Schlumberger

Company: **Esso Australia Pty Ltd.**

Well: **B−14**
Field: **Bream B**
Rig: **Crane / Prod # 4** Country: **Australia**

Rig: Crane / Prod # 4
Field: Bream B
Location: Gippsland
Well: B−14
Company: Esso Australia Pty Ltd.

2 1/8" Phased Powerjet
MWPT Perforation Record
7" Posiset Plug Setting Record

LOCATION

Gippsland	Elev.:	K.B.	41.7 m
Basin		G.L.	41.7 m
Bass Strait		D.F.	−61 m

Permanent Datum:	M.S.L	Elev.:	0 m
Log Measured From:	K.B	41.7 m	above Perm. Datum
Drilling Measured From:	K.B		

State:	Max. Well Deviation	Longitude	Latitude
Victoria	32 deg	148*06'15.37E	038*35'40.34S

Logging Date		15−Mar−2008			
Run Number		1 Through 5			
Depth Driller		2165 m			
Schlumberger Depth		2165 m			
Bottom Log Interval		2155 m			
Top Log Interval		2100 m			
Casing Fluid Type		Production Fluids			
Salinity					
Density					
Fluid Level		1185 m			
BIT/CASING/TUBING STRING					
Bit Size		8.000 in			
From		712 m			
To		2300 m			
Casing/Tubing Size		7.000 in			
Weight		26 lbm/ft			
Grade		L−80			
From		20 m			
To		2296.96 m			
Maximum Recorded Temperatures		214 degF			
Logger On Bottom	Time	15−Mar−2008		12:40	
Unit Number	Location	889	Prod 4 / AUSL		
Recorded By		S Gilbert			
Witnessed By		B White			

		Run 1
PVT DATA	Oil Density	
	Water Salinity	
	Gas Gravity	
	Bo	
	Bw	
	1/Bg	
	Bubble Point Pressure	
	Bubble Point Temperature	
	Solution GOR	
	Maximum Deviation	32 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: 7−MAR−2008 14:44:18

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW−EB	Type:	PSDS/OSDS	Type:	2−32ZT
Serial Number:	6373	Serial Number:	325357	Serial Number:	27244
Calibration Date:	04−Jan−2007	Calibration Date:	3−Mar−2008	Length:	6409.94 M
Calibrator Serial Number:	9	Calibrator Serial Number:	1174	Conveyance Method:	Wireline
Calibration Cable Type:	2−32ZT	Calibration Gain:	0.90	Rig Type:	Offshore_Fixed
Wheel Correction 1:	−2	Calibration Offset:	339.00		
Wheel Correction 2:	−4				

Depth Control Parameters

Log Sequence:	Subsequent Trip To the Well
Reference Log Name:	ExxonMobil Petrophysical Analysis
Reference Log Run Number:	
Reference Log Date:	
Subsequent Trip Down Log Correction:	

Depth Control Remarks

1. IDW used as primary depth control
2. Z−Chart used as backup
3. Rigged up using the crane
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
OS1: RST−C SIGMA Survey
OS2:
OS3:
OS4:
OS5:

REMARKS: RUN NUMBER 1

Log correlated to ExxonMobil Solar Composite Log supplied with logging program.

Objectives: Perorate the well over the interval 2143m to 2146.2m using a 2 1/8" 45deg phased Powerjet gun.

Set 7" Posiset Plug with Top of Seal @ 2155m MDKB to isolate the existing perforations

Maximum Well Deviation = 32 deg @ 902m MDKB

HUD: 2165m MDKB

Befor Gun − SBHP:2611.4 psai SBHT: 213.6 degf

After Gun − SBHP:1618.6 psia SBHT:213.25 dgef

Gun#1

Top Shot @ 2143m MDKB

CCL to Top Shot = 3.3 m

CCL Stop Depth = 2139.7 m MDKB

Plug Top of Seal @ 2155m MDKB

CCL to Top of Seal = 7m

CCL Stop Depth = 2148m MDKB

Plug Correlated to RST log CCL .

CCL to Bottom of Dump Bailer = 12 m

Schlumberger crews:J Annaer. C Shiells

RUN 1

SERVICE ORDER #: AUSL08356984
PROGRAM VERSION: 15C0−309
FLUID LEVEL: 1185 m

LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

RUN 1

SURFACE EQUIPMENT

MWPM−AA

DOWNHOLE EQUIPMENT

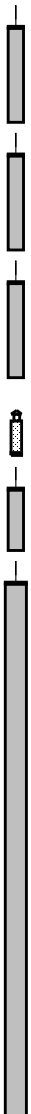
SWBS 787		12.41
SWBS 785		11.73
AH−SWBS 786		11.04
SWHS 759		10.35
AH−124		10.00
MWGT−AA MWPG−AA 19 MWGH−AA 19	MWPG GR	9.80 2.41
MWPT−CA MWPH−AA 94 MWPS−AA 94	CCL SMWP Pres SMWP Temp Tension	8.82 TOOL ZERO
AH−Flex−Joint 42 AH−Flex−Joint 42		6.00
SAH−G SAH−G 1035		5.52

RUN 2

SURFACE EQUIPMENT

MPBM

DOWNHOLE EQUIPMENT



SWBS−B 785		11.57
SWBS−B 786		10.87
SWBS−B 787		10.17
SWHS−A 759	CCL Tachomete Cable Cur Head Volt Tension	9.47
CCL−L 9851 CCL−L 9851		9.13 TOOL ZERO
MPSU−CA 01011 MPSU−CA 1011		8.67

MPD−MB 4.98
MPD−MB 268

AH−ESIC 4.45
AH−ESIC 15042003

MWP_GUN 3.96
GUN−3.2m 2 1/8" Phased Enerjet Gun

TOOL BOTTOM

MAXIMUM STRING DIAMETER 2.13 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN METERS

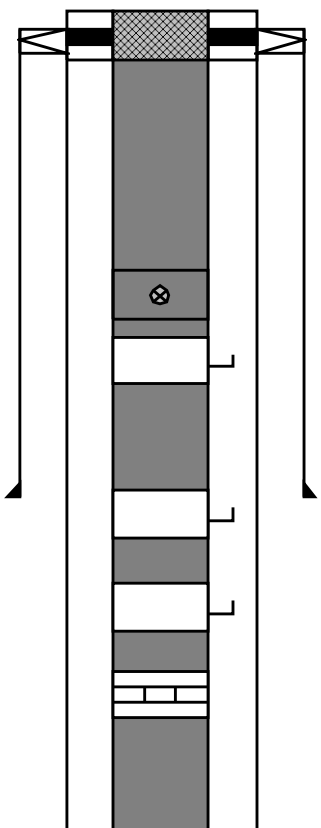
MPEX−BA 2.26
MPEX−BA

TOOL BOTTOM

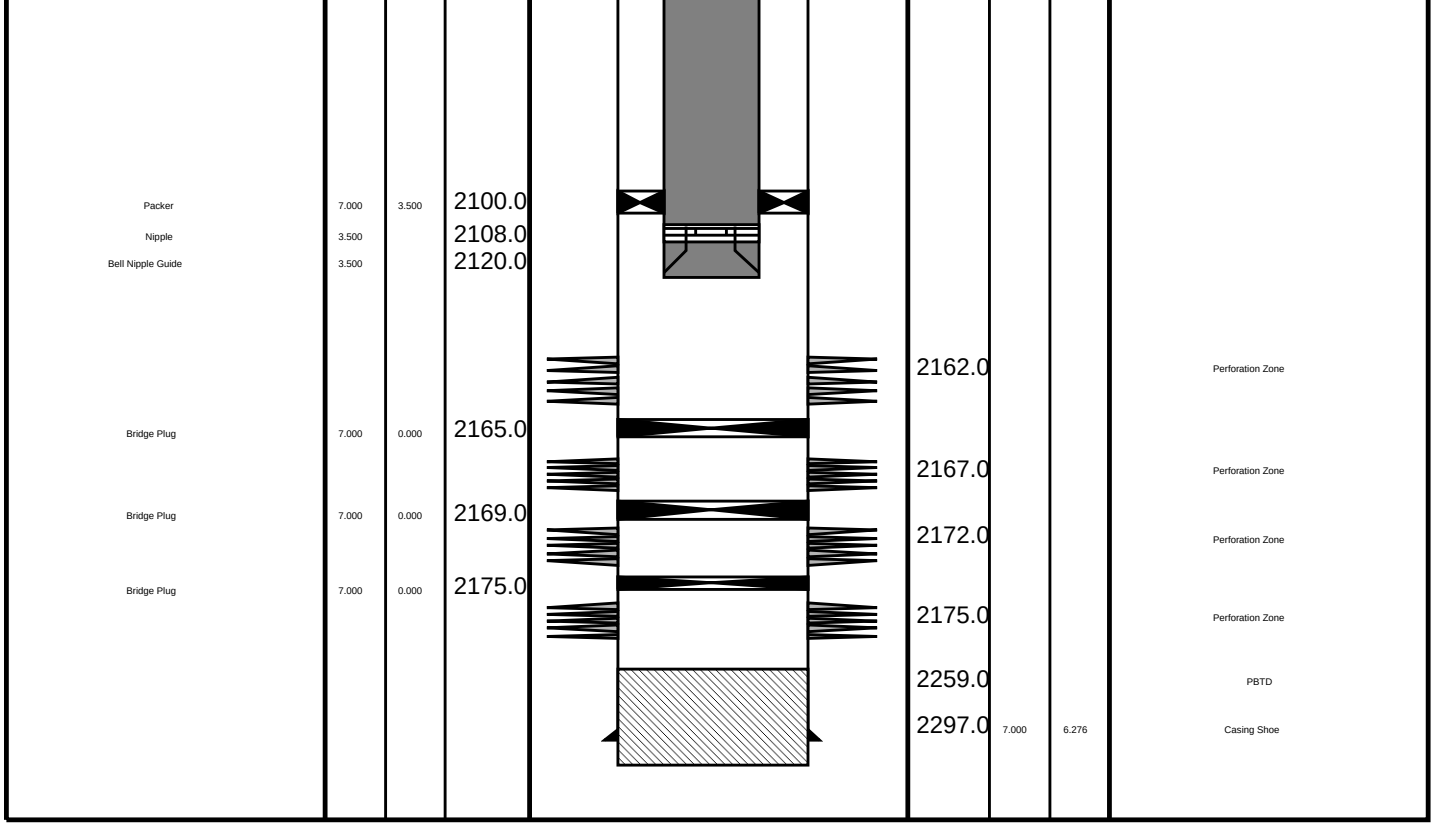
MAXIMUM STRING DIAMETER 2.13 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN METERS

Production String	(in) OD	(in) ID	(m) MD
Tubing Hanger	7.000	3.500	20.0
Tubing	3.500		20.1
Shutin Valve	3.500		450.0
Gas Lift Mandrel	3.500		545.0
Gas Lift Mandrel	3.500		822.0
Gas Lift Mandrel	3.500		1070.0
Nipple	3.500		1086.0

Well Schematic



(m) MD	(in) OD	(in) ID	Casing String
20.1	10.375	10.050	Casing String
20.0	7.000	6.276	Casing String
20.0	10.375	7.000	Liner Hanger
711.0	10.375	10.050	Casing Shoe



Schlumberger

Job Events Summary

MAXIS Field Log

Schlumberger Job Event Summary

	Time	Elapsed Time	Depth (M)		File
Log Pass (up)	15−Mar−2008 10:17	000:04	2151.0 −	2122.3	PERFO_024LUP
Log Pass (up)	15−Mar−2008 10:26	000:13	2151.9 −	2116.5	PERFO_026LUP
Station Log	15−Mar−2008 10:28	000:07	2139.7 −	1.0	PERFO_027LTP
Log Pass (up)	15−Mar−2008 12:10	000:05	2139.7 −	2118.1	MPBT_037LUP
Simulated Log	15−Mar−2008 12:39	000:21			MPBT_040LUP
Log Pass (up)	15−Mar−2008 13:01	000:05	2147.9 −	2110.0	MPBT_041LUP
Log Pass (up)	15−Mar−2008 14:41	000:06	2144.4 −	2110.0	PERFO_047LUP
Log Pass (up)	15−Mar−2008 15:43	000:04	2144.4 −	2107.5	PERFO_050LUP

Schlumberger

Cement Dump Pass

MAXIS Field Log

Output DLIS Files

DEFAULT	PERFO_050LUP	FN:48	PRODUCER	15−Mar−2008 15:43	2144.4 M	2107.5 M

OP System Version: 15C0−309

MCM

SHM_GUN	SRPC−3546−Q1_2008_OP15	CCL−L	SRPC−3546−Q1_2008_OP15

PIP SUMMARY

Casing Collars

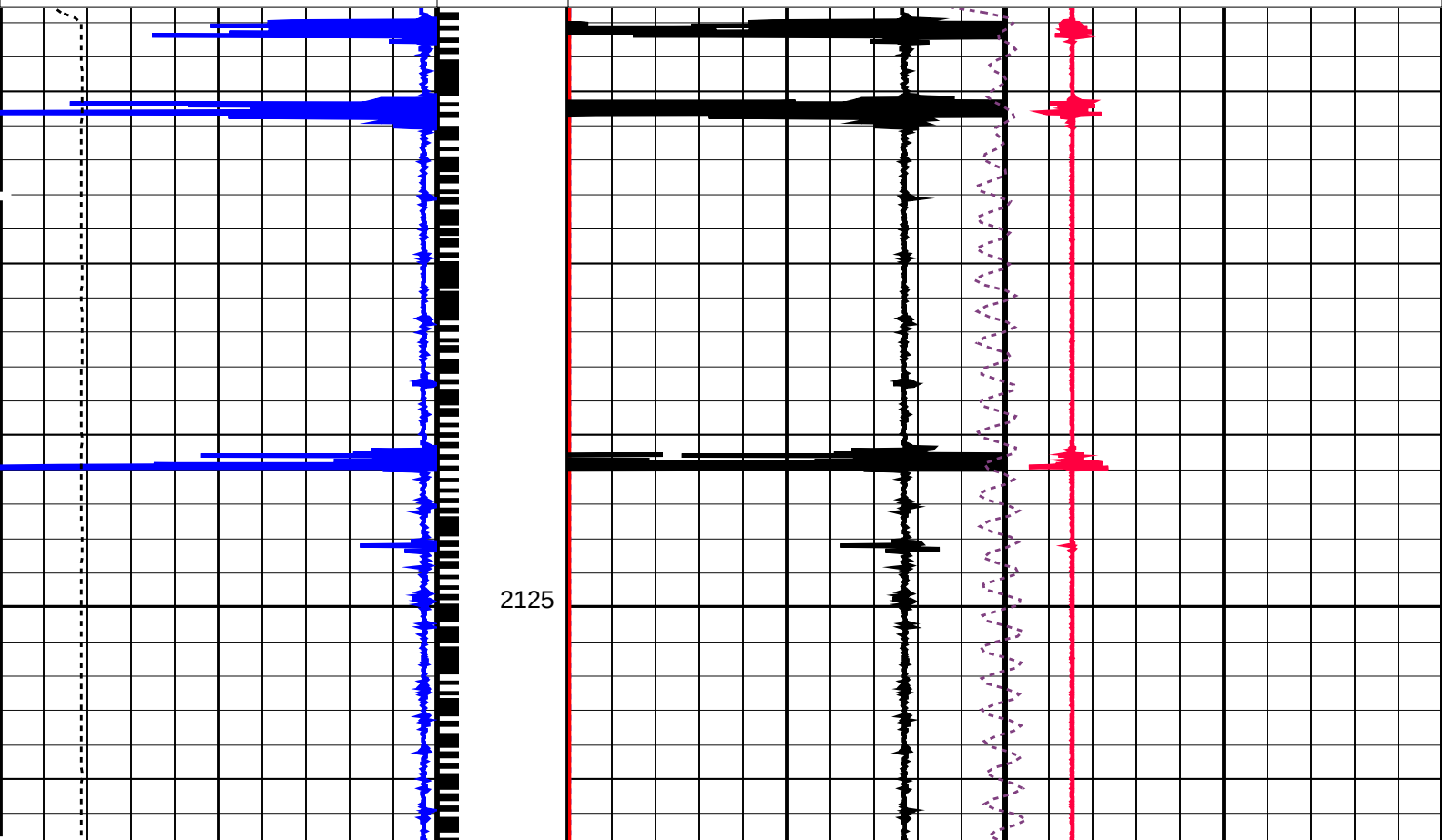
Time Mark Every 60 S

Shifted Casing Collar Locator (SCCL)			Raw Casing Collar Locator (RCCL)		
−10	(−−−−	10	−3	(−−−−	17

Tension (TENS)		
0	(LBF)	1000

Casing Collar Locator (CCL)			DCMAIN Voltage (DCV)		
−19	(−−−−	1	0	(V)	200

Cable Speed (CS)			DCMAIN Current (DCC)		
0	(F/HR)	20000	0	(MA)	200



Cable Speed (CS)	0 (F/HR) 20000	
Casing Collar Locator (CCL)	−19 (−−−− 1	
DCMAIN Current (DCC)	0 (MA) 200	
DCMAIN Voltage (DCV)	0 (V) 200	
Tension (TENS)	0 (LBF) 1000	
Shifted Casing Collar Locator (SCCL)	−10 (−−−− 10	Raw Casing Collar Locator (RCCL) −3 (−−−− 17

PIP SUMMARY

Casing Collars

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	CCL−L: Casing Collar Locator		
CCLD	CCL reset delay	12	IN
CCLT	CCL Detection Level	0.3	V

Format: PERFO Vertical Scale: 1:200 Graphics File Created: 15−Mar−2008 15:43

OP System Version: 15C0−309

MCM

SHM_GUN	SRPC−3546−Q1_2008_OP15	CCL−L	SRPC−3546−Q1_2008_OP15

Output DLIS Files

DEFAULT	PERFO_050LUP	FN:48	PRODUCER	15−Mar−2008 15:43

Schlumberger

Water Dump Pass

MAXIS Field Log

Output DLIS Files

DEFAULT	PERFO_047LUP	FN:45	PRODUCER	15−Mar−2008 14:41	2144.4 M	2110.0 M

OP System Version: 15C0−309

MCM

SHM_GUN SRPC−3546−Q1_2008_OP15 CCL−L SRPC−3546−Q1_2008_OP15

PIP SUMMARY

Casing Collars

Time Mark Every 60 S

Shifted Casing Collar Locator (SCCL) −10 (−−−− 10

Raw Casing Collar Locator (RCCL) −3 (−−−− 17

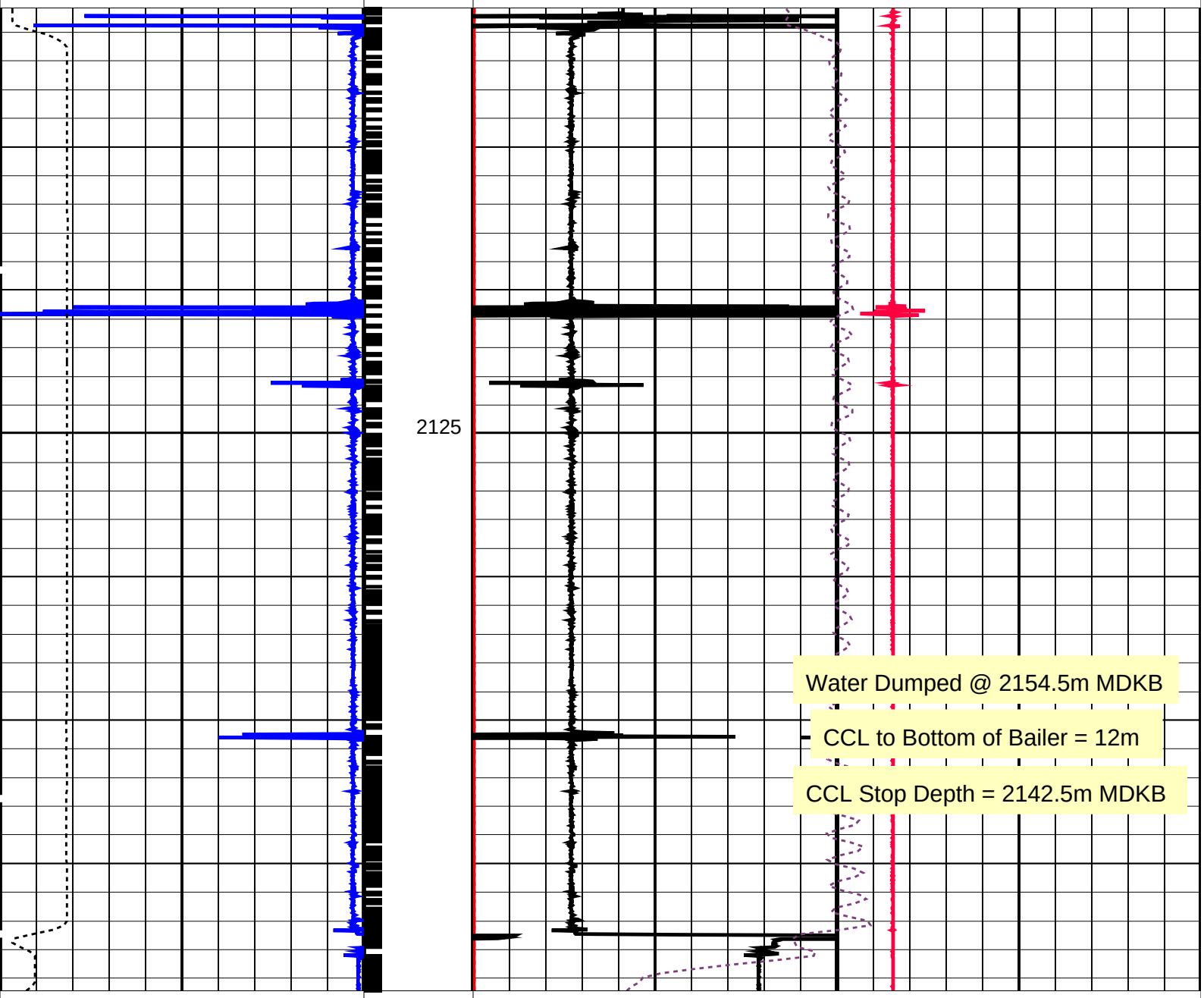
Tension (TENS) 0 (LBF) 1000

Casing Collar Locator (CCL) −19 (−−−− 1

DCMAIN Voltage (DCV) 0 (V) 200

Cable Speed (CS) 0 (F/HR) 20000

DCMAIN Current (DCC) 0 (MA) 200



Cable Speed (CS) 0 (F/HR) 20000

DCMAIN Current (DCC) 0 (MA) 200

Casing Collar Locator (CCL) −19 (−−−− 1

DCMAIN Voltage (DCV) 0 (V) 200

Tension (TENS)

0 (LBF) 1000

Shifted Casing Collar Locator (SCCL)			Raw Casing Collar Locator (RCCL)		
−10	(−−−−	10	−3	(−−−−	17

PIP SUMMARY

Casing Collars

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	CCL−L: Casing Collar Locator		
CCLD	CCL reset delay	12	IN
CCLT	CCL Detection Level	0.3	V

Format: PERFO Vertical Scale: 1:200 Graphics File Created: 15−Mar−2008 14:41

OP System Version: 15C0−309

MCM

SHM_GUN	SRPC−3546−Q1_2008_OP15	CCL−L	SRPC−3546−Q1_2008_OP15

Output DLIS Files

DEFAULT	PERFO_047LUP	FN:45	PRODUCER	15−Mar−2008 14:41	

Schlumberger

Log Away from Plug Setting

MAXIS Field Log

Output DLIS Files

DEFAULT	MPBT_041LUP	FN:39	PRODUCER	15−Mar−2008 13:01	2147.9 M	2110.0 M

OP System Version: 15C0−309

MCM

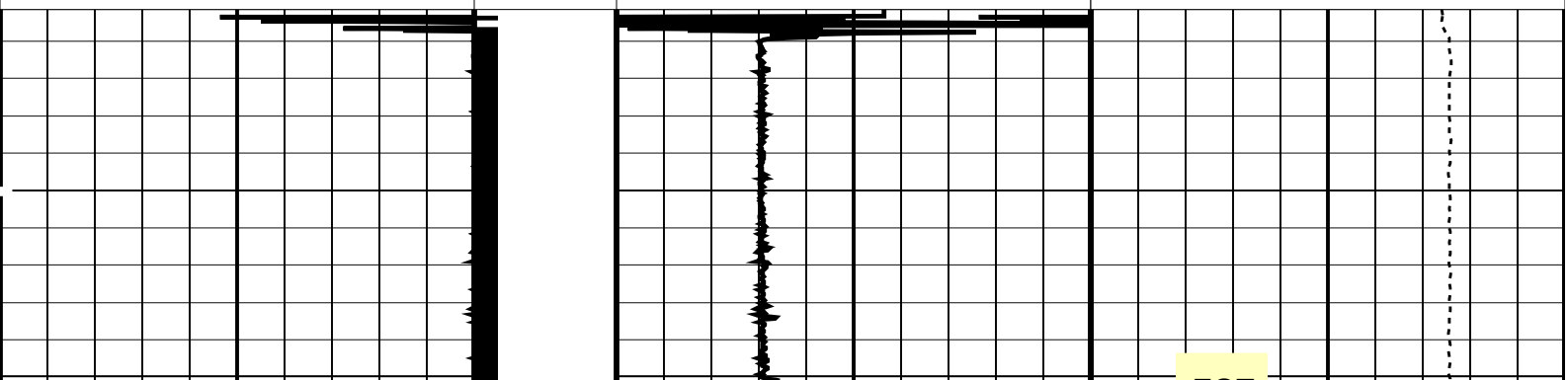
MPEX−BA	SRPC−3546−Q1_2008_OP15	MPSU−CA	SRPC−3546−Q1_2008_OP15
CCL−L	SRPC−3546−Q1_2008_OP15		

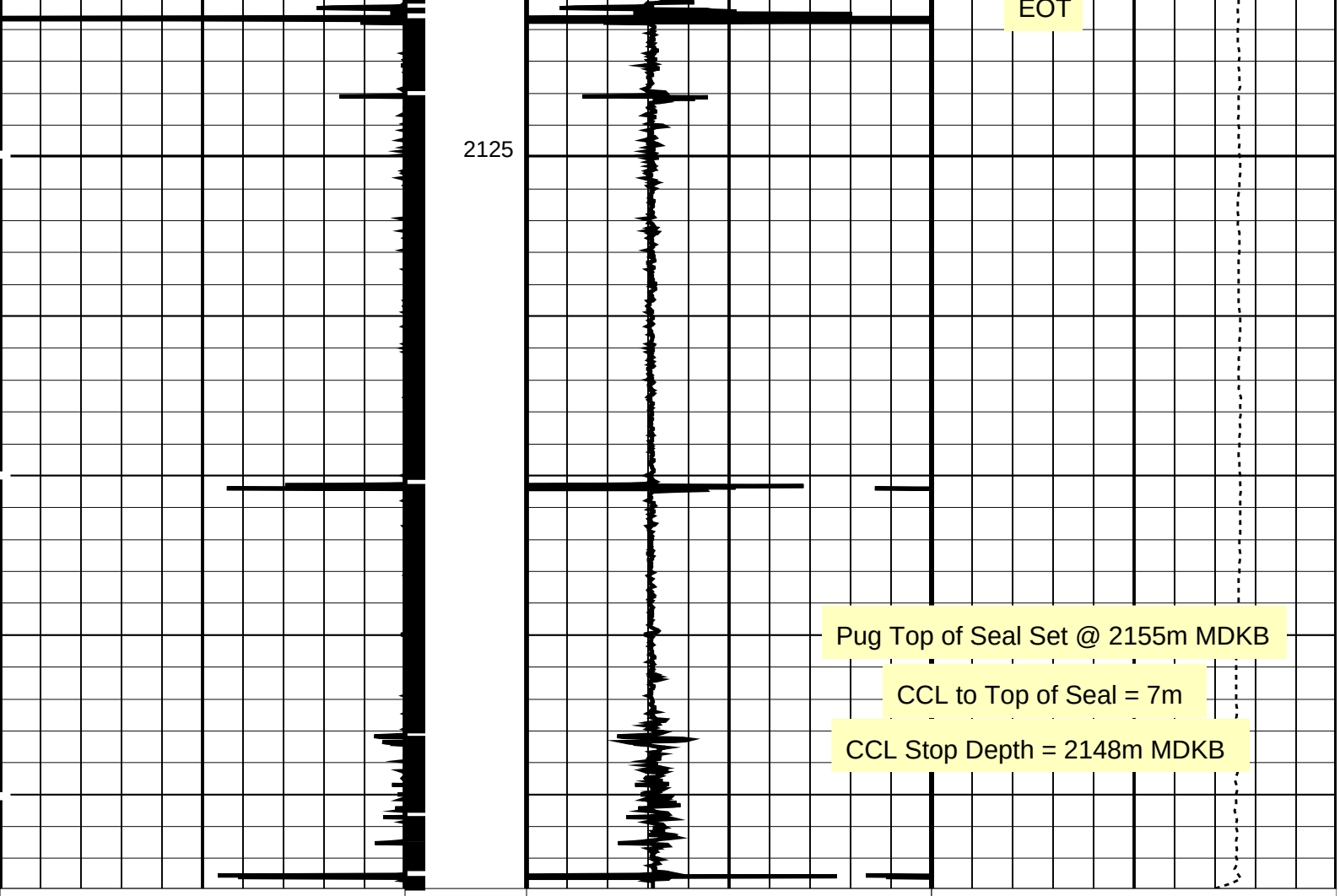
PIP SUMMARY

Casing Collars

Time Mark Every 60 S

Casing Collar Locator (CCL)			Shifted Casing Collar Locator (SCCL)			Tension (TENS)		
−19	(−−−−	1	−10	(−−−−	10	0	(LBF)	2000





Casing Collar Locator (CCL)	Shifted Casing Collar Locator (SCCL)	Tension (TENS)
−19 (−−−− 1	−10 (−−−− 10	0 (LBF) 2000

PIP SUMMARY

Casing Collars

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	CCL−L: Casing Collar Locator		
CCLD	CCL reset delay	12	IN
CCLT	CCL Detection Level	0.3	V

Format: PERFO Vertical Scale: 1:200 Graphics File Created: 15−Mar−2008 13:01

OP System Version: 15C0−309

MCM

MPEX−BA	SRPC−3546−Q1_2008_OP15	MPSU−CA	SRPC−3546−Q1_2008_OP15
CCL−L	SRPC−3546−Q1_2008_OP15		

Output DLIS Files

DEFAULT	MPBT_041LUP	FN:39	PRODUCER	15−Mar−2008 13:01

Schlumberger

7" 26lb/ft Posiset Plug
Setting Record

Output DLIS Files

DEFAULT MPBT_040LUP FN:38 PRODUCER 15−Mar−2008 12:39

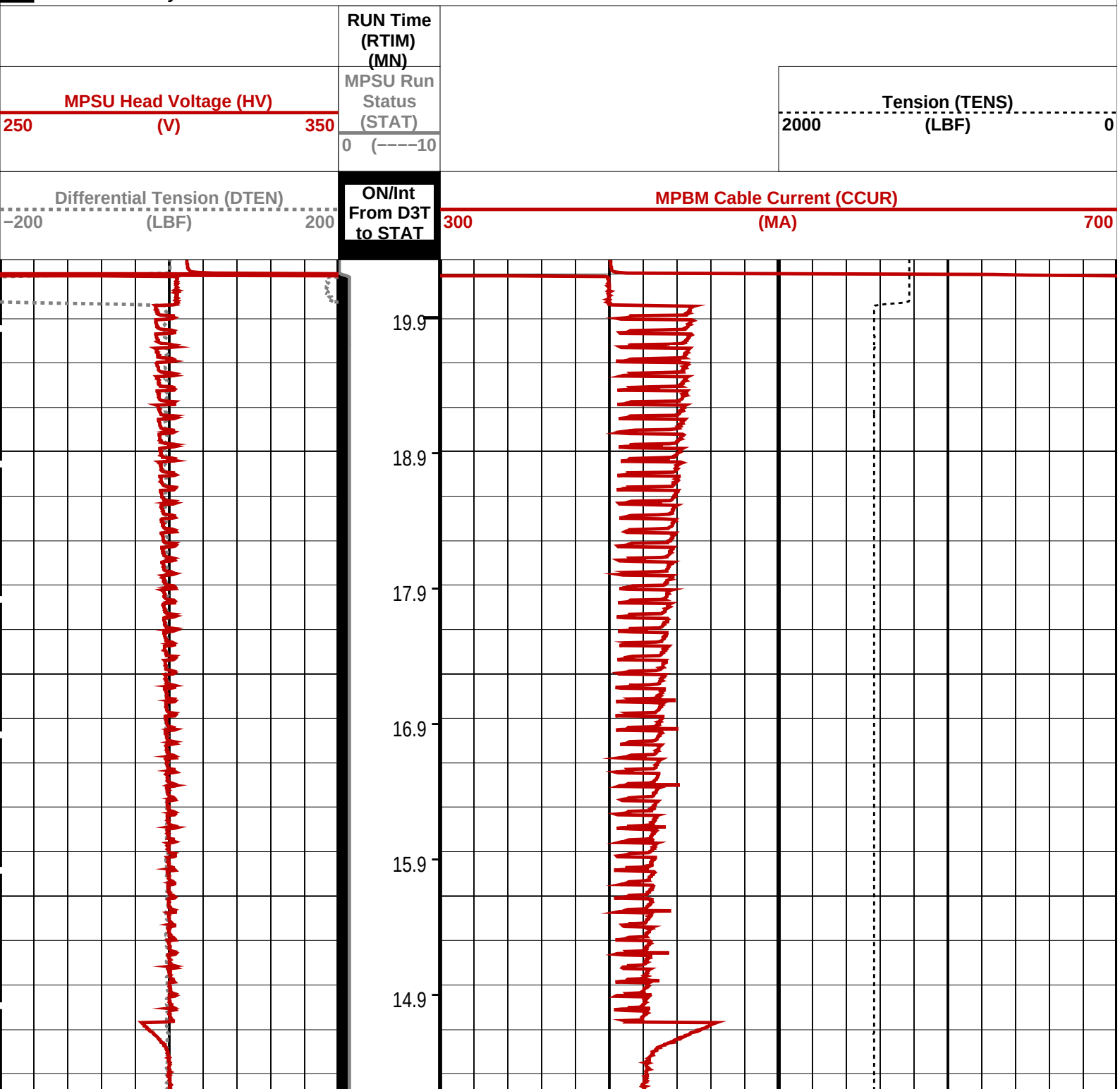
OP System Version: 15C0−309

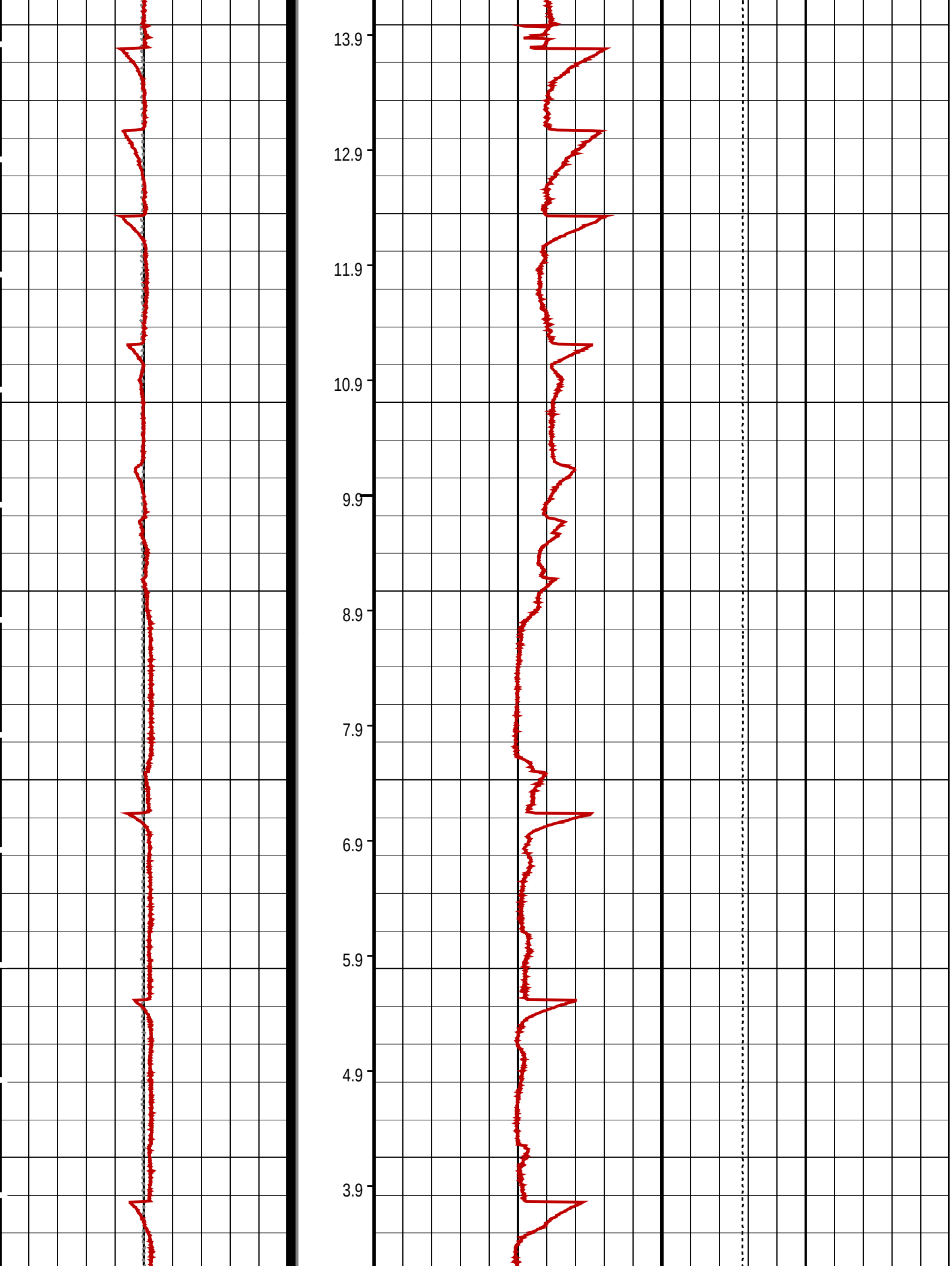
MCM

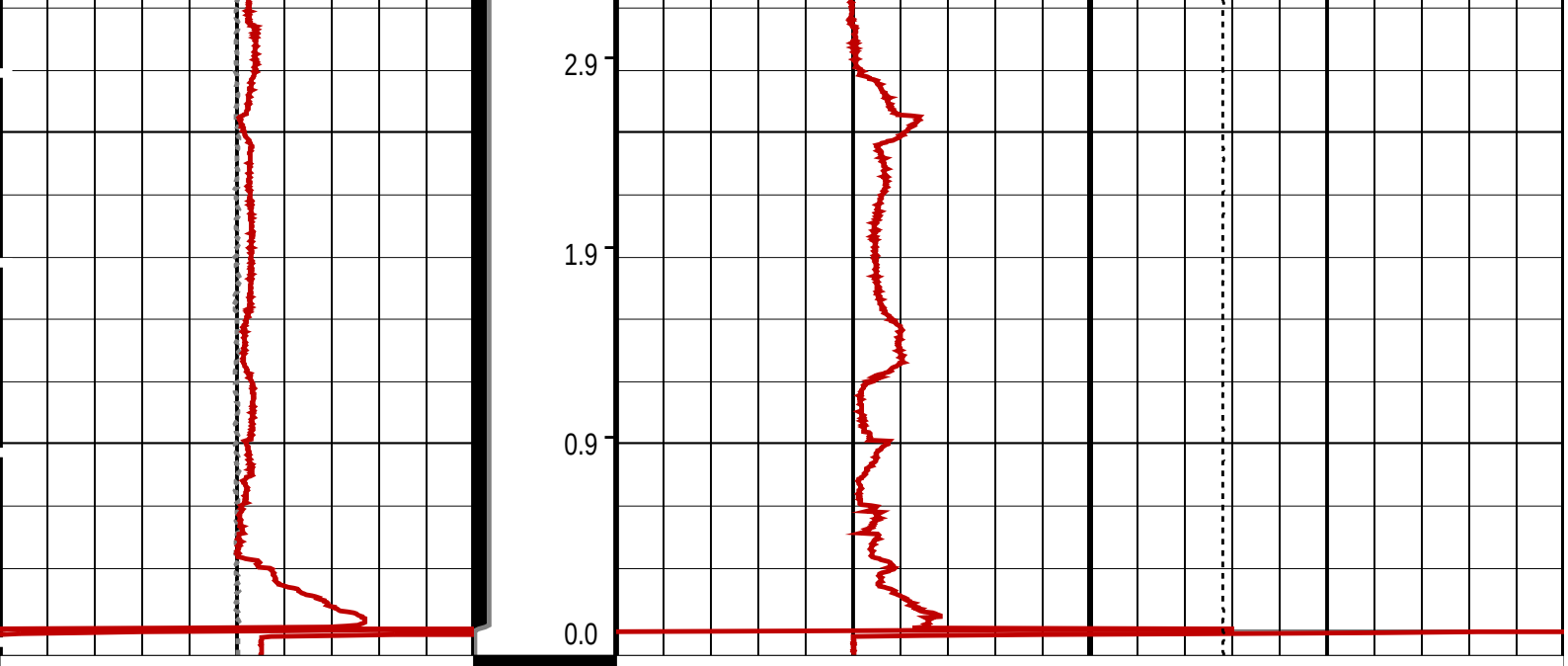
MPEX−BA	SRPC−3546−Q1_2008_OP15	MPSU−CA	SRPC−3546−Q1_2008_OP15
CCL−L	SRPC−3546−Q1_2008_OP15		

PIP SUMMARY

MPSU Run Time Every 1 MN
MPSU Run Time Every 10 MN
Time Mark Every 60 S




13.9
12.9
11.9
10.9
9.9
8.9
7.9
6.9
5.9
4.9
3.9



Differential Tension (DTEN)	ON/Int From D3T to STAT	MPBM Cable Current (CCUR)
−200 (LBF) 200		300 (MA) 700

MPSU Head Voltage (HV)	MPSU Run Status (STAT)		Tension (TENS)
250 (V) 350	0 (−−−−10		2000 (LBF) 0
	RUN Time (RTIM) (MN)		

PIP SUMMARY

MPSU Run Time Every 1 MN
MPSU Run Time Every 10 MN

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
	MPSU−CA: MECHANICAL PLUGBACK SETTING UNIT	
IPUMP	Intensifier Pump	TRUE

Format: MPBT Vertical Scale: 1:600 Graphics File Created: 15−Mar−2008 12:39

OP System Version: 15C0−309

MCM

MPEX−BA	SRPC−3546−Q1_2008_OP15	MPSU−CA	SRPC−3546−Q1_2008_OP15
CCL−L	SRPC−3546−Q1_2008_OP15		

Output DLIS Files

DEFAULT	MPBT_040LUP	FN:38	PRODUCER	15−Mar−2008 12:39

Schlumberger

Plug Correlation Pass

MAXIS Field Log

Output DLIS Files

DEFAULT	MPBT_037LUP	FN:35	PRODUCER	15−Mar−2008 12:10	2139.7 M	2118.1 M

OP System Version: 15C0−309

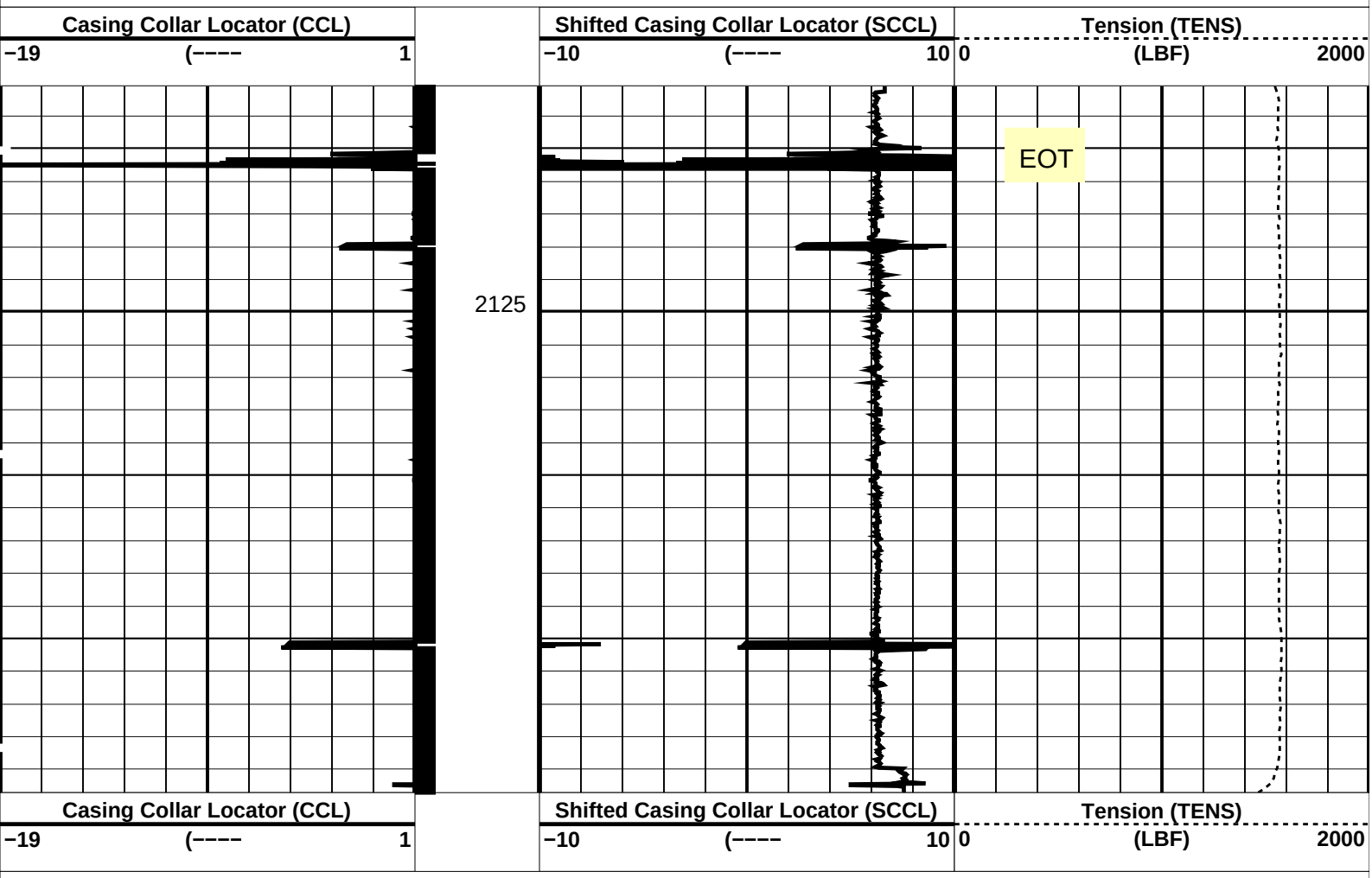
MCM

MPEX−BA	SRPC−3546−Q1_2008_OP15	MPSU−CA	SRPC−3546−Q1_2008_OP15
CCL−L	SRPC−3546−Q1_2008_OP15		

PIP SUMMARY

Casing Collars

Time Mark Every 60 S



PIP SUMMARY

Casing Collars

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	CCL−L: Casing Collar Locator		
CCLD	CCL reset delay	12	IN
CCLT	CCL Detection Level	0.3	V

Format: PERFO Vertical Scale: 1:200 Graphics File Created: 15−Mar−2008 12:10

OP System Version: 15C0−309

MCM

MPEX−BA	SRPC−3546−Q1_2008_OP15	MPSU−CA	SRPC−3546−Q1_2008_OP15
CCL−L	SRPC−3546−Q1_2008_OP15		

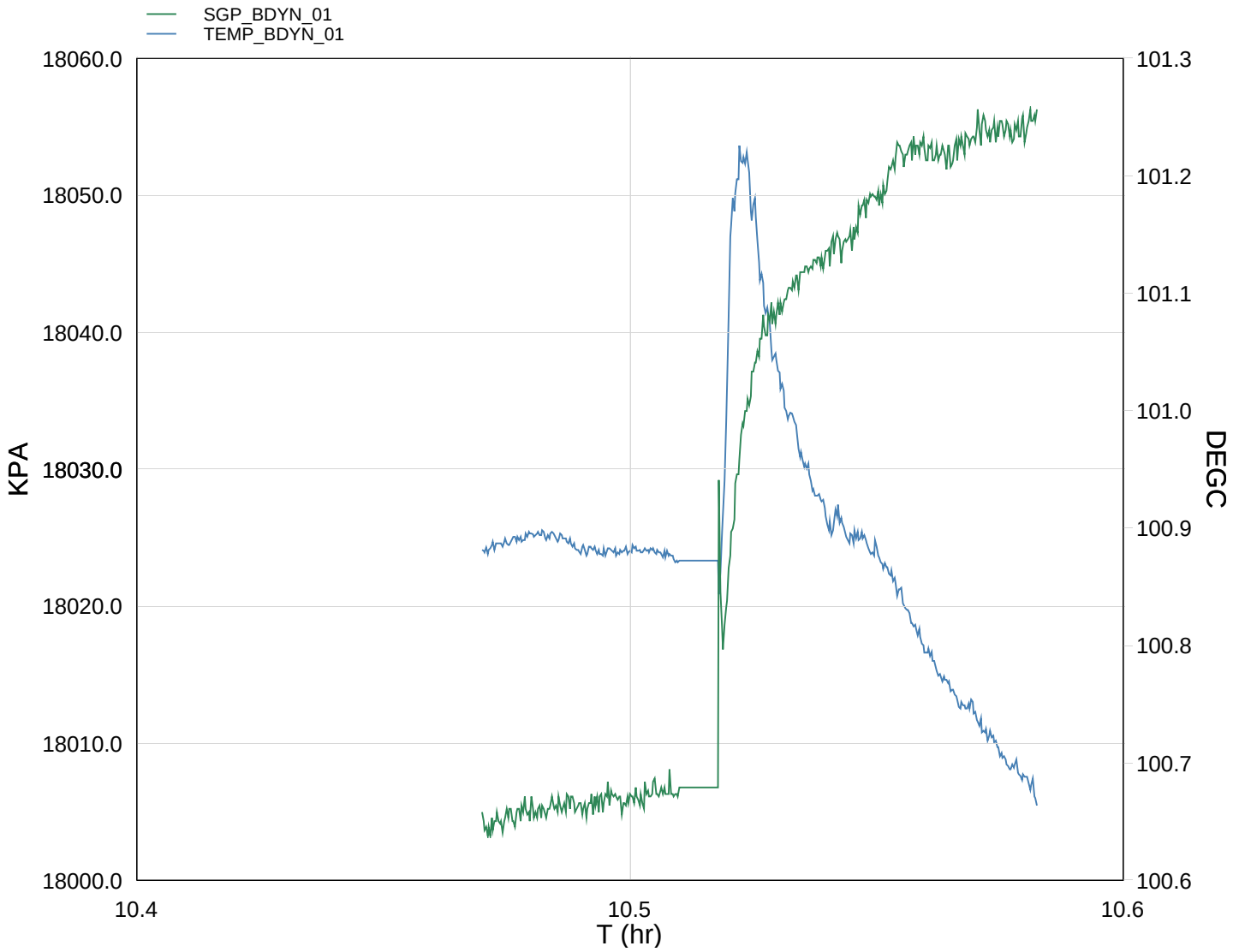
Output DLIS Files

DEFAULT	MPBT_037LUP	FN:35	PRODUCER	15−Mar−2008 12:10

Schlumberger

Gun # 1 Fired @ 2143m to 2146.2m MDKB

MAXIS Field Log



TIME	KPA	PSIA	Degf
1680.0	18004.8795	2611.3910	213.5865
1710.0	18004.9946	2611.4078	213.6097
1740.0	18004.9902	2611.4070	213.6000
1770.0	18006.0879	2611.5664	213.5825
1800.0	18006.7112	2611.6568	213.5829
1830.0	18006.7480	2611.6621	213.5699
1860.0	18023.6875	2614.1189	214.0344
1890.0	18041.4470	2616.6946	213.9088

1920.0	18045.1601	2617.2331	213.6774
1950.0	18046.9600	2617.4943	213.6089
1980.0	18052.0592	2618.2340	213.5430
2010.0	18053.5299	2618.4473	213.4064
2040.0	18055.3343	2618.7088	213.3279
2070.0	18054.4952	2618.5871	213.2454

Schlumberger

Gun Shooting Pass

MAXIS Field Log

Company: Esso Australia Pty Ltd. **Well: B−14**

Output DLIS Files

DEFAULT	PERFO_026LUP	FN:24	PRODUCER	15−Mar−2008 10:26	2151.9 M	2116.5 M

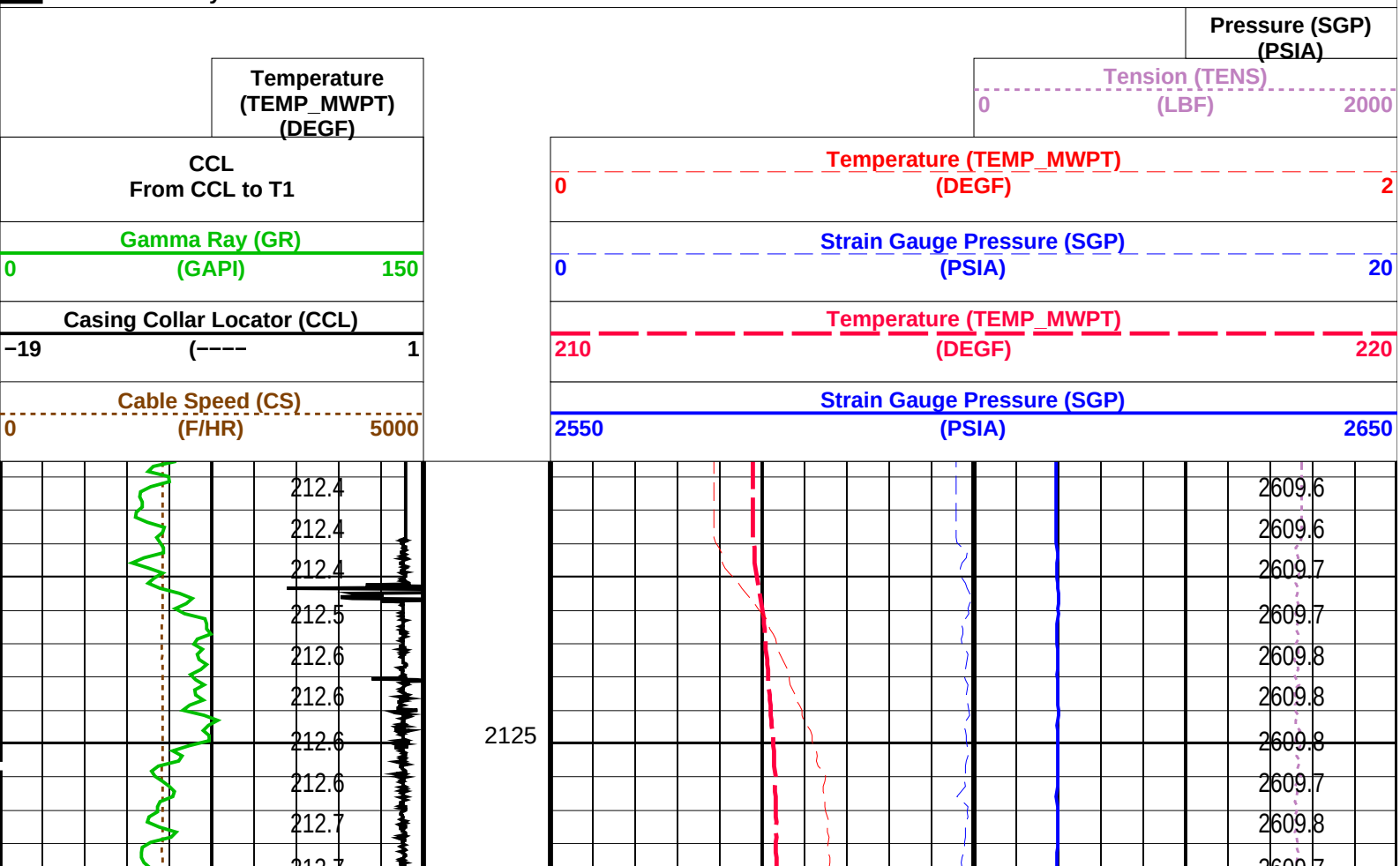
OP System Version: 15C0−309

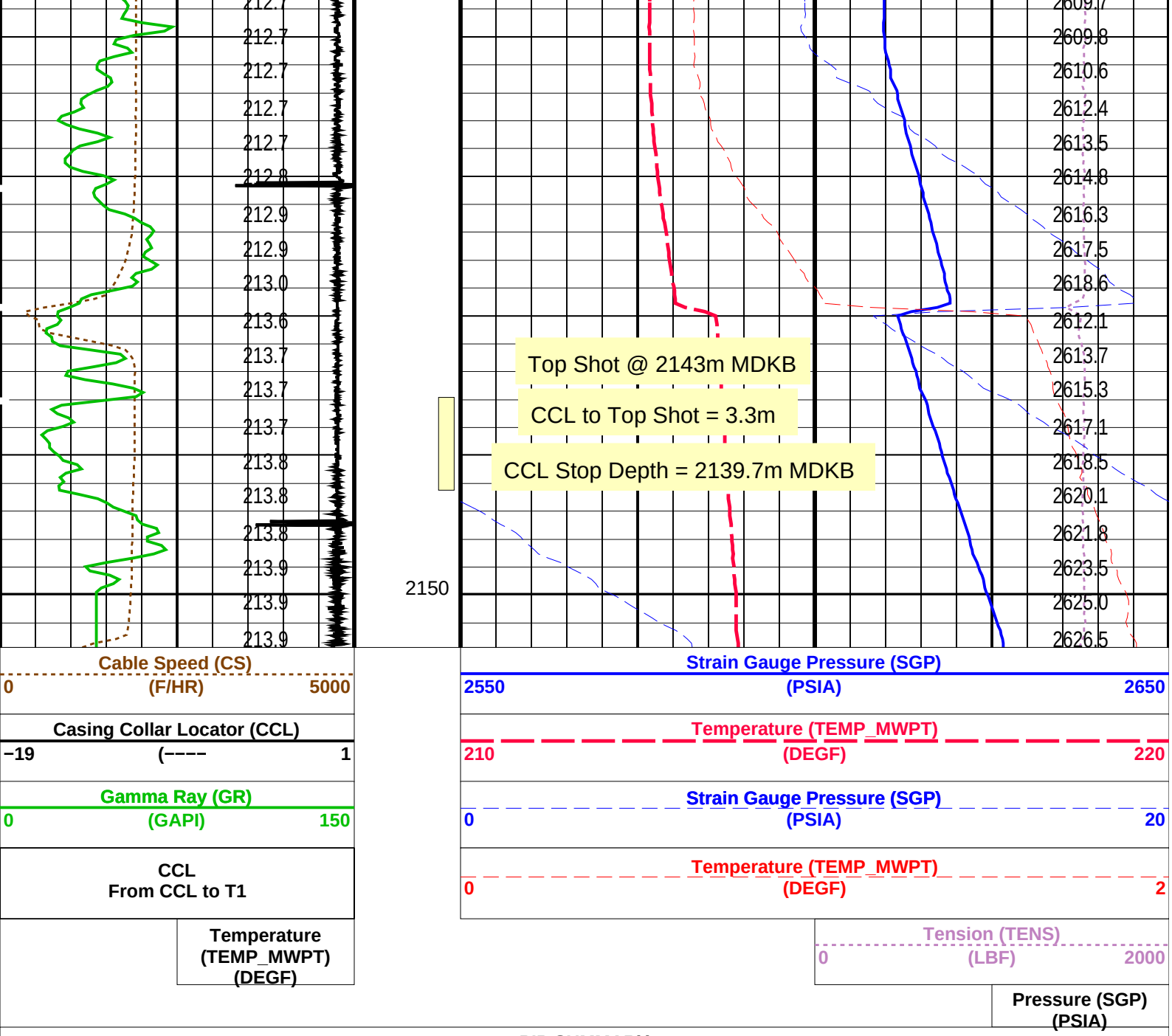
MCM

MWP_GUN	SRPC−3546−Q1_2008_OP15	MWPT−CA	SRPC−3546−Q1_2008_OP15
MWGT−AA	SRPC−3546−Q1_2008_OP15		

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: 15−Mar−2008 10:26

OP System Version: 15C0−309

MCM

MWP_GUN	SRPC−3546−Q1_2008_OP15	MWPT−CA	SRPC−3546−Q1_2008_OP15
MWGT−AA	SRPC−3546−Q1_2008_OP15		

Output DLIS Files

DEFAULT PERFO_026LUP FN:24 PRODUCER 15−Mar−2008 10:26

Schlumberger

Gun Correlation Pass

MAXIS Field Log

Company: Esso Australia Pty Ltd. **Well: B−14**

Output DLIS Files

DEFAULT	PERFO_024LUP	FN:22	PRODUCER	15−Mar−2008 10:17	2151.0 M	2122.3 M

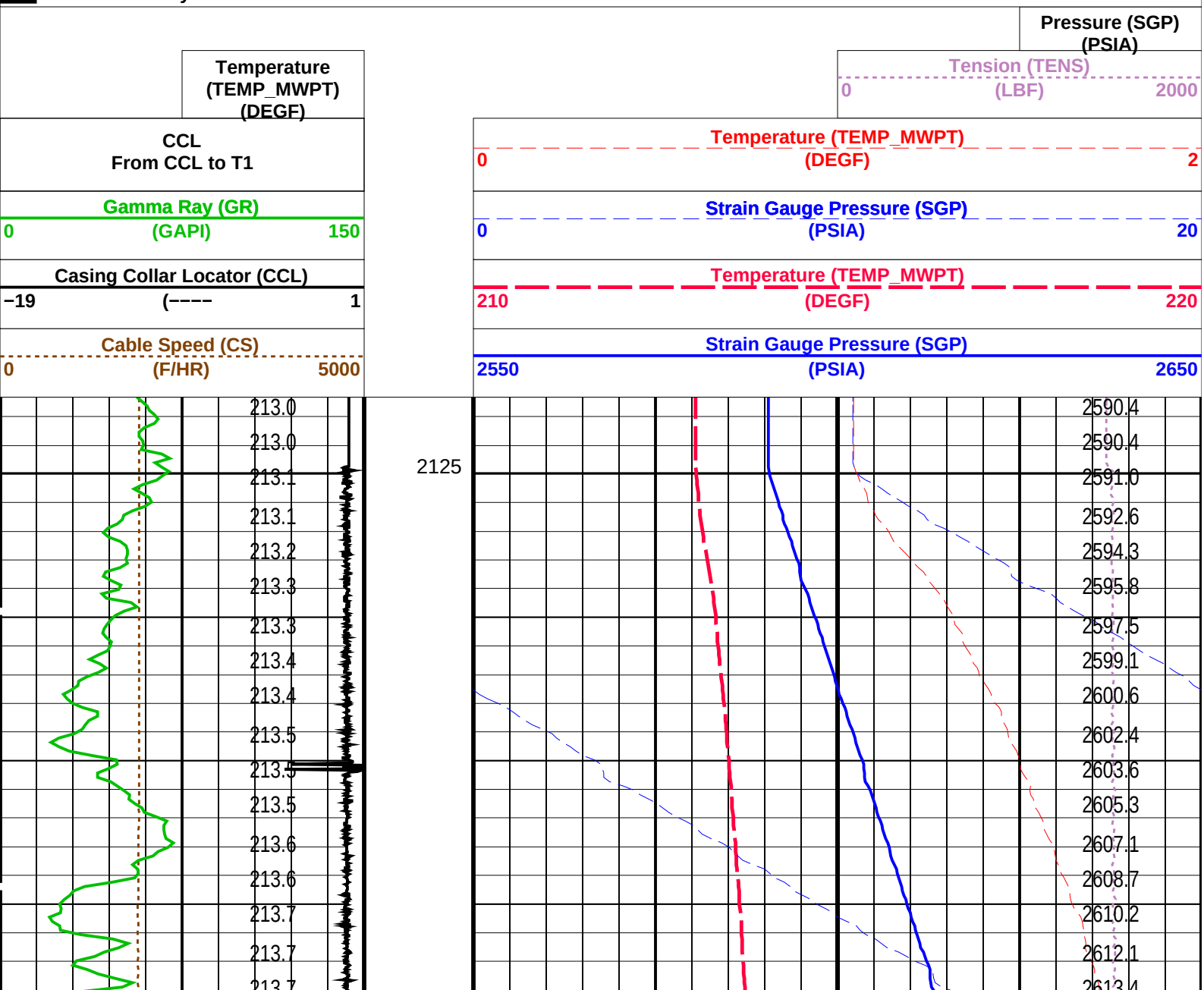
OP System Version: 15C0−309

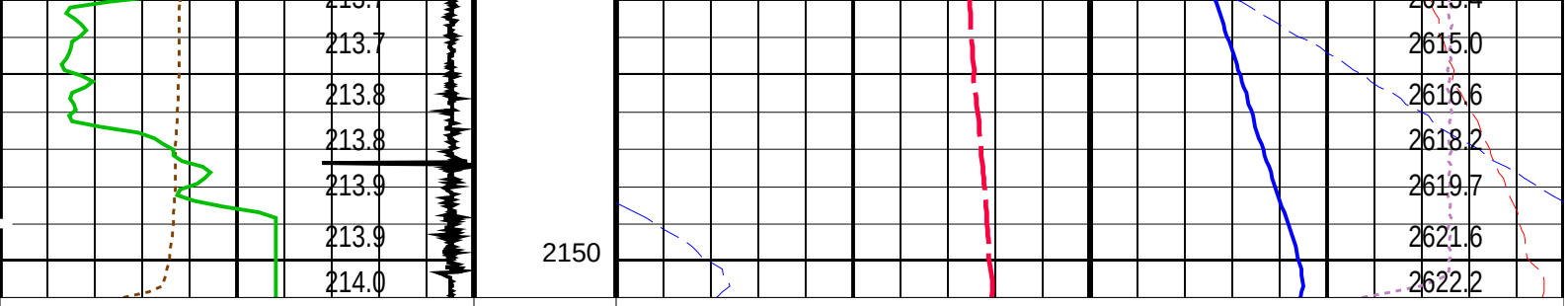
MCM

MWP_GUN	SRPC−3546−Q1_2008_OP15	MWPT−CA	SRPC−3546−Q1_2008_OP15
MWGT−AA	SRPC−3546−Q1_2008_OP15		

PIP SUMMARY

Time Mark Every 60 S





Cable Speed (CS)	0 (F/HR) 5000	Strain Gauge Pressure (SGP) 2550 (PSIA) 2650
Casing Collar Locator (CCL)	−19 (−−−− 1	Temperature (TEMP_MWPT) 210 (DEGF) 220
Gamma Ray (GR)	0 (GAPI) 150	Strain Gauge Pressure (SGP) 0 (PSIA) 20
CCL From CCL to T1		Temperature (TEMP_MWPT) 0 (DEGF) 2
Temperature (TEMP_MWPT) (DEGF)		Tension (TENS) 0 (LBF) 2000
		Pressure (SGP) (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 Vertical Scale: 1:200 Graphics File Created: 15−Mar−2008 10:17

OP System Version: 15C0−309

MCM

MWP_GUN	SRPC−3546−Q1_2008_OP15	MWPT−CA	SRPC−3546−Q1_2008_OP15
MWGT−AA	SRPC−3546−Q1_2008_OP15		

Output DLIS Files

DEFAULT	PERFO_024LUP	FN:22	PRODUCER	15−Mar−2008 10:17

Company: **Esso Australia Pty Ltd.**

Schlumberger

Well: **B−14**
Field: **Bream B**
Rig: **Crane / Prod # 4**
Country: **Australia**

2 1/8" Phased Powerjet
MWPT Perforation Record
7" Posiset Plug Setting Record