Schlumberger

Company: Omimex Petroleum Inc

Well: Fiddler Peak Ranch 4-3-5-45

Field: Ballyneal

County: Yuma State: Colorado

County: Yuma
Field: Ballyneal
Location: NWNW Sec3 T5N R45W
Well: Fiddler Peak Ranch 4-3-5-45
Company: Omimex Petroleum Inc

Platform Express
Array Induction
with Linear Correlation

Location:				
NWNW Sec3 T5N R45W SHL: 433' FNL, 603' FWL		Elev.:	K.B.	3798.00 ft
			G.L.	3792.00 ft
			D.F.	3797.00 ft
Permanent Datum:	Ground Level	Elev.:	3792.00 f	
Log Measured From:	Kelly Bushing	6.00 ft	above Perm.Datum	
Drilling Measured From:	Kelly Bushing			

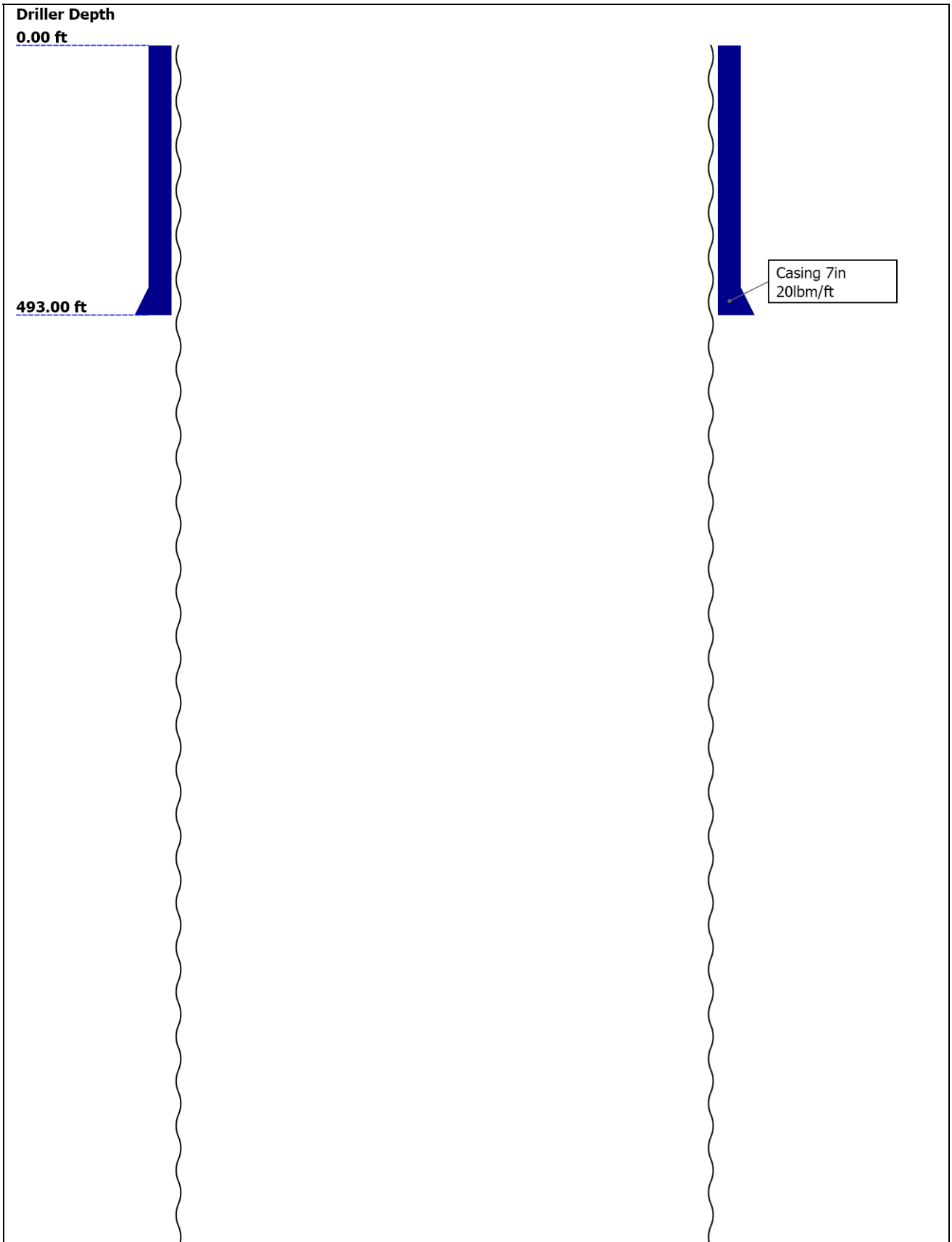
API Serial No.	Section:	Township:	Range:
05-125-12124	3	5N	45W

Logging Date			15-Nov-2014			
Run Number			ONE			
Depth Driller			2725.00 ft			
Schlumberger Depth			2726.00 ft			
Bottom Log Interval			2726.00 ft			
Top Log Interval			494.00 ft			
Casing Driller Size @ Depth			7 in @ 493.00 ft			
Casing Schlumberger			494 ft			
Bit Size			6.25 in			
Type Fluid In Hole			Water			
MUD	Density	Viscosity	8.8 lbm/gal	29 s		
	Fluid Loss	PH	3.2 cm3	8		
	Source of Sample		AIT Measured			
RM @ Meas Temp			0.23 ohm.m @ 86 degF			
RMF @ Meas Temp			0.16 ohm.m @ 86 degF			
RMC @ Meas Temp			0.31 ohm.m @ 86 degF			
Source RMF	RMC		Calculated	Calculated		
RM @ BHT	RMF @ BHT		0.19 @ 103	0.14 @ 103		
Max Recorded Temperatures			103 degF			
Circulation Stopped	Time		15-Nov-2014	11:45:00		
Logger on Bottom	Time		15-Nov-2014	16:39:12		
Unit Number	Location:		9108	Fort Morgan		
Recorded By			B Makinson			
Witnessed By			Paul Dekaye			

Disclaimer

Contents

Well Sketch



Borehole Size/Casing/Tubing Record

Bit						
Bit Size (in)	6.25					
Top Driller (ft)	0					
Top Logger (ft)	0					
Bottom Driller (ft)	2725					
Bottom Logger (ft)	2726					
Casing						
Size (in)	7					
Weight (lbm/ft)	20					
Inner Diameter (in)	6.456					
Grade	J55					
Top Driller (ft)	0					
Top Logger (ft)	0					
Bottom Driller (ft)	493					
Bottom Logger (ft)	494					

Remarks and Equipment Summary

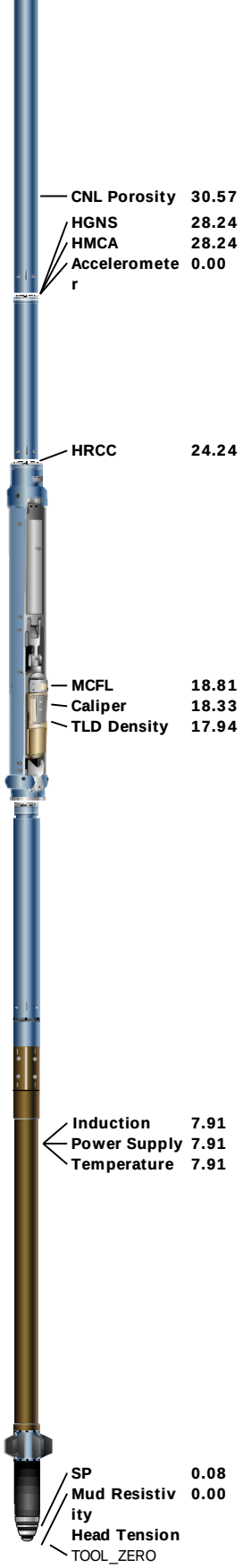
ONE: Toolstring

Equip name	Length	MP name	Offset
LEH-QT	**51.57**		
LEH-QT			
DTC-H	**48.65**		
ECH-KC		**CTEM**	**47.75**
DTC-H		**HV**	**0.00**
		ToolStatus	**45.65**
		TelStatus	**45.65**
AH-184[2]	**45.65**		
AH-184[1]	**43.65**		
GPIT-F	**41.65**		
GPIH-B			
DHRU-F		**GPIT-F Inclinometer**	**40.23**
GPIC-F			
		GPIT	**0.00**
HGNS-H:4810	**37.65**	**Temperature**	**37.62**
HGNH			
NSR-F:5215		**GR**	**36.91**
NPV-N			
HACCZ-H:5955			

ONE: Remarks

First run in the well.
Toolstring run as per tool sketch.
No bowspring used to eccenter HGNS as per
Limestone matrix, MDEN: 2.71
Neutron corrections applied: Hole size,
Cement volume calculated assuming 4.5"
Down log stretch correction: 0.26 ft.
Caliper check in casing within 0.1" tolerance.
Mud resistivity measured from AIT AMF.
TD: 2726 ft, CSG: 498 ft.

HGNS-H:4810
HMCA-H



HDRS-H **28.24**
ECH-MEB
HRCC-H
HRMS-H
GPV-Q
GSR-J:5094
Backscatter
Short Spacing
HRGD-H:3933
Long Spacing:287
36

AIT-M:181 **16.00**
AMIS:181
AMRM:181

Lengths are in ft
Maximum Outer Diameter = 9.000 in
Line: Sensor Location, Value: Gating Offset
All measurements are relative to TOOL_ZERO

Depth Summary

	ONE		
Depth Measuring Device			
Type	IDW-JA		
Serial Number	6431		
Calibration Date	07-Apr-2014		

Calibrator Serial Number			
Calibration Cable Type	7-46 AXS		
Wheel Correction 1	-4		
Wheel Correction 2	-4		

Tension Device

Type	CMTD-B/A		
Serial Number	147		
Calibration Date	19-Oct-2014		
Calibrator Serial Number	78135A		
Number of Calibration Points	10		
Calibration Root Mean Square Error	78		
Calibration Peak Error	130		

Logging Cable

Type	7-46A-XS		
Serial Number	U714022		
Length	18500.00 ft		
Conveyance Type	Wireline		
Rig Type	Single		

ONE:Depth Control Parameters		Depth Control Remarks
Log Sequence	First Log In the Well	All Schlumberger depth control procedures followed.
Rig Up Length At Surface		IDW used as primary depth control.
Rig Up Length At Bottom		Z-Chart used as secondary depth control.
Rig Up Length Correction		
Stretch Correction	0.26 ft	
Tool Zero Check At Surface		

ONE

2" Induction

Integration Summary

Output Channel(s)	Output Description	Input Parameter	Output Value	Unit
ICV	Integrated Cement Volume	GCSE_UP_PASS, FCD	249.86	ft3

Software Version

Acquisition System	Version
MaxWell	4.0.9163.3000
Application Patch	Patch-SP-10767_26570-4.0.9163.3001

Computation	Description	Version
Borehole	Borehole Ensemble provides common Borehole Parameters and Channels	4.0.9469.3000

Tool Elements	Description	Software Version	Firmware Version
HRCC-H	HILT High-Resolution Control Cartridge, 150 degC	4.0.9575.3000	2.0
HGNS-H	HILT Gamma-Ray and Neutron Sonde, 150 degC	4.0.9575.3000	2.0
AMIS	Array Induction Sonde - M	4.0.9535.3000	1

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
ONE	Log[4]:Up	Up	38.39 ft	2736.62 ft	15-Nov-2014 5:00:13 PM	15-Nov-2014 5:50:10 PM	ON	0.00 ft	No

All depths are referenced to toolstring zero

Log

Company:Omimex Petroleum Inc Well:Fiddler Peak Ranch 4-3-5-45

ONE: Log[4]:Up:S002

Description: AIT Basic Log Two Format: Log (Import of Kerr McGee 2in Induction) Index Scale: 2 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 15-Nov-2014 18:16:29

Channel	Source	Sampling

AT10	AIT-M:AMIS:AMIS	3in
CALI	HDRS-H:HRCC-H:HRCC-H	1in
GR	HGNS-H:HGNS-H:HGNS-H	6in
ICV	Borehole	6in
SP	AIT-M:AMIS:AMIS	6in
TENS	WLWorkflow	6in
TIME_1900	WLWorkflow	0.1in

TIME_1900 - Time Marked every 60.00 (s)

ICV - Integrated Cement Volume every 10.00 (ft3)

ICV - Integrated Cement Volume every 100.00 (ft3)

Gamma Ray Backup

Spontaneous Potential (SP) AIT-M

-160 mV 40

Caliper (CALI) HDRS-H

4 in 14

Gamma Ray (GR) HGNS-H

0 gAPI 200

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

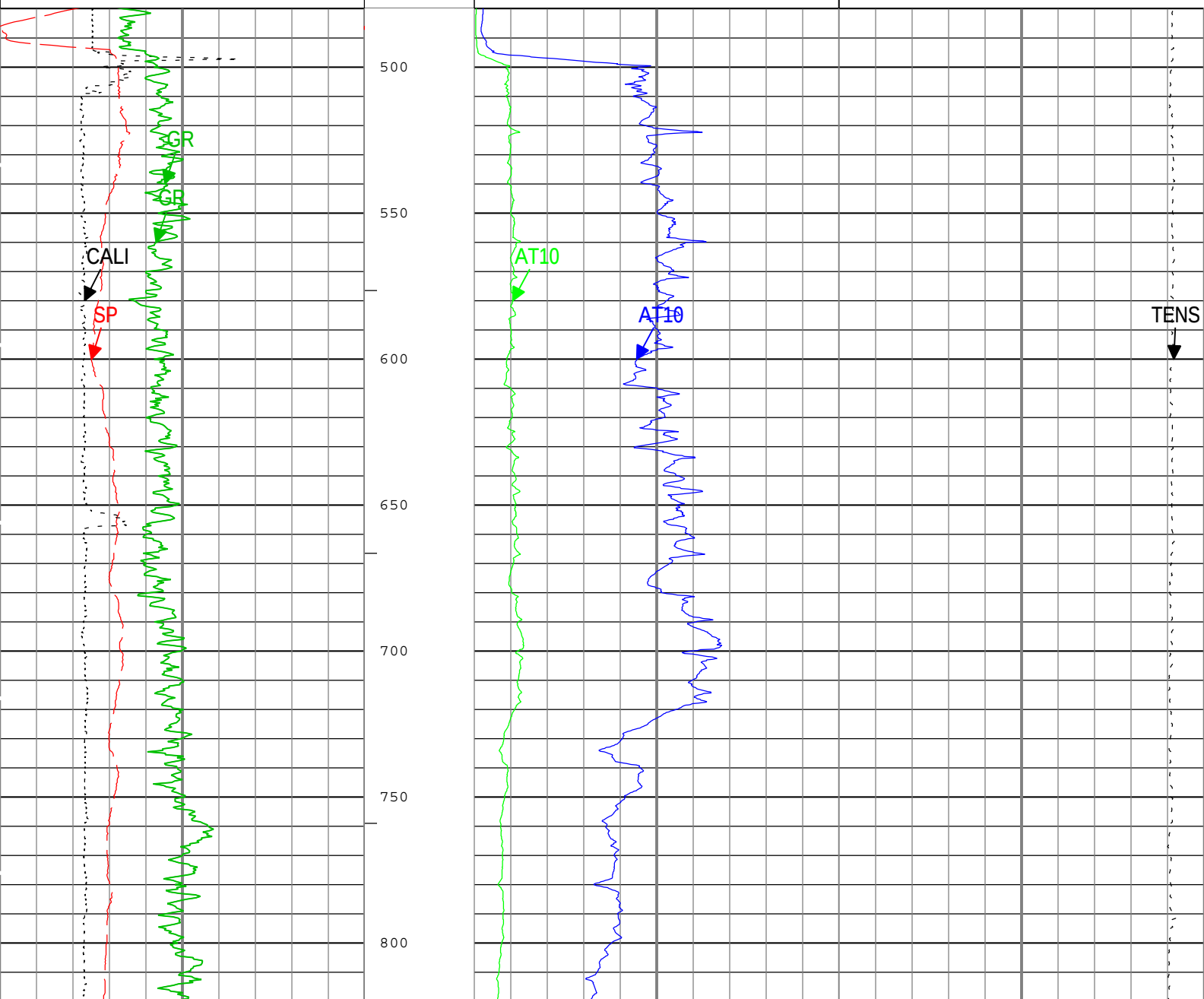
0 ohm.m 10

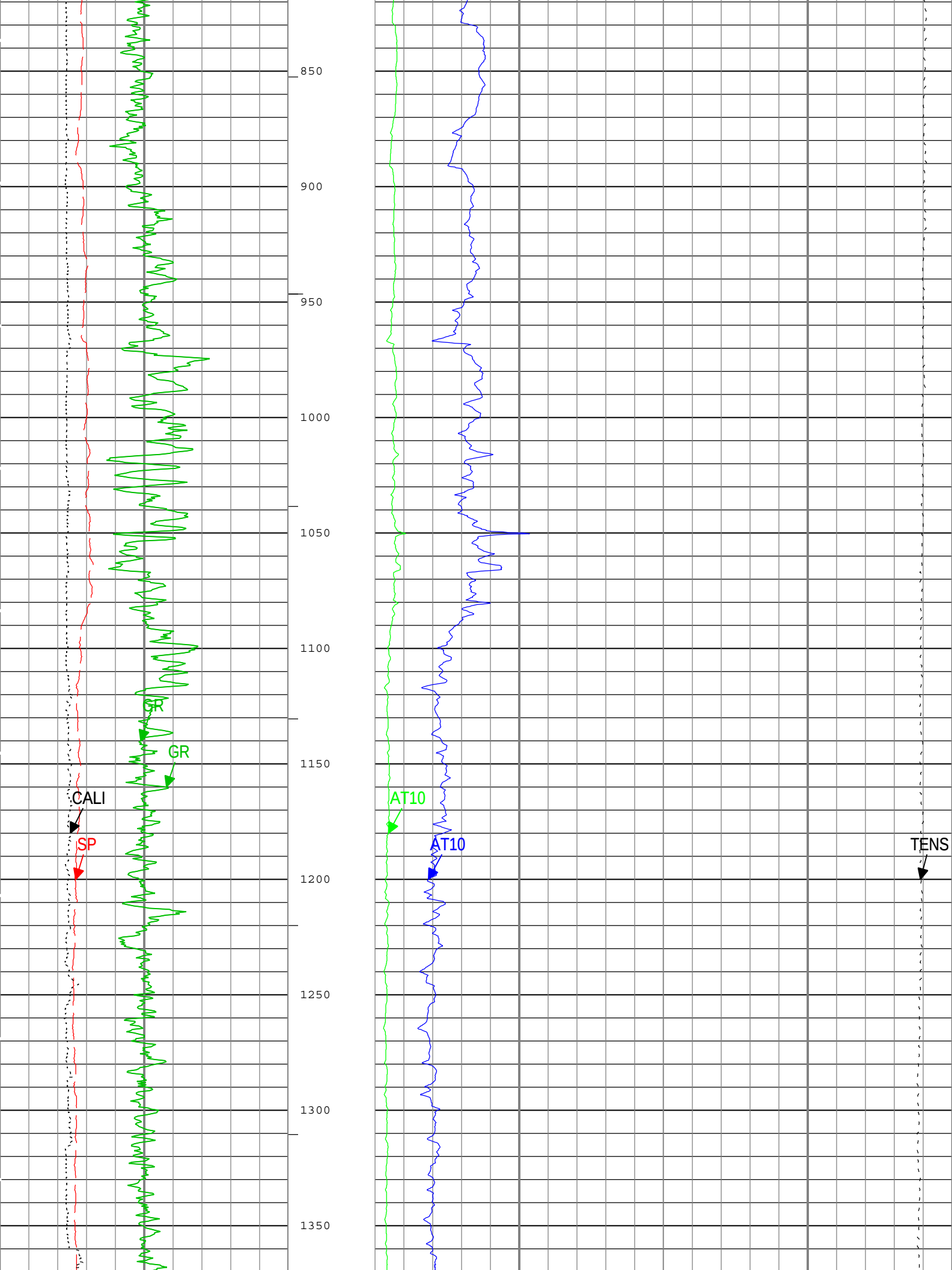
Array Induction Two Foot Resistivity A10 (AT10) AIT-M

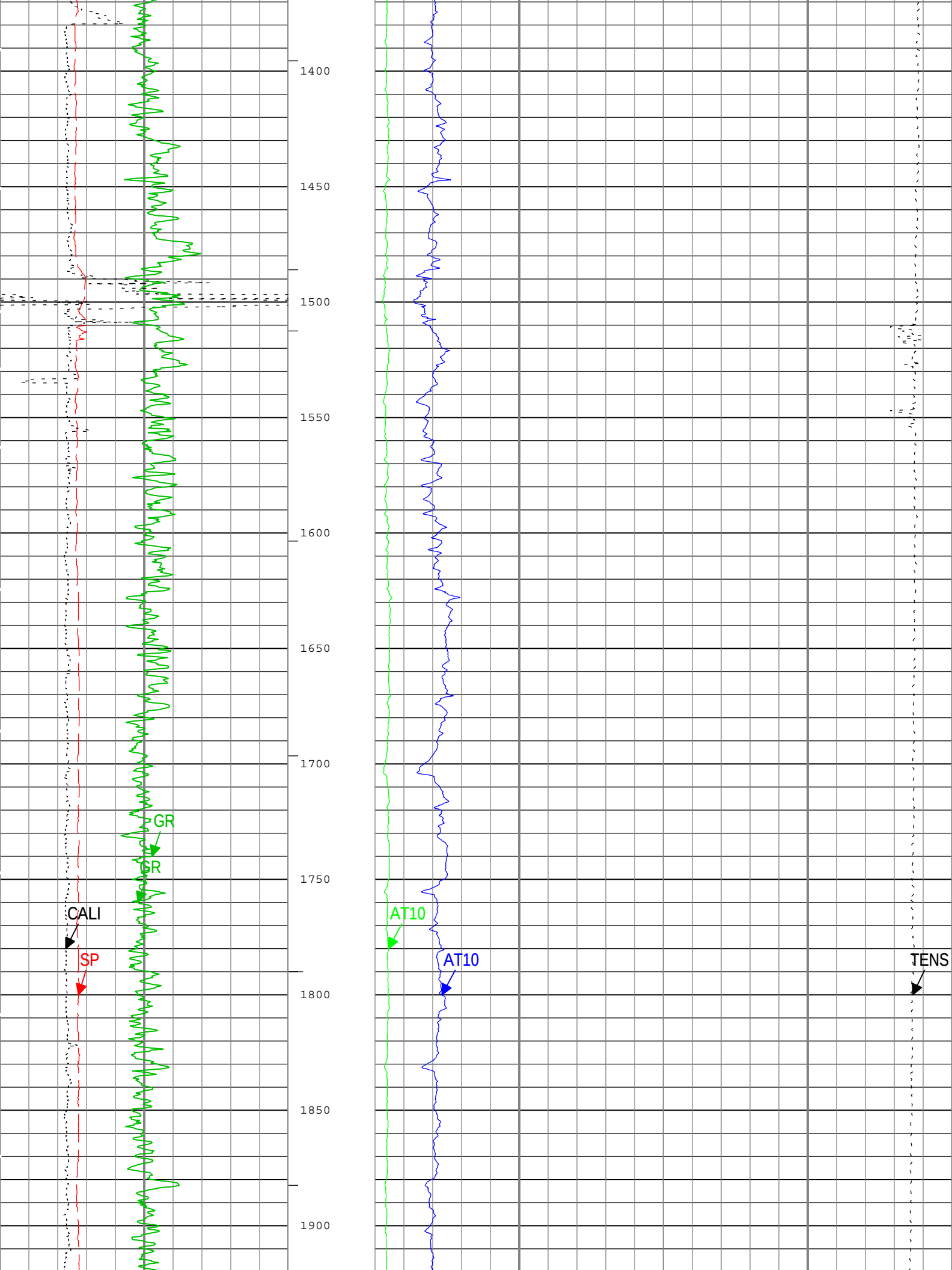
0 ohm.m 50

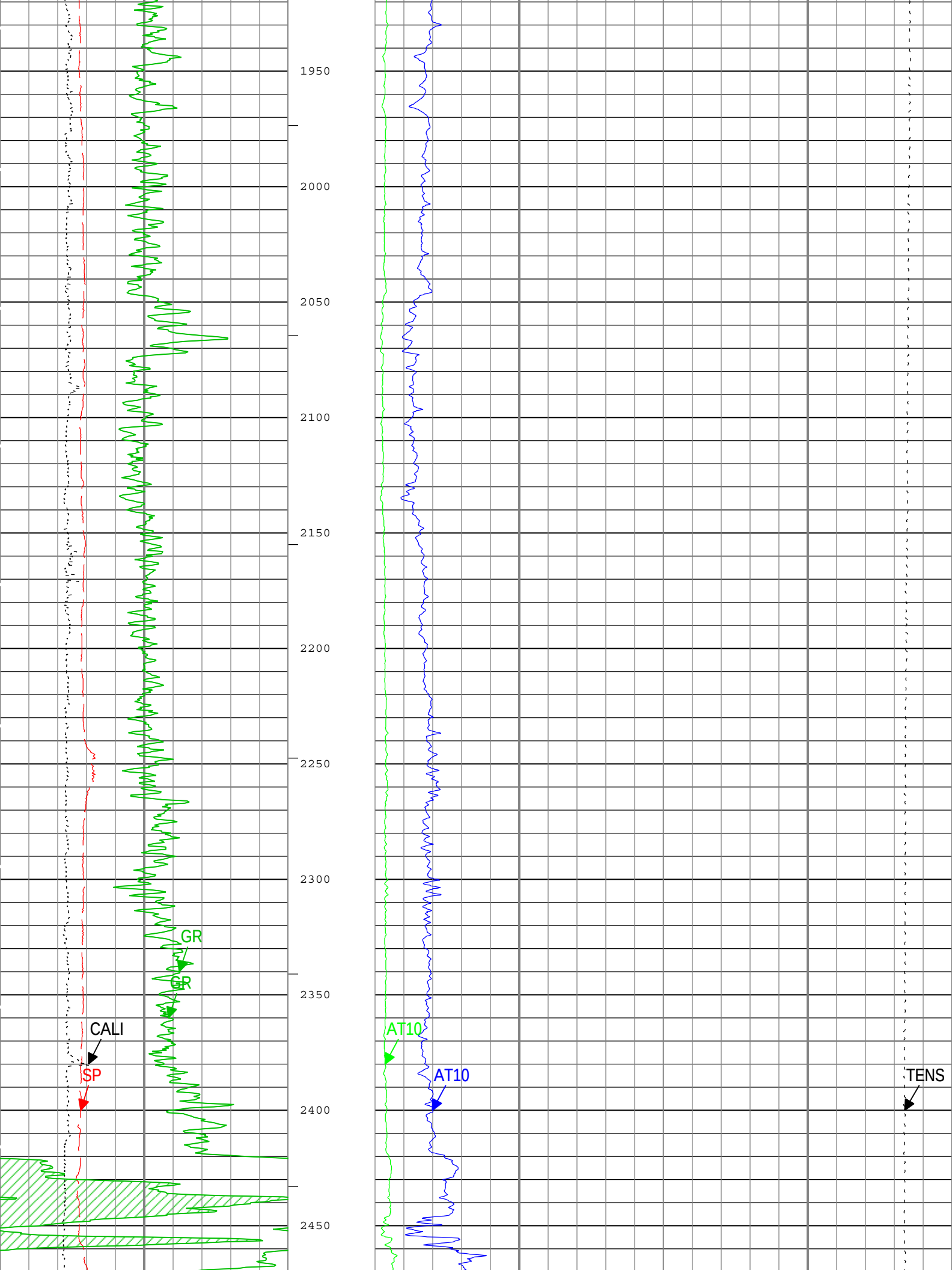
Cable Tension (TENS)

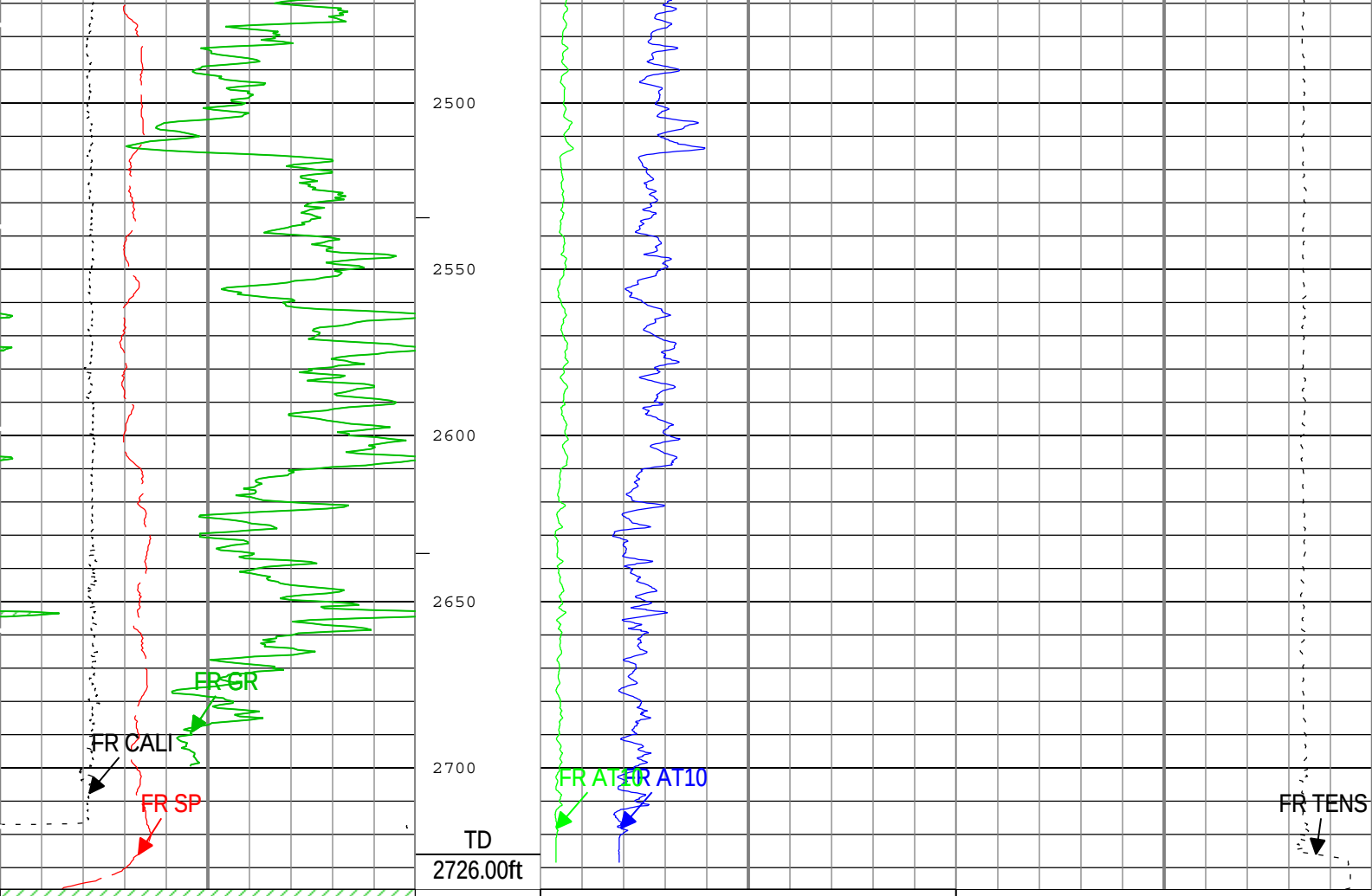
10000 lbf 0




850
900
950
1000
1050
1100
1150
1200
1250
1300
1350
GR
GR
CALI
SP
AT10
AT10
TENS


1400
1450
1500
1550
1600
1650
1700
1750
1800
1850
1900
GR
GR
CALI
SP
AT10
AT10
TENS


1950
2000
2050
2100
2150
2200
2250
2300
2350
2400
2450
GR
GR
CALI
SP
AT10
AT10
TENS



Description: AIT Basic Log Two Format: Log (Import of Kerr McGee 2in Induction) Index Scale: 2 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 15-Nov-2014 18:16:29

Channel Processing Parameters

Parameter	Description	Tool	Value	Unit
ABHM	Array Induction Borehole Correction Mode	AIT-M	Compute Standoff	
ACDE	Array Induction Casing Detection Enable	AIT-M	No	
ASTA	Array Induction Tool Standoff	AIT-M	1	in
BARI	Barite Mud Presence Flag	Borehole	No	
BHS	Borehole Status (Open or Cased Hole)	Borehole	Open	
BS	Bit Size	WLSESSION	6.25	in
CALI_SHIFT	CALI Supplementary Offset	HDRS-H	0	in
CBLO	Casing Bottom (Logger)	WLSESSION	494	ft
CDEN	Cement Density	HGNS-H	2	g/cm3
CSODDRL	Casing Outer Diameter - Zoned along driller depths	WLSESSION	7	in

DFD	Drilling Fluid Density	Borehole	8.8	lbm/gal
FCD	Future Casing (Outer) Diameter	WLSESSION	4.5	in
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	
SOCO	Standoff Correction Option	HGNS-H	Yes	
SPDR	SP Drift Per Foot	AIT-M	0	mV/ft

Tool Control Parameters

Parameter	Description	Tool	Value	Unit
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	3600	ft/h

ONE

5" Induction

Integration Summary

Output Channel(s)	Output Description	Input Parameter	Output Value	Unit
ICV	Integrated Cement Volume	GCSE_UP_PASS, FCD	249.86	ft3
IHV	Integrated Hole Volume	GCSE_UP_PASS	497.6	ft3

Software Version

Acquisition System	Version
MaxWell	4.0.9163.3000
Application Patch	Patch-SP-10767_26570-4.0.9163.3001

Computation	Description	Version
Borehole	Borehole Ensemble provides common Borehole Parameters and Channels	4.0.9469.3000

Tool Elements	Description	Software Version	Firmware Version
HRCC-H	HILT High-Resolution Control Cartridge, 150 degC	4.0.9575.3000	2.0
HGNS-H	HILT Gamma-Ray and Neutron Sonde, 150 degC	4.0.9575.3000	2.0
AMIS	Array Induction Sonde - M	4.0.9535.3000	1

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
ONE	Log[4]:Up	Up	38.39 ft	2736.62 ft	15-Nov-2014 5:00:13 PM	15-Nov-2014 5:50:10 PM	ON	0.00 ft	No

All depths are referenced to toolstring zero

Log

Company:Omimex Petroleum Inc Well:Fiddler Peak Ranch 4-3-5-45 ONE: Log[4]:Up:S002

Description: AIT Basic Log Two Format: Log (EMD 5in Induction) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 15-Nov-2014 18:16:31

Channel	Source	Sampling
AT10	AIT-M:AMIS:AMIS	3in
AT20	AIT-M:AMIS:AMIS	3in
AT30	AIT-M:AMIS:AMIS	3in
AT60	AIT-M:AMIS:AMIS	3in
AT90	AIT-M:AMIS:AMIS	3in
CALI	HDRS-H:HRCC-H:HRCC-H	1in
GR	HGNS-H:HGNS-H:HGNS-H	6in
ICV	Borehole	6in
IHV	Borehole	6in
SP	AIT-M:AMIS:AMIS	6in
TENS	WLWorkflow	6in

TIME_1900 WLWorkflow 0.1in

IHV - Integrated Hole Volume every 10.00 (ft3)

IHV - Integrated Hole Volume every 100.00 (ft3)

ICV - Integrated Cement Volume every 10.00 (ft3)

ICV - Integrated Cement Volume every 100.00 (ft3)

TIME_1900 - Time Marked every 60.00 (s)

Cable Tension (TENS)

10000 lbf 0

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

0.2 ohm.m 2000

Array Induction Two Foot Resistivity A20 (AT20) AIT-M

0.2 ohm.m 2000

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

0.2 ohm.m 2000

Array Induction Two Foot Resistivity A60 (AT60) AIT-M

0.2 ohm.m 2000

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

0.2 ohm.m 2000

Gamma Ray Backup

Spontaneous Potential (SP) AIT-M

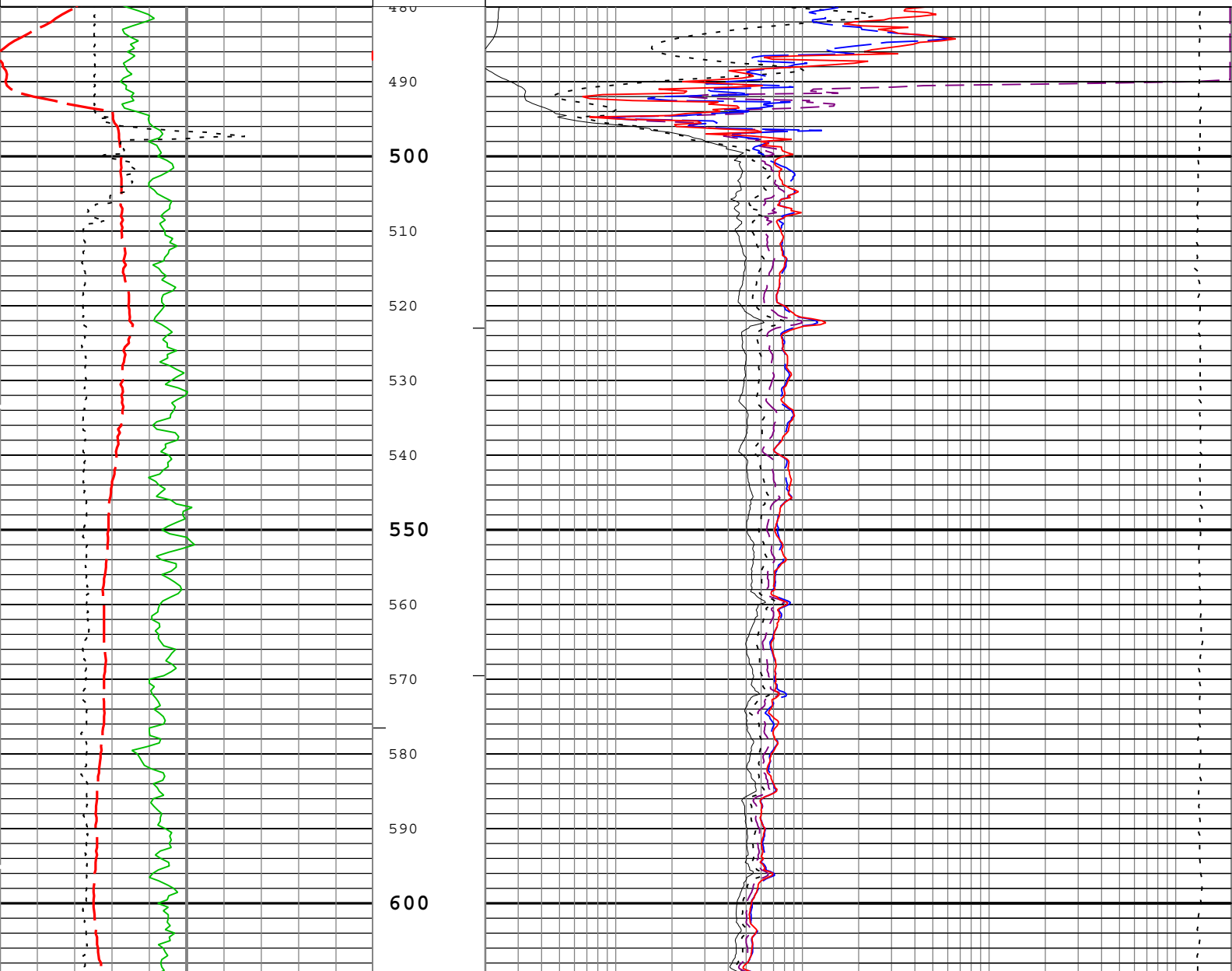
-160 mV 40

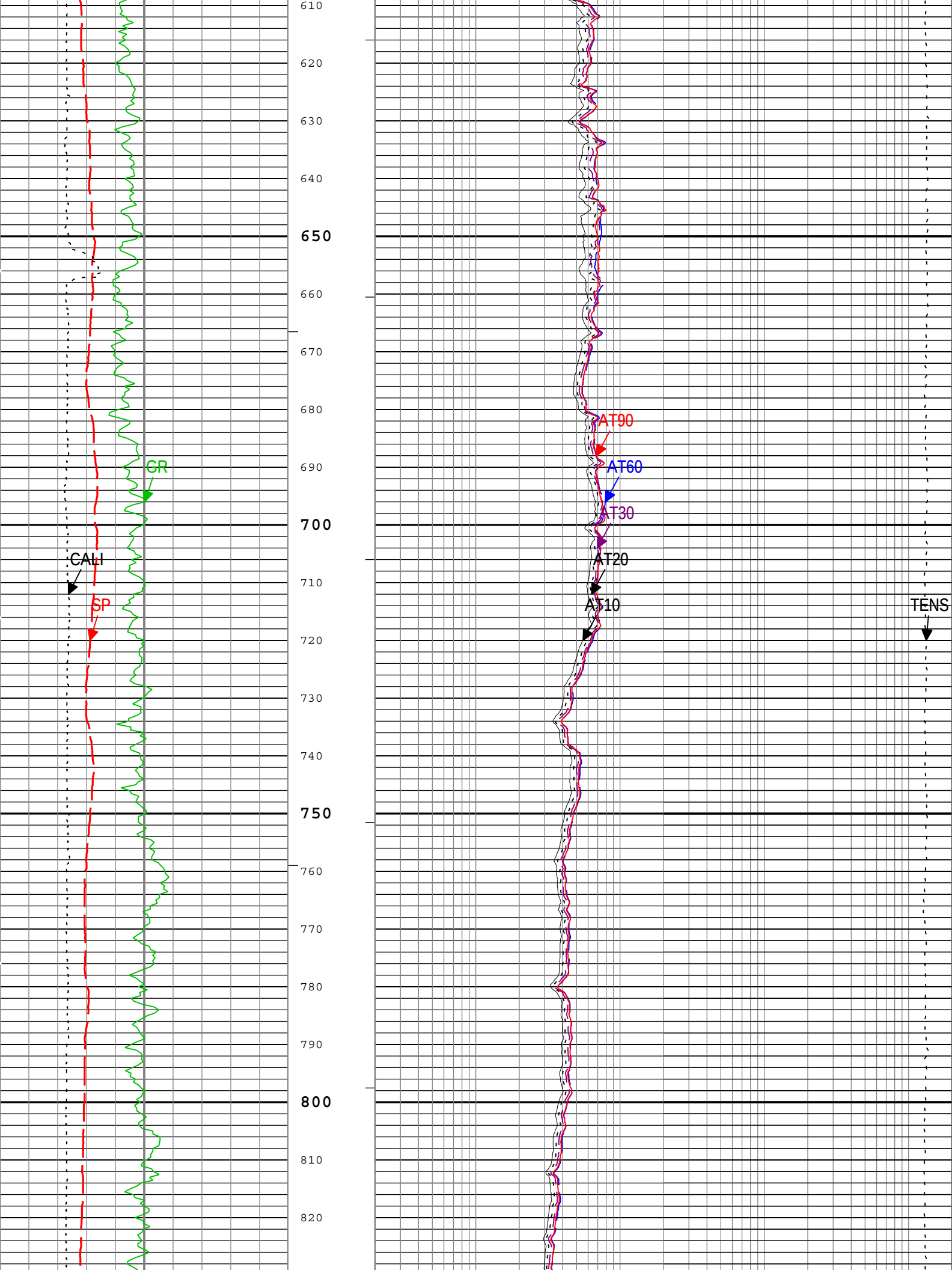
Caliper (CALI) HDRS-H

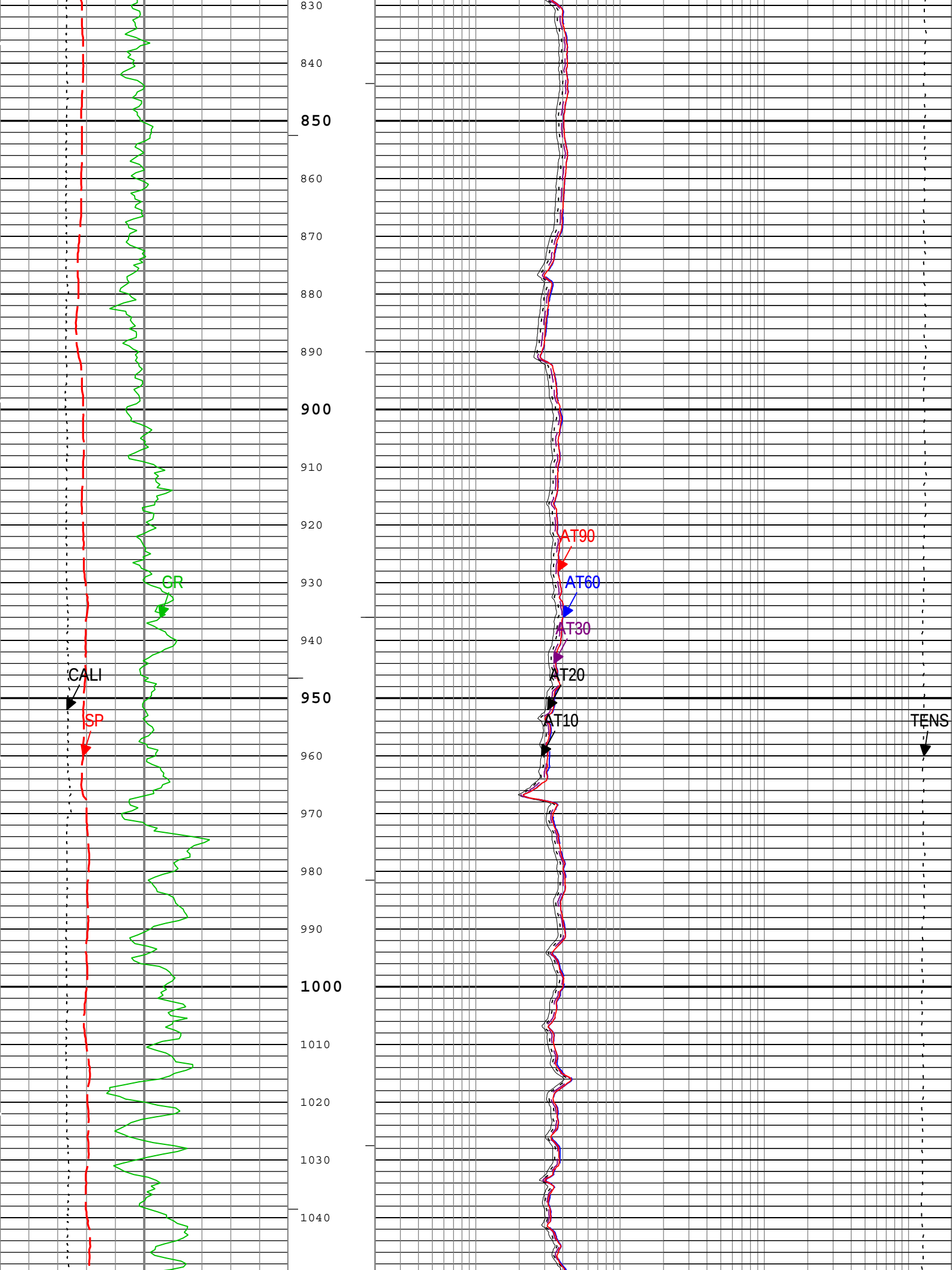
4 in 14

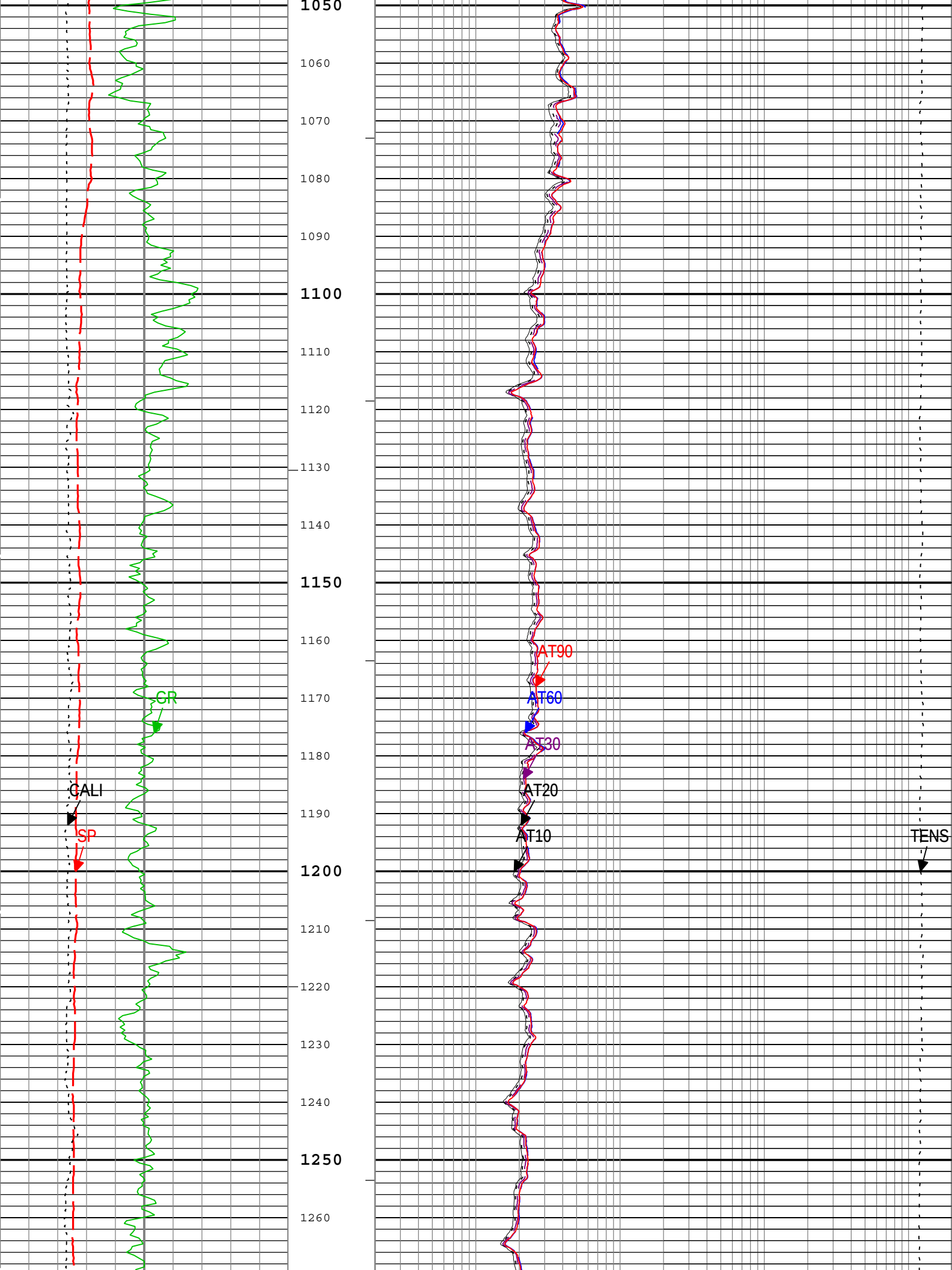
Gamma Ray (GR) HGNS-H

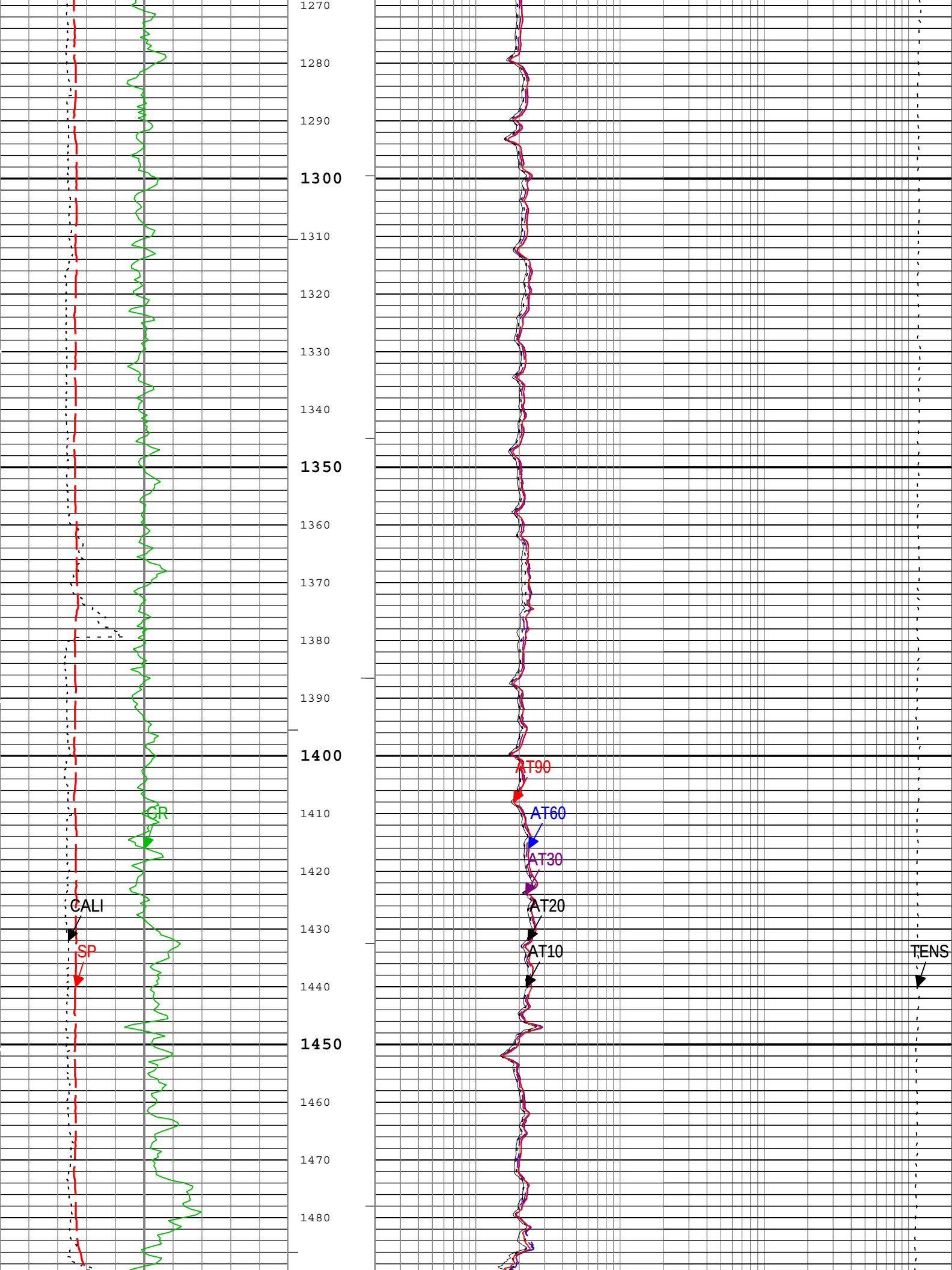
0 gAPI 200

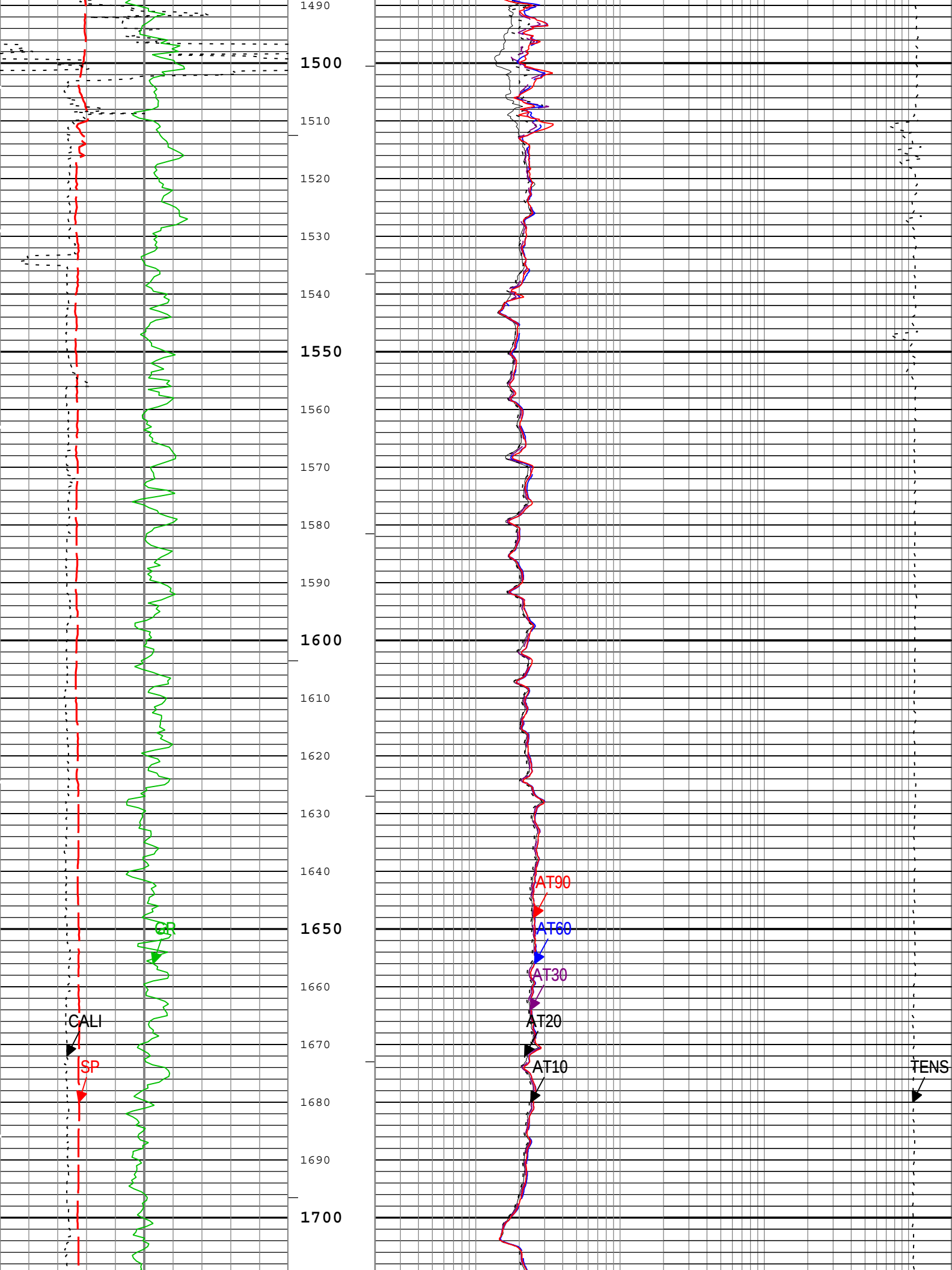


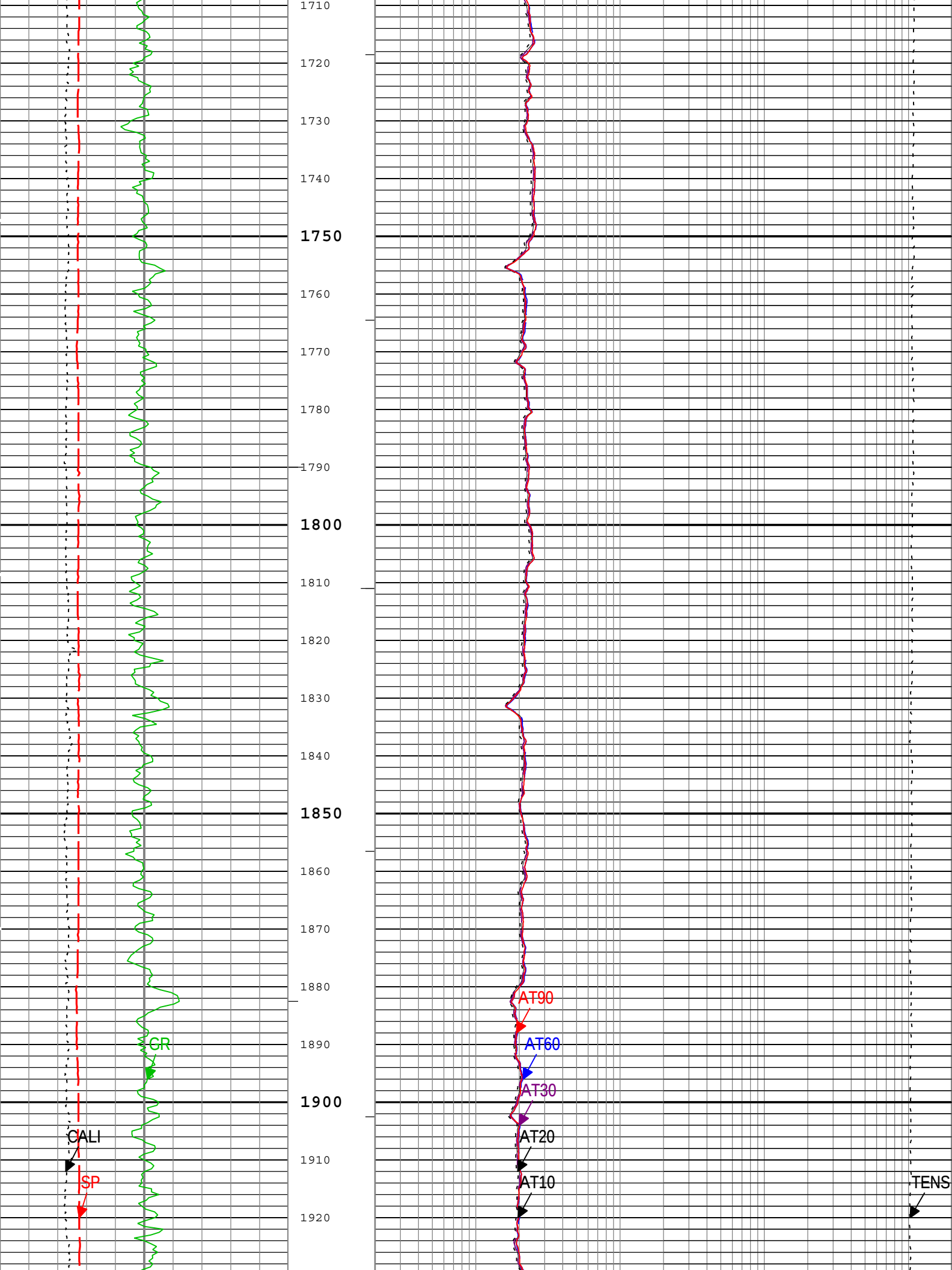

610
620
630
640
650
660
670
680
690
700
710
720
730
740
750
760
770
780
790
800
810
820
GR
CALI
SP
AT90
AT60
AT30
AT20
AT10
TENS

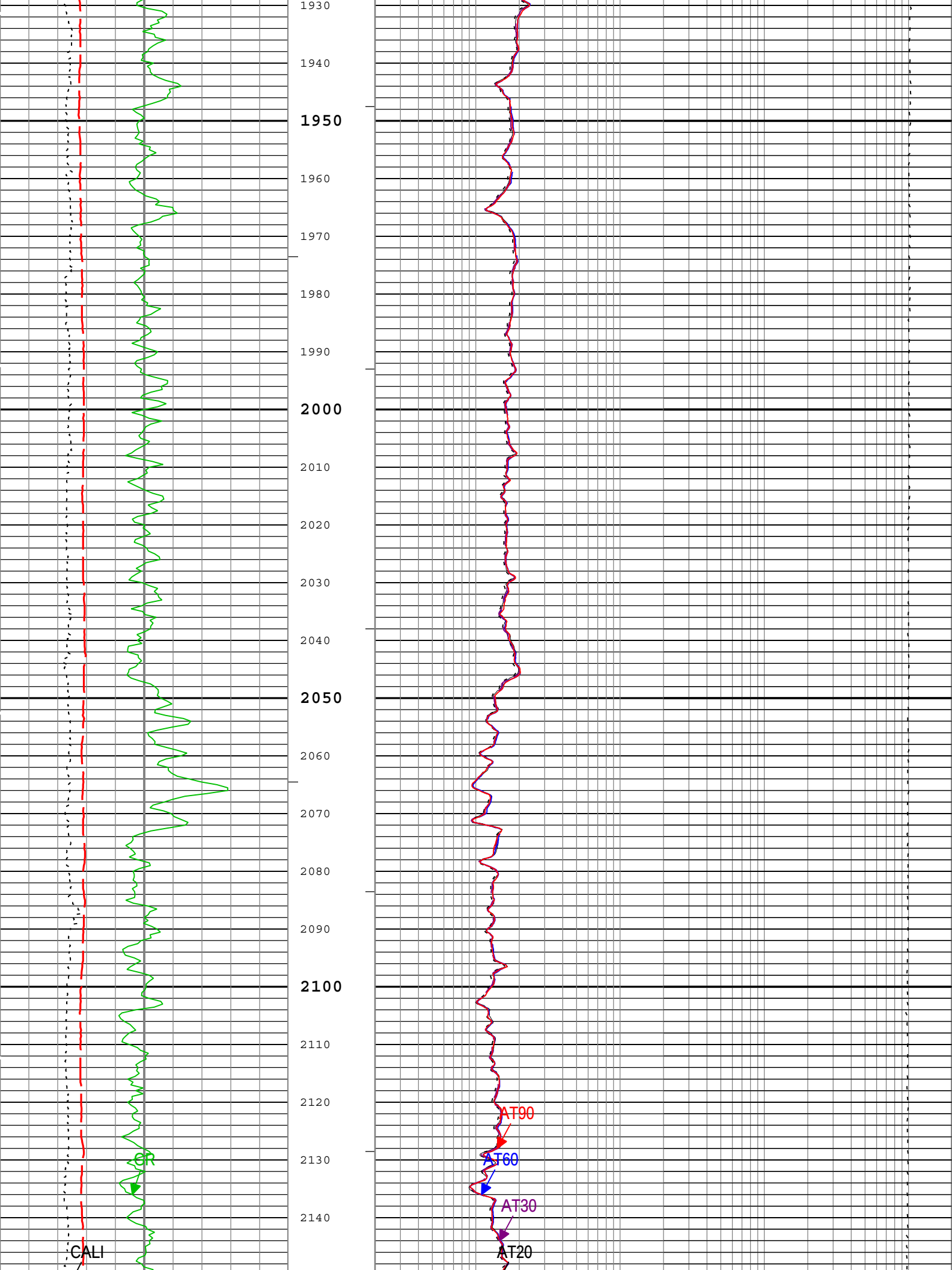

830
840
850
860
870
880
890
900
910
920
930
940
950
960
970
980
990
1000
1010
1020
1030
1040
AT90
AT60
AT30
AT20
AT10
GR
CALI
SP
TENS

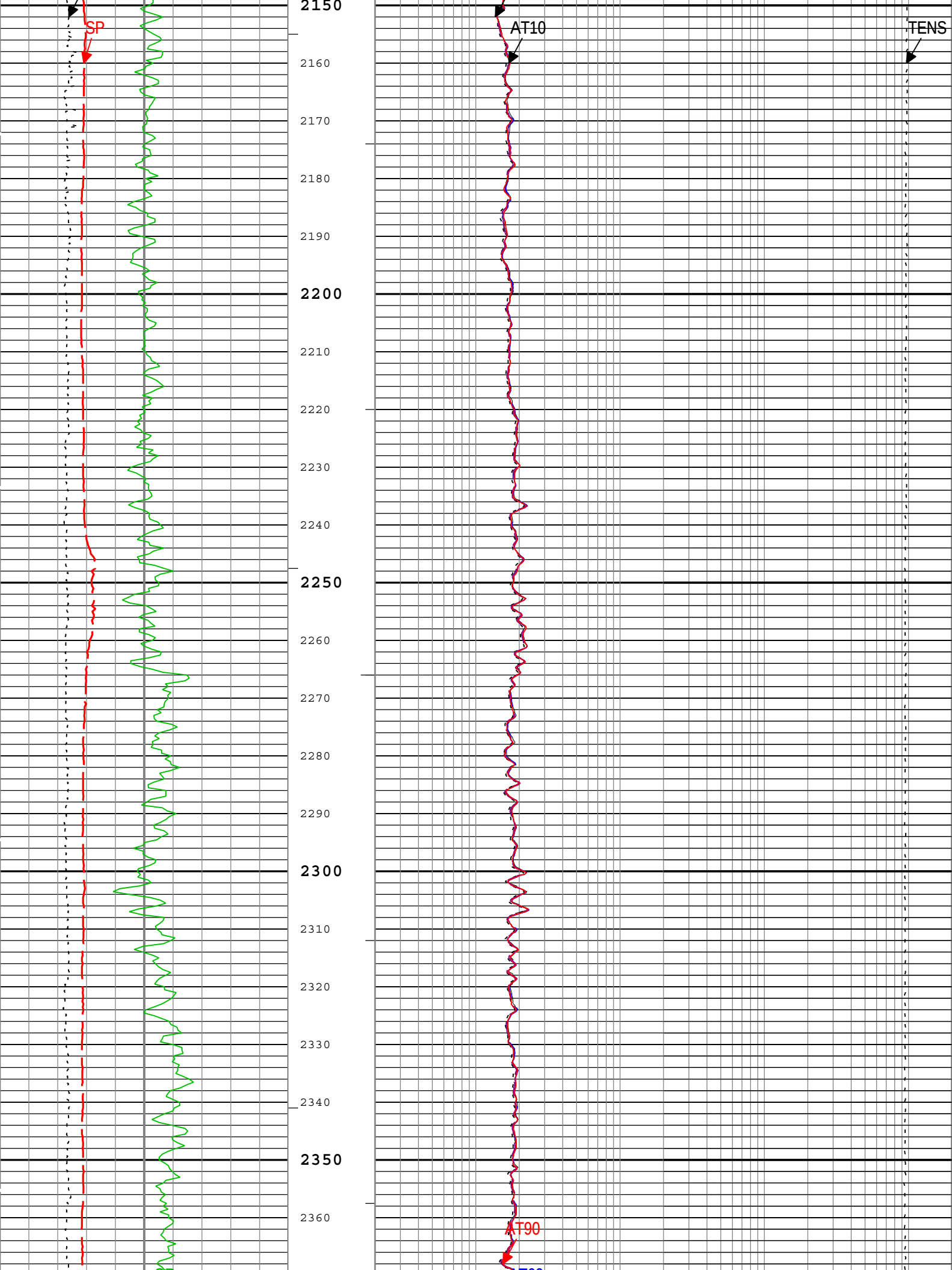

1050
1060
1070
1080
1090
1100
1110
1120
1130
1140
1150
1160
1170
1180
1190
1200
1210
1220
1230
1240
1250
1260
GR
CALI
SP
AT90
AT60
AT30
AT20
AT10
TENS

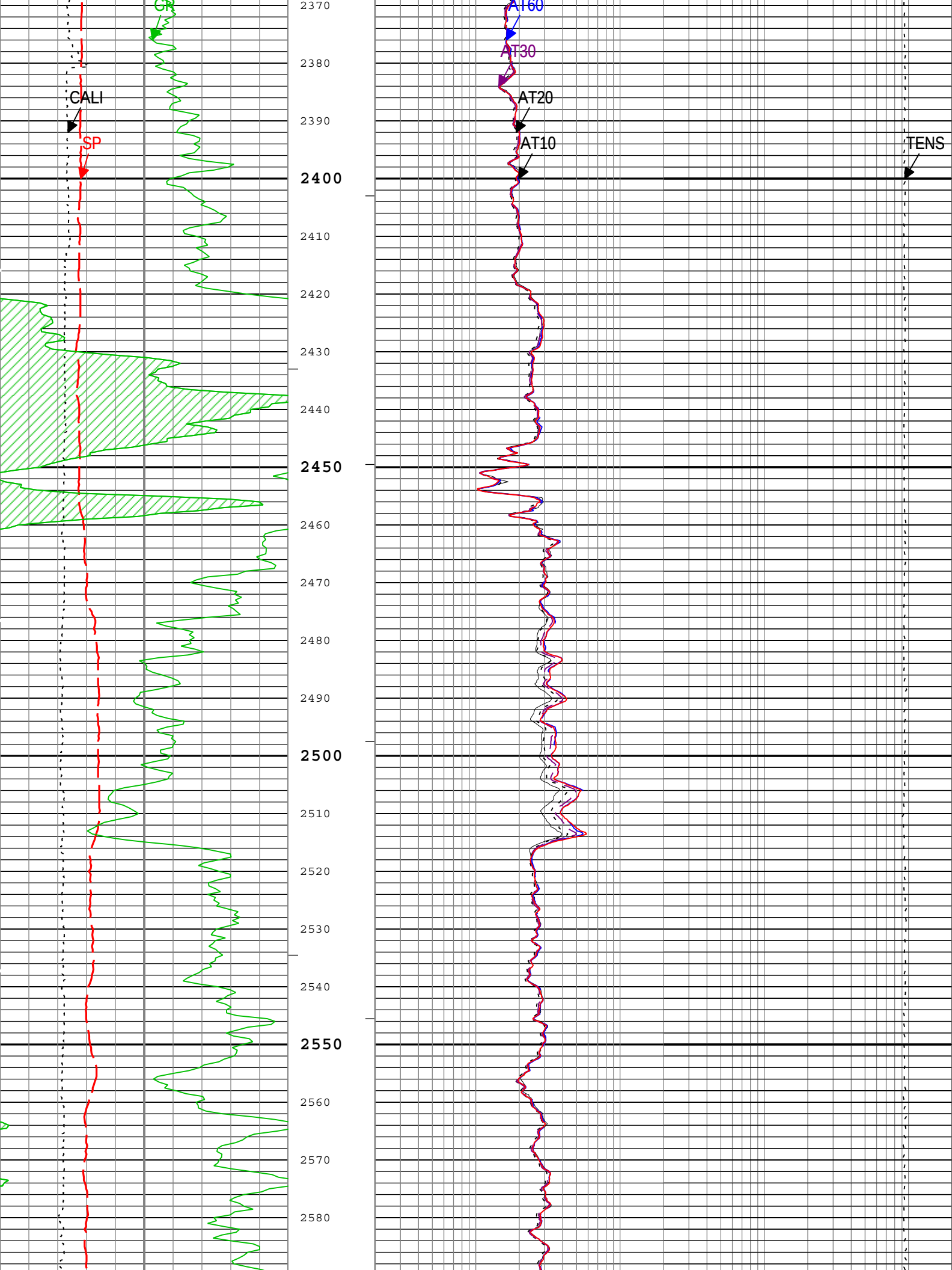

1270
1280
1290
1300
1310
1320
1330
1340
1350
1360
1370
1380
1390
1400
1410
1420
1430
1440
1450
1460
1470
1480
CR
CALI
SP
AT90
AT60
AT30
AT20
AT10
TENS

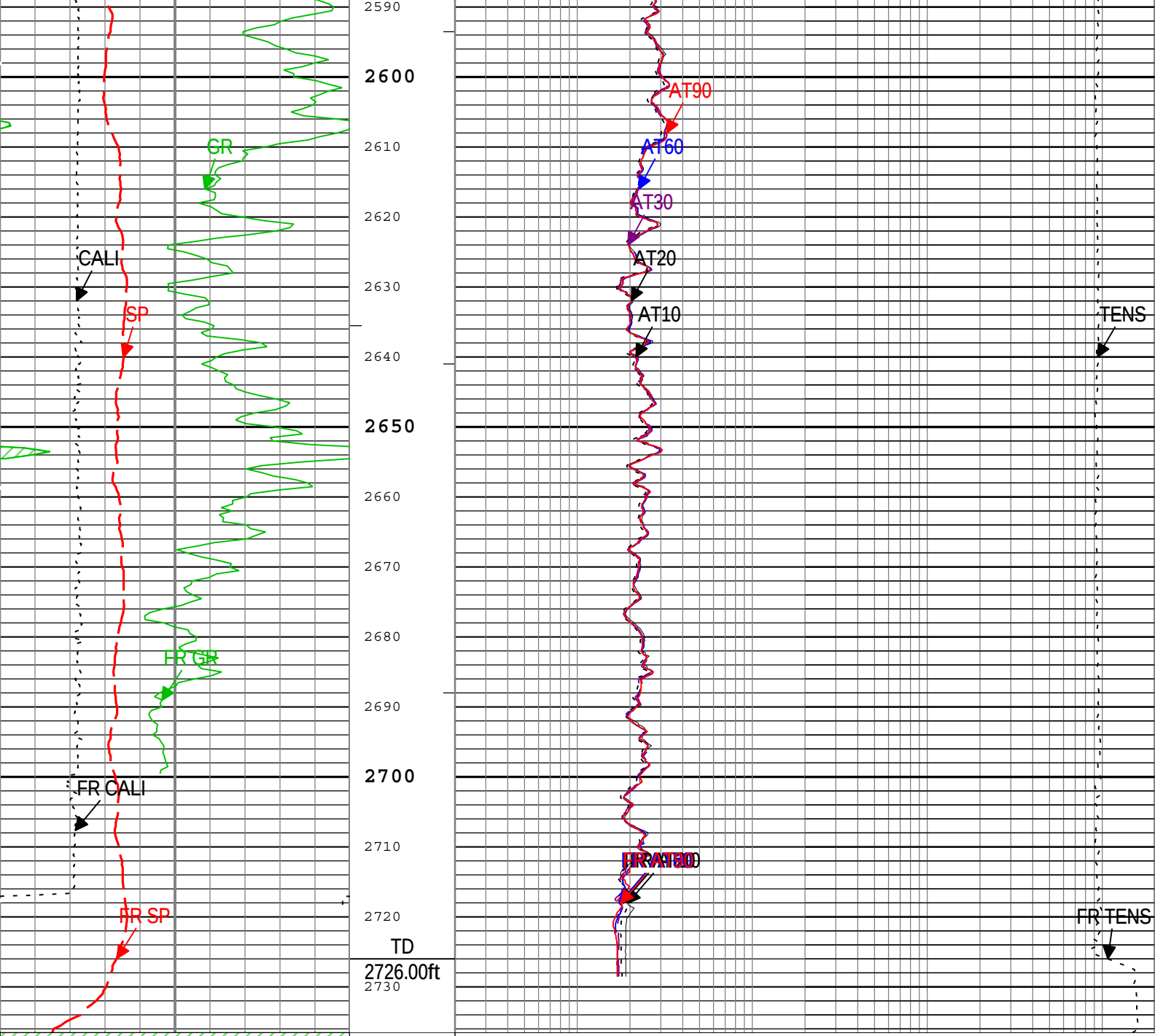

1490
1500
1510
1520
1530
1540
1550
1560
1570
1580
1590
1600
1610
1620
1630
1640
1650
1660
1670
1680
1690
1700
GR
CALI
SP
AT90
AT60
AT30
AT20
AT10
TENS


1710
1720
1730
1740
1750
1760
1770
1780
1790
1800
1810
1820
1830
1840
1850
1860
1870
1880
1890
1900
1910
1920
CALI
SP
GR
AT90
AT60
AT30
AT20
AT10
TENS


1930
1940
1950
1960
1970
1980
1990
2000
2010
2020
2030
2040
2050
2060
2070
2080
2090
2100
2110
2120
2130
2140
GR
CALI
AT90
AT60
AT30
AT20


SP
AT10
TENS
2150
2160
2170
2180
2190
2200
2210
2220
2230
2240
2250
2260
2270
2280
2290
2300
2310
2320
2330
2340
2350
2360
AT90


GR
CALI
SP
AT60
AT30
AT20
AT10
TENS
2370
2380
2390
2400
2410
2420
2430
2440
2450
2460
2470
2480
2490
2500
2510
2520
2530
2540
2550
2560
2570
2580



Gamma Ray Backup

Spontaneous Potential (SP) AIT-M

-160 mV 40

Caliper (CALI) HDRS-H

4 in 14

Gamma Ray (GR) HGNS-H

0 gAPI 200

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

0.2 ohm.m 2000

Array Induction Two Foot Resistivity A20 (AT20) AIT-M

0.2 ohm.m 2000

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

0.2 ohm.m 2000

Array Induction Two Foot Resistivity A60 (AT60) AIT-M

0.2 ohm.m 2000

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

0.2 ohm.m 2000

Cable Tension (TENS)

10000 lbf 0

TIME_1900 - Time Marked every 60.00 (s)

ICV - Integrated Cement Volume every 100.00 (ft3)

ICV - Integrated Cement Volume every 10.00 (ft3)

ICV - Integrated Cement Volume every 10.00 (ft3)

IHV - Integrated Hole Volume every 100.00 (ft3)

IHV - Integrated Hole Volume every 10.00 (ft3)

Description: AIT Basic Log Two Format: Log (EMD 5in Induction) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 15-Nov-2014 18:16:31

Channel Processing Parameters

Parameter	Description	Tool	Value	Unit
ABHM	Array Induction Borehole Correction Mode	AIT-M	Compute Standoff	
ACDE	Array Induction Casing Detection Enable	AIT-M	No	
ASTA	Array Induction Tool Standoff	AIT-M	1	in
BARI	Barite Mud Presence Flag	Borehole	No	
BHS	Borehole Status (Open or Cased Hole)	Borehole	Open	
BS	Bit Size	WLSESSION	6.25	in
CALI_SHIFT	CALI Supplementary Offset	HDRS-H	0	in
CBLO	Casing Bottom (Logger)	WLSESSION	494	ft
CDEN	Cement Density	HGNS-H	2	g/cm3
CSODDRL	Casing Outer Diameter - Zoned along driller depths	WLSESSION	7	in
DFD	Drilling Fluid Density	Borehole	8.8	lbm/gal
FCD	Future Casing (Outer) Diameter	WLSESSION	4.5	in
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	
SOCO	Standoff Correction Option	HGNS-H	Yes	
SPDR	SP Drift Per Foot	AIT-M	0	mV/ft

Tool Control Parameters

Parameter	Description	Tool	Value	Unit
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	3600	ft/h

ONE

5" Induction Repeat Analysis

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
ONE	Log[3]:Up	Up	2270.67 ft	2738.64 ft	15-Nov-2014 4:47:03 PM	15-Nov-2014 4:55:23 PM	ON	0.26 ft	No
ONE	Log[4]:Up	Up	38.39 ft	2736.62 ft	15-Nov-2014 5:00:13 PM	15-Nov-2014 5:50:10 PM	ON	0.00 ft	No

All depths are referenced to toolstring zero

Log

Company:Omimex Petroleum Inc Well:Fiddler Peak Ranch 4-3-5-45

ONE: Log[3]:Up:S002

Description: AIT Basic Log Two Format: EMD 5in Induction RA Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 15-Nov-2014 18:16:32

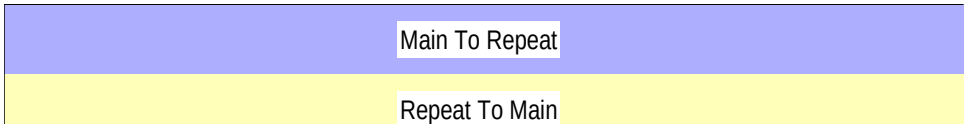
IHV - Integrated Hole Volume every 10.00 (ft3)

IHV - Integrated Hole Volume every 100.00 (ft3)

TIME_1900 - Time Marked every 60.00 (s)

ICV - Integrated Cement Volume every 10.00 (ft3)

ICV - Integrated Cement Volume every 100.00 (ft3)



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

0.2 ohm.m 2000

Main To Repeat

Repeat To Main

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

0.2 ohm.m 2000

Main To Repeat

Repeat To Main

Caliper (CALI) HDRS-H

4 in 14

Main To Repeat

Repeat To Main

Array Induction Two Foot Resistivity A60 (AT60) AIT-M

0.2 ohm.m 2000

Main To Repeat

Repeat To Main

Gamma Ray (GR) HGNS-H

200 gAPI 400

Main To Repeat

Repeat To Main

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

0.2 ohm.m 2000

Main To Repeat

Repeat To Main

Gamma Ray (GR) HGNS-H

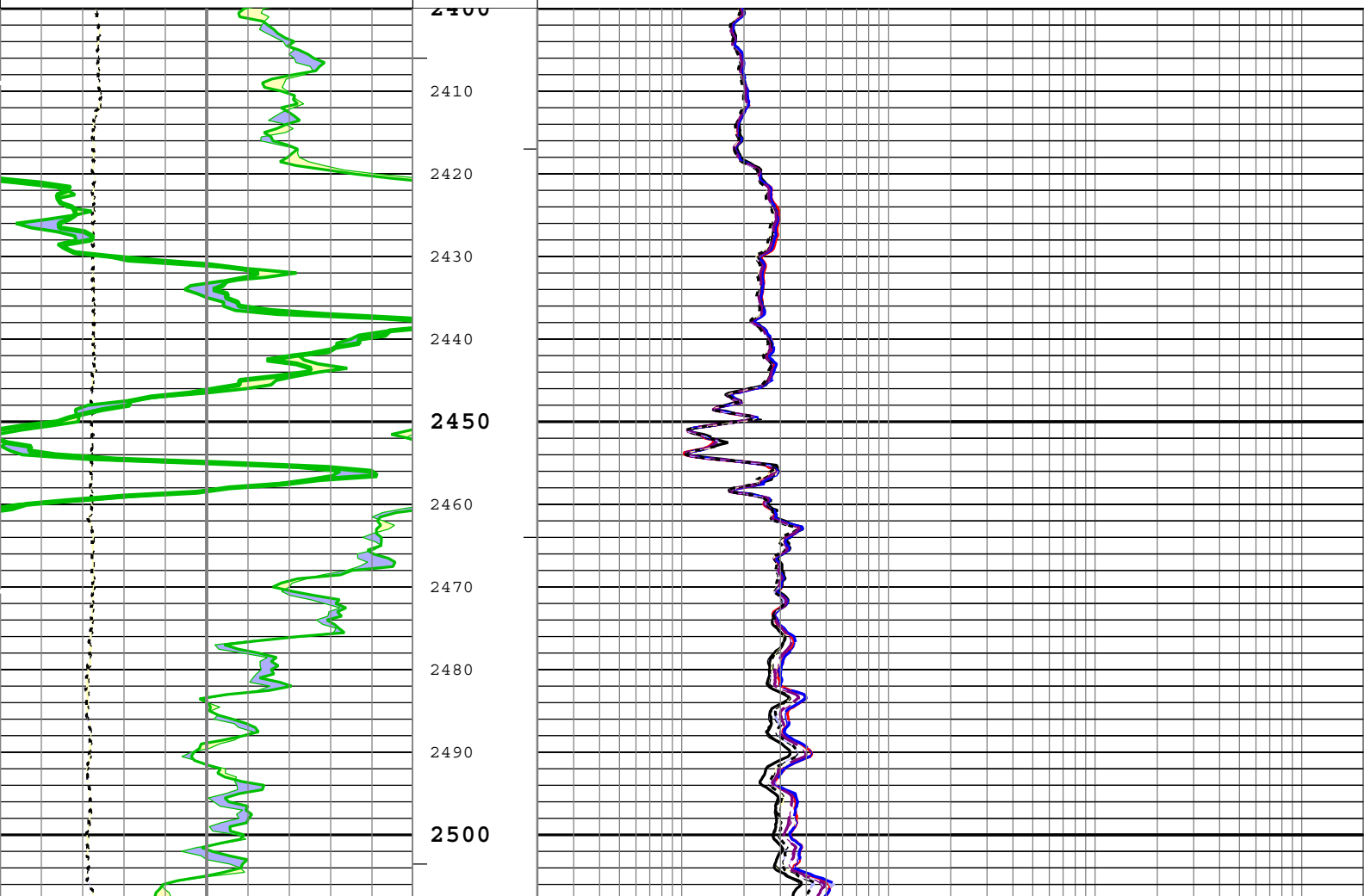
0 gAPI 200

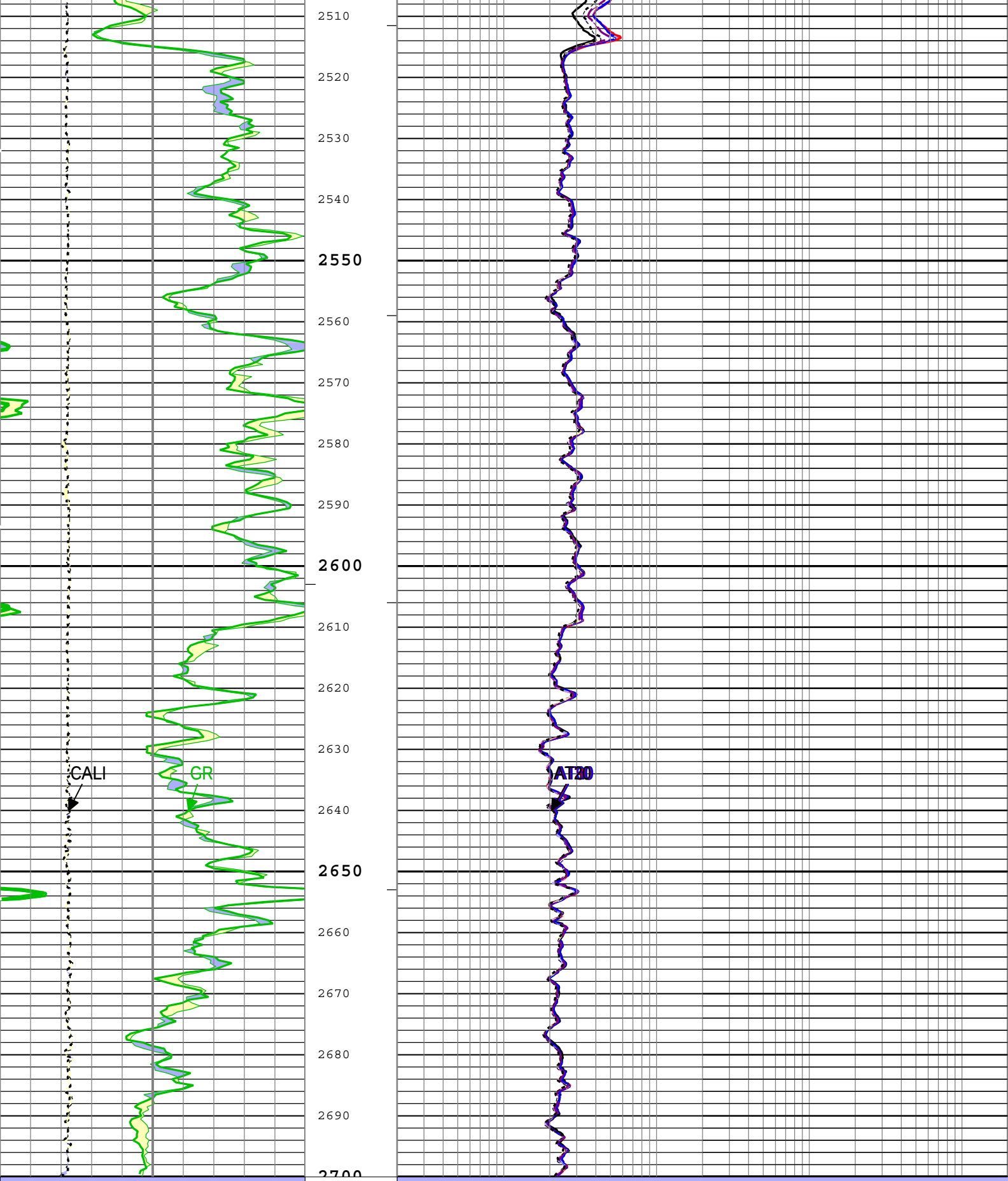
Main To Repeat

Repeat To Main

Array Induction Two Foot Resistivity A20 (AT20) AIT-M

0.2 ohm.m 2000





Main To Repeat

Repeat To Main

Caliper (CALI) HDRS-H

4 in 14

Main To Repeat

Repeat To Main

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

0.2 ohm.m 2000

Main To Repeat

Repeat To Main

Gamma Ray (GR) HGNS-H

200 gAPI 400

Main To Repeat

Repeat To Main

Gamma Ray (GR) HGNS-H

0 gAPI 200

Main To Repeat

Repeat To Main

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

0.2 ohm.m 2000

Main To Repeat

Repeat To Main

Array Induction Two Foot Resistivity A60 (AT60) AIT-M

0.2 ohm.m 2000

Main To Repeat

Repeat To Main

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

0.2 ohm.m 2000

Main To Repeat

Repeat To Main

Array Induction Two Foot Resistivity A20 (AT20) AIT-M

0.2 ohm.m 2000

ICV - Integrated Cement Volume every 100.00 (ft3)

ICV - Integrated Cement Volume every 10.00 (ft3)

TIME_1900 - Time Marked every 60.00 (s)

IHV - Integrated Hole Volume every 100.00 (ft3)

IHV - Integrated Hole Volume every 10.00 (ft3)

Description: AIT Basic Log Two Format: EMD 5in Induction RA Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 15-Nov-2014 18:16:32

Calibration Report

AIT-M (Array Induction Tool - M) Calibration - Run ONE

Primary Equipment :

	File code for AIT-MA Sonde Tool Element	AMIS	181

Auxiliary Equipment :

	AITM Rm/SP Bottom Nose	AMRM	181

AIT Sonde Calibration - Test Loop Gain

Master (EEPROM): 23:01:59 22-Sep-2014

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Test Loop Gain - 0		Master	1.000	0.950	1.041	1.050
Test Loop Phase - 0	deg	Master	0	-3.000	1.805	3.000
Test Loop Gain - 1		Master	1.000	0.950	1.017	1.050
Test Loop Phase - 1	deg	Master	0	-3.000	0.902	3.000
Test Loop Gain - 2		Master	1.000	0.950	1.017	1.050
Test Loop Phase - 2	deg	Master	0	-3.000	0.392	3.000
Test Loop Gain - 3		Master	1.000	0.950	1.016	1.050
Test Loop Phase - 3	deg	Master	0	-3.000	0.089	3.000
Test Loop Gain - 4		Master	1.000	0.950	1.009	1.050
Test Loop Phase - 4	deg	Master	0	-3.000	0.141	3.000
Test Loop Gain - 5		Master	1.000	0.950	0.991	1.050
Test Loop Phase - 5	deg	Master	0	-3.000	-0.110	3.000
Test Loop Gain - 6		Master	1.000	0.950	0.998	1.050
Test Loop Phase - 6	deg	Master	0	-3.000	0.235	3.000
Test Loop Gain - 7		Master	1.000	0.950	1.010	1.050

Test Loop Phase - 7	deg	Master	0	-3.000	-0.080	3.000

AIT Sonde Calibration - Sonde Error Correction

Master (EEPROM): 23:01:59 22-Sep-2014

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Sonde Error Correction Real - 0	mS/m	Master	-----	-231.000	-113.093	119.000
Sonde Error Correction Quad - 0		Master	-----	-2250.000	114.931	2250.000
Sonde Error Correction Real - 1	mS/m	Master	-----	114.000	157.599	204.000
Sonde Error Correction Quad - 1		Master	-----	-625.000	-170.942	625.000
Sonde Error Correction Real - 2	mS/m	Master	-----	66.000	115.105	156.000
Sonde Error Correction Quad - 2		Master	-----	-350.000	-99.364	350.000
Sonde Error Correction Real - 3	mS/m	Master	-----	39.000	49.447	89.000
Sonde Error Correction Quad - 3		Master	-----	-250.000	2.279	250.000
Sonde Error Correction Real - 4	mS/m	Master	-----	15.000	26.217	35.000
Sonde Error Correction Quad - 4		Master	-----	-63.000	-3.708	63.000
Sonde Error Correction Real - 5	mS/m	Master	-----	4.000	10.870	24.000
Sonde Error Correction Quad - 5		Master	-----	-50.000	21.802	50.000
Sonde Error Correction Real - 6	mS/m	Master	-----	5.000	9.914	15.000
Sonde Error Correction Quad - 6		Master	-----	-30.000	2.857	30.000
Sonde Error Correction Real - 7	mS/m	Master	-----	-5.000	-1.286	5.000
Sonde Error Correction Quad - 7		Master	-----	-30.000	1.530	30.000

AIT Mud Calibration - Mud Calibration Gain

Master (EEPROM): 23:01:59 22-Sep-2014

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Coarse Gain		Master	1.000	0.800	0.847	1.200
Fine Gain		Master	1.000	0.800	0.846	1.200

AIT Electronics Check - Thru Calibration Check

Master (EEPROM): 23:01:59 22-Sep-2014 Before (Measured): 23:24:18 08-Jan-2015

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Thru Cal Mag - 0	V	Master	-----	0.366	0.575	0.854
		Before	-----	0.366	0.575	0.854
		Before-Master	-----	-----	0.000	-----
Thru Cal Phase - 0	deg	Master	-----	137.000	-169.442	-103.000
		Before	-----	137.000	-167.318	-103.000
		Before-Master	-----	-----	2.124	-----
Thru Cal Mag - 1	V	Master	-----	0.762	1.178	1.778
		Before	-----	0.762	1.178	1.778
		Before-Master	-----	-----	0.000	-----
Thru Cal Phase - 1	deg	Master	-----	136.000	-170.544	-104.000
		Before	-----	136.000	-168.418	-104.000
		Before-Master	-----	-----	2.126	-----
Thru Cal Mag - 2	V	Master	-----	0.372	0.584	0.868
		Before	-----	0.372	0.585	0.868
		Before-Master	-----	-----	0.001	-----
Thru Cal Phase - 2	deg	Master	-----	132.000	-174.186	-108.000
		Before	-----	132.000	-172.060	-108.000
		Before-Master	-----	-----	2.126	-----
Thru Cal Mag - 3	V	Master	-----	0.420	0.660	0.980
		Before	-----	0.420	0.660	0.980
		Before-Master	-----	-----	0.000	-----
Thru Cal Phase - 3	deg	Master	-----	131.000	-174.965	-109.000
		Before	-----	131.000	-172.837	-109.000
		Before-Master	-----	-----	2.128	-----
Thru Cal Mag - 4	V	Master	-----	0.804	1.233	1.876
		Before	-----	0.804	1.233	1.876
		Before-Master	-----	-----	0.000	-----
Thru Cal Phase - 4	deg	Master	-----	125.000	178.761	-115.000
		Before	-----	125.000	-179.101	-115.000
		Before-Master	-----	-----	-357.862	-----
Thru Cal Mag - 5	V	Master	-----	1.176	1.795	2.744
		Before	-----	1.176	1.795	2.744
		Before-Master	-----	-----	0.000	-----
Thru Cal Phase - 5	deg	Master	-----	122.000	177.104	-118.000
		Before	-----	122.000	179.246	-118.000
		Before-Master	-----	-----	2.142	-----

Thru Cal Mag - 6	V	Master	-----	1.176	1.794	2.744	
		Before	-----	1.176	1.795	2.744	
		Before-Master	-----	-----	0.001	-----	
Thru Cal Phase - 6	deg	Master	-----	121.000	177.111	-119.000	
		Before	-----	121.000	179.253	-119.000	
		Before-Master	-----	-----	2.142	-----	
Thru Cal Mag - 7	V	Master	-----	0.846	1.294	1.974	
		Before	-----	0.846	1.295	1.974	
		Before-Master	-----	-----	0.001	-----	
Thru Cal Phase - 7	deg	Master	-----	115.000	176.348	-125.000	
		Before	-----	115.000	178.542	-125.000	
		Before-Master	-----	-----	2.194	-----	
SPA Zero	mV	Master		-50.000	0.145	50.000	
		Before		-50.000	0.142	50.000	
		Before-Master	-----	-----	-0.003	-----	
SPA Plus	mV	Master		941.000	992.483	1040.000	
		Before		941.000	992.329	1040.000	
		Before-Master	-----	-----	-0.154	-----	
Temperature Zero	V	Master		-0.050	0.000	0.050	
		Before		-0.050	0.000	0.050	
		Before-Master	-----	-----	0.000	-----	
Temperature Plus	V	Master		0.870	0.919	0.960	
		Before		0.870	0.919	0.960	
		Before-Master	-----	-----	0.000	-----	

Company:	Omimex Petroleum Inc
Well:	Fiddler Peak Ranch 4-3-5-45
Field:	Ballyneal
County:	Yuma
State:	Colorado

Schlumberger

Platform Express
Array Induction
with Linear Correlation