Schlumberger

Company: **Esso Australia Pty Ltd.**

Well: **A−9a**

Field: **Mackerel**

Rig : **Prod4 / Crane** Country: **Australia**

Dual Deft / Spinner
GR−PLT−Gradic
Survey

Field: Mackerel
Location: Gippsland
Well: A−9a
Company: Esso Australia Pty Ltd.

LOCATION

Gippsland Basin Bass Strait		Elev.: K.B.	39.5 m
		G.L.	−93 m
		D.F.	39.5 m
Permanent Datum:	M.S.L	Elev.:	0 m
Log Measured From:	D.F	39.5 m	above Perm. Datum
Drilling Measured From:	D.F		

State:	Max. Well Deviation	Longitude	Latitude
Victoria	57 deg	148 20'33.9551"E	038 28'44.7719"S

Logging Date	24−Jul−2008				
Run Number	One				
Depth Driller	3090 m				
Schlumberger Depth	3091.5 m				
Bottom Log Interval	3090 m				
Top Log Interval	3025 m				
Casing Fluid Type	Production Fluids				
Salinity					
Density					
Fluid Level	153 m				
BIT/CASING/TUBING STRING					
Bit Size	9.785 in				
From					
To					
Casing/Tubing Size	7.625 in				
Weight	29.7 lbm/ft				
Grade	L−80				
From	11.94 m				
To	3182.56 m				
Maximum Recorded Temperatures	219 degf				
Logger On Bottom	Time	24−Jul−2008	10:00		
Unit Number	Location	889	Prod4 / Crane		
Recorded By		G Wright / O Darby.			
Witnessed By		B White.			

	Run 1
PVT DATA Oil Density	
PVT DATA Water Salinity	
PVT DATA Gas Gravity	
PVT DATA Bo	
PVT DATA Bw	
PVT DATA 1/Bg	
PVT DATA Bubble Point Pressure	
PVT DATA Bubble Point Temperature	
Solution GOR	
Maximum Deviation	57 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: 15−JUL−2008 15:56:11

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW−BE	Type:	PSDS/OSDS	Type:	2−32ZT
Serial Number:	6373	Serial Number:	325357	Serial Number:	208196
Calibration Date:	04−Jan−2007	Calibration Date:	15−Jul−2008	Length:	7000.04 M
Calibrator Serial Number:	9	Calibrator Serial Number:	1174		
Calibration Cable Type:	2−32ZT	Calibration Gain:	0.97	Conveyance Method:	Wireline
Wheel Correction 1:	−2	Calibration Offset:	−127.00	Rig Type:	Rigless
Wheel Correction 2:	−4				

Depth Control Parameters

Log Sequence: Subsequent Log In the Well

Reference Log Name: ExxonMobil Petrophysical Analysis composite.

Depth Control Remarks

1. IDW−BE 6373 used as primary depth control.
2. Z−Chart used as backup.

OTHER SERVICES1

OS1: None

REMARKS: RUN NUMBER 1

Log correlated to ExxonMobil Solar composite supplied with program.

Maximum well deviation = 57 degrees at 2966m MDKB.

Dual Deft,PLT survey logged from 3080m MDKB to 3025m MDKB.

4 static and 4 flowing passes logged at differing speeds.

SBHP = 3258 psia,SBHT = 218 degf.

Well test results during 90 minute test :

Total fluids 80.9 kl/d,100% water.No oil production registered.

Gas lift in = 35 km3/d,gas out = .7 km3/d.

Choke at 100% pcp 6100 kpa thp 1250 kpa tcp 1200 kpa

Choke at 100%,pap 6100 kpa,thp 1250 kpa,tsp 1200 kpa.

Psp 1150 kpa,flt 90 degc,tst 85 degc.

FBHP = 3190 psia,FBHT = 219 degf.

Perforations @ 3055.3m to 3062.8m MDKB appear to be the main producing zone.

Crew : Jake Annear & John Light.

RUN 1

SERVICE ORDER #:	Ausl08509126
PROGRAM VERSION:	15C0−309
FLUID LEVEL:	153 m

LOGGED INTERVAL	START	STOP

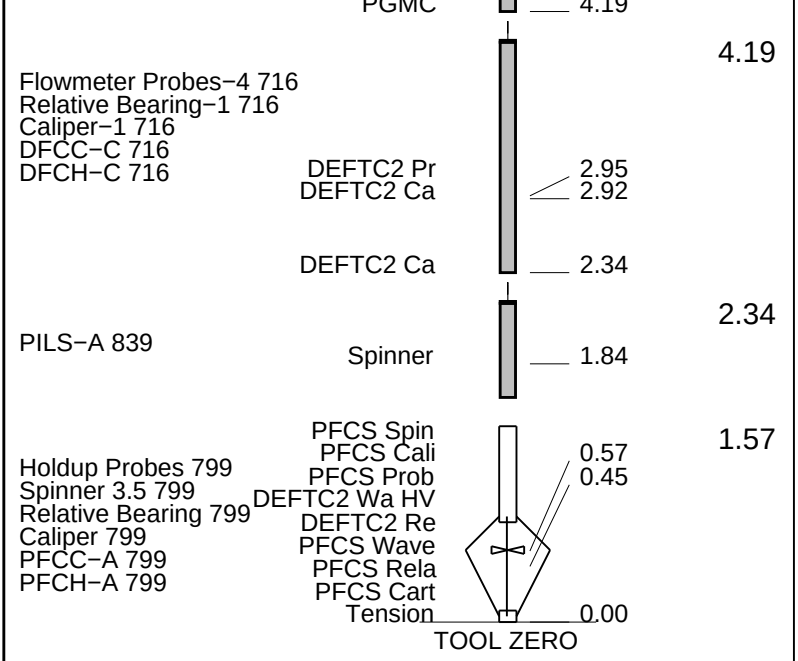
EQUIPMENT DESCRIPTION

RUN 1

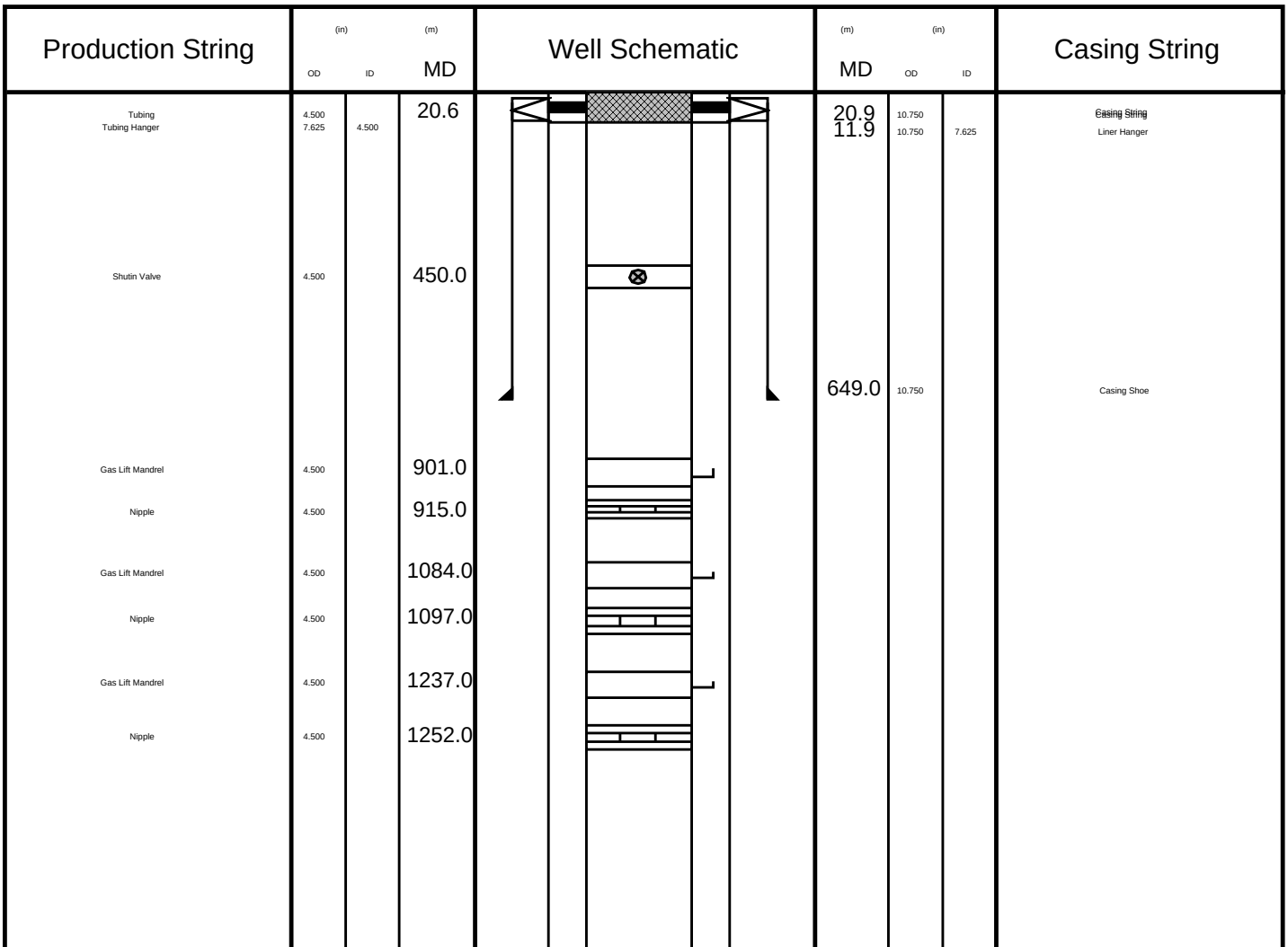
SURFACE EQUIPMENT

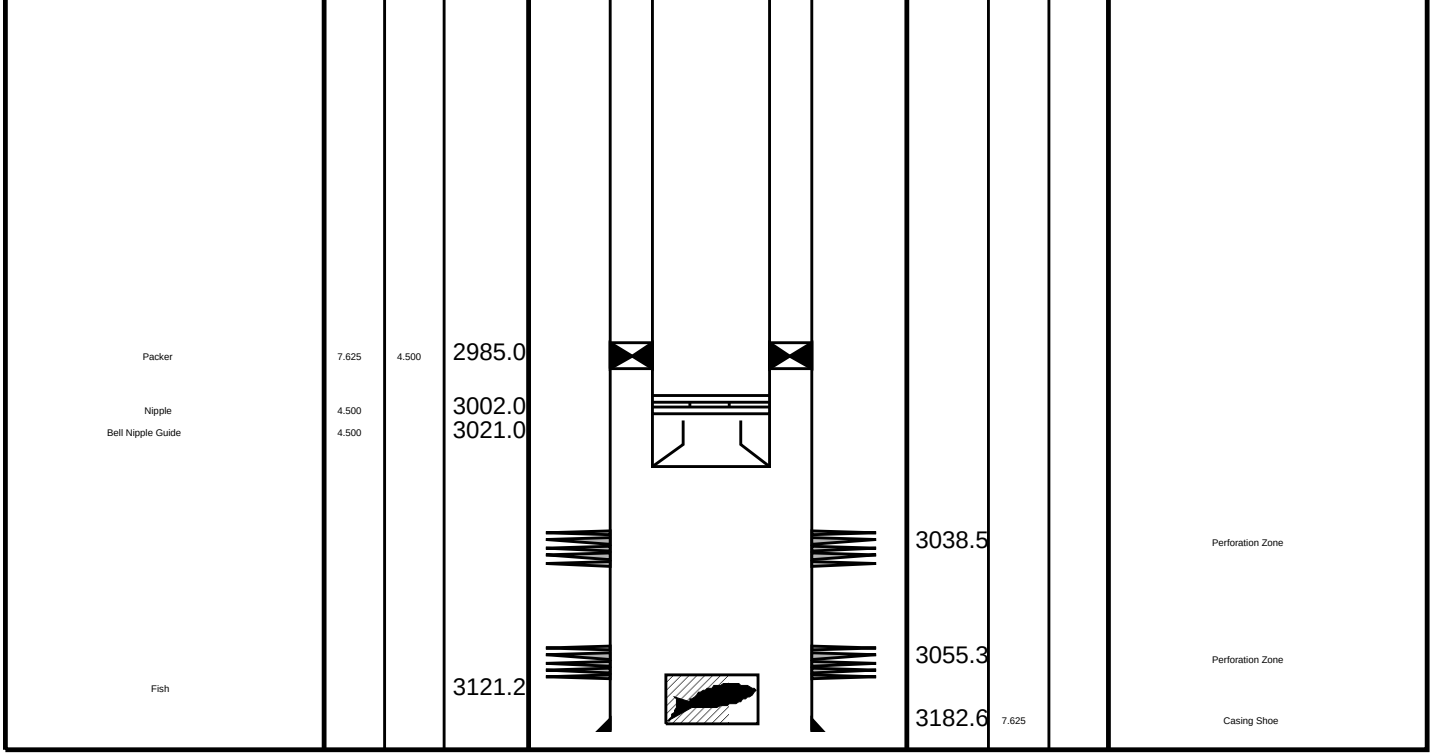
WITM−A 1
PSC_16MHZ 806

DOWNHOLE EQUIPMENT



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





Schlumberger

Job Event Summary

MAXIS Field Log

Schlumberger Job Event Summary

	Time	Elapsed Time	Depth (M)	File
Simulated Log	24−Jul−2008 8:21	001:02		FCS_ILS_DEFT_GMS_026LUP
Log Pass (down)	24−Jul−2008 9:24	000:59	0.9 − 2985.2	FCS_ILS_DEFT_GMS_027LDP
Log Pass (down)	24−Jul−2008 10:23	000:03	2977.1 − 3010.4	FCS_ILS_DEFT_GMS_028LDP
Log Pass (down)	24−Jul−2008 10:28	000:02	2970.0 − 2999.1	FCS_ILS_DEFT_GMS_029LDP
Log Pass (down)	24−Jul−2008 10:30	000:03	2966.2 − 3092.0	FCS_ILS_DEFT_GMS_030LDP
Log Pass (up)	24−Jul−2008 10:32	000:16	3091.9 − 3004.7	FCS_ILS_DEFT_GMS_031LUP
Log Pass (down)	24−Jul−2008 11:05	000:13	3008.2 − 3081.8	FCS_ILS_DEFT_GMS_036LDP
Log Pass (up)	24−Jul−2008 11:18	000:07	3081.8 − 3009.0	FCS_ILS_DEFT_GMS_037LUP
Log Pass (down)	24−Jul−2008 11:25	000:06	3009.0 − 3079.9	FCS_ILS_DEFT_GMS_038LDP
Log Pass (up)	24−Jul−2008 11:31	000:03	3079.9 − 3009.4	FCS_ILS_DEFT_GMS_039LUP
Log Pass (down)	24−Jul−2008 11:35	000:04	3009.7 − 3081.4	FCS_ILS_DEFT_GMS_040LDP
Log Pass (up)	24−Jul−2008 11:39	000:02	3081.8 − 3015.7	FCS_ILS_DEFT_GMS_041LUP
Log Pass (down)	24−Jul−2008 11:41	000:02	3015.8 − 3081.7	FCS_ILS_DEFT_GMS_042LDP
Station Log	24−Jul−2008 12:01	002:05	3070.0 − 19.1	FCS_ILS_DEFT_GMS_056LTP
Log Pass (up)	24−Jul−2008 14:09	000:11	3081.2 − 3018.3	FCS_ILS_DEFT_GMS_057LUP
Log Pass (down)	24−Jul−2008 14:22	000:14	3018.3 − 3085.0	FCS_ILS_DEFT_GMS_058LDP

Log Pass (down)	24−Jul−2008 14:22	000:14	3018.3 −	3085.0	FCS_ILS_DEFT_GMS_058LDP
Log Pass (up)	24−Jul−2008 14:37	000:07	3085.0 −	3018.1	FCS_ILS_DEFT_GMS_059LUP
Log Pass (down)	24−Jul−2008 14:44	000:06	3018.4 −	3083.8	FCS_ILS_DEFT_GMS_060LDP
Log Pass (up)	24−Jul−2008 14:50	000:05	3083.8 −	3018.3	FCS_ILS_DEFT_GMS_061LUP
Log Pass (down)	24−Jul−2008 14:54	000:03	3018.7 −	3081.5	FCS_ILS_DEFT_GMS_062LDP
Log Pass (up)	24−Jul−2008 14:58	000:02	3081.5 −	3017.7	FCS_ILS_DEFT_GMS_063LUP
Log Pass (down)	24−Jul−2008 15:00	000:02	3018.1 −	3081.2	FCS_ILS_DEFT_GMS_064LDP
Station Log	24−Jul−2008 15:04	000:06	3053.5 −	0.9	FCS_ILS_DEFT_GMS_065LTP
Station Log	24−Jul−2008 15:11	000:08	3036.5 −	1.3	FCS_ILS_DEFT_GMS_066LTP
Station Log	24−Jul−2008 15:20	000:10	3036.5 −	1.5	FCS_ILS_DEFT_GMS_067LTP
Log Pass (up)	24−Jul−2008 15:59	000:00	40.8 −	31.2	FCS_ILS_DEFT_GMS_085LUP
Log Pass (up)	24−Jul−2008 16:00	000:05	37.2 −	−0.5	FCS_ILS_DEFT_GMS_086LUP

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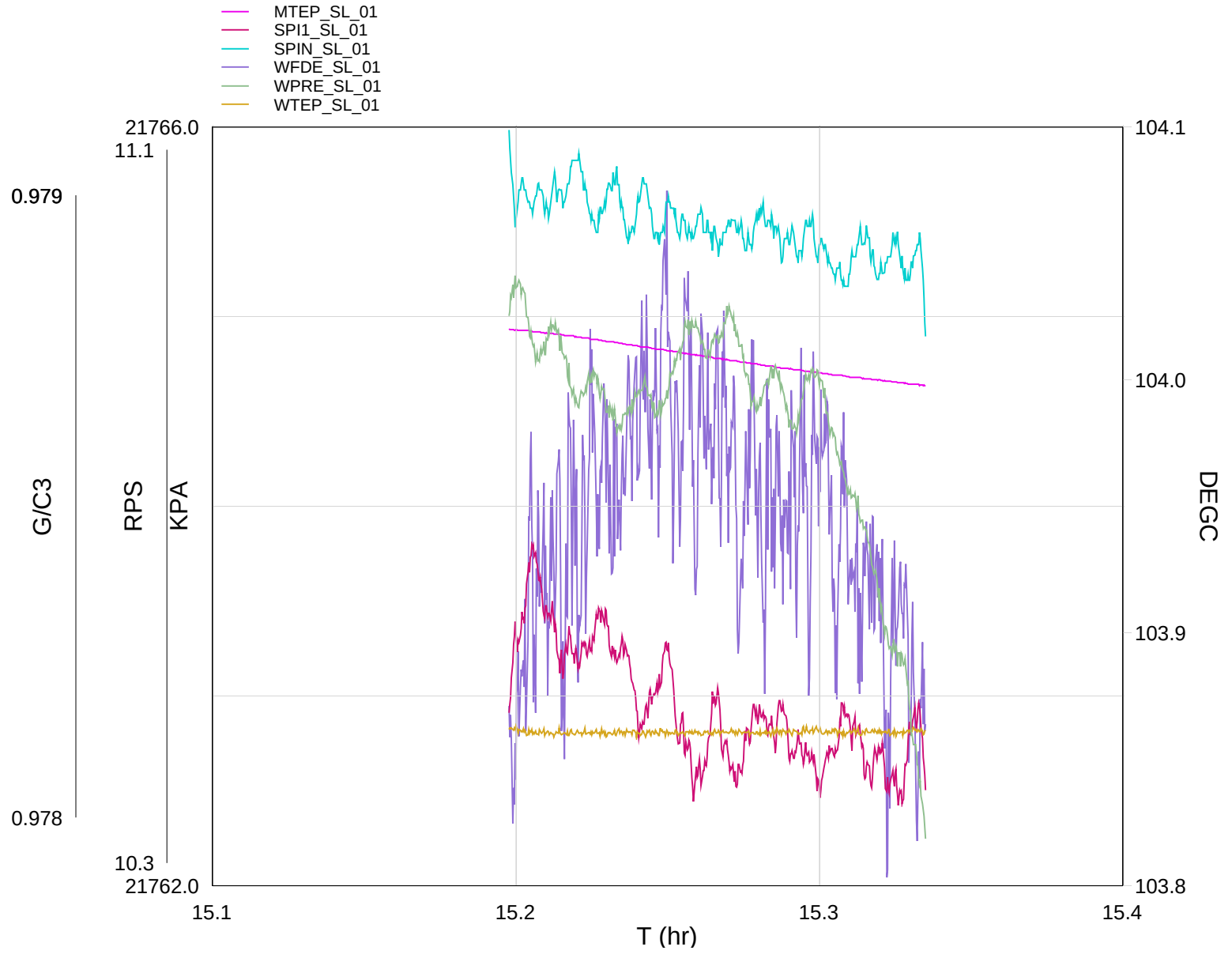
Station log above perforation zone 3038.5m − 3047.0m / Flowing

MAXIS Field Log

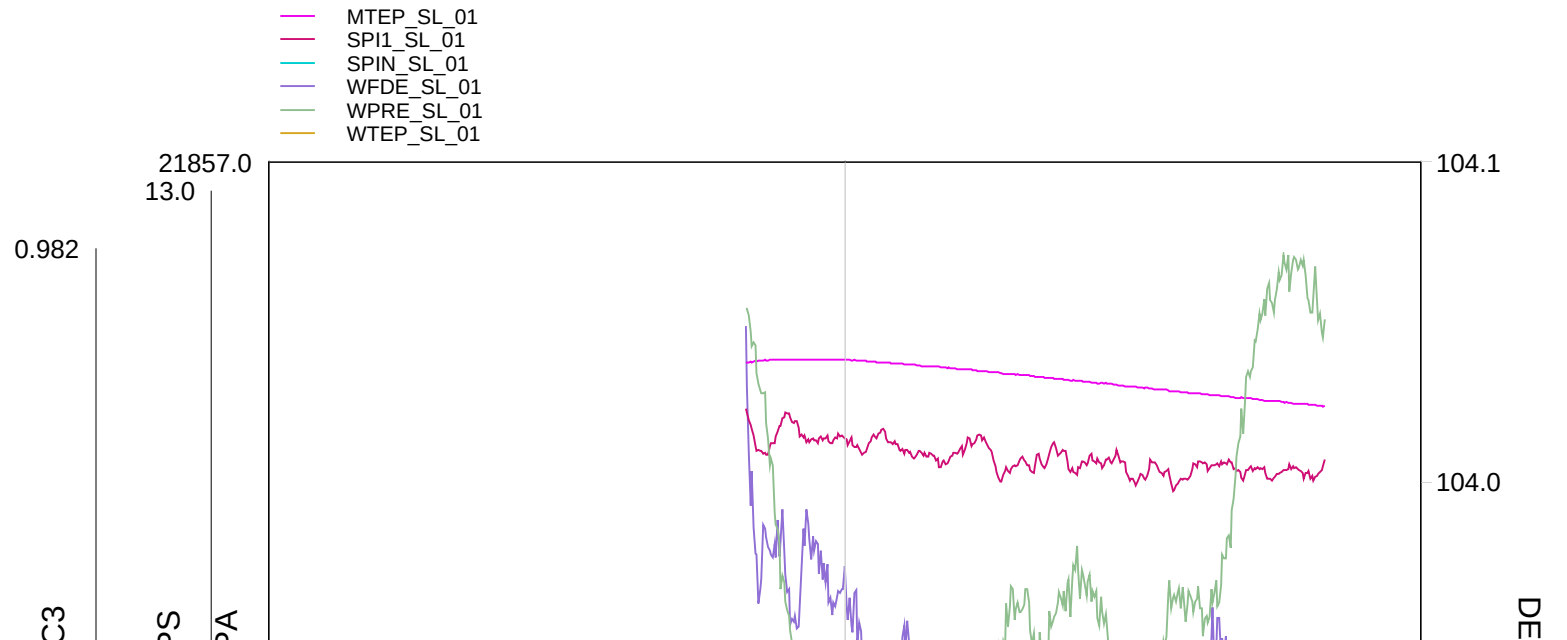


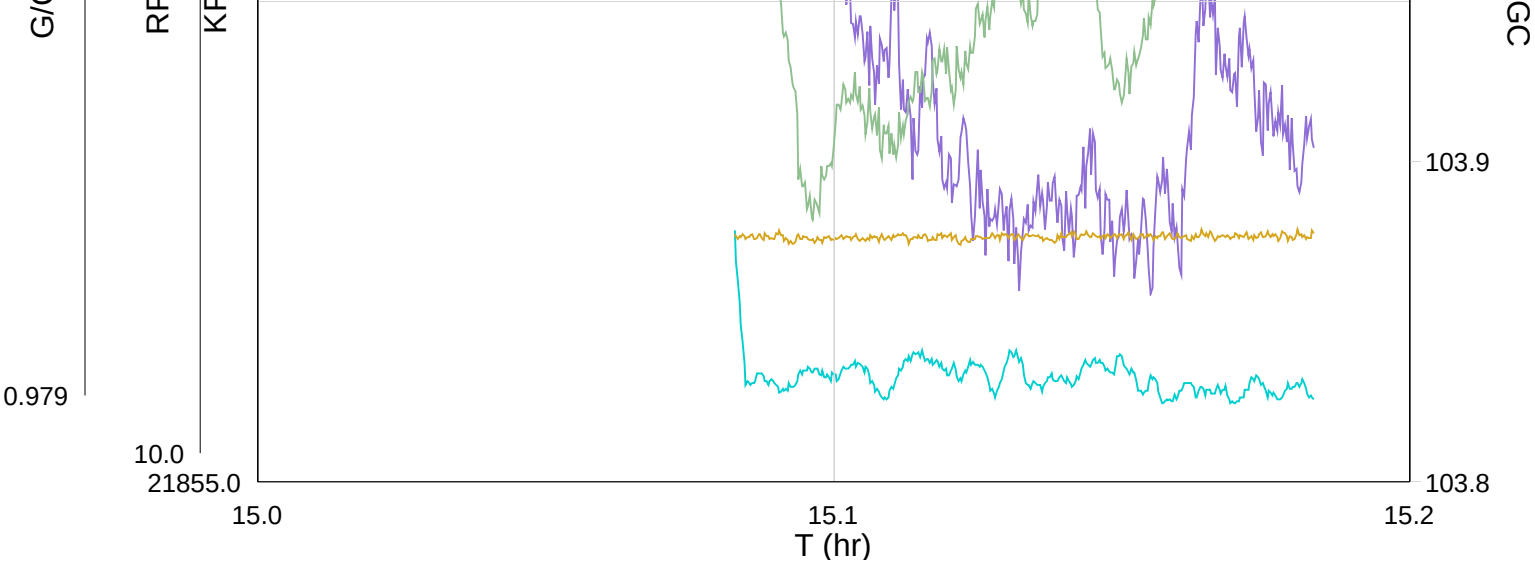
TIME	SPIN	SPI1	WFDE	WTEP−DEGF	WPRE−PSIA
25060.0	11.0670	10.4973	0.9783	218.9518	3156.7591
25080.0	11.0218	10.6287	0.9784	218.9472	3156.7445
25100.0	11.0094	10.5820	0.9785	218.9477	3156.7176
25120.0	11.0334	10.5475	0.9783	218.9476	3156.7260
25140.0	11.0649	10.5302	0.9784	218.9500	3156.6766
25160.0	10.9966	10.5674	0.9787	218.9490	3156.7018
25180.0	11.0330	10.5512	0.9785	218.9475	3156.6739
25200.0	10.9873	10.5423	0.9788	218.9493	3156.6749
25220.0	11.0398	10.4871	0.9787	218.9461	3156.6927
25240.0	10.9887	10.5303	0.9789	218.9506	3156.6783
25260.0	10.9838	10.4505	0.9786	218.9482	3156.7202
25280.0	10.9955	10.4241	0.9785	218.9498	3156.7388
25300.0	10.9801	10.4945	0.9787	218.9475	3156.7254
25320.0	10.9966	10.4227	0.9787	218.9496	3156.7510
25340.0	10.9700	10.4643	0.9787	218.9492	3156.7014
25360.0	11.0105	10.4770	0.9785	218.9489	3156.6910
25380.0	10.9722	10.4905	0.9786	218.9506	3156.6904
25400.0	10.9636	10.4519	0.9785	218.9499	3156.6589
25420.0	10.9861	10.4370	0.9788	218.9493	3156.6995
25440.0	10.9519	10.4445	0.9786	218.9485	3156.6596
25460.0	10.9317	10.4803	0.9785	218.9489	3156.6130
25480.0	10.9770	10.4132	0.9785	218.9484	3156.5845
25500.0	10.9527	10.4415	0.9785	218.9484	3156.5231
25520.0	10.9790	10.3868	0.9785	218.9493	3156.4861
25540.0	10.9691	10.4755	0.9783	218.9514	3156.4177

Schlumberger

Station log above perforation zone
3055.3m − 3062.8m / Flowing

MAXIS Field Log





TIME	SPIN	SPI1	WFDE	WTEP−DEGF	WPRE−PSIA
24640.0	10.7841	12.2350	0.9815	218.9797	3170.0989
24660.0	10.3397	12.1211	0.9808	218.9785	3169.9981
24680.0	10.2964	12.1403	0.9808	218.9742	3169.9183
24700.0	10.3283	12.1366	0.9806	218.9775	3169.8903
24720.0	10.3646	12.1090	0.9804	218.9783	3169.9147
24740.0	10.2724	12.0988	0.9803	218.9780	3169.9029
24760.0	10.3985	12.0863	0.9802	218.9773	3169.9185
24780.0	10.3602	12.0914	0.9799	218.9769	3169.9158
24800.0	10.3451	12.0419	0.9798	218.9771	3169.9346
24820.0	10.4026	12.0528	0.9798	218.9782	3169.9579
24840.0	10.3279	12.0865	0.9799	218.9765	3169.9579
24860.0	10.3462	12.0813	0.9799	218.9788	3169.9569
24880.0	10.3391	12.0634	0.9798	218.9789	3169.9208
24900.0	10.2808	12.0573	0.9799	218.9775	3169.9361
24920.0	10.2613	12.0090	0.9798	218.9789	3169.9563
24940.0	10.2892	12.0557	0.9805	218.9790	3169.9573
24960.0	10.2645	12.0432	0.9804	218.9785	3170.0258
24980.0	10.2736	12.0362	0.9801	218.9789	3170.0595
25000.0	10.3016	12.0164	0.9801	218.9780	3170.0528

Schlumberger

Single Pass Interpretation
Flowing

MAXIS Field Log

Company: Esso Australia Pty Ltd. **Well: A−9a**

Input DLIS Files

DEFAULT	**FCS_ILS_DEFT_GMS_090PUP**	**FN:81**	**PRODUCER**	**24−Jul−2008 16:10**	**3080.5 M**	**3007.3 M**

Output DLIS Files

DEFAULT FCS_ILS_DEFT_GMS_128PUP FN:119 PRODUCER 25−Jul−2008 11:14 3080.5 M 3007.9 M

OP System Version: 15C0−309

MCM

PFCS−A	SRPC−3546−Q1_2008_OP15	PILS−A	SRPC−3546−Q1_2008_OP15
DEFT−C2	SRPC−3546−Q1_2008_OP15	PGMC−A/B	SRPC−3546−Q1_2008_OP15
PSPT−A/B	SRPC−3546−Q1_2008_OP15		

Well Diameter From PFC2 to PFCS_T1

Well Diameter From PFC1 to PFCS_T1

PFCS Caliper Y (PFC2)
3 (IN) 8

PFCS Caliper X (PFC1)
3 (IN) 8

Probe1 RB (D1RB) (DEG)
0 360

Cable Speed (CS)
0 (F/HR) 5000

GR (GR) (GAPI)
0 150

Comp.CCL (CCLC)
−1 (V) 4

−0.5000 0.5000
Water Holdup Image 2 colors (WATER_HIMAGE_2C) (−−−−

Well Fluid Density (WFDE)
0 (G/C3) 2

Friction Corrected Well Fluid Density (FCFD_SPRI)
0.2 (G/C3) 1.2

Eprobe Water Holdup (FHM)
0 (−−−− 1

Corrected Gradio Heavy Phase Holdup (CGHPH)
0 (−−−− 1

Eprobe Corrected Water Holdup (CFWH)
0 (−−−− 1

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
Bub Counts Image 16 colors (DBIMAGE_16C) (−−−−

Well Temperature (WTEP)
215.5 (DEGF) 218

Filtered Auxiliary Spinner 1 (SPI1)
−15 (RPS) 25

Filtered Main Spinner (SPIN)
−15 (RPS) 25

Eprobe Bubble Count (FBM)
0 (CPS) 1500

Well Pressure (WPRE)
3205 (PSIA) 3260

Eprobe Standalone Computed Bubble size (EENBS)
0 (MM) 15

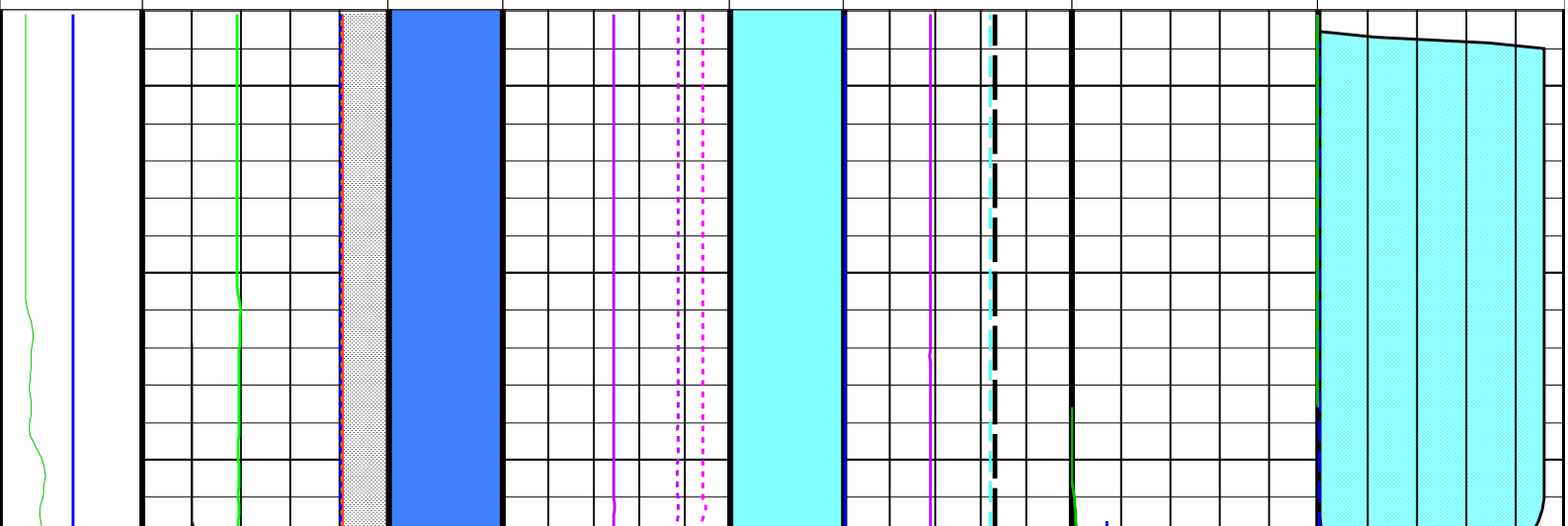
Eprobe Bubble size (EEBS)
0 (MM) 15

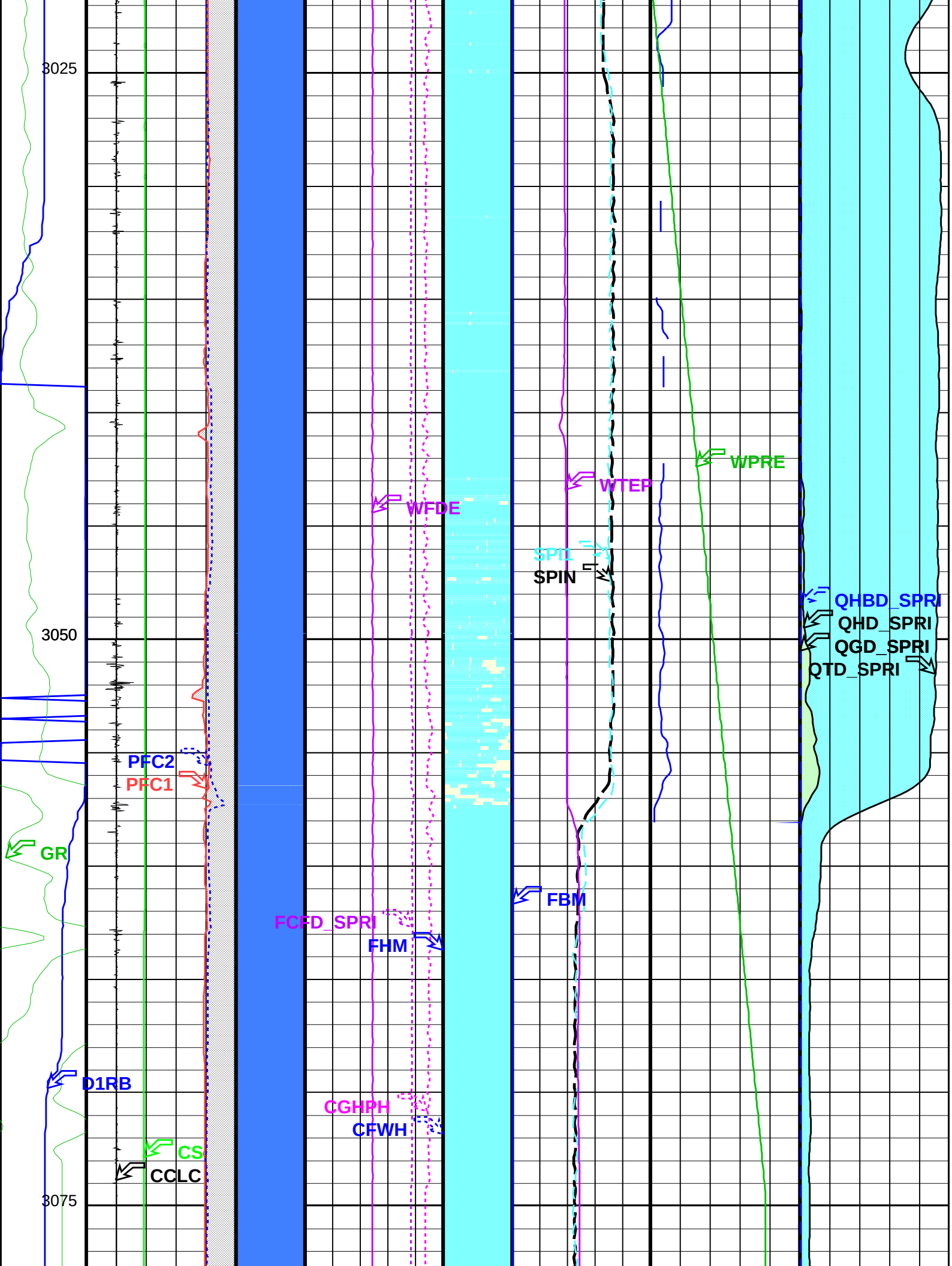
Water Flowrate

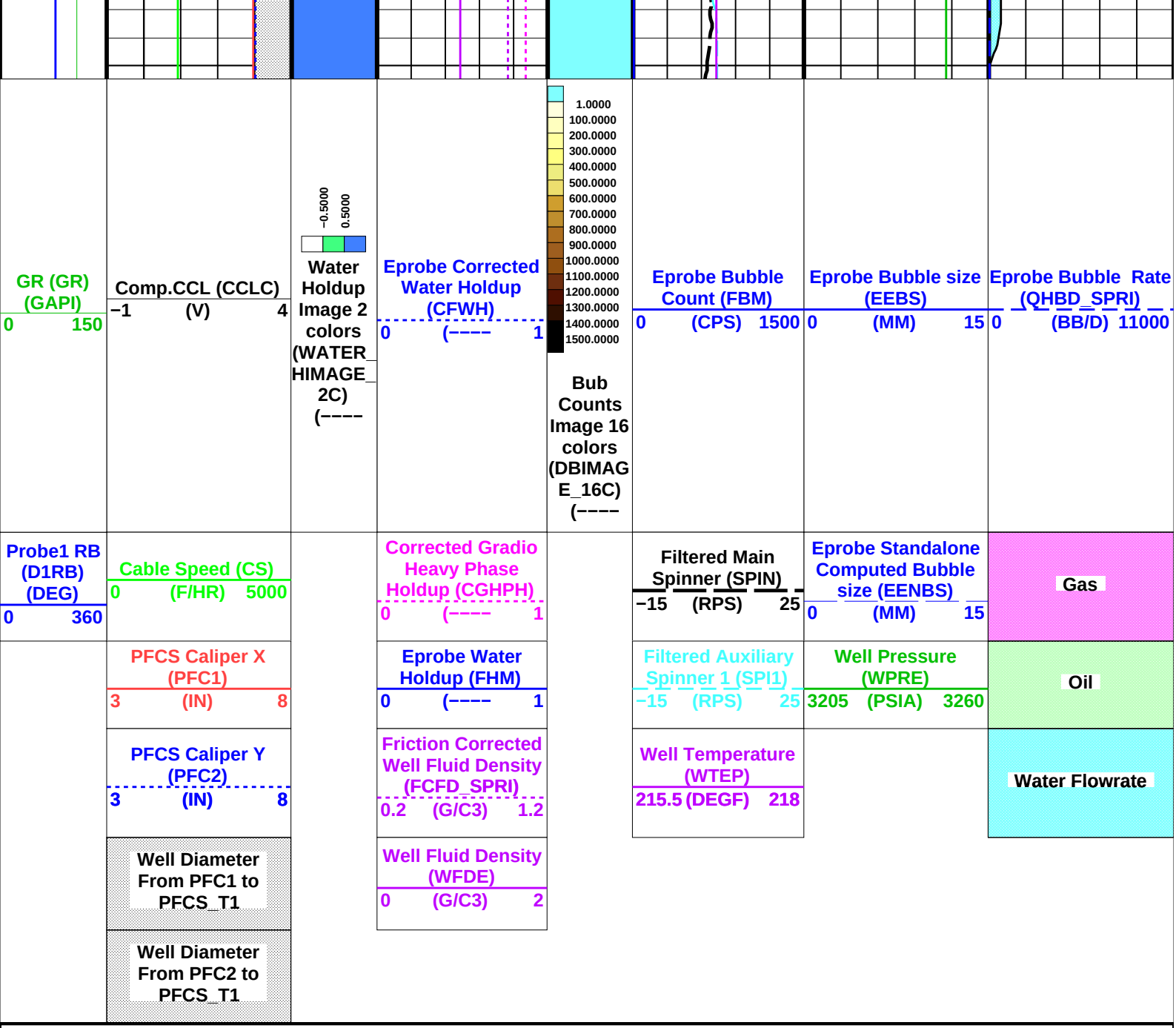
Oil

Gas

Eprobe Bubble Rate (QHBD_SPRI)
0 (BB/D) 11000




3025
3050
3075
WPRE
WTEP
WFDE
SPI1
SPIN
QHBD_SPRI
QHD_SPRI
QGD_SPRI
QTD_SPRI
PFC2
PFC1
GR
FBM
FCFD_SPRI
FHM
D1RB
CGHPH
CFWH
CS
CCLC



Format: SPRINT_PFCSImage_DL Vertical Scale: 1:200 Graphics File Created: 25−Jul−2008 11:14

OP System Version: 15C0−309

MCM

PFCS−A	SRPC−3546−Q1_2008_OP15	PILS−A	SRPC−3546−Q1_2008_OP15
DEFT−C2	SRPC−3546−Q1_2008_OP15	PGMC−A/B	SRPC−3546−Q1_2008_OP15
PSPT−A/B	SRPC−3546−Q1_2008_OP15		

Parameters

DLIS Name	Description	Value	
	PFCS−A: PSP Flow and caliper Tool		
AMOD	Spinner Filter Averaging Mode	LINEAR_AVERAGE	
CSID	Casing Size I.D.	6.875	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	A	
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	
	DEFT−C2: DEFT_C Tool		
CSID	Casing Size I.D.	6.875	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	
	PGMC−A/B: PSP Gradiomanometer Measurement Module		
CSID	Casing Size I.D.	6.875	IN
GCPG	Gradio Surf.Cal Diff.Pres Gain	1	
GCPO	Gradio Surf.Cal Diff.Pres Offset	0	KPAA
PDSH	Gradio Correction Density Shift	0	G/C3
	PSPT−A/B: Production Services Logging Platform		
CSID	Casing Size I.D.	6.875	IN
GDEV	Average Angular Deviation of Borehole from Normal	33	DEG
	SPRI: Single Pass Rate Interpretation		
DENS_SEL	SPRint Density Selector	WFDE	
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	YES	
SEFF	Spinner Efficiency	1	
SPINNER_PITCH	Spinner Pitch	2.5	IN
SPIN_SEL	SPRint Spinner Selector	SPIN	
SPRI_INTPR_TYPE	SPRInt Type of Interpretation	WATER_OIL_FLOW	
SURFACE_SPRI	Surface Flowrates Computation	YES	
THRE	Spinner Threshold	1.2192	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.	6.875	IN
	System and Miscellaneous		
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	NORMAL	

Input DLIS Files

DEFAULT	FCS_ILS_DEFT_GMS_090PUP	FN:81	PRODUCER	24−Jul−2008 16:10	3080.5 M	3007.3 M

Output DLIS Files

DEFAULT	FCS_ILS_DEFT_GMS_128PUP	FN:119	PRODUCER	25−Jul−2008 11:14

Schlumberger

Spinners Multipass Flowing

MAXIS Field Log

Company: Esso Australia Pty Ltd. **Well: A−9a**

PLQL Passes Summary

Pass # 1: Src: PLQL_CS, Log: UP , Avg.CS: 5 M/MN
Pass # 2: Src: PLQL_CS, Log: DOWN, Avg.CS: 5 M/MN
Pass # 3: Src: PLQL_CS, Log: UP , Avg.CS: 10 M/MN
Pass # 4: Src: PLQL_CS, Log: DOWN, Avg.CS: 9 M/MN
Pass # 5: Src: PLQL_CS, Log: UP , Avg.CS: 21 M/MN
Pass # 6: Src: PLQL_CS, Log: DOWN, Avg.CS: 20 M/MN
Pass # 7: Src: PLQL_CS, Log: UP , Avg.CS: 29 M/MN
Pass # 8: Src: PLQL_CS, Log: DOWN, Avg.CS: 28 M/MN

PLQL Data Manager Files

Pass # 1
Pass # 2
Pass # 3
Pass # 4
Pass # 5
Pass # 6
Pass # 7
Pass # 8

Company: Esso Australia Pty Ltd. Well: A−9a

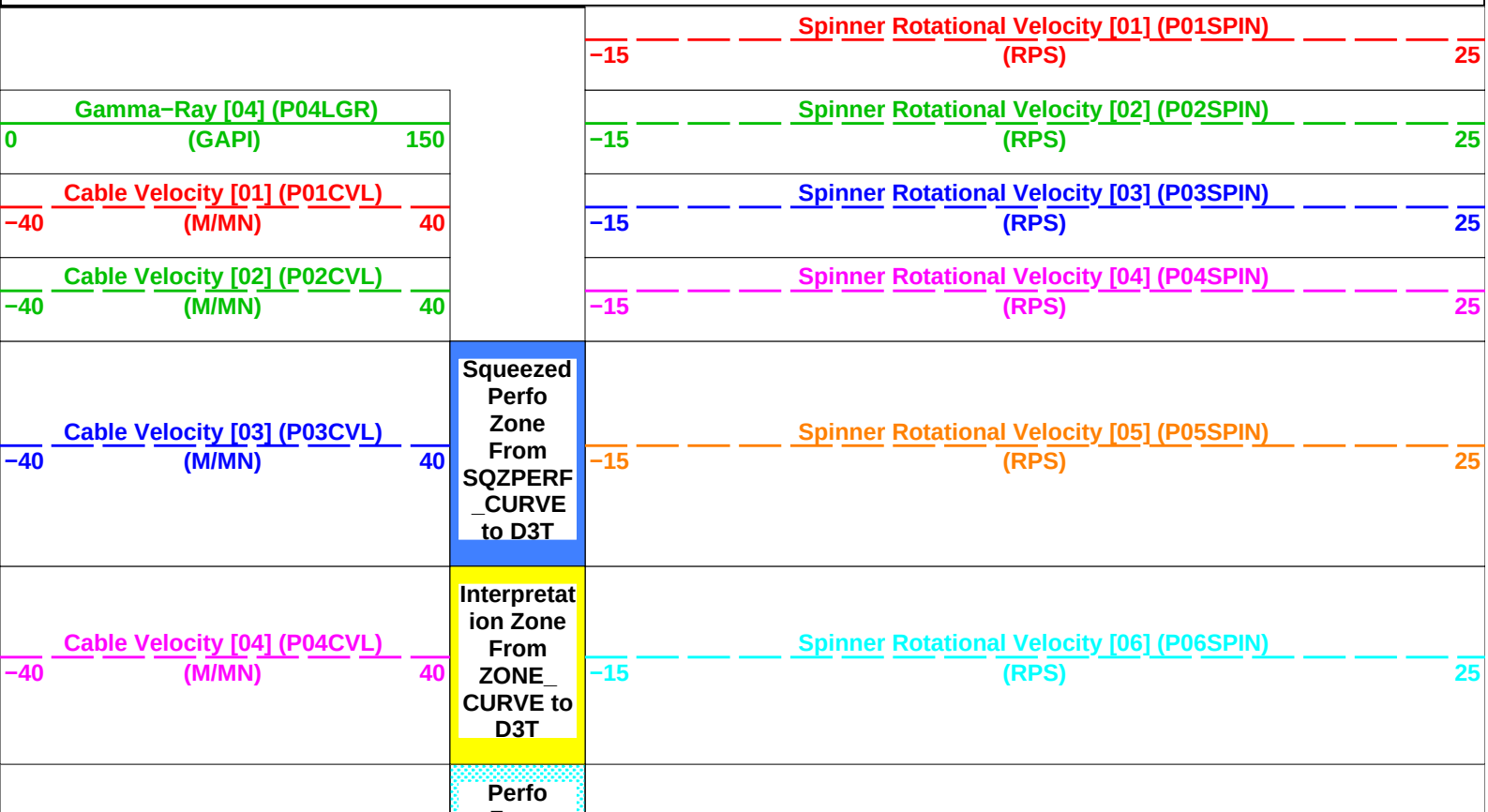
Output DLIS Files

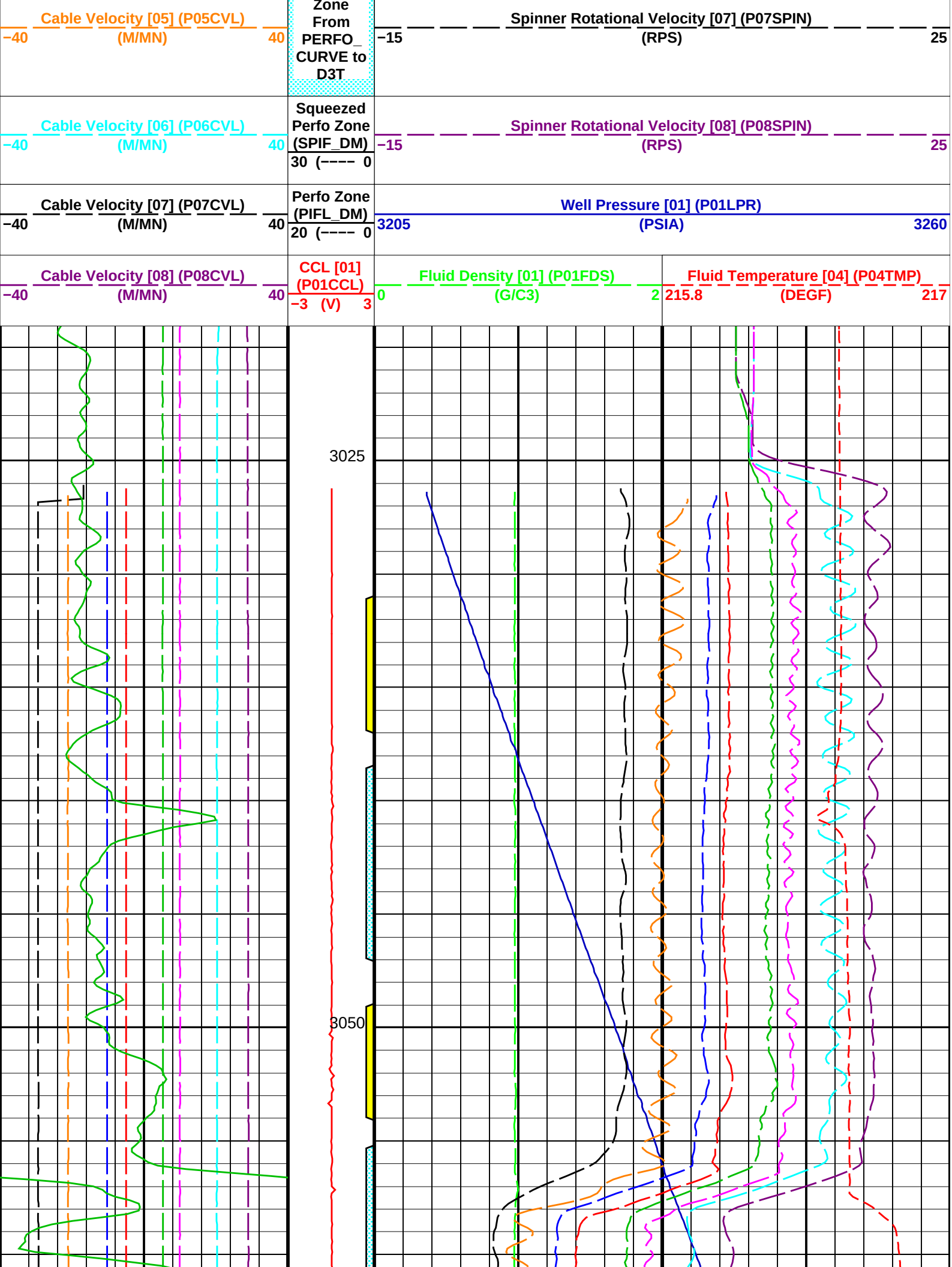
DEFAULT	FCS_ILS_DEFT_GMS_136PUP	FN:127	PRODUCER	25−Jul−2008 13:27	3081.1 M	3019.0 M

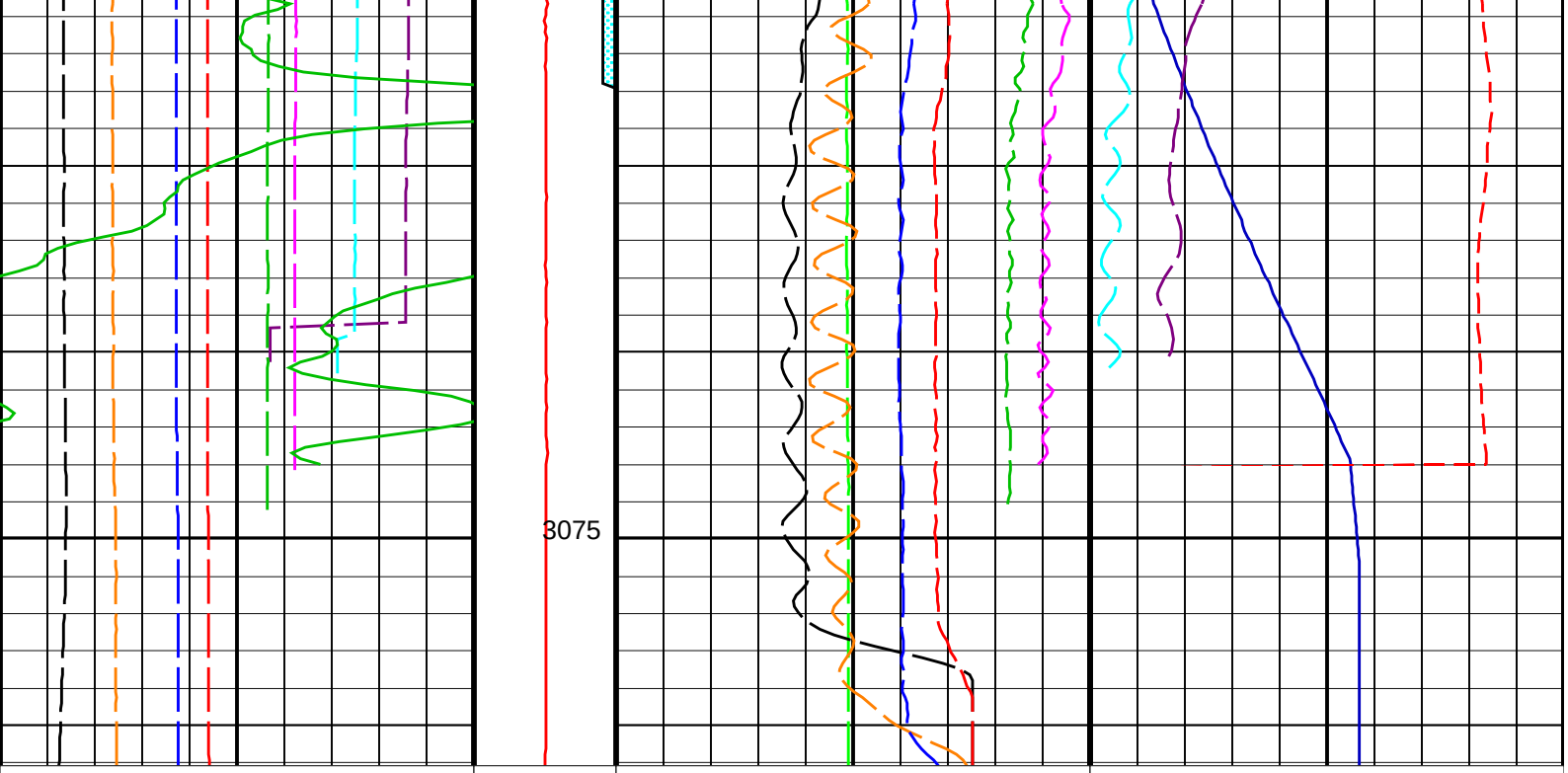
OP System Version: 15C0−309

MCM

PFCS−A	SRPC−3546−Q1_2008_OP15	PILS−A	SRPC−3546−Q1_2008_OP15
DEFT−C2	SRPC−3546−Q1_2008_OP15	PGMC−A/B	SRPC−3546−Q1_2008_OP15
PSPT−A/B	SRPC−3546−Q1_2008_OP15		




Cable Velocity [05] (P05CVL)
−40
(M/MN)
40
Zone From PERFO_CURVE to D3T
Spinner Rotational Velocity [07] (P07SPIN)
−15
(RPS)
25
Cable Velocity [06] (P06CVL)
−40
(M/MN)
40
Squeezed Perfo Zone (SPIF_DM)
30 (−−−− 0
Spinner Rotational Velocity [08] (P08SPIN)
−15
(RPS)
25
Cable Velocity [07] (P07CVL)
−40
(M/MN)
40
Perfo Zone (PIFL_DM)
20 (−−−− 0
Well Pressure [01] (P01LPR)
3205
(PSIA)
3260
Cable Velocity [08] (P08CVL)
−40
(M/MN)
40
CCL [01] (P01CCL)
−3 (V) 3
Fluid Density [01] (P01FDS)
0
(G/C3)
2
Fluid Temperature [04] (P04TMP)
215.8
(DEGF)
217
3025
3050



Cable Velocity [08] (P08CVL) −40 (M/MN) 40	CCL [01] (P01CCL) −3 (V) 3	Fluid Density [01] (P01FDS) 0 (G/C3) 2 — Fluid Temperature [04] (P04TMP) 215.8 (DEGF) 217
Cable Velocity [07] (P07CVL) −40 (M/MN) 40	Perfo Zone (PIFL_DM) 20 (---- 0	Well Pressure [01] (P01LPR) 3205 (PSIA) 3260
Cable Velocity [06] (P06CVL) −40 (M/MN) 40	Squeezed Perfo Zone (SPIF_DM) 30 (---- 0	Spinner Rotational Velocity [08] (P08SPIN) −15 (RPS) 25
Cable Velocity [05] (P05CVL) −40 (M/MN) 40	Perfo Zone From PERFO_ CURVE to D3T	Spinner Rotational Velocity [07] (P07SPIN) −15 (RPS) 25
Cable Velocity [04] (P04CVL) −40 (M/MN) 40	Interpretation Zone From ZONE_ CURVE to D3T	Spinner Rotational Velocity [06] (P06SPIN) −15 (RPS) 25
Cable Velocity [03] (P03CVL) −40 (M/MN) 40	Squeezed Perfo Zone From SQZPERF _CURVE to D3T	Spinner Rotational Velocity [05] (P05SPIN) −15 (RPS) 25
Cable Velocity [02] (P02CVL) −40 (M/MN) 40		Spinner Rotational Velocity [04] (P04SPIN) −15 (RPS) 25
Cable Velocity [01] (P01CVL) −40 (M/MN) 40		Spinner Rotational Velocity [03] (P03SPIN) −15 (RPS) 25
Gamma−Ray [04] (P04LGR) 0 (GAPI) 150		Spinner Rotational Velocity [02] (P02SPIN) −15 (RPS) 25
		Spinner Rotational Velocity [01] (P01SPIN)

Spinner Rotational Velocity [01] (P01SPIN)

−15 (RPS) 25

Parameters

DLIS Name	Description	Value	
	PFCS−A: PSP Flow and caliper Tool		
CSID	Casing Size I.D.	6.875	IN
	DEFT−C2: DEFT_C Tool		
CSID	Casing Size I.D.	6.875	IN
	PGMC−A/B: PSP Gradiomanometer Measurement Module		
CSID	Casing Size I.D.	6.875	IN
	PSPT−A/B: Production Services Logging Platform		
CSID	Casing Size I.D.	6.875	IN
	BORDYN: BorDyn (Well Test Validation)		
CSID	Casing Size I.D.	6.875	IN
	PLQL: Production Logging Quick Look		
CCLS	CCL Selector	CCLC	
FCHD	Cased Hole Diameter Selector	PFC1	
PCVS	CVEL Selector	CVEL	
PGRS	GR Selector	GR	
PGS	Pressure Gauge Selector	WPRE	
PWHS	PLQL Water HoldUp Selector	DFHM	
RHOS	Fluid Density Selector	WFDE	
SPIS	Spinner Selector	SPIN	
TMPS	Temperature Selector	WTEP	
	System and Miscellaneous		
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	NORMAL	

Format: PLQLMultiPassWithInsert_1 Vertical Scale: 1:200 Graphics File Created: 25−Jul−2008 13:27

OP System Version: 15C0−309

MCM

PFCS−A	SRPC−3546−Q1_2008_OP15	PILS−A	SRPC−3546−Q1_2008_OP15
DEFT−C2	SRPC−3546−Q1_2008_OP15	PGMC−A/B	SRPC−3546−Q1_2008_OP15
PSPT−A/B	SRPC−3546−Q1_2008_OP15		

Output DLIS Files

DEFAULT	FCS_ILS_DEFT_GMS_136PUP	FN:127	PRODUCER	25−Jul−2008 13:27	

Schlumberger

Down Log @ 1970 ft/ hr
Flowing

MAXIS Field Log

Input DLIS Files

DEFAULT	FCS_ILS_DEFT_GMS_090PUP	FN:81	PRODUCER	24−Jul−2008 16:10	3080.5 M	3007.3 M

Output DLIS Files

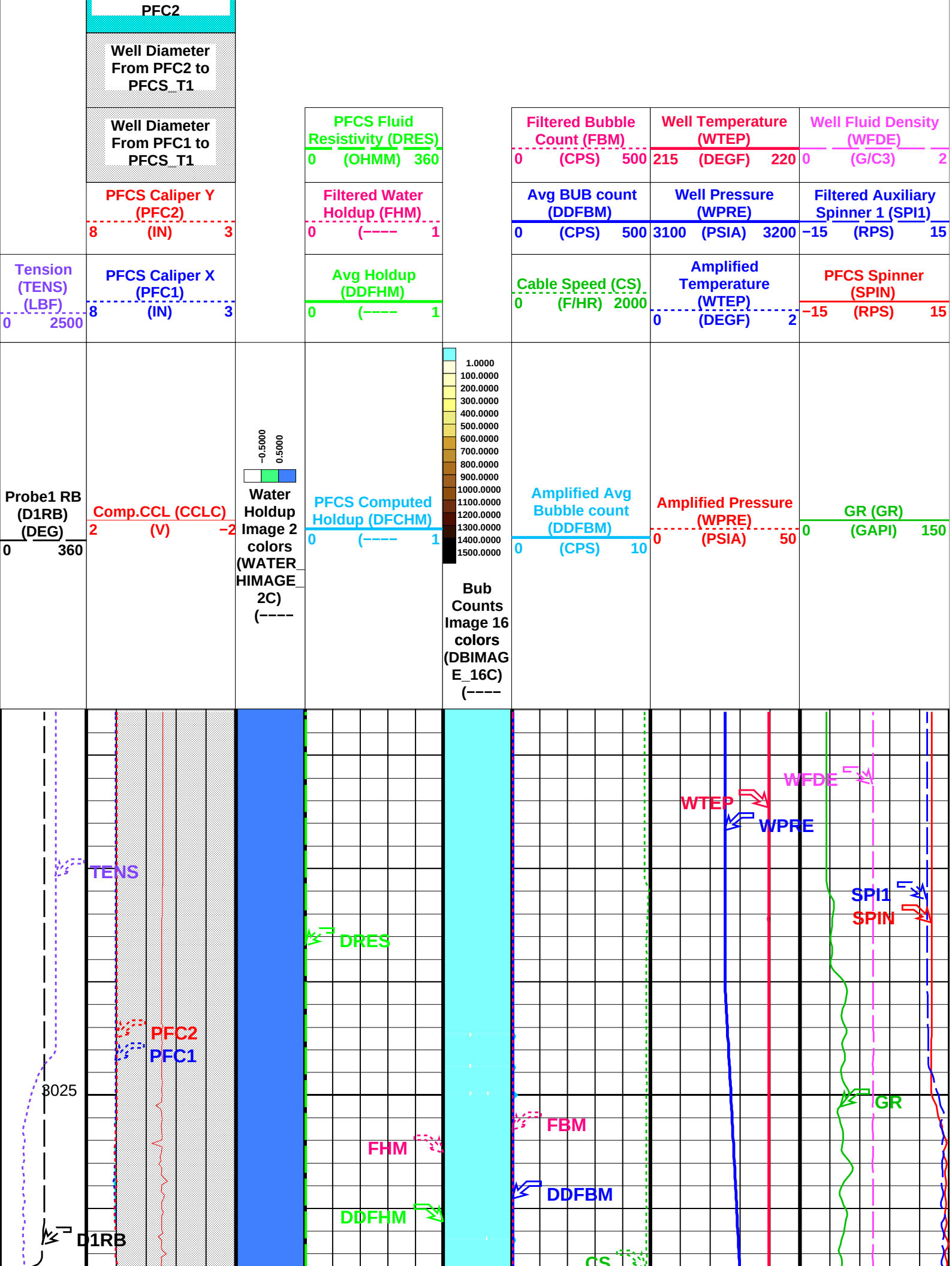
DEFAULT	FCS_ILS_DEFT_GMS_096PUP	FN:87	PRODUCER	24−Jul−2008 16:51	3080.5 M	3007.9 M

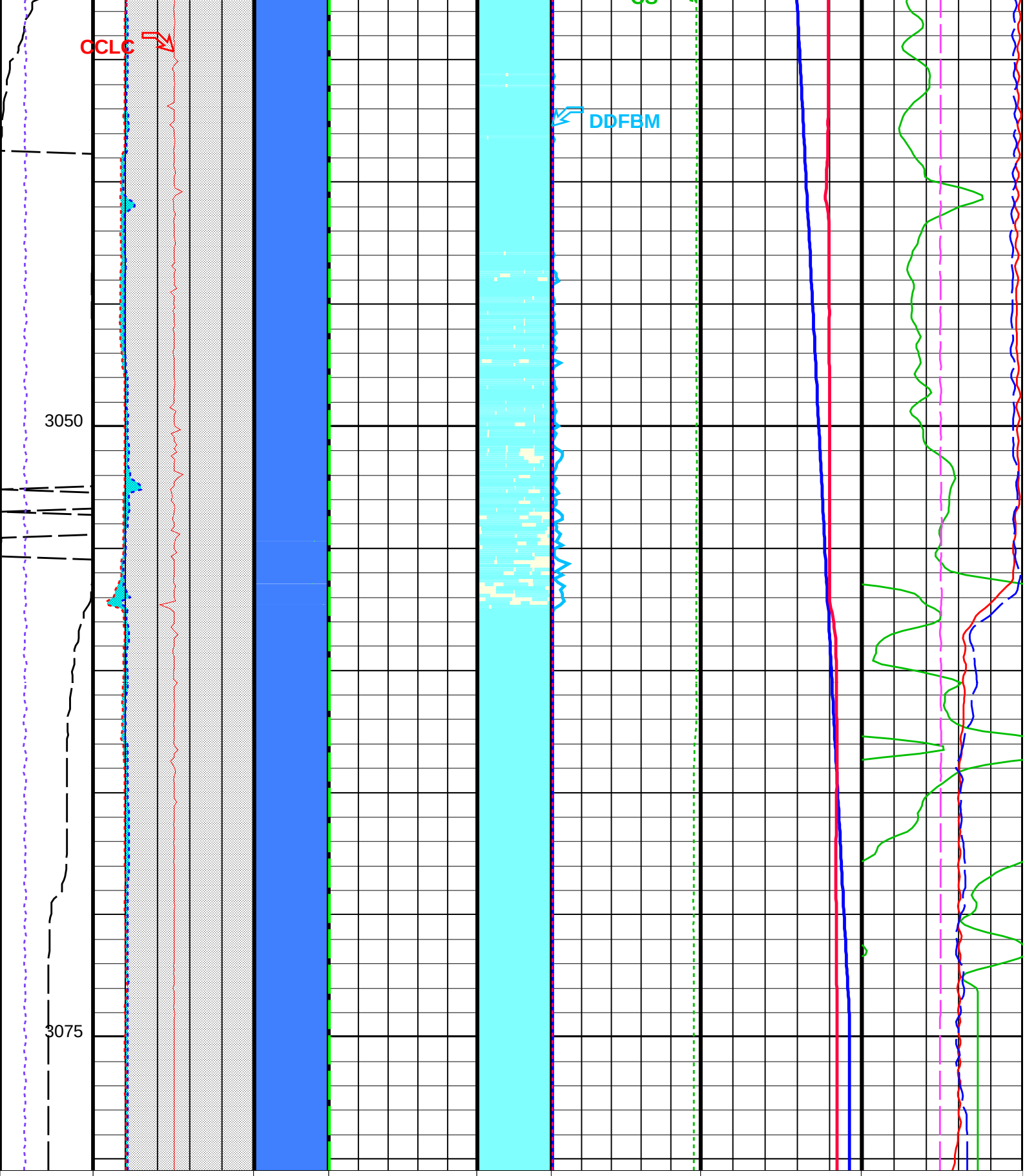
OP System Version: 15C0−309

MCM

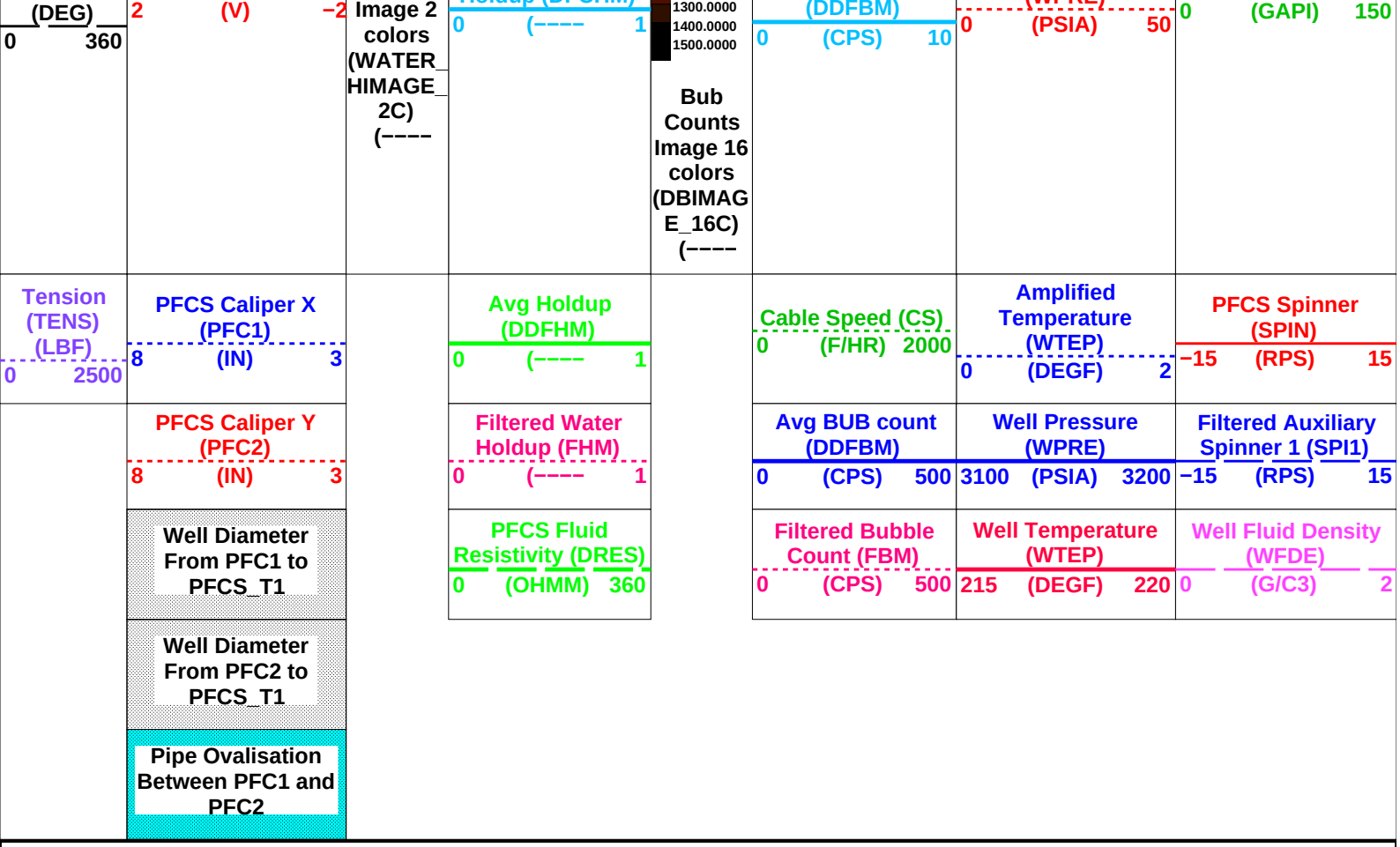
PFCS−A	SRPC−3546−Q1_2008_OP15	PILS−A	SRPC−3546−Q1_2008_OP15
DEFT−C2	SRPC−3546−Q1_2008_OP15	PGMC−A/B	SRPC−3546−Q1_2008_OP15
PSPT−A/B	SRPC−3546−Q1_2008_OP15		

Pipe Ovalisation Between PFC1 and


PFC2
Well Diameter From PFC2 to PFCS_T1
Well Diameter From PFC1 to PFCS_T1
PFCS Fluid Resistivity (DRES)
0 (OHMM) 360
Filtered Bubble Count (FBM)
0 (CPS) 500
Well Temperature (WTEP)
215 (DEGF) 220
Well Fluid Density (WFDE)
0 (G/C3) 2
PFCS Caliper Y (PFC2)
8 (IN) 3
Filtered Water Holdup (FHM)
0 (---- 1
Avg BUB count (DDFBM)
0 (CPS) 500
Well Pressure (WPRE)
3100 (PSIA) 3200
Filtered Auxiliary Spinner 1 (SPI1)
-15 (RPS) 15
Tension (TENS) (LBF)
0 2500
PFCS Caliper X (PFC1)
8 (IN) 3
Avg Holdup (DDFHM)
0 (---- 1
Cable Speed (CS)
0 (F/HR) 2000
Amplified Temperature (WTEP)
0 (DEGF) 2
PFCS Spinner (SPIN)
-15 (RPS) 15
Probe1 RB (D1RB) (DEG)
0 360
Comp.CCL (CCLC)
2 (V) -2
-0.5000
0.5000
Water Holdup Image 2 colors (WATER_HIMAGE_2C) (----
PFCS Computed Holdup (DFCHM)
0 (---- 1
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
Bub Counts Image 16 colors (DBIMAGE_16C) (----
Amplified Avg Bubble count (DDFBM)
0 (CPS) 10
Amplified Pressure (WPRE)
0 (PSIA) 50
GR (GR)
0 (GAPI) 150
TENS
DRES
PFC2
PFC1
3025
D1RB
FHM
DDFHM
FBM
DDFBM
CS
WTEP
WPRE
WFDE
SPI1
SPIN
GR



Probe1 RB (D1RB)	Comp.CCL (CCLC)	Water Holdup	PFCS Computed Holdup (DFCHM)	Amplified Avg Bubble count	Amplified Pressure (WPRE)	GR (GR)
		−0.5000 0.5000	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			



Format: PFCS_Image_DL Vertical Scale: 1:200 Graphics File Created: 24−Jul−2008 16:51

OP System Version: 15C0−309

MCM

PFCS−A	SRPC−3546−Q1_2008_OP15	PILS−A	SRPC−3546−Q1_2008_OP15
DEFT−C2	SRPC−3546−Q1_2008_OP15	PGMC−A/B	SRPC−3546−Q1_2008_OP15
PSPT−A/B	SRPC−3546−Q1_2008_OP15		

Parameters

DLIS Name	Description	Value	
	PFCS−A: PSP Flow and caliper Tool		
AMOD	Spinner Filter Averaging Mode	LINEAR_AVERAGE	
CSID	Casing Size I.D.	6.875	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	A	
GDEV	Average Angular Deviation of Borehole from Normal	33	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	
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	
	DEFT−C2: DEFT_C Tool		
CSID	Casing Size I.D.	6.875	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	
DFPP2	Probes Arm Position (2nd tool)	C	
PFGC	PFCS Geometrical coefficient	1200	
	PGMC−A/B: PSP Gradiomanometer Measurement Module		
CSID	Casing Size I.D.	6.875	IN
GCPG	Gradio Surf.Cal Diff.Pres Gain	1	
GCPO	Gradio Surf.Cal Diff.Pres Offset	0	KPAA
PDSH	Gradio Correction Density Shift	0	G/C3
	PSPT−A/B: Production Services Logging Platform		
CSID	Casing Size I.D.	6.875	IN
GDEV	Average Angular Deviation of Borehole from Normal	33	DEG
	BORDYN: BorDyn (Well Test Validation)		
CSID	Casing Size I.D.	6.875	IN
	System and Miscellaneous		
CSIZ	Current Casing Size	7.625	IN
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	NORMAL	

Input DLIS Files

DEFAULT	FCS_ILS_DEFT_GMS_090PUP	FN:81	PRODUCER	24−Jul−2008 16:10	3080.5 M	3007.3 M

Output DLIS Files

DEFAULT	FCS_ILS_DEFT_GMS_096PUP	FN:87	PRODUCER	24−Jul−2008 16:51		

Input DLIS Files

DEFAULT	FCS_ILS_DEFT_GMS_090PUP	FN:81	PRODUCER	24−Jul−2008 16:10	3080.5 M	3007.3 M

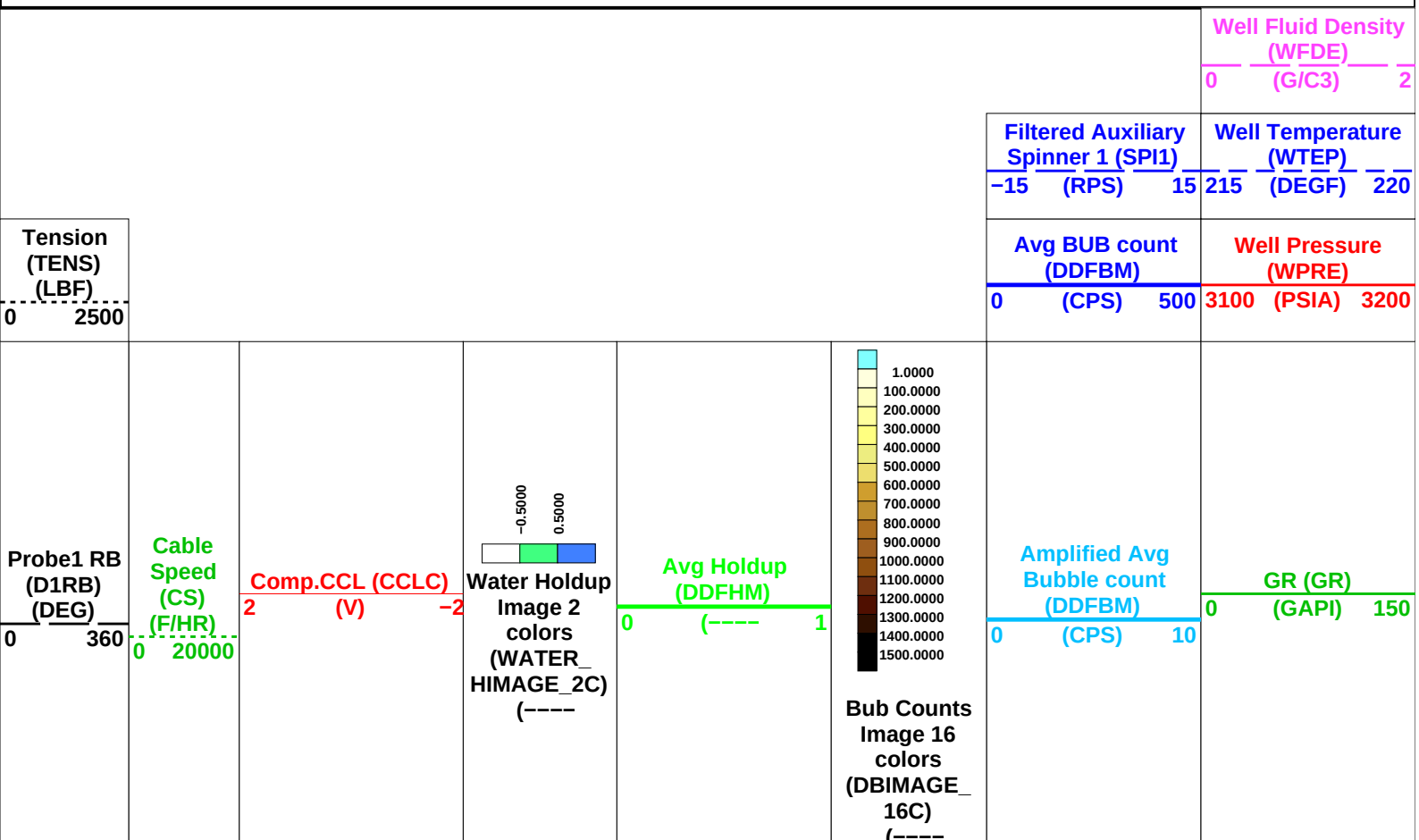
Output DLIS Files

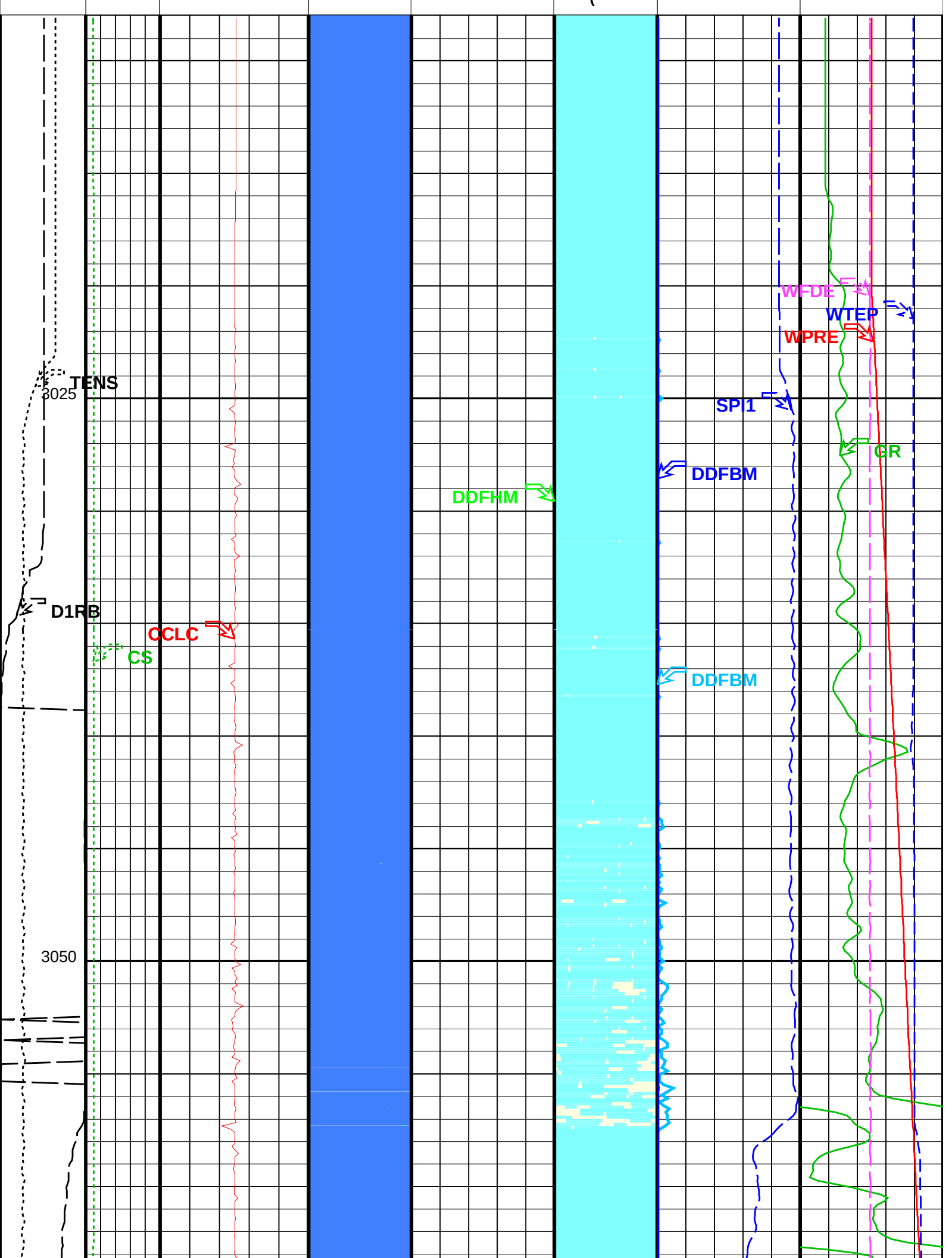
DEFAULT	FCS_ILS_DEFT_GMS_096PUP	FN:87	PRODUCER	24−Jul−2008 16:51	3080.5 M	3007.9 M

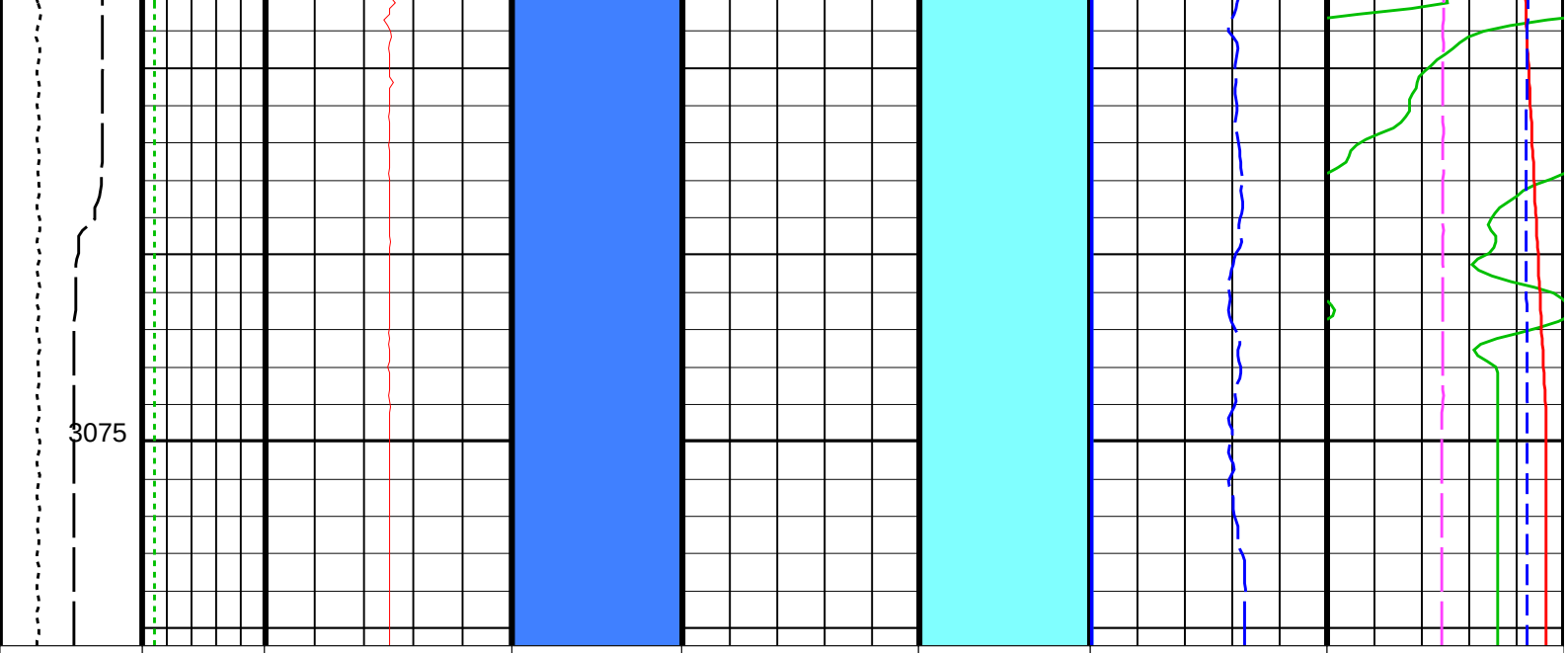
OP System Version: 15C0−309

MCM

PFCS−A	SRPC−3546−Q1_2008_OP15	PILS−A	SRPC−3546−Q1_2008_OP15
DEFT−C2	SRPC−3546−Q1_2008_OP15	PGMC−A/B	SRPC−3546−Q1_2008_OP15
PSPT−A/B	SRPC−3546−Q1_2008_OP15		




TENS
3025
D1RB
CCLC
CS
3050
DDFHM
DDFBM
DDFBM
SPI1
WFDE
WTEP
WPRE
GR



Probe1 RB (D1RB) (DEG)	Cable Speed (CS) (F/HR)	Comp.CCL (CCLC)	Water Holdup Image 2 colors (WATER_HIMAGE_2C) (-----	Avg Holdup (DDFHM)	Bub Counts Image 16 colors (DBIMAGE_16C) (----	Amplified Avg Bubble count (DDFBM)	GR (GR)
0 360	0 20000	2 (V) −2	−0.5000 0.5000	0 (----- 1	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	0 (CPS) 10	0 (GAPI) 150
Tension (TENS) (LBF)						Avg BUB count (DDFBM)	Well Pressure (WPRE)
0 2500						0 (CPS) 500	3100 (PSIA) 3200
						Filtered Auxiliary Spinner 1 (SPI1)	Well Temperature (WTEP)
						−15 (RPS) 15	215 (DEGF) 220
							Well Fluid Density (WFDE)
							0 (G/C3) 2

Format: DEFT_Image_DL **Vertical Scale: 1:200** **Graphics File Created: 24-Jul-2008 16:51**

OP System Version: 15C0-309

MCM

PFCS-A	SRPC-3546-Q1_2008_OP15	PILS-A	SRPC-3546-Q1_2008_OP15
DEFT-C2	SRPC-3546-Q1_2008_OP15	PGMC-A/B	SRPC-3546-Q1_2008_OP15
PSPT-A/B	SRPC-3546-Q1_2008_OP15		

Parameters

DLIS Name	Description	Value	
PFCS-A: PSP Flow and caliper Tool			
AMOD	Spinner Filter Averaging Mode	LINEAR_AVERAGE	
CSID	Casing Size I.D.	6.875	IN
DDRC	Dual DEFT DELTA RB COMPUTATION	D1RB2-D1RB	
DDRS	Dual DEFT RB Source	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	A	
GDEV	Average Angular Deviation of Borehole from Normal	33	DEG
SDCF	Spinner Depth Constant Filter	6	
SPI1	Auxiliary Spinner 1 Flowmeter Sonde	PILS−A	
	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	
	DEFT−C2: DEFT_C Tool		
CSID	Casing Size I.D.	6.875	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	
	PGMC−A/B: PSP Gradiomanometer Measurement Module		
CSID	Casing Size I.D.	6.875	IN
GCPG	Gradio Surf.Cal Diff.Pres Gain	1	
GCPO	Gradio Surf.Cal Diff.Pres Offset	0	KPAA
PDSH	Gradio Correction Density Shift	0	G/C3
	PSPT−A/B: Production Services Logging Platform		
CSID	Casing Size I.D.	6.875	IN
GDEV	Average Angular Deviation of Borehole from Normal	33	DEG
	BORDYN: BorDyn (Well Test Validation)		
CSID	Casing Size I.D.	6.875	IN
	System and Miscellaneous		
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	NORMAL	

Input DLIS Files

DEFAULT	FCS_ILS_DEFT_GMS_090PUP	FN:81	PRODUCER	24−Jul−2008 16:10	3080.5 M	3007.3 M

Output DLIS Files

DEFAULT	FCS_ILS_DEFT_GMS_096PUP	FN:87	PRODUCER	24−Jul−2008 16:51		

Input DLIS Files

DEFAULT	FCS_ILS_DEFT_GMS_090PUP	FN:81	PRODUCER	24−Jul−2008 16:10	3080.5 M	3007.3 M

Output DLIS Files

DEFAULT	FCS_ILS_DEFT_GMS_096PUP	FN:87	PRODUCER	24−Jul−2008 16:51	3080.5 M	3007.9 M

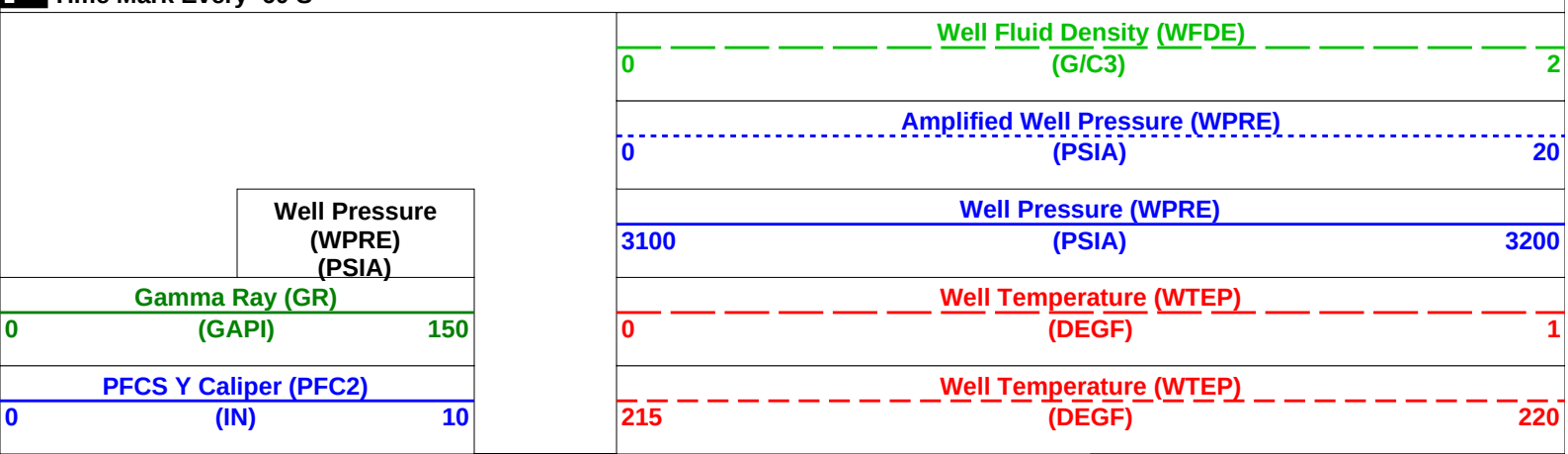
OP System Version: 15C0−309

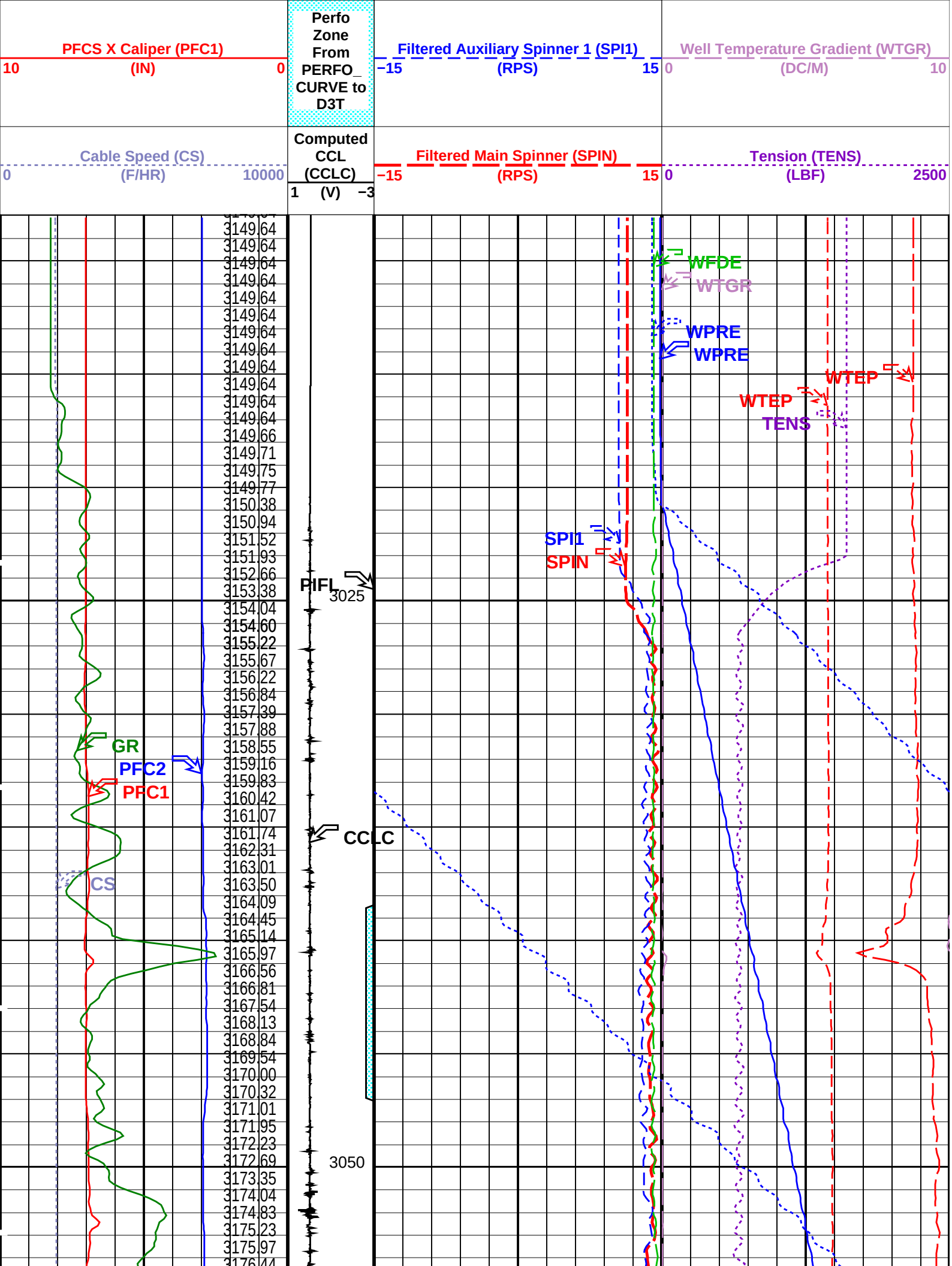
MCM

PFCS−A	SRPC−3546−Q1_2008_OP15	PILS−A	SRPC−3546−Q1_2008_OP15
DEFT−C2	SRPC−3546−Q1_2008_OP15	PGMC−A/B	SRPC−3546−Q1_2008_OP15
PSPT−A/B	SRPC−3546−Q1_2008_OP15		

PIP SUMMARY

Time Mark Every 60 S




PFCS X Caliper (PFC1)
10 (IN) 0
Perfo Zone From PERFO_ CURVE to D3T
Filtered Auxiliary Spinner 1 (SPI1)
−15 (RPS) 15
Well Temperature Gradient (WTGR)
0 (DC/M) 10
Cable Speed (CS)
0 (F/HR) 10000
Computed CCL (CCLC)
1 (V) −3
Filtered Main Spinner (SPIN)
−15 (RPS) 15
Tension (TENS)
0 (LBF) 2500
3149.64
3149.64
3149.64
3149.64
3149.64
3149.64
3149.64
3149.64
3149.64
3149.64
3149.64
3149.66
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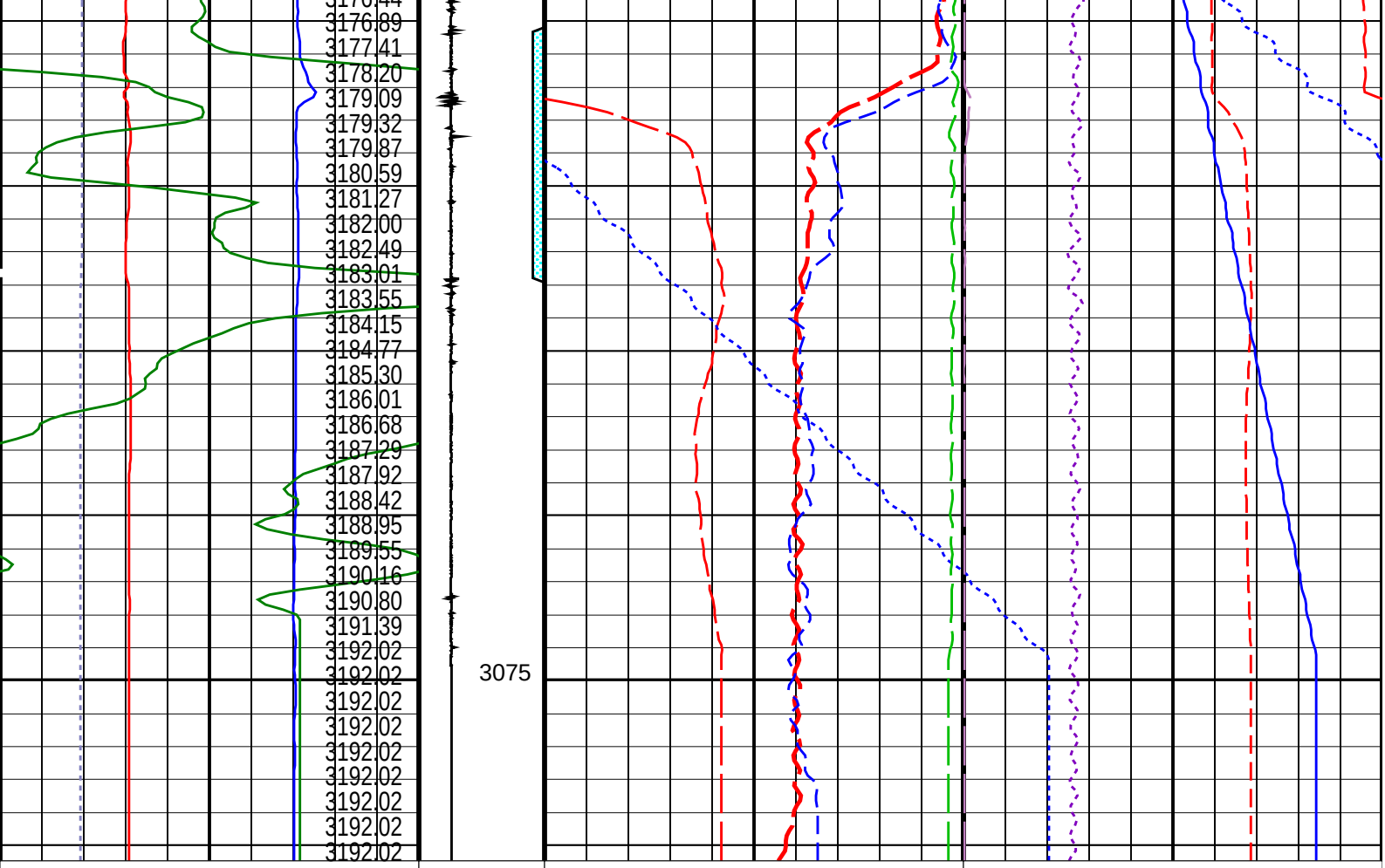
3150.38
3150.94
3151.52
3151.93
3152.66
3153.38
3154.04
3154.60
3155.22
3155.67
3156.22
3156.84
3157.39
3157.88
3158.55
3159.16
3159.83
3160.42
3161.07
3161.74
3162.31
3163.01
3163.50
3164.09
3164.45
3165.14
3165.97
3166.56
3166.81
3167.54
3168.13
3168.84
3169.54
3170.00
3170.32
3171.01
3171.95
3172.23
3172.69
3173.35
3174.04
3174.83
3175.23
3175.97
3176.44
PIFL
3025
CCLC
3050
WFDE
WTGR
WPRE
WPRE
WTEP
WTEP
TENS
SPI1
SPIN
GR
PFC2
PFC1
CS



Cable Speed (CS) 0 (F/HR) 10000	Computed CCL (CCLC) 1 (V) −3	Filtered Main Spinner (SPIN) −15 (RPS) 15
Tension (TENS) 0 (LBF) 2500		
PFCS X Caliper (PFC1) 10 (IN) 0	Perfo Zone From PERFO_ CURVE to D3T	Filtered Auxiliary Spinner 1 (SPI1) −15 (RPS) 15
Well Temperature Gradient (WTGR) 0 (DC/M) 10		
PFCS Y Caliper (PFC2) 0 (IN) 10		Well Temperature (WTEP) 215 (DEGF) 220
Gamma Ray (GR) 0 (GAPI) 150		Well Temperature (WTEP) 0 (DEGF) 1
Well Pressure (WPRE) (PSIA)		Well Pressure (WPRE) 3100 (PSIA) 3200
		Amplified Well Pressure (WPRE) 0 (PSIA) 20
		Well Fluid Density (WFDE) 0 (G/C3) 2

PIP SUMMARY

Time Mark Every 60 S

Format: PSP_1 Vertical Scale: 1:200 Graphics File Created: 24-Jul-2008 16:51

OP System Version: 15C0-309

MCM

PFCS-A	SRPC-3546-Q1_2008_OP15	PILS-A	SRPC-3546-Q1_2008_OP15
DEFT-C2	SRPC-3546-Q1_2008_OP15	PGMC-A/B	SRPC-3546-Q1_2008_OP15
PSPT-A/B	SRPC-3546-Q1_2008_OP15		

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	33	DEG
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	
	PGMC−A/B: PSP Gradiomanometer Measurement Module		
GCPG	Gradio Surf.Cal Diff.Pres Gain	1	
GCPO	Gradio Surf.Cal Diff.Pres Offset	0	KPAA
PDSH	Gradio Correction Density Shift	0	G/C3
	PSPT−A/B: Production Services Logging Platform		
GDEV	Average Angular Deviation of Borehole from Normal	33	DEG
	System and Miscellaneous		
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	NORMAL	

Input DLIS Files

DEFAULT	FCS_ILS_DEFT_GMS_090PUP	FN:81	PRODUCER	24−Jul−2008 16:10	3080.5 M	3007.3 M

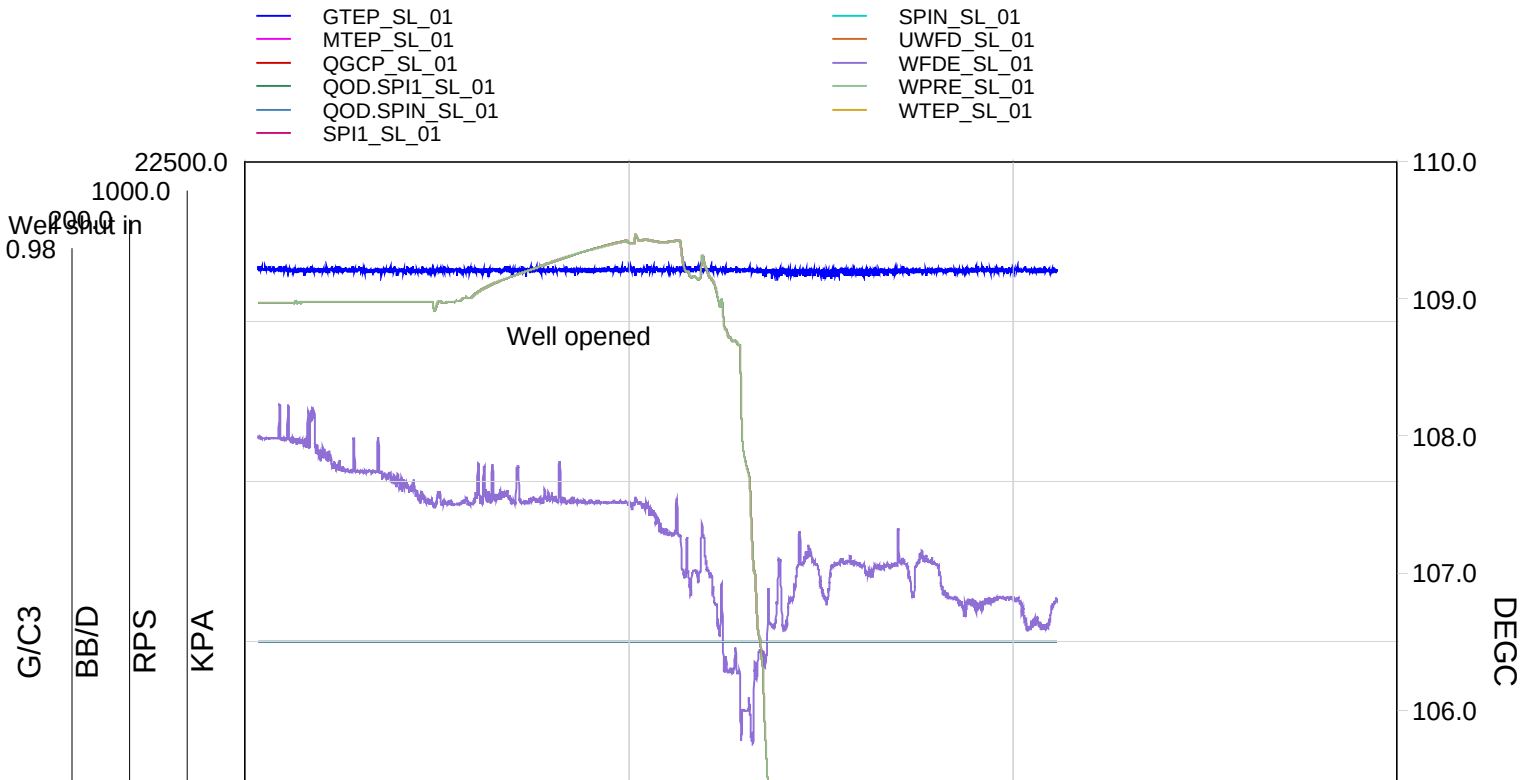
Output DLIS Files

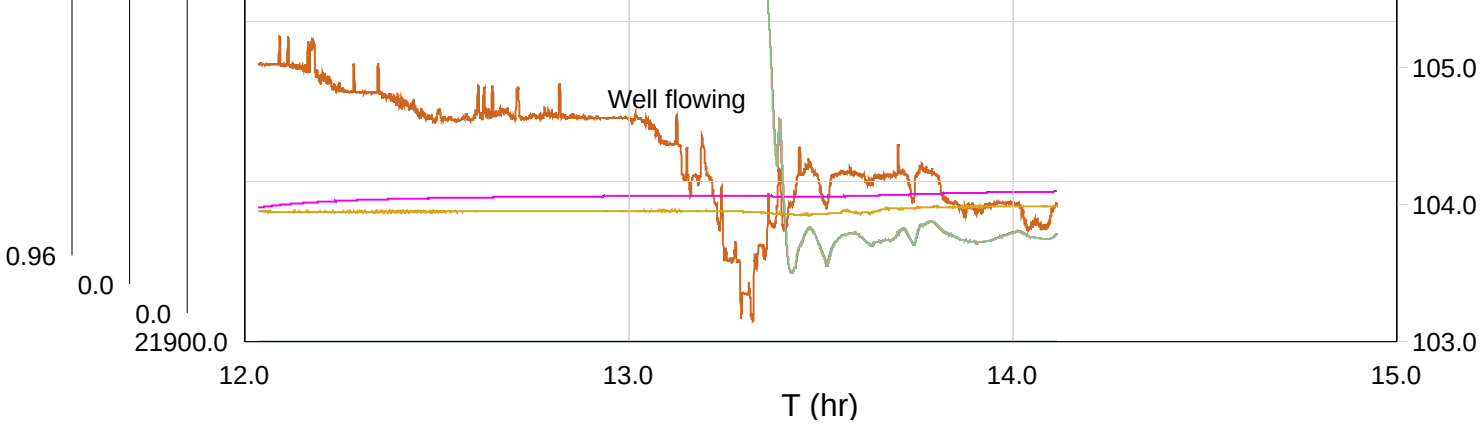
DEFAULT	FCS_ILS_DEFT_GMS_096PUP	FN:87	PRODUCER	24−Jul−2008 16:51

Schlumberger

Station log
Well draw down

MAXIS Field Log





TIME	SPIN	DDFHM	WFDE	WTEP−DEGF	WPRE−PSIA
13680.0	0.0000	1.0000	0.9742	219.1118	3250.5624
13800.0	0.0000	1.0000	0.9742	219.1065	3250.5800
13920.0	0.0000	1.0000	0.9742	219.1009	3250.5895
14040.0	0.0000	1.0000	0.9742	219.1061	3250.5971
14160.0	0.0000	1.0000	0.9744	219.1055	3250.6081
14280.0	0.0000	1.0000	0.9740	219.1054	3250.6161
14400.0	0.0000	1.0000	0.9736	219.1052	3250.6160
14520.0	0.0000	1.0000	0.9736	219.1055	3250.6148
14640.0	0.0000	1.0000	0.9735	219.1077	3250.6256
14760.0	0.0000	1.0000	0.9735	219.1070	3250.6261
14880.0	0.0000	1.0000	0.9735	219.1077	3250.6342
15000.0	0.0000	1.0000	0.9732	219.1074	3250.6396
15120.0	0.0000	1.0000	0.9732	219.1100	3250.6428
15240.0	0.0000	1.0000	0.9730	219.1086	3250.6384
15360.0	0.0000	1.0000	0.9731	219.1095	3250.6730
15480.0	0.0000	1.0000	0.9729	219.1086	3250.6624
15600.0	0.0000	1.0000	0.9729	219.1095	3250.9796
15720.0	0.0000	1.0000	0.9730	219.1105	3251.4539
15840.0	0.0000	1.0000	0.9730	219.1111	3252.1252
15960.0	0.0000	1.0000	0.9731	219.1117	3252.6234
16080.0	0.0000	1.0000	0.9729	219.1125	3253.0557
16200.0	0.0000	1.0000	0.9729	219.1123	3253.4620
16320.0	0.0000	1.0000	0.9729	219.1147	3253.8783
16440.0	0.0000	1.0000	0.9730	219.1146	3254.2992
16560.0	0.0000	1.0000	0.9729	219.1143	3254.6921
16680.0	0.0000	1.0000	0.9729	219.1158	3255.0664
16800.0	0.0000	1.0000	0.9729	219.1157	3255.4005
16920.0	0.0000	1.0000	0.9729	219.1145	3255.7228
17040.0	0.0000	1.0000	0.9729	219.1157	3256.0073
17160.0	0.0000	1.0000	0.9728	219.1181	3255.9690
17280.0	0.0000	1.0000	0.9729	219.1175	3256.2566
17400.0	0.0000	1.0000	0.9725	219.1177	3256.1276
17520.0	0.0000	1.0000	0.9722	219.1185	3256.0875
17640.0	0.0000	1.0000	0.9717	219.1178	3255.2870
17760.0	0.0000	1.0000	0.9715	219.1179	3253.0244
17880.0	0.0000	1.0000	0.9715	219.1184	3253.4845
18000.0	0.0000	1.0000	0.9701	219.1135	3250.2176
18120.0	0.0000	1.0000	0.9694	219.1133	3247.1055
18240.0	0.0000	1.0000	0.9686	219.1060	3236.1606
18360.0	0.0000	1.0000	0.9697	219.0987	3220.6478
18480.0	0.0000	1.0000	0.9704	219.0869	3201.8174
18600.0	0.0000	1.0000	0.9702	219.0763	3188.9112
18720.0	0.0000	1.0000	0.9714	219.0654	3183.8152

18840.0	0.0000	1.0000	0.9718	219.0672	3186.6369
18960.0	0.0000	1.0000	0.9711	219.0735	3184.4107
19080.0	0.0000	1.0000	0.9716	219.0925	3185.3139
19200.0	0.0000	1.0000	0.9717	219.1186	3186.1188
19320.0	0.0000	1.0000	0.9716	219.0891	3185.8481
19440.0	0.0000	1.0000	0.9715	219.1044	3185.1914
19560.0	0.0000	1.0000	0.9716	219.1428	3185.5877
19680.0	0.0000	1.0000	0.9718	219.1444	3186.2554
19800.0	0.0000	1.0000	0.9710	219.1543	3185.3819
19920.0	0.0000	1.0000	0.9718	219.1646	3186.9163
20040.0	0.0000	1.0000	0.9716	219.1709	3186.8603
20160.0	0.0000	1.0000	0.9709	219.1671	3186.0095
20280.0	0.0000	1.0000	0.9708	219.1684	3185.5411
20400.0	0.0000	1.0000	0.9706	219.1711	3185.3241
20520.0	0.0000	1.0000	0.9709	219.1752	3185.4438
20640.0	0.0000	1.0000	0.9709	219.1779	3185.8771
20760.0	0.0000	1.0000	0.9709	219.1756	3186.2285
20880.0	0.0000	1.0000	0.9703	219.1772	3185.9504
21000.0	0.0000	1.0000	0.9704	219.1805	3185.6944
21120.0	0.0000	1.0000	0.9707	219.1792	3185.7700

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Spinners Multipass
Shut In

MAXIS Field Log

Company: Esso Australia Pty Ltd. **Well: A−9a**

PLQL Passes Summary

Pass # 1: Src: PLQL_CS, Log: UP , Avg.CS: 5 M/MN
Pass # 2: Src: PLQL_CS, Log: DOWN, Avg.CS: 5 M/MN
Pass # 3: Src: PLQL_CS, Log: UP , Avg.CS: 10 M/MN
Pass # 4: Src: PLQL_CS, Log: DOWN, Avg.CS: 10 M/MN
Pass # 5: Src: PLQL_CS, Log: UP , Avg.CS: 21 M/MN
Pass # 6: Src: PLQL_CS, Log: DOWN, Avg.CS: 20 M/MN
Pass # 7: Src: PLQL_CS, Log: UP , Avg.CS: 30 M/MN
Pass # 8: Src: PLQL_CS, Log: DOWN, Avg.CS: 28 M/MN

Company: Esso Australia Pty Ltd. **Well: A−9a**

PLQL Data Manager Files

Pass # 1
Pass # 2
Pass # 3
Pass # 4

Pass # 5
Pass # 6
Pass # 7
Pass # 8

Company: Esso Australia Pty Ltd. Well: A−9a

Output DLIS Files

DEFAULT	FCS_ILS_DEFT_GMS_106PUP	FN:97	PRODUCER	25−Jul−2008 08:21	3079.7 M	3016.1 M

OP System Version: 15C0−309

MCM

PFCS−A	SRPC−3546−Q1_2008_OP15	PILS−A	SRPC−3546−Q1_2008_OP15
DEFT−C2	SRPC−3546−Q1_2008_OP15	PGMC−A/B	SRPC−3546−Q1_2008_OP15
PSPT−A/B	SRPC−3546−Q1_2008_OP15		

Spinner Rotational Velocity [01] (P01SPIN) −15 (RPS) 15

Gamma−Ray [04] (P04LGR) 0 (GAPI) 150

Spinner Rotational Velocity [02] (P02SPIN) −15 (RPS) 15

Cable Velocity [01] (P01CVL) −40 (M/MN) 40

Spinner Rotational Velocity [03] (P03SPIN) −15 (RPS) 15

Cable Velocity [02] (P02CVL) −40 (M/MN) 40

Spinner Rotational Velocity [04] (P04SPIN) −15 (RPS) 15

Cable Velocity [03] (P03CVL) −40 (M/MN) 40

Squeezed Perfo Zone From SQZPERF_CURVE to D3T

Spinner Rotational Velocity [05] (P05SPIN) −15 (RPS) 15

Cable Velocity [04] (P04CVL) −40 (M/MN) 40

Interpretation Zone From ZONE_CURVE to D3T

Spinner Rotational Velocity [06] (P06SPIN) −15 (RPS) 15

Cable Velocity [05] (P05CVL) −40 (M/MN) 40

Perfo Zone From PERFO_CURVE to D3T

Spinner Rotational Velocity [07] (P07SPIN) −15 (RPS) 15

Cable Velocity [06] (P06CVL) −40 (M/MN) 40

Squeezed Perfo Zone (SPIF_DM) 30 (−−−− 0

Spinner Rotational Velocity [08] (P08SPIN) −15 (RPS) 15

Cable Velocity [07] (P07CVL) −40 (M/MN) 40

Perfo Zone (PIFL_DM) 20 (−−−− 0

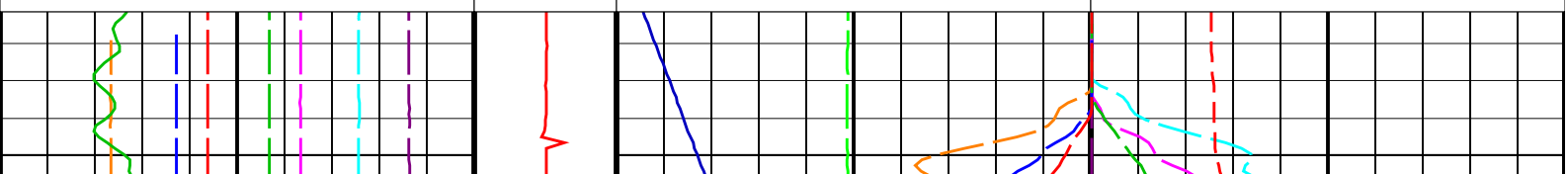
Well Pressure [01] (P01LPR) 3210 (PSIA) 3260

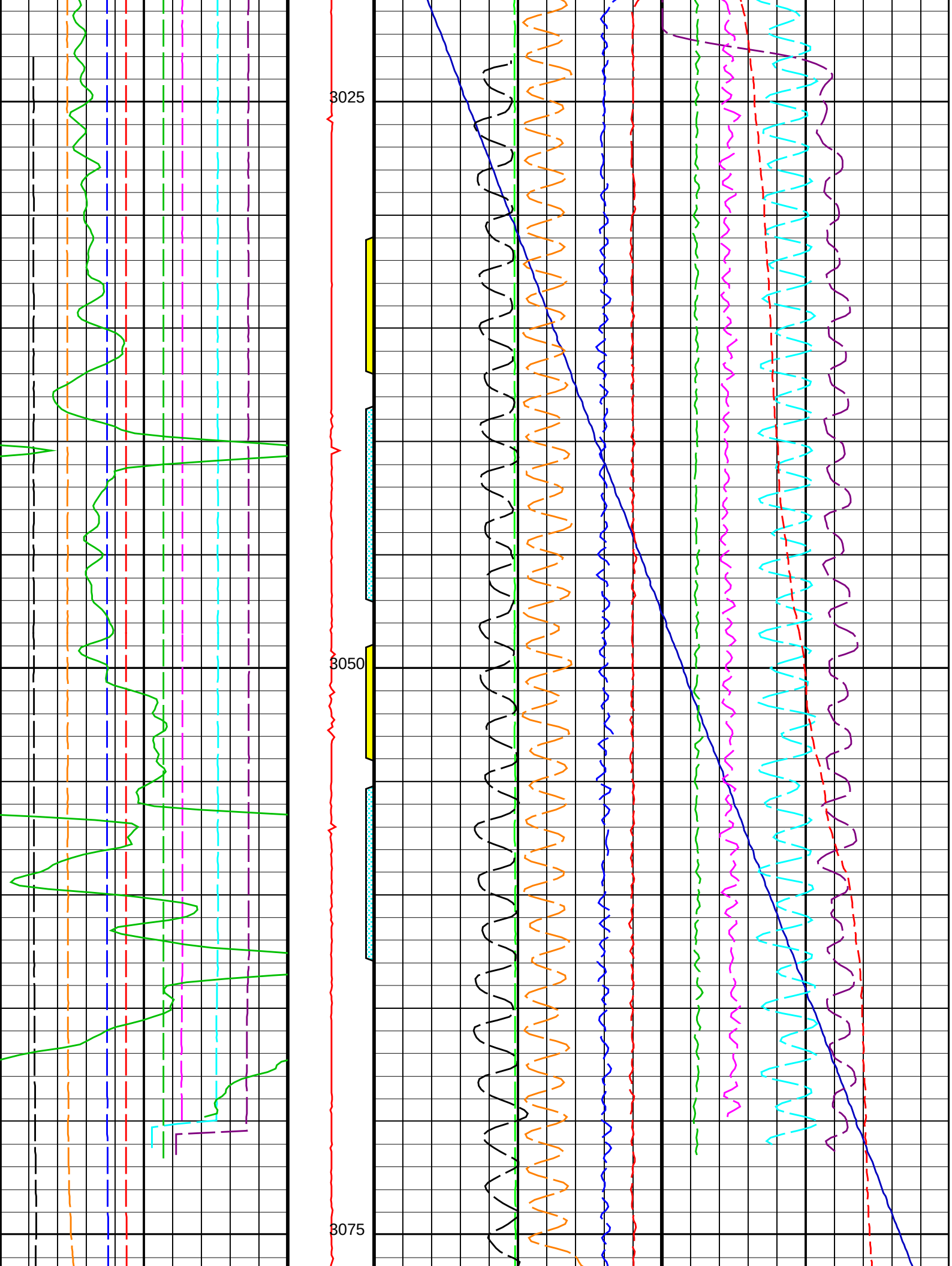
Cable Velocity [08] (P08CVL) −40 (M/MN) 40

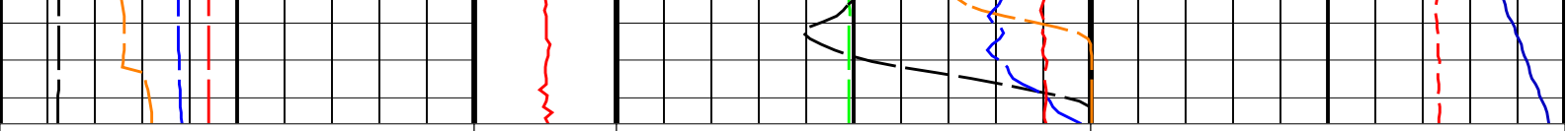
CCL [01] (P01CCL) −3 (V) 3

Fluid Density [01] (P01FDS) 0 (G/C3) 2

Fluid Temperature [01] (P01TMP) 217 (DEGF) 220




3025
3050
3075



Cable Velocity [08] (P08CVL) −40 (M/MN) 40	CCL [01] (P01CCL) −3 (V) 3	Fluid Density [01] (P01FDS) 0 (G/C3) 2
		Fluid Temperature [01] (P01TMP) 217 (DEGF) 220
Cable Velocity [07] (P07CVL) −40 (M/MN) 40	Perfo Zone (PIFL_DM) 20 (---- 0	Well Pressure [01] (P01LPR) 3210 (PSIA) 3260
Cable Velocity [06] (P06CVL) −40 (M/MN) 40	Squeezed Perfo Zone (SPIF_DM) 30 (---- 0	Spinner Rotational Velocity [08] (P08SPIN) −15 (RPS) 15
Cable Velocity [05] (P05CVL) −40 (M/MN) 40	Perfo Zone From PERFO_ CURVE to D3T	Spinner Rotational Velocity [07] (P07SPIN) −15 (RPS) 15
Cable Velocity [04] (P04CVL) −40 (M/MN) 40	Interpretation Zone From ZONE_ CURVE to D3T	Spinner Rotational Velocity [06] (P06SPIN) −15 (RPS) 15
Cable Velocity [03] (P03CVL) −40 (M/MN) 40	Squeezed Perfo Zone From SQZPERF _CURVE to D3T	Spinner Rotational Velocity [05] (P05SPIN) −15 (RPS) 15
Cable Velocity [02] (P02CVL) −40 (M/MN) 40		Spinner Rotational Velocity [04] (P04SPIN) −15 (RPS) 15
Cable Velocity [01] (P01CVL) −40 (M/MN) 40		Spinner Rotational Velocity [03] (P03SPIN) −15 (RPS) 15
Gamma−Ray [04] (P04LGR) 0 (GAPI) 150		Spinner Rotational Velocity [02] (P02SPIN) −15 (RPS) 15
		Spinner Rotational Velocity [01] (P01SPIN) −15 (RPS) 15

Parameters

DLIS Name	Description	Value	
	PFCS−A: PSP Flow and caliper Tool		
CSID	Casing Size I.D.	6.875	IN
	DEFT−C2: DEFT_C Tool		
CSID	Casing Size I.D.	6.875	IN
	PGMC−A/B: PSP Gradiomanometer Measurement Module		
CSID	Casing Size I.D.	6.875	IN
	PSPT−A/B: Production Services Logging Platform		
CSID	Casing Size I.D.	6.875	IN
	BORDYN: BorDyn (Well Test Validation)		
CSID	Casing Size I.D.	6.875	IN
	PLQL: Production Logging Quick Look		
CCLS	CCL Selector	CCLC	
FCHD	Cased Hole Diameter Selector	PFC1	
PCVS	CVEL Selector	CVEL	
PGRS	GR Selector	GR	
PGS	Pressure Gauge Selector	WPRE	
PWHS	PLQL Water HoldUp Selector	DFHM	
RHOS	Fluid Density Selector	WFDE	

SPIS	Spinner Selector	SPIN	
TMPS	Temperature Selector	WTEP	
	System and Miscellaneous		
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	NORMAL	

Format: PLQLMultiPassWithInsert_1 Vertical Scale: 1:200 Graphics File Created: 25−Jul−2008 08:21

OP System Version: 15C0−309

MCM

PFCS−A	SRPC−3546−Q1_2008_OP15	PILS−A	SRPC−3546−Q1_2008_OP15
DEFT−C2	SRPC−3546−Q1_2008_OP15	PGMC−A/B	SRPC−3546−Q1_2008_OP15
PSPT−A/B	SRPC−3546−Q1_2008_OP15		

Output DLIS Files

DEFAULT	FCS_ILS_DEFT_GMS_106PUP	FN:97	PRODUCER	25−Jul−2008 08:21	

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Correlation Pass

MAXIS Field Log

Input DLIS Files

DEFAULT	FCS_ILS_DEFT_GMS_079PUP	FN:70	PRODUCER	24−Jul−2008 15:53	3079.1 M	2997.7 M

Output DLIS Files

DEFAULT	FCS_ILS_DEFT_GMS_111PUP	FN:102	PRODUCER	25−Jul−2008 09:44	3079.4 M	2998.6 M

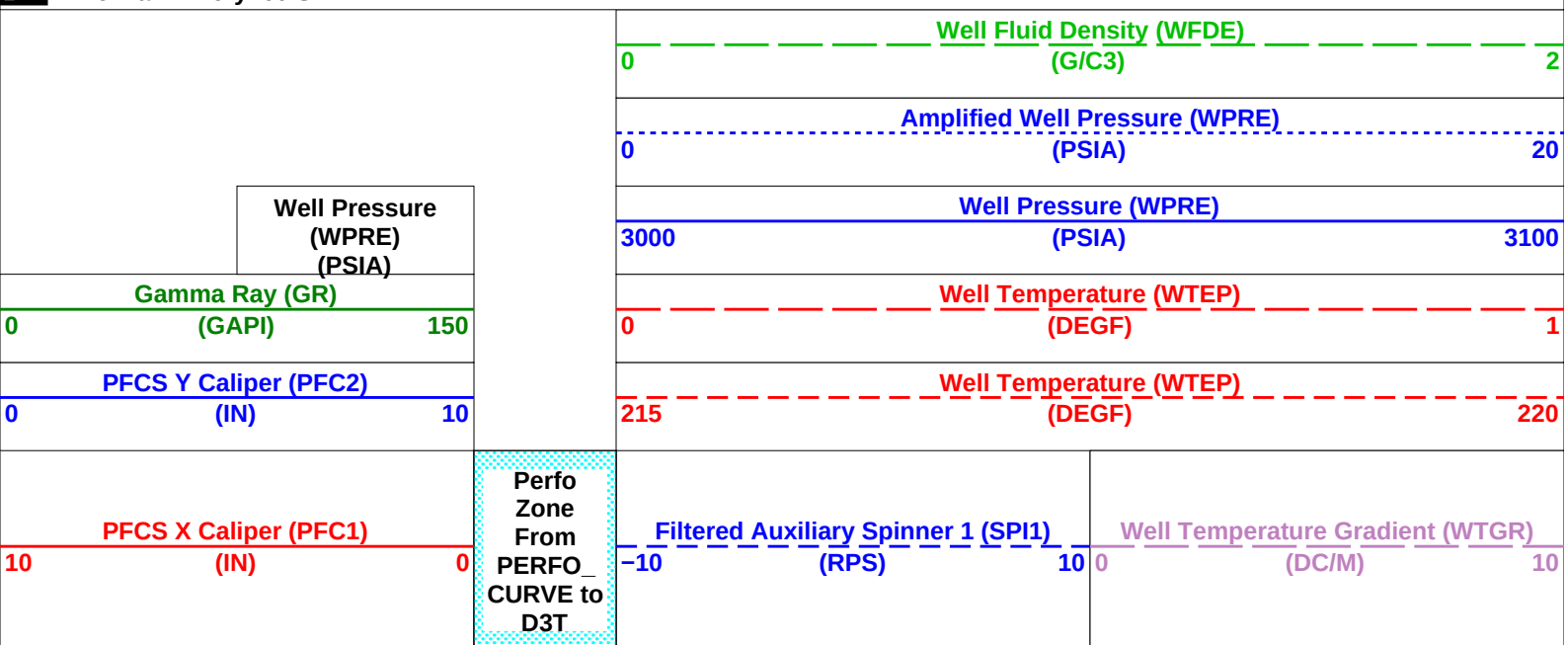
OP System Version: 15C0−309

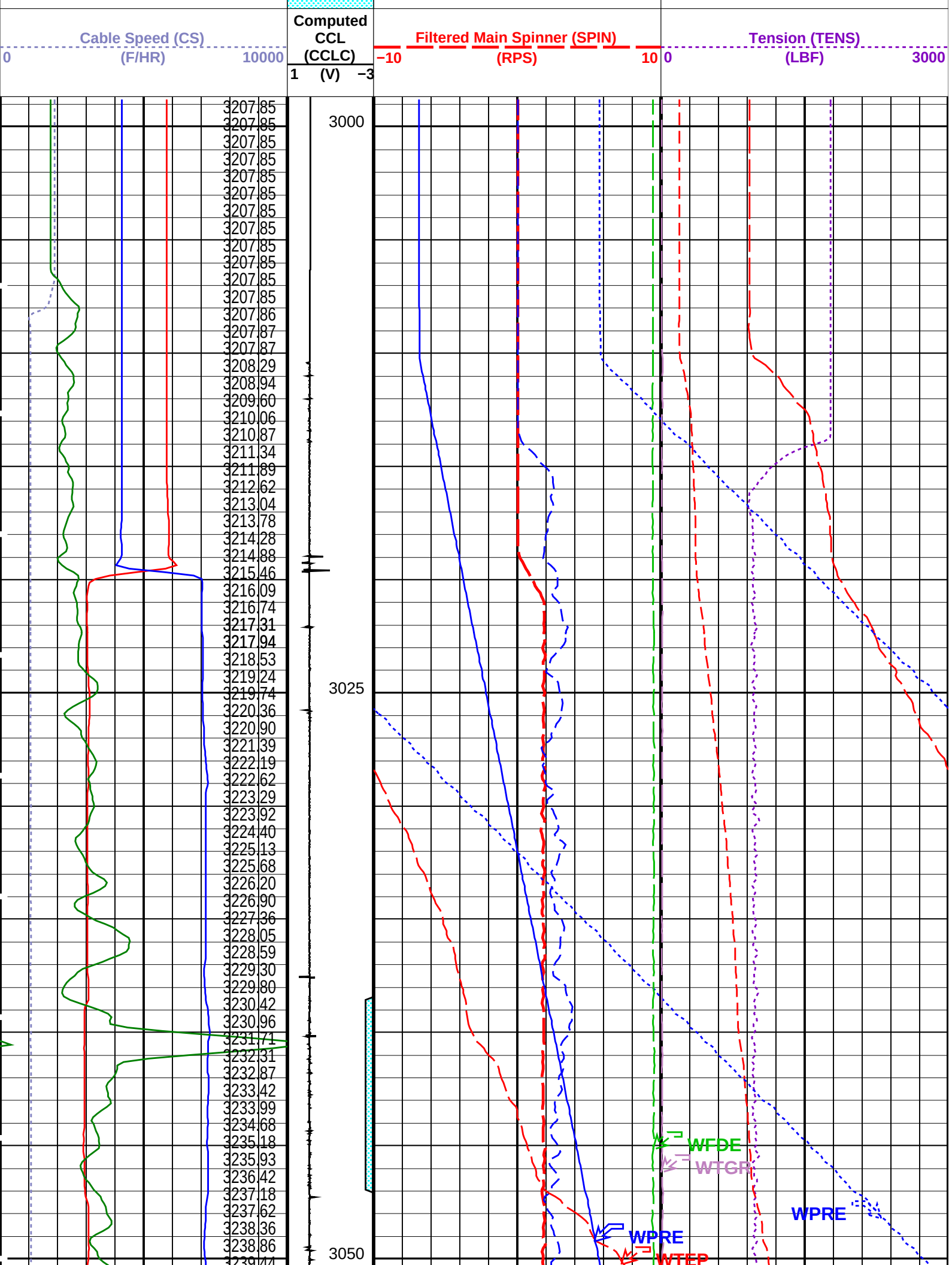
MCM

PFCS−A	SRPC−3546−Q1_2008_OP15	PILS−A	SRPC−3546−Q1_2008_OP15
DEFT−C2	SRPC−3546−Q1_2008_OP15	PGMC−A/B	SRPC−3546−Q1_2008_OP15
PSPT−A/B	SRPC−3546−Q1_2008_OP15		

PIP SUMMARY

Time Mark Every 60 S




Cable Speed (CS)
0
(F/HR)
10000
Computed CCL (CCLC)
1
(V)
−3
Filtered Main Spinner (SPIN)
−10
(RPS)
10
Tension (TENS)
0
(LBF)
3000
3207.85
3207.85
3207.85
3207.85
3207.85
3207.85
3207.85
3207.85
3207.85
3207.85
3207.85
3207.85
3207.86
3207.87
3207.87
3208.29
3208.94
3209.60
3210.06
3210.87
3211.34
3211.89
3212.62
3213.04
3213.78
3214.28
3214.88
3215.46
3216.09
3216.74
3217.31
3217.94
3218.53
3219.24
3219.74
3220.36
3220.90
3221.39
3222.19
3222.62
3223.29
3223.92
3224.40
3225.13
3225.68
3226.20
3226.90
3227.36
3228.05
3228.59
3229.30
3229.80
3230.42
3230.96
3231.71
3232.31
3232.87
3233.42
3233.99
3234.68
3235.18
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3236.42
3237.18
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3239.44
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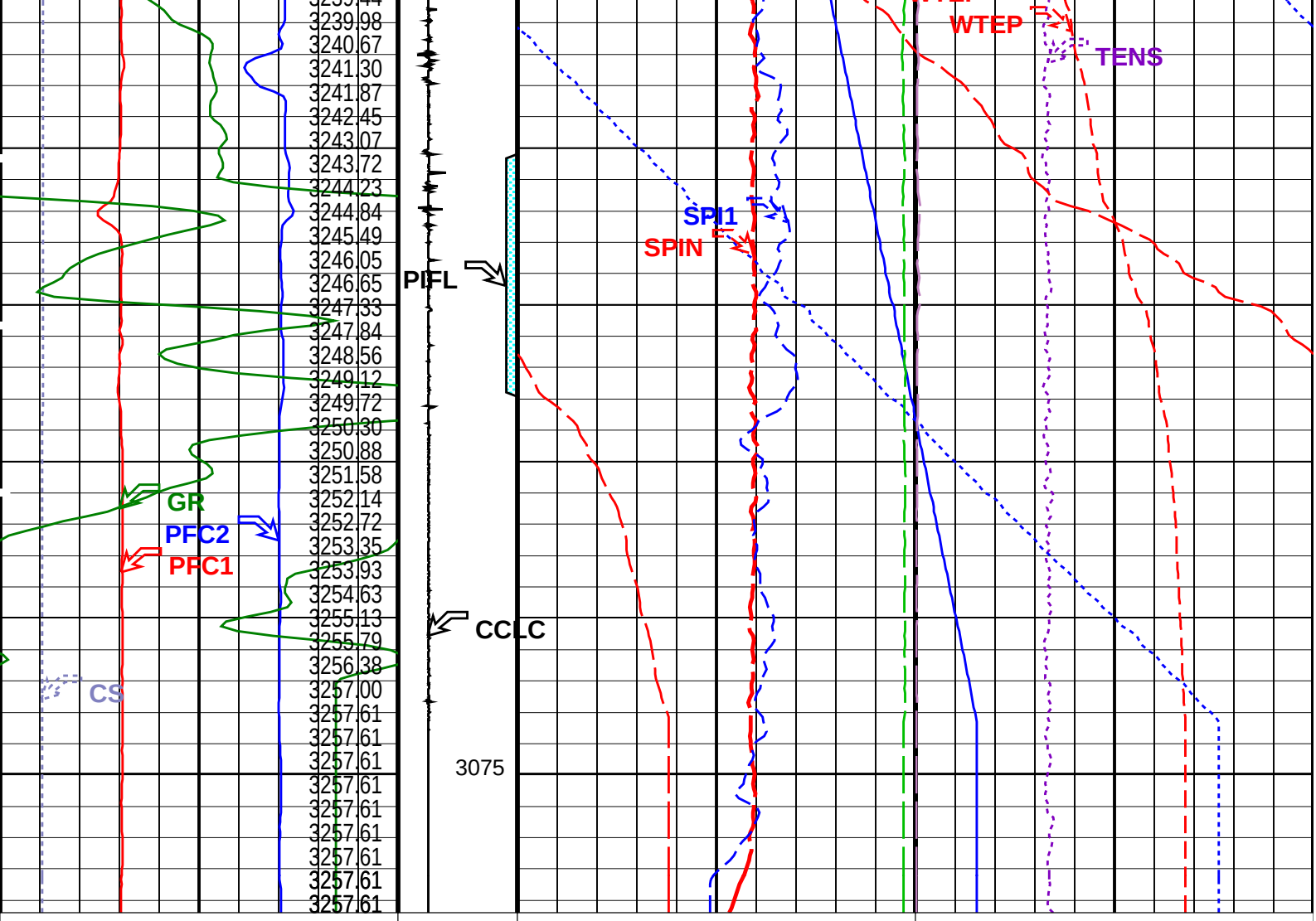
3025
3050
WFDE
WTGR
WPRE
WPRE
WTEP



Cable Speed (CS) 0 (F/HR) 10000	Computed CCL (CCLC) 1 (V) −3	Filtered Main Spinner (SPIN) −10 (RPS) 10
Tension (TENS) 0 (LBF) 3000		
PFCS X Caliper (PFC1) 10 (IN) 0	Perfo Zone From PERFO_ CURVE to D3T	Filtered Auxiliary Spinner 1 (SPI1) −10 (RPS) 10
Well Temperature Gradient (WTGR) 0 (DC/M) 10		
PFCS Y Caliper (PFC2) 0 (IN) 10		Well Temperature (WTEP) 215 (DEGF) 220
Gamma Ray (GR) 0 (GAPI) 150		Well Temperature (WTEP) 0 (DEGF) 1
Well Pressure (WPRE) (PSIA)		Well Pressure (WPRE) 3000 (PSIA) 3100
		Amplified Well Pressure (WPRE) 0 (PSIA) 20
		Well Fluid Density (WFDE) 0 (G/C3) 2

PIP SUMMARY

Time Mark Every 60 S

Format: PSP_1 Vertical Scale: 1:200 Graphics File Created: 25−Jul−2008 09:44

OP System Version: 15C0−309

MCM

PFCS−A	SRPC−3546−Q1_2008_OP15	PILS−A	SRPC−3546−Q1_2008_OP15
DEFT−C2	SRPC−3546−Q1_2008_OP15	PGMC−A/B	SRPC−3546−Q1_2008_OP15
PSPT−A/B	SRPC−3546−Q1_2008_OP15		

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	
	PGMC−A/B: PSP Gradiomanometer Measurement Module		
GCPG	Gradio Surf.Cal Diff.Pres Gain	1	
GCPO	Gradio Surf.Cal Diff.Pres Offset	0	KPAA
PDSH	Gradio Correction Density Shift	0	G/C3
	PSPT−A/B: Production Services Logging Platform		
GDEV	Average Angular Deviation of Borehole from Normal	33	DEG
	System and Miscellaneous		
DO	Depth Offset for Playback	0.3	M
PP	Playback Processing	NORMAL	

Input DLIS Files

DEFAULT	FCS_ILS_DEFT_GMS_079PUP	FN:70	PRODUCER	24−Jul−2008 15:53	3079.1 M	2997.7 M

Output DLIS Files

DEFAULT	FCS_ILS_DEFT_GMS_111PUP	FN:102	PRODUCER	25−Jul−2008 09:44

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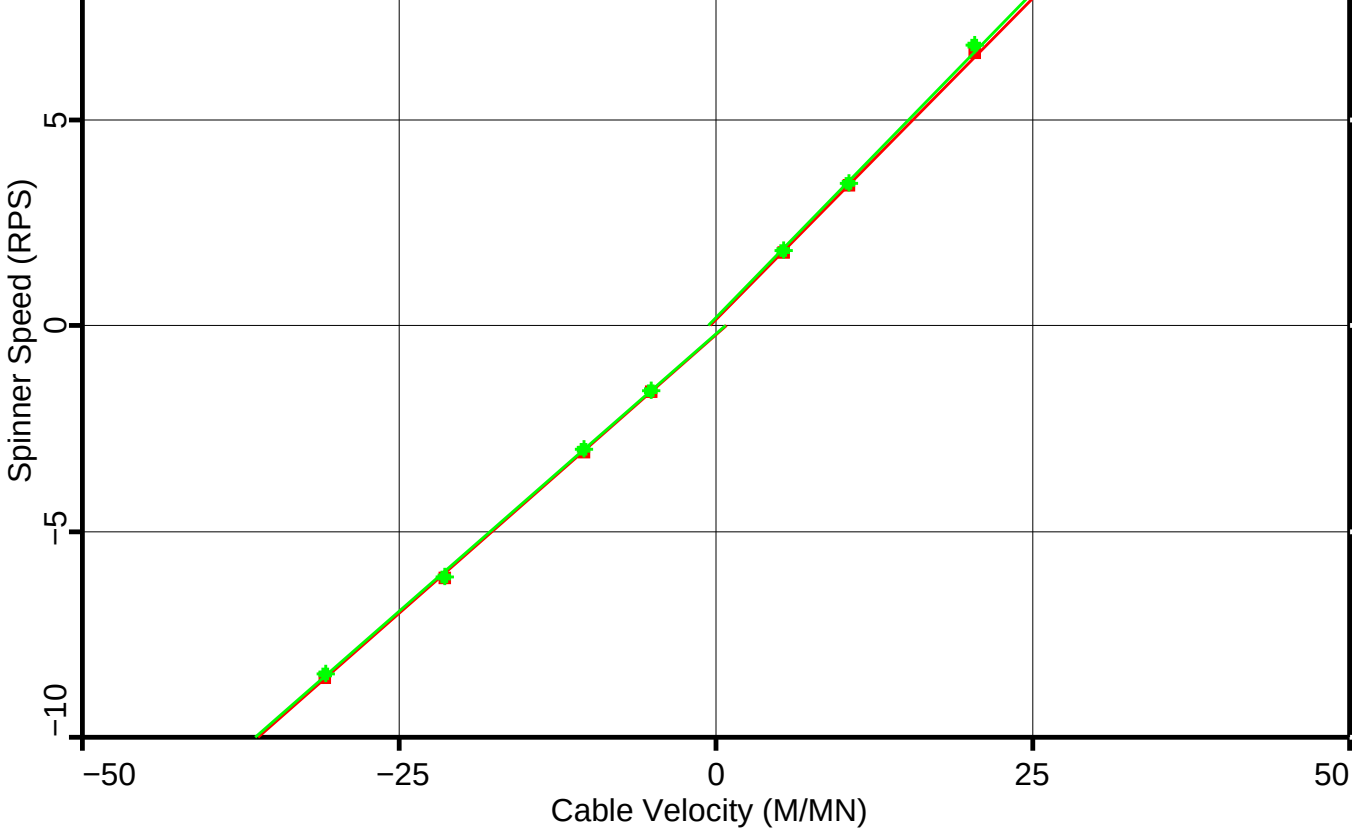
Spinner Calibration

MAXIS Field Log

Production Logging Quicklook Spinner Calibration

	Zone Depth (M)	Fluid Vel. (M/MN)	Positive Spinner Slope (RSMM)	Positive Spinner Intercept (M/MN)	Positive Spinner Correl.	Negative Spinner Slope (RSMM)	Negative Spinner Intercept (M/MN)	Negative Spinner Correl.
Zone 1	3037.0 − 3031.0 :	1.$	0.3128	−0.4	1	0.2704	0.9	1
Zone 2	3054.0 − 3049.0 :	1.$	0.3167	−0.6	0.999	0.2693	0.8	1



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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: 18−Jul−2008 8:36							
PFCS CaliperX Small Ring	5.500	N/A	5.472	N/A	N/A	N/A	IN
PFCS CaliperX Large Ring	8.000	N/A	8.148	N/A	N/A	N/A	IN
PFCS CaliperY Small Ring	5.500	N/A	5.497	N/A	N/A	N/A	IN
PFCS CaliperY Large Ring	8.000	N/A	8.145	N/A	N/A	N/A	IN
DEFT_C Tool Wellsite Calibration − DEFT_C2 Caliper Calibration							
Before: 18−Jul−2008 8:36							
DEFT−C2 Caliper Small Ring	5.500	N/A	5.435	N/A	N/A	N/A	IN
DEFT−C2 Caliper Large Ring	8.000	N/A	7.820	N/A	N/A	N/A	IN
Production Services Logging Platform Wellsite Calibration − Detector Calibration							
Before: 18−Jul−2008 8:37							
Gamma−Ray Jig−Bkg	125.0	N/A	121.1	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 3.5 Spinner Diameter	Spin −	799	799
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
	(Minimum)	(Nominal)	(Maximum)	
Before	N/A	5.500	N/A	5.472

Phase	PFCS CaliperX Large Ring IN			Value
	(Minimum)	(Nominal)	(Maximum)	
Before	N/A	8.000	N/A	8.148

Phase	PFCS CaliperY Small Ring IN			Value
	(Minimum)	(Nominal)	(Maximum)	
Before	N/A	5.500	N/A	5.497

Phase	PFCS CaliperY Large Ring IN			Value
	(Minimum)	(Nominal)	(Maximum)	
Before	N/A	8.000	N/A	8.145

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DEFT_C Tool / Equipment Identification

Primary Equipment:			
DEFTC Cartridge	DFCC − C	716	716
DEFT_C Caliper	Cali − 1	716	716
DEFT_C2 Relative Bearing	Rela − 1	716	716
DEFT_C Flowmeter probes	Flow − 4	716	716
Auxiliary Equipment:			
DEFTC Cartridge Housing	DFCH − C	716	716

DEFT_C Tool Wellsite Calibration

DEFT_C2 Caliper Calibration

Phase	DEFT−C2 Caliper Small Ring IN			Value
	(Minimum)	(Nominal)	(Maximum)	
Before	N/A	5.500	N/A	5.435

Phase	DEFT−C2 Caliper Large Ring IN			Value
	(Minimum)	(Nominal)	(Maximum)	
Before	N/A	8.000	N/A	7.820

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Production Services Logging Platform / Equipment Identification

Primary Equipment:			
Production Logging Platform (CQG−F)	PSPT − B	827	827
PSP Basic Measurement Sonde (CQG_F)	PBMS − B	827	827
PSP Basic measurement module	PBMS −	827	827
PSP CCL	CCL −	827	827
PSP GR	GR −	827	827
PSP RTD Well Temperature	RTD_ −	827	827
PSP Crystal Quartz Gauge Type F	CQG_ −	827	827
PSP Telemetry and bus master cartridge	PSTC −	806	806
Auxiliary Equipment:			

Production Services Logging Platform Wellsite Calibration

Detector Calibration

Phase	Gamma−Ray Background GAPI			Value
	(Minimum)	(Nominal)	(Maximum)	
Before	0	30.00	120.0	15.62

Phase	Gamma−Ray Jig−Bkg GAPI			Value
	(Minimum)	(Nominal)	(Maximum)	
Before	110.0	125.0	140.0	121.1

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Company:	**Esso Australia Pty Ltd.**
Well:	**A−9a**
Field:	**Mackerel**
Rig :	**Prod4 / Crane**
Country:	**Australia**

Schlumberger

Dual Deft / Spinner
GR−PLT−Gradic
Survey