# Schlumberger

Company: **Santos Limited**

Well: **Henry 2**
Field: **Otway**
Rig: **Ocean Patriot** State: **Victoria**

Rig: Ocean Patriot
Field: Otway
Location: Otway Basin
Well: Henry 2
Company: Santos Limited

## VISION Density Neutron
## 1:200 Measured Depth
## Recorded Mode Log

Location

| | |
|---|---|
| Total depth: | 2042 m |
| Spud date: | 25−Aug−08 |
| Runs: | 3 − 5 |

Elevation

| | |
|---|---|
| K.B. | Top Drive |
| G.L. | −67 m |
| D.F. | 20.8 m |

Permanent datum: Mean Sea Level Elev.: 0 m
Log measured from: Rotary Table 20.8 m above Perm. datum
Depth reference: Driller's Depth

| Job serial no. | X= E 142 37' 14.55'' | Longitude | Latitude |
|---|---|---|---|
| 08ASQ0011 | Y = S 38 42' 14.55'' | E 142° 37' 13.056'' | S 38°42'14.5573'' |

Depth logged: 657.00 m To 2030.51 m Mag decl: 10.772 deg. Other services:
Date logged: 5−Sept−08 To 12−Sept−08 Mag dip: −69.86 deg. See Remarks

**Bore hole record**

| Hole size | from | to |
|---|---|---|
| 36.0 in. | 0 m | 131.7 m |
| 17.5 in. | 131.7 m | 657 m |
| 12.25 in. | 657 m | 2042 m |

**Casing record**

| Size | Density | from | to |
|---|---|---|---|
| 30 in. | N/A | Wellhead | 131.7 m |
| 13.375 in. | 101kg/m | Wellhead | 657 m |

**Mud record**

| Type | from | to |
|---|---|---|
| Seawater | 0 m | 131.7 m |
| Pac−R | 131.7 m | 657 m |
| KCl/PHPA/Glycol | 657 m | 2042 m |

**Borehole deviation record**

| Min | Max | from | to |
|---|---|---|---|
| 0.04 deg. | 1.91 deg. | 87 m | 657 m |
| 0.10 deg. | 4.67 deg. | 657 m | 1560 m |
| 39.48 deg. | 60.08 deg. | 657 m | 2042 m |

**Surface equipment**

| | |
|---|---|
| Unit | A3518−1/06 |
| Depth system | Geolograph+GTE+CLT |

**Software record**

| | | | |
|---|---|---|---|
| IDEAL Wis | id13_0c_11 | | |
| HSPM | 13_0c_03 | | |
| LWD | See Remarks | | |
| MWD | See Remarks | | |

# Bit Run Summary

| Run number | | 3 | 4 | 5 |
|---|---|---|---|---|
| Bit size | in | 12.25 | 12.25 | 12.25 |
| Bit start depth | m | 657.00 | 1560.00 | 1560.00 |
| Bit end depth | m | 1560.00 | 1560.00 | 2042.00 |
| Top interval logged | m | 657.00 | 1549.23 | 1549.23 |
| Bottom interval logged | m | 1549.23 | 1560.00 | 2031.23 |
| Begin log: time | | 10:00 | 21:20 | 01:00 |
| Begin log: date | | 6−Sept−08 | 9−Sept−08 | 10−Sept−08 |
| End log: time | | 19:20 | 23:00 | 18:10 |
| End log: date | | 9−Sept−08 | 9−Sept−08 | 12−Sept−08 |
| **Mud data** | | | | |
| Depth | m | 1560.00 | 1560.00 | 2042 |
| Type | | KGLY | KGLY | KGLY |
| Mud weight | ppg | 10.1 | 10.1 | 11.1 |
| Solids | % | 6.48 | 6.48 | 10.17 |
| Chlorides | mg/L | 56000 | 56000 | 59000 |
| Rm | Ohm.m@°C | 1.00@18.0 | 0.08@29.1 | 0.08@29.1 |
| Rmf | Ohm.m@°C | 0.07@22.1 | 0.07@22.1 | 0.08@25.4 |
| Rmc | Ohm.m@°C | 0.20@22.4 | 0.20@22.4 | 0.10@25.2 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Potassium | % | 4.375 | 4.375 | 3.403 | | | | | | | |
| **Environmental data** | | | | | | | | | | | |
| **GR** | | | | | | | | | | | |
| Mud weight | ppg | 10.1 | 10.1 | 11.1 | | | | | | | |
| Bit size | in | 12.25 | 12.25 | 12.25 | | | | | | | |
| **Resistivity** | | | | | | | | | | | |
| **Neutron porosity** | | | | | | | | | | | |
| Hole Size | in | 12.25 | 12.25 | 12.25 | | | | | | | |
| Mud weight | ppg | 10.1 | 10.1 | 11.1 | | | | | | | |
| Temperature | °C | 28 | 28 | 28 | | | | | | | |
| Mud salinity | ppk | 38.33 | 91.11 | 91.11 | | | | | | | |
| Formation salinity | | NA | NA | NA | | | | | | | |
| Recording rate 1 | SEC | 6 ARC | 5 ADN | 10 SONIC | | | | | | | |
| Recording rate 2 | SEC | | | 1 SONIC | | | | | | | |
| Filtering GR | | 3 PTS | 3 PTS | 3 PTS | | | | | | | |
| Filtering density | | 3 PTS | 3 PTS | 3 PTS | | | | | | | |
| Filtering Neutron | | 3 PTS | 3 PTS | 3 PTS | | | | | | | |
| Company representative | | Chris Roots | Nathan Peri | Peter Devine | Rohan Richardson | | | | | | |
| Anadrill personnel | | Anagh Kohli | Nai−Xun Zhang | Uzma Hassan | Agus Partono | Matt Blacker | Chris Skiba | Mike van Kampen | | | |



OTHER SERVICES FOR RUN3
- Directional Drilling.
- Directional Survey.
- Washout Detection.
- Annular Pressure While Drilling (APWD)

OTHER SERVICES FOR RUN4
- Directional Drilling.
- Directional Survey.
- Washout Detection.
- Annular Pressure While Drilling (APWD)

OTHER SERVICES FOR RUN5
- Directional Drilling.
- Directional Survey.
- Washout Detection.
- Annular Pressure While Drilling (APWD)

REMARKS: RUN NUMBER 3

Depth is referenced to driller's depth.

ARC Gamma ray is corrected for mud weight, bit size, tool collar size and potassium content.

ADN Thermal Neutron Porosity (TNPH) is corrected for effects of bit size, temperature, mud salinity and mud hydrogen index.

Neutron porosity is calculated using a limestone matrix with a matrix density of 2.71 g/cm3.

sonicVISION delta−T is borehole compensated.

POOH due to TD at 1560m to change bit and BHA.

Blocky Data from 718−925m due to High ROP.

REMARKS: RUN NUMBER 4

Depth is referenced to driller's depth.

ARC Gamma ray is corrected for mud weight, bit size, tool collar size and potassium content.

ADN Thermal Neutron Porosity (TNPH) is corrected for effects of bit size, temperature, mud salinity and mud hydrogen index.

Neutron porosity is calculated using a limestone matrix with a matrix density of 2.71 g/cm3.

sonicVISION delta−T is borehole compensated.

POOH due to change of bit after being unable to pass through swedge.

REMARKS: RUN NUMBER 5

Depth is referenced to driller's depth.

ARC Gamma ray is corrected for mud weight, bit size, tool collar size and potassium content.

ADN Thermal Neutron Porosity (TNPH) is corrected for effects of bit size, temperature, mud salinity and mud hydrogen index.

Neutron porosity is calculated using a limestone matrix with a matrix density of 2.71 g/cm3.

sonicVISION delta−T is borehole compensated.

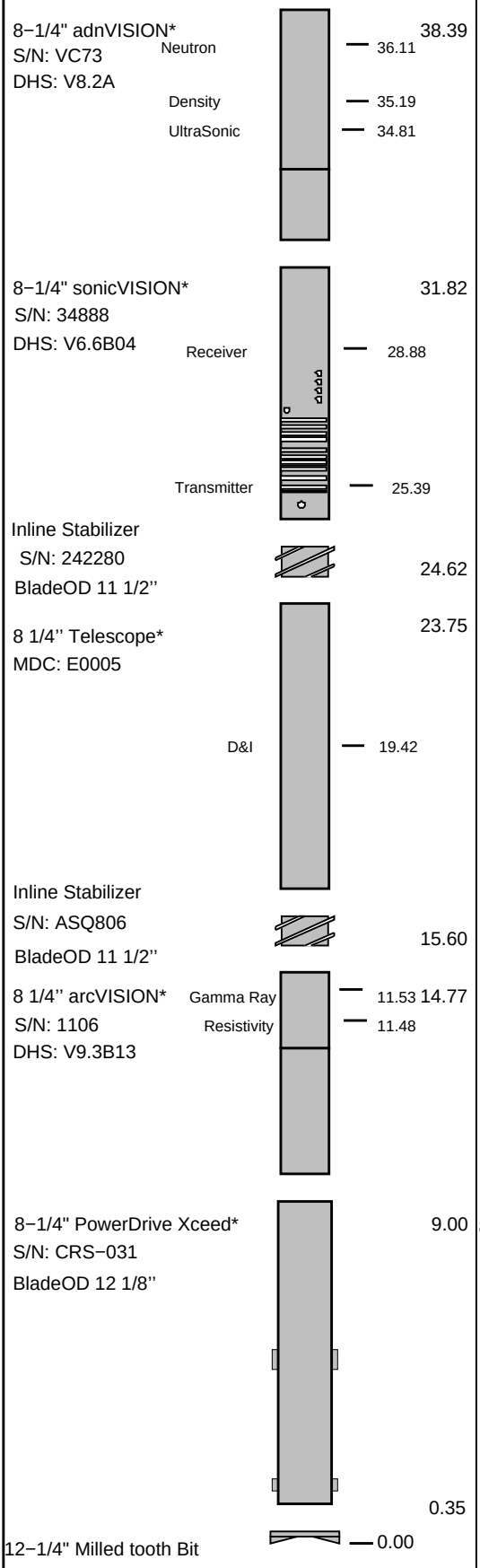
POOH after reaching TD at 2042m.

# EQUIPMENT DESCRIPTION

RUN3 | RUN4 | RUN5

DOWNHOLE EQUIPMENT | DOWNHOLE EQUIPMENT | DOWNHOLE EQUIPMENT

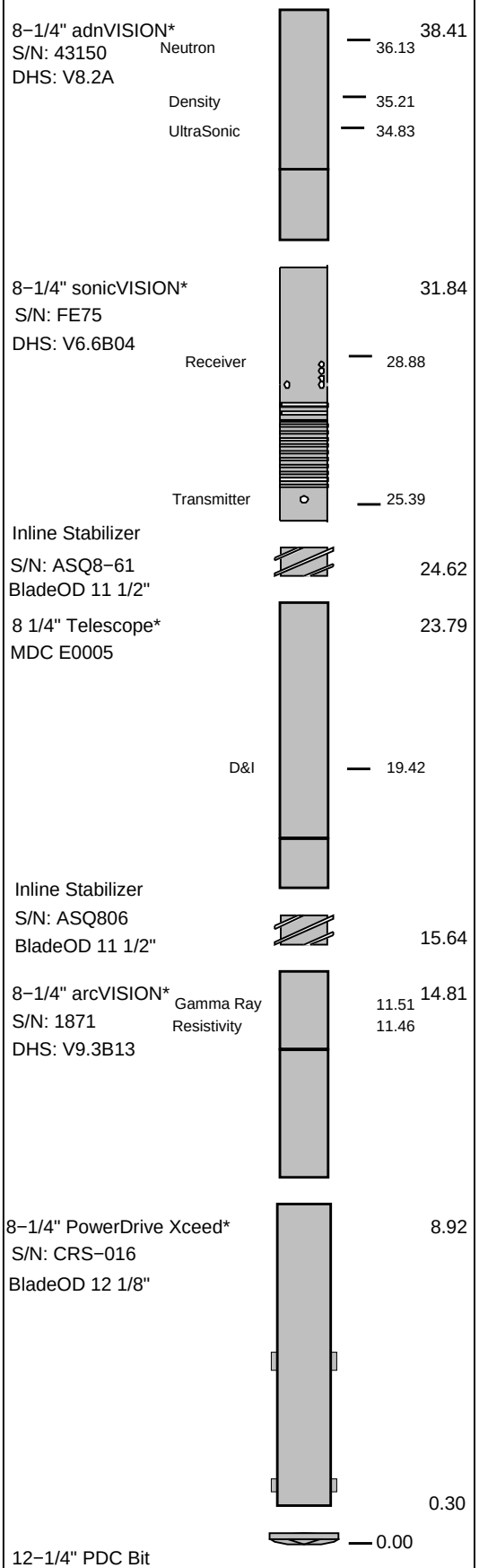
DOWNHOLE EQUIPMENT




Maximum string diameter 12.25 in.

All lengths in Meters

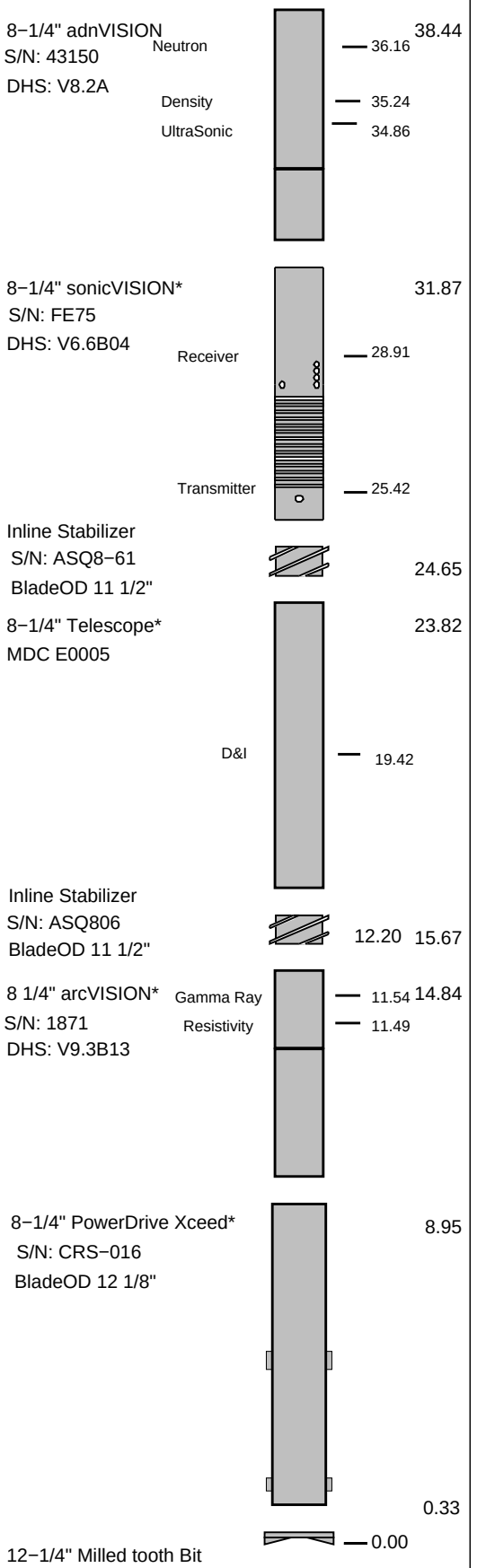
DOWNHOLE EQUIPMENT




Maximum string diameter 12.25 in.

All lengths in Meters

DOWNHOLE EQUIPMENT




Maximum string diameter 12.25 in.

All lengths in Meters

| Variable Name | Variable Description | Run Name & Value | | | |
|---|---|---|---|---|---|
| | Run Number | | 3 | 4 | 5 |
| | General Information | | | | |
| BHT_RM | Bottom Hole Temperature (RM) | DEGC | 28.000 | 28.000 | 82.000 |
| BSAL_RM | Mud Salinity (RM) | PPK | 38.335 | 91.113 | 91.113 |
| BS_RM | Bit Size (RM) | IN | 12.250 | 12.250 | 12.250 |
| COEF_M | User Defined FEXP in Clean Sand | ---- | 1.650 | 1.650 | 1.650 |
| C_WS | Overpressure correction to Sw and M | ---- | 1.000 | 1.000 | 1.000 |
| FEXP | Formation Factor Exponent(RM) | ---- | 2.000 | 2.000 | 2.000 |
| FNUM | Formation Factor Enumerator(RM) | ---- | 1.000 | 1.000 | 1.000 |
| FPHI_RM | Formation Factor Porosity Source (RM) | ---- | XPLOT | XPLOT | XPLOT |
| MST_RM | Mud Sample temperature (RM) | DEGC | 18.000 | 29.100 | 29.100 |
| MW_RM | Mud Weight (RM) | LB/G | 8.700 | 11.000 | 11.000 |
| OBMF_RM | Oil Based Mud (RM) | ---- | NO | NO | NO |
| RHOF_RM | Mud Filtrate Density (RM) | G/C3 | 1.000 | 1.000 | 1.000 |
| RHOM_RM | Matrix density (RM) | G/C3 | 2.710 | 2.710 | 2.710 |
| RMS_RM | Resistivity of Mud Sample (RM) | OHMM | 0.100 | 0.088 | 0.088 |
| RWA_COMP_M | Rwa computation model | | | | |
| RWA_DEN_AD | Rwa Density Input ADN | | | | |
| RWA_DEN_CD | Rwa Density Input CDN | | | | |
| RWA_DEN_IN | Rwa Density Input | | | | |
| RWA_FORM_M | Rwa computation formation model | | | | |
| RWA_RES_IN | Rwa computation resistivity input | | | | |
| RWS_RM | Resistivity of Connate Water (RM) | OHMM | 1.000 | 1.000 | 1.000 |
| SHT_RM | Ground Level Temperature (Mud-Line When Offshore ) (RM) | DEGC | 10.000 | 10.000 | 10.000 |
| TD_RM | Total Measured Depth (RM) | M | 932.000 | 1560.000 | 2042.000 |
| TWS_RM | Temperature of Connate Water (RM) | DEGC | 23.889 | 23.889 | 29.100 |
| VF_ILLI | Fraction of illite in shales | ---- | 0.500 | 0.500 | 0.500 |
| VF_KAOL | Fraction of kaolinite in shales | ---- | 0.500 | 0.500 | 0.500 |
| VF_MONT | Fraction of montmorillonite in shales | ---- | 0.000 | 0.000 | 0.000 |
| XPDM_RM | Cross plot density porosity multiplier | ---- | 0.675 | 0.675 | 0.675 |
| XPNM_RM | Cross plot neutron porosity multiplier | ---- | 0.325 | 0.325 | 0.325 |
| | ARC | | | | |
| A12A | ARC Air Cal Attenuation From T1 at 2 MHz | DB | 8.569 | 8.288 | 8.288 |
| A14A | ARC Air Cal Attenuation From T1 at 400 KHz | DB | 8.553 | 8.320 | 8.320 |
| A22A | ARC Air Cal Attenuation From T2 at 2 MHz | DB | 6.137 | 6.362 | 6.362 |
| A24A | ARC Air Cal Attenuation From T2 at 400 KHz | DB | 6.158 | 6.340 | 6.340 |
| A32A | ARC Air Cal Attenuation From T3 at 2 MHz | DB | 5.265 | 5.012 | 5.012 |
| A34A | ARC Air Cal Attenuation From T3 at 400 KHz | DB | 5.247 | 5.037 | 5.037 |
| A42A | ARC Air Cal Attenuation From T4 at 2 MHz | DB | 4.087 | 4.319 | 4.319 |
| **A44A** | **ARC Air Cal Attenuation From T4 at 400 KHz** | **DB** | **4.104** | **4.302** | **4.302** |
| **A52A** | **ARC Air Cal Attenuation From T5 at 2 MHz** | **DB** | **3.849** | **3.602** | **3.602** |
| A54A | ARC Air Cal Attenuation From T5 at 400 KHz | DB | 3.841 | 3.639 | 3.639 |
| ABNT | Abnormal Transmitter Indicator | ---- | No_Tx_Failed | No_Tx_Failed | No_Tx_Failed |
| ADHS | ARC Down Hole Software Version | ---- | V9.3B13 | V9.3B13 | V9.3B13 |
| AM2A | ARC Air Cal Amplitude Offset at 2 MHz | ---- | -50000.000 | -50000.000 | -50000.000 |
| ANISO_COMPUTE | Anisotropy Computation Option | ---- | YES | YES | YES |
| APICG | ARC5 Gamma Ray Gain Factor | ---- | 1.028 | 1.064 | 1.064 |
| APIG | ARC Gamma Ray API Gain Factor | ---- | -1.000 | -1.000 | -1.000 |
| ARC_DATA_FIX | ARC: Create A Corrected ARC Time Data File | ---- | NO | NO | NO |
| ARC_DATA_LTB | ARC: Create An ARC LTB Data File | ---- | NO | NO | NO |
| ATMP_ARC | ARC Select Temperature Channel | ---- | Annulus_Temp | Annulus_Temp | Annulus_Temp |
| ATRN | ARC Tool Run Number | ---- | 3 | 4 | 5 |
| ATSN | ARC Tool Serial Number | ---- | 1106 | 1871 | 1871 |
| AZMF | Formation DIP Azimuth | DEG | 0.000 | 0.000 | 0.000 |
| BH_COMPUTE | Borehole Inversion  Computation Option | ---- | YES | YES | YES |
| CALG | ARC Gamma Ray Cal Gain Factor | ---- | 1.028 | 1.064 | 1.064 |
| CALI_SLCT_ARC | ARC Caliper Selection | ---- | BITSIZE | BITSIZE | BITSIZE |
| CDPTH_ARC | Process Start Depth | M | 657 | 1560 | 1560 |
| DIELEC_COMPUTE | Dielectric Computation Option | ---- | YES | YES | YES |
| DIPF | Formation DIP Angle | DEG | 0.000 | 0.000 | 0.000 |
| ERRCT | Percentage Error Cutoff | ---- | 4.500 | 4.500 | 4.500 |
| GRSH | GR Shale (Invasion Computation Cutoff) | GAPI | 1000.000 | 1000.000 | 1000.000 |
| HIGH_BLEND | High Resistivity Threshold for Blending | OHMM | 2.000 | 2.000 | 2.000 |
| INCLIN_B0 | ARC Bias Constant (mg) | ---- | 0.000 | 0.000 | 0.000 |
| INCLIN_B1 | ARC Bias First-order Coefficient (mg/degC) | ---- | 0.000 | 0.000 | 0.000 |
| INCLIN_B2 | ARC Bias Secod-order Coeeficient (mg/degC) | ---- | 0.000 | 0.000 | 0.000 |
| INCLIN_B3 | ARC Bias Third-order Coeeficient (mg/degC) | ---- | 0.000 | 0.000 | 0.000 |
| INCLIN_C0 | ARC Current Scale Factor Constant (mA/g) | ---- | 1.000 | 1.000 | 1.000 |
| INCLIN_C1 | ARC Scale First-order Coeeficient (mA/g/degC) | ---- | 0.000 | 0.000 | 0.000 |
| INCLIN_C2 | ARC Scale Second-order Coeeficient (mA/g/degC) | ---- | 0.000 | 0.000 | 0.000 |
| INCLIN_C3 | ARC Scale Third-order Coeeficient (mA/g/degC) | ---- | 0.000 | 0.000 | 0.000 |
| INVAS_COMPUTE | Invasion Computation Option | ---- | YES | YES | YES |
| JSD_ARC | ARC Acquisition start date | ---- | 5-Sep-08 | 9-Sep-08 | 9-Sep-08 |
| KPER | Potassium Concentration (RM) | ---- | 0.000 | 3.402 | 3.402 |
| LOW_BLEND | Low Resistivity Threshold for Blending | OHMM | 1.000 | 1.000 | 1.000 |
| MSWS | ARC Wizard Model Switch Window | M | 1.524 | 1.524 | 1.524 |
| MULTIEFFECT_COM | Multi Effect Option | ---- | YES | YES | YES |
| P11AC_RM | ARC: Air Calibration For Phase T1 to R1 | DEG | -999.250 | -999.250 | -999.250 |
| P12A | ARC Air Cal Phase-Shift From T1 at 2 MHz | DEG | 0.545 | 2.991 | 2.991 |
| P14A | ARC Air Cal Phase-Shift From T1 at 400 KHz | DEG | 0.362 | -1.569 | -1.569 |
| P22A | ARC Air Cal Phase-Shift From T2 at 2 MHz | DEG | -0.438 | -2.875 | -2.875 |
| P24A | ARC Air Cal Phase-Shift From T2 at 400 KHz | DEG | -0.422 | 1.403 | 1.403 |
| P32A | ARC Air Cal Phase-Shift From T3 at 2 MHz | DEG | 0.432 | 2.903 | 2.903 |
| P34A | ARC Air Cal Phase-Shift From T3 at 400 KHz | DEG | 0.389 | -1.514 | -1.514 |
| P42A | ARC Air Cal Phase-Shift From T4 at 2 MHz | DEG | -0.545 | -2.905 | -2.905 |
| P44A | ARC Air Cal Phase-Shift From T4 at 400 KHz | DEG | -0.444 | 1.425 | 1.425 |
| P52A | ARC Air Cal Phase-Shift From T5 at 2 MHz | DEG | 0.414 | 2.873 | 2.873 |
| P54A | ARC Air Cal Phase-Shift From T5 at 400 KHz | DEG | 0.375 | -1.540 | -1.540 |

| | | | | | |
|---|---|---|---|---|---|
| POFFSET_ARC | ARC: Pressure Offset | PSI | 0.000 | 0.000 | 0.000 |
| PRTD | Preferred Resistivity Log for Rt Display while Multi-Effects | ---- | P34B | P34B | P34B |
| PSOF_ADJ_T1 | ARC: User Input Phase offset | DEG | 0.000 | 0.000 | 0.000 |
| RESTIK | ARC resistivity tick source | ---- | Phase | Phase | Phase |
| RSD | LWD run start date dd-mmm-yy | ---- | 5-Sep-08 | 9-Sep-08 | 9-Sep-08 |
| RWA_COMP_MOD | Rwa computation model | ---- | BASIC | BASIC | BASIC |
| RWA_DEN_ADN | Rwa Density Input | ---- | RHOB | RHOB | RHOB |
| RWA_DEN_CDN | Rwa Density Input | ---- | RHOB | RHOB | RHOB |
| RWA_DEN_INPUT | Rwa Density Input | ---- | RHOB | RHOB | RHOB |
| RWA_FORM_MOD | Rwa computation formation model | ---- | CLASTIC | CLASTIC | CLASTIC |
| RWA_RES_INPUT | Rwa computation resistivity input | ---- | RT | RT | RT |
| SHIG | ARC High Shock Risk Level | CPS | 0.500 | 0.500 | 0.500 |
| SMED | ARC Medium Shock Risk Level | CPS | 0.330 | 0.330 | 0.330 |
| SMIN | ARC Minimum Shock Risk Level | CPS | 0.160 | 0.160 | 0.160 |
| SUPD | ARC Real Time Shock Update Rate | S | 30.000 | 30.000 | 30.000 |
| TCODE_ARC | ARC Tool File Code | S | 30.000 | 30.000 | 30.000 |
| TSIZ_ARC | ARC Tool Size | IN | 8.250 | 8.250 | 8.250 |
| UNIFORM_COMPUTE | Uniform Rock Option | ---- | YES | YES | YES |
| VERS_ARC | ARC Down hole software version Number | ---- | V9.3B13 | V9.3B13 | V9.3B13 |
| WRK | to Report Potassium Concentration (RM) | ---- | K_by_Wgt_% | K_by_Wgt_% | K_by_Wgt_% |
| | ADN | | | | |
| ADN_DATA_FIX | ADN: Create A Corrected ADN Time Data File | ---- | NO | NO | NO |
| ADN_DATA_LTB | ADN: Create An ADN LTB Data File | ---- | NO | NO | NO |
| ALPHA_COMPUTE_D | Perform Density Enhanced Vertical Resolution process ? | ---- | NO | NO | NO |
| ALPHA_COMPUTE_N | Perform Neutron Enhanced Vertical Resolution process ? | ---- | NO | NO | NO |
| AVE_ADN | ADN/Array Channels: perform averaging(RM) : | ---- | YES | YES | YES |
| A_DHS | ADN Down Hole Software Version String | ---- | V8.2A | V8.2A | V8.2A |
| CHI_RM | Caliper High limit from BS (RM) | IN | 3.000 | 3.000 | 3.000 |
| CLO_RM | Caliper Low limit from BS (RM) | IN | 0.000 | 0.000 | 0.000 |
| DEVI | Well Section Deviation | DEG | 0.100 | 30.630 | 30.630 |
| DTIK_SEL | ADN: Density Tick Channel Name | ---- | LSAZ | LSAZ | LSAZ |
| DTMUD | Delta-T for Mud | US/F | 199.000 | 188.800 | 188.800 |
| DYN_IMG_COMPUTE | Generate Dynamic Normalized Image? | ---- | NO | NO | NO |
| ENVCOR | Neutron Processing: Environmental Correction? | ---- | YES | YES | YES |
| EVRL | EVR Process averaging number of samples (RM) | ---- | 49 | 49 | 49 |
| FAZ1_AVAIL | ADN8 Neutron Far Tube 1 Available? | ---- | YES | YES | YES |
| FAZ2_AVAIL | ADN8 Neutron Far Tube 2 Available? | ---- | YES | YES | YES |
| FAZ3_AVAIL | ADN8 Neutron Far Tube 3 Available? | ---- | YES | YES | YES |
| FAZ4_AVAIL | ADN8 Neutron Far Tube 4 Available? | ---- | YES | YES | YES |
| FAZ5_AVAIL | ADN8 Neutron Far Tube 5 Available? | ---- | YES | YES | YES |
| FCD | Future Casing (Outer) Diameter | IN | 0.000 | 0.000 | 0.000 |
| GCSE | Generalized Caliper Selection | ---- | BS | BS | BS |
| IDQT | Image Derived Quality Threshold | ---- | 1.000 | 2.000 | 1.000 |
| IHVS | Integrated Hole Volume Start Value(RM) | F3 | 0.000 | 0.000 | 0.000 |
| IMAGE_MAX_SOA | Image SOA (Quadrant) Right Scale | IN | 2.500 | 2.500 | 2.500 |
| IMAGE_MAX_SPEF | Image PEF(Segment) Right Scale | ---- | 6.000 | 6.000 | 6.000 |
| **IMAGE_MAX_SRHOB** | **Image RHOB(Segment) Right Scale** | **G/C3** | **2.650** | **2.650** | **2.650** |
| **IMAGE_MIN_SOA** | **Image SOA (Quadrant) Left Scale** | **IN** | **0.000** | **0.000** | **0.000** |
| IMAGE_MIN_SPEF | Image PEF(Segment) Left Scale | ---- | 2.000 | 2.000 | 2.000 |
| IMAGE_MIN_SRHOB | Image RHOB(Segment) Left Scale | G/C3 | 2.050 | 2.050 | 2.050 |
| JSD_ADN | ADN Acquisition start date | ---- | 5-Sep-08 | 9-Sep-08 | 9-Sep-08 |
| LITHO_TYPE_ADN | Lithology (RM) | ---- | LIME | LIME | LIME |
| N1FTU_6_RM | ADN: Neutron Bank 1 Far Tubes used : | ---- | 1-2-3 | 1-2-3 | 1-2-3 |
| N2FTU_6_RM | ADN: Neutron Bank 2 Far Tubes used : | ---- | 1-2-3 | 1-2-3 | 1-2-3 |
| NNTU_8_RM | ADN: Neutron Near Tube used : | ---- | 1-2-3 | 1-2-3 | 1-2-3 |
| NTIK_SEL | ADN: Neutron Tick Channel Name | ---- | FAZ1 | FAZ1 | FAZ1 |
| SOCNL | Standoff Distance of the CNL Tool | ---- | 1.000 | 1.000 | 1.000 |
| SSIZ_ADN | ADN Stabilizer Size | IN | 8.250 | 8.250 | 8.250 |
| STOH | ADN Density Top of Hole Sector (Left Boundary): | ---- | SECTOR_0 | SECTOR_0 | SECTOR_0 |
| TRPM_RM | Average Tool Rotational Speed | RPM | 20.000 | 20.000 | 20.000 |
| USMIN_RM | ADN:Minimum Ultrasonic standoff (RM) | IN | 0.180 | 0.180 | 0.180 |
| USWF_RM | ADN:Process Ultrasonic Waveform? | ---- | YES | YES | YES |
| VERS_ADN | ADN Downhole Software Version | ---- | V8.2A | V8.2A | V8.2A |
| WSDI | Window Size of Dynamic Normalization Image | M | 4.572 | 4.572 | 4.572 |



# Henry 2 VISION Density Neutron RM 200MD

| | | | |
|---|---|---|---|
| **ARC8A−AA** | **id13_0c_02** | **SON825** | **id13_0c_02** |
| **ADN** | **id13_0c_02** | | |

**Format: VISION Density Neutron Log** **Vertical Scale: 1:200** **Graphics File Created: 22−Sep−2008 13:14**

**PIP SUMMARY**

**Neutron Ticks, 0.1 ft**

**Density Ticks, 0.1 ft**

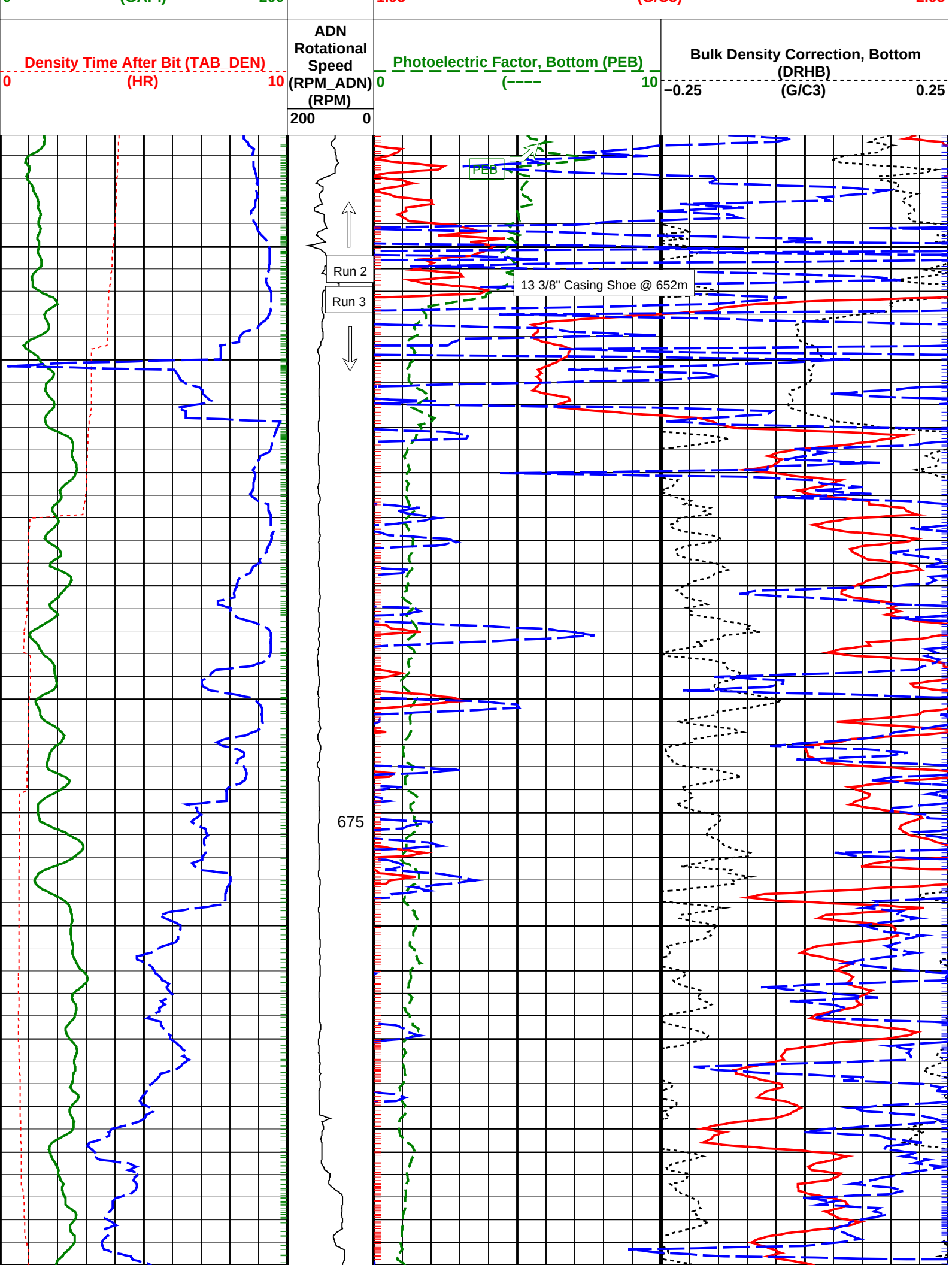
**ARC Gamma Ray Samples**

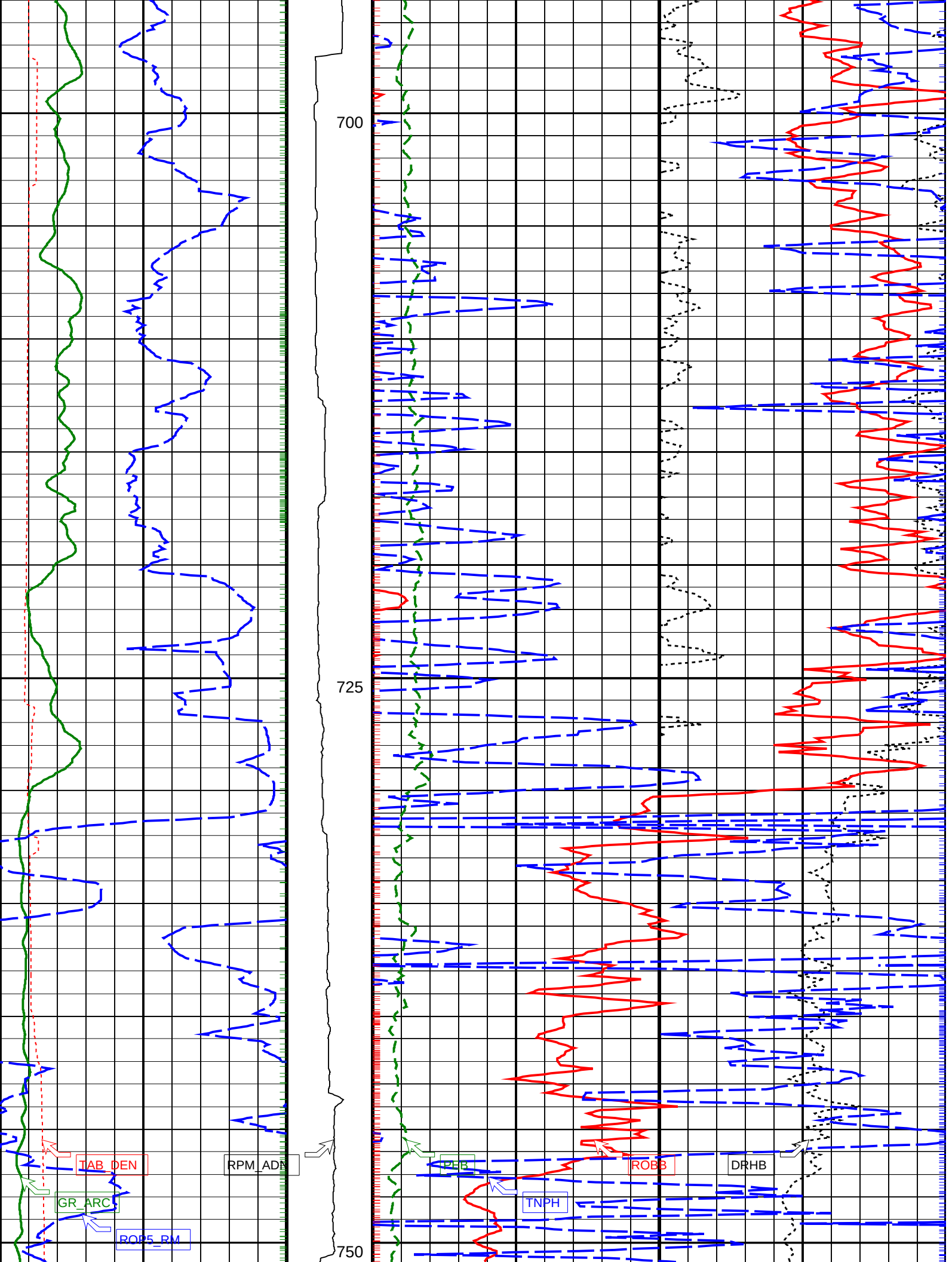
**Rate of Penetration, Averaged over Last 5ft (ROP5_RM)**
200 (M/HR) 0

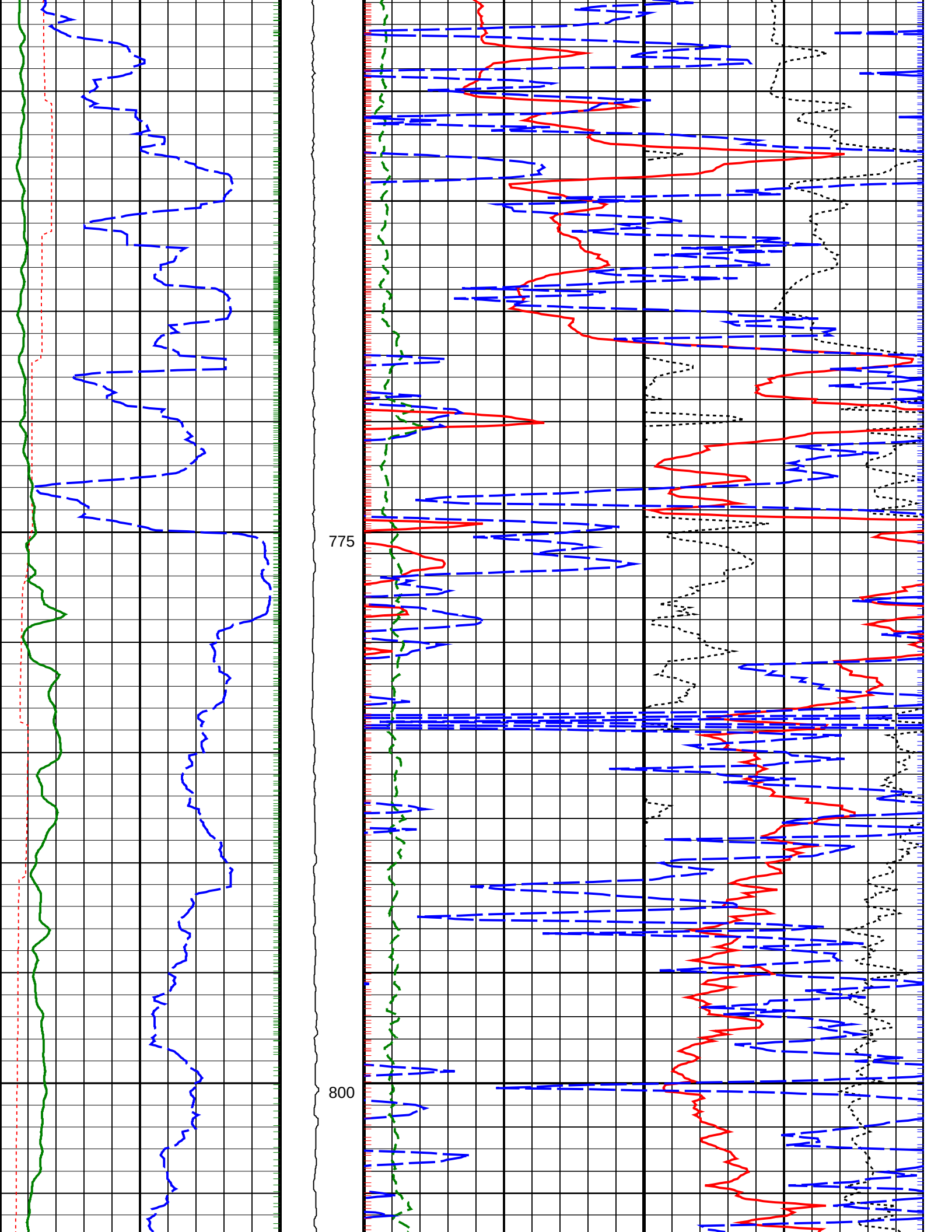
**Thermal Neutron Porosity (TNPH)**
45 (PU) −15

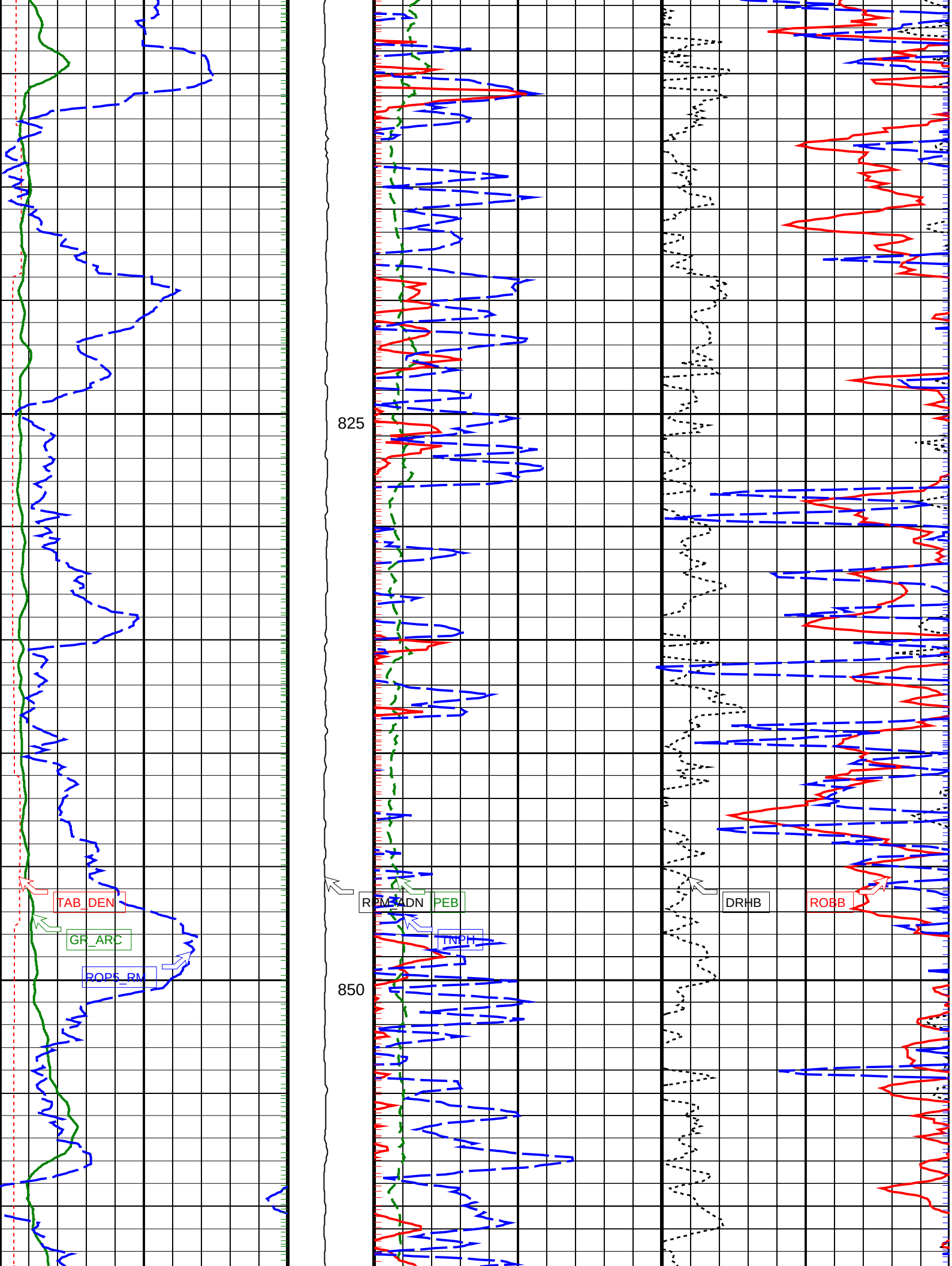
**ARC Gamma Ray (GR_ARC)**
0 (GAPI) 200

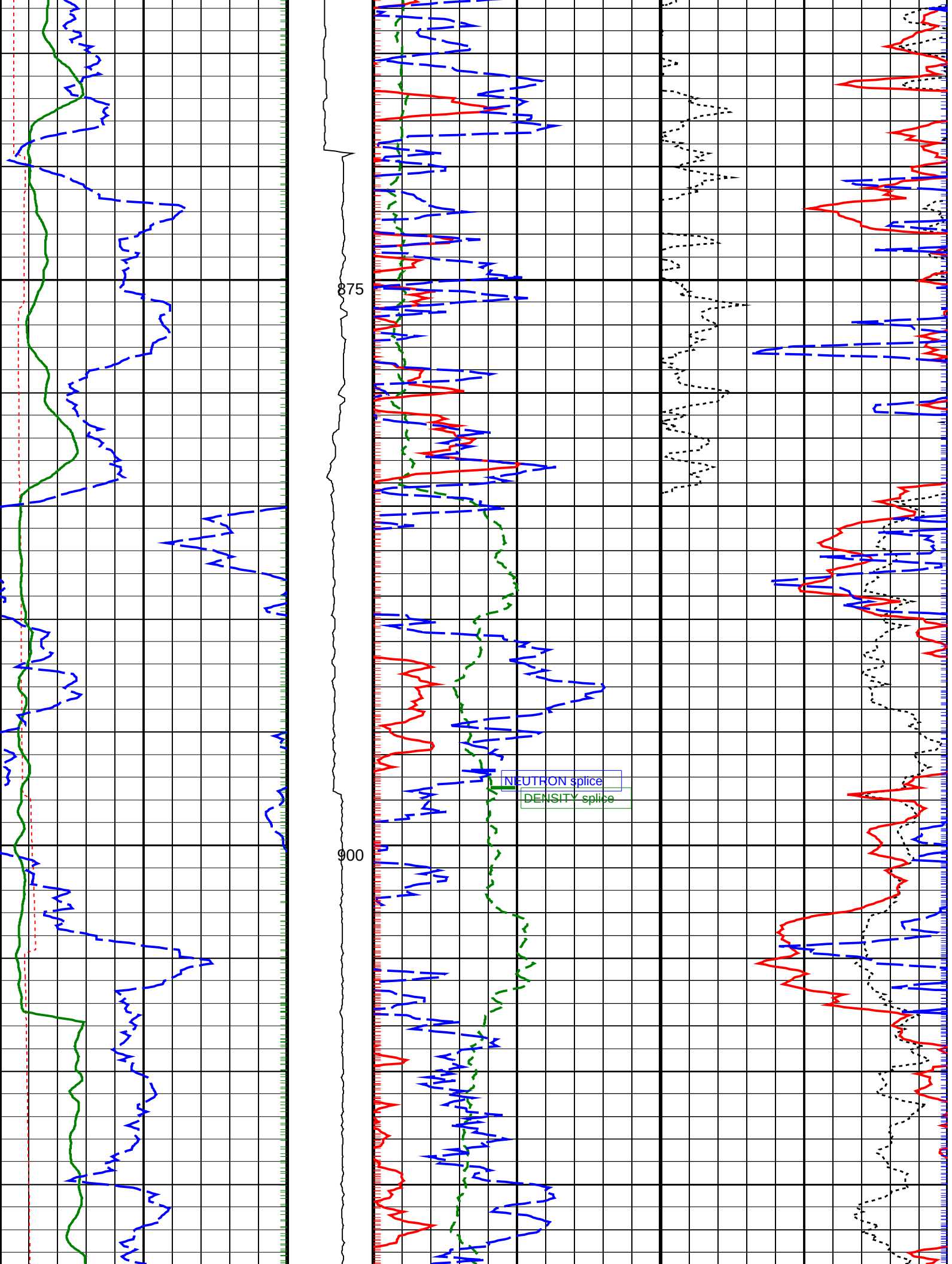
**Bulk Density, Bottom (ROBB)**
1.95 (G/C3) 2.95

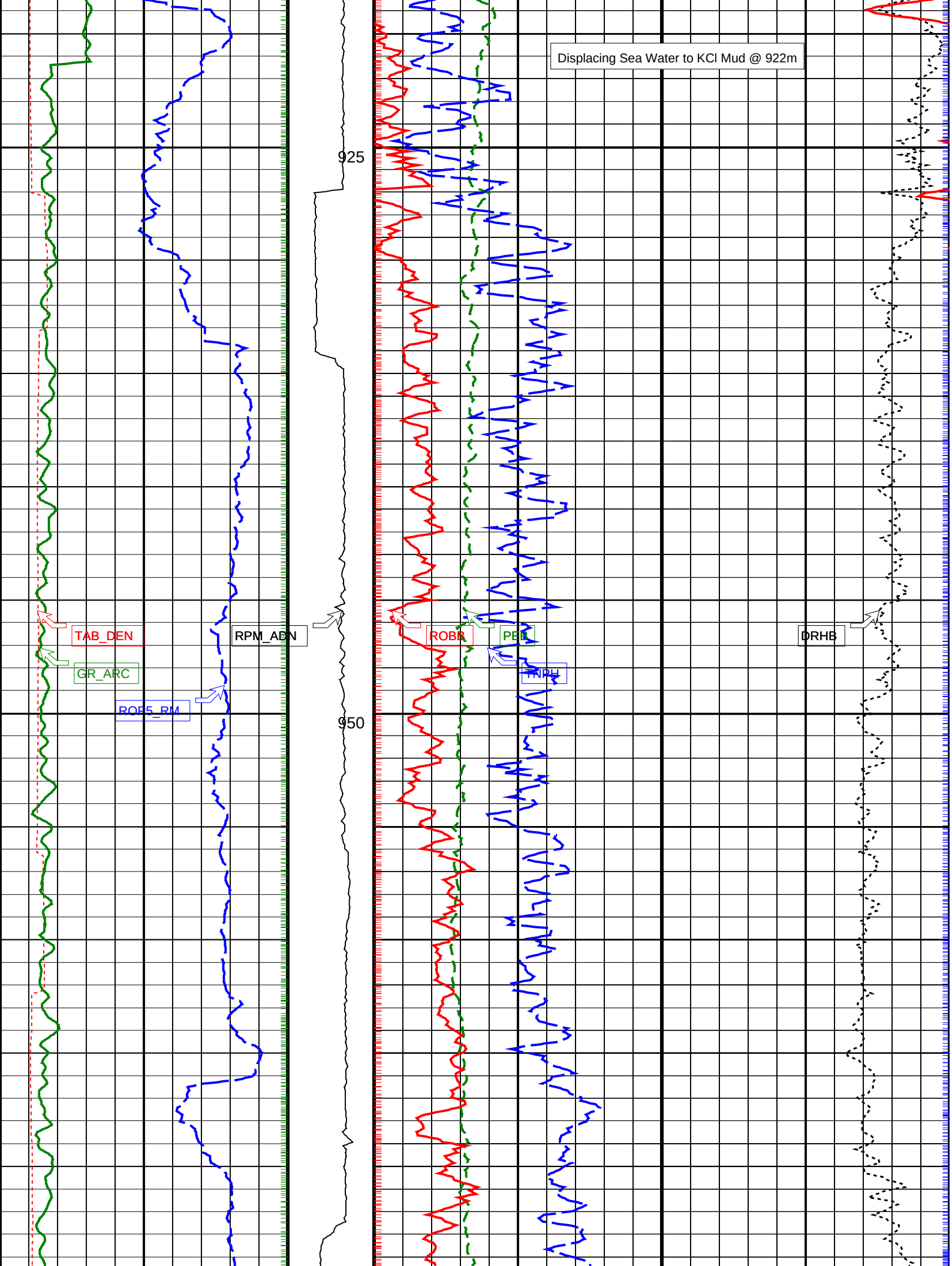

Density Time After Bit (TAB_DEN)
0
(HR)
10
ADN Rotational Speed (RPM_ADN) (RPM)
200
0
Photoelectric Factor, Bottom (PEB)
0
(----
10
Bulk Density Correction, Bottom (DRHB)
−0.25
(G/C3)
0.25
PEB
Run 2
Run 3
13 3/8" Casing Shoe @ 652m
675

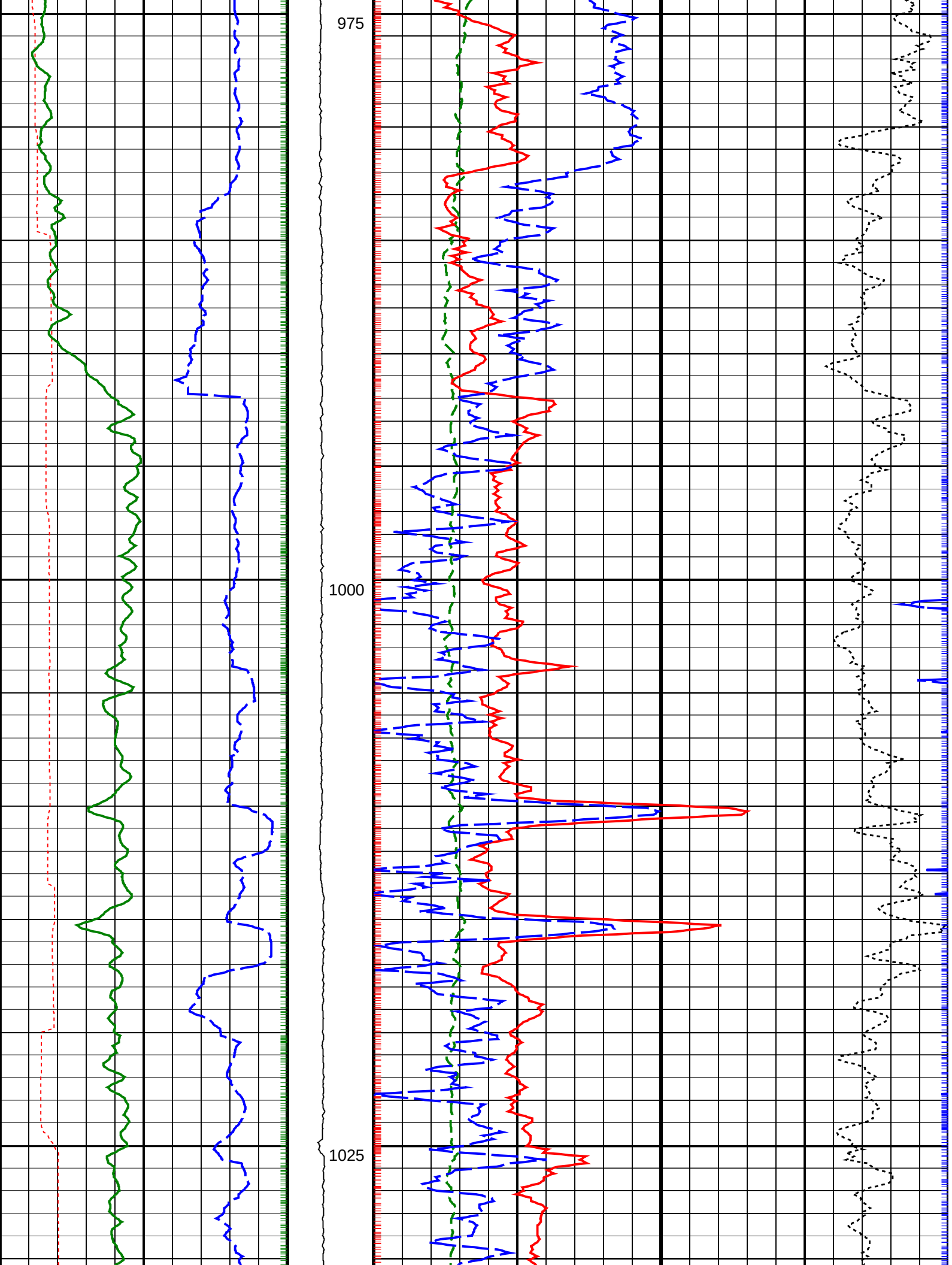

700
725
750
TAB_DEN
GR_ARC
ROP5_RM
RPM_ADN
PEB
TNPH
ROBB
DRHB

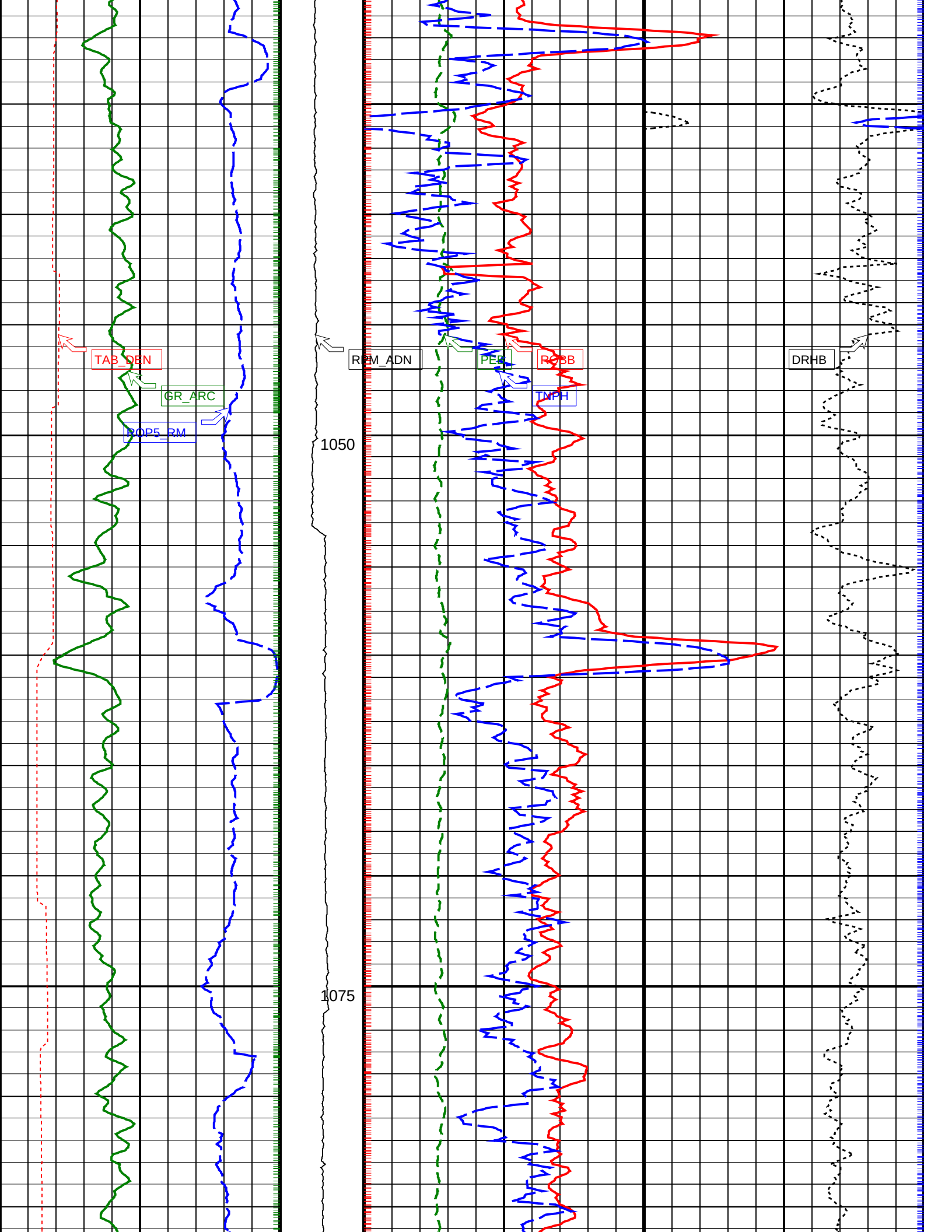

775
800

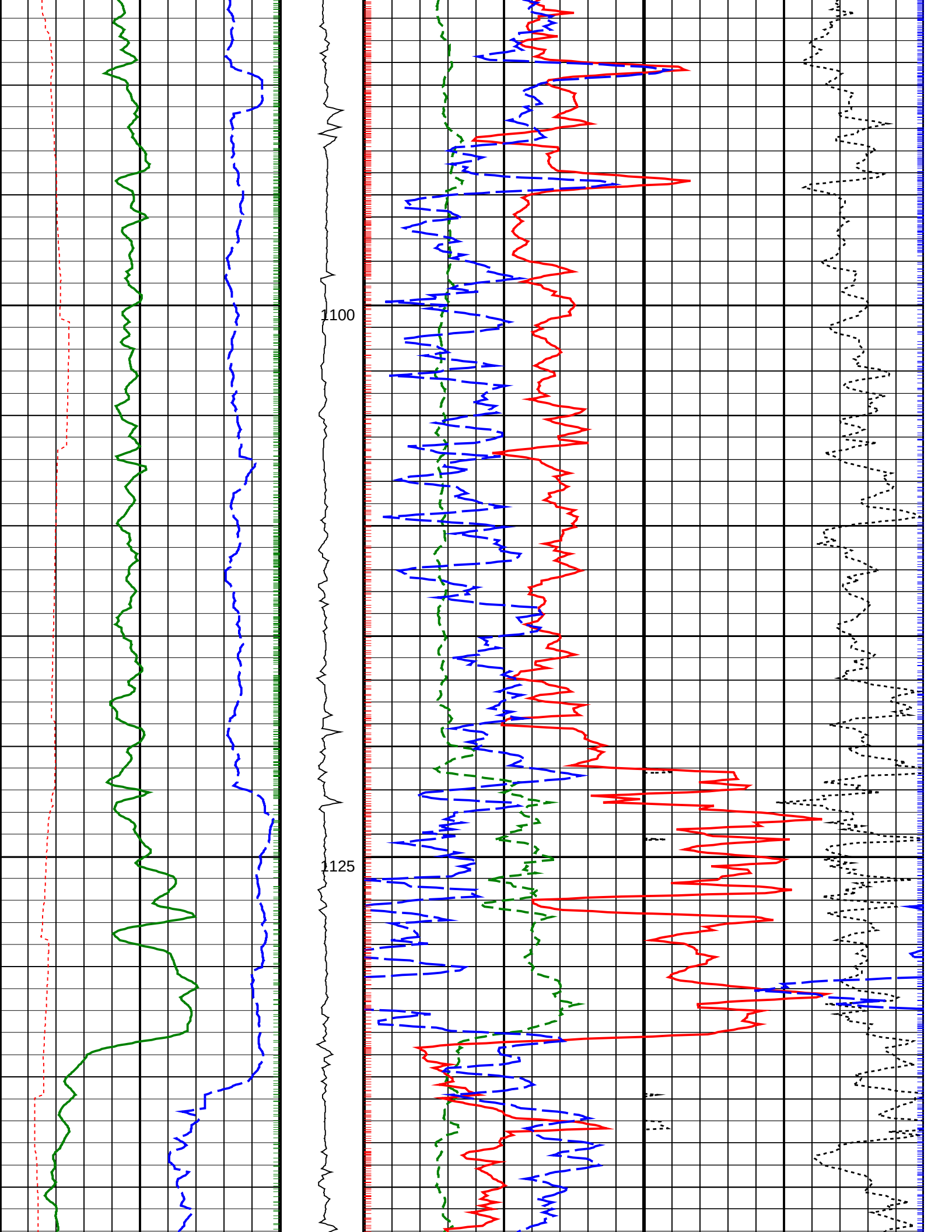

825
850
TAB_DEN
GR_ARC
ROP5_RM
RPM_ADN
PEB
TNPH
DRHB
ROBB

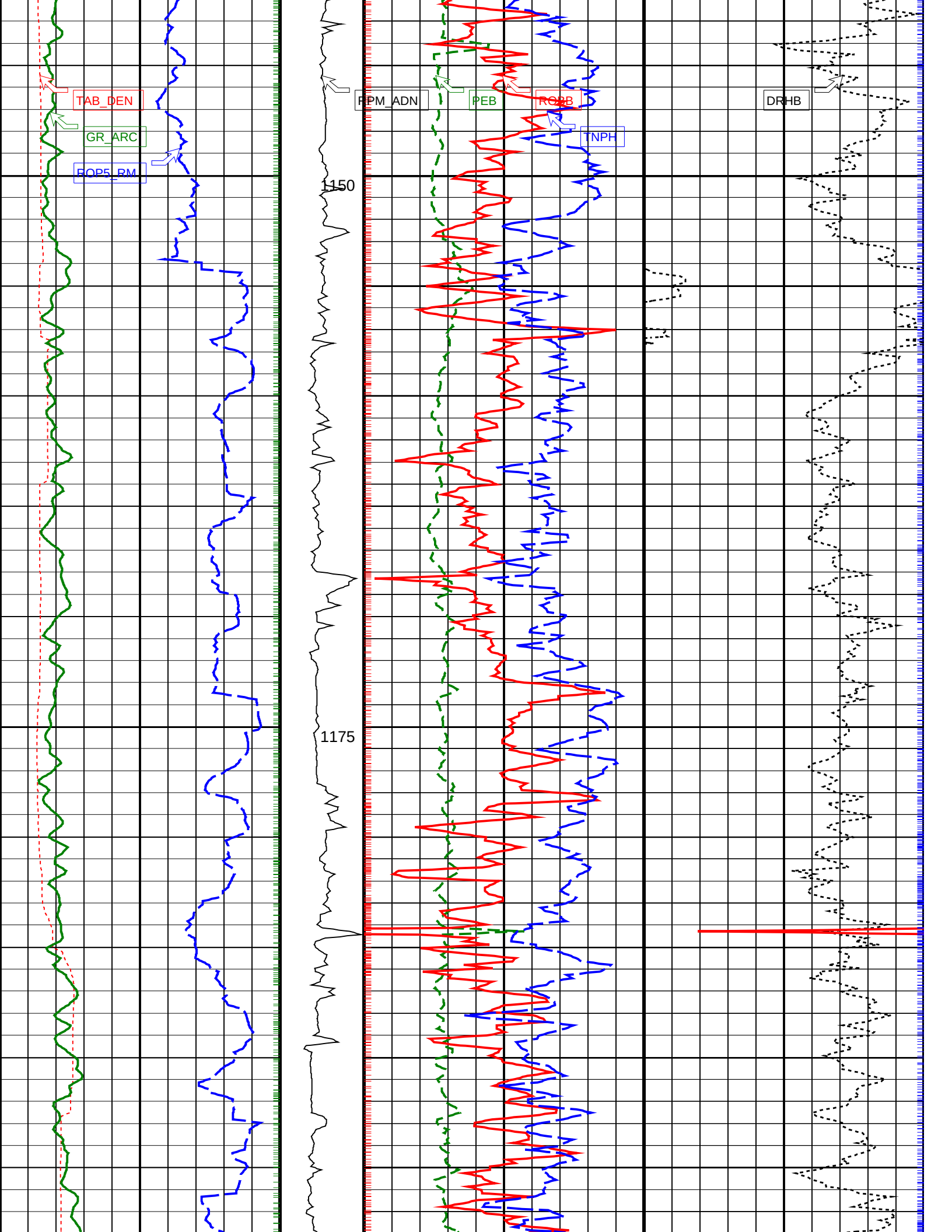

875
900
NEUTRON splice
DENSITY splice

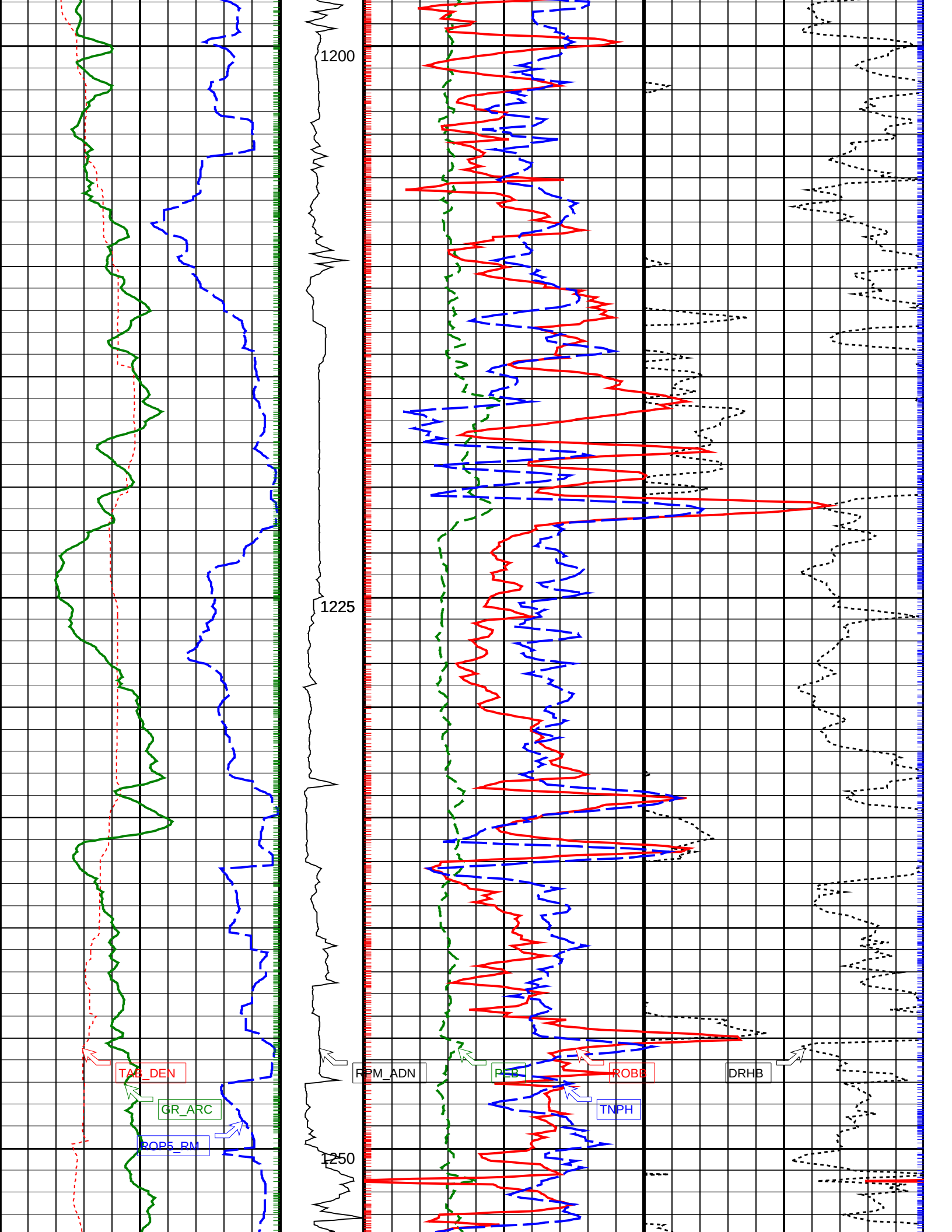

Displacing Sea Water to KCl Mud @ 922m
925
950
TAB_DEN
GR_ARC
ROP5_RM
RPM_ADN
ROBB
PBB
TRPM
DRHB

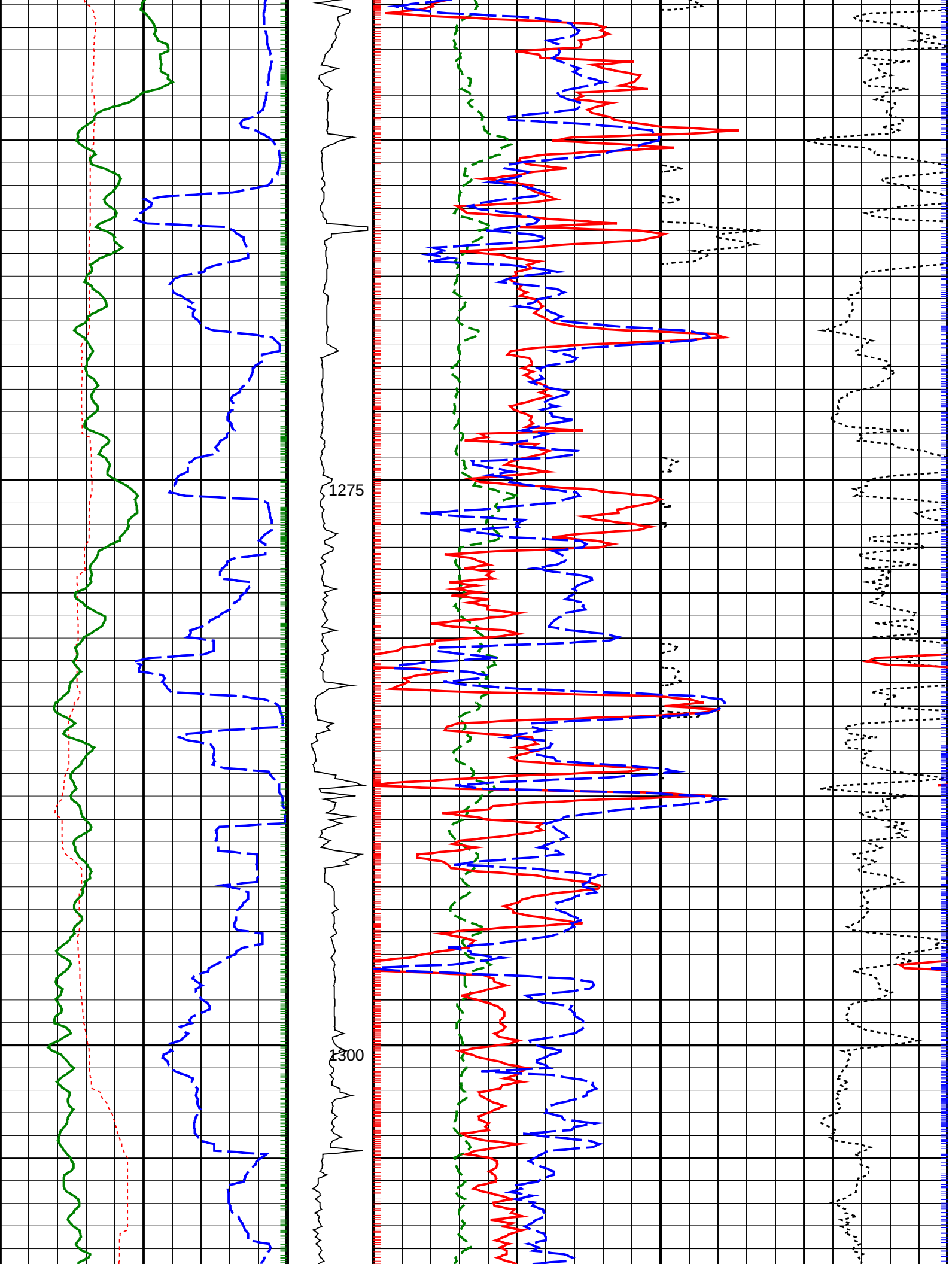

975
1000
1025

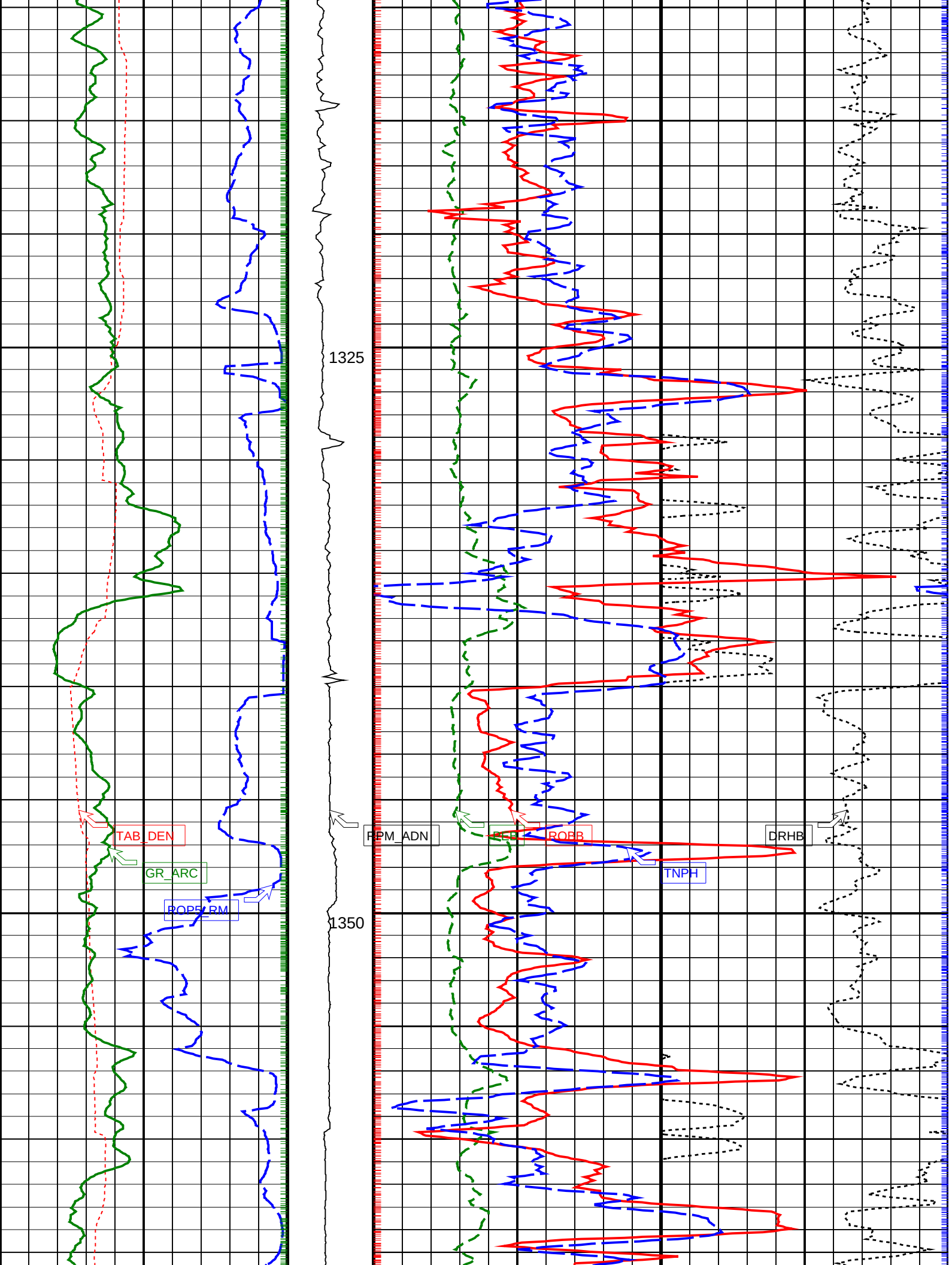

TAB_DEN
GR_ARC
ROP5_RM
RPM_ADN
PEB
RHOB
TNPH
DRHB
1050
1075

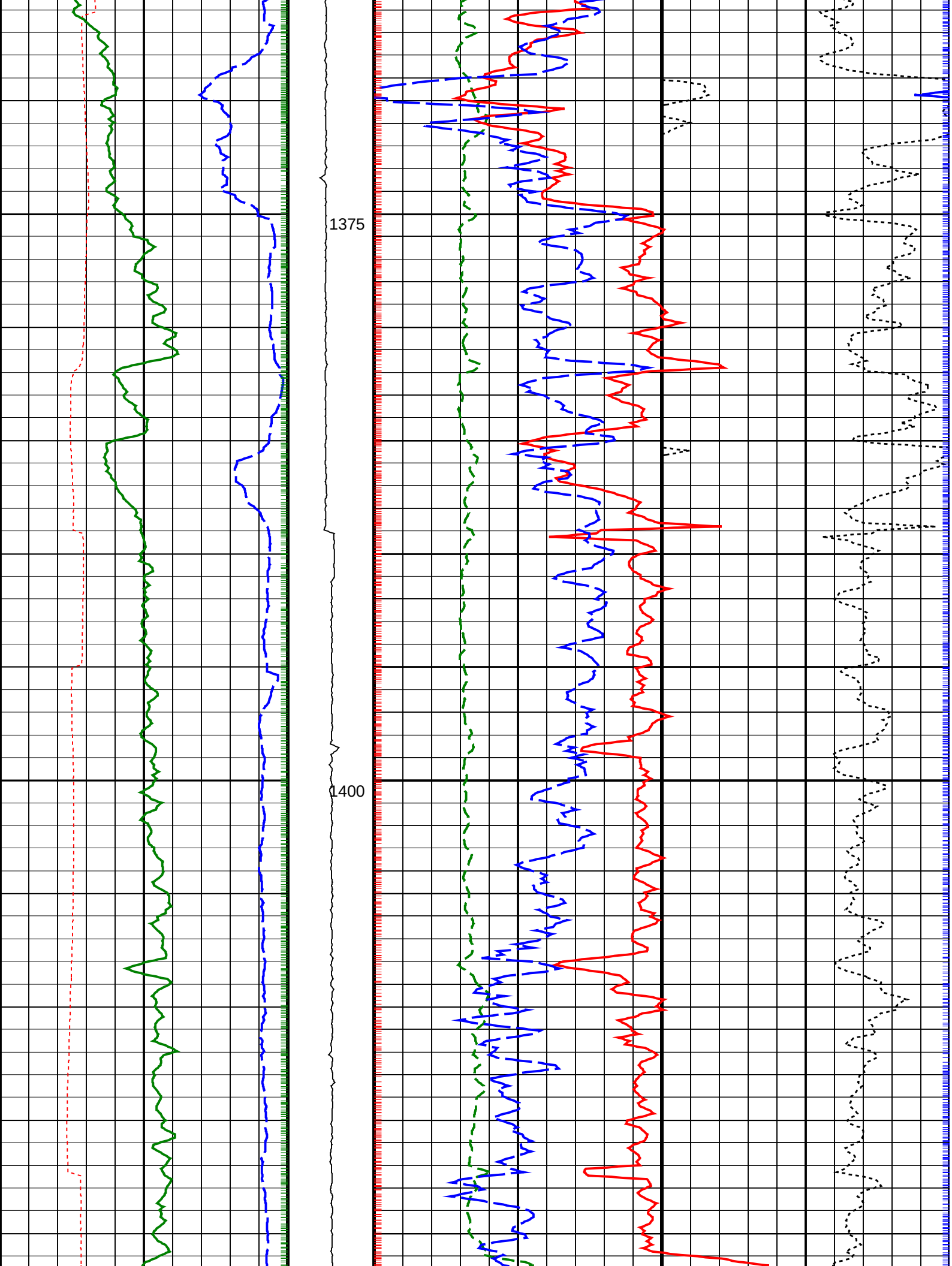

1100
1125

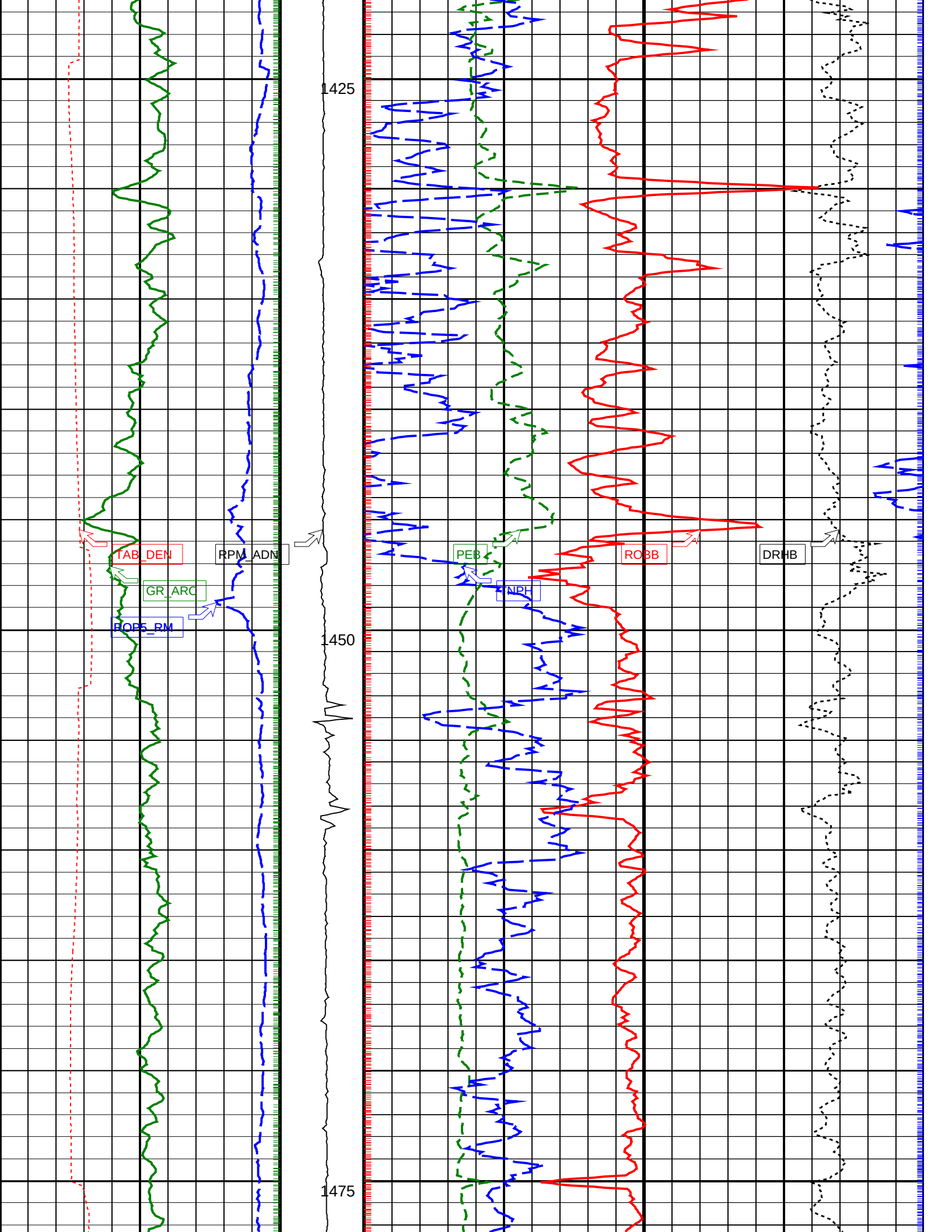

TAB_DEN
GR_ARC
ROP5_RM
RPM_ADN
PEB
ROPB
TNPH
DRHB
1150
1175

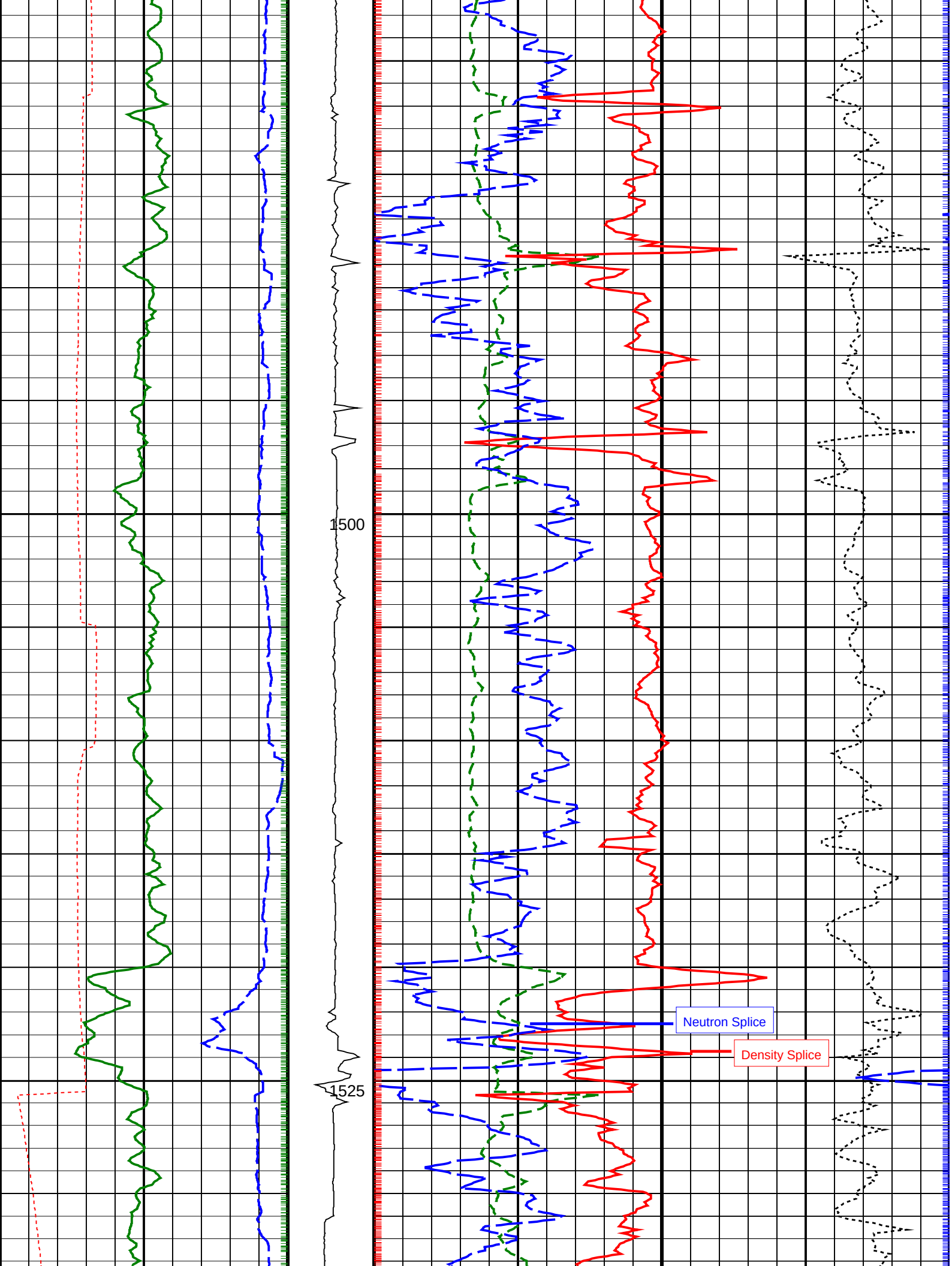

1200
1225
1250
TAB_DEN
GR_ARC
ROP5_RM
RPM_ADN
PEB
ROBB
TNPH
DRHB

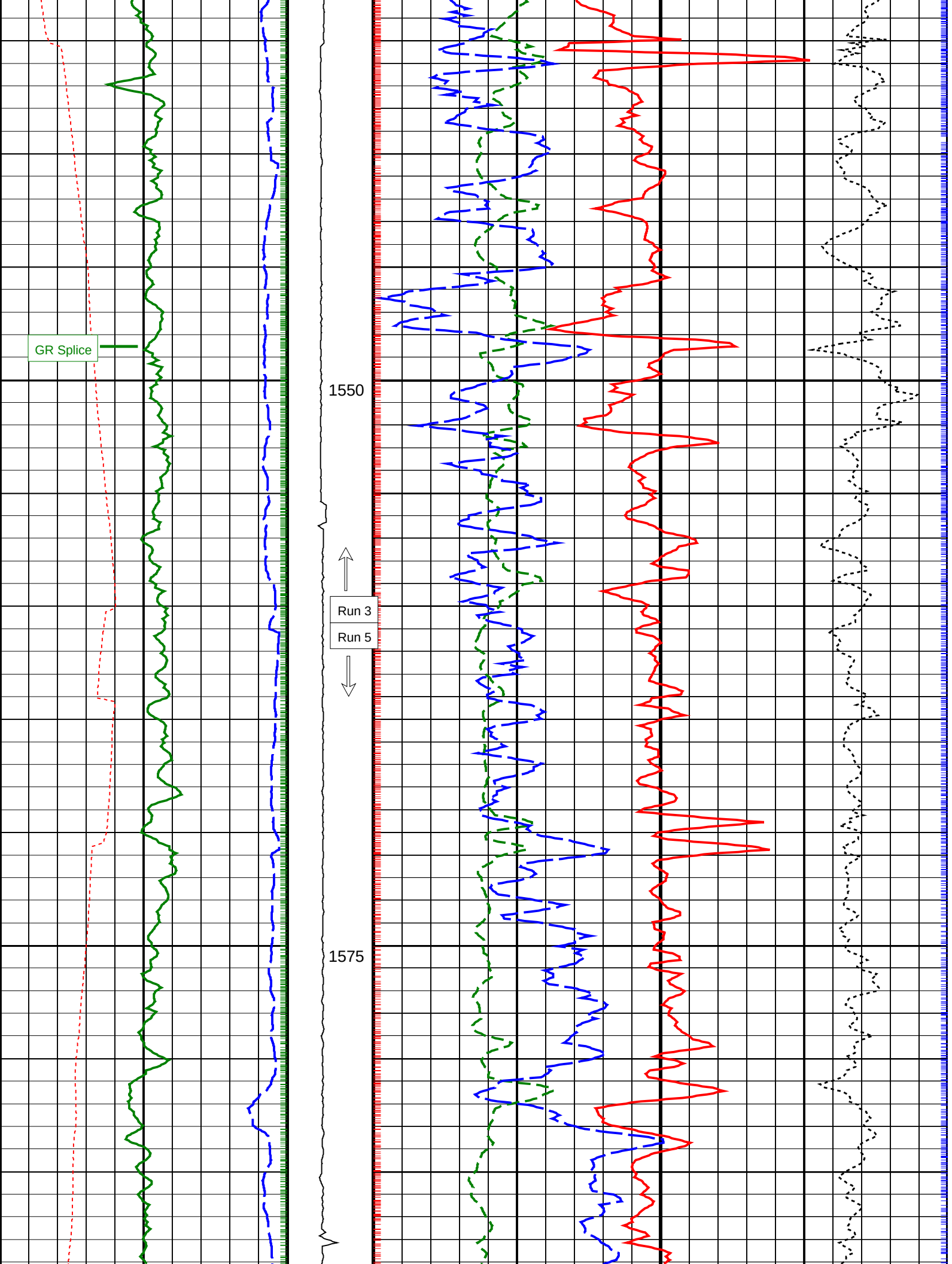

1275
1300

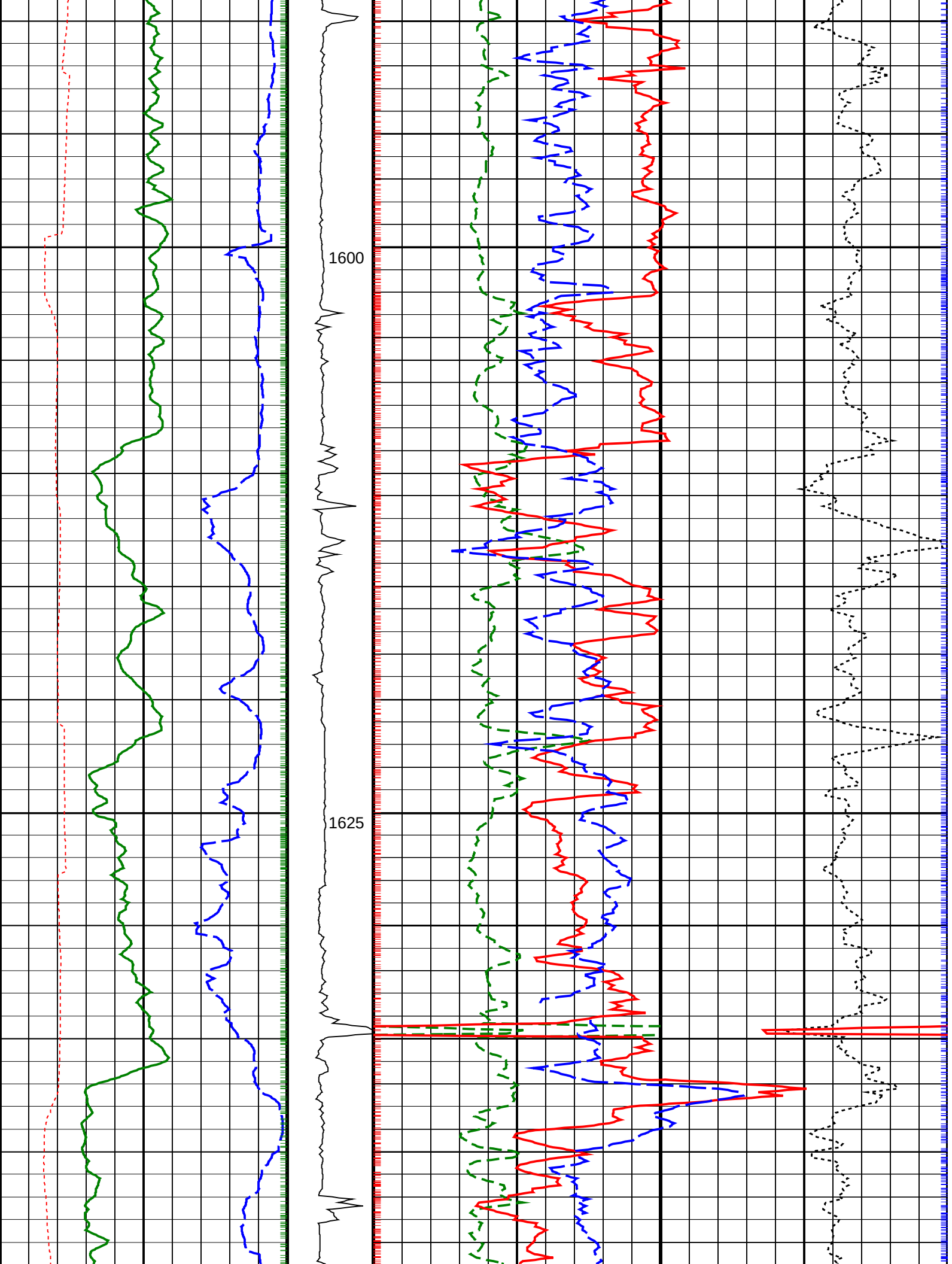

1325
1350
TAB_DEN
GR_ARC
ROPE_RM
RPM_ADN
ROPB
TNPH
DRHB

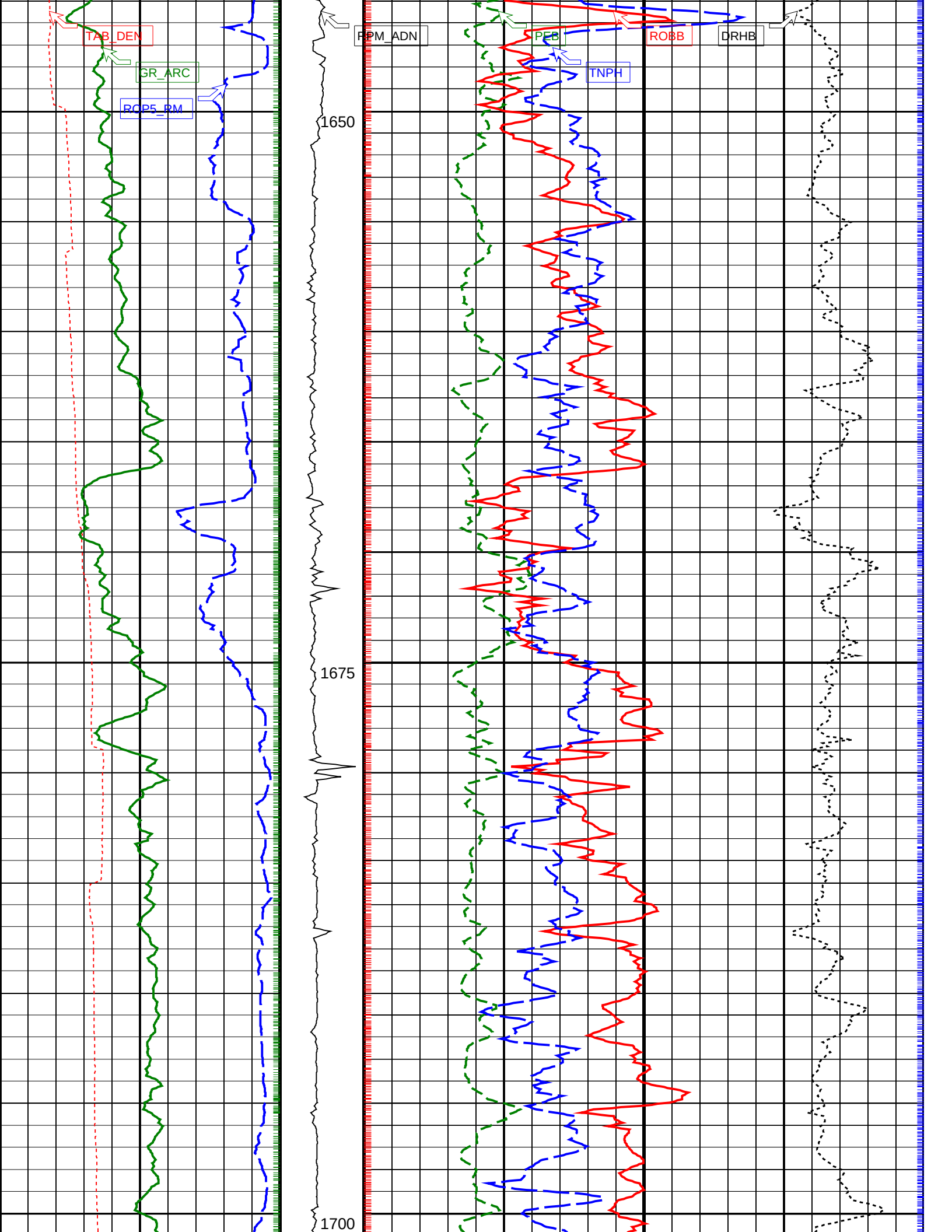

1375
1400

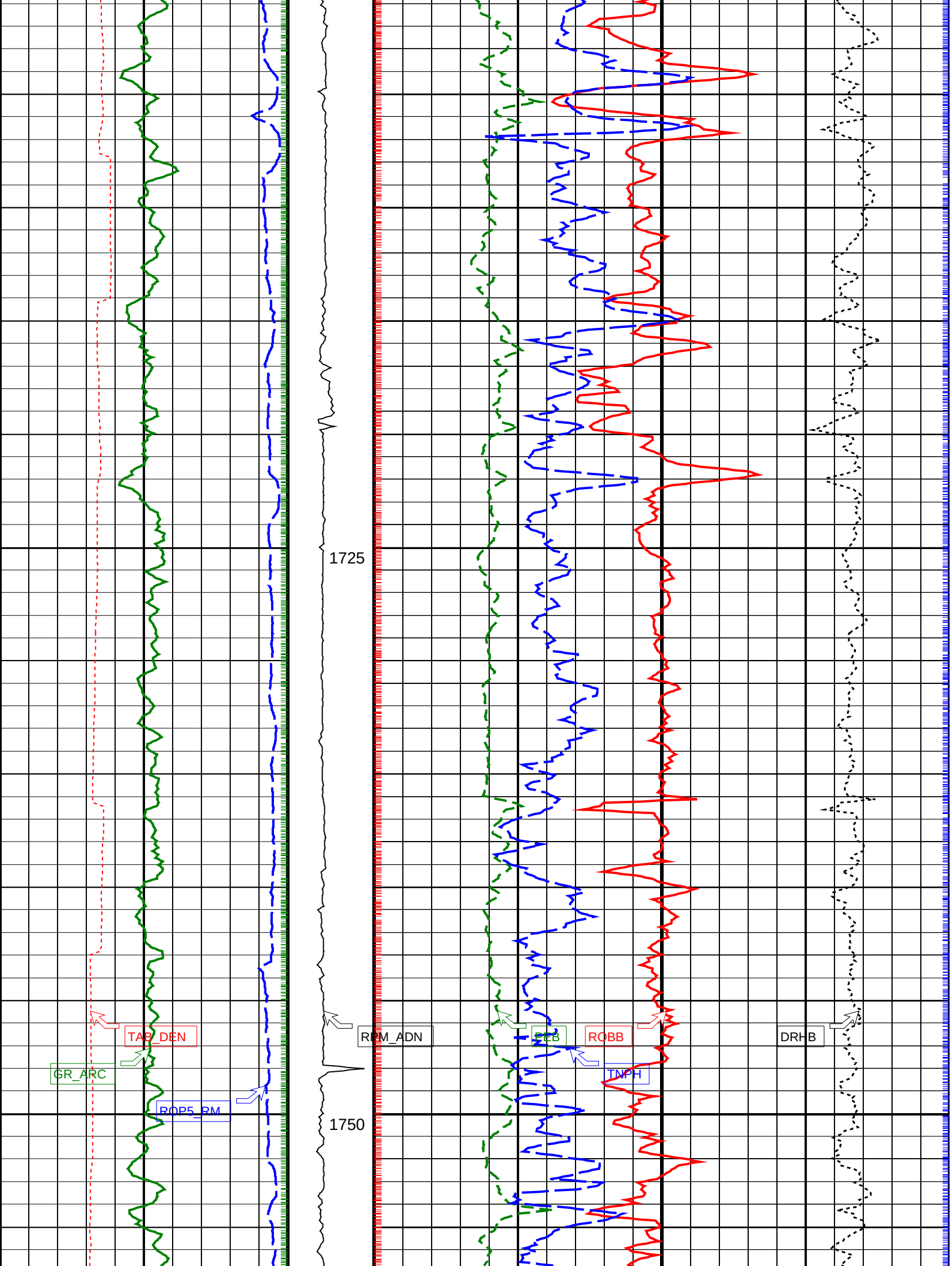

1425
1450
1475
TAB_DEN
GR_ARC
ROPS_RM
RPM_ADN
PEB
NPH
ROBB
DRHB

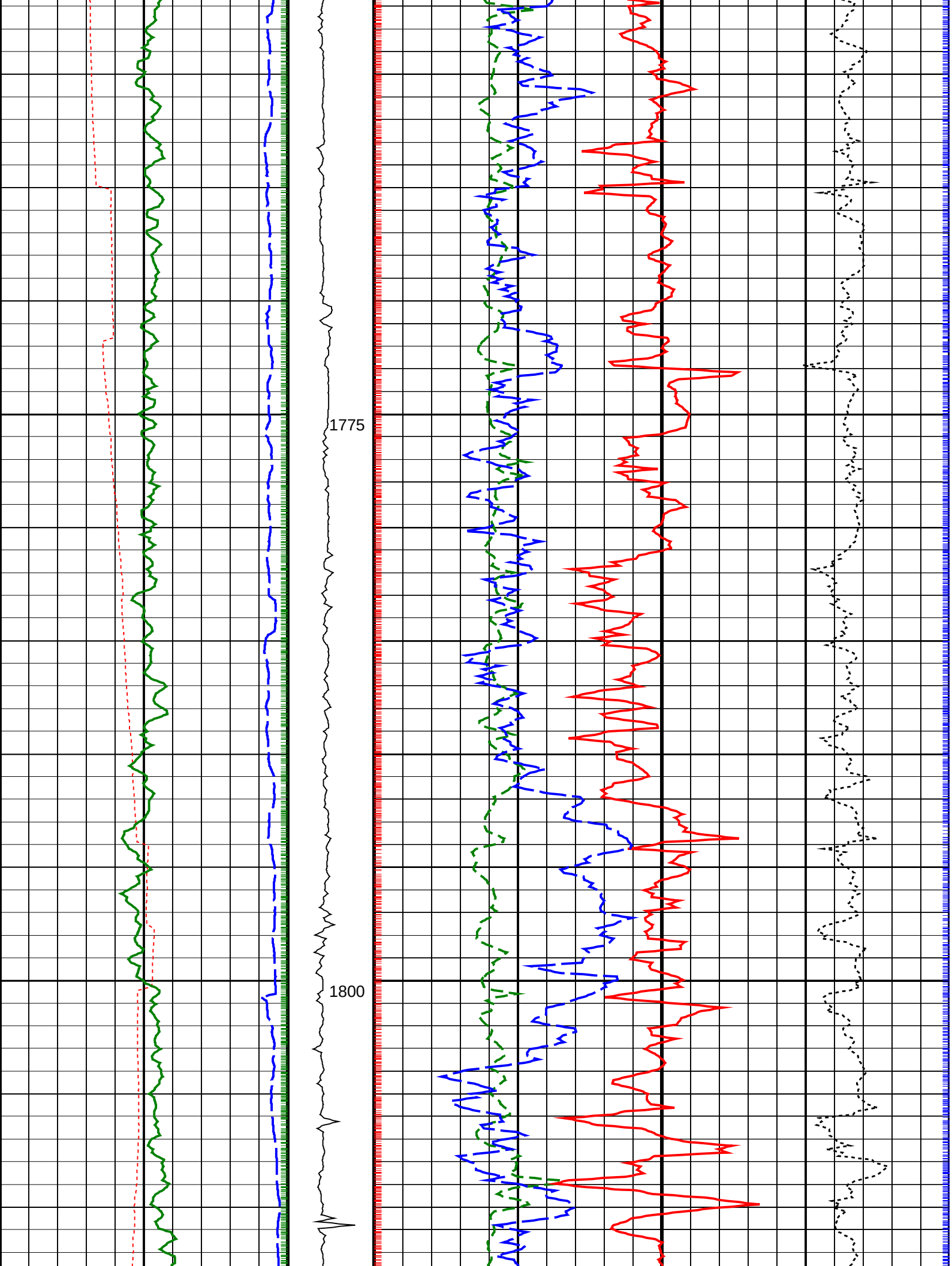

1500
1525
Neutron Splice
Density Splice

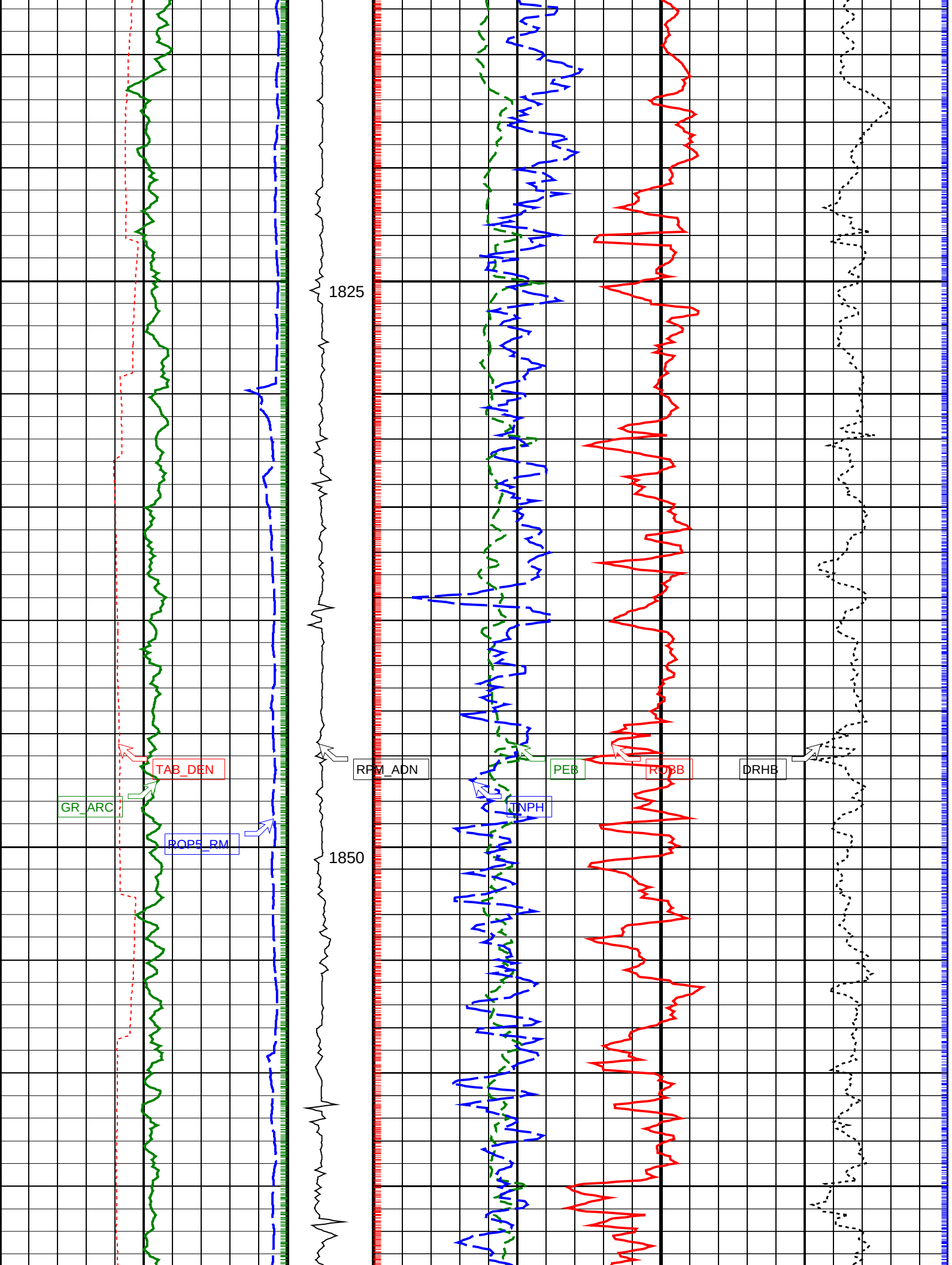

GR Splice
1550
Run 3
Run 5
1575

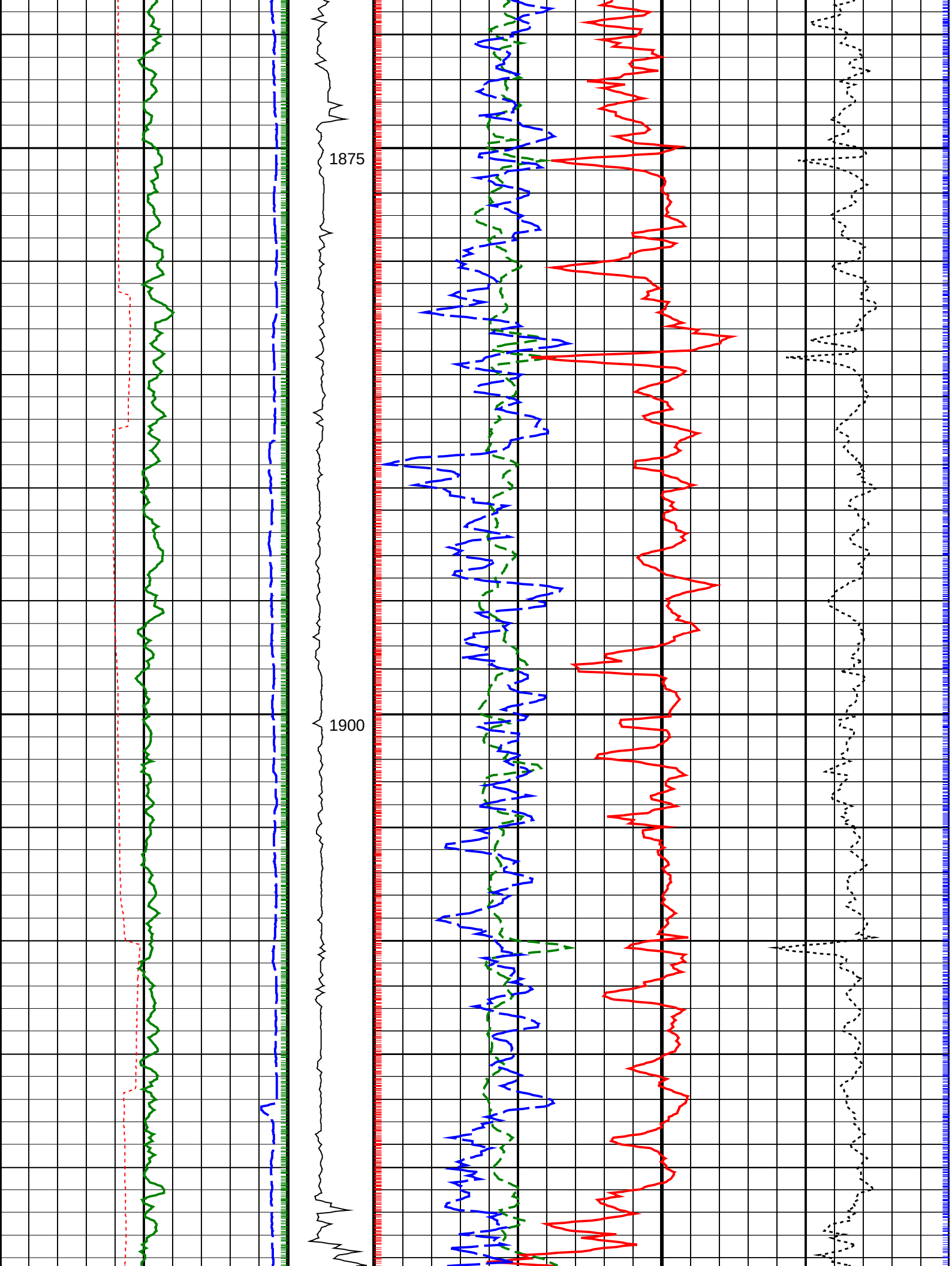

1600
1625

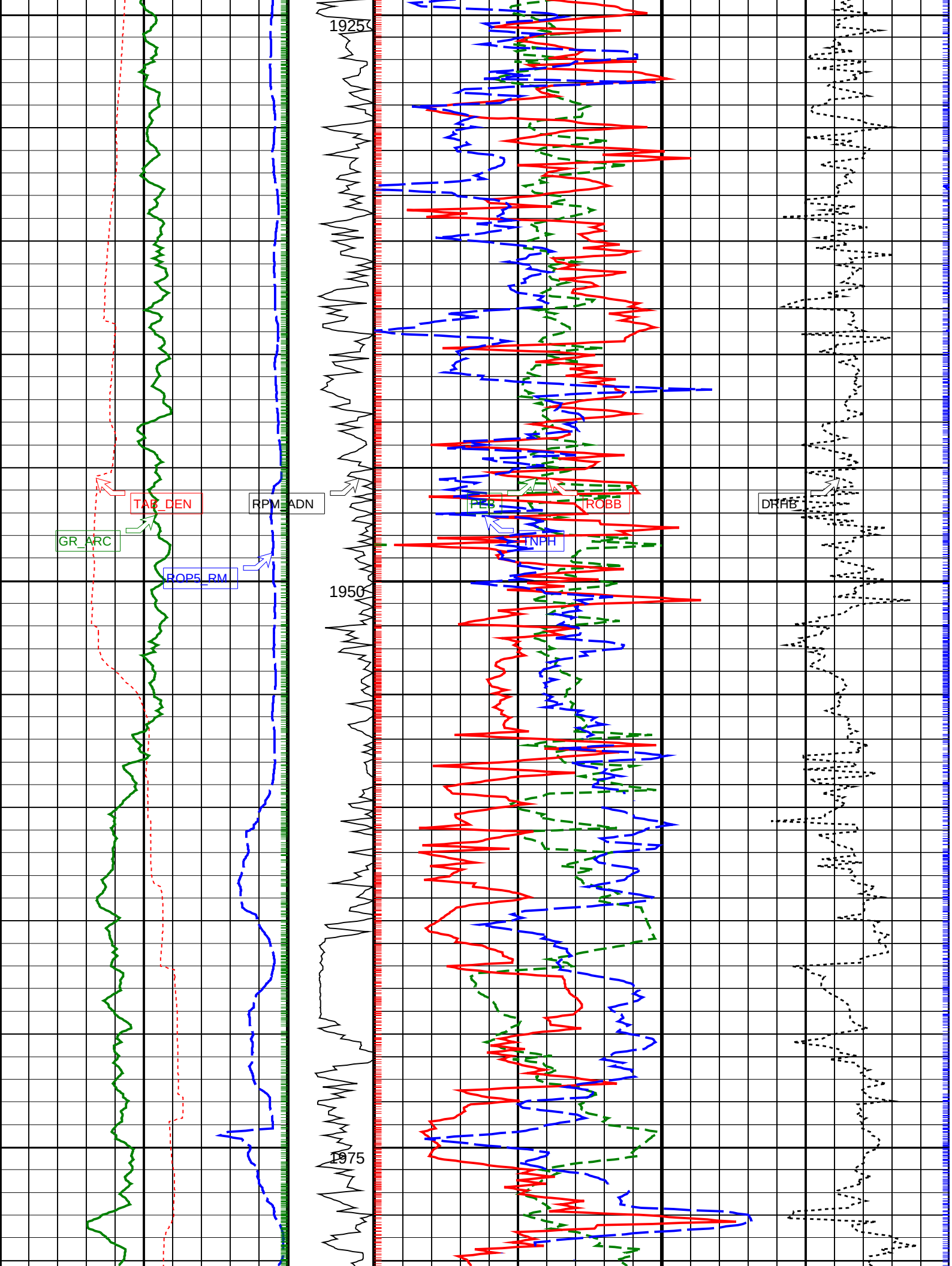

TAB_DEN
GR_ARC
ROP5_RM
RPM_ADN
PEB
TNPH
ROBB
DRHB
1650
1675
1700

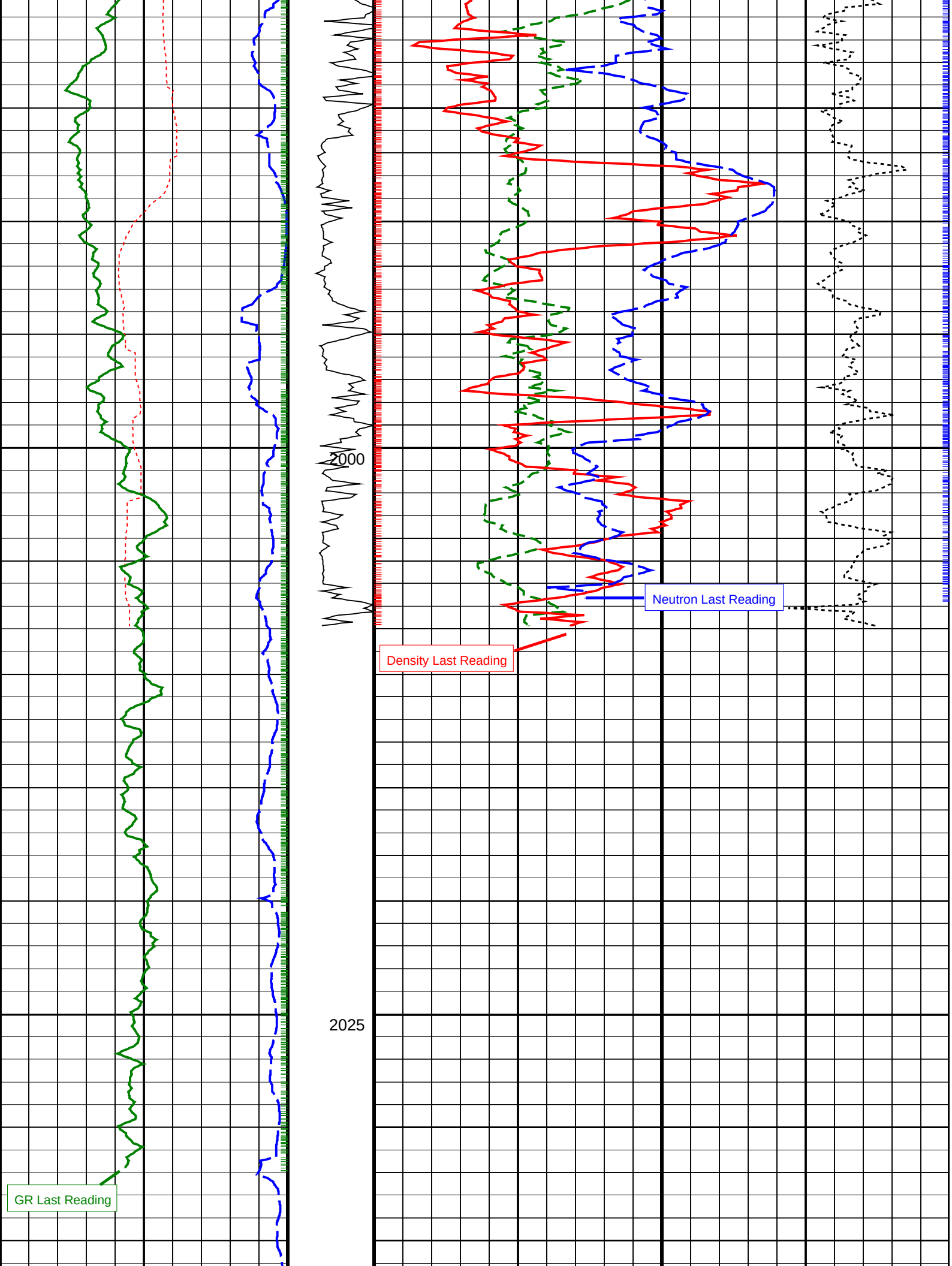

1725
1750
TAB_DEN
GR_ARC
ROP5_RM
RPM_ADN
CEB
ROBB
TNPH
DRHB

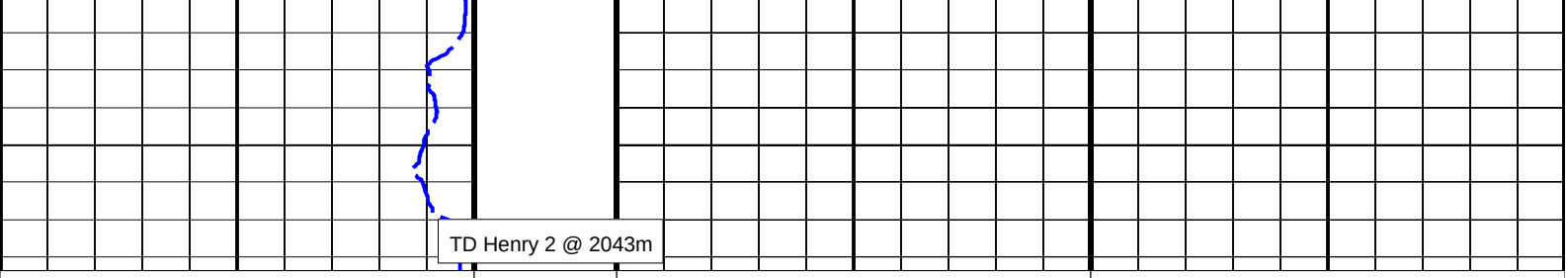

1775
1800


1825
1850
TAB_DEN
GR_ARC
ROP5_RM
RPM_ADN
PEB
TNPH
ROBB
DRHB


1875
1900


1925
1950
1975
TAB_DEN
GR_ARC
RPM_ADN
ROP5_RM
PEB
ROBB
TNPH
DRHB


2000
2025
Neutron Last Reading
Density Last Reading
GR Last Reading




| Density Time After Bit (TAB_DEN) | ADN Rotational Speed (RPM_ADN) | Photoelectric Factor, Bottom (PEB) | Bulk Density Correction, Bottom (DRHB) |
|---|---|---|---|
| 0 (HR) 10 | (RPM) 200 0 | 0 (---- 10 | −0.25 (G/C3) 0.25 |

| ARC Gamma Ray (GR_ARC) | Bulk Density, Bottom (ROBB) |
|---|---|
| 0 (GAPI) 200 | 1.95 (G/C3) 2.95 |
| **Rate of Penetration, Averaged over Last 5ft (ROP5_RM)** | **Thermal Neutron Porosity (TNPH)** |
| 200 (M/HR) 0 | 45 (PU) −15 |

**PIP SUMMARY**

Neutron Ticks, 0.1 ft

Density Ticks, 0.1 ft

ARC Gamma Ray Samples

# IDEAL Version: ID13_0C_11

**IDF**

| | | | |
|---|---|---|---|
| **ARC8A−AA** | **id13_0c_02** | **SON825** | **id13_0c_02** |
| **ADN** | **id13_0c_02** | | |

8.25−in. Azimuthal Density Neutron / Equipment Identification

| | | |
|---|---|---|
| Primary Equipment: | | |
| Tool Name and Serial Number | ADN8 − AA | VC73 |
| Neutron Logging Source | NSR − M | N400 |
| Density Logging Source | GSR − J/Z | 7793B |
| Stabilizer Size | NONE | |
| Calibration Status | AUTO− | |

Master: 21−Aug−2008 19:47

8.25−in. Azimuthal Density Neutron Calibration

Density: Magnesium Block

| Phase | LS window 3 − Mg CPS | Value | Phase | SS window 1 − Mg CPS | Value | Phase | SS window 3 − Mg CPS | Value |
|---|---|---|---|---|---|---|---|---|
| Master | | 1897 | Master | | 5721 | Master | | 14200 |
| 250.0 (Minimum) | 4125 (Nominal) 8000 (Maximum) | | 700.0 (Minimum) | 9350 (Nominal) 18000 (Maximum) | | 2500 (Minimum) | 23750 (Nominal) 45000 (Maximum) | |

Master: 21−Aug−2008 19:47

8.25−in. Azimuthal Density Neutron Calibration

Density: Aluminum Block

| Phase | LS window 3 − Al CPS | Value | Phase | SS window 1 − Al CPS | Value | Phase | SS window 3 − Al CPS | Value |
|---|---|---|---|---|---|---|---|---|
| Master | | 313.2 | Master | | 3185 | Master | | 9408 |
| 50.00 (Minimum) | 725.0 (Nominal) 1400 (Maximum) | | 500.0 (Minimum) | 4250 (Nominal) 8000 (Maximum) | | 1500 (Minimum) | 15750 (Nominal) 30000 (Maximum) | |

Master: 21−Aug−2008 19:47

8.25−in. Azimuthal Density Neutron Calibration

Density: Background

| Phase | LS window 3 − Background CPS | Value | Phase | SS window 1 − Background CPS | Value | Phase | SS window 3 − Background CPS | Value |
|---|---|---|---|---|---|---|---|---|
| Master | | 50.06 | Master | | 116.8 | Master | | 504.2 |
| 15.00 (Minimum) | 82.50 (Nominal) 150.0 (Maximum) | | 40.00 (Minimum) | 220.0 (Nominal) 400.0 (Maximum) | | 150.0 (Minimum) | 825.0 (Nominal) 1500 (Maximum) | |

Master: 21−Aug−2008 19:47

8.25−in. Azimuthal Density Neutron Calibration

Density: Water Block Check

| Phase | Long spacing water density G/C3 | Value |
|---|---|---|
| Master | 1.051 | 1.051 |
| | 1.026 (Minimum) / 1.043 (Nominal) / 1.059 (Maximum) | |

| Phase | Short spacing water density G/C3 | Value |
|---|---|---|
| Master | 1.170 | 1.170 |
| | 1.112 (Minimum) / 1.155 (Nominal) / 1.198 (Maximum) | |

Master: 21−Aug−2008 19:47

8.25−in. Azimuthal Density Neutron Calibration

Neutron: 3−Point Calibration

| Phase | Far Tube 1 Air Point Measure CPS | Value |
|---|---|---|
| Master | 134.4 | 134.4 |
| | 110.0 (Minimum) / 140.3 (Nominal) / 170.0 (Maximum) | |

| Phase | Far Tube 1 Rod Point Measure CPS | Value |
|---|---|---|
| Master | 27.29 | 27.29 |
| | 23.00 (Minimum) / 31.16 (Nominal) / 37.00 (Maximum) | |

| Phase | Far Tube 1 Water Point Measure CPS | Value |
|---|---|---|
| Master | 17.83 | 17.83 |
| | 15.00 (Minimum) / 20.65 (Nominal) / 25.00 (Maximum) | |

| Phase | Far Tube 2 Air Point Measure CPS | Value |
|---|---|---|
| Master | 149.2 | 149.2 |
| | 120.0 (Minimum) / 150.4 (Nominal) / 180.0 (Maximum) | |

| Phase | Far Tube 2 Rod Point Measure CPS | Value |
|---|---|---|
| Master | 29.35 | 29.35 |
| | 24.00 (Minimum) / 32.40 (Nominal) / 38.00 (Maximum) | |

| Phase | Far Tube 2 Water Point Measure CPS | Value |
|---|---|---|
| Master | 19.04 | 19.04 |
| | 15.00 (Minimum) / 21.52 (Nominal) / 26.00 (Maximum) | |

| Phase | Far Tube 3 Air Point Measure CPS | Value |
|---|---|---|
| Master | 151.6 | 151.6 |
| | 120.0 (Minimum) / 151.5 (Nominal) / 180.0 (Maximum) | |

| Phase | Far Tube 3 Rod Point Measure CPS | Value |
|---|---|---|
| Master | 30.01 | 30.01 |
| | 24.00 (Minimum) / 32.40 (Nominal) / 38.00 (Maximum) | |

| Phase | Far Tube 3 Water Point Measure CPS | Value |
|---|---|---|
| Master | 19.46 | 19.46 |
| | 15.00 (Minimum) / 21.53 (Nominal) / 26.00 (Maximum) | |

| Phase | Far Tube 4 Air Point Measure CPS | Value |
|---|---|---|
| Master | 142.4 | 142.4 |
| | 120.0 (Minimum) / 150.4 (Nominal) / 180.0 (Maximum) | |

| Phase | Far Tube 4 Rod Point Measure CPS | Value |
|---|---|---|
| Master | 28.47 | 28.47 |
| | 24.00 (Minimum) / 32.40 (Nominal) / 38.00 (Maximum) | |

| Phase | Far Tube 4 Water Point Measure CPS | Value |
|---|---|---|
| Master | 18.52 | 18.52 |
| | 15.00 (Minimum) / 21.52 (Nominal) / 26.00 (Maximum) | |

| Phase | Far Tube 5 Air Point Measure CPS | Value |
|---|---|---|
| Master | 143.3 | 143.3 |
| | 110.0 (Minimum) / 140.3 (Nominal) / 170.0 (Maximum) | |

| Phase | Far Tube 5 Rod Point Measure CPS | Value |
|---|---|---|
| Master | 29.38 | 29.38 |
| | 23.00 (Minimum) / 31.16 (Nominal) / 37.00 (Maximum) | |

| Phase | Far Tube 5 Water Point Measure CPS | Value |
|---|---|---|
| Master | 18.97 | 18.97 |
| | 15.00 (Minimum) / 20.65 (Nominal) / 25.00 (Maximum) | |

| Phase | Near Tube 1 Air Point Measure CPS | Value |
|---|---|---|
| Master | 1532 | 1532 |
| | 1300 (Minimum) / 1605 (Nominal) / 1900 (Maximum) | |

| Phase | Near Tube 1 Rod Point Measure CPS | Value |
|---|---|---|
| Master | 2066 | 2066 |
| | 1800 (Minimum) / 2375 (Nominal) / 2800 (Maximum) | |

| Phase | Near Tube 1 Water Point Measure CPS | Value |
|---|---|---|
| Master | 1080 | 1080 |
| | 900.0 (Minimum) / 1288 (Nominal) / 1500 (Maximum) | |

| Phase | Near Tube 2 Air Point Measure CPS | Value |
|---|---|---|
| Master | 998.9 | 998.9 |
| | 800.0 (Minimum) / 1027 (Nominal) / 1200 (Maximum) | |

| Phase | Near Tube 2 Rod Point Measure CPS | Value |
|---|---|---|
| Master | 895.4 | 895.4 |
| | 600.0 (Minimum) / 989.1 (Nominal) / 1200 (Maximum) | |

| Phase | Near Tube 2 Water Point Measure CPS | Value |
|---|---|---|
| Master | 464.6 | 464.6 |
| | 300.0 (Minimum) / 532.3 (Nominal) / 700.0 (Maximum) | |

| Phase | Near Tube 3 Air Point Measure CPS | Value |
|---|---|---|
| Master | 1553 | 1553 |
| | 1300 (Minimum) / 1605 (Nominal) / 1900 (Maximum) | |

| Phase | Near Tube 3 Rod Point Measure CPS | Value |
|---|---|---|
| Master | 2216 | 2216 |
| | 1800 (Minimum) / 2375 (Nominal) / 2800 (Maximum) | |

| Phase | Near Tube 3 Water Point Measure CPS | Value |
|---|---|---|
| Master | 1154 | 1154 |
| | 900.0 (Minimum) / 1288 (Nominal) / 1500 (Maximum) | |

Master: 21−Aug−2008 19:47

8.25−in. Azimuthal Density Neutron Calibration

Neutron: Water Block Check

| Phase | Far Neutron water porosity PU | Value |
|---|---|---|
| Master | 93.99 | 93.99 |
| | 90.00 (Minimum) / 100.0 (Nominal) / 120.0 (Maximum) | |

8.25−in. Azimuthal Density Neutron / Equipment Identification

| | | |
|---|---|---|
| Primary Equipment: | | |
| Tool Name and Serial Number | ADN8 − AA | 43150 |
| Neutron Logging Source | NSR − M | N400 |
| Density Logging Source | GSR − J/Z | 7793B |
| Stabilizer Size | NONE | |
| Calibration Status | AUTO− | |

Master: 20−Aug−2008 6:52

8.25−in. Azimuthal Density Neutron Calibration

Density: Magnesium Block

| Phase | LS window 3 − Mg CPS | Value |
|---|---|---|
| Master | 1.051 | 1.051 |
| | 1.026 (Minimum) / 1.043 (Nominal) / 1.059 (Maximum) | |

| Phase | SS window 1 − Mg CPS | Value |
|---|---|---|
| Master | 1.170 | 1.170 |
| | 1.112 (Minimum) / 1.155 (Nominal) / 1.198 (Maximum) | |

| Phase | SS window 3 − Mg CPS | Value |
|---|---|---|
| Master | 1.051 | 1.051 |
| | 1.026 (Minimum) / 1.043 (Nominal) / 1.059 (Maximum) | |

| Phase | | Value |
|---|---|---|
| Master | | 1866 |
| | 250.0 (Minimum) 4125 (Nominal) 8000 (Maximum) | |

| Phase | | Value |
|---|---|---|
| Master | | 5971 |
| | 700.0 (Minimum) 9350 (Nominal) 18000 (Maximum) | |

| Phase | | Value |
|---|---|---|
| Master | | 14120 |
| | 2500 (Minimum) 23750 (Nominal) 45000 (Maximum) | |

Master: 20−Aug−2008 6:52

8.25−in. Azimuthal Density Neutron Calibration

Density: Aluminum Block

| Phase | LS window 3 − Al CPS | Value |
|---|---|---|
| Master | | 310.0 |
| | 50.00 (Minimum) 725.0 (Nominal) 1400 (Maximum) | |

| Phase | SS window 1 − Al CPS | Value |
|---|---|---|
| Master | | 3339 |
| | 500.0 (Minimum) 4250 (Nominal) 8000 (Maximum) | |

| Phase | SS window 3 − Al CPS | Value |
|---|---|---|
| Master | | 9393 |
| | 1500 (Minimum) 15750 (Nominal) 30000 (Maximum) | |

Master: 20−Aug−2008 6:52

8.25−in. Azimuthal Density Neutron Calibration

Density: Background

| Phase | LS window 3 − Background CPS | Value |
|---|---|---|
| Master | | 50.70 |
| | 15.00 (Minimum) 82.50 (Nominal) 150.0 (Maximum) | |

| Phase | SS window 1 − Background CPS | Value |
|---|---|---|
| Master | | 112.9 |
| | 40.00 (Minimum) 220.0 (Nominal) 400.0 (Maximum) | |

| Phase | SS window 3 − Background CPS | Value |
|---|---|---|
| Master | | 481.7 |
| | 150.0 (Minimum) 825.0 (Nominal) 1500 (Maximum) | |

Master: 20−Aug−2008 6:52

8.25−in. Azimuthal Density Neutron Calibration

Density: Water Block Check

| Phase | Long spacing water density G/C3 | Value |
|---|---|---|
| Master | | 1.044 |
| | 1.026 (Minimum) 1.043 (Nominal) 1.059 (Maximum) | |

| Phase | Short spacing water density G/C3 | Value |
|---|---|---|
| Master | | 1.171 |
| | 1.112 (Minimum) 1.155 (Nominal) 1.198 (Maximum) | |

Master: 20−Aug−2008 6:52

8.25−in. Azimuthal Density Neutron Calibration

Neutron: 3−Point Calibration

| Phase | Far Tube 1 Air Point Measure CPS | Value |
|---|---|---|
| Master | | 135.6 |
| | 110.0 (Minimum) 140.3 (Nominal) 170.0 (Maximum) | |

| Phase | Far Tube 1 Rod Point Measure CPS | Value |
|---|---|---|
| Master | | 28.60 |
| | 23.00 (Minimum) 31.16 (Nominal) 37.00 (Maximum) | |

| Phase | Far Tube 1 Water Point Measure CPS | Value |
|---|---|---|
| Master | | 18.43 |
| | 15.00 (Minimum) 20.65 (Nominal) 25.00 (Maximum) | |

| Phase | Far Tube 2 Air Point Measure CPS | Value |
|---|---|---|
| Master | | 150.2 |
| | 120.0 (Minimum) 150.4 (Nominal) 180.0 (Maximum) | |

| Phase | Far Tube 2 Rod Point Measure CPS | Value |
|---|---|---|
| Master | | 31.13 |
| | 24.00 (Minimum) 32.40 (Nominal) 38.00 (Maximum) | |

| Phase | Far Tube 2 Water Point Measure CPS | Value |
|---|---|---|
| Master | | 20.05 |
| | 15.00 (Minimum) 21.52 (Nominal) 26.00 (Maximum) | |

| Phase | Far Tube 3 Air Point Measure CPS | Value |
|---|---|---|
| Master | | 149.2 |
| | 120.0 (Minimum) 151.5 (Nominal) 180.0 (Maximum) | |

| Phase | Far Tube 3 Rod Point Measure CPS | Value |
|---|---|---|
| Master | | 30.38 |
| | 24.00 (Minimum) 32.40 (Nominal) 38.00 (Maximum) | |

| Phase | Far Tube 3 Water Point Measure CPS | Value |
|---|---|---|
| Master | | 19.74 |
| | 15.00 (Minimum) 21.53 (Nominal) 26.00 (Maximum) | |

| Phase | Far Tube 4 Air Point Measure CPS | Value |
|---|---|---|
| Master | | 143.9 |
| | 120.0 (Minimum) 150.4 (Nominal) 180.0 (Maximum) | |

| Phase | Far Tube 4 Rod Point Measure CPS | Value |
|---|---|---|
| Master | | 29.23 |
| | 24.00 (Minimum) 32.40 (Nominal) 38.00 (Maximum) | |

| Phase | Far Tube 4 Water Point Measure CPS | Value |
|---|---|---|
| Master | | 18.90 |
| | 15.00 (Minimum) 21.52 (Nominal) 26.00 (Maximum) | |

| Phase | Far Tube 5 Air Point Measure CPS | Value |
|---|---|---|
| Master | | 138.5 |
| | 110.0 (Minimum) 140.3 (Nominal) 170.0 (Maximum) | |

| Phase | Far Tube 5 Rod Point Measure CPS | Value |
|---|---|---|
| Master | | 29.68 |
| | 23.00 (Minimum) 31.16 (Nominal) 37.00 (Maximum) | |

| Phase | Far Tube 5 Water Point Measure CPS | Value |
|---|---|---|
| Master | | 19.24 |
| | 15.00 (Minimum) 20.65 (Nominal) 25.00 (Maximum) | |

| Phase | Near Tube 1 Air Point Measure CPS | Value |
|---|---|---|
| Master | | 1532 |
| | 1300 (Minimum) 1605 (Nominal) 1900 (Maximum) | |

| Phase | Near Tube 1 Rod Point Measure CPS | Value |
|---|---|---|
| Master | | 2095 |
| | 1800 (Minimum) 2375 (Nominal) 2800 (Maximum) | |

| Phase | Near Tube 1 Water Point Measure CPS | Value |
|---|---|---|
| Master | | 1089 |
| | 900.0 (Minimum) 1288 (Nominal) 1500 (Maximum) | |

| Phase | Near Tube 2 Air Point Measure CPS | Value |
|---|---|---|
| Master | | 980.1 |
| | 800.0 (Minimum) 1027 (Nominal) 1200 (Maximum) | |

| Phase | Near Tube 2 Rod Point Measure CPS | Value |
|---|---|---|
| Master | | 900.5 |
| | 600.0 (Minimum) 989.1 (Nominal) 1200 (Maximum) | |

| Phase | Near Tube 2 Water Point Measure CPS | Value |
|---|---|---|
| Master | | 467.7 |
| | 300.0 (Minimum) 532.3 (Nominal) 700.0 (Maximum) | |

| Phase | Near Tube 3 Air Point Measure CPS | Value |
|---|---|---|
| Master | | 1535 |
| | 1300 (Minimum) 1605 (Nominal) 1900 (Maximum) | |

| Phase | Near Tube 3 Rod Point Measure CPS | Value |
|---|---|---|
| Master | | 2132 |
| | 1800 (Minimum) 2375 (Nominal) 2800 (Maximum) | |

| Phase | Near Tube 3 Water Point Measure CPS | Value |
|---|---|---|
| Master | | 1113 |
| | 900.0 (Minimum) 1288 (Nominal) 1500 (Maximum) | |

Master: 20−Aug−2008 6:52

8.25−in. Azimuthal Density Neutron Calibration

Neutron: Water Block Check

| Phase | Far Neutron water porosity PU | Value |
|---|---|---|
| Master | | 101.9 |
| | 90.00 (Minimum) / 100.0 (Nominal) / 120.0 (Maximum) | |

8.25−in. Array Resistivity Compensated / Equipment Identification

Primary Equipment:

| | | |
|---|---|---|
| Tool Name and Serial Number | ARC8 − AA | 1106 |
| ARC825 Calibration Status | — | |

Master: 20−Aug−2008 15:09

8.25−in. Array Resistivity Compensated Calibration

Resistivity: Air

| Phase | Phase−Shift T1 | Value | Phase | Phase−Shift T2 | Value | Phase | Phase−Shift T3 | Value |
|---|---|---|---|---|---|---|---|---|
| Master | | 0.5449 | Master | | −0.4380 | Master | | 0.4321 |
| | −3.900 (Minimum) / 0.1000 (Nominal) / 4.100 (Maximum) | | | −3.900 (Minimum) / 0.1000 (Nominal) / 4.100 (Maximum) | | | −3.900 (Minimum) / 0.1000 (Nominal) / 4.100 (Maximum) | |

| Phase | Phase−Shift T4 | Value | Phase | Phase−Shift T5 | Value | Phase | Phase−Shift T1 at 400KHz | Value |
|---|---|---|---|---|---|---|---|---|
| Master | | −0.5454 | Master | | 0.4138 | Master | | 0.3618 |
| | −3.900 (Minimum) / 0.1000 (Nominal) / 4.100 (Maximum) | | | −3.900 (Minimum) / 0.1000 (Nominal) / 4.100 (Maximum) | | | −3.900 (Minimum) / 0.1000 (Nominal) / 4.100 (Maximum) | |

| Phase | Phase−Shift T2 at 400KHz | Value | Phase | Phase−Shift T3 at 400KHz | Value | Phase | Phase−Shift T4 at 400KHz | Value |
|---|---|---|---|---|---|---|---|---|
| Master | | −0.4216 | Master | | 0.3890 | Master | | −0.4442 |
| | −3.900 (Minimum) / 0.1000 (Nominal) / 4.100 (Maximum) | | | −3.900 (Minimum) / 0.1000 (Nominal) / 4.100 (Maximum) | | | −3.900 (Minimum) / 0.1000 (Nominal) / 4.100 (Maximum) | |

| Phase | Phase−Shift T5 at 400KHz | Value |
|---|---|---|
| Master | | 0.3747 |
| | −3.900 (Minimum) / 0.1000 (Nominal) / 4.100 (Maximum) | |

Master: 20−Aug−2008 15:09

8.25−in. Array Resistivity Compensated Calibration

Resistivity: Air

| Phase | Attenuation T1 | Value | Phase | Attenuation T2 | Value | Phase | Attenuation T3 | Value |
|---|---|---|---|---|---|---|---|---|
| Master | | 8.569 | Master | | 6.137 | Master | | 5.265 |
| | 6.500 (Minimum) / 8.500 (Nominal) / 10.50 (Maximum) | | | 4.500 (Minimum) / 6.500 (Nominal) / 8.500 (Maximum) | | | 2.500 (Minimum) / 4.500 (Nominal) / 6.500 (Maximum) | |

| Phase | Attenuation T4 | Value | Phase | Attenuation T5 | Value | Phase | Attenuation T1 at 400KHz | Value |
|---|---|---|---|---|---|---|---|---|
| Master | | 4.087 | Master | | 3.849 | Master | | 8.553 |
| | 2.600 (Minimum) / 4.600 (Nominal) / 6.600 (Maximum) | | | 1.600 (Minimum) / 3.600 (Nominal) / 5.600 (Maximum) | | | 6.500 (Minimum) / 8.500 (Nominal) / 10.50 (Maximum) | |

| Phase | Attenuation T2 at 400KHz | Value | Phase | Attenuation T3 at 400KHz | Value | Phase | Attenuation T4 at 400KHz | Value |
|---|---|---|---|---|---|---|---|---|
| Master | | 6.158 | Master | | 5.247 | Master | | 4.104 |
| | 4.500 (Minimum) / 6.500 (Nominal) / 8.500 (Maximum) | | | 2.500 (Minimum) / 4.500 (Nominal) / 6.500 (Maximum) | | | 2.600 (Minimum) / 4.600 (Nominal) / 6.600 (Maximum) | |

| Phase | Attenuation T5 at 400KHz | Value |
|---|---|---|
| Master | | 3.841 |
| | 1.600 (Minimum) / 3.600 (Nominal) / 5.600 (Maximum) | |

Master: 20−Aug−2008 10:20

8.25−in. Array Resistivity Compensated Calibration

Gamma Ray: Blanket

| Phase | Gamma ray factor (equals Calibration Gain multiplied by API Gain Factor) CPS | Value |
|---|---|---|
| Master | | 7.399 |
| | 4.960 (Minimum) / 7.200 (Nominal) / 9.650 (Maximum) | |

## 8.25−in. Array Resistivity Compensated / Equipment Identification

| | | |
|---|---|---|
| Primary Equipment: | | |
| Tool Name and Serial Number | ARC8 − AA | 1871 |
| ARC825 Calibration Status | — | |

Master: 28−Jul−2008 20:41

8.25−in. Array Resistivity Compensated Calibration

Resistivity: Air

| Phase | Phase−Shift T1 | Value |
|---|---|---|
| Master | | 2.991 |
| −3.900 (Minimum) | 0.1000 (Nominal) | 4.100 (Maximum) |

| Phase | Phase−Shift T2 | Value |
|---|---|---|
| Master | | −2.875 |
| −3.900 (Minimum) | 0.1000 (Nominal) | 4.100 (Maximum) |

| Phase | Phase−Shift T3 | Value |
|---|---|---|
| Master | | 2.903 |
| −3.900 (Minimum) | 0.1000 (Nominal) | 4.100 (Maximum) |

| Phase | Phase−Shift T4 | Value |
|---|---|---|
| Master | | −2.905 |
| −3.900 (Minimum) | 0.1000 (Nominal) | 4.100 (Maximum) |

| Phase | Phase−Shift T5 | Value |
|---|---|---|
| Master | | 2.873 |
| −3.900 (Minimum) | 0.1000 (Nominal) | 4.100 (Maximum) |

| Phase | Phase−Shift T1 at 400KHz | Value |
|---|---|---|
| Master | | −1.569 |
| −3.900 (Minimum) | 0.1000 (Nominal) | 4.100 (Maximum) |

| Phase | Phase−Shift T2 at 400KHz | Value |
|---|---|---|
| Master | | 1.403 |
| −3.900 (Minimum) | 0.1000 (Nominal) | 4.100 (Maximum) |

| Phase | Phase−Shift T3 at 400KHz | Value |
|---|---|---|
| Master | | −1.514 |
| −3.900 (Minimum) | 0.1000 (Nominal) | 4.100 (Maximum) |

| Phase | Phase−Shift T4 at 400KHz | Value |
|---|---|---|
| Master | | 1.425 |
| −3.900 (Minimum) | 0.1000 (Nominal) | 4.100 (Maximum) |

| Phase | Phase−Shift T5 at 400KHz | Value |
|---|---|---|
| Master | | −1.540 |
| −3.900 (Minimum) | 0.1000 (Nominal) | 4.100 (Maximum) |

Master: 28−Jul−2008 20:41

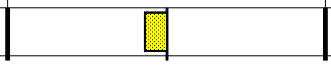
8.25−in. Array Resistivity Compensated Calibration

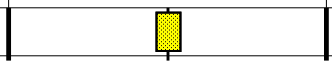
Resistivity: Air

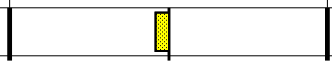
| Phase | Attenuation T1 | Value |
|---|---|---|
| Master | | 8.288 |
| 6.500 (Minimum) | 8.500 (Nominal) | 10.50 (Maximum) |

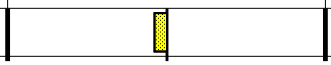
| Phase | Attenuation T2 | Value |
|---|---|---|
| Master | | 6.362 |
| 4.500 (Minimum) | 6.500 (Nominal) | 8.500 (Maximum) |

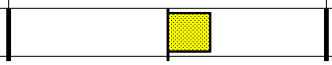
| Phase | Attenuation T3 | Value |
|---|---|---|
| Master | | 5.012 |
| 2.500 (Minimum) | 4.500 (Nominal) | 6.500 (Maximum) |

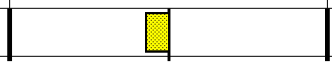
| Phase | Attenuation T4 | Value |
|---|---|---|
| Master |  | 4.319 |
| | 2.600 (Minimum) 4.600 (Nominal) 6.600 (Maximum) | |

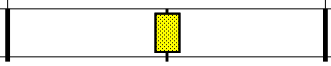
| Phase | Attenuation T5 | Value |
|---|---|---|
| Master |  | 3.602 |
| | 1.600 (Minimum) 3.600 (Nominal) 5.600 (Maximum) | |

| Phase | Attenuation T1 at 400KHz | Value |
|---|---|---|
| Master |  | 8.320 |
| | 6.500 (Minimum) 8.500 (Nominal) 10.50 (Maximum) | |

| Phase | Attenuation T2 at 400KHz | Value |
|---|---|---|
| Master |  | 6.340 |
| | 4.500 (Minimum) 6.500 (Nominal) 8.500 (Maximum) | |

| Phase | Attenuation T3 at 400KHz | Value |
|---|---|---|
| Master |  | 5.037 |
| | 2.500 (Minimum) 4.500 (Nominal) 6.500 (Maximum) | |

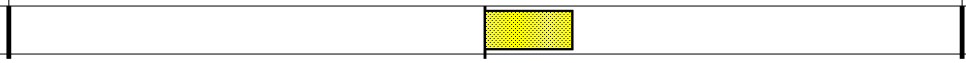
| Phase | Attenuation T4 at 400KHz | Value |
|---|---|---|
| Master |  | 4.302 |
| | 2.600 (Minimum) 4.600 (Nominal) 6.600 (Maximum) | |

| Phase | Attenuation T5 at 400KHz | Value |
|---|---|---|
| Master |  | 3.639 |
| | 1.600 (Minimum) 3.600 (Nominal) 5.600 (Maximum) | |

Master: 28−Jul−2008 14:35

8.25−in. Array Resistivity Compensated Calibration

Gamma Ray: Blanket

| Phase | Gamma ray factor (equals Calibration Gain multiplied by API Gain Factor) CPS | Value |
|---|---|---|
| Master |  | 7.658 |
| | 4.960 (Minimum) 7.200 (Nominal) 9.650 (Maximum) | |

SCHLUMBERGER

Survey report

Client.....: Santos Limited
Field.....: Otway

Well.....: Henry-2
API number.....: 08ASQ0011
Engineer.....: Anagh Kohli

Rig.....: Ocean Patriot
STATE:.....: Victoria

Spud date.....: 25-Aug-08
Last survey date.....: 13-Sep-08
Total accepted surveys...: 72
MD of first survey.....: 0.00 m
MD of last survey.....: 2042.00 m

----- Survey calculation methods----------
Method for positions.....: Minimum curvature
Method for DLS.....: Mason & Taylor

----- Depth reference -----------------
Permanent datum.....: MSL
Depth reference.....: Driller's Depth

----- Geomagnetic data ----------------
Magnetic model.....: BGGM version 2008
Magnetic date.....: 29-Aug-2008
Magnetic field strength..: 1216.32 HCNT
Magnetic dec (+E/W-).....: 10.77 degrees
Magnetic dip.....: -69.86 degrees

GL above permanent.....:    -67.00 m
KB above permanent.....:     20.80 m
DF above permanent.....:     20.80 m

----- Vertical section origin----------
Latitude (+N/S-).....:      0.00 m
Departure (+E/W-).....:      0.00 m

----- Platform reference point----------
Latitude (+N/S-).....:
Departure (+E/W-).....:

Azimuth from Vsect Origin to target:  119.01 degrees

----- MWD survey Reference Criteria ---------
Reference G.....:    1000.07 mGal
Reference H.....:    1216.32 HCNT
Reference Dip.....:     -69.86 degrees
Tolerance of G.....: (+/-) 2.50 mGal
Tolerance of H.....: (+/-) 6.00 HCNT
Tolerance of Dip.....: (+/-) 0.45 degrees

----- Corrections ----------
Magnetic dec (+E/W-).....:      10.77 degrees
Grid convergence (+E/W-).:      -1.01 degrees
Total az corr (+E/W-)....:      11.78 degrees
  (Total az corr = magnetic dec - grid conv)
Survey Correction Type ...:
   I=Sag Corrected Inclination
   M=Schlumberger Magnetic Correction
   S=Shell Magnetic Correction
   F=Failed Axis Correction
   R=Magnetic Resonance Tool Correction
   D=Dmag Magnetic Correction

[(c)2008 IDEAL ID13_0C_11]
SCHLUMBERGER Survey Report

| Seq # - | Measured depth (m) | Incl angle (deg) | Azimuth angle (deg) | Course length (m) | TVD depth (m) | Vertical section (m) | Displ +N/S- (m) | Displ +E/W- (m) | Total displ (m) | At Azim (deg) | DLS (deg/ 100f) | Srvy tool type | Tool Corr (deg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | TIP | None |
| 2 | 87.00 | 0.00 | 0.00 | 87.00 | 87.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | MS | None |
| 3 | 100.54 | 0.86 | 166.76 | 13.54 | 100.54 | 0.07 | -0.10 | 0.02 | 0.10 | 166.76 | 1.94 | MS | None |
| 4 | 121.29 | 0.69 | 181.46 | 20.75 | 121.29 | 0.23 | -0.38 | 0.06 | 0.38 | 171.55 | 0.38 | MS | None |
| 5 | 139.00 | 0.44 | 330.20 | 17.71 | 139.00 | 0.22 | -0.42 | 0.02 | 0.42 | 177.40 | 1.88 | MS | None |
| 6 | 168.19 | 0.76 | 319.12 | 29.19 | 168.19 | -0.06 | -0.18 | -0.16 | 0.24 | 222.29 | 0.35 | MS | None |
| 7 | 196.26 | 0.86 | 317.61 | 28.07 | 196.25 | -0.43 | 0.12 | -0.43 | 0.44 | 285.32 | 0.11 | MS | None |
| 8 | 224.34 | 0.90 | 318.13 | 28.08 | 224.33 | -0.84 | 0.44 | -0.72 | 0.84 | 301.38 | 0.04 | MS | None |
| 9 | 252.42 | 0.82 | 320.95 | 28.08 | 252.41 | -1.23 | 0.76 | -0.99 | 1.25 | 307.41 | 0.10 | MS | None |
| 10 | 280.48 | 0.85 | 321.06 | 28.06 | 280.46 | -1.61 | 1.07 | -1.25 | 1.65 | 310.75 | 0.03 | MS | None |
| 11 | 309.36 | 0.90 | 321.89 | 28.88 | 309.34 | -2.02 | 1.42 | -1.52 | 2.08 | 313.01 | 0.05 | MS | None |
| 12 | 338.11 | 0.88 | 317.75 | 28.75 | 338.09 | -2.44 | 1.76 | -1.81 | 2.53 | 314.22 | 0.07 | MS | None |
| 13 | 366.97 | 0.91 | 337.60 | 28.86 | 366.94 | -2.83 | 2.14 | -2.05 | 2.96 | 316.24 | 0.33 | MS | None |
| 14 | 395.76 | 0.18 | 193.03 | 28.79 | 395.73 | -2.99 | 2.30 | -2.14 | 3.15 | 317.07 | 1.12 | MS | None |
| 15 | 424.60 | 0.23 | 186.43 | 28.84 | 424.57 | -2.96 | 2.20 | -2.16 | 3.09 | 315.56 | 0.06 | MS | None |
| 16 | 453.40 | 0.22 | 174.07 | 28.80 | 453.37 | -2.90 | 2.09 | -2.16 | 3.01 | 314.05 | 0.05 | MS | None |
| 17 | 482.27 | 0.28 | 178.70 | 28.87 | 482.24 | -2.84 | 1.96 | -2.15 | 2.92 | 312.37 | 0.07 | MS | None |
| 18 | 511.15 | 0.30 | 175.17 | 28.88 | 511.12 | -2.76 | 1.82 | -2.15 | 2.81 | 310.29 | 0.03 | MS | None |
| 19 | 540.11 | 0.32 | 168.39 | 28.96 | 540.08 | -2.66 | 1.66 | -2.12 | 2.70 | 308.09 | 0.04 | MS | None |
| 20 | 568.89 | 0.41 | 174.22 | 28.78 | 568.86 | -2.55 | 1.48 | -2.10 | 2.57 | 305.27 | 0.10 | MS | None |
| **21** | **597.83** | **0.27** | **181.06** | **28.94** | **597.80** | **-2.46** | **1.31** | **-2.09** | **2.47** | **302.14** | **0.15** | **MS** | **None** |
| 22 | 626.63 | 0.41 | 176.71 | 28.80 | 626.60 | -2.37 | 1.14 | -2.08 | 2.37 | 298.71 | 0.15 | MS | None |
| 23 | 634.07 | 0.47 | 178.32 | 7.44 | 634.04 | -2.34 | 1.08 | -2.08 | 2.35 | 297.52 | 0.25 | MS | None |
| 24 | 681.58 | 0.29 | 157.36 | 47.51 | 681.55 | -2.15 | 0.78 | -2.03 | 2.17 | 290.99 | 0.14 | PUP | None |
| 25 | 740.06 | 0.45 | 140.43 | 58.48 | 740.03 | -1.82 | 0.46 | -1.82 | 1.88 | 284.28 | 0.10 | PUP | None |
| 26 | 768.28 | 0.83 | 157.79 | 28.22 | 768.24 | -1.56 | 0.19 | -1.68 | 1.69 | 276.46 | 0.46 | PUP | None |
| 27 | 797.08 | 2.50 | 141.89 | 28.80 | 797.03 | -0.82 | -0.50 | -1.21 | 1.31 | 247.65 | 1.82 | PUP | None |
| 28 | 826.15 | 3.39 | 139.33 | 29.07 | 826.06 | 0.57 | -1.65 | -0.26 | 1.67 | 188.93 | 0.94 | PUP | None |
| 29 | 854.44 | 3.40 | 141.08 | 28.29 | 854.30 | 2.13 | -2.94 | 0.81 | 3.05 | 164.52 | 0.11 | PUP | None |
| 30 | 883.67 | 3.87 | 140.62 | 29.23 | 883.47 | 3.85 | -4.37 | 1.98 | 4.80 | 155.60 | 0.49 | PUP | None |

[(c)2008 IDEAL ID13_0C_11]
SCHLUMBERGER Survey Report

| Seq # - | Measured depth (m) | Incl angle (deg) | Azimuth angle (deg) | Course length (m) | TVD depth (m) | Vertical section (m) | Displ +N/S- (m) | Displ +E/W- (m) | Total displ (m) | At Azim (deg) | DLS (deg/ 100f) | Srvy tool type | Tool Corr (deg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 31 | 912.33 | 4.77 | 142.55 | 28.66 | 912.05 | 5.85 | -6.07 | 3.32 | 6.92 | 151.30 | 0.97 | PUP | None |
| 32 | 940.43 | 6.91 | 146.93 | 28.10 | 940.01 | 8.41 | -8.41 | 4.95 | 9.76 | 149.50 | 2.37 | PUP | None |
| 33 | 969.38 | 10.03 | 149.10 | 28.95 | 968.64 | 12.13 | -12.03 | 7.20 | 14.02 | 149.11 | 3.30 | PUP | None |
| 34 | 998.24 | 13.64 | 148.11 | 28.86 | 996.88 | 17.28 | -17.08 | 10.29 | 19.94 | 148.94 | 3.82 | PUP | None |
| 35 | 1026.48 | 16.66 | 146.70 | 28.24 | 1024.13 | 23.78 | -23.29 | 14.27 | 27.32 | 148.50 | 3.28 | PUP | None |
| 36 | 1056.39 | 19.21 | 141.25 | 29.91 | 1052.59 | 32.13 | -30.72 | 19.71 | 36.49 | 147.32 | 3.11 | PUP | None |
| 37 | 1084.97 | 21.95 | 138.51 | 28.58 | 1079.34 | 41.52 | -38.39 | 26.19 | 46.47 | 145.69 | 3.10 | PUP | None |
| 38 | 1112.81 | 24.41 | 135.23 | 27.84 | 1104.94 | 51.95 | -46.37 | 33.69 | 57.32 | 144.00 | 3.04 | PUP | None |
| 39 | 1141.90 | 25.91 | 132.79 | 29.09 | 1131.27 | 63.90 | -54.95 | 42.59 | 69.53 | 142.23 | 1.91 | PUP | None |
| 40 | 1169.55 | 27.21 | 130.42 | 27.65 | 1156.00 | 75.96 | -63.16 | 51.83 | 81.71 | 140.62 | 1.85 | PUP | None |
| 41 | 1198.94 | 28.27 | 128.23 | 29.39 | 1182.01 | 89.42 | -71.82 | 62.42 | 95.15 | 139.01 | 1.52 | PUP | None |
| 42 | 1228.12 | 29.96 | 126.70 | 29.18 | 1207.50 | 103.46 | -80.45 | 73.69 | 109.10 | 137.51 | 1.93 | PUP | None |
| 43 | 1257.97 | 31.15 | 125.30 | 29.85 | 1233.21 | 118.52 | -89.37 | 85.97 | 124.00 | 136.11 | 1.42 | PUP | None |
| 44 | 1287.26 | 34.00 | 121.48 | 29.29 | 1257.89 | 134.24 | -98.03 | 99.14 | 139.42 | 134.68 | 3.66 | PUP | None |
| 45 | 1315.37 | 36.85 | 115.74 | 28.11 | 1280.80 | 150.51 | -105.79 | 113.44 | 155.12 | 133.00 | 4.75 | PUP | None |
| 46 | 1344.58 | 38.72 | 112.58 | 29.21 | 1303.89 | 168.34 | -113.11 | 129.77 | 172.14 | 131.08 | 2.81 | PUP | None |
| 47 | 1374.02 | 39.86 | 112.30 | 29.44 | 1326.67 | 186.86 | -120.22 | 147.00 | 189.90 | 129.28 | 1.19 | PUP | None |
| 48 | 1402.09 | 40.08 | 111.24 | 28.07 | 1348.18 | 204.75 | -126.91 | 163.74 | 207.17 | 127.78 | 0.78 | PUP | None |
| 49 | 1431.69 | 39.39 | 110.89 | 29.60 | 1370.95 | 223.49 | -133.71 | 181.40 | 225.36 | 126.39 | 0.75 | PUP | None |
| 50 | 1460.30 | 38.67 | 109.79 | 28.61 | 1393.17 | 241.30 | -139.98 | 198.29 | 242.72 | 125.22 | 1.06 | PUP | None |
| 51 | 1488.25 | 37.49 | 109.07 | 27.95 | 1415.17 | 258.29 | -145.71 | 214.55 | 259.35 | 124.18 | 1.37 | PUP | None |
| 52 | 1519.61 | 38.21 | 109.48 | 31.36 | 1439.93 | 277.26 | -152.06 | 232.71 | 277.99 | 123.16 | 0.74 | PUP | None |
| 53 | 1537.83 | 38.05 | 110.01 | 18.22 | 1454.27 | 288.36 | -155.86 | 243.30 | 288.94 | 122.64 | 0.61 | PUP | None |
| 54 | 1548.79 | 38.12 | 110.29 | 10.96 | 1462.89 | 295.04 | -158.19 | 249.65 | 295.55 | 122.36 | 0.52 | PUP | None |
| 55 | 1577.82 | 39.48 | 111.06 | 29.03 | 1485.52 | 313.04 | -164.62 | 266.66 | 313.38 | 121.69 | 1.52 | PUP | None |
| 56 | 1606.72 | 41.45 | 112.42 | 28.90 | 1507.50 | 331.64 | -171.57 | 284.08 | 331.87 | 121.13 | 2.28 | PUP | None |
| 57 | 1634.98 | 43.80 | 113.39 | 28.26 | 1528.30 | 350.67 | -179.02 | 301.71 | 350.82 | 120.68 | 2.63 | PUP | None |

| Seq # | Measured depth (m) | Incl angle (deg) | Azimuth angle (deg) | Course length (m) | TVD depth (m) | Vertical section (m) | Displ +N/S- (m) | Displ +E/W- (m) | Total displ (m) | At Azim (deg) | DLS (deg/ 100f) | Srvy tool type | Tool Corr (deg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 58 | 1663.98 | 45.65 | 114.57 | 29.00 | 1548.90 | 371.00 | -187.31 | 320.35 | 371.10 | 120.32 | 2.13 | PUP | None |
| 59 | 1692.29 | 47.20 | 115.52 | 28.31 | 1568.41 | 391.46 | -196.00 | 338.93 | 391.52 | 120.04 | 1.83 | PUP | None |
| 60 | 1720.65 | 49.49 | 115.31 | 28.36 | 1587.26 | 412.61 | -205.09 | 358.07 | 412.64 | 119.80 | 2.47 | PUP | None |



SCHLUMBERGER Survey Report

| Seq # | Measured depth (m) | Incl angle (deg) | Azimuth angle (deg) | Course length (m) | TVD depth (m) | Vertical section (m) | Displ +N/S- (m) | Displ +E/W- (m) | Total displ (m) | At Azim (deg) | DLS (deg/ 100f) | Srvy tool type | Tool Corr (deg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 61 | 1751.15 | 52.16 | 116.21 | 30.50 | 1606.53 | 436.21 | -215.37 | 379.36 | 436.23 | 119.58 | 2.76 | PUP | None |
| 62 | 1779.21 | 54.97 | 116.68 | 28.06 | 1623.19 | 458.76 | -225.42 | 399.57 | 458.77 | 119.43 | 3.08 | PUP | None |
| 63 | 1807.62 | 57.42 | 116.67 | 28.41 | 1638.99 | 482.34 | -236.02 | 420.66 | 482.35 | 119.30 | 2.63 | PUP | None |
| 64 | 1836.56 | 59.33 | 117.70 | 28.94 | 1654.17 | 506.97 | -247.28 | 442.58 | 506.98 | 119.19 | 2.21 | PUP | None |
| 65 | 1865.80 | 59.29 | 117.83 | 29.24 | 1669.09 | 532.11 | -258.99 | 464.83 | 532.11 | 119.13 | 0.12 | PUP | None |
| 66 | 1895.54 | 59.36 | 118.49 | 29.74 | 1684.27 | 557.69 | -271.06 | 487.38 | 557.69 | 119.08 | 0.59 | PUP | None |
| 67 | 1924.23 | 60.08 | 118.95 | 28.69 | 1698.73 | 582.46 | -282.97 | 509.11 | 582.46 | 119.07 | 0.87 | PUP | None |
| 68 | 1952.67 | 60.05 | 119.47 | 28.44 | 1712.92 | 607.11 | -295.00 | 530.62 | 607.11 | 119.07 | 0.48 | PUP | None |
| 69 | 1980.36 | 59.99 | 119.22 | 27.69 | 1726.76 | 631.09 | -306.75 | 551.53 | 631.09 | 119.08 | 0.25 | PUP | None |
| 70 | 2007.97 | 60.08 | 118.21 | 27.61 | 1740.55 | 655.01 | -318.24 | 572.50 | 655.01 | 119.07 | 0.97 | PUP | None |
| 71 | 2022.07 | 60.26 | 118.69 | 14.10 | 1747.57 | 667.24 | -324.07 | 583.26 | 667.24 | 119.06 | 0.98 | PUP | None |
| 72 | 2042.00 | 60.35 | 118.42 | 19.93 | 1757.44 | 684.55 | -332.35 | 598.47 | 684.55 | 119.04 | 0.38 | Proj. To TD | |



Company: **Santos Limited**

Schlumberger

Well: **Henry 2**

Field: **Otway**

Rig: **Ocean Patriot**

State: **Victoria**

**VISION Density Neutron**
**1:200 Measured Depth**
**Recorded Mode Log**