

[illegible]

Company: Esso Australia Pty Ltd.

Well: M-29
Field: Snapper
Rig: Prod4 / Crane

Country: Australia

Prod4 / Crane
Snapper
Gippsland
M-29
Esso Australia Pty Ltd.

RST-C
Sigma
Survey

Gippsland Basin Bass Strait	Elev.: K.B. 32.4 m G.L. -55 m D.F. 32.4 m
Permanent Datum: Log Measured From:	M.S.L. D.F.
Drilling Measured From:	D.F.

State: Victoria	Max. Well Deviation 85 deg	Longitude 148°01'26.72"E	Latitude 038°11'43.23"S
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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

Run 1Run 2Run 3

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

Run 1Run 2Run 3

Run 1Run 2Run 3

Run 1Run 2Run 3

Run 1Run 2Run 3

Run 1Run 2Run 3

Run 1Run 2Run 3

Run 1Run 2Run 3

Run 1Run 2Run 3

DEPTH SUMMARY LISTING

Date Created: 10-NOV-2006 22:33:39

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW-EB	Type:	CMTD-B/A	Type:	2-32ZT
Serial Number:	6373	Serial Number:	949	Serial Number:	24425
Calibration Date:	28-SEP-2006	Calibration Date:	2-Nov-2006	Length:	6600.14 M
Calibrator Serial Number:	1009	Calibrator Serial Number:	1174	Conveyance Method: Wireline Rig Type: Offshore_Fixed	
Calibration Cable Type:	2-23ZT	Calibration Gain:	1.01		
Wheel Correction 1:	-2	Calibration Offset:	162.00		
Wheel Correction 2:	-2				

Depth Control Parameters

Log Sequence:	Subsequent Log In the Well
Reference Log Name:	Solar composite
Reference Log Run Number:	1
Reference Log Date:	Not provided

Depth Control Remarks

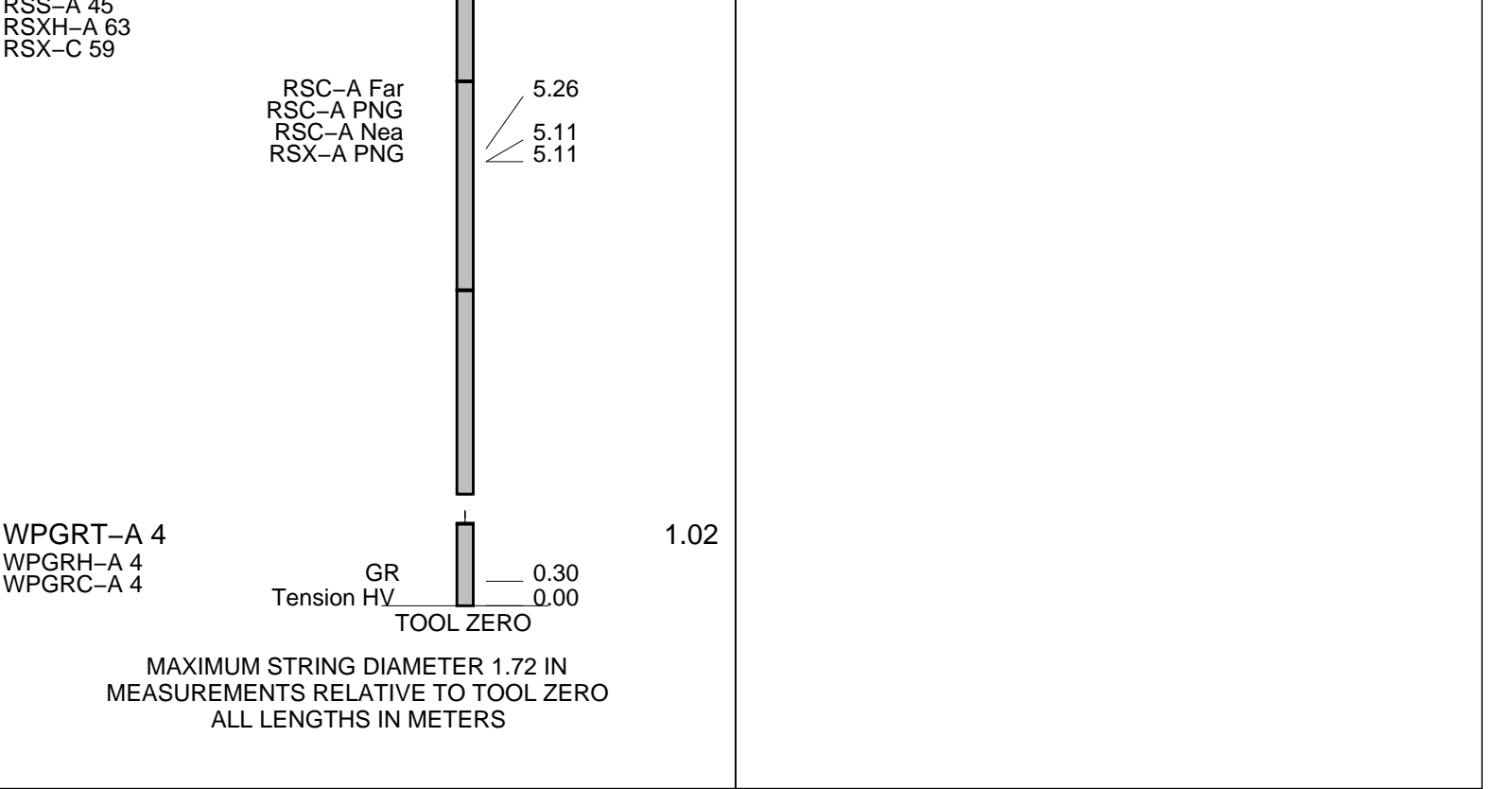
1. Correlated to solar composite log provided by client
2. Used IDW as primary depth control
3. Used Z-Chart as secondary depth control
4.
5.
6.

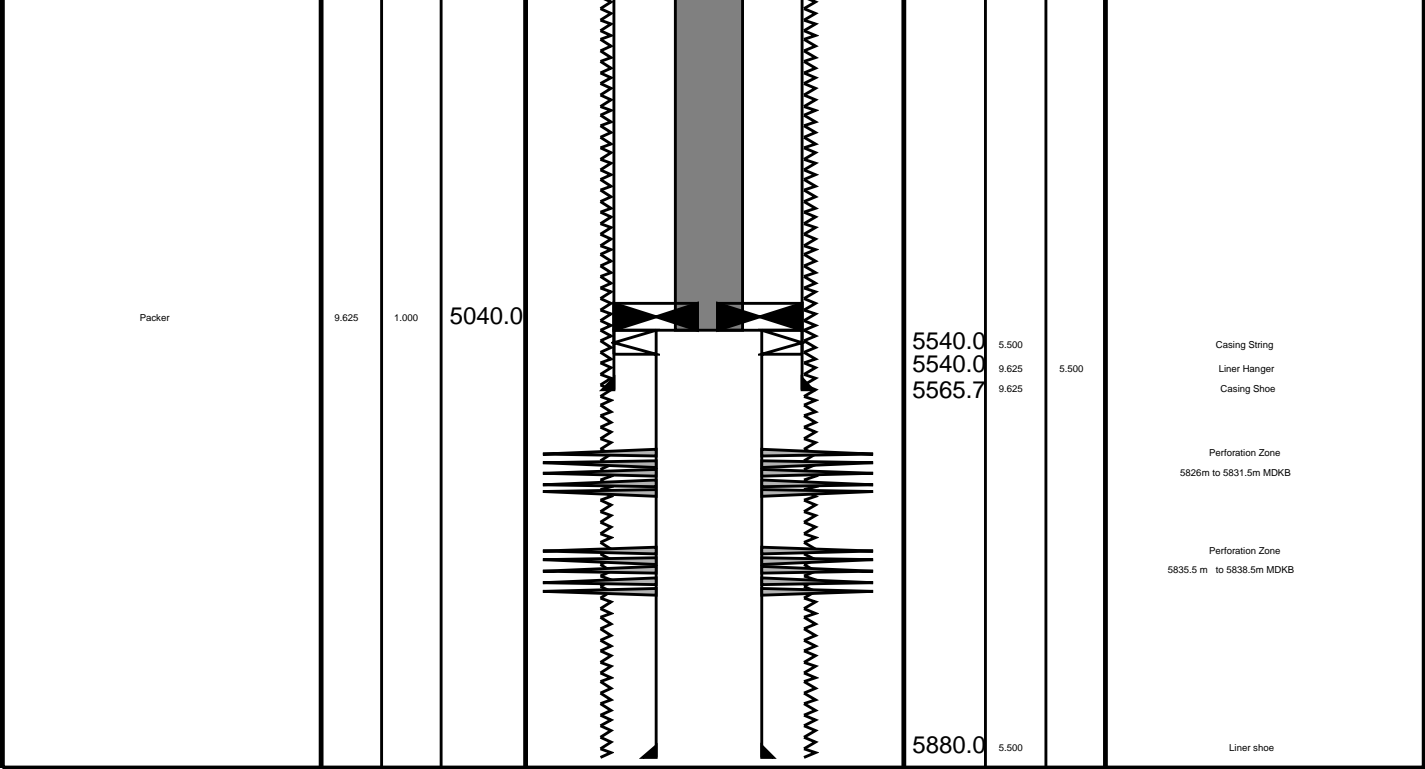
DISCLAIMER

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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 Log Provided by Client	
Maximum Well deviation: 85 deg at 2140m MDKB	
Objective = WPGR and RST survey:	
RIH with toolstring Sondex tractor ERSE / PBMS / RST and WPGRT.	
Tractor toolstring to HUD, correlate, with well shut in complete one pass with	
the WPGRT over the interval = HUD to 5820m MDKB. RIH to HUD again complete	
one pass with RST in sigma mode, over interval HUD to 5395m MDKB. POOH	

SBHT: 197 DEGF, SBHP: 2379 PSIA					
TD: 5832m MDKB					
Crew : John Light , Chris Sheills (Days)					
Kevin Kerr , Andrew Hall (Nights)					
RUN 1			RUN 2		
SERVICE ORDER #:		AusI06328211	SERVICE ORDER #:		
PROGRAM VERSION:		14C0-302	PROGRAM VERSION:		
FLUID LEVEL:			FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP
EQUIPMENT DESCRIPTION					
RUN 1			RUN 2		
SURFACE EQUIPMENT					
WITM-A 827 PSC_16MHZ 827					
DOWNHOLE EQUIPMENT					
MH-SWHS 726		18.92			
ERS-A 1811		18.56			
AH-Sondex Tractor 1		18.18			
AH-Sondex Tractor 1					
PSPT-B 827	Detail MT		10.56	10.56	
PSC-A 806	TelStatus				
PSPT-B 827	CTEM				
PSTC 806	GR		9.43		
PBMS-B 827					
CQG_F_Mano 827	Well_Temp		8.50		
RTD Thermometer 827	CQG Manom		8.40		
GR 827	CCL		8.27		
CCL 827	PBMS PSTC		8.04		
RST-C 45			8.04		
RSCH-A 45					
RSC-C 57					
RSC-F 57					





Job Events Summary

MAXIS Field Log

Schlumberger Job Event Summary

Time	Elapsed Time	Depth (M)	File
Rig Up Started	10-Nov-2006 10:45		
Simulated Log	10-Nov-2006 20:32	000:07	WPGRT_RST_PSP_007LUP
OP checked tool string			
Log Pass (up)	13-Nov-2006 14:50	000:07	5837.5 – 5761.5 WPGRT_RST_PSP_025LUP
Correlation pass			
Rig Down Completed	14-Nov-2006 1:13		
Log Pass (down)	14-Nov-2006 5:36	000:05	5144.7 – 5244.2 WPGRT_RST_PSP_036LDP
Log Pass (down)	14-Nov-2006 5:43	000:14	5307.5 – 5831.7 WPGRT_RST_PSP_037LDP
Log Pass (up)	14-Nov-2006 6:03	000:40	5840.0 – 5638.3 WPGRT_RST_PSP_038LUP
Log Pass (up)	14-Nov-2006 6:52	001:06	5665.5 – 5356.3 WPGRT_RST_PSP_039LUP



RST-C Sigma Pass
5660m to 5375m MDKB

MAXIS Field Log

Company: Esso Australia Pty Ltd. Well: M-29

Input DLIS Files

DEFAULT WPGRT_RST_PSP_039LUP FN:38 PRODUCER 14-Nov-2006 06:52 5665.5 M 5356.3 M

Output DLIS Files

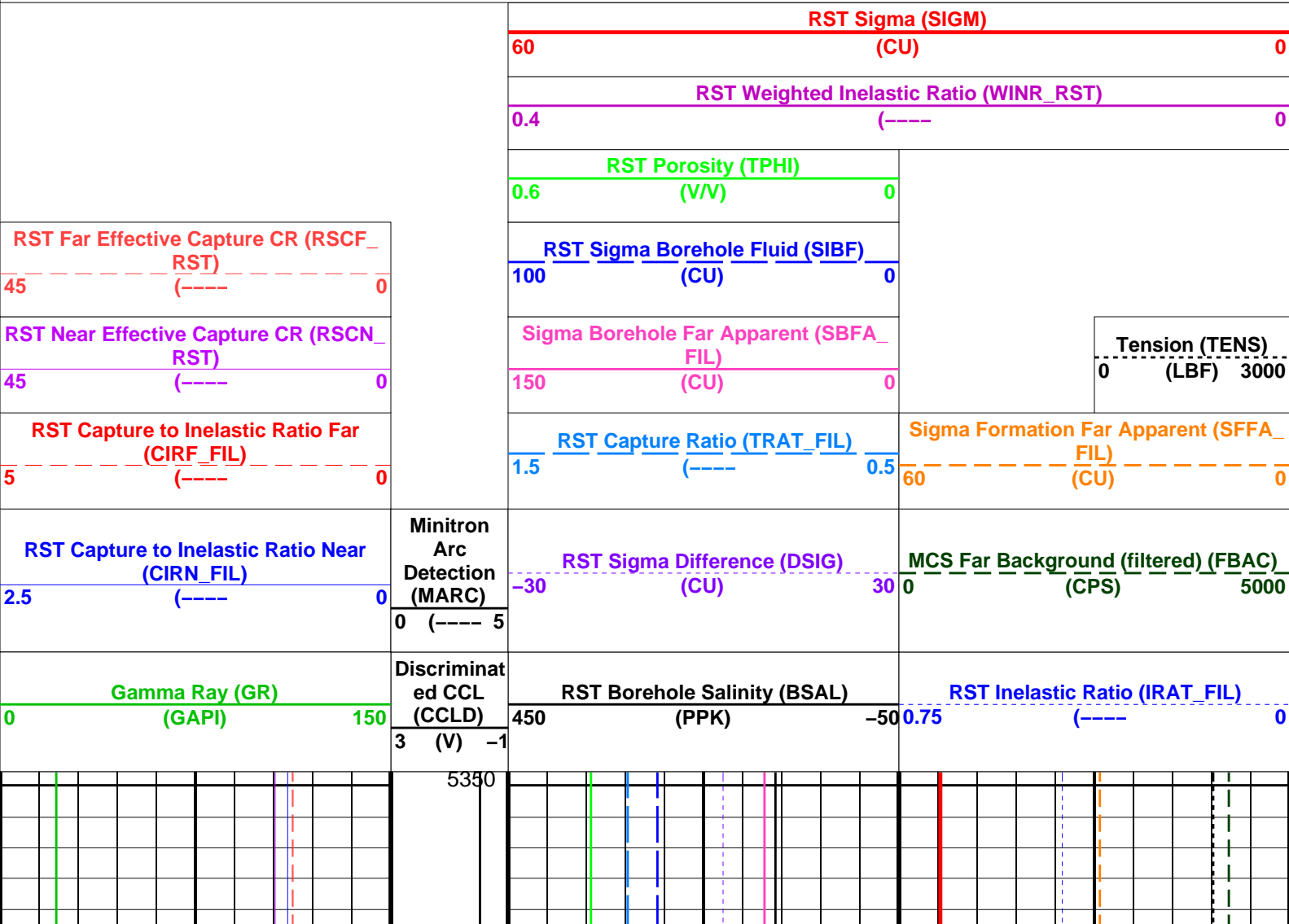
DEFAULT WPGRT_RST_PSP_042PUP FN:41 PRODUCER 14-Nov-2006 08:06 5668.5 M 5349.4 M

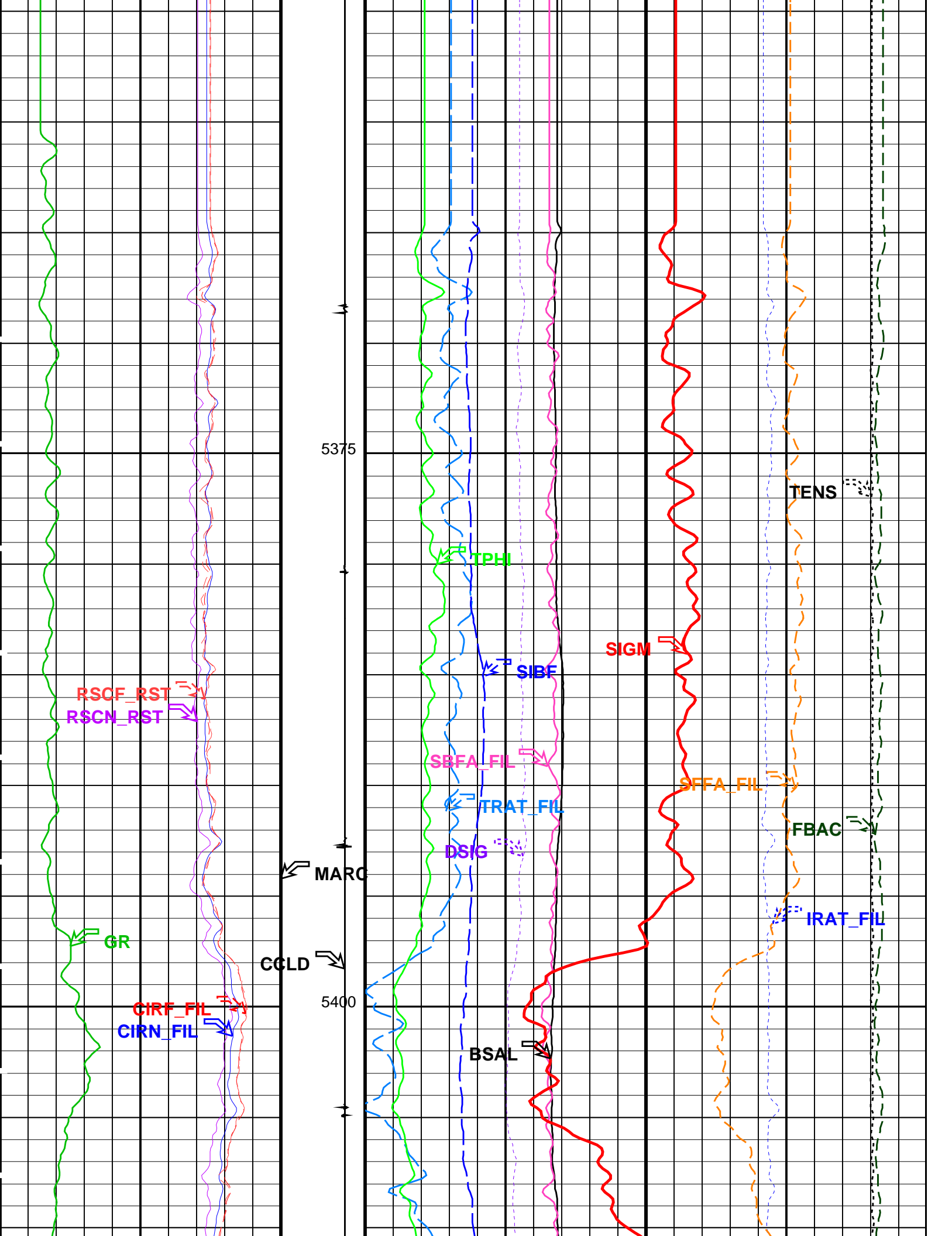
OP System Version: 14C0-302
MCM

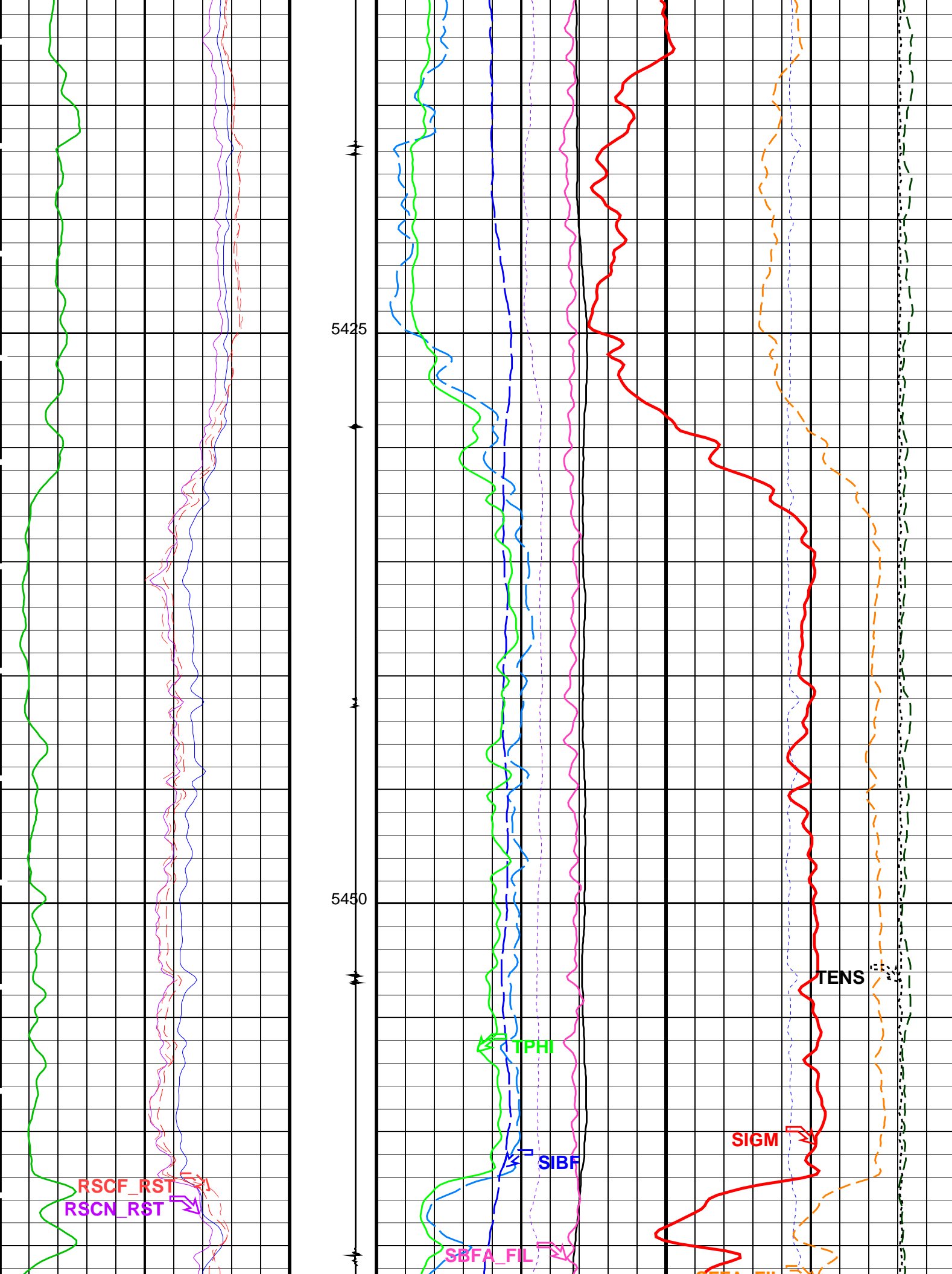
WPGRT-A 14C0-302 RST-C 14C0-302
PSPT-B 14C0-302 ERS-A 14C0-302

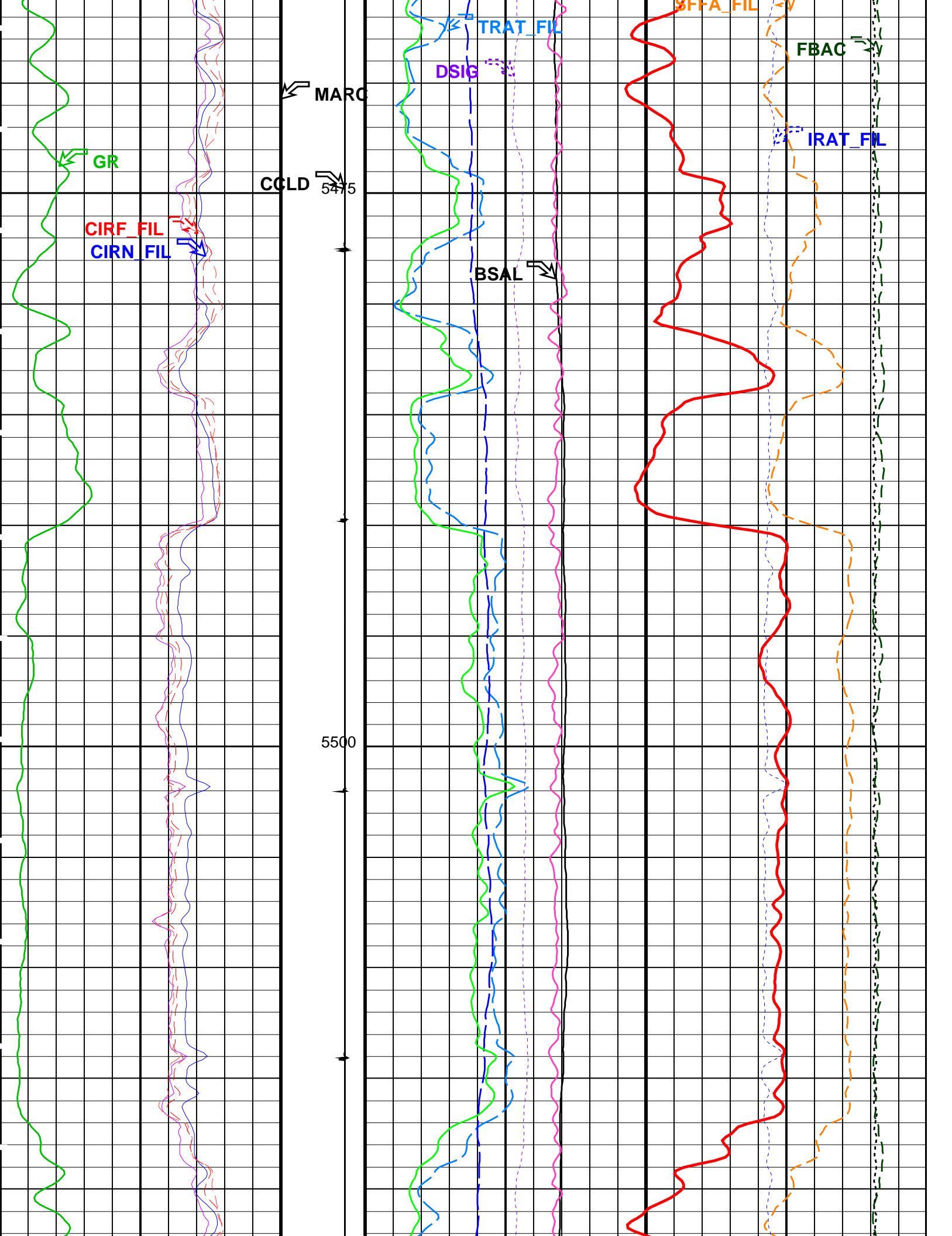
PIP SUMMARY

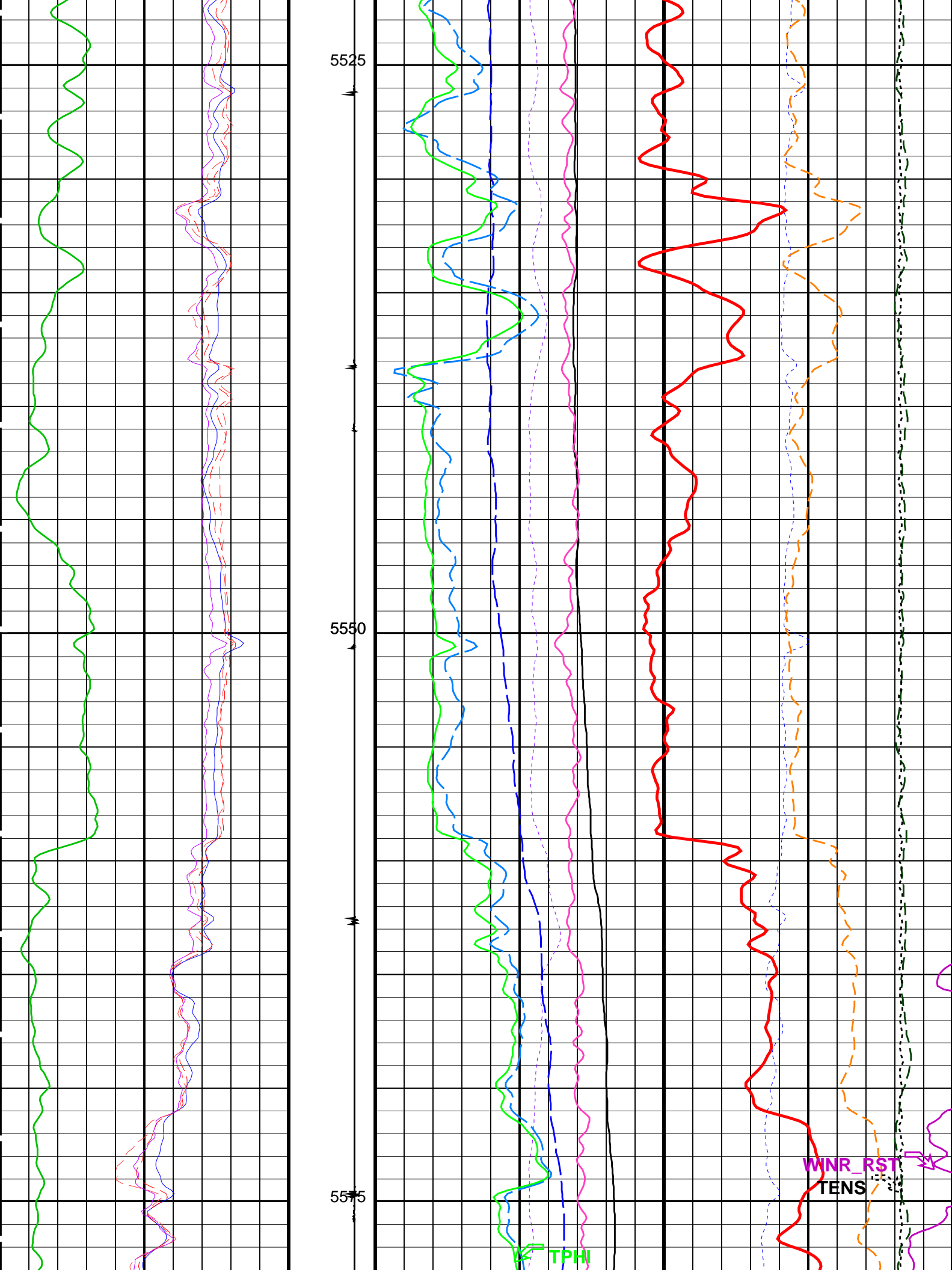
Time Mark Every 60 S

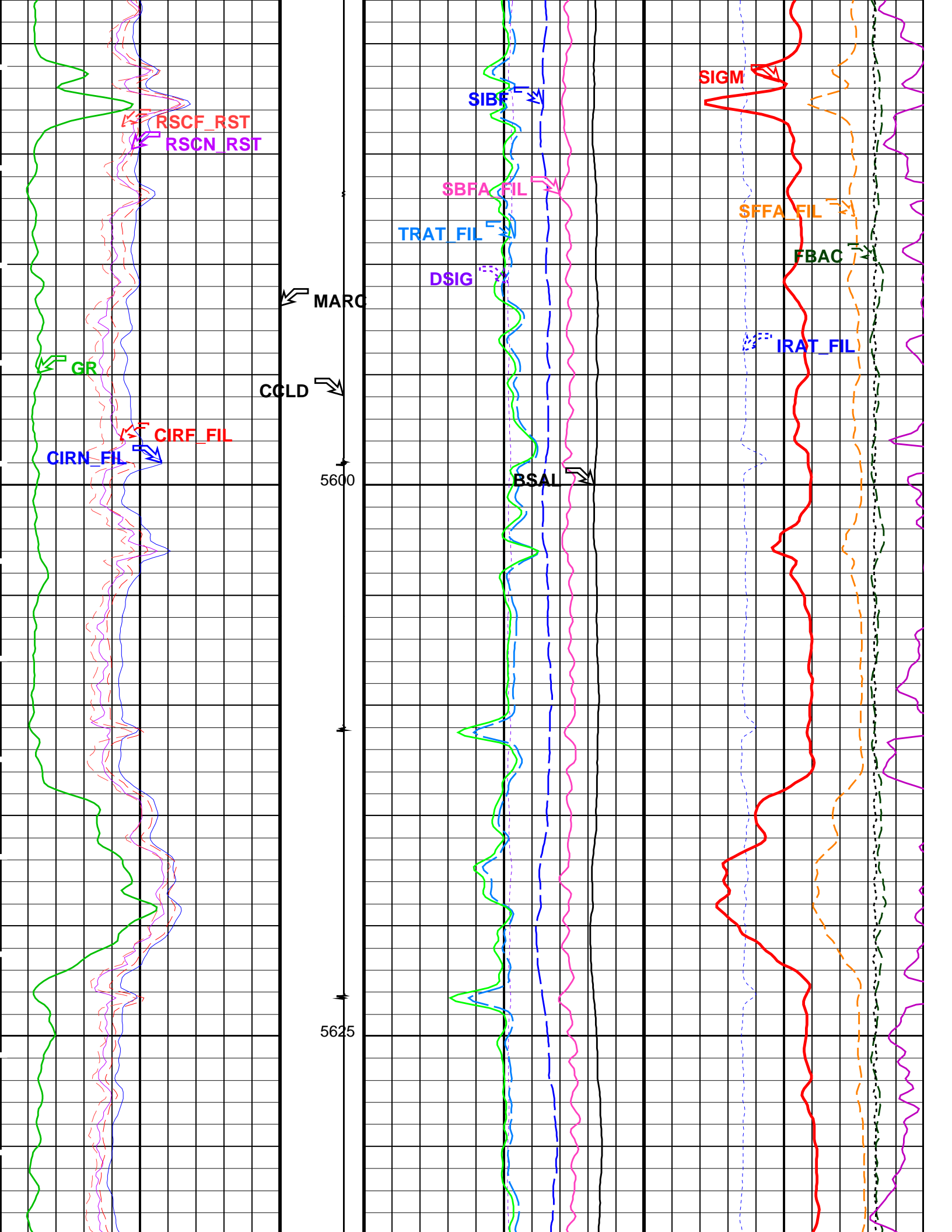


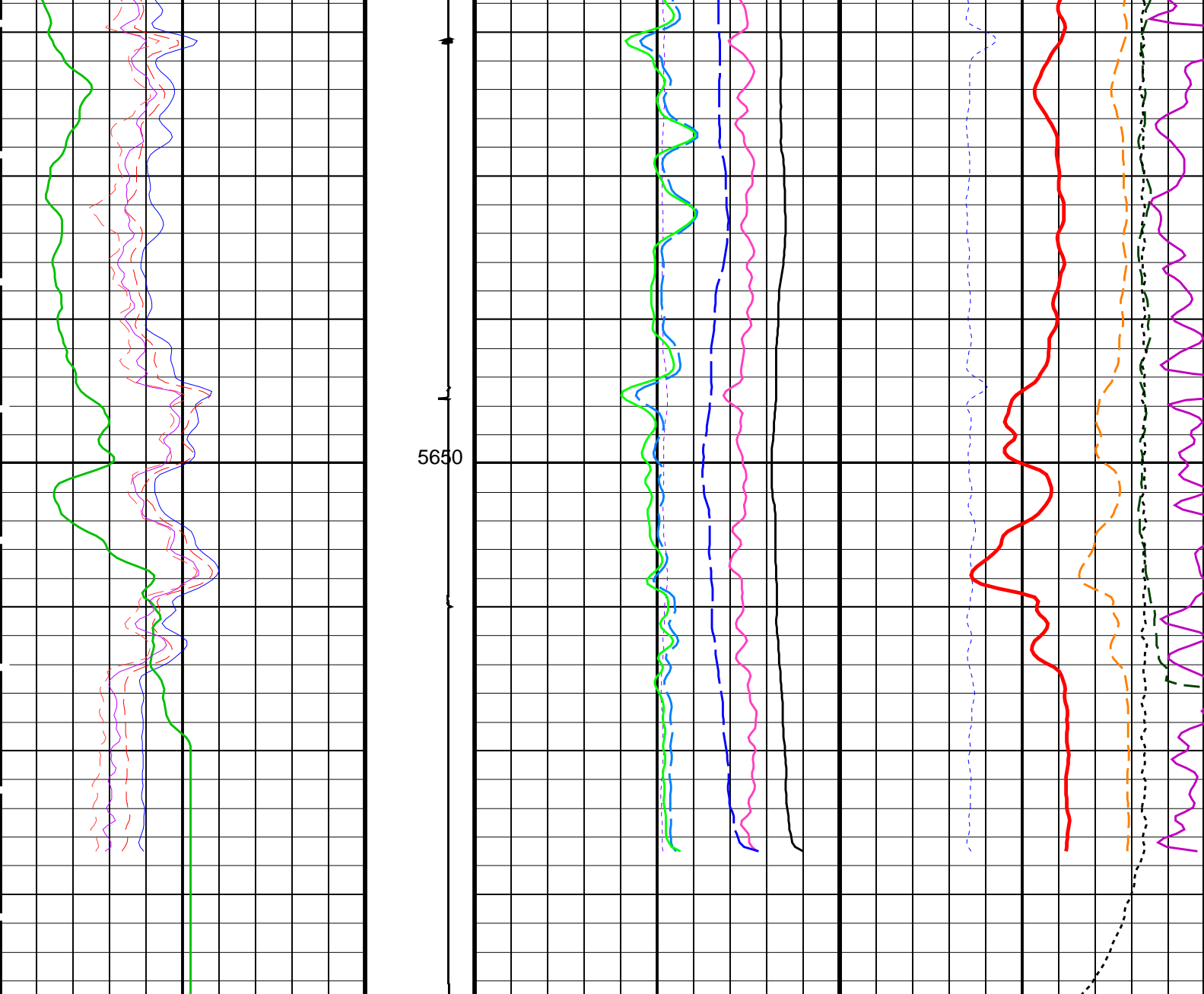












<div>Gamma Ray (GR) (GAPI)</div> <div>0150</div>	<div>Discriminat ed CCL (CCLD) 3 (V) -1</div>	<div>RST Borehole Salinity (BSAL) (PPK)</div> <div>450-50</div>	<div>RST Inelastic Ratio (IRAT_FIL) (----</div> <div>0.750</div>
<div>RST Capture to Inelastic Ratio Near (CIRN_FIL) (----</div> <div>2.50</div>	<div>Minitron Arc Detection (MARC) 0 (---- 5</div>	<div>RST Sigma Difference (DSIG) (CU)</div> <div>-3030</div>	<div>MCS Far Background (filtered) (FBAC) (CPS)</div> <div>05000</div>
<div>RST Capture to Inelastic Ratio Far (CIRF_FIL) (-----</div> <div>50</div>		<div>RST Capture Ratio (TRAT_FIL) (----</div> <div>1.50.5</div>	<div>Sigma Formation Far Apparent (SFFA_ FIL) (CU)</div> <div>600</div>
<div>RST Near Effective Capture CR (RSCN_ RST) (----</div> <div>450</div>		<div>Sigma Borehole Far Apparent (SBFA_ FIL) (CU)</div> <div>1500</div>	<div>Tension (TENS) (LBF)</div> <div>03000</div>
<div>RST Far Effective Capture CR (RSCF_ RST) (-----</div> <div>450</div>		<div>RST Sigma Borehole Fluid (SIBF) (CU)</div> <div>1000</div>	
		<div>RST Porosity (TPHI) (V/V)</div> <div>0.60</div>	
		<div>RST Weighted Inelastic Ratio (WINR_RST)</div>	

	0.4	(----	0
	RST Sigma (SIGM)		
	60	(CU)	0

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	7.000 IN
BSAL	Borehole Salinity	-50000.00 PPM
CSIZ	Current Casing Size	5.500 IN
CWEI	Casing Weight	17.00 LB/F
DO	Depth Offset for Playback	3.1 M
PP	Playback Processing	NORMAL

Format: RST_SIG_ANSW Vertical Scale: 1:200 Graphics File Created: 14-Nov-2006 08:06

OP System Version: 14C0-302

MCM

WPGRT-A	14C0-302	RST-C	14C0-302
PSPT-B	14C0-302	ERS-A	14C0-302

Input DLIS Files

DEFAULT	WPGRT_RST_PSP_039LUP	FN:38	PRODUCER	14-Nov-2006 06:52	5665.5 M	5356.3 M
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Output DLIS Files

DEFAULT	WPGRT_RST_PSP_042PUP	FN:41	PRODUCER	14-Nov-2006 08:06
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Schlumberger

RST-C Sigma Pass
5833.5m to 5655m MDKB

MAXIS Field Log

Company: Esso Australia Pty Ltd.

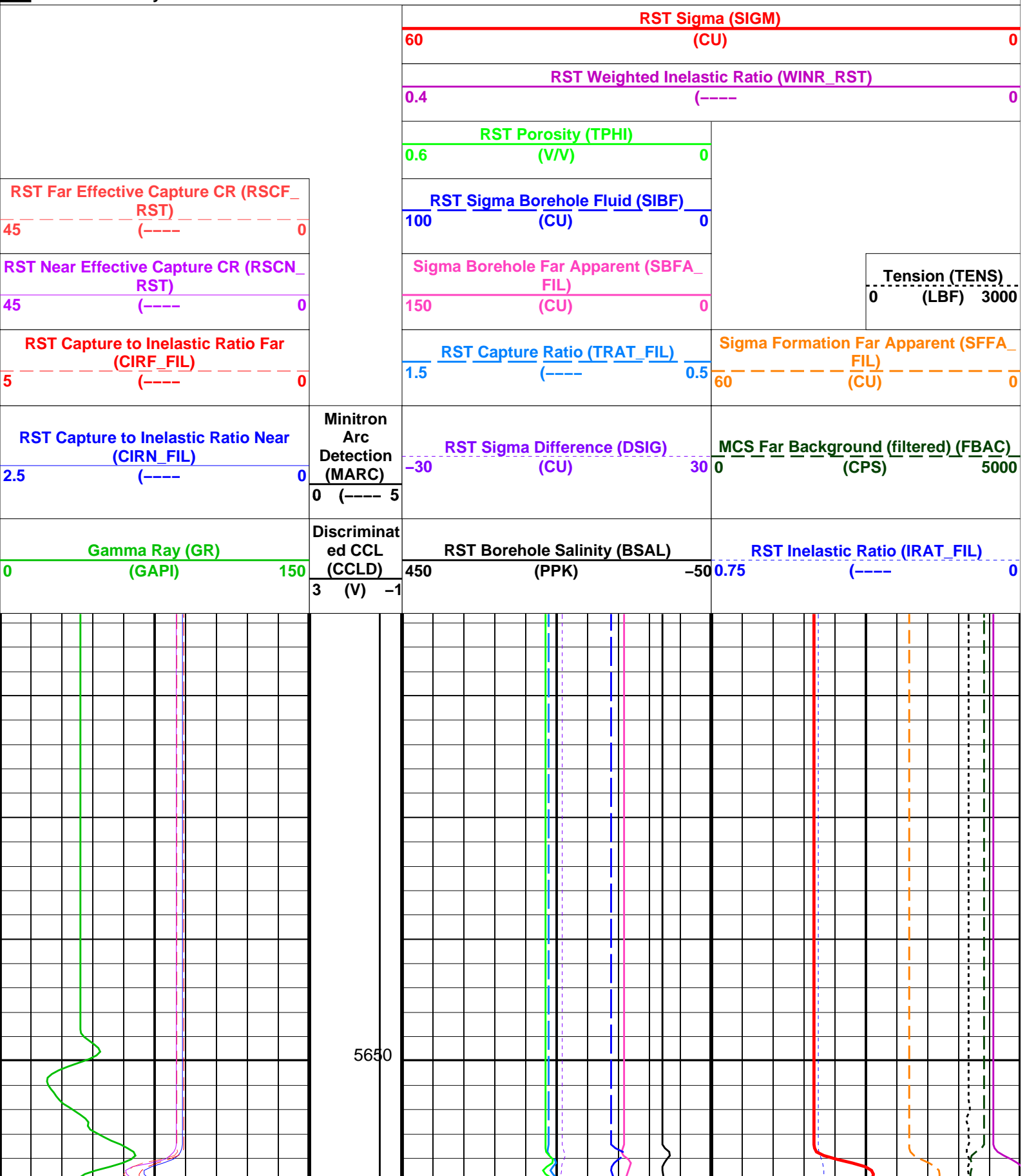
Well: M-29

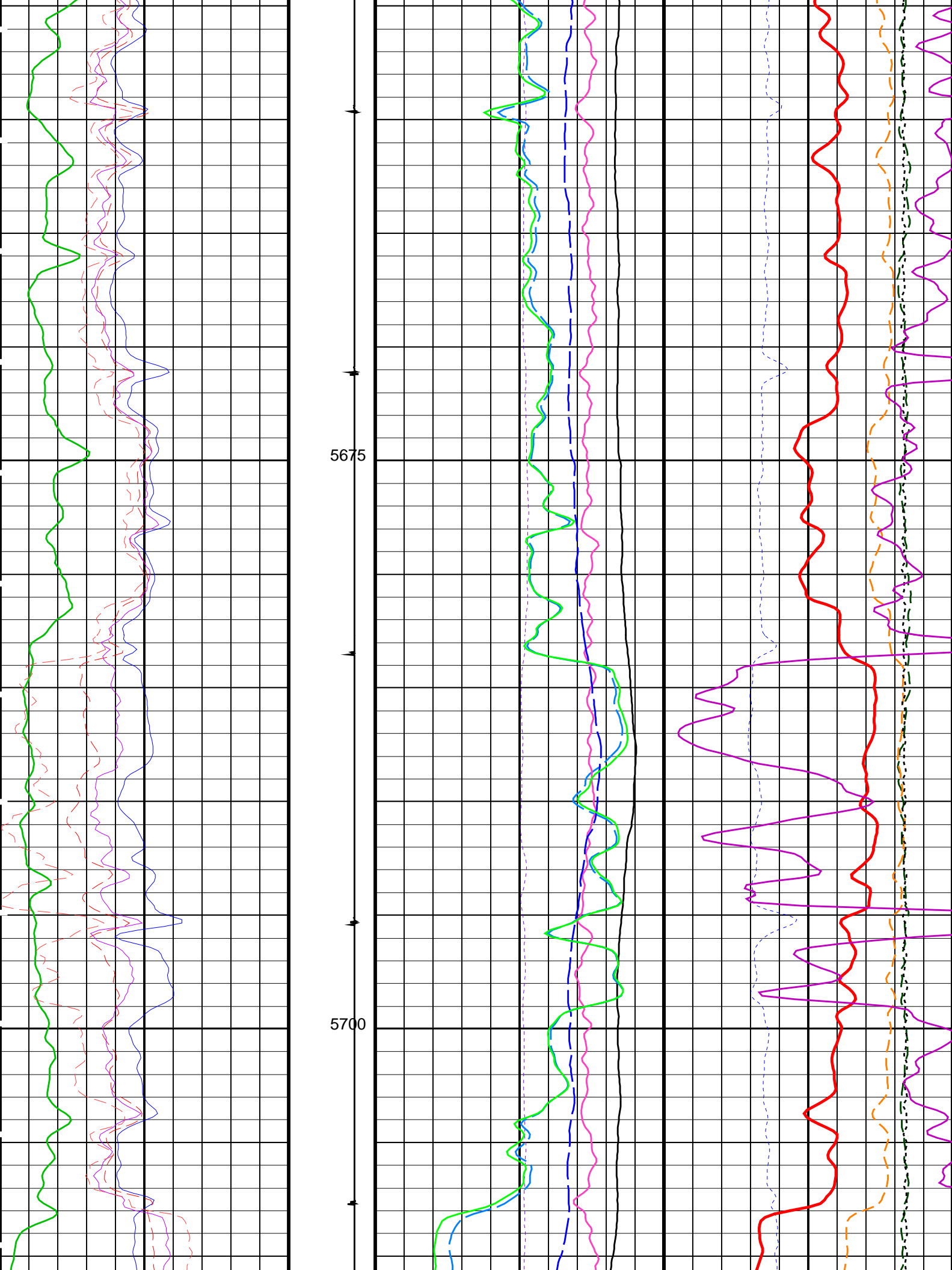
Input DLIS Files

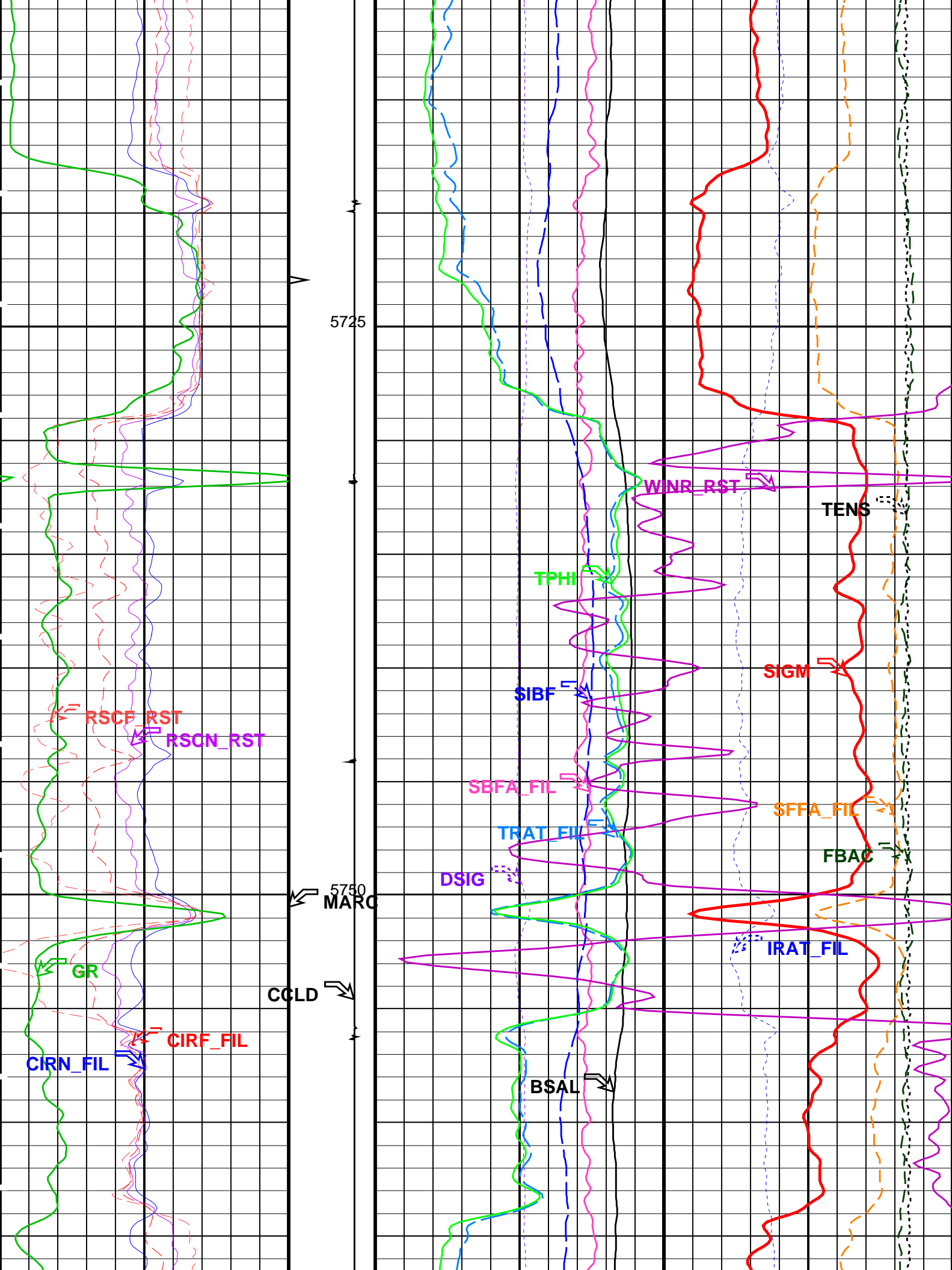
DEFAULT	WPGRT_RST_PSP_038LUP	FN:37	PRODUCER	14-Nov-2006 06:03	5840.0 M	5638.3 M
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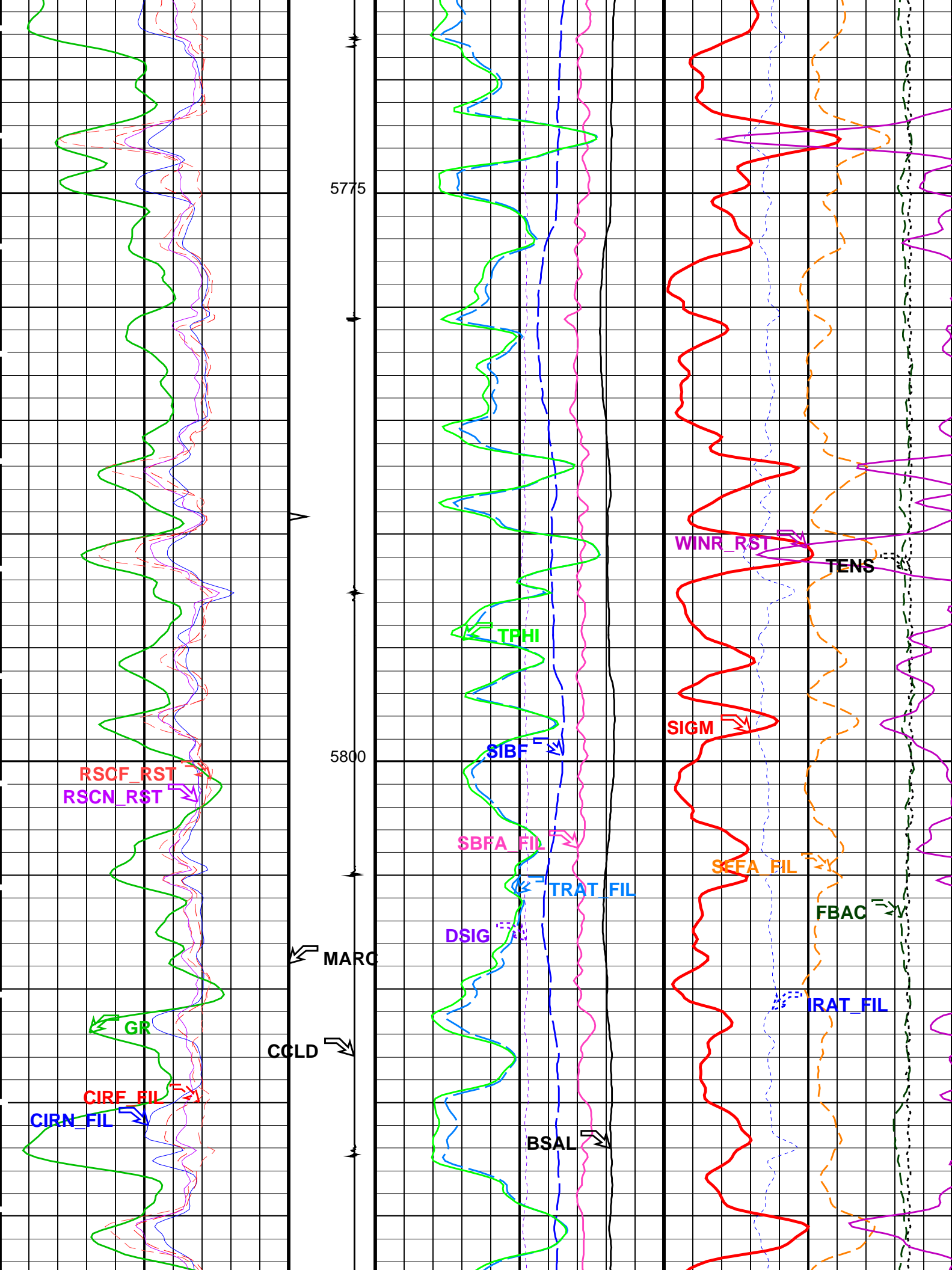
Output DLIS Files

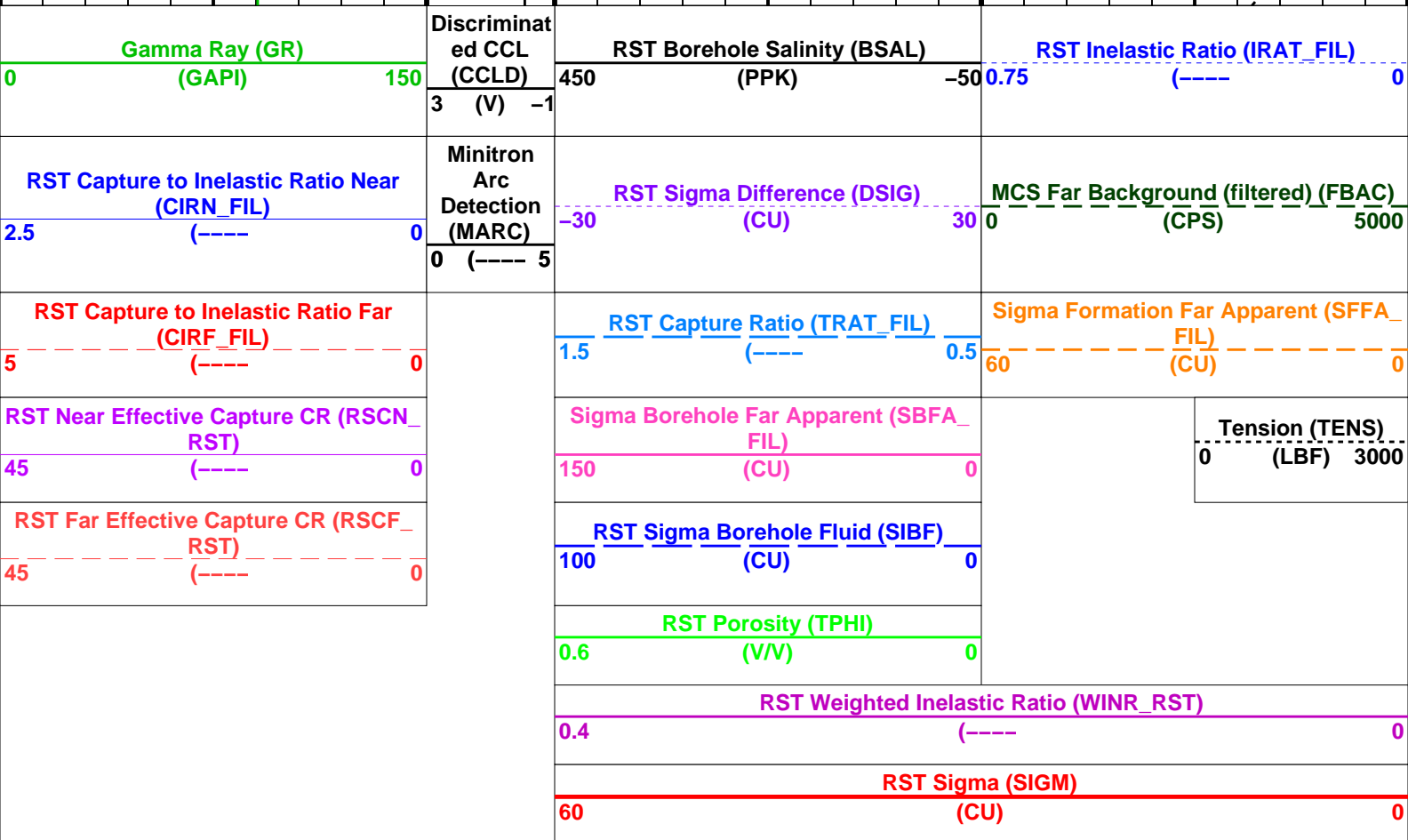
DEFAULT	WPGRT_RST_PSP_041PUP	FN:40	PRODUCER	14-Nov-2006 08:04	5843.0 M	5631.5 M
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Time Mark Every 60 S

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
DEPC TDTI	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	7.000	IN
BSAL	Borehole Salinity	-50000.00	PPM
CSIZ	Current Casing Size	5.500	IN
CWEI	Casing Weight	17.00	LB/F
DO	Depth Offset for Playback	3.1	M
PP	Playback Processing	NORMAL	

Format: RST_SIG_ANSW Vertical Scale: 1:200 Graphics File Created: 14-Nov-2006 08:04

OP System Version: 14C0-302

MCM

WPGRT-A	14C0-302	RST-C	14C0-302
PSPT-B	14C0-302	ERS-A	14C0-302

Input DLIS Files

DEFAULT	WPGRT_RST_PSP_038LUP	FN:37	PRODUCER	14-Nov-2006 06:03	5840.0 M	5638.3 M
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Output DLIS Files

DEFAULT	WPGRT_RST_PSP_041PUP	FN:40	PRODUCER	14-Nov-2006 08:04
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Schlumberger

RST-C SIGMA Correlation Pass

MAXIS Field Log

Company: Esso Australia Pty Ltd.

Well: M-29

Input DLIS Files

DEFAULT	WPGRT_RST_PSP_025LUP	FN:24	PRODUCER	13-Nov-2006 14:50	5837.5 M	5761.5 M
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Output DLIS Files

DEFAULT	WPGRT_RST_PSP_028PUP	FN:27	PRODUCER	13-Nov-2006 16:24	5843.5 M	5767.9 M
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OP System Version: 14C0-302

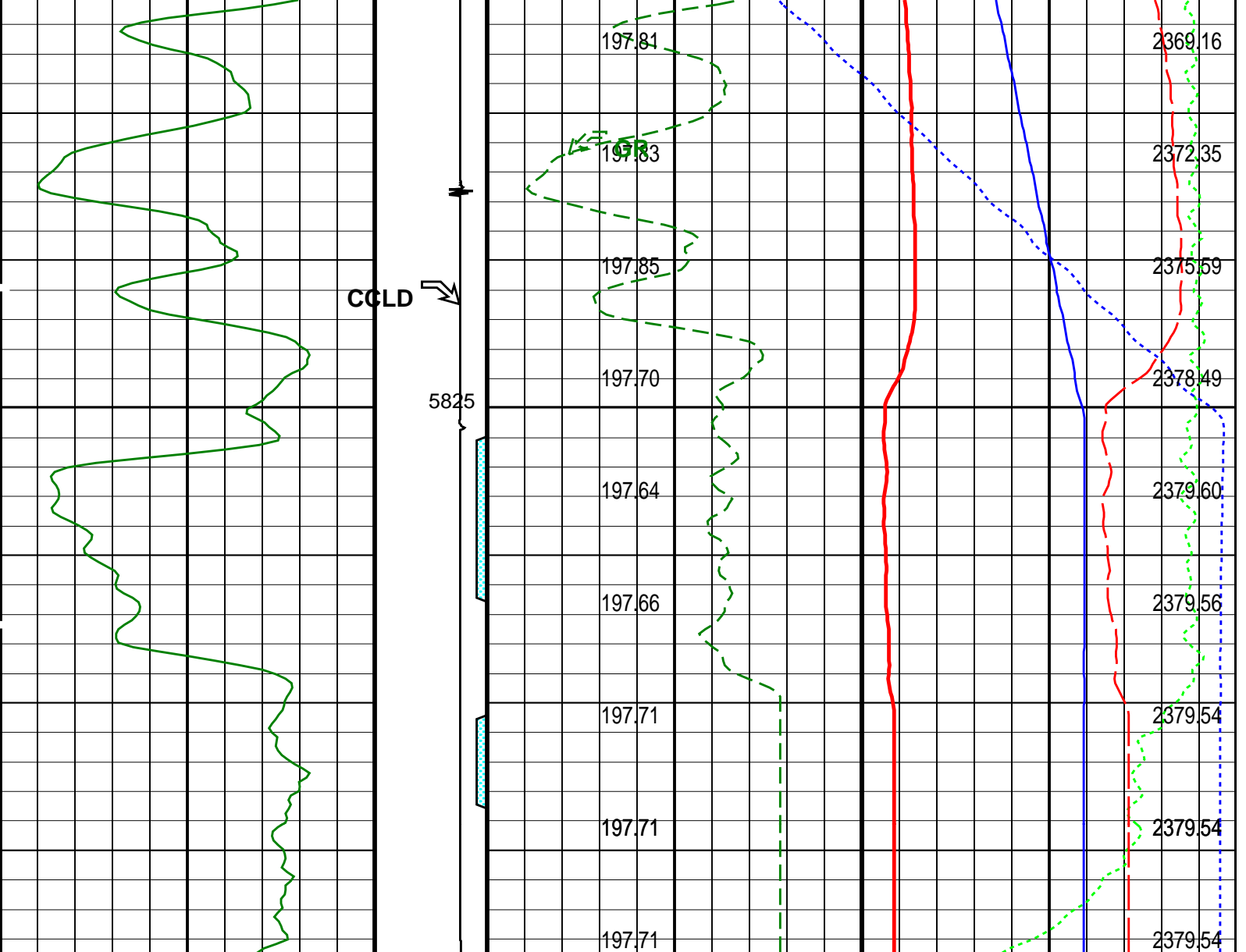
MCM

WPGRT-A	14C0-302	RST-C	14C0-302
PSPT-B	14C0-302	ERS-A	14C0-302

PIP SUMMARY

Time Mark Every 60 S

Amplified Well Pressure (WPRES)	
0	20
(PSIA)	
Well Pressure (WPRES)	
2300	2400
(PSIA)	
Well Temperature (WTEMP)	
0	2
(DEGE)	



WPGRT Gamma Ray (GR_WPGRT) (GAPI)		Discriminat ed CCL (CCLD) 3 (V) -1	Gamma Ray (GR) (GAPI)		Tension (TENS) (LBF)	
0	150		0	150	0	2500
<div>Perfo Zone From PERFO_ CURVE to D3T</div>		Well Temperature (WTEP) 195 (DEGF) 200				
		Well Temperature (WTEP) (DEGF)			Well Pressure (WPRE) (PSIA)	
		Well Temperature (WTEP) 0 (DEGF) 2				
		Well Pressure (WPRE) 2300 (PSIA) 2400				
		Amplified Well Pressure (WPRE) 0 (PSIA) 20				

PIP SUMMARY

WPGRT-A		14C0-302	MCM		RST-C	14C0-302
PSPT-B		14C0-302			ERS-A	14C0-302
Parameters						
DLIS Name		Description			Value	
System and Miscellaneous						
DO		Depth Offset for Playback			6.0	M
PP		Playback Processing			NORMAL	
Input DLIS Files						
DEFAULT	WPGRT_RST_PSP_025LUP	FN:24	PRODUCER	13-Nov-2006 14:50	5837.5 M	5761.5 M
Output DLIS Files						
DEFAULT	WPGRT_RST_PSP_028PUP	FN:27	PRODUCER	13-Nov-2006 16:24		
Company: Esso Australia Pty Ltd.						
Schlumberger						
Well:		M-29				
Field:		Snapper				
Rig:		Prod4 / Crane				
Country:		Australia				
		RST-C				
		Sigma				
		Survey				