

geoVISION - sonicVISION - APWD
 Gamma Ray - Resistivity - Image - Compressional - APWD
 12.25in Recorded Mode Log. True Vertical Depth
 Sub Sea 1:500



Company: JAMSTEC

Well: C0012H

Field: Nankai Trough - Kumano Basin

Rig Name: Chikyu

Prefecture: Wakayama

Country: Japan

Latitude: 32° 44' 52.698" N

Custom: 12JAP0016

Longitude: 136° 55' 2.106" E

Rig Name: Chikyu

Block: Philippines Sea

Rig Type: Drill Vessel

FL1: X = 679 623.175 m

FL2: Y = 3 624 973.513 m

Log Measured From: - Drill Floor: 28.50 m
 Permanent Datum: - Mean Sea Level



Ground Level: 3509.50 m

Acquisition Dates: 04-Dec-2012 -- 06-Dec-2012

Other Services:

Log Interval: 3525.00(m) -- 4247.73(m)

DWOB, DTOR

Index Types: SSTVD

Direction and Inclination

Index Scales: 1:500

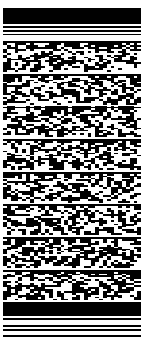
Drilling Mechanics

Depth Source: Driller's Depth

Depth Sensor: DES

Print Type: Final

Spud Date: 03-Dec-2012



Disclaimer

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Well Sketch

Driller Depth

3538.00 m



4248.00 m

Open Hole 12.25in

Borehole Size/Casing Record

Bit					
Bit Size (in)	12.25				
Top Driller (m)	3538				
Bottom Driller (m)	4248				

Operational Run Summary


Parameter (unit)	002				
Date Log Started	04-Dec-2012				
Time Log Started	07:17:28				
Date Log Finished	06-Dec-2012				
Time Log Finished	20:37:57				
Bit Size (in)	12.250				
Bit Start Depth (m)	3538.00				
Bit Stop Depth (m)	4248.00				
Top Log Interval (m)	3538.00				
Bottom Log Interval (m)	4247.74				
Max Hole Deviation (deg)	2.63				
Azimuth of Max Deviation (deg)	328.45				
Logging Unit Number	OLU-KC-504				
Logging Unit Location	Comp Deck				
Recorded By	Wang Feng Shao Kai				
Witnessed By	Yoshi Sanada Yukari Kido				
Service Order Number	12JAP0016				

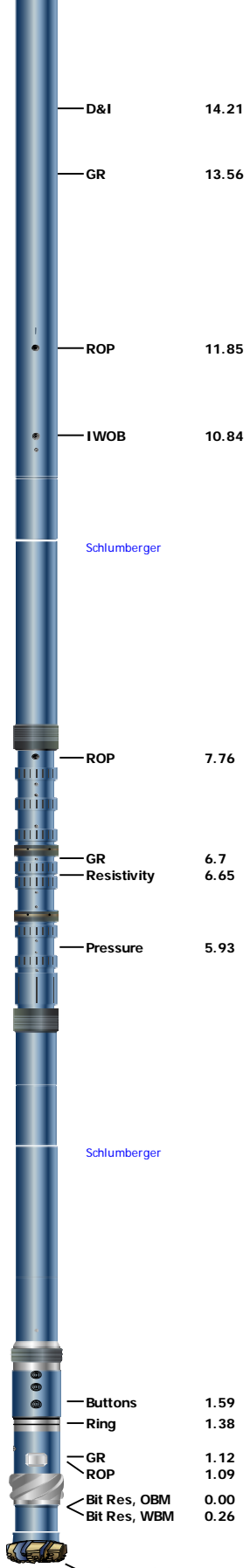
Borehole Fluids

Parameter(unit)	002				
Fluid Type	Water				
Fluid Name	Sea Water				
Max Recorded Temperatures (degC)	10				
Source of Sample	Active Tank				
Salinity (ppm)	30470.42				
Density (g/cm3)	1.04				

Funnel Viscosity (s)						
Fluid Loss (cm3)						
PH	11.6					
Source RMF						
RMC	Pressed					
RM @ Meas Temp (ohm.m@degC)	0.22 @ 20.3					
RMF @ Meas Temp (ohm.m@degC)	0.15 @ 20					
RMC @ Meas Temp (ohm.m@degC)						
RM @ BHT (ohm.m@degC)	0.3 @ 10					
RMF @ BHT (ohm.m@degC)	0.2 @ 10					
RMC @ BHT (ohm.m@degC)	NaN @ 10					
Total Solid (%)						
High Gravity Solids (%)						

Remarks and Equipment Summary

002: Toolstring				002: Remarks	
Equip name Stab: 8 1/4":7671 8	Length 29.08	MP name Schumberger	Offset	Data presented is Recorded Mode data which was acquired while drilling. Depth reference is driller's depth measured from Rotary Table. geoVISION record rate is 10s, sonicVISION record rate is 10s, APWD record rate is 10s. geoVISION GR is corrected for bit size, tool size and mud weight. No potassium concentration in mud. geoVISION resistivity is environmentally corrected for bit size and mud resistivity. sonicVISION compressional slowness is processed by DCS. Reason for POOH: Well TD. Drilling Time: 25.18 hrs Pumping Time: 36.30 hrs Warning in calibration list is due to MaxWell bug.	
SONICVISION8:E 6207	26.7	Schlumberger			
					
Delta-T	23.61				
ROP	23.22				
TELE825-IWOB:G 0159	18.51	Schlumberger			



ARC8:2791-SRPC 10.08

RAB8:42825/413 4.17
47

Bit: 12 1/4":A162 0.3
762

Lengths are in m
Maximum Outer Diameter = 12.250 in
Line: Sensor Location, Value: Gating Offset
All measurements are relative to TOOL_ZERO

Survey Record

Survey Calculation

Method :	Minimum Radius of Curvature	DLS Method :	Lubinski
North Reference :	Grid North	Total Correction Formula :	Magnetic Dec - Grid Convergence
Grid Convergence :	1.03 deg		

Dig Location

Rig Location
 Latitude : 32° 44' 52.698" N Longitude : 136° 55' 2.106" E
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 - 002
 Geomagnetic Model : BGGM 2011 Geomagnetic Date : 04-Dec-2012
 Computed Location B : 45580.54 nT +/- 300.00nT Used Location B : 45580.54 nT +/- 300.00nT
 Computed Location G : 9.80 m/s2 +/- 0.02m/s2 Used Location G : 9.80 m/s2 +/- 0.02m/s2
 Computed Magnetic Dip : 46.04 deg +/- 0.45deg Used Magnetic Dip : 46.04 deg +/- 0.45deg
 Computed Magnetic Dec : -6.53 deg Used Magnetic Dec : -6.53 deg
 Computed Total Correction : -7.56 deg Used Total Correction : -7.56 deg

Survey Quality Index
 2 : Long Survey failed mag criteria 4 : Long Survey failed all criteria 9 : Manual
 28 : Tie-In Point

Survey Correction Index
 0 : No correction

Survey Description Index
 0 : Not Flagged Survey

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/30m	Tool Type	QI	CI	DI
1	0.00	0.00	0.00	----	0.00	0.00	0.00	0.00	0.00	90.00	0.00	TIP	28	0	0
2	3538.00	0.00	0.00	3538.00	3538.00	0.00	0.00	0.00	0.00	90.00	0.00	Other	9	0	0
3	3655.73	1.75	349.87	117.73	3655.71	1.77	1.77	-0.32	1.79	349.87	0.45	TeleScope	2	0	0
4	3693.83	1.51	351.80	38.09	3693.79	2.83	2.83	-0.49	2.88	350.21	0.19	TeleScope	4	0	0
5	3732.14	1.40	344.53	38.32	3732.10	3.78	3.78	-0.69	3.85	349.72	0.17	TeleScope	2	0	0
6	3770.57	1.23	341.43	38.43	3770.51	4.63	4.63	-0.94	4.72	348.49	0.15	TeleScope	2	0	0
7	3808.99	1.20	347.84	38.42	3808.93	5.41	5.41	-1.16	5.53	347.92	0.11	TeleScope	4	0	0
8	3847.15	1.24	342.38	38.16	3847.08	6.19	6.19	-1.37	6.34	347.56	0.10	TeleScope	4	0	0
9	3885.57	1.29	340.44	38.42	3885.49	7.00	7.00	-1.64	7.18	346.83	0.05	TeleScope	4	0	0
10	3923.41	1.32	334.69	37.84	3923.32	7.79	7.79	-1.97	8.04	345.84	0.11	TeleScope	2	0	0
11	3961.64	1.39	331.68	38.23	3961.54	8.60	8.60	-2.38	8.92	344.56	0.08	TeleScope	2	0	0
12	3999.88	1.32	329.17	38.24	3999.77	9.39	9.39	-2.82	9.80	343.27	0.07	TeleScope	4	0	0
13	4037.88	1.38	326.23	38.00	4037.75	10.14	10.14	-3.30	10.67	341.97	0.07	TeleScope	4	0	0
14	4075.87	1.52	331.96	38.00	4075.74	10.97	10.97	-3.79	11.61	340.93	0.16	TeleScope	2	0	0
15	4113.78	1.89	321.90	37.91	4113.63	11.91	11.91	-4.42	12.70	339.65	0.38	TeleScope	2	0	0
16	4152.27	2.08	326.15	38.49	4152.10	12.99	12.99	-5.20	13.99	338.19	0.18	TeleScope	4	0	0
17	4190.73	2.46	326.26	38.46	4190.53	14.25	14.25	-6.04	15.48	337.02	0.30	TeleScope	2	0	0
18	4231.12	2.63	328.45	40.39	4230.87	15.77	15.77	-7.01	17.26	336.02	0.14	TeleScope	2	0	0

UDComposite 1

Integration Summary

Output Channel(s)	Output Description	Input Parameter	Output Value	Unit
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Composite Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	Include Parallel Data
002	Drilling	Down	3529.43 m	4248.00 m	04-Dec-2012 7:17:28 AM	06-Dec-2012 8:37:57 PM	

All depths are referenced to toolstring zero

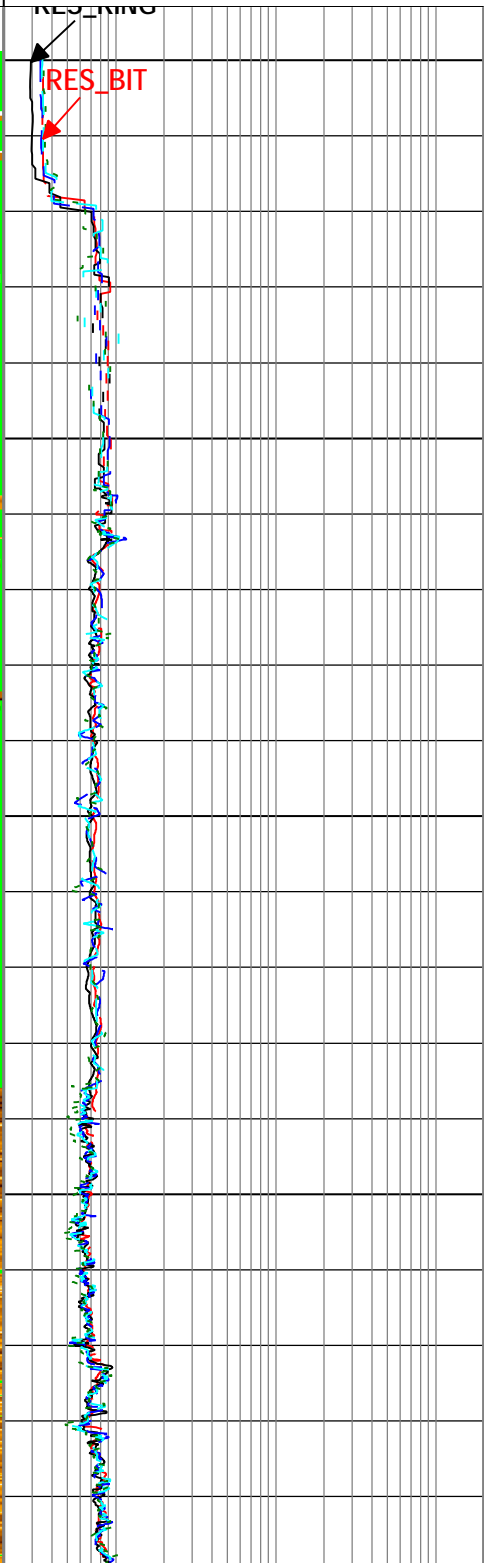
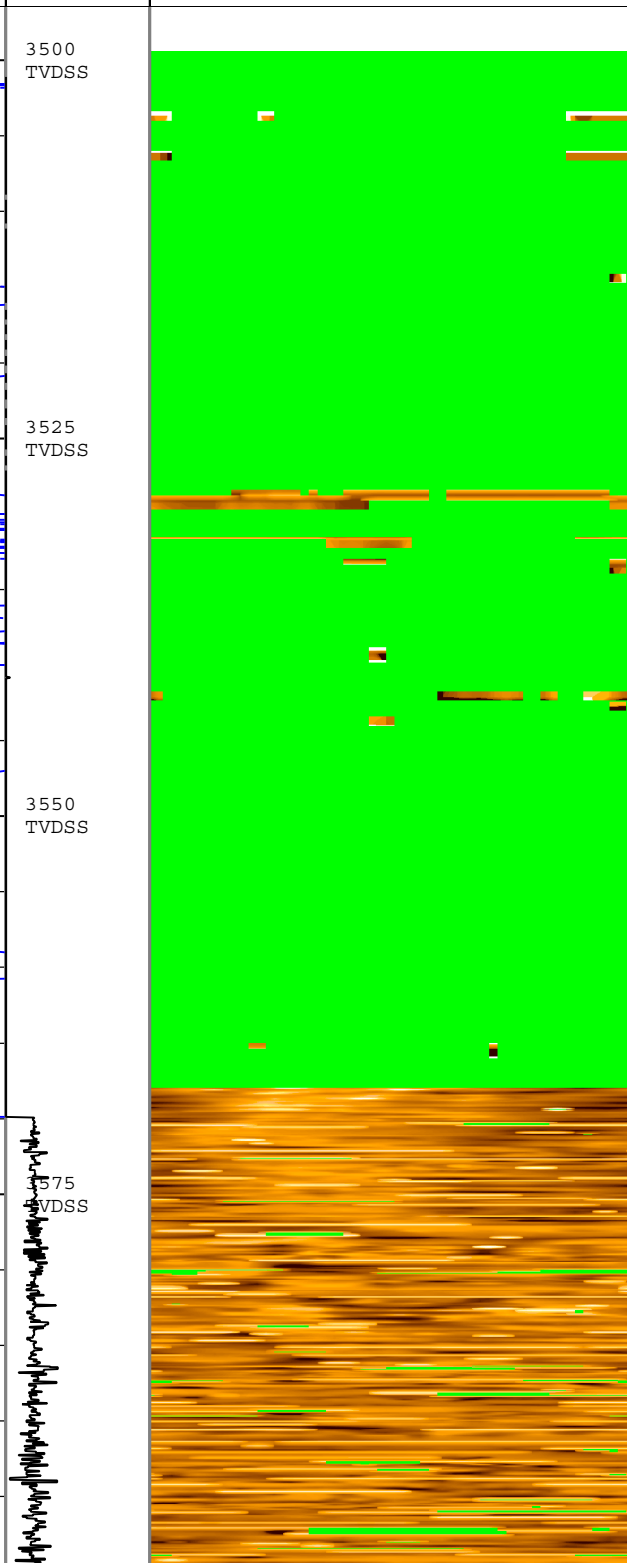
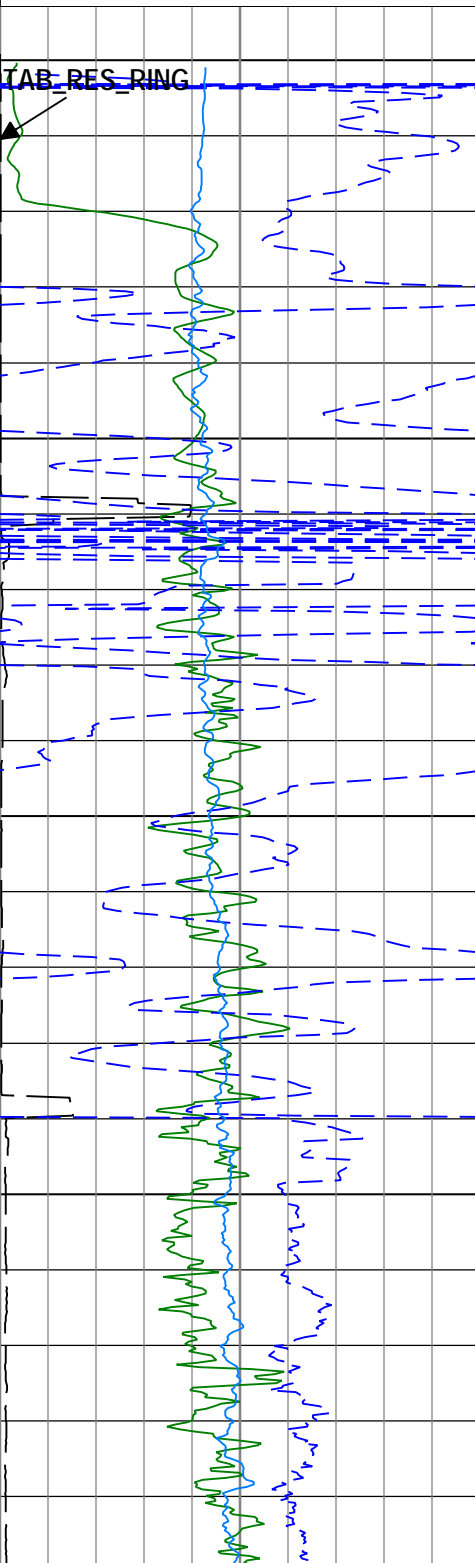
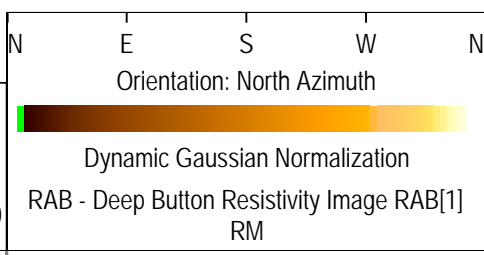
Log **UDComposite 1**

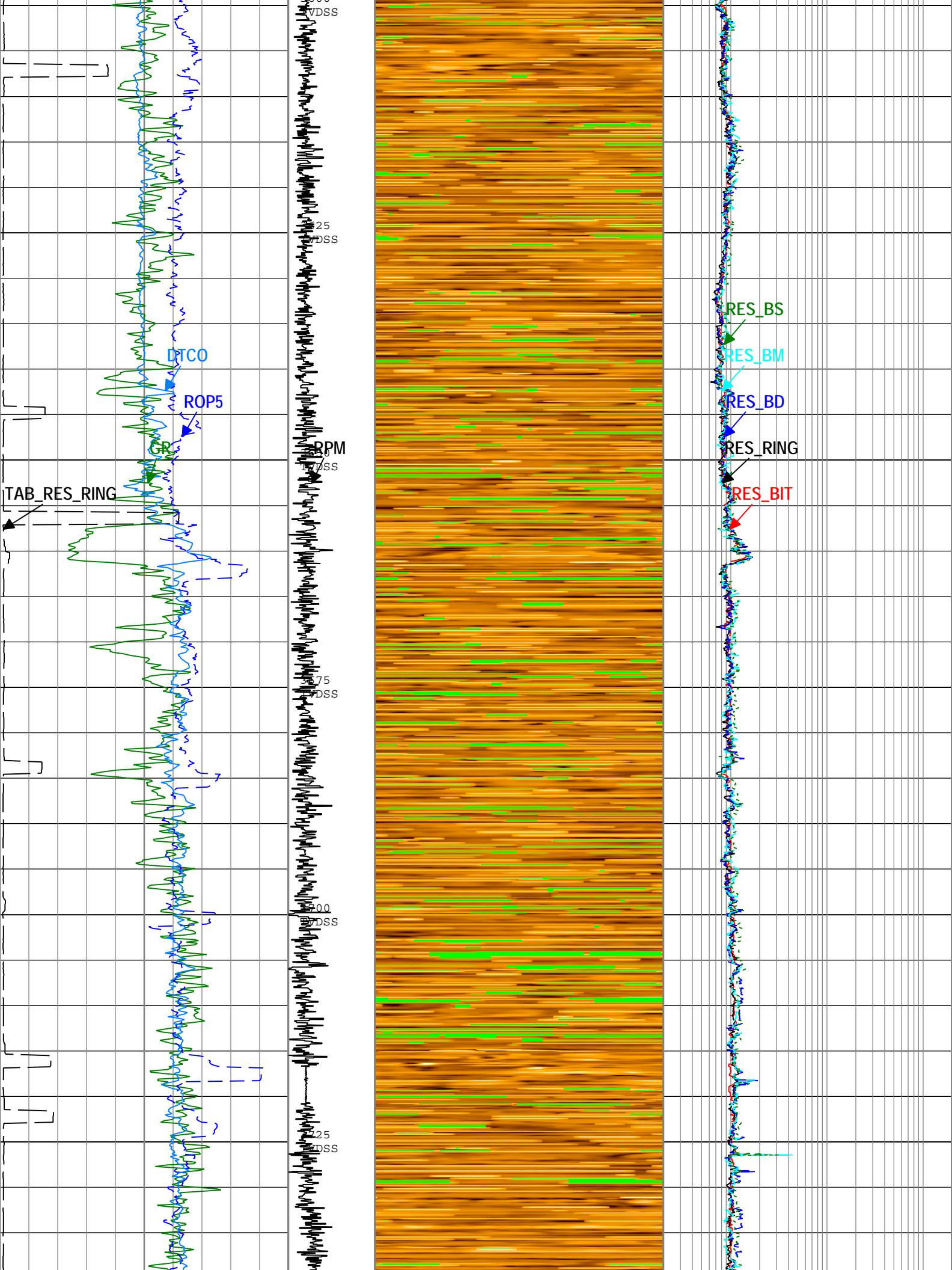
Description: GVR Resistivity, Deep Button Image Format: Log (Sonic-GVR Image-APWD Depth RM No Tick) Index Scale: 1:500 Index Unit: m Index Type: SSTVD Creation Date: 08-Dec-2012 12:14:12

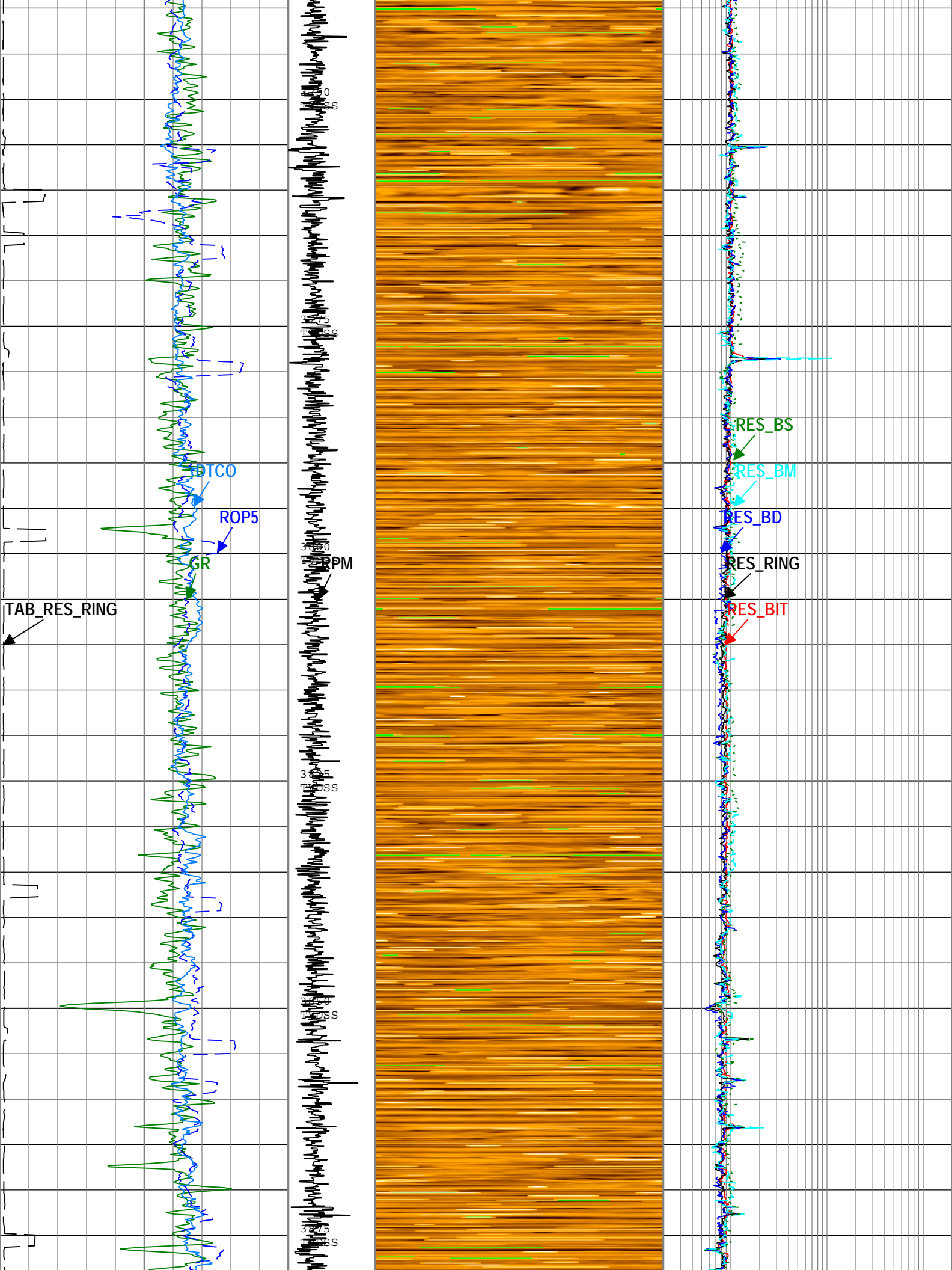
Ring Resistivity Time After Bit (TAB_RES_RING) RAB[1] RM		
0	h	3
Gamma Ray (GR) RAB[1] RM		
0	gAPI	150
Rate of penetration averaged over the last 5 ft (1.5 m) (ROP5) RT		
100	m/h	0
Delta-T Compressional (DTCO) sonicVISION[1] RM		
140	us/ft	40

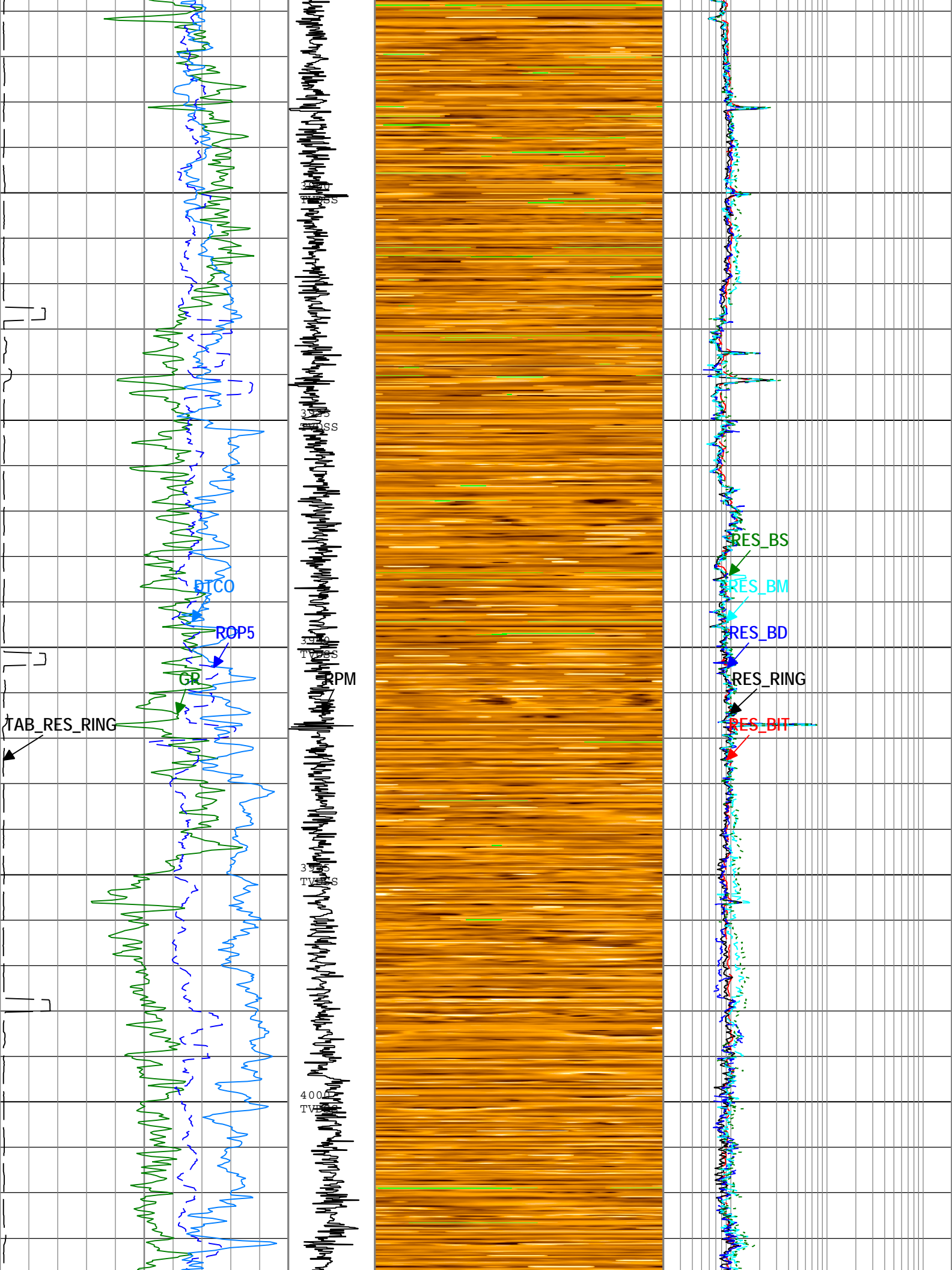
Rotational Speed (RPM) RAB[1] RM
0 c/min 200

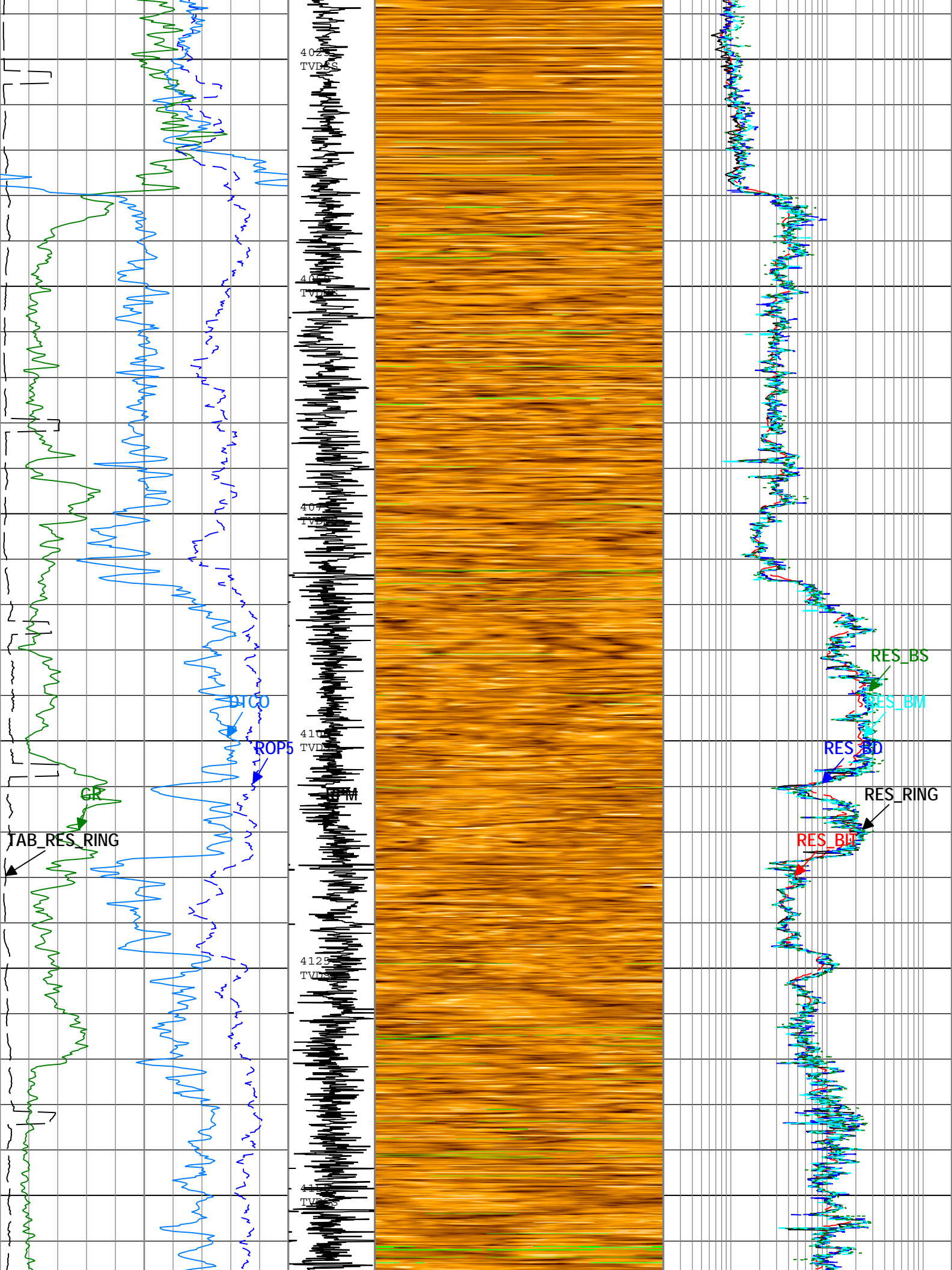
0.2	ohm.m	200
Ring Resistivity (RES_RING) RAB[1] RM		
0.2	ohm.m	200
Deep Button Resistivity (RES_BD) RAB[1] RM		
0.2	ohm.m	200
Medium Button Resistivity (RES_BM) RAB[1] RM		
0.2	ohm.m	200
Shallow Button Resistivity (RES_BS) RAB[1] RM		
0.2	ohm.m	200

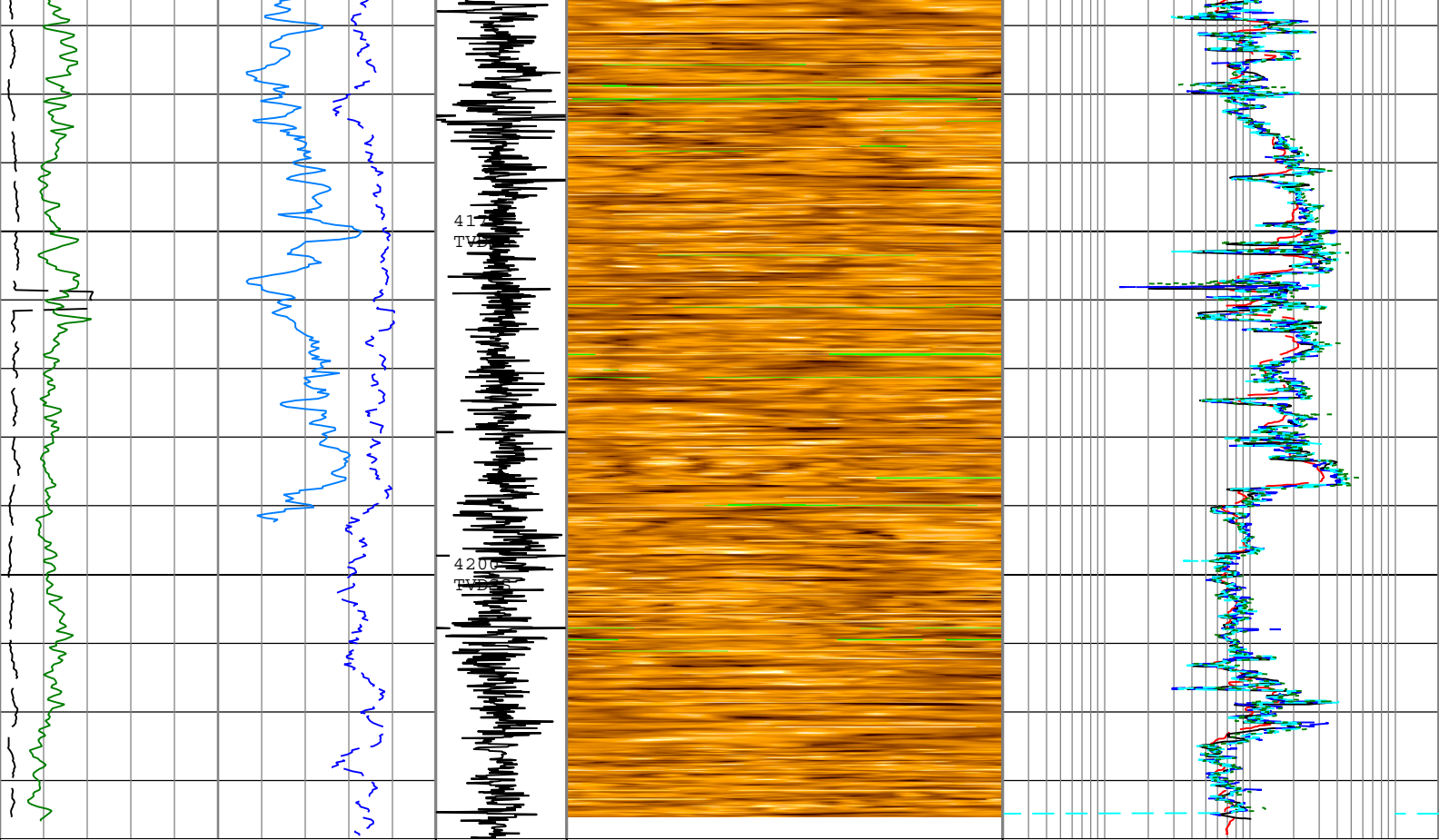






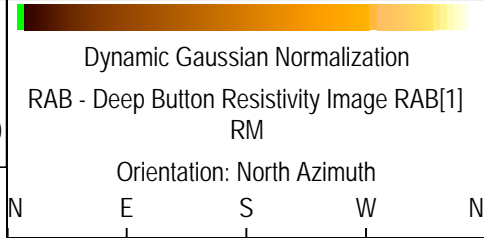






Ring Resistivity Time After Bit (TAB_RES_RING) RAB[1]	h	0	3
Gamma Ray (GR) RAB[1] RM	gAPI	0	150
Rate of penetration averaged over the last 5 ft (1.5 m) (ROP5) RT	m/h	100	0
Delta-T Compressional (DTCO) sonicVISION[1] RM	us/ft	140	40

Rotational Speed (RPM) RAB[1] RM	c/min	0	200
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Bit Resistivity (RES_BIT) RAB[1] RM	ohm.m	0.2	200
Ring Resistivity (RES_RING) RAB[1] RM	ohm.m	0.2	200
Deep Button Resistivity (RES_BD) RAB[1] RM	ohm.m	0.2	200
Medium Button Resistivity (RES_BM) RAB[1] RM	ohm.m	0.2	200
Shallow Button Resistivity (RES_BS) RAB[1] RM	ohm.m	0.2	200

Description: GVR Resistivity, Deep Button Image Format: Log (Sonic-GVR Image-APWD Depth RM No Tick) Index Scale: 1:500 Index Unit: m Index Type: SSTVD Creation Date: 08-Dec-2012 12:14:12

Channel Processing Parameters

002: Parameters

Parameter	Description	Tool	Value	Unit
BHK	Drilling Fluid Potassium Concentration	Borehole	0	%
BHT	Bottom Hole Temperature	Borehole	10	degC
BS	Bit Size	DNMSESSION	12.25	in
CDTS	Correction for Delta-T Shale, Empirical	Borehole	100	us/ft
COLL	Label Slowness Lower Limit - Monopole P&S Compressional	SONICVISION8	65	us/ft
COUL	Label Slowness Upper Limit - Monopole P&S Compressional	SONICVISION8	110	us/ft
DDEL	Digitizing Delay	SONICVISION8	300	us
DEPTH_SEL	Depth Selection Parameter	DNMSESSION	Driller's Depth	
DFD	Drilling Fluid Density	Borehole	1.04	g/cm3

DFT	Drilling Fluid Type	Borehole	Water	
DTF	Delta-T Fluid	Borehole	189	us/ft
DTM	Delta-T Matrix	Borehole	56	us/ft
FIN_DT_CO_MODE	Final DT Compressional STC Processing Mode	SONICVISION8	DDBHC	
FIN_DT_CO_SRC	Final DT Compressional Source	SONICVISION8	Reassigned Uphole	
FIN_DTSH_MODE	Final DT Shear Slowness STC Processing Mode	SONICVISION8	DDBHC	
GGRD	Geothermal Gradient	Borehole	18.23	degC/km
GRSE_RM	Generalized Mud Resistivity Selection for Recorded Mode	Borehole	REMS	
GTSE_RT	Generalized Temperature Selection for Realtime Mode	Borehole	GTEM_LINEST(RT)	
ITT_OFFSET	Integrated Transit Time Offset	SONICVISION8	0	ms
MST	Mud Sample Temperature	Borehole	20.3	degC
NWED	Noise Window End	SONICVISION8	2200	us
NWST	Noise Window Start	SONICVISION8	600	us
RES_BD_IMG_SEL	GVR Output Resistivity Image Selection, Deep Button	RAB8	Compensated Uphole	
RMS	Resistivity of Mud Sample	Borehole	0.22	ohm.m
SBIN	Search Band Inset	SONICVISION8	200	
SBWD	Search Band Width	SONICVISION8	1600	
SHLL	Label Slowness Lower Limit - Monopole P&S Shear	SONICVISION8	75	us/ft
SHT	Surface Hole Temperature	Borehole	2	degC
SHUL	Label Slowness Upper Limit - Monopole P&S Shear	SONICVISION8	240	us/ft
SIGE	Waveform Signal End Time	SONICVISION8	2000	us
SIGM	Waveform Signal Move Out	SONICVISION8	130	us/ft
SIGST	Waveform Signal Start Time	SONICVISION8	1500	us
SPFS	Sonic Porosity Formula	Borehole	Raymer-Hunt	
SPSO_LWD	Sonic Porosity Source Logging While Drilling	SONICVISION8	DTRA	
SWD_FIL_HIGH	Pre-STC filter high frequency cutoff (in kHz)	SONICVISION8	0	kHz
SWD_FIL LENG	Pre-STC filter length	SONICVISION8	1	
SWD_FIL_LOW	Pre-STC filter low frequency cutoff (in kHz)	SONICVISION8	0	kHz
SWD_FILTER	Pre-STC Filter Selection	SONICVISION8	No Filter	
SWD_PR_SEL	Sonic Processing Option	SONICVISION8	Both	
TD	Total Measured Depth	Borehole	4248	m
TEMP_SEL_RAB	RAB Temperature Selection	RAB8	Tool	

Tool Control Parameters

002: Parameters

Parameter	Description	Tool	Value	Unit
OFFBTM_TH	Threshold for deciding whether the bit is off bottom	DNMSESSION	0.6	m

002

Integration Summary

Output Channel(s)	Output Description	Input Parameter	Output Value	Unit
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Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	Include Parallel Data
002	Drilling	Down	3529.43 m	4248.00 m	04-Dec-2012 7:17:28 AM	06-Dec-2012 8:37:57 PM	

All depths are referenced to toolstring zero

Log

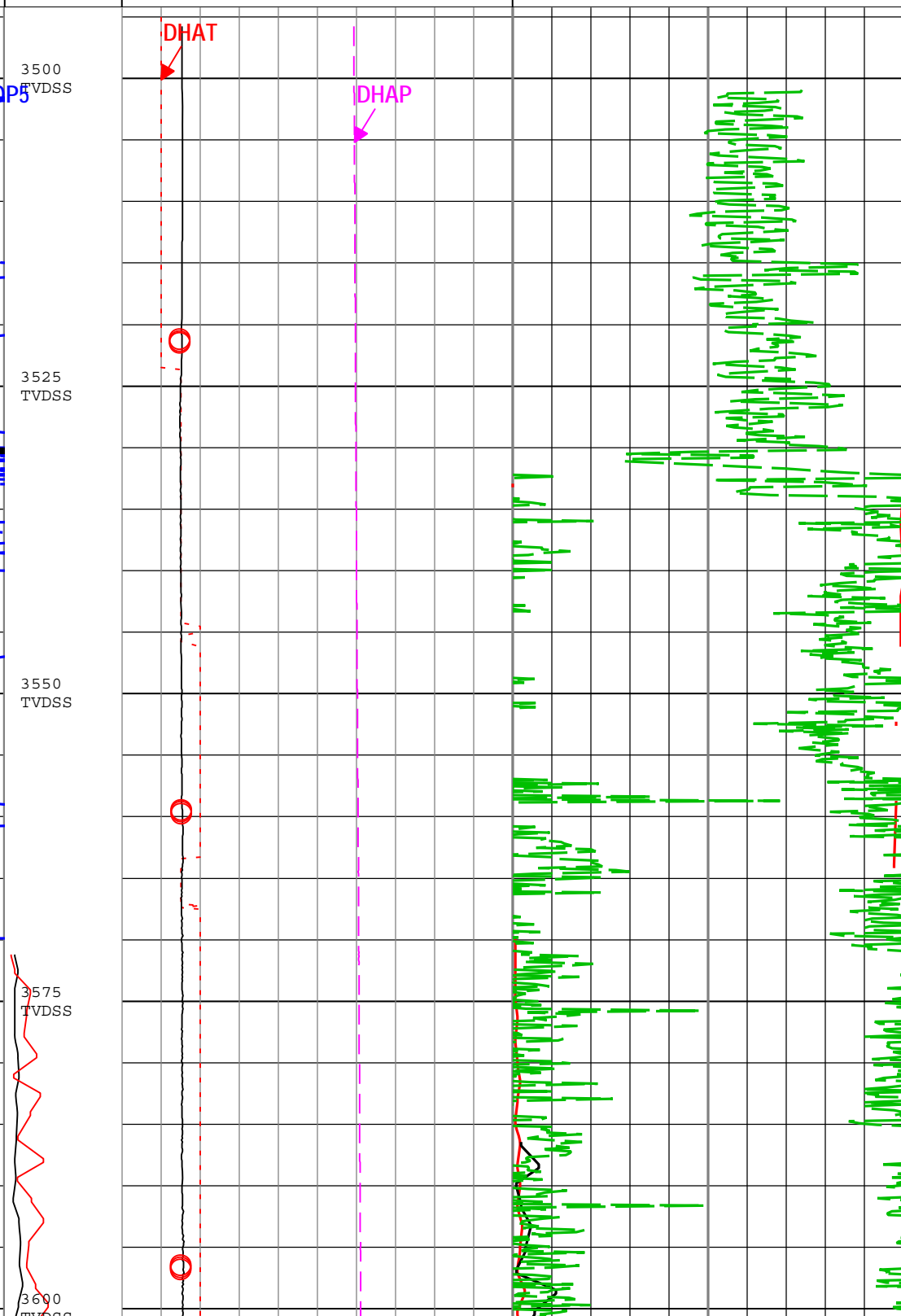
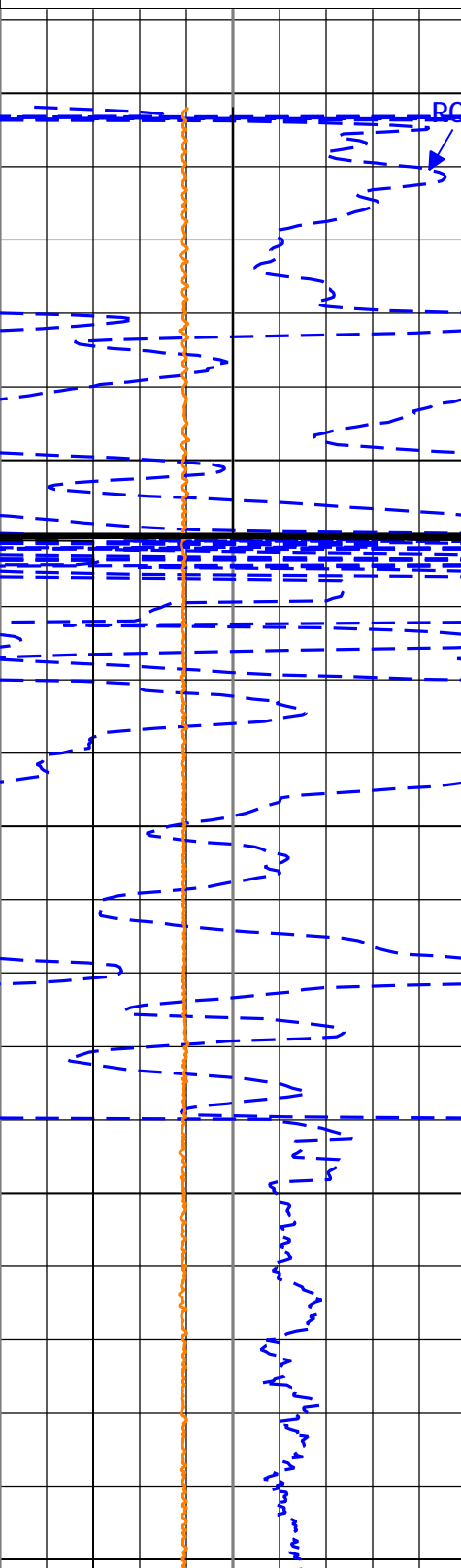
002: Drilling

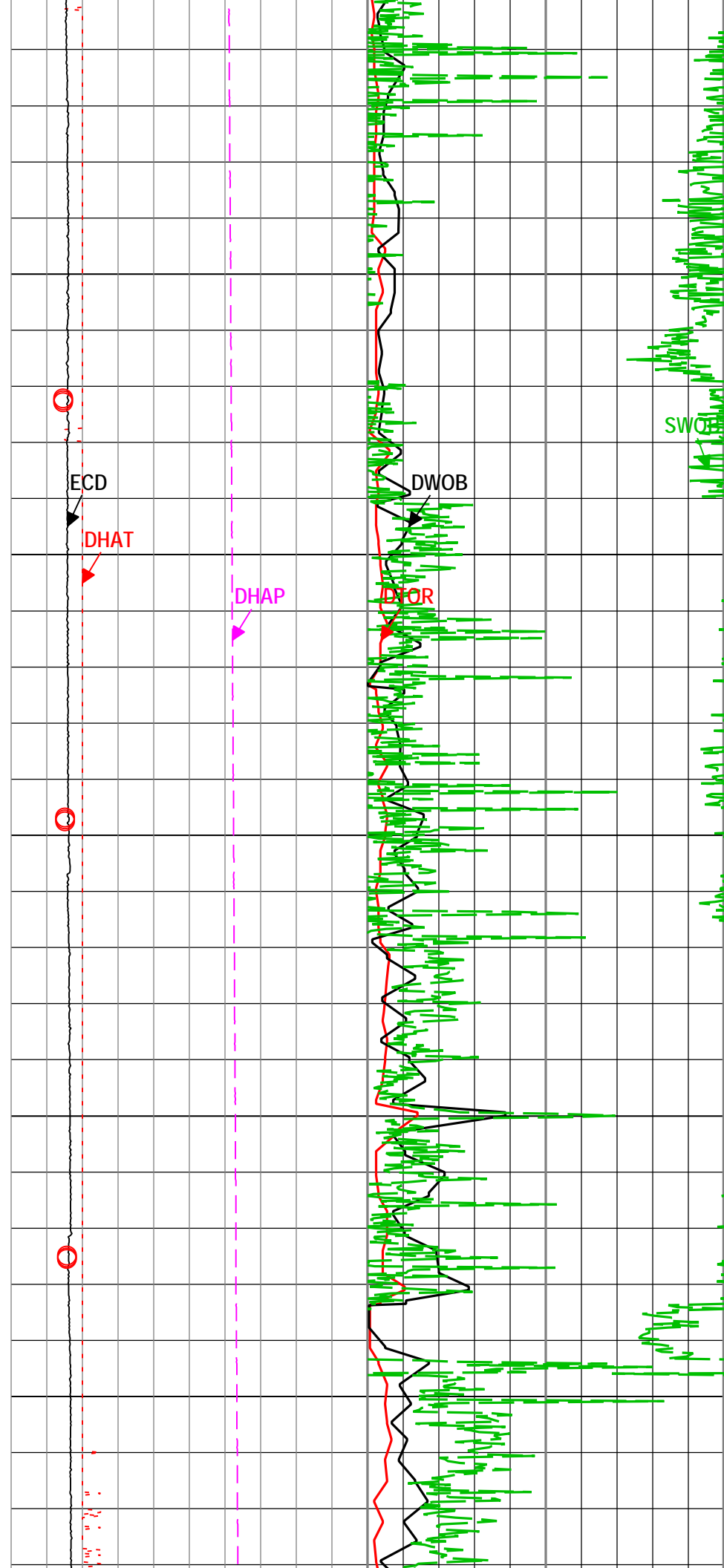
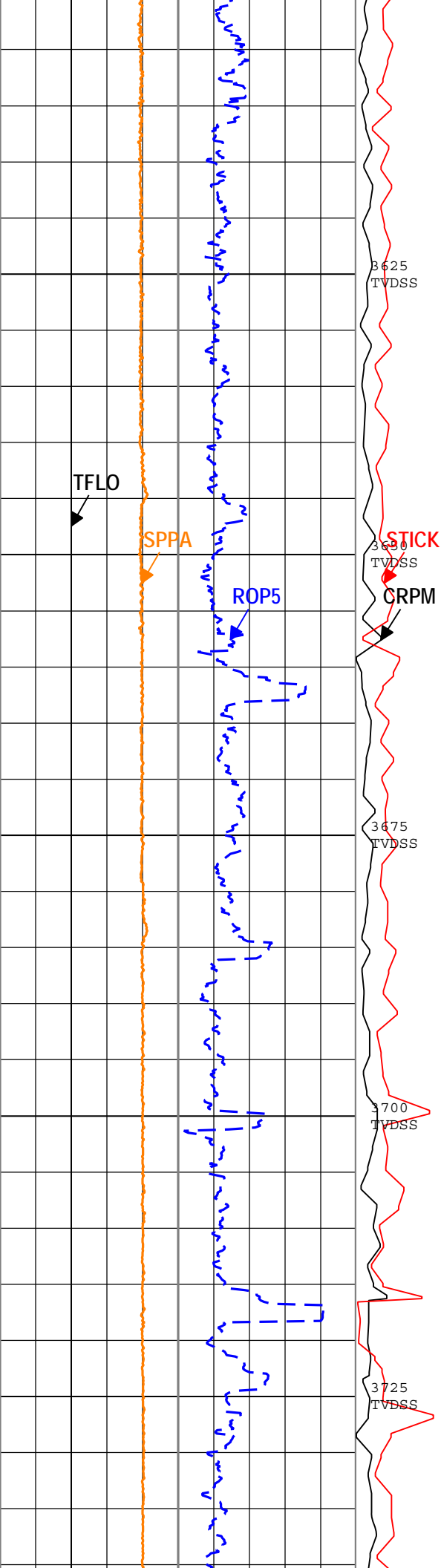
Rate of penetration averaged over the last 5 ft (1.5 m) (ROP5) RT	0	100	0
Standpipe Pressure (SPPA) RT	0	35000	
Total flow rate of all active pumps (TFLO) RT	0	1500	

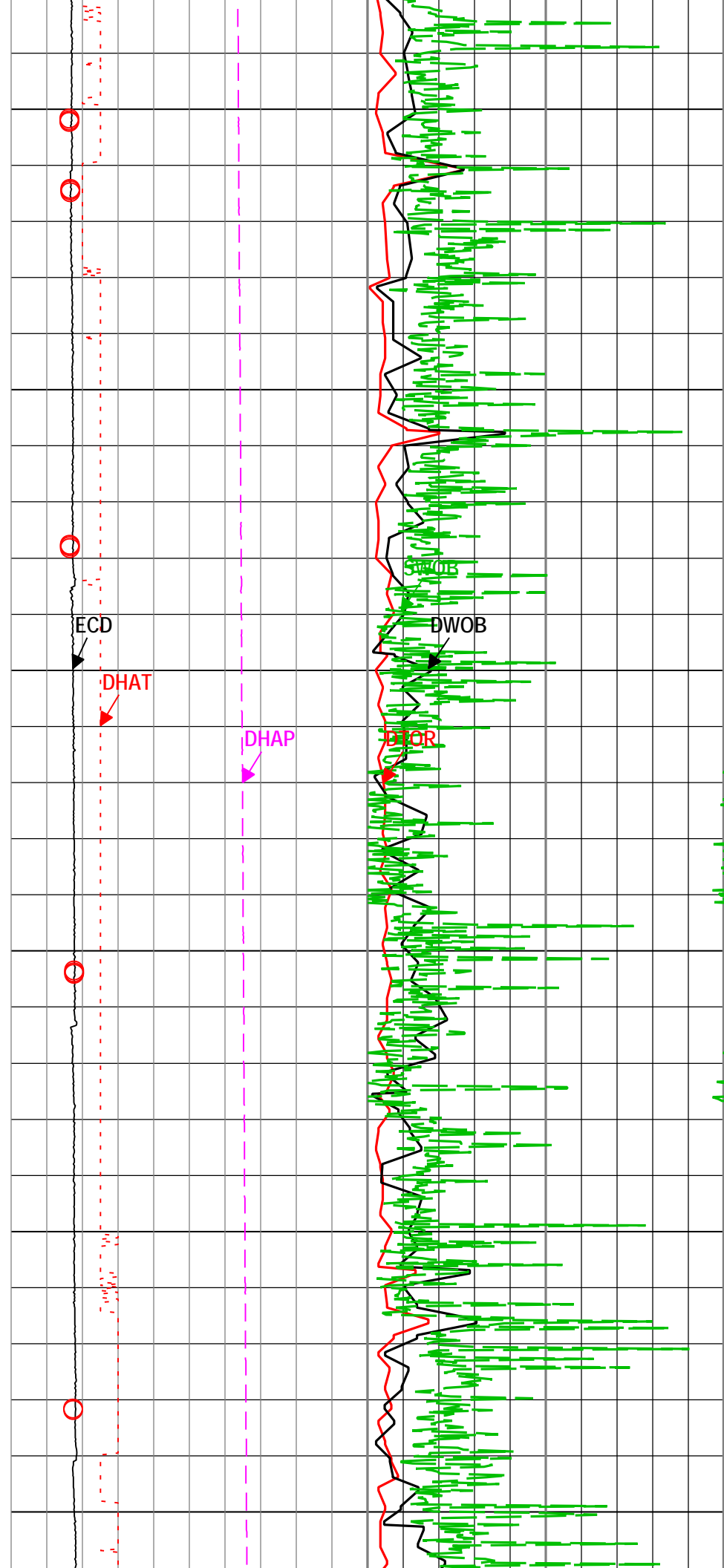
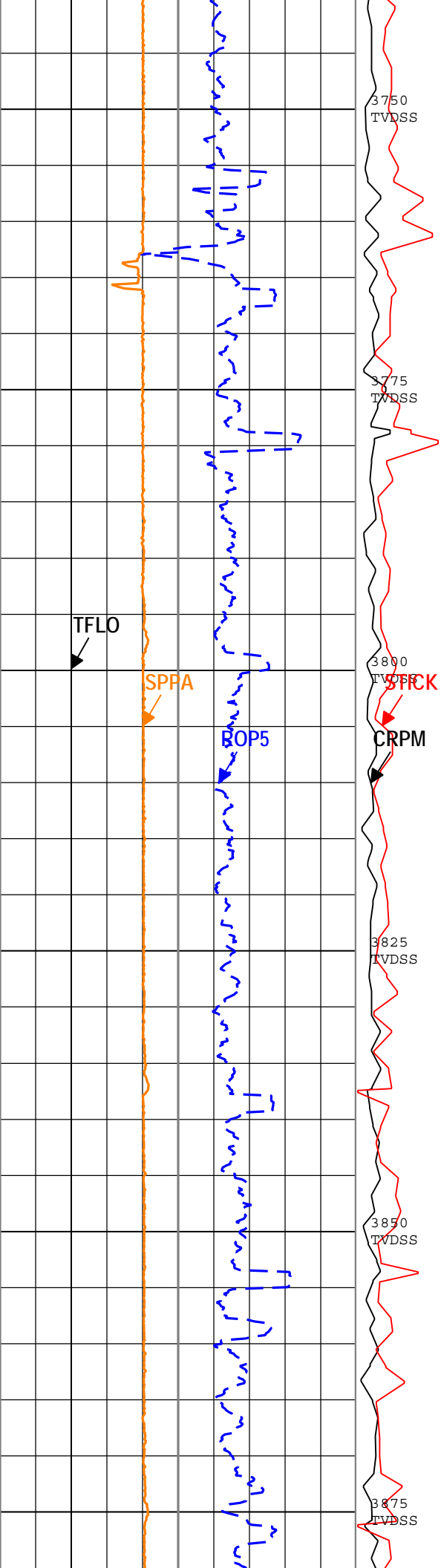
Collar Rotational Speed (CRPM) TELE825-IW OB RT	0	c/min 400
Stick Slip Indicator (STICK) TELE825-IW OB RT	0	c/min 400

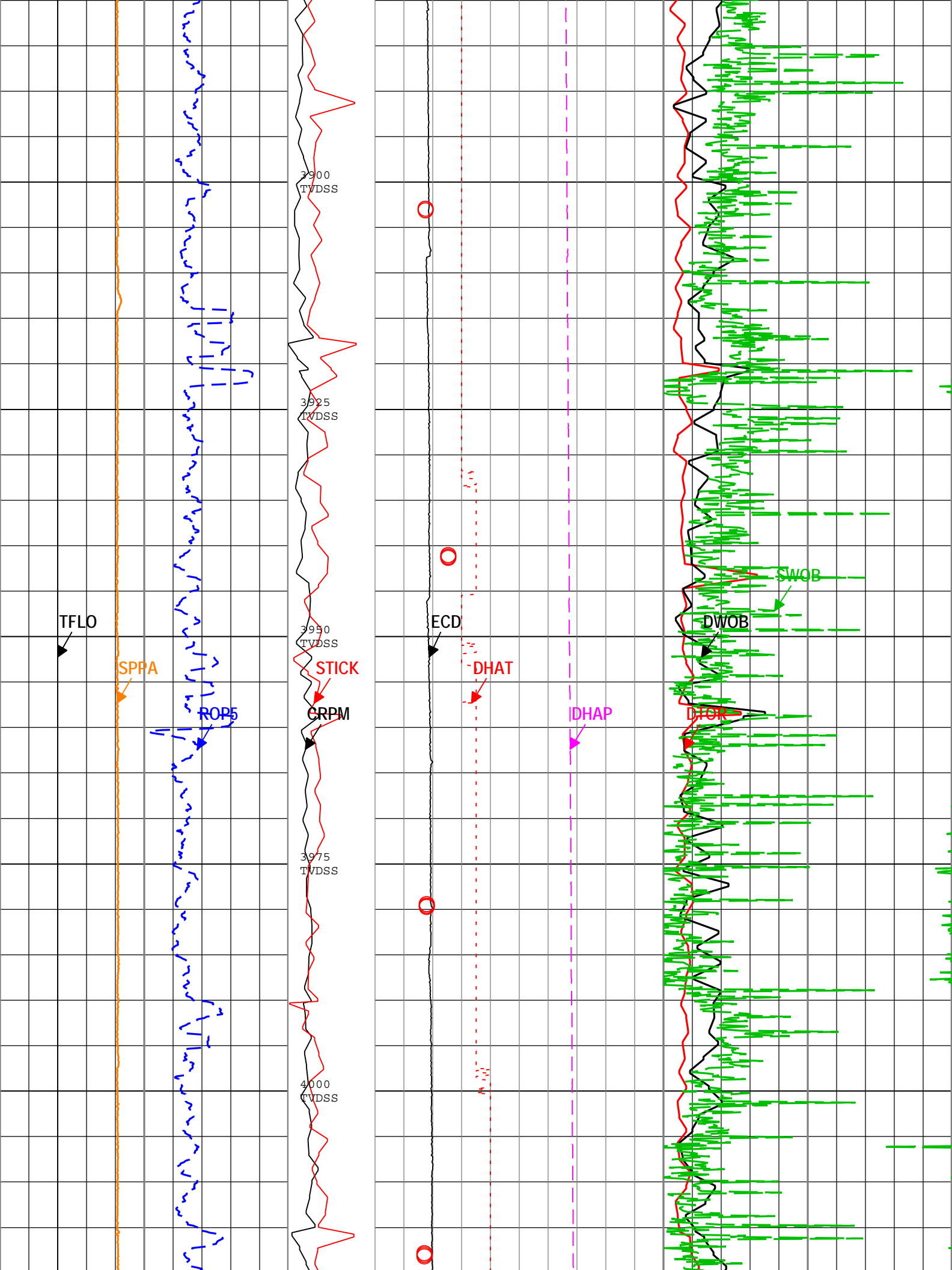
Downhole Annulus Pressure (DHAP) ARC8 RM	0	kPa	60000
Downhole Annulus Temperature (DHAT) ARC8 RM	0	degC	20
Equivalent Circulating Density (ECD) ARC8 RM	1	g/cm3	1.2
Equivalent Static Density (ESD) ARC8 RT	1	g/cm3	1.2

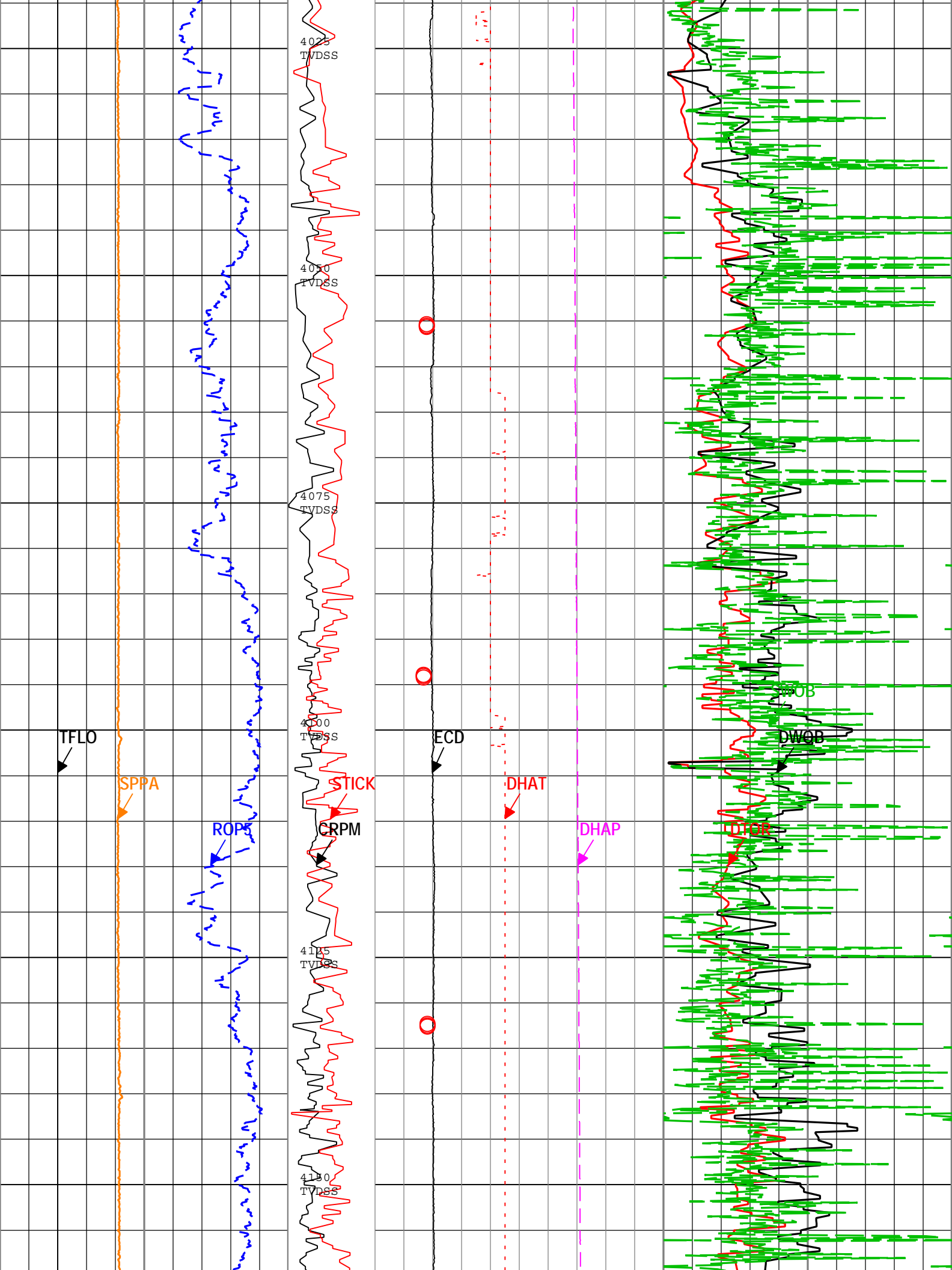
Downhole Torque (MWD) (DTOR) TELE825-IWOB RT	0	kN.m	20
Downhole Weight on Bit (DWOB) TELE825-IWOB RT	0	kN	200
Surface Weight On Bit (SWOB) RT	0	kN	200

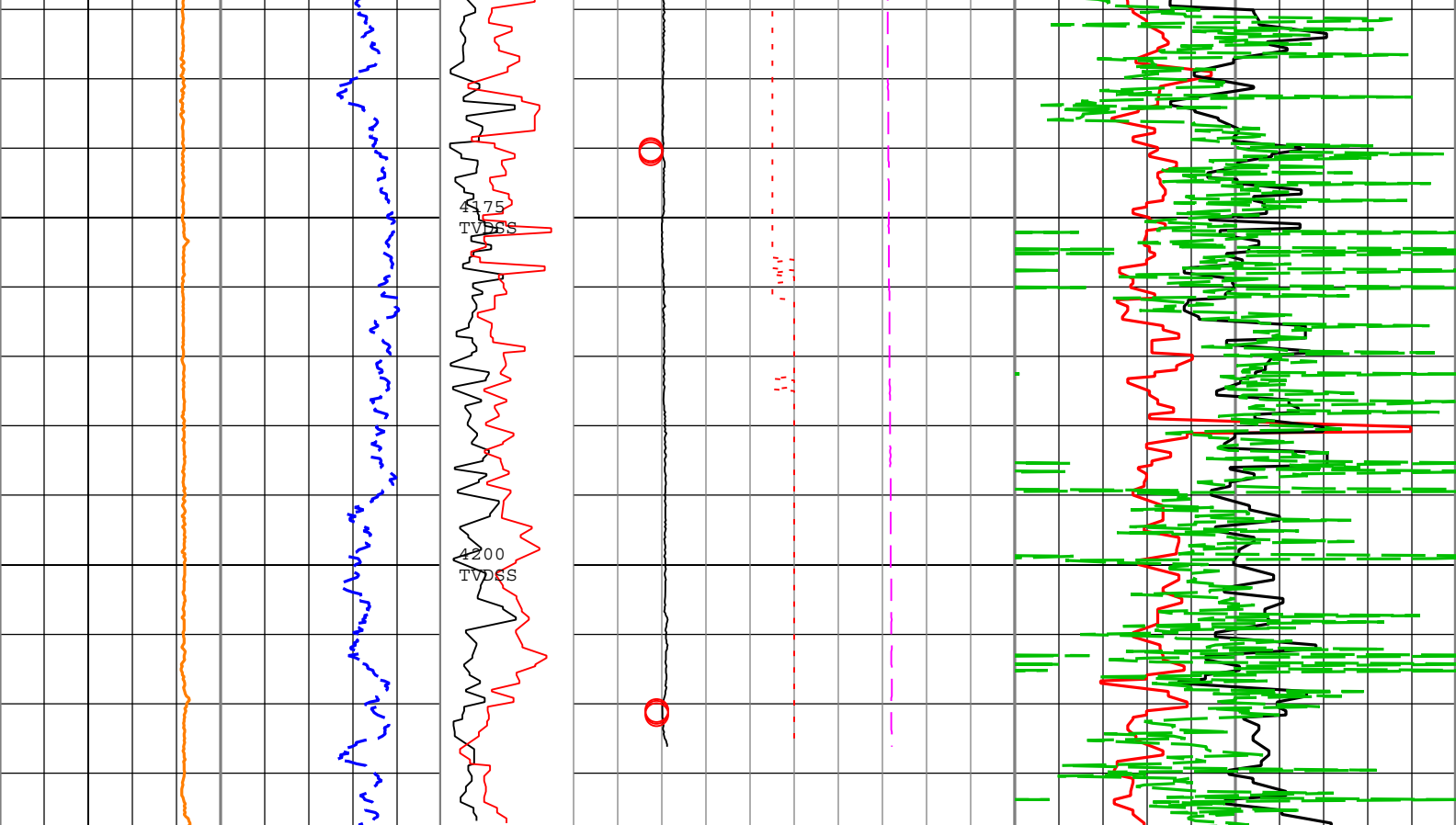












Rate of penetration averaged over the last 5 ft (1.5 m) (ROP5) RT 100 m/h 0	Collar Rotational Speed (CRPM) TELE825-IWOB RT 0 c/min 400	Downhole Annulus Pressure (DHAP) ARC8 RM 0 kPa 60000	Downhole Torque (MWD) (DTOR) TELE825-IWOB RT 0 kN.m 20
Standpipe Pressure (SPPA) RT 0 kPa 35000		Downhole Annulus Temperature (DHAT) ARC8 RM 0 degC 20	Downhole Weight on Bit (DWOB) TELE825-IWOB RT 0 kN 200
Total flow rate of all active pumps (TFLO) RT 500 gal/min 1500	Stick Slip Indicator (STICK) TELE825-IWOB RT 0 c/min 400	Equivalent Circulating Density (ECD) ARC8 RM 1 g/cm3 1.2	Surface Weight On Bit (SWOB) RT 0 kN 200
		Equivalent Static Density (ESD) ARC8 RT 1 g/cm3 1.2	

Description: Format: Log (DML Depth RM) Index Scale: 1:500 Index Unit: m Index Type: SSTVD Creation Date: 08-Dec-2012 12:14:33

Calibration Report

RAB8 (GeoVision Resistivity 825) Calibration - Run 002

Primary Equipment :		
Electronics Chassis	RBEC	865

M21V - Resistivity

Master (Time Frame File): 04:11:41 23-Nov-2012	
Measurement	Unit
Monitor 2 at T1 Calibration Coefficient	Master
1.00000	0.90000
1.02224	1.20000

M22V - Resistivity

Master (Time Frame File): 04:11:41 23-Nov-2012	
Measurement	Unit
Monitor 2 at T2 Calibration Coefficient	Master
1.00000	0.90000
0.99342	1.20000

M01V - Resistivity

Master (Time Frame File): 04:11:41 23-Nov-2012	
Measurement	Unit
Monitor 0 at T1 Calibration Coefficient	Master
1.00000	0.90000
1.05380	1.20000

M02V - Resistivity

Master (Time Frame File): 04:11:41 23-Nov-2012	
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Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Master (Time Frame File):	04:11:41 23-Nov-2012						
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Monitor 0 at T2 Calibration Coefficient		Master	1.00000	0.90000	1.04467	1.20000	
R1V - Resistivity							
Master (Time Frame File):	04:11:41 23-Nov-2012						
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Ring at T1 Calibration Coefficient		Master	0.01000	0.00950	0.01096	0.01250	
R2V - Resistivity							
Master (Time Frame File):	04:11:41 23-Nov-2012						
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Ring at T2 Calibration Coefficient		Master	0.01000	0.00950	0.01097	0.01250	
BDM1 - Resistivity							
Master (Time Frame File):	04:11:41 23-Nov-2012						
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Button Deep at T1 Calibration Coefficient		Master	0.00067	0.00057	0.00066	0.00077	
BDM2 - Resistivity							
Master (Time Frame File):	04:11:41 23-Nov-2012						
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Button Deep at T2 Calibration Coefficient		Master	0.00067	0.00057	0.00066	0.00077	
BMM1 - Resistivity							
Master (Time Frame File):	04:11:41 23-Nov-2012						
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Button Medium at T1 Calibration Coefficient		Master	0.00067	0.00057	0.00069	0.00077	
BMM2 - Resistivity							
Master (Time Frame File):	04:11:41 23-Nov-2012						
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Button Medium at T2 Calibration Coefficient		Master	0.00067	0.00057	0.00069	0.00077	
BSM1 - Resistivity							
Master (Time Frame File):	04:11:41 23-Nov-2012						
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Button Shallow at T1 Calibration Coefficient		Master	0.00067	0.00057	0.00067	0.00077	
BSM2 - Resistivity							
Master (Time Frame File):	04:11:41 23-Nov-2012						
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Button Shallow at T2 Calibration Coefficient		Master	0.00067	0.00057	0.00067	0.00077	
PGR - Gamma Ray: Blanket							
Master (Time Frame File):	02:46:22 23-Nov-2012						
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Gamma Ray API Conversion Factor		Master	8.5500	6.5000	10.2700	10.6000	

Company: JAMSTEC
Well: C0012H
Field: Nankai Trough - Kumano Basin
Rig Name: Chikyu
Prefecture: Wakayama
Country: Japan



geoVISION - sonicVISION - APWD

Schlumberger

Gamma Ray - Resistivity - Image - Compressional - APWD

12.25in Recorded Mode Log. True Vertical Depth Sub Sea 1:500

