Rig: Prod 2 / ISS CWU

Schlumberger

Company: **Esso Australia Ltd.**

Well: **TNA A−17a**
Field: **Tuna**
Rig: **Prod 2 / ISS CWU** Country: **Australia**

PBMS−GR−CCl
PILS−PFCS
Spinner Survey

Company: Esso Australia Ltd. Well: TNA A−17a Location: Gippsland Field: Tuna

LOCATION

Gippsland Basin
Bass Strait

Elev.: K.B. 32.1 m
G.L. −59 m
D.F. 32.1 m

Permanent Datum: Mean Sea Level Elev.: 0 m
Log Measured From: Kelly Bushing 32.1 m above Perm. Datum
Drilling Measured From: Kelly Bushing

State: Victoria	Max. Well Deviation 64 deg	Longitude 148*25' 05.29"E	Latitude 38*10' 16.00S

		Run 1	Run 2	Run 3
PVT DATA	Oil Density			
	Water Salinity			
	Gas Gravity			
	Bo			
	Bw			
	1/Bg			
	Bubble Point Pressure			
	Bubble Point Temperature			
	Solution GOR			
	Maximum Deviation	64 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		7−Feb−2006					Logging Date	
Run Number		1−6					Run Number	
Depth Driller		3406 m					Depth Driller	
Schlumberger Depth		0 m					Schlumberger Depth	
Bottom Log Interval		2300 m					Bottom Log Interval	
Top Log Interval		2200 m					Top Log Interval	
Casing Fluid Type		Salt water					Casing Fluid Type	
Salinity							Salinity	
Density							Density	
Fluid Level							Fluid Level	
BIT/CASING/TUBING STRING							BIT/CASING/TUBING STRING	
Bit Size		8.500 in					Bit Size	
From		729 m					From	
To		3474 m					To	
Casing/Tubing Size		3.500 in					Casing/Tubing Size	
Weight		9.2 lbm/ft					Weight	
Grade		L−80					Grade	
From		11 m					From	
To		2779 m					To	
Maximum Recorded Temperatures		82 degC					Maximum Recorded Temperatures	
Logger On Bottom	Time	7−Feb−2006	10:50				Logger On Bottom	Time
Unit Number	Location	3827	VEA				Unit Number	Location
Recorded By		Joel Hogan					Recorded By	
Witnessed By		Bruce Woodward, Mark Wilson					Witnessed By	

Run 4

DEPTH SUMMARY LISTING

Date Created: 3−FEB−2006 15:02:53

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW−H	Type:	CMTD−B/A	Type:	
Serial Number:	794	Serial Number:	1711	Serial Number:	2−32ZT
Calibration Date:	31−May−2005	Calibration Date:	22−SEP−2005	Length:	24031
Calibrator Serial Number:	1009	Calibrator Serial Number:	57144		6794.91 M
Calibration Cable Type:	2−32ZT	Calibration Gain:	0.974	Conveyance Method:	Wireline
Wheel Correction 1:	−6	Calibration Offset:	200.00	Rig Type:	Offshore_Fixed
Wheel Correction 2:	−5				

Depth Control Parameters

Log Sequence:	Subsequent Trip To the Well
Reference Log Name:	TUNA A17A CORRELATION LOGS
Reference Log Run Number:	
Reference Log Date:	no date available
Subsequent Trip Down Log Correction:	0 M

Depth Control Remarks

1. All Schlumberger Depth Control Procedures followed.
2. Log correlated to correlation log provided by Esso.
3. GR response used for correlation.
4. IDW used as Primary Depth Control.
5. Z−Chart used as Secondary Depth Control.

OTHER SERVICES1	OTHER SERVICES2
OS1: none	OS1:
OS2:	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:

REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
Log Correlated to Solar Composite undated log Provided by client	
Purpose of log, To locate top of Tubing patch in relation to hole in tubing	
after pulling weakpoint on setting run.	
To locate top depth of patch to allow second patch to be set with tubing.	
And to confirm location of hole in tubing.	
Hole in tubing located at − 2249.9mMDKB	
Top of Owen Tubing Patch − 2255mMDKB	
Clearance − 5.1m between top of patch and hole in tubing.	

Second patch ran in and set with tubing at −Top seal at 2242.7mMDKB	
Lower seal at 2255mMDKB.	
Well not flowing but has a drink rate of 18brl/day	
Schlumberger crew : Brendan Glover− Crew cheif, Sean Mcgee (days)	
Lee Wright, Simon Kiss (nights)	

RUN 1

SERVICE ORDER #:
PROGRAM VERSION: 13C0−300
FLUID LEVEL:

LOGGED INTERVAL	START	STOP

RUN 2

SERVICE ORDER #:
PROGRAM VERSION:
FLUID LEVEL:

LOGGED INTERVAL	START	STOP

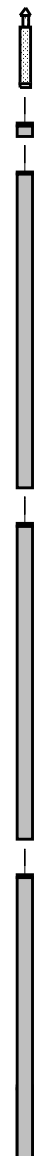
EQUIPMENT DESCRIPTION

RUN 1 RUN 2

SURFACE EQUIPMENT

WITM−A 3248

DOWNHOLE EQUIPMENT



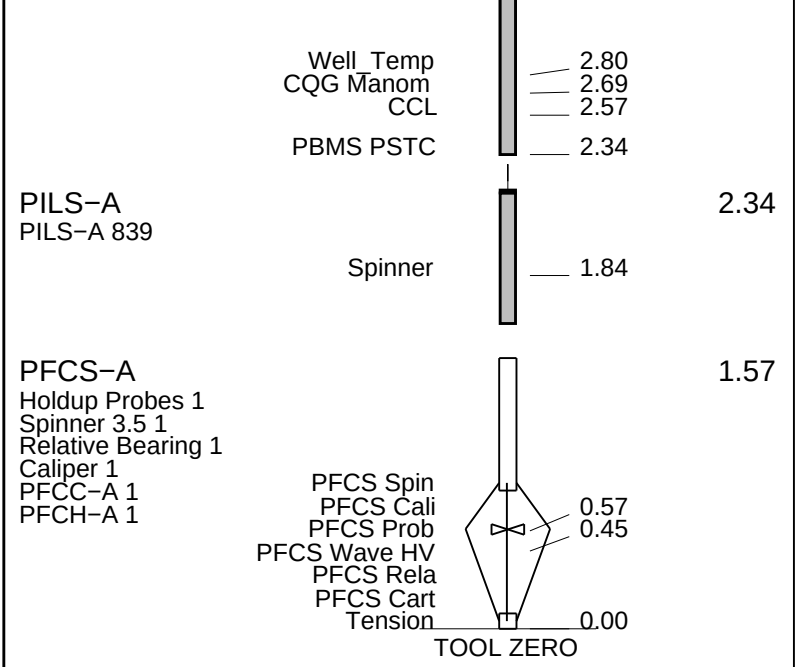
MH−22 9.07
MH−22

AH−38 8.59

EQF−43 8.51
EQF−43

EQF−43 6.69
EQF−43

PSPT−B 4.86
PSC−A 818
PSPT−B 818
PSTC 818
PBMS−B 818
CQG_F_Mano 818
RTD_Thermometer 818
GR
CCL 818
PBMS 818



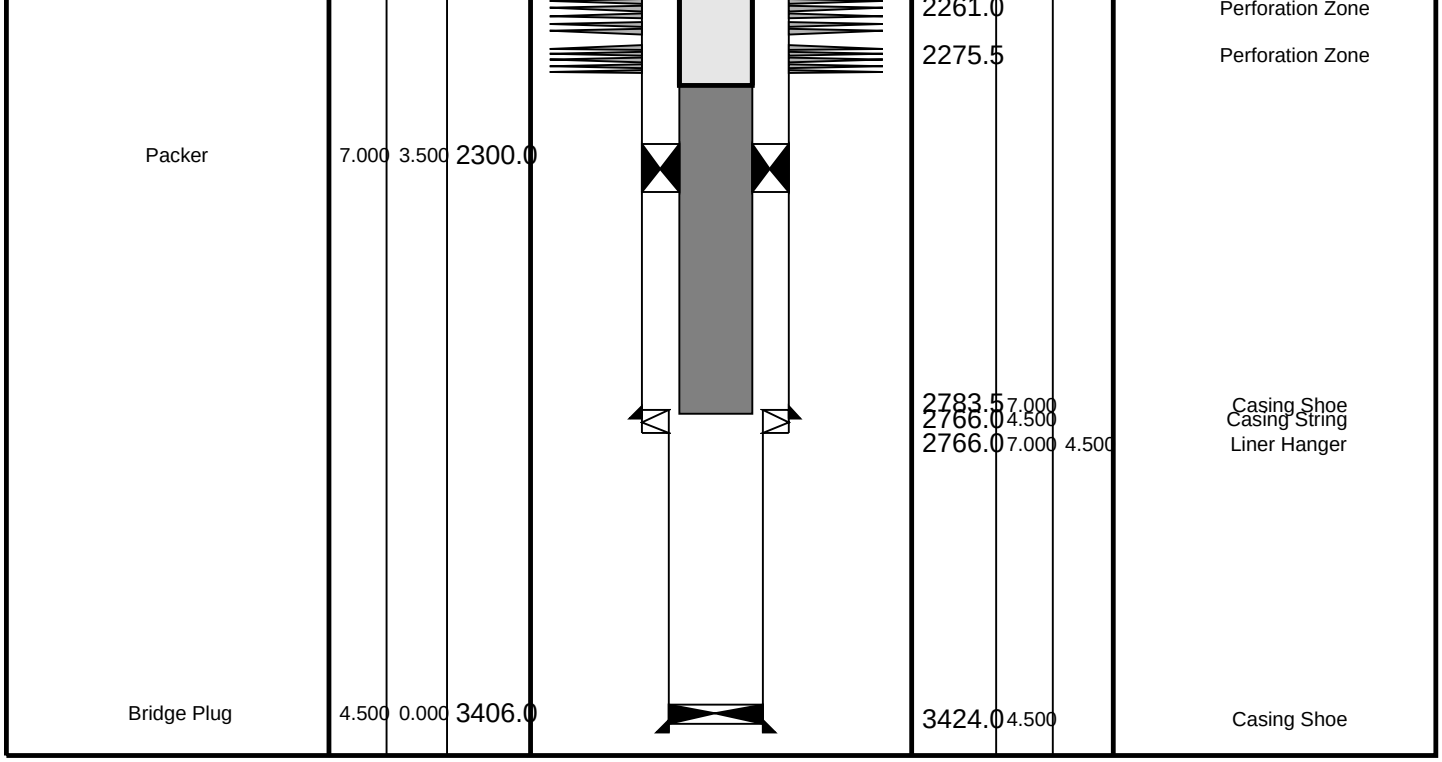
MAXIMUM STRING DIAMETER 1.69 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN METERS

Client: Esso Australia Ltd.
Well: TNA A−17a
Field: Tuna
State: Victoria
Country: Australia

Drawing Date: 2/7/2006
API #:

Rig Name: Tuna
Reference Datum: Kelly Bushing
Elevation: 32.1 m

Production String	(in) OD	(in) ID	(m) MD	Well Schematic	(m) MD	(in) OD	(in) ID	Casing String
Tubing	3.500	3.500	9.0		9.0	7.000		Casing String
					10.0	10.625	7.000	Casing String
					11.0	13.688	10.625	Casing String
					593.8	10.625		Casing Shoe
					715.5	13.688		Casing Shoe
Gas Lift Mandrel	3.500		1408.0					
Gas Lift Mandrel	3.500		1919.5					
Packer	7.000	3.500	2077.0					
Sliding Sleeve	3.500		2183.8					
Blast Joint	3.500		2250.2		2246.5			Perforation Zone



Schlumberger

Log down 1800ft/h

MAXIS Field Log

Company: Esso Australia Ltd. **Well: TNA A−17a**

Input DLIS Files

DEFAULT	FCS_ILS_PSP_023PUP	FN:19	PRODUCER	07−Feb−2006 12:42	2293.3 M	2192.4 M

Output DLIS Files

DEFAULT	FCS_ILS_PSP_046PUP	FN:42	PRODUCER	07−Feb−2006 20:26	2292.9 M	2192.4 M

OP System Version: 13C0−300

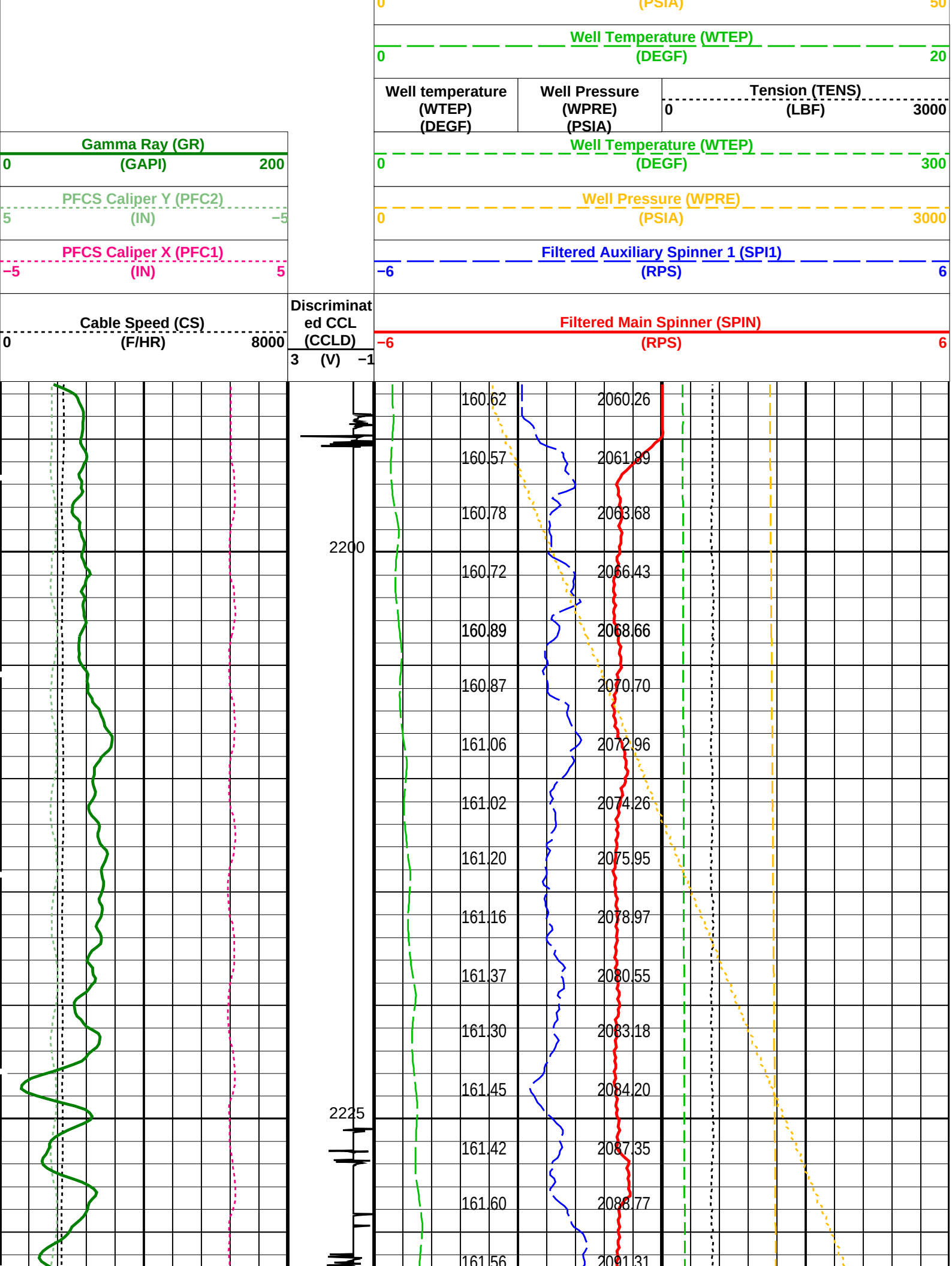
MCM

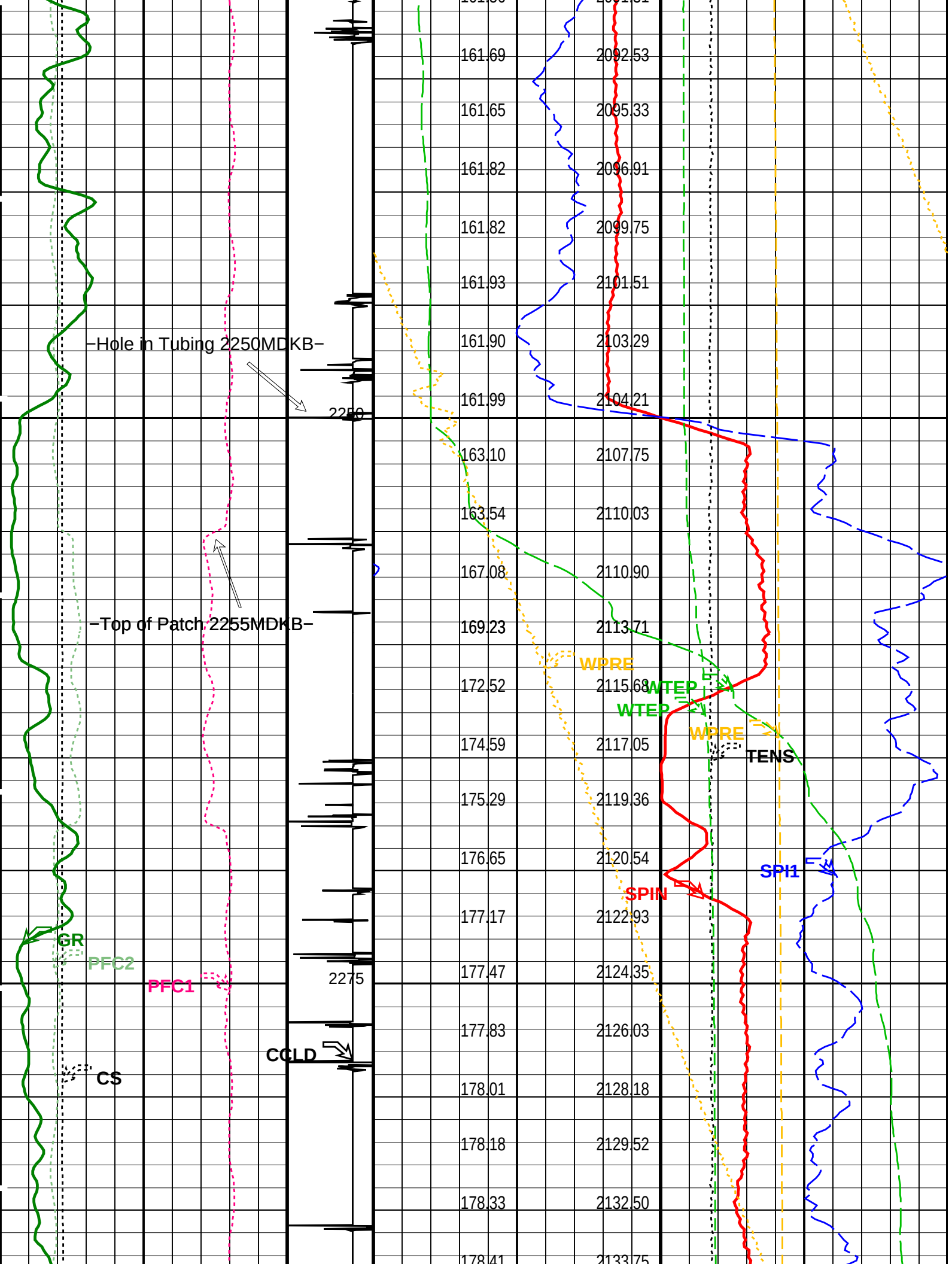
PFCS−A	13C0−300	PILS−A	13C0−300
PSPT−B	13C0−300		

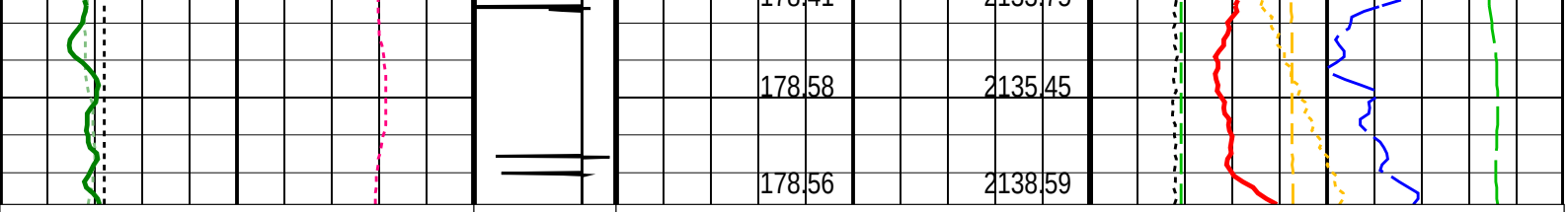
PIP SUMMARY

Time Mark Every 60 S

Amplified Well Pressure (WPRE)


0
(PSIA)
50
Well Temperature (WTEP)
0
(DEGF)
20
Well temperature (WTEP) (DEGF)
Well Pressure (WPRE) (PSIA)
Tension (TENS)
0
(LBF)
3000
Gamma Ray (GR)
0
(GAPI)
200
Well Temperature (WTEP)
0
(DEGF)
300
PFCS Caliper Y (PFC2)
5
(IN)
−5
Well Pressure (WPRE)
0
(PSIA)
3000
PFCS Caliper X (PFC1)
−5
(IN)
5
Filtered Auxiliary Spinner 1 (SPI1)
−6
(RPS)
6
Cable Speed (CS)
0
(F/HR)
8000
Discriminated CCL (CCLD)
3
(V)
−1
Filtered Main Spinner (SPIN)
−6
(RPS)
6
160.62
2060.26
160.57
2061.89
160.78
2063.68
2200
160.72
2066.43
160.89
2068.66
160.87
2070.70
161.06
2072.96
161.02
2074.26
161.20
2075.95
161.16
2078.97
161.37
2080.55
161.30
2083.18
161.45
2084.20
2225
161.42
2087.35
161.60
2088.77
161.56
2091.31


−Hole in Tubing 2250MDKB−
2250
−Top of Patch 2255MDKB−
GR
PFC2
PFC1
2275
CCLD
CS
161.69
2092.53
161.65
2095.33
161.82
2096.91
161.82
2099.75
161.93
2101.51
161.90
2103.29
161.99
2104.21
163.10
2107.75
163.54
2110.03
167.08
2110.90
169.23
2113.71
WPRE
172.52
2115.68
WTEP
WTEP
WPRE
174.59
2117.05
TENS
175.29
2119.36
176.65
2120.54
SPI1
SPIN
177.17
2122.93
177.47
2124.35
177.83
2126.03
178.01
2128.18
178.18
2129.52
178.33
2132.50
178.41
2133.75



Cable Speed (CS)	Discriminated CCL (CCLD)	Filtered Main Spinner (SPIN)
0 (F/HR) 8000	3 (V) −1	−6 (RPS) 6
PFCS Caliper X (PFC1)		Filtered Auxiliary Spinner 1 (SPI1)
−5 (IN) 5		−6 (RPS) 6
PFCS Caliper Y (PFC2)		Well Pressure (WPRE)
5 (IN) −5		0 (PSIA) 3000
Gamma Ray (GR)		Well Temperature (WTEP)
0 (GAPI) 200		0 (DEGF) 300

Well temperature (WTEP) (DEGF)	Well Pressure (WPRE) (PSIA)	Tension (TENS)
		0 (LBF) 3000

Well Temperature (WTEP)	Amplified Well Pressure (WPRE)
0 (DEGF) 20	0 (PSIA) 50

PIP SUMMARY

Time Mark Every 60 S

Format: PSP_SPIN Vertical Scale: 1:200 Graphics File Created: 07−Feb−2006 20:26

OP System Version: 13C0−300

MCM

PFCS−A	13C0−300	PILS−A	13C0−300
PSPT−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_3.5
	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_3.5
	System and Miscellaneous	
DO	Depth Offset for Playback	−0.4 M
PP	Playback Processing	NORMAL

Input DLIS Files

DEFAULT	FCS_ILS_PSP_023PUP	FN:19	PRODUCER	07−Feb−2006 12:42	2293.3 M	2192.4 M

Output DLIS Files

DEFAULT	FCS_ILS_PSP_046PUP	FN:42	PRODUCER	07−Feb−2006 20:26

Schlumberger

Log down
3600ft/h

MAXIS Field Log

Company: Esso Australia Ltd. **Well: TNA A−17a**

Input DLIS Files

DEFAULT	FCS_ILS_PSP_024PUP	FN:20	PRODUCER	07−Feb−2006 12:46	2295.3 M	2186.6 M

Output DLIS Files

DEFAULT	FCS_ILS_PSP_044PUP	FN:40	PRODUCER	07−Feb−2006 20:23	2294.7 M	2186.5 M

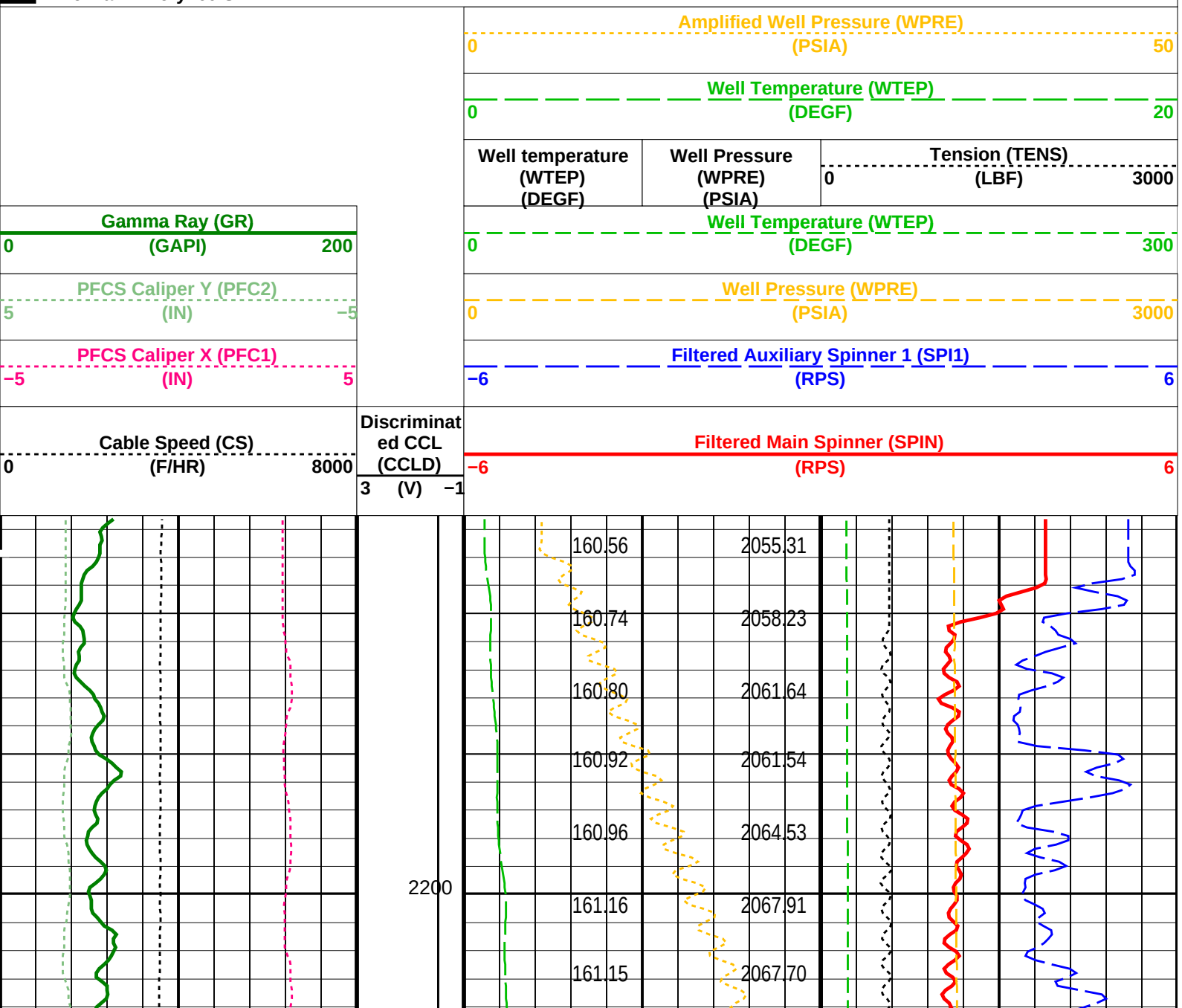
OP System Version: 13C0−300

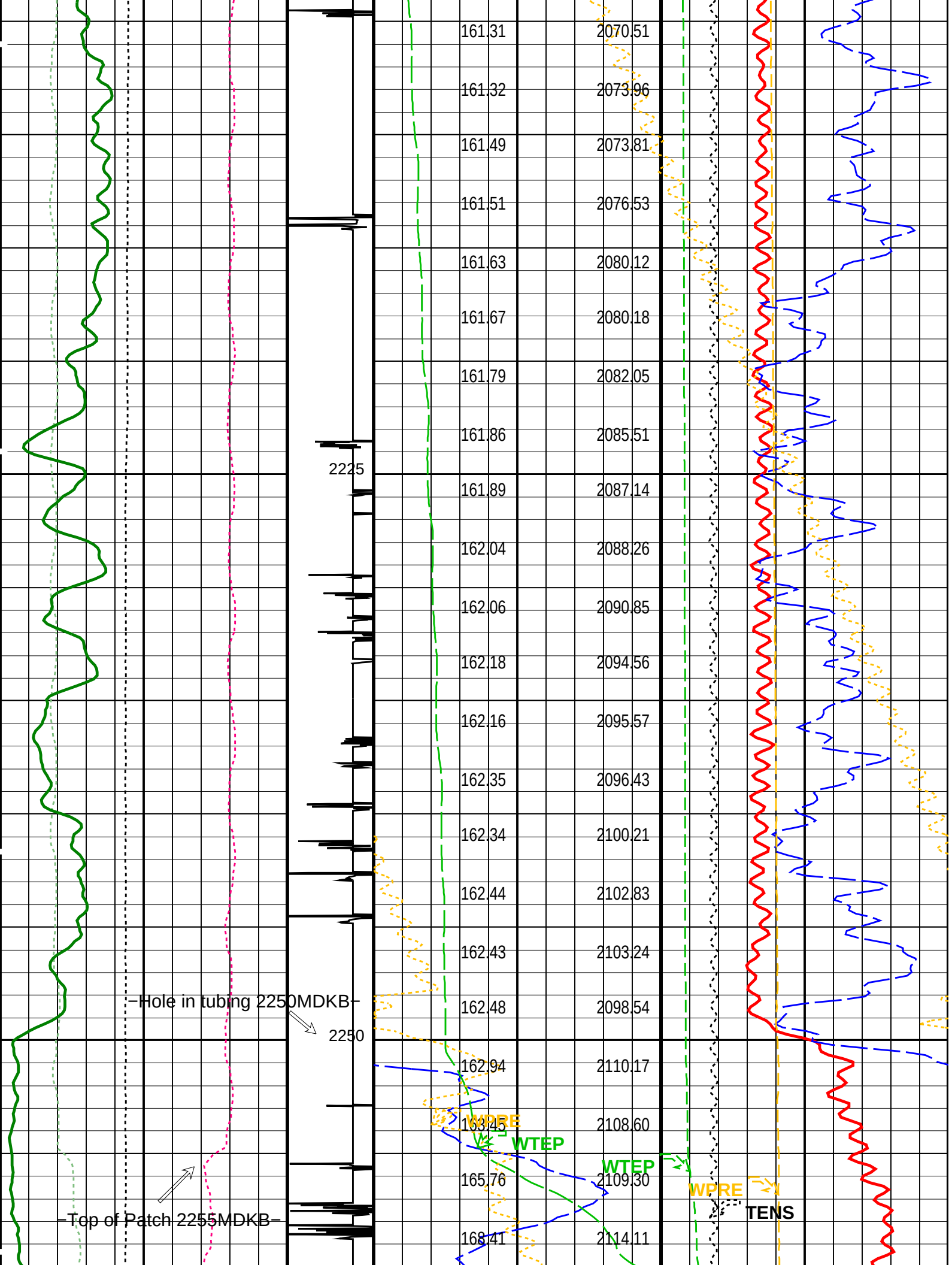
MCM

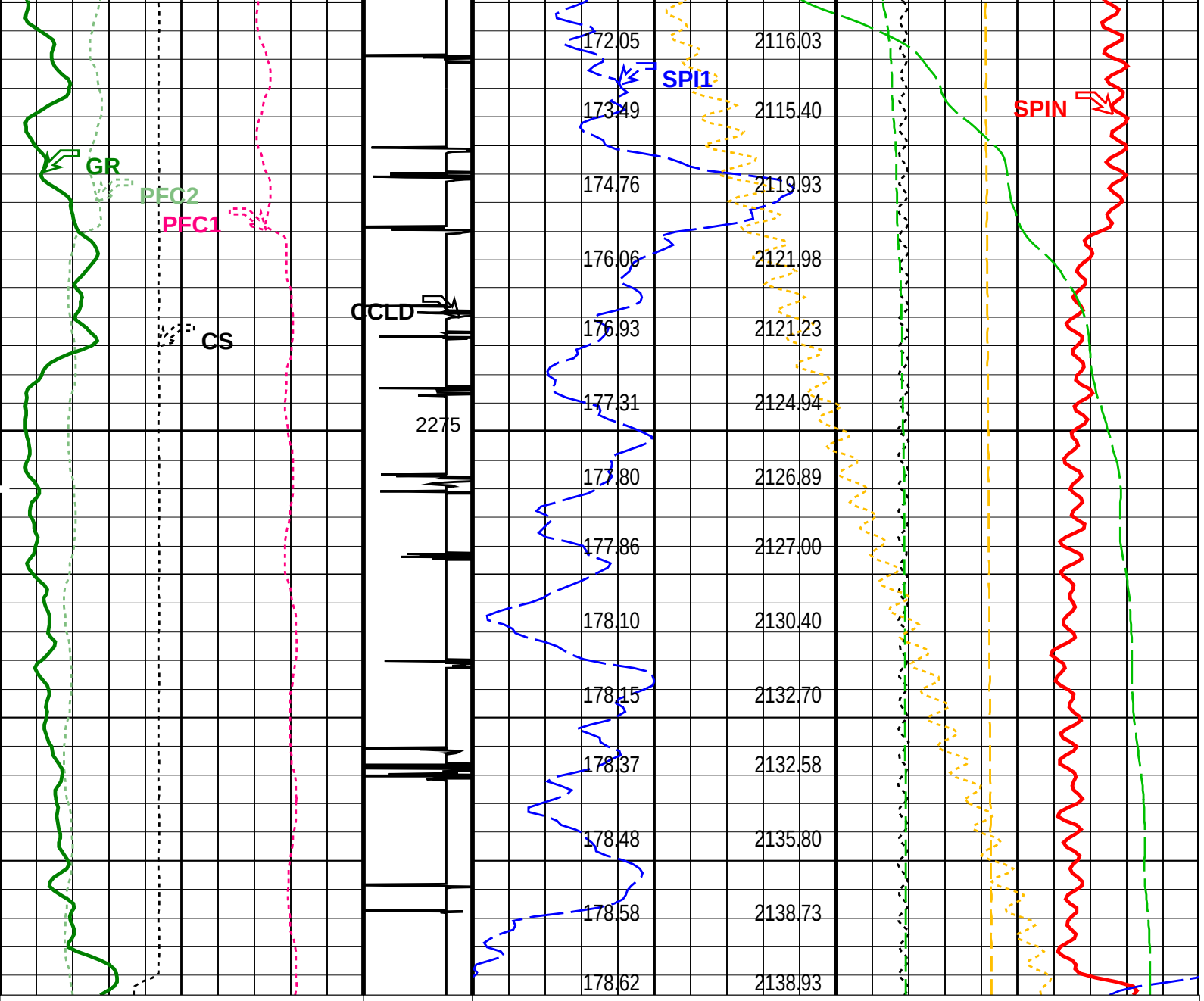
PFCS−A	13C0−300	PILS−A	13C0−300
PSPT−B	13C0−300		

PIP SUMMARY

Time Mark Every 60 S




161.31
2070.51
161.32
2073.96
161.49
2073.81
161.51
2076.53
161.63
2080.12
161.67
2080.18
161.79
2082.05
161.86
2085.51
2225
161.89
2087.14
162.04
2088.26
162.06
2090.85
162.18
2094.56
162.16
2095.57
162.35
2096.43
162.34
2100.21
162.44
2102.83
162.43
2103.24
Hole in tubing 2250MDKB
2250
162.48
2098.54
162.94
2110.17
WPRE
WTEP
133.45
2108.60
WTEP
165.76
2109.30
WPRE
TENS
Top of Patch 2255MDKB
168.41
2114.11



Cable Speed (CS)
0 (F/HR) 8000

Discriminated CCL (CCLD)
3 (V) −1

Filtered Main Spinner (SPIN)
−6 (RPS) 6

PFCS Caliper X (PFC1)
−5 (IN) 5

Filtered Auxiliary Spinner 1 (SPI1)
−6 (RPS) 6

PFCS Caliper Y (PFC2)
5 (IN) −5

Well Pressure (WPRE)
0 (PSIA) 3000

Gamma Ray (GR)
0 (GAPI) 200

Well Temperature (WTEP)
0 (DEGF) 300

Well temperature (WTEP) (DEGF)

Well Pressure (WPRE) (PSIA)

Tension (TENS)
0 (LBF) 3000

Well Temperature (WTEP)
0 (DEGF) 20

Amplified Well Pressure (WPRE)
0 (PSIA) 50

PIP SUMMARY

Time Mark Every 60 S

Format: PSP_SPIN Vertical Scale: 1:200 Graphics File Created: 07−Feb−2006 20:23

OP System Version: 13C0−300

MCM

PFCS−A	13C0−300	PILS−A	13C0−300
PSPT−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_3.5	
	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_3.5	
	System and Miscellaneous		
DO	Depth Offset for Playback	−0.6	M
PP	Playback Processing	NORMAL	

Input DLIS Files

DEFAULT	FCS_ILS_PSP_024PUP	FN:20	PRODUCER	07−Feb−2006 12:46	2295.3 M	2186.6 M

Output DLIS Files

DEFAULT	FCS_ILS_PSP_044PUP	FN:40	PRODUCER	07−Feb−2006 20:23		

Schlumberger

Log down 5400ft/h

MAXIS Field Log

Company: Esso Australia Ltd. **Well: TNA A−17a**

Input DLIS Files

DEFAULT	FCS_ILS_PSP_025PUP	FN:21	PRODUCER	07−Feb−2006 12:49	2295.6 M	2194.6 M

Output DLIS Files

DEFAULT	FCS_ILS_PSP_041PUP	FN:37	PRODUCER	07−Feb−2006 20:17	2294.5 M	2194.0 M

OP System Version: 13C0−300

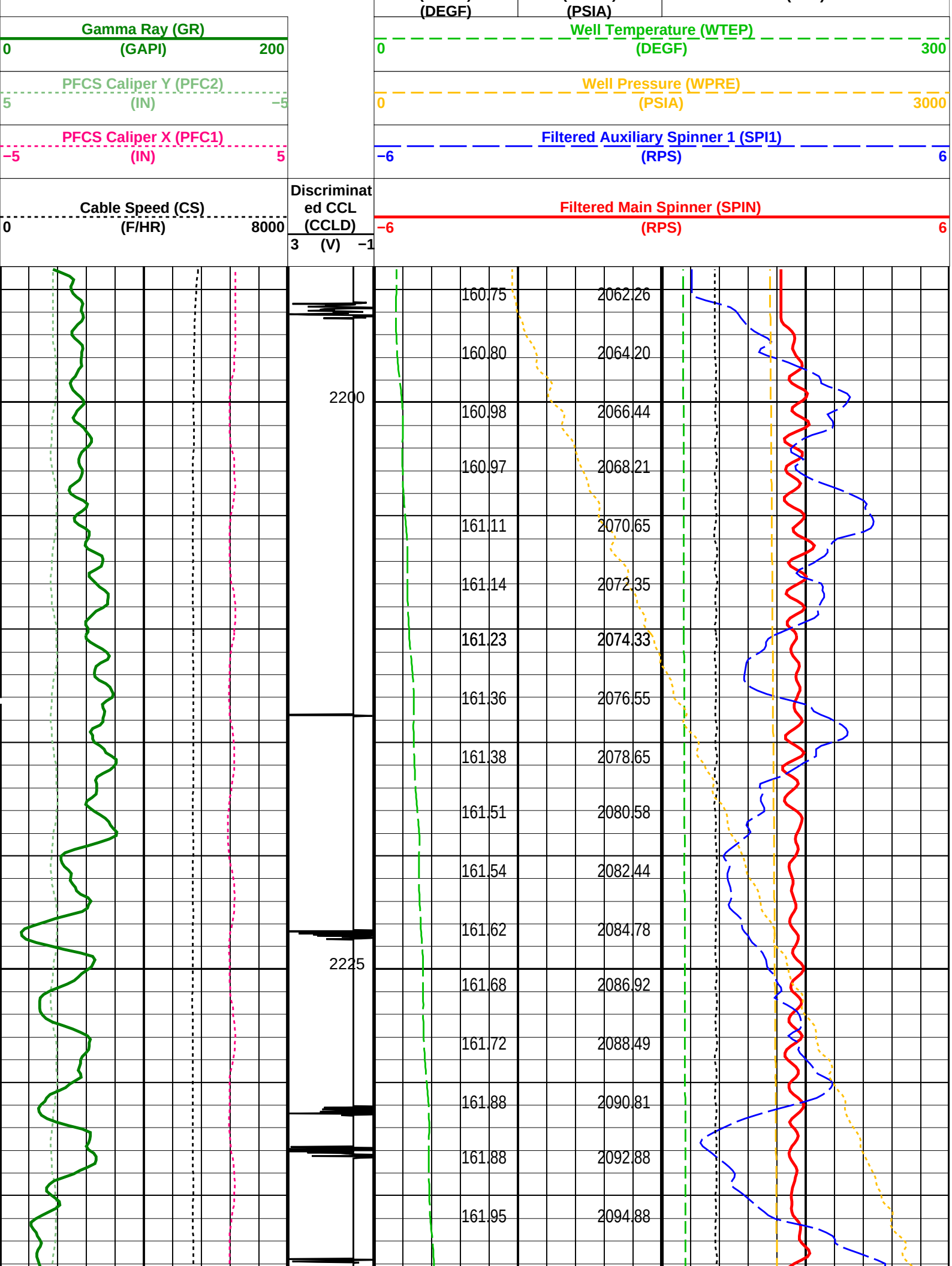
MCM

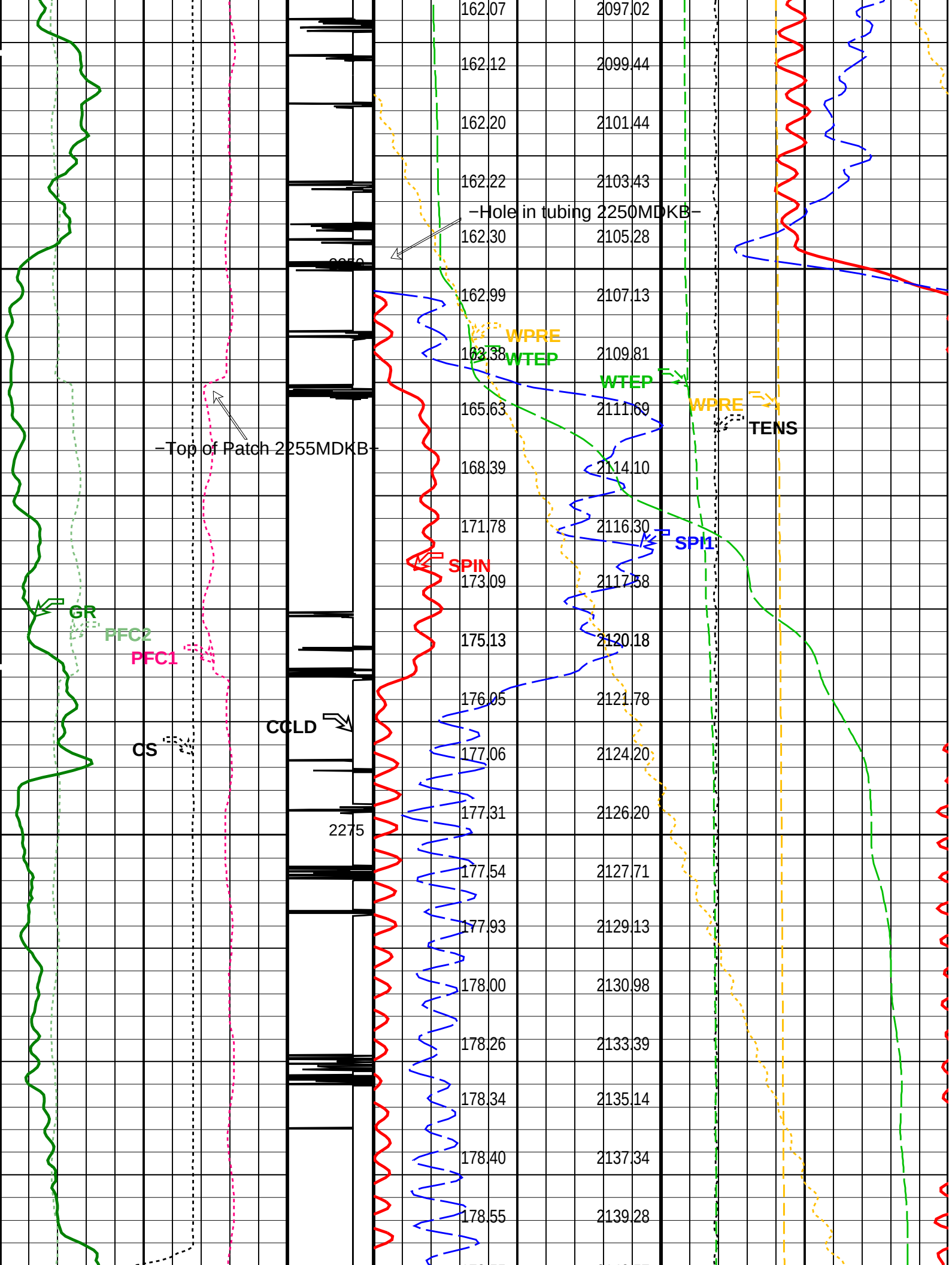
PFCS−A	13C0−300	PILS−A	13C0−300
PSPT−B	13C0−300		

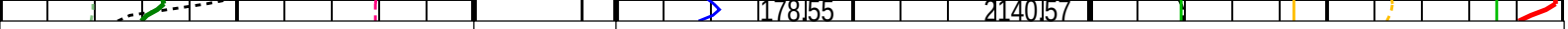
PIP SUMMARY

Time Mark Every 60 S

	Amplified Well Pressure (WPRE)		Well Temperature (WTEP)		Tension (TENS)
	0 (PSIA) 50		0 (DEGF) 20		0 (LBF) 3000
Well temperature (WTEP)		Well Pressure (WPRE)			


(DEGF)
(PSIA)
Gamma Ray (GR)
0
(GAPI)
200
PFCS Caliper Y (PFC2)
5
(IN)
−5
PFCS Caliper X (PFC1)
−5
(IN)
5
Cable Speed (CS)
0
(F/HR)
8000
Discriminated CCL (CCLD)
3
(V)
−1
Well Temperature (WTEP)
0
(DEGF)
300
Well Pressure (WPRE)
0
(PSIA)
3000
Filtered Auxiliary Spinner 1 (SPI1)
−6
(RPS)
6
Filtered Main Spinner (SPIN)
−6
(RPS)
6
2200
2225
160.75
160.80
160.98
160.97
161.11
161.14
161.23
161.36
161.38
161.51
161.54
161.62
161.68
161.72
161.88
161.88
161.95
2062.26
2064.20
2066.44
2068.21
2070.65
2072.35
2074.33
2076.55
2078.65
2080.58
2082.44
2084.78
2086.92
2088.49
2090.81
2092.88
2094.88


162.07
2097.02
162.12
2099.44
162.20
2101.44
162.22
2103.43
−Hole in tubing 2250MDKB−
162.30
2105.28
162.99
2107.13
WPRE
163.38
WTEP
2109.81
WTEP
WPRE
165.63
2111.69
TENS
−Top of Patch 2255MDKB−
168.39
2114.10
171.78
2116.30
SPI1
SPIN
173.09
2117.58
GR
PFC2
175.13
2120.18
PFC1
176.05
2121.78
CCLD
OS
177.06
2124.20
177.31
2126.20
2275
177.54
2127.71
177.93
2129.13
178.00
2130.98
178.26
2133.39
178.34
2135.14
178.40
2137.34
178.55
2139.28



Cable Speed (CS)	Discriminated CCL (CCLD)	Filtered Main Spinner (SPIN)
0 (F/HR) 8000	3 (V) −1	−6 (RPS) 6
PFCS Caliper X (PFC1)		Filtered Auxiliary Spinner 1 (SPI1)
−5 (IN) 5		−6 (RPS) 6
PFCS Caliper Y (PFC2)		Well Pressure (WPRE)
5 (IN) −5		0 (PSIA) 3000
Gamma Ray (GR)		Well Temperature (WTEP)
0 (GAPI) 200		0 (DEGF) 300

Well temperature (WTEP) (DEGF)	Well Pressure (WPRE) (PSIA)	Tension (TENS)
		0 (LBF) 3000

Well Temperature (WTEP)	
0 (DEGF) 20	
Amplified Well Pressure (WPRE)	
0 (PSIA) 50	

PIP SUMMARY

Time Mark Every 60 S

Format: PSP_SPIN Vertical Scale: 1:200 Graphics File Created: 07−Feb−2006 20:17

OP System Version: 13C0−300

MCM

PFCS−A	13C0−300	PILS−A	13C0−300
PSPT−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_3.5
	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_3.5
	System and Miscellaneous	
DO	Depth Offset for Playback	−1.0 M
PP	Playback Processing	NORMAL

Input DLIS Files

DEFAULT	FCS_ILS_PSP_025PUP	FN:21	PRODUCER	07−Feb−2006 12:49	2295.6 M	2194.6 M

Output DLIS Files

DEFAULT	FCS_ILS_PSP_041PUP	FN:37	PRODUCER	07−Feb−2006 20:17

Schlumberger

Log up
1800ft/h

Company: Esso Australia Ltd. Well: TNA A−17a

Input DLIS Files

DEFAULT	FCS_ILS_PSP_031PUP	FN:27	PRODUCER	07−Feb−2006 13:17	2311.1 M	2201.3 M

Output DLIS Files

DEFAULT	FCS_ILS_PSP_039PUP	FN:35	PRODUCER	07−Feb−2006 20:13	2311.1 M	2201.7 M

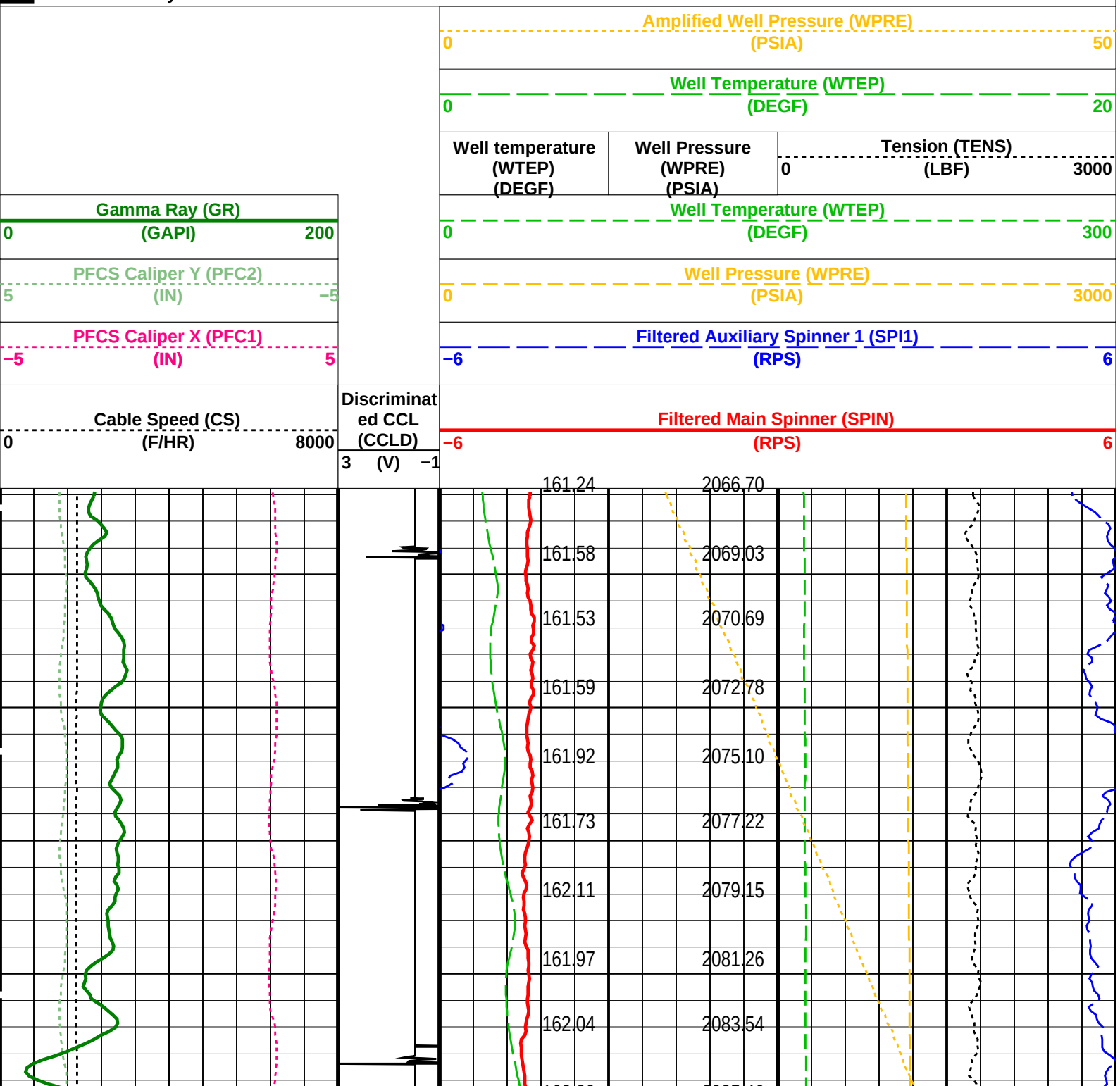
OP System Version: 13C0−300

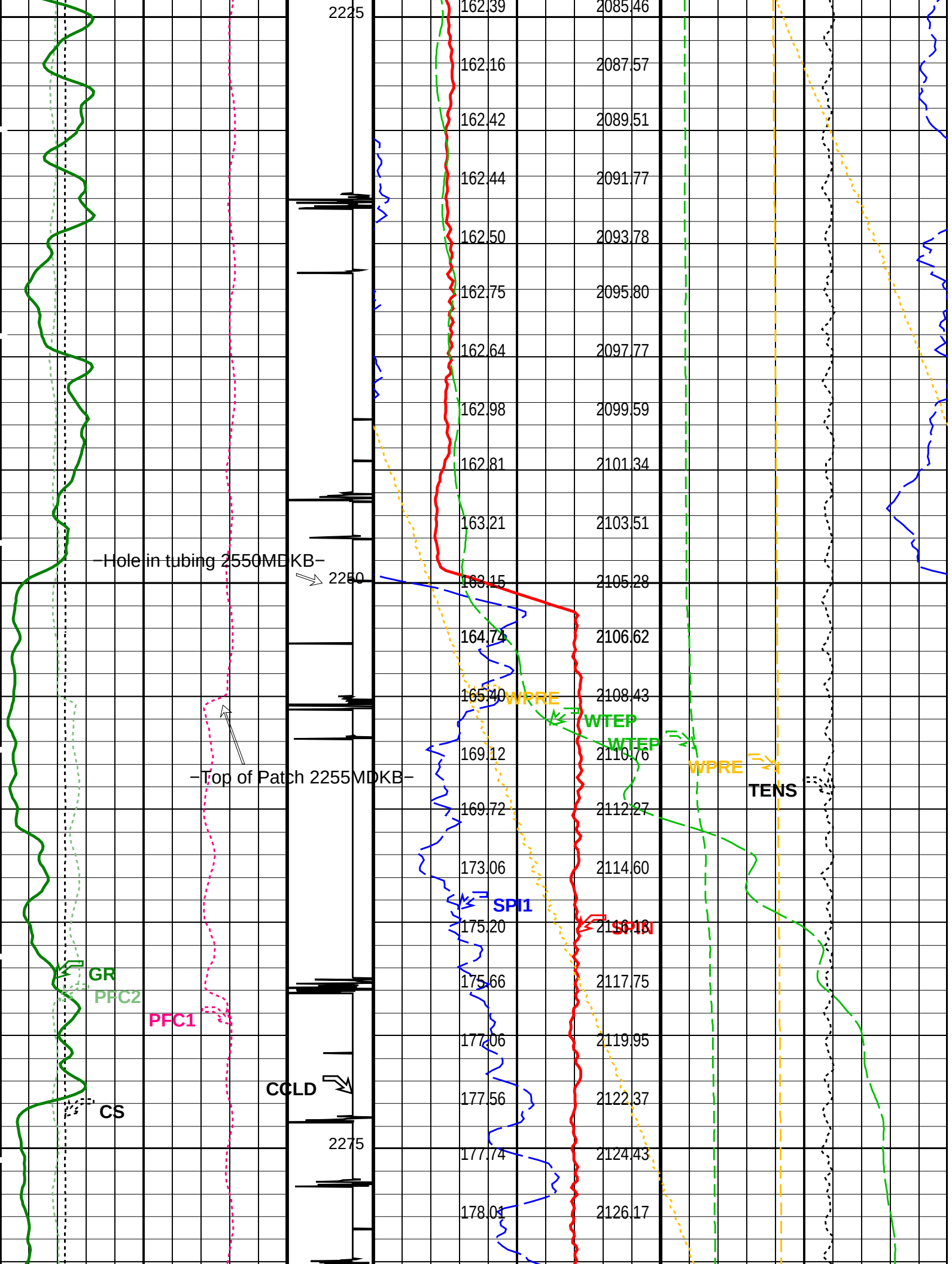
MCM

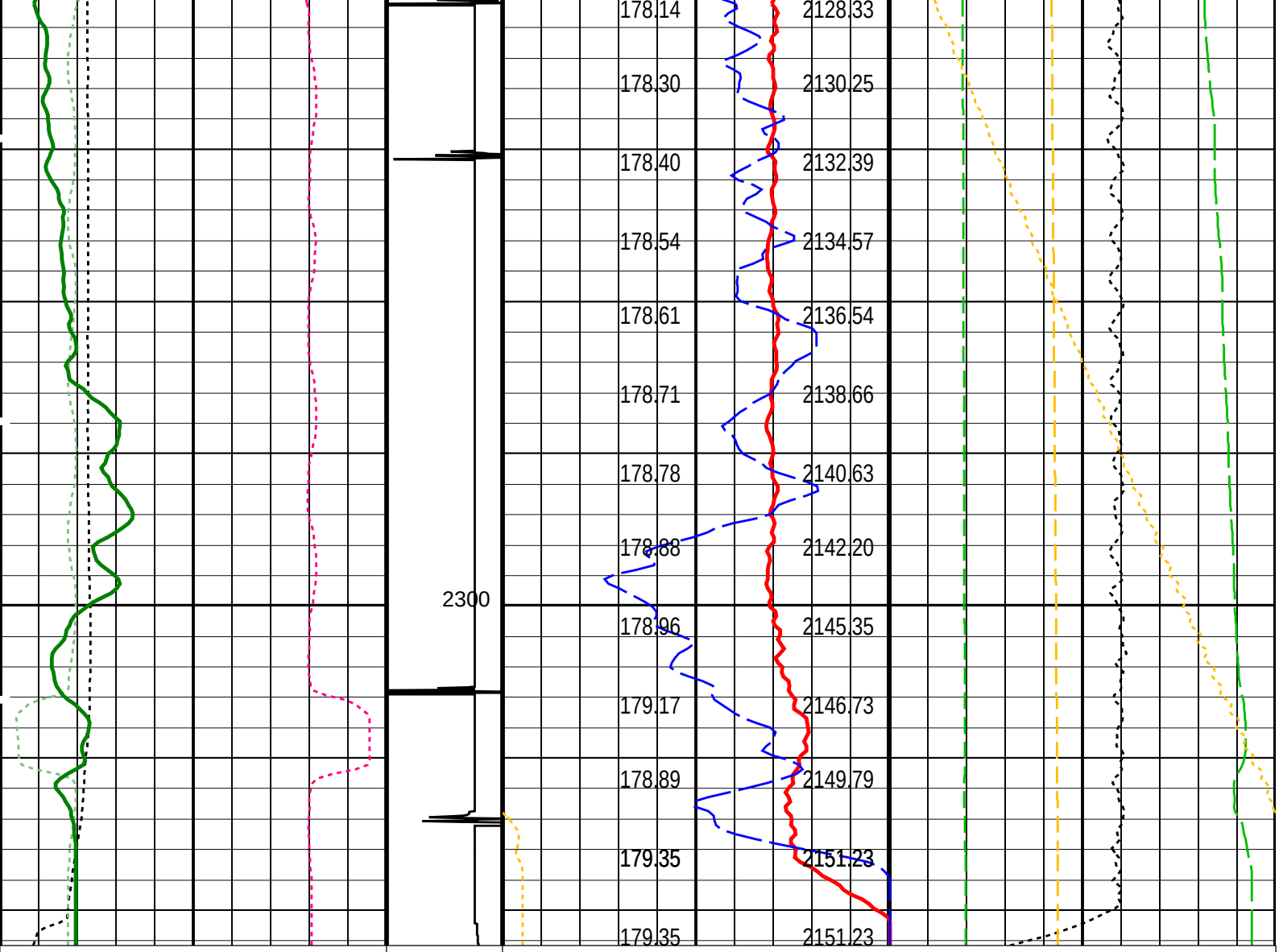
PFCS−A	13C0−300	PILS−A	13C0−300
PSPT−B	13C0−300		

PIP SUMMARY

Time Mark Every 60 S




2225
162.39
2085.46
162.16
2087.57
162.42
2089.51
162.44
2091.77
162.50
2093.78
162.75
2095.80
162.64
2097.77
162.98
2099.59
162.81
2101.34
163.21
2103.51
Hole in tubing 2550MDKB
2250
163.15
2105.28
164.74
2106.62
165.40
WRRE
2108.43
WTEP
WTEP
169.12
2110.76
WPRE
TENS
Top of Patch 2255MDKB
169.72
2112.27
173.06
2114.60
SPI1
175.20
SPIN
GR
PFC2
175.66
2117.75
PFC1
177.06
2119.95
CCLD
177.56
2122.37
CS
2275
177.74
2124.43
178.01
2126.17



Cable Speed (CS)
0 (F/HR) 8000

Discriminated CCL (CCLD)
3 (V) −1

Filtered Main Spinner (SPIN)
−6 (RPS) 6

PFCS Caliper X (PFC1)
−5 (IN) 5

Filtered Auxiliary Spinner 1 (SPI1)
−6 (RPS) 6

PFCS Caliper Y (PFC2)
5 (IN) −5

Well Pressure (WPRE)
0 (PSIA) 3000

Gamma Ray (GR)
0 (GAPI) 200

Well Temperature (WTEP)
0 (DEGF) 300

Well temperature (WTEP) (DEGF)

Well Pressure (WPRE) (PSIA)

Tension (TENS)
0 (LBF) 3000

Well Temperature (WTEP)
0 (DEGF) 20

Amplified Well Pressure (WPRE)
0 (PSIA) 50

PIP SUMMARY

Time Mark Every 60 S

Format: PSP_SPIN Vertical Scale: 1:200 Graphics File Created: 07−Feb−2006 20:13

OP System Version: 13C0−300

MCM

PFCS−A	13C0−300	PILS−A	13C0−300

PSPT−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_3.5	
	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_3.5	
	System and Miscellaneous		
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	NORMAL	

Input DLIS Files

DEFAULT	FCS_ILS_PSP_031PUP	FN:27	PRODUCER	07−Feb−2006 13:17	2311.1 M	2201.3 M

Output DLIS Files

DEFAULT	FCS_ILS_PSP_039PUP	FN:35	PRODUCER	07−Feb−2006 20:13		

Schlumberger

Log up
3600ft/h

MAXIS Field Log

Company: Esso Australia Ltd. **Well: TNA A−17a**

Input DLIS Files

DEFAULT	FCS_ILS_PSP_030PUP	FN:26	PRODUCER	07−Feb−2006 13:15	2341.0 M	2204.2 M

Output DLIS Files

DEFAULT	FCS_ILS_PSP_038PUP	FN:34	PRODUCER	07−Feb−2006 20:11	2341.0 M	2204.6 M

OP System Version: 13C0−300

MCM

PFCS−A	13C0−300	PILS−A	13C0−300
PSPT−B	13C0−300		

PIP SUMMARY

Time Mark Every 60 S

Amplified Well Pressure (WPRE)
0 (PSIA) 50

Well Temperature (WTEP)
0 (DEGF) 20

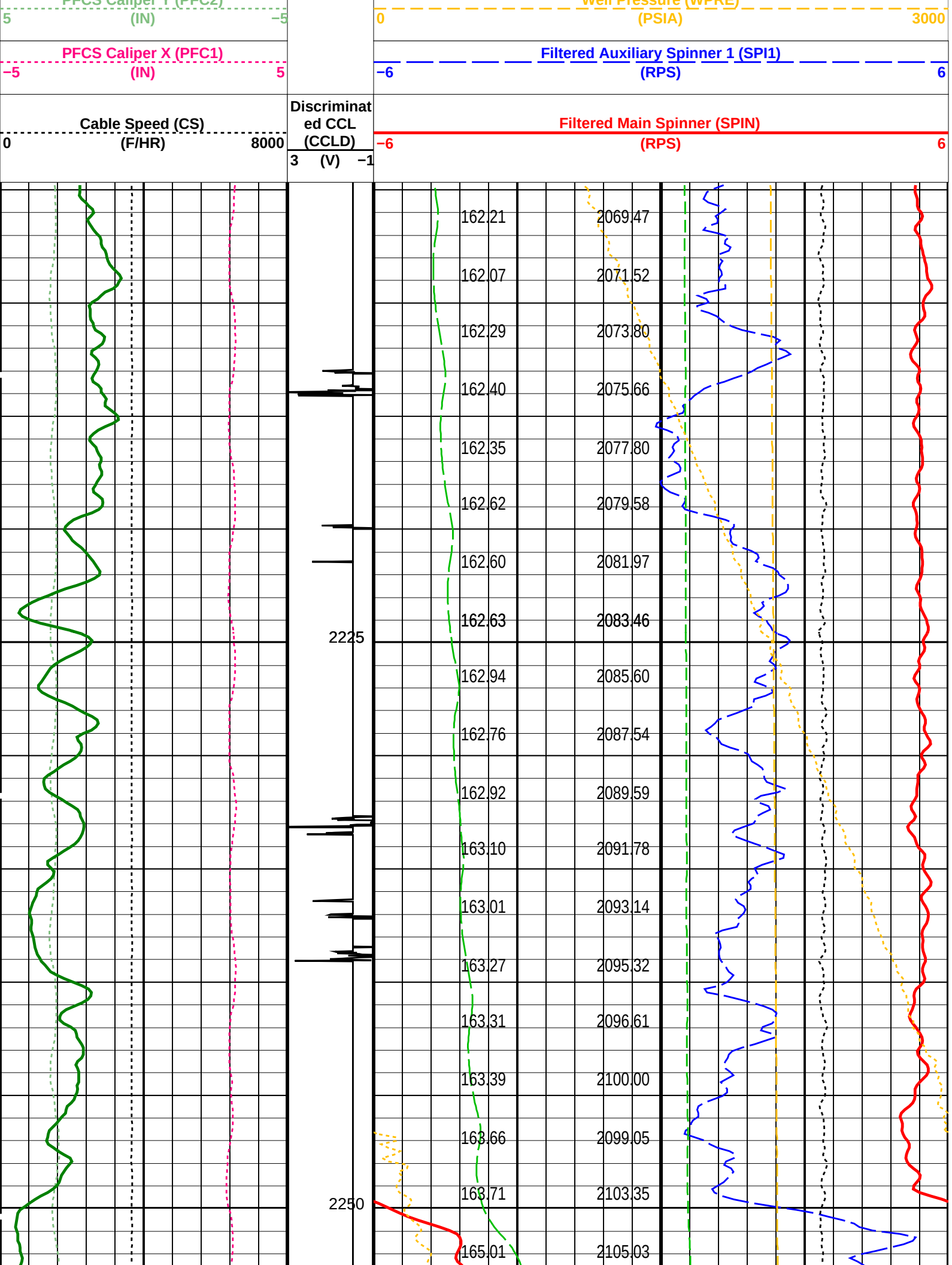
Well temperature (WTEP) (DEGF)	Well Pressure (WPRE) (PSIA)	Tension (TENS) 0 (LBF) 3000

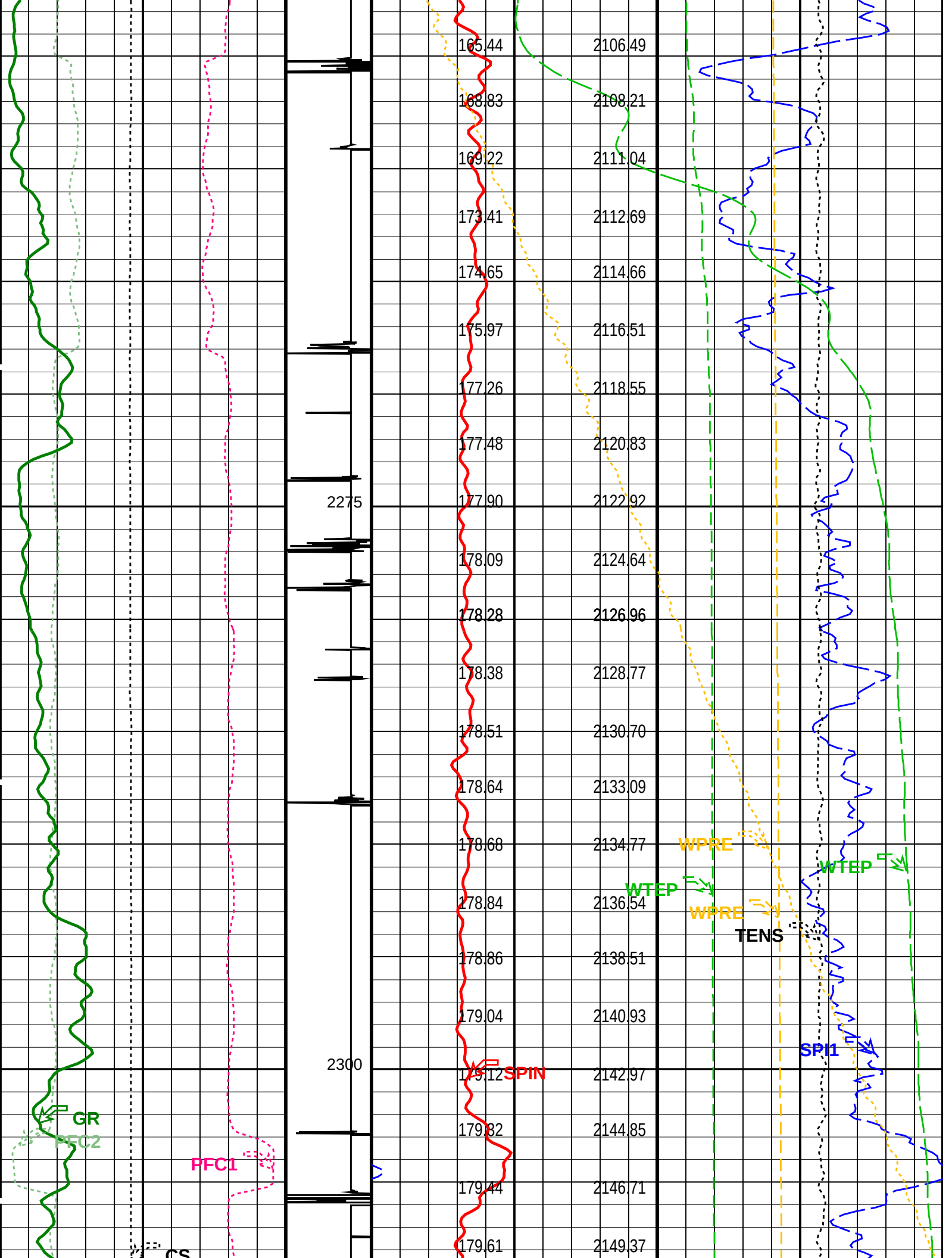
Gamma Ray (GR)
0 (GAPI) 200

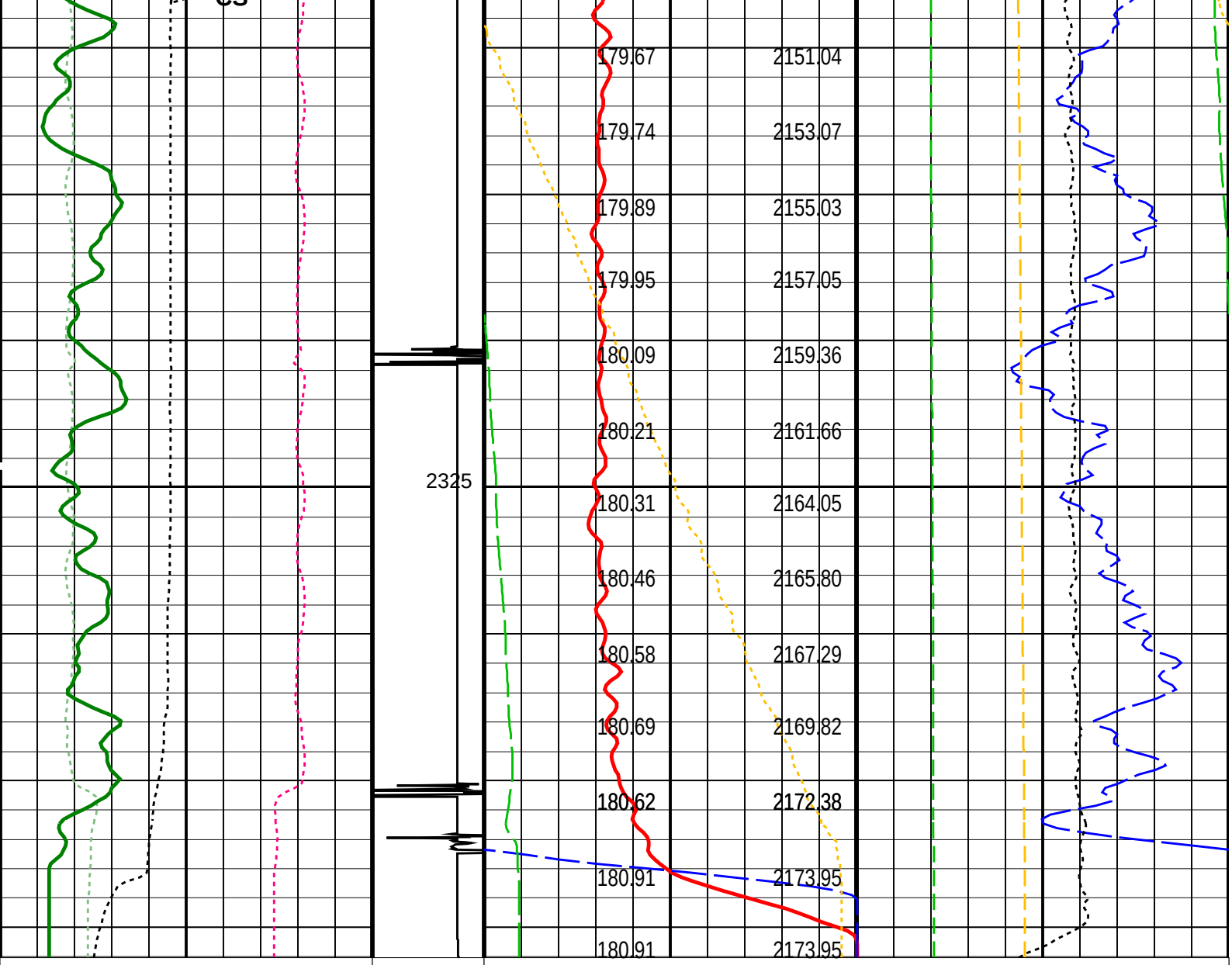
Well Temperature (WTEP)
0 (DEGF) 300

PFCS Caliper Y (PFC2)

Well Pressure (WPRE)


PFCS Caliper Y (PFC2)
5
(IN)
−5
PFCS Caliper X (PFC1)
−5
(IN)
5
Cable Speed (CS)
0
(F/HR)
8000
Discriminated CCL (CCLD)
3
(V)
−1
Well Pressure (WPRE)
0
(PSIA)
3000
Filtered Auxiliary Spinner 1 (SPI1)
−6
(RPS)
6
Filtered Main Spinner (SPIN)
−6
(RPS)
6
162.21
2069.47
162.07
2071.52
162.29
2073.80
162.40
2075.66
162.35
2077.80
162.62
2079.58
162.60
2081.97
162.63
2083.46
2225
162.94
2085.60
162.76
2087.54
162.92
2089.59
163.10
2091.78
163.01
2093.14
163.27
2095.32
163.31
2096.61
163.39
2100.00
163.66
2099.05
163.71
2103.35
2250
165.01
2105.03


165.44
168.83
169.22
173.41
174.65
175.97
177.26
177.48
2275
177.90
178.09
178.28
178.38
178.51
178.64
178.68
178.84
178.86
179.04
2300
179.12
179.82
179.44
179.61
2106.49
2108.21
2111.04
2112.69
2114.66
2116.51
2118.55
2120.83
2122.92
2124.64
2126.96
2128.77
2130.70
2133.09
2134.77
2136.54
2138.51
2140.93
2142.97
2144.85
2146.71
2149.37
GR
PFC2
PFC1
CS
SPIN
WPRE
WTEP
WTEP
WPRE
TENS
SPI1



Cable Speed (CS) 0 (F/HR) 8000	Discriminated CCL (CCLD) 3 (V) −1	Filtered Main Spinner (SPIN) −6 (RPS) 6
PFCS Caliper X (PFC1) −5 (IN) 5		Filtered Auxiliary Spinner 1 (SPI1) −6 (RPS) 6
PFCS Caliper Y (PFC2) 5 (IN) −5		Well Pressure (WPRE) 0 (PSIA) 3000
Gamma Ray (GR) 0 (GAPI) 200		Well Temperature (WTEP) 0 (DEGF) 300
		Well temperature (WTEP) (DEGF) / Well Pressure (WPRE) (PSIA) / Tension (TENS) 0 (LBF) 3000
		Well Temperature (WTEP) 0 (DEGF) 20
		Amplified Well Pressure (WPRE) 0 (PSIA) 50

PIP SUMMARY

Time Mark Every 60 S

Format: PSP_SPIN Vertical Scale: 1:200 Graphics File Created: 07−Feb−2006 20:11

OP System Version: 13C0−300

MCM

MCM

PFCS−A	13C0−300	PILS−A	13C0−300
PSPT−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_3.5
	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_3.5
	System and Miscellaneous	
DO	Depth Offset for Playback	0.0 M
PP	Playback Processing	NORMAL

Input DLIS Files

DEFAULT	FCS_ILS_PSP_030PUP	FN:26	PRODUCER	07−Feb−2006 13:15	2341.0 M	2204.2 M

Output DLIS Files

DEFAULT	FCS_ILS_PSP_038PUP	FN:34	PRODUCER	07−Feb−2006 20:11		

Schlumberger

Log up 5400ft/h

MAXIS Field Log

Company: Esso Australia Ltd. **Well: TNA A−17a**

Input DLIS Files

DEFAULT	FCS_ILS_PSP_029PUP	FN:25	PRODUCER	07−Feb−2006 13:14	2314.7 M	2203.2 M

Output DLIS Files

DEFAULT	FCS_ILS_PSP_037PUP	FN:33	PRODUCER	07−Feb−2006 20:08	2314.7 M	2203.7 M

OP System Version: 13C0−300

MCM

PFCS−A	13C0−300	PILS−A	13C0−300
PSPT−B	13C0−300		

PIP SUMMARY

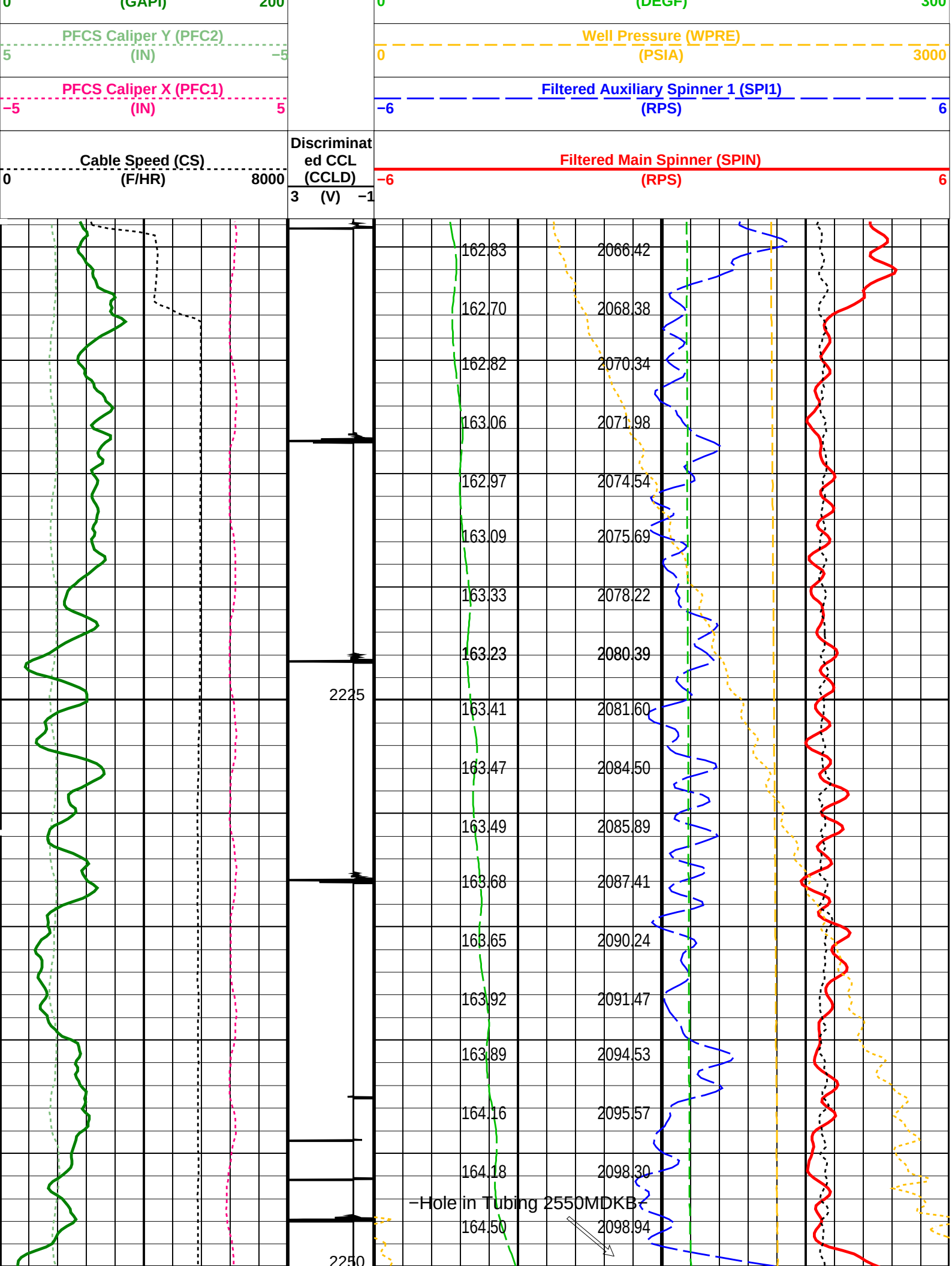
Time Mark Every 60 S

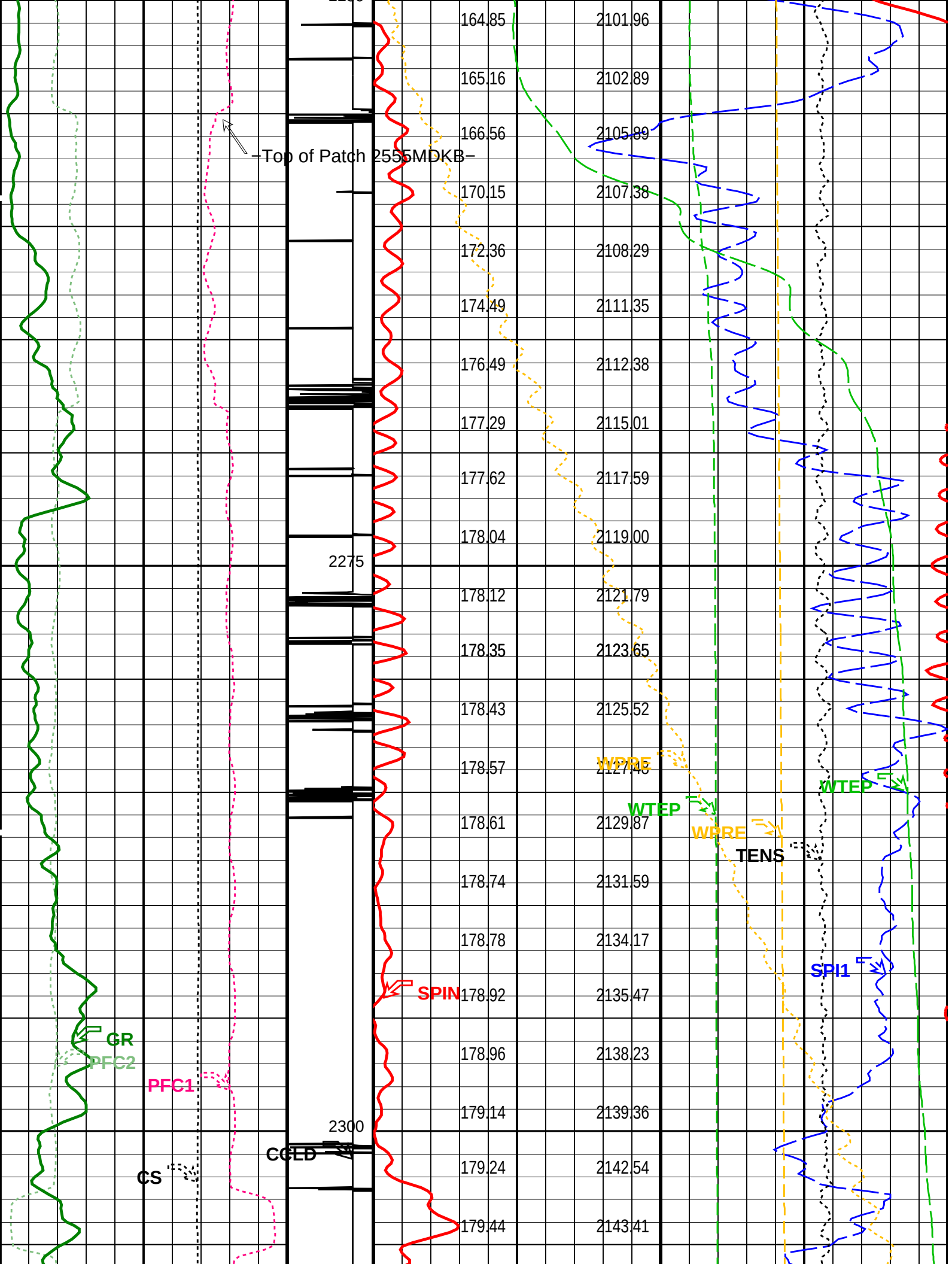
Amplified Well Pressure (WPRE)
0 (PSIA) 50

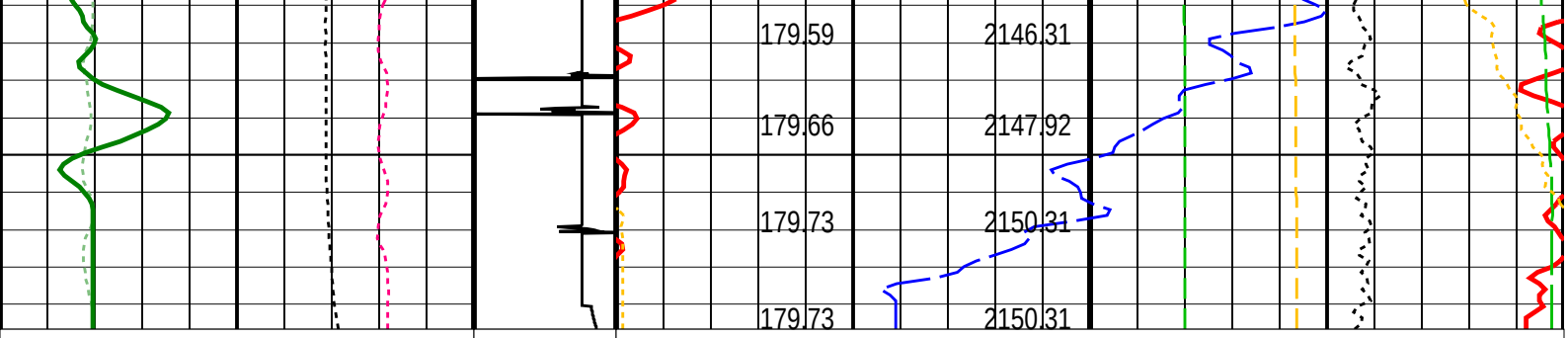
Well Temperature (WTEP)
0 (DEGF) 20

Well temperature (WTEP) (DEGF)	Well Pressure (WPRE) (PSIA)	Tension (TENS) 0 (LBF) 3000

Gamma Ray (GR)	Well Temperature (WTEP)
0 (GAPI) 300	0 (DEGF) 300


0 (GAPI) 200
PFCS Caliper Y (PFC2)
5 (IN) −5
PFCS Caliper X (PFC1)
−5 (IN) 5
Cable Speed (CS)
0 (F/HR) 8000
Discriminated CCL (CCLD)
3 (V) −1
0 (DEGF) 300
Well Pressure (WPRE)
0 (PSIA) 3000
Filtered Auxiliary Spinner 1 (SPI1)
−6 (RPS) 6
Filtered Main Spinner (SPIN)
−6 (RPS) 6
162.83
162.70
162.82
163.06
162.97
163.09
163.33
163.23
163.41
163.47
163.49
163.68
163.65
163.92
163.89
164.16
164.18
164.50
2066.42
2068.38
2070.34
2071.98
2074.54
2075.69
2078.22
2080.39
2081.60
2084.50
2085.89
2087.41
2090.24
2091.47
2094.53
2095.57
2098.30
2098.94
2225
2250
−Hole in Tubing 2550MDKB


164.85
2101.96
165.16
2102.89
166.56
2105.89
Top of Patch 2555MDKB
170.15
2107.38
172.36
2108.29
174.49
2111.35
176.49
2112.38
177.29
2115.01
177.62
2117.59
178.04
2119.00
2275
178.12
2121.79
178.35
2123.65
178.43
2125.52
178.57
2127.48
WPRE
WTEP
178.61
2129.87
WTEP
WPRE
TENS
178.74
2131.59
178.78
2134.17
SPI1
SPIN
178.92
2135.47
178.96
2138.23
GR
PFC2
PFC1
179.14
2139.36
2300
CCLD
CS
179.24
2142.54
179.44
2143.41



Cable Speed (CS)	Discriminated CCL (CCLD)	Filtered Main Spinner (SPIN)
0 (F/HR) 8000	3 (V) −1	−6 (RPS) 6

PFCS Caliper X (PFC1)	Filtered Auxiliary Spinner 1 (SPI1)
−5 (IN) 5	−6 (RPS) 6

PFCS Caliper Y (PFC2)	Well Pressure (WPRE)
5 (IN) −5	0 (PSIA) 3000

Gamma Ray (GR)	Well Temperature (WTEP)
0 (GAPI) 200	0 (DEGF) 300

Well temperature (WTEP) (DEGF)	Well Pressure (WPRE) (PSIA)	Tension (TENS)
		0 (LBF) 3000

Well Temperature (WTEP)	Amplified Well Pressure (WPRE)
0 (DEGF) 20	0 (PSIA) 50

PIP SUMMARY

Time Mark Every 60 S

Format: PSP_SPIN Vertical Scale: 1:200 Graphics File Created: 07−Feb−2006 20:08

OP System Version: 13C0−300

MCM

PFCS−A	13C0−300	PILS−A	13C0−300
PSPT−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_3.5
	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_3.5
	System and Miscellaneous	
DO	Depth Offset for Playback	0.0 M
PP	Playback Processing	NORMAL

Input DLIS Files

DEFAULT	FCS_ILS_PSP_029PUP	FN:25	PRODUCER	07−Feb−2006 13:14	2314.7 M	2203.2 M

Output DLIS Files

DEFAULT	FCS_ILS_PSP_037PUP	FN:33	PRODUCER	07−Feb−2006 20:08

Schlumberger

Calibration Report

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: 6−Feb−2006 16:50							
PFCS CaliperX Small Ring	3.622	N/A	3.451	N/A	N/A	N/A	IN
PFCS CaliperX Large Ring	5.000	N/A	4.815	N/A	N/A	N/A	IN
PFCS CaliperY Small Ring	3.622	N/A	3.603	N/A	N/A	N/A	IN
PFCS CaliperY Large Ring	5.000	N/A	4.929	N/A	N/A	N/A	IN
Production Services Logging Platform Wellsite Calibration − Detector Calibration							
Before: 6−Feb−2006 17:02							
Gamma−Ray Jig−Bkg	125.0	N/A	115.4	N/A	N/A	N/A	GAPI

PSP Flow and caliper Tool / Equipment Identification

Primary Equipment:

PFCS Cartridge	PFCC − A
PFCS Caliper	Cali −
PFCS Relative Bearing	Rela −
PFCS 3.5 Spinner Diameter	Spin −
PFCS Fluid Holdup Electric Probes	Hold −

Auxiliary Equipment:

PFCS Cartridge Housing	PFCH − A

PSP Flow and caliper Tool Wellsite Calibration

PFCS Caliper Calibration

Phase	PFCS CaliperX Small Ring IN	Value
Before		3.451
	N/A (Minimum) 3.622 (Nominal) N/A (Maximum)	

Phase	PFCS CaliperX Large Ring IN	Value
Before		4.815
	N/A (Minimum) 5.000 (Nominal) N/A (Maximum)	

Phase	PFCS CaliperY Small Ring IN	Value
Before		3.603
	N/A (Minimum) 3.622 (Nominal) N/A (Maximum)	

Phase	PFCS CaliperY Large Ring IN	Value
Before		4.929
	N/A (Minimum) 5.000 (Nominal) N/A (Maximum)	

Before: 6−Feb−2006 16:50

Production Services Logging Platform / Equipment Identification

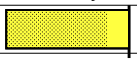
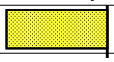
Primary Equipment:

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

Auxiliary Equipment:

Production Services Logging Platform Wellsite Calibration

Detector Calibration

Phase	Gamma−Ray Background GAPI	Value	Phase	Gamma−Ray Jig−Bkg GAPI	Value
Before		6.431	Before		115.4
0 (Minimum)	30.00 (Nominal) 120.0 (Maximum)		110.0 (Minimum)	125.0 (Nominal) 140.0 (Maximum)	

Before: 6−Feb−2006 17:02

Client: **Tool:** **PSP**
Field: **Sub Type:** **PBMS**
Well: **Sensor:** **GR**
Run date:

PBMS Gamma Ray

Sonde Serial NB	**RESISTORS FOR GR SENSOR N.33066,TOOL PBMS−BA0818. SENSOR S/N:**
Sensor Serial NB	**33066**
Calib Date ddmmyy	**121198**
Matrix Size	**12**
Coeff CRC	**6C7B**

GR HV Rt

	Rt0**	**Rt**1**
Rt0**	**+.200000000000e+04**	**+.332000000000e+04**

Client: **Tool:** **PSP**
Field: **Sub Type:** **PBMS**
Well: **Sensor:** **WellTemp RTD**
Run date:

PBMS RTD Well Thermometer

Sonde Serial NB	**COEFFICIENTS FOR RTD THERMOMETER PBMS−B.818 S/N:**
Sensor Serial NB	**818**
Calib Date ddmmyy	**200602**
Matrix Size	**16**
Coeff CRC	**B5A6**

WTemp Coeff

	Tt**0	Tt**1	Tt**2
Tt0**	**−.503480948665E+03**	**+.256945212560E+03**	**−.520657837297E+02**

	Tt**3	Tt**4	Tt**5
Tt0**	**+.814992337556E+01**	**−.449846431124E+00**	**0.0**

Client:		**Tool:**	**PSP**
Field:		**Sub Type:**	**PBMS**
Well:		**Sensor:**	**CQG**
Run date:			

PBMS Quartz Gauge type F

Sonde Serial NB	**COEFFICIENTS FOR CQG PBMS−B.818 S/N:**
Sensor Serial NB	**818**
Calib Date ddmmyy	**200602**
Matrix Size	**66**
Coeff CRC	**7A84**

Pres Coeff

	Fb**0	Fb**1	Fb**2
Fc0**	**+.695938574212E+04**	**+.182539955930E−01**	**−.359154837704E−06**
Fc1**	**−.105291628187E+01**	**−.126401060299E−04**	**−.979406719269E−10**
Fc2**	**+.100753854959E−05**	**+.477049804669E−10**	**+.110335143312E−14**
Fc3**	**+.395382698806E−11**	**+.314778129978E−15**	**0.0**
Fc4**	**0.0**	**0.0**	**0.0**
Fc5**	**0.0**	**0.0**	**0.0**

	Fb**3	Fb**4	Fb**5
Fc0**	**−.809245086181E−10**	**−.111835337565E−14**	**−.502462820660E−19**
Fc1**	**+.136628536954E−15**	**+.315291602467E−19**	**0.0**

Fc**2	0.0	0.0	0.0
Fc**3	0.0	0.0	0.0
Fc**4	0.0	0.0	0.0
Fc**5	0.0	0.0	0.0

PBMS Quartz Gauge type F
Sonde Serial NB :
Sensor Serial NB 818
Calib Date ddmmyy 200602
Matrix Size 66
Coeff CRC 59A1

Temp Coeff

	Fc**0	Fc**1	Fc**2
Fb**0	+.110839792701E+03	−.323005293728E−03	+.755069993532E−08
Fb**1	−.600525206062E−02	+.183884956997E−07	+.933435560854E−13
Fb**2	−.308226156102E−07	+.256346973103E−12	−.229411734336E−17
Fb**3	−.878098011596E−12	+.891595282110E−17	0.0
Fb**4	0.0	0.0	0.0
Fb**5	0.0	0.0	0.0

	Fc**3	Fc**4	Fc**5
Fb**0	+.398844068662E−13	−.210661397195E−16	−.133520461817E−20
Fb**1	−.374426288501E−17	+.385080947848E−22	0.0
Fb**2	0.0	0.0	0.0
Fb**3	0.0	0.0	0.0
Fb**4	0.0	0.0	0.0
Fb**5	0.0	0.0	0.0

PBMS Quartz Gauge type F
Sonde Serial NB :
Sensor Serial NB 818
Calib Date ddmmyy 200602
Matrix Size 16
Coeff CRC A86D

Clock Freq Coeff

	(Fb'−Fc')**0	(Fb'−Fc')**1	(Fb'−Fc')**2
(Fb'−Fc')**0	+.310739038333E+05	+.665122414534E−03	+.101145789813E−05

	(Fb'−Fc')**3	(Fb'−Fc')**4	(Fb'−Fc')**5

(Fb'−Fc')**0	−.631768498034E−10	−.360569040810E−15	−.206730577746E−20

PBMS Quartz Gauge type F

Sonde Serial NB	**:**
Sensor Serial NB	**818**
Calib Date ddmmyy	**200602**
Matrix Size	**16**
Coeff CRC	**FEC1**

Clock Temp Coeff

	(Fb'−Fc')**0	(Fb'−Fc')**1	(Fb'−Fc')**2
(Fb'−Fc')**0	+.124223501726E+03	−.549836300657E−02	−.350397469299E−07
	(Fb'−Fc')3**	**(Fb'−Fc')**4**	**(Fb'−Fc')**5**
(Fb'−Fc')**0	−.140939369077E−11	+.252361415442E−15	−.100871810102E−19

Company: **Esso Australia Ltd.**

Schlumberger

Well: **TNA A−17a**
Field: **Tuna**
Rig: **Prod 2 / ISS CWU**
Country: **Australia**

PBMS−GR−CCL
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Spinner Survey