

Company: Southwestern Energy Production Company

Well: Diamond T Sheep 7-92 1-26

Field: Sand Wash Basin/Niobrara

County: Moffat State: Colorado

Platform Express

Triple Combo

Density 1

County: Moffat
Field: Sand Wash Basin/Niobrara
Location: NWNW Sec 26-T7N-R92W
Well: Diamond T Sheep 7-92 1-26
Company: Southwestern Energy Production Company

Location:		Elev.:	
NWNW Sec 26-T7N-R92W		K.B.	6702.00 ft
SHL: 660' FNL X 930' FWL		G.L.	6680.00 ft
Lat/Long: 40.534283/-107.693039		D.F.	6701.00 ft
Permanent Datum:	Ground Level	Elev.:	6680.00 f
Log Measured From:	Kelly Bushing	22.00 ft	above Perm.Datum
Drilling Measured From:	Kelly Bushing		
API Serial No.	Section:	Township:	Range:
05-081-07804-0000	26	7N	92W

Logging Date 11-Sep-2014

Run Number One

Depth Driller 5681.00 ft

Schlumberger Depth 5680.00 ft

Bottom Log Interval 5680.00 ft

Top Log Interval 1296.00 ft

Casing Driller Size @ Depth 13.375 in @ 1296.00 ft

Casing Schlumberger 1296 ft

Bit Size 12.25 in

Type Fluid In Hole Water Based Mud

Density 9 lbm/gal 44 s

Fluid Loss PH 11.2 cm3 8.6

Source of Sample Active Tank

RM @ Meas Temp 0.15 ohm.m @ 85 degF

RMF @ Meas Temp 0.12 ohm.m @ 85 degF

RMC @ Meas Temp 2 ohm.m @ 85 degF

Source RMF RMC Calculated

RM @ BHT RMC @ BHT 0.08 @ 160 0.07 @ 160

Max Recorded Temperatures 160 degF

Circulation Stopped 11-Sep-2014 04:00:00

Logger on Bottom 11-Sep-2014 18:30:00

Unit Number 9103 Elk City, OK

Recorded By Avery Becker

Witnessed By Sweta Bose

Disclaimer

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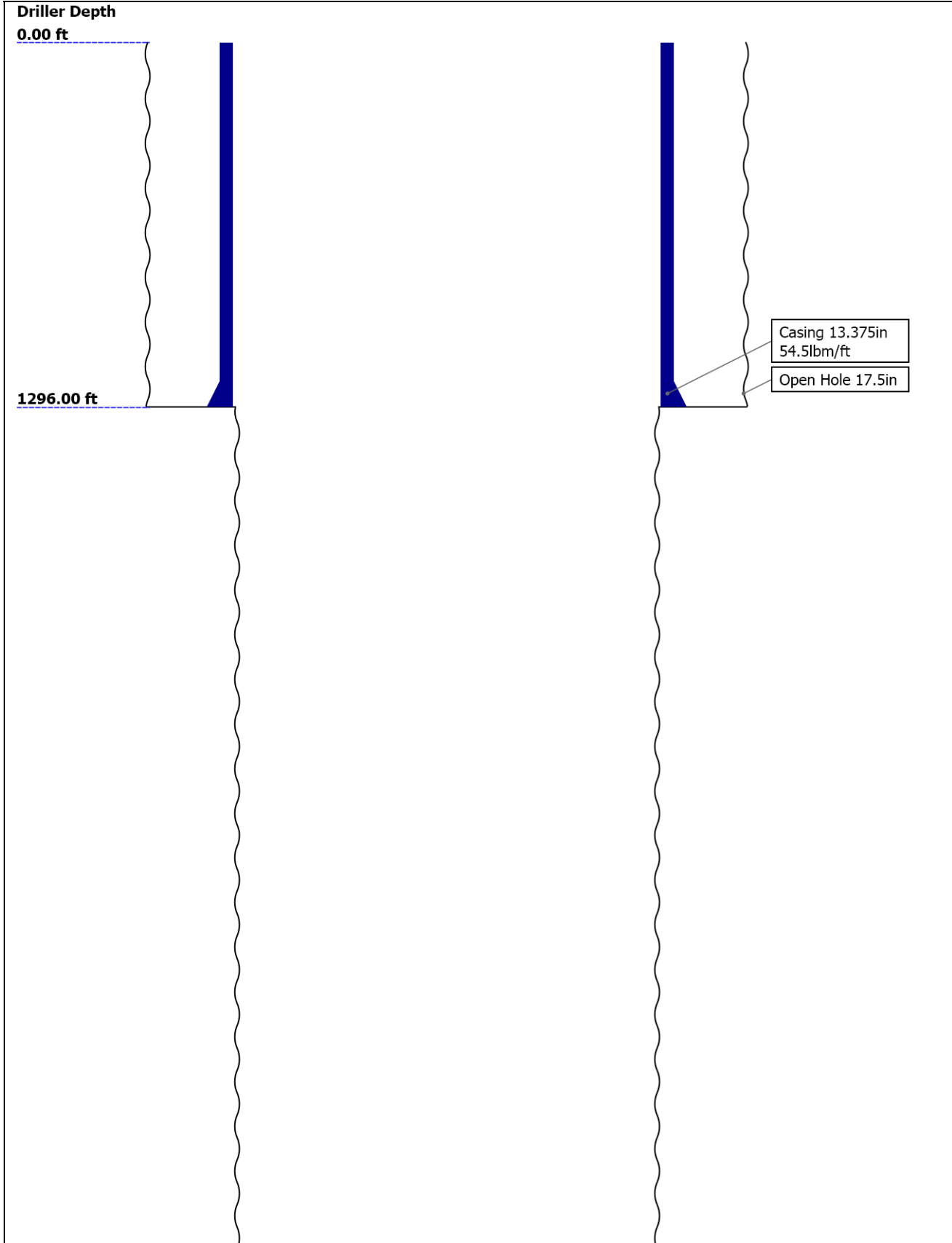
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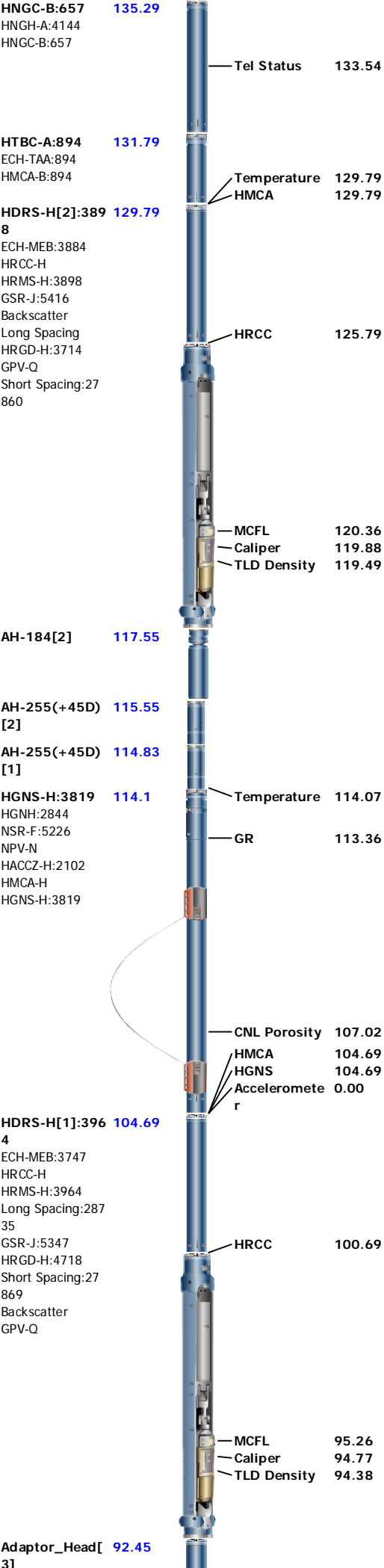
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Well Sketch





AH-184[1]:274 88.45
6

PPC-B[2]:8671 86.45
PPC-B:8671

PPC-B Calipers 85.3

AH-255(-45D) 79.93

MAST-B:8159 79.2
ECH-SF:8143
MAPC-BA:8143
MAMS-BA:8159
MASS-BA:8079
MAXS-BA:8045

MAMS 63.76



PPC-B[1]:8007 37.92
PPC-B:8007

MAXS

37.92

PPC-B Calipers

36.77

Adaptor_Head[2] 31.4

GPIT-F 27.4
GPIH-B:3808
GPIC-F
DHRU-F

GPIT-F Inclinator

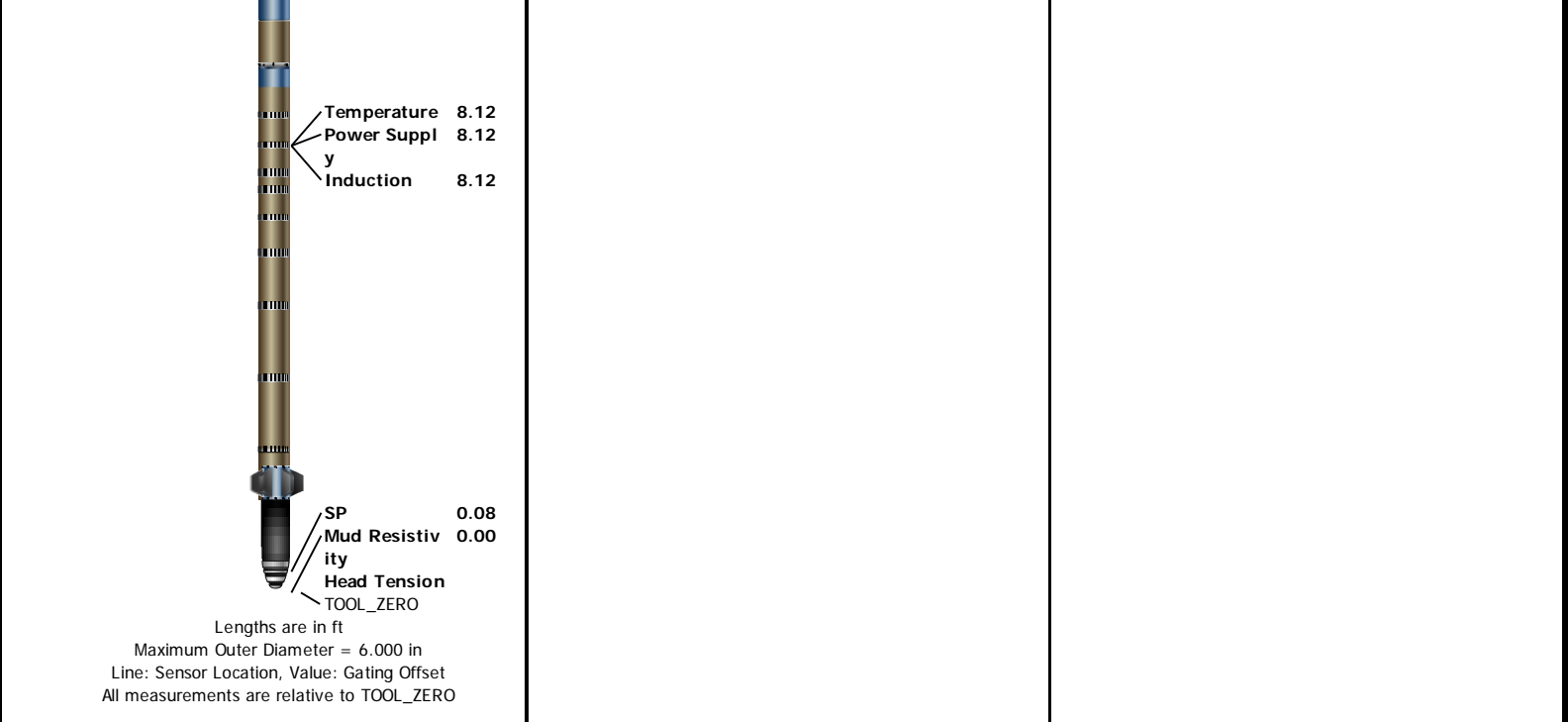
25.98

Adaptor_Head[1] 23.4

GPIT

0.00

ZAIT-E:99 19.4
AZIS:99
AZRM



Depth Summary			
	One		
Depth Measuring Device			
Type	IDW-B		
Serial Number	5824		
Calibration Date	23-Jul-2014		
Calibrator Serial Number			
Calibration Cable Type	7-46A-XS		
Wheel Correction 1	1		
Wheel Correction 2	1		
Tension Device			
Type	CMTD-B/A		
Serial Number	2576		
Calibration Date	15-Aug-2014		
Calibrator Serial Number	1018		
Number of Calibration Points	10		
Calibration Root Mean Square Error	13		
Calibration Peak Error	20		
Logging Cable			
Type	7-46A-XS		
Serial Number	U714050		
Length	30000.00 ft		
Conveyance Type	Wireline		
Rig Type	Land		
One:Depth Control Parameters		Depth Control Remarks	
Log Sequence	First Log In the Well	First run in well depth control procedures followed	
Rig Up Length At Surface		IDW used as primary depth device, z-chart used for secondary	
Rig Up Length At Bottom			
Rig Up Length Correction			
Stretch Correction	5.00 ft		
Tool Zero Check At Surface			
Survey Record			
Survey Calculation			
Method :	Minimum Radius of Curvature	DLS Method :	Lubinski
North Reference :	True North	Total Correction Formula :	Magnetic Dec

Rig Location															
Latitude :				40.534283 degrees				Longitude :				-107.69303 degrees			
Tie In Point															
Measured Depth:		1350.00 ft			Inclination:		0.00 deg			Azimuth:		0.00 deg			
True Vertical Depth:		0.00 ft			North Displacement:		0.00 ft			East Displacement:		0.00 ft			
Survey Quality Index															
9 : Manual				28 : Tie-In Point											
Survey Correction Index															
0 : No correction															
Survey Description Index															
0 : Not Flagged Survey															
Seq	MD (ft)	Incl (deg)	Azim (deg)	Course (ft)	TVD (ft)	V Sec (ft)	N/ -S (ft)	E/ -W (ft)	Closure (ft)	at Azim (deg)	DLS deg/100ft	Tool Type	QI	CI	DI
1	1350.00	0.00	0.00	- - - -	0.00	0.00	0.00	0.00	0.00	90.00	0.00	TIP	28	0	0
2	1365.50	1.85	215.64	15.50	15.50	-0.20	-0.20	-0.15	0.26	215.64	11.95	GPIT-F	9	0	0
3	1395.50	1.76	217.28	30.00	45.48	-0.96	-0.96	-0.71	1.18	216.27	0.36	GPIT-F	9	0	0
4	1425.50	1.82	220.93	30.00	75.47	-1.69	-1.69	-1.30	2.13	217.53	0.43	GPIT-F	9	0	0
5	1455.50	1.83	218.59	30.00	105.45	-2.42	-2.42	-1.91	3.08	218.22	0.25	GPIT-F	9	0	0
6	1485.50	1.76	221.24	30.00	135.44	-3.15	-3.15	-2.51	4.04	218.61	0.36	GPIT-F	9	0	0
7	1515.50	1.82	220.12	30.00	165.42	-3.86	-3.86	-3.12	4.95	219.00	0.23	GPIT-F	9	0	0
8	1545.50	1.87	223.06	30.00	195.41	-4.58	-4.58	-3.77	5.94	219.42	0.36	GPIT-F	9	0	0
9	1575.50	1.96	219.94	30.00	225.39	-5.33	-5.33	-4.43	6.92	219.72	0.46	GPIT-F	9	0	0
10	1605.50	2.05	224.53	30.00	255.37	-6.11	-6.11	-5.14	7.97	220.06	0.60	GPIT-F	9	0	0
11	1635.50	2.16	225.18	30.00	285.35	-6.89	-6.89	-5.91	9.09	220.64	0.39	GPIT-F	9	0	0
12	1665.50	2.27	227.40	30.00	315.33	-7.69	-7.69	-6.75	10.24	221.28	0.45	GPIT-F	9	0	0
13	1695.50	2.58	225.70	30.00	345.30	-8.56	-8.56	-7.67	11.48	221.85	1.08	GPIT-F	9	0	0
14	1725.50	2.69	227.58	30.00	375.27	-9.51	-9.51	-8.67	12.86	222.37	0.45	GPIT-F	9	0	0
15	1755.50	2.90	226.80	30.00	405.24	-10.50	-10.50	-9.75	14.34	222.86	0.73	GPIT-F	9	0	0
16	1785.50	3.02	228.45	30.00	435.20	-11.55	-11.55	-10.89	15.88	223.32	0.50	GPIT-F	9	0	0
17	1815.50	3.15	226.58	30.00	465.15	-12.64	-12.64	-12.08	17.49	223.71	0.54	GPIT-F	9	0	0
18	1845.50	3.08	227.19	30.00	495.11	-13.76	-13.76	-13.27	19.13	223.98	0.26	GPIT-F	9	0	0
19	1875.50	3.09	225.28	30.00	525.06	-14.87	-14.87	-14.44	20.73	224.16	0.34	GPIT-F	9	0	0
20	1905.50	2.93	224.08	30.00	555.02	-15.99	-15.99	-15.55	22.31	224.19	0.57	GPIT-F	9	0	0
21	1935.50	3.28	220.32	30.00	584.98	-17.20	-17.20	-16.64	23.92	224.05	1.36	GPIT-F	9	0	0
22	1965.50	3.15	221.94	30.00	614.93	-18.46	-18.46	-17.74	25.59	223.86	0.54	GPIT-F	9	0	0
23	1995.50	3.09	221.36	30.00	644.89	-19.68	-19.68	-18.83	27.23	223.73	0.21	GPIT-F	9	0	0
24	2025.50	3.26	220.40	30.00	674.84	-20.94	-20.94	-19.92	28.90	223.56	0.57	GPIT-F	9	0	0
25	2055.50	3.21	221.53	30.00	704.79	-22.22	-22.22	-21.02	30.58	223.42	0.26	GPIT-F	9	0	0
26	2085.50	3.30	222.96	30.00	734.74	-23.48	-23.48	-22.17	32.28	223.36	0.42	GPIT-F	9	0	0
27	2115.50	3.28	222.99	30.00	764.70	-24.74	-24.74	-23.34	34.02	223.34	0.10	GPIT-F	9	0	0
28	2145.50	3.23	224.30	30.00	794.65	-25.97	-25.97	-24.52	35.73	223.35	0.30	GPIT-F	9	0	0
29	2175.50	3.05	226.29	30.00	824.60	-27.13	-27.13	-25.68	37.37	223.44	0.69	GPIT-F	9	0	0
30	2205.50	3.07	226.32	30.00	854.56	-28.23	-28.23	-26.84	38.94	223.55	0.05	GPIT-F	9	0	0
31	2235.50	2.90	223.79	30.00	884.52	-29.34	-29.34	-27.95	40.52	223.61	0.71	GPIT-F	9	0	0
32	2265.50	2.86	226.99	30.00	914.48	-30.39	-30.39	-29.02	42.03	223.68	0.55	GPIT-F	9	0	0
33	2295.50	2.81	226.60	30.00	944.44	-31.41	-31.41	-30.10	43.50	223.78	0.19	GPIT-F	9	0	0
34	2325.50	2.82	226.08	30.00	974.41	-32.43	-32.43	-31.17	44.98	223.87	0.10	GPIT-F	9	0	0
35	2355.50	2.69	226.79	30.00	1004.37	-33.42	-33.42	-32.21	46.42	223.95	0.45	GPIT-F	9	0	0
36	2385.50	2.70	225.65	30.00	1034.34	-34.40	-34.40	-33.23	47.83	224.01	0.18	GPIT-F	9	0	0
37	2415.50	2.30	226.72	30.00	1064.31	-35.30	-35.30	-34.18	49.15	224.07	1.33	GPIT-F	9	0	0
38	2445.50	2.60	226.33	30.00	1094.28	-36.19	-36.19	-35.11	50.43	224.13	0.99	GPIT-F	9	0	0
39	2475.50	2.59	224.53	30.00	1124.25	-37.14	-37.14	-36.08	51.77	224.17	0.27	GPIT-F	9	0	0
40	2505.50	2.48	227.53	30.00	1154.22	-38.06	-38.06	-37.03	53.12	224.21	0.58	GPIT-F	9	0	0
41	2535.50	2.45	228.06	30.00	1184.20	-38.93	-38.93	-37.99	54.40	224.30	0.13	GPIT-F	9	0	0
42	2565.50	2.43	226.37	30.00	1214.17	-39.80	-39.80	-38.92	55.68	224.36	0.24	GPIT-F	9	0	0

43	2595.50	2.33	233.05	30.00	1244.14	-40.60	-40.60	-39.87	56.92	224.48	0.99	GPIT-F	9	0	0
44	2625.50	2.37	232.45	30.00	1274.12	-41.35	-41.35	-40.85	58.14	224.65	0.15	GPIT-F	9	0	0
45	2655.50	2.20	231.98	30.00	1304.09	-42.08	-42.08	-41.80	59.32	224.81	0.55	GPIT-F	9	0	0
46	2685.50	2.15	238.55	30.00	1334.07	-42.73	-42.73	-42.73	60.43	225.00	0.85	GPIT-F	9	0	0
47	2715.50	2.12	243.68	30.00	1364.05	-43.27	-43.27	-43.71	61.52	225.29	0.64	GPIT-F	9	0	0
48	2745.50	1.93	238.48	30.00	1394.03	-43.78	-43.78	-44.64	62.53	225.55	0.89	GPIT-F	9	0	0
49	2775.50	2.03	232.65	30.00	1424.01	-44.37	-44.37	-45.49	63.55	225.72	0.76	GPIT-F	9	0	0
50	2805.50	2.36	232.10	30.00	1453.99	-45.07	-45.07	-46.40	64.70	225.83	1.08	GPIT-F	9	0	0
51	2835.50	2.52	230.91	30.00	1483.97	-45.86	-45.86	-47.40	65.94	225.94	0.56	GPIT-F	9	0	0
52	2865.50	2.63	228.77	30.00	1513.93	-46.73	-46.73	-48.43	67.29	226.02	0.50	GPIT-F	9	0	0
53	2895.50	2.78	228.24	30.00	1543.90	-47.67	-47.67	-49.49	68.70	226.07	0.49	GPIT-F	9	0	0
54	2925.50	3.05	228.63	30.00	1573.86	-48.68	-48.68	-50.63	70.24	226.12	0.91	GPIT-F	9	0	0
55	2955.50	3.01	226.25	30.00	1603.82	-49.75	-49.75	-51.79	71.82	226.15	0.44	GPIT-F	9	0	0
56	2985.50	2.60	224.06	30.00	1633.78	-50.79	-50.79	-52.84	73.29	226.13	1.41	GPIT-F	9	0	0
57	3015.50	2.59	229.01	30.00	1663.75	-51.72	-51.72	-53.82	74.64	226.14	0.75	GPIT-F	9	0	0
58	3045.50	2.76	232.08	30.00	1693.72	-52.61	-52.61	-54.90	76.05	226.22	0.73	GPIT-F	9	0	0
59	3075.50	2.84	229.96	30.00	1723.69	-53.53	-53.53	-56.04	77.49	226.31	0.45	GPIT-F	9	0	0
60	3105.50	2.96	230.62	30.00	1753.65	-54.50	-54.50	-57.21	79.00	226.39	0.40	GPIT-F	9	0	0
61	3135.50	2.90	228.48	30.00	1783.61	-55.49	-55.49	-58.37	80.54	226.45	0.42	GPIT-F	9	0	0
62	3165.50	3.14	225.76	30.00	1813.57	-56.57	-56.57	-59.53	82.12	226.46	0.93	GPIT-F	9	0	0
63	3195.50	3.51	226.28	30.00	1843.52	-57.78	-57.78	-60.78	83.86	226.45	1.25	GPIT-F	9	0	0
64	3225.50	3.12	221.25	30.00	1873.47	-59.02	-59.02	-61.98	85.60	226.40	1.61	GPIT-F	9	0	0
65	3255.50	2.93	223.34	30.00	1903.42	-60.20	-60.20	-63.05	87.17	226.33	0.75	GPIT-F	9	0	0
66	3285.50	2.96	218.34	30.00	1933.38	-61.36	-61.36	-64.06	88.71	226.23	0.86	GPIT-F	9	0	0
67	3315.50	2.73	213.68	30.00	1963.35	-62.56	-62.56	-64.93	90.16	226.06	1.09	GPIT-F	9	0	0
68	3345.50	2.68	214.36	30.00	1993.31	-63.73	-63.73	-65.72	91.54	225.88	0.18	GPIT-F	9	0	0
69	3375.50	2.80	215.25	30.00	2023.28	-64.91	-64.91	-66.54	92.95	225.71	0.43	GPIT-F	9	0	0
70	3405.50	2.71	215.69	30.00	2053.25	-66.09	-66.09	-67.38	94.39	225.55	0.30	GPIT-F	9	0	0
71	3435.50	2.24	214.50	30.00	2083.22	-67.15	-67.15	-68.13	95.67	225.41	1.57	GPIT-F	9	0	0
72	3465.50	1.86	211.35	30.00	2113.20	-68.05	-68.05	-68.71	96.72	225.28	1.34	GPIT-F	9	0	0
73	3495.50	1.76	208.22	30.00	2143.18	-68.87	-68.87	-69.18	97.60	225.13	0.47	GPIT-F	9	0	0
74	3525.50	1.74	207.42	30.00	2173.17	-69.68	-69.68	-69.61	98.49	224.97	0.09	GPIT-F	9	0	0
75	3555.50	1.73	205.96	30.00	2203.16	-70.49	-70.49	-70.02	99.34	224.81	0.15	GPIT-F	9	0	0
76	3585.50	1.79	203.99	30.00	2233.14	-71.33	-71.33	-70.41	100.23	224.63	0.27	GPIT-F	9	0	0
77	3615.50	1.83	201.56	30.00	2263.13	-72.20	-72.20	-70.77	101.12	224.43	0.30	GPIT-F	9	0	0
78	3645.50	1.85	200.61	30.00	2293.11	-73.10	-73.10	-71.12	102.00	224.21	0.12	GPIT-F	9	0	0
79	3675.50	1.85	196.14	30.00	2323.09	-74.02	-74.02	-71.42	102.85	223.98	0.48	GPIT-F	9	0	0
80	3705.50	1.78	201.86	30.00	2353.08	-74.91	-74.91	-71.73	103.71	223.76	0.65	GPIT-F	9	0	0
81	3735.50	2.05	205.19	30.00	2383.06	-75.83	-75.83	-72.13	104.66	223.57	0.96	GPIT-F	9	0	0
82	3765.50	2.20	203.12	30.00	2413.04	-76.85	-76.85	-72.59	105.71	223.37	0.57	GPIT-F	9	0	0
83	3795.50	2.16	199.88	30.00	2443.02	-77.91	-77.91	-73.01	106.76	223.14	0.43	GPIT-F	9	0	0
84	3825.50	2.02	206.17	30.00	2473.00	-78.91	-78.91	-73.43	107.81	222.94	0.89	GPIT-F	9	0	0
85	3855.50	2.31	209.56	30.00	2502.98	-79.91	-79.91	-73.96	108.89	222.79	1.03	GPIT-F	9	0	0
86	3885.50	2.43	205.15	30.00	2532.95	-81.02	-81.02	-74.53	110.07	222.61	0.74	GPIT-F	9	0	0
87	3915.50	2.36	204.06	30.00	2562.93	-82.15	-82.15	-75.05	111.29	222.41	0.30	GPIT-F	9	0	0
88	3945.50	2.30	212.20	30.00	2592.90	-83.23	-83.23	-75.63	112.47	222.26	1.12	GPIT-F	9	0	0
89	3975.50	2.62	212.42	30.00	2622.88	-84.32	-84.32	-76.32	113.71	222.15	1.05	GPIT-F	9	0	0
90	4005.50	2.73	210.75	30.00	2652.84	-85.51	-85.51	-77.05	115.09	222.02	0.46	GPIT-F	9	0	0
91	4035.50	2.77	210.34	30.00	2682.81	-86.75	-86.75	-77.78	116.50	221.88	0.16	GPIT-F	9	0	0
92	4065.50	2.73	207.98	30.00	2712.77	-88.01	-88.01	-78.48	117.91	221.73	0.40	GPIT-F	9	0	0
93	4095.50	2.52	203.21	30.00	2742.74	-89.24	-89.24	-79.08	119.23	221.54	1.01	GPIT-F	9	0	0
94	4125.50	2.30	204.00	30.00	2772.72	-90.40	-90.40	-79.58	120.44	221.36	0.75	GPIT-F	9	0	0
95	4155.50	2.61	208.85	30.00	2802.69	-91.55	-91.55	-80.16	121.69	221.20	1.24	GPIT-F	9	0	0
96	4185.50	2.83	208.00	30.00	2832.65	-92.80	-92.80	-80.83	123.06	221.06	0.76	GPIT-F	9	0	0

96	4185.50	2.83	208.66	30.00	2832.63	-92.80	-92.80	-86.83	123.00	221.00	0.70	GPIT-F	9	0	0
97	4215.50	2.86	206.03	30.00	2862.62	-94.13	-94.13	-81.51	124.51	220.89	0.34	GPIT-F	9	0	0
98	4245.50	2.66	209.88	30.00	2892.58	-95.40	-95.40	-82.18	125.92	220.74	0.90	GPIT-F	9	0	0
99	4275.50	2.57	211.12	30.00	2922.55	-96.58	-96.58	-82.88	127.26	220.63	0.35	GPIT-F	9	0	0
100	4305.50	2.36	204.08	30.00	2952.52	-97.72	-97.72	-83.48	128.51	220.51	1.23	GPIT-F	9	0	0
101	4335.50	2.29	200.40	30.00	2982.50	-98.84	-98.84	-83.94	129.66	220.34	0.54	GPIT-F	9	0	0
102	4365.50	2.37	202.10	30.00	3012.47	-99.98	-99.98	-84.38	130.84	220.16	0.36	GPIT-F	9	0	0
103	4395.50	2.46	204.78	30.00	3042.45	-101.14	-101.14	-84.88	132.05	220.01	0.48	GPIT-F	9	0	0
104	4425.50	2.53	206.97	30.00	3072.42	-102.32	-102.32	-85.46	133.30	219.87	0.40	GPIT-F	9	0	0
105	4455.50	2.58	208.12	30.00	3102.39	-103.50	-103.50	-86.07	134.61	219.75	0.23	GPIT-F	9	0	0
106	4485.50	2.63	208.38	30.00	3132.36	-104.71	-104.71	-86.72	135.96	219.63	0.18	GPIT-F	9	0	0
107	4515.50	2.65	207.00	30.00	3162.33	-105.93	-105.93	-87.36	137.30	219.51	0.22	GPIT-F	9	0	0
108	4545.50	2.68	206.33	30.00	3192.29	-107.18	-107.18	-87.99	138.68	219.38	0.13	GPIT-F	9	0	0
109	4575.50	2.72	206.88	30.00	3222.26	-108.44	-108.44	-88.62	140.06	219.26	0.18	GPIT-F	9	0	0
110	4605.50	2.66	206.09	30.00	3252.23	-109.70	-109.70	-89.25	141.44	219.13	0.23	GPIT-F	9	0	0
111	4635.50	2.44	207.86	30.00	3282.20	-110.89	-110.89	-89.86	142.72	219.02	0.79	GPIT-F	9	0	0
112	4665.50	2.35	208.76	30.00	3312.17	-112.00	-112.00	-90.45	143.96	218.92	0.34	GPIT-F	9	0	0
113	4695.50	2.37	205.88	30.00	3342.15	-113.09	-113.09	-91.02	145.18	218.83	0.40	GPIT-F	9	0	0
114	4725.50	2.53	203.85	30.00	3372.12	-114.26	-114.26	-91.55	146.42	218.71	0.61	GPIT-F	9	0	0
115	4755.50	2.66	205.49	30.00	3402.09	-115.49	-115.49	-92.12	147.74	218.58	0.51	GPIT-F	9	0	0
116	4785.50	2.75	206.98	30.00	3432.05	-116.76	-116.76	-92.75	149.11	218.46	0.38	GPIT-F	9	0	0
117	4815.50	2.74	207.61	30.00	3462.02	-118.04	-118.04	-93.41	150.52	218.36	0.11	GPIT-F	9	0	0
118	4845.50	2.35	205.15	30.00	3491.99	-119.23	-119.23	-94.00	151.84	218.25	1.34	GPIT-F	9	0	0
119	4875.50	2.13	202.74	30.00	3521.97	-120.30	-120.30	-94.48	152.95	218.14	0.78	GPIT-F	9	0	0
120	4905.50	2.17	203.48	30.00	3551.95	-121.33	-121.33	-94.92	154.04	218.04	0.14	GPIT-F	9	0	0
121	4935.50	2.30	206.73	30.00	3581.92	-122.39	-122.39	-95.42	155.18	217.94	0.62	GPIT-F	9	0	0
122	4965.50	2.52	209.71	30.00	3611.90	-123.50	-123.50	-96.01	156.43	217.86	0.86	GPIT-F	9	0	0
123	4995.50	2.80	212.06	30.00	3641.86	-124.70	-124.70	-96.73	157.81	217.80	0.99	GPIT-F	9	0	0
124	5025.50	2.99	212.80	30.00	3671.83	-125.98	-125.98	-97.54	159.32	217.75	0.63	GPIT-F	9	0	0
125	5055.50	3.17	212.82	30.00	3701.78	-127.33	-127.33	-98.42	160.93	217.70	0.60	GPIT-F	9	0	0
126	5085.50	3.34	213.52	30.00	3731.73	-128.76	-128.76	-99.35	162.63	217.65	0.59	GPIT-F	9	0	0
127	5115.50	3.46	212.18	30.00	3761.68	-130.25	-130.25	-100.31	164.40	217.60	0.47	GPIT-F	9	0	0
128	5145.50	3.44	208.63	30.00	3791.63	-131.80	-131.80	-101.22	166.17	217.52	0.71	GPIT-F	9	0	0
129	5175.50	3.54	206.97	30.00	3821.57	-133.42	-133.42	-102.08	167.98	217.42	0.46	GPIT-F	9	0	0
130	5205.50	3.47	208.35	30.00	3851.52	-135.04	-135.04	-102.93	169.78	217.31	0.37	GPIT-F	9	0	0
131	5235.50	3.39	210.73	30.00	3881.46	-136.60	-136.60	-103.81	171.59	217.23	0.54	GPIT-F	9	0	0
132	5265.50	3.23	207.58	30.00	3911.41	-138.11	-138.11	-104.65	173.29	217.15	0.79	GPIT-F	9	0	0
133	5295.50	3.07	203.71	30.00	3941.37	-139.60	-139.60	-105.37	174.90	217.04	0.89	GPIT-F	9	0	0
134	5325.50	2.98	202.68	30.00	3971.32	-141.06	-141.06	-105.99	176.44	216.92	0.36	GPIT-F	9	0	0
135	5355.50	2.66	198.89	30.00	4001.29	-142.44	-142.44	-106.52	177.85	216.79	1.23	GPIT-F	9	0	0
136	5385.50	2.49	192.70	30.00	4031.26	-143.73	-143.73	-106.89	179.13	216.64	1.09	GPIT-F	9	0	0
137	5415.50	2.57	193.61	30.00	4061.23	-145.02	-145.02	-107.19	180.35	216.47	0.30	GPIT-F	9	0	0
138	5445.50	2.68	195.83	30.00	4091.20	-146.35	-146.35	-107.54	181.59	216.31	0.51	GPIT-F	9	0	0
139	5475.50	2.86	200.02	30.00	4121.16	-147.73	-147.73	-107.99	182.97	216.17	0.89	GPIT-F	9	0	0
140	5505.50	3.02	201.11	30.00	4151.12	-149.16	-149.16	-108.53	184.48	216.04	0.56	GPIT-F	9	0	0
141	5535.50	3.10	200.95	30.00	4181.08	-150.66	-150.66	-109.10	186.02	215.91	0.28	GPIT-F	9	0	0
142	5565.50	3.17	200.51	30.00	4211.04	-152.19	-152.19	-109.68	187.60	215.78	0.26	GPIT-F	9	0	0
143	5595.50	3.26	200.30	30.00	4240.99	-153.77	-153.77	-110.27	189.21	215.64	0.28	GPIT-F	9	0	0
144	5625.50	3.36	200.53	30.00	4270.94	-155.39	-155.39	-110.87	190.88	215.51	0.34	GPIT-F	9	0	0
145	5655.50	3.50	196.09	30.00	4300.88	-157.10	-157.10	-111.44	192.62	215.35	1.00	GPIT-F	9	0	0

One

2" Main

Software Version	
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Acquisition System		Version	
MaxWell		4.0.9163.3000	
Application Patch		Patch-SP-10767_18214-4.0.9163.3001	
		Patch-Hotfix_AIT_Akima_SP2-22990-4.0.9434.3002	
Computation	Description		Version
HENVIR	Computation Ensemble for the HGNS Neutron environmental corrections		4.0.9360.3000
DepthCorrection	DepthCorrection		4.0.9433.3000
Tool Elements	Description	Software Version	Firmware Version
AZIS	Array Induction Sonde - Z	4.0.9427.3000	
HGNS-H	HILT Gamma-Ray and Neutron Sonde, 150 degC	4.0.9385.3000	2.0
HRGD-H	HILT Resistivity Gamma-Ray Density Device, 150 degC	4.0.9385.3000	3.0
EDTC-B	Enhanced Digital Telemetry Cartridge - B	4.0.9433.3000	

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
One	Log[3]:Up	Up	1028.68 ft	5681.24 ft	11-Sep-2014 6:55:18 PM	11-Sep-2014 10:26:12 PM	ON	0.00 ft	No

All depths are referenced to toolstring zero

Log

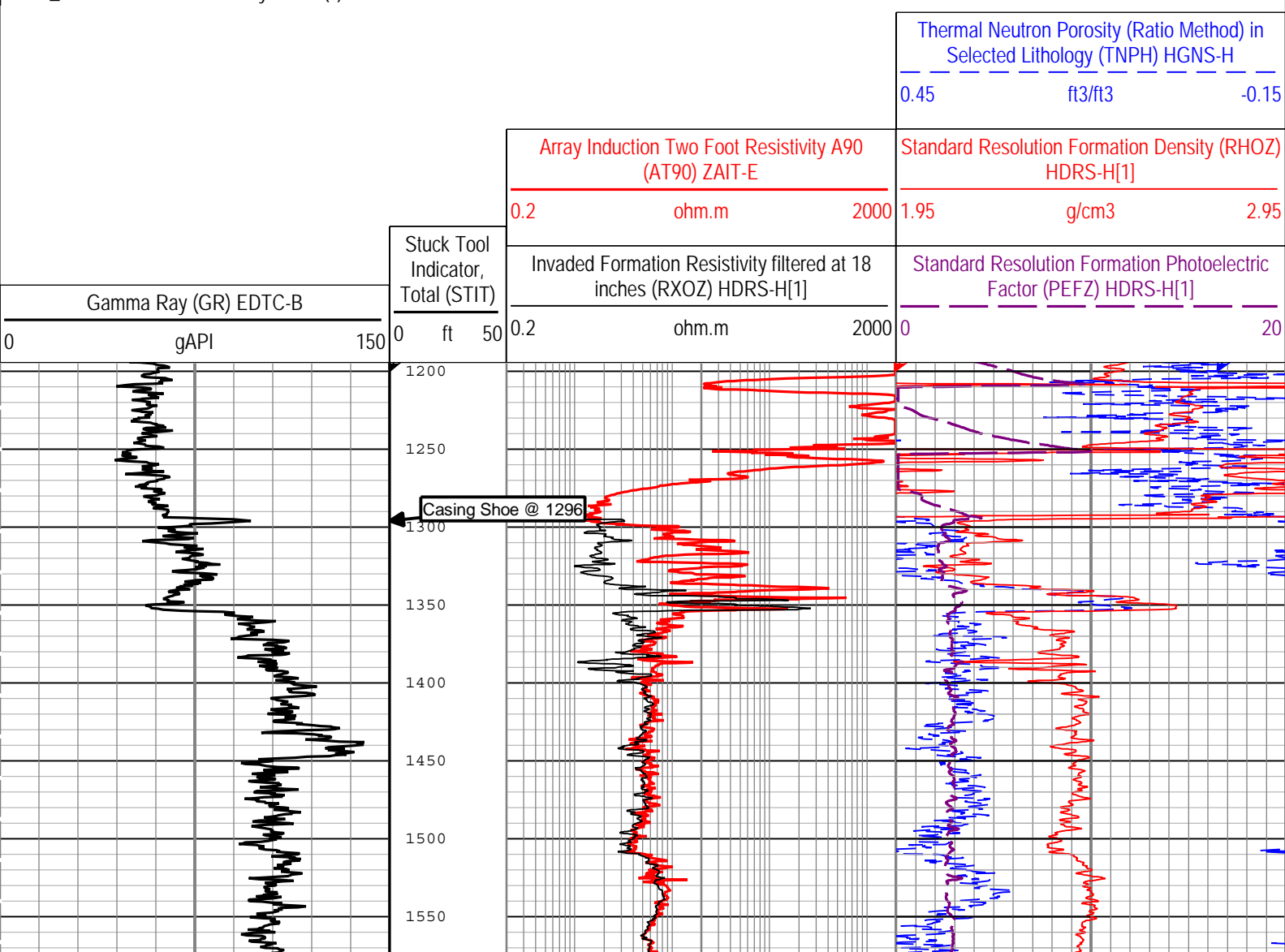
Company:Southwestern Energy Production Company

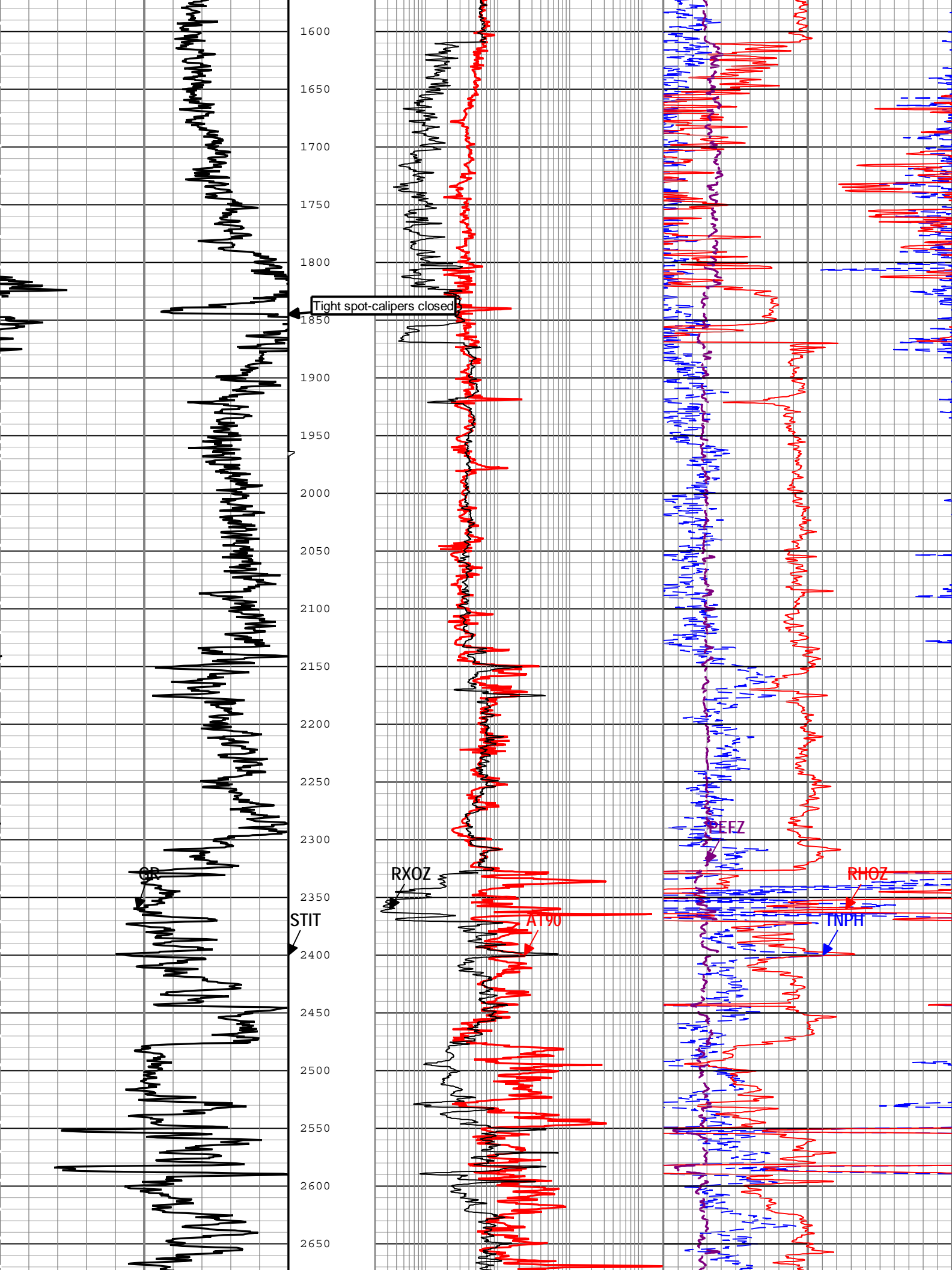
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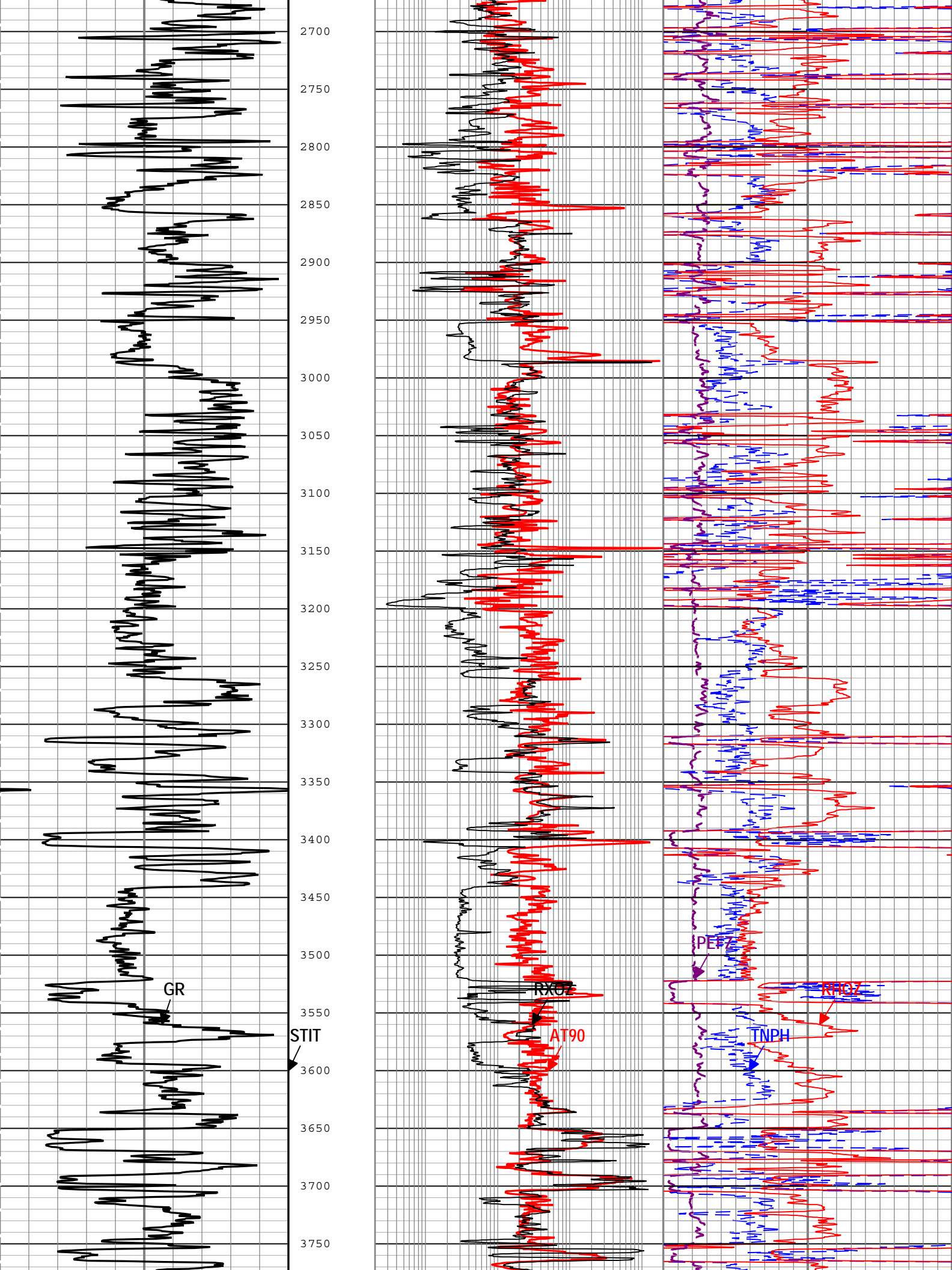
One: Log[3]:Up:S011

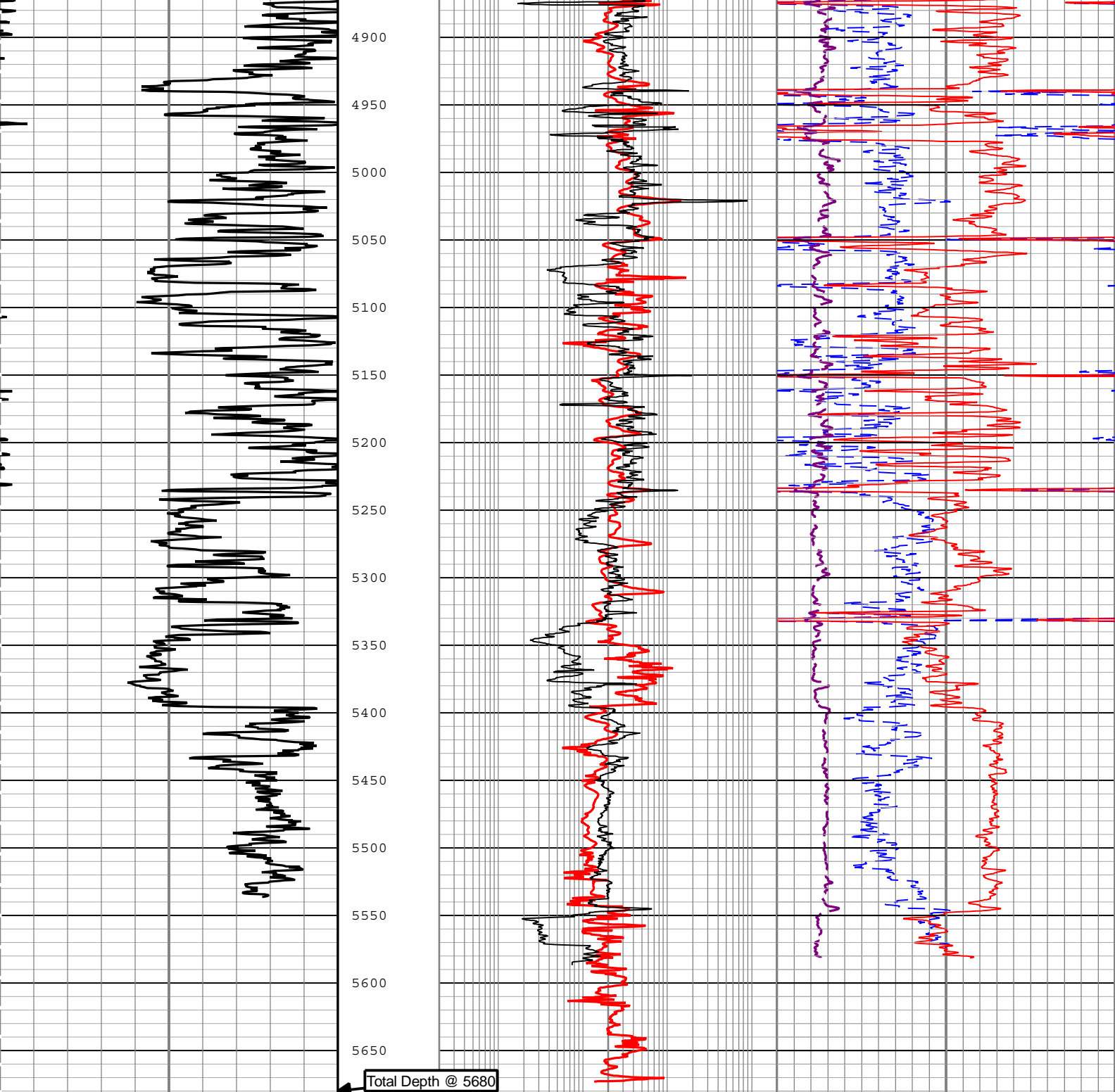
Description: HGNS standard resolution porosities for Platform Express Format: Log (1inMainSpecial1) Index Scale: 1 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 12-Sep-2014 00:40:05

TIME_1900 - Time Marked every 60.00 (s)









Gamma Ray (GR) EDTC-B		Stuck Tool Indicator, Total (STIT)	Array Induction Two Foot Resistivity A90 (AT90) ZAIT-E		Thermal Neutron Porosity (Ratio Method) in Selected Lithology (TNPH) HGNS-H			
0	gAPI		150	0.2	ohm.m	2000	0.45	ft3/ft3
		0	Invaded Formation Resistivity filtered at 18 inches (RXOZ) HDRS-H[1]		Standard Resolution Formation Density (RHOZ) HDRS-H[1]			
		ft	0.2	ohm.m	2000	1.95	g/cm3	2.95
		50			Standard Resolution Formation Photoelectric Factor (PEFZ) HDRS-H[1]			
					0		20	

TIME_1900 - Time Marked every 60.00 (s)

Description: HGNS standard resolution porosities for Platform Express Format: Log (1inMainSpecial1) Index Scale: 1 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 12-Sep-2014 00:40:05

Channel Processing Parameters

Parameter	Description	Tool	Value	Unit
ABHME	Array Induction Extended Borehole Correction Mode	ZAIT-E	Compute Standoff	
ACDE	Array Induction Casing Detection Enable	ZAIT-E	No	
AOFFX	X Accelerometer Offset	GPIT-F	0	ft/s2
AOFFY	Y Accelerometer Offset	GPIT-F	0.01	ft/s2
AOFFZ	Z Accelerometer Offset	GPIT-F	0	ft/s2
AROT	Array Induction Rotation Selector	ZAIT-E	North	
ASTA	Array Induction Tool Standoff	ZAIT-E	1	in
BARI	Barite Mud Presence Flag	Borehole	Yes	
BHS	Borehole Status (Open or Cased Hole)	Borehole	Open	
BHT	Bottom Hole Temperature	Borehole	160	degF
BS	Bit Size	WLSESSION	Depth Zoned	in
BSAL	Borehole Salinity	Borehole	20000	ppm
CALI_SHIFT.1	CALI Supplementary Offset	HDRS-H	1.51	in
CALI_SHIFT.2	CALI Supplementary Offset	HDRS-H	0.535	in
CBLO	Casing Bottom (Logger)	WLSESSION	1296	ft
CDEN	Cement Density	EDTC-B	2	g/cm3
DC_MODE	Depth Correction Mode	DepthCorrection	Real-time	
DFD	Drilling Fluid Density	Borehole	9	lbm/gal
DFT	Drilling Fluid Type	Borehole	Water	
DFT_WATER	Drilling Fluid Water Type	Borehole	Water Based Mud	
DHC	Density Hole Correction	HDRS-H	Bit Size	
FOFFX	X Magnetometer Offset	GPIT-F	0	mT
FOFFY	Y Magnetometer Offset	GPIT-F	0	mT
FOFFZ	Z Magnetometer Offset	GPIT-F	0	mT
FSAL	Formation Salinity	Borehole	0	ppm
GCSE_DOWN_PASS	Generalized Caliper Selection for WL Log Down Passes	Borehole	BS	
GCSE_UP_PASS	Generalized Caliper Selection for WL Log Up Passes	Borehole	CALI	
GRSE	Generalized Mud Resistivity Selection, from Measured or Computed Mud Resistivity	Borehole	AMF	
GTSE	Generalized Temperature Selection, from Measured or Computed Temperature	Borehole	CTEM	
HSCO	Hole Size Correction Option	HGNS-H	Yes	
ICMO	Inclinometry Computation Mode	GPIT-F	Automatic Selection	
LOG_SPEED_RNG	Logging Speed Range	GPIT-F	Normal (600 ft/h - 3600 ft/h)	
MATR	Rock Matrix for Neutron Porosity Corrections	Borehole	LIMESTONE	
MFST	Mud Filtrate Sample Temperature	Borehole	85	degF
NPRM	HRDD Nuclear Processing Mode	HDRS-H	Standard Resolution	
RMFS	Resistivity of Mud Filtrate Sample	Borehole	0.12	ohm.m
TD	Total Measured Depth	Borehole	5680	ft
USER_LOCB	User-supplied values for Magnetic Flux Density	WLSESSION	52426.19	nT
USER_MDEC	User-supplied values for Magnetic Declination	WLSESSION	10	deg
USER_MDIP	User-supplied values for Magnetic Dip Angle	WLSESSION	66.53	deg

Depth Zone Parameters

Parameter	Value	Start (ft)	Stop (ft)
BS	17.5	1195	1296
BS	12.25	1296	5680
All depth are actual.			

Tool Control Parameters

Parameter	Description	Tool	Value	Unit
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HMCA_BRD_TYPE	HMCA Board Type	HGNS-H	1	
HRGD_BRD_TYPE	HRGD Board Type	HDRS-H	WITH_HET	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	Time Zoned	ft/h

Time Zone Parameters					
Parameter	Value	Start Time	Stop Time	Start Depth (ft)	Stop Depth (ft)
MAX_LOG_SPEED	1510	11-Sep-2014 18:55:18	11-Sep-2014 19:26:20	5681.24	5073.22
MAX_LOG_SPEED	1424	11-Sep-2014 19:26:20	11-Sep-2014 19:33:33	5073.22	4912.83
MAX_LOG_SPEED	1497	11-Sep-2014 19:33:33	11-Sep-2014 20:15:39	4912.83	3974.29
MAX_LOG_SPEED	1607	11-Sep-2014 20:15:39	11-Sep-2014 20:16:41	3974.29	3951.4
MAX_LOG_SPEED	1482	11-Sep-2014 20:16:41	11-Sep-2014 20:19:46	3951.4	3882.42
MAX_LOG_SPEED	1557	11-Sep-2014 20:19:46	11-Sep-2014 20:29:01	3882.42	3674.98
MAX_LOG_SPEED	1477	11-Sep-2014 20:29:01	11-Sep-2014 20:33:09	3674.98	3582.47
MAX_LOG_SPEED	1555	11-Sep-2014 20:33:09	11-Sep-2014 20:40:21	3582.47	3420.78
MAX_LOG_SPEED	1453	11-Sep-2014 20:40:21	11-Sep-2014 20:47:33	3420.78	3257.57
MAX_LOG_SPEED	1535	11-Sep-2014 20:47:33	11-Sep-2014 21:04:58	3257.57	2844.12
MAX_LOG_SPEED	1628	11-Sep-2014 21:04:58	11-Sep-2014 21:06:00	2844.12	2818.63
MAX_LOG_SPEED	1532	11-Sep-2014 21:06:00	11-Sep-2014 21:09:05	2818.63	2741.13
MAX_LOG_SPEED	1628	11-Sep-2014 21:09:05	11-Sep-2014 21:25:29	2741.13	2333.69
MAX_LOG_SPEED	1732	11-Sep-2014 21:25:29	11-Sep-2014 21:28:34	2333.69	2256.68
MAX_LOG_SPEED	1635	11-Sep-2014 21:28:34	11-Sep-2014 21:31:39	2256.68	2179.52
MAX_LOG_SPEED	1724	11-Sep-2014 21:31:39	11-Sep-2014 22:16:41	2179.52	1389.73
MAX_LOG_SPEED	1582	11-Sep-2014 22:16:41	11-Sep-2014 22:26:12	1389.73	1028.67
All depth are at tool zero.					

One

2" Main

Software Version	
Acquisition System	Version
MaxWell	4.0.9163.3000
Application Patch	Patch-SP-10767_18214-4.0.9163.3001
	Patch-Hotfix_AIT_Akima_SP2-22990-4.0.9434.3002

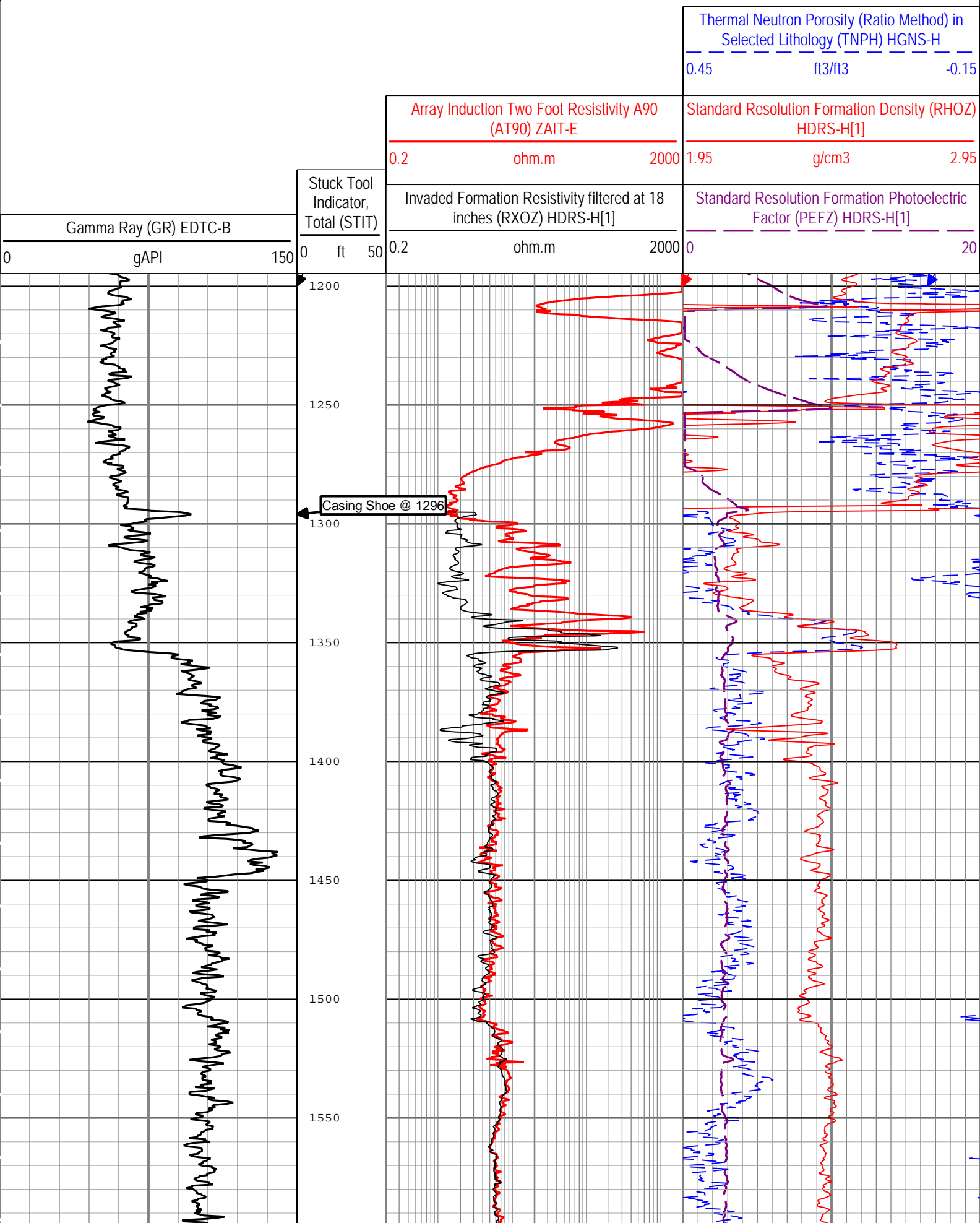
Computation	Description		Version
HENVIR	Computation Ensemble for the HGNS Neutron environmental corrections		4.0.9360.3000
DepthCorrection	DepthCorrection		4.0.9433.3000
Tool Elements	Description	Software Version	Firmware Version
AZIS	Array Induction Sonde - Z	4.0.9427.3000	
HGNS-H	HILT Gamma-Ray and Neutron Sonde, 150 degC	4.0.9385.3000	2.0
HRGD-H	HILT Resistivity Gamma-Ray Density Device, 150 degC	4.0.9385.3000	3.0
EDTC-B	Enhanced Digital Telemetry Cartridge - B	4.0.9433.3000	

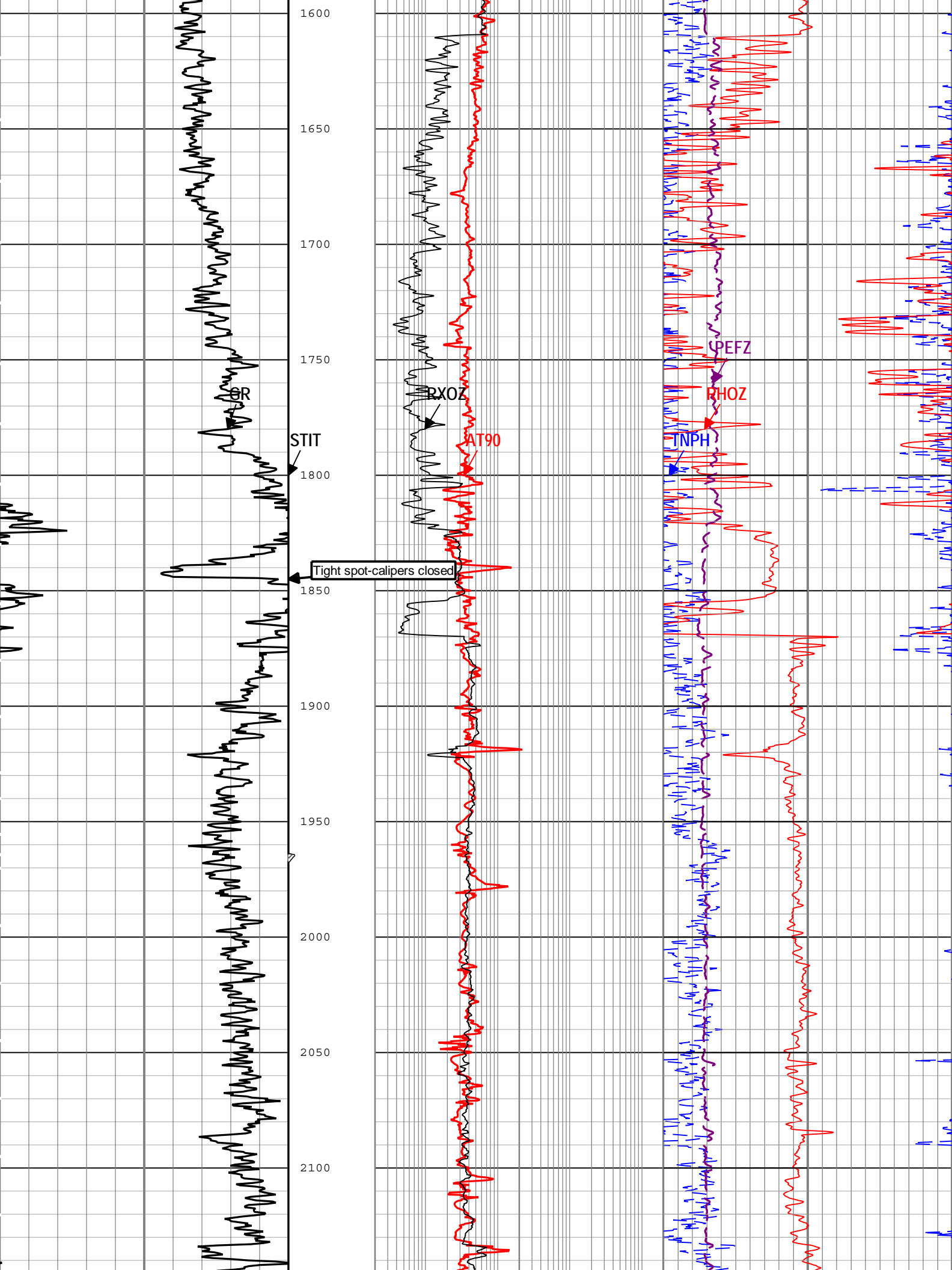
Pass Summary									
Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
One	Log[3]:Up	Up	1028.68 ft	5681.24 ft	11-Sep-2014 6:55:18 PM	11-Sep-2014 10:26:12 PM	ON	0.00 ft	No

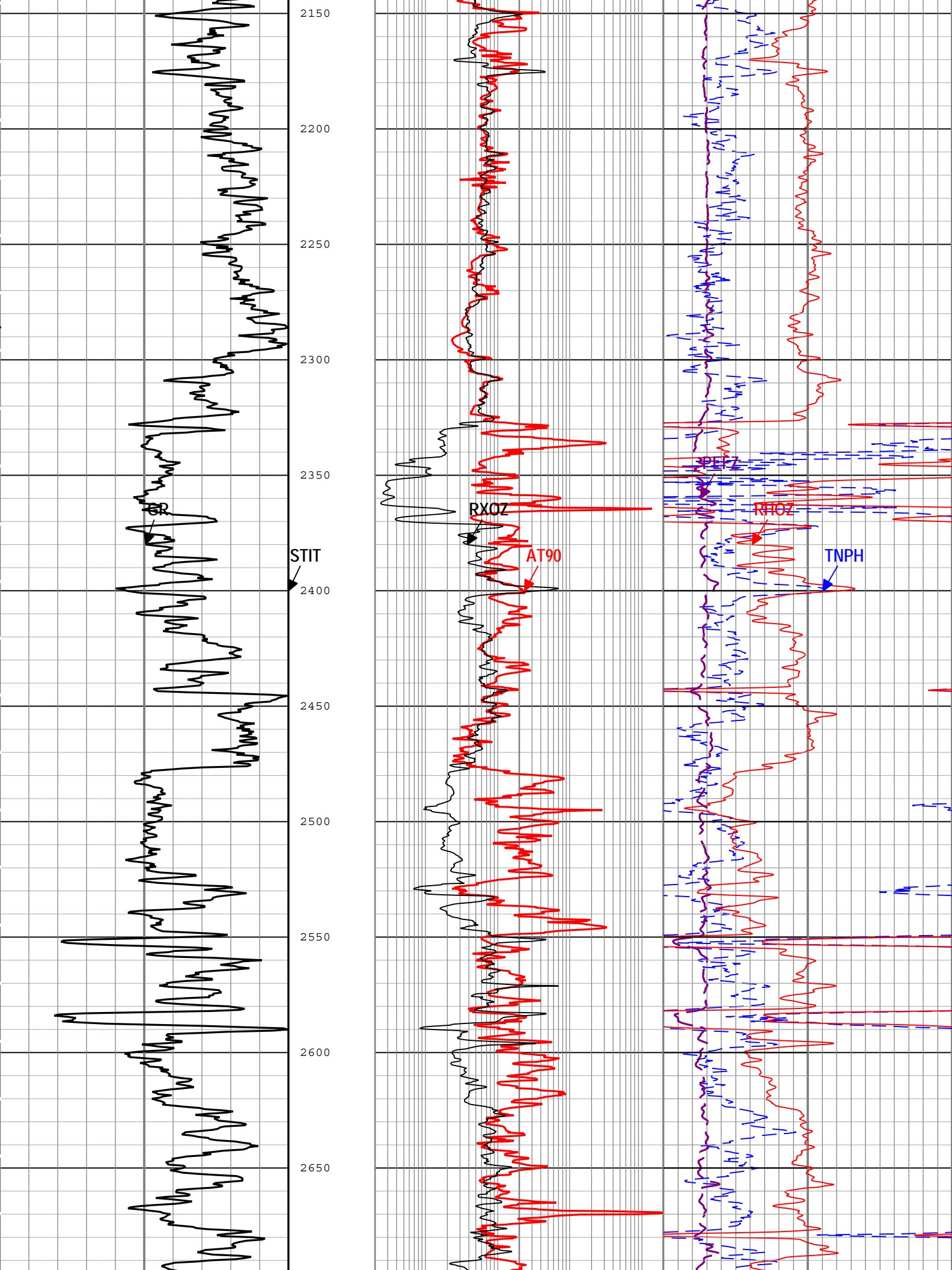
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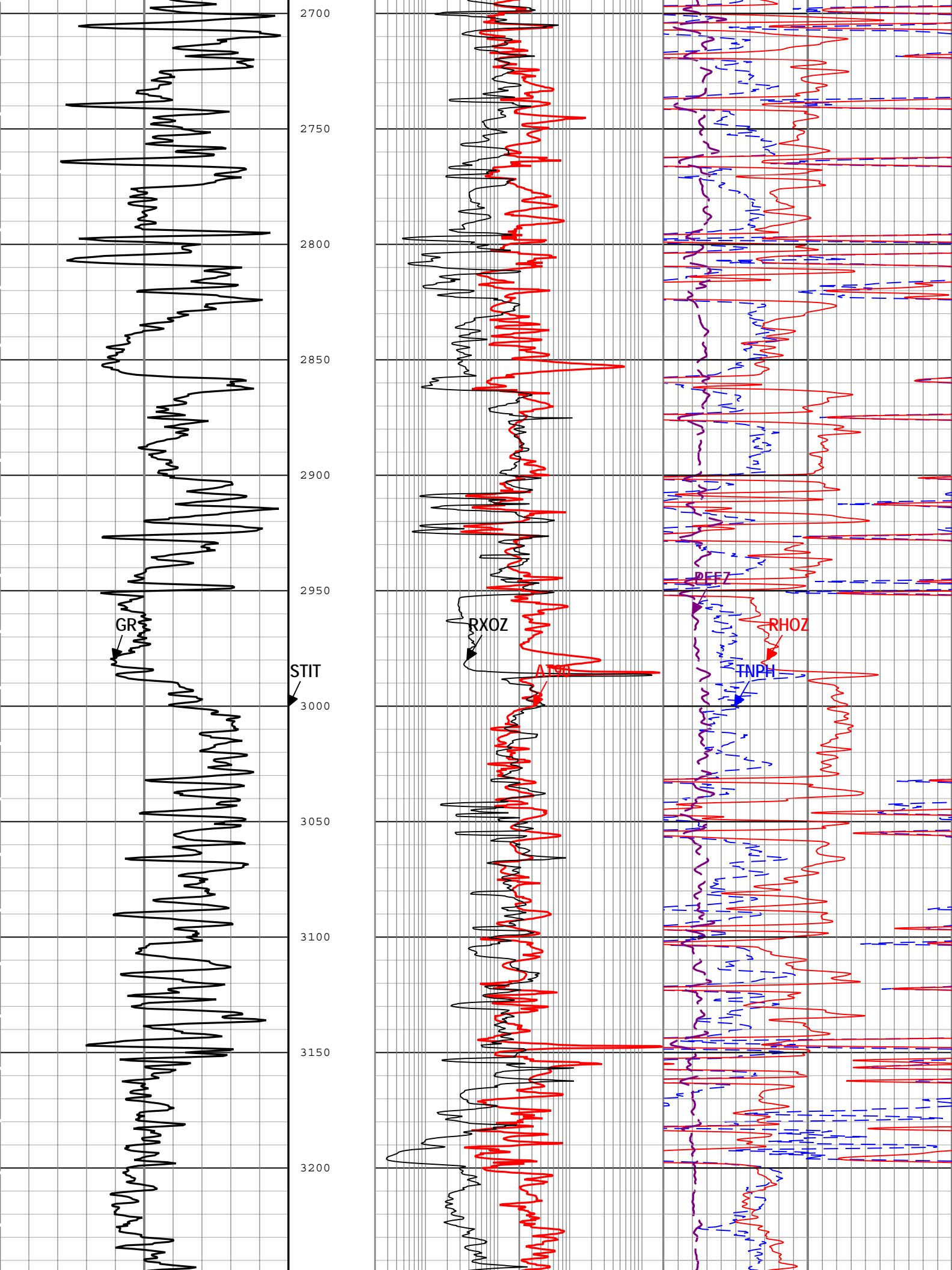
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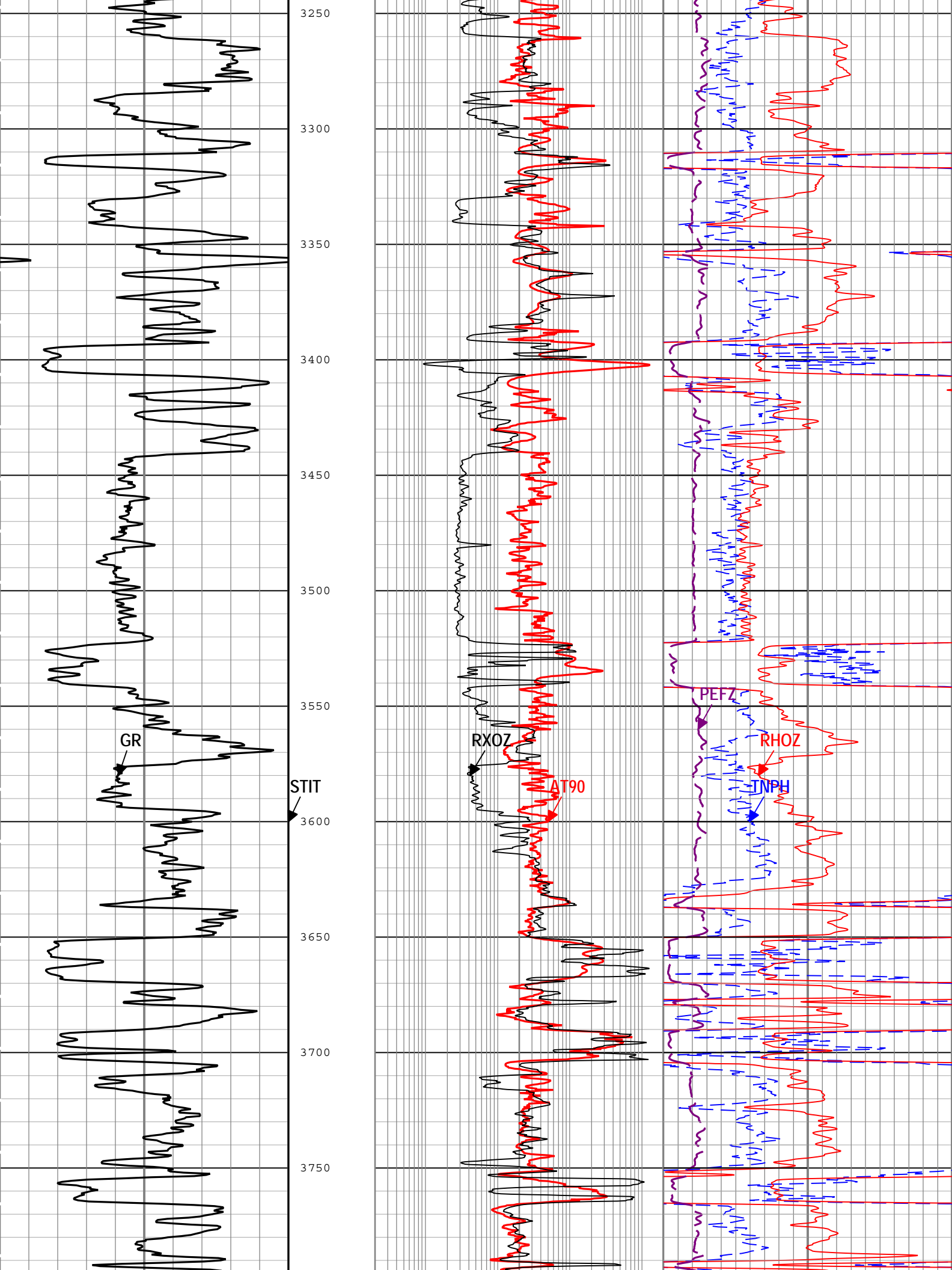
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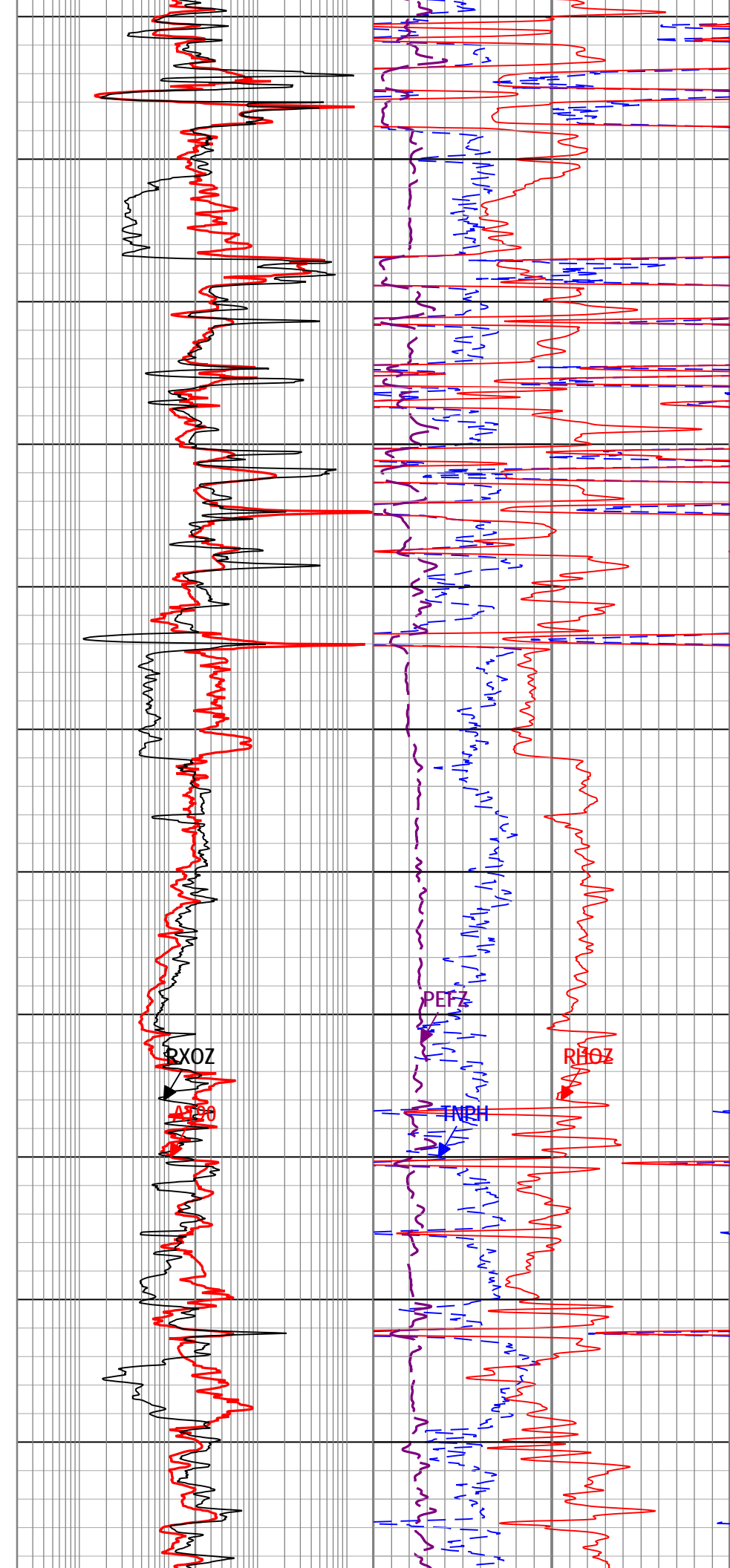
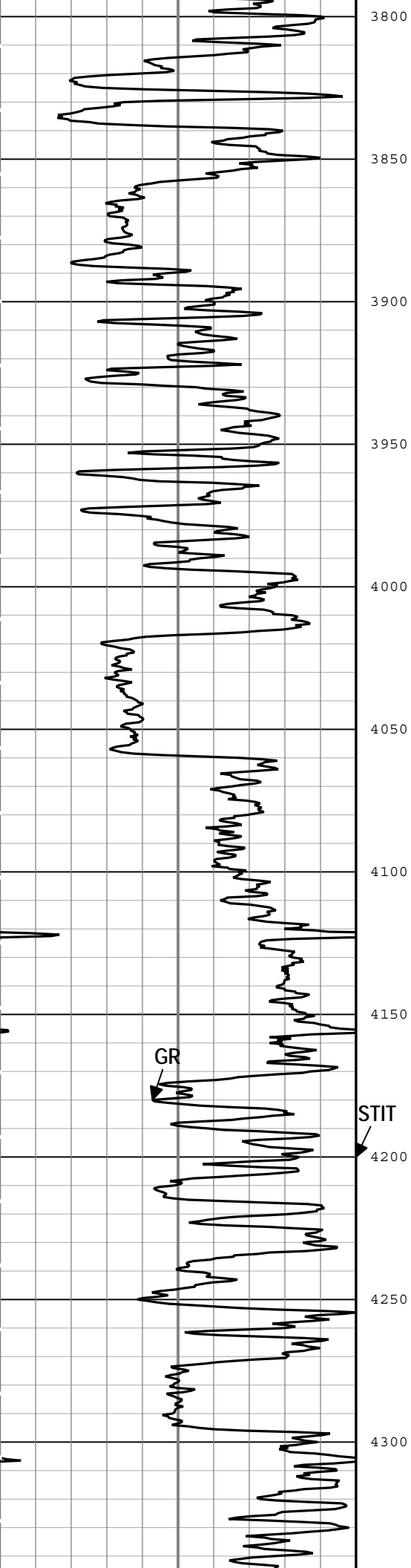


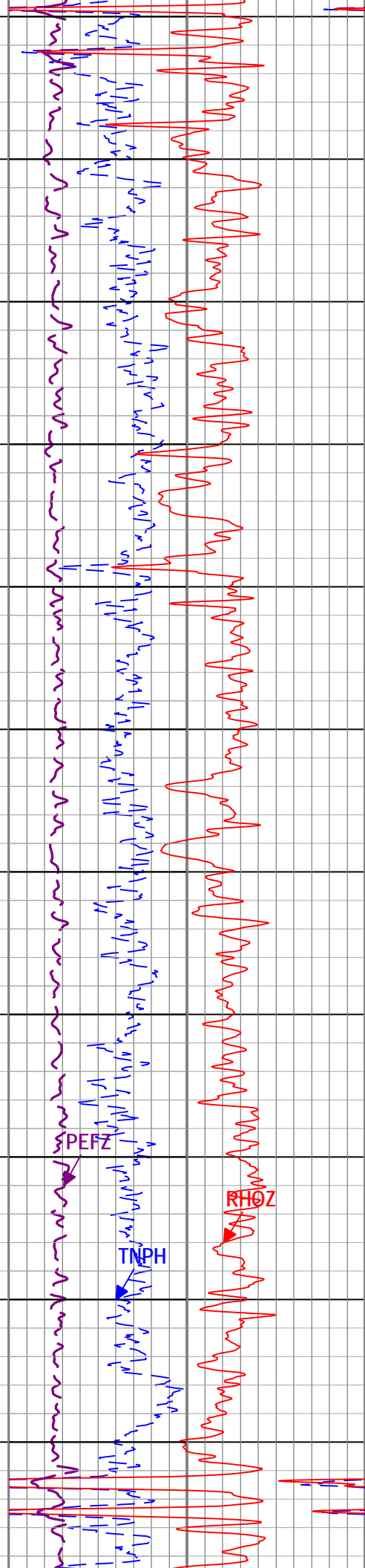
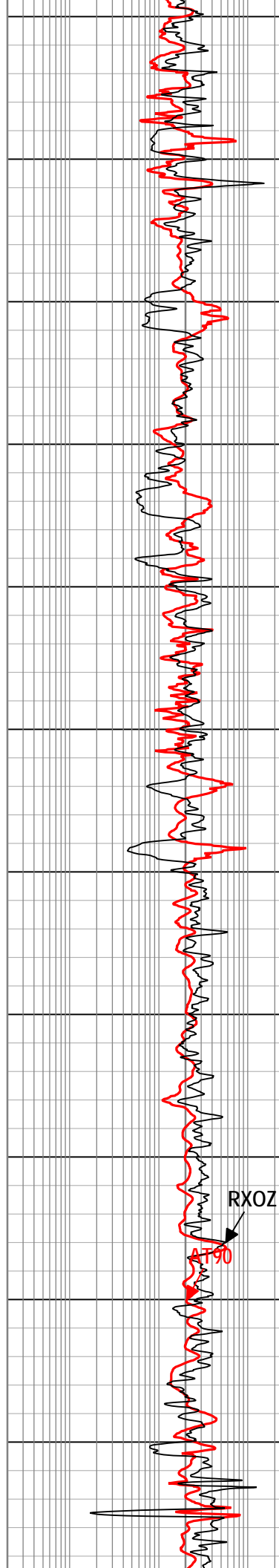
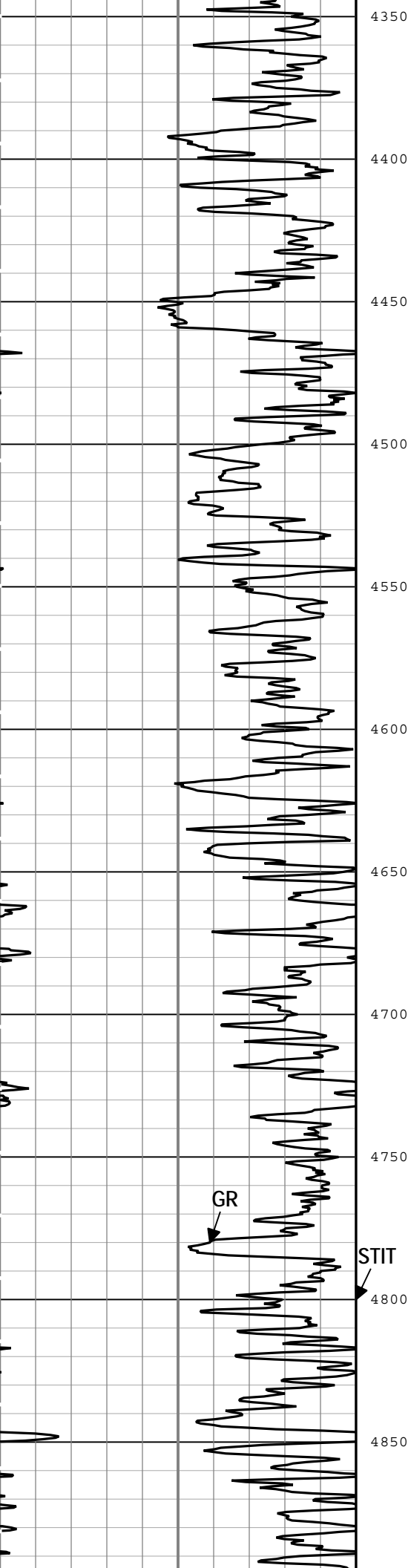


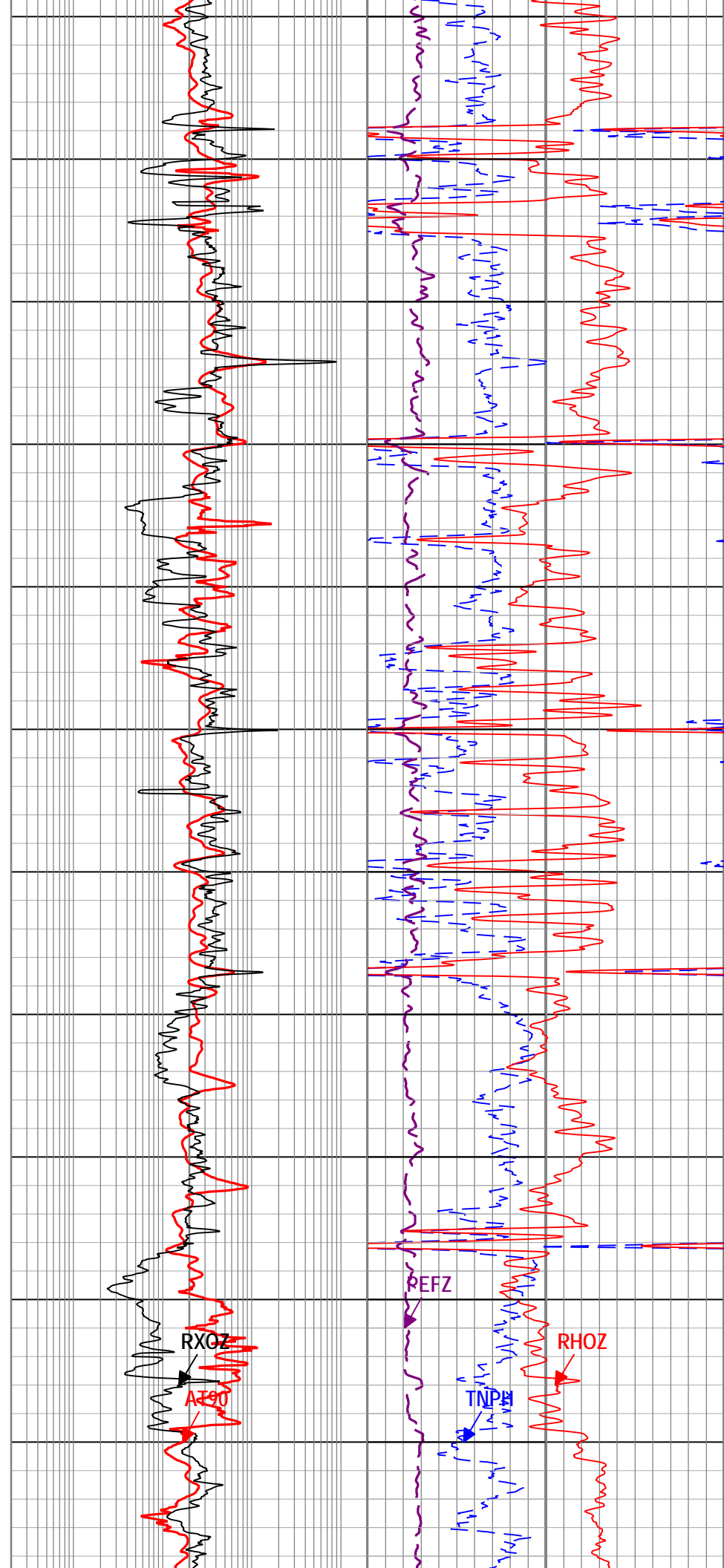
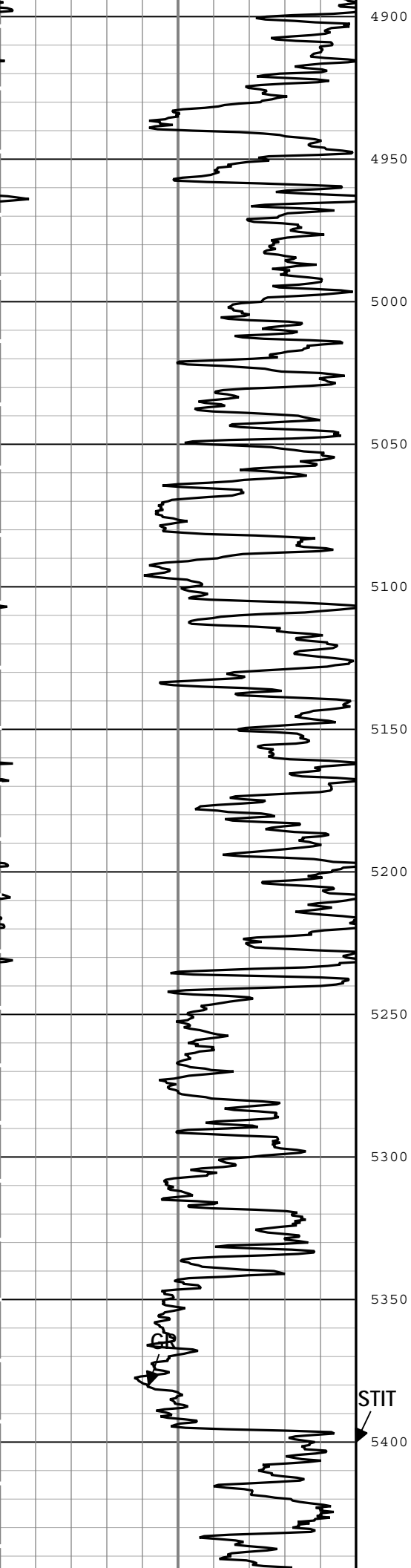


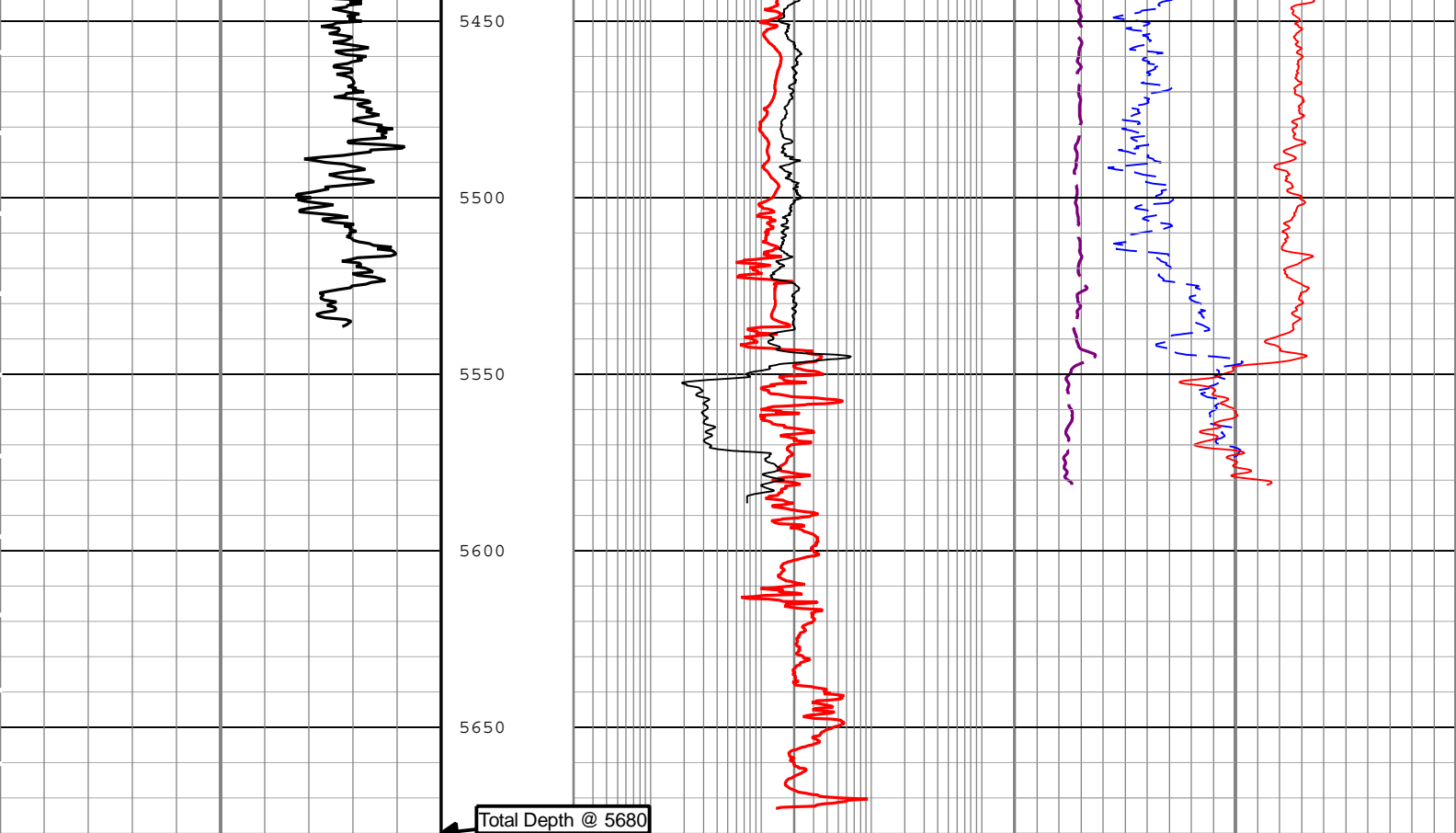












Gamma Ray (GR) EDTC-B		Stuck Tool Indicator, Total (STIT)	Array Induction Two Foot Resistivity A90 (AT90) ZAIT-E			Thermal Neutron Porosity (Ratio Method) in Selected Lithology (TNPH) HGNS-H			
0	gAPI		150	0.2	ohm.m	2000	0.45	ft3/ft3	-0.15
			0	Invaded Formation Resistivity filtered at 18 inches (RXOZ) HDRS-H[1]		Standard Resolution Formation Density (RHOZ) HDRS-H[1]			
			ft	50	0.2	ohm.m	2000	1.95	g/cm3
							Standard Resolution Formation Photoelectric Factor (PEFZ) HDRS-H[1]		
							0		20

TIME_1900 - Time Marked every 60.00 (s)

Description: HGNS standard resolution porosities for Platform Express Format: Log (2inMainSpecial1) Index Scale: 2 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 12-Sep-2014 00:40:09

Channel Processing Parameters				
Parameter	Description	Tool	Value	Unit
ABHME	Array Induction Extended Borehole Correction Mode	ZAIT-E	Compute Standoff	
ACDE	Array Induction Casing Detection Enable	ZAIT-E	No	
AOFFX	X Accelerometer Offset	GPIT-F	0	ft/s2
AOFFY	Y Accelerometer Offset	GPIT-F	0.01	ft/s2
AOFFZ	Z Accelerometer Offset	GPIT-F	0	ft/s2
AROT	Array Induction Rotation Selector	ZAIT-E	North	
ASTA	Array Induction Tool Standoff	ZAIT-E	1	in
BARI	Barite Mud Presence Flag	Borehole	Yes	
BHS	Borehole Status (Open or Cased Hole)	Borehole	Open	
BHT	Bottom Hole Temperature	Borehole	160	degF
BS	Bit Size	WLSESSION	Depth Zoned	in
BSAL	Borehole Salinity	Borehole	20000	ppm
CALI_SHIFT.1	CALI Supplementary Offset	HDRS-H	1.51	in

CALI_SHIFT.2	CALI Supplementary Offset	HDRS-H	0.535	in
CBLO	Casing Bottom (Logger)	WLSESSION	1296	ft
CDEN	Cement Density	EDTC-B	2	g/cm3
DC_MODE	Depth Correction Mode	DepthCorrection	Real-time	
DFD	Drilling Fluid Density	Borehole	9	lbm/gal
DFT	Drilling Fluid Type	Borehole	Water	
DFT_WATER	Drilling Fluid Water Type	Borehole	Water Based Mud	
DHC	Density Hole Correction	HDRS-H	Bit Size	
FOFFX	X Magnetometer Offset	GPIT-F	0	mT
FOFFY	Y Magnetometer Offset	GPIT-F	0	mT
FOFFZ	Z Magnetometer Offset	GPIT-F	0	mT
FSAL	Formation Salinity	Borehole	0	ppm
GCSE_DOWN_PASS	Generalized Caliper Selection for WL Log Down Passes	Borehole	BS	
GCSE_UP_PASS	Generalized Caliper Selection for WL Log Up Passes	Borehole	CALI	
GRSE	Generalized Mud Resistivity Selection, from Measured or Computed Mud Resistivity	Borehole	AMF	
GTSE	Generalized Temperature Selection, from Measured or Computed Temperature	Borehole	CTEM	
HSCO	Hole Size Correction Option	HGNS-H	Yes	
ICMO	Inclinometry Computation Mode	GPIT-F	Automatic Selection	
LOG_SPEED_RNG	Logging Speed Range	GPIT-F	Normal (600 ft/h - 3600 ft/h)	
MATR	Rock Matrix for Neutron Porosity Corrections	Borehole	LIMESTONE	
MFST	Mud Filtrate Sample Temperature	Borehole	85	degF
NPRM	HRDD Nuclear Processing Mode	HDRS-H	Standard Resolution	
RMFS	Resistivity of Mud Filtrate Sample	Borehole	0.12	ohm.m
TD	Total Measured Depth	Borehole	5680	ft
USER_LOCB	User-supplied values for Magnetic Flux Density	WLSESSION	52426.19	nT
USER_MDEC	User-supplied values for Magnetic Declination	WLSESSION	10	deg
USER_MDIP	User-supplied values for Magnetic Dip Angle	WLSESSION	66.53	deg

Depth Zone Parameters

Parameter	Value	Start (ft)	Stop (ft)
BS	17.5	1195	1296
BS	12.25	1296	5680
All depth are actual.			

Tool Control Parameters

Parameter	Description	Tool	Value	Unit
HMCA_BRD_TYPE	HMCA Board Type	HGNS-H	1	
HRGD_BRD_TYPE	HRGD Board Type	HDRS-H	WITH_HET	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	Time Zoned	ft/h

Time Zone Parameters

Parameter	Value	Start Time	Stop Time	Start Depth (ft)	Stop Depth (ft)
MAX_LOG_SPEED	1510	11-Sep-2014 18:55:18	11-Sep-2014 19:26:20	5681.24	5073.22
MAX_LOG_SPEED	1424	11-Sep-2014 19:26:20	11-Sep-2014 19:33:33	5073.22	4912.83
MAX_LOG_SPEED	1497	11-Sep-2014 19:33:33	11-Sep-2014 20:15:39	4912.83	3974.29
MAX_LOG_SPEED	1607	11-Sep-2014 20:15:39	11-Sep-2014 20:16:41	3974.29	3951.4
MAX_LOG_SPEED	1482	11-Sep-2014 20:16:41	11-Sep-2014 20:19:46	3951.4	3882.42
MAX_LOG_SPEED	1557	11-Sep-2014 20:19:46	11-Sep-2014 20:29:01	3882.42	3674.98
MAX_LOG_SPEED	1477	11-Sep-2014 20:29:01	11-Sep-2014 20:33:09	3674.98	3582.47
MAX_LOG_SPEED	1555	11-Sep-2014 20:33:09	11-Sep-2014 20:40:21	3582.47	3420.78

MAX_LOG_SPEED	1453	11-Sep-2014 20:40:21	11-Sep-2014 20:47:33	3420.78	3257.57
MAX_LOG_SPEED	1535	11-Sep-2014 20:47:33	11-Sep-2014 21:04:58	3257.57	2844.12
MAX_LOG_SPEED	1628	11-Sep-2014 21:04:58	11-Sep-2014 21:06:00	2844.12	2818.63
MAX_LOG_SPEED	1532	11-Sep-2014 21:06:00	11-Sep-2014 21:09:05	2818.63	2741.13
MAX_LOG_SPEED	1628	11-Sep-2014 21:09:05	11-Sep-2014 21:25:29	2741.13	2333.69
MAX_LOG_SPEED	1732	11-Sep-2014 21:25:29	11-Sep-2014 21:28:34	2333.69	2256.68
MAX_LOG_SPEED	1635	11-Sep-2014 21:28:34	11-Sep-2014 21:31:39	2256.68	2179.52
MAX_LOG_SPEED	1724	11-Sep-2014 21:31:39	11-Sep-2014 22:16:41	2179.52	1389.73
MAX_LOG_SPEED	1582	11-Sep-2014 22:16:41	11-Sep-2014 22:26:12	1389.73	1028.67

One

5 in Main

Software Version

Acquisition System	Version
MaxWell	4.0.9163.3000
Application Patch	Patch-SP-10767_18214-4.0.9163.3001
	Patch-Hotfix_AIT_Akima_SP2-22990-4.0.9434.3002

Borehole	Borehole Ensemble provides common Borehole Parameters and Channels	4.0.9433.3000
HENVIR	Computation Ensemble for the HGNS Neutron environmental corrections	4.0.9360.3000
DepthCorrection	DepthCorrection	4.0.9433.3000

HRCC-H	HILT High-Resolution Control Cartridge, 150 degC	4.0.9385.3000	2.0
AZIS	Array Induction Sonde - Z	4.0.9427.3000	
HGNS-H	HILT Gamma-Ray and Neutron Sonde, 150 degC	4.0.9385.3000	2.0
HRGD-H	HILT Resistivity Gamma-Ray Density Device, 150 degC	4.0.9385.3000	3.0
HNGS-BA	HNGS Sonde Element	4.0.9360.3000	2.0
EDTC-B	Enhanced Digital Telemetry Cartridge - B	4.0.9433.3000	

Pass Summary

									Parallel Data
One	Log[3]:Up	Up	1028.68 ft	5681.24 ft	11-Sep-2014 6:55:18 PM	11-Sep-2014 10:26:12 PM	ON	0.00 ft	No

Company:Southwestern Energy Production Company Well:Diamond T Sheep 7-92 1-26

Log

Company:Southwestern Energy Production Company

One: Log[3]:Up:S011

TIME_1900 - Time Marked every 60.00 (s)

			0.2	ohm.m	2000
	Stuck Tool Indicator, Total (STIT)		Array Induction Two Foot Resistivity A20 (AT20) ZAIT-E		
			0.2	ohm.m	2000
	0 ft 50		Array Induction Two Foot Resistivity A30 (AT30) ZAIT-E		
Gamma Ray (GR) EDTC-B	Standard				

Array Induction Two Foot Resistivity A10
(AT10) ZAIT-E

0.2	ohm.m	2000
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Array Induction Two Foot Resistivity A20

Array Induction Two Foot Resistivity A20
(AT20) ZAIT-E

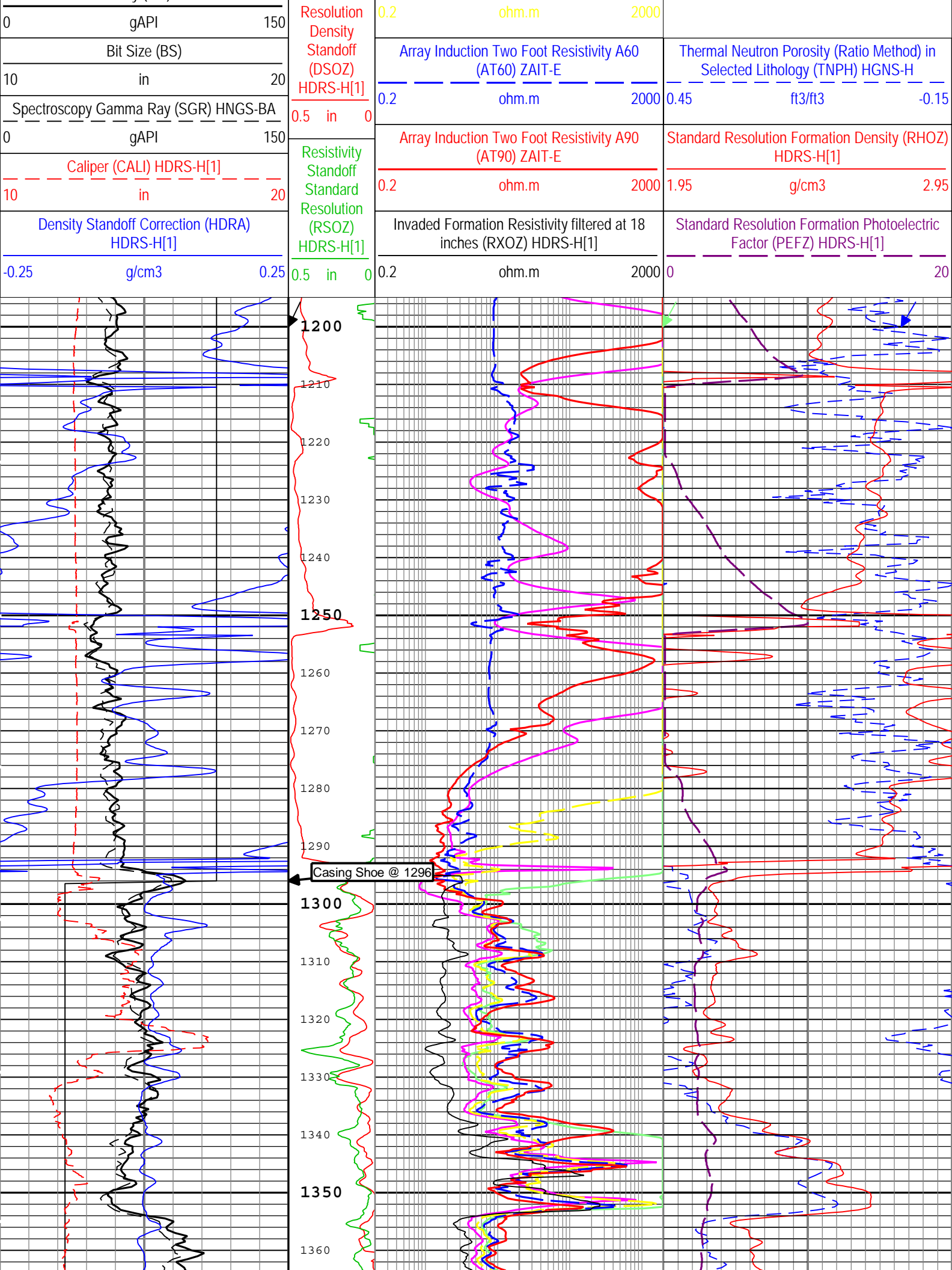
0.2	ohm.m	2000
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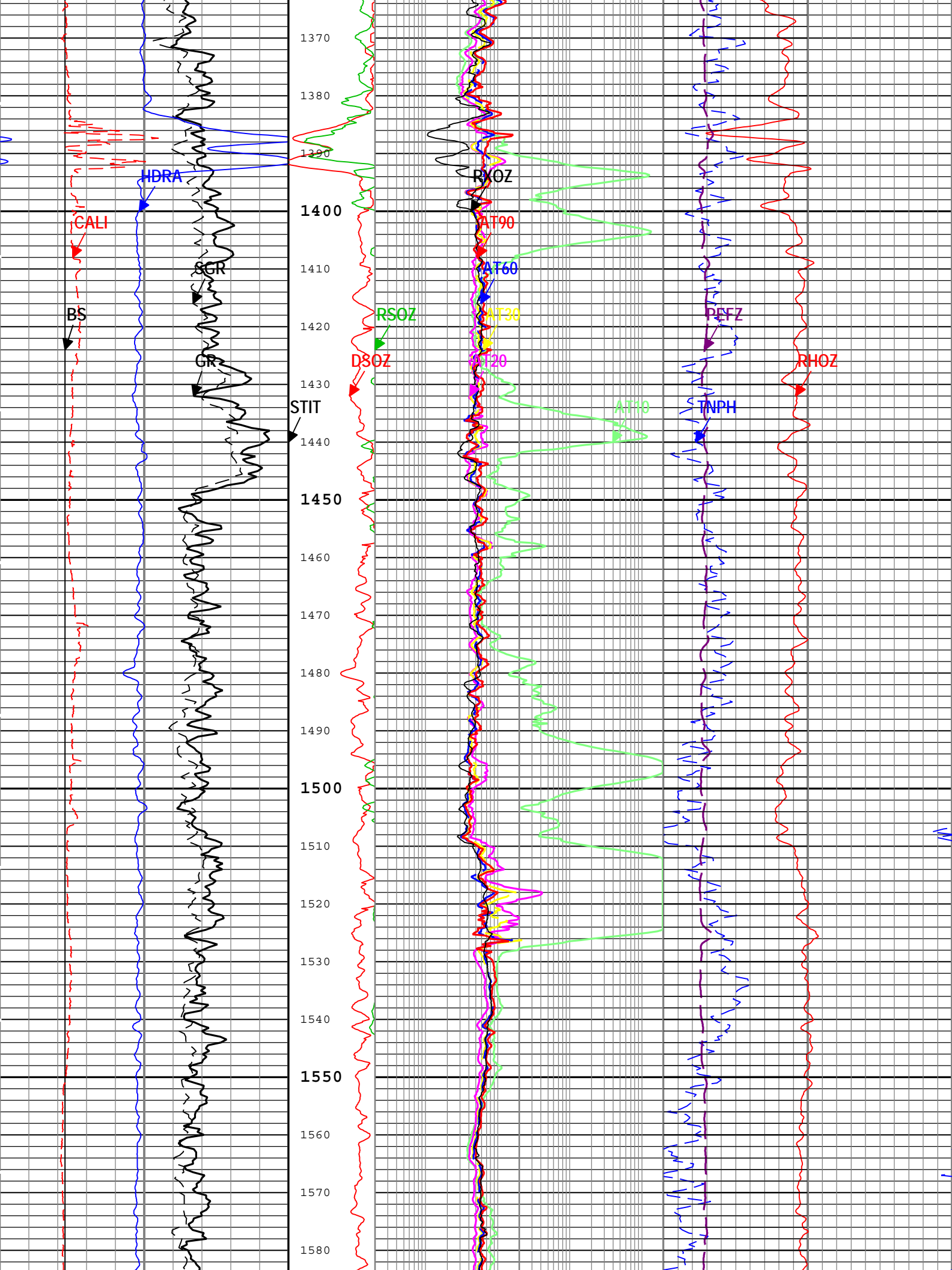
Stuck Tool
Indicator,
Total (STIT)

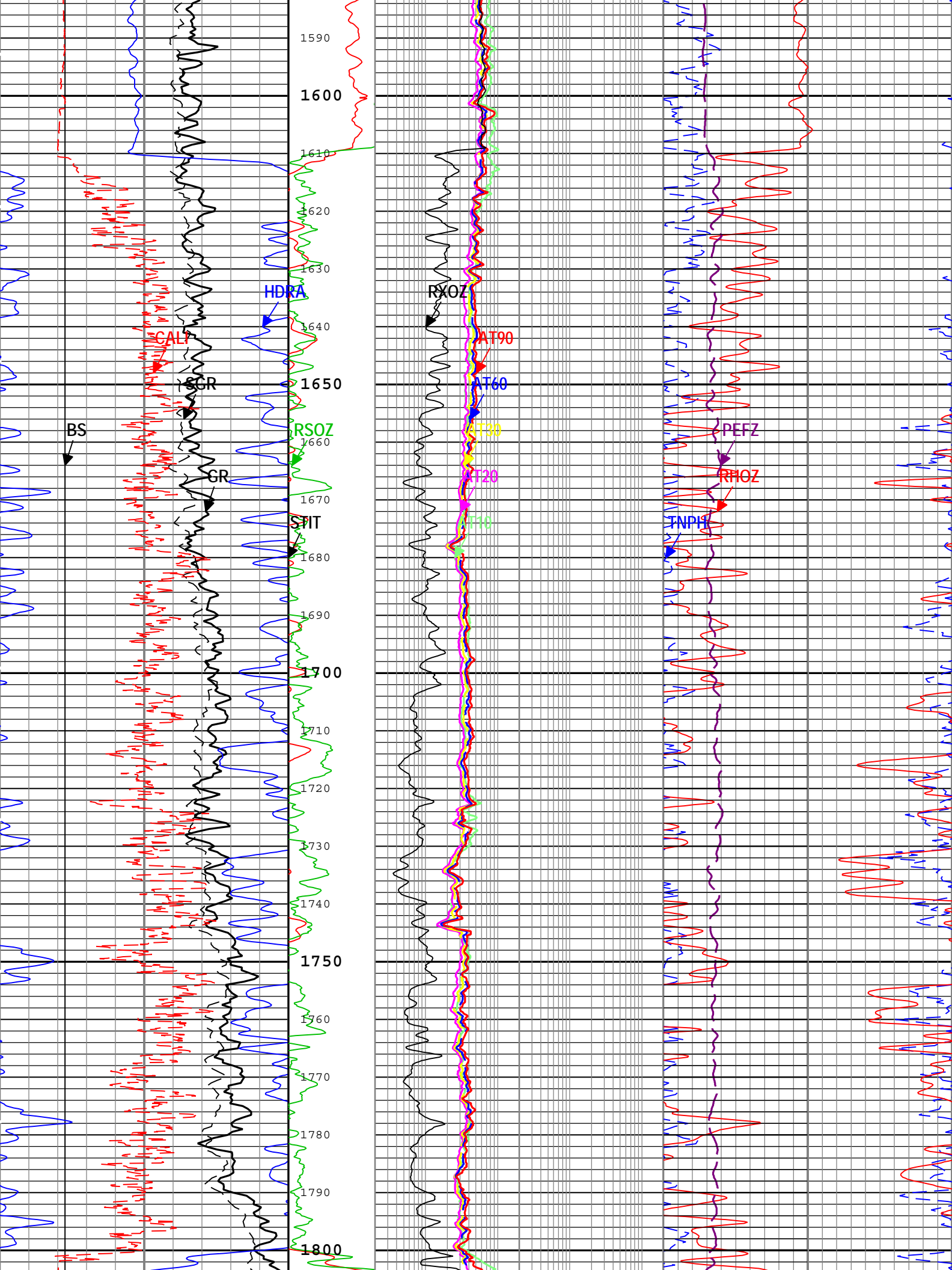
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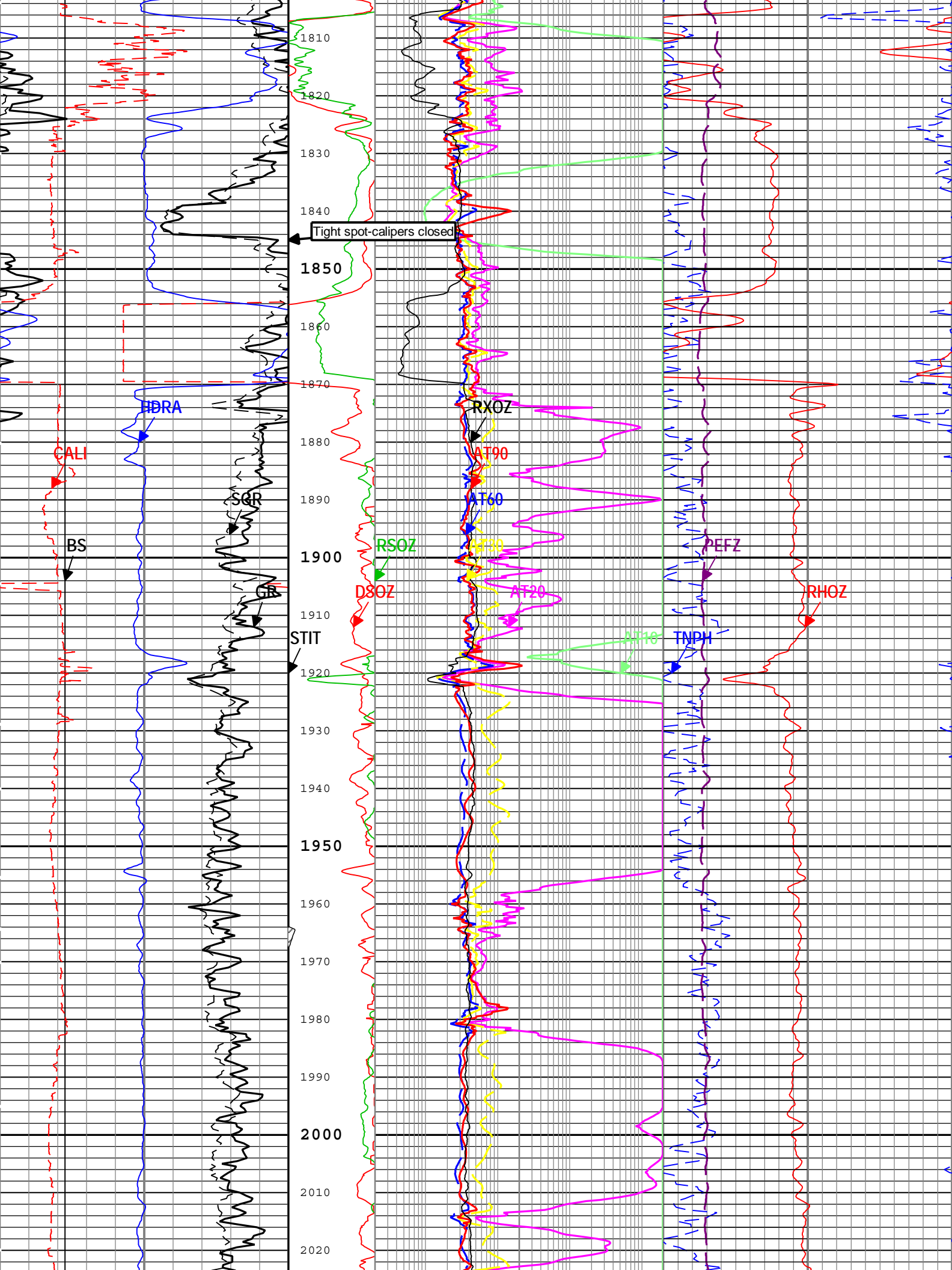
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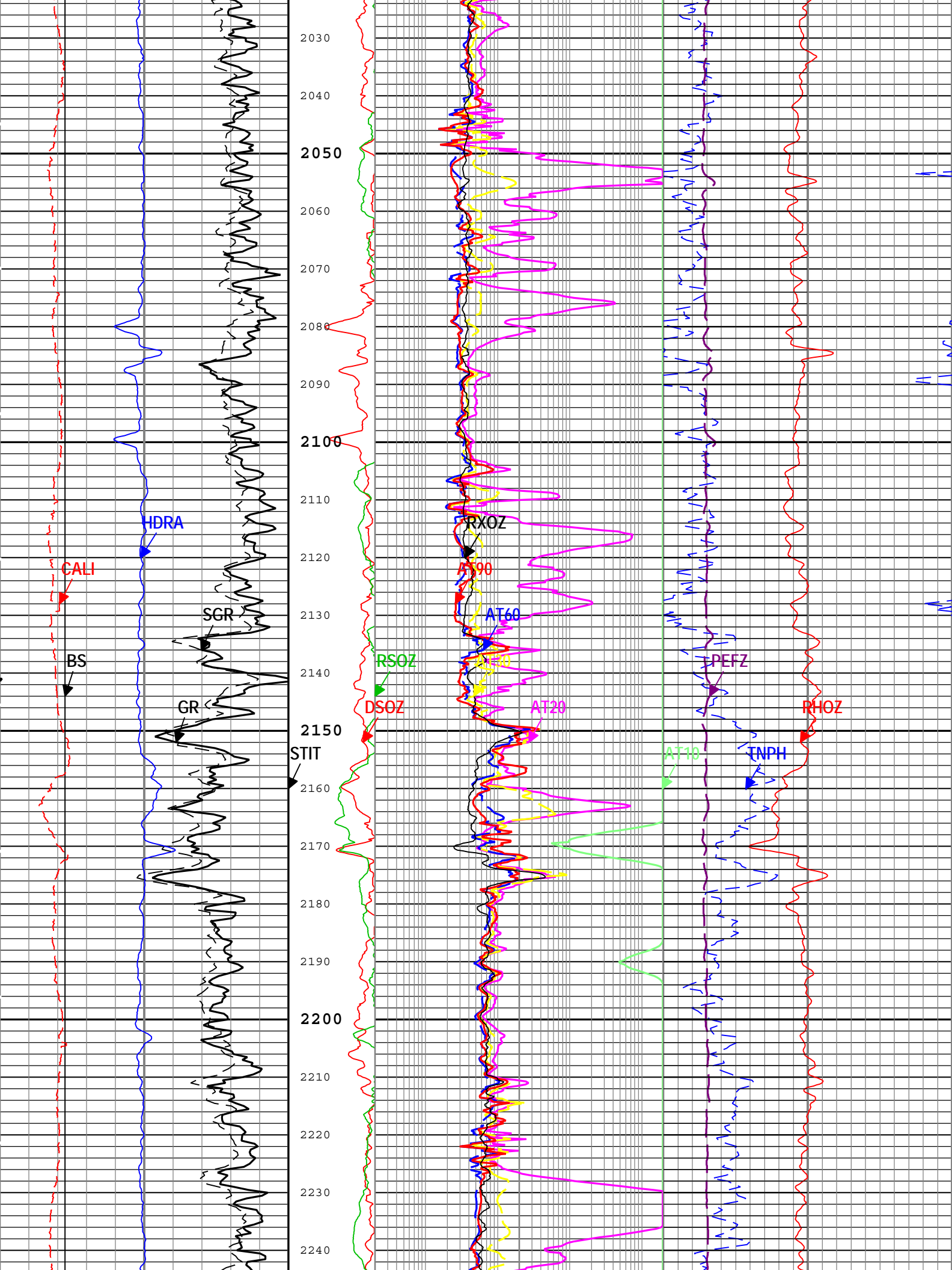
Gamma Ray (GR) EDTC-B

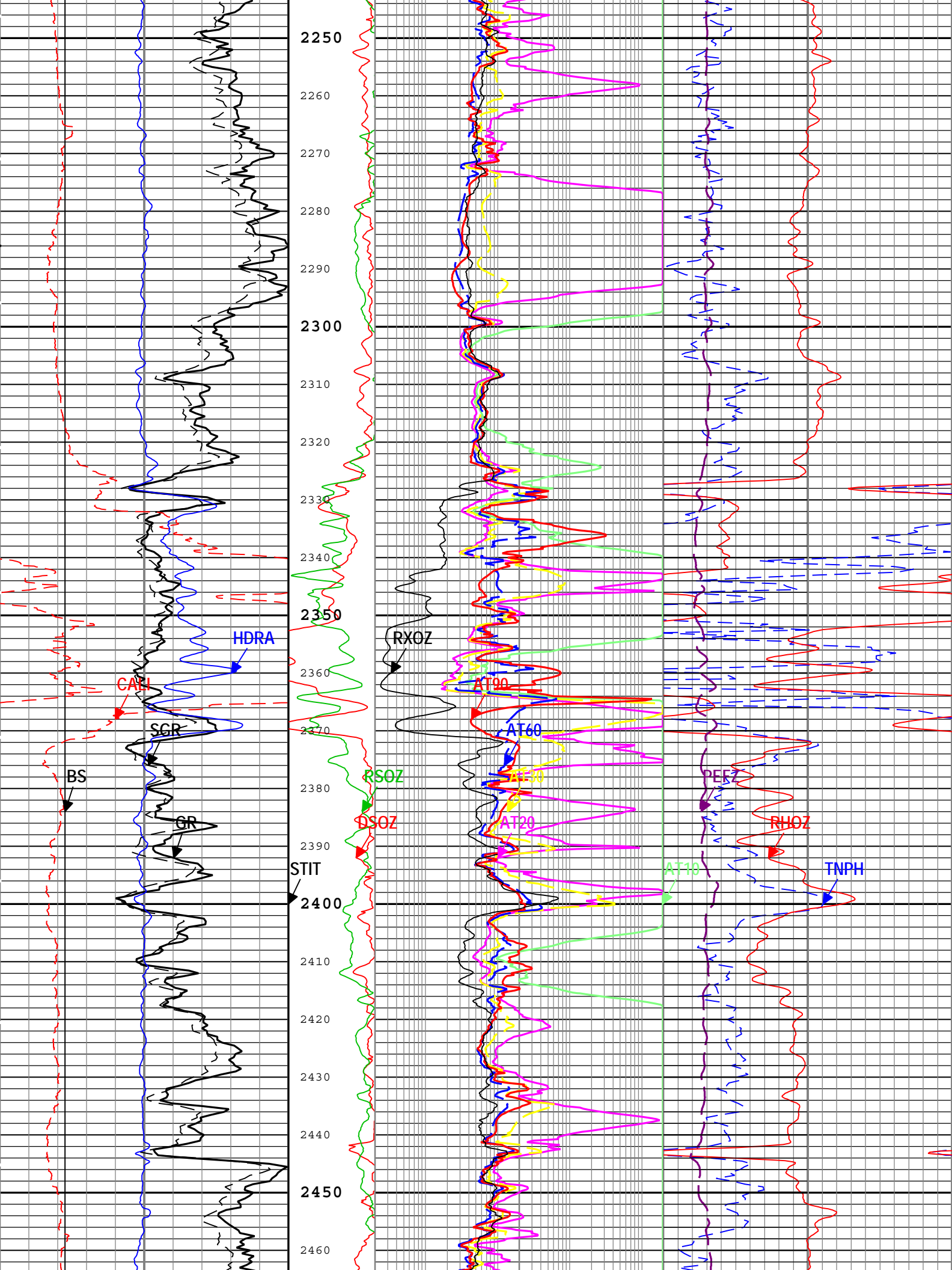


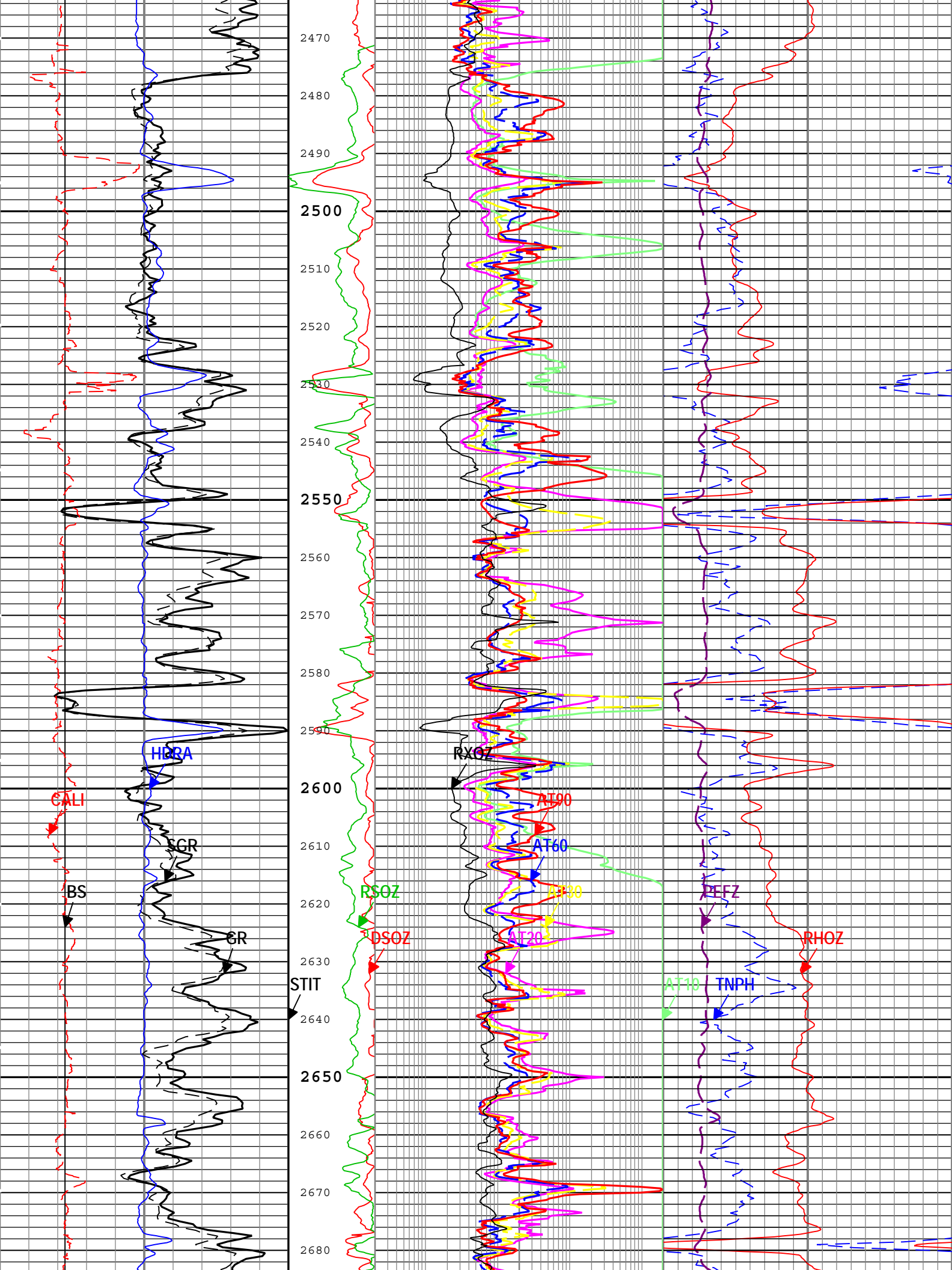


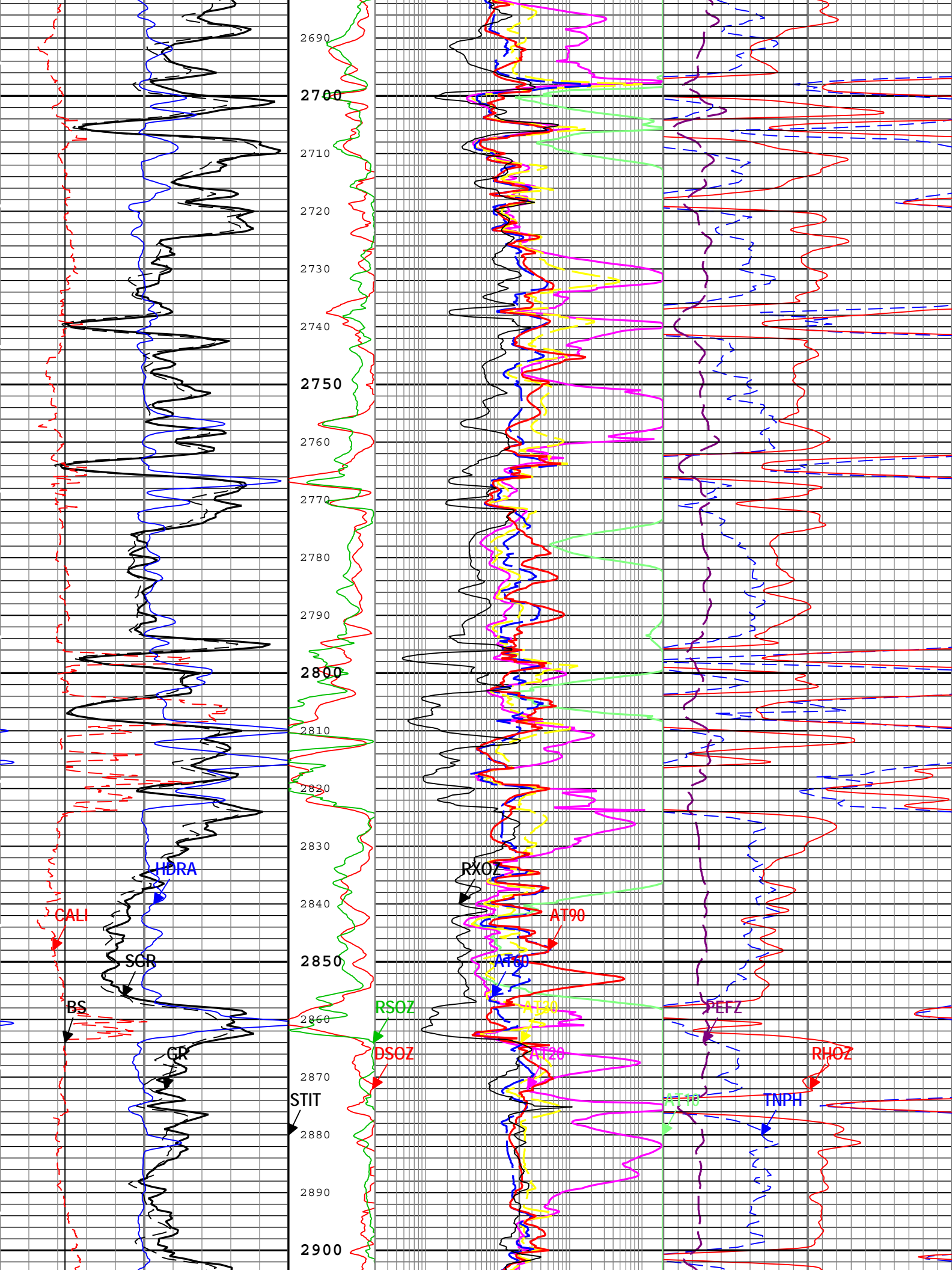


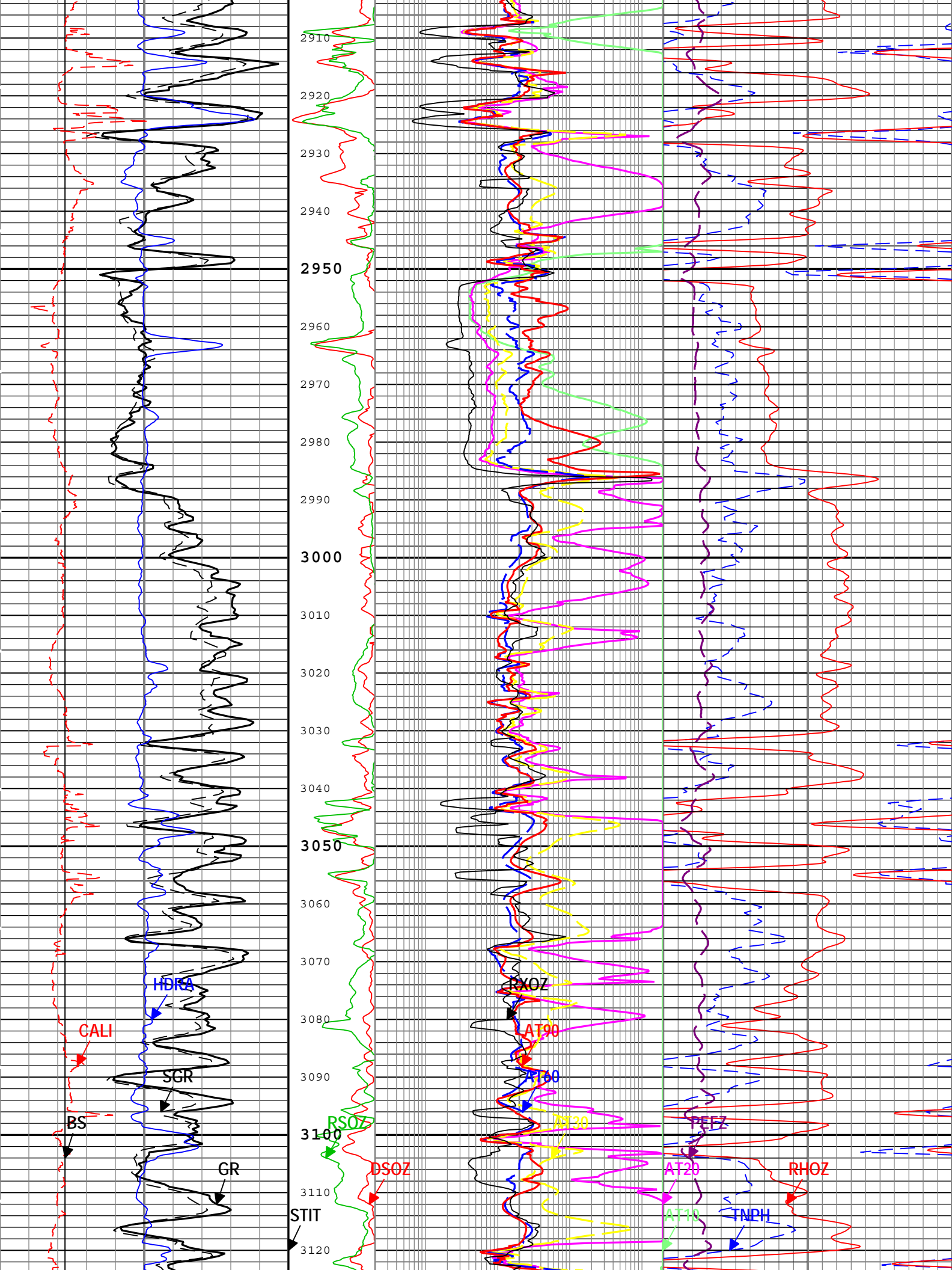


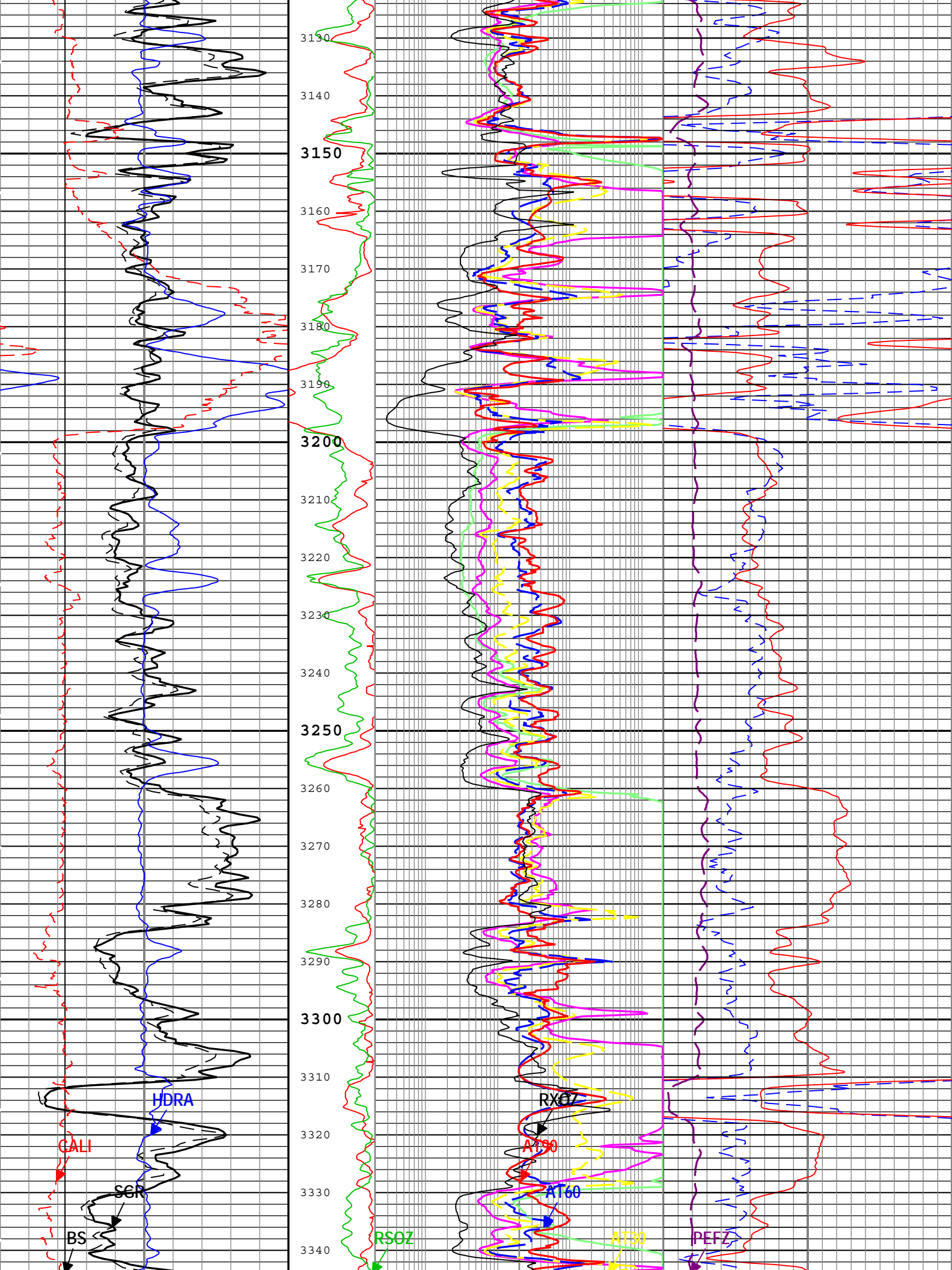


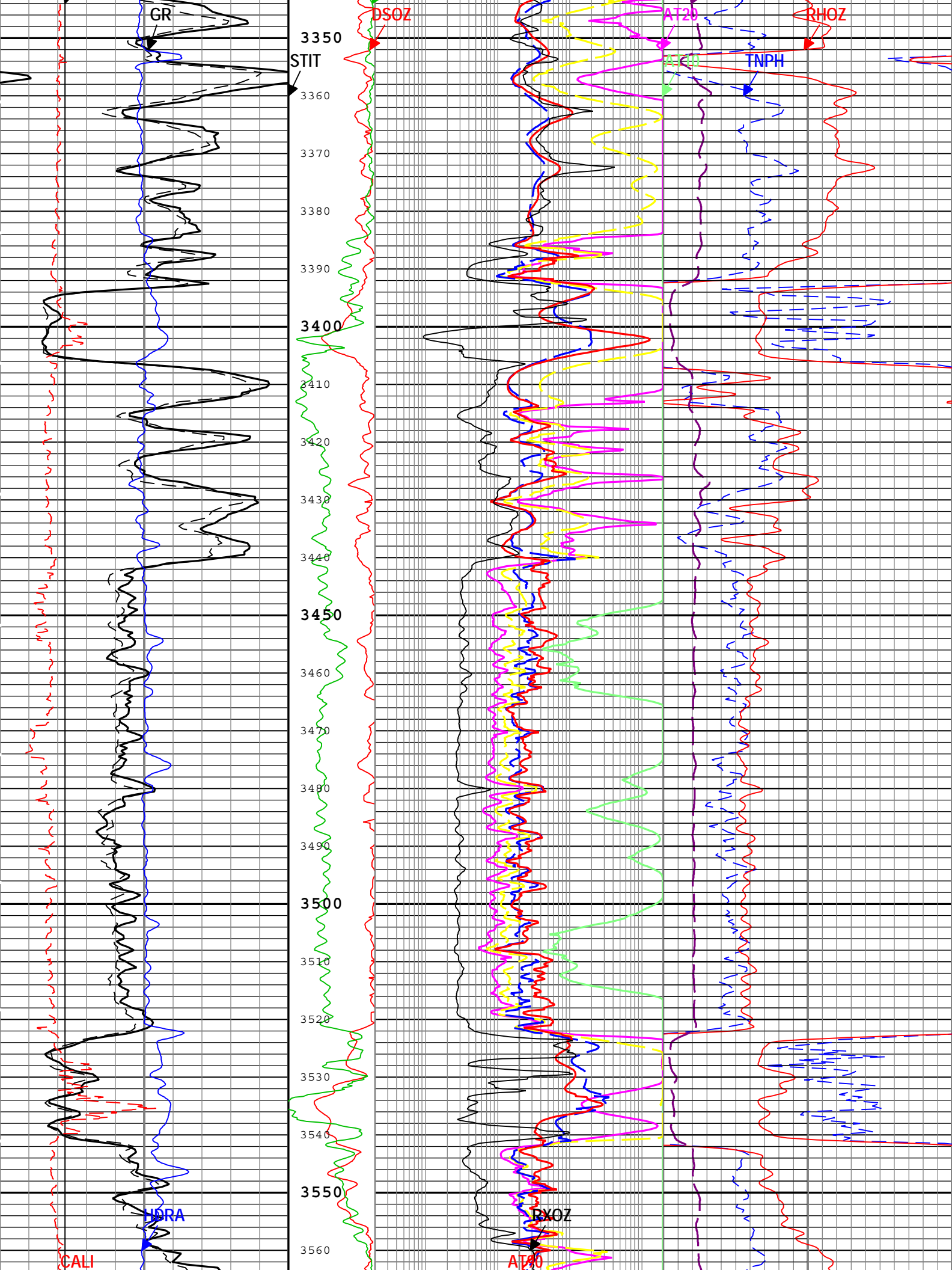


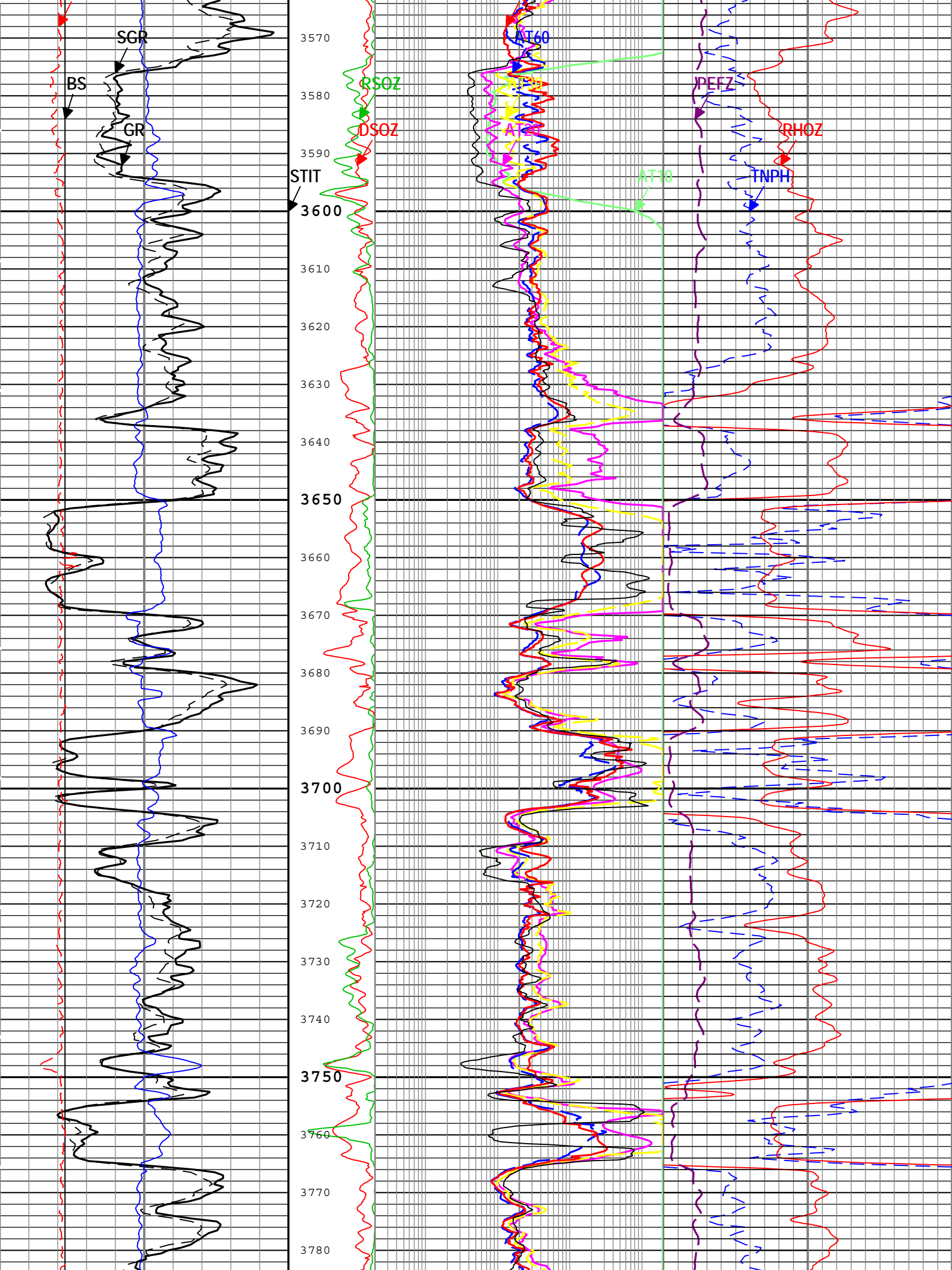


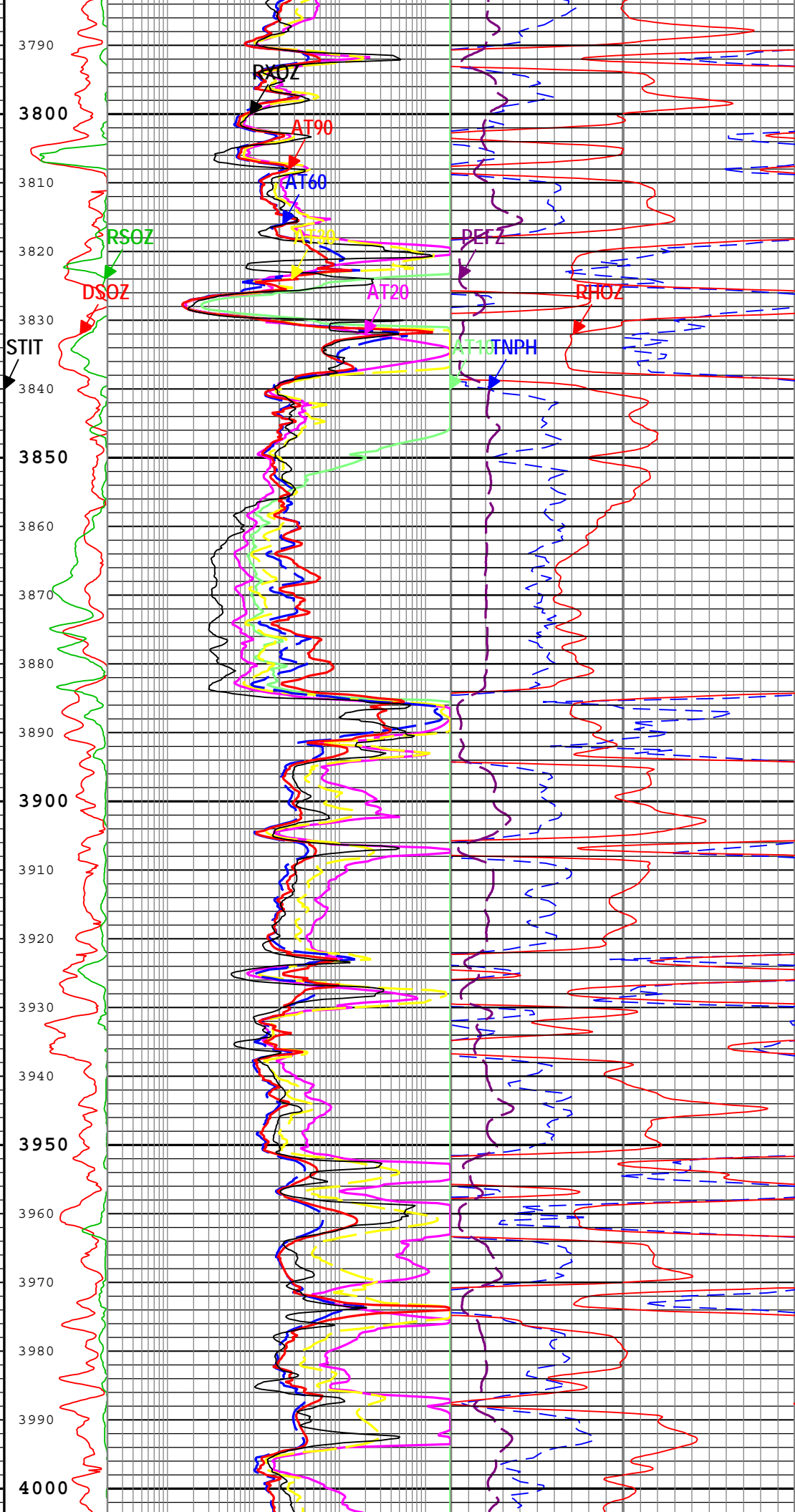
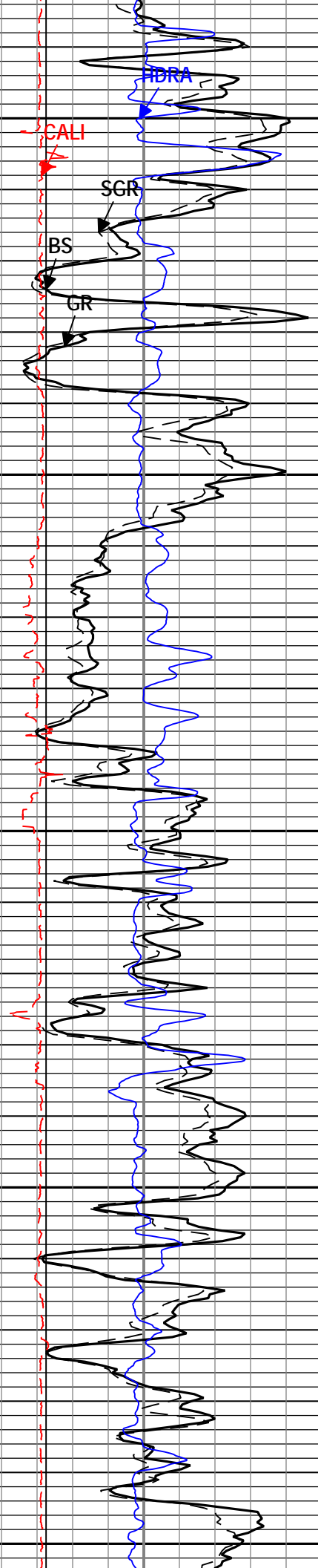


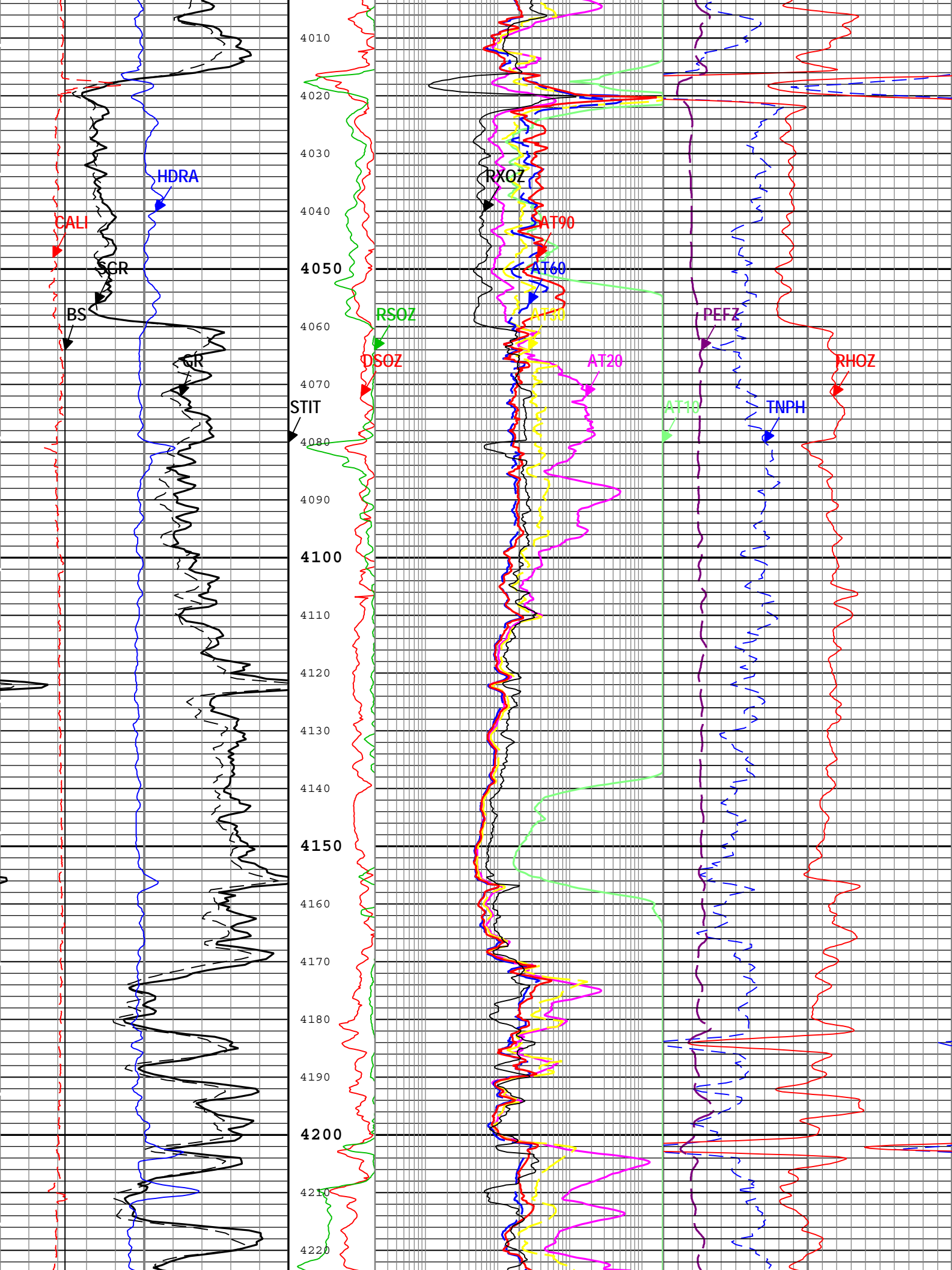


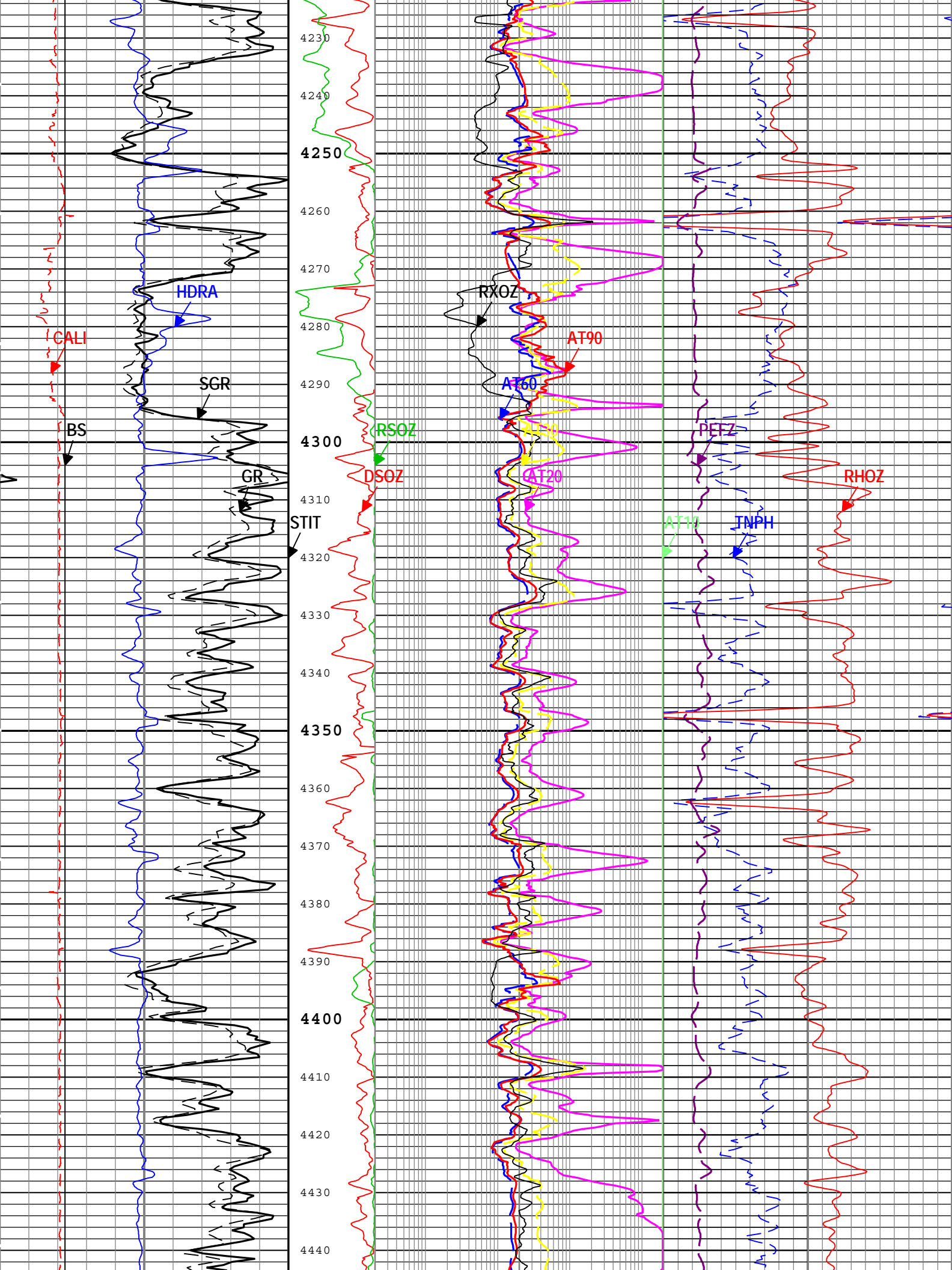


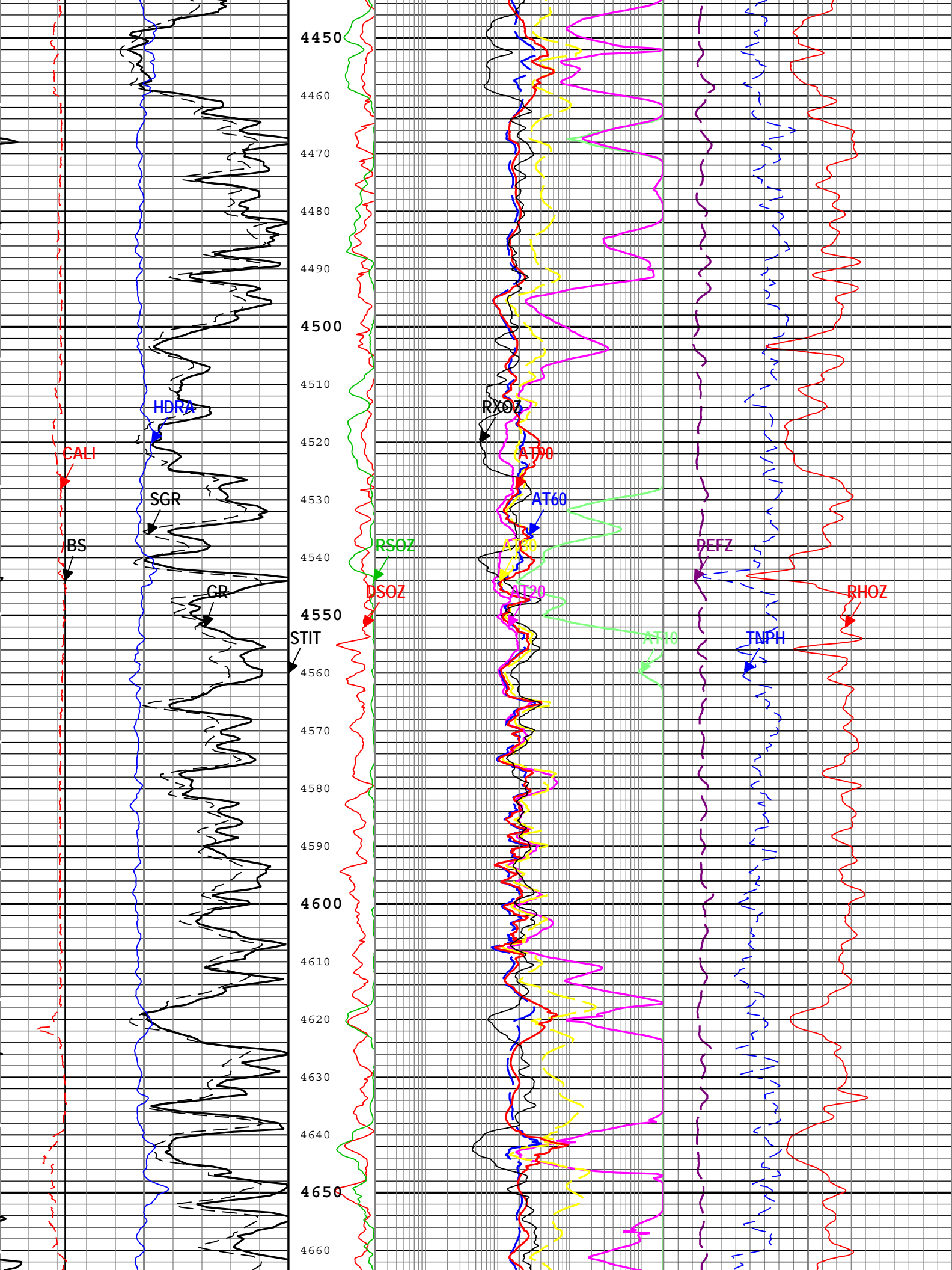


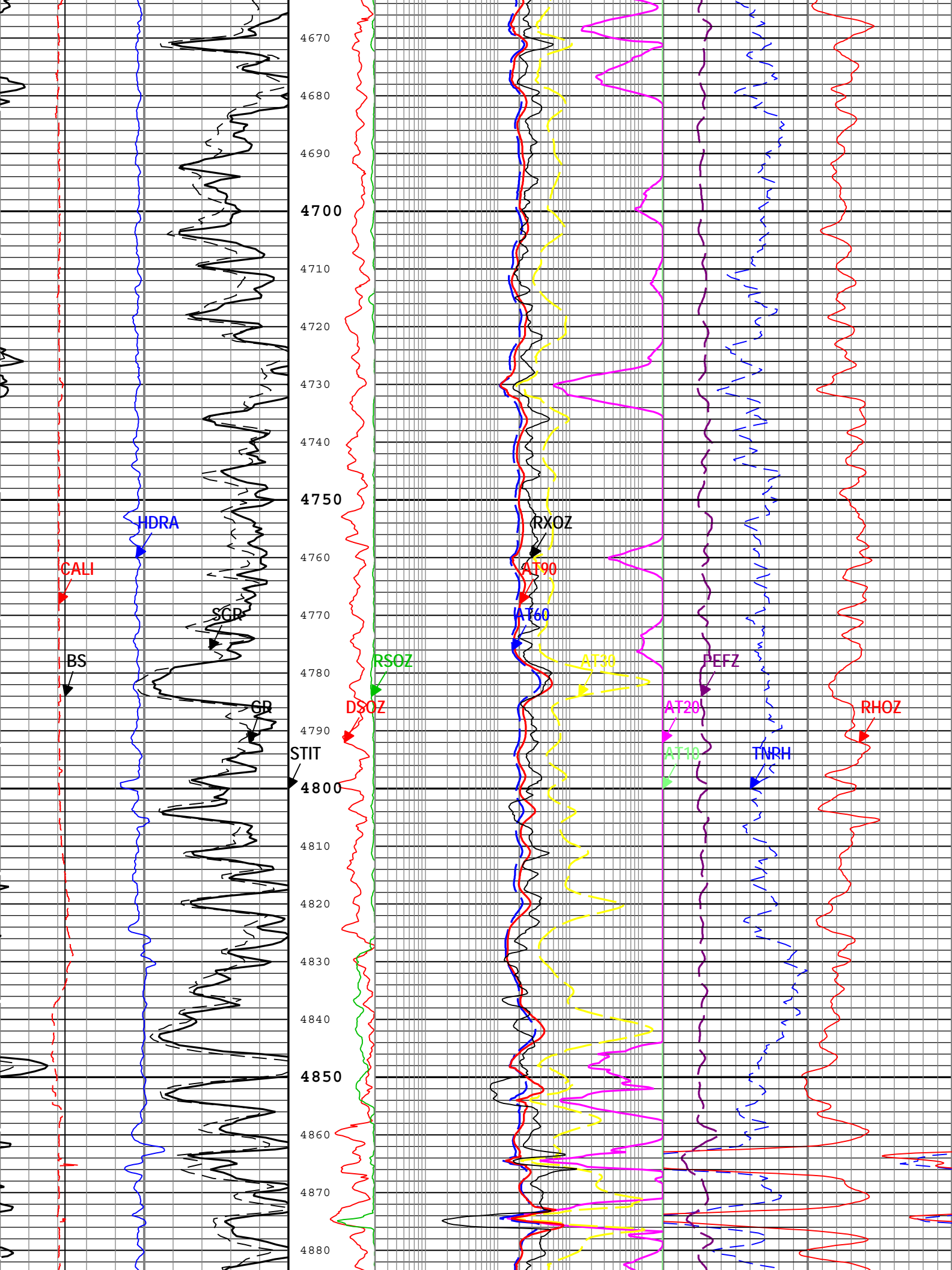


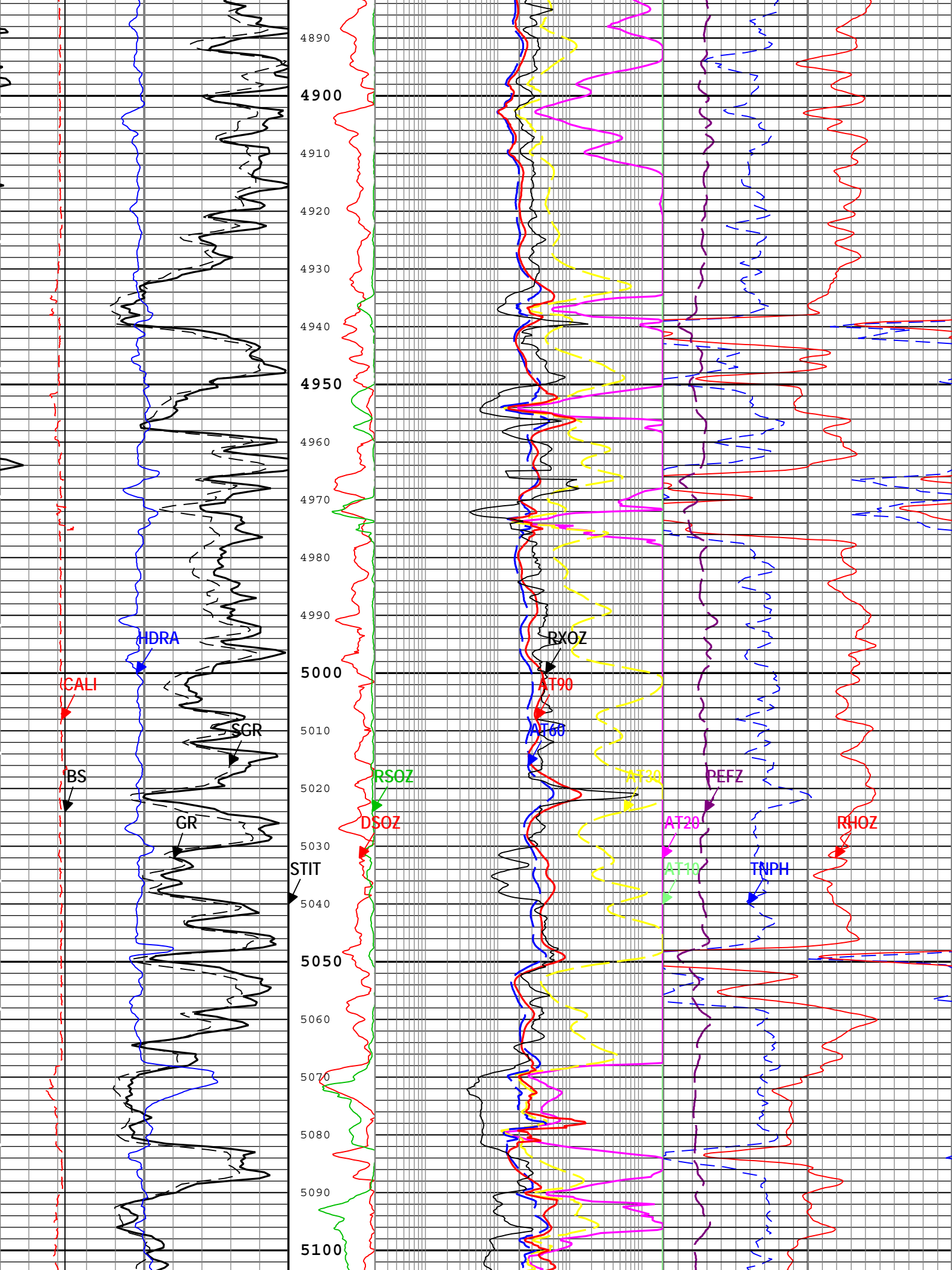


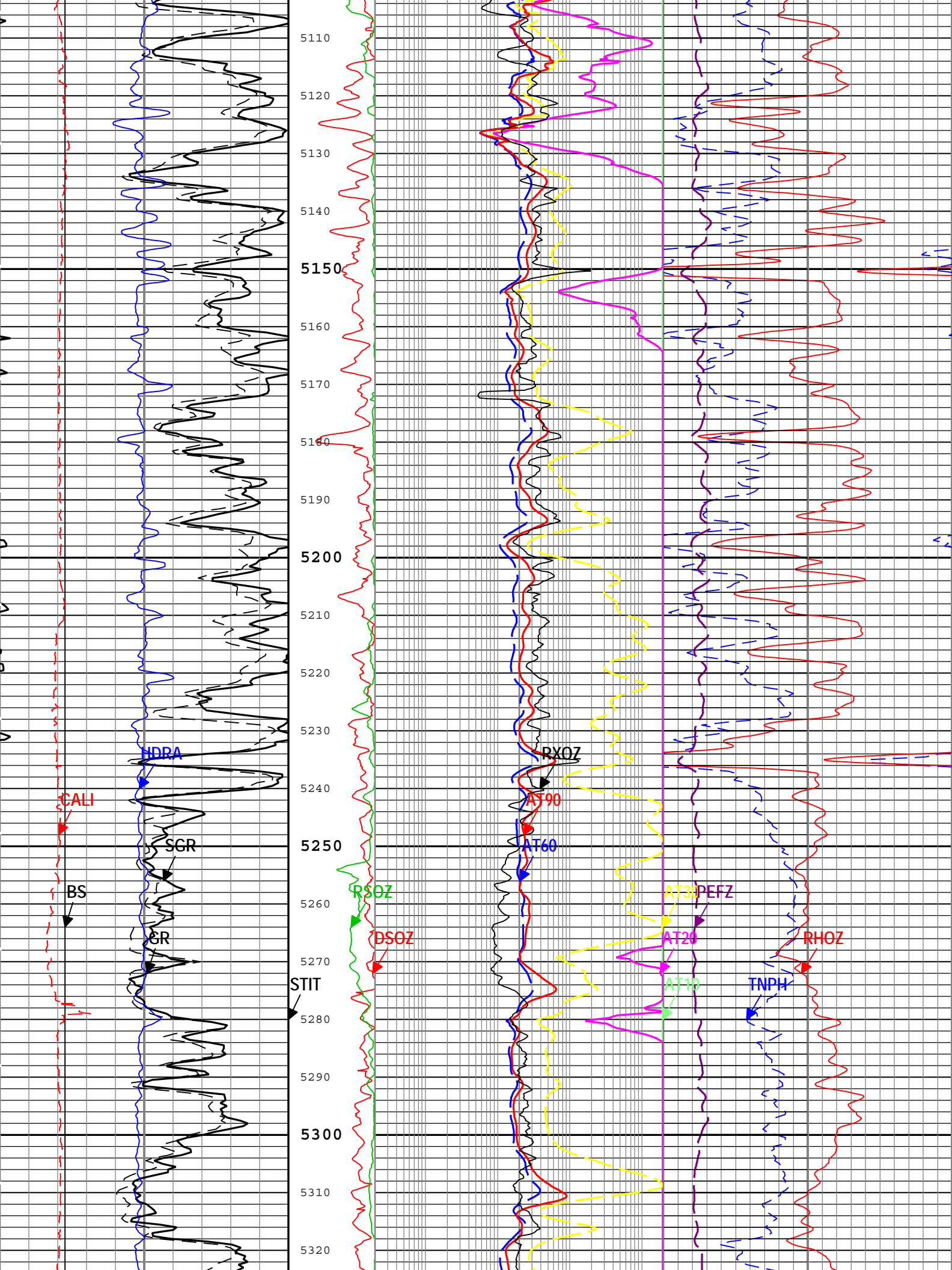


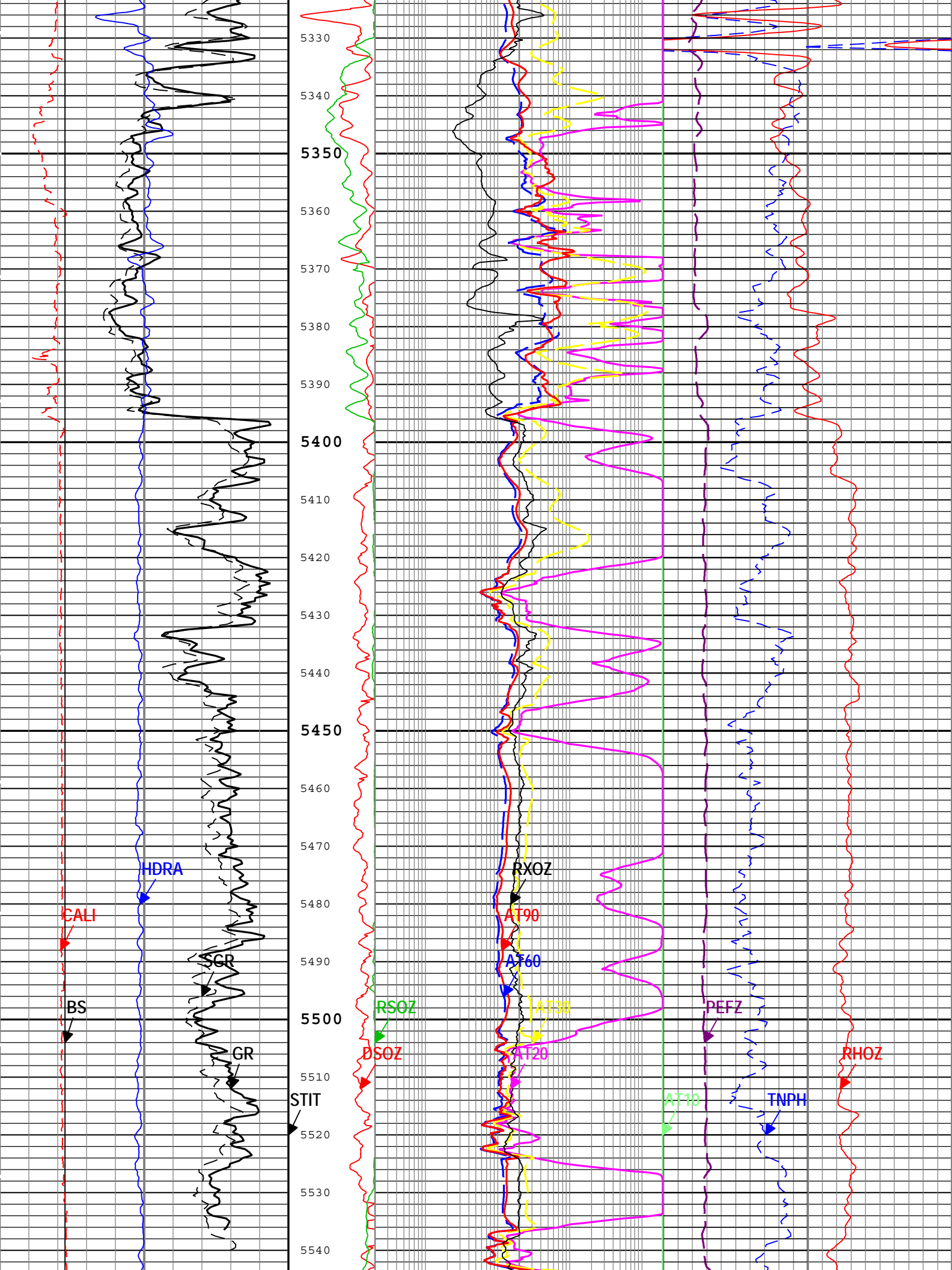


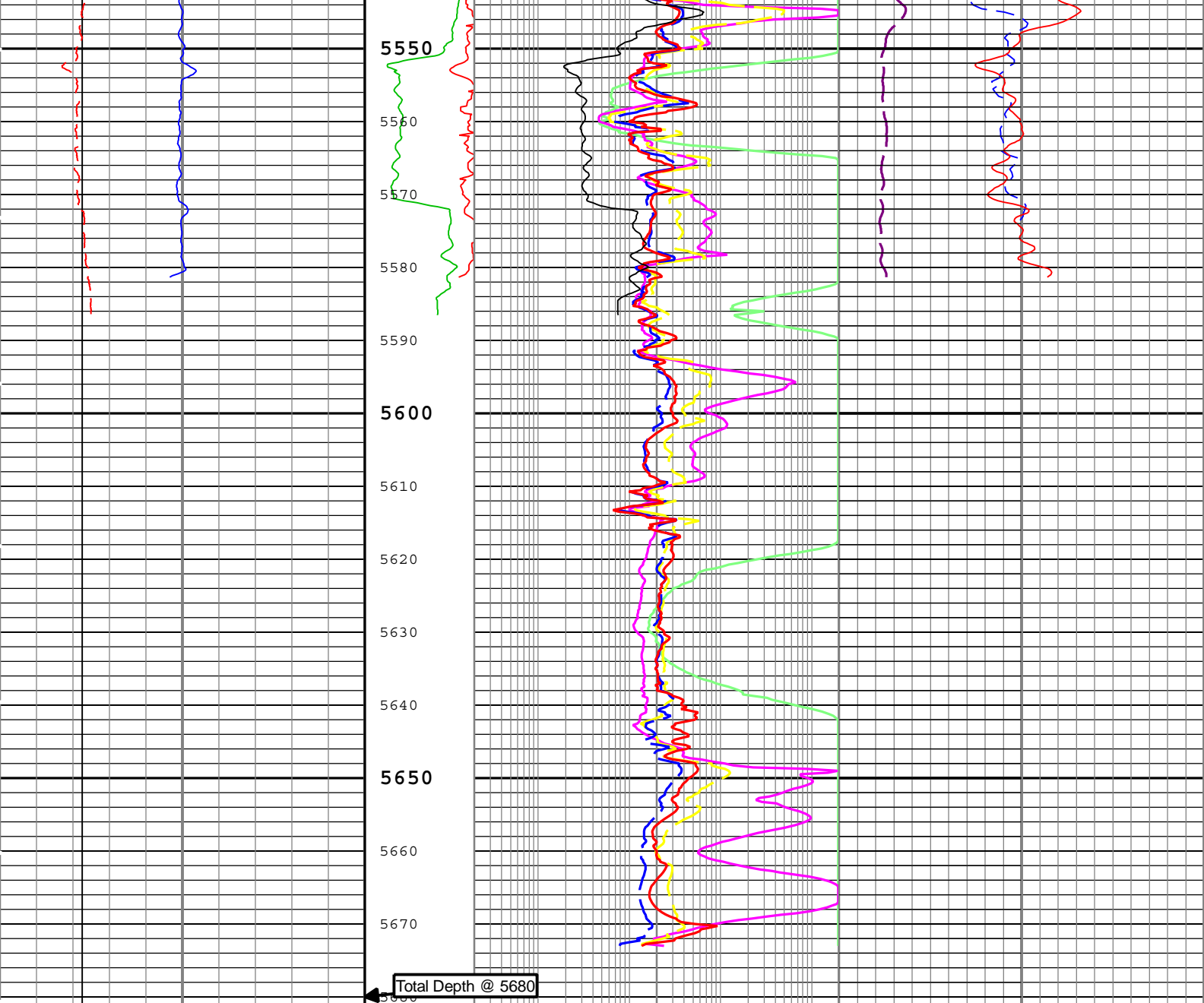












Gamma Ray (GR) EDTC-B			Stuck Tool Indicator, Total (STIT)	Array Induction Two Foot Resistivity A10 (AT10) ZAIT-E			Thermal Neutron Porosity (Ratio Method) in Selected Lithology (TNPH) HGNS-H		
0	gAPI	150		0.2	ohm.m	2000	0.45	ft3/ft3	-0.15
Bit Size (BS)			0	ft	50	Array Induction Two Foot Resistivity A20 (AT20) ZAIT-E			Standard Resolution Formation Density (RHOZ) HDRS-H[1]
10	in	20	Standard Resolution Density Standoff (DSOZ) HDRS-H[1]	Array Induction Two Foot Resistivity A30 (AT30) ZAIT-E			Standard Resolution Formation Photoelectric Factor (PEFZ) HDRS-H[1]		
Spectroscopy Gamma Ray (SGR) HNGS-BA				0.2	ohm.m	2000	1.95	g/cm3	2.95
0	gAPI	150		0.2	ohm.m	2000	0		20
Caliper (CALI) HDRS-H[1]			0.5	in	0	Array Induction Two Foot Resistivity A60 (AT60) ZAIT-E			
10	in	20	Resistivity Standoff Standard Resolution (RSOZ) HDRS-H[1]	Array Induction Two Foot Resistivity A90 (AT90) ZAIT-E					
Density Standoff Correction (HDRA) HDRS-H[1]				0.2	ohm.m	2000			
-0.25	g/cm3	0.25	0.2	ohm.m	2000				
			Invaded Formation Resistivity filtered at 18 inches (RXOZ) HDRS-H[1]						

		0.2	ohm.m	2000
TIME_1900 - Time Marked every 60.00 (s)				
Description: HGNS standard resolution porosities for Platform Express Format: Log (5inMainSpecial1) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 12-Sep-2014 00:40:14				
Channel Processing Parameters				
Parameter	Description	Tool	Value	Unit
ABHME	Array Induction Extended Borehole Correction Mode	ZAIT-E	Compute Standoff	
ACDE	Array Induction Casing Detection Enable	ZAIT-E	No	
AOFFX	X Accelerometer Offset	GPIT-F	0	ft/s2
AOFFY	Y Accelerometer Offset	GPIT-F	0.01	ft/s2
AOFFZ	Z Accelerometer Offset	GPIT-F	0	ft/s2
AROT	Array Induction Rotation Selector	ZAIT-E	North	
ASTA	Array Induction Tool Standoff	ZAIT-E	1	in
BARI	Barite Mud Presence Flag	Borehole	Yes	
BHK	Drilling Fluid Potassium Concentration	Borehole	0	%
BHS	Borehole Status (Open or Cased Hole)	Borehole	Open	
BHT	Bottom Hole Temperature	Borehole	160	degF
BS	Bit Size	WLSESSION	Depth Zoned	in
BSAL	Borehole Salinity	Borehole	20000	ppm
CALI_SHIFT.1	CALI Supplementary Offset	HDRS-H	0.535	in
CALI_SHIFT.2	CALI Supplementary Offset	HDRS-H	1.51	in
CBLO	Casing Bottom (Logger)	WLSESSION	1296	ft
CDEN	Cement Density	EDTC-B	2	g/cm3
DBCC	Barite Constant Correction Flag	HNGS-BA	None	
DC_MODE	Depth Correction Mode	DepthCorrection	Real-time	
DFD	Drilling Fluid Density	Borehole	9	lbm/gal
DFT	Drilling Fluid Type	Borehole	Water	
DFT_WATER	Drilling Fluid Water Type	Borehole	Water Based Mud	
DHC	Density Hole Correction	HDRS-H	Bit Size	
FOFFX	X Magnetometer Offset	GPIT-F	0	mT
FOFFY	Y Magnetometer Offset	GPIT-F	0	mT
FOFFZ	Z Magnetometer Offset	GPIT-F	0	mT
FSAL	Formation Salinity	Borehole	0	ppm
GCSE_DOWN_PASS	Generalized Caliper Selection for WL Log Down Passes	Borehole	BS	
GCSE_UP_PASS	Generalized Caliper Selection for WL Log Up Passes	Borehole	CALI	
GRSE	Generalized Mud Resistivity Selection, from Measured or Computed Mud Resistivity	Borehole	AMF	
GTSE	Generalized Temperature Selection, from Measured or Computed Temperature	Borehole	CTEM	
HCRB	Apply Borehole Potassium Correction	HNGS-BA	None	
HEMA	Hematite Presence Flag	Borehole	No	
HSCO	Hole Size Correction Option	HGNS-H	Yes	
ICMO	Inclinometry Computation Mode	GPIT-F	Automatic Selection	
LOG_SPEED_RNG	Logging Speed Range	GPIT-F	Normal (600 ft/h - 3600 ft/h)	
MATR	Rock Matrix for Neutron Porosity Corrections	Borehole	LIMESTONE	
MFST	Mud Filtrate Sample Temperature	Borehole	85	degF
NPRM	HRDD Nuclear Processing Mode	HDRS-H	Standard Resolution	
RMFS	Resistivity of Mud Filtrate Sample	Borehole	0.12	ohm.m
SGRC	Standard Gamma Ray Correction Flag	HNGS-BA	Yes	
TD	Total Measured Depth	Borehole	5680	ft
USER_LOCB	User-supplied values for Magnetic Flux Density	WLSESSION	52426.19	nT

USER_MDEC	User-supplied values for Magnetic Declination	WLSESSION	10	deg
USER_MDIP	User-supplied values for Magnetic Dip Angle	WLSESSION	66.53	deg

Depth Zone Parameters

Parameter	Value	Start (ft)	Stop (ft)
BS	17.5	1195	1296
BS	12.25	1296	5680

All depth are actual.

Tool Control Parameters

Parameter	Description	Tool	Value	Unit
HMCA_BRD_TYPE	HMCA Board Type	HGNS-H	1	
HRGD_BRD_TYPE	HRGD Board Type	HDRS-H	WITH_HET	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	Time Zoned	ft/h

Time Zone Parameters

Parameter	Value	Start Time	Stop Time	Start Depth (ft)	Stop Depth (ft)
MAX_LOG_SPEED	1510	11-Sep-2014 18:55:18	11-Sep-2014 19:26:20	5681.24	5073.22
MAX_LOG_SPEED	1424	11-Sep-2014 19:26:20	11-Sep-2014 19:33:33	5073.22	4912.83
MAX_LOG_SPEED	1497	11-Sep-2014 19:33:33	11-Sep-2014 20:15:39	4912.83	3974.29
MAX_LOG_SPEED	1607	11-Sep-2014 20:15:39	11-Sep-2014 20:16:41	3974.29	3951.4
MAX_LOG_SPEED	1482	11-Sep-2014 20:16:41	11-Sep-2014 20:19:46	3951.4	3882.42
MAX_LOG_SPEED	1557	11-Sep-2014 20:19:46	11-Sep-2014 20:29:01	3882.42	3674.98
MAX_LOG_SPEED	1477	11-Sep-2014 20:29:01	11-Sep-2014 20:33:09	3674.98	3582.47
MAX_LOG_SPEED	1555	11-Sep-2014 20:33:09	11-Sep-2014 20:40:21	3582.47	3420.78
MAX_LOG_SPEED	1453	11-Sep-2014 20:40:21	11-Sep-2014 20:47:33	3420.78	3257.57
MAX_LOG_SPEED	1535	11-Sep-2014 20:47:33	11-Sep-2014 21:04:58	3257.57	2844.12
MAX_LOG_SPEED	1628	11-Sep-2014 21:04:58	11-Sep-2014 21:06:00	2844.12	2818.63
MAX_LOG_SPEED	1532	11-Sep-2014 21:06:00	11-Sep-2014 21:09:05	2818.63	2741.13
MAX_LOG_SPEED	1628	11-Sep-2014 21:09:05	11-Sep-2014 21:25:29	2741.13	2333.69
MAX_LOG_SPEED	1732	11-Sep-2014 21:25:29	11-Sep-2014 21:28:34	2333.69	2256.68
MAX_LOG_SPEED	1635	11-Sep-2014 21:28:34	11-Sep-2014 21:31:39	2256.68	2179.52
MAX_LOG_SPEED	1724	11-Sep-2014 21:31:39	11-Sep-2014 22:16:41	2179.52	1389.73
MAX_LOG_SPEED	1582	11-Sep-2014 22:16:41	11-Sep-2014 22:26:12	1389.73	1028.67

All depth are at tool zero.

One

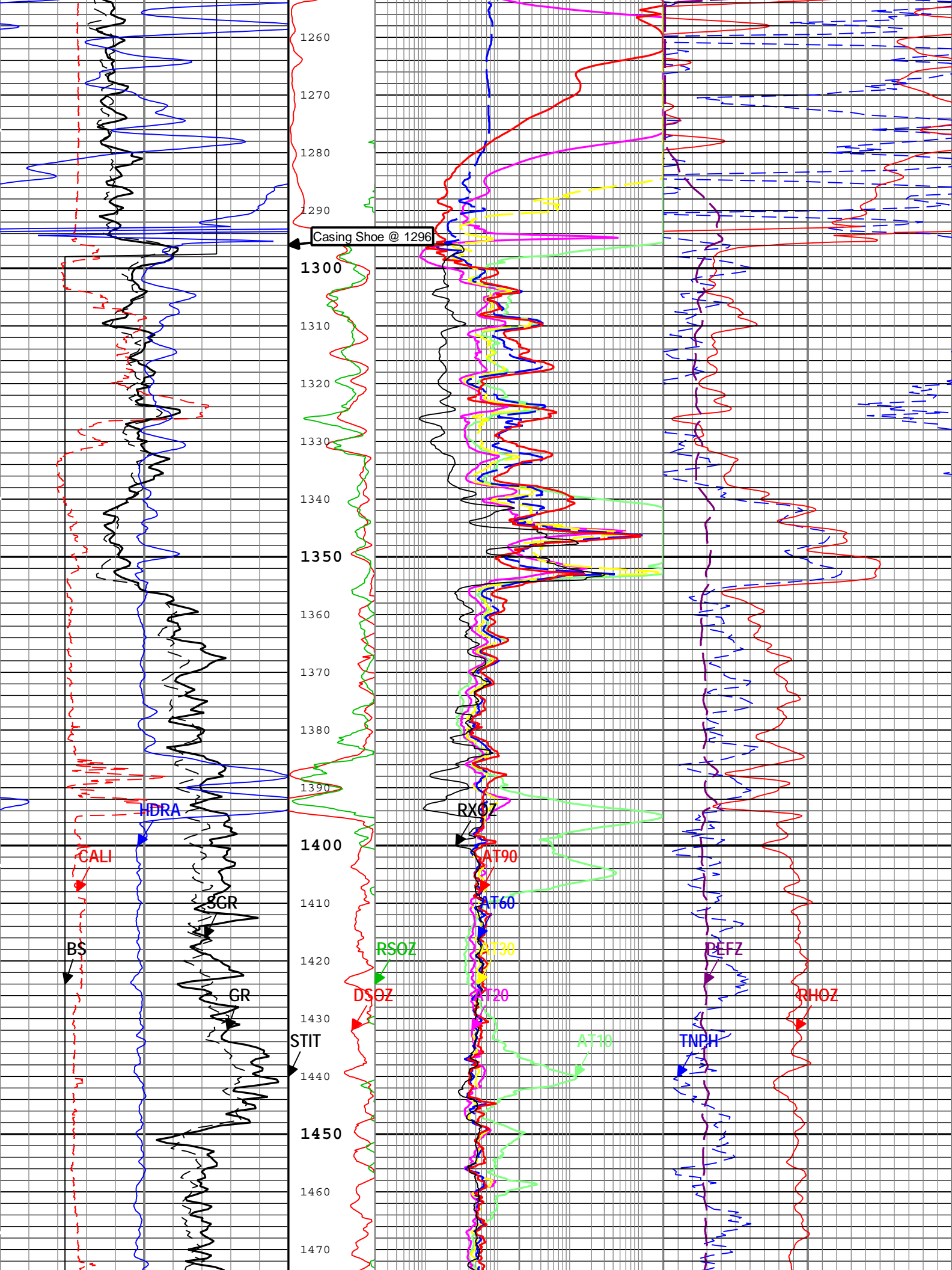
5" 3600 ft/hr

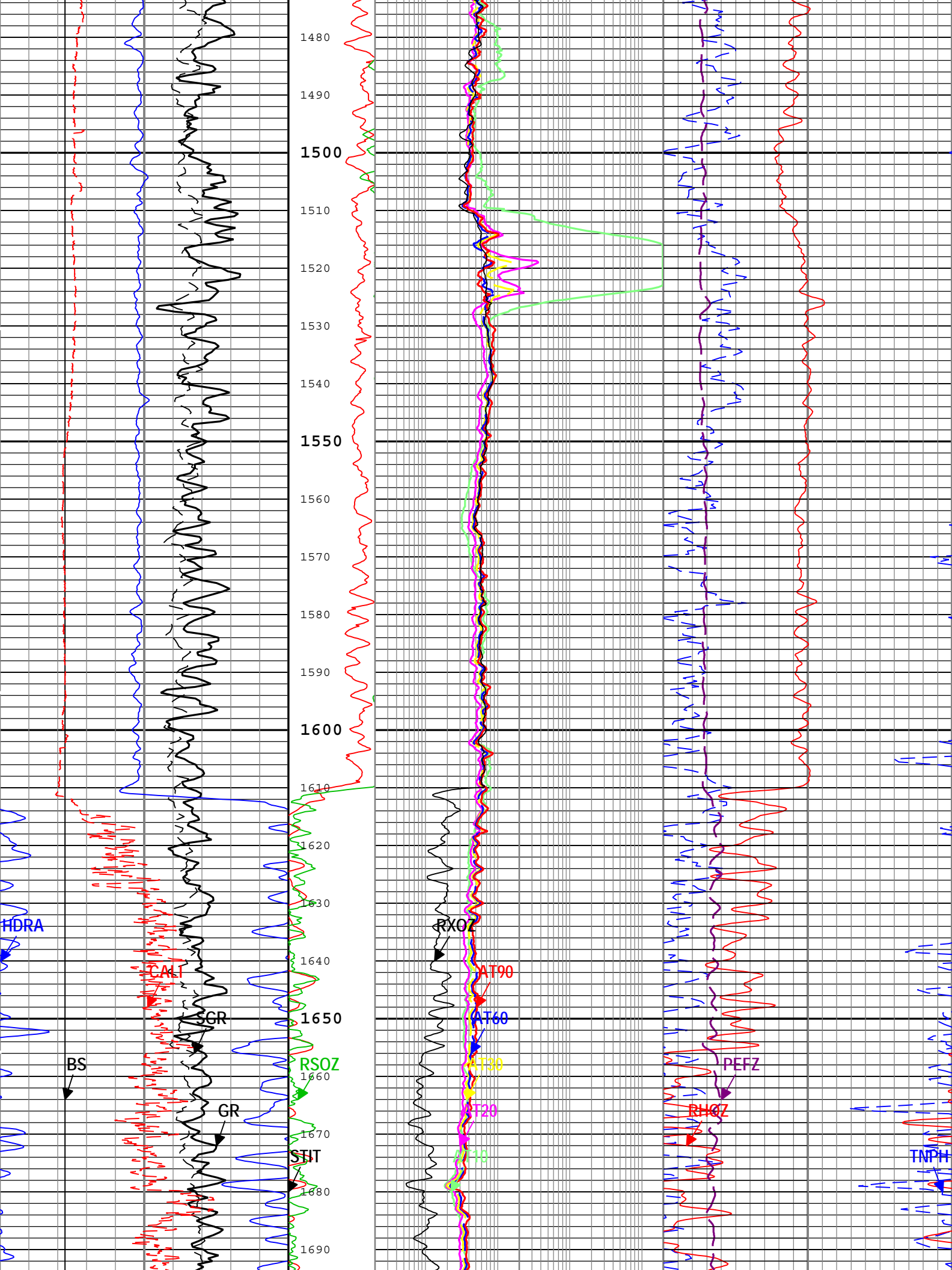
Software Version

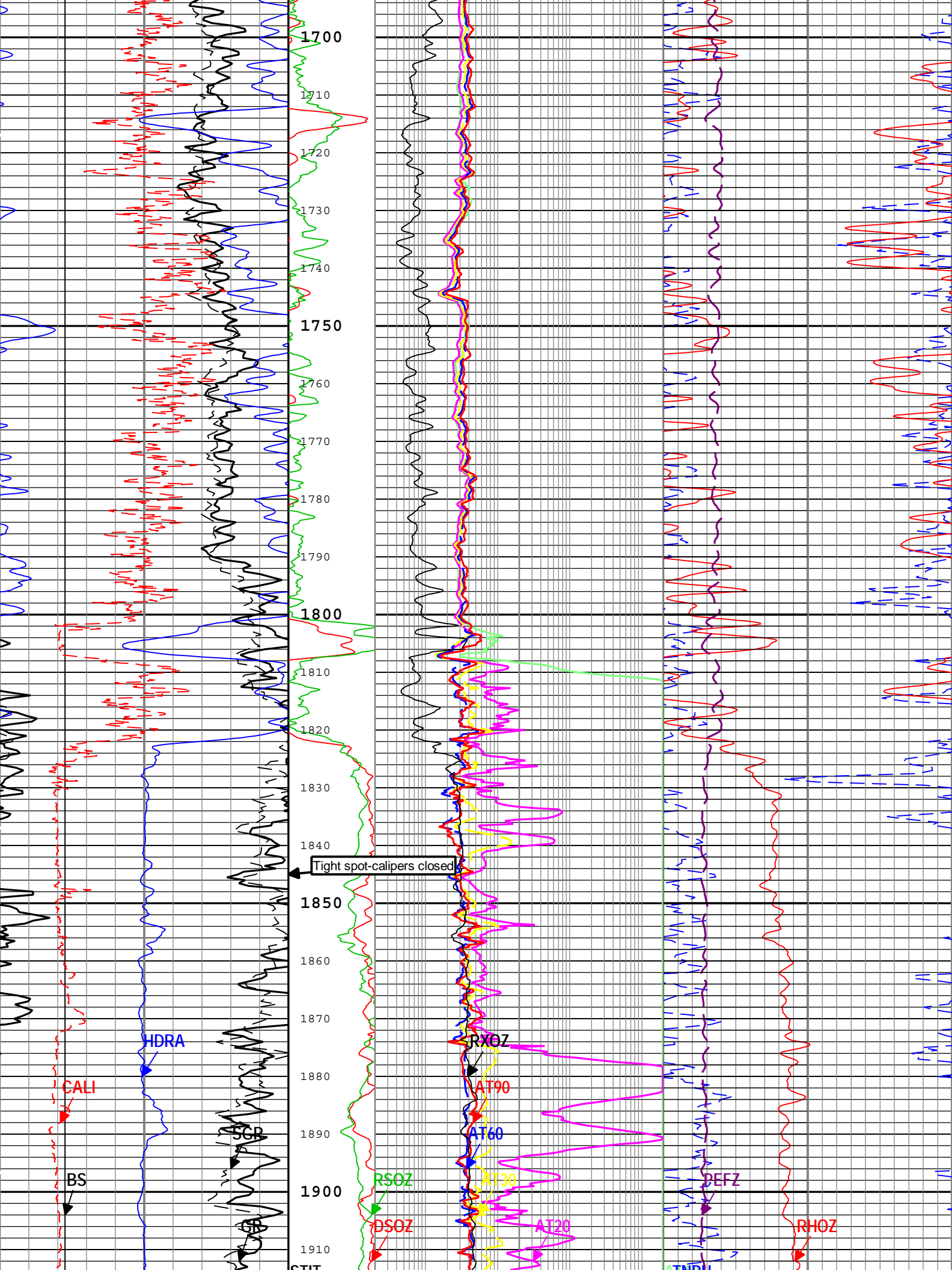
Acquisition System	Version
MaxWell	4.0.9163.3000
Application Patch	Patch-SP-10767_18214-4.0.9163.3001
	Patch-Hotfix_AIT_Akima_SP2-22990-4.0.9434.3002

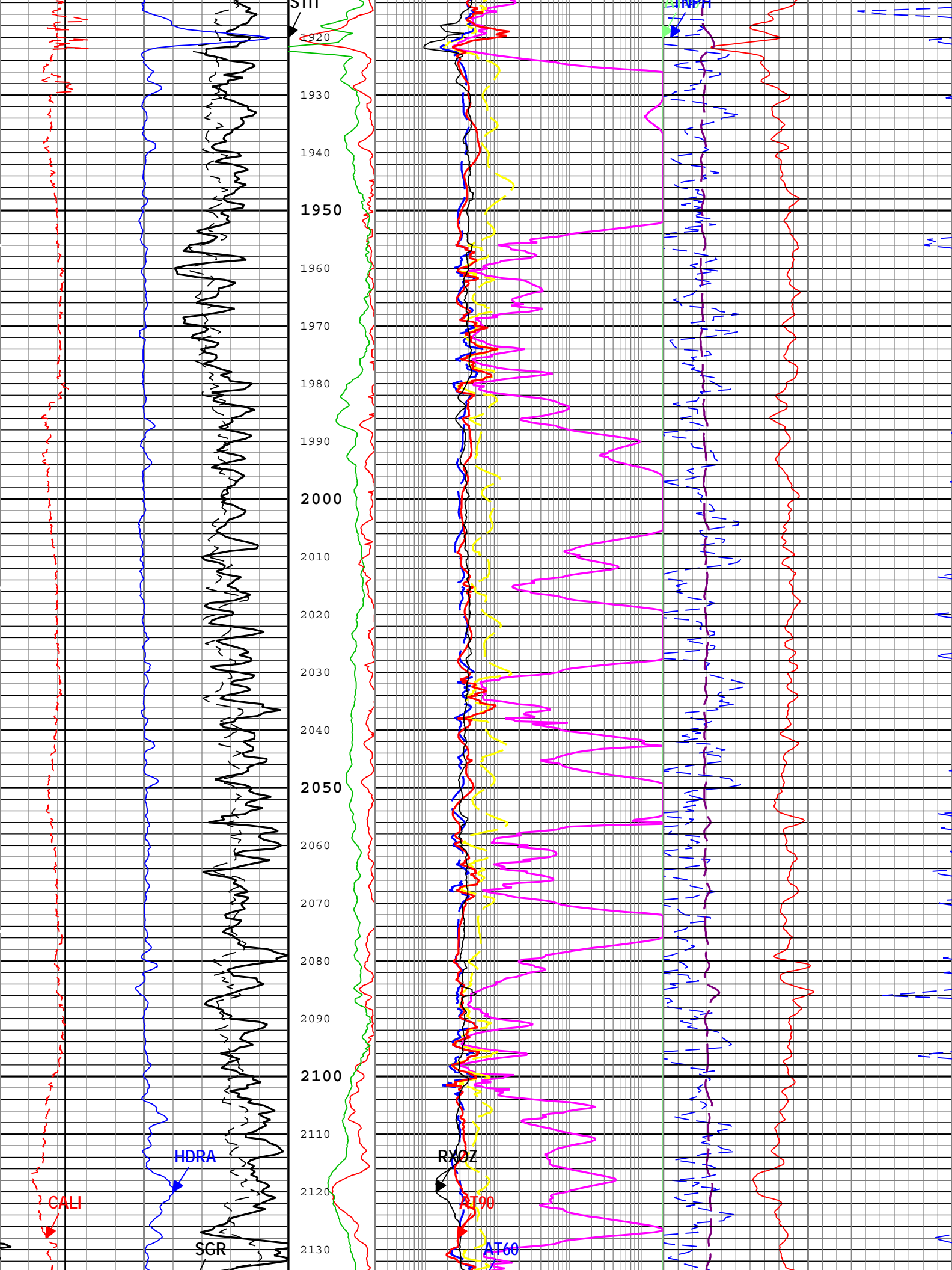
Computation	Description	Version
Borehole	Borehole Ensemble provides common Borehole Parameters and Channels	4.0.9433.3000
HENVIR	Computation Ensemble for the HGNS Neutron environmental corrections	4.0.9360.3000
DepthCorrection	DepthCorrection	4.0.9433.3000

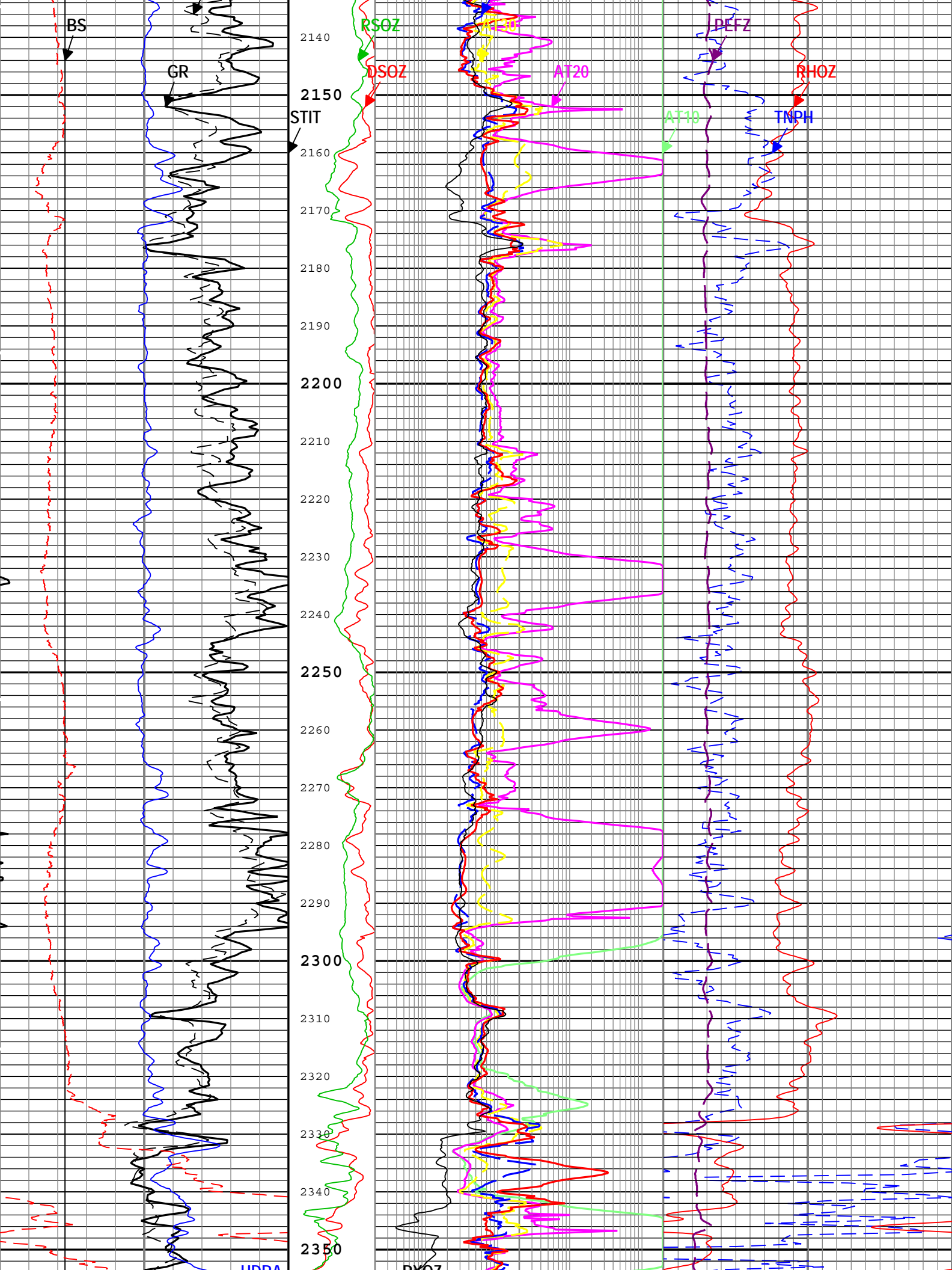
Tool Elements	Description	Software Version	Firmware Version
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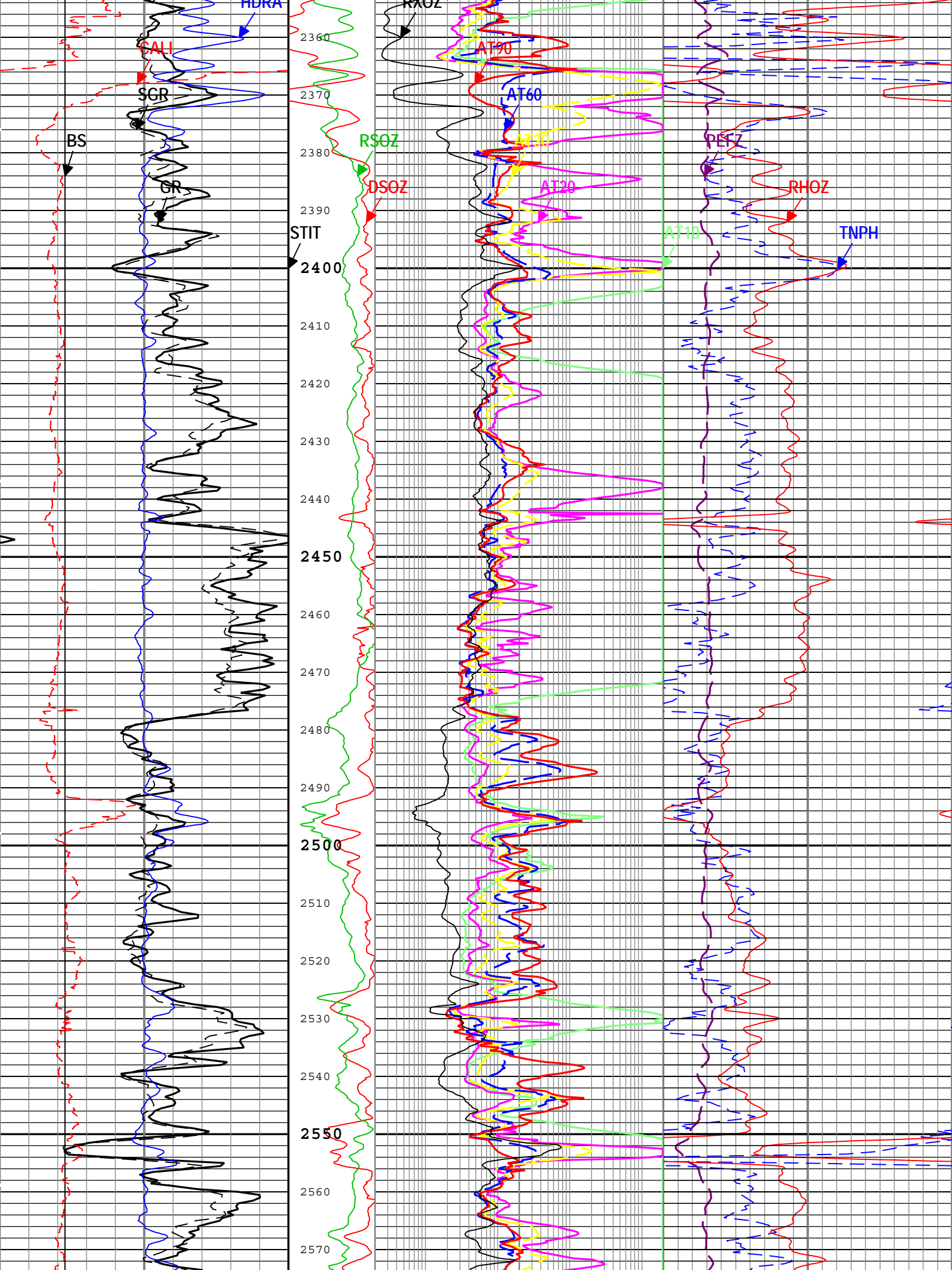


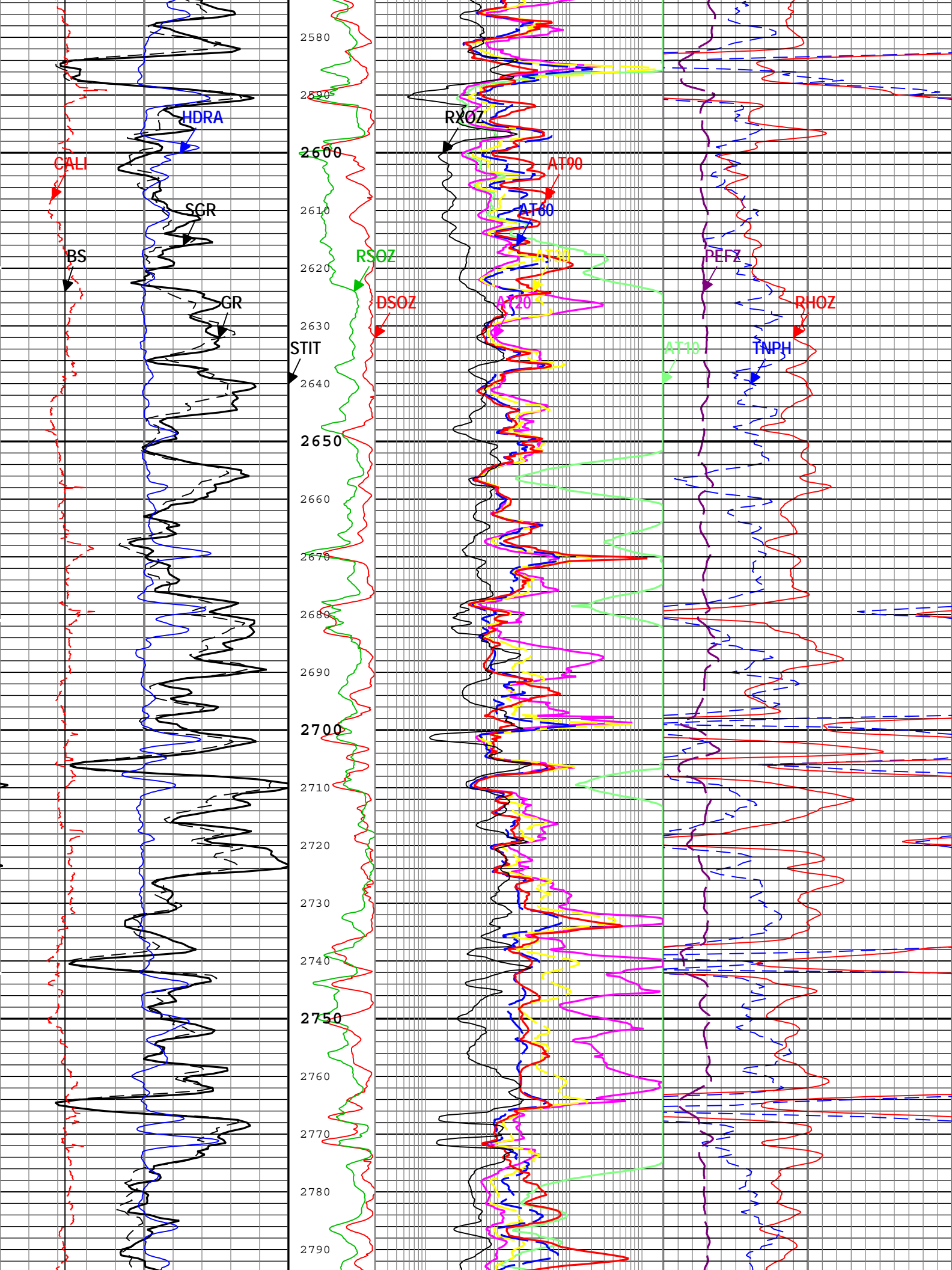


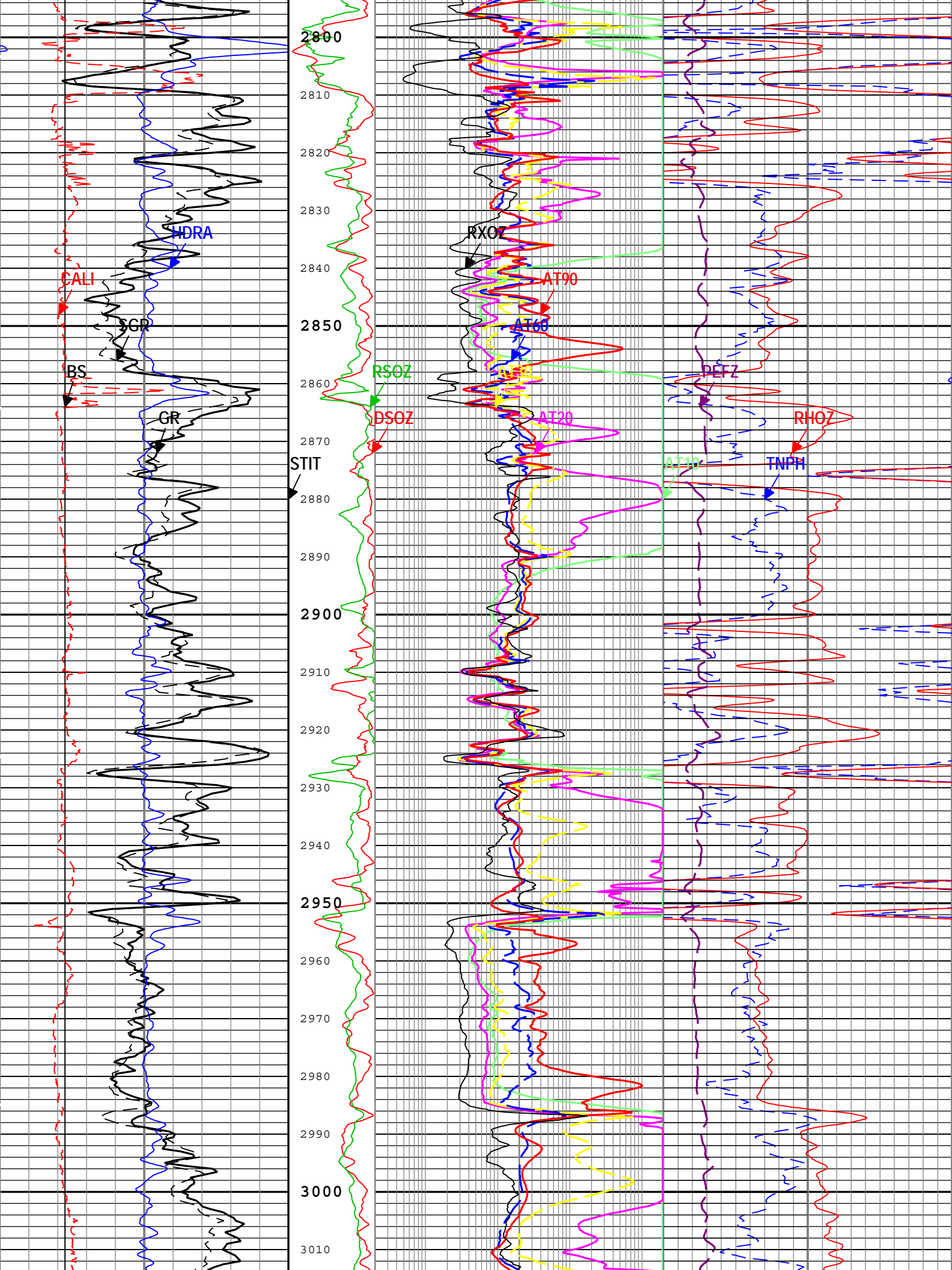


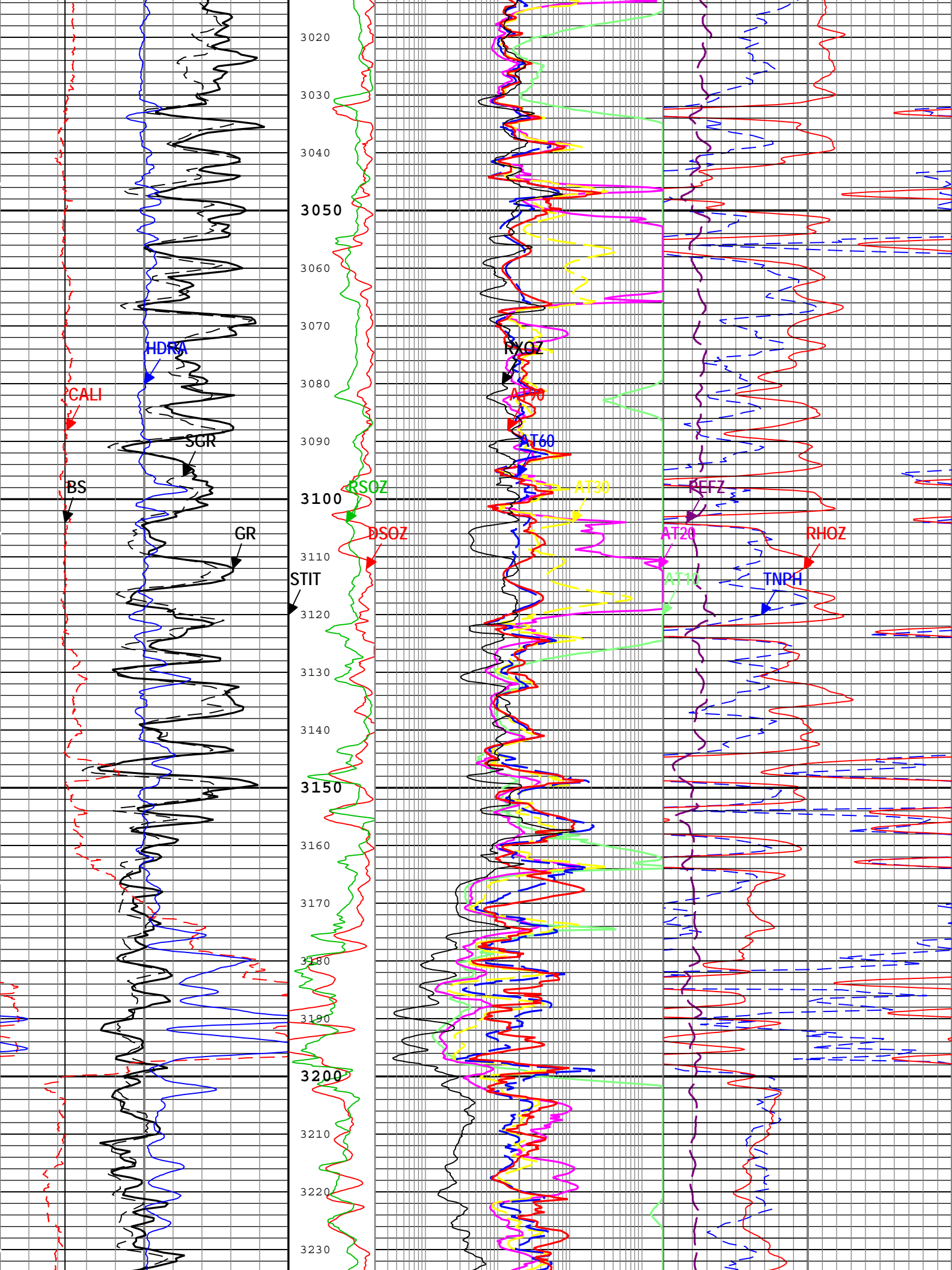


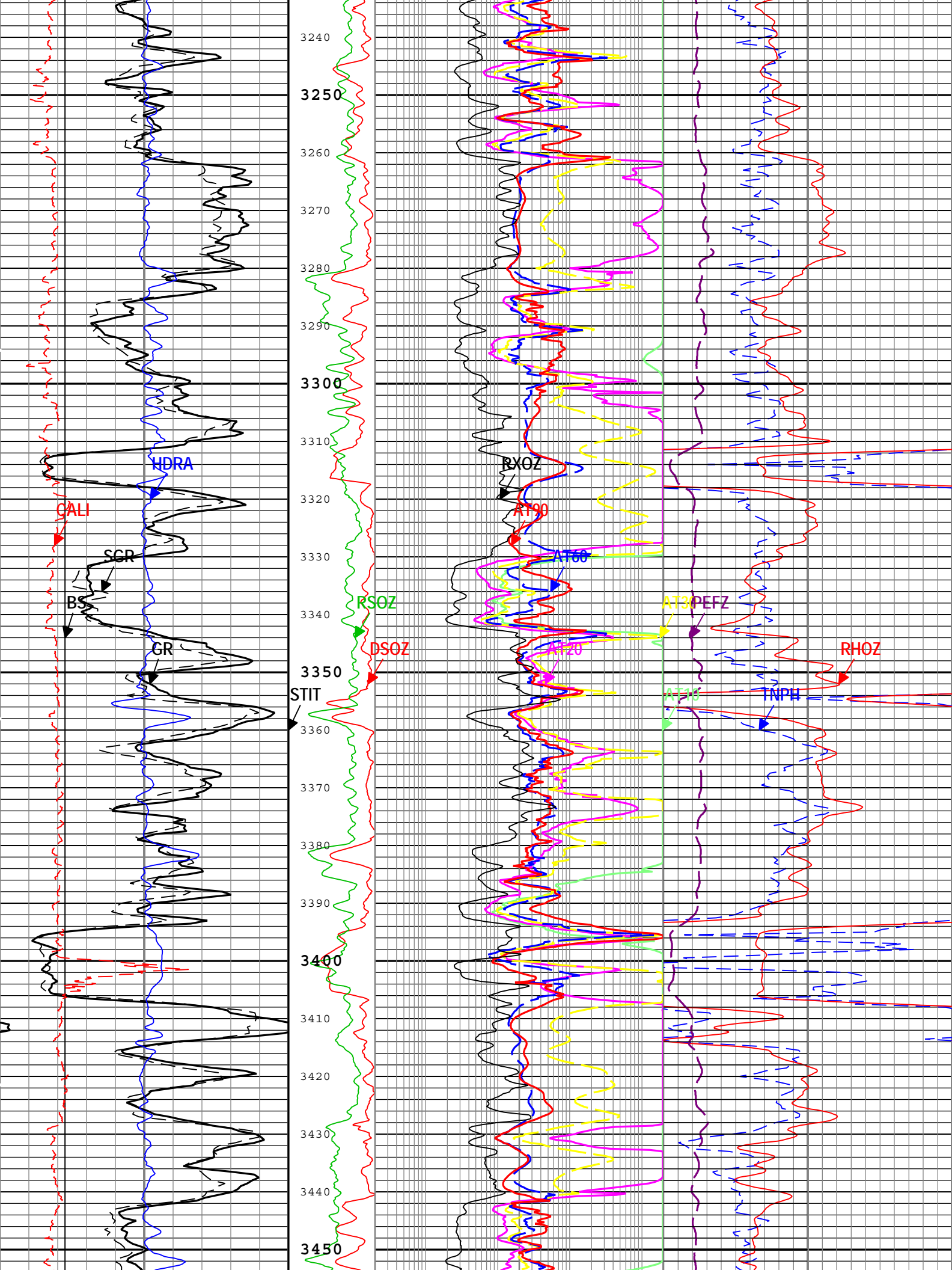


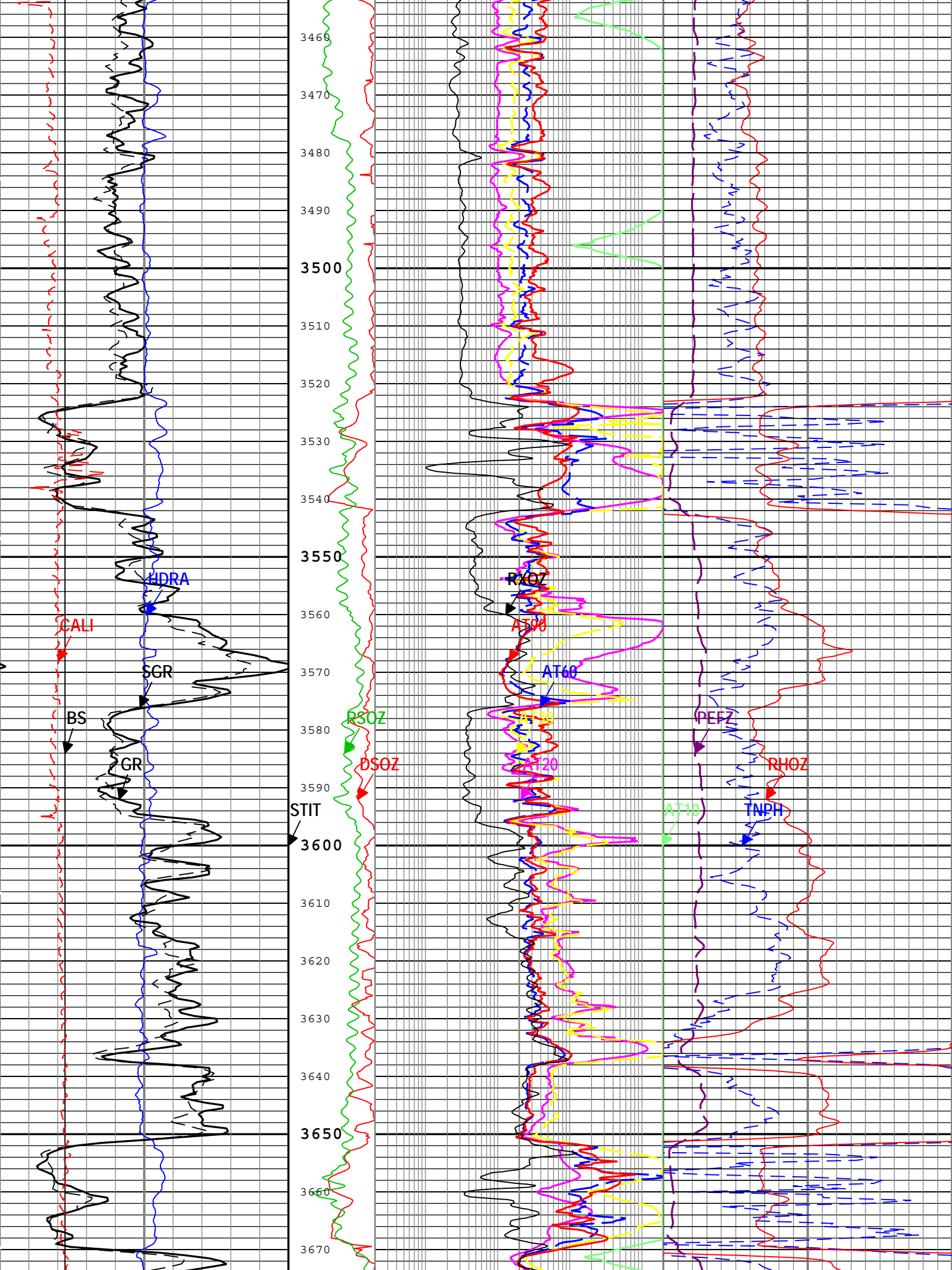


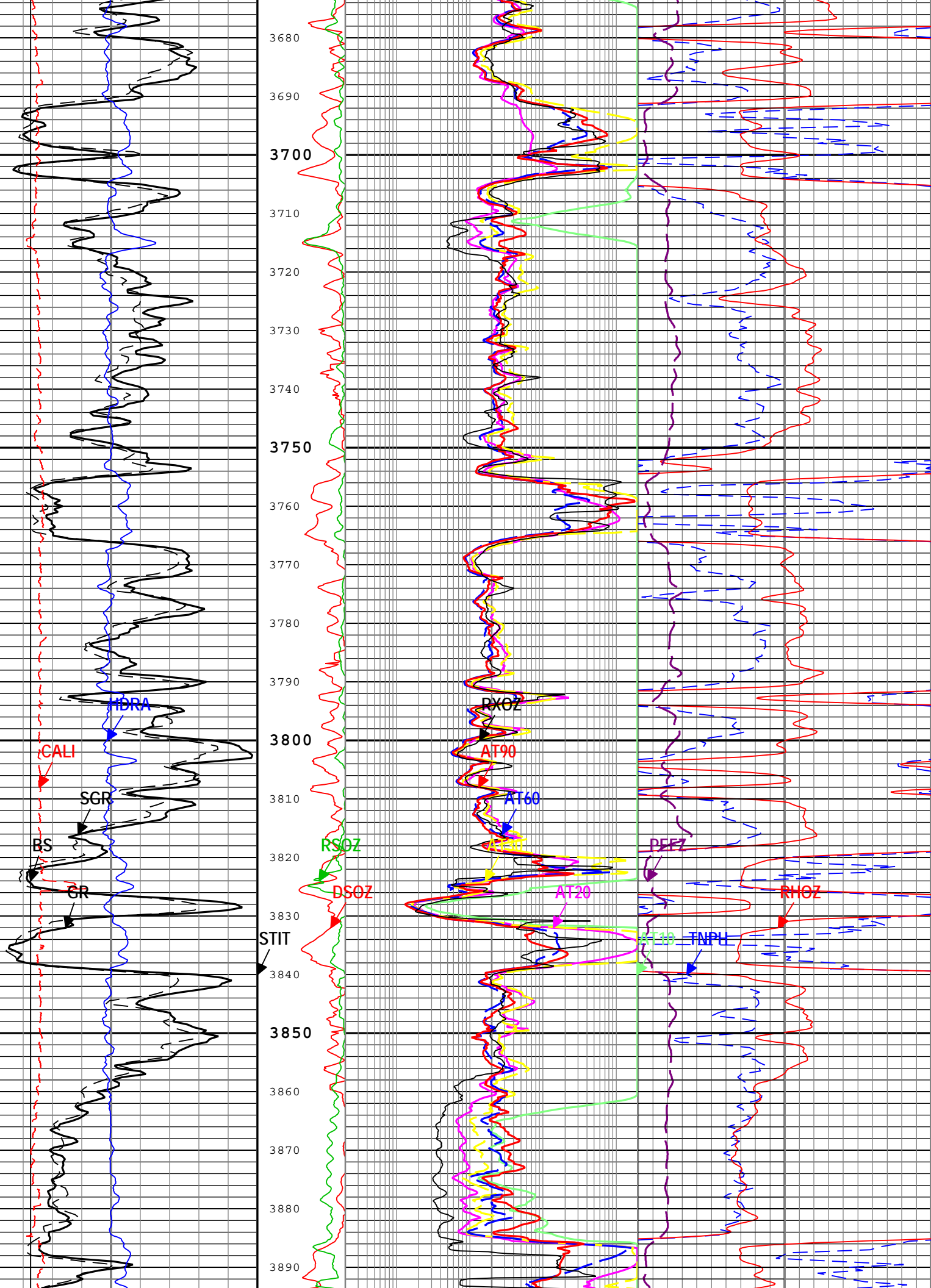


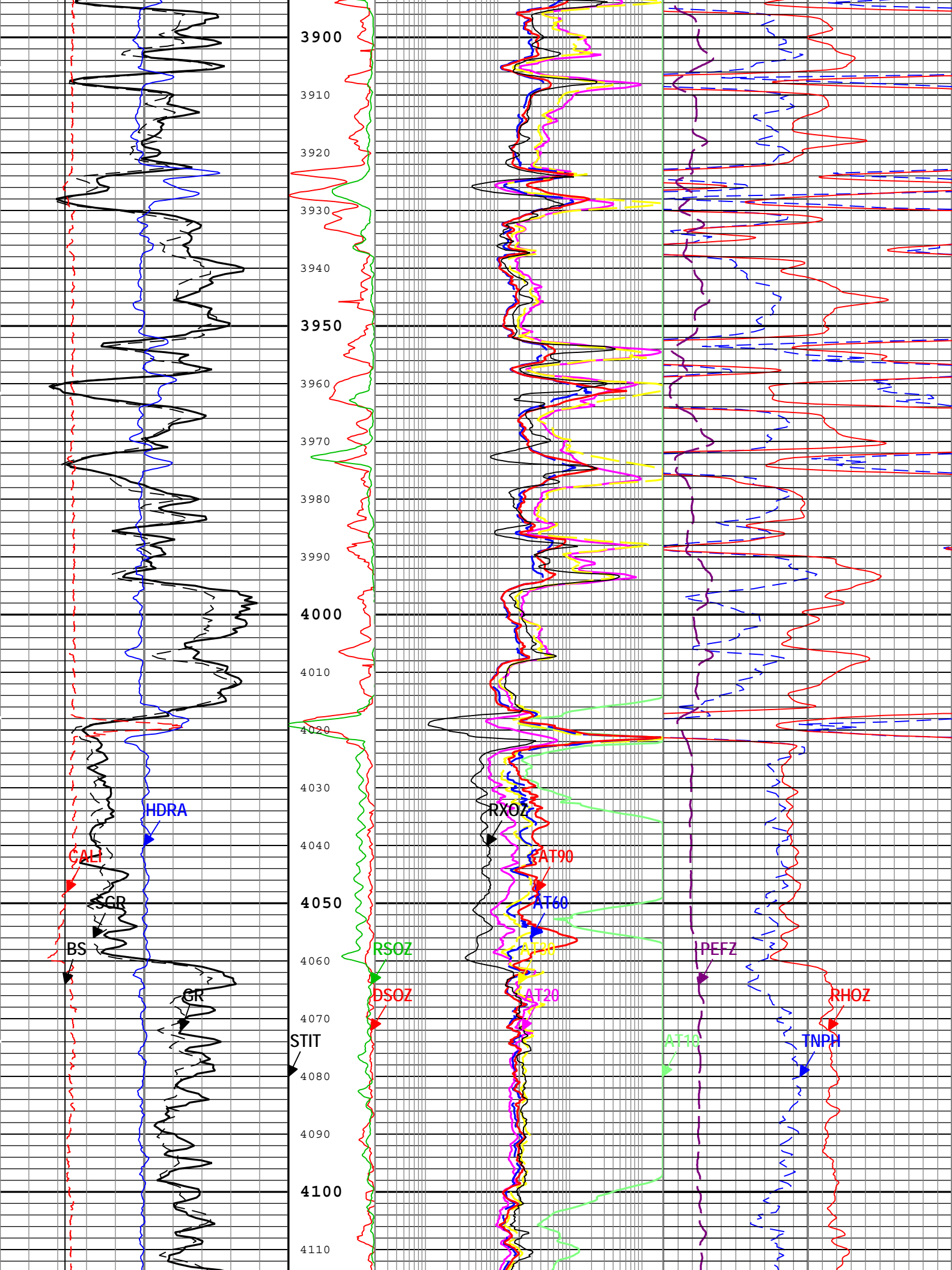


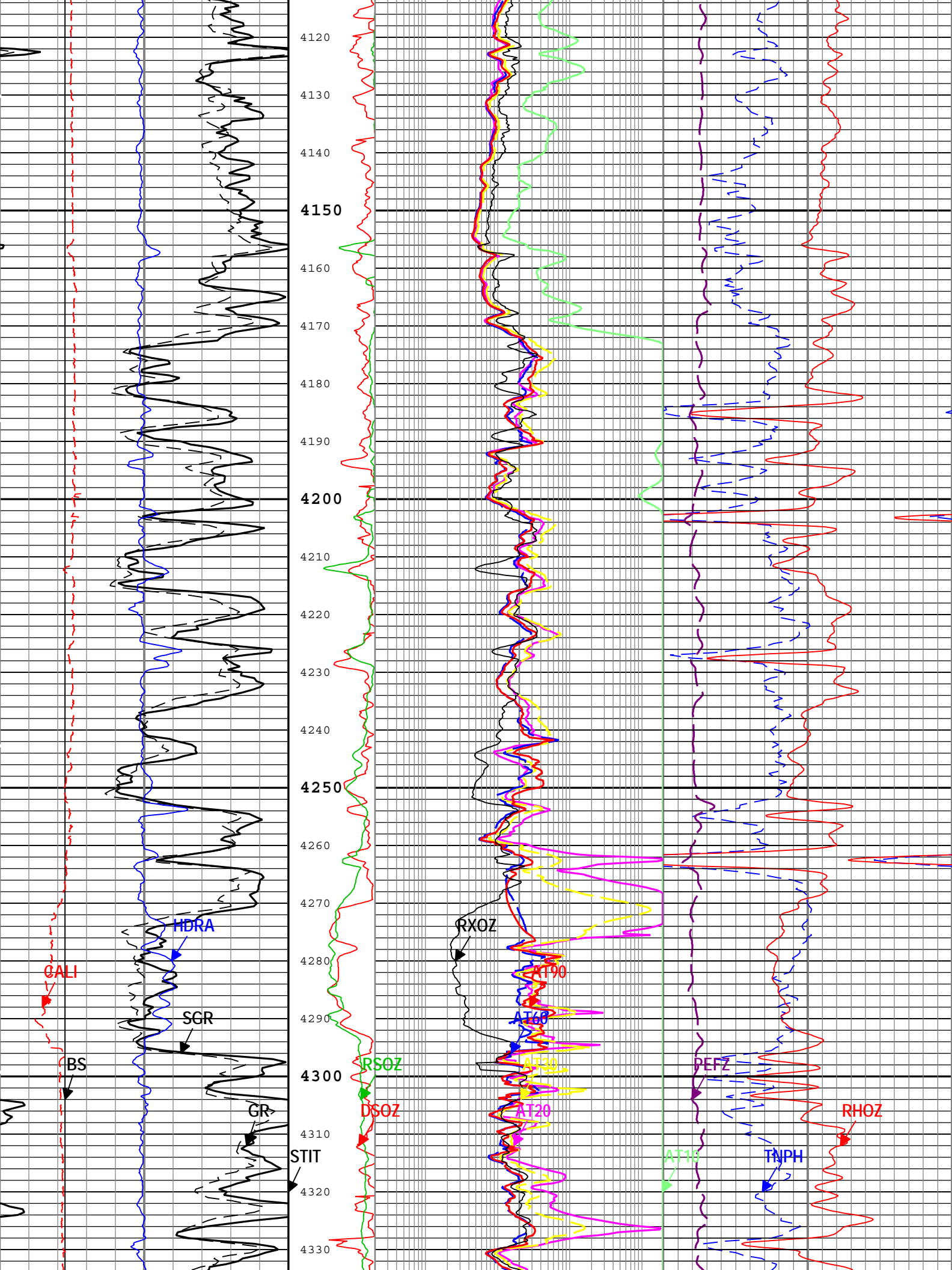


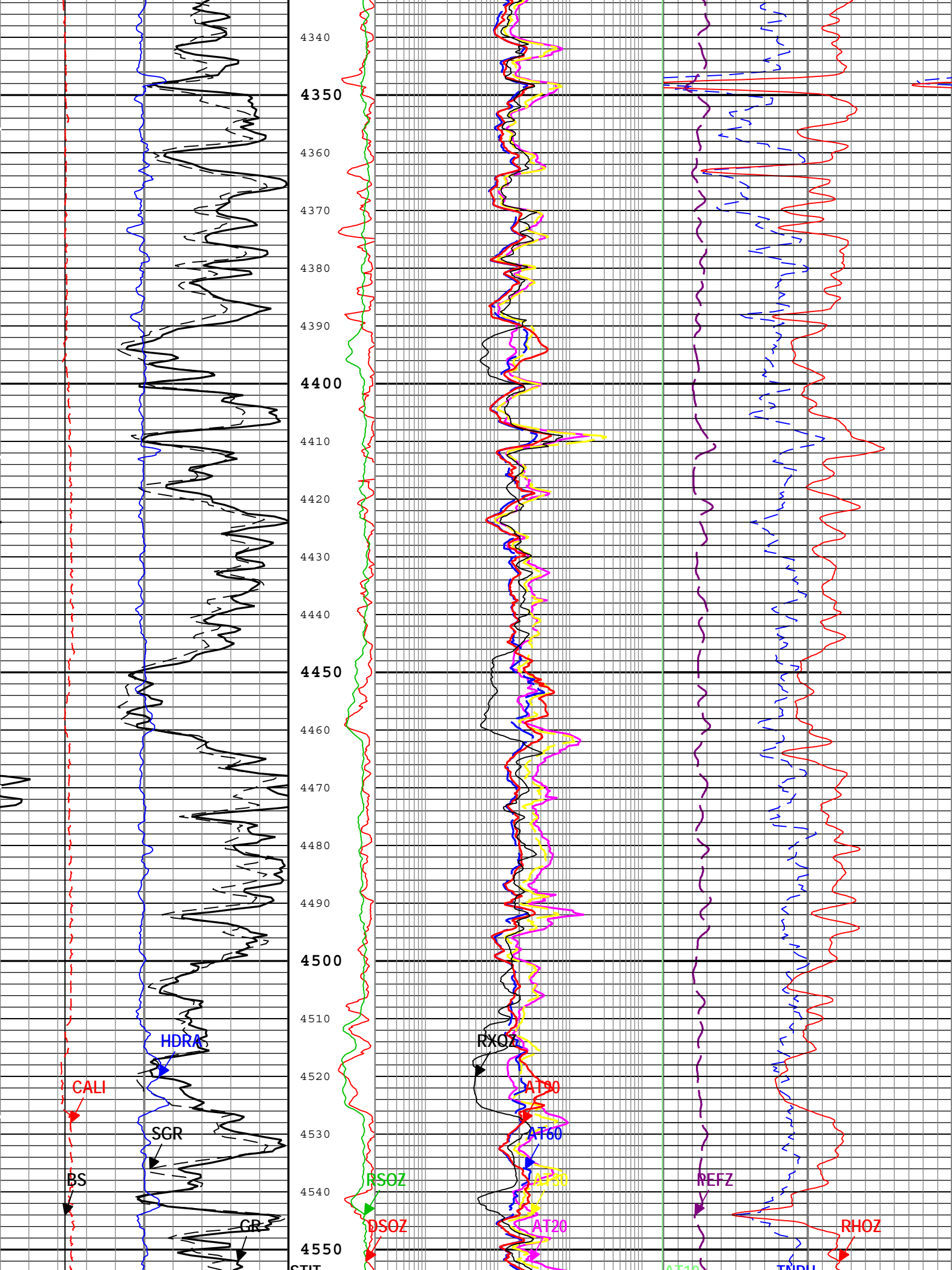


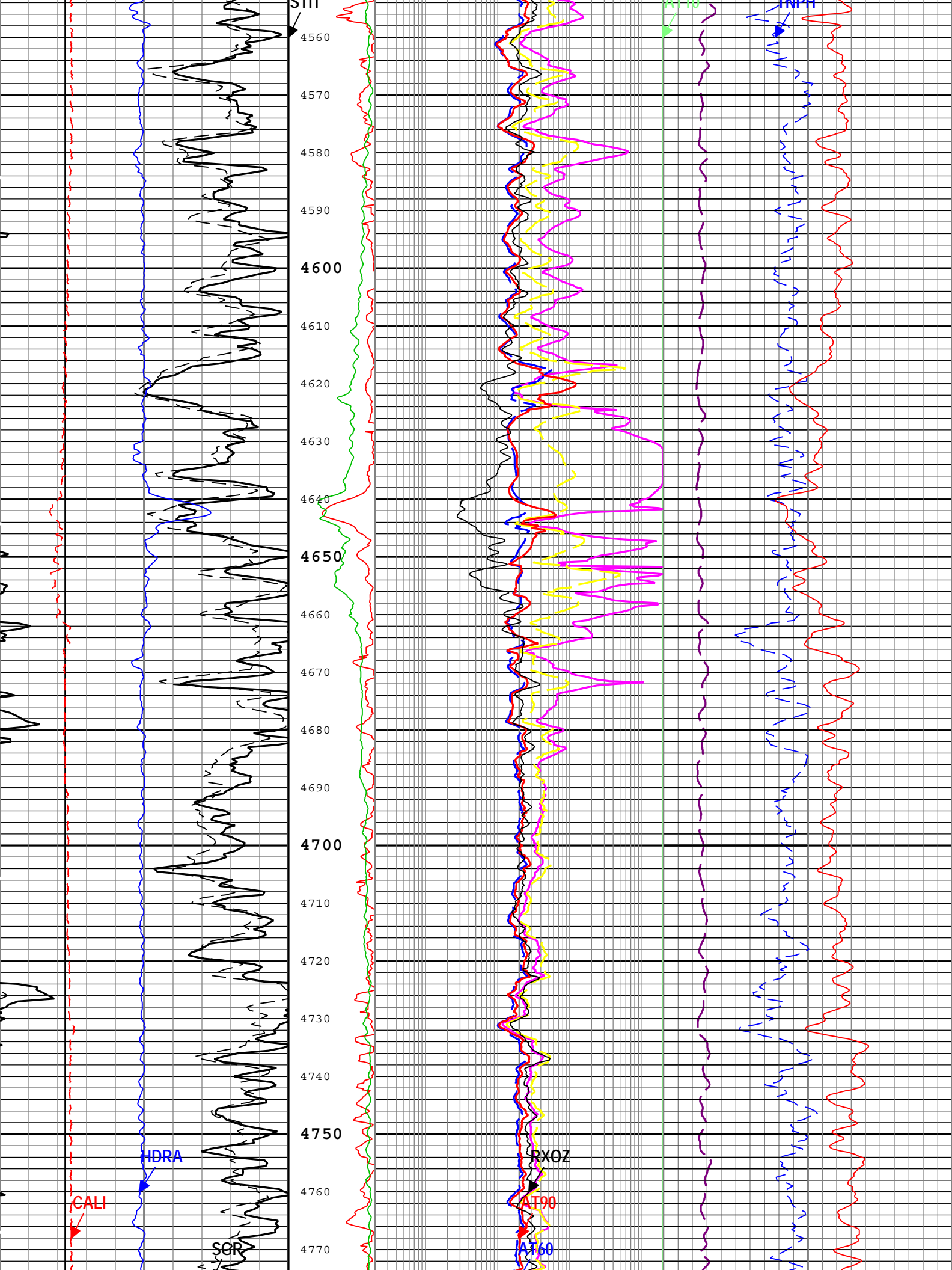


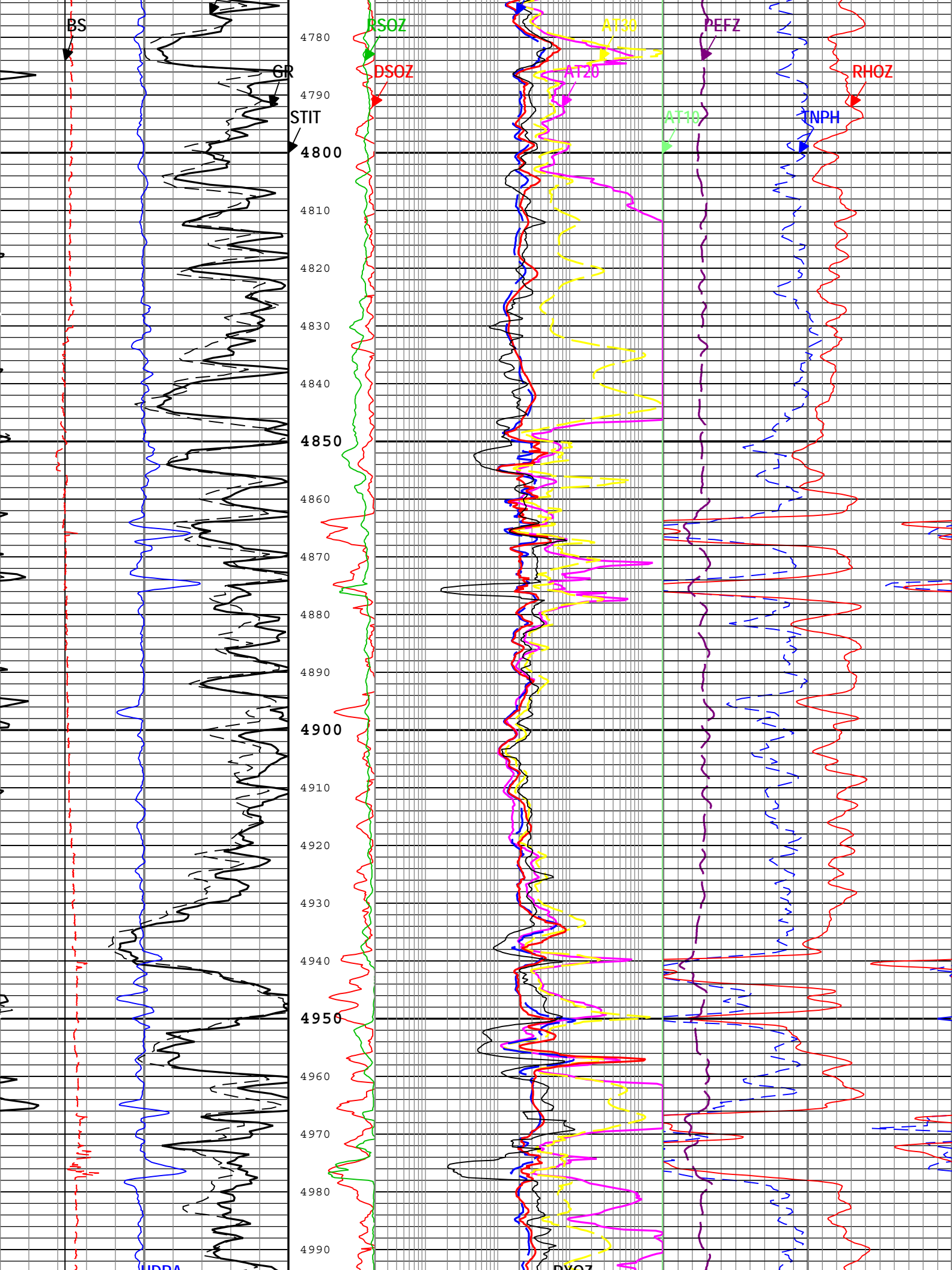


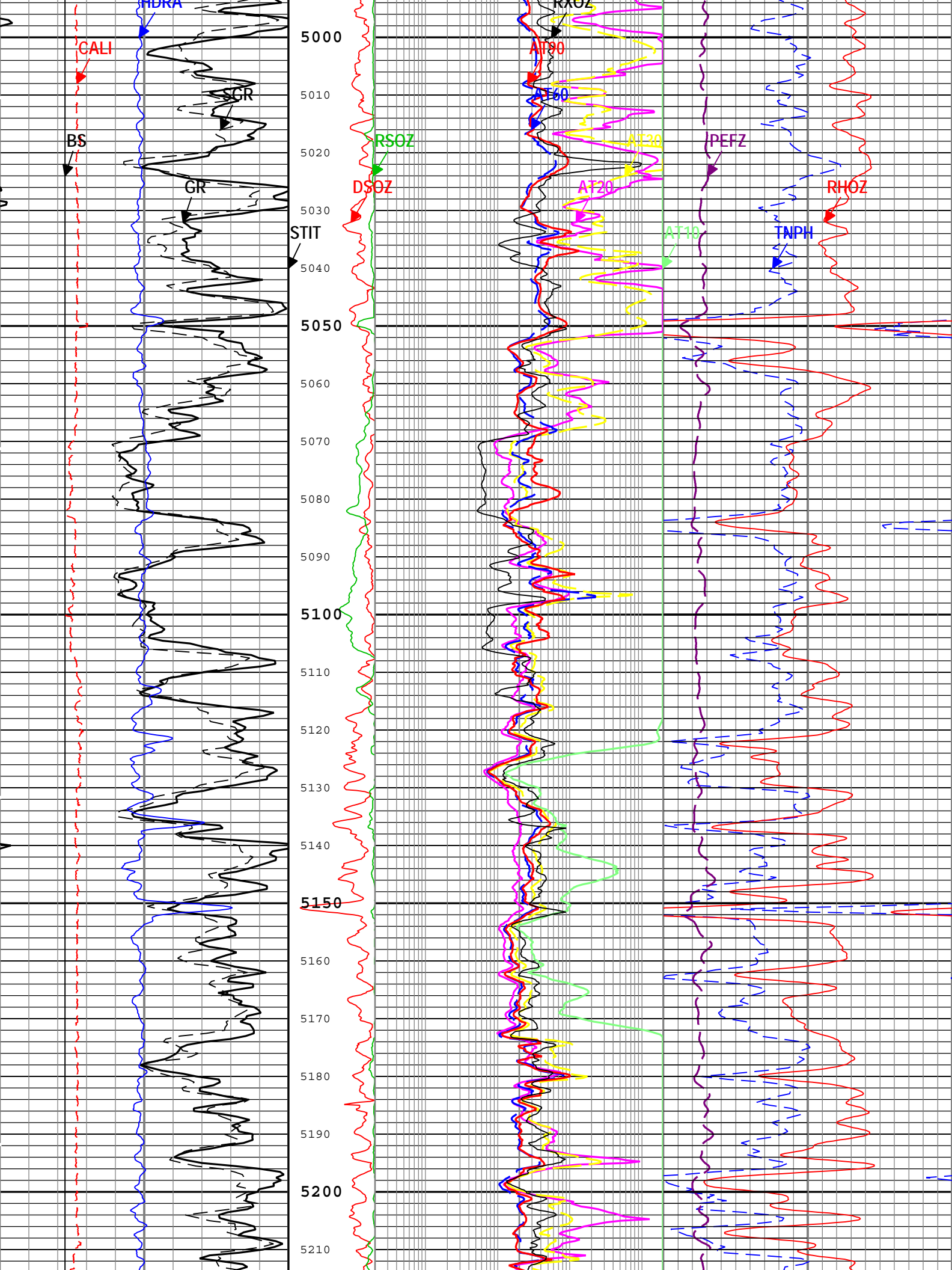


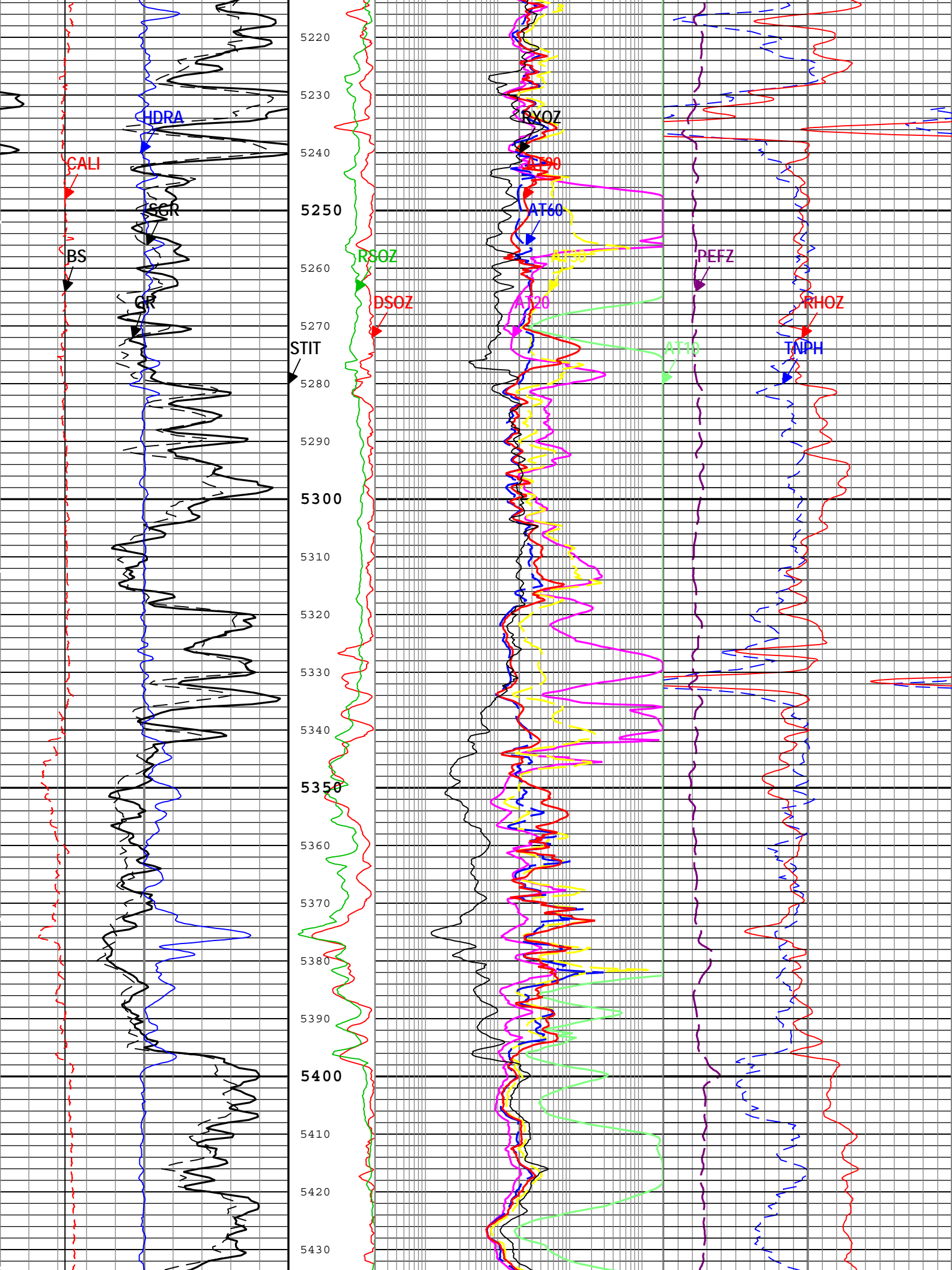


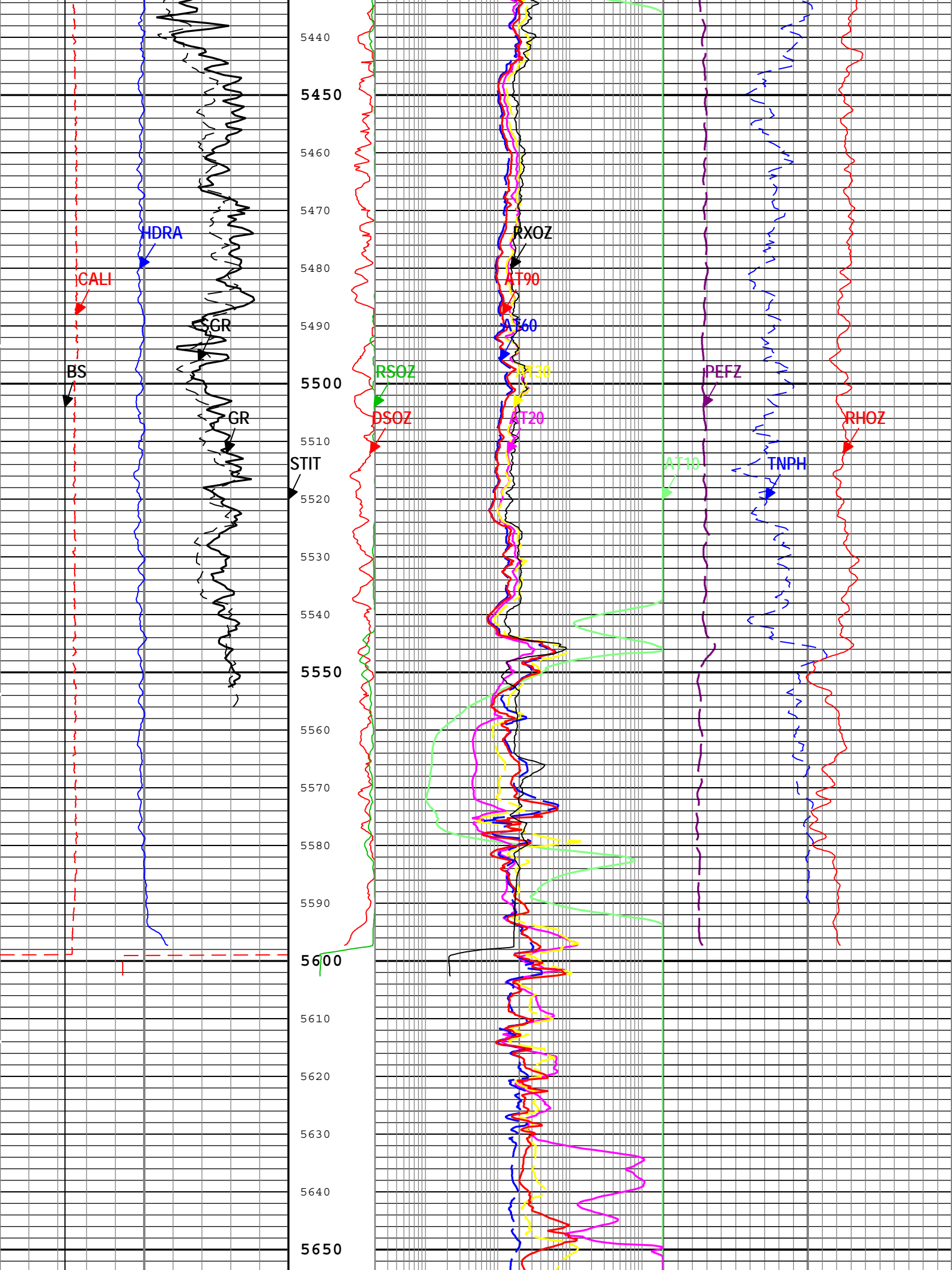


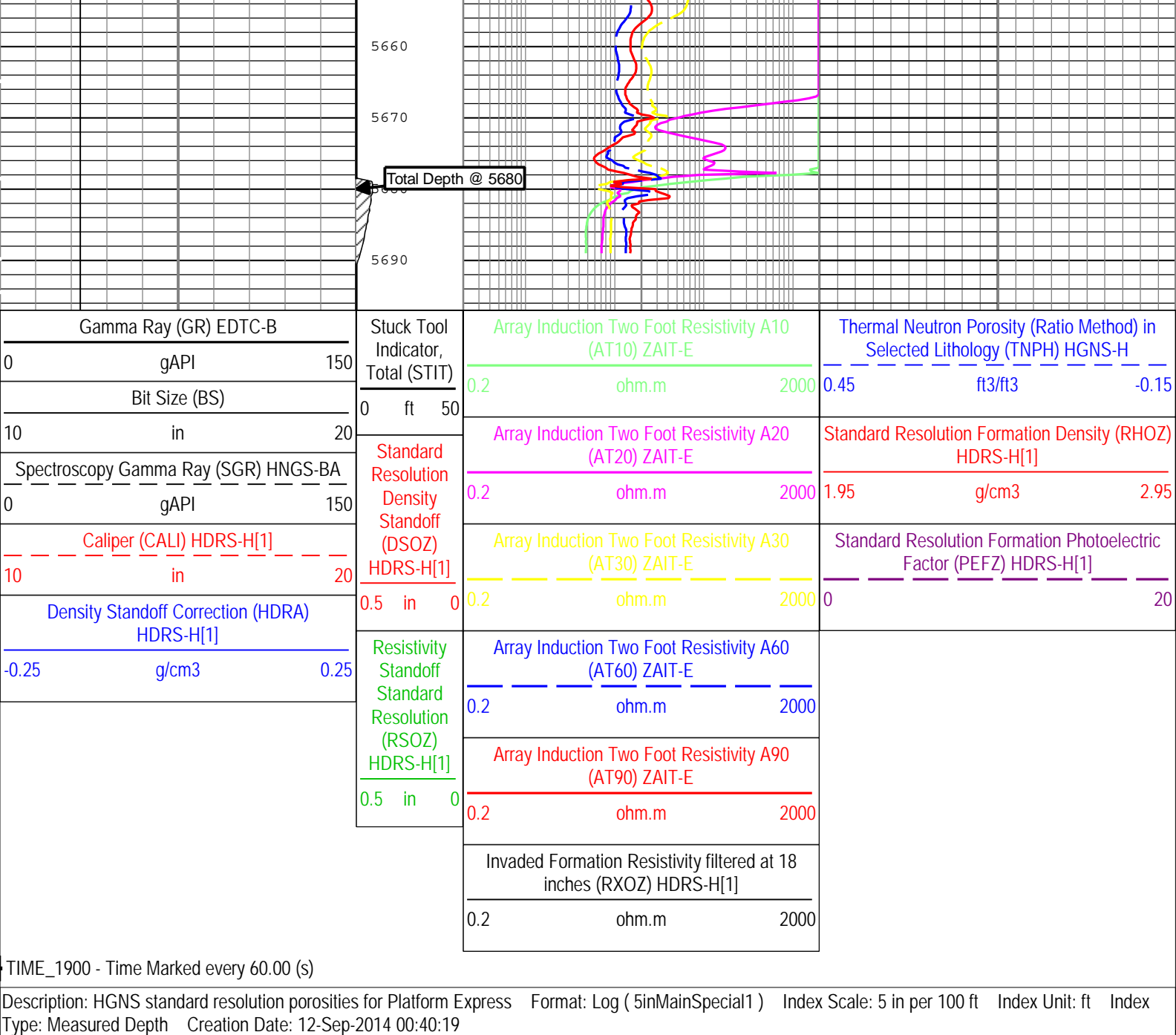












Calibration Report

PPC-B[1] (Powered Positioning device and Caliper.) Calibration - Run One

Primary Equipment :			PPC-B Element is used for usual logging at wellsite and check/diagnostics.	PPC-B	8007
Auxiliary Equipment :			PPC-B Element is used for usual logging at wellsite and check/diagnostics.	PPC-B	8007
Calibration Parameter :			ZERO_REF		
			PLUS_REF		
Equipment Properties :			Caliper Arm Equipment Type for PPC	PPC_CAL_STD	

PPC Check - Downhole Electronics Test

Before (Measured):		19:40:55 10-Sep-2014					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Positive Analog Voltage	V	Before		7	8.70645	9	
Minus Analog Voltage	V	Before		-9	-8.75156	-7	
Digital Voltage	V	Before		3.15	3.37769	3.45	
Digital Voltage	V	Before		4.5	5.00000	5.5	

Digital Voltage for Analog Digital Converter	V	Before	4.5	5.5	5.0291	5.5	
Status Word of Analog Digital Converter Offset		Before	-8	0.666667	8		

PPC Check - Cartridge Temperature Test

Before (Measured): 19:40:55 10-Sep-2014							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Cartridge Temperature	degF	Before		-58	69.8954	482	

PPC Check - Power Control LVDT Test

Before (Measured): 19:40:55 10-Sep-2014							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
LVDT5 Caliper Open Position	in	Before			-1.23169		
LVDT5 Full Power Position	in	Before			1.50439		

PPC Diagnostics - Arm Close Position Test

Master:							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Caliper-arm 1, radius raw - 0	in	Master	----	----	----	----	
Caliper-arm 2, radius raw - 0	in	Master	----	----	----	----	
Caliper-arm 3, radius raw - 0	in	Master	----	----	----	----	
Caliper-arm 4, radius raw - 0	in	Master	----	----	----	----	
Power Control LVDT - 0	in	Master	----	----	----	----	
LVDT excitation - 0	V	Master	----	----	----	----	

PPC Diagnostics - Downhole Electronics Test

Master:							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Positive Analog Voltage - 0	V	Master	----	----	----	----	
Minus Analog Voltage - 0	V	Master	----	----	----	----	
Digital Voltage - 0	V	Master	----	----	----	----	
Digital Voltage for Analog Digital Converter - 0	V	Master	----	----	----	----	
Status Word of Analog Digital Converter Offset - 0		Master	----	----	----	----	

PPC Diagnostics - RBS Test

Master:							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Relative Bearing - 0	deg	Master	----	----	----	----	
Potentiometer Excitation - 0	V	Master	----	----	----	----	

PPC Diagnostics - Cartridge Temperature Test

Master:							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Cartridge Temperature - 0	degF	Master	----	----	----	----	

PPC Diagnostics - Power Control LVDT Test

Master:							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
LVDT5 Caliper Open Position - 0	in	Master	----	----	----	----	
LVDT5 Full Power Position - 0	in	Master	----	----	----	----	

PPC LVDT5 Master Calibration - PPC CaliCoefficients

Master (EEPROM): 18:55:00 05-Aug-2014							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
CCS	in	Master	-1.51		-1.39331		
COP	in	Master	-1.31		-1.23169		
CPW	in	Master	1.41		1.50439		

PPC Caliper Calibration - PPC CaliCoefficients

Before (Manual Entry): 22:28:57 11-Sep-2014							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
RD1_GAIN		Before	1	0.85	1.09801	1.15	
RD2_GAIN		Before	1	0.85	1.06466	1.15	
RD3_GAIN		Before	1	0.85	1.11091	1.15	
RD4_GAIN		Before	1	0.85	1.02237	1.15	
RD1_OFFSET	in	Before	0	-2.2	-2.2	2.6	
RD2_OFFSET	in	Before	0	-2.2	-0.7623	2.6	
RD3_OFFSET	in	Before	0	-2.2	-2.2	2.6	
RD4_OFFSET	in	Before	0	-2.2	0.0468	2.6	

PPC Caliper Calibration - PPC Accumulations

PPC Caliper Calibration - PPC Accumulations

Before (Manual Entry):		22:28:57 11-Sep-2014					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Caliper 1 Zero Radius - 0	in	Before	-----	-----	-----	-----	
Caliper 2 Zero Radius - 0	in	Before	-----	-----	-----	-----	
Caliper 3 Zero Radius - 0	in	Before	-----	-----	-----	-----	
Caliper 4 Zero Radius - 0	in	Before	-----	-----	-----	-----	
Caliper 1 Plus Radius - 0	in	Before	-----	-----	-----	-----	
Caliper 2 Plus Radius - 0	in	Before	-----	-----	-----	-----	
Caliper 3 Plus Radius - 0	in	Before	-----	-----	-----	-----	
Caliper 4 Plus Radius - 0	in	Before	-----	-----	-----	-----	

HDRS-H[1] (HILT Density and Rxo Sonde, 150 degC) Calibration - Run One

Primary Equipment :							
	HILT High-Resolution Control Cartridge, 150 degC		HRCC-H				
	HILT Resistivity Gamma-Ray Density Device, 150 degC		HRGD-H		4718		
Auxiliary Equipment :							
	HRDD Backscatter Detector		Backscatter				
	HRDD Long Spacing Detector		Long Spacing		28735		
	HRDD Short Spacing Detector		Short Spacing		27869		
	Cesium 137 Gamma-Ray Logging Source		GSR-J		5347		
	HILT High-Resolution Control Cartridge, 150 degC		HRCC-H				
	HILT High-Resolution Mechanical Sonde, 150 degC		HRMS-H		3964		
Calibration Parameter :							
	Small Ring Size (Caliper Calibration Small Ring)		8.00				
	Large Ring Size (Caliper Calibration Large Ring)		12.00				

HDRS Caliper Calibration - Caliper Accumulations

Before (Measured):		19:49:19 10-Sep-2014					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Small Ring	in	Before	8.00	6.00	8.10	10.00	
Large Ring	in	Before	12.00	9.00	12.47	15.00	

HDRS Density Calibration - Inversion Results

Master (EEPROM):		04:43:48 05-Sep-2014					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Rho Aluminum	g/cm3	Master	2.596	2.586	2.595	2.606	
Rho Magnesium	g/cm3	Master	1.686	1.676	1.689	1.696	
Pe Aluminum		Master	2.570	2.470	2.561	2.670	
Pe Magnesium		Master	2.650	2.550	2.616	2.750	

HDRS Density Calibration - Deviation Summary

Master (EEPROM):		04:43:48 05-Sep-2014					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS Average Deviation	%	Master	0	-0.6000	0.3045	0.6000	
BS Max Deviation	%	Master	0	-1.6000	0.5044	1.6000	
SS Average Deviation	%	Master	0	-1.0000	0.3743	1.0000	
SS Max Deviation	%	Master	0	-2.5000	1.3053	2.5000	
LS Average Deviation	%	Master	0	-1.5000	0.6654	1.5000	
LS Max Deviation	%	Master	0	-3.5000	1.7777	3.5000	

HDRS Density Calibration - Background Summary

Master (EEPROM):		04:43:48 05-Sep-2014		Before (Measured):		19:44:06 10-Sep-2014	
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS Window Ratio		Master	1.0000		0.7427		
		Before	0.7427	0.7056	0.7411	0.7798	
		Before-Master	-----	-----	-0.0016	-----	
BS Window Sum	1/s	Master	1		23216		
		Before	23216	22055	23027	24376	
		Before-Master	-----	-----	-189	-----	
SS Window Ratio		Master	1.0000		0.4861		
		Before	0.4861	0.4618	0.4860	0.5104	

		Before-Master	-----	-----	-0.0001	-----	
SS Window Sum	1/s	Master	1		10779		
		Before	10779	10240	10768	11318	
		Before-Master	-----	-----	-11	-----	
LS Window Ratio		Master	1.0000		0.3077		
		Before	0.3077	0.2923	0.3031	0.3230	
		Before-Master	-----	-----	-0.0046	-----	
LS Window Sum	1/s	Master	1		1251		
		Before	1251	1189	1250	1314	
		Before-Master	-----	-----	-1	-----	

HDRS Density Calibration - Photo-multiplier High Voltages

Master (EEPROM):		04:43:48 05-Sep-2014		Before (Measured):		19:44:06 10-Sep-2014	
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS PM High Voltage	V	Master		1000	1383	2400	
		Before		1000	1376	2400	
		Before-Master	-----	-100	-7	100	
SS PM High Voltage	V	Master		1000	1636	2400	
		Before		1000	1648	2400	
		Before-Master	-----	-100	12	100	
LS PM High Voltage	V	Master		1000	1584	2400	
		Before		1000	1584	2400	
		Before-Master	-----	-100	0	100	

HDRS Density Calibration - Crystal Quality Resolutions

Master (EEPROM):		04:43:48 05-Sep-2014		Before (Measured):		19:44:06 10-Sep-2014	
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS Crystal Resolution	%	Master		5.00	10.63	25.00	
		Before		5.00	10.57	25.00	
		Before-Master	-----	-1.00	-0.06	1.00	
SS Crystal Resolution	%	Master		5.00	9.68	20.00	
		Before		5.00	9.70	20.00	
		Before-Master	-----	-1.00	0.02	1.00	
LS Crystal Resolution	%	Master		5.00	8.53	20.00	
		Before		5.00	8.34	20.00	
		Before-Master	-----	-1.00	-0.19	1.00	

HDRS MCFL Calibration - MCFL Accumulations

Before (Measured):		19:45:58 10-Sep-2014					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Main Resistivity	ohm.m	Before	3875	3565	3890	4185	
Deep Resistivity	ohm.m	Before	3830	3524	3840	4136	
Shallow Resistivity	ohm.m	Before	3830	3524	3853	4136	

HGNS-H (HILT Gamma-Ray and Neutron Sonde, 150 degC) Calibration - Run One

Primary Equipment :			
HILT Gamma-Ray and Neutron Sonde, 150 degC		HGNS-H	3819
Auxiliary Equipment :			
HGNS Accelerometer, 150 degC		HACCZ-H	2102
AmBe Neutron Logging Source		NSR-F	5226
Calibration Parameter :			
Water Temperature			
Housing Size			
JIG-BKG (Jig minus background reference)		165	

HGNS Accelerometer Calibration - Accelerometer Accumulations

Before (Measured):		17:12:31 11-Sep-2014					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
AZ Vertical Measurement	ft/s2	Before	32.2	31.5	32.2	32.8	

HGNS Accelerometer EEPROM - Accelerometer EEPROM Read

Master (EEPROM):		00:00:00 15-Feb-2003					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Accelerometer Manufacturer		Master			QAT_160		
Accelerometer Reference Temperature	degF	Master		30.2	77.0	122.0	

Accelerometer Coefficients - 0		Master	-----	-----	-2847.000	-----		
Accelerometer Coefficients - 1		Master	-----	-----	13.547	-----		
Accelerometer Coefficients - 2		Master	-----	-----	-0.002	-----		
Accelerometer Coefficients - 3		Master	-----	-----	0.000	-----		
Accelerometer Coefficients - 4		Master	-----	-----	2.752	-----		
Accelerometer Coefficients - 5		Master	-----	-----	0.000	-----		
Accelerometer Coefficients - 6		Master	-----	-----	0.000	-----		
Accelerometer Coefficients - 7		Master	-----	-----	0.000	-----		
Accelerometer Coefficients - 8		Master	-----	-----	299.200	-----		
Accelerometer Coefficients - 9		Master	-----	-----	1.004	-----		

HGNS Neutron Calibration - HGNS Neutron Accumulations

Master (EEPROM):		05:20:48 05-Sep-2014		Before (Measured):		19:42:35 10-Sep-2014			
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	<div></div>		
Near Zero Measurement	1/s	Master	0	5.0	26.7	40.0	<div></div>		
		Before	0	5.0	27.1	40.0	<div></div>		
		Before-Master	----	-4.0	0.4	4.0	<div></div>		
Far Zero Measurement	1/s	Master	0	5.0	27.9	40.0	<div></div>		
		Before	0	5.0	27.8	40.0	<div></div>		
		Before-Master	----	-4.2	-0.1	4.2	<div></div>		
Near Plus Measurement	1/s	Master	6031.0	4700.0	5086.0	6900.0	<div></div>		
		Before	----	----	----	----	<div></div>		
		Before-Master	----	----	----	----	<div></div>		
Far Plus Measurement	1/s	Master	2793.0	1900.0	2109.0	2900.0	<div></div>		
		Before	----	----	----	----	<div></div>		
		Before-Master	----	----	----	----	<div></div>		
Near Corrected Plus Measurement	1/s	Master		4700.0	5010.0	6900.0	<div></div>		
		Before	----	----	----	----	<div></div>		
		Before-Master	----	----	----	----	<div></div>		
Far Corrected Plus Measurement	1/s	Master		1900.0	2050.0	2900.0	<div></div>		
		Before	----	----	----	----	<div></div>		
		Before-Master	----	----	----	----	<div></div>		

HGNS Gamma-Ray Calibration - Gamma-Ray Accumulations

Before (Measured): 19:48:35 10-Sep-2014							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	<div><div></div><div></div><div></div></div>
RGR Zero Measurement	gAPI	Before	30.0	0	84.1	120.0	<div><div></div><div></div><div></div></div>
RGR Plus Measurement	gAPI	Before	185.4	157.1	177.1	206.3	<div><div></div><div></div><div></div></div>
GR Calibration Gain		Before	0.89	0.80	0.93	1.05	<div><div></div><div></div><div></div></div>

HDRS-H[2] (HILT Density and Rxo Sonde, 150 degC) Calibration - Run One

Primary Equipment :			
HILT High-Resolution Control Cartridge, 150 degC	HRCC-H		
HILT Resistivity Gamma-Ray Density Device, 150 degC	HRGD-H		3714
Auxiliary Equipment :			
HRDD Backscatter Detector	Backscatter		
HRDD Long Spacing Detector	Long Spacing		
HRDD Short Spacing Detector	Short Spacing		27860
Cesium 137 Gamma-Ray Logging Source	GSR-J		5416
HILT High-Resolution Control Cartridge, 150 degC	HRCC-H		
HILT High-Resolution Mechanical Sonde, 150 degC	HRMS-H		3898
Calibration Parameter :			
Small Ring Size (Caliper Calibration Small Ring)	8.00		
Large Ring Size (Caliper Calibration Large Ring)	12.00		

HDRS Caliper Calibration - Caliper Accumulations

Before (Measured): 19:49:19 10-Sep-2014								
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit		
Small Ring	in	Before	8.00	6.00	8.10	10.00		
Large Ring	in	Before	12.00	9.00	12.47	15.00		

HDRS Density Calibration - Inversion Results

Master (EEPROM): 15:32:00 15-Aug-2014							
---------------------------------------	--	--	--	--	--	--	--

Master (EEPROM): 15:32:00 15-Aug-2014							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Rho Aluminum	g/cm3	Master	2.596	2.586	2.602	2.606	
Rho Magnesium	g/cm3	Master	1.686	1.676	1.686	1.696	
Pe Aluminum		Master	2.570	2.470	2.524	2.670	
Pe Magnesium		Master	2.650	2.550	2.625	2.750	
HDRS Density Calibration - Deviation Summary							
Master (EEPROM): 15:32:00 15-Aug-2014							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS Average Deviation	%	Master	0	-0.6000	0.3230	0.6000	
BS Max Deviation	%	Master	0	-1.6000	0.7055	1.6000	
SS Average Deviation	%	Master	0	-1.0000	0.3967	1.0000	
SS Max Deviation	%	Master	0	-2.5000	1.4761	2.5000	
LS Average Deviation	%	Master	0	-1.5000	0.6964	1.5000	
LS Max Deviation	%	Master	0	-3.5000	1.6889	3.5000	
HDRS Density Calibration - Background Summary							
Master (EEPROM): 15:32:00 15-Aug-2014 Before (Measured): 19:44:21 10-Sep-2014							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS Window Ratio		Master	1.0000		0.7323		
		Before	0.7323	0.6957	0.7296	0.7689	
		Before-Master	-----	-----	-0.0027	-----	
BS Window Sum	1/s	Master	1		25192		
		Before	25192	23933	25128	26452	
		Before-Master	-----	-----	-64	-----	
SS Window Ratio		Master	1.0000		0.4841		
		Before	0.4841	0.4599	0.4808	0.5083	
		Before-Master	-----	-----	-0.0033	-----	
SS Window Sum	1/s	Master	1		13464		
		Before	13464	12790	13431	14137	
		Before-Master	-----	-----	-33	-----	
LS Window Ratio		Master	1.0000		0.2989		
		Before	0.2989	0.2839	0.2999	0.3138	
		Before-Master	-----	-----	0.0010	-----	
LS Window Sum	1/s	Master	1		1523		
		Before	1523	1447	1513	1599	
		Before-Master	-----	-----	-10	-----	
HDRS Density Calibration - Photo-multiplier High Voltages							
Master (EEPROM): 15:32:00 15-Aug-2014 Before (Measured): 19:44:21 10-Sep-2014							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS PM High Voltage	V	Master		1000	1542	2400	
		Before		1000	1518	2400	
		Before-Master	-----	-100	-24	100	
SS PM High Voltage	V	Master		1000	1535	2400	
		Before		1000	1537	2400	
		Before-Master	-----	-100	2	100	
LS PM High Voltage	V	Master		1000	1406	2400	
		Before		1000	1404	2400	
		Before-Master	-----	-100	-2	100	
HDRS Density Calibration - Crystal Quality Resolutions							
Master (EEPROM): 15:32:00 15-Aug-2014 Before (Measured): 19:44:21 10-Sep-2014							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS Crystal Resolution	%	Master		5.00	10.63	25.00	
		Before		5.00	10.70	25.00	
		Before-Master	-----	-1.00	0.07	1.00	
SS Crystal Resolution	%	Master		5.00	9.67	20.00	
		Before		5.00	9.72	20.00	
		Before-Master	-----	-1.00	0.05	1.00	
LS Crystal Resolution	%	Master		5.00	8.84	20.00	
		Before		5.00	8.59	20.00	
		Before-Master	-----	-1.00	-0.25	1.00	
HDRS MCFL Calibration - MCFL Accumulations							
Before (Measured): 19:46:01 10-Sep-2014							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Main Resistivity	ohm.m	Before	3875	3565	3856	4185	

Deep Resistivity	ohm.m	Before	3830	3524	3803	4136	
Shallow Resistivity	ohm.m	Before	3830	3524	3826	4136	

EDTC-B (Enhanced Digital Telemetry Cartridge - Version B) Calibration - Run One	
Primary Equipment :	
EDTC-B	EDTC-B
Calibration Parameter :	
Plus Reference (Jig minus background reference)	165

EDTC-B Accelerometer Calibration - EDTC-B Accelerometer Calibration							
Before (Measured): 10:17:47 24-Aug-2014 Expired by 17 days							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
AZ Vertical Measurement	ft/s2	Before	32.19	31.53	31.96	32.84	

EDTC-B Gamma-Ray Calibration - Gamma Ray Coefficients							
Before (Measured): 19:48:39 10-Sep-2014							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Gamma Ray Gain		Before	1.000	0.900	1.044	1.100	

EDTC-B Gamma-Ray Calibration - Gamma Ray Accumulations							
Before (Measured): 19:48:39 10-Sep-2014							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
RGR Zero Measurement	gAPI	Before		0	82.496	120.000	
RGR Plus Measurement	gAPI	Before	165.000	150.000	158.068	180.000	

Company:	Southwestern Energy Production Company	Schlumberger
Well:	Diamond T Sheep 7-92 1-26	
Field:	Sand Wash Basin/Niobrara	
County:	Moffat	
State:	Colorado	
Platform Express		
Triple Combo		
Density 1		