

Company: Esso Australia Ltd.

Well: A-23a

Field: Bream A

Rig : Prod4 / Crane

Country: Australia

2 1/8" Phased Powerjet
MWPT
Perforation Record

Prod4 / Crane
Bream A
Gippsland
A-23a
Esso Australia Ltd.

LOCATION		
Gippsland	Elev.:	K.B. 32.82 m
Basin		G.L. -59 m
Bass Strait		D.F. 32.82 m
Permanent Datum:	M.S.L.	
Log Measured From:	D.F.	32.8 m above Perm. Datum
Drilling Measured From:	D.F.	
State: Victoria	Max. Well Deviation 65 deg	Longitude 147 46'20.326" E Latitude 038 29'58.846" S

Logging Date	5-May-2006		
Run Number	1		
Depth Driller	3297.5 m		
Schlumberger Depth	3166 m – Not Tagged		
Bottom Log Interval	3162 m		
Top Log Interval	3159 m		
Casing Fluid Type	Production Fluids		
Salinity			
Density			
Fluid Level			
BIT/CASING/TUBING STRING			
Bit Size	8.500 in		
From			
To			
Casing/Tubing Size	7.000 in		
Weight	26 lbm/ft		
Grade	L-80		
From	10.1 m		
To	3297.5 m		
Maximum Recorded Temperatures	207 degC		
Logger On Bottom	5-May-2006	5:00	
Unit Number	1	AUSL	
Recorded By	G Wright & P Tarrant		
Witnessed By	B White & B Robinson		

PVT DATA				Run 1	Run 2	Run 3
Oil Density						
Water Salinity						
Gas Gravity						
Bo						
Bw						
1/Bg						
Bubble Point Pressure						
Bubble Point Temperature						
Solution GOR						
Maximum Deviation	65 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

Date Created: 5-MAY-2006 19:00:36

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW-H	Type:	CMTD-B/A	Type:	2-23ZT
Serial Number:	797	Serial Number:	1037	Serial Number:	22372
Calibration Date:	01 May 2005	Calibration Date:	01 Apr 2006	Length:	5049.93 M
Calibrator Serial Number:	1009	Calibrator Serial Number:	1174	Conveyance Method:	Wireline
Calibration Cable Type:	2-32ZT	Calibration Gain:	1.37	Rig Type:	Offshore_Fixed
Wheel Correction 1:	-3	Calibration Offset:	635.00		
Wheel Correction 2:	-3				

Depth Control Parameters

Log Sequence:	Subsequent Trip To the Well
Reference Log Name:	Solar Log
Reference Log Run Number:	Unknown
Reference Log Date:	Unknown

Depth Control Remarks

1.	
2.	
3.	
4.	
5.	
6.	

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OTHER SERVICES1

OS1: 7" MPBT Plug

OS2:

OS3:

OS4:

OS5:

REMARKS: RUN NUMBER 1

Log correlated to ExxonMobil Solar correlation composite log supplied

by K Kuttan.

Maximum well deviation = 65 degrees at 3302m MDKB.

Objective:










Perforate the well at 3159m to 3162m MDKB using 2 1/8" Enerjet Guns

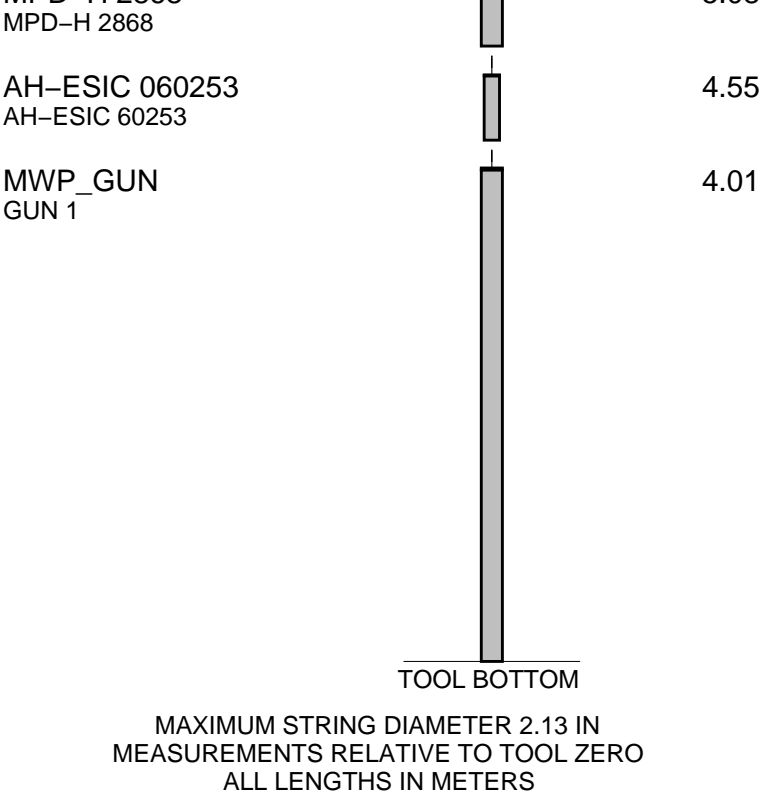
loaded with PowerSpirol charges while attempting to obtain a 300psi

underbalance.
API DATA:
Penetration: 30.4"
Entrance Hole: 0.32"
Crew :
John Light & Andy Hall (days)
Rick Murray & Kevin Kerr (nights)

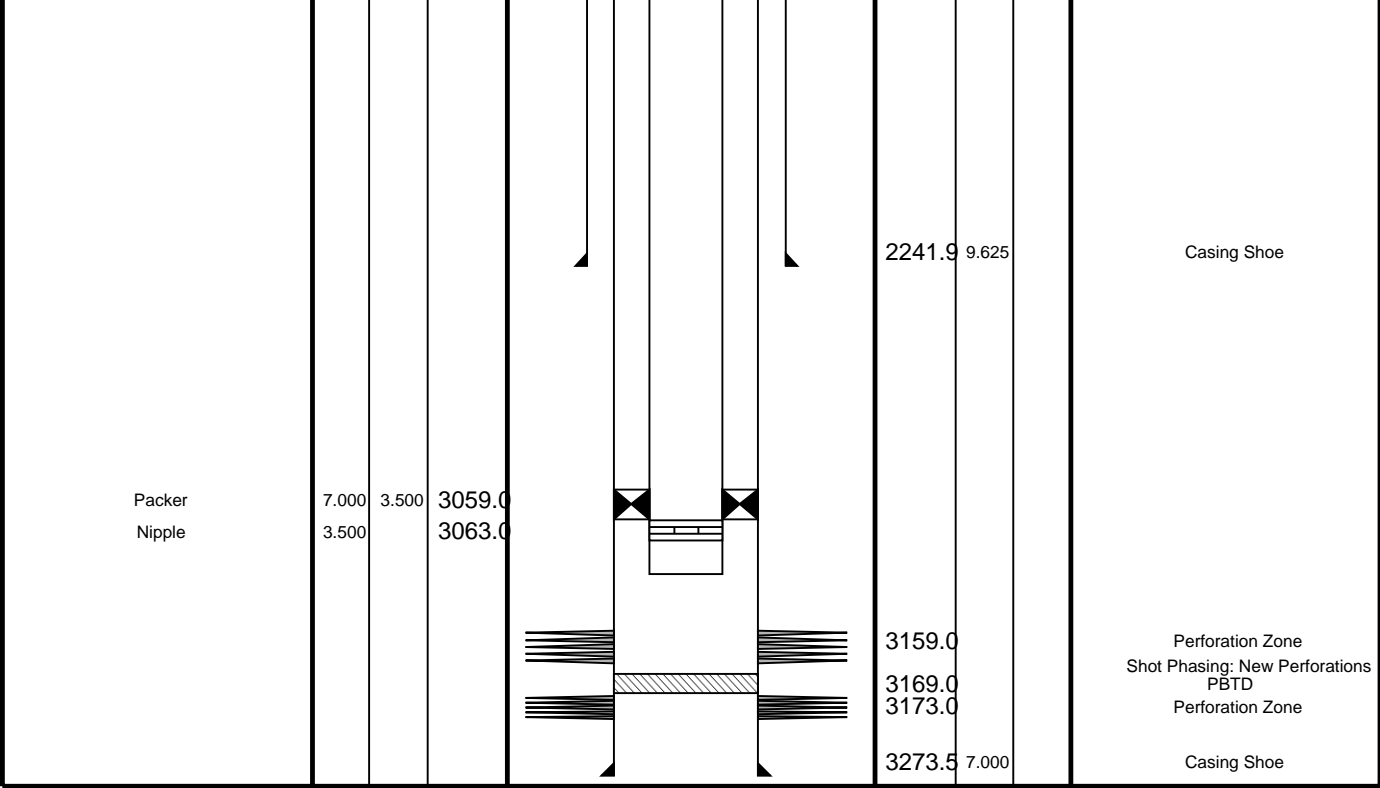
RUN 1			RUN 2		
SERVICE ORDER #:		AUSL06103813	SERVICE ORDER #:		
PROGRAM VERSION:		14C0-302	PROGRAM VERSION:		
FLUID LEVEL:			FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION					
RUN 1			RUN 2		

SURFACE EQUIPMENT					
MWPM-AA 37					
DOWNHOLE EQUIPMENT					
AH-SWBS-B AH-SWBS-B 761		12.18			
AH-SWBS-B AH-SWBS-B 762		11.50			
AH-SWBS-B AH-SWBS-B 763		10.81			
AH-SWHS-A AH-SWHS-A 726		10.13			
MWGT-AA MWPG-AA 19 MWGH-AA 19		9.80			
	MWPG GR	2.41			
MWPT-CA MWPH-AA 74 MWPS-AA 74		8.82			
	CCL SMWP Pres SMWP Temp Tension	TOOL ZERO			
AH-SAH-G 1047 AH-SAH-G 1047		6.00			
AH-FLEXJOINT 41 AH-FLEXJOINT 41		5.57			
MPD-H 2868		5.08			



Production String	(in)		(m)	Well Schematic	(m)	(in)		Casing String
	OD	ID	MD		MD	OD	ID	
Tubing Hanger	7.600	3.500	10.0		10.0 10.7	7.600 13.375	9.625	Casing String Liner Hanger
Shutin Valve	3.500		450.0					
Gas Lift Mandrel	3.500		565.0					
Gas Lift Mandrel	3.500		738.0					
					933.8	13.375		Casing Shoe
Gas Lift Mandrel	3.500		1471.0					
Nipple	3.500		1487.0					

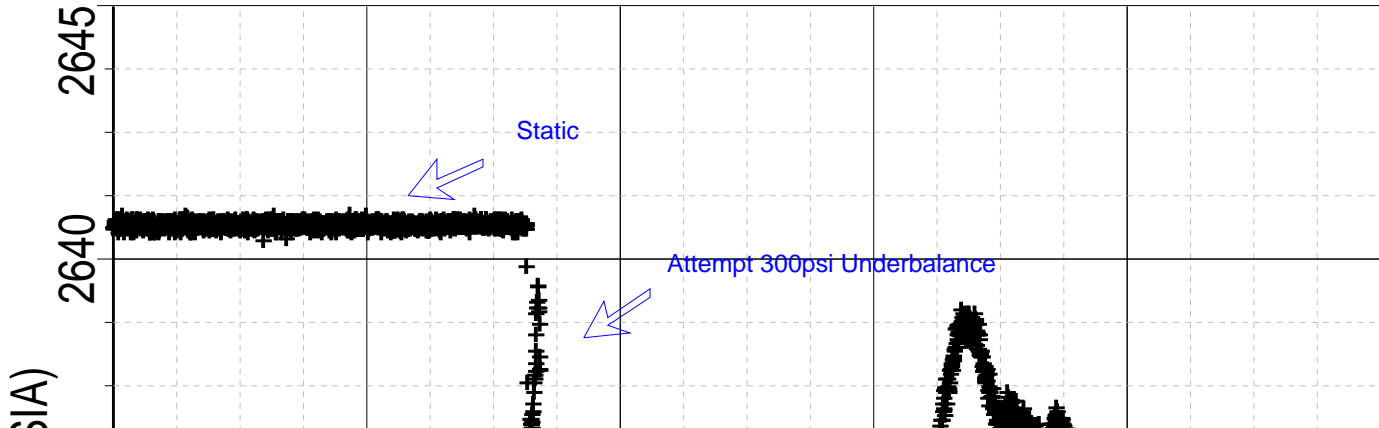


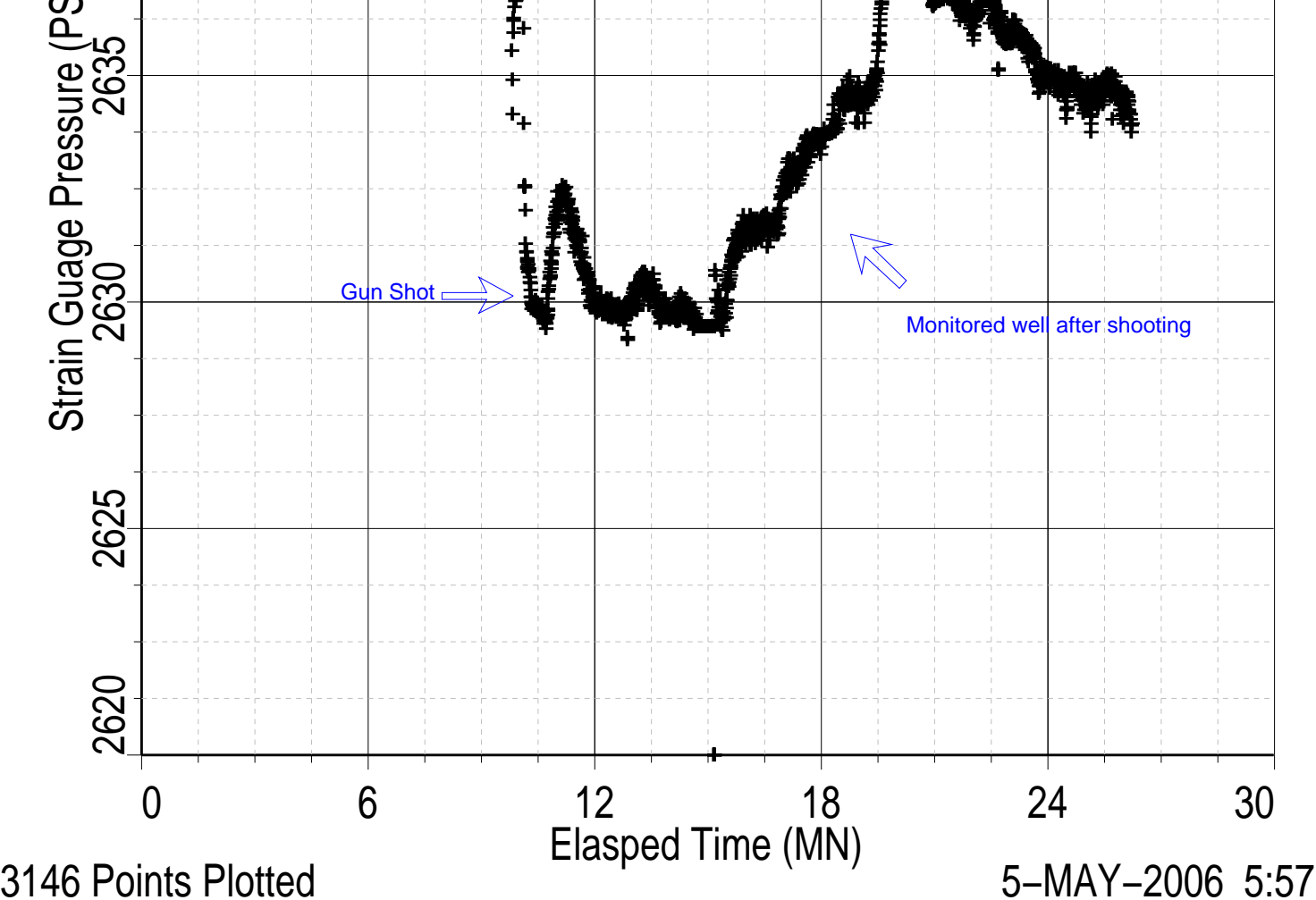
Schlumberger

2 1/8" MWPT Enerjet Gun
Station Log

MAXIS Field Log

Index: 20411.4 – 28399.7 M

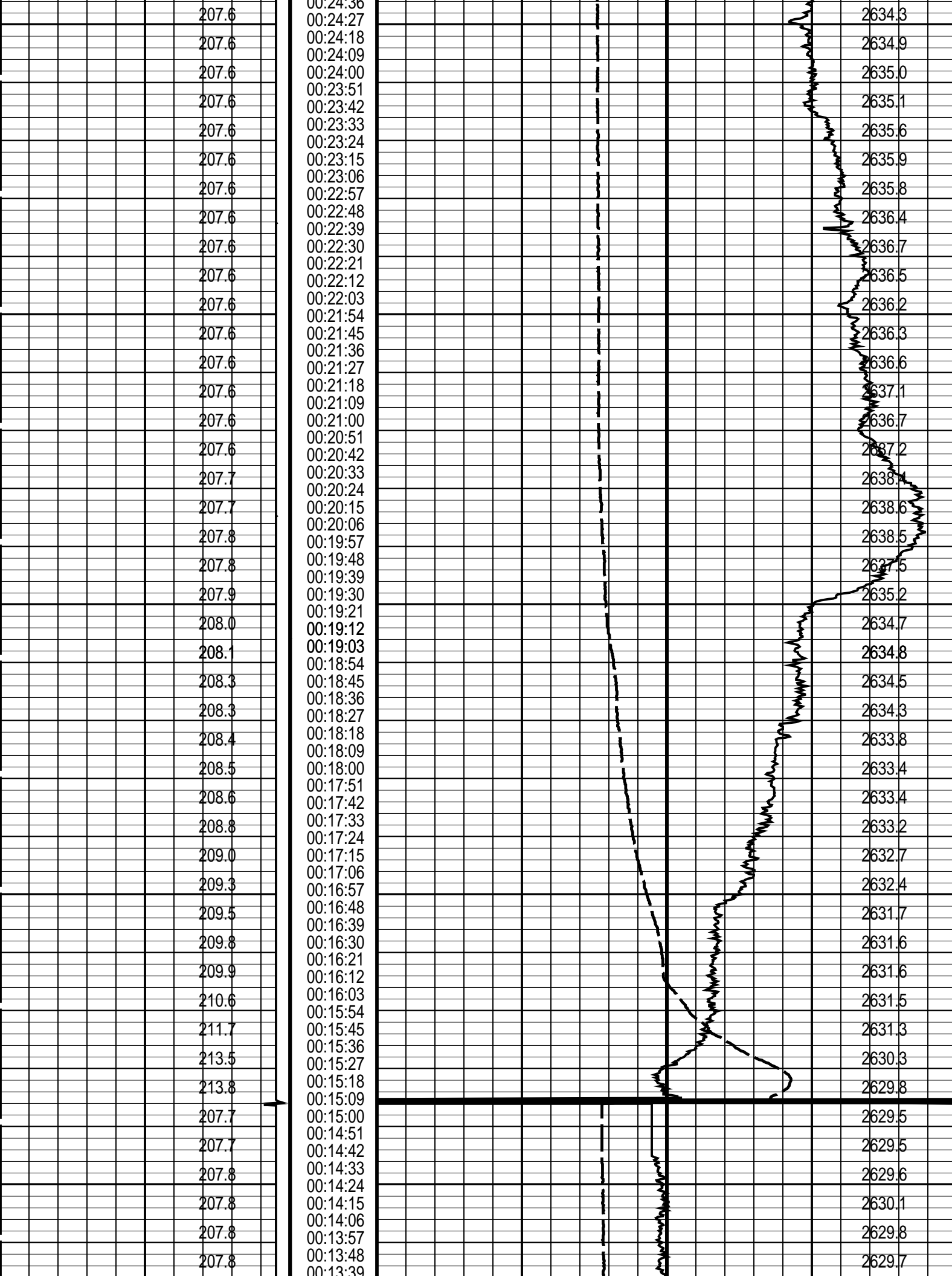




Output DLIS Files						
DEFAULT	PERFO_009LTP	FN:8	PRODUCER	05-May-2006 05:20	3155.5 M	4.0 M
OP System Version: 14C0-302						
MCM						
MWP_GUN	14C0-302	MWPT-CA		14C0-302		
MWGT-AA	14C0-302					

PIP SUMMARY	
<input checked="" type="checkbox"/> Time Mark Every 60 S	

Temperature (TEMP_MWPT_SL) (DEGF)		Pressure (SGPA_SL) (PSIA)	
CCL From CCL to T1		Temperature (TEMP_MWPT_SL) (DEGF)	
0 1024		0 20	
Casing Collar Locator (CCL_SL) (-----) 1		Strain Gauge Pressure (SGP_SL) (PSIA)	
-19		0 20	
207.6	00:26:06		2634.1
207.5	00:25:57		2634.7
207.6	00:25:48		2634.9
207.6	00:25:39		2634.4
207.6	00:25:30		2634.5
207.6	00:25:21		2635.0
207.6	00:25:12		
207.6	00:25:03		
207.6	00:24:54		
207.6	00:24:45		
207.6	00:24:36		



207.8	00:18:58	2630.3
207.8	00:13:30	2630.3
207.8	00:13:12	2630.2
207.8	00:13:03	2629.7
207.8	00:12:54	2629.8
207.8	00:12:45	2629.8
207.8	00:12:36	2630.2
207.8	00:12:27	2630.6
207.8	00:12:18	2631.4
207.8	00:12:09	2632.3
207.8	00:12:00	2632.0
207.9	00:11:51	2629.7
207.9	00:11:42	2629.9
207.9	00:11:33	2630.7
207.9	00:11:24	2637.8
207.9	00:11:15	2640.7
207.8	00:11:06	2640.7
207.7	00:10:57	2640.6
207.7	00:10:48	2640.7
207.6	00:10:39	2640.7
207.6	00:10:30	2640.7
207.5	00:10:21	2640.6
207.5	00:10:12	2640.7
207.6	00:10:03	2640.7
207.5	00:09:54	2640.7
207.5	00:09:45	2640.7
207.5	00:09:36	2640.7
207.5	00:09:27	2640.7
207.5	00:09:18	2640.7
207.5	00:09:09	2640.7
207.5	00:09:00	2640.8
207.5	00:08:51	2640.7
207.5	00:08:42	2640.7
207.6	00:08:33	2640.6
207.5	00:08:24	2640.7
207.5	00:08:15	2640.7
207.5	00:08:06	2640.6
207.5	00:07:57	2640.6
207.5	00:07:48	2640.6
207.5	00:07:39	2640.6
207.5	00:07:30	2640.7
207.5	00:07:21	2640.7
207.5	00:07:12	2640.7
207.5	00:07:03	2640.7
207.5	00:06:54	2640.7
207.5	00:06:45	2640.7
207.5	00:06:36	2640.7
207.5	00:06:27	2640.7
207.5	00:06:18	2640.7
207.5	00:06:09	2640.7
207.5	00:06:00	2640.8
207.5	00:05:51	2640.7
207.5	00:05:42	2640.7
207.5	00:05:33	2640.7
207.5	00:05:24	2640.6
207.5	00:05:15	2640.6
207.5	00:05:06	2640.6
207.5	00:04:57	2640.6
207.5	00:04:48	2640.6
207.5	00:04:39	2640.8
207.5	00:04:30	2640.7
207.5	00:04:21	2640.7
207.5	00:04:12	2640.7
207.5	00:04:03	2640.6
207.5	00:03:54	2640.7
207.5	00:03:45	2640.7
207.5	00:03:36	2640.7
207.5	00:03:27	2640.7
207.5	00:03:18	2640.6
207.5	00:03:09	2640.6
207.5	00:03:00	2640.6
207.5	00:02:51	2640.6
207.5	00:02:42	2640.6

207.5	00:02:33	2640.7
207.5	00:02:24	2640.7
207.5	00:02:15	2640.7
207.5	00:02:06	2640.6
207.5	00:01:57	2640.6
207.5	00:01:48	2640.7
207.5	00:01:39	2640.6
207.5	00:01:30	2640.6
207.5	00:01:21	2640.6
207.5	00:01:12	2640.6
207.5	00:01:03	2640.6
207.5	00:00:54	2640.7
207.5	00:00:45	2640.6
207.5	00:00:36	2640.6
207.5	00:00:27	2640.6
207.5	00:00:18	2640.6
207.5	00:00:09	2640.6
207.5	00:00:00	2640.6

Casing Collar Locator (CCL_SL)		Elapsed Time (ETIM) (S)	Strain Gauge Pressure (SGP_SL)	
-19	(----) 1		0	(PSIA) 20
CCL From CCL to T1		Firing Sequence State (FSS SL)	Temperature (TEMP_MWPT_SL) (DEGF) 20	
		(----		
		0	1024	
	Temperature (TEMP_MWPT_SL) (DEGF)			Pressure (SGPA_SL) (PSIA)

PIP SUMMARY

Time Mark Every 60 S

Parameters			
DLIS Name	Description	Value	
MWPT-CA: 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: 05-May-2006 05:20

<p align="center">OP System Version: 14C0-302</p> <p align="center">MCM</p>			
MWP_GUN	14C0-302	MWPT-CA	14C0-302
MWGT-AA	14C0-302		

Output DLIS Files				
DEFAULT	PERFO_009LTP	FN:8	PRODUCER	05-May-2006 05:20



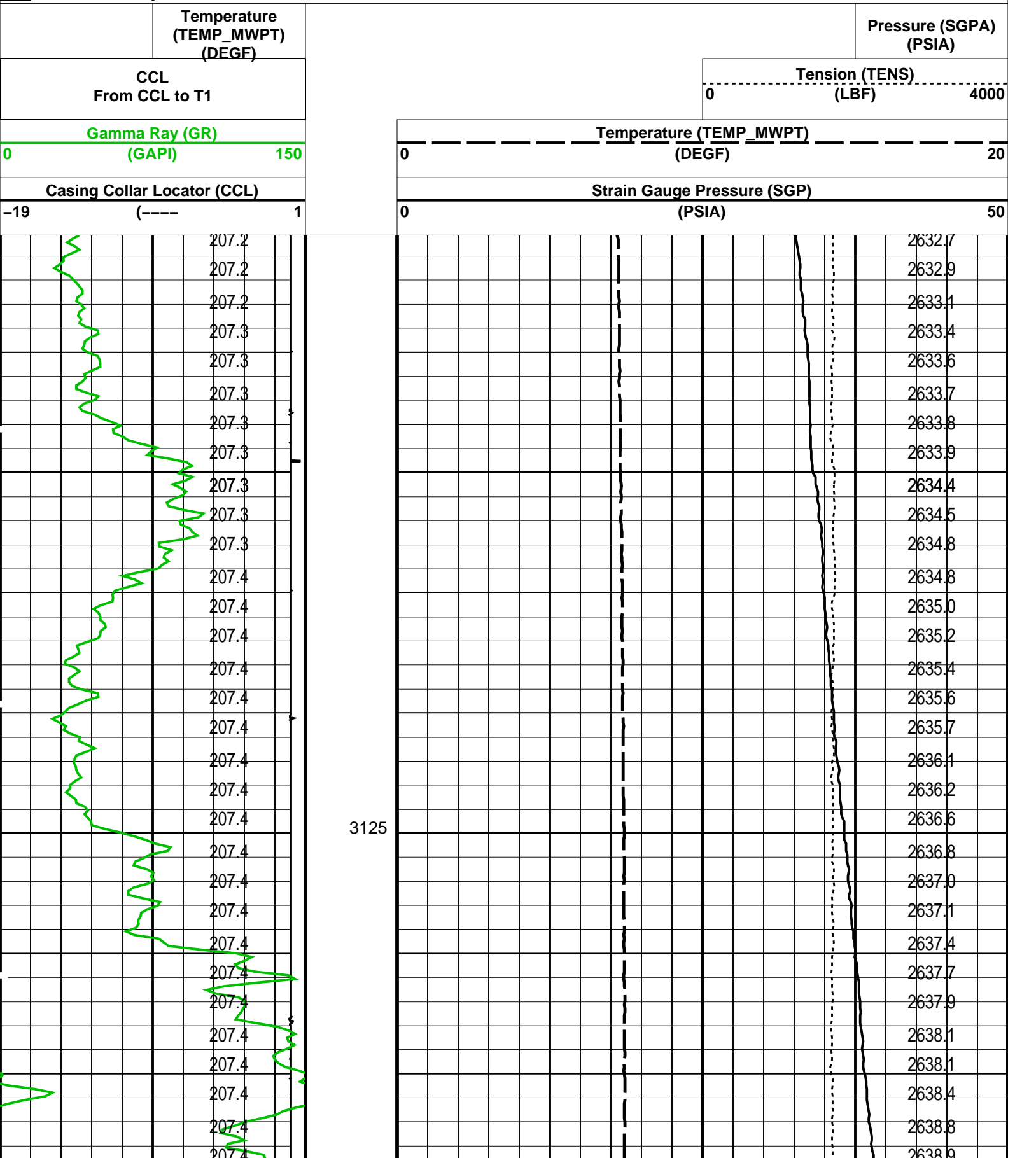
2 1/8" MWPT Enerjet Gun Shooting Pass

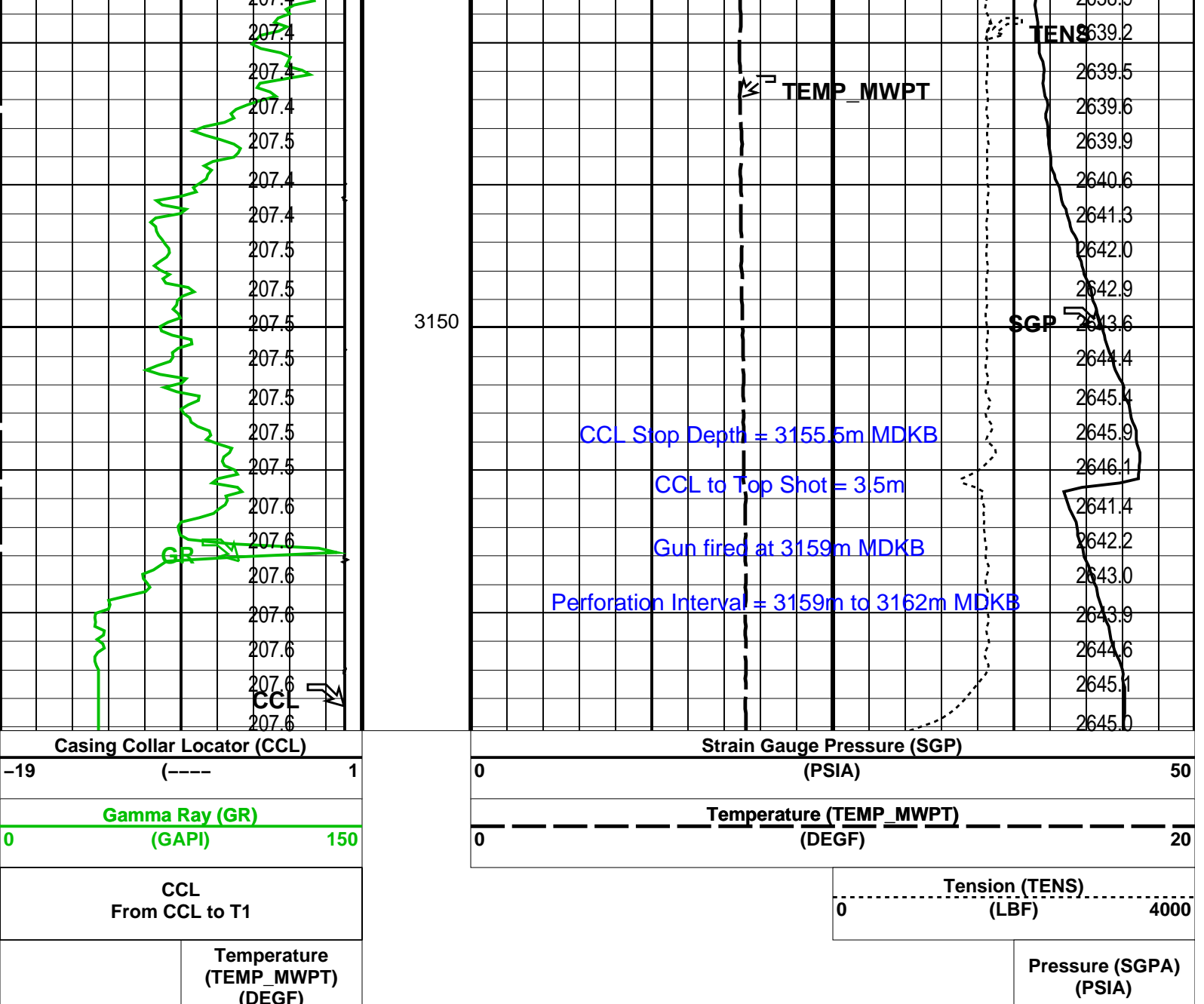
MAXIS Field Log

Output DLIS Files	
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PIP SUMMARY

Time Mark Every 60 S





PIP SUMMARY			
Time Mark Every 60 S			
Parameters			
DLIS Name	Description	Value	
MWPT-CA: 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: 05-May-2006 05:13	
OP System Version: 14C0-302			
MCM			
MWP_GUN	14C0-302	MWPT-CA	14C0-302
MWGT-AA	14C0-302		
Output DLIS Files			
DEFAULT	PERFO_008LUP	FN:7	PRODUCER 05-May-2006 05:13



2 1/8" MWPT Enerjet Gun
Correlation Pass

MAXIS Field Log

Output DLIS Files

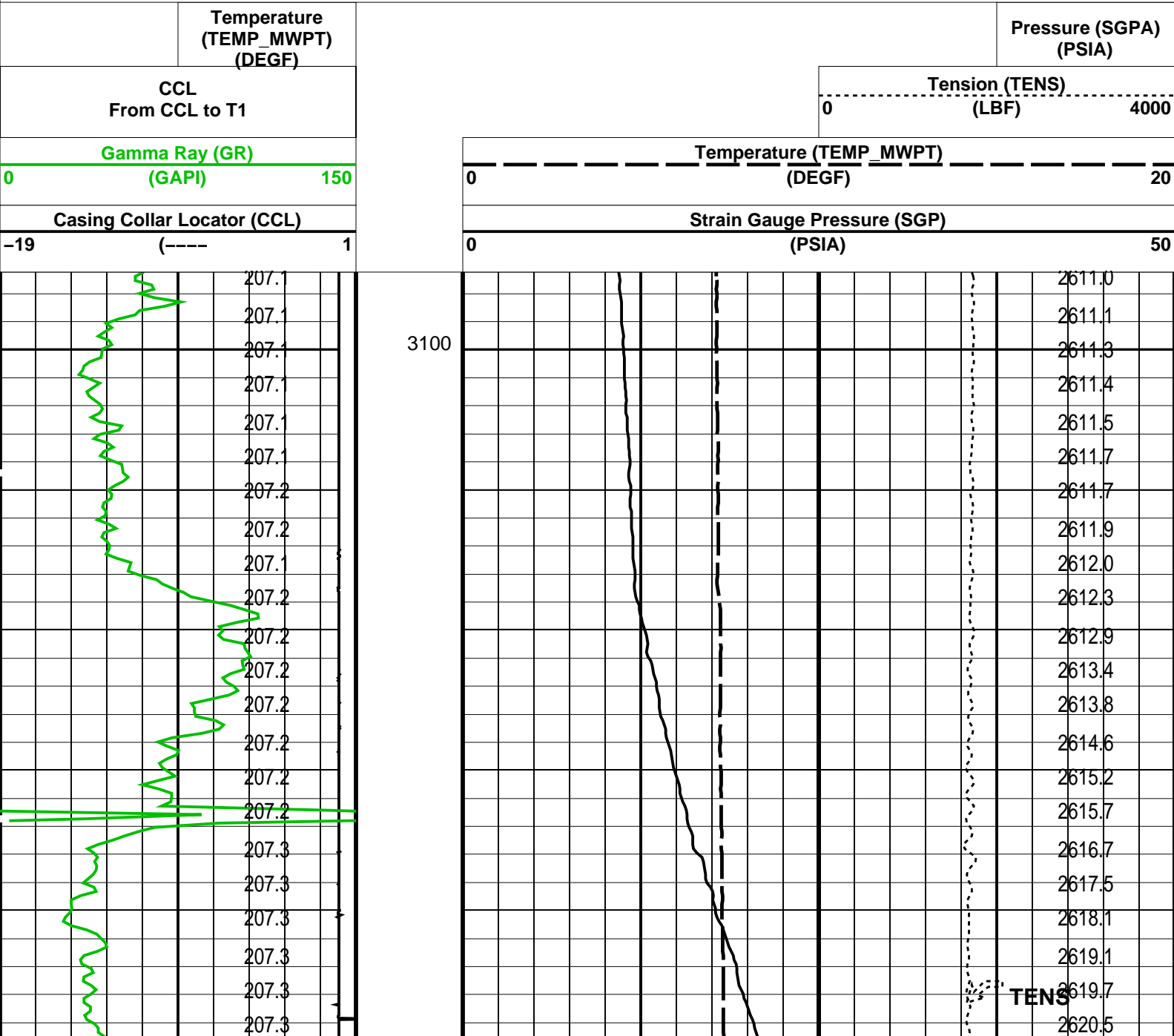
DEFAULT PERFO_007LUP FN:6 PRODUCER 05-May-2006 05:04 3166.4 M 3097.2 M

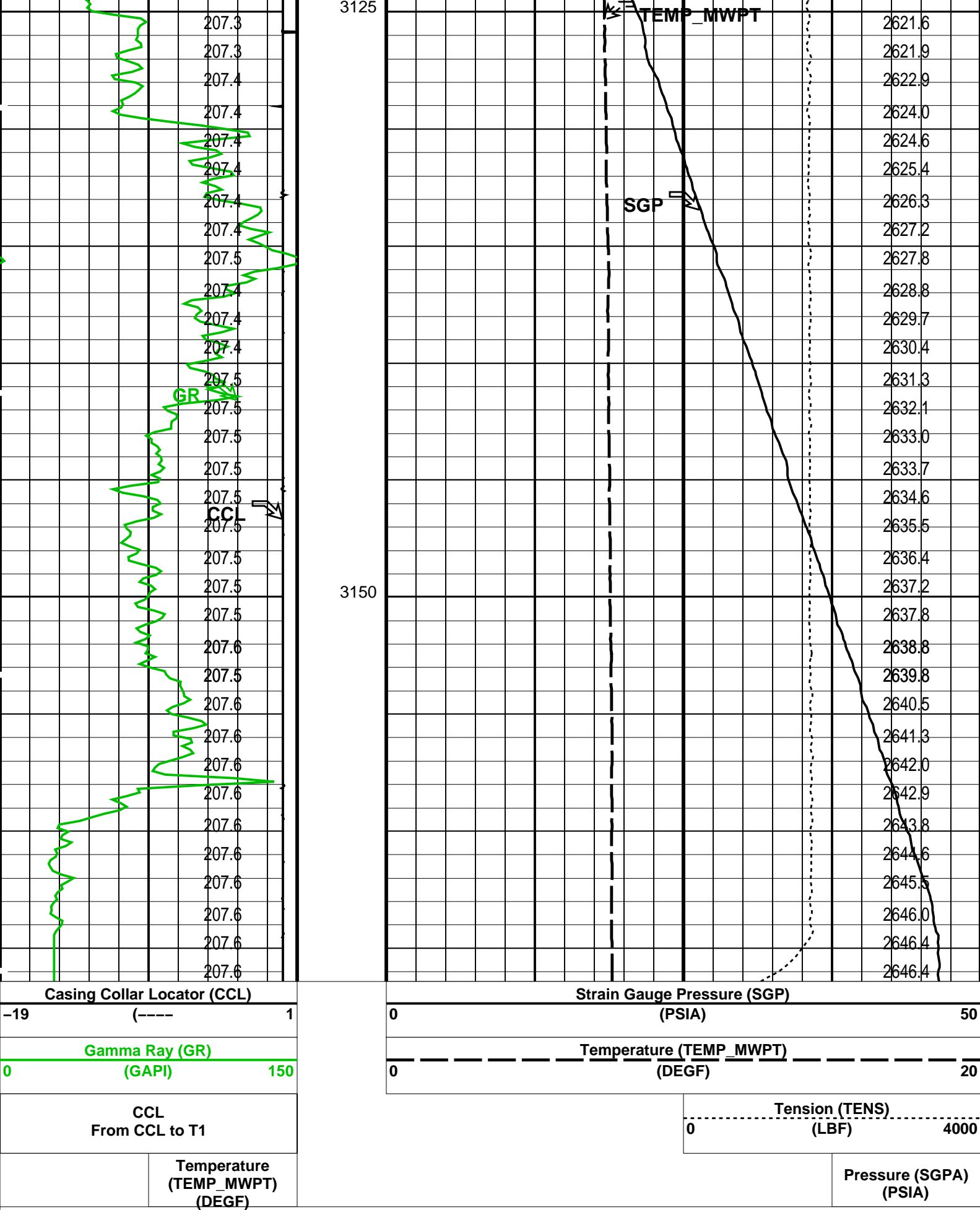
OP System Version: 14C0-302
MCM

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

PIP SUMMARY

Time Mark Every 60 S





Time Mark Every 60 S

PIP SUMMARY

Parameters

DLIS Name		Description	Value	
MWPT-CA: 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: 05-May-2006 05:04	
OP System Version: 14C0-302				
MCM				
MWP_GUN	14C0-302	MWPT-CA	14C0-302	
MWGT-AA	14C0-302			
Output DLIS Files				
DEFAULT	PERFO_007LUP	FN:6	PRODUCER	05-May-2006 05:04
Company: Esso Australia Ltd.				
Schlumberger				
Well:	A-23a			
Field:	Bream A			
Rig :	Prod4 / Crane			
Country:	Australia			
2 1/8" Phased Powerjet				
MWPT				
Perforation Record				