

**Company: ENI U&TS**

**Well: Guendalina 2 Dir A**

**Field: Guendalina**

**LOG: FSMT-E**

**Country: Italy**

## FSMT-E Run #5 Formation Subsidence Monitoring Tool Log interval 3180 – 3045m

LOG: FSMT-E  
Field: Guendalina  
Location: Adriatic Sea  
Well: Guendalina 2 Dir A  
Company: ENI U&TS

LOCATION	
Adriatic Sea	Elev.: K.B. _____ G.L. -42.00 m D.F. 37.00 m
Permanent Datum: _____	MSL _____ Elev.: 37.00 m
Log Measured From: _____	DF _____ 0.00 m above Perm. Datum
Drilling Measured From: _____	DF _____

RIG: Rigless-MAST	Max. Well Deviation 12.9 deg	Longitude 12 52' 54.083" E	Latitude 44 33' 56.797" N
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Logging Date	21-Nov-2021		
Run Number	5 FSMT		
Depth Driller	3276 m		
Schlumberger Depth	3180 m		
Bottom Log Interval	3180 m		
Top Log Interval	3045 m		
Casing Fluid Type	Production Fluid		
Salinity			
Density	1 g/cm3		
Fluid Level			
BIT/CASING/TUBING STRING			
Bit Size	12.250 in		
From	1340 m		
To	3276 m		
Casing/Tubing Size	9.625 in		
Weight	53.5 lbm/ft		
Grade	T95		
From	0 m		
To	3270.30 m		
Maximum Recorded Temperatures			
Logger On Bottom	Time		
Unit Number	Location		
Recorded By	L. Ciulli		
Witnessed By	M. De Petrillo		

		Run 1	Run 2	Run 3
PVT DATA				
Oil Density				
Water Salinity				
Gas Gravity				
Bo				
Bw				
1/Bq				
Bubble Point Pressure				
Bubble Point Temperature				
Solution GOR				
Maximum Deviation		12.9 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: 22-NOV-2021 8:31:15

### Depth System Equipment

Depth Measuring Device	Tension Device	Logging Cable
Type: IDW-B Serial Number: 6447 Calibration Date: 30-Nov-2020 Calibrator Serial Number: 46 Calibration Cable Type: 2-23ZT Wheel Correction 1: -5 Wheel Correction 2: -4	Type: CMTD-B/A Serial Number: 1798 Calibration Date: 11-Nov-2021 Calibrator Serial Number: 1214 Number of Calibration Points: 10 Calibration RMS: 3 Calibration Peak Error: 7	Type: 2-23ZT Serial Number: Length: 6000 M Conveyance Method: Wireline Rig Type: Rigless

### Depth Control Parameters

Log Sequence:	Subsequent Trip To the Well
Reference Log Name:	FSMT-E RUN #4
Reference Log Run Number:	
Reference Log Date:	11-Nov-2018
Subsequent Trip Down Log Correction:	

### Depth Control Remarks

1. All SLB depth policy followed
2. IDW used as primary depth control, Z-chart as secondary
3.
4.
5.
6.

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OTHER SERVICES1	OTHER SERVICES2
OS1: Dummy run	OS1:
OS2:	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
Log objective: Monitoring formation subsidence by Time Laps technique	
Log correlated with FSMT-E Run #4 performed on 11-Nov-2018	
Tool ID 1.69in, weak point blue 1800-2150lbf with ERS. Tool zero at bottom	
R/A pellet located @ 3060.74m, 3111.22m	
Casing pip tag located @ 3099.54m, 3104.77m, 3114.68m, 3120.82m, 3130.40m	
Casing pip tag located @ 3141.24m, 3151.86m, 3162.26m	

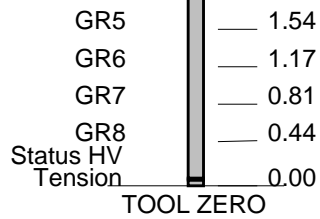
Performed 3 passes @ 300 fh/hr on long string 2 7/8in TBG
TD found @ 3180m, pip tags and bullet below cannot be detected
Before calibration performed on 10-Oct-2021
After calibratino performed on 18-Oct-2022
Rig floor to Tubing Hanger 21.37m, Main deck to Tubing Hanger 5.7m
Pressure Test performed @ 3000 psi, WHP: 12 bar
Adapter flange 3 1/16in 10K, single

RUN 1			RUN 2		
SERVICE ORDER #: PROGRAM VERSION: 19C2-270 FLUID LEVEL:			SERVICE ORDER #: PROGRAM VERSION: FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

**EQUIPMENT DESCRIPTION**

RUN 1	RUN 2
<b>SURFACE EQUIPMENT</b>	
WITM-A PSC_16MHZ	

DOWNHOLE EQUIPMENT			
MH-22 MH-22		16.17	
AH-38		15.69	
ERS ERS-E		15.61	
	Detail MT TelStatus CTEM		
PSPT	— 15.23	15.23	
PSC-A PSPT-B 3787 PSTC-A PBMS-B	GR	14.10	
CQG_F_Mano RTD_Thermometer			
GR	Well_Temp	13.17	
CCL	CQG Manom	13.06	
PBMS	CCL	12.93	
	PBMS PSTC	12.71	
FSMT-E		12.71	
FSMD-B 701 FSMX-A 705 FSMX-A 703 FSMX-A 701 FSMD-C 701 BN	Acc, GR1 GR2 GR3 GR4	11.52 11.15 10.79 10.42	



MAXIMUM STRING DIAMETER 1.69 IN  
 MEASUREMENTS RELATIVE TO TOOL ZERO  
 ALL LENGTHS IN METERS



## Job event summary

MAXIS Field Log

### Schlumberger Job Event Summary

	Time	Elapsed Time	Depth (M)	File
Descent 1: FSMT-E/PSPT/ERS				
Begin Descent	21-Nov-2021 10:30			
Log Pass (up)	21-Nov-2021 12:06	001:29	3180.0 - 3044.0	FSMT_PSP_008LUP
Log Pass (up)	21-Nov-2021 13:41	001:29	3180.0 - 3044.0	FSMT_PSP_009LUP
Log Pass (up)	21-Nov-2021 15:16	001:30	3180.0 - 3044.0	FSMT_PSP_010LUP



## Final result 3180m – 3045m

```

Well Name: Guendalina 2 Dir A
Run Date : 21-Nov-2021
Zone Name:
Tool String: FSMT-E S/N 701
Reference Detector: DET1
Disabled Detector(s): DET1 DET4
File 0: FSMT_4.fsf
File 1: FSMT_5.fsf (Reference File)
File 2: FSMT_6.fsf

```

20-Oct-2021 : Calibrated Detector Spacings at 3.5°C (m ):

```

D12 = 0.369054
D23 = 0.368874
D34 = 0.368310
D45 = 8.895207
D56 = 0.367924
D67 = 0.367093
D78 = 0.369872

```

Marker spacings for each pass :

Distance in m between a marker and the adjacent marker below  
Standard Deviation always in mm

Results on all 3 passes in m :

#	Depth	Spacing Avg. (~21 Meas.)	Std Dev (3 passes)
- 0	3162.26		
1	3151.86	10.39943	10.47898
2	3141.24	10.48722	5.15512
3	3130.40	10.46836	19.10785
4	3119.82	10.52034	8.48489
5	3114.68	5.33361	5.98669
6	3111.22	3.63776	7.66117
7	3104.77	6.80967	12.51003
8	3099.54	5.26242	10.18641
- 9	3060.74	38.82519	7.07463

All Peaks were automatically detected with the following parameters:

```

FSMT_FIT = GAUSSIAN
FSMT_FILTER = 600
FSMT_THRESHOLD = 60

```

Peak at depth 3162.26 m was processed using the following parameters

```

FSMT_PEAKTTYPE = SMALL_PEAK
FSMT_FIT = GAUSSIAN
FSMT_FILTER = 200

```

Peak at depth 3141.24 m was processed using the following parameters

```

FSMT_PEAKTTYPE = SMALL_PEAK
FSMT_FIT = GAUSSIAN
FSMT_FILTER = 200

```

Peak at depth 3114.68 m was processed using the following parameters  
 FSMT\_PEAKEYTYPE = SMALL\_PEAK  
 FSMT\_FIT = GAUSSIAN  
 FSMT\_FILTER = 200

**Schlumberger**

**Pass # 1**  
**3180m – 3045m**

MAXIS Field Log

Company: ENI U&TS Well: Guendalina 2 Dir A

**Input DLIS Files**

DEFAULT	FSMT_PSP_004PUP	FN:3	PRODUCER	21-Nov-2021 20:29	3180.1 M	3044.2 M
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**Output DLIS Files**

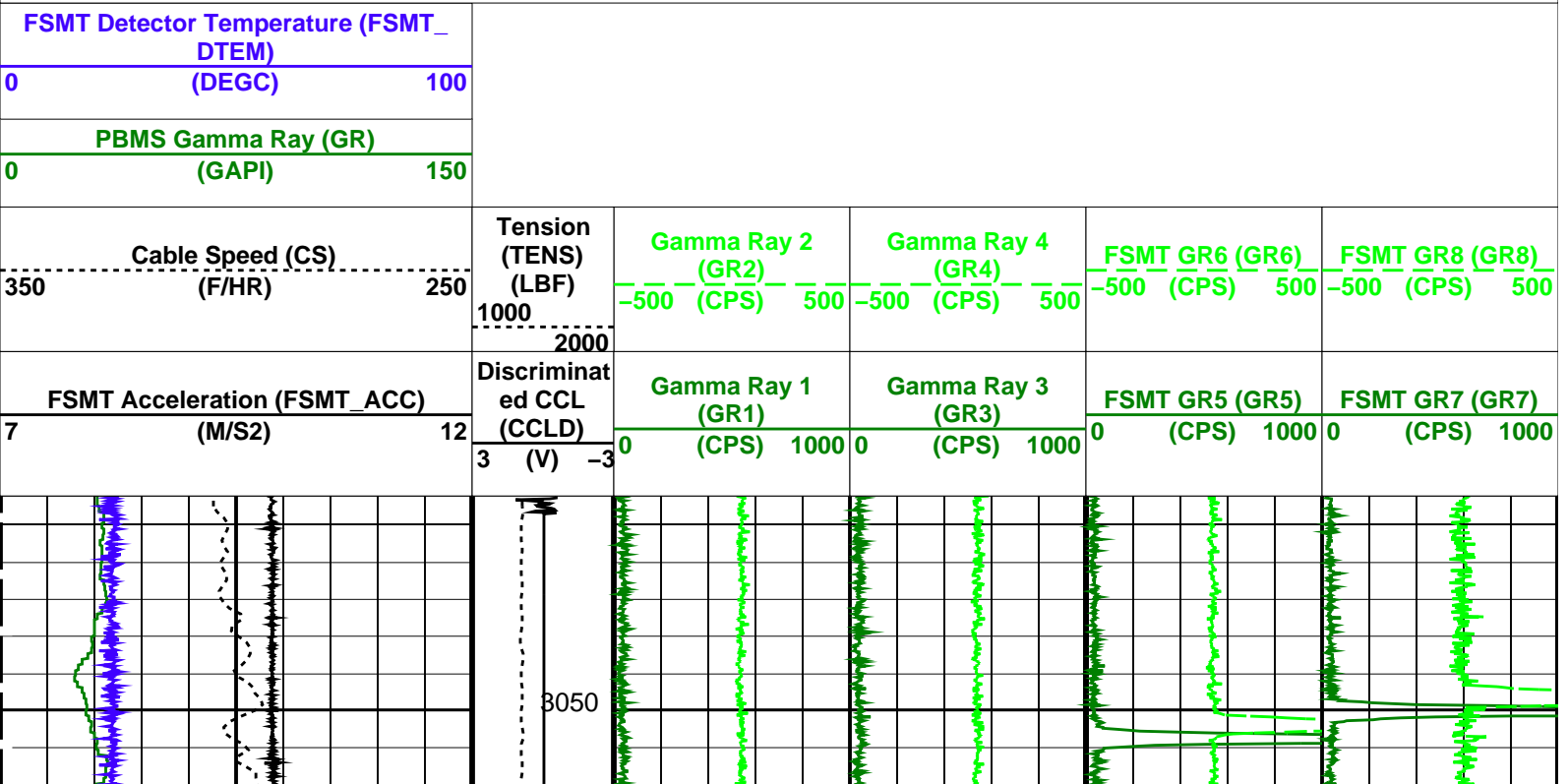
DEFAULT	FSMT_PSP_010PUP	FN:9	PRODUCER	22-Nov-2021 11:31	3180.1 M	3044.2 M
COSTUMER	FSMT_PSP_010PUC	FN:10	CUSTOMER	22-Nov-2021 11:31	3180.1 M	3044.2 M

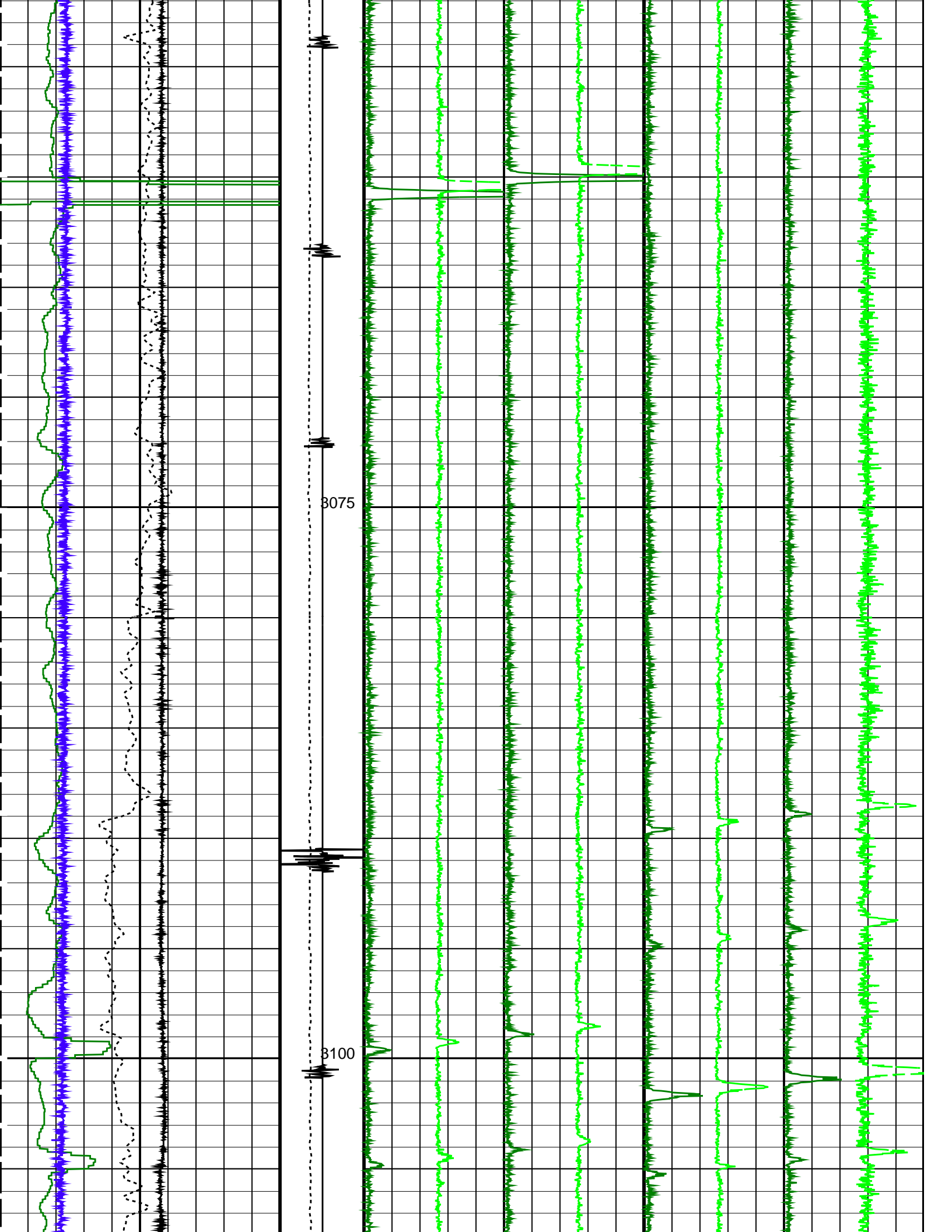
**OP System Version: 19C2-270**

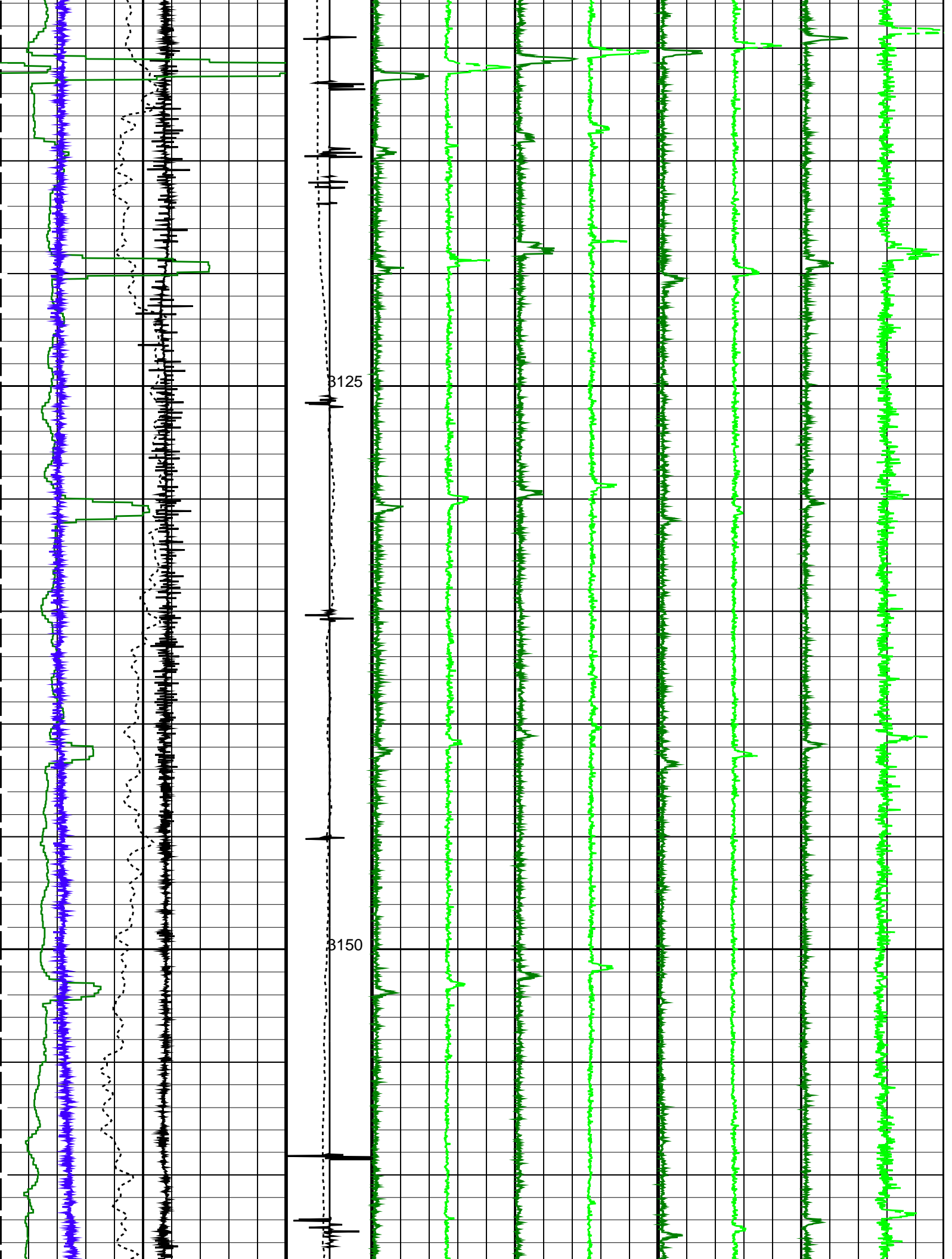
FSMT-E ERS	SRPC-FSMTE-JUNE_2013_OP19C2H1 19C2-270	PSPT	19C2-270
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**PIP SUMMARY**

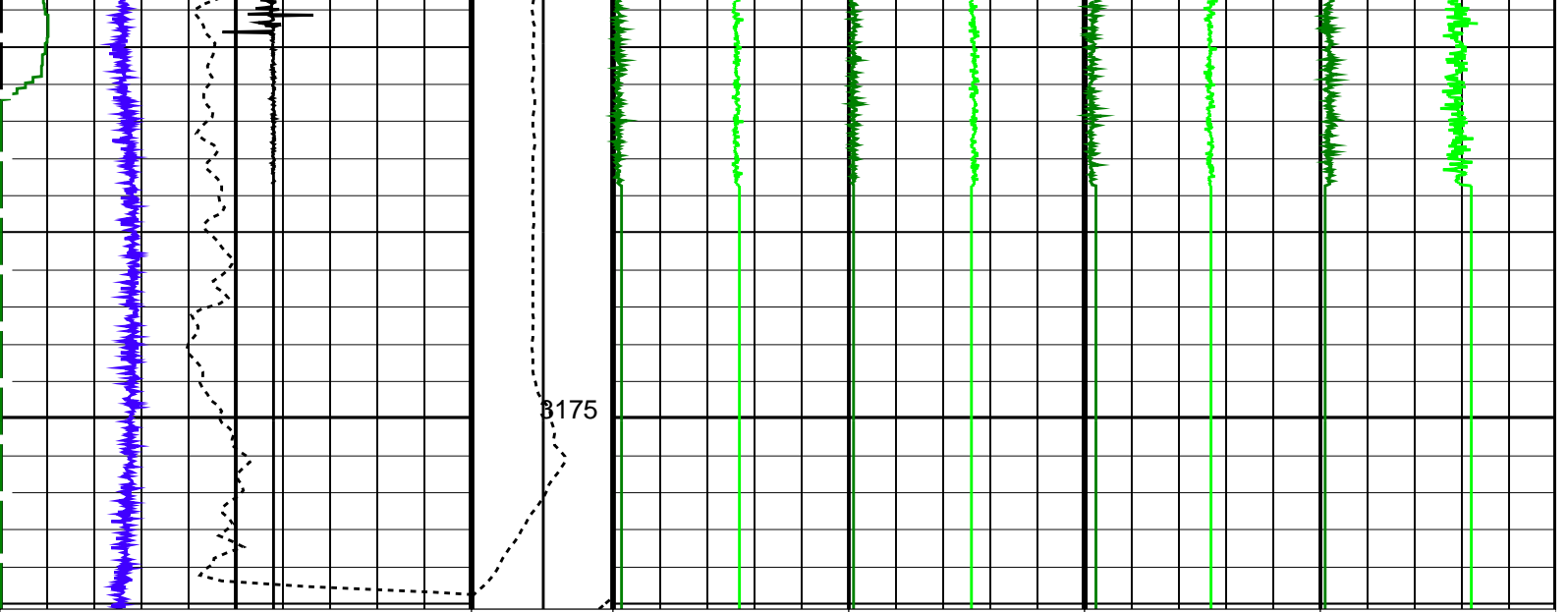
Time Mark Every 60 S











FSMT Acceleration (FSMT_ACC) (M/S2)	Discriminated CCL (CCLD) (V)	Gamma Ray 1 (GR1) (CPS)	Gamma Ray 3 (GR3) (CPS)	FSMT GR5 (GR5) (CPS)	FSMT GR7 (GR7) (CPS)
7 12	3 -3	0 1000	0 1000	0 1000	0 1000
Cable Speed (CS) (F/HR)	Tension (TENS) (LBF)	Gamma Ray 2 (GR2) (CPS)	Gamma Ray 4 (GR4) (CPS)	FSMT GR6 (GR6) (CPS)	FSMT GR8 (GR8) (CPS)
350 250	1000 2000	-500 500	-500 500	-500 500	-500 500
PBMS Gamma Ray (GR) (GAPI)					
0 150					
FSMT Detector Temperature (FSMT_DTEM) (DEGC)					
0 100					

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
DO	System and Miscellaneous	
PP	Depth Offset for Playback	0.0 M
	Playback Processing	NORMAL

Format: FSMT\_Basic Vertical Scale: 1:200 Graphics File Created: 22-Nov-2021 11:31

OP System Version: 19C2-270

FSMT-E SRPC-FSMTE-JUNE\_2013\_OP19C2H1 PSPT 19C2-270  
ERS 19C2-270

Input DLIS Files

DEFAULT FSMT\_PSP\_004PUP FN:3 PRODUCER 21-Nov-2021 20:29 3180.1 M 3044.2 M

Output DLIS Files

DEFAULT FSMT\_PSP\_010PUP FN:9 PRODUCER 22-Nov-2021 11:31  
COSTUMER FSMT\_PSP\_010PUC FN:10 CUSTOMER 22-Nov-2021 11:31

Company: ENI U&TS Well: Guendalina 2 Dir A

### Input DLIS Files

DEFAULT	FSMT_PSP_005PUP	FN:4	PRODUCER	21-Nov-2021 20:31	3180.3 M	3044.3 M
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### Output DLIS Files

DEFAULT	FSMT_PSP_011PUP	FN:11	PRODUCER	22-Nov-2021 11:33	3180.3 M	3044.3 M
COSTUMER	FSMT_PSP_011PUC	FN:12	CUSTOMER	22-Nov-2021 11:33	3180.3 M	3044.3 M

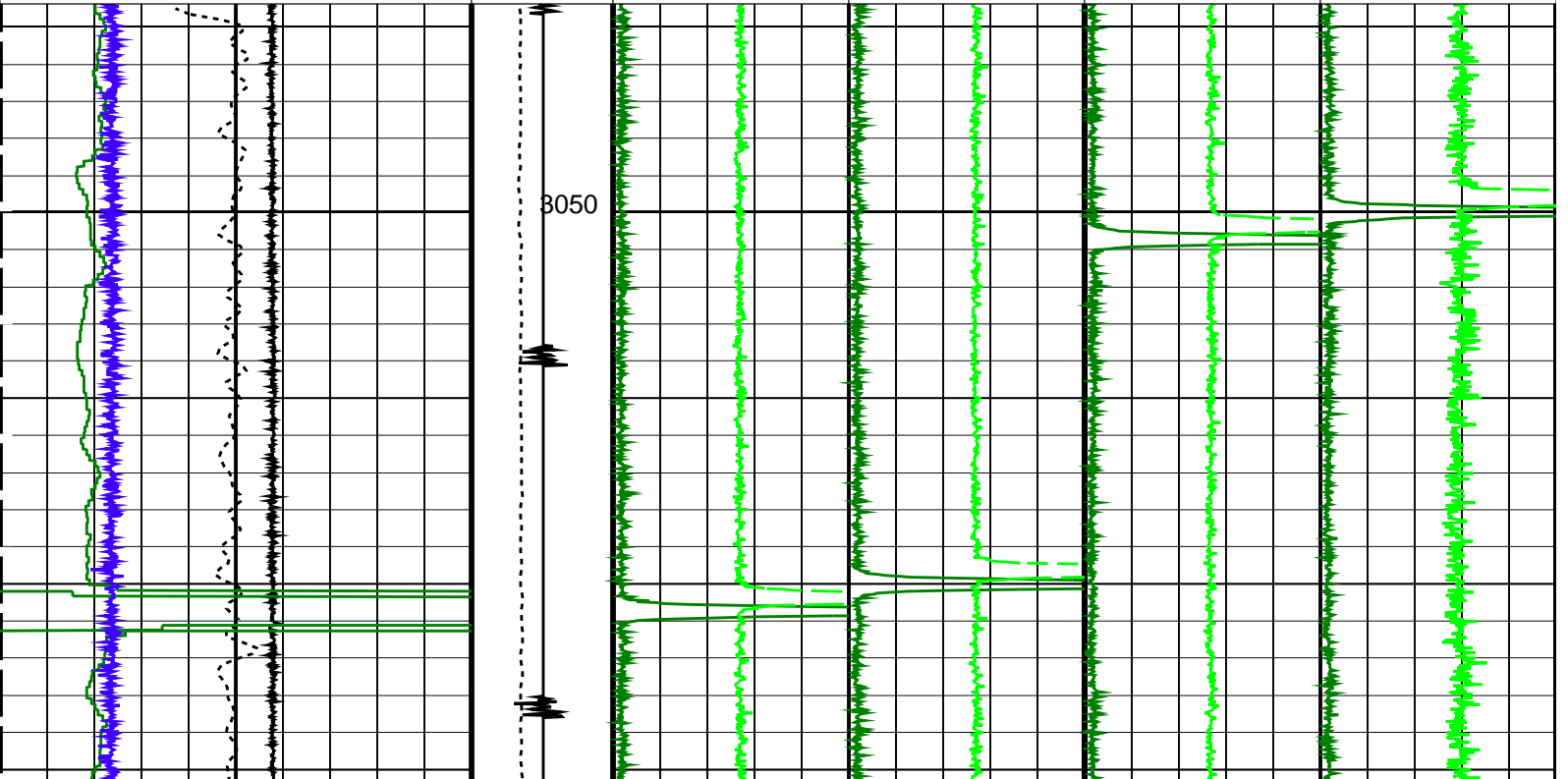
## OP System Version: 19C2-270

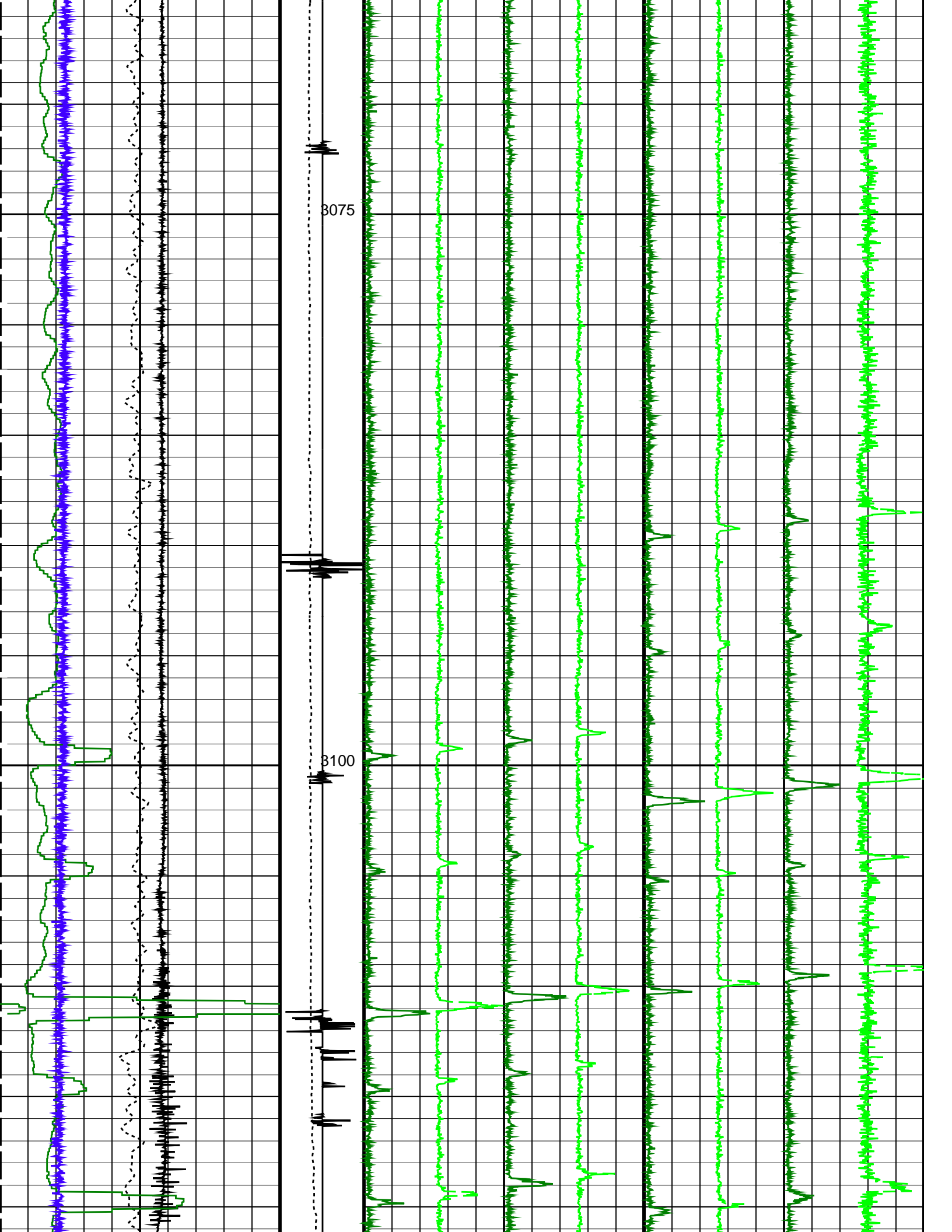
FSMT-E ERS	SRPC-FSMTE-JUNE_2013_OP19C2H1 19C2-270	PSPT	19C2-270
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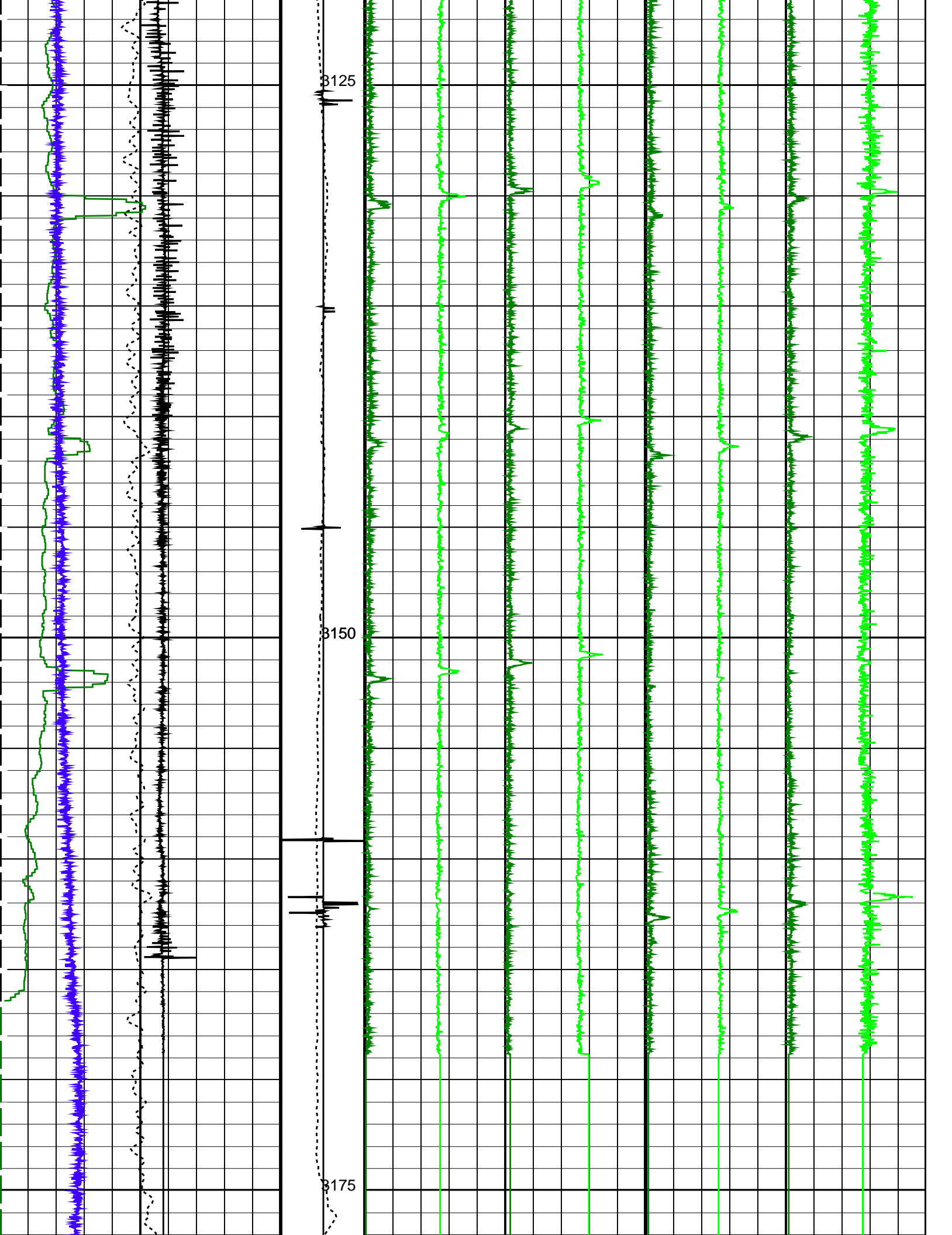
### PIP SUMMARY

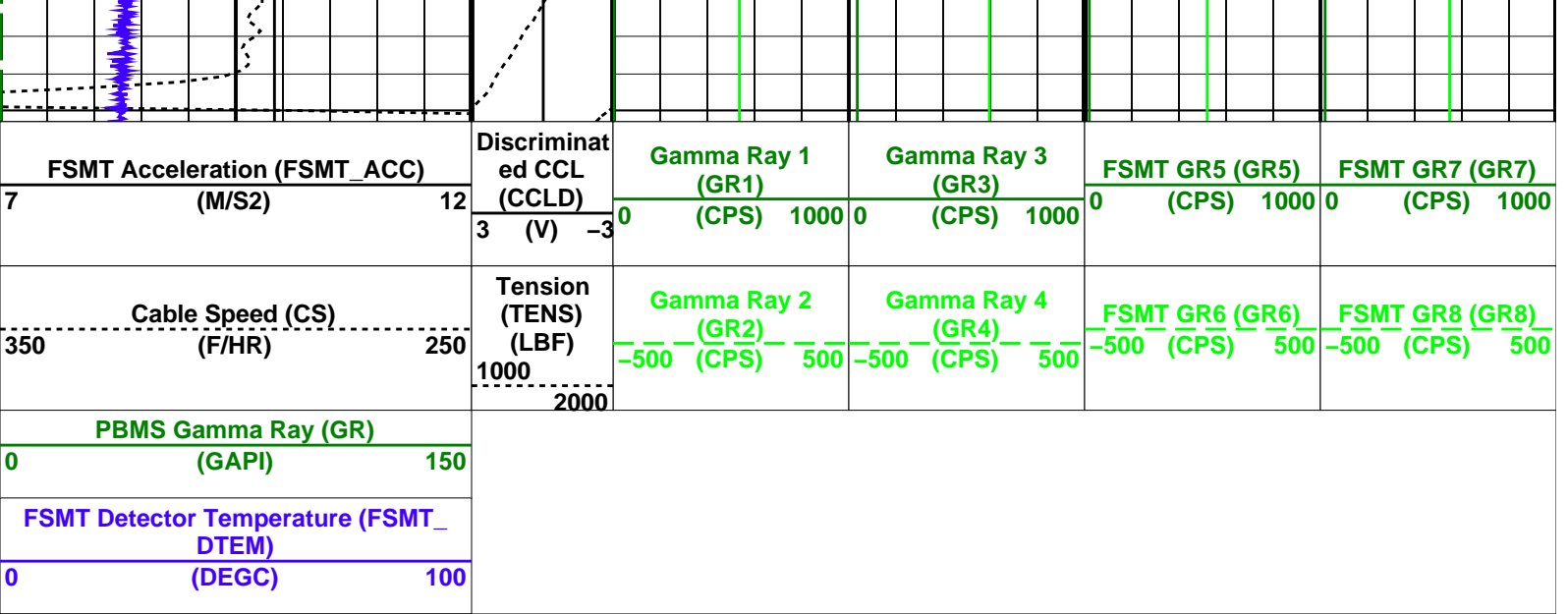
Time Mark Every 60 S

<p style="color: blue; margin: 0;"><b>FSMT Detector Temperature (FSMT_DTEM)</b></p> <p style="margin: 0;">0 (DEGC) 100</p> <hr style="border: 0.5px solid blue;"/> <p style="color: green; margin: 0;"><b>PBMS Gamma Ray (GR)</b></p> <p style="margin: 0;">0 (GAPI) 150</p>	<p style="margin: 0;"><b>Cable Speed (CS)</b></p> <p style="margin: 0;">350 (F/HR) 250</p>	<p style="margin: 0;"><b>Tension (TENS)</b></p> <p style="margin: 0;">1000 (LBF) 2000</p>	<p style="color: green; margin: 0;"><b>Gamma Ray 2 (GR2)</b></p> <p style="margin: 0;">-500 (CPS) 500</p>	<p style="color: green; margin: 0;"><b>Gamma Ray 4 (GR4)</b></p> <p style="margin: 0;">-500 (CPS) 500</p>	<p style="color: green; margin: 0;"><b>FSMT GR6 (GR6)</b></p> <p style="margin: 0;">-500 (CPS) 500</p>	<p style="color: green; margin: 0;"><b>FSMT GR8 (GR8)</b></p> <p style="margin: 0;">-500 (CPS) 500</p>
<p style="margin: 0;"><b>FSMT Acceleration (FSMT_ACC)</b></p> <p style="margin: 0;">7 (M/S2) 12</p>	<p style="margin: 0;"><b>Discriminated CCL (CCLD)</b></p> <p style="margin: 0;">3 (V) -3</p>	<p style="color: green; margin: 0;"><b>Gamma Ray 1 (GR1)</b></p> <p style="margin: 0;">0 (CPS) 1000</p>	<p style="color: green; margin: 0;"><b>Gamma Ray 3 (GR3)</b></p> <p style="margin: 0;">0 (CPS) 1000</p>	<p style="color: green; margin: 0;"><b>FSMT GR5 (GR5)</b></p> <p style="margin: 0;">0 (CPS) 1000</p>	<p style="color: green; margin: 0;"><b>FSMT GR7 (GR7)</b></p> <p style="margin: 0;">0 (CPS) 1000</p>	









PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
DO	System and Miscellaneous	0.0 M
PP	Depth Offset for Playback Playback Processing	NORMAL

Format: FSMT\_Basic

Vertical Scale: 1:200

Graphics File Created: 22-Nov-2021 11:33

OP System Version: 19C2-270

FSMT-E SRPC-FSMTE-JUNE\_2013\_OP19C2H1 PSPT 19C2-270  
ERS 19C2-270

Input DLIS Files

DEFAULT FSMT\_PSP\_005PUP FN:4 PRODUCER 21-Nov-2021 20:31 3180.3 M 3044.3 M

Output DLIS Files

DEFAULT FSMT\_PSP\_011PUP FN:11 PRODUCER 22-Nov-2021 11:33  
COSTUMER FSMT\_PSP\_011PUC FN:12 CUSTOMER 22-Nov-2021 11:33



Pass # 3  
3180m - 3045m

MAXIS Field Log

Company: ENI U&TS

Well: Guendalina 2 Dir A

Input DLIS Files

DEFAULT FSMT\_PSP\_006PUP FN:5 PRODUCER 21-Nov-2021 20:32 3180.4 M 3044.5 M

Output DLIS Files

DEFAULT FSMT\_PSP\_010PUP FN:10 PRODUCER 22-Nov-2021 11:34 3180.4 M 3044.5 M

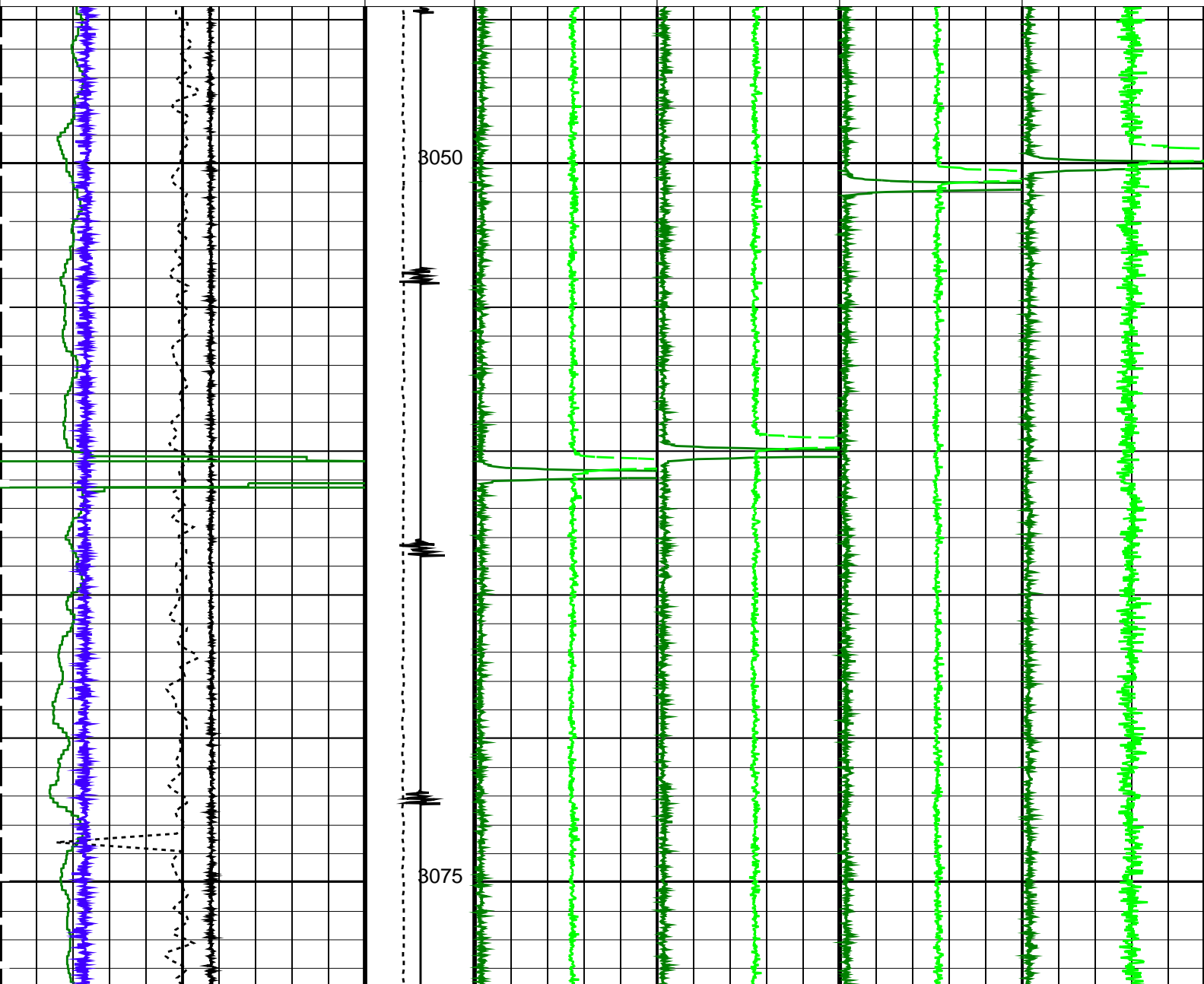
## OP System Version: 19C2-270

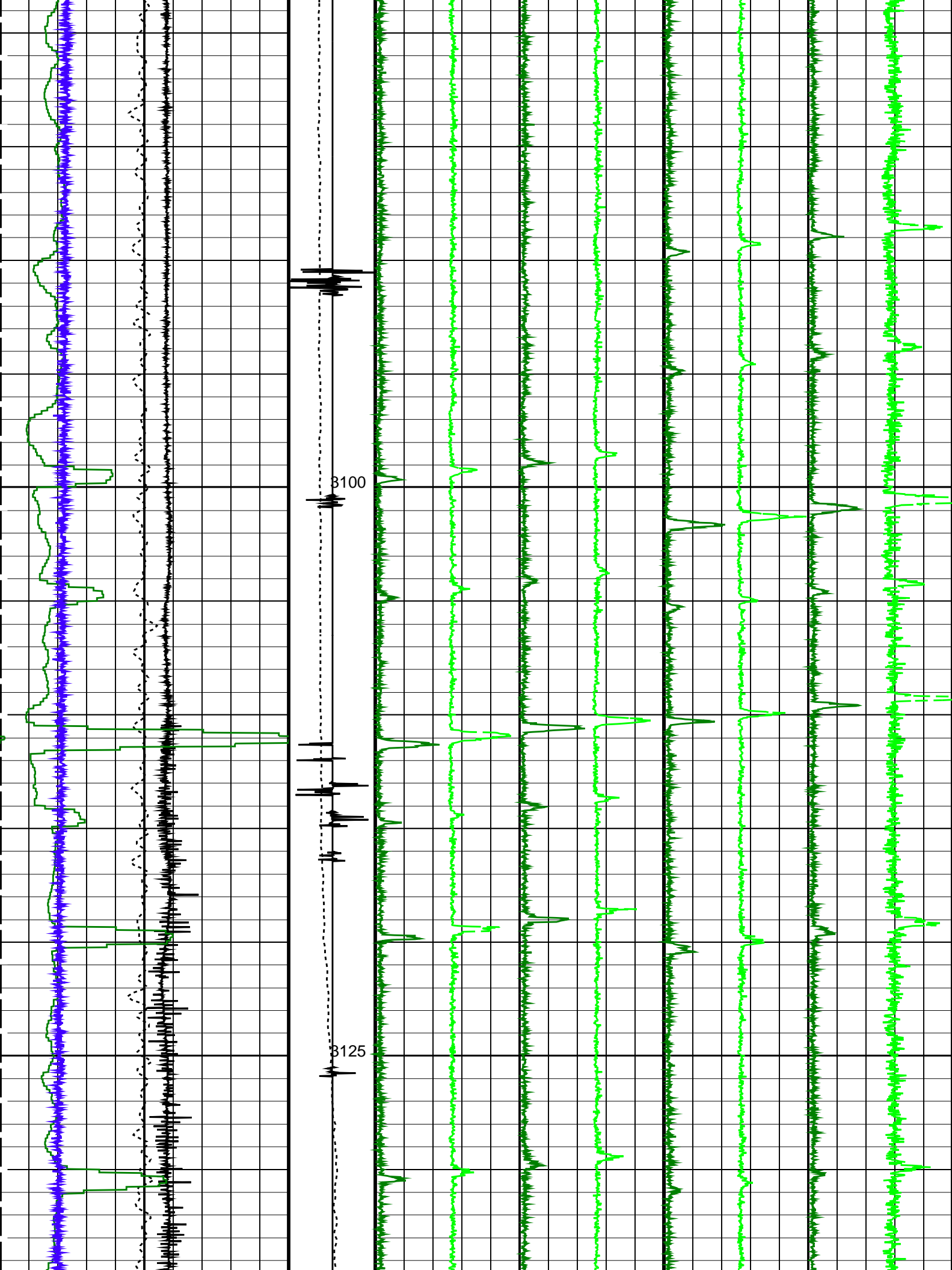
FSMT-E ERS	SRPC-FSMTE-JUNE_2013_OP19C2H1 19C2-270	PSPT	19C2-270
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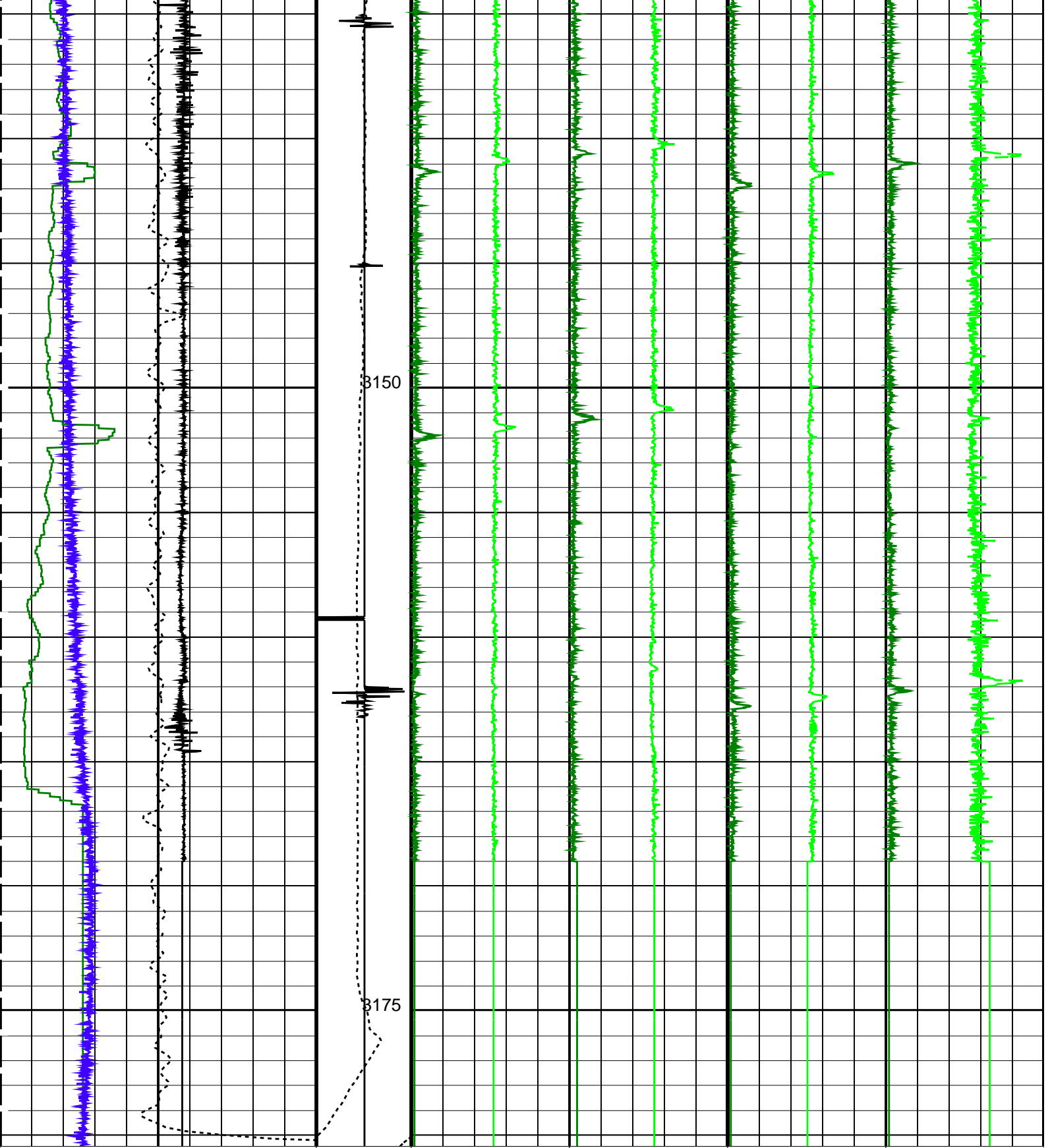
### PIP SUMMARY

Time Mark Every 60 S

<p style="color: blue;">FSMT Detector Temperature (FSMT_DTEM)</p> <p style="color: blue;">0 (DEGC) 100</p> <hr style="border: 1px solid blue;"/> <p style="color: green;">PBMS Gamma Ray (GR)</p> <p style="color: green;">0 (GAPI) 150</p>	<p>Cable Speed (CS)</p> <p>350 (F/HR) 250</p> <hr style="border-top: 1px dashed black;"/> <p>Tension (TENS) (LBF)</p> <p>1000 2000</p>	<p style="color: green;">Gamma Ray 2 (GR2)</p> <p style="color: green;">-500 (CPS) 500</p>	<p style="color: green;">Gamma Ray 4 (GR4)</p> <p style="color: green;">-500 (CPS) 500</p>	<p style="color: green;">FSMT GR6 (GR6)</p> <p style="color: green;">-500 (CPS) 500</p>	<p style="color: green;">FSMT GR8 (GR8)</p> <p style="color: green;">-500 (CPS) 500</p>
<p>FSMT Acceleration (FSMT_ACC)</p> <p>7 (M/S2) 12</p>	<p>Discriminated CCL (CCLD)</p> <p>3 (V) -3</p>	<p style="color: green;">Gamma Ray 1 (GR1)</p> <p style="color: green;">0 (CPS) 1000</p>	<p style="color: green;">Gamma Ray 3 (GR3)</p> <p style="color: green;">0 (CPS) 1000</p>	<p style="color: green;">FSMT GR5 (GR5)</p> <p style="color: green;">0 (CPS) 1000</p>	<p style="color: green;">FSMT GR7 (GR7)</p> <p style="color: green;">0 (CPS) 1000</p>







<b>FSMT Acceleration (FSMT_ACC)</b> (M/S <sup>2</sup> )	<b>Discriminat ed CCL (CCLD)</b> (V)	<b>Gamma Ray 1 (GR1)</b> (CPS)	<b>Gamma Ray 3 (GR3)</b> (CPS)	<b>FSMT GR5 (GR5)</b> (CPS)	<b>FSMT GR7 (GR7)</b> (CPS)
<b>Cable Speed (CS)</b> (F/HR)	<b>Tension (TENS) (LBF)</b>	<b>Gamma Ray 2 (GR2)</b> (CPS)	<b>Gamma Ray 4 (GR4)</b> (CPS)	<b>FSMT GR6 (GR6)</b> (CPS)	<b>FSMT GR8 (GR8)</b> (CPS)
<b>PBMS Gamma Ray (GR)</b> (GAPI)					



FSMT Detector Temperature (FSMT_DTEM)		
0	(DEGC)	100

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
DO	System and Miscellaneous	
PP	Depth Offset for Playback	0.0 M
	Playback Processing	NORMAL

Format: FSMT\_Basic Vertical Scale: 1:200 Graphics File Created: 22-Nov-2021 11:34

OP System Version: 19C2-270

FSMT-E ERS	SRPC-FSMTE-JUNE_2013_OP19C2H1 19C2-270	PSPT	19C2-270
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Input DLIS Files

DEFAULT	FSMT_PSP_006PUP	FN:5	PRODUCER	21-Nov-2021 20:32	3180.4 M	3044.5 M
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Output DLIS Files

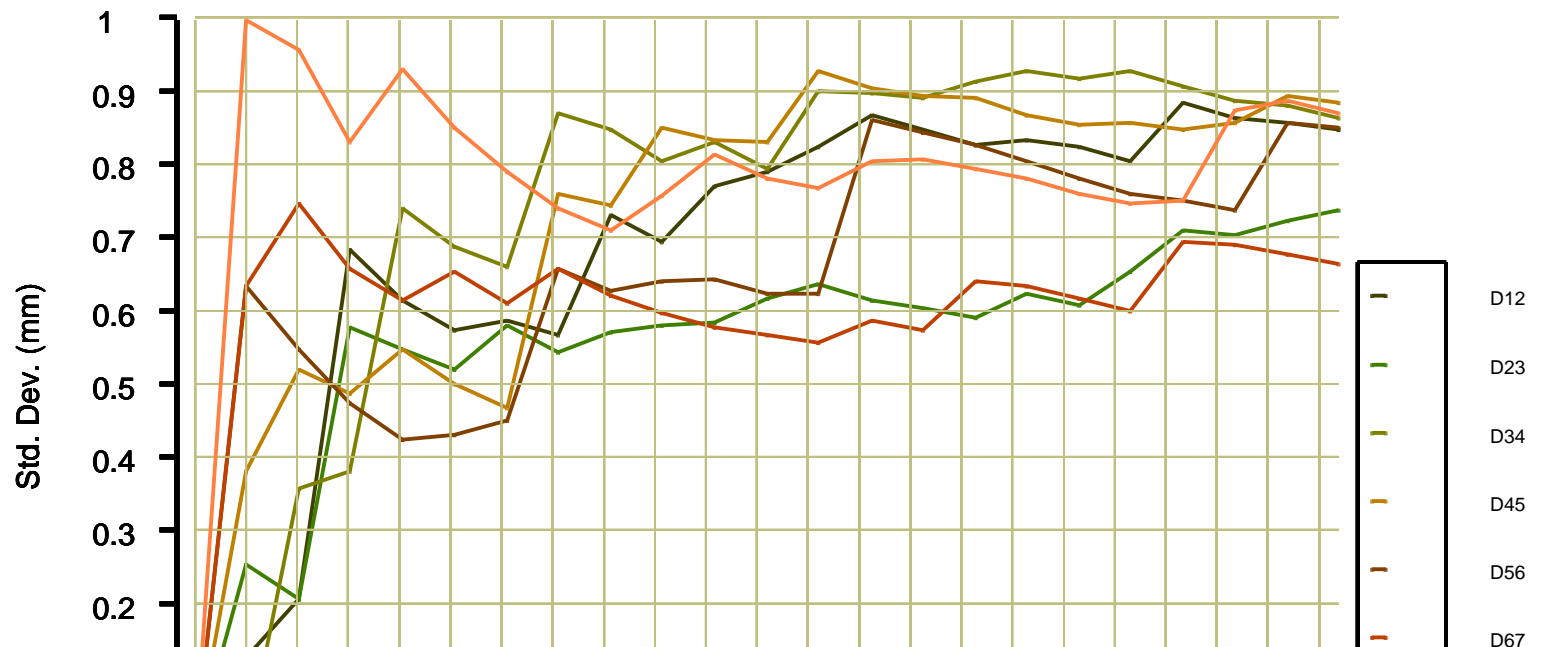
DEFAULT	FSMT_PSP_012PUP	FN:13	PRODUCER	22-Nov-2021 11:34
COSTUMER	FSMT_PSP_012PUC	FN:14	CUSTOMER	22-Nov-2021 11:34

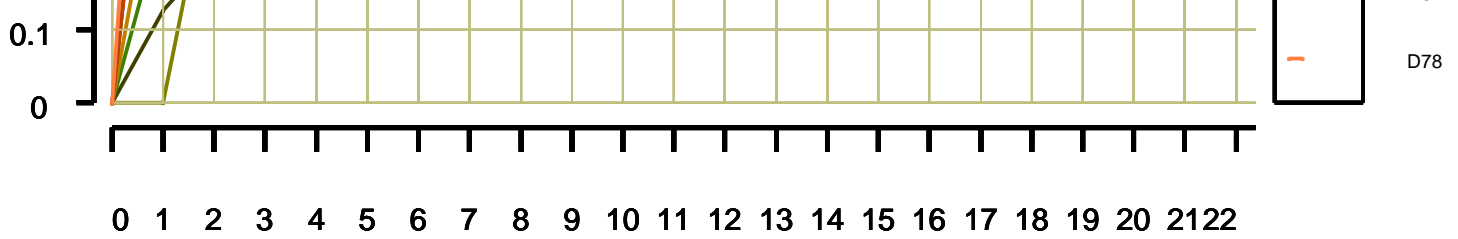


Before Calibration

MAXIS Field Log

20-Oct-2021 - FSMT-E SN 701 - Cumulative Standard Deviation (at 3.5°C)





### Calibration passes

DET12 = 0.369054 m (± 0.85 mm )

DET23 = 0.368874 m (± 0.74 mm )

DET34 = 0.368311 m (± 0.87 mm )

DET45 = 8.895202 m (± 0.89 mm )

DET56 = 0.367925 m (± 0.85 mm )

DET67 = 0.367093 m (± 0.66 mm )

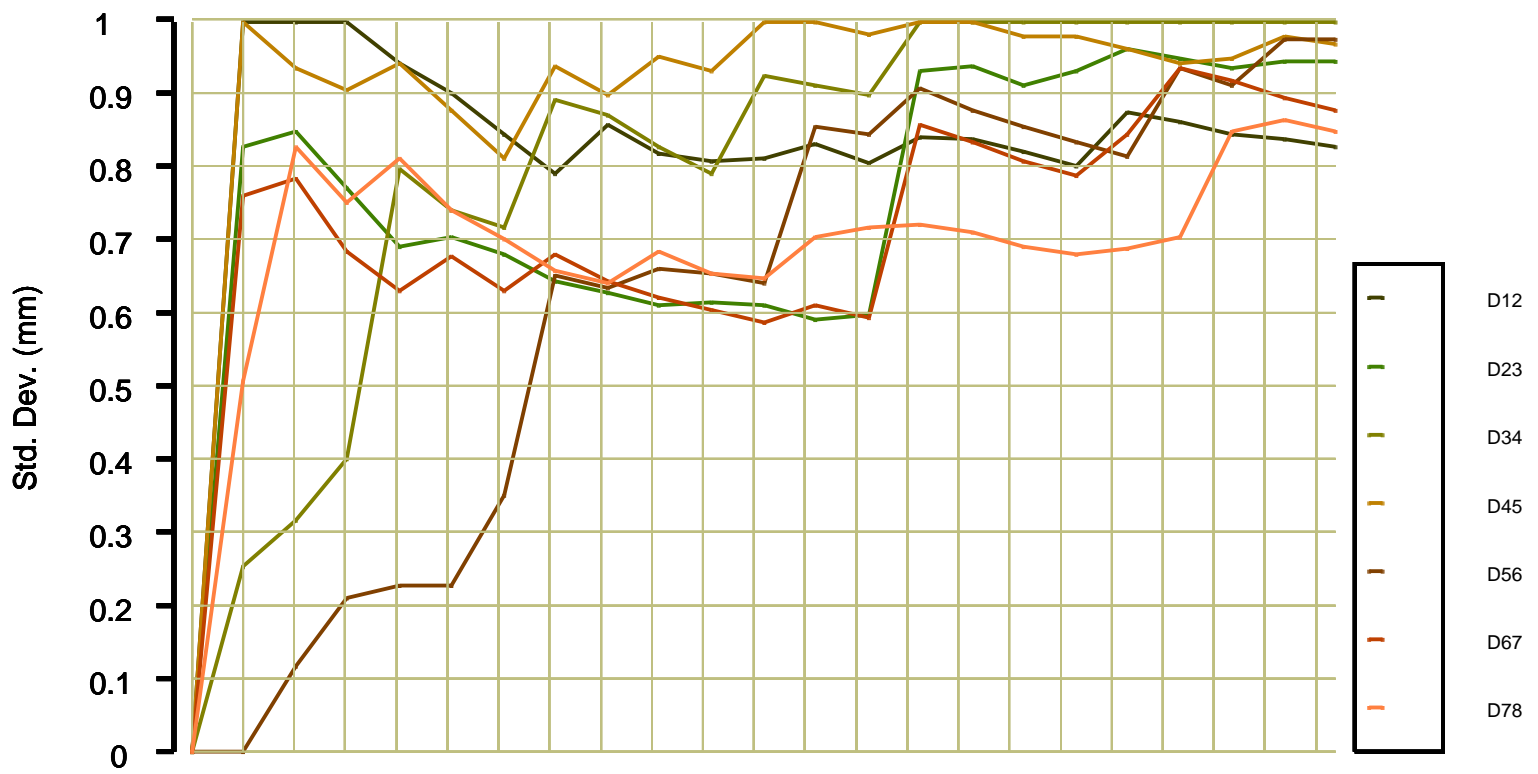
DET78 = 0.369871 m (± 0.87 mm )

**Schlumberger**

**After Calibration**

MAXIS Field Log

18-Oct-2022 – FSMT-E SN 701 – Cumulative Standard Deviation (at 3.1°C)



0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

### Calibration passes

DET12 = 0.369127 m (± 0.83 mm )

DET23 = 0.368902 m (± 0.94 mm )

DET34 = 0.368002 m (± 1.14 mm )

DET45 = 8.895257 m (± 0.97 mm )

DET56 = 0.368223 m (± 0.97 mm )

DET67 = 0.366905 m (± 0.88 mm )

DET78 = 0.369935 m (± 0.85 mm )

Company: **ENI U&TS**

**Schlumberger**

Well: **Guendalina 2 Dir A**

Field: **Guendalina**

LOG: **FSMT-E**

Country: **Italy**

FSMT-E Run #5

Formation Subsidence Monitoring Tool

Log interval 3180 – 3045m