

Company: Esso Australia Pty. Ltd.

Well: BMA A-26

Field: Bream A

Rig: Prod 2 / ISS Rig 22 Country: Australia

2-1/8" Phased Powerjet
Perforation Record
2-Feb-2007

Rig: Prod 2 / ISS Rig 22	
Field: Bream A	
Location: Bass Strait	
Well: BMA A-26	
Company: Esso Australia Pty. Ltd.	
LOCATION	
Bass Strait Gippsland Basin	Elev.: K.B. 33.5 m G.L. -59 m D.F. 33.5 m
Permanent Datum: _____ Log Measured From: _____ Drilling Measured From: _____	Mean Sea Level _____ Drill Floor _____ Drill Floor _____ Elev.: 0 m 33.5 m above Perm. Datum
State: Victoria	Max. Well Deviation 72 deg Longitude 147°46'15"E Latitude 38°30'4"S

Logging Date	2-Feb-2007		
Run Number	1		
Depth Driller	4475 m		
Schlumberger Depth	4332 m		
Bottom Log Interval	4323 m		
Top Log Interval	4320 m		
Casing Fluid Type	Produced Fluids		
Salinity			
Density	7.9 lbm/gal		
Fluid Level			
BIT/CASING/TUBING STRING			
Bit Size	8.500 in		
From	4149 m		
To	4475 m		
Casing/Tubing Size	4.500 in		
Weight	43.5 lbm/ft		
Grade	13CR-80		
From	3500 m		
To	4337 m		
Maximum Recorded Temperatures	98 degC		
Logger On Bottom	2-Feb-2007	Time	10:45
Unit Number	3827	Location	AUSL
Recorded By	O.Darby/C.Rowand/B.Donahoe		
Witnessed By	Mr B.Woodward, Mr M.Wilson		

	Oil Density	Run 1	Run 2	R
	Water Salinity			
	Gas Gravity			
	Bo			
	Bw			
	1/Bq			
	Bubble Point Pressure			
	Bubble Point Temperature			
	Solution GOR			
	Maximum Deviation	72 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			

Date Created: 2-FEB-2007 12:27:38

Logging Cable

Type:	2-32ZT
Serial Number:	24031
Length:	5690.01 M
Conveyance Method:	Wireline
Rig Type:	Offshore Fixed

Log Sequence:	Subsequent Log In the Well
Reference Log Name:	Esso Solar Composite Log
Reference Log Run Number:	
Reference Log Date:	No date

1. Log correlated to Esso Solar Composite Log
2. Used IDW as primary depth control
3. Used Z-Chart as secondary depth control
- 4.
- 5.
6. Tool zero'd in WHE Toolcatcher at - 9m.

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 SERVICES2
OS1:
OS2:
OS3:
OS4:
OS5:

REMARKS: RUN NUMBER 2

Objective:







charges with MWPT as required, correlate to SOLAR composite log.

Locate the gun at the required perforation interval. Perforate the well then

allow sufficient time for any debris to drop down while recording pressure/temp.

proir to POOH.
Perforation interval = 4320 – 4323m MDKB
CCL to top shot = 3.1m
CCL to gun bottom = 6.4m
CCL stop depth = 4316.9m MDKB
Schlumberger Crew:
Days: B.Glover (crew chief), M.Hancock
Nights: D.Stuckey (crew chief), S.Kiss

RUN 1			RUN 2		
SERVICE ORDER #:		L0503G037	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				
MWPM-AA 37				
DOWNHOLE EQUIPMENT				
MH-22 MH-22				13.11
EQF-43 EQF-43 261				12.63
EQF-43 EQF-43 201				10.80
AH-95				8.97
MWGT-AA MWPG-AA 24 MWGH-AA 19				8.75
	MWPG GR — 2.41			
MWPT-BA MWPH-BA 74 MWPS-BA 74				7.78
	CCL SMWP Pres SMWP Temp Tension — TOOL ZERO			

AH-WPSA
AH-WPSA 4001

MPD-MB
MPD-MB 264

AH-SAFE
AH-SAFE 5

MWP_GUN
GUN-2-1/8" Powerjet

4.96

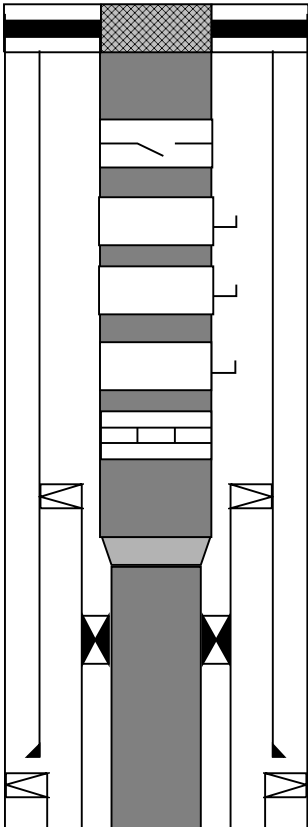
4.53

3.99

3.66

TOOL BOTTOM

MAXIMUM STRING DIAMETER 2.13 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	9.625	3.500	12.0			9.625		Casing String
	3.500	2.992				7.000		Casing String
SSSV	3.500	2.750	446.0					
Side Pocket Mandrel	3.500	2.920	812.0					
Side Pocket Mandrel	3.500	2.920	1794.0					
Side Pocket Mandrel	3.500	2.920	2233.0					
Nipple	3.500	2.750	2251.0					
Crossover Joint	3.500	2.875			3500.0	4.500	12.600	Casing String
	2.875	2.441	3508.0		3500.0	7.000	4.500	Liner Hanger
Packer	4.500	2.875	3510.0					
					4033.0	7.000		Casing Shoe
					4037.0	7.000		Casing String
					4037.0	9.625	7.000	Liner Hanger



2 1/8" Powerjet Station Log

MAXIS Field Log

Company: Esso Australia Pty. Ltd.

Well: BMA A-26

Output DLIS Files

DEFAULT PERFO_135LTP FN:32 PRODUCER 02-Feb-2007 11:16 4316.9 M 2.1 M

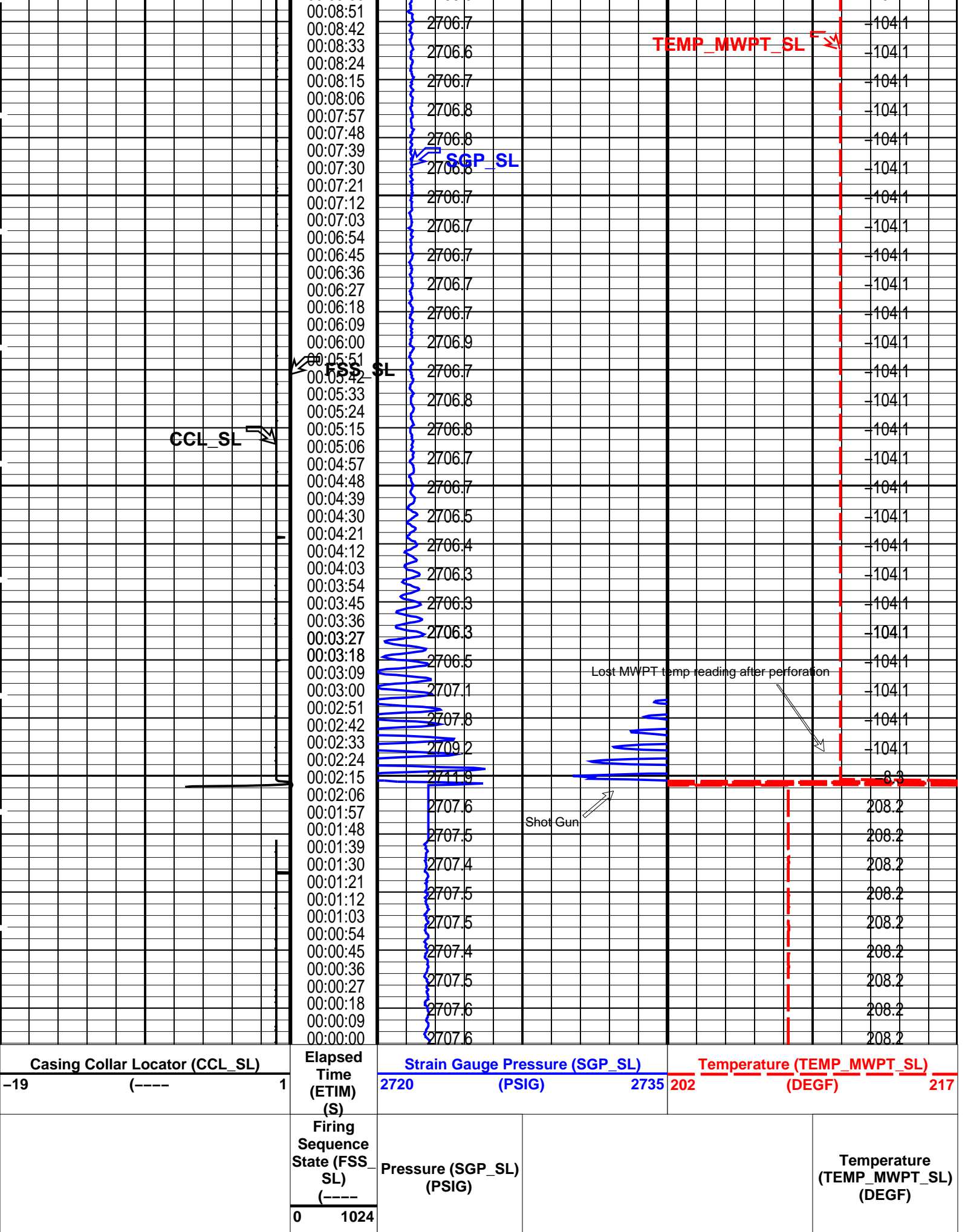
OP System Version: 14C0-302 MCM

MWP_GUN 14C0-302 MWPT-DA 14C0-302
MWGT-AA 14C0-302

PIP SUMMARY

Time Mark Every 60 S

		Firing Sequence State (FSS SL) (-----)	Pressure (SGP_SL) (PSIG)		Temperature (TEMP_MWPT_SL) (DEGF)			
		0	1024					
Casing Collar Locator (CCL_SL)		Elapsed Time (ETIM) (S)	Strain Gauge Pressure (SGP_SL)		Temperature (TEMP_MWPT_SL)			
-19	(-----)	1	2720	(PSIG)	2735	202	(DEGF)	217
CCL_SL		00:13:21	2706.7				-104.1	
		00:13:12	2706.8				-104.1	
		00:13:03	2706.7				-104.1	
		00:12:54	2706.7				-104.1	
		00:12:45	2706.6				-104.1	
		00:12:36	2706.7				-104.1	
		00:12:27	2706.7				-104.1	
		00:12:18	2706.7				-104.1	
		00:12:09	2706.7				-104.1	
		00:12:00	2706.7				-104.1	
		00:11:51	2706.6				-104.1	
		00:11:42	2706.7				-104.1	
		00:11:33	2706.6				-104.1	
		00:11:24	2706.7				-104.1	
		00:11:15	2706.6				-104.1	
		00:11:06	2706.6				-104.1	
		00:10:57	2706.7				-104.1	
		00:10:48	2706.7				-104.1	
		00:10:39	2706.7				-104.1	
		00:10:30	2706.7				-104.1	
		00:10:21	2706.7				-104.1	
		00:10:12	2706.6				-104.1	
		00:10:03	2706.7				-104.1	
		00:09:54	2706.7				-104.1	
		00:09:45	2706.7				-104.1	
		00:09:36	2706.7				-104.1	
		00:09:27	2706.7				-104.1	
		00:09:18	2706.7				-104.1	
		00:09:09	2706.8				-104.1	
		00:09:00	2706.8				-104.1	



PIP SUMMARY

Parameters				
DLIS Name		Description	Value	
MWPT-DA: MEASUREMENT WHILE PERFORATING TOOL				
DEVI_FL_CORR		Deviation Angle for Flow Line Correction	0	DEG
FLD		Flow Line Density	1	G/C3
MWPT_NULL_SOURCE		MWPT NULL Temperature Source	TEMS	
MWPT_NULL_TEMP		MWPT NULL Temperature	0.0	DEGC
Format: MWP_SL Vertical Scale: 1" per 60S			Graphics File Created: 02-Feb-2007 11:16	
OP System Version: 14C0-302				
MCM				
MWP_GUN	14C0-302	MWPT-DA	14C0-302	
MWGT-AA	14C0-302			
Output DLIS Files				
DEFAULT	PERFO_135LTP	FN:32	PRODUCER	02-Feb-2007 11:16

Schlumberger

2 1/8" Powerjet
Shooting Pass

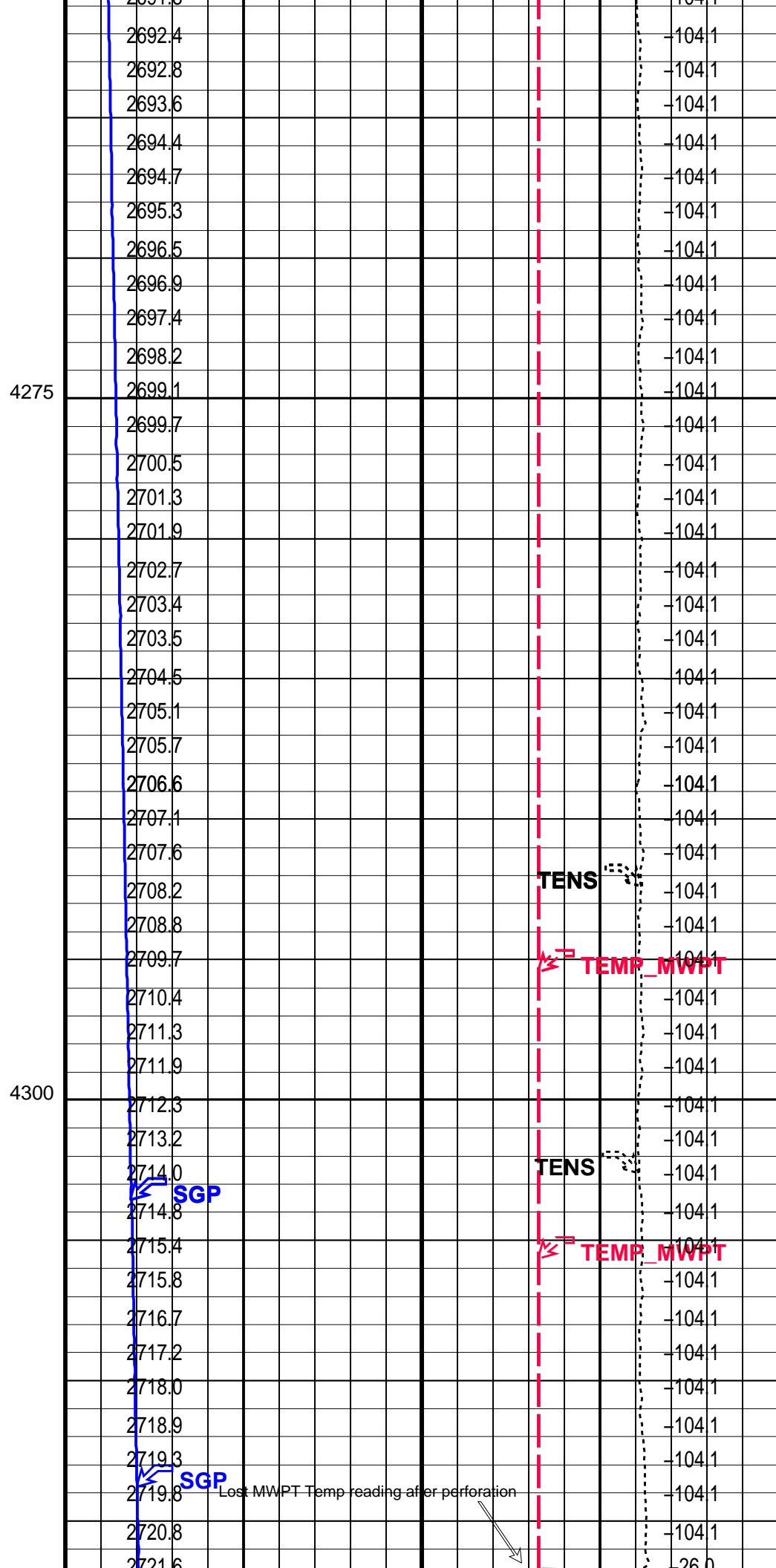
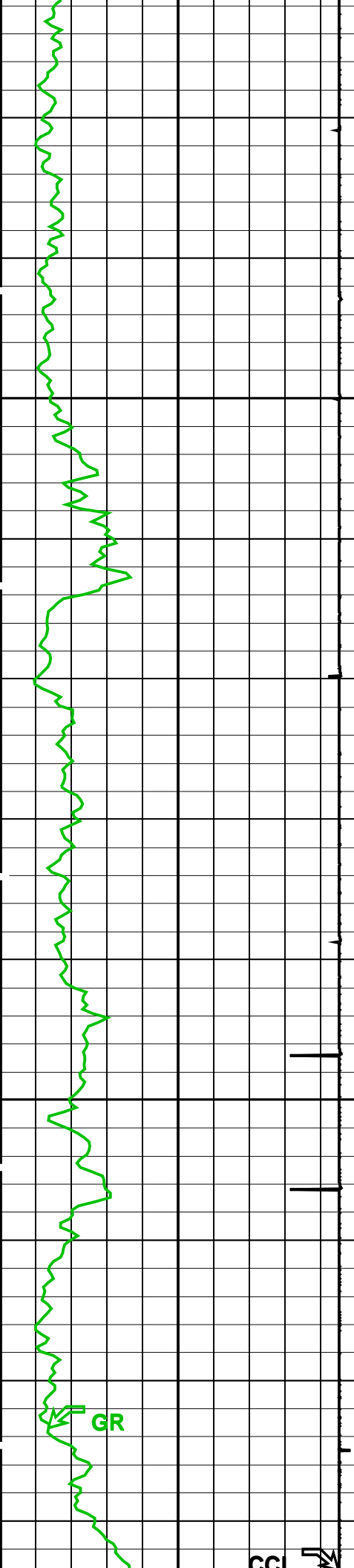
MAXIS Field Log

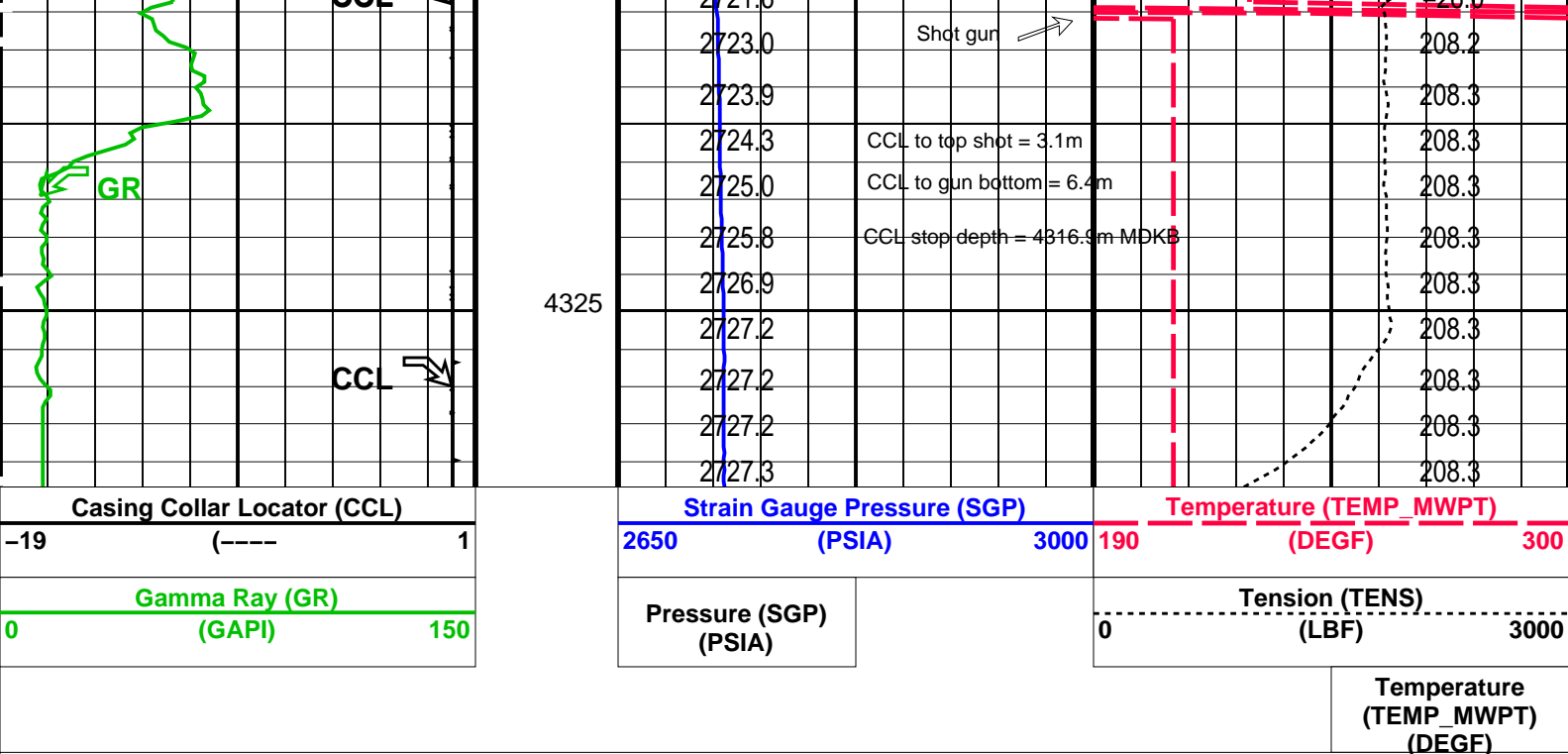
PERFO2 Operational Summary Listing

Device Status Req Depth (M) Obs Depth (M) Time Used

GUN1 Used 4320.0 4320.0 11:20:16

Company: Esso Australia Pty. Ltd.										Well: BMA A-26											
Output DLIS Files																					
DEFAULT				PERFO_134LUP				FN:31		PRODUCER		02-Feb-2007 11:11				4329.7 M		4258.8 M			
OP System Version: 14C0-302																					
MCM																					
MWP_GUN				14C0-302				MWPT-DA				14C0-302									
MWGT-AA				14C0-302																	
PIP SUMMARY																					
Time Mark Every 60 S																					
										Temperature (TEMP_MWPT) (DEGF)											
Gamma Ray (GR) (GAPI)										Tension (TENS) (LBF)											
0 150										0 3000											
Casing Collar Locator (CCL)										Strain Gauge Pressure (SGP) (PSIA)											
-19 (----) 1										2650 3000 190 300											
										Temperature (TEMP_MWPT) (DEGF)											
										2690.9 -104.1											
										2691.8 -104.1											





PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
MWPT-DA: MEASUREMENT WHILE PERFORATING TOOL		
DEVI_FL_CORR	Deviation Angle for Flow Line Correction	0 DEG
FLD	Flow Line Density	1 G/C3
MWPT_NULL_SOURCE	MWPT NULL Temperature Source	TEMS
MWPT_NULL_TEMP	MWPT NULL Temperature	0.0 DEGC

Format: MWP Vertical Scale: 1:200

Graphics File Created: 02-Feb-2007 11:11

OP System Version: 14C0-302

MCM

MWP_GUN	14C0-302	MWPT-DA	14C0-302
MWGT-AA	14C0-302		

Output DLIS Files

DEFAULT	PERFO_134LUP	FN:31	PRODUCER	02-Feb-2007 11:11
---------	--------------	-------	----------	-------------------

Schlumberger

**2 1/8" Powerjet
Correlation Pass**

MAXIS Field Log

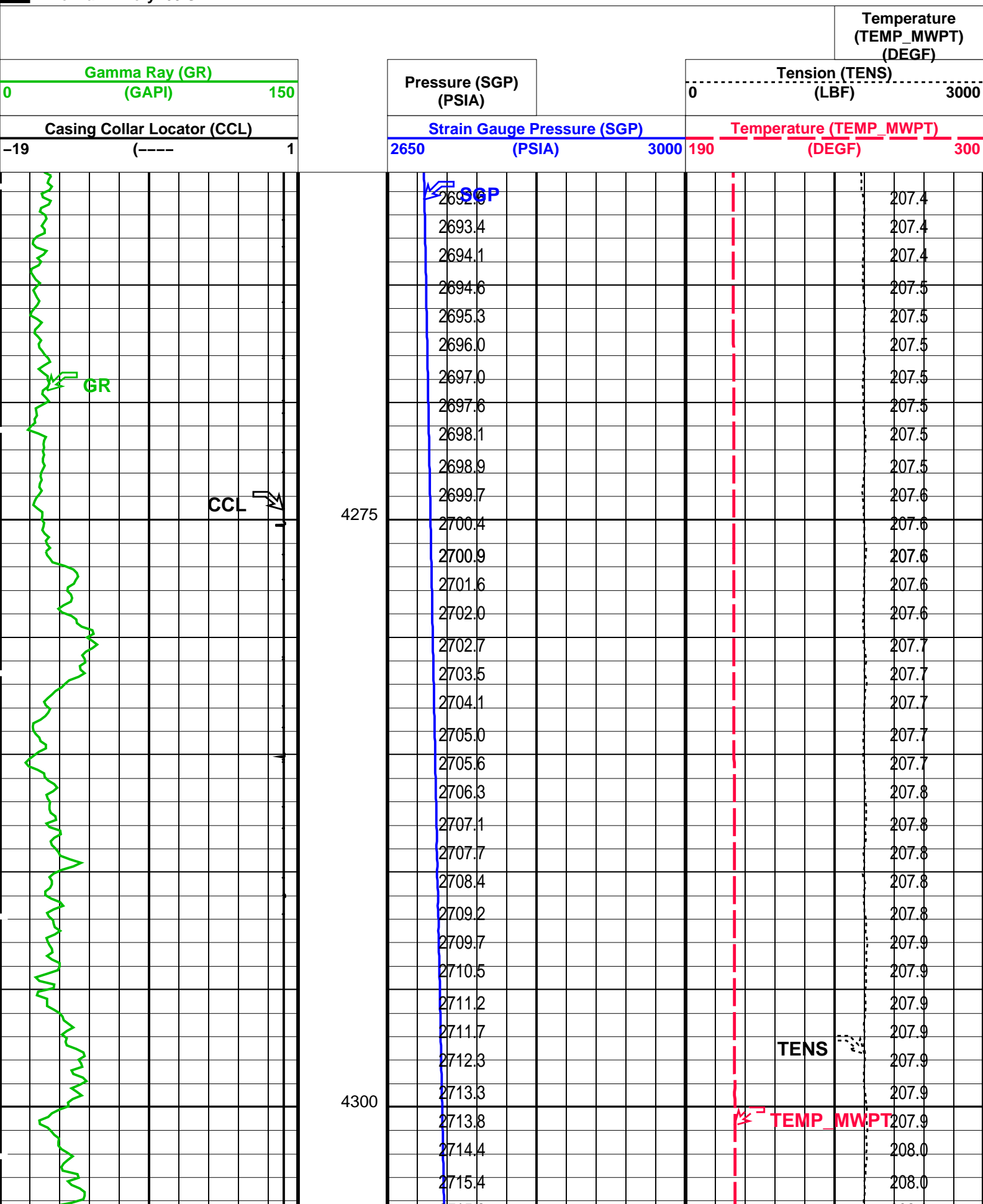
Company: Esso Australia Pty. Ltd.

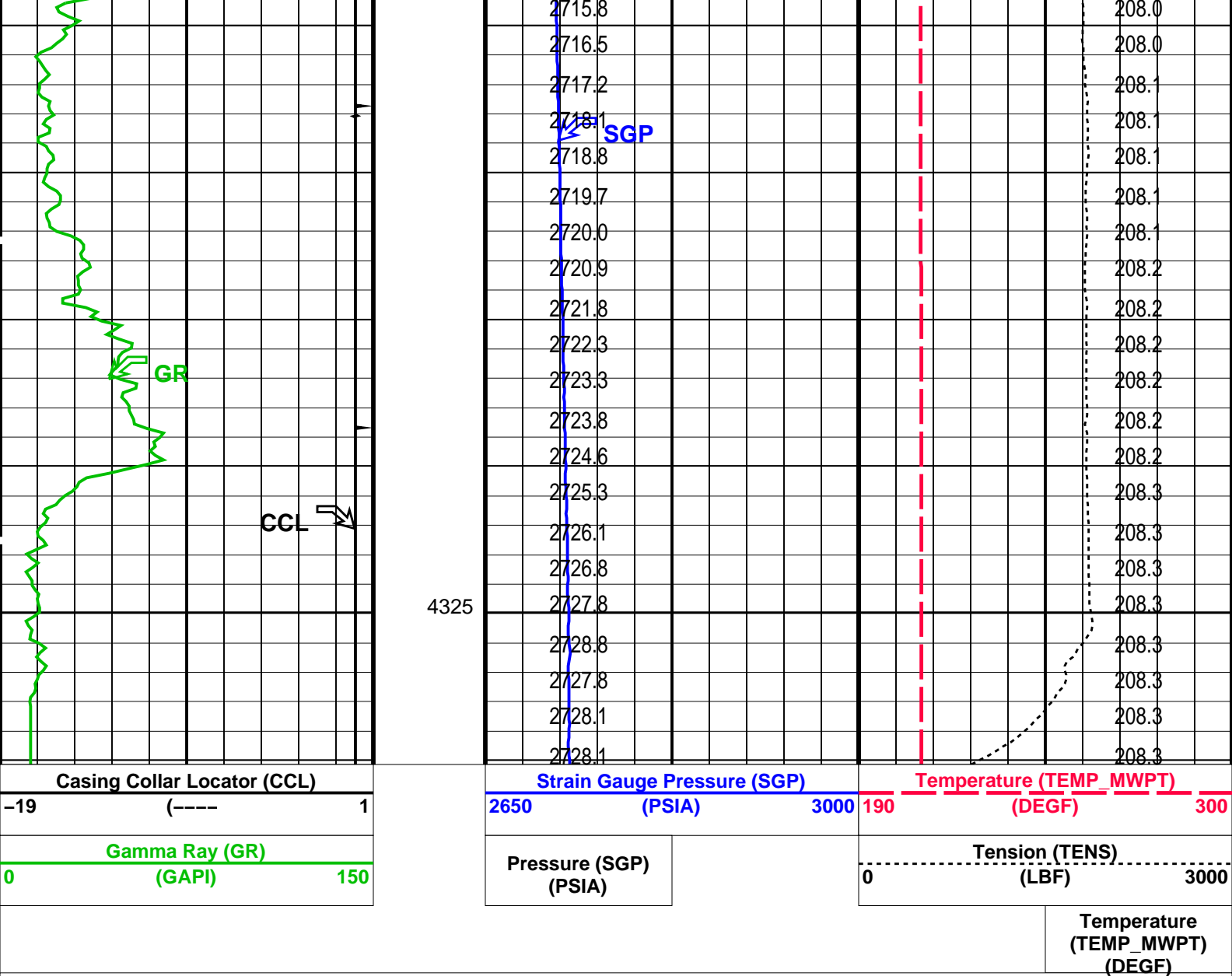
Well: BMA A-26

Output DLIS Files

DEFAULT	PERFO_132LUP	FN:29	PRODUCER	02-Feb-2007 10:59	4330.1 M	4260.1 M
---------	--------------	-------	----------	-------------------	----------	----------

OP System Version: 14C0-302





PIP SUMMARY

Time Mark Every 60 S

Parameters		
DLIS Name	Description	Value
MWPT-DA: MEASUREMENT WHILE PERFORATING TOOL		
DEVI_FL_CORR	Deviation Angle for Flow Line Correction	0 DEG
FLD	Flow Line Density	1 G/C3
MWPT_NULL_SOURCE	MWPT NULL Temperature Source	TEMS
MWPT_NULL_TEMP	MWPT NULL Temperature	0.0 DEGC

Format: MWP Vertical Scale: 1:200

Graphics File Created: 02-Feb-2007 10:59

OP System Version: 14C0-302

MCM

MWP_GUN 14C0-302 MWPT-DA 14C0-302
 MWGT-AA 14C0-302

Output DLIS Files

DEFAULT PERFO_132LUP FN:29 PRODUCER 02-Feb-2007 10:59

MAXIS Field Log

Company: Esso Australia Pty. Ltd.

Well: BMA A-26

Input DLIS Files

DEFAULT	PERFO_112LUP	FN:111	PRODUCER	31-Jan-2007 22:21	4332.9 M	4213.3 M
---------	--------------	--------	----------	-------------------	----------	----------

Output DLIS Files

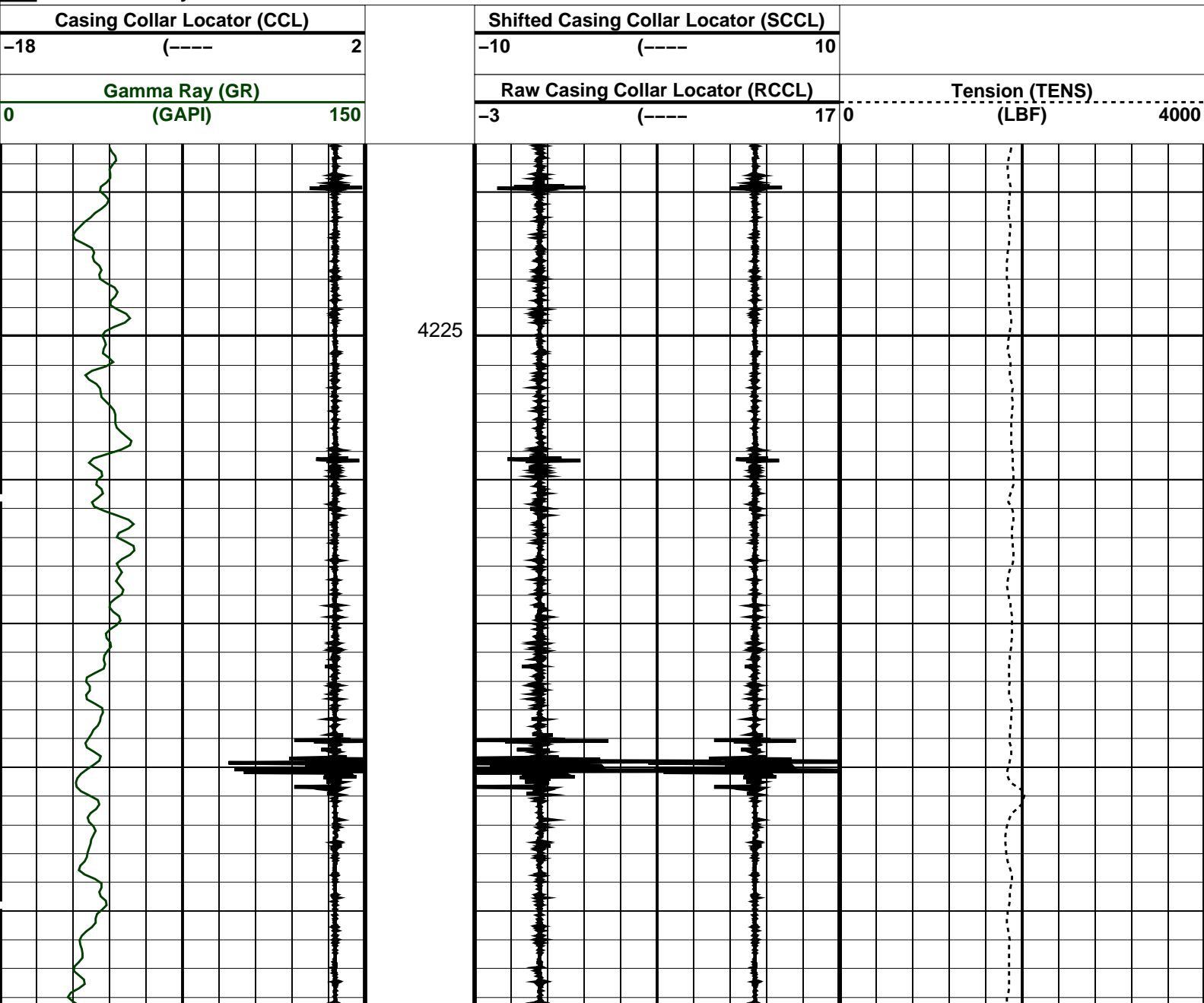
DEFAULT	PERFO_112PUP	FN:9	PRODUCER	31-Jan-2007 22:35	4337.5 M	4218.3 M
---------	--------------	------	----------	-------------------	----------	----------

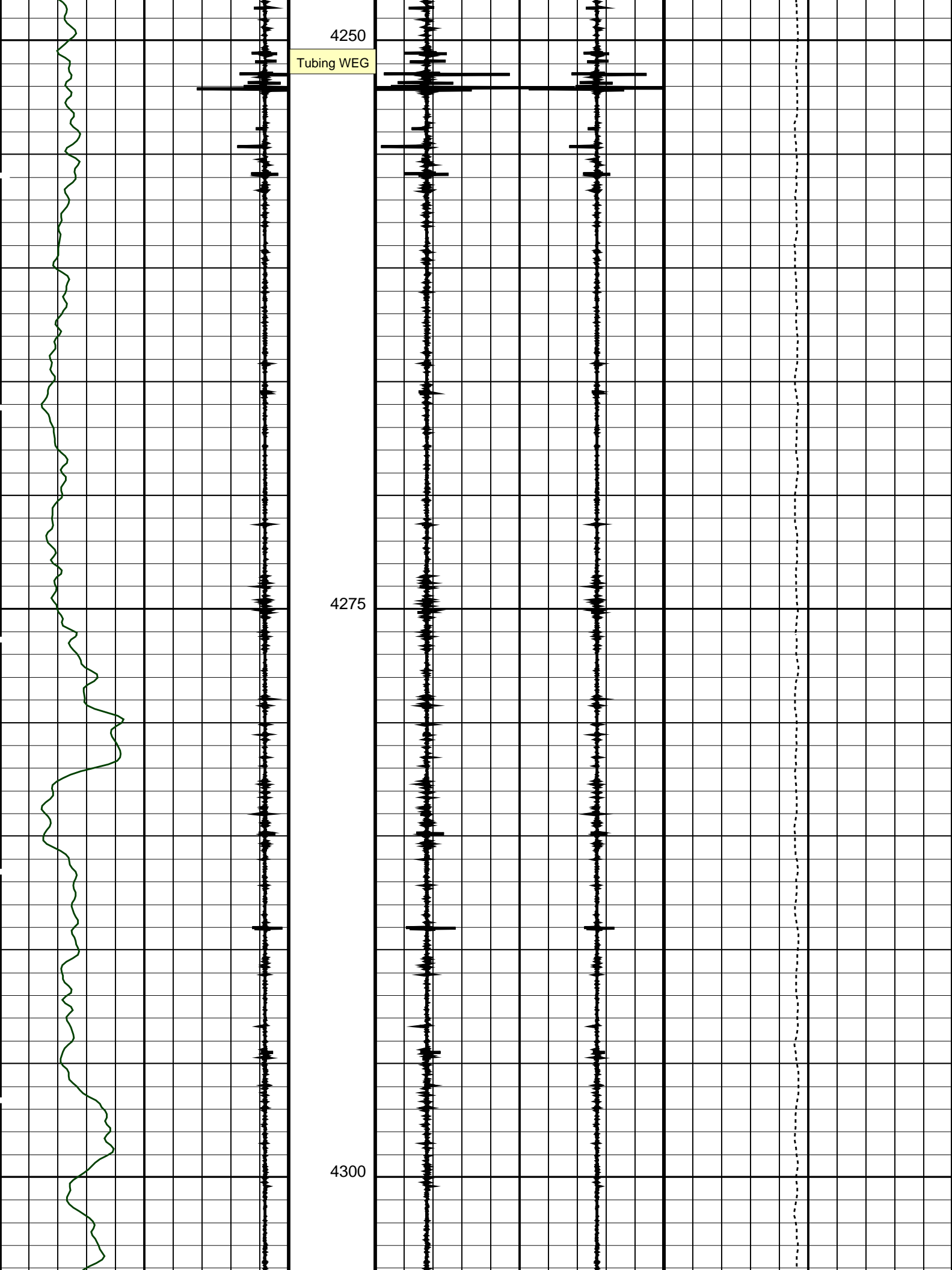
OP System Version: 14C0-302

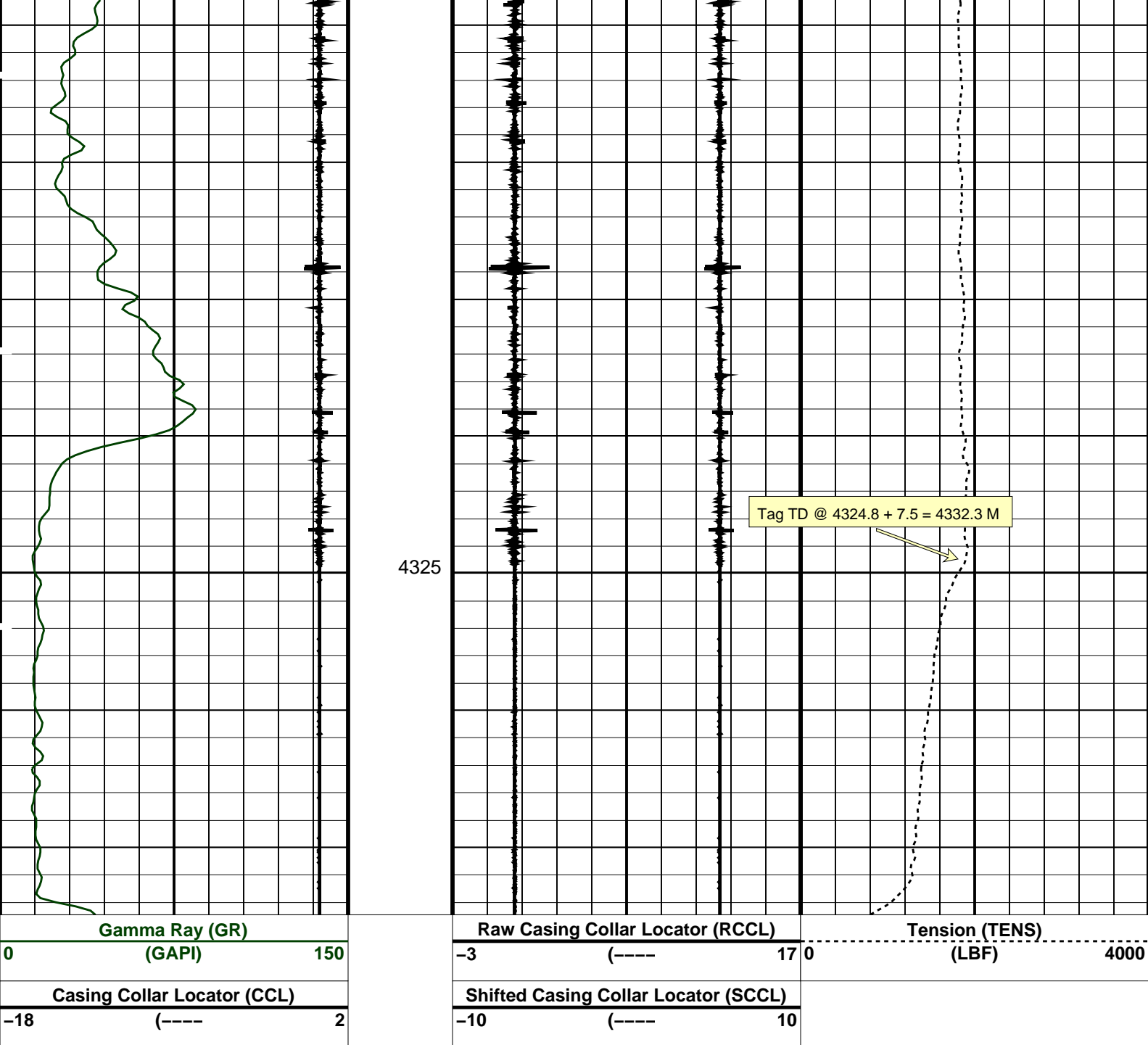
MCM

SHM_GUN	14C0-302	SAFE	14C0-302
PGGT-C	14C0-302		

PIP SUMMARY

☒ Time Mark Every 60 S





PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
DO	System and Miscellaneous	
PP	Depth Offset for Playback	4.6 M
	Playback Processing	NORMAL

Format: CORRELATION Vertical Scale: 1:200 Graphics File Created: 31-Jan-2007 22:35

OP System Version: 14C0-302

MCM

SHM_GUN	14C0-302	SAFE	14C0-302
PGGT-C	14C0-302		

Input DLIS Files

DEFAULT	PERFO_112LUP	FN:111	PRODUCER	31-Jan-2007 22:21	4332.9 M	4213.3 M
---------	--------------	--------	----------	-------------------	----------	----------

Schlumberger**Before Survey
Calibration**

MAXIS Field Log

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
-------------	---------	--------	--------	-------	--------	-------	-------

MEASUREMENT WHILE PERFORATING GAMMA RAY TOOL Wellsite Calibration – Detector Calibration

Before: 2-Feb-2007 3:58

Gamma Ray (Signal) Background	30.00	N/A	2.684	N/A	N/A	N/A	GAPI
Gamma Ray (Jig – Background)	171.2	N/A	171.2	N/A	N/A	15.56	GAPI
Gamma Ray (Calibrated)	165.0	N/A	165.0	N/A	N/A	15.00	GAPI

MEASUREMENT WHILE PERFORATING GAMMA RAY TOOL / Equipment Identification

Primary Equipment:

GAMMA RAY CARTRIDGE

MWPG – AA

Auxiliary Equipment:




GAMMA RAY HOUSING

MWGH – AA

24

MEASUREMENT WHILE PERFORATING GAMMA RAY TOOL Wellsite Calibration

Detector Calibration

Phase	Gamma Ray (Signal) Background	GAPI	Value	Phase	Gamma Ray (Jig – Background)	GAPI	Value	Phase	Gamma Ray (Calibrated)	GAPI	Value
Before			2.684	Before			171.2	Before			165.0
	0 (Minimum)				155.6 (Minimum)				150.0 (Minimum)		
	30.00 (Nominal)				171.2 (Nominal)				165.0 (Nominal)		
	120.0 (Maximum)				186.8 (Maximum)				180.0 (Maximum)		

Before: 2-Feb-2007 3:58

Company: **Esso Australia Pty. Ltd.****Schlumberger**Well: **BMA A-26**Field: **Bream A**Rig: **Prod 2 / ISS Rig 22**Country: **Australia**2-1/8" Phased Powerjet
Perforation Record

