

Company: Esso Australia Pty Ltd.

Well: A-7

Field: Tuna

Rig: Mast

Country: Australia

Gamma Ray-Pressure
Temperature , Full Bore
Spinner Survey

Mast
Tuna
Gippsland
A-7
Esso Australia Pty Ltd.

LOCATION			
Gippsland	Elev.: K.B. 26.60 m		
Basin	G.L. 91.40 m		
Bass Strait	D.F. 26.60 m		
Permanent Datum:	M.S.L	Elev.: 0.00 m	
Log Measured From:	K.B	26.60 m above Perm. Datum	
Drilling Measured From:	K.B		
State: Victoria	Max. Well Deviation 56 deg	Longitude 148° 25' 05.29"E	Latitude 38° 10' 16.00"S

Logging Date	21-Nov-2008		
Run Number	1		
Depth Driller	2751 m		
Schlumberger Depth	2751 m		
Bottom Log Interval	2751 m		
Top Log Interval	2050 m		
Casing Fluid Type	Production Fluids		
Salinity			
Density			
Fluid Level	1692 m		
BIT/CASING/TUBING STRING			
Bit Size	8.500 in		
From	535 m		
To	3273 m		
Casing/Tubing Size	4.500 in		
Weight	12.6 lbm/ft		
Grade	13CR		
From	1750 m		
To	2832 m		
Maximum Recorded Temperatures	217 degF		
Logger On Bottom	21-Nov-2008	Time	11:00
Unit Number	889	Location	Prod 4 / AUSL
Recorded By	S Gilbert		
Witnessed By	B White		

PVT DATA			Run 1
Oil Density			
Water Salinity			
Gas Gravity			
Bo			
Bw			
1/Bg			
Bubble Point Pressure			
Bubble Point Temperature			
Solution GOR			
Maximum Deviation	56 deg		
CEMENTING DATA			
Primary/Squeeze	Primary		
Casing String No			
Lead Cement Type			
Volume			
Density			
Water Loss			
Additives			
Tail Cement Type			
Volume			
Density			
Water Loss			
Additives			
Expected Cement Top			
Logging Date			
Run Number			
Depth Driller			
Schlumberger Depth			
Bottom Log Interval			
Top Log Interval			
Casing Fluid Type			
Salinity			
Density			
Fluid Level			
BIT/CASING/TUBING STRING			
Bit Size			
From			
To			
Casing/Tubing Size			
Weight			
Grade			
From			
To			
Maximum Recorded Temperatures			
Logger On Bottom	Time		
Unit Number	Location		
Recorded By			
Witnessed By			

DEPTH SUMMARY LISTING

Date Created: 17-NOV-2008 8:13:25

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW-EB	Type:	PSDS/OSDS	Type:	2-32ZT
Serial Number:	6373	Serial Number:	325337	Serial Number:	207308
Calibration Date:	04-Jan-2007	Calibration Date:	4-Nov-2008	Length:	6450 M
Calibrator Serial Number:	9	Calibrator Serial Number:	1174	Conveyance Method: Wireline Rig Type: Rigless	
Calibration Cable Type:	2-32ZT	Calibration Gain:	0.90		
Wheel Correction 1:	-2	Calibration Offset:	-115.00		
Wheel Correction 2:	-4				

Depth Control Parameters

Log Sequence:	Subsequent Trip To the Well
Reference Log Name:	Solar Composite Log
Reference Log Run Number:	
Reference Log Date:	dd-Mmm-yyyy
Subsequent Trip Down Log Correction:	-50000.00 M

Depth Control Remarks

1. IDW-EB 6373 used as primary depth control.
2. Z-Chart as Backup
3.
4.
5.
6.

DISCLAIMER








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OTHER SERVICES1
OS1: None
OS2:
OS3:
OS4:
OS5:
REMARKS: RUN NUMBER 1
Log correlated to ExxonMobil Solar Composite Log supplied with logging program.
Objectives: Conduct Static and Flowing Pressure/Temperature Log to diagnose a possible Leaking Plug 2768m MDKB
Maximum Deviation = 56 deg @ 1950m MDKB
HUD Tagged @ 2751m MDKB SBHT: 216.8 degf SBHP: 2472.7 psia
Flowing Station Completed @ 2700m, 2730m and 2745m MDKB

Schlumberger crews: J Annear , G Blandford

RUN 1					
SERVICE ORDER #:		AUSL08356996			
PROGRAM VERSION:		16C0-147			
FLUID LEVEL:		1692 m			
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

RUN 1			RUN 2		
SURFACE EQUIPMENT					
WITM-A 827 PSC_16MHZ 827					
DOWNHOLE EQUIPMENT					
SWBS-B 785		9.69			
SWBS-B 786		9.00			
SWBS-B 787		8.32			
SWBS-B 788		7.63			
SWBS-B 789		6.94			
SWHS-A 759		6.26			
EQF-43 003 EQF-43 3		5.92			
Detail MT TelStatus CTEM					

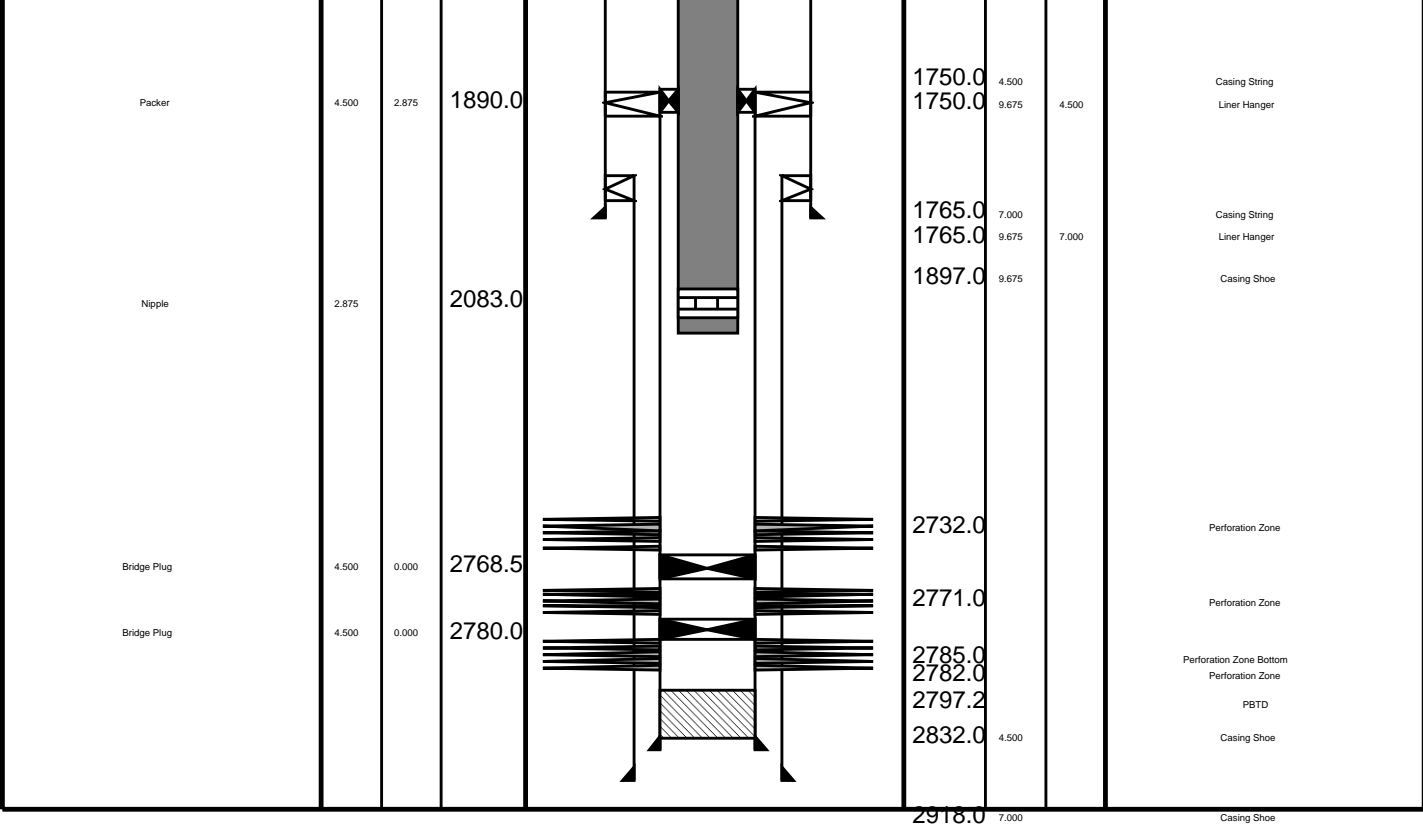
Topology	Nodes
LIM	4.09
GR	2.96
temp	2.03
nom	1.92
CCL	1.80
STC	1.57

PFCS Spin
 PFCS Cali
 PFCS Prob
 PFCS Wave HV
 PFCS Rela
 PFCS Cart
 Tension

0.57
 0.45
 0.00

TOOL ZERO

Production String	(in) (m)			Well Schematic	(m) (in)			Casing String
	OD	ID	MD		MD	OD	ID	
Tubing Tubing Hanger	2.875 9.875	2.875	13.5 13.4		14.5 14.5 14.5	13.375 9.675 13.375	9.675	Casing String Casing String Liner Hanger
SSSV	2.875		447.0					
Gas Lift Mandrel	2.875		1060.0		735.0	13.375		Casing Shoe
Gas Lift Mandrel	2.875		1615.0					
Nipple	2.875		1630.0					



Job Events Summary

MAXIS Field Log

Schlumberger Job Event Summary

	Time	Elapsed Time	Depth (M)	File
Log Pass (down)	21-Nov-2008 8:33	000:12	2644.3 - 2760.4	FCS_PSP_015LDP
Log Pass (up)	21-Nov-2008 8:46	000:11	2760.4 - 2646.0	FCS_PSP_016LUP
Station Log	21-Nov-2008 9:19	003:58	2745.0 - 36.3	FCS_PSP_020LTP
Log Pass (up)	21-Nov-2008 13:18	000:09	2744.9 - 2663.2	FCS_PSP_021LUP
Station Log	21-Nov-2008 13:28	000:07	2700.0 - 0.9	FCS_PSP_022LTP
Station Log	21-Nov-2008 13:36	000:09	2730.0 - 1.0	FCS_PSP_023LTP
Station Log	21-Nov-2008 13:46	000:11	2744.9 - 1.5	FCS_PSP_024LTP
Log Pass (up)	21-Nov-2008 14:00	000:29	2747.8 - 2043.1	FCS_PSP_025LUP



Log Up from HUD
(2751m MDKB) to EOT

MAXIS Field Log

Company: Esso Australia Pty Ltd. Well: A-7

Input DLIS Files

DEFAULT FCS_PSP_025LUP FN:24 PRODUCER 21-Nov-2008 14:00 2747.8 M 2043.1 M

Output DLIS Files

DEFAULT FCS_PSP_026PUP FN:25 PRODUCER 21-Nov-2008 14:30 2747.8 M 2039.0 M

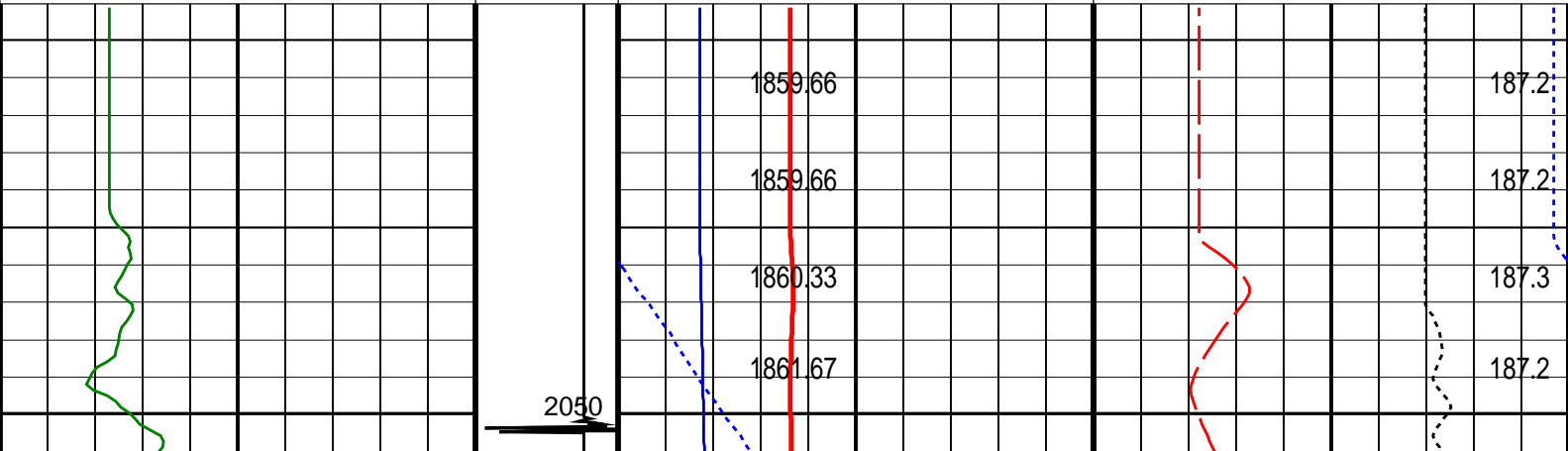
OP System Version: 16C0-147
MCM

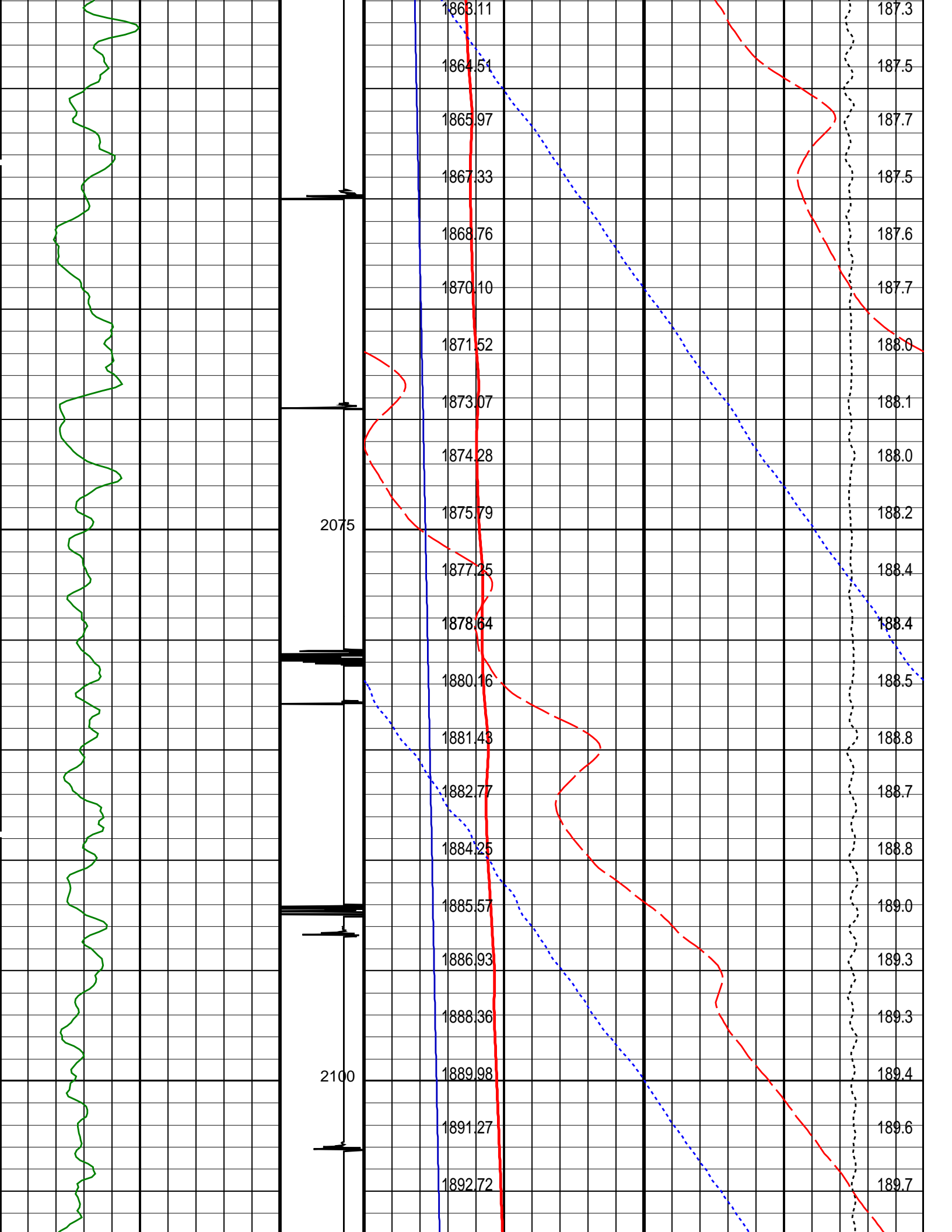
PFCS-A SRPC-3624-Q2_2008_OP16 PSPT-B SRPC-3624-Q2_2008_OP16

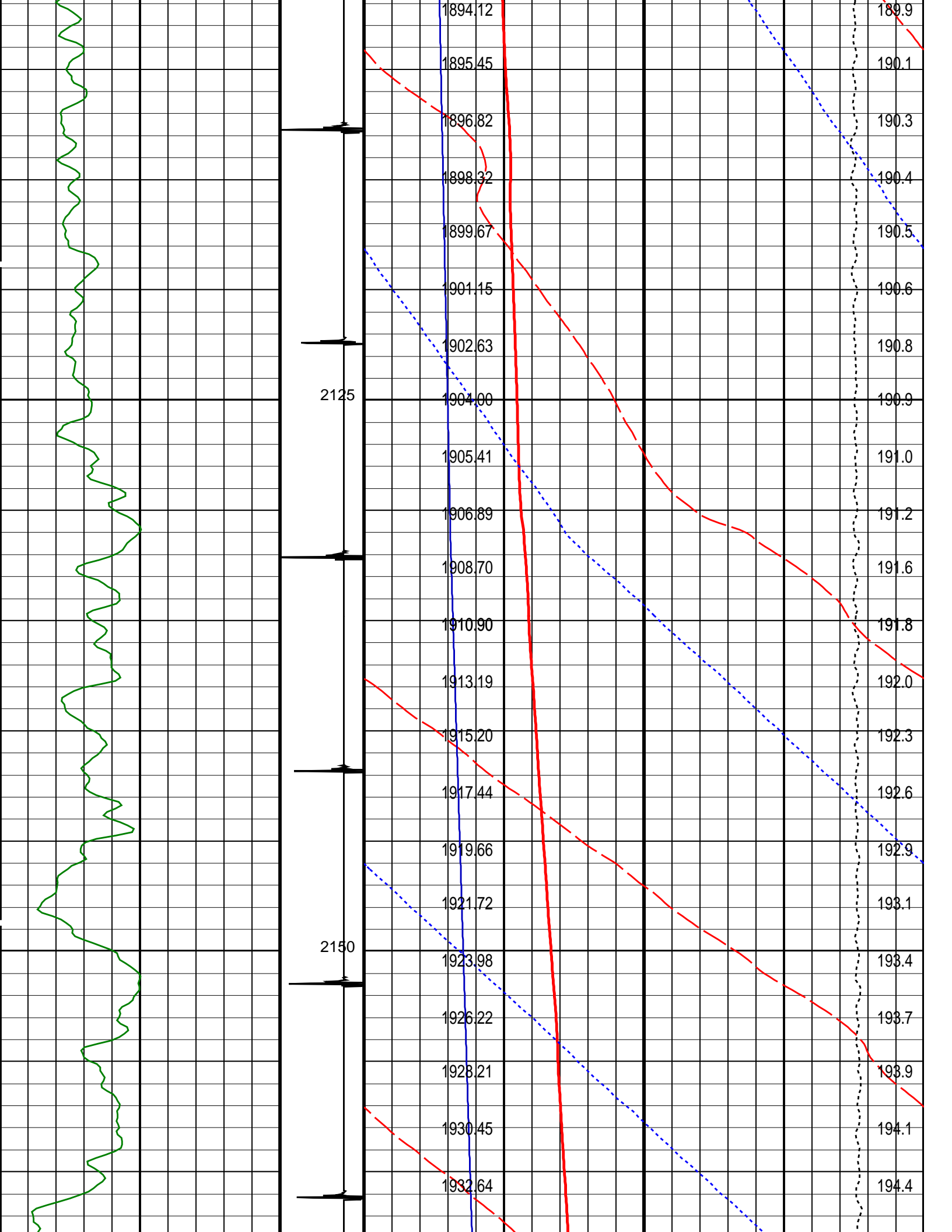
PIP SUMMARY

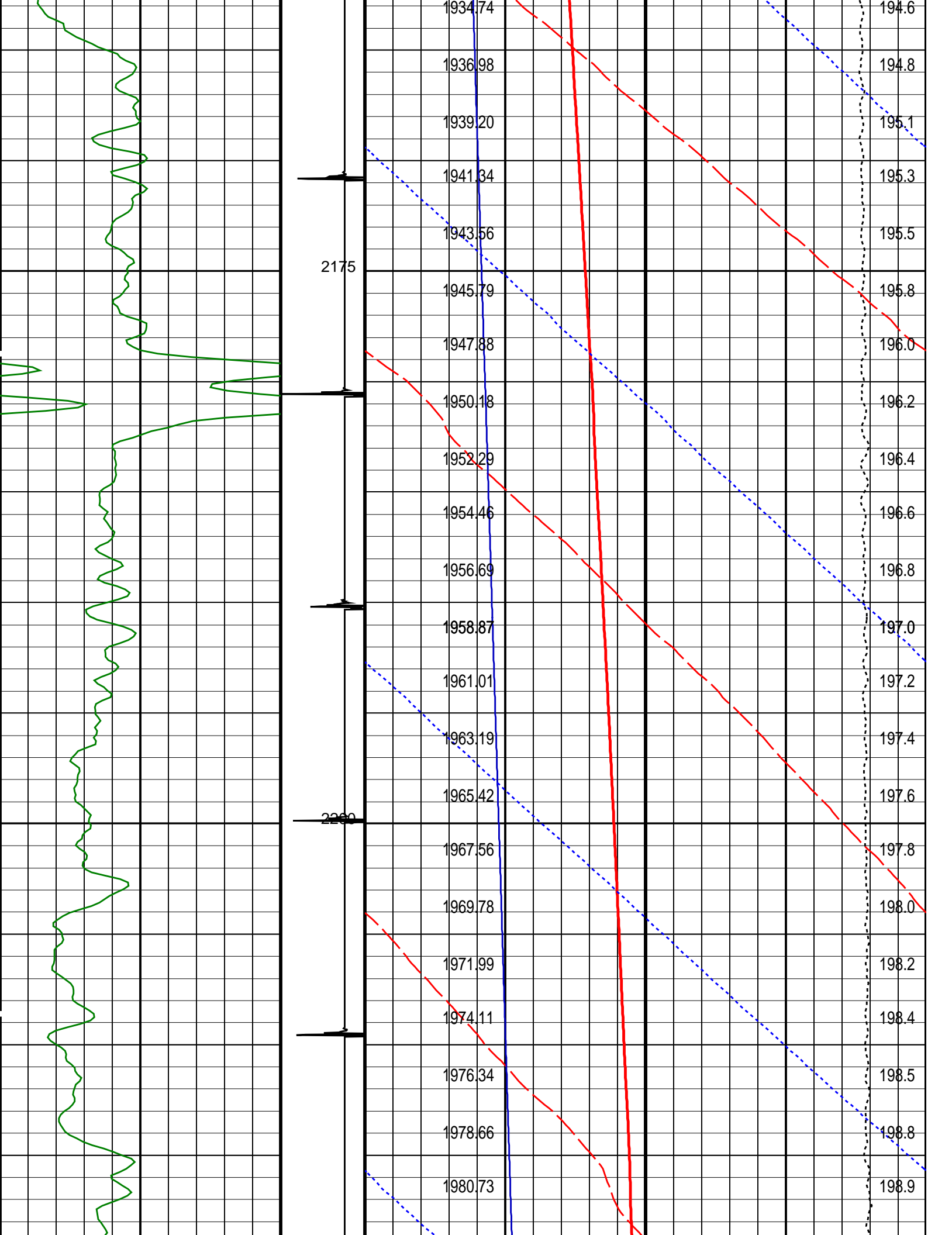
Time Mark Every 60 S

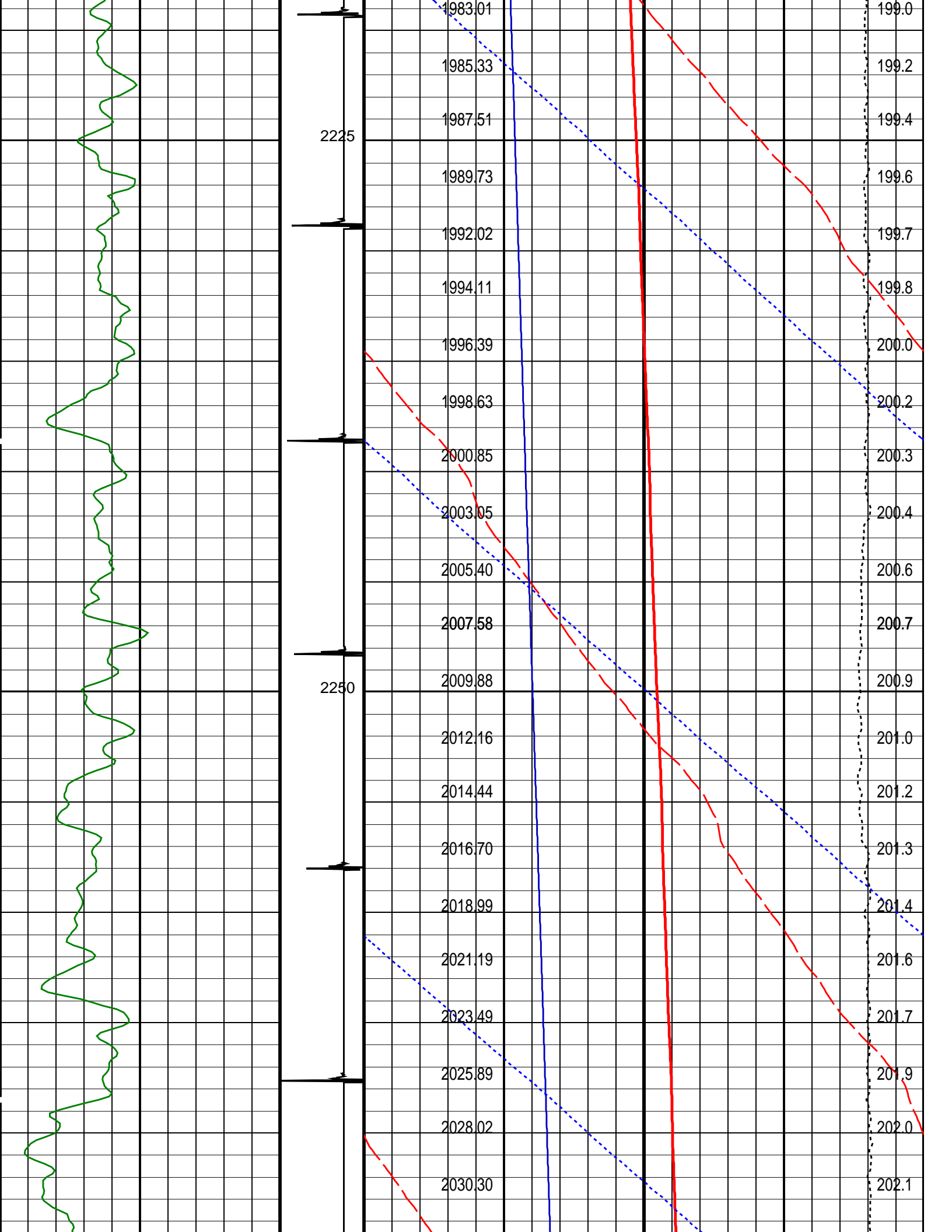
		Amplified Well Pressure (WPRE) (PSIA)		0	20
		Well Pressure (WPRE) (PSIA)		1800	2500
		Well Temperature (WTEP) (DEGF)		0	2
		Well Pressure (WPRE) (PSIA)		Temperature (WTEP) (DEGF)	
		Well Temperature (WTEP) (DEGF)		180	220
Gamma Ray (GR) (GAPI)		Perfo Zone From PERFO_ CURVE to D3T	Cable Speed (CS) (F/HR)		Tension (TENS) (LBF)
0	150		0	5000	
Discriminat ed CCL (CCLD)					
3	(V) -1				

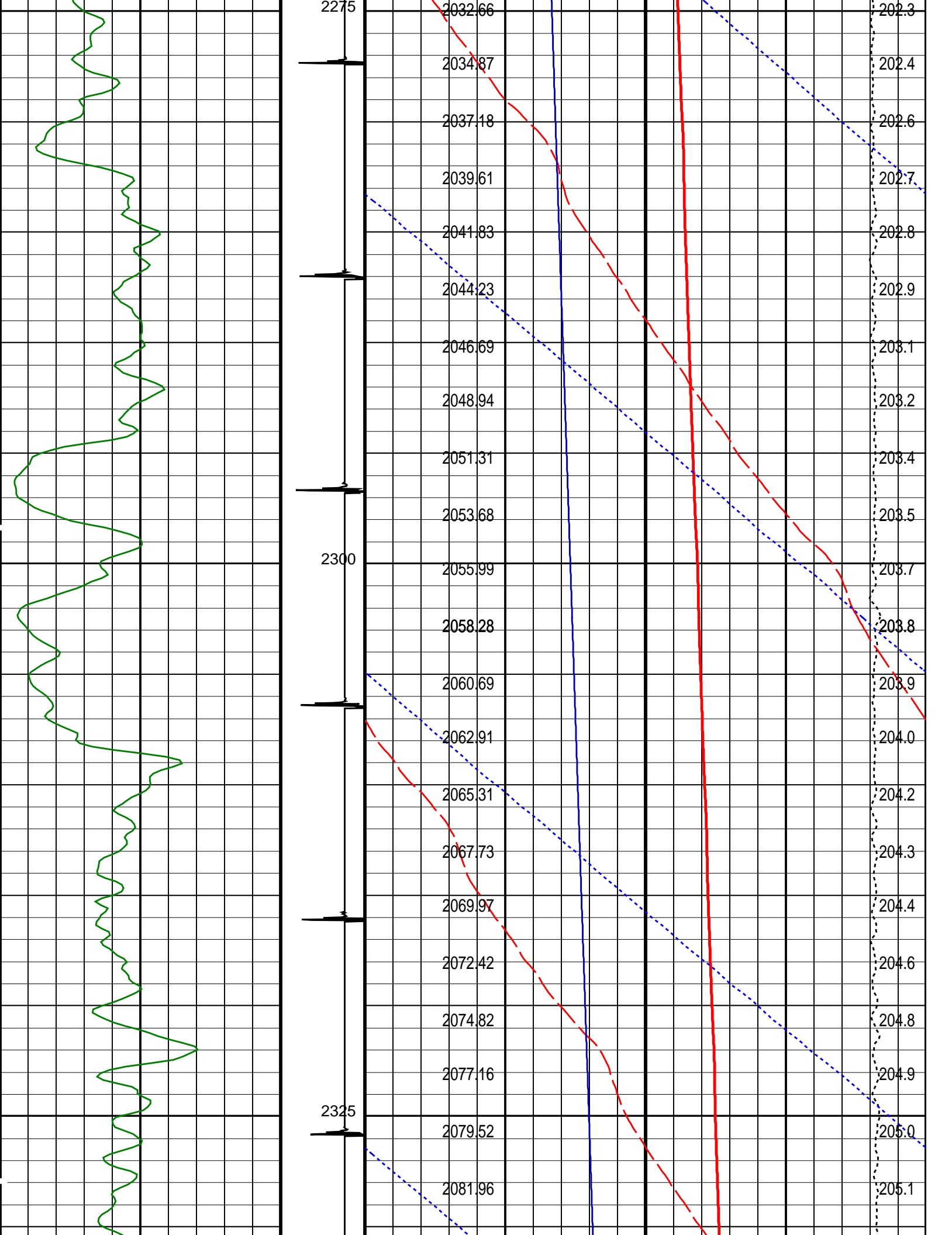


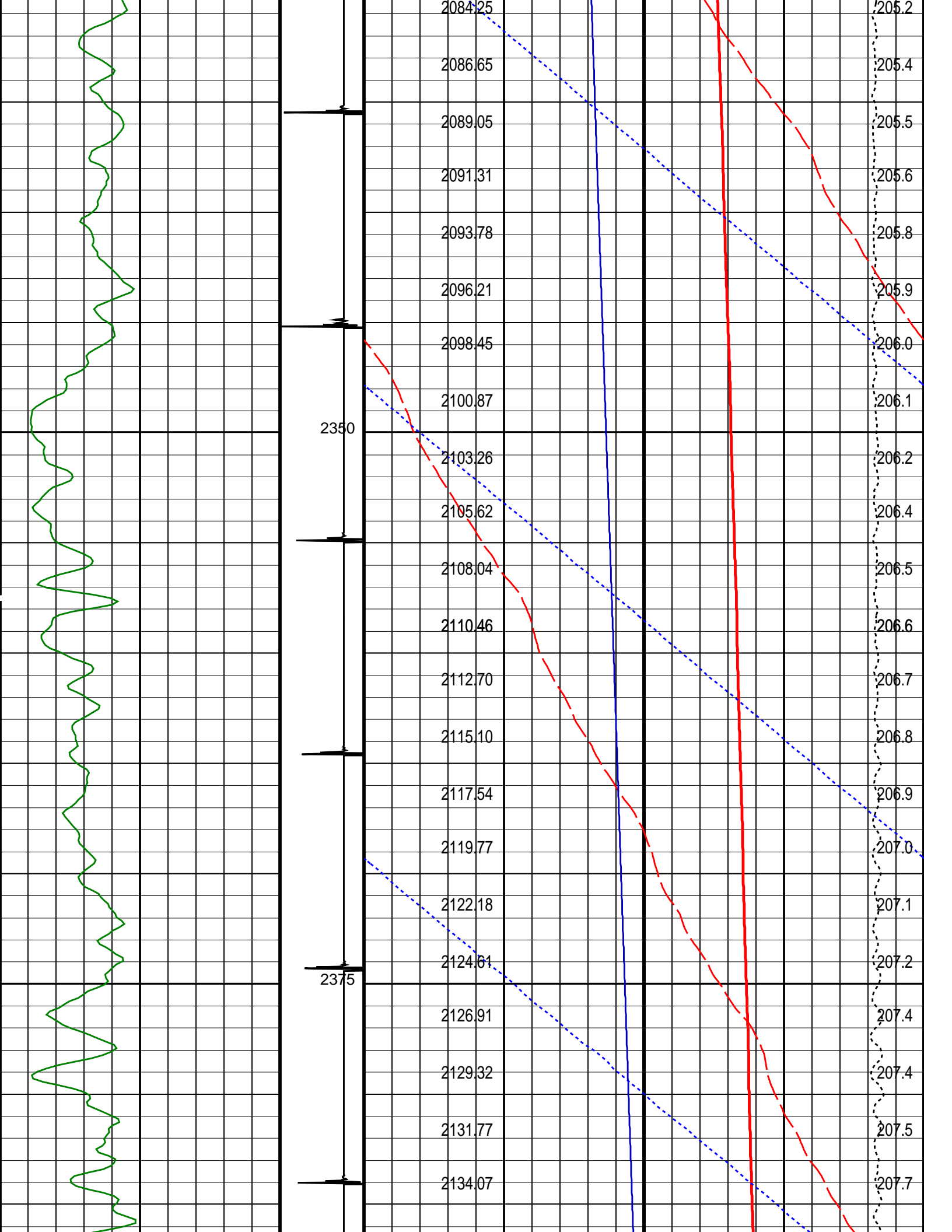


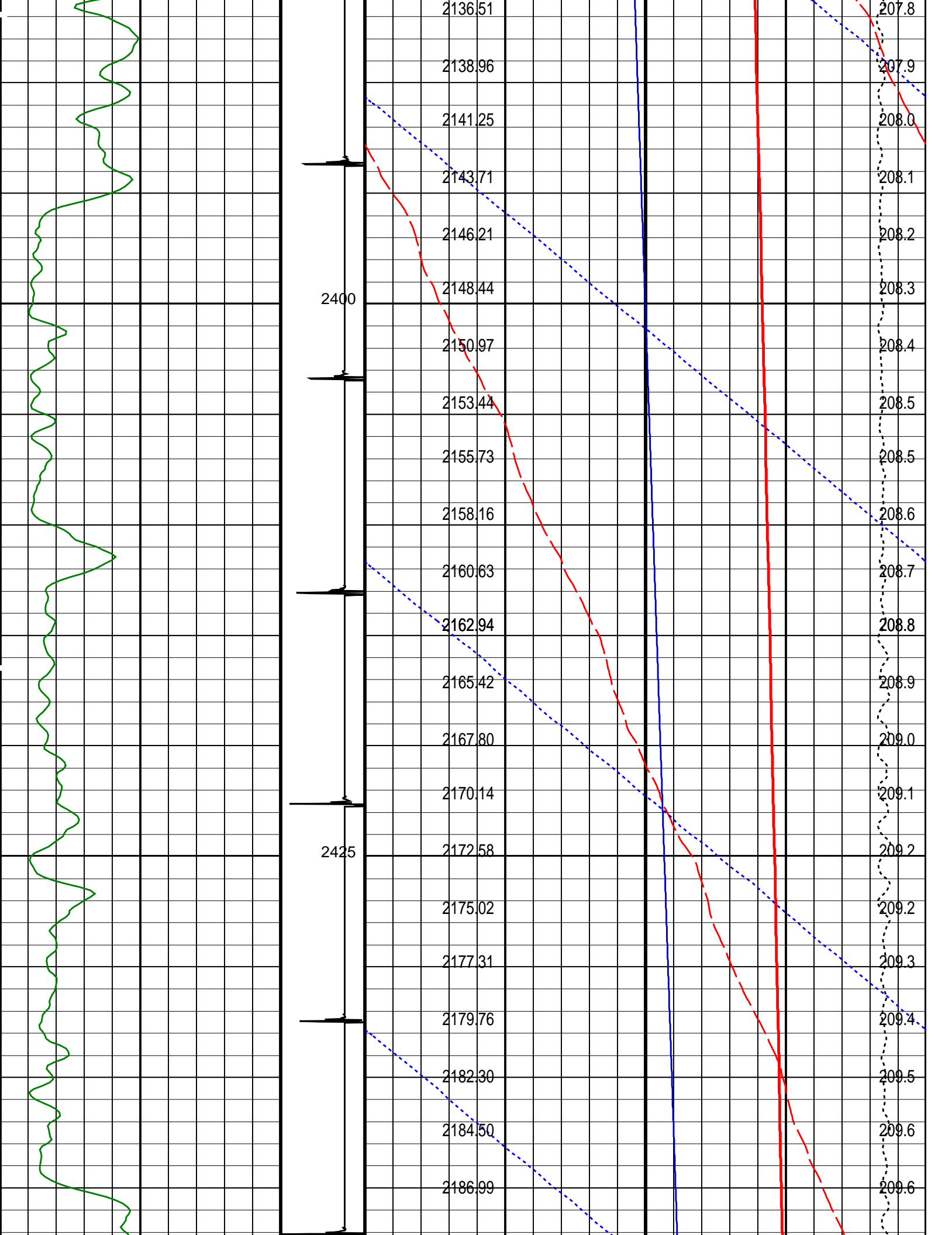


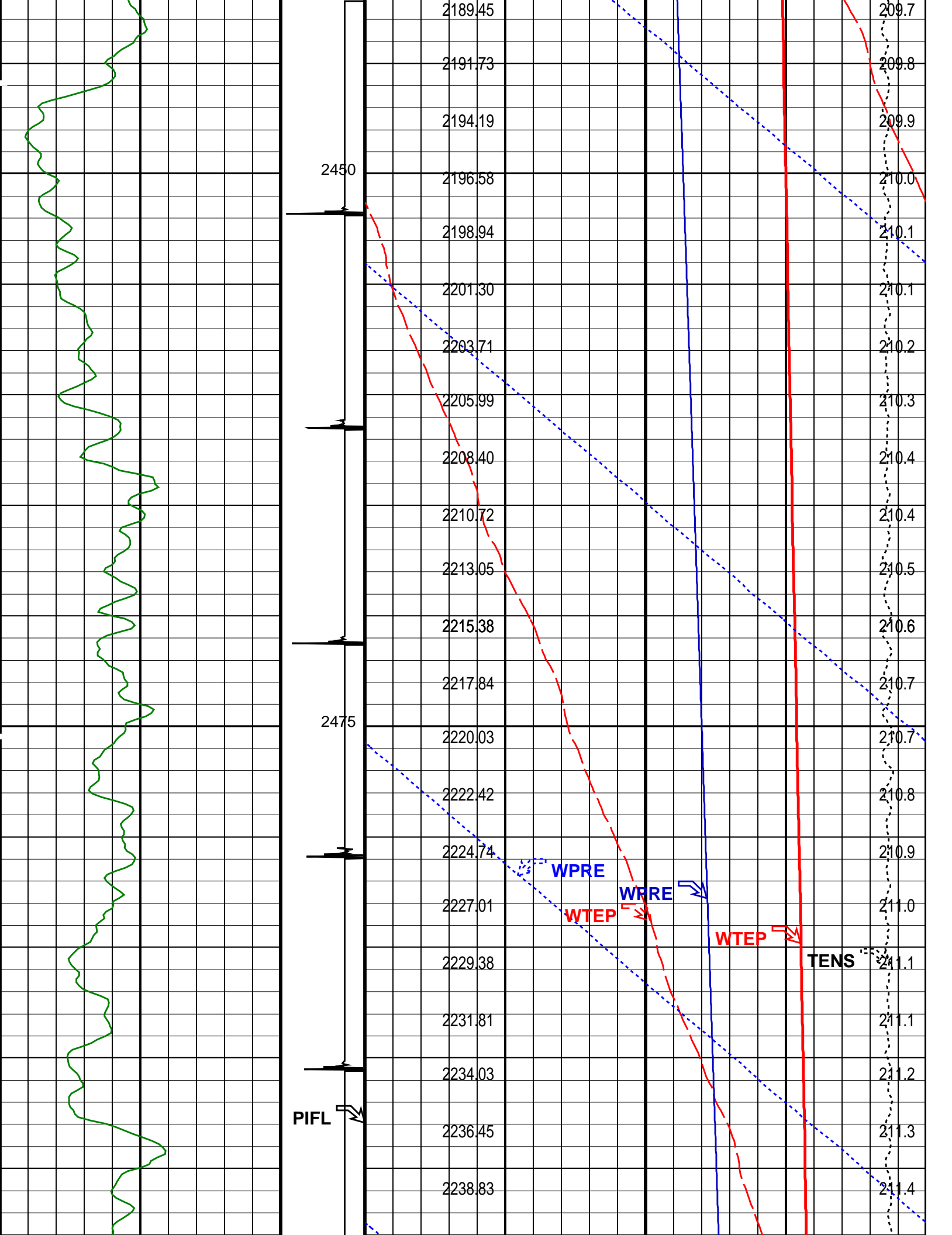


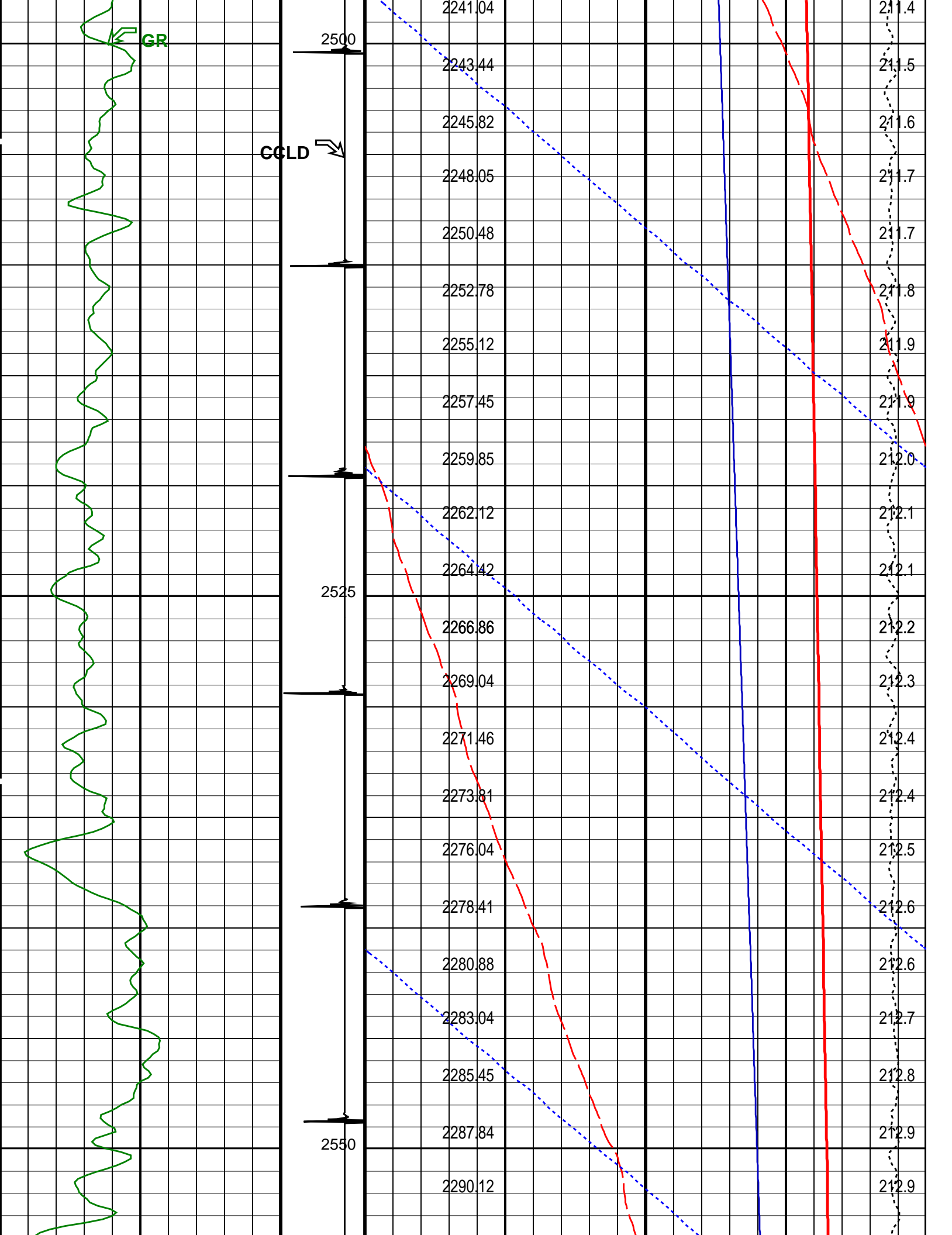


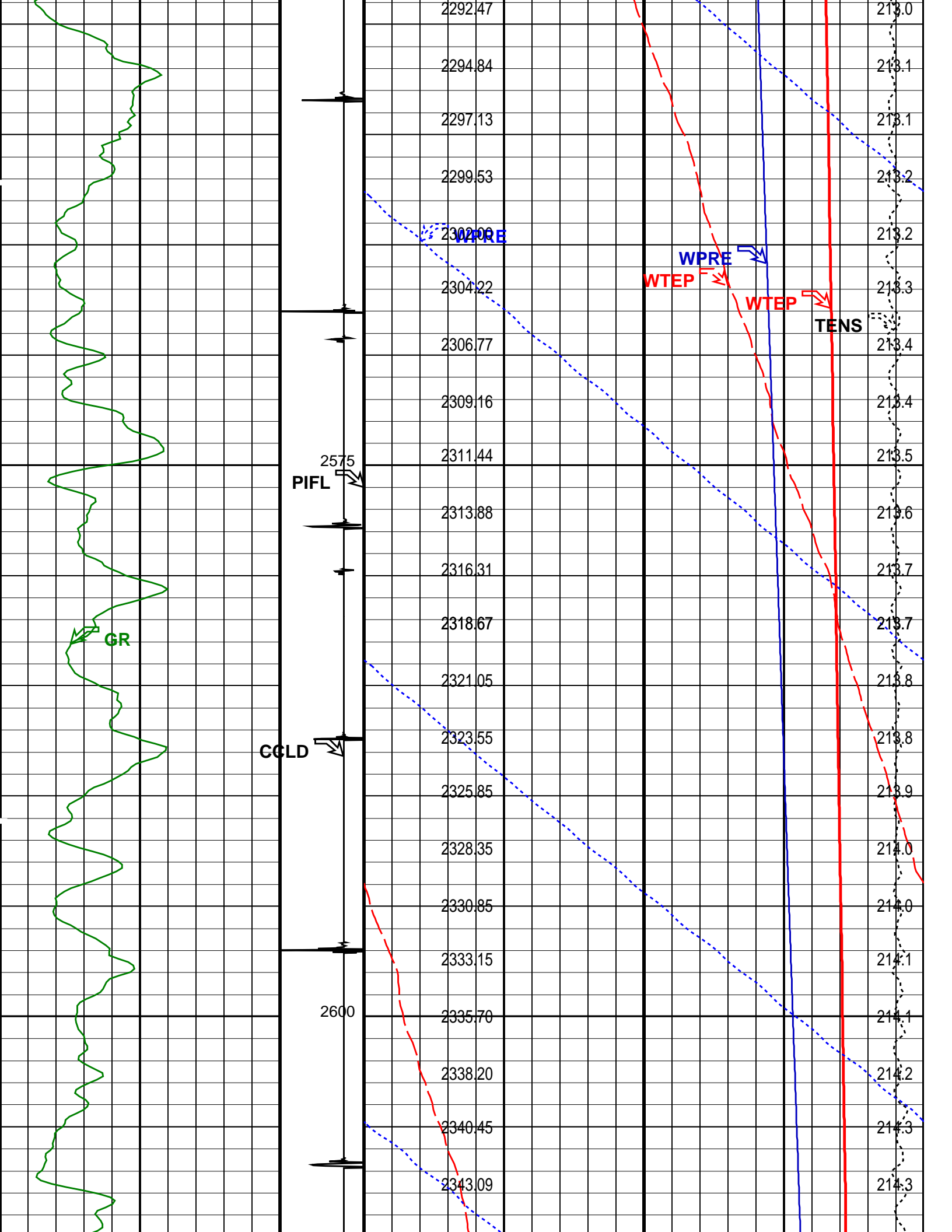


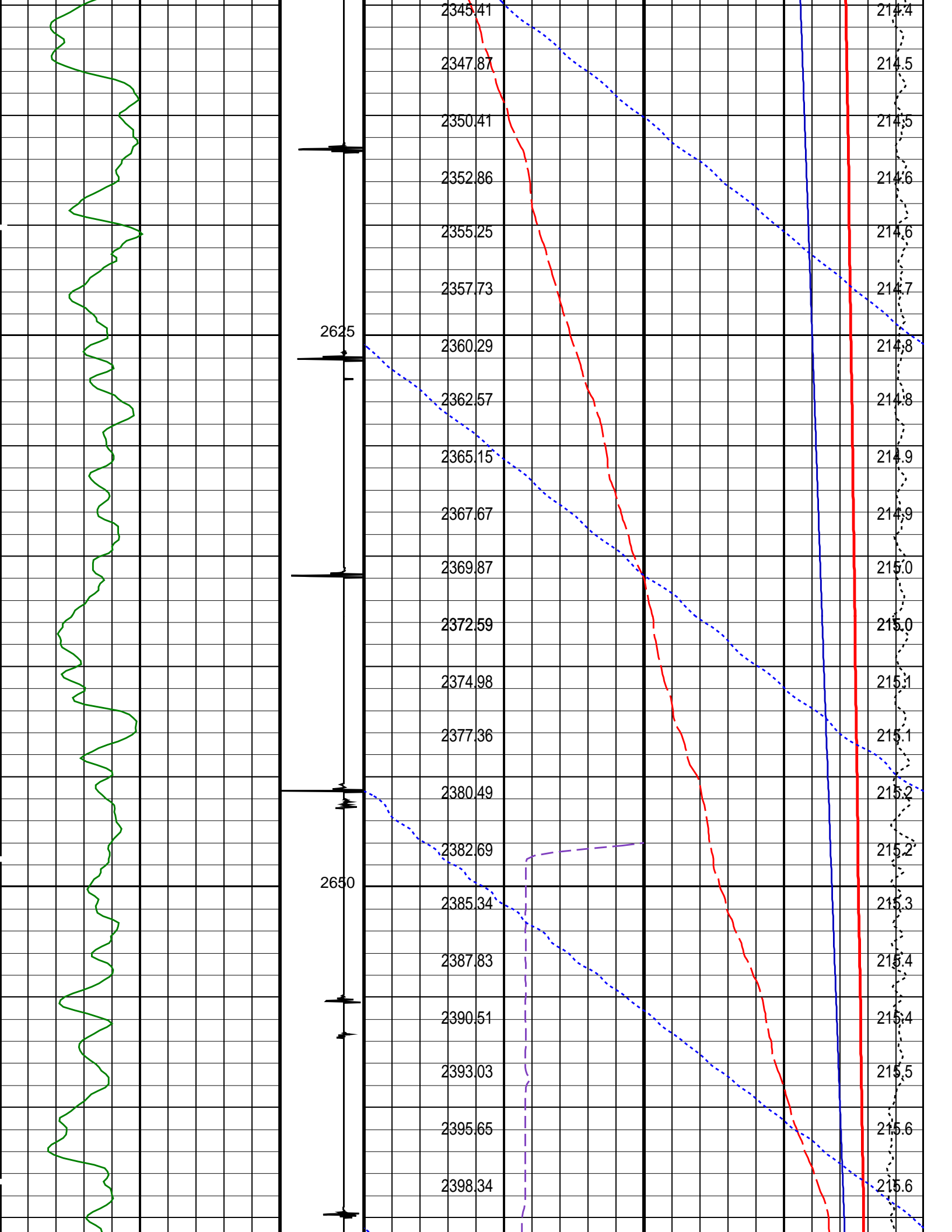


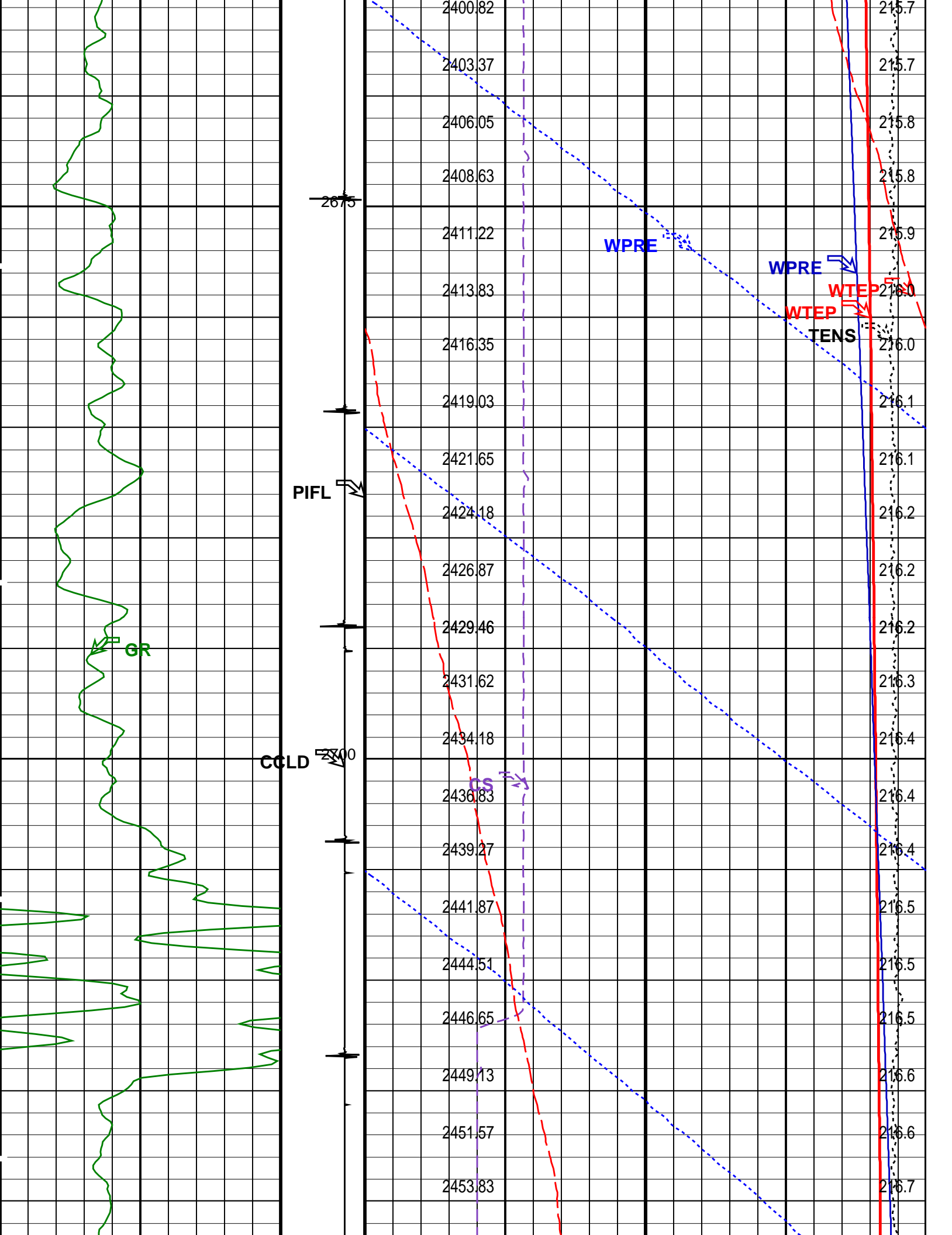


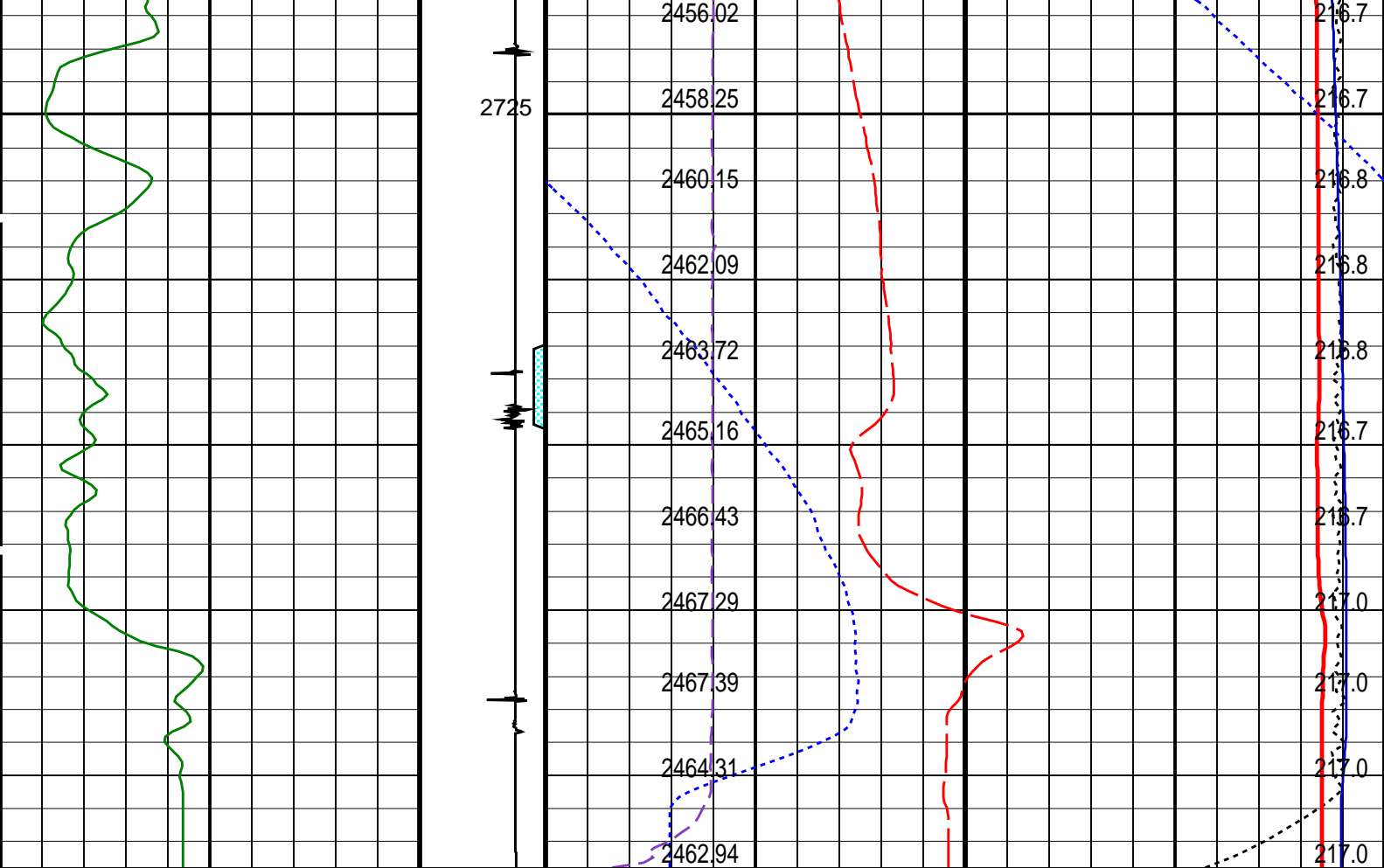












Gamma Ray (GR) (GAPI)	Discriminat ed CCL (CCLD)	Cable Speed (CS) (F/HR)	Tension (TENS) (LBF)
0 150	3 (V) -1	0 5000	0 2000

Perfo Zone From PERFO_ CURVE to D3T	Well Temperature (WTEP) (DEGF)	
	180	220
	Well Pressure (WPRE) (PSIA)	Temperature (WTEP) (DEGF)
	Well Temperature (WTEP) (DEGF)	
	0	2
Well Pressure (WPRE) (PSIA)		
1800 2500		
Amplified Well Pressure (WPRE) (PSIA)		
0 20		

PIP SUMMARY

Time Mark Every 60 S

Format: PSP Vertical Scale: 1:200 Graphics File Created: 21-Nov-2008 14:30

OP System Version: 16C0-147
MCM

PFCS-A	SRPC-3624-Q2_2008_OP16	PSPT-B	SRPC-3624-Q2_2008_OP16
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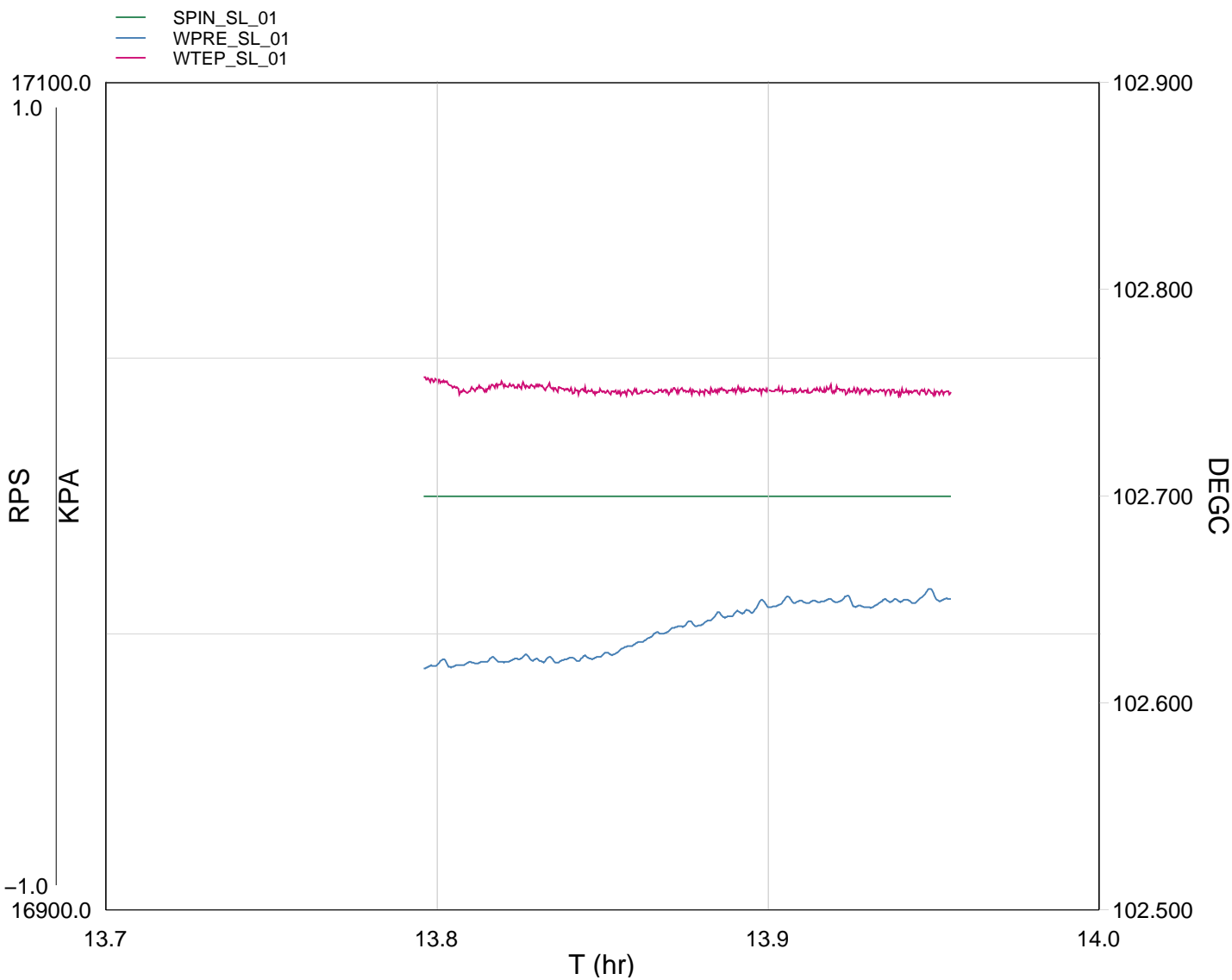
Parameters		
DLIS Name	Description	Value

System and Miscellaneous		Depth Offset for Playback		0.0		M
DO		Playback Processing		NORMAL		
PP						
Input DLIS Files						
DEFAULT	FCS_PSP_025LUP	FN:24	PRODUCER	21-Nov-2008 14:00	2747.8 M	2043.1 M
Output DLIS Files						
DEFAULT	FCS_PSP_026PUP	FN:25	PRODUCER	21-Nov-2008 14:30		



Flowing Station Log @ 2745m MDKB
(Below Perforations)

MAXIS Field Log

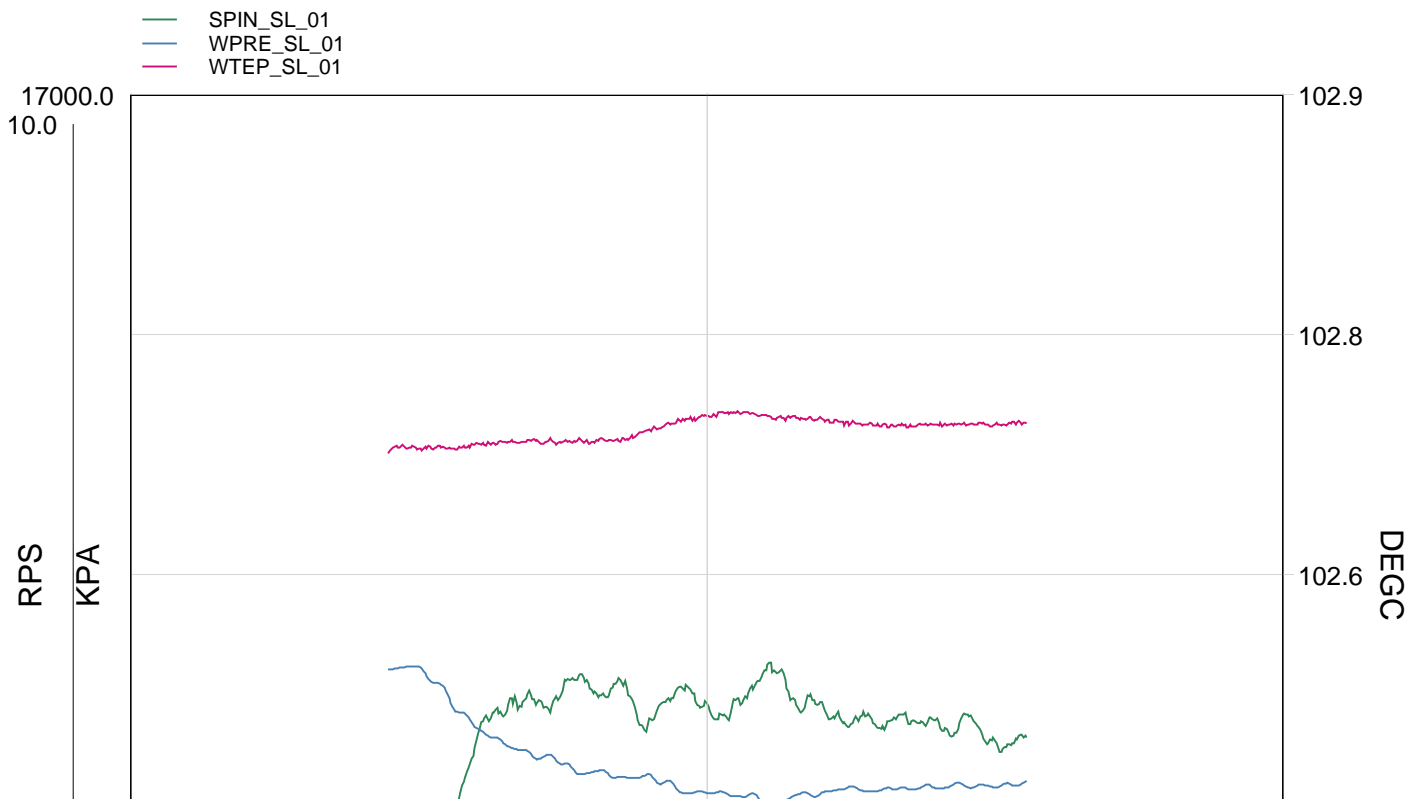


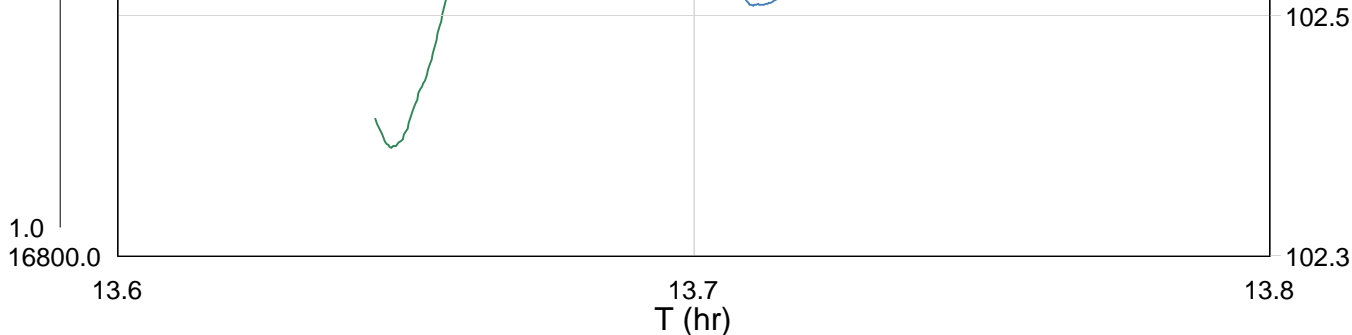
TIME	SPINER	DEGC	TEMP
19020.0	0.0000	216.9599	2459.6950
19050.0	0.0000	216.9512	2459.7173
19080.0	0.0000	216.9538	2459.8657
19110.0	0.0000	216.9550	2459.9465
19140.0	0.0000	216.9545	2459.8242
19170.0	0.0000	216.9537	2459.9855
19200.0	0.0000	216.9508	2460.0046
19230.0	0.0000	216.9485	2460.3714
19260.0	0.0000	216.9495	2460.8038
19290.0	0.0000	216.9540	2461.0779
19320.0	0.0000	216.9507	2461.2920
19350.0	0.0000	216.9515	2461.6092
19380.0	0.0000	216.9527	2461.9390
19410.0	0.0000	216.9528	2461.9696
19440.0	0.0000	216.9518	2461.9301
19470.0	0.0000	216.9497	2462.1527
19500.0	0.0000	216.9515	2461.7907
19530.0	0.0000	216.9526	2461.9628
19560.0	0.0000	216.9520	2462.4003



Flowing Station Log @ 2730m MDKB
(Above Perforations)

MAXIS Field Log



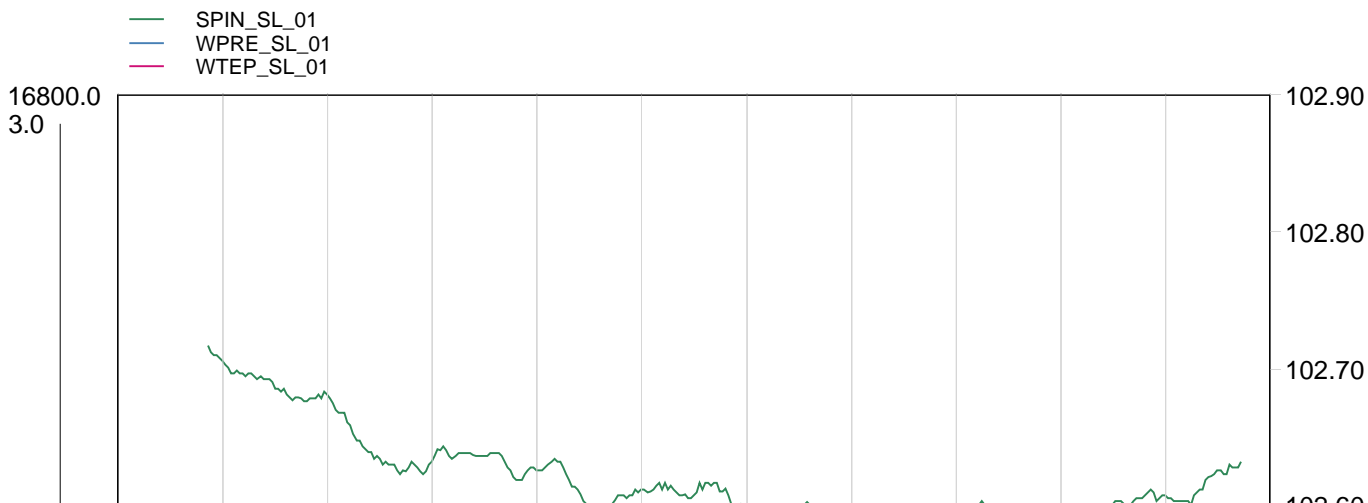


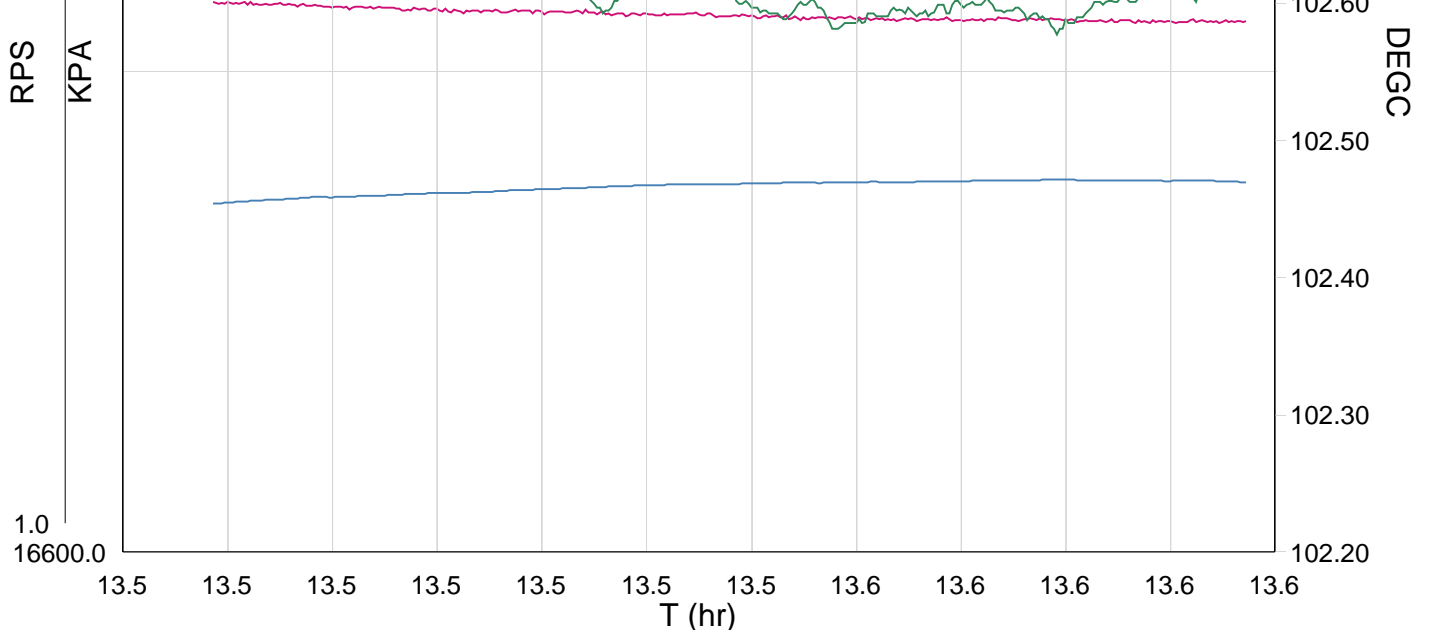
TIME	SPINNER	DEGF	PSIA
18480.0	2.0644	216.8237	2448.3842
18510.0	3.4189	216.8244	2446.9964
18540.0	4.2398	216.8291	2445.9835
18570.0	4.3536	216.8284	2445.5936
18600.0	4.3884	216.8329	2445.2536
18630.0	4.1484	216.8423	2445.0922
18660.0	4.2730	216.8582	2444.6112
18690.0	4.3529	216.8634	2444.4673
18720.0	4.3232	216.8587	2444.4922
18750.0	4.1117	216.8526	2444.6694
18780.0	4.1396	216.8496	2444.6937
18810.0	4.1025	216.8492	2444.6857
18840.0	3.9150	216.8500	2444.7746
18870.0	3.9213	216.8504	2444.8572

Schlumberger

Flowing Station Log @ 2700m MDKB (Above Perforations)

MAXIS Field Log





TIME	SPINNER	DEGF	PSIA
17910.0	2.4363	216.6800	2418.1905
17940.0	2.3687	216.6770	2418.3491
17970.0	2.2139	216.6710	2418.4345
18000.0	2.2513	216.6705	2418.5192
18030.0	2.1820	216.6682	2418.6275
18060.0	2.1843	216.6651	2418.7249
18090.0	2.1349	216.6623	2418.7550
18120.0	2.0993	216.6614	2418.8020
18150.0	2.1185	216.6588	2418.8165
18180.0	2.1345	216.6577	2418.8524
18210.0	2.1432	216.6558	2418.8558
18240.0	2.1532	216.6588	2418.8436
18270.0	2.2422	216.6544	2418.7810



Flowing Pass Up @ 10m/min

MAXIS Field Log

Company: Esso Australia Pty Ltd.

Well: A-7

Output DLIS Files

DEFAULT FCS_PSP_021LUP FN:20 PRODUCER 21-Nov-2008 13:18

OP System Version: 16C0-147

MCM

PFCS-A

SRPC-3624-Q2_2008_OP16

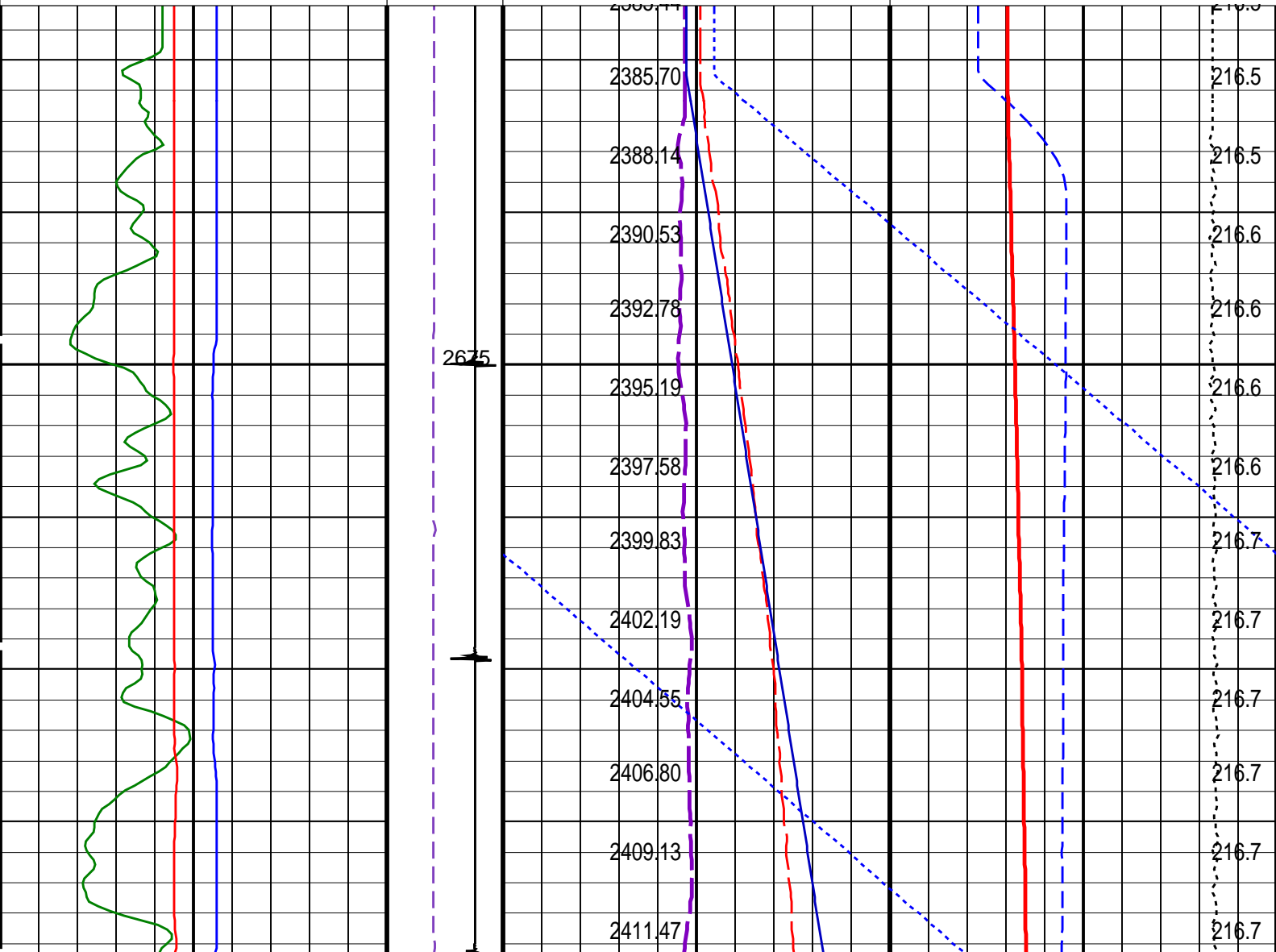
PSPT-B

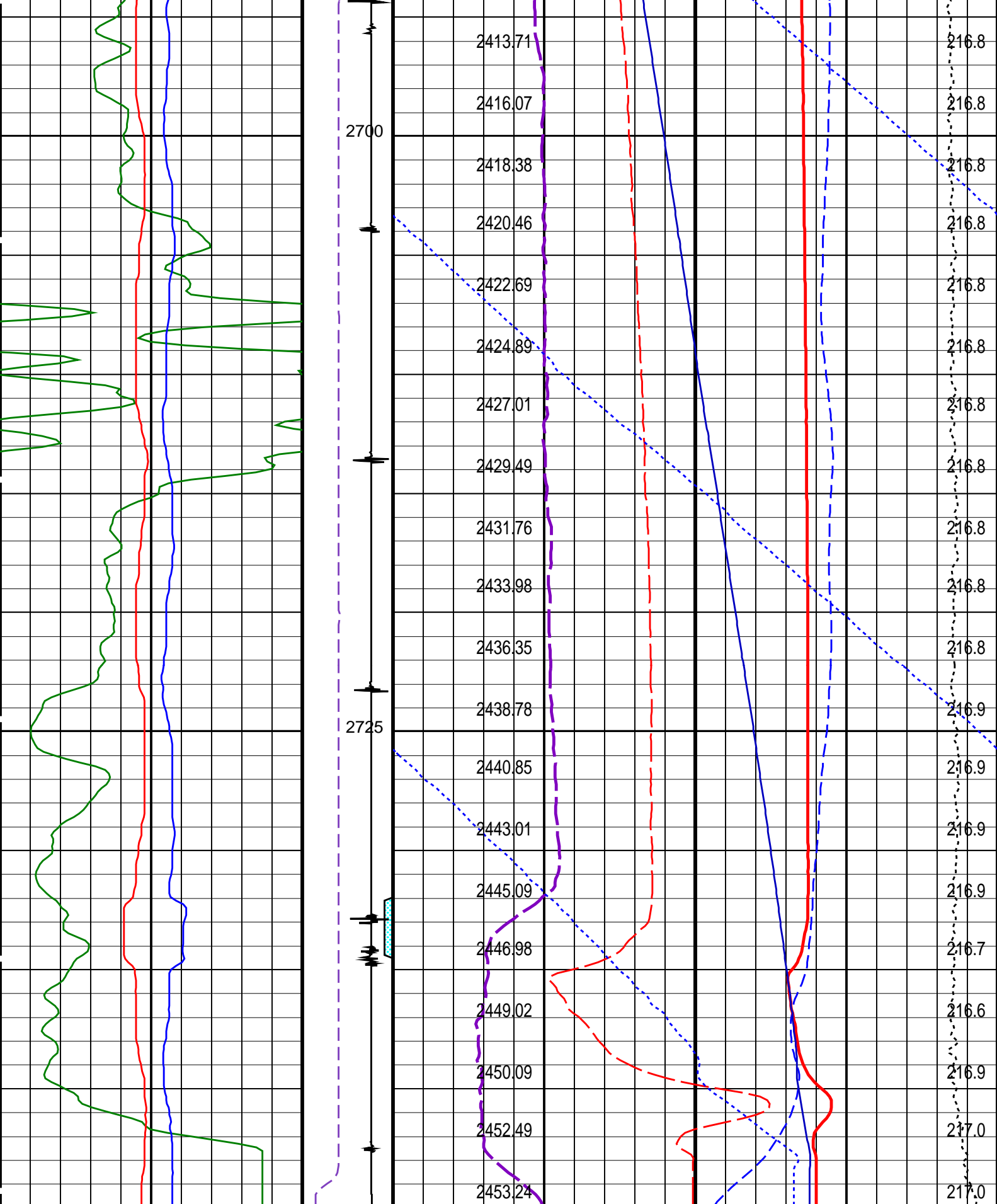
SRPC-3624-Q2_2008_OP16

PIP SUMMARY

Time Mark Every 60 S

			Temperature (WTEP) (DEGF)	
			Amplified Well Pressure (WPRE) (PSIA)	
			0	20
			Well Pressure (WPRE) (PSIA)	
			2350	2500
			Well Pressure (WPRE) (PSIA)	Tension (TENS) (LBF)
				0 2000
PFCS Y Caliper (PFC2) (IN)		Perfo Zone From PERFO_CURVE to D3T	Well Temperature (WTEP) (DEGF)	
2	6		0	2
PFCS X Caliper (PFC1) (IN)		Discriminat ed CCL (CCLD)	Well Temperature (WTEP) (DEGF)	
6	2	3 (V) -1	210	220
Gamma Ray (GR) (GAPI)		Cable Speed (CS) (F/HR)	Filtered Main Spinner (SPIN) (RPS)	Manometer Well Fluid Density (MWFD) (G/C3)
0	150	0 5000	-10 10	0 2





Gamma Ray (GR) (GAPI)	Cable Speed (CS) (F/HR)	Filtered Main Spinner (SPIN) (RPS)	Manometer Well Fluid Density (MWFD) (G/C3)
0	0	-10	0
150	5000	10	2

PFCs X Caliper (PFC1)	Discriminat ed CCL	Well Temperature (WTEP)
-----------------------	-----------------------	-------------------------

6	(IN)	2	(CCLD)	210	(DEGF)	220		
		3	(V) -1					
PFCS Y Caliper (PFC2)		6	Perfo Zone From PERFO_ CURVE to D3T	Well Temperature (WTEP)				
2	(IN)			0	(DEGF)	2		
				Well Pressure (WPRE)		Tension (TENS)		
				(PSIA)		(LBF)		
				Well Pressure (WPRE)				
				2350	(PSIA)	2500		
				Amplified Well Pressure (WPRE)				
				0	(PSIA)	20		
					Temperature (WTEP)			
					(DEGF)			

Time Mark Every 60 S

PIP SUMMARY

Format: PSP+SPIN

Vertical Scale: 1:200

Graphics File Created: 21-Nov-2008 13:18

OP System Version: 16C0-147

MCM

PFCS-A

SRPC-3624-Q2_2008_OP16

PSPT-B

SRPC-3624-Q2_2008_OP16

Parameters			
DLIS Name	Description	Value	
PFCS-A: PSP Flow and caliper Tool			
AMOD	Spinner Filter Averaging Mode	LINEAR_AVERAGE	
GDEV	Average Angular Deviation of Borehole from Normal	44	DEG
SDCF	Spinner Depth Constant Filter	6	
SPIN	Main Spinner Flowmeter Sonde	PFCS-A_2.5	
PSPT-B: Production Services Logging Platform			
GDEV	Average Angular Deviation of Borehole from Normal	44	DEG

Output DLIS Files			
DEFAULT	FCS_PSP_021LUP	FN:20	PRODUCER 21-Nov-2008 13:18

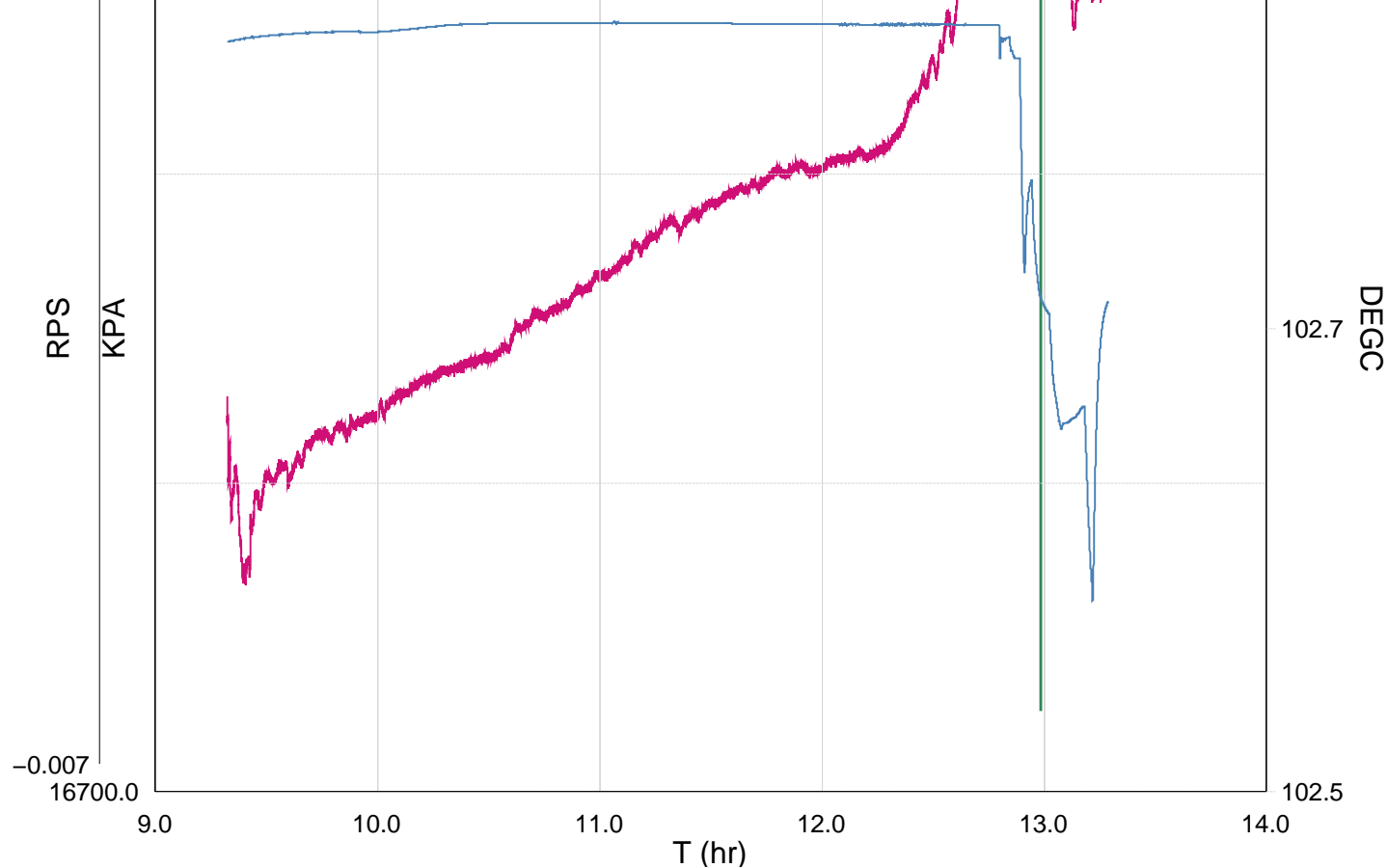
Schlumberger

Flow The Well

(Station @ 2745m MDKB)

MAXIS Field Log





TIME	SPINNER	DEGF	PSIA
13320.0	0.0000	216.8709	2470.1896
13500.0	0.0000	216.8743	2470.1911
13680.0	0.0000	216.8779	2470.1966
13860.0	0.0000	216.8885	2470.1926
14040.0	0.0000	216.9024	2470.1924
14220.0	0.0000	216.9117	2470.1919
14400.0	0.0000	216.9161	2470.1931
14580.0	0.0000	216.9529	2470.1935
14760.0	0.0000	216.9657	2470.1880
14940.0	0.0000	216.9905	2470.1826
15120.0	0.0000	217.0021	2470.1757
15300.0	0.0000	217.0039	2470.1641
15480.0	0.0000	217.0080	2469.1716
15660.0	0.0000	217.0104	2468.1649
15840.0	0.0000	217.0027	2455.5251
16020.0	0.0000	217.0072	2455.0731
16200.0	0.0000	216.9864	2452.2184
16380.0	0.0000	216.9775	2445.5827
16560.0	0.0000	216.9768	2445.3639
16740.0	0.0000	216.9698	2446.0789
16920.0	0.0000	216.9663	2435.0558
17100.0	0.0000	216.9674	2451.6101

Well Opened

Company: Esso Australia Pty Ltd.

Well: A-7

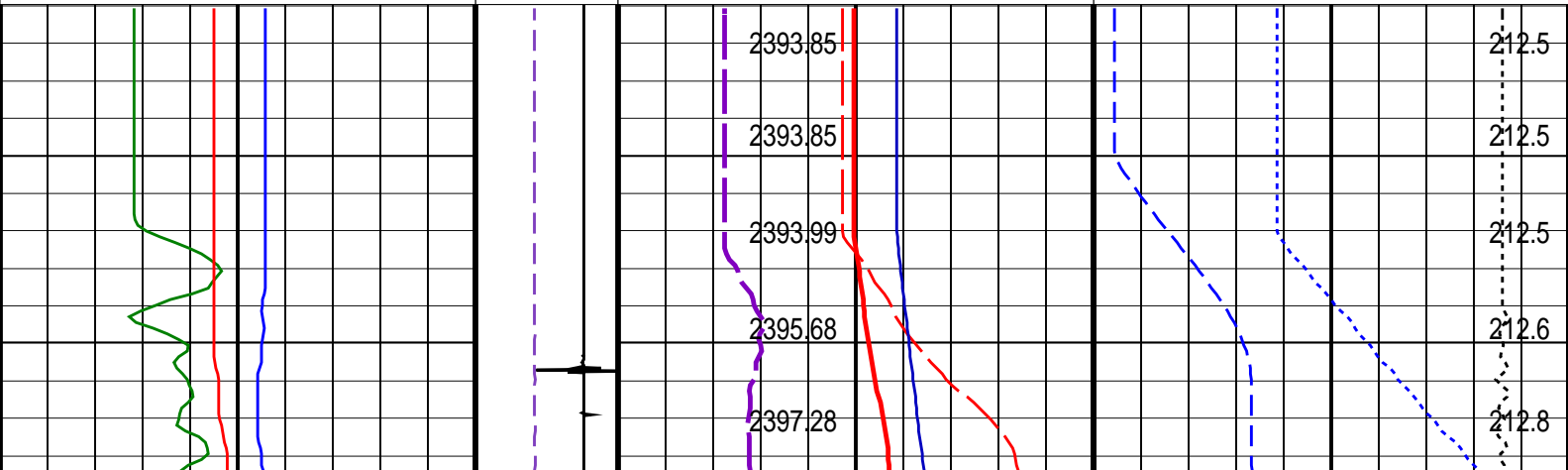
Input DLIS Files					
DEFAULT	FCS_PSP_016LUP	FN:15	PRODUCER	21-Nov-2008 08:46	2760.4 M 2646.0 M
Output DLIS Files					
DEFAULT	FCS_PSP_018PUP	FN:17	PRODUCER	21-Nov-2008 09:05	2754.5 M 2635.9 M

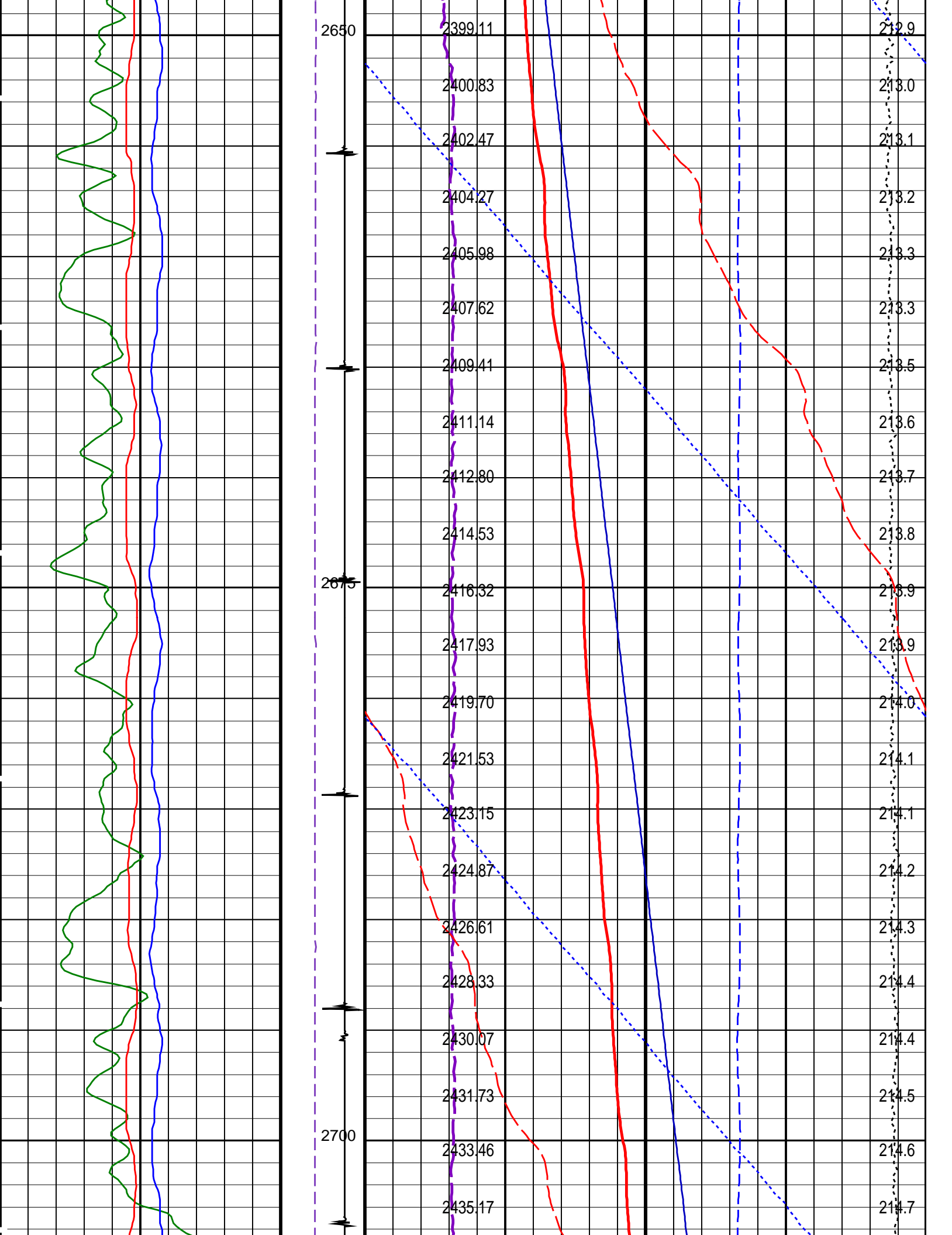
OP System Version: 16C0-147					
MCM					
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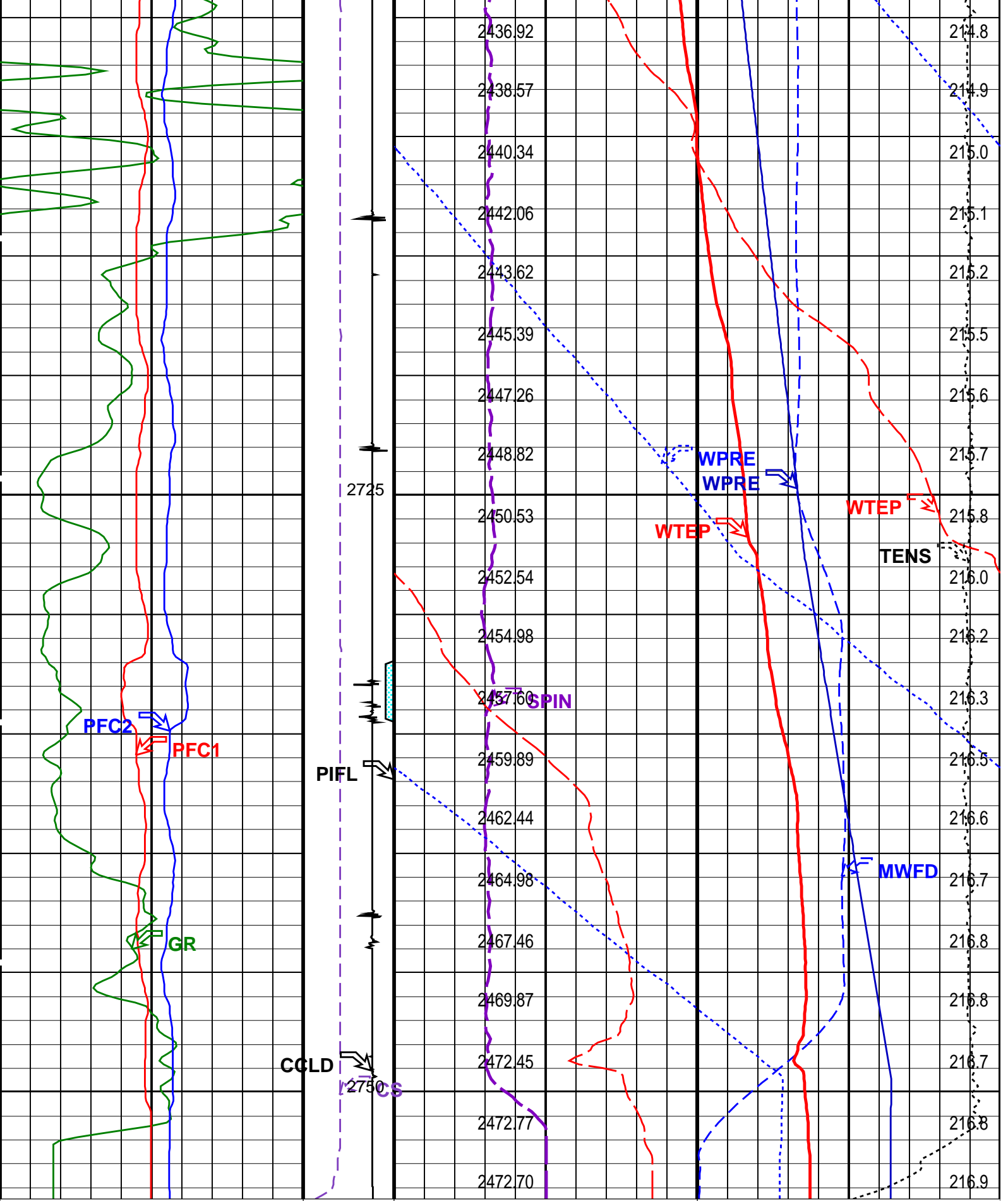
PIP SUMMARY

☐ Time Mark Every 60 S

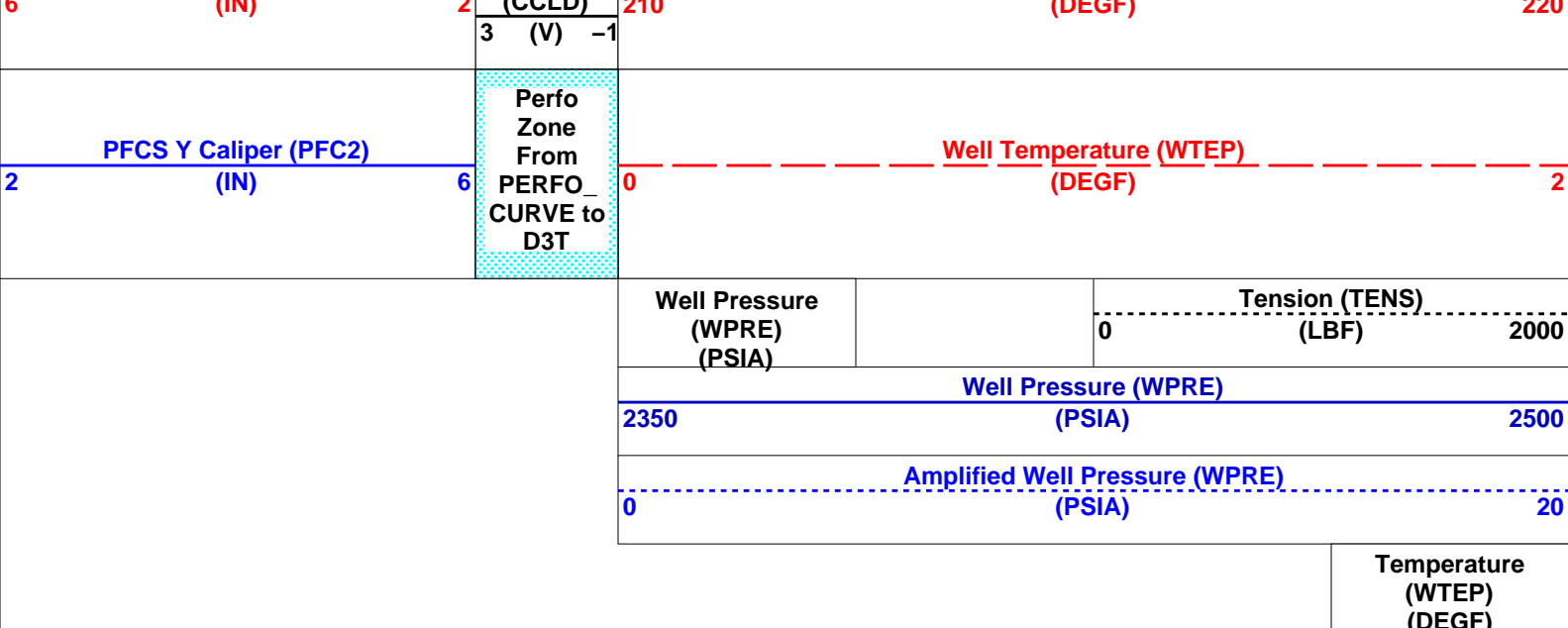
			Temperature (WTEP) (DEGF)	
			Amplified Well Pressure (WPRE) (PSIA)	
			0	20
			Well Pressure (WPRE) (PSIA)	
			2350	2500
			Well Pressure (WPRE) (PSIA)	Tension (TENS) (LBF)
			0	2000
PFCS Y Caliper (PFC2) (IN)			Well Temperature (WTEP) (DEGF)	
2	6	Perfo Zone From PERFO_CURVE to D3T	0	2
PFCS X Caliper (PFC1) (IN)			Well Temperature (WTEP) (DEGF)	
6	2	Discriminated CCL (CCLD) (V) -1	210	220
Gamma Ray (GR) (GAPI)			Filtered Main Spinner (SPIN) (RPS)	Manometer Well Fluid Density (MWFD) (G/C3)
0	150	Cable Speed (CS) (F/HR)	-10 10	0 2
		0 5000		







Gamma Ray (GR) (GAPI)	Cable Speed (CS) (F/HR)	Filtered Main Spinner (SPIN) (RPS)	Manometer Well Fluid Density (MWFD) (G/C3)
PFC1 (IN)	Discriminat ed CCL (CCLD)	Well Temperature (WTEP) (DEG)	



Time Mark Every 60 S

Format: PSP+SPIN Vertical Scale: 1:200 Graphics File Created: 21-Nov-2008 09:05

OP System Version: 16C0-147

MCM

PFCS-A SRPC-3624-Q2_2008_OP16 PSPT-B SRPC-3624-Q2_2008_OP16

Parameters			
DLIS Name	Description	Value	
PFCS-A: PSP Flow and caliper Tool			
AMOD	Spinner Filter Averaging Mode	LINEAR_AVERAGE	
GDEV	Average Angular Deviation of Borehole from Normal	44	DEG
SDCF	Spinner Depth Constant Filter	6	
SPIN	Main Spinner Flowmeter Sonde	PFCS-A_2.5	
PSPT-B: Production Services Logging Platform			
GDEV	Average Angular Deviation of Borehole from Normal	44	DEG
System and Miscellaneous			
DO	Depth Offset for Playback	-6.0	M
PP	Playback Processing	NORMAL	

Input DLIS Files						
DEFAULT	FCS_PSP_016LUP	FN:15	PRODUCER	21-Nov-2008 08:46	2760.4 M	2646.0 M
Output DLIS Files						
DEFAULT	FCS_PSP_018PUP	FN:17	PRODUCER	21-Nov-2008 09:05		

Company: **Esso Australia Pty Ltd.**

Well: **A-7**

Field: **Tuna**

Rig: **Mast**

Country: **Australia**

Schlumberger

Gamma Ray-Pressure
Temperature , Full Bore
Spinner Survey