



# Schlumberger

Company: **CPC Minerals LLC**

Well: **CPC 17-1**

Field: **Wildcat**

County: **Bonneville**

State: **Idaho**

**TRIPLE COMBO**  
**Combined Print**  
**AIT-LDT-CNT-G**

County: Bonneville  
 Field: Wildcat  
 Location: NWSW 758' FWL & 2264' FSL  
 Well: CPC 17-1  
 Company: CPC Minerals LLC

LOCATION		NWSW 758' FWL & 2264' FSL	Elev.: K.B. 6435.4 ft G.L. 6413.4 ft D.F. 6434.4 ft
Permanent Datum:	Ground Level		Elev.: 6413.4 ft
Log Measured From:	Kelly Bushing	22.0 ft	above Perm. Datum
Drilling Measured From:	Kelly Bushing		
API Serial No. 11-019-20-011	Section 17	Township 3S	Range 43E

Logging Date	Run Number	Run 1	Run 2	Run 3
18-Oct-2007	1			
Depth Driller	7636 ft			
Schlumberger Depth	6686 ft			
Bottom Log Interval	6667 ft			
Top Log Interval	2010 ft			
Casing Driller Size @ Depth	9.625 in @ 2010 ft			
Casing Schlumberger	2010 ft			
Bit Size	8.750 in			
Type Fluid In Hole	WBM			
Density	11.4 lbm/gal			
Fluid Loss	7.6 cm3			
Source Of Sample	Mudpit			
RM @ Measured Temperature	1.230 ohm.m @ 72 degF			
RMF @ Measured Temperature	0.923 ohm.m @ 72 degF			
RMC @ Measured Temperature	1.845 ohm.m @ 72 degF			
Source RMF	Calculated			
RM @ MRT	0.418 @ 225			
Maximum Recorded Temperatures	225 degF			
Circulation Stopped	18-Oct-2007			
Logger On Bottom	19-Oct-2007			
Unit Number	2275			
Recorded By	Alfredo Bouchan			
Witnessed By	Cliff King			

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## DEPTH SUMMARY LISTING

Date Created: 19-OCT-2007 5:19:30

### Depth System Equipment

Depth Measuring Device	Tension Device	Logging Cable
Type: IDW-B Serial Number: 6432 Calibration Date: 30-Jan-2007 (i Calibrator Serial Number: 1 Calibration Cable Type: 7-46A XS Wheel Correction 1: -5 Wheel Correction 2: -4	Type: CMTD-B/A Serial Number: 2718 Calibration Date: 21-Sep-2007 Calibrator Serial Number: 88310 Calibration Gain: 1.26 Calibration Offset: -813.00	Type: 7-46A XS Serial Number: 7179 Length: 30000.00 FT <hr/> Conveyance Method: Wireline Rig Type: LAND

### 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: 3.00 FT
Tool Zero Check At Surface: 1.50 FT

### Depth Control Remarks

1. Schlumberger depth control procedures followed.
2. IDW-JA used as primary depth control.
3. Z-Chart used as secondary depth control.
4. Rig up lengths at surface and bottom not done due to hole conditions.
- 5.
- 6.

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OTHER SERVICES1	OTHER SERVICES2
OS1: None	OS1:
OS2:	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
First RIH, primary depth control used	
3 ft added to main log for stretch correction	
Sandstone matrix logged; Matrix Density = 2.65 g/cc; FD= 1	
Max Temp 225 deg F	
Bowstring not run as per client request	
Caliper closed 2672 - 2678 due to pull	
GR logged to surface as client request	

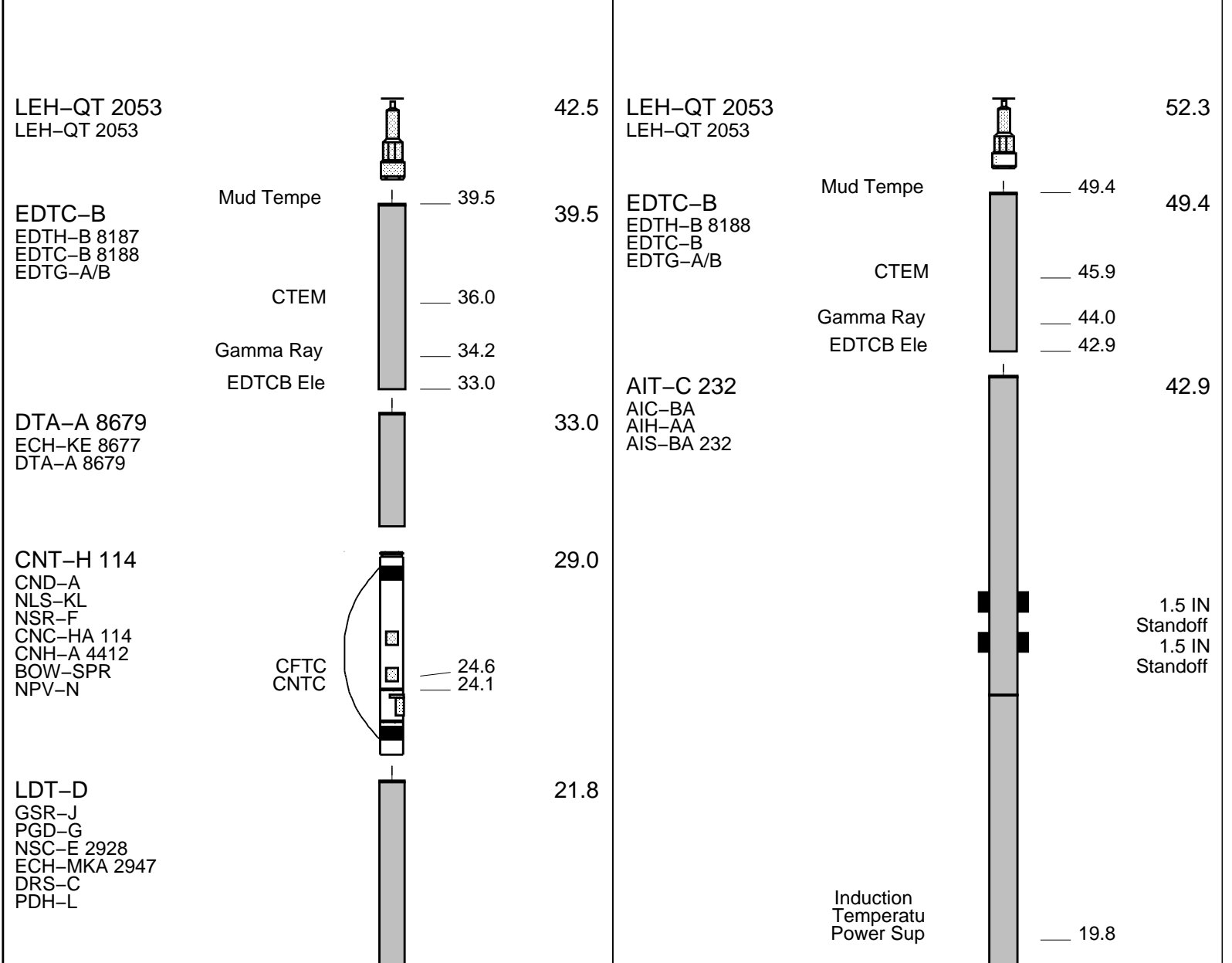
Density/ PEF may be affected due to hole condition (Washouts) and mud weight: MW= 11.4 lb/gal	
Cement Volume calculated from 5639 ft to CSG, FCD=7"	
Shallow measurements of AIT may be affected due to hole conditions (Washouts).	
Wiper trip done between run 1 and run 2.	
1st Run – LDT–CNL–GR (AIT not ran due to tool failure) planned to run backup in 2nd run with BHC, but bridged in 1st run @ 5639	
2nd Run – AIT–GR–(Hole finder) Bridged @ 6686 ft.	
3rd Run – AIT–GR–PPC–(No hole finder) Bridged @ 6686 ft.	
4th Run – LDT–CNL–GR Bridged @ 4300 ft.	
BHC not ran as client requested.	

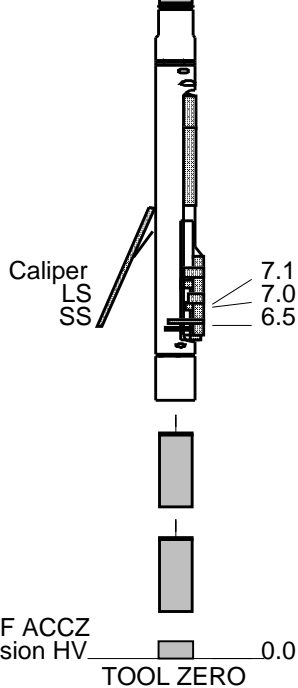
RUN 1			RUN 2		
SERVICE ORDER #:		11816233	SERVICE ORDER #:		
PROGRAM VERSION:		15C0-309	PROGRAM VERSION:		
FLUID LEVEL:			FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

## EQUIPMENT DESCRIPTION

RUN 1	RUN 2
SURFACE EQUIPMENT	SURFACE EQUIPMENT
NCT-B CNB-AB NCS-VB WITM (EDTS)-A	WITM (EDTS)-A

DOWNHOLE EQUIPMENT	DOWNHOLE EQUIPMENT
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AH-107 3854  
AH-107 3854

AH-107 3885  
AH-107 3885

BNS-CCS

DF ACCZ  
Tension HV  
TOOL ZERO 0.0

4.5

2.5

0.5

MAXIMUM STRING DIAMETER 4.50 IN  
MEASUREMENTS RELATIVE TO TOOL ZERO  
ALL LENGTHS IN FEET

SPE-A  
SPE-A 11

AH-Hole-Finder  
AH-Hole-Finder

SP SPARC

DF ACCZ  
Tension HV  
TOOL ZERO 0.0

9.3

1.5 IN  
Standoff  
1.5 IN  
Standoff

2.9

2.4

MAXIMUM STRING DIAMETER 6.88 IN  
MEASUREMENTS RELATIVE TO TOOL ZERO  
ALL LENGTHS IN FEET

**Schlumberger**

## Combo Up Log 5 IN : 100 FT

MAXIS Field Log

Company: CPC Minerals LLC

Well: CPC 17-1

### Input DLIS Files

DEFAULT	SPLICE_AIT_LDL_CNL_037	FN:1	PRODUCER	21-Oct-2007 06:06	6702.0 FT	304.1 FT
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### Output DLIS Files

DEFAULT	AIT_LDL_CNL_038PUP	FN:21	PRODUCER	21-Oct-2007 06:10	6702.0 FT	318.5 FT
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### Integrated Hole/Cement Volume Summary

### OP System Version: 15C0-309

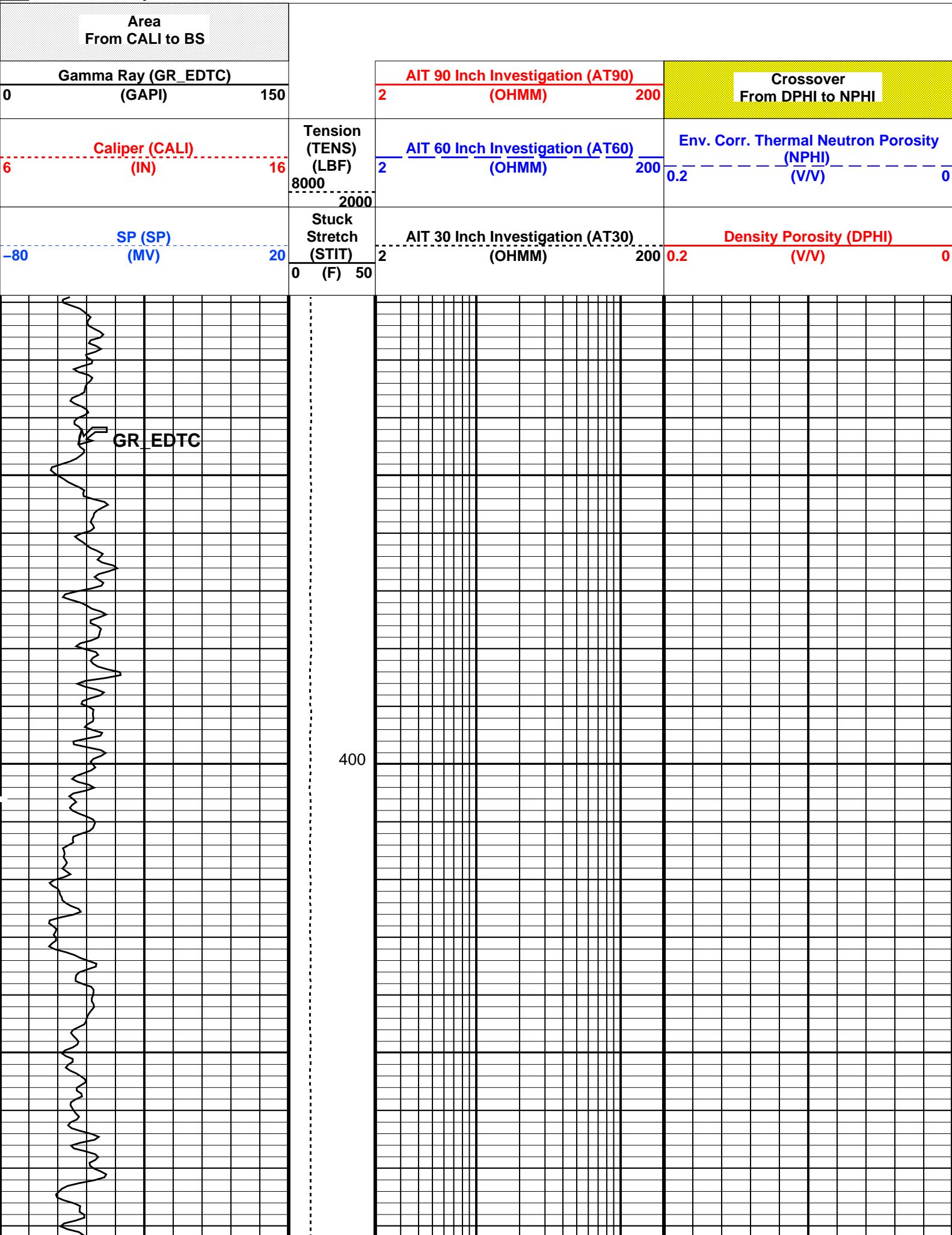
MCM

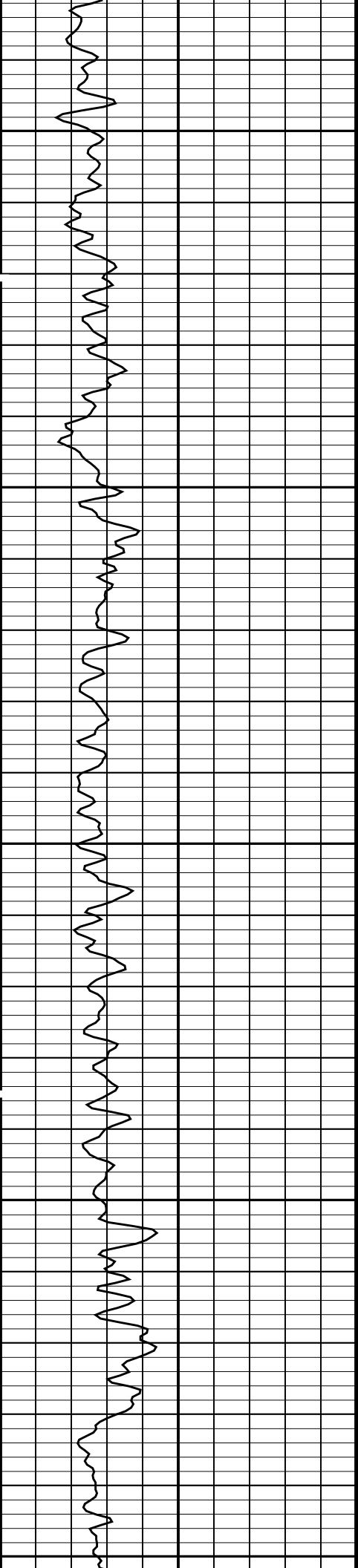
SPE-A	15C0-309	AIT-C	SRPC-3357-Q2_2007_b
LDT-D	15C0-309	CNT-H	15C0-309
DTA-A	SKK-3299-EDTCB_b	EDTC-B	SKK-3299-EDTCB_b

### 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

Time Mark Every 60 S

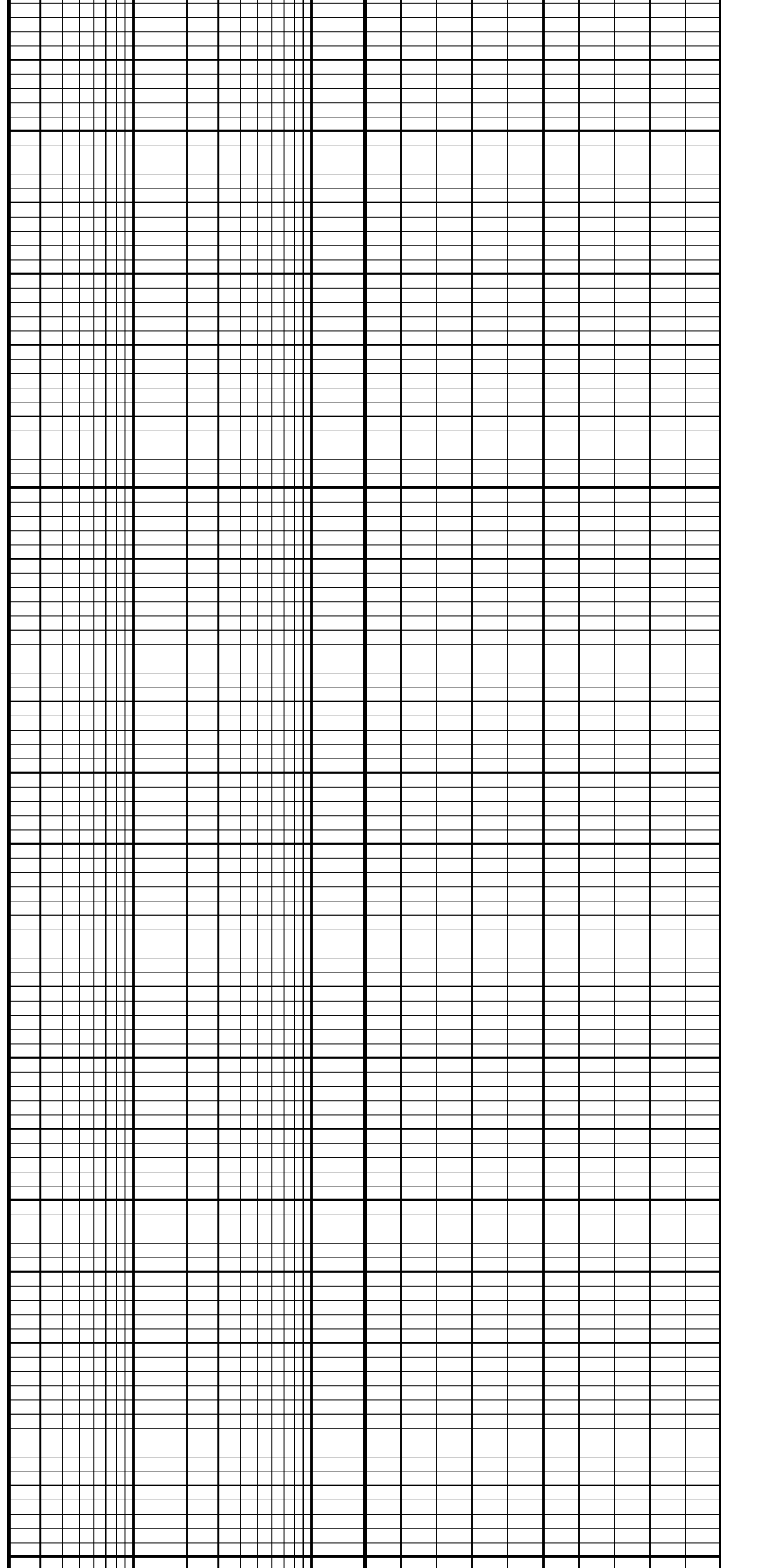


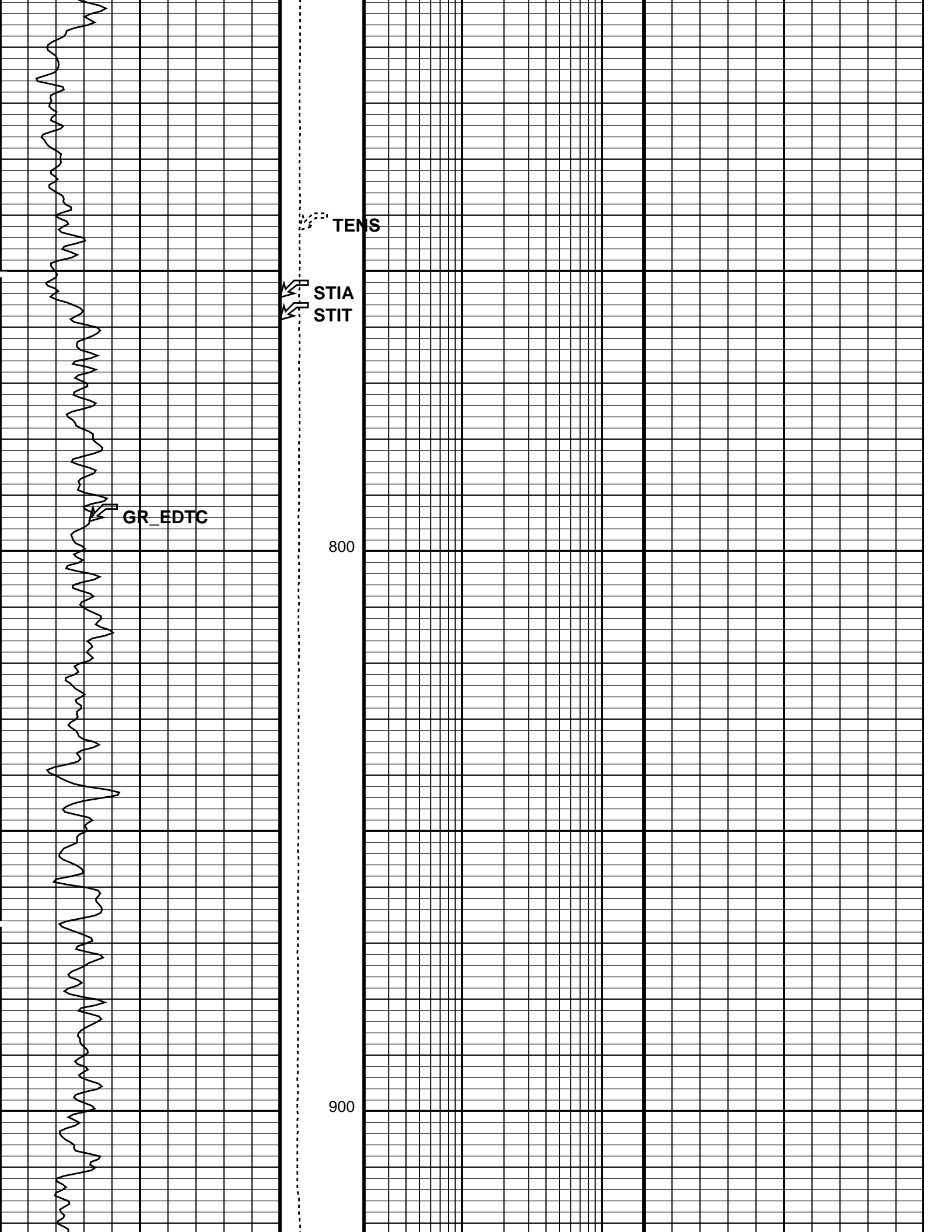


500

600

700





TENS

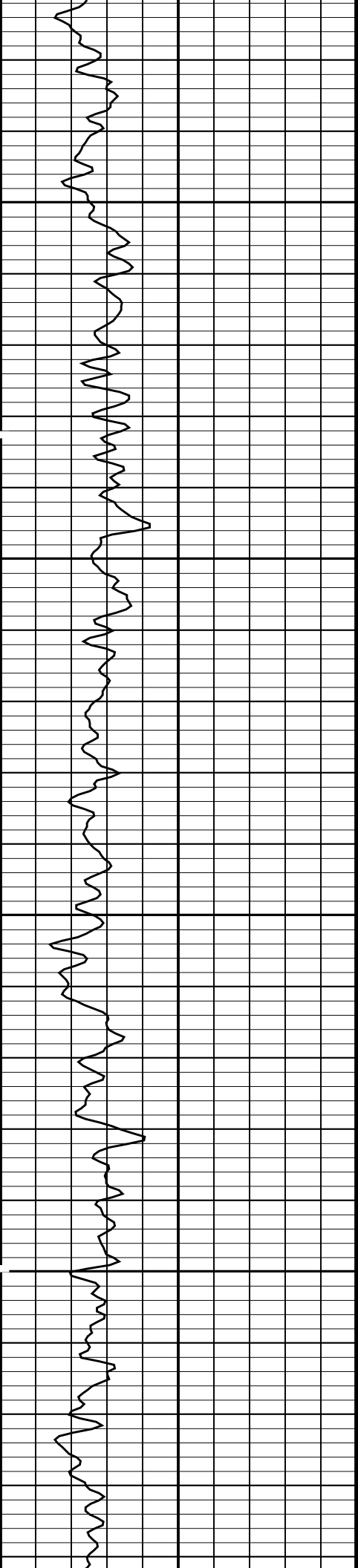
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800

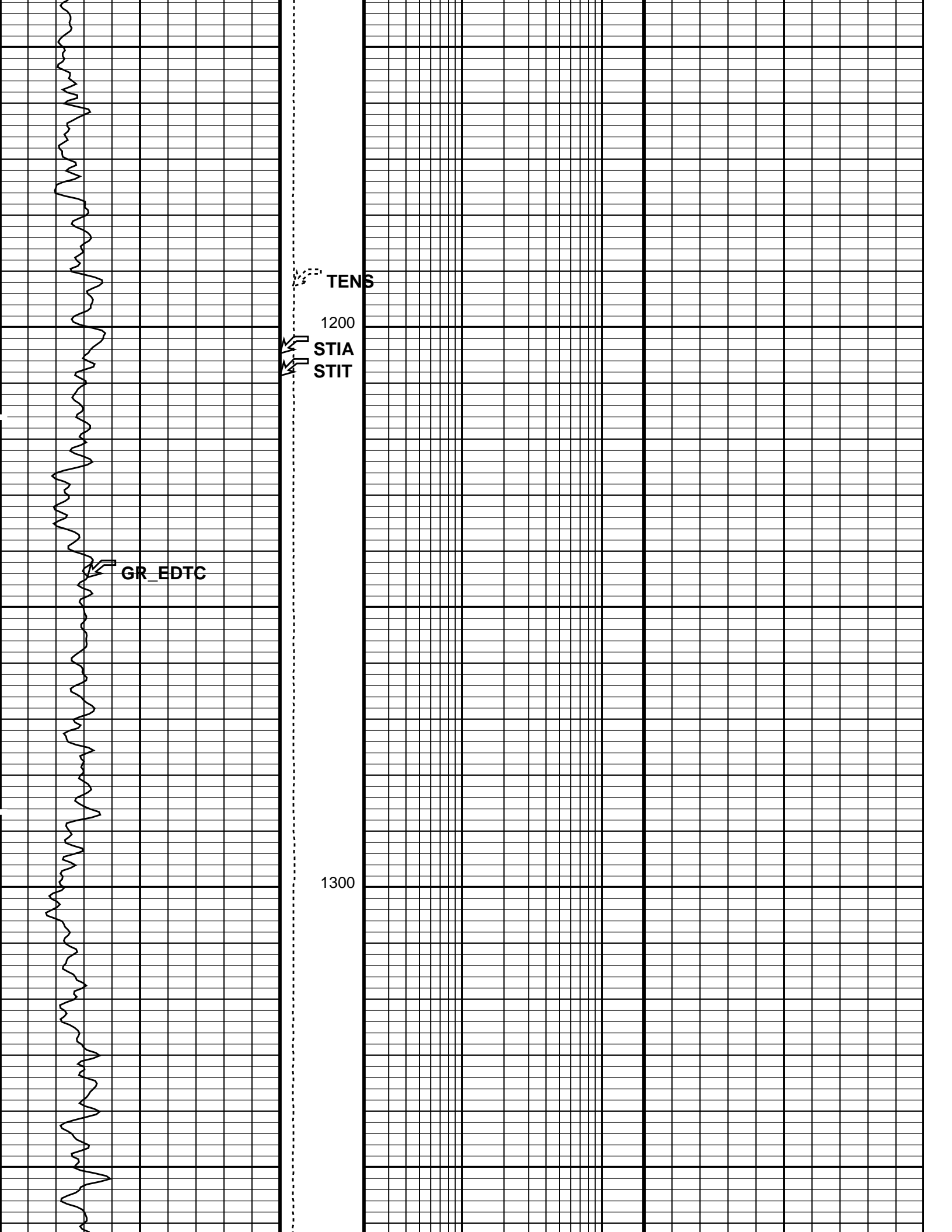
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1000

1100



TENS

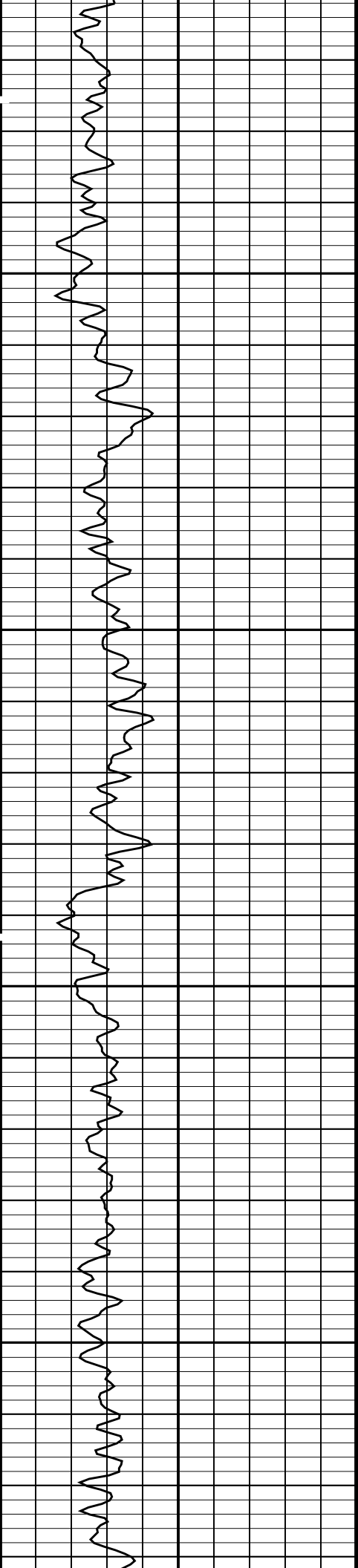
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STIA

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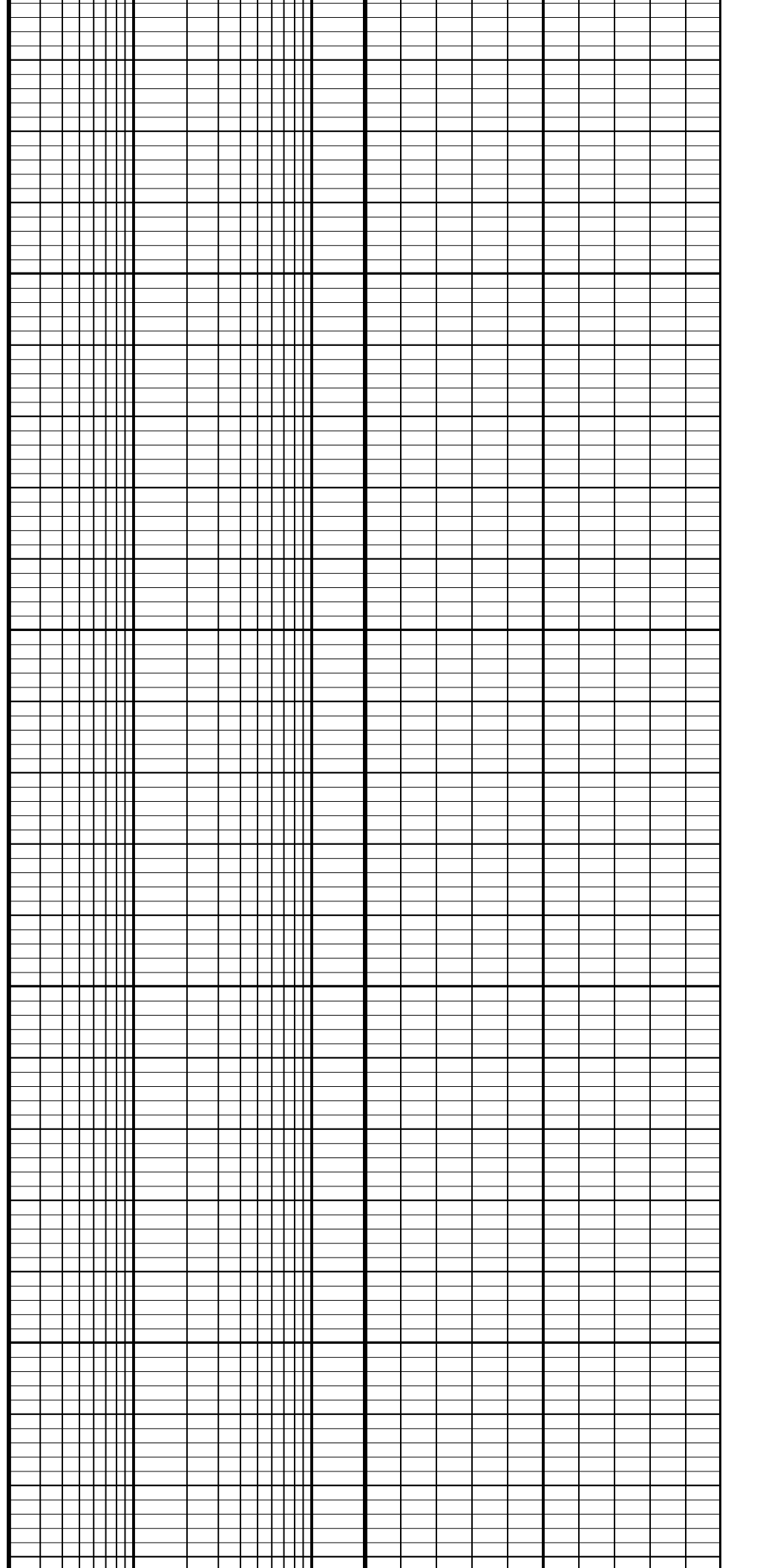
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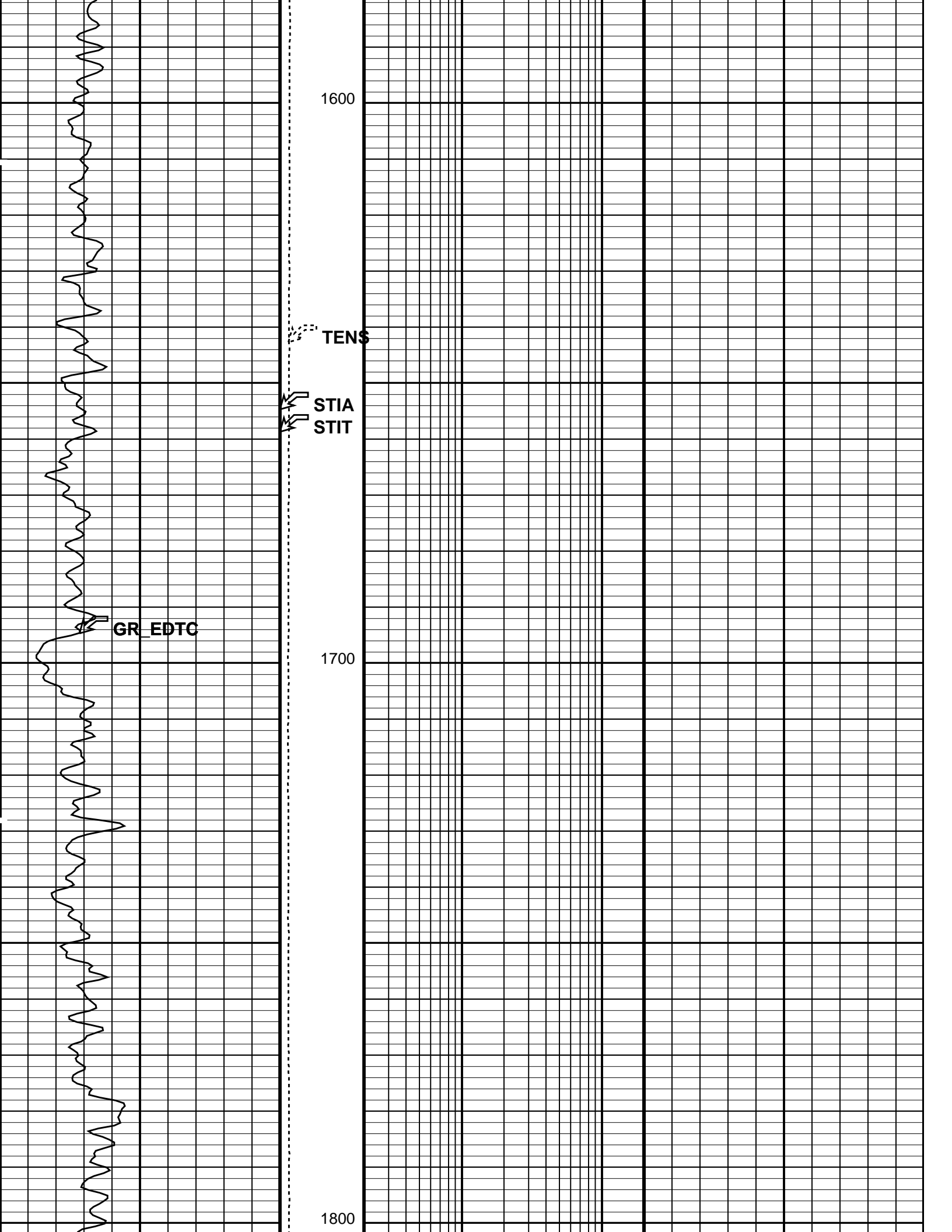
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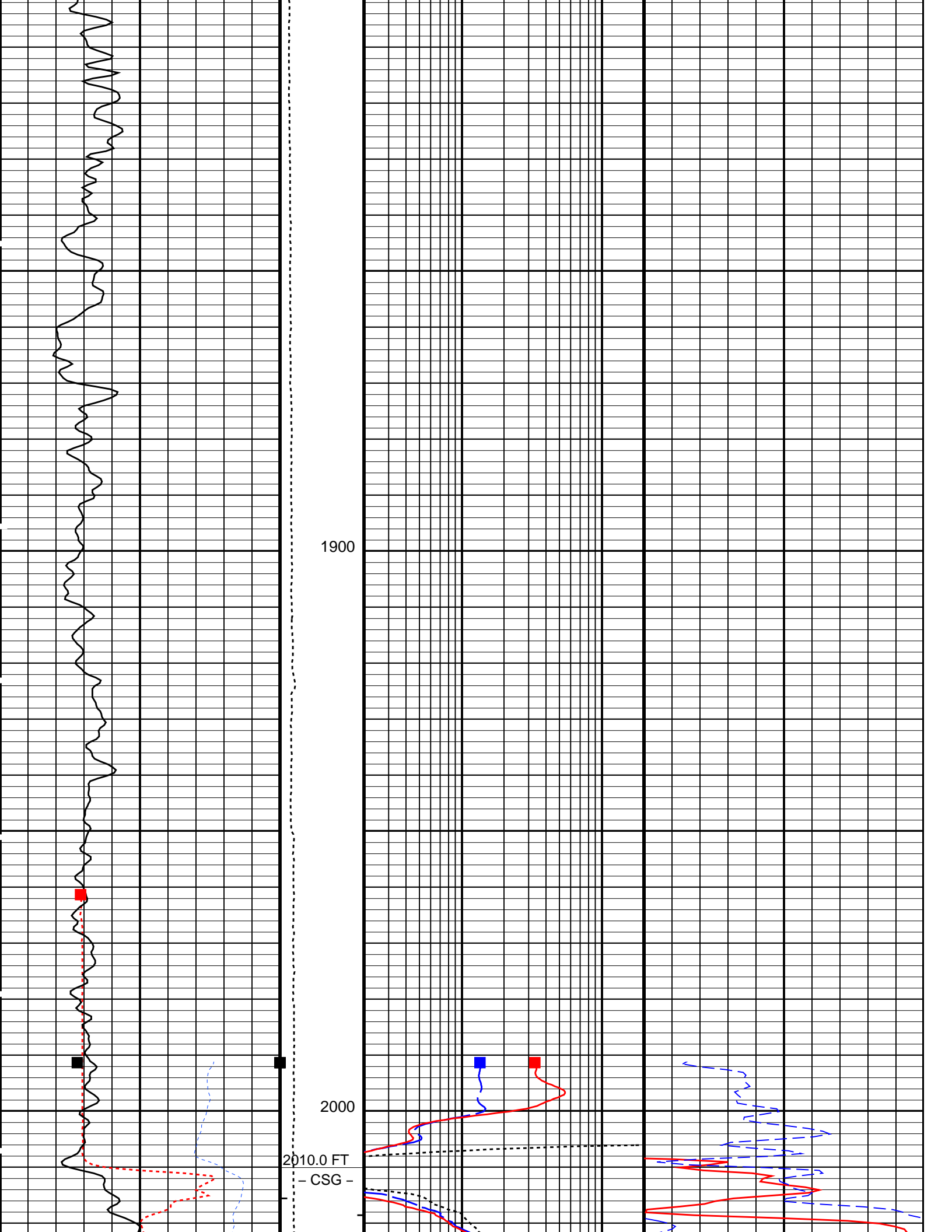


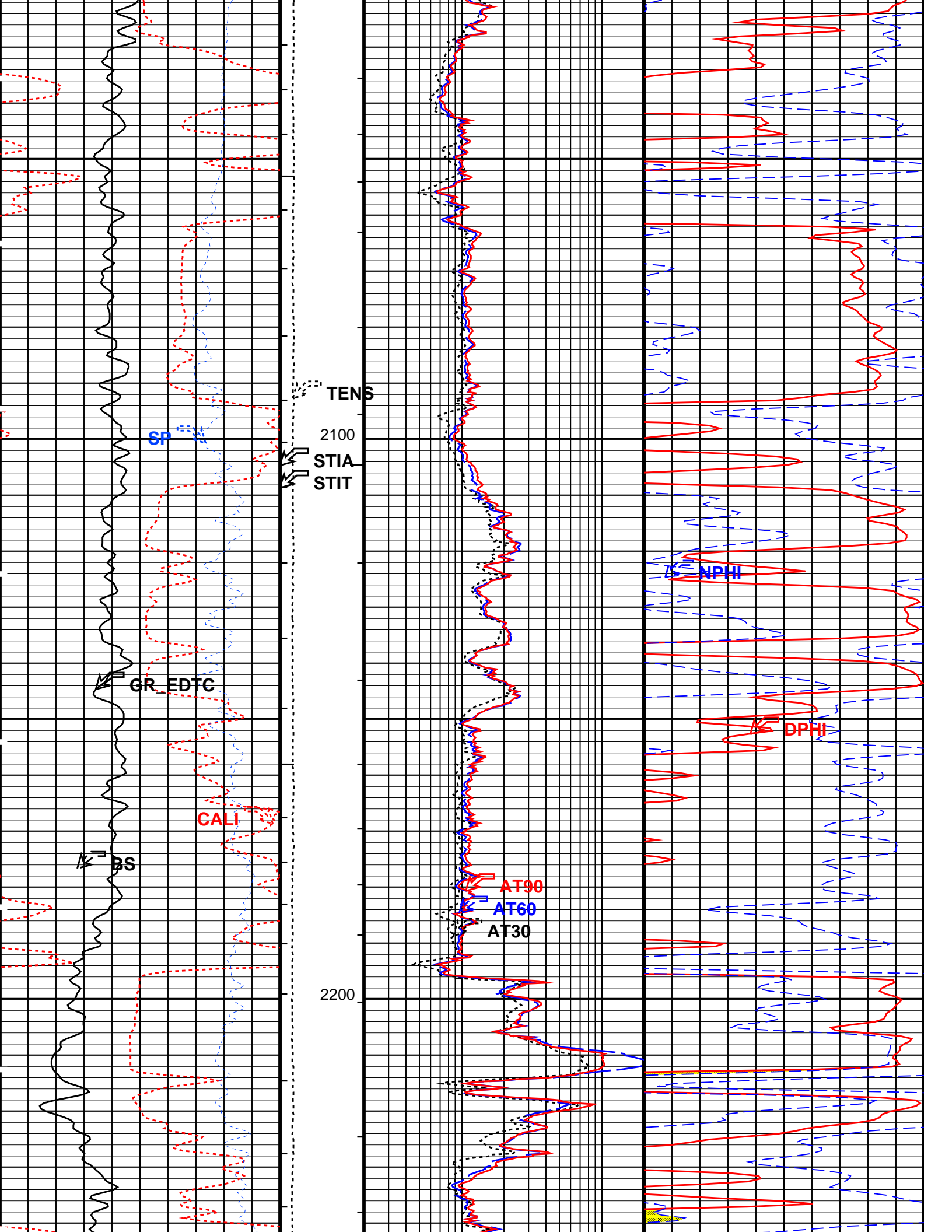
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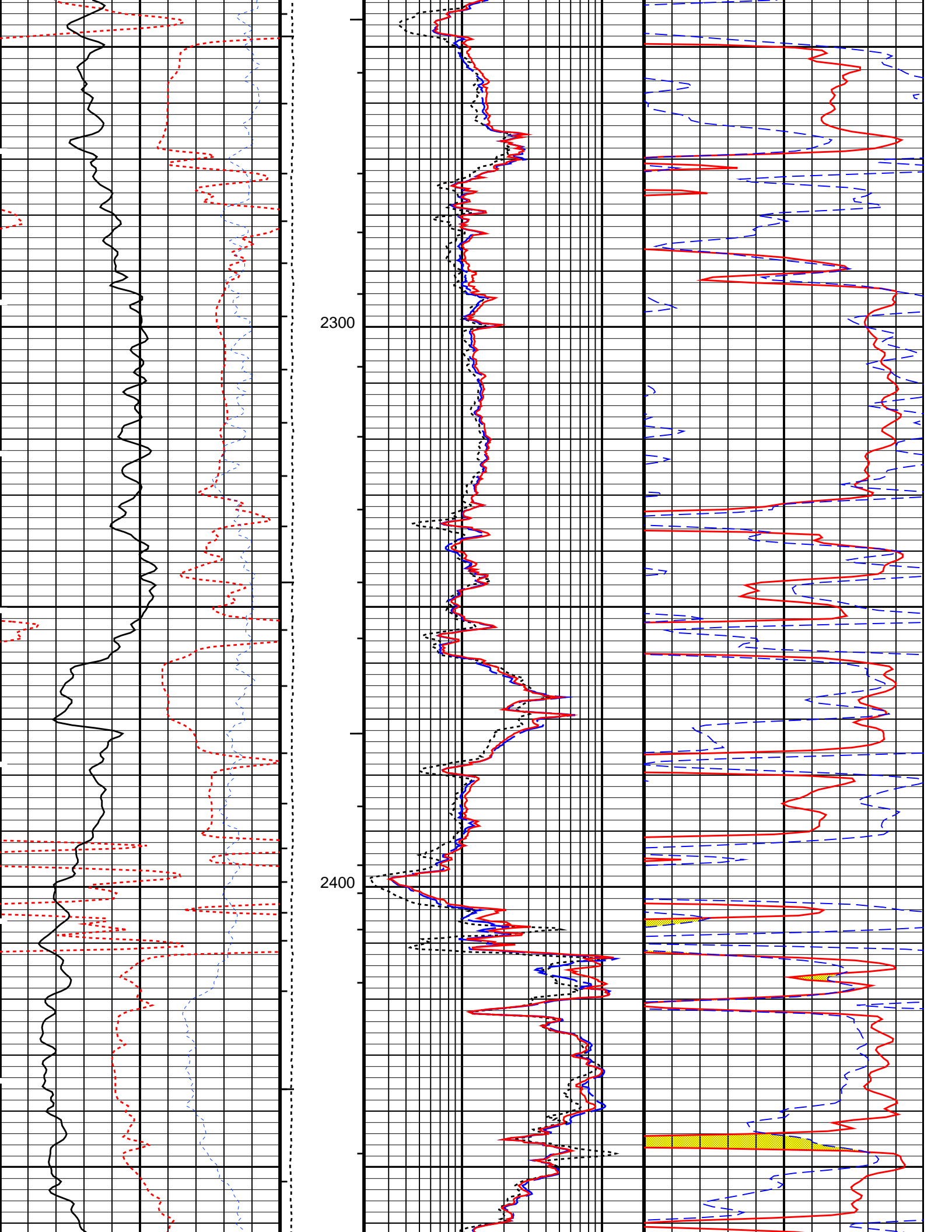
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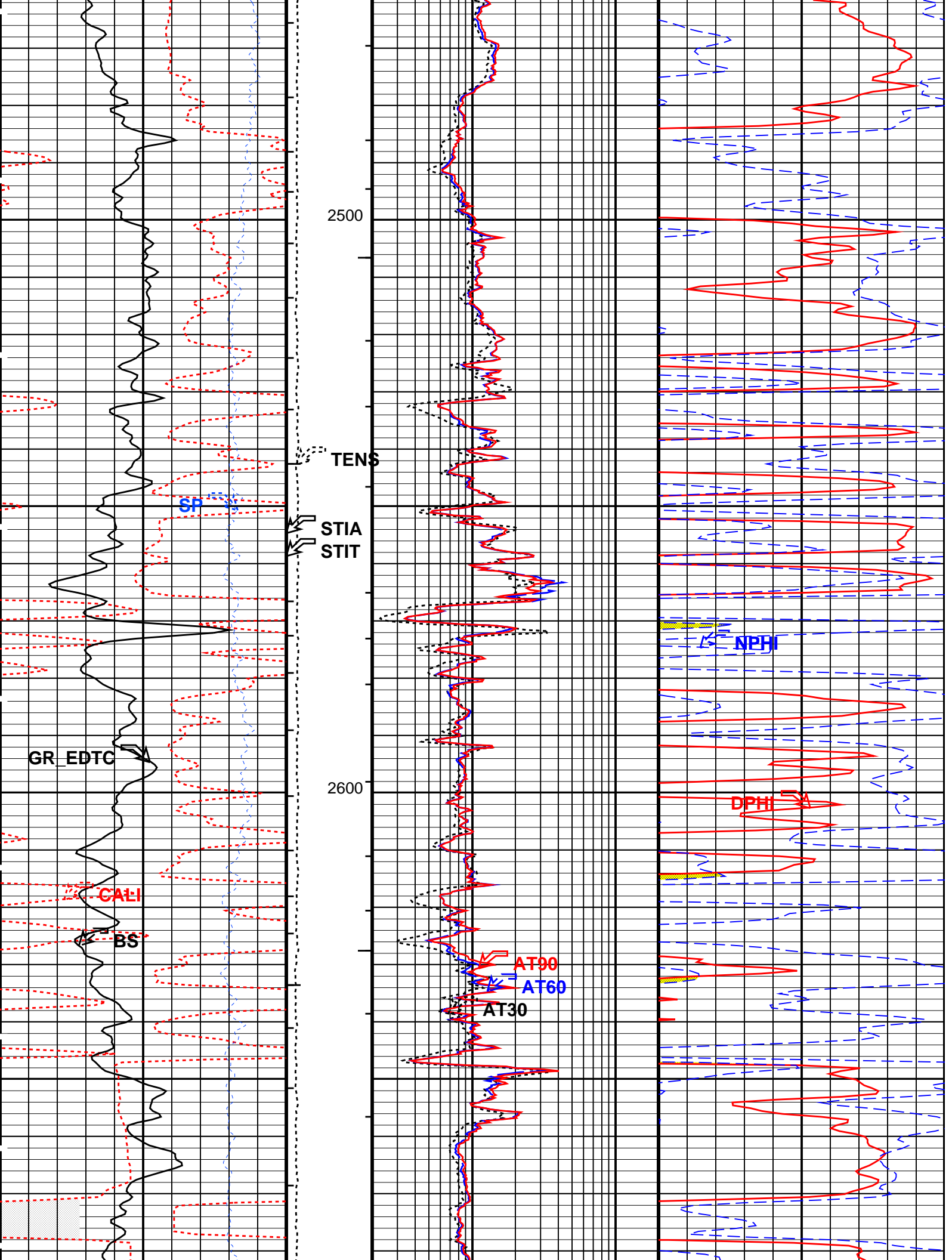




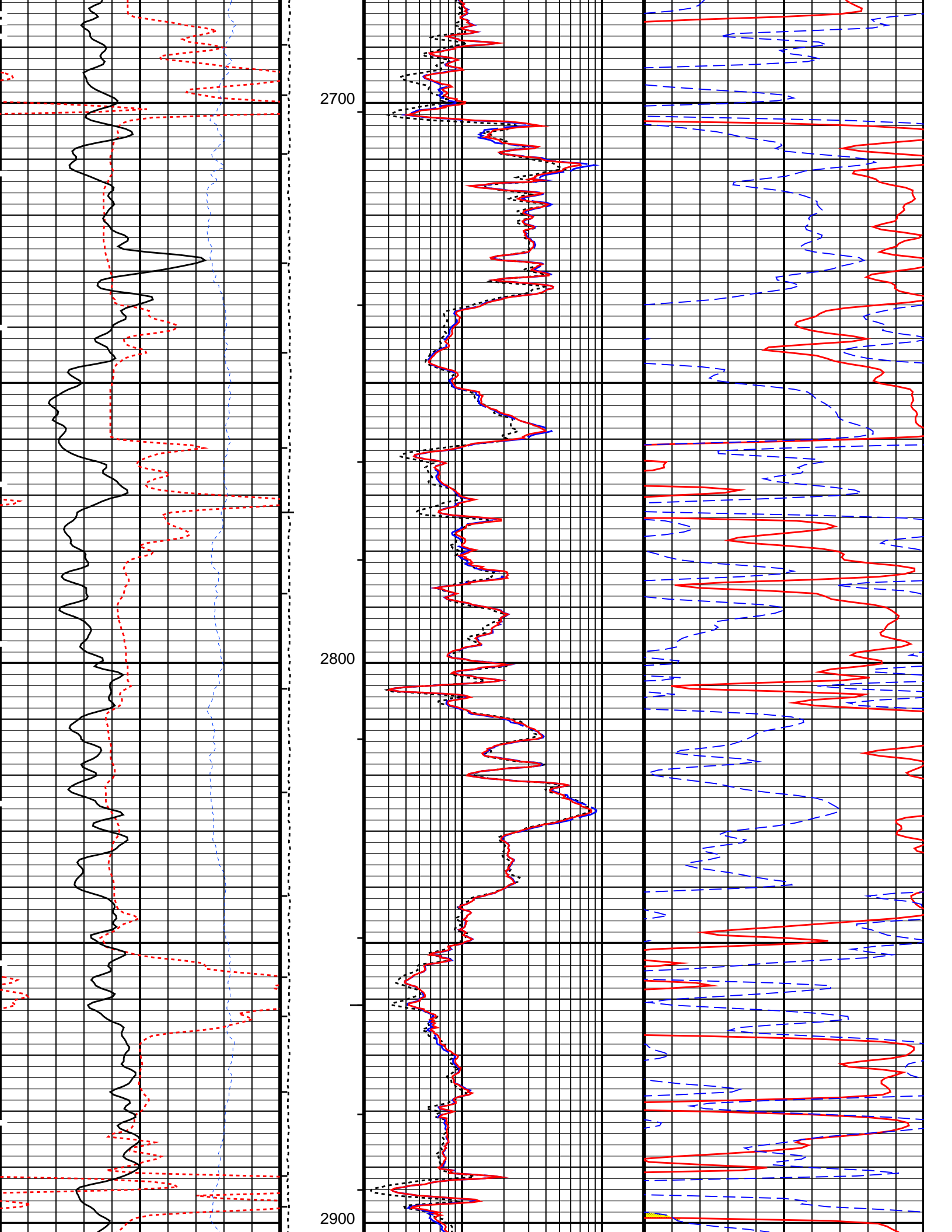


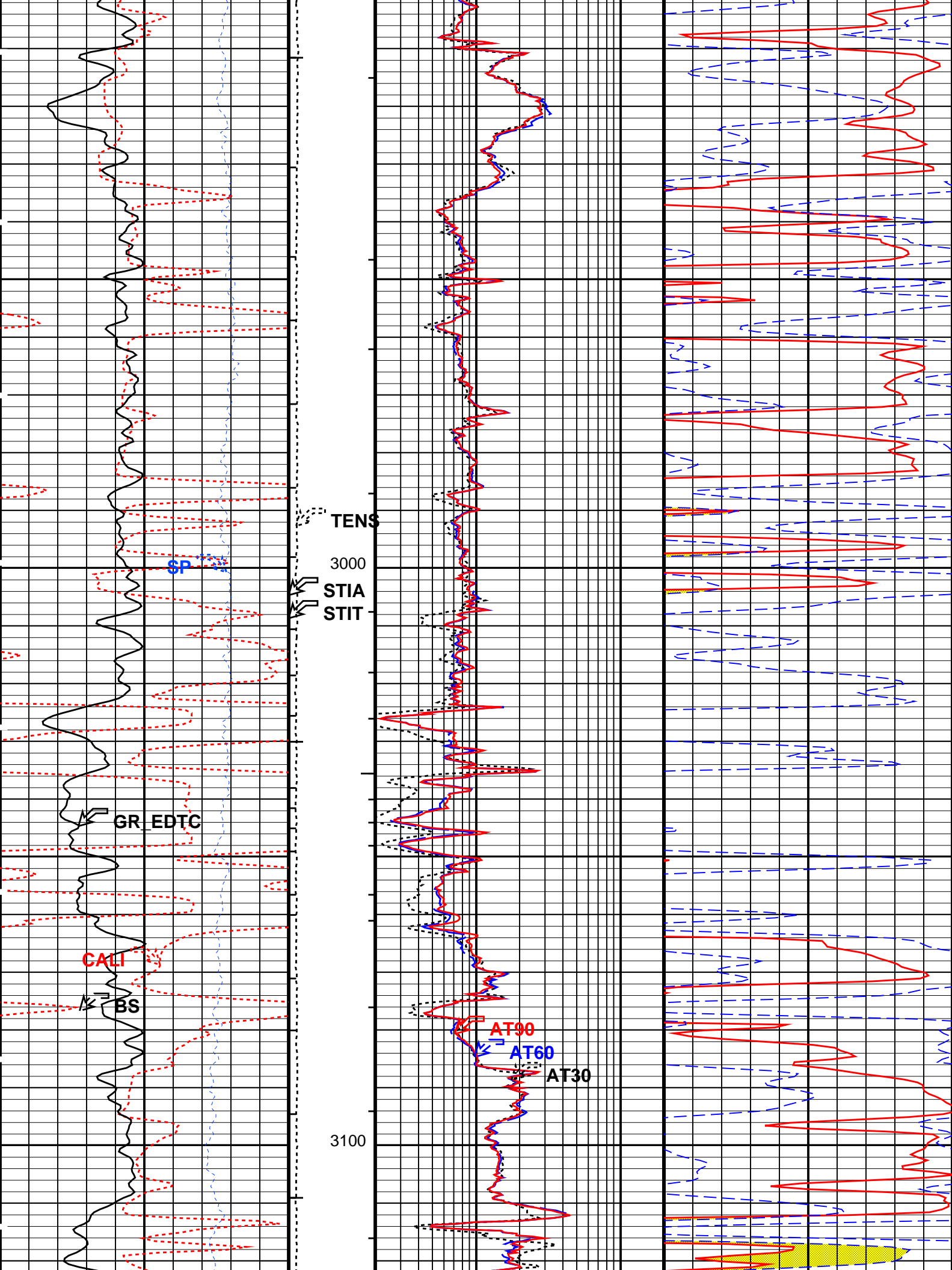


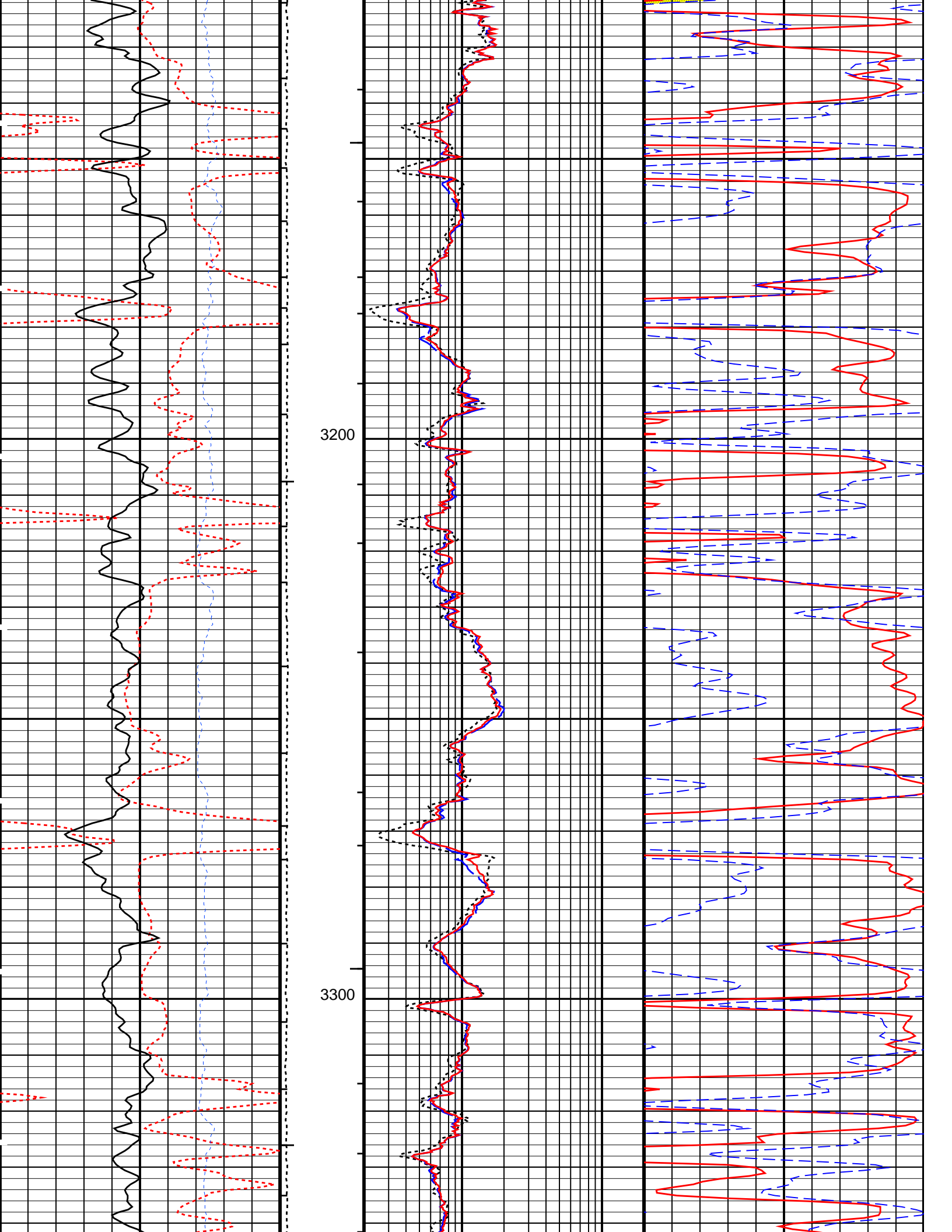


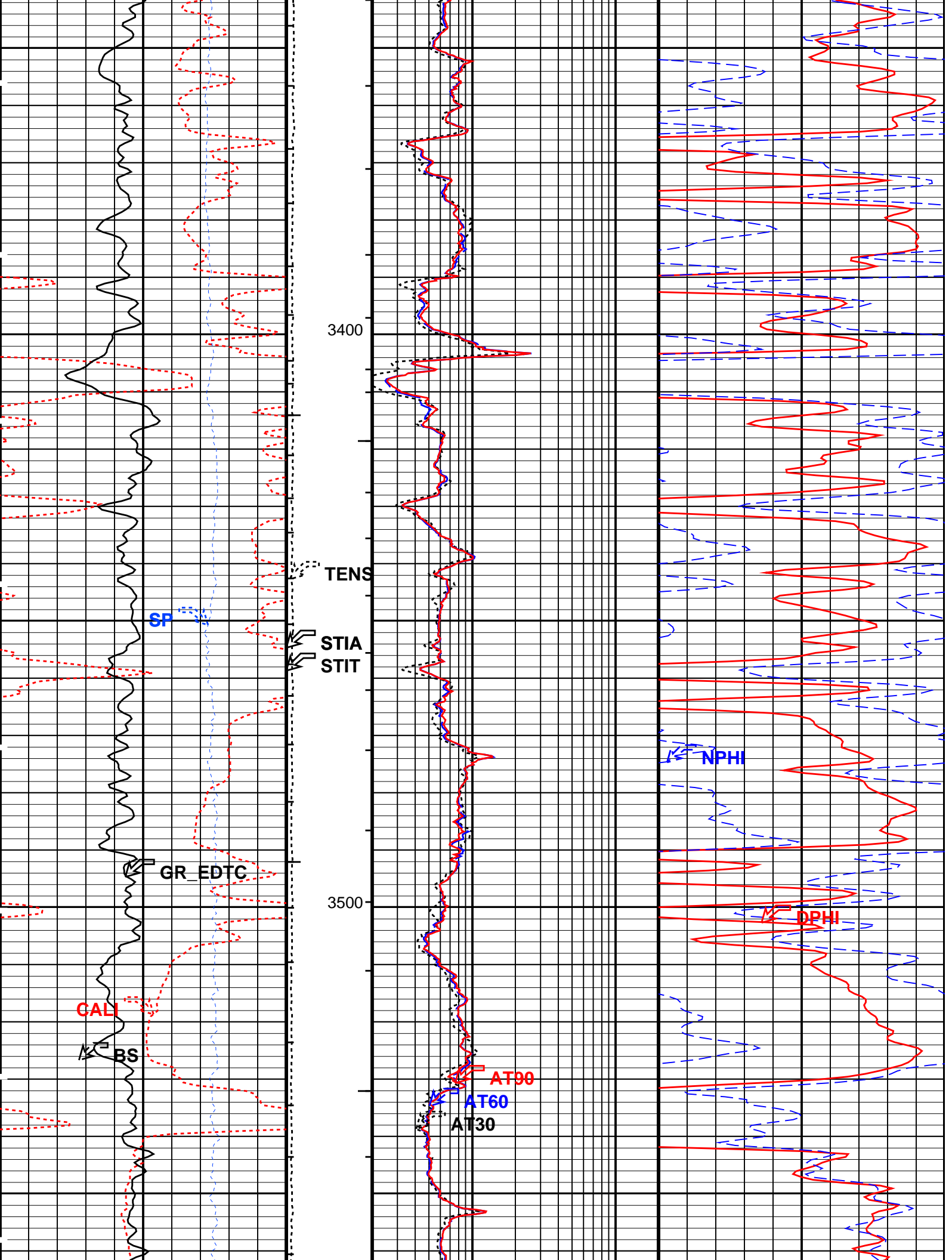


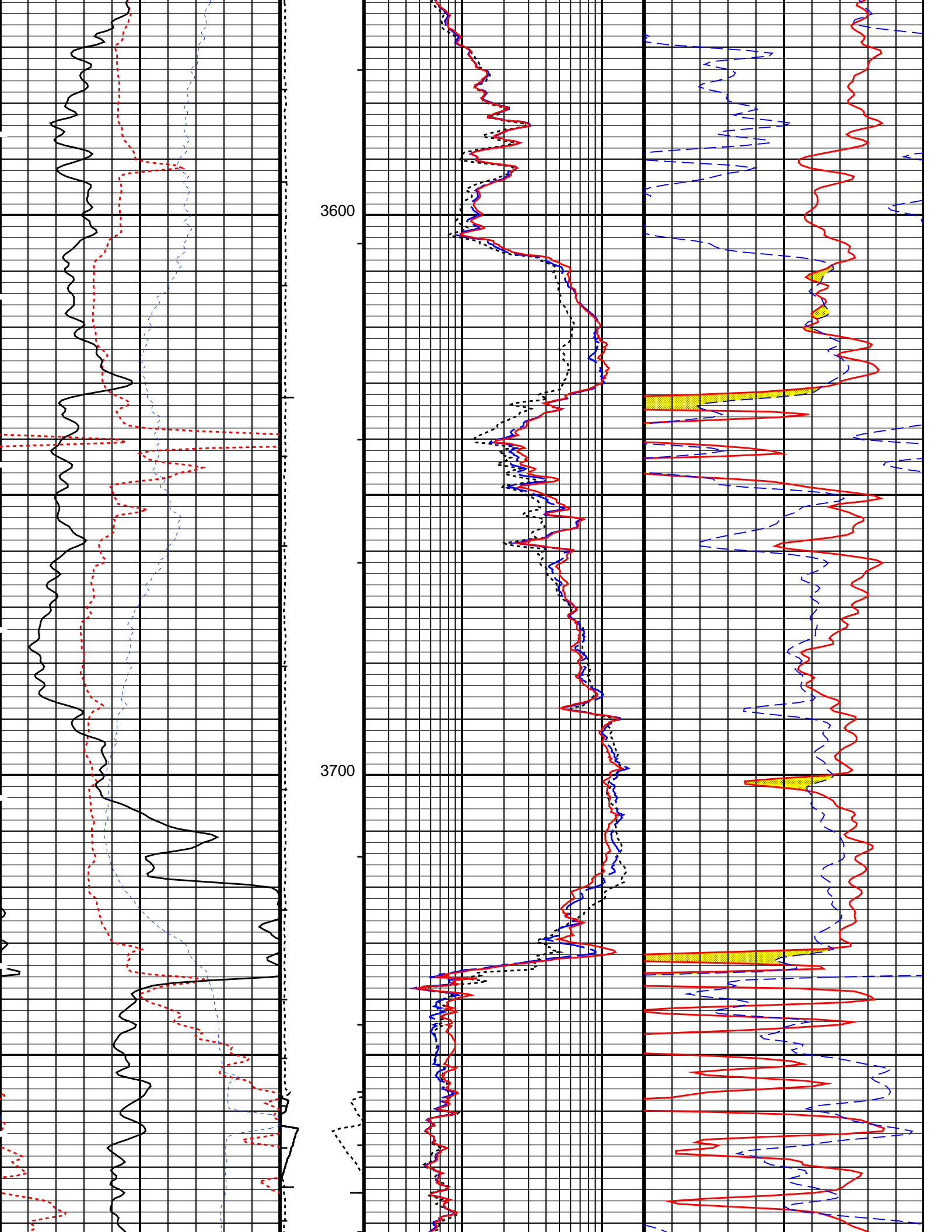


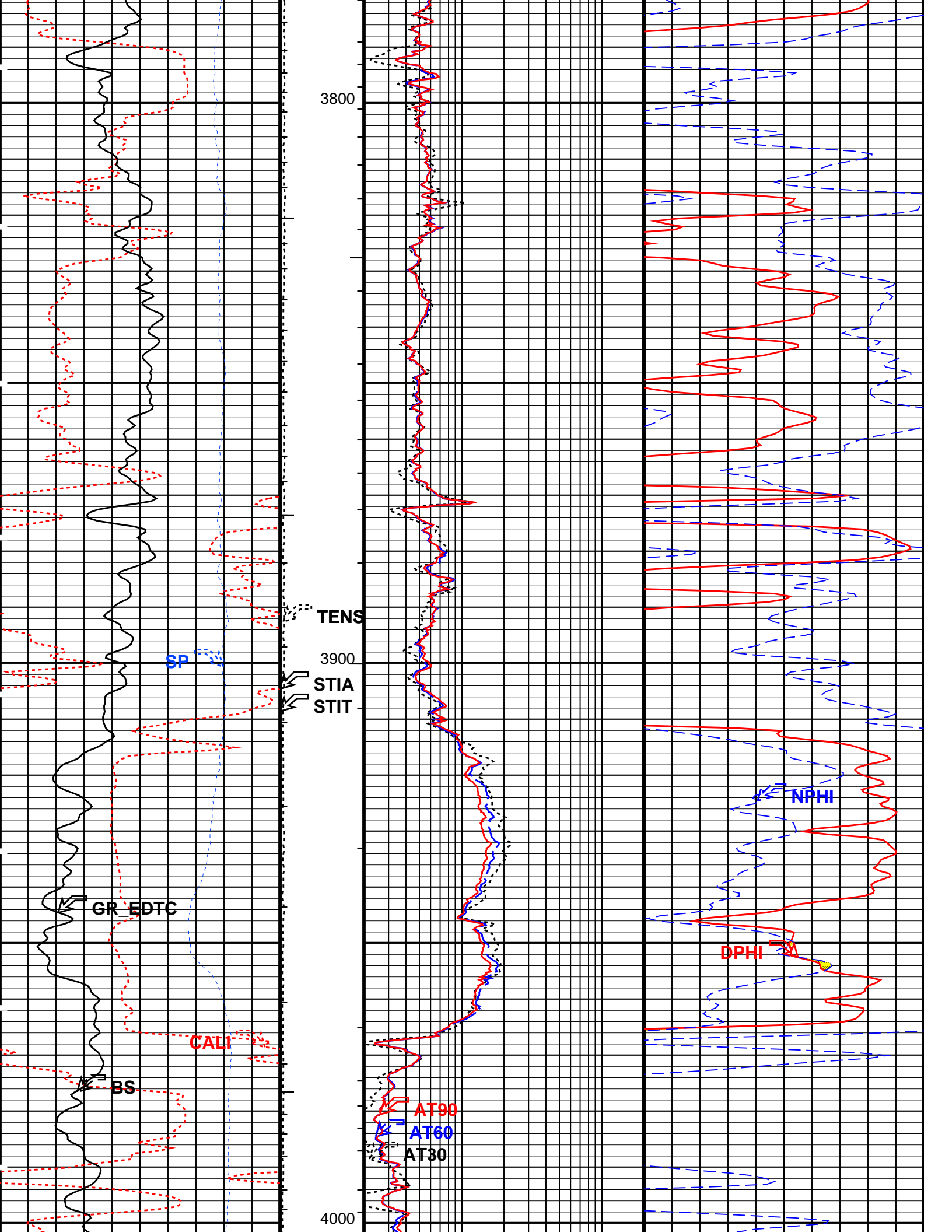


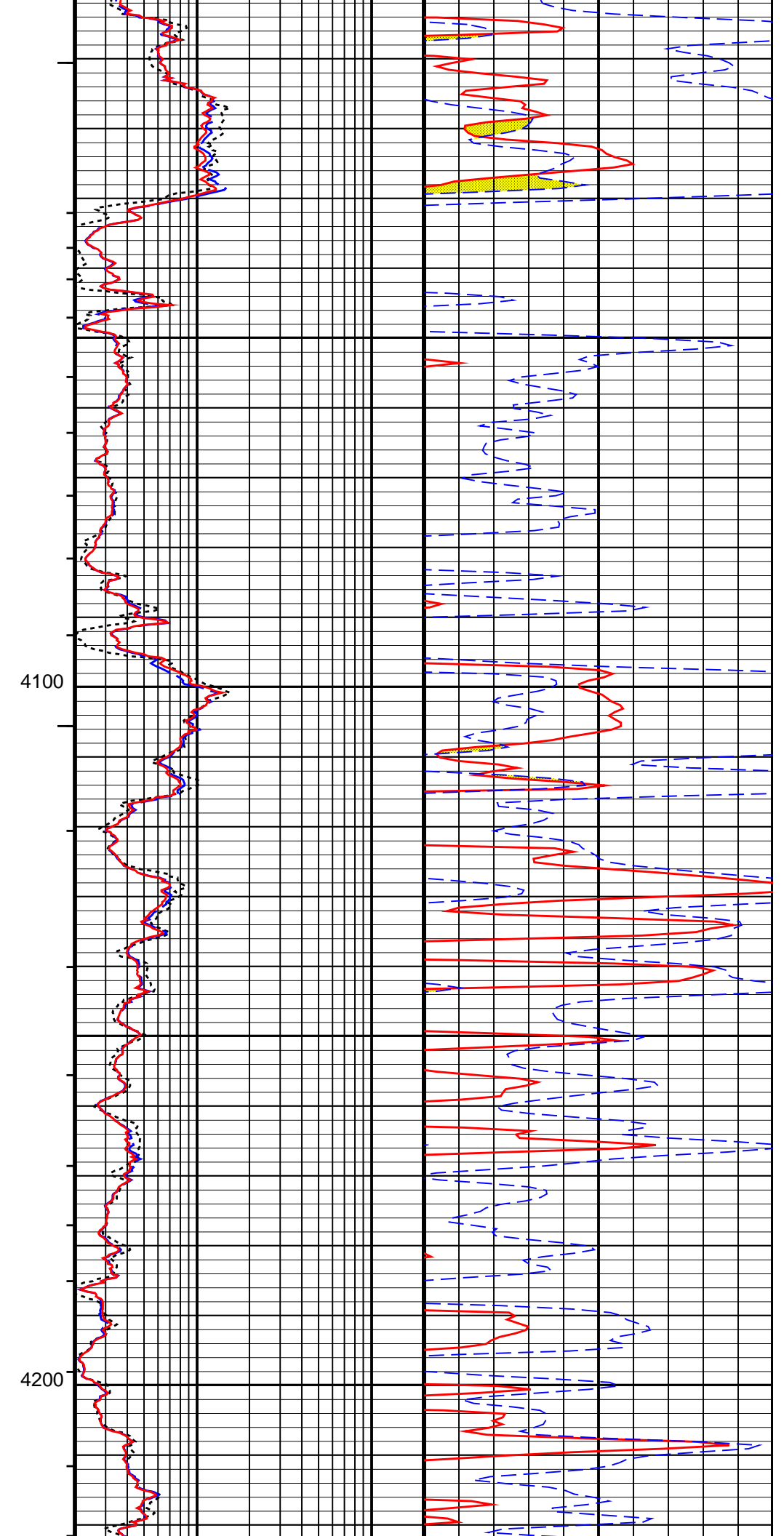
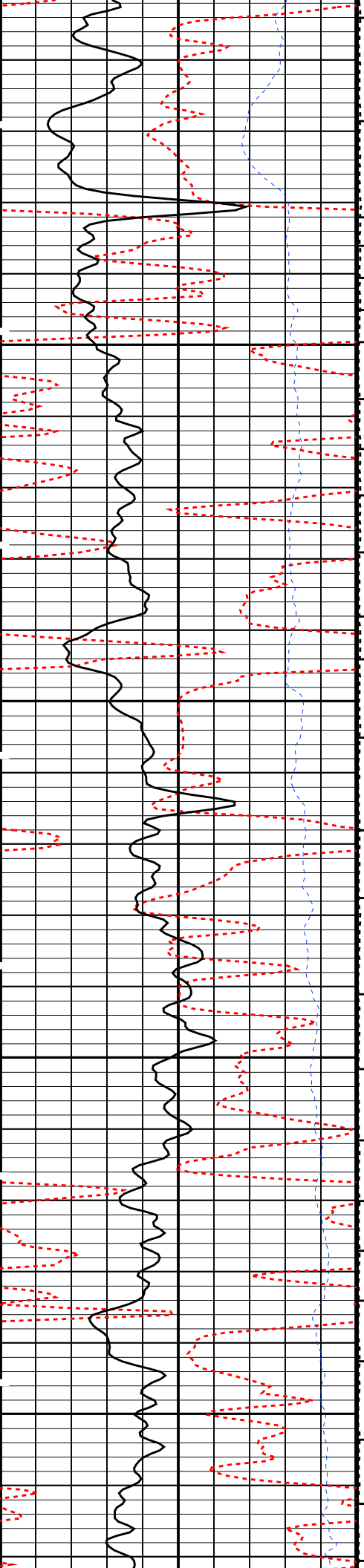


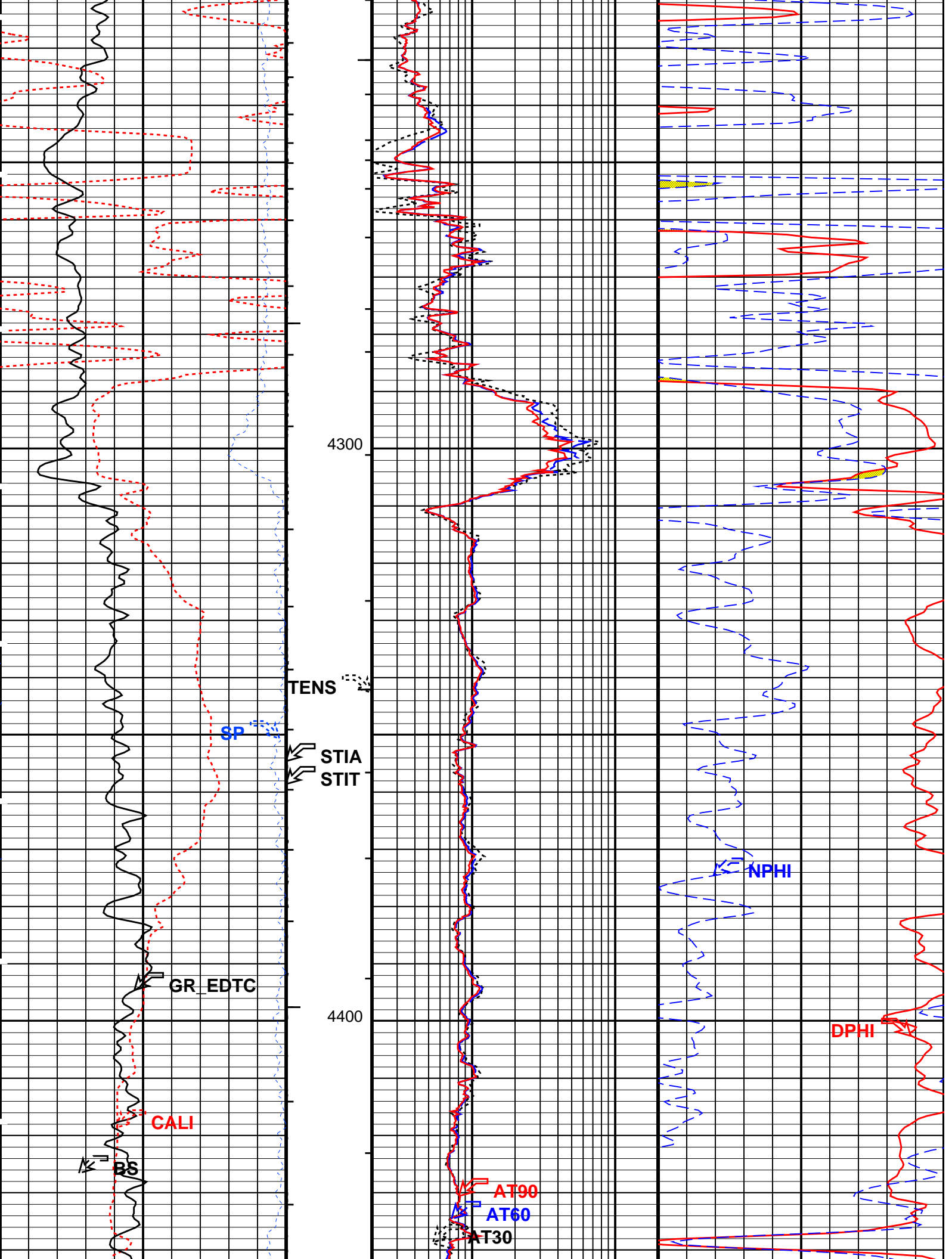




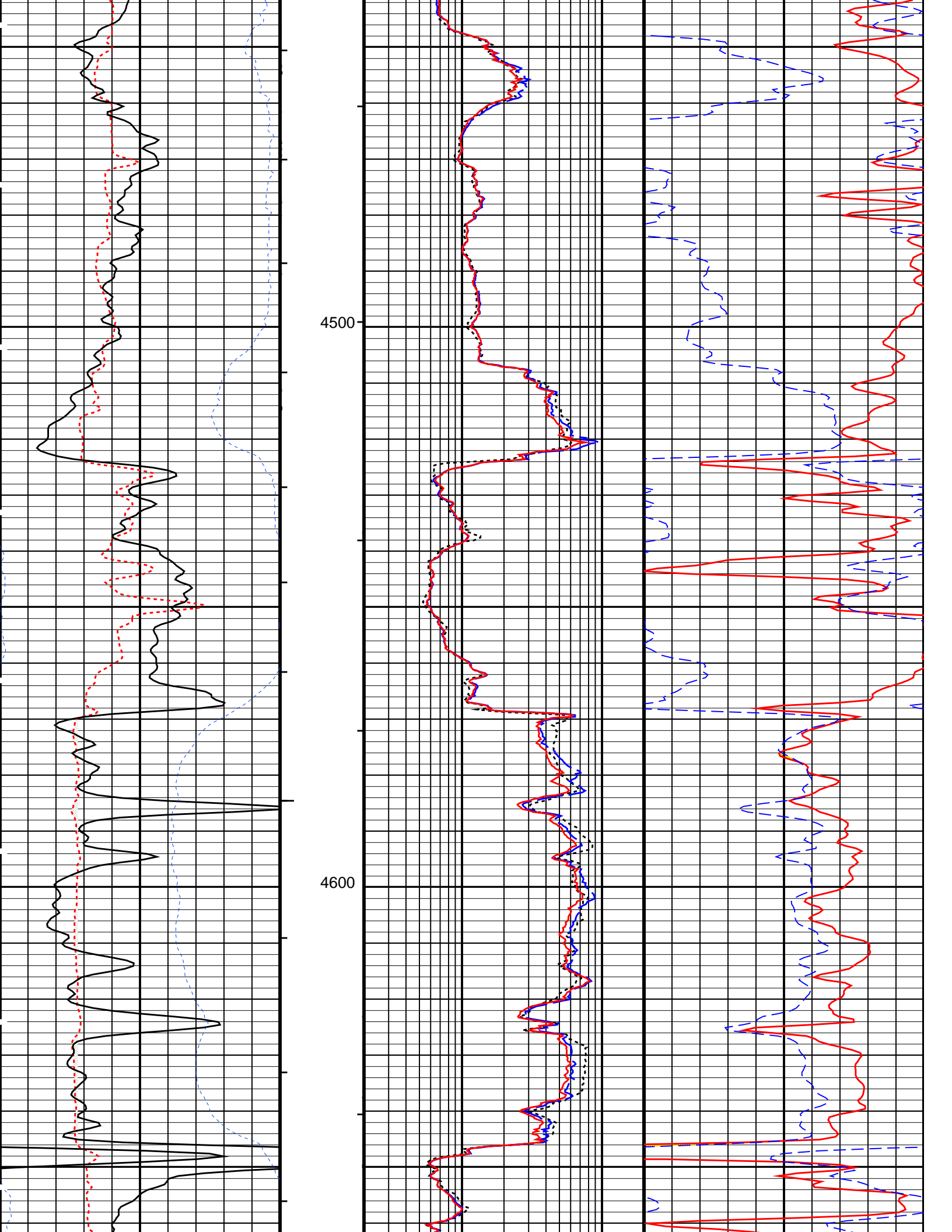


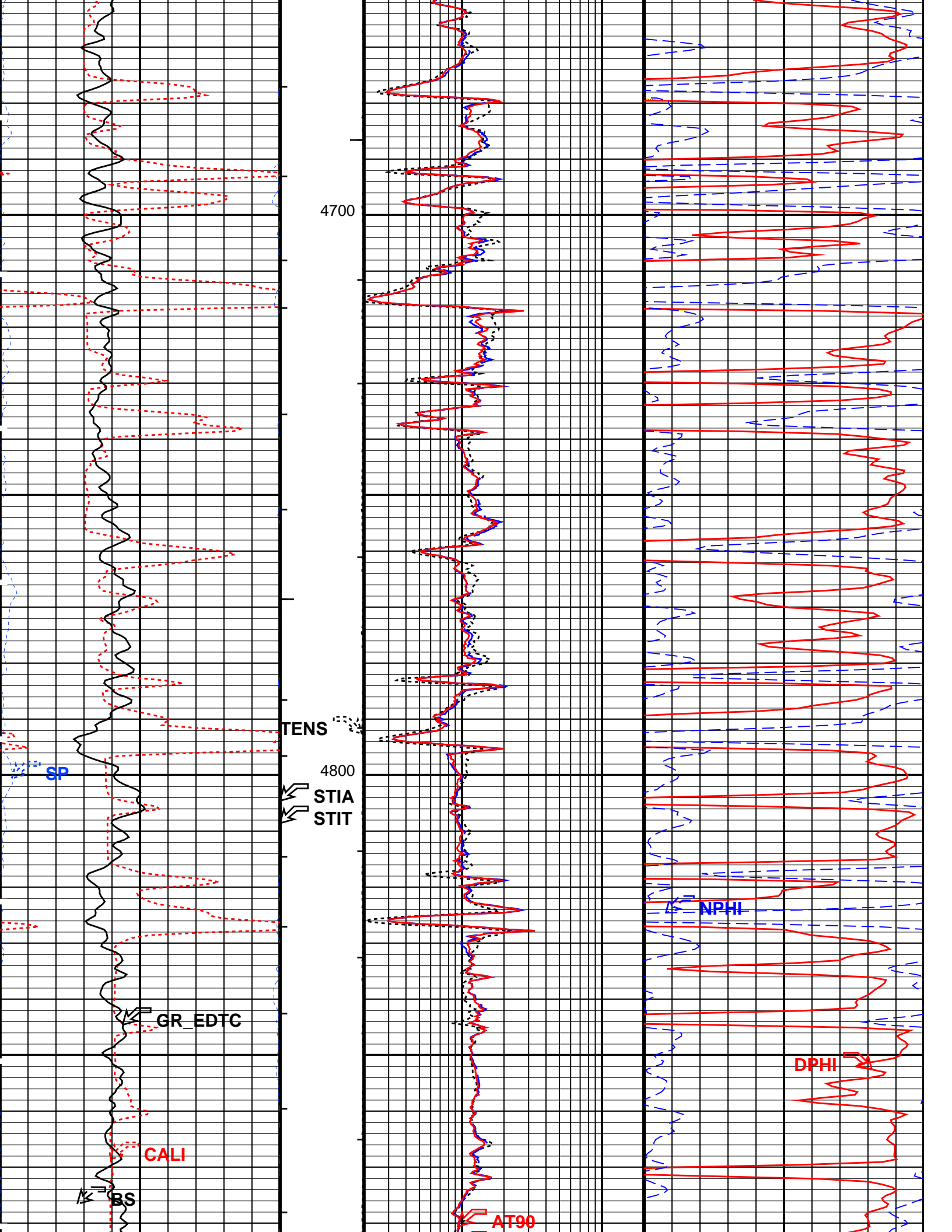


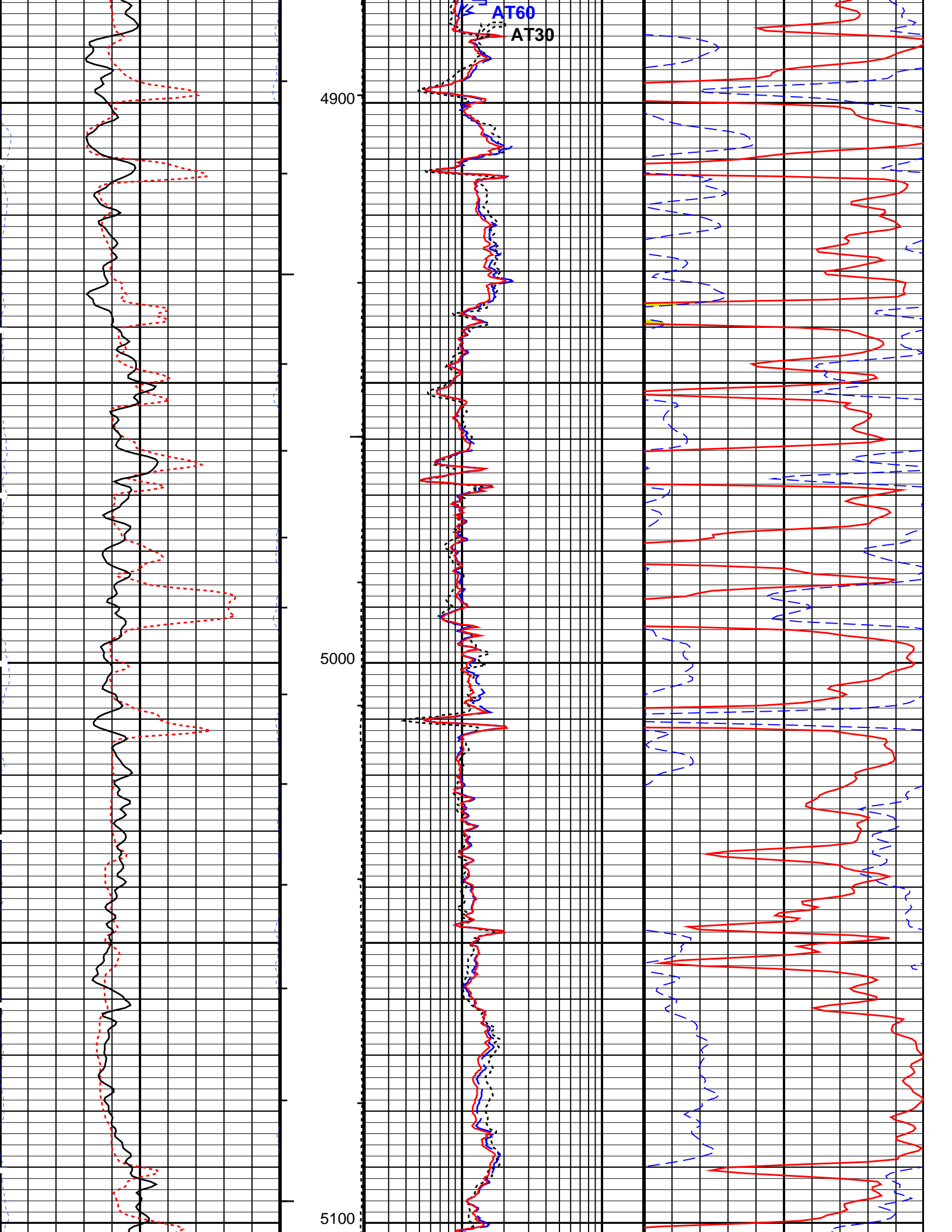


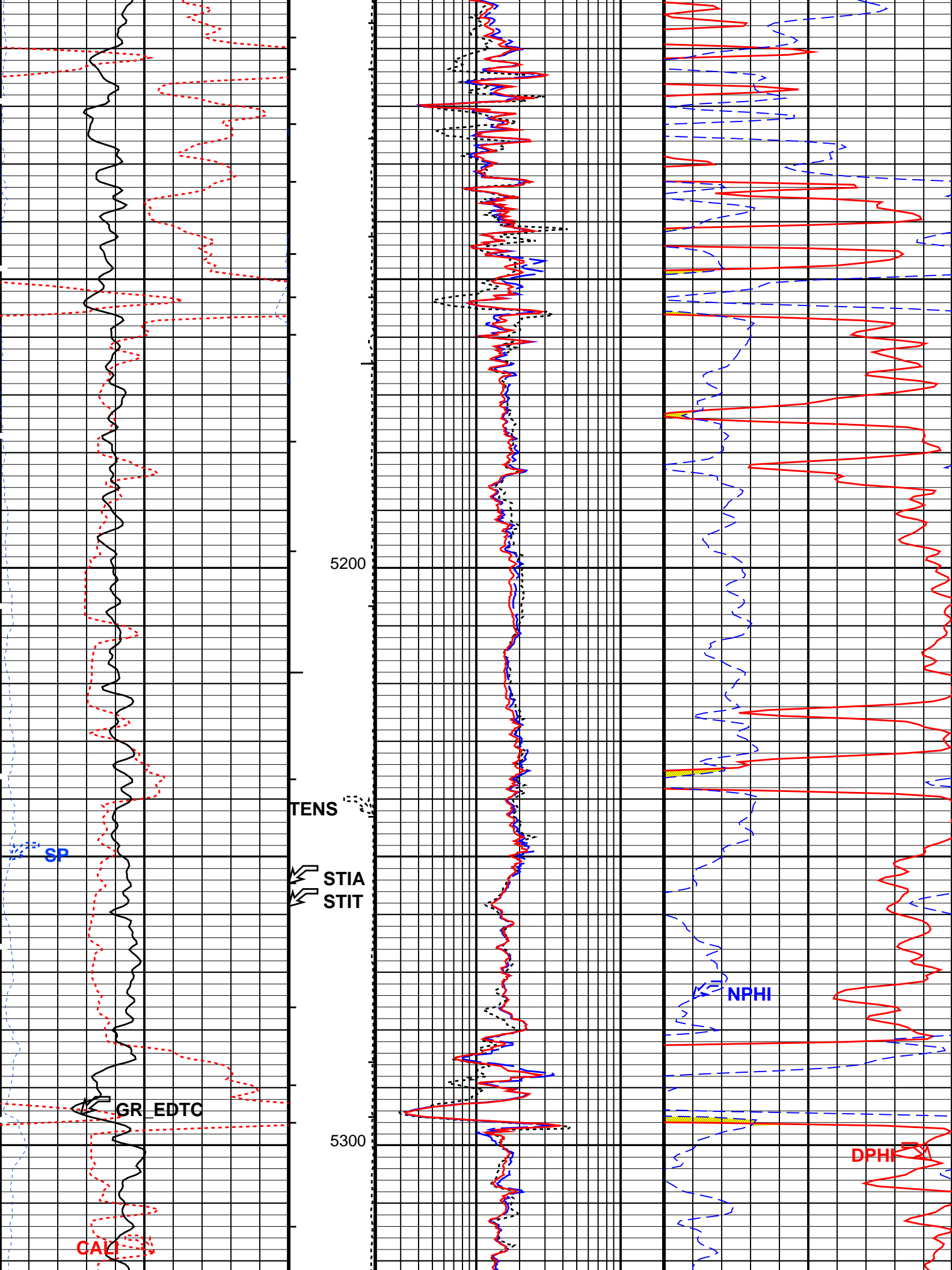


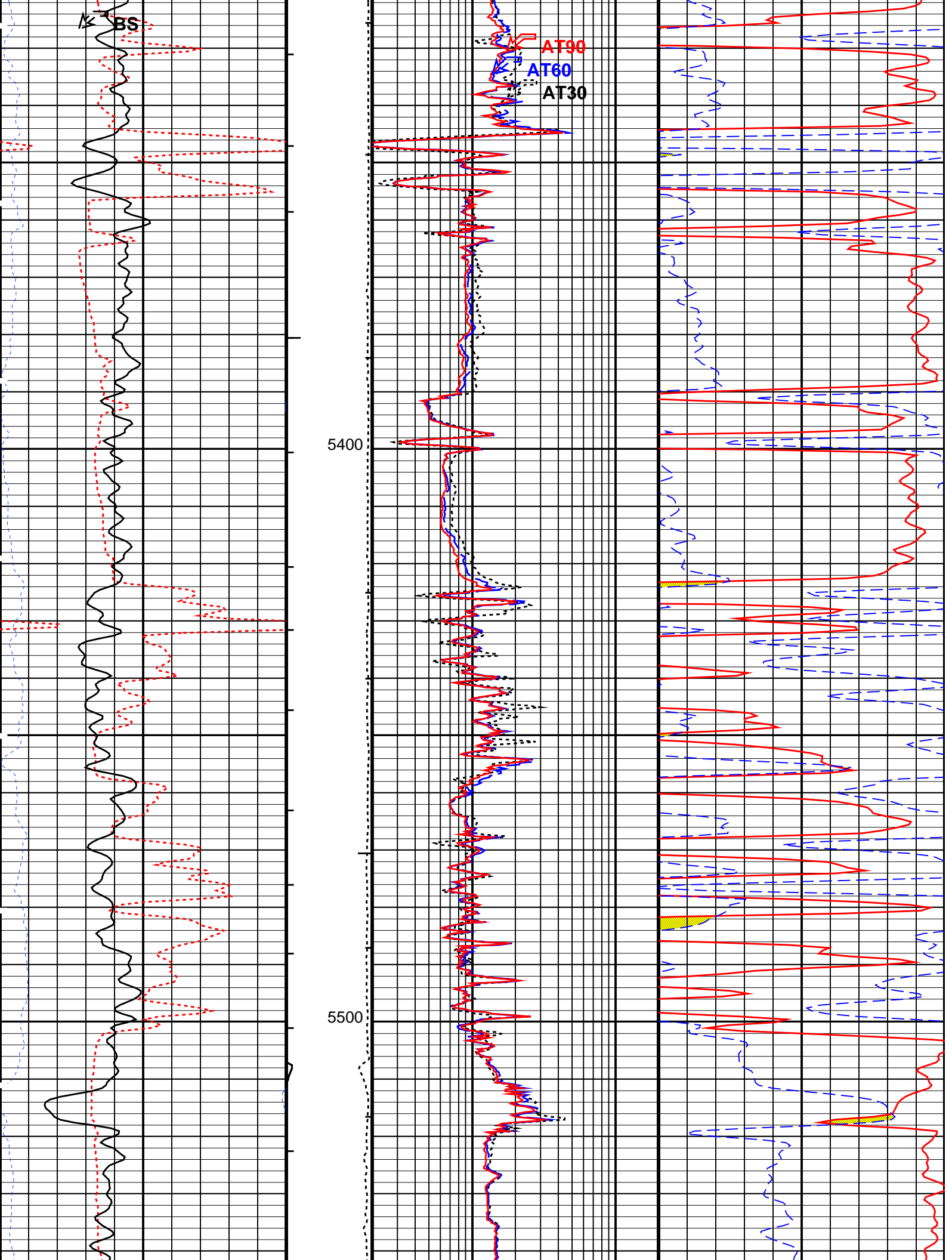


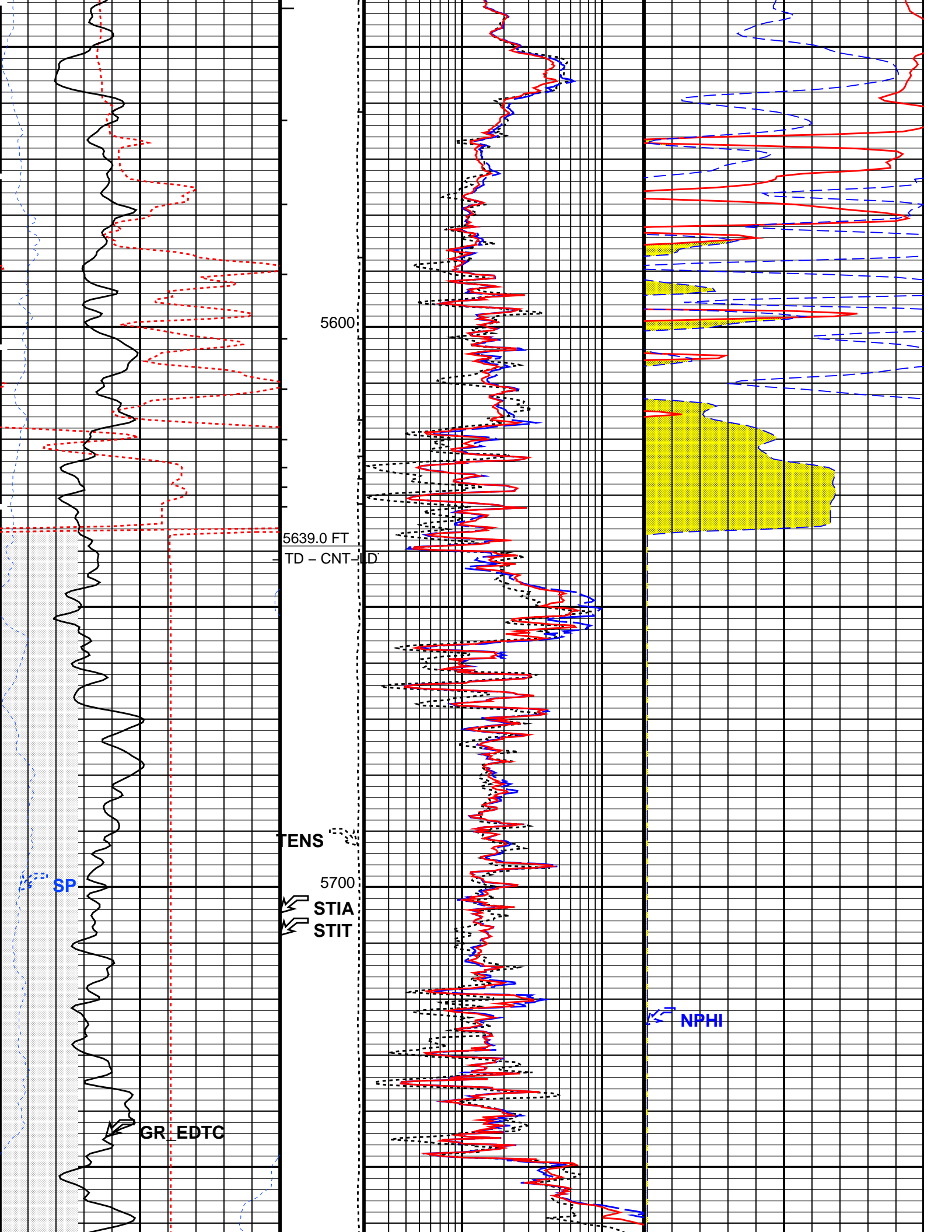


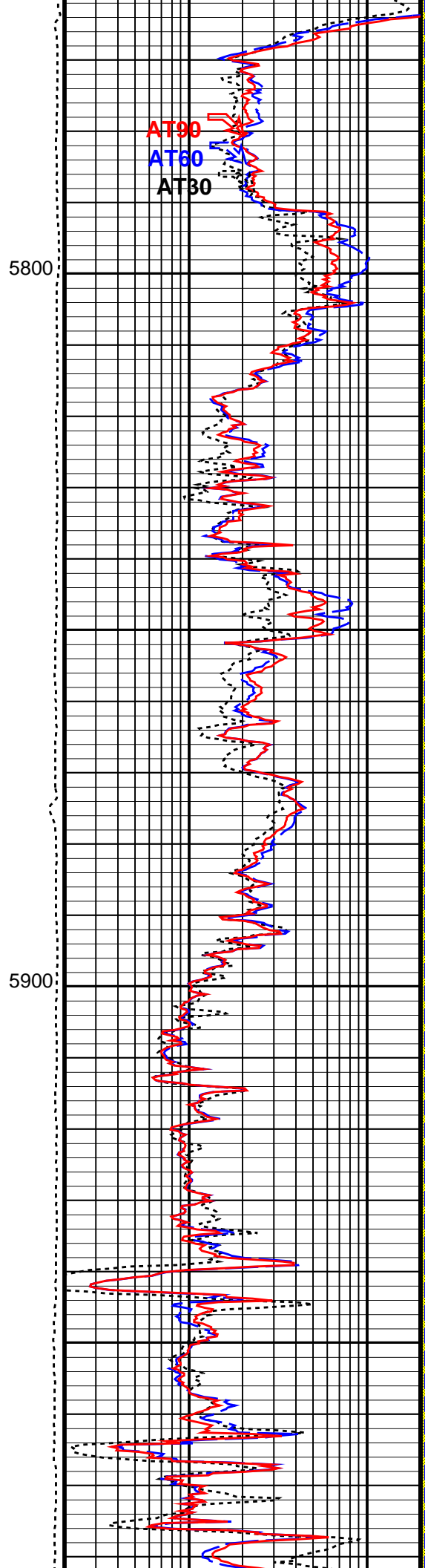
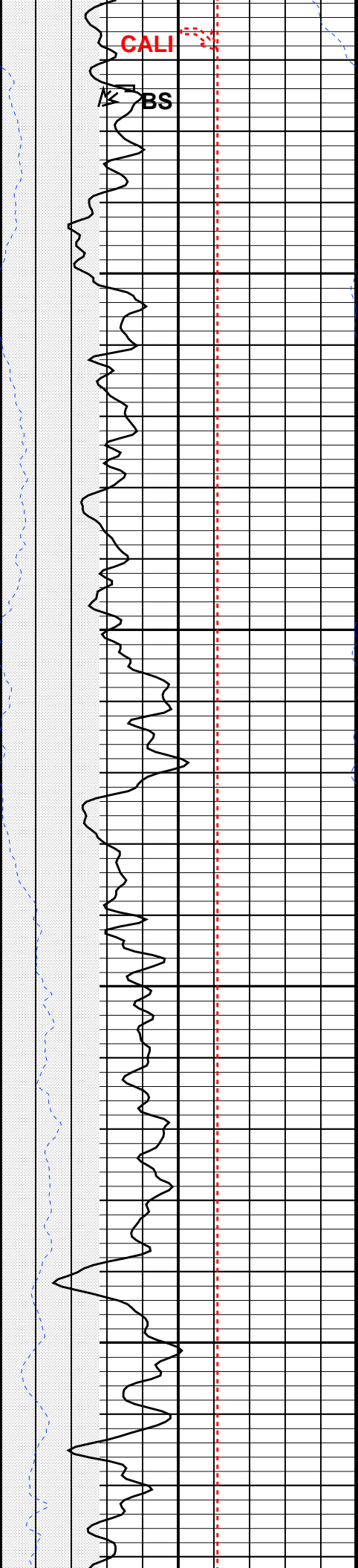




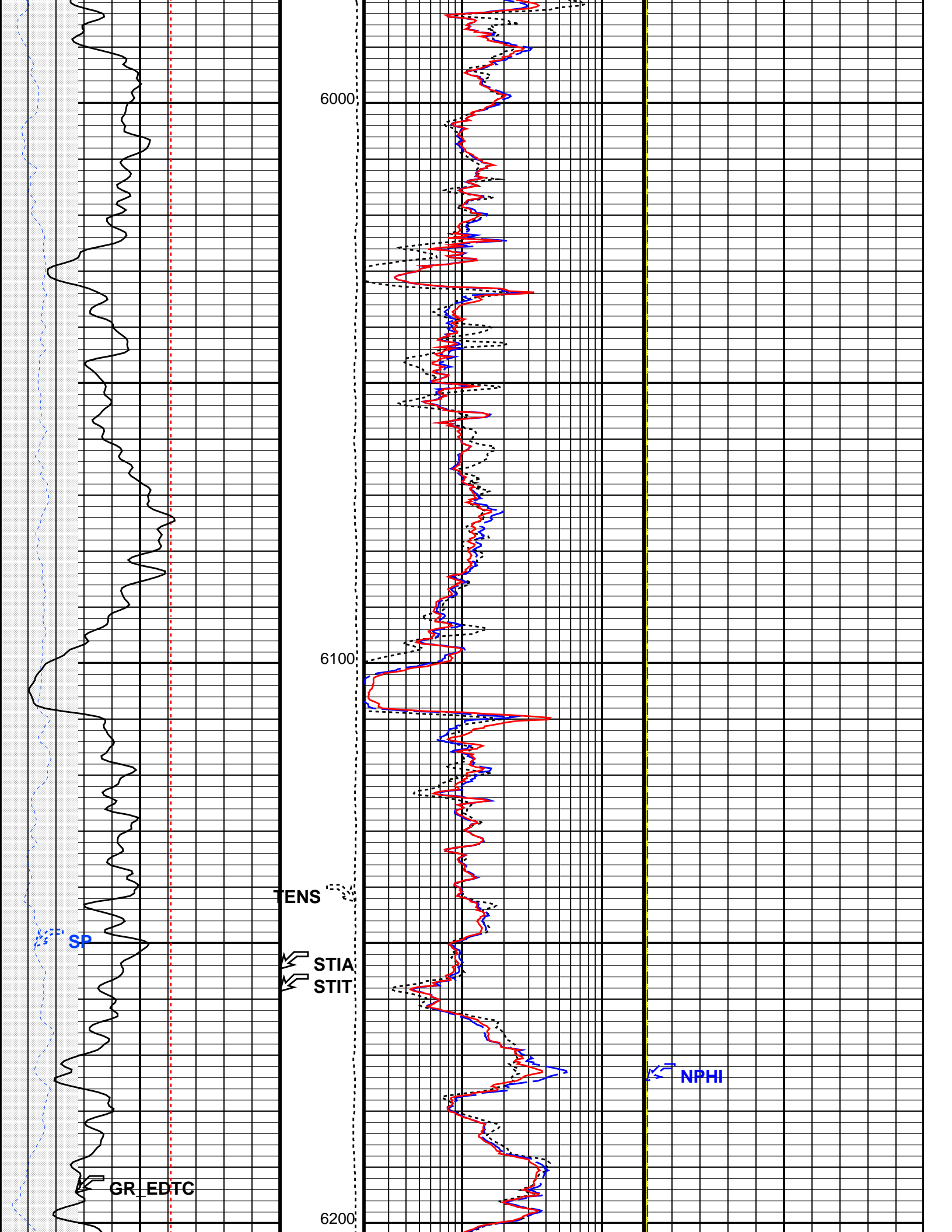




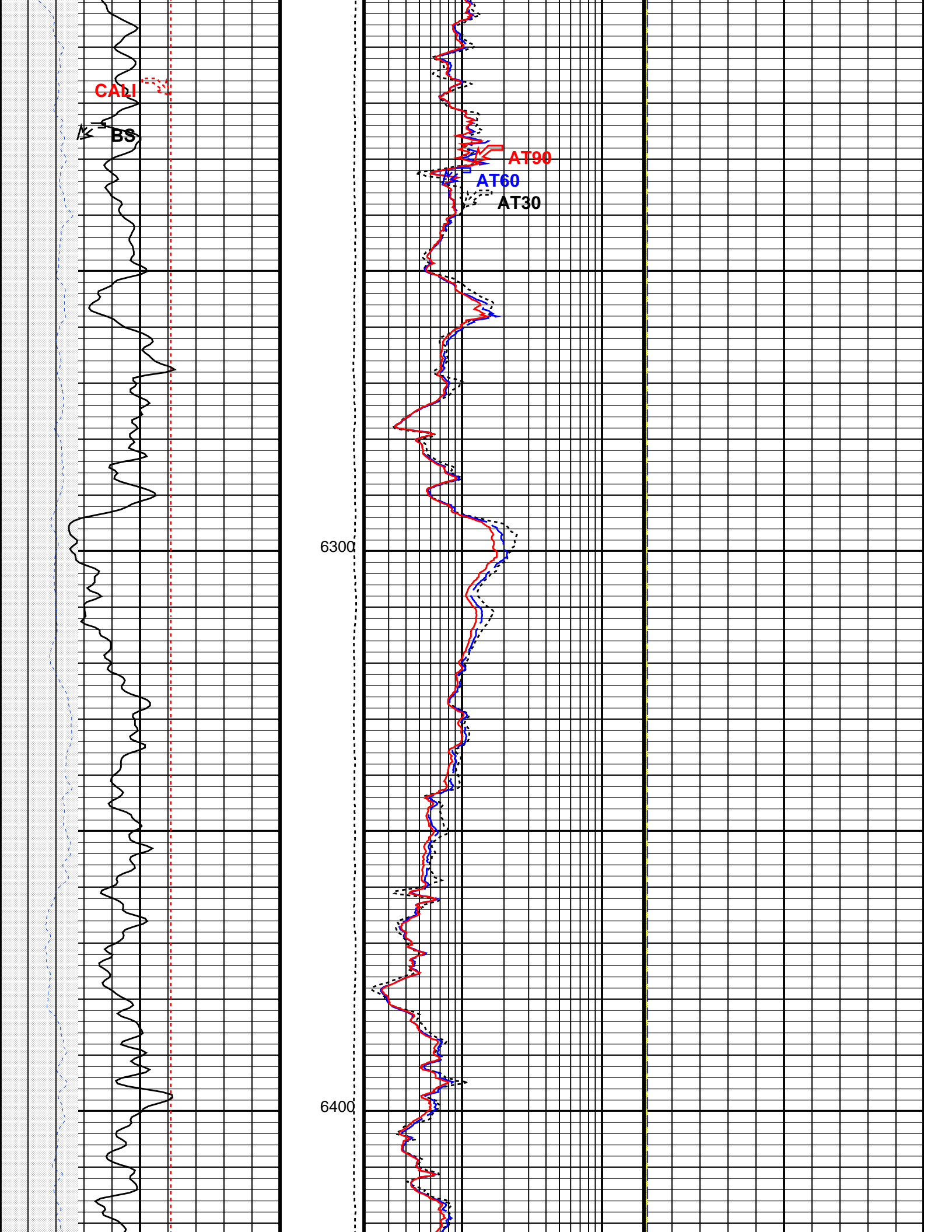


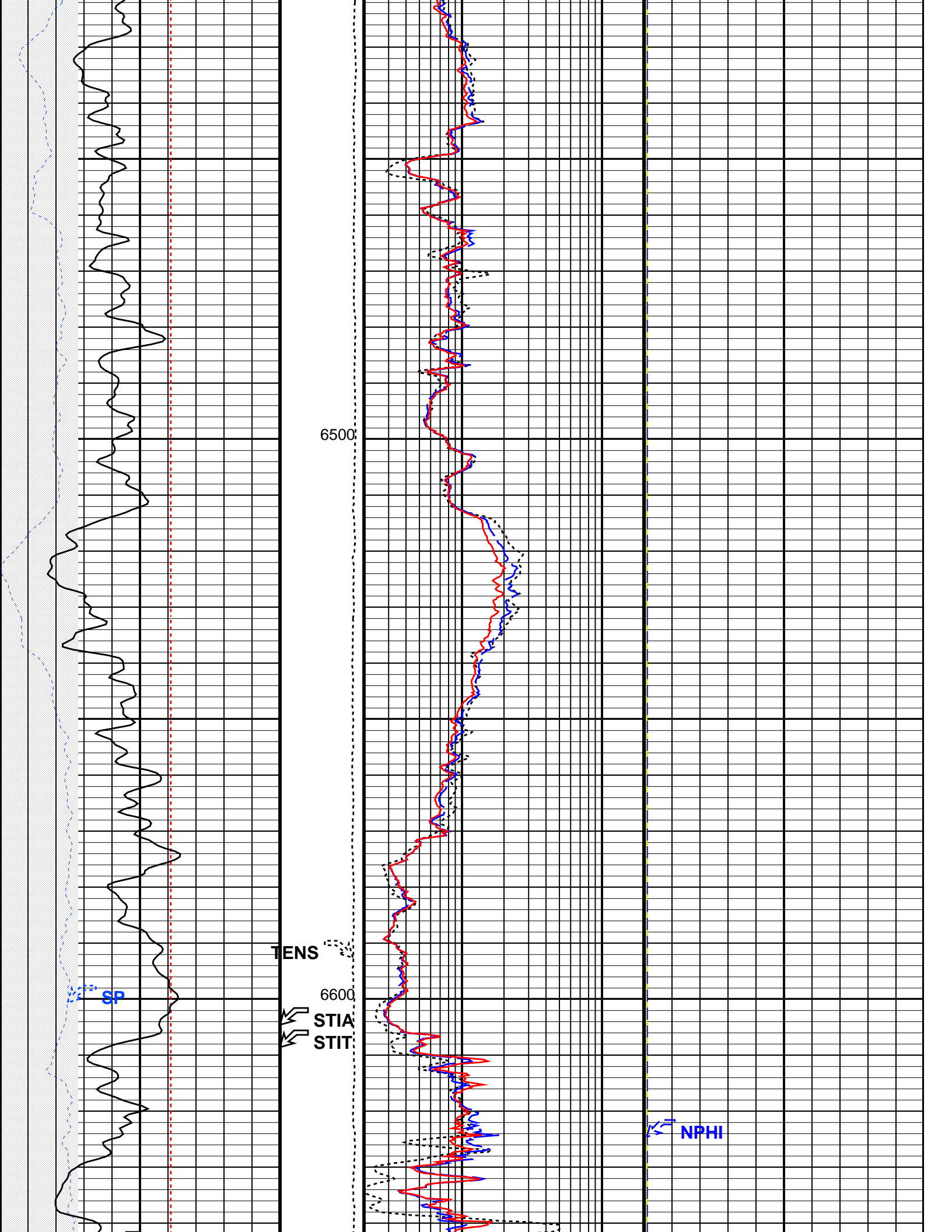


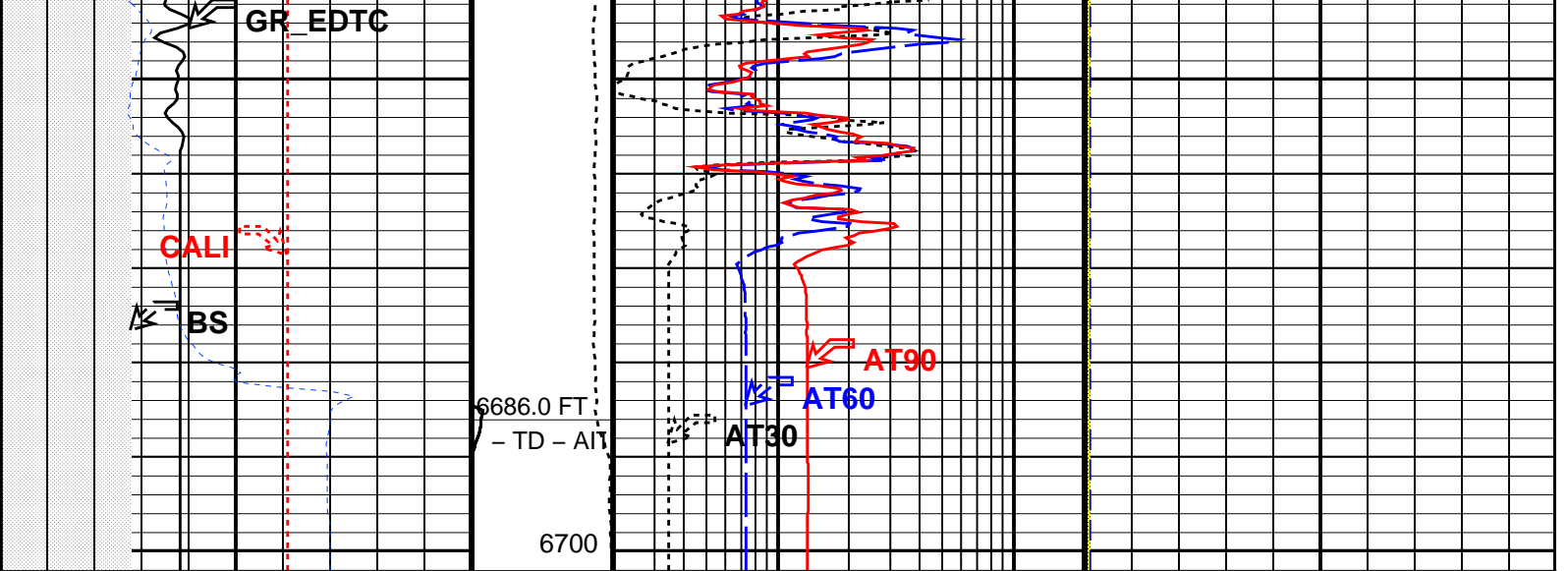












SP (SP) (MV)	20	Stuck Stretch (STIT) (F)	0 50	AIT 30 Inch Investigation (AT30) (OHMM)	2 200	Density Porosity (DPHI) (V/V)	0.2 0
Caliper (CALI) (IN)	16	Tension (TENS) (LBF)	8000 2000	AIT 60 Inch Investigation (AT60) (OHMM)	2 200	Env. Corr. Thermal Neutron Porosity (NPHI) (V/V)	0.2 0
Gamma Ray (GR_EDTC) (GAPI)	150			AIT 90 Inch Investigation (AT90) (OHMM)	2 200	Crossover From DPHI to NPHI	
Area From CALI to BS							

**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
SPNV	SPE-A: Extended Spontaneous Potential - A SP Next Value	0 MV
AAPL	AIT-C: Array Induction Tool - C Array Induction Answer Product Level (Depth Log/View only) 3_BholeCorr_BasicLogs_Radial_Processing	
ABHM	Array Induction Borehole Correction Mode	0_ComputeMudResistivity
ABHV	Array Induction Borehole Correction Code Version Number	900
ABLM	Array Induction Basic Logs Mode	6_One_Two_and_Four
ABLV	Array Induction Basic Logs Code Version Number	223
ACDE	Array Induction Casing Detection Enable	No
ACEN	Array Induction Tool Centering Flag (in Borehole)	Eccentered
ADITM	Array Induction Desired Tool Mode	0x00_Log_000
AEBC	Array Induction Enable Borehole Correction	Yes
AEBL	Array Induction Enable Basic Logs	Yes
AERP	Array Induction Enable Radial Processing	Yes
AETP	Array Induction Enable Sonde Error Temp&Pres Corr	Yes
AFRSV	Array Induction Response Set Version for Four ft Resolution	No version available
AIGS	Array Induction Select Akima Interpolation Gating	On
ALNV	Array Induction Log Not Valid Flag	Log_Valid-No_Default_Parameters
AMRD	Array Induction Mud Resistivity Calibration Depth	0 FT
AMRF	Array Induction Mud Resistivity Factor	1
AORSV	Array Induction Response Set Version for One ft Resolution	No version available
ARFV	Array Induction Radial Profiling Code Version Number	0
ARPM	Array Induction Radial Processing Mode	6_One_Two_and_Four
ARPV	Array Induction Radial Parametrization Code Version Number	0
ARTS	AIT Rt Selection (for ALLRES computation)	AIT_TwoResA60
ASNO	Array Induction Sonde Serial Number	223

ASNO	Array Induction Sonde Serial Number	232	IN
ASTA	Array Induction Tool Standoff	1.5	
ATRSV	Array Induction Response Set Version for Two ft Resolution	No version available	
ATSE	Array Induction Temperature Selection (Sonde Error Correction)	Internal	
ATTY	Array Induction Tool Type (of acquired data)	AITC	
AULV	Array Induction User Level Control	Normal	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	225	DEGF
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
FPHI	Form Factor Porosity Source	DPHI	
GCSE	Generalized Caliper Selection	CALI	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN 9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
ISSBAR	Barite Mud Switch	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
RTCO	RTCO - Rt Invasion Correction	YES	
SHT	Surface Hole Temperature	68	DEGF
	LDT-D: Litho Density - D		
BFM	Borehole Fluid Medium	LIQUID	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	225	DEGF
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	STAN	
FD	Fluid Density	1	G/C3
GCSE	Generalized Caliper Selection	CALI	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN 9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
ISSBAR	Barite Mud Switch	BARITE	
LSHC	LS Hardware Loop Control	DISALLOW	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
MDEN	Matrix Density	2.65	G/C3
SHT	Surface Hole Temperature	68	DEGF
SSHC	SS Hardware Loop Control	DISALLOW	
WMUD	Mud Weight	11.4	LB/G
	CNT-H: Compensated Neutron - H		
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	225	DEGF
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DPPM	Density Porosity Processing Mode	STAN	
FSAL	Formation Salinity	-50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCSE	Generalized Caliper Selection	CALI	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN 9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HSCO	Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	BARI	
MWCO	Mud Weight Correction Option	NO	
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	68	DEGF
SOCN	Standoff Distance	0.5	IN
SOCO	Standoff Correction Option	NO	
	EDTC-B: Enhanced DTS Cartridge		
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	225	DEGF
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DPPM	Density Porosity Processing Mode	STAN	
FSCO	Formation Salinity Correction Option	NO	
GCSE	Generalized Caliper Selection	CALI	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN 9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HSCO	Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	BARITE	
ISSBAR_EDTC	Nuclear Mud Type	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	BARI	
MWCO	Mud Weight Correction Option	NO	

PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	68	DEGF
SOCN	Standoff Distance	0.5	IN
SOCO	Standoff Correction Option	NO	
TPOS_EDTC	EDTC Tool Centered/Eccentered	Eccentered	
<b>HOLEV: Integrated Hole/Cement Volume</b>			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	225	DEGF
FCD	Future Casing (Outer) Diameter	7	IN
GCSE	Generalized Caliper Selection	CALI	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HVCS	Integrated Hole Volume Caliper Selection	AUTOMATIC	
ISSBAR	Barite Mud Switch	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
SHT	Surface Hole Temperature	68	DEGF
<b>STI: Stuck Tool Indicator</b>			
LBFR	Trigger for MAXIS First Reading Label	STI	
STKT	STI Stuck Threshold	2.5	FT
TDD	Total Depth - Driller	7636.00	FT
TDL	Total Depth - Logger	6686.00	FT
<b>System and Miscellaneous</b>			
ALTDPCN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	8.750	IN
BSAL	Borehole Salinity	500.00	PPM
CSIZ	Current Casing Size	9.625	IN
CWEI	Casing Weight	39.00	LB/F
DFD	Drilling Fluid Density	11.40	LB/G
DO	Depth Offset for Playback	0.0	FT
DORL	Depth Offset for Repeat Analysis	0.0	FT
FLEV	Fluid Level	-50000.00	FT
MST	Mud Sample Temperature	72.00	DEGF
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	OFF	
RMFS	Resistivity of Mud Filtrate Sample	0.9225	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	5632	FT
TWS	Temperature of Connate Water Sample	100.00	DEGF

Format: COMBO\_FAX    Vertical Scale: 5" per 100'    Graphics File Created: 21-Oct-2007 06:10

**OP System Version: 15C0-309**  
MCM

SPE-A	15C0-309	AIT-C	SRPC-3357-Q2_2007_b
LDT-D	15C0-309	CNT-H	15C0-309
DTA-A	SKK-3299-EDTCB_b	EDTC-B	SKK-3299-EDTCB_b

**Input DLIS Files**

DEFAULT	SPLICE_AIT_LDL_CNL_037	FN:1	PRODUCER	21-Oct-2007 06:06	6702.0 FT	304.1 FT
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**Output DLIS Files**

DEFAULT	AIT_LDL_CNL_038PUP	FN:21	PRODUCER	21-Oct-2007 06:10		
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**Repeat Analysis**

MAXIS Field Log

**Input DLIS Files**

DEFAULT	SPLICE_AIT_LDL_CNL_037	FN:1	PRODUCER	21-Oct-2007 06:06	6702.0 FT	304.1 FT
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## Output DLIS Files

### Integrated Hole/Cement Volume Summary

Hole Volume = 189.58 F3  
 Cement Volume = 68.25 F3 (assuming 7.00 IN casing O.D.)  
 Computed from 2494.0 FT to 2040.5 FT using data channel(s) BS

### OP System Version: 15C0-309

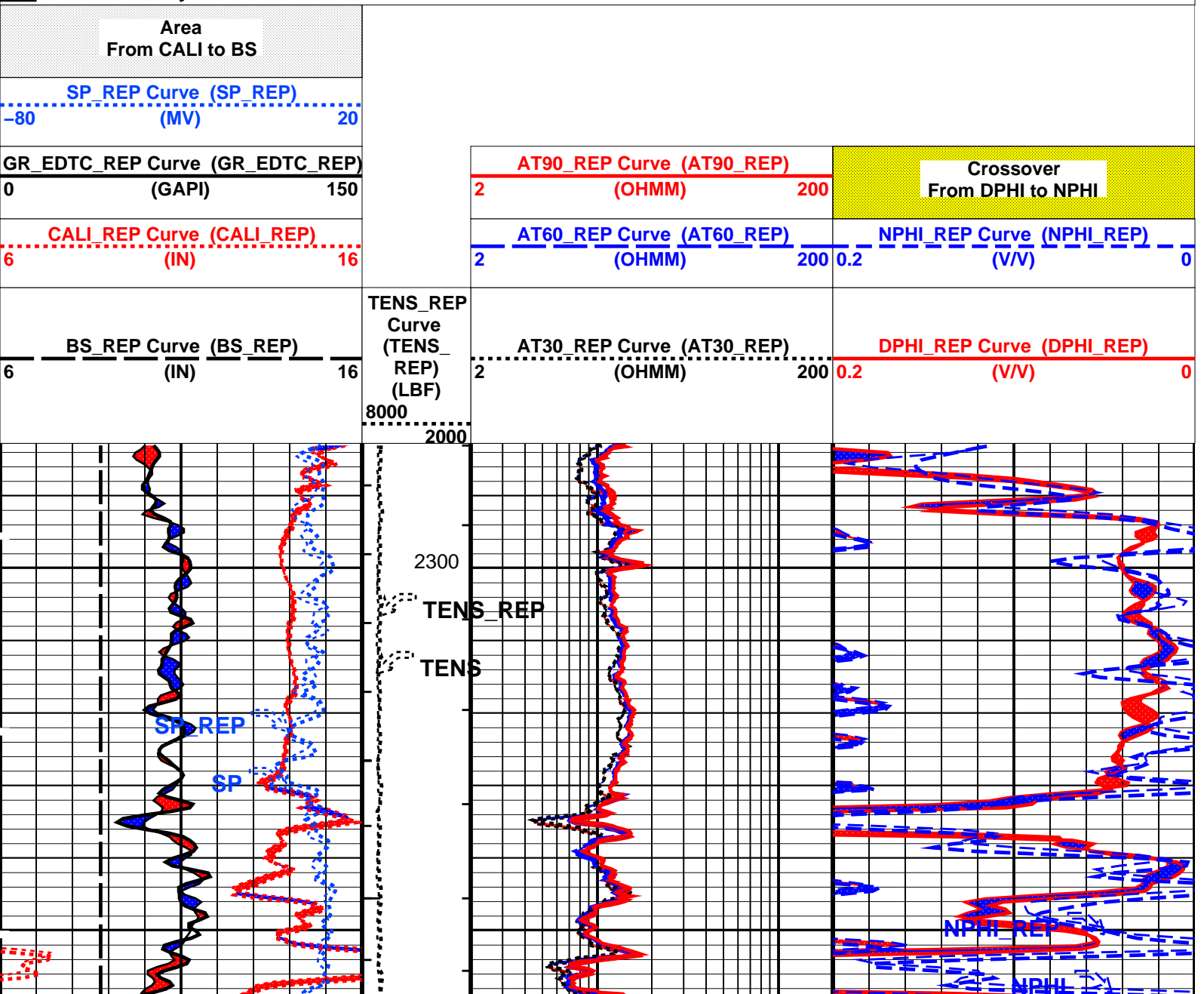
MCM

SPE-A	15C0-309	AIT-C	SRPC-3357-Q2_2007_b
LDT-D	15C0-309	CNT-H	15C0-309
DTA-A	SKK-3299-EDTCB_b	EDTC-B	SKK-3299-EDTCB_b

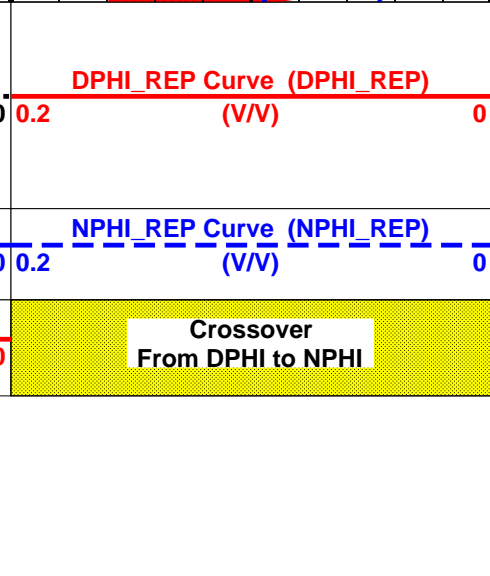
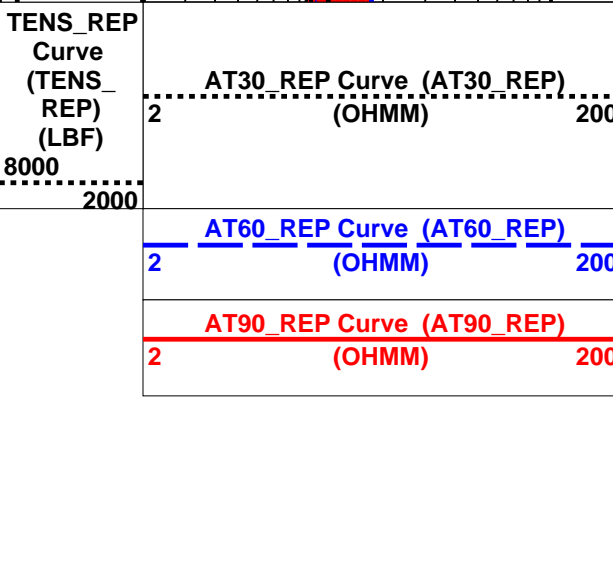
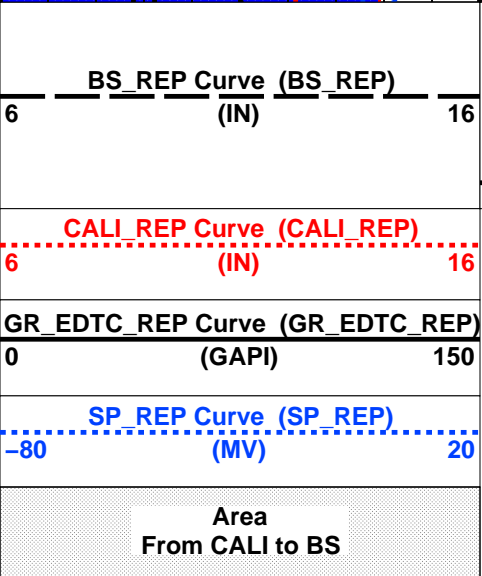
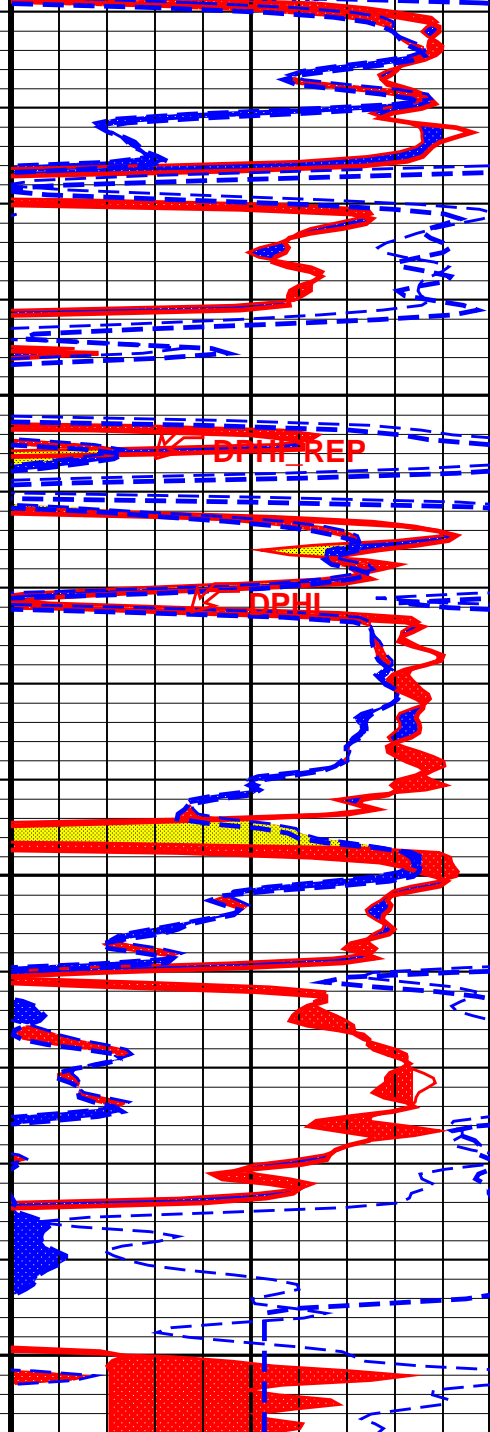
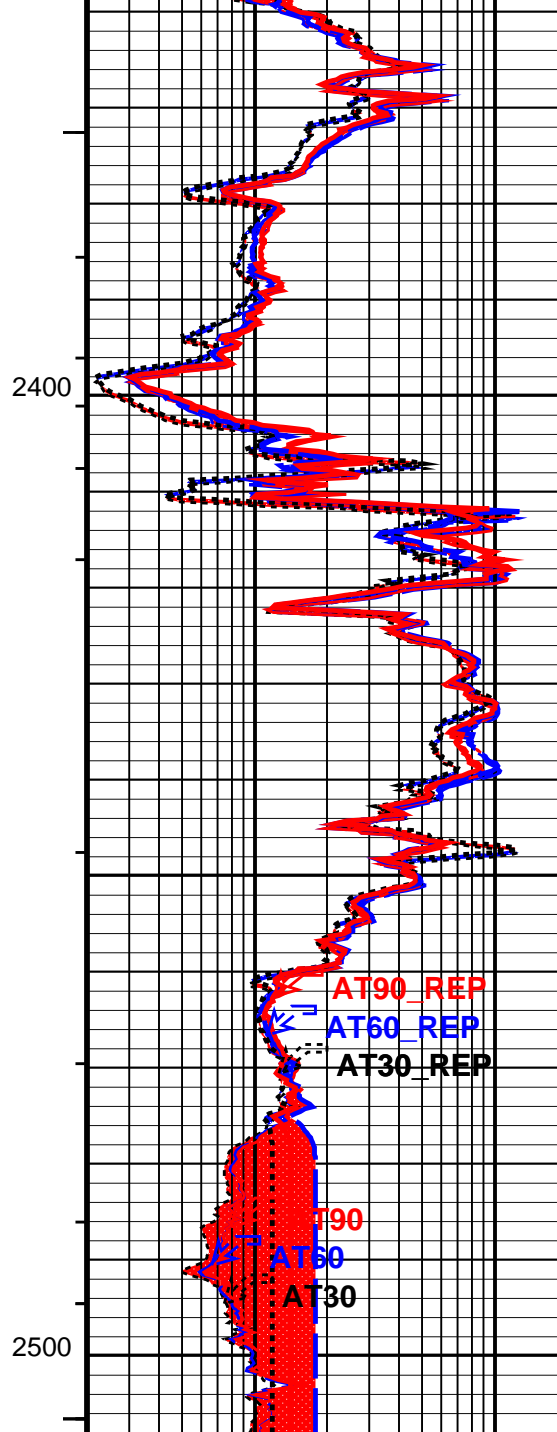
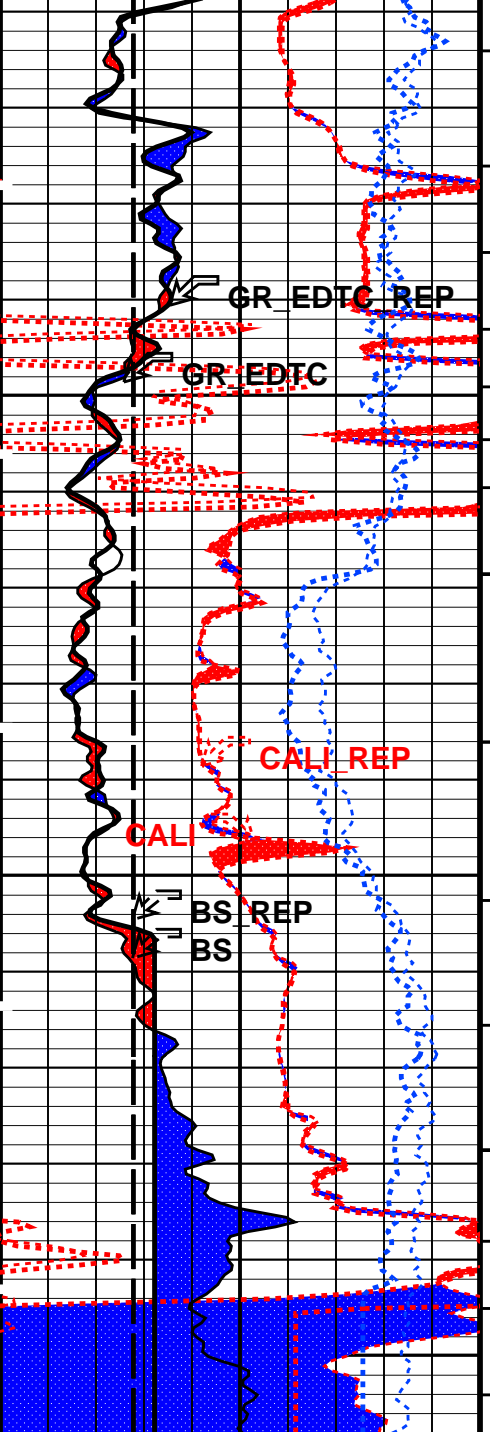
#### PIP SUMMARY

- ┆ 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







PIP SUMMARY

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

## Parameters

DLIS Name	Description	Value	
SPE-A: Extended Spontaneous Potential - A			
SPNV	SP Next Value	0	MV
AIT-C: Array Induction Tool - C			
AAPL	Array Induction Answer Product Level(Depth Log/View only)		
	3_BholeCorr_BasicLogs_Radial_Processing		
ABHM	Array Induction Borehole Correction Mode	0	ComputeMudResistivity
ABHV	Array Induction Borehole Correction Code Version Number	900	
ABLM	Array Induction Basic Logs Mode	6_One_Two_and_Four	
ABLV	Array Induction Basic Logs Code Version Number	223	
ACDE	Array Induction Casing Detection Enable	No	
ACEN	Array Induction Tool Centering Flag (in Borehole)	Eccentered	
ADITM	Array Induction Desired Tool Mode	0x00_Log_000	
AEBBC	Array Induction Enable Borehole Correction	Yes	
AEBL	Array Induction Enable Basic Logs	Yes	
AERP	Array Induction Enable Radial Processing	Yes	
AETP	Array Induction Enable Sonde Error Temp&Pres Corr	Yes	
AFRSV	Array Induction Response Set Version for Four ft Resolution	No version available	
AIGS	Array Induction Select Akima Interpolation Gating	On	
ALNV	Array Induction Log Not Valid Flag	Log_Valid-No_Default_Parameters	
AMRD	Array Induction Mud Resistivity Calibration Depth	0	FT
AMRF	Array Induction Mud Resistivity Factor	1	
AORSV	Array Induction Response Set Version for One ft Resolution	No version available	
ARFV	Array Induction Radial Profiling Code Version Number	0	
ARPM	Array Induction Radial Processing Mode	6_One_Two_and_Four	
ARPV	Array Induction Radial Parametrization Code Version Number	0	
ARTS	AIT Rt Selection (for ALLRES computation)	AIT_TwoResA60	
ASNO	Array Induction Sonde Serial Number	232	
ASTA	Array Induction Tool Standoff	1.5	IN
ATRSV	Array Induction Response Set Version for Two ft Resolution	No version available	
ATSE	Array Induction Temperature Selection (Sonde Error Correction)	Internal	
ATTY	Array Induction Tool Type (of acquired data)	AITC	
AULV	Array Induction User Level Control	Normal	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	225	DEGF
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
FPHI	Form Factor Porosity Source	DPHI	
GCSE	Generalized Caliper Selection	CALI	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
ISSBAR	Barite Mud Switch	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
RTCO	RTCO - Rt Invasion Correction	YES	
SHT	Surface Hole Temperature	68	DEGF
LDT-D: Litho Density - D			
BFM	Borehole Fluid Medium	LIQUID	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	225	DEGF
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	STAN	
FD	Fluid Density	1	G/C3
GCSE	Generalized Caliper Selection	CALI	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
ISSBAR	Barite Mud Switch	BARITE	
LSHC	LS Hardware Loop Control	DISALLOW	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
MDEN	Matrix Density	2.65	G/C3
SHT	Surface Hole Temperature	68	DEGF
SSHC	SS Hardware Loop Control	DISALLOW	
WMUD	Mud Weight	11.4	LB/G
CNT-H: Compensated Neutron - H			
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	225	DEGF
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DPPM	Density Porosity Processing Mode	STAN	



FSAL	Formation Salinity	-50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCSE	Generalized Caliper Selection	CALI	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN 9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HSCO	Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	BARI	
MWCO	Mud Weight Correction Option	NO	
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	68	DEGF
SOCN	Standoff Distance	0.5	IN
SOCO	Standoff Correction Option	NO	
<b>EDTC-B: Enhanced DTS Cartridge</b>			
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	225	DEGF
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DPPM	Density Porosity Processing Mode	STAN	
FSCO	Formation Salinity Correction Option	NO	
GCSE	Generalized Caliper Selection	CALI	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN 9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HSCO	Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	BARITE	
ISSBAR_EDTC	Nuclear Mud Type	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	BARI	
MWCO	Mud Weight Correction Option	NO	
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	68	DEGF
SOCN	Standoff Distance	0.5	IN
SOCO	Standoff Correction Option	NO	
TPOS_EDTC	EDTC Tool Centered/Eccentered	Eccentered	
<b>HOLEV: Integrated Hole/Cement Volume</b>			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	225	DEGF
FCD	Future Casing (Outer) Diameter	7	IN
GCSE	Generalized Caliper Selection	CALI	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN 9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HVCS	Integrated Hole Volume Caliper Selection	AUTOMATIC	
ISSBAR	Barite Mud Switch	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
SHT	Surface Hole Temperature	68	DEGF
<b>STI: Stuck Tool Indicator</b>			
LBFR	Trigger for MAXIS First Reading Label	STI	
STKT	STI Stuck Threshold	2.5	FT
TDD	Total Depth - Driller	7636.00	FT
TDL	Total Depth - Logger	6686.00	FT
<b>System and Miscellaneous</b>			
ALTDPCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	8.750	IN
BSAL	Borehole Salinity	500.00	PPM
CSIZ	Current Casing Size	9.625	IN
CWEI	Casing Weight	39.00	LB/F
DFD	Drilling Fluid Density	11.40	LB/G
DO	Depth Offset for Playback	0.0	FT
DORL	Depth Offset for Repeat Analysis	0.0	FT
FLEV	Fluid Level	-50000.00	FT
MST	Mud Sample Temperature	72.00	DEGF
PBVSDP	Use alternate depth channel for playback	NO	
PP	Playback Processing	OFF	
RMFS	Resistivity of Mud Filtrate Sample	0.9225	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	5632	FT
TWS	Temperature of Connate Water Sample	100.00	DEGF

### Input DLIS Files

DEFAULT	SPLICE_AIT_LDL_CNL_037	FN:1	PRODUCER	21-Oct-2007 06:06	6702.0 FT	304.1 FT
DEFAULT	MERGE_LDL_CNL_034	FN:1	PRODUCER	21-Oct-2007 05:40	2506.0 FT	2040.0 FT

### Output DLIS Files

DEFAULT	AIT_LDL_CNL_038PUP	FN:21	PRODUCER	21-Oct-2007 06:10		
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## Calibrations

### MAXIS Field Log

#### Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
Array Induction Tool – C Wellsite Calibration – Electronics Calibration Check – Thru Cal Mag. & Phase							
Master: 6-Oct-2007 13:32 Before: 20-Oct-2007 15:45							
Thru Cal Magnitude – 0	0	0.5731	0.5746	N/A	N/A	N/A	V
Thru Cal Magnitude – 1	0	1.149	1.152	N/A	N/A	N/A	V
Thru Cal Magnitude – 2	0	1.374	1.382	N/A	N/A	N/A	V
Thru Cal Magnitude – 3	0	0.3852	0.3860	N/A	N/A	N/A	V
Thru Cal Magnitude – 4	0	2.015	2.026	N/A	N/A	N/A	V
Thru Cal Magnitude – 5	0	0.5675	0.5686	N/A	N/A	N/A	V
Thru Cal Magnitude – 6	0	1.432	1.439	N/A	N/A	N/A	V
Thru Cal Magnitude – 7	0	0.4249	0.4269	N/A	N/A	N/A	V
Thru Cal Magnitude – 8	0	2.136	2.146	N/A	N/A	N/A	V
Thru Cal Magnitude – 9	0	0.6247	0.6277	N/A	N/A	N/A	V
Thru Cal Magnitude – 10	0	2.113	2.123	N/A	N/A	N/A	V
Thru Cal Magnitude – 11	0	0.6127	0.6158	N/A	N/A	N/A	V
Thru Cal Magnitude – 12	0	1.859	1.868	N/A	N/A	N/A	V
Thru Cal Magnitude – 13	0	0.5436	0.5463	N/A	N/A	N/A	V
Phase – 0	0	-90.01	-90.01	N/A	N/A	N/A	DEG
Phase – 1	0	-90.79	-90.57	N/A	N/A	N/A	DEG
Phase – 2	0	72.22	72.45	N/A	N/A	N/A	DEG
Phase – 3	0	-143.2	-142.8	N/A	N/A	N/A	DEG
Phase – 4	0	71.97	72.20	N/A	N/A	N/A	DEG
Phase – 5	0	-143.8	-143.4	N/A	N/A	N/A	DEG
Phase – 6	0	5.228	5.599	N/A	N/A	N/A	DEG
Phase – 7	0	74.13	74.35	N/A	N/A	N/A	DEG
Phase – 8	0	5.111	5.481	N/A	N/A	N/A	DEG
Phase – 9	0	73.91	74.12	N/A	N/A	N/A	DEG
Phase – 10	0	-1.240	-0.8222	N/A	N/A	N/A	DEG
Phase – 11	0	74.48	74.72	N/A	N/A	N/A	DEG
Phase – 12	0	-1.794	-1.370	N/A	N/A	N/A	DEG
Phase – 13	0	73.44	73.70	N/A	N/A	N/A	DEG

Array Induction Tool – C Wellsite Calibration – Electronics Calibration Check – Rel Gain Mag. & Phase							
Master: 6-Oct-2007 13:32 Before: 20-Oct-2007 15:45							
ADC Rel Gain Magnitude – 0	25.00	25.06	25.06	N/A	N/A	N/A	
ADC Rel Gain Magnitude – 1	25.00	25.05	25.05	N/A	N/A	N/A	
ADC Rel Gain Magnitude – 2	25.00	25.05	25.06	N/A	N/A	N/A	
ADC Rel Gain Magnitude – 3	25.00	25.05	25.05	N/A	N/A	N/A	
ADC Rel Gain Magnitude – 4	25.00	25.05	25.05	N/A	N/A	N/A	
ADC Rel Gain Magnitude – 5	25.00	25.04	25.05	N/A	N/A	N/A	
ADC Rel Gain Magnitude – 6	25.00	25.05	25.05	N/A	N/A	N/A	
Phase – 0	0	0.7392	0.7292	N/A	N/A	N/A	DEG
Phase – 1	0	0.2584	0.2585	N/A	N/A	N/A	DEG

Phase - 1	0	0.3564	0.3535	N/A	N/A	N/A	DEG
Phase - 2	0	0.7155	0.7301	N/A	N/A	N/A	DEG
Phase - 3	0	0.1779	0.1736	N/A	N/A	N/A	DEG
Phase - 4	0	0.3373	0.3481	N/A	N/A	N/A	DEG
Phase - 5	0	0.1776	0.1784	N/A	N/A	N/A	DEG
Phase - 6	0	0.3584	0.3594	N/A	N/A	N/A	DEG

Array Induction Tool - C Wellsite Calibration - Electronics Calibration Check - Auxilliary

Master: 6-Oct-2007 13:32 Before: 20-Oct-2007 15:45

Array Induction SPA Plus	3950	3976	3976	N/A	N/A	N/A	MV
Array Induction SPA Zero	-50.00	-51.82	-51.74	N/A	N/A	N/A	MV
Array Induction Temperature PI	4.500	4.491	4.491	N/A	N/A	N/A	V
Array Induction Temperature Ze	-0.05000	-0.05206	-0.05191	N/A	N/A	N/A	V

Array Induction Tool - C Wellsite Calibration - Test Loop Gain Correction

Master: 6-Oct-2007 13:32

Test Loop Gain Magnitude - 0	0	0.9945	N/A	N/A	N/A	N/A	
Test Loop Gain Magnitude - 1	0	0.9989	N/A	N/A	N/A	N/A	
Test Loop Gain Magnitude - 2	0	1.004	N/A	N/A	N/A	N/A	
Test Loop Gain Magnitude - 3	0	1.002	N/A	N/A	N/A	N/A	
Test Loop Gain Magnitude - 4	0	1.008	N/A	N/A	N/A	N/A	
Test Loop Gain Magnitude - 5	0	1.009	N/A	N/A	N/A	N/A	
Test Loop Gain Magnitude - 6	0	1.007	N/A	N/A	N/A	N/A	
Test Loop Gain Magnitude - 7	0	1.007	N/A	N/A	N/A	N/A	
Test Loop Gain Magnitude - 8	0	1.012	N/A	N/A	N/A	N/A	
Test Loop Gain Magnitude - 9	0	1.014	N/A	N/A	N/A	N/A	
Test Loop Gain Magnitude - 10	0	1.008	N/A	N/A	N/A	N/A	
Test Loop Gain Magnitude - 11	0	1.011	N/A	N/A	N/A	N/A	
Test Loop Gain Magnitude - 12	0	1.012	N/A	N/A	N/A	N/A	
Test Loop Gain Magnitude - 13	0	1.017	N/A	N/A	N/A	N/A	
Phase - 0	0	0.1667	N/A	N/A	N/A	N/A	DEG
Phase - 1	0	0.1571	N/A	N/A	N/A	N/A	DEG
Phase - 2	0	-0.02372	N/A	N/A	N/A	N/A	DEG
Phase - 3	0	0.01886	N/A	N/A	N/A	N/A	DEG
Phase - 4	0	0.02340	N/A	N/A	N/A	N/A	DEG
Phase - 5	0	0.03062	N/A	N/A	N/A	N/A	DEG
Phase - 6	0	0.008498	N/A	N/A	N/A	N/A	DEG
Phase - 7	0	0.02731	N/A	N/A	N/A	N/A	DEG
Phase - 8	0	-0.05486	N/A	N/A	N/A	N/A	DEG
Phase - 9	0	0.05440	N/A	N/A	N/A	N/A	DEG
Phase - 10	0	0.07227	N/A	N/A	N/A	N/A	DEG
Phase - 11	0	0.2498	N/A	N/A	N/A	N/A	DEG
Phase - 12	0	-0.1597	N/A	N/A	N/A	N/A	DEG
Phase - 13	0	-0.1043	N/A	N/A	N/A	N/A	DEG

Array Induction Tool - C Wellsite Calibration - Sonde Error Correction

Master: 6-Oct-2007 13:32

R Sonde Error Correction - 0	0	6.656	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 1	0	37.32	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 2	0	51.14	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 3	0	33.18	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 4	0	45.59	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 5	0	37.29	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 6	0	26.40	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 7	0	13.95	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 8	0	8.681	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 9	0	11.57	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 10	0	7.420	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 11	0	5.768	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 12	0	-1.778	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction - 13	0	0.2316	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 0	0	25.52	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 1	0	38.51	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 2	0	32.05	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 3	0	-58.39	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 4	0	118.9	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 5	0	-87.52	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 6	0	17.95	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 7	0	0.9876	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 8	0	8.365	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 9	0	-20.24	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 10	0	6.247	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 11	0	-6.487	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 12	0	-9.593	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction - 13	0	-18.81	N/A	N/A	N/A	N/A	MM/M

Litho Density - D Wellsite Calibration - Background Measurement

Master: 16-Oct-2007 20:41 Before: 17-Oct-2007 18:08

LL Background	20.00	15.93	15.75	N/A	N/A	1.000	CPS
LU Background	76.00	60.95	61.27	N/A	N/A	1.000	CPS
LS Background	57.00	46.41	46.38	N/A	N/A	1.000	CPS
LITH Background	5.500	4.574	4.468	N/A	N/A	0.3000	CPS

SS1 Background	16.00	13.49	13.59	N/A	N/A	0.5000	CPS
SS2 Background	11.00	9.141	9.181	N/A	N/A	0.5000	CPS
Litho Density – D Wellsite Calibration – Tool Quality Control Information HV							
Master: 16–Oct–2007 20:41 Before: 17–Oct–2007 18:08							
LSHV Background	1500	1364	1361	N/A	N/A	N/A	V
SSHV Background	1500	1125	1126	N/A	N/A	N/A	V
Litho Density – D Wellsite Calibration – Detectors Resolution From BKG Measurements							
Master: 16–Oct–2007 20:41 Before: 17–Oct–2007 18:08							
LS Resolution Background	8.000	9.639	9.756	N/A	N/A	N/A	
SS Resolution Background	8.000	8.865	8.894	N/A	N/A	N/A	
Litho Density – D Wellsite Calibration – Caliper Calibration							
Before: 17–Oct–2007 17:54							
Caliper Small Ring	8.000	N/A	8.309	N/A	N/A	N/A	IN
Caliper Large Ring	12.00	N/A	12.50	N/A	N/A	N/A	IN
Litho Density – D Master Calibration – Aluminum Measurement							
Master: 16–Oct–2007 21:13							
LL Aluminum	90.00	96.64	--	--	--	--	CPS
LU Aluminum	135.0	148.5	--	--	--	--	CPS
LS Aluminum	155.0	170.9	--	--	--	--	CPS
LITH Aluminum	50.00	60.84	--	--	--	--	CPS
SS1 Aluminum	175.0	201.5	--	--	--	--	CPS
SS2 Aluminum	260.0	278.9	--	--	--	--	CPS
Litho Density – D Master Calibration – Litholog Measurement							
Master: 16–Oct–2007 21:08							
LL Iron	80.00	90.70	--	--	--	--	CPS
LU Iron	120.0	138.8	--	--	--	--	CPS
LS Iron	135.0	160.1	--	--	--	--	CPS
LITH Iron	30.00	42.01	--	--	--	--	CPS
SS1 Iron	155.0	190.2	--	--	--	--	CPS
SS2 Iron	245.0	265.2	--	--	--	--	CPS
Litho Density – D Master Calibration – Spectrum Quality Ratios							
Master: 16–Oct–2007 21:13							
QRLS Calculated	0.6500	0.6507	--	--	--	--	
QRSS Calculated	0.7200	0.7226	--	--	--	--	
QRLI Calculated	0.3900	0.3560	--	--	--	--	
QLIR Calculated	1.390	1.357	--	--	--	--	
QR Calculated	1.000	1.007	--	--	--	--	
Compensated Neutron – H Wellsite Calibration – Zero Measurement							
Master: 6–Oct–2007 1:27 Before: 17–Oct–2007 18:07							
CNTC Background	34.68	34.68	35.82	N/A	N/A	5.201	CPS
CFTC Background	30.67	30.67	30.75	N/A	N/A	4.601	CPS
Compensated Neutron – H Master Calibration – Tank Measurement							
Master: 6–Oct–2007 1:44							
Thermal Near Corr. (Tank)	6031	5962	--	--	--	--	CPS
Thermal Far Corr. (Tank)	2793	2438	--	--	--	--	CPS
CNTC/CFTC (Tank)	2.159	2.445	--	--	--	--	
Enhanced DTS Cartridge Wellsite Calibration – EDTC Accelerometer Calibration							
Before: 19–Oct–2007 0:54							
EDTC Z–Axis Acceleration	32.19	N/A	32.52	N/A	N/A	N/A	F/S2
Enhanced DTS Cartridge Wellsite Calibration – Detector Calibration							
Before: 17–Oct–2007 17:52							
Gamma Ray (Jig – Bkg)	157.9	N/A	157.9	N/A	N/A	14.35	GAPI
Gamma Ray (Calibrated)	165.0	N/A	165.0	N/A	N/A	15.00	GAPI

The CNT Master Calibration Was Done With The Following Parameters :

NCT–B Water Temperature 62.2 DEGF.  
Thermal Housing Size 3.370 IN.

Array Induction Tool – C / Equipment Identification			
Primary Equipment:			
Array Induction Sonde		AIS – BA	232
Adaptive Response Cartridge		AIC – BA	232
Auxiliary Equipment:			

Array Induction Tool - C Wellsite Calibration							
Electronics Calibration Check - Thru Cal Mag. & Phase							
Idx	Phase	Value	Thru Cal Magnitude V	Nominal	Value	Phase DEG	Nominal
0	Master	0.5731		0.5920	-90.01		-88.00
	Before	0.5746			-90.01		
1	Master	1.149		1.185	-90.79		-89.00
	Before	1.152			-90.57		
2	Master	1.374		1.399	72.22		72.00
	Before	1.382			72.45		
3	Master	0.3852		0.3960	-143.2		-138.0
	Before	0.3860			-142.8		
4	Master	2.015		2.057	71.97		71.00
	Before	2.026			72.20		
5	Master	0.5675		0.5820	-143.8		-139.0
	Before	0.5686			-143.4		
6	Master	1.432		1.423	5.228		-3.000
	Before	1.439			5.599		
7	Master	0.4249		0.4000	74.13		68.00
	Before	0.4269			74.35		
8	Master	2.136		2.111	5.111		-3.000
	Before	2.146			5.481		
9	Master	0.6247		0.5930	73.91		68.00
	Before	0.6277			74.12		
10	Master	2.113		2.111	-1.240		0
	Before	2.123			-0.8222		
11	Master	0.6127		0.5930	74.48		75.00
	Before	0.6158			74.72		
12	Master	1.859		1.853	-1.794		-1.000
	Before	1.868			-1.370		
13	Master	0.5436		0.5200	73.44		74.00
	Before	0.5463			73.70		
		70.00 % (Minimum)	(Nominal)	130.0 % (Maximum)	Nom -45.00 (Minimum)	(Nominal)	Nom + 45.00 (Maximum)

Master: 6-Oct-2007 13:32

Before: 20-Oct-2007 15:45

Array Induction Tool - C Wellsite Calibration					
Electronics Calibration Check - Rel Gain Mag. & Phase					
Idx	Phase	Value	ADC Rel Gain Magnitude	Value	Phase DEG
0	Master	25.06		0.7392	
	Before	25.06		0.7292	
1	Master	25.05		0.3564	
	Before	25.05		0.3535	
2	Master	25.05		0.7155	
	Before	25.06		0.7301	
3	Master	25.05		0.1779	
	Before	25.05		0.1736	

4	Master	25.05		0.3373			
	Before	25.05		0.3481			
5	Master	25.04		0.1776			
	Before	25.05		0.1784			
6	Master	25.05		0.3584			
	Before	25.05		0.3594			
		23.75 (Minimum)	25.00 (Nominal)	26.25 (Maximum)	-1.000 (Minimum)	0 (Nominal)	1.000 (Maximum)
Master: 6-Oct-2007 13:32				Before: 20-Oct-2007 15:45			

Array Induction Tool – C Wellsite Calibration							
Electronics Calibration Check – Auxilliary							
Phase	Array Induction SPA Plus MV	Value	Phase	Array Induction SPA Zero MV	Value		
Master		3976	Master		-51.82		
Before		3976	Before		-51.74		
		3750 (Minimum)	3950 (Nominal)	4150 (Maximum)	-100.0 (Minimum)	-50.00 (Nominal)	0 (Maximum)
Phase	Array Induction Temperature Plus V	Value	Phase	Array Induction Temperature Zero V	Value		
Master		4.491	Master		-0.05206		
Before		4.491	Before		-0.05191		
		4.250 (Minimum)	4.500 (Nominal)	4.750 (Maximum)	-0.1000 (Minimum)	-0.05000 (Nominal)	0 (Maximum)
Master: 6-Oct-2007 13:32			Before: 20-Oct-2007 15:45				

Array Induction Tool – C Wellsite Calibration							
Test Loop Gain Correction							
Idx	Value	Test Loop Gain Magnitude	Value	Phase DEG			
0	0.9945		0.1667				
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
1	0.9989		0.1571				
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
2	1.004		-0.02372				
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
3	1.002		0.01886				
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
4	1.008		0.02340				
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
5	1.009		0.03062				
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
6	1.007		0.008498				
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
7	1.007		0.02731				
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
8	1.012		-0.05486				
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
9	1.014		0.05440				
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
10	1.008		0.07227				
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
11	1.011		0.2498				
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)

		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
12	1.012							
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
13	1.017							
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)

Master: 6-Oct-2007 13:32

Array Induction Tool – C Wellsite Calibration								
Sonde Error Correction								
Idx	Value	R Sonde Error Correction MM/M			Value	X Sonde Error Correction MM/M		
0	6.656				25.52			
		-27.00 (Minimum)	0 (Nominal)	34.00 (Maximum)		-548.0 (Minimum)	0 (Nominal)	548.0 (Maximum)
1	37.32				38.51			
		23.00 (Minimum)	37.00 (Nominal)	48.00 (Maximum)		-208.0 (Minimum)	0 (Nominal)	208.0 (Maximum)
2	51.14				32.05			
		43.00 (Minimum)	54.00 (Nominal)	64.00 (Maximum)		-191.0 (Minimum)	0 (Nominal)	191.0 (Maximum)
3	33.18				-58.39			
		25.00 (Minimum)	37.00 (Nominal)	46.00 (Maximum)		-101.0 (Minimum)	0 (Nominal)	101.0 (Maximum)
4	45.59				118.9			
		23.00 (Minimum)	53.00 (Nominal)	74.00 (Maximum)		-208.0 (Minimum)	0 (Nominal)	208.0 (Maximum)
5	37.29				-87.52			
		13.00 (Minimum)	47.00 (Nominal)	69.00 (Maximum)		-196.0 (Minimum)	0 (Nominal)	196.0 (Maximum)
6	26.40				17.95			
		16.00 (Minimum)	27.00 (Nominal)	37.00 (Maximum)		-67.00 (Minimum)	0 (Nominal)	67.00 (Maximum)
7	13.95				0.9876			
		4.000 (Minimum)	15.00 (Nominal)	25.00 (Maximum)		-34.00 (Minimum)	0 (Nominal)	34.00 (Maximum)
8	8.681				8.365			
		-2.000 (Minimum)	8.000 (Nominal)	18.00 (Maximum)		-43.00 (Minimum)	0 (Nominal)	43.00 (Maximum)
9	11.57				-20.24			
		2.000 (Minimum)	11.00 (Nominal)	18.00 (Maximum)		-32.00 (Minimum)	0 (Nominal)	32.00 (Maximum)
10	7.420				6.247			
		2.000 (Minimum)	8.000 (Nominal)	13.00 (Maximum)		-38.00 (Minimum)	0 (Nominal)	38.00 (Maximum)
11	5.768				-6.487			
		1.000 (Minimum)	7.000 (Nominal)	12.00 (Maximum)		-30.00 (Minimum)	0 (Nominal)	30.00 (Maximum)
12	-1.778				-9.593			
		-6.000 (Minimum)	-2.000 (Nominal)	4.000 (Maximum)		-32.00 (Minimum)	0 (Nominal)	32.00 (Maximum)
13	0.2316				-18.81			
		-5.000 (Minimum)	1.000 (Nominal)	6.000 (Maximum)		-38.00 (Minimum)	0 (Nominal)	38.00 (Maximum)

Master: 6-Oct-2007 13:32

Array Induction Tool – C Master Calibration							
Electronics Calibration Check – Thru Cal Mag. & Phase							
Idx	Phase	Value	Thru Cal Magnitude V	Nominal	Value	Phase DEG	Nominal
0	Master	0.5731		0.5920	-90.01		-88.00
1	Master	1.149		1.185	-90.79		-89.00
2	Master	1.374		1.399	72.22		72.00
3	Master	0.3852		0.3960	-143.2		-138.0

4	Master	2.015		2.057	71.97		71.00	
5	Master	0.5675		0.5820	-143.8		-139.0	
6	Master	1.432		1.423	5.228		-3.000	
7	Master	0.4249		0.4000	74.13		68.00	
8	Master	2.136		2.111	5.111		-3.000	
9	Master	0.6247		0.5930	73.91		68.00	
10	Master	2.113		2.111	-1.240		0	
11	Master	0.6127		0.5930	74.48		75.00	
12	Master	1.859		1.853	-1.794		-1.000	
13	Master	0.5436		0.5200	73.44		74.00	
		70.00 % (Minimum)	(Nominal)	130.0 % (Maximum)	Nom -45.00 (Minimum)		(Nominal)	Nom + 45.00 (Maximum)

Master: 6-Oct-2007 13:32

Array Induction Tool – C Master Calibration							
Electronics Calibration Check – Rel Gain Mag. & Phase							
Idx	Phase	Value	ADC Rel Gain Magnitude		Value	Phase DEG	
0	Master	25.06			0.7392		
1	Master	25.05			0.3564		
2	Master	25.05			0.7155		
3	Master	25.05			0.1779		
4	Master	25.05			0.3373		
5	Master	25.04			0.1776		
6	Master	25.05			0.3584		
		23.75 (Minimum)	25.00 (Nominal)	26.25 (Maximum)	-1.000 (Minimum)	0 (Nominal)	1.000 (Maximum)

Master: 6-Oct-2007 13:32

Array Induction Tool – C Master Calibration							
Electronics Calibration Check – Auxiliary							
Phase	Array Induction SPA Plus MV	Value	Phase	Array Induction SPA Zero MV	Value		
Master		3976	Master		-51.82		
		3750 (Minimum)	3950 (Nominal)	4150 (Maximum)	-100.0 (Minimum)	-50.00 (Nominal)	0 (Maximum)
Phase	Array Induction Temperature Plus V	Value	Phase	Array Induction Temperature Zero V	Value		
Master		4.491	Master		-0.05206		
		4.250 (Minimum)	4.500 (Nominal)	4.750 (Maximum)	-0.1000 (Minimum)	-0.05000 (Nominal)	0 (Maximum)

Master: 6-Oct-2007 13:32

Array Induction Tool – C Master Calibration							
Test Loop Gain Correction							
Idx	Value	Test Loop Gain Magnitude			Value	Phase DEG	
0	0.9945				0.1667		
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
1	0.9989				0.1571		
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
2	1.004				-0.02372		
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
3	1.002				0.01886		
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
4	1.008				0.02340		
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)



	1.009				0.03062			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
6	1.007				0.008498			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
7	1.007				0.02731			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
8	1.012				-0.05486			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
9	1.014				0.05440			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
10	1.008				0.07227			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
11	1.011				0.2498			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
12	1.012				-0.1597			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
13	1.017				-0.1043			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)

Master: 6-Oct-2007 13:32

Array Induction Tool - C Master Calibration								
Sonde Error Correction								
Idx	Value	R Sonde Error Correction MM/M			Value	X Sonde Error Correction MM/M		
0	6.656				25.52			
		-27.00 (Minimum)	0 (Nominal)	34.00 (Maximum)		-548.0 (Minimum)	0 (Nominal)	548.0 (Maximum)
1	37.32				38.51			
		23.00 (Minimum)	37.00 (Nominal)	48.00 (Maximum)		-208.0 (Minimum)	0 (Nominal)	208.0 (Maximum)
2	51.14				32.05			
		43.00 (Minimum)	54.00 (Nominal)	64.00 (Maximum)		-191.0 (Minimum)	0 (Nominal)	191.0 (Maximum)
3	33.18				-58.39			
		25.00 (Minimum)	37.00 (Nominal)	46.00 (Maximum)		-101.0 (Minimum)	0 (Nominal)	101.0 (Maximum)
4	45.59				118.9			
		23.00 (Minimum)	53.00 (Nominal)	74.00 (Maximum)		-208.0 (Minimum)	0 (Nominal)	208.0 (Maximum)
5	37.29				-87.52			
		13.00 (Minimum)	47.00 (Nominal)	69.00 (Maximum)		-196.0 (Minimum)	0 (Nominal)	196.0 (Maximum)
6	26.40				17.95			
		16.00 (Minimum)	27.00 (Nominal)	37.00 (Maximum)		-67.00 (Minimum)	0 (Nominal)	67.00 (Maximum)
7	13.95				0.9876			
		4.000 (Minimum)	15.00 (Nominal)	25.00 (Maximum)		-34.00 (Minimum)	0 (Nominal)	34.00 (Maximum)
8	8.681				8.365			
		-2.000 (Minimum)	8.000 (Nominal)	18.00 (Maximum)		-43.00 (Minimum)	0 (Nominal)	43.00 (Maximum)
9	11.57				-20.24			
		2.000 (Minimum)	11.00 (Nominal)	18.00 (Maximum)		-32.00 (Minimum)	0 (Nominal)	32.00 (Maximum)
10	7.420				6.247			
		2.000 (Minimum)	8.000 (Nominal)	13.00 (Maximum)		-38.00 (Minimum)	0 (Nominal)	38.00 (Maximum)
11	5.768				-6.487			

	1.000 (Minimum)	7.000 (Nominal)	12.00 (Maximum)	-30.00 (Minimum)	0 (Nominal)	30.00 (Maximum)
12	-1.778			-9.593		
	-6.000 (Minimum)	-2.000 (Nominal)	4.000 (Maximum)	-32.00 (Minimum)	0 (Nominal)	32.00 (Maximum)
13	0.2316			-18.81		
	-5.000 (Minimum)	1.000 (Nominal)	6.000 (Maximum)	-38.00 (Minimum)	0 (Nominal)	38.00 (Maximum)
Master: 6-Oct-2007 13:32						

Litho Density – D / Equipment Identification

Primary Equipment:

Nuclear Services Cartridge  
 Powered Gamma Detector  
 Gamma Source Radioactive

NSC – E 2928  
 PGD – G  
 GSR – J

Auxiliary Equipment:

Density Resistivity Sonde  
 Electronics Cartridge Housing  
 Powered Detector Housing

DRS – C  
 ECH – MKA 2947  
 PDH – L

Litho Density – D Wellsite Calibration

Background Measurement

Phase	LL Background CPS	Value	Phase	LU Background CPS	Value	Phase	LS Background CPS	Value	
Master		15.93	Master		60.95	Master		46.41	
Before		15.75	Before		61.27	Before		46.38	
	15.00 (Minimum)	20.00 (Nominal)	25.00 (Maximum)	58.00 (Minimum)	76.00 (Nominal)	94.00 (Maximum)	43.00 (Minimum)	57.00 (Nominal)	72.00 (Maximum)
Phase	LITH Background CPS	Value	Phase	SS1 Background CPS	Value	Phase	SS2 Background CPS	Value	
Master		4.574	Master		13.49	Master		9.141	
Before		4.468	Before		13.59	Before		9.181	
	4.000 (Minimum)	5.500 (Nominal)	7.000 (Maximum)	12.00 (Minimum)	16.00 (Nominal)	19.50 (Maximum)	8.000 (Minimum)	11.00 (Nominal)	13.50 (Maximum)
Master: 16-Oct-2007 20:41			Before: 17-Oct-2007 18:08						

Litho Density – D Wellsite Calibration

Detectors Resolution From BKG Measurements

Phase	LS Resolution Background	Value	Phase	SS Resolution Background	Value	
Master		9.639	Master		8.865	
Before		9.756	Before		8.894	
	5.000 (Minimum)	8.000 (Nominal)	11.50 (Maximum)	5.000 (Minimum)	8.000 (Nominal)	11.50 (Maximum)
Master: 16-Oct-2007 20:41			Before: 17-Oct-2007 18:08			

Litho Density – D Master Calibration

Aluminum Measurement

Phase	LL Aluminum CPS	Value	Phase	LU Aluminum CPS	Value	Phase	LS Aluminum CPS	Value	
Master		96.64	Master		148.5	Master		170.9	
	70.00 (Minimum)	90.00 (Nominal)	125.0 (Maximum)	100.0 (Minimum)	135.0 (Nominal)	194.0 (Maximum)	120.0 (Minimum)	155.0 (Nominal)	217.0 (Maximum)
Phase	LITH Aluminum CPS	Value	Phase	SS1 Aluminum CPS	Value	Phase	SS2 Aluminum CPS	Value	
Master		60.84	Master		201.5	Master		278.9	
	35.00 (Minimum)	50.00 (Nominal)	74.00 (Maximum)	125.0 (Minimum)	175.0 (Nominal)	256.0 (Maximum)	210.0 (Minimum)	260.0 (Nominal)	353.0 (Maximum)
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Litho Density – D Master Calibration

Litholog Measurement

Phase	LL Iron CPS	Value	Phase	LU Iron CPS	Value	Phase	LS Iron CPS	Value	
Master		90.70	Master		138.8	Master		160.1	
	60.00 (Minimum)	80.00 (Nominal)	114.0 (Maximum)	85.00 (Minimum)	120.0 (Nominal)	177.0 (Maximum)	100.0 (Minimum)	135.0 (Nominal)	193.0 (Maximum)
Phase	LITH Iron CPS	Value	Phase	SS1 Iron CPS	Value	Phase	SS2 Iron CPS	Value	

Master		42.01	Master		190.2	Master		265.2	
	15.00 (Minimum)	30.00 (Nominal)		105.0 (Minimum)	155.0 (Nominal)		190.0 (Minimum)	245.0 (Nominal)	325.0 (Maximum)

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Litho Density – D Master Calibration											
Spectrum Quality Ratios											
Phase	QRLS Calculated		Value	Phase	QRSS Calculated		Value	Phase	QRLI Calculated		Value
Master			0.6507	Master			0.7226	Master			0.3560
	0.6000 (Minimum)	0.6500 (Nominal)	0.7000 (Maximum)		0.6200 (Minimum)	0.7200 (Nominal)	0.8200 (Maximum)		0.2900 (Minimum)	0.3900 (Nominal)	0.4500 (Maximum)
Phase	QLIR Calculated		Value	Phase	QR Calculated		Value				
Master			1.357	Master			1.007				
	1.290 (Minimum)	1.390 (Nominal)	1.450 (Maximum)		0.9800 (Minimum)	1.000 (Nominal)	1.020 (Maximum)				

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Compensated Neutron – H / Equipment Identification				
Primary Equipment:				
Compensated Neutron Cartridge	CNC – HA	114	114	
Neutron Logging Source	NLS – KL			
Neutron Source Radioactive	NSR – F			
Neutron Detector with Alpha Source	CND – A			
Compensated Neutron Box	CNB – AB			
Auxiliary Equipment:				
Compensated Neutron Housing	CNH – A	4412	4412	
Neutron Calibration Tank	NCT – B			

Compensated Neutron – H Wellsite Calibration							
Zero Measurement							
Phase	CNTC Background CPS		Value	Phase	CFTC Background CPS		Value
Master			34.68	Master			30.67
Before			35.82	Before			30.75
	5.000 (Minimum)	34.68 (Nominal)	40.00 (Maximum)		5.000 (Minimum)	30.67 (Nominal)	40.00 (Maximum)

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Compensated Neutron – H Master Calibration											
Tank Measurement											
Phase	Thermal Near Corr. (Tank) CPS		Value	Phase	Thermal Far Corr. (Tank) CPS		Value	Phase	CNTC/CFTC (Tank)		Value
Master			5962	Master			2438	Master			2.445
	5000 (Minimum)	6031 (Nominal)	7200 (Maximum)		2075 (Minimum)	2793 (Nominal)	3125 (Maximum)		2.120 (Minimum)	2.159 (Nominal)	2.540 (Maximum)

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Enhanced DTS Cartridge / Equipment Identification				
Primary Equipment:				
EDTC Gamma Ray Detector	EDTG – A/B			
Enhanced DTS Cartridge	EDTC – B	8188	8188	
Auxiliary Equipment:				
EDTC Housing	EDTH – B	8187	8187	

Enhanced DTS Cartridge Wellsite Calibration			
EDTC Accelerometer Calibration			
Phase	EDTC Z-Axis Acceleration F/S2		Value
Before			32.52
	31.53 (Minimum)	32.19 (Nominal)	32.84 (Maximum)

Before: 19-Oct-2007 0:54

## Enhanced DTS Cartridge Wellsite Calibration

## Detector Calibration

Phase	Gamma Ray Background GAPI	Value	Phase	Gamma Ray (Jig - Bkg) GAPI	Value	Phase	Gamma Ray (Calibrated) GAPI	Value
Before		47.32	Before		157.9	Before		165.0
0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)	143.5 (Minimum)	157.9 (Nominal)	172.2 (Maximum)	150.0 (Minimum)	165.0 (Nominal)	180.0 (Maximum)

Before: 17-Oct-2007 17:52

Company: **CPC Minerals LLC****Schlumberger**Well: **CPC 17-1**Field: **Wildcat**County: **Bonneville**State: **Idaho**

TRIPLE COMBO  
 Combined Print  
 AIT-LDT-CNT-GI