

Schlumberger

Company: **Ominex Petroleum Inc**

Well: **Vega 4-29-1-49**

Field: **Wildcat**

County: **Washington**

State: **Colorado**

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Field: **Wildcat**
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1

[illegible]

Logging Date					
Run Number					
Depth Driller					
Schlumberger Depth					
Bottom Log Interval					
Top Log Interval					
Casing Driller Size @ Depth		@			
Casing Schlumberger					
Bit Size					
Type Fluid In Hole					
Density		Viscosity			
Fluid Loss		PH			
Source Of Sample					
RM @ Measured Temperature		@			
RMF @ Measured Temperature		@			
RMC @ Measured Temperature		@			
Source RMF		RMF			
RM @ MRT		RMF @ MRT	@		@
Maximum Recorded Temperatures					
Circulation Stopped		Time			
Logger On Bottom		Time			
Unit Number		Location			
Recorded By					
Witnessed By					

[illegible]

DEPTH SUMMARY LISTING

Date Created: 5-AUG-2013 10:38:55

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW-B	Type:	CMTD-B/A	Type:	7-46P-XS
Serial Number:	5852	Serial Number:	1919	Serial Number:	
Calibration Date:	12-July-2013	Calibration Date:	31-July-2013	Length:	24000 FT
Calibrator Serial Number:		Calibrator Serial Number:	78135	Conveyance Method:	Wireline
Calibration Cable Type:	7-46P-XS	Number of Calibration Points:	10	Rig Type:	LAND
Wheel Correction 1:	-4	Calibration RMS:	20		
Wheel Correction 2:	-3	Calibration Peak Error:	37		

Depth Control Parameters

Log Sequence:	First Log In the Well
Rig Up Length At Surface:	0.00 FT
Rig Up Length At Bottom:	0.00 FT
Rig Up Length Correction:	0.00 FT
Stretch Correction:	6.00 FT
Tool Zero Check At Surface:	










Depth Control Remarks

1. All Schlumberger depth policies followed.
2. IDW used as primary depth reference. Z-Chart used as secondary.
- 3.
- 4.
- 5.
- 6.

DISCLAIMER

THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE OF AND RELIANCE UPON THE RECORDED-DATA; AND (c) CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISION MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA.

OTHER SERVICES1	OTHER SERVICES2
OS1: CMR	OS1:
OS2: BHC	OS2:
OS3: MDT	OS3:
OS4:	OS4:
OS5:	OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
This is the first run in hole	
Toolstring run as per tool sketch	
Matrix: Limestone (2.71 g/cc)	

Rig: Excel Rig 3					
Crew: Ian Derry, Jake Jump					
RUN 1 SERVICE ORDER #: CCN1-00019 PROGRAM VERSION: 19C2-270 FLUID LEVEL: 200 ft			RUN 2 SERVICE ORDER #: PROGRAM VERSION: FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP
EQUIPMENT DESCRIPTION					
RUN 1			RUN 2		
SURFACE EQUIPMENT WITM (DTS)-A GSR-U/Y NCT-B CNB-AB NCS-VB					
DOWNHOLE EQUIPMENT					
LEH-QT			83.8		
LEH-QT					
DTC-H	CTEM		80.0		
ECH-KC	TelStatus		80.9		
	ToolStatu		77.9		
CMRT-B			77.9		
CMRH-AA					
CMRS-BA 265					
CMRC-B 283					
EME-F					
					
	CMR-B Raw				
	CMR-B Sen		64.2		
	CMR-B Dia		62.3		
AH-107			62.3		
AH-107					
AH-107	HGNS HTEM		60.3		
AH-107	HMCA		58.3		
HILTH-FTB	HGNS Gamm		57.5		
58.3					
HGNSD-H					
HMCA-H					
HGNH	HGNS Neut		51.7		
NLS-KL	HGNS Neut		51.2		
NSR-F 2554					
HACCZ-H 6991	HGNS sens		48.9		
HCNT-H					
HGR					
HRCC-H	HRCC cart		44.9		
HRMS-H	MCFL		39.4		
HRGD-H	HILT cali		39.0		
GLS-VJ 5471	HRDD-LS				
MCFL Device-H	HRDD-SS				
HILT Nucl. LS-H 28620	HRDD-BS		38.6		
HILT Nucl. SS-H 42767					
HILT Nucl. BS-H 42767					
BOW-SPR			36.6		
DSLT-FTB					

USLC-B
ECH-KH
SLS-W

USN
UHN
USF UHF
LSF LHF
LHN
LSN
DSLT Aux.

24.2
23.4
23.2
20.4
20.2
19.4

16.0

HAIT-H
AHIS-BA 216
AHRM-A

Induction
Temperatu
Power Sup
SP SENSOR
DF
HTEN HMAS HV
Accelerom
Mud Resis
Tension

7.9

0.1

0.0

TOOL ZERO

16.0

1.0 IN
Standoff

1.0 IN
Standoff

MAXIMUM STRING DIAMETER 6.60 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN FEET

Schlumberger

LINEAR INDUCTION 2" = 100'

MAXIS Field Log

Input DLIS Files

DEFAULT	Splice_AIT_SONIC_032CUP	FN:1	PRODUCER	05-Aug-2013 19:39	6816.0 FT	99.5 FT
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Output DLIS Files

DEFAULT	AIT_SONIC_TLD_MCFL_033PUP	FN:31	PRODUCER	05-Aug-2013 19:41	6816.0 FT	100.0 FT
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Integrated Hole/Cement Volume Summary

Hole Volume = 2937.84 F3

Cement Volume = 1901.06 F3 (assuming 5.50 IN casing O.D.)

Computed from 6800.0 FT to 516.0 FT using data channel(s) HCAL

OP System Version: 19C2-270

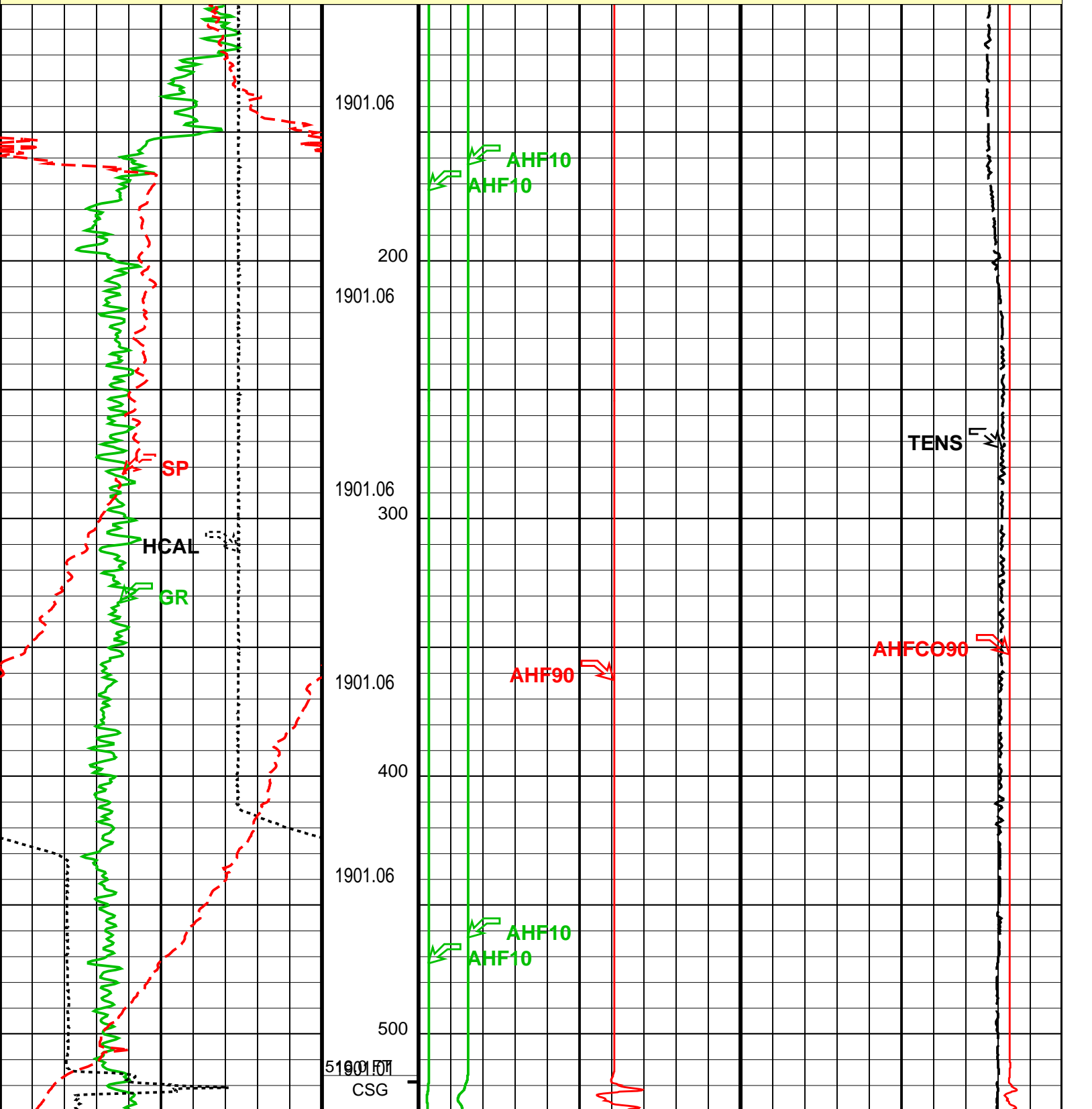
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HILTH-FTB	19C2-270	CMRT-B	19C2-270
DTC-H	19C2-270		

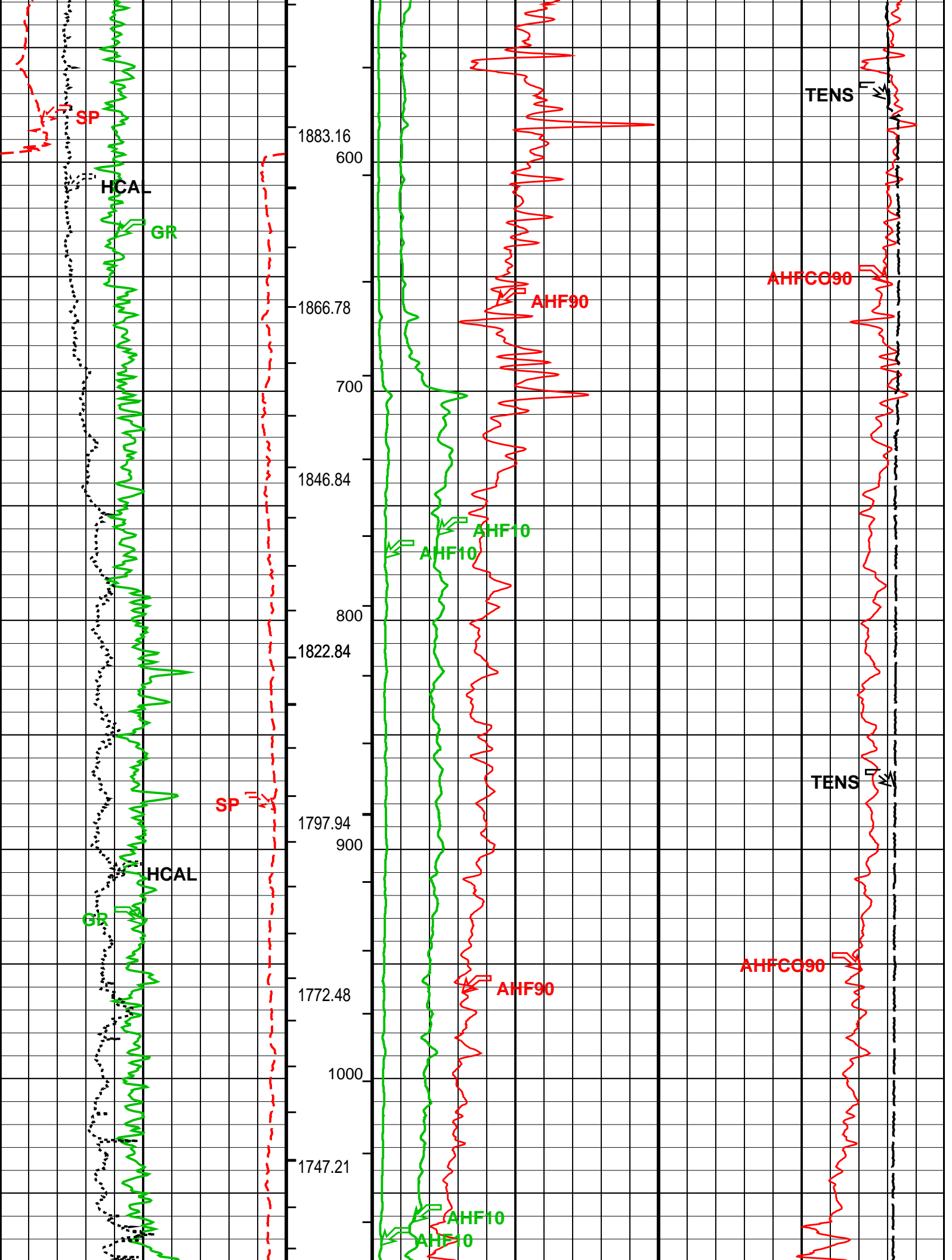
PIP SUMMARY

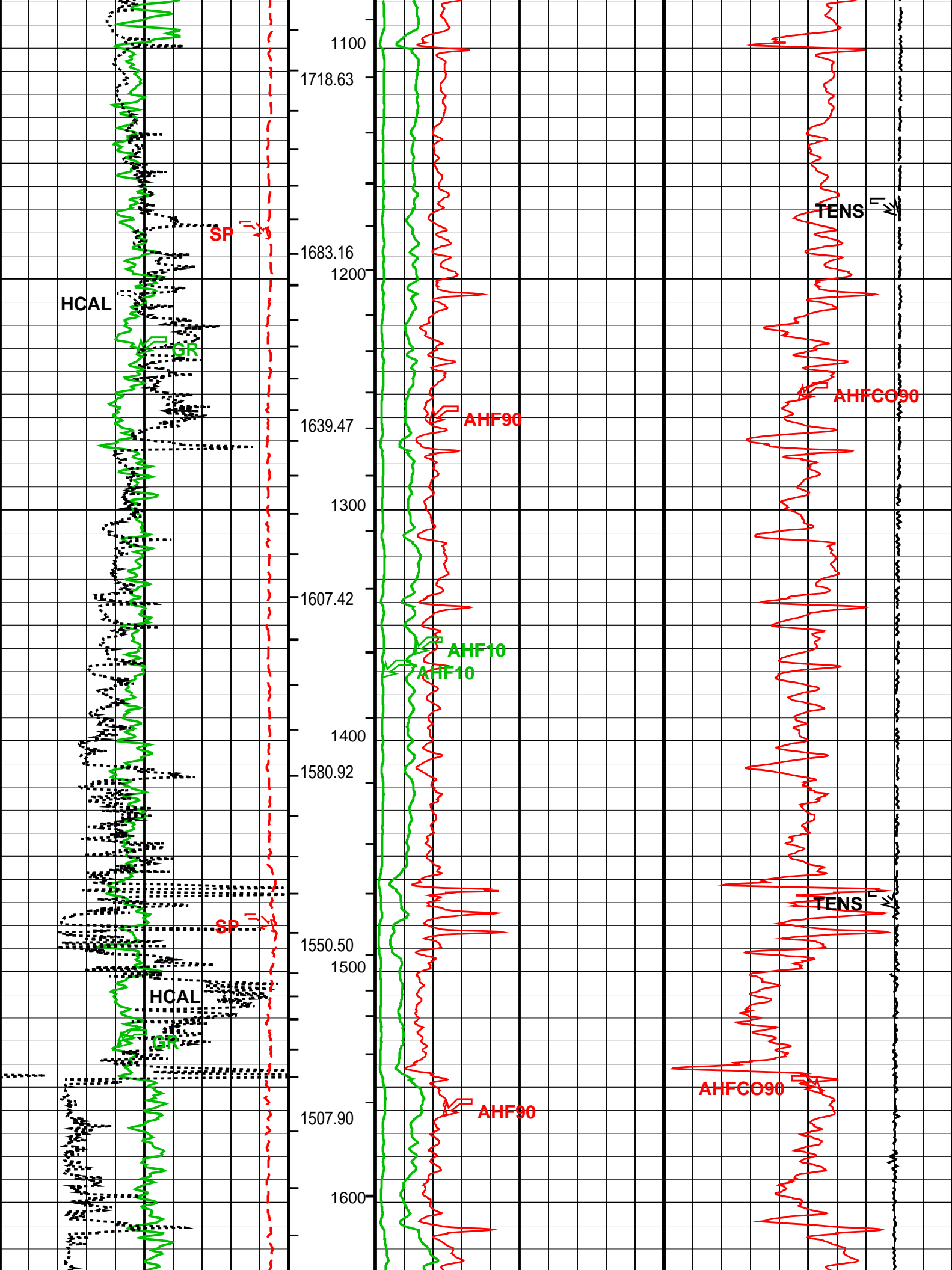
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 └ Integrated Cement Volume Minor Pip Every 10 F3
 └ Integrated Hole Volume Major Pip Every 100 F3
 └ Integrated Hole Volume Minor Pip Every 10 F3

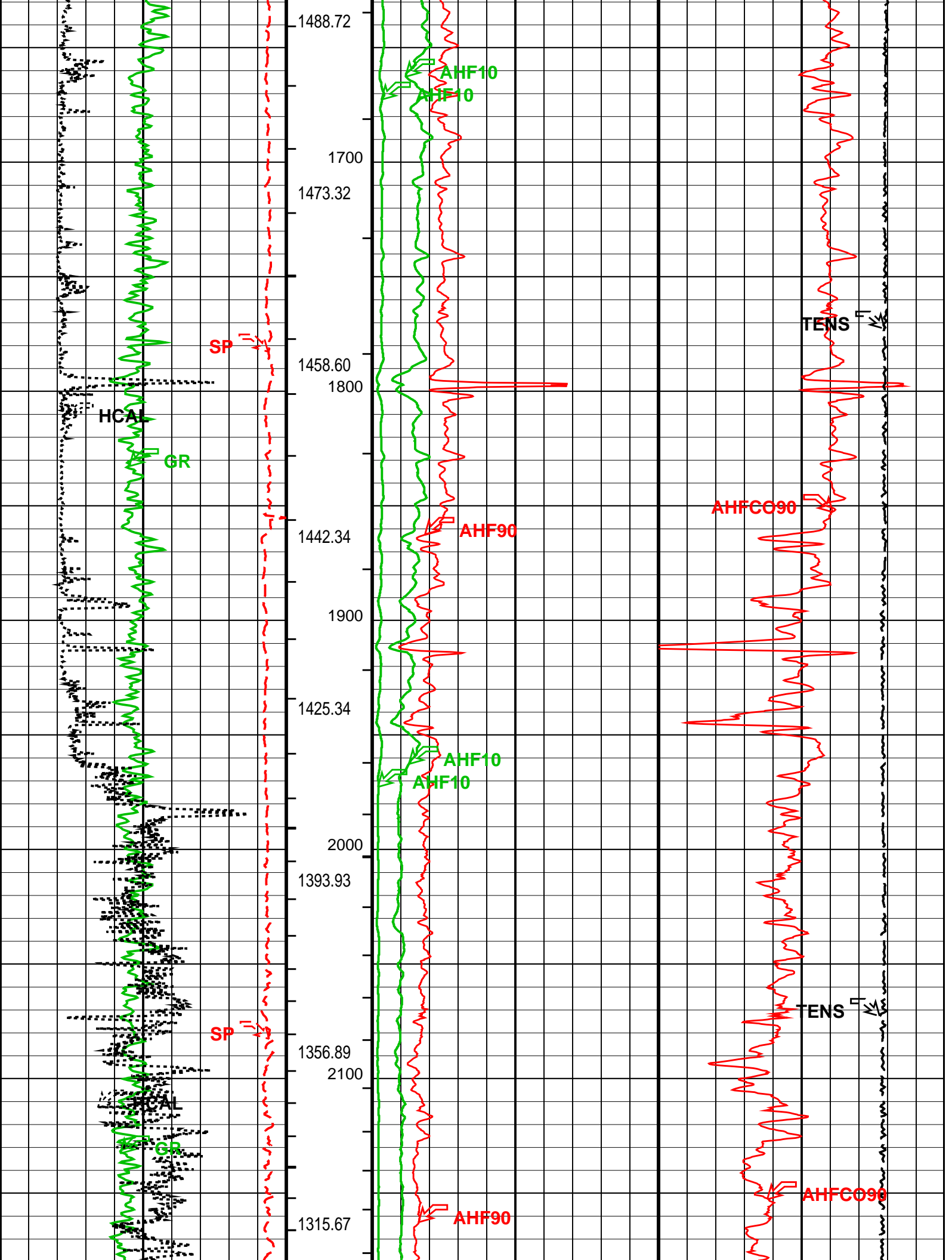
<div> <div>SP (SP)</div> <div>(MV)</div> <div>-160</div> <div>40</div> </div>		<div> <div>AIT-H 90 Inch Investigation (AHF90)</div> <div>(OHMM)</div> <div>0</div> <div>10</div> </div>	
<div> <div>Caliper (HCAL)</div> <div>(IN)</div> <div>6</div> <div>16</div> </div>		<div> <div>AIT-H 10 Inch Investigation (AHF10)</div> <div>(OHMM)</div> <div>0</div> <div>10</div> </div>	
<div> <div>Gamma Ray (GR)</div> <div>(GAPI)</div> <div>0</div> <div>200</div> </div>		<div> <div>Tension (TENS)</div> <div>(LBF)</div> <div>10000</div> <div>0</div> </div>	
<div> <div>Gamma Ray Backup</div> </div>		<div> <div>Cement Volume (ICV) (F3)</div> <div>AIT-H 10 Inch Investigation (AHF10)</div> <div>(OHMM)</div> <div>0</div> <div>50</div> </div>	<div> <div>AIT-H 90 Inch Investigation Conductivity (AHFCO90)</div> <div>(MM/M)</div> <div>1000</div> <div>0</div> </div>

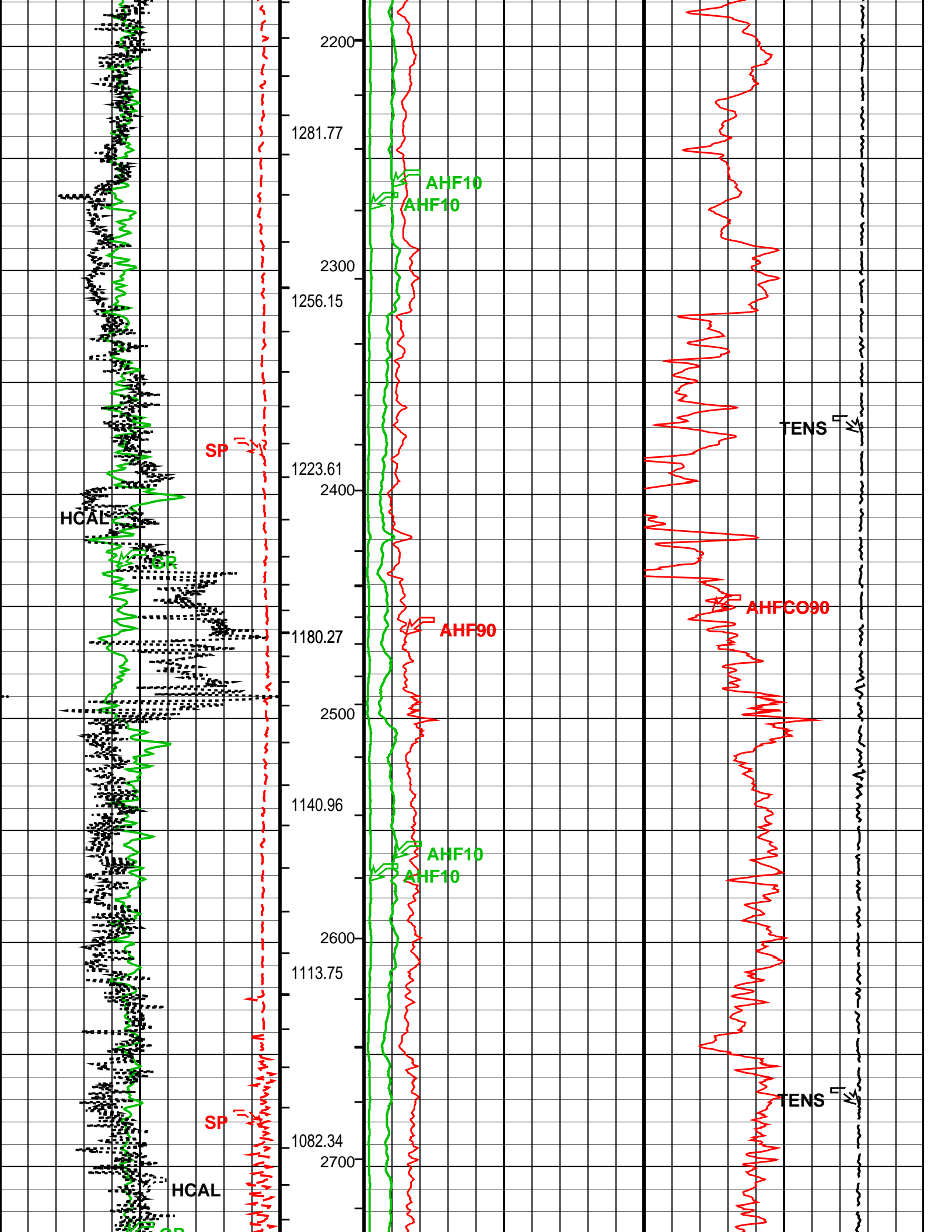
MAIN PASS: *** PLATFORM EXPRESS – ARRAY INDUCTION ***

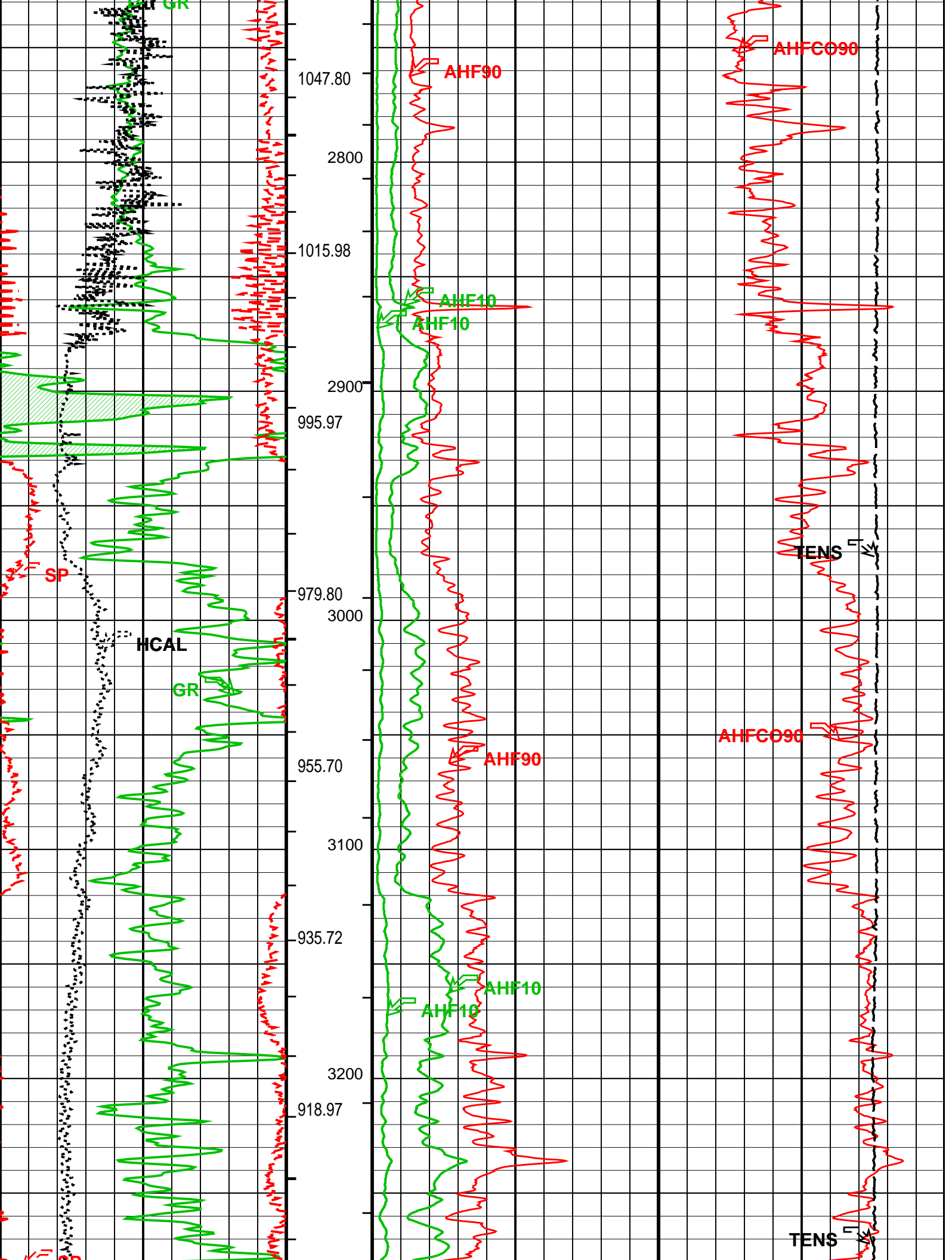


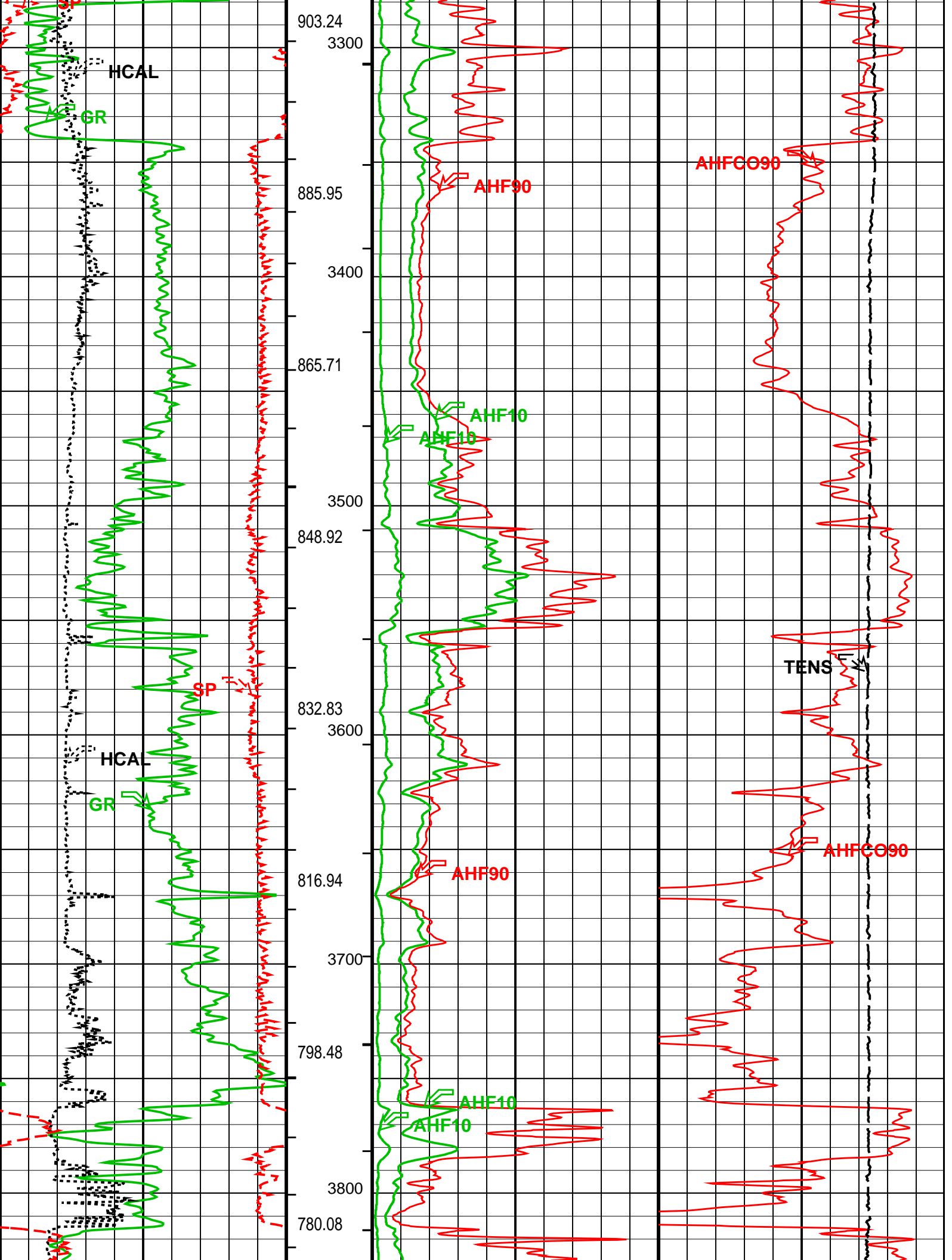


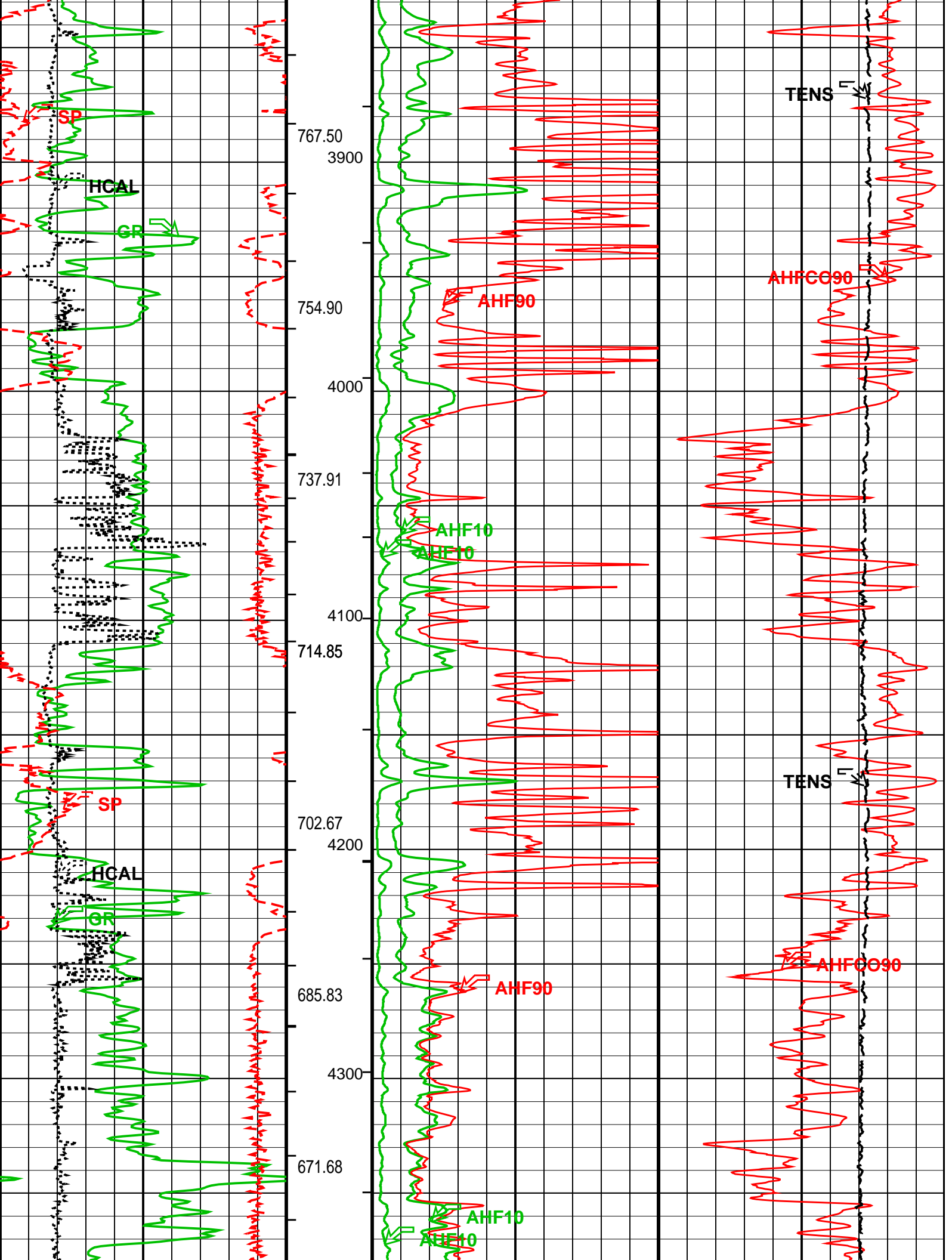


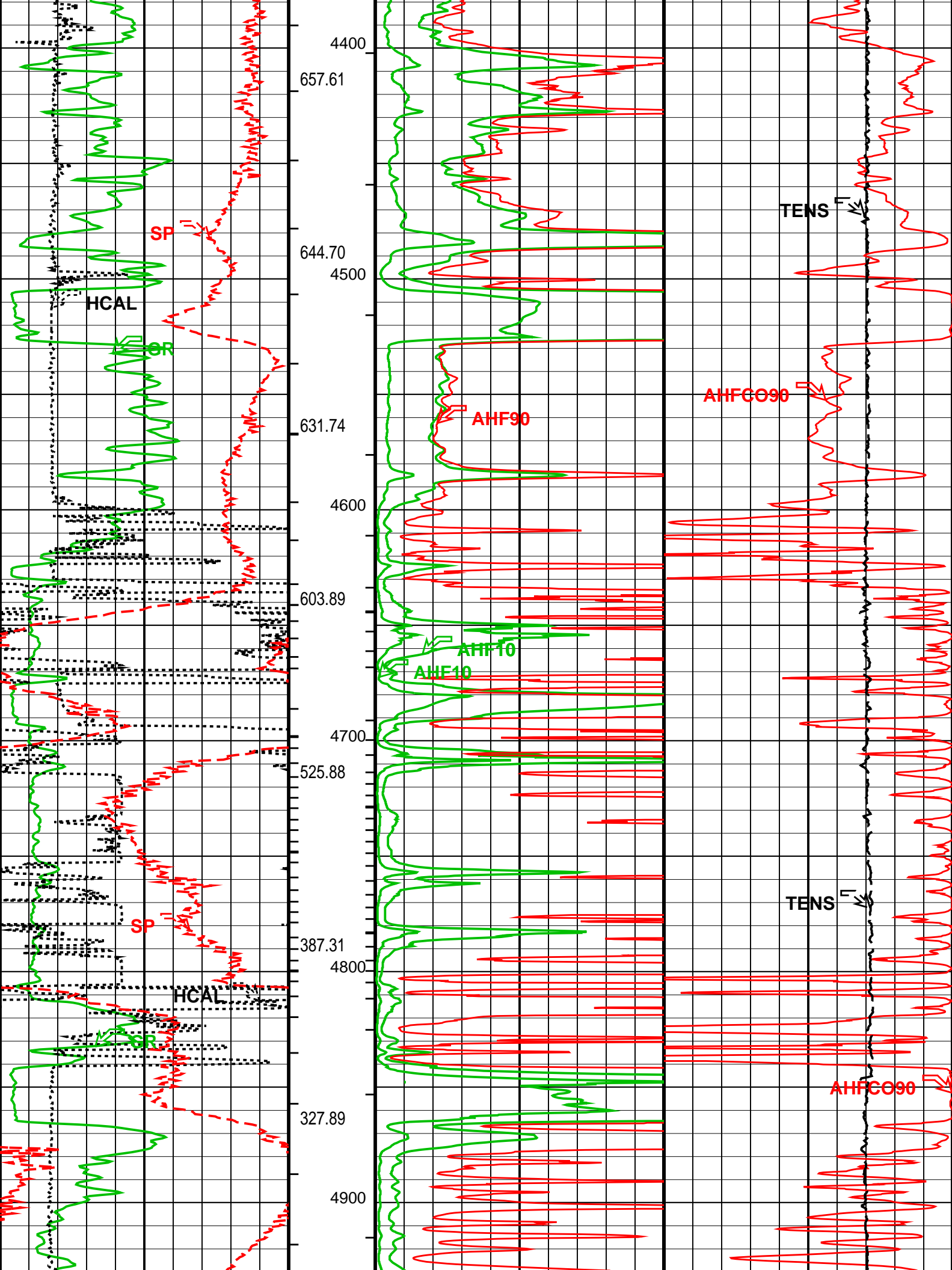


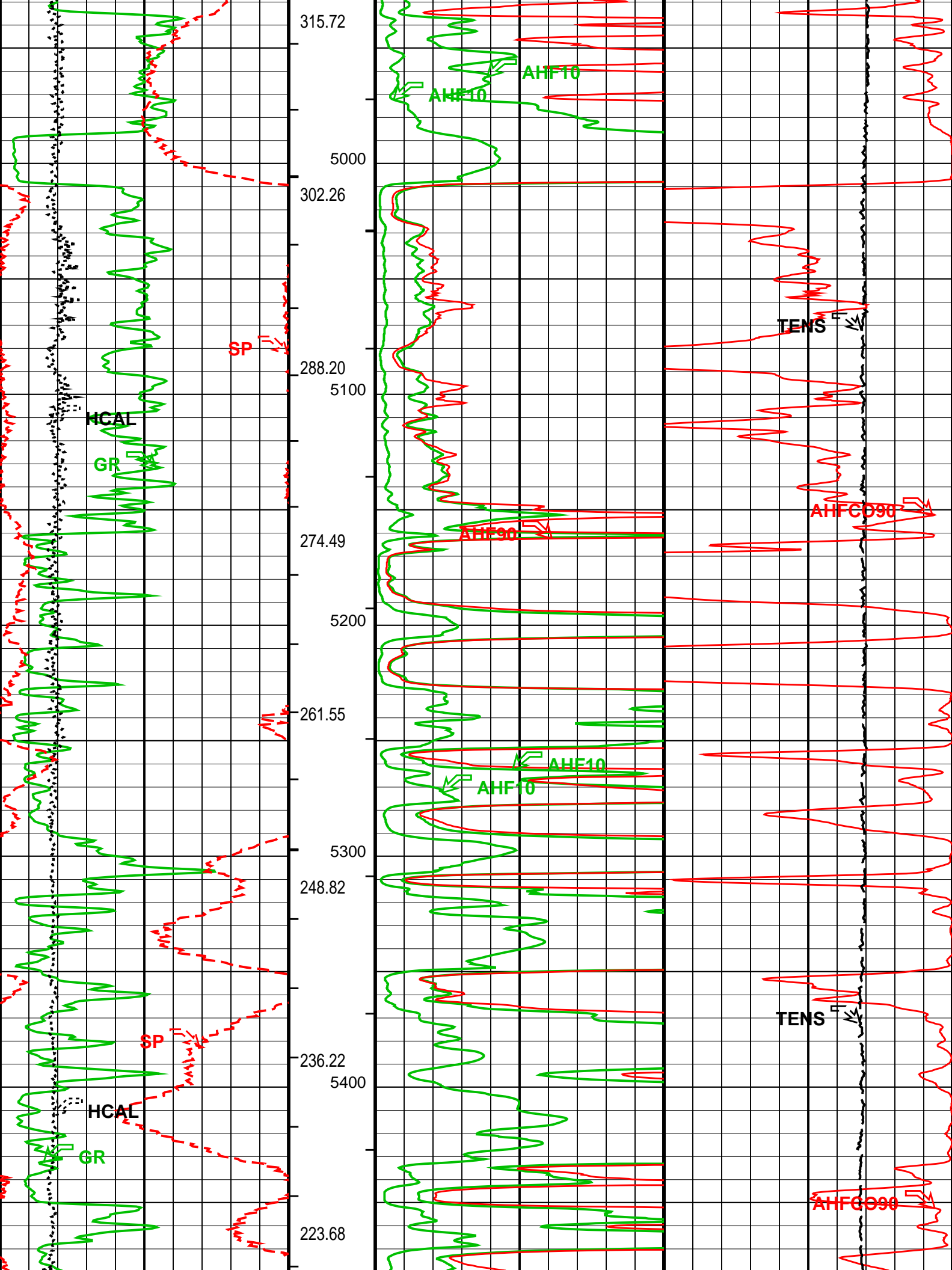


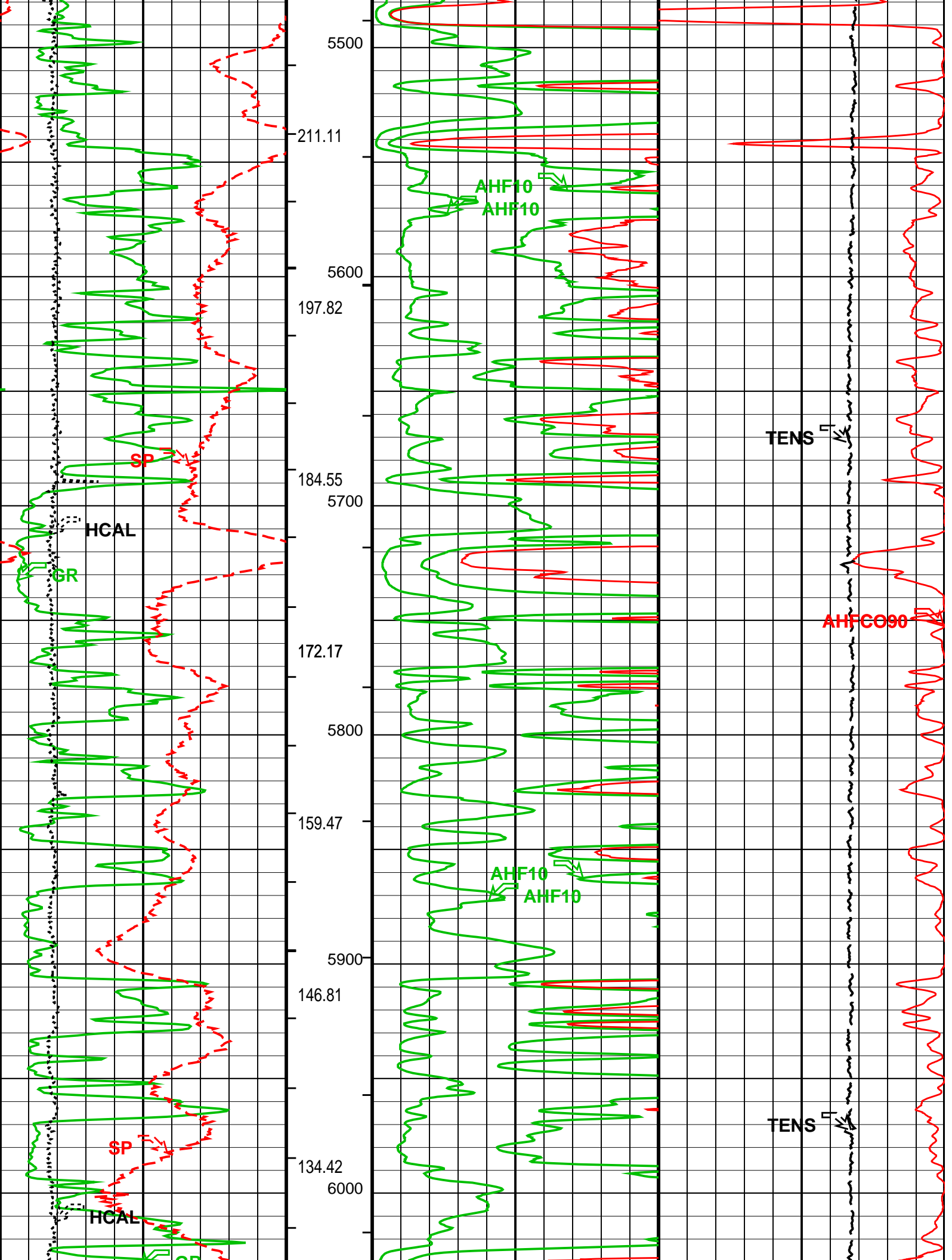


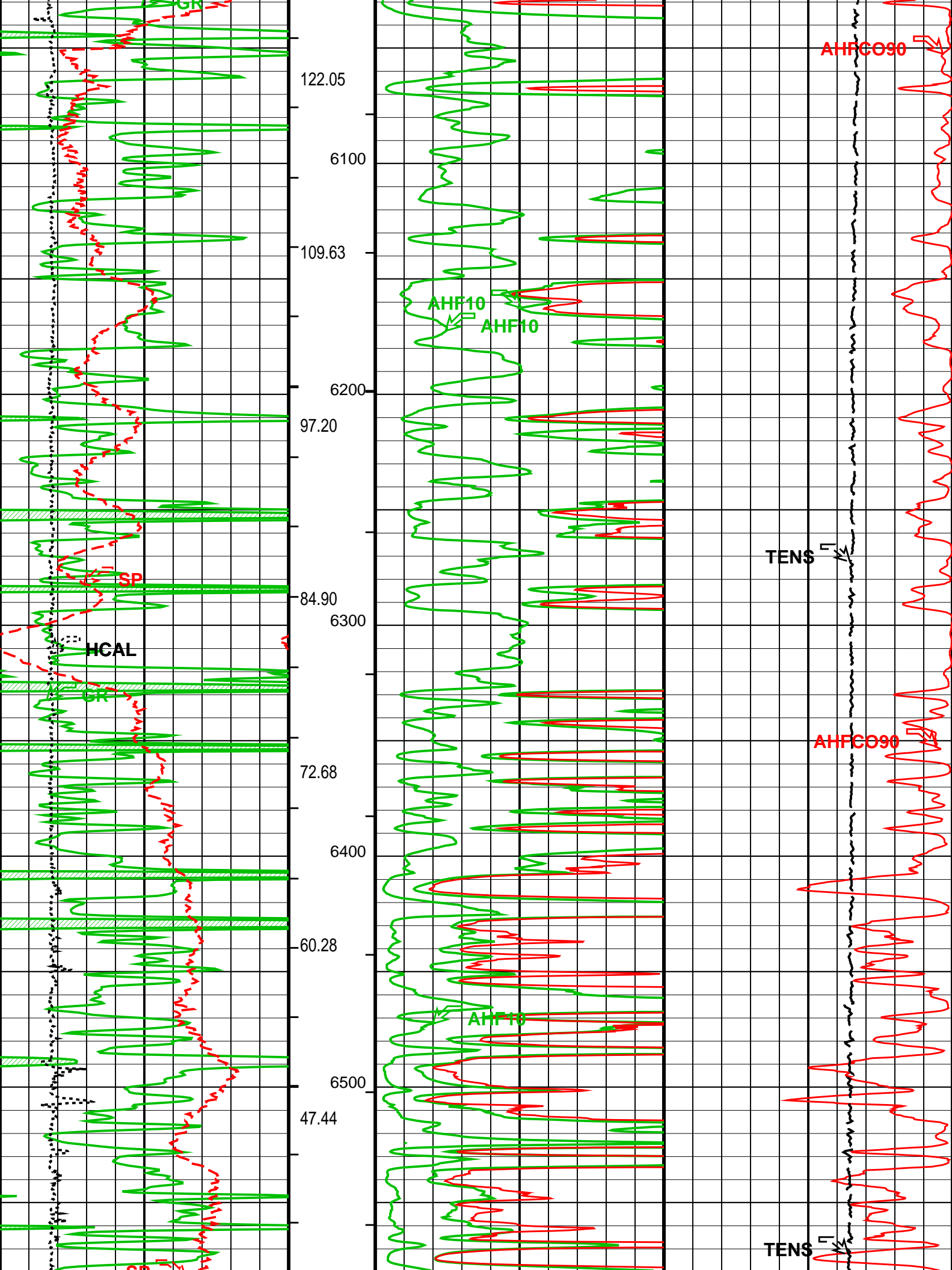


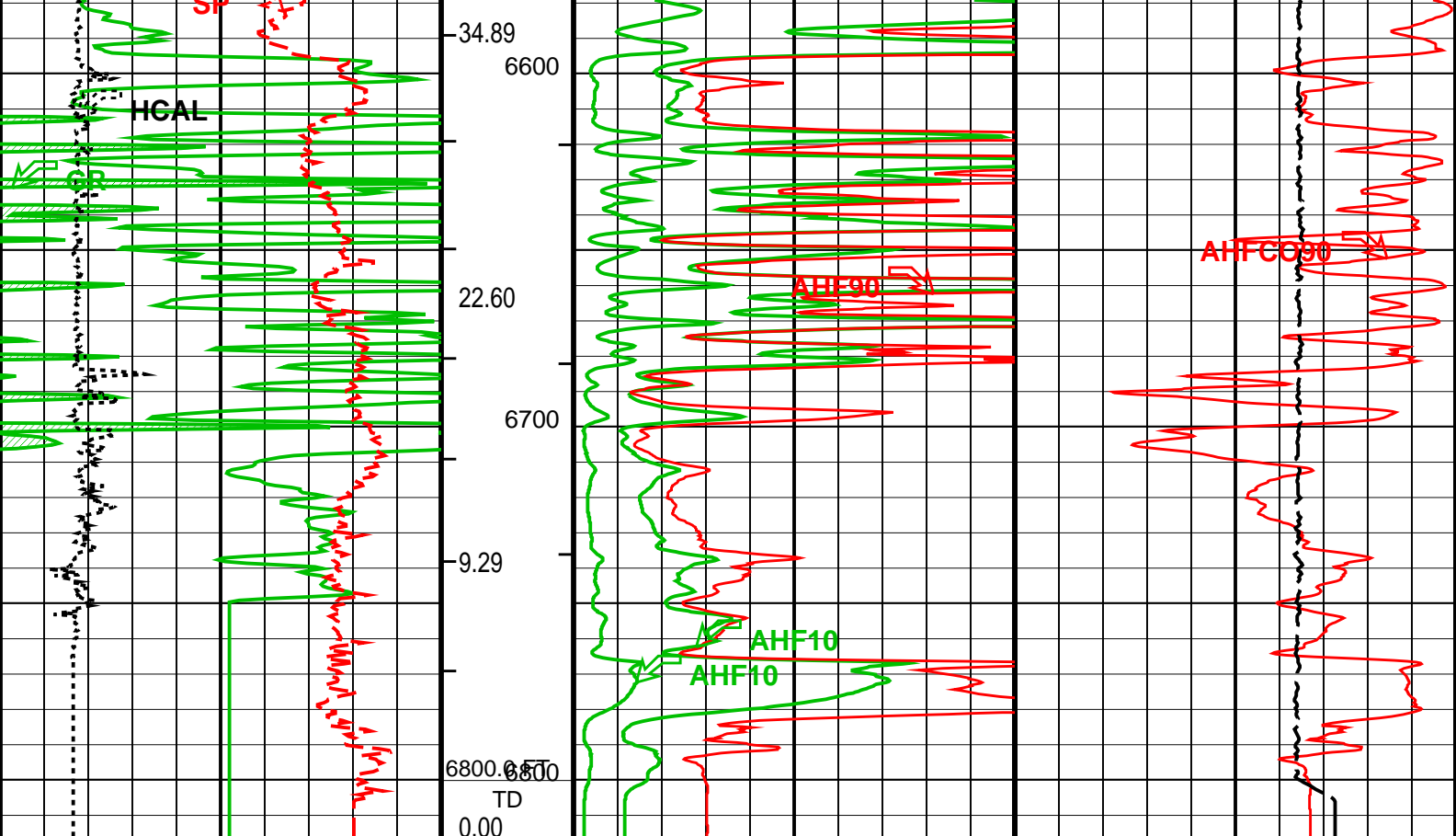












MAIN PASS: *** PLATFORM EXPRESS – ARRAY INDUCTION ***

Gamma Ray Backup		Cement Volume (ICV) (F3)	AIT-H 10 Inch Investigation (AHF10) (OHMM)		AIT-H 90 Inch Investigation Conductivity (AHFCO90) (MM/M)	
Gamma Ray (GR) (GAPI)			0	50	1000	0
0	200		AIT-H 10 Inch Investigation (AHF10) (OHMM)		Tension (TENS) (LBF)	
			0	10	10000	0
Caliper (HCAL) (IN)			AIT-H 90 Inch Investigation (AHF90) (OHMM)			
6	16		0	10		
SP (SP) (MV)						
-160	40					

PIP SUMMARY

- Integrated Cement Volume Major Pip Every 100 F3
- Integrated Cement Volume Minor Pip Every 10 F3
- Integrated Hole Volume Major Pip Every 100 F3
- Integrated Hole Volume Minor Pip Every 10 F3

Parameters

DLIS Name	Description	Value
HAIT-H: Array Induction Tool – H		
AHBHM	Array Induction Borehole Correction Mode	2_ComputeStandoff
AHBHV	Array Induction Borehole Correction Code Version Number	900
AHBLM	Array Induction Basic Logs Mode	6_One_Two_and_Four
AHBLV	Array Induction Basic Logs Code Version Number	223
AHCDE	Array Induction Casing Detection Enable	Yes
AHCEN	Array Induction Tool Centering Flag (in Borehole)	Eccentered
AHFRSV	Array Induction Response Set Version for Four ft Resolution	41.70.24.20
AHMRF	Array Induction Mud Resistivity Factor	1
AHORSV	Array Induction Response Set Version for One ft Resolution	41.70.24.20
AHFRV	Array Induction Radial Profiling Code Version Number	701
AHRPV	Array Induction Radial Parametrization Code Version Number	232
AHSTA	Array Induction Tool Standoff	1 IN
AHTRSV	Array Induction Response Set Version for Two ft Resolution	41.70.24.20
BHT	Bottom Hole Temperature (used in calculations)	185 DEGF
FEXP	Form Factor Exponent	2
FNUM	Form Factor Numerator	1

GCSE	Generalized Caliper Selection	HCAL	0	DEG
GDEV	Average Angular Deviation of Borehole from Normal		0.01	DF/F
GGRD	Geothermal Gradient			
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST		
GTSE	Generalized Temperature Selection	HSTS_HTEM		
SHT	Surface Hole Temperature	68		DEGF
SPNV	SP Next Value	0		MV
HILTH-FTB: High resolution Integrated Logging Tool-DTS				
BHT	Bottom Hole Temperature (used in calculations)		185	DEGF
FEXP	Form Factor Exponent		2	
FNUM	Form Factor Numerator		1	
GCSE	Generalized Caliper Selection	HCAL		
GDEV	Average Angular Deviation of Borehole from Normal		0	DEG
GGRD	Geothermal Gradient		0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST		
GTSE	Generalized Temperature Selection	HSTS_HTEM		
SHT	Surface Hole Temperature	68		DEGF
CMRT-B: Combinable Magnetic Resonance Tool - B				
BHT	Bottom Hole Temperature (used in calculations)		185	DEGF
GCSE	Generalized Caliper Selection	HCAL		
GDEV	Average Angular Deviation of Borehole from Normal		0	DEG
GGRD	Geothermal Gradient		0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST		
GTSE	Generalized Temperature Selection	HSTS_HTEM		
SHT	Surface Hole Temperature	68		DEGF
FEQL: Formation Evaluation Quick Look				
FEXP	Form Factor Exponent		2	
FNUM	Form Factor Numerator		1	
HOLEV: Integrated Hole/Cement Volume				
BHT	Bottom Hole Temperature (used in calculations)		185	DEGF
FCD	Future Casing (Outer) Diameter		5.5	IN
GCSE	Generalized Caliper Selection	HCAL		
GDEV	Average Angular Deviation of Borehole from Normal		0	DEG
GGRD	Geothermal Gradient		0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST		
GTSE	Generalized Temperature Selection	HSTS_HTEM		
HVCS	Integrated Hole Volume Caliper Selection	AUTOMATIC		
SHT	Surface Hole Temperature	68		DEGF
PERT: Preliminary Evaluation - Real Time				
BHT	Bottom Hole Temperature (used in calculations)		185	DEGF
FEXP	Form Factor Exponent		2	
FNUM	Form Factor Numerator		1	
GCSE	Generalized Caliper Selection	HCAL		
GDEV	Average Angular Deviation of Borehole from Normal		0	DEG
GGRD	Geothermal Gradient		0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST		
GTSE	Generalized Temperature Selection	HSTS_HTEM		
SHT	Surface Hole Temperature	68		DEGF
System and Miscellaneous				
BS	Bit Size		7.875	IN
DO	Depth Offset for Playback		0.0	FT
FLEV	Fluid Level		200.00	FT
MST	Mud Sample Temperature		95.00	DEGF
PP	Playback Processing	RECOMPUTE		
TD	Total Depth		6800	FT

Format: ERES_S2 Vertical Scale: 2" per 100' Graphics File Created: 05-Aug-2013 19:41

OP System Version: 19C2-270

HAIT-H	19C2-270	DSLT-FTB	19C2-270
HILTH-FTB	19C2-270	CMRT-B	19C2-270
DTC-H	19C2-270		

Input DLIS Files

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Output DLIS Files

DEFAULT	AIT_SONIC_TLD_MCFL_033PUP	FN:31	PRODUCER	05-Aug-2013 19:41
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Input DLIS Files

DEFAULT Splice_AIT_SONIC_032CUP FN:1 PRODUCER 05-Aug-2013 19:39 6816.0 FT 99.5 FT

Output DLIS Files

DEFAULT AIT_SONIC_TLD_MCFL_033PUP FN:31 PRODUCER 05-Aug-2013 19:41 6816.0 FT 100.0 FT

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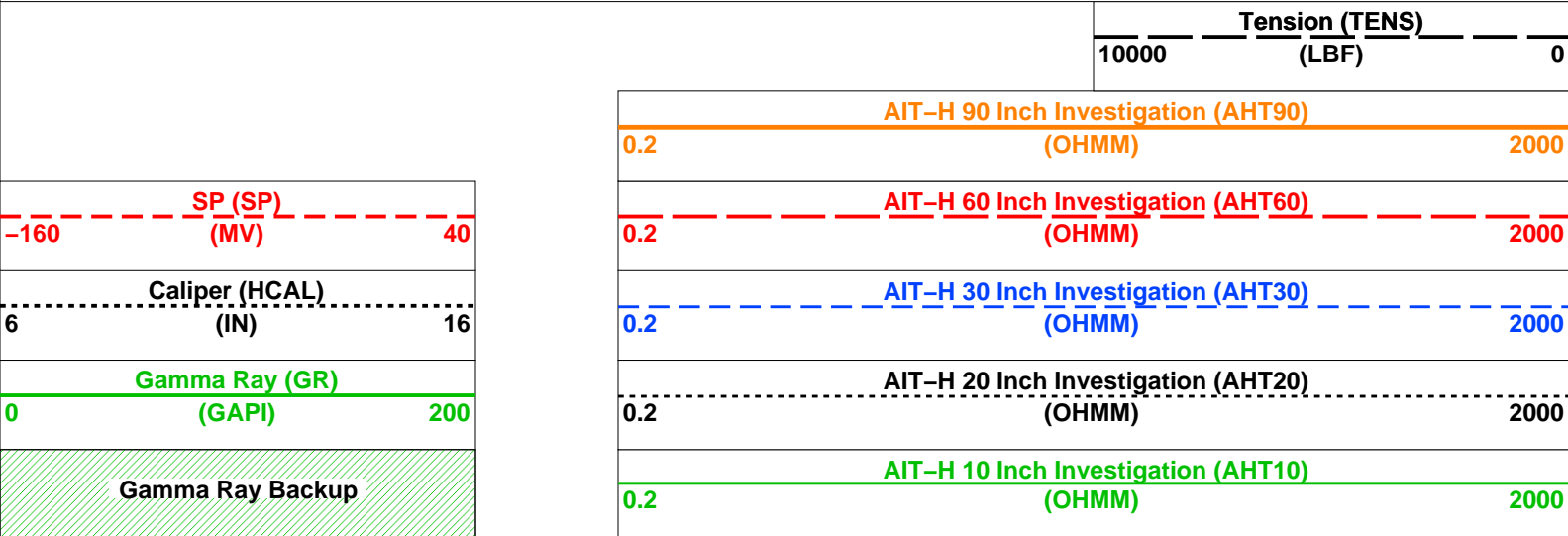
OP System Version: 19C2-270

HAIT-H	19C2-270	DSLT-FTB	19C2-270
HILTH-FTB	19C2-270	CMRT-B	19C2-270
DTC-H	19C2-270		

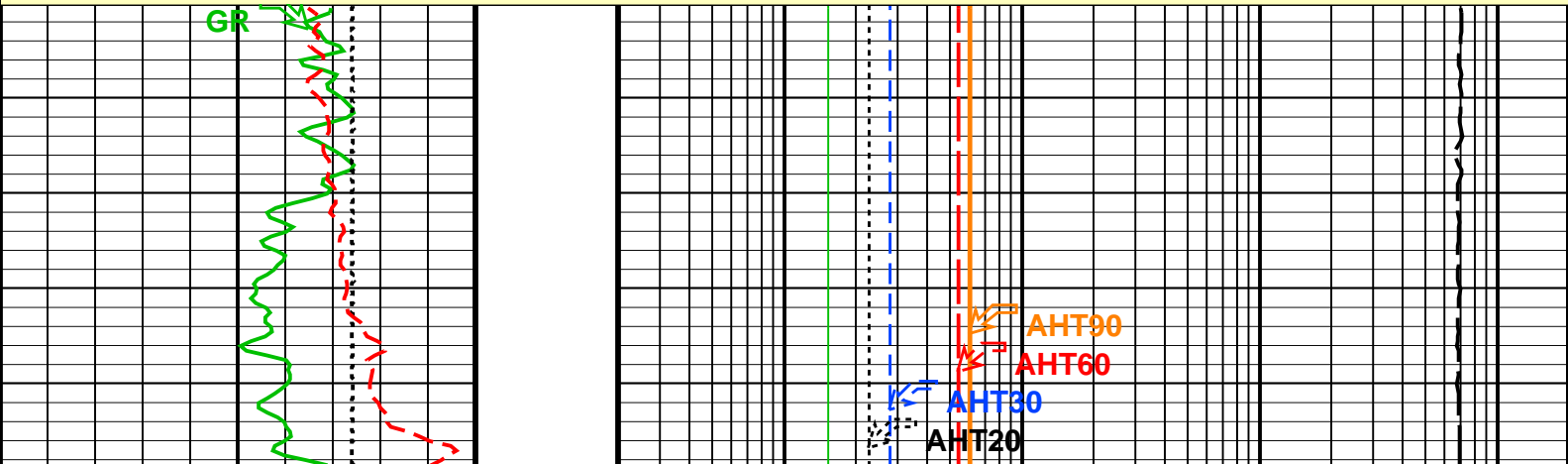
PIP SUMMARY

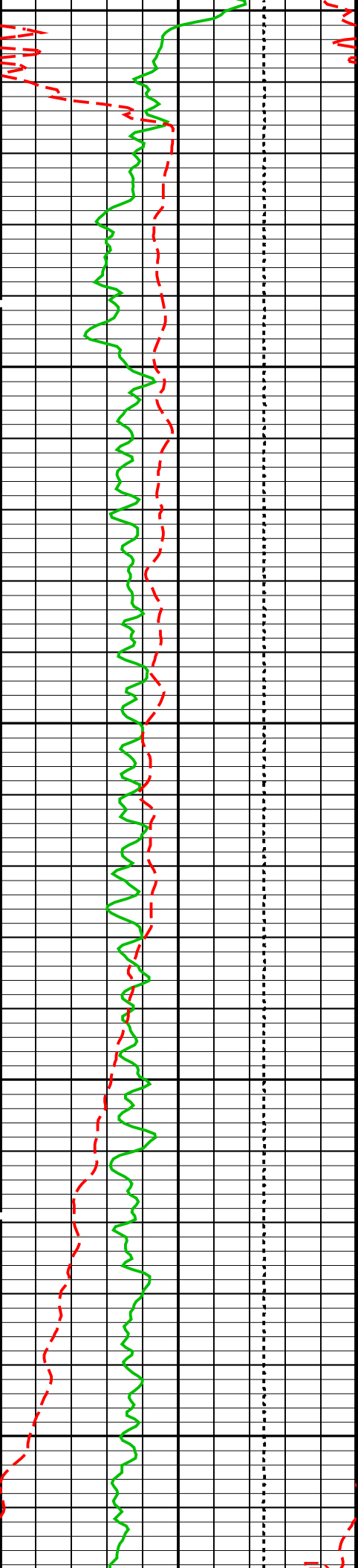
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- └ Integrated Hole Volume Major Pip Every 100 F3
 - └ Integrated Cement Volume Minor Pip Every 10 F3
 - └ Integrated Cement Volume Major Pip Every 100 F3

Time Mark Every 60 S



MAIN PASS: *** PLATFORM EXPRESS – ARRAY INDUCTION ***



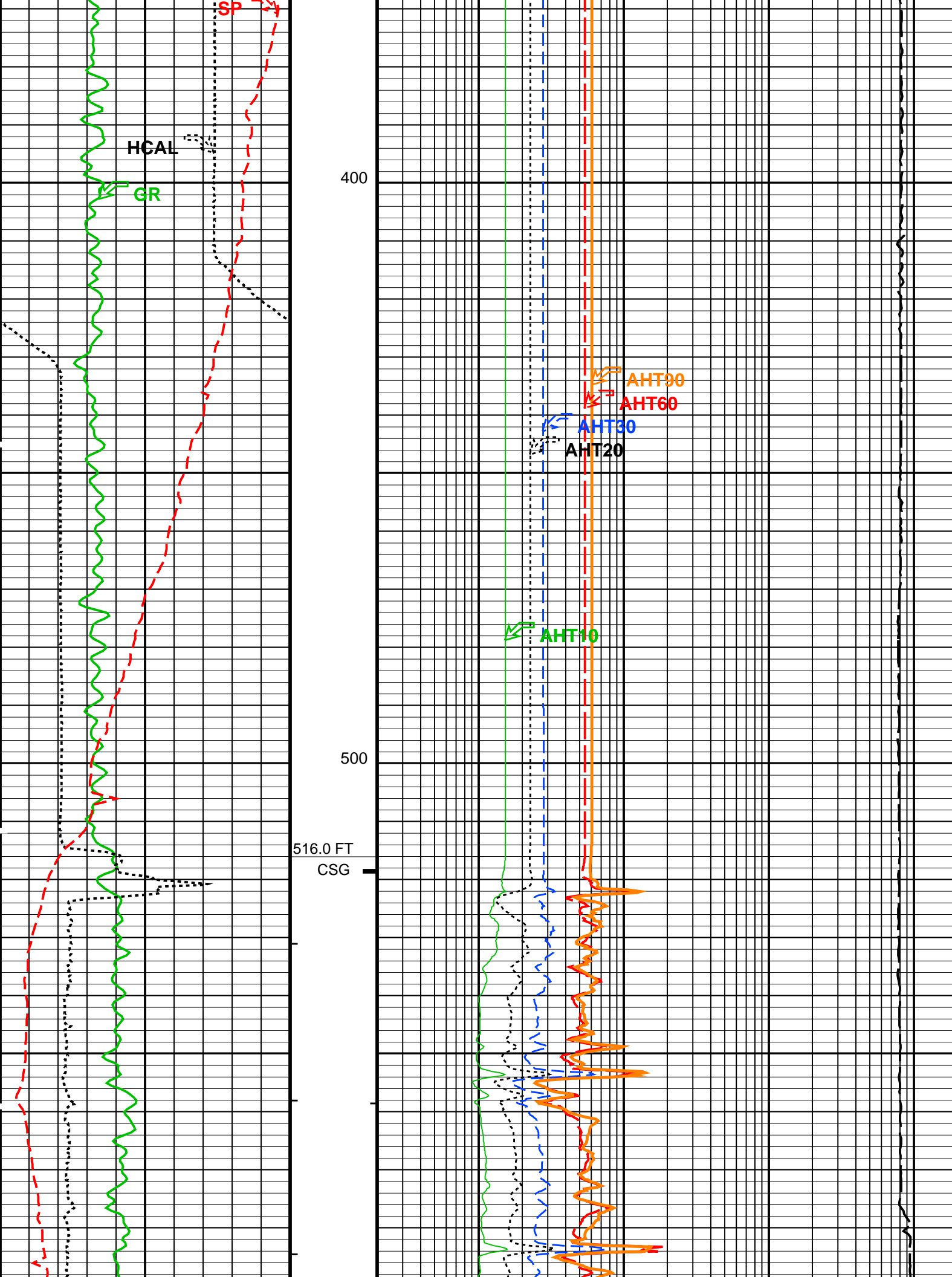


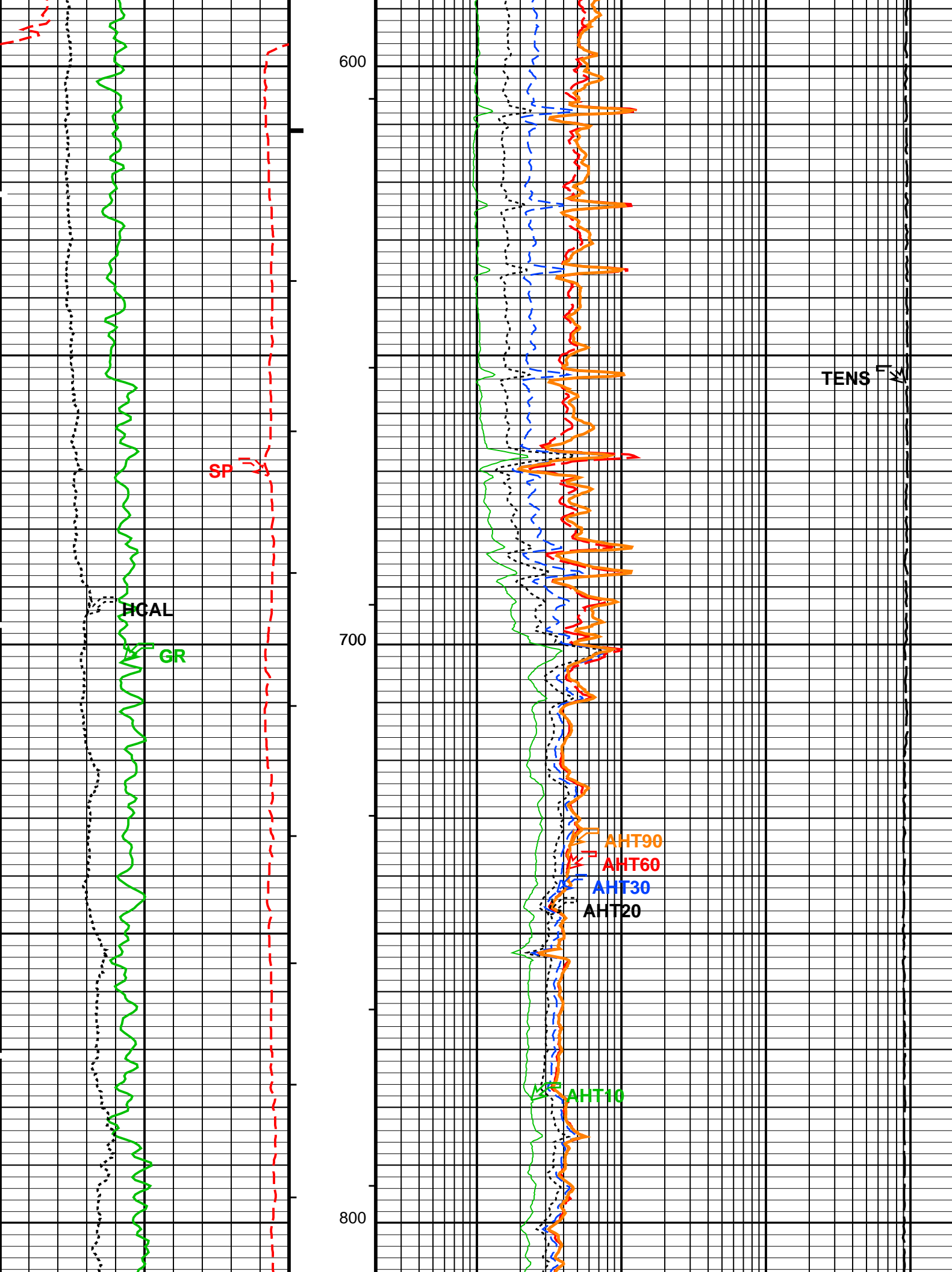
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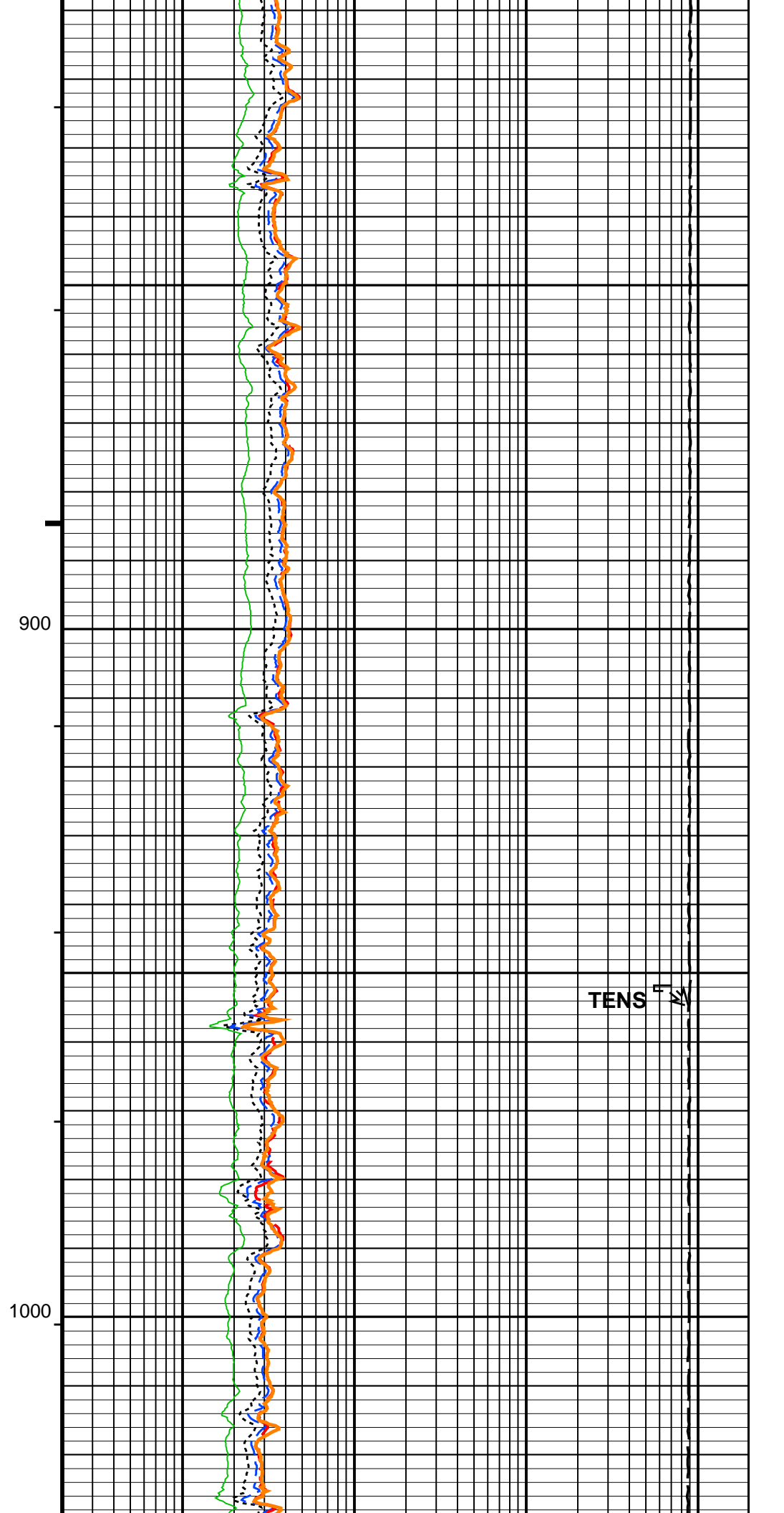
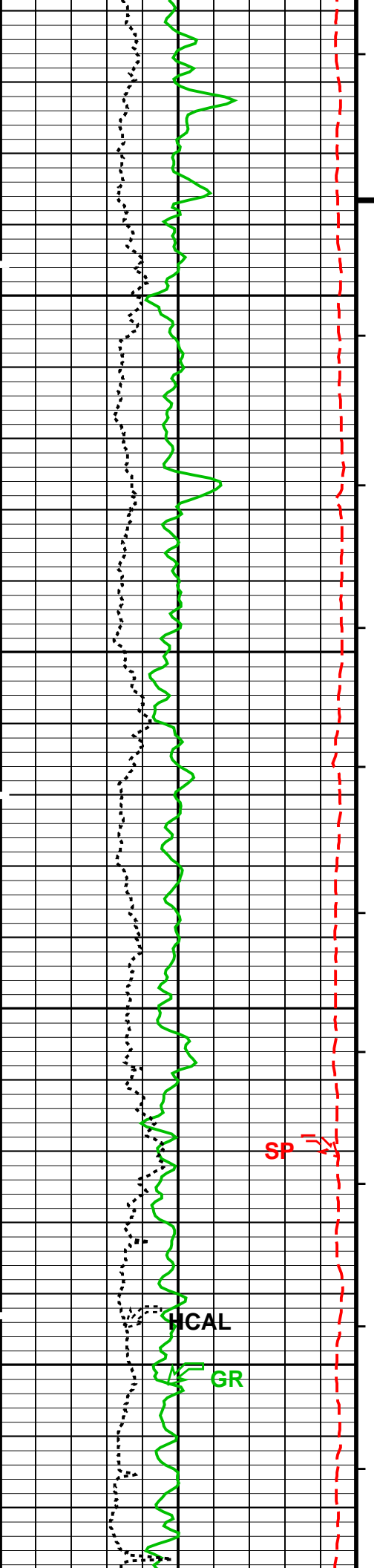
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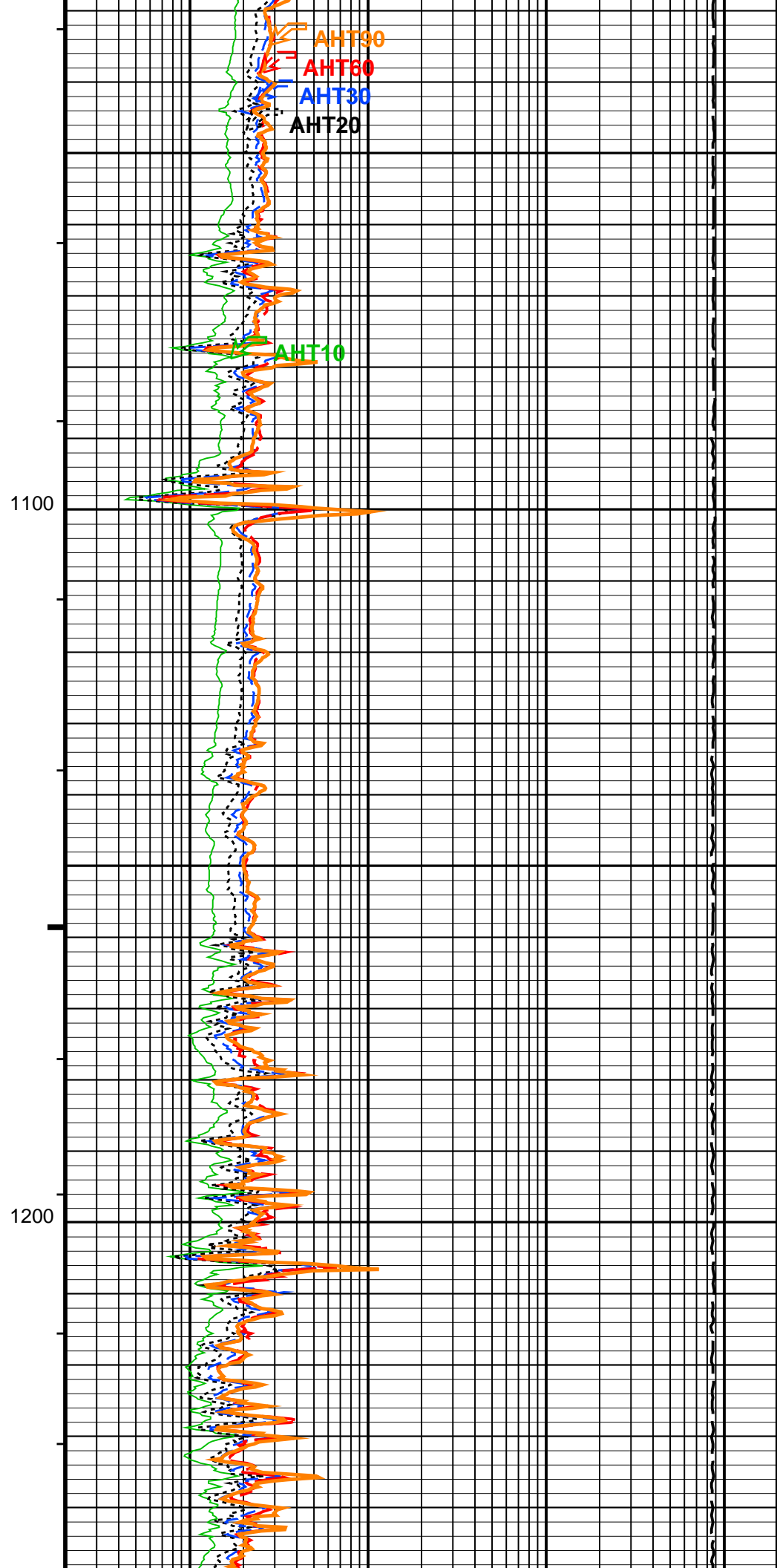
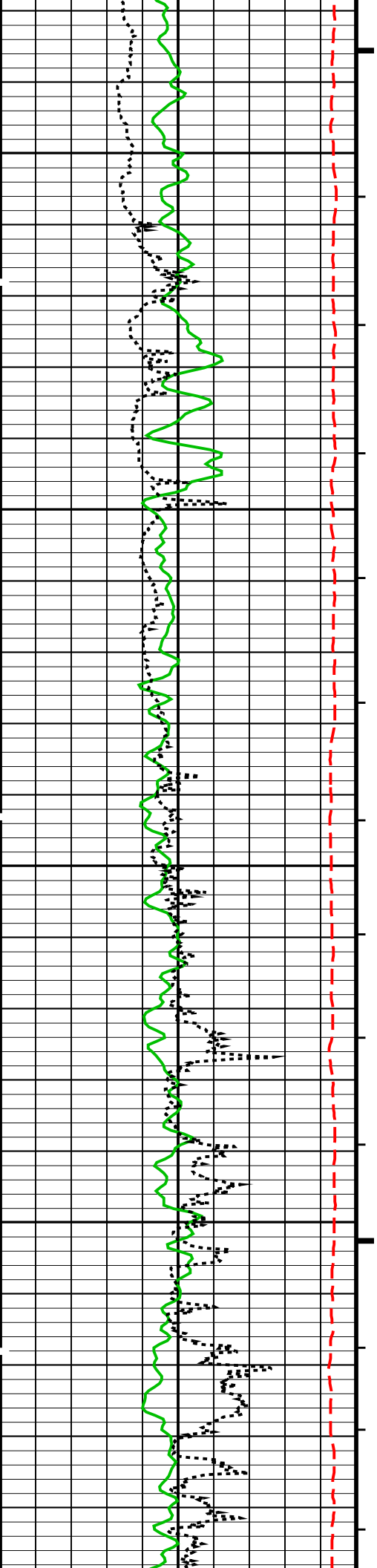
AHT10

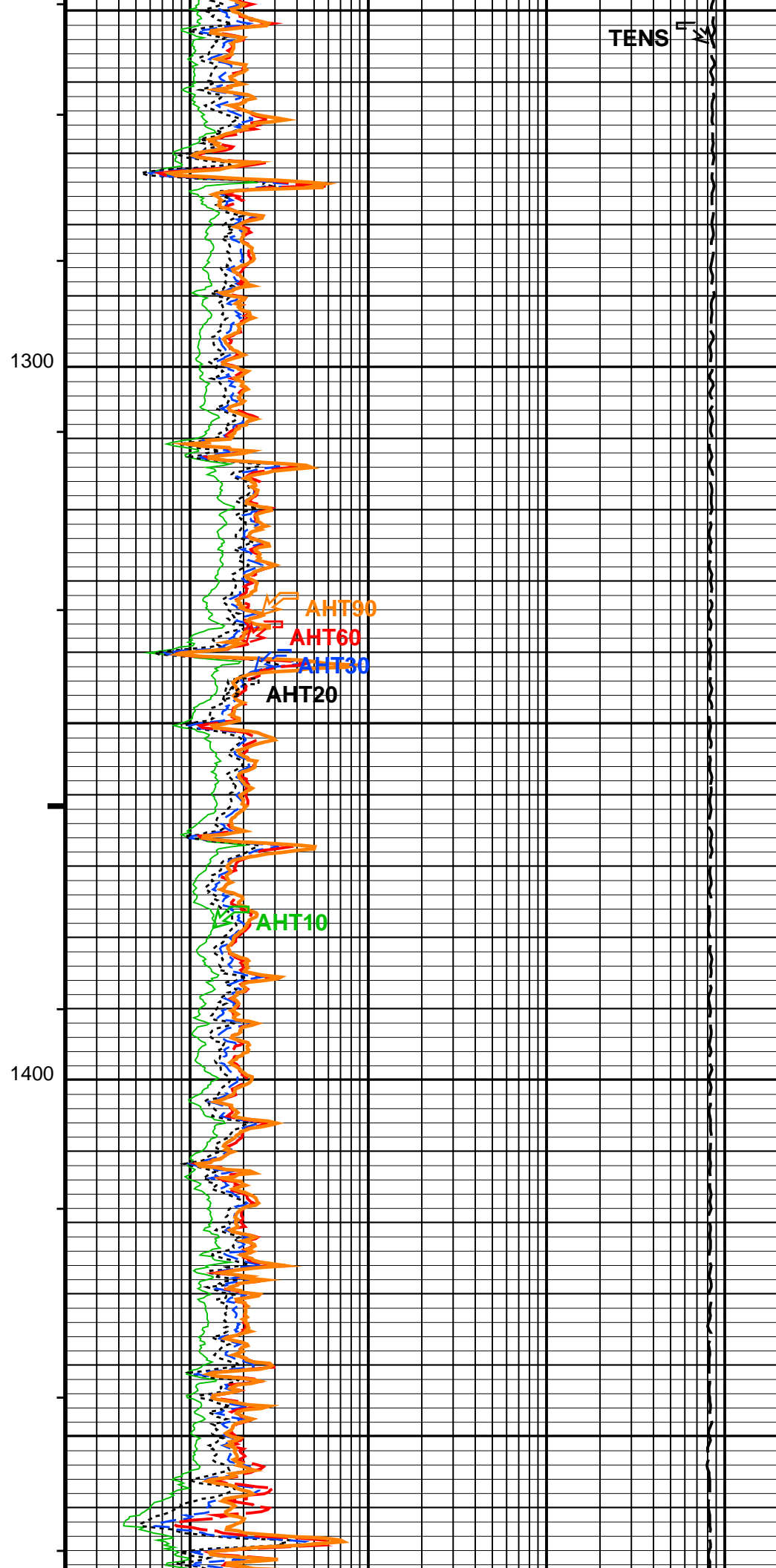
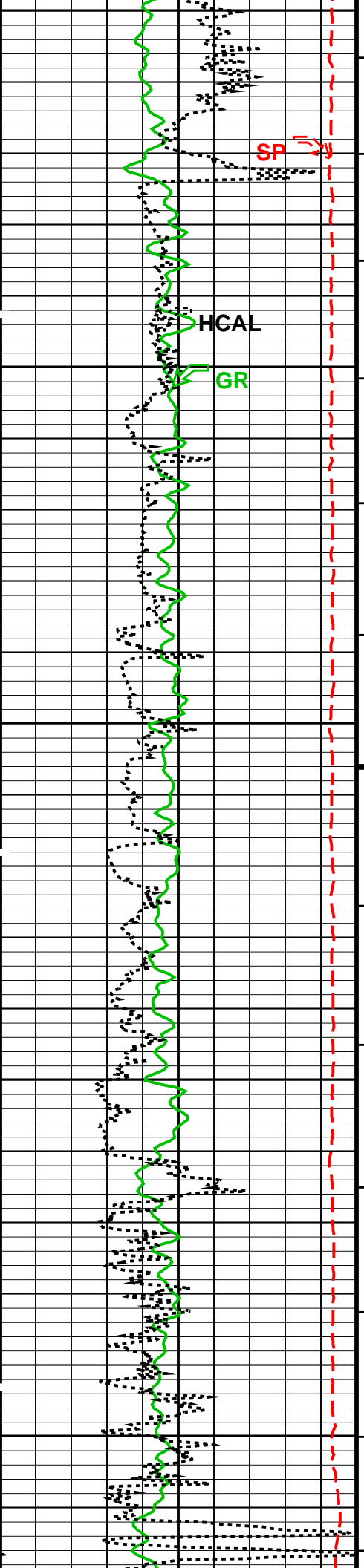
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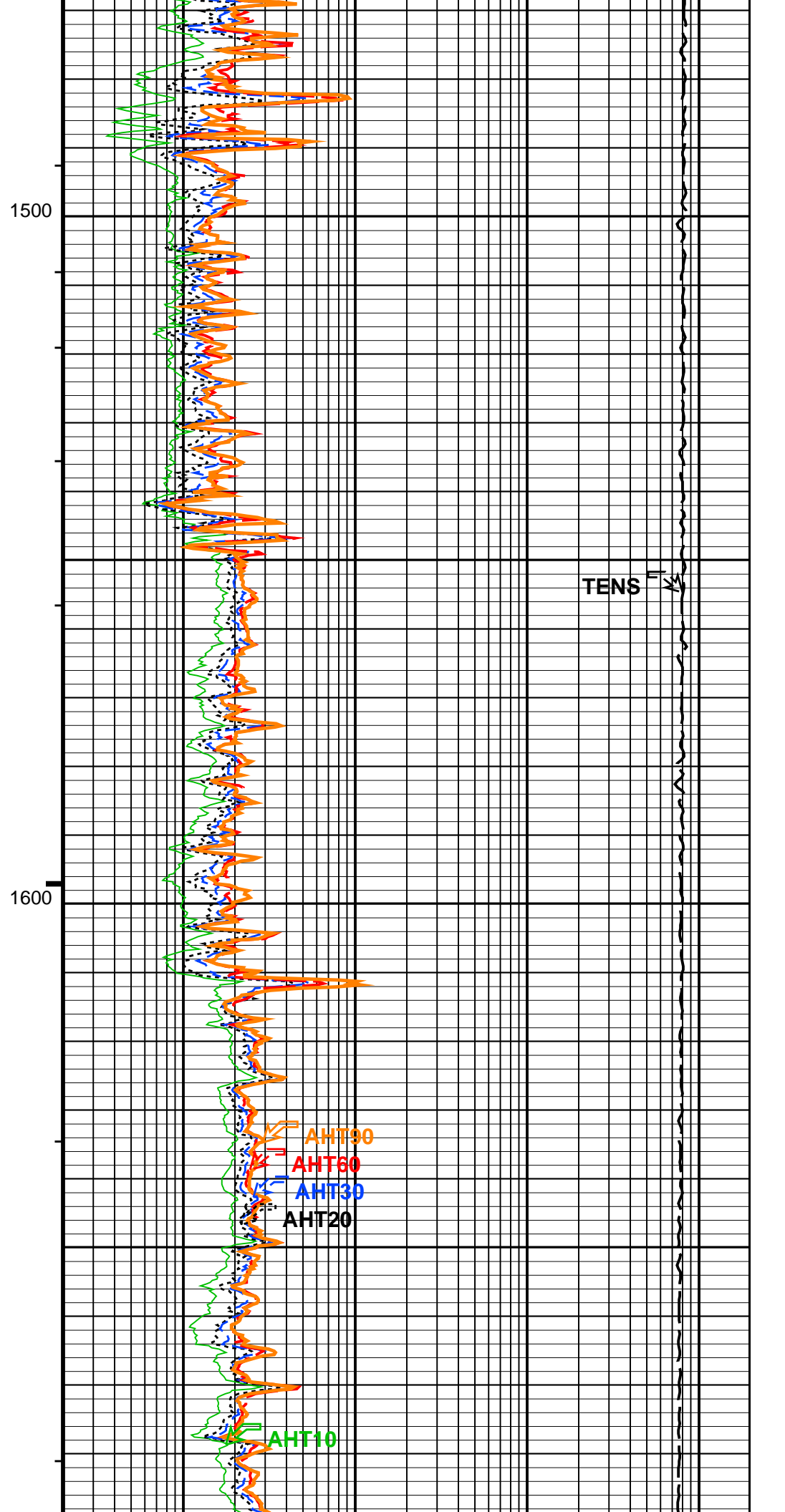
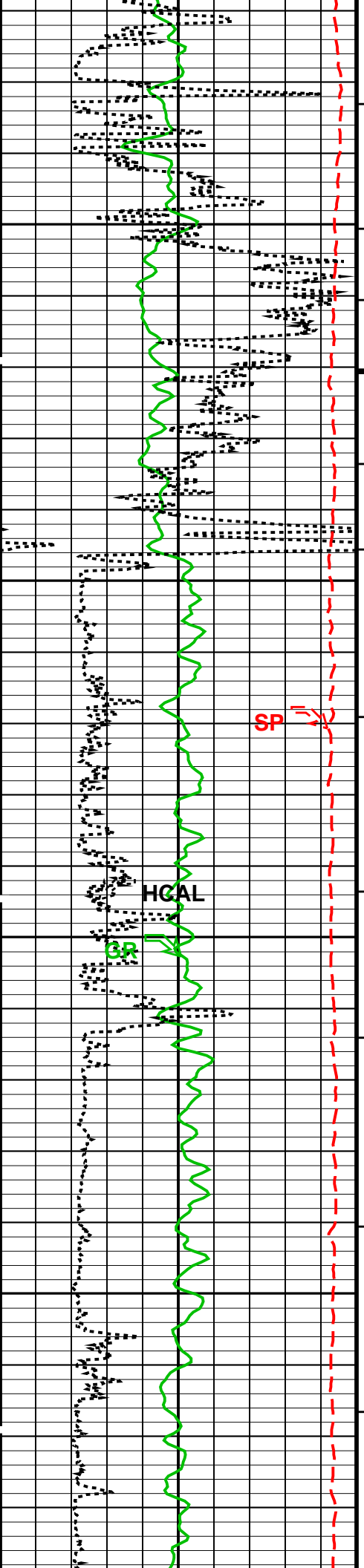


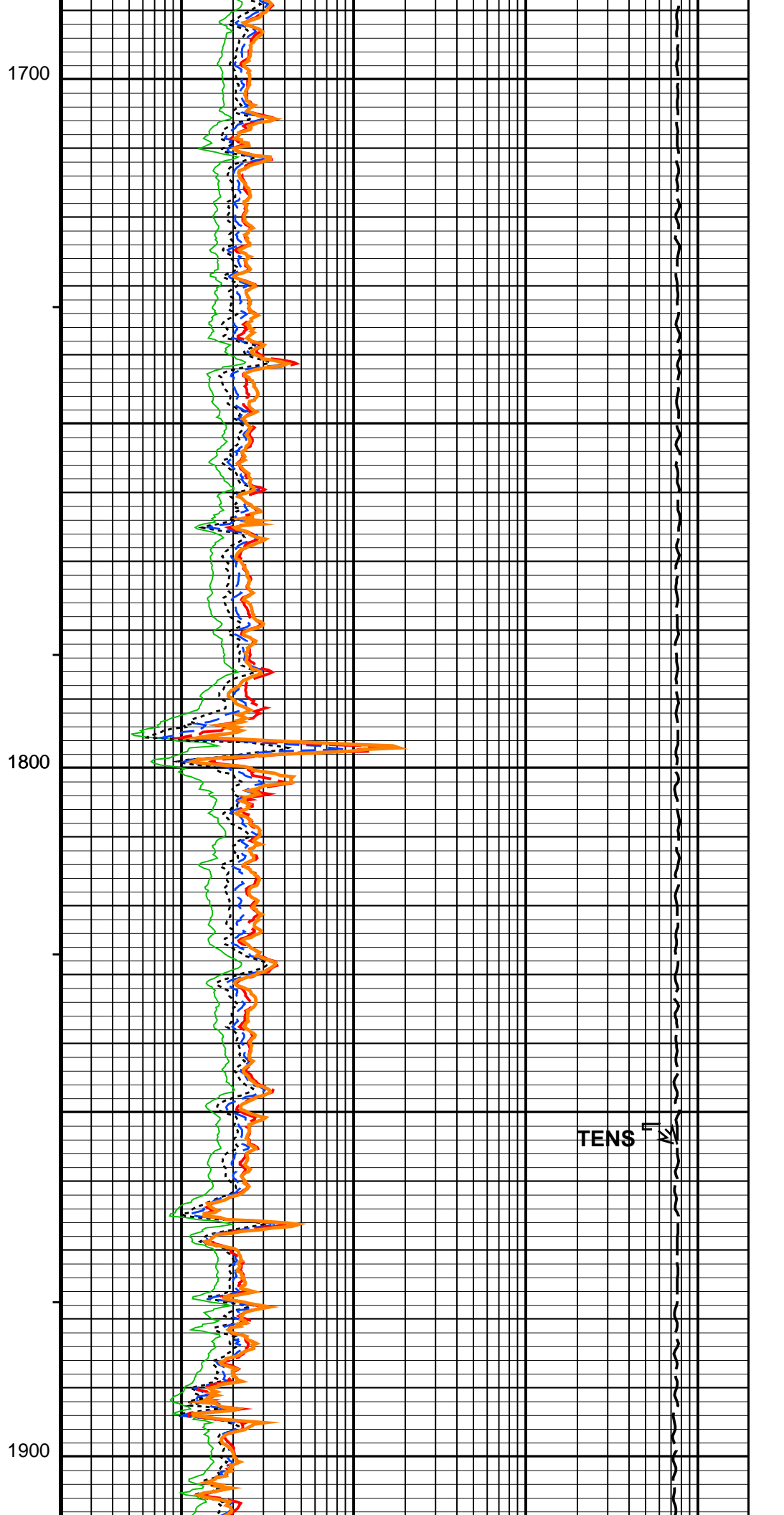
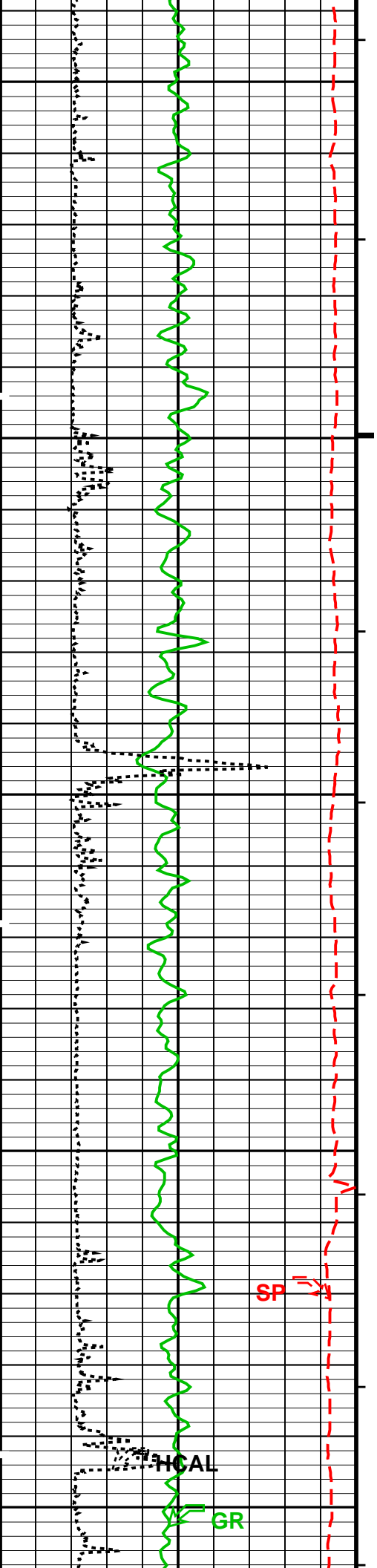


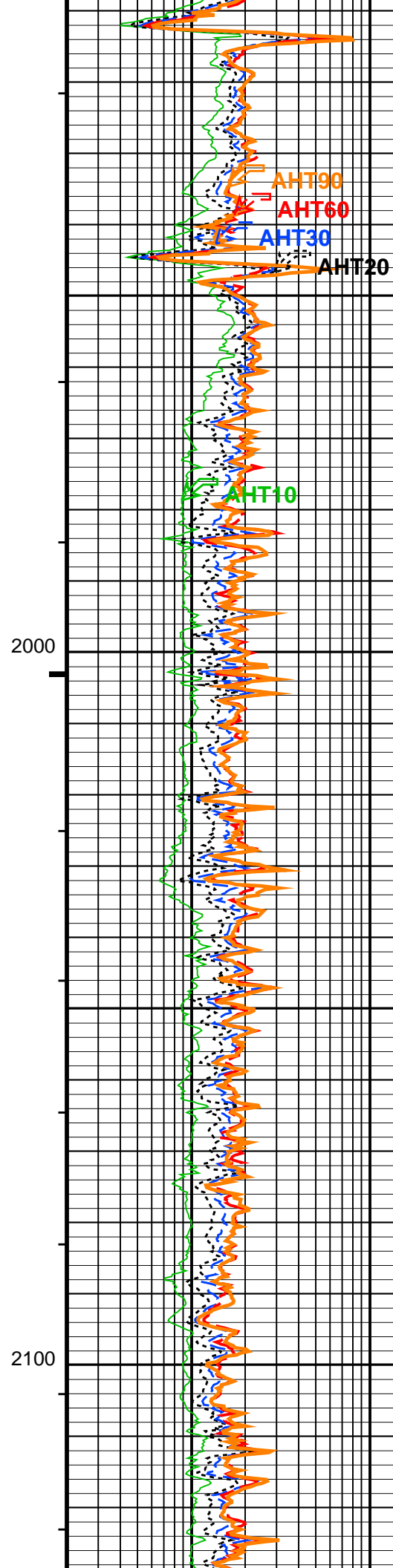
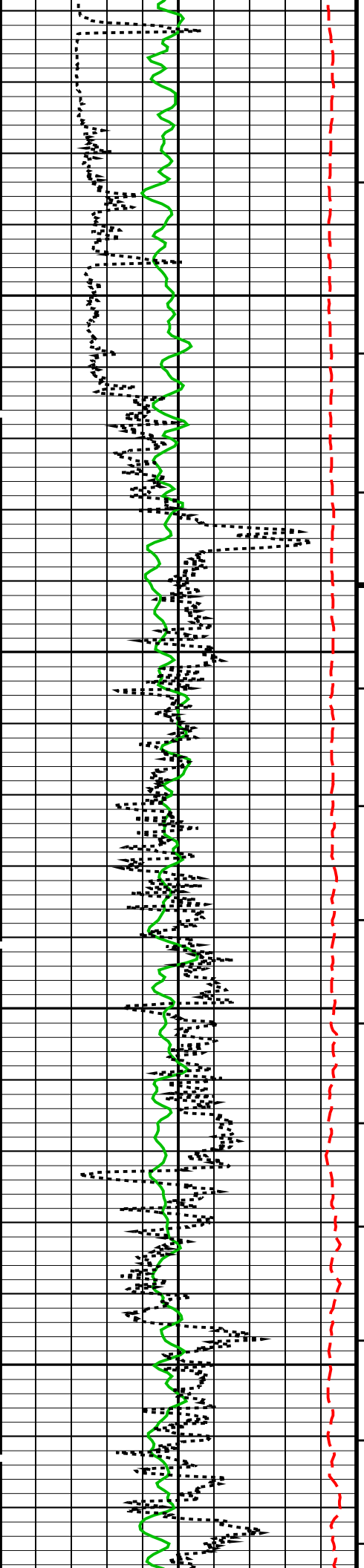


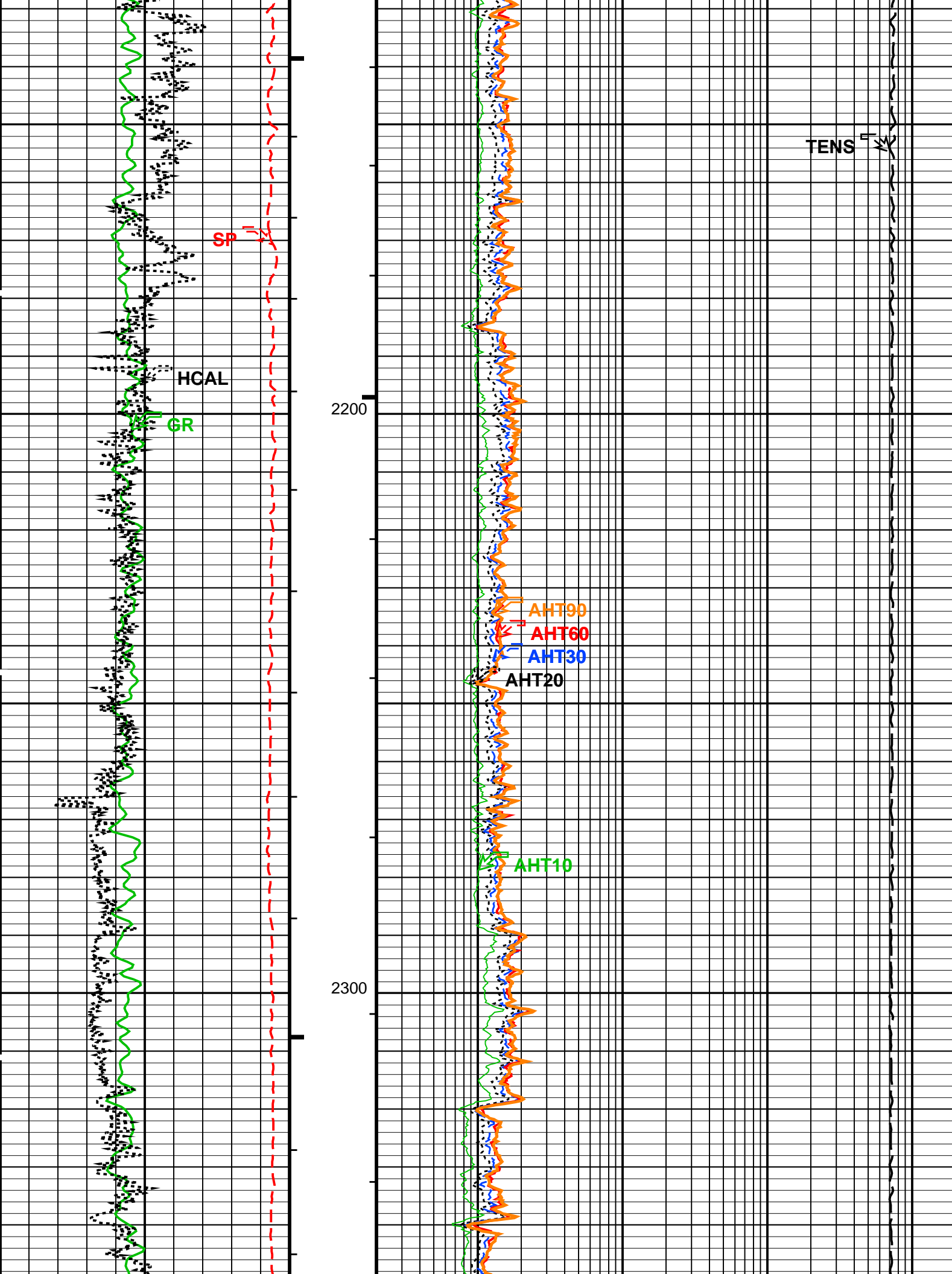


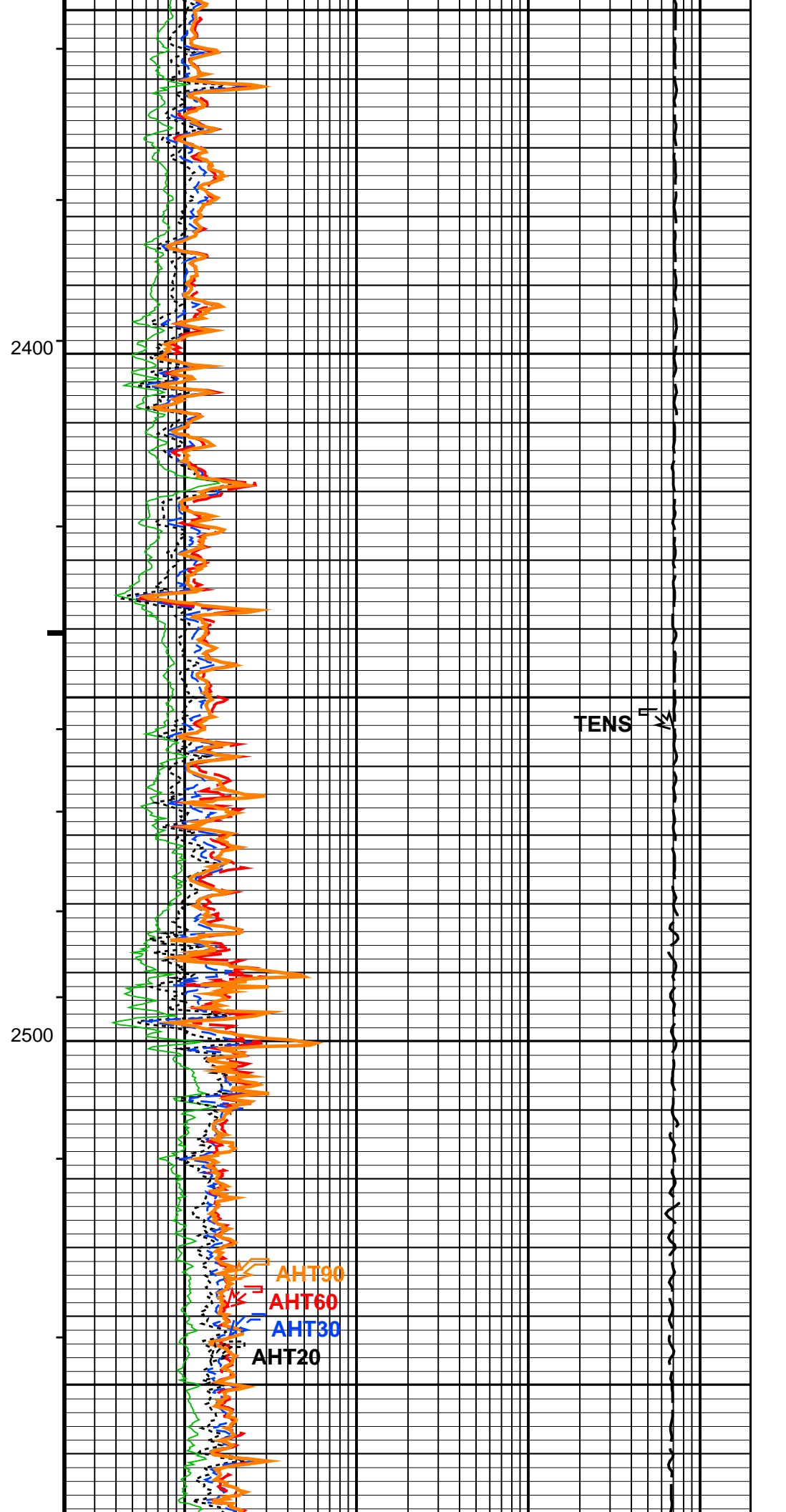
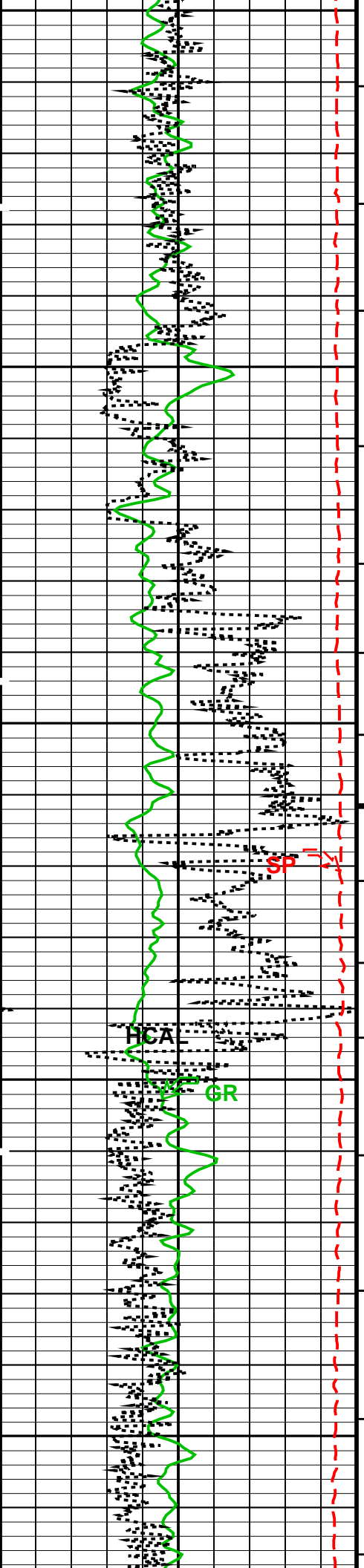


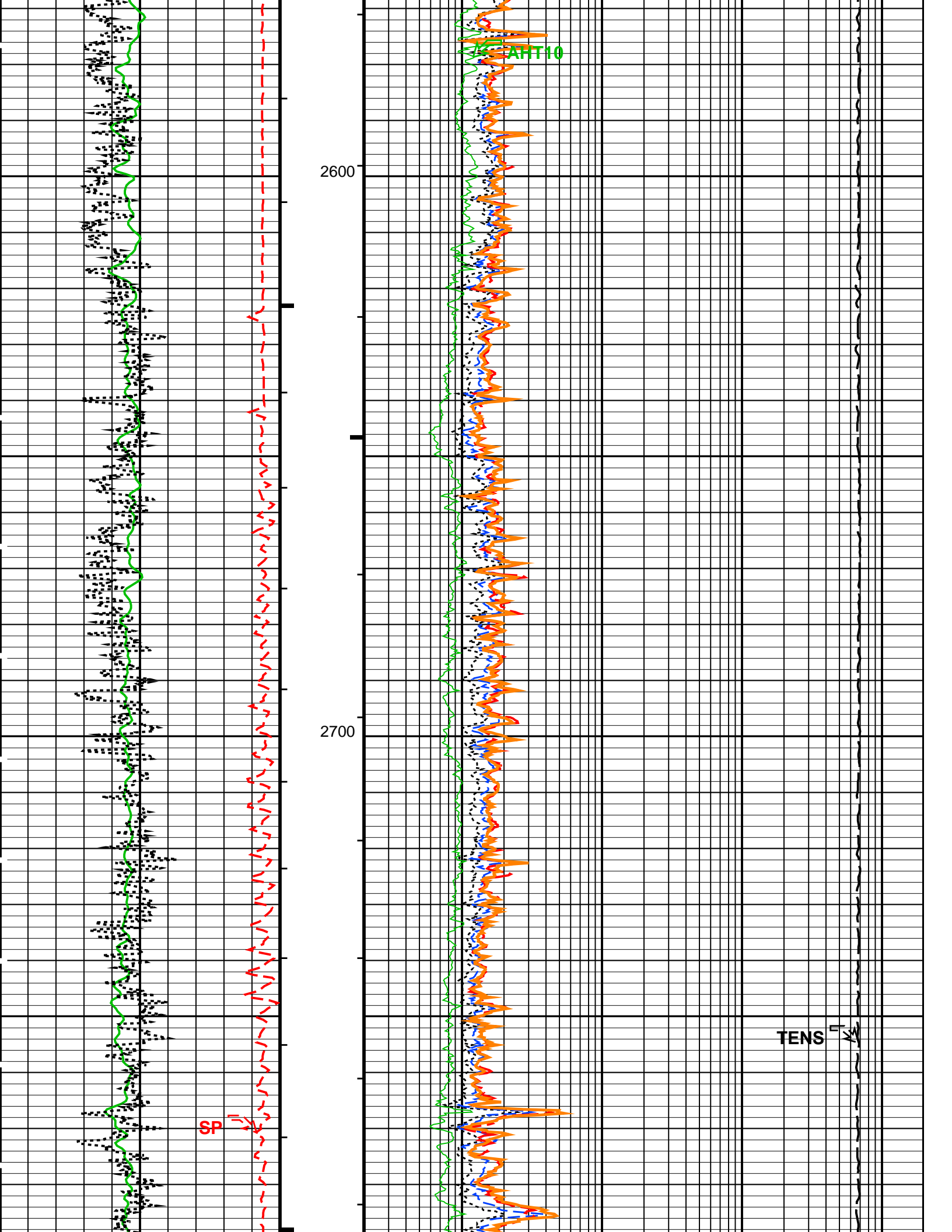


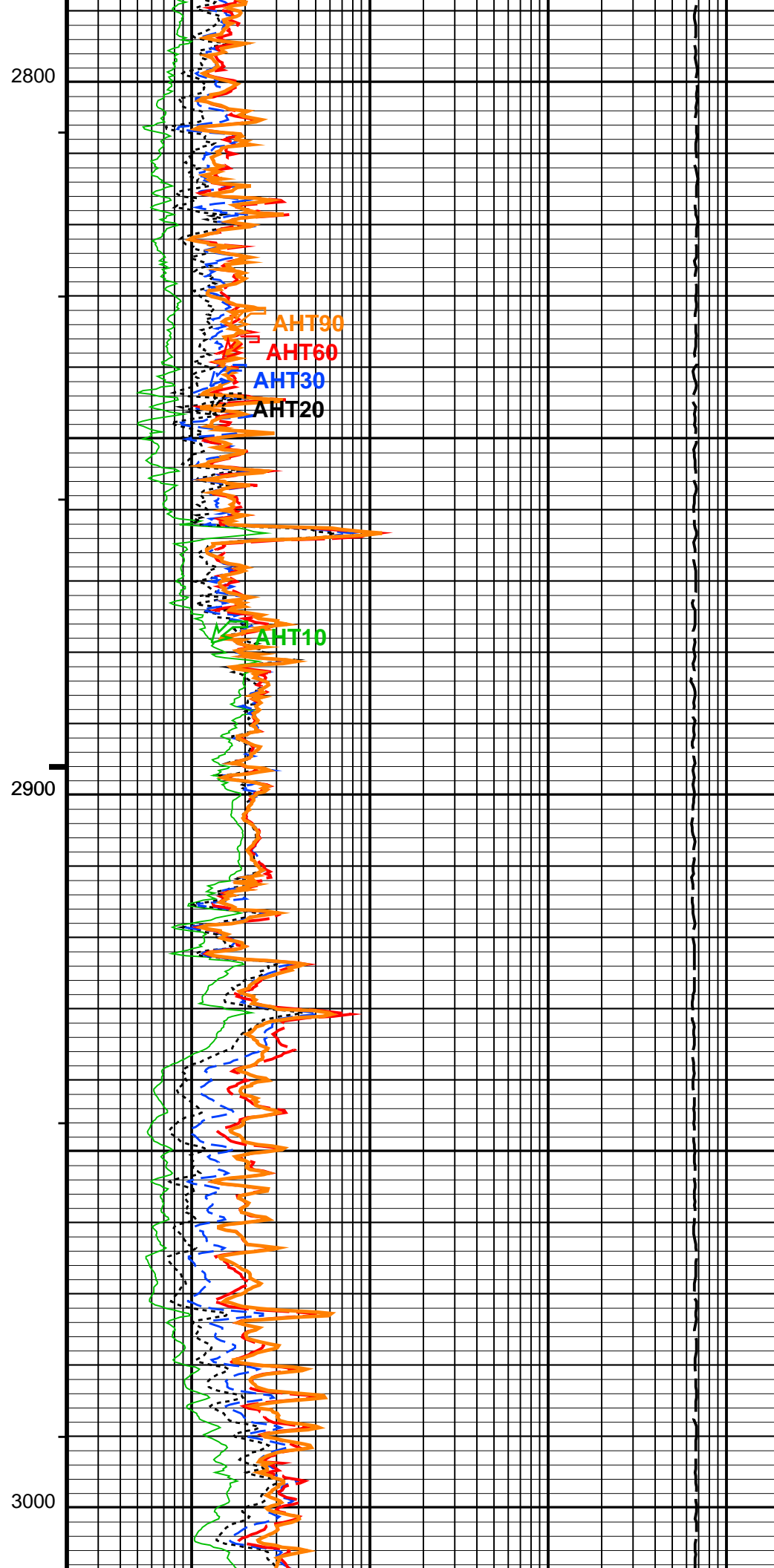
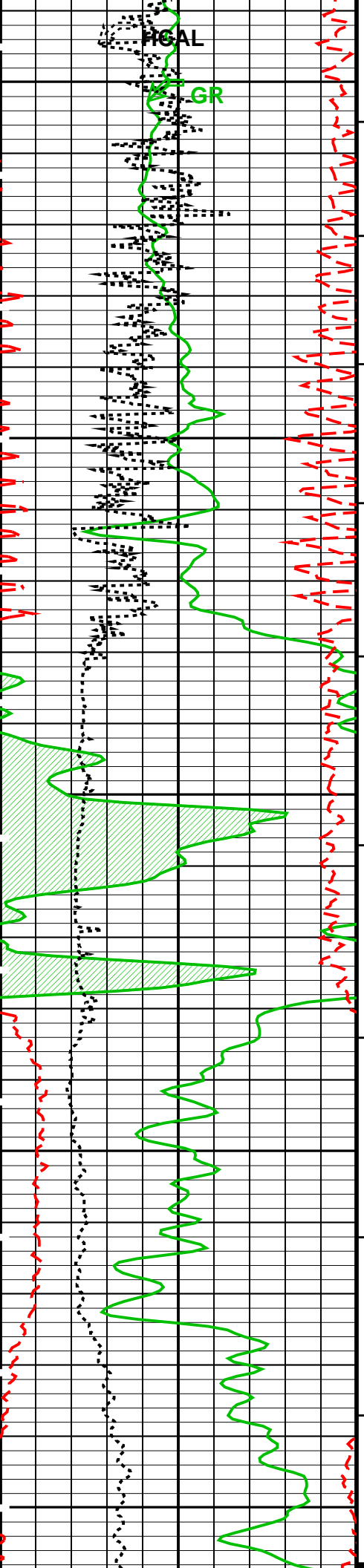


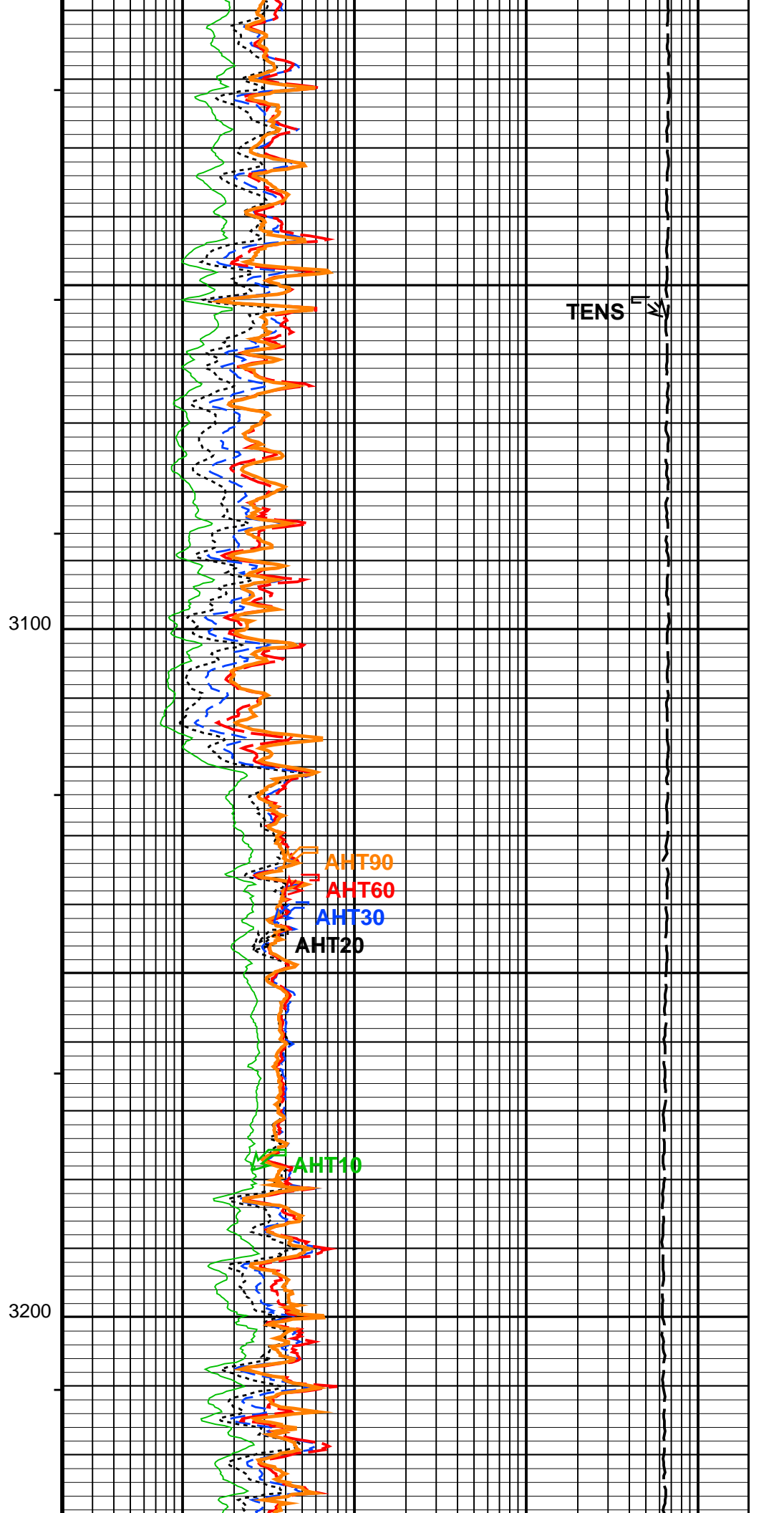
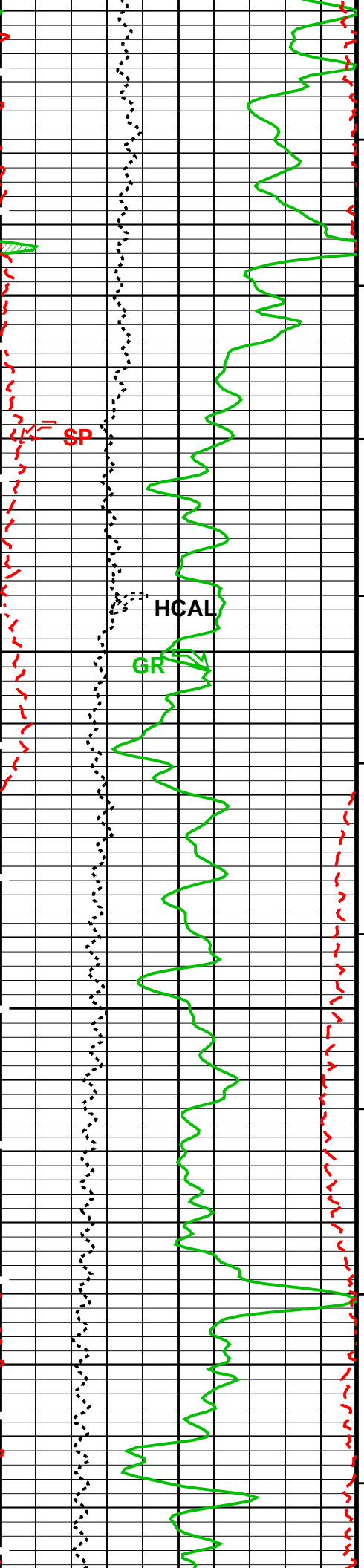


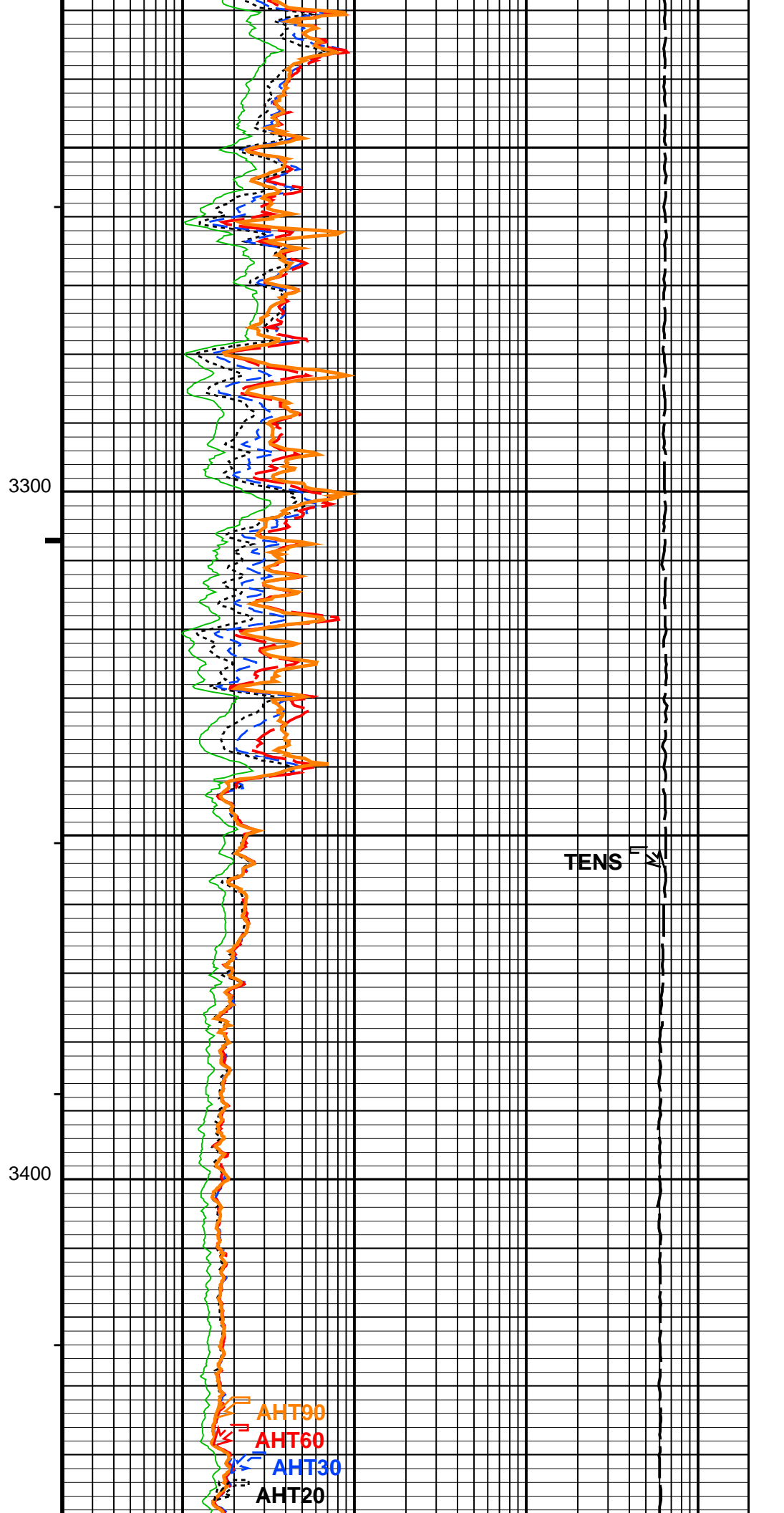
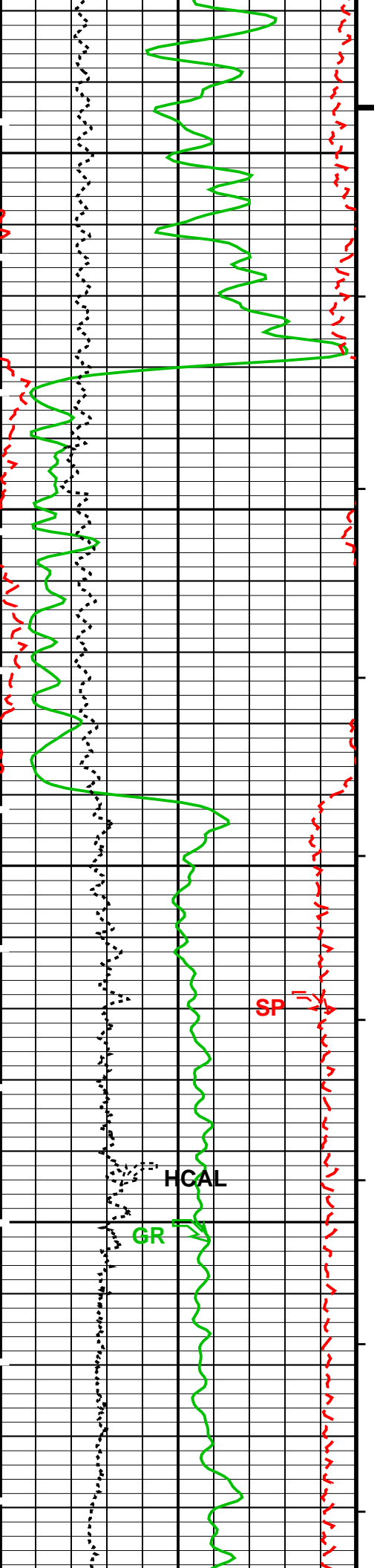


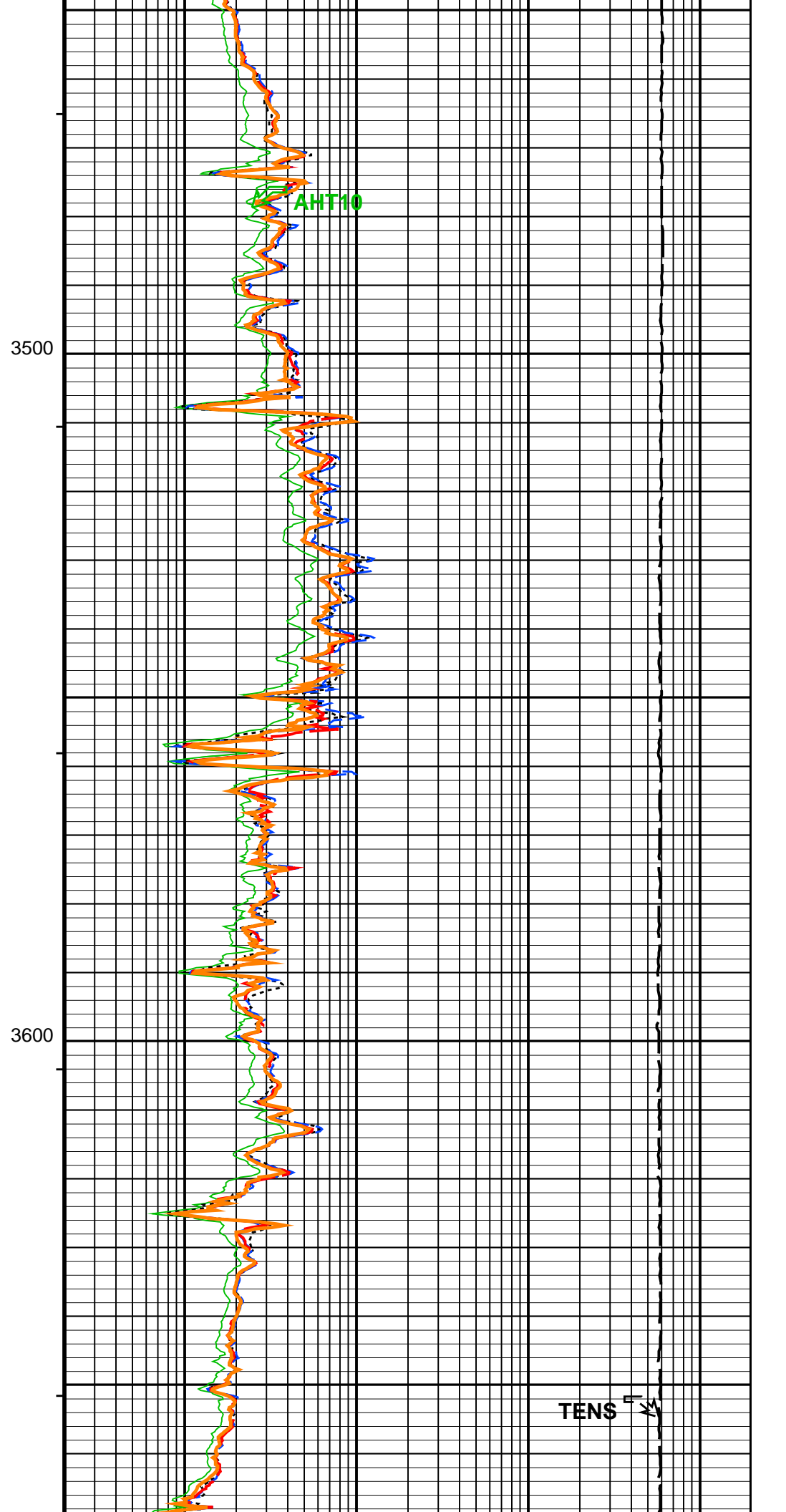
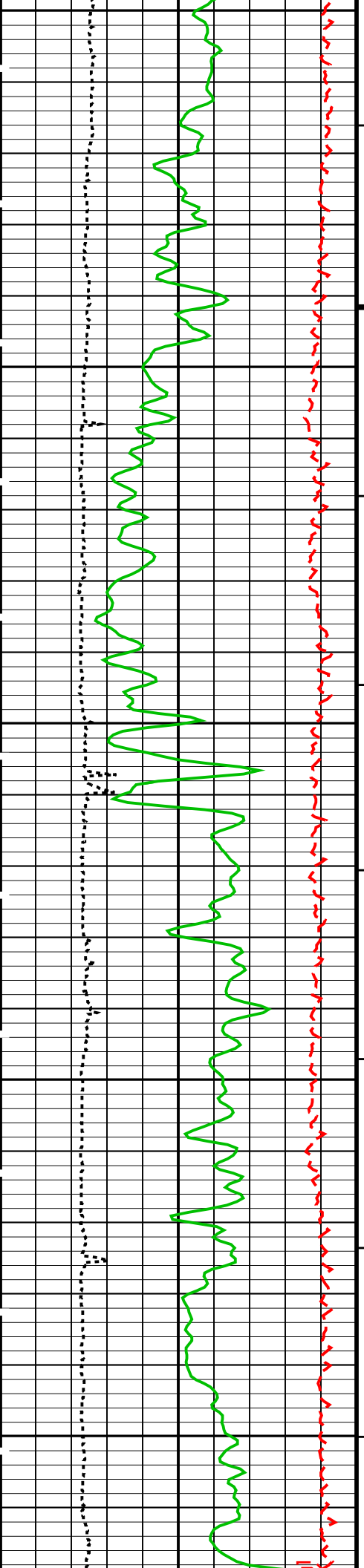


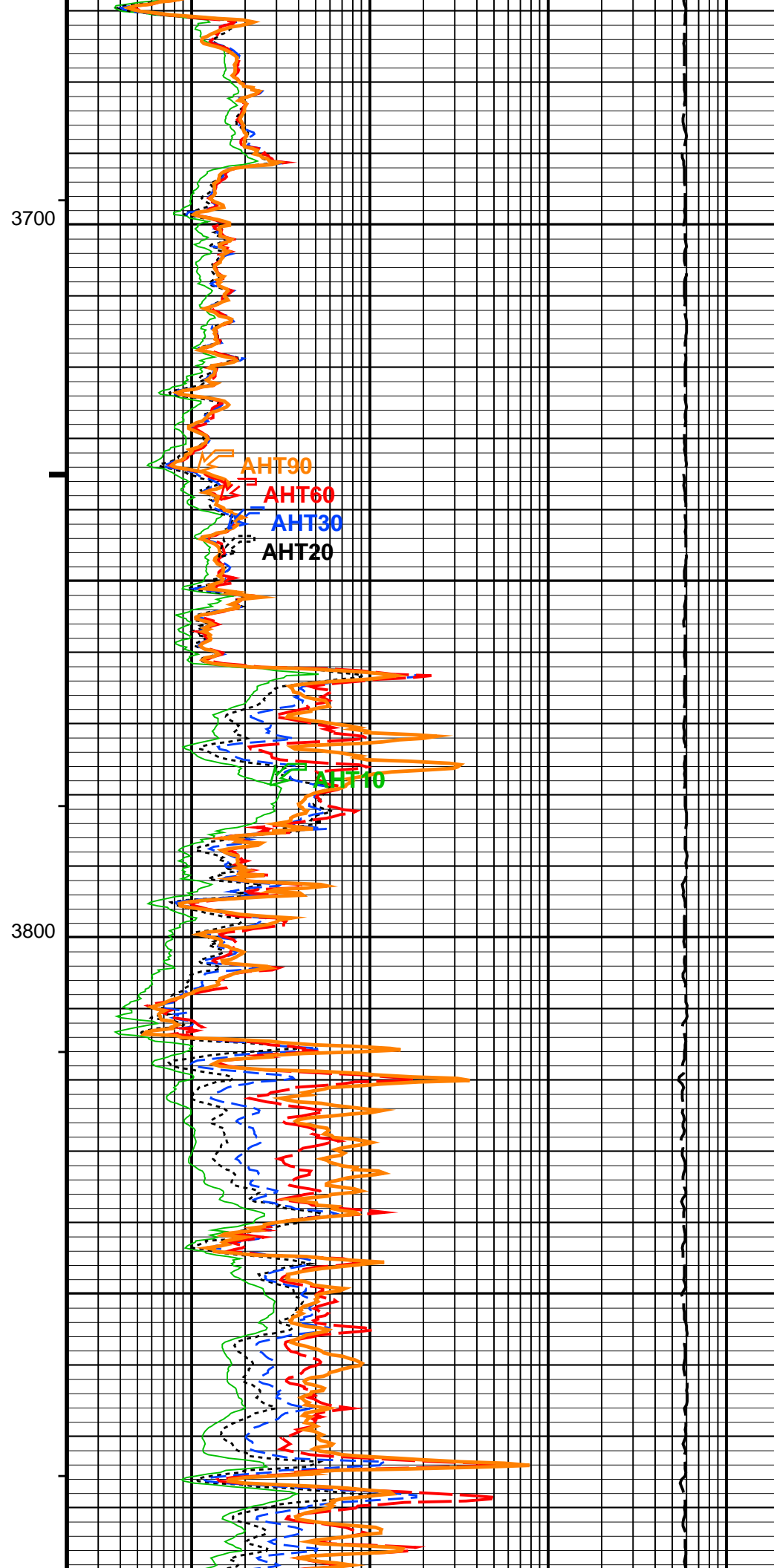
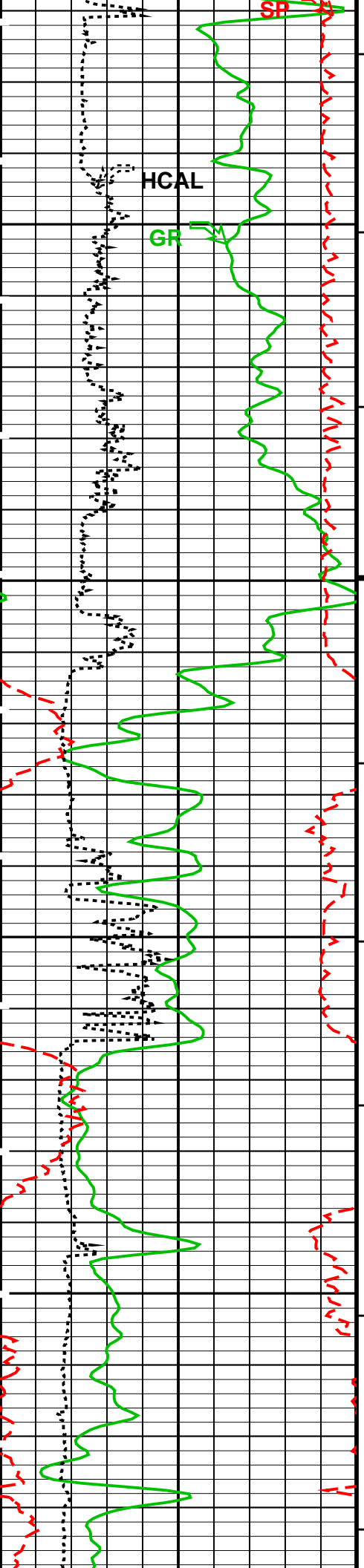


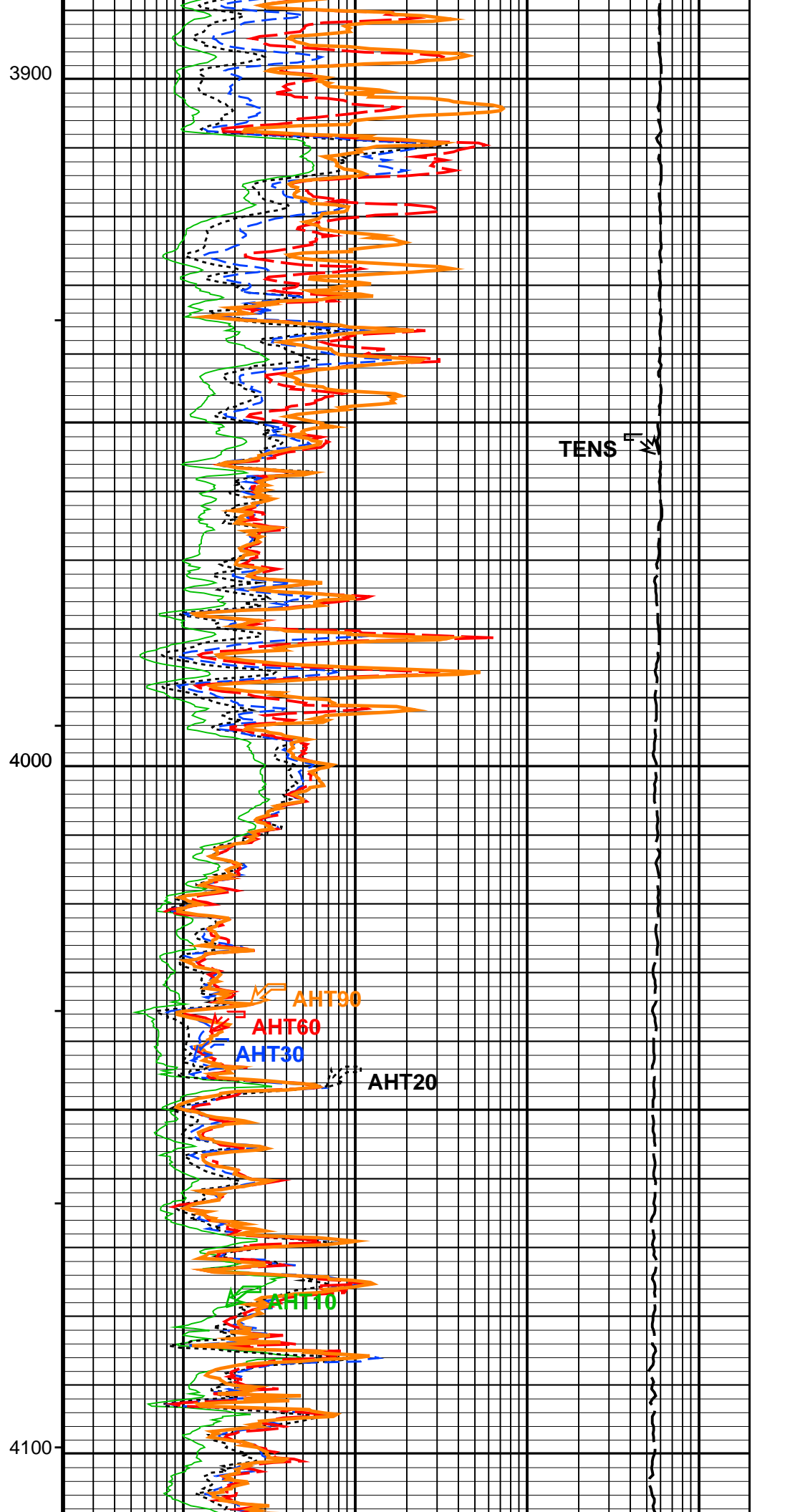
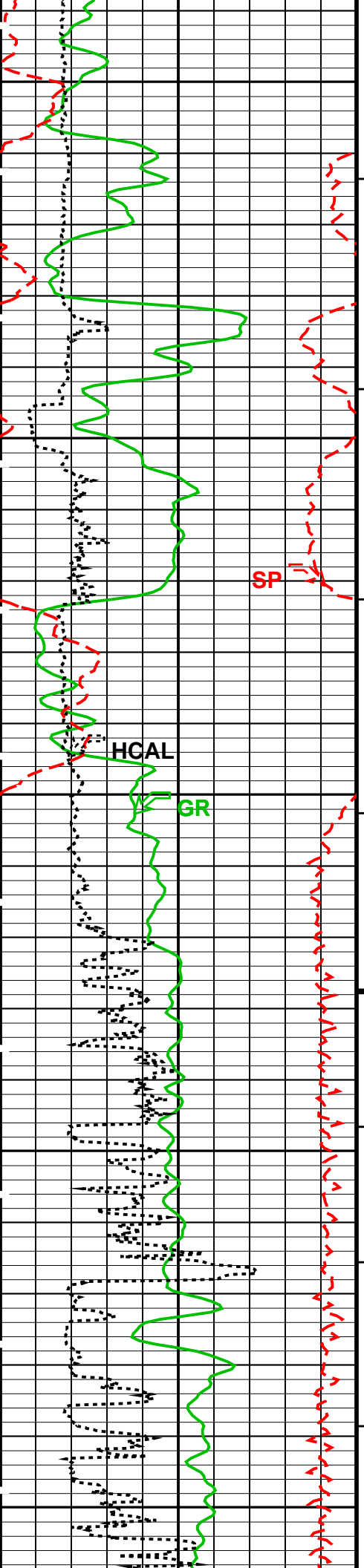


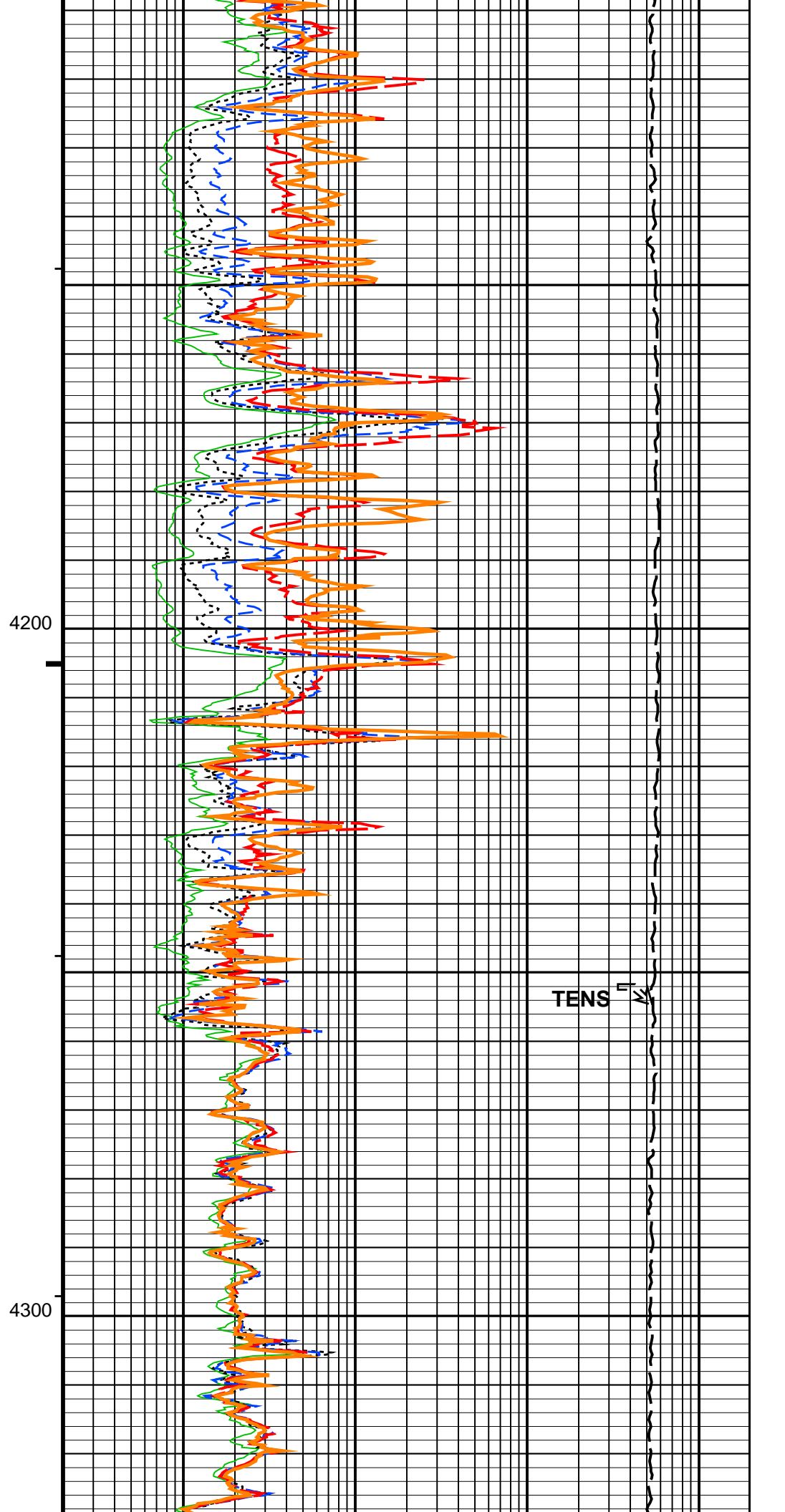


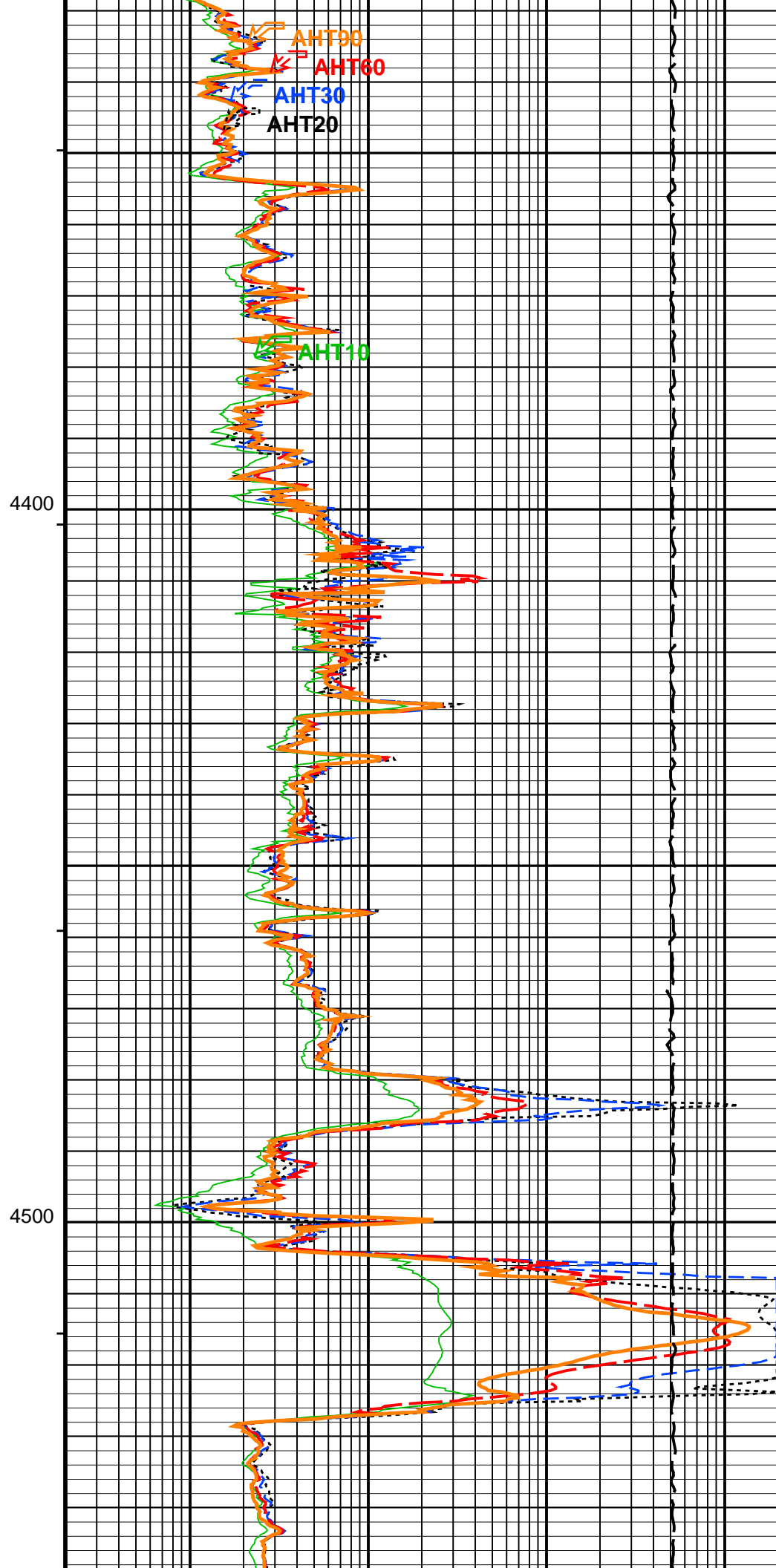
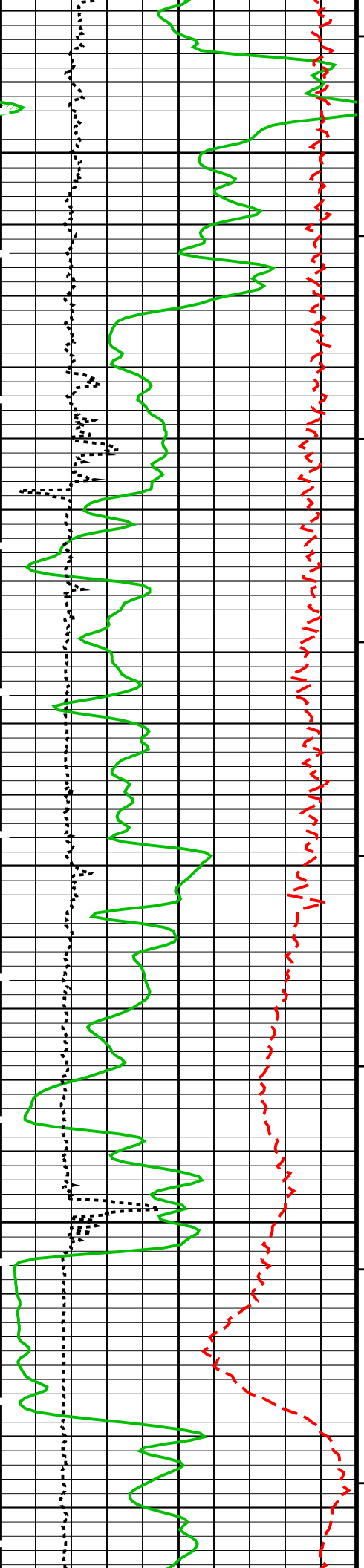


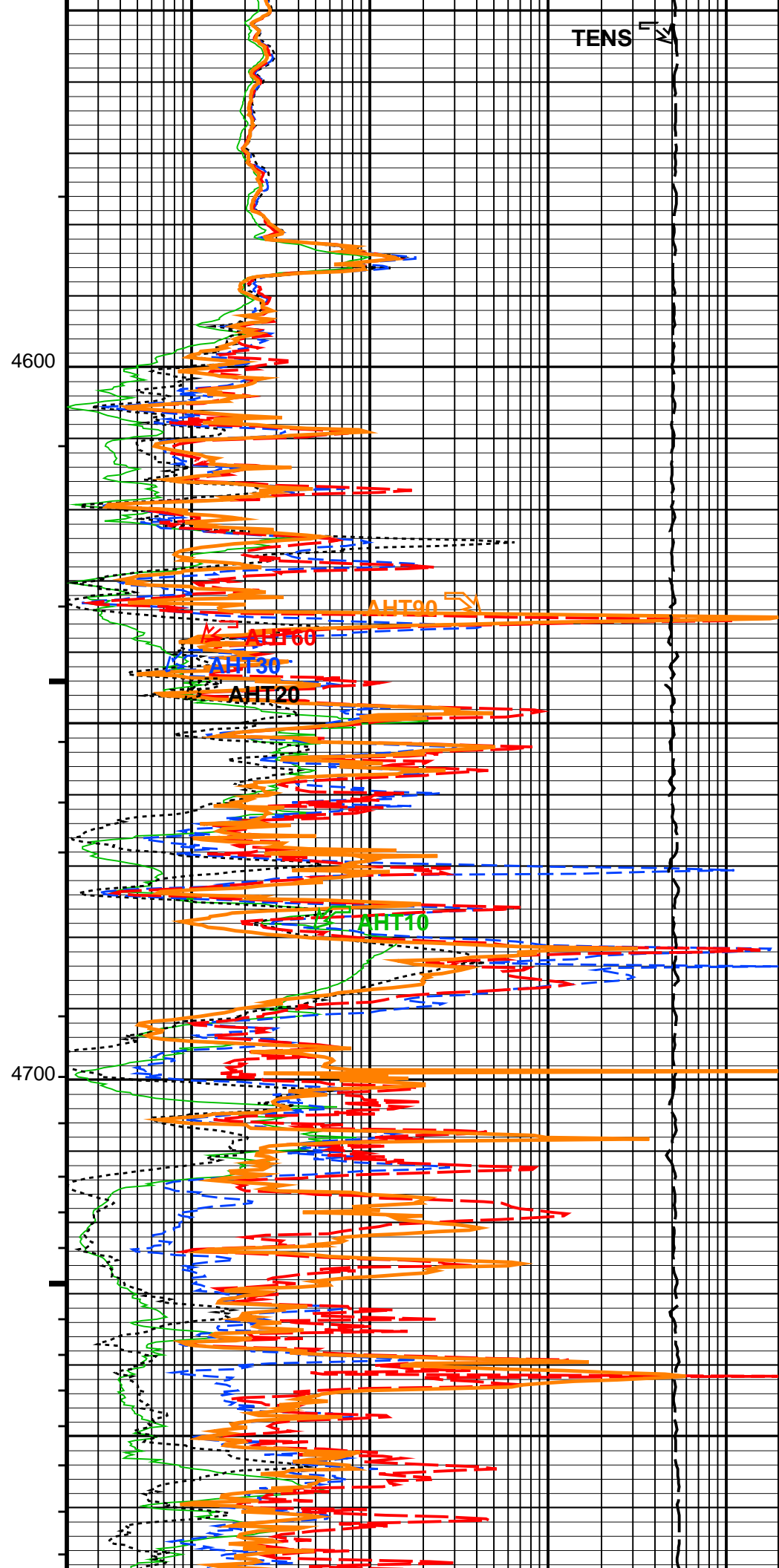
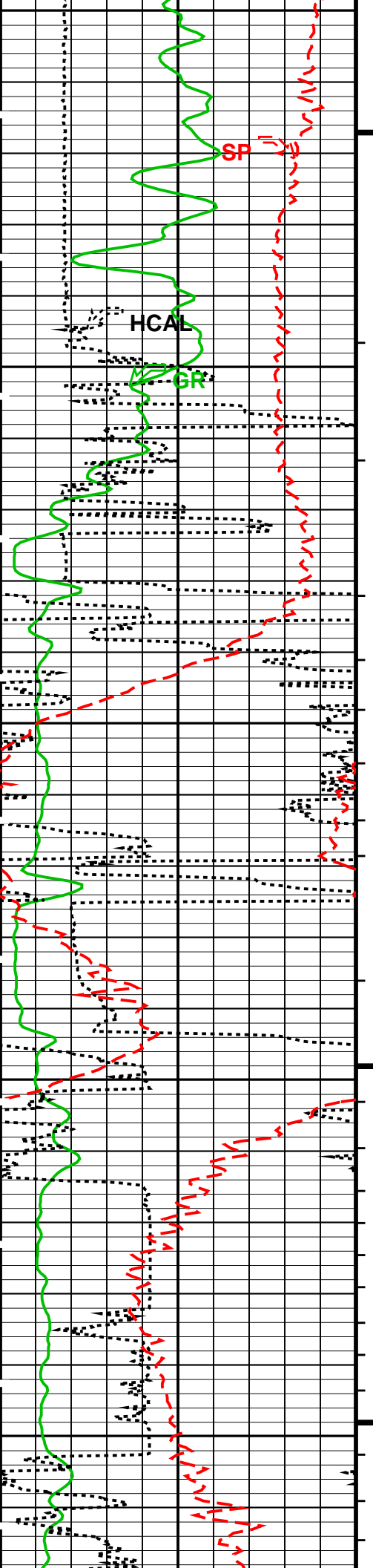


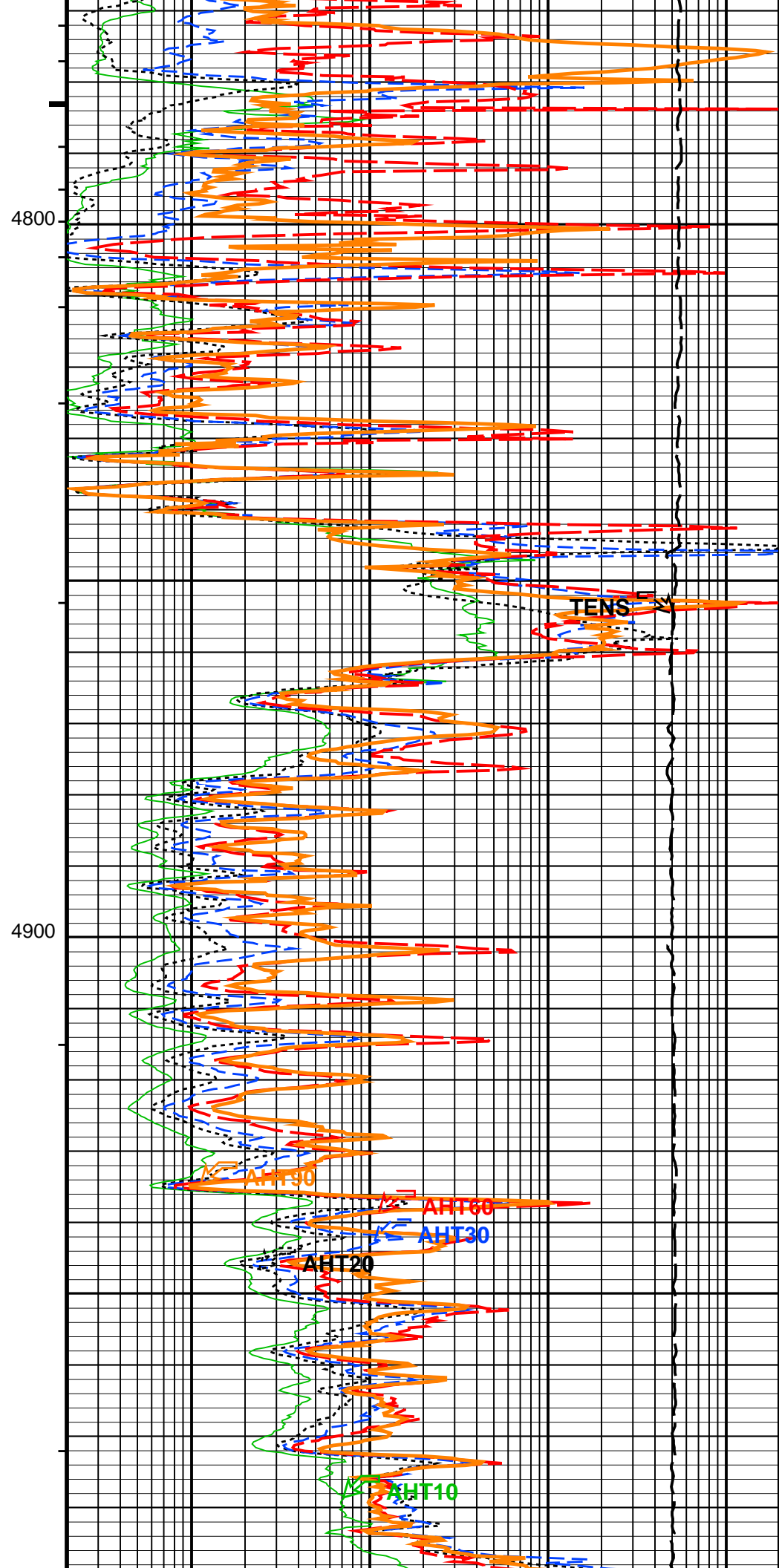
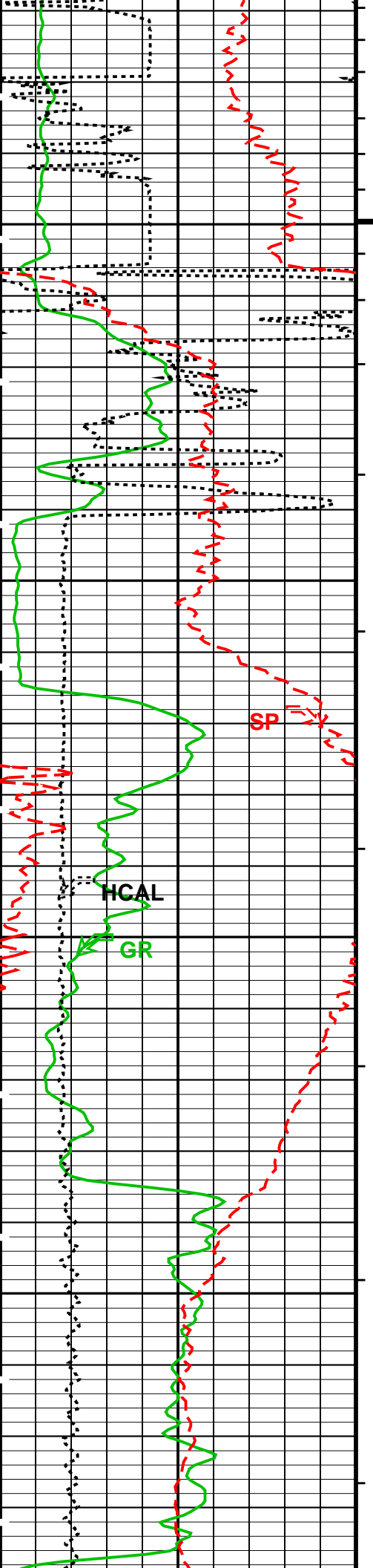


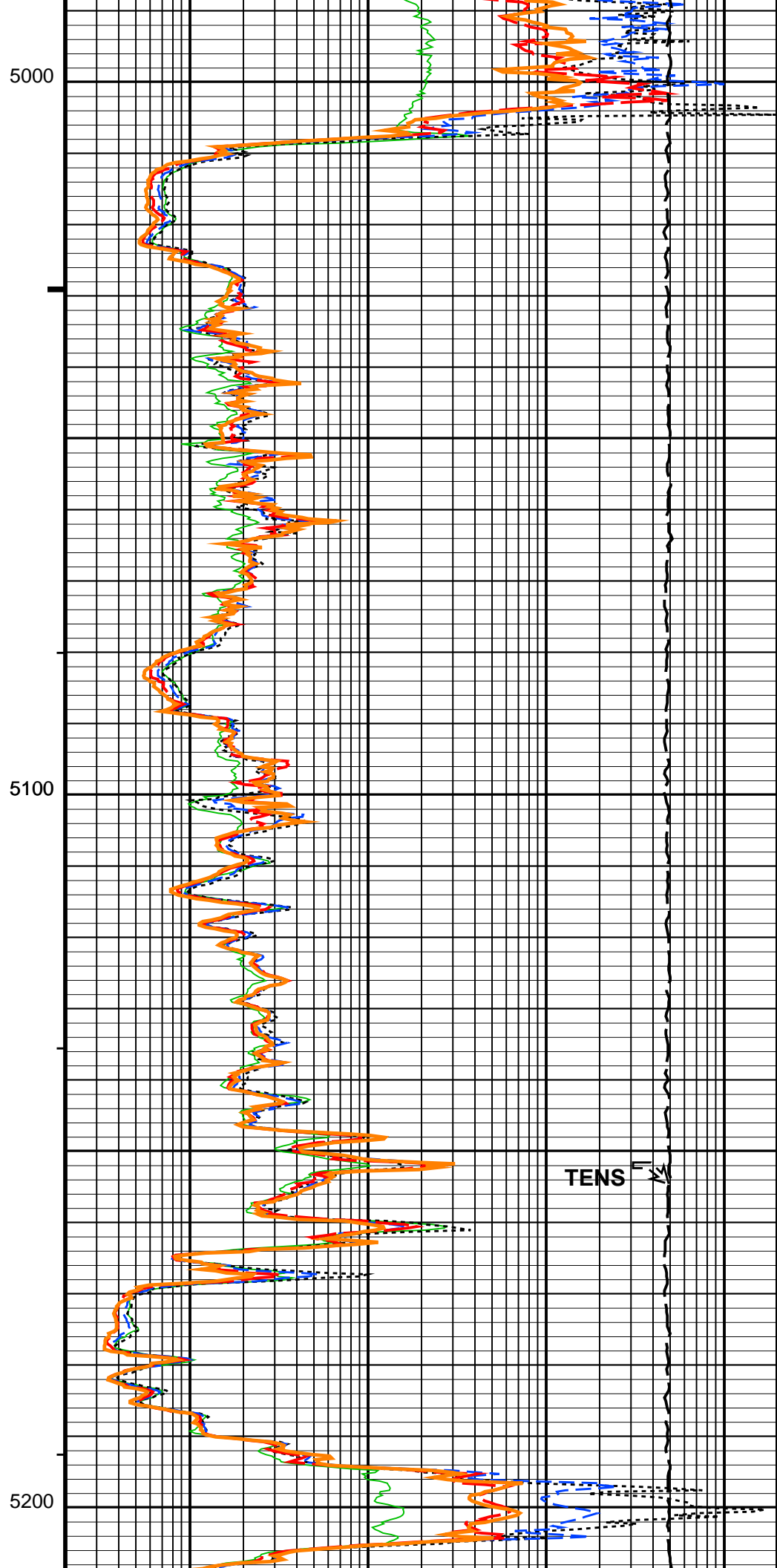
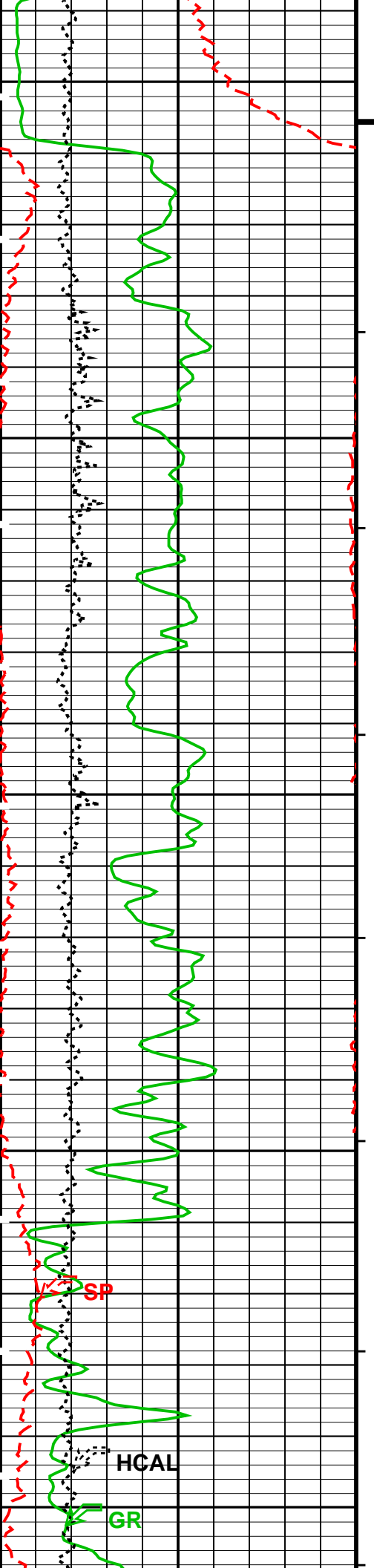


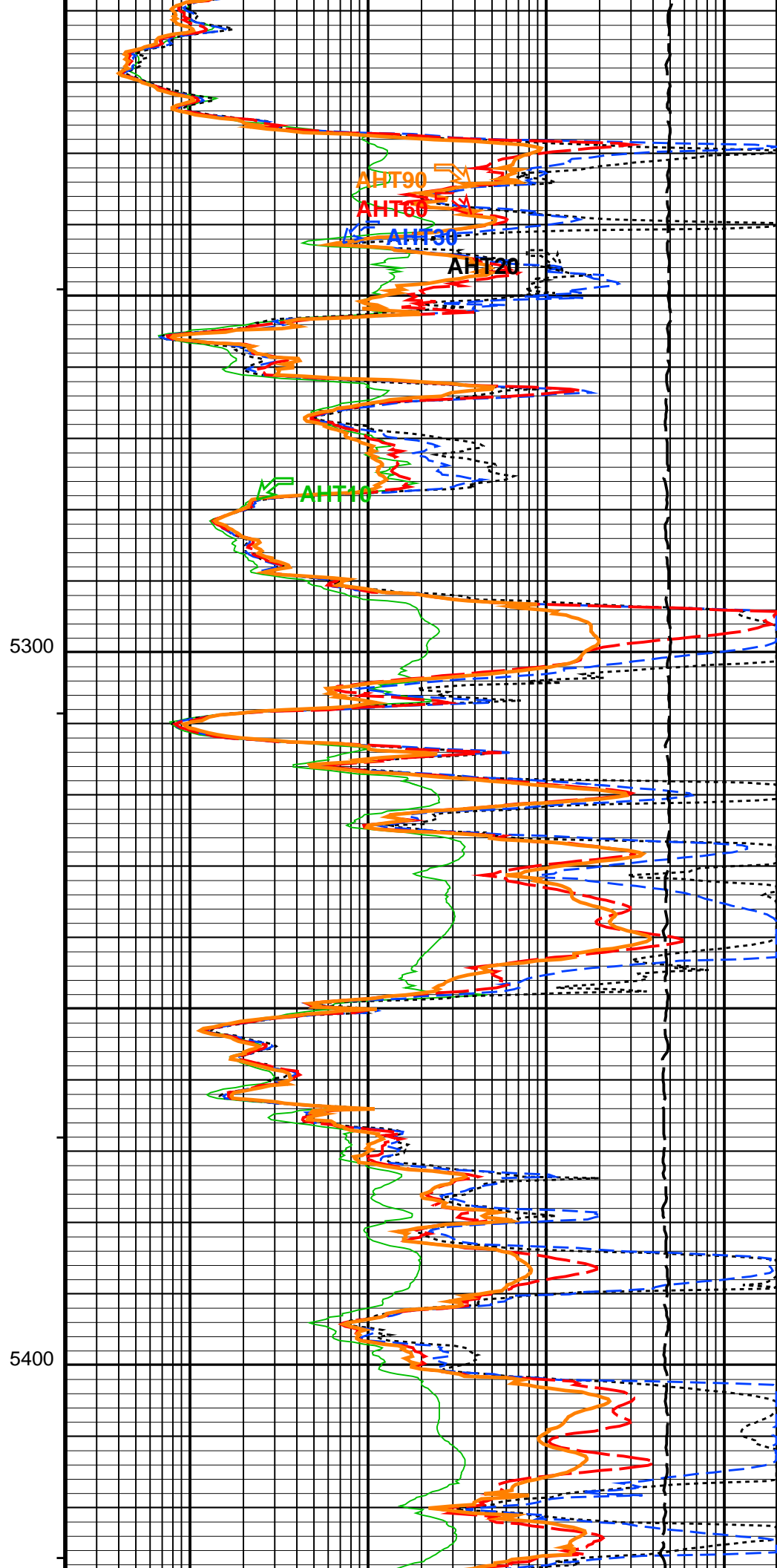
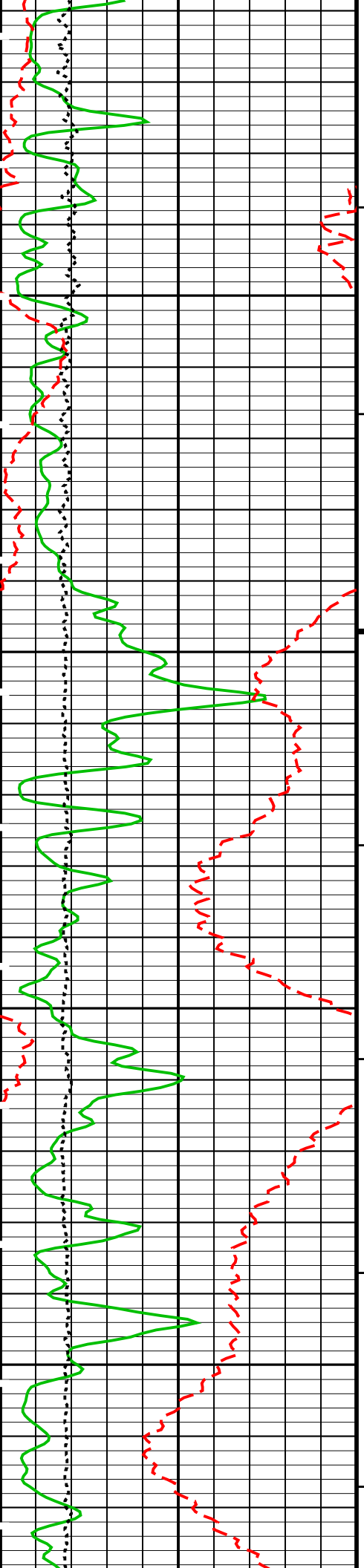


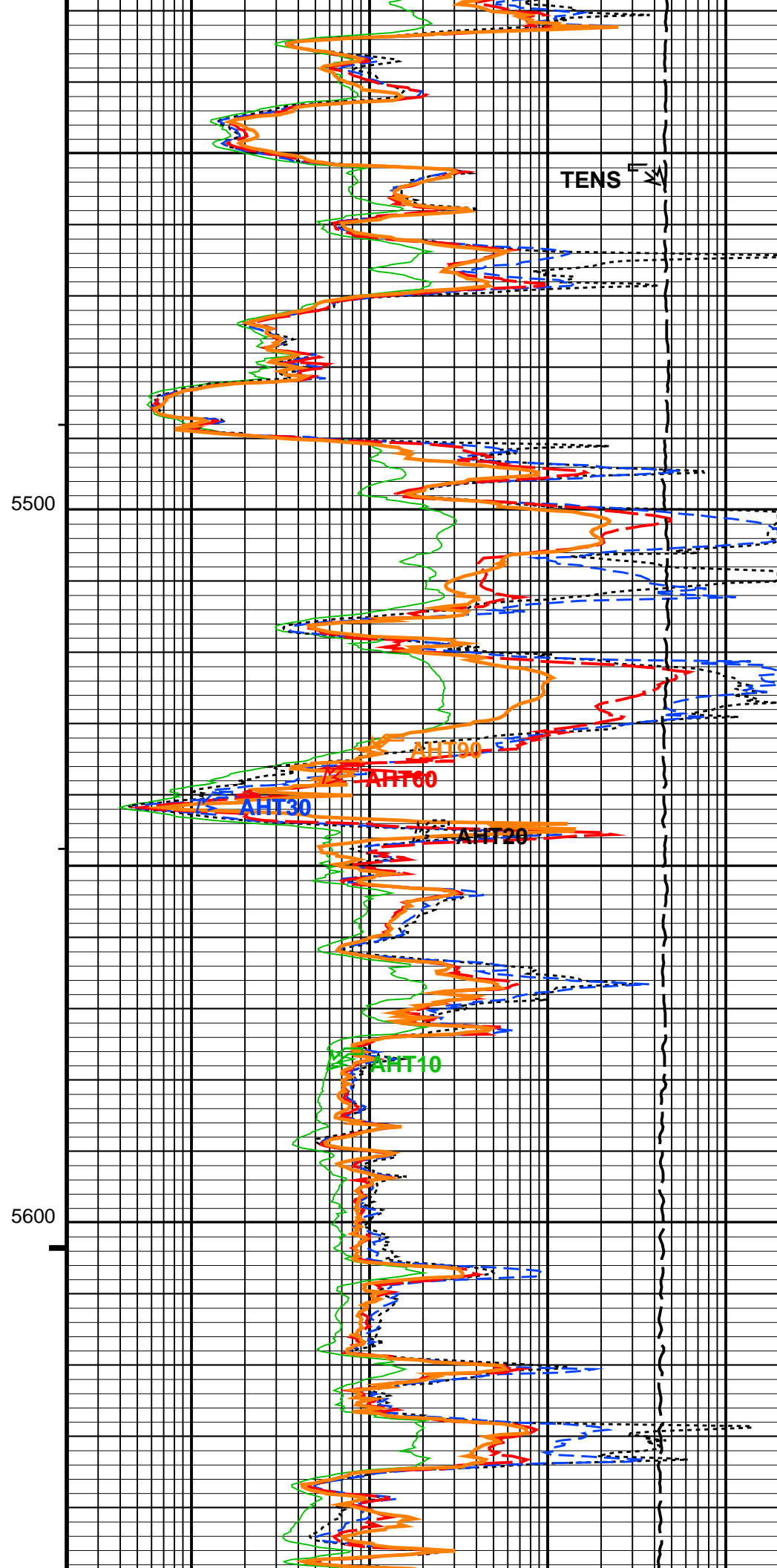
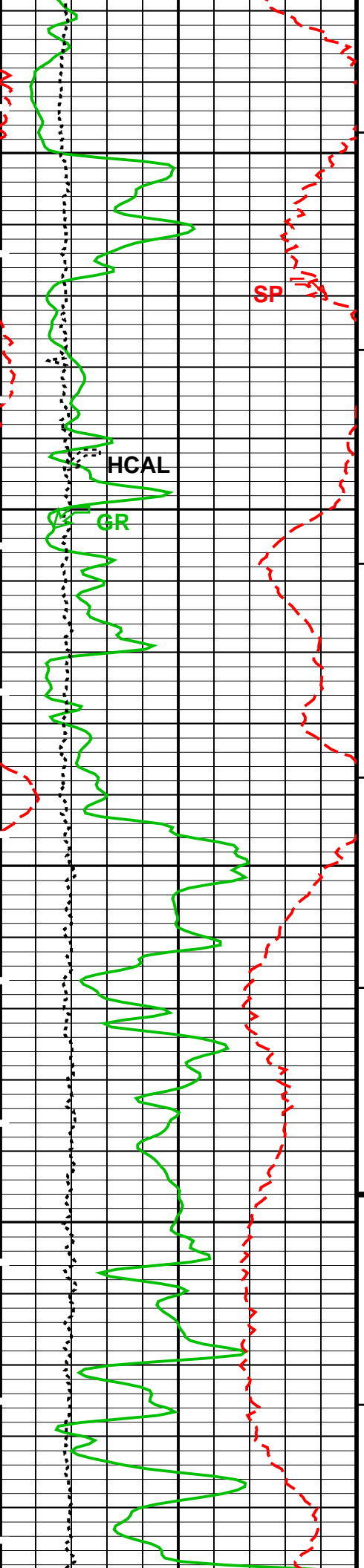


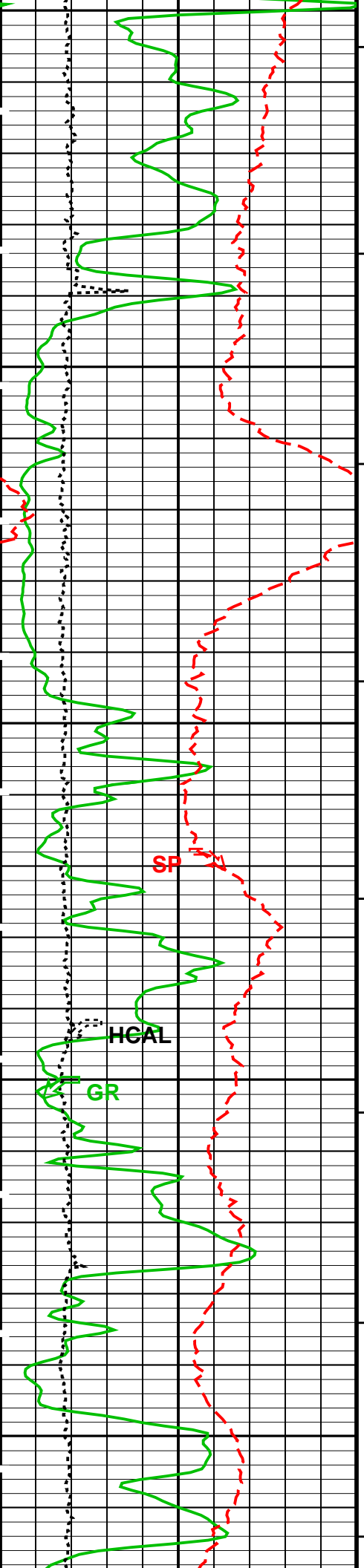






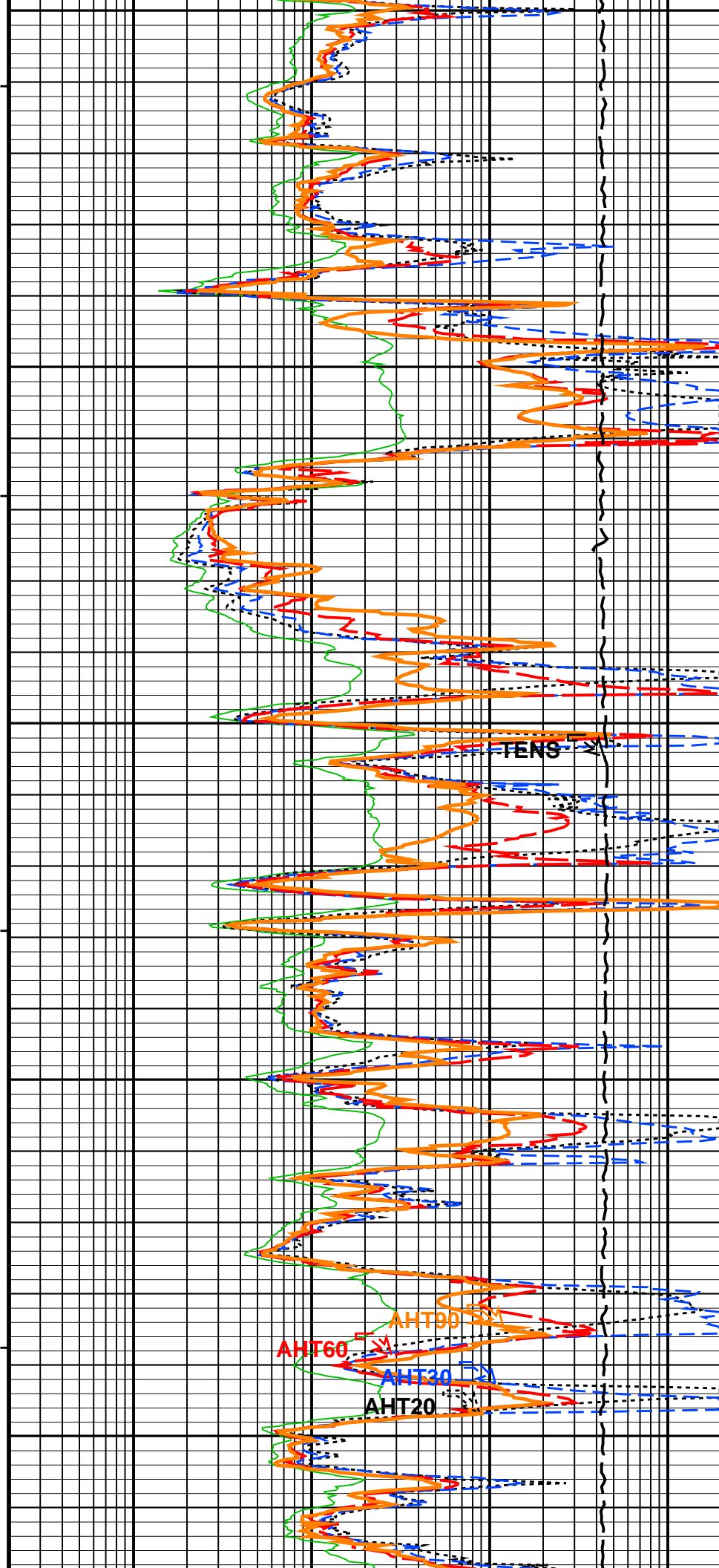


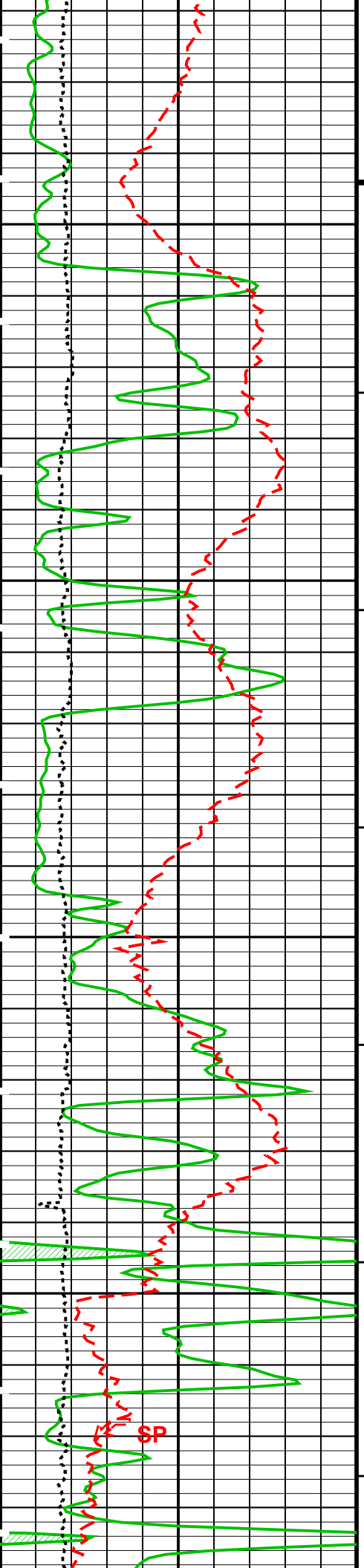




5700

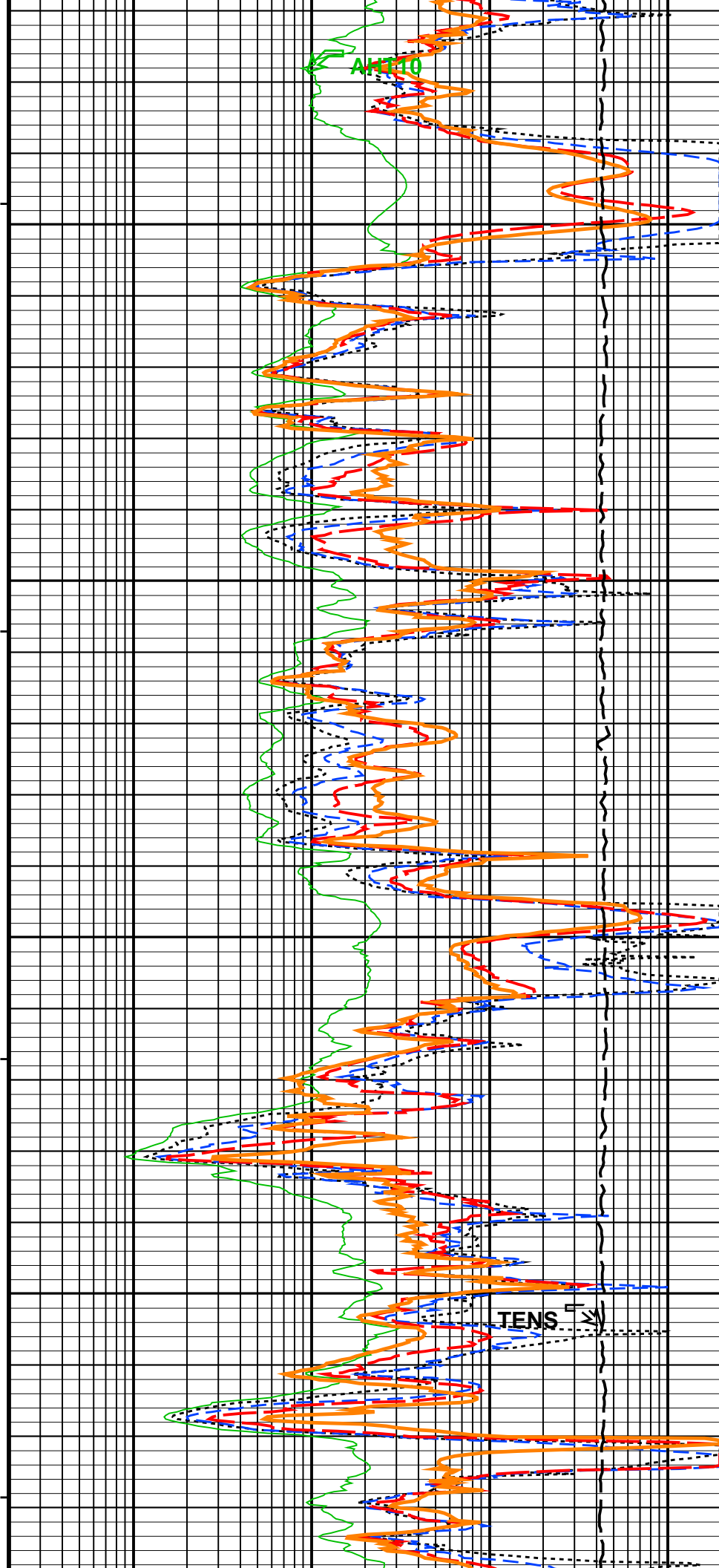
5800

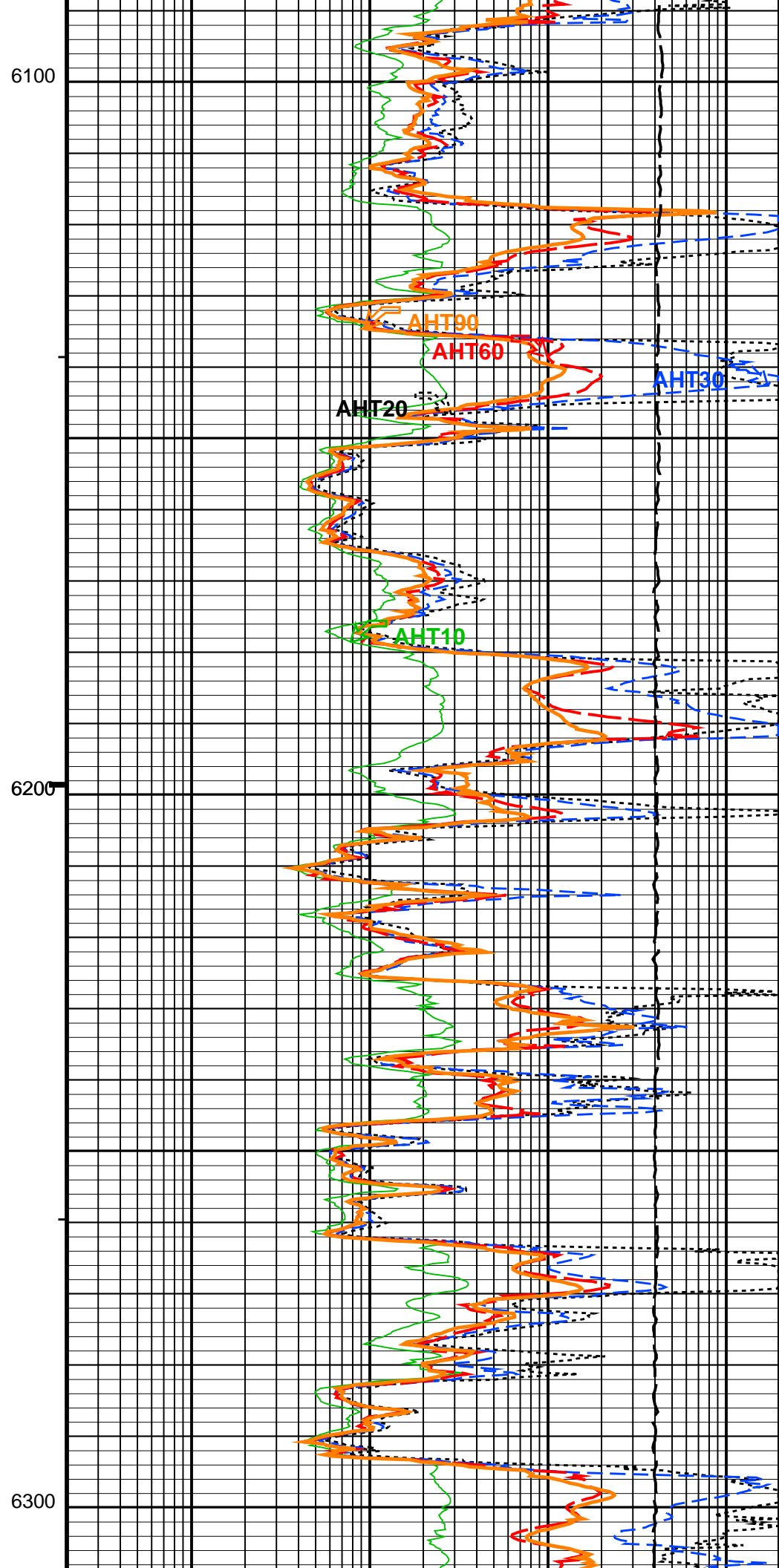
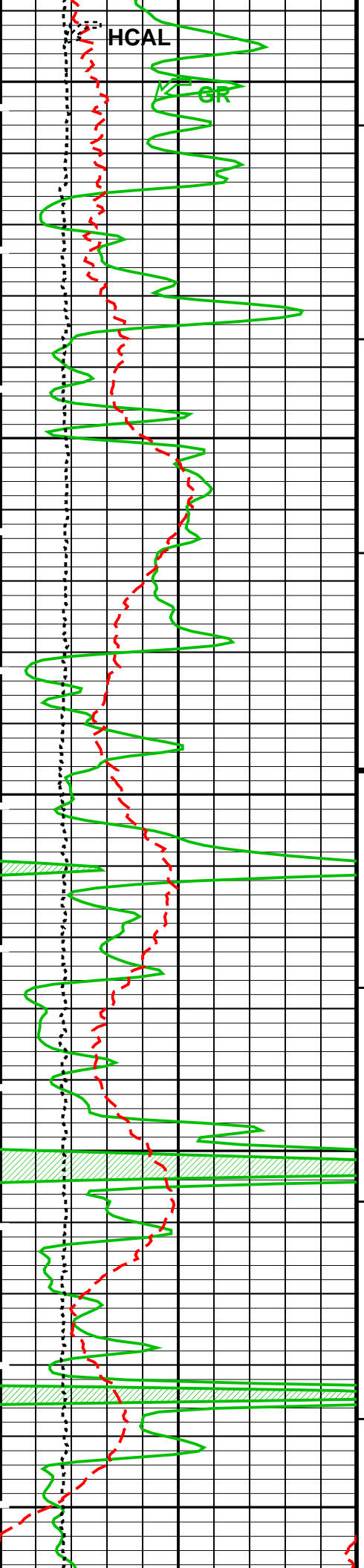


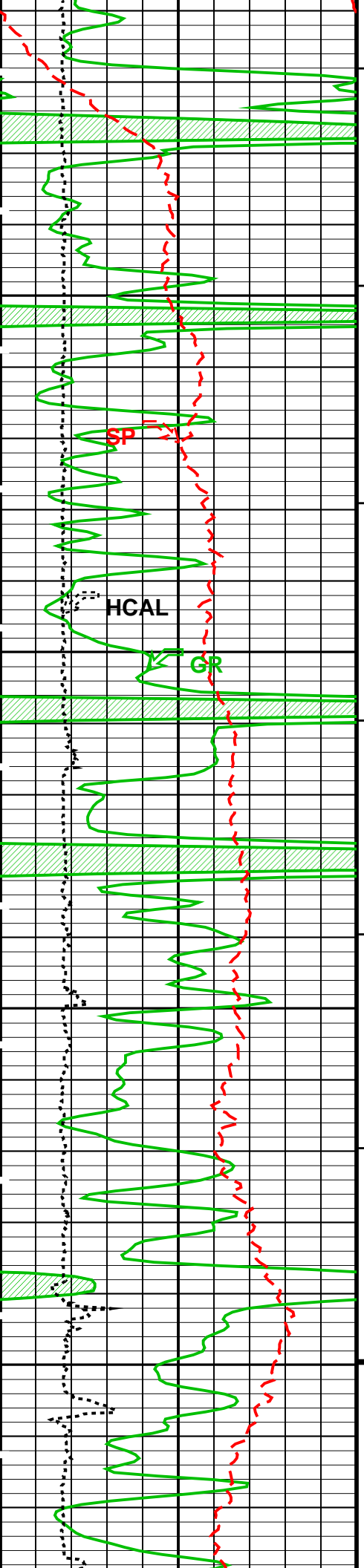


5900

6000

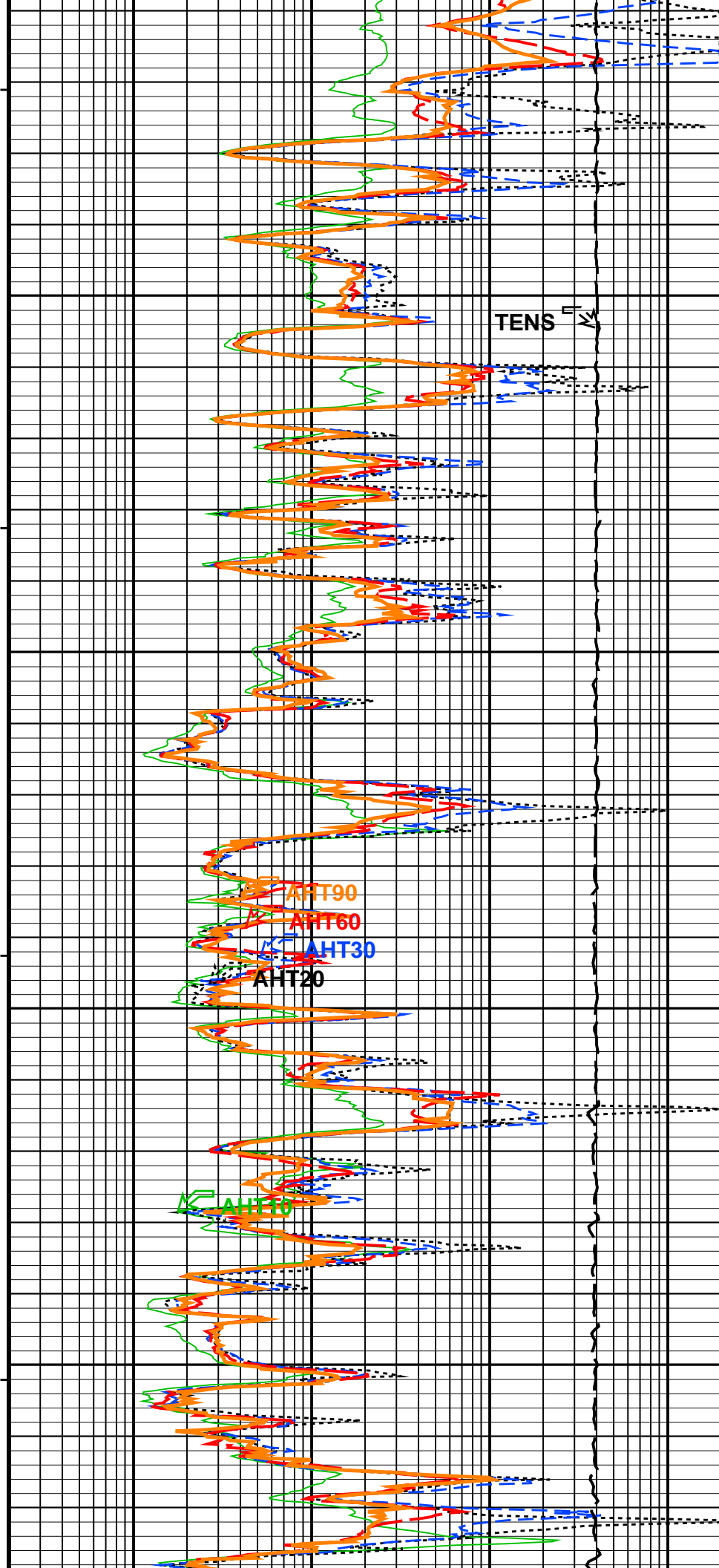


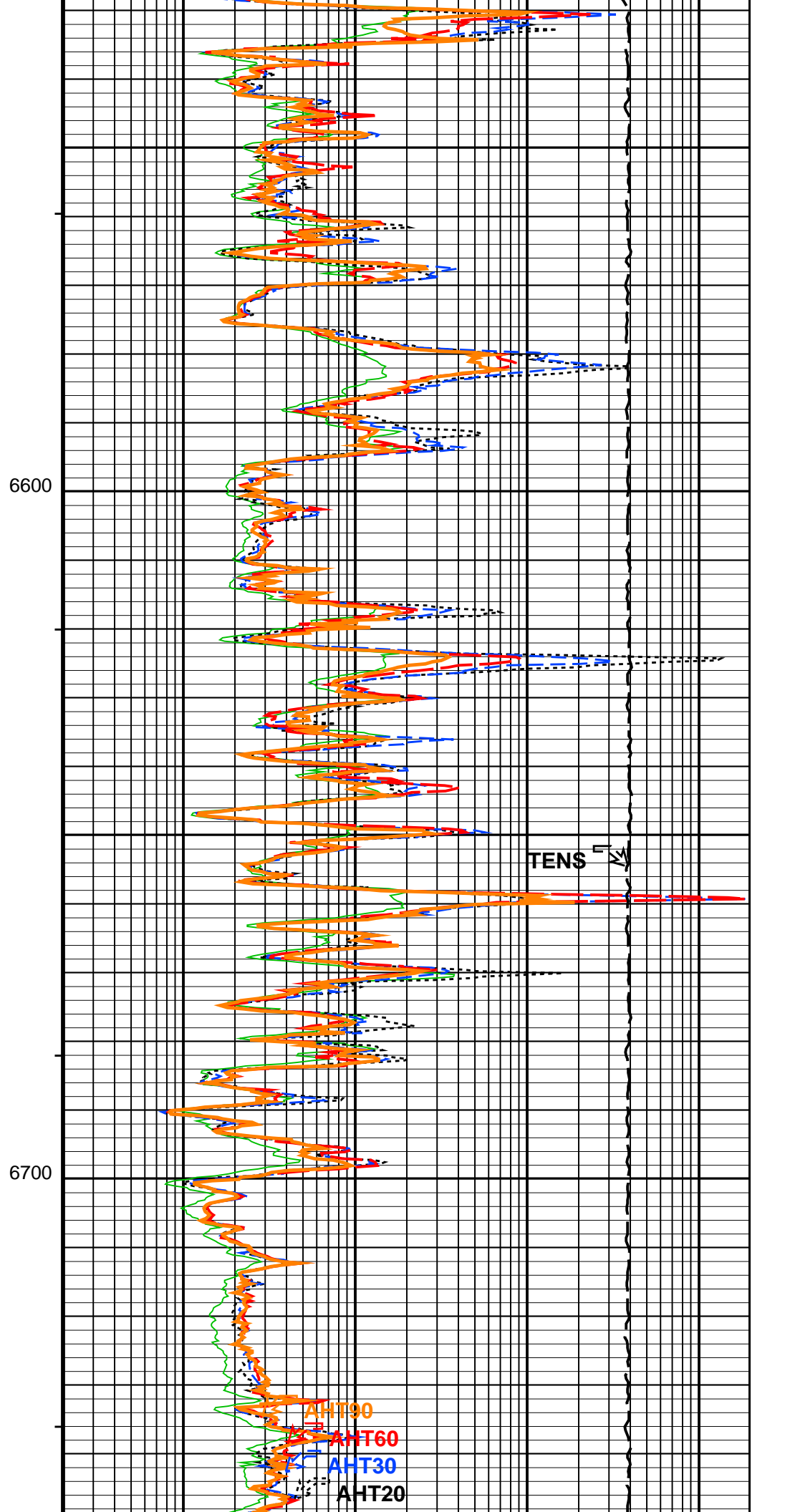
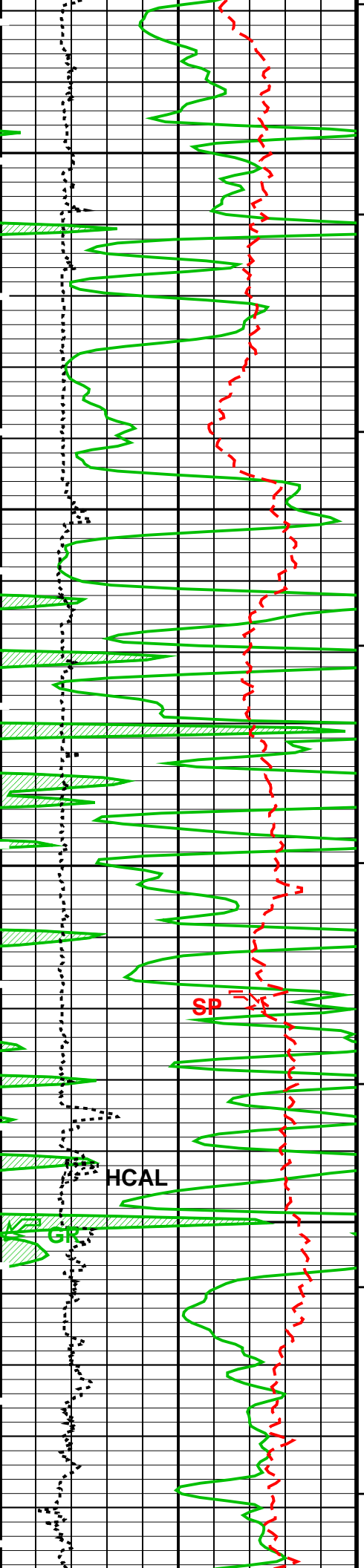


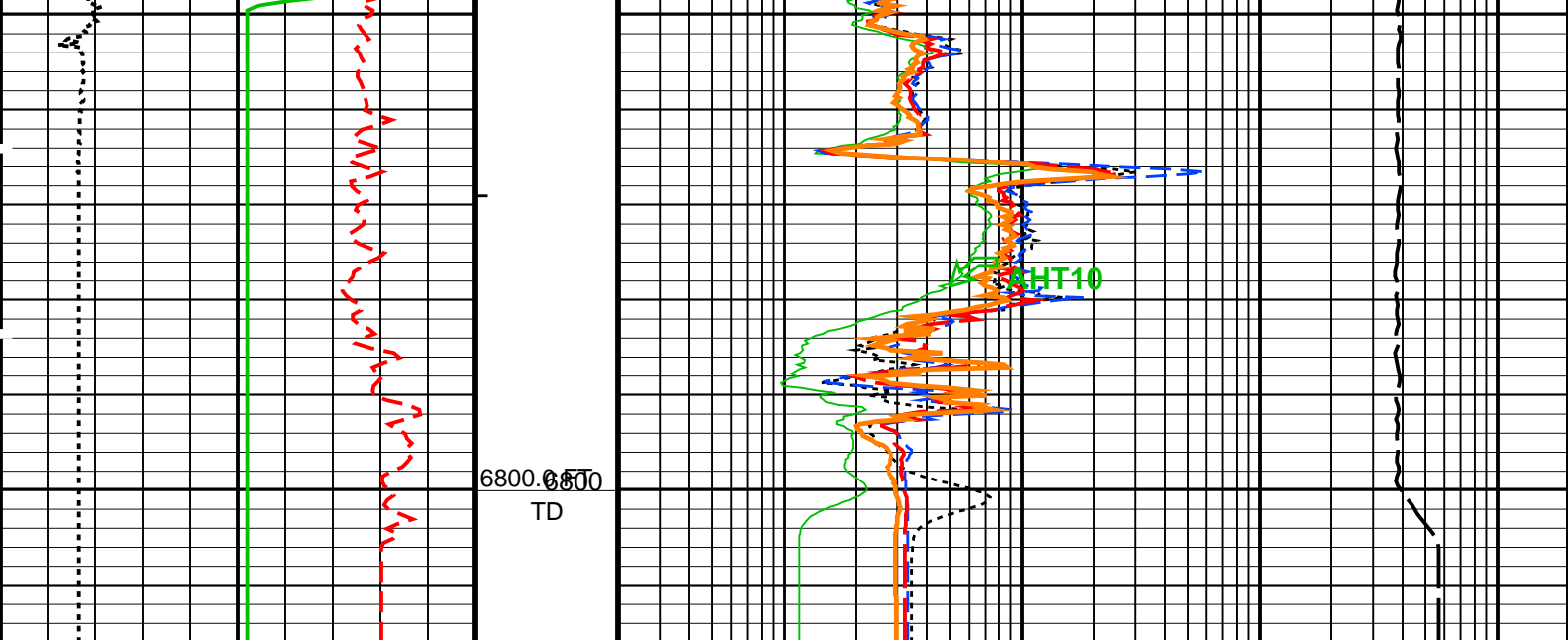


6400

6500







MAIN PASS: *** PLATFORM EXPRESS – ARRAY INDUCTION ***

Gamma Ray Backup		AIT-H 10 Inch Investigation (AHT10)	
		0.2	(OHMM) 2000
Gamma Ray (GR)		AIT-H 20 Inch Investigation (AHT20)	
		0.2	(OHMM) 2000
(GAPI) 200		AIT-H 30 Inch Investigation (AHT30)	
		0.2	(OHMM) 2000
Caliper (HCAL)		AIT-H 60 Inch Investigation (AHT60)	
		0.2	(OHMM) 2000
(IN) 16		AIT-H 90 Inch Investigation (AHT90)	
		0.2	(OHMM) 2000
SP (SP)		Tension (TENS)	
		10000	(LBF) 0
-160 (MV) 40			

PIP SUMMARY

- Integrated Hole Volume Minor Pip Every 10 F3
- Integrated Hole Volume Major Pip Every 100 F3
- Integrated Cement Volume Minor Pip Every 10 F3
- Integrated Cement Volume Major Pip Every 100 F3

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
HAIT-H: Array Induction Tool – H		
AHBHM	Array Induction Borehole Correction Mode	2_ComputeStandoff
AHBHV	Array Induction Borehole Correction Code Version Number	900
AHBLM	Array Induction Basic Logs Mode	6_One_Two_and_Four
AHBLV	Array Induction Basic Logs Code Version Number	223
AHCDE	Array Induction Casing Detection Enable	Yes
AHCEN	Array Induction Tool Centering Flag (in Borehole)	Eccentered
AHFRSV	Array Induction Response Set Version for Four ft Resolution	41.70.24.20
AHMRF	Array Induction Mud Resistivity Factor	1
AHORSV	Array Induction Response Set Version for One ft Resolution	41.70.24.20
AHRFV	Array Induction Radial Profiling Code Version Number	701
AHRPV	Array Induction Radial Parametrization Code Version Number	232
AHSTA	Array Induction Tool Standoff	1 IN
AHTRSV	Array Induction Response Set Version for Two ft Resolution	41.70.24.20
BHT	Bottom Hole Temperature (used in calculations)	185 DEGF
FEXP	Form Factor Exponent	2
FNUM	Form Factor Numerator	1
GCSE	Generalized Caliper Selection	HCAL
GDEV	Average Angular Deviation of Borehole from Normal	0 DEG
GGRD	Geothermal Gradient	0.01 DF/F
GRSE	Generalized Mud Resistivity Selection	AITH RESIST

GTSE	Generalized Temperature Selection	HSTS_HTEM	68	DEGF
SHT	Surface Hole Temperature			
SPNV	SP Next Value		0	MV
HILTH-FTB: High resolution Integrated Logging Tool-DTS				
BHT	Bottom Hole Temperature (used in calculations)		185	DEGF
FEXP	Form Factor Exponent		2	
FNUM	Form Factor Numerator		1	
GCSE	Generalized Caliper Selection	HCAL		
GDEV	Average Angular Deviation of Borehole from Normal		0	DEG
GGRD	Geothermal Gradient		0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST		
GTSE	Generalized Temperature Selection	HSTS_HTEM		
SHT	Surface Hole Temperature		68	DEGF
CMRT-B: Combinable Magnetic Resonance Tool - B				
BHT	Bottom Hole Temperature (used in calculations)		185	DEGF
GCSE	Generalized Caliper Selection	HCAL		
GDEV	Average Angular Deviation of Borehole from Normal		0	DEG
GGRD	Geothermal Gradient		0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST		
GTSE	Generalized Temperature Selection	HSTS_HTEM		
SHT	Surface Hole Temperature		68	DEGF
FEQL: Formation Evaluation Quick Look				
FEXP	Form Factor Exponent		2	
FNUM	Form Factor Numerator		1	
HOLEV: Integrated Hole/Cement Volume				
BHT	Bottom Hole Temperature (used in calculations)		185	DEGF
FCD	Future Casing (Outer) Diameter		5.5	IN
GCSE	Generalized Caliper Selection	HCAL		
GDEV	Average Angular Deviation of Borehole from Normal		0	DEG
GGRD	Geothermal Gradient		0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST		
GTSE	Generalized Temperature Selection	HSTS_HTEM		
HVCS	Integrated Hole Volume Caliper Selection	AUTOMATIC		
SHT	Surface Hole Temperature		68	DEGF
PERT: Preliminary Evaluation - Real Time				
BHT	Bottom Hole Temperature (used in calculations)		185	DEGF
FEXP	Form Factor Exponent		2	
FNUM	Form Factor Numerator		1	
GCSE	Generalized Caliper Selection	HCAL		
GDEV	Average Angular Deviation of Borehole from Normal		0	DEG
GGRD	Geothermal Gradient		0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST		
GTSE	Generalized Temperature Selection	HSTS_HTEM		
SHT	Surface Hole Temperature		68	DEGF
System and Miscellaneous				
BS	Bit Size		7.875	IN
DO	Depth Offset for Playback		0.0	FT
FLEV	Fluid Level		200.00	FT
MST	Mud Sample Temperature		95.00	DEGF
PP	Playback Processing	RECOMPUTE		
TD	Total Depth		6800	FT

Format: GRES Vertical Scale: 5" per 100' Graphics File Created: 05-Aug-2013 19:41

OP System Version: 19C2-270

HAIT-H	19C2-270	DSLT-FTB	19C2-270
HILTH-FTB	19C2-270	CMRT-B	19C2-270
DTC-H	19C2-270		

Input DLIS Files

DEFAULT	Splice_AIT_SONIC_032CUP	FN:1	PRODUCER	05-Aug-2013 19:39	6816.0 FT	99.5 FT
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Output DLIS Files

DEFAULT	AIT_SONIC_TLD_MCFL_033PUP	FN:31	PRODUCER	05-Aug-2013 19:41
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REPEAT ANALYSIS

Input DLIS Files

DEFAULT AIT_SONIC_TLD_MCFL_014PUP FN:13 PRODUCER 05-Aug-2013 10:06 6816.0 FT 6508.0 FT

Output DLIS Files

DEFAULT AIT_SONIC_TLD_MCFL_015LUP FN:14 PRODUCER 05-Aug-2013 10:10

OP System Version: 19C2-270

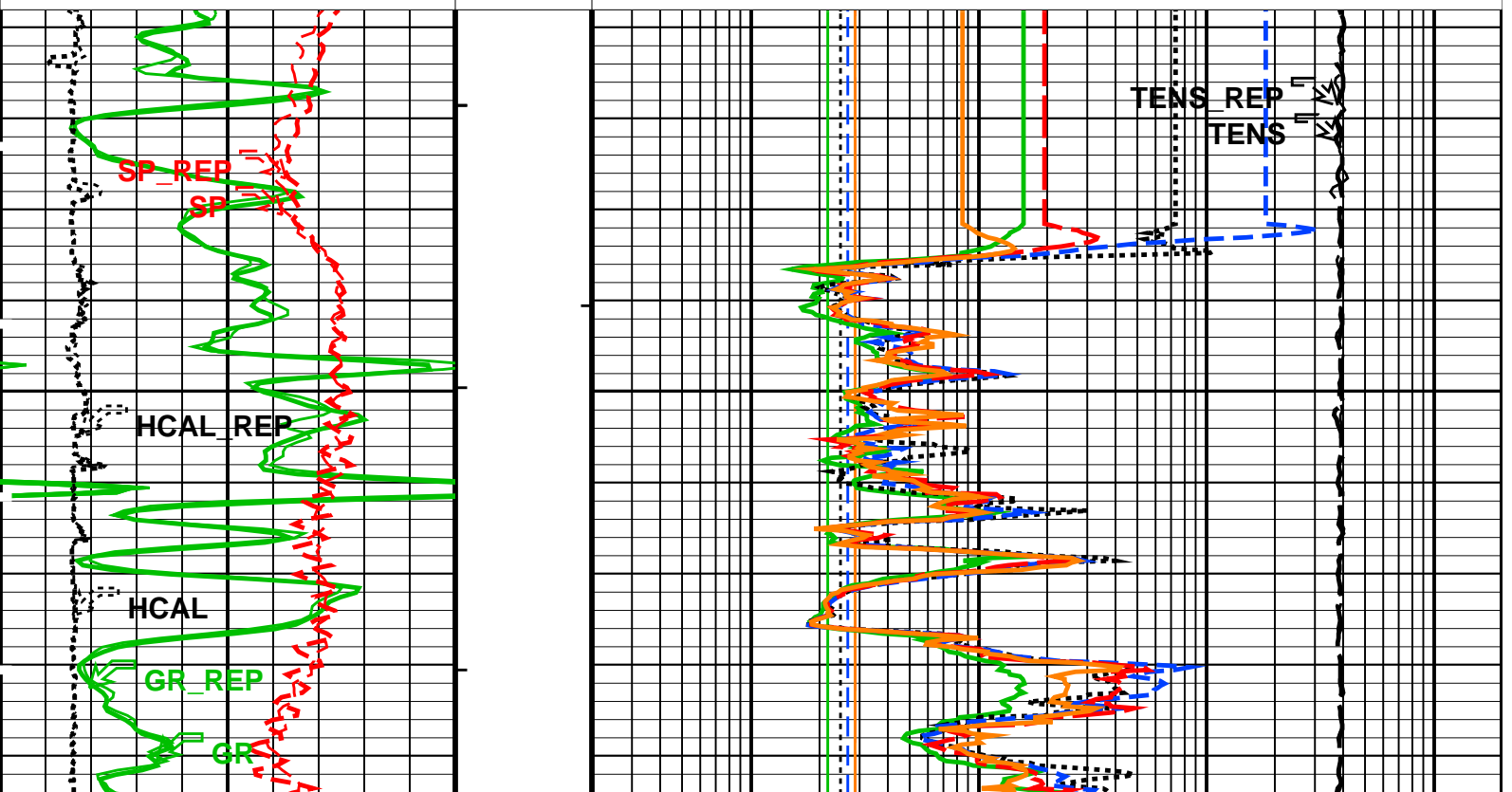
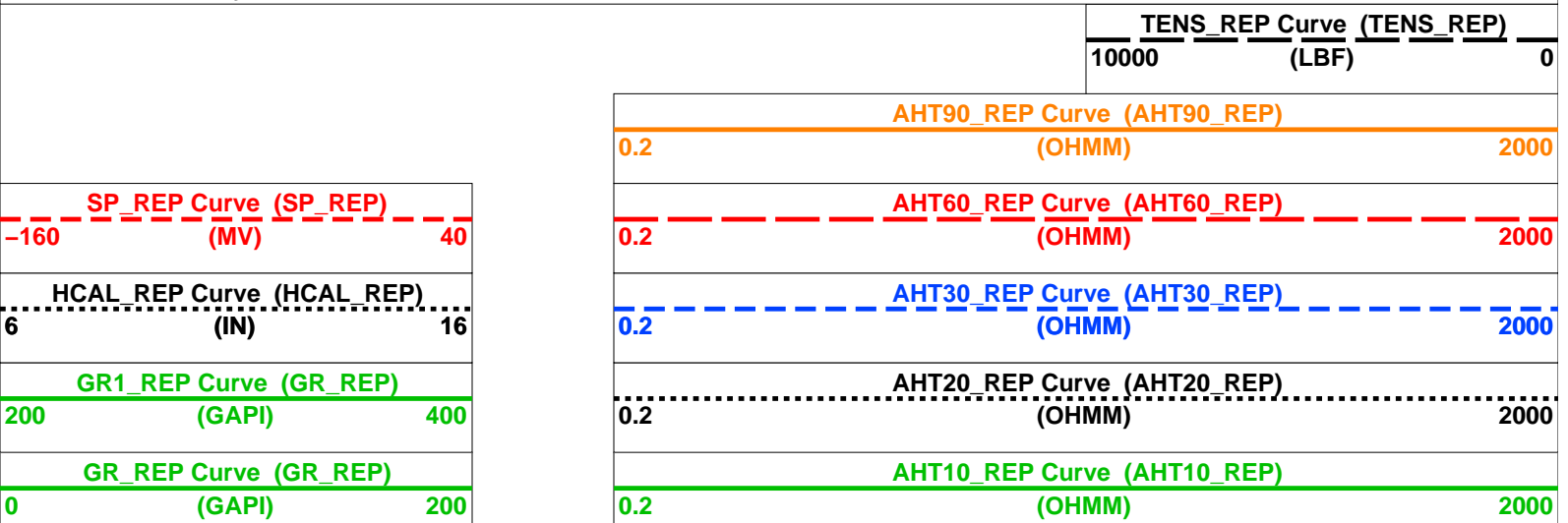
HAIT-H 19C2-270
HILTH-FTB 19C2-270
DTC-H 19C2-270

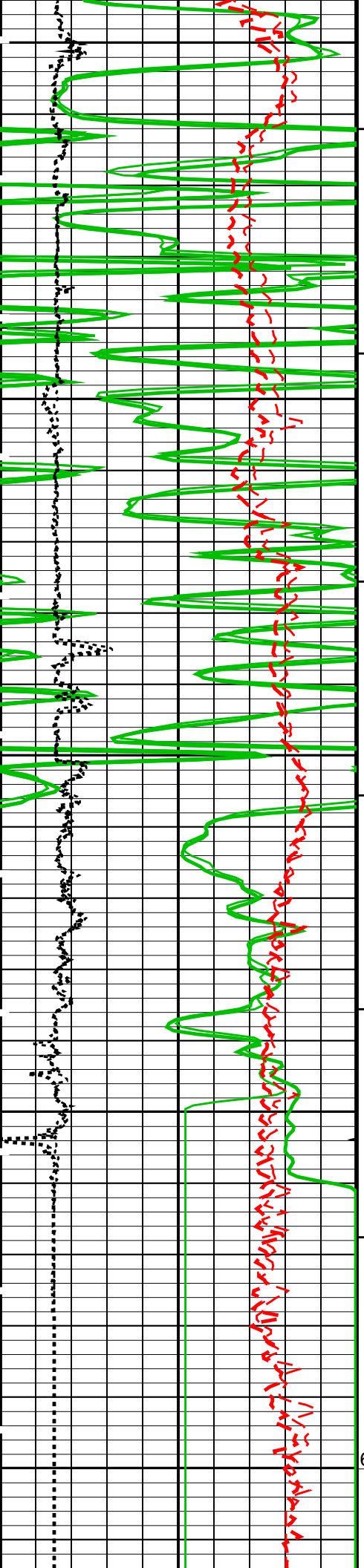
DSLT-FTB 19C2-270
CMRT-B 19C2-270

PIP SUMMARY

- └ Integrated Hole Volume Minor Pip Every 10 F3
- └ Integrated Hole Volume Major Pip Every 100 F3
 - └ Integrated Cement Volume Minor Pip Every 10 F3
 - └ Integrated Cement Volume Major Pip Every 100 F3

Time Mark Every 60 S

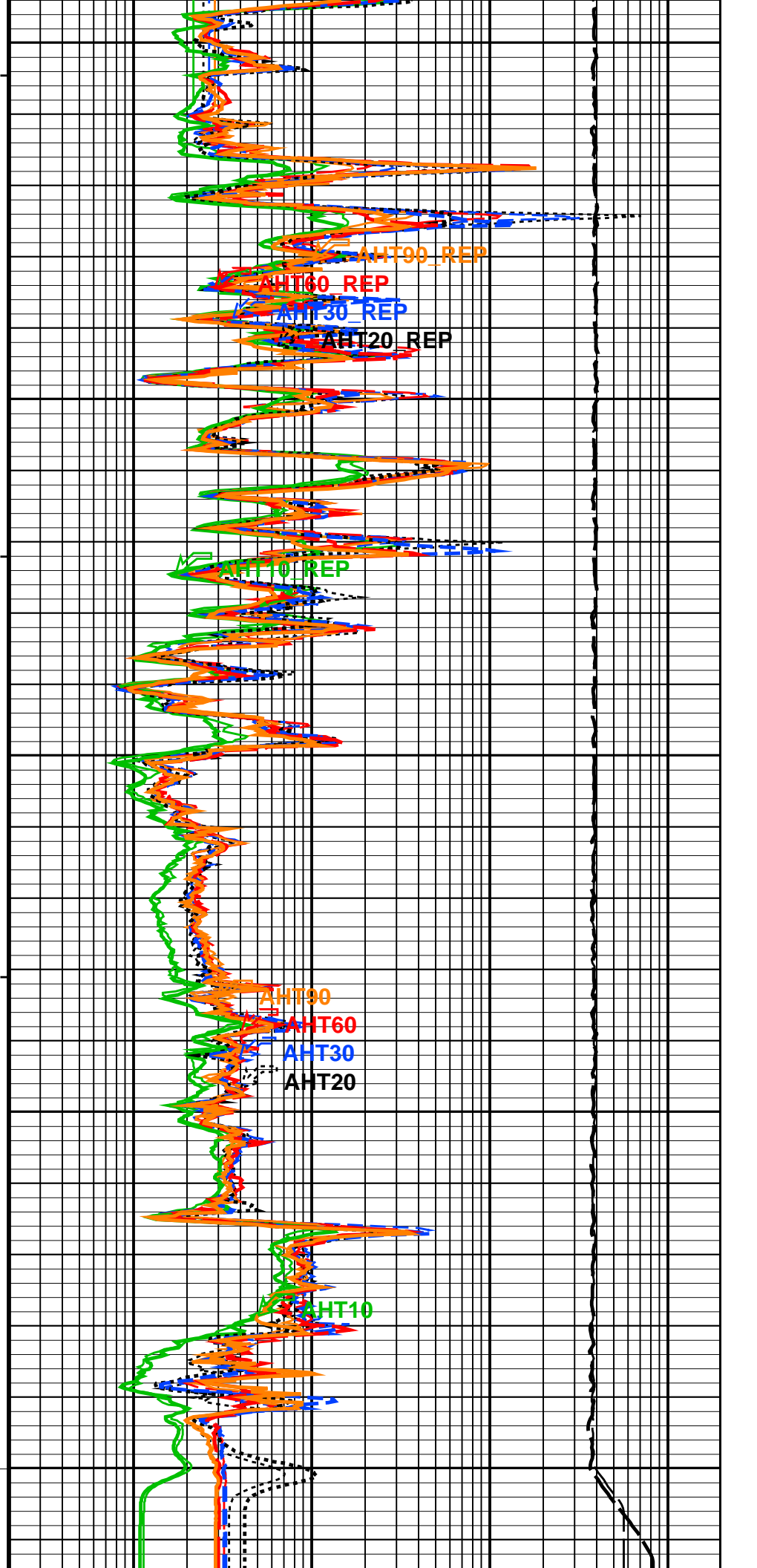




6600

6700

6800.050
TD



AHT90_REP

AHT60_REP

AHT30_REP

AHT20_REP

AHT10_REP

AHT90

AHT60

AHT30

AHT20

AHT10

GR_REP Curve (GR_REP)			AHT10_REP Curve (AHT10_REP)		
0	(GAPI)	200	0.2	(OHMM)	2000
GR1_REP Curve (GR_REP)			AHT20_REP Curve (AHT20_REP)		
200	(GAPI)	400	0.2	(OHMM)	2000
HCAL_REP Curve (HCAL_REP)			AHT30_REP Curve (AHT30_REP)		
6	(IN)	16	0.2	(OHMM)	2000
SP_REP Curve (SP_REP)			AHT60_REP Curve (AHT60_REP)		
-160	(MV)	40	0.2	(OHMM)	2000
			AHT90_REP Curve (AHT90_REP)		
			0.2	(OHMM)	2000
			TENS_REP Curve (TENS_REP)		
			10000	(LBF)	0

PIP SUMMARY

- └ Integrated Hole Volume Minor Pip Every 10 F3
- └ Integrated Hole Volume Major Pip Every 100 F3
 - └ Integrated Cement Volume Minor Pip Every 10 F3
 - └ Integrated Cement Volume Major Pip Every 100 F3

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
HAIT-H: Array Induction Tool – H			
AHBHM	Array Induction Borehole Correction Mode	2_ComputeStandoff	
AHBHV	Array Induction Borehole Correction Code Version Number	900	
AHBLM	Array Induction Basic Logs Mode	6_One_Two_and_Four	
AHBLV	Array Induction Basic Logs Code Version Number	223	
AHCDE	Array Induction Casing Detection Enable	Yes	
AHCEN	Array Induction Tool Centering Flag (in Borehole)	Eccentered	
AHFRSV	Array Induction Response Set Version for Four ft Resolution	41.70.24.20	
AHMRF	Array Induction Mud Resistivity Factor	1	
AHORSV	Array Induction Response Set Version for One ft Resolution	41.70.24.20	
AHRFV	Array Induction Radial Profiling Code Version Number	701	
AHRPV	Array Induction Radial Parametrization Code Version Number	232	
AHSTA	Array Induction Tool Standoff	1	IN
AHTRSV	Array Induction Response Set Version for Two ft Resolution	41.70.24.20	
BHT	Bottom Hole Temperature (used in calculations)	185	DEGF
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
SHT	Surface Hole Temperature	68	DEGF
SPNV	SP Next Value	0	MV
HILTH-FTB: High resolution Integrated Logging Tool–DTS			
BHT	Bottom Hole Temperature (used in calculations)	185	DEGF
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
SHT	Surface Hole Temperature	68	DEGF
CMRT–B: Combinable Magnetic Resonance Tool – B			
BHT	Bottom Hole Temperature (used in calculations)	185	DEGF
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
SHT	Surface Hole Temperature	68	DEGF
FEQL: Formation Evaluation Quick Look			
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
HOLEV: Integrated Hole/Cement Volume			
BHT	Bottom Hole Temperature (used in calculations)	185	DEGF
FCD	Future Casing (Outer) Diameter	5.5	IN
GCSE	Generalized Caliper Selection	HCAL	

GCSE	Generalized Caliper Selection	HCAL	0	DEG
GDEV	Average Angular Deviation of Borehole from Normal		0.01	DF/F
GGRD	Geothermal Gradient			
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST		
GTSE	Generalized Temperature Selection	HSTS_HTEM		
HVCS	Integrated Hole Volume Caliper Selection	AUTOMATIC		
SHT	Surface Hole Temperature		68	DEGF
PERT: Preliminary Evaluation – Real Time				
BHT	Bottom Hole Temperature (used in calculations)		185	DEGF
FEXP	Form Factor Exponent		2	
FNUM	Form Factor Numerator		1	
GCSE	Generalized Caliper Selection	HCAL		
GDEV	Average Angular Deviation of Borehole from Normal		0	DEG
GGRD	Geothermal Gradient		0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST		
GTSE	Generalized Temperature Selection	HSTS_HTEM		
SHT	Surface Hole Temperature		68	DEGF
System and Miscellaneous				
BS	Bit Size		7.875	IN
DFD	Drilling Fluid Density		9.70	LB/G
DORL	Depth Offset for Repeat Analysis		0.0	FT
FLEV	Fluid Level		200.00	FT
MST	Mud Sample Temperature		95.00	DEGF
TD	Total Depth		6800	FT

Format: GRES_REP Vertical Scale: 5" per 100' Graphics File Created: 05–Aug–2013 10:10

OP System Version: 19C2–270

HAIT–H	19C2–270	DSLT–FTB	19C2–270
HILTH–FTB	19C2–270	CMRT–B	19C2–270
DTC–H	19C2–270		

Input DLIS Files

DEFAULT	AIT_SONIC_TLD_MCFL_014PUP	FN:13	PRODUCER	05–Aug–2013 10:06	6816.0 FT	6508.0 FT
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Output DLIS Files

DEFAULT	AIT_SONIC_TLD_MCFL_015LUP	FN:14	PRODUCER	05–Aug–2013 10:10
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BEFORE CALIBRATIONS

MAXIS Field Log

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
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Array Induction Tool – H Wellsite Calibration – Electronics Calibration Check – Thru Cal Mag. & Phase

Master: 24–Jun–2013 13:36 Before: 3–Aug–2013 18:59

Thru Cal Magnitude – 0	0	0.6284	0.6288	N/A	N/A	N/A	V
Thru Cal Magnitude – 1	0	1.289	1.289	N/A	N/A	N/A	V
Thru Cal Magnitude – 2	0	0.6392	0.6391	N/A	N/A	N/A	V
Thru Cal Magnitude – 3	0	0.7217	0.7219	N/A	N/A	N/A	V
Thru Cal Magnitude – 4	0	1.359	1.358	N/A	N/A	N/A	V
Thru Cal Magnitude – 5	0	1.969	1.970	N/A	N/A	N/A	V
Thru Cal Magnitude – 6	0	1.968	1.970	N/A	N/A	N/A	V
Thru Cal Magnitude – 7	0	1.402	1.407	N/A	N/A	N/A	V
Phase – 0	0	51.01	51.84	N/A	N/A	N/A	DEG
Phase – 1	0	49.97	50.81	N/A	N/A	N/A	DEG
Phase – 2	0	46.16	47.03	N/A	N/A	N/A	DEG
Phase – 3	0	45.37	46.24	N/A	N/A	N/A	DEG
Phase – 4	0	38.91	39.85	N/A	N/A	N/A	DEG

Phase – 5	0	36.97	37.93	N/A	N/A	N/A	DEG
Phase – 6	0	36.96	37.92	N/A	N/A	N/A	DEG
Phase – 7	0	32.69	33.98	N/A	N/A	N/A	DEG

Array Induction Tool – H Wellsite Calibration – Electronics Calibration Check – Auxilliary

Master: 24-Jun-2013 13:36 Before: 3-Aug-2013 18:59

Array Induction SPA Plus	990.5	991.9	993.0	N/A	N/A	N/A	MV
Array Induction SPA Zero	0	0.04840	-0.03146	N/A	N/A	N/A	MV
Array Induction Temperature PI	0.9150	0.9202	0.9212	N/A	N/A	N/A	V
Array Induction Temperature Ze	0	0.00005566	-0.00002783	N/A	N/A	N/A	V

Array Induction Tool – H Wellsite Calibration – Test Loop Gain Correction

Master: 24-Jun-2013 13:36

Test Loop Gain Magnitude – 0	0	1.010	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude – 1	0	1.011	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude – 2	0	1.012	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude – 3	0	1.014	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude – 4	0	0.9963	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude – 5	0	0.9871	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude – 6	0	0.9876	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude – 7	0	1.000	N/A	N/A	N/A	N/A	V
Phase – 0	0	0.4079	N/A	N/A	N/A	N/A	DEG
Phase – 1	0	0.4401	N/A	N/A	N/A	N/A	DEG
Phase – 2	0	-0.1075	N/A	N/A	N/A	N/A	DEG
Phase – 3	0	-0.04307	N/A	N/A	N/A	N/A	DEG
Phase – 4	0	-0.1595	N/A	N/A	N/A	N/A	DEG
Phase – 5	0	-0.3086	N/A	N/A	N/A	N/A	DEG
Phase – 6	0	1.269	N/A	N/A	N/A	N/A	DEG
Phase – 7	0	-0.2832	N/A	N/A	N/A	N/A	DEG

Array Induction Tool – H Wellsite Calibration – Sonde Error Correction

Master: 24-Jun-2013 13:36

R Sonde Error Correction – 0	0	-89.27	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 1	0	164.9	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 2	0	113.6	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 3	0	59.90	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 4	0	26.21	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 5	0	13.27	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 6	0	10.28	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 7	0	-0.3196	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 0	0	-129.9	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 1	0	-37.62	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 2	0	-149.2	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 3	0	-28.97	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 4	0	-16.68	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 5	0	-17.94	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 6	0	0.1348	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 7	0	2.617	N/A	N/A	N/A	N/A	MM/M

Array Induction Tool – H Wellsite Calibration – Mud Gain Correction

Master: 24-Jun-2013 13:36

Coarse – Mag, Real, Imag – 0	0	0.8608	N/A	N/A	N/A	N/A
Coarse – Mag, Real, Imag – 1	0	0.8608	N/A	N/A	N/A	N/A
Coarse – Mag, Real, Imag – 2	0	0.8608	N/A	N/A	N/A	N/A
Fine – Mag, Real, Imag – 0	0	0.8623	N/A	N/A	N/A	N/A
Fine – Mag, Real, Imag – 1	0	0.8623	N/A	N/A	N/A	N/A
Fine – Mag, Real, Imag – 2	0	0.8623	N/A	N/A	N/A	N/A

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Stab Measurement Summary

Before: 3-Aug-2013 19:01

BS Window Ratio	0.7398	N/A	0.7409	N/A	N/A	N/A	
BS Window Sum	24360	N/A	24050	N/A	N/A	N/A	CPS
SS Window Ratio	0.4923	N/A	0.4918	N/A	N/A	N/A	
SS Window Sum	13870	N/A	13850	N/A	N/A	N/A	CPS
LS Window Ratio	0.3038	N/A	0.2993	N/A	N/A	N/A	
LS Window Sum	1246	N/A	1243	N/A	N/A	N/A	CPS

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Photo-multiplier High Voltages Calibrations

Before: 3-Aug-2013 19:01

BS PM High Voltage (Command)	1665	N/A	1682	N/A	N/A	N/A	V
SS PM High Voltage (Command)	1710	N/A	1719	N/A	N/A	N/A	V
LS PM High Voltage (Command)	1328	N/A	1331	N/A	N/A	N/A	V

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Crystal Quality Resolutions Calibration

Before: 3-Aug-2013 19:01

BS Crystal Resolution	11.49	N/A	11.59	N/A	N/A	N/A	%
SS Crystal Resolution	10.15	N/A	10.16	N/A	N/A	N/A	%
LS Crystal Resolution	8.223	N/A	8.246	N/A	N/A	N/A	%

High resolution Integrated Logging Tool–DTS Wellsite Calibration – MCFL Calibration

Before: 3-Aug-2013 19:02

Raw B0 Resistivity	3875	N/A	3914	N/A	N/A	N/A	OHMM
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Raw B0 Resistivity	3873	N/A	3873	N/A	N/A	N/A	OHMM
Raw B1 Resistivity	3830	N/A	3855	N/A	N/A	N/A	OHMM
Raw B2 Resistivity	3830	N/A	3873	N/A	N/A	N/A	OHMM
High resolution Integrated Logging Tool–DTS Wellsite Calibration – HILT Caliper Calibration							
Before: 3–Aug–2013 18:57							
HILT Caliper Zero Measurement	8.000	N/A	7.878	N/A	N/A	N/A	IN
HILT Caliper Plus Measurement	12.00	N/A	12.17	N/A	N/A	N/A	IN
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Detector Calibration							
Before: 3–Aug–2013 18:57							
Gamma Ray Background	30.00	N/A	83.98	N/A	N/A	N/A	GAPI
Gamma Ray (Jig – Bkgd)	165.0	N/A	173.4	N/A	N/A	15.00	GAPI
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Zero Measurement							
Master: 17–May–2013 14:28 Before: 3–Aug–2013 18:58							
CNTC Background	27.37	27.37	26.96	N/A	N/A	4.106	CPS
CFTC Background	27.33	27.33	29.29	N/A	N/A	4.100	CPS
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Ratio Measurement							
Master: 17–May–2013 14:28							
Thermal Near Corr. (Tank)	5800	5686	N/A	N/A	N/A	N/A	CPS
Thermal Far Corr. (Tank)	2400	2326	N/A	N/A	N/A	N/A	CPS
CNTC/CFTC (Tank)	2.159	2.445	N/A	N/A	N/A	N/A	
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Accelerometer Calibration							
Before: 5–Aug–2013 7:45							
Z–Axis Acceleration	32.19	N/A	32.10	N/A	N/A	N/A	F/S2
The GLS–VJ source activity is acceptable.							
The HGNS Neutron Master Calibration was done with the following parameters :							
NCT–B Water Temperature	120.0	DEGF.					
Thermal Housing Size	3.373	IN.					
NSR–F serial number	2554						

























Array Induction Tool – H / Equipment Identification

Primary Equipment:
Rm/SP Bottom Nose
Array Induction Sonde

AHRM – A
AHIS – BA

216

Auxiliary Equipment:

Array Induction Tool – H Wellsite Calibration							
Electronics Calibration Check – Thru Cal Mag. & Phase							
Idx	Phase	Value	Thru Cal Magnitude V	Nominal	Value	Phase DEG	Nominal
0	Master	0.6284		0.6050	51.01		71.00
	Before	0.6288			51.84		
1	Master	1.289		1.270	49.97		70.00
	Before	1.289			50.81		
2	Master	0.6392		0.6230	46.16		66.00
	Before	0.6391			47.03		
3	Master	0.7217		0.7040	45.37		65.00
	Before	0.7219			46.24		
4	Master	1.359		1.337	38.91		59.00
	Before	1.358			39.85		
5	Master	1.969		1.955	36.97		57.00
	Before	1.970			37.93		
6	Master	1.968		1.955	36.96		57.00
	Before						

7	Before	1.970		1.415	37.92		53.00
	Master	1.402			32.69		
	Before	1.407			33.98		
		60.00 % (Minimum)	(Nominal)	140.0 % (Maximum)	Nom -60.00 (Minimum)	(Nominal)	Nom + 60.00 (Maximum)

Master: 24-Jun-2013 13:36

Before: 3-Aug-2013 18:59

Array Induction Tool – H Wellsite Calibration					
Electronics Calibration Check – Auxilliary					
Phase	Array Induction SPA Plus MV	Value	Phase	Array Induction SPA Zero MV	Value
Master		991.9	Master		0.04840
Before		993.0	Before		-0.03146
		941.0 (Minimum)	990.5 (Nominal)	1040 (Maximum)	
					-50.00 (Minimum)
					0 (Nominal)
					50.00 (Maximum)
Phase	Array Induction Temperature Plus V	Value	Phase	Array Induction Temperature Zero V	Value
Master		0.9202	Master		5.566E-00
Before		0.9212	Before		-2.783E-00
		0.8700 (Minimum)	0.9150 (Nominal)	0.9600 (Maximum)	
					-0.05000 (Minimum)
					0 (Nominal)
					0.05000 (Maximum)

Master: 24-Jun-2013 13:36

Before: 3-Aug-2013 18:59

Array Induction Tool – H Wellsite Calibration					
Test Loop Gain Correction					
Idx	Value	Test Loop Gain Magnitude V	Value	Phase DEG	
0	1.010		0.4079		
		0.9500 (Minimum)		0 (Nominal)	3.000 (Maximum)
1	1.011		0.4401		
		0.9500 (Minimum)		0 (Nominal)	3.000 (Maximum)
2	1.012		-0.1075		
		0.9500 (Minimum)		0 (Nominal)	3.000 (Maximum)
3	1.014		-0.04307		
		0.9500 (Minimum)		0 (Nominal)	3.000 (Maximum)
4	0.9963		-0.1595		
		0.9500 (Minimum)		0 (Nominal)	3.000 (Maximum)
5	0.9871		-0.3086		
		0.9500 (Minimum)		0 (Nominal)	3.000 (Maximum)
6	0.9876		1.269		
		0.9500 (Minimum)		0 (Nominal)	3.000 (Maximum)
7	1.000		-0.2832		
		0.9500 (Minimum)		0 (Nominal)	3.000 (Maximum)

Master: 24-Jun-2013 13:36

Array Induction Tool – H Wellsite Calibration					
Sonde Error Correction					
Idx	Value	R Sonde Error Correction MM/M	Value	X Sonde Error Correction MM/M	
0	-89.27		-129.9		
		-231.0 (Minimum)		0 (Nominal)	2250 (Maximum)
1	164.9		-37.62		
		114.0 (Minimum)		0 (Nominal)	625.0 (Maximum)
2	113.6		-149.2		
		66.00 (Minimum)		0 (Nominal)	350.0 (Maximum)
3	59.90		-28.97		
		30.00 (Minimum)		0 (Nominal)	250.0 (Maximum)

		39.00 (Minimum)	64.00 (Nominal)	89.00 (Maximum)			-230.0 (Minimum)	0 (Nominal)	230.0 (Maximum)
4	26.21						-16.68		
		15.00 (Minimum)	25.00 (Nominal)	35.00 (Maximum)			-63.00 (Minimum)	0 (Nominal)	63.00 (Maximum)
5	13.27						-17.94		
		4.000 (Minimum)	14.00 (Nominal)	24.00 (Maximum)			-50.00 (Minimum)	0 (Nominal)	50.00 (Maximum)
6	10.28						0.1348		
		5.000 (Minimum)	10.00 (Nominal)	15.00 (Maximum)			-30.00 (Minimum)	0 (Nominal)	30.00 (Maximum)
7	-0.3196						2.617		
		-5.000 (Minimum)	0 (Nominal)	5.000 (Maximum)			-30.00 (Minimum)	0 (Nominal)	30.00 (Maximum)

Master: 24-Jun-2013 13:36

Array Induction Tool – H Wellsite Calibration									
Mud Gain Correction									
Idx	Value	Coarse – Mag, Real, Imag			Value	Fine – Mag, Real, Imag			
0	0.8608								
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)			0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)
1	0.8608								
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)			0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)
2	0.8608								
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)			0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)

Master: 24-Jun-2013 13:36

Digitizing Sonic Logging Tool / Equipment Identification

Primary Equipment:

BHC Sonde
Digitizing Sonic Logging Cartridge

SLS – W
DSLCL – B

Auxiliary Equipment:

Electronics Cartridge Housing

ECH – KH

High resolution Integrated Logging Tool–DTS / Equipment Identification

Primary Equipment:

HILT high–Resolution Mechanical Sonde
HILT Rxo Gamma–ray Device
HILT Micro Cylindrically Focused Log Dev
GR Logging Source
HILT High Res. Control Cartridge
HILT Gamma–Ray Neutron Sonde–DTS
HGNS Gamma–Ray Device
HGNS Neutron Detector with Alpha Source

HRMS – H
HRGD – H
MCFL – H
GLS – VJ
HRCC – H
HGNS – H
HGR –
HCNT – H

5471

Auxiliary Equipment:




Neutron Calibration Tank
Gamma Source Radioactive
HGNS Housing




NCT – B
GSR – U/Y
HGNNH –




High resolution Integrated Logging Tool–DTS Wellsite Calibration									
Stab Measurement Summary									
Phase	BS Window Ratio			Value	Phase	SS Window Ratio			Value
Before				0.7409	Before				0.4918
	0.7028 (Minimum)	0.7398 (Nominal)	0.7767 (Maximum)			0.4677 (Minimum)	0.4923 (Nominal)	0.5169 (Maximum)	
Phase	BS Window Sum CPS			Value	Phase	SS Window Sum CPS			Value
Before				24050	Before				13850
	23150 (Minimum)	24360 (Nominal)	25580 (Maximum)			13180 (Minimum)	13870 (Nominal)	14560 (Maximum)	
Phase	LS Window Ratio			Value	Phase	LS Window Sum CPS			Value
Before				0.2993	Before				1243
	0.2886 (Minimum)	0.3038 (Nominal)	0.3190 (Maximum)			1184 (Minimum)	1246 (Nominal)	1309 (Maximum)	



Before: 3-Aug-2013 19:01



Before: 3-Aug-2013 18:57





High resolution Integrated Logging Tool–DTS Wellsite Calibration														
Photo–multiplier High Voltages Calibrations														
Phase	BS PM High Voltage (Command) V			Value	Phase	SS PM High Voltage (Command) V			Value	Phase	LS PM High Voltage (Command) V			Value
Before				1682	Before				1719	Before				1331
	1565 (Minimum)	1665 (Nominal)	1765 (Maximum)		1610 (Minimum)	1710 (Nominal)	1810 (Maximum)		1228 (Minimum)	1328 (Nominal)	1428 (Maximum)			
Before: 3–Aug–2013 19:01														



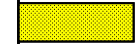
High resolution Integrated Logging Tool–DTS Wellsite Calibration											
Crystal Quality Resolutions Calibration											
Phase	BS Crystal Resolution %		Value	Phase	SS Crystal Resolution %		Value	Phase	LS Crystal Resolution %		Value
Before			11.59	Before			10.16	Before			8.246
	10.49 (Minimum)	11.49 (Nominal)	12.49 (Maximum)		9.153 (Minimum)	10.15 (Nominal)	11.15 (Maximum)		7.223 (Minimum)	8.223 (Nominal)	9.223 (Maximum)
Before: 3–Aug–2013 19:01											


High resolution Integrated Logging Tool–DTS Wellsite Calibration														
MCFL Calibration														
Phase	Raw B0 Resistivity OHMM			Value	Phase	Raw B1 Resistivity OHMM			Value	Phase	Raw B2 Resistivity OHMM			Value
Before				3914	Before				3855	Before				3873
	3565 (Minimum)	3875 (Nominal)	4185 (Maximum)		3524 (Minimum)	3830 (Nominal)	4136 (Maximum)			3524 (Minimum)	3830 (Nominal)	4136 (Maximum)		
Before: 3–Aug–2013 19:02														

High resolution Integrated Logging Tool–DTS Wellsite Calibration							
HILT Caliper Calibration							
Phase	HILT Caliper Zero Measurement IN		Value	Phase	HILT Caliper Plus Measurement IN		Value
Before			7.878	Before			12.17
	6.000 (Minimum)	8.000 (Nominal)	10.00 (Maximum)		9.000 (Minimum)	12.00 (Nominal)	15.00 (Maximum)
Before: 3–Aug–2013 18:57							

High resolution Integrated Logging Tool–DTS Wellsite Calibration									
Detector Calibration									
Phase	Gamma Ray Background GAPI			Value	Phase	Gamma Ray (Jig – Bkgd) GAPI			Value
Before				83.98	Before				173.4
	0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)			157.1 (Minimum)	165.0 (Nominal)	206.3 (Maximum)	
Before: 3–Aug–2013 18:57									

High resolution Integrated Logging Tool–DTS Wellsite Calibration									
Zero Measurement									
Phase	CNTC Background CPS			Value	Phase	CFTC Background CPS			Value
Master				27.37	Master				27.33
Before				26.96	Before				29.29
5.000 (Minimum)27.37 (Nominal)40.00 (Maximum)					5.000 (Minimum)27.33 (Nominal)40.00 (Maximum)				
Master: 17–May–2013 14:28					Before: 3–Aug–2013 18:58				

High resolution Integrated Logging Tool–DTS Wellsite Calibration														
Ratio Measurement														
Phase	Thermal Near Corr. (Tank) CPS			Value	Phase	Thermal Far Corr. (Tank) CPS			Value	Phase	CNTC/CFTC (Tank)			Value
Master				5686	Master				2326	Master				2.445
	4700 (Minimum)	5800 (Nominal)	6900 (Maximum)		1900 (Minimum)	2400 (Nominal)	2900 (Maximum)			2.120 (Minimum)	2.159 (Nominal)	2.540 (Maximum)		
Master: 17–May–2013 14:28														

High resolution Integrated Logging Tool–DTS Wellsite Calibration			
Accelerometer Calibration			
Phase	Z–Axis Acceleration F/S2	Value	
Before		32.10	
	31.53 (Minimum)	32.19 (Nominal)	32.84 (Maximum)

Combinable Magnetic Resonance Tool – B / Equipment Identification

Primary Equipment:

CMR Cartridge
CMR-B Sonde

CMRC – B 283
CMRS – BA 265

Auxiliary Equipment:

CMR Housing

CMRH – AA

DTS Telemetry Tool / Equipment Identification

Primary Equipment:

DTC-H Auxiliary Cartridge
DTC-H Telemetry Cartridge

DTCH – A
DTCH – A

Auxiliary Equipment:

DTCH Telemetry Cartridge Housing

ECH – KC

Company: **Omimex Petroleum Inc**

Schlumberger

Well: **Vega 4-29-1-49**

Field: **Wildcat**

County: **Washington**

State: **Colorado**

Platform Express
Array Induction
Linear Correlation