Schlumberger

Company: Vecta Oil & Gas Ltd

Well: Snowmass 44-32

Field: Wildcat

County: Cheyenne Country: USA

County: Cheyenne
Field: Wildcat
Location: Lot 16, Sec. 32, Twn.12S, Rng. 47W
Well: Snowmass 44-32
Company: Vecta Oil & Gas Ltd

Platform Express

Triple Combo

Location:				
Lot 16, Sec. 32, Twn.12S, Rng. 47W	Elev.	K.B.	4528.00	ft
SHL: 689' FSL & 643' FEL		G.L.	4517.00	ft
Lat/Long: 38.955540/-102.688810		D.F.	4527.00	ft
Permanent Datum: Ground Level	Elev.:	4517.00 f		
Log Measured From: Kelly Bushing	11.00 ft	above Perm.Datum		
Drilling Measured From: Kelly Bushing				

API Serial No.	Max.Hole Deviation	Longitude:	Latitude:
05-017-07725-00	0 deg	-102.68881 degrees	38.955540 degrees

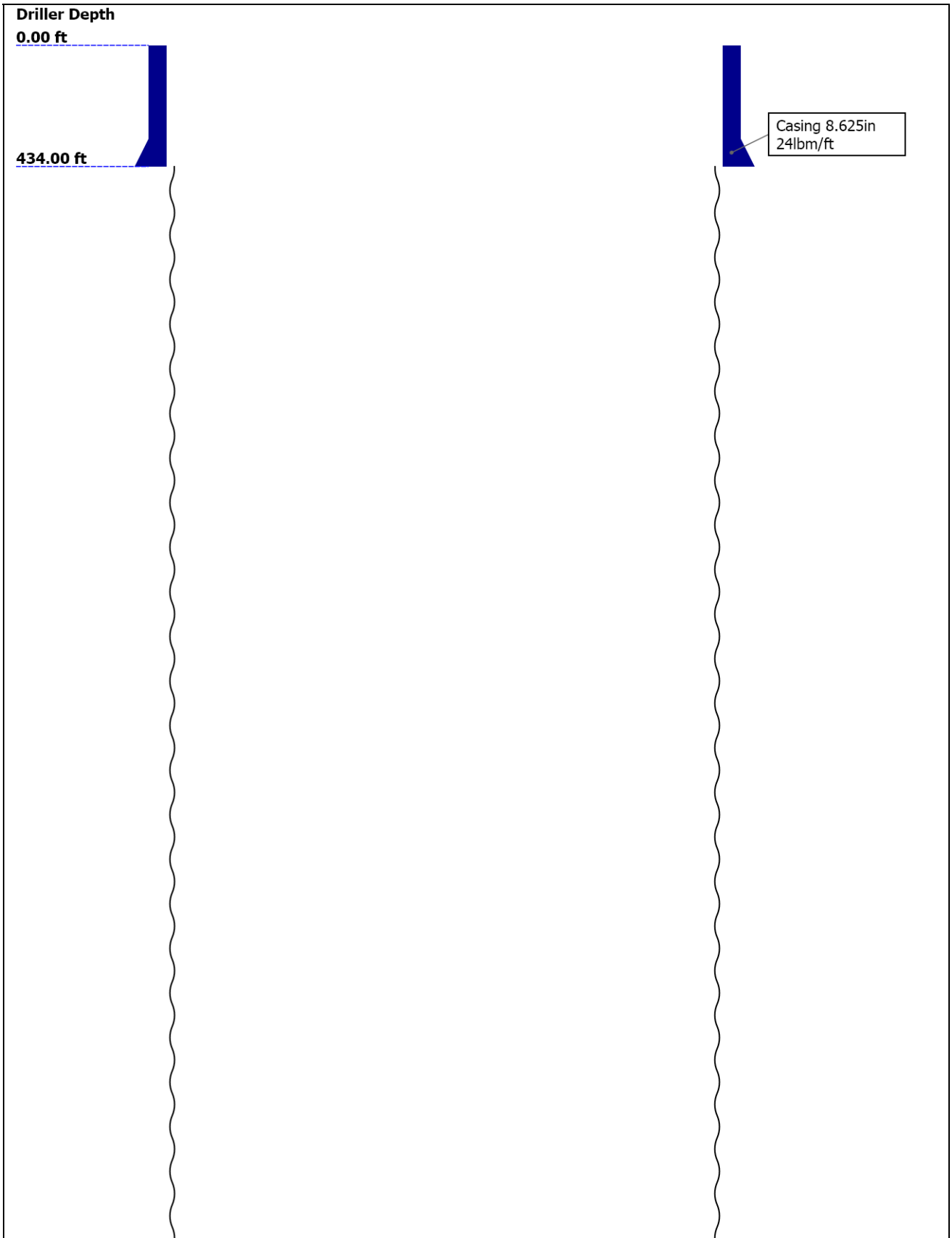
Logging Date			20-Oct-2012			
Run Number			Run 1			
Depth Driller			5858.00 ft			
Schlumberger Depth			5852.00 ft			
Bottom Log Interval			5852.00 ft			
Top Log Interval			427.00 ft			
Casing Driller Size @ Depth			8.625 in @ 434.00 ft			
Casing Schlumberger			427 ft			
Bit Size			7.875 in			
Type Fluid In Hole			Chemical Gel			
MUD	Density	Viscosity	9.2 lbm/gal	62 s		
	Fluid Loss	PH	7.2 cm3	8		
	Source of Sample		Flowline			
RM @ Meas Temp			1.6 ohm.m @ 60.6 degF			
RMF @ Meas Temp			1.2 ohm.m @ 60.6 degF			
RMC @ Meas Temp			2 ohm.m @ 60.6 degF			
Source RMF	RMC			Calculated		
RM @ BHT	RMF @ BHT		0.71 @ 145	0.53 @ 145		
Max Recorded Temperatures			145 degF			
Circulation Stopped	Time		20-Oct-2012	02:00:00		
Logger on Bottom	Time		20-Oct-2012	19:26:42		
Unit Number	Location:		3022	Ft. Morgan		
Recorded By			Stan, Arvin, Megan			
Witnessed By			Ryan Scribner			

Disclaimer

Contents

11.2 Log (EMD 5in Triple Combo RA)
12. Calibration Report
13. Tail

Well Sketch



Borehole Size/Casing/Tubing Record

Bit						
Bit Size (in)	7.875					
Top Driller (ft)	434					
Top Logger (ft)	427					
Bottom Driller (ft)	5858					
Bottom Logger (ft)	5852					
Casing						
Size (in)	8.625					
Weight (lbm/ft)	24					
Inner Diameter (in)	8.099					
Top Driller (ft)	0					
Top Logger (ft)	0					
Bottom Driller (ft)	434					
Bottom Logger (ft)	427					

Operational Run Summary

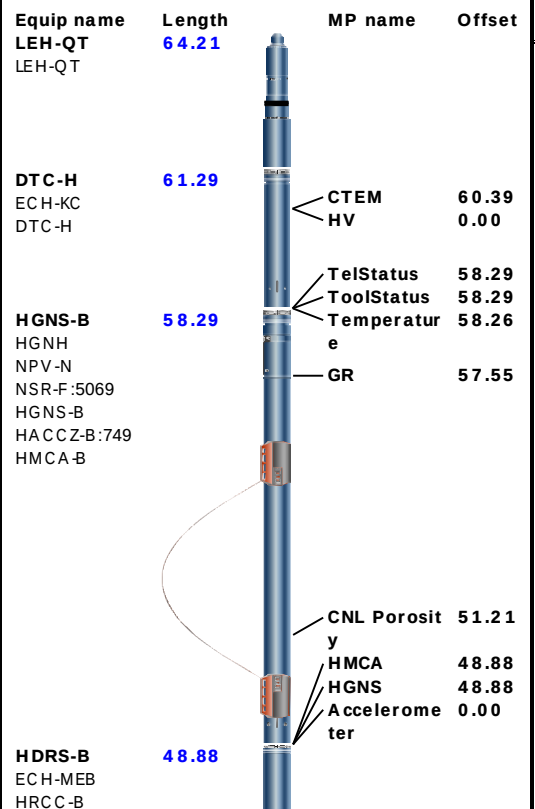
Parameter (unit)	Run 1					
Date Log Started	20-Oct-2012					
Time Log Started	08:45:30					
Date Log Finished	20-Oct-2012					
Time Log Finished	21:22:59					
Top Log Interval (ft)	427.00					
Bottom Log Interval (ft)	5852.00					
Total Depth (ft)	5858.00					
Max Hole Deviation (deg)	0.00					
Azimuth of Max Deviation (deg)	0.00					
Bit Size (in)	7.875					
Logging Unit Number	3022					
Logging Unit Location	Ft. Morgan					
Recorded By	Stan, Arvin, Megan					
Witnessed By	Ryan Scribner					
Service Order Number	C6VJ-00026					

Borehole Fluids

Parameter(unit)	Run 1					
Fluid Type	Water					
Fluid Name	Chemical Gel					
Max Recorded Temperatures (degF)	145					
Source of Sample	Flowline					
Salinity (ppm)	500					
Density (lbm/gal)	9.2					
Funnel Viscosity (s)	62					
Fluid Loss (cm3)	7.2					
PH	8					
Date/Time Circulation Stopped	20-Oct-2012 02:00:00					
Date Logger on Bottom	20-Oct-2012					
Time Logger on Bottom	19:26:42					
Source RMF						
RMC	Calculated					
RM @ Meas Temp (ohm.m@degF)	1.6 @ 60.6					
RMF @ Meas Temp (ohm.m@degF)	1.2 @ 60.6					
RMC @ Meas Temp (ohm.m@degF)	2 @ 60.6					
RM @ BHT (ohm.m@degF)	0.71 @ 145					
RMF @ BHT (ohm.m@degF)	0.53 @ 145					
RMC @ BHT (ohm.m@degF)	0.89 @ 145					
Total Solid (%)						
High Gravity Solids (%)						

Remarks and Equipment Summary

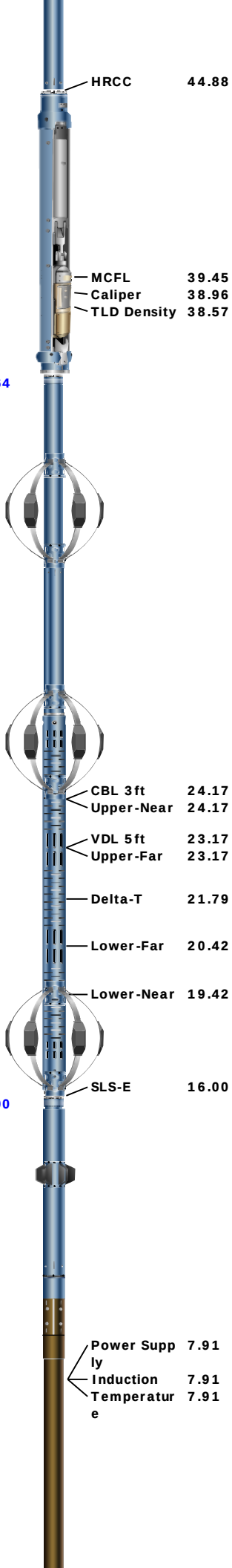
Run 1: Toolstring



Run 1: Remarks

Toolstring run as per tool sketch.

HRMS-B
Long Spacing
GPV-Q
HRGD-B:1849
Backscatter
Short Spacing
GSR-J:5094



DSLT-H **36.64**
ECH-KH
DSLC-H
SLS-E

AIT-H:398 **16.00**
AHIS:398
AHRM

Lengths are in ft
Maximum Outer Diameter = 5.000 in
Line: Sensor Location, Value: Gating Offset
All measurements are relative to TOOL_ZERO

Depth Summary

Depth Control Parameters	Run 1		
Conveyance Type	Wireline		
Log Sequence	Run 1		
Depth Remark Parameters	**Run 1**		
Depth Remark 1	All Schlumberger depth procedures followed.		
Depth Remark 2	IDW as primary depth reference, Z-chart as secondary depth reference.		
Depth Measuring Device	**Run 1**		
Type	IDW-B		
Calibration Date	02-Oct-2012		
Calibrator Serial Number	78135a		
Calibration Cable Type	7-39P LXS		
Wheel Correction 1	1		
Wheel Correction 2	0		
Tension Device	**Run 1**		
Type	CMTD-B/A		
Serial Number	1109		
Calibration Date	02-Oct-2012		
Calibrator Serial Number	78135a		
Calibration Points	10		
Calibration RMS	6		
Calibration Peak Error	10		
Logging Cable	**Run 1**		
Type	7-39P-LXS		
Serial Number	A711075		
Logging Cable Length (ft)	16000.00		

Run 1

5" Triple Combo

Integration Summary

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

Software Version

Acquisition System	Version
MaxWell	3.1.9755.0
Application Patch	SP-20120723-3.1.9755.1112
	EXP_APL-MASTAXIS-3.1.9755.1221

Computation	Description	Version
HENVIR	Computation Ensemble for the HGNS Neutron environmental corrections	3.1.9755.0
DepthCorrection	DepthCorrection	3.1.9755.0

Tool Elements	Description	Software Version	Firmware Version
HRGD-B	HILT Resistivity Gamma-Ray Density Device, 125 degC	3.1.9755.0	3.0
AHIS	Array Induction Sonde - H	3.1.9755.1112	
HGNS-B	HILT Gamma-Ray and Neutron Sonde, 125 degC	3.1.9755.0	2.0
HRCC-B	HILT High-Resolution Control Cartridge, 125 degC	3.1.9755.0	2.0

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	Depth Shift	Include Parallel Data
Run 1	Log[5]:Up	Up	86.55 ft	5872.33 ft	20-Oct-2012 7:17:25 PM	20-Oct-2012 9:22:44 PM	7.00 ft	
All depths are referenced to toolstring zero								

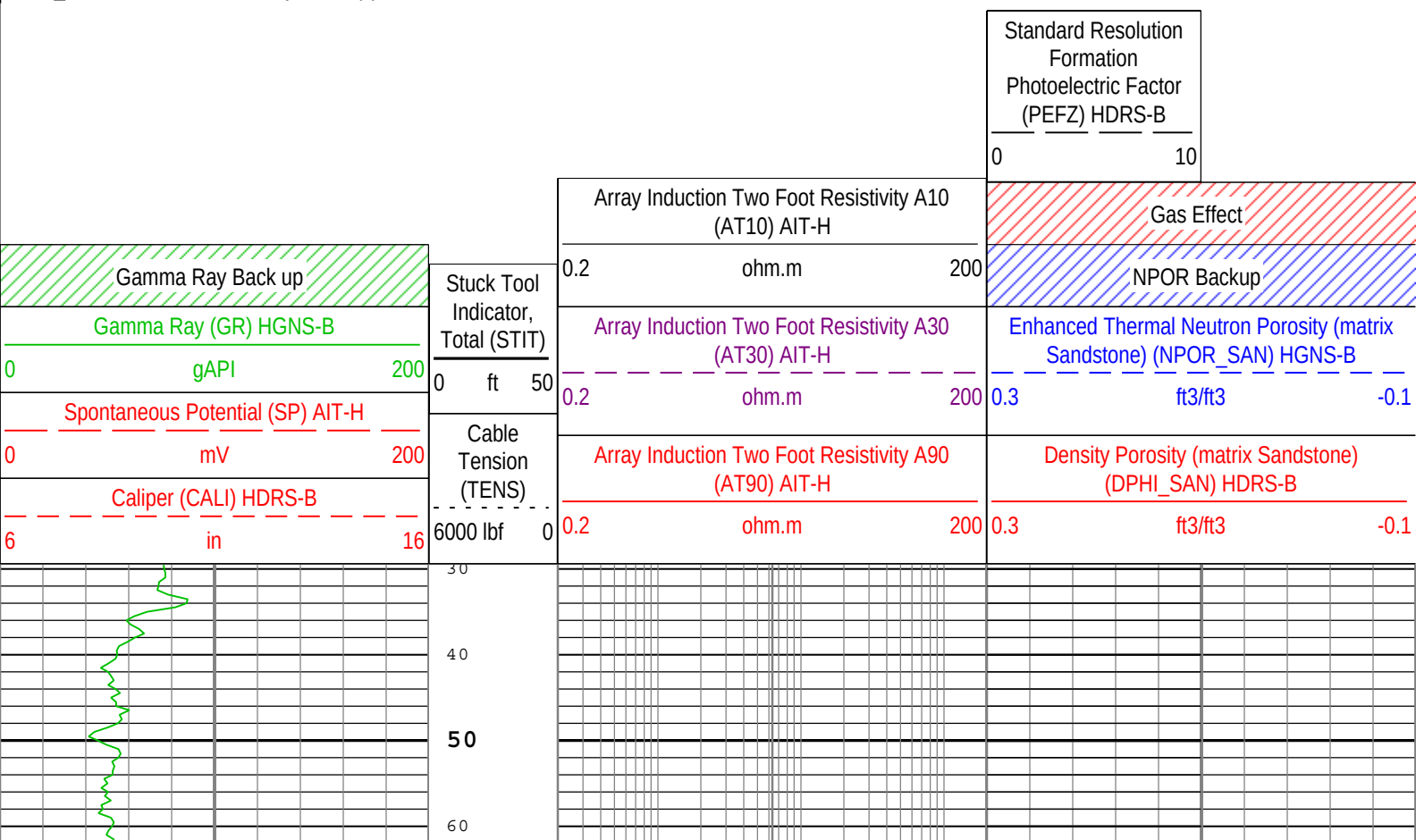
Log

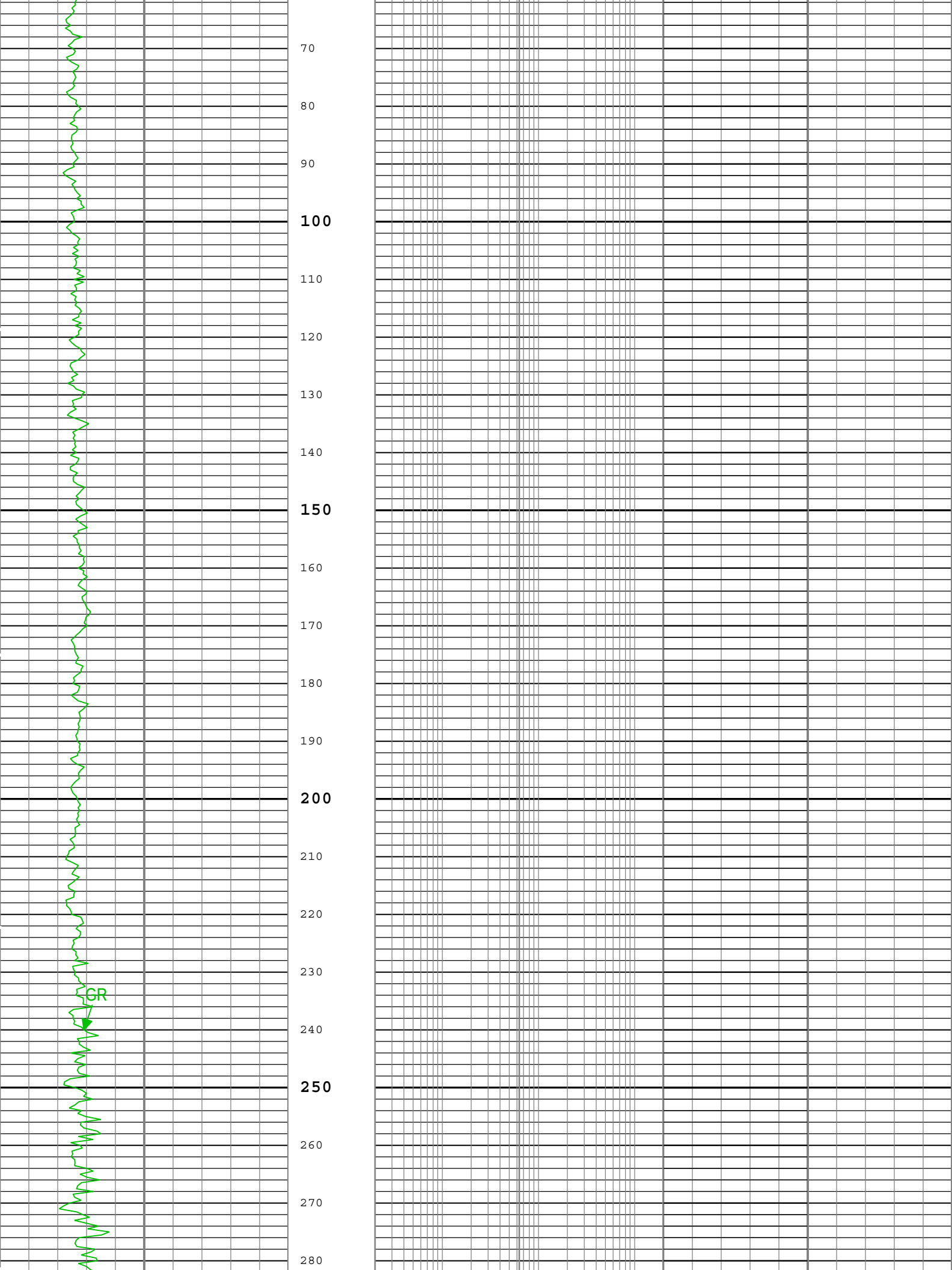
Run 1: Log[5]:Up

Description: HGNS standard resolution porosities for Platform Express Format: Log (EMD 5in Triple Combo) Index Scale: 5 in per 100 ft Index Unit: ft
Index Type: Measured Depth Creation Date: 20-Oct-2012 22:21:22

Channel	Source	Sampling
AT10	AIT-H:AHIS:AHIS	3in
AT30	AIT-H:AHIS:AHIS	3in
AT90	AIT-H:AHIS:AHIS	3in
CALI	HDRS-B:HRCC-B:HRCC-B	1in
DPHI_SAN	HDRS-B:HRMS-B:HRGD-B	6in
GR	HGNS-B:HGNS-B:HGNS-B	6in
NPOR_SAN	HGNS-B:HGNS-B:HGNS-B	6in
PEFZ	HDRS-B:HRMS-B:HRGD-B	2in
SP	AIT-H:AHIS:AHIS	6in
STIT	DepthCorrection	6in
TENS	WLWorkflow	6in
TIME_1900	WLWorkflow	0.1in

TIME_1900 - Time Marked every 60.00 (s)

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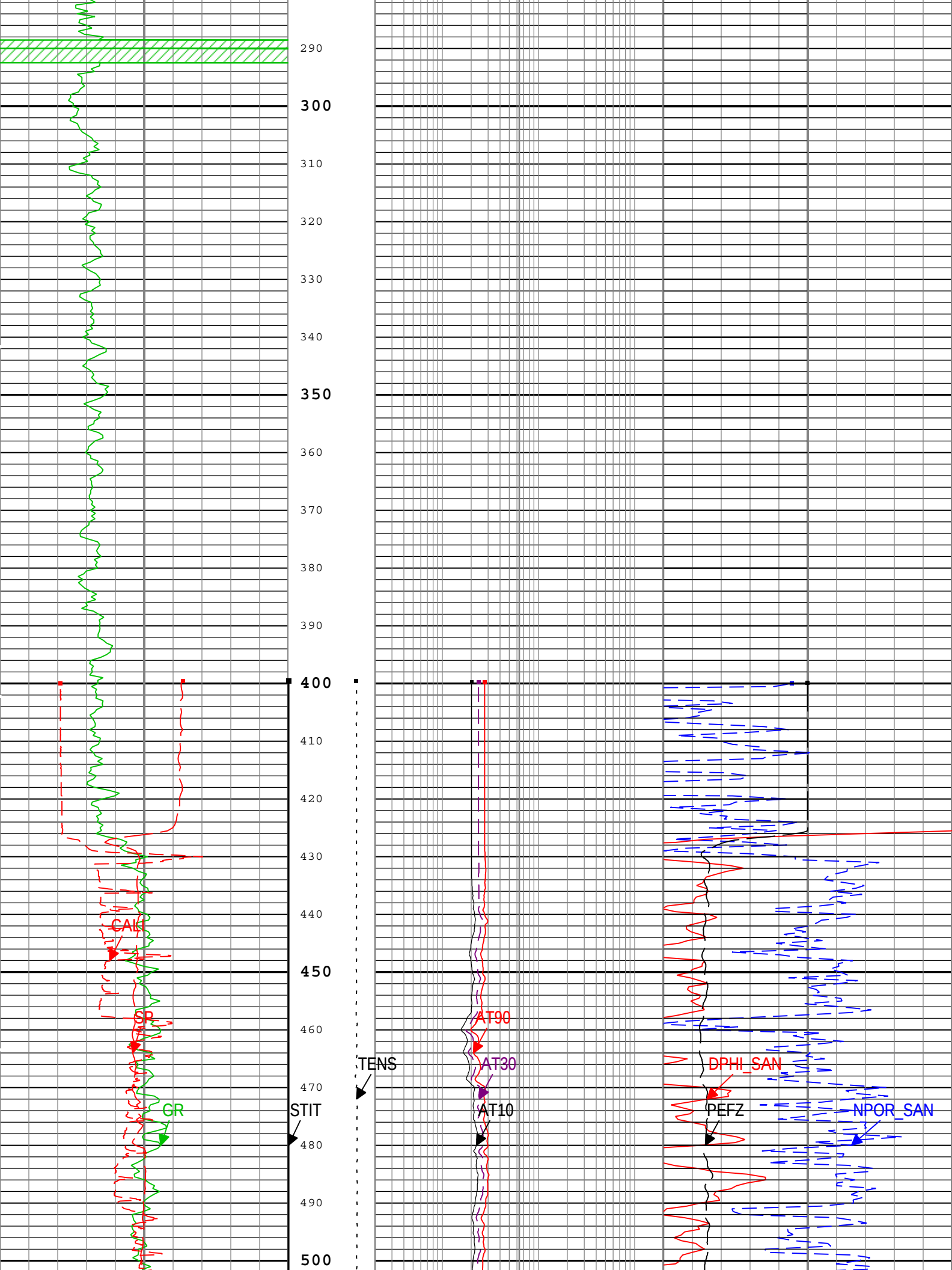
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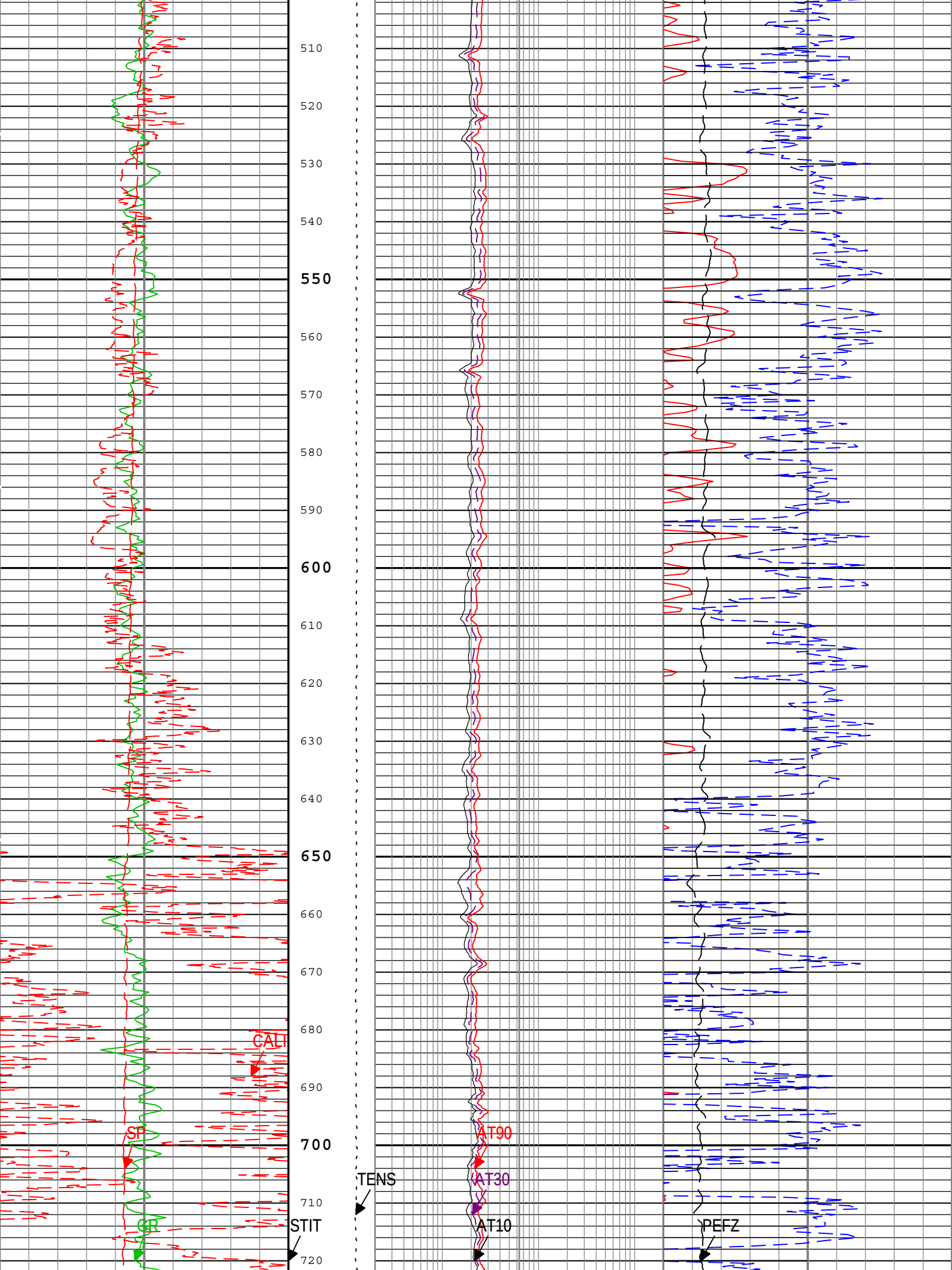
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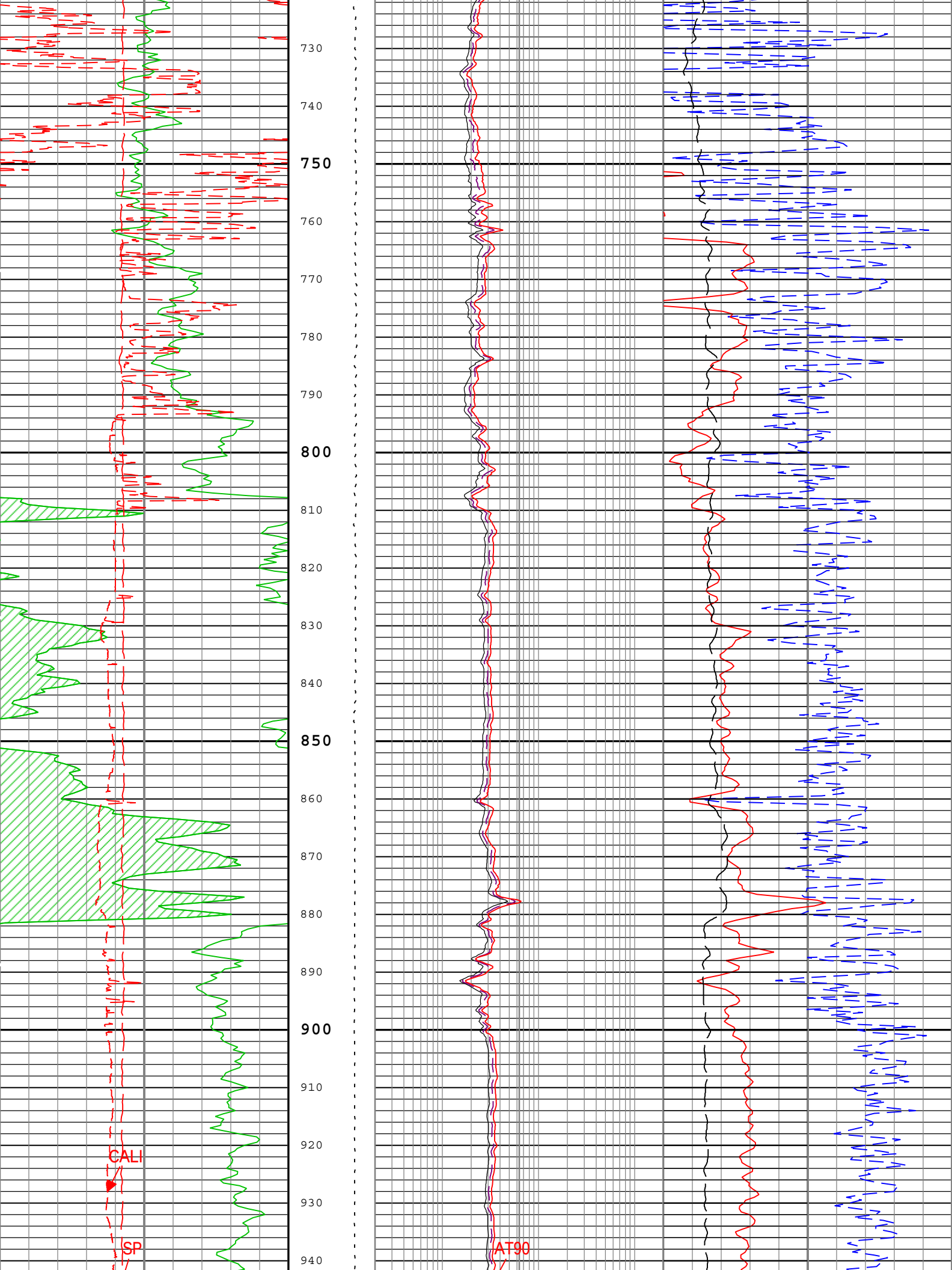
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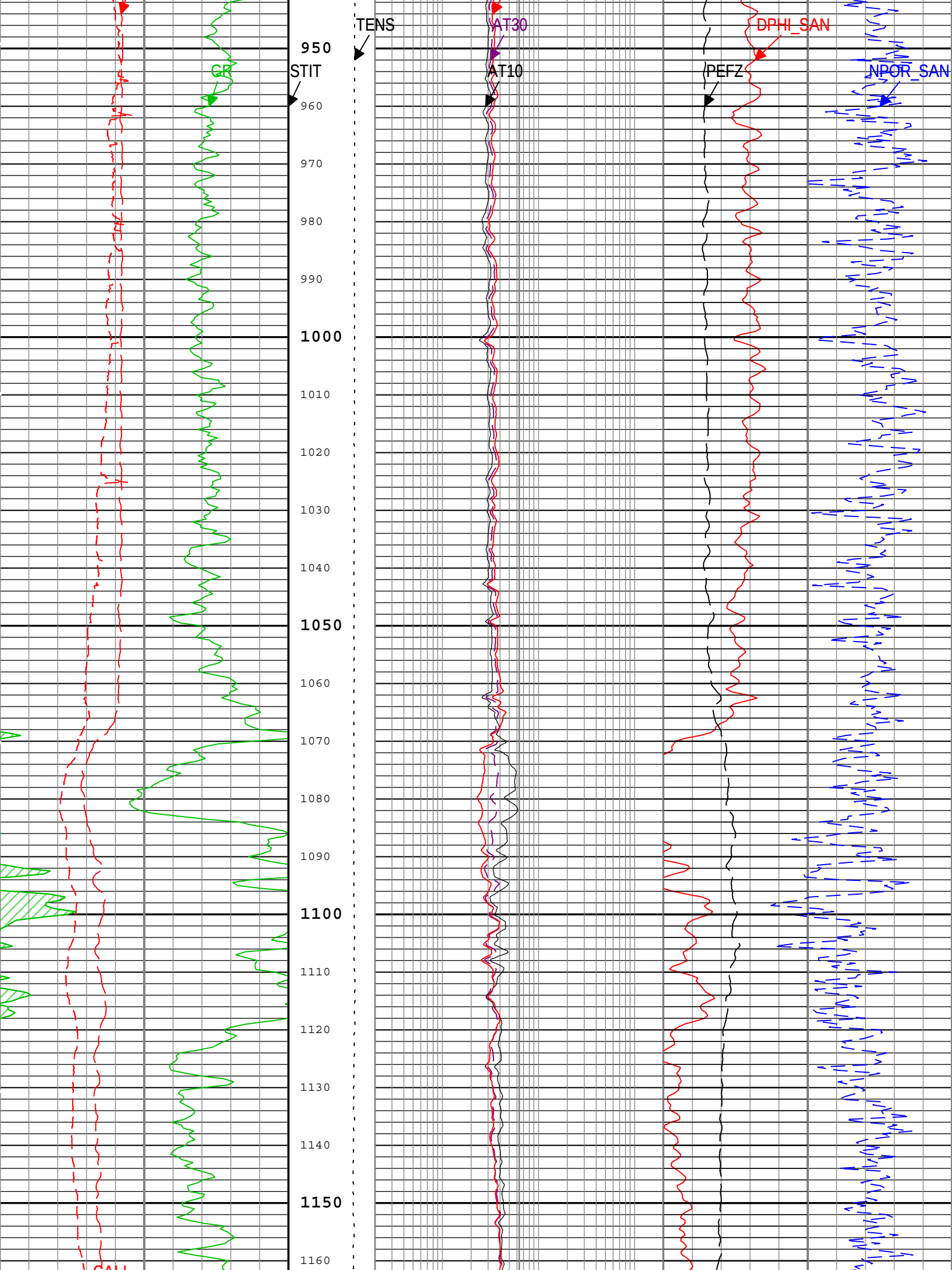
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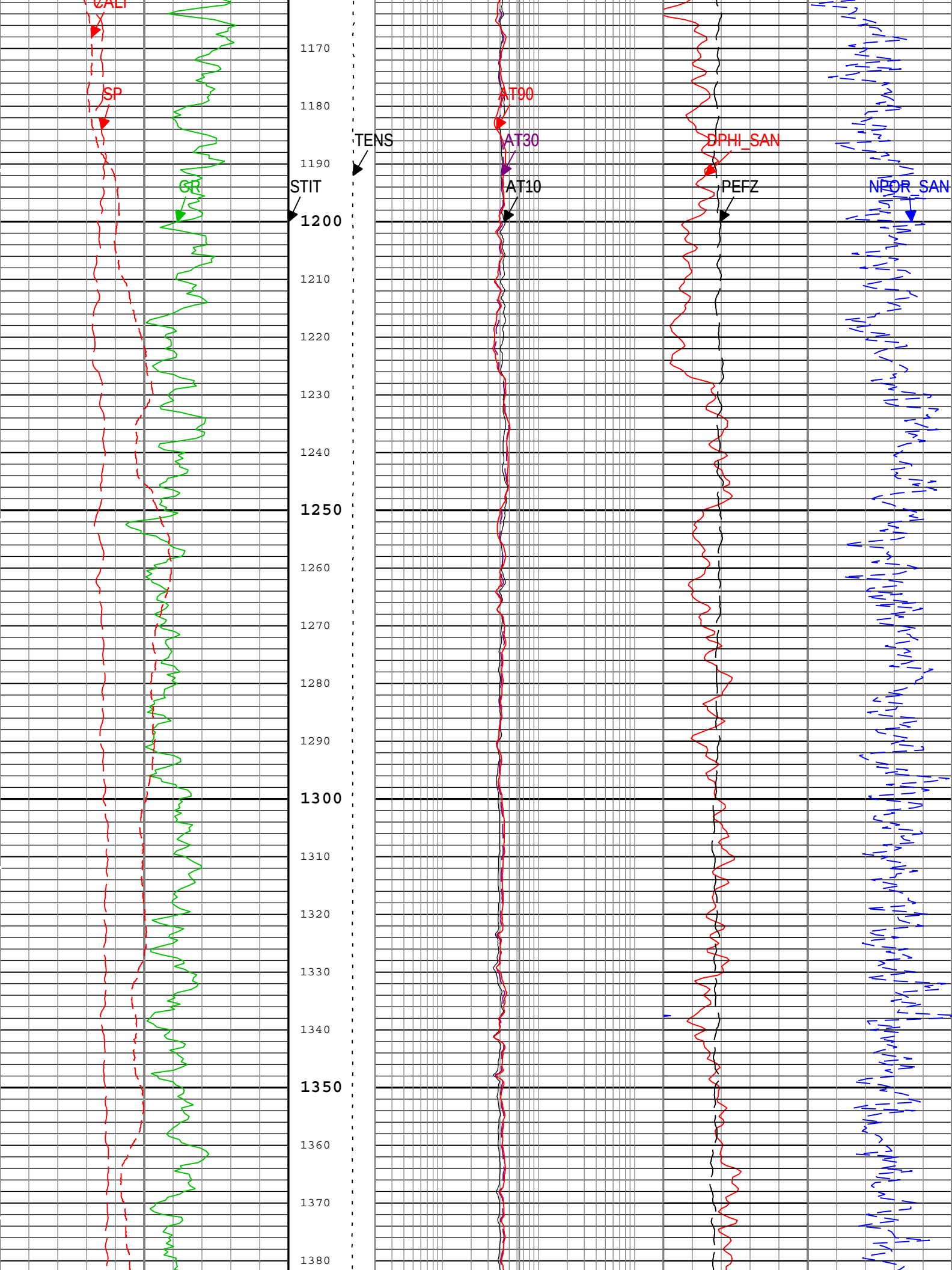
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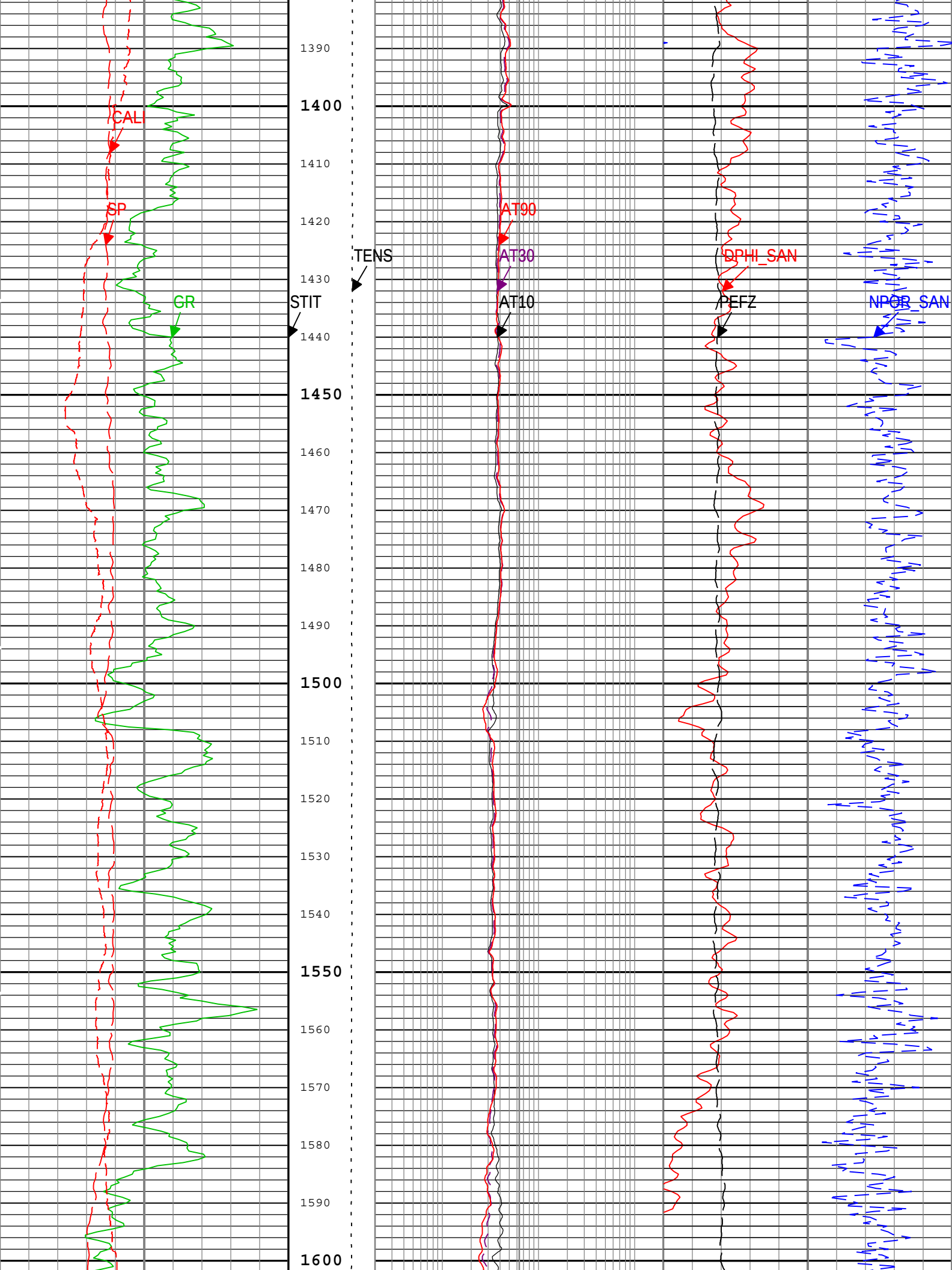
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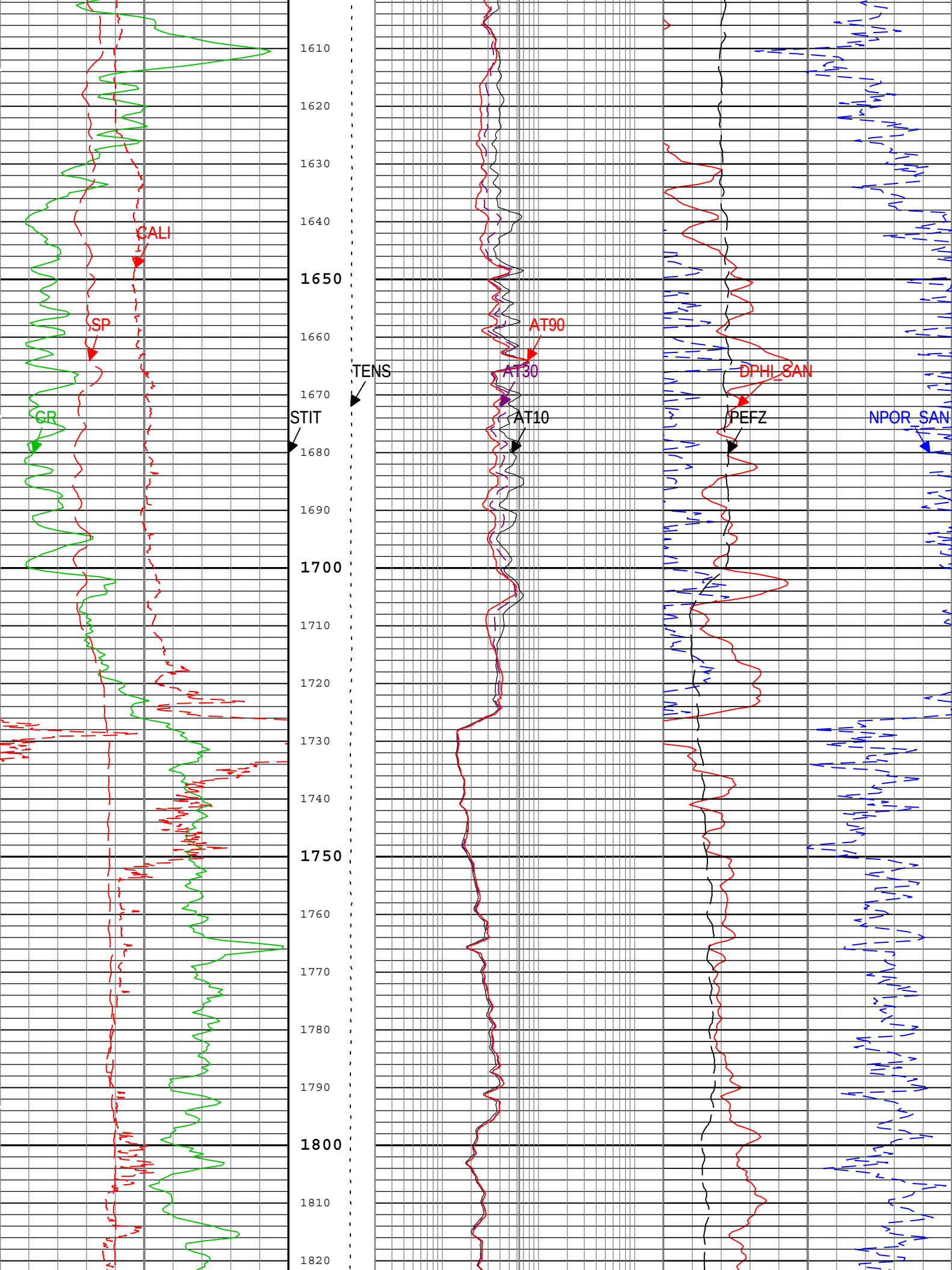
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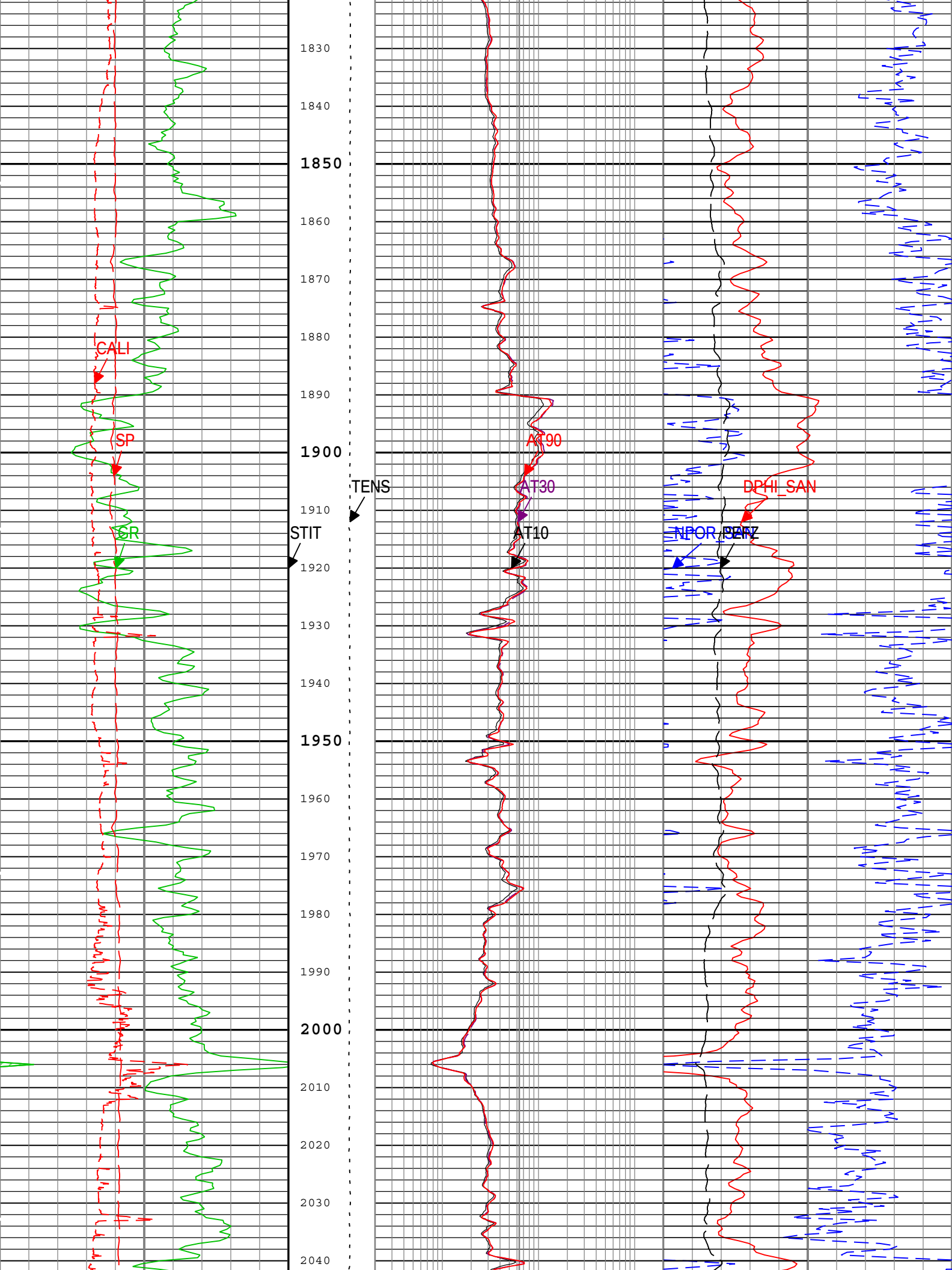
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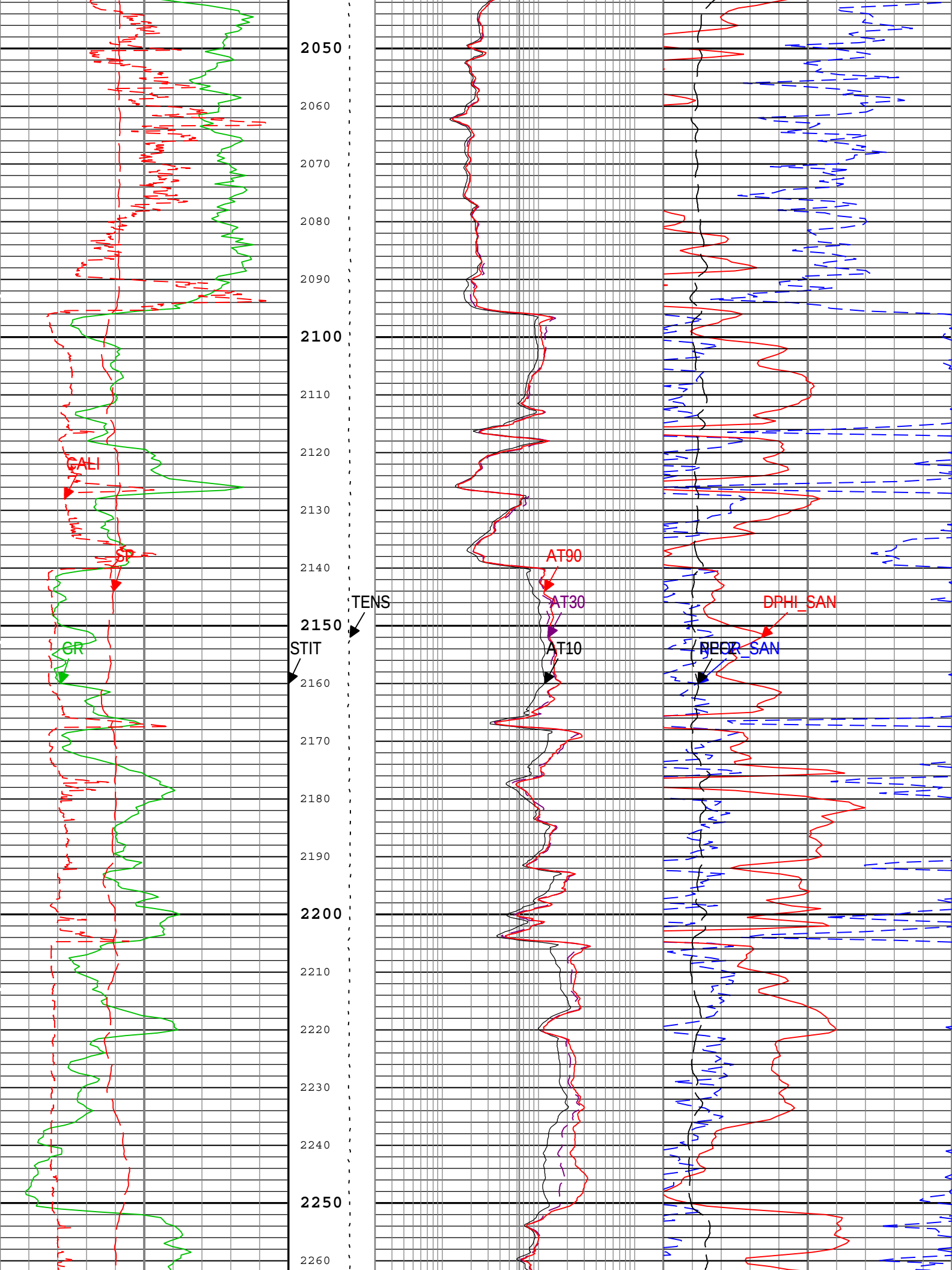
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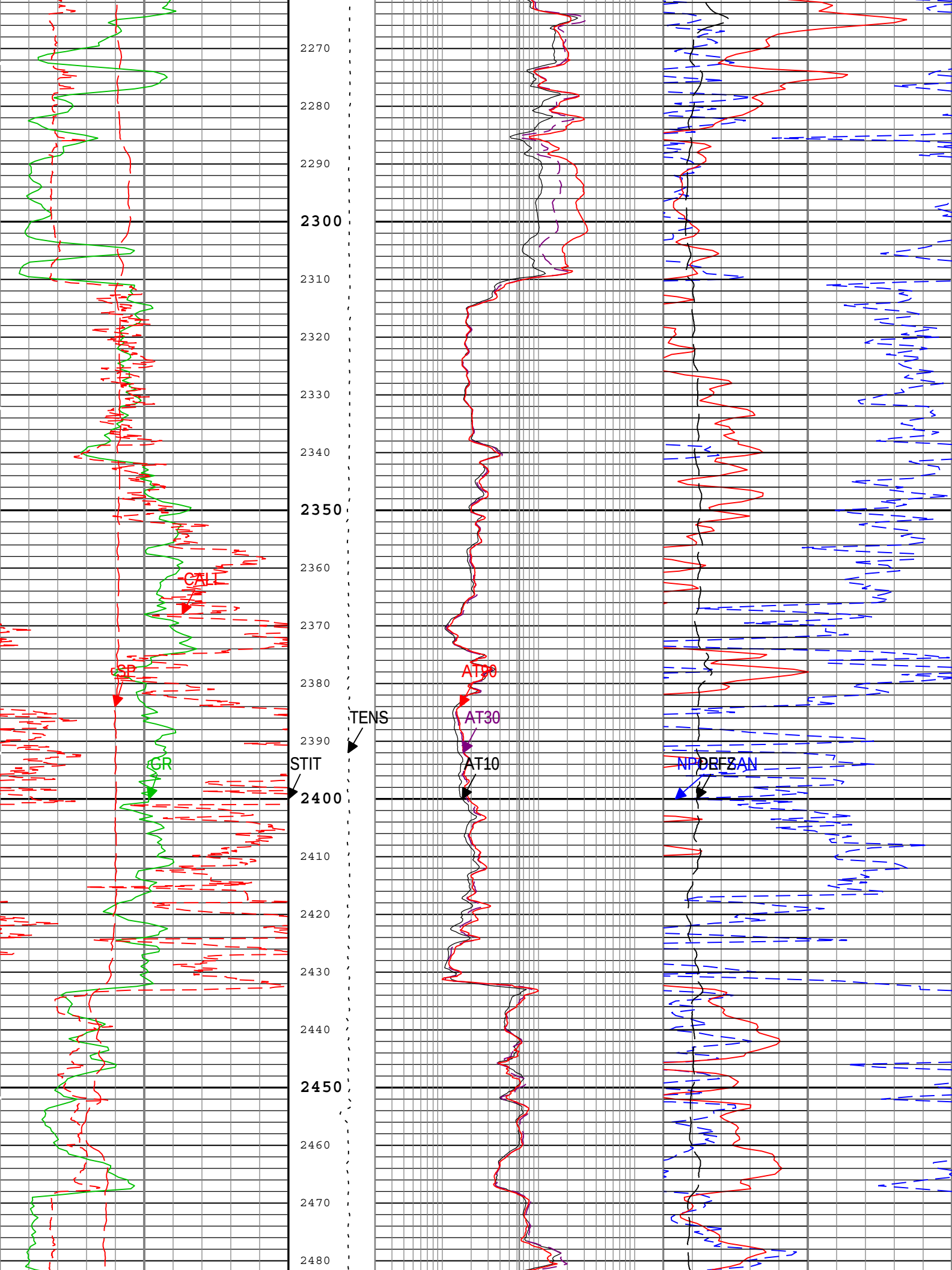
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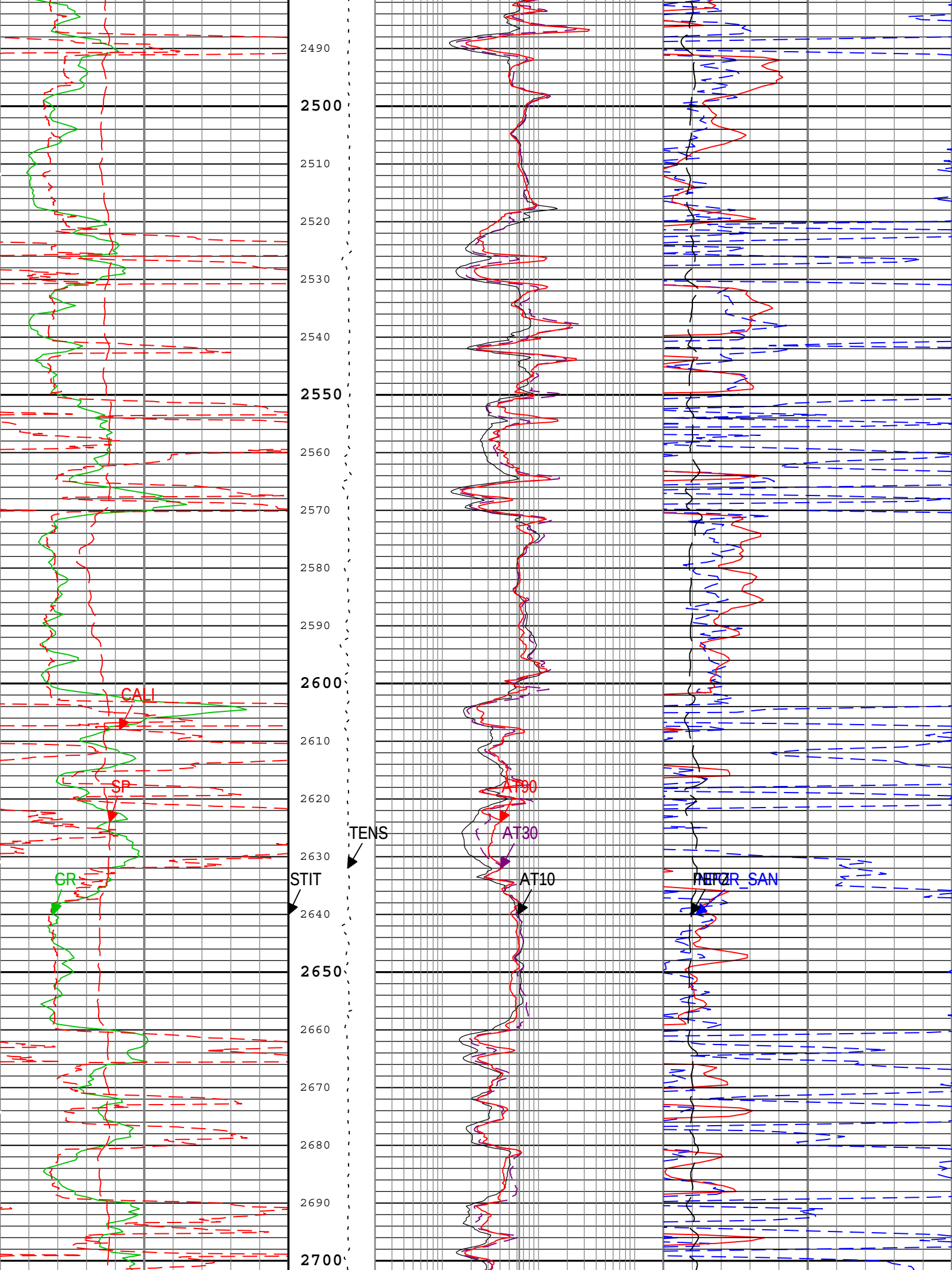
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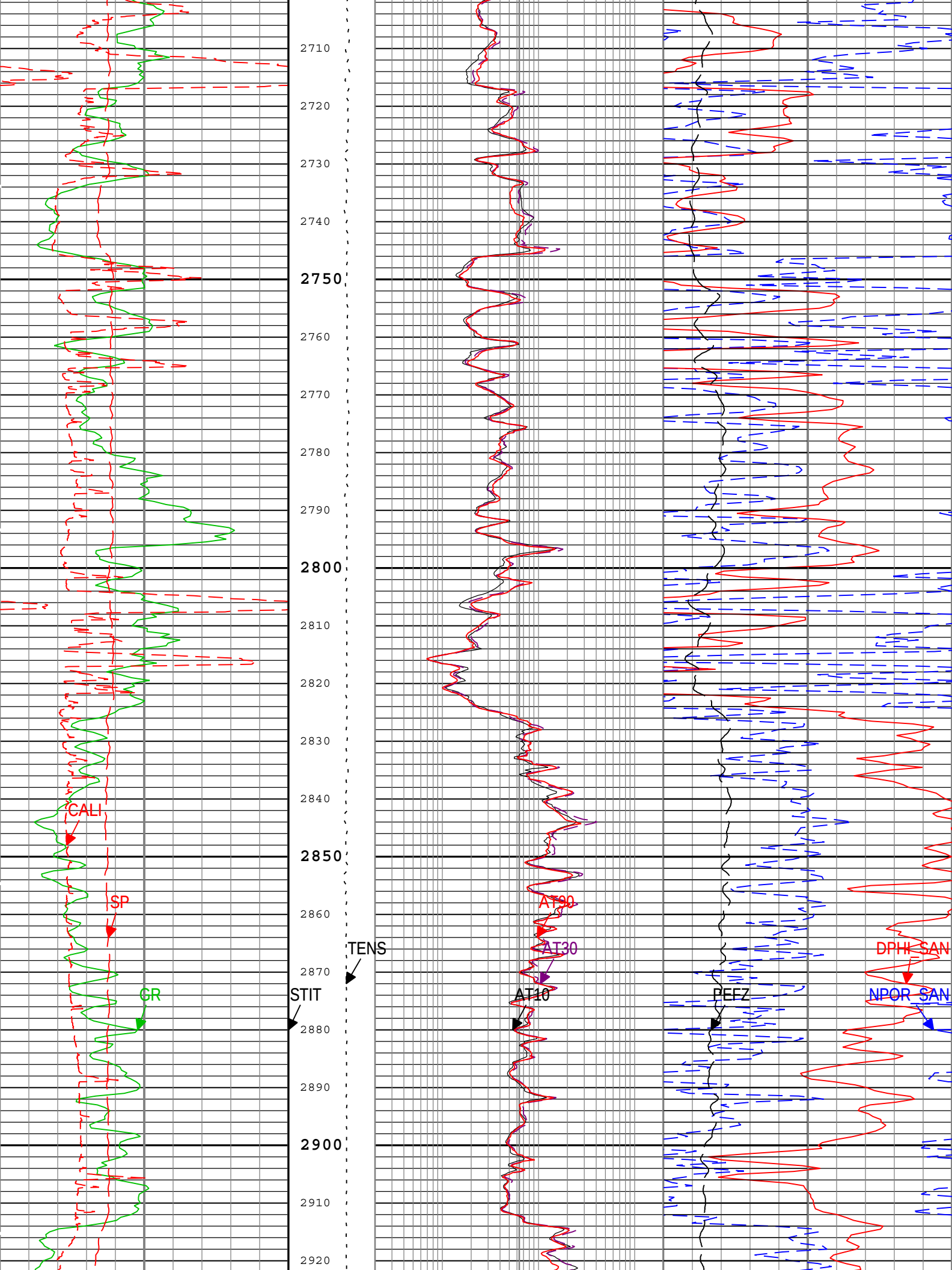
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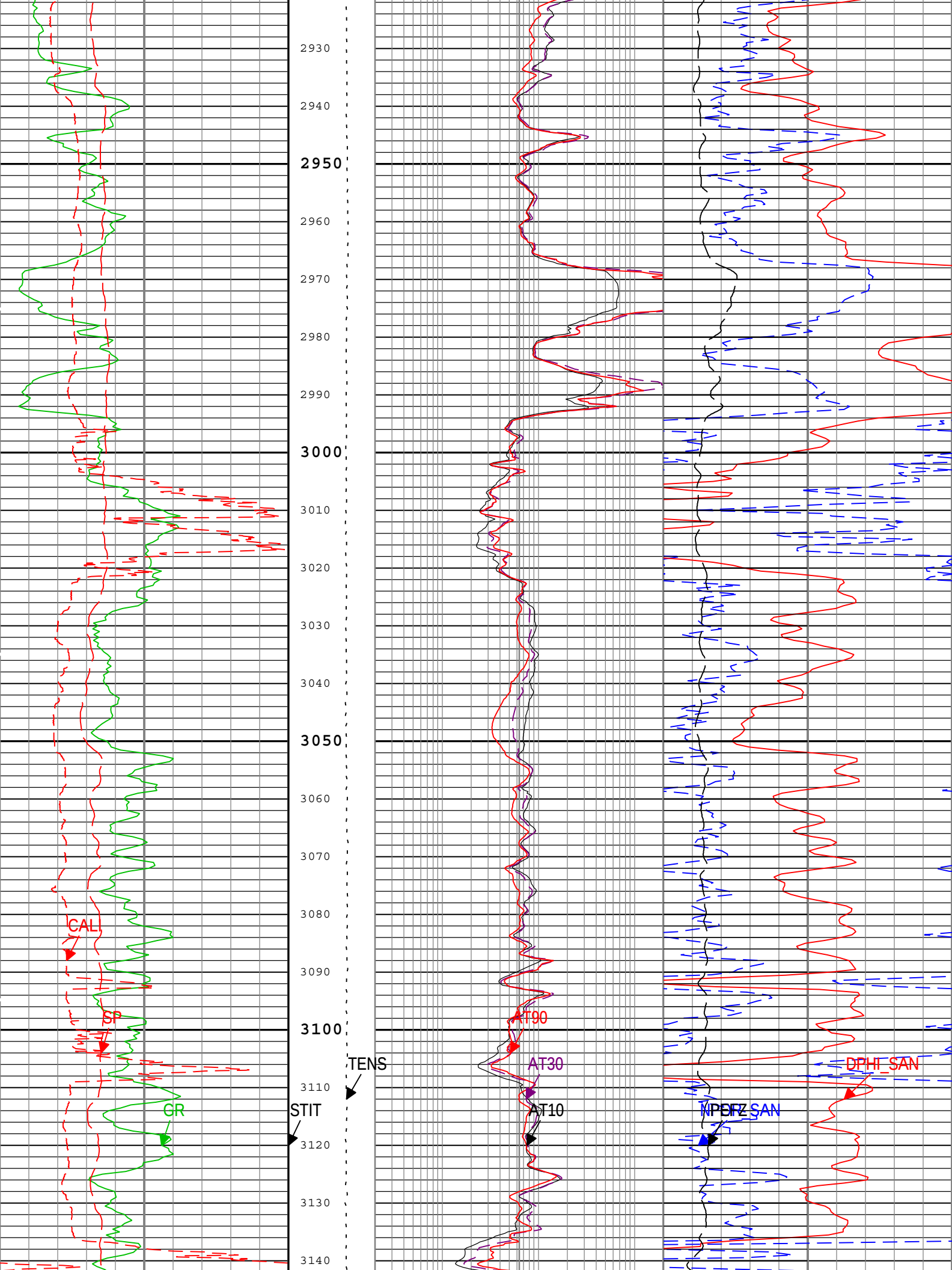
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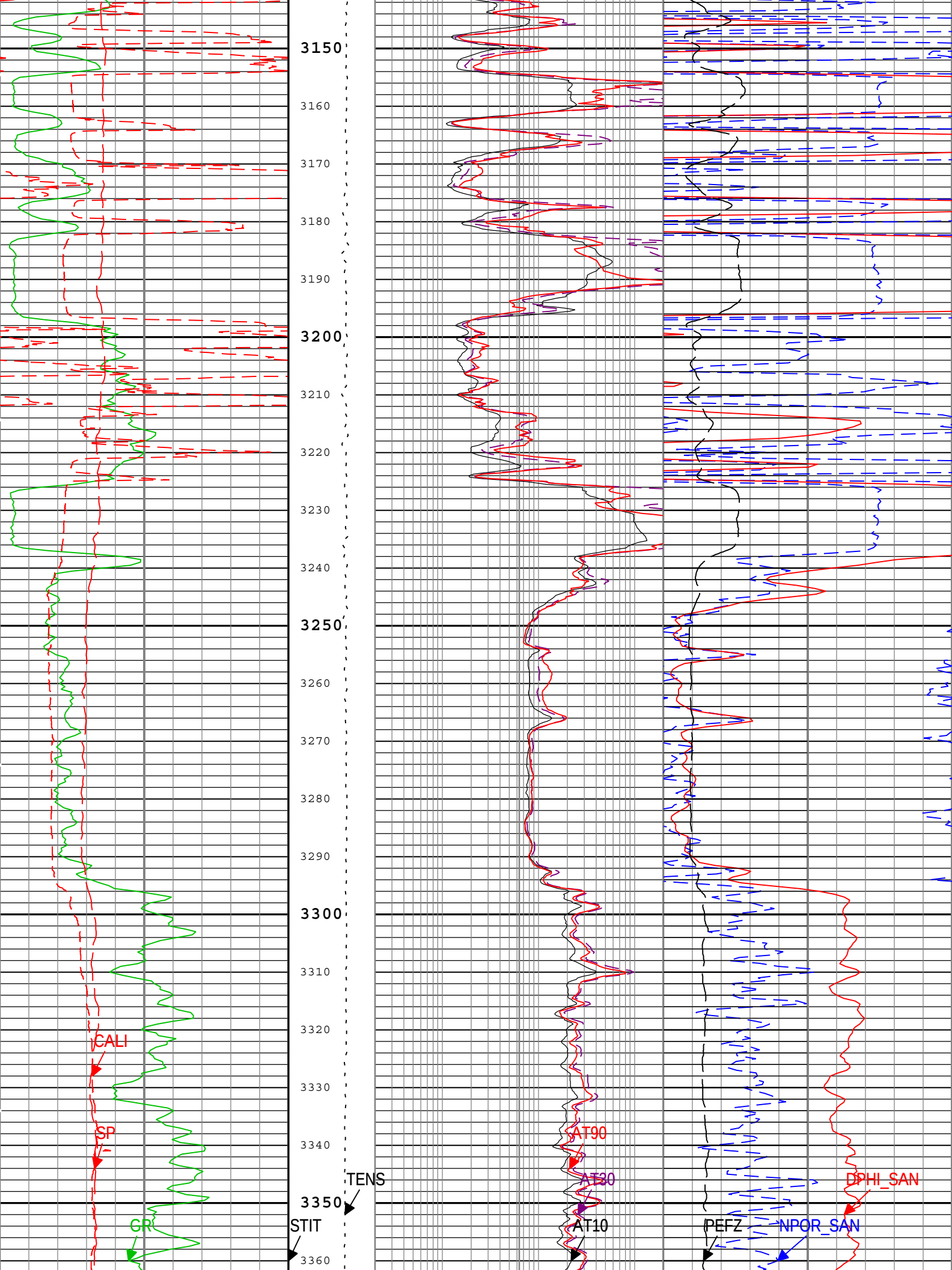
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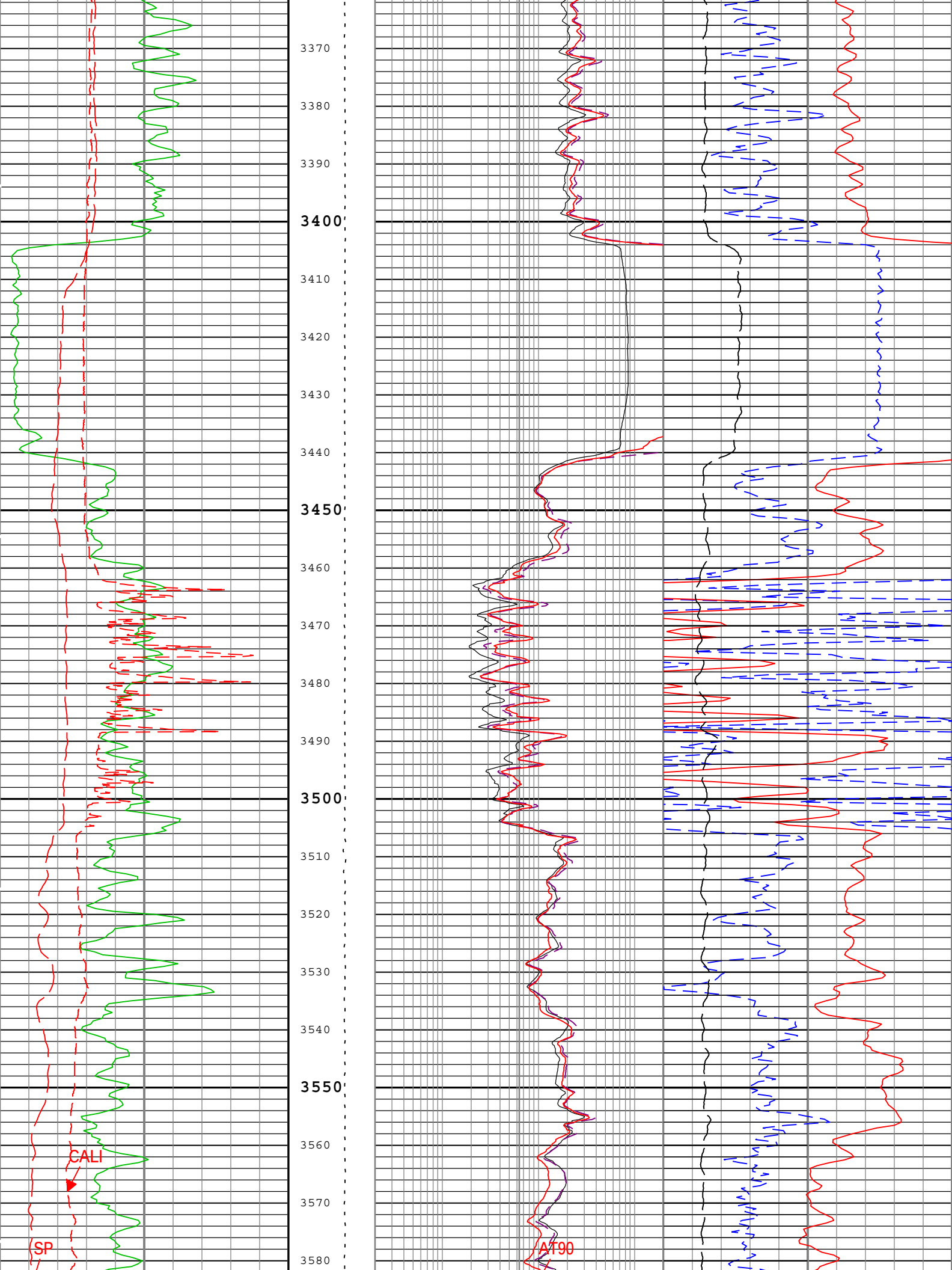
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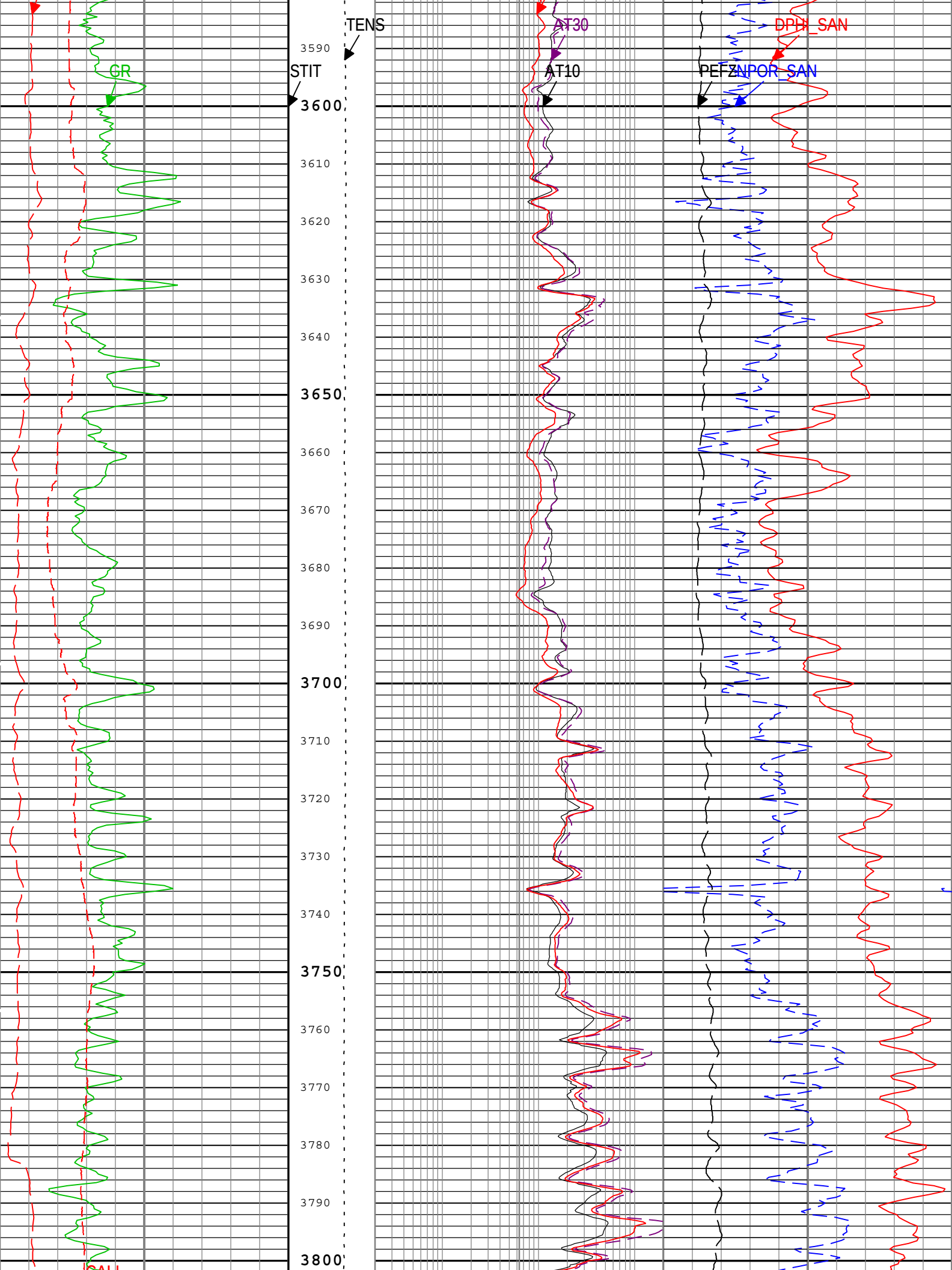
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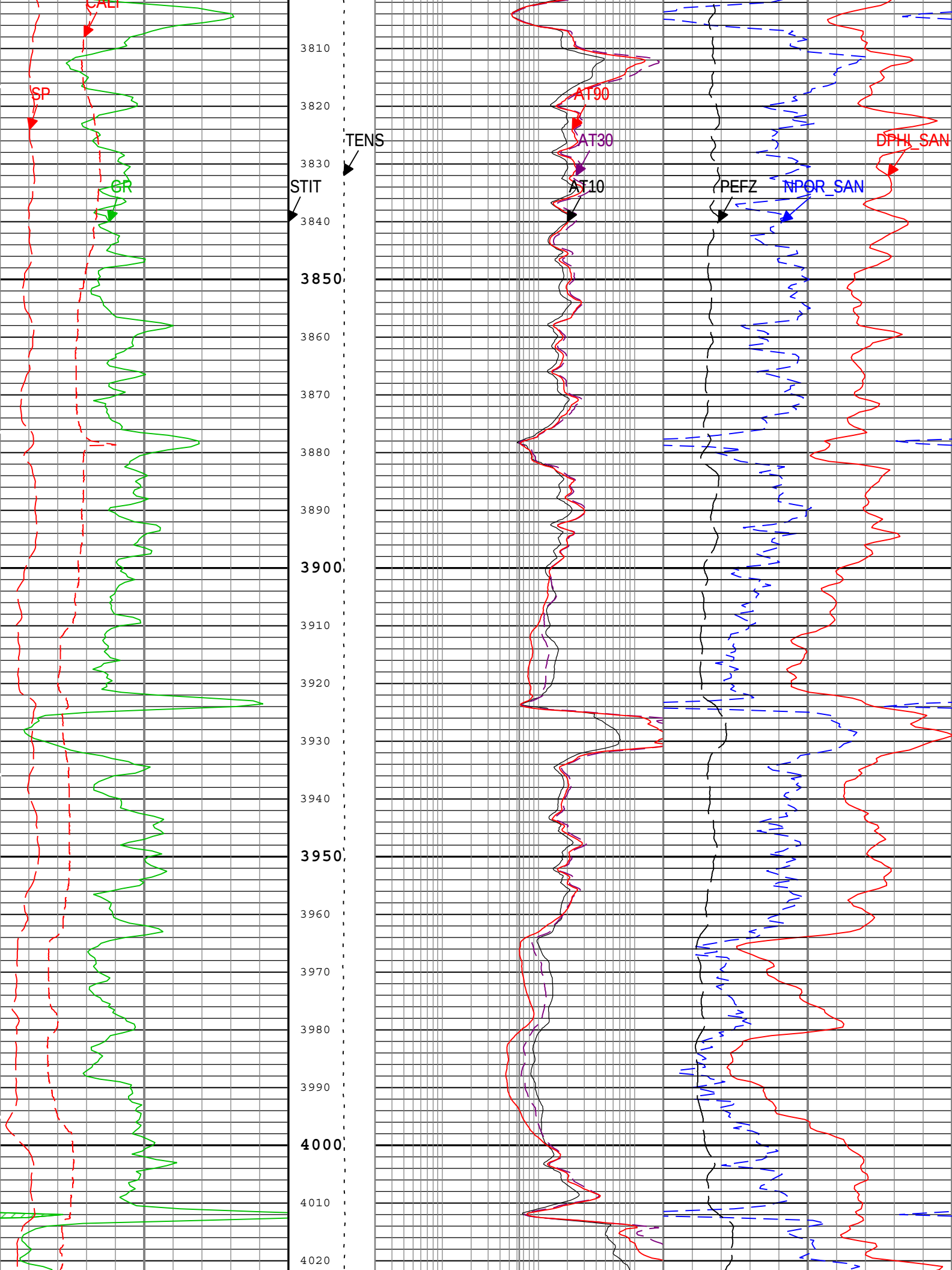
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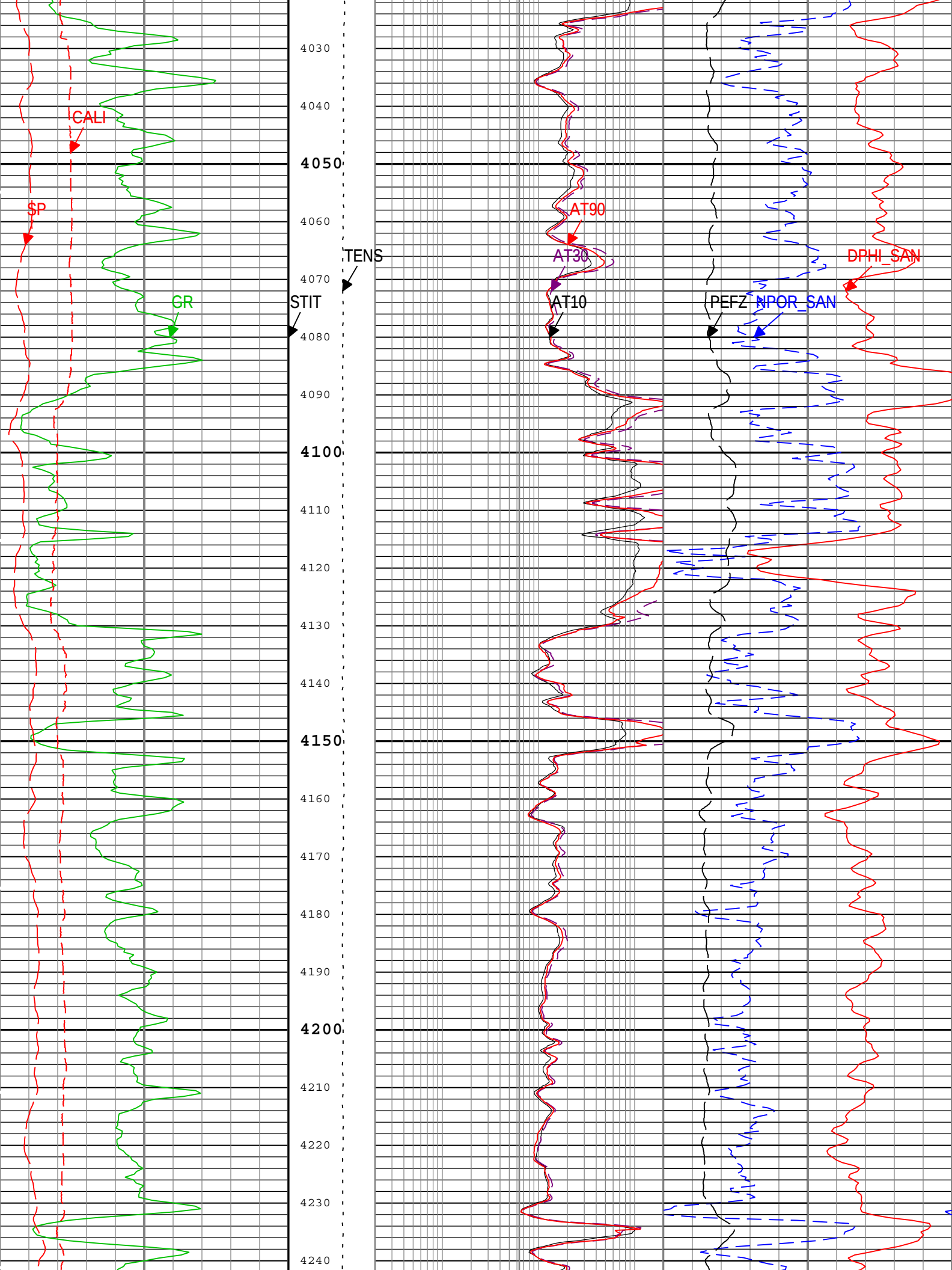
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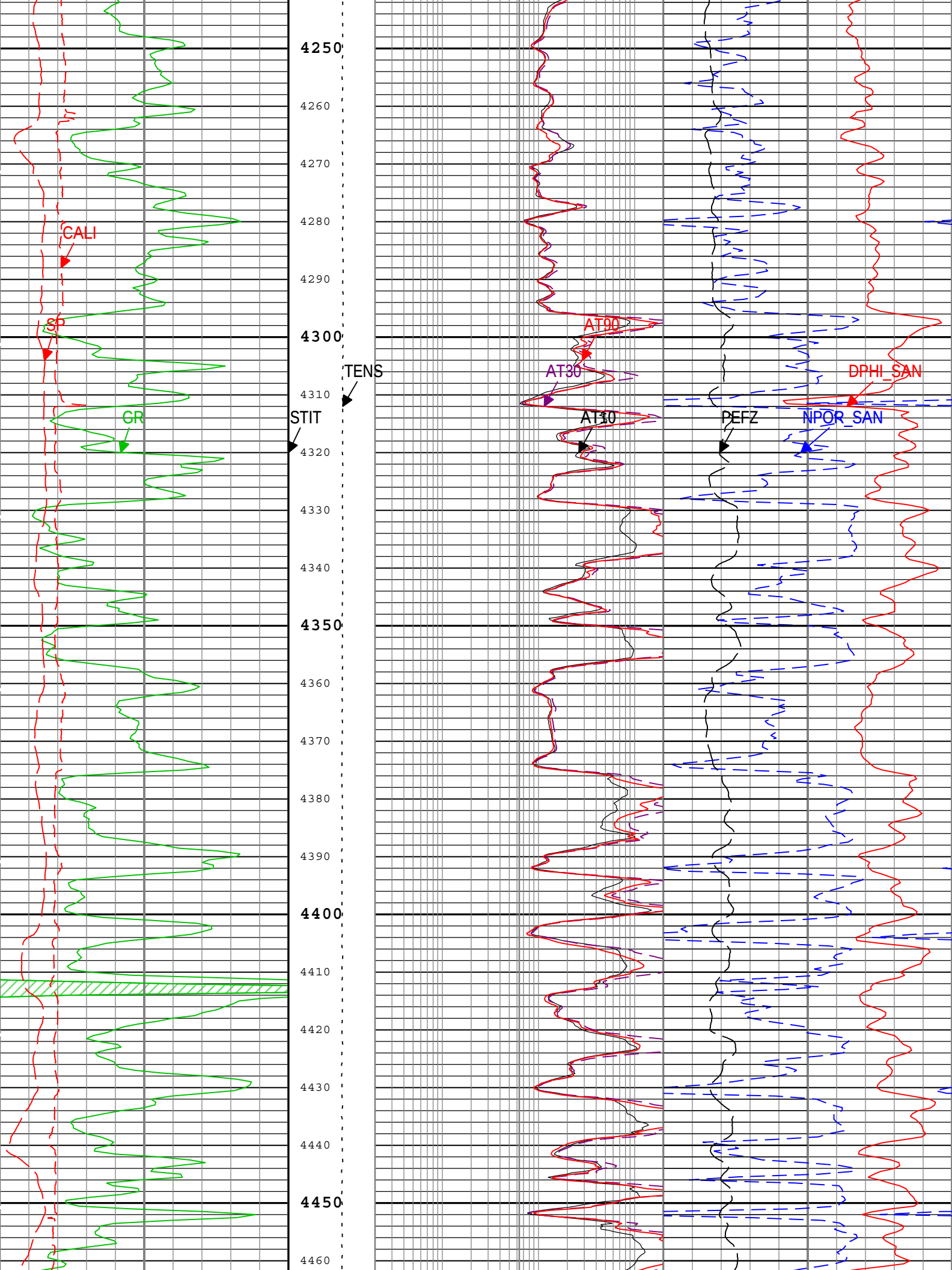
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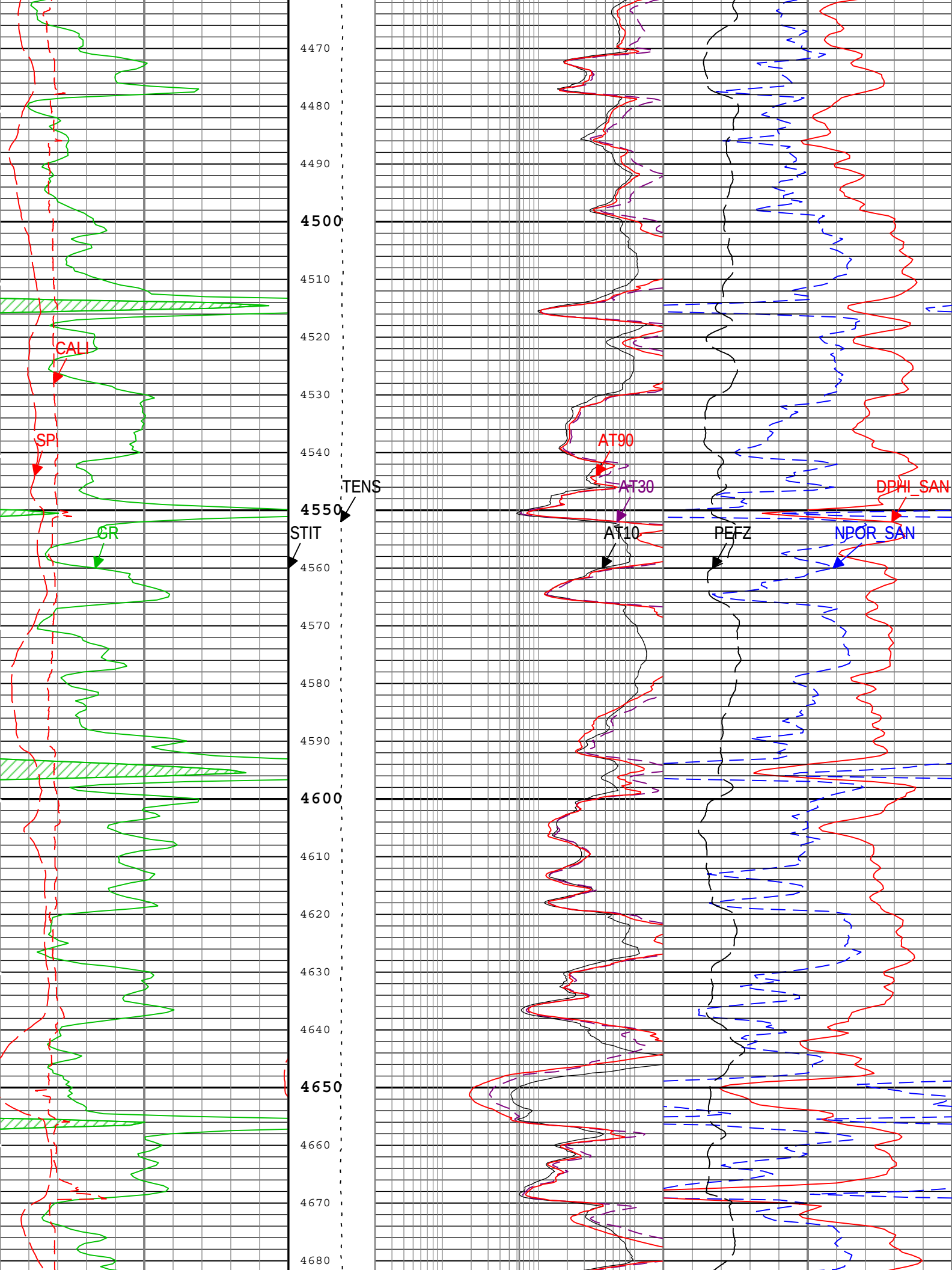
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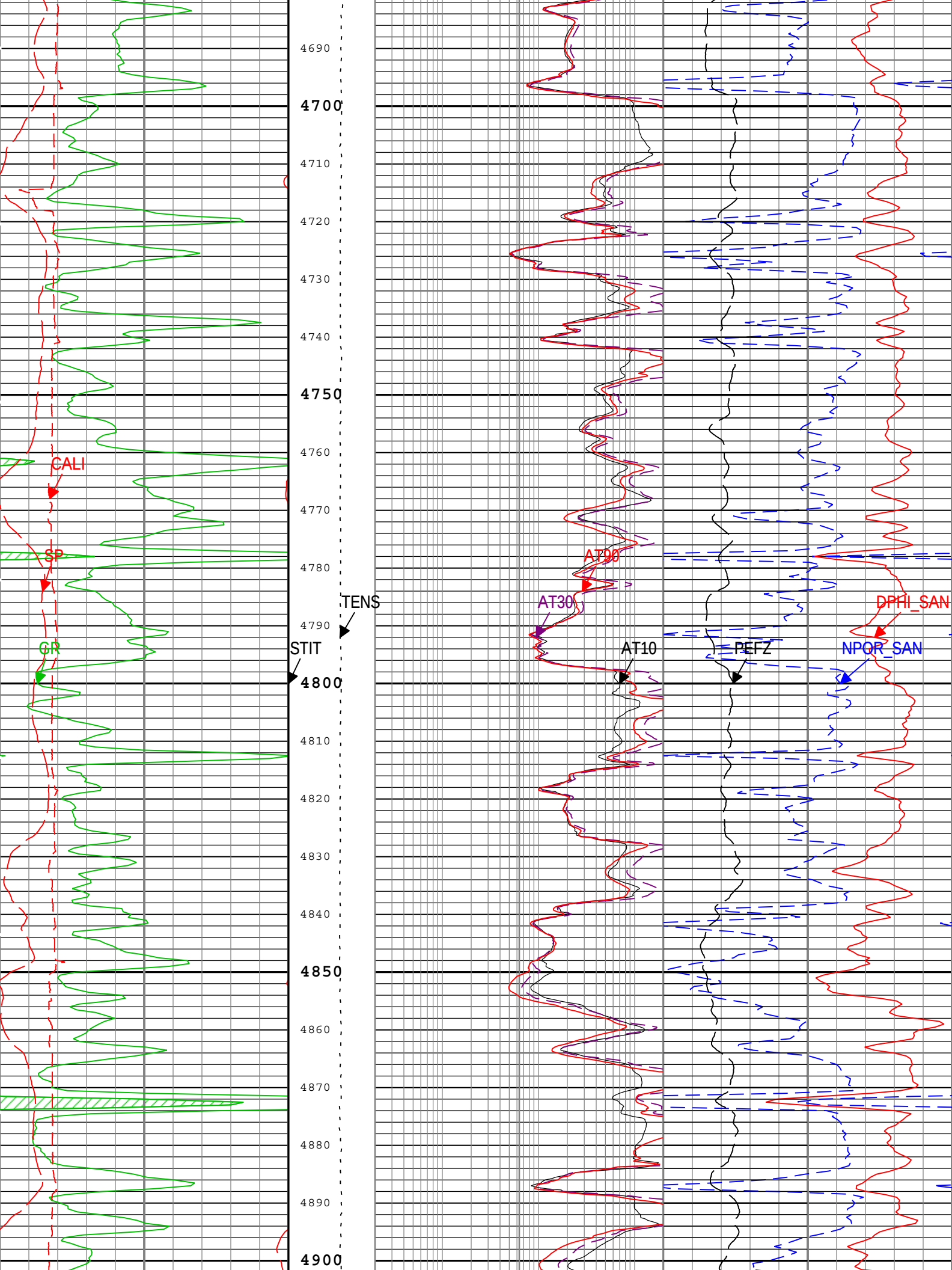
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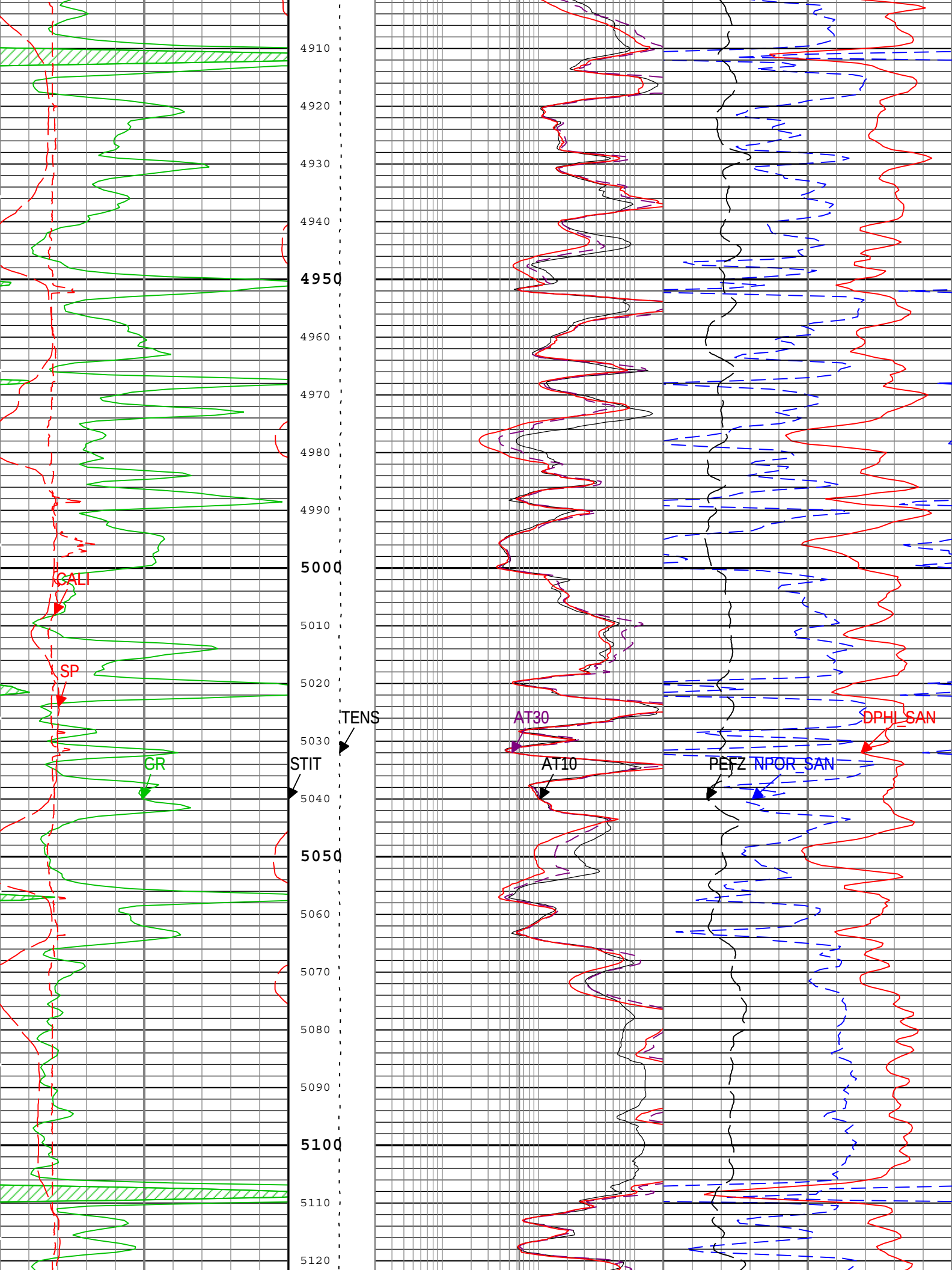
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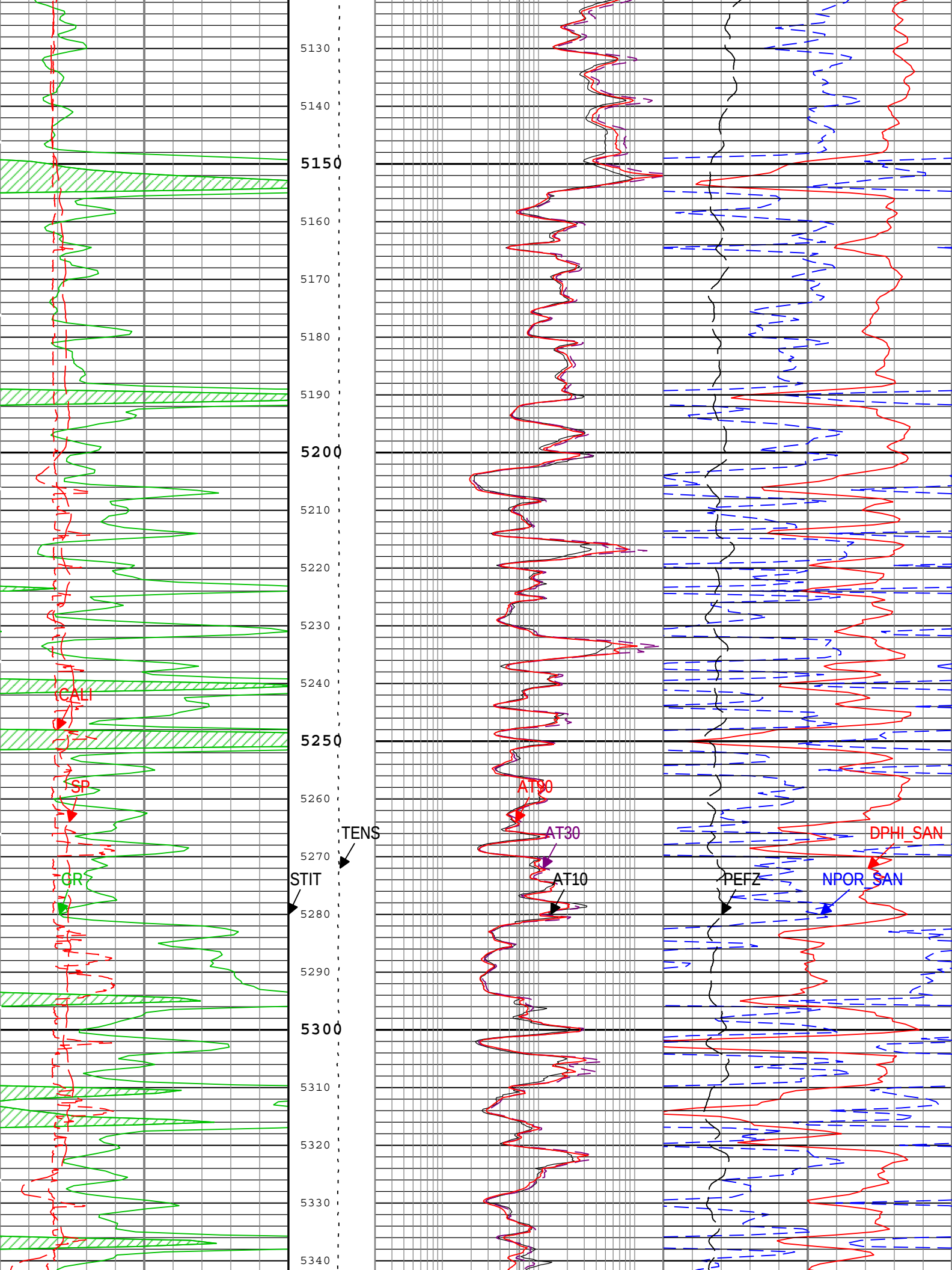
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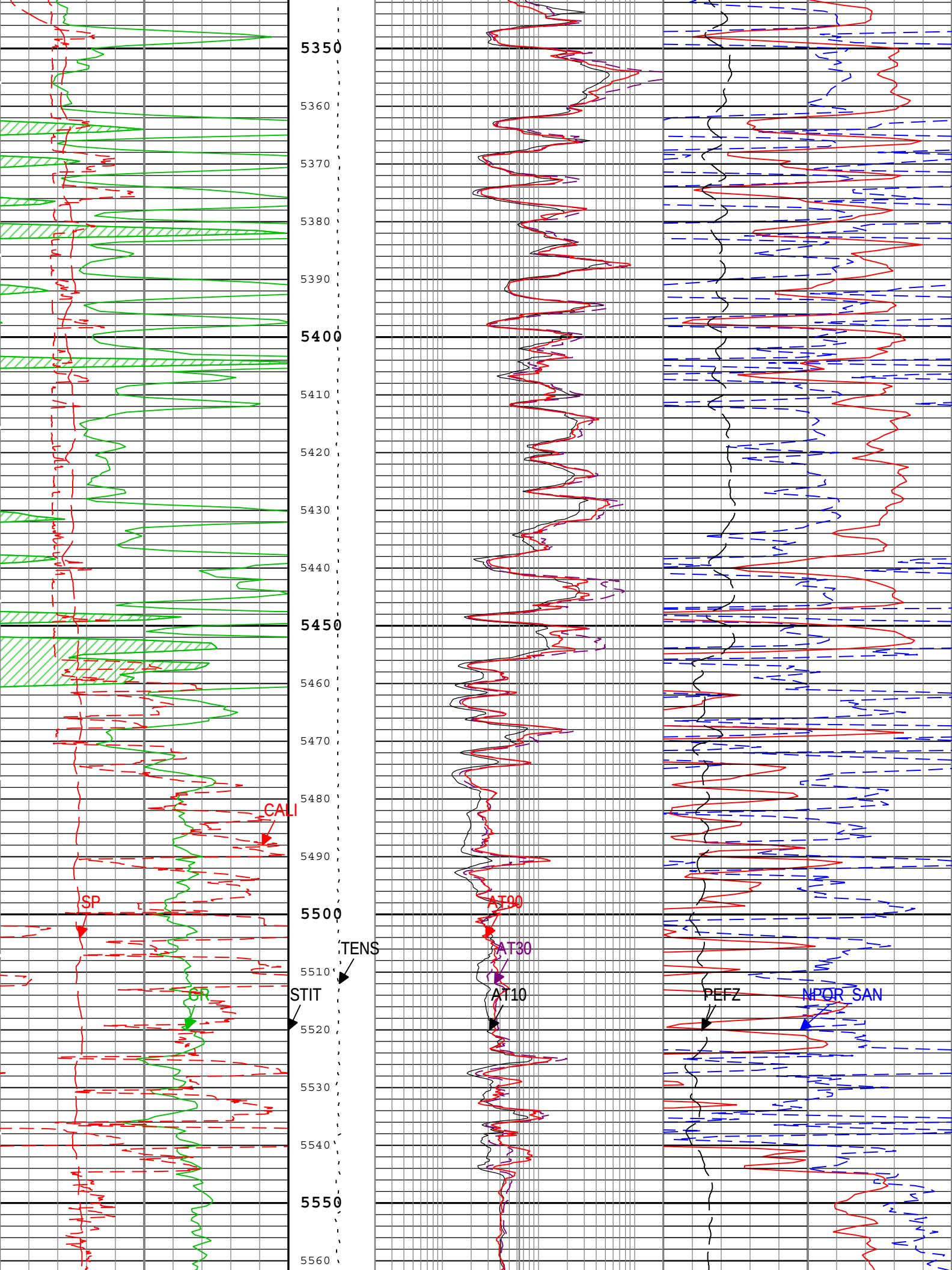
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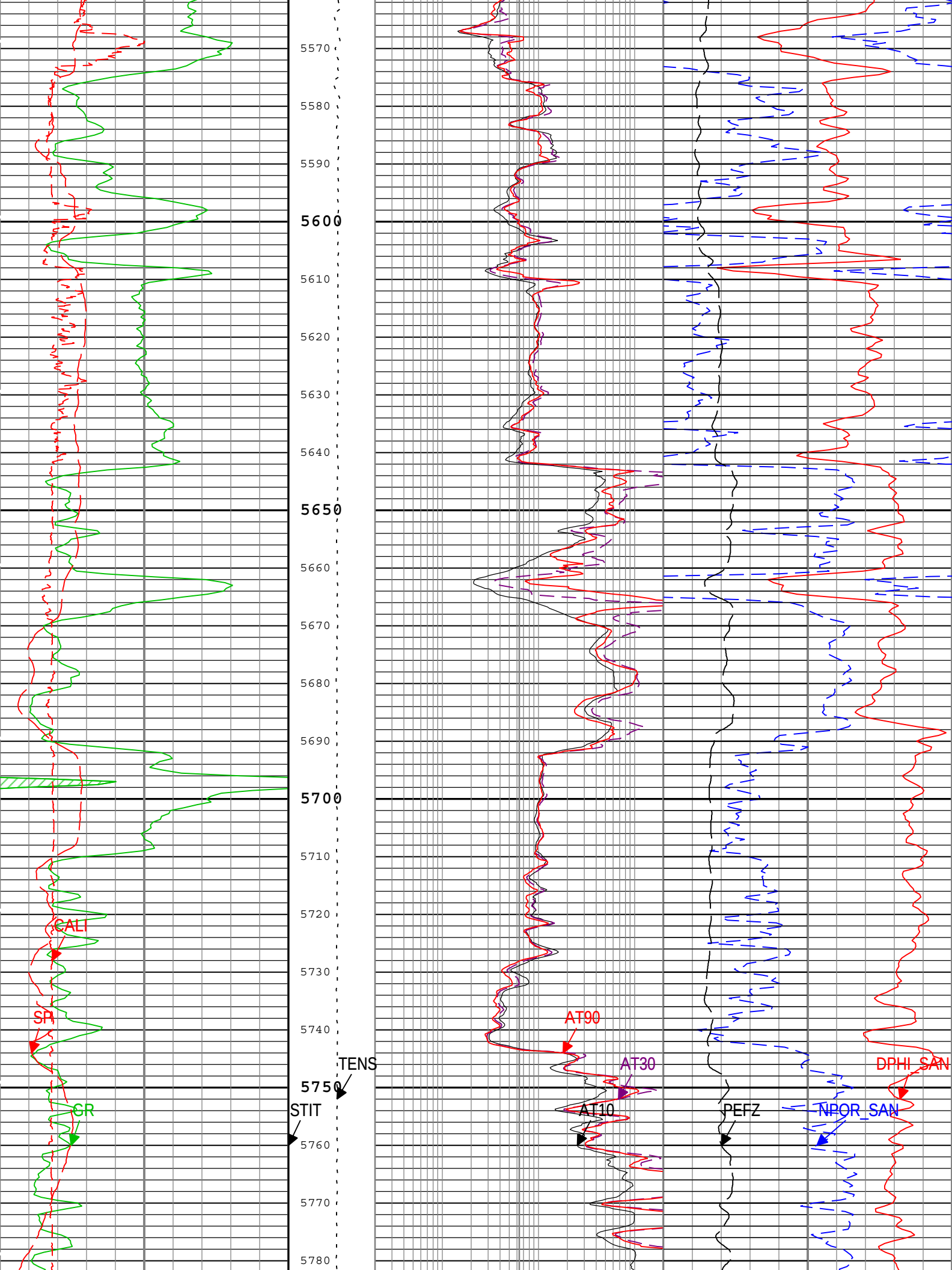
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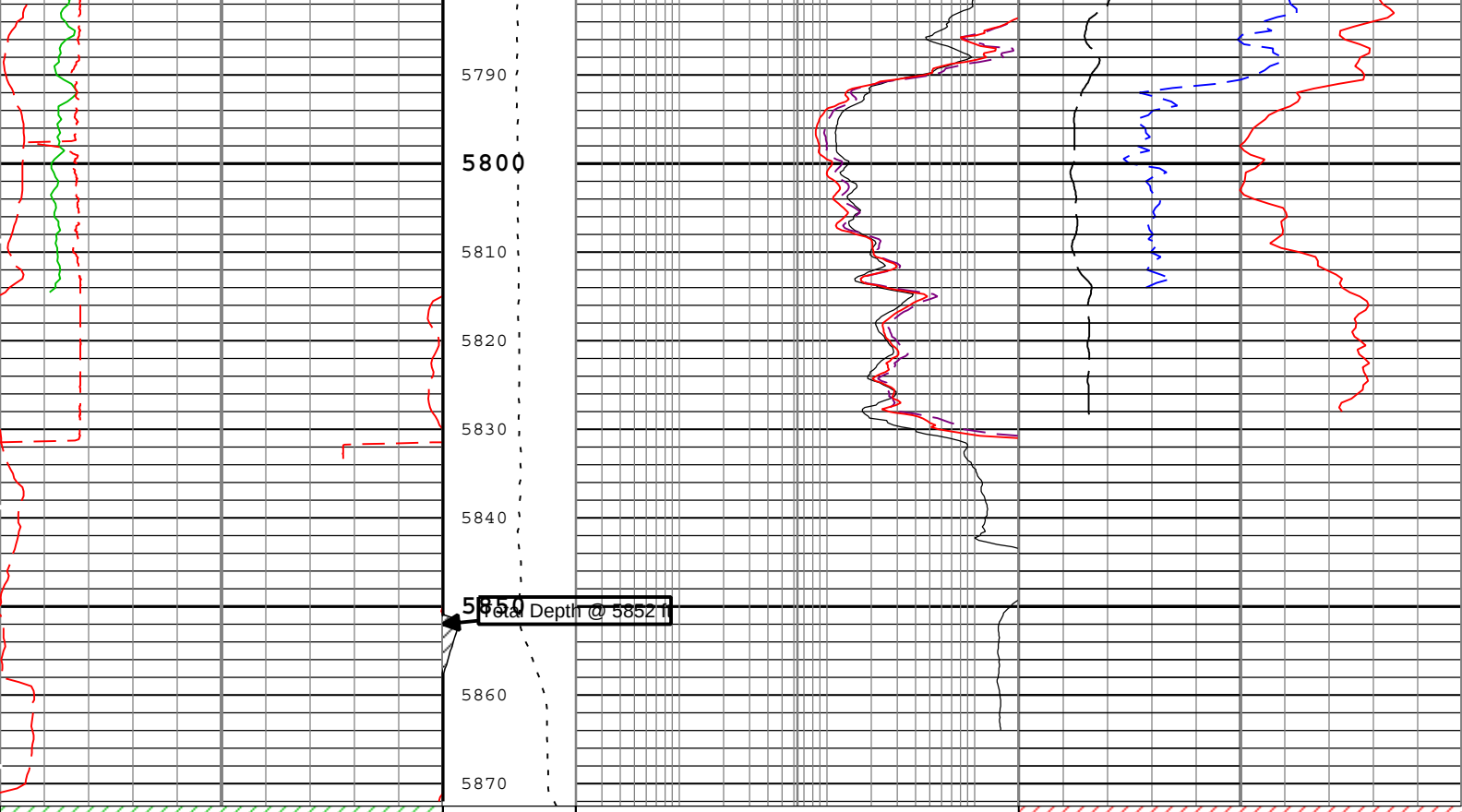


Gamma Ray Back up

Gamma Ray (GR) HGNS-B

0 gAPI 200

Spontaneous Potential (SP) AIT-H

0 mV 200

Caliper (CALI) HDRS-B

6 in 16

Stuck Tool Indicator, Total (STIT)

0 ft 50

Cable Tension (TENS)

6000 lbf 0

Array Induction Two Foot Resistivity A10 (AT10) AIT-H

0.2 ohm.m 200

Array Induction Two Foot Resistivity A30 (AT30) AIT-H

0.2 ohm.m 200

Array Induction Two Foot Resistivity A90 (AT90) AIT-H

0.2 ohm.m 200

Gas Effect

NPOR Backup

Enhanced Thermal Neutron Porosity (matrix Sandstone) (NPOR_SAN) HGNS-B

0.3 ft3/ft3 -0.1

Density Porosity (matrix Sandstone) (DPHI_SAN) HDRS-B

0.3 ft3/ft3 -0.1

Standard Resolution Formation Photoelectric Factor (PEFZ) HDRS-B

0 10

TIME_1900 - Time Marked every 60.00 (s)

Description: HGNS standard resolution porosities for Platform Express Format: Log (EMD 5in Triple Combo) Index Scale: 5 in per 100 ft Index Unit: ft
Index Type: Measured Depth Creation Date: 20-Oct-2012 22:21:22

Channel Processing Parameters

Parameter	Description	Tool	Value	Unit
ABHM	Array Induction Borehole Correction Mode	AIT-H	Compute Standoff	
ABLM	Array Induction Basic Logs Mode	AIT-H	Normal	
ACDE	Array Induction Casing Detection Enable	AIT-H	Yes	
ASTA	Array Induction Tool Standoff	AIT-H	0.625	in
BARI	Barite Mud Presence Flag	Borehole	No	
BHS	Borehole Status (Open or Cased Hole)	Borehole	Open	
BS	Bit Size	WLSESSION	Depth Zoned	in
BSAL	Borehole Salinity	Borehole	500	ppm
CALI_SHIFT	CALI Supplementary Offset	HDRS-B	0.177	in
CBLO	Casing Bottom (Logger)	WLSESSION	427	ft

CBLO	Casing Bottom (Logger)	WLSESSION	427	ft
CDEN	Cement Density	HGNS-B	2	g/cm3
DC_MODE	Depth Correction Mode	DepthCorrection	Real-time	
DFD	Drilling Fluid Density	Borehole	9.2	lbm/gal
DFT	Drilling Fluid Type	Borehole	Water	
DFT_WATER	Drilling Fluid Water Type	Borehole	Chemical Gel	
DHC	Density Hole Correction	HDRS-B	Bit Size	
FD	Fluid Density	Borehole	1	g/cm3
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-B	Yes	
MATR	Rock Matrix for Neutron Porosity Corrections	Borehole	LIMESTONE	
MFST	Mud Filtrate Sample Temperature	Borehole	60.6	degF
NPRM	HRDD Nuclear Processing Mode	HDRS-B	High Resolution	
RMFS	Resistivity of Mud Filtrate Sample	Borehole	1.2	ohm.m
SOCO	Standoff Correction Option	HGNS-B	Yes	
SPDR	SP Drift Per Foot	AIT-H	0	mV/ft
TD	Total Measured Depth	Borehole	5858	ft

Depth Zone Parameters

Parameter	Value	Start (ft)	Stop (ft)
BS	0	29.5	427
BS	7.875	427	5872.5

All depth are actual.

Tool Control Parameters

Parameter	Description	Tool	Value	Unit
HMCA_BRD_TYPE	HMCA Board Type	HGNS-B	0	
HRGD_BRD_TYPE	HRGD Board Type	HDRS-B	WITHOUT_HET	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	1800	ft/h
STSO_HRDD	Temperature Source for the Density Algorithm	HDRS-B	Decaytime algorithm	

Run 1

5" Triple Combo Repeat Analysis

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	Depth Shift	Include Parallel Data
Run 1	Log[4]:Up	Up	5189.39 ft	5874.71 ft	20-Oct-2012 6:59:01 PM	20-Oct-2012 7:11:49 PM	5.99 ft	
Run 1	Log[5]:Up	Up	86.55 ft	5872.33 ft	20-Oct-2012 7:17:25 PM	20-Oct-2012 9:22:44 PM	7.00 ft	

All depths are referenced to toolstring zero

Log

Run 1: Log[5]:Up

Description: HGNS standard resolution porosities for Platform Express Format: Log (EMD 5in Triple Combo RA) Index Scale: 5 in per 100 ft Index Unit: ft
Index Type: Measured Depth Creation Date: 20-Oct-2012 22:21:28

TIME_1900 - Time Marked every 60.00 (s)

Main To Repeat

Repeat To Main

Standard Resolution Formation Photoelectric Factor (PEFZ) HDRS-B

0 10

Main To Repeat

Repeat To Main

Spontaneous Potential (SP) AIT-H

0 mV 200

Main To Repeat

Repeat To Main

Gamma Ray (GR) HGNS-B

200 gAPI 400

Main To Repeat

Repeat To Main

Gamma Ray (GR) HGNS-B

0 gAPI 200

Main To Repeat

Repeat To Main

Cable Tension (TENS)

6000 lbf 0

Main To Repeat

Repeat To Main

Stuck Tool Indicator, Total (STIT)

0 ft 50

Main To Repeat

Repeat To Main

Array Induction Two Foot Resistivity A90 (AT90) AIT-H

0.2 ohm.m 200

Main To Repeat

Repeat To Main

Array Induction Two Foot Resistivity A30 (AT30) AIT-H

0.2 ohm.m 200

Main To Repeat

Repeat To Main

Array Induction Two Foot Resistivity A10 (AT10) AIT-H

0.2 ohm.m 200

Main To Repeat

Repeat To Main

Enhanced Thermal Neutron Porosity in Selected Lithology (NPOR) HGNS-B

-0.1 ft3/ft3 -0.5

Main To Repeat

Repeat To Main

Density Porosity (matrix Sandstone) (DPHI_SAN) HDRS-B

0.3 ft3/ft3 -0.1

Main To Repeat

Repeat To Main

Enhanced Thermal Neutron Porosity (matrix Sandstone) (NPOR_SAN) HGNS-B

0.3 ft3/ft3 -0.1

5260

5270

5280

5290

5300

5310

5320

5330

5340

5350

5360

SP

STIT

TENS

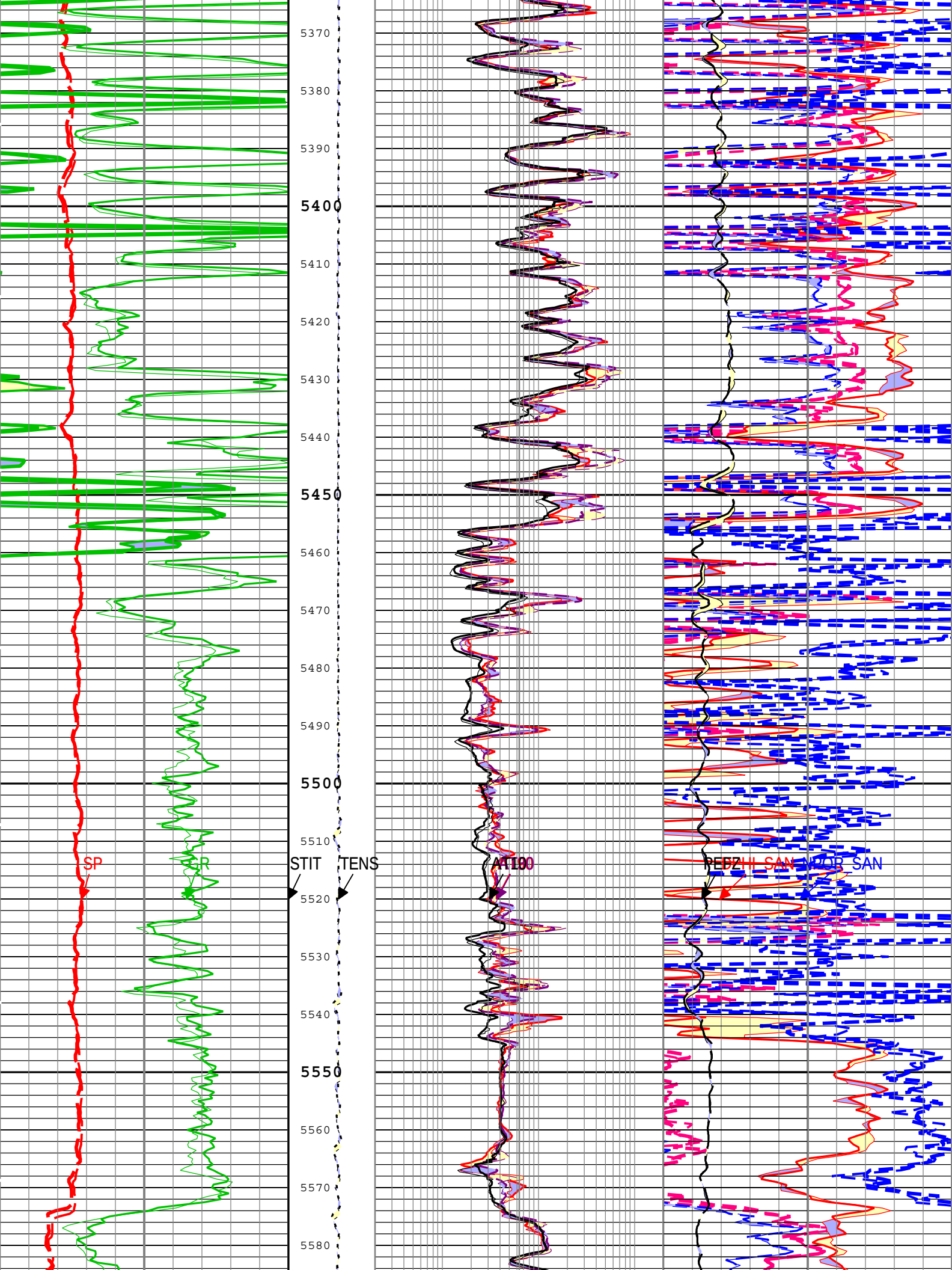
AT90

AT10

PEFZ

NPOR_SAN

DPHI_SAN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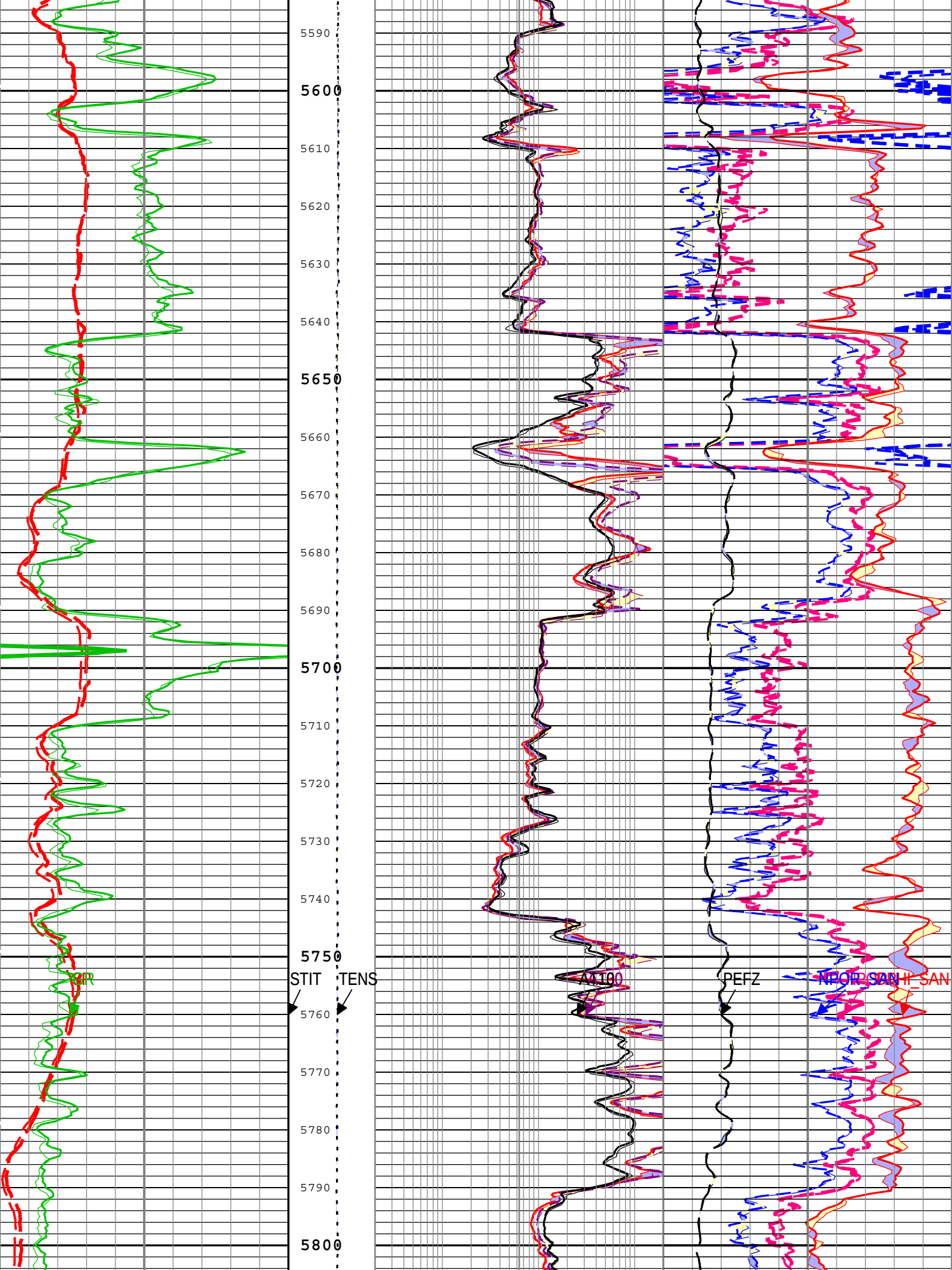
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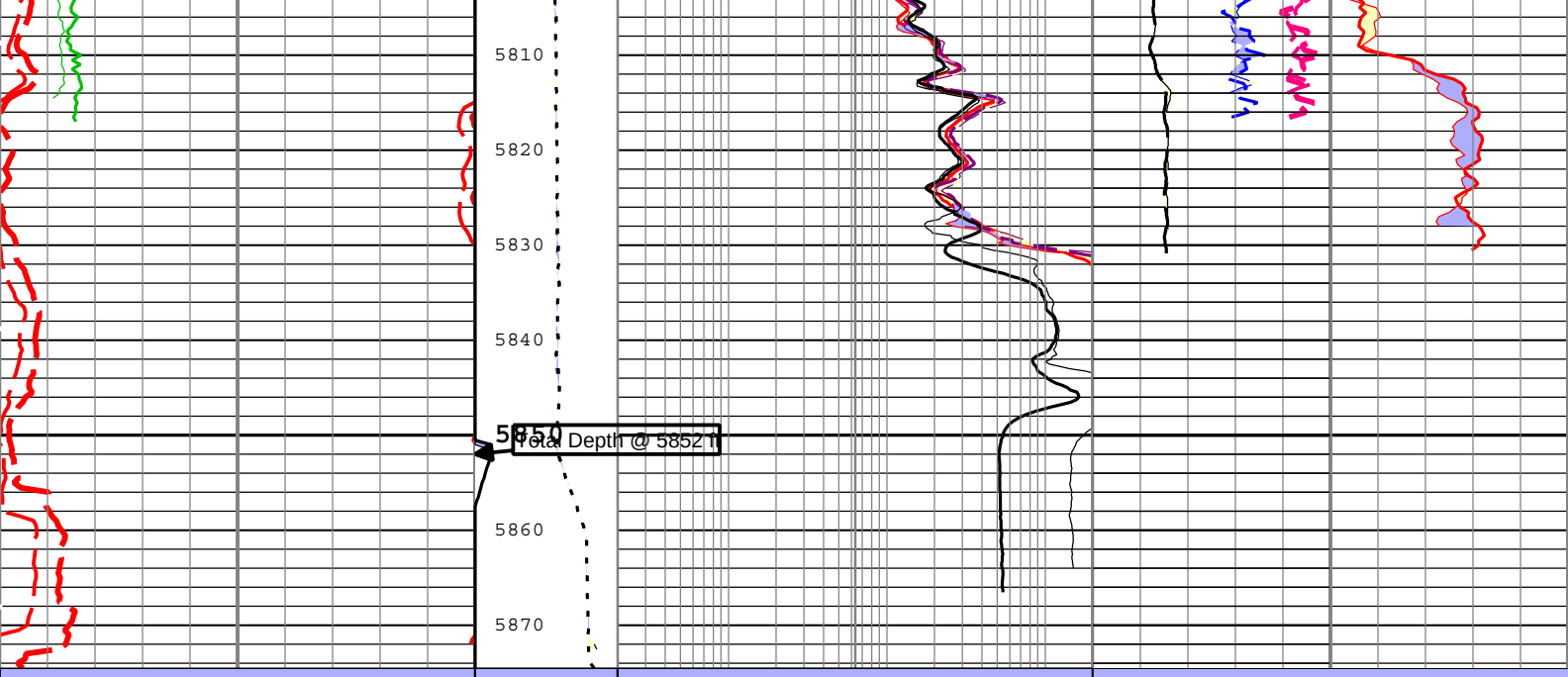
PEFZ



Main To Repeat

Repeat To Main

Spontaneous Potential (SP) AIT-H

0 mV 200

Main To Repeat

Repeat To Main

Gamma Ray (GR) HGNS-B

200 gAPI 400

Main To Repeat

Repeat To Main

Gamma Ray (GR) HGNS-B

0 gAPI 200

Main To Repeat

Repeat To Main

Cable Tension (TENS)

6000 lbf 0

Main To Repeat

Repeat To Main

Stuck Tool Indicator, Total (STIT)

0 ft 50

Main To Repeat

Repeat To Main

Array Induction Two Foot Resistivity A90 (AT90) AIT-H

0.2 ohm.m 200

Main To Repeat

Repeat To Main

Array Induction Two Foot Resistivity A30 (AT30) AIT-H

0.2 ohm.m 200

Main To Repeat

Repeat To Main

Array Induction Two Foot Resistivity A10 (AT10) AIT-H

0.2 ohm.m 200

Main To Repeat

Repeat To Main

Enhanced Thermal Neutron Porosity in Selected Lithology (NPOR) HGNS-B

-0.1 ft3/ft3 -0.5

Main To Repeat

Repeat To Main

Density Porosity (matrix Sandstone) (DPHI_SAN) HDRS-B

0.3 ft3/ft3 -0.1

Main To Repeat

Repeat To Main

Enhanced Thermal Neutron Porosity (matrix Sandstone) (NPOR_SAN) HGNS-B

0.3 ft3/ft3 -0.1

Main To Repeat

Repeat To Main

Standard Resolution Formation Photoelectric Factor (PEFZ) HDRS-B

0 10

TIME_1900 - Time Marked every 60.00 (s)

Description: HGNS standard resolution porosities for Platform Express Format: Log (EMD 5in Triple Combo RA) Index Scale: 5 in per 100 ft Index Unit: ft
Index Type: Measured Depth Creation Date: 20-Oct-2012 22:21:28

Calibration Report

AIT-H (Array Induction Tool - H) Calibration - Run 1

Primary Equipment :

Array Induction Sonde - H	AHIS	398

Auxiliary Equipment :

AITH Rm/SP Bottom Nose AHRM

AIT Sonde Calibration - Test Loop Gain

Master (EEPROM): 10:54:27 13-Sep-2012

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Test Loop Gain - 0		Master	1.000	0.950	1.018	1.050
Test Loop Phase - 0	deg	Master	0	-3.000	0.588	3.000
Test Loop Gain - 1		Master	1.000	0.950	1.019	1.050
Test Loop Phase - 1	deg	Master	0	-3.000	0.646	3.000
Test Loop Gain - 2		Master	1.000	0.950	1.020	1.050
Test Loop Phase - 2	deg	Master	0	-3.000	-0.013	3.000
Test Loop Gain - 3		Master	1.000	0.950	1.018	1.050
Test Loop Phase - 3	deg	Master	0	-3.000	0.040	3.000
Test Loop Gain - 4		Master	1.000	0.950	0.999	1.050
Test Loop Phase - 4	deg	Master	0	-3.000	-0.034	3.000
Test Loop Gain - 5		Master	1.000	0.950	0.992	1.050
Test Loop Phase - 5	deg	Master	0	-3.000	-0.222	3.000
Test Loop Gain - 6		Master	1.000	0.950	1.000	1.050
Test Loop Phase - 6	deg	Master	0	-3.000	0.151	3.000
Test Loop Gain - 7		Master	1.000	0.950	1.015	1.050
Test Loop Phase - 7	deg	Master	0	-3.000	-0.171	3.000

AIT Sonde Calibration - Sonde Error Correction

Master (EEPROM): 10:54:27 13-Sep-2012

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Sonde Error Correction Real - 0	mS/m	Master	-----	-231.000	-83.485	119.000
Sonde Error Correction Quad - 0		Master	-----	-2250.000	113.456	2250.000
Sonde Error Correction Real - 1	mS/m	Master	-----	114.000	170.122	204.000
Sonde Error Correction Quad - 1		Master	-----	-625.000	141.828	625.000
Sonde Error Correction Real - 2	mS/m	Master	-----	66.000	113.188	156.000
Sonde Error Correction Quad - 2		Master	-----	-350.000	31.028	350.000
Sonde Error Correction Real - 3	mS/m	Master	-----	39.000	59.559	89.000
Sonde Error Correction Quad - 3		Master	-----	-250.000	44.859	250.000
Sonde Error Correction Real - 4	mS/m	Master	-----	15.000	23.005	35.000
Sonde Error Correction Quad - 4		Master	-----	-63.000	-11.754	63.000
Sonde Error Correction Real - 5	mS/m	Master	-----	4.000	14.030	24.000
Sonde Error Correction Quad - 5		Master	-----	-50.000	2.131	50.000
Sonde Error Correction Real - 6	mS/m	Master	-----	5.000	9.683	15.000
Sonde Error Correction Quad - 6		Master	-----	-30.000	4.940	30.000
Sonde Error Correction Real - 7	mS/m	Master	-----	-5.000	-1.093	5.000
Sonde Error Correction Quad - 7		Master	-----	-30.000	3.075	30.000

AIT Mud Calibration - Mud Calibration Gain

Master (EEPROM): 10:54:27 13-Sep-2012

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Coarse Gain		Master	1.000	0.800	0.821	1.200
Fine Gain		Master	1.000	0.800	0.823	1.200

AIT Electronics Check - Thru Calibration Check

Master (EEPROM): 10:54:27 13-Sep-2012 Before (Measured): 11:48:31 19-Oct-2012 After:

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Thru Cal Mag - 0	V	Master	-----	0.363	0.627	0.847
		Before	-----	0.363	0.627	0.847
		After	-----	-----	-----	-----
		Before-Master	-----	-----	0.000	-----
		After-Before	-----	-----	-----	-----
Thru Cal Phase - 0	deg	Master	-----	11.000	74.608	131.000
		Before	-----	11.000	75.213	131.000
		After	-----	-----	-----	-----
		Before-Master	-----	-----	0.605	-----
		After-Before	-----	-----	-----	-----
Thru Cal Mag - 1	V	Master	-----	0.762	1.285	1.778
		Before	-----	0.762	1.286	1.778
		After	-----	-----	-----	-----
		Before-Master	-----	-----	0.001	-----
		After-Before	-----	-----	-----	-----

Thru Cal Phase - 1	deg	Master	-----	10.000	73.598	130.000
		Before	-----	10.000	74.210	130.000
		After	-----	-----	-----	-----
		Before-Master	-----	-----	0.612	-----
		After-Before	-----	-----	-----	-----
Thru Cal Mag - 2	V	Master	-----	0.374	0.637	0.872
		Before	-----	0.374	0.637	0.872
		After	-----	-----	-----	-----
		Before-Master	-----	-----	0.000	-----
		After-Before	-----	-----	-----	-----
Thru Cal Phase - 2	deg	Master	-----	6.000	69.416	126.000
		Before	-----	6.000	70.058	126.000
		After	-----	-----	-----	-----
		Before-Master	-----	-----	0.642	-----
		After-Before	-----	-----	-----	-----
Thru Cal Mag - 3	V	Master	-----	0.422	0.723	0.986
		Before	-----	0.422	0.724	0.986
		After	-----	-----	-----	-----
		Before-Master	-----	-----	0.001	-----
		After-Before	-----	-----	-----	-----
Thru Cal Phase - 3	deg	Master	-----	5.000	68.514	125.000
		Before	-----	5.000	69.159	125.000
		After	-----	-----	-----	-----
		Before-Master	-----	-----	0.645	-----
		After-Before	-----	-----	-----	-----
Thru Cal Mag - 4	V	Master	-----	0.802	1.349	1.872
		Before	-----	0.802	1.349	1.872
		After	-----	-----	-----	-----
		Before-Master	-----	-----	0.000	-----
		After-Before	-----	-----	-----	-----
Thru Cal Phase - 4	deg	Master	-----	-1.000	61.558	119.000
		Before	-----	-1.000	62.244	119.000
		After	-----	-----	-----	-----
		Before-Master	-----	-----	0.686	-----
		After-Before	-----	-----	-----	-----
Thru Cal Mag - 5	V	Master	-----	1.173	1.947	2.737
		Before	-----	1.173	1.949	2.737
		After	-----	-----	-----	-----
		Before-Master	-----	-----	0.002	-----
		After-Before	-----	-----	-----	-----
Thru Cal Phase - 5	deg	Master	-----	-3.000	59.409	117.000
		Before	-----	-3.000	60.127	117.000
		After	-----	-----	-----	-----
		Before-Master	-----	-----	0.718	-----
		After-Before	-----	-----	-----	-----
Thru Cal Mag - 6	V	Master	-----	1.173	1.943	2.737
		Before	-----	1.173	1.944	2.737
		After	-----	-----	-----	-----
		Before-Master	-----	-----	0.001	-----
		After-Before	-----	-----	-----	-----
Thru Cal Phase - 6	deg	Master	-----	-3.000	59.473	117.000
		Before	-----	-3.000	60.190	117.000
		After	-----	-----	-----	-----
		Before-Master	-----	-----	0.717	-----
		After-Before	-----	-----	-----	-----
Thru Cal Mag - 7	V	Master	-----	0.849	1.382	1.981
		Before	-----	0.849	1.385	1.981
		After	-----	-----	-----	-----
		Before-Master	-----	-----	0.003	-----
		After-Before	-----	-----	-----	-----
Thru Cal Phase - 7	deg	Master	-----	-7.000	53.953	113.000
		Before	-----	-7.000	54.946	113.000
		After	-----	-----	-----	-----
		Before-Master	-----	-----	0.993	-----
		After-Before	-----	-----	-----	-----
SPA Zero	mV	Master		-50.000	-0.053	50.000
		Before		-50.000	-0.076	50.000
		After	-----	-----	-----	-----

		Before-Master	-----	-----	-0.023	-----	
		After-Before	-----	-----	-----	-----	
SPA Plus	mV	Master		941.000	993.658	1040.000	
		Before		941.000	993.809	1040.000	
		After	-----	-----	-----	-----	
		Before-Master	-----	-----	0.151	-----	
		After-Before	-----	-----	-----	-----	
Temperature Zero	V	Master		-0.050	0.000	0.050	
		Before		-0.050	0.000	0.050	
		After	-----	-----	-----	-----	
		Before-Master	-----	-----	0.000	-----	
		After-Before	-----	-----	-----	-----	
Temperature Plus	V	Master		0.870	0.920	0.960	
		Before		0.870	0.921	0.960	
		After	-----	-----	-----	-----	
		Before-Master	-----	-----	0.001	-----	
		After-Before	-----	-----	-----	-----	

DSLT-H (Digitizing Sonic Logging Tool - H) Calibration - Run 1

Primary Equipment :

Sonic Logging Sonde E supports 3'-5'BHC DT and CBL/VDL	SLS-E	

CBL Normalization - CBL Accumulations

Master:

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Upper Far Amplitude - 0		Master	-----	-----	-----	-----
Upper Near Raw Amplitude - 0	mV	Master	-----	-----	-----	-----
Lower Far Amplitude - 0		Master	-----	-----	-----	-----
Lower Near Raw Amplitude - 0	mV	Master	-----	-----	-----	-----

CBL Normalization - CBL/VDL Coefficients

Master:

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
CBL Correction Factor for UT		Master	3.500	2.700	NOT DONE	4.300
CBL Correction Factor for LT		Master	2.500	1.700	NOT DONE	4.300
VDL Ratio between UT and LT for CBLB Mode		Master	1.000		NOT DONE	

CBL Free Pipe Adjustment - Free Pipe Measurement

Before:

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
CBL Amplitude - 0	mV	Before	-----	-----	-----	-----
CBL Reference Amplitude (CBRA) - 0	mV	Before	-----	-----	-----	-----
Measurement Depth - 0	ft	Before	-----	-----	-----	-----

CBL Free Pipe Adjustment - CBL Amplitude Coefficient

Before:

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
CBL Adjustment Factor		Before	1.000	0.200	NOT DONE	5.000
Depth of Before Calibration	ft	Before			NOT DONE	

HDRS-B (HILT Density and Rxo Sonde, 125 degC) Calibration - Run 1

Primary Equipment :

HILT High-Resolution Control Cartridge, 125 degC	HRCC-B	
HILT Resistivity Gamma-Ray Density Device, 125 degC	HRGD-B	1849

Auxiliary Equipment :

HRDD Backscatter Detector	Backscatter	
HRDD Long Spacing Detector	Long Spacing	
HRDD Short Spacing Detector	Short Spacing	
Cesium 137 Gamma-Ray Logging Source	GSR-J	5094
HILT High-Resolution Control Cartridge, 125 degC	HRCC-B	
HILT High-Resolution Mechanical Sonde, 125 degC	HRMS-B	

Calibration Parameter :

Calibration Parameters:

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): 11:51:28 19-Oct-2012

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Small Ring	in	Before	8.00	6.00	7.99	10.00
Large Ring	in	Before	12.00	9.00	12.09	15.00

HDRS Density Calibration - Inversion Results

Master (EEPROM): 16:18:56 18-Oct-2012

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Rho Aluminum	g/cm3	Master	2.596	2.586	2.600	2.606
Rho Magnesium	g/cm3	Master	1.686	1.676	1.686	1.696
Pe Aluminum		Master	2.570	2.470	2.588	2.670
Pe Magnesium		Master	2.650	2.550	2.614	2.750

HDRS Density Calibration - Deviation Summary

Master (EEPROM): 16:18:56 18-Oct-2012

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
BS Average Deviation	%	Master	0	-0.6000	0.4849	0.6000
BS Max Deviation	%	Master	0	-1.6000	0.9095	1.6000
SS Average Deviation	%	Master	0	-1.0000	0.3256	1.0000
SS Max Deviation	%	Master	0	-2.5000	1.2957	2.5000
LS Average Deviation	%	Master	0	-1.5000	0.7590	1.5000
LS Max Deviation	%	Master	0	-3.5000	2.1887	3.5000

HDRS Density Calibration - Background Summary

Master (EEPROM): 16:18:56 18-Oct-2012 Before (Measured): 11:50:14 19-Oct-2012

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
BS Window Ratio		Master	1.0000		0.7390	
		Before	0.7390	0.7020	0.7351	0.7759
		Before-Master	-----	-----	-0.0039	-----
BS Window Sum	1/s	Master	1		9572	
		Before	9572	9094	9582	10051
		Before-Master	-----	-----	10	-----
SS Window Ratio		Master	1.0000		0.4947	
		Before	0.4947	0.4699	0.4952	0.5194
		Before-Master	-----	-----	0.0005	-----
SS Window Sum	1/s	Master	1		9181	
		Before	9181	8722	9178	9640
		Before-Master	-----	-----	-3	-----
LS Window Ratio		Master	1.0000		0.3001	
		Before	0.3001	0.2851	0.2988	0.3151
		Before-Master	-----	-----	-0.0013	-----
LS Window Sum	1/s	Master	1		1075	
		Before	1075	1021	1075	1128
		Before-Master	-----	-----	0	-----

HDRS Density Calibration - Photo-multiplier High Voltages

Master (EEPROM): 16:18:56 18-Oct-2012 Before (Measured): 11:50:14 19-Oct-2012

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
BS PM High Voltage	V	Master		1000	1626	2400
		Before		1000	1621	2400
		Before-Master	-----	-100	-5	100
SS PM High Voltage	V	Master		1000	1680	2400
		Before		1000	1698	2400
		Before-Master	-----	-100	18	100
LS PM High Voltage	V	Master		1000	1585	2400
		Before		1000	1580	2400
		Before-Master	-----	-100	-5	100

HDRS Density Calibration - Crystal Quality Resolutions

Master (EEPROM): 16:18:56 18-Oct-2012 Before (Measured): 11:50:14 19-Oct-2012

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
BS Crystal Resolution	%	Master		5.00	11.86	25.00
		Before		5.00	11.85	25.00
		Before-Master	-----	-1.00	-0.01	1.00

SS Crystal Resolution	%	Master		5.00	10.00	20.00
		Before		5.00	10.31	20.00
		Before-Master	-----	-1.00	0.31	1.00
LS Crystal Resolution	%	Master		5.00	9.55	20.00
		Before		5.00	9.61	20.00
		Before-Master	-----	-1.00	0.06	1.00

HDRS MCFL Calibration - MCFL Accumulations

Before (Measured): 11:46:45 19-Oct-2012

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Main Resistivity	ohm.m	Before	3875	3565	3831	4185
Deep Resistivity	ohm.m	Before	3830	3524	3793	4136
Shallow Resistivity	ohm.m	Before	3830	3524	3818	4136

HGNS-B (HILT Gamma-Ray and Neutron Sonde, 125 degC) Calibration - Run 1

Primary Equipment :

HILT Gamma-Ray and Neutron Sonde, 125 degC	HGNS-B	

Auxiliary Equipment :

HGNS Accelerometer, 125 degC	HACCZ-B	749
AmBe Neutron Logging Source	NSR-F	5069

Calibration Parameter :

Water Temperature	
Housing Size	
JIG-BKG (Jig minus background reference)	165

HGNS Accelerometer Calibration - Accelerometer Accumulations

Before (Measured): 08:47:31 20-Oct-2012

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-Mar-2001

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Accelerometer Manufacturer		Master			Sunstrand	
Accelerometer Reference Temperature	degF	Master		30.2	68.0	122.0
Accelerometer Coefficients - 0		Master	-----	-----	-5693.000	-----
Accelerometer Coefficients - 1		Master	-----	-----	20.390	-----
Accelerometer Coefficients - 2		Master	-----	-----	-0.031	-----
Accelerometer Coefficients - 3		Master	-----	-----	0.000	-----
Accelerometer Coefficients - 4		Master	-----	-----	2.141	-----
Accelerometer Coefficients - 5		Master	-----	-----	0.000	-----
Accelerometer Coefficients - 6		Master	-----	-----	0.000	-----
Accelerometer Coefficients - 7		Master	-----	-----	0.000	-----
Accelerometer Coefficients - 8		Master	-----	-----	295.800	-----
Accelerometer Coefficients - 9		Master	-----	-----	1.031	-----

HGNS Neutron Calibration - HGNS Neutron Accumulations

Master (EEPROM): 14:24:00 13-Aug-2012 Before (Measured): 11:47:49 19-Oct-2012 After:

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Near Zero Measurement	1/s	Master	0	5.0	26.7	40.0
		Before	0	5.0	27.2	40.0
		After	-----	-----	-----	-----
		Before-Master	-----	-4.0	0.5	4.0
		After-Before	-----	-----	-----	-----
Far Zero Measurement	1/s	Master	0	5.0	27.2	40.0
		Before	0	5.0	28.1	40.0
		After	-----	-----	-----	-----
		Before-Master	-----	-4.1	0.9	4.1
		After-Before	-----	-----	-----	-----
Near Plus Measurement - 0	1/s	Master	6031.0	4700.0	4957.0	6900.0
		Before	-----	-----	-----	-----
		After	-----	-----	-----	-----

		Before-Master	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
Far Plus Measurement - 0	1/s	Master	2793.0	1900.0	2098.0	2900.0	
		Before	-----	-----	-----	-----	
		After	-----	-----	-----	-----	
		Before-Master	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
Near Corrected Plus Measurement - 0	1/s	Master		4700.0	4976.0	6900.0	
		Before	-----	-----	-----	-----	
		After	-----	-----	-----	-----	
		Before-Master	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
Far Corrected Plus Measurement - 0	1/s	Master		1900.0	2100.0	2900.0	
		Before	-----	-----	-----	-----	
		After	-----	-----	-----	-----	
		Before-Master	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	

HGNS Gamma-Ray Calibration - Gamma-Ray Accumulations

Before (Measured): 11:52:01 19-Oct-2012 After:

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
RGR Zero Measurement	gAPI	Before	30.0	0	80.7	120.0	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
RGR Plus Measurement	gAPI	Before	185.4	157.1	178.0	206.3	
		After			NOT DONE		
		After-Before	-----	-----	-----	-----	
GR Calibration Gain		Before	0.89	0.80	0.93	1.05	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	

Company: Vecta Oil & Gas Ltd

Schlumberger

Well: Snowmass 44-32

Field: Wildcat

County: Cheyenne

Country: USA

Platform Express

Triple Combo