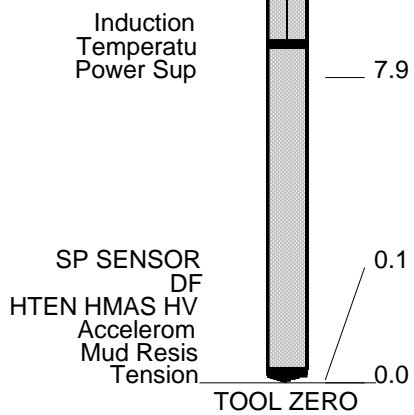
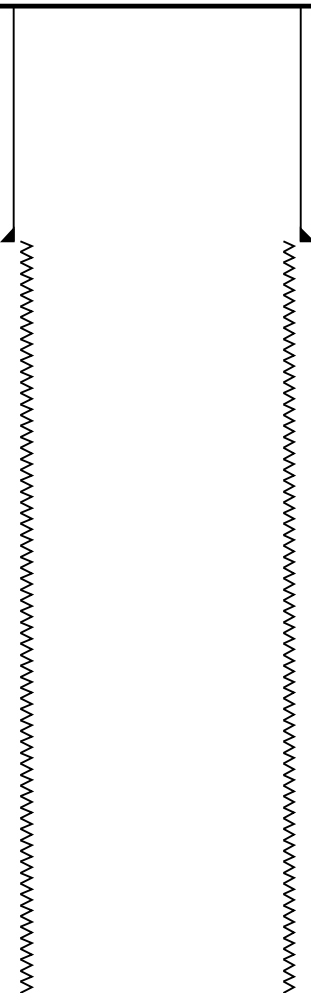
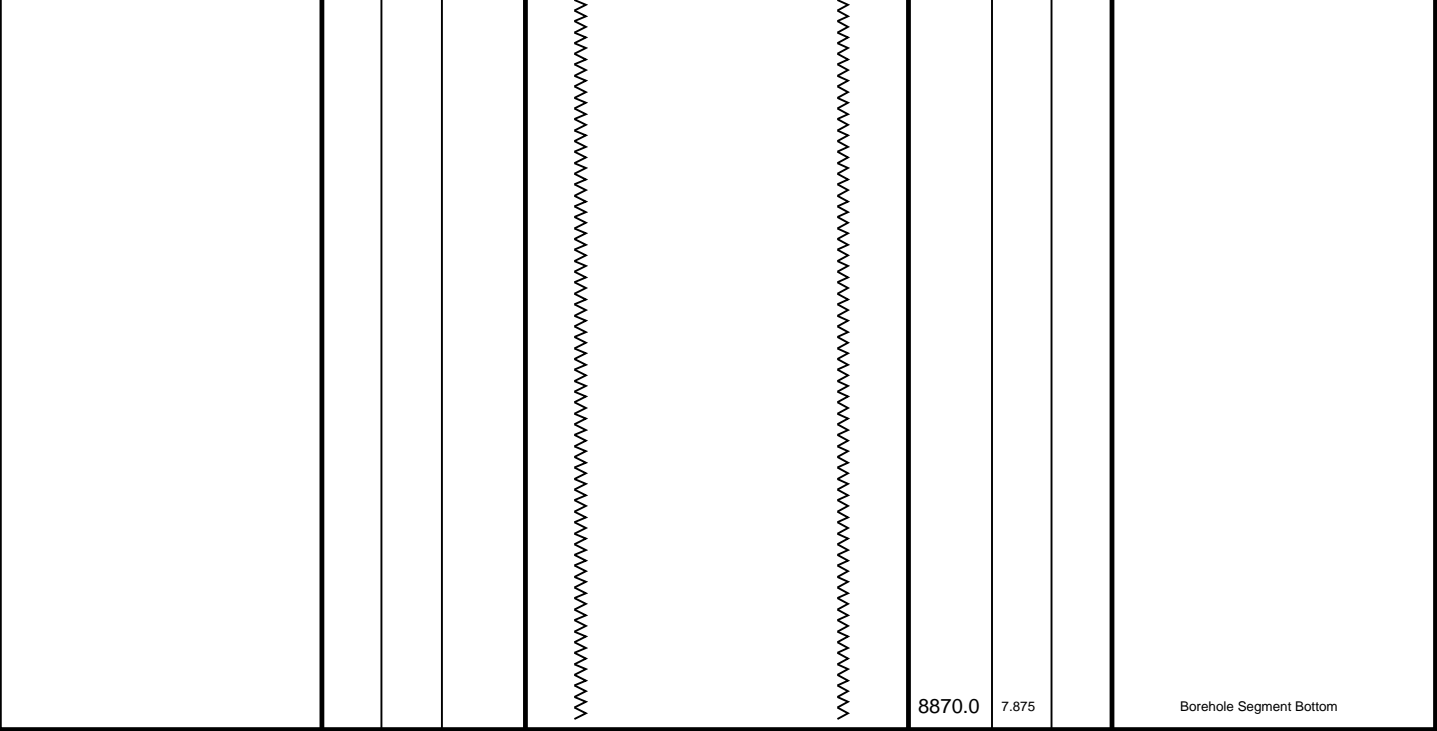


AMIS-A 1372
AMRM-A



MAXIMUM STRING DIAMETER 4.63 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN FEET

Production String	(in)		(ft)	Well Schematic	(ft)	(in)		Casing String
	OD	ID	MD		MD	OD	ID	
					0.0	8.625		Casing String
					1220.0	8.625		Casing Shoe
					1220.0	7.875		Borehole Segment



All depths are driller’s depths



UPPER POROSITY LOG 5" = 100’

MAXIS Field Log

Input DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_010LUP FN:9 PRODUCER 02-Dec-2009 11:46 8808.0 FT 0.0 FT

Integrated Hole/Cement Volume Summary

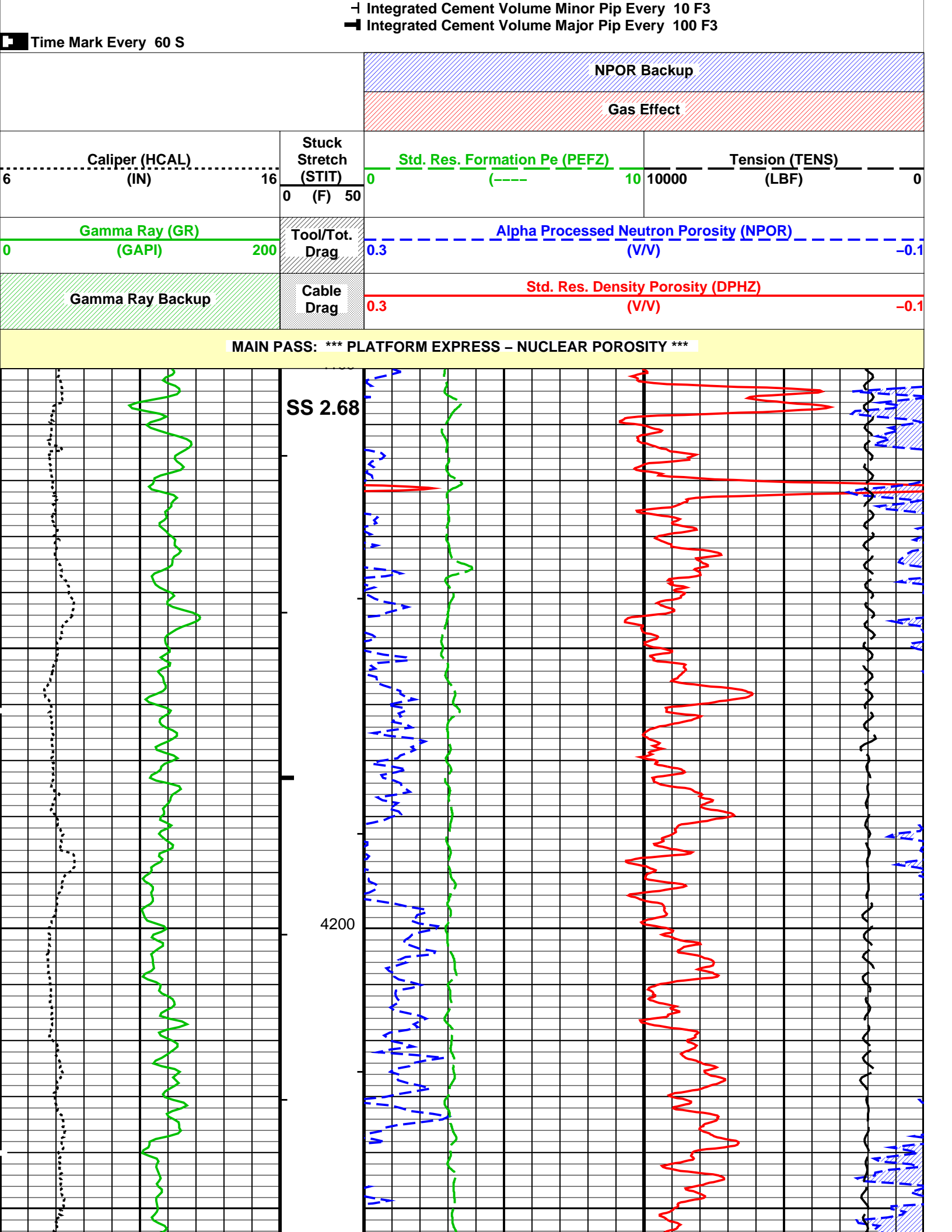
Hole Volume = 527.15 ft3
Cement Volume = 360.99 ft3 (assuming 4.50 in casing O.D.)
Computed from 5599.5 ft to 4095.5 ft

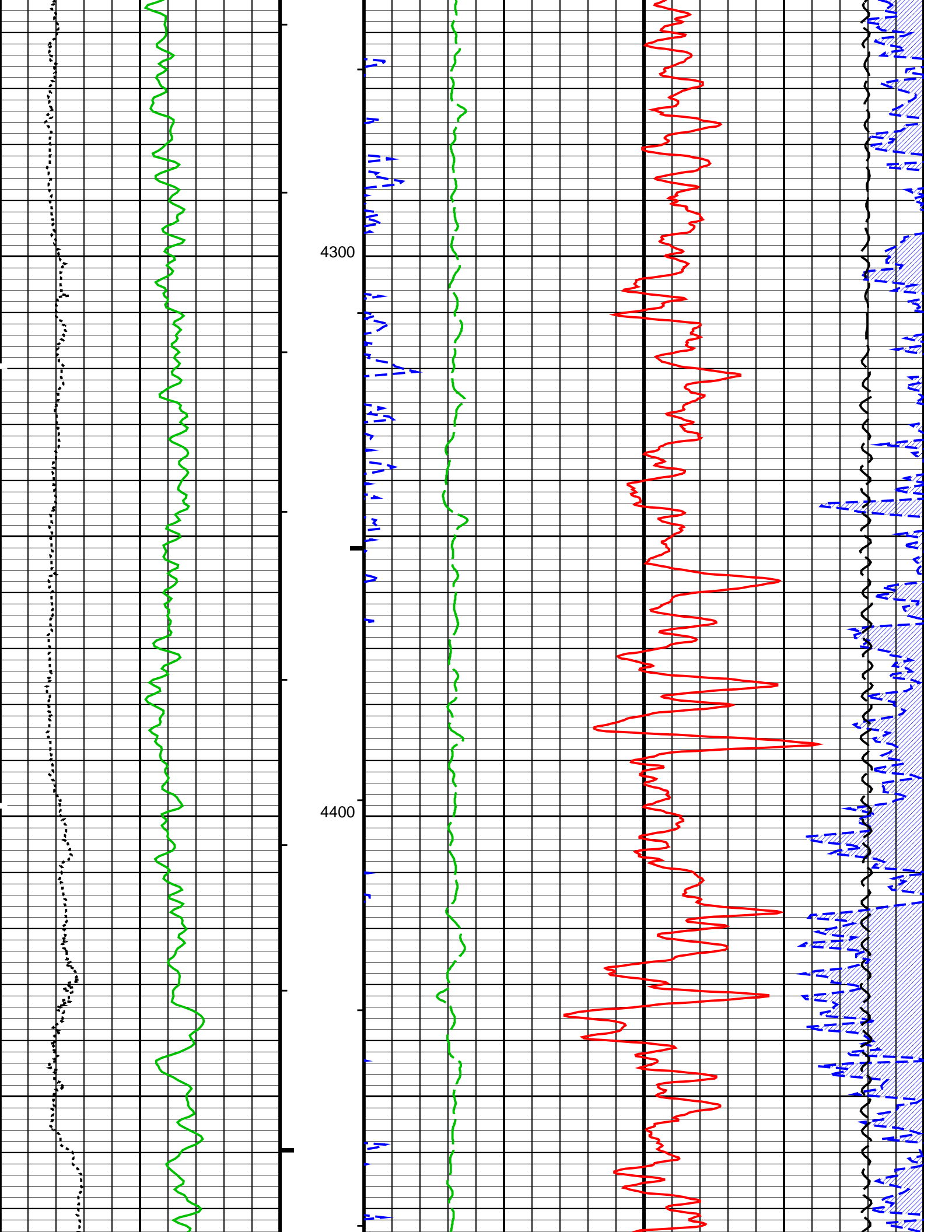
OP System Version: 17C0-154

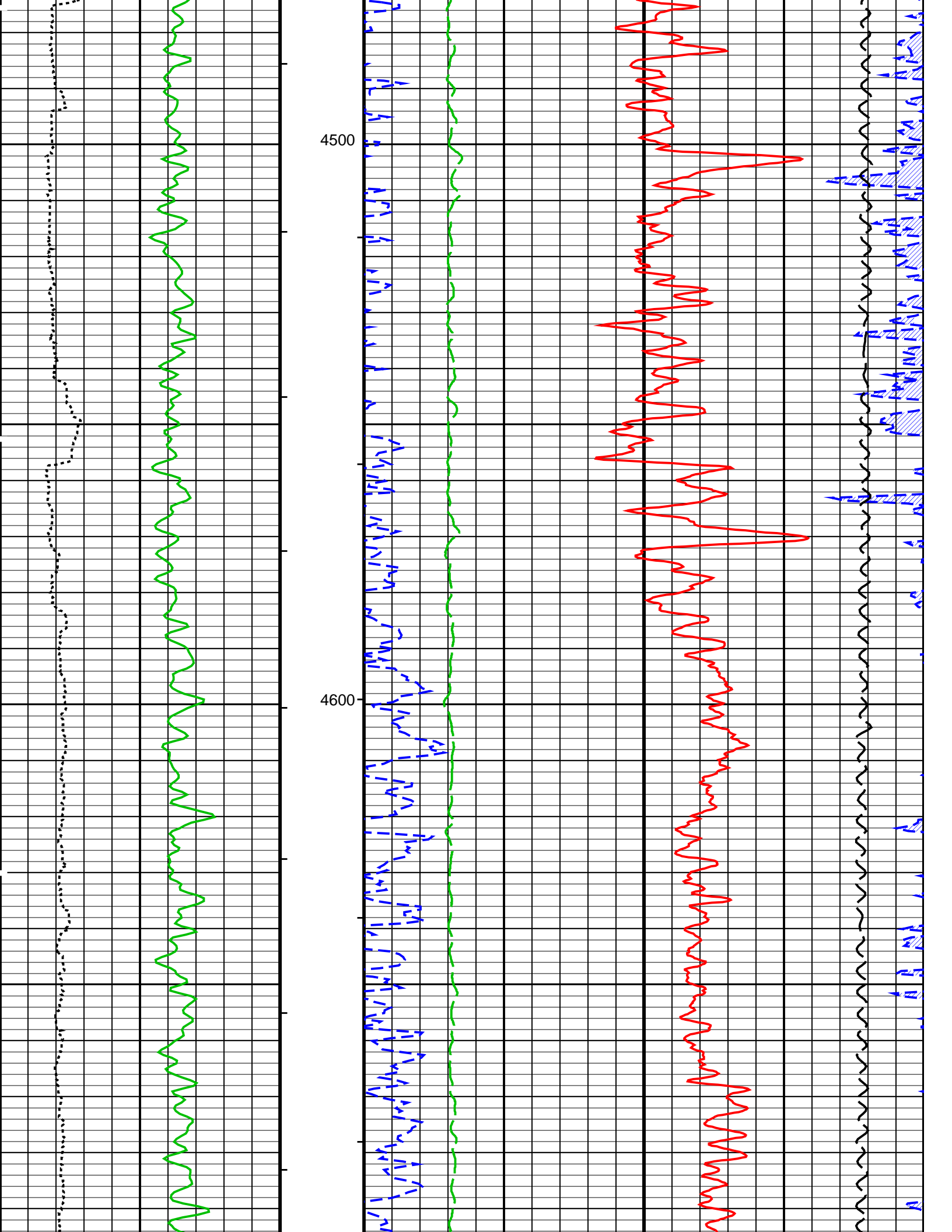
AITM 17C0-154 HILTD 17C0-154
DTCH 17C0-154

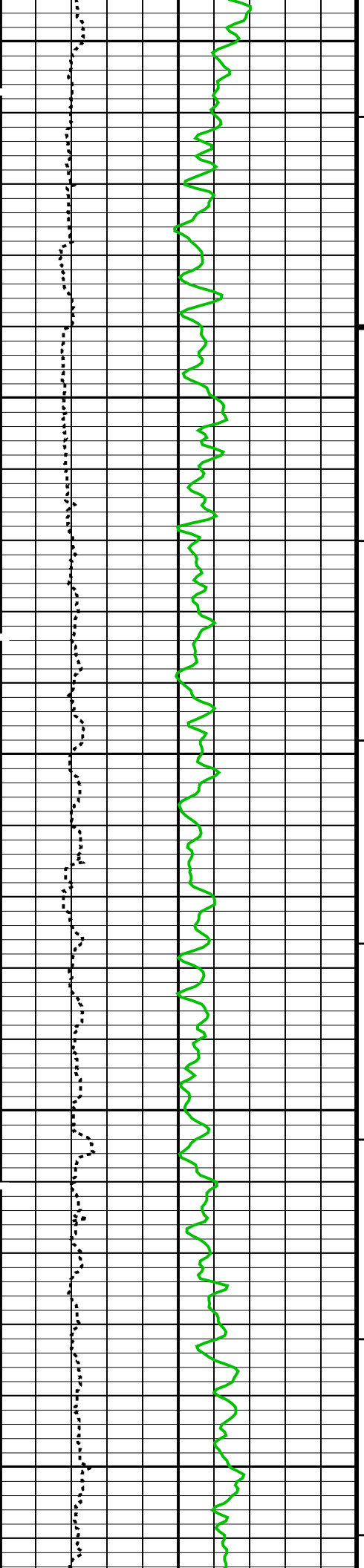
PIP SUMMARY

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





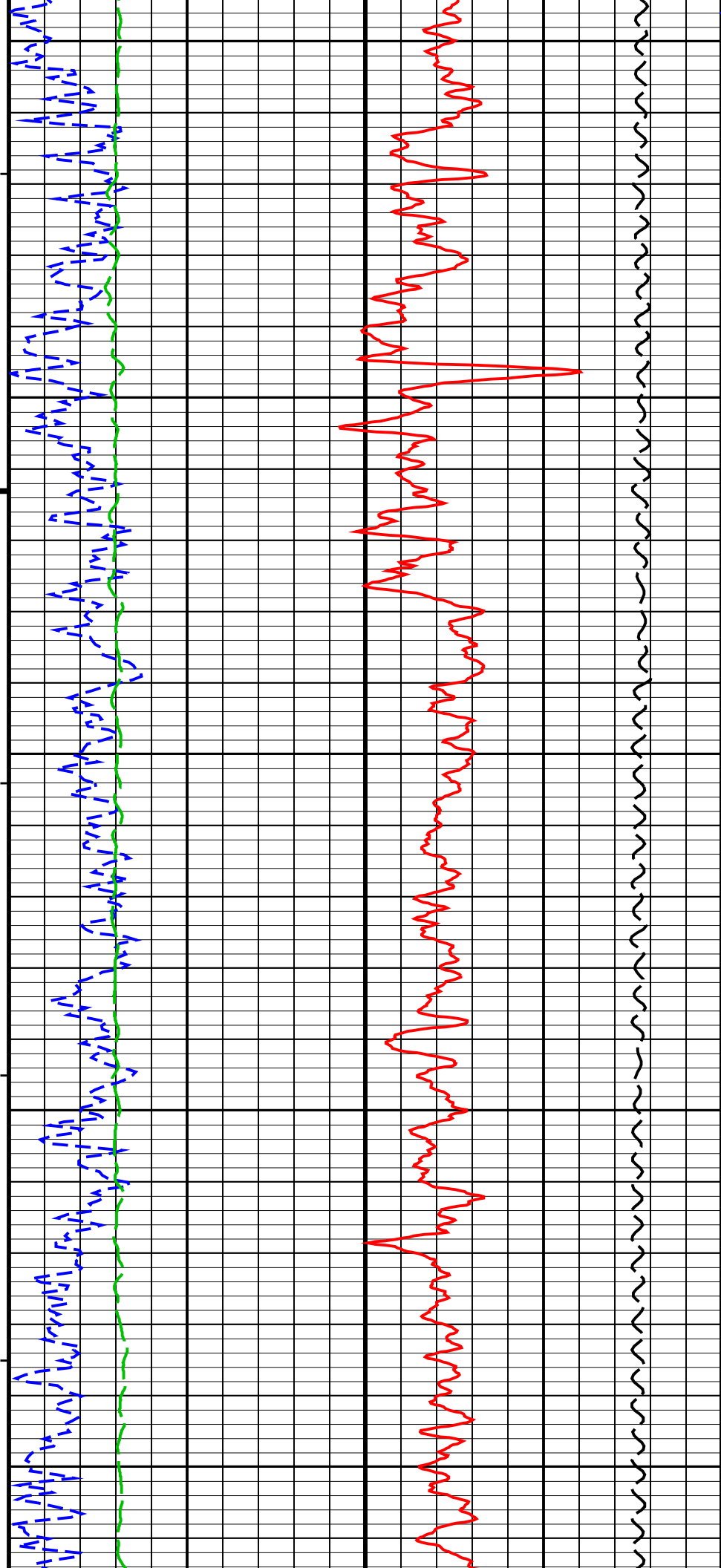


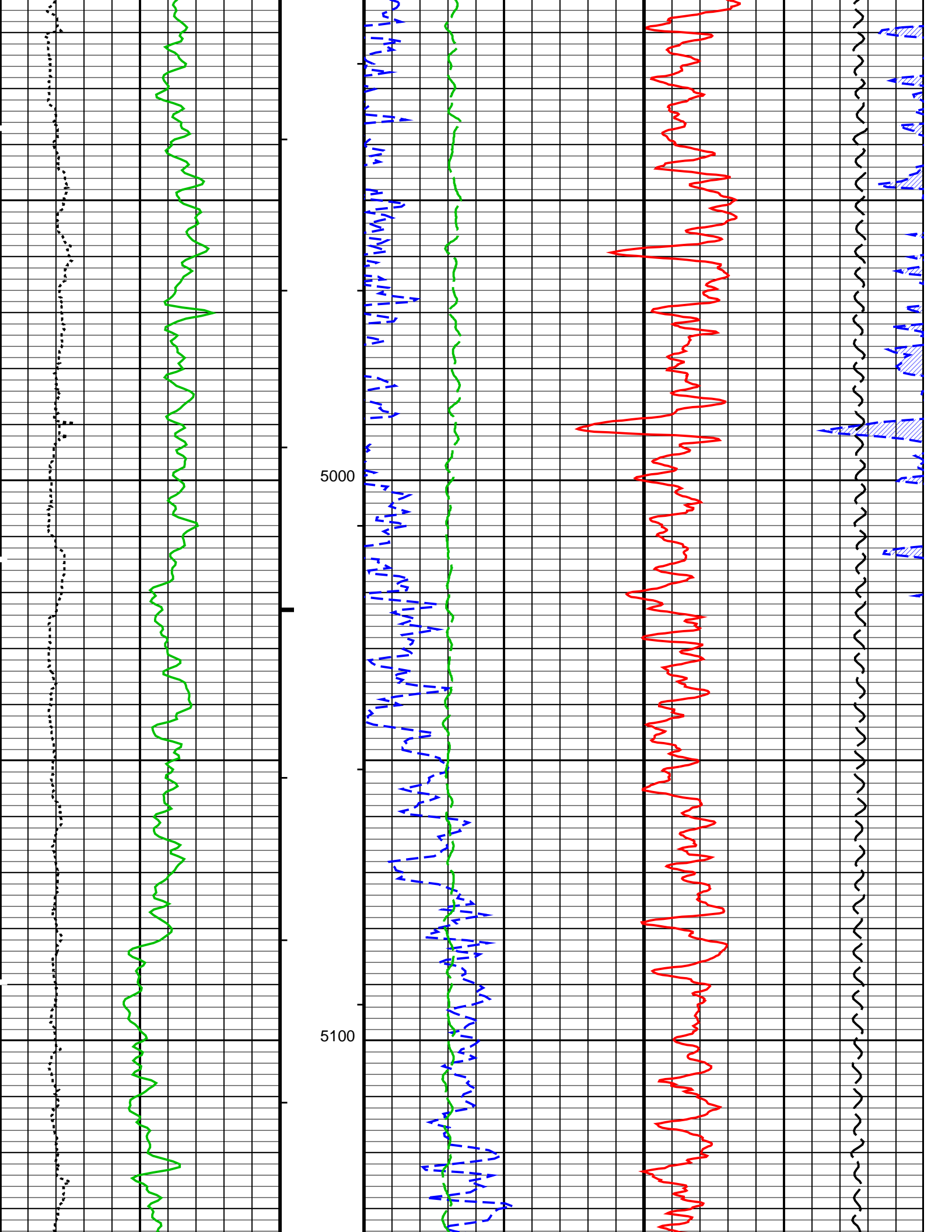


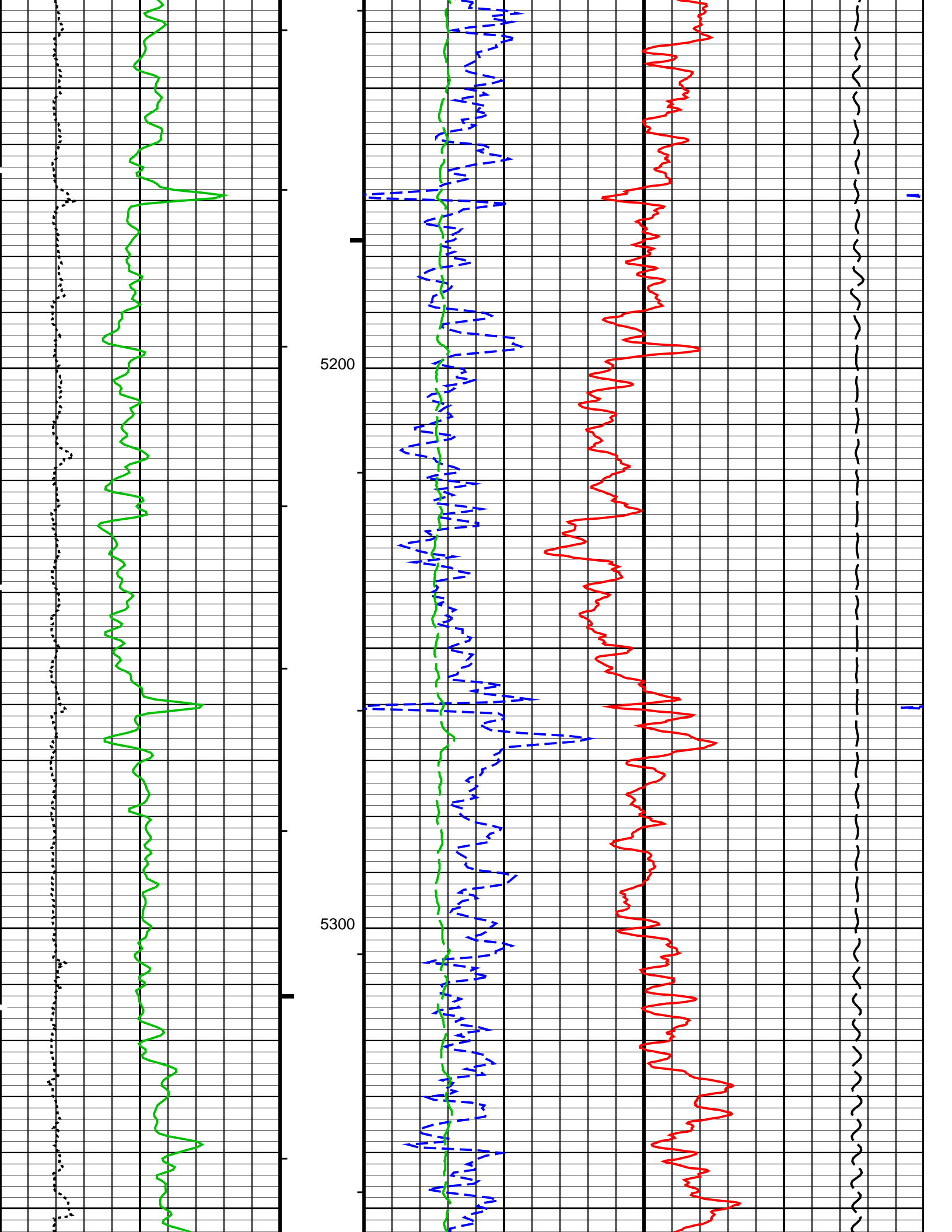
4700

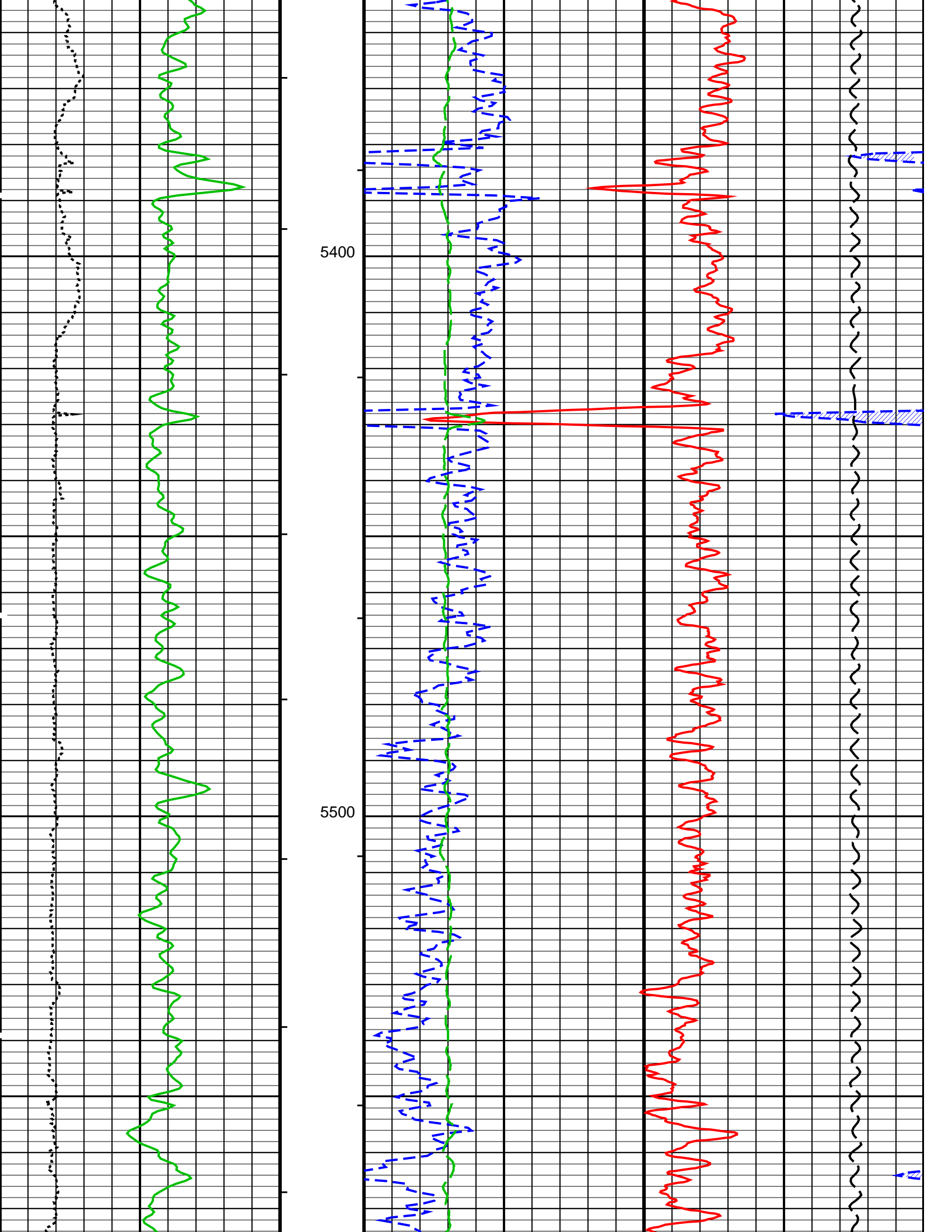
4800

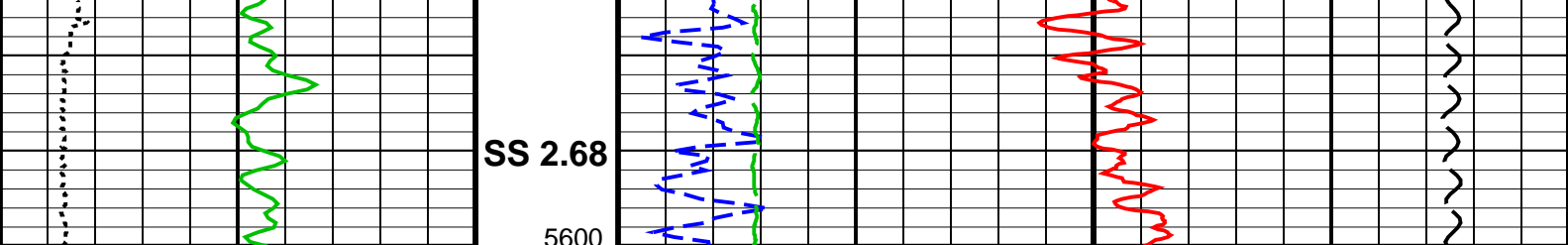
4900











MAIN PASS: *** PLATFORM EXPRESS – NUCLEAR POROSITY ***

Gamma Ray Backup		Cable Drag	Std. Res. Density Porosity (DPHZ)	
			0.3	(V/V) -0.1
Gamma Ray (GR) (GAPI)		Tool/Tot. Drag	Alpha Processed Neutron Porosity (NPOR)	
0 200			0.3	(V/V) -0.1
Caliper (HCAL) (IN)		Stuck Stretch (STIT) (F)	Std. Res. Formation Pe (PEFZ)	Tension (TENS) (LBF)
6 16		0 50	0 10	10000 0
		Gas Effect		
		NPOR Backup		

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	
AIT-M: Array Induction Tool – M			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0.000	deg
GGRD	Geothermal Gradient	0.010	degF/ft
MATR	Rock Matrix for Neutron Porosity Corrections	SAND	
SHT	Surface Hole Temperature	68.000	degF
HILTB-FTB: High resolution Integrated Logging Tool-DTS			
BHFL	Borehole Fluid Type	WATER	
BHFL_TLD	HILT Nuclear Mud Base	WATER	
BHS	Borehole Status	OPEN	
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DHC	Density Hole Correction	BS	
FD	Fluid Density	1.000	g/cm3
FSCO	Formation Salinity Correction Option	NO	
GCLF	Germany Coal-like Formation Option	NO	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0.000	deg
GGRD	Geothermal Gradient	0.010	degF/ft
HSCO	Hole Size Correction Option	YES	
MATR	Rock Matrix for Neutron Porosity Corrections	SAND	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	NATU	
MDEN	Matrix Density	2.680	g/cm3
MWCO	Mud Weight Correction Option	NO	
NAAC	HRDD APS Activation Correction	OFF	
NMT	HILT Nuclear Mud Type	NOBARITE	
NPRM	HRDD Processing Mode	STDRES	
NSAR	HRDD Depth Sampling Rate	1.000	in
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	68.000	degF
SOCN	Standoff Distance	0.125	in
SOCO	Standoff Correction Option	YES	
HOLEV: Integrated Hole/Cement Volume			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0.000	deg
GGRD	Geothermal Gradient	0.010	degF/ft

GCOR	Geothermal Gradient	0.010	degF/ft
MATR	Rock Matrix for Neutron Porosity Corrections	SAND	
SHT	Surface Hole Temperature	68.000	degF
PERT: Preliminary Evaluation – Real Time			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0.000	deg
GGRD	Geothermal Gradient	0.010	degF/ft
MATR	Rock Matrix for Neutron Porosity Corrections	SAND	
SHT	Surface Hole Temperature	68.000	degF
STI: Stuck Tool Indicator			
STKT	STI Stuck Threshold	2.500	ft
TDD	Total Depth – Driller	88870.0	ft
TDL	Total Depth – Logger	88870.0	ft
System and Miscellaneous			
BS	Bit Size	7.875	in
BSAL	Borehole Salinity		
CSIZ	Current Casing Size	8.625	in
CWEI	Casing Weight	24.000	lbm/ft
DFD	Drilling Fluid Density	8.500	lbm/gal
FSAL	Formation Salinity		
MST	Mud Sample Temperature	72.200	degF
RMFS	Resistivity of Mud Filtrate Sample	1.065	ohm.m


Format: UPPER_PORO

Vertical Scale: 5" per 100'

Graphics File Created: 02-Dec-2009 12:23

OP System Version: 17C0-154			
AITM	17C0-154	HILTD	17C0-154
DTCH	17C0-154		

Input DLIS Files						
DEFAULT	AIT_TLD_MCFL_CNL_010LUP	FN:9	PRODUCER	02-Dec-2009 11:46	8808.0 FT	0.0 FT



LOWER POROSITY LOG 5" = 100'

MAXIS Field Log

Output DLIS Files						
DEFAULT	AIT_TLD_MCFL_CNL_010LUP	FN:9	PRODUCER	02-Dec-2009 11:46		

OP System Version: 17C0-154			
AIT-M	17C0-154	HILTB-FTB	17C0-154
DTC-H	17C0-154		

Changed Parameter Summary			
DLIS Name	New Value	Previous Value	Depth & Time
MATR	SANDSTONE	SANDSTONE	8808.0 11:47:00
	SANDSTONE	SANDSTONE	8306.0 11:55:15
MDEN	2.65 G/C3	2.68 G/C3	8808.0 11:47:00
	2.68 G/C3	2.65 G/C3	8306.0 11:55:15

PIP SUMMARY

Integrated Hole Volume Minor Pip Every 10 F3

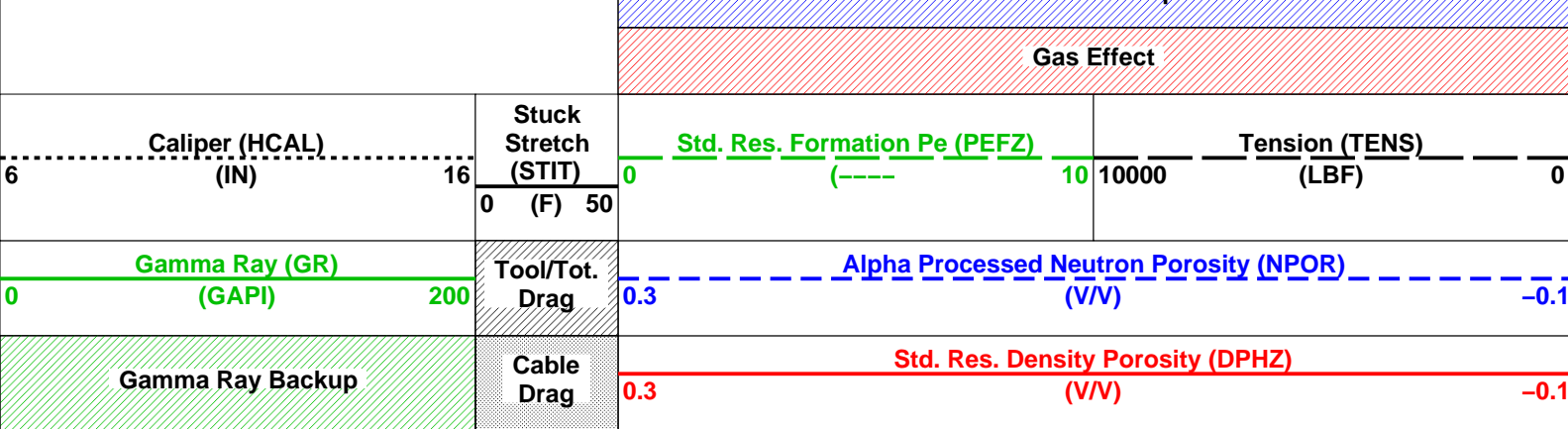
Integrated Hole Volume Major Pip Every 100 F3

Integrated Cement Volume Minor Pip Every 10 F3

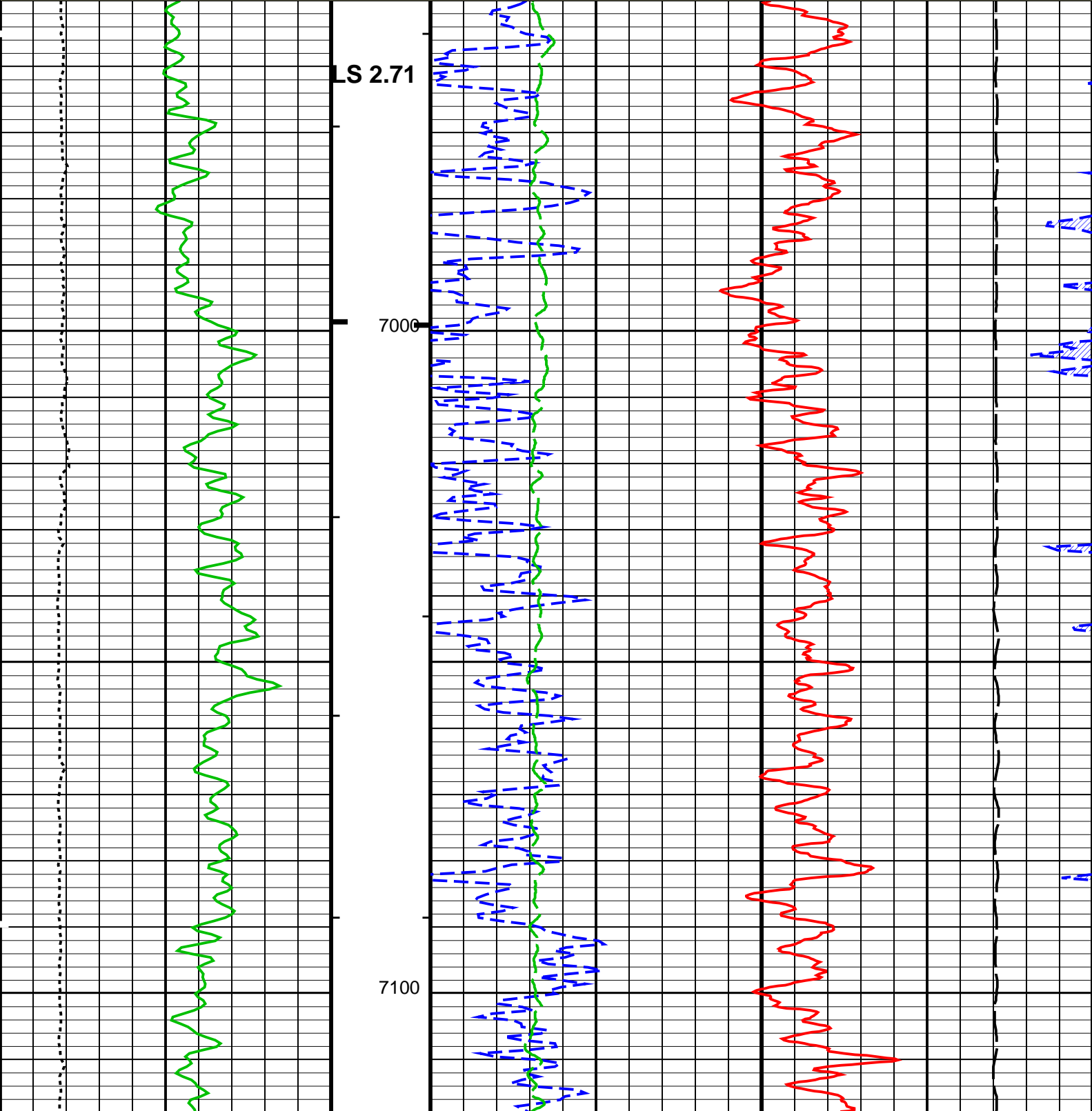
Integrated Cement Volume Major Pip Every 100 F3

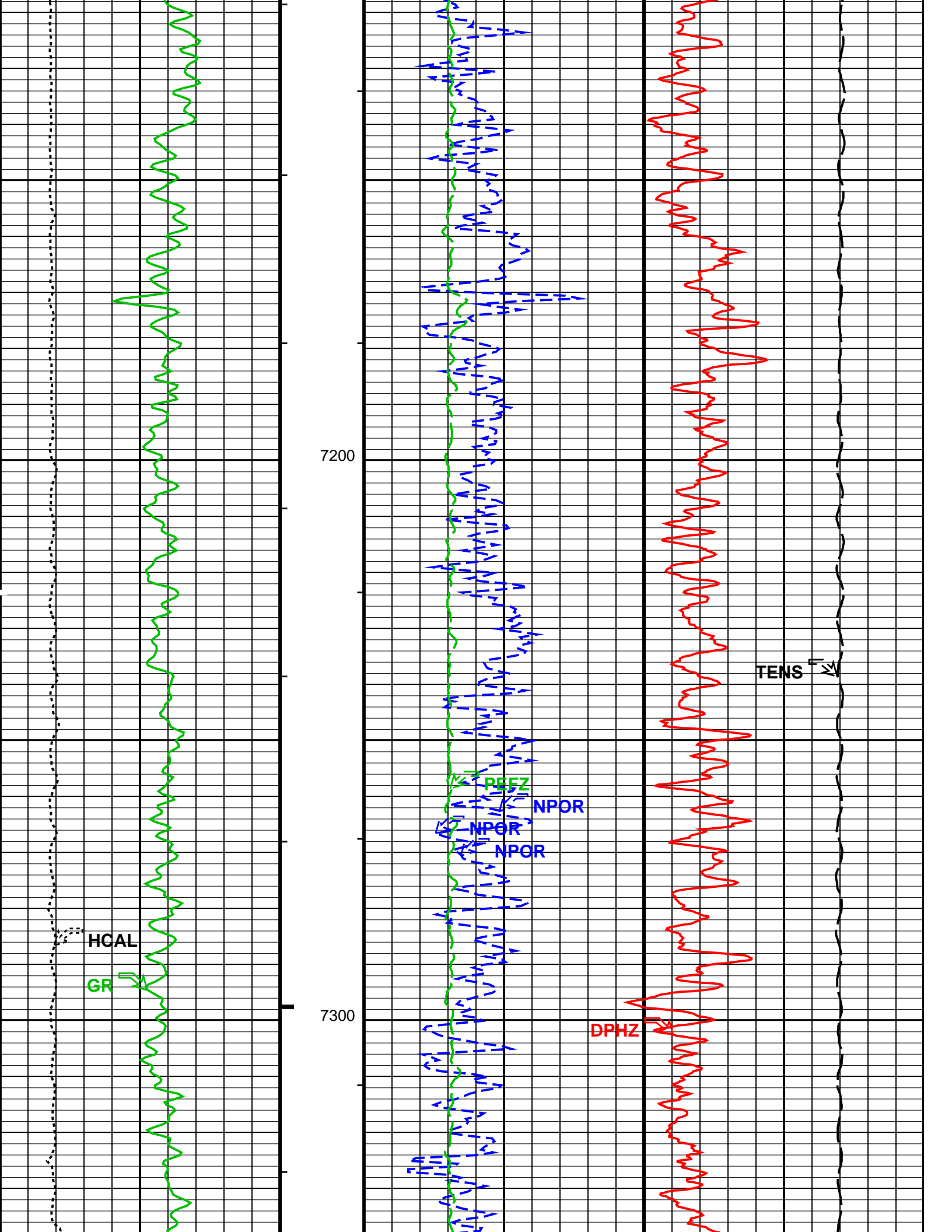
Time Mark Every 60 S

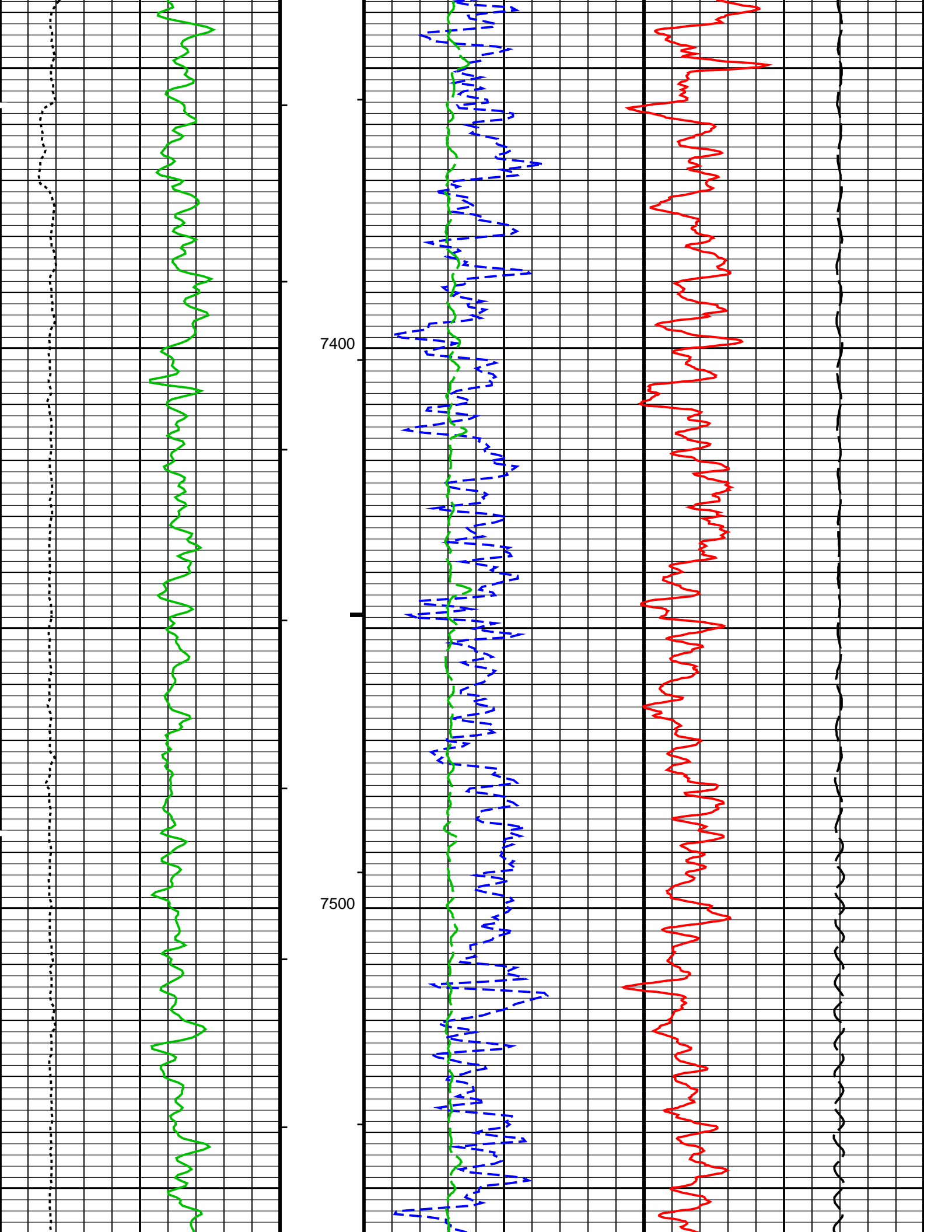
NPOR Backup

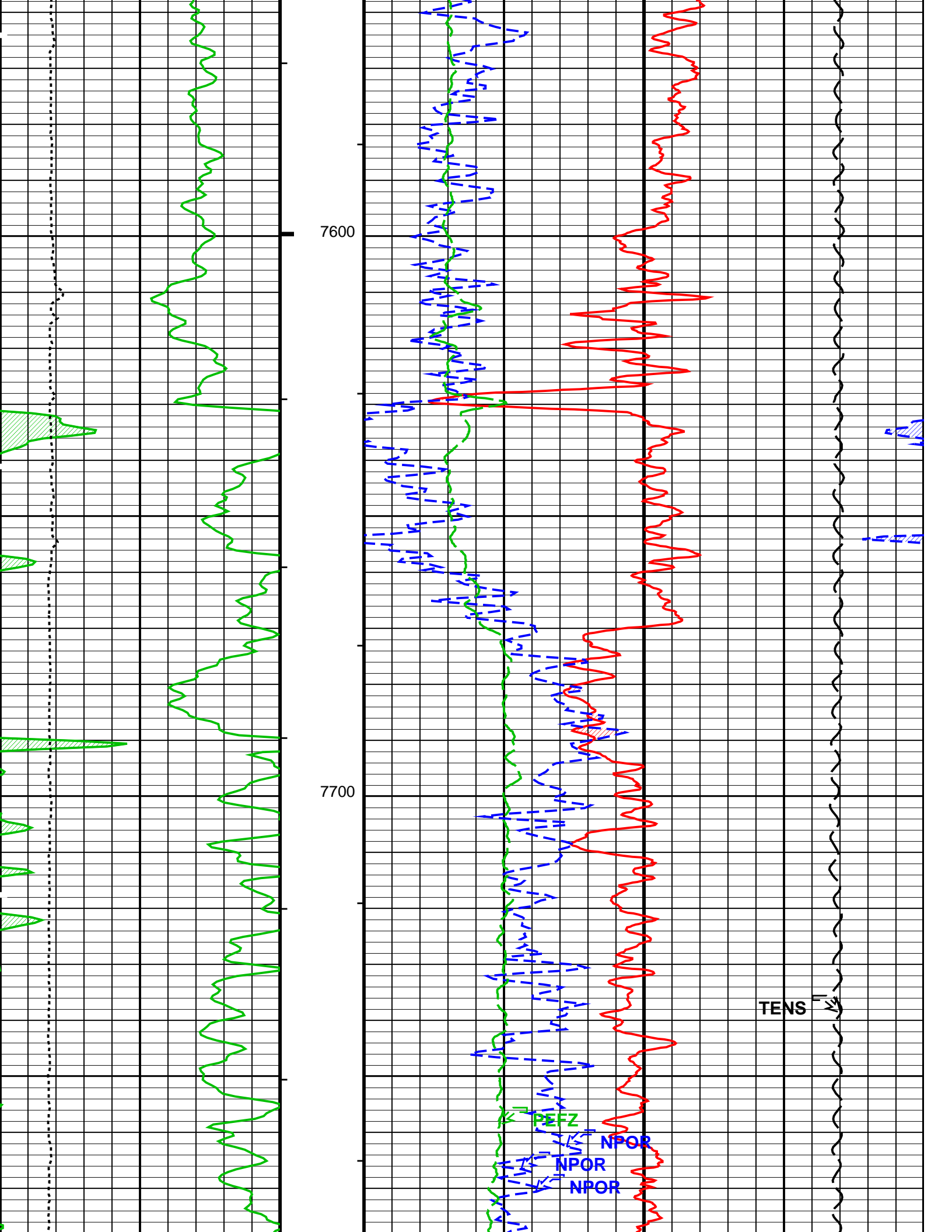


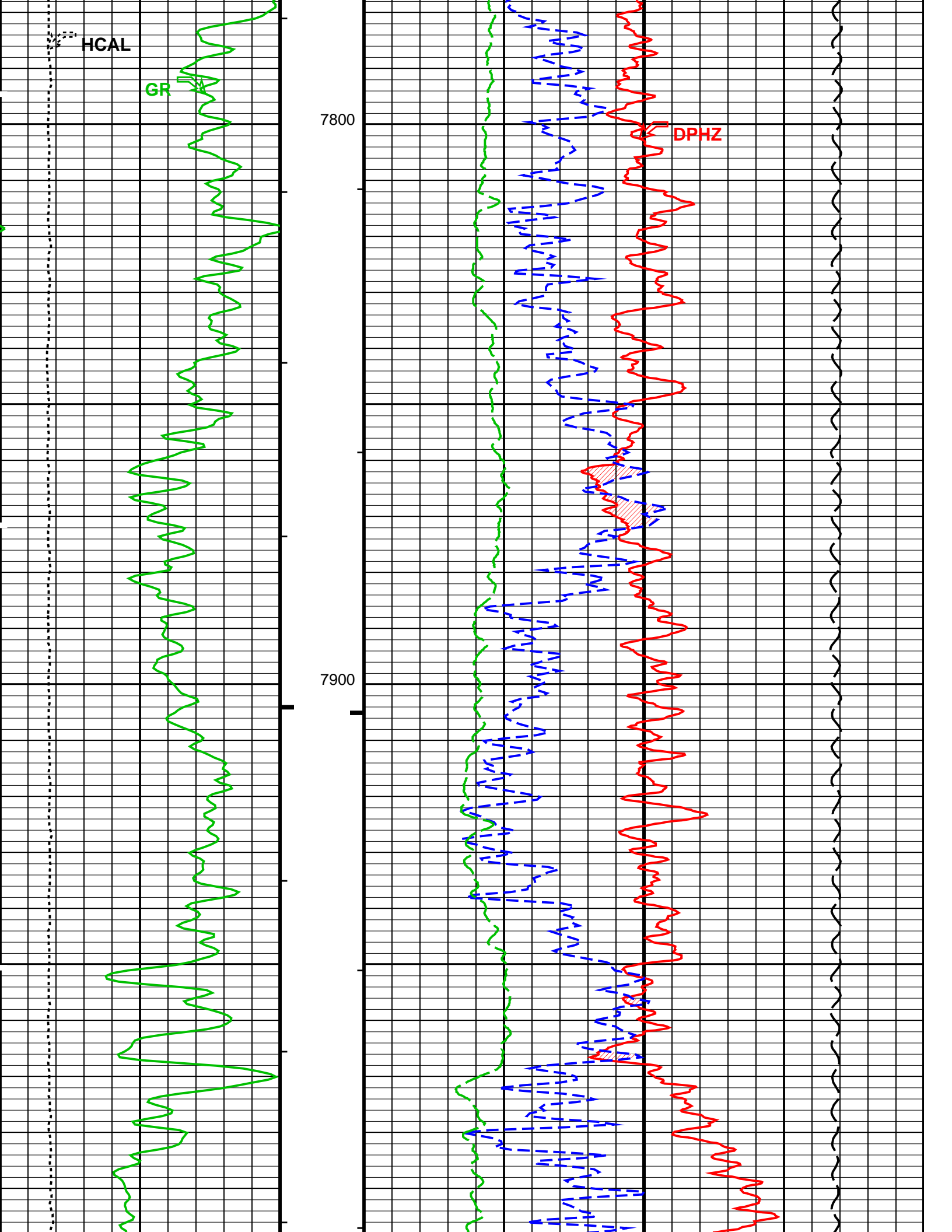
MAIN PASS: *** PLATFORM EXPRESS - NUCLEAR POROSITY ***

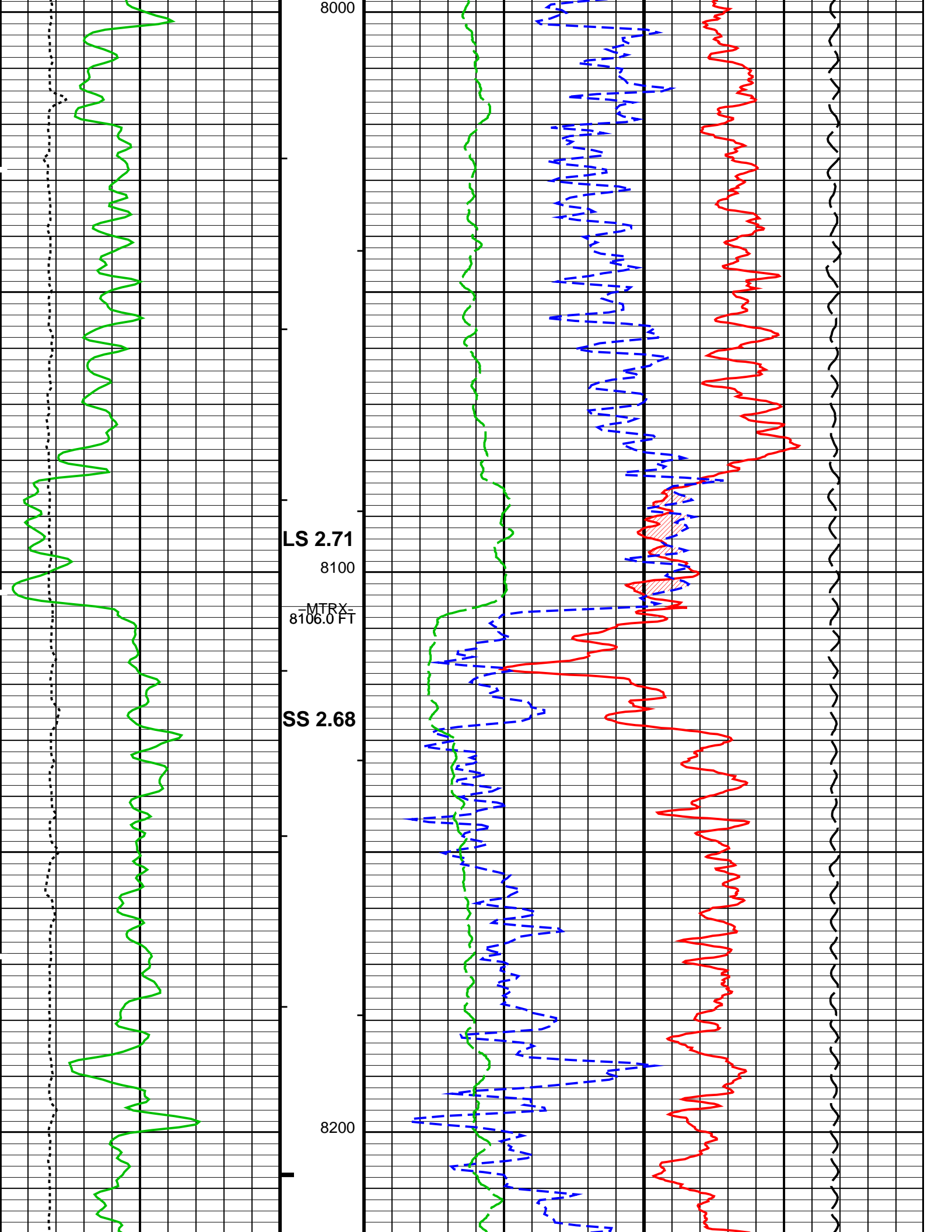


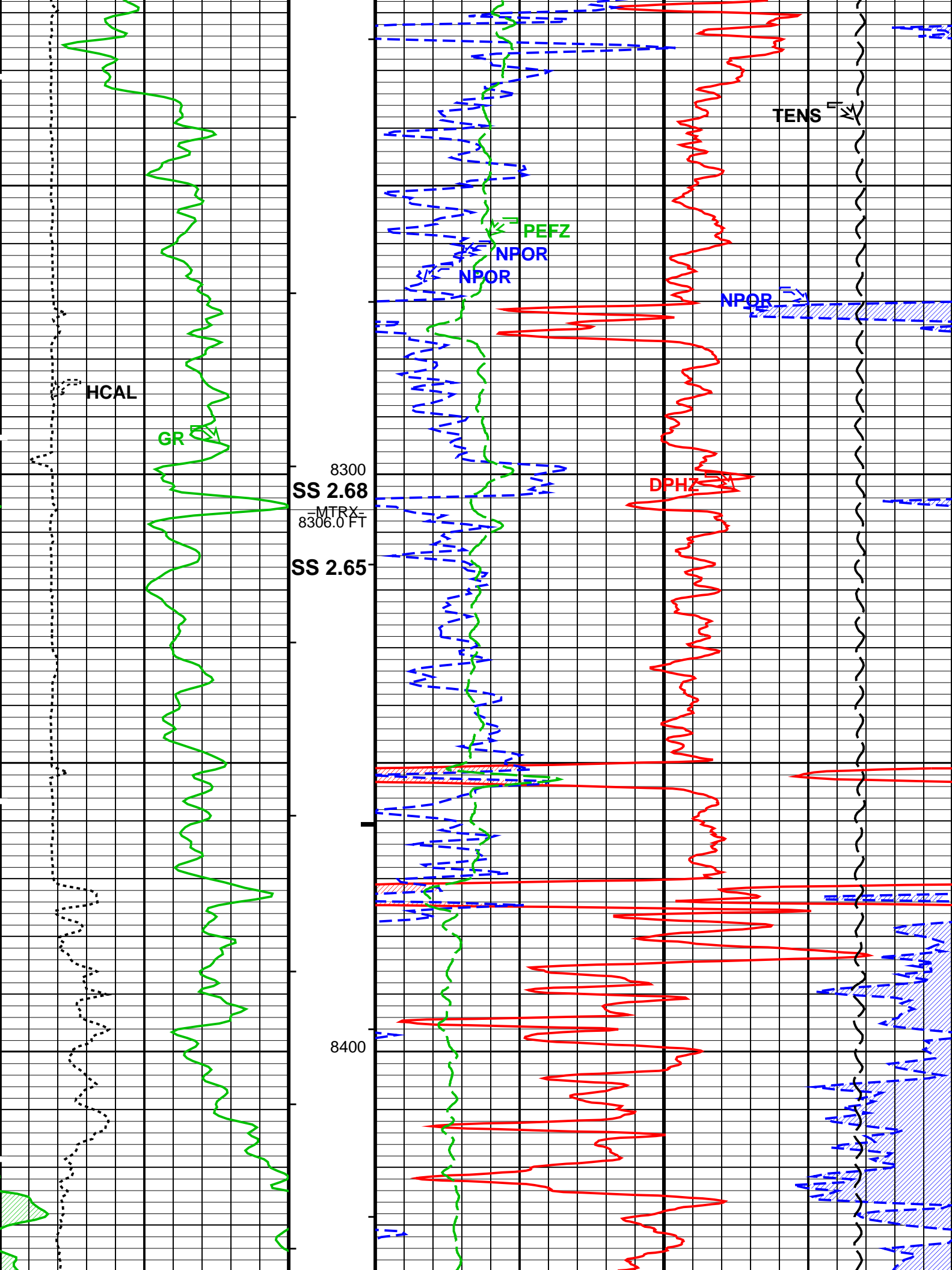


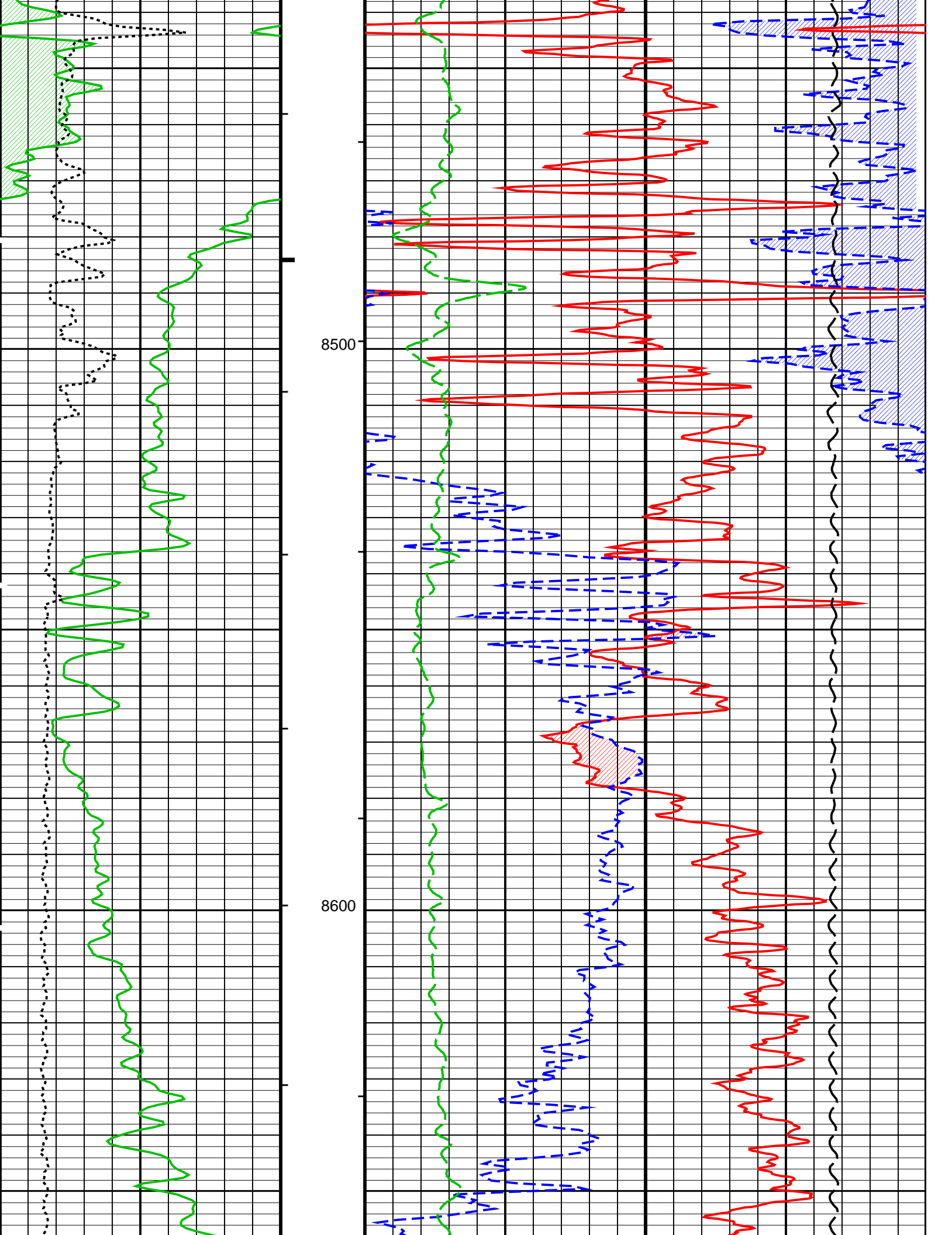


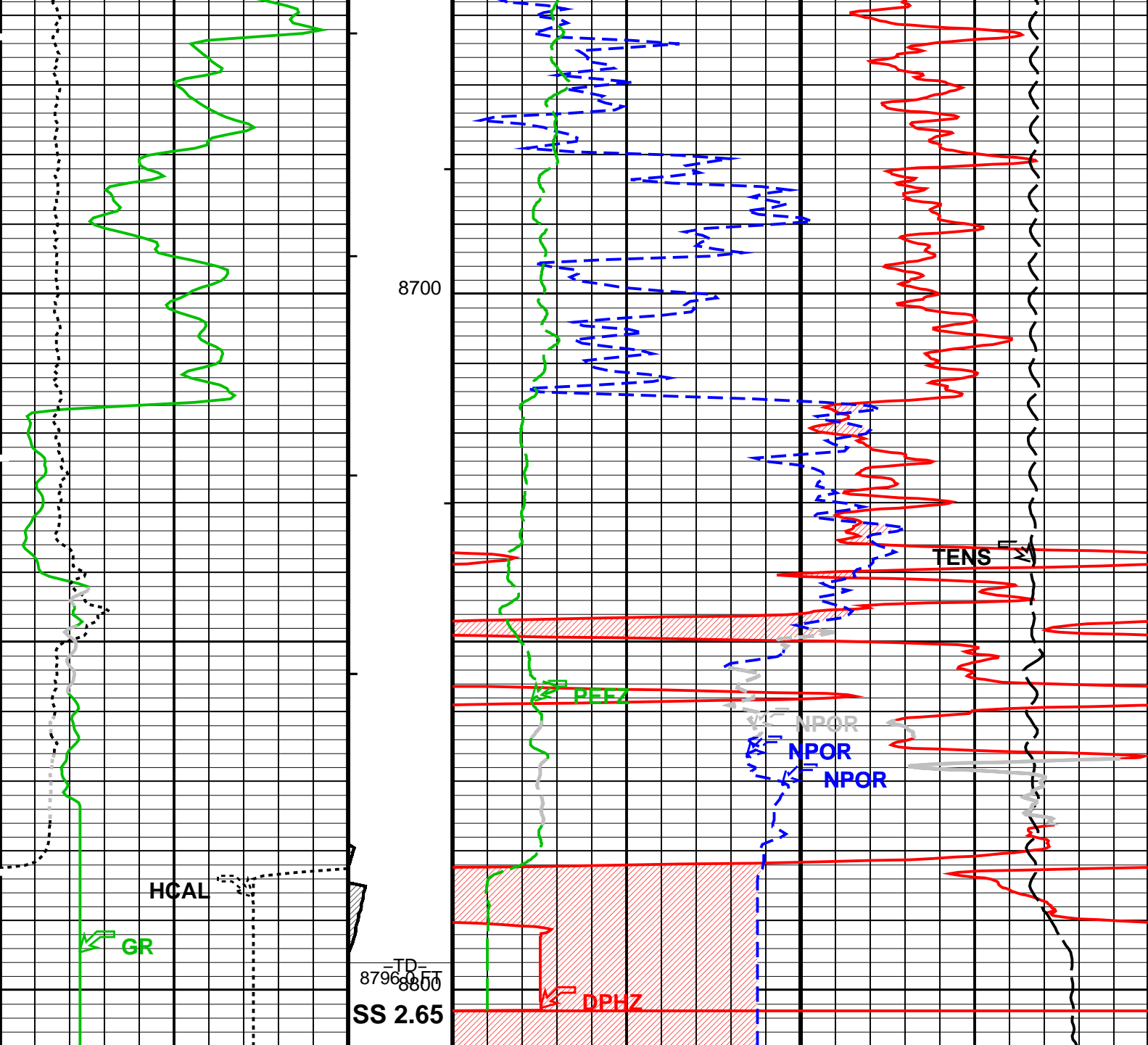












MAIN PASS: *** PLATFORM EXPRESS - NUCLEAR POROSITY ***

Gamma Ray Backup	Cable Drag	Std. Res. Density Porosity (DPHZ)	
		0.3	(V/V) -0.1
Gamma Ray (GR) (GAPI)	Tool/Tot. Drag	Alpha Processed Neutron Porosity (NPOR)	
0 200		0.3	(V/V) -0.1
Caliper (HCAL) (IN)	Stuck Stretch (STIT)	Std. Res. Formation Pe (PEFZ)	Tension (TENS)
6 16	0 (F) 50	0 10 10000	(LBF) 0
		Gas Effect	
		NPOR Backup	

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

Parameters

DLIS Name	Description	Value	
AIT-M: Array Induction Tool - M			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
SHT	Surface Hole Temperature	68	DEGF
HILTB-FTB: High resolution Integrated Logging Tool-DTS			
BHFL	Borehole Fluid Type	WATER	
BHFL_TLD	HILT Nuclear Mud Base	WATER	
BHS	Borehole Status	OPEN	
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DHC	Density Hole Correction	BS	
FD	Fluid Density	1	G/C3
FSAL	Formation Salinity	-50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCLF	Germany Coal-like Formation Option	NO	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
HSCO	Hole Size Correction Option	YES	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	NATU	
MDEN	Matrix Density	2.68	G/C3
MWCO	Mud Weight Correction Option	NO	
NAAC	HRDD APS Activation Correction	OFF	
NMT	HILT Nuclear Mud Type	NOBARITE	
NPRM	HRDD Processing Mode	StdRes	
NSAR	HRDD Depth Sampling Rate	1	IN
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	68	DEGF
SOCN	Standoff Distance	0.125	IN
SOCO	Standoff Correction Option	YES	
HOLEV: Integrated Hole/Cement Volume			
BHS	Borehole Status	OPEN	
FCD	Future Casing (Outer) Diameter	4.5	IN
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
HVCS	Integrated Hole Volume Caliper Selection	HCAL	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
SHT	Surface Hole Temperature	68	DEGF
PERT: Preliminary Evaluation - Real Time			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
SHT	Surface Hole Temperature	68	DEGF
STI: Stuck Tool Indicator			
LBFR	Trigger for MAXIS First Reading Label	TDL	
STKT	STI Stuck Threshold	2.5	FT
TDD	Total Depth - Driller	88870.00	FT
TDL	Total Depth - Logger	88870.00	FT
System and Miscellaneous			
BS	Bit Size	7.875	IN
BSAL	Borehole Salinity	-50000.00	PPM
CSIZ	Current Casing Size	8.625	IN
CWEI	Casing Weight	24.00	LB/F
DFD	Drilling Fluid Density	8.50	LB/G
DORL	Depth Offset for Repeat Analysis	0.0	FT
MST	Mud Sample Temperature	72.20	DEGF
RMFS	Resistivity of Mud Filtrate Sample	1.0650	OHMM
TD	Total Depth	88870	FT

Format: LOWER_PORO Vertical Scale: 5" per 100'

Graphics File Created: 02-Dec-2009 11:46

OP System Version: 17C0-154

AIT-M 17C0-154
DTC-H 17C0-154

HILTB-FTB 17C0-154

Output DLIS Files

DEFAULT

AIT_TLD_MCFL_CNL_010LUP

FN:9

PRODUCER

02-Dec-2009 11:46

Schlumberger

REPEAT ANALYSIS

MAXIS Field Log

Input DLIS Files

DEFAULT

AIT_TLD_MCFL_CNL_009PUP

FN:8

PRODUCER

02-Dec-2009 11:43

8821.5 FT

8263.5 FT

Output DLIS Files

DEFAULT

AIT_TLD_MCFL_CNL_010LUP

FN:9

PRODUCER

02-Dec-2009 11:46

OP System Version: 17C0-154

AIT-M
DTC-H

17C0-154
17C0-154

HILTB-FTB

17C0-154

Changed Parameter Summary

DLIS Name

New Value

Previous Value

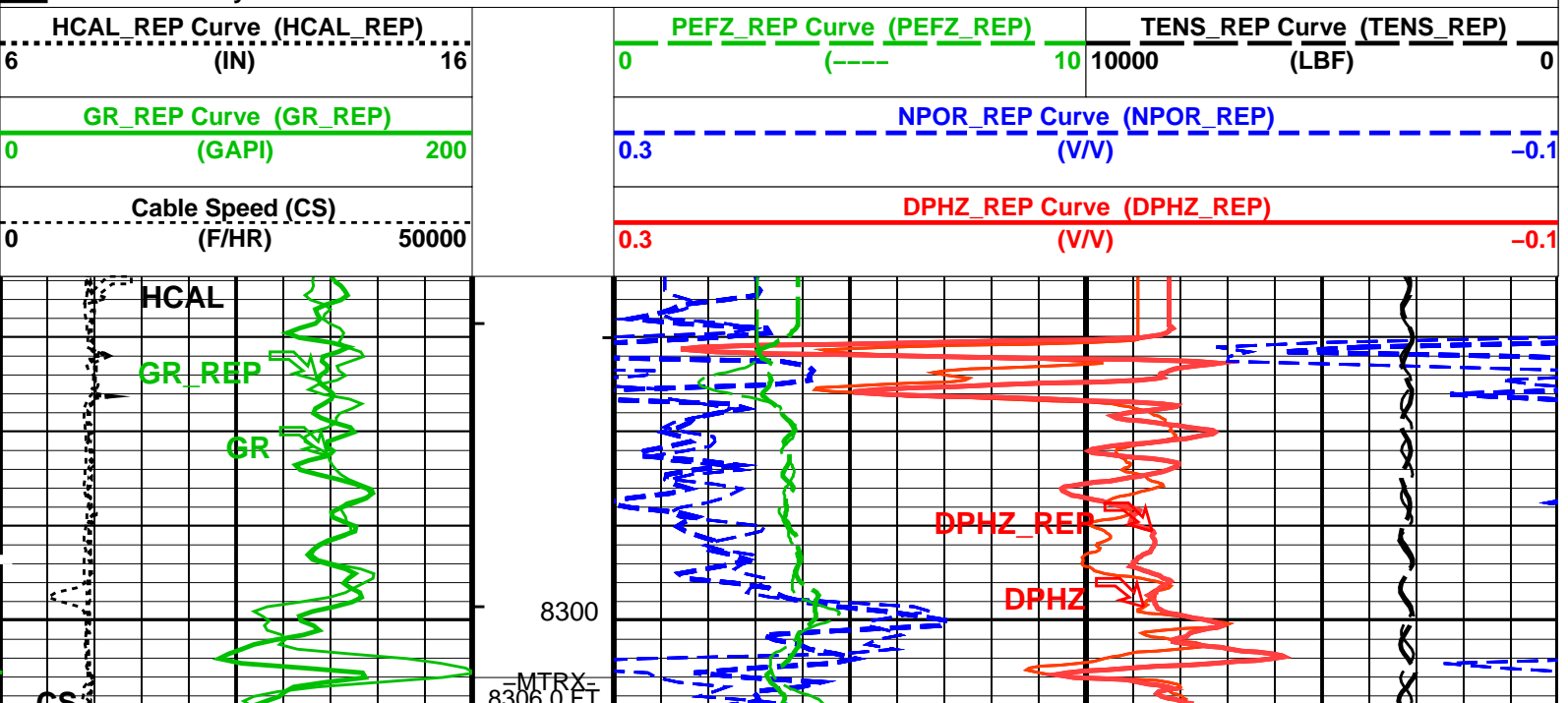
Depth & Time

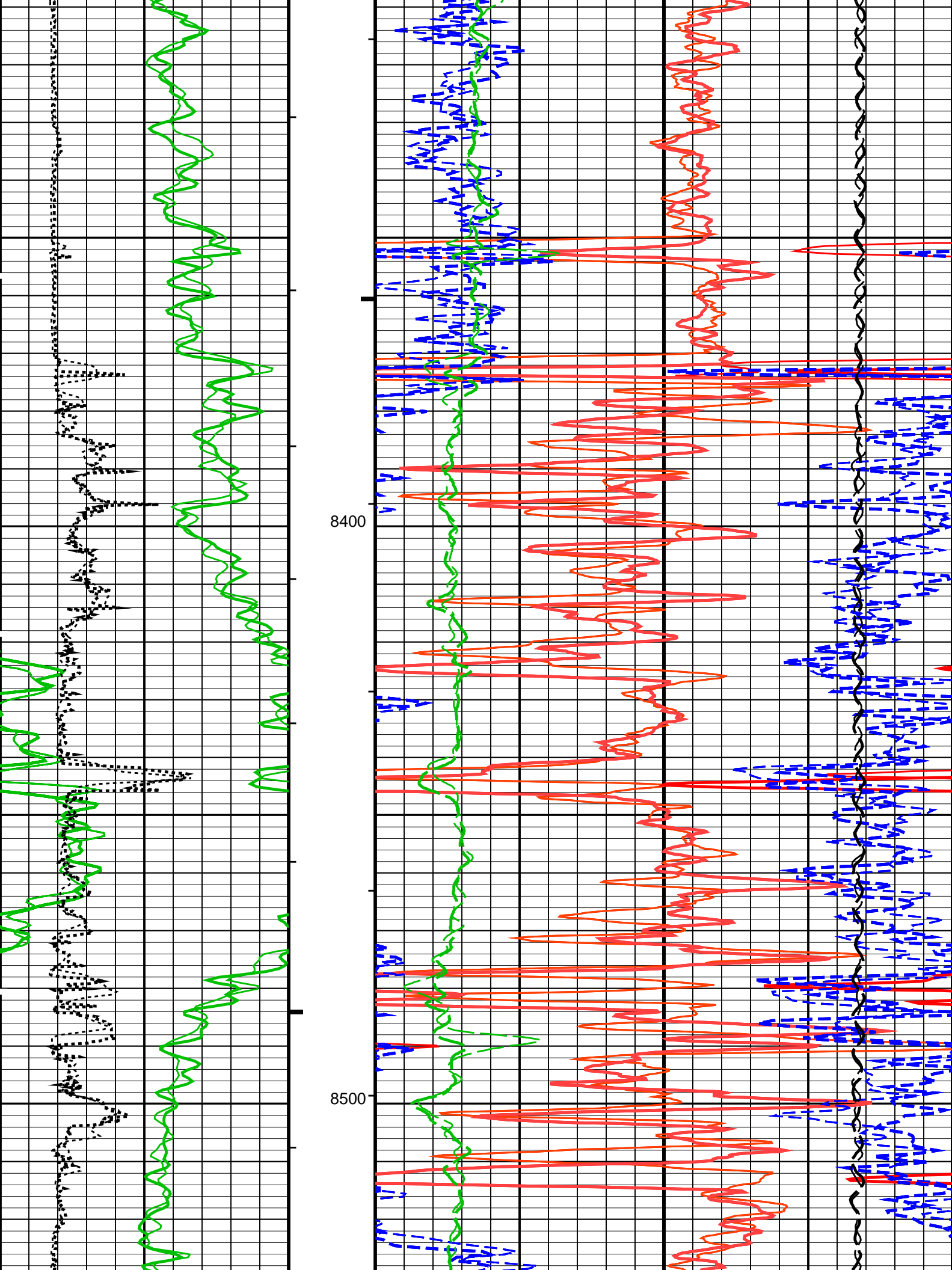
MATR	SANDSTONE	SANDSTONE	8808.0 11:47:00
MDEN	SANDSTONE	SANDSTONE	8306.0 11:55:15
	2.65 G/C3	2.68 G/C3	8808.0 11:47:00
	2.68 G/C3	2.65 G/C3	8306.0 11:55:15

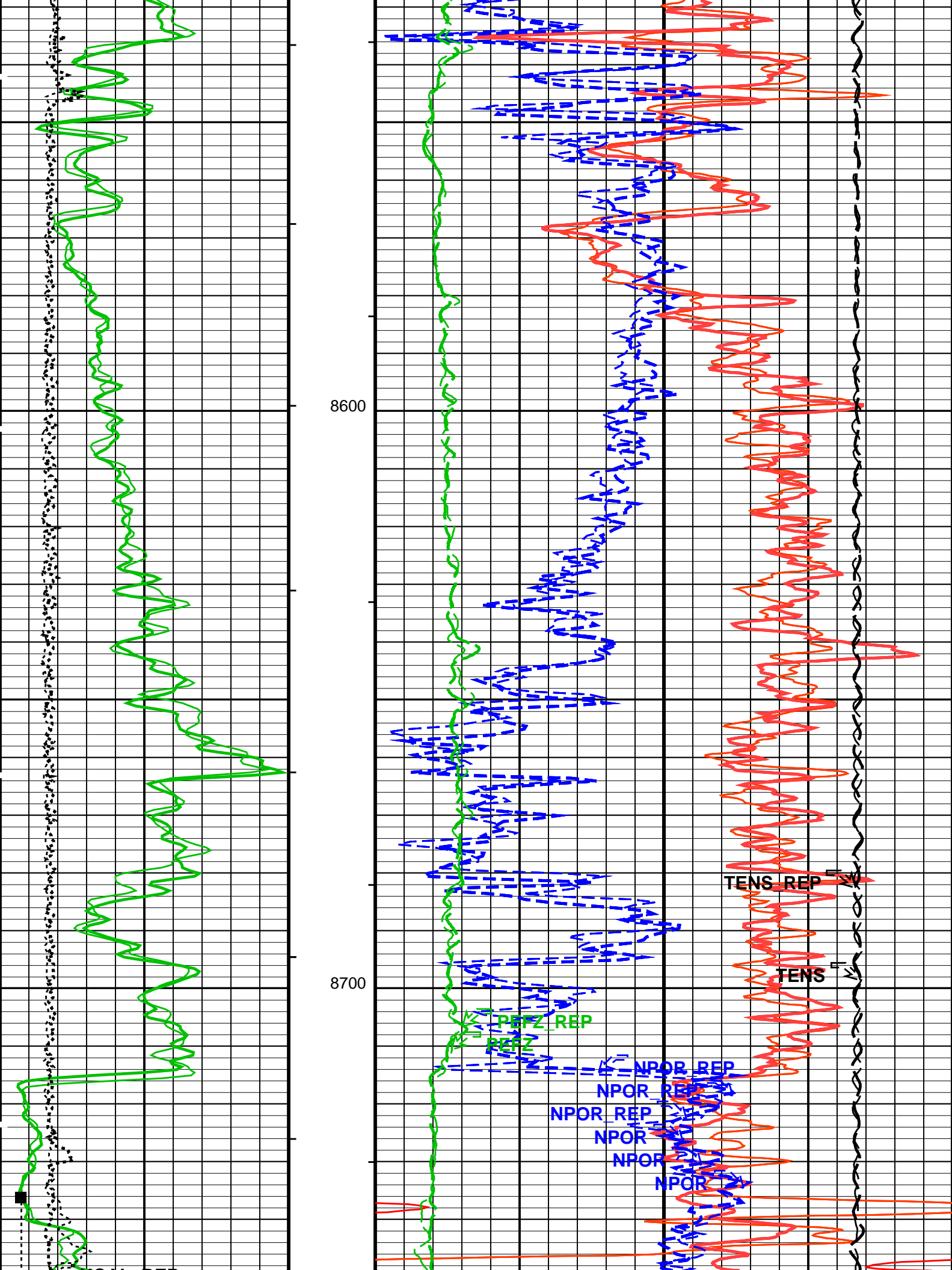
PIP SUMMARY

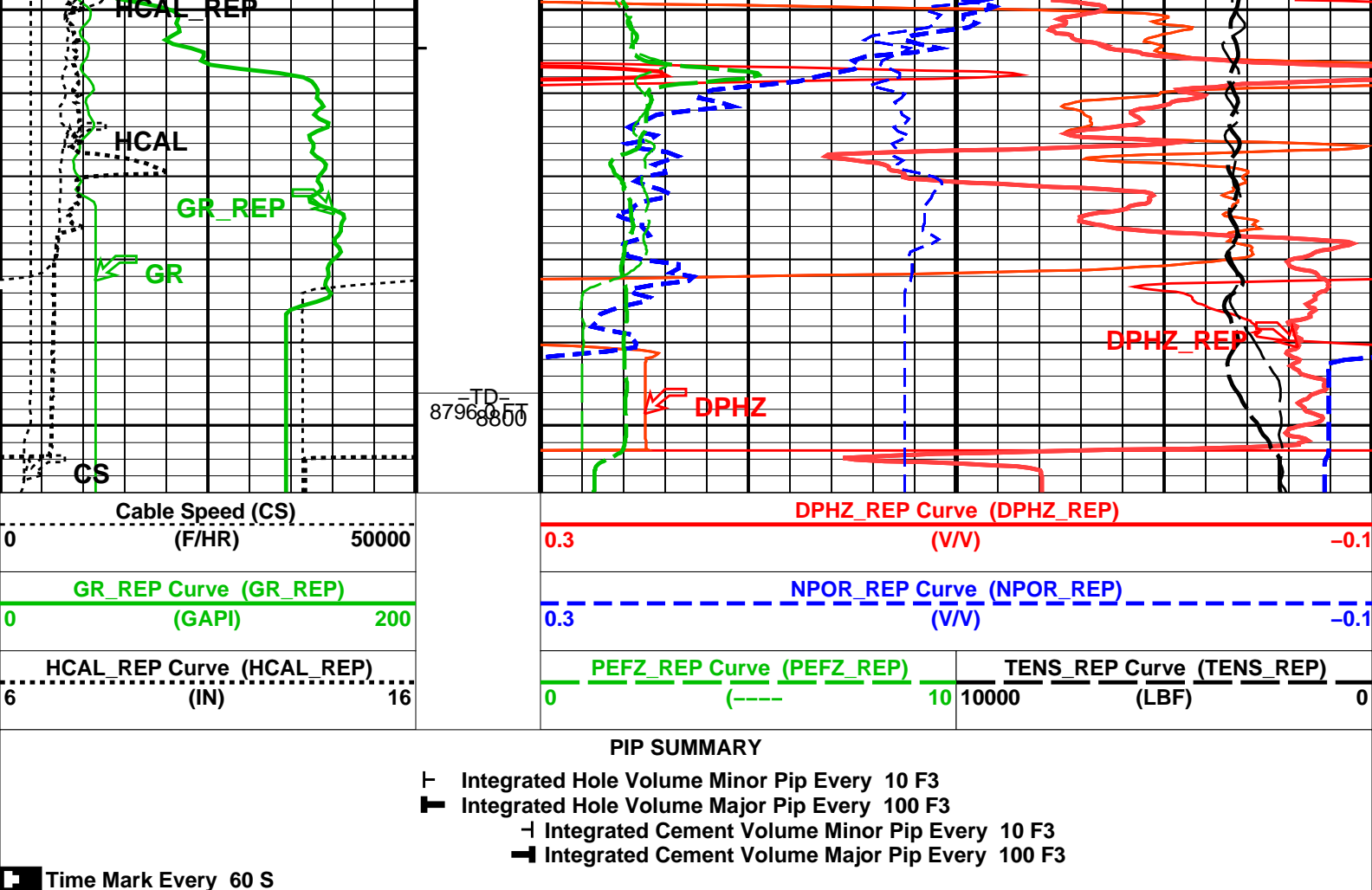
- └ Integrated Hole Volume Minor Pip Every 10 F3
- └ Integrated Hole Volume Major Pip Every 100 F3
- └ Integrated Cement Volume Minor Pip Every 10 F3
- └ Integrated Cement Volume Major Pip Every 100 F3

Time Mark Every 60 S









Parameters

DLIS Name	Description	Value	
AIT-M: Array Induction Tool – M			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
SHT	Surface Hole Temperature	68	DEGF
HILTB-FTB: High resolution Integrated Logging Tool-DTS			
BHFL	Borehole Fluid Type	WATER	
BHFL_TLD	HILT Nuclear Mud Base	WATER	
BHS	Borehole Status	OPEN	
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DHC	Density Hole Correction	BS	
FD	Fluid Density	1	G/C3
FSAL	Formation Salinity	-50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCLF	Germany Coal-like Formation Option	NO	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
HSCO	Hole Size Correction Option	YES	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	NATU	
MDEN	Matrix Density	2.68	G/C3
MWCO	Mud Weight Correction Option	NO	
NAAC	HRDD APS Activation Correction	OFF	
NMT	HILT Nuclear Mud Type	NOBARITE	
NPRM	HRDD Processing Mode	StdRes	
NSAR	HRDD Depth Sampling Rate	1	IN
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	68	DEGF
SOCN	Standoff Distance	0.125	IN
SOCO	Standoff Correction Option	YES	
HOLEV: Integrated Hole/Cement Volume			
BHS	Borehole Status	OPEN	

BHS	Borehole Status	OPEN	4.5	IN
FCD	Future Casing (Outer) Diameter	HCAL	0	DEG
GCSE	Generalized Caliper Selection	0.01	DF/F	
GDEV	Average Angular Deviation of Borehole from Normal	HCAL	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F	
HVCS	Integrated Hole Volume Caliper Selection	HCAL	0	DEG
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	68	DEGF
SHT	Surface Hole Temperature	68	DEGF	
PERT: Preliminary Evaluation – Real Time				
BHS	Borehole Status	OPEN		
GCSE	Generalized Caliper Selection	HCAL		
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG	
GGRD	Geothermal Gradient	0.01	DF/F	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	68	DEGF
SHT	Surface Hole Temperature	68	DEGF	
STI: Stuck Tool Indicator				
TDL	Total Depth – Logger	88870.00	FT	
System and Miscellaneous				
BS	Bit Size	7.875	IN	
BSAL	Borehole Salinity	-50000.00	PPM	
CSIZ	Current Casing Size	8.625	IN	
CWEI	Casing Weight	24.00	LB/F	
DFD	Drilling Fluid Density	8.50	LB/G	
DORL	Depth Offset for Repeat Analysis	0.0	FT	
MST	Mud Sample Temperature	72.20	DEGF	
RMFS	Resistivity of Mud Filtrate Sample	1.0650	OHMM	
TD	Total Depth	88870	FT	

Format: PORO_REP

Vertical Scale: 5" per 100'

Graphics File Created: 02-Dec-2009 11:46

OP System Version: 17C0-154			
AIT-M	17C0-154	HILTB-FTB	17C0-154
DTC-H	17C0-154		

Input DLIS Files					
DEFAULT	AIT_TLD_MCFL_CNL_009PUP	FN:8	PRODUCER	02-Dec-2009 11:43	8821.5 FT 8263.5 FT
Output DLIS Files					
DEFAULT	AIT_TLD_MCFL_CNL_010LUP	FN:9	PRODUCER	02-Dec-2009 11:46	

Schlumberger

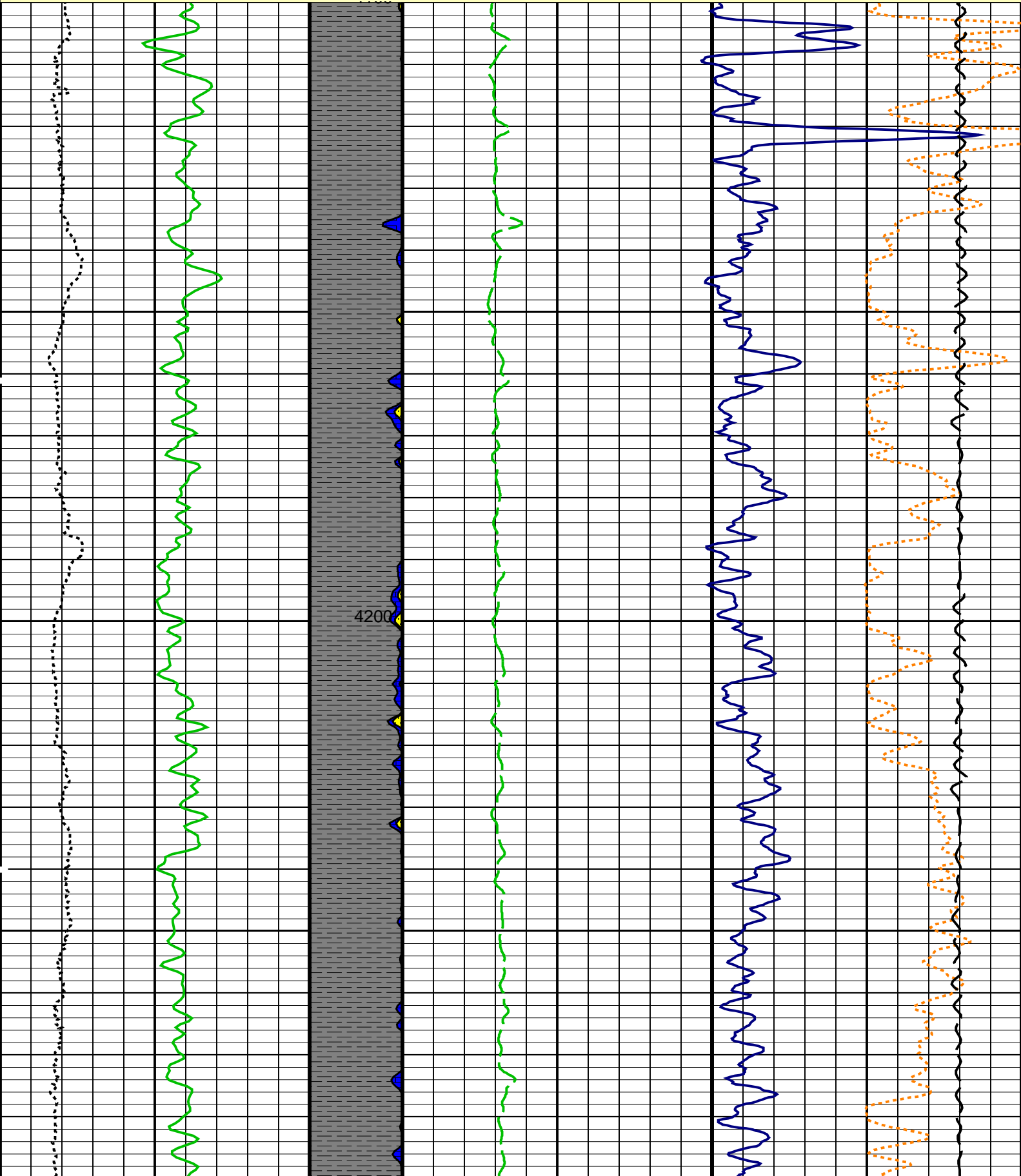
UPPER DENSITY LOG 5" = 100'

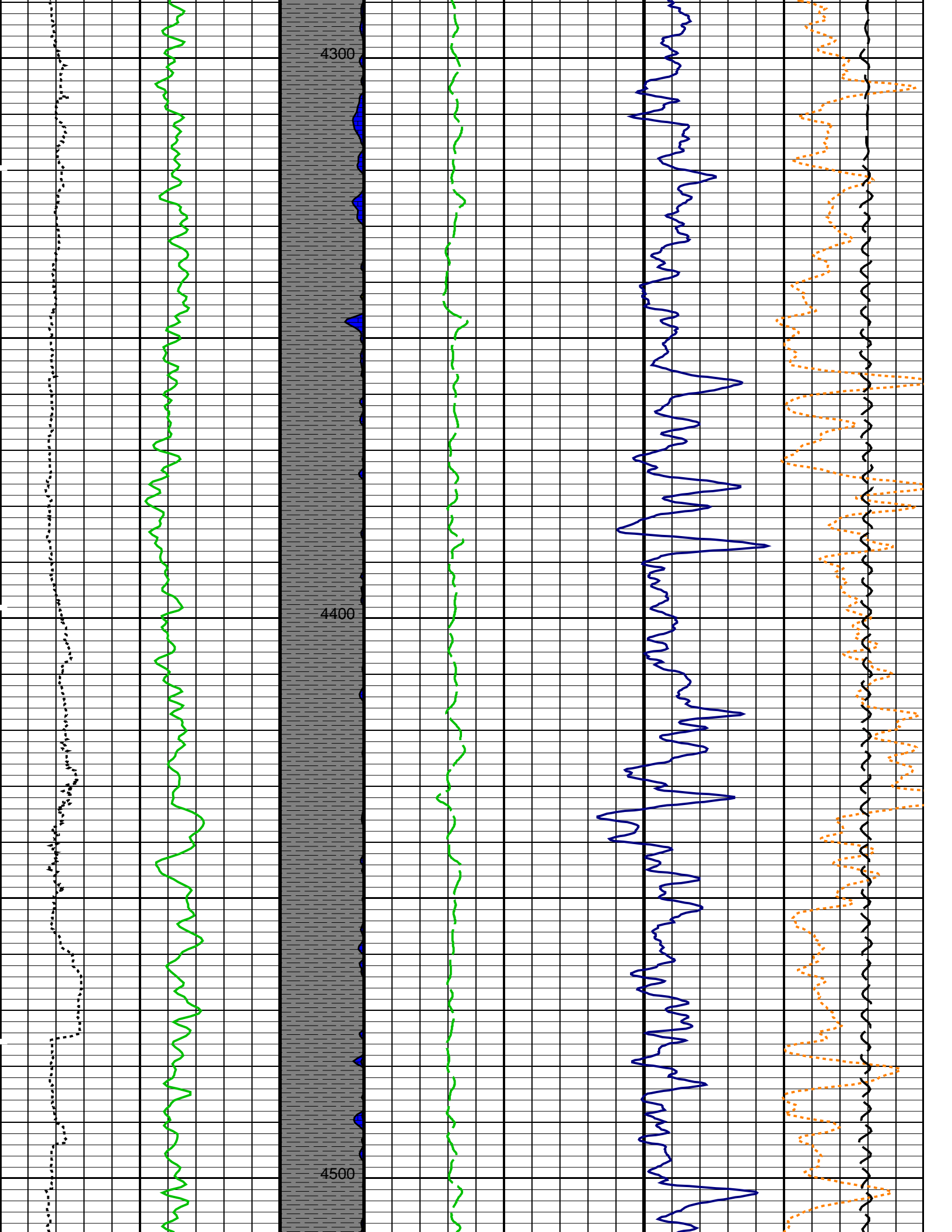
MAXIS Field Log

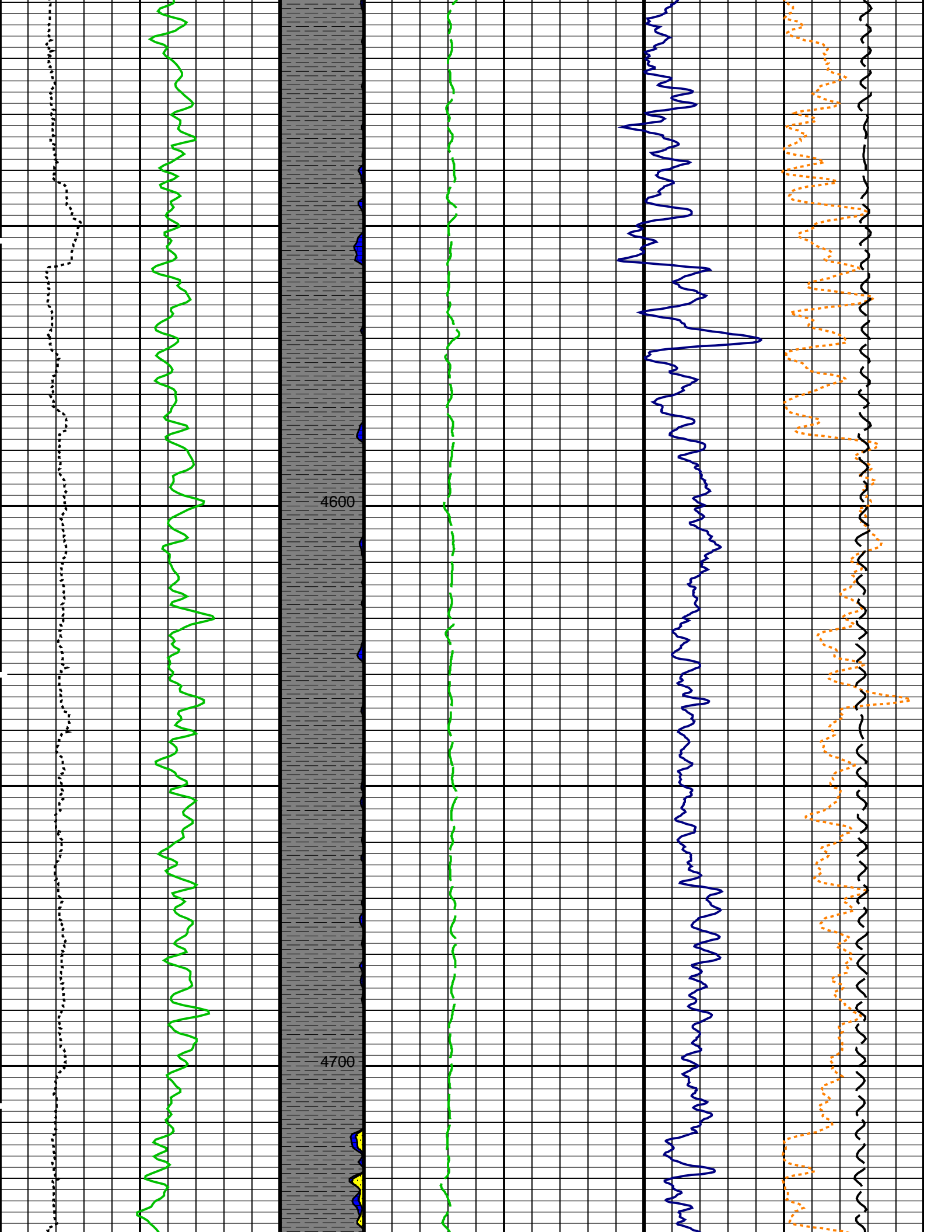
Input DLIS Files					
DEFAULT	AIT_TLD_MCFL_CNL_010LUP	FN:9	PRODUCER	02-Dec-2009 11:46	8808.0 FT 0.0 FT
OP System Version: 17C0-154					
AITM	17C0-154	HILTD	17C0-154		
DTCH	17C0-154				
PIP SUMMARY					
Time Mark Every 60 S					
<div> <div> <div>SHALE</div> <div>SAND</div> </div> <div> <div>Caliper (HCAL)</div> <div>(IN)</div> <div>6</div> <div>16</div> </div> <div> <div>Tension (TENS)</div> <div>(LBF)</div> <div>10000</div> <div>0</div> </div> </div>					

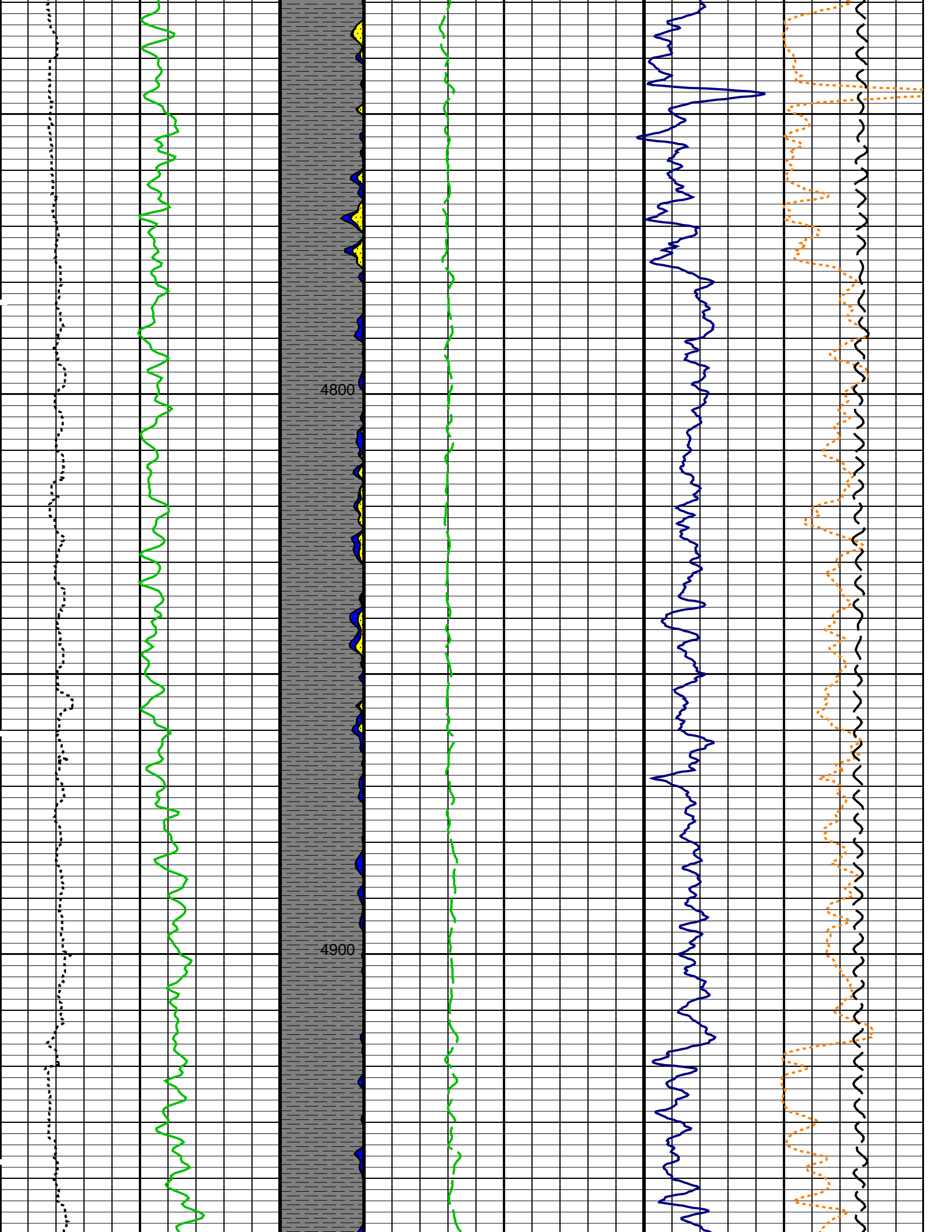
Gamma Ray (GR)		LIME	Std. Res. Formation Density (RHOZ)	
0	(GAPI) 200		(G/C3) 3	
Gamma Ray Backup	Stuck Stretch (STIT)	Std. Res. Formation Pe (PEFZ)		Density Correction (HDRA)
	0 (F) 50	0	(----) 10	-0.25 (G/C3) 0.25

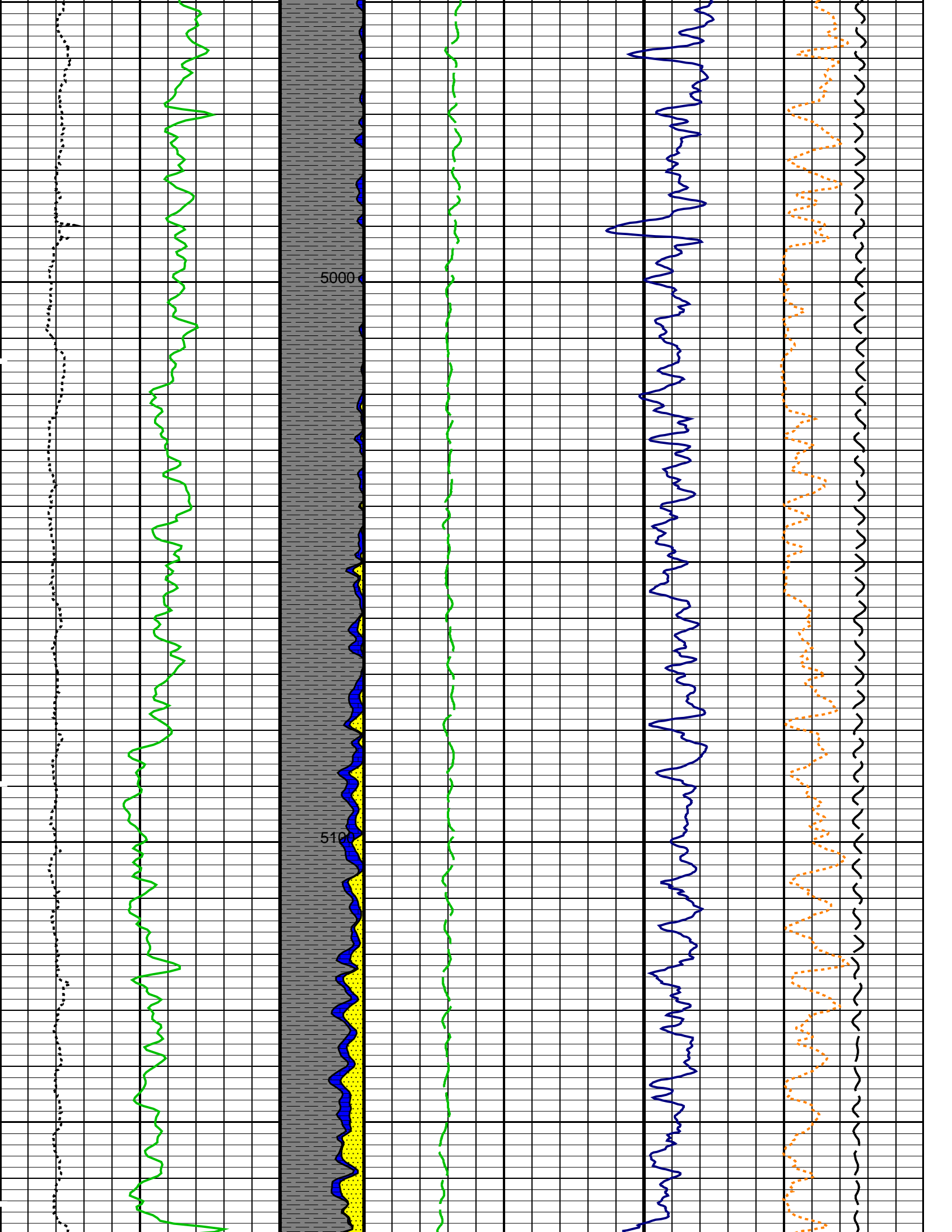
MAIN PASS: *** PLATFORM EXPRESS – LITHOLOGY DENSITY ***

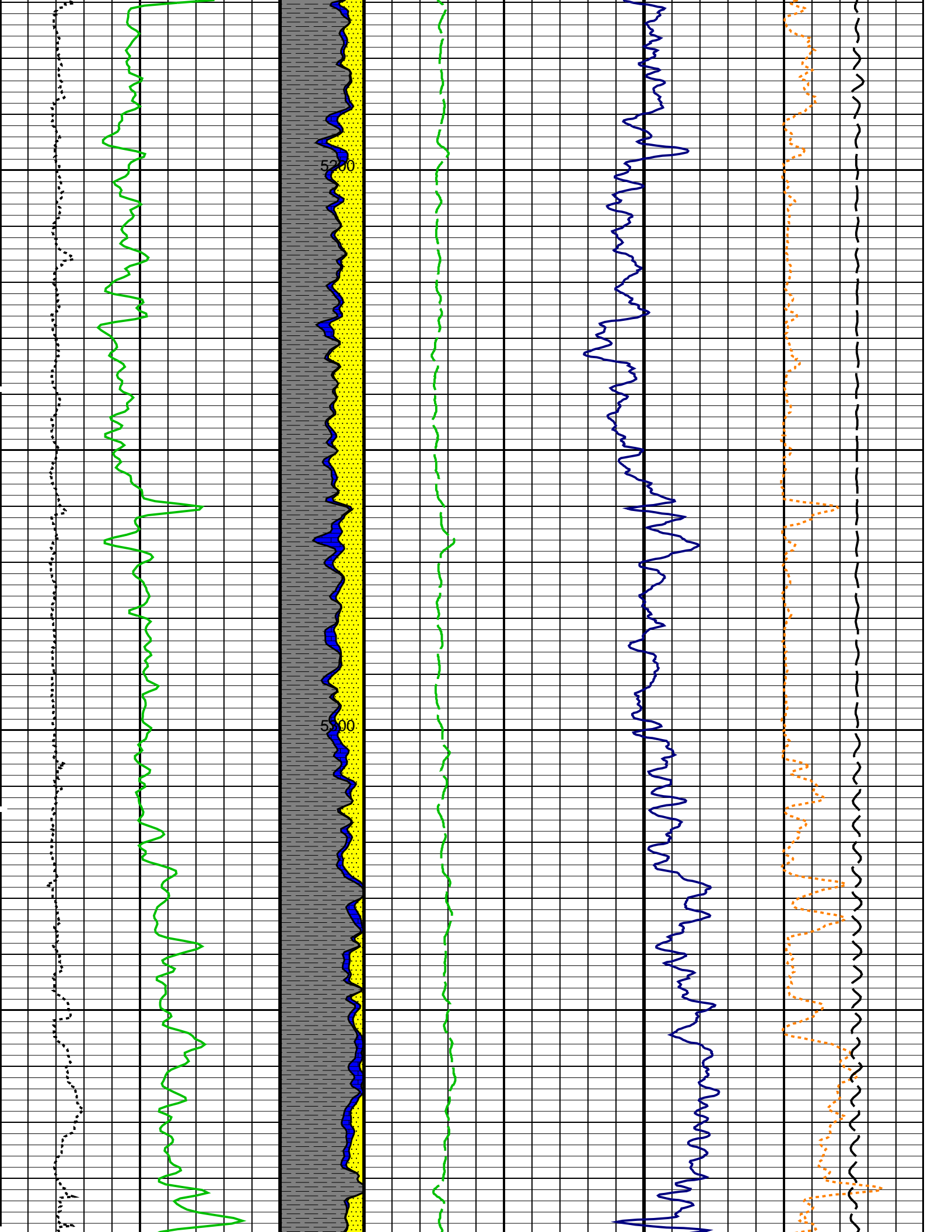


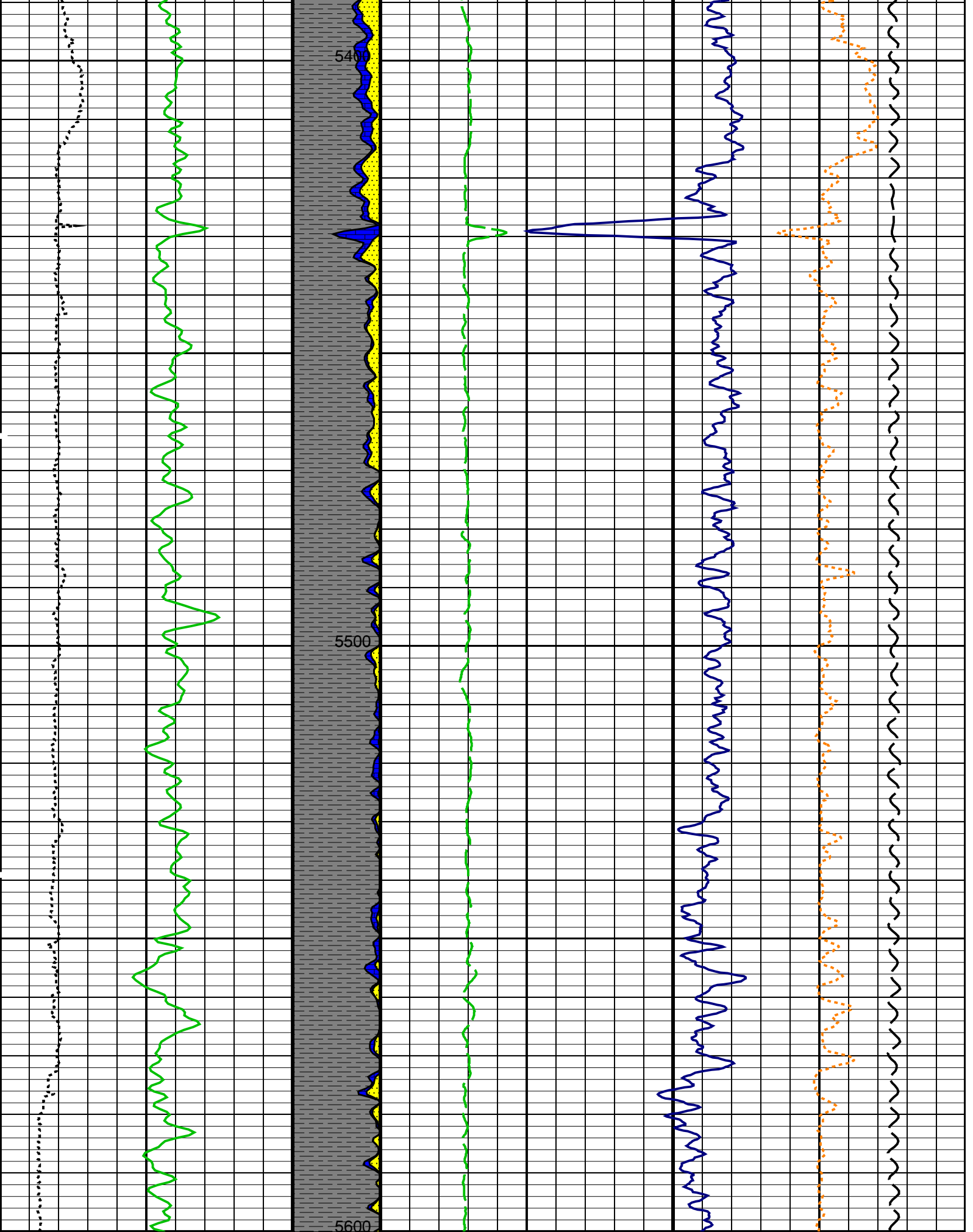












MAIN PASS: *** PLATFORM EXPRESS - LITHOLOGY DENSITY ***

Stuck

Gamma Ray Backup	Stack Stretch (STIT)	0	Std. Res. Formation Pe (PEFZ)	10	Density Correction (HDRA)	0.25
	0 (F) 50		(----		(G/C3)	
Gamma Ray (GR)			Std. Res. Formation Density (RHOZ)			
0 (GAPI) 200	LIME	2		(G/C3)		3
Caliper (HCAL)			Tension (TENS)			
6 (IN) 16	SAND		10000	(LBF)		0
	SHALE					

PIP SUMMARY						
Time Mark Every 60 S						

Parameters						
DLIS Name		Description			Value	
HILTB-FTB: High resolution Integrated Logging Tool-DTS						
BHFL_TLD		HILT Nuclear Mud Base			WATER	
DHC		Density Hole Correction			BS	
GCLF		Germany Coal-like Formation Option			NO	
NAAC		HRDD APS Activation Correction			OFF	
NMT		HILT Nuclear Mud Type			NOBARITE	
NPRM		HRDD Processing Mode			STDRES	
NSAR		HRDD Depth Sampling Rate			1.000	in
STI: Stuck Tool Indicator						
STKT		STI Stuck Threshold			2.500	ft
TDD		Total Depth - Driller			88870.0	ft
TDL		Total Depth - Logger			88870.0	ft
System and Miscellaneous						
BS		Bit Size			7.875	in
DFD		Drilling Fluid Density			8.500	lbm/gal
Format: UPPER_DENS		Vertical Scale: 5" per 100'			Graphics File Created: 02-Dec-2009 12:23	

OP System Version: 17C0-154			
AITM	17C0-154	HILTD	17C0-154
DTCH	17C0-154		

Input DLIS Files						
DEFAULT	AIT_TLD_MCFL_CNL_010LUP	FN:9	PRODUCER	02-Dec-2009 11:46	8808.0 FT	0.0 FT

Schlumberger

LOWER DENSITY LOG 5" = 100'

MAXIS Field Log

Output DLIS Files			
DEFAULT	AIT_TLD_MCFL_CNL_010LUP	FN:9	PRODUCER 02-Dec-2009 11:46

OP System Version: 17C0-154			
AIT-M	17C0-154	HILTB-FTB	17C0-154
DTC-H	17C0-154		

Changed Parameter Summary			
---------------------------	--	--	--

Time Mark Every 60 S

PIP SUMMARY

Caliper (HCAL) (IN) 6 16

Gamma Ray (GR) (GAPI) 0 200

Gamma Ray Backup

SHALE

SAND

LIME

Stuck Stretch (STIT) 0 (F) 50

Std. Res. Formation Density (RHOZ) (G/C3) 2 3

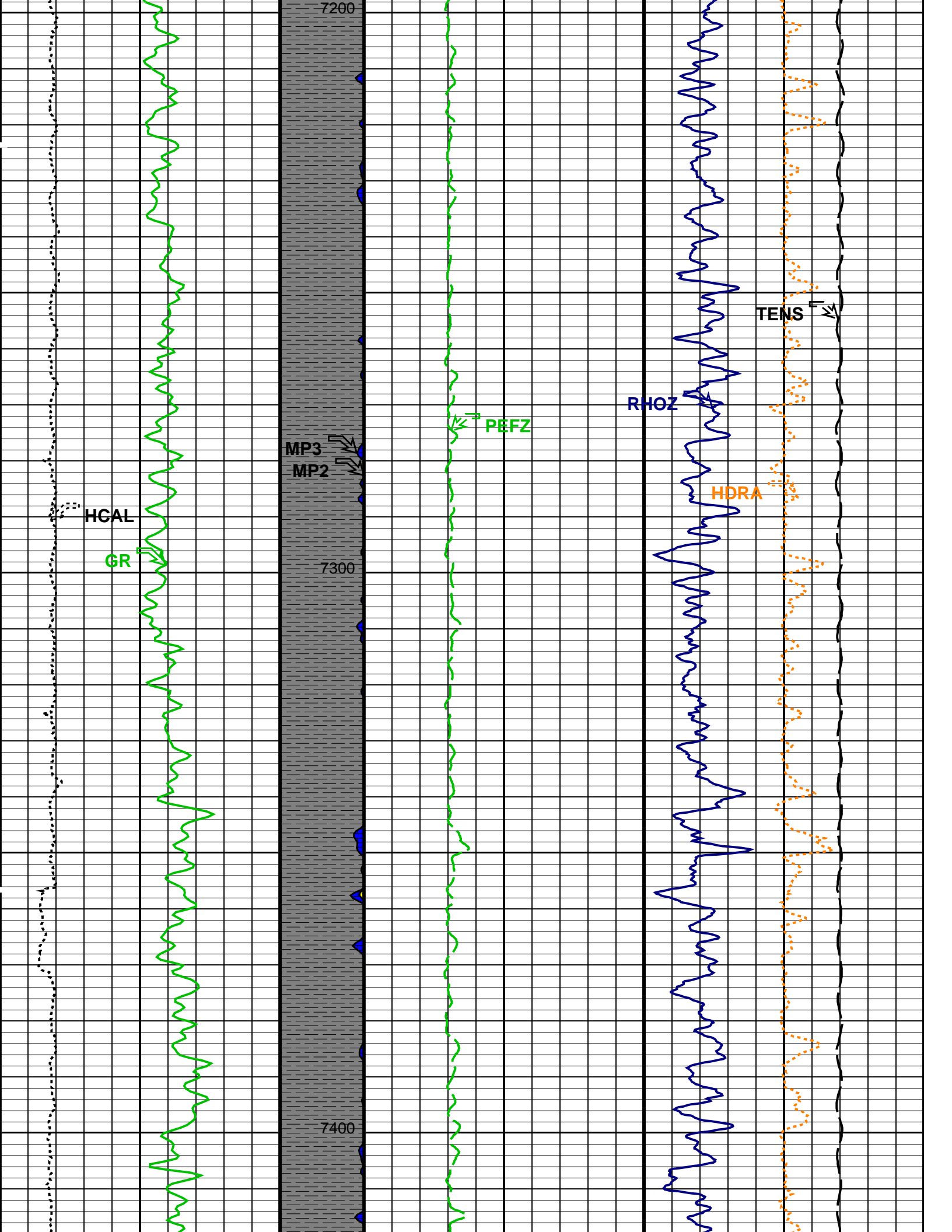
Std. Res. Formation Pe (PEFZ) (----) 0 10

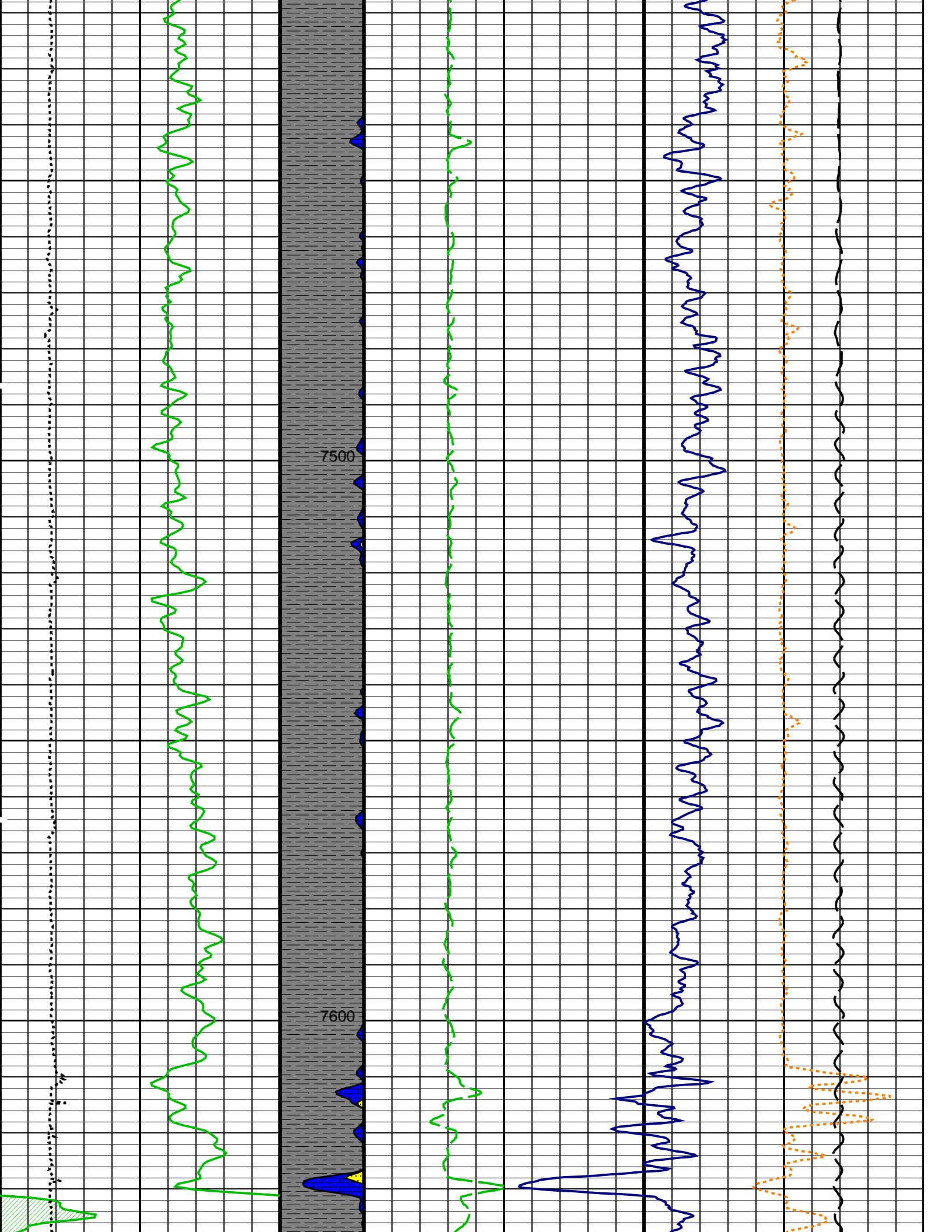
Density Correction (HDRA) (G/C3) -0.25 0.25

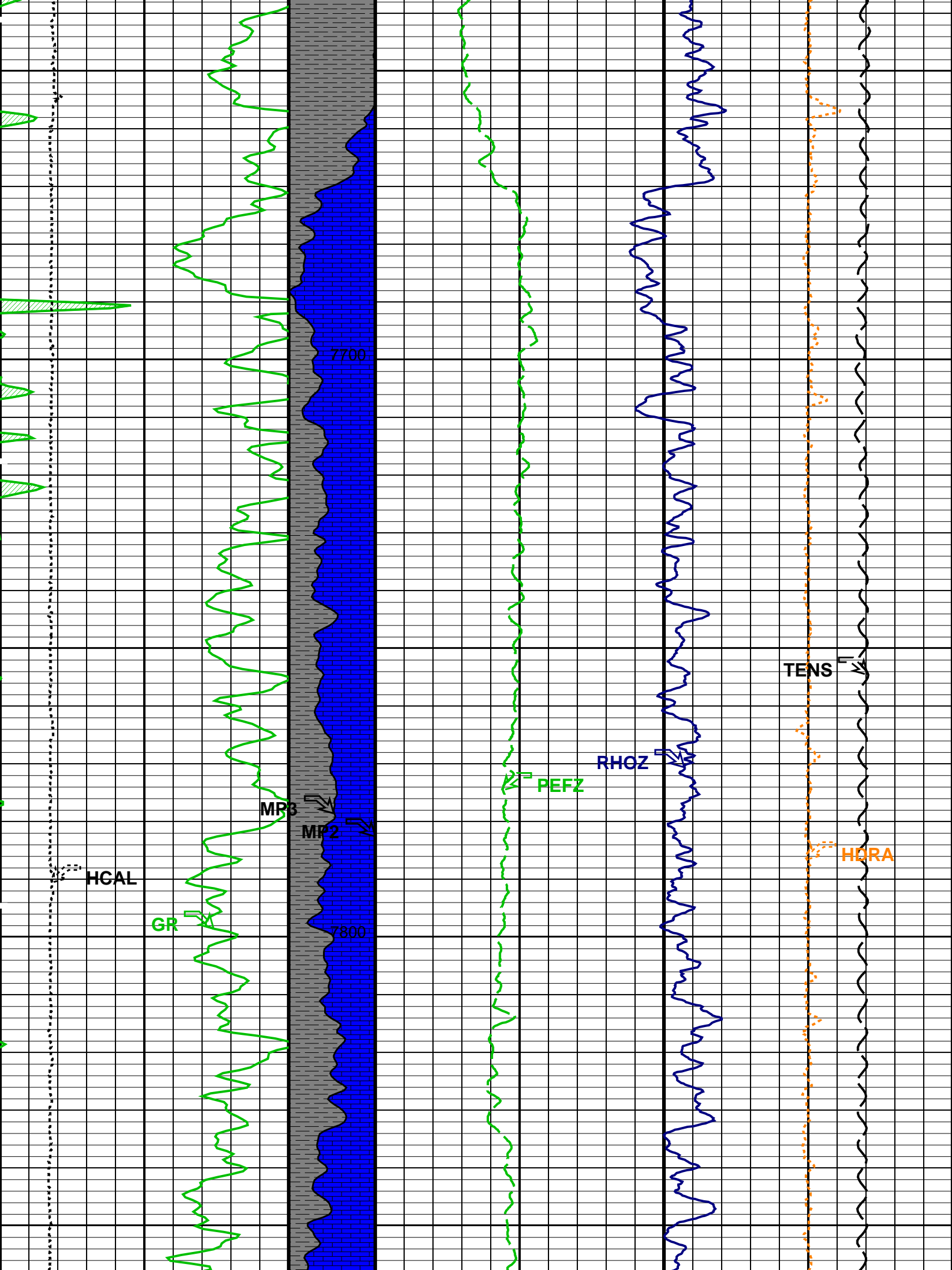
Tension (TENS) (LBF) 10000 0

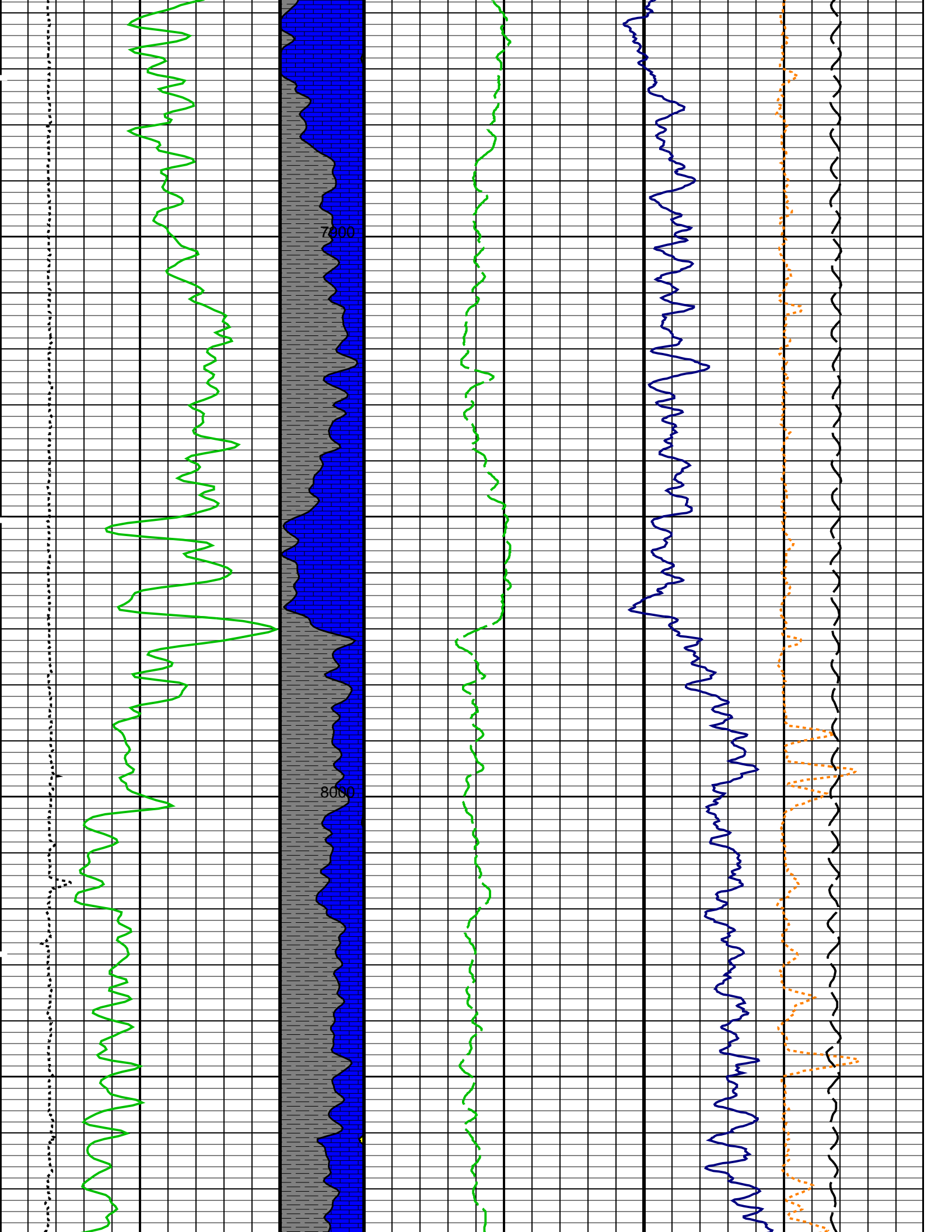
MAIN PASS: *** PLATFORM EXPRESS - LITHOLOGY DENSITY ***

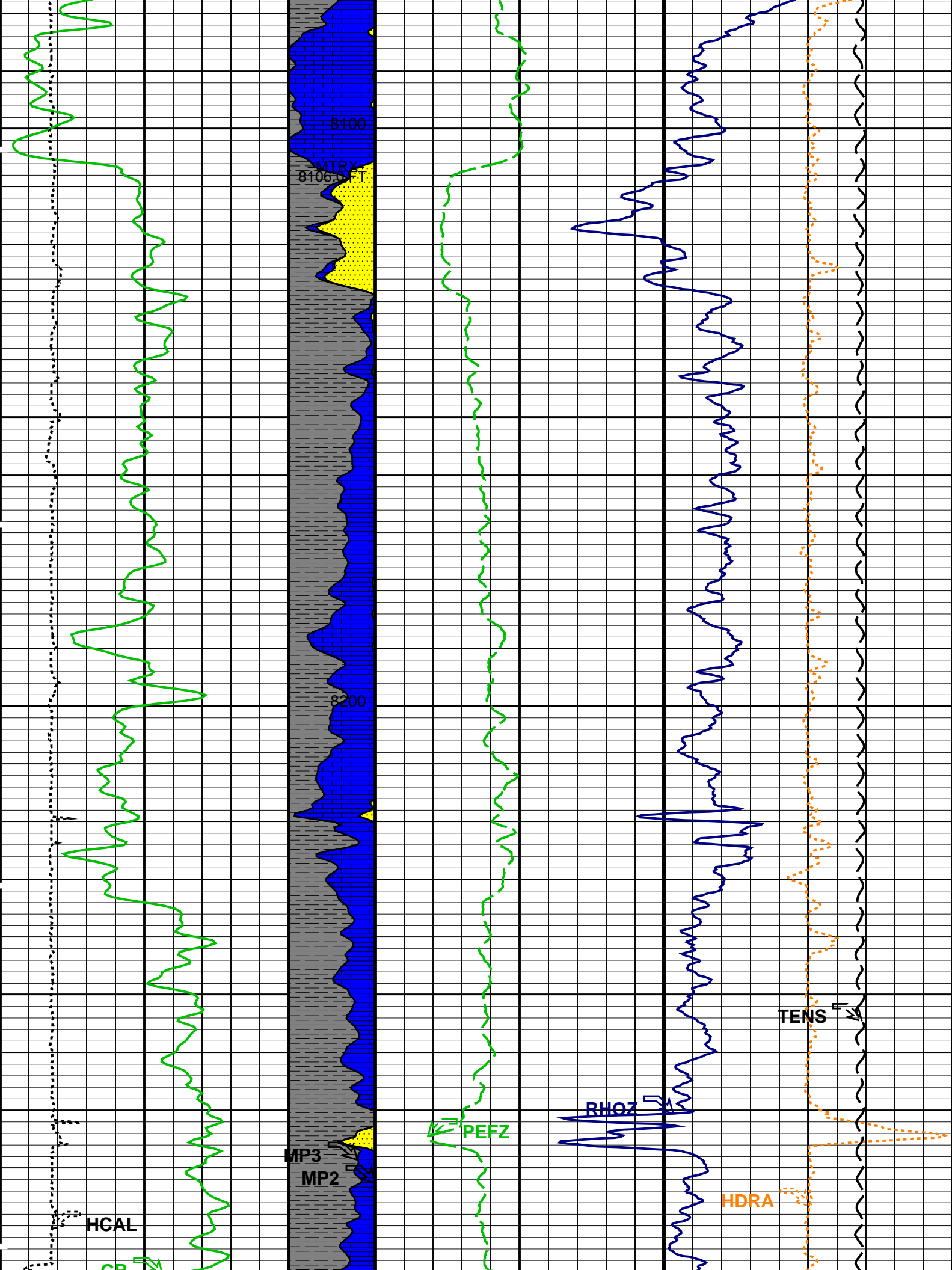
7100

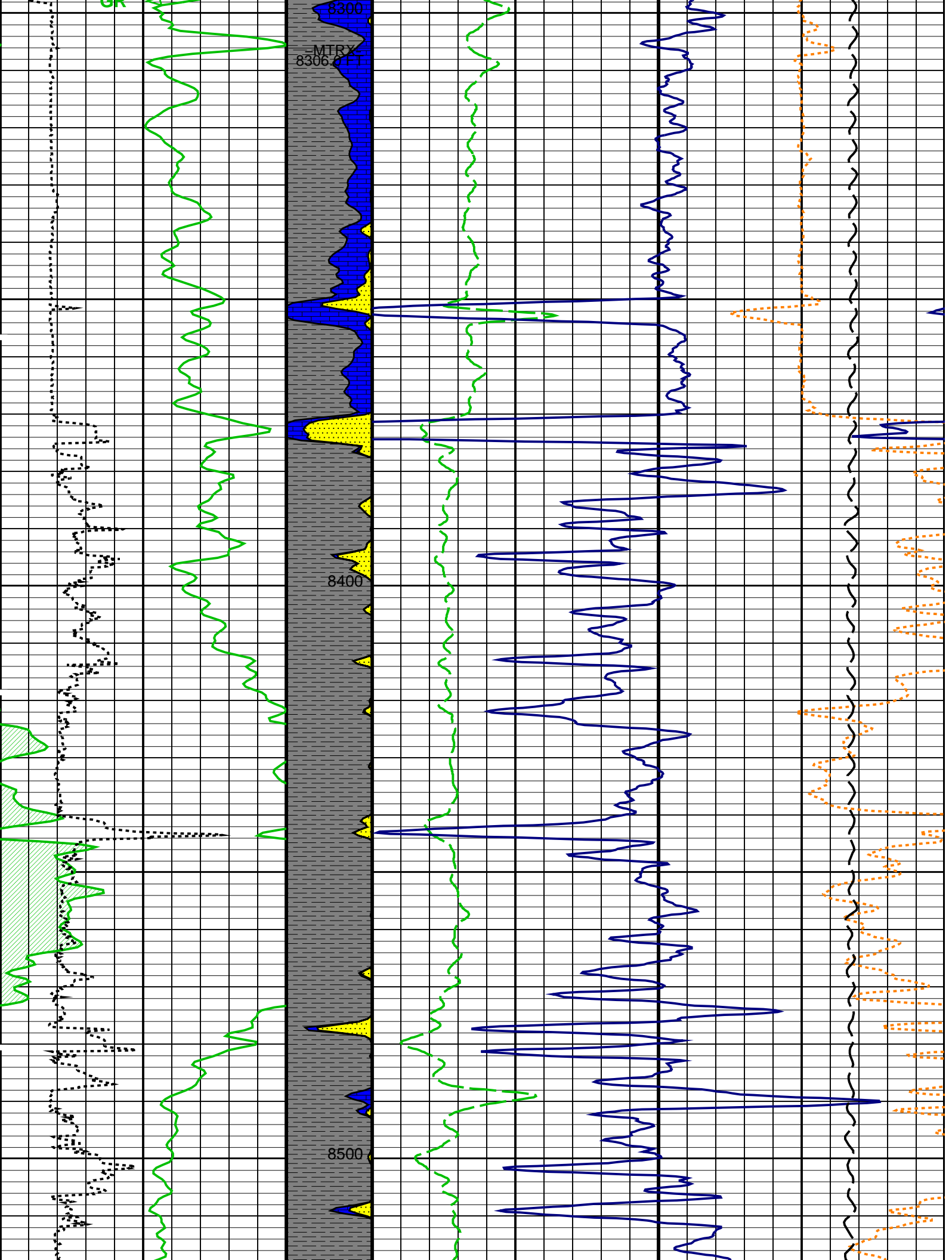


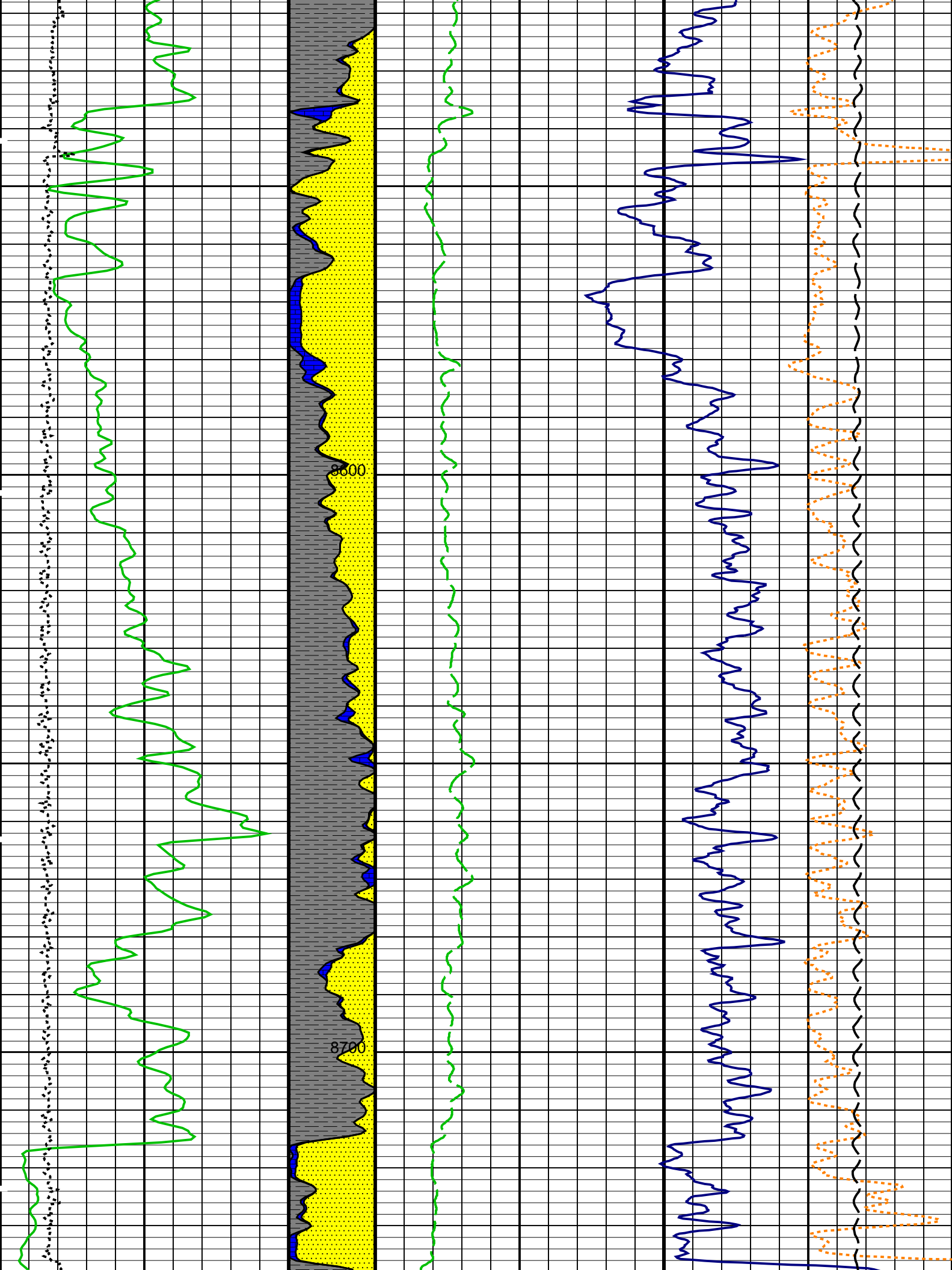


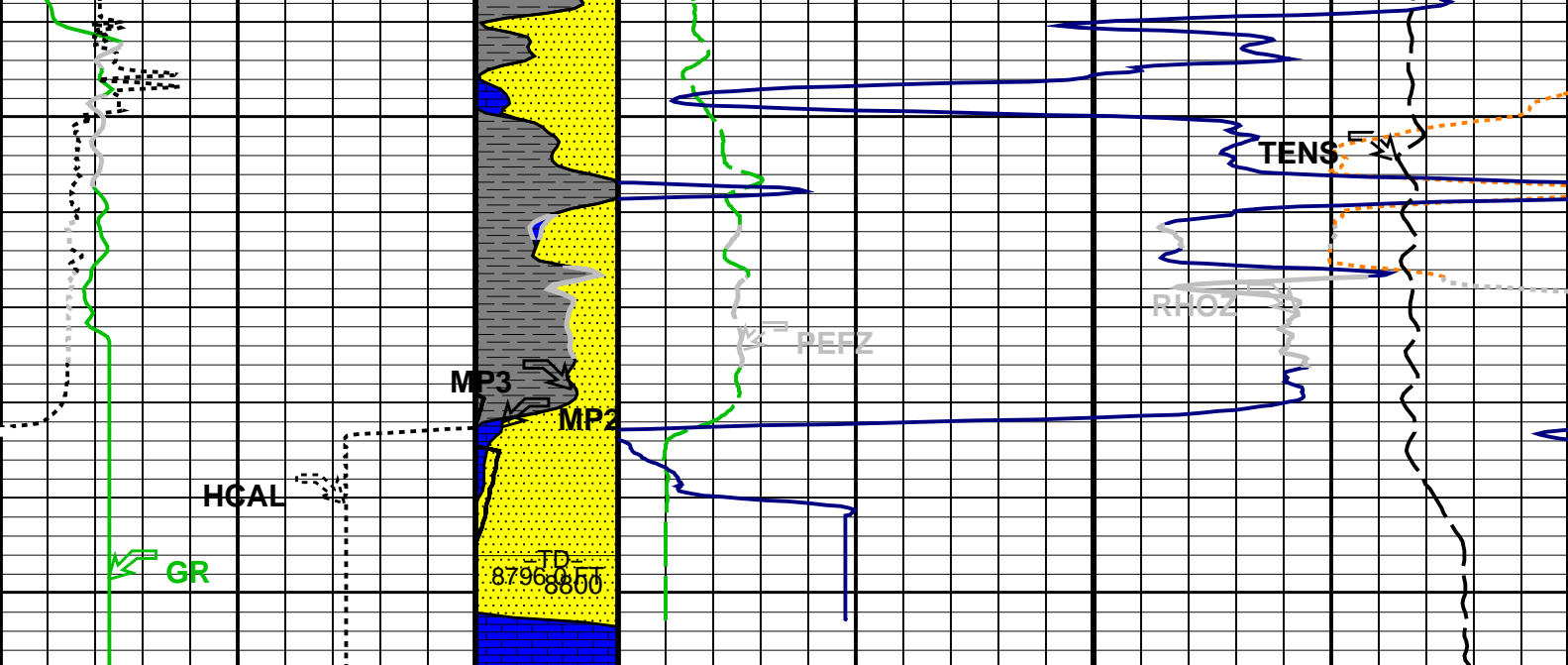












MAIN PASS: *** PLATFORM EXPRESS - LITHOLOGY DENSITY ***			
Gamma Ray Backup	Stuck Stretch (STIT)	0	10
	0 (F) 50		
Gamma Ray (GR) (GAPI)		Density Correction (HDRA) (G/C3)	
0 200		-0.25 0.25	
Caliper (HCAL) (IN)		Std. Res. Formation Density (RHOZ) (G/C3)	
6 16		2 3	
		Tension (TENS) (LBF)	
		10000 0	
		LIME	
		SAND	
		SHALE	

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
AIT-M: Array Induction Tool – M			
BHT	Bottom Hole Temperature (used in calculations)	212	DEGF
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
GGRD	Geothermal Gradient	0.01	DF/F
GTSE	Generalized Temperature Selection	HSTS_HTEM	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
SHT	Surface Hole Temperature	68	DEGF
HILTB-FTB: High resolution Integrated Logging Tool-DTS			
BHFL_TLD	HILT Nuclear Mud Base	WATER	
BHT	Bottom Hole Temperature (used in calculations)	212	DEGF
DHC	Density Hole Correction	BS	
FD	Fluid Density	1	G/C3
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
GCLF	Germany Coal-like Formation Option	NO	
GGRD	Geothermal Gradient	0.01	DF/F
GTSE	Generalized Temperature Selection	HSTS_HTEM	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
NAAC	HRDD APS Activation Correction	OFF	
NMT	HILT Nuclear Mud Type	NOBARITE	
NPRM	HRDD Processing Mode	StdRes	
NSAR	HRDD Depth Sampling Rate	1	IN
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)	212	DEGF
GGRD	Geothermal Gradient	0.01	DF/F

GTSE	Generalized Temperature Selection	HSTS_HTEM	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
SHT	Surface Hole Temperature	68	DEGF
PERT: Preliminary Evaluation – Real Time			
BDPS	Bulk Density Processing Selector	Standard	
BHT	Bottom Hole Temperature (used in calculations)	212	DEGF
CLIM	Caliper Limit for Bad Hole	999	IN
CNPS	Corrected Neutron Porosity Selector	NPHI	
DRUL	DRHO Upper Limit	999	G/C3
FCAL	Caliper Presence Flag	PRESENT	
FCGR	CGR Presence Flag	PRESENT	
FEXP	Form Factor Exponent	2	
FLDT	Bulk Density Presence Flag	PRESENT	
FNUM	Form Factor Numerator	1	
FSON	Sonic Presence Flag	ABSENT	
GGRD	Geothermal Gradient	0.01	DF/F
GTSE	Generalized Temperature Selection	HSTS_HTEM	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
PMAX	PHI Maximum	0.5	CFCF
POUT	Porosity Output Lithology	SANDSTONE	
RG21	RHO Grain (2–Mineral Model, Min–1)	2.71	G/C3
RG22	RHO Grain (2–Mineral Model, Min–2)	2.644	G/C3
RG23	RHO Grain (2–Mineral Model, Min–3)	2.877	G/C3
RG31	RHO Grain (3–Mineral Model, Min–1)	2.71	G/C3
RG32	RHO Grain (3–Mineral Model, Min–2)	2.644	G/C3
RG33	RHO Grain (3–Mineral Model, Min–3)	2.877	G/C3
RTLFL	RT Limit Flag	NO_LIMIT	
RWF	Resistivity of Free Water	0.02	OHMM
SHT	Surface Hole Temperature	68	DEGF
UF	U Fluid	0.398	
UM21	U Matrix (2–Mineral Model, Min–1)	13.77	
UM22	U Matrix (2–Mineral Model, Min–2)	4.779	
UM23	U Matrix (2–Mineral Model, Min–3)	8.997	
UM31	U Matrix (3–Mineral Model, Min–1)	13.77	
UM32	U Matrix (3–Mineral Model, Min–2)	4.779	
UM33	U Matrix (3–Mineral Model, Min–3)	8.997	
STI: Stuck Tool Indicator			
LBFR	Trigger for MAXIS First Reading Label	TDL	
STKT	STI Stuck Threshold	2.5	FT
TDD	Total Depth – Driller	88870.00	FT
TDL	Total Depth – Logger	88870.00	FT
System and Miscellaneous			
BS	Bit Size	7.875	IN
DFD	Drilling Fluid Density	8.50	LB/G
DORL	Depth Offset for Repeat Analysis	0.0	FT
RMFS	Resistivity of Mud Filtrate Sample	1.0650	OHMM
TD	Total Depth	88870	FT
TWS	Temperature of Connate Water Sample	100.00	DEGF

Format: LOWER_DENS Vertical Scale: 5" per 100' Graphics File Created: 02-Dec-2009 11:46

OP System Version: 17C0-154

AIT-M	17C0-154	HILTB-FTB	17C0-154
DTC-H	17C0-154		

Output DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_010LUP	FN:9	PRODUCER	02-Dec-2009 11:46
---------	-------------------------	------	----------	-------------------

Schlumberger

BEFORE CALIBRATIONS

MAXIS Field Log

Measurement	Nominal	Master	Before	After	Change	Limit	Units
Array Induction Tool – M Wellsite Calibration – Electronics Calibration Check – Thru Cal Mag. & Phase							
Master: 14–Oct–2009 17:03 Before: 30–Nov–2009 15:07							
Thru Cal Magnitude – 0	0	0.6205	0.6203	N/A	N/A	N/A	V
Thru Cal Magnitude – 1	0	1.271	1.271	N/A	N/A	N/A	V
Thru Cal Magnitude – 2	0	0.6318	0.6316	N/A	N/A	N/A	V
Thru Cal Magnitude – 3	0	0.7131	0.7129	N/A	N/A	N/A	V
Thru Cal Magnitude – 4	0	1.334	1.334	N/A	N/A	N/A	V
Thru Cal Magnitude – 5	0	1.953	1.952	N/A	N/A	N/A	V
Thru Cal Magnitude – 6	0	1.949	1.948	N/A	N/A	N/A	V
Thru Cal Magnitude – 7	0	1.419	1.418	N/A	N/A	N/A	V
Thru Cal Phase – 0	0	180.2	180.2	N/A	N/A	N/A	DEG
Thru Cal Phase – 1	0	179.2	179.1	N/A	N/A	N/A	DEG
Thru Cal Phase – 2	0	175.6	175.5	N/A	N/A	N/A	DEG
Thru Cal Phase – 3	0	174.9	174.8	N/A	N/A	N/A	DEG
Thru Cal Phase – 4	0	168.7	168.6	N/A	N/A	N/A	DEG
Thru Cal Phase – 5	0	167.0	166.9	N/A	N/A	N/A	DEG
Thru Cal Phase – 6	0	167.0	167.0	N/A	N/A	N/A	DEG
Thru Cal Phase – 7	0	166.2	166.2	N/A	N/A	N/A	DEG
Array Induction Tool – M Wellsite Calibration – Electronics Calibration Check – Auxiliary							
Master: 14–Oct–2009 17:03 Before: 30–Nov–2009 15:07							
Array Induction SPA Plus	991.0	992.7	992.7	N/A	N/A	N/A	MV
Array Induction SPA Zero	0	0.6638	0.6725	N/A	N/A	N/A	MV
Array Induction Temperature PI	0.9170	0.9196	0.9196	N/A	N/A	N/A	V
Array Induction Temperature Ze	0	0.0006632	0.0006608	N/A	N/A	N/A	V
Array Induction Tool – M Wellsite Calibration – Test Loop Gain Correction							
Master: 14–Oct–2009 17:03							
Test Loop Gain Correctio – 0	0	1.017	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 1	0	1.014	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 2	0	1.015	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 3	0	1.011	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 4	0	0.9935	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 5	0	0.9888	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 6	0	0.9937	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 7	0	1.007	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 0	0	0.7201	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 1	0	0.7620	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 2	0	0.2948	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 3	0	0.2209	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 4	0	0.1146	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 5	0	–0.009143	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 6	0	0.2984	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 7	0	–0.05307	N/A	N/A	N/A	N/A	DEG
Array Induction Tool – M Wellsite Calibration – Sonde Error Correction							
Master: 14–Oct–2009 17:03							
R Sonde Error Correction – 0	0	–69.04	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 1	0	172.8	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 2	0	116.8	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 3	0	64.65	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 4	0	26.78	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 5	0	12.75	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 6	0	11.98	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 7	0	–2.480	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 0	0	–259.4	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 1	0	103.1	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 2	0	63.05	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 3	0	–22.90	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 4	0	21.47	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 5	0	–15.50	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 6	0	–4.060	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 7	0	–4.950	N/A	N/A	N/A	N/A	MM/M
Array Induction Tool – M Wellsite Calibration – Mud Gain Correction							
Master: 14–Oct–2009 17:03							
Coarse – Mag, Real, Imag – 0	0	0.8551	N/A	N/A	N/A	N/A	
Coarse – Mag, Real, Imag – 1	0	0.8551	N/A	N/A	N/A	N/A	
Coarse – Mag, Real, Imag – 2	0	0.8551	N/A	N/A	N/A	N/A	
Fine – Mag, Real, Imag – 0	0	0.8573	N/A	N/A	N/A	N/A	
Fine – Mag, Real, Imag – 1	0	0.8573	N/A	N/A	N/A	N/A	
Fine – Mag, Real, Imag – 2	0	0.8573	N/A	N/A	N/A	N/A	
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Stab Measurement Summary							
Before: 30–Nov–2009 15:13							
BS Window Ratio	0.7387	N/A	0.7409	N/A	N/A	N/A	
BS Window Sum	10310	N/A	10330	N/A	N/A	N/A	CPS
SS Window Ratio	0.4771	N/A	0.4772	N/A	N/A	N/A	
SS Window Sum	10520	N/A	10520	N/A	N/A	N/A	CPS









LS Window Ratio	0.2960	N/A	0.2941	N/A	N/A	N/A	CPS
LS Window Sum	1176	N/A	1172	N/A	N/A	N/A	
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Photo–multiplier High Voltages Calibrations							
Before: 30–Nov–2009 15:13							
BS PM High Voltage (Command)	1473	N/A	1478	N/A	N/A	N/A	V
SS PM High Voltage (Command)	1598	N/A	1617	N/A	N/A	N/A	V
LS PM High Voltage (Command)	1349	N/A	1357	N/A	N/A	N/A	V
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Crystal Quality Resolutions Calibration							
Before: 30–Nov–2009 15:13							
BS Crystal Resolution	11.38	N/A	11.16	N/A	N/A	N/A	%
SS Crystal Resolution	10.38	N/A	10.45	N/A	N/A	N/A	%
LS Crystal Resolution	8.717	N/A	8.654	N/A	N/A	N/A	%
High resolution Integrated Logging Tool–DTS Wellsite Calibration – MCFL Calibration							
Before: 30–Nov–2009 15:08							
Raw B0 Resistivity	3875	N/A	3832	N/A	N/A	N/A	OHMM
Raw B1 Resistivity	3830	N/A	3792	N/A	N/A	N/A	OHMM
Raw B2 Resistivity	3830	N/A	3797	N/A	N/A	N/A	OHMM
High resolution Integrated Logging Tool–DTS Wellsite Calibration – HILT Caliper Calibration							
Before: 30–Nov–2009 15:06							
HILT Caliper Zero Measurement	8.000	N/A	7.815	N/A	N/A	N/A	IN
HILT Caliper Plus Measurement	12.00	N/A	11.89	N/A	N/A	N/A	IN
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Detector Calibration							
Before: 30–Nov–2009 15:06							
Gamma Ray Background	30.00	N/A	77.42	N/A	N/A	N/A	GAPI
Gamma Ray (Jig – Bkg)	175.8	N/A	175.8	N/A	N/A	15.98	GAPI
Gamma Ray (Calibrated)	165.0	N/A	165.0	N/A	N/A	15.00	GAPI
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Zero Measurement							
Master: 8–Oct–2009 13:16 Before: 30–Nov–2009 15:07							
CNTC Background	26.34	26.34	26.99	N/A	N/A	3.951	CPS
CFTC Background	27.85	27.85	28.31	N/A	N/A	4.178	CPS
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Ratio Measurement							
Master: 8–Oct–2009 13:16							
Thermal Near Corr. (Tank)	5800	5423	N/A	N/A	N/A	N/A	CPS
Thermal Far Corr. (Tank)	2400	2272	N/A	N/A	N/A	N/A	CPS
CNTC/CFTC (Tank)	2.159	2.387	N/A	N/A	N/A	N/A	
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Accelerometer Calibration							
Before: 2–Dec–2009 11:03							
Z–Axis Acceleration	32.19	N/A	32.02	N/A	N/A	N/A	F/S2
High resolution Integrated Logging Tool–DTS Master Calibration – Inversion results							
Master: 29–Nov–2009 14:51							
Rho Aluminum	2.596	2.602	--	--	--	--	G/C3
Rho Magnesium	1.686	1.687	--	--	--	--	G/C3
Pe Aluminum	2.570	2.559	--	--	--	--	
Pe Magnesium	2.650	2.623	--	--	--	--	
High resolution Integrated Logging Tool–DTS Master Calibration – Deviation Summary							
Master: 29–Nov–2009 14:51							
BS Average Deviation	0	0.2941	--	--	--	--	%
BS Max Deviation	0	0.5746	--	--	--	--	%
SS Average Deviation	0	0.3866	--	--	--	--	%
SS Max Deviation	0	2.080	--	--	--	--	%
LS Average Deviation	0	0.9530	--	--	--	--	%
LS Max Deviation	0	2.032	--	--	--	--	%
The GLS–VJ source activity is acceptable.							
The HGNS Neutron Master Calibration was done with the following parameters :							
NCT–B Water Temperature	57.0	DEGF.					
Thermal Housing Size	3.365	IN.					
NSR–F serial number	5068						

Auxiliary Equipment:

















Array Induction Tool – M Wellsite Calibration							
Electronics Calibration Check – Thru Cal Mag. & Phase							
Idx	Phase	Value	Thru Cal Magnitude V	Nominal	Value	Thru Cal Phase DEG	Nominal
0	Master	0.6205		0.6100	180.2		197.0
	Before	0.6203			180.2		
1	Master	1.271		1.270	179.2		196.0
	Before	1.271			179.1		
2	Master	0.6318		0.6200	175.6		192.0
	Before	0.6316			175.5		
3	Master	0.7131		0.7000	174.9		191.0
	Before	0.7129			174.8		
4	Master	1.334		1.340	168.7		185.0
	Before	1.334			168.6		
5	Master	1.953		1.960	167.0		182.0
	Before	1.952			166.9		
6	Master	1.949		1.960	167.0		181.0
	Before	1.948			167.0		
7	Master	1.419		1.410	166.2		175.0
	Before	1.418			166.2		
		60.00 % (Minimum)	140.0 % (Maximum)		Nom -60.00 (Minimum)	Nom + 60.00 (Maximum)	
Master: 14-Oct-2009 17:03				Before: 30-Nov-2009 15:07			

Array Induction Tool – M Wellsite Calibration							
Electronics Calibration Check – Auxiliary							
Phase	Array Induction SPA Plus MV	Value	Phase	Array Induction SPA Zero MV	Value		
Master		992.7	Master		0.6638		
Before		992.7	Before		0.6725		
	941.0 (Minimum)	991.0 (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		0.9196	Master		0.0006632		
Before		0.9196	Before		0.0006608		
	0.8710 (Minimum)	0.9170 (Nominal)	0.9630 (Maximum)	-0.05000 (Minimum)	0 (Nominal)	0.05000 (Maximum)	
Master: 14-Oct-2009 17:03				Before: 30-Nov-2009 15:07			







Array Induction Tool – M Wellsite Calibration							
Test Loop Gain Correction							
Idx	Value	Test Loop Gain Correction Magnitude V	Value	Test Loop Gain Correction Phase DEG			
0	1.017		0.7201				
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
1	1.014		0.7620				
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
2	1.015		0.2948				
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
3	1.011		0.2209				
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)

4	0.9935		0.1146			
	0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
5	0.9888		-0.009143			
	0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
6	0.9937		0.2984			
	0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
7	1.007		-0.05307			
	0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)









Master: 14-Oct-2009 17:03

Array Induction Tool – M Wellsite Calibration							
Sonde Error Correction							
Idx	Value	R Sonde Error Correction MM/M			Value	X Sonde Error Correction MM/M	
0	-69.04				-259.4		
	-231.0 (Minimum)	-56.00 (Nominal)	119.0 (Maximum)		-2250 (Minimum)	0 (Nominal)	2250 (Maximum)
1	172.8				103.1		
	114.0 (Minimum)	159.0 (Nominal)	204.0 (Maximum)		-625.0 (Minimum)	0 (Nominal)	625.0 (Maximum)
2	116.8				63.05		
	66.00 (Minimum)	111.0 (Nominal)	156.0 (Maximum)		-350.0 (Minimum)	0 (Nominal)	350.0 (Maximum)
3	64.65				-22.90		
	39.00 (Minimum)	64.00 (Nominal)	89.30 (Maximum)		-250.0 (Minimum)	0 (Nominal)	250.0 (Maximum)
4	26.78				21.47		
	15.00 (Minimum)	25.00 (Nominal)	35.00 (Maximum)		-63.00 (Minimum)	0 (Nominal)	63.00 (Maximum)
5	12.75				-15.50		
	4.000 (Minimum)	14.00 (Nominal)	24.00 (Maximum)		-50.00 (Minimum)	0 (Nominal)	50.00 (Maximum)
6	11.98				-4.060		
	5.000 (Minimum)	10.00 (Nominal)	15.00 (Maximum)		-30.00 (Minimum)	0 (Nominal)	30.00 (Maximum)
7	-2.480				-4.950		
	-5.000 (Minimum)	0 (Nominal)	5.000 (Maximum)		-30.00 (Minimum)	0 (Nominal)	30.00 (Maximum)

Master: 14-Oct-2009 17:03



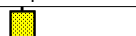
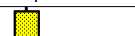
Array Induction Tool – M Wellsite Calibration							
Mud Gain Correction							
Idx	Value	Coarse – Mag, Real, Imag			Value	Fine – Mag, Real, Imag	
0	0.8551				0.8573		
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal) 1.200 (Maximum)
1	0.8551				0.8573		
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal) 1.200 (Maximum)
2	0.8551				0.8573		
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal) 1.200 (Maximum)

Master: 14-Oct-2009 17:03

Array Induction Tool – M Master Calibration									
Electronics Calibration Check – Thru Cal Mag. & Phase									
Idx	Phase	Value	Thru Cal Magnitude V		Nominal	Value	Thru Cal Phase DEG		Nominal
0	Master	0.6205			0.6100	180.2			197.0
1	Master	1.271			1.270	179.2			196.0
2	Master	0.6318			0.6200	175.6			192.0
3	Master	0.7131			0.7000	174.9			191.0

4	Master	1.334		1.340	168.7		185.0
5	Master	1.953		1.960	167.0		182.0
6	Master	1.949		1.960	167.0		181.0
7	Master	1.419		1.410	166.2		175.0
		60.00 % (Minimum)	(Nominal)	140.0 % (Maximum)	Nom -60.00 (Minimum)	(Nominal)	Nom + 60.00 (Maximum)

Master: 14-Oct-2009 17:03









Array Induction Tool – M Master Calibration							
Electronics Calibration Check – Auxiliary							
Phase	Array Induction SPA Plus MV		Value	Phase	Array Induction SPA Zero MV		Value
Master			992.7	Master			0.6638
	941.0 (Minimum)	991.0 (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			0.9196	Master			0.0006632
	0.8710 (Minimum)	0.9170 (Nominal)	0.9630 (Maximum)		-0.05000 (Minimum)	0 (Nominal)	0.05000 (Maximum)
Master: 14-Oct-2009 17:03							

Master: 14-Oct-2009 17:03

Array Induction Tool – M Master Calibration									
Test Loop Gain Correction									
Idx	Value	Test Loop Gain	Correction Magnitude	V	Value	Test Loop Gain	Correction Phase	DEG	
0	1.017				0.7201				
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)	
1	1.014				0.7620				
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)	
2	1.015				0.2948				
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)	
3	1.011				0.2209				
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)	
4	0.9935				0.1146				
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)	
5	0.9888				-0.009143				
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)	
6	0.9937				0.2984				
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)	
7	1.007				-0.05307				
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)	

Master: 14-Oct-2009 17:03

Master: 14-Oct-2009 17:03

Array Induction Tool – M Master Calibration								
Sonde Error Correction								
Idx	Value	R Sonde Error Correction MM/M			Value	X Sonde Error Correction MM/M		
0	-69.04				-259.4			
		-231.0 (Minimum)	-56.00 (Nominal)	119.0 (Maximum)		-2250 (Minimum)	0 (Nominal)	2250 (Maximum)
1	172.8				103.1			
		114.0 (Minimum)	159.0 (Nominal)	204.0 (Maximum)		-625.0 (Minimum)	0 (Nominal)	625.0 (Maximum)
2	116.8				63.05			
		66.00 (Minimum)	111.0 (Nominal)	156.0 (Maximum)		-350.0 (Minimum)	0 (Nominal)	350.0 (Maximum)
3	64.65				-22.90			
		39.00 (Minimum)	64.00 (Nominal)	89.30 (Maximum)		-250.0 (Minimum)	0 (Nominal)	250.0 (Maximum)

Master: 14-Oct-2009 17:03

Master: 14-Oct-2009 17:03

2019/10/06 14:07 2000 10110




Before: 30-Nov-2009 15:13

High Resolution Integrated Logging Tool (HRT) Wellbore Calibration



Crystal Quality Resolutions Calibration

Phase	BS Crystal Resolution %		Value	Phase	SS Crystal Resolution %		Value	Phase	LS Crystal Resolution %		Value
Before			11.16	Before			10.45	Before			8.654
	10.38 (Minimum)	11.38 (Nominal)	12.38 (Maximum)		9.384 (Minimum)	10.38 (Nominal)	11.38 (Maximum)		7.717 (Minimum)	8.717 (Nominal)	9.717 (Maximum)




Before: 30-Nov-2009 15:13

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			3832	Before			3792	Before			3797
	3565 (Minimum)	3875 (Nominal)	4185 (Maximum)		3524 (Minimum)	3830 (Nominal)	4136 (Maximum)		3524 (Minimum)	3830 (Nominal)	4136 (Maximum)





Before: 30-Nov-2009 15:08

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			7.815	Before			11.89
	6.000 (Minimum)	8.000 (Nominal)	10.00 (Maximum)		9.000 (Minimum)	12.00 (Nominal)	15.00 (Maximum)
Before: 30-Nov-2009 15:06							

Before: 30-Nov-2009 15:06



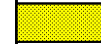
High resolution Integrated Logging Tool-DTS Wellsite Calibration														
Detector Calibration														
Phase	Gamma Ray Background GAPI			Value	Phase	Gamma Ray (Jig – Bkg) GAPI			Value	Phase	Gamma Ray (Calibrated) GAPI			Value
Before				77.42	Before				175.8	Before				165.0
	0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)		159.8 (Minimum)	175.8 (Nominal)	191.8 (Maximum)			150.0 (Minimum)	165.0 (Nominal)	180.0 (Maximum)		

Before: 30-Nov-2009 15:06


High resolution Integrated Logging Tool-DTS Wellsite Calibration							
Zero Measurement							
Phase	CNTC Background CPS		Value	Phase	CFTC Background CPS		Value
Master			26.34	Master			27.85
Before			26.99	Before			28.31
5.000 (Minimum)			26.34 (Nominal)	40.00 (Maximum)			
Master: 8-Oct-2009 13:16				Before: 30-Nov-2009 15:07			

Master: 8-Oct-2009 13:16





Before: 30-Nov-2009 15:07

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				5423	Master				2272	Master				2.387
	4700 (Minimum)	5800 (Nominal)	6900 (Maximum)			1900 (Minimum)	2400 (Nominal)	2900 (Maximum)			2.120 (Minimum)	2.159 (Nominal)	2.540 (Maximum)	

Master: 8-Oct-2009 13:16

High resolution Integrated Logging Tool-DTS Wellsite Calibration		
Accelerometer Calibration		
Phase	Z-Axis Acceleration F/S2	Value
Before		32.02
	31.53 (Minimum)	32.19 (Nominal)
		32.84 (Maximum)
Before: 2-Dec-2009 11:03		



Before: 2-Dec-2009 11:03




High resolution Integrated Logging Tool-DTS Master Calibration									
Inversion results									
Phase	Rho Aluminum G/C3			Value	Phase	Rho Magnesium G/C3			Value
Master				2.602	Master				1.687
2.586 (Minimum)2.596 (Nominal)2.606 (Maximum)					1.676 (Minimum)1.686 (Nominal)1.696 (Maximum)				
Phase	Pe Aluminum			Value	Phase	Pe Magnesium			Value
Master				2.559	Master				2.623

2.470 (Minimum)	2.570 (Nominal)	2.670 (Maximum)	2.550 (Minimum)	2.650 (Nominal)	2.750 (Maximum)
--------------------	--------------------	--------------------	--------------------	--------------------	--------------------

Master: 29-Nov-2009 14:51

High resolution Integrated Logging Tool-DTS Master Calibration														
Deviation Summary														
Phase	BS Average Deviation %			Value	Phase	SS Average Deviation %			Value	Phase	LS Average Deviation %			Value
Master	<div><div></div></div>			0.2941	Master	<div><div></div></div>			0.3866	Master	<div><div></div></div>			0.9530
-0.6000 (Minimum) 0 (Nominal) 0.6000 (Maximum)					-1.000 (Minimum) 0 (Nominal) 1.000 (Maximum)					-1.500 (Minimum) 0 (Nominal) 1.500 (Maximum)				
Phase	BS Max Deviation %			Value	Phase	SS Max Deviation %			Value	Phase	LS Max Deviation %			Value
Master	<div><div></div></div>			0.5746	Master	<div><div></div></div>			2.080	Master	<div><div></div></div>			2.032
-1.600 (Minimum) 0 (Nominal) 1.600 (Maximum)					-2.500 (Minimum) 0 (Nominal) 2.500 (Maximum)					-3.500 (Minimum) 0 (Nominal) 3.500 (Maximum)				
Master: 29-Nov-2009 14:51														

High resolution Integrated Logging Tool—DTS Master Calibration									
Zero Measurement									
Phase	CNTC Background CPS			Value	Phase	CFTC Background CPS			Value
Master				26.34	Master				27.85
	5.000 (Minimum)	26.34 (Nominal)	40.00 (Maximum)			5.000 (Minimum)	27.85 (Nominal)	40.00 (Maximum)	
Master: 8-Oct-2009 13:16									

High resolution Integrated Logging Tool-DTS Master Calibration														
Tank Measurement														
Phase	Thermal Near Corr. (Tank) CPS			Value	Phase	Thermal Far Corr. (Tank) CPS			Value	Phase	CNTC/CFTC (Tank)			Value
Master				5423	Master				2272	Master				2.387
	4700 (Minimum)	5800 (Nominal)	6900 (Maximum)		1900 (Minimum)	2400 (Nominal)	2900 (Maximum)		2.120 (Minimum)	2.159 (Nominal)	2.540 (Maximum)			
Master: 8-Oct-2009 13:16														

DTS Telemetry Tool / Equipment Identification			
Primary Equipment:			
DTC-H Auxiliary Cartridge	DTCH - A		
DTC-H Telemetry Cartridge	DTCH - A	8980	
Auxiliary Equipment:			
DTCH Telemetry Cartridge Housing	ECH - KC		

Company: **Kerr McGee Oil and Gas Onshore, LP**

Schlumberger

Well: **Parterre 13-16**

Field: **Spindle**

County: **Adams**

State: **Colorado**

Platform Express
Compensated Neutron
Density Lithology