

Company: Esso Australia Pty. Ltd.

Well: BMA A7

Field: Bream

Rig: Prod 2 / ISS Rig 22 Country: Australia

RST-C
Sigma Log
4-Feb-2007

Prod 2 / ISS Rig 22
Bream
Bass Strait
BMA A7
Esso Australia Pty. Ltd.

LOCATION		
Bass Strait	Elev.: K.B. 33.5 m	
Gippsland	G.L. -59 m	
Basin	D.F. 33.2 m	
Permanent Datum:	Mean Sea Level	Elev.: 33.2 m
Log Measured From:	Drill Floor	-33.2 m above Perm. Datum
Drilling Measured From:	Drill Floor	
State: Victoria	Max. Well Deviation 59 deg	Longitude 147° 46' 15.7"E Latitude 38° 30' 2.5"S

Logging Date	4-Feb-2007		
Run Number	1		
Depth Driller	2977 m		
Schlumberger Depth	2917 m		
Bottom Log Interval	2913 m		
Top Log Interval	2850 m		
Casing Fluid Type	Produced Fluids		
Salinity			
Density			
Fluid Level			
BIT/CASING/TUBING STRING			
Bit Size	9.875 in		
From	1109 m		
To	2976 m		
Casing/Tubing Size	7.000 in		
Weight	38 lbn/ft		
Grade	N-80		
From	27 m		
To	2977 m		
Maximum Recorded Temperatures	208 degF		
Logger On Bottom	4-Feb-2007	14:00	
Unit Number	3827	AUSL	
Recorded By	C.Rowand, O.Darby, B.Donahoe		
Witnessed By	Mr B. Woodward / Mr M. Wilson		

PVT DATA			
Oil Density	Run 1	Run 2	Run 3
Water Salinity			
Gas Gravity			
Bo			
Bw			
1/Bg			
Bubble Point Pressure			
Bubble Point Temperature			
Solution GOR			
Maximum Deviation	59 deg		
CEMENTING DATA			
Primary/Squeeze	Primary		
Casing String No			
Lead Cement Type			
Volume			
Density			
Water Loss			
Additives			
Tail Cement Type			
Volume			
Density			
Water Loss			
Additives			
Expected Cement Top			
Logging Date			
Run Number			
Depth Driller			
Schlumberger Depth			
Bottom Log Interval			
Top Log Interval			
Casing Fluid Type			
Salinity			
Density			
Fluid Level			
BIT/CASING/TUBING STRING			
Bit Size			
From			
To			
Casing/Tubing Size			
Weight			
Grade			
From			
To			
Maximum Recorded Temperatures			
Logger On Bottom			
Unit Number			
Recorded By			
Witnessed By			

DEPTH SUMMARY LISTING	
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Date Created: 4-FEB-2007 0:04:02

Depth System Equipment	
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Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW-E	Type:	CMTD-B/A	Type:	2-32ZT
Serial Number:	727	Serial Number:	1711	Serial Number:	24031
Calibration Date:	23-Mar-2006	Calibration Date:	01-Dec-2006	Length:	5650.08 M
Calibrator Serial Number:	9	Calibrator Serial Number:	1173		
Calibration Cable Type:	2-32ZT	Calibration Gain:	1.01	Conveyance Method:	Wireline
Wheel Correction 1:	-1	Calibration Offset:	695.00	Rig Type:	Offshore_Fixed
Wheel Correction 2:	-2				

Depth Control Parameters	
Depth (m)	0.0
Depth (m)	0.5
Depth (m)	1.0
Depth (m)	1.5
Depth (m)	2.0
Depth (m)	2.5
Depth (m)	3.0
Depth (m)	3.5
Depth (m)	4.0
Depth (m)	4.5
Depth (m)	5.0
Depth (m)	5.5
Depth (m)	6.0
Depth (m)	6.5
Depth (m)	7.0
Depth (m)	7.5
Depth (m)	8.0
Depth (m)	8.5
Depth (m)	9.0
Depth (m)	9.5
Depth (m)	10.0
Depth (m)	10.5
Depth (m)	11.0
Depth (m)	11.5
Depth (m)	12.0
Depth (m)	12.5
Depth (m)	13.0
Depth (m)	13.5
Depth (m)	14.0
Depth (m)	14.5
Depth (m)	15.0
Depth (m)	15.5
Depth (m)	16.0
Depth (m)	16.5
Depth (m)	17.0
Depth (m)	17.5
Depth (m)	18.0
Depth (m)	18.5
Depth (m)	19.0
Depth (m)	19.5
Depth (m)	20.0
Depth (m)	20.5
Depth (m)	21.0
Depth (m)	21.5
Depth (m)	22.0
Depth (m)	22.5
Depth (m)	23.0
Depth (m)	23.5
Depth (m)	24.0
Depth (m)	24.5
Depth (m)	25.0
Depth (m)	25.5
Depth (m)	26.0
Depth (m)	26.5
Depth (m)	27.0
Depth (m)	27.5
Depth (m)	28.0
Depth (m)	28.5
Depth (m)	29.0
Depth (m)	29.5
Depth (m)	30.0
Depth (m)	30.5
Depth (m)	31.0
Depth (m)	31.5
Depth (m)	32.0
Depth (m)	32.5
Depth (m)	33.0
Depth (m)	33.5
Depth (m)	34.0
Depth (m)	34.5
Depth (m)	35.0
Depth (m)	35.5
Depth (m)	36.0
Depth (m)	36.5
Depth (m)	37.0
Depth (m)	37.5
Depth (m)	38.0
Depth (m)	38.5
Depth (m)	39.0
Depth (m)	39.5
Depth (m)	40.0
Depth (m)	40.5
Depth (m)	41.0
Depth (m)	41.5
Depth (m)	42.0
Depth (m)	42.5
Depth (m)	43.0
Depth (m)	43.5
Depth (m)	44.0
Depth (m)	44.5
Depth (m)	45.0
Depth (m)	45.5
Depth (m)	46.0
Depth (m)	46.5
Depth (m)	47.0
Depth (m)	47.5
Depth (m)	48.0
Depth (m)	48.5
Depth (m)	49.0
Depth (m)	49.5
Depth (m)	50.0
Depth (m)	50.5
Depth (m)	51.0
Depth (m)	51.5
Depth (m)	52.0
Depth (m)	52.5
Depth (m)	53.0
Depth (m)	53.5
Depth (m)	54.0
Depth (m)	54.5
Depth (m)	55.0
Depth (m)	55.5
Depth (m)	56.0
Depth (m)	56.5
Depth (m)	57.0
Depth (m)	57.5
Depth (m)	58.0
Depth (m)	58.5
Depth (m)	59.0
Depth (m)	59.5
Depth (m)	60.0
Depth (m)	60.5
Depth (m)	61.0
Depth (m)	61.5
Depth (m)	62.0
Depth (m)	62.5
Depth (m)	63.0
Depth (m)	63.5
Depth (m)	64.0
Depth (m)	64.5
Depth (m)	65.0
Depth (m)	65.5
Depth (m)	66.0
Depth (m)	66.5
Depth (m)	67.0
Depth (m)	67.5
Depth (m)	68.0
Depth (m)	68.5
Depth (m)	69.0
Depth (m)	69.5
Depth (m)	70.0
Depth (m)	70.5
Depth (m)	71.0
Depth (m)	71.5
Depth (m)	72.0
Depth (m)	72.5
Depth (m)	73.0
Depth (m)	73.5
Depth (m)	74.0
Depth (m)	74.5
Depth (m)	75.0
Depth (m)	75.5
Depth (m)	76.0
Depth (m)	76.5
Depth (m)	77.0
Depth (m)	77.5
Depth (m)	78.0

Log Sequence:	Subsequent Log In the Well
Reference Log Name:	Solar Composite
Reference Log Run Number:	
Reference Log Date:	Not provided

Depth Control Remarks	
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1. Log Correlated to Esso Composite Log
2. Primary depth control was the IDW
3. Secondary depth control was the Z-Chart
- 4.
- 5.
- 6.

DISCLAIMER

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

OTHER SERVICES1		OTHER SERVICES2	
OS1:	HPI Plug	OS1:	
OS2:	2-1/8" Phased	OS2:	
OS3:	Powerjet	OS3:	
OS4:		OS4:	
OS5:		OS5:	

REMARKS: RUN NUMBER 1

Correlated to Esso Solar Composite Log provided by client.






Objective: to conduct an RST (Sigma mode) over the interval HUD to 2850m,

making two passes at 900 ft/hr with the well shut in.

Matrix = Sandstone, BS = 9-7/8", CSIZ = 7", CWEI = 38 lb/ft

RIH with dummy plug toolstring to 2896m MDKB to ensure access through min

restrictions for HPI plug, record GR/CCL from 2896m MDKB.

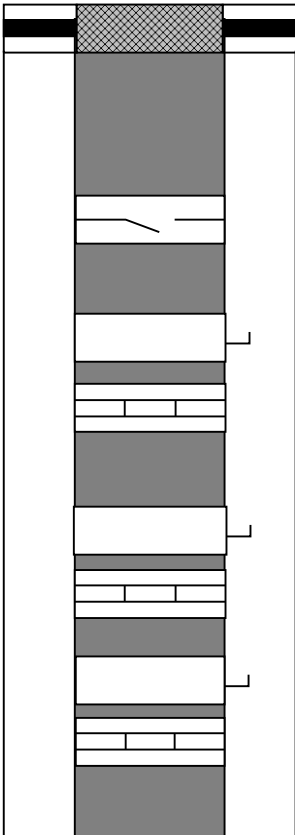
Schlumberger Crew:					
Days: Brendan Glover (Crew chief), Max Hancock					
Nights: David Stuckey (Crew chief), Simon Kiss					
RUN 1			RUN 2		
SERVICE ORDER #:			SERVICE ORDER #:		
PROGRAM VERSION:			PROGRAM VERSION:		
FLUID LEVEL:			FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP
EQUIPMENT DESCRIPTION					
RUN 1			RUN 2		
SURFACE EQUIPMENT					
WITM-A					
PSC_16MHZ					
DOWNHOLE EQUIPMENT					
MH-22		13.98			
MH-22 759					
SAH-G		13.50			
SAH-G 1220					
EQF-43		13.20			
EQF-43 261					
EQF-43		11.37			
EQF-43 201					
PSPT-B	Detail MT	9.54			
PSC-A	TelStatus				
PSPT-B	CTEM	9.54			
PSTC 1768					
PBMS-B 1743	GR	8.41			
CQG_F_Mano					
RTD_Thermometer					
GR					
CCL	Well_Temp	7.48			
PBMS	CQG Manom	7.37			
	CCL	7.25			
	PBMS PSTC	7.02			
RST-C		7.02			
RSCH-A 98					
RSC-C 701					
RSS-A 94					
RSXH-A 179					
PSC_16MHZ					

RSC-A Far
RSC-A PNG
RSC-A Nea
RSX-A PNG

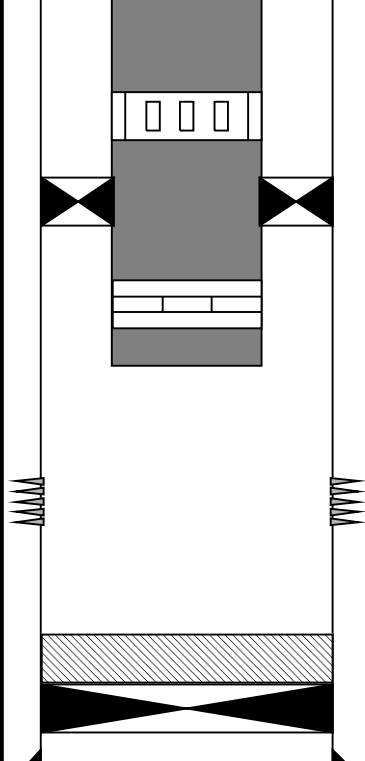
4.24
4.09

Tension HV 0.00
TOOL ZERO

MAXIMUM STRING DIAMETER 1.72 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN METERS

Production String	(in)		(ft)	Well Schematic	(ft)	(in)		Casing String
	OD	ID	MD		MD	OD	ID	
Tubing Hanger Tubing, 9.2 lbm/ft	7.000 3.500	3.500 2.992	12.0			7.000	5.920	Casing String, 38.0 lbm/ft
SSSV	3.500	2.750	449.0					
Side Pocket Mandrel	3.500	2.875	745.0					
Nipple	3.500	2.750	759.0					
Side Pocket Mandrel	3.500	2.875	1926.0					
Nipple	3.500	2.750	1940.0					
Side Pocket Mandrel	3.500	2.875	2019.0					
Nipple	3.500	2.750	2033.0					

Sliding Sleeve	3.500	2.750	2783.0
Packer	7.000	3.500	2796.0
Nipple	3.500	2.329	2802.0
Tubing Bottom	3.500	2.992	2803.0



2899.5
2901.0

Perforation Zone
Perforation Zone Bottom

2916.0

Top of Cement

2976.0

7.000	5.920
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Casing Shoe



Sigma Pass Repeat Analysis

MAXIS Field Log

Company: Esso Australia Pty. Ltd. Well: BMA A7

Input DLIS Files

DEFAULT	RST_PSP_022PUP	FN:27	PRODUCER	04-Feb-2007 21:55	2920.9 M	2843.9 M
DEFAULT	RST_PSP_023PUP	FN:28	PRODUCER	04-Feb-2007 21:58	2921.2 M	2843.9 M

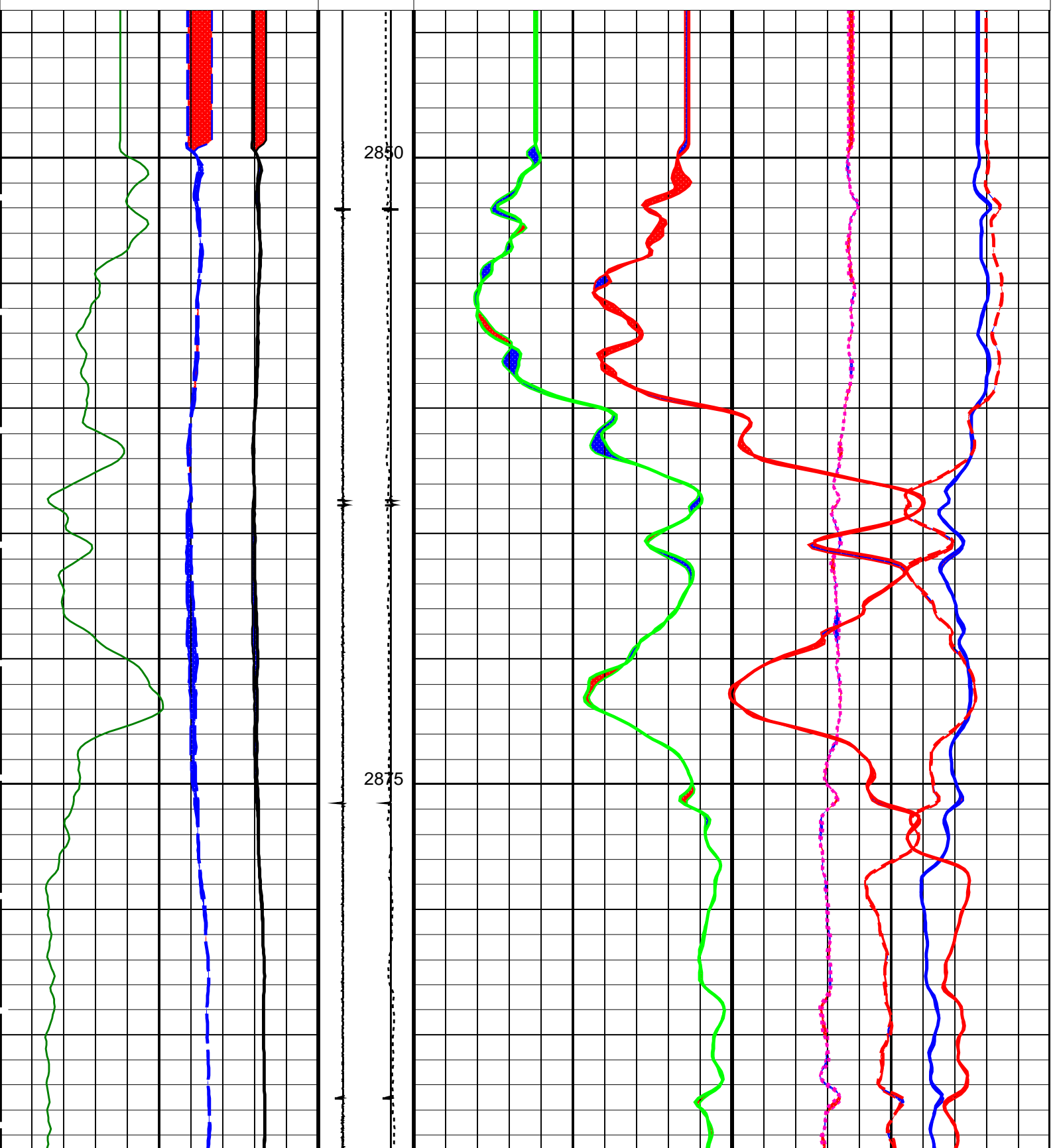
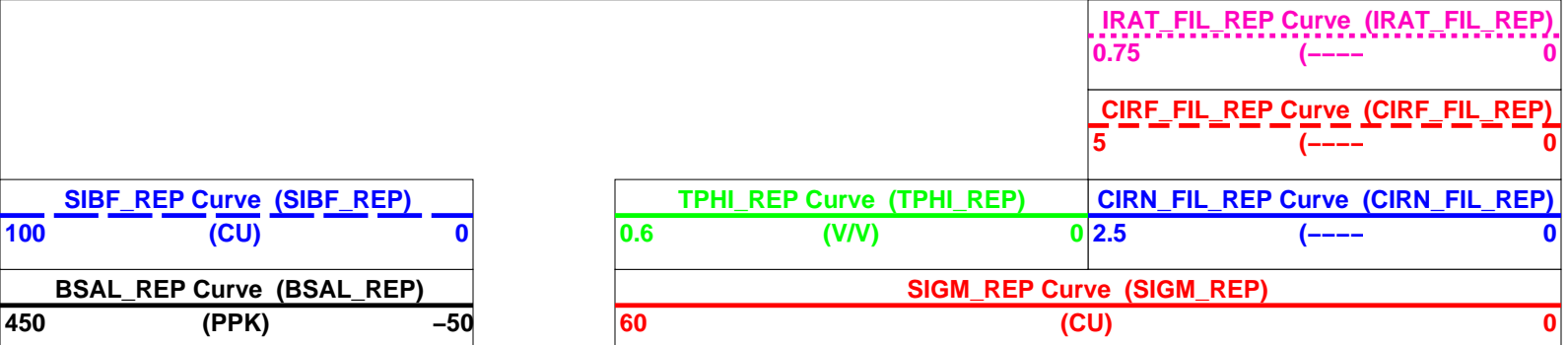
Output DLIS Files

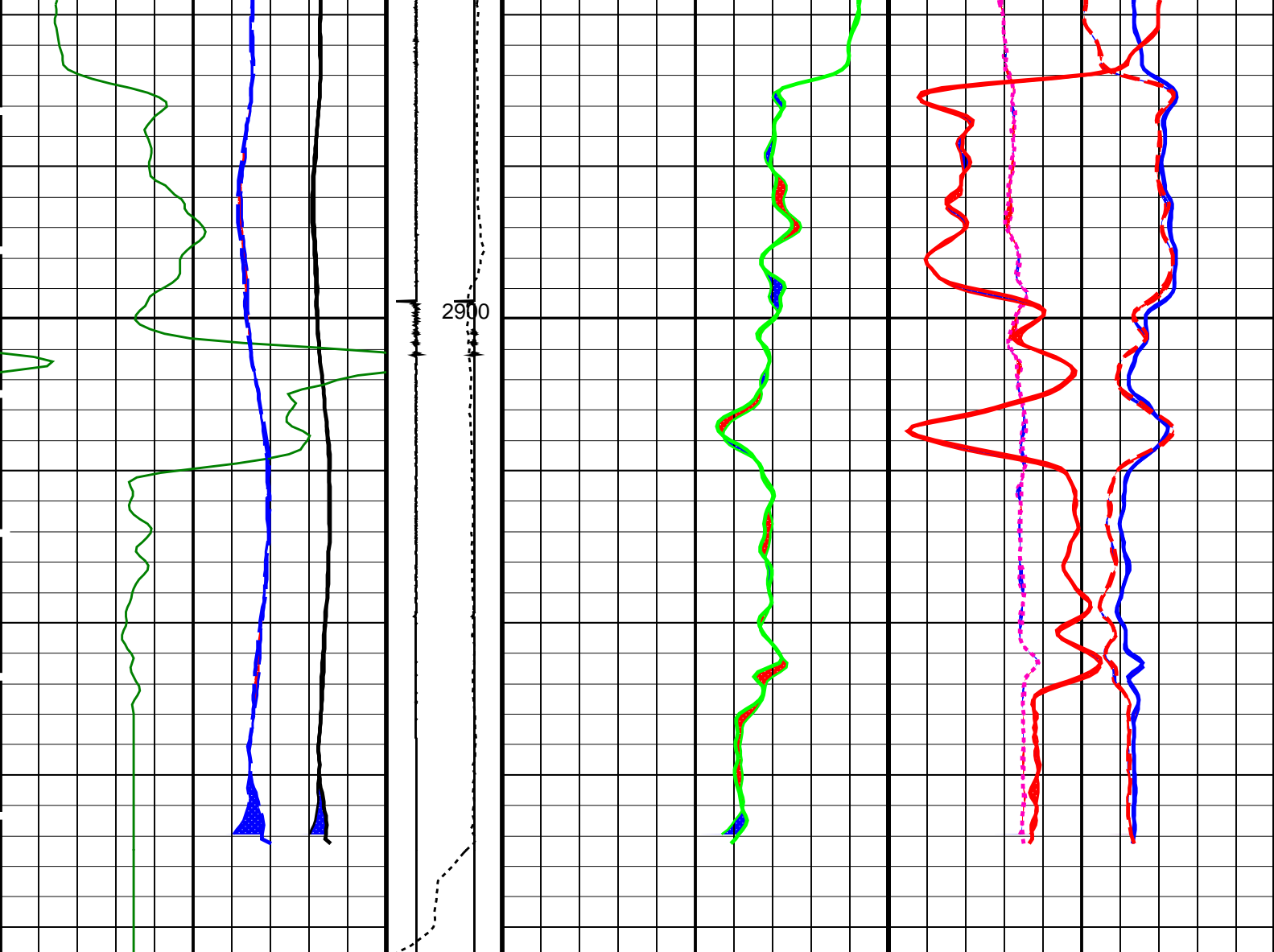
DEFAULT	RST PSP_024PUP	FN:29	PRODUCER	04-Feb-2007 22:03	2920.9 M	2843.9 M
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OP System Version: 14C0-302
MCM

RST-C PTC-3268-NUCL_b PSPT-B 14C0-302

PIP SUMMARY





BSAL_REP Curve (BSAL_REP)		SIGM_REP Curve (SIGM_REP)	
450	(PPK)	60	(CU)
-50		0	
SIBF_REP Curve (SIBF_REP)		TPHI_REP Curve (TPHI_REP)	
100	(CU)	0.6	(V/V)
0		0	
		CIRN_FIL_REP Curve (CIRN_FIL_REP)	
		2.5	(----
		0	
		CIRF_FIL_REP Curve (CIRF_FIL_REP)	
		5	(----
		0	
		IRAT_FIL_REP Curve (IRAT_FIL_REP)	
		0.75	(----
		0	

PIP SUMMARY

☒ Time Mark Every 60 S
Format: RST_SIG_ANSW_REP Vertical Scale: 1:200 Graphics File Created: 04-Feb-2007 22:03

OP System Version: 14C0-302

MCM

RST-C	PTC-3268-NUCL_b	PSPT-B	14C0-302
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Input DLIS Files

DEFAULT	RST_PSP_022PUP	FN:27	PRODUCER	04-Feb-2007 21:55	2920.9 M	2843.9 M
DEFAULT	RST_PSP_023PUP	FN:28	PRODUCER	04-Feb-2007 21:58	2921.2 M	2843.9 M

Output DLIS Files

DEFAULT	RST_PSP_024PUP	FN:29	PRODUCER	04-Feb-2007 22:03
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Company: Esso Australia Pty. Ltd.

Well: BMA A7

Input DLIS Files

DEFAULT RST_PSP_023LUP FN:22 PRODUCER 04-Feb-2007 20:50 2921.2 M 2834.9 M

Output DLIS Files

DEFAULT RST_PSP_023PUP FN:28 PRODUCER 04-Feb-2007 21:58 2921.2 M 2843.9 M

OP System Version: 14C0-302

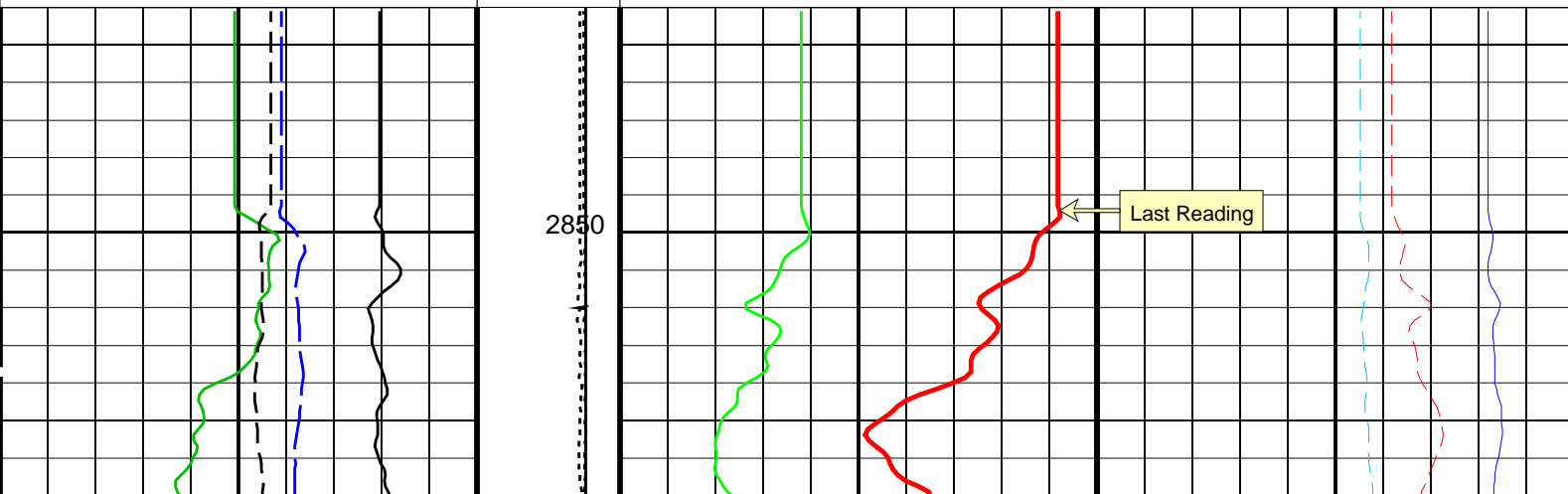
MCM

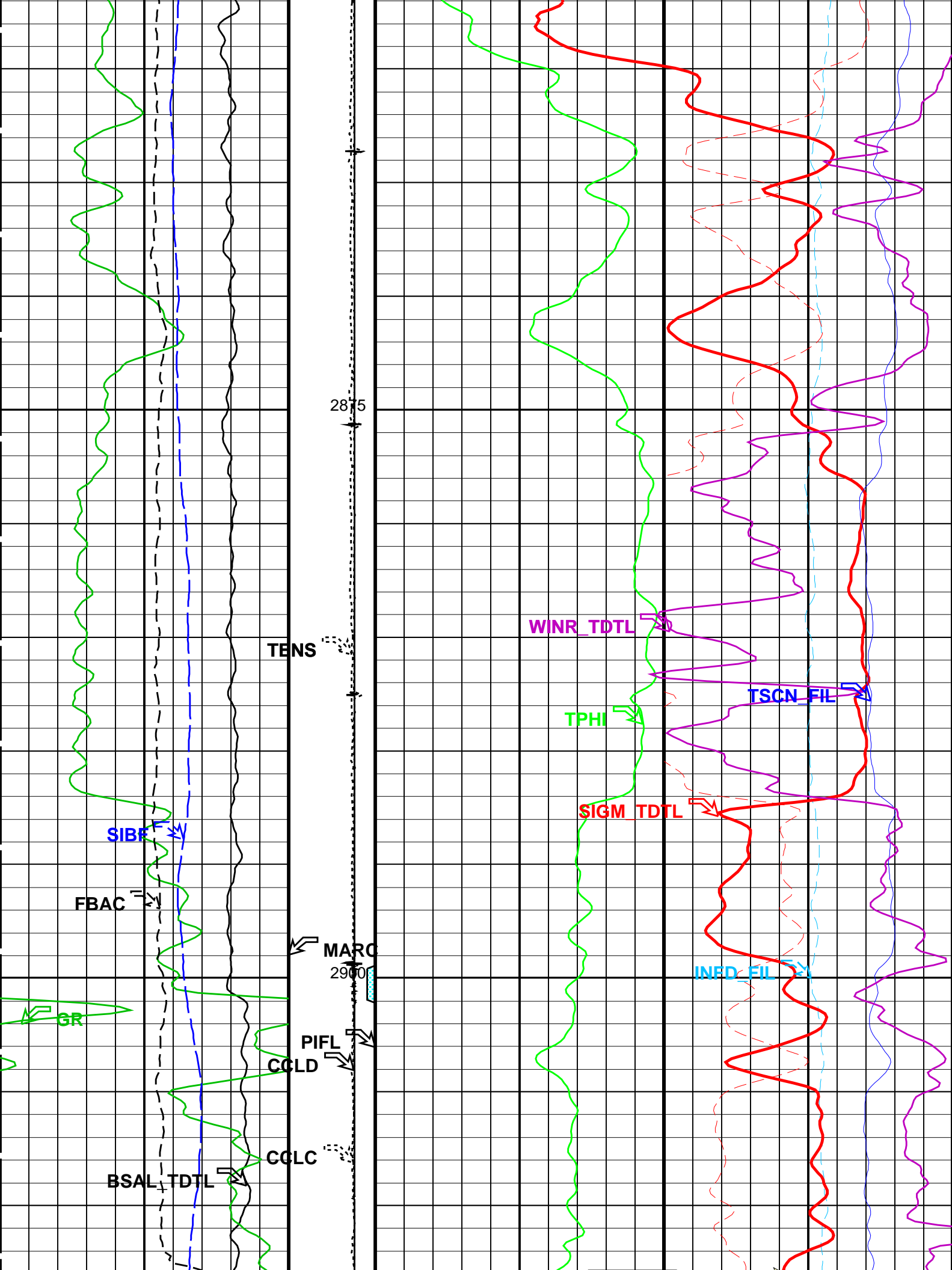
RST-C PTC-3268-NUCL_b PSPT-B 14C0-302

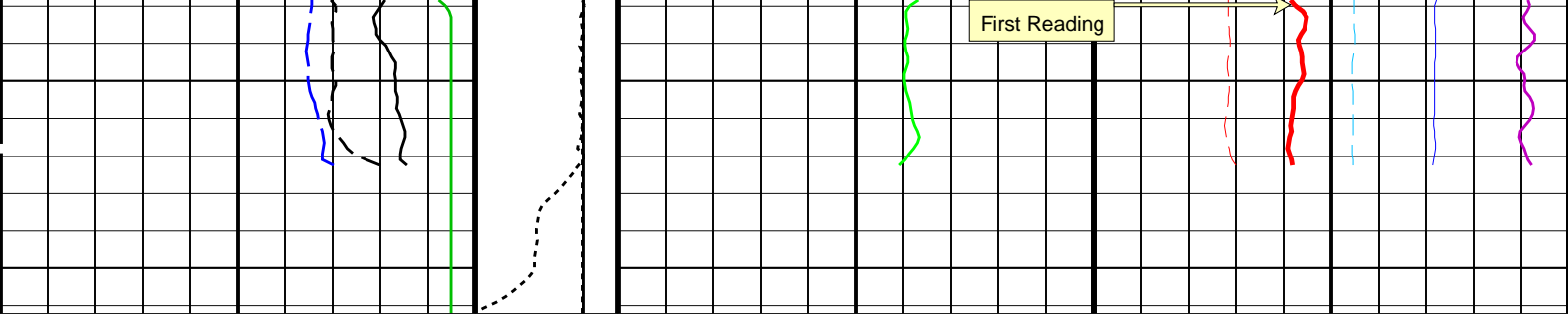
PIP SUMMARY

Time Mark Every 60 S

	Minitron Arc Detection (MARC)		Tot Sel CR Far (TSCF_FIL) (CPS)	0
	0 (---- 5			
RST Borehole Salinity (TDT-like) (BSAL TDTL)	Tension (TENS) (LBF)		Tot Sel CR Near (TSCN_FIL) (CPS)	0
450 (PPK) -50	1000 2000		30000	
RST Sigma Borehole Fluid (SIBF) (CU)	Discriminat ed CCL (CCLD)	RST Weighted Inelastic Ratio (TDT-like) (WINR_TDTL)		0
100 0	3 (V) -1	0.4 (----		
MCS Far Background (filtered) (FBAC) (CPS)	Perfo Zone	RST Porosity (TPHI) (V/V)	Inelastic CR Far (INFD_FIL) (CPS)	0
0 5000		0.6 0	10000	
Gamma Ray (GR) (GAPI)	(CCLC)	RST Sigma (TDT-like) (SIGM_TDTL) (CU)		0
0 150	-3 (V) 1	60		







Gamma Ray (GR) (GAPI) 0 150		(CCLC) -3 (V) 1	RST Sigma (TDT-like) (SIGM_TDTL) (CU) 60 0	
MCS Far Background (filtered) (FBAC) (CPS) 0 5000	Perfo Zone		RST Porosity (TPHI) (V/V) 0.6 0	Inelastic CR Far (INFD_FIL) (CPS) 10000 0
RST Sigma Borehole Fluid (SIBF) (CU) 100 0	Discriminat ed CCL (CCLD) 3 (V) -1		RST Weighted Inelastic Ratio (TDT-like) (WINR_TDTL) (----) 0.4 0	
RST Borehole Salinity (TDT-like) (BSAL TDTL) 450 (PPK) -50	Tension (TENS) (LBF) 1000 2000		Tot Sel CR Near (TSCN_FIL) (CPS) 30000 0	
	Minitron Arc Detection (MARC) 0 (---- 5		Tot Sel CR Far (TSCF_FIL) (CPS) 12000 0	

PIP SUMMARY

Time Mark Every 60 S

Format: RST_TDTL_ANSW Vertical Scale: 1:200

Graphics File Created: 04-Feb-2007 21:58

OP System Version: 14C0-302
MCM

RST-C PTC-3268-NUCL_b PSPT-B 14C0-302

Input DLIS Files

DEFAULT RST_PSP_023LUP FN:22 PRODUCER 04-Feb-2007 20:50 2921.2 M 2834.9 M

Output DLIS Files

DEFAULT RST_PSP_023PUP FN:28 PRODUCER 04-Feb-2007 21:58

Schlumberger

Sigma Pass #2

MAXIS Field Log

Company: Esso Australia Pty. Ltd.

Well: BMA A7

Input DLIS Files

DEFAULT RST_PSP_023LUP FN:22 PRODUCER 04-Feb-2007 20:50 2921.2 M 2834.9 M

Output DLIS Files

DEFAULT RST_PSP_023PUP FN:28 PRODUCER 04-Feb-2007 21:58 2921.2 M 2843.9 M

OP System Version: 14C0-302

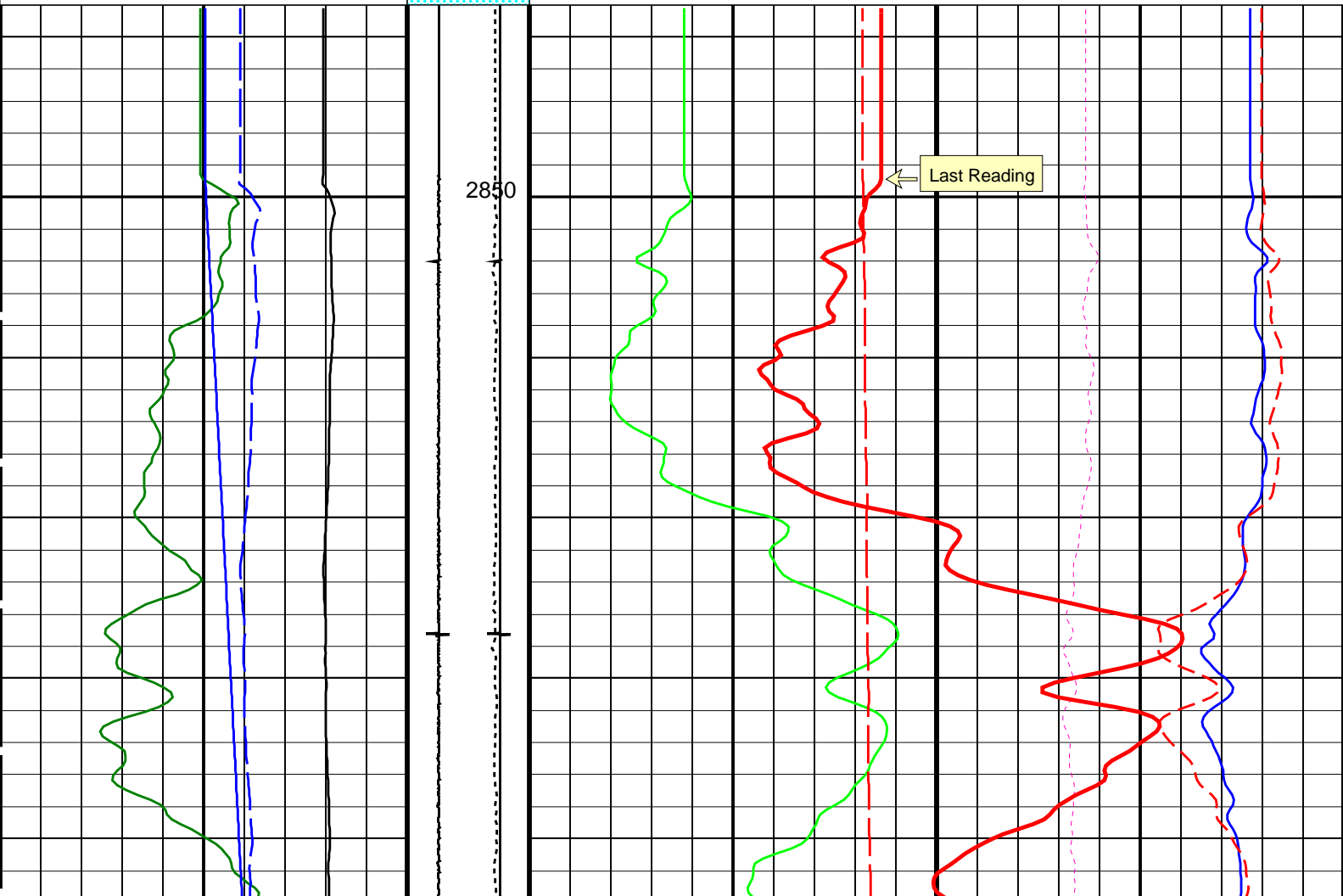
MCM

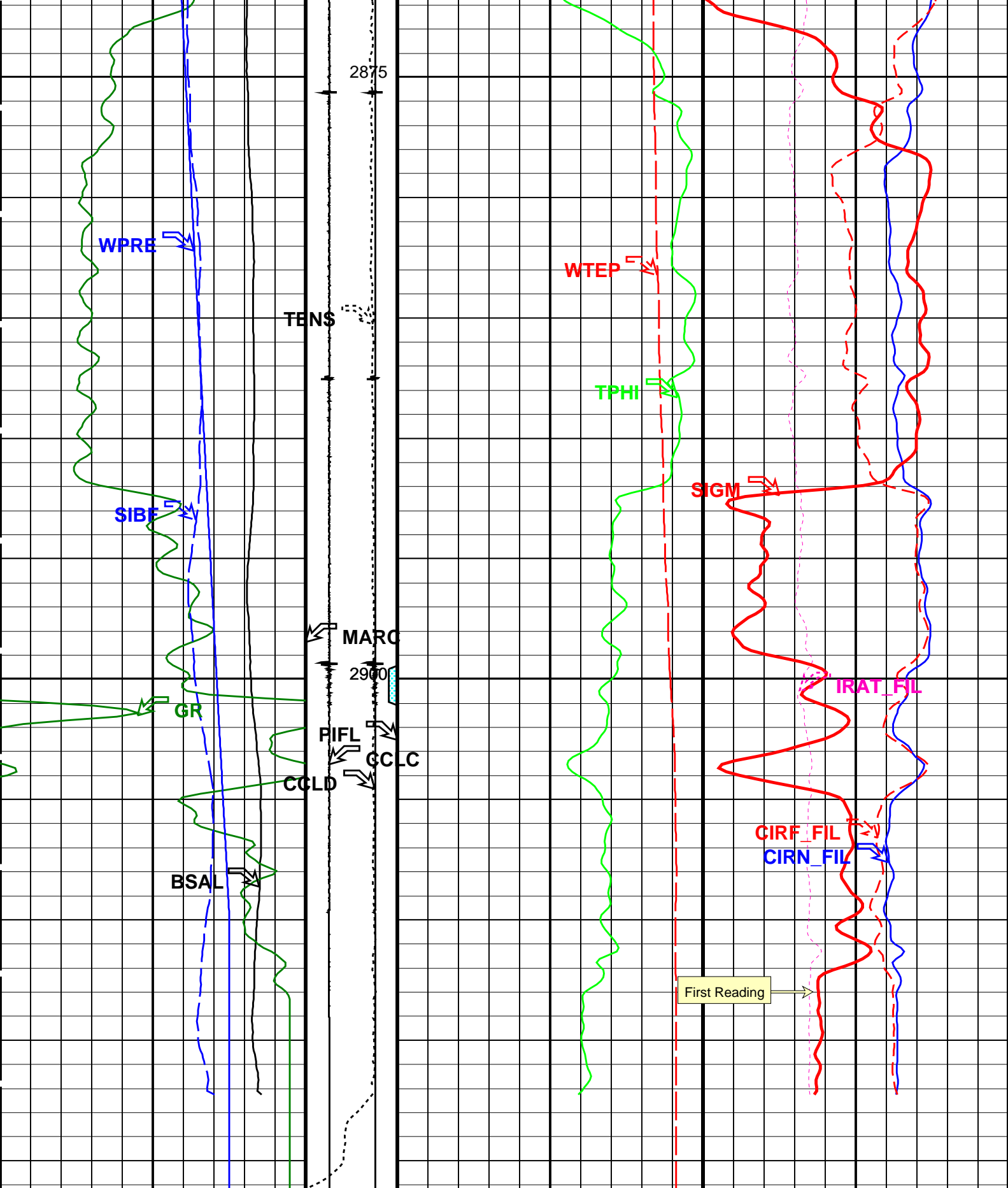
RST-C PTC-3268-NUCL_b PSPT-B 14C0-302

PIP SUMMARY

Time Mark Every 60 S

	Minitron Arc Detection (MARC)		
	0 (---- 5		
Well Pressure (WPRE) (PSIA)	Tension (TENS) (LBF)		RST Inelastic Ratio (IRAT_FIL)
2500 2700	1000		0.75 (---- 0
	2000		
RST Sigma Borehole Fluid (SIBF) (CU)	Computed CCL (CCLC)	Well Temperature (WTEP) (DEGF)	RST Capture to Inelastic Ratio Far (CIRF_FIL)
100 0	1 (V) -3	190 210	5 (---- 0
Gamma Ray (GR) (GAPI)	Discriminat ed CCL (CCLD)	RST Porosity (TPHI) (V/V)	RST Capture to Inelastic Ratio Near (CIRN_FIL)
0 150	3 (V) -1	0.6 0	2.5 (---- 0
RST Borehole Salinity (BSAL) (PPK)	Perfo Zone	RST Sigma (SIGM) (CU)	
450 -50		60 0	





RST Borehole Salinity (BSAL)			Perfo Zone	RST Sigma (SIGM)		
450	(PPK)	-50		60	(CU)	0
Gamma Ray (GR)			Discriminat ed CCL (CCLD)	RST Porosity (TPHI)		RST Capture to Inelastic Ratio Near (CIRN_FIL)
0	(GAPI)	150		0.6	(V/V)	
			3 (V) -1	2.5 (----		0

RST Sigma Borehole Fluid (SIBF) 100 (CU) 0		Computed CCL (CCLC) 1 (V) -3	Well Temperature (WTEP) 190 (DEGF) 210	RST Capture to Inelastic Ratio Far (CIRF_FIL) 5 (----) 0
Well Pressure (WPRE) 2500 (PSIA) 2700		Tension (TENS) (LBF) 1000 2000	RST Inelastic Ratio (IRAT_FIL) 0.75 (----) 0	
		Minitron Arc Detection (MARC) 0 (----) 5		

PIP SUMMARY				
 Time Mark Every 60 S				

Parameters		
DLIS Name	Description	Value
RST-C: Reservoir Saturation Pro Tool C		
AIRB	RST Air Borehole	No
BHS	Borehole Status	CASED
BSALOPT	RST Borehole Salinity Option	Unknown
BSFL	RST Borehole Salinity Filter Length	51
DFPC	RST Depth Filter Processing Constant	One
DFPC_TDTL	RST Depth Filter Processing Constant (TDT-like)	Two
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE
NORM_IRAT_RST	RST Normalized Inelastic Ratio	0.48
NORM_SIGM_RST	RST Normalized Sigma	30 CU
RGAI	Near/Far Gain Calibration Ratio	1
SMBMO	RST Sigma Mode Background (Minitron Off)	No
TIER_SIGM	RST Sigma Acquisition Mode	0_RST_Sigma
PSPT-B: Production Services Logging Platform		
BHS	Borehole Status	CASED
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE
System and Miscellaneous		
BS	Bit Size	9.875 IN
BSAL	Borehole Salinity	-50000.00 PPM
CSIZ	Current Casing Size	7.000 IN
CWEI	Casing Weight	38.00 LB/F
DO	Depth Offset for Playback	0.0 M
PP	Playback Processing	NORMAL

Format: RST_SIG_ANSW	Vertical Scale: 1:200	Graphics File Created: 04-Feb-2007 21:58
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OP System Version: 14C0-302			
MCM			
RST-C	PTC-3268-NUCL_b	PSPT-B	14C0-302

Input DLIS Files						
DEFAULT	RST_PSP_023LUP	FN:22	PRODUCER	04-Feb-2007 20:50	2921.2 M	2834.9 M
Output DLIS Files						
DEFAULT	RST_PSP_023PUP	FN:28	PRODUCER	04-Feb-2007 21:58		



Sigma Pass #1

TDT

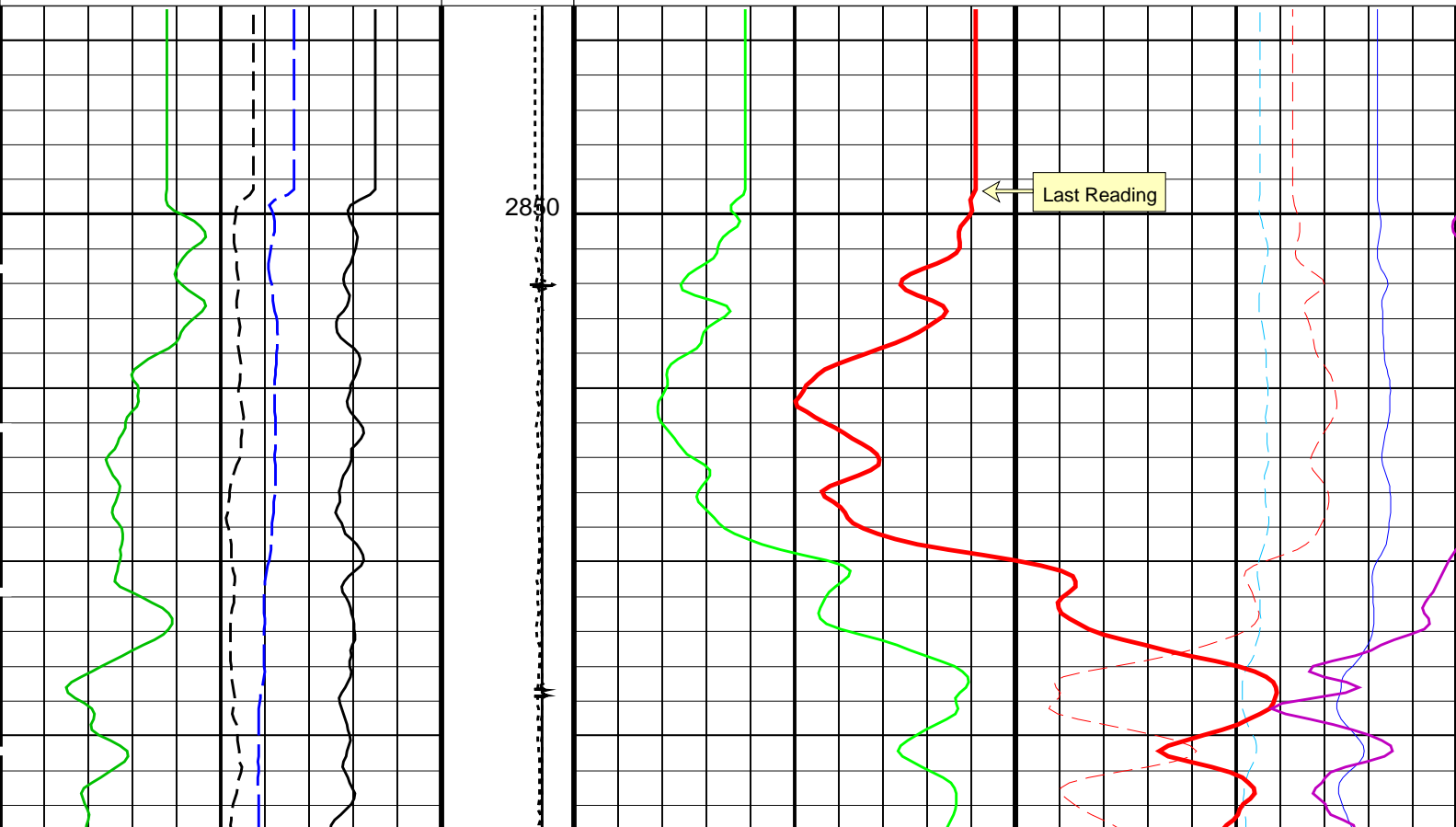
Input DLIS Files					
DEFAULT	RST_PSP_022LUP	FN:21	PRODUCER	04-Feb-2007 20:27	2920.9 M 2835.1 M
Output DLIS Files					
DEFAULT	RST_PSP_022PUP	FN:27	PRODUCER	04-Feb-2007 21:55	2920.9 M 2843.9 M

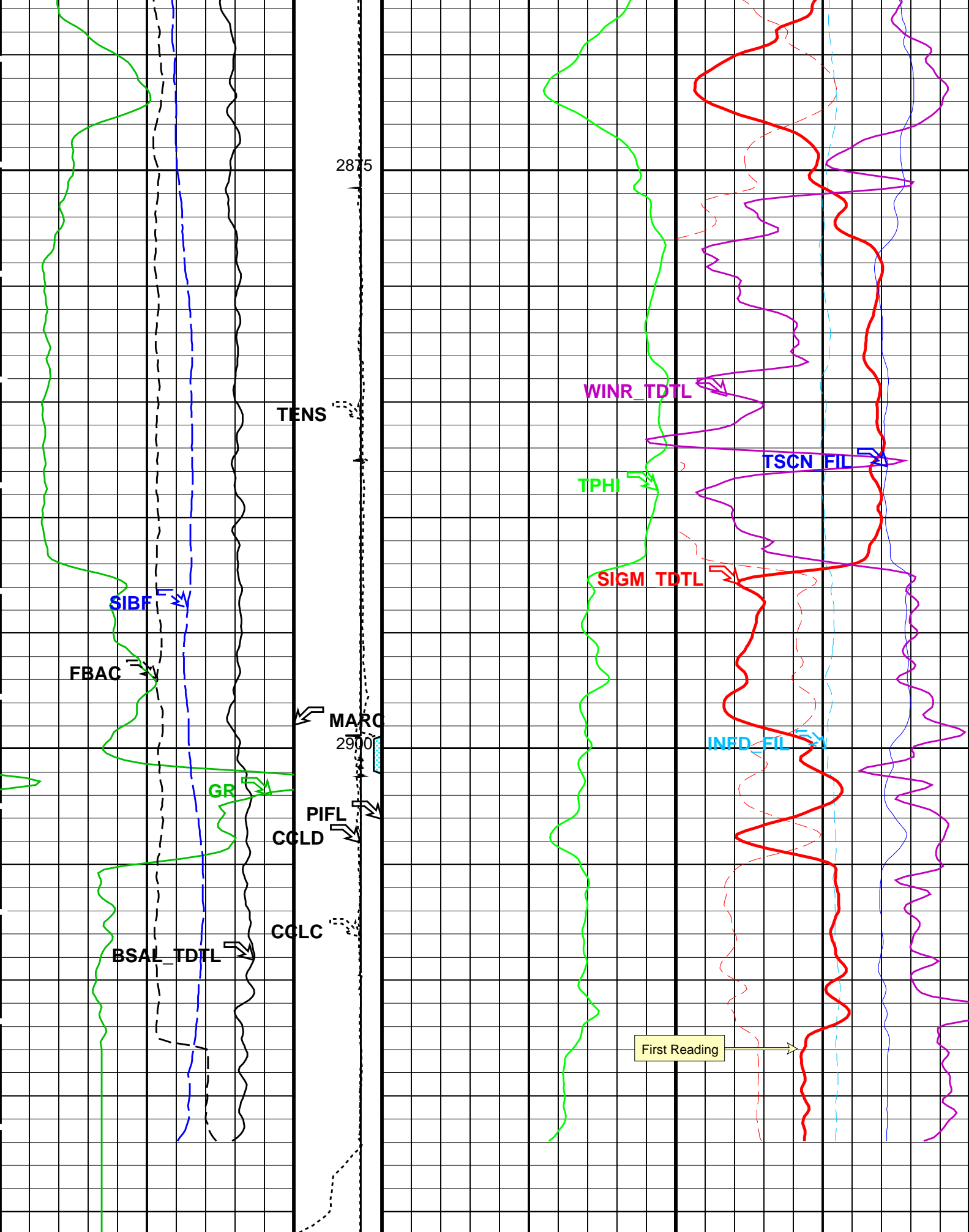
OP System Version: 14C0-302					
MCM					
RST-C	PTC-3268-NUCL_b	PSPT-B	14C0-302		

PIP SUMMARY

Time Mark Every 60 S

	Minitron Arc Detection (MARC)		Tot Sel CR Far (TSCF_FIL)	
	0 (---- 5		12000 (CPS) 0	
RST Borehole Salinity (TDT-like) (BSAL_TDTL)	Tension (TENS) (LBF)		Tot Sel CR Near (TSCN_FIL)	
450 (PPK) -50	1000 2000		30000 (CPS) 0	
RST Sigma Borehole Fluid (SIBF)	Discriminat ed CCL (CCLD)	RST Weighted Inelastic Ratio (TDT-like) (WINR_TDTL)		
100 (CU) 0	3 (V) -1	0.4 (----	0	
MCS Far Background (filtered) (FBAC)	Perfo Zone	RST Porosity (TPHI)	Inelastic CR Far (INFD_FIL)	
0 (CPS) 5000		0.6 (V/V) 0	10000 (CPS) 0	
Gamma Ray (GR)		RST Sigma (TDT-like) (SIGM_TDTL)		
0 (GAPI) 150	(CCLC) -3 (V) 1	60 (CU)	0	





MCS Far Background (filtered) (FBAC) (CPS)	5000	Perfo Zone	RST Porosity (TPHI) (V/V)	0.6	0	Inelastic CR Far (INFD_FIL) (CPS)	10000	0
RST Sigma Borehole Fluid (SIBF) (CU)	100	Discriminat ed CCL (CCLD)	RST Weighted Inelastic Ratio (TDT-like) (WINR_TDTL) (-----)					
	0	3 (V) -1	0.4					0
RST Borehole Salinity (TDT-like) (BSAL TDTL)		Tension (TENS) (LBF)				Tot Sel CR Near (TSCN_FIL) (CPS)	30000	0
450 (PPK)	-50	1000						
		2000						
		Minitron Arc Detection (MARC)				Tot Sel CR Far (TSCF_FIL) (CPS)	12000	0
		0 (----- 5						

PIP SUMMARY

Time Mark Every 60 S

Format: RST_TDTL_ANSW Vertical Scale: 1:200

Graphics File Created: 04-Feb-2007 21:55

OP System Version: 14C0-302

MCM

RST-C PTC-3268-NUCL_b PSPT-B 14C0-302

Input DLIS Files

DEFAULT RST_PSP_022LUP FN:21 PRODUCER 04-Feb-2007 20:27 2920.9 M 2835.1 M

Output DLIS Files

DEFAULT RST_PSP_022PUP FN:27 PRODUCER 04-Feb-2007 21:55

Schlumberger

Sigma Pass #1

MAXIS Field Log

Company: Esso Australia Pty. Ltd.

Well: BMA A7

Input DLIS Files

DEFAULT RST_PSP_022LUP FN:21 PRODUCER 04-Feb-2007 20:27 2920.9 M 2835.1 M

Output DLIS Files

DEFAULT RST_PSP_022PUP FN:27 PRODUCER 04-Feb-2007 21:55 2920.9 M 2843.9 M

OP System Version: 14C0-302

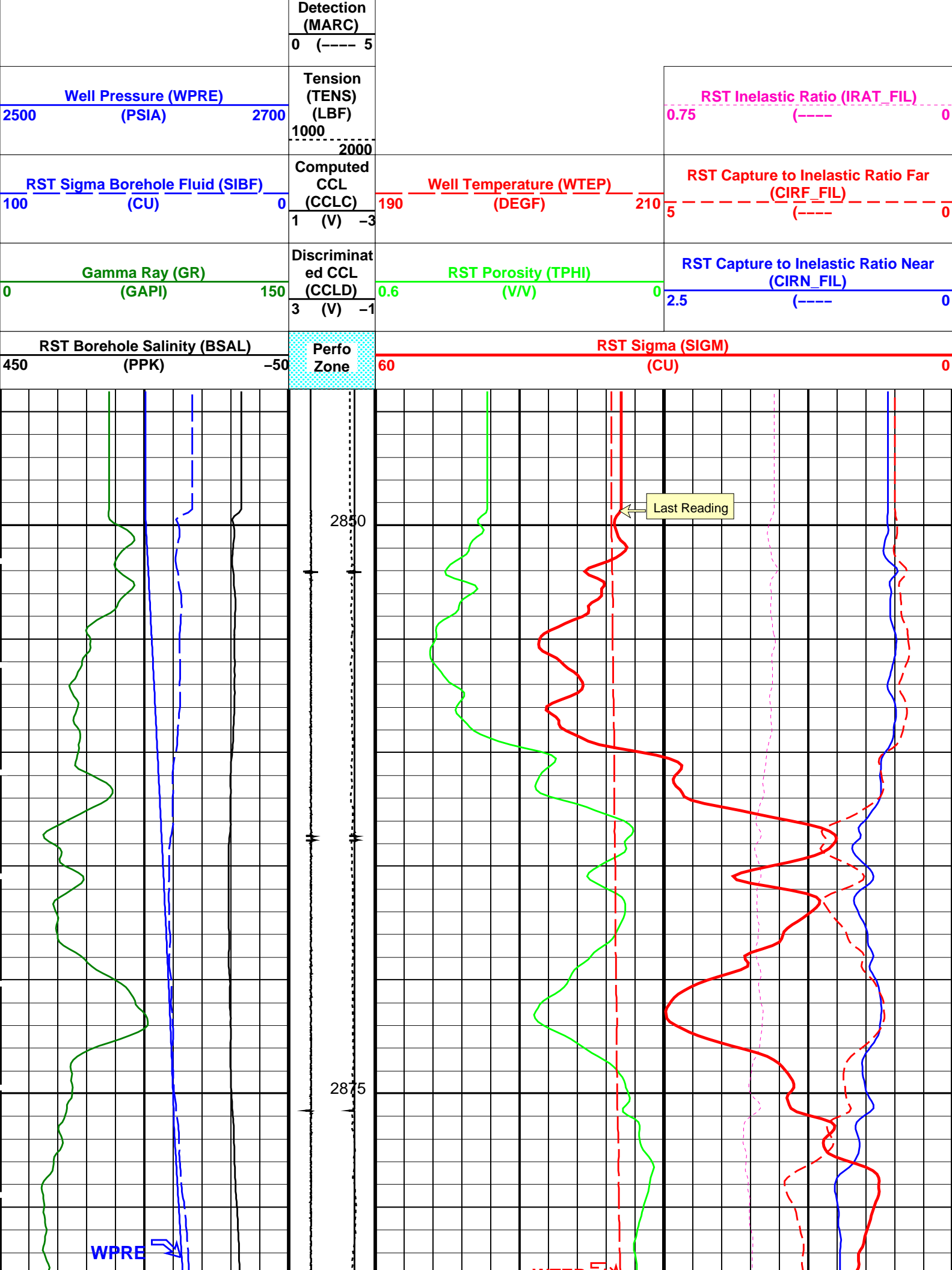
MCM

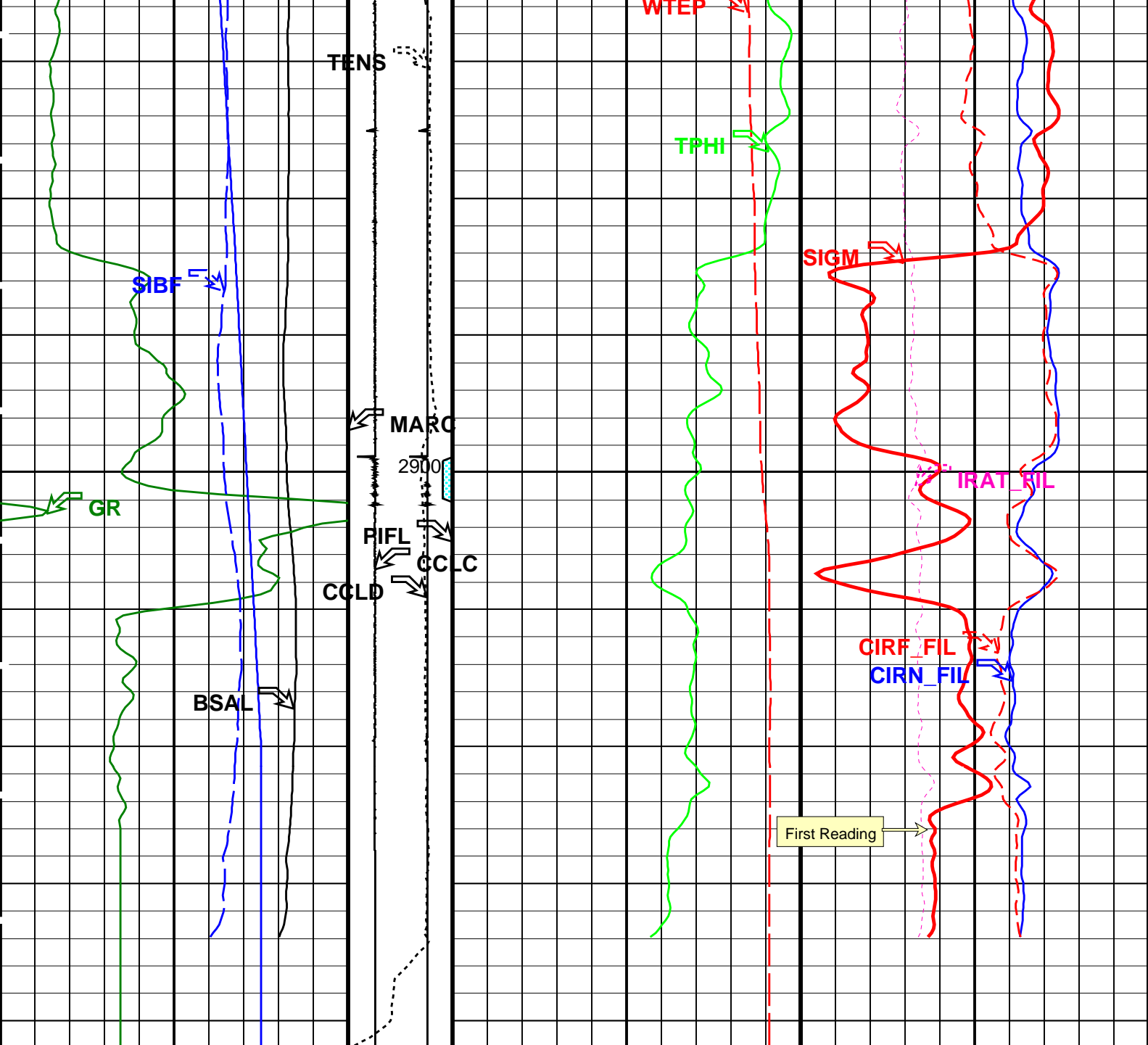
RST-C PTC-3268-NUCL_b PSPT-B 14C0-302

PIP SUMMARY

Time Mark Every 60 S

Minitron
Arc





RST Borehole Salinity (BSAL) (PPK)	Perfo Zone	RST Sigma (SIGM) (CU)	
450 -50		60	0
Gamma Ray (GR) (GAPI)	Discriminat ed CCL (CCLD)	RST Porosity (TPHI) (V/V)	RST Capture to Inelastic Ratio Near (CIRN_FIL)
0 150	3 (V) -1	0.6 0	2.5 (----) 0
RST Sigma Borehole Fluid (SIBF) (CU)	Computed CCL (CCLC)	Well Temperature (WTEP) (DEGF)	RST Capture to Inelastic Ratio Far (CIRF_FIL)
100 0	1 (V) -3	190 210	5 (----) 0
Well Pressure (WPRE) (PSIA)	Tension (TENS) (LBF)	RST Inelastic Ratio (IRAT_FIL)	
2500 2700	1000 2000	0.75 (----)	0
	Minitron Arc Detection (MARC)		
	0 (V) -5		

0 (----- 5

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
RST-C: Reservoir Saturation Pro Tool C		
AIRB	RST Air Borehole	No
BHS	Borehole Status	CASED
BSALOPT	RST Borehole Salinity Option	Unknown
BSFL	RST Borehole Salinity Filter Length	51
DFPC	RST Depth Filter Processing Constant	One
DFPC_TDTL	RST Depth Filter Processing Constant (TDT-like)	Two
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE
NORM_IRAT_RST	RST Normalized Inelastic Ratio	0.48
NORM_SIGM_RST	RST Normalized Sigma	30
RGAI	Near/Far Gain Calibration Ratio	1
SMBMO	RST Sigma Mode Background (Minitron Off)	No
TIER_SIGM	RST Sigma Acquisition Mode	0_RST_Sigma
PSPT-B: Production Services Logging Platform		
BHS	Borehole Status	CASED
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE
System and Miscellaneous		
BS	Bit Size	9.875
BSAL	Borehole Salinity	-50000.00
CSIZ	Current Casing Size	7.000
CWEI	Casing Weight	38.00
DO	Depth Offset for Playback	0.0
PP	Playback Processing	NORMAL

Format: RST_SIG_ANSW

Vertical Scale: 1:200

Graphics File Created: 04-Feb-2007 21:55

OP System Version: 14C0-302

MCM

RST-C

PTC-3268-NUCL_b

PSPT-B

14C0-302

Input DLIS Files

DLIS Name	Description	FN	PRODUCER	DATE	TIME	SIZE
DEFAULT	RST_PSP_022LUP	FN:21	PRODUCER	04-Feb-2007 20:27	2920.9 M	2835.1 M

Output DLIS Files

DEFAULT	RST_PSP_022PUP	FN:27	PRODUCER	04-Feb-2007 21:55		
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Schlumberger

Background GR Pass

MAXIS Field Log

Company: Esso Australia Pty. Ltd.

Well: BMA A7

Input DLIS Files

DEFAULT	RST_PSP_021LUP	FN:20	PRODUCER	04-Feb-2007 19:51	2925.2 M	2768.7 M
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Output DLIS Files

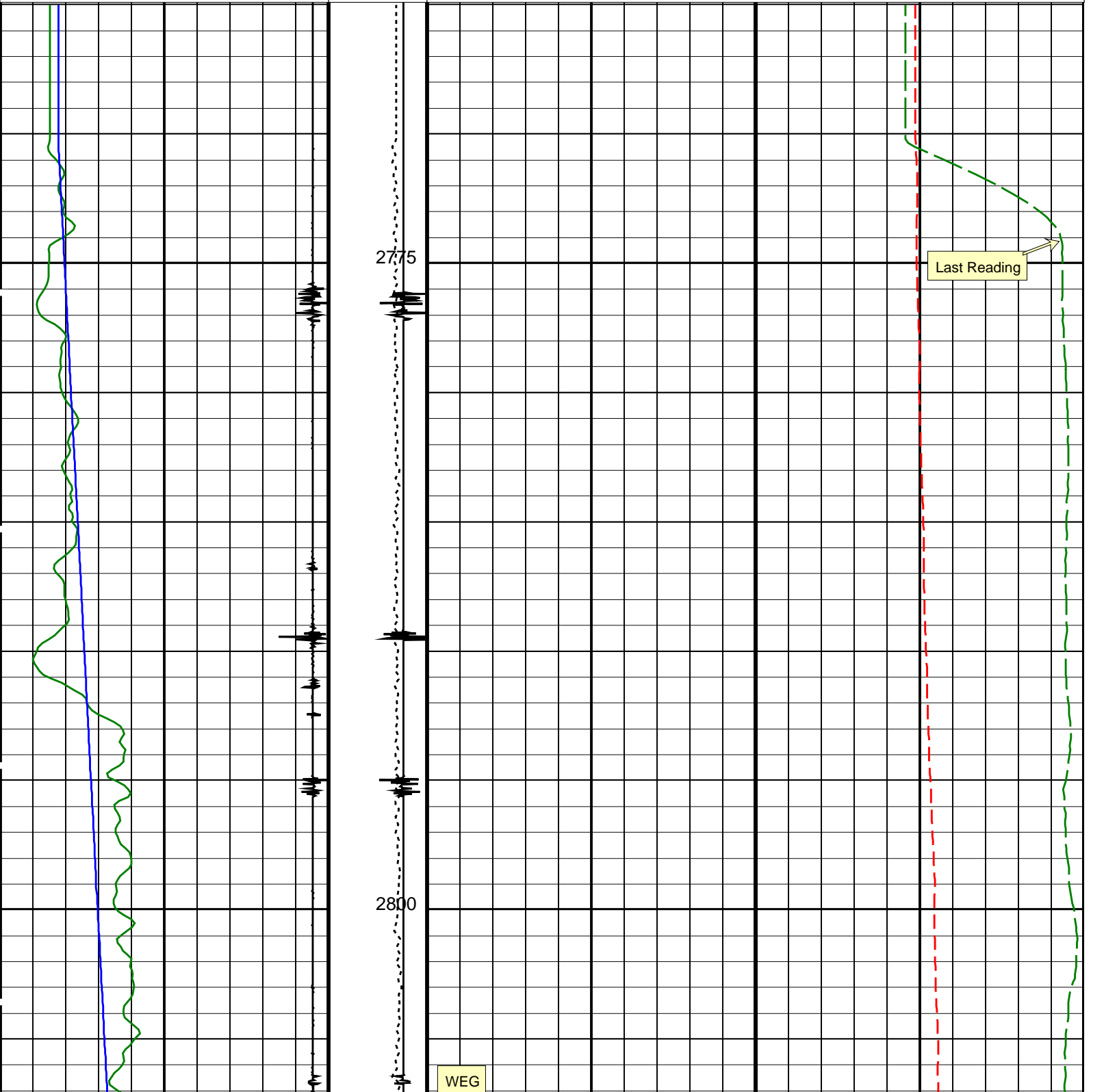
DEFAULT	RST_PSP_021PUP	FN:25	PRODUCER	04-Feb-2007 21:45	2921.2 M	2764.8 M
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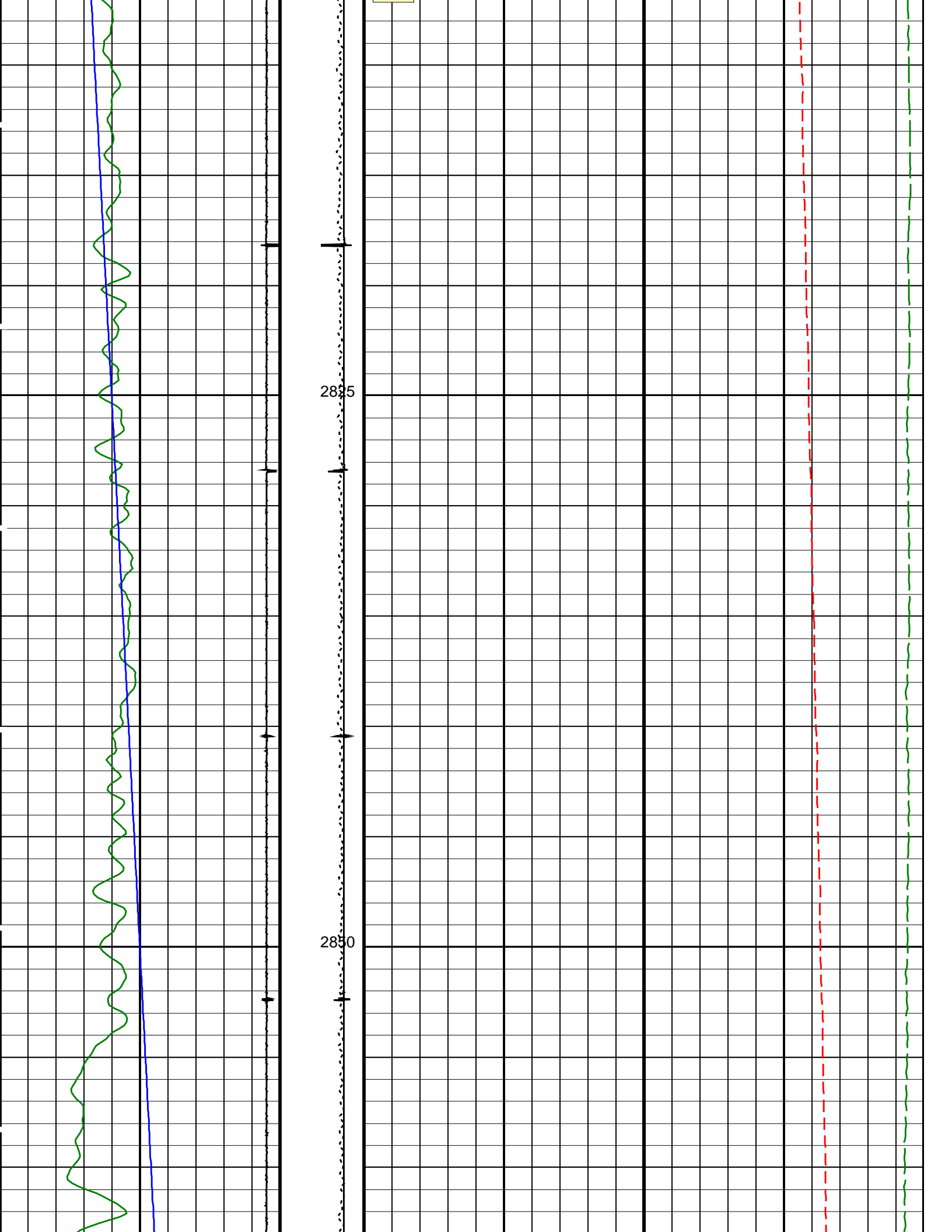
OP System Version: 14C0-302

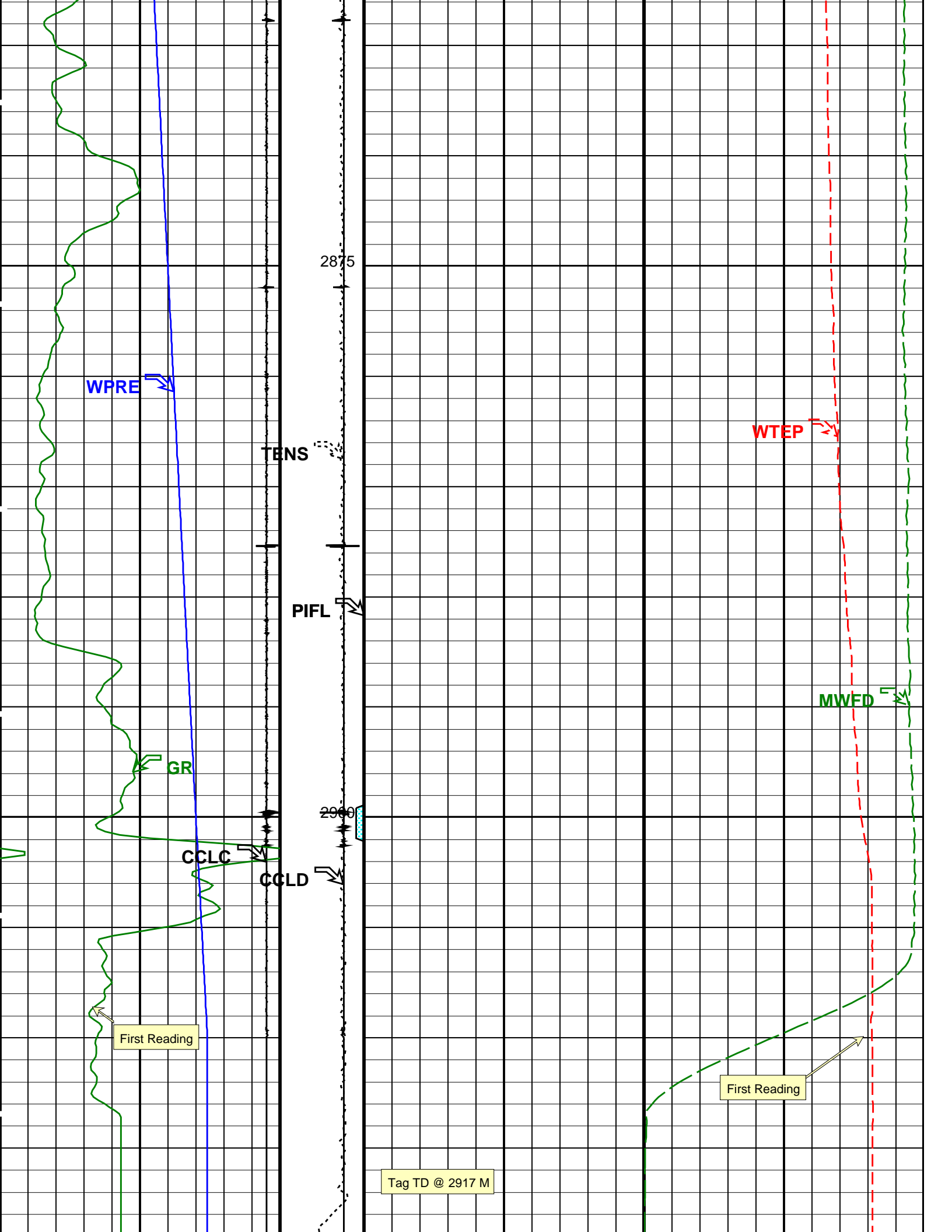
MCM

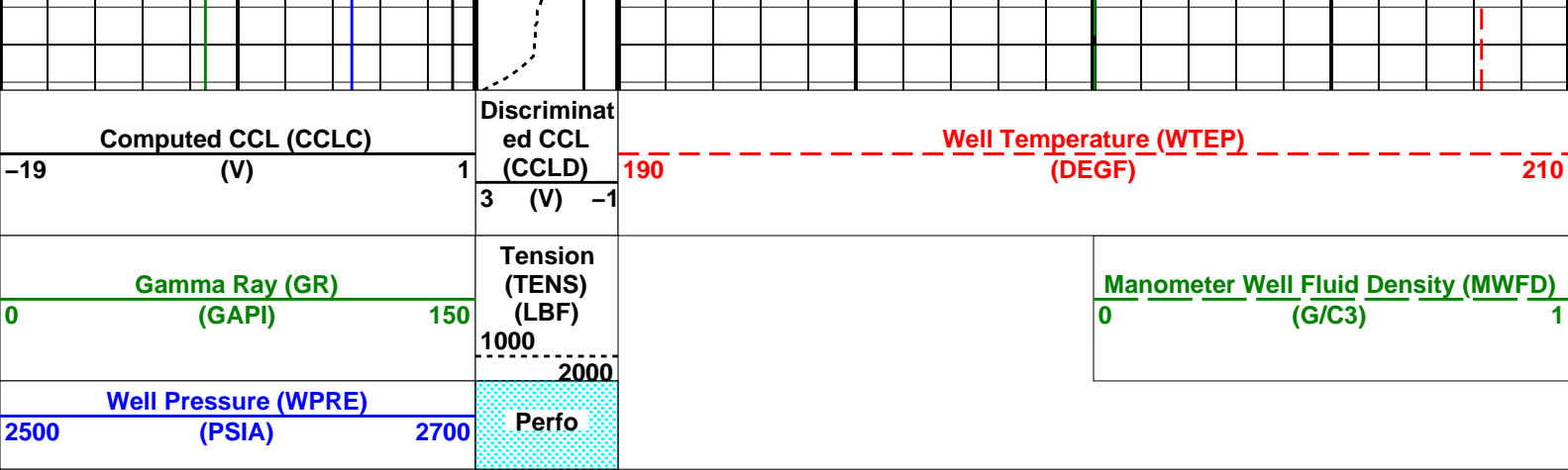
PIP SUMMARY

Well Pressure (WPRE)			Perfo		
2500	(PSIA)	2700			
Gamma Ray (GR)			Tension (TENS) (LBF)	Manometer Well Fluid Density (MWFD)	
0	(GAPI)	150		0	(G/C3)
			1000		
			2000		
Computed CCL (CCLC)			Discriminat ed CCL (CCLD)	Well Temperature (WTEP)	
-19	(V)	1		190	(DEGF)
			3		
			-1		









Time Mark Every 60 S

Format: PSP_1 Vertical Scale: 1:200 Graphics File Created: 04-Feb-2007 21:45

OP System Version: 14C0-302
MCM
RST-C PTC-3268-NUCL_b PSPT-B 14C0-302

Parameters			
DLIS Name	Description	Value	
GDEV	RST-C: Reservoir Saturation Pro Tool C		
	Average Angular Deviation of Borehole from Normal	53	DEG
GDEV	PSPT-B: Production Services Logging Platform		
	Average Angular Deviation of Borehole from Normal	53	DEG
DO	System and Miscellaneous		
PP	Depth Offset for Playback	-4.0	M
	Playback Processing	NORMAL	

Input DLIS Files						
DEFAULT	RST_PSP_021LUP	FN:20	PRODUCER	04-Feb-2007 19:51	2925.2 M	2768.7 M
Output DLIS Files						
DEFAULT	RST_PSP_021PUP	FN:25	PRODUCER	04-Feb-2007 21:45		



Before Survey Calibration

MAXIS Field Log

Calibration and Check Summary							
Measurement	Nominal	Master	Before	After	Change	Limit	Units
Production Services Logging Platform Wellsite Calibration – Detector Calibration							
Before: 4-Feb-2007 2:43							
Gamma-Ray Jig-Bkg	165.0	N/A	174.6	N/A	N/A	N/A	GAPI

Production Services Logging Platform / Equipment Identification

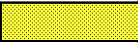
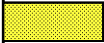
Primary Equipment:

Production Logging Platform (CQG-F)	PSPT - B	
PSP Basic Measurement Sonde (CQG_F)	PBMS - B	1743
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 -	1768

Auxiliary Equipment:

Production Services Logging Platform Wellsite Calibration

Detector Calibration

Phase	Gamma-Ray Background	GAPI	Value	Phase	Gamma-Ray Jig-Bkg	GAPI	Value
Before			3.597	Before			174.6
0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)		150.0 (Minimum)	165.0 (Nominal)	180.0 (Maximum)	
Before: 4-Feb-2007 2:43							

Company: **Esso Australia Pty. Ltd.**

Schlumberger

Well: **BMA A7**

Field: **Bream**

Rig: **Prod 2 / ISS Rig 22**

Country: **Australia**

RST-C

Sigma Log

4-Feb-2007