

## 6.75" LWD Service

## Drilling Parameters

## Recorded Mode Data

Schlumberger

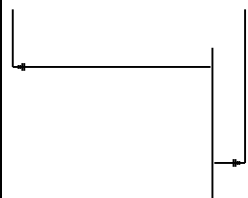
Company: IODP  
 Lamont - Doherty Earth Observatory  
 Well: U1379A  
 Expedition 334  
 Rig Name: JOIDES Resolution  
 State: Puntarenas  
 Country: Costa Rica

Latitude: 8.59 degrees  
 Longitude: -84.08 degrees  
 Block: Expedition 334  
 Custom: U1379A  
 Rig Name: JOIDES Resolution  
 Rig Type: Drill Ship

FL: CRISP  
 FL1: n/a  
 FL2: n/a

Log Measured From - Drill Floor: 9.8 m  
 Permanent Datum - Mean Sea Level

Ground Level: 137.0 m



Acquisition Dates: 20 Mar 11 to 23 Mar 11  
 Log Interval: 3/20/2011 4:30:00 AM to 3/23/2011 3:30:00 PM  
 Index Types: Time  
 Index Scales: 10 cm / 3600 secs  
 Depth Source: Driller's Depth  
 Depth Sensor: DES  
 Conveyance: Drill Pipe  
 Print Type: Final  
 Spud Date: 19-Mar-2011

Other Services:  
 advVISION  
 Telescope  
 arcVISION  
 geoVISION

## Disclaimer

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

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## Borehole Size/Casing Record

Bit					
Bit Size ( in )	8.5				
Bottom Driller ( m )	1098.42				

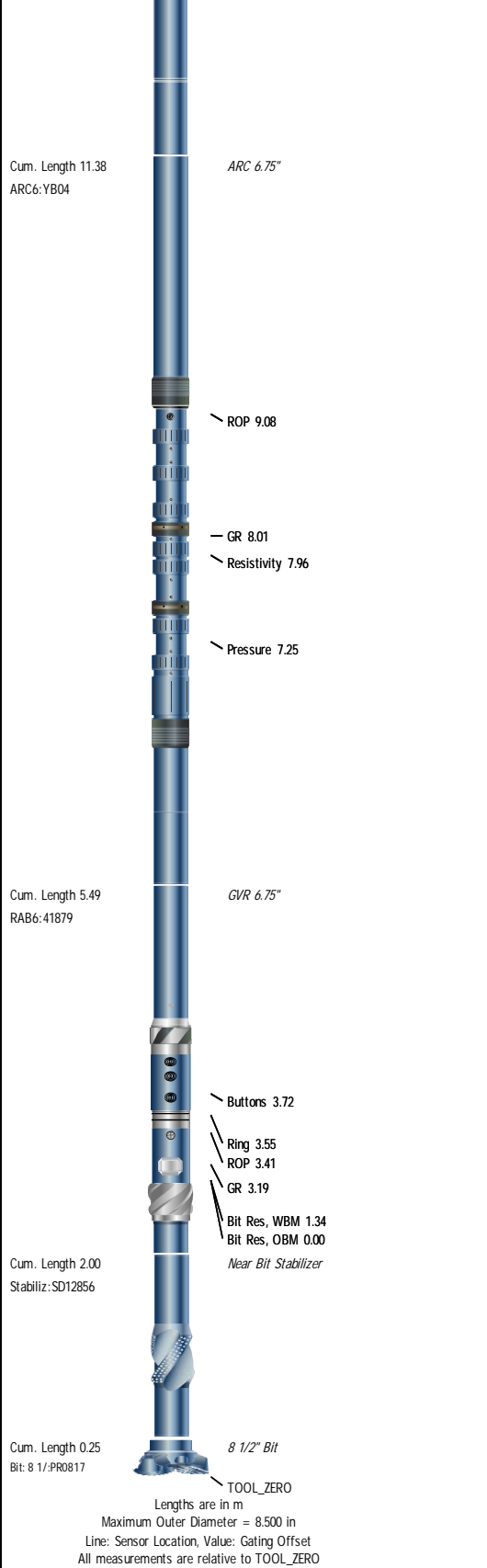
## Operational Run Summary

Parameter ( unit )	Run 01				
Date Log Started	20-Mar-2011				
Time Log Started	03:15:21				
Date Log Finished	23-Mar-2011				
Time Log Finished	15:22:35				
Bit Size ( in )	8.500				
Bit Start Depth ( m )	49.81				
Bit Stop Depth ( m )	1098.42				
Top Log Interval ( m )	137.00				
Bottom Log Interval ( m )	1099.00				
Max Hole Deviation ( deg )	1.64				
Azimuth of Max Deviation ( deg )	218.55				
Logging Unit Number	n/a				
Logging Unit Location	n/a				
Recorded By	Carrillo/Garcia				
Witnessed By	Alberto Malinverno				
Service Order Number	11MED0004				

## Borehole Fluids

Parameter ( unit )	Run 01				
Type Fluid	Water				
Max Recorded Temperature ( degC )	NaN				
Source of Sample	Active Tank				
Salinity ( ppm )	31737.15				
Density ( g/cm3 )	1.03				
Viscosity ( s )					
Fluid Loss ( cm3 )					
pH					
Source Rmf					
Source Rmc	Pressed				
Rm @ Meas Temp ( ohm.m@degC )	0.2 @ 23.89				
Rmf @ Meas Temp ( ohm.m@degC )	0.15 @ 20				





**Run 01**

**U1379A**

**Integration Summary**

Output Channel(s)	Output Description	Input Parameter	Output Value	Unit
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**Software Version**

Acquisition System	Version
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MaxWell	2.1.6903.0
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Computation	Description	Version	
ARC6Pressure	ARC6 Pressure Computation Package for both Real-time and Recorded Mode	2.1.6903.0	
Tool Interface	System Version	Loaded Version	
HSPM	hspm15_1c_03	2.1.6903.1130	
Tool Elements	Description	Software Version	Firmware Version
APWD	APWD Sensor 25 kpsi	2.1.6903.0	V9.4B
DRILLING_SURFACE	DRILLING_SURFACE	2.1.6903.1067	

### Pass Summary

Run Name	Objective	Direction	Start	Stop	Start Time	Stop Time
Run 01	TimeLogicalAcq	Down	20-Mar-2011 03:15:21	23-Mar-2011 15:22:35	20-Mar-2011 03:15:21	23-Mar-2011 15:22:35

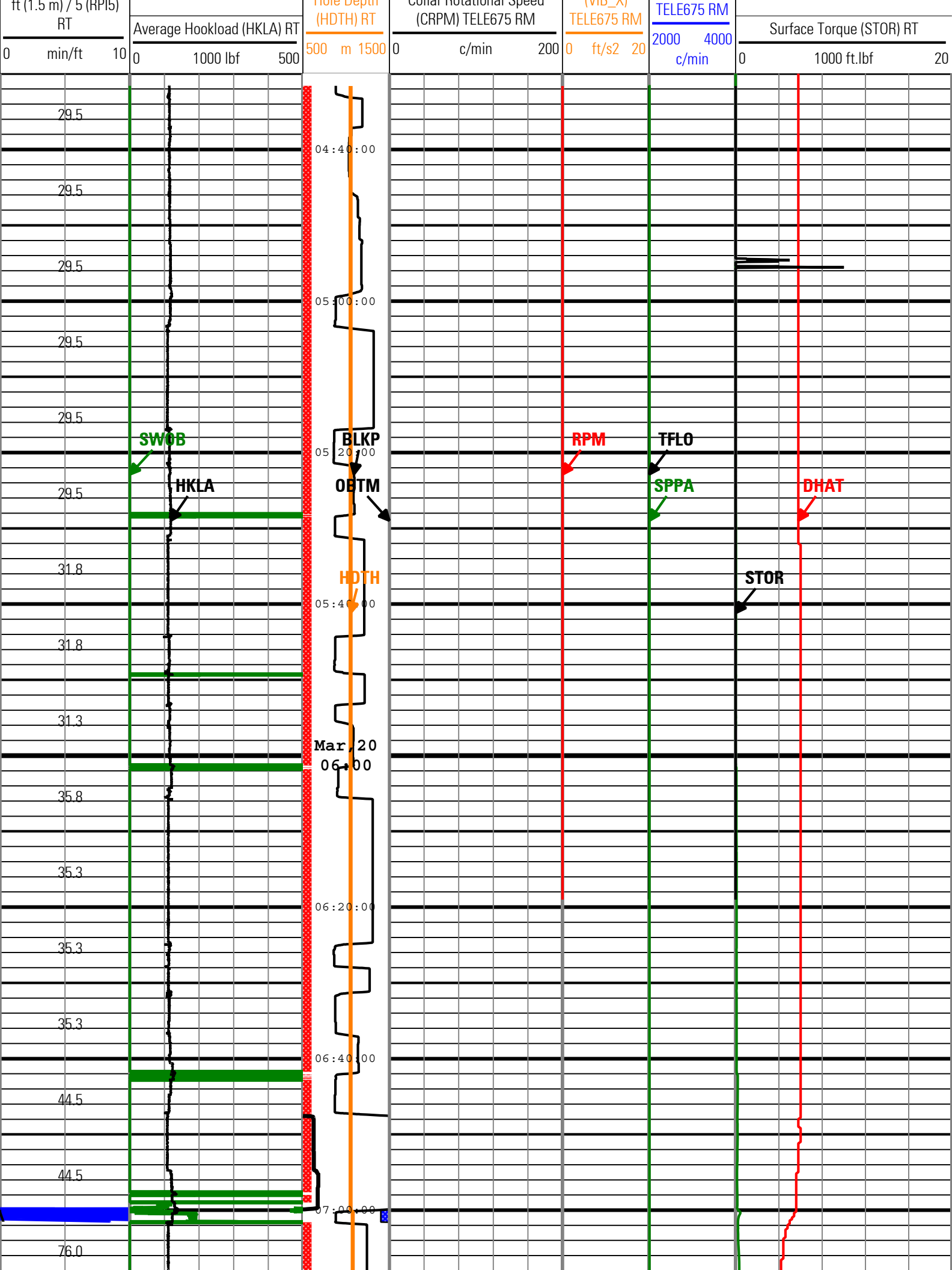
### Log

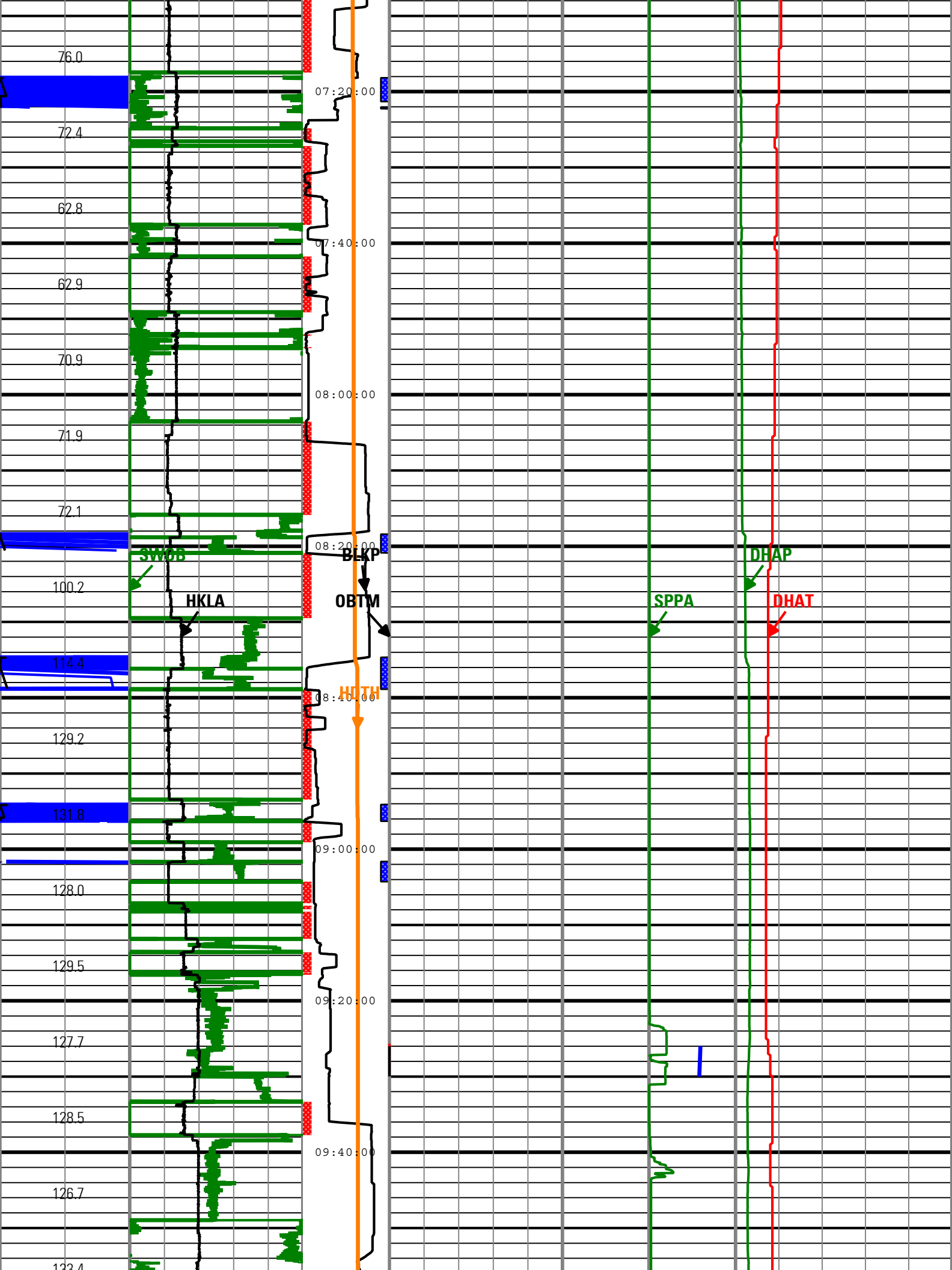
Run 01: TimeLogicalAcq 1B767C11-4A54-4776-938A-A453799A90B5

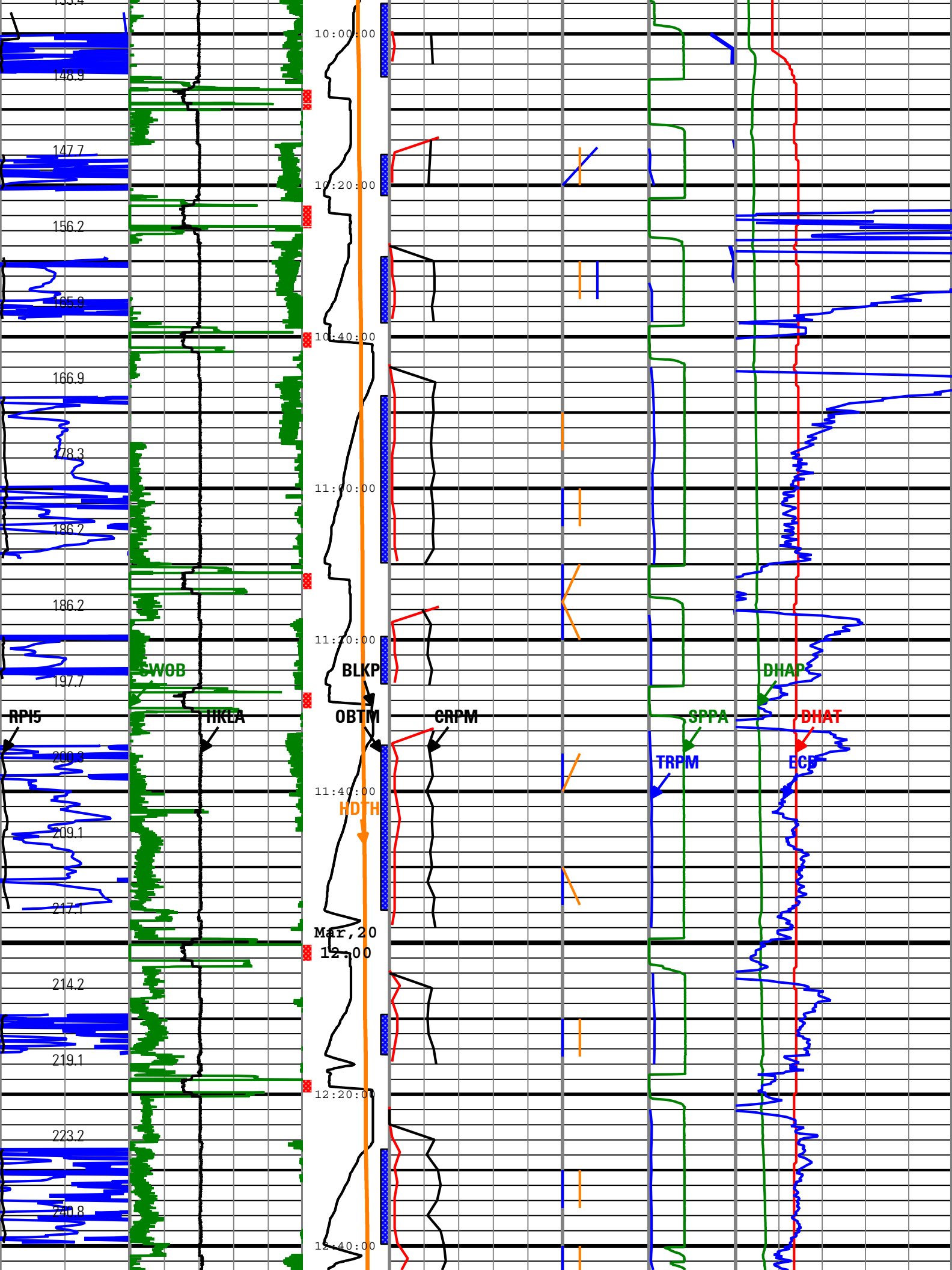
Description: TeleScope + ARC Drilling Mechanics Time RT Format: Log ( Drilling Mechanics Time RM ) Index Scale: 10 cm per 3600 s Index Type: Time  
 Creation Date: 24-Mar-2011 02:07:21

Channel	Source	Sampling
BLKP	DRILLING_SURFACE	ACQ - RT
CRPM	TELE675:TELE675	ACQ - RM
DEPTH	DnMWorkflow	ACQ - RT
DHAP	ARC6:ARC6	ACQ - RM
DHAT	ARC6:ARC6	ACQ - RM
ECD	ARC6:ARC6:APWD	ACQ - RM
HDTH	DnMWorkflow	ACQ - RT
HKLA	DRILLING_SURFACE	ACQ - RT
OBTM	DnMWorkflow	ACQ
ROP	DRILLING_SURFACE	ACQ - RT
RPI5	DRILLING_SURFACE	ACQ - RT
RPM	DRILLING_SURFACE	ACQ - RT
SPPA	DRILLING_SURFACE	ACQ - RT
STICK	TELE675:TELE675	ACQ - RM
STOR	DRILLING_SURFACE	ACQ - RT
SWOB	DRILLING_SURFACE	ACQ - RT
TFLO	DRILLING_SURFACE	ACQ - RT
TRPM	TELE675:TELE675	ACQ - RM
VIB_LAT	TELE675:TELE675	ACQ - RM
VIB_X	TELE675:TELE675	ACQ - RM

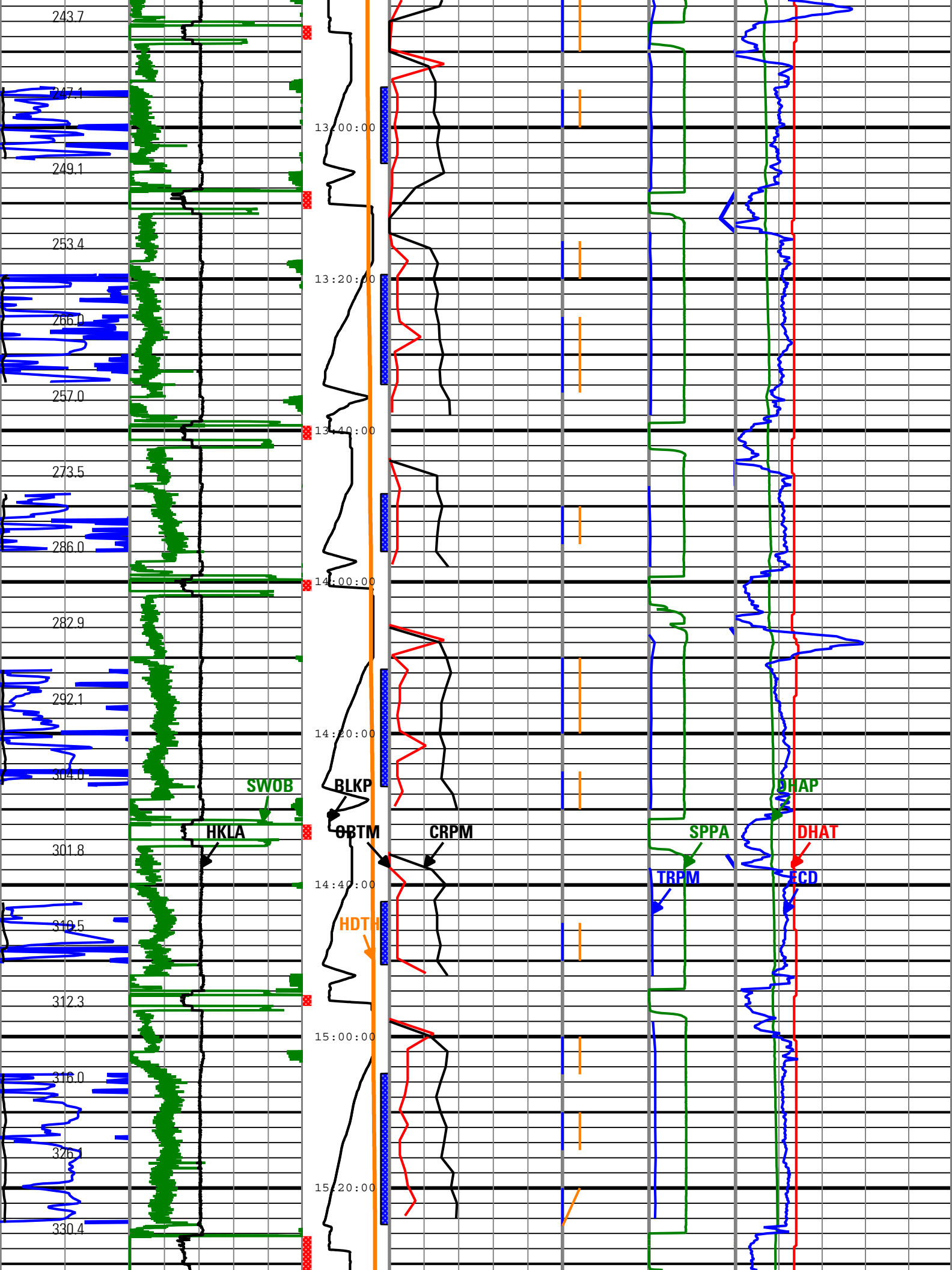
<b>Rate of Penetration (ROP) RT</b> 100 m/h 0	<b>Surface Weight On Bit (SWOB) RT</b> 0 1000 lbf 40	<b>Bit on Bottom</b> <b>Slips</b> Height of block above rig floor (BLKP) RT 0 m 40	<b>Stick Slip Indicator (STICK) TELE675 RM</b> 0 c/min 200	<b>Rotational Speed (RPM) RT</b> 0 c/min 200	Total flow rate of all active pumps (TFLO) RT 0 500 gal/min	<b>Downhole Annulus Pressure (DHAP) ARC6 RM</b> 0 psi 2500
<b>Depth Index (DEPTH) m</b>	<b>Inverse ROP for last 5 (IRP5) RT</b> 0 1000 lbf 40	<b>Well Depth</b>	<b>Cellar Rotational Speed</b>	<b>RMS Vibration, X-Axis (VIB_X) RT</b>	<b>MWD Turbine Rotation Speed (TRPM)</b> 1 g/cm3 1.5	<b>Equivalent Circulating Density (ECD) ARC6 RM</b>



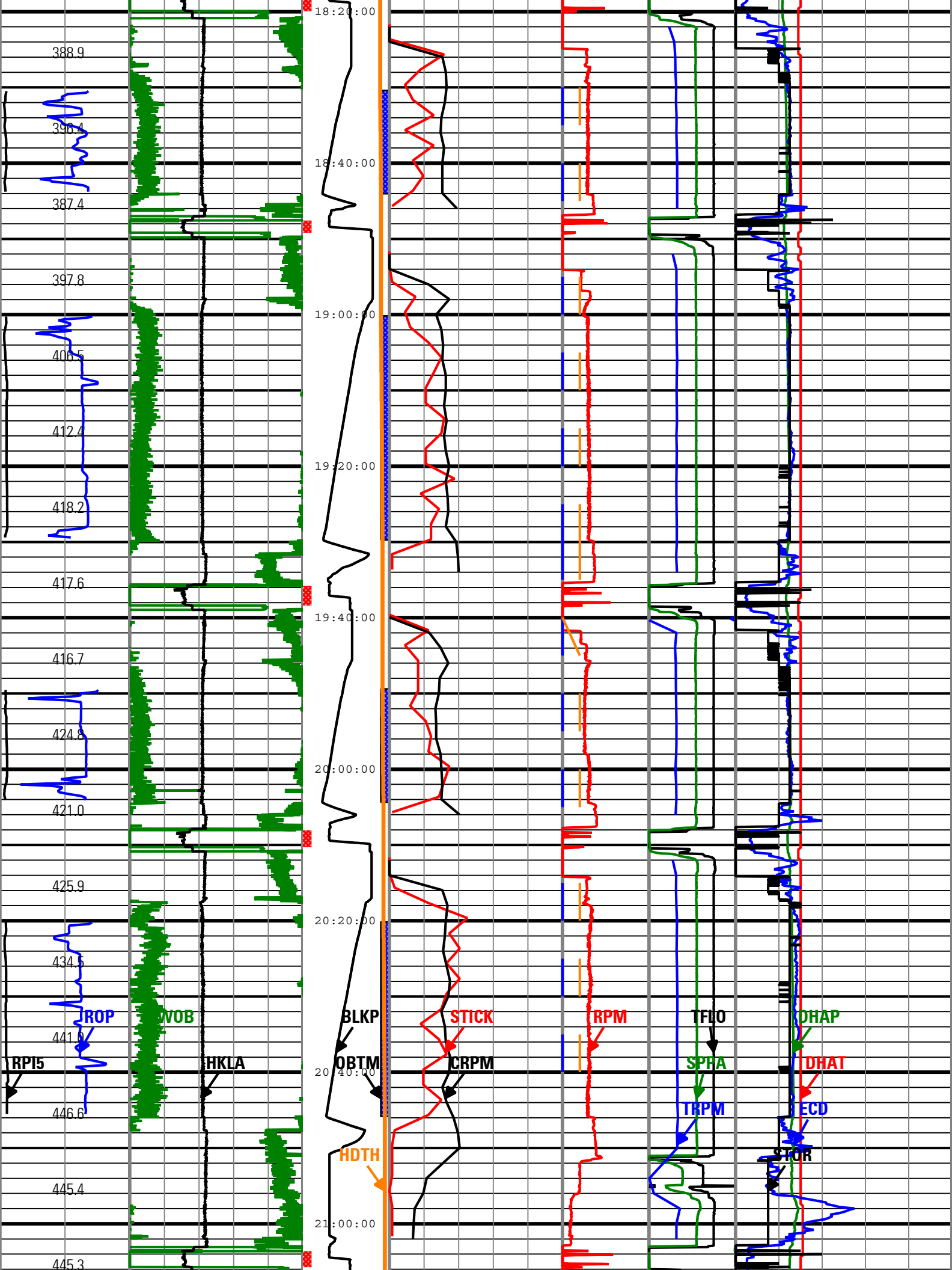


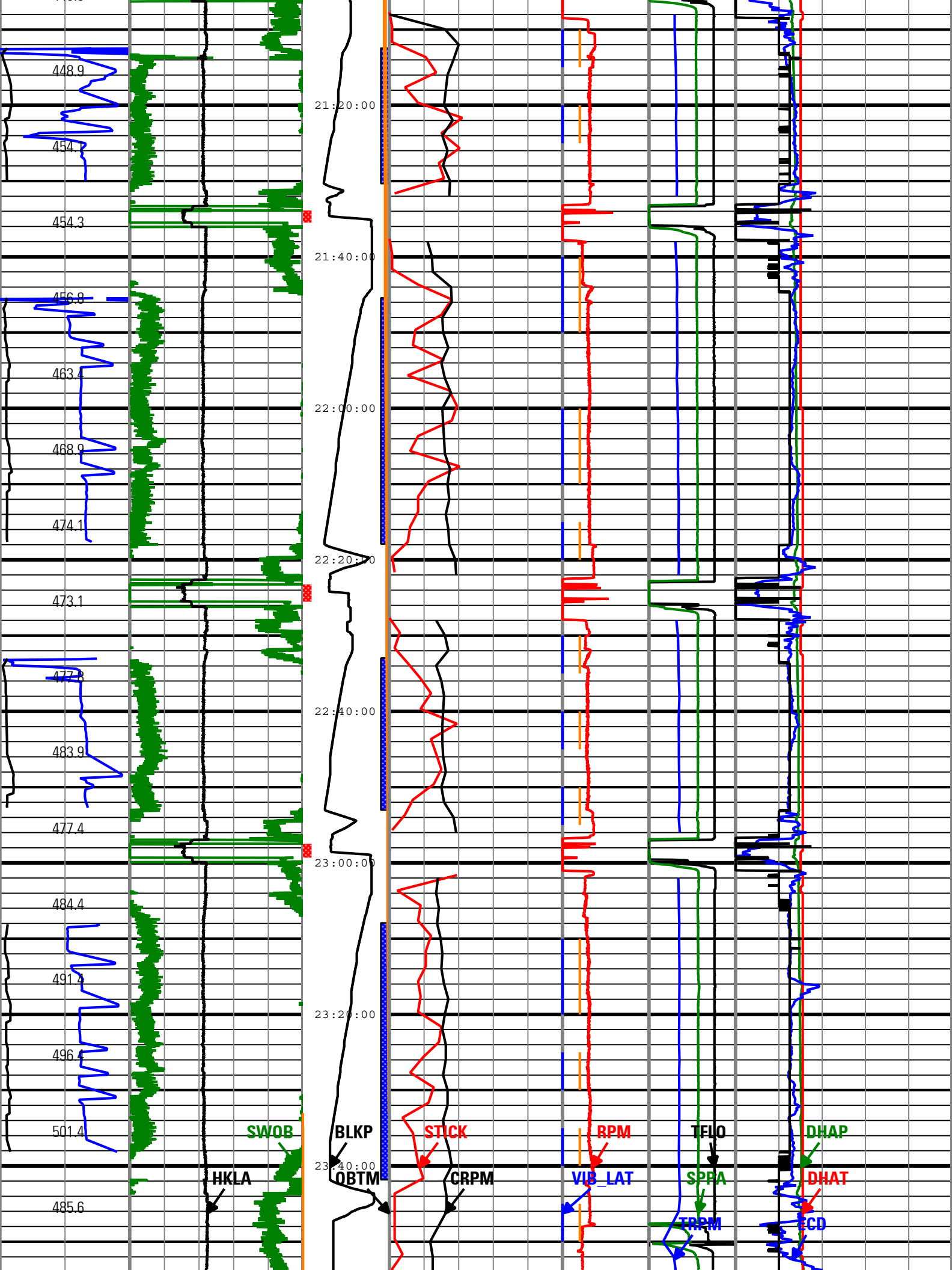


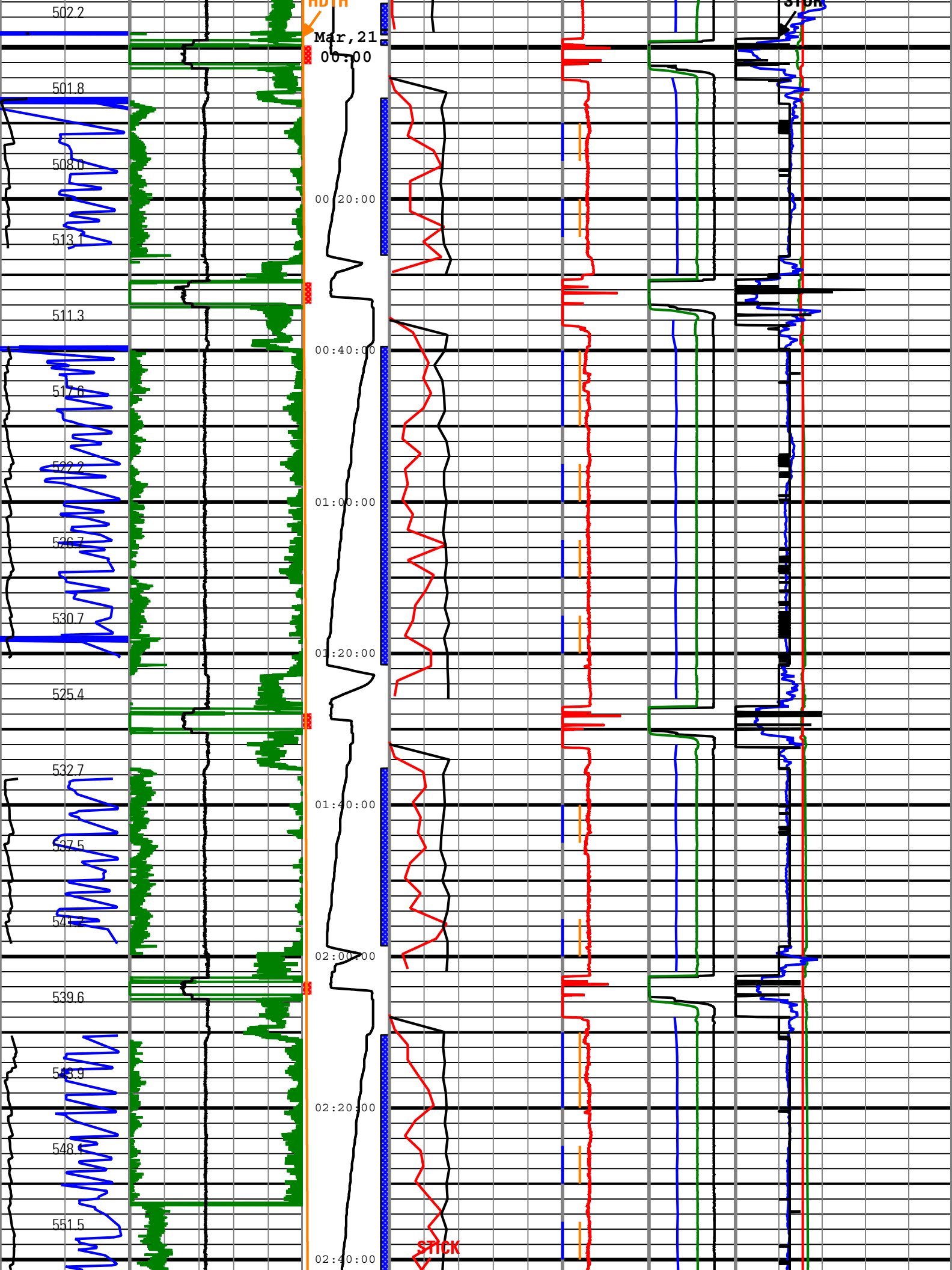


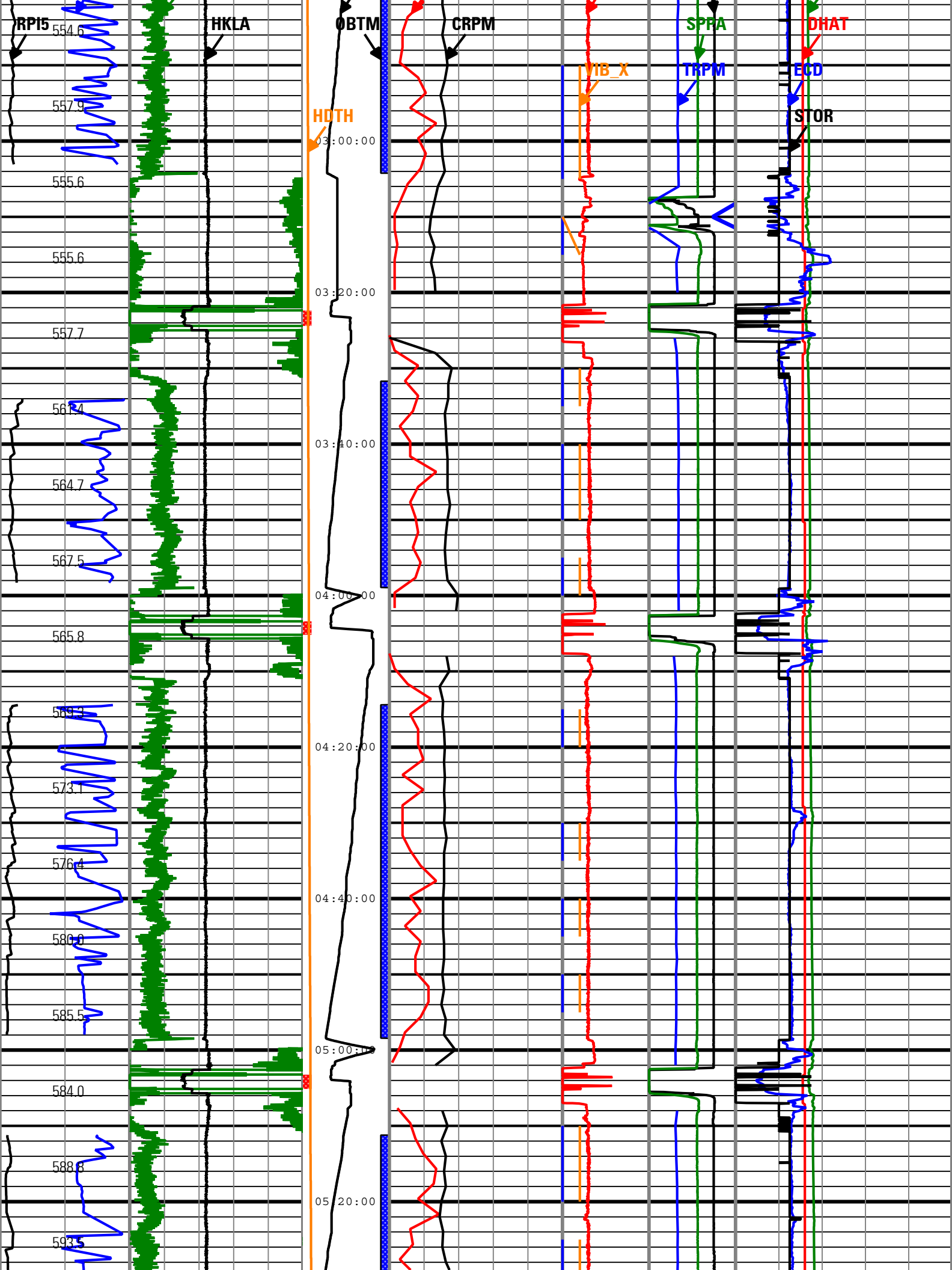


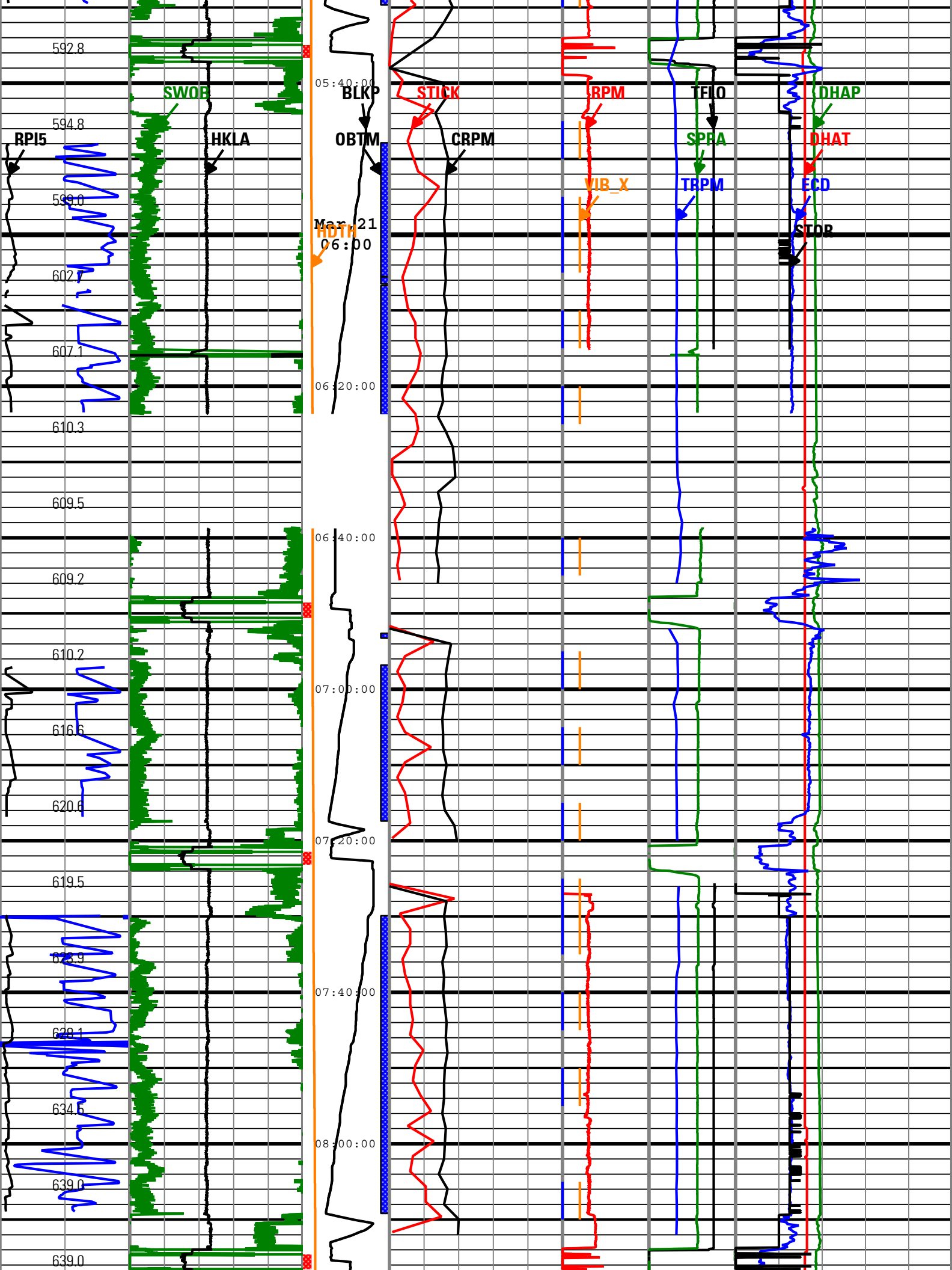


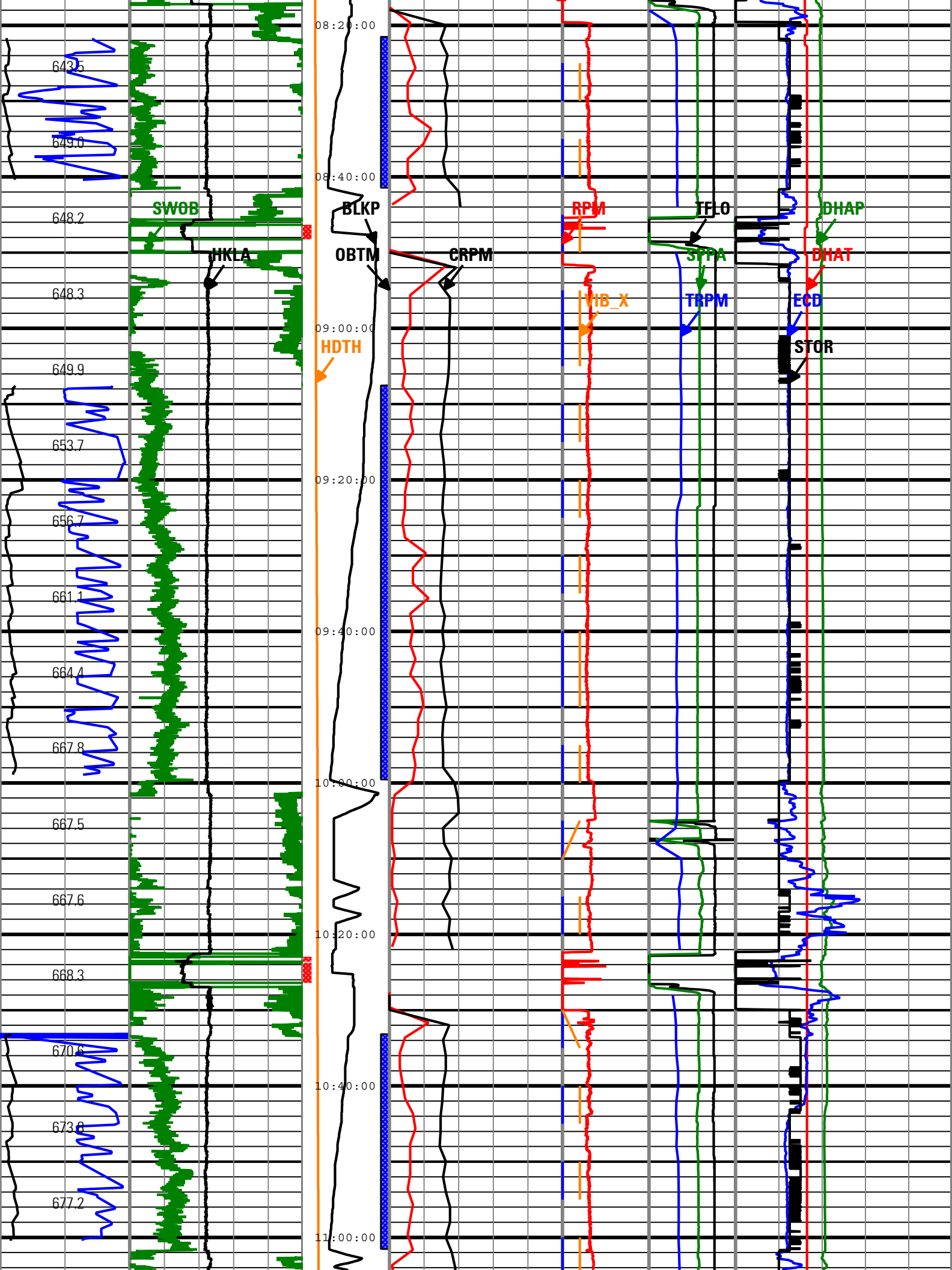




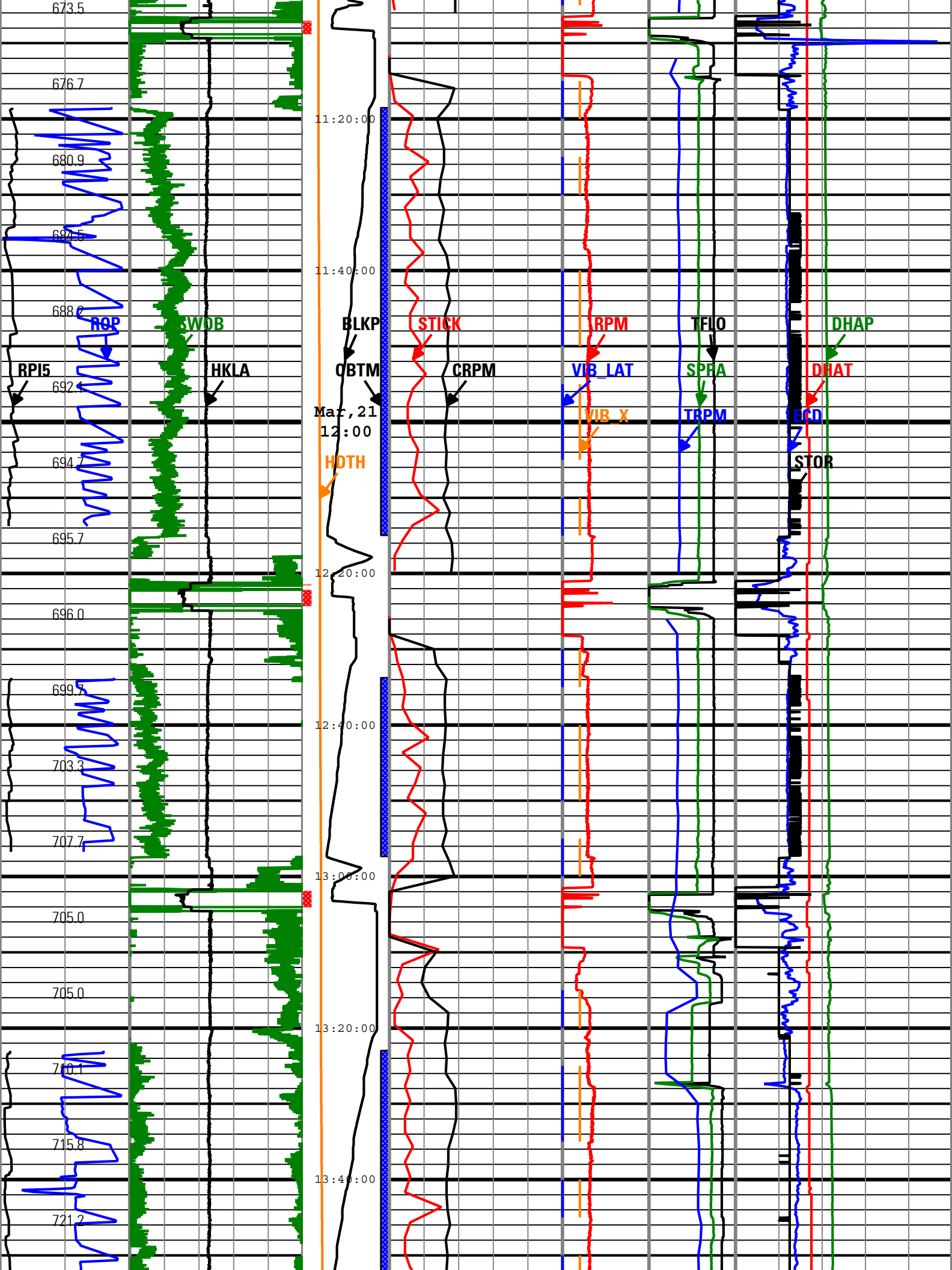


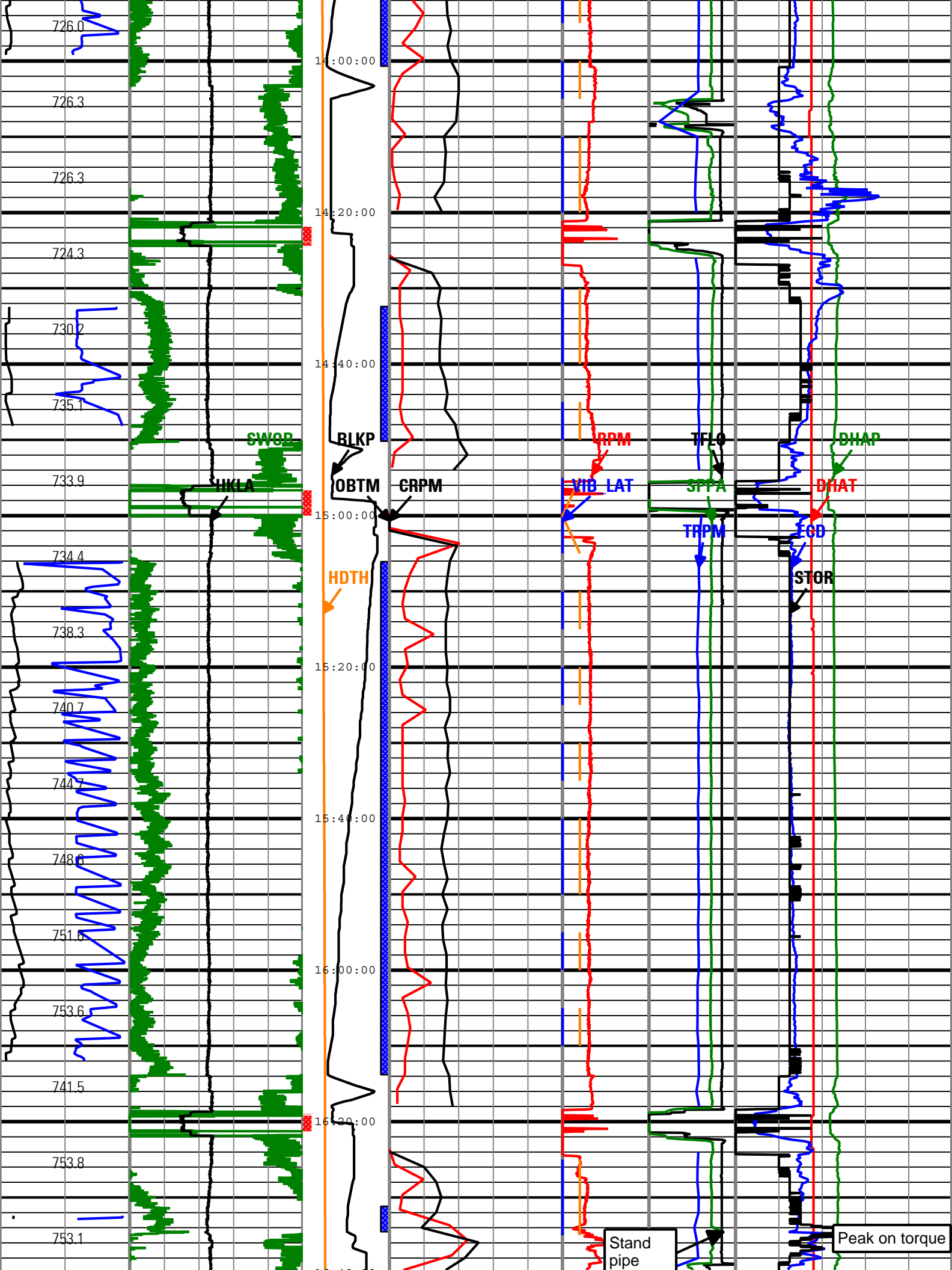


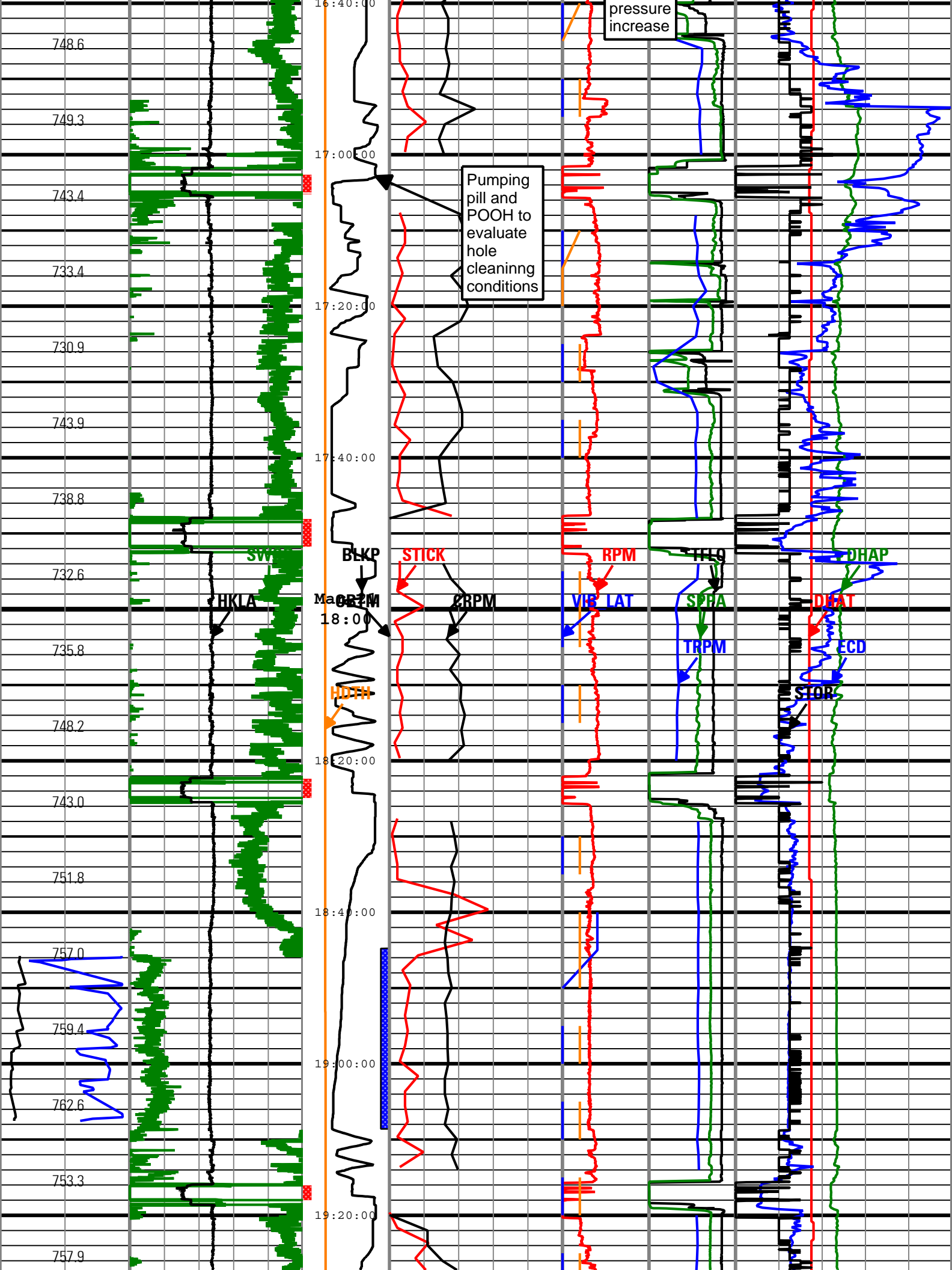


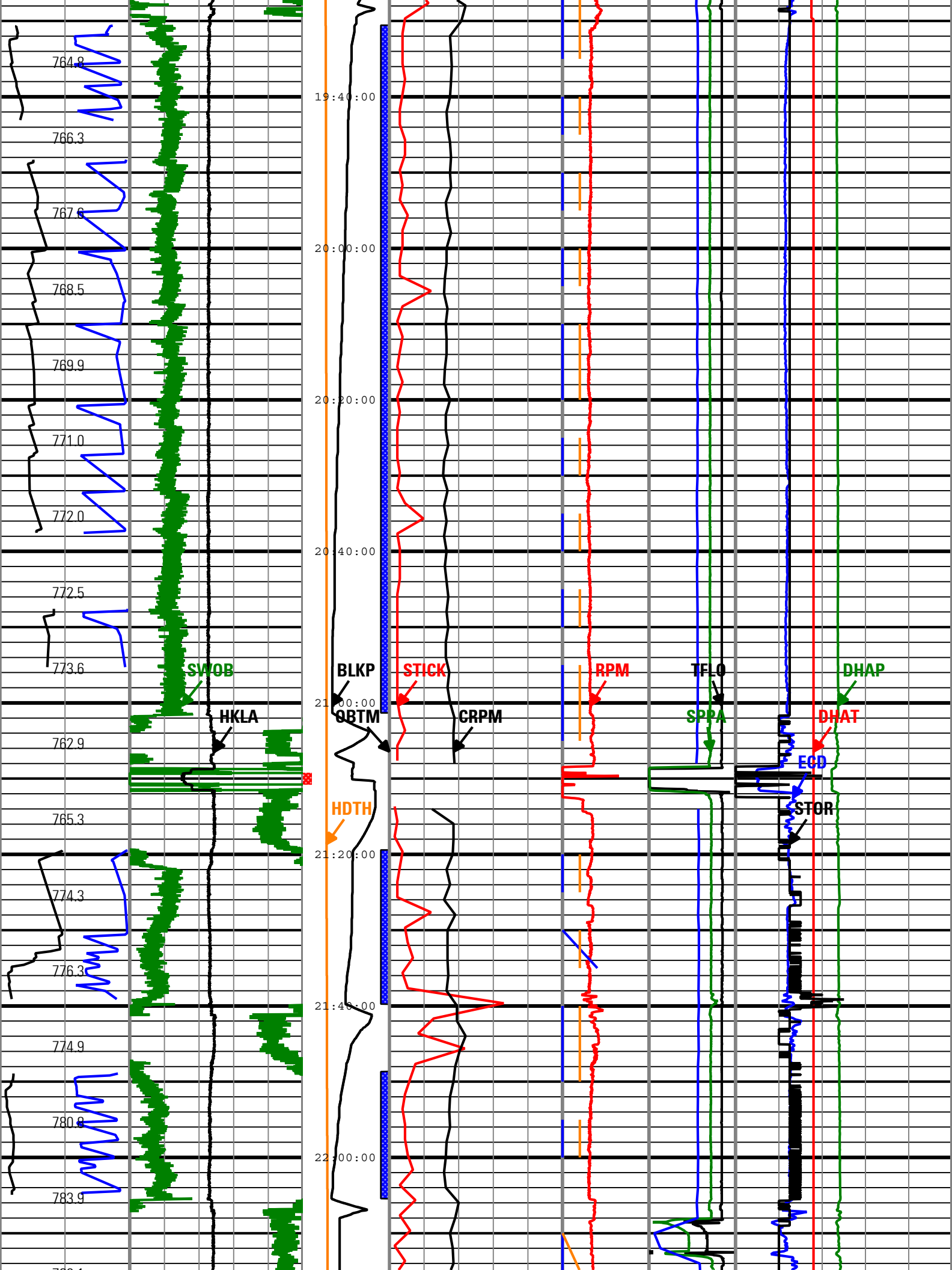


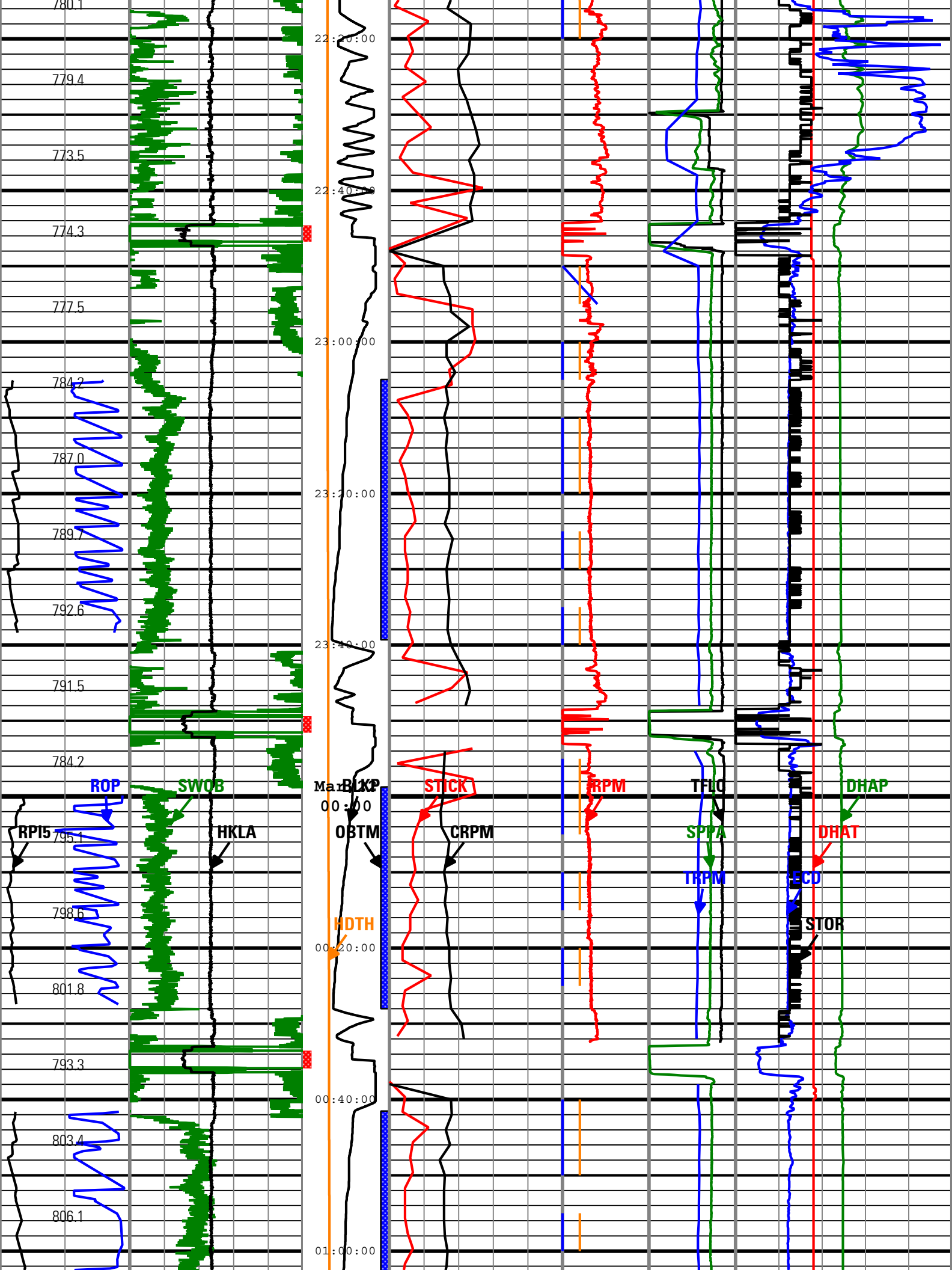




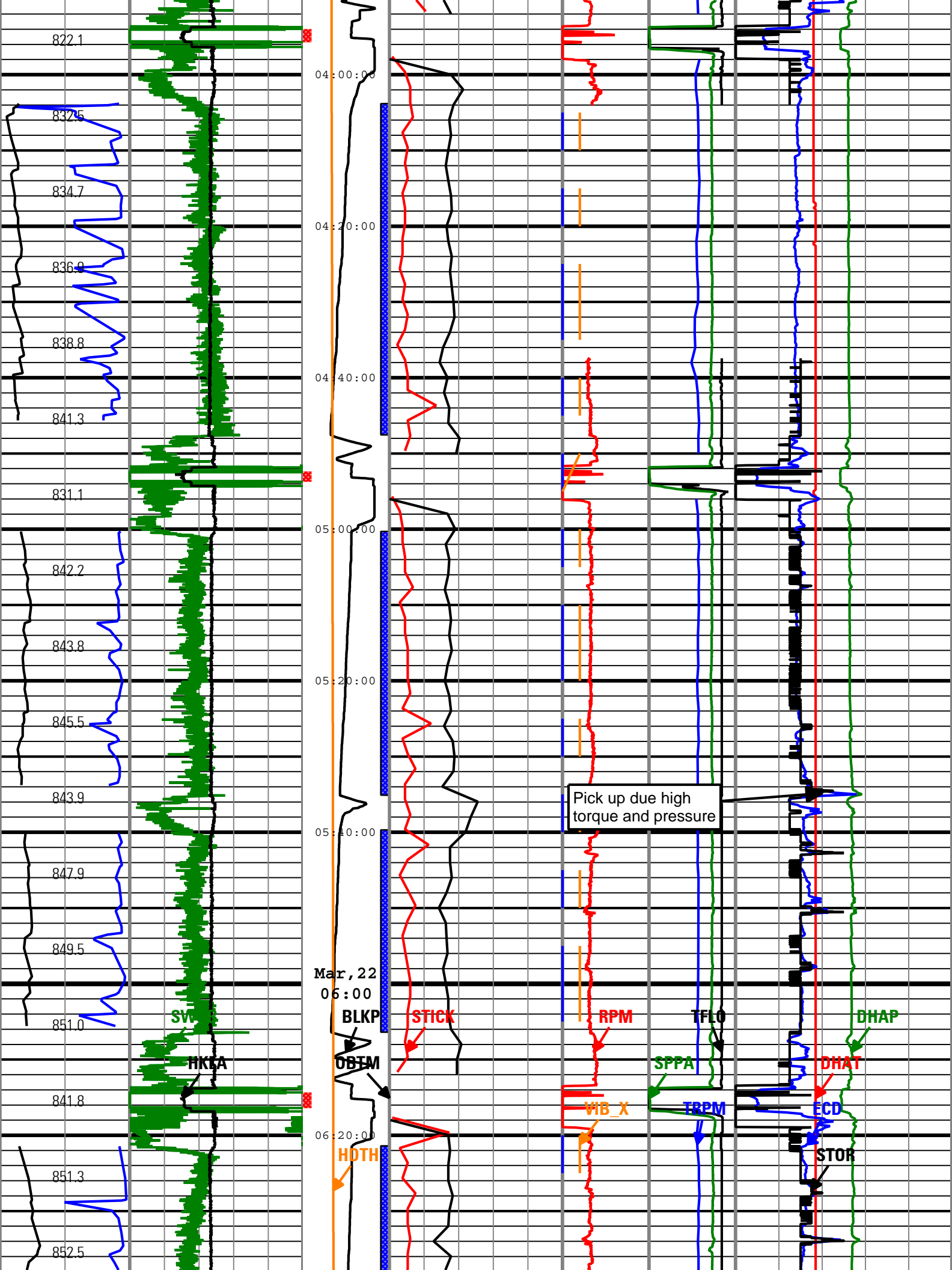


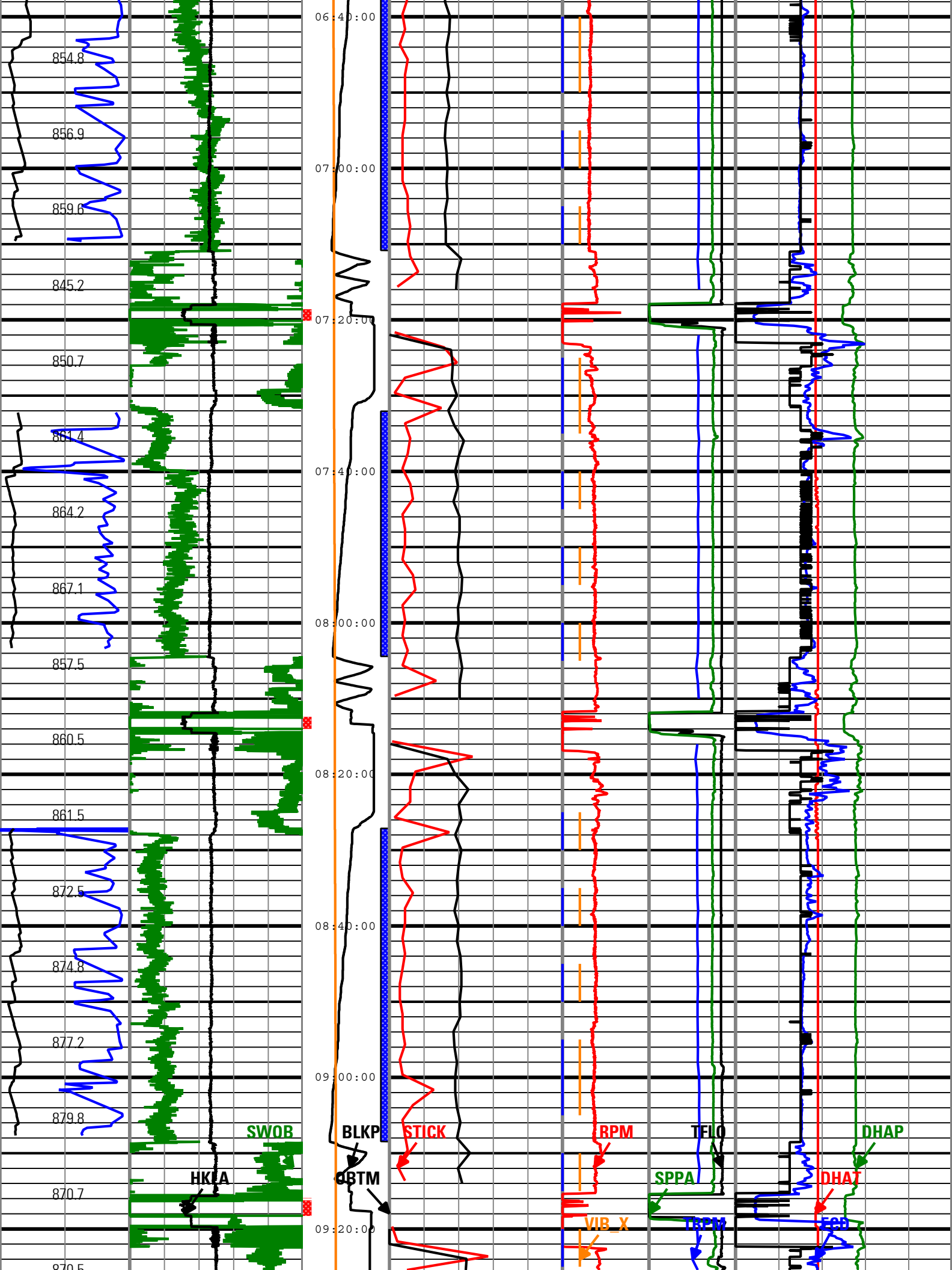




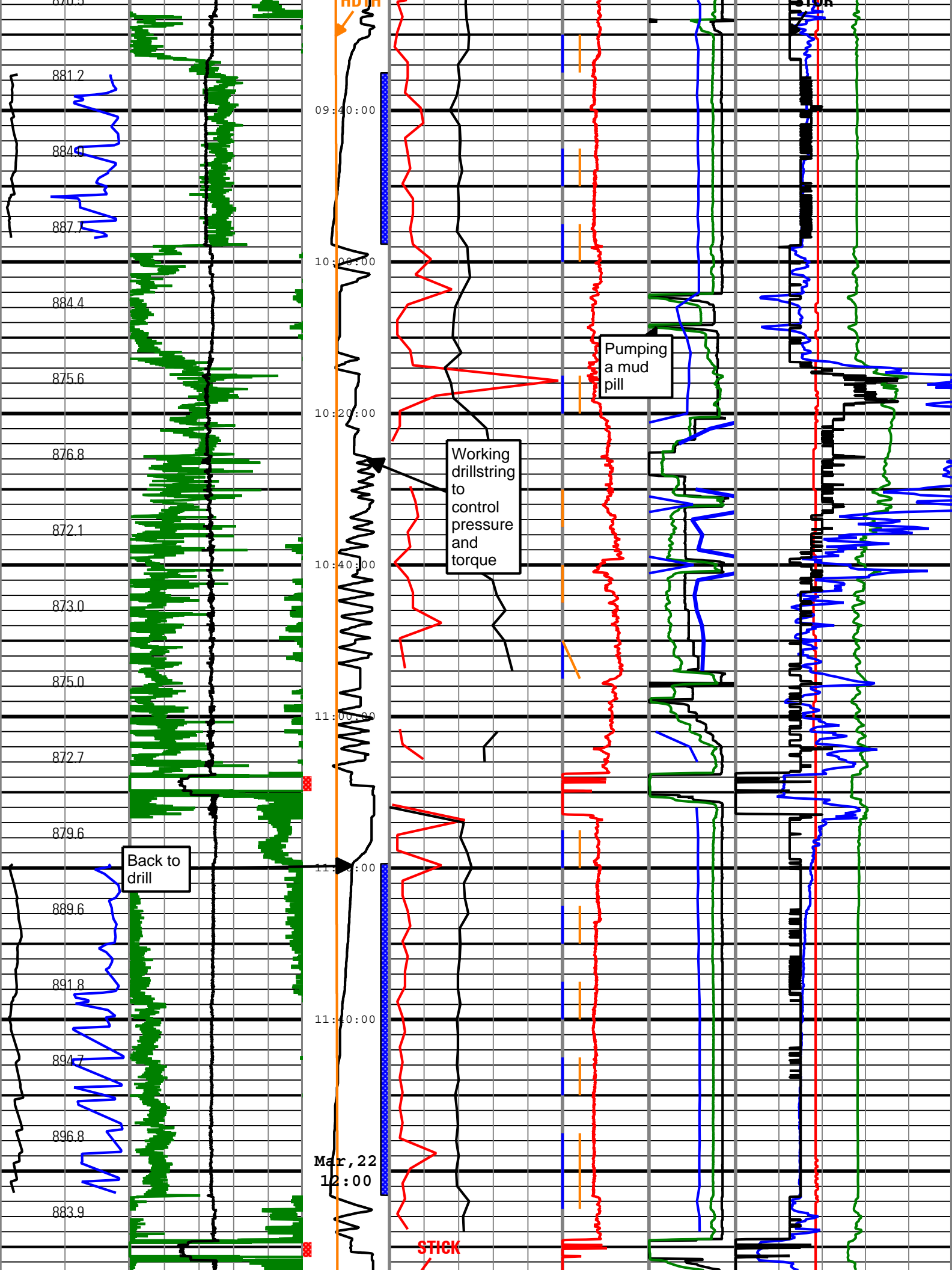


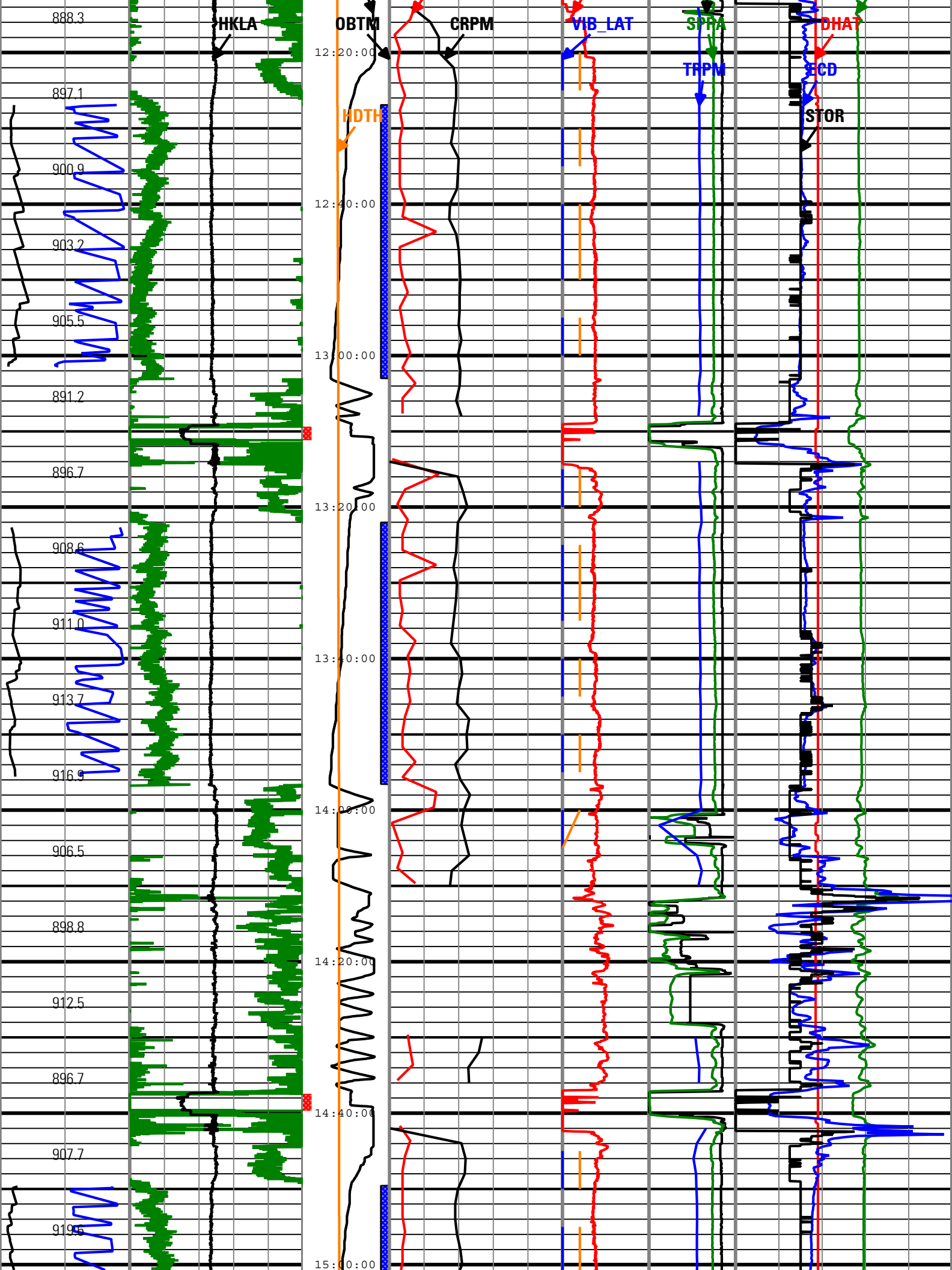




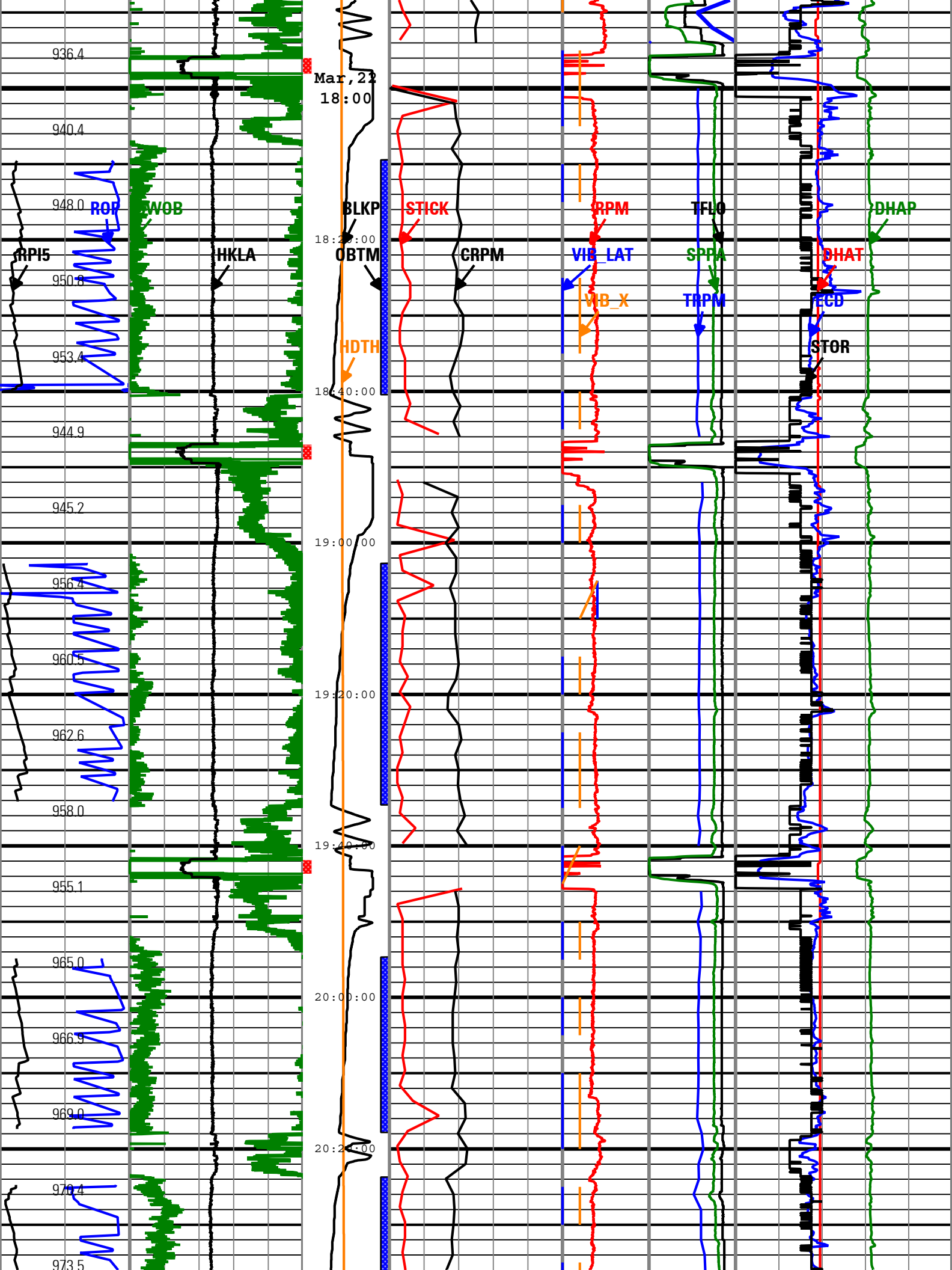


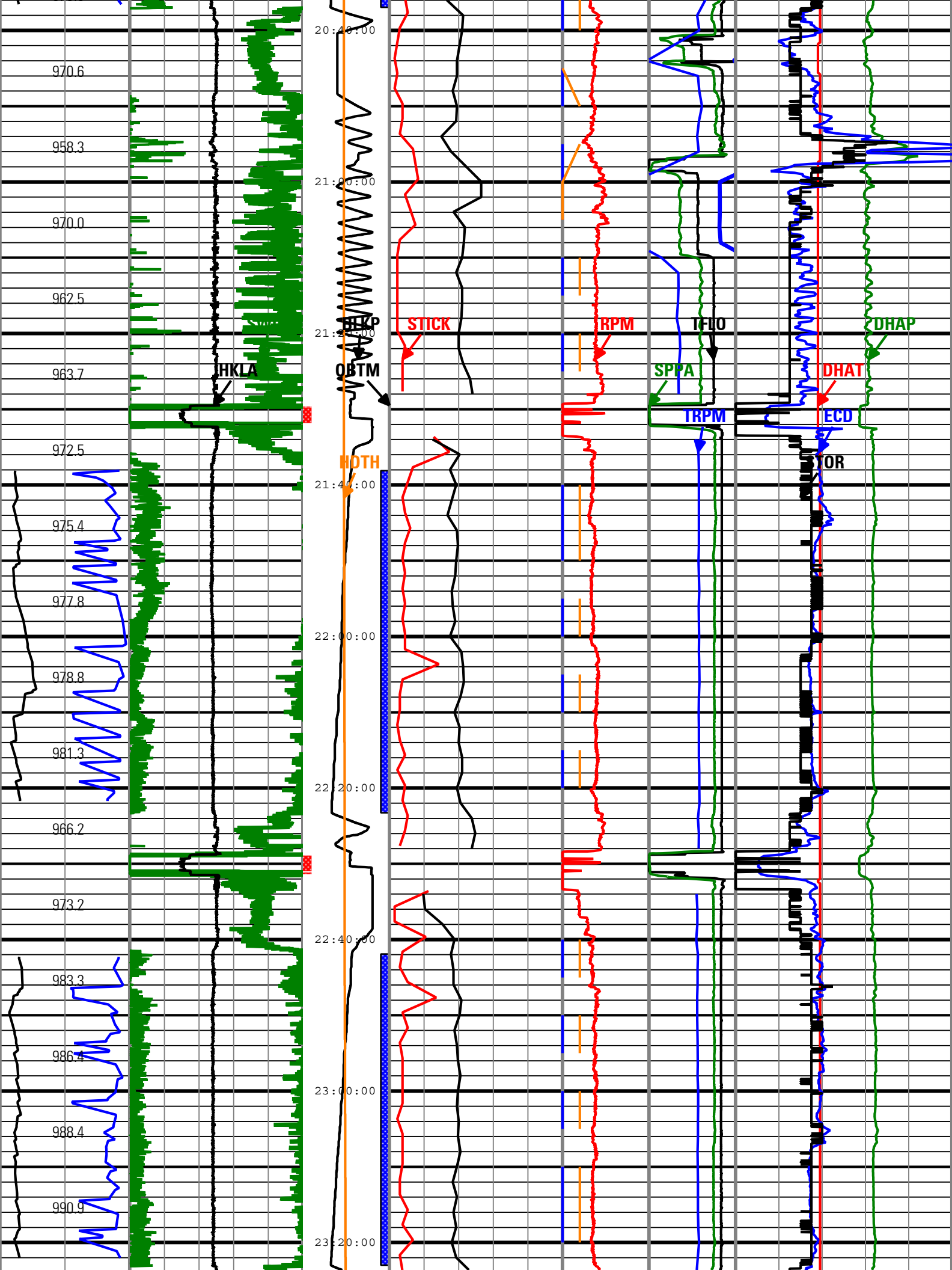




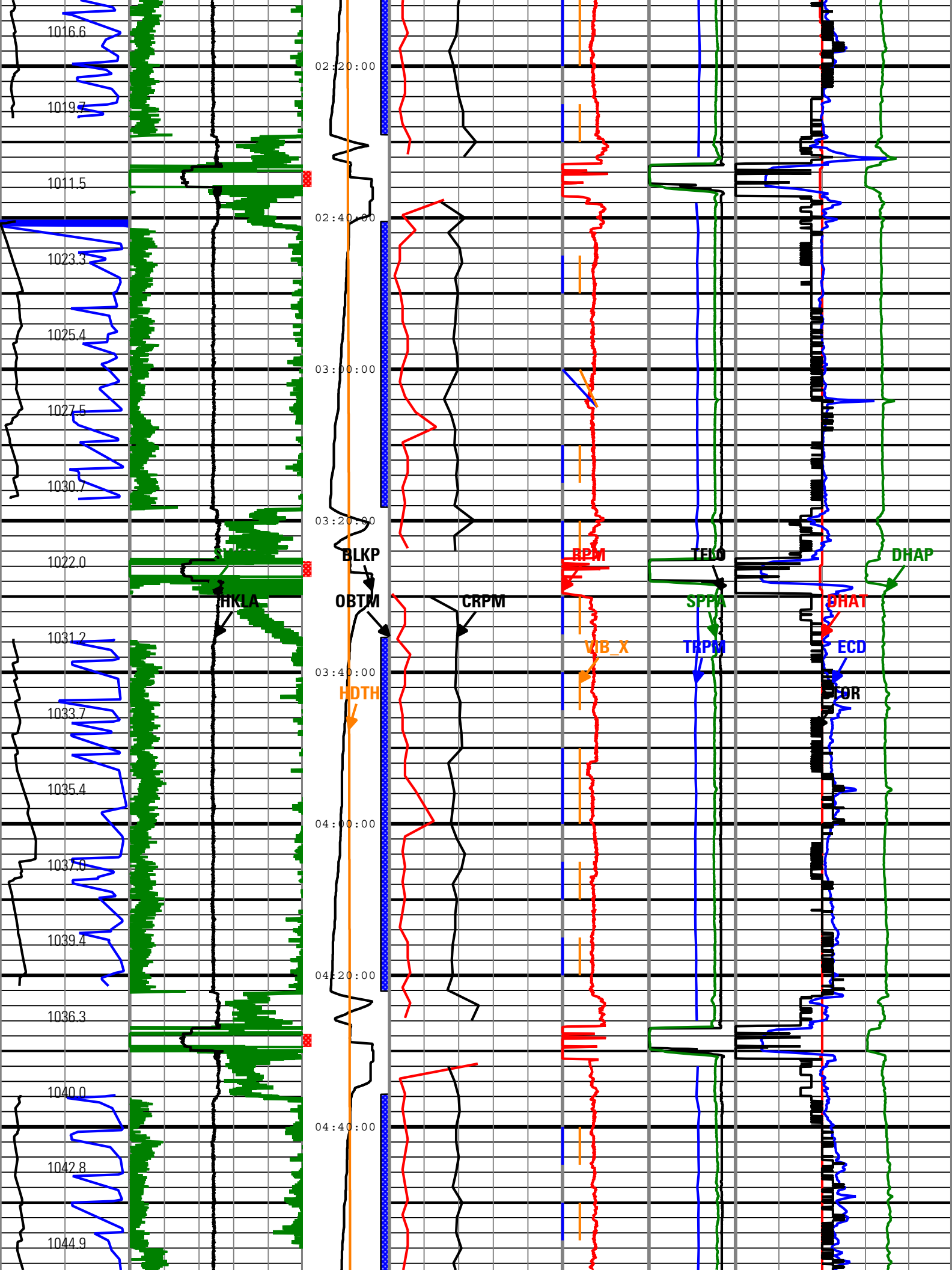


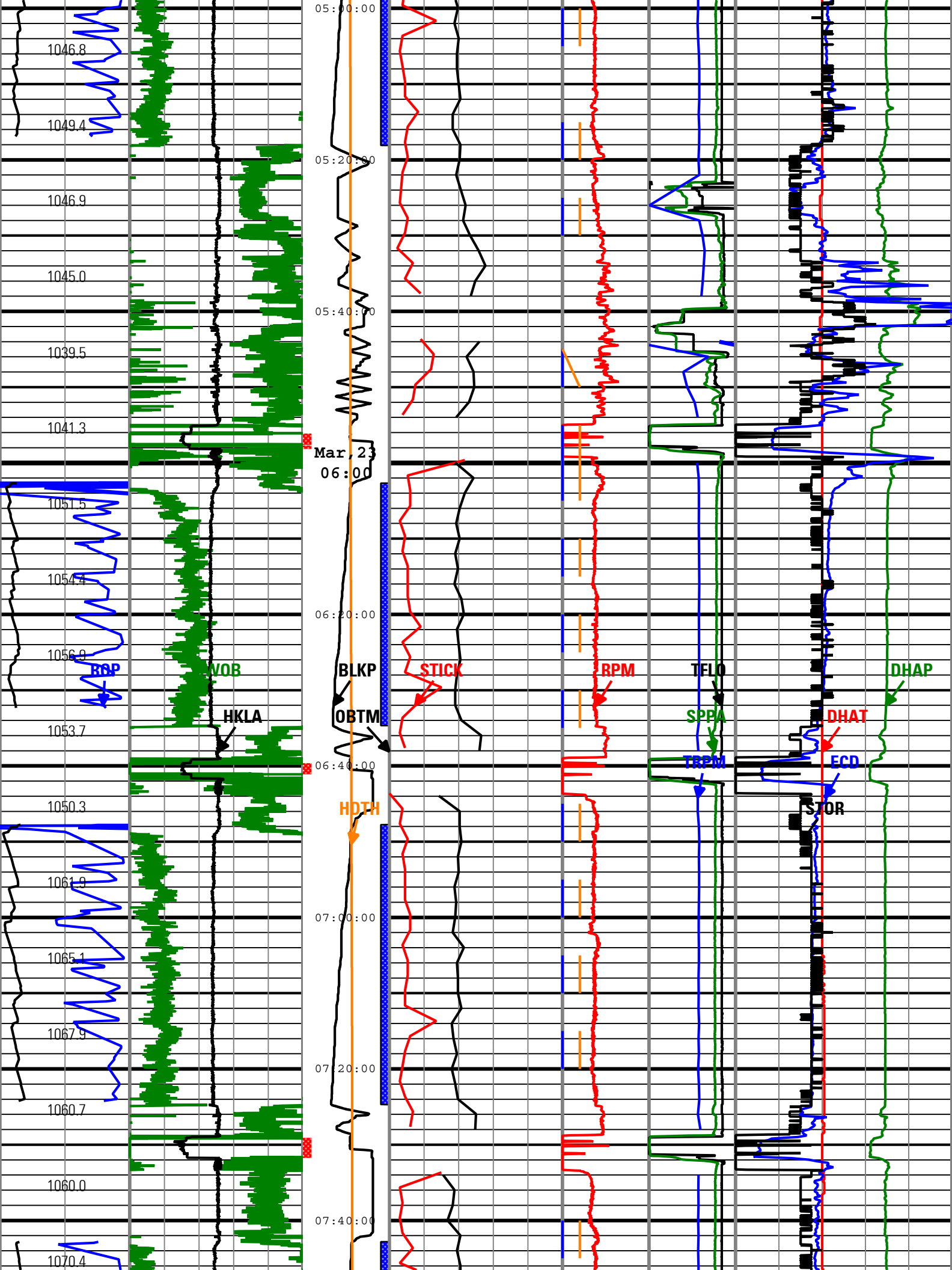




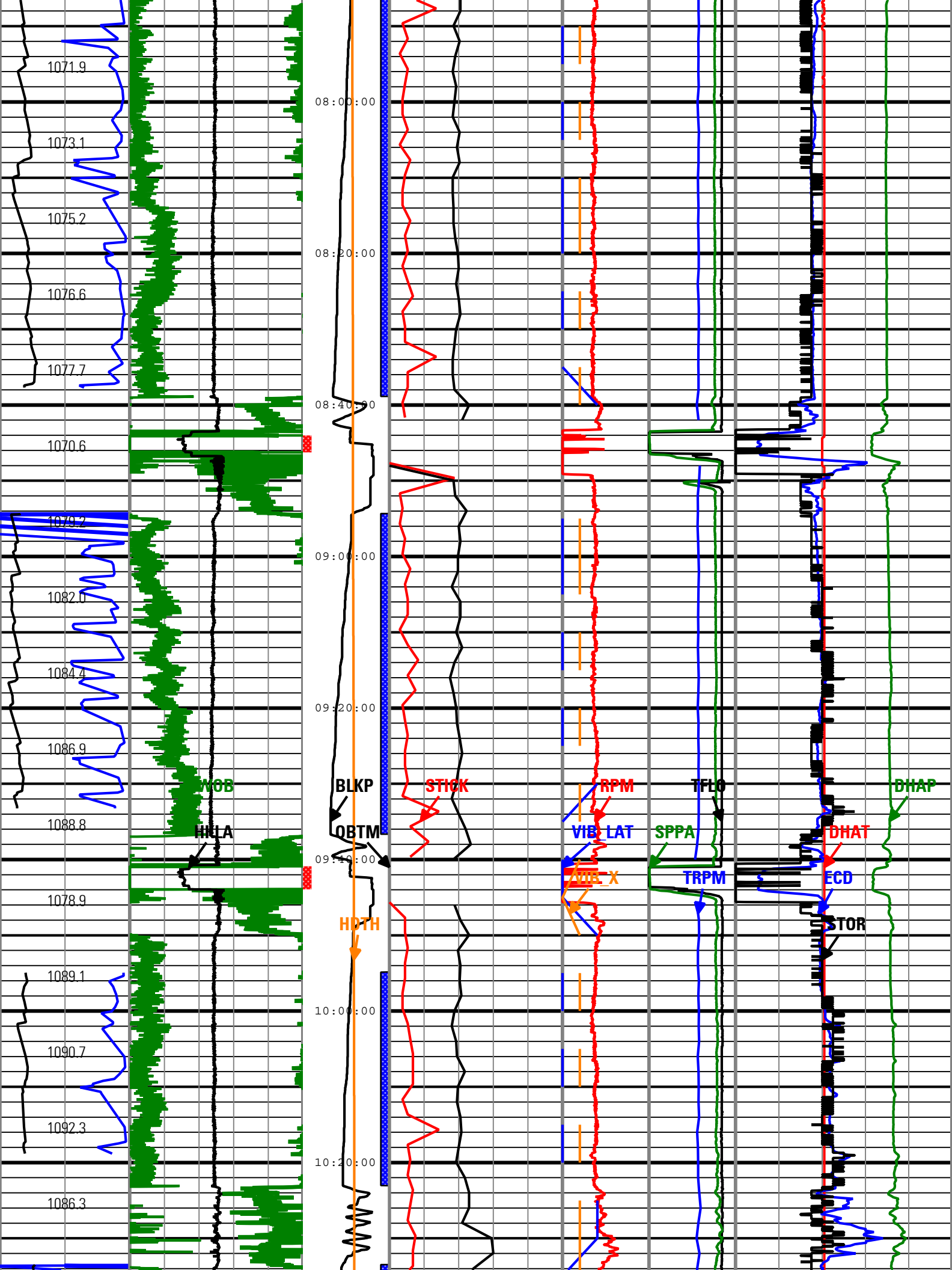


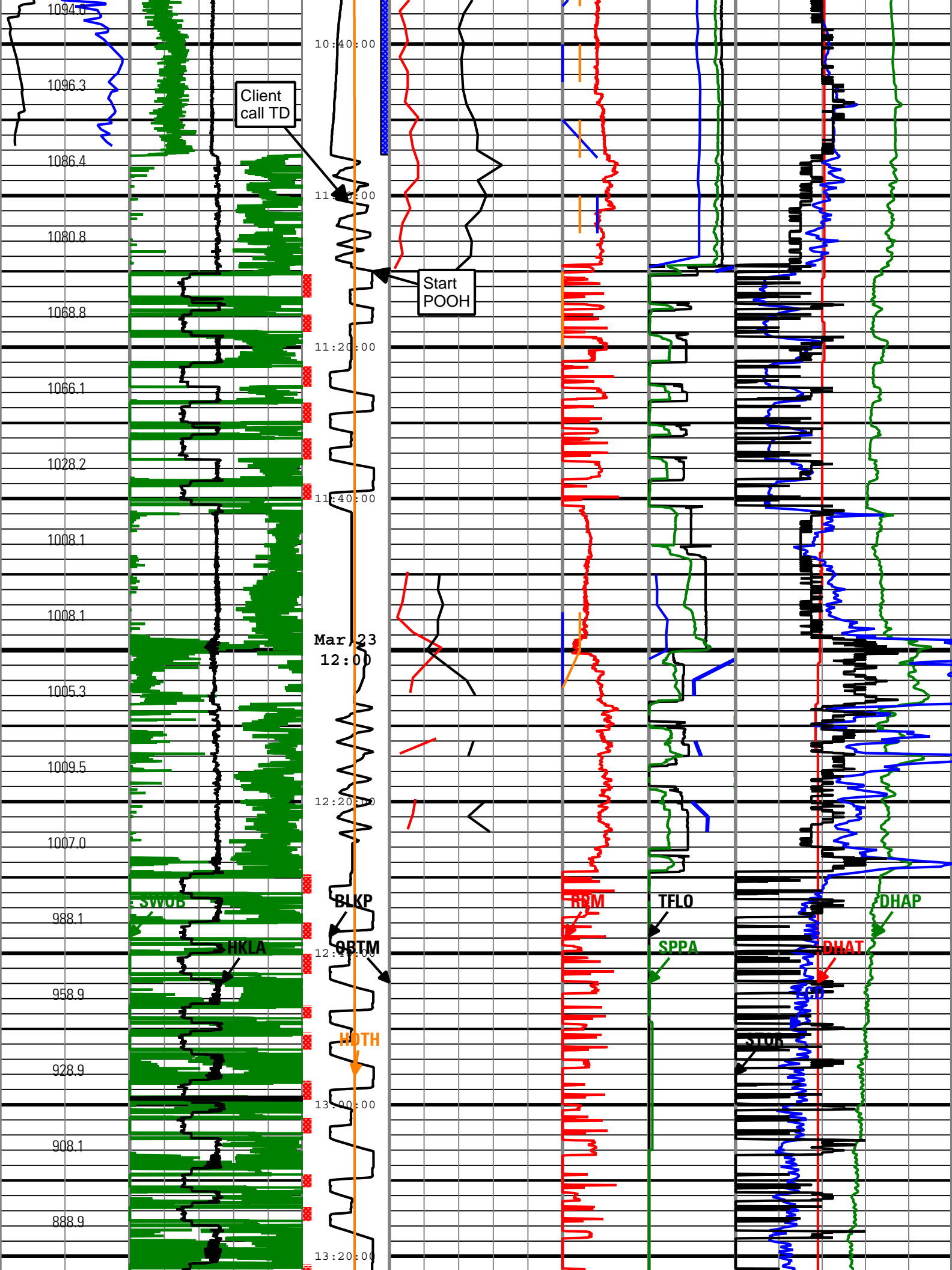


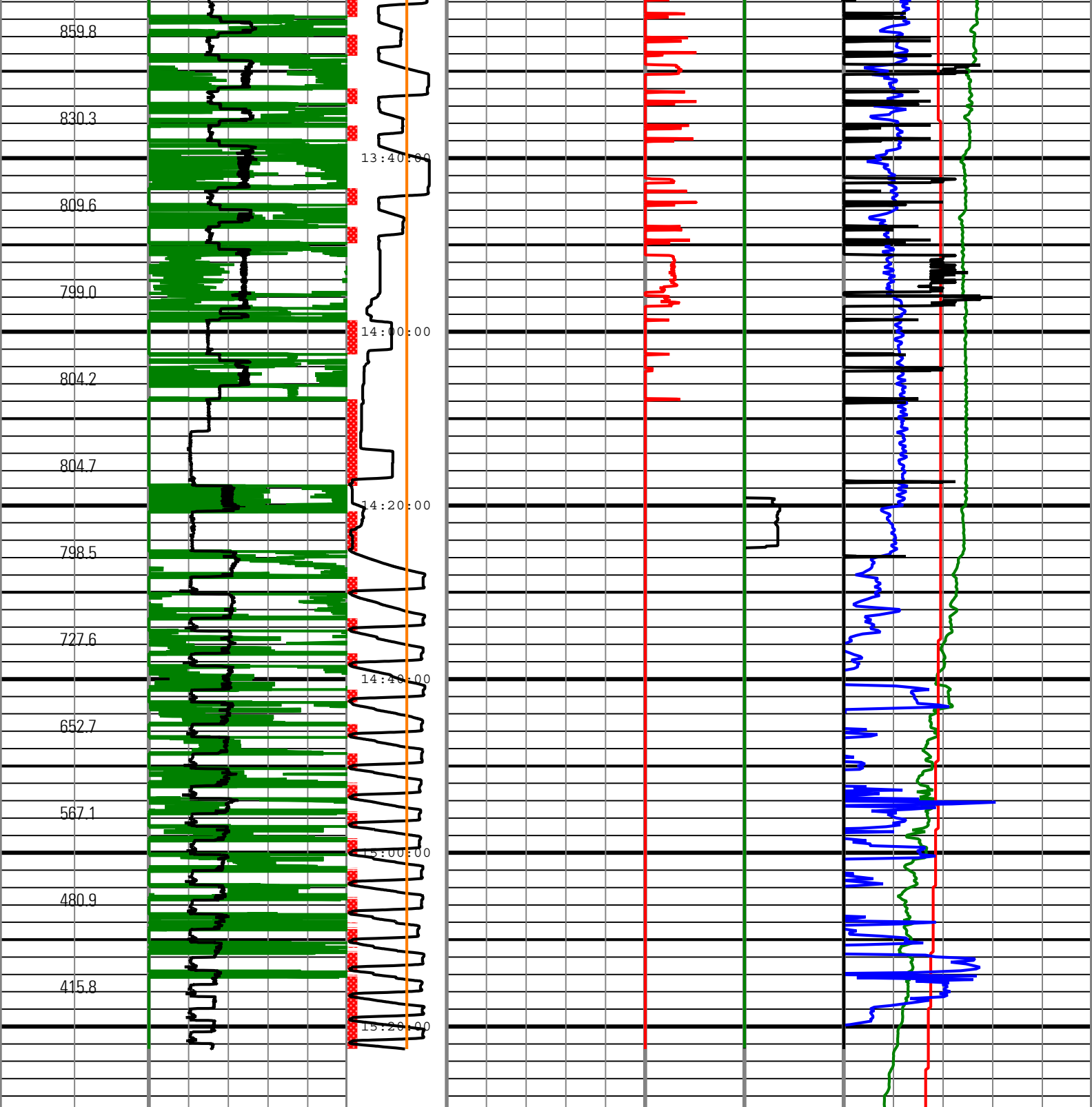












Rate of Penetration (ROP) RT 100 m/h 0	Surface Weight On Bit (SWOB) RT 0 1000 lbf 40	Bit on Bottom Slips	Stick Slip Indicator (STICK) TELE675 RM 0 c/min 200	Rotational Speed (RPM) RT 0 c/min 200	Total flow rate of all active pumps (TFLO) RT 0 500 gal/min	Downhole Annulus Pressure (DHAP) ARC6 RM 0 psi 2500
Depth Index (DEPTH) m	Average Hookload (HKLA) RT 0 1000 lbf 500	Height of block above rig floor (BLKP) RT 0 m 40	Collar Rotational Speed (CRPM) TELE675 RM 0 c/min 200	Transverse RMS Vibration (VIB_LAT) TELE675 RM 0 ft/s2 20	Standpipe Pressure (SPPA) RT 0 psi 3000	Downhole Annulus Temperature (DHAT) ARC6 RM 0 degC 100
Inverse ROP for last 5 ft (1.5 m) / 5 (RPI5) RT 0 min/ft 10		Hole Depth (HDTH) RT 500 m 1500		RMS Vibration, X-Axis	MWD Turbine Rotation	Equivalent Circulating Density (ECD) ARC6 RM 1 g/cm3 1.5
						Surface Torque (STOR) RT

X AXIS  
(VIB\_X)  
TELE675 RM  
0 ft/s2 20

Rotation  
Speed  
(TRPM)  
TELE675 RM  
2000 4000  
c/min

Description: TeleScope + ARC Drilling Mechanics Time RT Format: Log ( Drilling Mechanics Time RM ) Index Scale: 10 cm per 3600 s Index Type: Time  
Creation Date: 24-Mar-2011 02:07:21

## Channel Processing Parameters

Parameter	Description	ToolPath	Value	Unit
DEPTH_SEL	Depth Selection Parameter	DNMSESSION	Driller's Depth	
FLEV	Depth of Drilling Fluid Level to LMF (Log Measured From)	Borehole	2.44	m
RHO_SEAWATER	Density of the Sea Water	Borehole	1.02	g/cm3
SF_FLAG	Mud Return to Sea Floor (No Riser)?	Borehole	Yes	

## Tool Control Parameters

Parameter	Description	ToolPath	Value	Unit
OFFBTM_TH	Threshold for deciding whether the bit is off bottom	DnMWorkflow	0	m

## Detailed Calibration Record

### RAB6 : 6.75-in. geoVISION resistivity tool Calibration M2 at T1 Calibration - Run 01

Primary Set Components	Description	Tool Element	Serial Number
	Electronics Chassis	RBEC	236
Calibration Dates	Shop Calibration		
Date & Time / Date Validity	18-Feb-2011 05:04:34 PM - Valid		
Calibration Source	Time Frame File		

Calibration Type: Resistivity

Description	Min/Nominal/Max	Shop	Unit
C21M2T1 Monitor 2 at T1 Calibration Coefficient	0.9750 / 1.0000 / 1.0250	0.9990	

### RAB6 : 6.75-in. geoVISION resistivity tool Calibration M2 at T2 Calibration - Run 01

Primary Set Components	Description	Tool Element	Serial Number
	Electronics Chassis	RBEC	236
Calibration Dates	Shop Calibration		
Date & Time / Date Validity	18-Feb-2011 05:04:34 PM - Valid		
Calibration Source	Time Frame File		

Calibration Type: Resistivity

Description	Min/Nominal/Max	Shop	Unit
C22M2T2 Monitor 2 at T2 Calibration Coefficient	0.9750 / 1.0000 / 1.0250	1.0044	

### RAB6 : 6.75-in. geoVISION resistivity tool Calibration M0 at T1 Calibration - Run 01

Primary Set Components	Description	Tool Element	Serial Number
	Electronics Chassis	RBEC	236
Calibration Dates	Shop Calibration		
Date & Time / Date Validity	18-Feb-2011 05:04:34 PM - Valid		
Calibration Source	Time Frame File		

Calibration Type: Resistivity

Description	Min/Nominal/Max	Shop	Unit
C01M0T1 Monitor 0 at T1 Calibration Coefficient	0.9750 / 1.0000 / 1.0250	0.9986	

### RAB6 : 6.75-in. geoVISION resistivity tool Calibration M0 at T2 Calibration - Run 01

Primary Set Components	Description	Tool Element	Serial Number
	Electronics Chassis	RBEC	236
Calibration Dates	Shop Calibration		

Calibration Dates	Shop Calibration		
Date & Time / Date Validity	18-Feb-2011 05:04:34 PM - Valid		
Calibration Source	Time Frame File		

**Calibration Type: Resistivity**

Description	Min/Nominal/Max	Shop	Unit
C02MOT2 Monitor 0 at T2 Calibration Coefficient	0.9750 / 1.0000 / 1.0250	1.0041	

**RAB6 : 6.75-in. geoVISION resistivity tool Calibration Ring at T1 Calibration - Run 01**

Primary Set Components	Description	Tool Element	Serial Number
	Electronics Chassis	RBEC	236

Calibration Dates	Shop Calibration		
Date & Time / Date Validity	18-Feb-2011 05:04:34 PM - Valid		

Calibration Source	Time Frame File		
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**Calibration Type: Resistivity**

Description	Min/Nominal/Max	Shop	Unit
CR1RINGT1 Ring at T1 Calibration Coefficient	0.9750 / 1.0000 / 1.0250	1.0029	

**RAB6 : 6.75-in. geoVISION resistivity tool Calibration Ring at T2 Calibration - Run 01**

Primary Set Components	Description	Tool Element	Serial Number
	Electronics Chassis	RBEC	236

Calibration Dates	Shop Calibration		
Date & Time / Date Validity	18-Feb-2011 05:04:34 PM - Valid		

Calibration Source	Time Frame File		
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**Calibration Type: Resistivity**

Description	Min/Nominal/Max	Shop	Unit
CR2RINGT2 Ring at T2 Calibration Coefficient	0.9750 / 1.0000 / 1.0250	1.0091	

**RAB6 : 6.75-in. geoVISION resistivity tool Calibration BD at T1 Calibration - Run 01**

Primary Set Components	Description	Tool Element	Serial Number
	Electronics Chassis	RBEC	236

Calibration Dates	Shop Calibration		
Date & Time / Date Validity	18-Feb-2011 05:04:34 PM - Valid		

Calibration Source	Time Frame File		
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**Calibration Type: Resistivity**

Description	Min/Nominal/Max	Shop	Unit
CD1BDT1 Button Deep at T1 Calibration Coefficient	0.9750 / 1.0000 / 1.0250	1.0078	

**RAB6 : 6.75-in. geoVISION resistivity tool Calibration BD at T2 Calibration - Run 01**

Primary Set Components	Description	Tool Element	Serial Number
	Electronics Chassis	RBEC	236

Calibration Dates	Shop Calibration		
Date & Time / Date Validity	18-Feb-2011 05:04:34 PM - Valid		

Calibration Source	Time Frame File		
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**Calibration Type: Resistivity**

Description	Min/Nominal/Max	Shop	Unit
CD2BDT2 Button Deep at T2 Calibration Coefficient	0.9750 / 1.0000 / 1.0250	1.0137	

**RAB6 : 6.75-in. geoVISION resistivity tool Calibration BM at T1 Calibration - Run 01**

Primary Set Components	Description	Tool Element	Serial Number
	Electronics Chassis	RBEC	236

Calibration Dates	Shop Calibration		
Date & Time / Date Validity	18-Feb-2011 05:04:34 PM - Valid		

Calibration Source	Time Frame File		
<b>Calibration Type: Resistivity</b>			
<b>Description</b>	<b>Min/Nominal/Max</b>	<b>Shop</b>	<b>Unit</b>
CM1BMT1 Button Medium at T1 Calibration Coefficient	0.9750 / 1.0000 / 1.0250	1.0024	
<b>RAB6 : 6.75-in. geoVISION resistivity tool Calibration BM at T2 Calibration - Run 01</b>			
<b>Primary Set Components</b>	<b>Description</b>	<b>Tool Element</b>	<b>Serial Number</b>
	Electronics Chassis	RBEC	236
<b>Calibration Dates</b>	<b>Shop Calibration</b>		
Date & Time / Date Validity	18-Feb-2011 05:04:34 PM - Valid		
Calibration Source	Time Frame File		
<b>Calibration Type: Resistivity</b>			
<b>Description</b>	<b>Min/Nominal/Max</b>	<b>Shop</b>	<b>Unit</b>
CM2BMT2 Button Medium at T2 Calibration Coefficient	0.9750 / 1.0000 / 1.0250	1.0084	
<b>RAB6 : 6.75-in. geoVISION resistivity tool Calibration BS at T1 Calibration - Run 01</b>			
<b>Primary Set Components</b>	<b>Description</b>	<b>Tool Element</b>	<b>Serial Number</b>
	Electronics Chassis	RBEC	236
<b>Calibration Dates</b>	<b>Shop Calibration</b>		
Date & Time / Date Validity	18-Feb-2011 05:04:34 PM - Valid		
Calibration Source	Time Frame File		
<b>Calibration Type: Resistivity</b>			
<b>Description</b>	<b>Min/Nominal/Max</b>	<b>Shop</b>	<b>Unit</b>
CS1BST1 Button Shallow at T1 Calibration Coefficient	0.9750 / 1.0000 / 1.0250	1.0064	
<b>RAB6 : 6.75-in. geoVISION resistivity tool Calibration BS at T2 Calibration - Run 01</b>			
<b>Primary Set Components</b>	<b>Description</b>	<b>Tool Element</b>	<b>Serial Number</b>
	Electronics Chassis	RBEC	236
<b>Calibration Dates</b>	<b>Shop Calibration</b>		
Date & Time / Date Validity	18-Feb-2011 05:04:34 PM - Valid		
Calibration Source	Time Frame File		
<b>Calibration Type: Resistivity</b>			
<b>Description</b>	<b>Min/Nominal/Max</b>	<b>Shop</b>	<b>Unit</b>
CS2BST2 Button Shallow at T2 Calibration Coefficient	0.9750 / 1.0000 / 1.0250	1.0126	
<b>RAB6 : 6.75-in. geoVISION resistivity tool Calibration Gamma Ray Calibration - Run 01</b>			
<b>Primary Set Components</b>	<b>Description</b>	<b>Tool Element</b>	<b>Serial Number</b>
	Electronics Chassis	RBEC	236
<b>Calibration Dates</b>	<b>Shop Calibration</b>		
Date & Time / Date Validity	18-Feb-2011 04:26:29 PM - Valid		
Calibration Source	Time Frame File		
<b>Calibration Type: Gamma Ray: Blanket</b>			
<b>Description</b>	<b>Min/Nominal/Max</b>	<b>Shop</b>	<b>Unit</b>
GR_GAIN Gamma Ray Calibration Gain	0.7500 / 1.0000 / 1.2500	1.0259	
<b>ARC6 : Calibration Resistivity - Run 01</b>			
<b>Primary Set Components</b>	<b>Description</b>	<b>Tool Element</b>	<b>Serial Number</b>
	Elec. Chassis HP w/o AIM Receiver	AREA	556
<b>Calibration Dates</b>	<b>Shop Calibration</b>		
Date & Time / Date Validity	27-Feb-2011 04:01:10 PM - Valid		
Calibration Source	Time Frame File		
<b>Calibration Type: Resistivity: Air</b>			

Description	Min/Nominal/Max	Shop	Unit
ATT1F2AIR Attenuation T1 at 2 MHz	6.500 / 8.500 / 10.500	8.868	dB
ATT2F2AIR Attenuation T2 at 2 MHz	4.500 / 6.500 / 8.500	6.071	dB
ATT3F2AIR Attenuation T3 at 2 MHz	2.500 / 4.500 / 6.500	5.496	dB
ATT4F2AIR Attenuation T4 at 2 MHz	2.600 / 4.600 / 6.600	3.975	dB
ATT5F2AIR Attenuation T5 at 2 MHz	1.600 / 3.600 / 5.600	4.046	dB
PST1F2AIR Phase Shift T1 at 2 MHz	-3.900 / 0.100 / 4.100	-1.326	deg
PST2F2AIR Phase Shift T2 at 2 MHz	-3.900 / 0.100 / 4.100	1.331	deg
PST3F2AIR Phase Shift T3 at 2 MHz	-3.900 / 0.100 / 4.100	-1.391	deg
PST4F2AIR Phase Shift T4 at 2 MHz	-3.900 / 0.100 / 4.100	1.282	deg
PST5F2AIR Phase Shift T5 at 2 MHz	-3.900 / 0.100 / 4.100	-1.412	deg
ATT1F4AIR Attenuation T1 at 400 KHz	6.500 / 8.500 / 10.500	8.824	dB
ATT2F4AIR Attenuation T2 at 400 KHz	4.500 / 6.500 / 8.500	6.124	dB
ATT3F4AIR Attenuation T3 at 400 KHz	2.500 / 4.500 / 6.500	5.448	dB
ATT4F4AIR Attenuation T4 at 400 KHz	2.600 / 4.600 / 6.600	4.037	dB
ATT5F4AIR Attenuation T5 at 400 KHz	1.600 / 3.600 / 5.600	4.002	dB
PST1F4AIR Phase Shift T1 at 400 KHz	-3.900 / 0.100 / 4.100	1.374	deg
PST2F4AIR Phase Shift T2 at 400 KHz	-3.900 / 0.100 / 4.100	-1.379	deg
PST3F4AIR Phase Shift T3 at 400 KHz	-3.900 / 0.100 / 4.100	1.338	deg
PST4F4AIR Phase Shift T4 at 400 KHz	-3.900 / 0.100 / 4.100	-1.422	deg
PST5F4AIR Phase Shift T5 at 400 KHz	-3.900 / 0.100 / 4.100	1.389	deg

### ARC6 : Calibration Gamma Ray - Run 01

Primary Set Components	Description	Tool Element	Serial Number
	Elec. Chassis HP w/o AIM Receiver	AREA	556
Calibration Dates	Shop Calibration		
Date & Time / Date Validity	27-Feb-2011 10:57:06 PM - Valid		
Calibration Source	Time Frame File		

Calibration Type: **Gamma Ray: Blanket**

Description	Min/Nominal/Max	Shop	Unit
GR_GAIN Gamma Ray Calibration Gain	0.580 / 1.000 / 1.250	1.130	

### ADN6C : 6.75-in. Azimuthal Density Neutron Calibration Density LS Window 3 Calibration - Run 01

Primary Set Components	Description	Tool Element	Serial Number
	Chassis, Hi-Pres, Non-Mag	ADSE	297
	Collar, IBS 8-1/4, P550	ADDC	YJ56
	Retrievable Neutron Gamma Src Plugless	RNGS	01-21
Calibration Dates	Shop Calibration		
Date & Time / Date Validity	23-Feb-2011 06:44:34 PM - Valid		
Calibration Source	Time Frame File		

Calibration Type: **Density: LS Window 3**

Description	Min/Nominal/Max	Shop	Unit
LSW3_BG LS window 3 - Background	30.0 / 52.5 / 75.0	47.4	1/s
LSW3_AL LS window 3 - Al	75.0 / 537.5 / 1000.0	161.0	1/s

LSW3_MG LS window 3 - Mg	500.0 / 3000.0 / 5500.0	1093.7	1/s
RHOL_H2O Long spacing water density	1.024 / 1.039 / 1.054	1.049	g/cm3

### ADN6C : 6.75-in. Azimuthal Density Neutron Calibration Density SS Window 1 Calibration - Run 01

Primary Set Components	Description	Tool Element	Serial Number
	Chassis, Hi-Pres, Non-Mag	ADSE	297

Calibration Dates	Shop Calibration		
Date & Time / Date Validity	23-Feb-2011 06:44:34 PM - Valid		
Calibration Source	Time Frame File		

**Calibration Type:** Density: SS Window 1

Description	Min/Nominal/Max	Shop	Unit
SSW1_BG SS window 1 - Background	75.0 / 125.0 / 175.0	104.0	1/s
SSW1_AL SS window 1 - Al	750.0 / 2625.0 / 4500.0	1377.6	1/s
SSW1_MG SS window 1 - Mg	1500.0 / 5750.0 / 10000.0	2693.7	1/s

### ADN6C : 6.75-in. Azimuthal Density Neutron Calibration Density SS Window 3 Calibration - Run 01

Primary Set Components	Description	Tool Element	Serial Number
	Chassis, Hi-Pres, Non-Mag	ADSE	297

Calibration Dates	Shop Calibration		
Date & Time / Date Validity	23-Feb-2011 06:44:34 PM - Valid		
Calibration Source	Time Frame File		

**Calibration Type:** Density: SS Window 3

Description	Min/Nominal/Max	Shop	Unit
SSW3_BG SS window 3 - Background	350.0 / 550.0 / 750.0	445.6	1/s
SSW3_AL SS window 3 - Al	2000.0 / 8500.0 / 15000.0	4146.8	1/s
SSW3_MG SS window 3 - Mg	3500.0 / 14250.0 / 25000.0	6590.8	1/s
RHOS_H2O Short spacing water density	1.096 / 1.126 / 1.156	1.147	g/cm3

### ADN6C : 6.75-in. Azimuthal Density Neutron Calibration Neutron Far 1 Tube 1 Calibration - Run 01

Primary Set Components	Description	Tool Element	Serial Number
	Chassis, Hi-Pres, Non-Mag	ADSE	297

Calibration Dates	Shop Calibration		
Date & Time / Date Validity	23-Feb-2011 06:44:34 PM - Valid		
Calibration Source	Time Frame File		

**Calibration Type:** Neutron: Far 1 Tube 1

Description	Min/Nominal/Max	Shop	Unit
FR11_AIR Far 1 tube 1 - Air	13.300 / 21.150 / 29.000	16.618	1/s
FR11_ROD Far 1 tube 1 - Rod	3.900 / 5.700 / 7.500	4.276	1/s
FR11_H2O Far 1 tube 1 - Water	1.900 / 2.800 / 3.700	2.099	1/s

### ADN6C : 6.75-in. Azimuthal Density Neutron Calibration Neutron Far 1 Tube 2 Calibration - Run 01

Primary Set Components	Description	Tool Element	Serial Number
	Chassis, Hi-Pres, Non-Mag	ADSE	297

Calibration Dates	Shop Calibration		
Date & Time / Date Validity	23-Feb-2011 06:44:34 PM - Valid		
Calibration Source	Time Frame File		

**Calibration Type:** Neutron: Far 1 Tube 2

Description	Min/Nominal/Max	Shop	Unit
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FR12_AIR Far 1 tube 2 - Air	13.300 / 21.150 / 29.000	17.654	1/s
FR12_ROD Far 1 tube 2 - Rod	3.900 / 5.700 / 7.500	4.442	1/s
FR12_H2O Far 1 tube 2 - Water	1.900 / 2.800 / 3.700	2.180	1/s

### ADN6C : 6.75-in. Azimuthal Density Neutron Calibration Neutron Far 1 Tube 3 Calibration - Run 01

<b>Primary Set Components</b>	<b>Description</b>	<b>Tool Element</b>	<b>Serial Number</b>
	Chassis, Hi-Pres, Non-Mag	ADSE	297
<b>Calibration Dates</b>	<b>Shop Calibration</b>		
Date & Time / Date Validity	23-Feb-2011 06:44:34 PM - Valid		
Calibration Source	Time Frame File		

**Calibration Type:** Neutron: Far 1 Tube 3

Description	Min/Nominal/Max	Shop	Unit
FR13_AIR Far 1 tube 3 - Air	13.300 / 21.150 / 29.000	17.334	1/s
FR13_ROD Far 1 tube 3 - Rod	3.900 / 5.700 / 7.500	4.303	1/s
FR13_H2O Far 1 tube 3 - Water	1.900 / 2.800 / 3.700	2.085	1/s

### ADN6C : 6.75-in. Azimuthal Density Neutron Calibration Neutron Far 2 Tube 1 Calibration - Run 01

<b>Primary Set Components</b>	<b>Description</b>	<b>Tool Element</b>	<b>Serial Number</b>
	Chassis, Hi-Pres, Non-Mag	ADSE	297
<b>Calibration Dates</b>	<b>Shop Calibration</b>		
Date & Time / Date Validity	23-Feb-2011 06:44:34 PM - Valid		
Calibration Source	Time Frame File		

**Calibration Type:** Neutron: Far 2 Tube 1

Description	Min/Nominal/Max	Shop	Unit
FR21_AIR Far 2 tube 1 - Air	13.300 / 21.150 / 29.000	17.545	1/s
FR21_ROD Far 2 tube 1 - Rod	3.900 / 5.700 / 7.500	4.402	1/s
FR21_H2O Far 2 tube 1 - Water	1.900 / 2.800 / 3.700	2.187	1/s

### ADN6C : 6.75-in. Azimuthal Density Neutron Calibration Neutron Far 2 Tube 2 Calibration - Run 01

<b>Primary Set Components</b>	<b>Description</b>	<b>Tool Element</b>	<b>Serial Number</b>
	Chassis, Hi-Pres, Non-Mag	ADSE	297
<b>Calibration Dates</b>	<b>Shop Calibration</b>		
Date & Time / Date Validity	23-Feb-2011 06:44:34 PM - Valid		
Calibration Source	Time Frame File		

**Calibration Type:** Neutron: Far 2 Tube 2

Description	Min/Nominal/Max	Shop	Unit
FR22_AIR Far 2 tube 2 - Air	13.300 / 21.150 / 29.000	17.396	1/s
FR22_ROD Far 2 tube 2 - Rod	3.900 / 5.700 / 7.500	4.234	1/s
FR22_H2O Far 2 tube 2 - Water	1.900 / 2.800 / 3.700	2.146	1/s

### ADN6C : 6.75-in. Azimuthal Density Neutron Calibration Neutron Far 2 Tube 3 Calibration - Run 01

<b>Primary Set Components</b>	<b>Description</b>	<b>Tool Element</b>	<b>Serial Number</b>
	Chassis, Hi-Pres, Non-Mag	ADSE	297
<b>Calibration Dates</b>	<b>Shop Calibration</b>		
Date & Time / Date Validity	23-Feb-2011 06:44:34 PM - Valid		
Calibration Source	Time Frame File		

**Calibration Type:** Neutron: Far 2 Tube 3

Description	Min/Nominal/Max	Shop	Unit
FR23_AIR	13.300 / 21.150 / 29.000	16.993	1/s

Far 2 tube 3 - Air			
FR23_ROD Far 2 tube 3 - Rod	3.900 / 5.700 / 7.500	4.233	1/s
FR23_H2O Far 2 tube 3 - Water	1.900 / 2.800 / 3.700	2.091	1/s
NEUT_PORO_H2O_FAR Far Neutron Water Porosity	86.000 / 103.500 / 121.000	95.000	pu

### ADN6C : 6.75-in. Azimuthal Density Neutron Calibration Neutron Near 1 Tube 1 Calibration - Run 01

<b>Primary Set Components</b>	<b>Description</b>	<b>Tool Element</b>	<b>Serial Number</b>
	Chassis, Hi-Pres, Non-Mag	ADSE	297
<b>Calibration Dates</b>	<b>Shop Calibration</b>		
Date & Time / Date Validity	23-Feb-2011 06:44:34 PM - Valid		
Calibration Source	Time Frame File		

**Calibration Type:** Neutron: Near 1 Tube 1

Description	Min/Nominal/Max	Shop	Unit
NR11_AIR Near 1 tube 1 - Air	400.000 / 575.000 / 750.000	444.159	1/s
NR11_ROD Near 1 tube 1 - Rod	640.000 / 895.000 / 1150.000	721.410	1/s
NR11_H2O Near 1 tube 1 - Water	275.000 / 412.500 / 550.000	318.322	1/s

### ADN6C : 6.75-in. Azimuthal Density Neutron Calibration Neutron Near 2 Tube 1 Calibration - Run 01

<b>Primary Set Components</b>	<b>Description</b>	<b>Tool Element</b>	<b>Serial Number</b>
	Chassis, Hi-Pres, Non-Mag	ADSE	297
<b>Calibration Dates</b>	<b>Shop Calibration</b>		
Date & Time / Date Validity	23-Feb-2011 06:44:34 PM - Valid		
Calibration Source	Time Frame File		

**Calibration Type:** Neutron: Near 2 Tube 1

Description	Min/Nominal/Max	Shop	Unit
NR21_AIR Near 2 tube 1 - Air	400.000 / 575.000 / 750.000	446.312	1/s
NR21_ROD Near 2 tube 1 - Rod	640.000 / 895.000 / 1150.000	717.931	1/s
NR21_H2O Near 2 tube 1 - Water	275.000 / 412.500 / 550.000	316.561	1/s

## Survey Record

### Survey Calculation

Method :	Minimum Radius of Curvature	DLS Method :	Lubinski
North Reference :	True North	Total Correction Formula :	Magnetic Dec

### Rig Location

Latitude :	8.59 degrees	Longitude :	-84.08 degrees
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### Tie In Point

Measured Depth:	0.00 m	Inclination:	0.00 deg	Azimuth:	0.00 deg
True Vertical Depth:	0.00 m	North Displacement:	0.00 m	East Displacement:	0.00 m
N-S VSec Origin:	0.00 m	E-W VSec Origin:	0.00 m	Vertical Section Azimuth:	0.00 deg

### D&I Inits Computed and Values Used - Run 01

Geomagnetic Model :	BGGM 2010	Geomagnetic Date :	19-Mar-2011
Computed Location B :	34288.69 nT +/- 300.00nT	Used Location B :	34288.69 nT +/- 300.00nT
Computed Location G :	32.09 ft/s2 +/- 0.08ft/s2	Used Location G :	32.09 ft/s2 +/- 0.08ft/s2
Computed Magnetic Dip :	35.35 deg +/- 0.45deg	Used Magnetic Dip :	35.35 deg +/- 0.45deg
Computed Magnetic Dec :	-0.61 deg	Used Magnetic Dec :	-0.61 deg
Computed Total Correction :	-0.61 deg	Used Total Correction :	-0.61 deg

### Survey Quality Index

0 : Long, passed all criteria      2 : Long, failed mag criteria

**Survey Correction Index**

0 : No correction

Seq	MD (m)	Incl (deg)	Azim (deg)	Course (m)	TVD (m)	V Sec (m)	N/ -S (m)	E/ -W (m)	Closure (m)	at Azim (deg)	DLS deg/100ft	Tool Type	QI	CI
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	90.00	0.00	TIP		
2	131.49	1.26	187.64	131.49	131.48	-1.43	-1.43	-0.19	1.45	187.64	0.29	TeleScope	2	0
3	151.61	1.64	218.55	20.12	151.60	-1.88	-1.88	-0.40	1.92	192.06	1.29	TeleScope	2	0
4	198.95	1.56	218.41	47.34	198.92	-2.91	-2.91	-1.22	3.16	202.78	0.05	TeleScope	0	0
5	227.11	1.46	217.88	28.16	227.07	-3.49	-3.49	-1.68	3.88	205.69	0.10	TeleScope	0	0
6	238.14	1.48	217.86	11.03	238.10	-3.72	-3.72	-1.85	4.15	206.51	0.04	TeleScope	0	0
7	738.55	1.07	230.42	500.40	738.37	-11.79	-11.79	-9.42	15.10	218.63	0.03	TeleScope	0	0
8	815.86	0.72	225.72	77.32	815.68	-12.60	-12.60	-10.33	16.29	219.36	0.14	TeleScope	2	0
9	958.01	0.79	181.29	142.15	957.82	-14.20	-14.20	-10.99	17.96	217.74	0.12	TeleScope	0	0
10	995.43	0.96	172.97	37.41	995.23	-14.77	-14.77	-10.96	18.39	216.58	0.17	TeleScope	0	0
11	1006.32	1.63	156.44	10.90	1006.12	-15.00	-15.00	-10.89	18.53	215.97	2.14	TeleScope	0	0
12	1044.81	1.08	151.02	38.49	1044.60	-15.82	-15.82	-10.49	18.98	213.55	0.45	TeleScope	2	0
13	1063.64	1.25	144.54	18.83	1063.43	-16.14	-16.14	-10.29	19.14	212.51	0.35	TeleScope	0	0

**Company:** IODP  
 Lamont - Doherty Earth Observatory

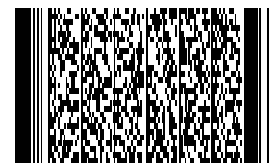
**Well:** U1379A

**Field:** Expedition 334

**Rig Name:** JOIDES Resolution

**State:** Puntarenas

**Country:** Costa Rica



**Schlumberger**

**6.75" LWD Service  
 Drilling Parameters  
 Recorded Mode Data**