geoVISION Resistivity Image - APWD

Gamma Ray - Resistivity - Image - APWD

8.5in Recorded Mode Log. True Vertical Depth
1:200

Schlumberger

Company:	JAMSTEC
Well:	C0019B
Field:	Japan Trench - Miyagi Offshore
Rig Name:	Chikyu
State:	Miyagi
Country:	Japan

Latitude:	37° 56' 20.2" N	Job Number:	12JAP0004
Longitude:	143° 54' 48.6" E	Rig Name:	Chikyu
Block:		Rig Type:	Drill Vessel

FL:	Japan Trench
FL1:	X= 756 050.70 m
FL2:	Y=4 202 595.11 m

Log Measured From: - Drill Floor: 28.50 m
Permanent Datum: - Mean Sea Level
Ground Level: 6889.50 m

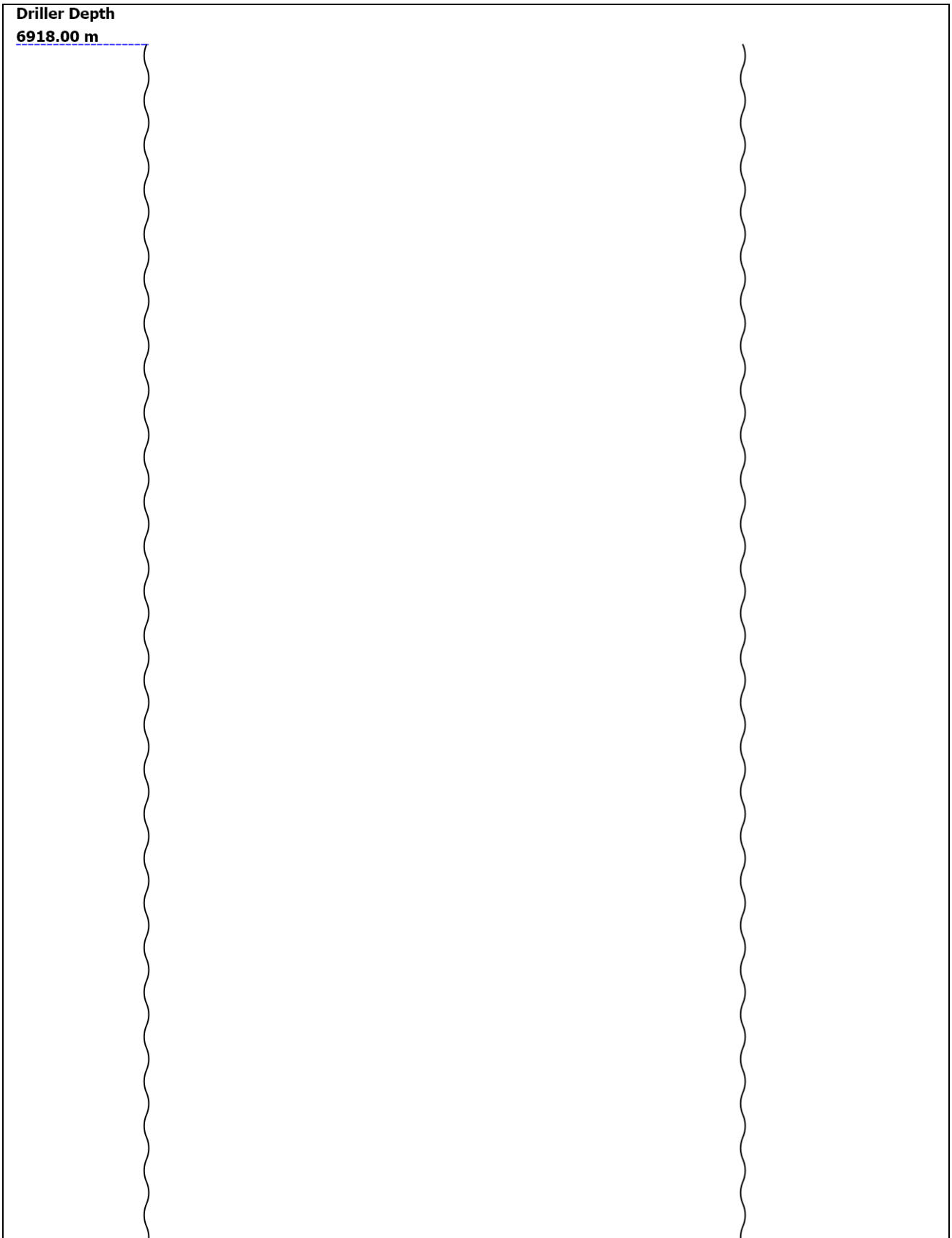
Acquisition Dates:	21-Apr-2012 — 26-Apr-2012	Other Services:
Log Interval:	6910.00(m) — 7766.36(m)	Direction and Inclination
Index Types:	True Vertical Depth	Drilling Mechanics
Index Scales:	1:200	
Depth Source:	Driller's Depth	
Depth Sensor:	DES	
Print Type:	Final	
Spud Date:	21-Apr-2012	

Country: Japan
State: Miyagi
Rig Name: Chikyu
Field: Japan Trench - Miyagi Offshore
Well: C0019B
Company: JAMSTEC

Disclaimer

Contents

Well Sketch



Borehole Size/Casing Record

Bit						
Bit Size (in)	8.5					
Top Driller (m)	6918					
Bottom Driller (m)	7768.5					

Operational Run Summary

Parameter (unit)	Run1					
Date Log Started	21-Apr-2012					
Time Log Started	17:04:57					
Date Log Finished	26-Apr-2012					
Time Log Finished	20:21:59					
Bit Size (in)	8.500					
Bit Start Depth (m)	6918.00					
Bit Stop Depth (m)	7768.50					
Top Log Interval (m)	6918.00					
Bottom Log Interval (m)	7767.58					
Max Hole Deviation (deg)	8.27					
Azimuth of Max Deviation (deg)	355.55					
Logging Unit Number	OLU-KC-504					
Logging Unit Location	Comp Deck					
Recorded By	Wang Feng Chen Fei Fei Yue Zhi Liang					
Witnessed By	Yukari Kido Yoshi Sanada					
Service Order Number	12JAP0004					

Borehole Fluids

Parameter(unit)	Run1					
Fluid Type	Water					
Max Recorded Temperatures (degC)	12					
Source of Sample	Active Tank					
Salinity (ppm)	38908.95					
Density (g/cm3)	1.04					
Funnel Viscosity (s)						

Fluid Loss (cm3)						
PH						
Source RMF						
RMC						
RM @ Meas Temp (ohm.m@degC)	0.29 @ 2					
RMF @ Meas Temp (ohm.m@degC)						
RMC @ Meas Temp (ohm.m@degC)						
RM @ BHT (ohm.m@degC)	0.2 @ 12					
RMF @ BHT (ohm.m@degC)						
RMC @ BHT (ohm.m@degC)						
Total Solid (%)						
High Gravity Solids (%)						

Remarks and Equipment Summary

Run1: Toolstring

Equip name	Length	MP name	Offset
Stab: 6 3/4" :OSS050860 B	28.75	Schlumberger	
NMDC: 6 3/4 ":SBD7365	27.00	Schlumberger	
TELE675:48 376	18.88	Schlumberger	

Run1: Remarks

Data presented is Recorded Mode data which was acquired while drilling.

Depth reference is driller's depth measured from Rotary Table.

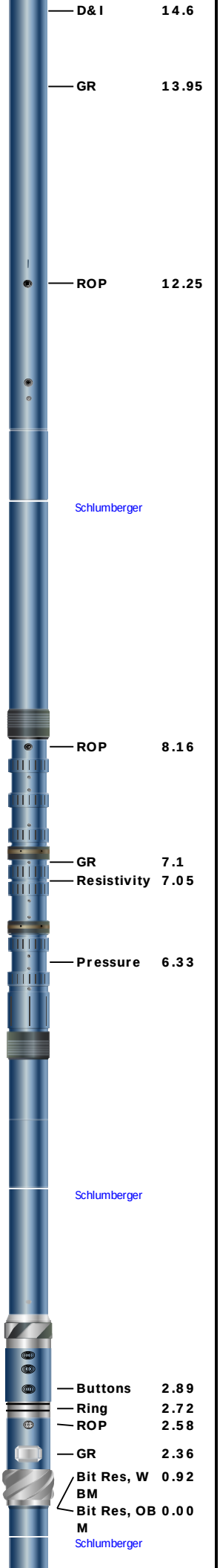
geoVISION record rate is 10s, arcVISION record rate is 10s.

geoVISION GR is corrected for bit size, tool size and mud weight. No potassium in mud.

geoVISION resistivity is environmentally corrected for bit size and mud resistivity.

Drill Time: 31.24 hrs

Pump Time: 66.20 hrs



ARC6:1100 10.44 Schlumberger

RAB6:42045 4.67 Schlumberger

X/O: 6 3/4" :604 1.6 Schlumberger

Lengths are in m
Maximum Outer Diameter = 8.500 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 :	1.79 deg		

Rig Location

Latitude :	37° 56' 20.2" N	Longitude :	143° 54' 48.6" 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 - Run1

Geomagnetic Model :	BGGM 2011	Geomagnetic Date :	22-Apr-2012
Computed Location B :	46518.57 nT +/- 300.00nT	Used Location B :	46518.57 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 :	51.40 deg +/- 0.45deg	Used Magnetic Dip :	51.40 deg +/- 0.45deg
Computed Magnetic Dec :	-7.20 deg	Used Magnetic Dec :	-7.20 deg
Computed Total Correction :	-8.99 deg	Used Total Correction :	-8.99 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
11 : Secondary Tie-In Point

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	6918.00	0.00	0.00	6918.00	6918.00	0.00	0.00	0.00	0.00	90.00	0.00	Other	9	0	11
3	6938.55	2.22	312.85	20.55	6938.54	0.27	0.27	-0.29	0.40	312.85	3.24	TeleScope	4	0	0
4	6966.78	1.82	332.41	28.23	6966.76	1.04	1.04	-0.90	1.37	319.11	0.84	TeleScope	4	0	0
5	6995.50	1.85	345.24	28.72	6995.46	1.89	1.89	-1.23	2.25	326.99	0.43	TeleScope	4	0	0
6	7022.98	1.76	339.12	27.48	7022.93	2.71	2.71	-1.49	3.09	331.20	0.23	TeleScope	4	0	0
7	7051.92	1.77	333.90	28.94	7051.86	3.53	3.53	-1.85	3.98	332.38	0.17	TeleScope	2	0	0
8	7080.68	1.62	338.38	28.76	7080.60	4.30	4.30	-2.19	4.83	333.03	0.21	TeleScope	4	0	0
9	7109.40	1.86	338.50	28.72	7109.31	5.12	5.12	-2.51	5.70	333.85	0.25	TeleScope	2	0	0
10	7136.77	1.91	341.57	27.36	7136.66	5.96	5.96	-2.82	6.60	334.70	0.12	TeleScope	4	0	0
11	7165.72	2.17	340.63	28.95	7165.59	6.94	6.94	-3.15	7.62	335.56	0.26	TeleScope	4	0	0
12	7175.39	2.05	341.72	9.68	7175.26	7.28	7.28	-3.27	7.98	335.81	0.37	TeleScope	4	0	0
13	7203.75	1.99	344.25	28.35	7203.60	8.23	8.23	-3.56	8.97	336.61	0.11	TeleScope	4	0	0
14	7232.01	1.99	347.59	28.26	7231.84	9.18	9.18	-3.80	9.94	337.52	0.12	TeleScope	4	0	0
15	7260.73	2.07	345.02	28.72	7260.54	10.17	10.17	-4.04	10.95	338.33	0.13	TeleScope	2	0	0
16	7288.34	2.04	349.09	27.61	7288.14	11.14	11.14	-4.26	11.93	339.05	0.16	TeleScope	4	0	0
17	7320.29	2.17	352.55	31.95	7320.07	12.30	12.30	-4.45	13.08	340.11	0.17	TeleScope	4	0	0
18	7352.73	2.49	346.92	32.44	7352.48	13.59	13.59	-4.69	14.38	340.97	0.36	TeleScope	4	0	0
19	7381.26	2.64	347.72	28.53	7380.98	14.84	14.84	-4.97	15.64	341.48	0.17	TeleScope	2	0	0
20	7409.62	2.92	349.68	28.36	7409.31	16.18	16.18	-5.24	17.01	342.07	0.31	TeleScope	4	0	0
21	7438.21	2.93	349.53	28.68	7437.96	17.60	17.60	-5.51	18.53	342.69	0.33	TeleScope	4	0	0

21	7438.31	3.22	349.53	28.68	7437.96	17.69	17.69	-5.51	18.53	342.69	0.32	TeleScope	4	0	0
22	7466.67	3.65	347.08	28.36	7466.26	19.36	19.36	-5.86	20.23	343.16	0.48	TeleScope	2	0	0
23	7476.58	3.90	351.72	9.91	7476.15	20.00	20.00	-5.98	20.87	343.35	1.20	TeleScope	4	0	0
24	7504.90	4.22	351.85	28.32	7504.40	21.98	21.98	-6.27	22.86	344.09	0.33	TeleScope	4	0	0
25	7532.49	4.65	352.75	27.60	7531.92	24.10	24.10	-6.55	24.97	344.79	0.48	TeleScope	4	0	0
26	7561.25	4.92	355.71	28.76	7560.58	26.48	26.48	-6.79	27.34	345.62	0.39	TeleScope	2	0	0
27	7588.98	5.48	352.73	27.73	7588.19	28.98	28.98	-7.05	29.83	346.33	0.67	TeleScope	2	0	0
28	7621.71	5.96	355.13	32.73	7620.75	32.23	32.23	-7.39	33.06	347.09	0.49	TeleScope	4	0	0
29	7627.56	6.03	356.23	5.85	7626.57	32.83	32.83	-7.43	33.67	347.24	0.69	TeleScope	4	0	0
30	7656.14	6.31	352.35	28.58	7654.99	35.89	35.89	-7.74	36.72	347.83	0.53	TeleScope	4	0	0
31	7684.97	7.11	354.55	28.83	7683.62	39.24	39.24	-8.12	40.07	348.30	0.87	TeleScope	2	0	0
32	7713.15	7.62	354.47	28.18	7711.57	42.83	42.83	-8.47	43.66	348.82	0.55	TeleScope	4	0	0
33	7741.26	8.27	355.55	28.11	7739.41	46.70	46.70	-8.80	47.52	349.32	0.71	TeleScope	2	0	0

Run1

Integration Summary

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

Software Version

Acquisition System	Version
MaxWell	3.0.9609.0
Application Patch	SP-20120409-3.0.9609.1919

Computation	Description	Version
RAB6GR	RAB6 Gamma Ray Computation Package for both Real-time and Recorded Mode	3.0.9609.1373
RAB6Res	RAB6 Resistivity Computation Package for both Real-time and Recorded Mode	3.0.9609.1373
ARC6Pressure	ARC6 Pressure Computation Package for both Real-time and Recorded Mode	3.0.9609.0

Tool Elements	Description	Software Version	Firmware Version
RBEC	Electronics Chassis Assembly for RAB6-C	3.0.9609.1373	V8.5B
DRILLING_SURFACE	DRILLING_SURFACE	3.0.9609.1373	
APWD	APWD Sensor 25 kpsi	3.0.9609.0	V9.5B

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	Include Parallel Data
Run1	Drilling	Down	6899.71 m	7768.31 m	21-Apr-2012 5:04:57 PM	26-Apr-2012 8:21:59 PM	true

All depths are referenced to toolstring zero

Log

Run1: Drilling 0171927D-C22B-449A-BF7F-37C8F1B668EB

Description: GVR Resistivity, Deep Button Image Format: Log (JFAST RM GVR+APWD TVD Digital) Index Scale: 1:200 Index Unit: m Index Type: TVD
Creation Date: 11-May-2012 18:16:14

Channel	Source	Sampling
DHAP	ARC6:ARC6	6in - RM
DHAT	ARC6:ARC6	6in - RM
ECD	ARC6:ARC6:APWD	6in - RM
GR	RAB6:RAB6:RBEC	6in - RM
RES_BD	RAB6:RAB6:RBEC	1.2in - RM
RES_BIT	RAB6:RAB6:RBEC	1.2in - RM
RES_BM	RAB6:RAB6:RBEC	1.2in - RM
RES_BS	RAB6:RAB6:RBEC	1.2in - RM
RES_RING	RAB6:RAB6:RBEC	1.2in - RM
ROP5	DRILLING_SURFACE	6in - RT
RPM	RAB6:RAB6	1.2in - RM

TAB_RES_RING RAB6:RAB6:RBEC 6in

Ring Resistivity Time After Bit (TAB_RES_RING) RAB6
0 h 10

Rate of penetration averaged over the last 5 ft (1.5 m) (ROP5) RT
100 m/h 0

Gamma Ray (GR) RAB6 RM
0 gAPI 150

Downhole Annulus Pressure (DHAP) ARC6 RM
70000 kPa 85000

Downhole Annulus Temperature (DHAT) ARC6 RM
0 degC 20

Equivalent Circulating Density (ECD) ARC6 RM
1 g/cm3 1.1

Rotational Speed (RPM) RAB6 RM
0 c/min 200

N E S W N
Orientation: North Azimuth
Absent 0.122 0.286 0.449 0.613 0.776 0.940 1.103 1.267 1.431 1.594 1.758 1.921 2.085 2.248 2.412
Static Linear Normalization
RAB - Deep Button Resistivity Image RAB6 RM (ohm.m)

Bit Resistivity (RES_BIT) RAB6 RM
0.1 ohm.m 10

Ring Resistivity (RES_RING) RAB6 RM
0.1 ohm.m 10

Deep Button Resistivity (RES_BD) RAB6 RM
0.1 ohm.m 10

Medium Button Resistivity (RES_BM) RAB6 RM
0.1 ohm.m 10

Shallow Button Resistivity (RES_BS) RAB6 RM
0.1 ohm.m 10

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6920 tvd
6925 tvd
6930 tvd
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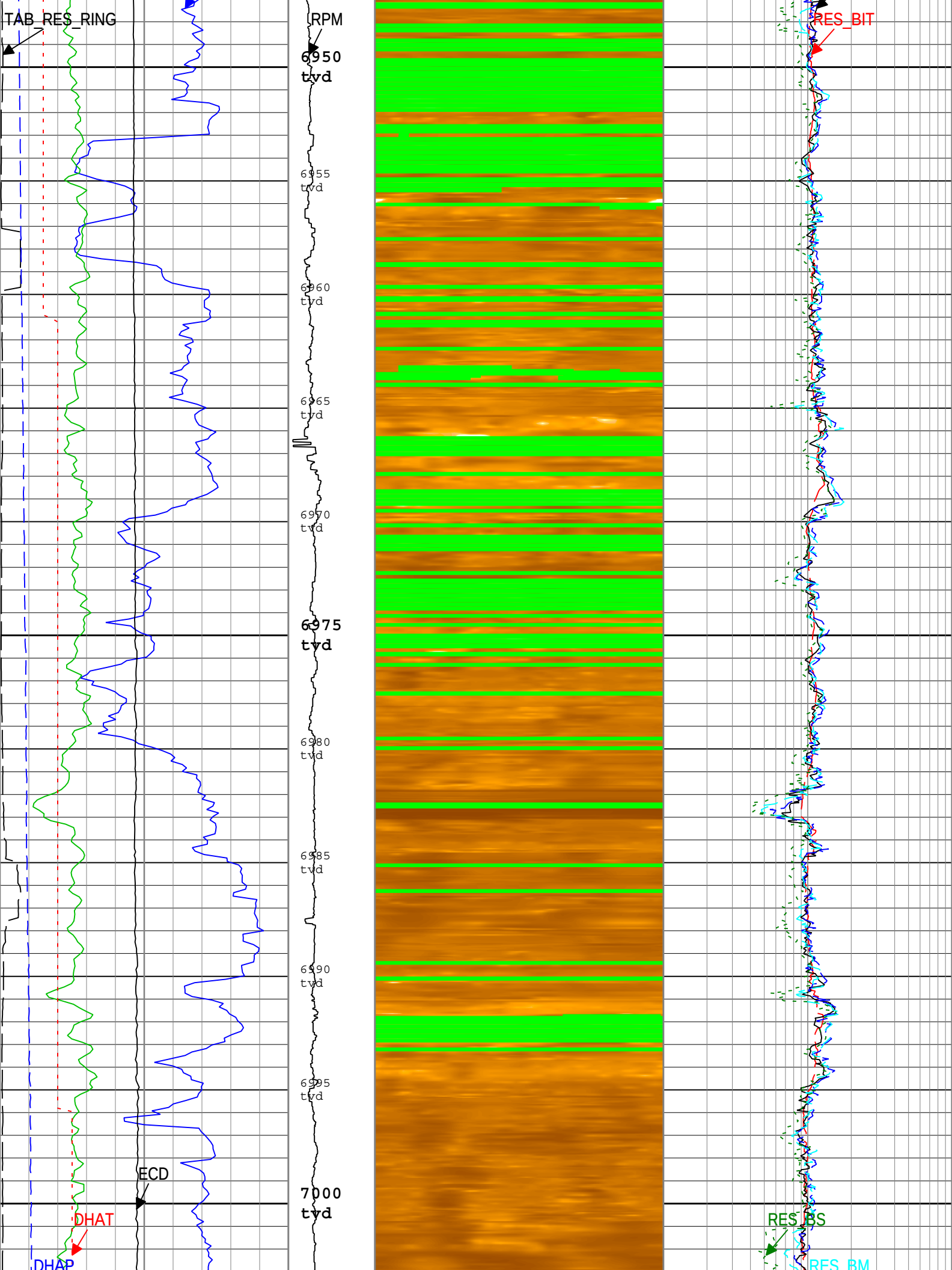
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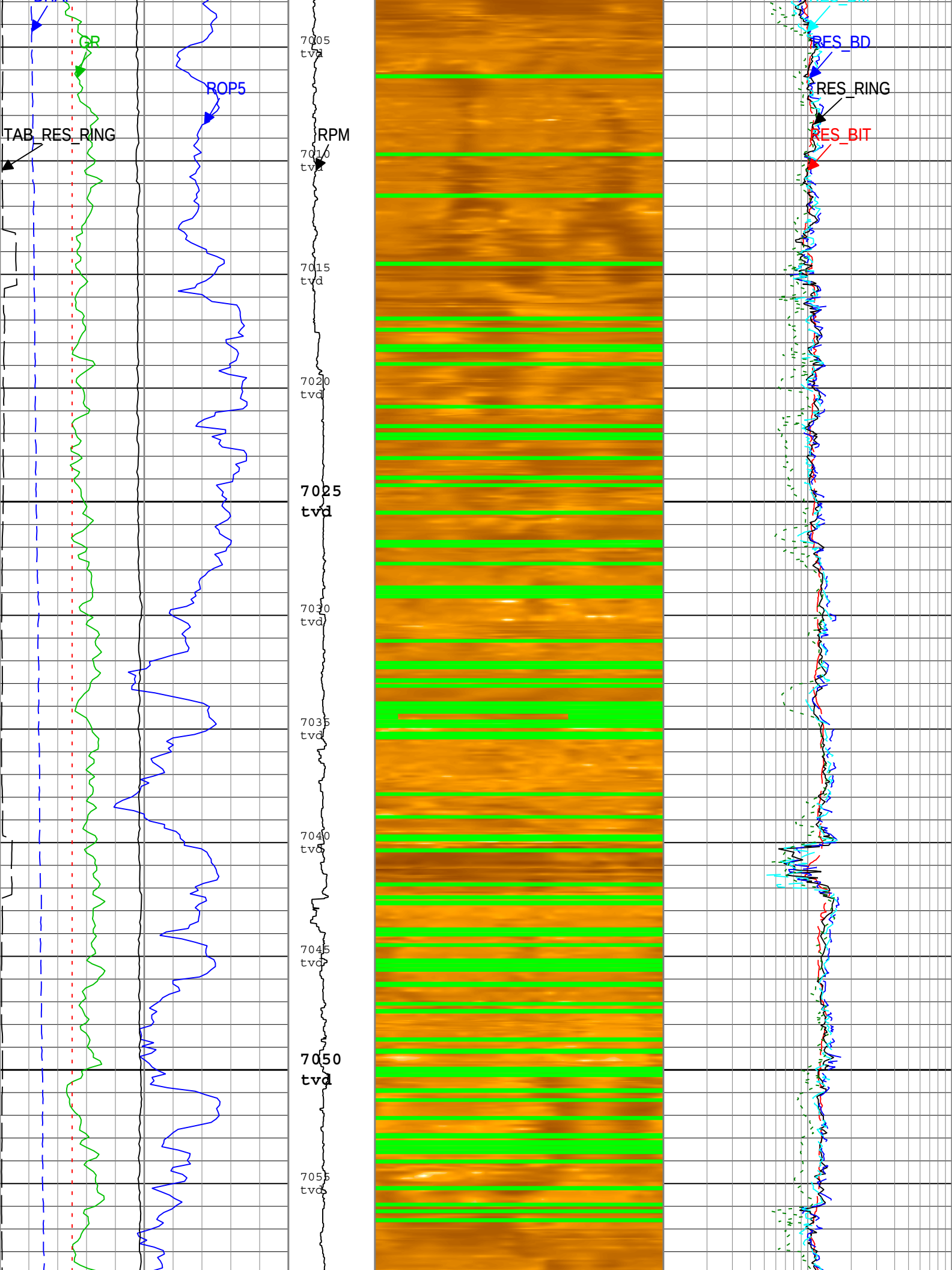
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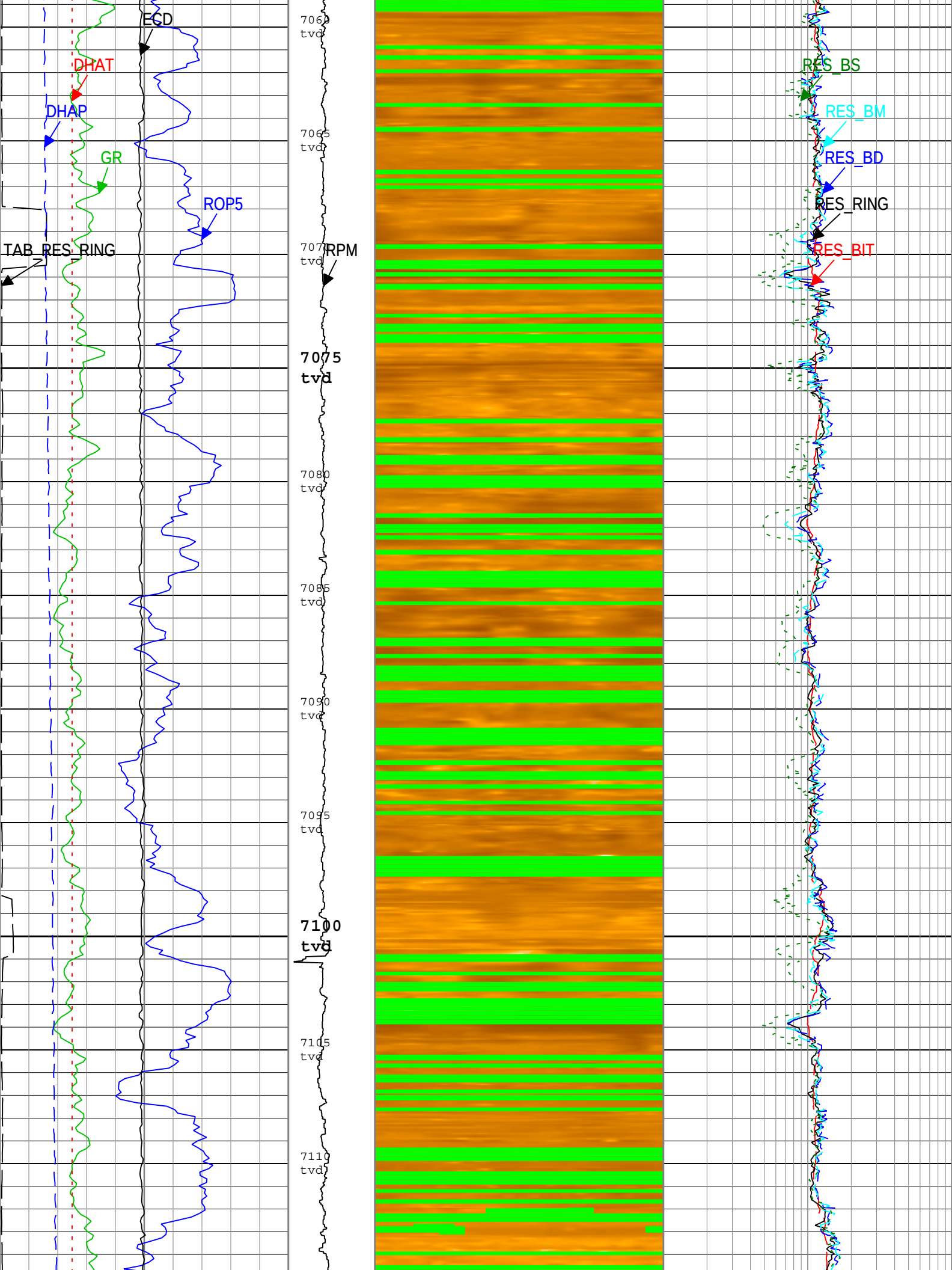
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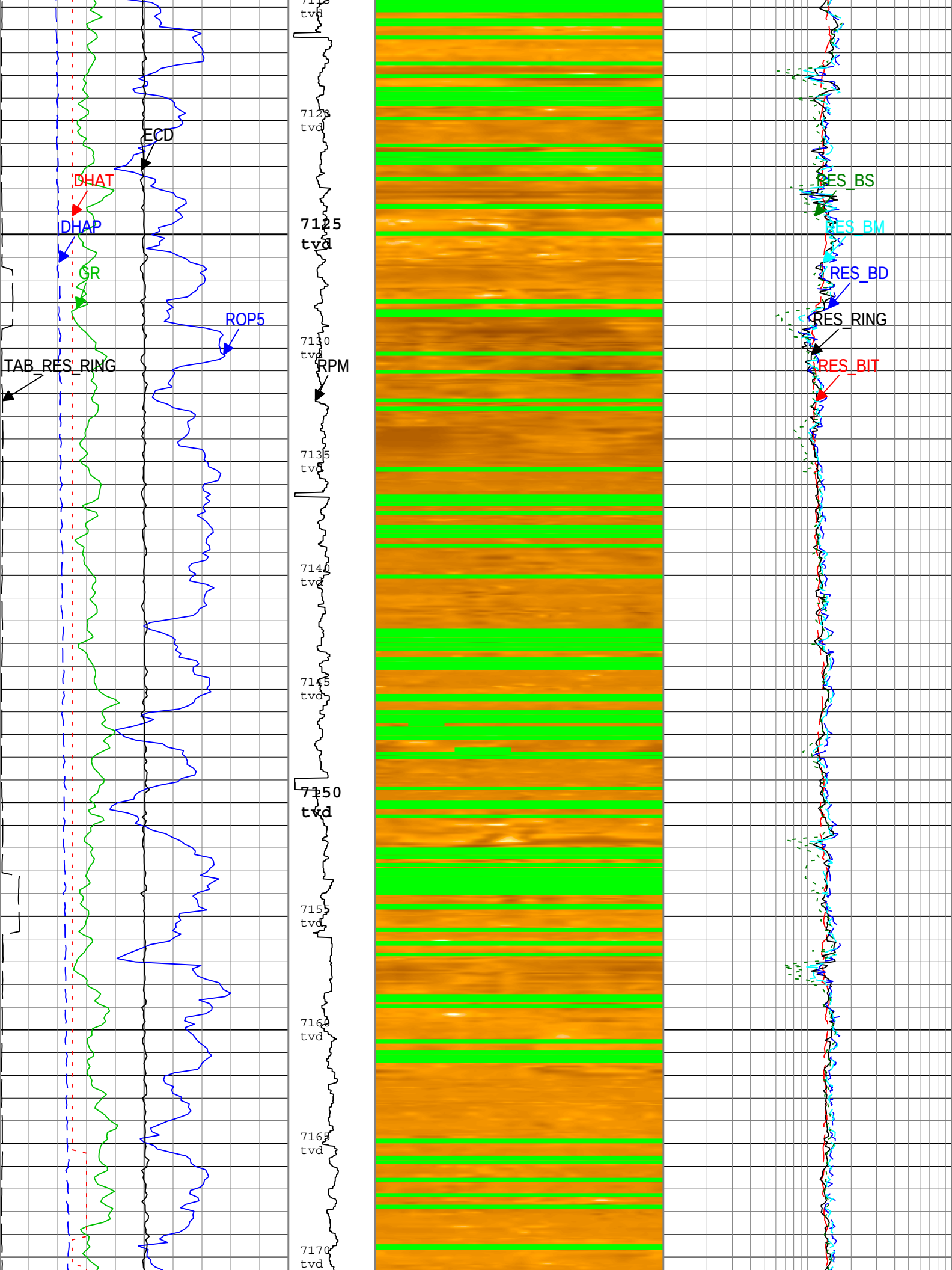
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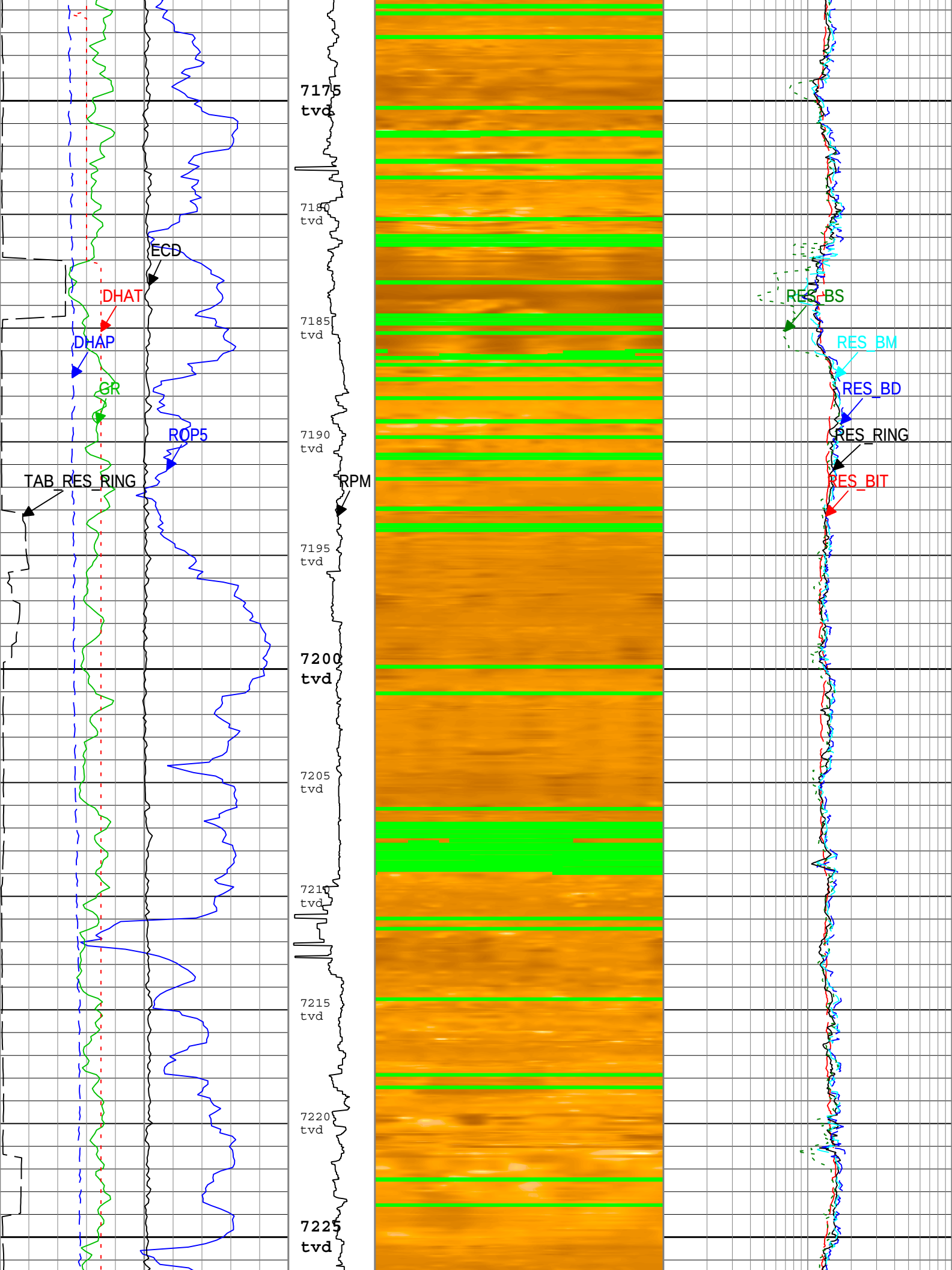
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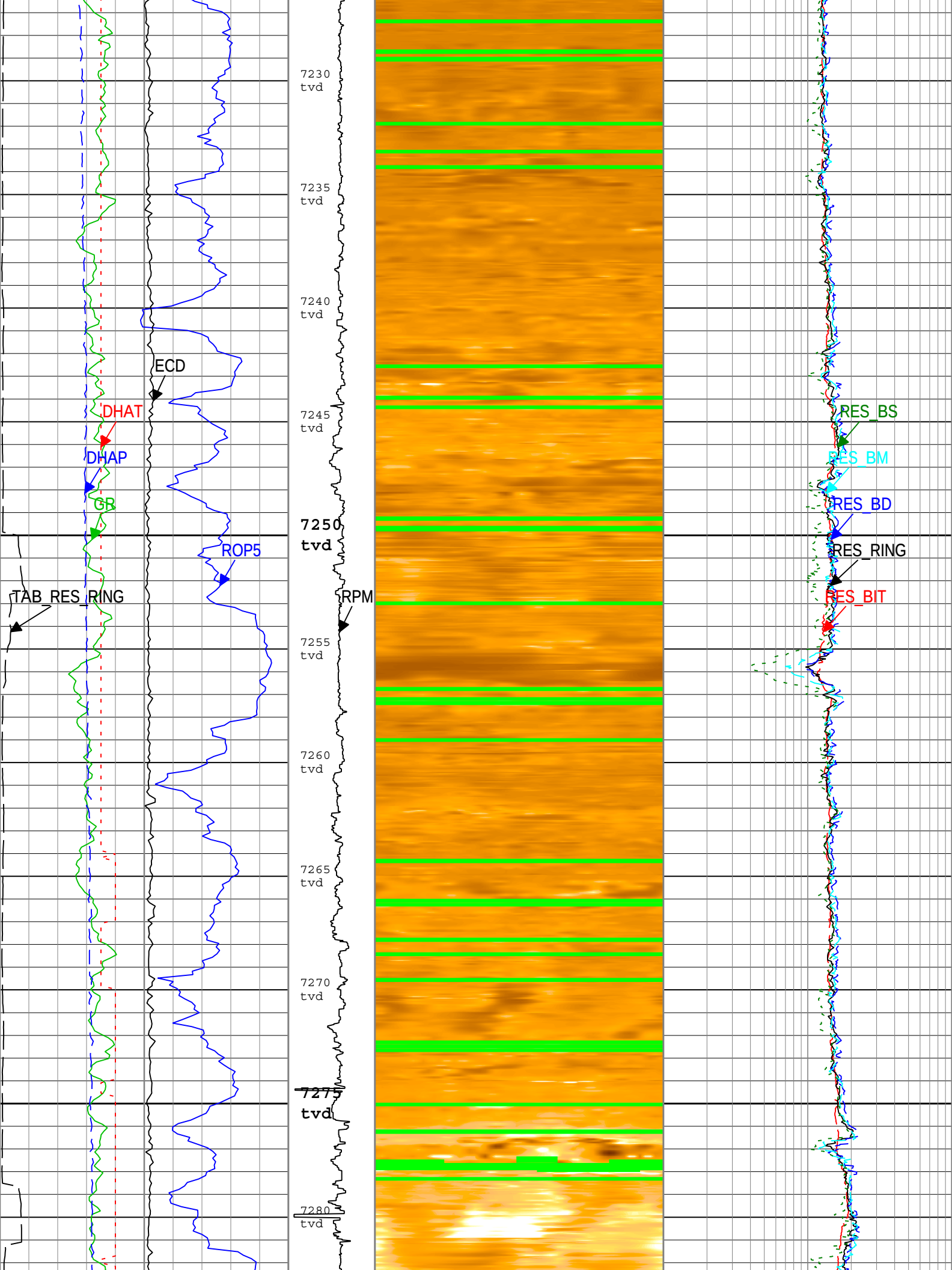
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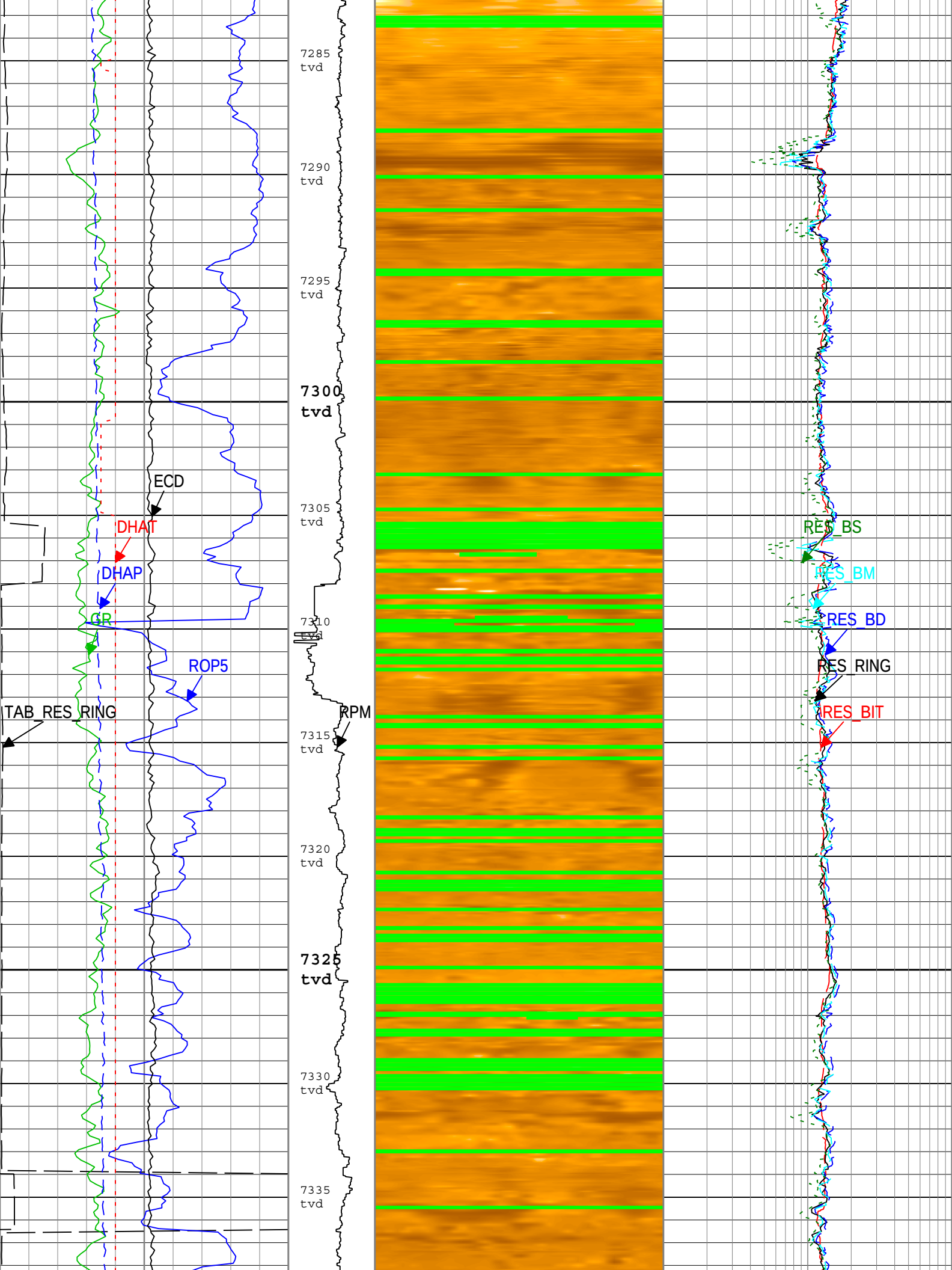
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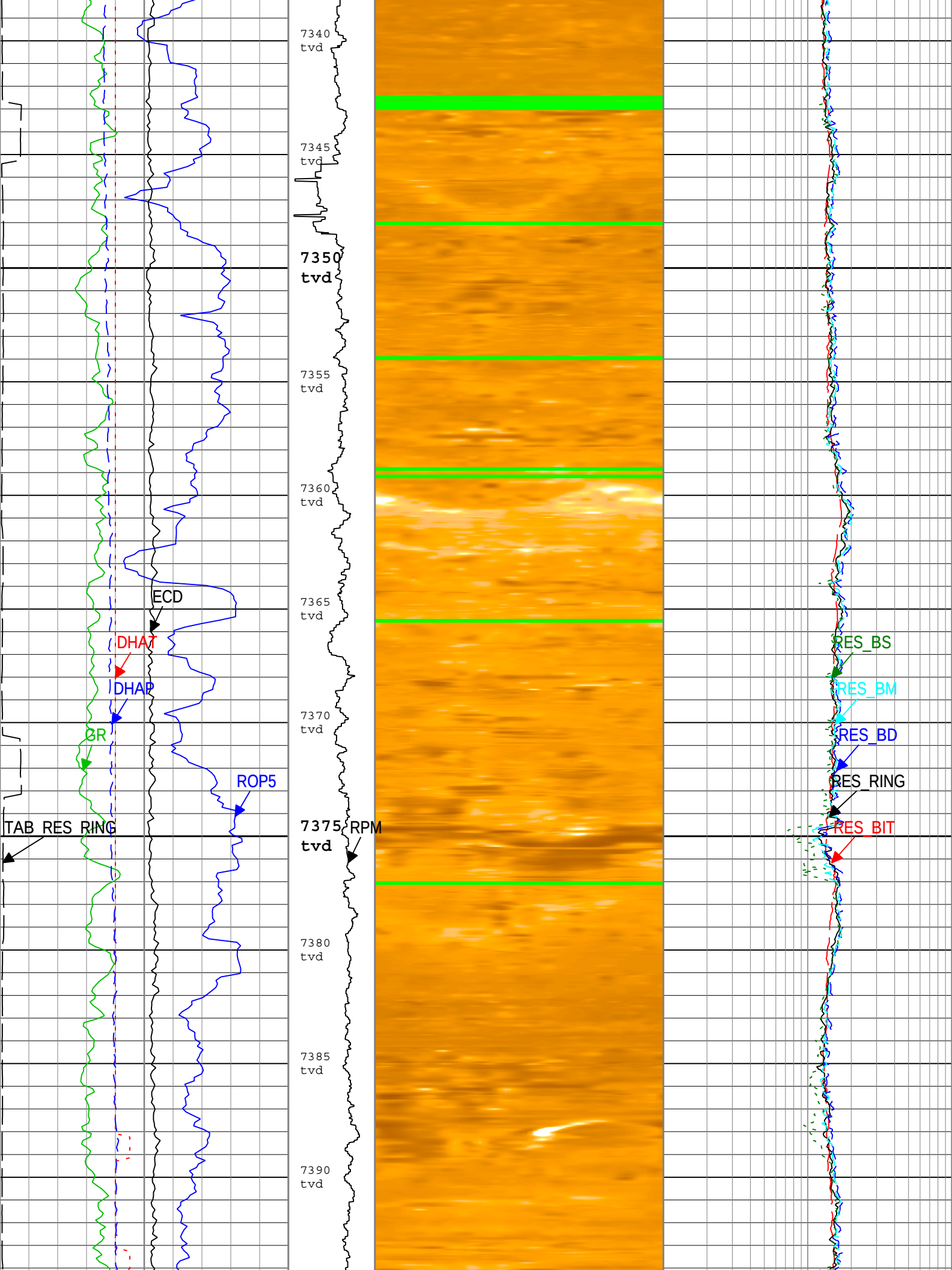
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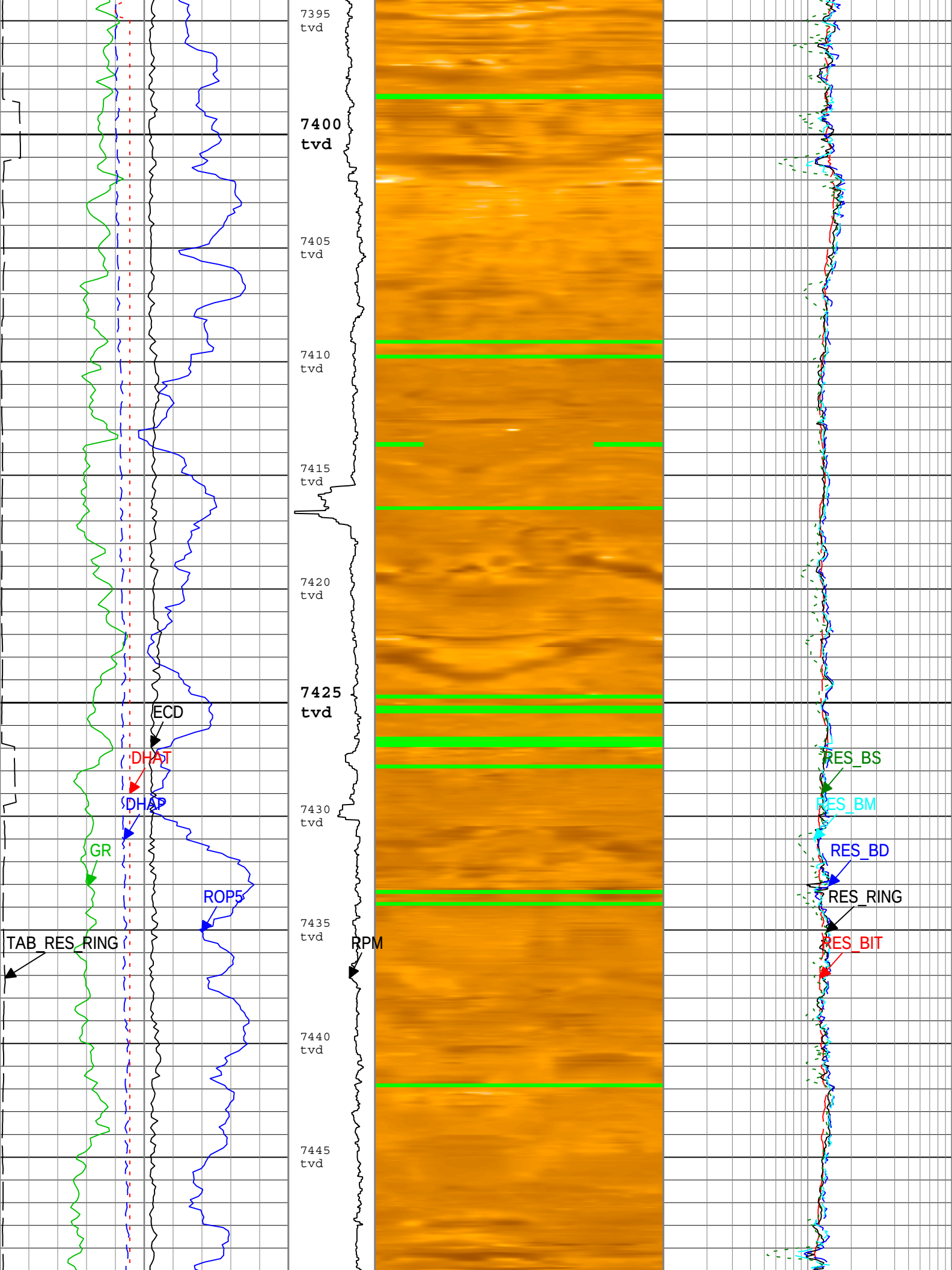
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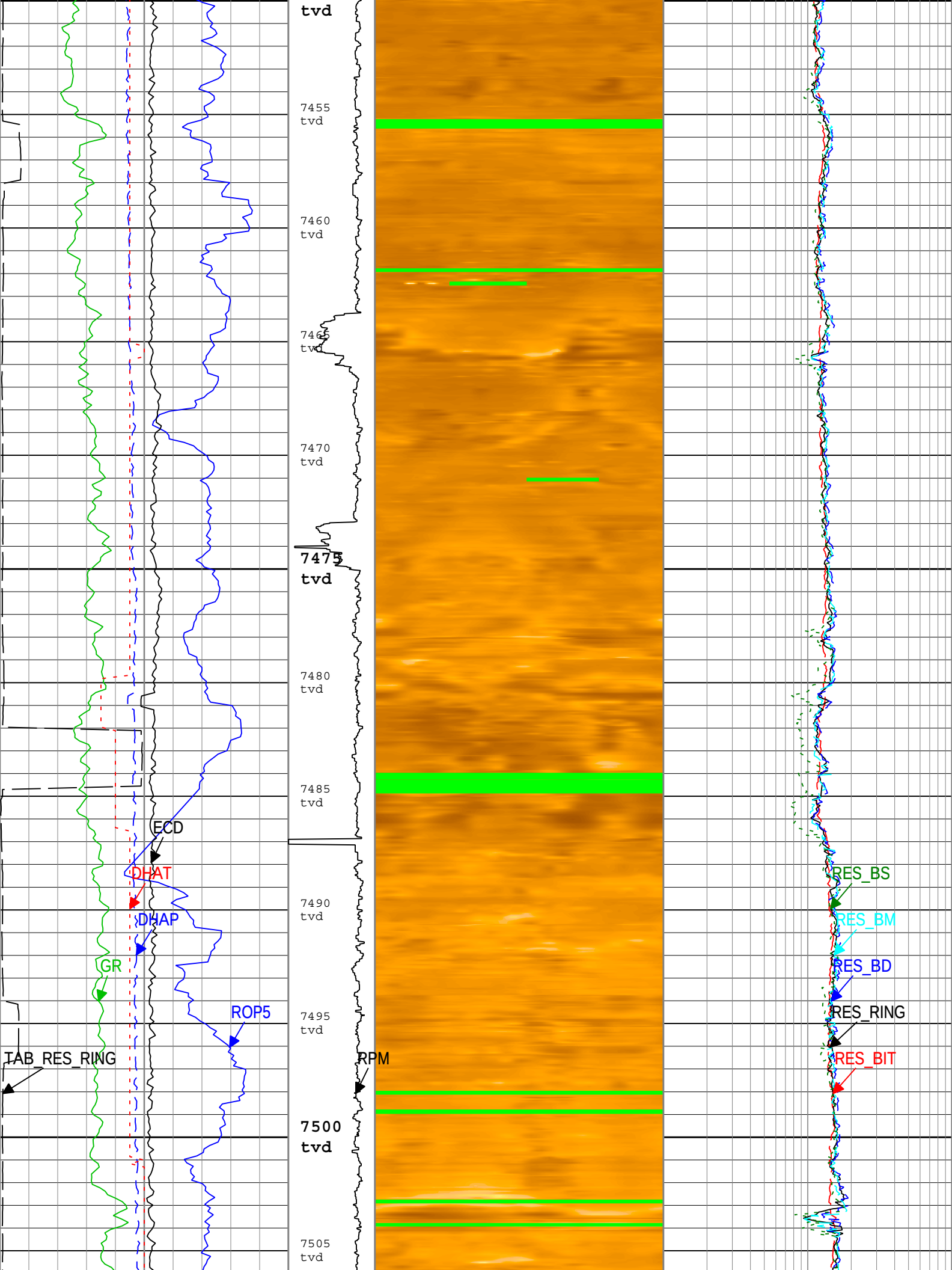
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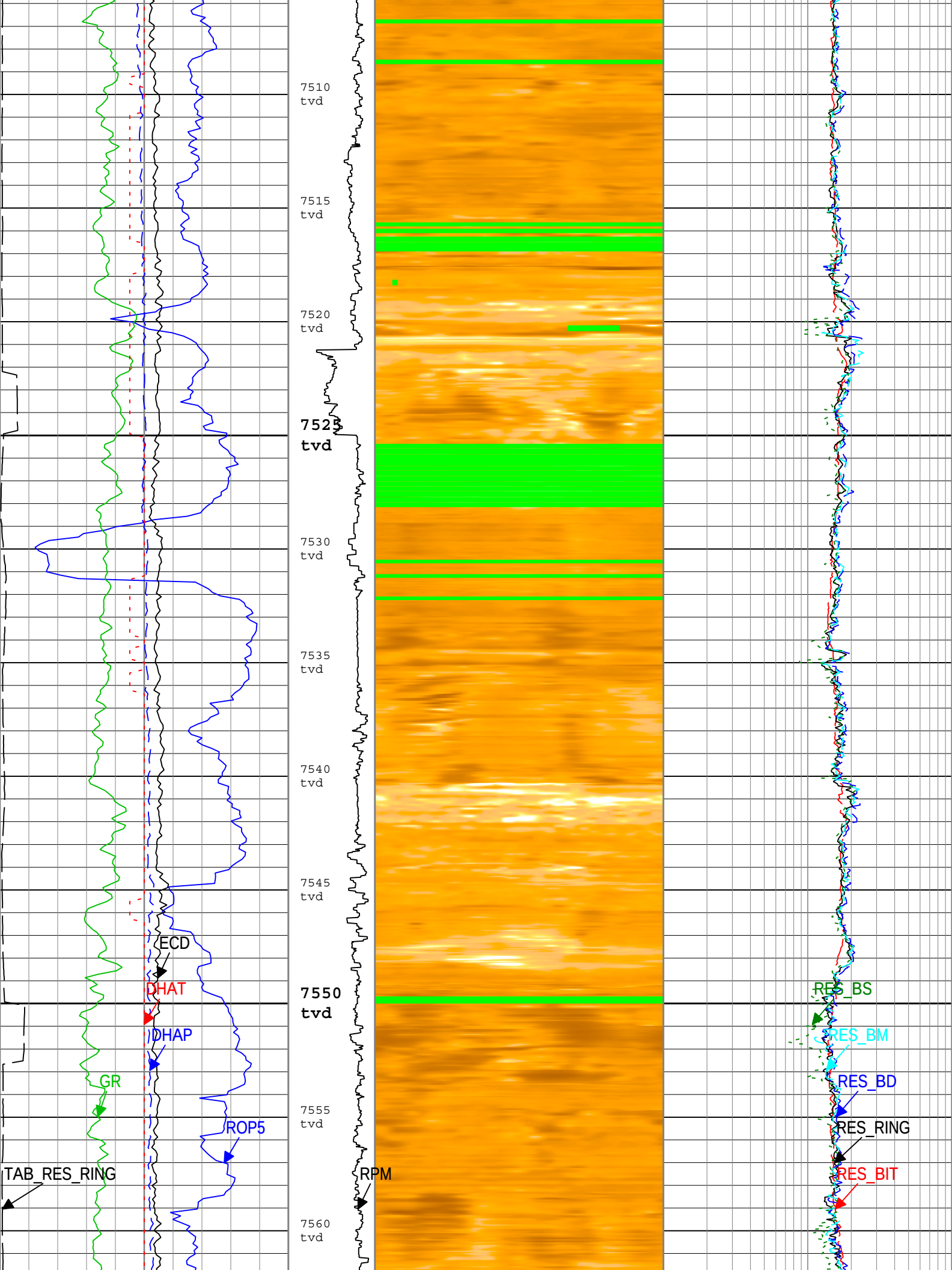
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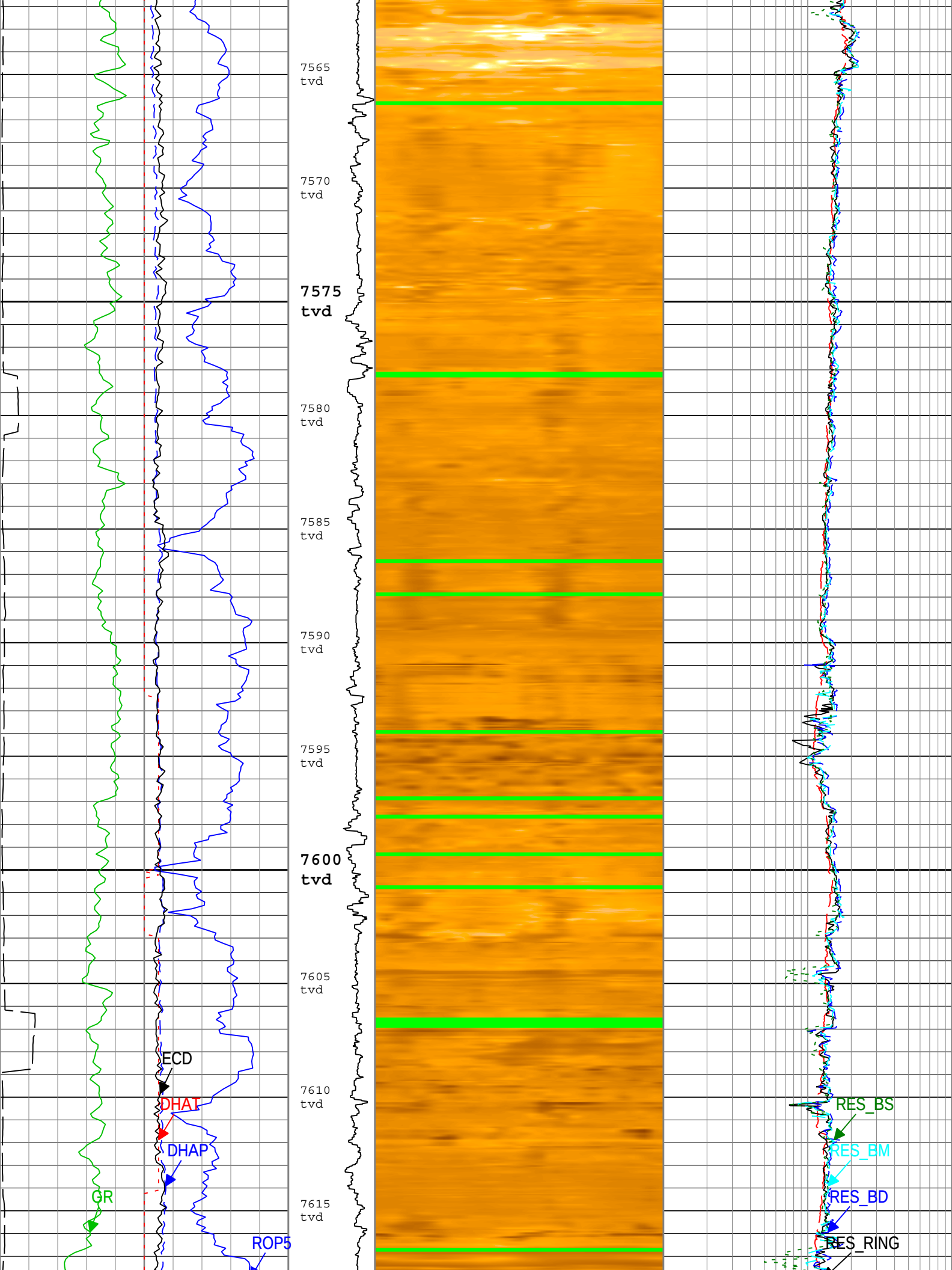
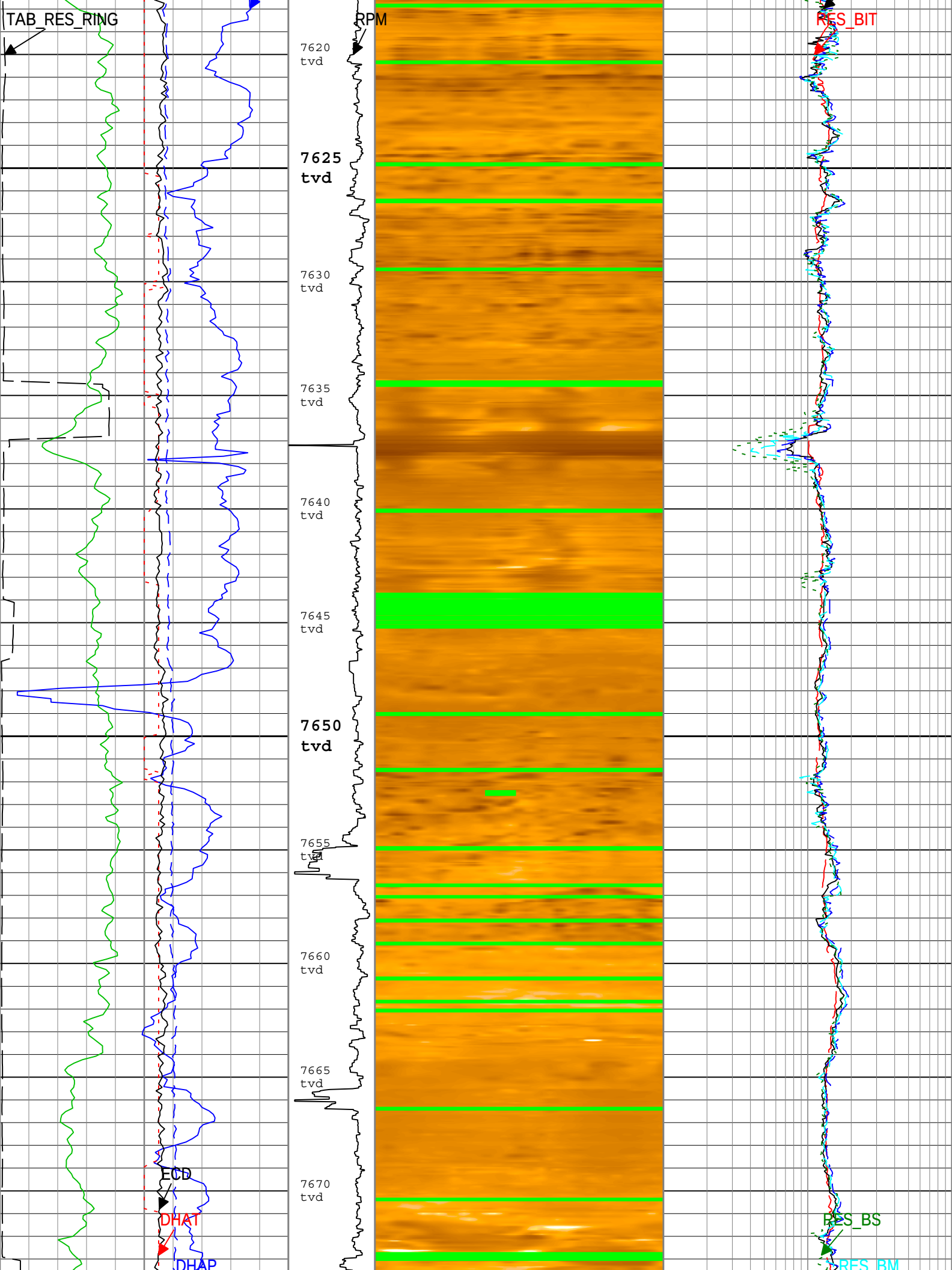
RES_BIT


7565
tvd
7570
tvd
7575
tvd
7580
tvd
7585
tvd
7590
tvd
7595
tvd
7600
tvd
7605
tvd
7610
tvd
7615
tvd
ECD
DHAT
DHAP
GR
ROP5
RES_BS
RES_BM
RES_BD
RES_RING


TAB_RES_RING
RPM
RES_BIT
7620
tvd
7625
tvd
7630
tvd
7635
tvd
7640
tvd
7645
tvd
7650
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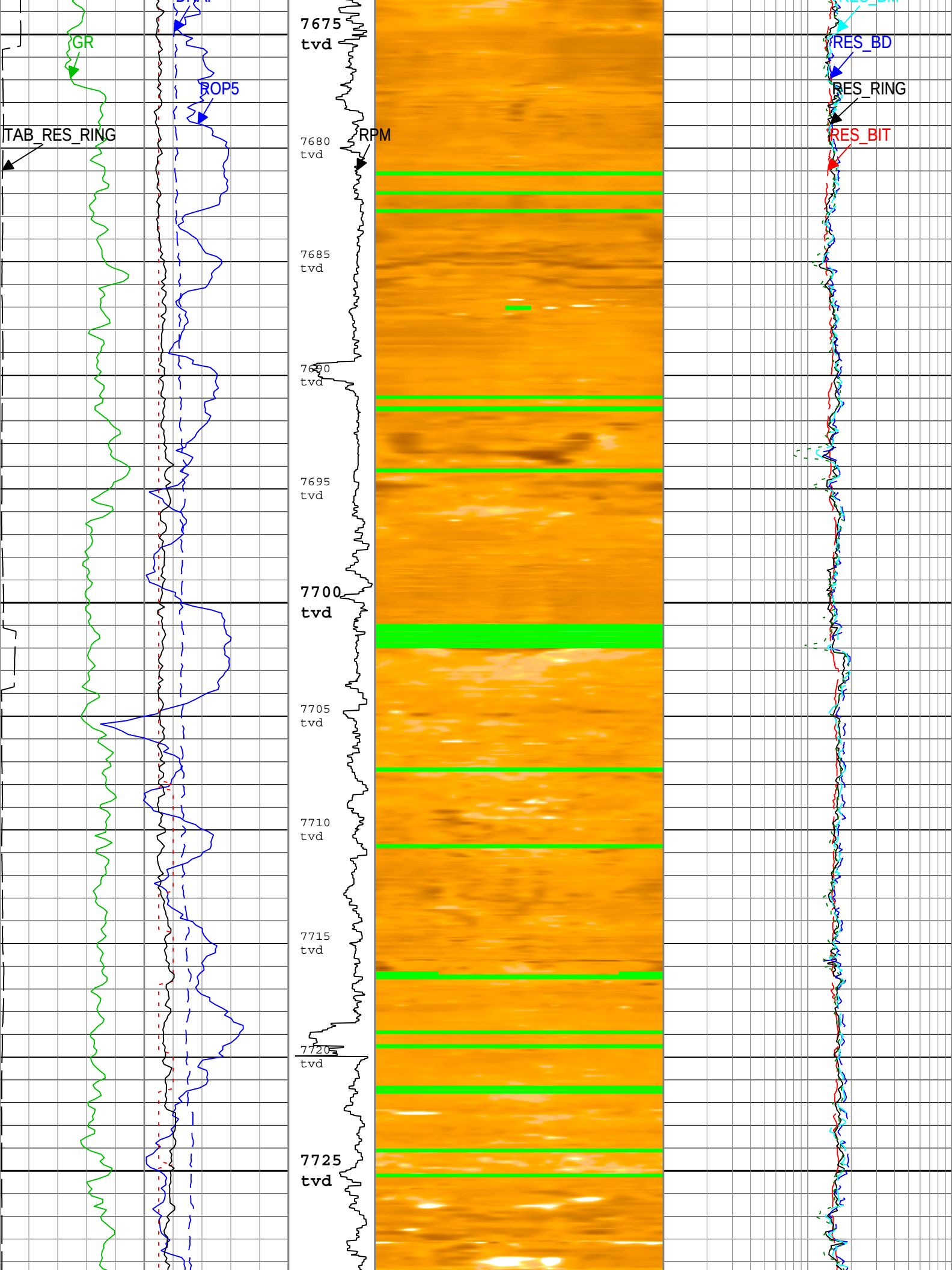
7670
tvd
ECD
DHAT
DHAP
RES_BS
RES_BM


GR
ROP5
TAB_RES_RING
7675
tvd
RPM
7680
tvd
7685
tvd
7690
tvd
7695
tvd
7700
tvd
7705
tvd
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tvd
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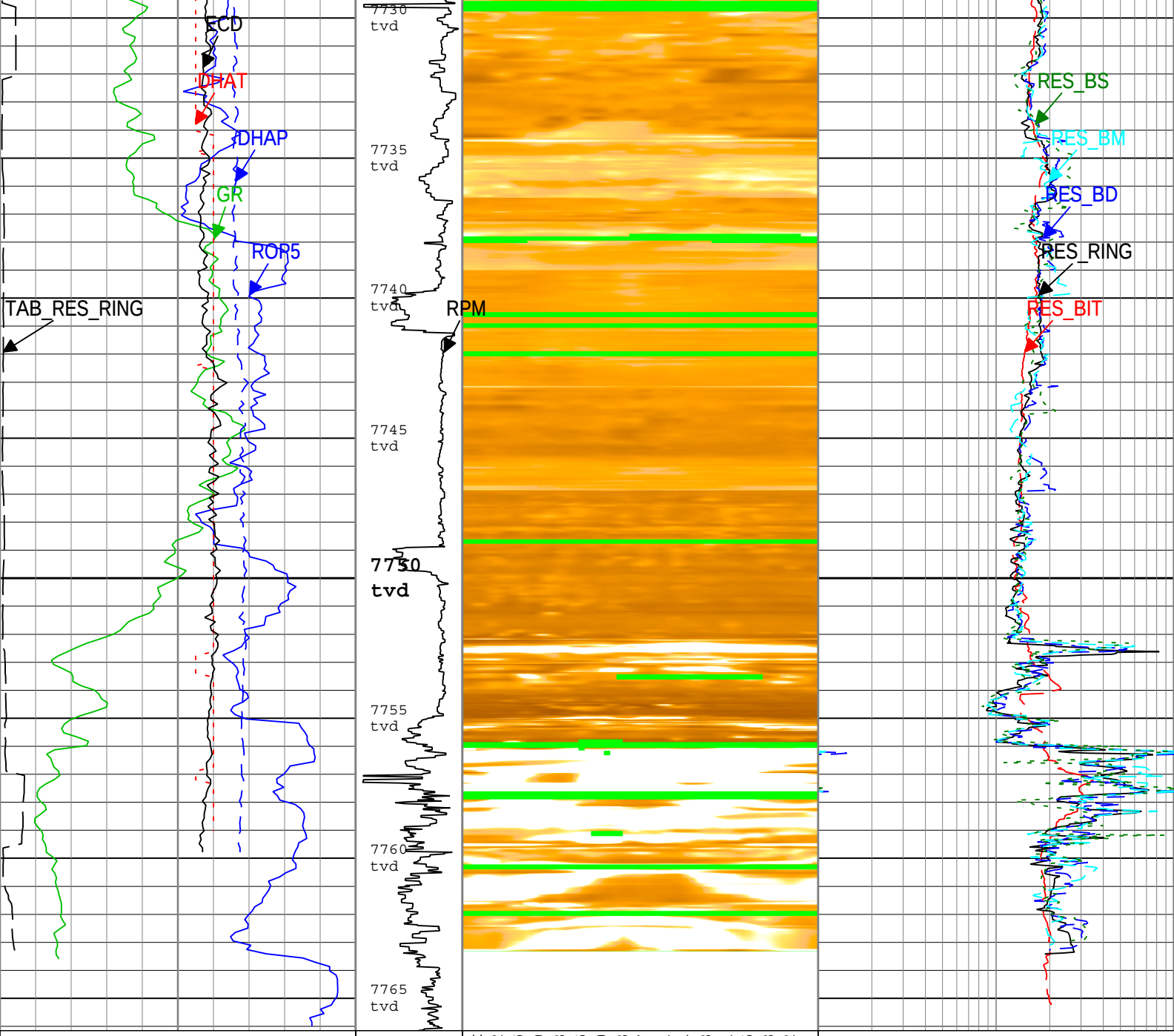
tvd
7720
tvd
7725
tvd
RES_BD
RES_RING
RES_BIT



Ring Resistivity Time After Bit (TAB_RES_RING) RAB6

0 h 10

Rate of penetration averaged over the last 5 ft (1.5 m) (ROP5) RT

100 m/h 0

Gamma Ray (GR) RAB6 RM

0 gAPI 150

Downhole Annulus Pressure (DHAP) ARC6 RM

70000 kPa 85000

Downhole Annulus Temperature (DHAT) ARC6 RM

0 degC 20

Equivalent Circulating Density (ECD) ARC6 RM

1 g/cm3 1.1

Rotational Speed (RPM) RAB6 RM

0 c/min 200

Absent 0.122 0.286 0.449 0.613 0.776 0.940 1.103 1.267 1.431 1.594 1.758 1.921 2.085 2.248 2.412

Static Linear Normalization

RAB - Deep Button Resistivity Image RAB6 RM (ohm.m)

Orientation: North Azimuth

N E S W N

Bit Resistivity (RES_BIT) RAB6 RM

0.1 ohm.m 10

Ring Resistivity (RES_RING) RAB6 RM

0.1 ohm.m 10

Deep Button Resistivity (RES_BD) RAB6 RM

0.1 ohm.m 10

Medium Button Resistivity (RES_BM) RAB6 RM

0.1 ohm.m 10

Shallow Button Resistivity (RES_BS) RAB6 RM

0.1 ohm.m 10

Description: GVR Resistivity, Deep Button Image Format: Log (JFAST RM GVR+APWD TVD Digital) Index Scale: 1:200 Index Unit: m Index Type: TVD

Creation Date: 11-May-2012 18:16:14

Channel Processing Parameters

Parameter	Description	ToolPath	Value	Unit
BHK	Drilling Fluid Potassium Concentration	Borehole	0	%
BHT	Bottom Hole Temperature	Borehole	12	degC
BS	Bit Size	COMPLETION	Depth Zoned	in
DEPTH_SEL	Depth Selection Parameter	DNMSESSION	Driller's Depth	
DFD	Drilling Fluid Density	Borehole	1.04	g/cm3
DFT	Drilling Fluid Type	Borehole	Water	
FLEV	Depth of Drilling Fluid Level to LMF (Log Measured From)	Borehole	28.5	m
GGRD	Geothermal Gradient	Borehole	11.66	degC/km
GRSE_RM	Generalized Mud Resistivity Selection for Recorded Mode	Borehole	REMS	
GTSE_RT	Generalized Temperature Selection for Realtime Mode	Borehole	GTEM_GRDBOTTOM(RT)	
IMG_INTERP_WIN	Maximum Interpolation Window Size for Image	RAB6:RAB6:RBEC	0.15	m
MST	Mud Sample Temperature	Borehole	2	degC
RES_BD_IMG_SEL	GVR Output Resistivity Image Selection, Deep Button	RAB6:RAB6:RBEC	Compensated Uphole	
RHO_SEAWATER	Density of the Sea Water	Borehole	1.04	g/cm3
RMS	Resistivity of Mud Sample	Borehole	0.29	ohm.m
SF_FLAG	Mud Return to Sea Floor (No Riser)?	Borehole	No	
SHT	Surface Hole Temperature	Borehole	10	degC
TD	Total Measured Depth	Borehole	7768.5	m
TEMP_SEL_RAB	RAB Temperature Selection	RAB6:RAB6:RBEC	Tool	

Depth Zone Parameters

Parameter	Value	Start (m)	Stop (m)
BS	0	6910	6917.99
BS	8.5	6917.99	7766.18

All depth are actual.

Tool Control Parameters

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

Time Zone Parameters

Parameter	Value	Start Time	Stop Time	Start Depth (m)	Stop Depth (m)
OFFBTM_TH	0.2	21-Apr-2012 17:04:57	25-Apr-2012 22:24:51	6899.71	7768.18
OFFBTM_TH	0.4	25-Apr-2012 22:24:51	26-Apr-2012 20:21:59	7768.18	7768.31

All depth are at tool zero.

ReamUp Composite 1

Integration Summary

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

Composite Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	Include Parallel Data
Run1	Ream Up 1	Up	7745.45 m	7767.22 m	25-Apr-2012 11:01:58 PM	26-Apr-2012 12:03:43 AM	true
Run1	Ream Up 2	Up	7721.63 m	7752.46 m	26-Apr-2012 12:06:15 AM	26-Apr-2012 1:21:13 AM	true

All depths are referenced to toolstring zero

Log

ReamUp Composite 1 766C8710-111A-4D28-8E1B-D490FB185D14

Description: GVR Resistivity, Deep Button Image Format: Log (JFAST RM GVR+APWD TVD Digital) Index Scale: 1:200 Index Unit: m Index Type: TVD
Creation Date: 11-May-2012 18:16:57

Channel	Source	Sampling
DHAP	ARC[1]:ARC[1]	6in - RM
DHAT	ARC[1]:ARC[1]	6in - RM
ECD	ARC[1]:ARC[1]:APWD[1]	6in - RM
GR	RAB[1]:RAB[1]:RBEC[1]	6in - RM
RES_BD	RAB[1]:RAB[1]:RBEC[1]	1.2in - RM
RES_BIT	RAB[1]:RAB[1]:RBEC[1]	1.2in - RM
RES_BM	RAB[1]:RAB[1]:RBEC[1]	1.2in - RM
RES_BS	RAB[1]:RAB[1]:RBEC[1]	1.2in - RM
RES_RING	RAB[1]:RAB[1]:RBEC[1]	1.2in - RM
ROP5	DRILLING_SURFACE	6in - RT
RPM	RAB[1]:RAB[1]	1.2in - RM
TAB_RES_RING	RAB[1]:RAB[1]:RBEC[1]	6in

Ring Resistivity Time After Bit (TAB_RES_RING) RAB[1]
0 h 10

Rate of penetration averaged over the last 5 ft (1.5 m) (ROP5) RT
100 m/h 0

Gamma Ray (GR) RAB[1] RM
0 gAPI 150

Downhole Annulus Pressure (DHAP) ARC[1] RM
70000 kPa 85000

Downhole Annulus Temperature (DHAT) ARC[1] RM
0 degC 20

Equivalent Circulating Density (ECD) ARC[1] RM
1 g/cm3 1.1

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

N E S W N
Orientation: North Azimuth

Absent 0.122 0.286 0.449 0.613 0.776 0.940 1.103 1.267 1.431 1.594 1.758 1.921 2.085 2.248 2.412
Static Linear Normalization

RAB - Deep Button Resistivity Image RAB[1] RM (ohm.m)

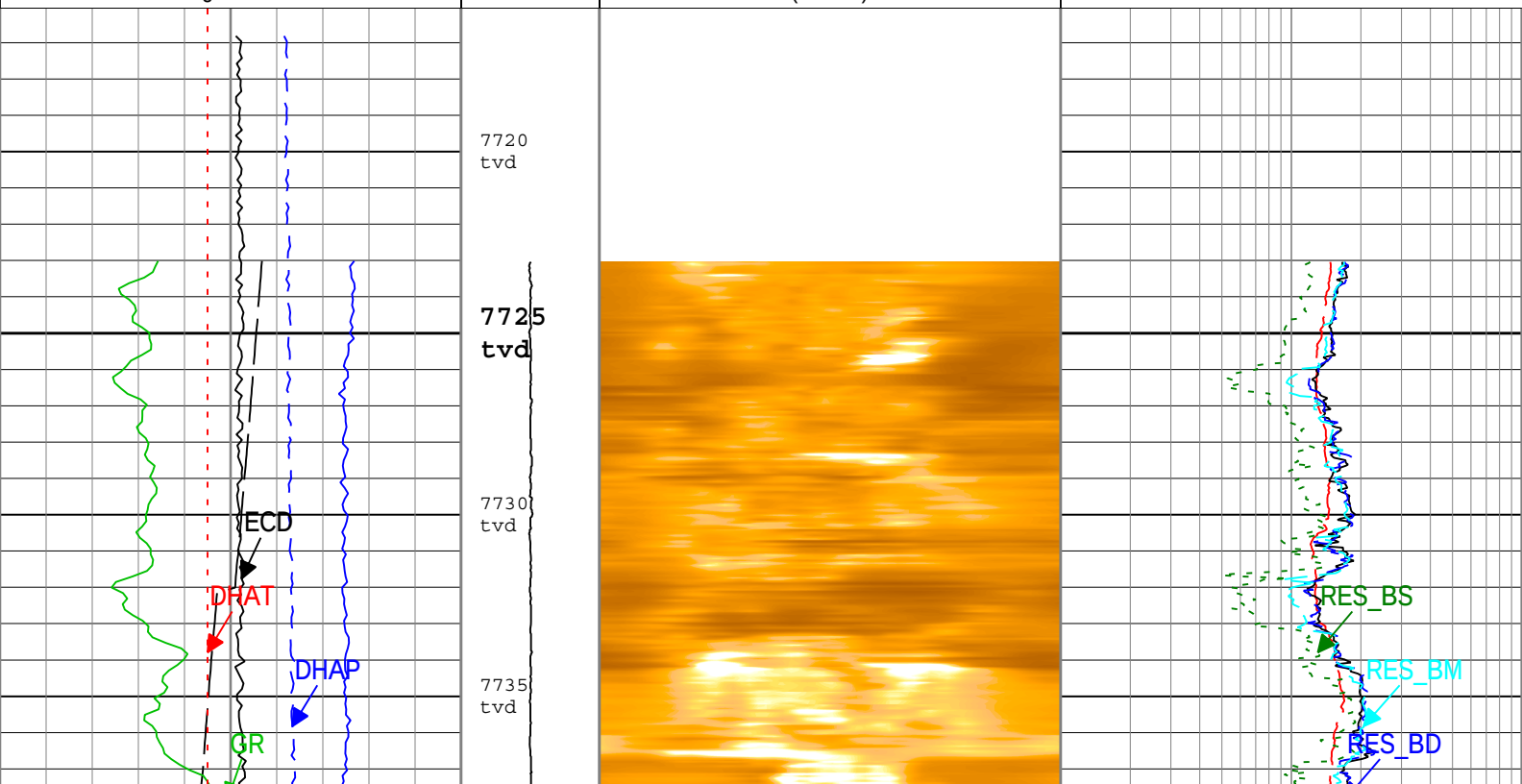
Bit Resistivity (RES_BIT) RAB[1] RM
0.1 ohm.m 10

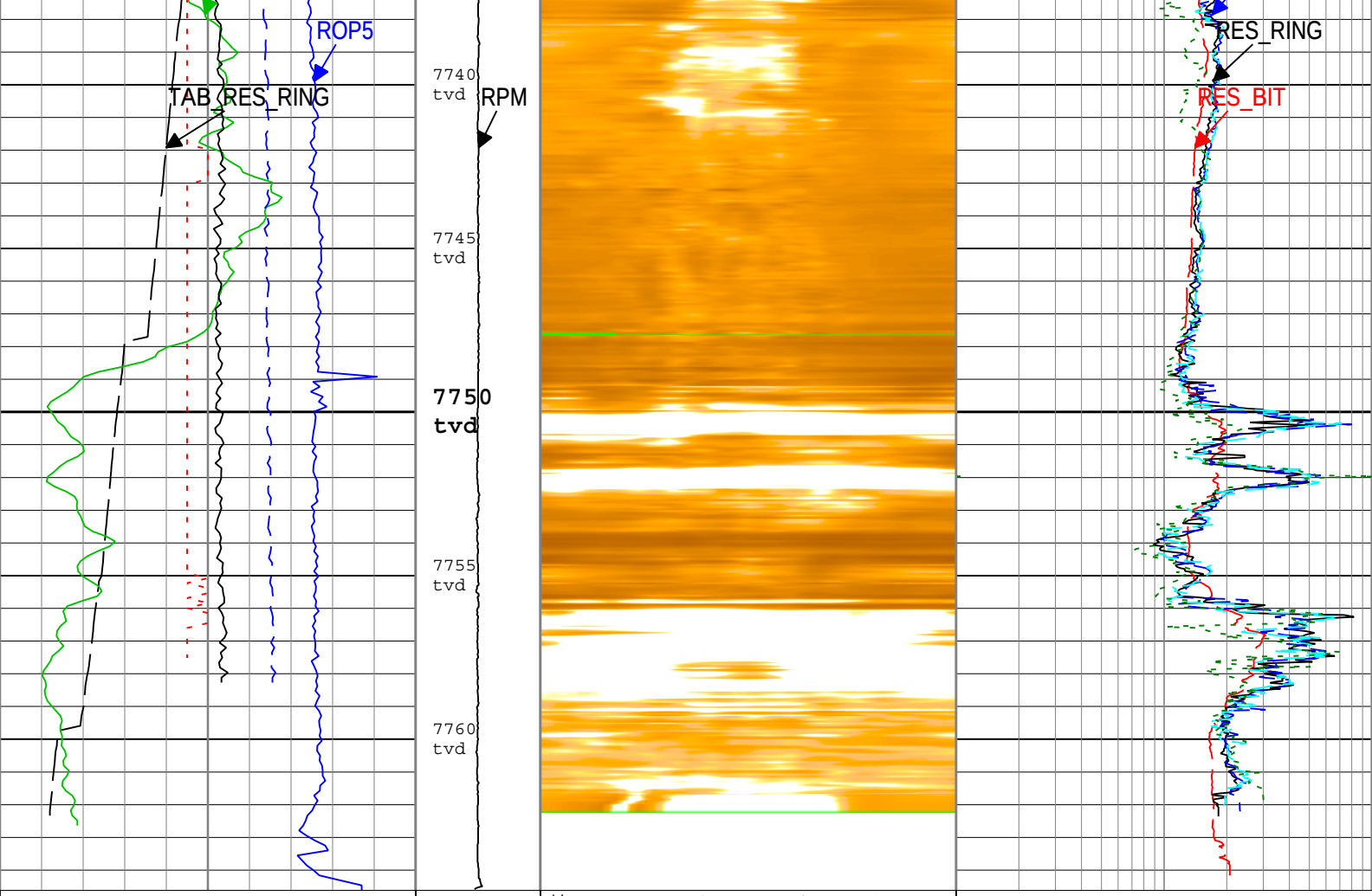
Ring Resistivity (RES_RING) RAB[1] RM
0.1 ohm.m 10

Deep Button Resistivity (RES_BD) RAB[1] RM
0.1 ohm.m 10

Medium Button Resistivity (RES_BM) RAB[1] RM
0.1 ohm.m 10

Shallow Button Resistivity (RES_BS) RAB[1] RM
0.1 ohm.m 10





Ring Resistivity Time After Bit (TAB_RES_RING) RAB[1]
0 h 10

Rate of penetration averaged over the last 5 ft (1.5 m) (ROP5) RT
100 m/h 0

Gamma Ray (GR) RAB[1] RM
0 gAPI 150

Downhole Annulus Pressure (DHAP) ARC[1] RM
70000 kPa 85000

Downhole Annulus Temperature (DHAT) ARC[1] RM
0 degC 20

Equivalent Circulating Density (ECD) ARC[1] RM
1 g/cm3 1.1

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

Absent 0.122 0.286 0.449 0.613 0.776 0.940 1.103 1.267 1.431 1.594 1.758 1.921 2.085 2.248 2.412
Static Linear Normalization
RAB - Deep Button Resistivity Image RAB[1] RM
(ohm.m)
Orientation: North Azimuth
N E S W N

Bit Resistivity (RES_BIT) RAB[1] RM
0.1 ohm.m 10

Ring Resistivity (RES_RING) RAB[1] RM
0.1 ohm.m 10

Deep Button Resistivity (RES_BD) RAB[1] RM
0.1 ohm.m 10

Medium Button Resistivity (RES_BM) RAB[1] RM
0.1 ohm.m 10

Shallow Button Resistivity (RES_BS) RAB[1] RM
0.1 ohm.m 10

Description: GVR Resistivity, Deep Button Image Format: Log (JFAST RM GVR+APWD TVD Digital) Index Scale: 1:200 Index Unit: m Index Type: TVD
Creation Date: 11-May-2012 18:16:57

ReamUp Composite 2

Integration Summary

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

Composite Summary

Run	Pass Objective	Direction	Top	Bottom	Start	Stop	Include

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	Include Parallel Data
Run1	Ream Up 3	Up	7645.02 m	7657.03 m	26-Apr-2012 1:48:22 AM	26-Apr-2012 2:21:04 AM	true
Run1	Ream Up 4	Up	7609.15 m	7646.24 m	26-Apr-2012 2:37:56 AM	26-Apr-2012 4:12:01 AM	true
Run1	Ream Up 5	Up	7600.19 m	7610.27 m	26-Apr-2012 4:41:47 AM	26-Apr-2012 5:07:30 AM	true

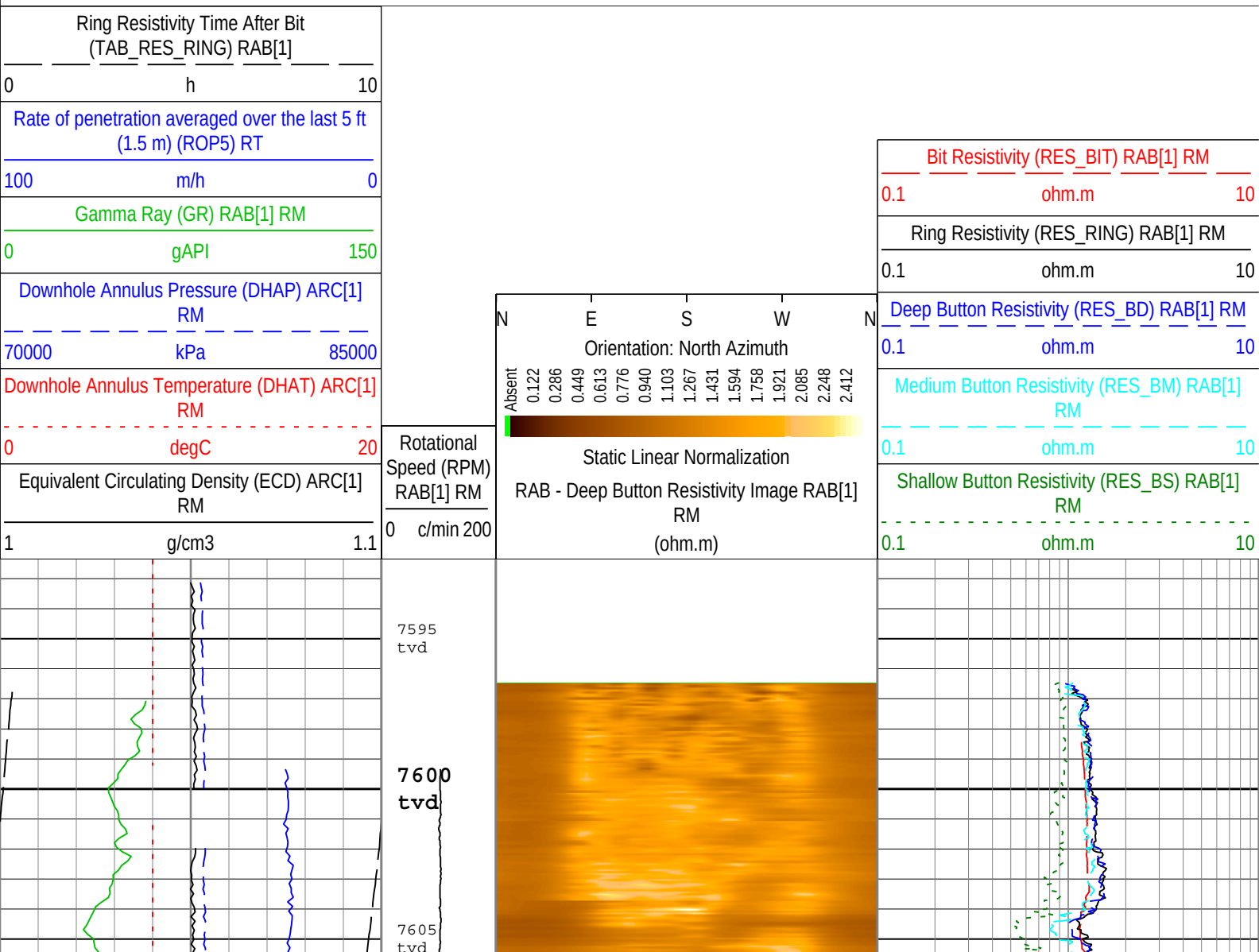
All depths are referenced to toolstring zero

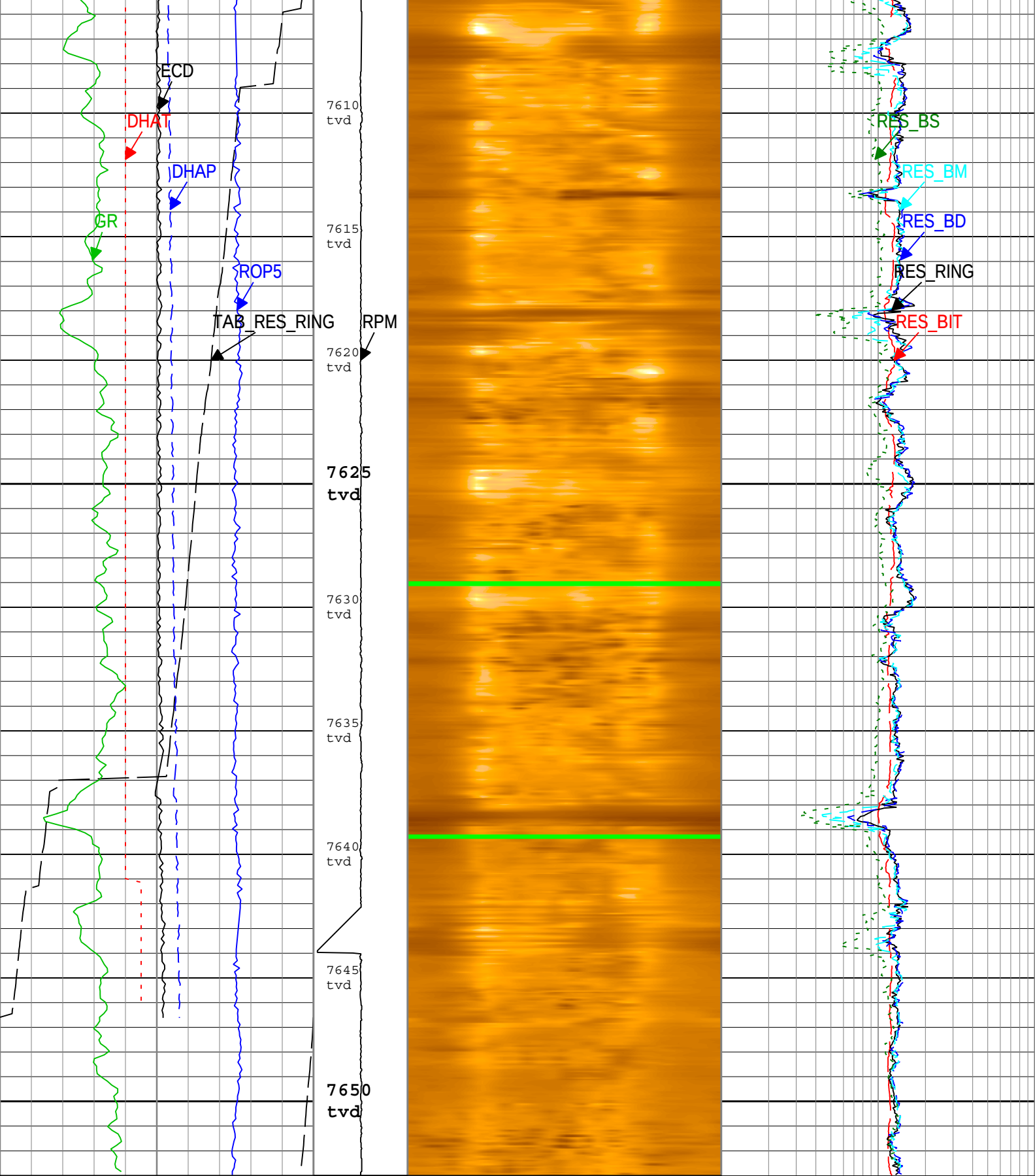
Log

ReamUp Composite 2 77C2AC54-7156-400A-A577-CD68B5B4BEC2

Description: GVR Resistivity, Deep Button Image Format: Log (JFAST RM GVR+APWD TVD Digital) Index Scale: 1:200 Index Unit: m Index Type: TVD
Creation Date: 11-May-2012 18:17:02

Channel	Source	Sampling
DHAP	ARC[1]:ARC[1]	6in - RM
DHAT	ARC[1]:ARC[1]	6in - RM
ECD	ARC[1]:ARC[1]:APWD[1]	6in - RM
GR	RAB[1]:RAB[1]:RBEC[1]	6in - RM
RES_BD	RAB[1]:RAB[1]:RBEC[1]	1.2in - RM
RES_BIT	RAB[1]:RAB[1]:RBEC[1]	1.2in - RM
RES_BM	RAB[1]:RAB[1]:RBEC[1]	1.2in - RM
RES_BS	RAB[1]:RAB[1]:RBEC[1]	1.2in - RM
RES_RING	RAB[1]:RAB[1]:RBEC[1]	1.2in - RM
ROP5	DRILLING_SURFACE	6in - RT
RPM	RAB[1]:RAB[1]	1.2in - RM
TAB_RES_RING	RAB[1]:RAB[1]:RBEC[1]	6in





Ring Resistivity Time After Bit (TAB_RES_RING) RAB[1]

0 h 10

Rate of penetration averaged over the last 5 ft (1.5 m) (ROP5) RT

100 m/h 0

Gamma Ray (GR) RAB[1] RM

0 gAPI 150

Rotational Speed (RPM) RAB[1] RM

0 c/min 200

Absent 0.122 0.286 0.449 0.613 0.776 0.940 1.103 1.267 1.431 1.594 1.758 1.921 2.085 2.248 2.412

Static Linear Normalization

RAB - Deep Button Resistivity Image RAB[1] RM

(ohm.m)

Orientation: North Azimuth

N E S W N

Bit Resistivity (RES_BIT) RAB[1] RM

0.1 ohm.m 10

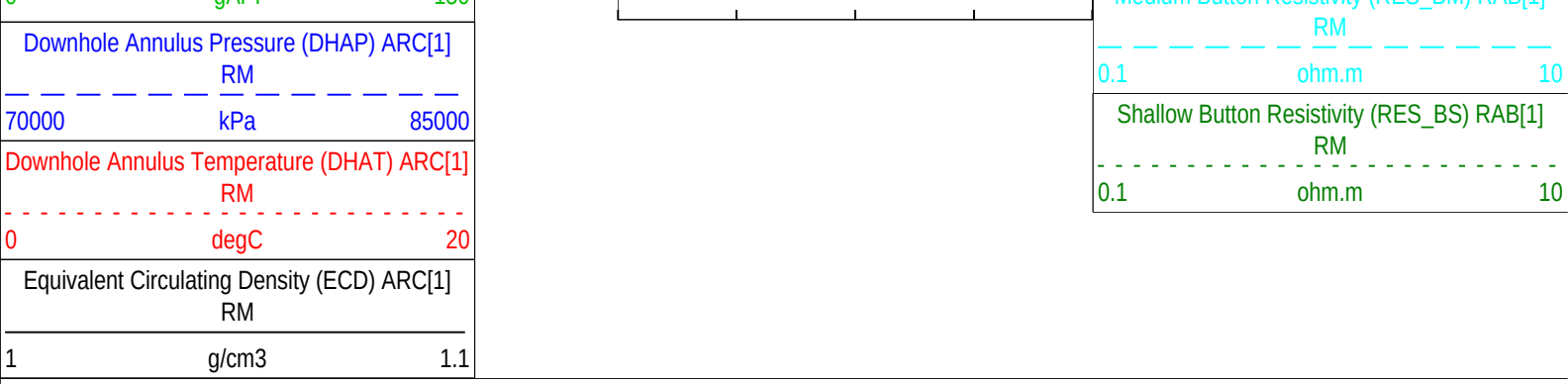
Ring Resistivity (RES_RING) RAB[1] RM

0.1 ohm.m 10

Deep Button Resistivity (RES_BD) RAB[1] RM

0.1 ohm.m 10

Medium Button Resistivity (RES_BM) RAB[1]



Description: GVR Resistivity, Deep Button Image Format: Log (JFAST RM GVR+APWD TVD Digital) Index Scale: 1:200 Index Unit: m Index Type: TVD
Creation Date: 11-May-2012 18:17:02

ReamUp Composite 3

Integration Summary

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

Composite Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	Include Parallel Data
Run1	Ream Up 6	Up	7296.07 m	7311.47 m	26-Apr-2012 7:05:37 AM	26-Apr-2012 7:37:43 AM	true
Run1	Ream Up 7	Up	7267.04 m	7298.56 m	26-Apr-2012 8:02:07 AM	26-Apr-2012 9:21:38 AM	true
Run1	Ream Up 8	Up	7250.07 m	7268.79 m	26-Apr-2012 10:10:43 AM	26-Apr-2012 10:59:30 AM	true

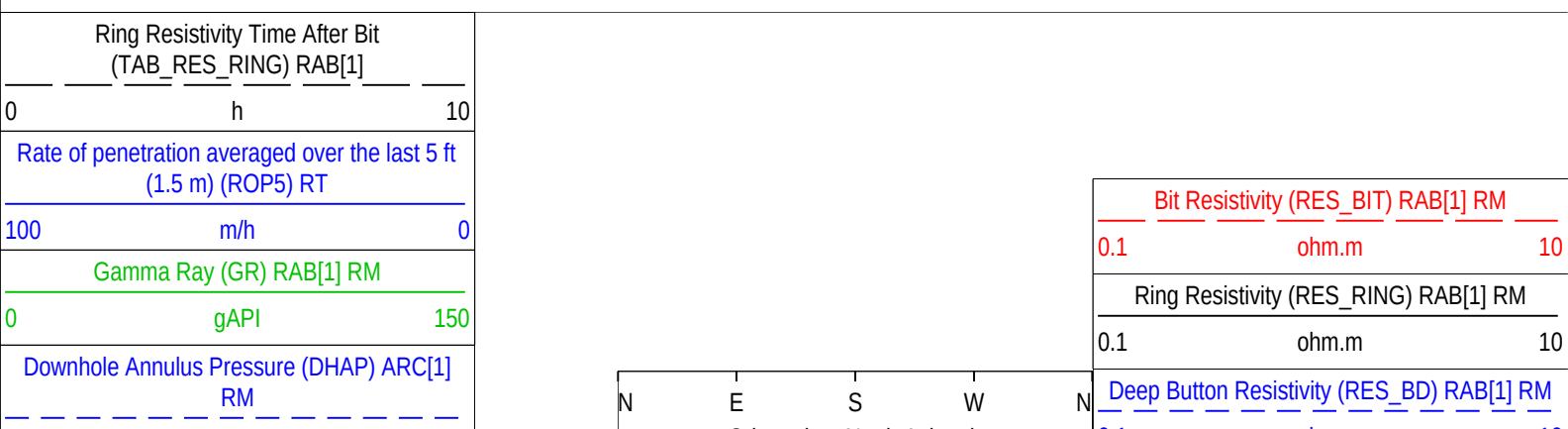
All depths are referenced to toolstring zero

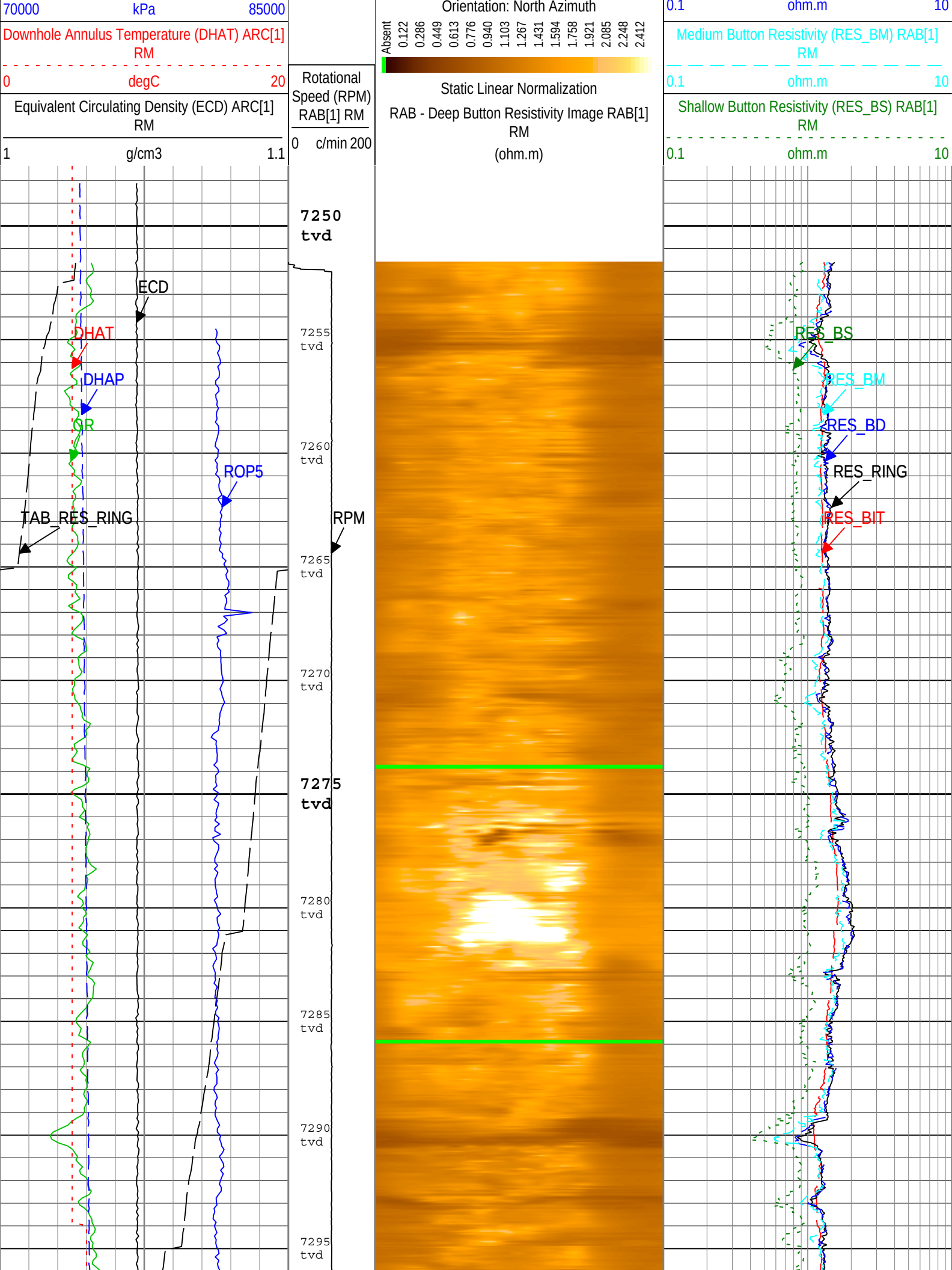
Log

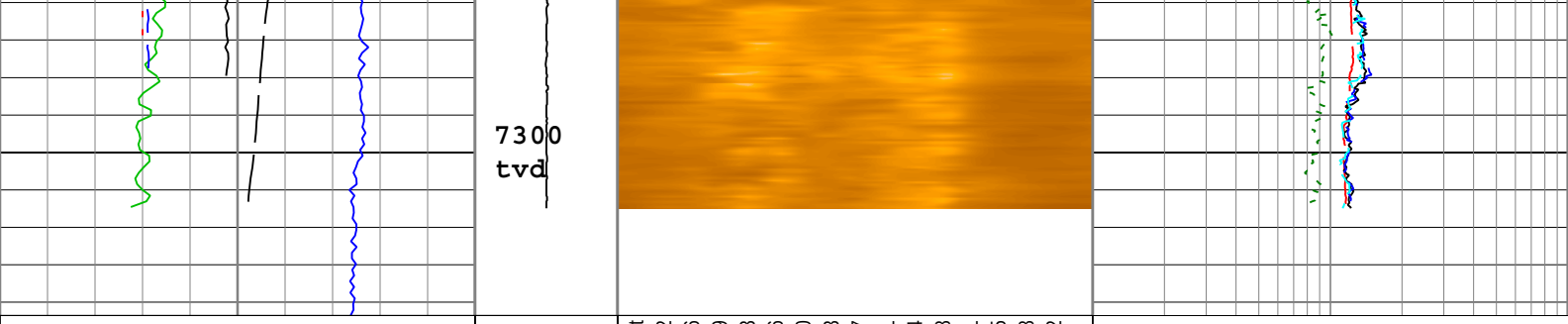
ReamUp Composite 3 EF59FE12-AD2D-45B6-BD54-BEE86F46066D

Description: GVR Resistivity, Deep Button Image Format: Log (JFAST RM GVR+APWD TVD Digital) Index Scale: 1:200 Index Unit: m Index Type: TVD
Creation Date: 11-May-2012 18:17:09

Channel	Source	Sampling
DHAP	ARC[1]:ARC[1]	6in - RM
DHAT	ARC[1]:ARC[1]	6in - RM
ECD	ARC[1]:ARC[1]:APWD[1]	6in - RM
GR	RAB[1]:RAB[1]:RBEC[1]	6in - RM
RES_BD	RAB[1]:RAB[1]:RBEC[1]	1.2in - RM
RES_BIT	RAB[1]:RAB[1]:RBEC[1]	1.2in - RM
RES_BM	RAB[1]:RAB[1]:RBEC[1]	1.2in - RM
RES_BS	RAB[1]:RAB[1]:RBEC[1]	1.2in - RM
RES_RING	RAB[1]:RAB[1]:RBEC[1]	1.2in - RM
ROP5	DRILLING_SURFACE	6in - RT
RPM	RAB[1]:RAB[1]	1.2in - RM
TAB_RES_RING	RAB[1]:RAB[1]:RBEC[1]	6in




70000
kPa
85000
Downhole Annulus Temperature (DHAT) ARC[1] RM
0
degC
20
Equivalent Circulating Density (ECD) ARC[1] RM
1
g/cm3
1.1
Rotational Speed (RPM) RAB[1] RM
0
c/min 200
Orientation: North Azimuth
Absent
0.122
0.286
0.449
0.613
0.776
0.940
1.103
1.267
1.431
1.594
1.758
1.921
2.085
2.248
2.412
Static Linear Normalization
RAB - Deep Button Resistivity Image RAB[1] RM
(ohm.m)
0.1
ohm.m
10
Medium Button Resistivity (RES_BM) RAB[1] RM
0.1
ohm.m
10
Shallow Button Resistivity (RES_BS) RAB[1] RM
0.1
ohm.m
10
7250 tvd
7255 tvd
7260 tvd
7265 tvd
7270 tvd
7275 tvd
7280 tvd
7285 tvd
7290 tvd
7295 tvd
ECD
DHAT
DHAP
GR
ROP5
TAB_RES_RING
RPM
RES_BS
RES_BM
RES_BD
RES_RING
RES_BIT



Ring Resistivity Time After Bit (TAB_RES_RING) RAB[1]
0 h 10

Rate of penetration averaged over the last 5 ft (1.5 m) (ROP5) RT
100 m/h 0

Gamma Ray (GR) RAB[1] RM
0 gAPI 150

Downhole Annulus Pressure (DHAP) ARC[1] RM
70000 kPa 85000

Downhole Annulus Temperature (DHAT) ARC[1] RM
0 degC 20

Equivalent Circulating Density (ECD) ARC[1] RM
1 g/cm3 1.1

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

Absent 0.122 0.286 0.449 0.613 0.776 0.940 1.103 1.267 1.431 1.594 1.758 1.921 2.085 2.248 2.412

Static Linear Normalization

RAB - Deep Button Resistivity Image RAB[1] RM
(ohm.m)

Orientation: North Azimuth
N E S W N

Bit Resistivity (RES_BIT) RAB[1] RM
0.1 ohm.m 10

Ring Resistivity (RES_RING) RAB[1] RM
0.1 ohm.m 10

Deep Button Resistivity (RES_BD) RAB[1] RM
0.1 ohm.m 10

Medium Button Resistivity (RES_BM) RAB[1] RM
0.1 ohm.m 10

Shallow Button Resistivity (RES_BS) RAB[1] RM
0.1 ohm.m 10

Description: GVR Resistivity, Deep Button Image Format: Log (JFAST RM GVR+APWD TVD Digital) Index Scale: 1:200 Index Unit: m Index Type: TVD
Creation Date: 11-May-2012 18:17:09

Calibration Report

RAB6 (GeoVision Resistivity 675) Calibration - Run Run1

Primary Equipment :

Electronics Chassis	RBEC	228

M21V - Resistivity

Master (Time Frame File): 02:32:29 27-Mar-2012

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Monitor 2 at T1 Calibration Coefficient		Master	1.0000	0.9750	0.9984	1.0250

M22V - Resistivity

Master (Time Frame File): 02:32:29 27-Mar-2012

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Monitor 2 at T2 Calibration Coefficient		Master	1.0000	0.9750	0.9942	1.0250

M01V - Resistivity

Master (Time Frame File): 02:32:29 27-Mar-2012

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Monitor 0 at T1 Calibration Coefficient		Master	1.0000	0.9750	1.0058	1.0250

M02V - Resistivity

Master (Time Frame File): 02:32:29 27-Mar-2012

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Monitor 0 at T2 Calibration Coefficient		Master	1.0000	0.9750	1.0016	1.0250

R1V - Resistivity

Master (Time Frame File): 02:32:29 27-Mar-2012

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Ring at T1 Calibration Coefficient		Master	1.0000	0.9750	0.9954	1.0250

R2V - Resistivity

Master (Time Frame File): 02:32:29 27-Mar-2012

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit

Ring at T2 Calibration Coefficient		Master	1.0000	0.9750	0.9918	1.0250	

BDM1 - Resistivity

Master (Time Frame File): 02:32:29 27-Mar-2012

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Button Deep at T1 Calibration Coefficient		Master	1.0000	0.9750	0.9937	1.0250	

BDM2 - Resistivity

Master (Time Frame File): 02:32:29 27-Mar-2012

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Button Deep at T2 Calibration Coefficient		Master	1.0000	0.9750	0.9895	1.0250	

BMM1 - Resistivity

Master (Time Frame File): 02:32:29 27-Mar-2012

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Button Medium at T1 Calibration Coefficient		Master	1.0000	0.9750	0.9998	1.0250	

BMM2 - Resistivity

Master (Time Frame File): 02:32:29 27-Mar-2012

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Button Medium at T2 Calibration Coefficient		Master	1.0000	0.9750	0.9956	1.0250	

BSM1 - Resistivity

Master (Time Frame File): 02:32:29 27-Mar-2012

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Button Shallow at T1 Calibration Coefficient		Master	1.0000	0.9750	1.0061	1.0250	

BSM2 - Resistivity

Master (Time Frame File): 02:32:29 27-Mar-2012

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Button Shallow at T2 Calibration Coefficient		Master	1.0000	0.9750	1.0021	1.0250	

PGR - Gamma Ray: Blanket

Master (Time Frame File): 18:47:12 26-Mar-2012

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Gamma Ray Calibration Gain		Master	1.0000	0.7500	0.8716	1.2500	

ARC6 (Array Resistivity Compensated 675) Calibration - Run Run1

Primary Equipment :

Elec. Chassis HP with AIM Receiver AREA 2914

RESAIRCAL - Resistivity: Air

Master (Time Frame File): 22:15:21 25-Feb-2012

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Attenuation T1 at 2 MHz	dB	Master	8.500	6.500	8.697	10.500	
Attenuation T2 at 2 MHz	dB	Master	6.500	4.500	6.322	8.500	
Attenuation T3 at 2 MHz	dB	Master	4.500	2.500	5.294	6.500	
Attenuation T4 at 2 MHz	dB	Master	4.600	2.600	4.218	6.600	
Attenuation T5 at 2 MHz	dB	Master	3.600	1.600	3.843	5.600	
Phase Shift T1 at 2 MHz	deg	Master	0.100	-3.900	0.985	4.100	
Phase Shift T2 at 2 MHz	deg	Master	0.100	-3.900	-0.887	4.100	
Phase Shift T3 at 2 MHz	deg	Master	0.100	-3.900	0.867	4.100	
Phase Shift T4 at 2 MHz	deg	Master	0.100	-3.900	-0.932	4.100	
Phase Shift T5 at 2 MHz	deg	Master	0.100	-3.900	0.858	4.100	
Attenuation T1 at 400 KHz	dB	Master	8.500	6.500	8.708	10.500	
Attenuation T2 at 400 KHz	dB	Master	6.500	4.500	6.315	8.500	
Attenuation T3 at 400 KHz	dB	Master	4.500	2.500	5.302	6.500	
Attenuation T4 at 400 KHz	dB	Master	4.600	2.600	4.205	6.600	
Attenuation T5 at 400 KHz	dB	Master	3.600	1.600	3.860	5.600	
Phase Shift T1 at 400 KHz	deg	Master	0.100	-3.900	0.047	4.100	
Phase Shift T2 at 400 KHz	deg	Master	0.100	-3.900	-0.090	4.100	
Phase Shift T3 at 400 KHz	deg	Master	0.100	-3.900	0.077	4.100	
Phase Shift T4 at 400 KHz	deg	Master	0.100	-3.900	-0.105	4.100	
Phase Shift T5 at 400 KHz	deg	Master	0.100	-3.900	0.053	4.100	

GRGAIN - Gamma Ray: Blanket

Master (Time Frame File): 09:48:08 27-Feb-2012

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Gamma Ray Calibration Gain		Master	1.000	0.580	0.933	1.250	

Company: JAMSTEC

Well: C0019B

Field: Japan Trench - Miyagi Offshore

Rig Name: Chikyu

State: Miyagi

Country: Japan

Schlumberger

geoVISION Resistivity Image - APWD

Gamma Ray – Resistivity – Image – APWD

8.5in Recorded Mode Log. True Vertical Depth 1:200