

Company: Esso Australia Pty Ltd.

Well: A-6

Field: Flounder

Rig: Crane / Prod4 Country: Australia

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

Rig: Crane / Prod4
Field: Flounder
Location: Gippsland
Well: A-6
Company: Esso Australia Pty Ltd.

LOCATION			
Gippsland		Elev.:	K.B. 34.20 m
Basin		G.L.	-93.00 m
Bass Strait		D.F.	34.20 m
Permanent Datum:	M.S.L.	Elev.:	0.00 m
Log Measured From:	K.B.	40.80 m	above Perm. Datum
Drilling Measured From:	K.B.		
State: Victoria	Max. Well Deviation 64.5 deg	Longitude 148° 26' 21.748"E	Latitude 38° 18' 39.245"S

Logging Date	15-Sep-2009		
Run Number	1 thru 5		
Depth Driller	4160 m		
Schlumberger Depth	4083.5 m		
Bottom Log Interval	4078 m		
Top Log Interval	4075 m		
Casing Fluid Type	Production Fluids		
Salinity			
Density			
Fluid Level	1195 m		
BIT/CASING/TUBING STRING			
Bit Size	12.250 in		
From	13 m		
To	4146 m		
Casing/Tubing Size	7.000 in		
Weight	26 lbm/ft		
Grade	N-80		
From	13 m		
To	4146 m		
Maximum Recorded Temperatures	232 degF		
Logger On Bottom	15-Sep-2009	8:35	
Unit Number	889	Prod 4	
Recorded By	O Darby		
Witnessed By	Ben 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	64.5 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						

Run 4

DEPTH SUMMARY LISTING

Date Created: 13-SEP-2009 16:19:58

Depth Control Parameters

Log Sequence:	Subsequent Trip To the Well
Reference Log Name:	ExxonMobil Petrophysical Analysis
Reference Log Run Number:	
Reference Log Date:	8-sep-2008
Subsequent Trip Down Log Correction:	

Depth Control Remarks

1. IDW used as primary depth control
2. Z-Chart used as back-up
- 3.
- 4.
5. All depths are drillers depths
- 6.

DISCLAIMER

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OTHER SERVICES1	OTHER SERVICES2
OS1: RST-C Sigma	OS1:
OS2: Survey	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
Log correlated to ExxonMobil Composite Log supplied with logging program.	
Maximum well deviation = 64.5 Degrees at 750m MDKB.	
Run one well was perforated over the interval 4075m to 4080m MDKB using	
2 1/8"45 degree phased powerjet at 6 shots per foot.	
SBHP = 3312 psia,SBHT =233 Degf.	
After firing the gun 3296 psia, 238 Degf	
7" Mpbtp plug was then set at 4080.5m MDKB followed by water and	

cement dump runs.

Crew: Nathan Simmons & Andrew Pratt

RUN 1	
SERVICE ORDER #:	AUSL08602233
PROGRAM VERSION:	17C0-154
FLUID LEVEL:	1195 m

SERVICE ORDER #:
PROGRAM VERSION:
FLUID LEVEL:

LOGGED INTERVAL	START	STOP

LOGGED INTERVAL	START	STOP

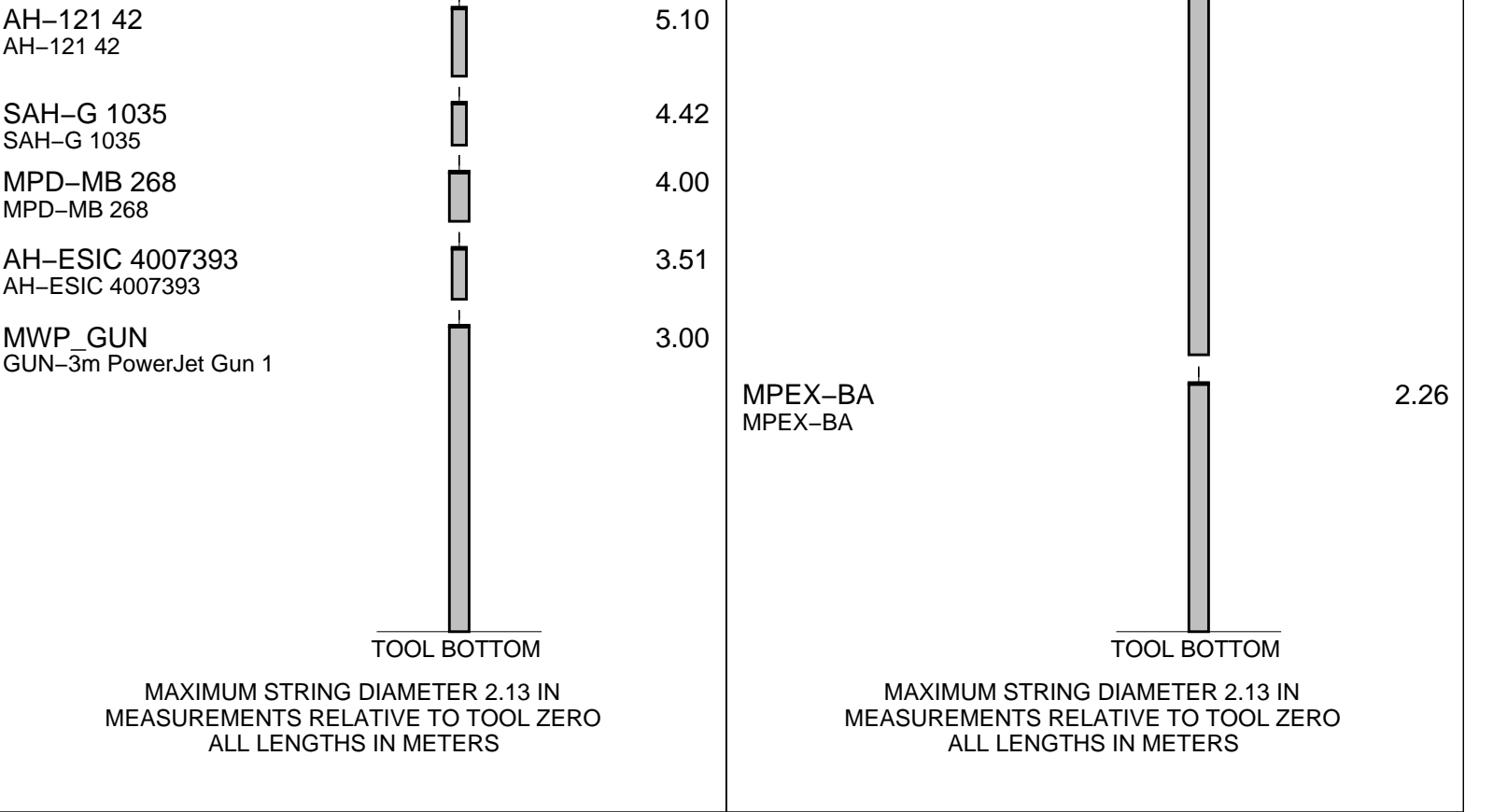
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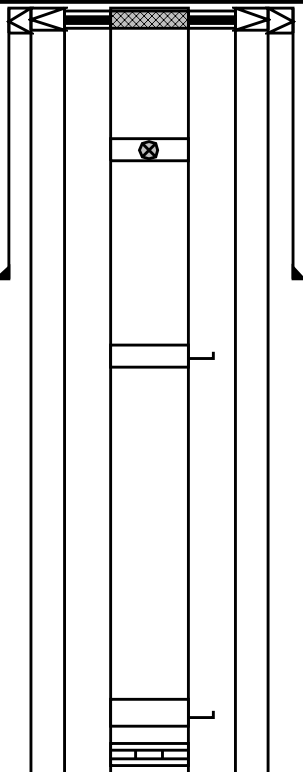
	RUN 1
	SURFACE EQUIPMENT
MWPM-3000	

RUN 2	
SURFACE EQUIPMENT	
MPBM	

DOWNHOLE EQUIPMENT		
AH-SWBS 784 AH-SWBS 784		12.95
AH-SWBS 785 AH-SWBS 785		12.27
AH-SWBS 786 AH-SWBS 786		11.58
AH-SWBS 787 AH-SWBS 787		10.89
AH-SWBS 788 AH-SWBS 788		10.21
MH-SWHS 759 MH-SWHS 759		9.52
AH-124 7002		9.04
MWGT-AA MWPG-AA 24029 MWGH-AA 69	MWPG GR	8.89 2.41
MWPT-CA BLK2 MWPH-AA 74 MWPS-AA 74		7.91
	CCL SMWP Pres SMWP Temp Tension	TOOL ZERO

DOWNHOLE EQUIPMENT		
AH-SWBS 784 AH-SWBS 784		13.04
AH-SWBS 785 AH-SWBS 785		12.35
AH-SWBS 786 AH-SWBS 786		11.67
AH-SWBS 787 AH-SWBS 787		10.98
AH-SWBS 788 AH-SWBS 788		10.29
MH-SWHS 759 MH-SWHS 759		9.61
CCL-L 9851 CCL-L 9851	CCL Cable Cur Head Volt Tension	9.13
MPSU-CA 1011 MPSU-CA 1011		8.67



Production String	(in)		(m)	Well Schematic	(m)	(in)		Casing String
	OD	ID	MD		MD	OD	ID	
Tubing	4.500		12.8		16.0	18.875	19.825	Casing String
Tubing Hanger	9.625	4.500	11.0		16.0	18.875	19.825	Liner Hanger
Shut-in Valve	4.500		457.0					
Gas Lift Mandrel	4.500		969.0		687.0	16.000		Casing Shoe
Gas Lift Mandrel	4.500		1874.3					
Nipple	4.500		1890.0					

Perforation Zone

	Time	Elapsed Time	Depth (M)	File
Simulated Log OP checked toolstring	14-Sep-2009 8:14	000:01		RST_PSP_014LUP
Log Pass (up) RST Correlation pass	14-Sep-2009 9:15	000:08	4086.1 - 4012.8	RST_PSP_016LUP
Log Pass (up) RST Sigma pass # 1	14-Sep-2009 9:46	000:15	4087.8 - 4015.9	RST_PSP_018LUP
Log Pass (up) RST Sigma pass # 2	14-Sep-2009 10:08	000:15	4088.0 - 4015.0	RST_PSP_020LUP
After Calibration Completed MWPT Calibration	14-Sep-2009 16:38			
Simulated Log Hot checked MWPT	15-Sep-2009 6:52	000:18		PERFO_042LUP
Log Pass (up) Gun Correlation pass	15-Sep-2009 8:57	000:05	4075.2 - 4022.4	PERFO_050LUP
Log Pass (up)	15-Sep-2009 9:07	000:51	4075.2 - 4015.1	PERFO_051LUP

Gun Shooting pass						
Station Log	15-Sep-2009	9:09	000:43	4071.6		PERFO_053LTP
Gun Draw down station log						
Simulated Log	15-Sep-2009	11:18	000:02			PERFO_057LUP
OP checked Dummy plug toolstring						
Log Pass (up)	15-Sep-2009	12:05	000:06	4082.3 - 4009.5		PERFO_060LUP
Dummy Plug Correlation pass						
Simulated Log	15-Sep-2009	13:38	000:02			MPBT_066LUP
OP Checked MPBT toolstring						
Log Pass (down)	15-Sep-2009	15:06	000:13	4004.9 - 4073.3		MPBT_073LDP
MPBT Correlation pass						
Simulated Log	15-Sep-2009	15:21	000:34			MPBT_074LUP
MPBT Setting record						
Simulated Log	16-Sep-2009	8:12	000:34			PERFO_079LUP
OP checked DB for Water run						
Log Pass (up)	16-Sep-2009	9:45	000:09	4071.7 - 4012.7		PERFO_081LUP
Water dumping pass						
Simulated Log	16-Sep-2009	11:35	000:14			PERFO_091LUP
OP checked toolstring for cement run						
Log Pass (up)	16-Sep-2009	12:42	000:08	4069.2 - 4013.5		PERFO_093LUP
Dumped cement						



2 1/8" Dump Bailer
Cement dumping record

MAXIS Field Log

Input DLIS Files

DEFAULT PERFO_093LUP FN:90 PRODUCER 16-Sep-2009 12:42 4069.2 M 4013.5 M

Output DLIS Files

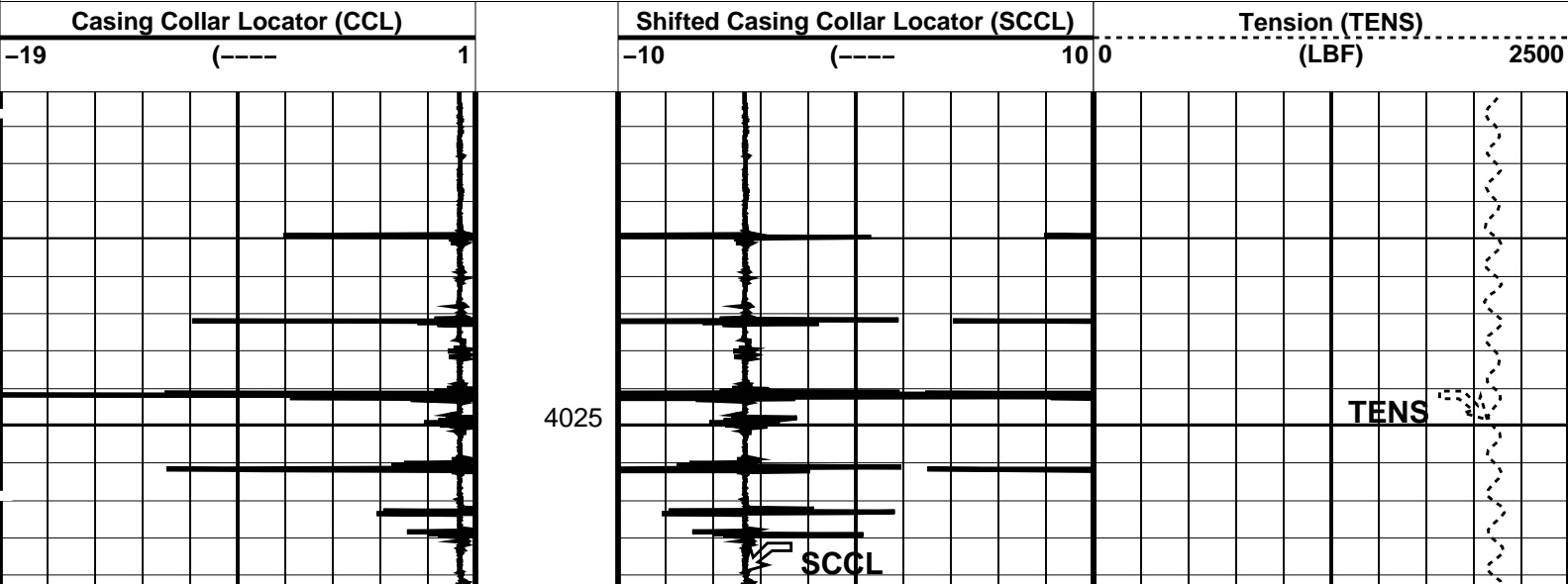
DEFAULT PERFO_097PUP FN:94 PRODUCER 16-Sep-2009 12:57 4071.8 M 4016.0 M

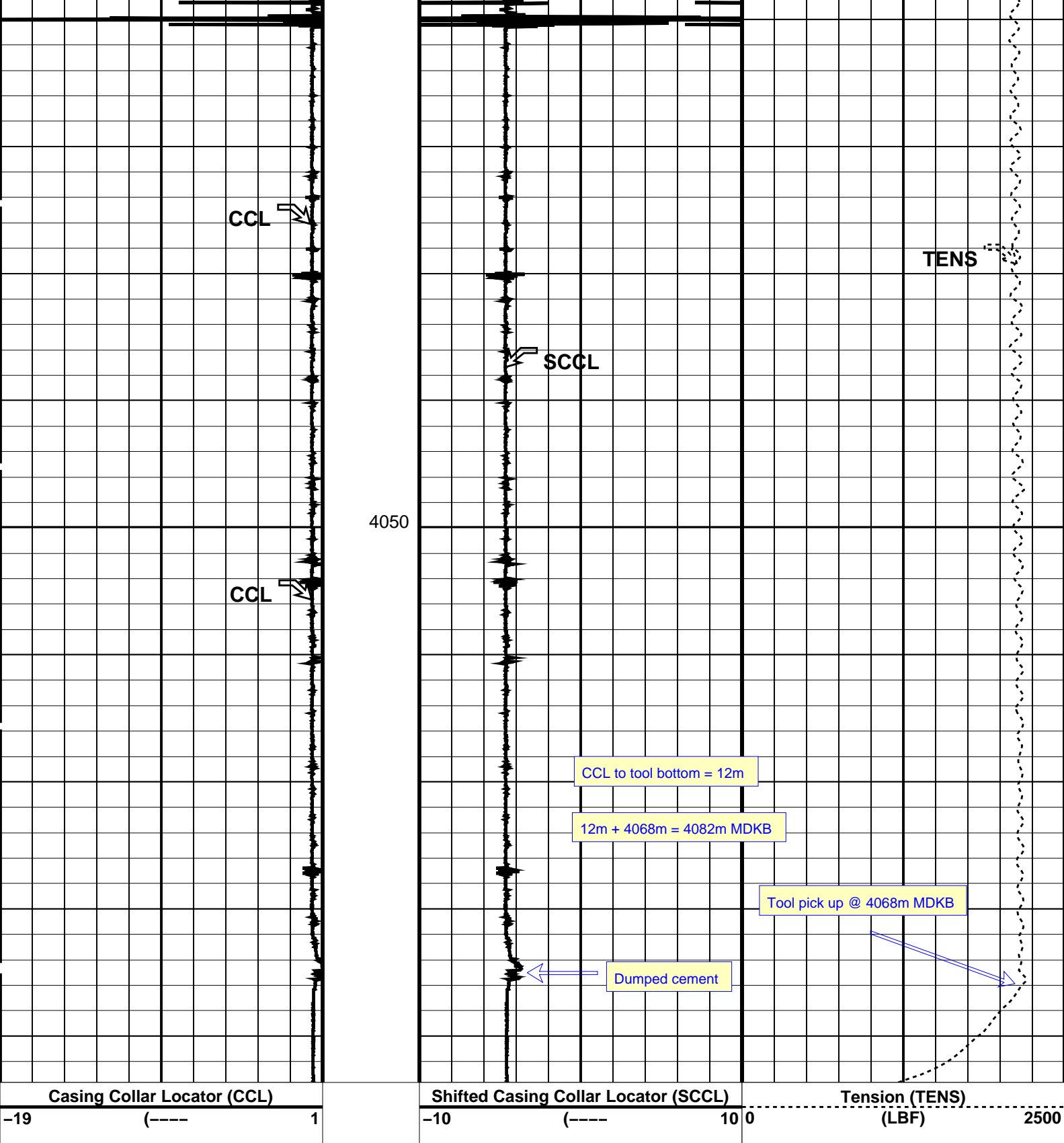
OP System Version: 17C0-154

CCL-L 17C0-154 SHM_GUN 17C0-154

PIP SUMMARY

Time Mark Every 60 S





PIP SUMMARY

Time Mark Every 60 S

Parameters		
DLIS Name	Description	Value
CCLD	CCL-L: Casing Collar Locator	
CCLT	CCL reset delay	12 IN
	CCL Detection Level	0.3 V
System and Miscellaneous		
DO	Depth Offset for Playback	2.6 M
PP	Playback Processing	NORMAL

OP System Version: 17C0-154

CCL-L	17C0-154	SHM_GUN	17C0-154			
Input DLIS Files						
DEFAULT	PERFO_093LUP	FN:90	PRODUCER	16-Sep-2009 12:42	4069.2 M	4013.5 M
Output DLIS Files						
DEFAULT	PERFO_097PUP	FN:94	PRODUCER	16-Sep-2009 12:57		



2 1/8" Dump Bailer
Water dumping record

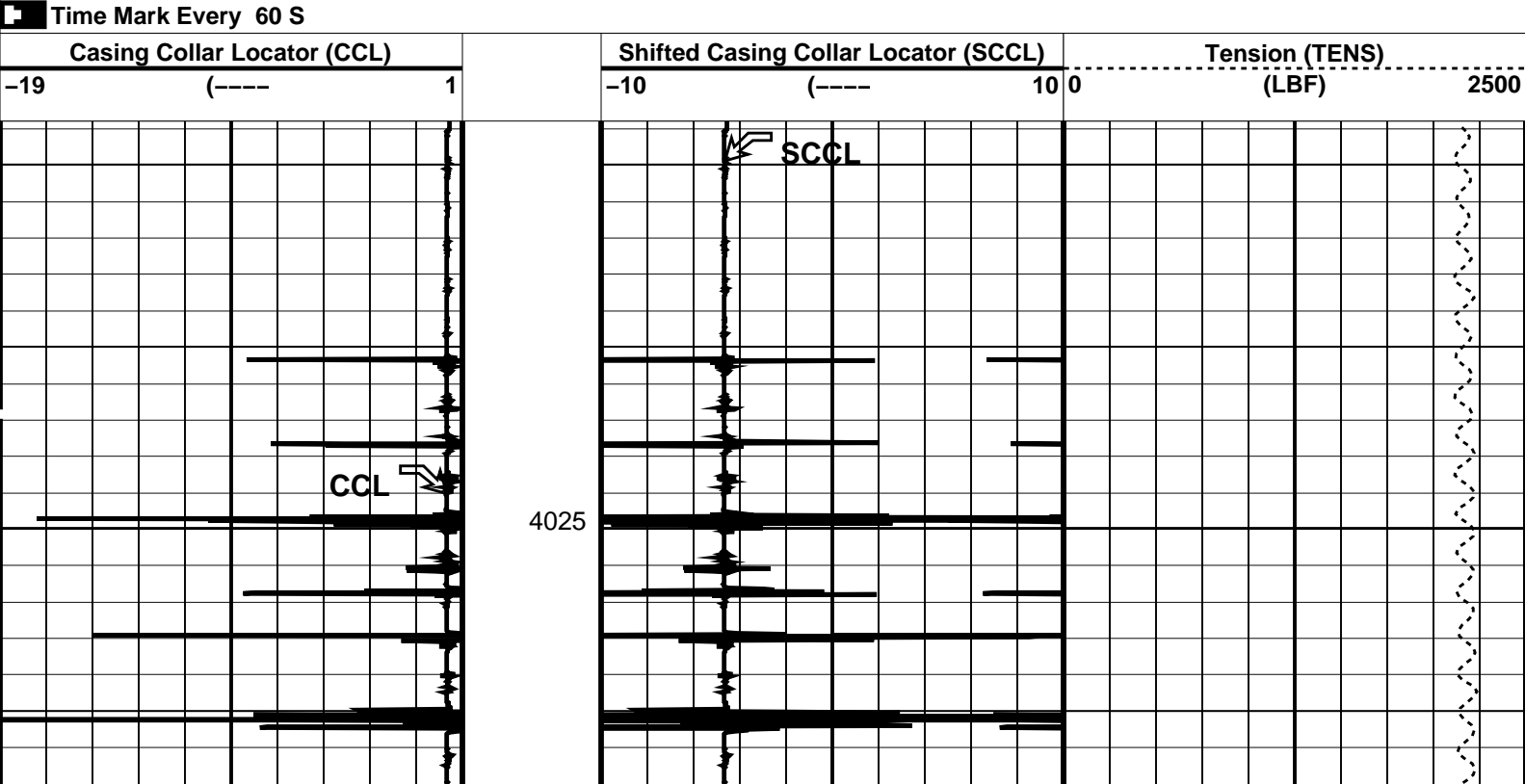
MAXIS Field Log

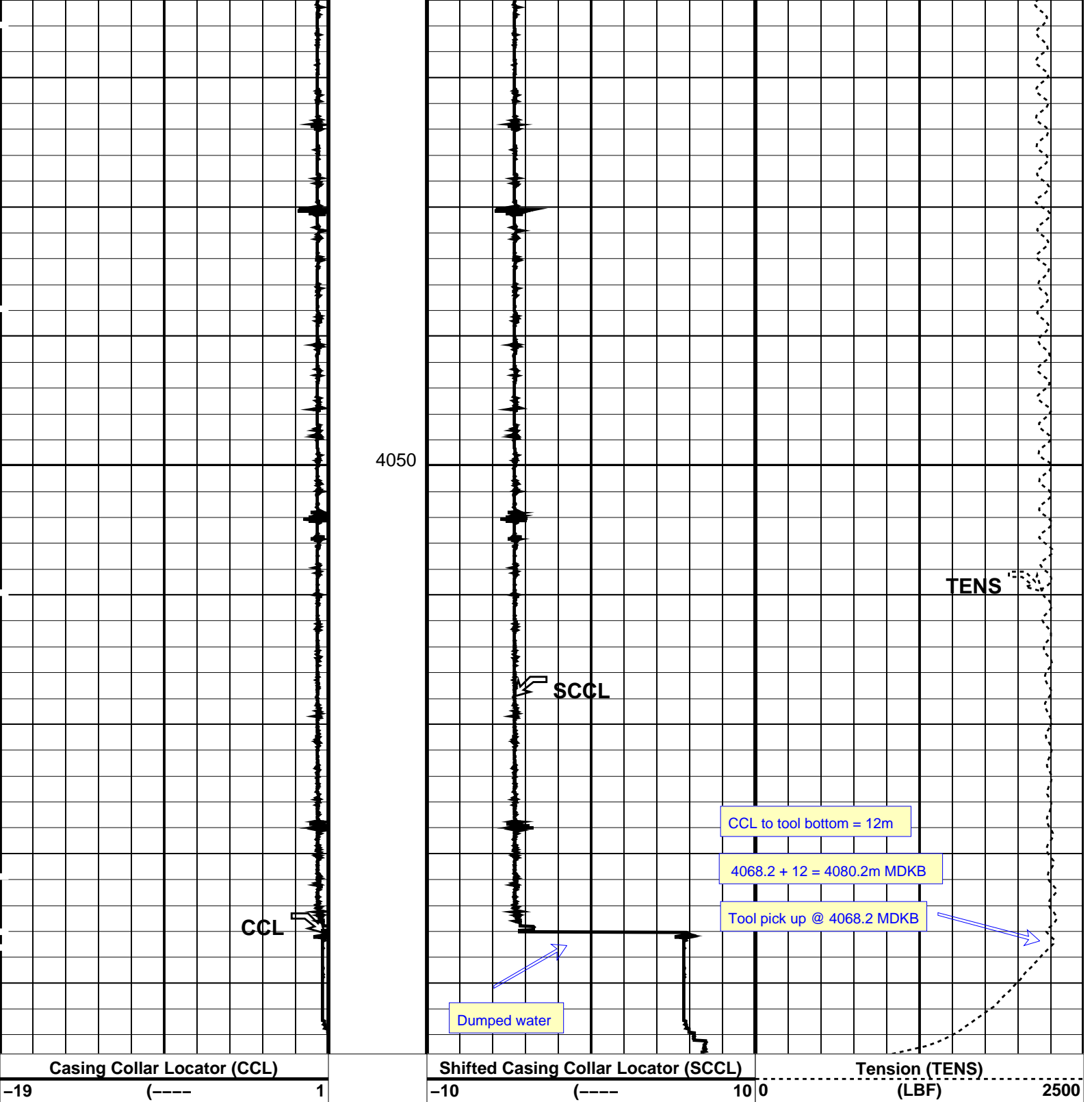
Input DLIS Files					
DEFAULT	PERFO_081LUP	FN:78	PRODUCER	16-Sep-2009 09:45	4071.7 M 4012.7 M
Output DLIS Files					
DEFAULT	PERFO_086PUP	FN:83	PRODUCER	16-Sep-2009 10:06	4072.7 M 4013.8 M

OP System Version: 17C0-154

CCL-L	17C0-154	SHM_GUN	17C0-154
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PIP SUMMARY





PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
CCLD	CCL-L: Casing Collar Locator	12	IN
CCLT	CCL reset delay	0.3	V
	CCL Detection Level		
	System and Miscellaneous		
DO	Depth Offset for Playback	1.0	M
PP	Playback Processing	NORMAL	

Format: PERFO Vertical Scale: 1:200

Graphics File Created: 16-Sep-2009 10:07

CCL-L	17C0-154	SHM_GUN	17C0-154
Input DLIS Files			
DEFAULT	PERFO_081LUP	FN:78	PRODUCER 16-Sep-2009 09:45 4071.7 M 4012.7 M
Output DLIS Files			
DEFAULT	PERFO_086PUP	FN:83	PRODUCER 16-Sep-2009 10:06

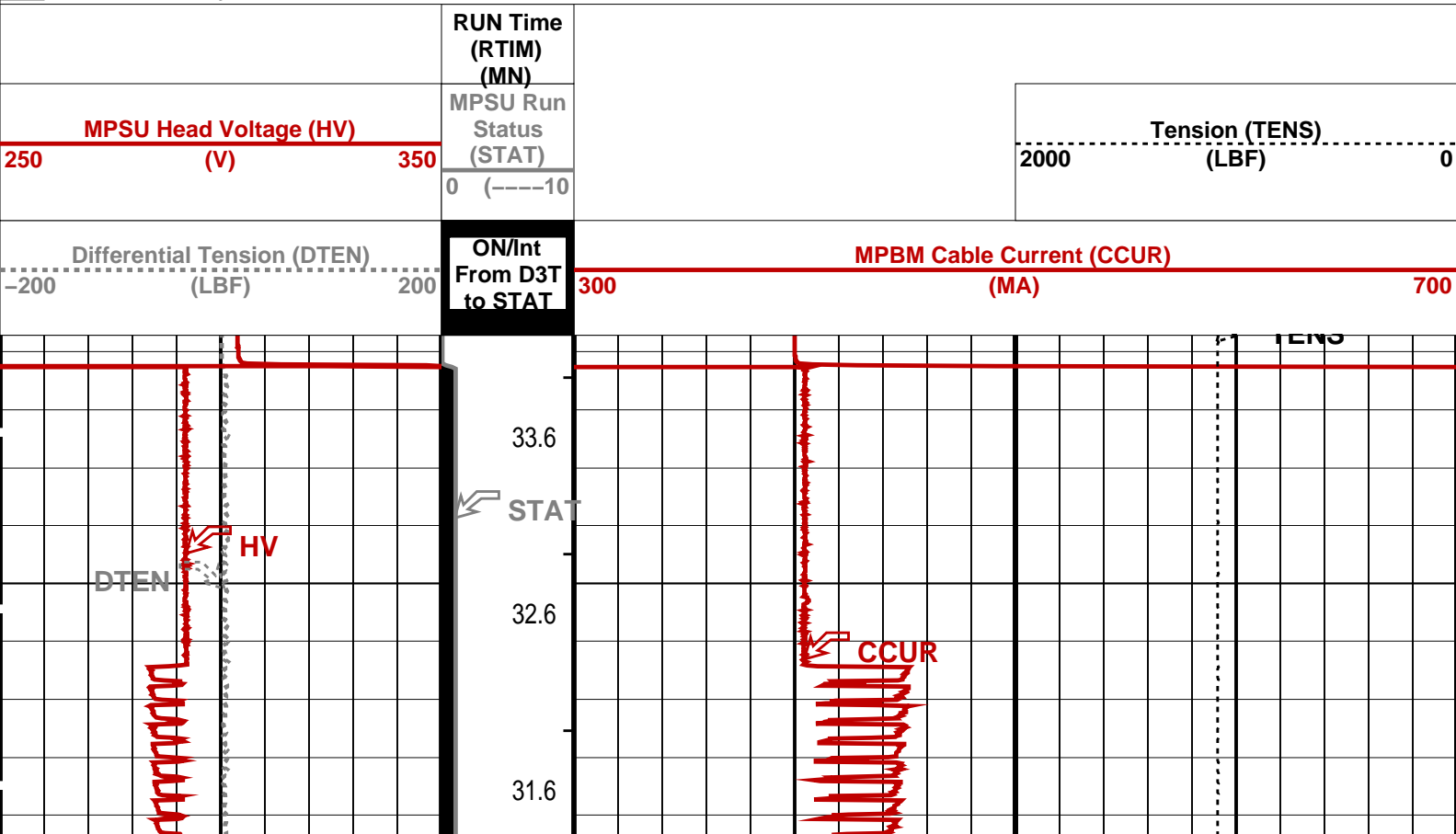


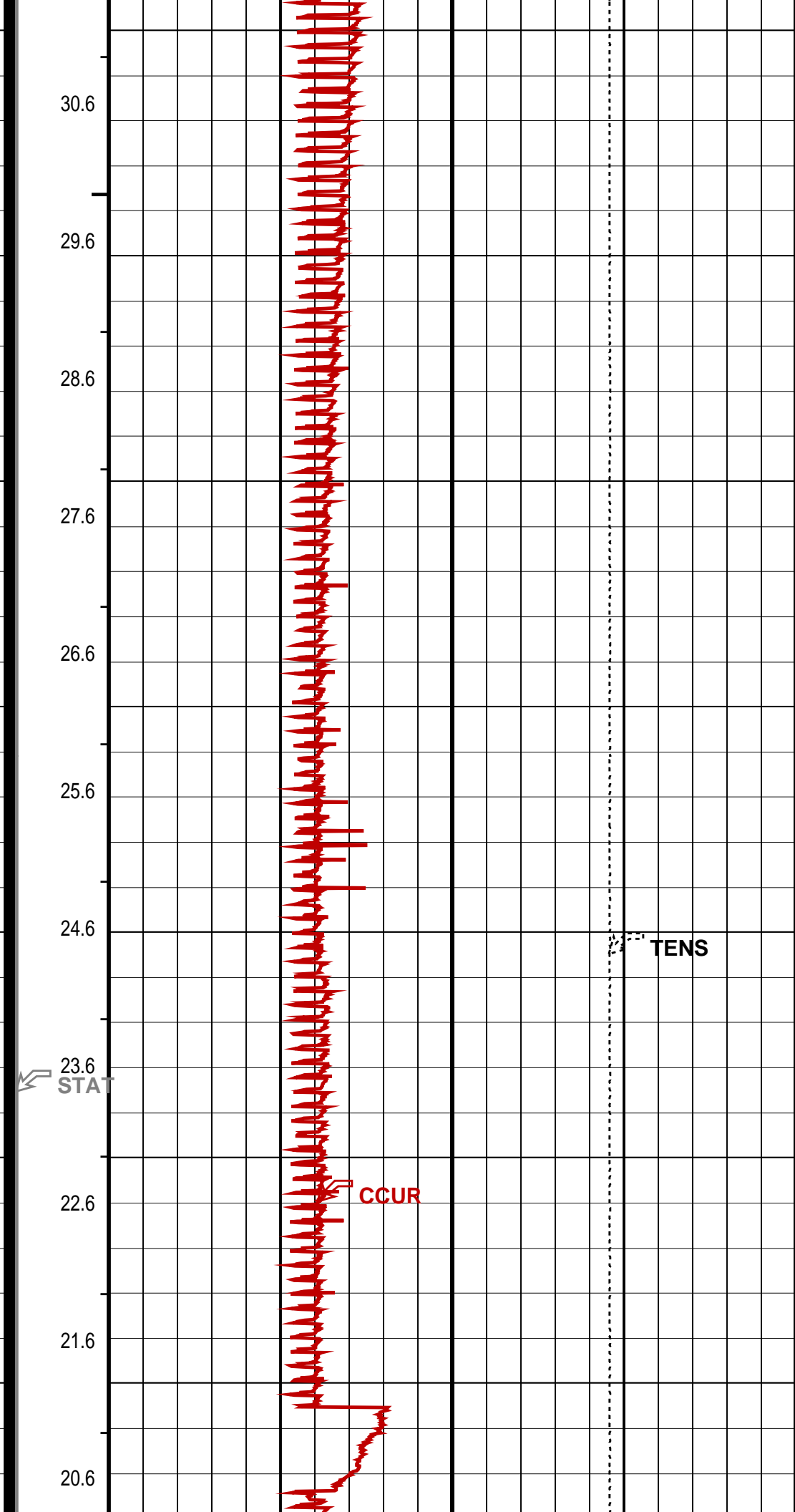
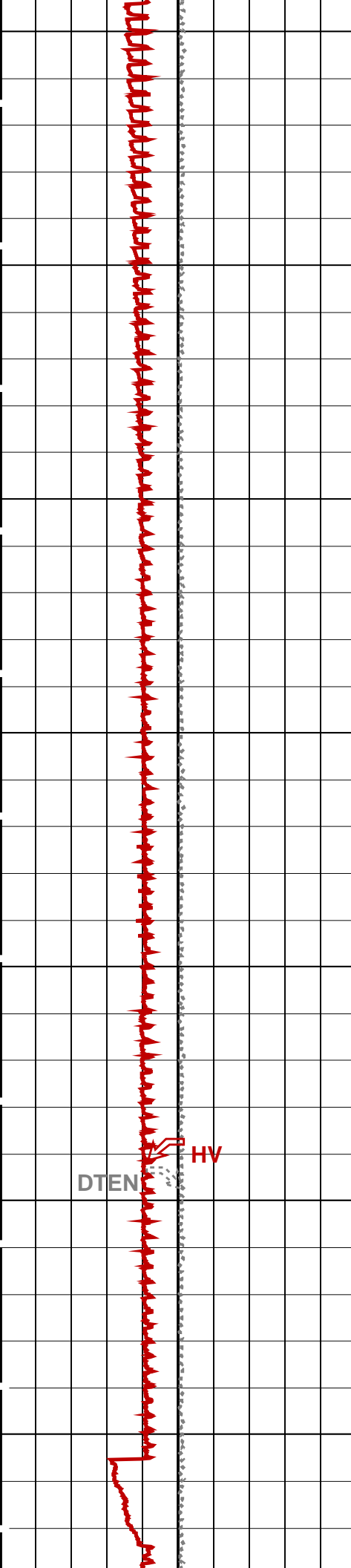
7" Posiset MPBT Plug
Setting pass

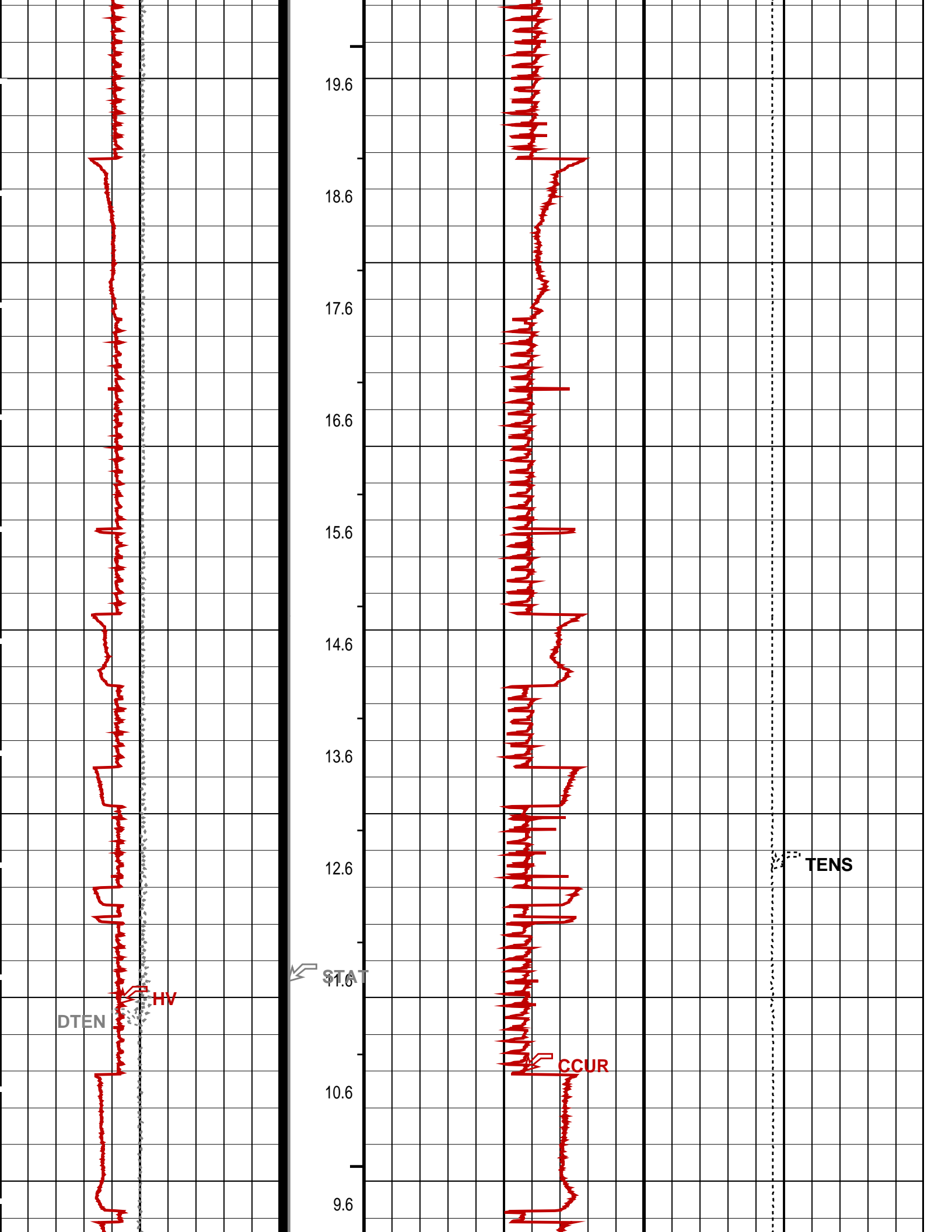
MAXIS Field Log

Output DLIS Files			
DEFAULT	MPBT_074LUP	FN:71	PRODUCER 15-Sep-2009 15:21
OP System Version: 17C0-154			
MPEX-BA	17C0-154	MPSU-CA	17C0-154
CCL-L	17C0-154		

PIP SUMMARY	
└ MPSU Run Time Every 1 MN	
└ MPSU Run Time Every 10 MN	
Time Mark Every 60 S	









Differential Tension (DTEN) (LBF)	ON/Int From D3T to STAT	MPBM Cable Current (CCUR) (MA)	
-200 200		300 700	
MPSU Head Voltage (HV) (V)	MPSU Run Status (STAT)		Tension (TENS) (LBF)
250 350	0 (----10		2000 0
	RUN Time (RTIM) (MN)		

Time Mark Every 60 S

MPSU Run Time Every 1 MN

MPSU Run Time Every 10 MN

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-Sep-2009 15:21

OP System Version: 17C0-154

MPEX-BA	17C0-154	MPSU-CA	17C0-154
CCL-L	17C0-154		

Output DLIS Files

DEFAULT	MPBT_074LUP	FN:71	PRODUCER	15-Sep-2009 15:21
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Schlumberger

7" Posiset MPBT Plug Correlation pass

MAXIS Field Log

Time Mark Every 60 S

Input DLIS Files

DEFAULT	Flip_MPBT_098LUP	PRODUCER	16-Sep-2009 13:04	4073.3 M	4004.9 M
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Output DLIS Files

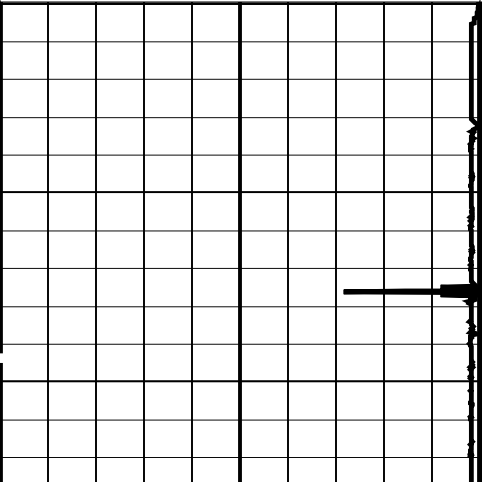
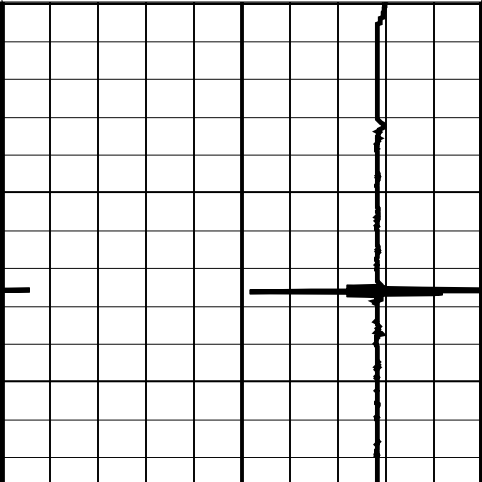
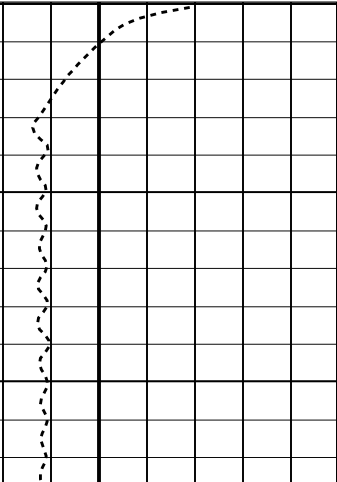
DEFAULT	PERFO_099PUP	FN:95	PRODUCER	16-Sep-2009 13:05	4073.3 M	4004.9 M
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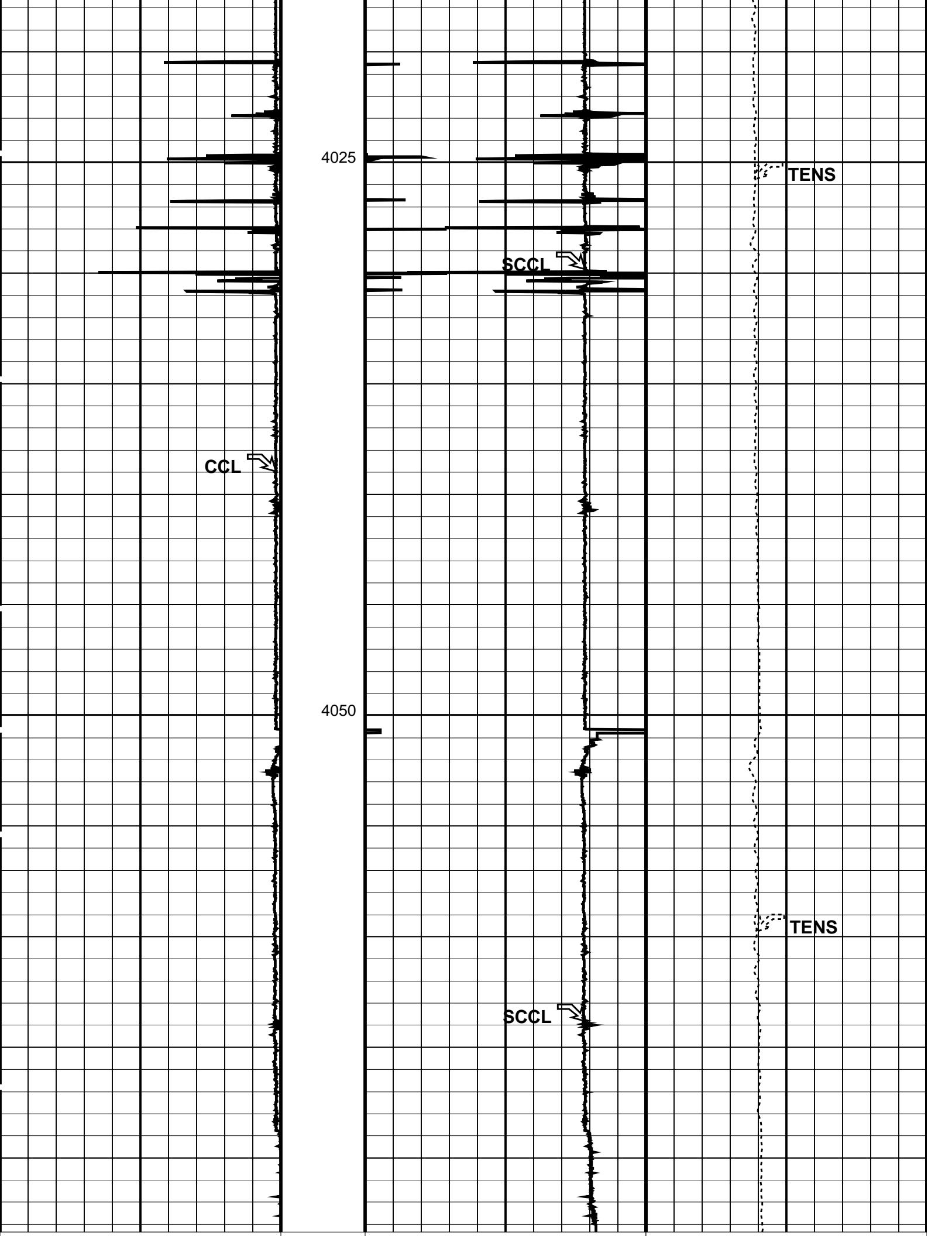
OP System Version: 17C0-154

CCL-L	17C0-154	SHM_GUN	17C0-154
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PIP SUMMARY

Time Mark Every 60 S

Casing Collar Locator (CCL)	Shifted Casing Collar Locator (SCCL)	Tension (TENS)
-19 (----) 1	-10 (----) 10 0	(LBF) 2500
		



Casing Collar Locator (CCL)		Shifted Casing Collar Locator (SCCL)		Tension (TENS)	
-19	(----	1	-10	(----	10 0
			(LBF)		2500

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name		Description	Value	
CCL-L: Casing Collar Locator		CCL reset delay	12	IN
CCLD		CCL Detection Level	0.3	V
CCLT				
System and Miscellaneous				
DO		Depth Offset for Playback	0.0	M
PP		Playback Processing	NORMAL	

Format: PERFO Vertical Scale: 1:200 Graphics File Created: 16-Sep-2009 13:05

OP System Version: 17C0-154

CCL-L 17C0-154 SHM_GUN 17C0-154

Input DLIS Files

DEFAULT Flip_MPBT_098LUP PRODUCER 16-Sep-2009 13:04 4073.3 M 4004.9 M

Output DLIS Files

DEFAULT PERFO_099PUP FN:95 PRODUCER 16-Sep-2009 13:05

Schlumberger

2 1/8" Dummy plug
Correlation pass

MAXIS Field Log

Company: Esso Australia Pty Ltd. Well: A-6

Input DLIS Files

DEFAULT PERFO_060LUP FN:57 PRODUCER 15-Sep-2009 12:05 4082.3 M 4009.5 M

Output DLIS Files

DEFAULT PERFO_061PUP FN:58 PRODUCER 15-Sep-2009 12:13 4084.5 M 4009.2 M

OP System Version: 17C0-154

MWPT-CA 17C0-154 MWGT-AA 17C0-154

PIP SUMMARY

Time Mark Every 60 S

Pressure (SGP)
(PSIA)

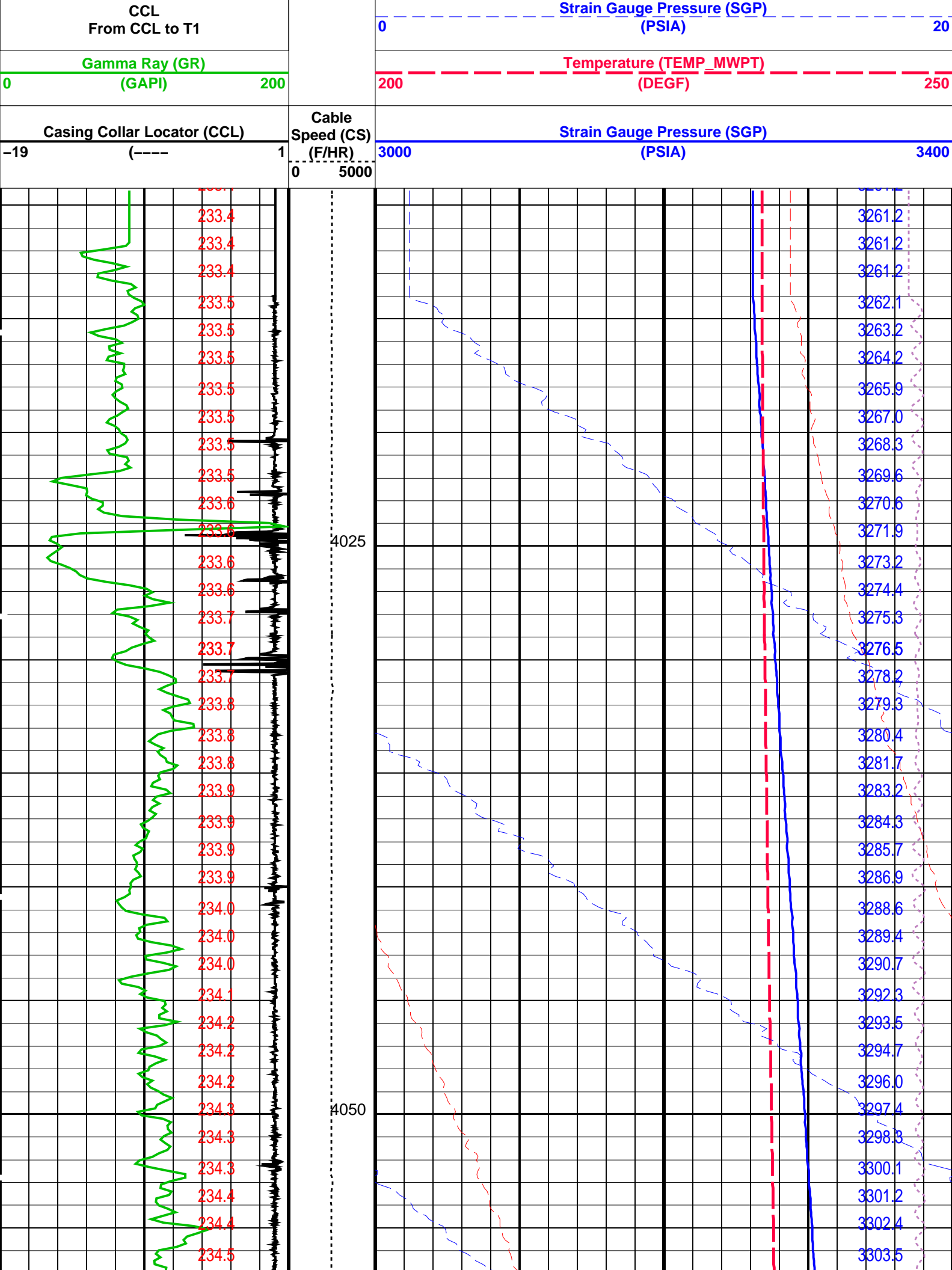
Tension (TENS)
(LBF)

0 2500

Temperature
(TEMP_MWPT)
(DEGF)

Temperature (TEMP_MWPT)
(DEGF)

0 2

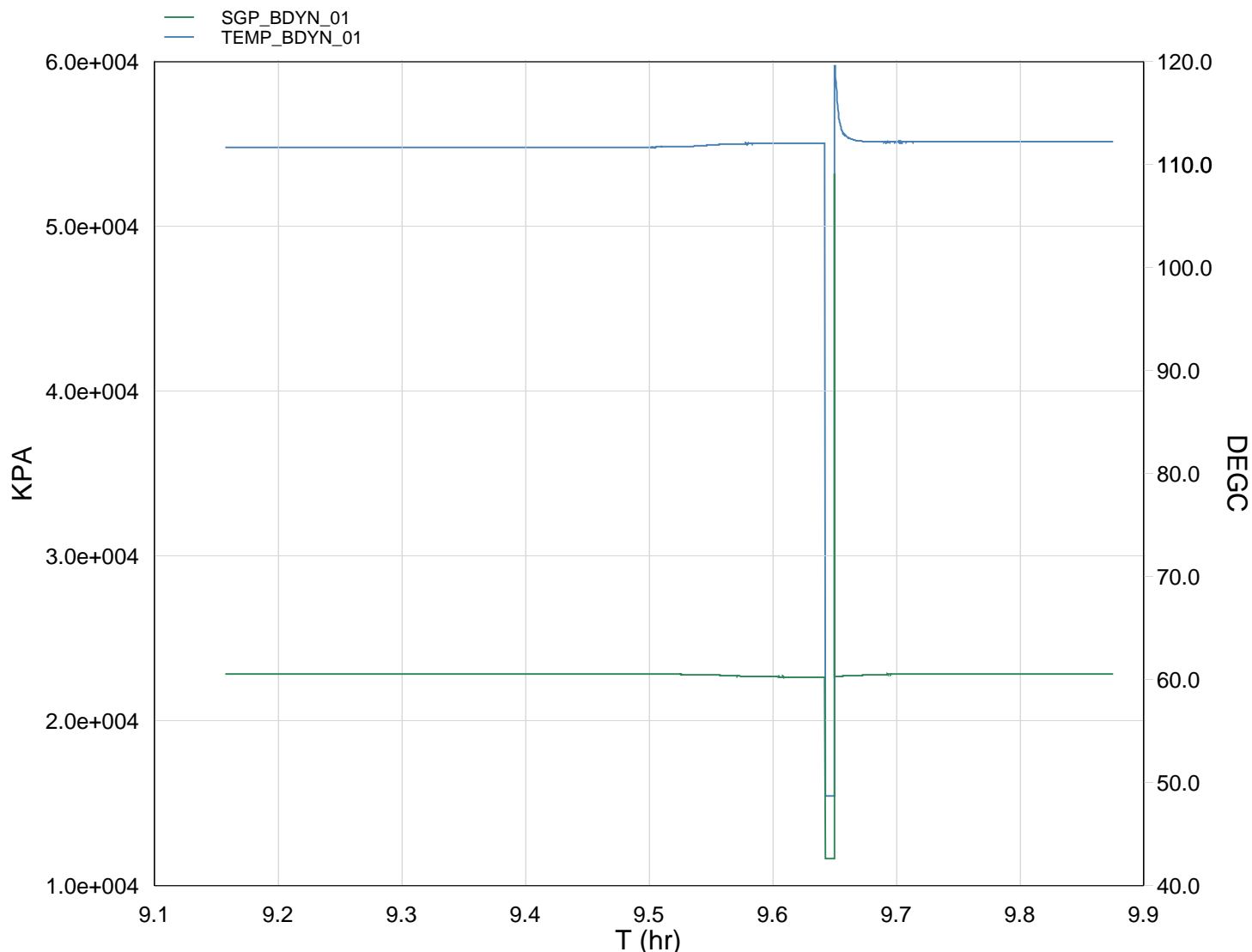


MWPT-CA	17C0-154	MWGT-AA	17C0-154			
Input DLIS Files						
DEFAULT	PERFO_060LUP	FN:57	PRODUCER	15-Sep-2009 12:05	4082.3 M	4009.5 M
Output DLIS Files						
DEFAULT	PERFO_061PUP	FN:58	PRODUCER	15-Sep-2009 12:13		



2 1/8" Phased PowerJet MWPT Station log / well draw down

MAXIS Field Log



TIME	TEMP_MWPT_SL	SGPT_SL
4320.0	233.0445	226.6192
4380.0	233.0317	226.7486
4440.0	233.0267	226.9988
4500.0	233.0375	227.2107
4560.0	233.0466	227.4033
4620.0	233.0544	227.4875
4680.0	233.0501	227.6790
4740.0	233.0530	227.8479
4800.0	233.0535	227.9918
4860.0	233.0614	228.0672
4920.0	233.0576	228.2126
4980.0	233.0576	228.3016
5040.0	233.0588	228.4433
5100.0	233.0629	228.4525
5160.0	233.0795	228.5737
5220.0	233.0701	228.6424
5280.0	233.0632	228.7569
5340.0	233.0763	228.7913
5400.0	233.0731	228.8508
5460.0	233.0757	228.8761
5520.0	233.0915	228.9510
5580.0	233.1136	229.0129
5640.0	233.2738	229.0472
5700.0	233.5119	229.1021
5760.0	233.6429	229.1296
5820.0	233.6899	229.1984
5880.0	233.7121	229.2121
5940.0	233.7270	229.3452
6000.0	233.7340	229.3934
6060.0	236.2241	229.6690
6120.0	234.1059	229.8775
6180.0	233.9757	230.0407
6240.0	233.9675	230.1258
6300.0	233.9722	230.1741
6360.0	233.9973	230.2593
6420.0	233.9857	230.2455
6480.0	233.9971	230.2593
6540.0	233.9971	230.3284
6600.0	233.9836	230.3906
6660.0	234.0029	230.4298
6720.0	233.9786	230.3836
6780.0	233.9909	230.3882
6840.0	233.9772	230.4159

Schlumberger

**2 1/8" Phased PowerJet MWPT
Shooting pass**

MAXIS Field Log

Output DLIS Files

DEFAULT

PERFO_051LUP

FN:48

PRODUCER

15-Sep-2009 09:07 4075.2 M

4015.1 M

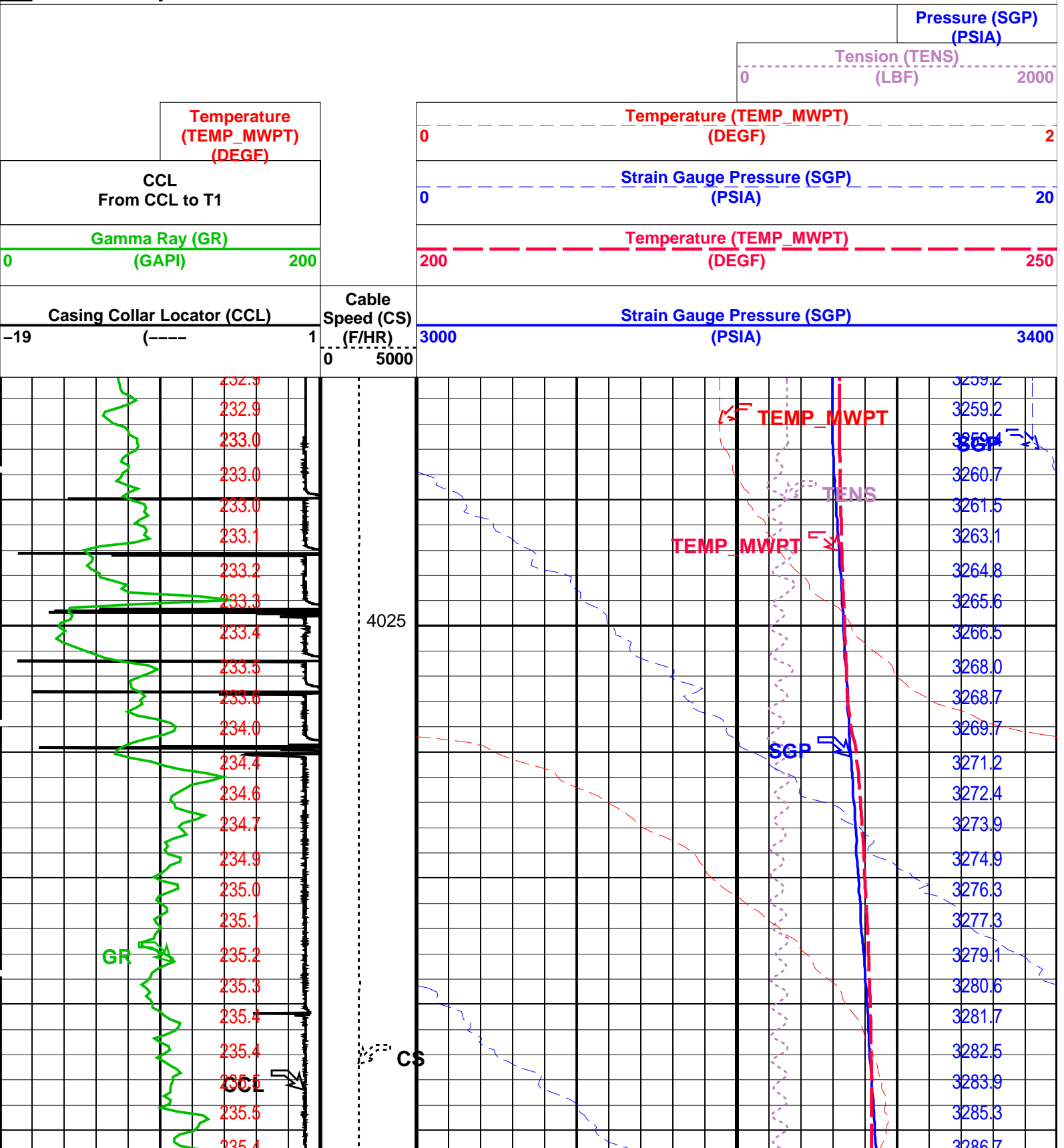
OP System Version: 17C0-154

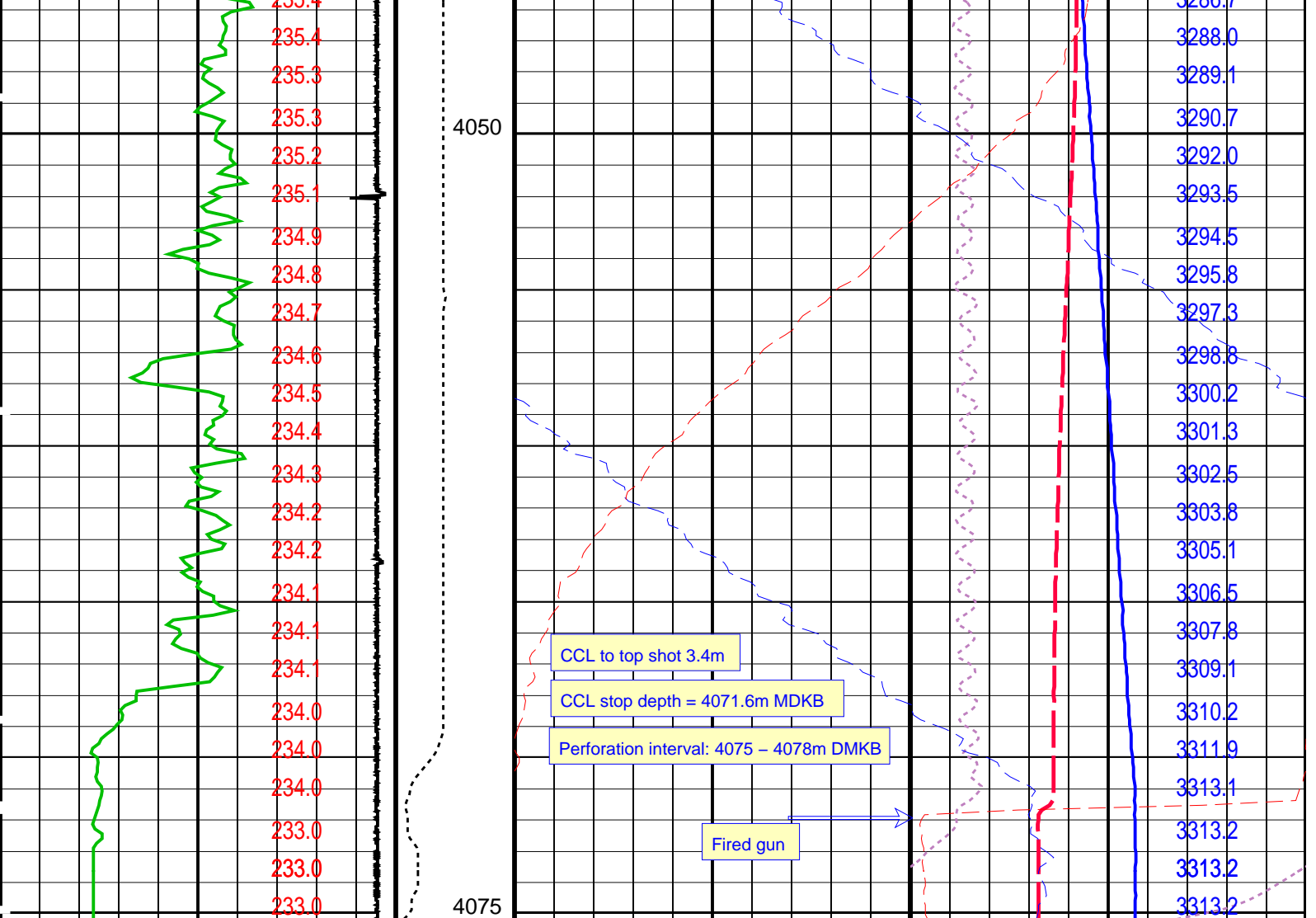
MWP_GUN 17C0-154
MWGT-AA 17C0-154

MWPT-CA 17C0-154

PIP SUMMARY

Time Mark Every 60 S





Casing Collar Locator (CCL)		Cable Speed (CS) (F/HR)	Strain Gauge Pressure (SGP)	
-19	(----		3000	3400
Gamma Ray (GR)		0	Temperature (TEMP_MWPT)	
(GAPI)			(DEGF)	
CCL From CCL to T1		1	Strain Gauge Pressure (SGP)	
			(PSIA)	
Temperature (TEMP_MWPT) (DEGF)		0	Temperature (TEMP_MWPT)	
			(DEGF)	
		200	Tension (TENS)	
			(LBF)	
		0	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-Sep-2009 09:07

MWP_GUN 17C0-154
MWGT-AA 17C0-154

MWPT-CA

17C0-154

Output DLIS Files

DEFAULT PERFO_051LUP

FN:48 PRODUCER 15-Sep-2009 09:07

Schlumberger**2 1/8" Phased PowerJet MWPT
Correlation log**

MAXIS Field Log

Company: Esso Australia Pty Ltd.

Well: A-6

Output DLIS Files

DEFAULT PERFO_050LUP

FN:47 PRODUCER 15-Sep-2009 08:57 4075.2 M 4022.4 M

OP System Version: 17C0-154

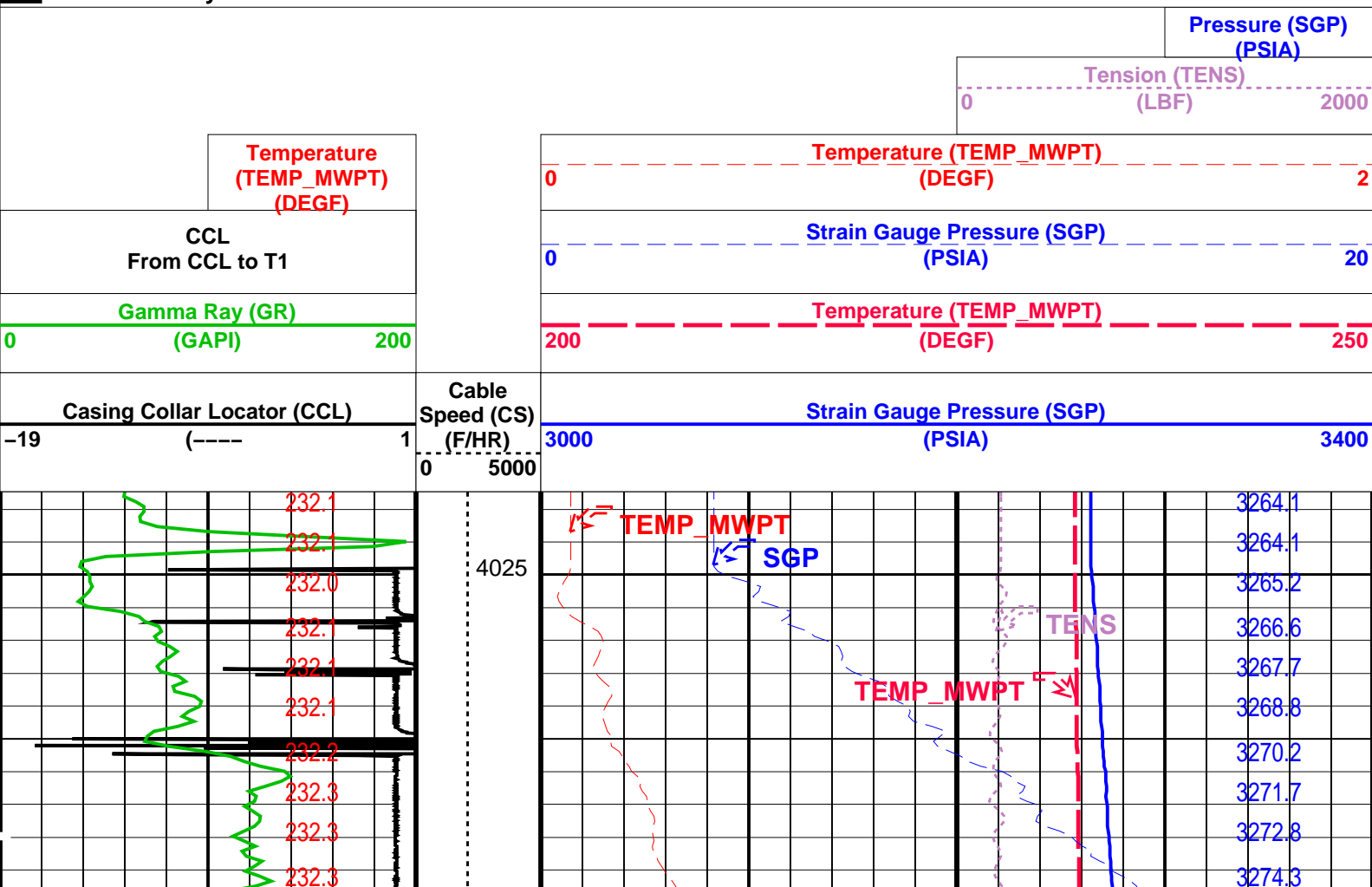
MWP_GUN 17C0-154
MWGT-AA 17C0-154

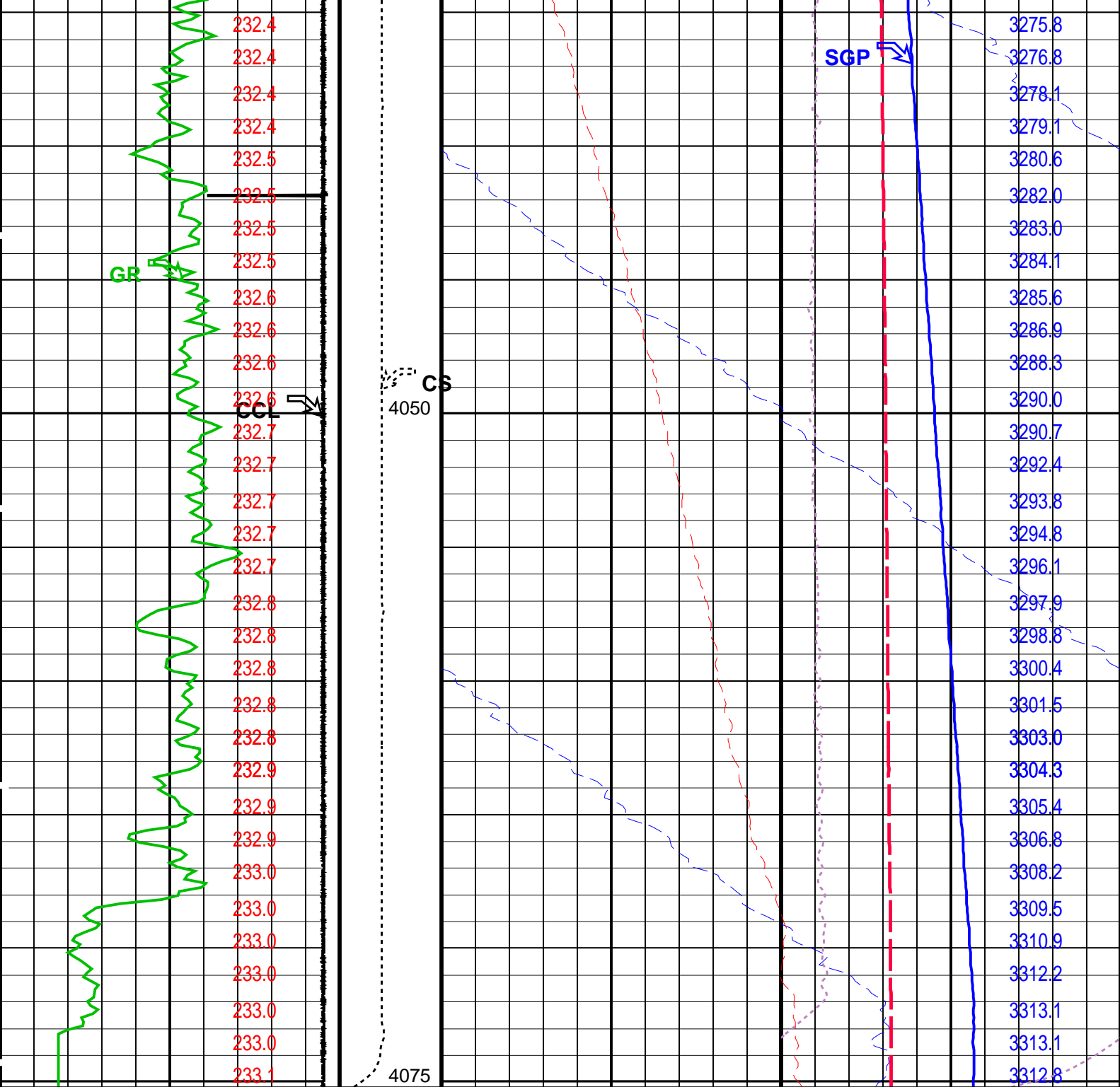
MWPT-CA

17C0-154

PIP SUMMARY

Time Mark Every 60 S





Casing Collar Locator (CCL) -19 (----) 1		Cable Speed (CS) (F/HR) 0 5000		Strain Gauge Pressure (SGP) (PSIA) 3000 3400	
Gamma Ray (GR) (GAPI) 0 200		Temperature (TEMP_MWPT) (DEGF) 200 250		Strain Gauge Pressure (SGP) (PSIA) 0 20	
CCL From CCL to T1		Temperature (TEMP_MWPT) (DEGF) 0 2		Tension (TENS) (LBF) 0 2000	
Temperature (TEMP_MWPT) (DEGF)				Pressure (SGP) (PSIA)	







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-Sep-2009 08:57

MWP_GUN	17C0-154	MWPT-CA	17C0-154
MWGT-AA	17C0-154		

DEFAULT	PERFO_050LUP	FN:47	PRODUCER	15-Sep-2009 08:57
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MEASUREMENT WHILE PERFORMING 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				4.113	Before				105.6	Before				125.0		
After				4.030	After				103.2	After				122.2		
0 (Minimum)				30.00 (Nominal)	120.0 (Maximum)	95.97 (Minimum)				105.6 (Nominal)	115.2 (Maximum)	110.0 (Minimum)			125.0 (Nominal)	140.0 (Maximum)
Before: 14–Sep–2009 16:32					After: 14–Sep–2009 16:35											

Company: **Esso Australia Pty Ltd.**



Well: **A-6**

Field: **Flounder**

Rig: **Crane / Prod4**

Country: **Australia**

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