



Company: **Esso Australia Ltd.**

Well: **A-16L**

Field: **Tuna**

Rig : **Prod4 / Vea**

Country: **Australia**

Well: **A-16L**

Field: **Tuna**

Rig : **Prod4 / Vea**

Country: **Australia**

Run 1

## Pressure Spinner Survey

Gippsland  
Basin  
Bass Strait  
Elev.: K.B. 34.2 m  
G.L. -59 m  
D.F. 34.1986 m

Permanent Datum: M.S.L.  
Log Measured From: D.F.  
Drilling Measured From: D.F.

State: Victoria  
Max. Well Deviation 54 deg  
Longitude 148 25'06" E  
Latitude 030 10'16" S

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

## PVT DATA

Oil Density  
Water Salinity  
Gas Gravity  
Bo  
Bw  
1/Bg  
Bubble Point Pressure  
Bubble Point Temperature  
Solution GOR  
Maximum Deviation  
CEMENTING DATA  
Primary/Squeeze  
Casing String No  
Lead Cement Type  
Volume  
Density  
Water Loss  
Additives  
Tail Cement Type  
Volume  
Density  
Water Loss  
Additives

54 deg

Primary

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: 26-OCT-2005 5:48:43

### Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW-C	Type:	CMTD-B/A	Type:	2-32ZT
Serial Number:	754	Serial Number:	1037	Serial Number:	22372
Calibration Date:	5-May-2005	Calibration Date:	14-July-2005	Length:	4799.99 M
Calibrator Serial Number:	1009	Calibrator Serial Number:	1051	Conveyance Method: Wireline Rig Type: Offshore_Fixed	
Calibration Cable Type:	2-32ZT	Calibration Gain:	1.29		
Wheel Correction 1:	-3	Calibration Offset:	777.00		
Wheel Correction 2:	-3				

### Depth Control Parameters

Log Sequence:	Subsequent Trip To the Well
Reference Log Name:	Tuna A16 Petrophysical Analysis
Reference Log Run Number:	
Reference Log Date:	27-Sep-2004
Subsequent Trip Down Log Correction:	-4.50 M

### Depth Control Remarks

1.
2.
3.
4.
5.
6.

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OTHER SERVICES1
OS1: None

REMARKS: RUN NUMBER 1
Log correlated to ExxonMobil Solar composite log dated 27-Sep-2004.
Maximum well deviation = 54 degrees at 2550m MDKB.
Log objectives were to complete pressure-temperature-spinner surveys
to determine the entry point and flow rate of the dump flood perforations.
Observed flow was to the T-130 perforations at 2672m to 2679m MDKB.
Approx dump flood flow rate was 1100 bb/d.
Station logs were performed at : 2420m,2450m,2732m,2725m
2712m,2683m and 2660m MDKB.
GRUP - 2896 ccia @ 2750m MDKB GRUT - 213.4 deg

SBHP = 2896 psia @ 2759m MDKB,SBHT = 217.4 degr.  
The well bore contained oil from surface to 2442m MDKB,this depth was not a correlated depth.  
There was also an oil column from 2645m to 2671m MDKB,just outside the tubing shoe.  
The dump flood has changed from the 2004 survey,it was then flowing into the perforations @ 2657m to 2663m MDKB.  
Crew : J Annear & B Taylor.

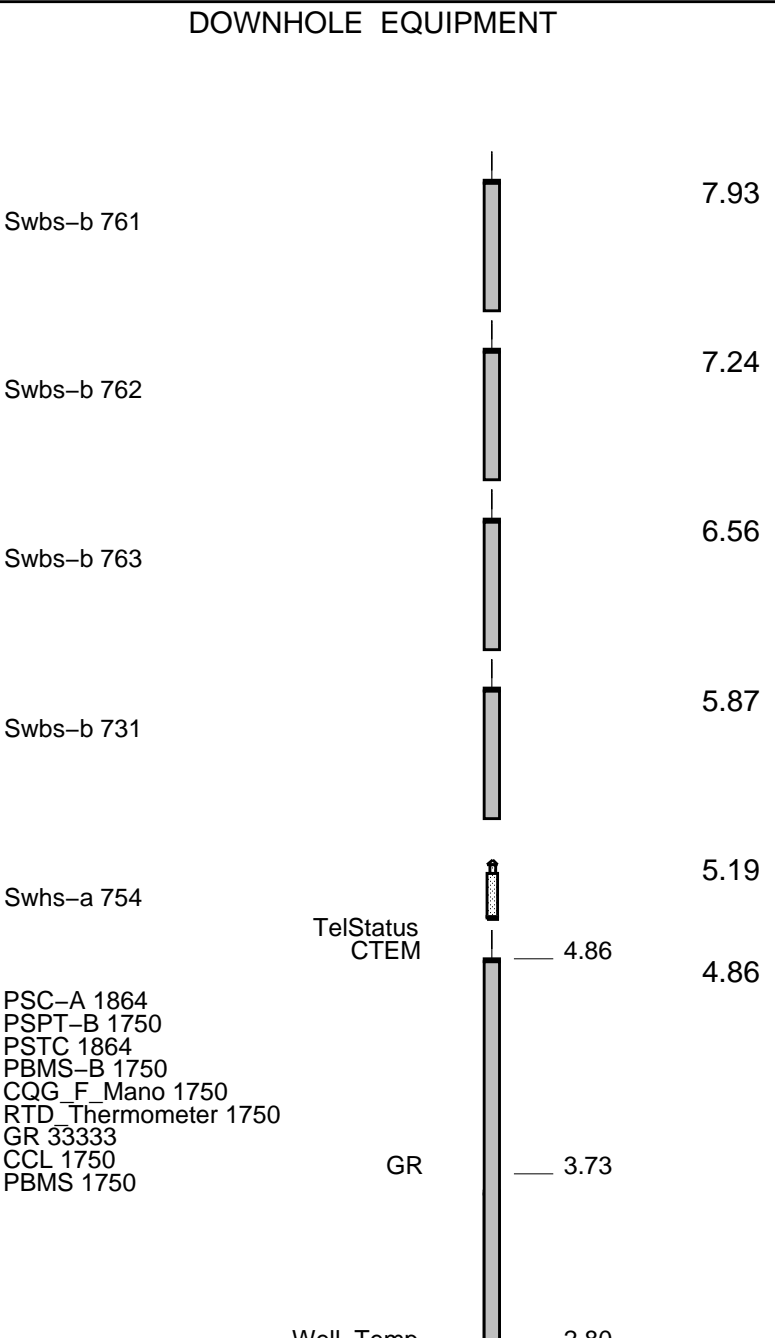
RUN 1		
PROGRAM VERSION: Ausl05103806		
FLUID LEVEL: 13C0-300		
LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

RUN 1

SURFACE EQUIPMENT

WITM-A

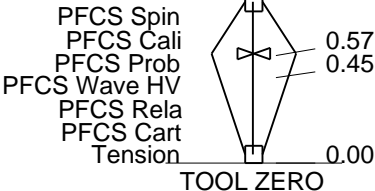


Well Temp 2.80  
CQG Manom 2.69  
CCL 2.57  
PBMS PSTC 2.34

PILS-A 839

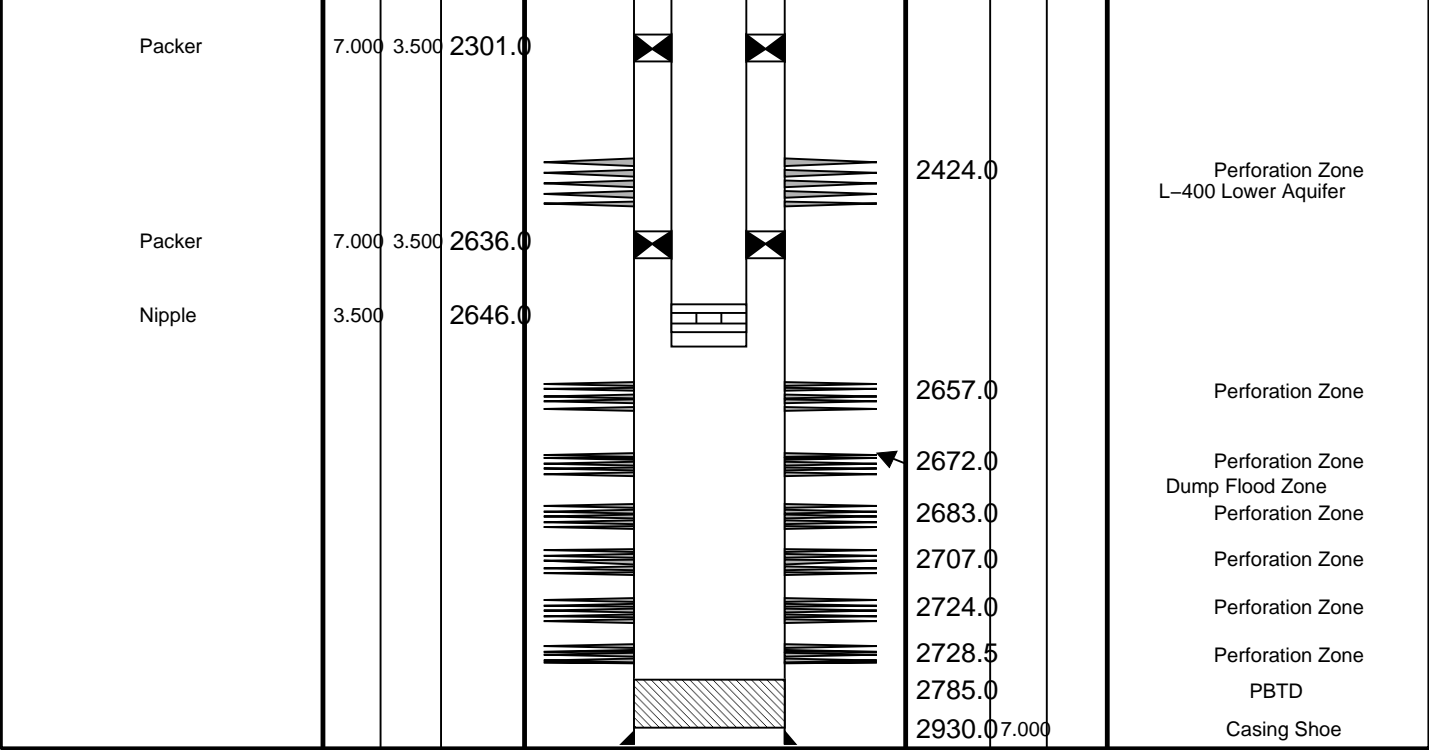
Spinner

Holdup Probes 799  
Turbine  
Relative Bearing 799  
Caliper 799  
PFCC-A 799  
PFCH-A 799



MAXIMUM STRING DIAMETER 1.69 IN  
MEASUREMENTS RELATIVE TO TOOL ZERO  
ALL LENGTHS IN METERS

Production String	(in)		(m)	Well Schematic	(m)	(in)		Casing String
	OD	ID	MD		MD	OD	ID	
Tubing Hanger	3.500	3.500	12.0		14.3	9.625		Casing String
					14.3	13.375	59.625	Liner Hanger
Shutin Valve	3.500		464.0					
Gas Lift Mandrel	3.500		1234.0		837.0	13.375		Casing Shoe
Gas Lift Mandrel Nipple	3.500		1589.0					
	3.500		1603.0					
Packer	9.625	3.500	1673.0		1781.0			Casing String
					1891.9	9.625	7.000	Casing Shoe



## Oil Water Contact

MAXIS Field Log

### Input DLIS Files

File Name	Tool Joint	Depth (m)	Depth (m)
DEFAULT FCS_ILS_PSP_013LUP	FN:12 PRODUCER	22-Oct-2005 21:11	2450.0 M 2395.4 M

### Output DLIS Files

File Name	Tool Joint	Depth (m)	Depth (m)
DEFAULT FCS_ILS_PSP_119PUP	FN:102 PRODUCER	28-Oct-2005 07:28	2448.9 M 2394.8 M

### OP System Version: 13C0-300

MCM

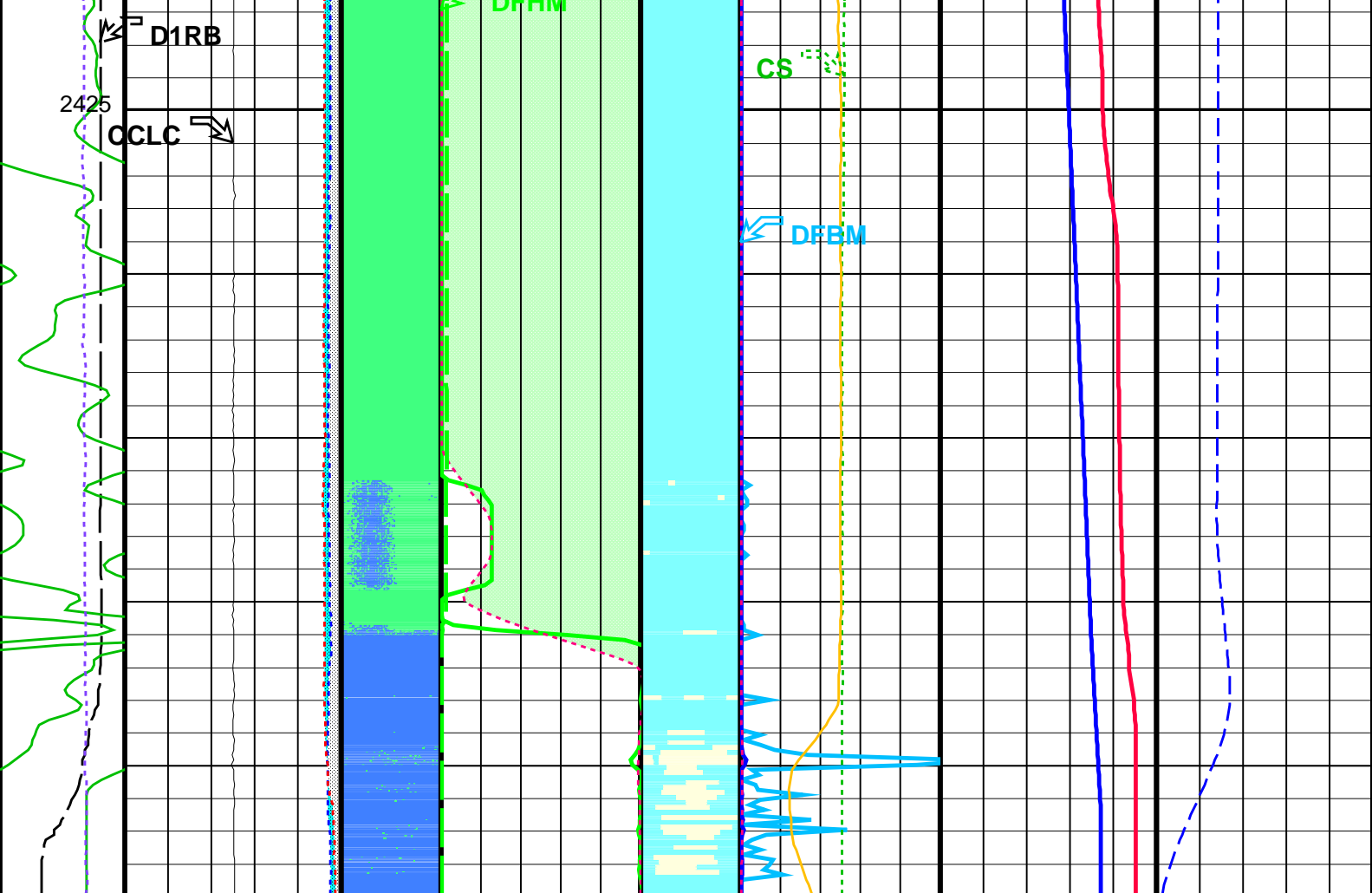
System	Version	System	Version
PFCS-A	13C0-300	PILS-A	13C0-300
PSPT-A/B	13C0-300		

Pipe Ovalisation  
Between PFC1 and  
PFC2

Well Diameter

PFCS Spinner





<p>GR (GR) (GAPI)</p> <p>0 150</p>	<p>Comp.CCL (CCLC) (V)</p> <p>2 -2</p>	<p>Water Holdup Image 2 colors (WATER HIMAGE 2C) (----)</p> <p>-0.5000 0.5000</p>	<p>PFCs Computed Holdup (DFCHM)</p> <p>0 (----) 1</p>	<p>Amplified Avg Bubble count (DFBM) (CPS)</p> <p>0 10</p>	<p>Amplified Pressure (WPRE) (PSIA)</p> <p>0 50</p>	<p>Manometer Well Fluid Density (MWFD) (G/C3)</p> <p>0 - 2</p>
<p>Probe1 RB (D1RB) (DEG)</p> <p>0 360</p>	<p>PFCs Caliper X (PFC1) (IN)</p> <p>8 3</p>	<p>Avg Holdup (DFHM)</p> <p>0 (----) 1</p>	<p>Cable Speed (CS) (F/HR)</p> <p>0 2000</p>	<p>Amplified Temperature (WTEP) (DEGF)</p> <p>0 2</p>		
<p>Tension (TENS) (LBF)</p> <p>0 2000</p>	<p>PFCs Caliper Y (PFC2) (IN)</p> <p>8 3</p>	<p>Filtered Water Holdup (FHM)</p> <p>0 (----) 1</p>	<p>Avg BUB count (DFBM) (CPS)</p> <p>0 500</p>	<p>Well Pressure (WPRE) (PSIA)</p> <p>2550 2650</p>		
<p>Well Diameter From PFC1 to PFCs_T1</p>		<p>PFCs Fluid Resistivity (DRES) (OHMM)</p> <p>0 360</p>	<p>Filtered Bubble Count (FBM) (CPS)</p> <p>0 500</p>	<p>Well Temperature (WTEP) (DEGF)</p> <p>206 211</p>		
<p>Well Diameter From PFC2 to</p>			<p>PFCs Spinner (SPIN)</p>			



From PFC2 to PFC5 T1		-10 (RPS) 10	
Pipe Ovalisation Between PFC1 and PFC2			
Format: PFCS_Image_DL		Vertical Scale: 1:200	Graphics File Created: 28-Oct-2005 07:28
OP System Version: 13C0-300			
MCM			
PFCS-A	13C0-300	PILS-A	13C0-300
PSPT-A/B	13C0-300		
Parameters			
DLIS Name	Description	Value	
PFCS-A: PSP Flow and caliper Tool			
AMOD	Spinner Filter Averaging Mode	LINEAR_AVERAGE	
CSID	Casing Size I.D.	6.149	IN
DDRC	Dual DEFT DELTA RB COMPUTATION	D1RB2-D1RB	
DDRS	Dual DEFT RB Source	D1RB	
DFBD	DEFT Blank Disallowed Probes	NO	
DFFI	DEFT Flip Image	NO	
DFII	DEFT Image Interpolation	YES	
DFIRS	DEFT Image Rotation Selection	TOP_MIDDLE	
DFPP	Probes Arm Position	C	
GDEV	Average Angular Deviation of Borehole from Normal	35	DEG
PFGC	PFCS Geometrical coefficient	1200	
PFRE1	Downhole Resistor Probe 1	3000	OHMS
PFRE2	Downhole Resistor Probe 2	3000	OHMS
PFRE3	Downhole Resistor Probe 3	3000	OHMS
PFRE4	Downhole Resistor Probe 4	3000	OHMS
SDCF	Spinner Depth Constant Filter	6	
SPIN	Main Spinner Flowmeter Sonde	PFCS-A_TURB	
PILS-A: PSP In Line Spinner Flowmeter			
AMOD	Spinner Filter Averaging Mode	LINEAR_AVERAGE	
SDCF	Spinner Depth Constant Filter	6	
SPIN	Main Spinner Flowmeter Sonde	PFCS-A_TURB	
PSPT-A/B: Production Services Logging Platform			
CSID	Casing Size I.D.	6.149	IN
GDEV	Average Angular Deviation of Borehole from Normal	35	DEG
BORDYN: BorDyn (Well Test Validation)			
CSID	Casing Size I.D.	6.149	IN
System and Miscellaneous			
CSIZ	Current Casing Size	7.000	IN
DO	Depth Offset for Playback	-1.0	M
PP	Playback Processing	NORMAL	
Input DLIS Files			
DEFAULT	FCS_ILS_PSP_013LUP	FN:12	PRODUCER 22-Oct-2005 21:11 2450.0 M 2395.4 M
Output DLIS Files			
DEFAULT	FCS_ILS_PSP_119PUP	FN:102	PRODUCER 28-Oct-2005 07:28
<div><div><div>Schlumberger</div><div>Single Pass Interpretation</div></div><div>MAXIS Field Log</div></div>			
<div>Company: Esso Australia Ltd.</div> <div>Well: A-16L</div>			

Output DLIS Files

OP System Version: 13C0-300  
MCM

PFCs-A13C0-300

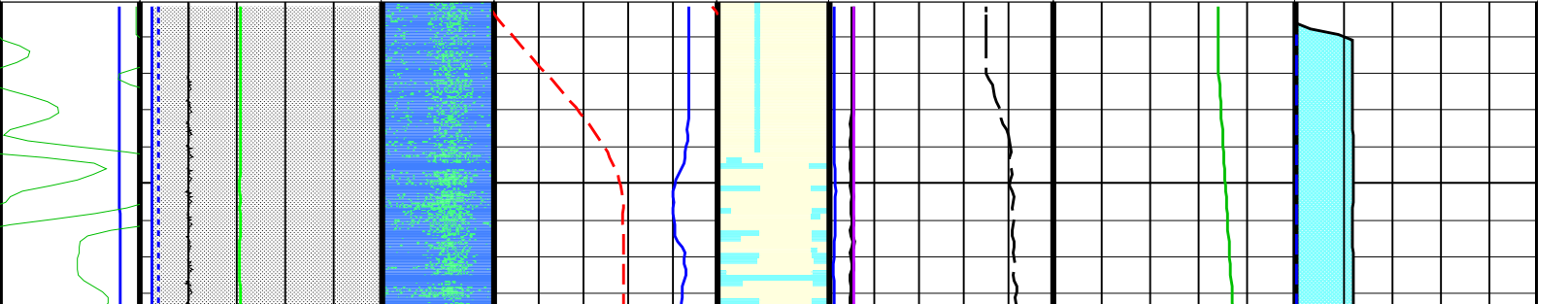
PSPT-A/B13C0-300

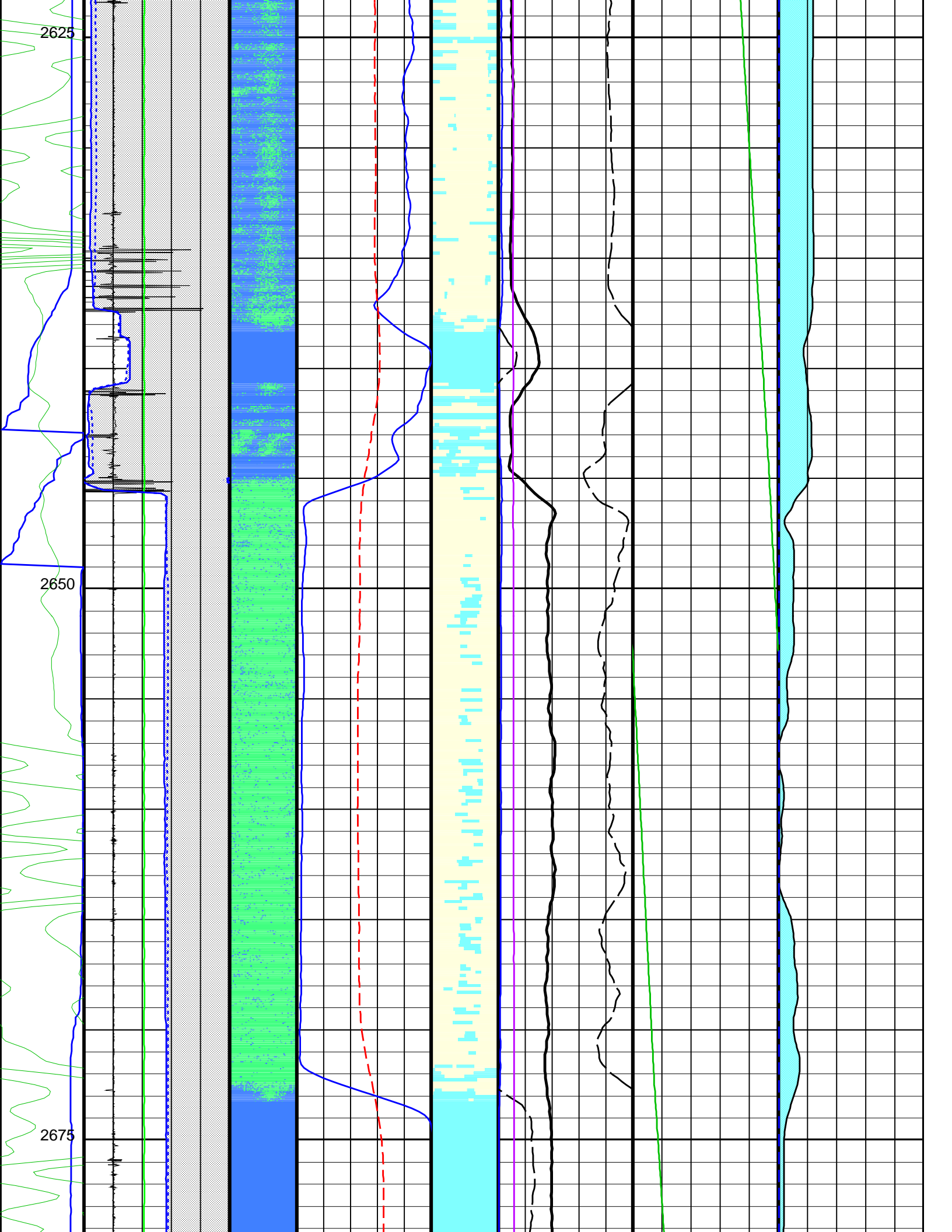
PILS-A13C0-300

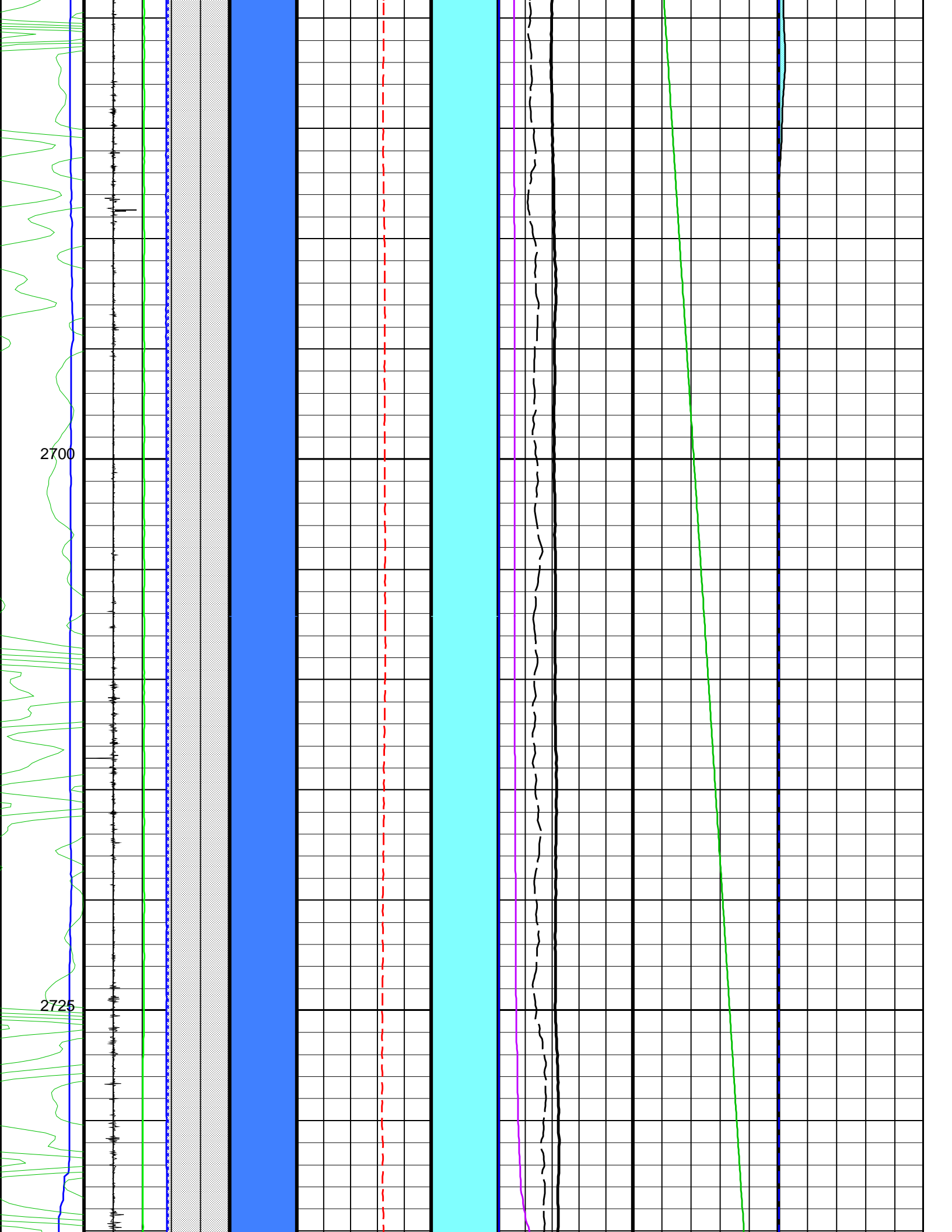
Changed Parameter Summary

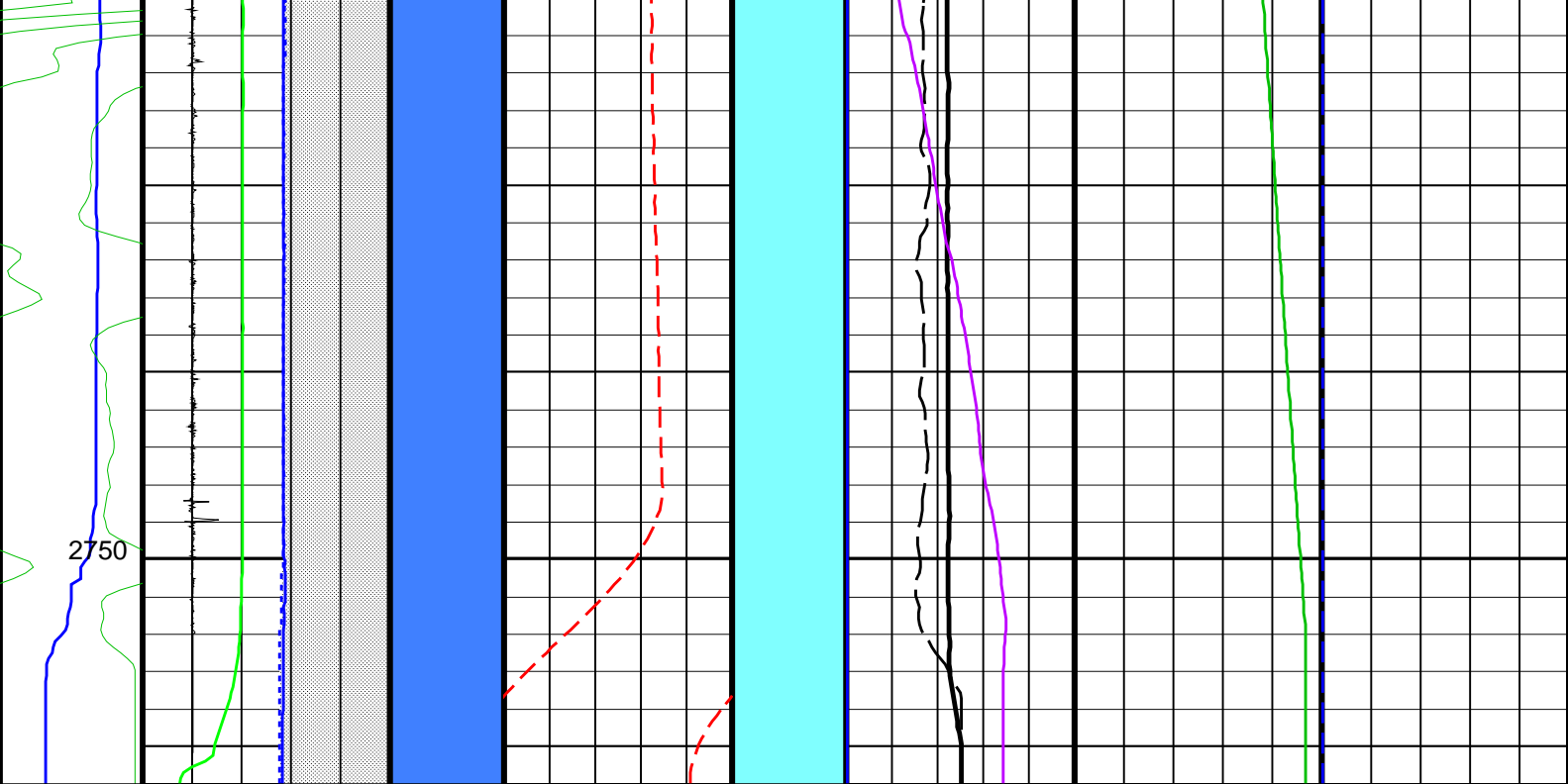
DLIS Name	New Value	Previous Value	Depth & Time
SEFF	0.75	0.75	2718.5 06:58:53

	<div>Well Diameter From PFC2 to PFCs_T1</div>							
	<div>Well Diameter From PFC1 to PFCs_T1</div>		<div>Pressure Gradient Density (MWFD) 0.2 (G/C3) 1.2</div>					
	<div>PFCs Caliper Y (PFC2) 3 (IN) 8</div>		<div>Friction Corrected Well Fluid Density (FCFD_SPRI) 0.2 (G/C3) 1.2</div>	<div>Well Temperature (WTEP) 210 (DEGF) 220</div>				<div>Water Flowrate</div>
	<div>PFCs Caliper X (PFC1) 3 (IN) 8</div>		<div>Eprobe Water Holdup (FHM) 0 (----) 1</div>	<div>Filtered Auxiliary Spinner 1 (SPI1) -10 (RPS) 10</div>	<div>Well Pressure (WPRE) 2800 (PSIA) 2900</div>			<div>Oil</div>
<div>Probe1 RB (D1RB) (DEG) 0 360</div>	<div>Cable Speed (CS) 0 (F/HR) 5000</div>		<div>Corrected Gradio Heavy Phase Holdup (CGHPH) 0 (----) 1</div>	<div>Filtered Main Spinner (SPIN) -10 (RPS) 10</div>	<div>Eprobe Standalone Computed Bubble size (EENBS) 0 (MM) 15</div>			<div>Gas</div>
<div>GR (GR) (GAPI) 0 150</div>	<div>Comp.CCL (CCLC) -1 (V) 4</div>	<div>Water Holdup Image 2 colors (WATER HIMAGE 2C) (----)</div>	<div>Eprobe Corrected Water Holdup (CFWH) 0 (----) 1</div>	<div>Eprobe Bubble Count (FBM) 0 (CPS) 500</div>	<div>Eprobe Bubble size (EEBS) 0 (MM) 15</div>	<div>Eprobe Bubble Rate (QHBD_SPRI) 0 (BB/D) -5000</div>		
		<div>-0.5000 0.5000</div>		<div>1.0000 100.0000 200.0000 300.0000 400.0000 500.0000 600.0000 700.0000 800.0000 900.0000 1000.0000 1100.0000 1200.0000 1300.0000 1400.0000 1500.0000</div>				
		<div>Bub Counts Image 16 colors (DBIMAG E_16C) (----)</div>						









<div>GR (GR) (GAPI)</div> <div>0150</div>	<div>Comp.CCL (CCLC)</div> <div>-1(V)4</div>	<div><div><div>-0.5000</div><div>0.5000</div></div><div>Water Holdup Image 2 colors (WATER HIMAGE 2C) (----</div></div>	<div><div>Eprobe Corrected Water Holdup (CFWH)</div><div>0(----)1</div></div> <div><div>1.0000</div><div>100.0000</div><div>200.0000</div><div>300.0000</div><div>400.0000</div><div>500.0000</div><div>600.0000</div><div>700.0000</div><div>800.0000</div><div>900.0000</div><div>1000.0000</div><div>1100.0000</div><div>1200.0000</div><div>1300.0000</div><div>1400.0000</div><div>1500.0000</div></div> <div><div>Bub Counts Image 16 colors (DBIMAG E_16C) (----</div></div>	<div><div>Eprobe Bubble Count (FBM)</div><div>0(CPS)500</div></div>	<div><div>Eprobe Bubble size (EEBS)</div><div>0(MM)15</div></div>	<div><div>Eprobe Bubble Rate (QHBD_SPRI)</div><div>0(BB/D)-5000</div></div>
<div>Probe1 RB (D1RB) (DEG)</div> <div>0360</div>	<div>Cable Speed (CS)</div> <div>0(F/HR)5000</div>		<div>Corrected Gradio Heavy Phase Holdup (CGHPH)</div> <div>0(----)1</div>	<div>Filtered Main Spinner (SPIN)</div> <div>-10(RPS)10</div>	<div>Eprobe Standalone Computed Bubble size (EENBS)</div> <div>0(MM)15</div>	<div>Gas</div>
	<div>PFC1 Caliper X (PFC1)</div> <div>3(IN)8</div>	<div>Eprobe Water Holdup (FHM)</div> <div>0(----)1</div>	<div>Filtered Auxiliary Spinner 1 (SPI1)</div> <div>-10(RPS)10</div>	<div>Well Pressure (WPRE)</div> <div>2800(Psia)2900</div>	<div>Oil</div>	
	<div>PFC2 Caliper Y (PFC2)</div> <div>3(IN)8</div>	<div>Friction Corrected Well Fluid Density (FCFD_SPRI)</div> <div>0.2(G/C3)1.2</div>	<div>Well Temperature (WTEP)</div> <div>210(DEGF)220</div>	<div>Water Flowrate</div>		
	<div>Well Diameter From PFC1 to PFC1_T1</div>	<div>Pressure Gradient Density (MWFD)</div> <div>0.2(G/C3)1.2</div>				
	<div>Well Diameter From PFC2 to PFC1_T1</div>					



# OP System Version: 13C0-300

MCM

PFCS-A	13C0-300	PILS-A	13C0-300
PSPT-A/B	13C0-300		

## Parameters

DLIS Name	Description	Value
PFCS-A: PSP Flow and caliper Tool		
AMOD	Spinner Filter Averaging Mode	LINEAR_AVERAGE
CSID	Casing Size I.D.	6.149 IN
DDRC	Dual DEFT DELTA RB COMPUTATION	D1RB2-D1RB
DDRS	Dual DEFT RB Source	D1RB
DFBD	DEFT Blank Disallowed Probes	NO
DFFI	DEFT Flip Image	NO
DFII	DEFT Image Interpolation	YES
DFIRS	DEFT Image Rotation Selection	TOP_MIDDLE
DFPP	Probes Arm Position	C
GDEV	Average Angular Deviation of Borehole from Normal	35 DEG
SDCF	Spinner Depth Constant Filter	6
SP11	Auxiliary Spinner 1 Flowmeter Sonde	PILS-A
SPIN	Main Spinner Flowmeter Sonde	PFCS-A_TURB
PILS-A: PSP In Line Spinner Flowmeter		
AMOD	Spinner Filter Averaging Mode	LINEAR_AVERAGE
SDCF	Spinner Depth Constant Filter	6
SP11	Auxiliary Spinner 1 Flowmeter Sonde	PILS-A
SPIN	Main Spinner Flowmeter Sonde	PFCS-A_TURB
PSPT-A/B: Production Services Logging Platform		
CSID	Casing Size I.D.	6.149 IN
GDEV	Average Angular Deviation of Borehole from Normal	35 DEG
SPRI: Single Pass Rate Interpretation		
DENS_SEL	SPRint Density Selector	MWFD
DGHC	Deft Ghost Probe Holdup Correction	MANU
ESBS	Electrical-probe Stand-alone Bubble Size	0.06 IN
FLOWVIEW_FLAG	FlowView Water Holdup Used Flag	YES
GDD_SPRI	Gas Downhole Density	0.15 G/C3
GFECF	Gradio Friction Effect Correction Factor	1
GHCF	GHOST Gas Holdup Correction Factor	0
GHOST_FLAG	Ghost Gas Holdup Used Flag	NO
GOR_SPRI	Gas Oil Ratio	89.0538 M3M3
GRADIO_FLAG	Gradiomaometer Holdup Used Flag	NO
ODD_SPRI	Oil Downhole Density	0.8 G/C3
OGRA_SPRI	Gravity of Oil	40 DAPI
OSBS	Optical-probe Stand-alone Bubble Size	0.06 IN
PVT_DDENS_FLAG	Compute Downhole Densities from PVT Data	NO
SEFF	Spinner Efficiency	1.00
SPINNER_PITCH	Spinner Pitch	3.3 IN
SPIN_SEL	SPRint Spinner Selector	SPIN
SPRI_INTPR_TYPE	SPRInt Type of Interpretation	INJECTOR
SURFACE_SPRI	Surface Flowrates Computation	NO
THRE	Spinner Threshold	1.0 M/MN
WDD_SPRI	Water Downhole Density	1 G/C3
WHCF	PFCS/DEFT Water Holdup Correction Factor	0
WSAL_SPRI	Water Salinity	50000 PPM
BORDYN: BorDyn (Well Test Validation)		
CSID	Casing Size I.D.	6.149 IN
System and Miscellaneous		
DO	Depth Offset for Playback	-1.0 M
PP	Playback Processing	NORMAL

## Input DLIS Files

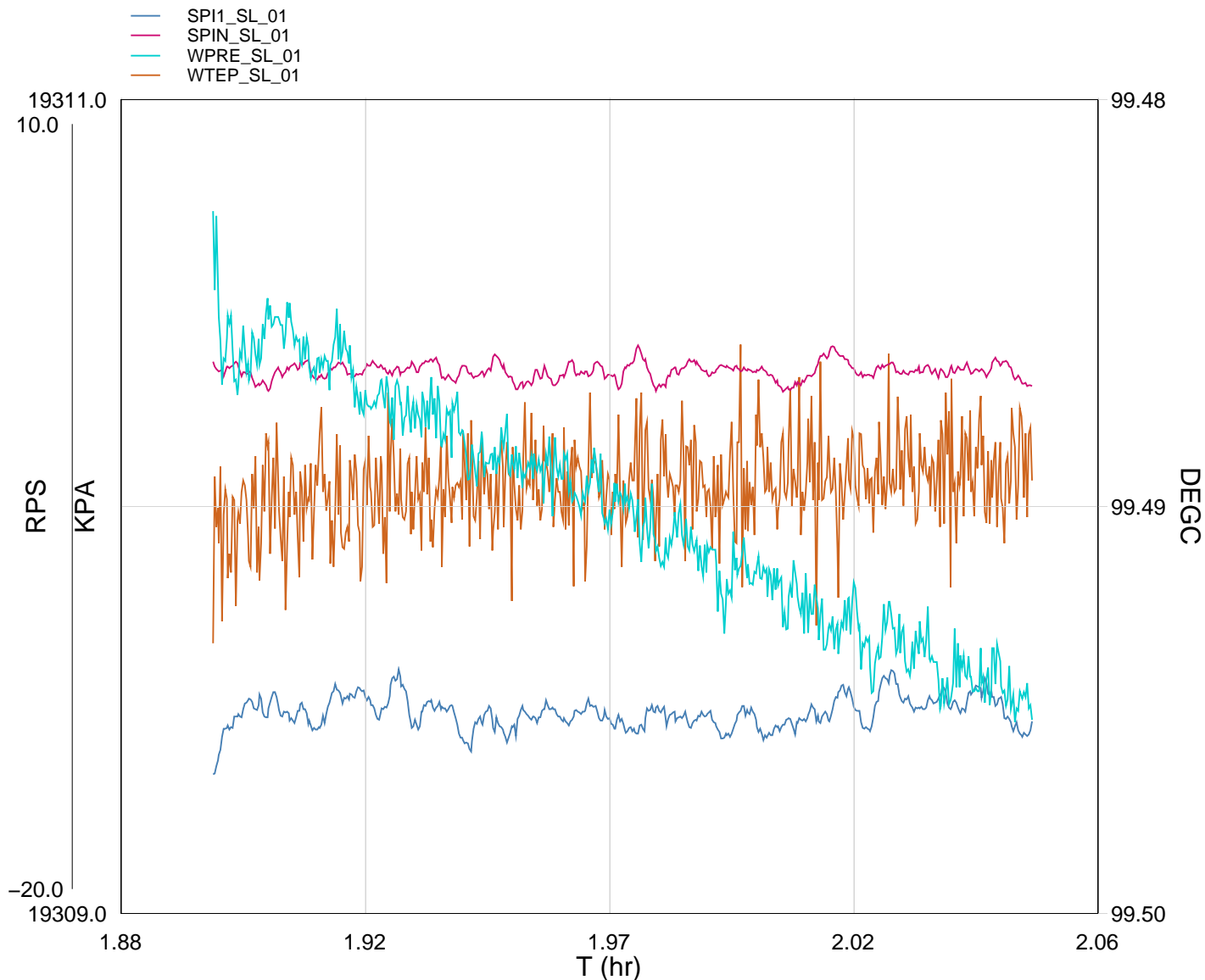
DEFAULT	FCS_ILS_PSP_018LUP	FN:17	PRODUCER	22-Oct-2005 22:53	2757.1 M	2615.6 M
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## Output DLIS Files

DEFAULT	FCS_ILS_PSP_117PUP	FN:100	PRODUCER	28-Oct-2005 06:58
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Station @ 2660m MDKB  
2020.6m TVD



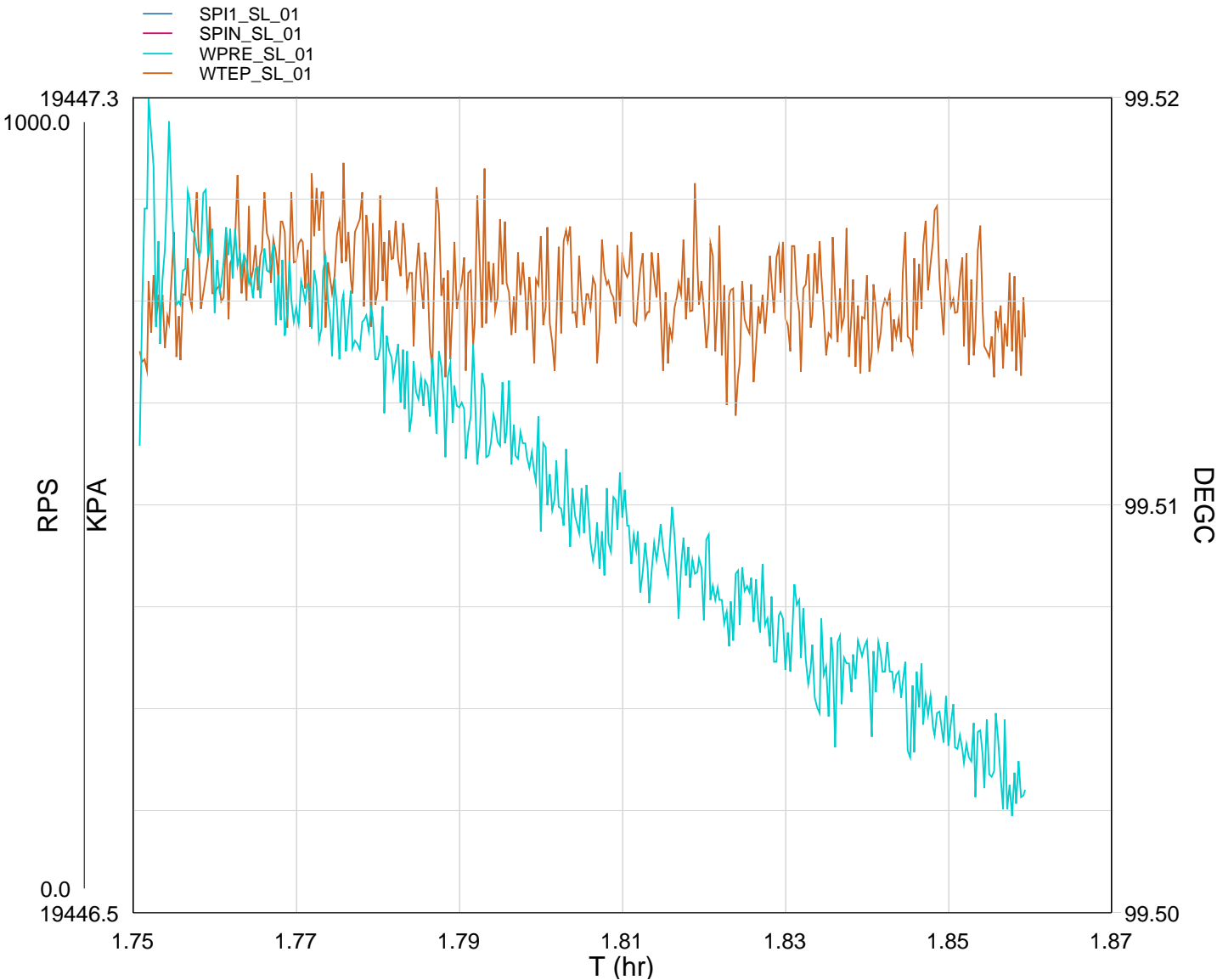
TIME	SPIN_SL	SPI1_SL	WTEP_SL	WPRE_SL
24510.0	0.3302	-14.8580	211.0880	2800.7830
24540.0	-0.0411	-12.2488	211.0811	2800.7334
24570.0	0.1174	-12.8736	211.0824	2800.7498
24600.0	0.1241	-11.5440	211.0821	2800.7384
24630.0	0.2081	-12.5765	211.0798	2800.7224
24660.0	0.3695	-12.3426	211.0786	2800.7064
24690.0	-0.0703	-14.0130	211.0782	2800.6936
24720.0	-0.6692	-13.4507	211.0821	2800.6986
24750.0	-0.1652	-12.8479	211.0823	2800.6875
24780.0	-0.2224	-12.7302	211.0815	2800.6730
24810.0	-0.3429	-12.3202	211.0808	2800.6850
24840.0	0.3323	-12.8791	211.0822	2800.6654
24870.0	0.0103	-12.3634	211.0854	2800.6615
24900.0	-0.6012	-12.8183	211.0809	2800.6344
24930.0	0.9039	-12.4574	211.0811	2800.6381
24960.0	0.1799	-12.1592	211.0814	2800.6275

24900.0	0.1799	-12.1592	211.0814	2800.6279
24990.0	-0.0462	-12.4670	211.0804	2800.6304
25020.0	0.1370	-11.8703	211.0807	2800.6240
25050.0	-0.2006	-13.2698	211.0788	2800.6103

Schlumberger

Station @ 2683m MDKB  
2035.7m TVD

MAXIS Field Log



TIME      SPIN\_SL      SPI1\_SL      WTEP\_SL      WPRE\_SL

24000.0	0.0000	0.0000	211.1267	2820.5652
24030.0	0.0000	0.0000	211.1287	2820.5705

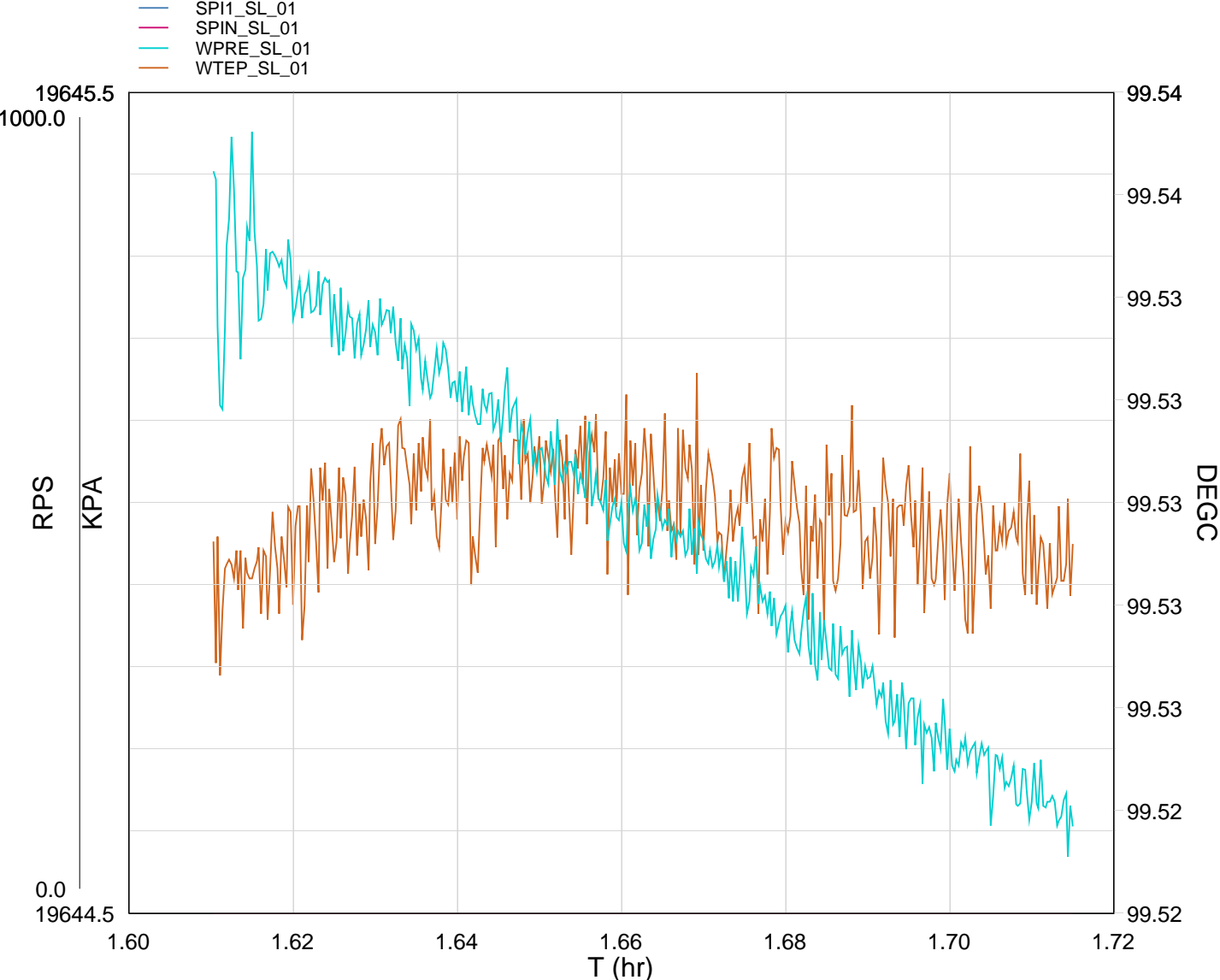


24060.0	0.0000	0.0000	211.1302	2820.5608
24090.0	0.0000	0.0000	211.1313	2820.5575
24120.0	0.0000	0.0000	211.1265	2820.5479
24150.0	0.0000	0.0000	211.1269	2820.5436
24180.0	0.0000	0.0000	211.1299	2820.5362
24210.0	0.0000	0.0000	211.1279	2820.5271
24240.0	0.0000	0.0000	211.1274	2820.5250
24270.0	0.0000	0.0000	211.1281	2820.5150
24300.0	0.0000	0.0000	211.1261	2820.5068
24330.0	0.0000	0.0000	211.1292	2820.5096
24360.0	0.0000	0.0000	211.1262	2820.4997



Station @ 2712m MDKB  
2055.2m TVD

MAXIS Field Log

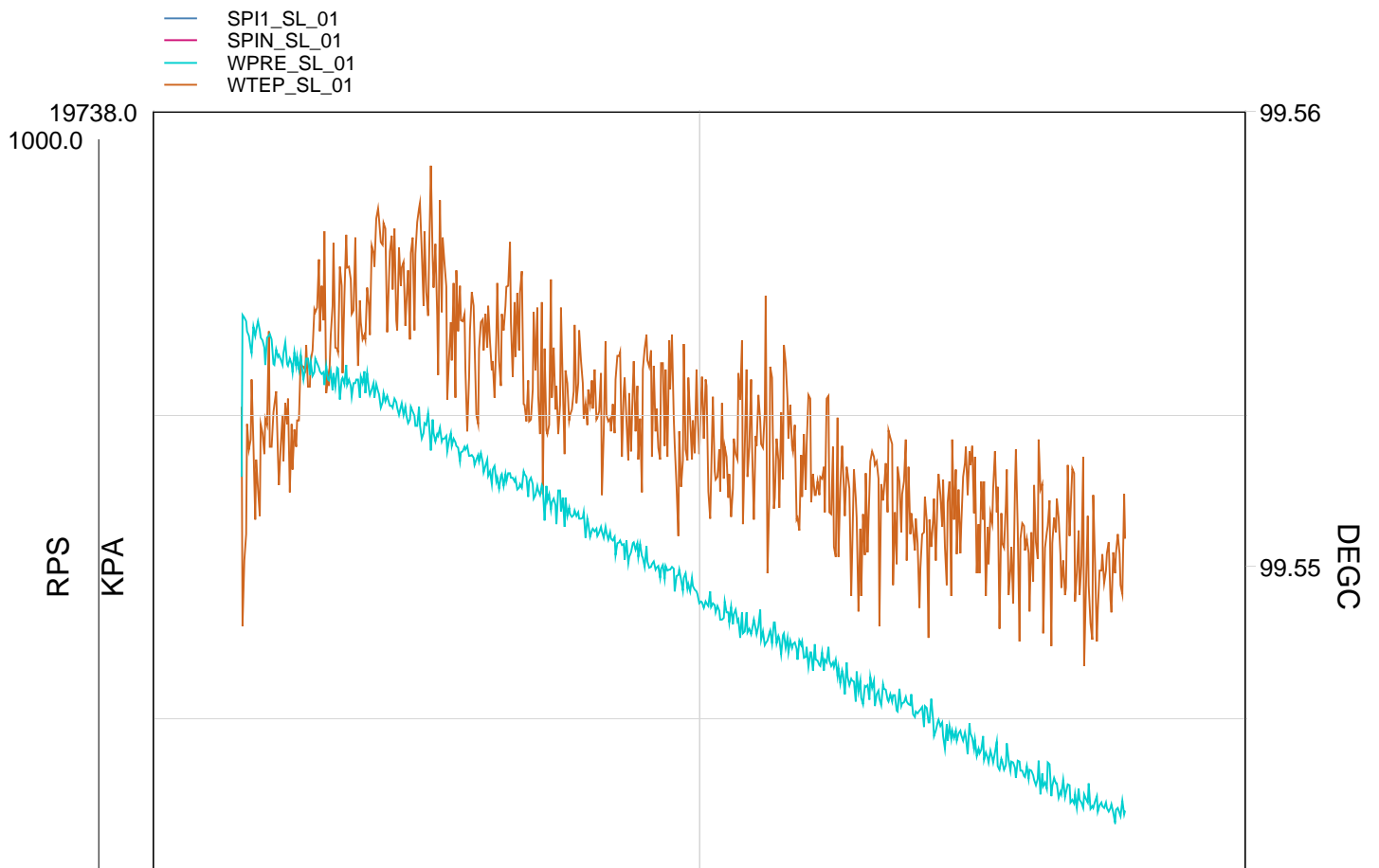


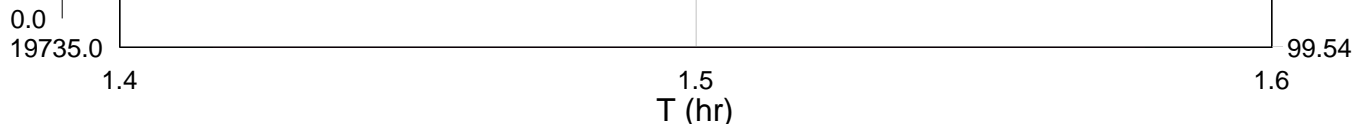
TIME	SPIN_SL	SPI1_SL	WTEP_SL	WPRE_SL
23490.0	0.0000	0.0000	211.1476	2849.2822
23520.0	0.0000	0.0000	211.1537	2849.3103
23550.0	0.0000	0.0000	211.1526	2849.2976
23580.0	0.0000	0.0000	211.1554	2849.2889
23610.0	0.0000	0.0000	211.1547	2849.2787
23640.0	0.0000	0.0000	211.1549	2849.2702
23670.0	0.0000	0.0000	211.1559	2849.2660
23700.0	0.0000	0.0000	211.1530	2849.2608
23730.0	0.0000	0.0000	211.1520	2849.2472
23760.0	0.0000	0.0000	211.1504	2849.2346
23790.0	0.0000	0.0000	211.1537	2849.2267
23820.0	0.0000	0.0000	211.1494	2849.2225
23850.0	0.0000	0.0000	211.1524	2849.2164

**Schlumberger**

Station @ 2725m MDKB  
2064m TVD

MAXIS Field Log



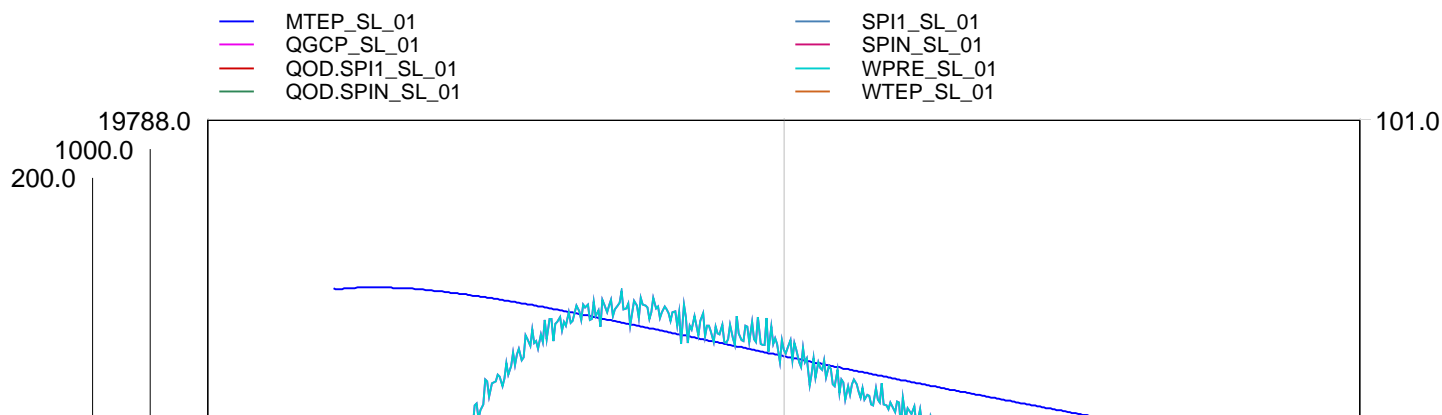


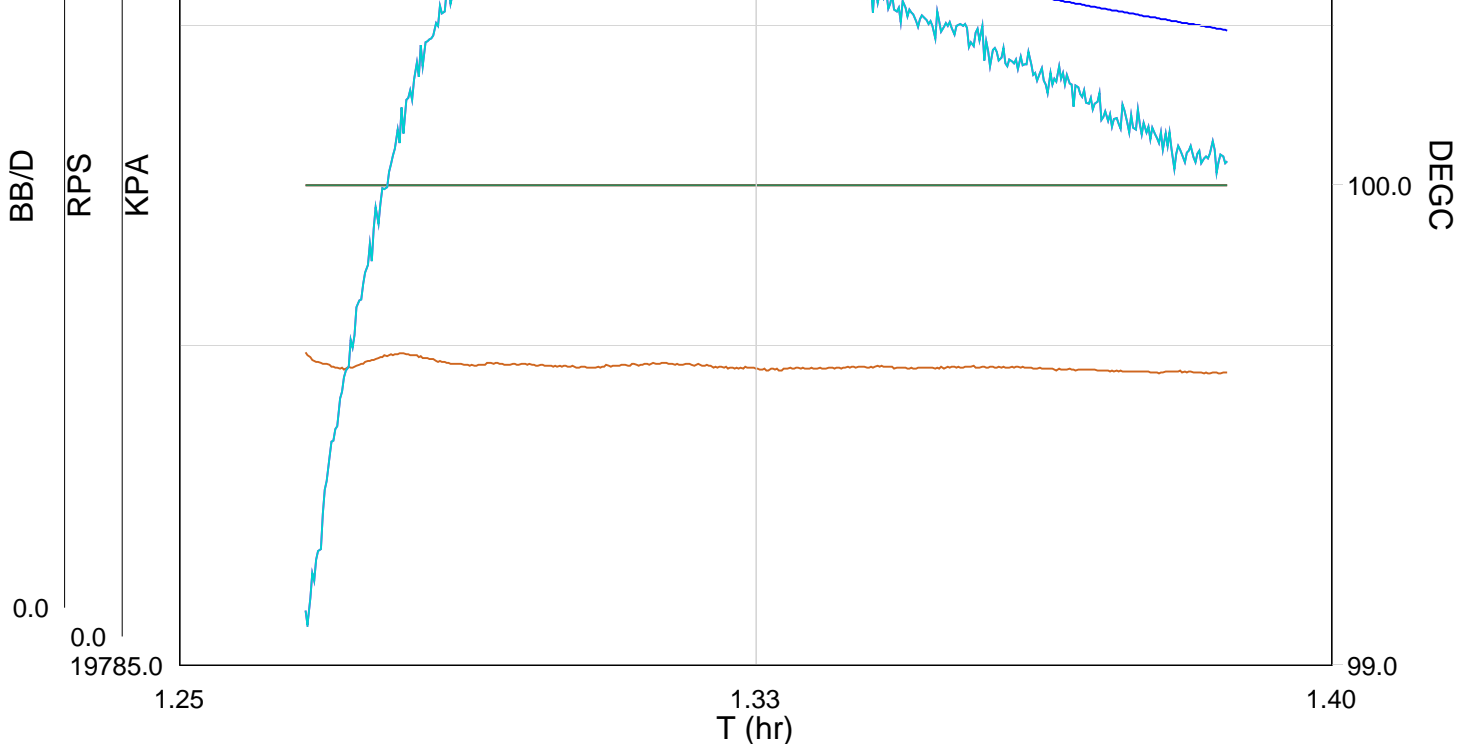
TIME	SPIN_SL	SPI1_SL	WTEP_SL	WPRE_SL
22800.0	0.0000	0.0000	211.1956	2862.6458
22830.0	0.0000	0.0000	211.1986	2862.6358
22860.0	0.0000	0.0000	211.2000	2862.6181
22890.0	0.0000	0.0000	211.1997	2862.6118
22920.0	0.0000	0.0000	211.2029	2862.5976
22950.0	0.0000	0.0000	211.2002	2862.5800
22980.0	0.0000	0.0000	211.1999	2862.5690
23010.0	0.0000	0.0000	211.1993	2862.5593
23040.0	0.0000	0.0000	211.1973	2862.5404
23070.0	0.0000	0.0000	211.1972	2862.5348
23100.0	0.0000	0.0000	211.1935	2862.5147
23130.0	0.0000	0.0000	211.1949	2862.5016
23160.0	0.0000	0.0000	211.1950	2862.4971
23190.0	0.0000	0.0000	211.1908	2862.4816
23220.0	0.0000	0.0000	211.1939	2862.4681
23250.0	0.0000	0.0000	211.1932	2862.4547
23280.0	0.0000	0.0000	211.1903	2862.4432
23310.0	0.0000	0.0000	211.1930	2862.4341
23340.0	0.0000	0.0000	211.1890	2862.4244
23370.0	0.0000	0.0000	211.1909	2862.4189

**Schlumberger**

Station @ 2732m MDKB  
2068.8m TVD

MAXIS Field Log





TIME	SPIN_SL	SPI1_SL	WTEP_SL	WPRE_SL
22260.0	0.0000	0.0000	211.3206	2869.6721
22290.0	0.0000	0.0000	211.3665	2869.8081
22320.0	0.0000	0.0000	211.3295	2869.8844
22350.0	0.0000	0.0000	211.3292	2869.9114
22380.0	0.0000	0.0000	211.3167	2869.9204
22410.0	0.0000	0.0000	211.3323	2869.9126
22440.0	0.0000	0.0000	211.3183	2869.9083
22470.0	0.0000	0.0000	211.3063	2869.8925
22500.0	0.0000	0.0000	211.3154	2869.8768
22530.0	0.0000	0.0000	211.3122	2869.8657
22560.0	0.0000	0.0000	211.3213	2869.8521
22590.0	0.0000	0.0000	211.3113	2869.8375
22620.0	0.0000	0.0000	211.3048	2869.8247
22650.0	0.0000	0.0000	211.3004	2869.8072

**Schlumberger**

Spinner Up Log 900 ft/hr  
2750m to 2625m MDKB

MAXIS Field Log

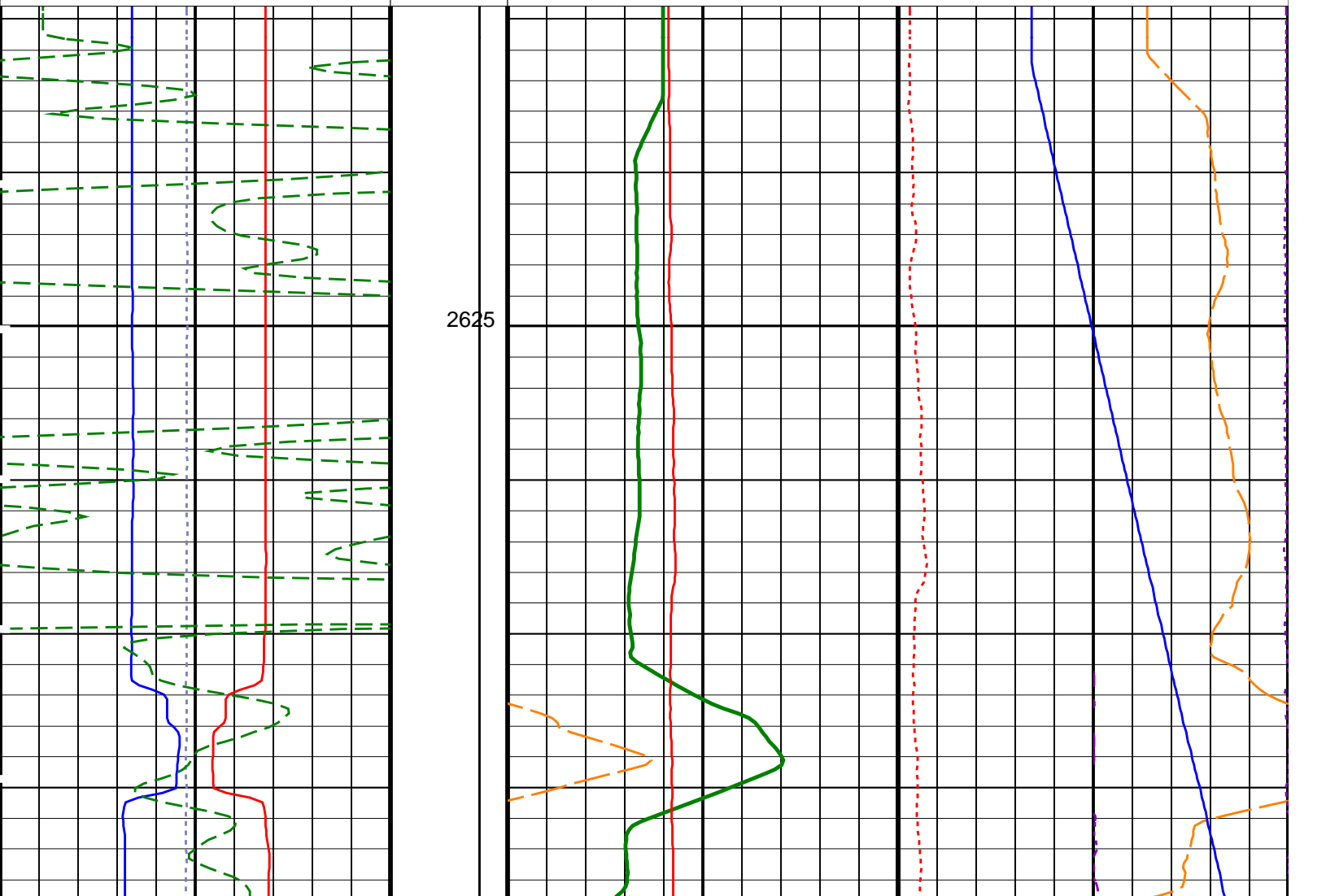
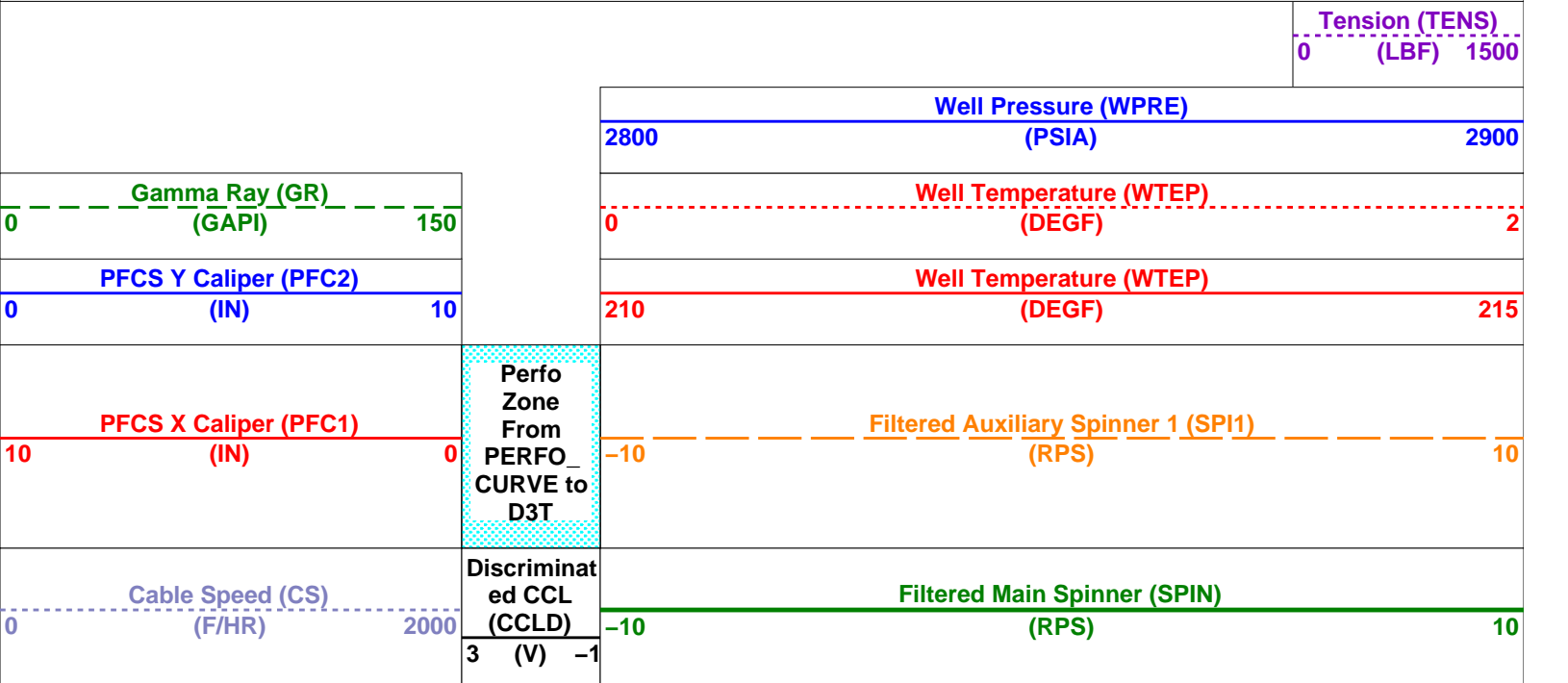
### Input DLIS Files

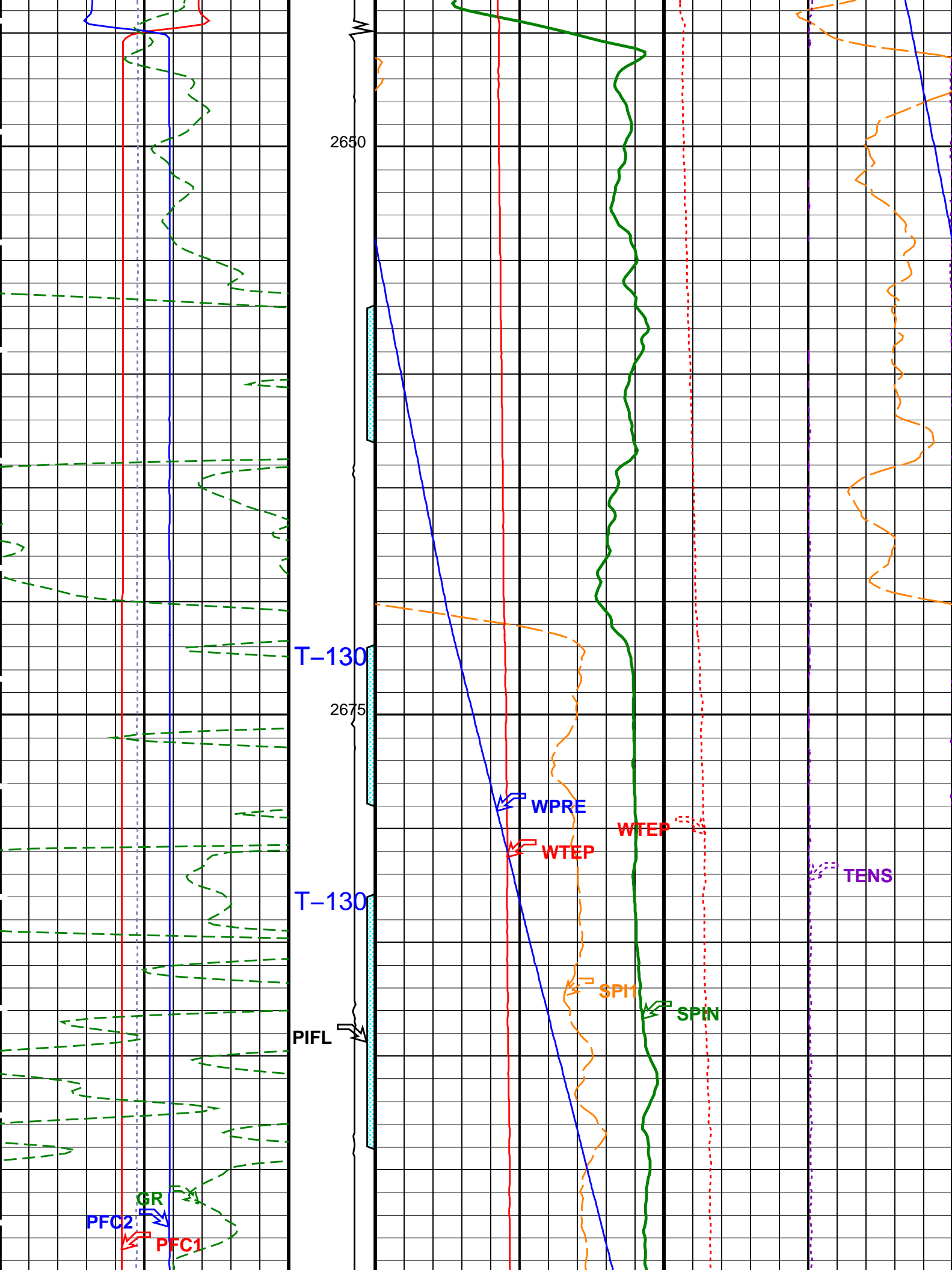
DEFAULT FCS\_ILS\_PSP\_025LUP FN:24 PRODUCER 23-Oct-2005 00:07 2759.5 M 2615.2 M

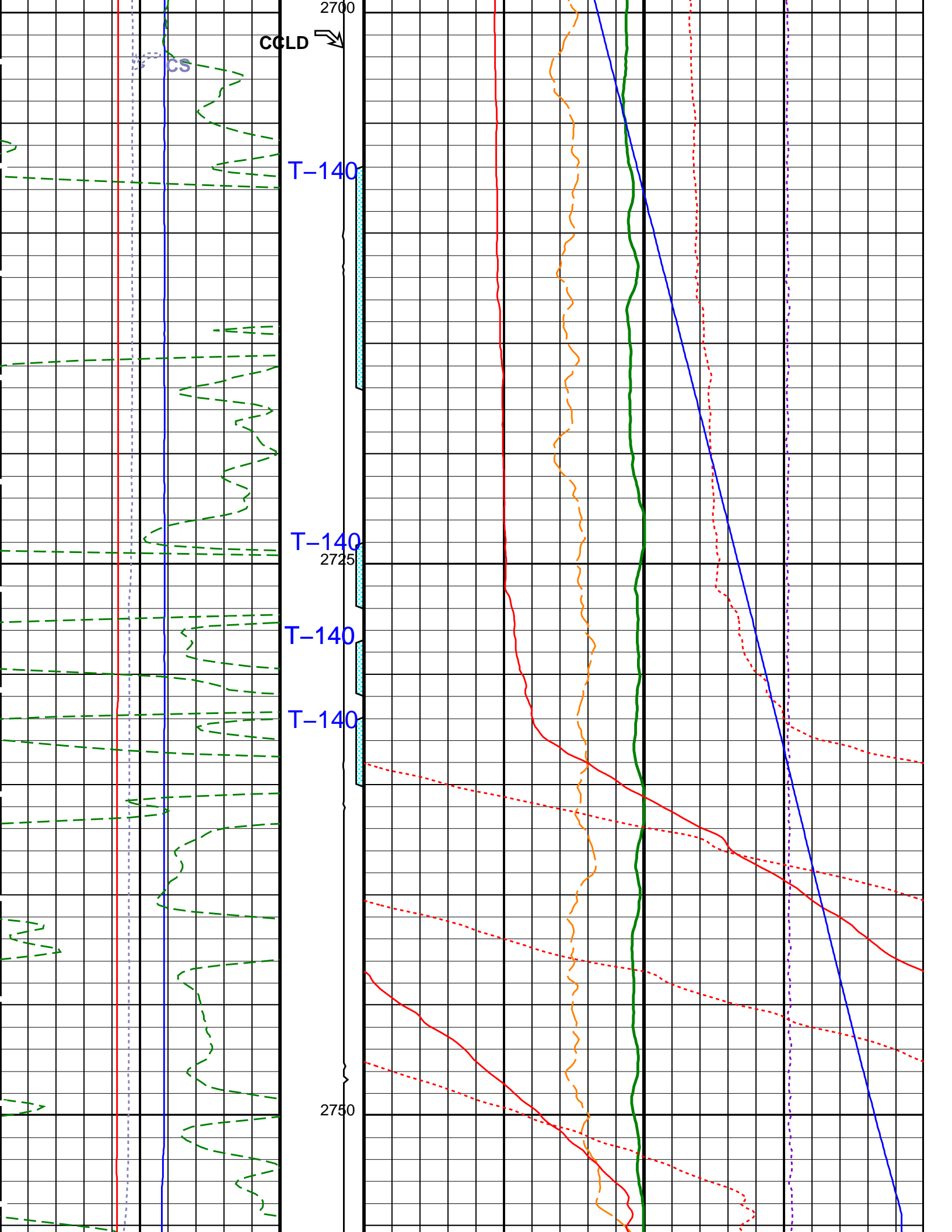
### Output DLIS Files

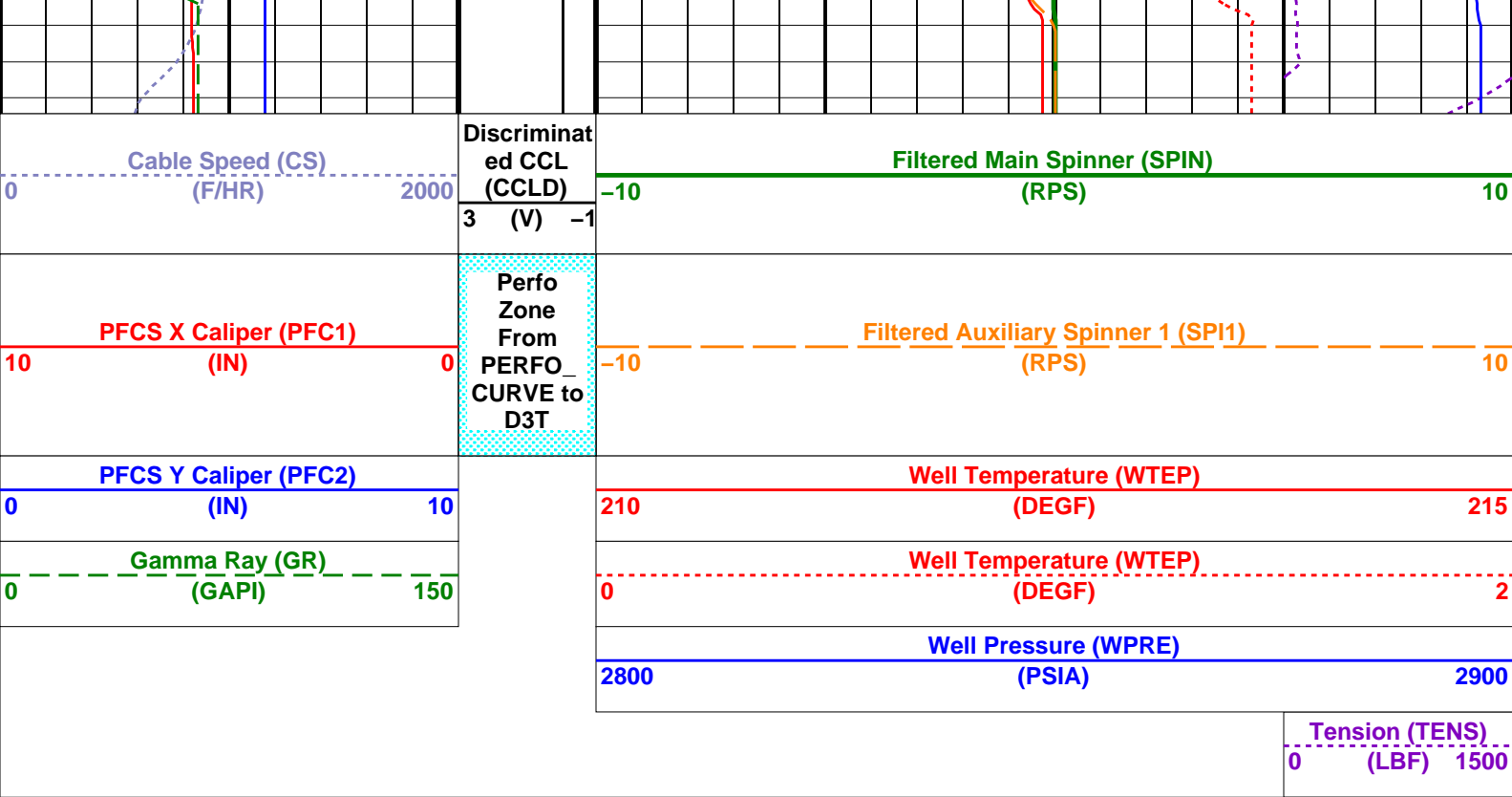
PIP SUMMARY

Time Mark Every 60 S









PIP SUMMARY

Time Mark Every 60 S  
Format: PSP\_1 Vertical Scale: 1:200 Graphics File Created: 27-Oct-2005 06:40

OP System Version: 13C0-300  
MCM

PFCS-A 13C0-300 PILS-A 13C0-300  
PSPT-A/B 13C0-300

Parameters

DLIS Name	Description	Value
PFCS-A: PSP Flow and caliper Tool		
AMOD	Spinner Filter Averaging Mode	LINEAR_AVERAGE
SDCF	Spinner Depth Constant Filter	6
SPI1	Auxiliary Spinner 1 Flowmeter Sonde	PILS-A
SPIN	Main Spinner Flowmeter Sonde	PFCS-A_TURB
PILS-A: PSP In Line Spinner Flowmeter		
AMOD	Spinner Filter Averaging Mode	LINEAR_AVERAGE
SDCF	Spinner Depth Constant Filter	6
SPI1	Auxiliary Spinner 1 Flowmeter Sonde	PILS-A
SPIN	Main Spinner Flowmeter Sonde	PFCS-A_TURB
System and Miscellaneous		
DO	Depth Offset for Playback	-1.0 M
PP	Playback Processing	NORMAL

Input DLIS Files

DEFAULT FCS\_ILS\_PSP\_025LUP FN:24 PRODUCER 23-Oct-2005 00:07 2759.5 M 2615.2 M

Output DLIS Files

DEFAULT FCS\_ILS\_PSP\_076PUP FN:59 PRODUCER 27-Oct-2005 06:40



Spinner Down Log 900 ft/hr  
2750m to 2625m MDKB



Input DLIS Files

DEFAULT Flip\_FCS\_ILS\_PSP\_061LUP PRODUCER 26-Oct-2005 11:34 2758.4 M 2615.2 M

Output DLIS Files

DEFAULT FCS\_ILS\_PSP\_077PUP FN:60 PRODUCER 27-Oct-2005 06:44 2755.8 M 2613.2 M

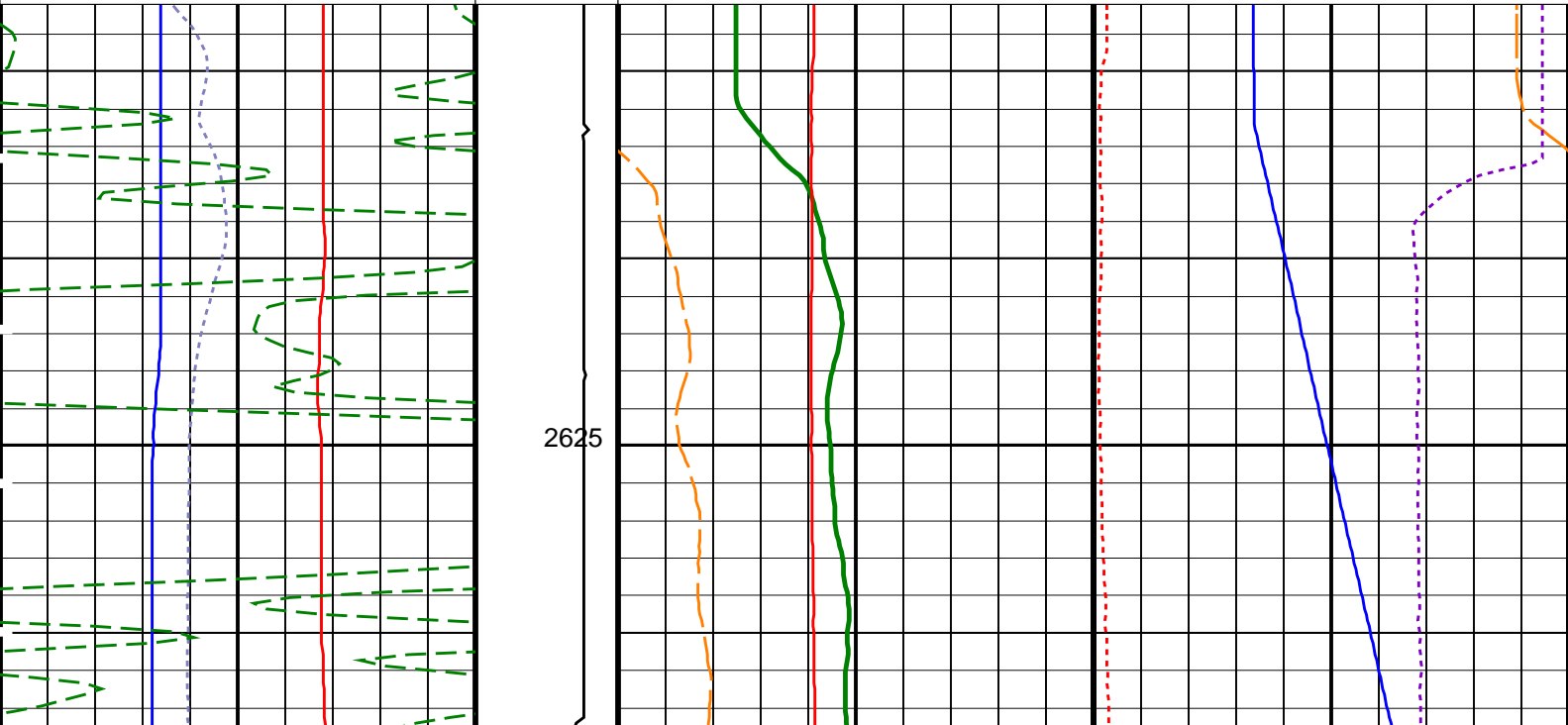
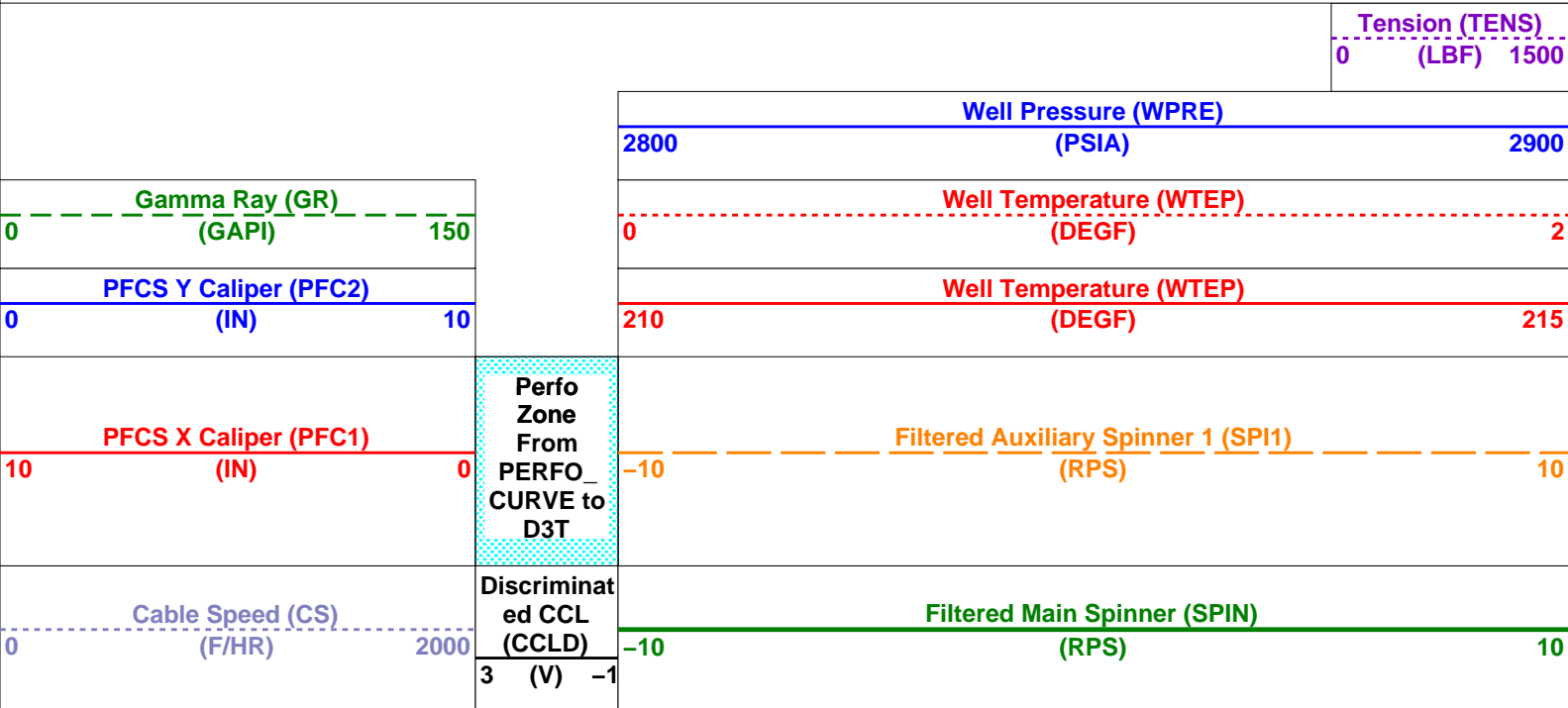
OP System Version: 13C0-300

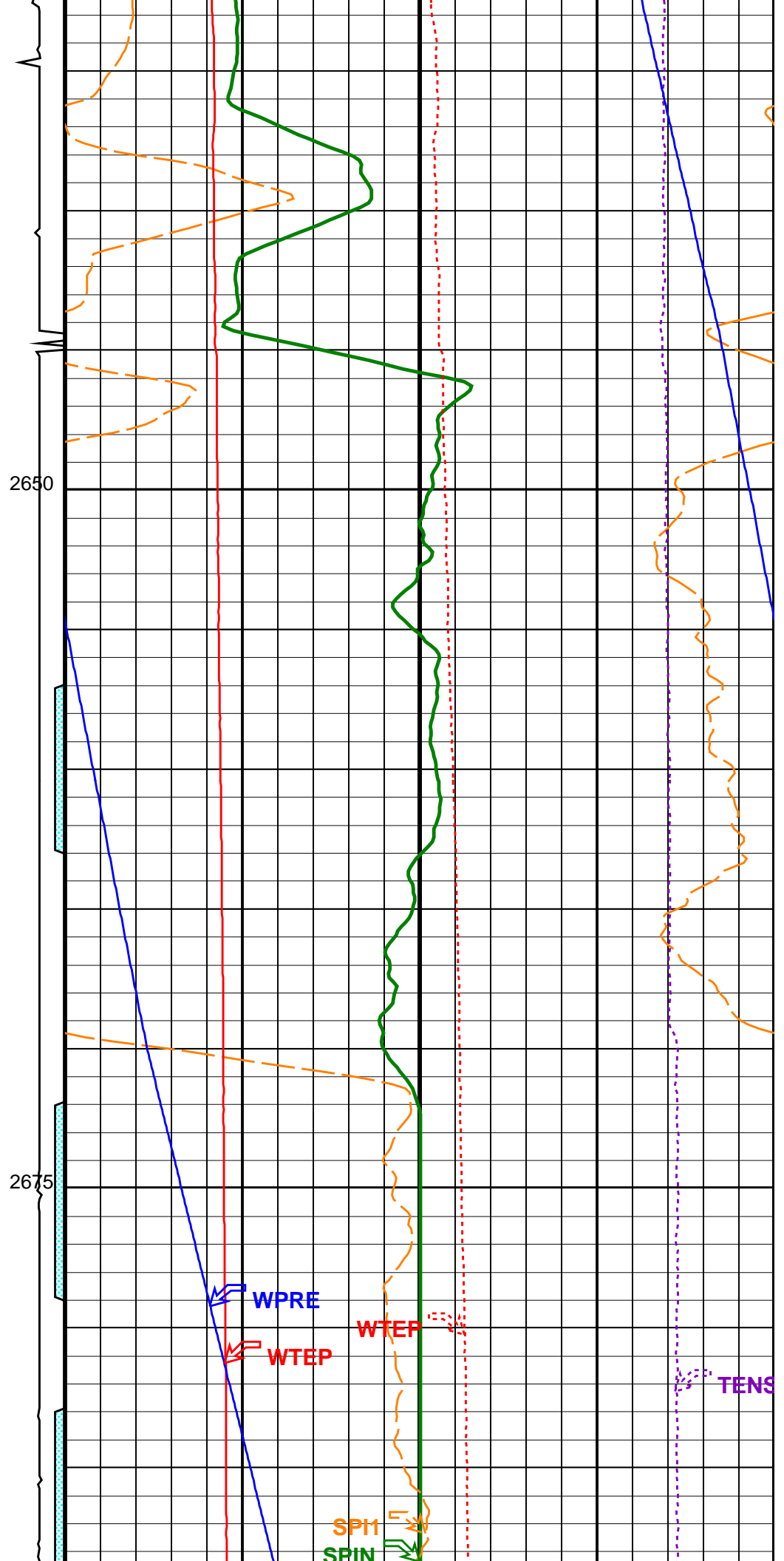
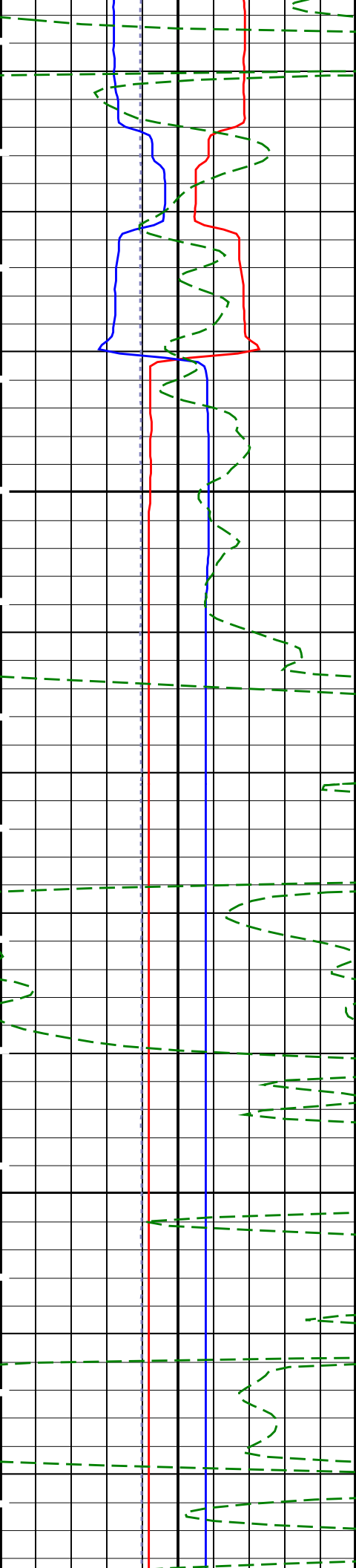
MCM

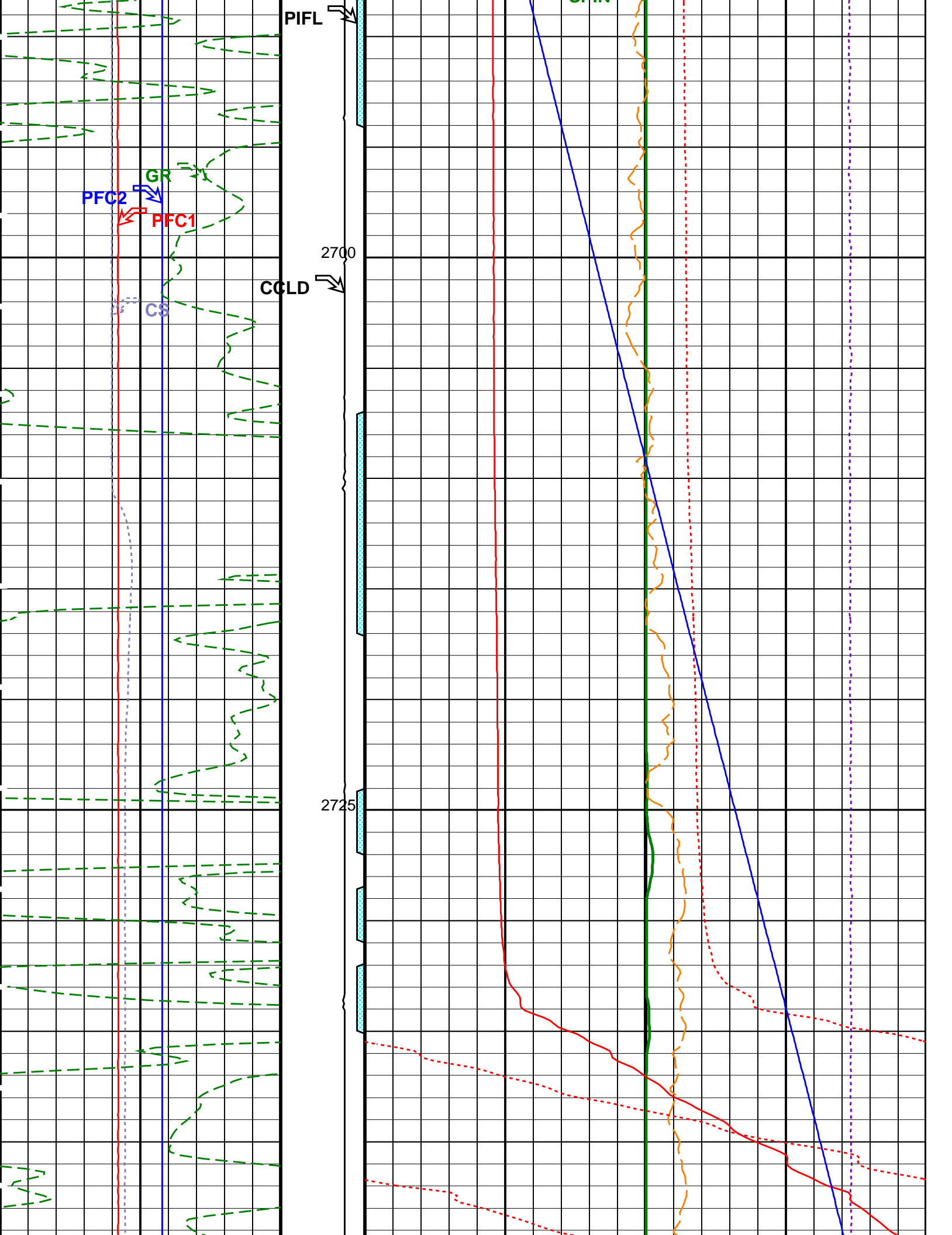
PFCS-A 13C0-300 PILS-A 13C0-300  
PSPT-A/B 13C0-300

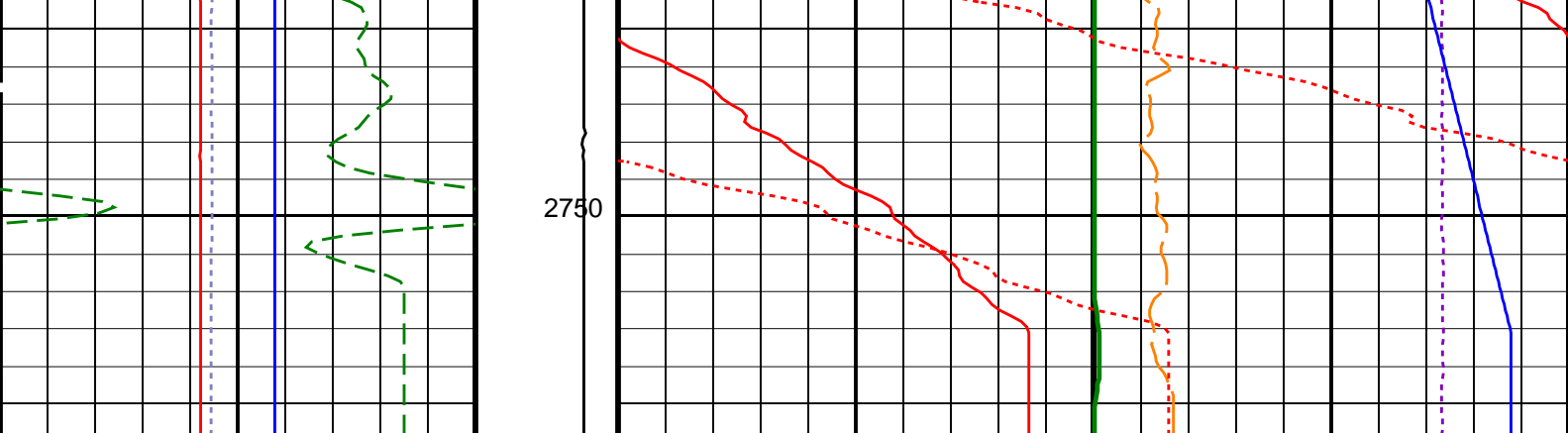
PIP SUMMARY

Time Mark Every 60 S









Cable Speed (CS) (F/HR)		Discriminat ed CCL (CCLD) 3 (V) -1	Filtered Main Spinner (SPIN) (RPS)	
0	2000		-10	10
PFCS X Caliper (PFC1) (IN)		Perfo Zone From PERFO_ CURVE to D3T	Filtered Auxiliary Spinner 1 (SPI1) (RPS)	
10	0		-10	10
PFCS Y Caliper (PFC2) (IN)			Well Temperature (WTEP) (DEGF)	
0	10		210	215
Gamma Ray (GR) (GAPI)			Well Temperature (WTEP) (DEGF)	
0	150		0	2
			Well Pressure (WPRE) (PSIA)	
			2800	2900
			Tension (TENS) (LBF)	
			0	1500

#### PIP SUMMARY

Time Mark Every 60 S

Format: PSP\_1 Vertical Scale: 1:200

Graphics File Created: 27-Oct-2005 06:44

### OP System Version: 13C0-300

MCM

PFCS-A	13C0-300	PILS-A	13C0-300
PSPT-A/B	13C0-300		

### Parameters

DLIS Name	Description	Value
PFCS-A: PSP Flow and caliper Tool		
AMOD	Spinner Filter Averaging Mode	LINEAR_AVERAGE
SDCF	Spinner Depth Constant Filter	6
SPI1	Auxiliary Spinner 1 Flowmeter Sonde	PILS-A
SPIN	Main Spinner Flowmeter Sonde	PFCS-A_TURB
PILS-A: PSP In Line Spinner Flowmeter		
AMOD	Spinner Filter Averaging Mode	LINEAR_AVERAGE
SDCF	Spinner Depth Constant Filter	6
SPI1	Auxiliary Spinner 1 Flowmeter Sonde	PILS-A
SPIN	Main Spinner Flowmeter Sonde	PFCS-A_TURB
System and Miscellaneous		
DO	Depth Offset for Playback	-2.5 M
PP	Playback Processing	NORMAL

### Input DLIS Files

DEFAULT	Flip_FCS_ILS_PSP_061LUP	PRODUCER	26-Oct-2005 11:34	2758.4 M	2615.2 M
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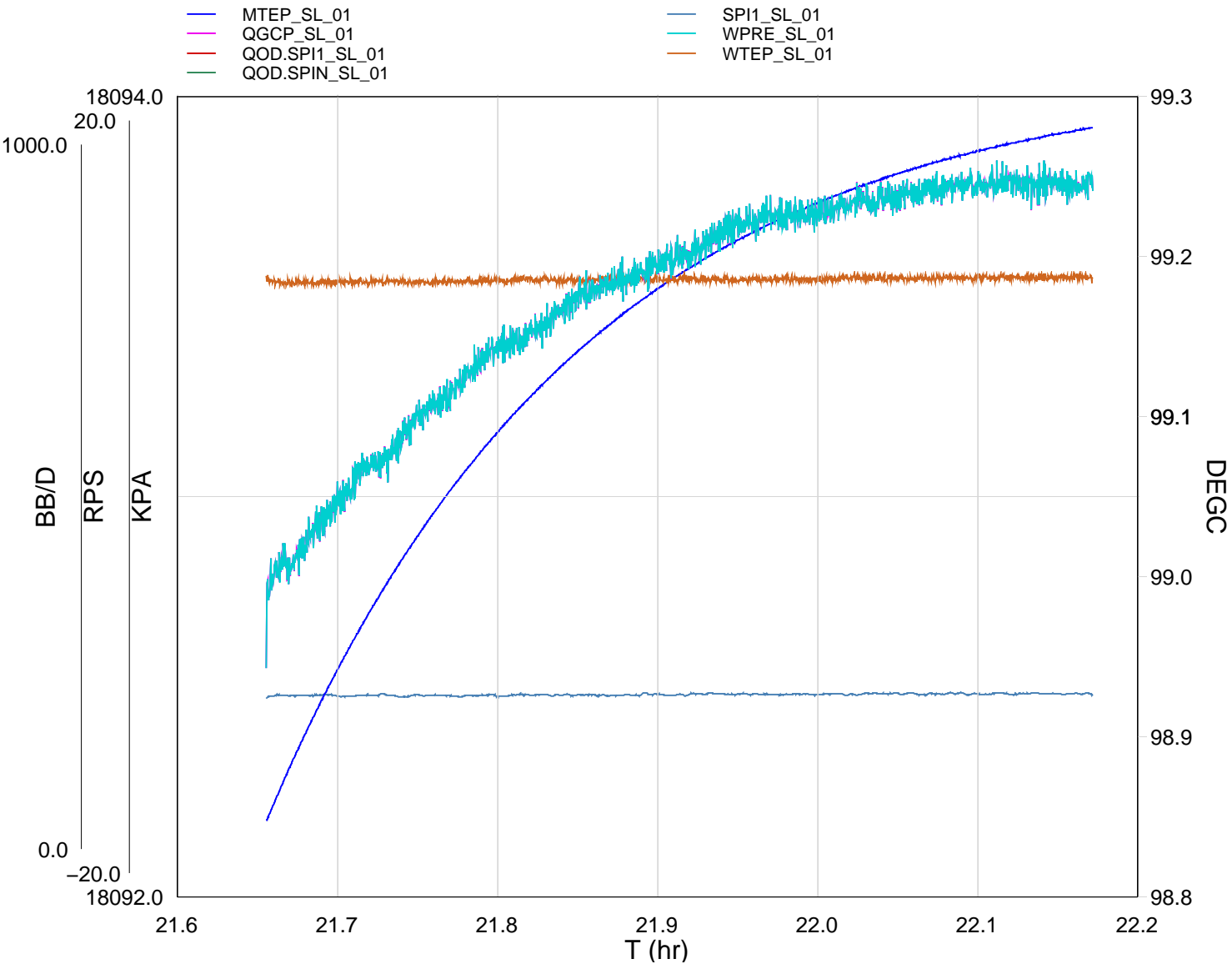
### Output DLIS Files



Station @ 2450m MDKB

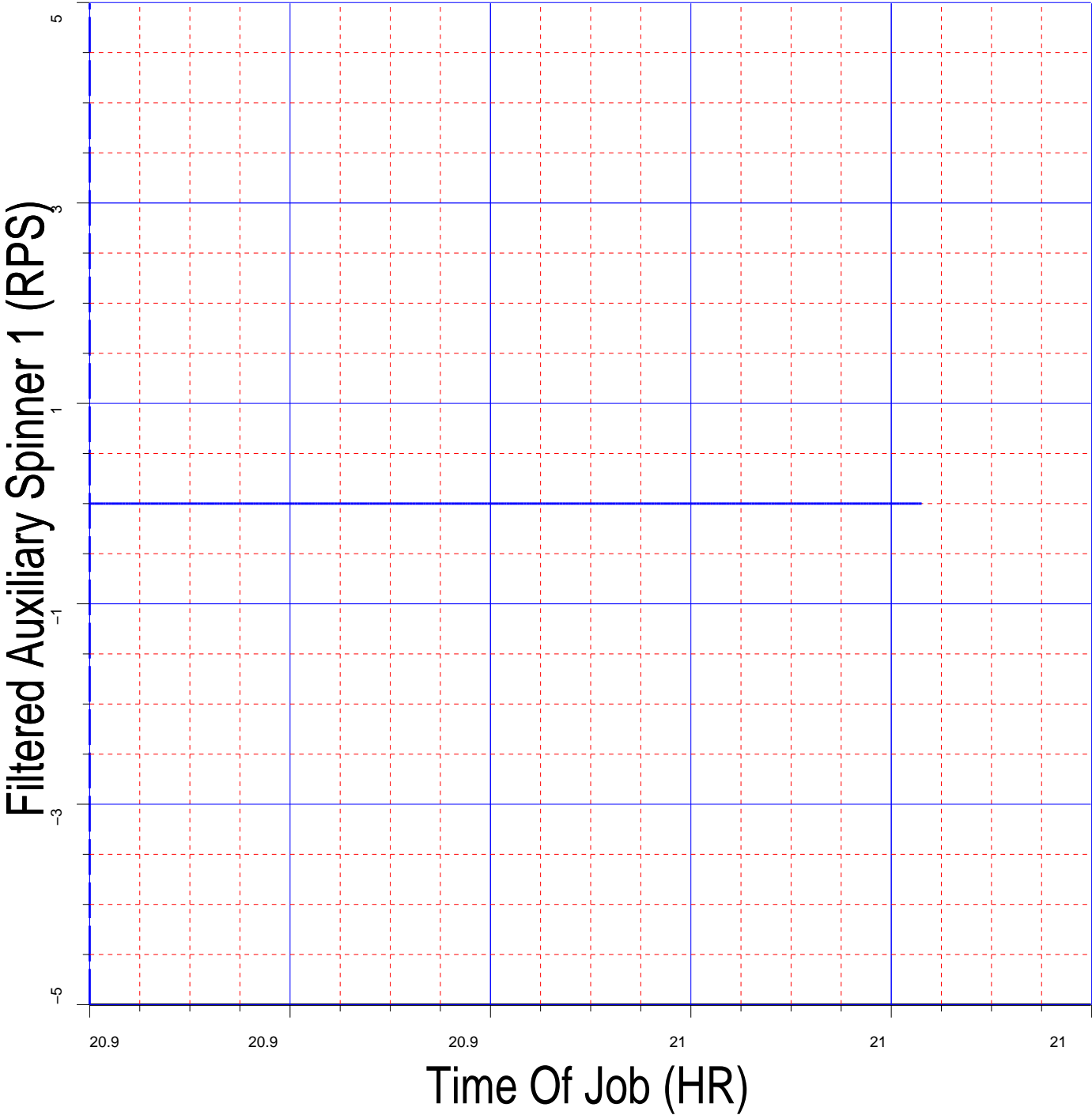
Well Dump Flooding

MAXIS Field Log



TIME	SPIN_SL	SPI1_SL	WTEP_SL	WPRE_SL
9240.0	-5.2596	-10.0646	210.5386	2624.1047
9270.0	-5.5847	-9.9029	210.5318	2624.1411
9300.0	-5.3998	-9.9370	210.5277	2624.1391
9330.0	-5.4205	-9.9165	210.5295	2624.1495
9360.0	-5.5596	-9.8992	210.5303	2624.1596
9390.0	-5.4791	-9.8881	210.5305	2624.1614

9420.0	-5.5397	-9.9507	210.5319	2624.1674
9450.0	-5.3877	-9.9174	210.5323	2624.1745
9480.0	-5.4894	-9.9177	210.5312	2624.1778
9510.0	-4.8531	-9.8427	210.5307	2624.1815
9540.0	-5.3426	-9.9591	210.5329	2624.1834
9570.0	-5.3543	-9.9583	210.5326	2624.1922
9600.0	-5.1258	-9.9588	210.5329	2624.1989
9630.0	-5.4847	-9.9147	210.5331	2624.2011
9660.0	-5.4797	-9.9384	210.5324	2624.2041
9690.0	-5.5568	-9.9671	210.5320	2624.2096
9720.0	-5.3614	-9.9475	210.5294	2624.2140
9750.0	-4.4276	-9.8854	210.5321	2624.2192
9780.0	-4.4318	-9.9519	210.5322	2624.2230
9810.0	-5.2690	-9.8759	210.5357	2624.2266
9840.0	-4.2770	-9.9064	210.5337	2624.2272
9870.0	-5.3724	-9.8748	210.5362	2624.2294
9900.0	-5.0064	-9.8852	210.5299	2624.2345
9930.0	-5.3881	-9.9274	210.5346	2624.2384
9960.0	-4.7497	-9.9123	210.5324	2624.2387
9990.0	-6.1330	-9.9359	210.5344	2624.2413
10020.0	-6.1348	-9.9245	210.5356	2624.2438
10050.0	-6.1348	-9.9192	210.5332	2624.2452
10080.0	-6.1364	-9.9193	210.5363	2624.2449
10110.0	-6.1169	-9.8788	210.5349	2624.2548
10140.0	-6.1228	-9.8986	210.5361	2624.2520
10170.0	-6.1311	-9.8992	210.5327	2624.2538
10200.0	-6.1493	-9.8441	210.5346	2624.2550
10230.0	-6.1424	-9.8858	210.5338	2624.2598
10260.0	-6.1304	-9.8488	210.5345	2624.2603
10290.0	-6.1382	-9.8709	210.5334	2624.2657
10320.0	-6.1083	-9.8353	210.5356	2624.2659
10350.0	-6.1139	-9.8511	210.5363	2624.2668
10380.0	-6.1642	-9.8687	210.5354	2624.2721
10410.0	-6.1292	-9.9018	210.5363	2624.2677
10440.0	-6.1477	-9.8534	210.5354	2624.2679
10470.0	-6.1548	-9.8807	210.5331	2624.2684
10500.0	-6.1424	-9.8743	210.5339	2624.2674
10530.0	-6.1296	-9.8431	210.5334	2624.2733
10560.0	-6.1262	-9.8483	210.5360	2624.2753
10590.0	-6.1761	-9.8310	210.5376	2624.2746
10620.0	-6.1117	-9.8225	210.5336	2624.2725
10650.0	-6.1105	-9.8140	210.5365	2624.2748
10680.0	-6.1589	-9.8698	210.5334	2624.2771
10710.0	-6.1585	-9.8588	210.5336	2624.2767
10740.0	-6.1510	-9.8136	210.5346	2624.2783
10770.0	-6.1439	-9.8680	210.5357	2624.2797
10800.0	-6.1296	-9.8325	210.5357	2624.2811
10830.0	-6.1318	-9.8860	210.5371	2624.2834
10860.0	-6.1504	-9.8813	210.5363	2624.2812
10890.0	-6.1589	-9.8062	210.5351	2624.2853
10920.0	-6.1616	-9.8862	210.5383	2624.2832
10950.0	-6.1360	-9.8194	210.5336	2624.2820
10980.0	-6.1616	-9.8016	210.5335	2624.2808
11010.0	-6.1585	-9.8334	210.5372	2624.2789
11040.0	-6.1675	-9.8897	210.5373	2624.2809
11070.0	-6.1526	-9.8177	210.5393	2624.2762
11100.0	-6.1553	-9.8390	210.5380	2624.2811



6390.0	0.0000	0.0000	209.2500	2601.3605
6420.0	0.0000	0.0000	209.2204	2601.4064
6450.0	0.0000	0.0000	209.1804	2601.5084
6480.0	0.0000	0.0000	209.1874	2601.6048
6510.0	0.0000	0.0000	209.1849	2601.7002
6540.0	0.0000	0.0000	209.1860	2601.7802
6570.0	0.0000	0.0000	209.1819	2601.8664
6600.0	0.0000	0.0000	209.1807	2601.9336
6630.0	0.0000	0.0000	209.1867	2601.9981
6660.0	0.0000	0.0000	209.1893	2602.0543
6690.0	0.0000	0.0000	209.1949	2602.1070
6720.0	0.0000	0.0000	209.2020	2602.1559
6750.0	0.0000	0.0000	209.2028	2602.2068
6780.0	0.0000	0.0000	209.2056	2602.2497
6810.0	0.0000	0.0000	209.2100	2602.2871






Calibration Listing


MAXIS Field Log

Calibration and Check Summary							
Measurement	Nominal	Master	Before	After	Change	Limit	Units
PSP Flow and caliper Tool Wellsite Calibration – PFCS Caliper Calibration							
Before: 22–Oct–2005 16:31							
PFCS CaliperX Small Ring	3.000	N/A	2.921	N/A	N/A	N/A	IN
PFCS CaliperX Large Ring	5.500	N/A	5.459	N/A	N/A	N/A	IN
PFCS CaliperY Small Ring	3.000	N/A	2.921	N/A	N/A	N/A	IN
PFCS CaliperY Large Ring	5.500	N/A	5.497	N/A	N/A	N/A	IN
Production Services Logging Platform Wellsite Calibration – Detector Calibration							
Before: 22–Oct–2005 16:34							
Gamma–Ray Jig–Bkg	125.0	N/A	120.2	N/A	N/A	N/A	GAPI

PSP Flow and caliper Tool / Equipment Identification			
Primary Equipment:			
PFCS Cartridge	PFCC – A	799	799
PFCS Caliper	Cali –	799	799
PFCS Relative Bearing	Rela –	799	799
PFCS Turbine Spinner	Turb –		
PFCS Fluid Holdup Electric Probes	Hold –	799	799
Auxiliary Equipment:			
PFCS Cartridge Housing	PFCH – A	799	799

PSP Flow and caliper Tool Wellsite Calibration								
PFCS Caliper Calibration								
Phase	PFCS CaliperX Small Ring IN	Value	Phase	PFCS CaliperX Large Ring IN	Value	Phase	PFCS CaliperY Small Ring IN	Value
Before		2.921	Before		5.459	Before		2.921



N/A (Minimum)			3.000 (Nominal)			N/A (Maximum)			N/A (Minimum)			5.500 (Nominal)			N/A (Maximum)			N/A (Minimum)			3.000 (Nominal)			N/A (Maximum)		
Phase	PFCS CaliperY Large Ring IN										Value															
Before											5.497															
	N/A (Minimum)			5.500 (Nominal)			N/A (Maximum)																			
Before: 22-Oct-2005 16:31																										

Before: 22-Oct-2005 16:31

### Production Services Logging Platform / Equipment Identification

#### Primary Equipment:

Production Logging Platform (CQG-F)	PSPT - B	1750	1750
PSP Basic Measurement Sonde (CQG_F)	PBMS - B	1750	1750
PSP Basic measurement module	PBMS -	1750	1750
PSP CCL	CCL -	1750	1750
PSP GR	GR -	33333	33333
PSP RTD Well Temperature	RTD_ -	1750	1750
PSP Crystal Quartz Gauge Type F	CQG_ -	1750	1750
PSP Telemetry and bus master cartridge	PSTC -	1864	1864

#### Auxiliary Equipment:

Production Services Logging Platform Wellsite Calibration									
Detector Calibration									
Phase	Gamma-Ray Background GAPI			Value	Phase	Gamma-Ray Jig-Bkg GAPI			Value
Before	<div><div></div></div>			3.993	Before	<div><div></div></div>			120.2
0 (Minimum)		30.00 (Nominal)		120.0 (Maximum)	110.0 (Minimum)		125.0 (Nominal)		140.0 (Maximum)
Before: 22-Oct-2005 16:34									

Before: 22-Oct-2005 16:34

Company: **Esso Australia Ltd.**

**Schlumberger**

Well: **A-16L**

Field: **Tuna**

Rig : **Prod4 / Ve**

Country: **Australia**

Pressure

Spinner

Survey