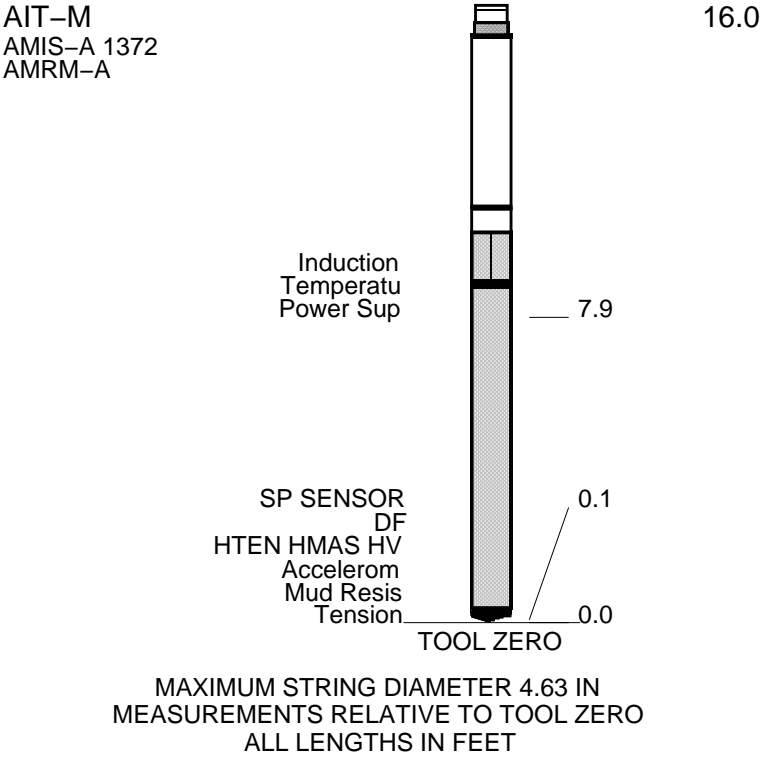
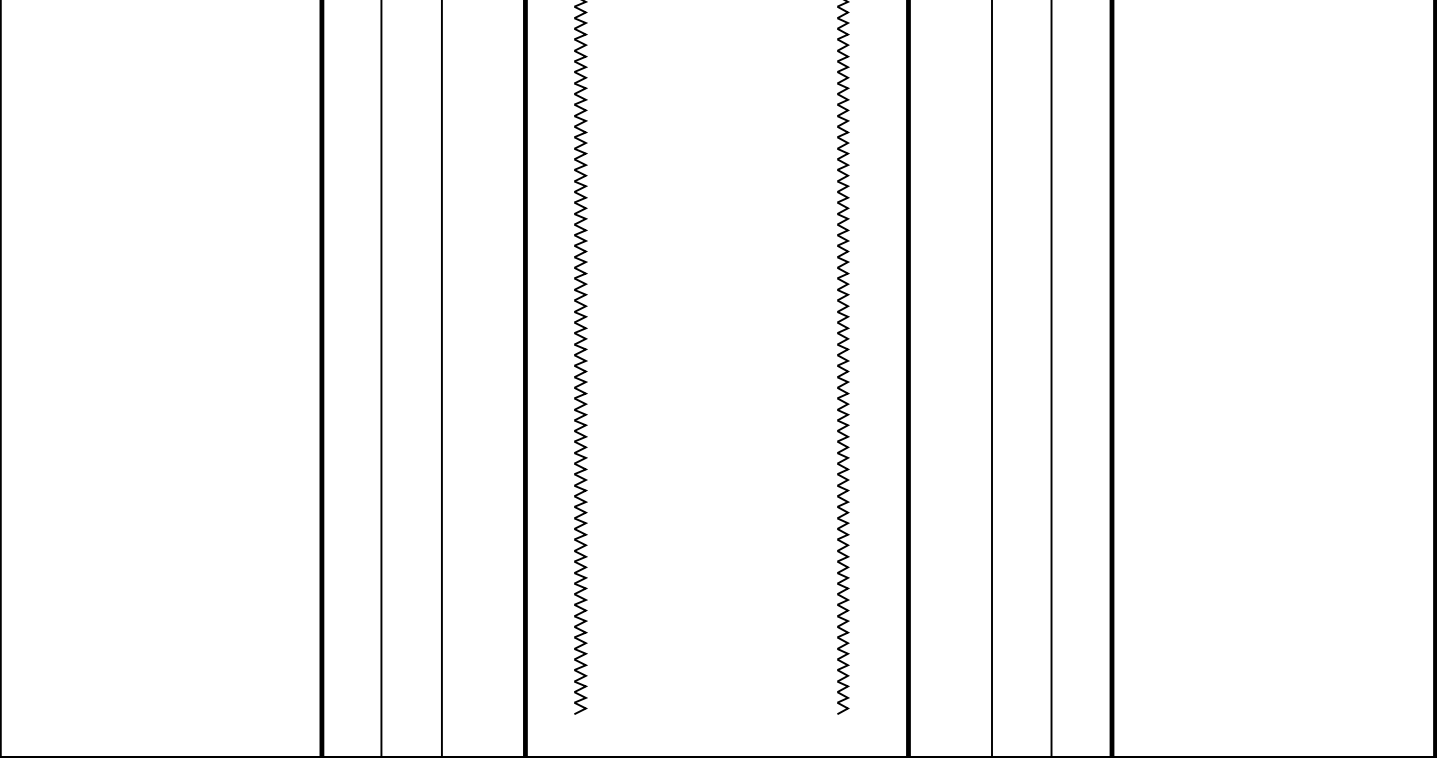


[illegible]



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



All depths are driller's depths



UPPER MICROLOG 5" = 100'

MAXIS Field Log

Input DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_006LUP FN:5 PRODUCER 27-Nov-2009 20:39 8607.0 FT 0.0 FT

Integrated Hole/Cement Volume Summary

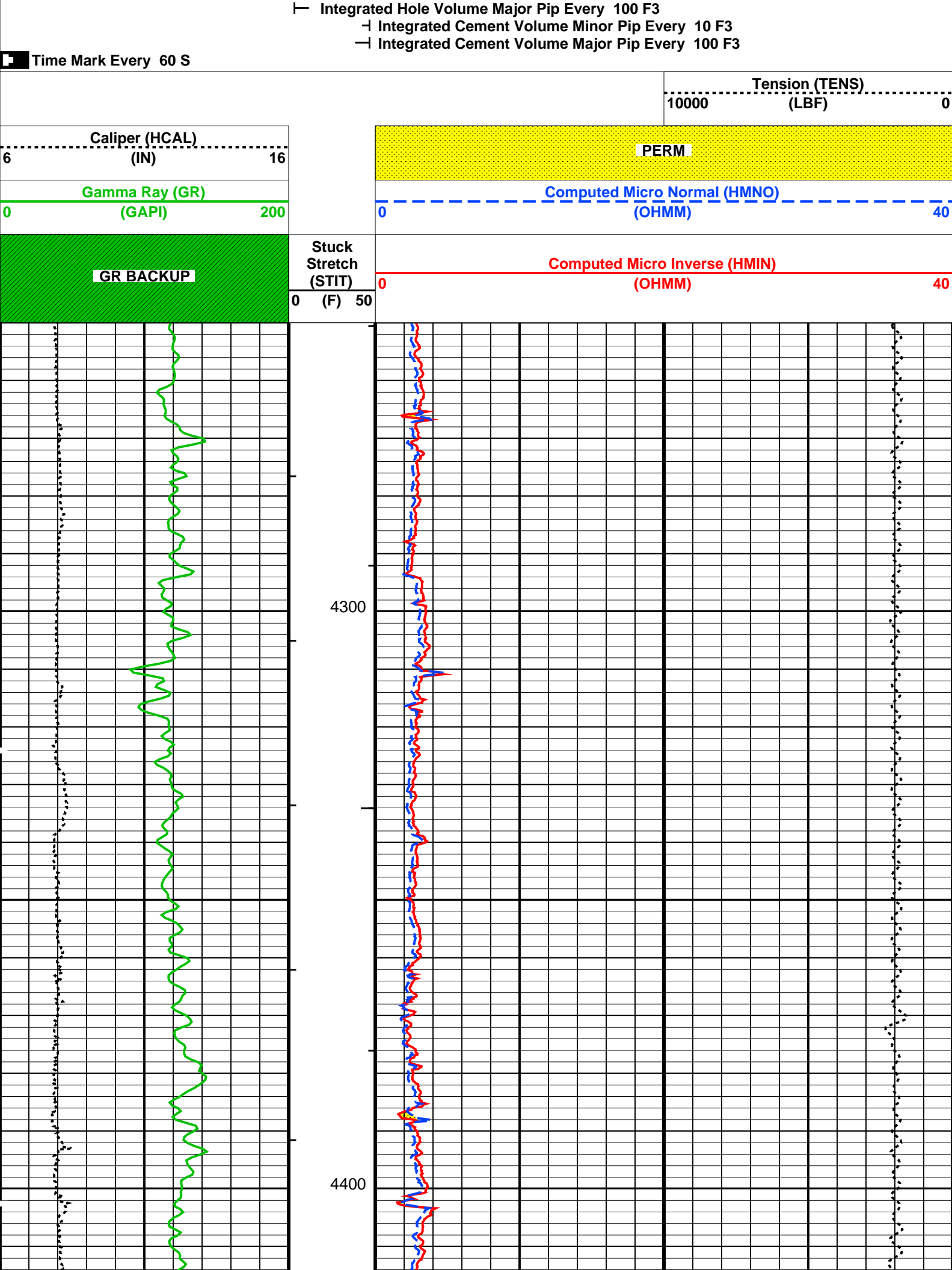
Hole Volume = 470.78 ft3
Cement Volume = 321.17 ft3 (assuming 4.50 in casing O.D.)
Computed from 5599.5 ft to 4245.5 ft

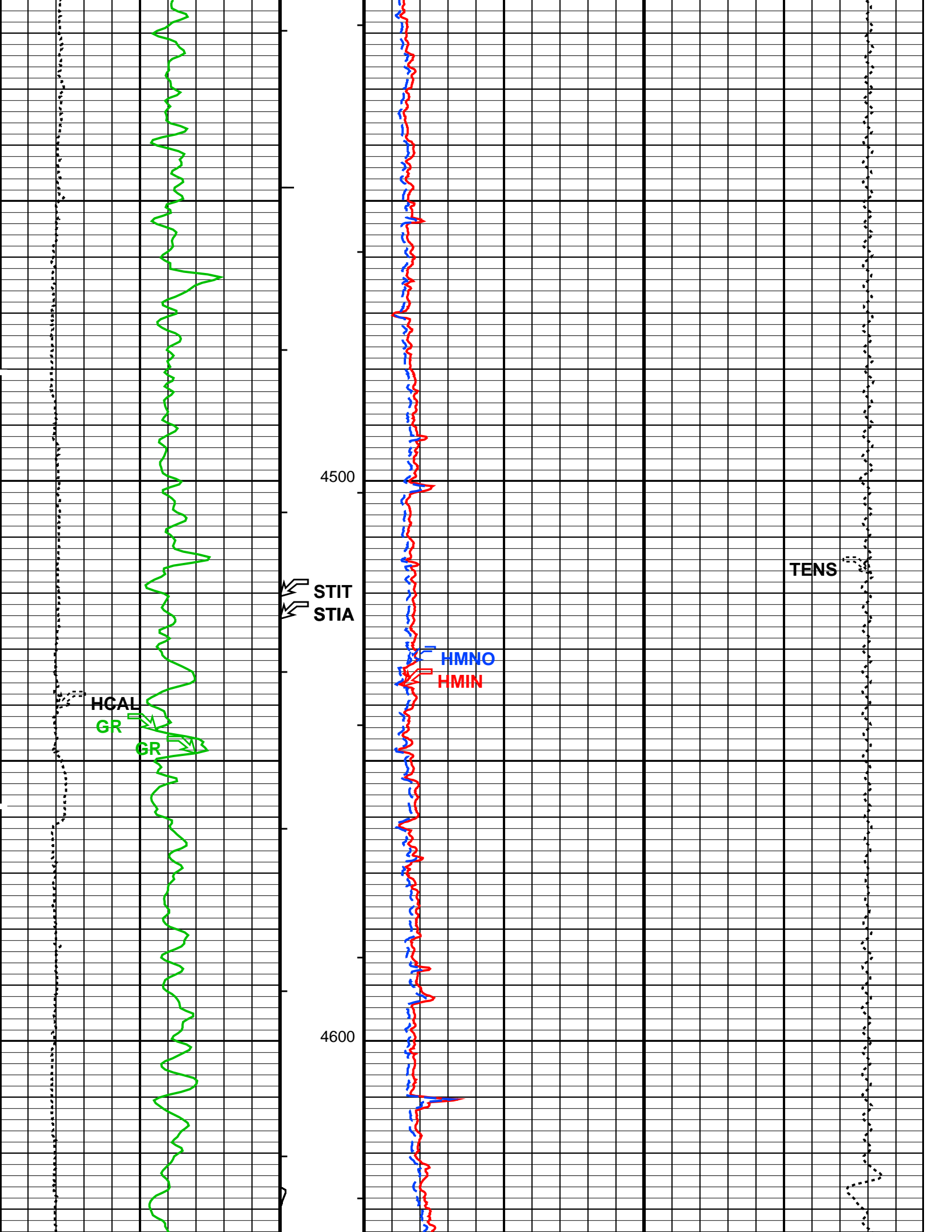
OP System Version: 17C0-154

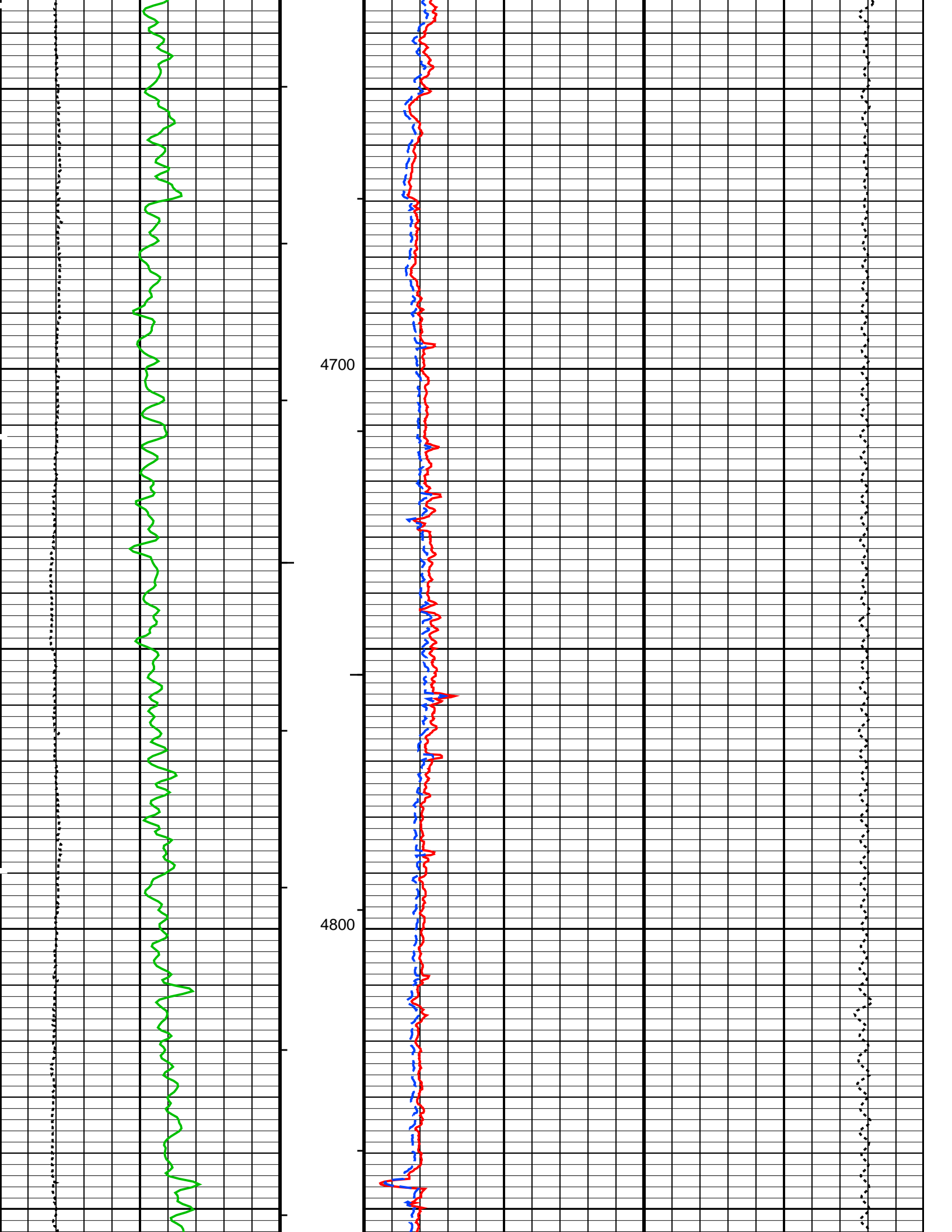
AITM 17C0-154 HILTD 17C0-154
DTCH 17C0-154

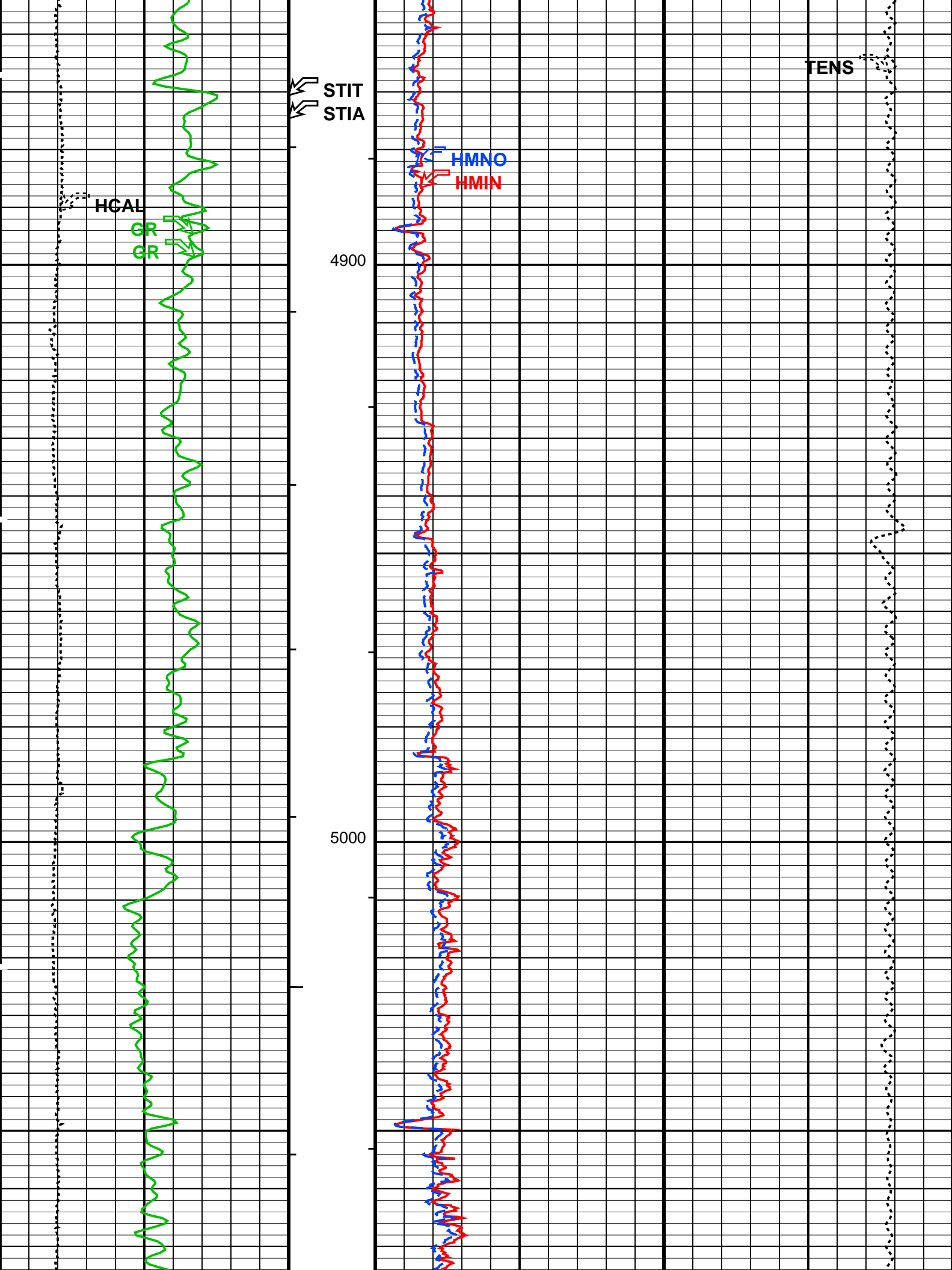
PIP SUMMARY

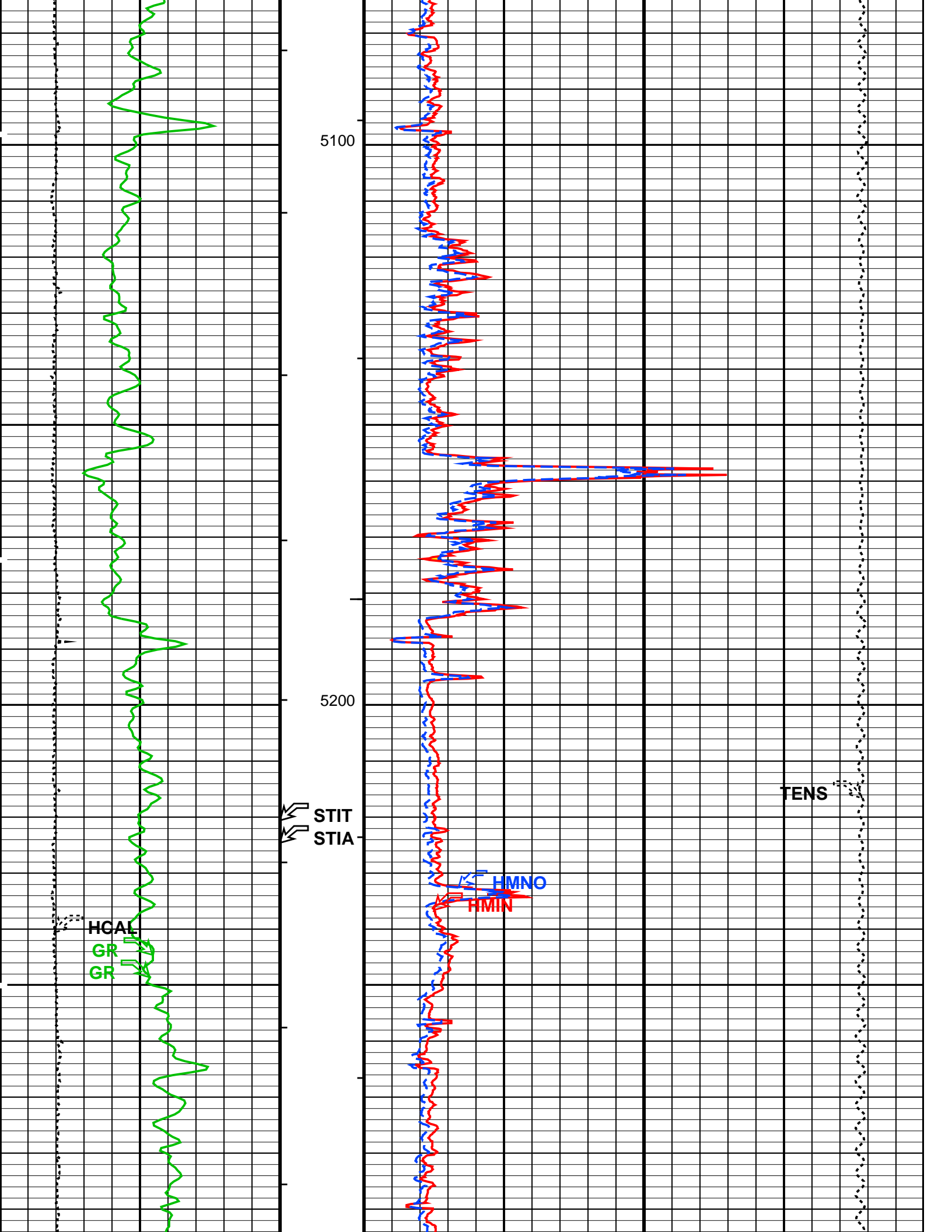
└ Integrated Hole Volume Minor Pip Every 10 F3

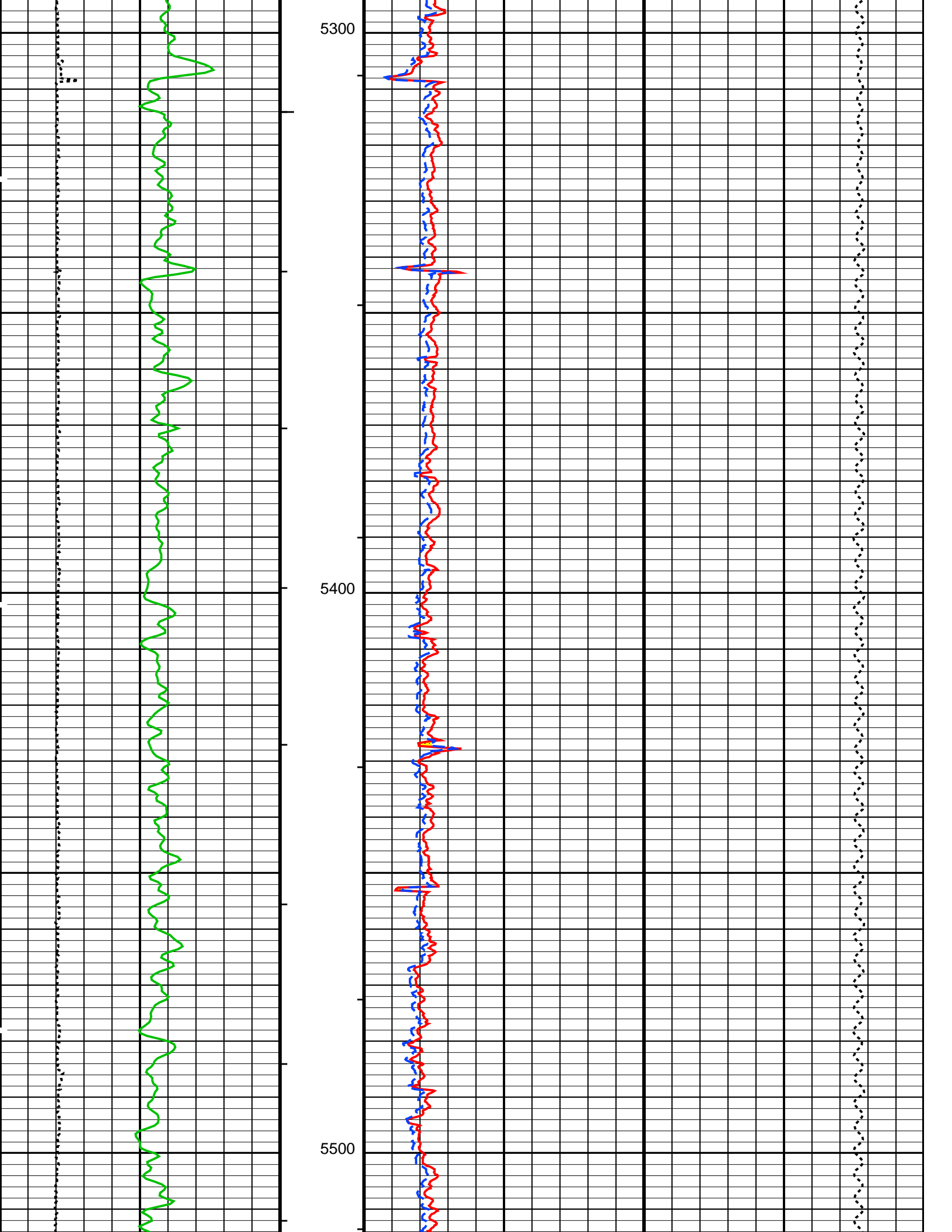


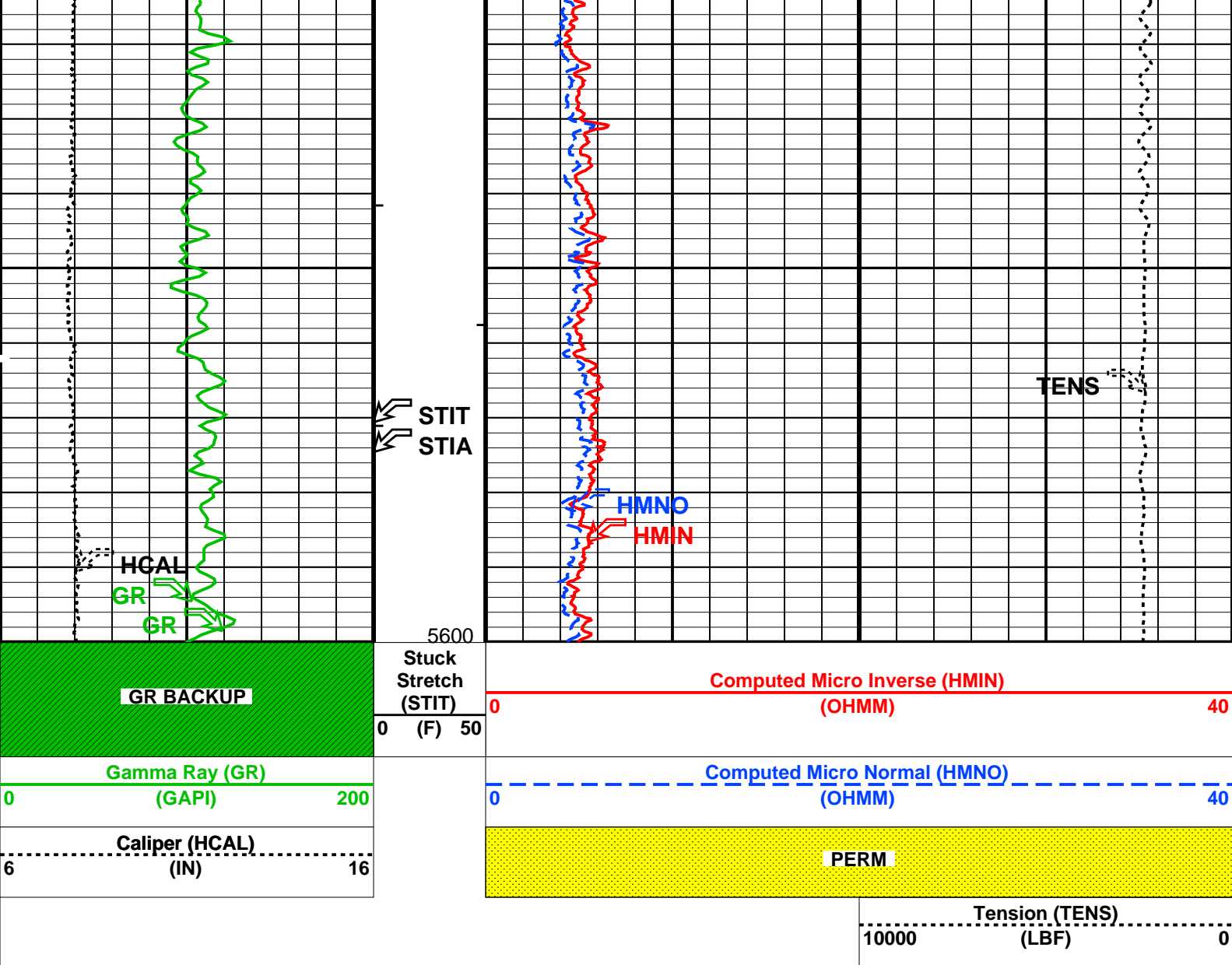












Parameters		
DLIS Name	Description	Value
MPOF	HILTB-FTB: High resolution Integrated Logging Tool-DTS MCFL Processing Operation Mode	ON
STKT	STI: Stuck Tool Indicator	
TDD	STI Stuck Threshold	2.500 ft
TDL	Total Depth - Driller	8628.0 ft
	Total Depth - Logger	8594.0 ft
BS	System and Miscellaneous	
	Bit Size	7.875 in

Parameters			
DLIS Name		Description	Value
MPOF	HILTB–FTB: High resolution Integrated Logging Tool–DTS MCFL Processing Operation Mode		ON
	STI: Stuck Tool Indicator		
STKT		STI Stuck Threshold	2.500 ft
TDD		Total Depth – Driller	8628.0 ft
TDL		Total Depth – Logger	8594.0 ft
	System and Miscellaneous		
BS		Bit Size	7.875 in

Input DLIS Files			
DEFAULT	AIT_TLD_MCFL_CNL_006LUP	FN:5	PRODUCER 27-Nov-2009 20:39 8607.0 FT 0.0 FT

Output DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_006LUP FN:5 PRODUCER 27-Nov-2009 20:39

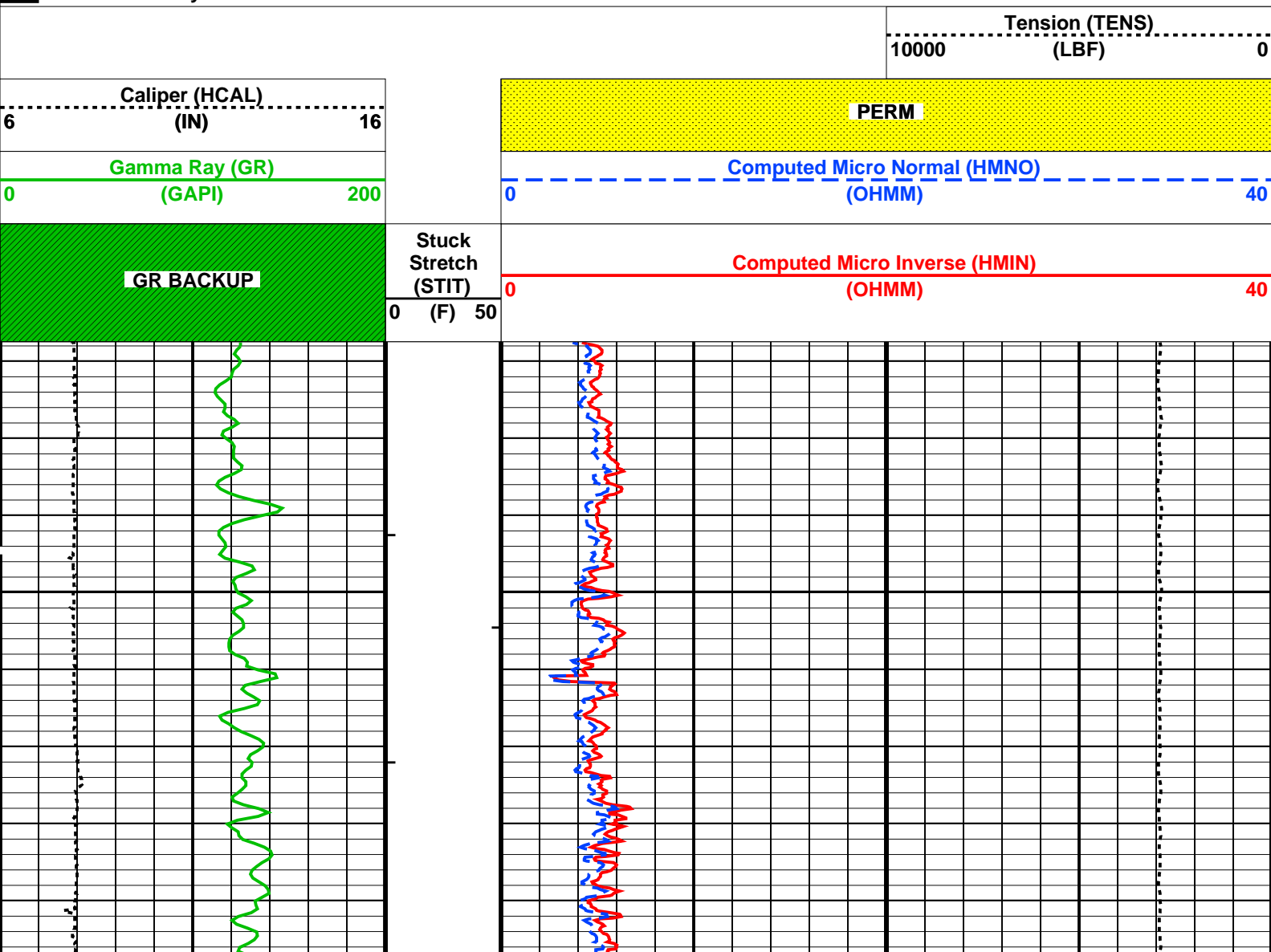
OP System Version: 17C0-154

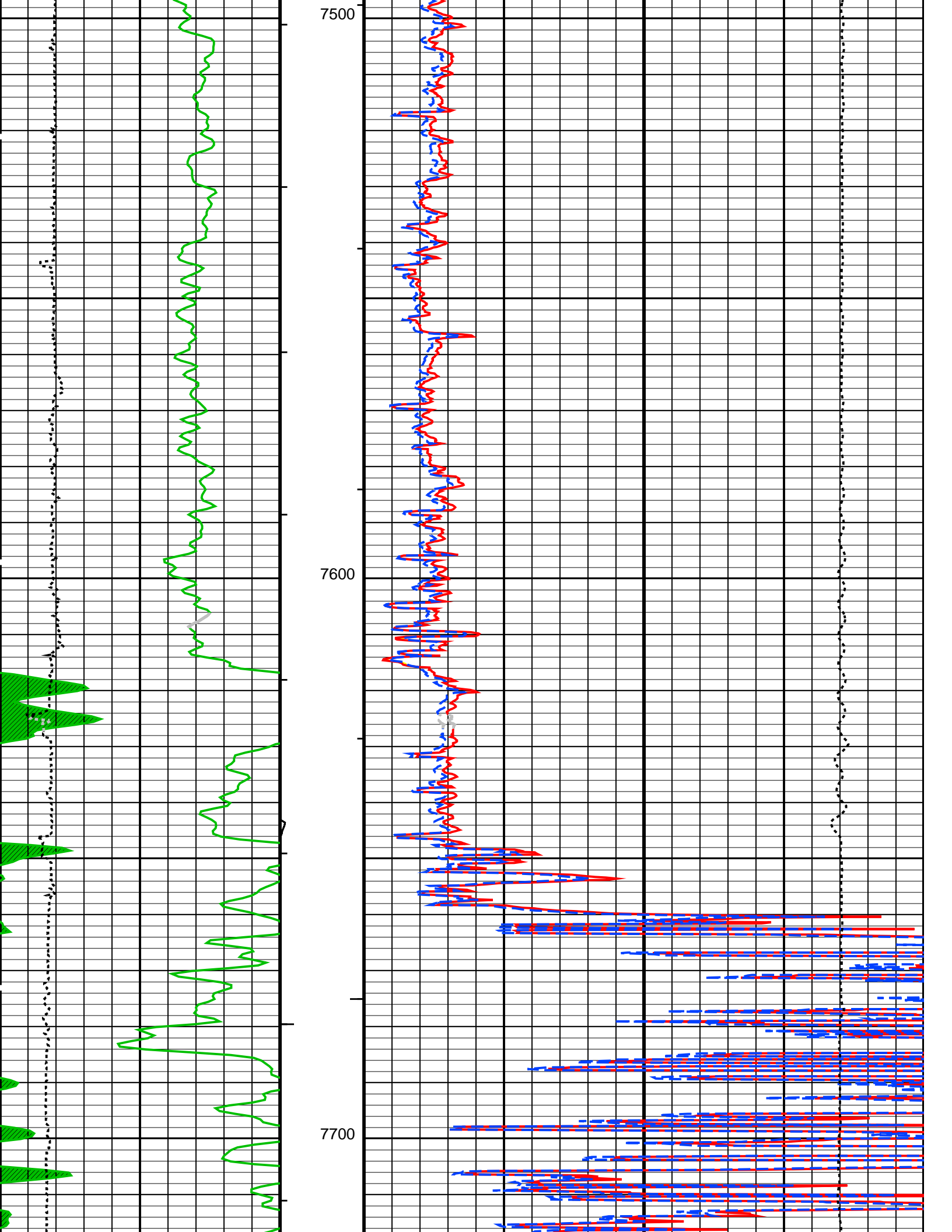
AIT-M 17C0-154 HILTB-FTB 17C0-154
DTC-H 17C0-154

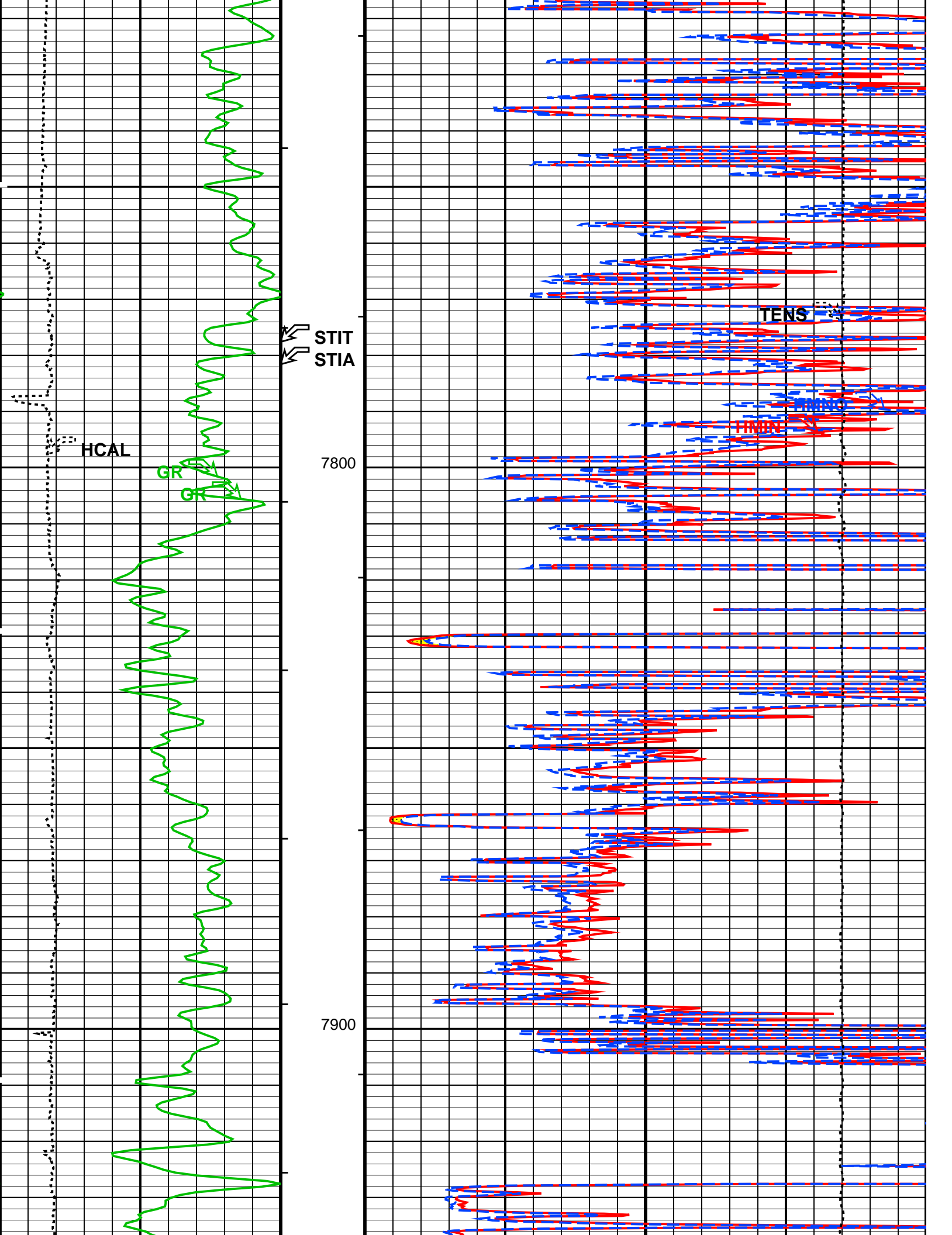
PIP SUMMARY

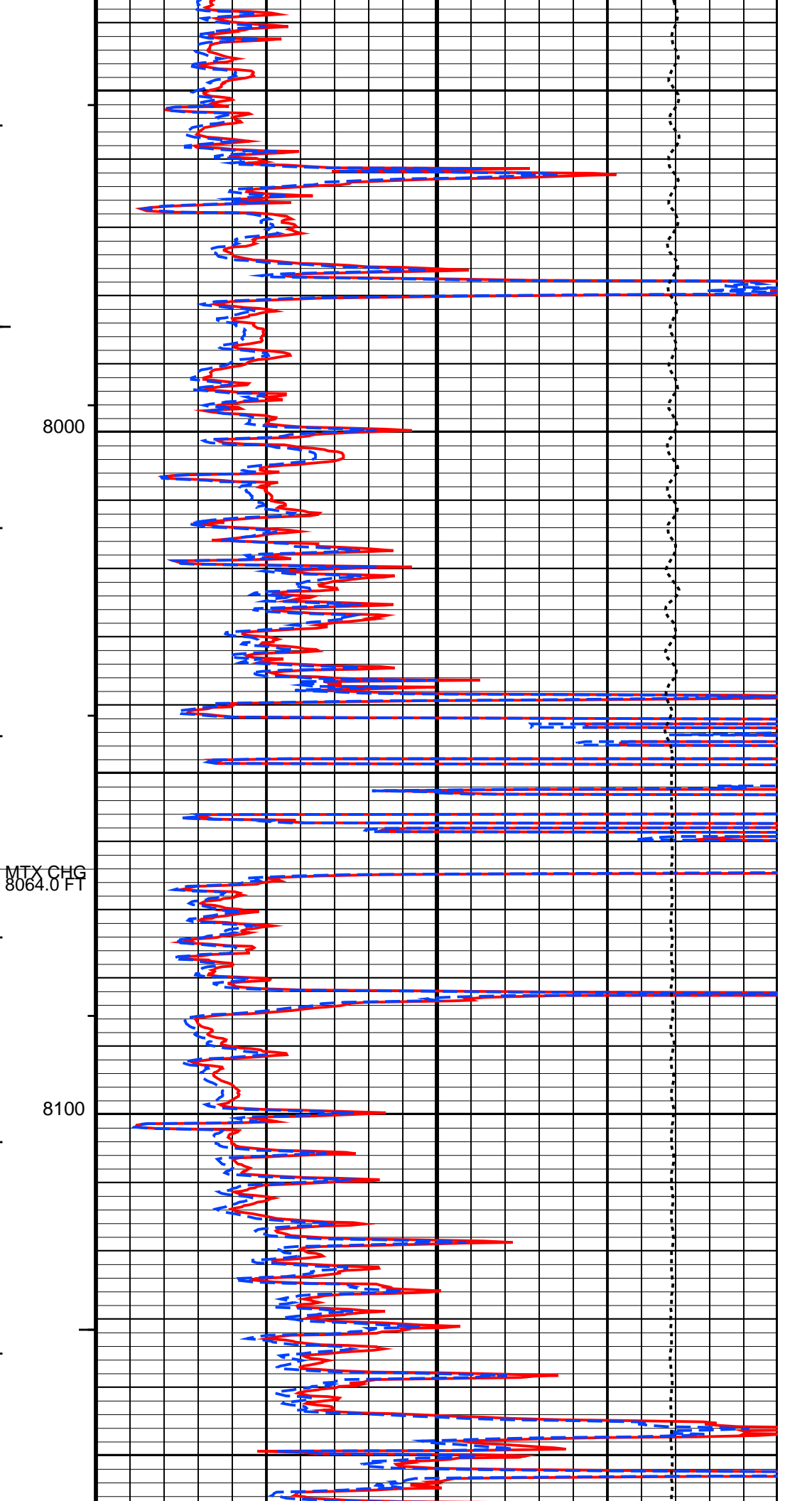
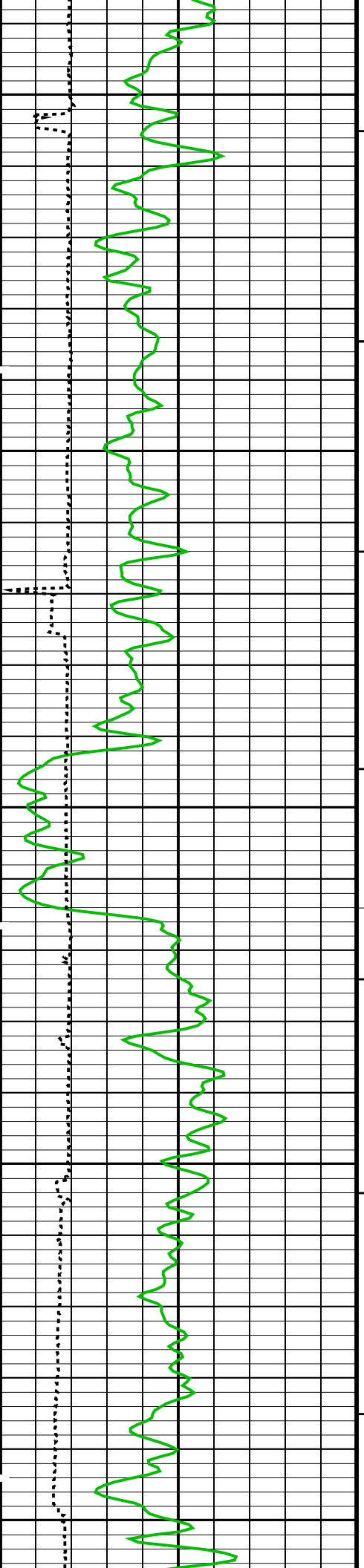
- └ Integrated Hole Volume Minor Pip Every 10 F3
- └ Integrated Hole Volume Major Pip Every 100 F3
 - └ Integrated Cement Volume Minor Pip Every 10 F3
 - └ Integrated Cement Volume Major Pip Every 100 F3

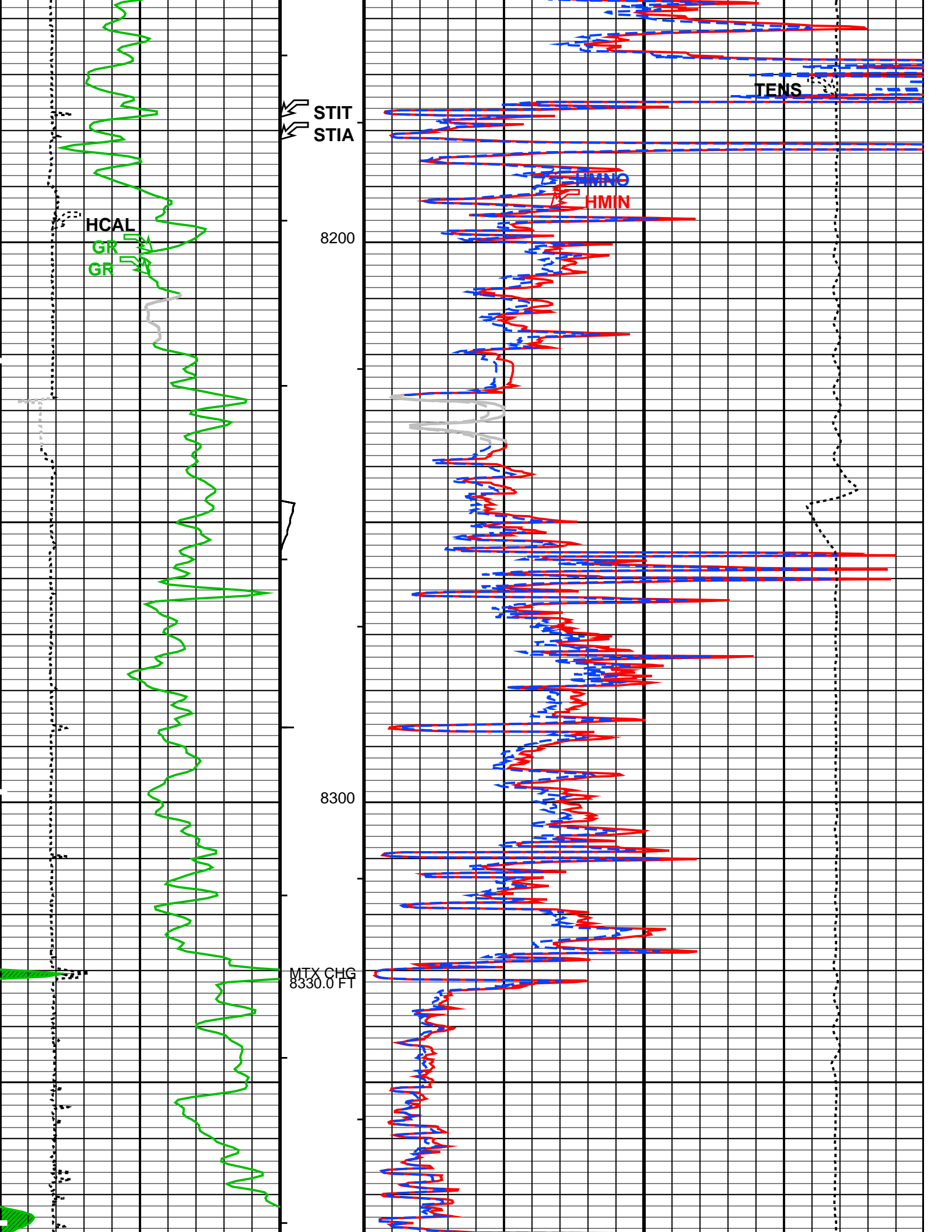
Time Mark Every 60 S

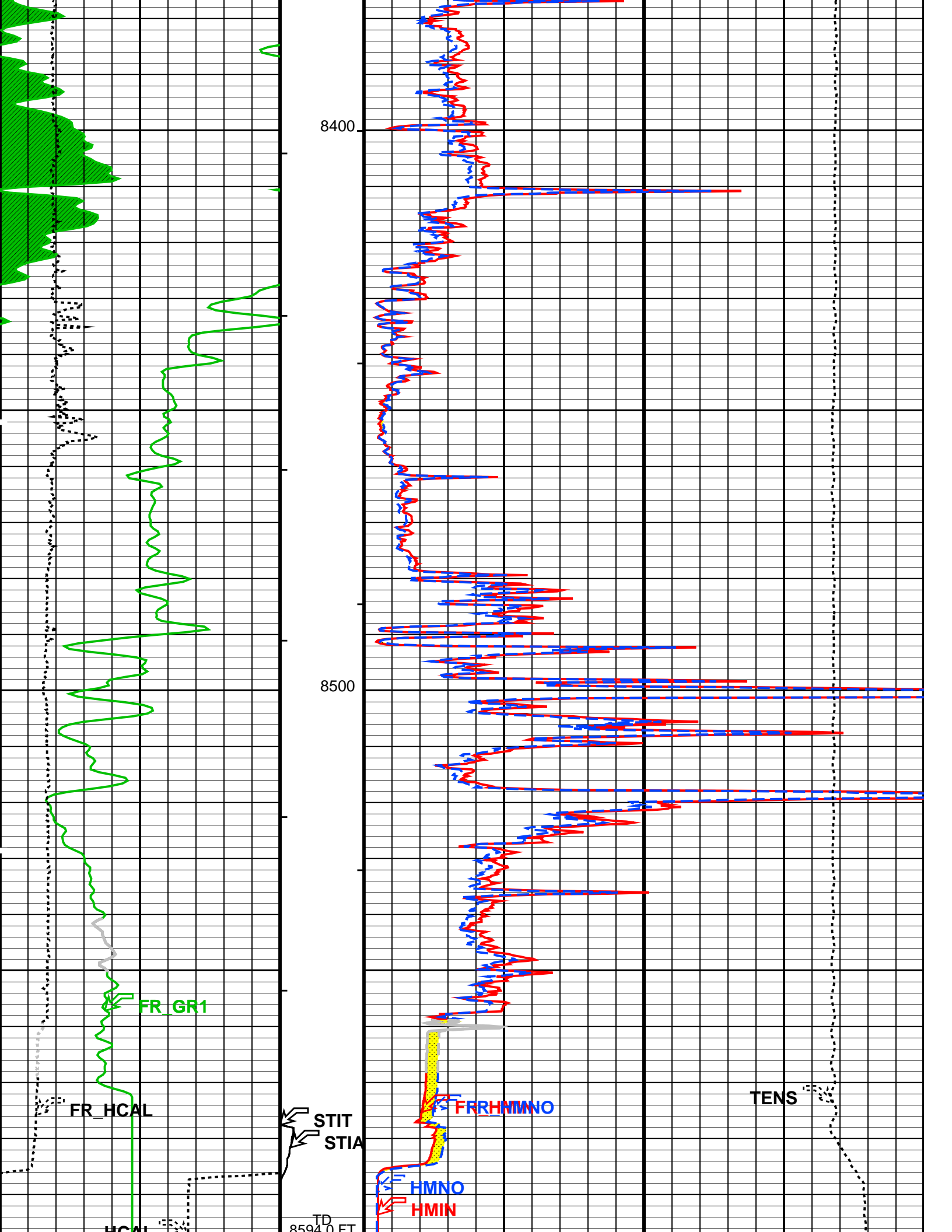












Output DLIS Files

AIT_TLD_MCFL_CNL_006LUP

FN:5

PRODUCER

27-Nov-2009 20:39

OP System Version: 17C0-154

17C0-154
17C0-154

HILTB-FTB

17C0-154

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

TENS_REP Curve (TENS_REP)

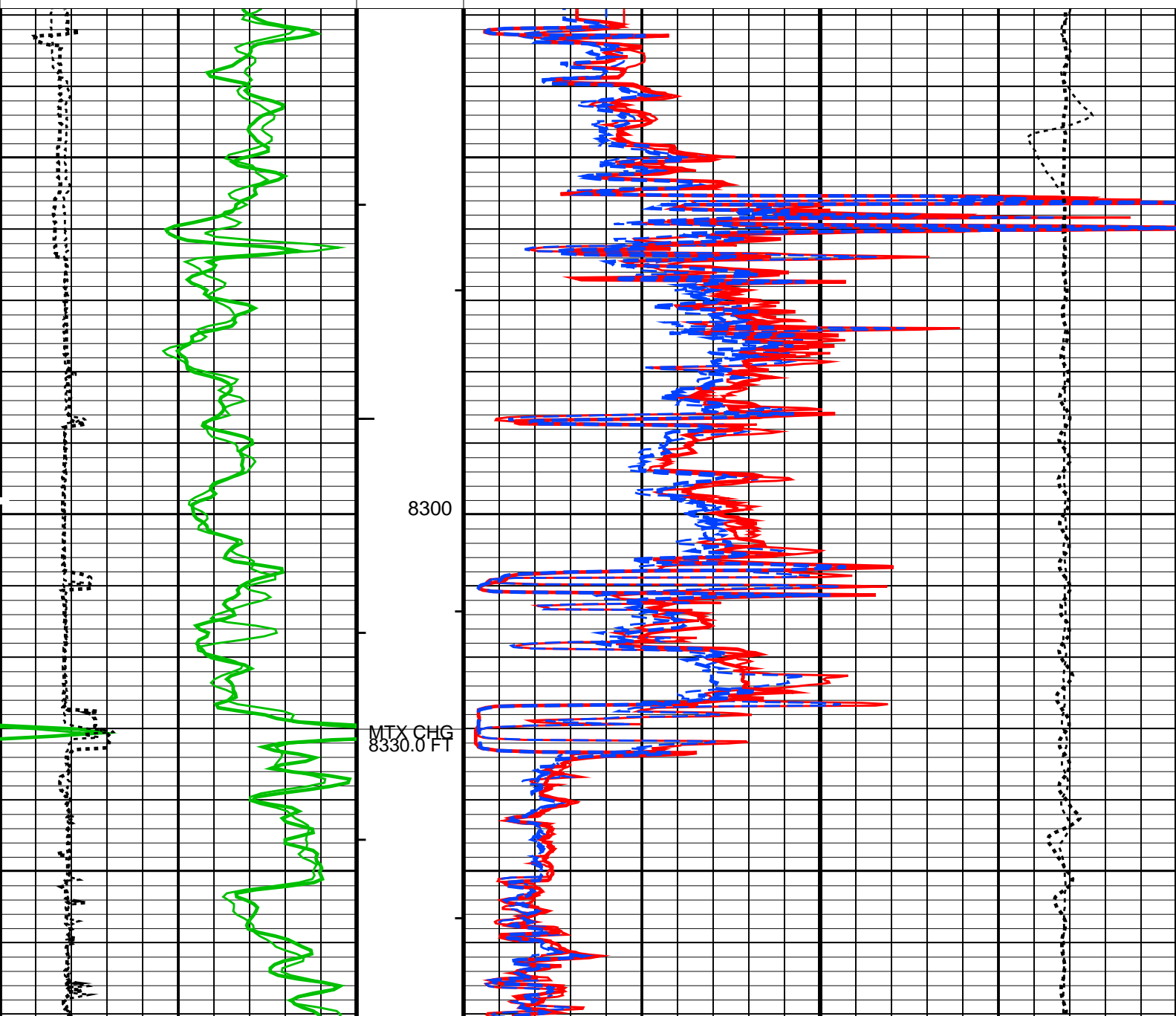
HCAL_REP Curve (HCAL_REP)

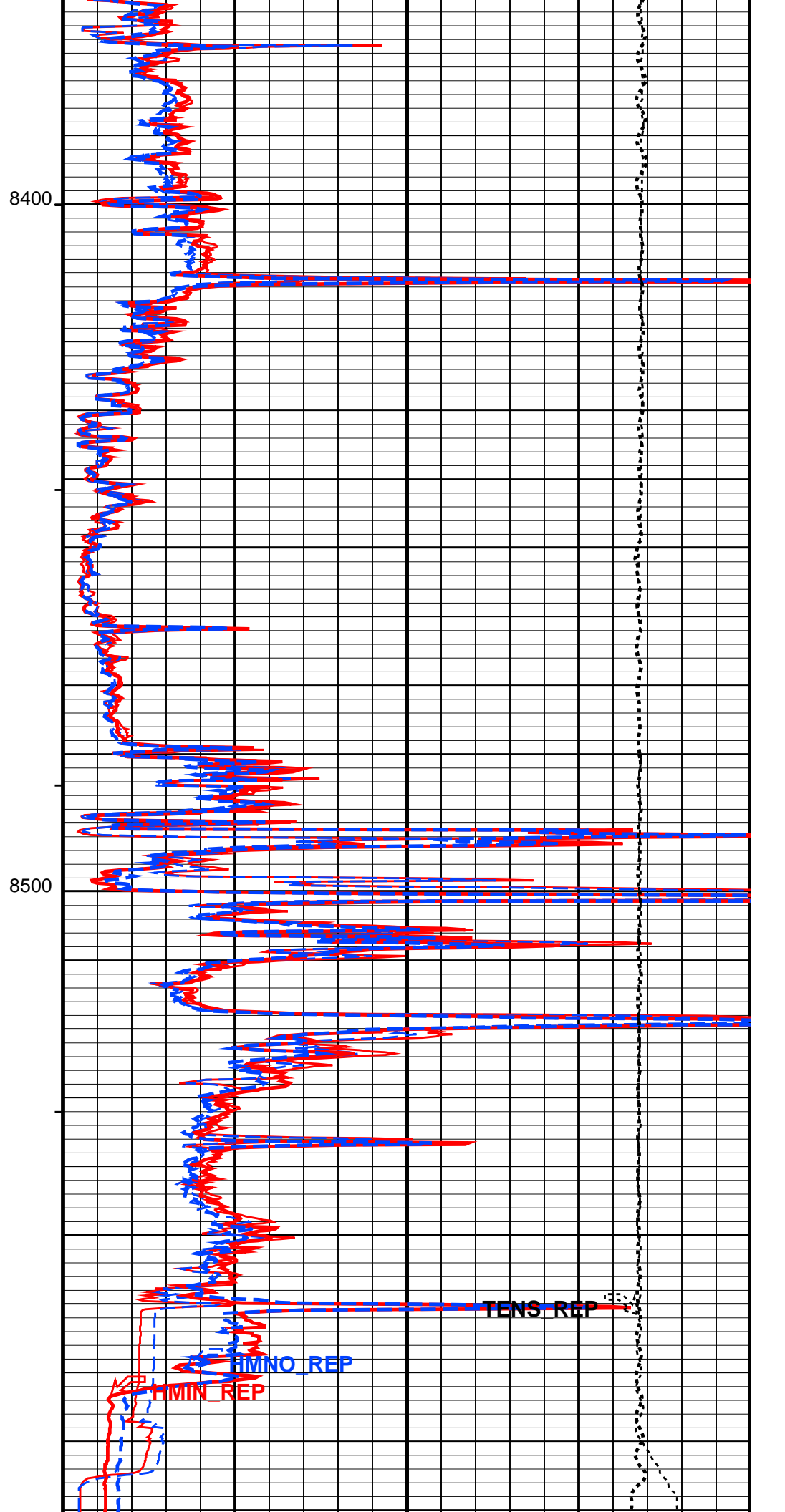
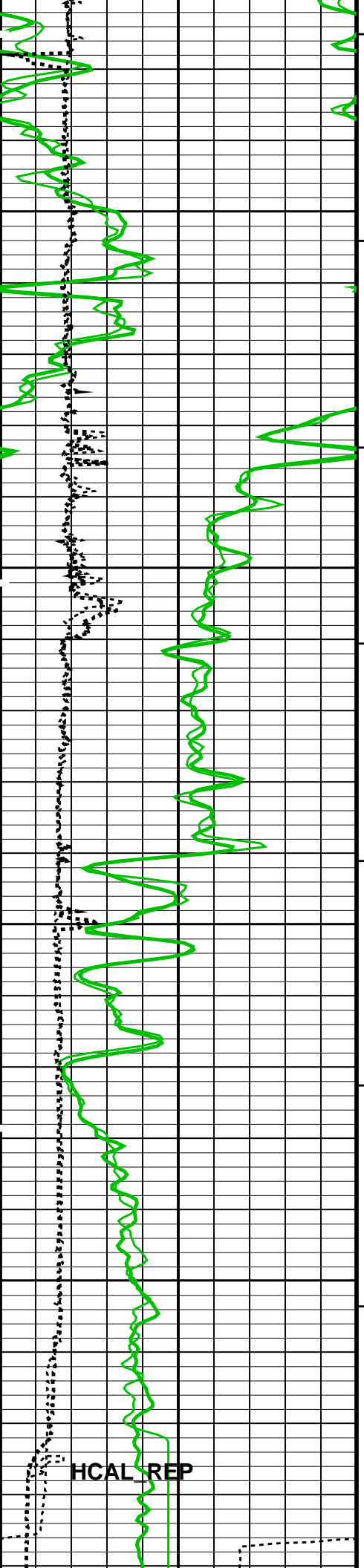
GR_REP Curve (GR_REP)	
0	200
(GAPI)	

HMNO_REP	Percentage (%)
0	0
1	0
2	0
3	0
4	0
5	0
6	0
7	0
8	0
9	0
10	0

HMIN_REP Curve (HMIN_REP)

0 (OHMM) 40





Array Induction Tool – M Wellsite Calibration – Electronics Calibration Check – Thru Cal Mag. & Phase
Master: 14–Oct–2009 17:03 Before: 27–Nov–2009 15:06

Thru Cal Magnitude – 0	0	0.6205	0.6204	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	0.6317	N/A	N/A	N/A	V
Thru Cal Magnitude – 3	0	0.7131	0.7130	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	1.953	N/A	N/A	N/A	V
Thru Cal Magnitude – 6	0	1.949	1.949	N/A	N/A	N/A	V
Thru Cal Magnitude – 7	0	1.419	1.419	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	175.6	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	168.7	N/A	N/A	N/A	DEG
Thru Cal Phase – 5	0	167.0	167.0	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: 27–Nov–2009 15:06

Array Induction SPA Plus	991.0	992.7	992.7	N/A	N/A	N/A	MV
Array Induction SPA Zero	0	0.6638	0.6620	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	0.0006718	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: 27–Nov–2009 15:10











BS Window Ratio	0.7143	N/A	0.7123	N/A	N/A	N/A	
BS Window Sum	8626	N/A	8634	N/A	N/A	N/A	CPS
SS Window Ratio	0.4904	N/A	0.4907	N/A	N/A	N/A	
SS Window Sum	9782	N/A	9761	N/A	N/A	N/A	CPS
LS Window Ratio	0.2965	N/A	0.2929	N/A	N/A	N/A	
LS Window Sum	1030	N/A	1027	N/A	N/A	N/A	CPS

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Photo–multiplier High Voltages Calibrations							
Before: 27–Nov–2009 15:10							
BS PM High Voltage (Command)	1475	N/A	1475	N/A	N/A	N/A	V
SS PM High Voltage (Command)	1678	N/A	1679	N/A	N/A	N/A	V
LS PM High Voltage (Command)	1475	N/A	1481	N/A	N/A	N/A	V
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Crystal Quality Resolutions Calibration							
Before: 27–Nov–2009 15:10							
BS Crystal Resolution	10.42	N/A	10.53	N/A	N/A	N/A	%
SS Crystal Resolution	9.900	N/A	9.800	N/A	N/A	N/A	%
LS Crystal Resolution	10.04	N/A	10.02	N/A	N/A	N/A	%
High resolution Integrated Logging Tool–DTS Wellsite Calibration – MCFL Calibration							
Before: 27–Nov–2009 15:06							
Raw B0 Resistivity	3875	N/A	3854	N/A	N/A	N/A	OHMM
Raw B1 Resistivity	3830	N/A	3794	N/A	N/A	N/A	OHMM
Raw B2 Resistivity	3830	N/A	3790	N/A	N/A	N/A	OHMM
High resolution Integrated Logging Tool–DTS Wellsite Calibration – HILT Caliper Calibration							
Before: 27–Nov–2009 15:02							
HILT Caliper Zero Measurement	8.000	N/A	8.581	N/A	N/A	N/A	IN
HILT Caliper Plus Measurement	12.00	N/A	12.74	N/A	N/A	N/A	IN
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Detector Calibration							
Before: 27–Nov–2009 15:01							
Gamma Ray Background	30.00	N/A	83.51	N/A	N/A	N/A	GAPI
Gamma Ray (Jig – Bkg)	178.8	N/A	178.8	N/A	N/A	16.26	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: 27–Nov–2009 15:03							
CNTC Background	26.34	26.34	26.72	N/A	N/A	3.951	CPS
CFTC Background	27.85	27.85	27.82	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: 27–Nov–2009 19:59							
Z–Axis Acceleration	32.19	N/A	32.07	N/A	N/A	N/A	F/S2
High resolution Integrated Logging Tool–DTS Master Calibration – Inversion results							
Master: 21–Nov–2009 12:11							
Rho Aluminum	2.596	2.605	--	--	--	--	G/C3
Rho Magnesium	1.686	1.687	--	--	--	--	G/C3
Pe Aluminum	2.570	2.559	--	--	--	--	
Pe Magnesium	2.650	2.626	--	--	--	--	
High resolution Integrated Logging Tool–DTS Master Calibration – Deviation Summary							
Master: 21–Nov–2009 12:11							
BS Average Deviation	0	0.2944	--	--	--	--	%
BS Max Deviation	0	0.7618	--	--	--	--	%
SS Average Deviation	0	0.4807	--	--	--	--	%
SS Max Deviation	0	2.268	--	--	--	--	%
LS Average Deviation	0	1.301	--	--	--	--	%
LS Max Deviation	0	2.265	--	--	--	--	%
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						

Array Induction Tool – M / Equipment Identification		
Primary Equipment:		
Rm/SP Bottom Nose	AMRM – A	
Array Induction Sonde	AMIS – A	1372

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	0.6204			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	0.6317			175.6		
3	Master	0.7131		0.7000	174.9		191.0
	Before	0.7130			174.8		
4	Master	1.334		1.340	168.7		185.0
	Before	1.334			168.7		
5	Master	1.953		1.960	167.0		182.0
	Before	1.953			167.0		
6	Master	1.949		1.960	167.0		181.0
	Before	1.949			167.0		
7	Master	1.419		1.410	166.2		175.0
	Before	1.419			166.2		
		60.00 % (Minimum)	(Nominal)	140.0 % (Maximum)	Nom -60.00 (Minimum)		Nom + 60.00 (Maximum)
Master: 14-Oct-2009 17:03				Before: 27-Nov-2009 15:06			













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			0.6620
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			0.0006718
0.8710 (Minimum)		0.9170 (Nominal)	0.9630 (Maximum)	-0.05000 (Minimum)		0 (Nominal)	0.05000 (Maximum)
Master: 14-Oct-2009 17:03				Before: 27-Nov-2009 15:06			

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	1.000	1.050		-3.000	0 3.000

		(Minimum)	(Nominal)	(Maximum)			(Minimum)	(Nominal)	(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									



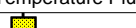
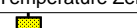
Array Induction Tool – M Wellsite Calibration									
Sonde Error Correction									
Idx	Value	R Sonde Error Correction MM/M			Value	X Sonde Error Correction MM/M			
0	-69.04				-259.4				
		-231.0 (Minimum)	-56.00 (Nominal)	119.0 (Maximum)		-2250 (Minimum)	0 (Nominal)	2250 (Maximum)	
1	172.8				103.1				
		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	1.025		1.000	165.0		180.0

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							




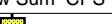
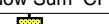

Array Induction Tool – M Master Calibration								
Test Loop Gain Correction								
Idx	Value	Test Loop Gain Correction Magnitude V			Value	Test Loop Gain Correction Phase DEG		
0	1.017				0.7201			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
1	1.014				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)

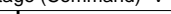
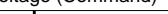
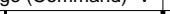
Master: 14-Oct-2009 17:03




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)
4	26.78				21.47			
		15.00 (Minimum)	25.00 (Nominal)	35.00 (Maximum)		-63.00 (Minimum)	0 (Nominal)	63.00 (Maximum)




Master: 14-Oct-2009 17:03

Master: 14-Oct-2009 17:03




High resolution Integrated Logging Tool—DTS Wellsite Calibration											
Stab Measurement Summary											
Phase	BS Window Ratio		Value	Phase	SS Window Ratio		Value	Phase	LS Window Ratio		Value
Before			0.7123	Before			0.4907	Before			0.2929
	0.6786 (Minimum)	0.7143 (Nominal)	0.7500 (Maximum)		0.4659 (Minimum)	0.4904 (Nominal)	0.5150 (Maximum)		0.2817 (Minimum)	0.2965 (Nominal)	0.3114 (Maximum)
Phase	BS Window Sum CPS		Value	Phase	SS Window Sum CPS		Value	Phase	LS Window Sum CPS		Value
Before			8634	Before			9761	Before			1027
	8194 (Minimum)	8626 (Nominal)	9057 (Maximum)		9293 (Minimum)	9782 (Nominal)	10270 (Maximum)		978.4 (Minimum)	1030 (Nominal)	1081 (Maximum)
Before: 27–Nov–2009 15:10											

High resolution Integrated Logging Tool—DTS Wellsite Calibration														
Photo—multiplier High Voltages Calibrations														
Phase	BS PM High Voltage (Command) V			Value	Phase	SS PM High Voltage (Command) V			Value	Phase	LS PM High Voltage (Command) V			Value
Before				1475	Before				1679	Before				1481
	1375 (Minimum)	1475 (Nominal)	1575 (Maximum)		1578 (Minimum)	1678 (Nominal)	1778 (Maximum)			1375 (Minimum)	1475 (Nominal)	1575 (Maximum)		
Before: 27–Nov–2009 15:10														



High resolution Integrated Logging Tool—DTS Wellsite Calibration								
Crystal Quality Resolutions Calibration								
Phase	BS Crystal Resolution %	Value	Phase	SS Crystal Resolution %	Value	Phase	LS Crystal Resolution %	Value
								

Before		10.53	Before		9.800	Before		10.02
9.417 (Minimum)	10.42 (Nominal)	11.42 (Maximum)	8.900 (Minimum)	9.900 (Nominal)	10.90 (Maximum)	9.045 (Minimum)	10.04 (Nominal)	11.04 (Maximum)

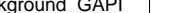


Before: 27–Nov–2009 15:10

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				3854	Before				3794	Before				3790
	3565 (Minimum)	3875 (Nominal)	4185 (Maximum)			3524 (Minimum)	3830 (Nominal)	4136 (Maximum)			3524 (Minimum)	3830 (Nominal)	4136 (Maximum)	
Before: 27–Nov–2009 15:06														





Before: 27–Nov–2009 15:06

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			8.581	Before			12.74
	6.000 (Minimum)	8.000 (Nominal)	10.00 (Maximum)		9.000 (Minimum)	12.00 (Nominal)	15.00 (Maximum)
Before: 27–Nov–2009 15:02							

Before: 27–Nov–2009 15:02

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				83.51	Before				178.8	Before				165.0
0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)			162.6 (Minimum)	178.8 (Nominal)	195.1 (Maximum)			150.0 (Minimum)	165.0 (Nominal)	180.0 (Maximum)		
Before: 27–Nov–2009 15:01														

Before: 27–Nov–2009 15:01


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			26.72	Before			27.82
5.000 (Minimum)			26.34 (Nominal)	40.00 (Maximum)			
5.000 (Minimum)			27.85 (Nominal)	40.00 (Maximum)			
Master: 8–Oct–2009 13:16				Before: 27–Nov–2009 15:03			

Master: 8–Oct–2009 13:16





Before: 27–Nov–2009 15:03







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	<div><div></div></div>		5423	Master	<div><div></div></div>		2272	Master	<div><div></div></div>	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											



Master: 8–Oct–2009 13:16

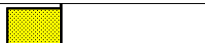
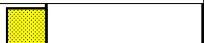
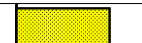
High resolution Integrated Logging Tool–DTS Wellsite Calibration		
Accelerometer Calibration		
Phase	Z–Axis Acceleration F/S2	Value
Before		32.07
31.53 (Minimum)	32.19 (Nominal)	32.84 (Maximum)

Before: 27–Nov–2009 19:59

High resolution Integrated Logging Tool–DTS Master Calibration							
Inversion results							
Phase	Rho Aluminum G/C3		Value	Phase	Rho Magnesium G/C3		Value
Master			2.605	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			2.626
	2.470 (Minimum)	2.570 (Nominal)	2.670 (Maximum)		2.550 (Minimum)	2.650 (Nominal)	2.750 (Maximum)

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				0.2944	Master				0.4807	Master				1.301
	-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				0.7618	Master				2.268	Master				2.265
	-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: 21-Nov-2009 12:11														

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
DTC-H Telemetry Cartridge

DTCH - A
DTCH - A

Auxiliary Equipment:

DTCH Telemetry Cartridge Housing

ECH - KC

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

Schlumberger

Well: **Parterre 12-16**

Field: **Spindle**

County: **Adams**

State: **Colorado**

Platform Express
MicroLog