

Company: Ezzo Australia Ltd.

Well: W-39L
Field: West Tuna
Rig: Prod4 / Crane

Country: Australia

Gamma Ray Survey	
2" HSD	
MWPT	
Gippsland Basin Bass Strait	Elev.: K.B. 38.9 m G.L. -61.9 m D.F. 38.9 m
Permanent Datum: _____ Log Measured From: DF _____ Drilling Measured From: DF _____	Elev.: 0 m 38.9 m above Perm. Datum
State: Victoria	Max. Well Deviation 15 deg Longitude 148 39'22" E Latitude 038 19'36" S

Rig:	Prod4 / Crane
Field:	West Tuna
Location:	Gippsland
Well:	W-39L
Company:	Ezzo Australia Ltd.

Logging Date	7-Aug-2006		
Run Number	1		
Depth Driller	3082 m		
Schlumberger Depth	3010 m		
Bottom Log Interval	3000 m		
Top Log Interval	2570 m		
Casing Fluid Type	Production Fluids		
Salinity			
Density	6 g/cm3		
Fluid Level	1006 m		
BIT/CASING/TUBING STRING			
Bit Size	8.500 in		
From			
To			
Casing/Tubing Size	7.000 in		
Weight	29 lbm/ft		
Grade	L-80		
From	1999.34 m		
To	3184 m		
Maximum Recorded Temperatures	265 degF		
Logger On Bottom	7-Aug-2006		10:40
Unit Number	LEE001	Prod4/AUSL	
Recorded By	G Wright, S Gilbert		
Witnessed By	G Rimmer		

	Run 1
Oil Density	
Water Salinity	
Gas Gravity	
Bo	
Bw	
1/Bg	
Bubble Point Pressure	
Bubble Point Temperature	
Solution GOR	
Maximum Deviation	15 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	
Unit Number	
Recorded By	
Witnessed By	

DEPTH SUMMARY LISTING

Date Created: 7-AUG-2006 12:52:54

Depth System Equipment

Depth Measuring Device	Tension Device	Logging Cable
Type: IDW-H Serial Number: 797 Calibration Date: 1-May-2006 Calibrator Serial Number: 1009 Calibration Cable Type: 2-32ZT Wheel Correction 1: -3 Wheel Correction 2: -3	Type: CMTD-C Serial Number: 1037 Calibration Date: 1-Jul-2006 Calibrator Serial Number: 1174 Calibration Gain: 1.10 Calibration Offset: 325.00	Type: 2-32ZT Serial Number: 26087 Length: 6900.06 M Conveyance Method: Wireline Rig Type: Offshore_Fixed

Depth Control Parameters

Log Sequence:	Subsequent Trip To the Well
Reference Log Name:	Solar Log
Reference Log Run Number:	1
Reference Log Date:	1997
Subsequent Trip Down Log Correction:	

Depth Control Remarks

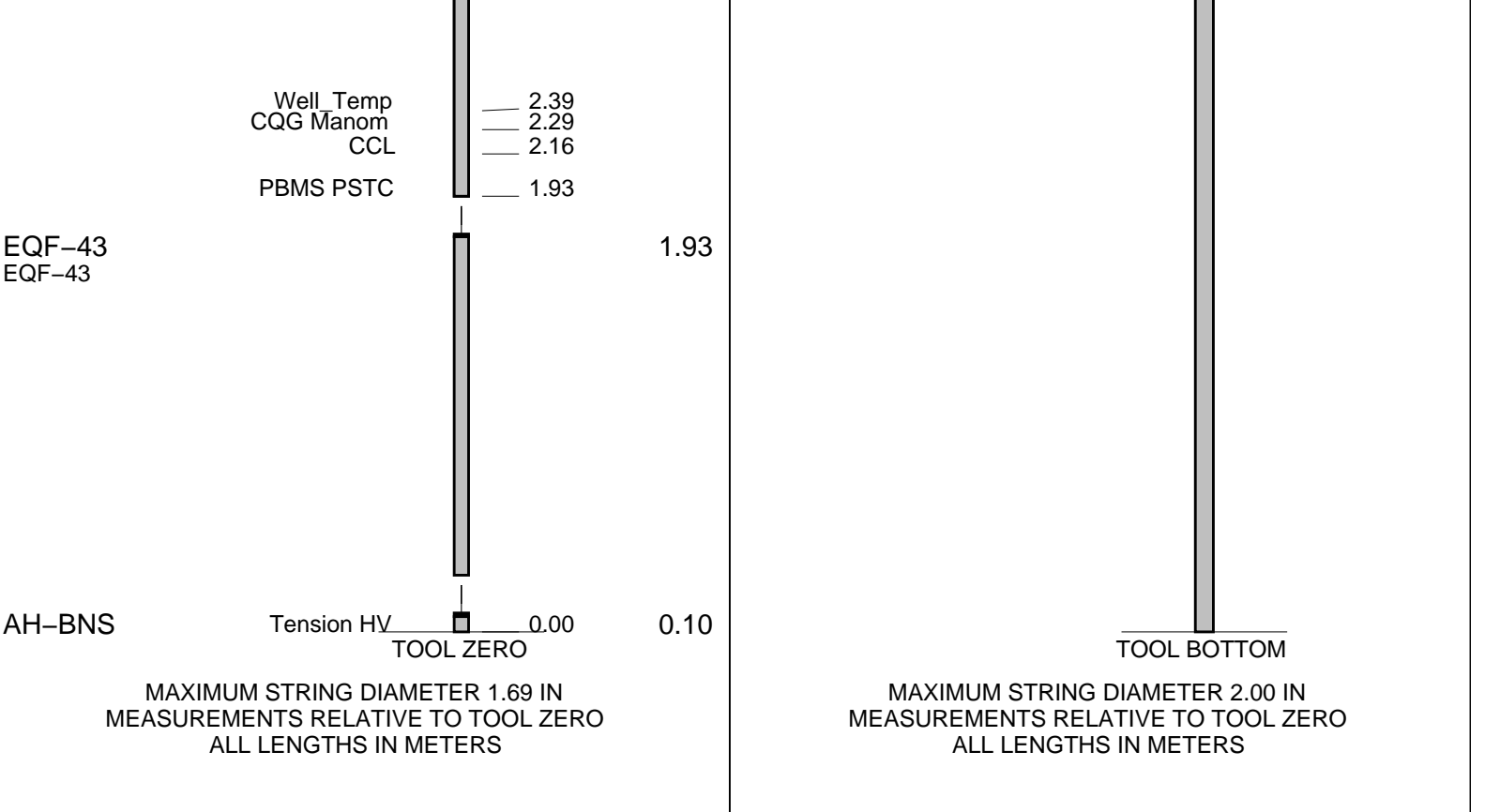
1. Correlated to Solar Log provided by client.
2. IDW used as primary depth control.
3. Z-Chart used as secondary depth control.
4.
5.
6.

DISCLAIMER

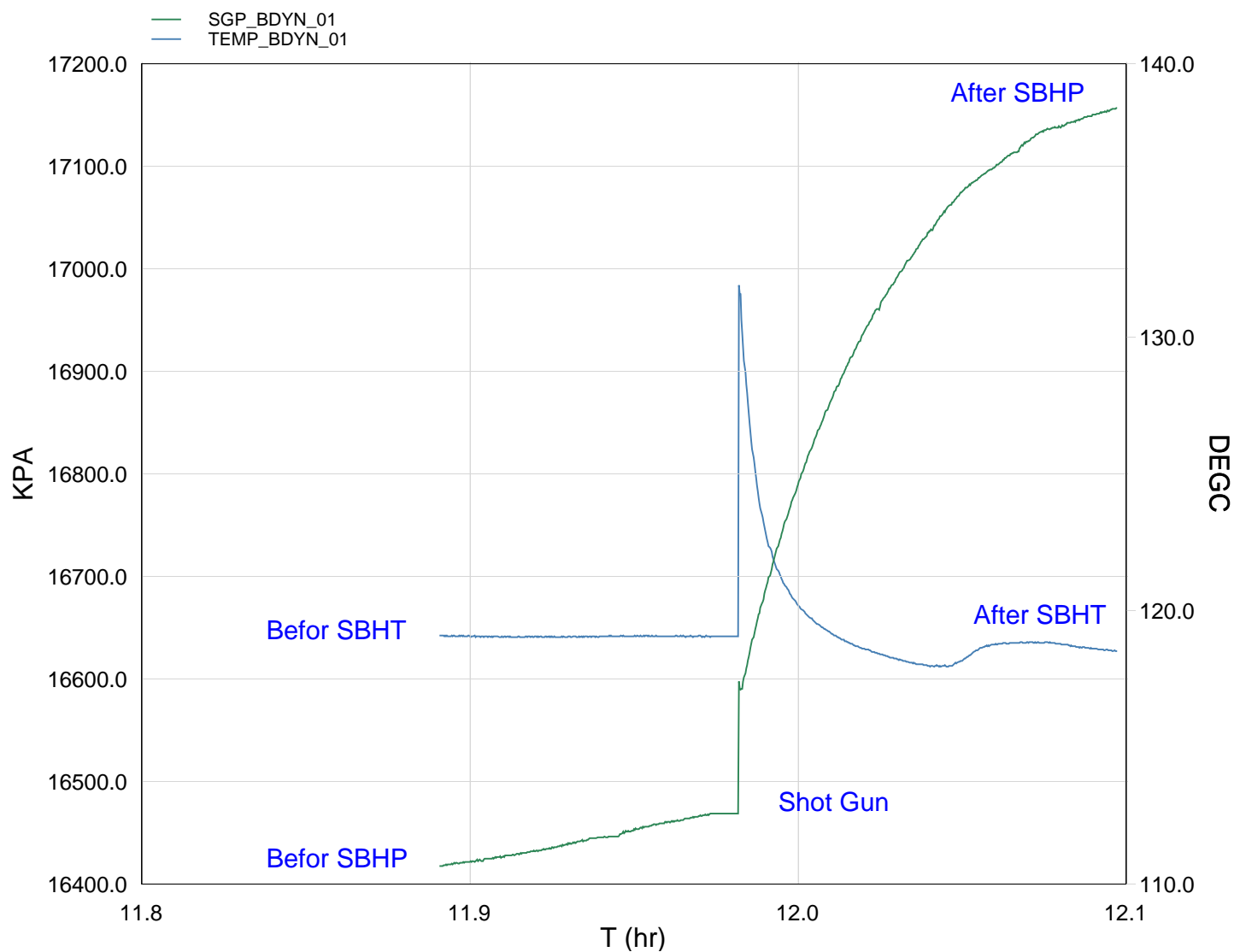
THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE OF AND RELIANCE UPON THE RECORDED-DATA; AND (c) CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISION MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA.

OTHER SERVICES1
OS1: None
OS2:
OS3:
OS4:
OS5:
REMARKS: RUN NUMBER 1
Log Correlated to ExxonMobil West Tuna W-39L Composite Log
Objectives: Conduct GR Survey over the interval 2570 m MDKB to 3000m MDKB
Objectives: Perforate over the intervals 3607m MDKB to 3611m MDKB and
3625m MDKB to 3631.5m MDKB
Maximum Well Deviation : 15 deg @ 559m MDKB
SBHT : 265 deg f SBHP : 3050 psia
Gun's Shot : 1) 6.5m 2" HSD 6 spf 60 deg Phased Powerjet Omega

2) 4.0m 2" HSD 6 spf 60 deg Phased Powerjet Omega					
Gun 1 SBHP: Before: 2600 psia After : 2703 psia					
Gun 2 SBHP: Before: 2381 psia After : 2488 psia					
Schlumberger Crew : John Light , Kevin Kerr					
RUN 1 SERVICE ORDER #: AUSL06336232 PROGRAM VERSION: 14C0-302 FLUID LEVEL: 1006 m					
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP
EQUIPMENT DESCRIPTION					
RUN 1			RUN 2		
SURFACE EQUIPMENT			SURFACE EQUIPMENT		
WITM-A 827 PSC_16MHZ 827			MWPM-AA		
DOWNHOLE EQUIPMENT			DOWNHOLE EQUIPMENT		
SWBS/B 761 SWBS/B 762 SWBS/B 763 SWBS/B 731 SBHA/A 726 PSPT-B PSC-A 827 PSPT-B 827 PSTC 827 PBMS-B 827 CQG_F_Mano 827 RTD_Thermometer 827 GR 33143 CCL 827 PBMS 827			SWBS/B 761 SWBS/B 762 SWBS/B 763 SBHA/A 726 MWGT-AA MWPG-AA 94 MWGH-AA 94 MWPT-CA MWPH-AA 74 MWPS-AA 74 CCL SMWP Pres SMWP Temp Tension ESIC 1990 GUN - 2" HSD 6 Spf 60 deg Phasing		
		7.52			12.89
		6.84			12.20
		6.15			11.52
		5.47			10.83
		4.78			10.50
		4.45			9.52
		4.45			6.71
		3.32			6.10



Production String	(in)		(m)	Well Schematic	(m)	(in)		Casing String
	OD	ID	MD		MD	OD	ID	
Tubing Hanger Tubing	13.375	3.500	17.0		17.6	9.625	8.755	Casing String Liner Hanger Casing String
	2.875	2.400	17.1		17.6	13.375	9.625	
					17.6	13.375	12.615	
SSSV	2.875	2.313	454.0					
					608.8	13.375	12.615	Casing Shoe
Gas Lift Mandrel	2.875		784.0					
Gas Lift Mandrel Packer	2.875		1324.0					
	9.625	2.875	1416.0					



TIME TEMP_MWPT_S SGPA_SL

3120.0	245.34	2488.366
3060.0	245.79	2485.751
3000.0	245.84	2481.423
2940.0	244.38	2474.931
2880.0	244.78	2464.474
2820.0	246.08	2450.540
2760.0	249.37	2430.940
2700.0	246.29	2388.593
2640.0	246.32	2387.616
2580.0	246.33	2385.791
2520.0	246.28	2384.258

2460.0 246.25 2382.744
2400.0 246.35 2381.587



Gun # 2 Shooting Pass

MAXIS Field Log

Output DLIS Files

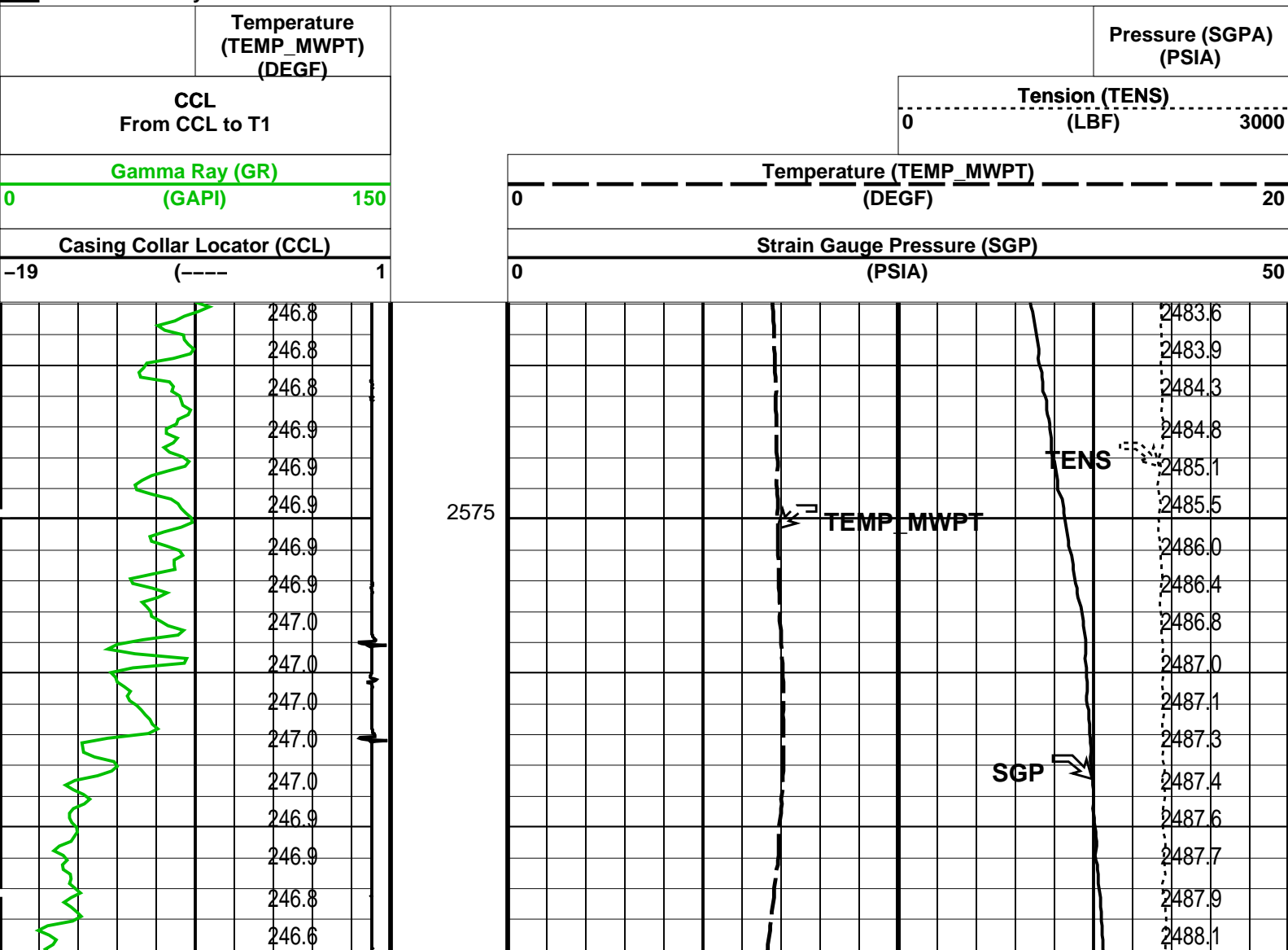
DEFAULT PERFO_050LUP FN:49 PRODUCER 10-Aug-2006 11:46

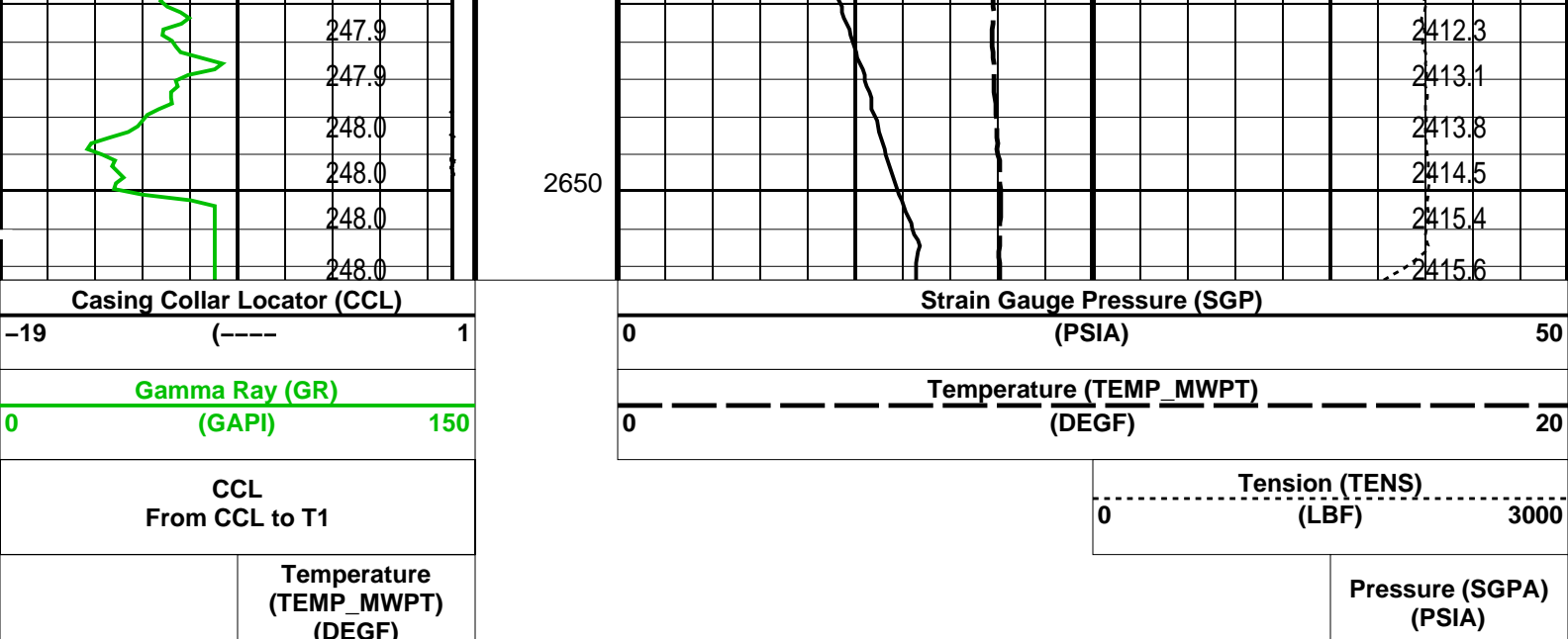
OP System Version: 14C0-302 MCM

MWP_GUN 14C0-302 MWPT-CA 14C0-302
MWGT-AA 14C0-302

PIP SUMMARY

Time Mark Every 60 S





PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
MWPT-CA: MEASUREMENT WHILE PERFORATING TOOL		
DEVI_FL_CORR	Deviation Angle for Flow Line Correction	0 DEG
FLD	Flow Line Density	1 G/C3
MWPT_NULL_SOURCE	MWPT NULL Temperature Source	TEMS
MWPT_NULL_TEMP	MWPT NULL Temperature	0.0 DEGC

Format: MWP Vertical Scale: 1:200

Graphics File Created: 10-Aug-2006 11:46

OP System Version: 14C0-302

MCM

MWP_GUN	14C0-302	MWPT-CA	14C0-302
MWGT-AA	14C0-302		

Output DLIS Files

DEFAULT	PERFO_050LUP	FN:49	PRODUCER	10-Aug-2006 11:46
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Schlumberger

Gun # 2 Correlation Pass

MAXIS Field Log

Output DLIS Files

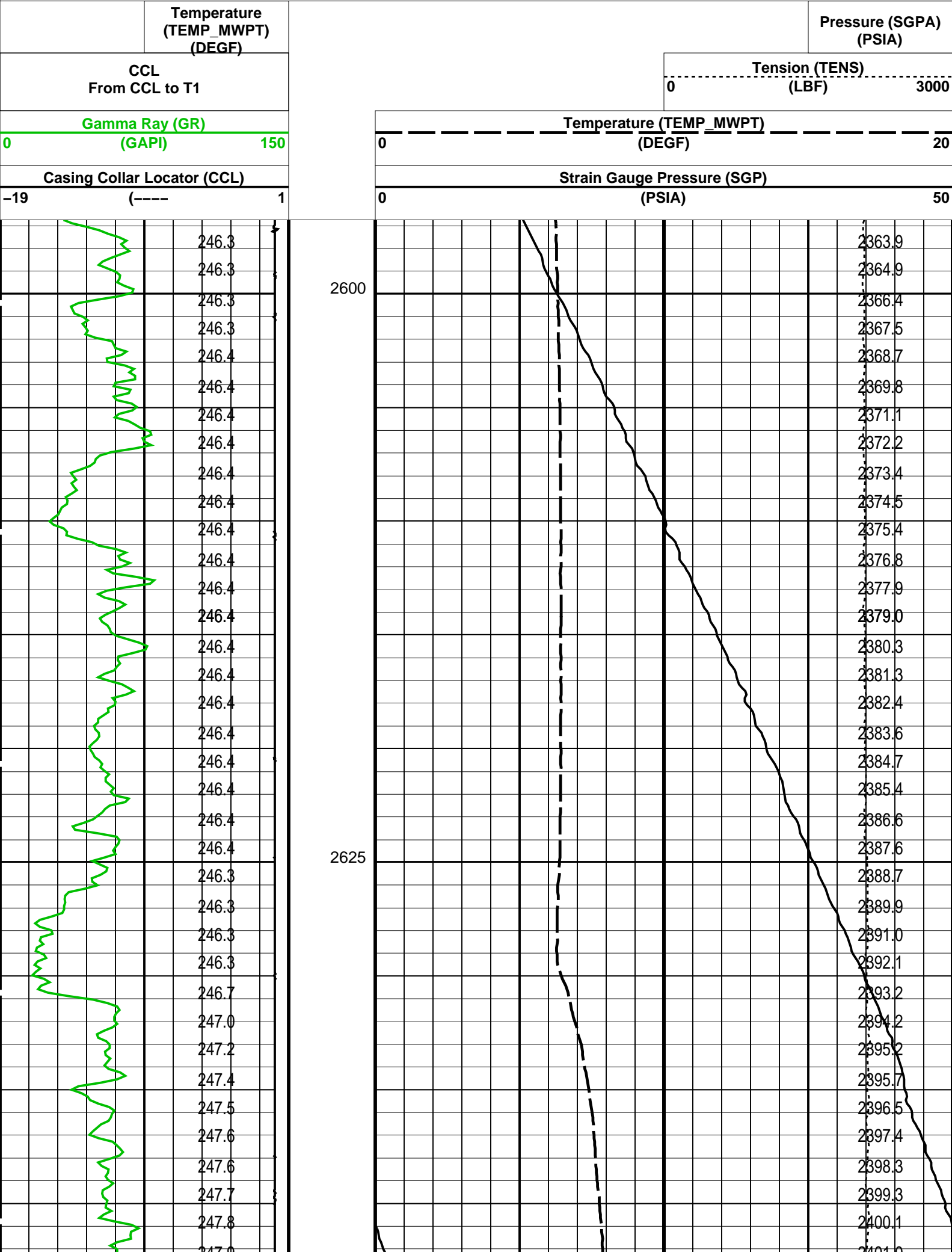
DEFAULT	PERFO_049LUP	FN:48	PRODUCER	10-Aug-2006 11:37	2651.3 M	2596.7 M
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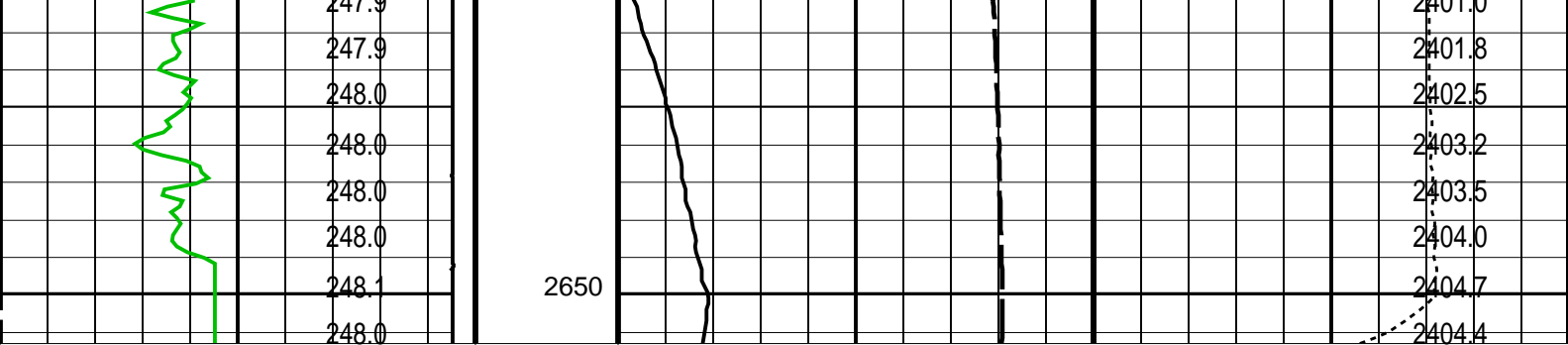
OP System Version: 14C0-302

MCM

MWP_GUN	14C0-302	MWPT-CA	14C0-302
MWGT-AA	14C0-302		

PIP SUMMARY





Casing Collar Locator (CCL)		Strain Gauge Pressure (SGP)	
-19 (----) 1		0 (PSIA) 50	
Gamma Ray (GR)		Temperature (TEMP_MWPT)	
0 (GAPI) 150		0 (DEGF) 20	
CCL From CCL to T1		Tension (TENS)	
		0 (LBF) 3000	
Temperature (TEMP_MWPT) (DEGF)		Pressure (SGPA) (PSIA)	

PIP SUMMARY


Time Mark Every 60 S

Parameters		
DLIS Name	Description	Value
MWPT-CA: MEASUREMENT WHILE PERFORATING TOOL		
DEVI_FL_CORR	Deviation Angle for Flow Line Correction	0 DEG
FLD	Flow Line Density	1 G/C3
MWPT_NULL_SOURCE	MWPT NULL Temperature Source	TEMS
MWPT_NULL_TEMP	MWPT NULL Temperature	0.0 DEGC

Format: MWP Vertical Scale: 1:200 Graphics File Created: 10-Aug-2006 11:37

OP System Version: 14C0-302			
MCM			
MWP_GUN	14C0-302	MWPT-CA	14C0-302
MWGT-AA	14C0-302		

Output DLIS Files			
DEFAULT	PERFO_049LUP	FN:48	PRODUCER 10-Aug-2006 11:37



Job Events Summary
Gun 1

MAXIS Field Log

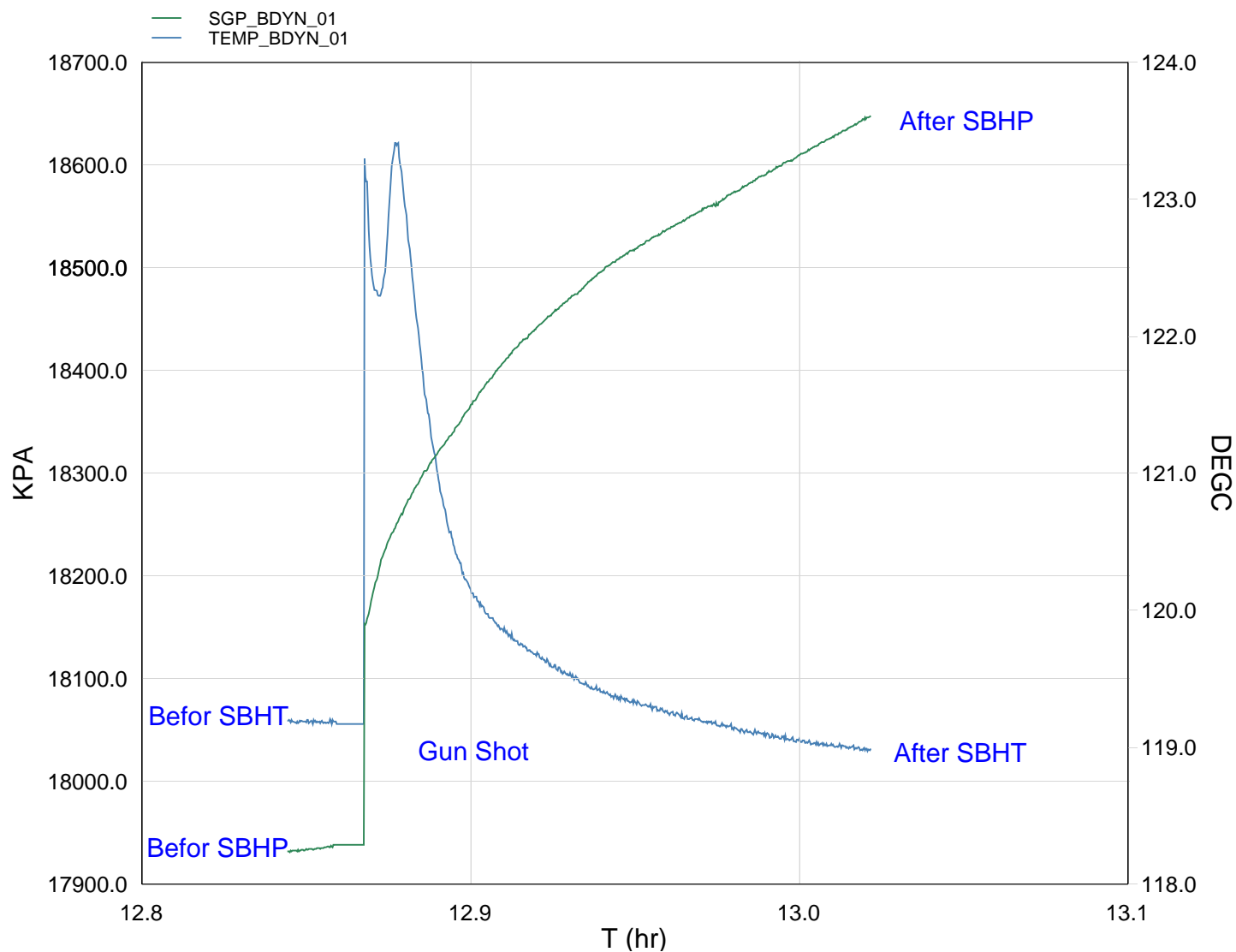
Schlumberger Job Event Summary				
Time	Elapsed Time	Depth (M)	File	
Log Pass (down)	8-Aug-2006 8:45	000:25	850.8 - 2649.9	PERFO_036LDP
Log Pass (up)	8-Aug-2006 9:11	000:07	2649.9 - 2595.5	PERFO_037LUP
Station Log	8-Aug-2006 10:02	002:06	2594.5 - 19.1	PERFO_038LTP
Production Log	8-Aug-2006 10:02	002:06	2594.5 - 19.1	PERFO_038LTP

Log Pass (down) 8-Aug-2006 12:09 000:08 2588.1 - 2653.6 PERFO_039LUP
Log Pass (up) 8-Aug-2006 12:17 000:05 2653.6 - 2620.7 PERFO_040LUP
Log Pass (up) 8-Aug-2006 12:26 000:10 2653.9 - 2573.7 PERFO_041LUP
Log Pass (up) 8-Aug-2006 12:45 000:19 2655.0 - 2596.0 PERFO_042LUP
Station Log 8-Aug-2006 12:50 000:11 2622.5 - 1.6 PERFO_043LTP

Schlumberger

Gun # 1
2625m MDKB to 2631.5m MDKB

MAXIS Field Log



TIME TEMP_MWPT_S SGPA_SL

15360.0 246.19 2703.222

15300.0	246.19	2703.222
15300.0	246.30	2699.005
15240.0	246.42	2694.639
15180.0	246.57	2690.306
15120.0	246.77	2685.715
15060.0	247.09	2679.659
15000.0	247.51	2673.127
14940.0	248.32	2663.307
14880.0	252.15	2651.859
14820.0	246.50	2601.726
14760.0	246.54	2600.922



Gun # 1 Shooting Pass

MAXIS Field Log

Output DLIS Files

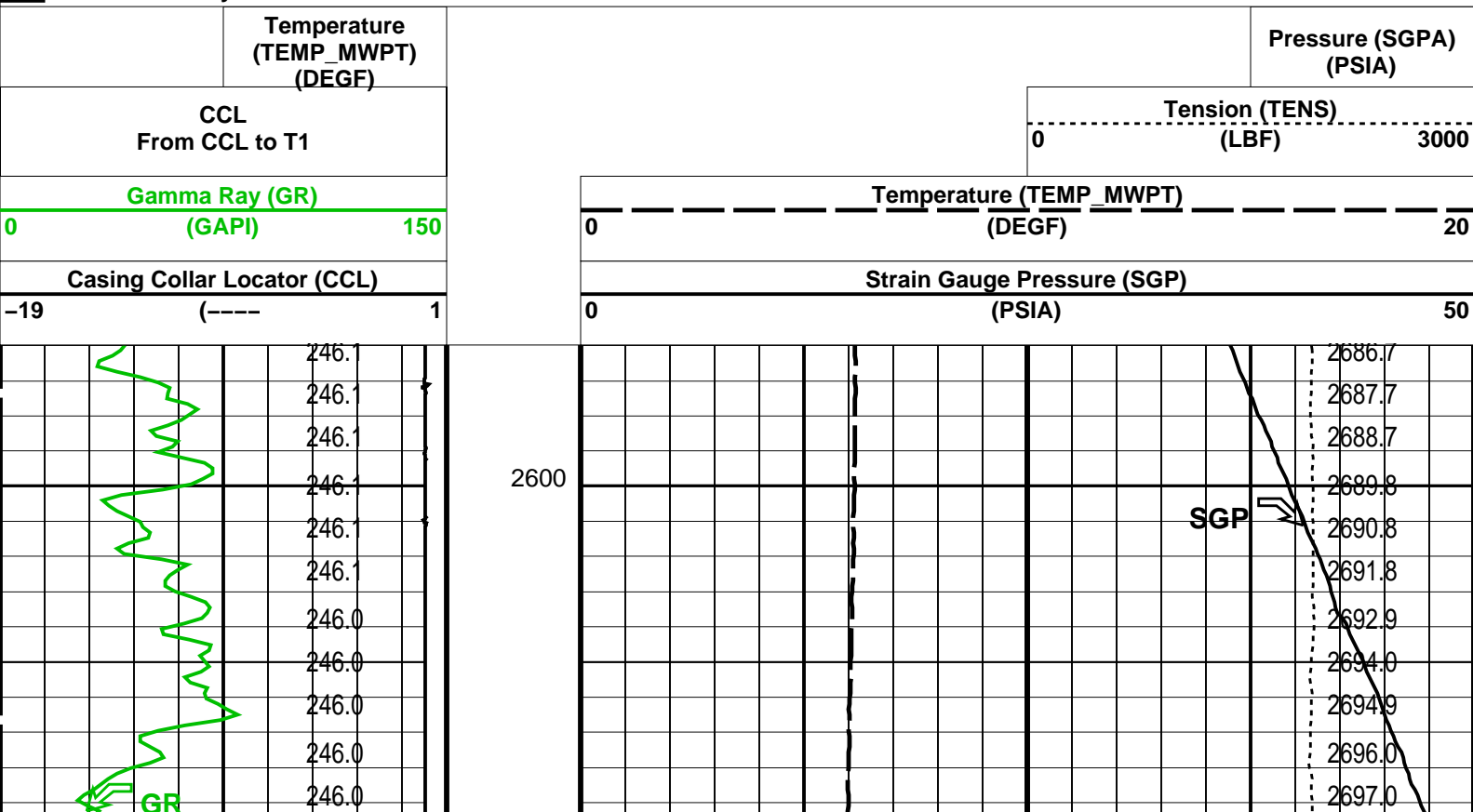
DEFAULT PERFO_042LUP FN:41 PRODUCER 08-Aug-2006 12:45

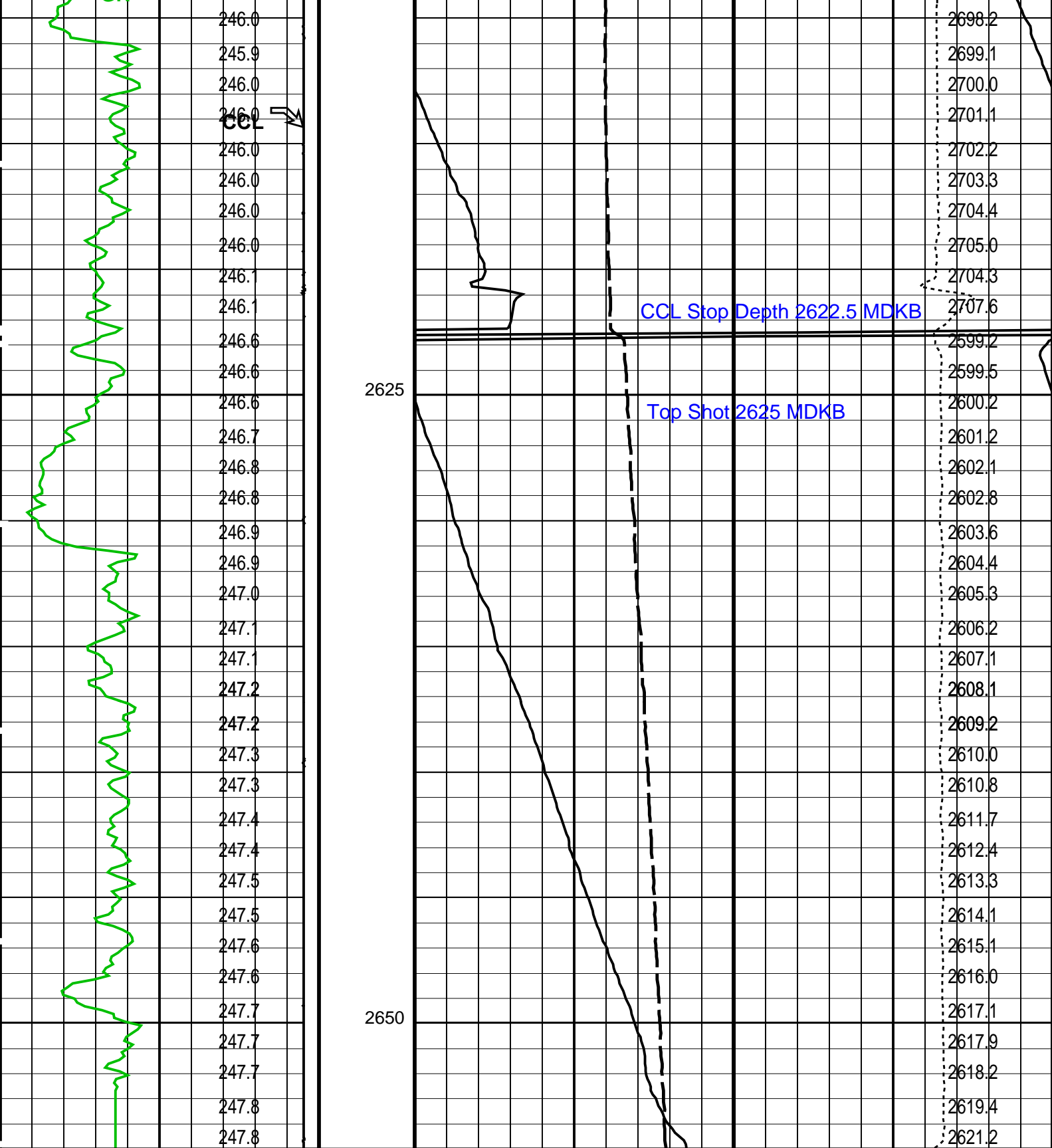
OP System Version: 14C0-302 MCM

MWP_GUN 14C0-302 MWPT-CA 14C0-302
MWGT-AA 14C0-302

PIP SUMMARY

☒ Time Mark Every 60 S





Casing Collar Locator (CCL)		Strain Gauge Pressure (SGP)	
-19	(----) 1	0	(PSIA) 50
Gamma Ray (GR)		Temperature (TEMP_MWPT)	
0	(GAPI) 150	0	(DEGF) 20
CCL From CCL to T1		Tension (TENS)	
		0	(LBF) 3000
Temperature (TEMP_MWPT) (DEGF)		Pressure (SGPA) (PSIA)	

DLIS Name	Description	Value
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MWPT-CA: MEASUREMENT WHILE PERFORATING TOOL			
DEVI_FL_CORR	Deviation Angle for Flow Line Correction	0	DEG
FLD	Flow Line Density	1	G/C3
MWPT_NULL_SOURCE	MWPT NULL Temperature Source	TEMS	
MWPT_NULL_TEMP	MWPT NULL Temperature	0.0	DEGC

Format: MWP Vertical Scale: 1:200 Graphics File Created: 08-Aug-2006 12:45

MCM

MWP_GUN	14C0-302	MWPT-CA	14C0-302
MWGT-AA	14C0-302		

DEFAULT PERFO 042LUP FN:41 PRODUCER 08-Aug-2006 12:45



Gun # 1 Correlation Pass

MAXIS Field Log

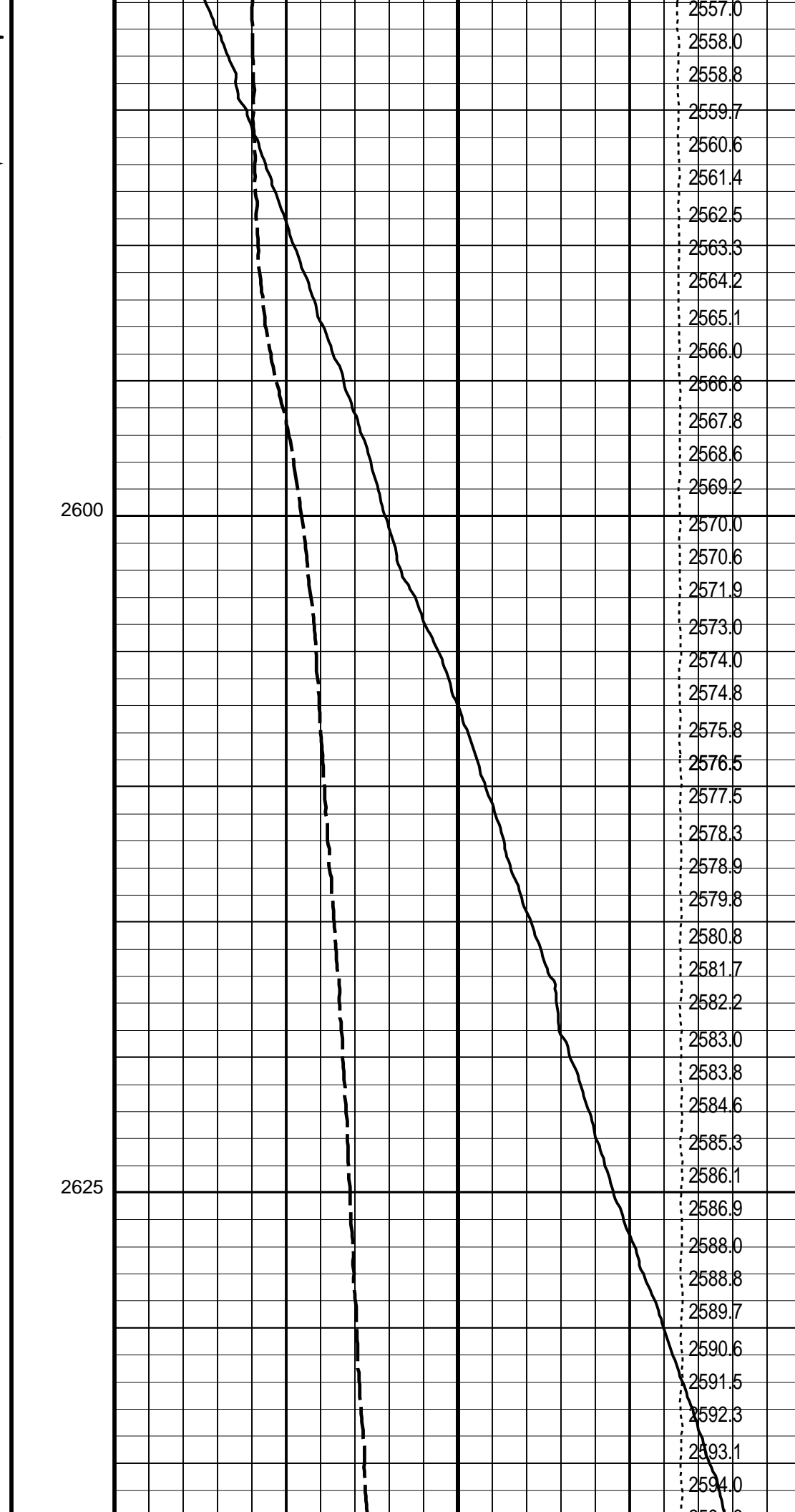
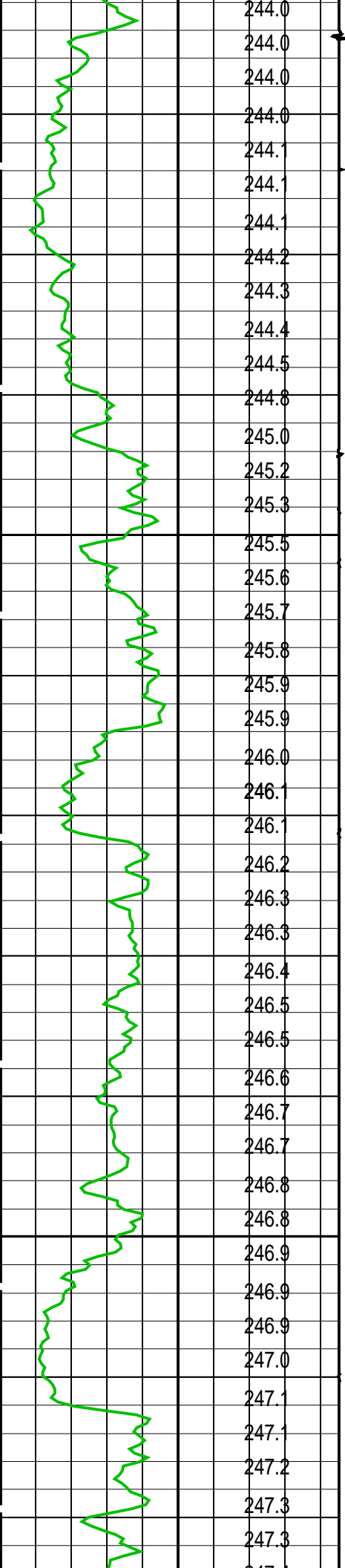
DEFAULT	PERFO_041LUP	FN:40	PRODUCER	08-Aug-2006 12:26	2653.9 M	2573.7 M
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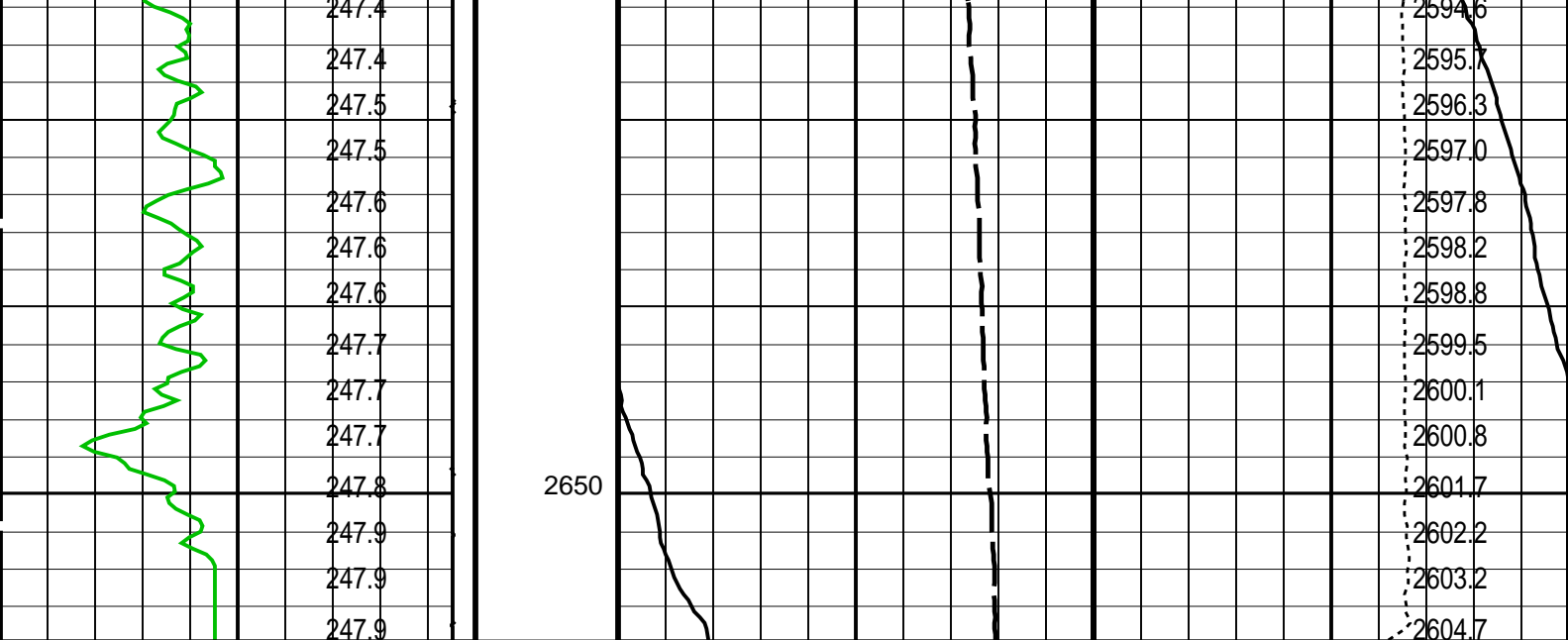
MCM

MWP_GUN	14C0-302	MWPT-CA	14C0-302
MWGT-AA	14C0-302		

Time Mark Every 60 S

		Temperature (TEMP_MWPT) (DEGF)			Pressure (SGPA) (PSIA)
CCL From CCL to T1			Tension (TENS) (LBF)		
Gamma Ray (GR) (GAPI)			Temperature (TEMP_MWPT) (DEGF)		
Casing Collar Locator (CCL)			Strain Gauge Pressure (SGP) (PSIA)		
0	150		0	20	
-19	1		0	50	
		243.9	2575		2552.2
		243.9			2552.9
		243.9			2553.9
		243.9			2554.8
		244.0			2555.8





Casing Collar Locator (CCL)		Strain Gauge Pressure (SGP)	
-19	(----) 1	0	(PSIA) 50
Gamma Ray (GR)		Temperature (TEMP_MWPT)	
0	(GAPI) 150	0	(DEGF) 20
CCL From CCL to T1		Tension (TENS)	
		0	(LBF) 3000
Temperature (TEMP_MWPT) (DEGF)		Pressure (SGPA) (PSIA)	

PIP SUMMARY

☒ Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
MWPT-CA: MEASUREMENT WHILE PERFORATING TOOL		
DEVI_FL_CORR	Deviation Angle for Flow Line Correction	0 DEG
FLD	Flow Line Density	1 G/C3
MWPT_NULL_SOURCE	MWPT NULL Temperature Source	TEMS
MWPT_NULL_TEMP	MWPT NULL Temperature	0.0 DEGC

Format: MWP Vertical Scale: 1:200 Graphics File Created: 08-Aug-2006 12:26

OP System Version: 14C0-302

MCM

MWP_GUN	14C0-302	MWPT-CA	14C0-302
MWGT-AA	14C0-302		

Output DLIS Files

DEFAULT PERFO_041LUP FN:40 PRODUCER 08-Aug-2006 12:26



Job Events Summary

Schlumberger Job Event Summary

	Time	Elapsed Time	Depth (M)	File
Station Log	7-Aug-2006 7:18	000:27	1013.7 – 2.9	PSP_018LTP
Station Log	7-Aug-2006 7:48	000:17	6.0 – 2.5	PSP_019LTP
Log Pass (down)	7-Aug-2006 8:27	001:42	1.7 – 2652.7	PSP_020LDP
Log Pass (up)	7-Aug-2006 10:08	000:09	2651.9 – 2597.4	PSP_021LUP
Log Pass (up)	7-Aug-2006 10:38	000:55	3011.3 – 2540.8	PSP_023LUP
Log Pass (up)	7-Aug-2006 11:50	001:01	2007.7 – -0.5	PSP_026LUP



Gamma-Ray Survey
2570m MDKB to 3000m MDKB

MAXIS Field Log

Company: Esso Australia Ltd. Well: W-39L

Input DLIS Files

DEFAULT PSP_023LUP FN:22 PRODUCER 07-Aug-2006 10:38 3011.3 M 2540.8 M

Output DLIS Files

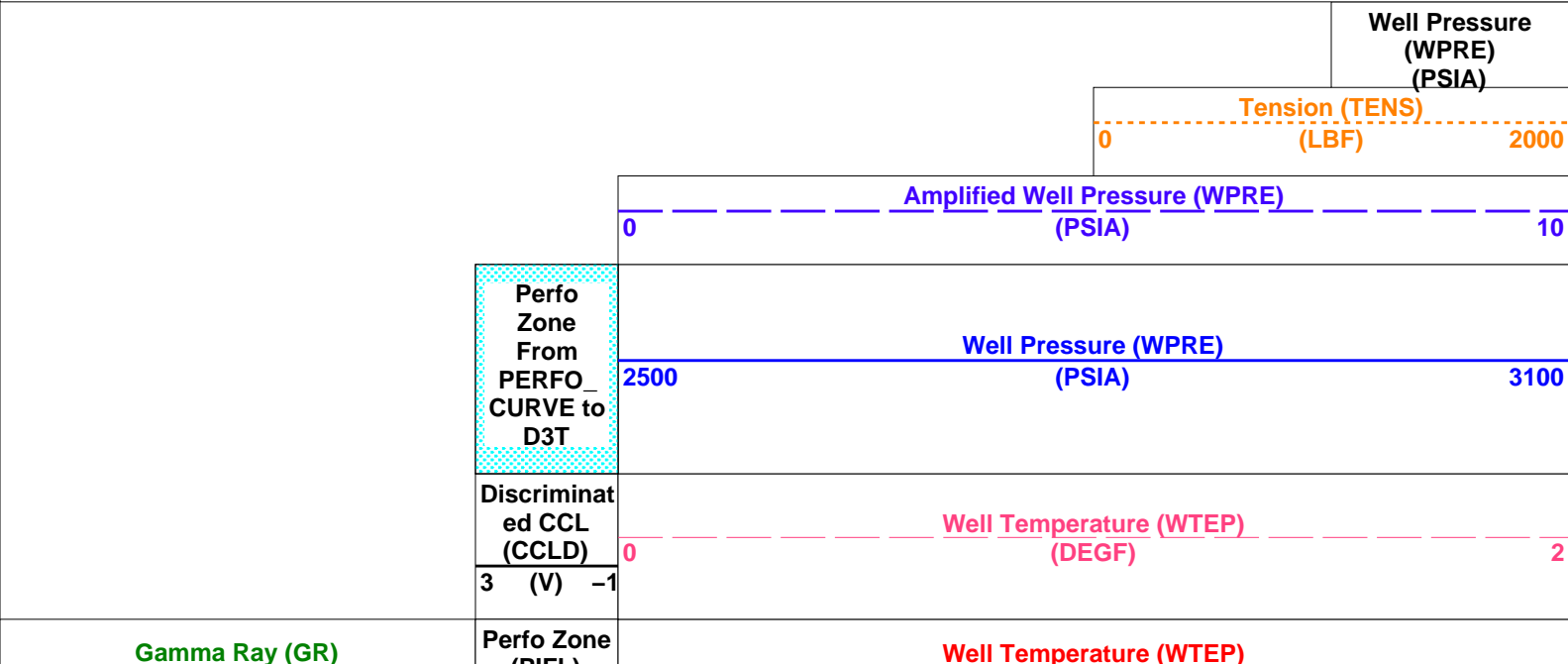
DEFAULT PSP_025PUP FN:24 PRODUCER 07-Aug-2006 11:46 3012.8 M 2542.8 M

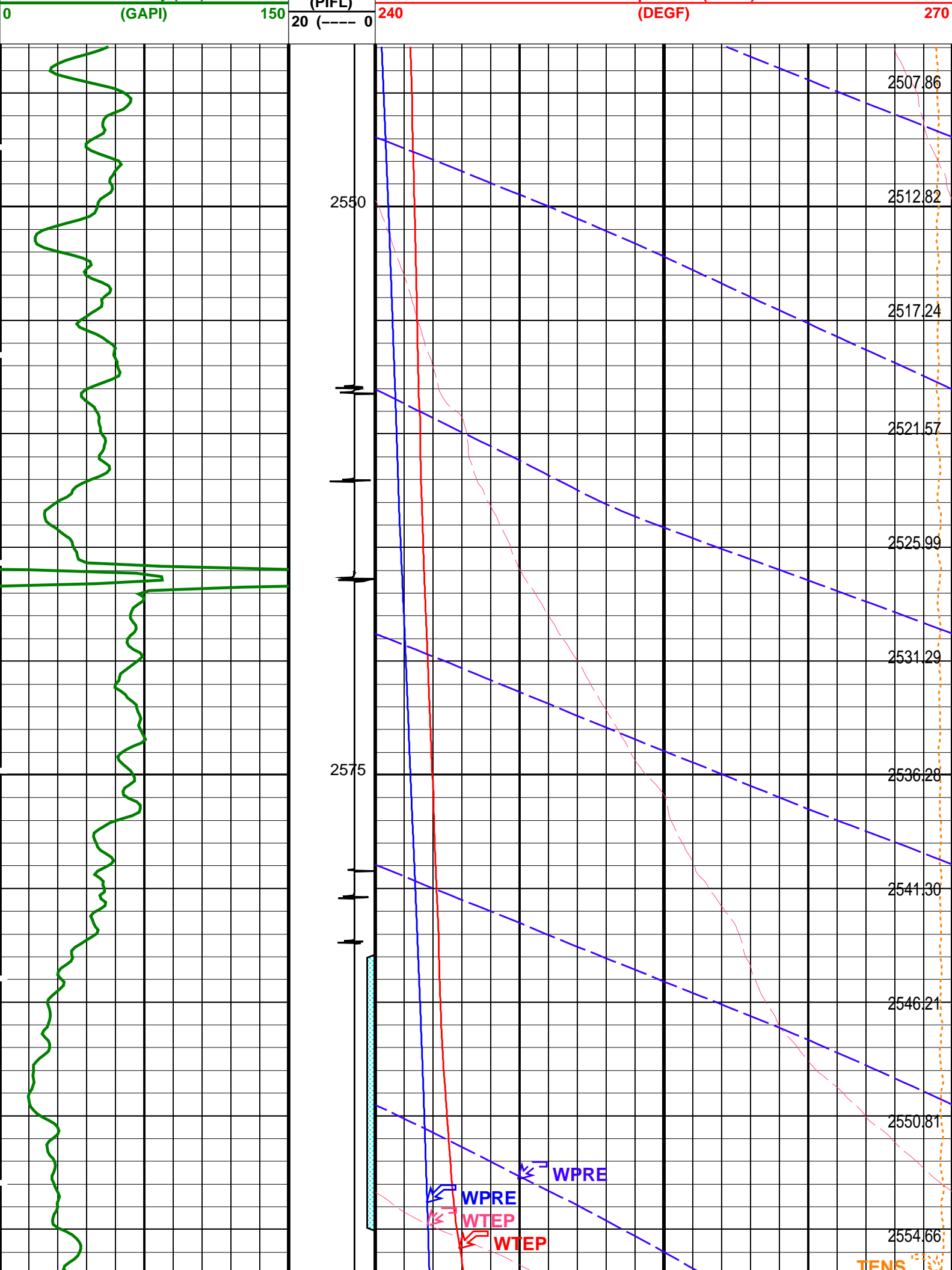
OP System Version: 14C0-302
MCM

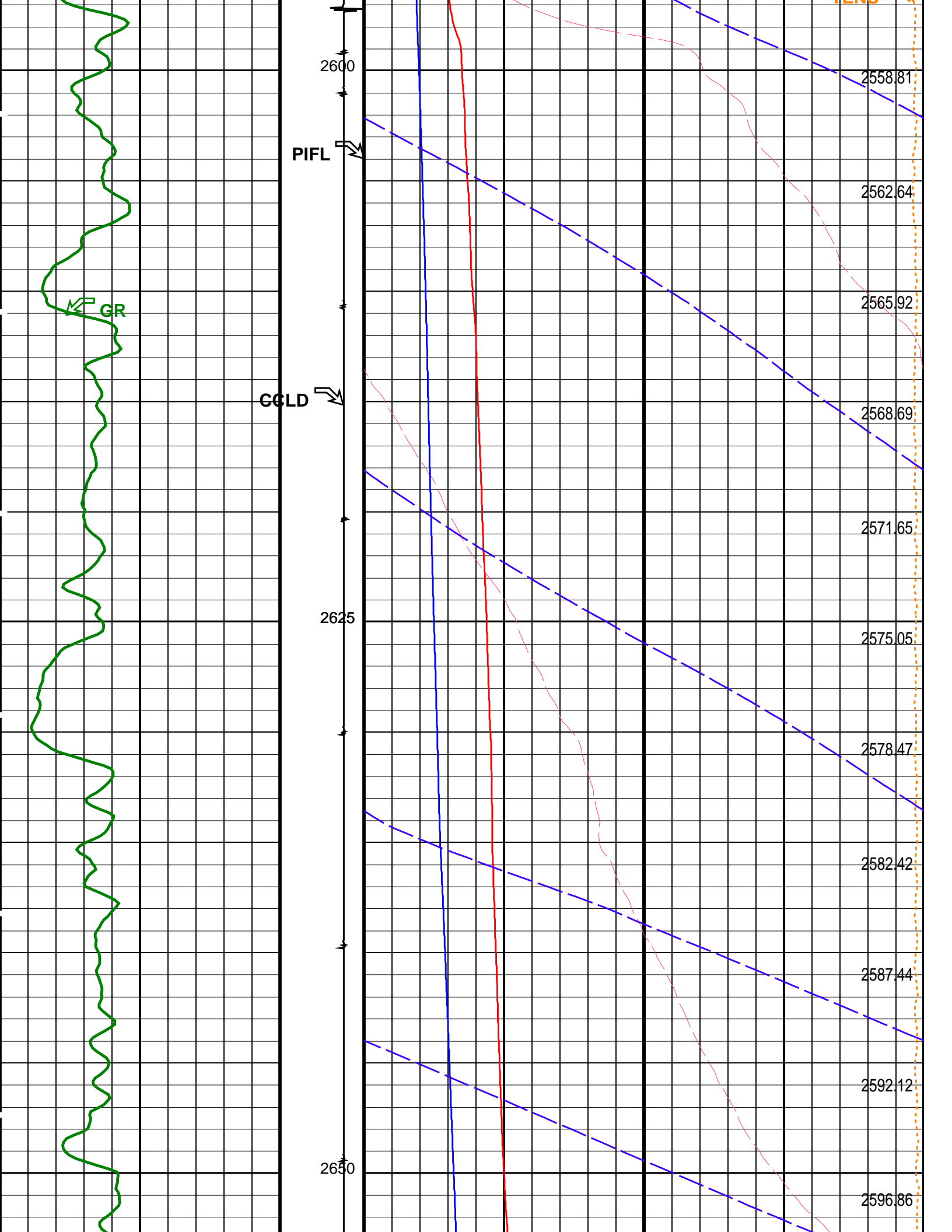
PSPT-B 14C0-302

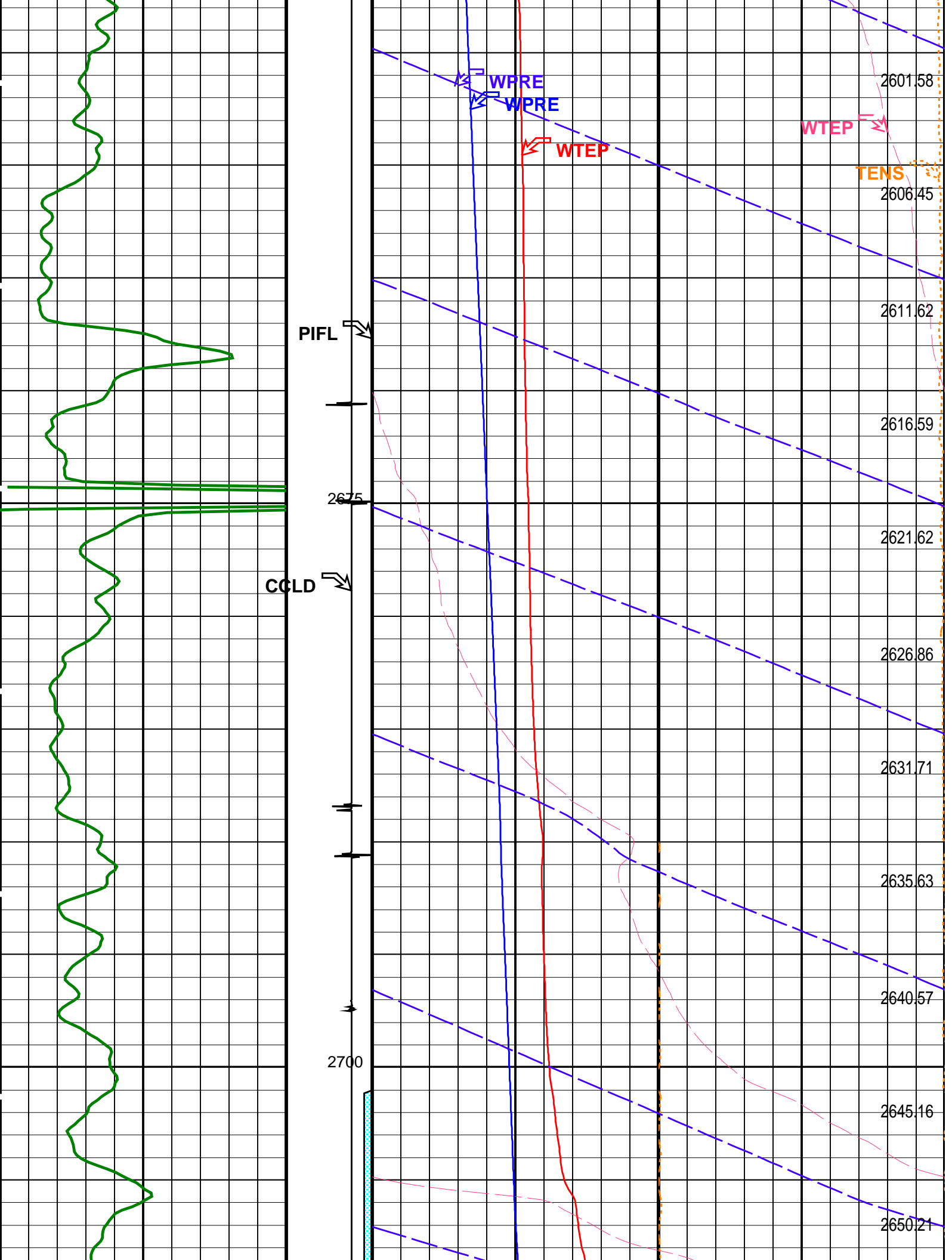
PIP SUMMARY

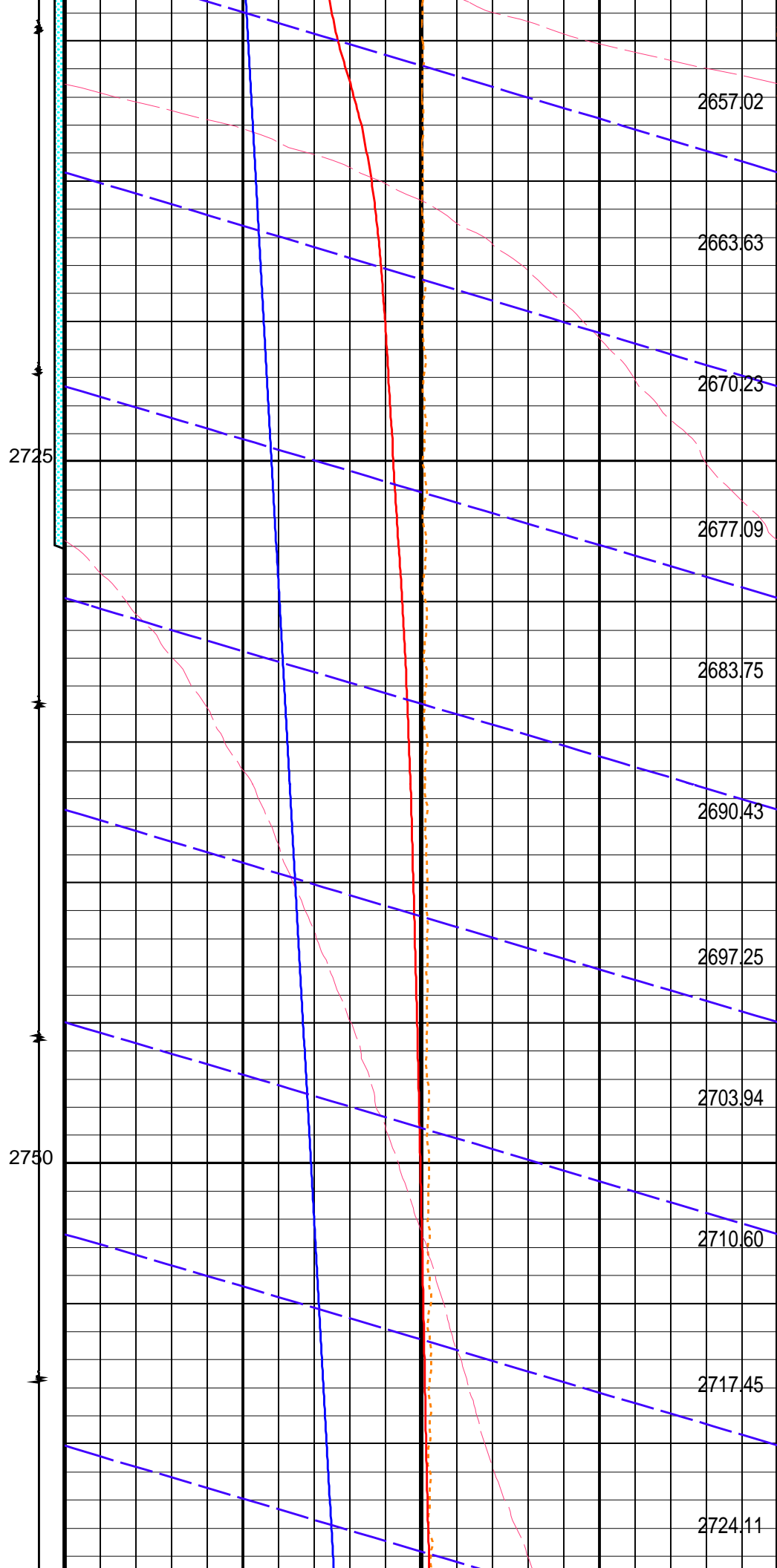
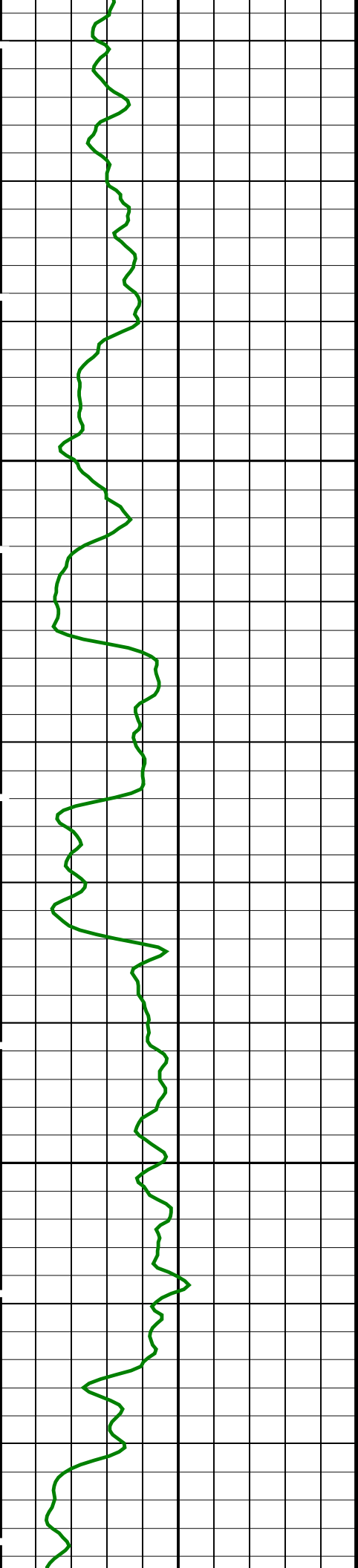
Time Mark Every 60 S

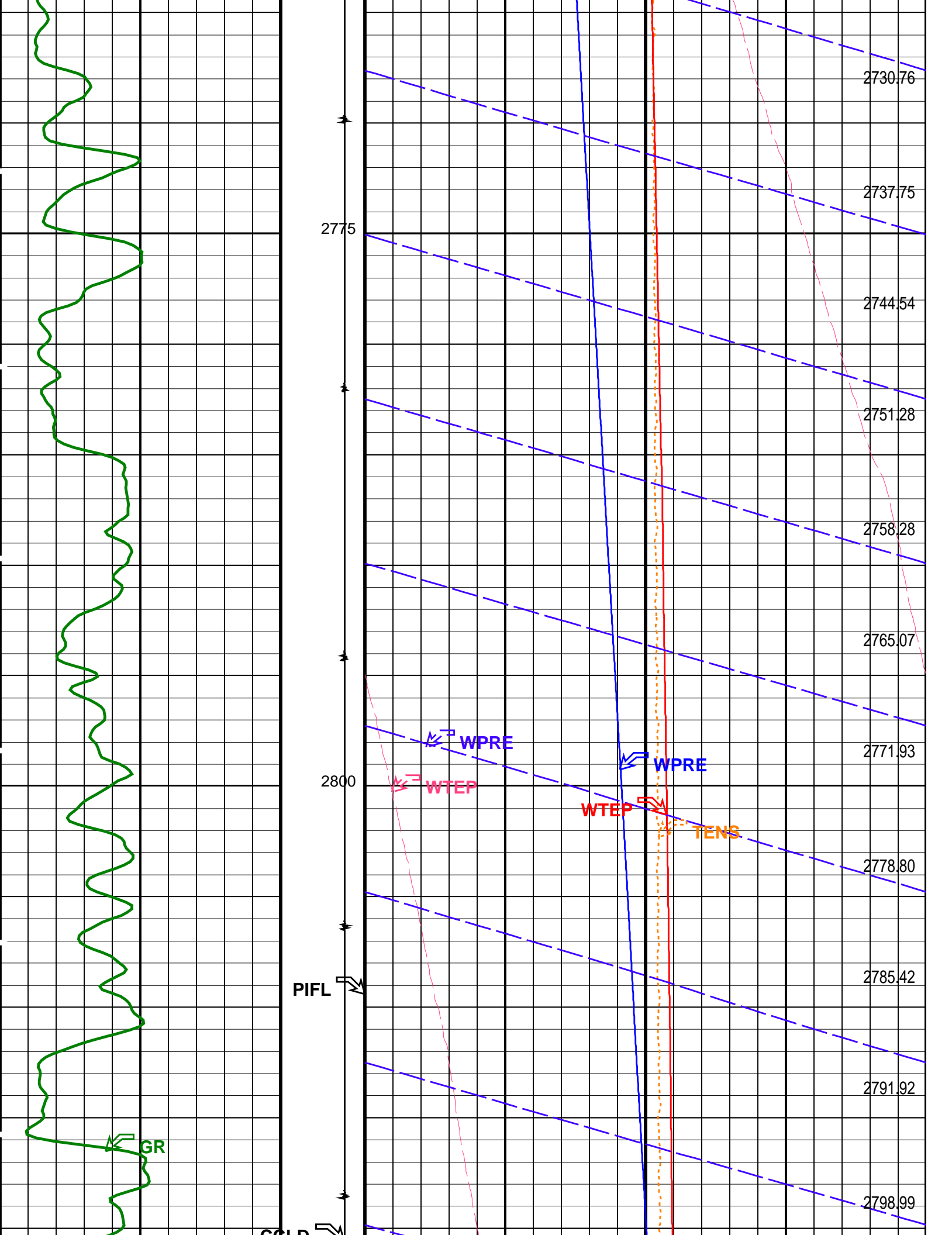


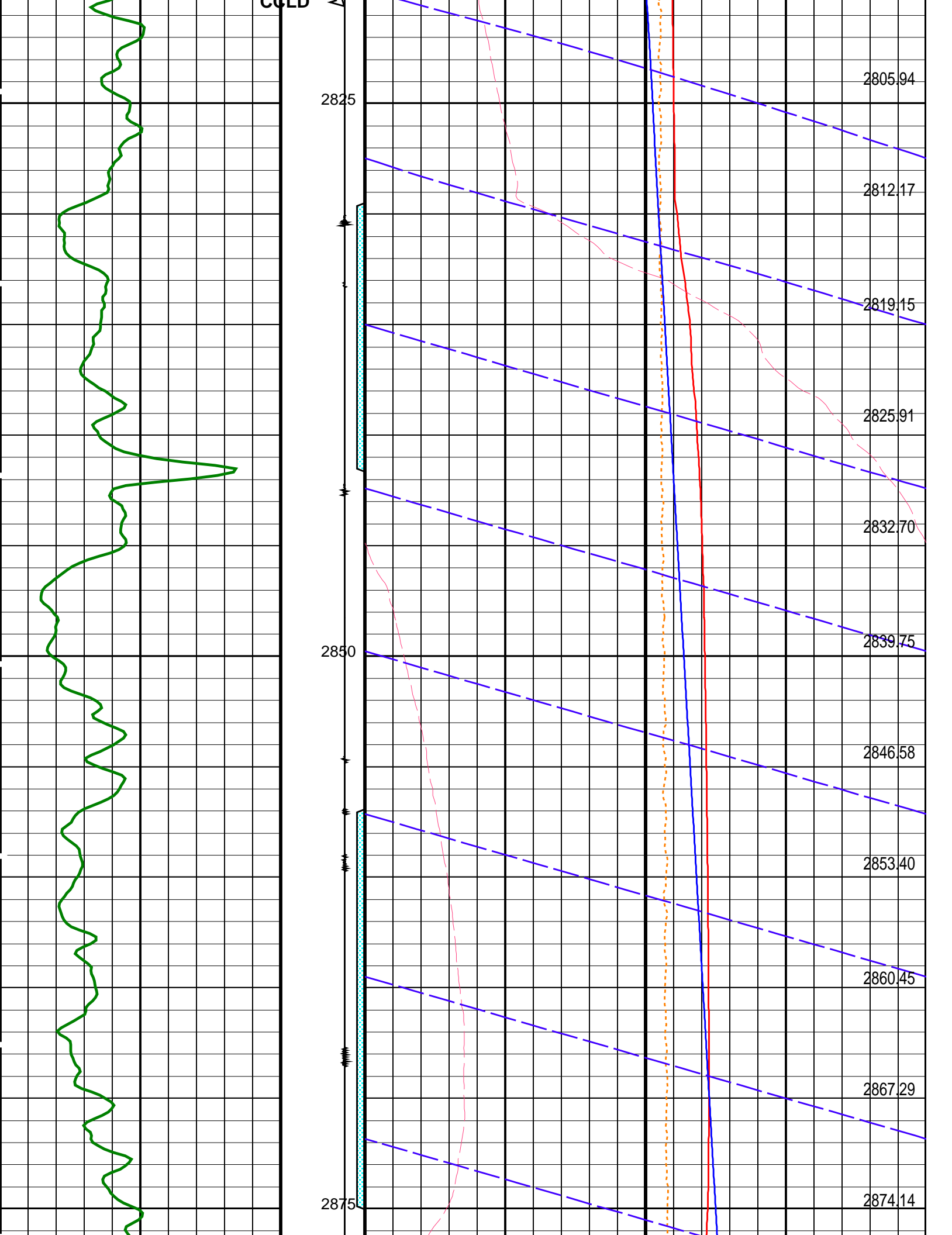


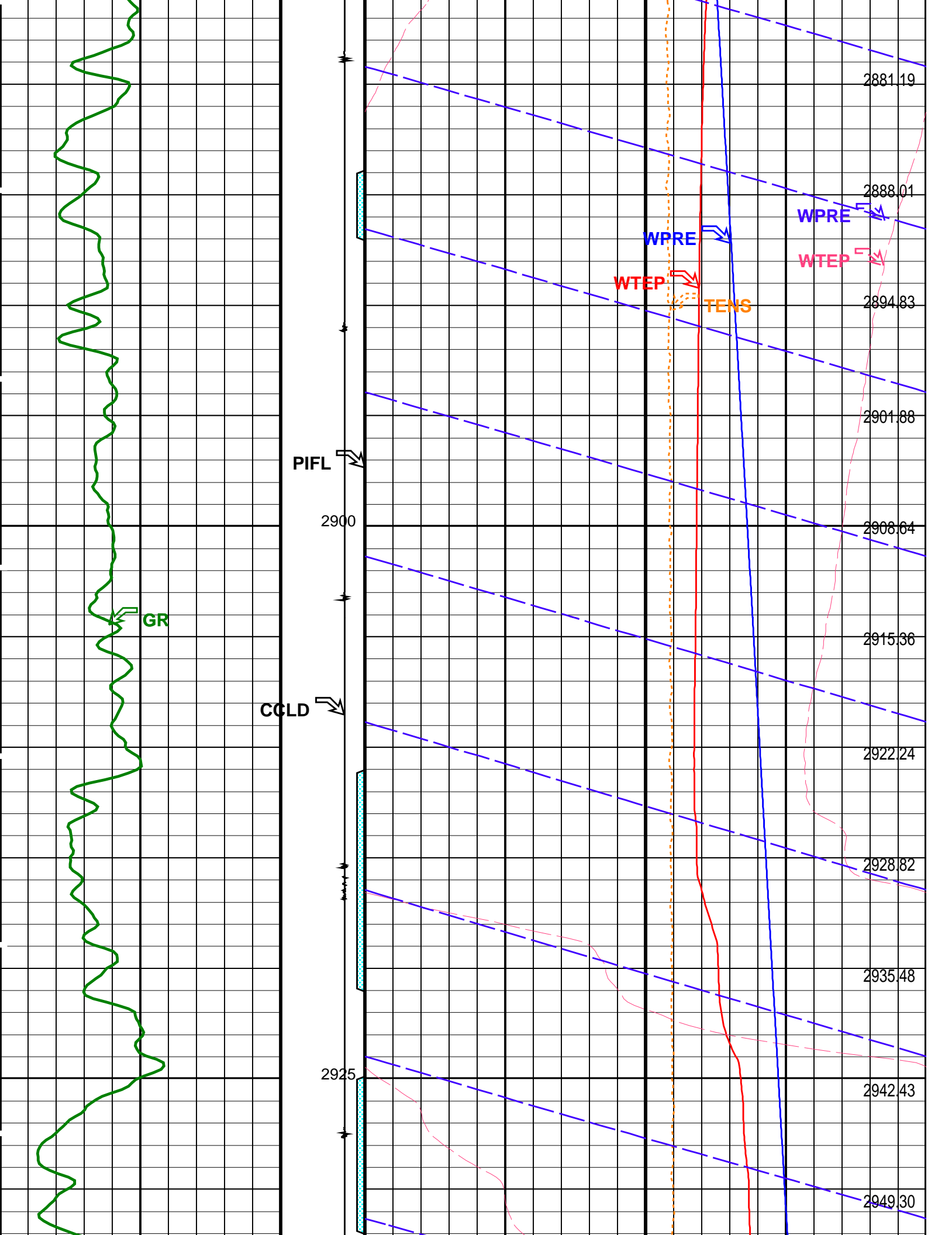


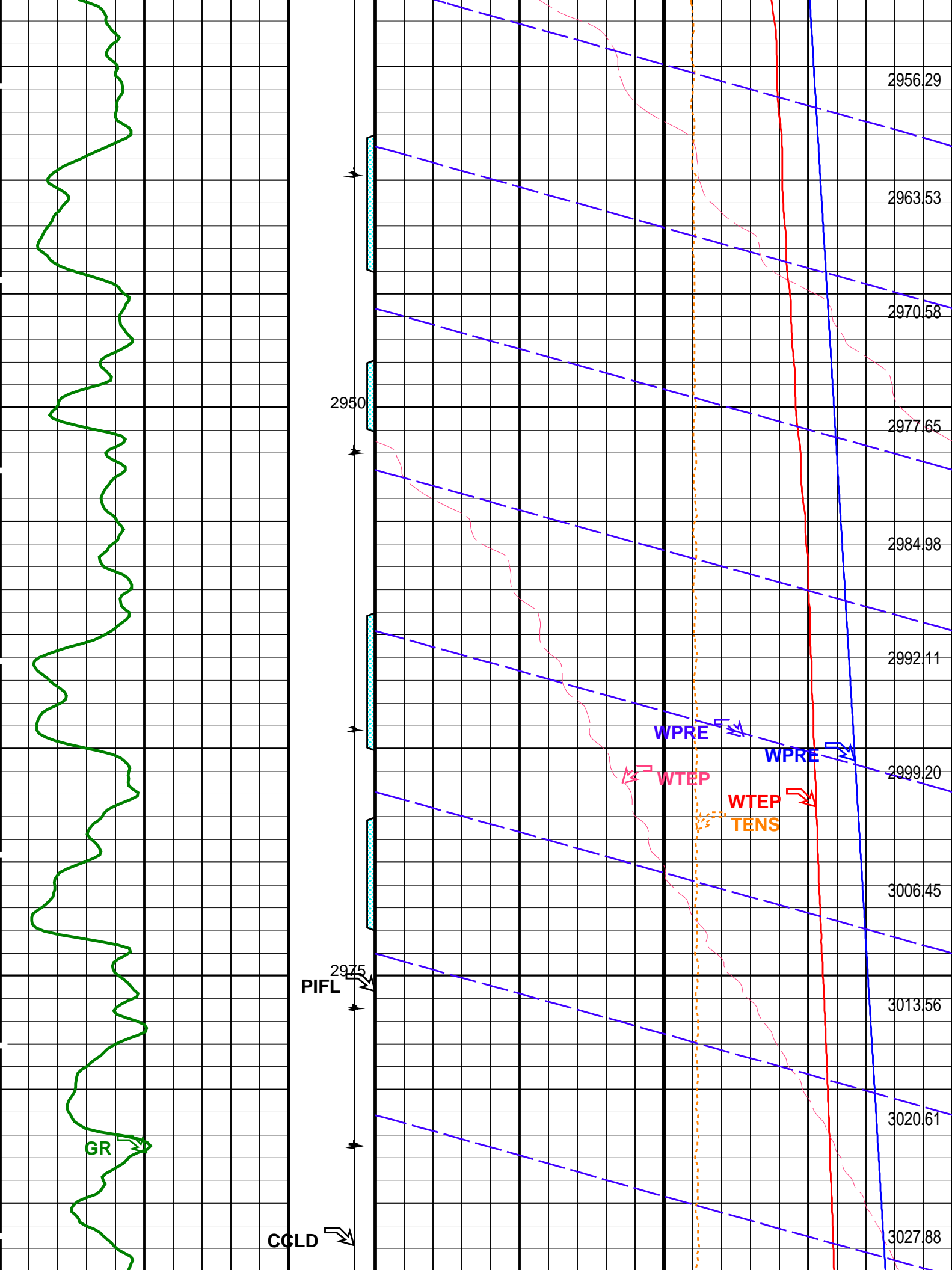


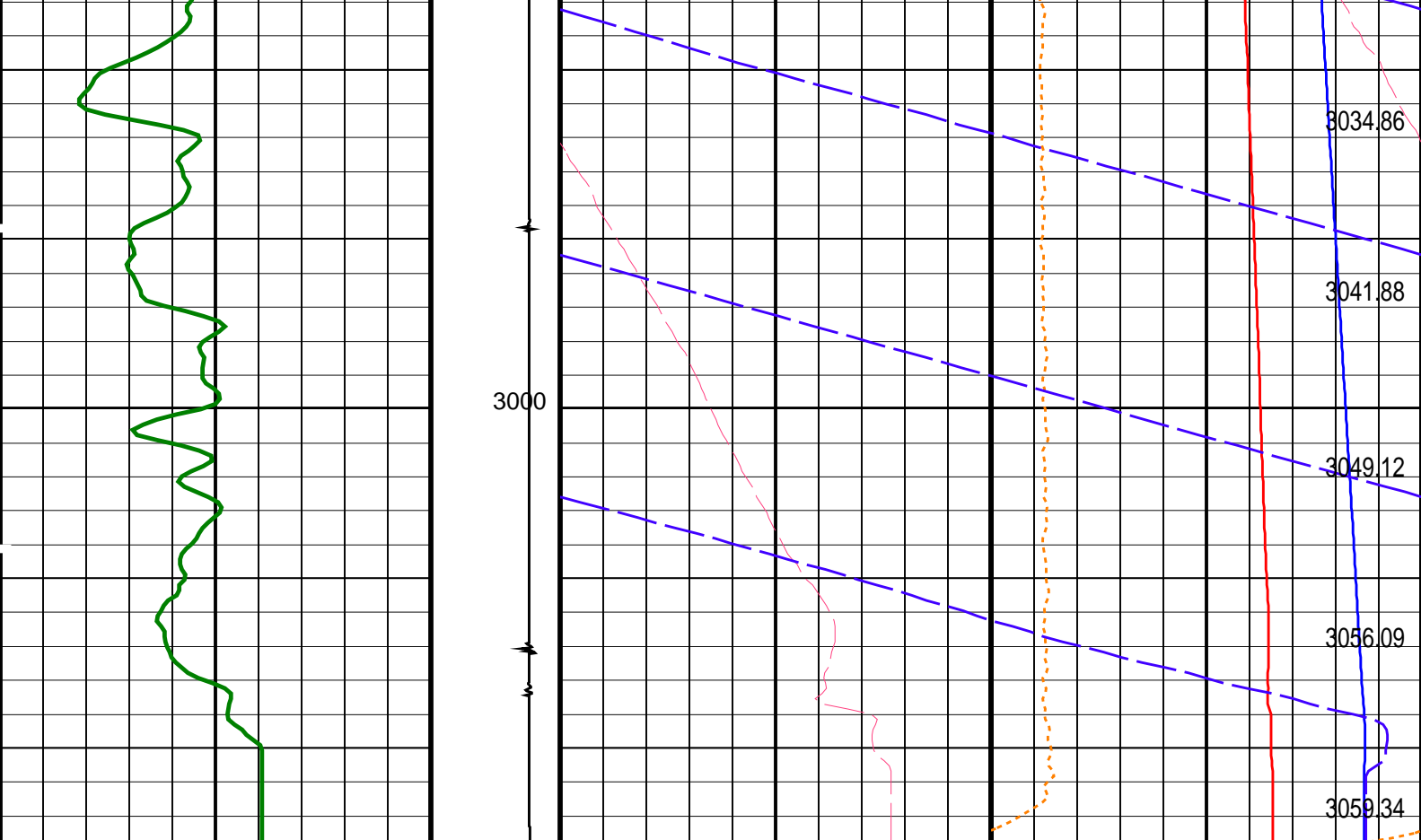












<div>Gamma Ray (GR) (GAPI)</div> <div>0150</div>	Perfo Zone (PIFL)	Well Temperature (WTEP)	
	20 (---- 0	(DEGF)	
		240	270
<div>Discriminat ed CCL (CCLD)</div> <div>3 (V) -1</div>		Well Temperature (WTEP)	
		(DEGF)	
<div>Perfo Zone From PERFO_ CURVE to D3T</div>		Well Pressure (WPRE)	
		(PSIA)	
		2500	3100
		Amplified Well Pressure (WPRE)	
		(PSIA)	
		0	10
		Tension (TENS)	
		(LBF)	
		0	2000
		Well Pressure (WPRE)	
		(PSIA)	

PIP SUMMARY

Time Mark Every 60 S

Format: PSP_1 Vertical Scale: 1:200 Graphics File Created: 07-Aug-2006 11:46

OP System Version: 14C0-302
MCM

PSPT-B 14C0-302

Parameters

DLIS Name	Description	Value
System and Miscellaneous		

DO
PP

Depth Offset for Playback
Playback Processing

1.5 M
NORMAL

Input DLIS Files

DEFAULT	PSP_023LUP	FN:22	PRODUCER	07-Aug-2006 10:38	3011.3 M	2540.8 M
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Output DLIS Files

DEFAULT	PSP_025PUP	FN:24	PRODUCER	07-Aug-2006 11:46
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Company: **Esso Australia Ltd.**

Schlumberger

Well: **W-39L**

Field: **West Tuna**

Rig: **Prod4 / Crane**

Country: **Australia**

Gamma Ray Survey
2" HSD
MWPT