HALLIBURTON

ARRAY RESISTIVITY
DUAL SPACED NEUTRON
SPECTRAL DENSITY

5IN = 100 FT TVD

COMPANY CROWN DRILLING INCORPORATED
WELL MERMENTAU MINERALS & LAND CO 13 #1
FIELD MERMENTAU
PARISH CAMERON
STATE LA

COMPANY **CROWN DRILLING INCORPORATED**

WELL **MERMENTAU MINERALS & LAND CO 13 #1**

FIELD **MERMENTAU**

PARISH **CAMERON** STATE **LA**

API No. 17023230860000

Location Longitude: 92° 56' 18.00" E
Latitude: 29° 49' 30.00" N

SERIAL NO : 243693

Sect. N/A Twp. N/A Rge. N/A

Other Services:
SWC

Permanent Datum	GL	Elev. 1.0 ft	Elev.: K.B. 15.0 ft
Log measured from	DF	13.0 ft above perm. Datum	D.F. 14.0 ft
Drilling measured from	DF		G.L. 1.0 ft

Date		10-Oct-11					
Run No.		ONE					
Depth - Driller		8619.00 ft					
Depth - Logger		8594.0 ft					
Bottom - Logged Interval		8584.O ft					
Top - Logged Interval		2526.0 ft					
Casing - Driller		9.625 in	@ 2524.0 ft	@		@	
Casing - Logger		2526.0 ft					
Bit Size		8.500 in		@		@	
Type Fluid in Hole		WBM					
Density	Viscosity	10.0 ppg	43.00 s/qt				
PH	Fluid Loss	9.50 pH	4.0 cptm				
Source of Sample		FLOW LINE					
Rm @ Meas. Temperature		0.650 ohmm	@ 85.00 degF	@		@	
Rmf @ Meas. Temperature		0.60 ohmm	@ 85.00 degF	@		@	
Rmc @ Meas. Temperature		0.687 ohmm	@ 85.00 degF	@		@	
Source Rmf	Rmc	MEASURED	MEASURED				
Rm @ BHT		0.31 ohmm	@ 183.0 degF	@		@	
Time Since Circulation		10.6 hr					
Time on Bottom		10-Oct-11 18:07					
Max. Rec. Temperature		183.0 degF	@ 8594.0 ft	@		@	
Equipment	Location	10959019	NEW IBERIA				
Recorded By		J. NICHOLSON					
Witnessed By		HERBERT ANTIE					

Fold here

Service Ticket No.: 8535317 API Serial No.: 17023230860000 PGM Version: WL INSITE R3.4.2 (Build 2)

CHANGE IN MUD TYPE OR ADDITIONAL SAMPLE

RESISTIVITY SCALE CHANGES

	Sample No.	Type Log	Depth	Scale Up Hole	Scale Down Hole
Date					
Depth-Driller					
Type Fluid in Hole					
Density	Viscosity				
Ph	Fluid Loss				
Source of Sample					
Rm @ Meas. Temp		@	@	@	
Rmf @ Meas. Temp.		@	@	@	
Rmc @ Meas. Temp.		@	@	@	
Source Rmf	Rmc	MEAS	MEAS		
Rm @ BHT		0.31 ohmm @ 183 deg F	@	@	
Rmf @ BHT		0.29 ohmm @ 183 deg F	@	@	
Rmc @ BHT		0.33 ohmm @ 183 deg F	@	@	

RESISTIVITY EQUIPMENT DATA

	Run No.	Tool Type & No.	Pad Type	Tool Pos.	Other
Rm @ Meas. Temp	@				
Rmf @ Meas. Temp.	ONE	ACRT 10982661	N/A	1.5" S.O.	N/A
Rmc @ Meas. Temp.	@				
Source Rmf	MEAS	10976085			
Rm @ BHT	@				
Rmf @ BHT	@				
Rmc @ BHT	@				

EQUIPMENT DATA

	GAMMA		ACOUSTIC		DENSITY		NEUTRON	
Run No.	ONE	Run No.		Run No.	ONE	Run No.	ONE
Serial No.	10964330	Serial No.		Serial No.	11012605	Serial No.	11277439
Model No.	GTET	Model No.		Model No.	SDLT	Model No.	DSNT
Diameter	3.625"	No. of Cent.		Diameter	4.5"	Diameter	3.625"
Detector Model No.	T-102A	Spacing		Log Type	GAM -GAM	Log Type	NEU -NEU
Type	SCINT			Source Type	Cs 137	Source Type	Am241Be
Length	8"	LSA [Y/N]		Serial No.	20790B	Serial No.	DSN - 412
Distance to Source	N/A	FWDA [Y/N]		Strength	1.5 Ci	Strength	15 Ci

LOGGING DATA

GENERAL ACQUISITION DENSITY NEUTRON

GENERAL			GAMMA		ACOUSTIC			DENSITY			NEUTRON		
Run	Depth		Speed	Scale		Scale		Matrix	Scale		Matrix	Scale		Matrix
No.	From	To	ft/min	L	R	L	R		L	R		L	R	
ONE	8594	2526	REC	0	150				60.0 %	0.0 %	2.65 g/cc	60.0 %	0.0 %	SAND

DIRECTIONAL INFORMATION

Maximum Deviation	20.60 deg	@	7998.00 ft	KOP	@ 3800.00 ft

Remarks: GTET-DSNT-SDLT-ACRT RAN IN COMBINATION

LOG TIED INTO DIRECTIONAL SURVEY DATED OCTOBER 9, 2011

ANNULAR HOLE VOLUME CALCULATED FOR 5.5 IN PRODUCTION CASING

MAX TEMP: 183 deg F, 183 deg F, 182 deg F

CHLORIDES: (CaCl) 3300 mg/L

RIG: CROWN #2

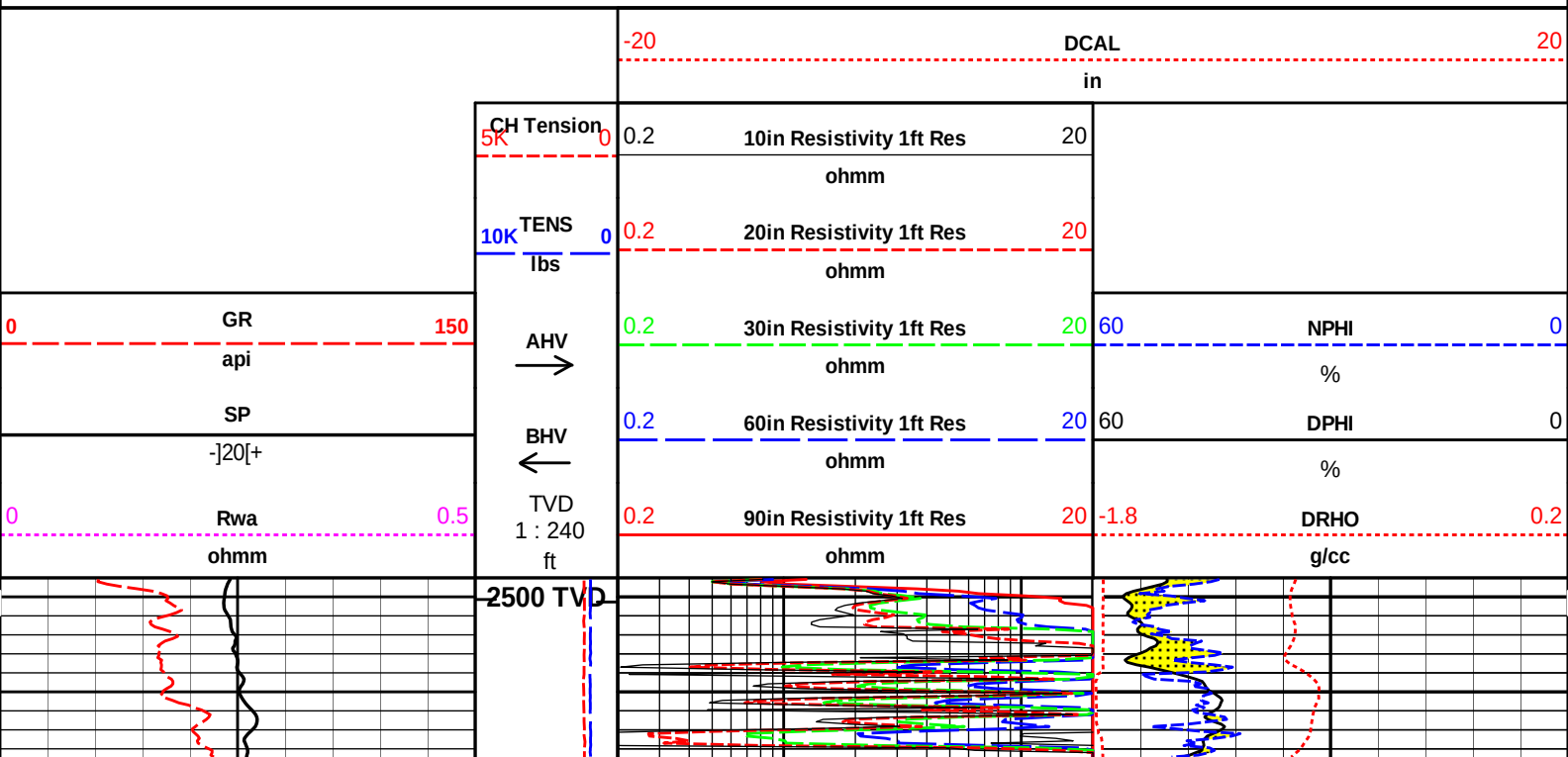
CREW: D. VARNADO, C. THOMAS, D. SIMON

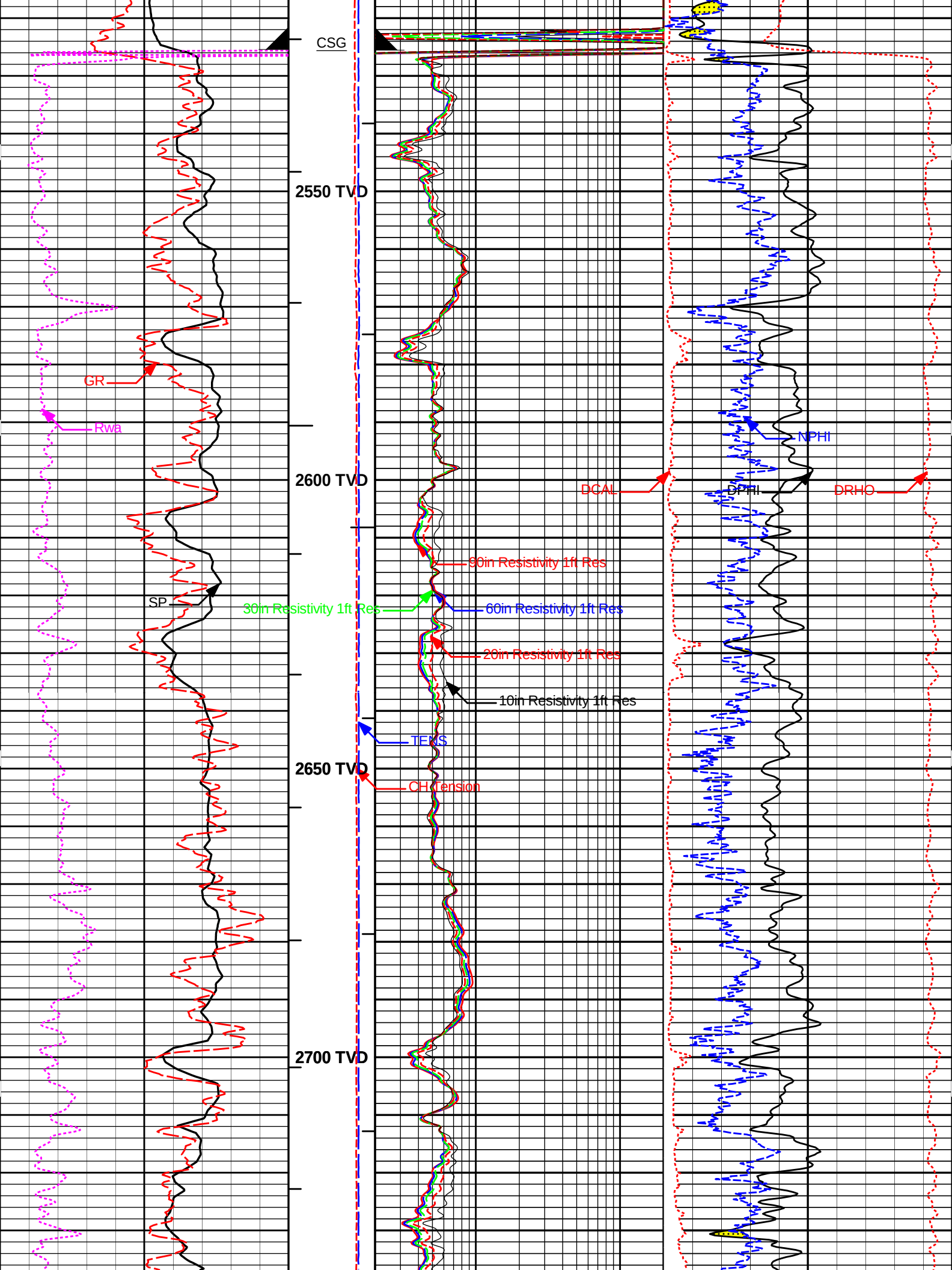
THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES -- NEW IBERIA, LA -- 337.367.9261

HALLIBURTON

Plot Time: 10-Oct-11 21:18:11
Plot Range: 2498 ft to 8410 ft
Data: 10_10_CROWN\Well Based\DAQ-0001-003
Plot File: \\5IN_TVD\CHUCK_TRIPLE_WBM_MAIN_TVD

5 IN = 100 FT TVD
MAIN PASS

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DPHI
DRHO
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30in Resistivity 1ft Res
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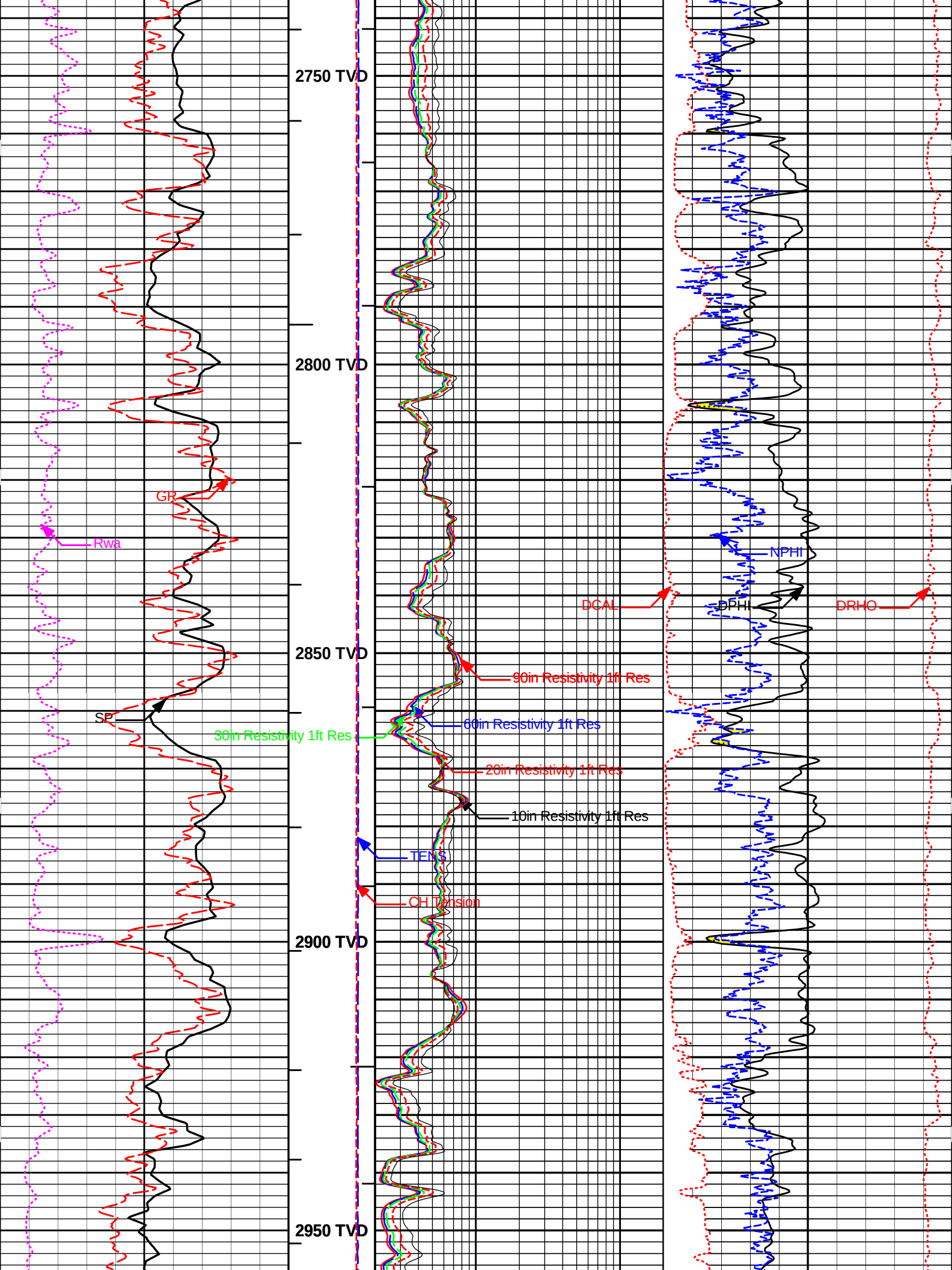
10in Resistivity 1ft Res
TENS
CHTension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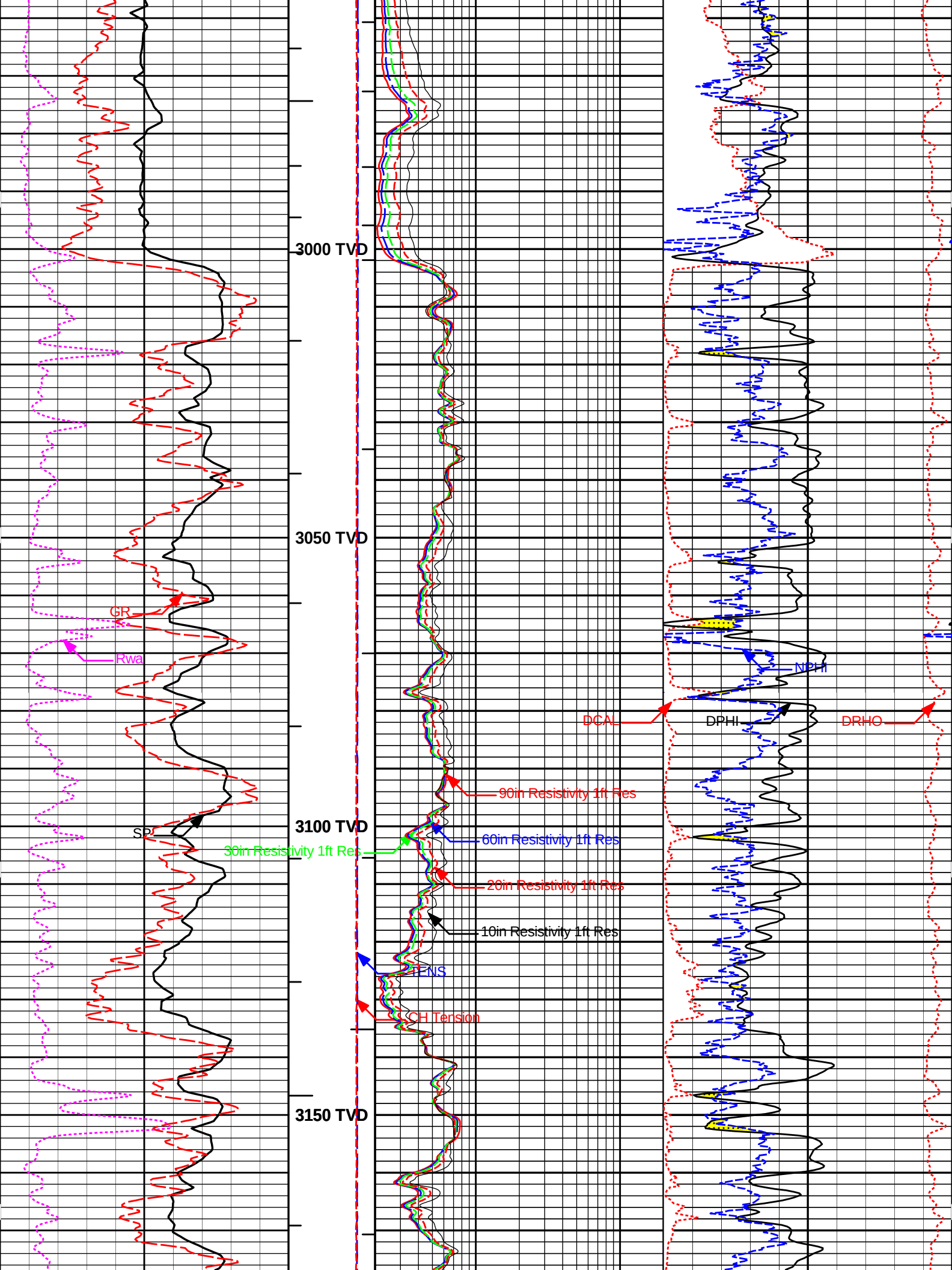
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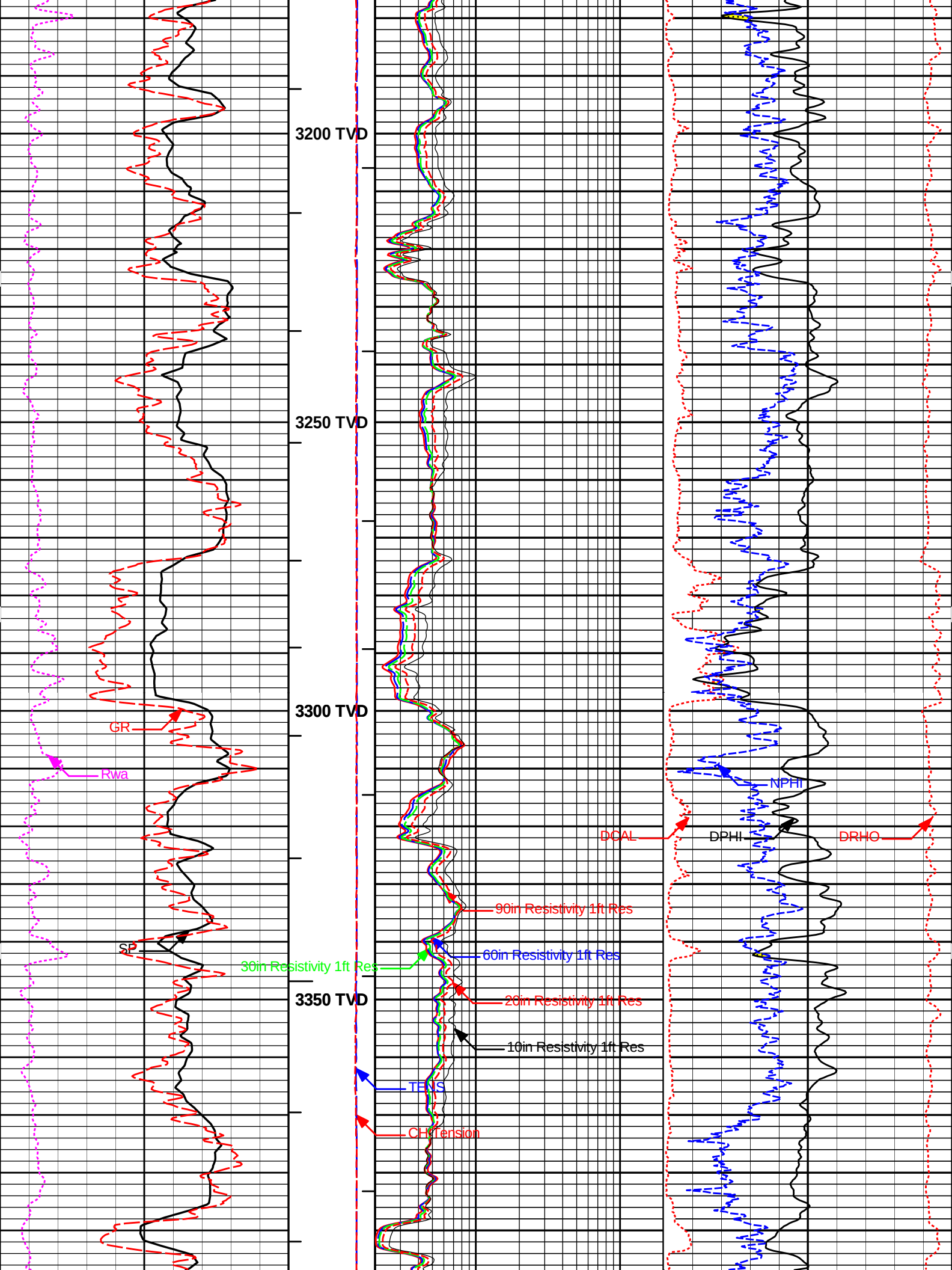
20in Resistivity 1ft Res
10in Resistivity 1ft Res
TENS
CH Tension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DPHI
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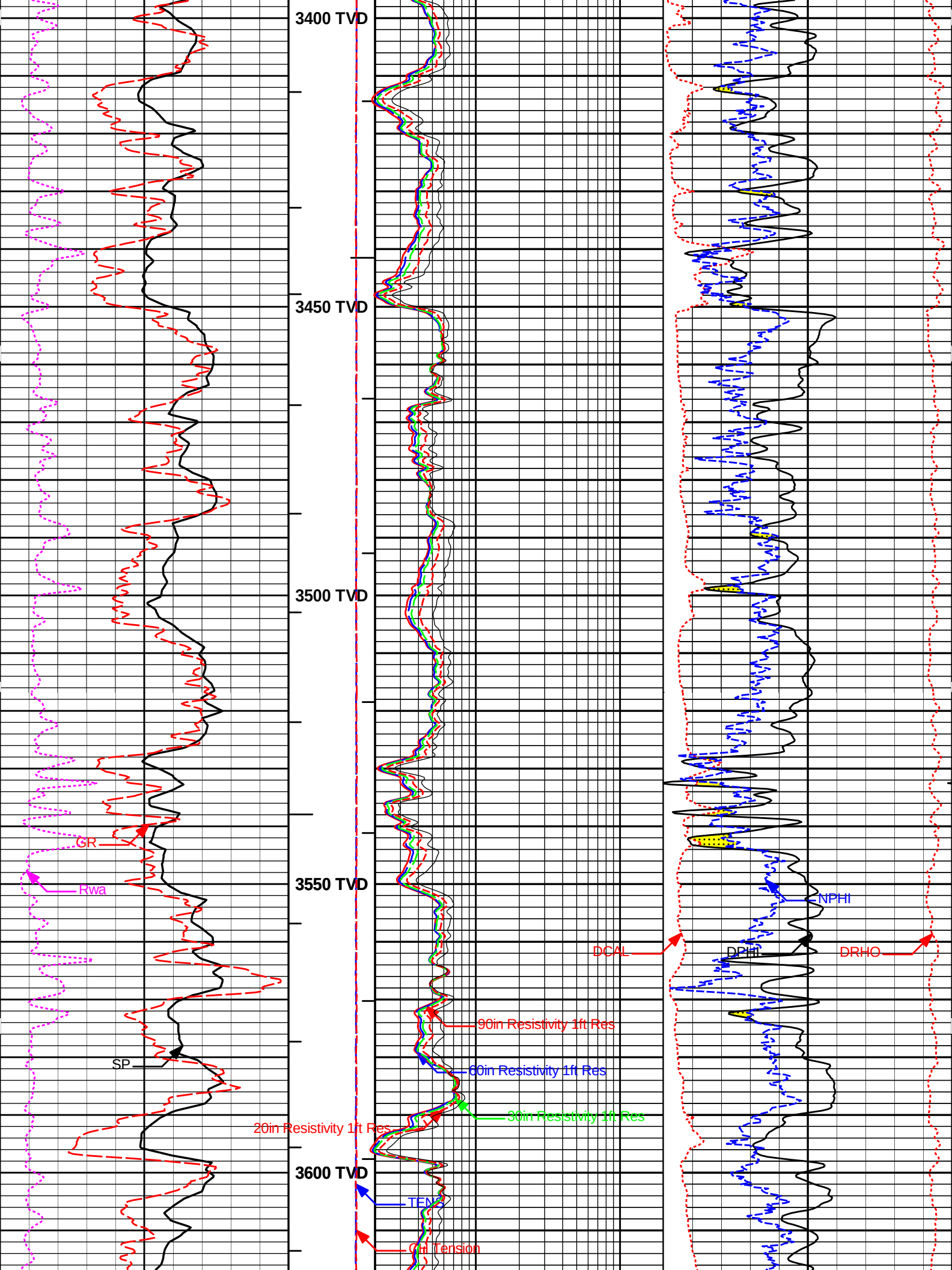
20in Resistivity 1ft Res
10in Resistivity 1ft Res
TENS
CHTension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Rwa
SP
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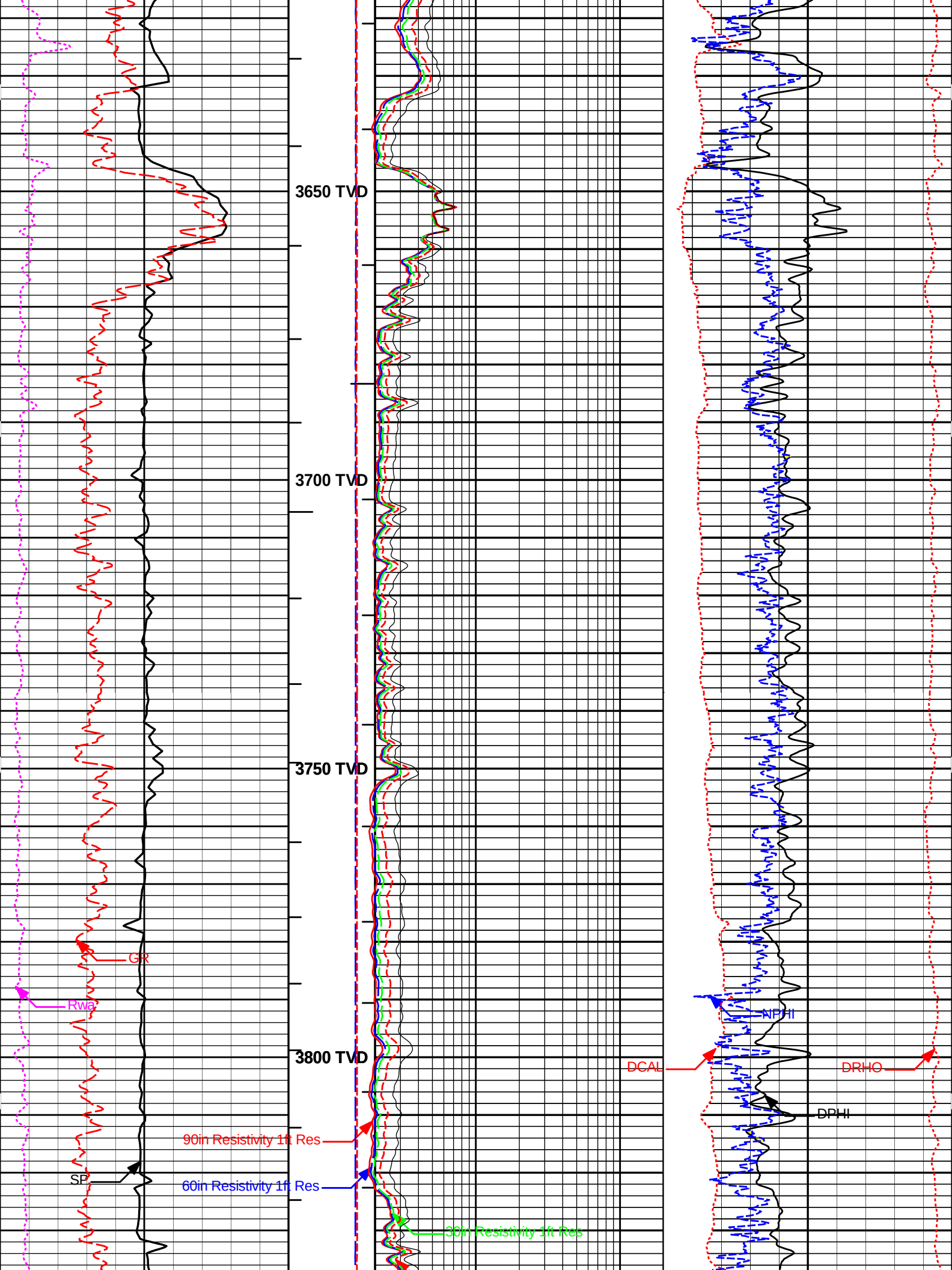
Cbl Tension
DCAL
NPHI
DPHI
DRHO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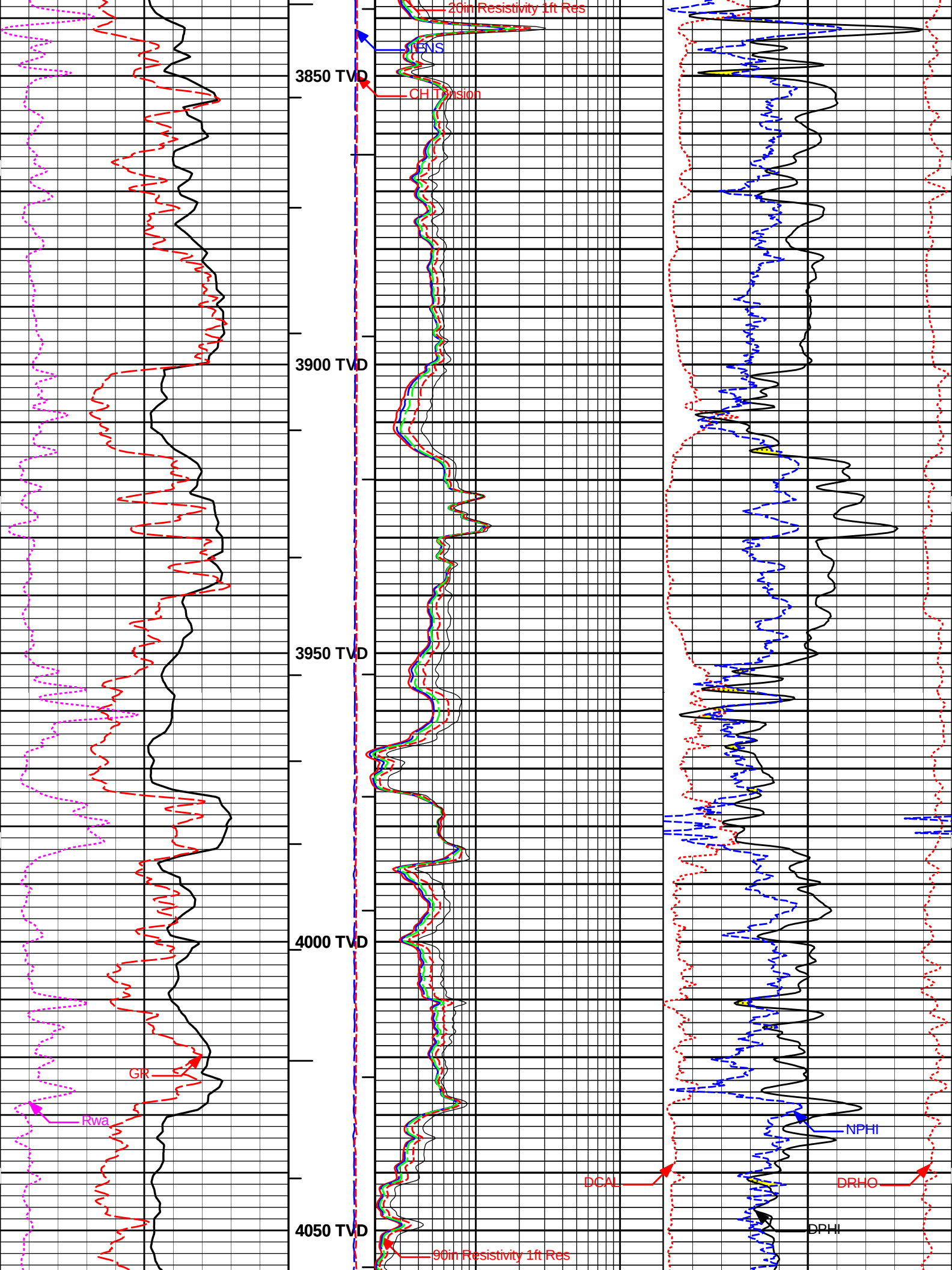
DCAL
DRHO
DPHI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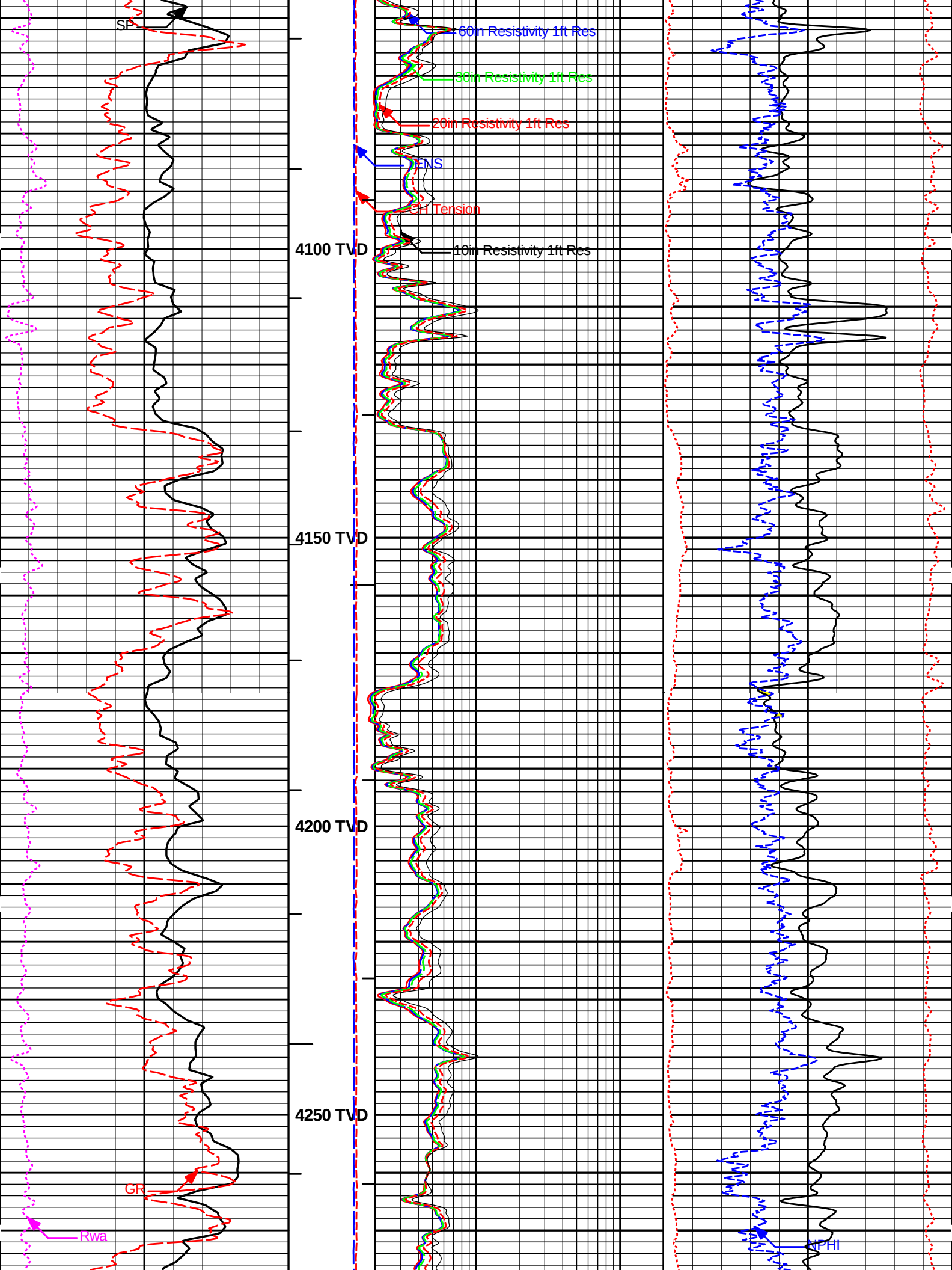
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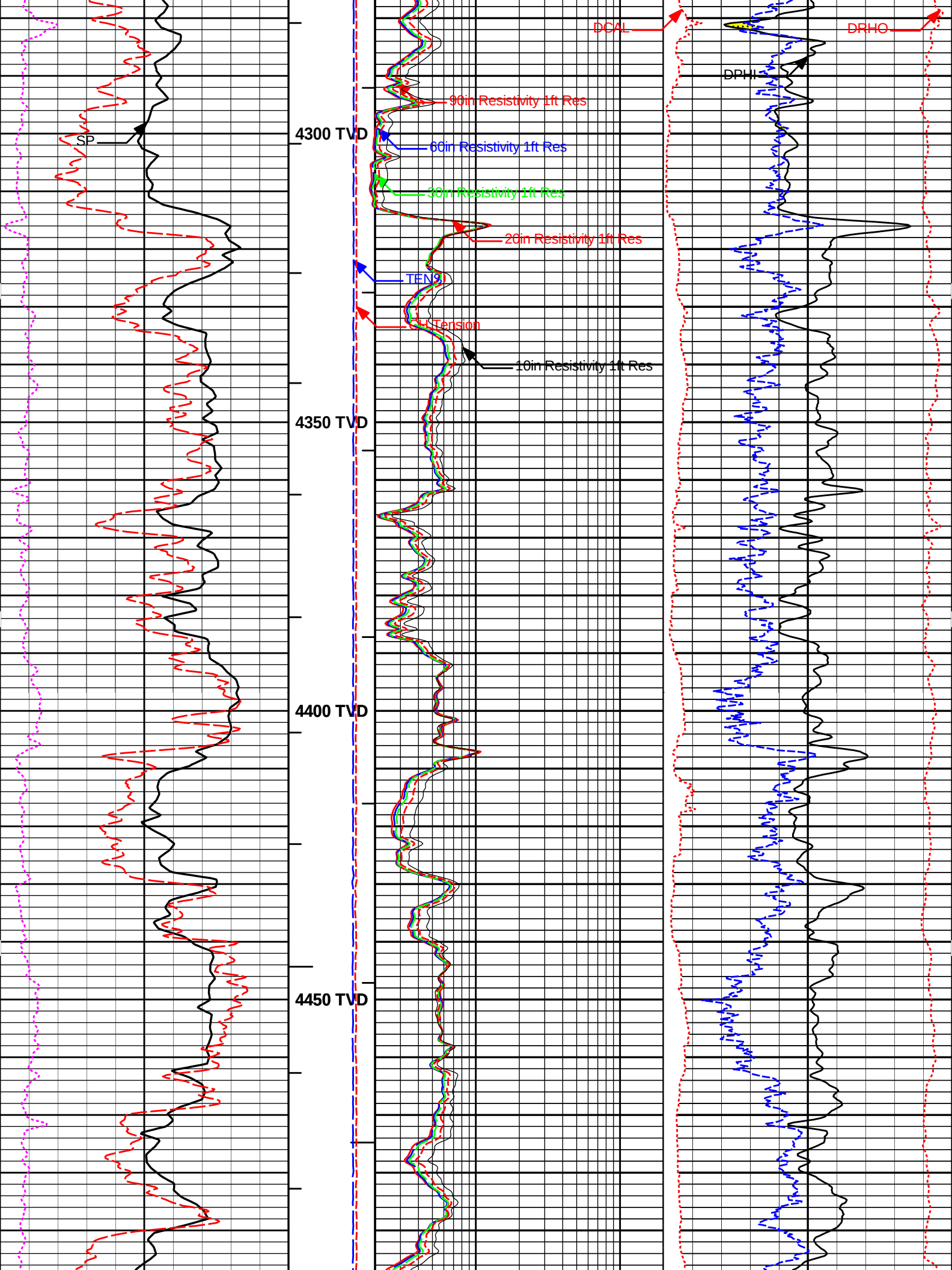
GR
Rwa
NPHI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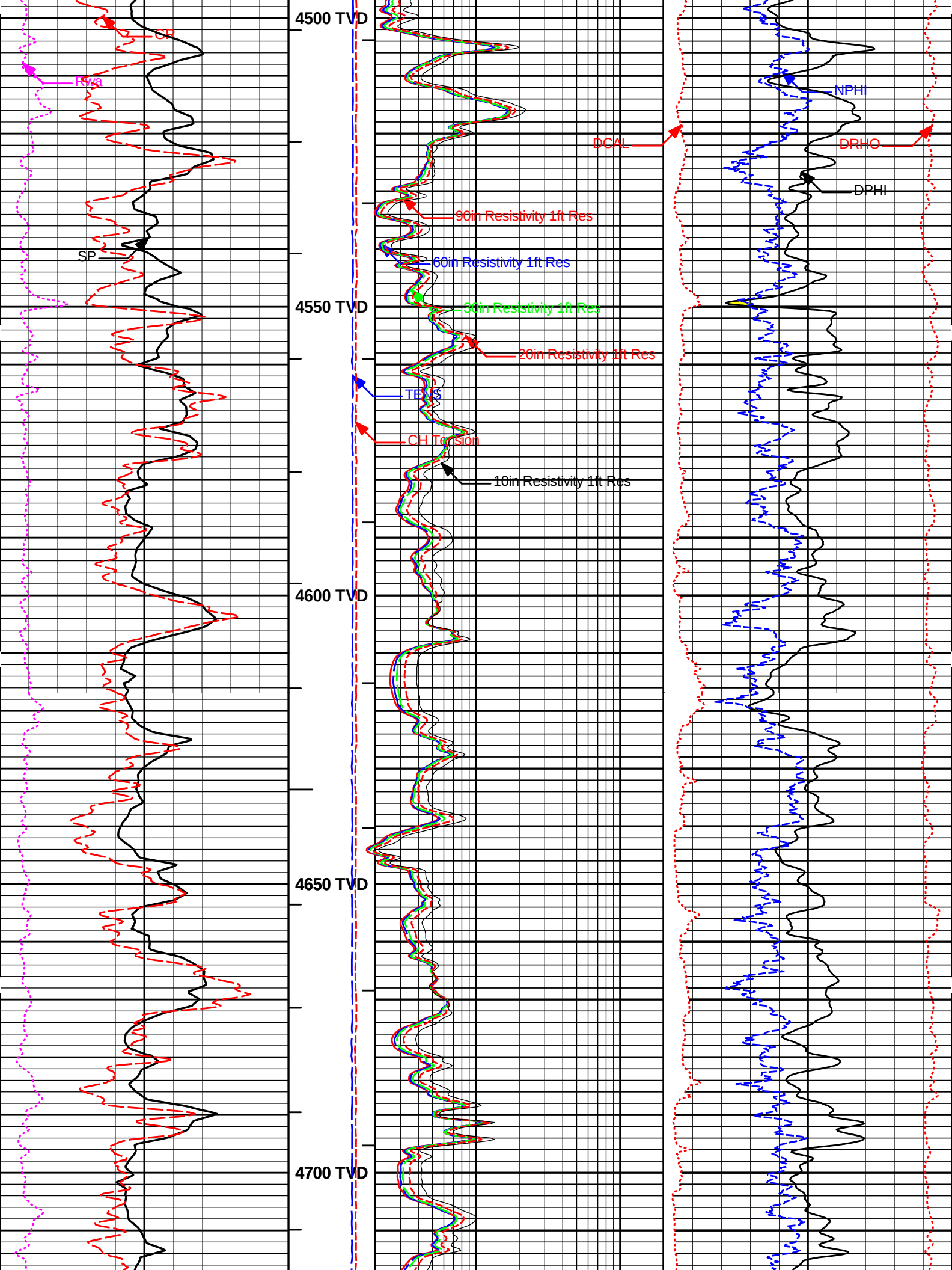
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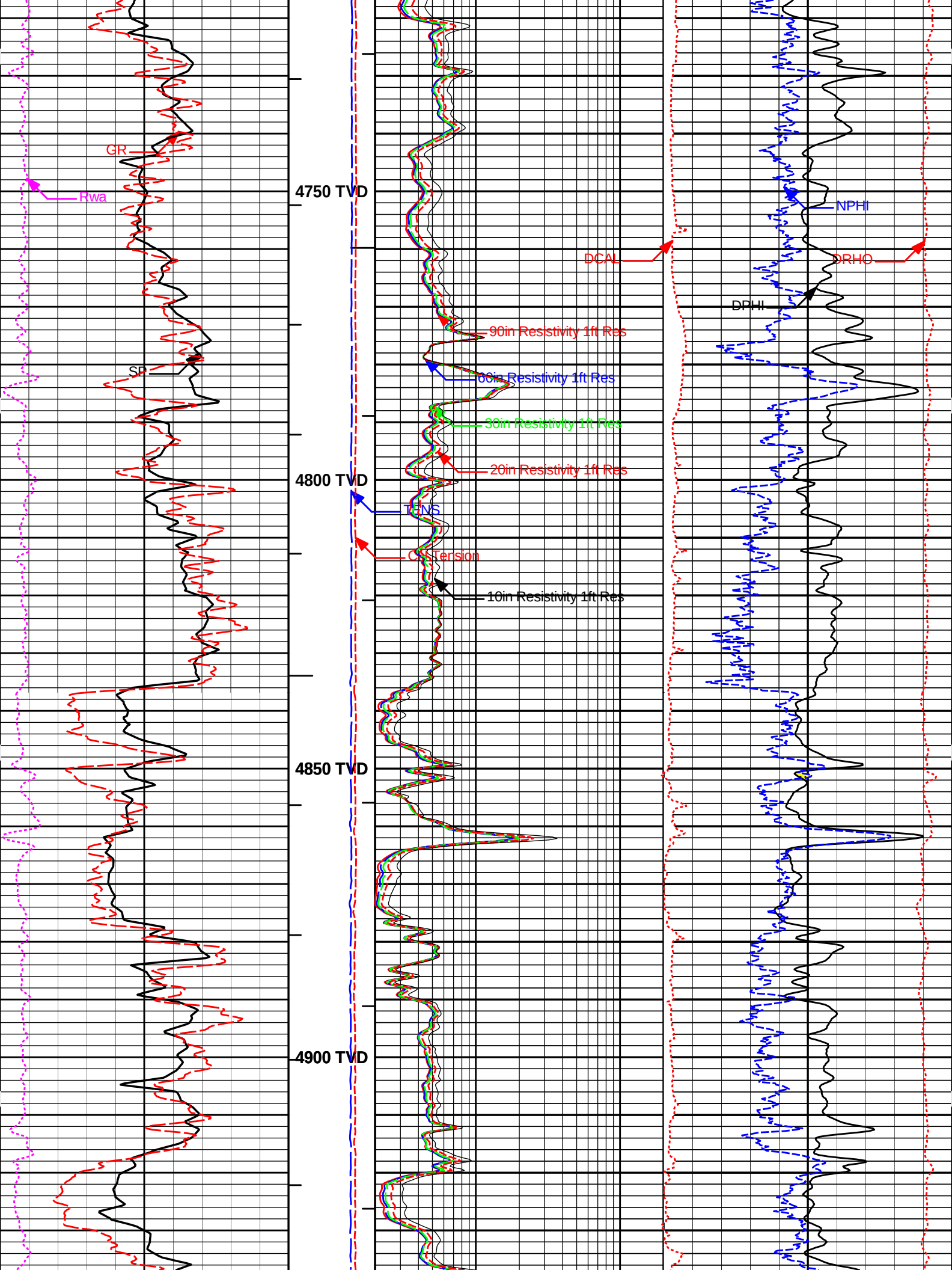
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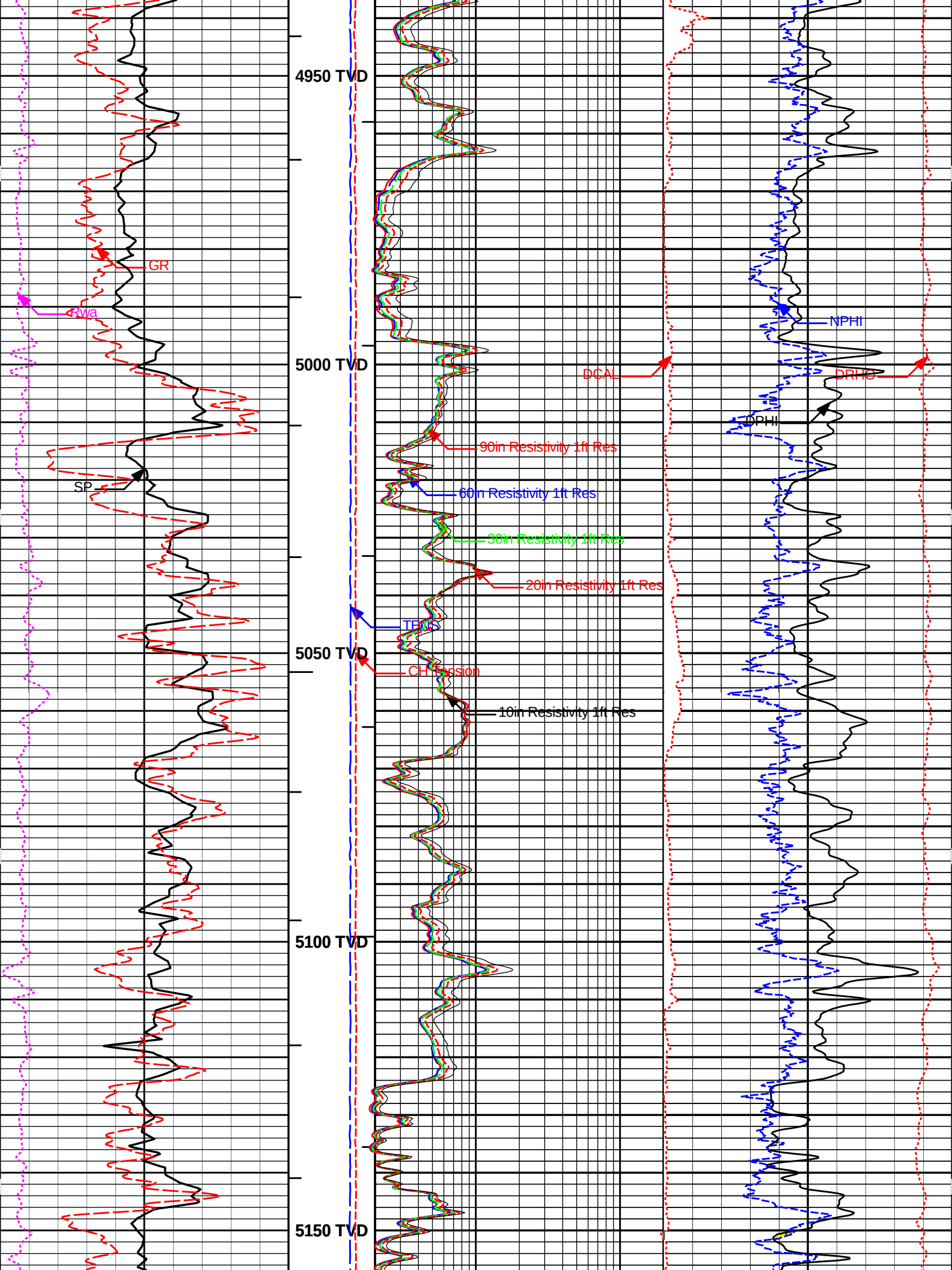
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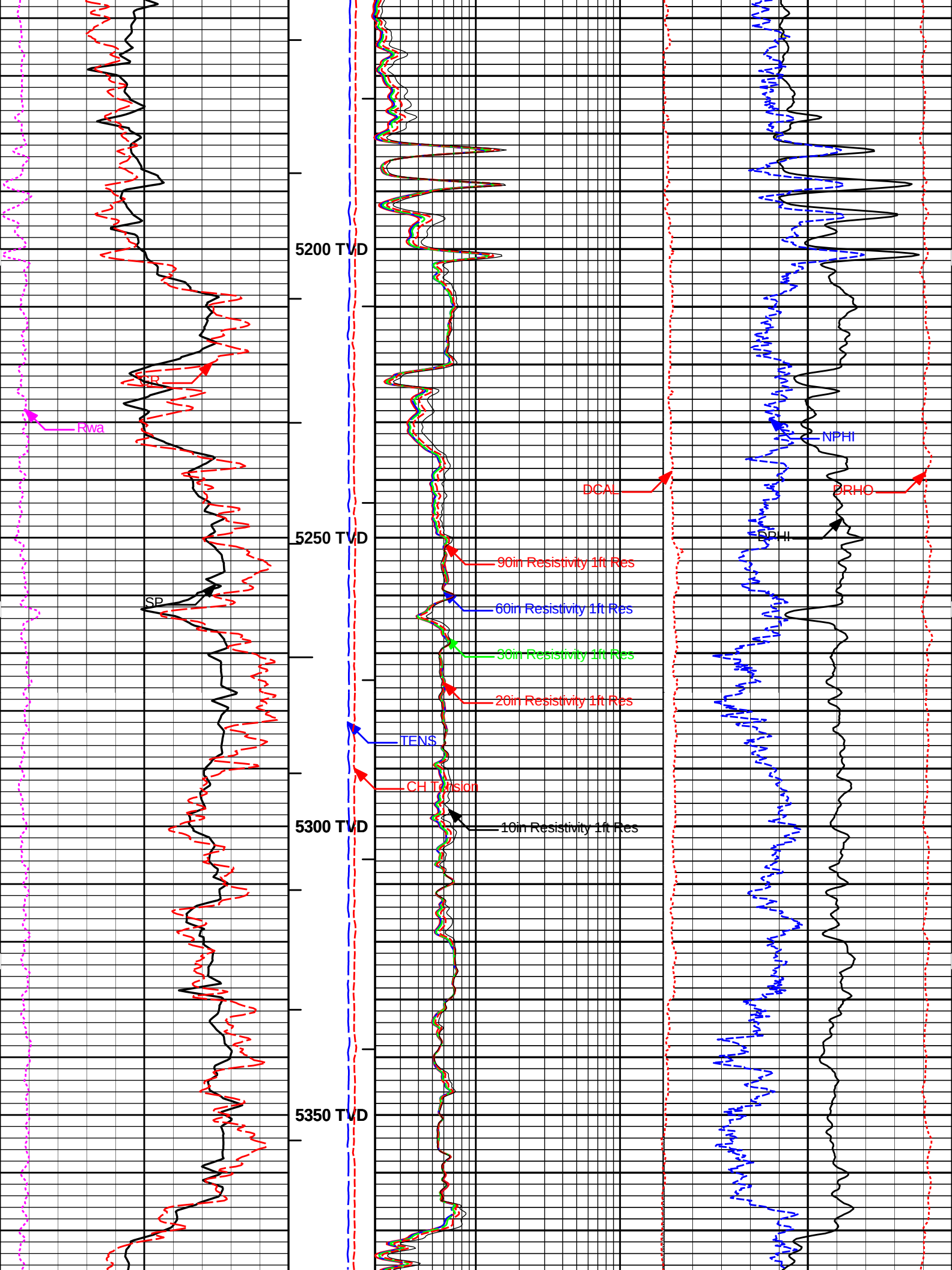
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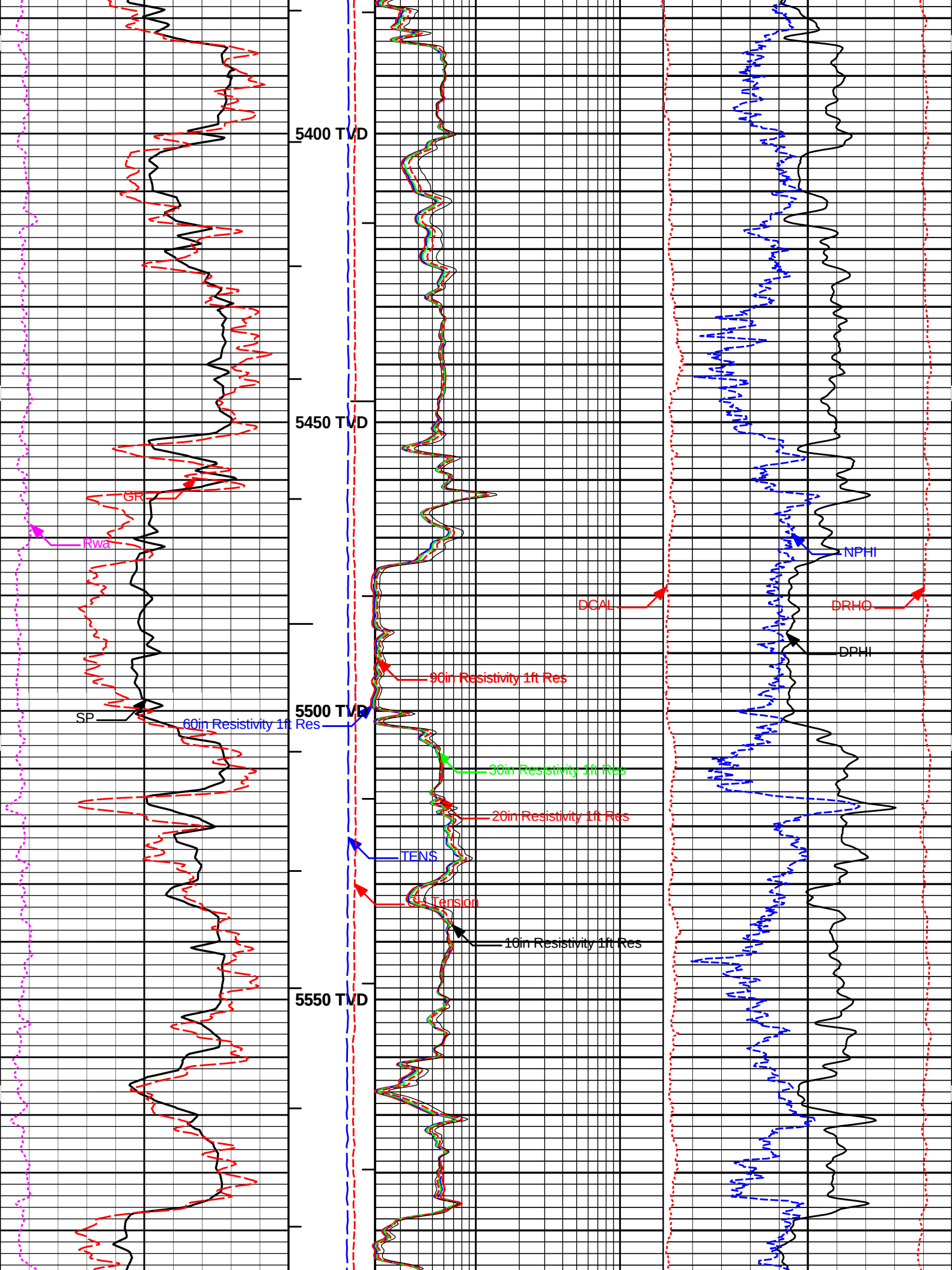
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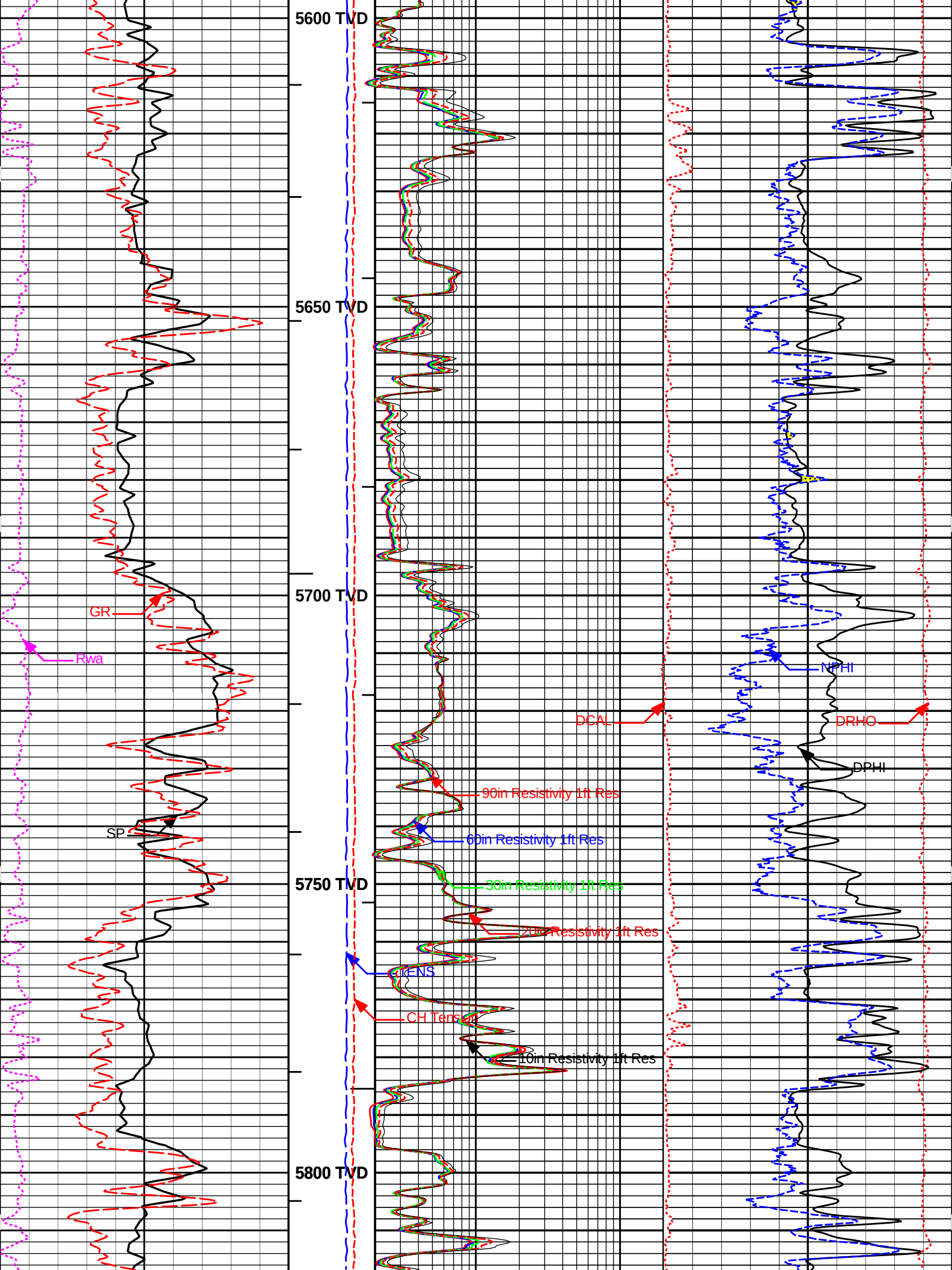
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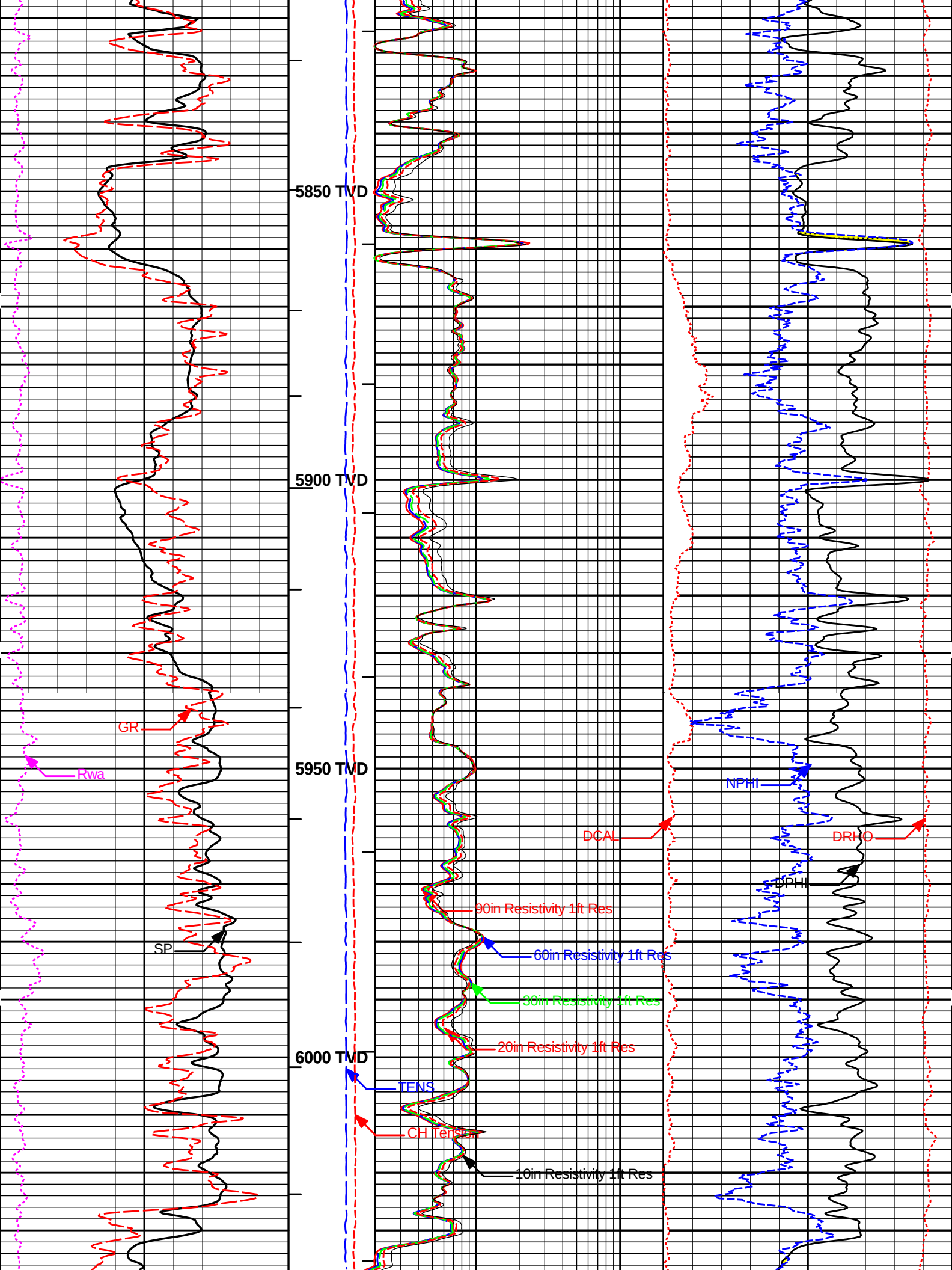
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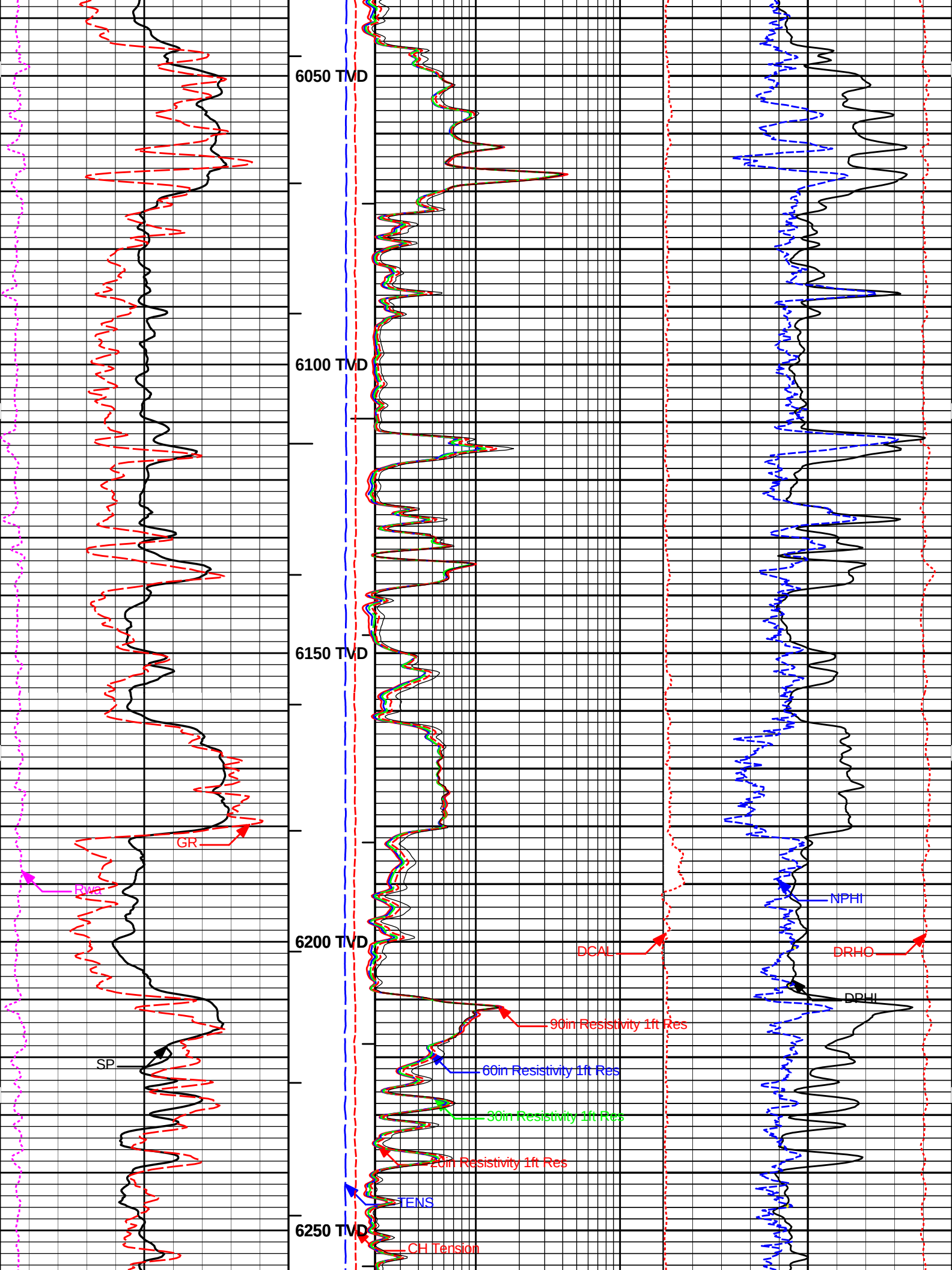
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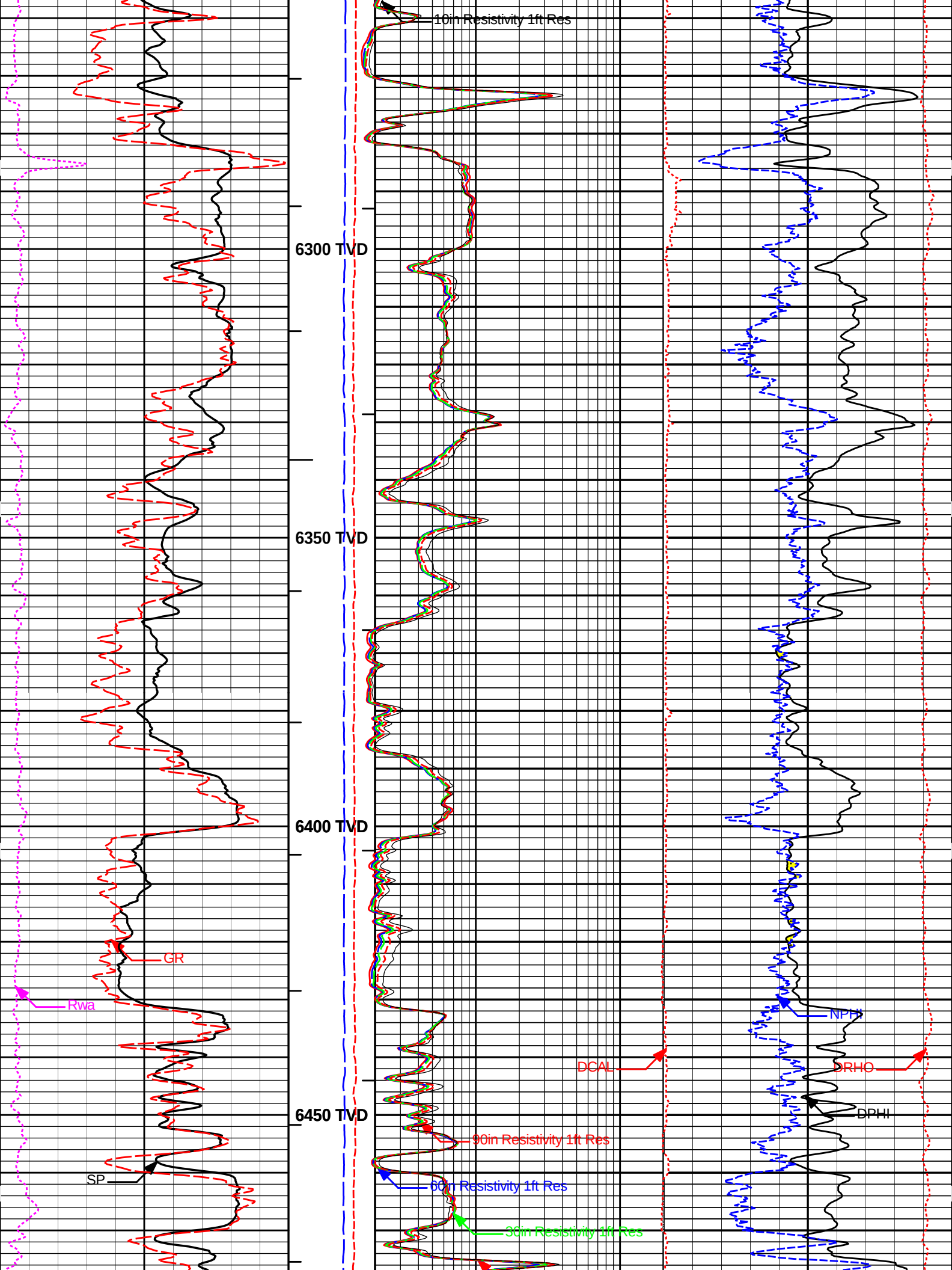
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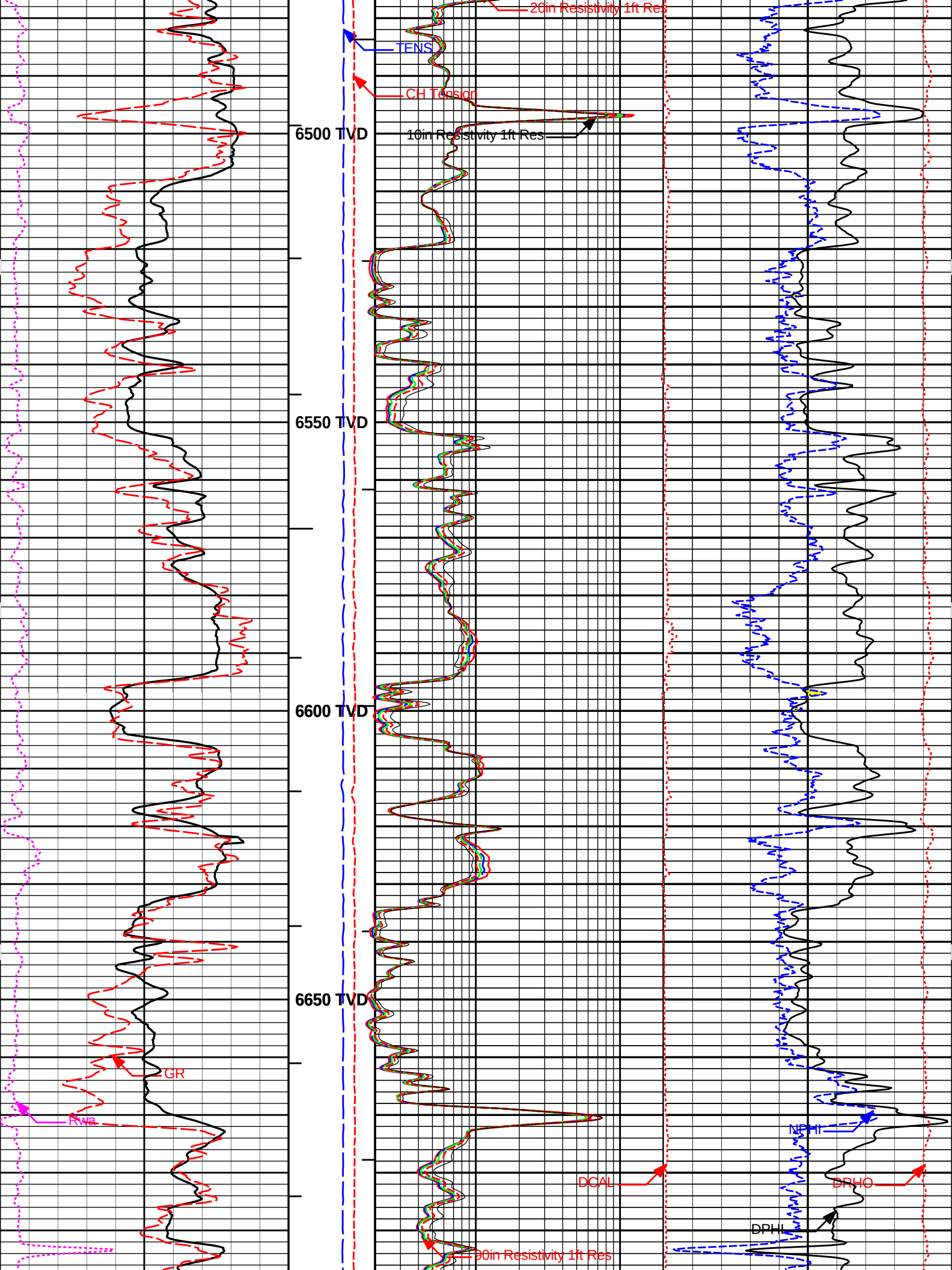
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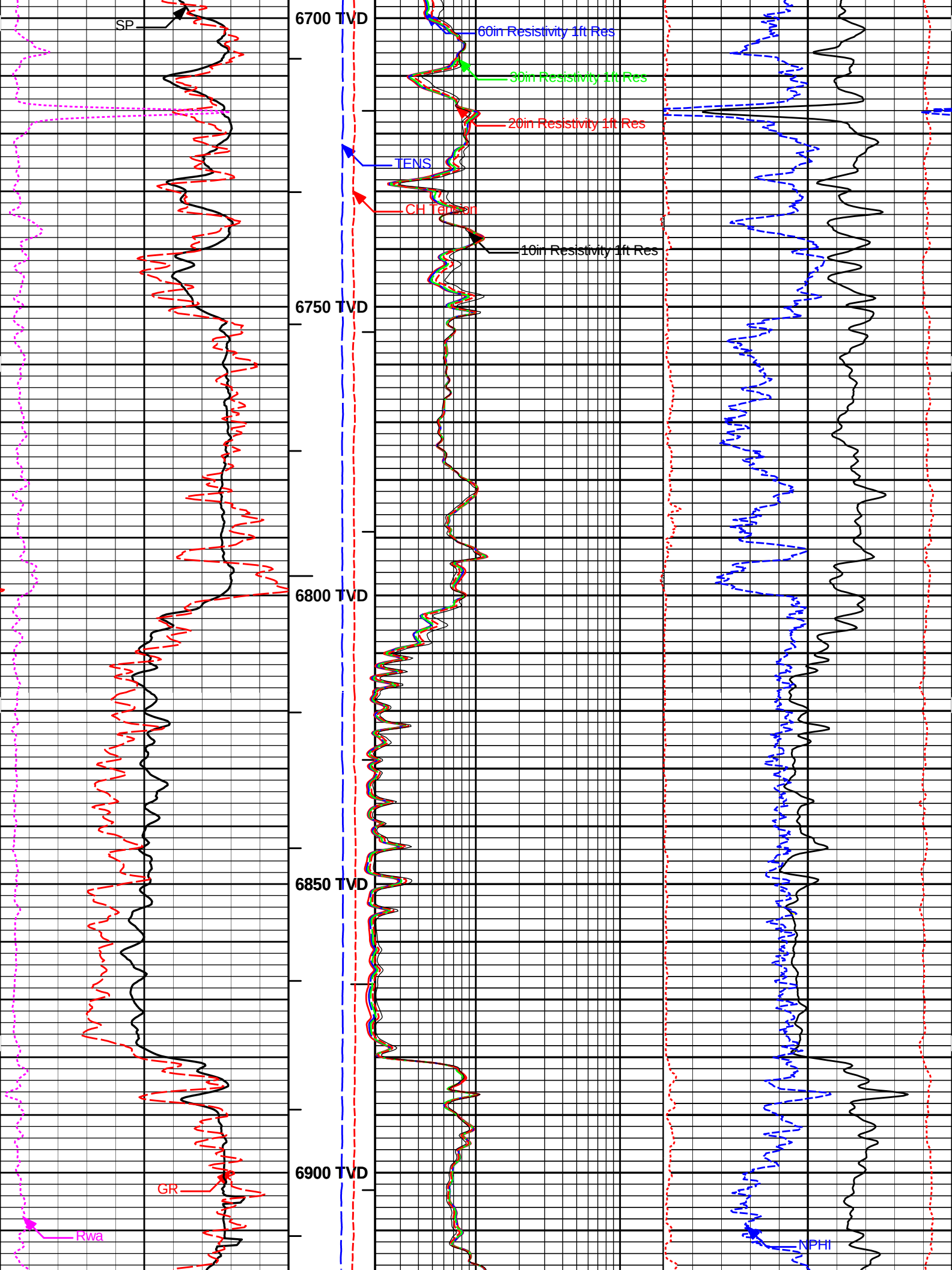
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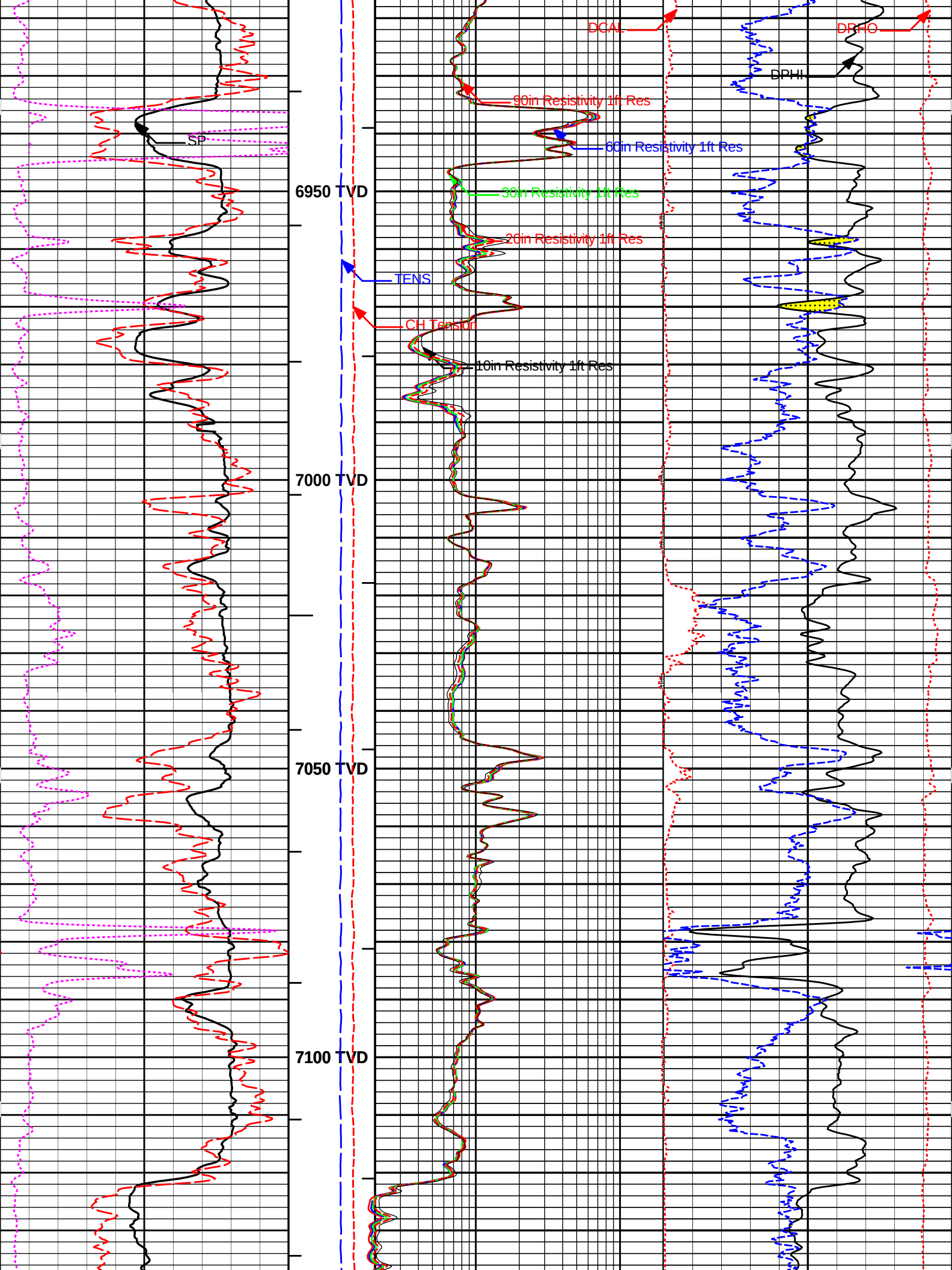
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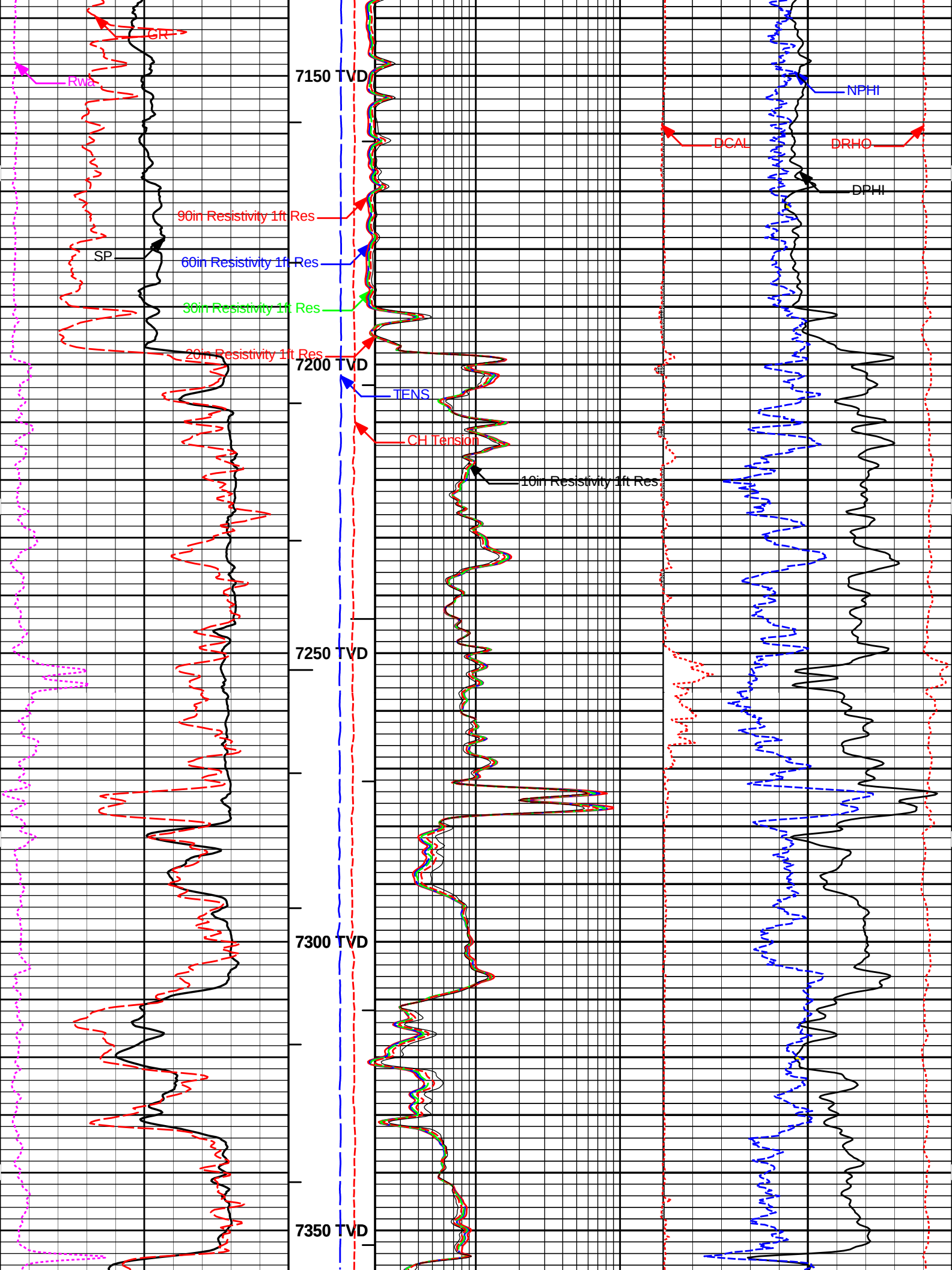
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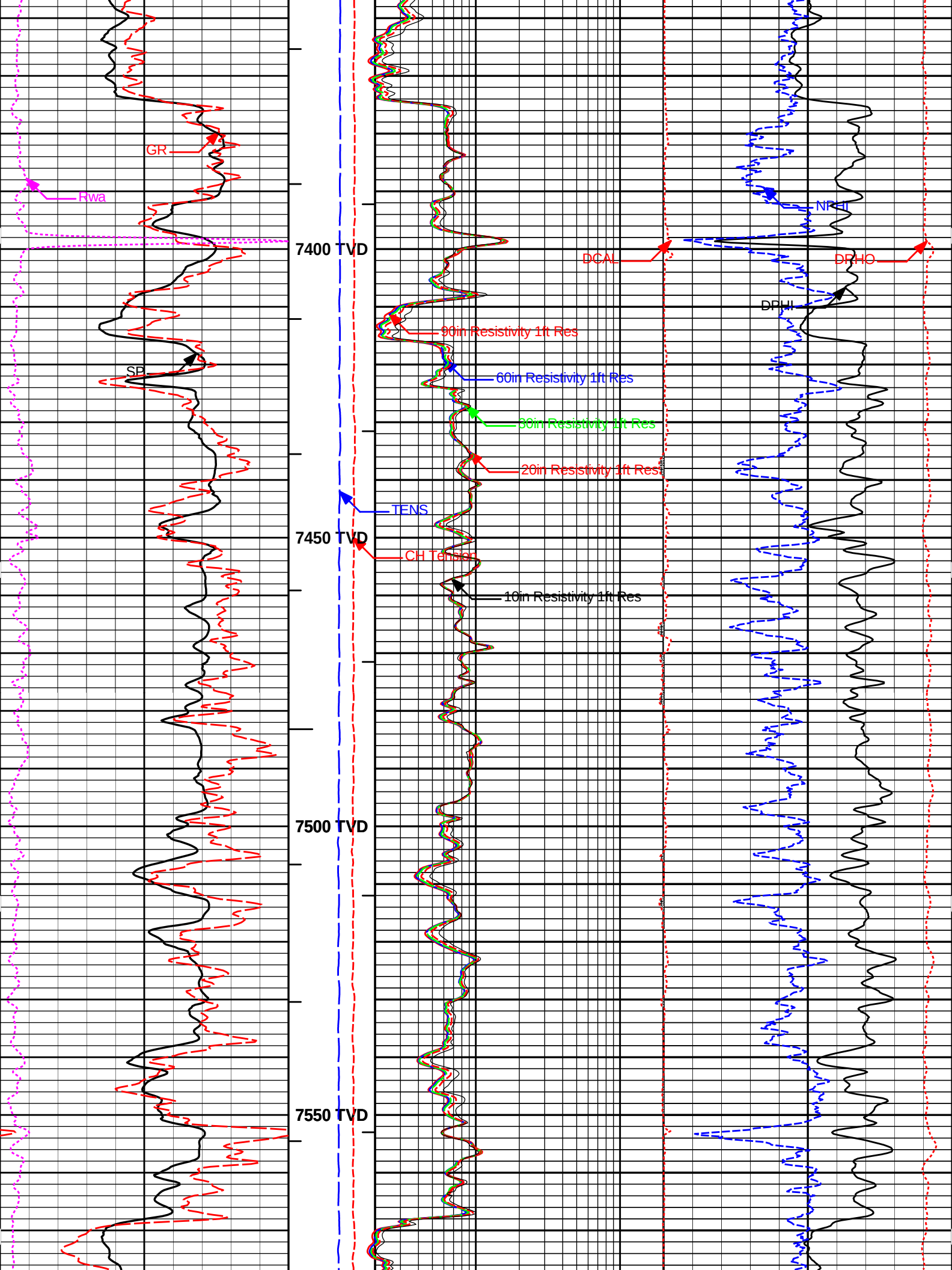
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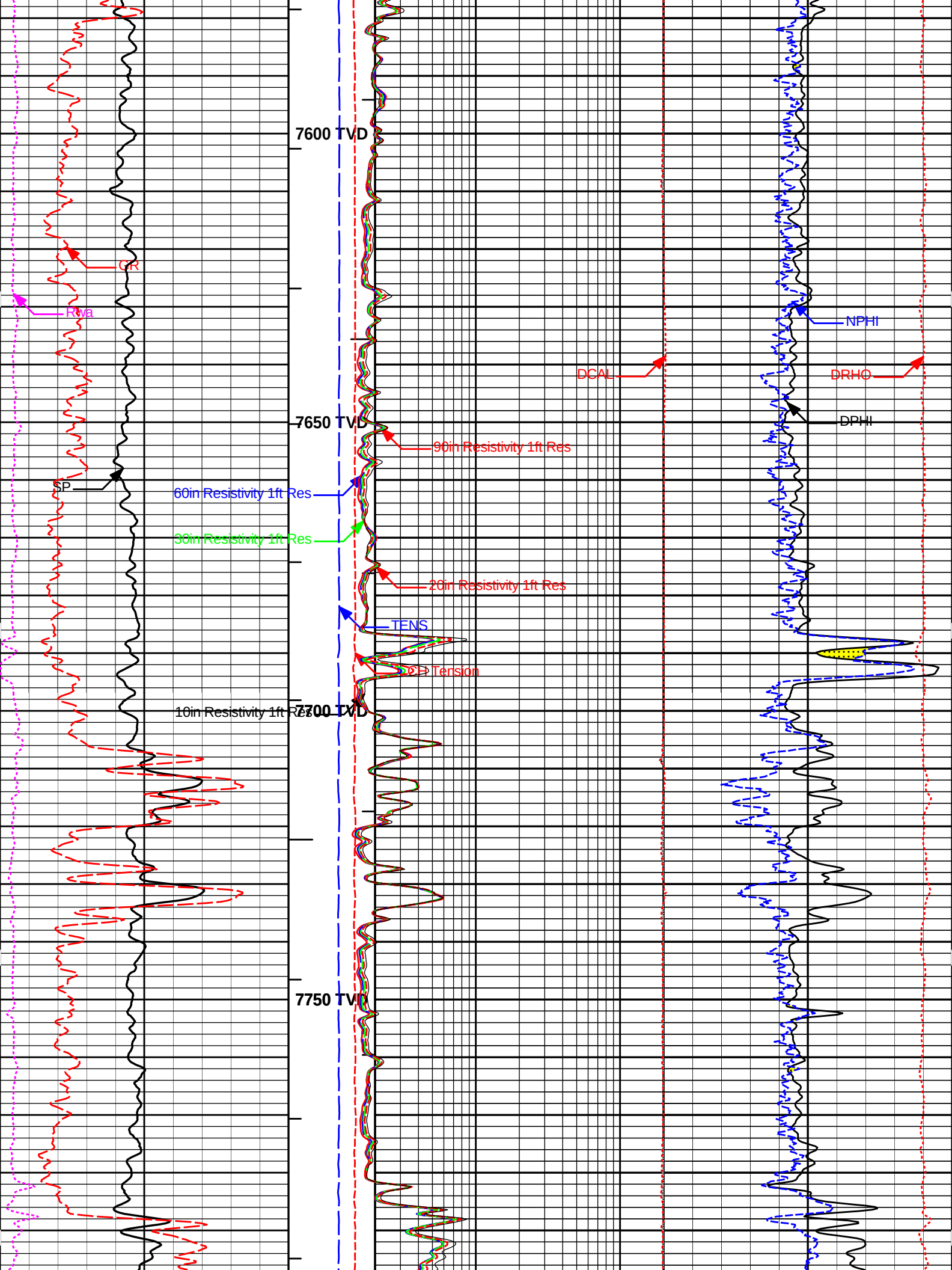
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TENS
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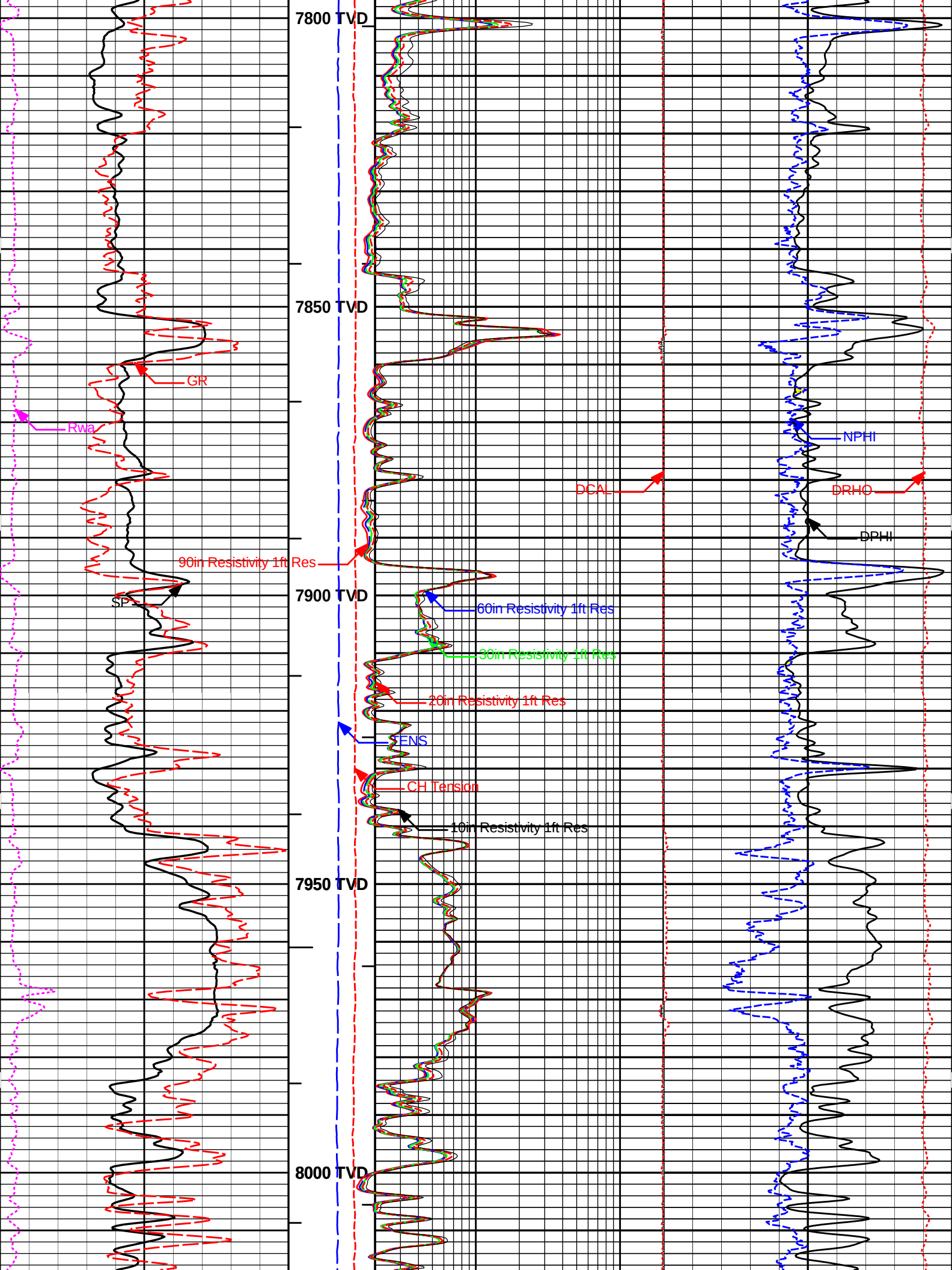
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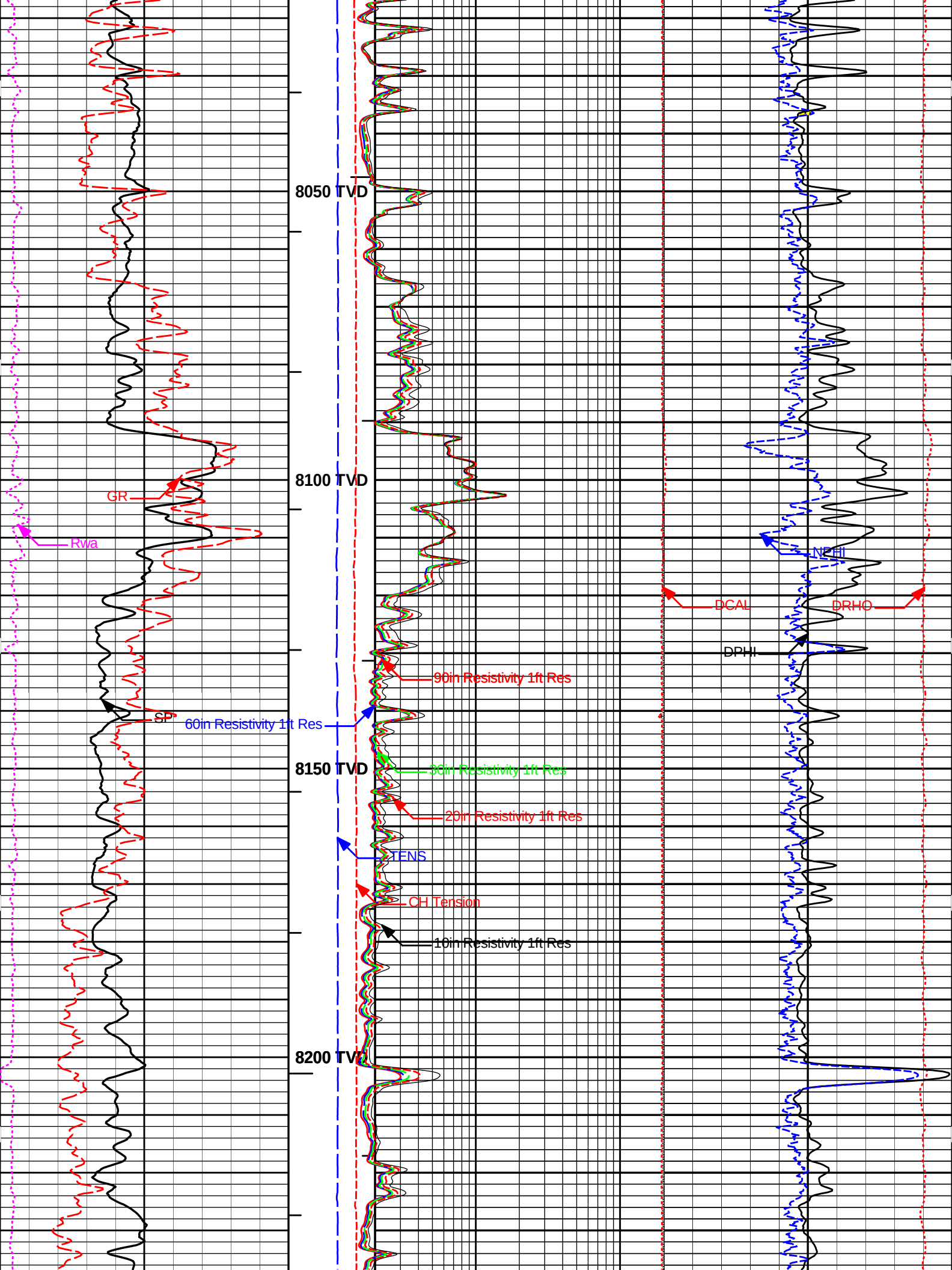
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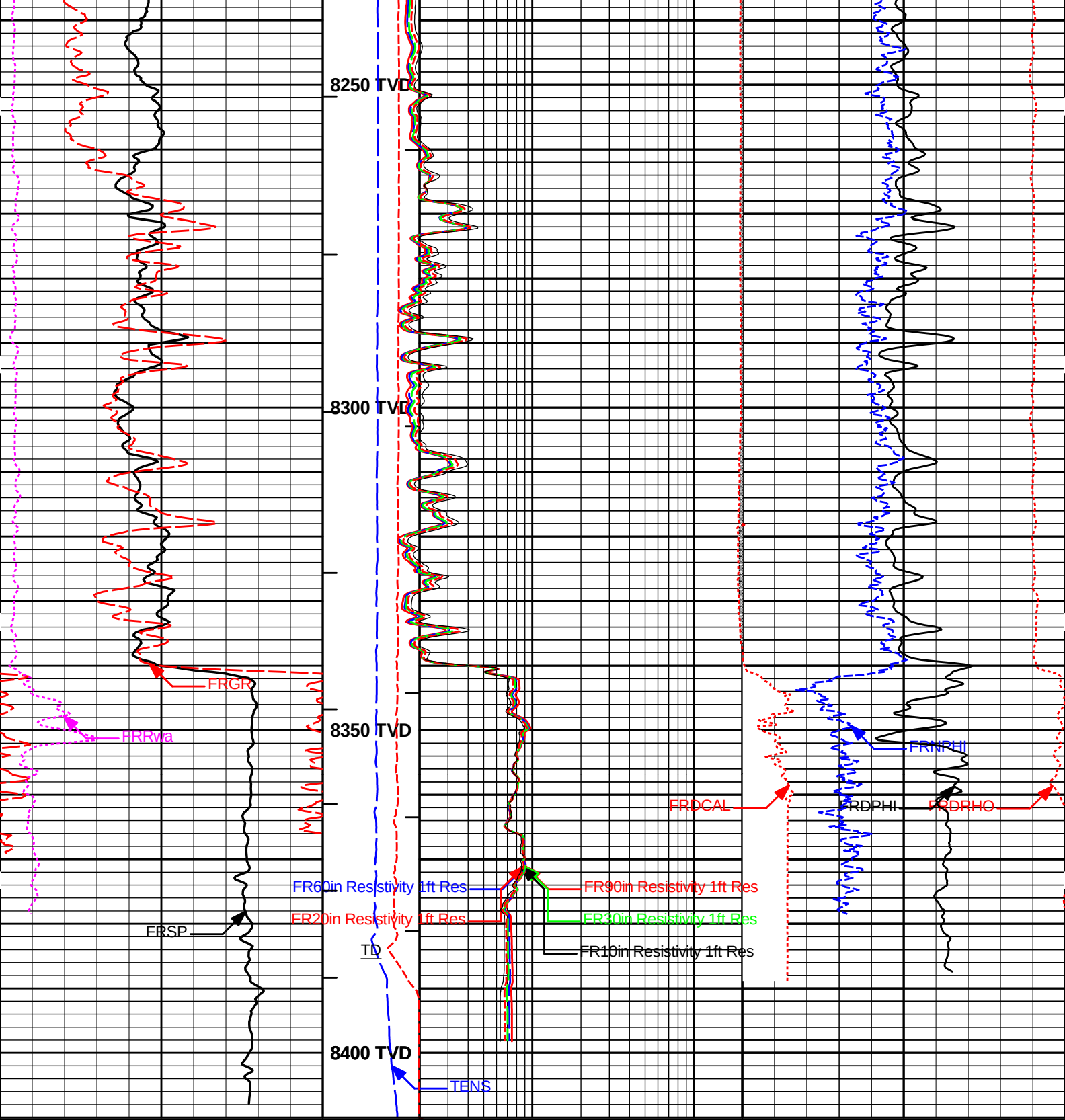
DPHI



0 Rwa 0.5	TVD	0.2 90in Resistivity 1ft Res 20	-1.8 DRHO 0.2	
ohmm	1 : 240	ohmm	g/cc	
SP	ft	0.2 60in Resistivity 1ft Res 20	60 DPHI 0	
-]20[+	BHV ←	ohmm	%	
0 GR 150	AHV →	0.2 30in Resistivity 1ft Res 20	60 NPHI 0	
api		ohmm	%	
	10K TENS 0	0.2 20in Resistivity 1ft Res 20		
	lbs	ohmm		
	5K CH Tension 0	0.2 10in Resistivity 1ft Res 20		

ohmm

-20 DCAL 20

in

HALLIBURTON

Plot Time: 10-Oct-11 21:19:04
Plot Range: 2498 ft to 8410 ft
Data: 10_10_CROWN\Well Based\DAQ-0001-003\
Plot File: \\5IN_TVD\CHUCK_TRIPLE_WBM_MAIN_TVD

5 IN = 100 FT TVD
MAIN PASS

HALLIBURTON

TVD SURVEY REPORT

Hole Position Calculation Method:	Minimum Curvature	Tie in Data	Depth:	3800.00	ft
Magnetic Declination:			TVD:	3799.49	ft
			Inclination:	1.8	deg
			Azimuth:	256.46	deg
			N/S Departure:	-18.09	ft
			E/W Departure:	-52.15	ft

Measured Depth (ft)	Inclination (deg)	True Vertical Depth (ft)	Azimuth (deg)	N/S Departure (ft)	E/W Departure (ft)
3800.00	1.8	3799.49	256.46	-18.09	-52.15
3900.00	1.8	3899.44	264.63	-18.59	-55.15
3950.00	2.0	3949.42	268.34	-18.69	-56.79
4020.00	1.8	4019.38	259.50	-18.92	-59.09
4082.00	1.8	4081.35	260.90	-19.25	-61.01
4144.00	2.3	4143.31	278.10	-19.23	-63.20
4206.00	3.0	4205.24	278.10	-18.83	-66.04
4268.00	3.2	4267.15	278.80	-18.34	-69.36
4331.00	3.7	4330.04	283.90	-17.58	-73.07
4393.00	4.6	4391.87	294.80	-16.05	-77.27
4455.00	5.4	4453.64	295.50	-13.74	-82.18
4517.00	6.5	4515.30	296.00	-10.94	-87.99
4579.00	7.6	4576.83	291.70	-7.88	-94.96
4641.00	8.4	4638.23	293.10	-4.59	-102.93
4703.00	9.9	4699.43	292.40	-0.78	-112.02
4765.00	11.1	4760.40	290.10	3.30	-122.56
4828.00	12.3	4822.08	290.20	7.70	-134.55
4891.00	12.8	4883.58	293.20	12.77	-147.26
4953.00	13.5	4943.95	291.50	18.12	-160.31
5015.00	15.1	5004.03	289.20	23.43	-174.67
5076.00	17.1	5062.64	285.80	28.49	-190.80
5138.00	18.8	5121.62	287.60	33.99	-209.10
5201.00	19.2	5181.19	291.10	40.79	-228.44
5263.00	19.2	5239.74	291.30	48.16	-247.45
5325.00	18.7	5298.38	291.80	55.56	-266.18
5387.00	19.0	5357.05	293.90	63.34	-284.63
5449.00	19.7	5415.55	295.30	71.89	-303.31
5509.00	19.7	5472.04	295.00	80.49	-321.62
5571.00	19.5	5530.45	295.50	89.36	-340.43
5634.00	19.5	5589.83	295.70	98.45	-359.39
5698.00	19.2	5650.22	298.20	108.05	-378.29
5760.00	19.5	5708.72	298.20	117.76	-396.40

5822.00	19.9	5767.09	296.40	127.34	-414.97
5885.00	20.1	5826.29	297.50	137.11	-434.17
5947.00	19.7	5884.59	298.20	146.97	-452.83
6009.00	19.5	5943.00	298.30	156.81	-471.15
6072.00	19.7	6002.35	296.60	166.55	-489.91
6134.00	19.7	6060.72	292.20	175.18	-508.93
6197.00	19.9	6120.00	292.70	183.33	-528.65
6259.00	19.5	6178.37	291.80	191.24	-547.99
6321.00	19.2	6236.87	289.50	198.49	-567.21
6383.00	19.4	6295.38	289.90	205.40	-586.50
6444.00	19.9	6352.83	290.60	212.50	-605.75
6506.00	19.2	6411.25	289.70	219.65	-625.22
6568.00	18.3	6469.96	288.50	226.17	-644.05
6631.00	18.1	6529.81	289.20	232.53	-662.67
6692.00	18.5	6587.73	290.80	239.08	-680.67
6754.00	18.3	6646.56	290.80	246.03	-698.96
6817.00	18.5	6706.34	291.50	253.21	-717.51
6878.00	18.5	6764.18	289.20	259.94	-735.65
6940.00	18.7	6822.95	285.80	265.88	-754.51
7003.00	18.5	6882.66	286.70	271.50	-773.80
7066.00	18.1	6942.47	287.60	277.33	-792.70
7128.00	18.1	7001.40	287.40	283.12	-811.07
7188.00	18.5	7058.37	287.60	288.79	-829.04
7250.00	18.1	7117.23	288.10	294.76	-847.57
7314.00	18.3	7178.03	288.70	301.07	-866.54
7376.00	18.5	7236.86	289.50	307.47	-885.03
7438.00	18.5	7295.66	289.90	314.10	-903.55
7501.00	18.3	7355.44	290.80	321.02	-922.19
7563.00	17.9	7414.37	291.70	328.00	-940.15
7626.00	17.9	7474.32	292.20	335.23	-958.11
7688.00	17.9	7533.32	292.50	342.48	-975.73
7750.00	18.5	7592.22	291.80	349.78	-993.67
7812.00	19.0	7650.93	290.10	356.90	-1012.28
7874.00	19.2	7709.51	290.20	363.89	-1031.32
7936.00	20.1	7767.90	289.50	370.97	-1050.93
7998.00	20.6	7826.03	289.50	378.16	-1071.26
8059.00	20.6	7883.13	290.40	385.49	-1091.43
8122.00	20.4	7942.14	291.10	393.30	-1112.06
8185.00	20.1	8001.25	292.00	401.31	-1132.34
8247.00	19.9	8059.51	292.70	409.37	-1151.96
8309.00	19.7	8117.84	292.50	417.45	-1171.35
8371.00	19.9	8176.18	293.10	425.58	-1190.71
8434.00	20.1	8235.38	292.90	434.00	-1210.54
8497.00	20.2	8294.52	292.90	442.45	-1230.53
8527.00	20.2	8322.68	292.90	446.48	-1240.07
8594.00	20.2	8385.56	292.20	455.35	-1261.44

Horizontal displacement is relative to the well head.
Horizontal displacement (closure) at 8,594.00 ft is 1,341.11 ft along 289.85 deg (Grid).

Data: 10_10_CROWN **Date: 10-Oct-11 20:39:37**

COMPANY	**CROWN DRILLING INCORPORATED**
WELL	**MERMENTAU MINERALS & LAND CO 13 #1**
FIELD	**MERMENTAU**

FIELD	**MERMENTAU**		
PARISH	**CAMERON**	STATE	**LA**

HALLIBURTON

ARRAY RESISTIVITY
DUAL SPACED NEUTRON
SPECTRAL DENSITY

5IN = 100 FT TVD