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OTHER SERVICES1 OS1: DITE/HNGS/HLDS/APS OS2: GHMT OS3: OS4: OS5:	OTHER SERVICES2 OS1: OS2: OS3: OS4: OS5:
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REMARKS: RUN NUMBER 1 Hole cored with RCB. Sea Floor at 2631 mbrf. Log presented in meters below rig floor. Lamont Temperature Tool (TAP) run on DITE/HLDS/APS/HNGS only. Wireline Heave Compensator used on all descents. Wireline heave compensator went out of range due to heavy heave conditions at 3388-3355, 3349-3154, 3144-2953, 2952-2887, 2891-end of log. Sepiolite mud placed in the hole before logging. Drillers TD-3399.85 mbrf. Loggers TD-3395 mbrf. Drill Pipe Logger- 2782 mbrf. Power fluctuation with DSI below 200 v caused absence of data at 2911-2908mbrf. The repeat covers this depth. Low Frequency Dipole provided best shear DT.	REMARKS: RUN NUMBER 2
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RUN 1			RUN 2		
SERVICE ORDER #:			SERVICE ORDER #:		
PROGRAM VERSION:	9C1-303		PROGRAM VERSION:		
FLUID LEVEL:			FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

RUN 1		RUN 2	
SURFACE EQUIPMENT			
GSR-U WITM (DTS)-A			

DOWNHOLE EQUIPMENT			
LEH-QT		32.09	
LEH-QT			
DTC-H	CTEM	30.92	
ECH-KC 8253	TelStatus ToolStatu	30.29	
AH-CMEAY		30.29	
AH-CMEAY 765			

DSST-B
SPAC-B 18
ECH-SD 18
SMDR-BD 8070
SSIJ-BA 65
SMDX-AA 8026

29.00

PWF 13.45

AH-CMEAY
AH-CMEAY 764

13.45

DTA-A
ECH-KE 8261
DTA-A 8261

12.16

Detector 10.56 10.94

NGT-C
NGD-A 1736
NGH-B 3
NGC-C 1921
NGCH-A 752

GHMT-A
GHMC-B 701
ECH-MBA 701
NMTE-C 703
SUMS-B 702
NMRS-C 702

8.33

SUMS 4.08

NMRS 1.07

STATUS HV DF Tension 0.00

BNS-CCS

0.14

TOOL ZERO

MAXIMUM STRING DIAMETER 4.00 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN METERS



Output DLIS Files

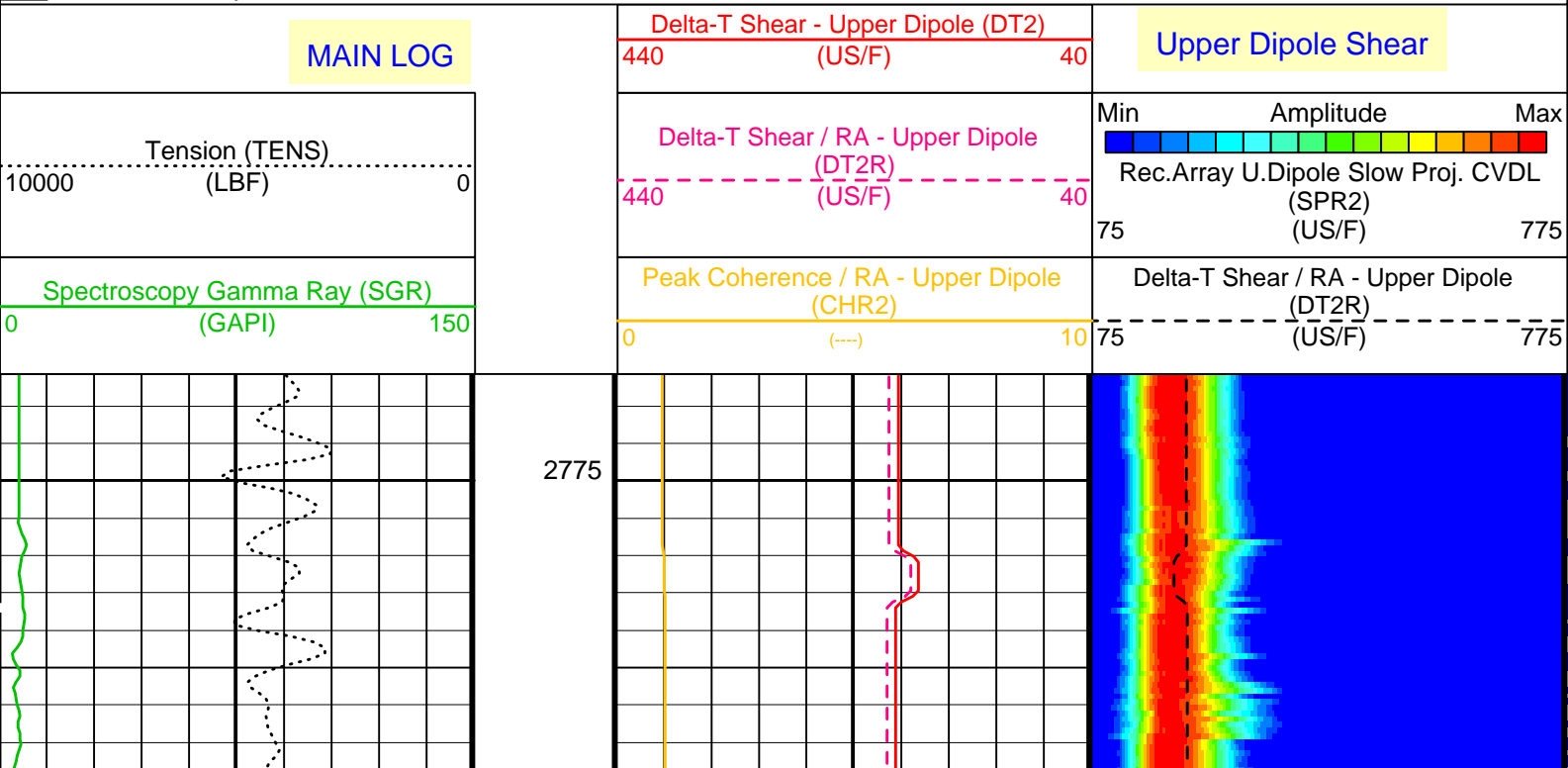
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GHMT_CUST	GHMT .018	FN:30 PRODUCER	03-May-2000 02:29	3394.1 M	2772.2 M

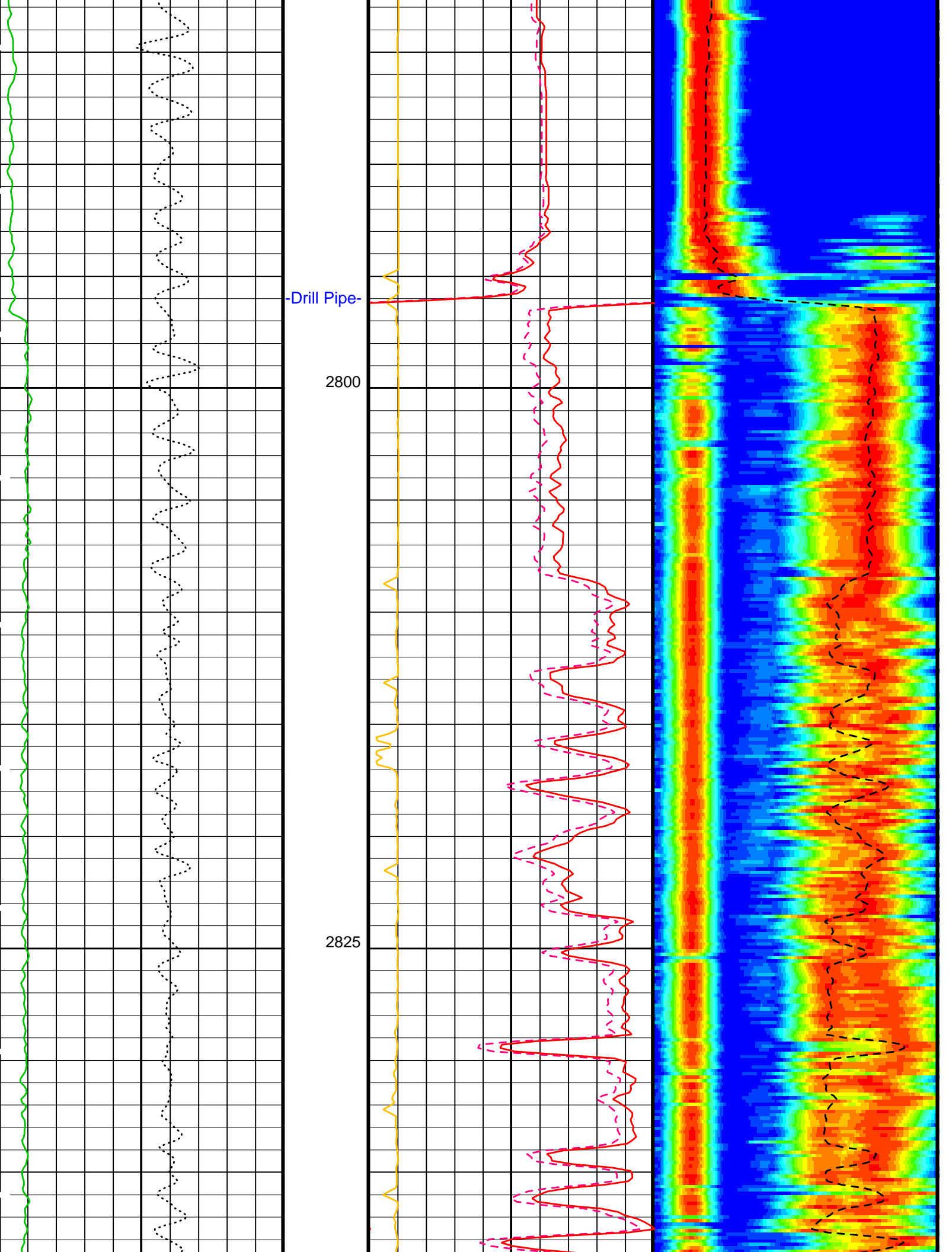
OP System Version: 9C1-303 MCM

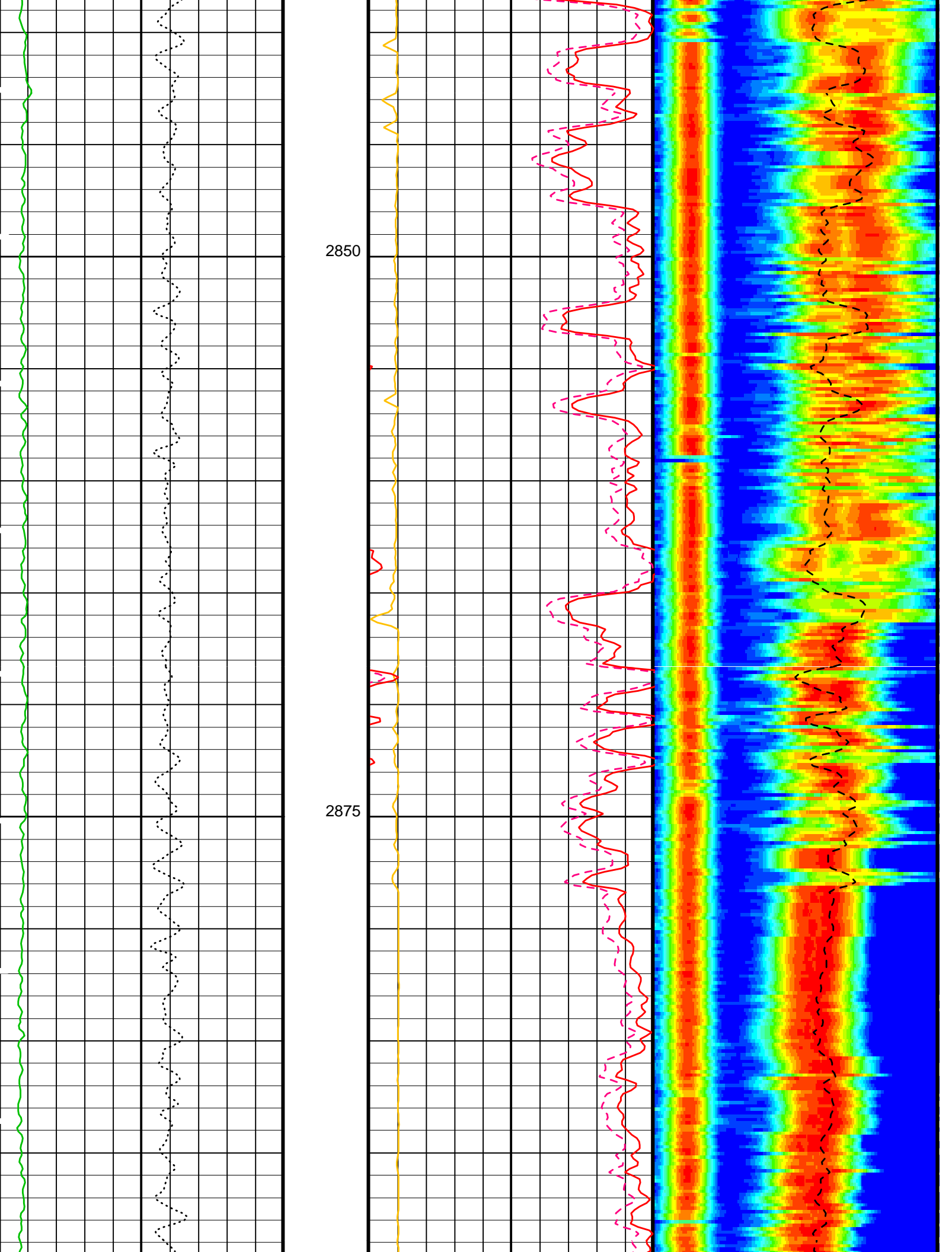
GHMT-A	9C1-303	NGT-C	9C1-303
DTA-A	9C1-303	DSST-B	9C1-303
DTC-H	9C1-303		

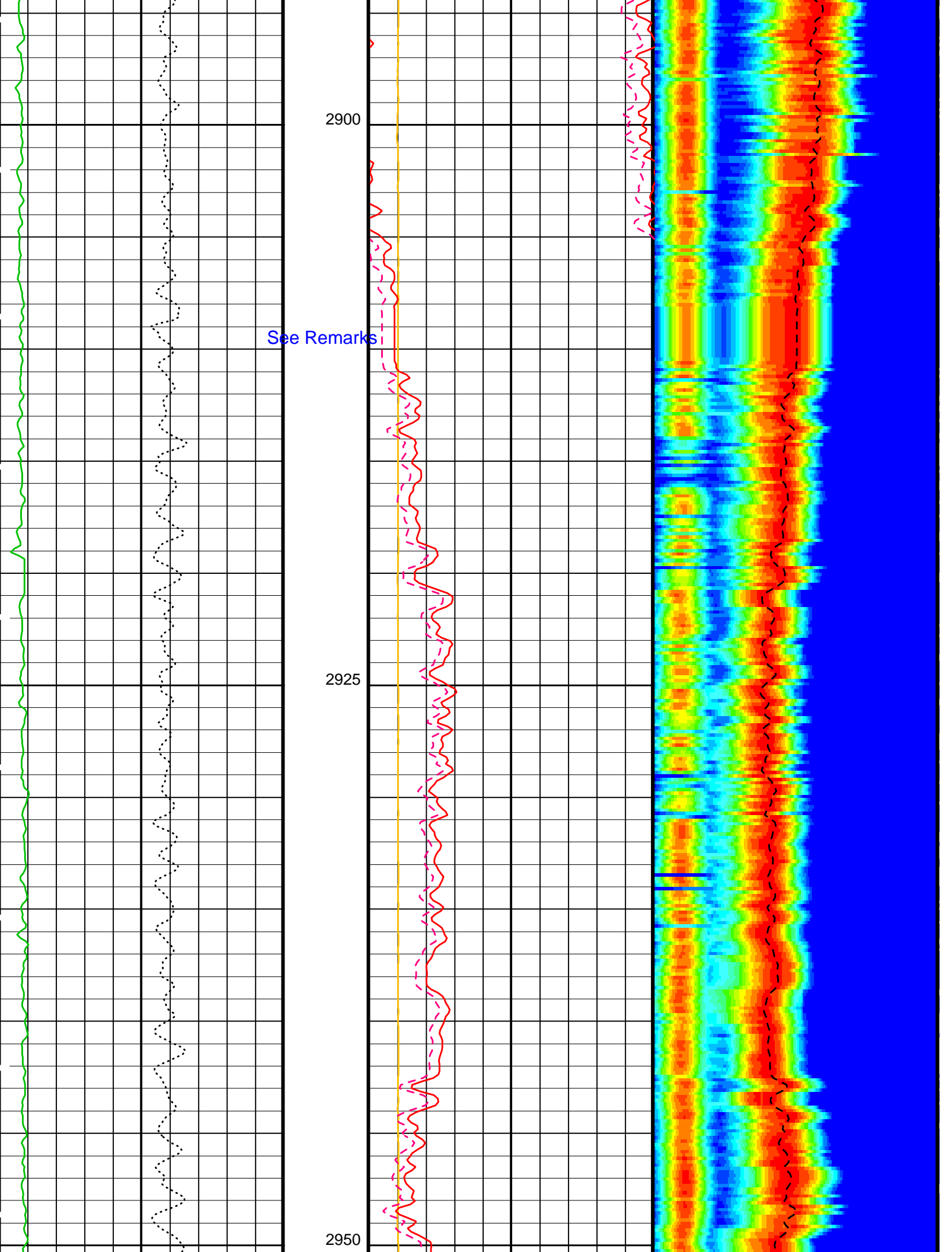
PIP SUMMARY

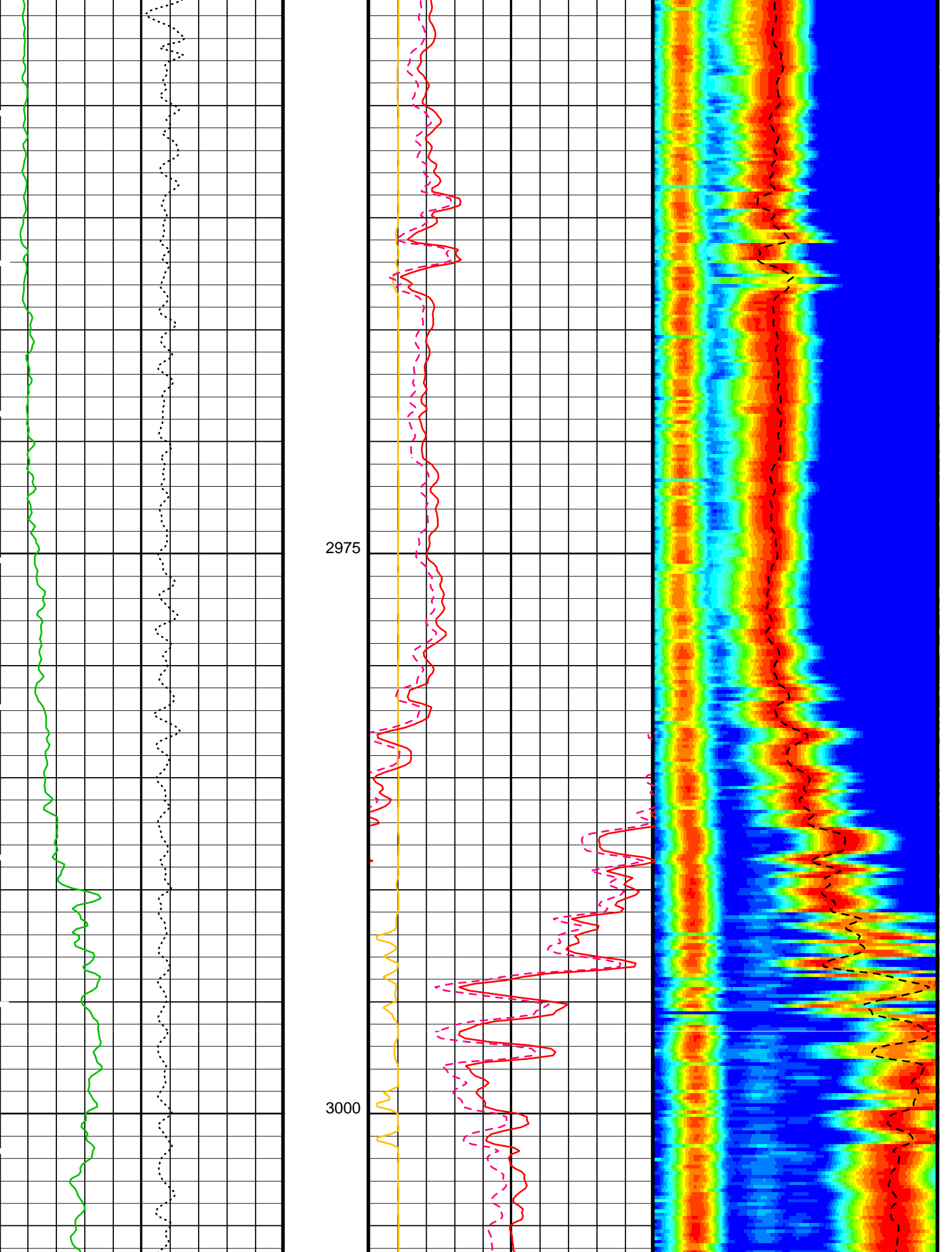
▶ Time Mark Every 60 S

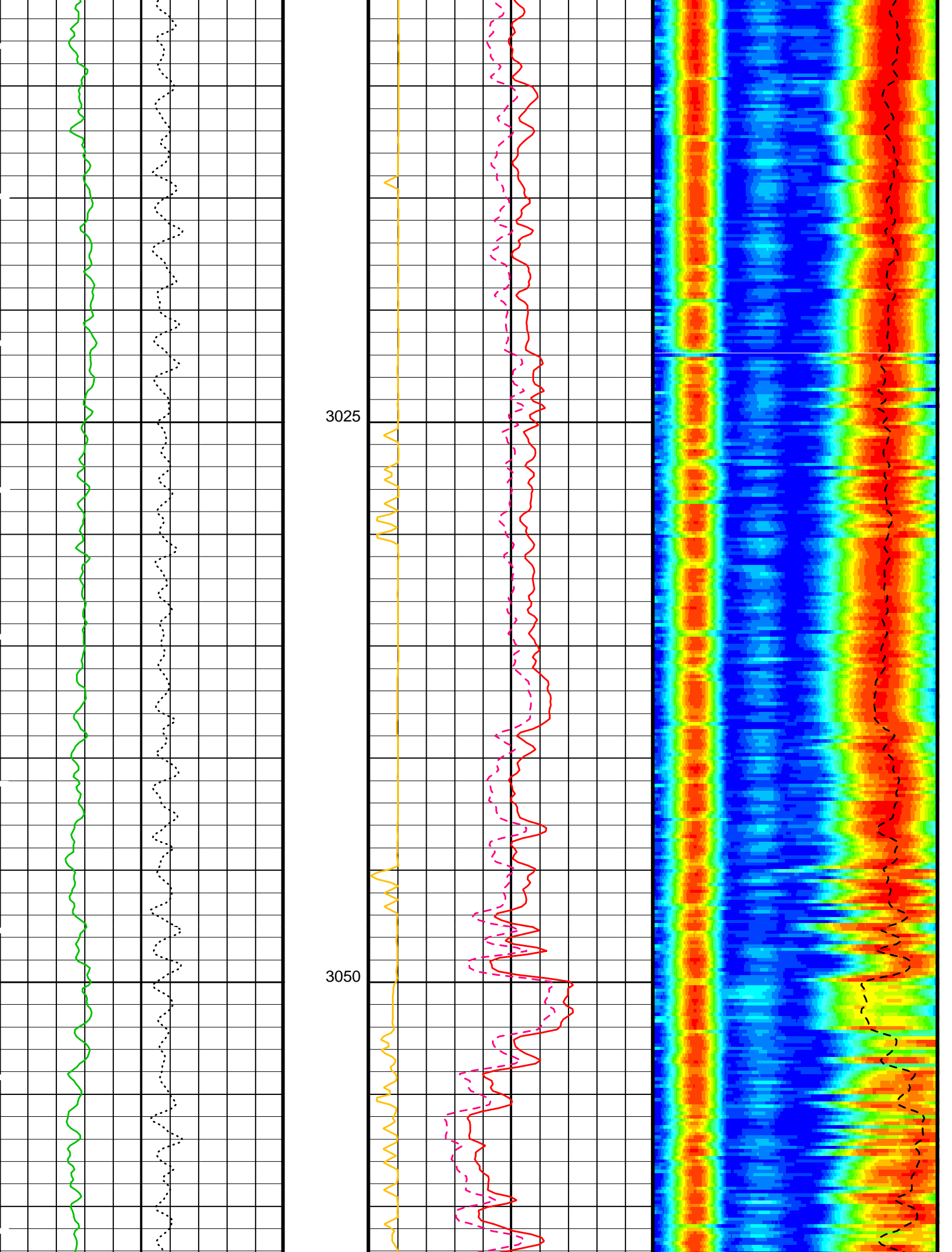


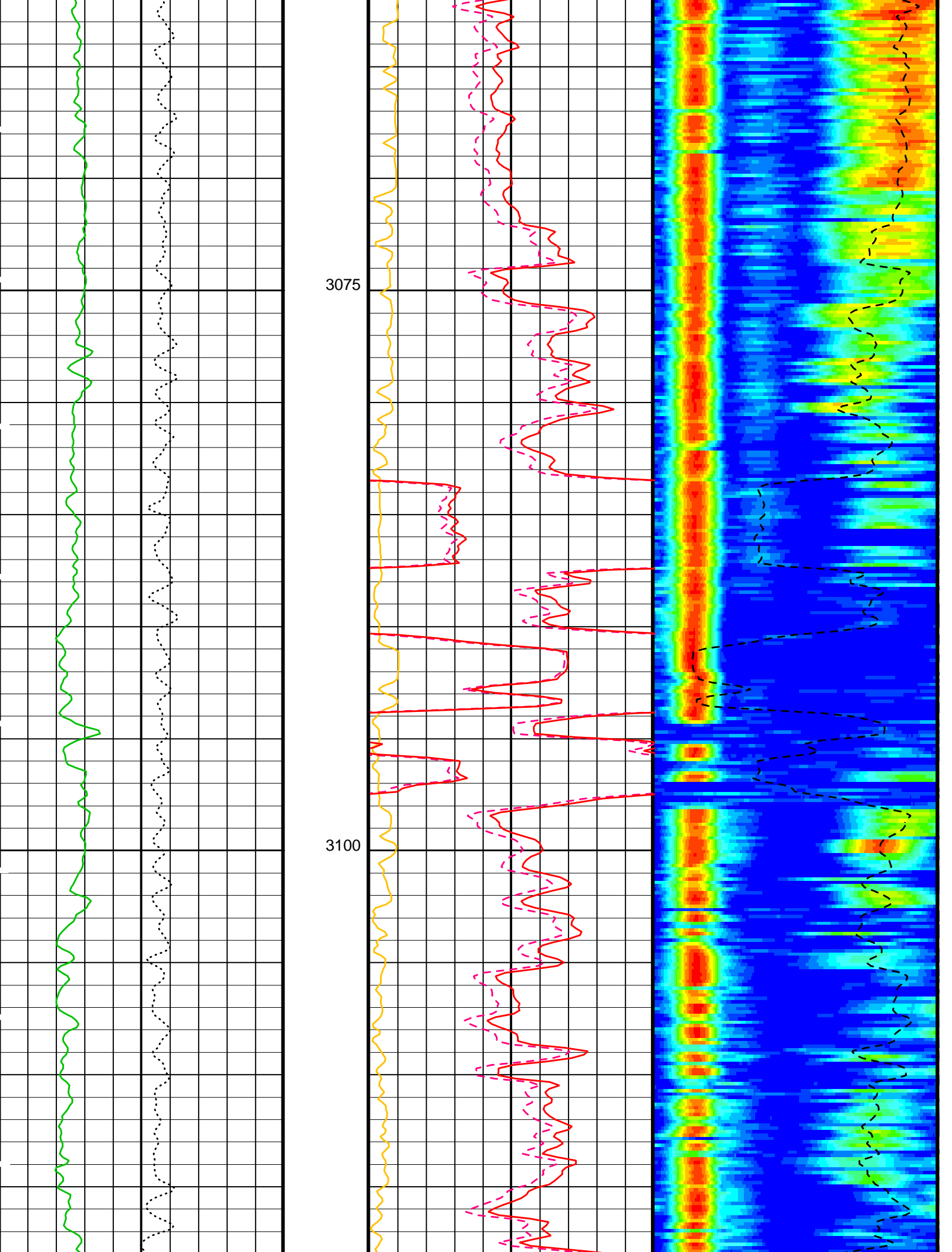


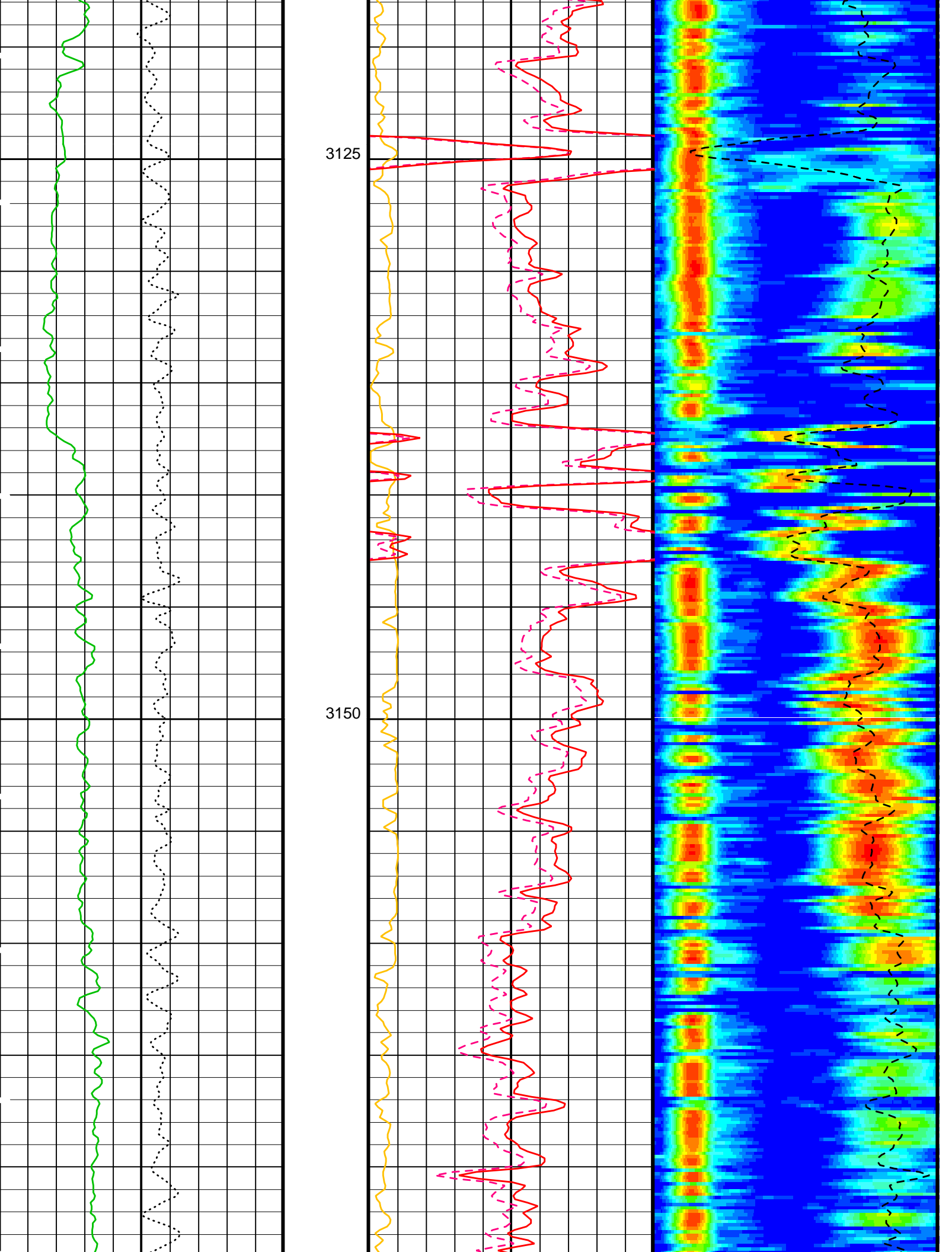


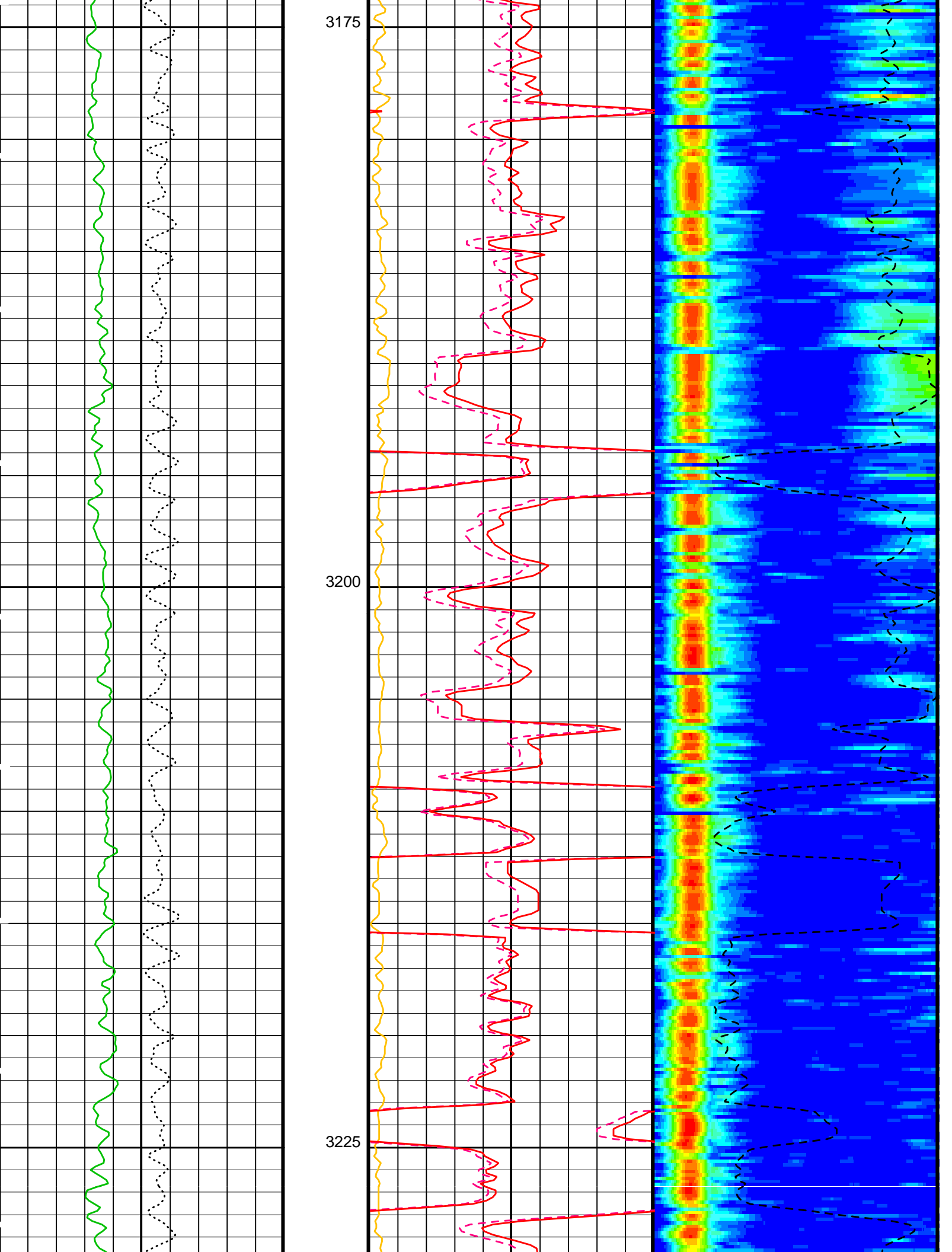


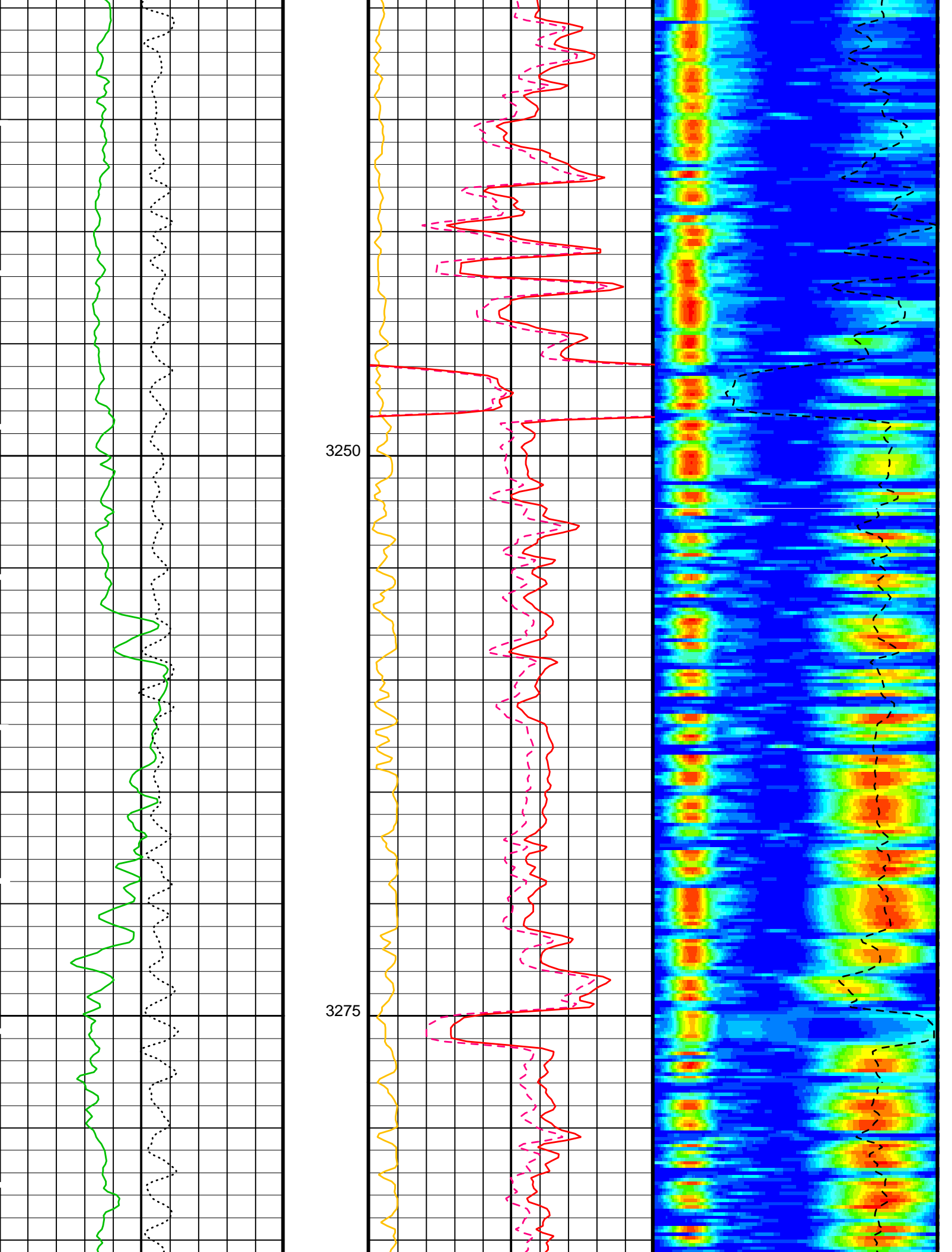


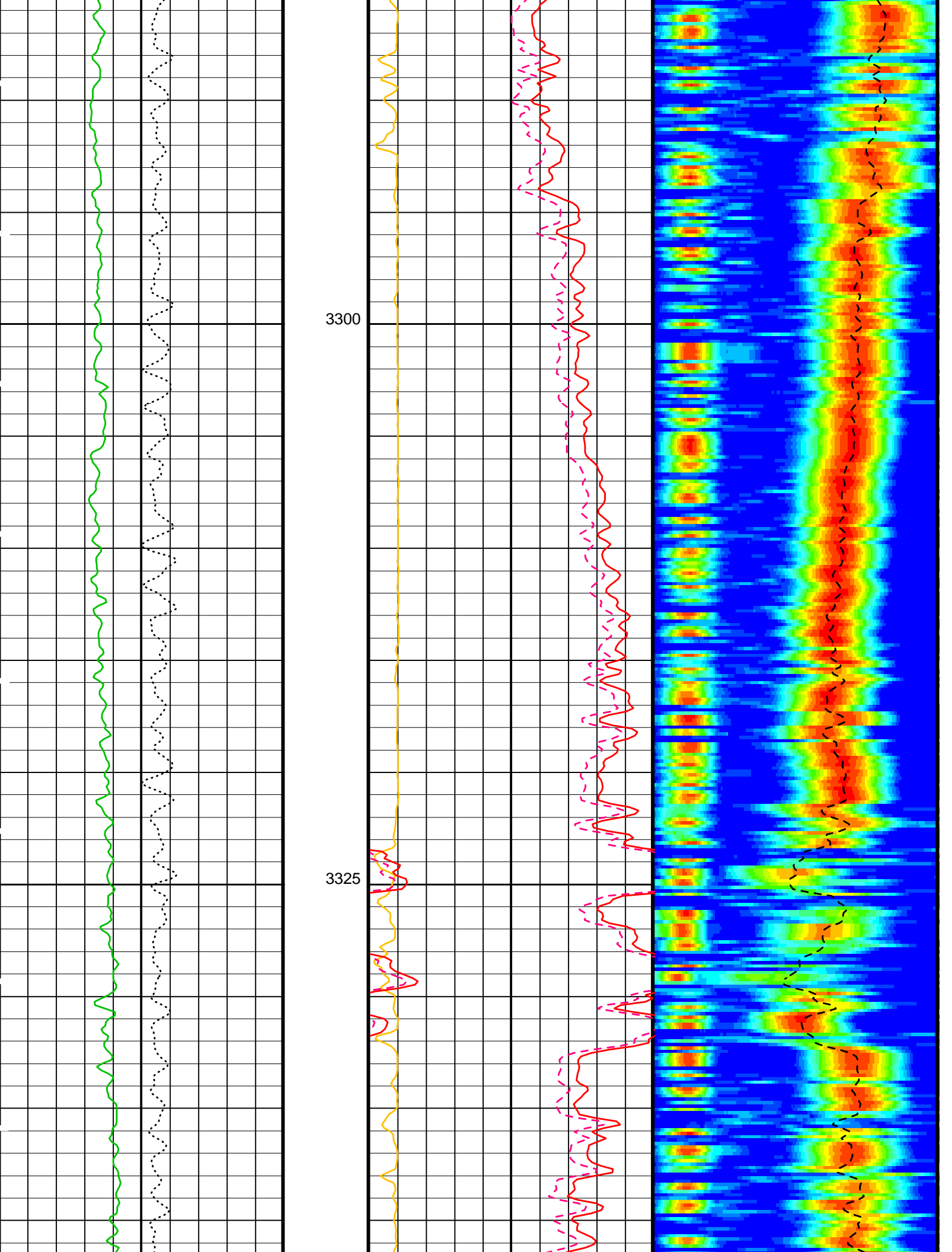


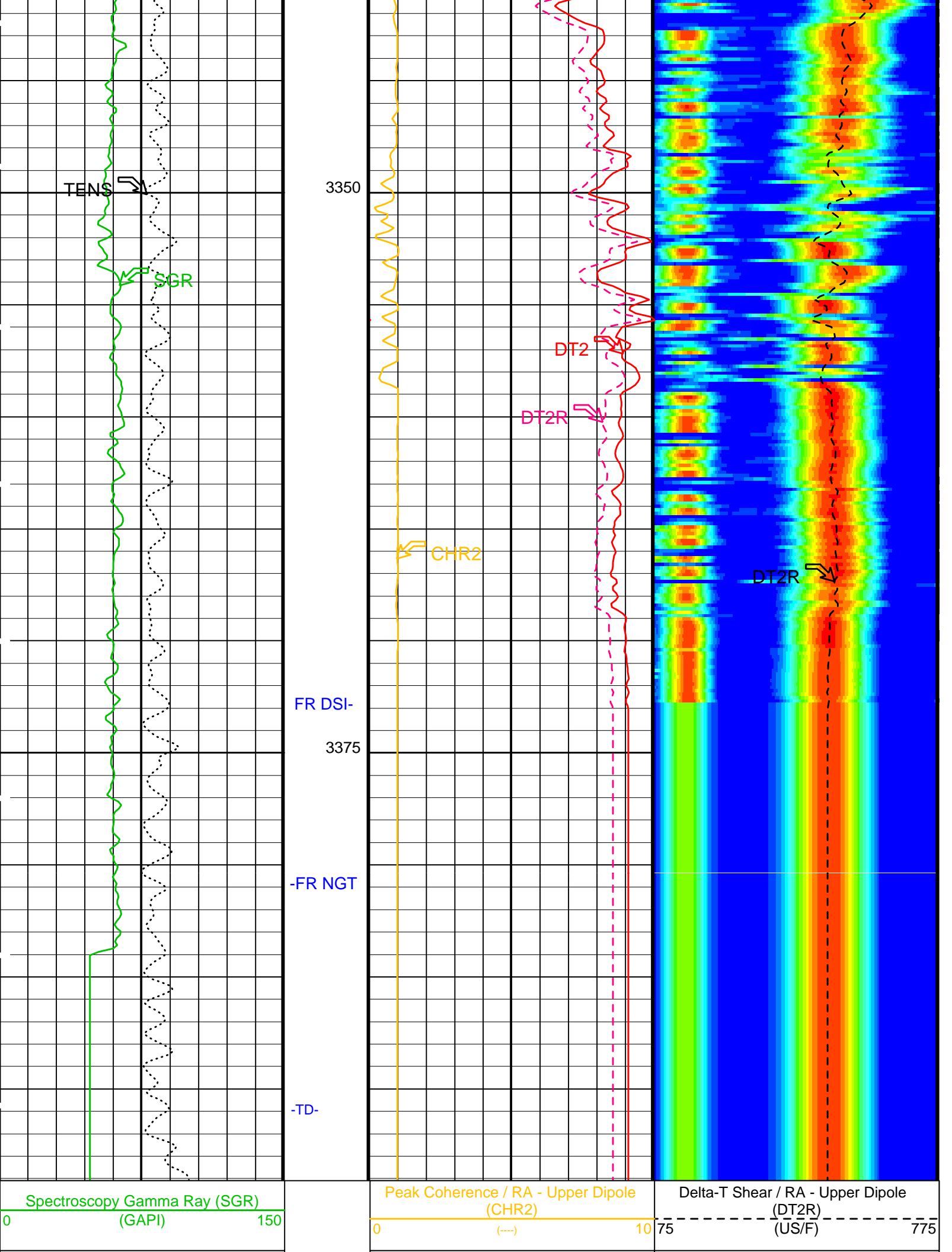


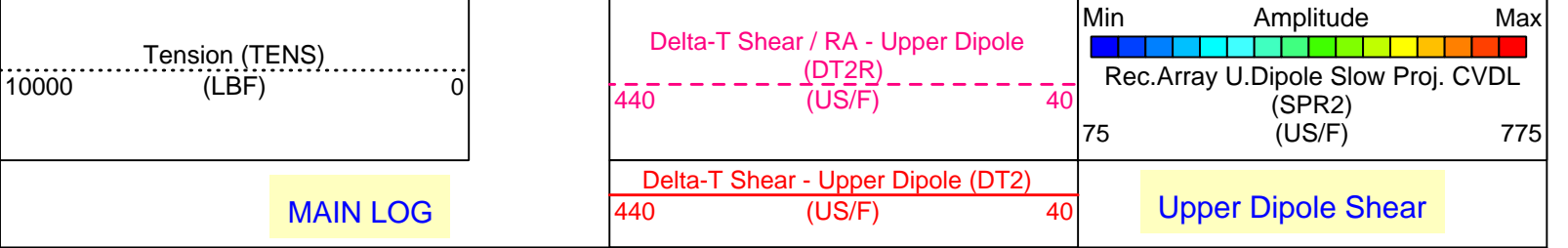












PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
BS	Bit Size	9.875	IN
CBAR	Constant Barite	1	
CGMI	Spectro Computed Gamma Ray Minimum	0	GAPI
CGSH	Spectro Computed Gamma Ray Shale	100	GAPI
DDE2	Digitizing Delay 2	0	US
DDEX	Digitizing Delay X	0	US
DFD	Drilling Fluid Density	8.51	LB/G
DLCS	Label Compressional Source - Dipole Shear	USE	
DSHL	Label Slowness Lower Limit - Dipole Shear	75	US/F
DSHU	Label Slowness Upper Limit - Dipole Shear	775	US/F
DSI2	Digitizer Sample Interval 2	40	US
DSIX	Digitizer Sample Interval X	40	US
DTCS	Compressional Delta-T Source for DTCO Channel	PS_COMP	
DWC2	Digitizer Word Count 2	512	
DWCX	Digitizer Word Count X	512	
KMIN	Potassium Minimum	0	
KSHA	Potassium Shale	0.02	
NFO	NGT Filtering Option	KALMAN	
PMUD	Potassium Mud	0	%
RX1G	Receiver 1 Geometry	294	IN
RX2G	Receiver 2 Geometry	300	IN
RX3G	Receiver 3 Geometry	306	IN
RX4G	Receiver 4 Geometry	312	IN
RX5G	Receiver 5 Geometry	318	IN
RX6G	Receiver 6 Geometry	324	IN
RX7G	Receiver 7 Geometry	330	IN
RX8G	Receiver 8 Geometry	336	IN
SAM2	DSST Sonic Acquisition Mode 2 - Upper Dipole Mode	ODD	
SAMX	DSST Sonic Acquisition Mode X - Both Dipoles or Monopole Mode for Expert	OFF	
SAS2	STC Sonic Array Status - Upper Dipole	255	
SBO2	STC Search Band Offset - Upper Dipole	3000	US
SBW2	STC Search Bandwidth - Upper Dipole	8000	US
SFC2	STC Formation Character - Upper Dipole	SELECTABLE	
SFM2	STC Filter - Upper Dipole	B1-3K	
SGMI	Spectro Gamma Ray Minimum	0	GAPI
SGSH	Spectro Gamma Ray Shale	100	GAPI
SSL2	STC Slowness Lower Limit - Upper Dipole	75	US/F
SST2	STC Slowness Step - Upper Dipole	4	US/F
SSW2	STC Source Waveform - Upper Dipole	WF_SAM2	
SUL2	STC Slowness Upper Limit - Upper Dipole	775	US/F
SWD2	STC Slowness Width - Upper Dipole	40	US/F
TBF2	STC Time for Baseline Fill - Upper Dipole	0	US
TLL2	STC Time Lower Limit - Upper Dipole	600	US
TMIN	Thorium Minimum	0	PPM
TSHA	Thorium Shale	12	PPM
TST2	STC Time Step - Upper Dipole	200	US
TUL2	STC Time Upper Limit - Upper Dipole	15525	US
TWD2	STC Time Width - Upper Dipole	2000	US
TWI2	STC Integration Time Window - Upper Dipole	1600	US
TWSX	Transmitter Waveform Select X	0	
UMIN	Uranium Minimum	0	PPM
USHA	Uranium Shale	3	PPM
UTXG	Upper Dipole Transmitter Geometry	162	IN

Format: DSST_UPPER_DIPOLE_VDL_COLOR Vertical Scale: 1:200 Graphics File Created: 03-May-2000 02:29

OP System Version: 9C1-303
MCM

GHMT-A	9C1-303	NGT-C	9C1-303
DTA-A	9C1-303	DSST-B	9C1-303
DTC-H	9C1-303		

Output DLIS Files

Output DLIS Files

DEFAULT	GHMT .018	FN:29 PRODUCER	03-May-2000 02:29
GHMT_CUST	GHMT .018	FN:30 PRODUCER	03-May-2000 02:29

Output DLIS Files

DEFAULT	GHMT .020	FN:33 PRODUCER	03-May-2000 05:14	3010.1 M	2889.5 M
GHMT_CUST	GHMT .020	FN:34 PRODUCER	03-May-2000 05:14	3010.1 M	2889.5 M

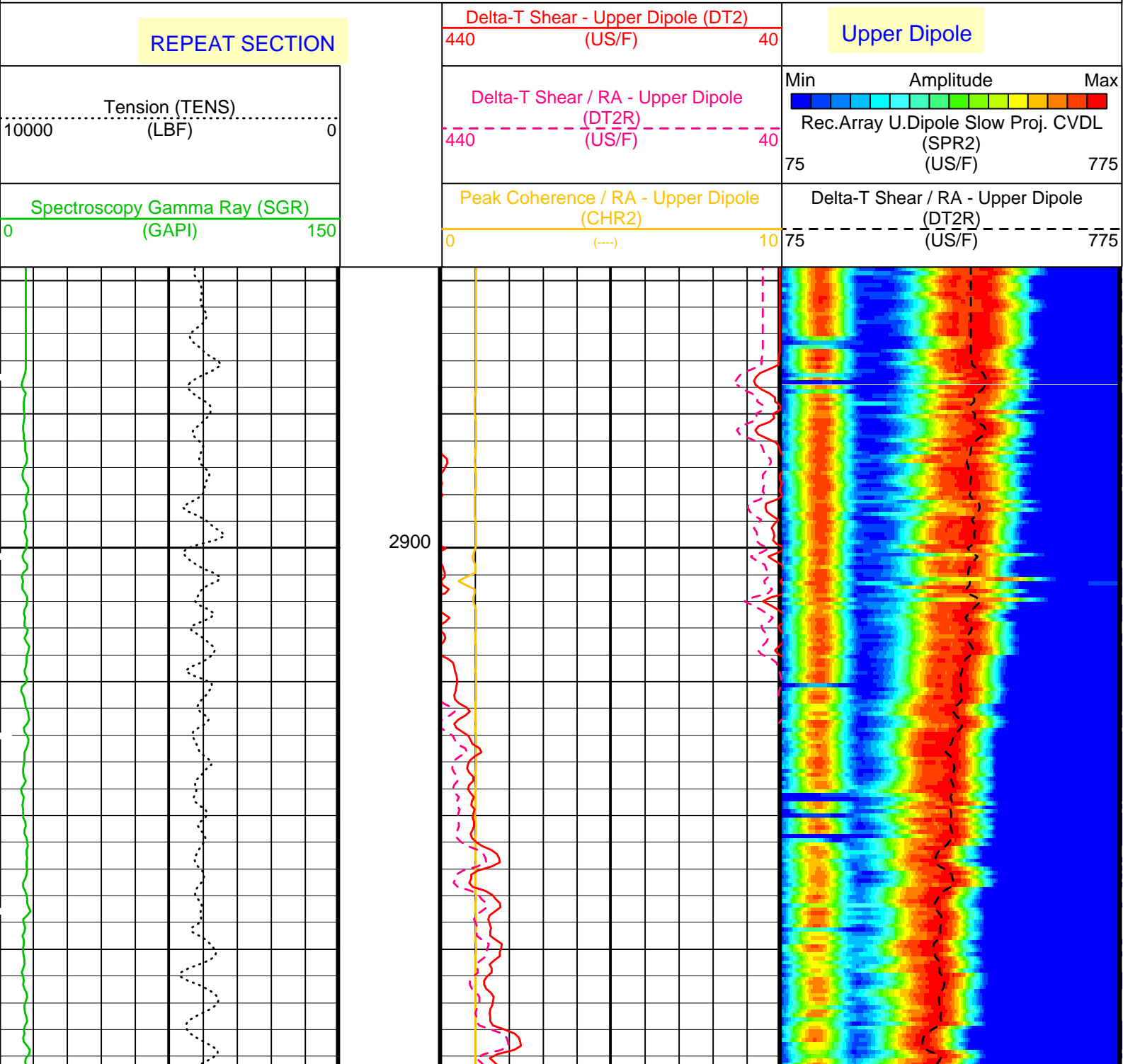
OP System Version: 9C1-303

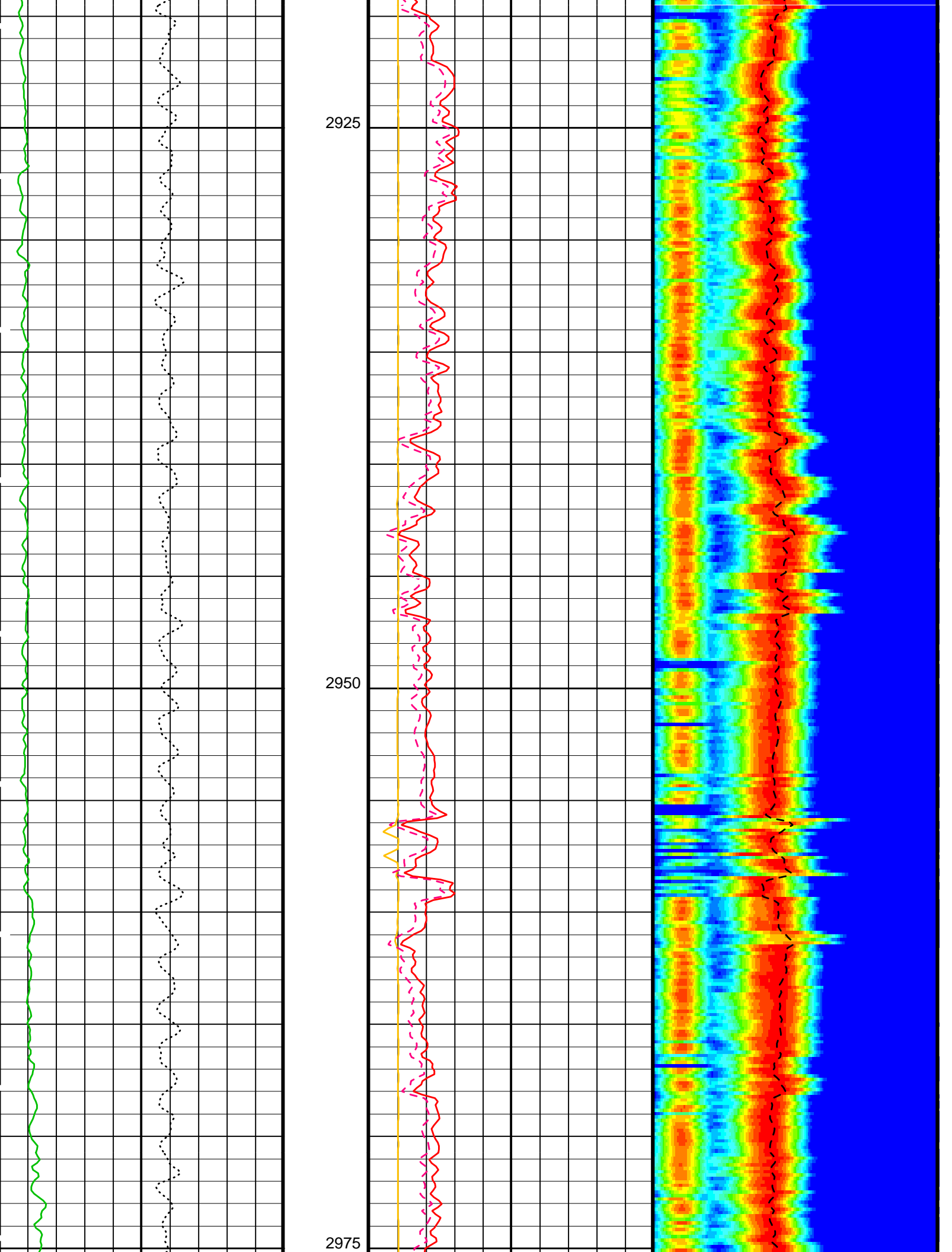
MCM

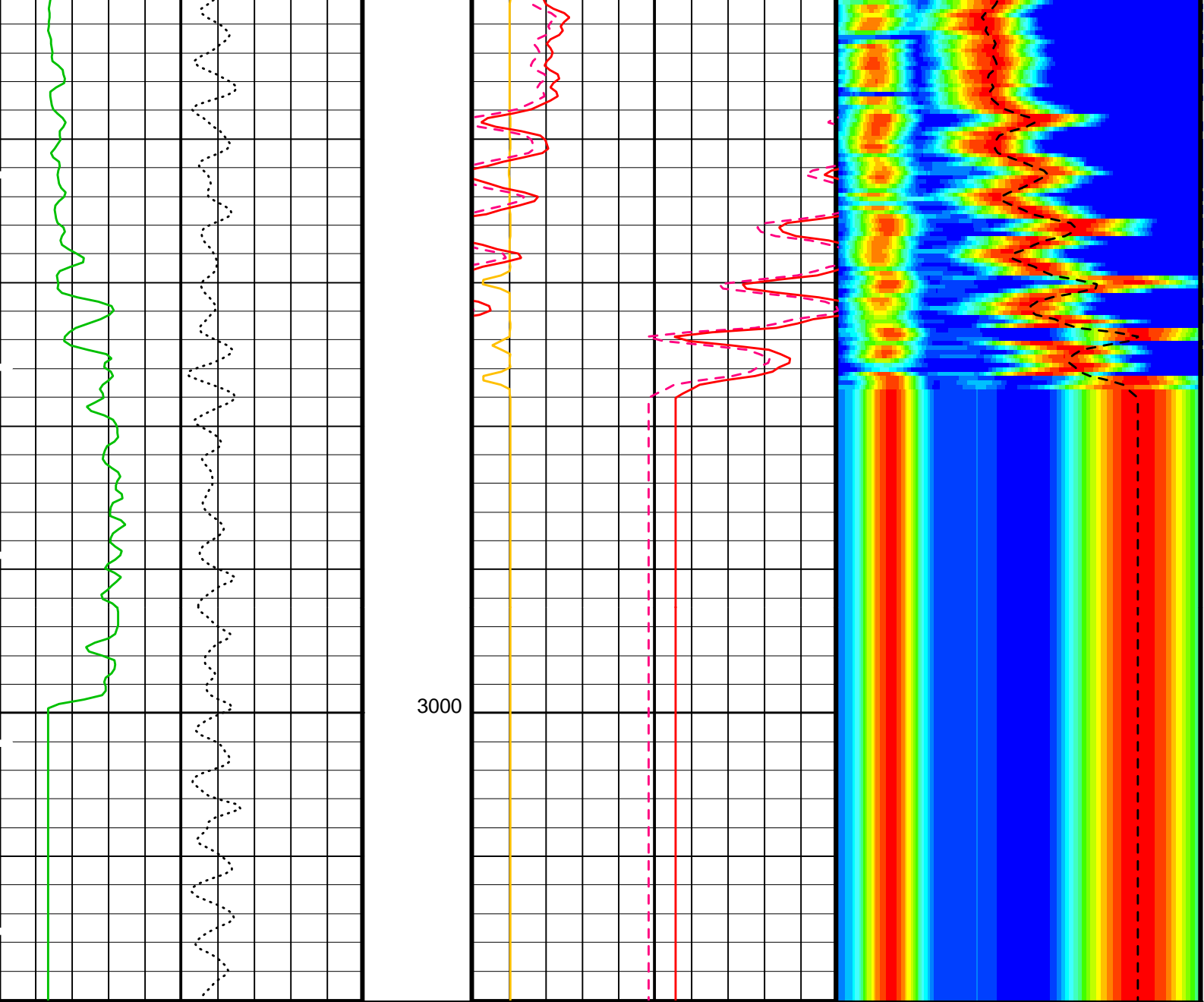
GHMT-A	9C1-303	NGT-C	9C1-303
DTA-A	9C1-303	DSST-B	9C1-303
DTC-H	9C1-303		

PIP SUMMARY


Time Mark Every 60 S







Spectroscopy Gamma Ray (SGR) (GAPI)	Peak Coherence / RA - Upper Dipole (CHR2)	Delta-T Shear / RA - Upper Dipole (DT2R)
0 150	0 10	75 775

Tension (TENS) (LBF)	Delta-T Shear / RA - Upper Dipole (DT2R)	Min Amplitude Max  Rec.Array U.Dipole Slow Proj. CVDL (SPR2)
10000 0	440 40	75 775

REPEAT SECTION

Delta-T Shear - Upper Dipole (DT2) (US/F)	Upper Dipole
440 40	

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
BS	Bit Size	9.875 IN
CBAR	Constant Barite	1
CGMI	Spectro Computed Gamma Ray Minimum	0 GAPI
CGSH	Spectro Computed Gamma Ray Shale	100 GAPI
DDE2	Digitizing Delay 2	0 US
DDEX	Digitizing Delay X	0 US
DFD	Drilling Fluid Density	8.51 LB/G
DLCS	Label Compressional Source - Dipole Shear	USE

DSHL	Label Slowness Upper Limit - Dipole Shear	75	US/F
DSHU	Digitizer Sample Interval 2	40	US
DSI2	Digitizer Sample Interval X	40	US
DSIX	Compressional Delta-T Source for DTCC Channel	PS_COMP	
DTCS	Digitizer Word Count 2	512	
DWC2	Digitizer Word Count X	512	
DWCX	Potassium Minimum	0	
KMIN	Potassium Shale	0.02	
KSHA	NGT Filtering Option	KALMAN	
NFO	Potassium Mud	0	%
PMUD	Receiver 1 Geometry	294	IN
RX1G	Receiver 2 Geometry	300	IN
RX2G	Receiver 3 Geometry	306	IN
RX3G	Receiver 4 Geometry	312	IN
RX4G	Receiver 5 Geometry	318	IN
RX5G	Receiver 6 Geometry	324	IN
RX6G	Receiver 7 Geometry	330	IN
RX7G	Receiver 8 Geometry	336	IN
RX8G	DSST Sonic Acquisition Mode 2 - Upper Dipole Mode	ODD	
SAM2	DSST Sonic Acquisition Mode X - Both Dipoles or Monopole Mode for Expert	OFF	
SAMX	STC Sonic Array Status - Upper Dipole	255	
SAS2	STC Search Band Offset - Upper Dipole	3000	US
SBO2	STC Search Bandwidth - Upper Dipole	8000	US
SBW2	STC Formation Character - Upper Dipole	SELECTABLE	
SFC2	STC Filter - Upper Dipole	B1-3K	
SFM2	Spectro Gamma Ray Minimum	0	GAPI
SGMI	Spectro Gamma Ray Shale	100	GAPI
SGSH	STC Slowness Lower Limit - Upper Dipole	75	US/F
SLL2	STC Slowness Step - Upper Dipole	4	US/F
SST2	STC Source Waveform - Upper Dipole	WF_SAM2	
SSW2	STC Slowness Upper Limit - Upper Dipole	775	US/F
SUL2	STC Slowness Width - Upper Dipole	40	US/F
SWD2	STC Time for Baseline Fill - Upper Dipole	0	US
TBF2	STC Time Lower Limit - Upper Dipole	600	US
TLL2	Thorium Minimum	0	PPM
TMIN	Thorium Shale	12	PPM
TSHA	STC Time Step - Upper Dipole	200	US
TST2	STC Time Upper Limit - Upper Dipole	15525	US
TUL2	STC Time Width - Upper Dipole	2000	US
TWD2	STC Integration Time Window - Upper Dipole	1600	US
TWI2	Transmitter Waveform Select X	0	
TWSX	Uranium Minimum	0	PPM
UMIN	Uranium Shale	3	PPM
USHA	Upper Dipole Transmitter Geometry	162	IN
UTXG			

Format: DSST_UPPER_DIPOLE_VDL_COLOR Vertical Scale: 1:200 Graphics File Created: 03-May-2000 05:14

OP System Version: 9C1-303 MCM

GHMT-A	9C1-303	NGT-C	9C1-303
DTA-A	9C1-303	DSST-B	9C1-303
DTC-H	9C1-303		

Output DLIS Files

DEFAULT	GHMT .020	FN:33 PRODUCER	03-May-2000 05:14
GHMT_CUST	GHMT .020	FN:34 PRODUCER	03-May-2000 05:14

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
Natural Gamma Spectroscopy - C Wellsite Calibration - Background Measurement							
Master: 16-APR-2000 21:24 Before: 16-APR-2000 21:30							
WINDOW 1 Background	100.0	9.898	9.716	N/A	N/A	100.0	CPS
WINDOW 2 Background	50.00	2.920	2.836	N/A	N/A	50.00	CPS
WINDOW 3 Background	10.00	0.6604	0.7863	N/A	N/A	10.00	CPS
WINDOW 4 Background	6.000	0.3249	0.2437	N/A	N/A	6.000	CPS
WINDOW 5 Background	10.00	0.5101	0.4025	N/A	N/A	10.00	CPS
SGR Background	30.00	3.745	3.658	N/A	N/A	N/A	GAPI

Natural Gamma Spectroscopy - C Wellsite Calibration - Normalized Jig Measurement							
Master: 16-APR-2000 21:18 Before: 16-APR-2000 21:37							
WINDOW 1 .lin	376.0	386.3	387.2	N/A	N/A	22.56	CPS

WINDOW 1 Jig	376.0	386.3	387.2	N/A	N/A	22.00	CPS
WINDOW 2 Jig	167.0	170.1	170.1	N/A	N/A	10.02	CPS
WINDOW 3 Jig	24.00	24.62	23.87	N/A	N/A	1.440	CPS
WINDOW 4 Jig	14.00	14.45	13.95	N/A	N/A	2.800	CPS
WINDOW 5 Jig	22.50	22.01	23.06	N/A	N/A	4.500	CPS
SGR Jig	160.0	159.8	160.0	N/A	N/A	7.000	GAPI

Natural Gamma Spectroscopy - C Master Calibration - Master Quality Control Values

Master: 16-APR-2000 21:13

Photomultiplier Res. CARC3	8.000	9.461	--	--	--	--	
APU WINDOW Jig	1350	964.6	--	--	--	--	CPS
APL WINDOW Jig	1350	964.2	--	--	--	--	CPS

The NGT PCSL Value is set to 83.674 KEV

Natural Gamma Spectroscopy - C / Equipment Identification

Primary Equipment:

NGT Cartridge	NGC - C	1921
NGT Sonde	NGD - A	1736

Auxiliary Equipment:

NGT Cartridge Housing	NGCH - A	752
NGT Sonde Housing	NGH - B	3
Gamma Source Radioactive	GSR - U	

Natural Gamma Spectroscopy - C Wellsite Calibration

Background Measurement

Phase	WINDOW 1 Background CPS	Value	Phase	WINDOW 2 Background CPS	Value	Phase	WINDOW 3 Background CPS	Value
Master		9.898	Master		2.920	Master		0.6604
Before		9.716	Before		2.836	Before		0.7863
	0 (Minimum) 100.0 (Nominal) 400.0 (Maximum)			0 (Minimum) 50.00 (Nominal) 200.0 (Maximum)			0 (Minimum) 10.00 (Nominal) 40.00 (Maximum)	
Phase	WINDOW 4 Background CPS	Value	Phase	WINDOW 5 Background CPS	Value	Phase	SGR Background GAPI	Value
Master		0.3249	Master		0.5101	Master		3.745
Before		0.2437	Before		0.4025	Before		3.658
	0 (Minimum) 6.000 (Nominal) 24.00 (Maximum)			0 (Minimum) 10.00 (Nominal) 40.00 (Maximum)			0 (Minimum) 30.00 (Nominal) 120.0 (Maximum)	

Master: 16-APR-2000 21:24

Before: 16-APR-2000 21:30

Natural Gamma Spectroscopy - C Wellsite Calibration

Normalized Jig Measurement

Phase	WINDOW 1 Jig CPS	Value	Phase	WINDOW 2 Jig CPS	Value	Phase	WINDOW 3 Jig CPS	Value
Master		386.3	Master		170.1	Master		24.62
Before		387.2	Before		170.1	Before		23.87
	354.0 (Minimum) 376.0 (Nominal) 398.0 (Maximum)			155.0 (Minimum) 167.0 (Nominal) 179.0 (Maximum)			21.50 (Minimum) 24.00 (Nominal) 26.50 (Maximum)	
Phase	WINDOW 4 Jig CPS	Value	Phase	WINDOW 5 Jig CPS	Value	Phase	SGR Jig GAPI	Value
Master		14.45	Master		22.01	Master		159.8
Before		13.95	Before		23.06	Before		160.0
	12.50 (Minimum) 14.00 (Nominal) 15.50 (Maximum)			20.00 (Minimum) 22.50 (Nominal) 25.00 (Maximum)			148.0 (Minimum) 160.0 (Nominal) 172.0 (Maximum)	

Master: 16-APR-2000 21:18

Before: 16-APR-2000 21:37


Natural Gamma Spectroscopy - C Wellsite Calibration

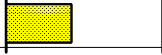
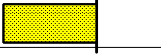
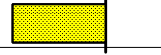

Quality Control Values

Phase	DHVF Jig V	Value	Phase	Quality Windows Ratio Jig	Value
Master		1515	Master		2.271
Before		1514	Before		2.277
	1088 (Minimum) 1450 (Nominal) 1813 (Maximum)			2.150 (Minimum) 2.240 (Nominal) 2.330 (Maximum)	

Master: 16-APR-2000 21:18

Before: 16-APR-2000 21:37

Natural Gamma Spectroscopy - C Wellsite Calibration		
Quality Control Values Check		
Phase	Thorium peak Form Factor Jig	Value
Before		0.01462
	-0.2000 (Minimum)	0 (Nominal)
		0.2000 (Maximum)
Before: 16-APR-2000 21:37		

Natural Gamma Spectroscopy - C Master Calibration														
Master Quality Control Values														
Phase	Photomultiplier Res. CARC3			Value	Phase	APU WINDOW Jig CPS			Value	Phase	APL WINDOW Jig CPS			Value
Master				9.461	Master				964.6	Master				964.2
	4.500 (Minimum)	8.000 (Nominal)	11.50 (Maximum)			700.0 (Minimum)	1350 (Nominal)	1600 (Maximum)			700.0 (Minimum)	1350 (Nominal)	1600 (Maximum)	
Phase	Thorium peak Form Factor Jig			Value										
Master				-0.02200										
	-0.1000 (Minimum)	0 (Nominal)	0.1000 (Maximum)											
Master: 16-APR-2000 21:13														

COMPANY:	Lamont Doherty	BOTTOM LOG INTERVAL	3373 m
WELL:	ODP Leg 189, Site 1172D (ETP-2A)	SCHLUMBERGER DEPTH	3395 m
FIELD:	East Tasmania	DEPTH DRILLER	3399.85 m
COUNTY:	Offshore	KELLY BUSHING	11.2 m
STATE:	Pacific Ocean	DRILL FLOOR	10.9 m
		GROUND LEVEL	2621.7 m



Upper Dipole Shear
Natural Gamma Ray