | Inclinometry Computation Mode | AUTOMATIC_SELECTION | |
| MAPP | Magnetometer PROM Presence | PRESENT | |
| MDEC | Magnetic Field Declination | -6.587 | DEG |
| MRTE | Magneto Reference Temperature | 22 | DEGC |
| RBS | Resistivity Button Selection | AUTO | |
| RBSI | Auto RBS Change Interval | 10 | |
| SOFF | Standoff | -1 | IN |
| TEMS | GPIT Temperature Sensor Used | BOTH | |
| U-GPOF | Playback OLD VERSION GPIT FILE (BEFORE OP14 + SRPC-3098-FEB_2006_C) ? | NO | |
| XGAI_FBST | Gain Value in Manual Mode | 0_dB | |
| XGMO | EMEX & Gain Modes | EmexManu_GainAutoLowRange | |
| XMOD | EMEX Voltage Regulation Mode | MANU | |
| XVOL | EMEX Voltage | 175 | V |
| EMS-B: Environment Measurement Sonde | | | |
| EAAB | EMS Accelerometer Coefficient:Ab | 0 | |
| EAAS | EMS Accelerometer Coefficient:As | 0 | |
| EABB | EMS Accelerometer Coefficient:Bb | 0 | |
| EABS | EMS Accelerometer Coefficient:Bs | 0 | |
| EACB | EMS Accelerometer Coefficient:Cb | 0 | |
| EACS | EMS Accelerometer Coefficient:Cs | 0 | |
| EMUD | EMS Mudcake Correction | OFF | |
| FCD | Future Casing (Outer) Diameter | 13.375 | IN |
| HVCS | Integrated Hole Volume Caliper Selection | PPC1_Calipers | |
| MAXS-B: Multimode Array Sonic Xmitter Sonde | | | |
| FIRING_TABLE | MAST Firing Table | ** V ** | |
| TX_AMP | Transmitter Amplitude Factor | ** V ** | |
| U_CE_CBLG7 | CBL Gate Width 7 for Cement Evaluation | 80 | US |
| U_CE_CBLG8 | CBL Gate Width 8 for Cement Evaluation | 80 | US |
| U_CE_NMSG7 | Near Minimum Sliding Gate 7 for Cement Evaluation | 220 | US |
| U_CE_NMSG8 | Near Minimum Sliding Gate 8 for Cement Evaluation | 220 | US |
| U_CE_SGDT7 | Sliding Gate Delta-T 7 for Cement Evaluation | 57 | US/F |
| U_CE_SGDT8 | Sliding Gate Delta-T 8 for Cement Evaluation | 57 | US/F |
| MAPC-B: Multimode Array Sonic Power Cartridge | | | |
| AZIM_SELECT | Azimuth Reference Selection | P1AZ | |
| BHS | Borehole Status | OPEN | |
| BHT | Bottom Hole Temperature (used in calculations) | 33.33 | DEGC |
| BS | Bit Size | 12.250 | IN |
| CDTS | C-Delta-T Shale | 100 | US/F |
| CE_DCBLSEL | DCBL Selection for Cement Evaluation | 3_5FT | |
| CE_VDLGRA | VDL Manual Gain Rate Array for Cement Evaluation | ** V ** | |
| CE_VDLSEL | VDL Selection for Cement Evaluation | MU_5FT | |
| CE_VDL_MODE | DCBL/VDL Mode for Cement Evaluation | STANDARD | |
| CE_VFILSWA | VDL Filter Switch Array for Cement Evaluation | ** V ** | |
| CLASSAL | Classification Algorithm | ** V ** | |
| CRVIN_MF | Alteration Detection Input Number for Monopole Far | ID3 | |
| CRVIN_ML | Alteration Detection Input Number for Monopole Lower | ID2 | |
| CRVIN_MU | Alteration Detection Input Number for Monopole Upper | ID1 | |
| DCRMVL | DC Offset Removal Option | DC_MULTIPLE | |
| DLHS | Hole Diameter Source for SOBS Channel | AUTO | |
| DTCO_SELECT | Delta-T Compressional Selection for Finalization | MF | |
| DTF | Delta-T Fluid | 190 | US/F |
| DTM | Delta-T Matrix | 56 | US/F |
| DTSH_SELECT | Delta-T Shear Selection for Finalization | XD | |
| DWF7_SPEC | Channel/Station/Azimuth for VDL (DWF7) of Measurement 7 | WFA7/9/1 | |
| DWF8_SPEC | Channel/Station/Azimuth for VDL (DWF8) of Measurement 8 | WFA8/5/1 | |
| FIRING_TABLE | MAST Firing Table | ** V ** | |
| GCSE | Generalized Caliper Selection | HD1_PPC1 | |
| GDEV | Average Angular Deviation of Borehole from Normal | 0 | DEG |
| GGRD | Geothermal Gradient | 0.018227 | DC/M |
| GRSE | Generalized Mud Resistivity Selection | EMS_RESIST | |
| GTSE | Generalized Temperature Selection | EMS_TEMP | |
| IMG_DTCO_SEL_MAST | Imaging Input DT Compressional Selection | CONSTANT_DTCO | |
| IMG_EST_DTCO_MAST | Imaging Estimated DT Compressional | 120 | US/F |
| IMG_RBS | Imaging Relative Bearing Selection | RB1 | |
| ISSBAR | Barite Mud Switch | NOBARITE | |
| ITTS | Integrated Transit Time Source | DTCO | |
| MATR | Rock Matrix for Neutron Porosity Corrections | LIMESTONE | |
| NFPI_ML | Free Pipe Amplitude for ML | 0 | |
| NFPI_MU | Free Pipe Amplitude for MU | 0 | |
| NRSA | Number of Receivers in Sub-Array | ** V ** | |
| RBC | Relative Bearing Correction Allow/Disallow | DISALLOW | |
| ROTIN_XD | Alford Rotation X Dipole Measurement Number | ID5 | |
| ROTIN_YD | Alford Rotation Y Dipole Measurement Number | ID6 | |
| ROTWINDOW_CTRL | Alford Rotation Window Control | ON | |

| | | | |
|--|--|---------------|------|
| ROT_AI | Dipole Waveform Rotation Averaging Depth Interval | 1.524 | M |
| ROT_FIL LENG | Alford Rotation Filter Length | 101 | |
| ROT_TWD | Alford Rotation Window Time Width | 1240 | US |
| ROT_TWO | Alford Rotation Window Time Offset | 1360 | US |
| ROT_XFH | Alford Rotation Filter High Cutoff | 2000 | HZ |
| ROT_XFL | Alford Rotation Filter Low Cutoff | 800 | HZ |
| SHT | Surface Hole Temperature | 25 | DEGC |
| SPFS | Sonic Porosity Formula | RAYMER_HUNT | |
| SPSO | Sonic Porosity Source | DTCO | |
| STCAL | STC Algorithm | ** V ** | |
| STCSEL1 | Station Selection for STC for Measurement 1 | ** V ** | |
| STCSEL2 | Station Selection for STC for Measurement 2 | ** V ** | |
| STCSEL3 | Station Selection for STC for Measurement 3 | ** V ** | |
| STCSEL4 | Station Selection for STC for Measurement 4 | ** V ** | |
| STCSEL5 | Station Selection for STC for Measurement 5 | ** V ** | |
| STCSEL6 | Station Selection for STC for Measurement 6 | ** V ** | |
| STCSEL_FAST | Station Selection for STC for DT_FAST | ** V ** | |
| STCSEL_SLOW | Station Selection for STC for DT_SLOW | ** V ** | |
| TRMIN | Alteration Detection Minimum Transmitter Receiver Spacing for Processing | 3.0 | FT |
| TX_AMP | Transmitter Amplitude Factor | ** V ** | |
| U_CE_CBLG7 | CBL Gate Width 7 for Cement Evaluation | 80 | US |
| U_CE_CBLG8 | CBL Gate Width 8 for Cement Evaluation | 80 | US |
| U_CE_NMSG7 | Near Minimum Sliding Gate 7 for Cement Evaluation | 220 | US |
| U_CE_NMSG8 | Near Minimum Sliding Gate 8 for Cement Evaluation | 220 | US |
| U_CE_SGDT7 | Sliding Gate Delta-T 7 for Cement Evaluation | 57 | US/F |
| U_CE_SGDT8 | Sliding Gate Delta-T 8 for Cement Evaluation | 57 | US/F |
| U_SLL1_MAST | MAST DSTC Slowness Lower Limit 1 | 0 | US/F |
| U_SLL2_MAST | MAST DSTC Slowness Lower Limit 2 | 0 | US/F |
| U_SLL3_MAST | MAST DSTC Slowness Lower Limit 3 | 40 | US/F |
| U_SLL4_MAST | MAST DSTC Slowness Lower Limit 4 | 200 | US/F |
| U_SLL5_MAST | MAST DSTC Slowness Lower Limit 5 | 112 | US/F |
| U_SLL6_MAST | MAST DSTC Slowness Lower Limit 6 | 112 | US/F |
| U_SLL_FAST_MAST | MAST DSTC Slowness Lower Limit Fast | 0 | US/F |
| U_SLL_SLOW_MAST | MAST DSTC Slowness Lower Limit Slow | 0 | US/F |
| U_SUL1_MAST | MAST DSTC Slowness Upper Limit 1 | 0 | US/F |
| U_SUL2_MAST | MAST DSTC Slowness Upper Limit 2 | 0 | US/F |
| U_SUL3_MAST | MAST DSTC Slowness Upper Limit 3 | 240 | US/F |
| U_SUL4_MAST | MAST DSTC Slowness Upper Limit 4 | 900 | US/F |
| U_SUL5_MAST | MAST DSTC Slowness Upper Limit 5 | 772 | US/F |
| U_SUL6_MAST | MAST DSTC Slowness Upper Limit 6 | 772 | US/F |
| U_SUL_FAST_MAST | MAST DSTC Slowness Upper Limit Fast | 0 | US/F |
| U_SUL_SLOW_MAST | MAST DSTC Slowness Upper Limit Slow | 0 | US/F |
| PPC1-B: Powered Positioning Device/Caliper 1 | | | |
| | PPC1 Caliper Type | CAL_STD | |
| CLBD_PPC | PPC Calibration data selection | ROM | |
| PWEL_PPC | PPC Primary Tool for WellCAD | NONE | |
| SWEL_PPC | PPC Secondary Tool for WellCAD (45 Degrees Rotation PPC Tool) | NONE | |
| WRDR_PPC | PPC Rotation Direction for Secondary Tool | NONE | |
| EDTC-B: Enhanced DTS Cartridge | | | |
| BHFL | Borehole Fluid Type | WATER | |
| BHS | Borehole Status | OPEN | |
| BHT | Bottom Hole Temperature (used in calculations) | 33.33 | DEGC |
| BSCO | Borehole Salinity Correction Option | NO | |
| CCCO | Casing & Cement Thickness Correction Option | NO | |
| DPPM | Density Porosity Processing Mode | STAN | |
| FSAL | Formation Salinity | -50000 | PPM |
| FSCO | Formation Salinity Correction Option | NO | |
| GCSE | Generalized Caliper Selection | HD1_PPC1 | |
| GDEV | Average Angular Deviation of Borehole from Normal | 0 | DEG |
| GGRD | Geothermal Gradient | 0.018227 | DC/M |
| GRSE | Generalized Mud Resistivity Selection | EMS_RESIST | |
| GTSE | Generalized Temperature Selection | EMS_TEMP | |
| HSCO | Hole Size Correction Option | YES | |
| ISSBAR | Barite Mud Switch | NOBARITE | |
| ISSBAR_EDTC | Nuclear Mud Type | NOBARITE | |
| MATR | Rock Matrix for Neutron Porosity Corrections | LIMESTONE | |
| MCCO | Mud Cake Correction Option | NO | |
| MCOR | Mud Correction | NATU | |
| MWCO | Mud Weight Correction Option | NO | |
| PTCO | Pressure/Temperature Correction Option | NO | |
| SDAT | Standoff Data Source | SOCN | |
| SHT | Surface Hole Temperature | 25 | DEGC |
| SOCN | Standoff Distance | 2.5 | IN |
| SOCO | Standoff Correction Option | NO | |
| TPOS_EDTC | EDTC Tool Centered/Eccentered | Centered | |
| HOLEV: Integrated Hole/Cement Volume | | | |
| FCD | Future Casing (Outer) Diameter | 13.375 | IN |
| HVCS | Integrated Hole Volume Caliper Selection | PPC1_Calipers | |
| STI: Stuck Tool Indicator | | | |
| LBFR | Trigger for MAXIS First Reading Label | TDL | |
| STKT | STI Stuck Threshold | 0.762 | M |
| TDD | Total Depth - Driller | 3686.00 | M |
| TDL | Total Depth - Logger | 3667.00 | M |
| System and Miscellaneous | | | |

| | | | |
|------------|--|---------------------|------|
| ALTDPCCHAN | Name of alternate depth channel | SpeedCorrectedDepth | |
| BSAL | Borehole Salinity | 110000.00 | PPM |
| CSIZ | Current Casing Size | 20.000 | IN |
| CWEI | Casing Weight | 133.00 | LB/F |
| DFD | Drilling Fluid Density | 1.10 | G/C3 |
| DO | Depth Offset for Playback | 3.2 | M |
| DORL | Depth Offset for Repeat Analysis | 0.0 | M |
| FLEV | Fluid Level | 10.00 | M |
| MST | Mud Sample Temperature | 25.70 | DEGC |
| PBVSADP | Use alternate depth channel for playback | NO | |
| PP | Playback Processing | NORMAL | |
| RMFS | Resistivity of Mud Filtrate Sample | 0.0590 | OHMM |
| RW | Resistivity of Connate Water | 1.0000 | OHMM |
| TD | Total Depth | 3667 | M |
| TWS | Temperature of Connate Water Sample | 37.78 | DEGC |


Format: MAST_Dipole_200

Vertical Scale: 1:200

Graphics File Created: 10-Aug-2009 18:37

| OP System Version: 17C0-154 | | | |
|-----------------------------|---------------|--------|---------------|
| FBST-B | 17C0-154 | EMS-B | 17C0-154 |
| MAXS-B | SKK-3704-MAST | MAPC-B | SKK-3704-MAST |
| PPC1-B | 17C0-154 | EDTC-B | 17C0-154 |

| Input DLIS Files | | | | | | |
|-------------------|--------------------------|--------|----------|-------------------|----------|----------|
| DEFAULT | FMI_NGS_EMS_MAXS_038LUP | FN:114 | PRODUCER | 13-Jul-2009 17:16 | 3659.9 M | 2752.6 M |
| Output DLIS Files | | | | | | |
| DEFAULT | FMI_EMS_MAXS_MAPC_012PUP | FN:42 | PRODUCER | 10-Aug-2009 18:37 | | |
| CLIENT | FMI_EMS_MAXS_MAPC_012PUC | FN:43 | CUSTOMER | 10-Aug-2009 18:37 | | |



Repeat Analysis

1:200

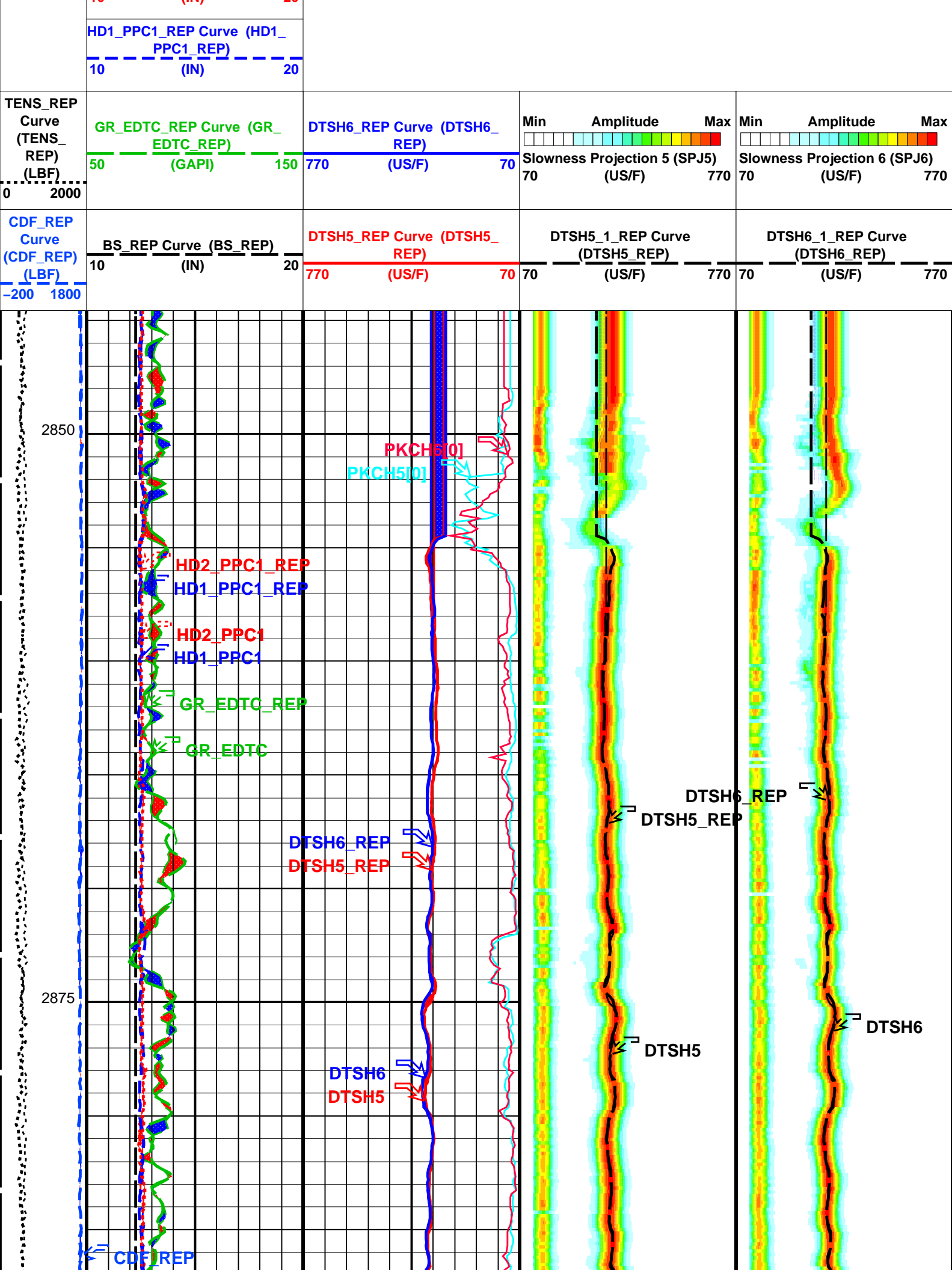
MAXIS Field Log

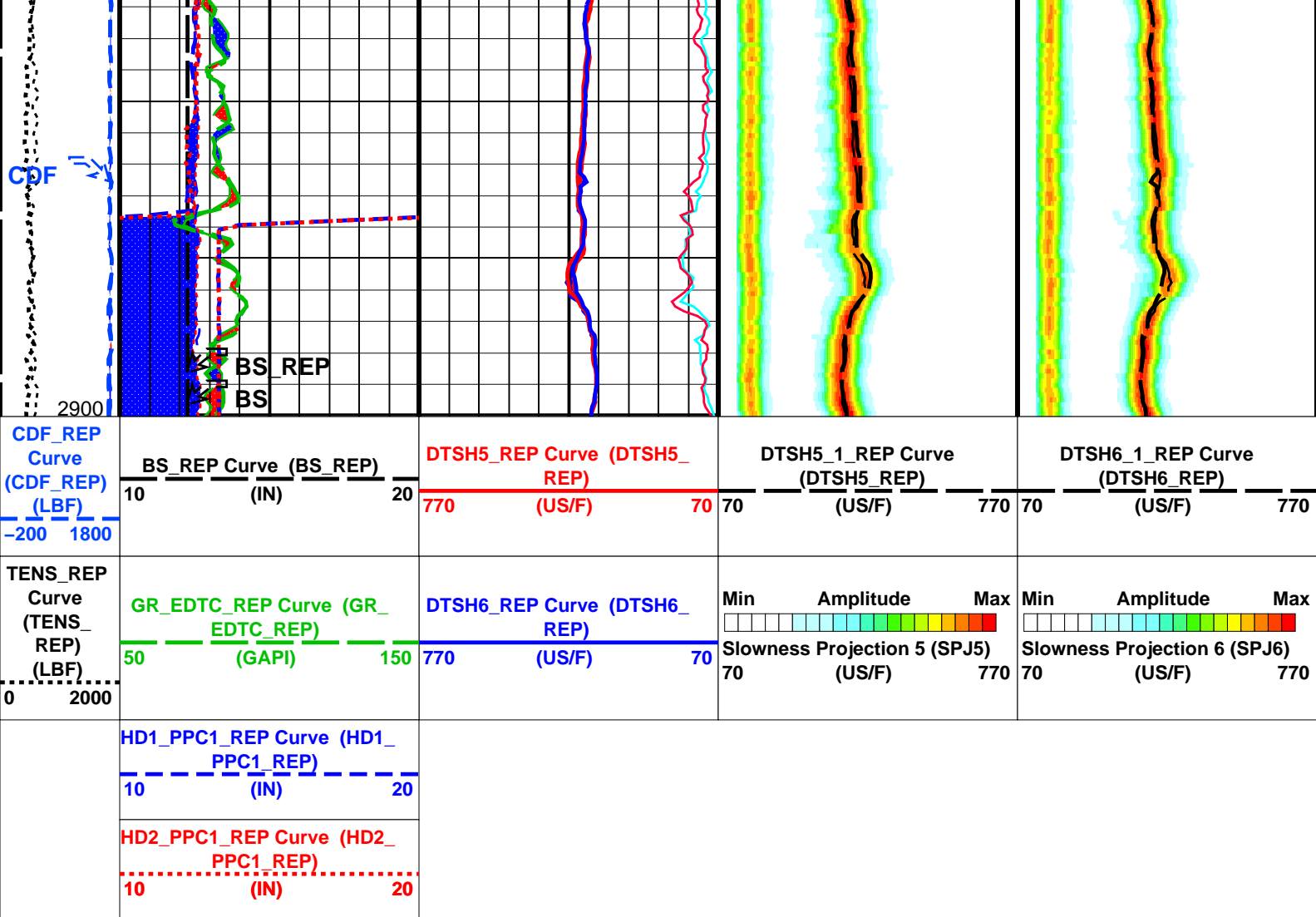
| | | | | | | |
|-----------------------------|--------------------------|--------|---------------|-------------------|----------|----------|
| Company: CDEX | | | | Well: C0009A | | |
| Input DLIS Files | | | | | | |
| DEFAULT | FMI_NGS_EMS_MAXS_038LUP | FN:114 | PRODUCER | 13-Jul-2009 17:16 | 3659.9 M | 2752.6 M |
| DEFAULT | FMI_EMS_MAXS_MAPC_009PUP | FN:36 | PRODUCER | 10-Aug-2009 17:21 | 2900.0 M | 2844.9 M |
| Output DLIS Files | | | | | | |
| DEFAULT | FMI_EMS_MAXS_MAPC_016PUP | FN:48 | PRODUCER | 12-Aug-2009 20:03 | | |
| CLIENT | FMI_EMS_MAXS_MAPC_016PUC | FN:49 | CUSTOMER | 12-Aug-2009 20:03 | | |
| OP System Version: 17C0-154 | | | | | | |
| FBST-B | 17C0-154 | EMS-B | 17C0-154 | | | |
| MAXS-B | SKK-3704-MAST | MAPC-B | SKK-3704-MAST | | | |
| PPC1-B | 17C0-154 | EDTC-B | 17C0-154 | | | |

PIP SUMMARY

Time Mark Every 60 S







PIP SUMMARY

Time Mark Every 60 S

Parameters

| DLIS Name | Description | Value |
|-------------------------------|---|---------------------------|
| FBST-B: Full-Bore Scanner - B | | |
| ACPP | Accelerometer PROM Presence | PRESENT |
| AFMO | Accelerometer Filtering Mode | MOVING_AVERAGE |
| ART | Accelerometer Reference Temperature | 20 DEGC |
| EGCO | FMI EMEX and GAIN Correction | NO |
| FBCD | Correct Dip Buttons Values by EMEX and Gain | OFF |
| FBEF | FMI EMEX filtering activation | OFF |
| FBMV | FMI EMEX maximum voltage calculation | OFF |
| FDBD | FMI Dead Buttons detection | AUTO |
| FDBP | FMI Dead Buttons Patching | ON |
| FDL | FMI DSP Filter Length | 1 |
| FIEQ | FMI Image Equalisation | ON |
| FIGA | FMI Image Gain | 1 |
| FIOF | FMI Image Offset | 0 |
| FLM | FMI Logging Mode | 8PAD |
| FPASA | FMI Peak Signal Amplitude for Required Servo Level | ON |
| GLM | GPIT Logging Mode | DIPM |
| GMOD | Gain Mode | AUTOLOW |
| ICMO | Inclinometry Computation Mode | AUTOMATIC_SELECTION |
| MAPP | Magnetometer PROM Presence | PRESENT |
| MDEC | Magnetic Field Declination | -6.587 DEG |
| MRTE | Magneto Reference Temperature | 22 DEGC |
| RBS | Resistivity Button Selection | AUTO |
| RBSI | Auto RBS Change Interval | 10 |
| SOFF | Standoff | -1 IN |
| TEMS | GPIT Temperature Sensor Used | BOTH |
| U-GPOF | Playback OLD VERSION GPIT FILE (BEFORE OP14 + SRPC-3098-FEB_2006_C) ? | NO |
| XGAI_FBST | Gain Value in Manual Mode | 0_dB |
| XGMO | EMEX & Gain Modes | EmexManu_GainAutoLowRange |
| XMOD | EMEX Voltage Regulation Mode | MANU |
| XVOL | EMEX Voltage | 175 V |

| | | | |
|---|---|---------------|------|
| XVOL | EMEX Voltage | 173 | V |
| EMS-B: Environment Measurement Sonde | | | |
| BHS | Borehole Status | OPEN | |
| BHT | Bottom Hole Temperature (used in calculations) | 33.33 | DEGC |
| EAAB | EMS Accelerometer Coefficient:Ab | 0 | |
| EAAS | EMS Accelerometer Coefficient:As | 0 | |
| EABB | EMS Accelerometer Coefficient:Bb | 0 | |
| EABS | EMS Accelerometer Coefficient:Bs | 0 | |
| EACB | EMS Accelerometer Coefficient:Cb | 0 | |
| EACS | EMS Accelerometer Coefficient:Cs | 0 | |
| EMUD | EMS Mudcake Correction | OFF | |
| FCD | Future Casing (Outer) Diameter | 13.375 | IN |
| GCSE | Generalized Caliper Selection | HD1_PPC1 | |
| GDEV | Average Angular Deviation of Borehole from Normal | 0 | DEG |
| GGRD | Geothermal Gradient | 0.018227 | DC/M |
| GRSE | Generalized Mud Resistivity Selection | EMS_RESIST | |
| GTSE | Generalized Temperature Selection | EMS_TEMP | |
| HVCS | Integrated Hole Volume Caliper Selection | PPC1_Calipers | |
| ISSBAR | Barite Mud Switch | NOBARITE | |
| MATR | Rock Matrix for Neutron Porosity Corrections | LIMESTONE | |
| SHT | Surface Hole Temperature | 25 | DEGC |
| MAXS-B: Multimode Array Sonic Xmitter Sonde | | | |
| FIRING_TABLE | MAST Firing Table | ** V ** | |
| TX_AMP | Transmitter Amplitude Factor | ** V ** | |
| U_CE_CBLG7 | CBL Gate Width 7 for Cement Evaluation | 80 | US |
| U_CE_CBLG8 | CBL Gate Width 8 for Cement Evaluation | 80 | US |
| U_CE_NMSG7 | Near Minimum Sliding Gate 7 for Cement Evaluation | 220 | US |
| U_CE_NMSG8 | Near Minimum Sliding Gate 8 for Cement Evaluation | 220 | US |
| U_CE_SGDT7 | Sliding Gate Delta-T 7 for Cement Evaluation | 57 | US/F |
| U_CE_SGDT8 | Sliding Gate Delta-T 8 for Cement Evaluation | 57 | US/F |
| MAPC-B: Multimode Array Sonic Power Cartridge | | | |
| AZIM_SELECT | Azimuth Reference Selection | P1AZ | |
| BHS | Borehole Status | OPEN | |
| BHT | Bottom Hole Temperature (used in calculations) | 33.33 | DEGC |
| BS | Bit Size | 12.250 | IN |
| CDTS | C-Delta-T Shale | 100 | US/F |
| CE_DCBLSEL | DCBL Selection for Cement Evaluation | 3_5FT | |
| CE_VDLGRA | VDL Manual Gain Rate Array for Cement Evaluation | ** V ** | |
| CE_VDLSEL | VDL Selection for Cement Evaluation | MU_5FT | |
| CE_VDL_MODE | DCBL/VDL Mode for Cement Evaluation | STANDARD | |
| CE_VFILSWA | VDL Filter Switch Array for Cement Evaluation | ** V ** | |
| CLASSAL | Classification Algorithm | ** V ** | |
| CRVIN_MF | Alteration Detection Input Number for Monopole Far | ID3 | |
| CRVIN_ML | Alteration Detection Input Number for Monopole Lower | ID2 | |
| CRVIN_MU | Alteration Detection Input Number for Monopole Upper | ID1 | |
| DCRMVL | DC Offset Removal Option | DC_MULTIPLE | |
| DLHS | Hole Diameter Source for SOBS Channel | AUTO | |
| DTCO_SELECT | Delta-T Compressional Selection for Finalization | MF | |
| DTF | Delta-T Fluid | 190 | US/F |
| DTM | Delta-T Matrix | 56 | US/F |
| DTSH_SELECT | Delta-T Shear Selection for Finalization | XD | |
| DWF7_SPEC | Channel/Station/Azimuth for VDL (DWF7) of Measurement 7 | WFA7/9/1 | |
| DWF8_SPEC | Channel/Station/Azimuth for VDL (DWF8) of Measurement 8 | WFA8/5/1 | |
| FIRING_TABLE | MAST Firing Table | ** V ** | |
| GCSE | Generalized Caliper Selection | HD1_PPC1 | |
| GDEV | Average Angular Deviation of Borehole from Normal | 0 | DEG |
| GGRD | Geothermal Gradient | 0.018227 | DC/M |
| GRSE | Generalized Mud Resistivity Selection | EMS_RESIST | |
| GTSE | Generalized Temperature Selection | EMS_TEMP | |
| IMG_DTCO_SEL_MAST | Imaging Input DT Compressional Selection | CONSTANT_DTCO | |
| IMG_EST_DTCO_MAST | Imaging Estimated DT Compressional | 120 | US/F |
| IMG_RBS | Imaging Relative Bearing Selection | RB1 | |
| ISSBAR | Barite Mud Switch | NOBARITE | |
| ITTS | Integrated Transit Time Source | DTCO | |
| MATR | Rock Matrix for Neutron Porosity Corrections | LIMESTONE | |
| NFPI_ML | Free Pipe Amplitude for ML | 0 | |
| NFPI_MU | Free Pipe Amplitude for MU | 0 | |
| NRSA | Number of Receivers in Sub-Array | ** V ** | |
| RBC | Relative Bearing Correction Allow/Disallow | DISALLOW | |
| ROTIN_XD | Alford Rotation X Dipole Measurement Number | ID5 | |
| ROTIN_YD | Alford Rotation Y Dipole Measurement Number | ID6 | |
| ROTWINDOW_CTRL | Alford Rotation Window Control | ON | |
| ROT_AI | Dipole Waveform Rotation Averaging Depth Interval | 1.524 | M |
| ROT_FIL LENG | Alford Rotation Filter Length | 101 | |
| ROT_TWD | Alford Rotation Window Time Width | 1240 | US |
| ROT_TWO | Alford Rotation Window Time Offset | 1360 | US |
| ROT_XFH | Alford Rotation Filter High Cutoff | 2000 | HZ |
| ROT_XFL | Alford Rotation Filter Low Cutoff | 800 | HZ |
| SHT | Surface Hole Temperature | 25 | DEGC |
| SPFS | Sonic Porosity Formula | RAYMER_HUNT | |
| SPSO | Sonic Porosity Source | DTCO | |
| STCAL | STC Algorithm | ** V ** | |
| STCSEL1 | Station Selection for STC for Measurement 1 | ** V ** | |
| STCSEL2 | Station Selection for STC for Measurement 2 | ** V ** | |
| STCSEL3 | Station Selection for STC for Measurement 3 | ** V ** | |

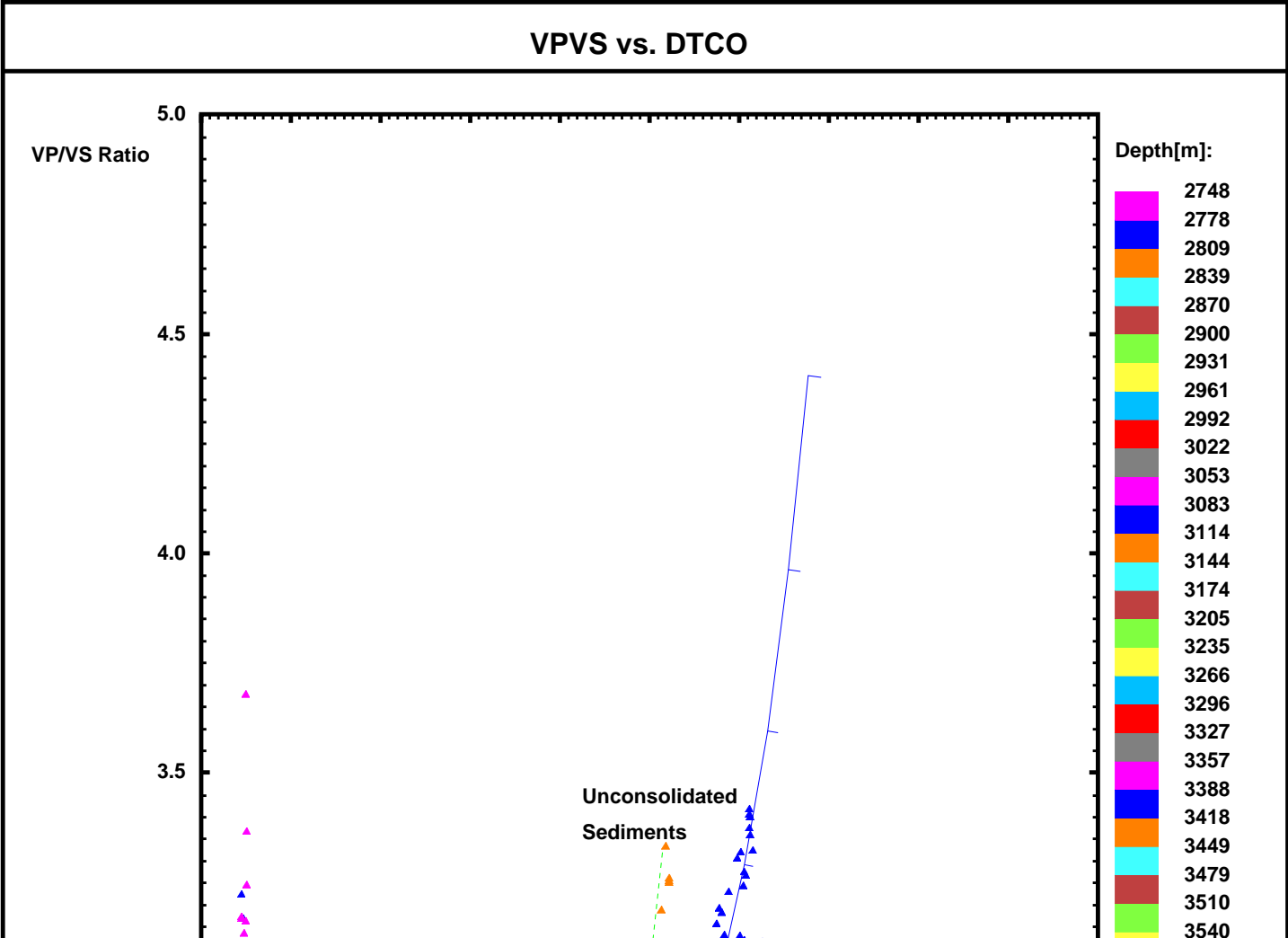
| | | | |
|--|--|---------------------|------|
| STCSEL4 | Station Selection for STC for Measurement 4 | ** V ** | |
| STCSEL5 | Station Selection for STC for Measurement 5 | ** V ** | |
| STCSEL6 | Station Selection for STC for Measurement 6 | ** V ** | |
| STCSEL_FAST | Station Selection for STC for DT_FAST | ** V ** | |
| STCSEL_SLOW | Station Selection for STC for DT_SLOW | ** V ** | |
| TRMIN | Alteration Detection Minimum Transmitter Receiver Spacing for Processing | 3.0 | FT |
| TX_AMP | Transmitter Amplitude Factor | ** V ** | |
| U_CE_CBLG7 | CBL Gate Width 7 for Cement Evaluation | 80 | US |
| U_CE_CBLG8 | CBL Gate Width 8 for Cement Evaluation | 80 | US |
| U_CE_NMSG7 | Near Minimum Sliding Gate 7 for Cement Evaluation | 220 | US |
| U_CE_NMSG8 | Near Minimum Sliding Gate 8 for Cement Evaluation | 220 | US |
| U_CE_SGDT7 | Sliding Gate Delta-T 7 for Cement Evaluation | 57 | US/F |
| U_CE_SGDT8 | Sliding Gate Delta-T 8 for Cement Evaluation | 57 | US/F |
| U_SLL1_MAST | MAST DSTC Slowness Lower Limit 1 | 0 | US/F |
| U_SLL2_MAST | MAST DSTC Slowness Lower Limit 2 | 0 | US/F |
| U_SLL3_MAST | MAST DSTC Slowness Lower Limit 3 | 40 | US/F |
| U_SLL4_MAST | MAST DSTC Slowness Lower Limit 4 | 200 | US/F |
| U_SLL5_MAST | MAST DSTC Slowness Lower Limit 5 | 112 | US/F |
| U_SLL6_MAST | MAST DSTC Slowness Lower Limit 6 | 112 | US/F |
| U_SLL_FAST_MAST | MAST DSTC Slowness Lower Limit Fast | 0 | US/F |
| U_SLL_SLOW_MAST | MAST DSTC Slowness Lower Limit Slow | 0 | US/F |
| U_SUL1_MAST | MAST DSTC Slowness Upper Limit 1 | 0 | US/F |
| U_SUL2_MAST | MAST DSTC Slowness Upper Limit 2 | 0 | US/F |
| U_SUL3_MAST | MAST DSTC Slowness Upper Limit 3 | 240 | US/F |
| U_SUL4_MAST | MAST DSTC Slowness Upper Limit 4 | 900 | US/F |
| U_SUL5_MAST | MAST DSTC Slowness Upper Limit 5 | 772 | US/F |
| U_SUL6_MAST | MAST DSTC Slowness Upper Limit 6 | 772 | US/F |
| U_SUL_FAST_MAST | MAST DSTC Slowness Upper Limit Fast | 0 | US/F |
| U_SUL_SLOW_MAST | MAST DSTC Slowness Upper Limit Slow | 0 | US/F |
| PPC1-B: Powered Positioning Device/Caliper 1 | | | |
| | PPC1 Caliper Type | CAL_STD | |
| CLBD_PPC | PPC Calibration data selection | ROM | |
| PWEL_PPC | PPC Primary Tool for WellCAD | NONE | |
| SWEL_PPC | PPC Secondary Tool for WellCAD (45 Degrees Rotation PPC Tool) | NONE | |
| WRDR_PPC | PPC Rotation Direction for Secondary Tool | NONE | |
| EDTC-B: Enhanced DTS Cartridge | | | |
| BHFL | Borehole Fluid Type | WATER | |
| BHS | Borehole Status | OPEN | |
| BHT | Bottom Hole Temperature (used in calculations) | 33.33 | DEGC |
| BSCO | Borehole Salinity Correction Option | NO | |
| CCCO | Casing & Cement Thickness Correction Option | NO | |
| DPPM | Density Porosity Processing Mode | STAN | |
| FSAL | Formation Salinity | -50000 | PPM |
| FSCO | Formation Salinity Correction Option | NO | |
| GCSE | Generalized Caliper Selection | HD1_PPC1 | |
| GDEV | Average Angular Deviation of Borehole from Normal | 0 | DEG |
| GGRD | Geothermal Gradient | 0.018227 | DC/M |
| GRSE | Generalized Mud Resistivity Selection | EMS_RESIST | |
| GTSE | Generalized Temperature Selection | EMS_TEMP | |
| HSCO | Hole Size Correction Option | YES | |
| ISSBAR | Barite Mud Switch | NOBARITE | |
| ISSBAR_EDTC | Nuclear Mud Type | NOBARITE | |
| MATR | Rock Matrix for Neutron Porosity Corrections | LIMESTONE | |
| MCCO | Mud Cake Correction Option | NO | |
| MCOR | Mud Correction | NATU | |
| MWCO | Mud Weight Correction Option | NO | |
| PTCO | Pressure/Temperature Correction Option | NO | |
| SDAT | Standoff Data Source | SOCN | |
| SHT | Surface Hole Temperature | 25 | DEGC |
| SOCN | Standoff Distance | 2.5 | IN |
| SOCO | Standoff Correction Option | NO | |
| TPOS_EDTC | EDTC Tool Centered/Eccentered | Centered | |
| HOLEV: Integrated Hole/Cement Volume | | | |
| FCD | Future Casing (Outer) Diameter | 13.375 | IN |
| HVCS | Integrated Hole Volume Caliper Selection | PPC1_Calipers | |
| STI: Stuck Tool Indicator | | | |
| LBFR | Trigger for MAXIS First Reading Label | TDL | |
| STKT | STI Stuck Threshold | 0.762 | M |
| TDD | Total Depth - Driller | 3686.00 | M |
| TDL | Total Depth - Logger | 3667.00 | M |
| System and Miscellaneous | | | |
| ALTDPCCHAN | Name of alternate depth channel | SpeedCorrectedDepth | |
| BSAL | Borehole Salinity | 110000.00 | PPM |
| CSIZ | Current Casing Size | 20.000 | IN |
| CWEI | Casing Weight | 133.00 | LB/F |
| DFD | Drilling Fluid Density | 1.10 | G/C3 |
| DO | Depth Offset for Playback | 3.2 | M |
| DORL | Depth Offset for Repeat Analysis | 0.0 | M |
| FLEV | Fluid Level | 10.00 | M |
| MST | Mud Sample Temperature | 25.70 | DEGC |
| PBVSADP | Use alternate depth channel for playback | NO | |
| PP | Playback Processing | NORMAL | |
| RMFS | Resistivity of Mud Filtrate Sample | 0.0590 | OHMM |
| RW | Resistivity of Connate Water | 1.0000 | OHMM |

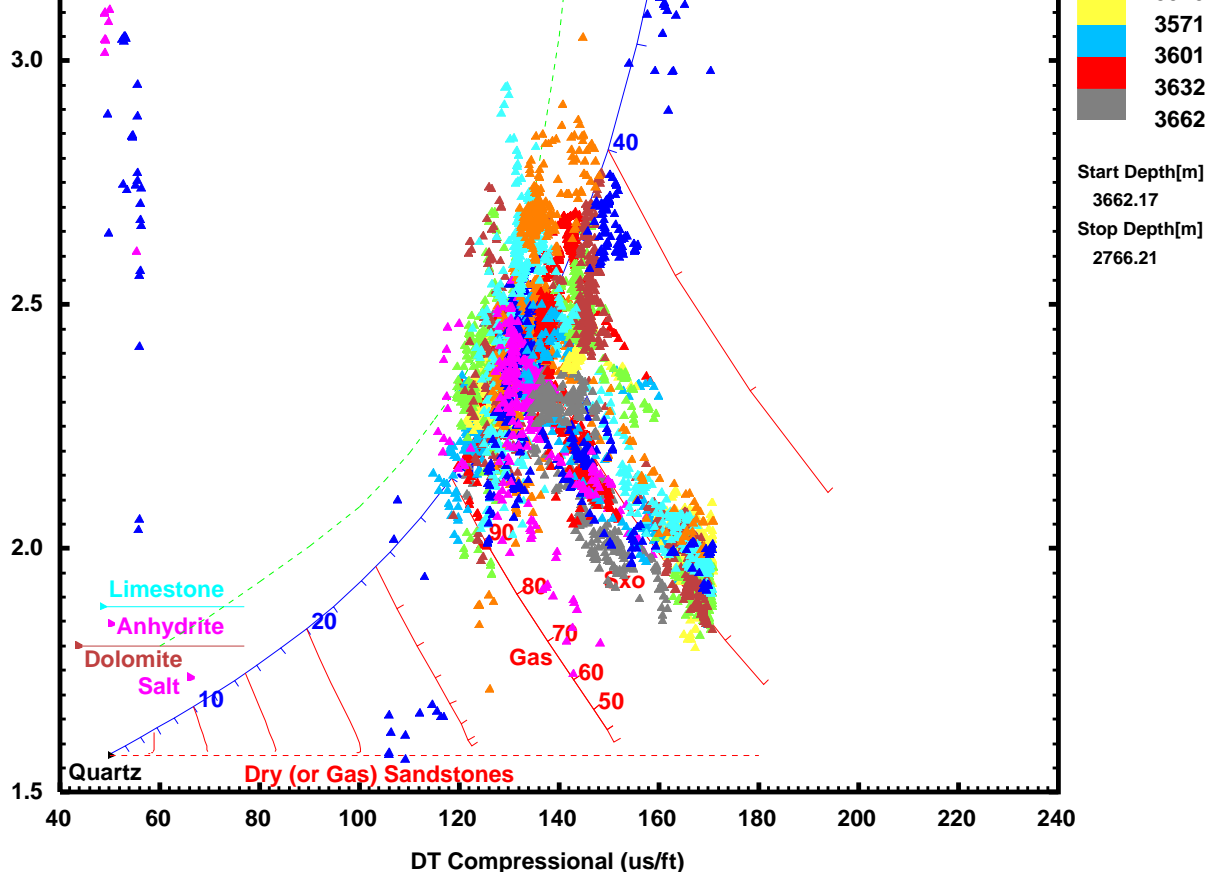
| | | | | | | |
|-----------------------------|--|-----------------------|--|-------------------|----------|----------|
| TD TWS | Total Depth Temperature of Connate Water Sample | | 3667 37.78 | M DEGC | | |
| Format: MAST_Dipole_200_REP | | Vertical Scale: 1:200 | Graphics File Created: 12-Aug-2009 20:03 | | | |
| OP System Version: 17C0-154 | | | | | | |
| FBST-B | 17C0-154 | EMS-B | 17C0-154 | | | |
| MAXS-B | SKK-3704-MAST | MAPC-B | SKK-3704-MAST | | | |
| PPC1-B | 17C0-154 | EDTC-B | 17C0-154 | | | |
| Input DLIS Files | | | | | | |
| DEFAULT | FMI_NGS_EMS_MAXS_038LUP | FN:114 | PRODUCER | 13-Jul-2009 17:16 | 3659.9 M | 2752.6 M |
| DEFAULT | FMI_EMS_MAXS_MAPC_009PUP | FN:36 | PRODUCER | 10-Aug-2009 17:21 | 2900.0 M | 2844.9 M |
| Output DLIS Files | | | | | | |
| DEFAULT | FMI_EMS_MAXS_MAPC_016PUP | FN:48 | PRODUCER | 12-Aug-2009 20:03 | | |
| CLIENT | FMI_EMS_MAXS_MAPC_016PUC | FN:49 | CUSTOMER | 12-Aug-2009 20:03 | | |



Cross Plot

MAXIS Field Log





Template: empirical relationship for vertical wells (vertically polarized compressional, horizontally polarized shear)

File Name: MAST_DSTC_VPVS_DT_CO_PLOT_1.PDS

File Created: Aug 10 18:37:51 2009

MAST Parameters

Product Class:
Standard

Environment Information

| | |
|-----------|-----------------|
| FORM_TYPE | Slow |
| VSLO_COMP | No |
| MUDT | Water Based Mud |
| DTF | 190.000 US/F |
| BH_STAT | Open Hole |
| BDIAM | 12.250 IN |
| CSIZ | 20.000 IN |
| BS | 12.250 IN |
| DLHS | AUTO |
| CWEI | 133.000 LB/F |
| DFD | 1.100 G/C3 |
| ZCMT | 6.800 MRAY |
| VDL_MODE | - |

Data Channel Identification

| MEASURE_NUMBER | #01 | #02 | #03 | #04 | #05 | #06 |
|-----------------|----------------|----------------|--------------|----------|----------|----------|
| DATAID_WFA | WMUM | WMLM | WMFM | WMFL | W90C | W00C |
| DATAID_WFA_MONO | WMUM_M | WMLM_M | WMFM_M | WMFL_M | W90C_M | W00C_M |
| DATAID_WFA_DIN | - | - | - | - | W90C_000 | W00C_000 |
| DATAID_WFA_DIOF | - | - | - | - | W90C_090 | W00C_090 |
| MEASURE_NAME | Monopole Upper | Monopole Lower | Monopole Far | Stoneley | X Dipole | Y Dipole |

Measurement

| | | | | | | |
|--------------|---------------|---------------|--------------|-----------|------------|------------|
| MEASURE_TYPE | Monopole Near | Monopole Near | Monopole Far | Stoneley | Dipole | Dipole |
| TXSEL | MU | ML | MF | MF | XD | YD |
| WFSEL | mp_mf_d | mp_mf_d | mp_mf_d | mp_lf_d | dp_cd_d | dp_cd_d |
| TXWFTYPE | No Deconv | No Deconv | No Deconv | No Deconv | No Deconv | No Deconv |
| TXCONV | 3 us | 3 us | 3 us | 3 us | 20 us | 20 us |
| TX_WF_FREQ | Medium | Medium | Medium | Low | Chirp | Chirp |
| TX_WF_CATEG | Normal | Normal | Normal | Normal | Chirp Down | Chirp Down |
| TX_AMP | 75 % | 75 % | 100 % | 100 % | 100 % | 100 % |
| SAMINT | 10 us | 10 us | 10 us | 40 us | 40 us | 40 us |

| | | | | | | |
|------------------------------|-------------|-------------|-------------|------------|---------------|---------------|
| DIGTIME | 2550.0 US | 2550.0 US | 5110.0 US | 20440.0 US | 30480.0 US | 30480.0 US |
| DIGDEL | 0.0 US | 0.0 US | 0.0 US | 0.0 US | 0.0 US | 0.0 US |
| DIGDT | 0.0 US/F | 0.0 US/F | 0.0 US/F | 0.0 US/F | 0.0 US/F | 0.0 US/F |
| GNINT | 2550.0 US | 2550.0 US | 5110.0 US | 20440.0 US | 30480.0 US | 30480.0 US |
| ELTSEL | – | – | – | – | – | – |
| NWF | 52 | 52 | 52 | 52 | 104 | 104 |
| GAINSEL | – | – | – | – | – | – |
| COMPCTL | MZIP A | MZIP A | MZIP A | MZIP D | MZIP D | MZIP D |
| AUX_ACQ | All | All | All | All | All | All |
| MODALCTL | Downhole | Surface | Surface | Downhole | Downhole | Downhole |
| MODALENE | Allow | Disallow | Disallow | Allow | Allow | Allow |
| AUTOFREQ | Disallow | Disallow | Disallow | Disallow | Disallow | Disallow |
| SCORCTL | Allow | Allow | Allow | Allow | Allow | Allow |
| Arrival Time Detection (ATD) | | | | | | |
| NMSGGA | – | – | – | – | – | – |
| NMXGA | – | – | – | – | – | – |
| SGDTA | – | – | – | – | – | – |
| SGCLA | – | – | – | – | – | – |
| FMDTTSELA | First Break | First Break | First Break | – | – | – |
| DSTC and Tracking | | | | | | |
| STCIN | Monopole | Monopole | Monopole | Monopole | Dipole Inline | Dipole Inline |
| TLLA | 200 US | 200 US | 550 US | 2720 US | 1240 US | 1360 US |
| TULA | 2320 US | 2320 US | 5110 US | 18960 US | 23800 US | 24880 US |
| SLLA | 40 US/F | 40 US/F | 40 US/F | 200 US/F | 110 US/F | 110 US/F |
| SULA | 240 US/F | 240 US/F | 240 US/F | 900 US/F | 770 US/F | 770 US/F |
| TWIA | 300 US | 300 US | 300 US | 1880 US | 2160 US | 2160 US |
| TSTA | 100 US | 100 US | 100 US | 440 US | 520 US | 520 US |
| SSTA | 2 US/F | 2 US/F | 2 US/F | 4 US/F | 4 US/F | 4 US/F |
| SBWA | 1530 US | 1530 US | 2930 US | 9360 US | 13560 US | 14160 US |
| SBOA | 360 US | 360 US | 360 US | 1920 US | 8200 US | 8200 US |
| TWIDA | 1146 US | 1146 US | 2196 US | 7020 US | 10170 US | 10620 US |
| SWIDA | 20 US/F | 20 US/F | 20 US/F | 60 US/F | 60 US/F | 60 US/F |
| XFLA | 5000.0 HZ | 5000.0 HZ | 5000.0 HZ | 1000.0 HZ | 500.0 HZ | 500.0 HZ |
| XFHA | 16000.0 HZ | 16000.0 HZ | 16000.0 HZ | 2000.0 HZ | 2000.0 HZ | 2000.0 HZ |
| FIL_LENGA | 49 | 49 | 49 | 91 | 71 | 71 |
| SEMTHRA | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| VPVSA | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 |
| TRACKMD | PS | PS | PS | Stoneley | Dipole | Dipole |
| STCAL | Full Array | Full Array | Full Array | Full Array | Full Array | Full Array |
| NRSA | 5 | 5 | 5 | 5 | 5 | 5 |
| DTCO_SELECT | MF | MF | MF | MF | MF | MF |
| DTSH_SELECT | XD | XD | XD | XD | XD | XD |
| TKOCTL | Disallow | Disallow | Allow | Allow | Allow | Allow |
| TKO_DECIM | 12 inch | | | | | |
| TKOMCCTL | – | – | – | Disallow | Disallow | Disallow |
| MC_RHO | 2.0 G/C3 | | | | | |
| MC_RHO_OPT | RHOB | | | | | |
| STCTRCTL | BOTH | | | | | |

MAST Parameter Descriptions

Environment Information

| | |
|-----------|---------------------------------------|
| LISNAME | Description |
| FORM_TYPE | Formation Type |
| VSLO_COMP | Very Slow Compressional |
| MUDT | Mud Type |
| DTF | Delta-T Fluid |
| BH_STAT | Borehole Status |
| BDIAM | Borehole Diameter |
| CSIZ | Current Casing Size |
| BS | Bit Size |
| DLHS | Hole Diameter Source for SOBS Channel |
| CWEI | Casing Weight |
| DFD | Drilling Fluid Density |
| ZCMT | Acoustic Impedance of Cement |
| VDL_MODE | DCBL/VDL Mode for Cement Evaluation |

Data Channel Identification

| | |
|-----------------|---|
| DATAID_WFA | MSIP–L Waveform Data ID in Horizon Naming Convention for WFA |
| DATAID_WFA_MONO | MSIP–L Waveform Data ID in Horizon Naming Convention for WFA_MONO |
| DATAID_WFA_DIN | MSIP–L Waveform Data ID in Horizon Naming Convention for WFA_DIN |
| DATAID_WFA_DIN2 | MSIP–L Waveform Data ID in Horizon Naming Convention for WFA_DIN2 |

| | |
|-------------------------------------|---|
| DATAID_WFA_DIOF | MSIP-L Waveform Data ID in Horizon Naming Convention for WFAh_DIOF |
| MEASURE_NAME | Measurement Names |
| Measurement | |
| MEASURE_TYPE | Measurement Types |
| TXSEL | Transmitter Drive Selection |
| WFSEL | Transmitter Drive Waveform Selection |
| TXWFTYPE | Transmitter Drive Waveform Type |
| TXCONV | Transmitter Drive Conversion Rate |
| TX_WF_FREQ | Transmitter Drive Waveform Frequency |
| TX_WF_CATEG | Transmitter Drive Waveform Category |
| TX_AMP | Transmitter Amplitude Factor |
| SAMINT | Waveform Sampling Interval |
| DIGTIME | Waveform Digitizing Time |
| DIGDEL | Waveform Digitizing Delay |
| DIGDT | Waveform Digitizing Delta-T |
| GNINT | Waveform Gain Interval |
| ELTSEL | Receiver Sensor Element Selection |
| NWF | Number of Waveforms |
| GAINSEL | Sensor Gain Selection |
| COMPCTL | Data Compression Control |
| AUX_ACQ | Aux Acquisition Mode |
| MODALCTL | Modal Computation Control |
| MODALENE | Downhole Modal Energy Computation Option |
| AUTOFREQ | Automatic Frequency Selection |
| SCORCTL | Sensor Correction Control |
| Arrival Time Detection (ATD) | |
| NMSGGA | Near Minimum Sliding Gate Array |
| NMXGA | Near Maximum Sliding Gate Array |
| SGDTA | Sliding Gate Delta-T Array |
| SGCLA | Sliding Gate Closing Delta-T Array |
| FMDTTSELA | First Motion Detection Transit Time Selection |
| DSTC and Tracking | |
| STCIN | STC Input Channel Name |
| TLLA | Time Lower Limit |
| TULA | Time Upper Limit |
| SLLA | Slowness Lower Limit |
| SULA | Slowness Upper Limit |
| TWIA | Integration Time Window |
| TSTA | Time Step |
| SSTA | Slowness Step |
| SBWA | Search Band Width |
| SBOA | Search Band Offset |
| TWIDA | Peak Mask Time Width |
| SWIDA | Peak Mask Slowness Width |
| XFLA | Filter Low Cutoff |
| XFHA | Filter High Cutoff |
| FIL LENGA | Filter Length Array |
| SEMTHRA | STC Semblance Threshold |
| VPVSA | Sonic Vp / Vs Ratio |
| TRACKMD | MAST Tracking Mode |
| STCAL | STC Algorithm |
| NRSA | Number of Receivers in Sub-Array |
| DTCO_SELECT | Delta-T Compressional Selection for Finalization |
| DTSH_SELECT | Delta-T Shear Selection for Finalization |
| TKOCTL | TKO Computation Control (ACQ) |
| TKO_DECIM | TKO Decimation Depth Interval |
| TKOMCCTL | TKO Homogeneous Isotropic Model Curve Computation Control |
| MC_RHO | Homogeneous Isotropic Model Curve Model Formation Bulk Density |
| MC_RHO_OPT | Homogeneous Isotropic Model Curve Model Formation Bulk Density Option |
| STCTRCTL | STC and Tracking Control |

MAXIS Field Log

Calibration and Check Summary

| Measurement | Nominal | Master | Before | After | Change | Limit | Units |
|---|---------|--------|--------|-------|--------|---------|-------|
| Full-Bore Scanner – B Wellsite Calibration – Caliper Calibration | | | | | | | |
| Before: 12-Jul-2009 11:56 | | | | | | | |
| Caliper 1 Small Jig | 8.000 | N/A | 7.973 | N/A | N/A | N/A | IN |
| Caliper 2 Small Jig | 16.00 | N/A | 16.03 | N/A | N/A | N/A | IN |
| Caliper 1 Large Jig | 16.00 | N/A | 15.80 | N/A | N/A | N/A | IN |
| Caliper 2 Large Jig | 8.000 | N/A | 7.906 | N/A | N/A | N/A | IN |
| Full-Bore Scanner – B Wellsite Calibration – CROUZET ACCELEROMETER PROM HAS BEEN READ CORRECTLY | | | | | | | |
| Before: 12-Jul-2009 12:49 | | | | | | | |
| TEMPERATURE REFERENCE : | N/A | N/A | 20 | N/A | N/A | N/A | DEGC |
| YEAR OF CALIBRATION : | N/A | N/A | 3 | N/A | N/A | N/A | |
| MONTH OF CALIBRATION : | N/A | N/A | 4 | N/A | N/A | N/A | |
| SERIAL NUMBER : | N/A | N/A | 852 | N/A | N/A | N/A | |
| Full-Bore Scanner – B Wellsite Calibration – CROUZET MAGNETOMETER PROM HAS BEEN READ CORRECTLY | | | | | | | |
| Before: 12-Jul-2009 12:49 | | | | | | | |
| TEMPERATURE REFERENCE : | N/A | N/A | 22 | N/A | N/A | N/A | DEGC |
| YEAR OF CALIBRATION : | N/A | N/A | 97 | N/A | N/A | N/A | |
| MONTH OF CALIBRATION : | N/A | N/A | 2 | N/A | N/A | N/A | |
| SERIAL NUMBER : | N/A | N/A | 287 | N/A | N/A | N/A | |
| Hostile Natural Gamma Ray Sonde Wellsite Calibration – Detector 1 Check | | | | | | | |
| Master: 5-Jul-2009 18:42 Before: 5-Jul-2009 18:56 | | | | | | | |
| Na 511 Peak Loc | 40.00 | 39.49 | 39.74 | N/A | N/A | 1.000 | |
| Na 511 Peak Res | 15.50 | 17.60 | 16.16 | N/A | N/A | 2.000 | % |
| High Voltage | 1150 | 1214 | 1215 | N/A | N/A | N/A | V |
| Na 1785 Peak Loc | 142.6 | 143.1 | 143.6 | N/A | N/A | 7.000 | |
| Na 1785 Peak Res | 8.500 | 9.645 | 9.431 | N/A | N/A | 2.000 | % |
| Temperature | 15.50 | 26.77 | 26.77 | N/A | N/A | N/A | DEGC |
| Na Count Rate | 45.00 | 23.60 | 23.58 | N/A | N/A | 8.000 | CPS |
| Hostile Natural Gamma Ray Sonde Wellsite Calibration – Detector 2 Check | | | | | | | |
| Master: 5-Jul-2009 18:42 Before: 5-Jul-2009 18:56 | | | | | | | |
| Na 511 Peak Loc | 40.00 | 39.91 | 39.56 | N/A | N/A | 1.000 | |
| Na 511 Peak Res | 15.50 | 16.82 | 17.24 | N/A | N/A | 2.000 | % |
| High Voltage | 1150 | 1105 | 1106 | N/A | N/A | N/A | V |
| Na 1785 Peak Loc | 142.6 | 144.3 | 143.7 | N/A | N/A | 7.000 | |
| Na 1785 Peak Res | 8.500 | 9.151 | 8.788 | N/A | N/A | 2.000 | % |
| Temperature | 15.50 | 26.35 | 26.46 | N/A | N/A | N/A | DEGC |
| Na Count Rate | 45.00 | 23.75 | 23.52 | N/A | N/A | 8.000 | CPS |
| Hostile Natural Gamma Ray Sonde Wellsite Calibration – Ratio Of Detector 1 To Detector 2 | | | | | | | |
| Master: 5-Jul-2009 18:42 Before: 5-Jul-2009 18:56 | | | | | | | |
| Coincidence Count Rate Ratio | 1.000 | 0.9925 | 1.004 | N/A | N/A | 0.05000 | |
| Powered Positioning Device/Caliper 1 Wellsite Calibration – PPC1 Caliper Calibration | | | | | | | |
| Before: 12-Jul-2009 12:03 | | | | | | | |
| PPC1 Radius 1 Raw Small Radius | 3.500 | N/A | 4.426 | N/A | N/A | 0.5000 | IN |
| PPC1 Radius 1 Raw Large Radius | 8.000 | N/A | 8.666 | N/A | N/A | 0.5000 | IN |
| PPC1 Radius 2 Raw Small Radius | 3.500 | N/A | 3.337 | N/A | N/A | 0.5000 | IN |
| PPC1 Radius 2 Raw Large Radius | 8.000 | N/A | 7.746 | N/A | N/A | 0.5000 | IN |
| PPC1 Radius 3 Raw Small Radius | 3.500 | N/A | 4.219 | N/A | N/A | 0.5000 | IN |
| PPC1 Radius 3 Raw Large Radius | 8.000 | N/A | 8.465 | N/A | N/A | 0.5000 | IN |
| PPC1 Radius 4 Raw Small Radius | 3.500 | N/A | 2.510 | N/A | N/A | 0.5000 | IN |
| PPC1 Radius 4 Raw Large Radius | 8.000 | N/A | 7.022 | N/A | N/A | 0.5000 | IN |
| Enhanced DTS Cartridge Wellsite Calibration – EDTC Accelerometer Calibration | | | | | | | |
| Before: 12-Jul-2009 13:01 | | | | | | | |
| EDTC Z-Axis Acceleration | 9.810 | N/A | 9.794 | N/A | N/A | N/A | M/S2 |
| Enhanced DTS Cartridge Wellsite Calibration – Detector Calibration | | | | | | | |
| Before: 12-Jul-2009 12:51 | | | | | | | |
| Gamma Ray (Jig – Bkg) | 167.1 | N/A | 167.1 | N/A | N/A | 15.19 | GAPI |
| Gamma Ray (Calibrated) | 160.0 | N/A | 160.0 | N/A | N/A | 15.00 | GAPI |

Full-Bore Scanner – B / Equipment Identification

Primary Equipment:





| | | |
|------------------------------------|----------|------|
| FullBore Scanner Sonde | FBSS – B | 816 |
| FullBore Scanner Sonde Upper part | FBSH – A | 815 |
| FullBore Scanner Sonde Cartridge | FBSC – B | 816 |
| GPIT Cartridge – C | GPIC – C | 1843 |
| Insulating Sub | AH – 185 | 938 |
| FullBore Scanner Control Cartridge | FBCC – A | 819 |

Auxiliary Equipment:

| | | |
|-------------------------------|-----------|------|
| Electronics Cartridge Housing | ECH – MRA | 4811 |
|-------------------------------|-----------|------|

Full-Bore Scanner – B Wellsite Calibration

Caliper Calibration

| Phase | Caliper 1 Small Jig IN | Value | Phase | Caliper 2 Small Jig IN | Value |
|---------------------------|---|-------|--------|---|-------|
| Before |  | 7.973 | Before |  | 16.03 |
| | 6.800 (Minimum) 8.000 (Nominal) 9.200 (Maximum) | | | 13.60 (Minimum) 16.00 (Nominal) 18.40 (Maximum) | |
| Phase | Caliper 1 Large Jig IN | Value | Phase | Caliper 2 Large Jig IN | Value |
| Before |  | 15.80 | Before |  | 7.906 |
| | 13.60 (Minimum) 16.00 (Nominal) 18.40 (Maximum) | | | 6.800 (Minimum) 8.000 (Nominal) 9.200 (Maximum) | |
| Before: 12-Jul-2009 11:56 | | | | | |

Hostile Natural Gamma Ray Cartridge – B / Equipment Identification

Primary Equipment:

| | | |
|----------------|----------|-----|
| HNGC Cartridge | HNGC – B | 424 |
|----------------|----------|-----|

Auxiliary Equipment:

| | | |
|--------------|----------|-----|
| HNGC Housing | HNGH – A | 358 |
|--------------|----------|-----|

Hostile Natural Gamma Ray Sonde / Equipment Identification

Primary Equipment:















| | | |
|------------|-----------|-----|
| HNGS Sonde | HNGS – BA | 164 |
|------------|-----------|-----|

Auxiliary Equipment:

| | | |
|--------------------------|-----------|------|
| HNGS Sonde Housing | HNSH – BA | 161 |
| Gamma Source Radioactive | GSR – Y | 1005 |

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 |  | 39.49 | Master |  | 17.60 | Master |  | 1214 |
| Before |  | 39.74 | Before |  | 16.16 | Before |  | 1215 |
| | 37.50 (Minimum) 40.00 (Nominal) 43.50 (Maximum) | | | 12.00 (Minimum) 15.50 (Nominal) 19.00 (Maximum) | | | 900.0 (Minimum) 1150 (Nominal) 1600 (Maximum) | |
| Phase | Na 1785 Peak Loc | Value | Phase | Na 1785 Peak Res % | Value | Phase | Temperature DEGC | Value |
| Master |  | 143.1 | Master |  | 9.645 | Master |  | 26.77 |
| Before |  | 143.6 | Before |  | 9.431 | Before |  | 26.77 |
| | 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 |  | 23.60 | | | | | | |
| Before |  | 23.58 | | | | | | |
| | 10.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum) | | | | | | | |
| Master: 5-Jul-2009 18:42 | | | Before: 5-Jul-2009 18:56 | | | | | |

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 | | | 39.91 | Master | | | 16.82 | Master | | | 1105 |
| Before | | | 39.56 | Before | | | 17.24 | Before | | | 1106 |
| 37.50 (Minimum) 40.00 (Nominal) 43.50 (Maximum) | | | | 12.00 (Minimum) 15.50 (Nominal) 19.00 (Maximum) | | | | 900.0 (Minimum) 1150 (Nominal) 1600 (Maximum) | | | |
| Phase | Na 1785 Peak Loc | | Value | Phase | Na 1785 Peak Res % | | Value | Phase | Temperature DEGC | | Value |
| Master | | | 144.3 | Master | | | 9.151 | Master | | | 26.35 |
| Before | | | 143.7 | Before | | | 8.788 | Before | | | 26.46 |
| 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 | | | 23.75 | | | | | | | | |
| Before | | | 23.52 | | | | | | | | |
| 10.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum) | | | | | | | | | | | |
| Master: 5-Jul-2009 18:42 | | | | Before: 5-Jul-2009 18:56 | | | | | | | |

| Hostile Natural Gamma Ray Sonde Wellsite Calibration | | | |
|--|------------------------------|--------------------|--------------------|
| Ratio Of Detector 1 To Detector 2 | | | |
| Phase | Coincidence Count Rate Ratio | Value | |
| Master | | 0.9925 | |
| Before | | 1.004 | |
| | 0.9500 (Minimum) | 1.000 (Nominal) | 1.050 (Maximum) |
| Master: 5-Jul-2009 18:42 | | | |
| Before: 5-Jul-2009 18:56 | | | |


| Multimode Array Sonic Power Cartridge / Equipment Identification | | |
|--|-----------|------|
| Primary Equipment: | | |
| Multimode Array Sonic Minimum Service So | MAMS – BA | 8048 |
| Multimode Array Sonic Control Cartridge | MAPC – BA | 8038 |
| Auxiliary Equipment: | | |
| Electronics Cartridge Housing | ECH – SF | 8038 |

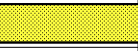


| Powered Positioning Device/Caliper 1 / Equipment Identification | | |
|---|----------|------|
| Primary Equipment: | | |
| PPC Powered Positioning Device/Caliper | PPC1 – B | 8169 |
| PPC1 Caliper Standard | PPC_ – | |
| Auxiliary Equipment: | | |

| Powered Positioning Device/Caliper 1 Wellsite Calibration | | | | | | | | | |
|---|-----------------------------------|--------------------|--------------------|-------|--------|-----------------------------------|--------------------|--------------------|-------|
| PPC1 Caliper Calibration | | | | | | | | | |
| Phase | PPC1 Radius 1 Raw Small Radius IN | | | Value | Phase | PPC1 Radius 1 Raw Large Radius IN | | | Value |
| Before | | | | 4.426 | Before | | | | 8.666 |
| | 1.200 (Minimum) | 3.500 (Nominal) | 5.600 (Maximum) | | | 6.100 (Minimum) | 8.000 (Nominal) | 9.700 (Maximum) | |
| Phase | PPC1 Radius 2 Raw Small Radius IN | | | Value | Phase | PPC1 Radius 2 Raw Large Radius IN | | | Value |
| Before | | | | 3.337 | Before | | | | 7.746 |
| | 1.200 (Minimum) | 3.500 (Nominal) | 5.600 (Maximum) | | | 6.100 (Minimum) | 8.000 (Nominal) | 9.700 (Maximum) | |
| Phase | PPC1 Radius 3 Raw Small Radius IN | | | Value | Phase | PPC1 Radius 3 Raw Large Radius IN | | | Value |
| Before | | | | 4.219 | Before | | | | 8.465 |
| | 1.200 (Minimum) | 3.500 (Nominal) | 5.600 (Maximum) | | | 6.100 (Minimum) | 8.000 (Nominal) | 9.700 (Maximum) | |
| Phase | PPC1 Radius 4 Raw Small Radius IN | | | Value | Phase | PPC1 Radius 4 Raw Large Radius IN | | | Value |
| Before | | | | 2.510 | Before | | | | 7.022 |

| | | | | | |
|---------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 1.200 (Minimum) | 3.500 (Nominal) | 5.600 (Maximum) | 6.100 (Minimum) | 8.000 (Nominal) | 9.700 (Maximum) |
| Before: 12-Jul-2009 12:03 | | | | | |

| Enhanced DTS Cartridge / Equipment Identification | | |
|---|------------|------|
| Primary Equipment: | | |
| EDTC Gamma Ray Detector | EDTG – A/B | 8215 |
| Enhanced DTS Cartridge | EDTC – BB | 8218 |
| Auxiliary Equipment: | | |
| EDTC Housing | EDTH – B | 8206 |

| Enhanced DTS Cartridge Wellsite Calibration | | |
|---|---|-------|
| EDTC Accelerometer Calibration | | |
| Phase | EDTC Z-Axis Acceleration M/S2 | Value |
| Before |  | 9.794 |
| | 9.610 (Minimum) 9.810 (Nominal) 10.01 (Maximum) | |
| Before: 12-Jul-2009 13:01 | | |

| Enhanced DTS Cartridge Wellsite Calibration | | | | | | | | | | | |
|---|--|-----------------|-----------------|--------|---|-----------------|-----------------|--------|---|-----------------|-----------------|
| Detector Calibration | | | | | | | | | | | |
| Phase | Gamma Ray Background GAPI | | Value | Phase | Gamma Ray (Jig – Bkg) GAPI | | Value | Phase | Gamma Ray (Calibrated) GAPI | | Value |
| Before |  | | 3.157 | Before |  | | 167.1 | Before |  | | 160.0 |
| | 0 (Minimum) | 30.00 (Nominal) | 120.0 (Maximum) | | 151.9 (Minimum) | 167.1 (Nominal) | 182.3 (Maximum) | | 145.0 (Minimum) | 160.0 (Nominal) | 175.0 (Maximum) |
| Before: 12-Jul-2009 12:51 | | | | | | | | | | | |

| | | |
|-----------------------------------|------------------------------------|--------------|
| Company: | CDEX | Schlumberger |
| Well: | C0009A | |
| Field: | Kumanonada, Offshore Kii peninsula | |
| Rig: | Chikyu | |
| Country: | JAPAN | |
| Sonic Scanner (Cross Dipole mode) | | |
| 3641.2m – 2785.0m | | |
| Suite 1, Run 2 (1:200) | | |