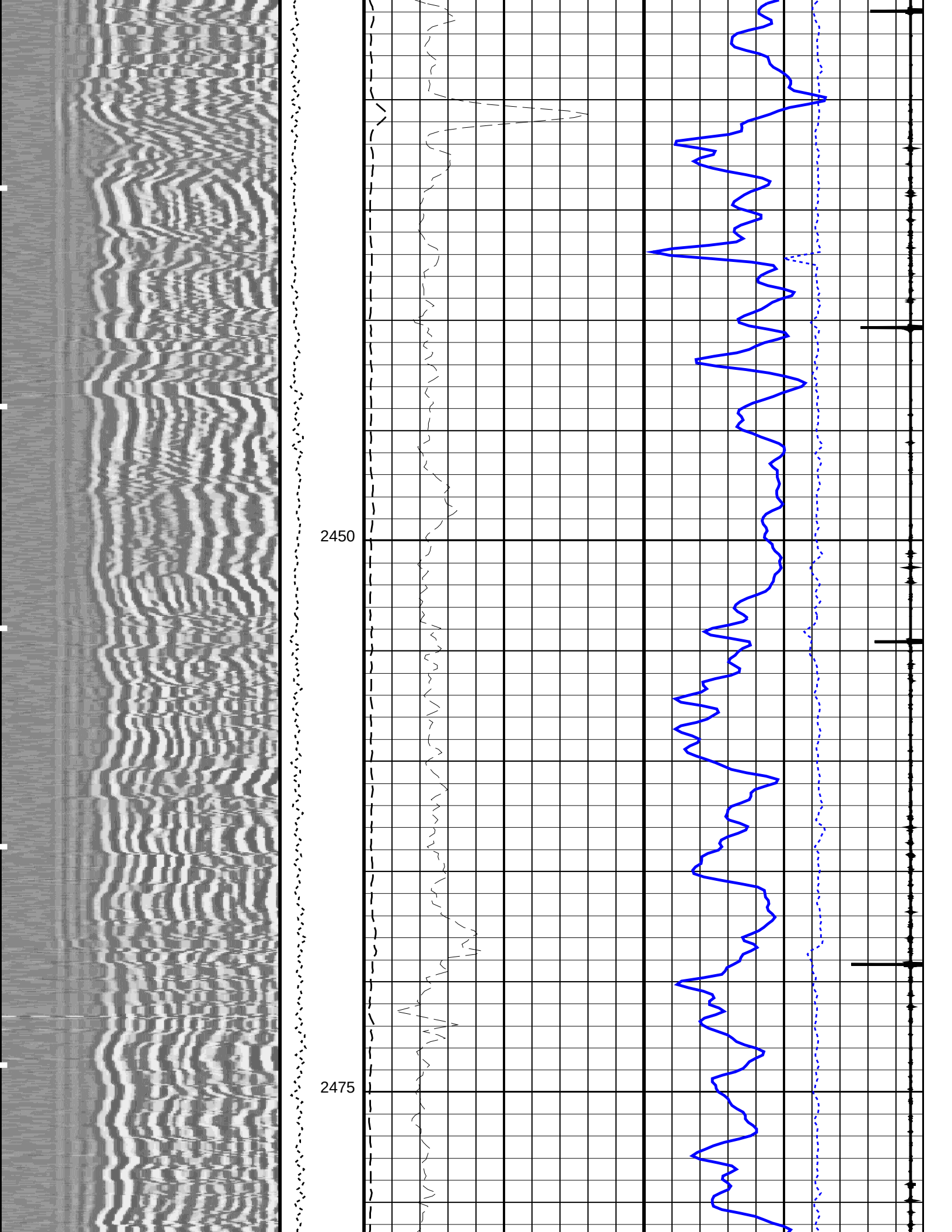
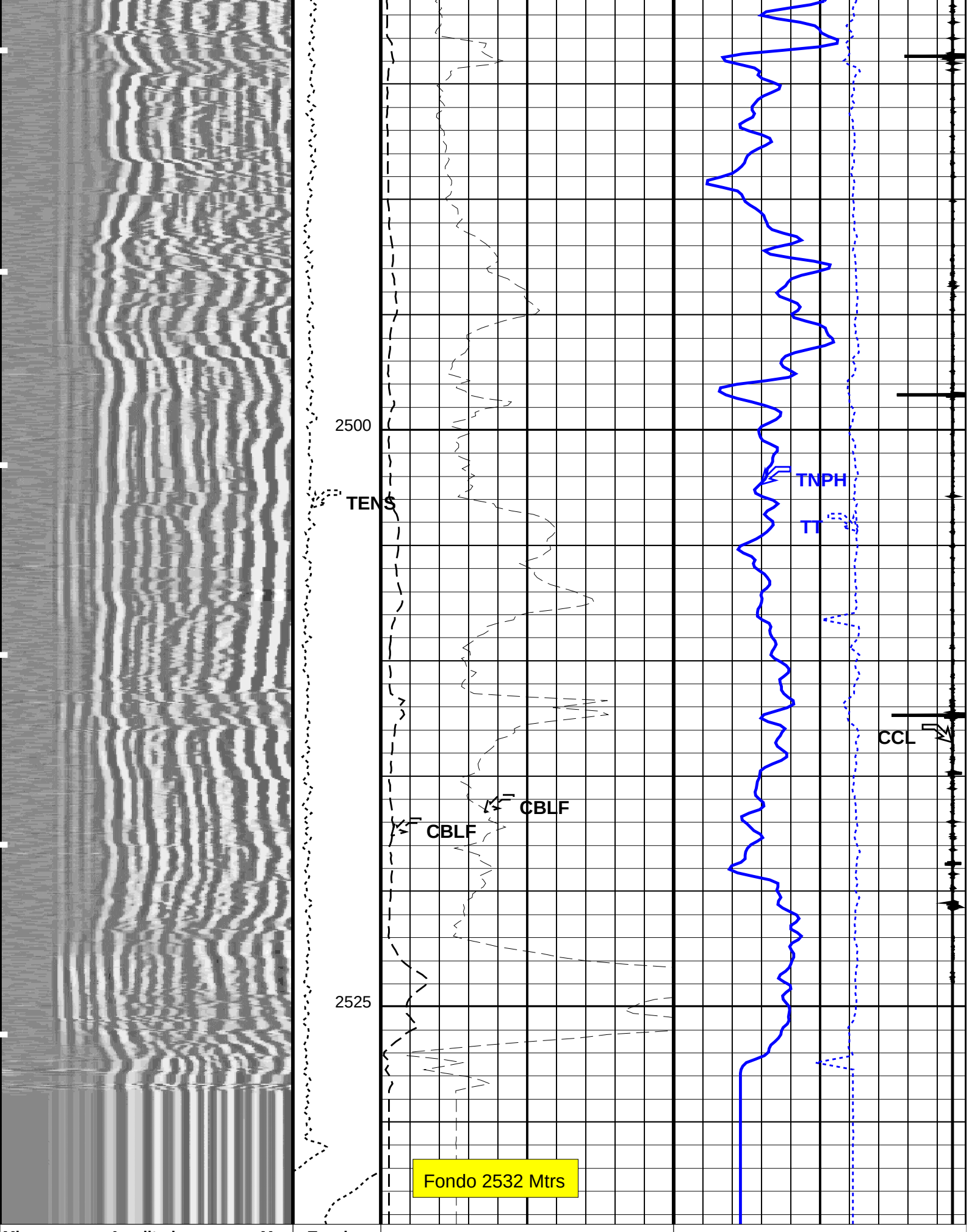

2450
2475


2500
2525
TENS
TNPH
TT
CCL
CBLF
CBLF
Fondo 2532 Mtrs
Min
Amplitude
Max
VDL VariableDensity (VDL)
Tension (TENS) (LBF)
Fluid Compensated CBL Amplitude (CBLF)
0
(MV)
100
Casing Collar Locator (CCL)
-19
(----
1

200 (US) 1200	0 1000	
	Fluid Compensated CBL Amplitude (CBLF)	Transit Time (TT)
	0 (MV) 10	400 (US) 200
		Env.Corr.Thermal Neutron Porosity (TNPH)
		0.4 (V/V) 0

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
DSLT−TCC: Digitizing Sonic Logging Tool			
	Telemetry Mode	DSLC_TCC	
	DSLT Firing Mode	CBL_W	
AGC	Automatic Gain Control Status	ON	
AMSG	Auxiliary Minimum Sliding Gate	155	US
BILI	Bond Index Level for Zone Isolation	0.8	
CBAF	CBL Adjustment Factor	1	
CBCF	CBL Correction Factor	4	
CBLG	CBL Gate Width	45	US
CDTS	C−Delta−T Shale	100	US/F
CSTR	Compressive Strength of Cement	13789.5	KPAA
DDEL	Digitizing Delay	0	US
DETE	Delta−T Detection	E1	
DFAD	Digital First Arrival Detection Switch	DSP	
DIVL	DSLT Depth Sampling Interval	60	
DRCS	DSLT DLIS Recording Size	120	
DSIN	Digitizing Sample Interval	10	
DTCM	Delta−T Computation Mode	FULL	
DTF	Delta−T Fluid	189	US/F
DTFS	DSLC Telemetry Frame Size	236	
DTM	Delta−T Matrix	56	US/F
DWCO	Digitizing Word Count	120	
FCF	CBL Fluid Compensation Factor	0.57	
GAI	Manual Gain	40	
GOBO	Good Bond	2	MV
HRSP	High Resolution Spacing	5.118	IN
ITTS	Integrated Transit Time Source	DT	
LTUT	Lower to Upper Transmitter Spacing Ratio	1	
MAHTR	Manual High Threshold Reference	40	
MCI	Minimum Cemented Interval for Isolation	1.4478	M
MGAI	Maximum Gain	1000	
MIGA	Minimum Gain	1	
MNHTR	Minimum High Threshold Reference	30	
MODE	Sonic Firing Mode	CBL	
MSA	Minimum Sonic Amplitude	1.05764	MV
NMSG	Near Minimum Sliding Gate	265	US
NMXG	Near Maximum Sliding Gate	750	US
NUMP	Number of Detection Passes	2	
RATE	Firing Rate	R7	
RDFA	Reset DFAD	OFF	
SDTH	Switch Down Threshold	20000	
SFAF	Sonic Formation Attenuation Factor	0	DB/M
SGAD	Sliding Gate Status	ON	
SGAI	Selectable Acquisition Gain	1X	
SGCL	Sliding Gate Closing Delta−T	250	US/F
SGCW	Sliding Gate Closing Width	25	US
SGDT	Sliding Gate Delta−T	57	US/F
SGW	Sliding Gate Width	80	US
SLEV	Signal Level for AGC	5000	
SPFS	Sonic Porosity Formula	RAYMER_HUNT	
SPSO	Sonic Porosity Source	DT	
SUTH	Switch Up Threshold	1000	
VDLG	VDL Manual Gain	5	
WAGC	Waveform AGC Allow/Disallow	OFF	
WGAI	Waveform Manual Gain	20	
WGDT	Waveform Gain Delta−T	240	US/F
WGIN	Waveform Gain Interval	2540	US
WMOD	Waveform Firing Mode	FULL	
CNT−H: Compensated Neutron − H			
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	100	DEGC
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DPPM	Density Porosity Processing Mode	STAN	

FSAL	Formation Salinity	−50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HSCO	Hole Size Correction Option	YES	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	NATU	
MWCO	Mud Weight Correction Option	NO	
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	20	DEGC
SOCN	Standoff Distance	0.5	IN
SOCO	Standoff Correction Option	NO	
CAL−Y: Casing Anomaly Locator − Y			
CCLD	CCL reset delay	12	IN
CCLT	CCL Detection Level	0.3	V
System and Miscellaneous			
ALTDPCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	8.000	IN
BSAL	Borehole Salinity	−50000.00	PPM
CSIZ	Current Casing Size	5.500	IN
CWEI	Casing Weight	15.50	LB/F
DFD	Drilling Fluid Density	1.00	G/C3
DO	Depth Offset for Playback	0.0	M
DORL	Depth Offset for Repeat Analysis	0.0	M
MST	Mud Sample Temperature	−50000.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	NORMAL	
RMFS	Resistivity of Mud Filtrate Sample	−50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	−50000	M
TDD	Total Depth − Driller	2600.00	M
TDL	Total Depth − Logger	1869.00	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: CBL_Fluid_Compensated Vertical Scale: 1:200 Graphics File Created: 07−Mar−2005 12:05

OP System Version: 11C0−305

MCM

DSLT−TCC	OP11−KP1	CNT−H	OP11−KP1
TCC−B	OP11−KP1	CAL−Y	11C0−305

Input DLIS Files

DEFAULT	SONIC_CNL_008PUP	FN:7	PRODUCER	04−Mar−2005 22:04	2534.4 M	1311.6 M

Output DLIS Files

DEFAULT	SONIC_CNL_016PUP	FN:15	PRODUCER	07−Mar−2005 12:05

MAXIS EXPRESS

Schlumberger

TRAMO REPETIDO

Company: Well:

Input DLIS Files

DEFAULT	SONIC_CNL_009LUP	FN:8	PRODUCER	04−Mar−2005 22:08	1393.1 M	1299.1 M

Output DLIS Files

DEFAULT SONIC_CNL_017PUP FN:16 PRODUCER 07−Mar−2005 12:08 1393.1 M 1299.7 M

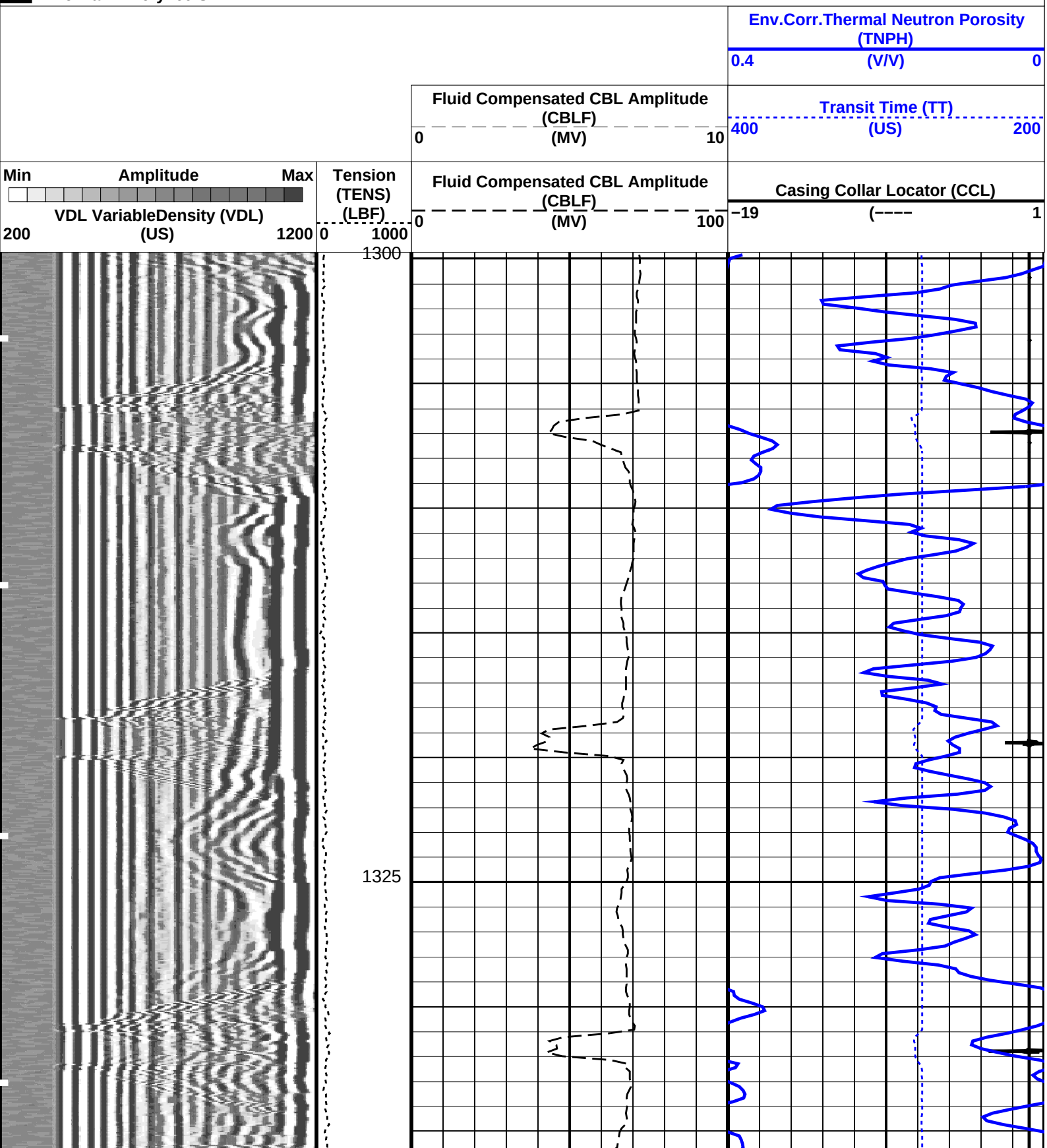
OP System Version: 11C0−305

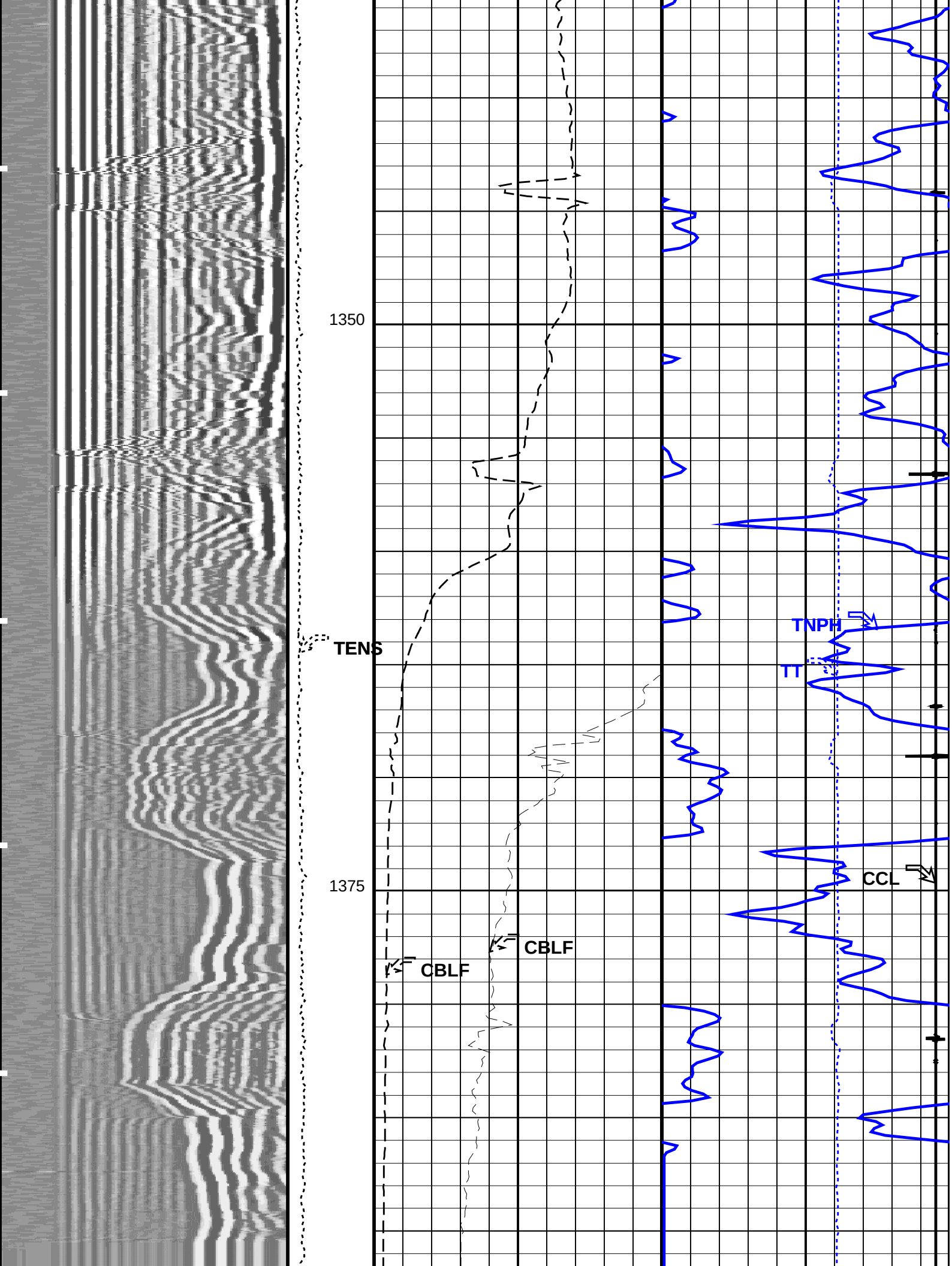
MCM

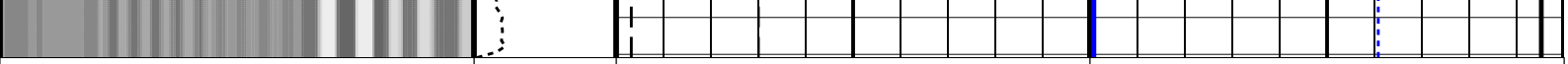
DSLT−TCC	OP11−KP1	CNT−H	OP11−KP1
TCC−B	OP11−KP1	CAL−Y	11C0−305

PIP SUMMARY

Time Mark Every 60 S




1350
TENS
TNPH
TT
1375
CCL
CBLF
CBLF



Min	Amplitude	Max
	VDL VariableDensity (VDL)	
200	(US)	1200

Tension (TENS) (LBF)	
0	1000

Fluid Compensated CBL Amplitude (CBLF)		
0	(MV)	100

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

Fluid Compensated CBL Amplitude (CBLF)		
0	(MV)	10

Transit Time (TT)		
400	(US)	200

Env.Corr.Thermal Neutron Porosity (TNPH)		
0.4	(V/V)	0

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
DSLT−TCC: Digitizing	Sonic Logging Tool		
	Telemetry Mode	DSLC_TCC	
	DSLT Firing Mode	CBL_W	
AGC	Automatic Gain Control Status	ON	
AMSG	Auxiliary Minimum Sliding Gate	155	US
BILI	Bond Index Level for Zone Isolation	0.8	
CBAF	CBL Adjustment Factor	1	
CBCF	CBL Correction Factor	4	
CBLG	CBL Gate Width	45	US
CDTS	C−Delta−T Shale	100	US/F
CSTR	Compressive Strength of Cement	13789.5	KPAA
DDEL	Digitizing Delay	0	US
DETE	Delta−T Detection	E1	
DFAD	Digital First Arrival Detection Switch	DSP	
DIVL	DSLT Depth Sampling Interval	60	
DRCS	DSLT DLIS Recording Size	120	
DSIN	Digitizing Sample Interval	10	
DTCM	Delta−T Computation Mode	FULL	
DTF	Delta−T Fluid	189	US/F
DTFS	DSLC Telemetry Frame Size	236	
DTM	Delta−T Matrix	56	US/F
DWCO	Digitizing Word Count	120	
FCF	CBL Fluid Compensation Factor	0.57	
GAI	Manual Gain	40	
GOBO	Good Bond	2	MV
HRSP	High Resolution Spacing	5.118	IN
ITTS	Integrated Transit Time Source	DT	
LTUT	Lower to Upper Transmitter Spacing Ratio	1	
MAHTR	Manual High Threshold Reference	40	
MCI	Minimum Cemented Interval for Isolation	1.4478	M
MGAI	Maximum Gain	1000	
MIGA	Minimum Gain	1	
MNHTR	Minimum High Threshold Reference	30	
MODE	Sonic Firing Mode	CBL	
MSA	Minimum Sonic Amplitude	1.05764	MV
NMSG	Near Minimum Sliding Gate	265	US
NMXG	Near Maximum Sliding Gate	750	US
NUMP	Number of Detection Passes	2	
RATE	Firing Rate	R7	
RDFA	Reset DFAD	OFF	
SDTH	Switch Down Threshold	20000	
SFAF	Sonic Formation Attenuation Factor	0	DB/M
SGAD	Sliding Gate Status	ON	
SGAI	Selectable Acquisition Gain	1X	
SGCL	Sliding Gate Closing Delta−T	250	US/F
SGCW	Sliding Gate Closing Width	25	US
SGDT	Sliding Gate Delta−T	57	US/F
SGW	Sliding Gate Width	80	US
SLEV	Signal Level for AGC	5000	
SPFS	Sonic Porosity Formula	RAYMER_HUNT	
SPSO	Sonic Porosity Source	DT	
SUTH	Switch Up Threshold	1000	
VDLG	VDL Manual Gain	5	
WAGC	Waveform AGC Allow/Disallow	OFF	
WGAI	Waveform Manual Gain	20	
WGDT	Waveform Gain Delta−T	240	US/F
WGIN	Waveform Gain Interval	2540	US
WMOD	Waveform Firing Mode	FULL	
CNT−H: Compensated Neutron − H			

	CNT−H: Compensated Neutron − H		
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	100	DEGC
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DPPM	Density Porosity Processing Mode	STAN	
FSAL	Formation Salinity	−50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HSCO	Hole Size Correction Option	YES	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	NATU	
MWCO	Mud Weight Correction Option	NO	
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	20	DEGC
SOCN	Standoff Distance	0.5	IN
SOCO	Standoff Correction Option	NO	
	CAL−Y: Casing Anomaly Locator − Y		
CCLD	CCL reset delay	12	IN
CCLT	CCL Detection Level	0.3	V
	System and Miscellaneous		
ALTDPCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	8.000	IN
BSAL	Borehole Salinity	−50000.00	PPM
CSIZ	Current Casing Size	5.500	IN
CWEI	Casing Weight	15.50	LB/F
DFD	Drilling Fluid Density	1.00	G/C3
DO	Depth Offset for Playback	0.0	M
DORL	Depth Offset for Repeat Analysis	0.0	M
MST	Mud Sample Temperature	−50000.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	NORMAL	
RMFS	Resistivity of Mud Filtrate Sample	−50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	−50000	M
TDD	Total Depth − Driller	2600.00	M
TDL	Total Depth − Logger	1869.00	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: CBL_Fluid_Compensated Vertical Scale: 1:200 Graphics File Created: 07−Mar−2005 12:08

OP System Version: 11C0−305

MCM

DSLT−TCC	OP11−KP1	CNT−H	OP11−KP1
TCC−B	OP11−KP1	CAL−Y	11C0−305

Input DLIS Files

DEFAULT	SONIC_CNL_009LUP	FN:8	PRODUCER	04−Mar−2005 22:08	1393.1 M	1299.1 M

Output DLIS Files

DEFAULT	SONIC_CNL_017PUP	FN:16	PRODUCER	07−Mar−2005 12:08

MAXIS EXPRESS

Schlumberger

ANALISIS DE REPETIBILIDAD

Company: Well:

Input DLIS Files

DEFAULT	SONIC_CNL_009LUP	FN:8	PRODUCER	04−Mar−2005 22:08	1393.1 M	1299.1 M
DEFAULT	SONIC_CNL_016PUP	FN:15	PRODUCER	07−Mar−2005 12:05	2534.4 M	1312.0 M

Output DLIS Files

DEFAULT	SONIC_CNL_017PUP	FN:16	PRODUCER	07−Mar−2005 12:08	1393.1 M	1299.7 M

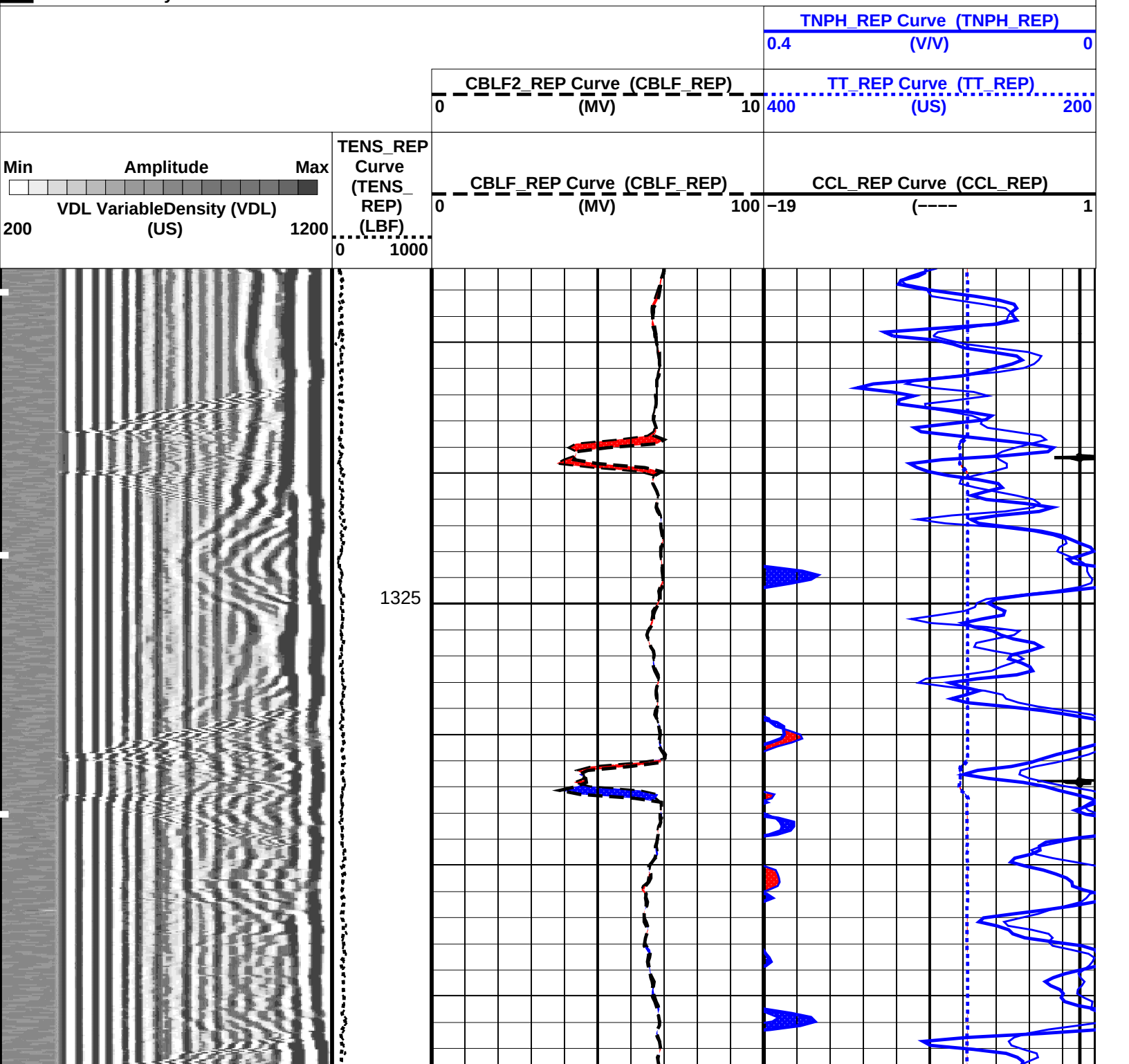
OP System Version: 11C0−305

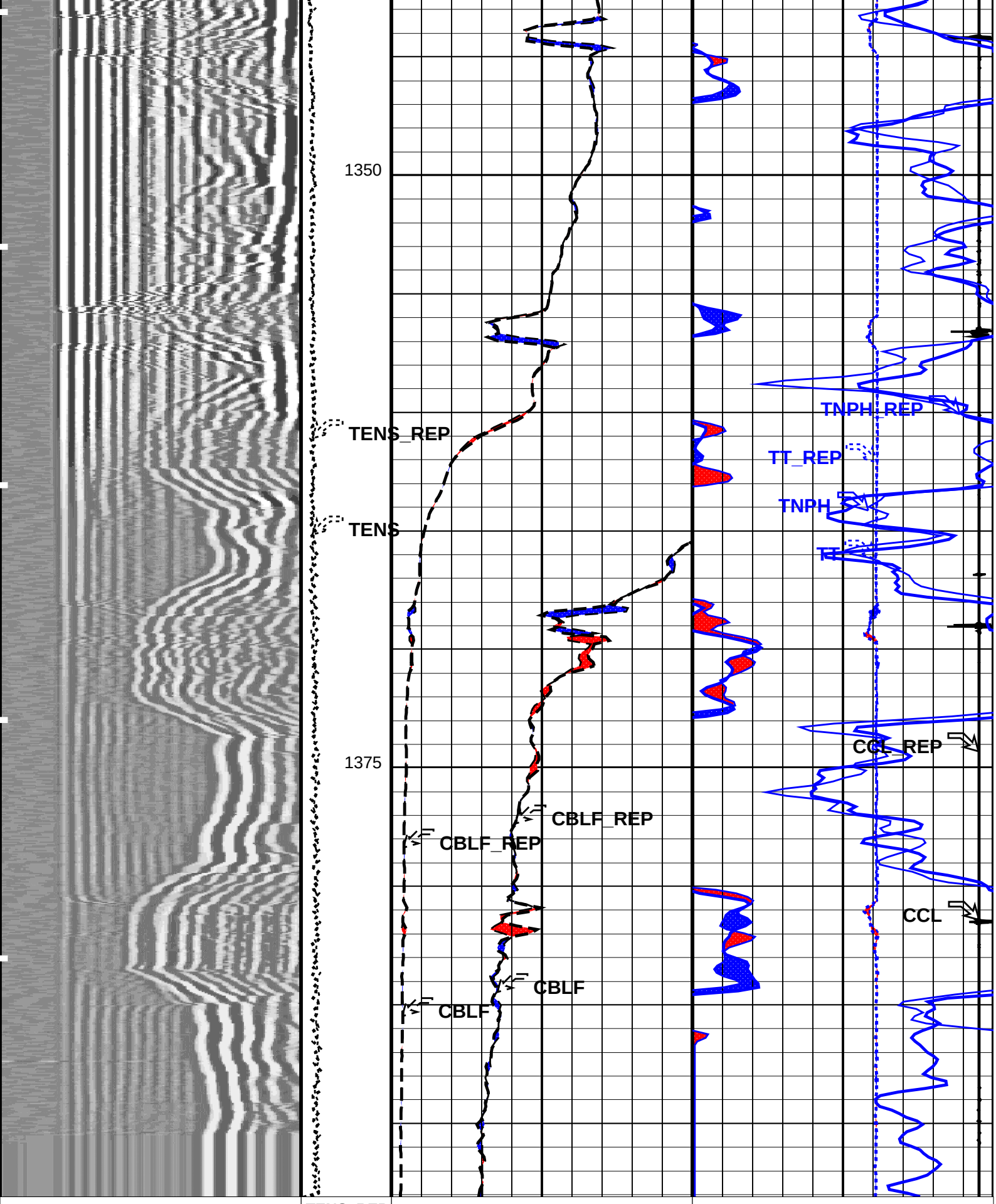
MCM

DSLT−TCC	OP11−KP1	CNT−H	OP11−KP1
TCC−B	OP11−KP1	CAL−Y	11C0−305

PIP SUMMARY

Time Mark Every 60 S





Min Amplitude Max

VDL VariableDensity (VDL)

200 (US) 1200

TENS_REP Curve (TENS_REP) (LBF)

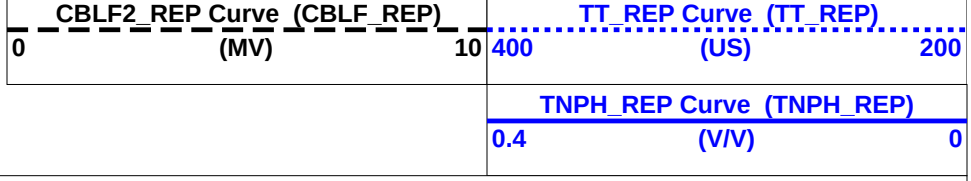
0 1000

CBLF_REP Curve (CBLF_REP)

0 (MV) 100

CCL_REP Curve (CCL_REP)

−19 (---- 1



PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	DSLT−TCC: Digitizing Sonic Logging Tool		
	Telemetry Mode	DSLC_TCC	
	DSLT Firing Mode	CBL_W	
AGC	Automatic Gain Control Status	ON	
AMSG	Auxiliary Minimum Sliding Gate	155	US
BILI	Bond Index Level for Zone Isolation	0.8	
CBAF	CBL Adjustment Factor	1	
CBCF	CBL Correction Factor	4	
CBLG	CBL Gate Width	45	US
CDTS	C−Delta−T Shale	100	US/F
CSTR	Compressive Strength of Cement	13789.5	KPAA
DDEL	Digitizing Delay	0	US
DETE	Delta−T Detection	E1	
DFAD	Digital First Arrival Detection Switch	DSP	
DIVL	DSLT Depth Sampling Interval	60	
DRCS	DSLT DLIS Recording Size	120	
DSIN	Digitizing Sample Interval	10	
DTCM	Delta−T Computation Mode	FULL	
DTF	Delta−T Fluid	189	US/F
DTFS	DSLC Telemetry Frame Size	236	
DTM	Delta−T Matrix	56	US/F
DWCO	Digitizing Word Count	120	
FCF	CBL Fluid Compensation Factor	0.57	
GAI	Manual Gain	40	
GOBO	Good Bond	2	MV
HRSP	High Resolution Spacing	5.118	IN
ITTS	Integrated Transit Time Source	DT	
LTUT	Lower to Upper Transmitter Spacing Ratio	1	
MAHTR	Manual High Threshold Reference	40	
MCI	Minimum Cemented Interval for Isolation	1.4478	M
MGAI	Maximum Gain	1000	
MIGA	Minimum Gain	1	
MNHTR	Minimum High Threshold Reference	30	
MODE	Sonic Firing Mode	CBL	
MSA	Minimum Sonic Amplitude	1.05764	MV
NMSG	Near Minimum Sliding Gate	265	US
NMXG	Near Maximum Sliding Gate	750	US
NUMP	Number of Detection Passes	2	
RATE	Firing Rate	R7	
RDFA	Reset DFAD	OFF	
SDTH	Switch Down Threshold	20000	
SFAF	Sonic Formation Attenuation Factor	0	DB/M
SGAD	Sliding Gate Status	ON	
SGAI	Selectable Acquisition Gain	1X	
SGCL	Sliding Gate Closing Delta−T	250	US/F
SGCW	Sliding Gate Closing Width	25	US
SGDT	Sliding Gate Delta−T	57	US/F
SGW	Sliding Gate Width	80	US
SLEV	Signal Level for AGC	5000	
SPFS	Sonic Porosity Formula	RAYMER_HUNT	
SPSO	Sonic Porosity Source	DT	
SUTH	Switch Up Threshold	1000	
VDLG	VDL Manual Gain	5	
WAGC	Waveform AGC Allow/Disallow	OFF	
WGAI	Waveform Manual Gain	20	
WGDT	Waveform Gain Delta−T	240	US/F
WGIN	Waveform Gain Interval	2540	US
WMOD	Waveform Firing Mode	FULL	
	CNT−H: Compensated Neutron − H		
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	100	DEGC
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DPPM	Density Porosity Processing Mode	STAN	
FSAL	Formation Salinity	−50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG

GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HSCO	Hole Size Correction Option	YES	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	NATU	
MWCO	Mud Weight Correction Option	NO	
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	20	DEGC
SOCN	Standoff Distance	0.5	IN
SOCO	Standoff Correction Option	NO	
CAL−Y: Casing Anomaly Locator − Y			
CCLD	CCL reset delay	12	IN
CCLT	CCL Detection Level	0.3	V
System and Miscellaneous			
ALTDPCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	8.000	IN
BSAL	Borehole Salinity	−50000.00	PPM
CSIZ	Current Casing Size	5.500	IN
CWEI	Casing Weight	15.50	LB/F
DFD	Drilling Fluid Density	1.00	G/C3
DO	Depth Offset for Playback	0.0	M
DORL	Depth Offset for Repeat Analysis	0.0	M
MST	Mud Sample Temperature	−50000.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	NORMAL	
RMFS	Resistivity of Mud Filtrate Sample	−50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	−50000	M
TDD	Total Depth − Driller	2600.00	M
TDL	Total Depth − Logger	1869.00	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: CBL_Fluid_Compensated_REP Vertical Scale: 1:200 Graphics File Created: 07−Mar−2005 12:08

OP System Version: 11C0−305

MCM

DSLT−TCC	OP11−KP1	CNT−H	OP11−KP1
TCC−B	OP11−KP1	CAL−Y	11C0−305

Input DLIS Files

DEFAULT	SONIC_CNL_009LUP	FN:8	PRODUCER	04−Mar−2005 22:08	1393.1 M	1299.1 M
DEFAULT	SONIC_CNL_016PUP	FN:15	PRODUCER	07−Mar−2005 12:05	2534.4 M	1312.0 M

Output DLIS Files

DEFAULT	SONIC_CNL_017PUP	FN:16	PRODUCER	07−Mar−2005 12:08

MAXIS EXPRESS

Schlumberger

TRAMO SIN CORRECCION DE PROFUNDIDAD

Company: Well:

Input DLIS Files

DEFAULT	SONIC_CNL_002LUP	FN:1	PRODUCER	04−Mar−2005 19:45	2533.5 M	2474.1 M

Output DLIS Files

DEFAULT | SONIC_CNL_013PUP | FN:12 | PRODUCER | 07−Mar−2005 11:57 | 2533.5 M | 2474.5 M

OP System Version: 11C0−305

MCM

DSLT−TCC	OP11−KP1	CNT−H	OP11−KP1
TCC−B	OP11−KP1	CAL−Y	11C0−305

PIP SUMMARY

Time Mark Every 60 S

Env.Corr.Thermal Neutron Porosity (TNPH)
0.4 (V/V) 0

Fluid Compensated CBL Amplitude (CBLF)
0 (MV) 10

Transit Time (TT)
400 (US) 200

Min Amplitude Max

VDL VariableDensity (VDL)
200 (US) 1200

Tension (TENS) (LBF)
0 1000

Fluid Compensated CBL Amplitude (CBLF)
0 (MV) 100

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

2475

TENS

TNPH

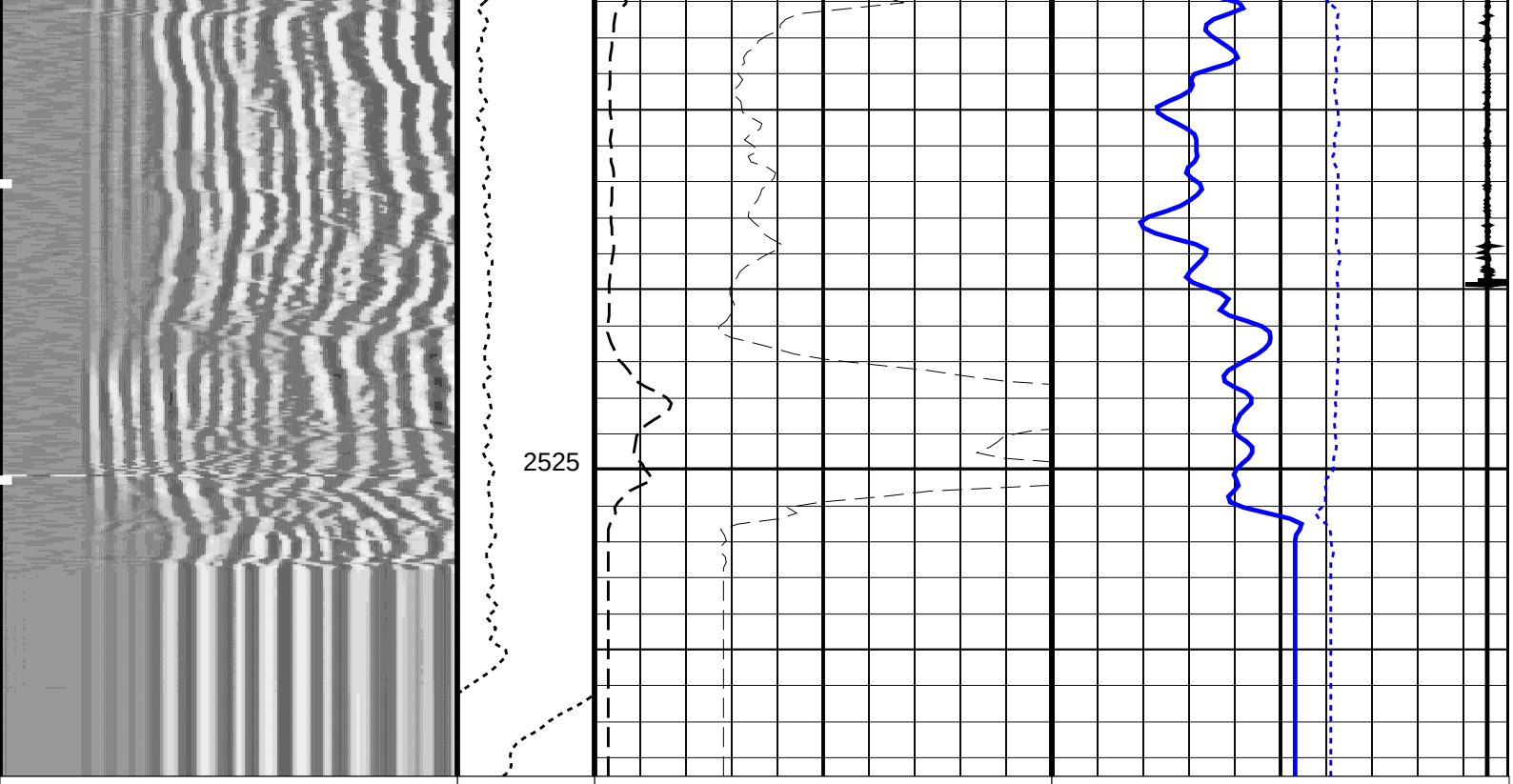
Tramo sin Correccion de Profundidad

2500

CCL

CBLF

CBLF



Min Amplitude Max
VDL VariableDensity (VDL)
200 (US) 1200

Tension (TENS) (LBF)
0 1000

Fluid Compensated CBL Amplitude (CBLF)
0 (MV) 100

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

Fluid Compensated CBL Amplitude (CBLF)
0 (MV) 10

Transit Time (TT)
400 (US) 200

Env.Corr.Thermal Neutron Porosity (TNPH)
0.4 (V/V) 0

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
DSLT−TCC: Digitizing	Sonic Logging Tool		
	Telemetry Mode	DSLC_TCC	
	DSLT Firing Mode	CBL_W	
AGC	Automatic Gain Control Status	ON	
AMSG	Auxiliary Minimum Sliding Gate	155	US
BILI	Bond Index Level for Zone Isolation	0.8	
CBAF	CBL Adjustment Factor	1	
CBCF	CBL Correction Factor	4	
CBLG	CBL Gate Width	45	US
CDTS	C−Delta−T Shale	100	US/F
CSTR	Compressive Strength of Cement	13789.5	KPAA
DDEL	Digitizing Delay	0	US
DETE	Delta−T Detection	E1	
DFAD	Digital First Arrival Detection Switch	DSP	
DIVL	DSLT Depth Sampling Interval	60	
DRCS	DSLT DLIS Recording Size	120	
DSIN	Digitizing Sample Interval	10	
DTCM	Delta−T Computation Mode	FULL	
DTF	Delta−T Fluid	189	US/F
DTFS	DSLC Telemetry Frame Size	236	
DTM	Delta−T Matrix	56	US/F
DWCO	Digitizing Word Count	120	
FCF	CBL Fluid Compensation Factor	0.57	
GAI	Manual Gain	40	
GOBO	Good Bond	2	MV
HRSP	High Resolution Spacing	5.118	IN
ITTS	Integrated Transit Time Source	DT	
LTUT	Lower to Upper Transmitter Spacing Ratio	1	

MAHTR	Manual High Threshold Reference	40	
MCI	Minimum Cemented Interval for Isolation	1.4478	M
MGAI	Maximum Gain	1000	
MIGA	Minimum Gain	1	
MNHTR	Minimum High Threshold Reference	30	
MODE	Sonic Firing Mode	CBL	
MSA	Minimum Sonic Amplitude	1.05764	MV
NMSG	Near Minimum Sliding Gate	265	US
NMXG	Near Maximum Sliding Gate	750	US
NUMP	Number of Detection Passes	2	
RATE	Firing Rate	R7	
RDFA	Reset DFAD	OFF	
SDTH	Switch Down Threshold	20000	
SFAF	Sonic Formation Attenuation Factor	0	DB/M
SGAD	Sliding Gate Status	ON	
SGAI	Selectable Acquisition Gain	1X	
SGCL	Sliding Gate Closing Delta−T	250	US/F
SGCW	Sliding Gate Closing Width	25	US
SGDT	Sliding Gate Delta−T	57	US/F
SGW	Sliding Gate Width	80	US
SLEV	Signal Level for AGC	5000	
SPFS	Sonic Porosity Formula	RAYMER_HUNT	
SPSO	Sonic Porosity Source	DT	
SUTH	Switch Up Threshold	1000	
VDLG	VDL Manual Gain	5	
WAGC	Waveform AGC Allow/Disallow	OFF	
WGAI	Waveform Manual Gain	20	
WGDT	Waveform Gain Delta−T	240	US/F
WGIN	Waveform Gain Interval	2540	US
WMOD	Waveform Firing Mode	FULL	
CNT−H: Compensated Neutron − H			
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	100	DEGC
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DPPM	Density Porosity Processing Mode	STAN	
FSAL	Formation Salinity	−50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HSCO	Hole Size Correction Option	YES	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	NATU	
MWCO	Mud Weight Correction Option	NO	
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	20	DEGC
SOCN	Standoff Distance	0.5	IN
SOCO	Standoff Correction Option	NO	
CAL−Y: Casing Anomaly Locator − Y			
CCLD	CCL reset delay	12	IN
CCLT	CCL Detection Level	0.3	V
System and Miscellaneous			
ALTDPCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	8.000	IN
BSAL	Borehole Salinity	−50000.00	PPM
CSIZ	Current Casing Size	5.500	IN
CWEI	Casing Weight	15.50	LB/F
DFD	Drilling Fluid Density	1.00	G/C3
DO	Depth Offset for Playback	0.0	M
MST	Mud Sample Temperature	−50000.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	NORMAL	
RMFS	Resistivity of Mud Filtrate Sample	−50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	−50000	M
TDD	Total Depth − Driller	2600.00	M
TDL	Total Depth − Logger	1869.00	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: CBL_Fluid_Compensated Vertical Scale: 1:200 Graphics File Created: 07−Mar−2005 11:57

OP System Version: 11C0−305

MCM

DSLT−TCC	OP11−KP1	CNT−H	OP11−KP1
TCC−B	OP11−KP1	CAL−Y	11C0−305

Input DLIS Files

Input DLIS Files

DEFAULT	SONIC_CNL_002LUP	FN:1	PRODUCER	04−Mar−2005 19:45	2533.5 M	2474.1 M

Output DLIS Files

DEFAULT	SONIC_CNL_013PUP	FN:12	PRODUCER	07−Mar−2005 11:57		

MAXIS EXPRESS

Schlumberger

Analisis de Repetibilidad en Tramo sin Correccion

Company: **Well:**

Input DLIS Files

DEFAULT	SONIC_CNL_008PUP	FN:7	PRODUCER	04−Mar−2005 22:04	2534.4 M	1311.6 M
DEFAULT	SONIC_CNL_014PUP	FN:13	PRODUCER	07−Mar−2005 12:02	2534.3 M	2475.7 M

Output DLIS Files

DEFAULT	SONIC_CNL_016PUP	FN:15	PRODUCER	07−Mar−2005 12:05		

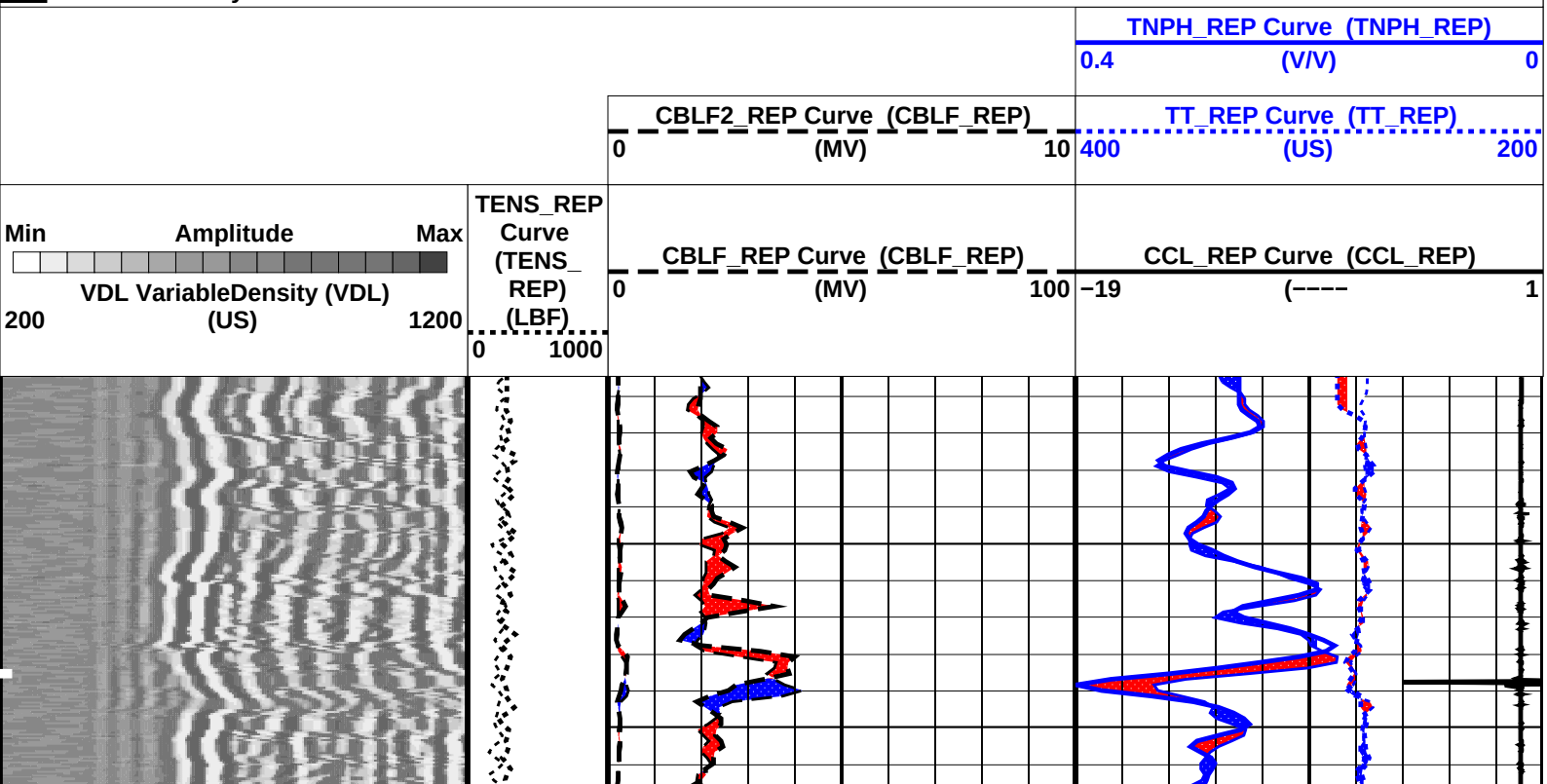
OP System Version: 11C0−305

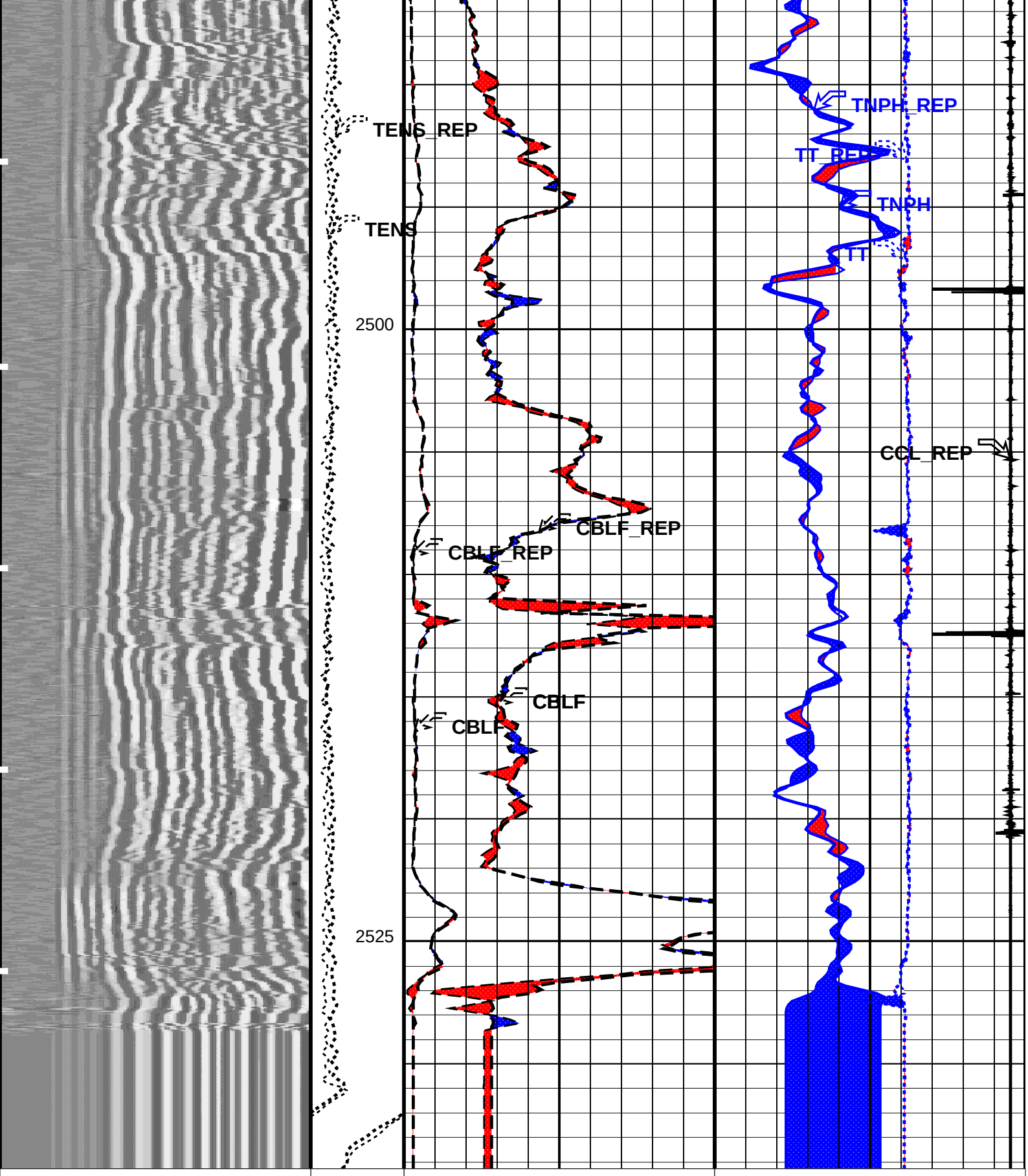
MCM

DSLT−TCC	OP11−KP1	CNT−H	OP11−KP1
TCC−B	OP11−KP1	CAL−Y	11C0−305

PIP SUMMARY

Time Mark Every 60 S





Min Amplitude Max

VDL VariableDensity (VDL)

200 (US) 1200

TENS_REP Curve (TENS_REP) (LBF)

0 1000

CBLF_REP Curve (CBLF_REP)

0 (MV) 100

CCL_REP Curve (CCL_REP)

−19 (−−−− 1

CBLF2_REP Curve (CBLF_REP)

0 (MV) 10

TT_REP Curve (TT_REP)

400 (US) 200

TNPH_REP Curve (TNPH_REP)

TNPH_REP Curve (TNPH_REP)		
0.4	(V/V)	0

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	DSLT−TCC: Digitizing Sonic Logging Tool		
	Telemetry Mode	DSLC_TCC	
	DSLT Firing Mode	CBL_W	
AGC	Automatic Gain Control Status	ON	
AMSG	Auxiliary Minimum Sliding Gate	155	US
BILI	Bond Index Level for Zone Isolation	0.8	
CBAF	CBL Adjustment Factor	1	
CBCF	CBL Correction Factor	4	
CBLG	CBL Gate Width	45	US
CDTS	C−Delta−T Shale	100	US/F
CSTR	Compressive Strength of Cement	13789.5	KPAA
DDEL	Digitizing Delay	0	US
DETE	Delta−T Detection	E1	
DFAD	Digital First Arrival Detection Switch	DSP	
DIVL	DSLT Depth Sampling Interval	60	
DRCS	DSLT DLIS Recording Size	120	
DSIN	Digitizing Sample Interval	10	
DTCM	Delta−T Computation Mode	FULL	
DTF	Delta−T Fluid	189	US/F
DTFS	DSLC Telemetry Frame Size	236	
DTM	Delta−T Matrix	56	US/F
DWCO	Digitizing Word Count	120	
FCF	CBL Fluid Compensation Factor	0.57	
GAI	Manual Gain	40	
GOBO	Good Bond	2	MV
HRSP	High Resolution Spacing	5.118	IN
ITTS	Integrated Transit Time Source	DT	
LTUT	Lower to Upper Transmitter Spacing Ratio	1	
MAHTR	Manual High Threshold Reference	40	
MCI	Minimum Cemented Interval for Isolation	1.4478	M
MGAI	Maximum Gain	1000	
MIGA	Minimum Gain	1	
MNHTR	Minimum High Threshold Reference	30	
MODE	Sonic Firing Mode	CBL	
MSA	Minimum Sonic Amplitude	1.05764	MV
NMSG	Near Minimum Sliding Gate	265	US
NMXG	Near Maximum Sliding Gate	750	US
NUMP	Number of Detection Passes	2	
RATE	Firing Rate	R7	
RDFA	Reset DFAD	OFF	
SDTH	Switch Down Threshold	20000	
SFAF	Sonic Formation Attenuation Factor	0	DB/M
SGAD	Sliding Gate Status	ON	
SGAI	Selectable Acquisition Gain	1X	
SGCL	Sliding Gate Closing Delta−T	250	US/F
SGCW	Sliding Gate Closing Width	25	US
SGDT	Sliding Gate Delta−T	57	US/F
SGW	Sliding Gate Width	80	US
SLEV	Signal Level for AGC	5000	
SPFS	Sonic Porosity Formula	RAYMER_HUNT	
SPSO	Sonic Porosity Source	DT	
SUTH	Switch Up Threshold	1000	
VDLG	VDL Manual Gain	5	
WAGC	Waveform AGC Allow/Disallow	OFF	
WGAI	Waveform Manual Gain	20	
WGDT	Waveform Gain Delta−T	240	US/F
WGIN	Waveform Gain Interval	2540	US
WMOD	Waveform Firing Mode	FULL	
	CNT−H: Compensated Neutron − H		
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	100	DEGC
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DPPM	Density Porosity Processing Mode	STAN	
FSAL	Formation Salinity	−50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HSCO	Hole Size Correction Option	YES	

MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	NATU	
MWCO	Mud Weight Correction Option	NO	
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	20	DEGC
SOCN	Standoff Distance	0.5	IN
SOCO	Standoff Correction Option	NO	
	CAL−Y: Casing Anomaly Locator − Y		
CCLD	CCL reset delay	12	IN
CCLT	CCL Detection Level	0.3	V
	System and Miscellaneous		
ALTDPCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	8.000	IN
BSAL	Borehole Salinity	−50000.00	PPM
CSIZ	Current Casing Size	5.500	IN
CWEI	Casing Weight	15.50	LB/F
DFD	Drilling Fluid Density	1.00	G/C3
DO	Depth Offset for Playback	0.0	M
DORL	Depth Offset for Repeat Analysis	0.0	M
MST	Mud Sample Temperature	−50000.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	NORMAL	
RMFS	Resistivity of Mud Filtrate Sample	−50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	−50000	M
TDD	Total Depth − Driller	2600.00	M
TDL	Total Depth − Logger	1869.00	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: CBL_Fluid_Compensated_REP **Vertical Scale: 1:200** **Graphics File Created: 07−Mar−2005 12:05**

OP System Version: 11C0−305

MCM

DSLT−TCC	OP11−KP1	CNT−H	OP11−KP1
TCC−B	OP11−KP1	CAL−Y	11C0−305

Input DLIS Files

DEFAULT	SONIC_CNL_008PUP	FN:7	PRODUCER	04−Mar−2005 22:04	2534.4 M	1311.6 M
DEFAULT	SONIC_CNL_014PUP	FN:13	PRODUCER	07−Mar−2005 12:02	2534.3 M	2475.7 M

Output DLIS Files

DEFAULT	SONIC_CNL_016PUP	FN:15	PRODUCER	07−Mar−2005 12:05

MAXIS EXPRESS

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CALIBRACION

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
Compensated Neutron − H Wellsite Calibration − Zero Measurement							
Master: 29−Dec−2004 11:15 Before: 04−Mar−2005 13:01							
CNTC Background	1.000	0	0.5152	N/A	N/A	N/A	CPS
CFTC Background	0	0.5149	1.068	N/A	N/A	N/A	CPS

Compensated Neutron − H Wellsite Calibration − Jig Measurement
Master: 29−Dec−2004 11:49 Before: 04−Mar−2005 13:16

CNTC Jig	2805	2805	2816	N/A	N/A	N/A	CPS
CFTC Jig	1186	1186	1196	N/A	N/A	N/A	CPS
CNTC/CFTC (Jig)	2.364	2.364	2.354	N/A	N/A	N/A	

The CNT Master Calibration Was Done With The Following Parameters :

NCT−B Water Temperature 22.0 DEGC.
Thermal Housing Size 3.365 IN.

Compensated Neutron − H / Equipment Identification

Primary Equipment:		
Compensated Neutron Cartridge	CNC − HA	212
Neutron Logging Source	NLS − KL	
Neutron Source Radioactive	NSR − F	
Compensated Neutron Box	CNB − AB	
Neutron Detector without Alpha Source	CND − NA	
Compensated Neutron Box	CNB − AB	
Auxiliary Equipment:		
Compensated Neutron Housing	CNH − A	2021
Neutron Calibration Tank	NCT − B	

Compensated Neutron − H Wellsite Calibration
Zero Measurement

Phase	CNTC Background CPS	Value	Phase	CFTC Background CPS	Value
Master		0	Master		0.5149
Before		0.5152	Before		1.068
	−0.010000 (Minimum) 1.000 (Nominal) 5.000 (Maximum)			−0.010000 (Minimum) 0 (Nominal) 5.000 (Maximum)	

Master: 29−Dec−2004 11:15 Before: 04−Mar−2005 13:01

Compensated Neutron − H Wellsite Calibration
Jig Measurement

Phase	CNTC Jig CPS	Value	Phase	CFTC Jig CPS	Value	Phase	CNTC/CFTC (Jig)	Value
Master		2805	Master		1186	Master		2.364
Before		2816	Before		1196	Before		2.354
	2664 (Minimum) 2805 (Nominal) 2945 (Maximum)			1127 (Minimum) 1186 (Nominal) 1245 (Maximum)			2.324 (Minimum) 2.364 (Nominal) 2.404 (Maximum)	

Master: 29−Dec−2004 11:49 Before: 04−Mar−2005 13:16

Compania: **YPF S.A.**

Schlumberger

Pozo: **YPF.Ch.PCN−621**
Campo: **PAMPA DEL CASTILLO NORTE**
Provincia: **CHUBUT**
Pais: **ARGENTINA**

CONTROL DE CEMENTO
CBL VDL CNL COMPENSADO CCL
1/200

1/200

COMPANIA: YPF S.A.

POZO: YPF.Ch.PCN–621

CAMPO: PAMPA DEL CASTILLO NORTE

PROVINCIA: CHUBUT **PAIS:** ARGENTINA

Schlumberger

COMBINADA

ESCALA: 1/200

Compania: YPF S.A. Pozo: YPF.Ch.PCN–621 Locacion: CAS

LOCACION

AIT–BHC–LDL–CAL
RFT

Elev.: B.V. 677.89 m
N. T. 672.09 m
M. R. 677.59 m

Ref. Permanente: NIVEL TERRENO Elev.: 672.09 m
Reg. Medido Desde: NIVEL TERRENO 0.0 m sobre nivel ref.
Perforacion Medida Desde: NIVEL TERRENO

UWI: AR0100006241	Equipo PI–390	Longitud X: 4.939.776,85	Latitud Y: 2.578.586,41

	Run 1	Run 2	Run 3
Logging Date			
Run Number			
Depth Driller			
Logger Depth			
Bottom Log Interval			
Top Log Interval			
Casing Driller Size @ Depth		@	
Casing Logger			
Bit Size			
Type Fluid In Hole			
MUD Density / Viscosity			
MUD Fluid Loss / PH			
MUD Source Of Sample			
RM @ Measured Temperature		@	
RMF @ Measured Temperature		@	
RMC @ Measured Temperature		@	
Source RMF / RMC			
RM @ MRT / RMF @ MRT	@	@	@
Maximum Recorded Temperatures			
Circulation Stopped / Time			
Logger On Bottom / Time			
Unit Number / Location			
Recorded By			
Witnessed By			

Fecha		27–Feb–2005			
Corrida No.		1			
Prof. Perforador		2650 m			
Prof. Registro		2654 m			
Primera Lectura		2651.6 m			
Ultima Lectura		427.6 m			
Diámetro Tuberia Perforador		9.625 in @ 429.3 m		@	
Diámetro Tuberia Registro		427.6 m			
Diámetro Trepano		8.500 in			
Tipo De Lodo		IDCAP–YESO			
Densidad	Viscosidad	1.2 g/cm3	60 s		
Perdidas	PH	6.7 cm3	8.5		
Fuente Muestra De Lodo		PILETA			
RM @ Temp.		1.646 ohm.m @ 10 degC		@	
RMF @ Temp.		1.380 ohm.m @ 10 degC		@	
RMC @ Temp.		1.905 ohm.m @ 10 degC		@	
Fuente: RMF	RMC	PRENSA	PRENSA		
RM @ T. Fdo.	RMF @ T. Fdo.	0.425 @ 101	0.353 @ 101	@	@
Temp. Maxima Medida		101 degC			
Circulacion Final	Hora	27–Feb–2005	2:30		
Registro Fondo	Hora	27–Feb–2005	11:02		
Unidad No.	Locacion	3023	CAS		
Registrado por:		A.Georgi / R. Zerkowski			
Testigo		Anibal Silveira			

DEPTH SUMMARY LISTING

Date Created: 28–FEB–2005 0:00:39

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW–B	Type:	CMTD–B/A	Type:	7–42P
Serial Number:	4983	Serial Number:	2193	Serial Number:	4127
Calibration Date:	6–Jun–2003	Calibration Date:	3–Feb–2005	Length:	4821.02 M
Calibrator Serial Number:	5969	Calibrator Serial Number:	1028		
Calibration Cable Type:	7–42P	Calibration Gain:	1.02	Conveyance Method:	Wireline
Wheel Correction 1:	–4	Calibration Offset:	589.00	Rig Type:	LAND
Wheel Correction 2:	–4				

Depth Control Parameters

Log Sequence:	First Log In the Well
Rig Up Length At Surface:	67.10 M
Rig Up Length At Bottom:	67.10 M
Rig Up Length Correction:	0.00 M
Stretch Correction:	1.80 M
Tool Zero Check At Surface:	0.05 M

Depth Control Remarks

1. Primera carrera en el pozo y perfil de referencia de profundidad.
2. Procedimientos de control de profundidad estandard de Schlumberger aplicados a esta carrera.
3. Estiramiento del cable entre perfil bajando y subiendo = 1.8 m
4.
5.
6.

OTROS SERVICIOS # 1		OTROS SERVICIOS # 2	
OS1:	AIT–BHC–LDL–CAL	OS1:	
OS2:	RFT	OS2:	
OS3:		OS3:	
OS4:		OS4:	
OS5:	PI–390	OS5:	

OBSERVACIONES: CORRIDA # 1	OBSERVACIONES: CORRIDA # 2
1. Primera carrera en el pozo y perfil de referencia de profundidad.	
2. Herramienta corrida segun diagrama.	
3. Esquema del pozo segun datos del perforador.	
4. AIT y DSLT corridos descentralizados usando stadoff de 1.5".	
5. Ultima circulacion termino en 27–Feb–2005 a las 2:30 hs y duro 1 h.	
6. Datos adicionales del lodo: Cl= 700 ppm, Ca= 480 ppm.	
7. Coordenadas definitivas.	
8. Maxima desviacion del pozo segun datos del perforador: 2.5 deg.	
9. Maxima temperatura registrada 101 degC, tomada desde termometro en la punta de la herramienta.	
10. Lectura de BHC y LDL afectadas en zonas de mal caliper.	

10. Lectura de BHC y LDL afectadas en zonas de mal caliper.

11. FPHI=SPHI, FEXP=2 y FNUM=0.81 utilizados para calculo de RWA.

12. Lectura de BHC y LDL registrados hasta 1200 m a pedido del cliente.

13. Trepano de 8−3/4" desde 1577 m hasta zapato. Trepano de 8−1/2" desde fondo hasta 1577 m.

CORRIDA #1			CORRIDA #2		
ORDEN DE SERVICIO:			ORDEN DE SERVICIO:		
VERSION DEL PROGRAMA:	12C0−301		VERSION DEL PROGRAMA:		
NIVEL DEL LODO:	0 m		NIVEL DEL LODO:		
INTERVALO REGISTRADO	COMIENZO	FINAL	INTERVALO REGISTRADO	COMIENZO	FINAL

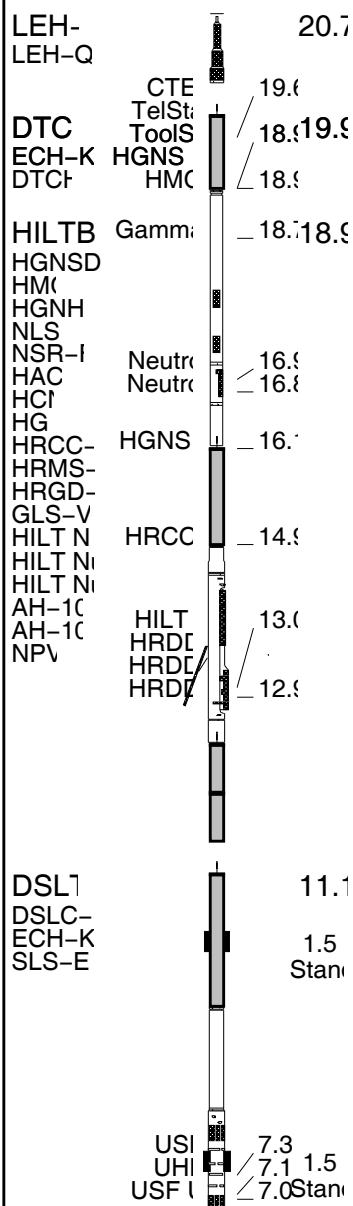
DESCRIPCION DEL EQUIPO

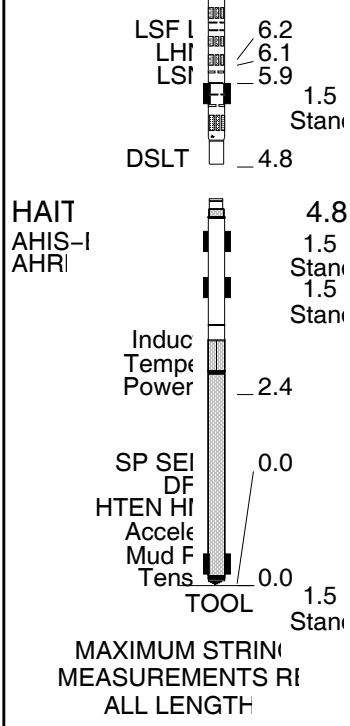
CORRIDA # 1

CORRIDA # 2

SURFACE I
GSR−U WITM (
NCT
CNB
NCS

DOWNHOLE





YPF.Ch.PCN

Schlumbe

PI–39

Altura Mesa: 5

Nivel Terr

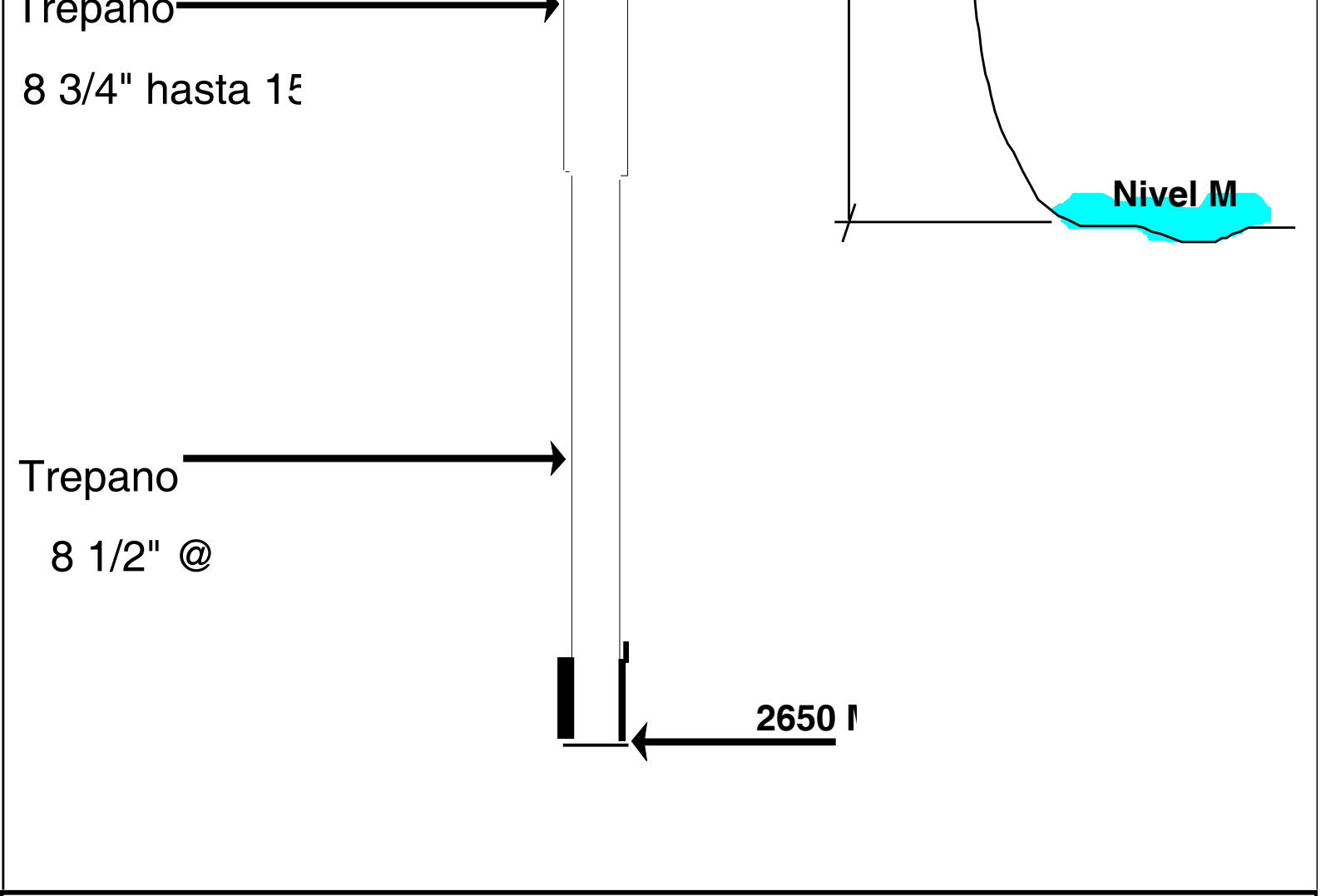
Nivel Refere

Casing 9 5

32.3 Lb/p

Zapato @ 429

Cota: 672.0



Schlumberger

TRAMO PRINCIPAL

MAXIS Field Log

Input DLIS Files

DEFAULT	AIT_SONIC_TLD_MCFL_078PUP	FN:3	PRODUCER	27–Feb–2005 22:45	2659.1 M	356.3 M

Output DLIS Files

DEFAULT	AIT_SONIC_TLD_MCFL_079PUP	FN:4	PRODUCER	27–Feb–2005 23:00	2659.1 M	417.9 M

Integrated Hole/Cement Volume Summary

Hole Volume = 97.35 M3

Cement Volume = 63.23 M3 (assuming 5.50 IN casing O.D.)

Computed from 2653.9 M to 427.6 M using data channel(s) HCAL

OP System Version: 12C0–301

MCM

HAIT–H	SRPC–2699–HILT	DSLT–H	12C0–301
HILTB–FTB	SRPC–2699–HILT	DTC–H	12C0–301

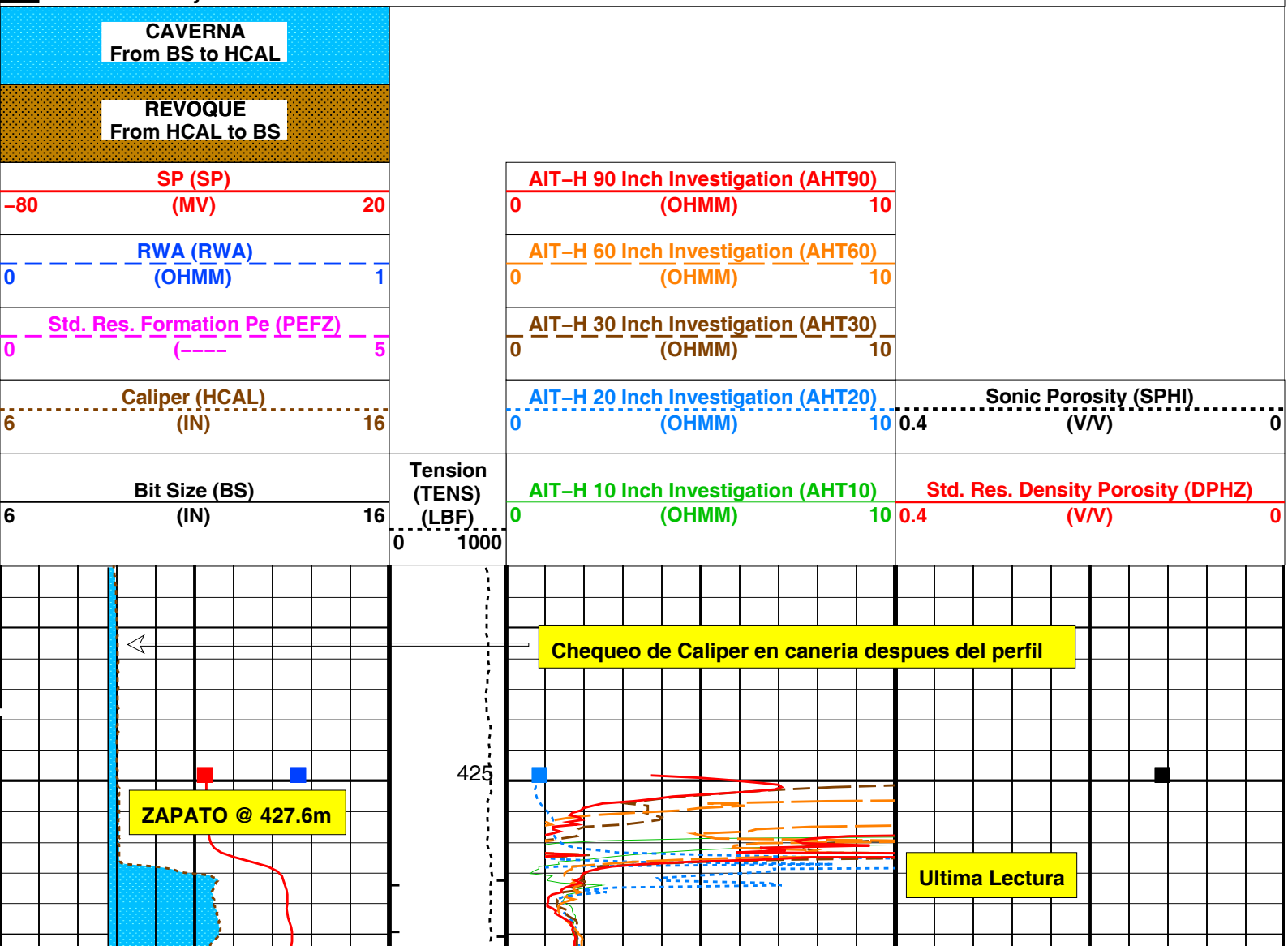
Changed Parameter Summary

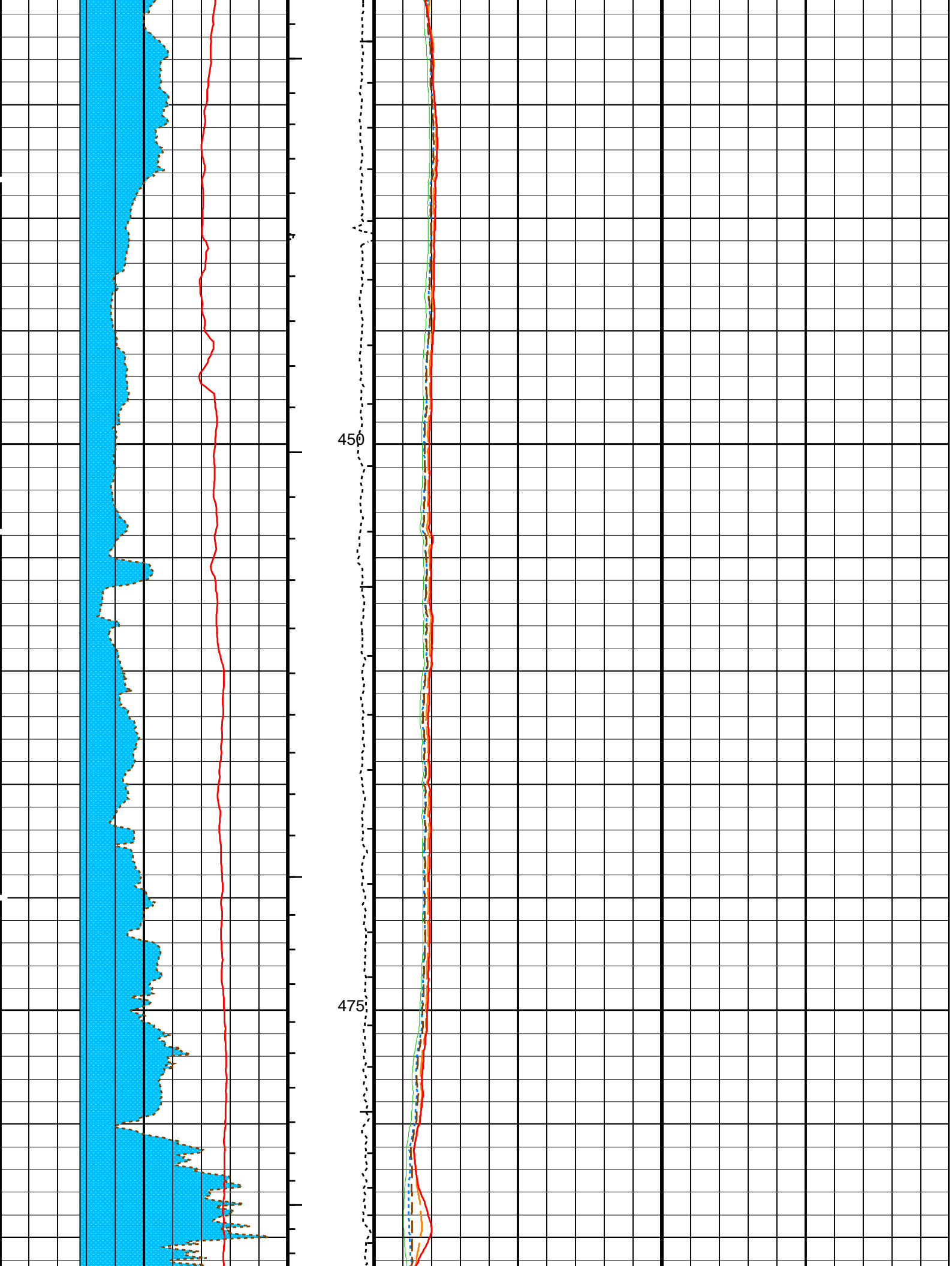
DLIS Name	New Value	Previous Value	Depth & Time
BS	8.500 IN	8.750 IN	2659.1 23:00:54
	8.500 IN	8.500 IN	2605.0 23:00:59
	8.500 IN	8.500 IN	2589.9 23:01:00
	8.750 IN	8.500 IN	1576.9 23:02:44
	8.750 IN	8.750 IN	1554.9 23:02:46
	8.750 IN	8.750 IN	1524.9 23:02:49
	8.750 IN	8.750 IN	1409.9 23:03:01
	8.750 IN	8.750 IN	1405.0 23:03:02
	8.750 IN	8.750 IN	1403.0 23:03:02
	8.750 IN	8.750 IN	1401.9 23:03:02
	8.750 IN	8.750 IN	1400.9 23:03:02
	8.750 IN	8.750 IN	1399.9 23:03:02
SPDR	0 MV/M	0 MV/M	2659.1 23:00:54
	−1 MV/M	0 MV/M	2605.0 23:00:59
	0 MV/M	−1 MV/M	2589.9 23:01:00
	0 MV/M	0 MV/M	1576.9 23:02:44
	0.17 MV/M	0 MV/M	1554.9 23:02:46
	0 MV/M	0.17 MV/M	1524.9 23:02:49
	0.6 MV/M	0 MV/M	1409.9 23:03:01
	0 MV/M	0.6 MV/M	1405.0 23:03:02
	−7 MV/M	0 MV/M	1403.0 23:03:02
	0 MV/M	−7 MV/M	1401.9 23:03:02
	9 MV/M	0 MV/M	1400.9 23:03:02
	0 MV/M	9 MV/M	1399.9 23:03:02

PIP SUMMARY

- Integrated Hole Volume Minor Pip Every 0.1 M3
- Integrated Hole Volume Major Pip Every 1 M3
- Integrated Cement Volume Minor Pip Every 0.1 M3
- Integrated Cement Volume Major Pip Every 1 M3

Time Mark Every 60 S

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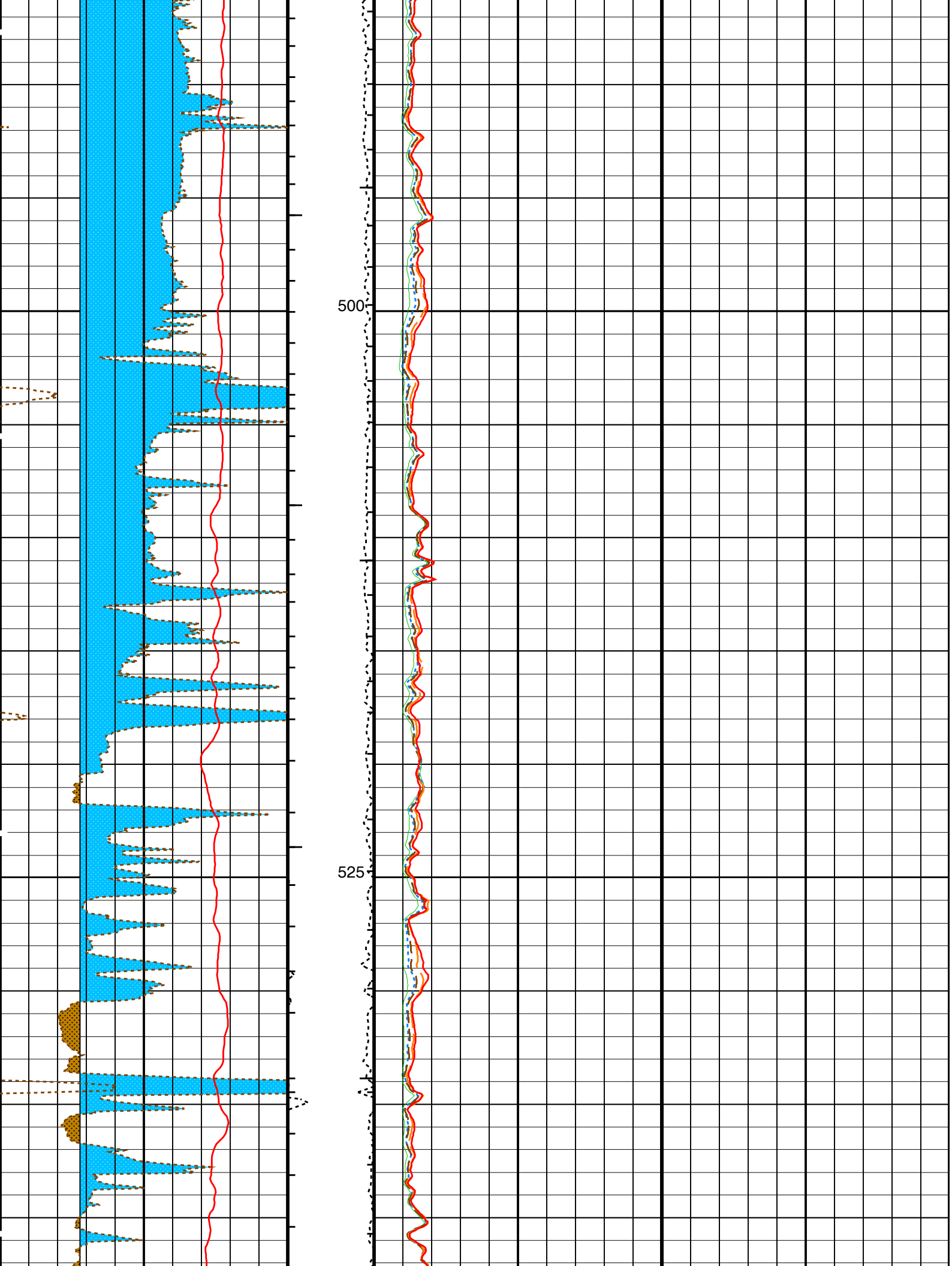
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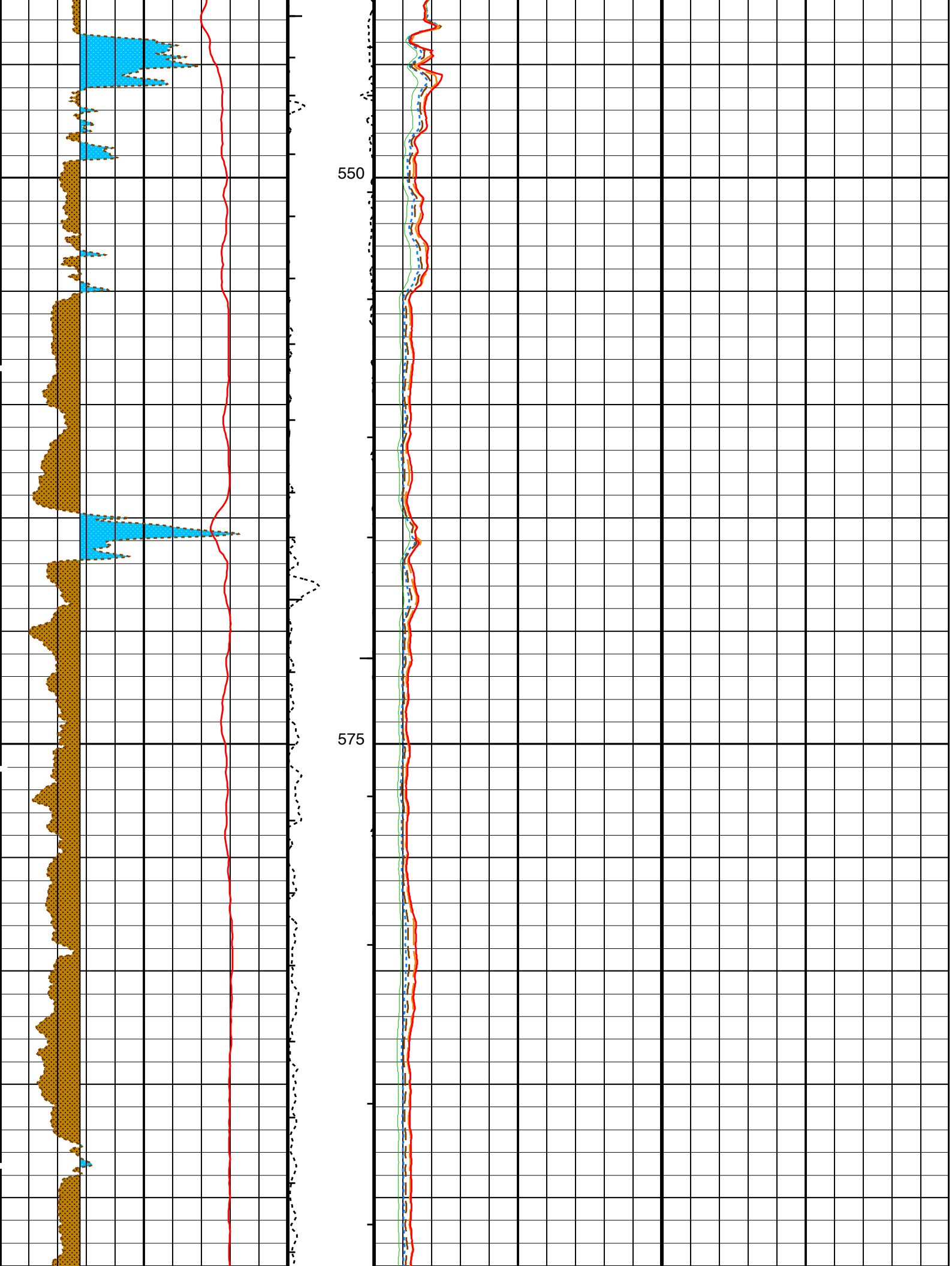
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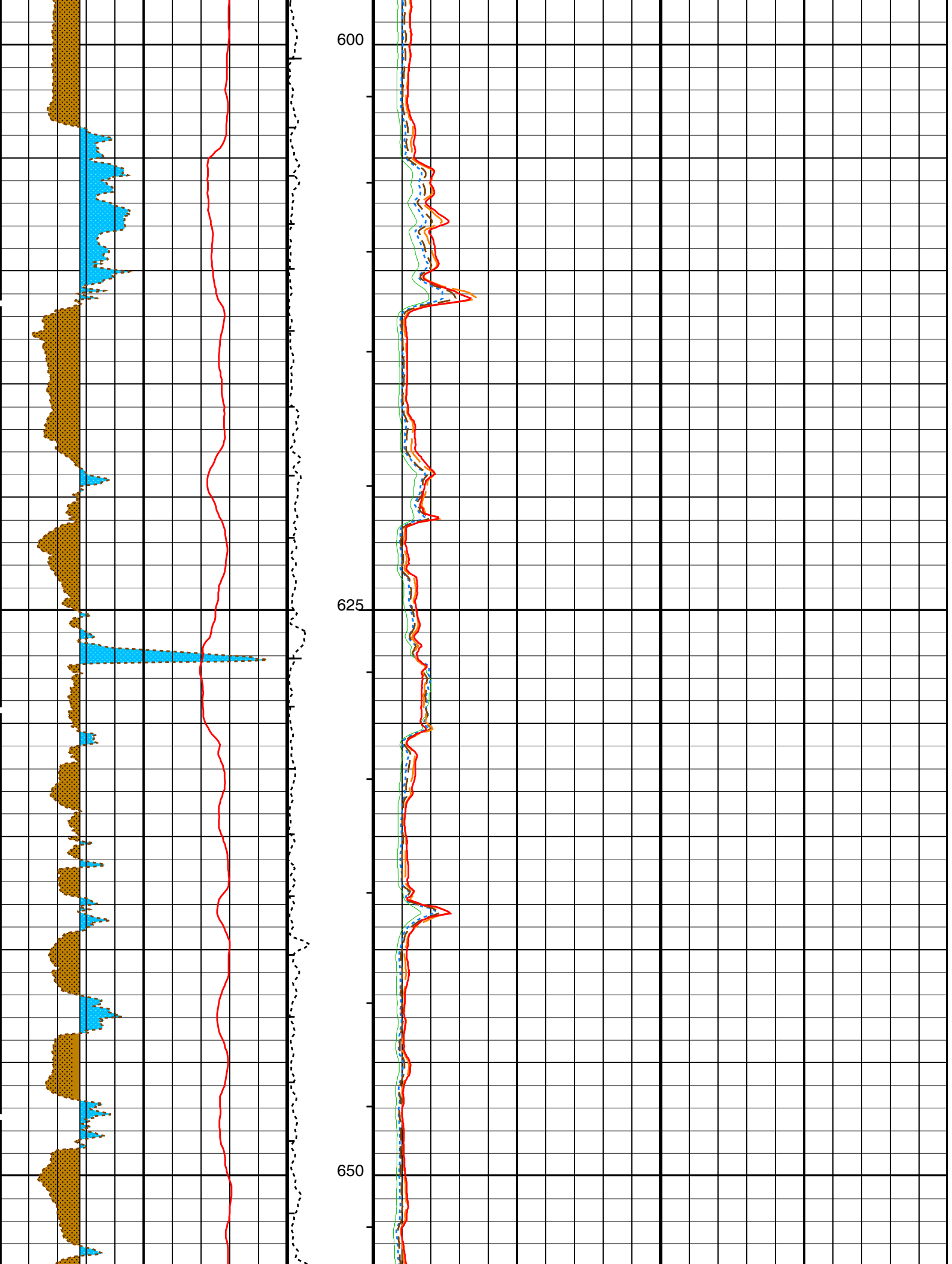
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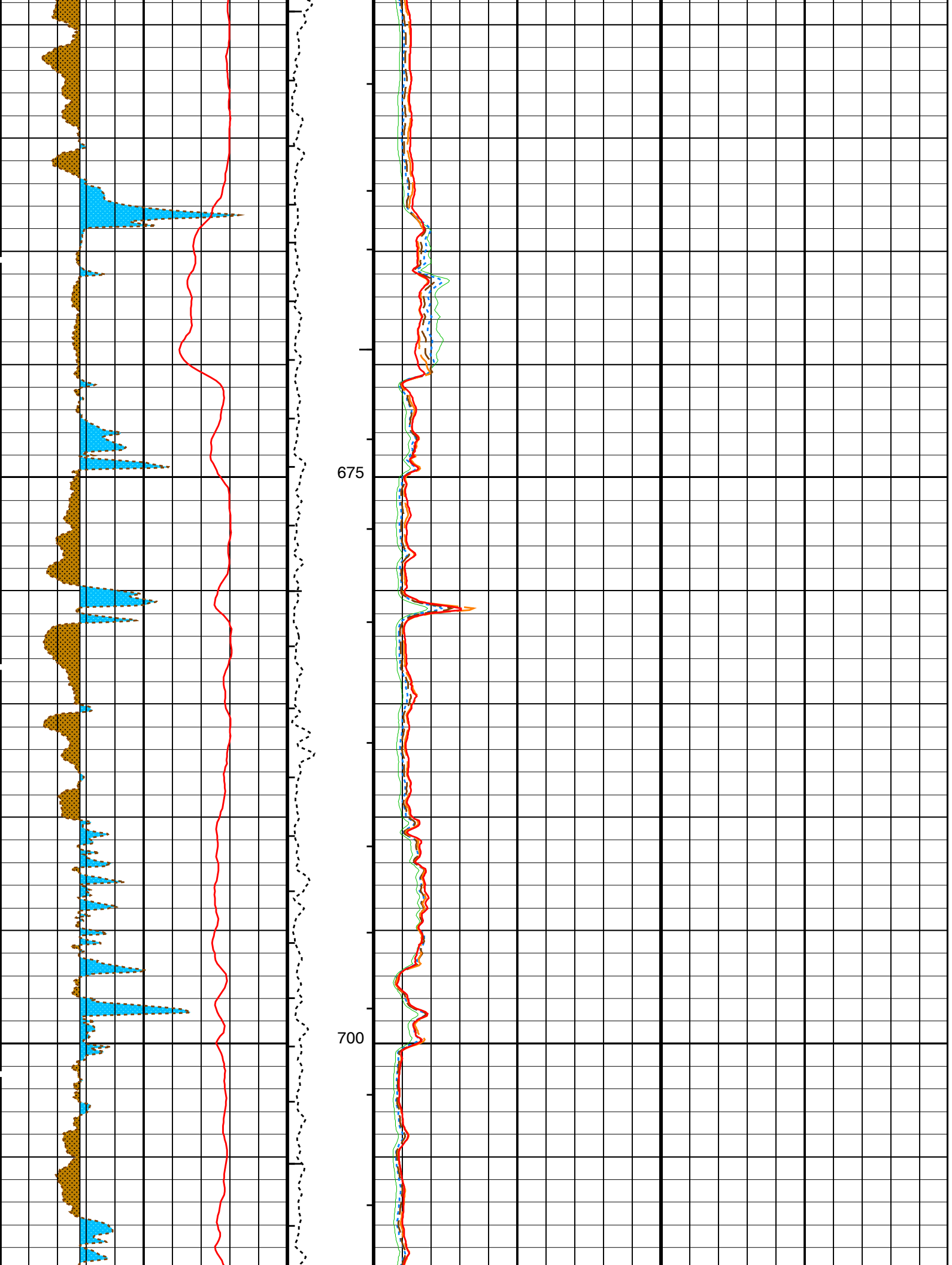
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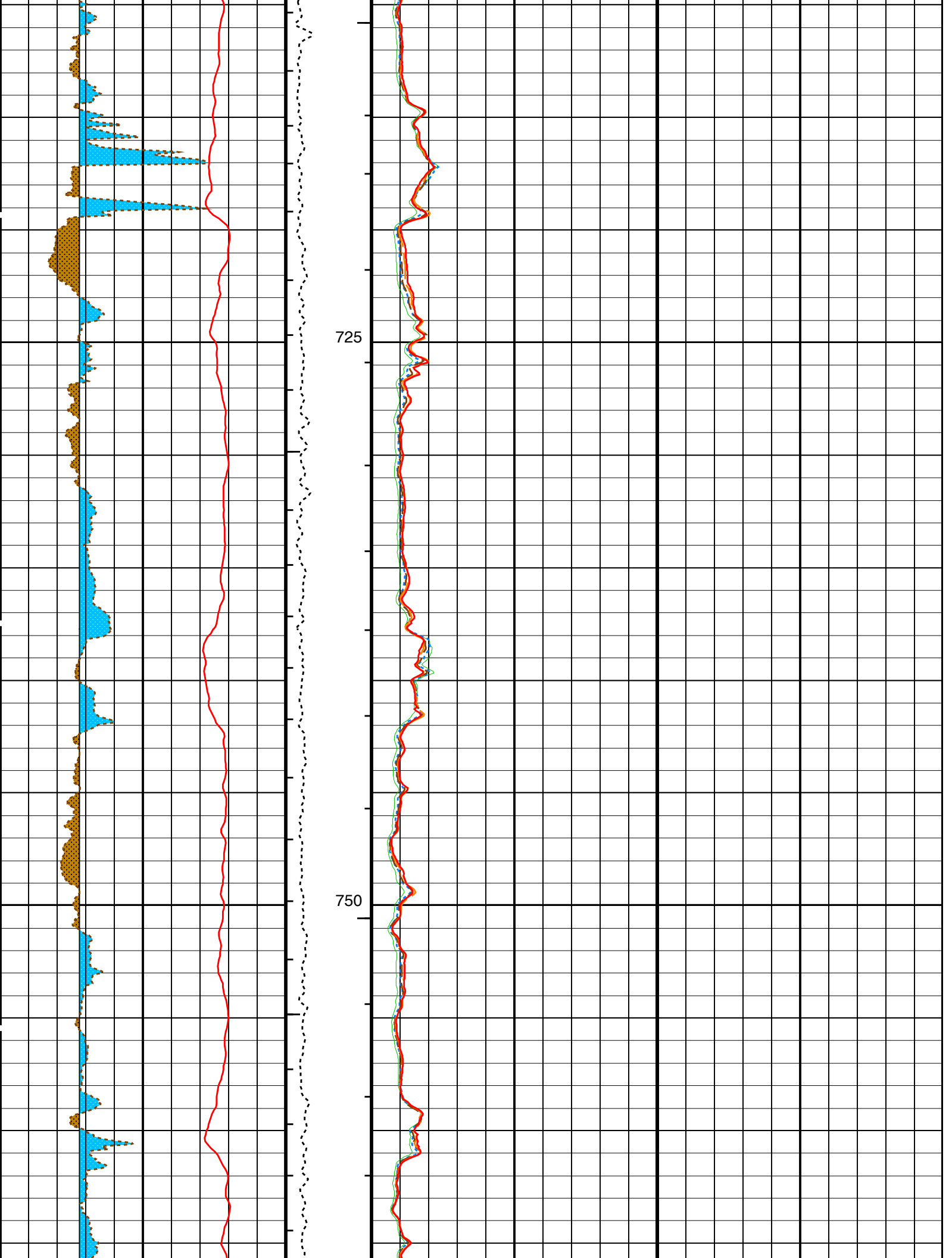
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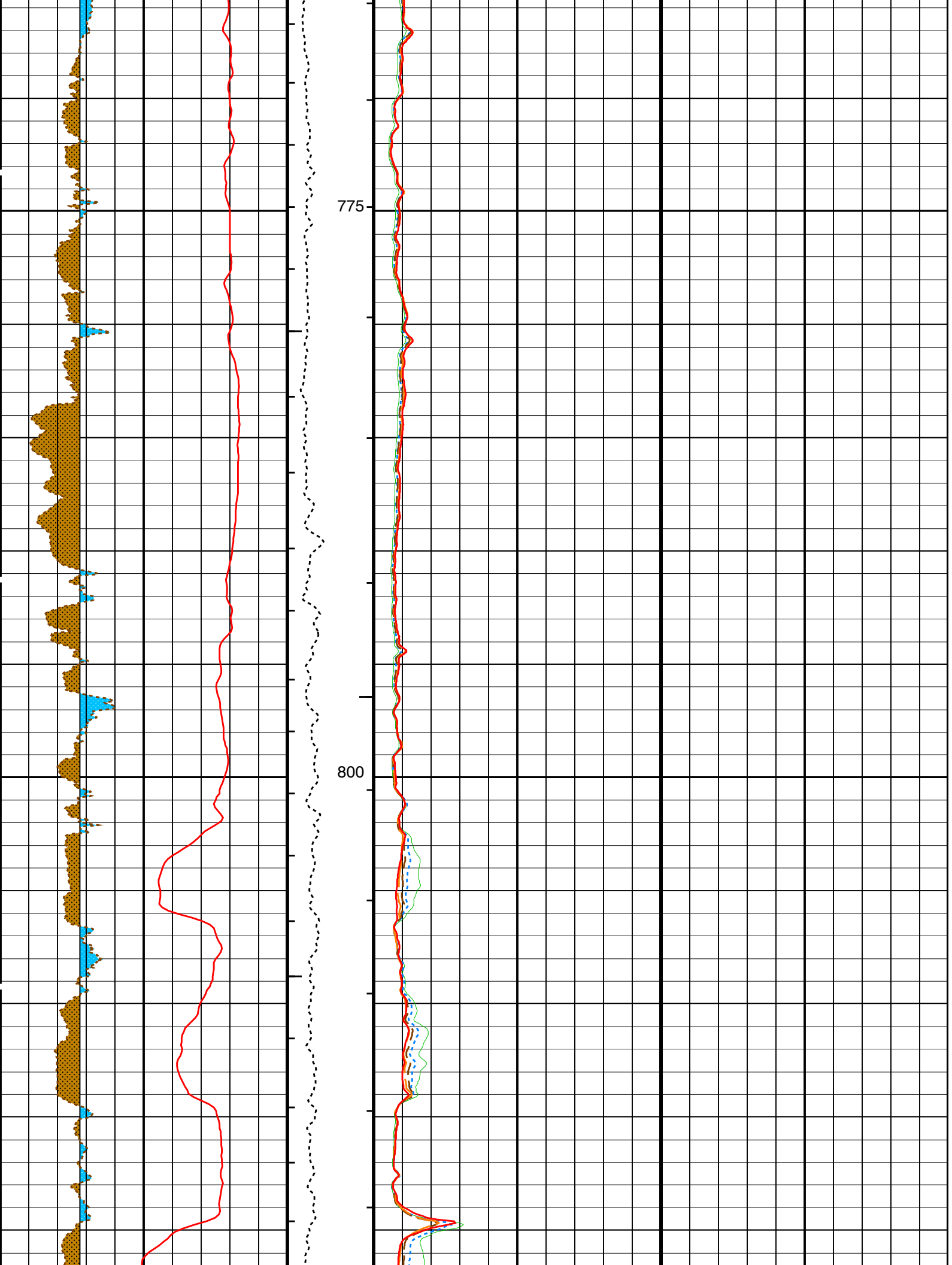
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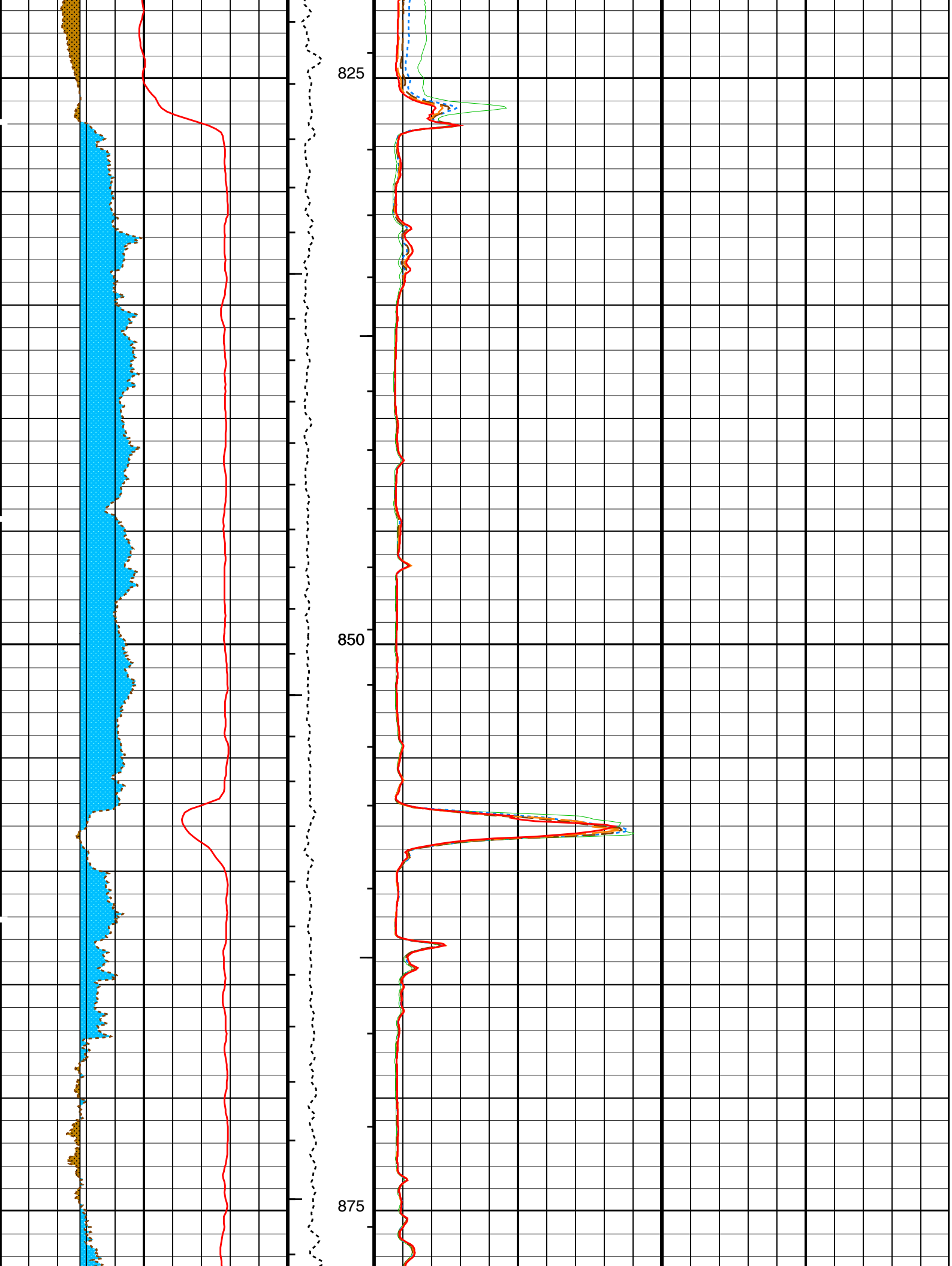
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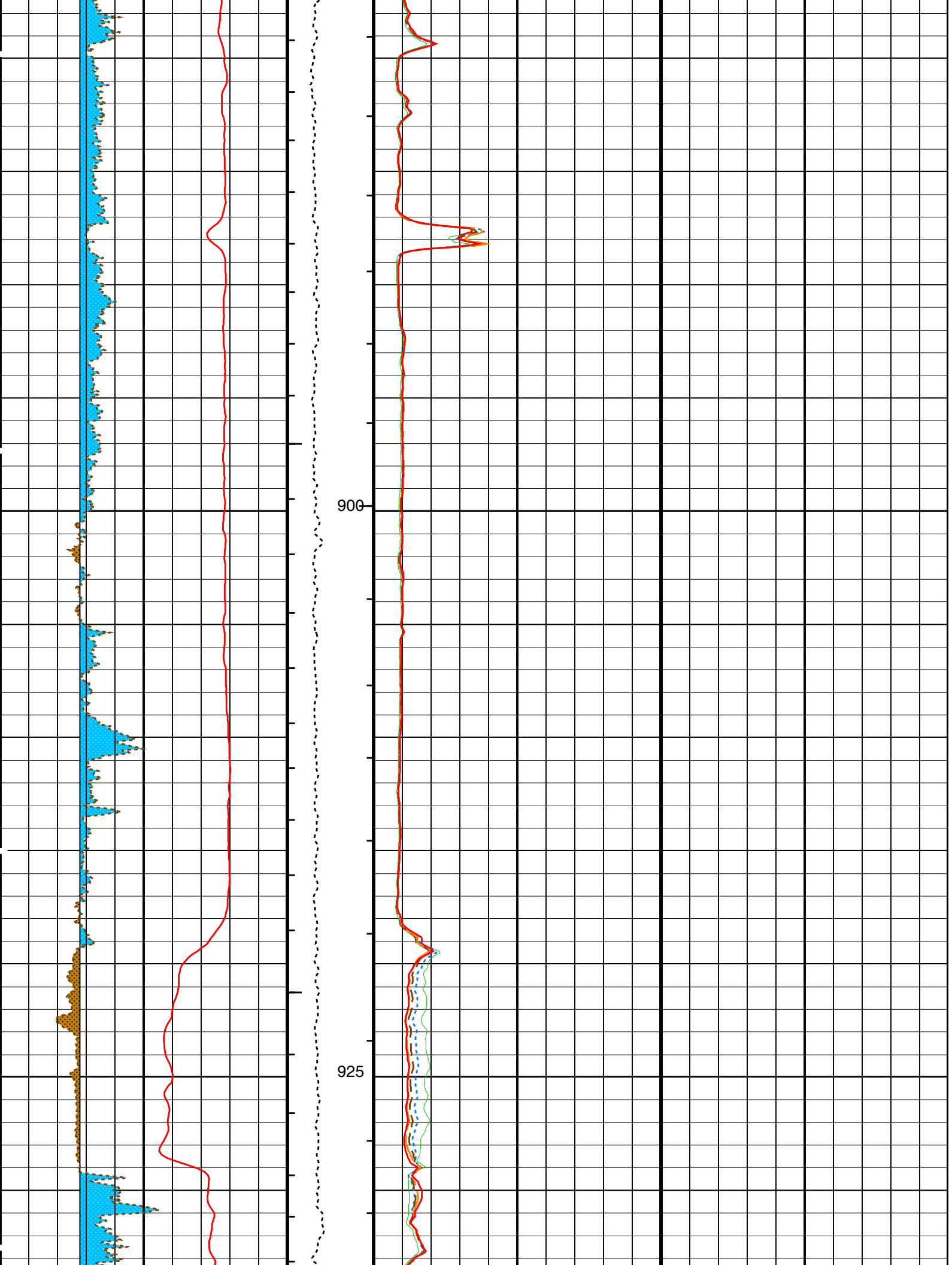
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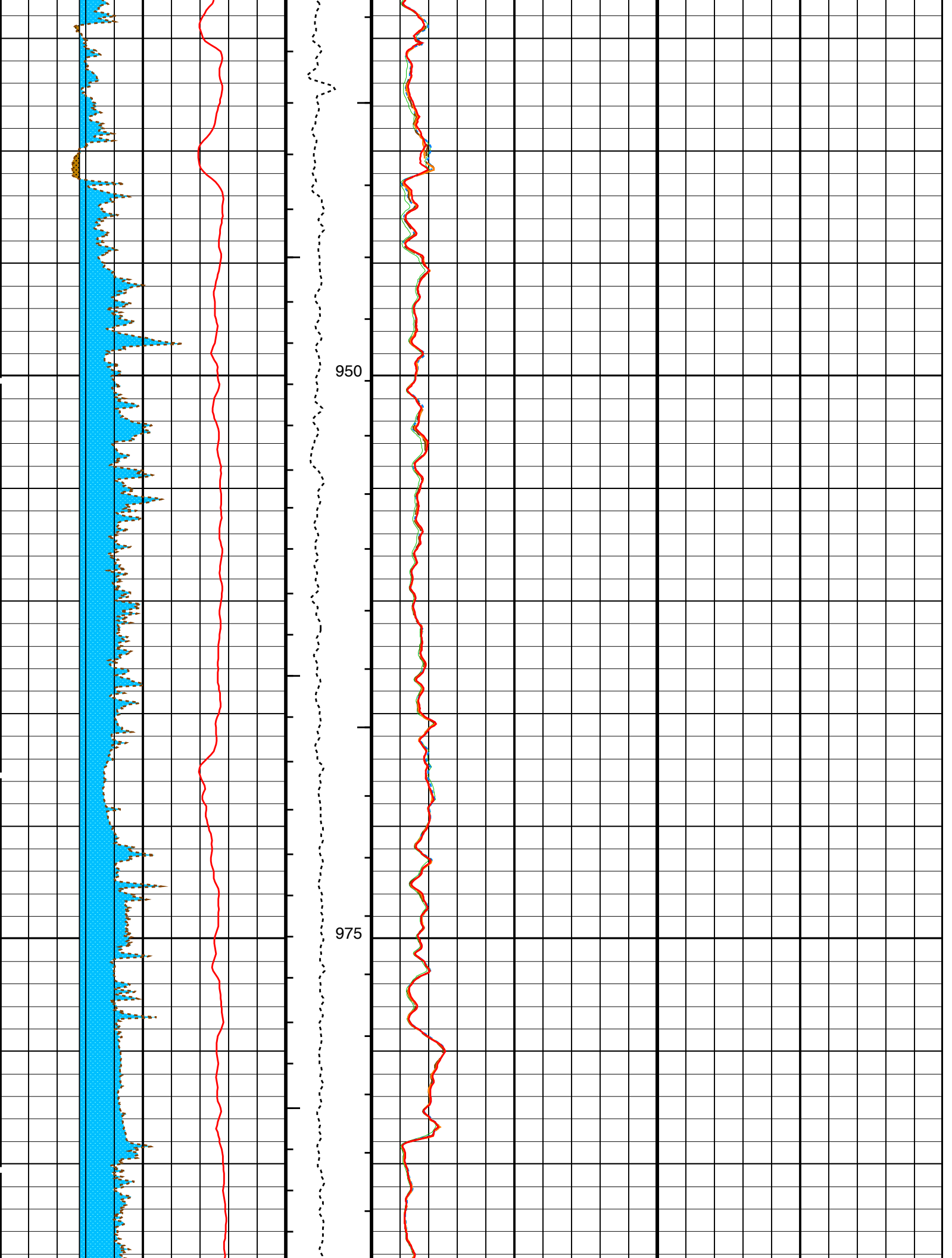
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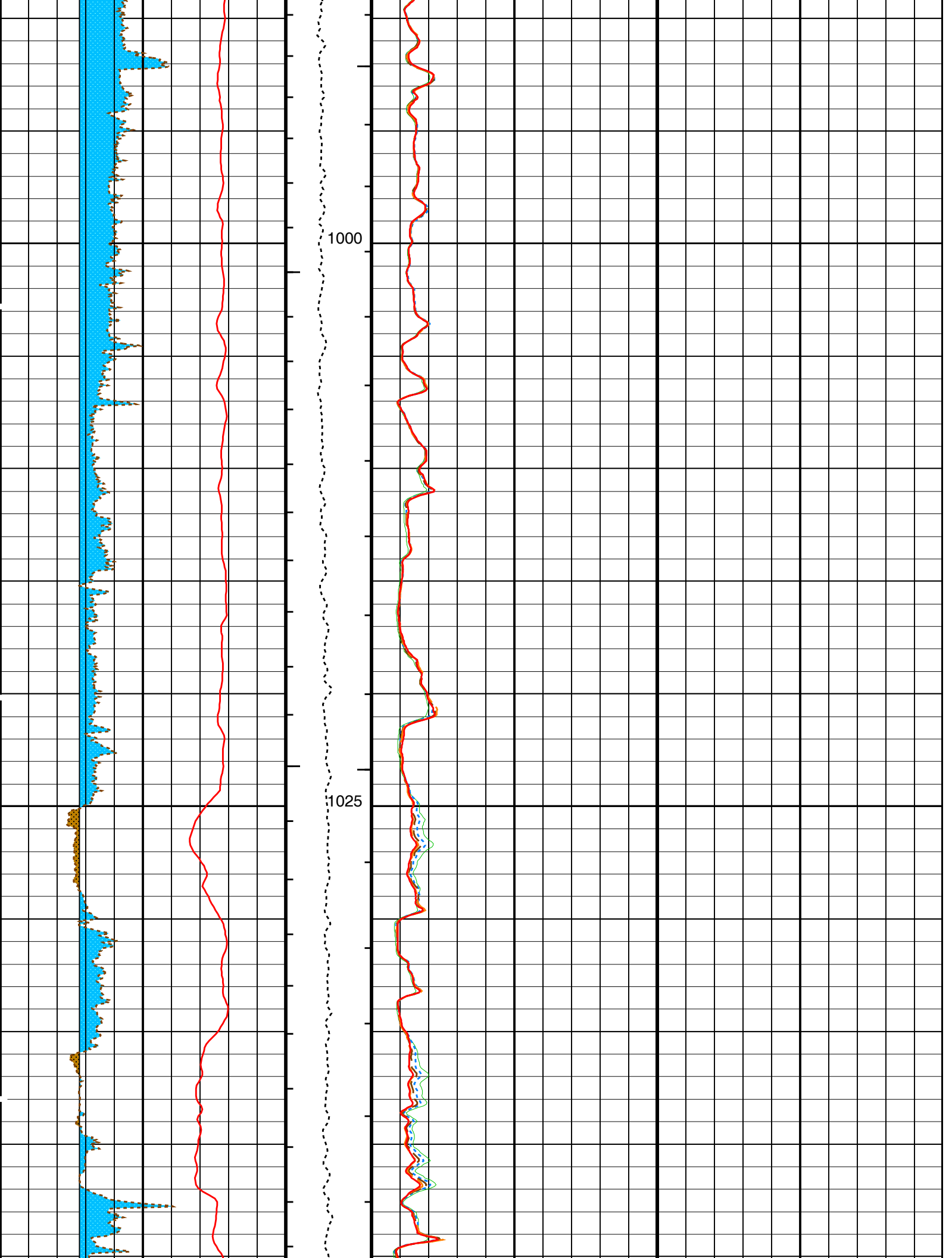
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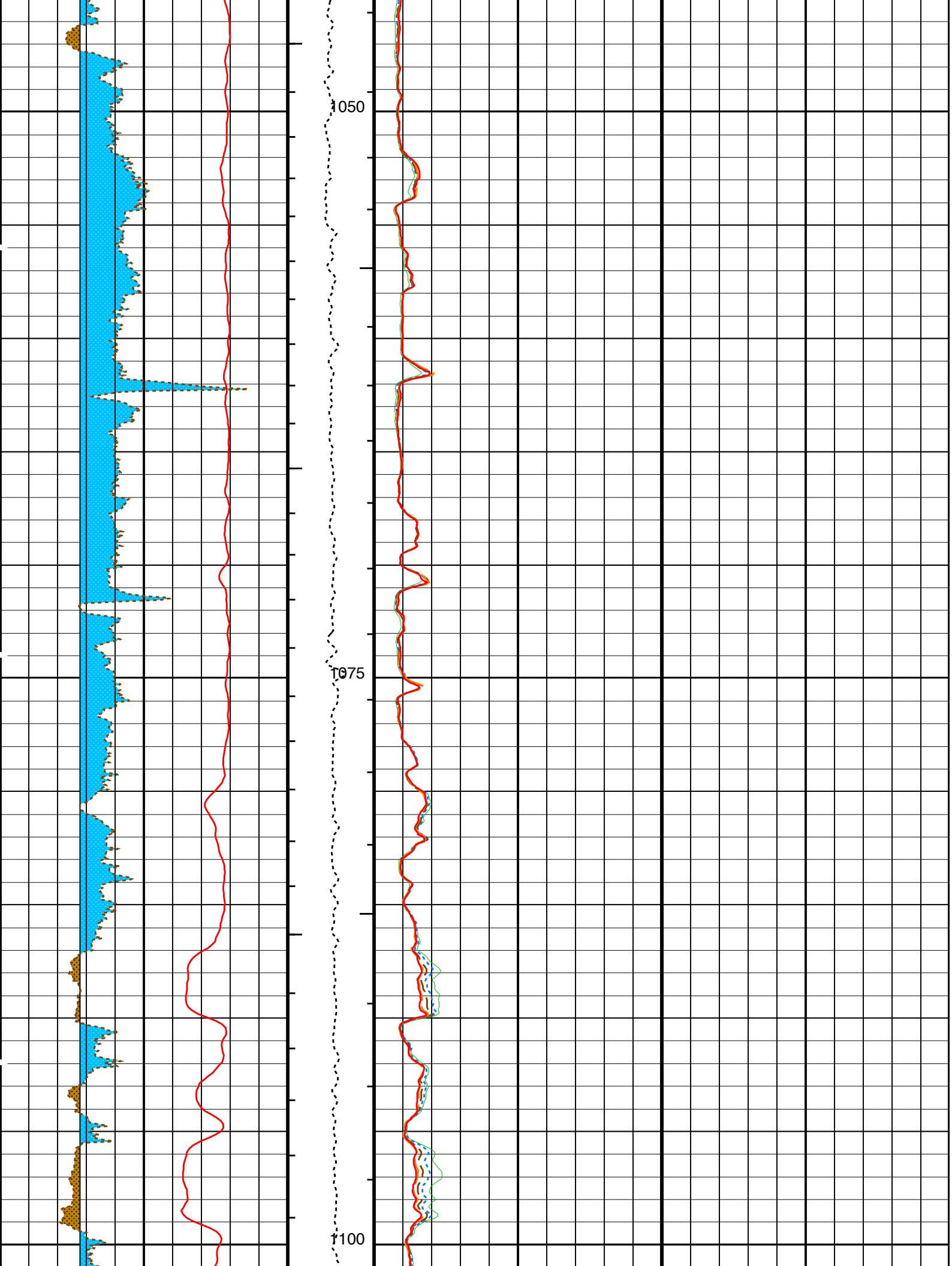
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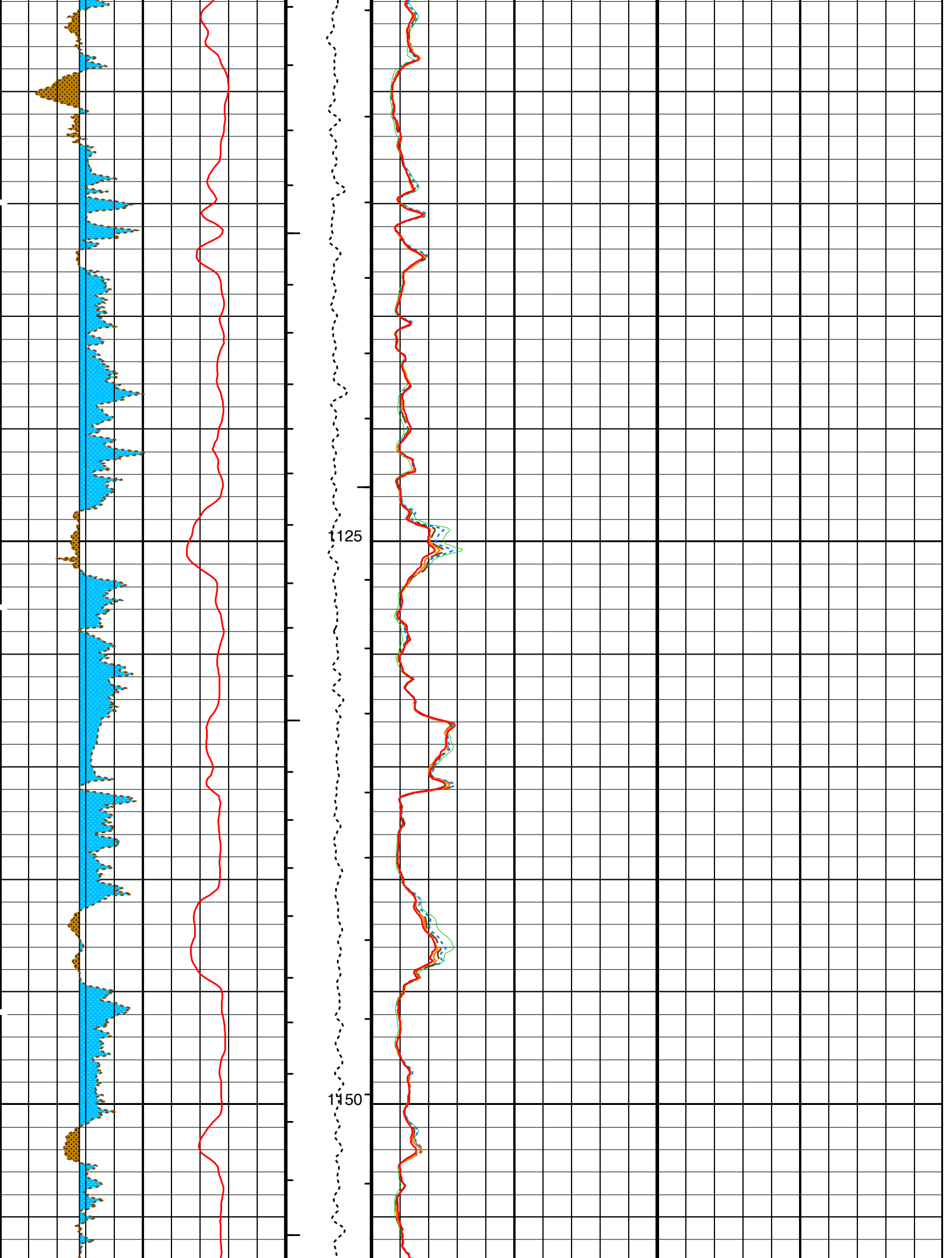
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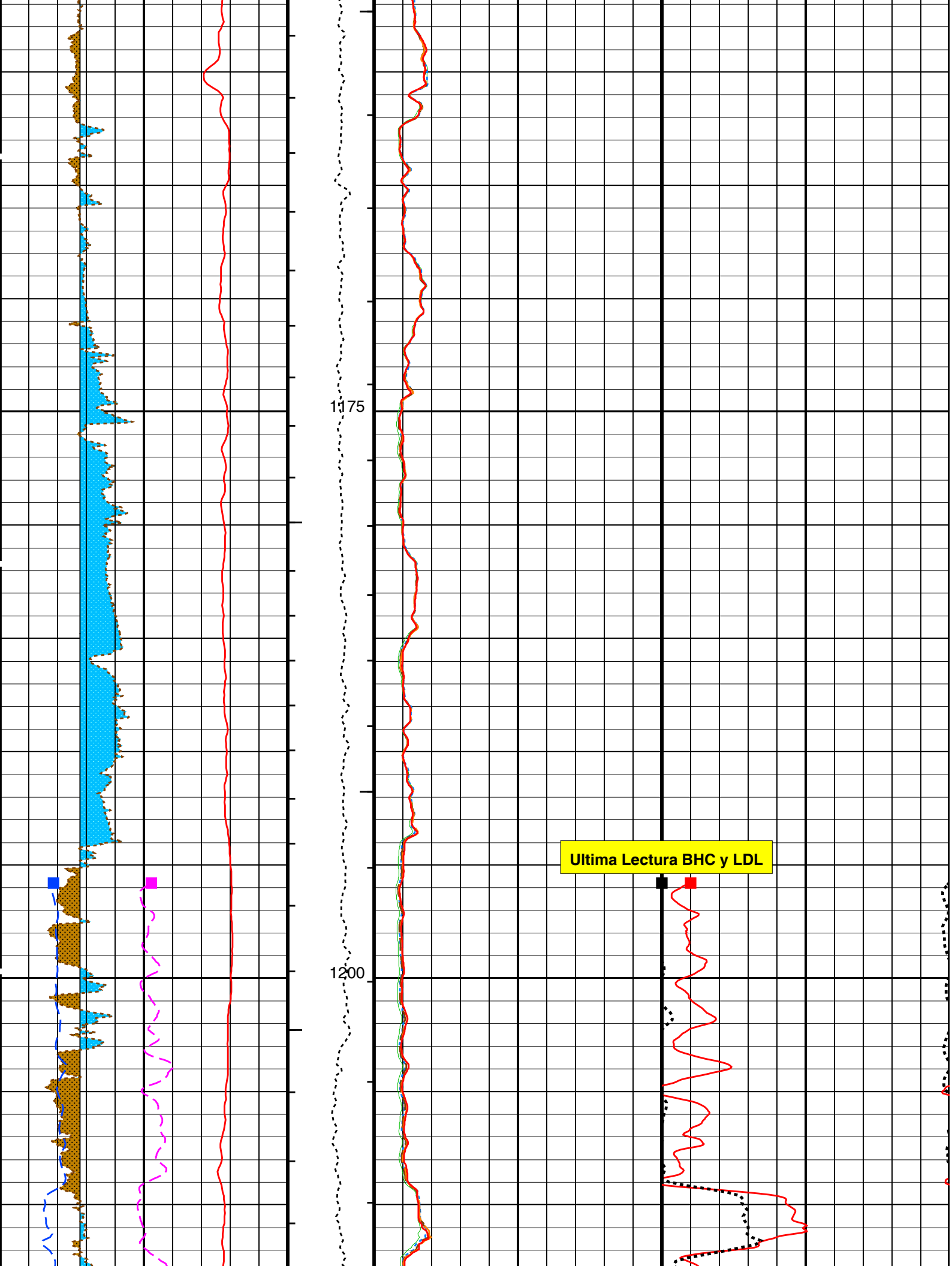
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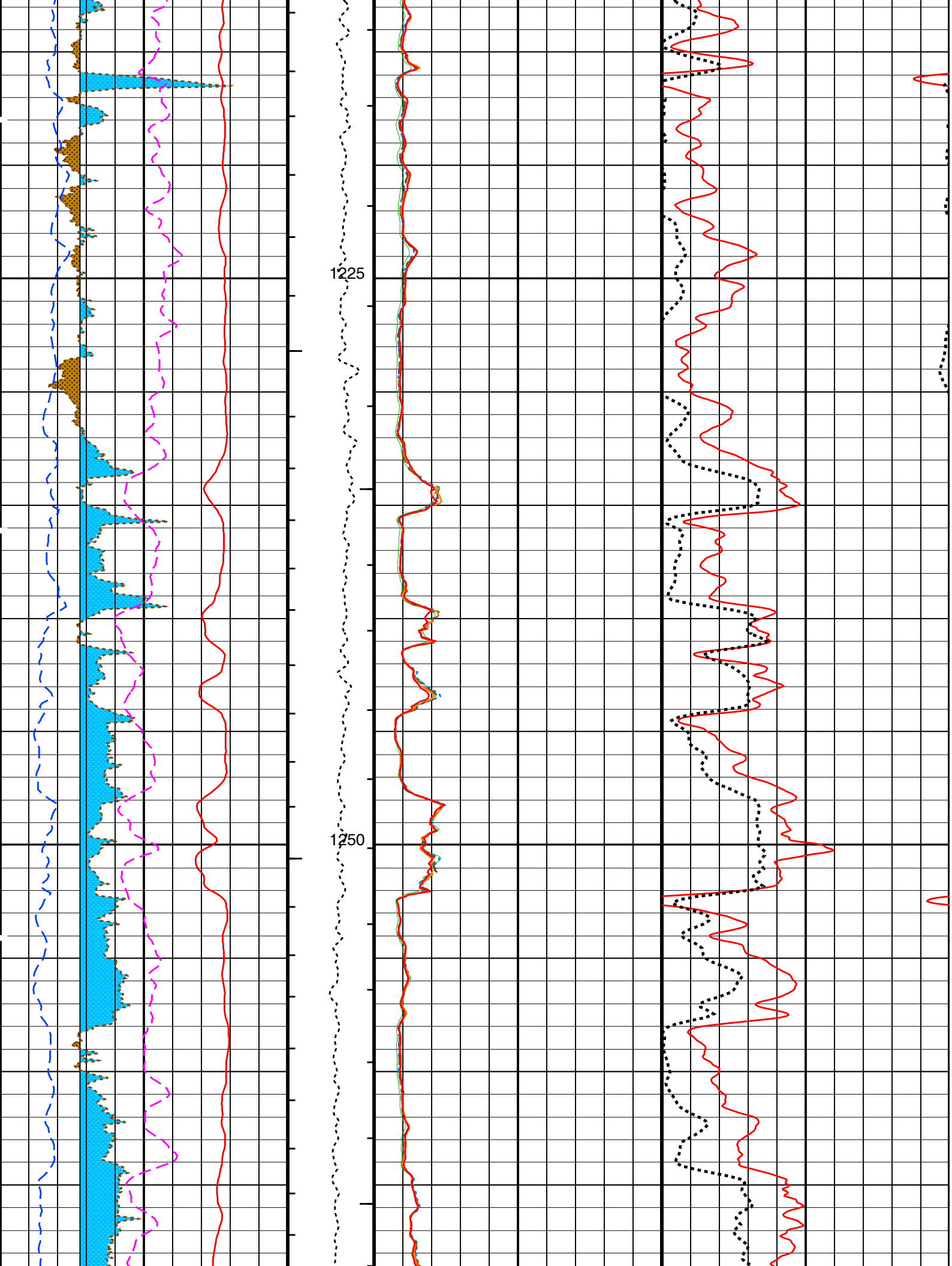
Ultima Lectura BHC y LDL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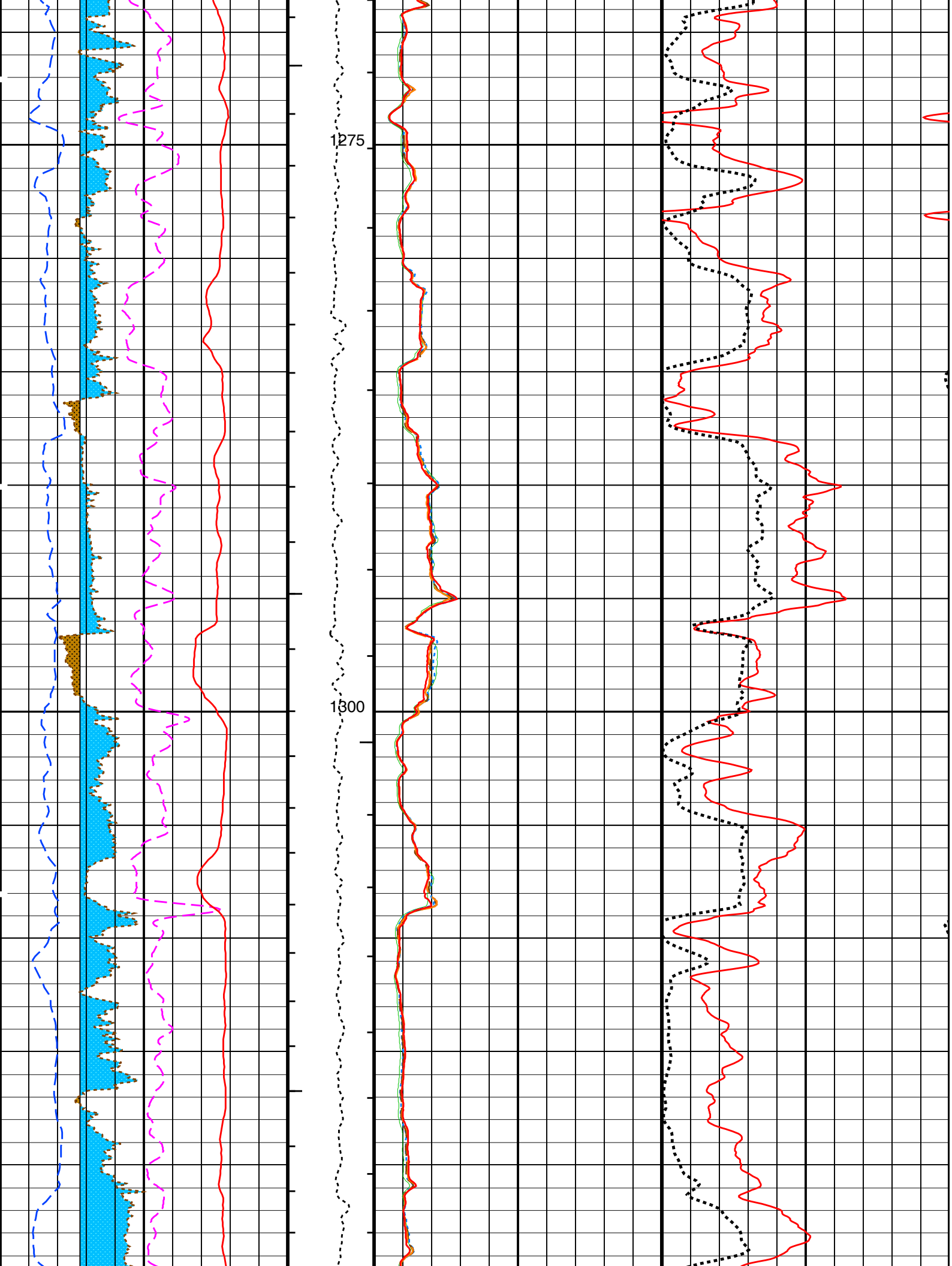
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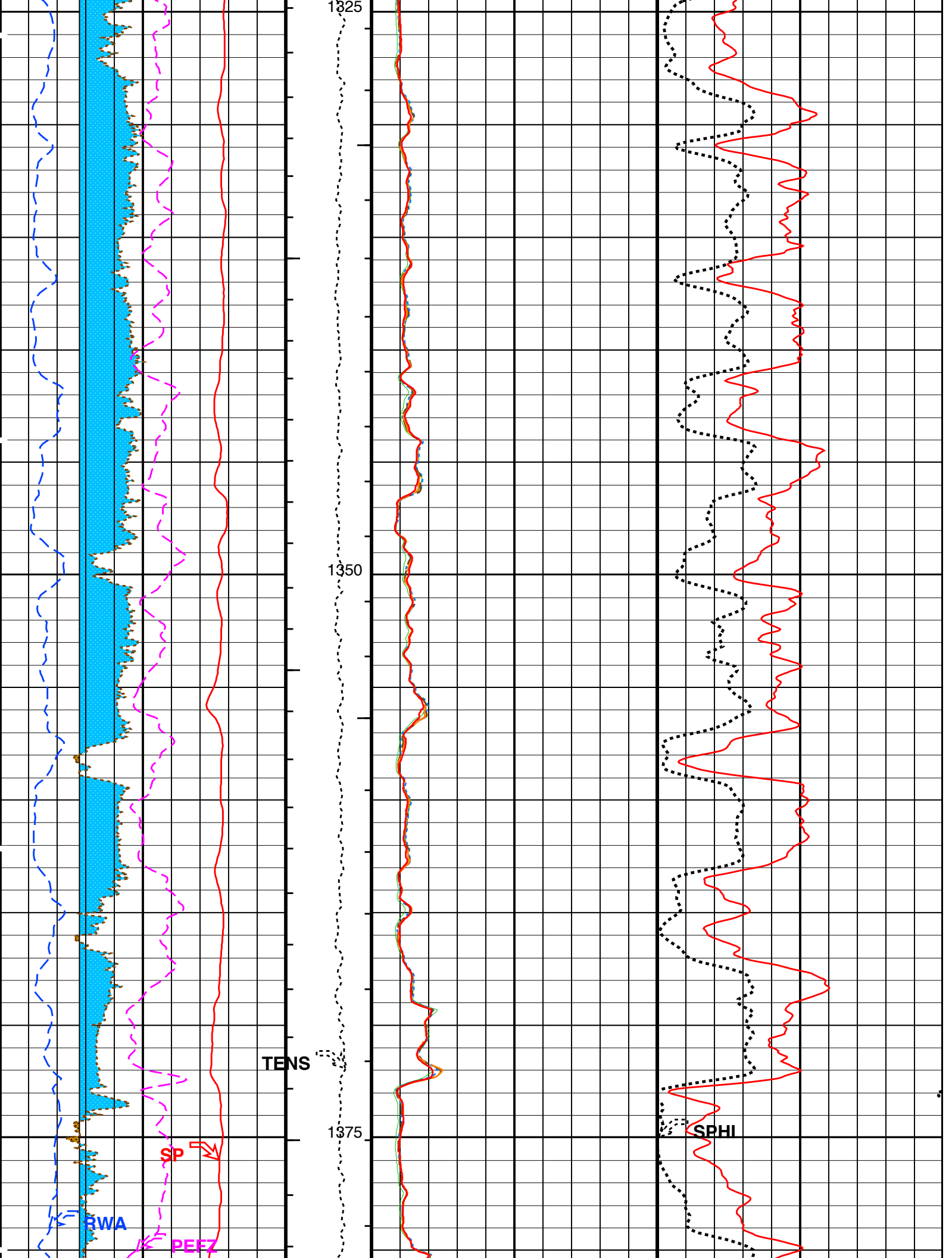
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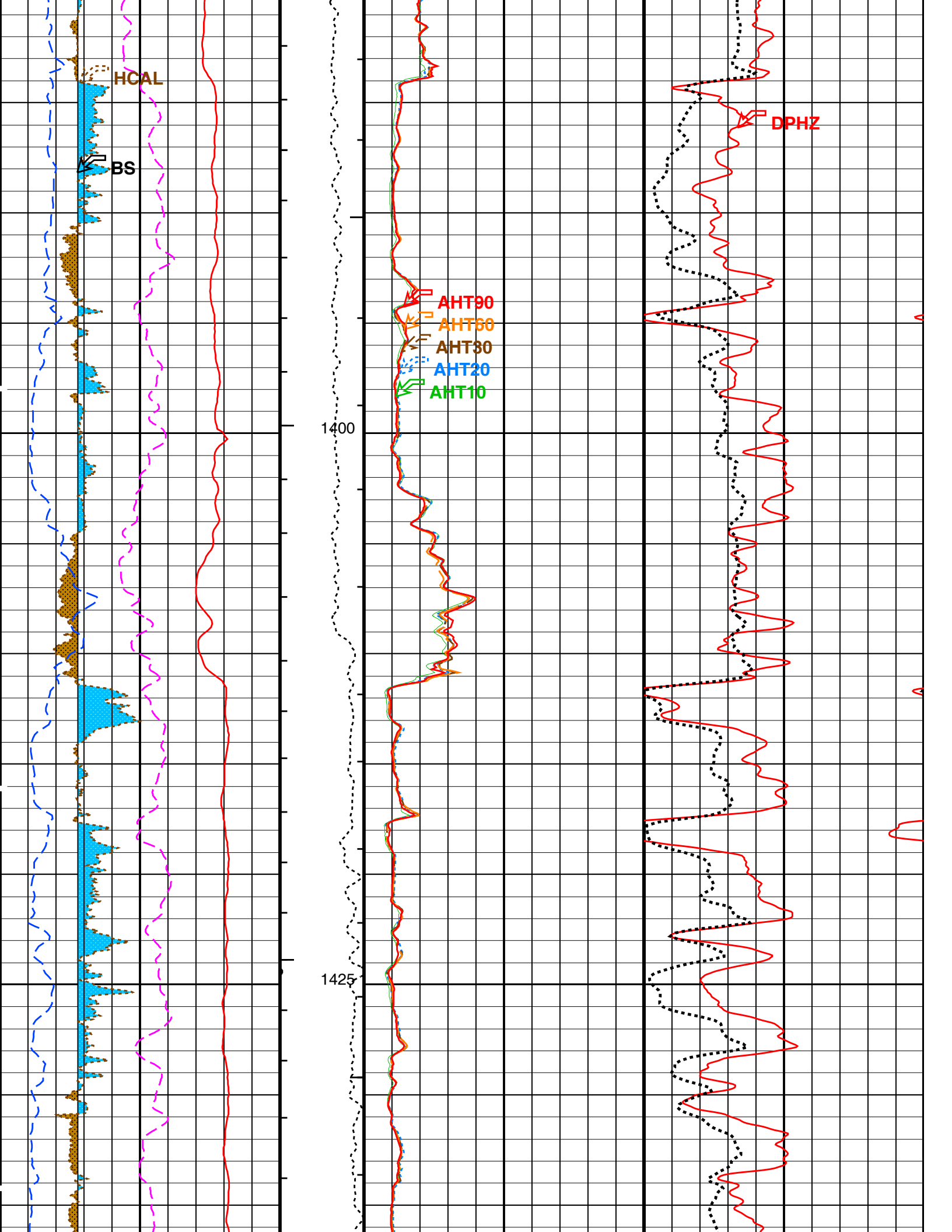
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DPHZ
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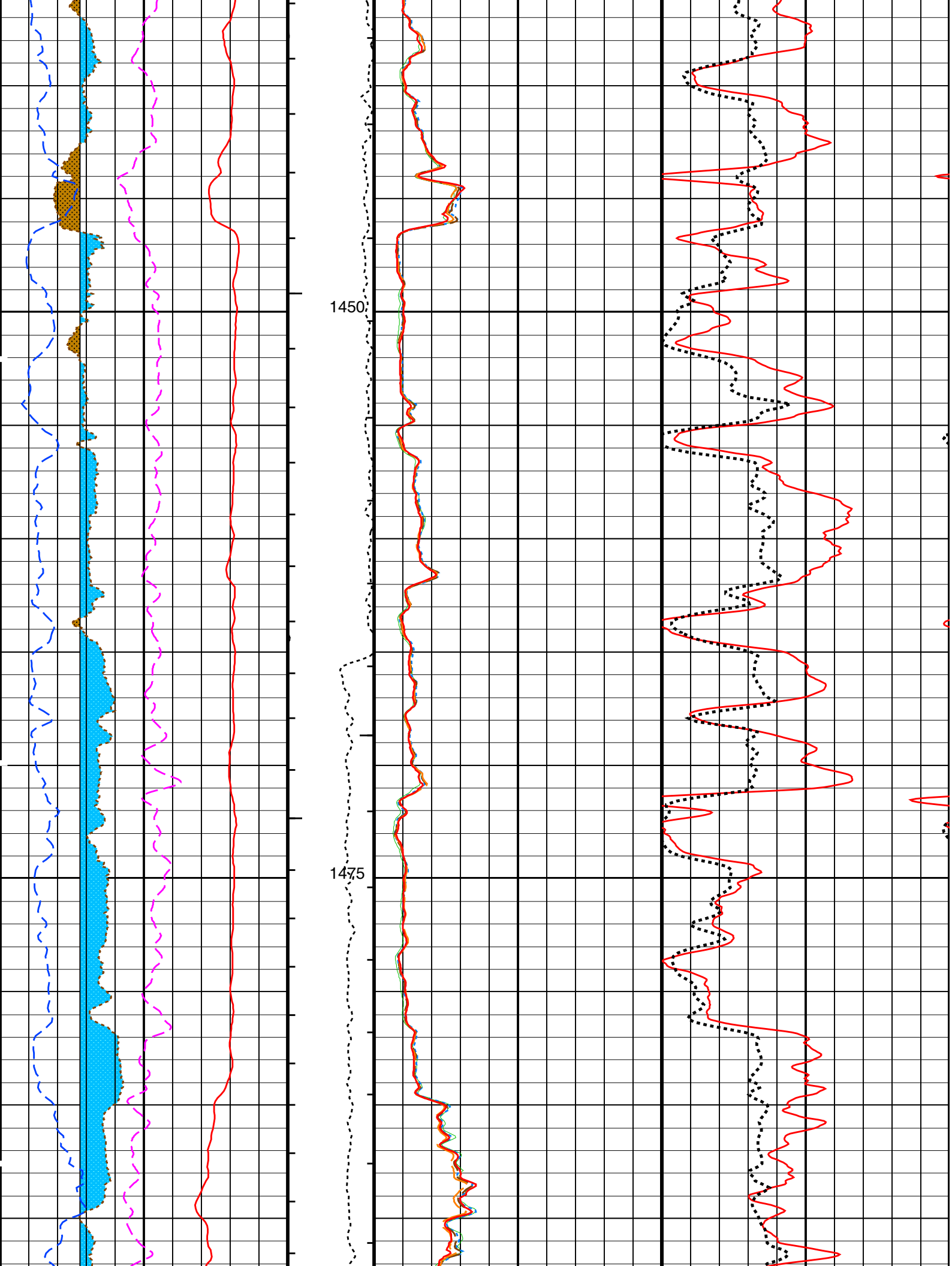
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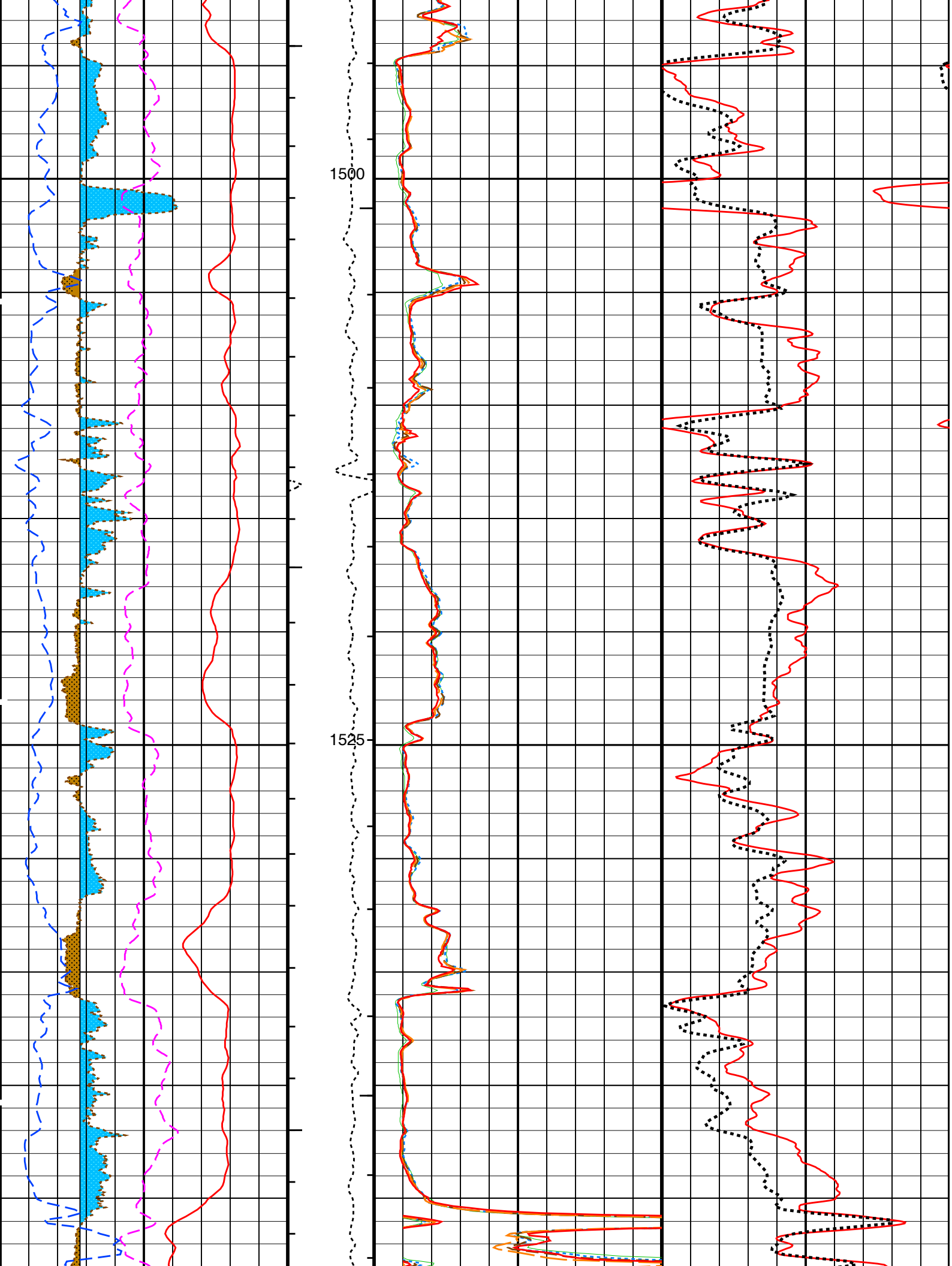
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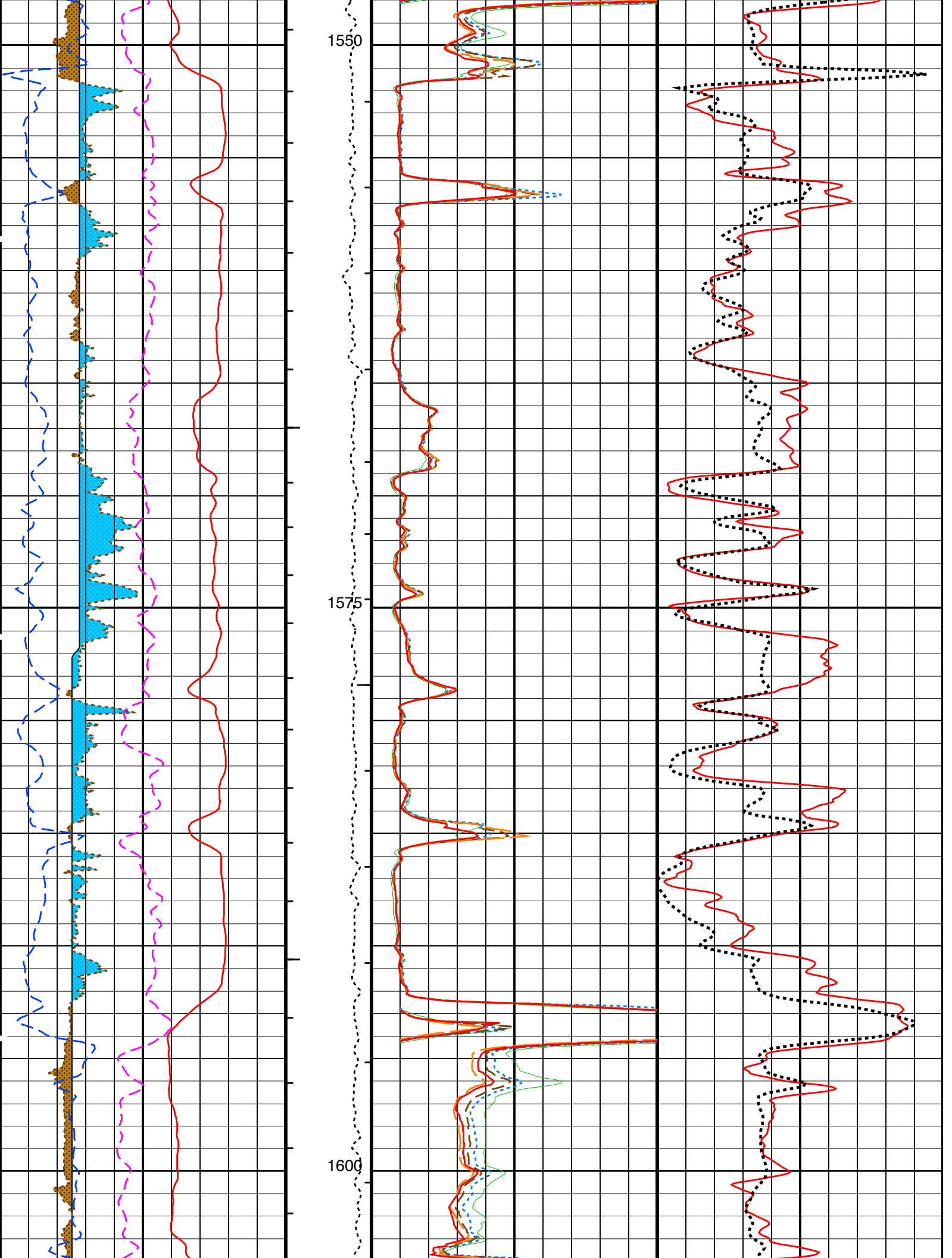
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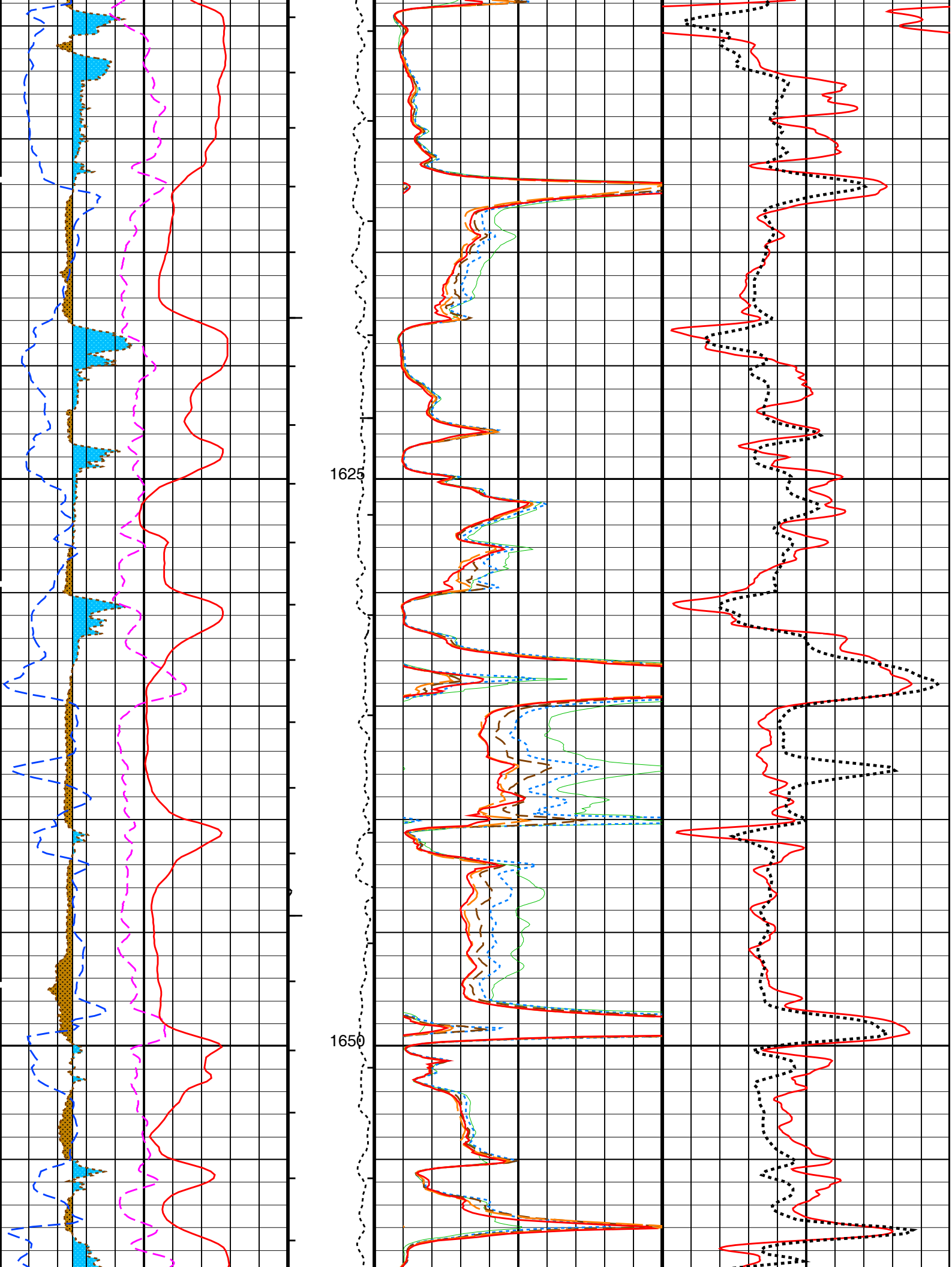
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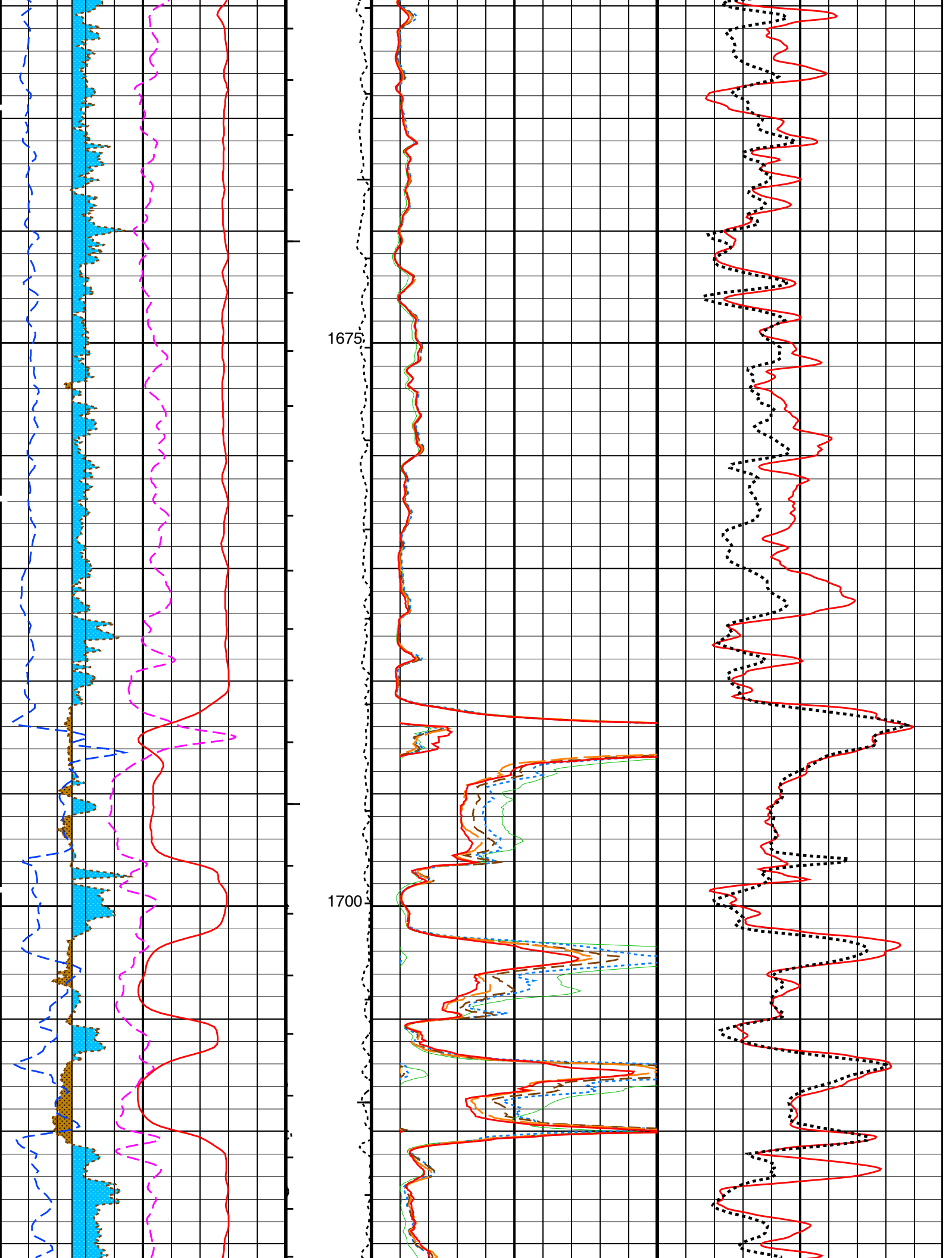
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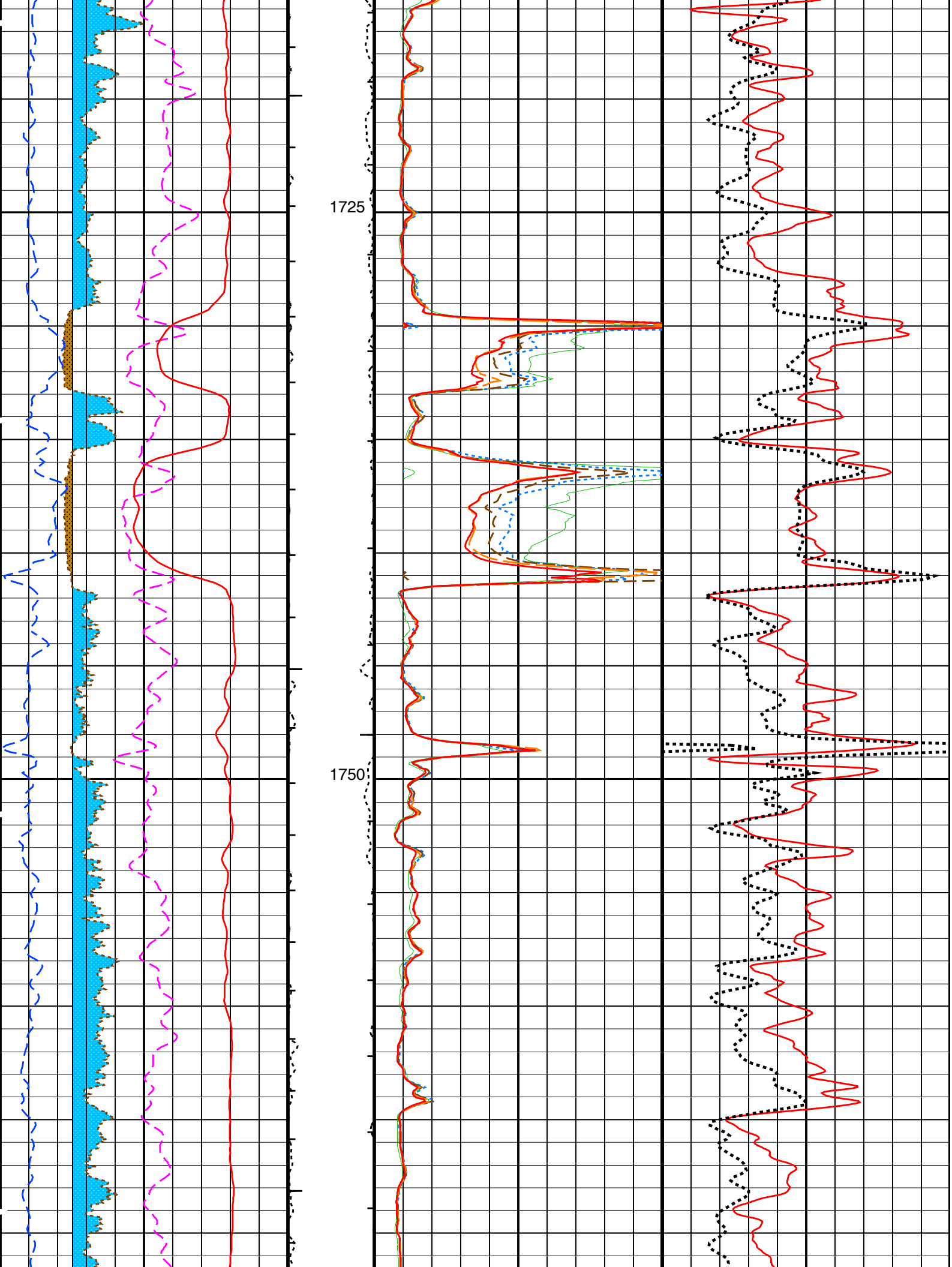
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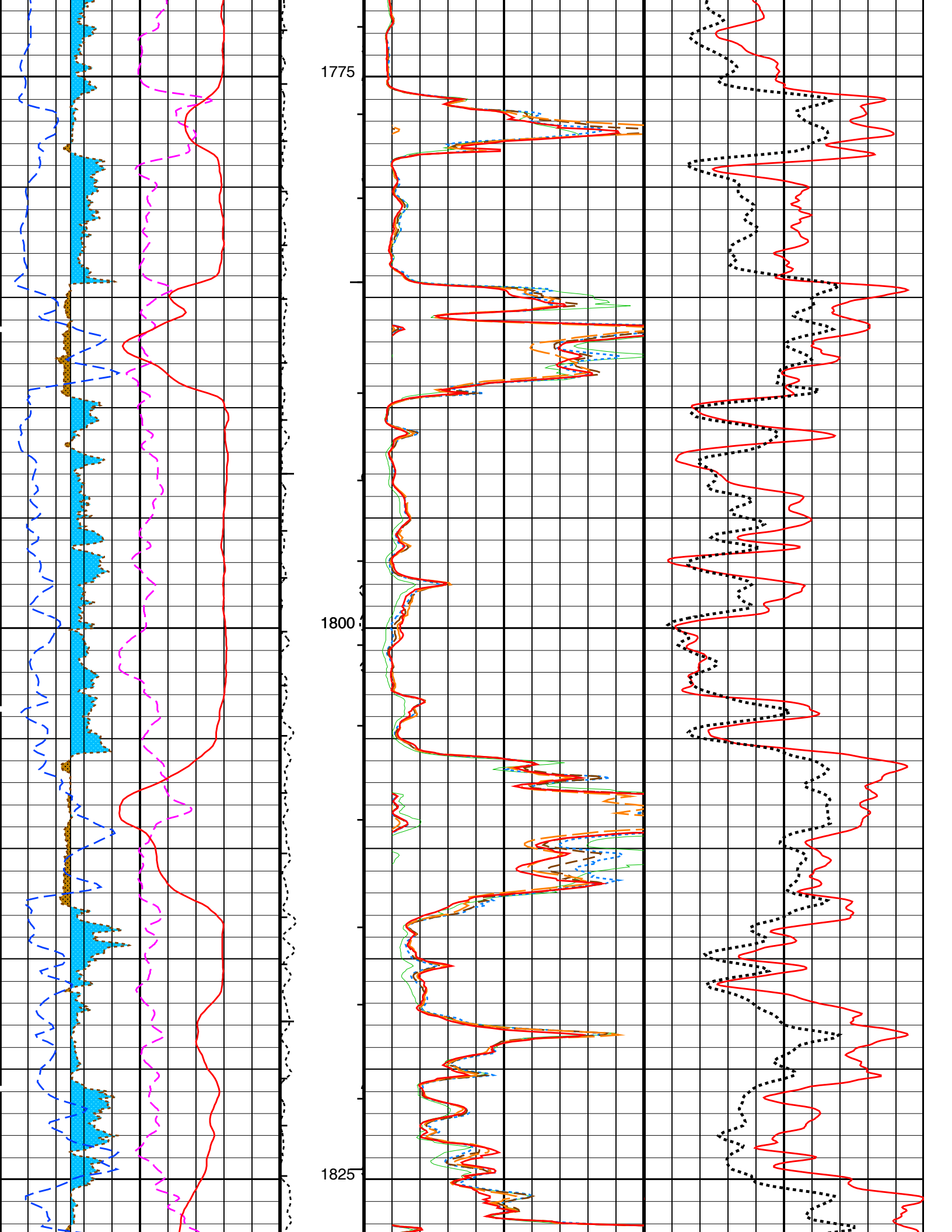
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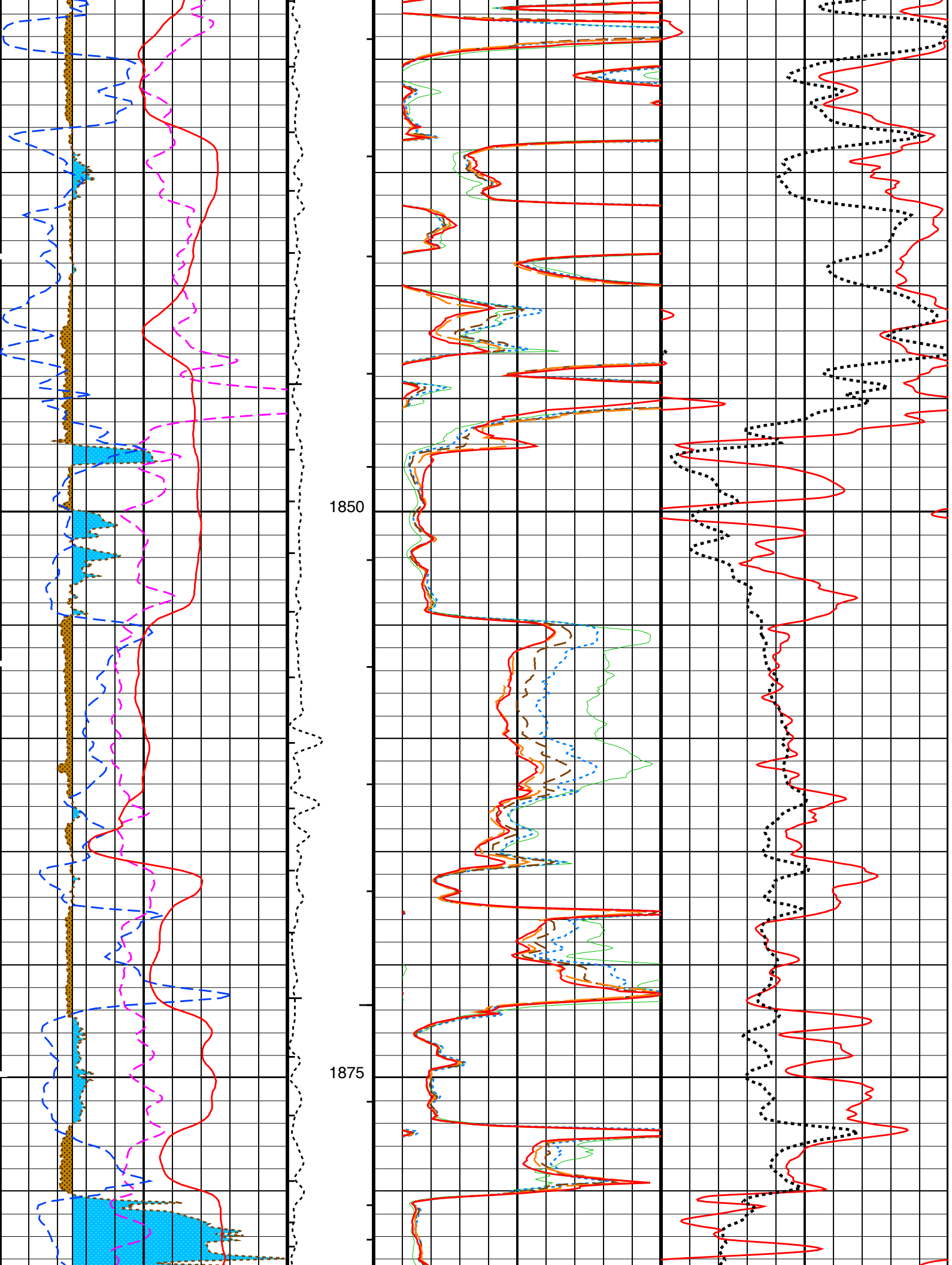
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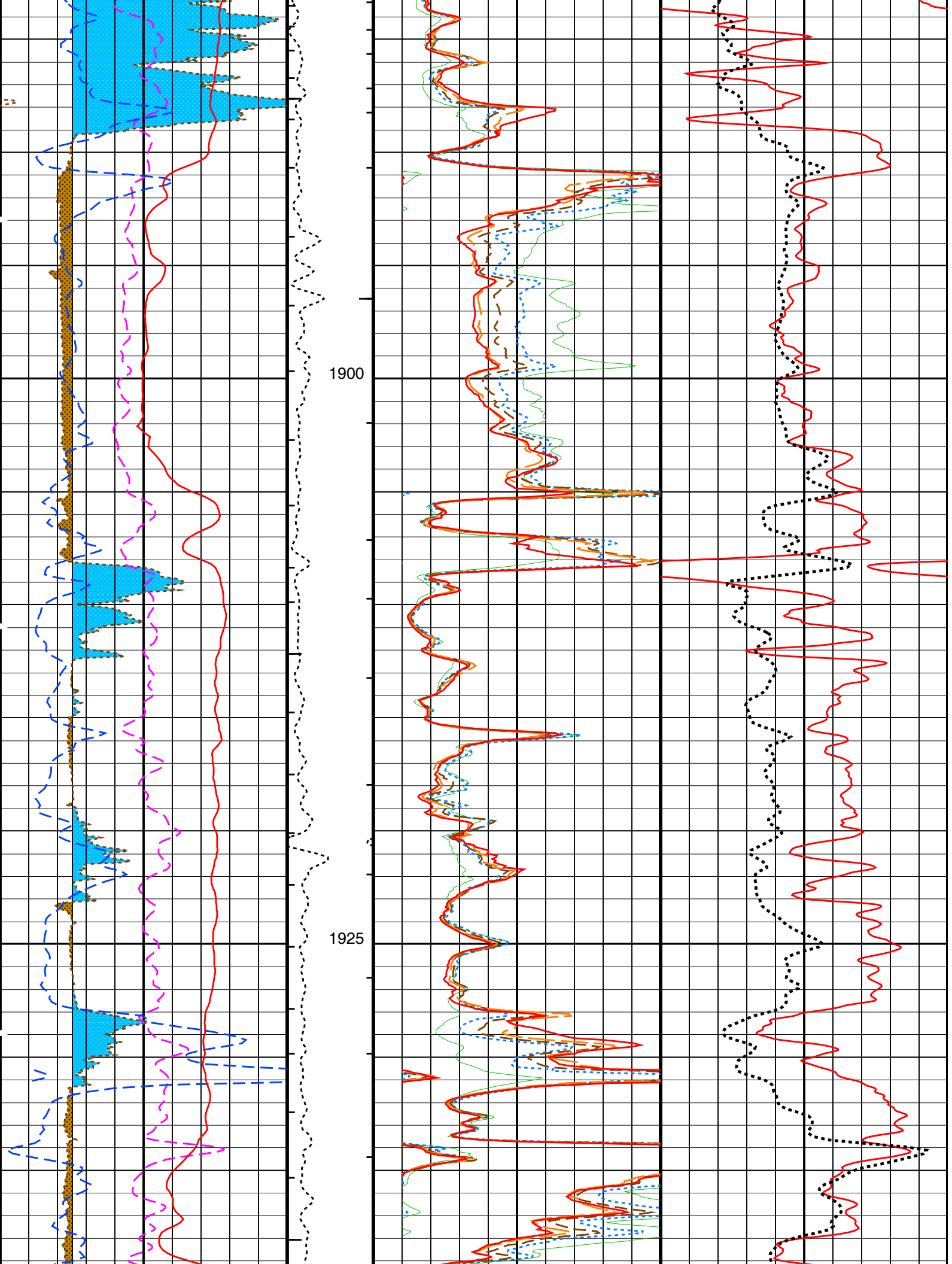
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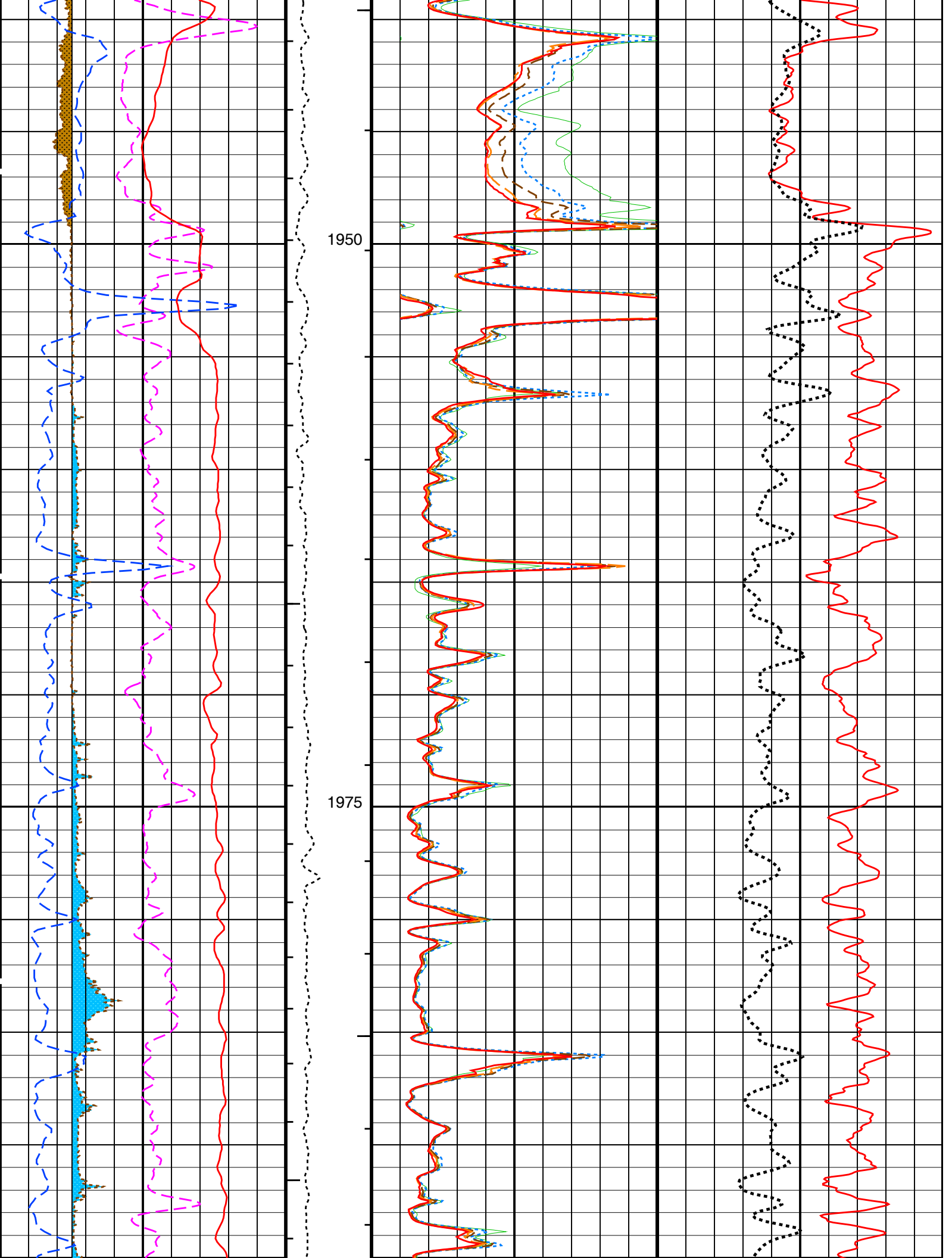
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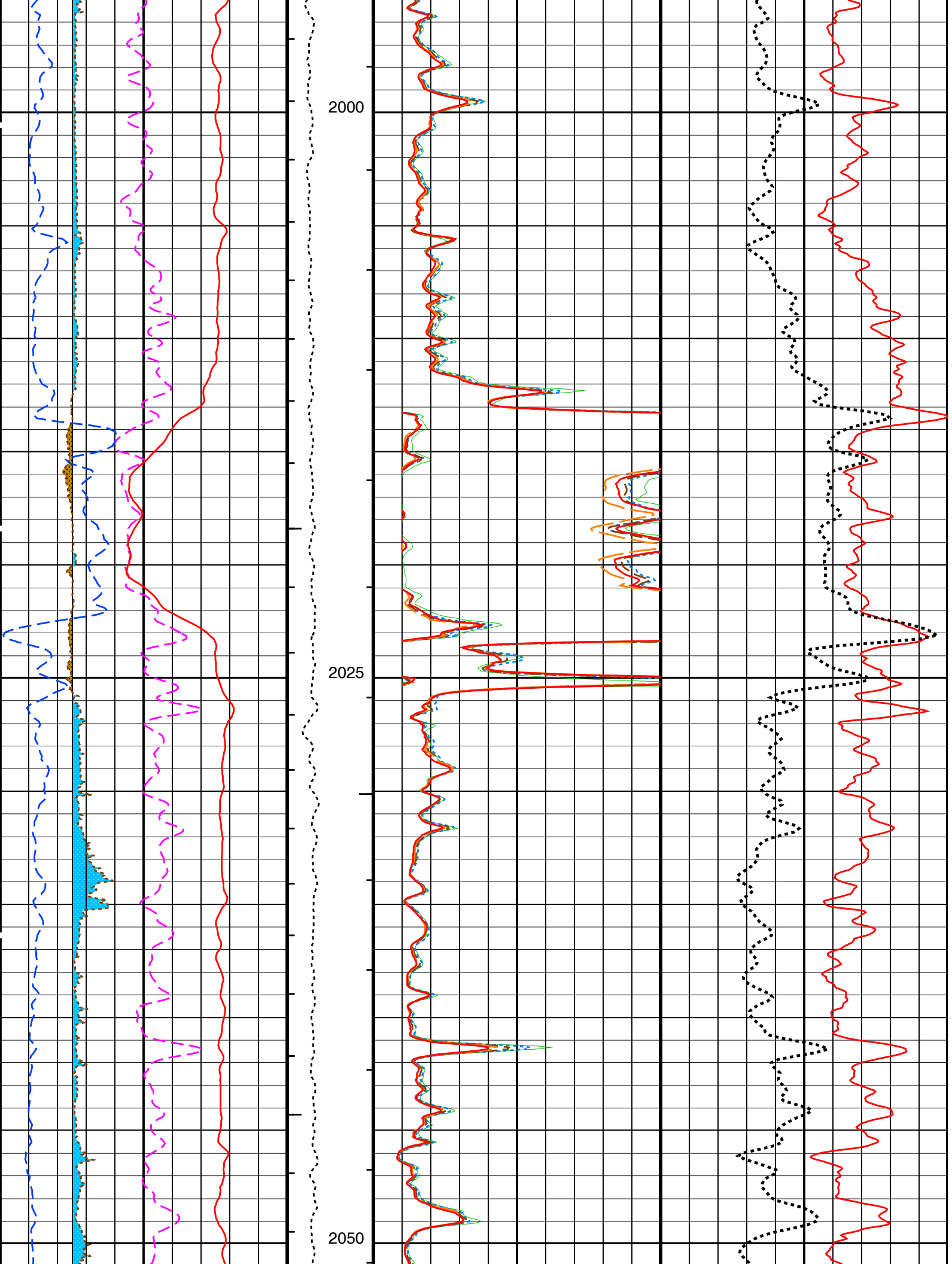
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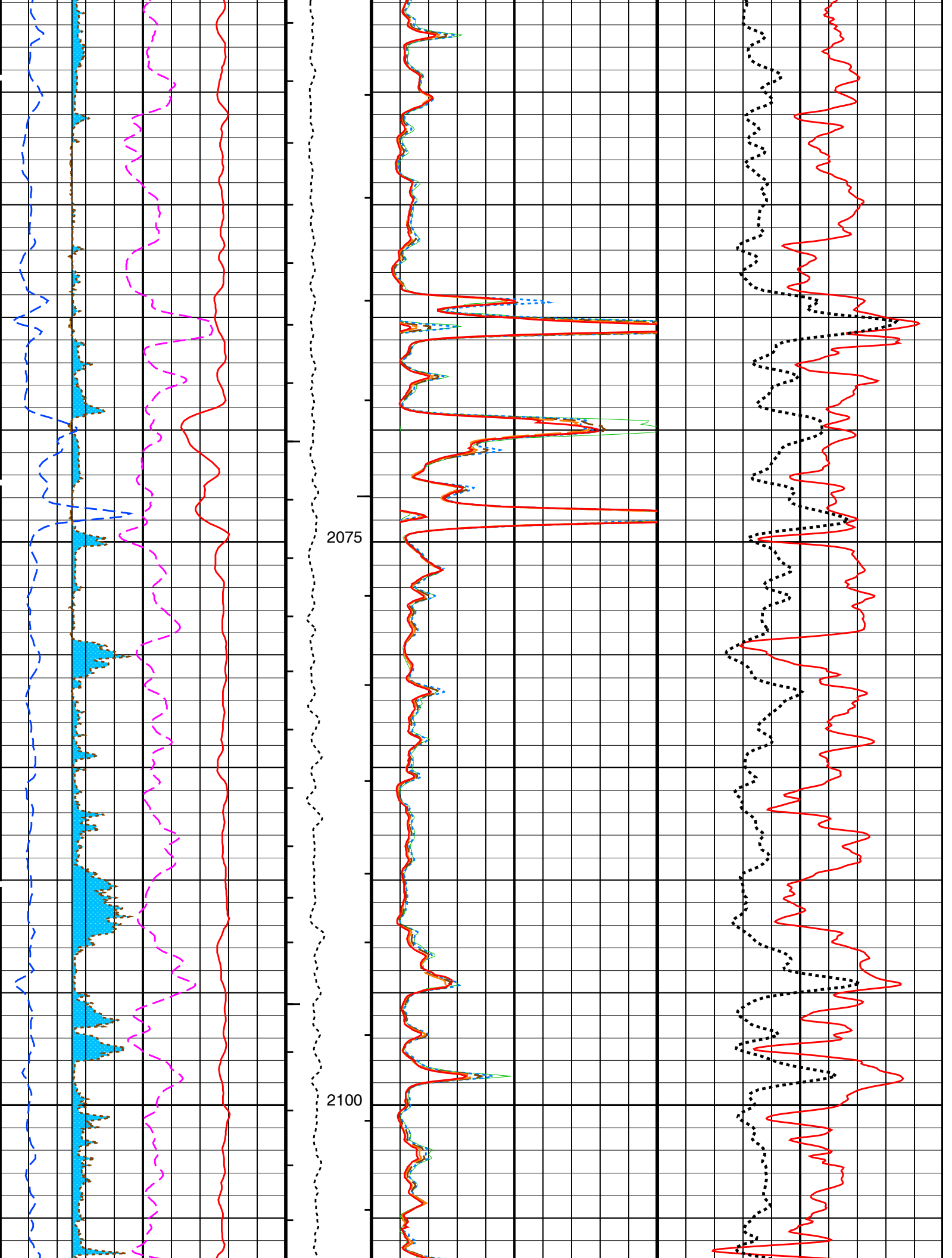
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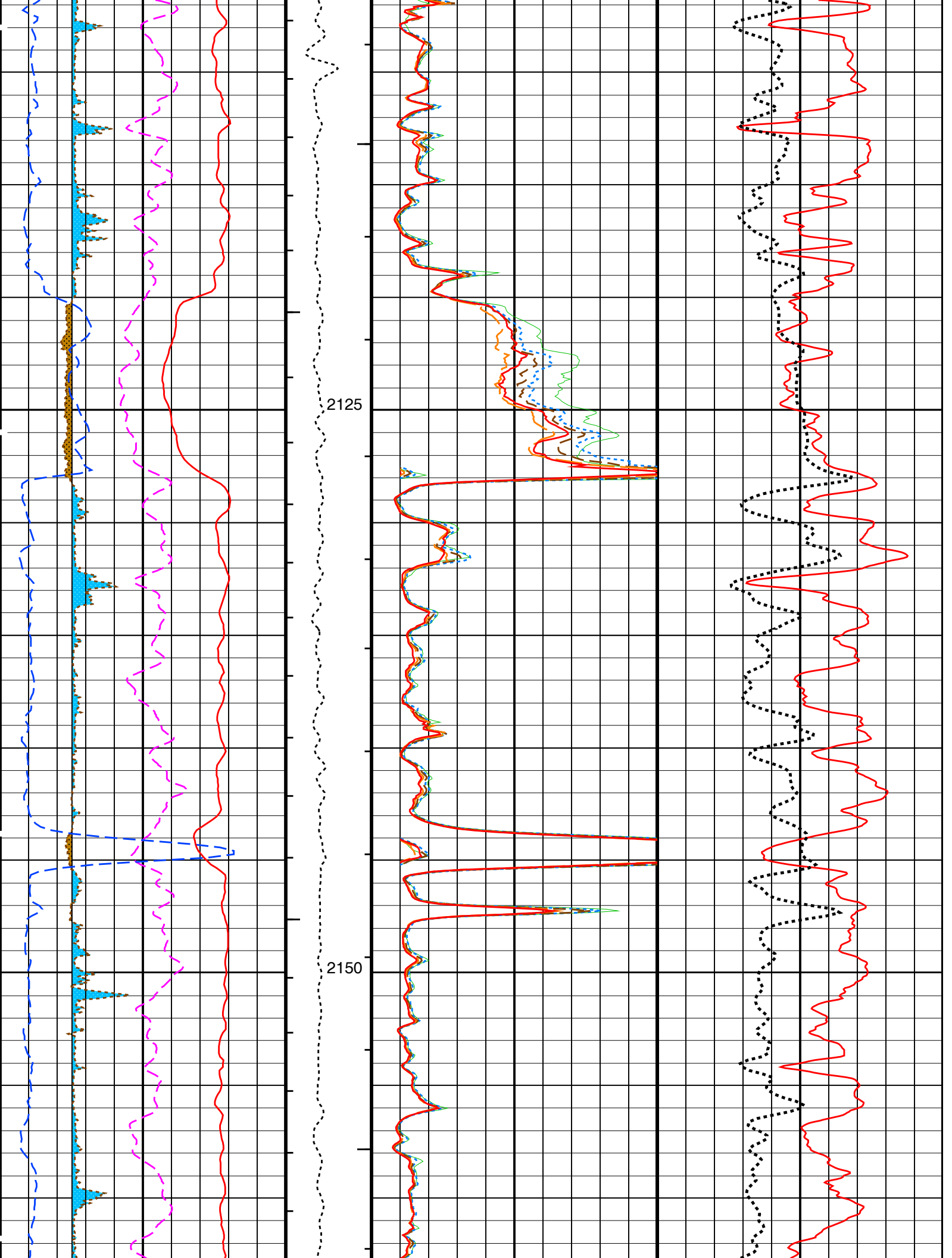
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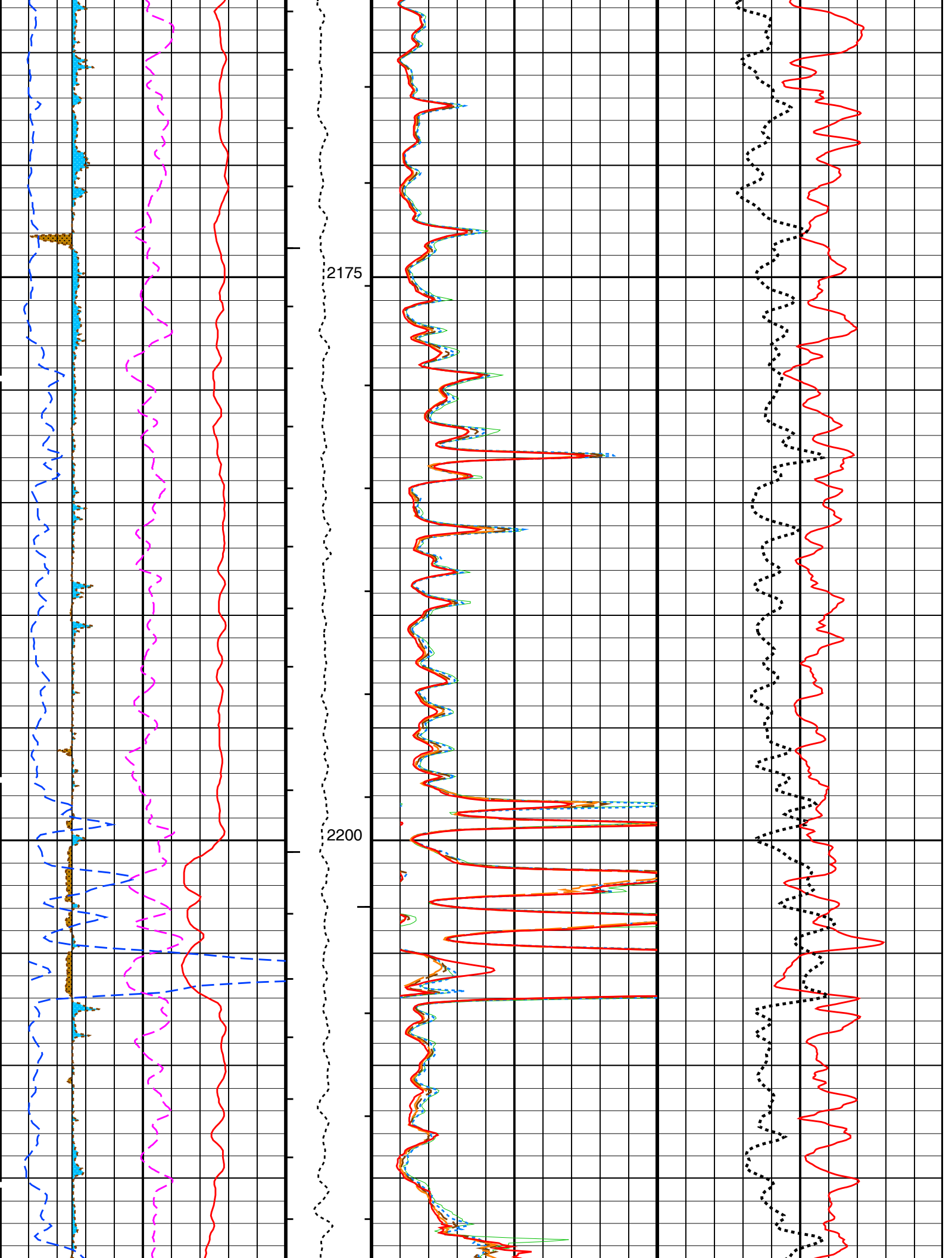
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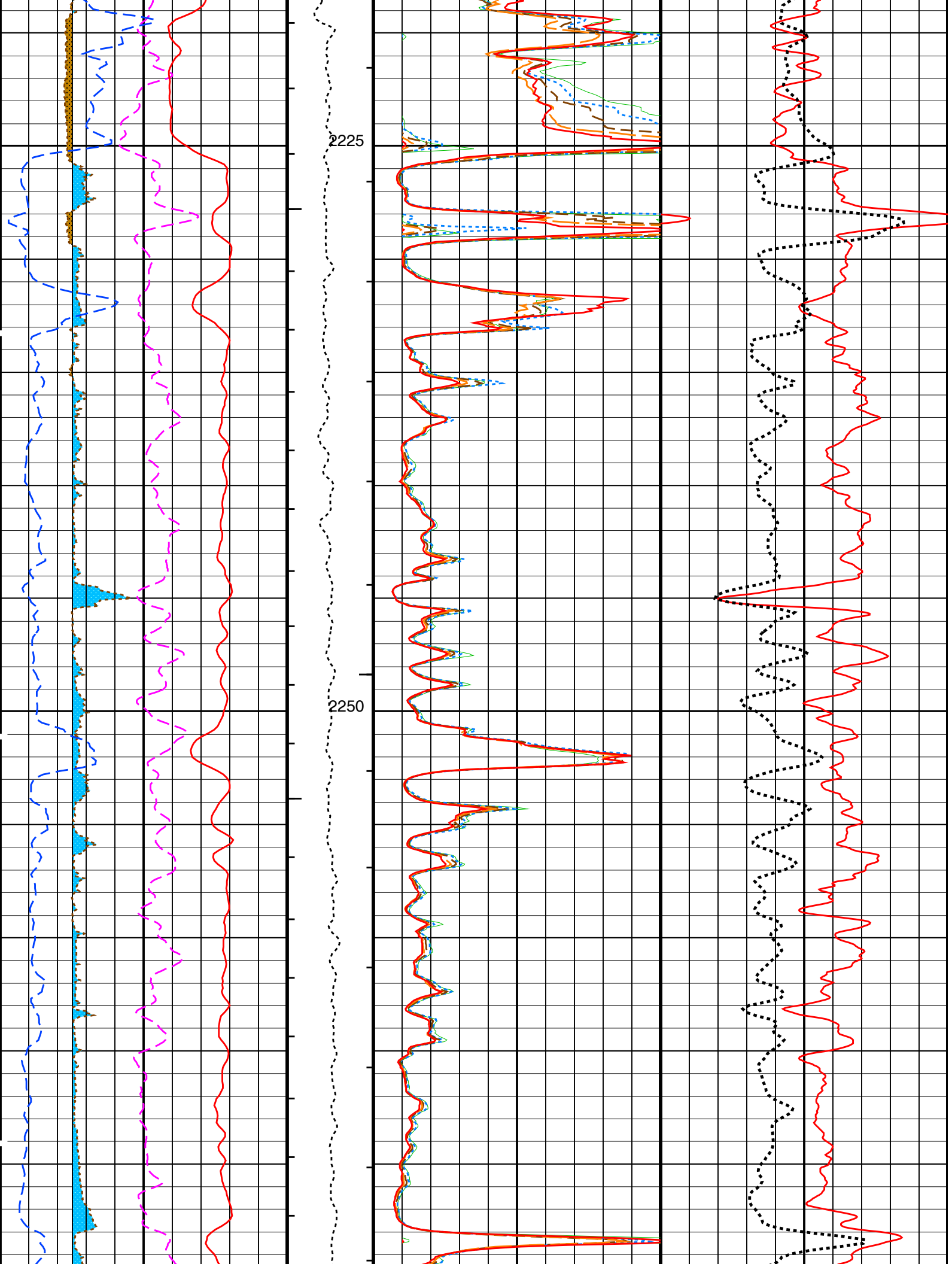
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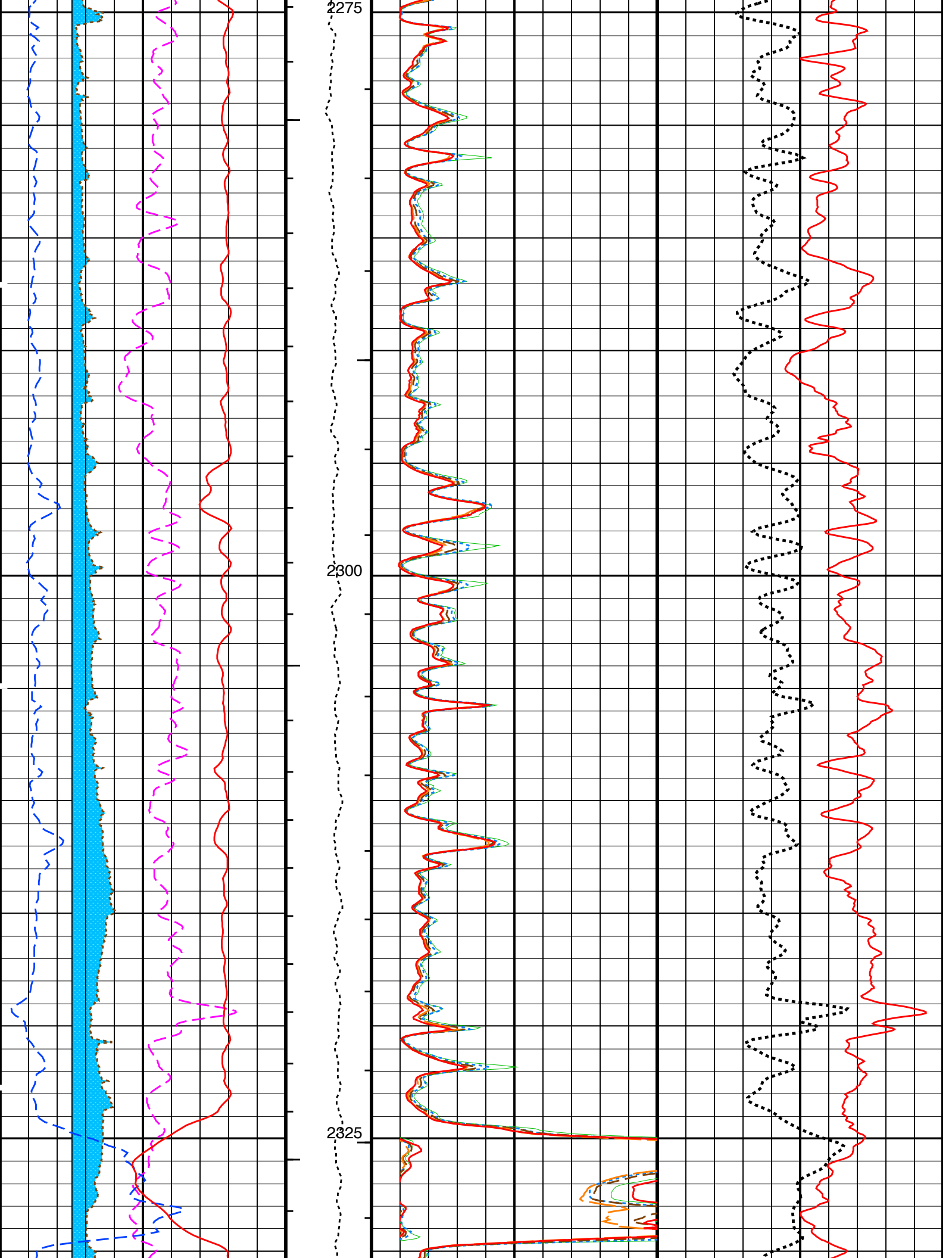
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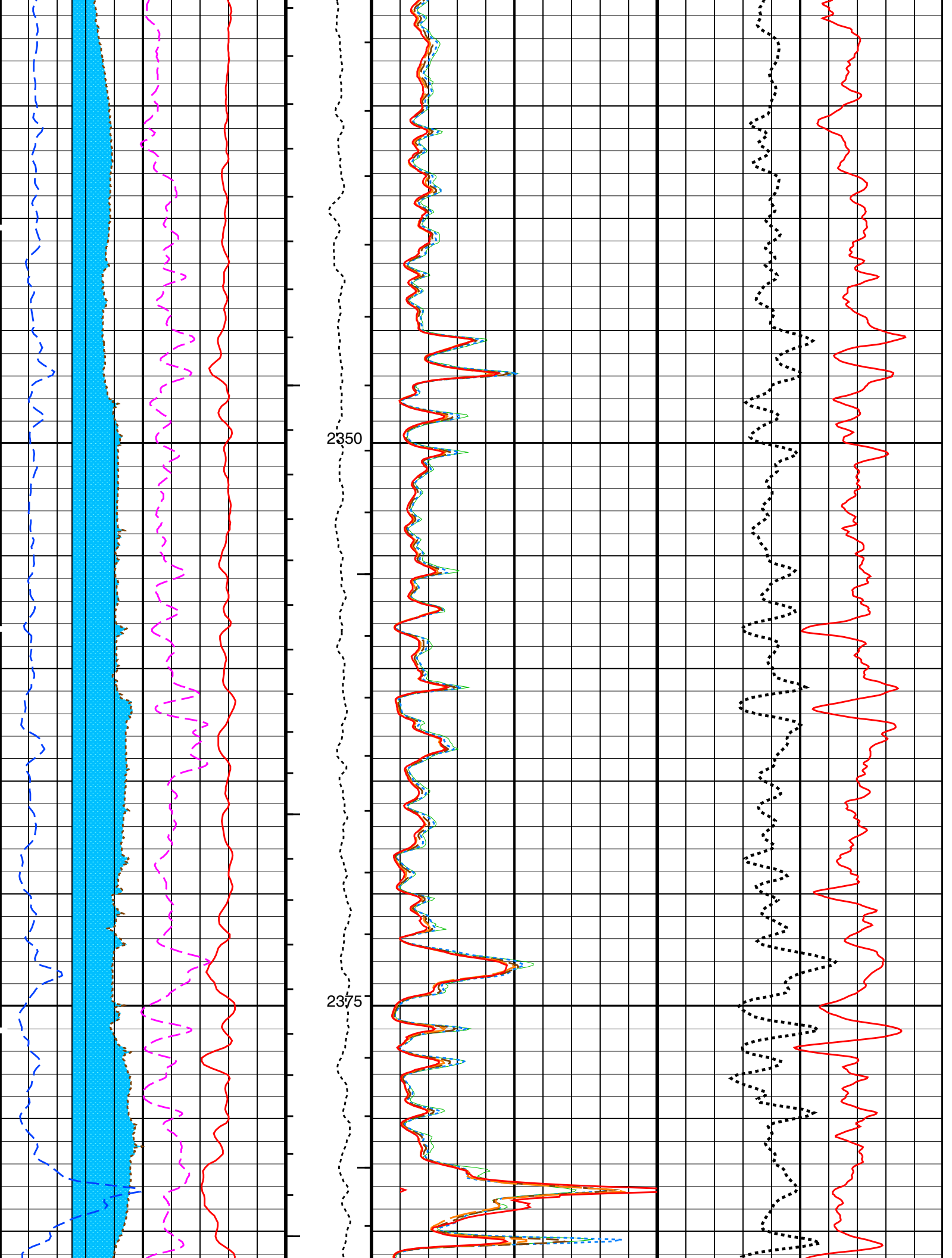
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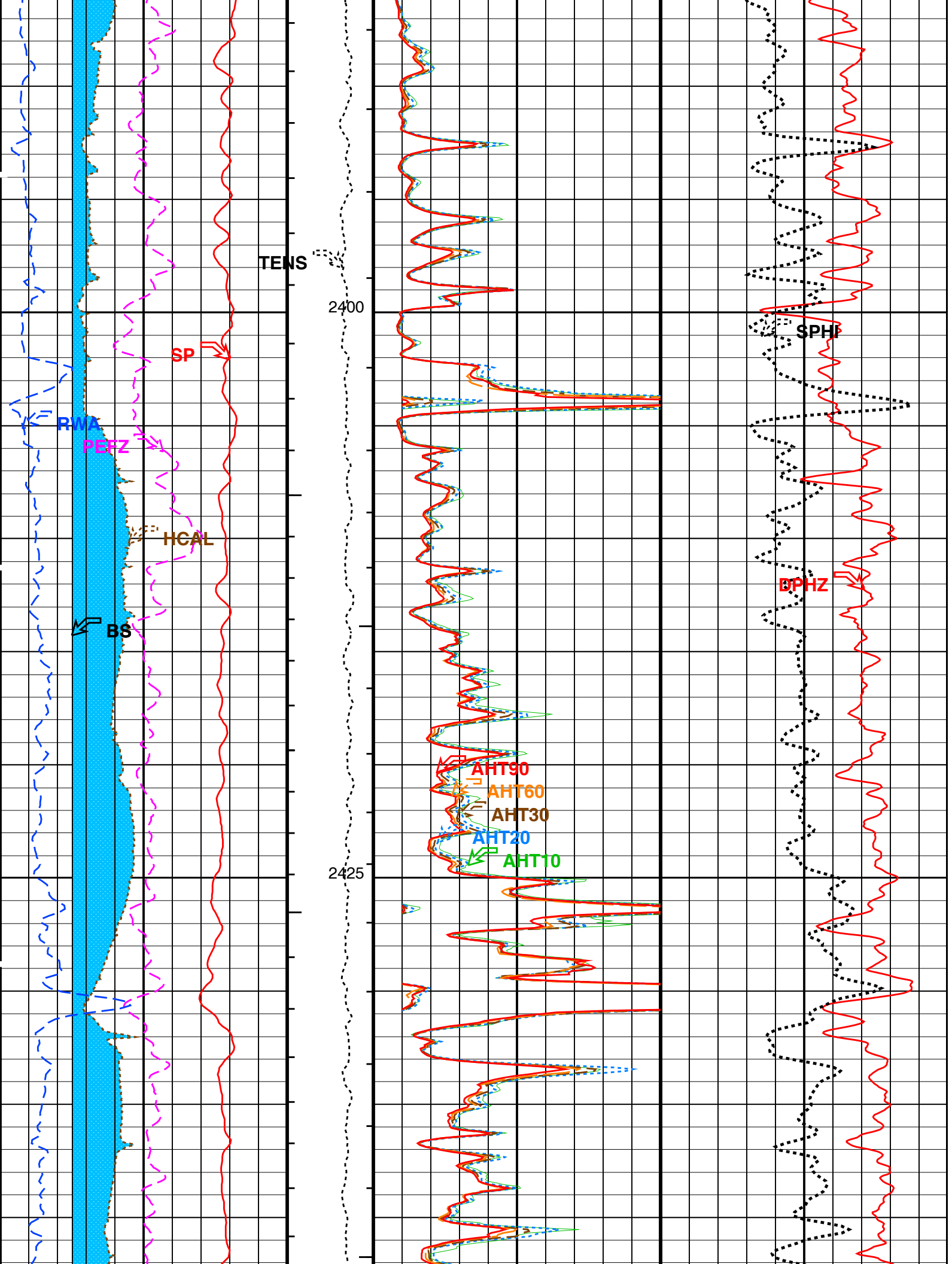
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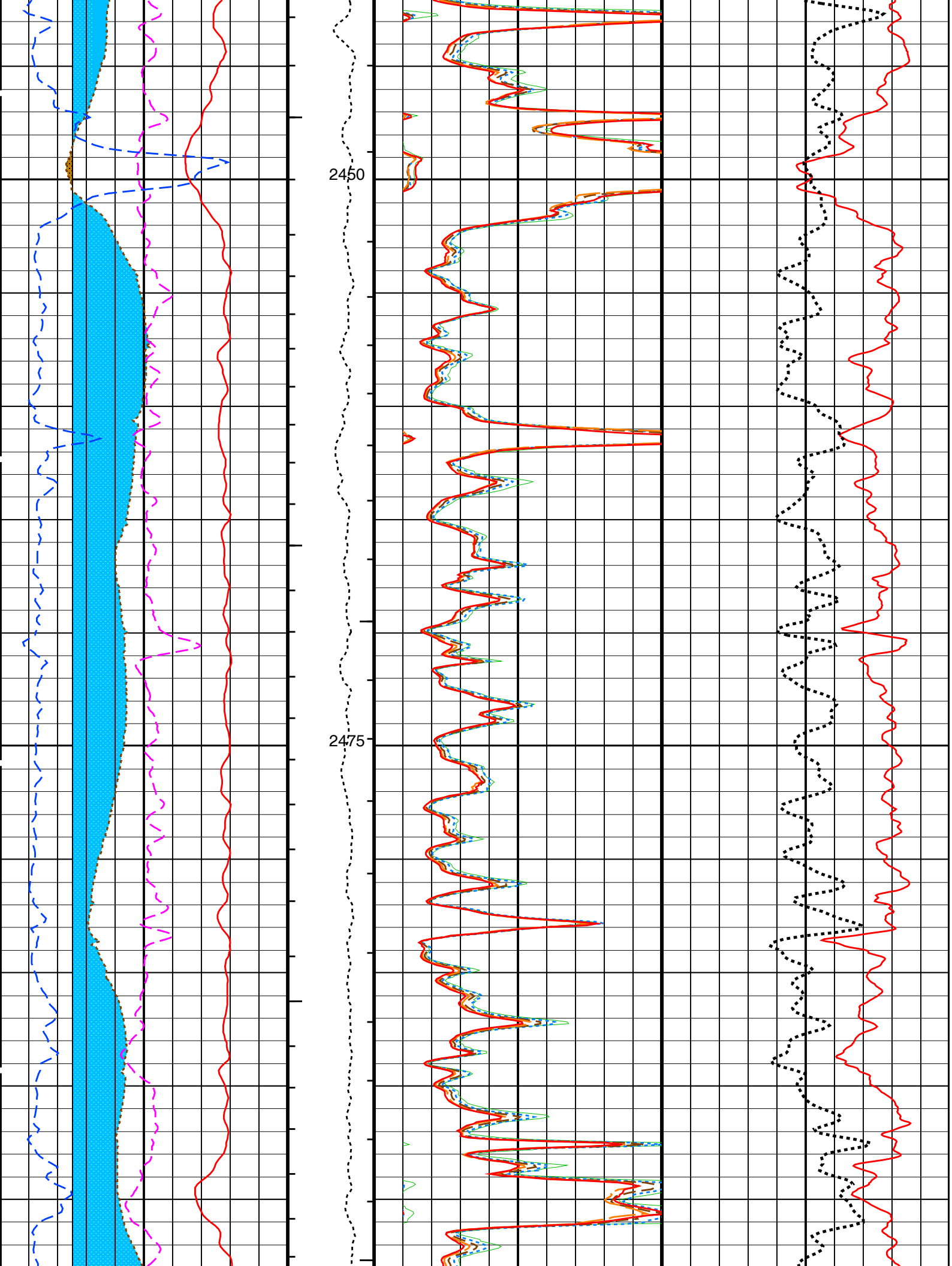
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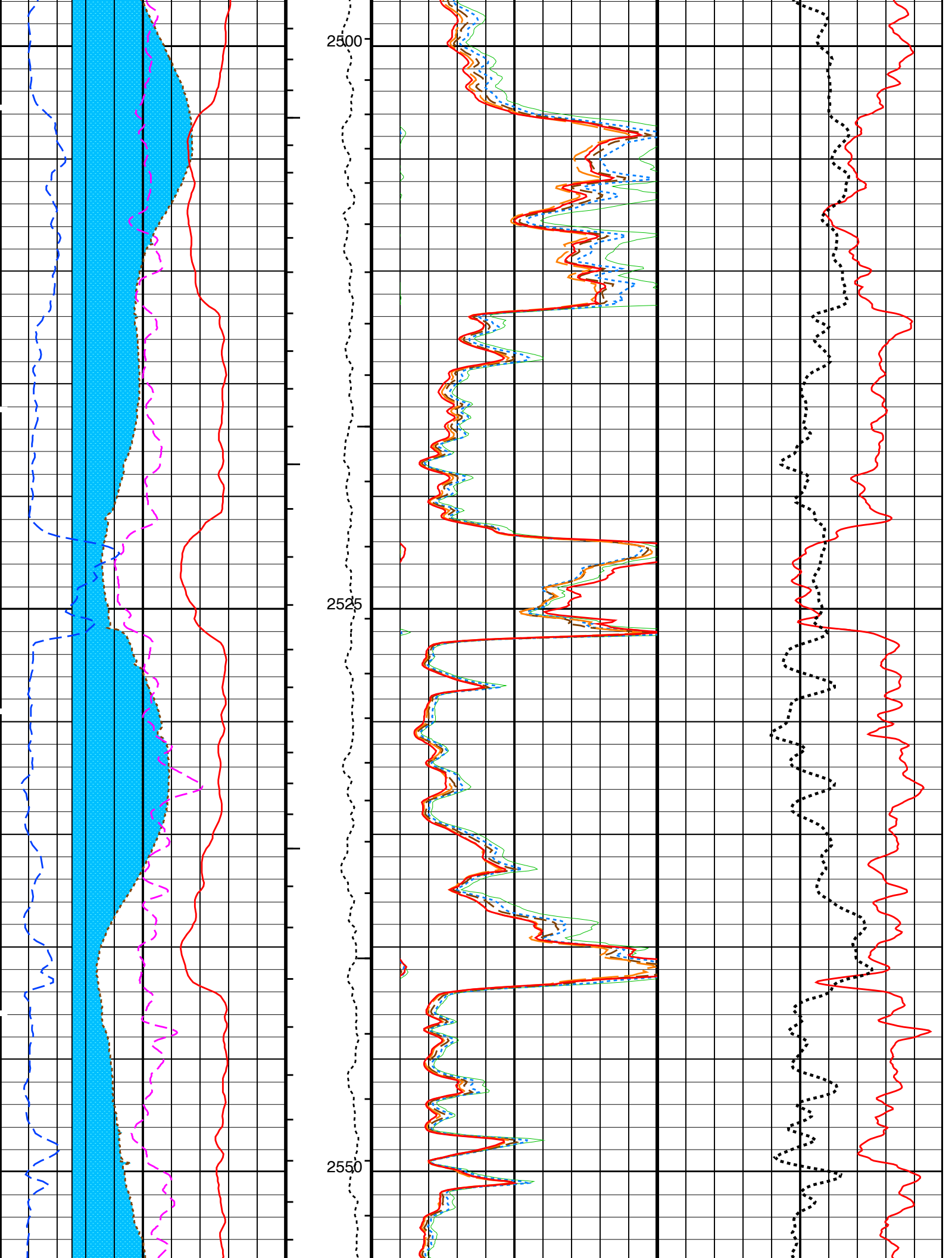
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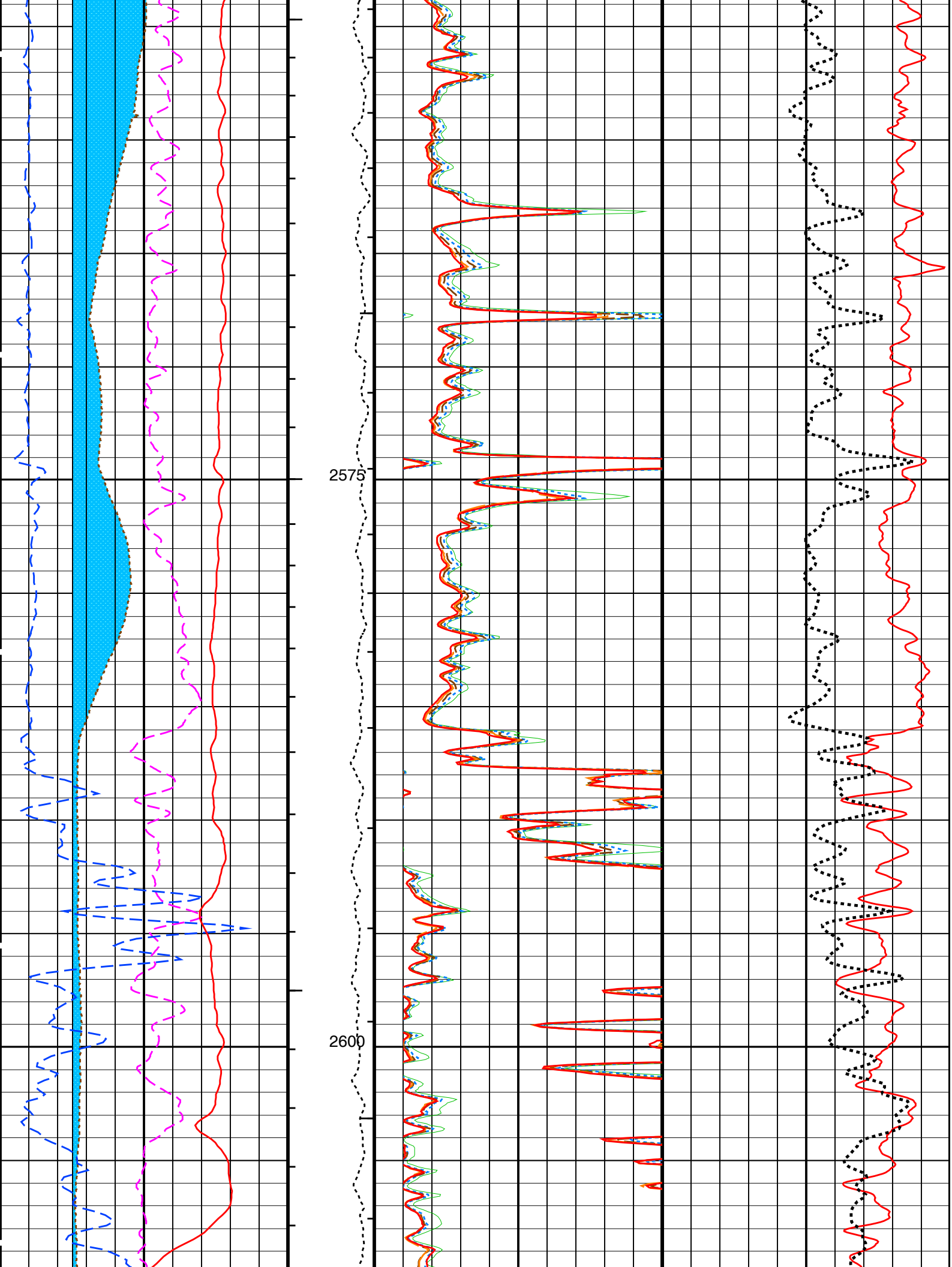
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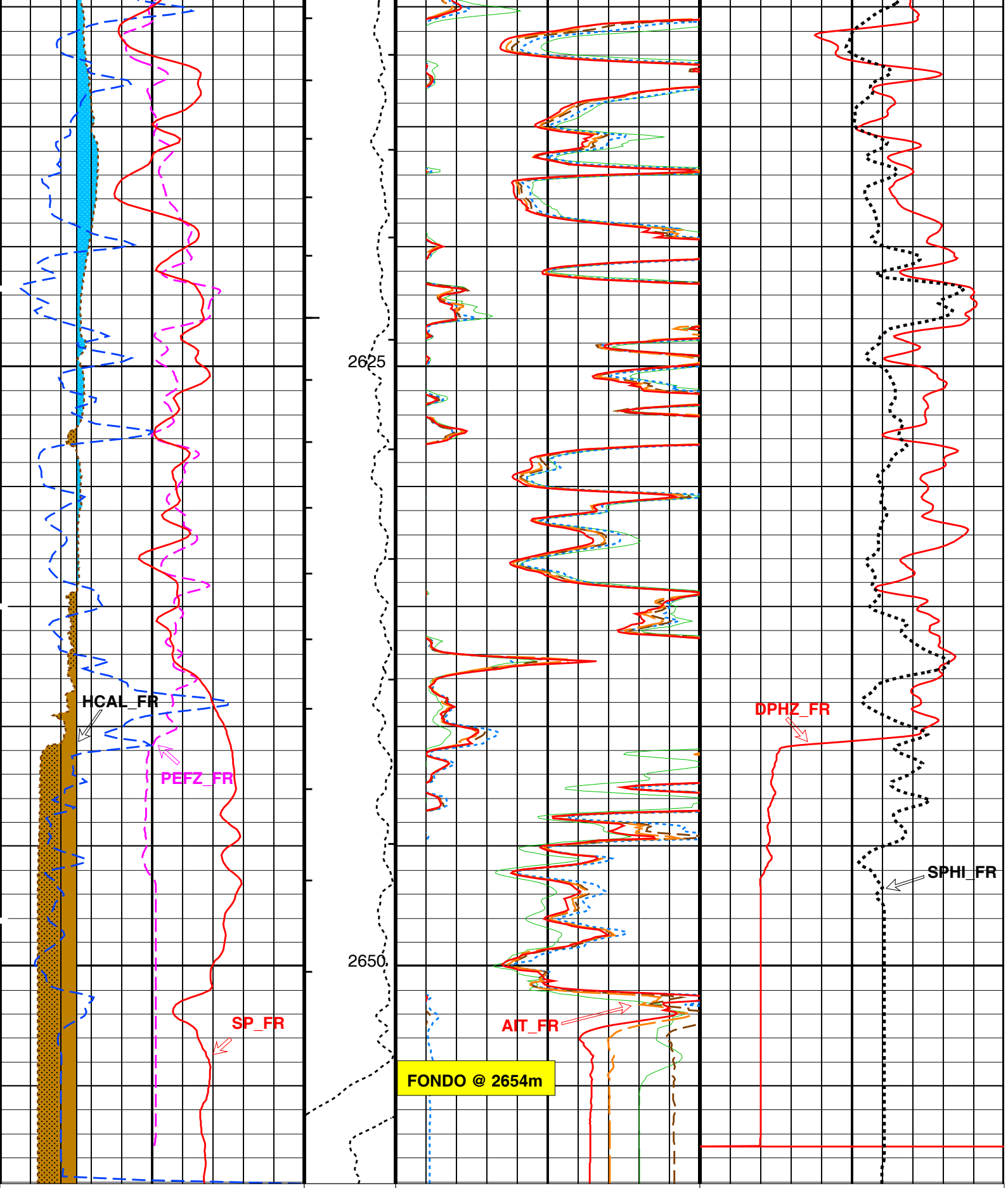
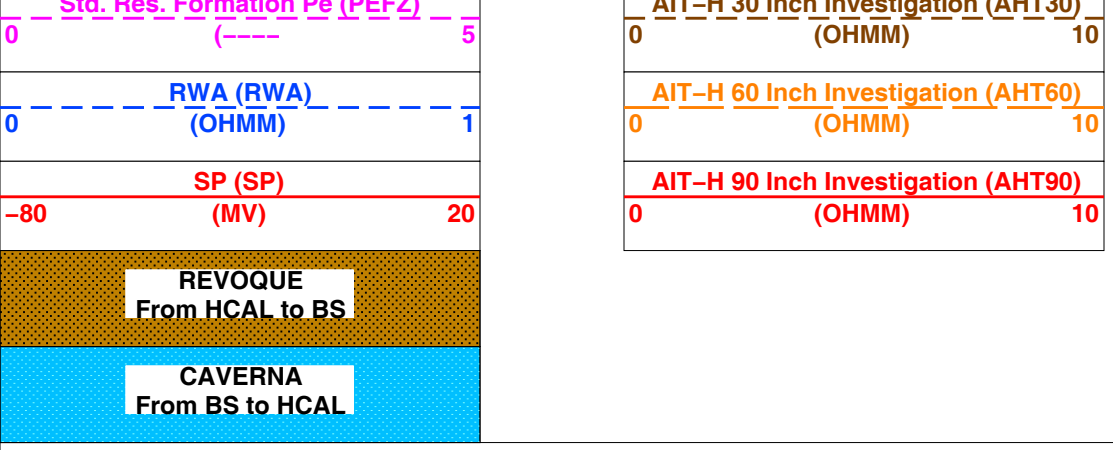


Bit Size (BS)	Tension (TENS)	AIT–H 10 Inch Investigation (AHT10)	Std. Res. Density Porosity (DPHZ)
6 (IN) 16	0 (LBF) 1000	0 (OHMM) 10	0.4 (V/V) 0
Caliper (HCAL)		AIT–H 20 Inch Investigation (AHT20)	Sonic Porosity (SPHI)
6 (IN) 16		0 (OHMM) 10	0.4 (V/V) 0
Std. Res. Formation Pe (PEFZ)		AIT–H 30 Inch Investigation (AHT30)	



PIP SUMMARY

- Integrated Hole Volume Minor Pip Every 0.1 M3
- Integrated Hole Volume Major Pip Every 1 M3
- Integrated Cement Volume Minor Pip Every 0.1 M3
- Integrated Cement Volume Major Pip Every 1 M3

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	HAIT-H: Array Induction Tool - H		
AHBHM	Array Induction Borehole Correction Mode	2_ComputeStandoff	
AHBHV	Array Induction Borehole Correction Code Version Number	880	
AHBLM	Array Induction Basic Logs Mode	6_One_Two_and_Four	
AHBLV	Array Induction Basic Logs Code Version Number	108	
AHCDE	Array Induction Casing Detection Enable	No	
AHCEN	Array Induction Tool Centering Flag (in Borehole)	Eccentered	
AHFRSV	Array Induction Response Set Version for Four ft Resolution	40.70.24.21	
AHMRF	Array Induction Mud Resistivity Factor	1	
AHORSV	Array Induction Response Set Version for One ft Resolution	40.70.24.21	
AHRFV	Array Induction Radial Profiling Code Version Number	700	
AHRPV	Array Induction Radial Parametrization Code Version Number	223	
AHSTA	Array Induction Tool Standoff	1.5	IN
AHTRSV	Array Induction Response Set Version for Two ft Resolution	40.70.24.21	
ARTS	AIT Rt Selection (for ALLRES computation)	AITH_TwoResA90	
BHT	Bottom Hole Temperature (used in calculations)	101	DEGC
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	0.81	
FPHI	Form Factor Porosity Source	SPHI	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
RTCO	RTCO - Rt Invasion Correction	YES	
SHT	Surface Hole Temperature	20	DEGC
SPDR	SP Drift	0	MV/M
SPNV	SP Next Value	-13	MV
	DSLT-H: Digitizing Sonic Logging Tool		
CDTS	C-Delta-T Shale	100	US/F
DTF	Delta-T Fluid	189	US/F
DTM	Delta-T Matrix	56	US/F
SPFS	Sonic Porosity Formula	RAYMER_HUNT	
SPSO	Sonic Porosity Source	DT	
	HILTB-FTB: High resolution Integrated Logging Tool-DTS		
BHT	Bottom Hole Temperature (used in calculations)	101	DEGC
DFB	HILT Nuclear Mud Base	Water	
DHC	Density Hole Correction	BS	
FD	Fluid Density	1	G/C3
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	0.81	
FPHI	Form Factor Porosity Source	SPHI	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
MDEN	Matrix Density	2.65	G/C3
NAAC	HRDD APS Activation Correction	OFF	
NMT	HILT Nuclear Mud Type	NOBARITE	
NPRM	HRDD Processing Mode	StdRes	
NSAR	HRDD Depth Sampling Rate	1	IN
SHT	Surface Hole Temperature	20	DEGC
	RWA: Apparent Water Resistivity		

	RWA: Apparent Water Resistivity		
ARTS	AIT Rt Selection (for ALLRES computation)	AITH_TwoResA90	
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	0.81	
FPHI	Form Factor Porosity Source	SPHI	
RTCO	RTCO – Rt Invasion Correction	YES	
	ALLRES: Basic Resistivity Transforms		
ARTS	AIT Rt Selection (for ALLRES computation)	AITH_TwoResA90	
RTCO	RTCO – Rt Invasion Correction	YES	
	HOLEV: Integrated Hole/Cement Volume		
BHT	Bottom Hole Temperature (used in calculations)	101	DEGC
FCD	Future Casing (Outer) Diameter	5.5	IN
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
HVCS	Integrated Hole Volume Caliper Selection	HCAL	
SHT	Surface Hole Temperature	20	DEGC
	System and Miscellaneous		
BS	Bit Size	8.750	IN
DFD	Drilling Fluid Density	1.20	G/C3
DO	Depth Offset for Playback	0.0	M
MST	Mud Sample Temperature	10.10	DEGC
PP	Playback Processing	OFF	
RMFS	Resistivity of Mud Filtrate Sample	1.3800	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	2654	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: COMBINADA **Vertical Scale: 1:200** **Graphics File Created: 27–Feb–2005 23:00**

OP System Version: 12C0–301

MCM

HAIT–H	SRPC–2699–HILT	DSLT–H	12C0–301
HILTB–FTB	SRPC–2699–HILT	DTC–H	12C0–301

Input DLIS Files

DEFAULT	AIT_SONIC_TLD_MCFL_078PUP	FN:3	PRODUCER	27–Feb–2005 22:45	2659.1 M	356.3 M

Output DLIS Files

DEFAULT	AIT_SONIC_TLD_MCFL_079PUP	FN:4	PRODUCER	27–Feb–2005 23:00

Schlumberger

TRAMO REPETIDO

MAXIS Field Log

Input DLIS Files

DEFAULT	AIT_SONIC_TLD_MCFL_081PUP	FN:6	PRODUCER	27–Feb–2005 23:33	2659.1 M	2459.4 M

Output DLIS Files

DEFAULT	AIT_SONIC_TLD_MCFL_082PUP	FN:7	PRODUCER	27–Feb–2005 23:39	2560.9 M	2496.0 M

Integrated Hole/Cement Volume Summary

Hole Volume = 9.47 M3

Cement Volume = 6.49 M3 (assuming 5.50 IN casing O.D.)

Computed from 2653.9 M to 2459.6 M using data channel(s) HCAL

OP System Version: 12C0-301

MCM

HAIT-H	SRPC-2699-HILT	DSLT-H	12C0-301
HILTB-FTB	SRPC-2699-HILT	DTC-H	12C0-301

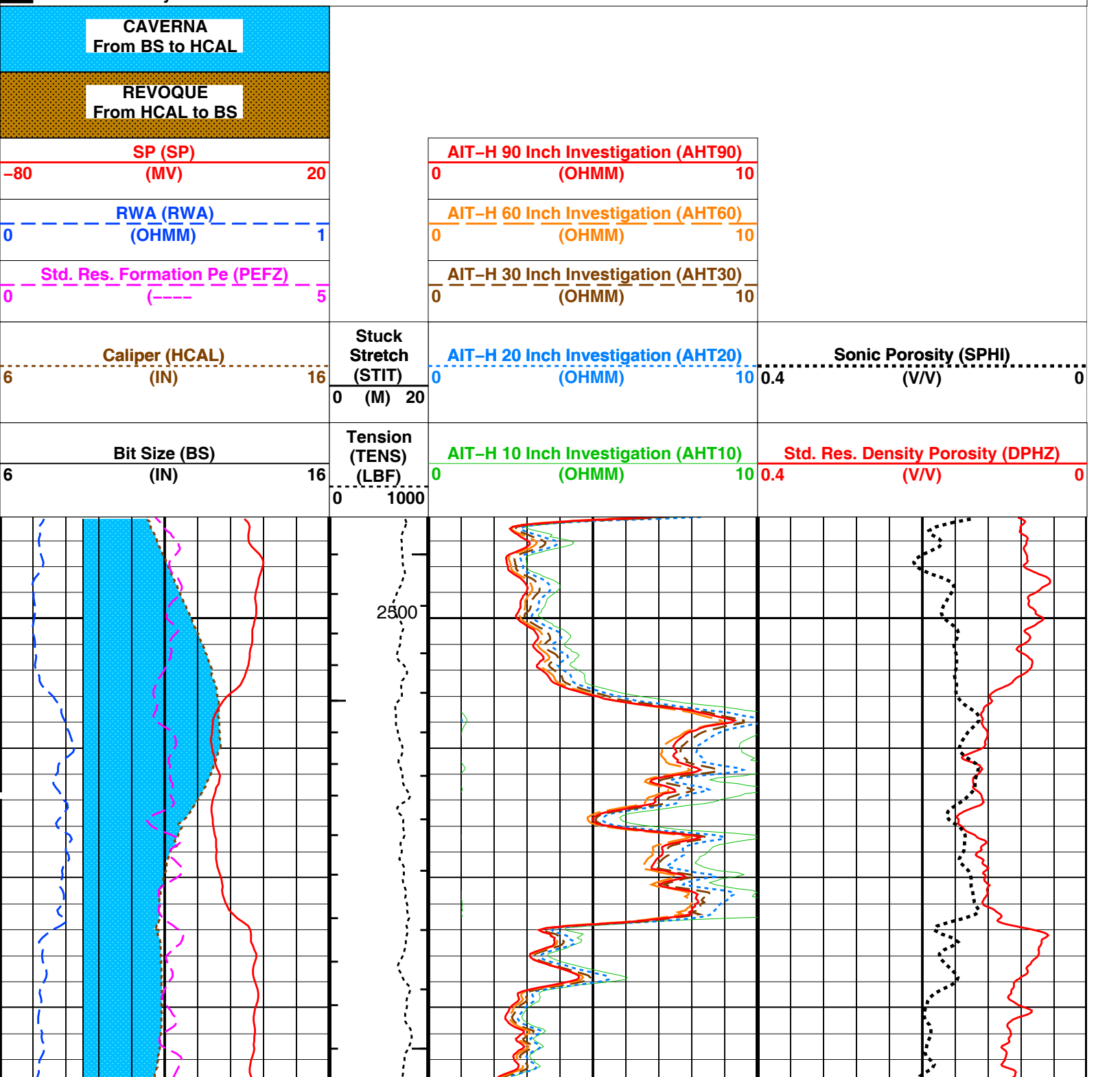
Changed Parameter Summary

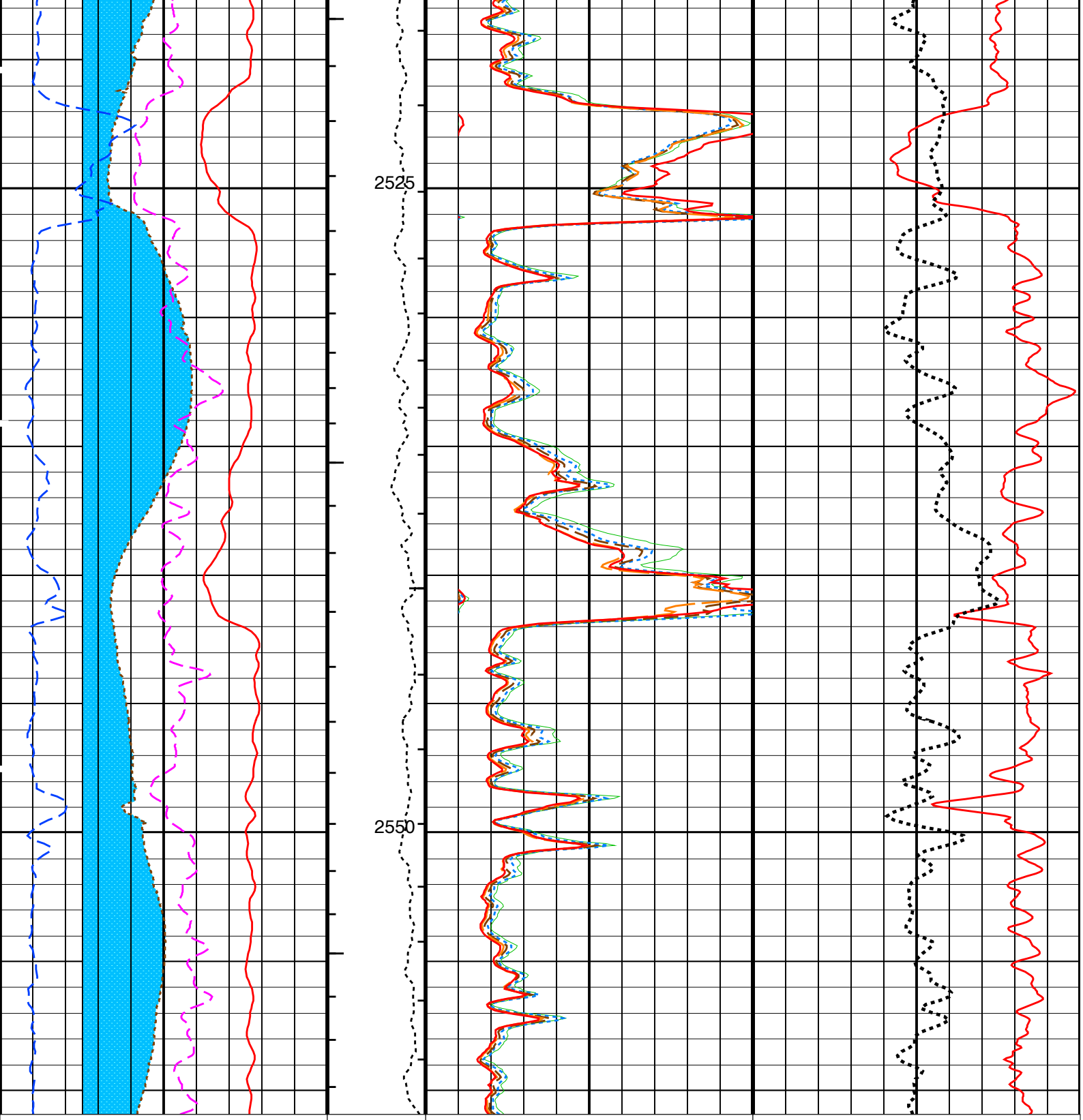
DLIS Name	New Value	Previous Value	Depth & Time
BS	8.500 IN	8.500 IN	2560.9 23:39:24
SPDR	0 MV/M	0 MV/M	2560.9 23:39:24

PIP SUMMARY

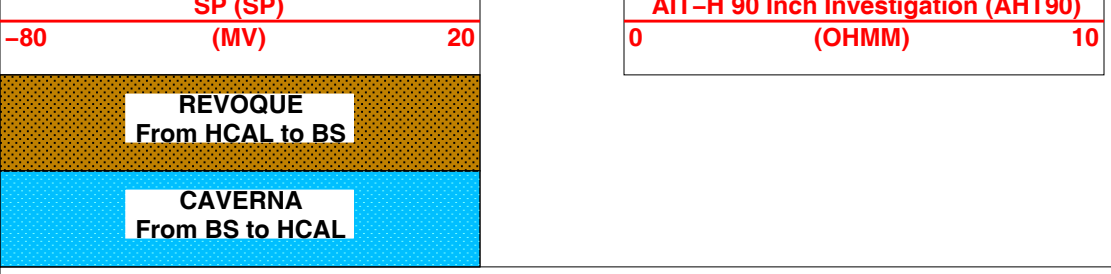
- Integrated Hole Volume Minor Pip Every 0.1 M3
- Integrated Hole Volume Major Pip Every 1 M3
- Integrated Cement Volume Minor Pip Every 0.1 M3
- Integrated Cement Volume Major Pip Every 1 M3

Time Mark Every 60 S





Bit Size (BS) 6 (IN) 16	Tension (TENS) (LBF) 0 1000	AIT–H 10 Inch Investigation (AHT10) 0 (OHMM) 10	Std. Res. Density Porosity (DPHZ) 0.4 (V/V) 0
Caliper (HCAL) 6 (IN) 16	Stuck Stretch (STIT) 0 (M) 20	AIT–H 20 Inch Investigation (AHT20) 0 (OHMM) 10	Sonic Porosity (SPHI) 0.4 (V/V) 0
Std. Res. Formation Pe (PEFZ) 0 (---- 5		AIT–H 30 Inch Investigation (AHT30) 0 (OHMM) 10	
RWA (RWA) 0 (OHMM) 1		AIT–H 60 Inch Investigation (AHT60) 0 (OHMM) 10	



PIP SUMMARY

- Integrated Hole Volume Minor Pip Every 0.1 M3
- Integrated Hole Volume Major Pip Every 1 M3
- Integrated Cement Volume Minor Pip Every 0.1 M3
- Integrated Cement Volume Major Pip Every 1 M3

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	HAIT-H: Array Induction Tool - H		
AHBHM	Array Induction Borehole Correction Mode	2_ComputeStandoff	
AHBHV	Array Induction Borehole Correction Code Version Number	880	
AHBLM	Array Induction Basic Logs Mode	6_One_Two_and_Four	
AHBLV	Array Induction Basic Logs Code Version Number	108	
AHCDE	Array Induction Casing Detection Enable	No	
AHCEN	Array Induction Tool Centering Flag (in Borehole)	Eccentered	
AHFRSV	Array Induction Response Set Version for Four ft Resolution	40.70.24.21	
AHMRF	Array Induction Mud Resistivity Factor	1	
AHORSV	Array Induction Response Set Version for One ft Resolution	40.70.24.21	
AHRFV	Array Induction Radial Profiling Code Version Number	700	
AHRPV	Array Induction Radial Parametrization Code Version Number	223	
AHSTA	Array Induction Tool Standoff	1.5	IN
AHTRSV	Array Induction Response Set Version for Two ft Resolution	40.70.24.21	
ARTS	AIT Rt Selection (for ALLRES computation)	AITH_TwoResA90	
BHT	Bottom Hole Temperature (used in calculations)	101	DEGC
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	0.81	
FPHI	Form Factor Porosity Source	SPHI	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
RTCO	RTCO - Rt Invasion Correction	YES	
SHT	Surface Hole Temperature	20	DEGC
SPDR	SP Drift	0	MV/M
SPNV	SP Next Value	-11	MV
	DSLT-H: Digitizing Sonic Logging Tool		
CDTS	C-Delta-T Shale	100	US/F
DTF	Delta-T Fluid	189	US/F
DTM	Delta-T Matrix	56	US/F
SPFS	Sonic Porosity Formula	RAYMER_HUNT	
SPSO	Sonic Porosity Source	DT	
	HILTB-FTB: High resolution Integrated Logging Tool-DTS		
BHT	Bottom Hole Temperature (used in calculations)	101	DEGC
DFB	HILT Nuclear Mud Base	Water	
DHC	Density Hole Correction	BS	
FD	Fluid Density	1	G/C3
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	0.81	
FPHI	Form Factor Porosity Source	SPHI	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
MDEN	Matrix Density	2.65	G/C3
NAAC	HRDD APS Activation Correction	OFF	
NMT	HILT Nuclear Mud Type	NOBARITE	
NPRM	HRDD Processing Mode	StdRes	
NSAR	HRDD Depth Sampling Rate	1	IN
SHT	Surface Hole Temperature	20	DEGC
	RWA: Apparent Water Resistivity		
ARTS	AIT Rt Selection (for ALLRES computation)	AITH_TwoResA90	
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	0.81	
FPHI	Form Factor Porosity Source	SPHI	
RTCO	RTCO - Rt Invasion Correction	YES	
	ALLRES: Basic Resistivity Transforms		
ARTS	AIT Rt Selection (for ALLRES computation)	AITH_TwoResA90	

ARTS	AIT Rt Selection (for ALLRES computation)	AITH_TWOResA90	
RTCO	RTCO – Rt Invasion Correction	YES	
	HOLEV: Integrated Hole/Cement Volume		
BHT	Bottom Hole Temperature (used in calculations)	101	DEGC
FCD	Future Casing (Outer) Diameter	5.5	IN
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
HVCS	Integrated Hole Volume Caliper Selection	HCAL	
SHT	Surface Hole Temperature	20	DEGC
	STI: Stuck Tool Indicator		
LBFR	Trigger for MAXIS First Reading Label	STI	
STKT	STI Stuck Threshold	0.762	M
TDD	Total Depth – Driller	2650.00	M
TDL	Total Depth – Logger	2654.00	M
	System and Miscellaneous		
BS	Bit Size	8.500	IN
DFD	Drilling Fluid Density	1.20	G/C3
DO	Depth Offset for Playback	0.0	M
DORL	Depth Offset for Repeat Analysis	0.0	M
MST	Mud Sample Temperature	10.10	DEGC
PP	Playback Processing	OFF	
RMFS	Resistivity of Mud Filtrate Sample	1.3800	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	2654	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: COMBINADA Vertical Scale: 1:200 Graphics File Created: 27–Feb–2005 23:39

OP System Version: 12C0–301

MCM

HAIT–H	SRPC–2699–HILT	DSLT–H	12C0–301
HILTB–FTB	SRPC–2699–HILT	DTC–H	12C0–301

Input DLIS Files

DEFAULT	AIT_SONIC_TLD_MCFL_081PUP	FN:6	PRODUCER	27–Feb–2005 23:33	2659.1 M	2459.4 M

Output DLIS Files

DEFAULT	AIT_SONIC_TLD_MCFL_082PUP	FN:7	PRODUCER	27–Feb–2005 23:39		

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ANALISIS DE REPETIBILIDAD

MAXIS Field Log

Input DLIS Files

DEFAULT	AIT_SONIC_TLD_MCFL_081PUP	FN:6	PRODUCER	27–Feb–2005 23:33	2659.1 M	2459.4 M
DEFAULT	AIT_SONIC_TLD_MCFL_078PUP	FN:3	PRODUCER	27–Feb–2005 22:45	2659.1 M	356.3 M

Output DLIS Files

DEFAULT	AIT_SONIC_TLD_MCFL_082PUP	FN:7	PRODUCER	27–Feb–2005 23:39	2560.9 M	2496.0 M

Integrated Hole/Cement Volume Summary

Hole Volume = 9.47 M3

Cement Volume = 6.49 M3 (assuming 5.50 IN casing O.D.)

Computed from 2653.9 M to 2459.6 M using data channel(s) HCAL

OP System Version: 12C0–301

MCM

HAIT–H	SRPC–2699–HILT	DSLT–H	12C0–301
HILTB–FTB	SRPC–2699–HILT	DTC–H	12C0–301

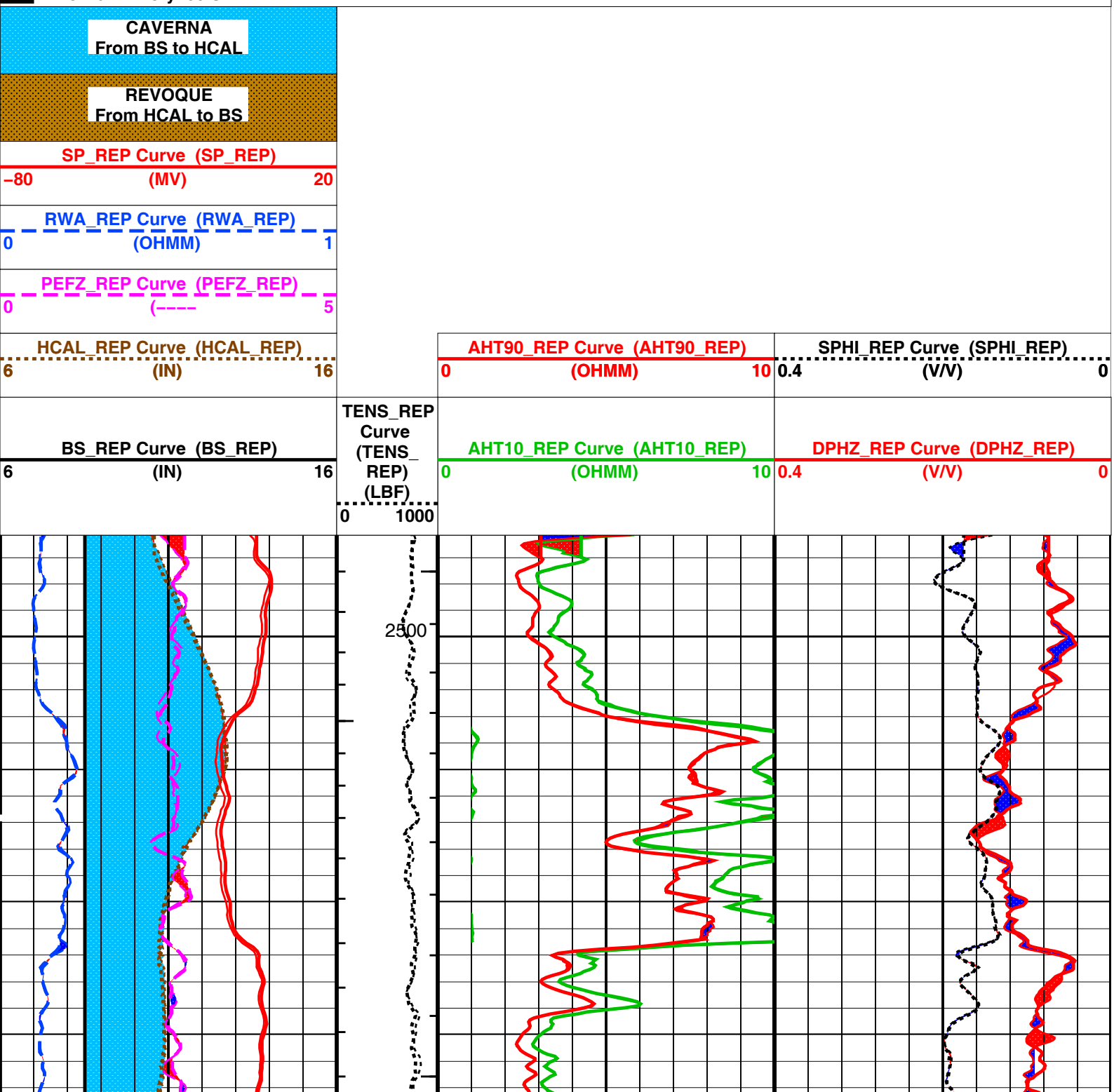
Changed Parameter Summary

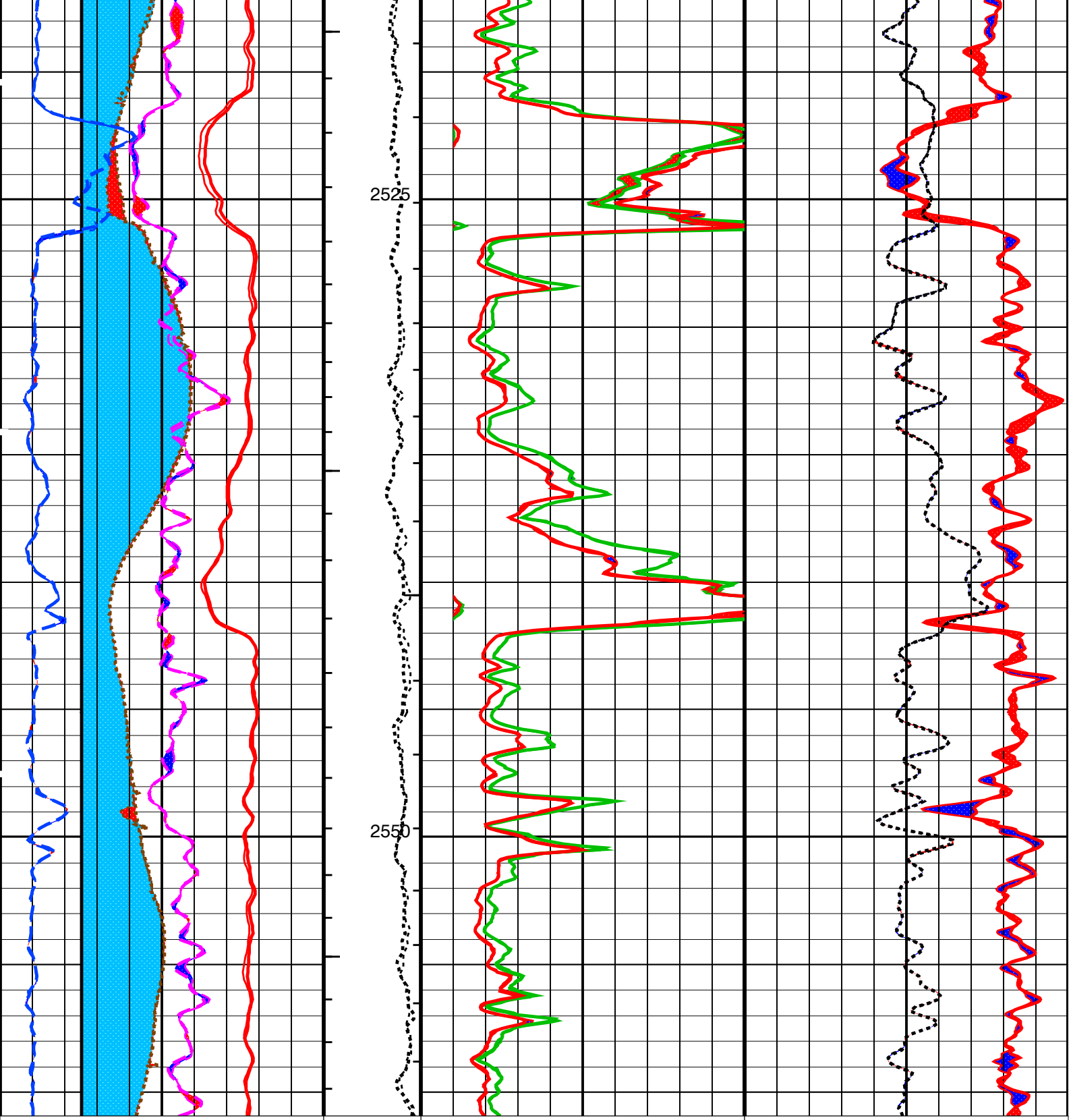
DLIS Name	New Value	Previous Value	Depth & Time
BS	8.500 IN	8.500 IN	2560.9 23:39:24
SPDR	0 MV/M	0 MV/M	2560.9 23:39:24

PIP SUMMARY

- Integrated Hole Volume Minor Pip Every 0.1 M3
- Integrated Hole Volume Major Pip Every 1 M3
- Integrated Cement Volume Minor Pip Every 0.1 M3
- Integrated Cement Volume Major Pip Every 1 M3

Time Mark Every 60 S





BS_REP Curve (BS_REP)
6 (IN) 16

HCAL_REP Curve (HCAL_REP)
6 (IN) 16

PEFZ_REP Curve (PEFZ_REP)
0 (---- 5

RWA_REP Curve (RWA_REP)
0 (OHMM) 1

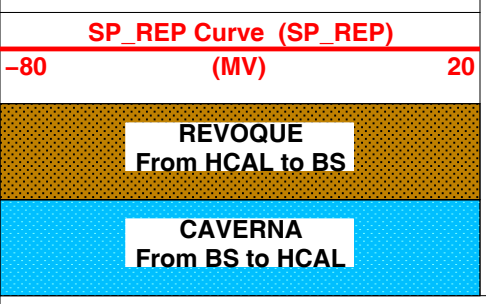
TENS_REP Curve (TENS_REP) (LBF)
0 1000

AHT10_REP Curve (AHT10_REP)
0 (OHMM) 10

AHT90_REP Curve (AHT90_REP)
0 (OHMM) 10

DPHZ_REP Curve (DPHZ_REP)
0.4 (V/V) 0

SPHI_REP Curve (SPHI_REP)
0.4 (V/V) 0



PIP SUMMARY

- Integrated Hole Volume Minor Pip Every 0.1 M3
- Integrated Hole Volume Major Pip Every 1 M3
- Integrated Cement Volume Minor Pip Every 0.1 M3
- Integrated Cement Volume Major Pip Every 1 M3

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	HAIT–H: Array Induction Tool – H		
AHBHM	Array Induction Borehole Correction Mode	2_ComputeStandoff	
AHBHV	Array Induction Borehole Correction Code Version Number	880	
AHBLM	Array Induction Basic Logs Mode	6_One_Two_and_Four	
AHBLV	Array Induction Basic Logs Code Version Number	108	
AHCDE	Array Induction Casing Detection Enable	No	
AHCEN	Array Induction Tool Centering Flag (in Borehole)	Eccentered	
AHFRSV	Array Induction Response Set Version for Four ft Resolution	40.70.24.21	
AHMRF	Array Induction Mud Resistivity Factor	1	
AHORSV	Array Induction Response Set Version for One ft Resolution	40.70.24.21	
AHRFV	Array Induction Radial Profiling Code Version Number	700	
AHRPV	Array Induction Radial Parametrization Code Version Number	223	
AHSTA	Array Induction Tool Standoff	1.5	IN
AHTRSV	Array Induction Response Set Version for Two ft Resolution	40.70.24.21	
ARTS	AIT Rt Selection (for ALLRES computation)	AITH_TwoResA90	
BHT	Bottom Hole Temperature (used in calculations)	101	DEGC
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	0.81	
FPHI	Form Factor Porosity Source	SPHI	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
RTCO	RTCO – Rt Invasion Correction	YES	
SHT	Surface Hole Temperature	20	DEGC
SPDR	SP Drift	0	MV/M
SPNV	SP Next Value	–11	MV
	DSLT–H: Digitizing Sonic Logging Tool		
CDTS	C–Delta–T Shale	100	US/F
DTF	Delta–T Fluid	189	US/F
DTM	Delta–T Matrix	56	US/F
SPFS	Sonic Porosity Formula	RAYMER_HUNT	
SPSO	Sonic Porosity Source	DT	
	HILTB–FTB: High resolution Integrated Logging Tool–DTS		
BHT	Bottom Hole Temperature (used in calculations)	101	DEGC
DFB	HILT Nuclear Mud Base	Water	
DHC	Density Hole Correction	BS	
FD	Fluid Density	1	G/C3
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	0.81	
FPHI	Form Factor Porosity Source	SPHI	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
MDEN	Matrix Density	2.65	G/C3
NAAC	HRDD APS Activation Correction	OFF	
NMT	HILT Nuclear Mud Type	NOBARITE	
NPRM	HRDD Processing Mode	StdRes	
NSAR	HRDD Depth Sampling Rate	1	IN
SHT	Surface Hole Temperature	20	DEGC
	RWA: Apparent Water Resistivity		
ARTS	AIT Rt Selection (for ALLRES computation)	AITH_TwoResA90	
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	0.81	
FPHI	Form Factor Porosity Source	SPHI	
RTCO	RTCO – Rt Invasion Correction	YES	
	ALLRES: Basic Resistivity Transforms		

	ALLRES: Basic Resistivity Transforms		
ARTS	AIT Rt Selection (for ALLRES computation)	AITH_TwoResA90	
RTCO	RTCO – Rt Invasion Correction	YES	
	HOLEV: Integrated Hole/Cement Volume		
BHT	Bottom Hole Temperature (used in calculations)	101	DEGC
FCD	Future Casing (Outer) Diameter	5.5	IN
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
HVCS	Integrated Hole Volume Caliper Selection	HCAL	
SHT	Surface Hole Temperature	20	DEGC
	System and Miscellaneous		
BS	Bit Size	8.500	IN
DFD	Drilling Fluid Density	1.20	G/C3
DO	Depth Offset for Playback	0.0	M
DORL	Depth Offset for Repeat Analysis	0.0	M
MST	Mud Sample Temperature	10.10	DEGC
PP	Playback Processing	OFF	
RMFS	Resistivity of Mud Filtrate Sample	1.3800	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	2654	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: COMBINADA_REP Vertical Scale: 1:200 Graphics File Created: 27–Feb–2005 23:39

OP System Version: 12C0–301

MCM

HAIT–H	SRPC–2699–HILT	DSLT–H	12C0–301
HILTB–FTB	SRPC–2699–HILT	DTC–H	12C0–301

Input DLIS Files

DEFAULT	AIT_SONIC_TLD_MCFL_081PUP	FN:6	PRODUCER	27–Feb–2005 23:33	2659.1 M	2459.4 M
DEFAULT	AIT_SONIC_TLD_MCFL_078PUP	FN:3	PRODUCER	27–Feb–2005 22:45	2659.1 M	356.3 M

Output DLIS Files

DEFAULT	AIT_SONIC_TLD_MCFL_082PUP	FN:7	PRODUCER	27–Feb–2005 23:39

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MAXIS Field Log

Input DLIS Files

DEFAULT	AIT_SONIC_TLD_MCFL_021LUP	FN:30	PRODUCER	27–Feb–2005 21:07	459.0 M	371.1 M

Output DLIS Files

DEFAULT	AIT_SONIC_TLD_MCFL_085PUP	FN:10	PRODUCER	27–Feb–2005 23:51	436.0 M	418.3 M

Integrated Hole/Cement Volume Summary

Hole Volume = 9.47 M3

Cement Volume = 6.49 M3 (assuming 5.50 IN casing O.D.)

Computed from 2653.9 M to 2459.6 M using data channel(s) HCAL

OP System Version: 12C0–301

MCM

HAIT–H	SRPC–2699–HILT	DSLT–H	12C0–301
HILTB–FTB	SRPC–2699–HILT	DTC–H	12C0–301

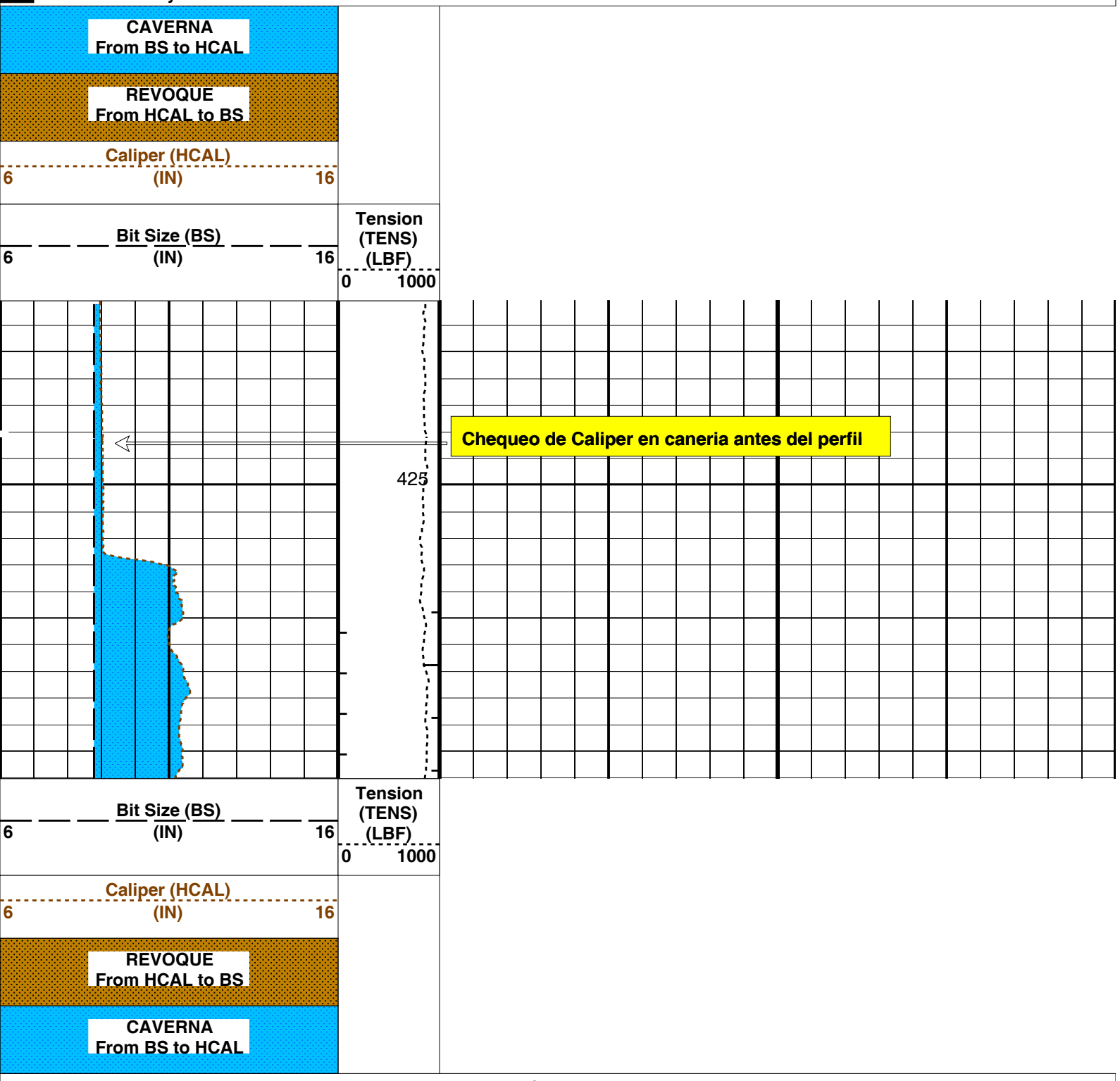
Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
BS	8.750 IN	8.750 IN	436.0 23:51:30

PIP SUMMARY

- Integrated Hole Volume Minor Pip Every 0.1 M3
- Integrated Hole Volume Major Pip Every 1 M3
- Integrated Cement Volume Minor Pip Every 0.1 M3
- Integrated Cement Volume Major Pip Every 1 M3

Time Mark Every 60 S



PIP SUMMARY

- Integrated Hole Volume Minor Pip Every 0.1 M3
- Integrated Hole Volume Major Pip Every 1 M3
- Integrated Cement Volume Minor Pip Every 0.1 M3
- Integrated Cement Volume Major Pip Every 1 M3

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	HOLEV: Integrated Hole/Cement Volume		
FCD	Future Casing (Outer) Diameter	5.5	IN
HVCS	Integrated Hole Volume Caliper Selection	HCAL	
	System and Miscellaneous		
BS	Bit Size	8.750	IN
DO	Depth Offset for Playback	–0.1	M
DORL	Depth Offset for Repeat Analysis	0.0	M
PP	Playback Processing	OFF	
TD	Total Depth	2654	M

Format: CALIPER Vertical Scale: 1:200 Graphics File Created: 27–Feb–2005 23:51

OP System Version: 12C0–301

MCM

HAIT–H	SRPC–2699–HILT	DSLT–H	12C0–301
HILTB–FTB	SRPC–2699–HILT	DTC–H	12C0–301

Input DLIS Files

DEFAULT	AIT_SONIC_TLD_MCFL_021LUP	FN:30	PRODUCER	27–Feb–2005 21:07	459.0 M	371.1 M

Output DLIS Files

DEFAULT	AIT_SONIC_TLD_MCFL_085PUP	FN:10	PRODUCER	27–Feb–2005 23:51		

Input DLIS Files

DEFAULT	AIT_SONIC_TLD_MCFL_021LUP	FN:30	PRODUCER	27–Feb–2005 21:07	459.0 M	371.1 M
DEFAULT	AIT_SONIC_TLD_MCFL_078PUP	FN:3	PRODUCER	27–Feb–2005 22:45	2659.1 M	356.3 M

Output DLIS Files

DEFAULT	AIT_SONIC_TLD_MCFL_085PUP	FN:10	PRODUCER	27–Feb–2005 23:51	436.0 M	418.0 M

Integrated Hole/Cement Volume Summary

Hole Volume = 9.47 M3

Cement Volume = 6.49 M3 (assuming 5.50 IN casing O.D.)

Computed from 2653.9 M to 2459.6 M using data channel(s) HCAL

OP System Version: 12C0–301

MCM

HAIT–H	SRPC–2699–HILT	DSLT–H	12C0–301
HILTB–FTB	SRPC–2699–HILT	DTC–H	12C0–301

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
BS	8.750 IN	8.750 IN	436.0 23:51:30

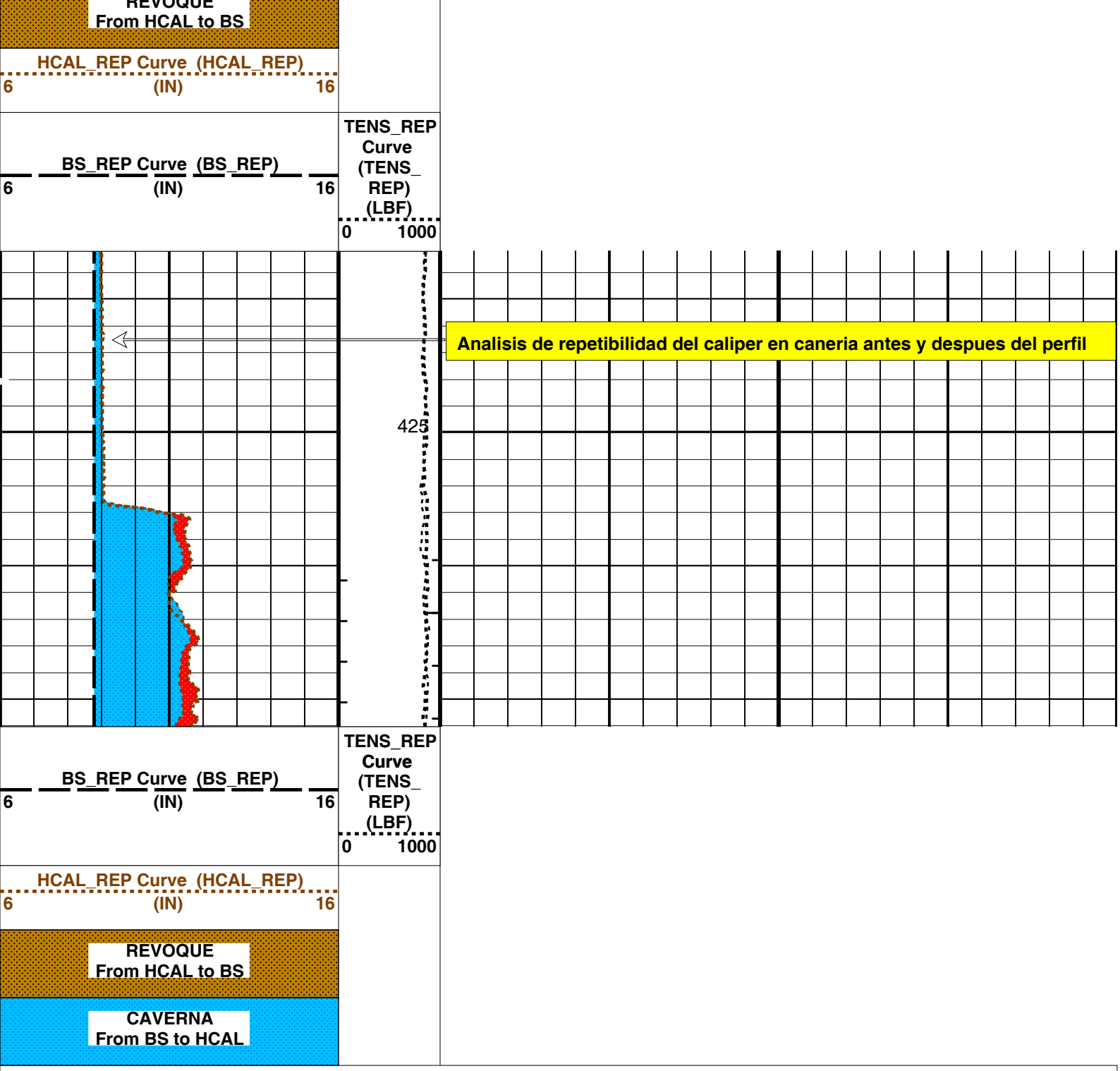
PIP SUMMARY

- Integrated Hole Volume Minor Pip Every 0.1 M3
- Integrated Hole Volume Major Pip Every 1 M3
- Integrated Cement Volume Minor Pip Every 0.1 M3
- Integrated Cement Volume Major Pip Every 1 M3

Time Mark Every 60 S

CAVERNA
From BS to HCAL

REVOQUE



PIP SUMMARY

- Integrated Hole Volume Minor Pip Every 0.1 M3
- Integrated Hole Volume Major Pip Every 1 M3
- Integrated Cement Volume Minor Pip Every 0.1 M3
- Integrated Cement Volume Major Pip Every 1 M3

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	HOLEV: Integrated Hole/Cement Volume		
FCD	Future Casing (Outer) Diameter	5.5	IN
HVCS	Integrated Hole Volume Caliper Selection	HCAL	
	System and Miscellaneous		
BS	Bit Size	8.750	IN
DO	Depth Offset for Playback	−0.1	M
DORL	Depth Offset for Repeat Analysis	0.0	M
PP	Playback Processing	OFF	
TD	Total Depth	2654	M

Format: CALIPER_REP Vertical Scale: 1:200 Graphics File Created: 27–Feb–2005 23:51

OP System Version: 12C0–301

MCM

HAIT–H	SRPC–2699–HILT	DSLT–H	12C0–301
HILTB–FTB	SRPC–2699–HILT	DTC–H	12C0–301

Input DLIS Files

DEFAULT	AIT_SONIC_TLD_MCFL_021LUP	FN:30	PRODUCER	27–Feb–2005 21:07	459.0 M	371.1 M
DEFAULT	AIT_SONIC_TLD_MCFL_078PUP	FN:3	PRODUCER	27–Feb–2005 22:45	2659.1 M	356.3 M

Output DLIS Files

DEFAULT	AIT_SONIC_TLD_MCFL_085PUP	FN:10	PRODUCER	27–Feb–2005 23:51		

Input DLIS Files

DEFAULT	AIT_SONIC_TLD_MCFL_078PUP	FN:3	PRODUCER	27–Feb–2005 22:45	2659.1 M	356.3 M

Output DLIS Files

DEFAULT	AIT_SONIC_TLD_MCFL_087PUP	FN:12	PRODUCER	27–Feb–2005 23:55	413.0 M	403.9 M

OP System Version: 12C0–301

MCM

HAIT–H	SRPC–2699–HILT	DSLT–H	12C0–301
HILTB–FTB	SRPC–2699–HILT	DTC–H	12C0–301

Changed Parameter Summary

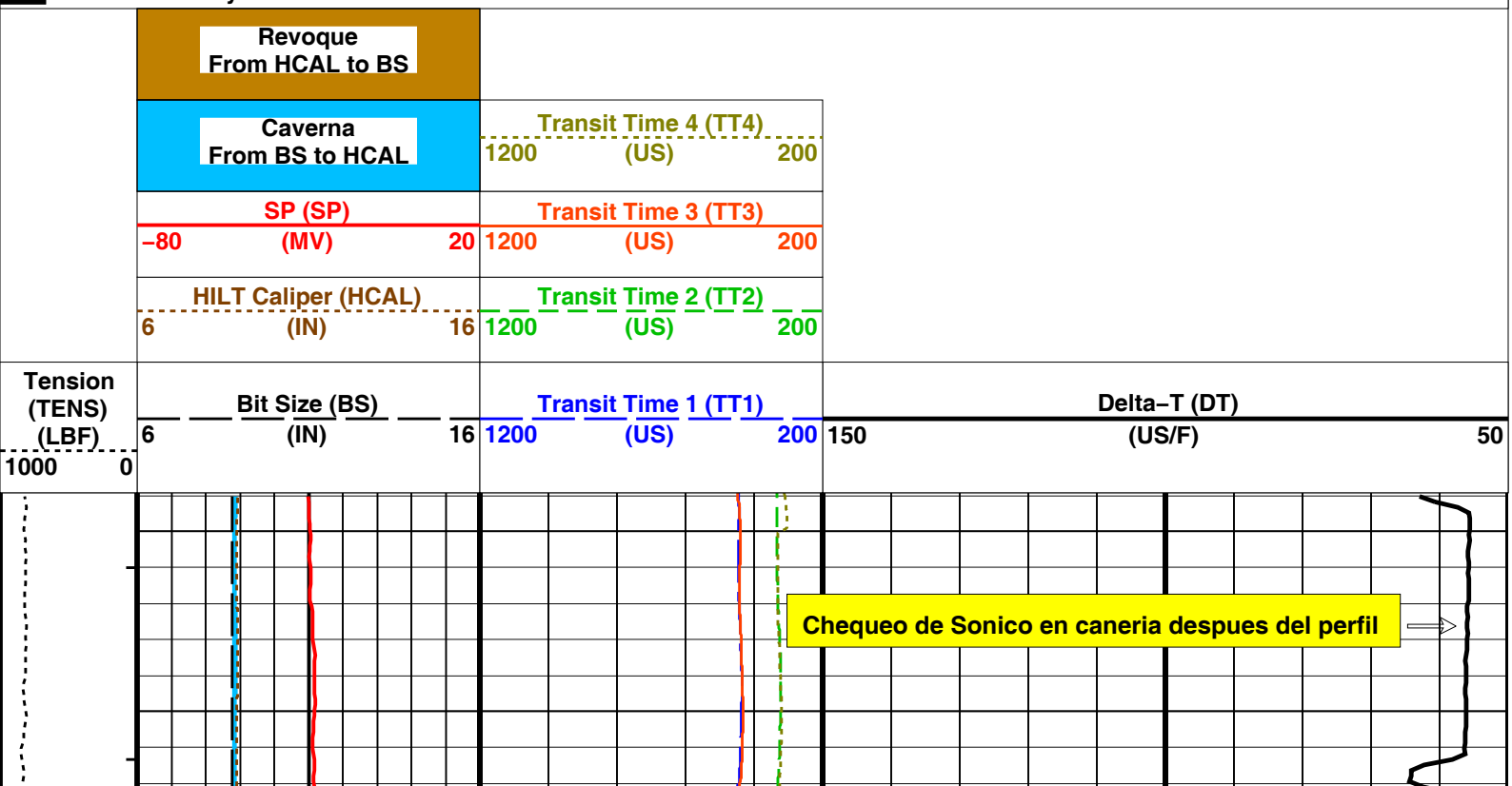
DLIS Name	New Value	Previous Value	Depth & Time
BS	8.750 IN	8.750 IN	413.0 23:55:50
SPDR	0 MV/M	0 MV/M	413.0 23:55:50

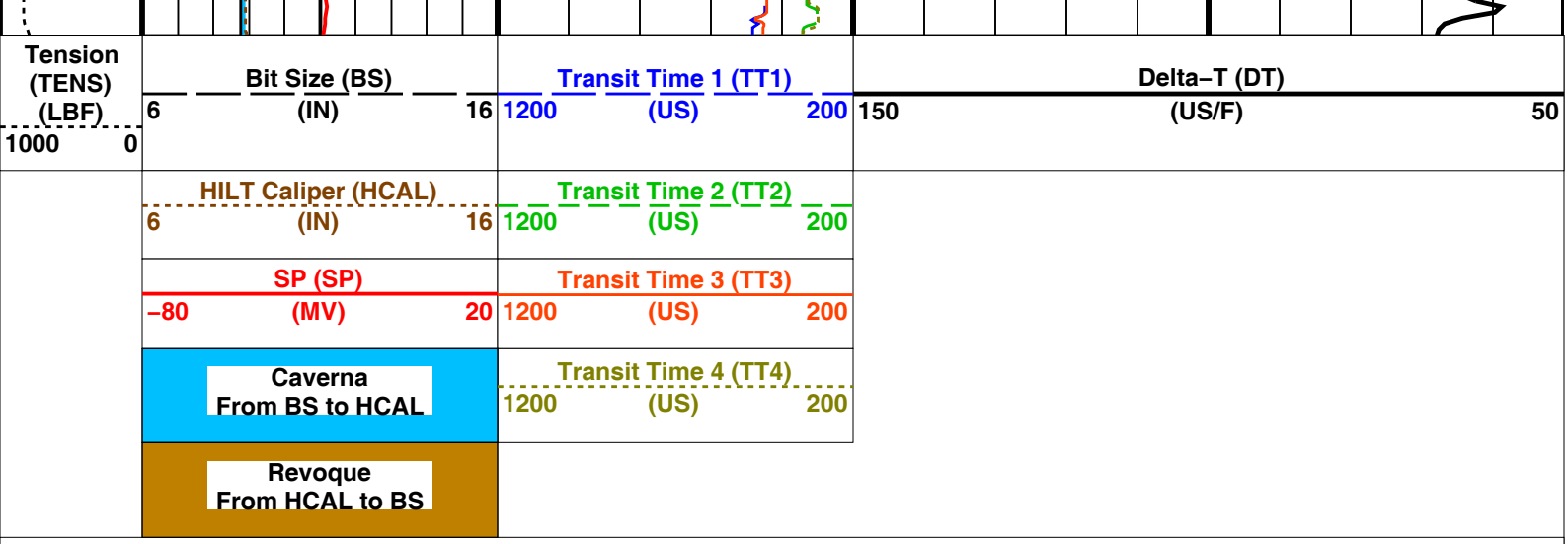
PIP SUMMARY

Integrated Transit Time Minor Pip Every 1 MS

Integrated Transit Time Major Pip Every 10 MS

Time Mark Every 60 S





PIP SUMMARY

Integrated Transit Time Minor Pip Every 1 MS
Integrated Transit Time Major Pip Every 10 MS
Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	HAIT–H: Array Induction Tool – H		
SPDR	SP Drift	0	MV/M
SPNV	SP Next Value	–11	MV
	DSLT–H: Digitizing Sonic Logging Tool		
	DSLT Firing Mode	BHC	
	Telemetry Mode	DSLC_FTB	
AMSG	Auxiliary Minimum Sliding Gate	140	US
CBAF	CBL Adjustment Factor	1	
CBCF	CBL Correction Factor	4	
CBLG	CBL Gate Width	45	US
DDEL	Digitizing Delay	200	US
DIVL	DSLT Depth Sampling Interval	20	
DRCS	DSLT DLIS Recording Size	100	
DSIN	Digitizing Sample Interval	10	
DTFS	DSLC Telemetry Frame Size	300	
DWCO	Digitizing Word Count	100	
GAI	Manual Gain	40	
ITTS	Integrated Transit Time Source	DT	
MAHTR	Manual High Threshold Reference	140	
MGAI	Maximum Gain	60	
MNHTR	Minimum High Threshold Reference	120	
NMSG	Near Minimum Sliding Gate	260	US
NMXG	Near Maximum Sliding Gate	750	US
RATE	Firing Rate	R15	
SFAF	Sonic Formation Attenuation Factor	0	DB/M
SGCL	Sliding Gate Closing Delta–T	250	US/F
SGDT	Sliding Gate Delta–T	65	US/F
SGW	Sliding Gate Width	80	US
SLEV	Signal Level for AGC	5000	
WAGC	Waveform AGC Allow/Disallow	OFF	
WMOD	Waveform Firing Mode	FULL	
	System and Miscellaneous		
BS	Bit Size	8.750	IN
DO	Depth Offset for Playback	–0.1	M
PP	Playback Processing	OFF	

Format: SONIC Vertical Scale: 1:200 Graphics File Created: 27–Feb–2005 23:55

OP System Version: 12C0–301

MCM

HAIT–H	SRPC–2699–HILT	DSLT–H	12C0–301
HILTB–FTB	SRPC–2699–HILT	DTC–H	12C0–301

Input DLIS Files

DEFAULT	AIT_SONIC_TLD_MCFL_078PUP	FN:3	PRODUCER	27–Feb–2005 22:45	2659.1 M	356.3 M

Output DLIS Files

Schlumberger

CALIBRACIONES

MAXIS Field Log

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
Array Induction Tool – H Wellsite Calibration – Electronics Calibration Check – Thru Cal Mag. & Phase							
Master: 6–Jan–2005 10:30 Before: 27–Feb–2005 9:06							
Thru Cal Magnitude – 0	0	0.6630	0.6694	N/A	N/A	N/A	V
Thru Cal Magnitude – 1	0	1.360	1.373	N/A	N/A	N/A	V
Thru Cal Magnitude – 2	0	0.6774	0.6841	N/A	N/A	N/A	V
Thru Cal Magnitude – 3	0	0.7651	0.7725	N/A	N/A	N/A	V
Thru Cal Magnitude – 4	0	1.437	1.450	N/A	N/A	N/A	V
Thru Cal Magnitude – 5	0	2.093	2.114	N/A	N/A	N/A	V
Thru Cal Magnitude – 6	0	2.093	2.113	N/A	N/A	N/A	V
Thru Cal Magnitude – 7	0	1.543	1.557	N/A	N/A	N/A	V
Phase – 0	0	63.95	64.30	N/A	N/A	N/A	DEG
Phase – 1	0	62.92	63.27	N/A	N/A	N/A	DEG
Phase – 2	0	59.03	59.37	N/A	N/A	N/A	DEG
Phase – 3	0	58.22	58.56	N/A	N/A	N/A	DEG
Phase – 4	0	51.68	52.01	N/A	N/A	N/A	DEG
Phase – 5	0	49.70	50.02	N/A	N/A	N/A	DEG
Phase – 6	0	49.76	50.08	N/A	N/A	N/A	DEG
Phase – 7	0	46.17	46.42	N/A	N/A	N/A	DEG
Array Induction Tool – H Wellsite Calibration – Electronics Calibration Check – Auxilliary							
Master: 6–Jan–2005 10:30 Before: 27–Feb–2005 9:06							
Array Induction SPA Plus	990.5	993.3	993.3	N/A	N/A	N/A	MV
Array Induction SPA Zero	0	–0.2850	–0.2904	N/A	N/A	N/A	MV
Array Induction Temperature Pl	0.9150	0.9203	0.9202	N/A	N/A	N/A	V
Array Induction Temperature Ze	0	–0.0002825	–0.0002940	N/A	N/A	N/A	V
Array Induction Tool – H Wellsite Calibration – Test Loop Gain Correction							
Master: 6–Jan–2005 10:30							
Test Loop Gain Magnitude – 0	0	1.017	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude – 1	0	1.016	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude – 2	0	1.019	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude – 3	0	1.020	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude – 4	0	0.9988	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude – 5	0	1.015	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude – 6	0	1.024	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude – 7	0	1.044	N/A	N/A	N/A	N/A	V
Phase – 0	0	0.5577	N/A	N/A	N/A	N/A	DEG
Phase – 1	0	0.5624	N/A	N/A	N/A	N/A	DEG
Phase – 2	0	0.03268	N/A	N/A	N/A	N/A	DEG
Phase – 3	0	0.01949	N/A	N/A	N/A	N/A	DEG
Phase – 4	0	–0.05774	N/A	N/A	N/A	N/A	DEG
Phase – 5	0	–0.2285	N/A	N/A	N/A	N/A	DEG
Phase – 6	0	0.1720	N/A	N/A	N/A	N/A	DEG
Phase – 7	0	–0.2652	N/A	N/A	N/A	N/A	DEG
Array Induction Tool – H Wellsite Calibration – Sonde Error Correction							
Master: 6–Jan–2005 10:30							
R Sonde Error Correction – 0	0	–73.88	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 1	0	150.7	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 2	0	105.6	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 3	0	62.47	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 4	0	26.35	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 5	0	13.10	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 6	0	9.690	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 7	0	–0.2998	N/A	N/A	N/A	N/A	MM/M

R Sonde Error Correction – 7	0	–0.3998	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 0	0	–15.53	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 1	0	307.0	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 2	0	101.1	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 3	0	–6.620	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 4	0	22.42	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 5	0	6.444	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 6	0	–1.112	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 7	0	7.314	N/A	N/A	N/A	N/A	MM/M

Array Induction Tool – H Wellsite Calibration – Mud Gain Correction
Master: 6–Jan–2005 10:30

Coarse – Mag, Real, Imag – 0	0	1.179	N/A	N/A	N/A	N/A	
Coarse – Mag, Real, Imag – 1	0	1.179	N/A	N/A	N/A	N/A	
Coarse – Mag, Real, Imag – 2	0	1.179	N/A	N/A	N/A	N/A	
Fine – Mag, Real, Imag – 0	0	1.169	N/A	N/A	N/A	N/A	
Fine – Mag, Real, Imag – 1	0	1.169	N/A	N/A	N/A	N/A	
Fine – Mag, Real, Imag – 2	0	1.169	N/A	N/A	N/A	N/A	

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Stab Measurement Summary
Before: 26–Feb–2005 13:23

BS Window Ratio	0.7606	N/A	0.7605	N/A	N/A	N/A	
BS Window Sum	12450	N/A	12430	N/A	N/A	N/A	CPS
SS Window Ratio	0.4780	N/A	0.4778	N/A	N/A	N/A	
SS Window Sum	10910	N/A	10940	N/A	N/A	N/A	CPS
LS Window Ratio	0.2922	N/A	0.2930	N/A	N/A	N/A	
LS Window Sum	1332	N/A	1325	N/A	N/A	N/A	CPS

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Photo–multiplier High Voltages Calibrations
Before: 26–Feb–2005 13:23

BS PM High Voltage (Command)	1804	N/A	1820	N/A	N/A	N/A	V
SS PM High Voltage (Command)	1978	N/A	1963	N/A	N/A	N/A	V
LS PM High Voltage (Command)	1922	N/A	1912	N/A	N/A	N/A	V

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Crystal Quality Resolutions Calibration
Before: 26–Feb–2005 13:23

BS Crystal Resolution	12.88	N/A	13.05	N/A	N/A	N/A	%
SS Crystal Resolution	10.99	N/A	10.82	N/A	N/A	N/A	%
LS Crystal Resolution	9.622	N/A	9.947	N/A	N/A	N/A	%

High resolution Integrated Logging Tool–DTS Wellsite Calibration – HILT Caliper Calibration
Before: 26–Feb–2005 13:22

HILT Caliper Zero Measurement	8.000	N/A	7.911	N/A	N/A	N/A	IN
HILT Caliper Plus Measurement	12.00	N/A	12.31	N/A	N/A	N/A	IN

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Detector Calibration
Before: 26–Feb–2005 13:18

Gamma Ray Background	30.00	N/A	19.10	N/A	N/A	N/A	GAPI
Gamma Ray (Jig – Bkg)	195.1	N/A	195.1	N/A	N/A	17.74	GAPI
Gamma Ray (Calibrated)	177.0	N/A	177.0	N/A	N/A	15.00	GAPI

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Zero Measurement
Master: 26–Jan–2005 10:45 Before: 26–Feb–2005 13:22

CNTC Background	26.47	26.47	27.90	N/A	N/A	3.970	CPS
CFTC Background	26.11	26.11	25.80	N/A	N/A	3.917	CPS

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Ratio Measurement
Master: 26–Jan–2005 10:45

Thermal Near Corr. (Tank)	6031	5476	N/A	N/A	N/A	N/A	CPS
Thermal Far Corr. (Tank)	2793	2248	N/A	N/A	N/A	N/A	CPS
CNTC/CFTC (Tank)	2.159	2.436	N/A	N/A	N/A	N/A	

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Accelerometer Calibration
Before: 26–Feb–2005 13:23

Z–Axis Acceleration	9.810	N/A	9.788	N/A	N/A	N/A	M/S2

High resolution Integrated Logging Tool–DTS Master Calibration – Inversion results
Master: 23–Feb–2005 15:22

Rho Aluminum	2.596	2.605	––	––	––	––	G/C3
Rho Magnesium	1.686	1.685	––	––	––	––	G/C3
Pe Aluminum	2.570	2.576	––	––	––	––	
Pe Magnesium	2.650	2.632	––	––	––	––	

High resolution Integrated Logging Tool–DTS Master Calibration – Deviation Summary
Master: 23–Feb–2005 15:22

BS Average Deviation	0	0.6000	––	––	––	––	%
BS Max Deviation	0	1.423	––	––	––	––	%
SS Average Deviation	0	0.3961	––	––	––	––	%
SS Max Deviation	0	1.390	––	––	––	––	%
LS Average Deviation	0	1.224	––	––	––	––	%
LS Max Deviation	0	2.493	––	––	––	––	%

The GLS−VJ source activity is acceptable.

The HGNS Neutron Master Calibration was done with the following parameters :

NCT−B Water Temperature 21.0 DEGC.
Thermal Housing Size 3.374 IN.
NSR−F serial number 1577

Array Induction Tool − H / Equipment Identification

Primary Equipment:

Rm/SP Bottom Nose	AHRM − A	
Array Induction Sonde	AHIS − BA	265

Auxiliary Equipment:

Array Induction Tool − H Wellsite Calibration

Electronics Calibration Check − Thru Cal Mag. & Phase

Idx	Phase	Value	Thru Cal Magnitude V	Nominal	Value	Phase DEG	Nominal
0	Master	0.6630		0.6050	63.95		71.00
	Before	0.6694			64.30		
1	Master	1.360		1.270	62.92		70.00
	Before	1.373			63.27		
2	Master	0.6774		0.6230	59.03		66.00
	Before	0.6841			59.37		
3	Master	0.7651		0.7040	58.22		65.00
	Before	0.7725			58.56		
4	Master	1.437		1.337	51.68		59.00
	Before	1.450			52.01		
5	Master	2.093		1.955	49.70		57.00
	Before	2.114			50.02		
6	Master	2.093		1.955	49.76		57.00
	Before	2.113			50.08		
7	Master	1.543		1.415	46.17		53.00
	Before	1.557			46.42		
		60.00 % (Minimum)	140.0 % (Maximum)	(Nominal)	Nom −60.00 (Minimum)	Nom + 60.00 (Maximum)	(Nominal)

Master: 6−Jan−2005 10:30 Before: 27−Feb−2005 9:06

Array Induction Tool − H Wellsite Calibration

Electronics Calibration Check − Auxilliary

Phase	Array Induction SPA Plus MV	Value
Master		993.3
Before		993.3
	941.0 (Minimum) 990.5 (Nominal) 1040 (Maximum)	

Phase	Array Induction SPA Zero MV	Value
Master		−0.2850
Before		−0.2904
	−50.00 (Minimum) 0 (Nominal) 50.00 (Maximum)	

Phase	Array Induction Temperature Plus V	Value
Master		0.9203
Before		0.9202
	0.8700 (Minimum) 0.9150 (Nominal) 0.9600 (Maximum)	

Phase	Array Induction Temperature Zero V	Value
Master		−0.0002825
Before		−0.0002940
	−0.05000 (Minimum) 0 (Nominal) 0.05000 (Maximum)	

Master: 6−Jan−2005 10:30 Before: 27−Feb−2005 9:06

Array Induction Tool – H Wellsite Calibration

Test Loop Gain Correction

Idx	Value	Test Loop Gain Magnitude V			Value	Phase DEG		
0	1.017				0.5577			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		−3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
1	1.016				0.5624			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		−3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
2	1.019				0.03268			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		−3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
3	1.020				0.01949			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		−3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
4	0.9988				−0.05774			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		−3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
5	1.015				−0.2285			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		−3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
6	1.024				0.1720			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		−3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
7	1.044				−0.2652			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		−3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)

Master: 6–Jan–2005 10:30

Array Induction Tool – H Wellsite Calibration

Sonde Error Correction

Idx	Value	R Sonde Error Correction MM/M			Value	X Sonde Error Correction MM/M		
0	−73.88				−15.53			
		−231.0 (Minimum)	−56.00 (Nominal)	119.0 (Maximum)		−2250 (Minimum)	0 (Nominal)	2250 (Maximum)
1	150.7				307.0			
		114.0 (Minimum)	159.0 (Nominal)	204.0 (Maximum)		−625.0 (Minimum)	0 (Nominal)	625.0 (Maximum)
2	105.6				101.1			
		66.00 (Minimum)	111.0 (Nominal)	156.0 (Maximum)		−350.0 (Minimum)	0 (Nominal)	350.0 (Maximum)
3	62.47				−6.620			
		39.00 (Minimum)	64.00 (Nominal)	89.00 (Maximum)		−250.0 (Minimum)	0 (Nominal)	250.0 (Maximum)
4	26.35				22.42			
		15.00 (Minimum)	25.00 (Nominal)	35.00 (Maximum)		−63.00 (Minimum)	0 (Nominal)	63.00 (Maximum)
5	13.10				6.444			
		4.000 (Minimum)	14.00 (Nominal)	24.00 (Maximum)		−50.00 (Minimum)	0 (Nominal)	50.00 (Maximum)
6	9.690				−1.112			
		5.000 (Minimum)	10.00 (Nominal)	15.00 (Maximum)		−30.00 (Minimum)	0 (Nominal)	30.00 (Maximum)
7	−0.3998				7.314			
		−5.000 (Minimum)	0 (Nominal)	5.000 (Maximum)		−30.00 (Minimum)	0 (Nominal)	30.00 (Maximum)

Master: 6–Jan–2005 10:30

Array Induction Tool – H Wellsite Calibration

Mud Gain Correction

Idx	Value	Coarse – Mag, Real, Imag			Value	Fine – Mag, Real, Imag		
0	1.179				1.169			
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)
1	1.179				1.169			

		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)
2	1.179				1.169			
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)

Master: 6–Jan–2005 10:30

Array Induction Tool – H Master Calibration

Electronics Calibration Check – Thru Cal Mag. & Phase

Idx	Phase	Value	Thru Cal Magnitude V	Nominal	Value	Phase DEG	Nominal
0	Master	0.6630		0.6050	63.95		71.00
1	Master	1.360		1.270	62.92		70.00
2	Master	0.6774		0.6230	59.03		66.00
3	Master	0.7651		0.7040	58.22		65.00
4	Master	1.437		1.337	51.68		59.00
5	Master	2.093		1.955	49.70		57.00
6	Master	2.093		1.955	49.76		57.00
7	Master	1.543		1.415	46.17		53.00
		60.00 % (Minimum)	(Nominal)	140.0 % (Maximum)	Nom –60.00 (Minimum)	(Nominal)	Nom + 60.00 (Maximum)	

Master: 6–Jan–2005 10:30

Array Induction Tool – H Master Calibration

Electronics Calibration Check – Auxilliary

Phase	Array Induction SPA Plus MV	Value	Phase	Array Induction SPA Zero MV	Value
Master		993.3	Master		–0.2850
	941.0 (Minimum) 990.5 (Nominal) 1040 (Maximum)			–50.00 (Minimum) 0 (Nominal) 50.00 (Maximum)	

Phase	Array Induction Temperature Plus V	Value	Phase	Array Induction Temperature Zero V	Value
Master		0.9203	Master		–0.0002825
	0.8700 (Minimum) 0.9150 (Nominal) 0.9600 (Maximum)			–0.05000 (Minimum) 0 (Nominal) 0.05000 (Maximum)	

Master: 6–Jan–2005 10:30

Array Induction Tool – H Master Calibration

Test Loop Gain Correction

Idx	Value	Test Loop Gain Magnitude V	Value	Phase DEG
0	1.017		0.5577	
	0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)		–3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)	
1	1.016		0.5624	
	0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)		–3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)	
2	1.019		0.03268	
	0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)		–3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)	
3	1.020		0.01949	
	0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)		–3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)	
4	0.9988		–0.05774	
	0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)		–3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)	
5	1.015		–0.2285	
	0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)		–3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)	
6	1.024		0.1720	
	0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)		–3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)	
7	1.044		–0.2652	
	0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)		–3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)	

Master: 6–Jan–2005 10:30

Array Induction Tool – H Master Calibration

Sonde Error Correction

Idx	Value	R Sonde Error Correction MM/M			Value	X Sonde Error Correction MM/M		
0	−73.88				−15.53			
		−231.0 (Minimum)	−56.00 (Nominal)	119.0 (Maximum)		−2250 (Minimum)	0 (Nominal)	2250 (Maximum)
1	150.7				307.0			
		114.0 (Minimum)	159.0 (Nominal)	204.0 (Maximum)		−625.0 (Minimum)	0 (Nominal)	625.0 (Maximum)
2	105.6				101.1			
		66.00 (Minimum)	111.0 (Nominal)	156.0 (Maximum)		−350.0 (Minimum)	0 (Nominal)	350.0 (Maximum)
3	62.47				−6.620			
		39.00 (Minimum)	64.00 (Nominal)	89.00 (Maximum)		−250.0 (Minimum)	0 (Nominal)	250.0 (Maximum)
4	26.35				22.42			
		15.00 (Minimum)	25.00 (Nominal)	35.00 (Maximum)		−63.00 (Minimum)	0 (Nominal)	63.00 (Maximum)
5	13.10				6.444			
		4.000 (Minimum)	14.00 (Nominal)	24.00 (Maximum)		−50.00 (Minimum)	0 (Nominal)	50.00 (Maximum)
6	9.690				−1.112			
		5.000 (Minimum)	10.00 (Nominal)	15.00 (Maximum)		−30.00 (Minimum)	0 (Nominal)	30.00 (Maximum)
7	−0.3998				7.314			
		−5.000 (Minimum)	0 (Nominal)	5.000 (Maximum)		−30.00 (Minimum)	0 (Nominal)	30.00 (Maximum)

Master: 6–Jan–2005 10:30

Array Induction Tool – H Master Calibration

Mud Gain Correction

Idx	Value	Coarse – Mag, Real, Imag			Value	Fine – Mag, Real, Imag		
0	1.179				1.169			
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)
1	1.179				1.169			
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)
2	1.179				1.169			
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)

Master: 6–Jan–2005 10:30

High resolution Integrated Logging Tool–DTS / Equipment Identification

Primary Equipment:		
HILT high–Resolution Mechanical Sonde	HRMS – B	1915
HILT Rxo Gamma–ray Device	HRGD – B	1940
GR Logging Source	GLS – VJ	3765
HILT High Res. Control Cartridge	HRCC – B	1918
HILT Gamma–Ray Neutron Sonde–DTS	HGNS – B	1931
HILT Gamma–Ray Device	HGR –	
HILT Neutron Detector with Alpha Source	HCNT –	
Z–Axis Accelerometer	HACC –	
Auxiliary Equipment:		
Neutron Calibration Tank	NCT – B	
Gamma Source Radioactive	GSR – U/Y	1391

High resolution Integrated Logging Tool–DTS Wellsite Calibration

Stab Measurement Summary

Phase	BS Window Ratio			Value	Phase	SS Window Ratio			Value	Phase	LS Window Ratio			Value
Before				0.7605	Before				0.4778	Before				0.2930
	0.7225 (Minimum)	0.7606 (Nominal)	0.7986 (Maximum)			0.4541 (Minimum)	0.4780 (Nominal)	0.5019 (Maximum)			0.2776 (Minimum)	0.2922 (Nominal)	0.3068 (Maximum)	
Phase	BS Window Sum CPS			Value	Phase	SS Window Sum CPS			Value	Phase	LS Window Sum CPS			Value

Phase		Value
Before		12430
	11830 (Minimum) 12450 (Nominal) 13070 (Maximum)	

Phase		Value
Before		10940
	10370 (Minimum) 10910 (Nominal) 11460 (Maximum)	

Phase		Value
Before		1325
	1265 (Minimum) 1332 (Nominal) 1398 (Maximum)	

Before: 26–Feb–2005 13:23

High resolution Integrated Logging Tool–DTS Wellsite Calibration

Photo–multiplier High Voltages Calibrations

Phase	BS PM High Voltage (Command) V	Value
Before		1820
	1704 (Minimum) 1804 (Nominal) 1904 (Maximum)	

Phase	SS PM High Voltage (Command) V	Value
Before		1963
	1878 (Minimum) 1978 (Nominal) 2078 (Maximum)	

Phase	LS PM High Voltage (Command) V	Value
Before		1912
	1822 (Minimum) 1922 (Nominal) 2022 (Maximum)	

Before: 26–Feb–2005 13:23

High resolution Integrated Logging Tool–DTS Wellsite Calibration

Crystal Quality Resolutions Calibration

Phase	BS Crystal Resolution %	Value
Before		13.05
	11.88 (Minimum) 12.88 (Nominal) 13.88 (Maximum)	

Phase	SS Crystal Resolution %	Value
Before		10.82
	9.986 (Minimum) 10.99 (Nominal) 11.99 (Maximum)	

Phase	LS Crystal Resolution %	Value
Before		9.947
	8.622 (Minimum) 9.622 (Nominal) 10.62 (Maximum)	

Before: 26–Feb–2005 13:23

High resolution Integrated Logging Tool–DTS Wellsite Calibration

HILT Caliper Calibration

Phase	HILT Caliper Zero Measurement IN	Value
Before		7.911
	6.000 (Minimum) 8.000 (Nominal) 10.00 (Maximum)	

Phase	HILT Caliper Plus Measurement IN	Value
Before		12.31
	9.000 (Minimum) 12.00 (Nominal) 15.00 (Maximum)	

Before: 26–Feb–2005 13:22

High resolution Integrated Logging Tool–DTS Wellsite Calibration

Detector Calibration

Phase	Gamma Ray Background GAPI	Value
Before		**19.10**
	0 (Minimum) 30.00 (Nominal) 120.0 (Maximum)	

Phase	Gamma Ray (Jig – Bkg) GAPI	Value
Before		**195.1**
	177.4 (Minimum) 195.1 (Nominal) 212.9 (Maximum)	

Phase	Gamma Ray (Calibrated) GAPI	Value
Before		**177.0**
	162.0 (Minimum) 177.0 (Nominal) 192.0 (Maximum)	

Before: 26–Feb–2005 13:18

High resolution Integrated Logging Tool–DTS Wellsite Calibration

Zero Measurement

Phase	CNTC Background CPS	Value
Master		26.47
Before		27.90
	5.000 (Minimum) 26.47 (Nominal) 40.00 (Maximum)	

Phase	CFTC Background CPS	Value
Master		26.11
Before		25.80
	5.000 (Minimum) 26.11 (Nominal) 40.00 (Maximum)	

Master: 26–Jan–2005 10:45 Before: 26–Feb–2005 13:22

High resolution Integrated Logging Tool–DTS Wellsite Calibration

Ratio Measurement

Phase	Thermal Near Corr. (Tank) CPS	Value
Master		5476
	5000 (Minimum) 6031 (Nominal) 7200 (Maximum)	

Phase	Thermal Far Corr. (Tank) CPS	Value
Master		2248
	2075 (Minimum) 2793 (Nominal) 3125 (Maximum)	

Phase	CNTC/CFTC (Tank)	Value
Master		2.436
	2.120 (Minimum) 2.159 (Nominal) 2.540 (Maximum)	

Master: 26–Jan–2005 10:45

High resolution Integrated Logging Tool–DTS Wellsite Calibration

Accelerometer Calibration

Phase	Z–Axis Acceleration M/S2	Value
Before		9.788
	9.610 (Minimum) 9.810 (Nominal) 10.01 (Maximum)	

Before: 26–Feb–2005 13:23

High resolution Integrated Logging Tool–DTS Master Calibration

Inversion results

Phase	Rho Aluminum G/C3	Value
Master		2.605
2.586 (Minimum)	2.596 (Nominal)	2.606 (Maximum)

Phase	Rho Magnesium G/C3	Value
Master		1.685
1.676 (Minimum)	1.686 (Nominal)	1.696 (Maximum)

Phase	Pe Aluminum	Value
Master		2.576
2.470 (Minimum)	2.570 (Nominal)	2.670 (Maximum)

Phase	Pe Magnesium	Value
Master		2.632
2.550 (Minimum)	2.650 (Nominal)	2.750 (Maximum)

Master: 23–Feb–2005 15:22

High resolution Integrated Logging Tool–DTS Master Calibration

Deviation Summary

Phase	BS Average Deviation %	Value
Master		0.6000
–0.6000 (Minimum)	0 (Nominal)	0.6000 (Maximum)

Phase	SS Average Deviation %	Value
Master		0.3961
–1.000 (Minimum)	0 (Nominal)	1.000 (Maximum)

Phase	LS Average Deviation %	Value
Master		1.224
–1.500 (Minimum)	0 (Nominal)	1.500 (Maximum)

Phase	BS Max Deviation %	Value
Master		1.423
–1.600 (Minimum)	0 (Nominal)	1.600 (Maximum)

Phase	SS Max Deviation %	Value
Master		1.390
–2.500 (Minimum)	0 (Nominal)	2.500 (Maximum)

Phase	LS Max Deviation %	Value
Master		2.493
–3.500 (Minimum)	0 (Nominal)	3.500 (Maximum)

Master: 23–Feb–2005 15:22

High resolution Integrated Logging Tool–DTS Master Calibration

Zero Measurement

Phase	CNTC Background CPS	Value
Master		26.47
5.000 (Minimum)	26.47 (Nominal)	40.00 (Maximum)

Phase	CFTC Background CPS	Value
Master		26.11
5.000 (Minimum)	26.11 (Nominal)	40.00 (Maximum)

Master: 26–Jan–2005 10:45

High resolution Integrated Logging Tool–DTS Master Calibration

Tank Measurement

Phase	Thermal Near Corr. (Tank) CPS	Value
Master		5476
5000 (Minimum)	6031 (Nominal)	7200 (Maximum)

Phase	Thermal Far Corr. (Tank) CPS	Value
Master		2248
2075 (Minimum)	2793 (Nominal)	3125 (Maximum)

Phase	CNTC/CFTC (Tank)	Value
Master		2.436
2.120 (Minimum)	2.159 (Nominal)	2.540 (Maximum)

Master: 26–Jan–2005 10:45

COMPANIA: YPF S.A.

POZO: YPF.Ch.PCN–621

CAMPO: PAMPA DEL CASTILLO NORTE

PROVINCIA: CHUBUT

PAIS: ARGENTINA

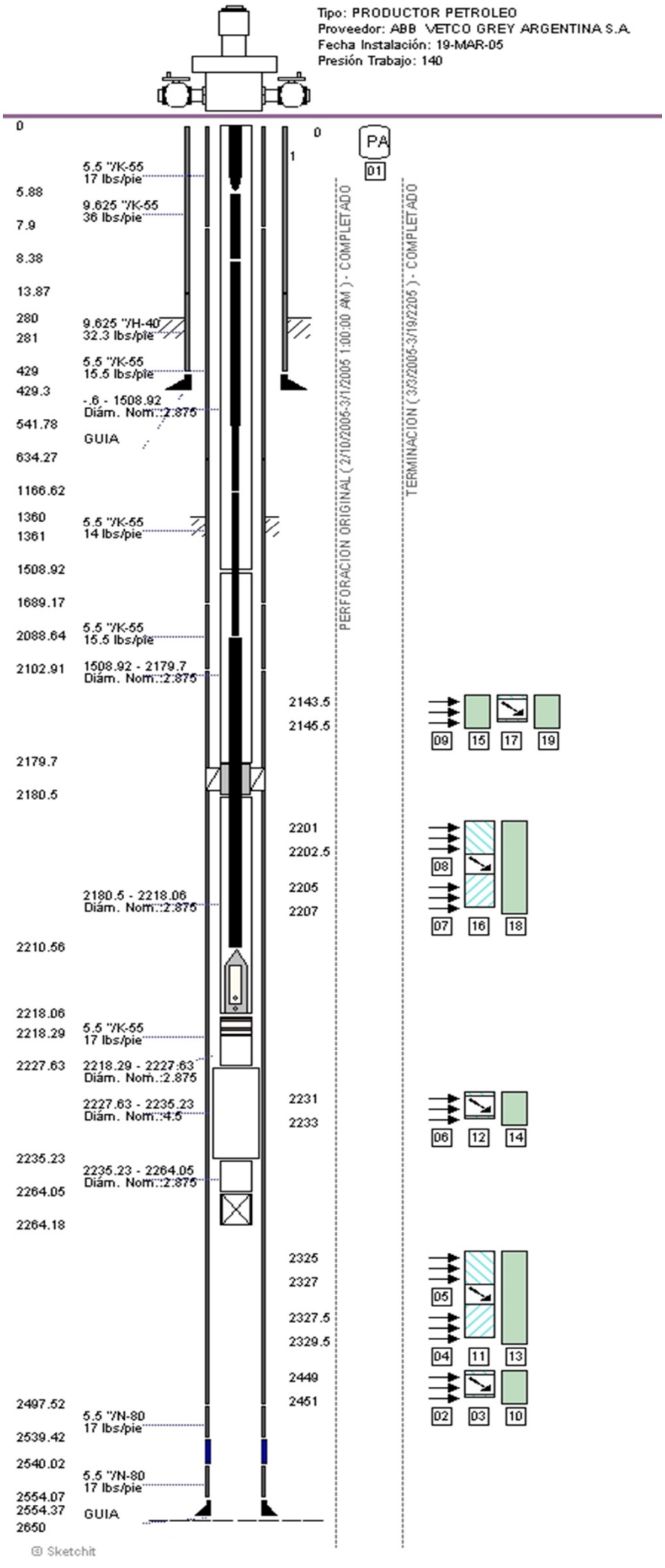
PRIMERA LECTURA	2651.6 m
PROFUNDIDAD PERFIL	2654 m
PROF. PERFORADOR	2650 m
BUJE DE VASTAGO	677.89 m
MESA ROTATIVA	677.59 m
NIVEL TERRENO	672.09 m

Schlumberger

COMBINADA

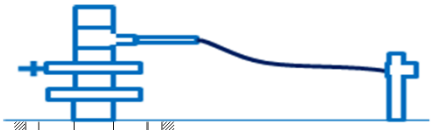
ESCALA: 1/200

Esquema Actual
PCN-621



ESQUEMA DE INYECCCIÓN PROPUESTO
CONVERSIÓN A INYECTOR

POZO PCN-621



Cañería Guía 9 5/8"
32.3 lb/pie

Zpto. Guía: 429.3 mbbp

Tubing 2-7/8" J55

Cañería Aislación 5 1/2"
15.5 - 17 lb/pie

TOPES COMPLEJOS	
CII	1224 mbbp
CIII	1469 mbbp
CIV	1961 mbbp

NIPLE DE ASIENTO
ON OFF
Packer 4 a 1920 mbbp

2143.5	2145.5

Packer 3 a 2185 mbbp

2201.0	2202.5
2205.0	2207.0

2205.0 2207.0 CAPA 265

Mandril 2 @ 2210 m

Packer 2 a 2227 mbbp

2231.0	2233.0
2325.0	2327.0
2327.5	2329.5

Packer 1 a 2350 mbbp

2449.0	2451.0

2448.5 2451.0 CAPA 409A

Mandril 1 a 2455 mbbp

Dispositivo de Llenado a 2500 mbbp

Zto 2554.37 mbbp
PF: 2650.00 mbbp

N. Rodríguez

PRE DRILLING DATA PACKAGE

Nombre del Pozo	PCN-621
Líder de Proyecto	
Fecha	05/11/2014
PDDP (Versión)	V 1

Información Básica (Nota: En caso que no se disponga completar (N/D) o bien no aplica (N/A))

Nombre del Yacimiento	Pampa del Castillo Norte
Bloque	Pampa del Castillo Norte
Provincia	Chubut
Tipo de Pozo	Productor
Coordenadas Superficie	X: 2578586 Y: 4939796
Objetivo de la Intervención	Convertir a inyector
Trayectoria del Pozo	Vertical
PEPA/OI/CC	RS1PC.13Y4.98.R4002
Datos de CGS de aislación:	
Costo Lifting (Etapa 30)	
Costo IAP (Etapa 30)	

Datos Pozos actual

Año de perforación	2005
Estado Actual	Inactivo - En estudio.
Ultima intervención	Dic/2008 - Pulling.
Instalación actual	-
Instalación de superficie	-
Ultimo control	Dic-12: 2 m3/d líq, 0.7 m3/d neta, 100 m3/d gas.
Estado del pozo	
Pozos cercanos	Sin inyectores en la zona.
Notas adicionales	En Pulling de 2008 presentó retraso para sacar instalación por parafina.

Capas existentes:

Tope	Base	Metros	Estado
2143,5	2145,5	2,0	Abierta
2201,0	2202,5	1,5	Abierta
2205,0	2207,0	2,0	Abierta
2231,0	2233,0	2,0	Abierta
2325,0	2327,0	2,0	Abierta
2327,5	2329,5	2,0	Abierta
2449,0	2451,0	2,0	Abierta

Propuesta Perfilaje, Punzados y Ensayos

Perfilaje:	Perfil de corrosión y cemento desde 2550 mbbp hasta BP.
	Perfil neutrón-CCL desde entre 2460 y 1900 m, aproximadamente (se definirá con el diseño de instalación).
	Tránsito de fluidos.
Método de Punzado:	REPUNZADO: Carga: 32 gr. Densidad: 2 tpp. Fase: 180°.
Fluido de Completación:	
Ensayos:	Prueba de admisión, como se detalla en la secuencia operativa.
Comentarios:	**Prever cía de servicio para realizar movimiento de válvulas**

Tope	Base	Metros	TPP	Carga	Defasaje	Ensayo	Presión (psi)	Fluido esperado	Comentarios	Densidad
2448,5	2451,0	2,5	2	32	180°	Pba Adm	2727	-	Repunzado / Ampliación /Romper Form	
2205,0	2207,0	2,0	2	32	180°	Pba Adm	2158	-	Repunzado /Romper Form	
	Total	4,5								

Propuesta de Estimulación / Cementación

Tipo de Tratamiento:	
Fracturas:	
Ácidos:	Prever una estimulación ácida
Cementación:	Se cementará un intervalo.
Post Estimulación:	
Comentarios:	

Gradiente de Fractura de Pozos Vecinos y/o Gradiente Estimado

Formación	Tope	Base	Presión psi/ft			Candidata o Confirmada	Comentario	Ensayo PostFract	
			Min Estimada	Probable	Max Posible				

Secuencia Operativa

Etapa	Descripción
1	Montar equipo de acuerdo a los procedimientos.
2	Sacar instalación de producción.
3	Calibrar desde BP hasta 2550 mbbp.
4	Probar hermeticidad de casing desde 2130 m hasta BP con 300 PSI. En caso de dar negativa, localizar pérdida y notificar a Ing Reservorios MB.
5	Cementar el intervalo 2201-2202.5 m.
6	Probar hermeticidad de intervalo cementado de acuerdo a los procedimientos.
7	Correr perfil de corrosión y cemento desde 2550 m hasta BP. Enviar información a Ing de Reservorios MB.
8	Repunzar los intervalos propuestos.
9	Realizar prueba de admisión a los intervalos siguientes, con las presiones que se detallan en la tabla y en el tiempo requerido. Debe verificarse limpieza de las piletas. **ROMPER FORMACIÓN DE INTERVALOS ANTES DE LA PRUEBA DE ADMISIÓN.** Considerar cercanía con intervalo cementado.

TOPE mbbp	BASE mbbp	PRESION (PSI)			DURACIÓN
2.448,5	2.451,0	1400	1500	1600	20 min estabilizados por presión
2.205,0	2.207,0	1400	1500	1600	20 min estabilizados por presión

DE ACUERDO A LOS RESULTADOS DE LAS PRUEBAS DE ADMISIÓN, EL ING. DE RESERVORIOS DE GUARDIA, PODRÍA SOLICITAR LA ACIDIFICACIÓN DE ALGÚN INTERVALO.

10	Bajar Instalación de inyección a diseñar por Ing de Reservorios MB, probando hermeticidad de tbg.
11	Probar hermeticidad de tubing desde BHD con 2200 PSI durante 30 min, registrando en carta, siguiendo los procedimientos.
12	Completar instalación en superficie (PAG + válvula maestra 2 7/8").
13	Realizar Neutrón-CCL y Correlar con Perfil de Inducción y Cuplas de Casing.
14	Circular pozo con bactericida de acuerdo a los procedimientos.
15	Con prueba de hermeticidad por directa positiva (punto 11), fijar Instalación final de inyección.
16	Realizar prueba de hermeticidad de tbg desde BHD con 2200 PSI durante 2 hs con registro en carta, siguiendo los procedimientos.
17	Realizar prueba de hermeticidad de entrecaño con 200 PSI durante 30 min con registro en carta, siguiendo los procedimientos.
18	Con pruebas de hermeticidad positivas (puntos 16 y 17), realizar movimiento de válvula y calibrar según caudal determinado por Ing de Reservorios MB.
19	Realizar tránsito de fluido con equipo de Wire Line.
20	Retirar equipo y montar instalación de superficie, de acuerdo a los procedimientos.

Otros/comentarios	

Instalación estimada

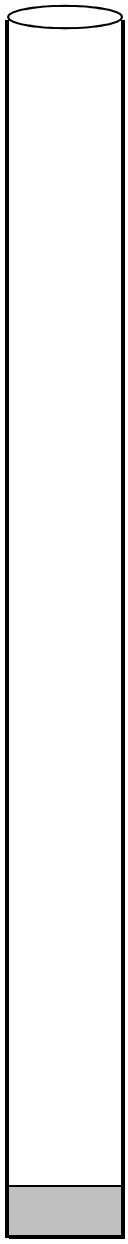
Tipo de instalación:	**DE INYECCIÓN**		
Profundidad			

Otros/comentarios	**SOLICITAR DISEÑO DE INYECCIÓN A ING DE RESERVORIOS MB**
Anexo N°1:	**Esquema Actual / Propuesto**

Anexo N° 1 PCN-621

9-5/8"

Zapato: 429.3 mbbp



2.143,5	2.145,5
2.201,0	2.202,5
2.205,0	2.207,0
2.231,0	2.233,0
2.325,0	2.327,0
2.327,5	2.329,5
2.449,0	2.451,0

CAPA A CEMENTAR (2201-2202.5 m)

2.205,0	**2.207,0**	**REPUNZAR**
2.448,5	**2.451,0**	**REPUNZAR / AMPLIAR**

Zapato: 2554.37 m
PF: 2650.00 m

Otros/comentarios _____

Firmas & Aprobaciones

	Preparado			Revisado			Aprobado		
Versión	**Iniciales**	**Rol**	**Fecha**	**Iniciales**	**Rol**	**Fecha**	**Iniciales**	**Rol**	**Fecha**
	NR	Proyectista	05/11/2014		Jefe de Proyecto			Líder de Proyecto	

A: P. TEMPRANO
DE: SERGIO VAHNOVAN

REPSOL YPF

DISTRITO. M. BEHR / R. ALI

POZO: PCN-621
ZONA: ESCALANTE III

FECHA: 18/03/2005
CUENTA:

PROGRAMA: BAJAR INSTALACION DE PRODUCCION

Fondo Aprox. : 2540 metros

DISEÑO:

TBG

1	TAPON CIEGO 2.7/8" ±	2270	MTS
3	TBG 2 7/8" LISO		
1	SEPARADOR DE GAS (Provee Bolland)		
1	TBG 2 7/8" LISO		
1	ASIENTO BHD 2 7/8" ±		
4	TBG 2 7/8"		
1	ANCLA DE TENSION 5.1/2" ±	2184,75	
1	TBG 2 7/8"		
1	CAMISA DE CIRCULACIÓN AOS		
231	TBG 2 7/8"		

B/B

1	BOMBA 25-200RHBC-24-4
16	B/B 1.1/2 " DE PESO GRADO D
120	B/B 3/4" UHS
81	B/B 7/8" UHS
70	B/B 1" UHS
	TROZOS 1" UHS
1	VASTAGO CROMADO 1 1/2" x 24´

ACLARACION - IMPORTANTE : EN CASO DE CEMENTAR 1835.5/37.5 - 1845/47.5
DEJAR ANCLA DE TENSION EN 2200 metros
y DEJAR PROFUNDIDAD DE BHD , BARRIL TH , SEPARADOR DE GAS y TAPON CIEGO
EN PROFUNDIDADES DE DISEÑO ORIGINAL
BHD (2.7/8"): 2397 metros
BARRIL TH : 2413 metros
SEPARADOR DE GAS : 2430 metros
TAPON CIEGO 2.7/8" : 2440 metros

Accesiorios: Grampa+leutert+tee prensa+rattigan+ cupla de vgo+ red uhs 1 de 7/8" a 1"+ 3 7/8" a 3/4"+valvula con niple sch-80+espaciadores+bhd

BOMBA y SEPARADOR GAS PROVEE BOLLAND (Tener en cuenta que Valv. Pie esta incorporada a barril)

AIB LUFKIN MII-912-365-192
CARRERA 192
REGIMEN 6GPM
CONTRAPESO 4 CONTRAPESOS AL EXTREMO DE LAS MANIVELAS
MOTOR 100 hp
PROGRAMA

TORQUEAR VARILLAS CON PLANTILLA UHS

Fijar ancla con 22000 Lbs de Tension (26 Pulgadas de Estiramiento)

]

REPSOL YPF

DIVISION REGIONAL SUR
UNIDAD ECONOMICA CHUBUT - C.S.

Schlumberger

EQUIPO: PI-222 **POZO:** PCN-621

DISTRIT0 N°: 6 **BAT:**
CIA DE CABLE: Schlumberger
PROYECTO : DRILL 150
CIA DE FRACTURA: Schlumberger

ESQUEMA DE TERMINACIÓN

OBJETIVO: Poner en Producción **INICIO:** 15-mar-05
ESTADO: Productivo **TERMINO:**

CASING: 5 1/2" **ACTUAL:** Baja inst. final
9-5/8" 14 # **Proximo** Bajará bomba DTM al Pozo EA-669

429,3

		CAUDAL	FLUIDO	NIVEL	ANALISIS				SAL	Hs Ensayo	QB	QN
					I-T	DEN	Temp	A/SEP				
2143,50	7	S/E								3		
2145,50		RFc/1800 psi										
		320	Pet.	2045	16	0,88	15	15	4.2 / PH-9	8	2,30	1,94
2201,00	6	RFc/2000 psi										
2202,50												
		3000	Pet.	400	7	0.904	15	6	4.6 / PH-9	10	21,60	20,09
2205,00	5											
2207,00												
2231,00	4	RFc/2400 psi										
2233,00		S/E								4		
2325,00	3											
2327,00		RFc/2400 PSI										
		380	Ag S/R	2180			26		4.6 / PH 9	4	2,74	0
2327,50	2											
2329,50												
		RFc/1800 PSI										
2449,00	1	360	Pet	2310	1	0.881	15	14	4 PH-8	8	2,59	2,57
2451,00												
											29,23	24,59

Collar: 2540,02
Zapato: 2554,37
P. Final: 2654,00

Legajos del Pozo PCN-624

LABORATORIO
BASE CHUBUT

EPSILON SRL
LABORATORIO INDUSTRIAL

Ruta 3, Km.1838, BºGral. Mosconi - (9005) C. Rivadavia -Chubut, Arg. * Tel/Fax: (0297)-4550825 / 4559365

Muestra de: Petróleo
Lugar de Muestreo: ***POZO: PCN-624 Zona: 2485/89***
Extraído Por: Cliente EQUIPO 222
Fecha de Extracción: 07/09/05 Hora: S/H
Fecha de Recepción: 07/09/05
Solicitado Por: REPSOL - YPF SA. ***Sra. Ruth Kirn***
Objetivo del Análisis: Control de calidad.

PROTOCOLO Nº: 3859-05CR

Fecha Informe: 09/09/05

Pag. 1/1

ITEM Nº =										**Distrito Nº =**
CANTIDAD =										**Nº Orden =**

INFORME DE ENSAYO

PETROLEO HIDRATADO

DETERMINACION	NORMA	UNIDAD	VALORES ENCONTRADOS
% AT(%AL+D4007)	**S/N**	% $^{V}/_{V}$	0.8
% Agua Libre	**Procedimiento REPSOL YPF**	% $^{V}/_{V}$	0.0
Impureza Total	**ASTM D-4007 Mod.**	% $^{V}/_{V}$	0.8
Arena y Barro		% $^{V}/_{V}$	0.0
Agua Separada		% $^{V}/_{V}$	0.0
Emulsión		% $^{V}/_{V}$	0.8
Agua Exacta		% $^{V}/_{V}$	0.8
Densidad a 15ºC de petróleo	**ASTM D-5002**	g/cm^3	0.8968
Punto de escurrimiento	**ASTM D-97**	ºC	0
Salinidad	**ASTM D-512**	g/Lts	(**)

PETROLEO DESHIDRATADO

Viscosidad 300 RPM				
Temperatura	**30°C**	**Por Reómetro**	Cp	120
	40°C		Cp	77
	50°C		Cp	50

DETERMINACION	NORMA	UNIDAD	VALORES ENCONTRADOS
% de parafina	**UOP-86 mod. Paraf. hasta -20ºC**	% $^{P}/_{p}$	8.9
% de asfalteno	**SPE-23810**	% $^{P}/_{p}$	6.2
Densidad a 15ºC de petróleo	**ASTM D-5002**	g/cm^3	0.8860

Analista: M.B.
Observaciones: (**) Impracticable por escasa cantidad de muestra.-

.....
Ing. Miguel LIZZANO
*Rep. Tec. Por **EPSILON S.R.L.***

LABORATORIO
BASE CHUBUT

EPSILON SRL
LABORATORIO INDUSTRIAL

Ruta 3, Km.1838, BºGral. Mosconi - (9005) C. Rivadavia -Chubut, Arg. * Tel/Fax: (0297)-4550825 / 4559365

Muestra de: Petróleo
Lugar de Muestreo: ***POZO: PCN-624***
Zonas en conjunto: 2590/93-2600/02.-
Extraído Por: Cliente EQUIPO 222
Fecha de Extracción: 04/09/05 Hora: S/H
Fecha de Recepción: 05/09/05
Solicitado Por: REPSOL - YPF SA. ***Sra. Ruth Kirn***
Objetivo del Análisis: Control de calidad.

PROTOCOLO Nº: 3823-05CR

Fecha Informe: 07/09/05

Pag. 1/1

ITEM Nº =										**Distrito Nº =**
CANTIDAD =										**Nº Orden =**

INFORME DE ENSAYO

PETROLEO HIDRATADO

DETERMINACION	NORMA	UNIDAD	VALORES ENCONTRADOS
% AT(%AL+D4007)	**S/N**	% $^{V}/_{V}$	23.4
% Agua Libre	**Procedimiento REPSOL YPF**	% $^{V}/_{V}$	0.0
Impureza Total	**ASTM D-4007 Mod.**	% $^{V}/_{V}$	24.0
Arena y Barro		% $^{V}/_{V}$	0.6
Agua Separada		% $^{V}/_{V}$	8.0
Emulsión		% $^{V}/_{V}$	15.4
Agua Exacta		% $^{V}/_{V}$	23.4
Densidad a 15ºC de petróleo	**ASTM D-5002**	g/cm^3	0.9032
Punto de escurrimiento	**ASTM D-97**	ºC	+3
Salinidad	**ASTM D-512**	g/Lts	4.6

PETROLEO DESHIDRATADO

Viscosidad 300 RPM				
Temperatura	**30°C**	**Por Reómetro**	Cp	64
	40°C		Cp	43
	50°C		Cp	29

DETERMINACION	NORMA	UNIDAD	VALORES ENCONTRADOS
% de parafina	**UOP-86 mod. Paraf. hasta -20ºC**	% $^{p}/_{p}$	8.1
% de asfalteno	**SPE-23810**	% $^{p}/_{p}$	3.0
Densidad a 15ºC de petróleo	**ASTM D-5002**	g/cm^3	0.8721

Analista: M.B.

.....
Ing. Miguel LIZZANO
Rep. Tec. Por ***EPSILON S.R.L.***

LABORATORIO
BASE CHUBUT

EPSILON SRL
LABORATORIO INDUSTRIAL

Ruta 3, Km.1838, BºGral. Mosconi - (9005) C. Rivadavia -Chubut, Arg. * Tel/Fax: (0297)-4550825 / 4559365

Muestra de: Petróleo
Lugar de Muestreo: ***POZO: PCN-624 Zona: 2377/82***
Extraído Por: Cliente EQUIPO 222
Fecha de Extracción: 07/09/05 Hora: S/H
Fecha de Recepción: 12/09/05
Solicitado Por: REPSOL - YPF SA. ***Sra. Ruth Kirn***
Objetivo del Análisis: Control de calidad.

PROTOCOLO Nº: 3916-05CR

Fecha Informe: 14/09/05

Pag. 1/1

ITEM Nº =										**Distrito Nº =**
CANTIDAD =										**Nº Orden =**

INFORME DE ENSAYO

PETROLEO HIDRATADO

DETERMINACION	NORMA	UNIDAD	VALORES ENCONTRADOS
% AT(%AL+D4007)	**S/N**	$\%\ ^{V}/_{V}$	35.8
% Agua Libre	**Procedimiento REPSOL YPF**	$\%\ ^{V}/_{V}$	0.0
Impureza Total	**ASTM D-4007 Mod.**	$\%\ ^{V}/_{V}$	36.0
Arena y Barro		$\%\ ^{V}/_{V}$	0.2
Agua Separada		$\%\ ^{V}/_{V}$	12.0
Emulsión		$\%\ ^{V}/_{V}$	23.8
Agua Exacta		$\%\ ^{V}/_{V}$	35.8
Densidad a 15ºC de petróleo	**ASTM D-5002**	g/cm^3	0.9606
Punto de escurrimiento	**ASTM D-97**	ºC	+2
Salinidad	**ASTM D-512**	g/Lts	4.3

PETROLEO DESHIDRATADO

Viscosidad 300 RPM				
Temperatura	**30°C**	**Por Reómetro**	Cp	1973
	40°C		Cp	1324
	50°C		Cp	741

DETERMINACION	NORMA	UNIDAD	VALORES ENCONTRADOS
% de parafina	**UOP-86 mod. Paraf. hasta -20ºC**	$\%\ ^{p}/_{p}$	6.4
% de asfalteno	**SPE-23810**	$\%\ ^{p}/_{p}$	8.8
Densidad a 15ºC de petróleo	**ASTM D-5002**	g/cm^3	0.9314

Analista: AG-M.B.

.....
Ing. Miguel LIZZANO
Rep. Tec. Por ***EPSILON S.R.L.***

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Ruta 3, Km.1838, BºGral. Mosconi - (9005) C. Rivadavia -Chubut, Arg. * Tel/Fax: (0297)-4550825 / 4559365

Muestra de: Petróleo
Lugar de Muestreo: ***POZO: PCN-624 Zona: 2485/89***
Extraído Por: Cliente EQUIPO 222
Fecha de Extracción: 07/09/05 Hora: S/H
Fecha de Recepción: 07/09/05
Solicitado Por: REPSOL - YPF SA. ***Sra. Ruth Kirn***
Objetivo del Análisis: Control de calidad.

PROTOCOLO Nº: 3859-05CR

Fecha Informe: 09/09/05

Pag. 1/1

ITEM Nº =										**Distrito Nº =**
CANTIDAD =										**Nº Orden =**

INFORME DE ENSAYO

PETROLEO HIDRATADO

DETERMINACION	NORMA	UNIDAD	VALORES ENCONTRADOS
% AT(%AL+D4007)	**S/N**	% $^{V}/_{V}$	0.8
% Agua Libre	**Procedimiento REPSOL YPF**	% $^{V}/_{V}$	0.0
Impureza Total	**ASTM D-4007 Mod.**	% $^{V}/_{V}$	0.8
Arena y Barro		% $^{V}/_{V}$	0.0
Agua Separada		% $^{V}/_{V}$	0.0
Emulsión		% $^{V}/_{V}$	0.8
Agua Exacta		% $^{V}/_{V}$	0.8
Densidad a 15ºC de petróleo	**ASTM D-5002**	g/cm^3	0.8968
Punto de escurrimiento	**ASTM D-97**	ºC	0
Salinidad	**ASTM D-512**	g/Lts	(**)

PETROLEO DESHIDRATADO

Viscosidad 300 RPM				
Temperatura	**30°C**	**Por Reómetro**	Cp	120
	40°C		Cp	77
	50°C		Cp	50

DETERMINACION	NORMA	UNIDAD	VALORES ENCONTRADOS
% de parafina	**UOP-86 mod. Paraf. hasta -20ºC**	% $^{p}/_{p}$	8.9
% de asfalteno	**SPE-23810**	% $^{p}/_{p}$	6.2
Densidad a 15ºC de petróleo	**ASTM D-5002**	g/cm^3	0.8860

Analista: M.B.
Observaciones: (**) Impracticable por escasa cantidad de muestra.-

.....
Ing. Miguel LIZZANO
Rep. Tec. Por ***EPSILON S.R.L.***

LABORATORIO
BASE CHUBUT

EPSILON SRL
LABORATORIO INDUSTRIAL

Ruta 3, Km.1838, BºGral. Mosconi - (9005) C. Rivadavia -Chubut, Arg. * Tel/Fax: (0297)-4550825 / 4559365

Muestra de: Petróleo
Lugar de Muestreo: ***POZO: PCN-624 Zona: 2503/05***
Extraído Por: Cliente EQUIPO 222
Fecha de Extracción: 05/09/05 Hora: S/H
Fecha de Recepción: 05/09/05
Solicitado Por: REPSOL - YPF SA. ***Sra. Ruth Kirn***
Objetivo del Análisis: Control de calidad.

PROTOCOLO Nº: 3823-05CR

Fecha Informe: 07/09/05

Pag. 1/1

ITEM Nº =										**Distrito Nº =**
CANTIDAD =										**Nº Orden =**

INFORME DE ENSAYO

PETROLEO HIDRATADO

DETERMINACION	NORMA	UNIDAD	VALORES ENCONTRADOS
% AT(%AL+D4007)	**S/N**	$\%\ ^{V}/_{V}$	59.0
% Agua Libre	**Procedimiento REPSOL YPF**	$\%\ ^{V}/_{V}$	15.0
Impureza Total	**ASTM D-4007 Mod.**	$\%\ ^{V}/_{V}$	52.0
Arena y Barro		$\%\ ^{V}/_{V}$	0.0
Agua Separada		$\%\ ^{V}/_{V}$	20.0
Emulsión		$\%\ ^{V}/_{V}$	32.0
Agua Exacta		$\%\ ^{V}/_{V}$	52.0
Densidad a 15ºC de petróleo	**ASTM D-5002**	g/cm^3	0.9438
Punto de escurrimiento	**ASTM D-97**	ºC	+2
Salinidad	**ASTM D-512**	g/Lts	2.1

PETROLEO DESHIDRATADO

Viscosidad 300 RPM				
Temperatura	**30°C**	**Por Reómetro**	Cp	612
	40°C		Cp	323
	50°C		Cp	171

DETERMINACION	NORMA	UNIDAD	VALORES ENCONTRADOS
% de parafina	**UOP-86 mod. Paraf. hasta -20ºC**	$\%\ ^{p}/_{p}$	4.9
% de asfalteno	**SPE-23810**	$\%\ ^{p}/_{p}$	3.2
Densidad a 15ºC de petróleo	**ASTM D-5002**	g/cm^3	0.8924

Analista: M.B.

.....
Ing. Miguel LIZZANO
Rep. Tec. Por ***EPSILON S.R.L.***

LABORATORIO
BASE CHUBUT

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LABORATORIO INDUSTRIAL

Ruta 3, Km.1838, BºGral. Mosconi - (9005) C. Rivadavia -Chubut, Arg. * Tel/Fax: (0297)-4550825 / 4559365

Muestra de: Petróleo
Lugar de Muestreo: ***POZO: PCN-624 Zona: 2540/43***
Extraído Por: Cliente EQUIPO 222
Fecha de Extracción: 04/09/05 Hora: S/H
Fecha de Recepción: 05/09/05
Solicitado Por: REPSOL - YPF SA. ***Sra. Ruth Kirn***
Objetivo del Análisis: Control de calidad.

PROTOCOLO Nº: 3823-05CR

Fecha Informe: 07/09/05

Pag. 1/1

ITEM Nº =										**Distrito Nº =**
CANTIDAD =										**Nº Orden =**

INFORME DE ENSAYO

PETROLEO HIDRATADO

DETERMINACION	NORMA	UNIDAD	VALORES ENCONTRADOS
% AT(%AL+D4007)	**S/N**	% $^{V}/_{V}$	2.0
% Agua Libre	**Procedimiento REPSOL YPF**	% $^{V}/_{V}$	0.0
Impureza Total	**ASTM D-4007 Mod.**	% $^{V}/_{V}$	2.0
Arena y Barro		% $^{V}/_{V}$	0.0
Agua Separada		% $^{V}/_{V}$	0.2
Emulsión		% $^{V}/_{V}$	1.8
Agua Exacta		% $^{V}/_{V}$	2.0
Densidad a 15ºC de petróleo	**ASTM D-5002**	g/cm^3	0.9039
Punto de escurrimiento	**ASTM D-97**	ºC	-6
Salinidad	**ASTM D-512**	g/Lts	(**)

PETROLEO DESHIDRATADO

Viscosidad 300 RPM				
Temperatura	**30°C**	**Por Reómetro**	Cp	98
	40°C		Cp	65
	50°C		Cp	43

DETERMINACION	NORMA	UNIDAD	VALORES ENCONTRADOS
% de parafina	**UOP-86 mod. Paraf. hasta -20ºC**	% $^{p}/_{p}$	5.6
% de asfalteno	**SPE-23810**	% $^{p}/_{p}$	2.2
Densidad a 15ºC de petróleo	**ASTM D-5002**	g/cm^3	0.8932

Analista: M.B.
Observaciones: (**) Impracticable por falta de muestra.-

.....
Ing. Miguel LIZZANO
Rep. Tec. Por ***EPSILON S.R.L.***

OMPANIA: YPF S.A.

OZO: YPF.Ch.PCN−624

AMPO: PAMPA DEL CASTILLO NORTE

ROVINCIA: CHUBUT **PAIS: ARGENTINA**

Schlumberger

COMBINADA

ESCALA: 1/200

AIT−BHC−LDL−CAL
RFT
MRX

Elev.: B.V. 676.98 m
N. T. 671.18 m
M. R. 676.68 m

LOCACION

Ref. Permanente: NIVEL DEL TERRENO Elev.: 671.18 m
Reg. Medido Desde: NIVEL DEL TERRENO 0.0 m sobre nivel ref.
Perforacion Medida Desde: NIVEL DEL TERRENO

Campo: PAMPA DEL CASTILLO NORTE
Locacion: CAS
Pozo: YPF.Ch.PCN−624
Compania: YPF S.A.

UWI: AR0100006492	Equipo PI−390	Longitud X: 4.939.870,97	Latitud Y: 2.577.251,51

ha			21−Aug−2005					Logging Date			
rida No.			1					Run Number			
f. Perforador			2650 m					Depth Driller			
f. Registro			2648.2 m					Logger Depth			
mera Lectura			2645.5 m					Bottom Log Interval			
ma Lectura			428.5 m					Top Log Interval			
do Tuberia Perforador			9.625 in @ 427.6 m			@		Casing Driller Size @ Depth		@	
do Tuberia Registro			428.5 m					Casing Logger			
metro Trepano			8.750 in					Bit Size			
o De Lodo			IDCAP					Type Fluid In Hole			
nsidad	Viscosidad		1.18 g/cm3	61 s				MUD Density	Viscosity		
rdidas	PH		6.8 cm3	9				Fluid Loss	PH		
ente Muestra De Lodo			PILETA					Source Of Sample			
@ Temp.			1.261 ohm.m @ 11 degC			@		RM @ Measured Temperature		@	
F @ Temp.			1.483 ohm.m @ 11 degC			@		RMF @ Measured Temperature		@	
C @ Temp.			2.225 ohm.m @ 11 degC			@		RMC @ Measured Temperature		@	
nte: RMF	RMC		PRENSA	PRENSA				Source RMF	RMC		
@ T. Fdo.	RMF @ T. Fdo.		0.345 @ 97	0.410 @ 97		@	@	RM @ MRT	RMF @ MRT	@	@ @
mp. Maxima Medida			97 degC					Maximum Recorded Temperatures			
culacion Final	Hora		21−Aug−2005	8:00				Circulation Stopped	Time		
gistro Fondo	Hora		21−Aug−2005	18:00				Logger On Bottom	Time		
dad No.	Locacion		8116	CAS				Unit Number	Location		
gistrado por:			ADRIAN AMID					Recorded By			
tigo			ANIBAL SILVEIRA					Witnessed By			

	Run 1	Run 2	Run 3

DEPTH SUMMARY LISTING

Date Created: 22−AUG−2005 17:35:12

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW−B	Type:	CMTD−B/A	Type:	7−46V−XS
Serial Number:	4858	Serial Number:	1689	Serial Number:	77353
Calibration Date:	dd−Mmm−yyyy	Calibration Date:	20−Abr−2005	Length:	6698.89 M
Calibrator Serial Number:	5969	Calibrator Serial Number:	1028		
Calibration Cable Type:	7−46ZV−XS	Calibration Gain:	1.31	Conveyance Method:	Wireline
Wheel Correction 1:	−2	Calibration Offset:	243.00	Rig Type:	LAND
Wheel Correction 2:	−2				

Depth Control Parameters

Log Sequence:	First Log In the Well
Rig Up Length At Surface:	69.00 M
Rig Up Length At Bottom:	69.00 M
Rig Up Length Correction:	0.00 M
Stretch Correction:	1.70 M
Tool Zero Check At Surface:	0.00 M

Depth Control Remarks

1. Control de Profundidad Estandar de Schlumberger aplicado a esta carrera
2. Primera carrera en el pozo y perfil de referencia de profundidad
3.
4.
5.
6.

OTROS SERVICIOS # 1		OTROS SERVICIOS # 2	
OS1:	AIT−BHC−LDL−CAL	OS1:	
OS2:	RFT	OS2:	
OS3:	MRX	OS3:	
OS4:		OS4:	
OS5:	PI−390	OS5:	

OBSERVACIONES: CORRIDA # 1	OBSERVACIONES: CORRIDA # 2
1. Primera carrera en el pozo y perfil de referencia de profundidad.	
2. Herramienta corrida segun diagrama.	
3. Diagrama del pozo segun datos del perforador.	
4. AIT y DSLT corridos descentralizados con standoff de 1,5".	
5. Ultima circulacion termino el 21−Ago−2005 a las 8:00 hs y duro 1:30 hs.	
6. Coordenadas definitivas	
7. Datos adicionales del lodo: Cl=550 ppm, Ca=640 ppm.	
8. Maxima desviacion del pozo segun datos del perforador: 3 deg.	
9. Maxima temperatura registrada = 97 degC desde termometro en punta de herramienta.	
10. EPHI = SPHI, ENUM = 0.81 y EEXP = 2 utilizados para calculo de PWA	

10. FPHI = SPHI, FNUM = 0.81 y FEXP = 2 utilizados para calculo de RWA.
11. BHC y LDL corridos hasta zapato a pedido del cliente.
12. Lecturas de BHC y LDL afectadas en zona de mal Caliper.

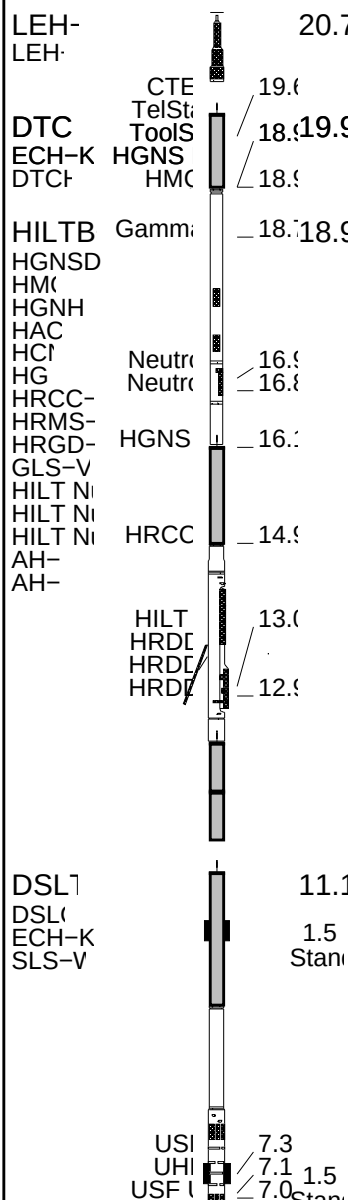
CORRIDA #1			CORRIDA #2		
ORDEN DE SERVICIO:			ORDEN DE SERVICIO:		
VERSION DEL PROGRAMA:	13C0−300		VERSION DEL PROGRAMA:		
NIVEL DEL LODO:	3 m		NIVEL DEL LODO:		
INTERVALO REGISTRADO	COMIENZO	FINAL	INTERVALO REGISTRADO	COMIENZO	FINAL

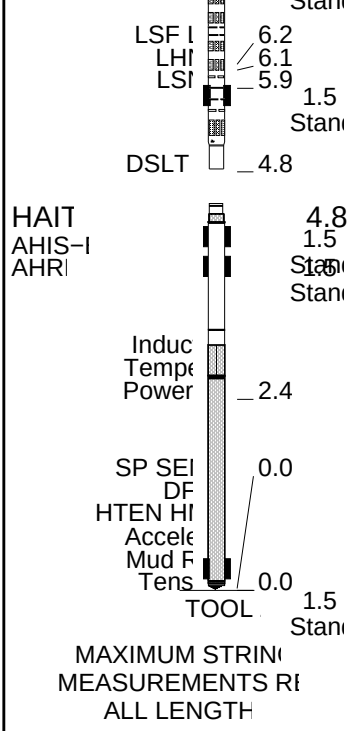
DESCRIPCION DEL EQUIPO

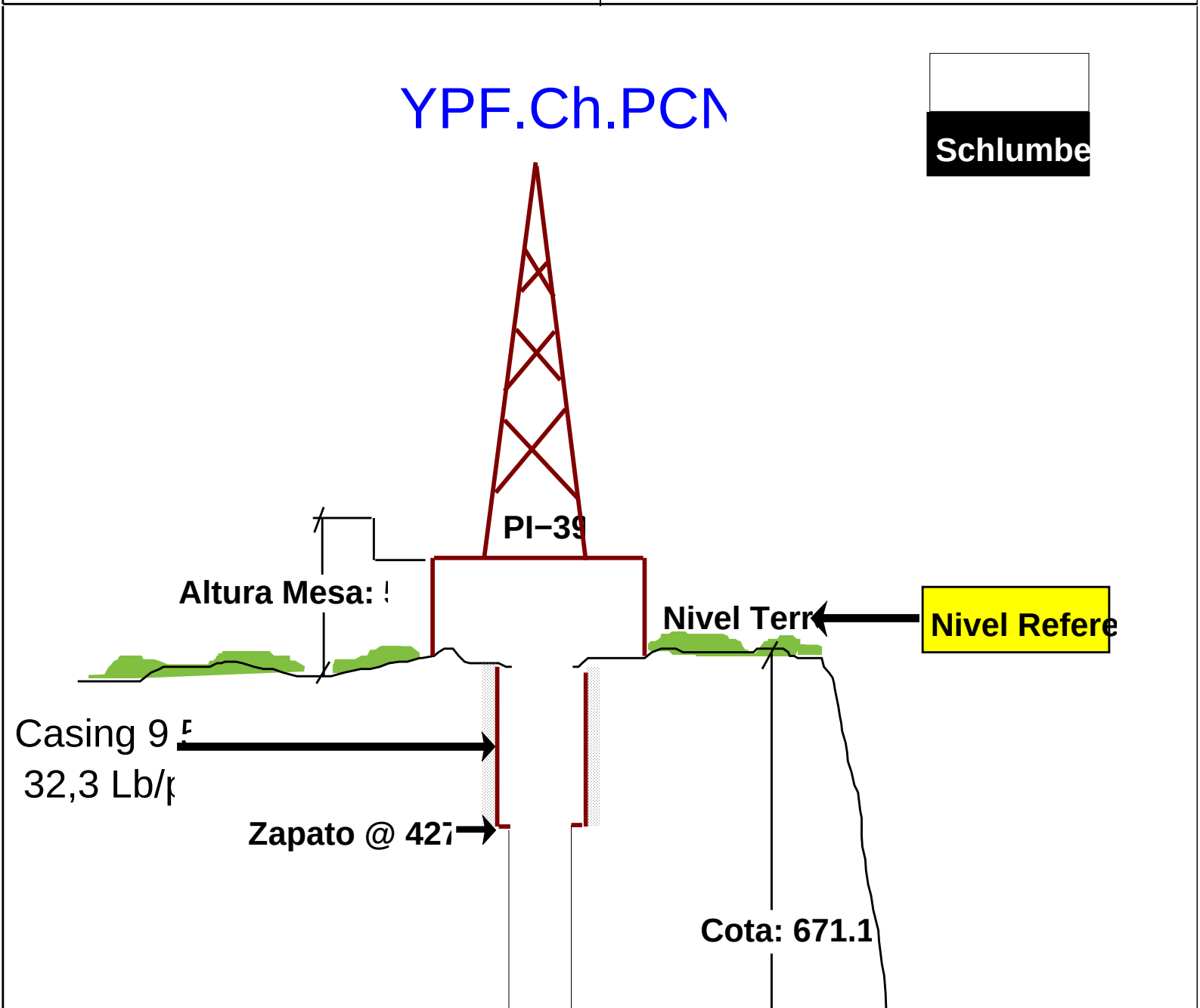
CORRIDA # 1 CORRIDA # 2

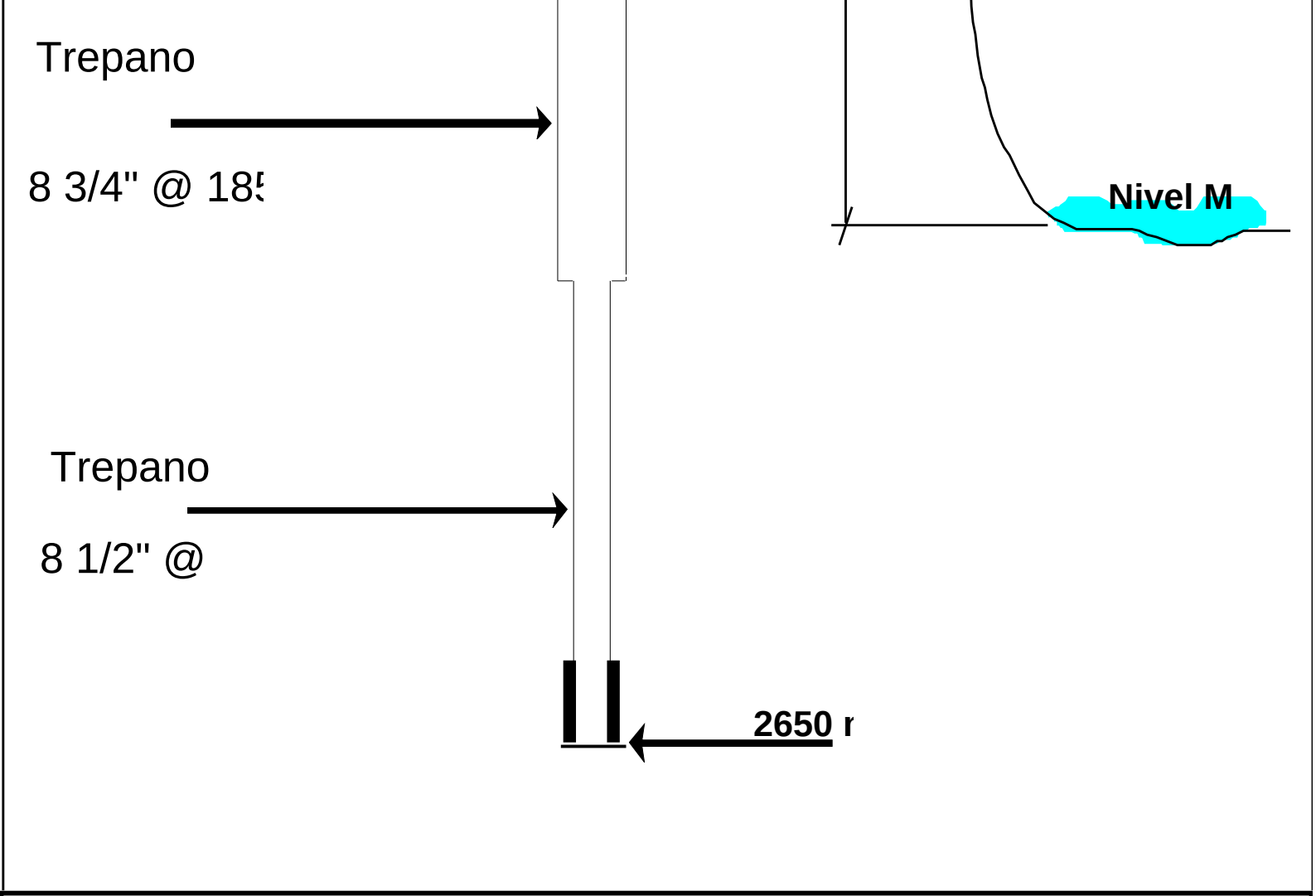
SURFACE I
GSR−U
NCT
CNB
WITM (

DOWNHOLE




LSF I
LHI
LSI
6.2
6.1
5.9
1.5
Stan
DSLT
4.8
HAIT
AHIS−I
AHRI
4.8
1.5
Stan
Induc
Tempe
Power
2.4
SP SEI
DF
HTEN HI
Accele
Mud F
Tens
0.0
0.0
TOOL
1.5
Stan
MAXIMUM STRIN
MEASUREMENTS RI
ALL LENGTH


YPF.Ch.PCN
Schlumbe
PI−39
Altura Mesa:
Nivel Terr
Nivel Refere
Casing 9
32,3 Lb/
Zapato @ 427
Cota: 671.1



Schlumberger

TRAMO PRINCIPAL

MAXIS Field Log

Input DLIS Files

DEFAULT	AIT_SONIC_TLD_MCFL_017LUP	FN:16	PRODUCER	22−Aug−2005 13:50	2653.6 M	335.9 M

Output DLIS Files

DEFAULT	AIT_SONIC_TLD_MCFL_074PUP	FN:1	PRODUCER	22−Aug−2005 17:00	2653.1 M	400.8 M

Integrated Hole/Cement Volume Summary

Hole Volume = 90.83 M3

Cement Volume = 56.80 M3 (assuming 5.50 IN casing O.D.)

Computed from 2648.1 M to 428.5 M using data channel(s) HCAL

OP System Version: 13C0−300

MCM

HAIT−H	13C0−300	DSLT−H	13C0−300
HILTB−FTB	13C0−300	DTC−H	13C0−300

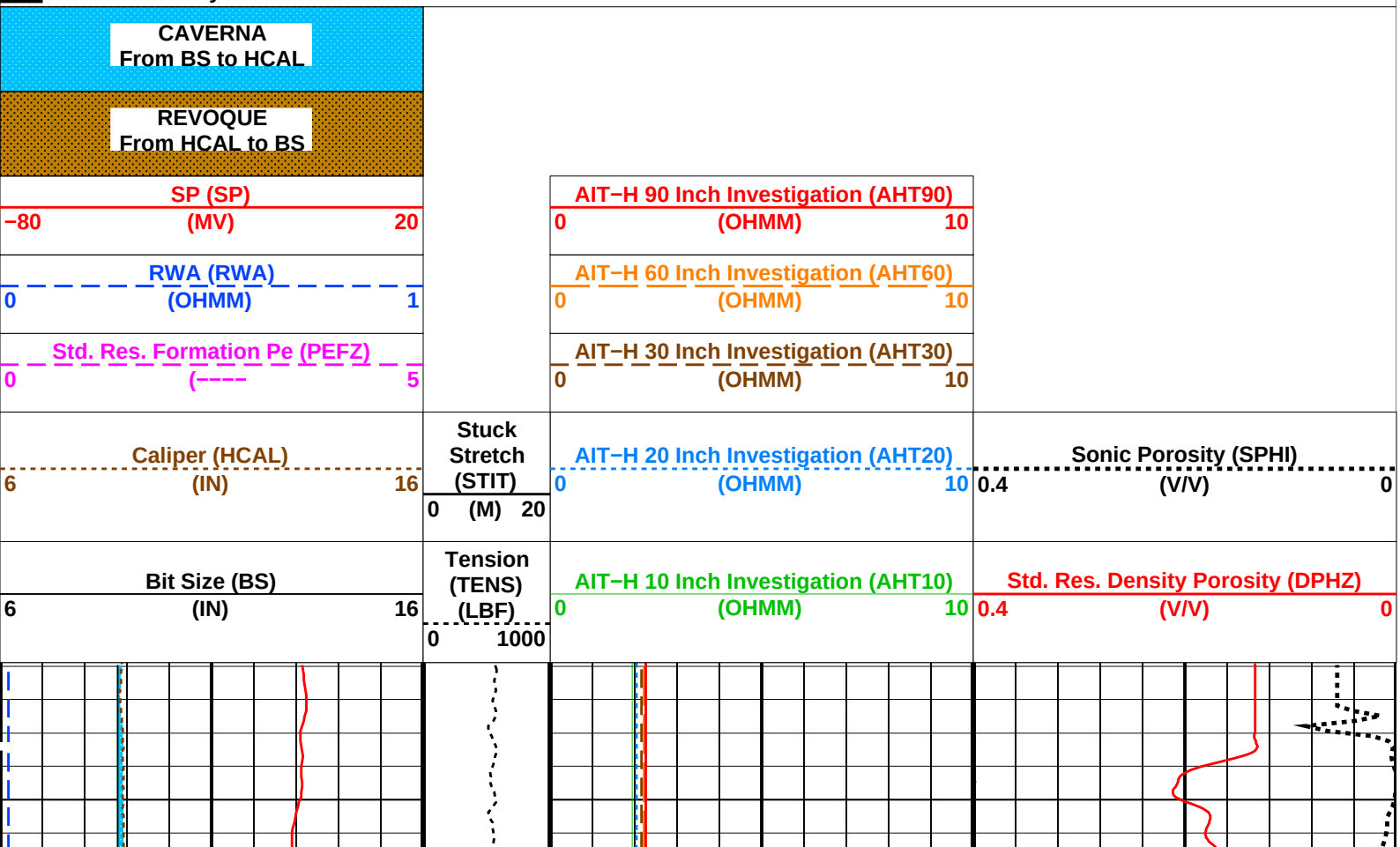
Changed Parameter Summary

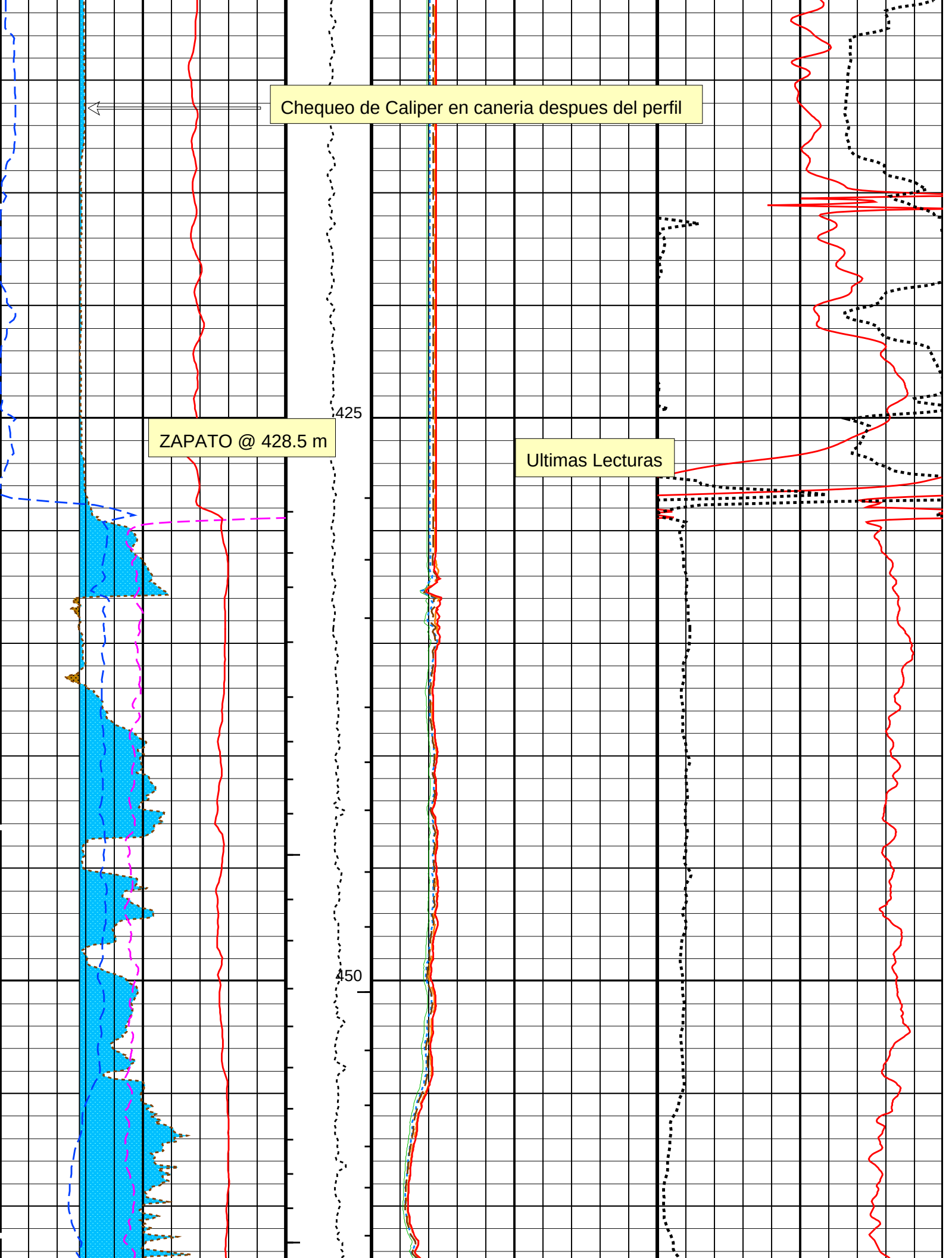
DLIS Name	New Value		Previous Value		Depth & Time
BS	8.500	IN	8.750	IN	2653.1 17:00:17
	8.500	IN	8.500	IN	2299.9 17:00:57
	8.500	IN	8.500	IN	1975.0 17:01:33
	8.750	IN	8.500	IN	1850.0 17:01:48
	8.750	IN	8.750	IN	1749.9 17:02:03
	8.750	IN	8.750	IN	1350.0 17:02:47
	8.750	IN	8.750	IN	1149.9 17:03:08
	8.750	IN	8.750	IN	949.9 17:03:29
	8.750	IN	8.750	IN	830.0 17:03:41
	8.750	IN	8.750	IN	819.9 17:03:42
	8.750	IN	8.750	IN	589.9 17:04:15
	8.750	IN	8.750	IN	579.9 17:04:17
	8.750	IN	8.750	IN	545.0 17:04:24
	8.750	IN	8.750	IN	534.9 17:04:26
	8.750	IN	8.750	IN	524.9 17:04:29
	8.750	IN	8.750	IN	449.9 17:04:44
SPDR	0	MV/M	0	MV/M	2653.1 17:00:17
	0.03	MV/M	0	MV/M	2299.9 17:00:57
	0	MV/M	0.03	MV/M	1975.0 17:01:33
	0	MV/M	0	MV/M	1850.0 17:01:48
	0.02	MV/M	0	MV/M	1749.9 17:02:03
	0	MV/M	0.02	MV/M	1350.0 17:02:47
	0.03	MV/M	0	MV/M	1149.9 17:03:08
	0	MV/M	0.03	MV/M	949.9 17:03:29
	0	MV/M	0	MV/M	830.0 17:03:41
	0	MV/M	0	MV/M	819.9 17:03:42
	0	MV/M	0	MV/M	589.9 17:04:15
	0	MV/M	0	MV/M	579.9 17:04:17
	0	MV/M	0	MV/M	545.0 17:04:24
	0	MV/M	0	MV/M	534.9 17:04:26
	0.06	MV/M	0	MV/M	524.9 17:04:28
	0	MV/M	0.06	MV/M	449.9 17:04:44

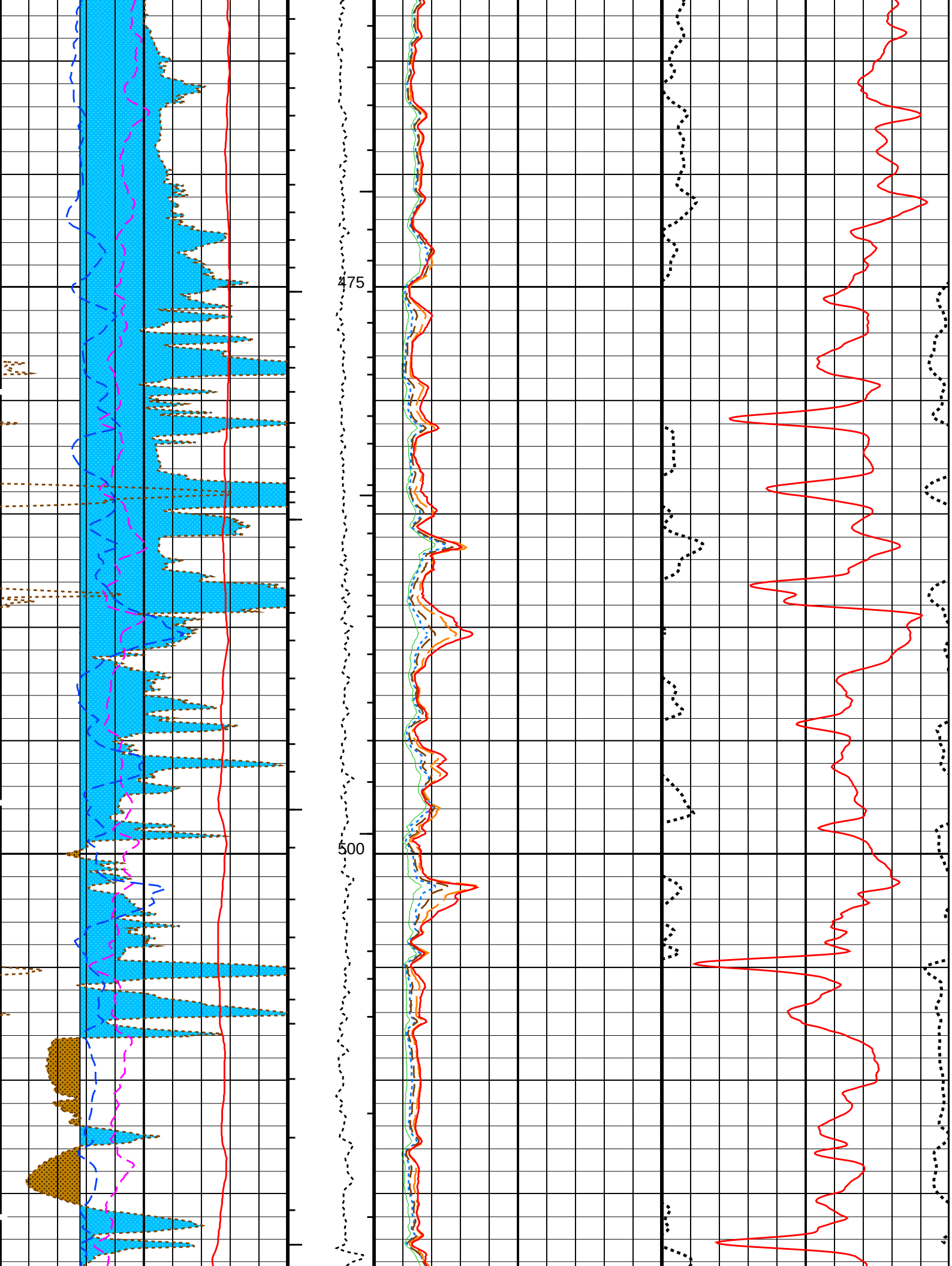
PIP SUMMARY

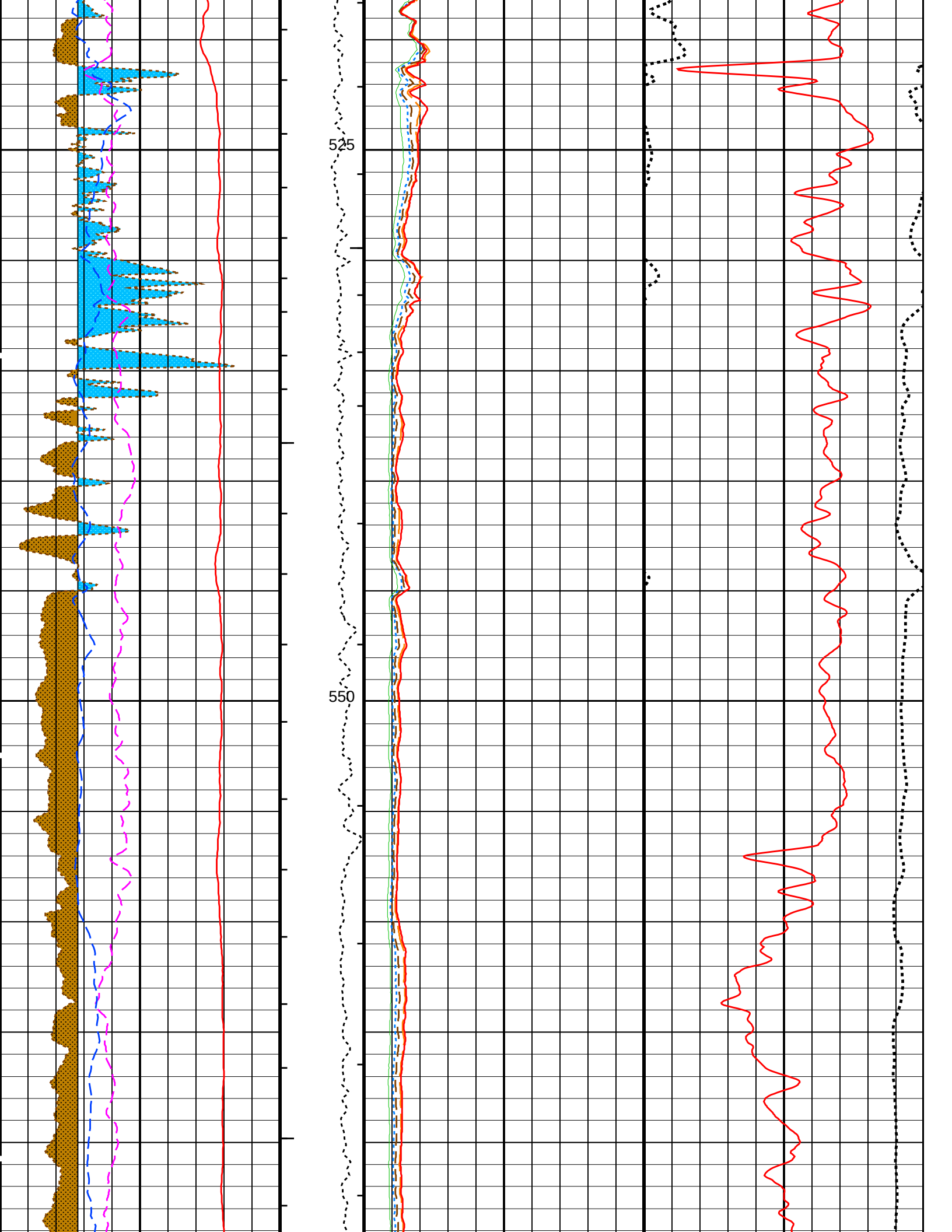
- Integrated Hole Volume Minor Pip Every 0.1 M3
- Integrated Hole Volume Major Pip Every 1 M3
- Integrated Cement Volume Minor Pip Every 0.1 M3
- Integrated Cement Volume Major Pip Every 1 M3

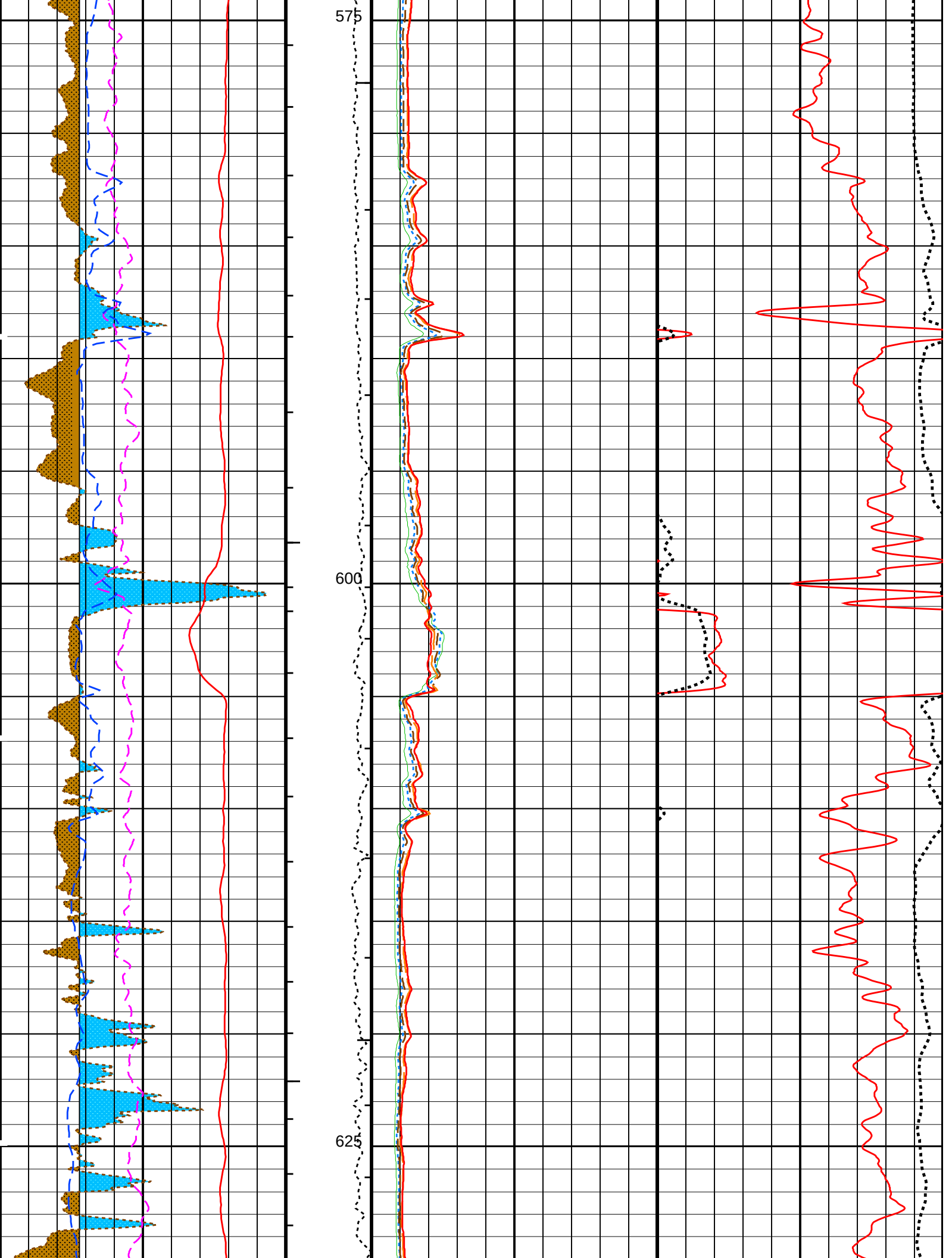
Time Mark Every 60 S




Chequeo de Caliper en caneria despues del perfil
ZAPATO @ 428.5 m
Ultimas Lecturas
425
450


475
500


525
550


575
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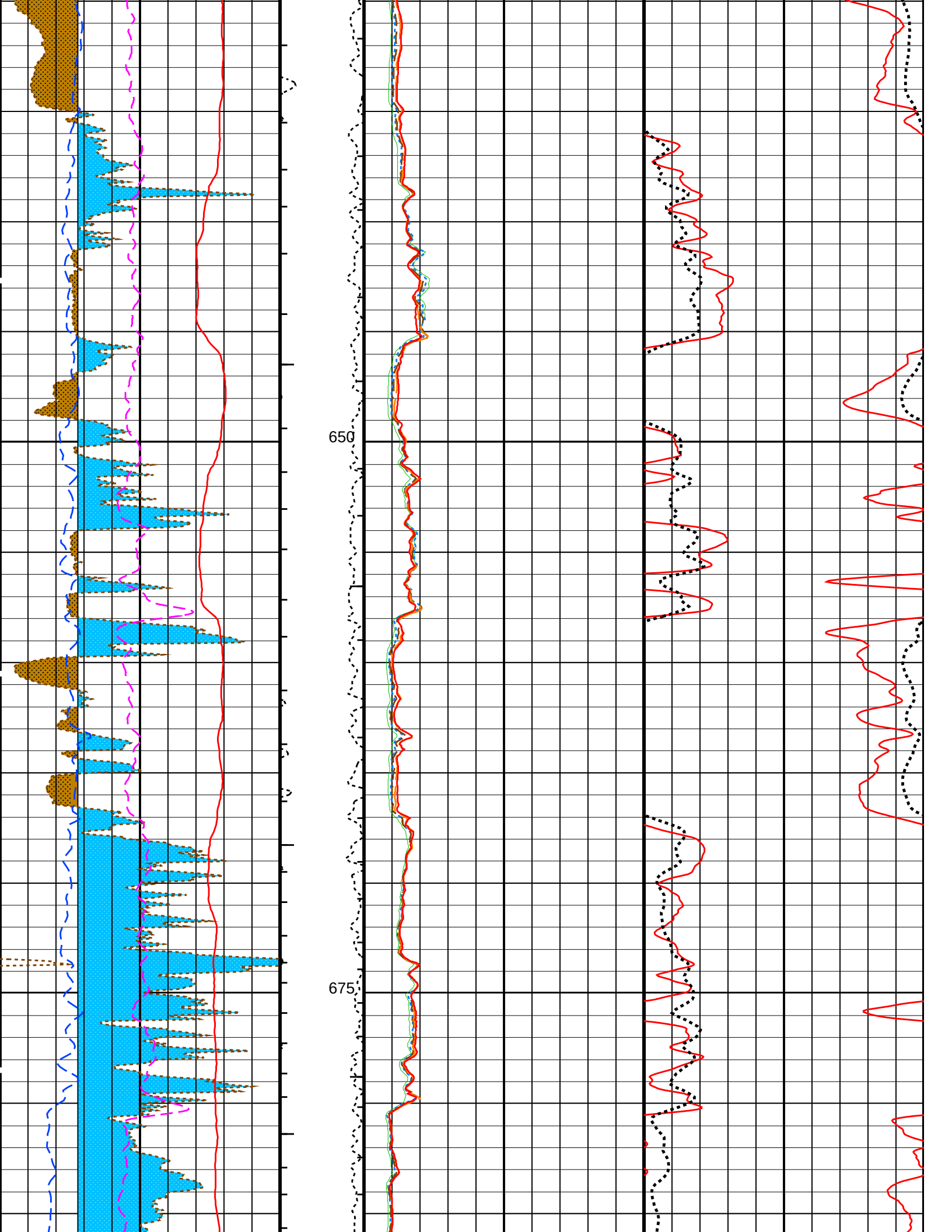
625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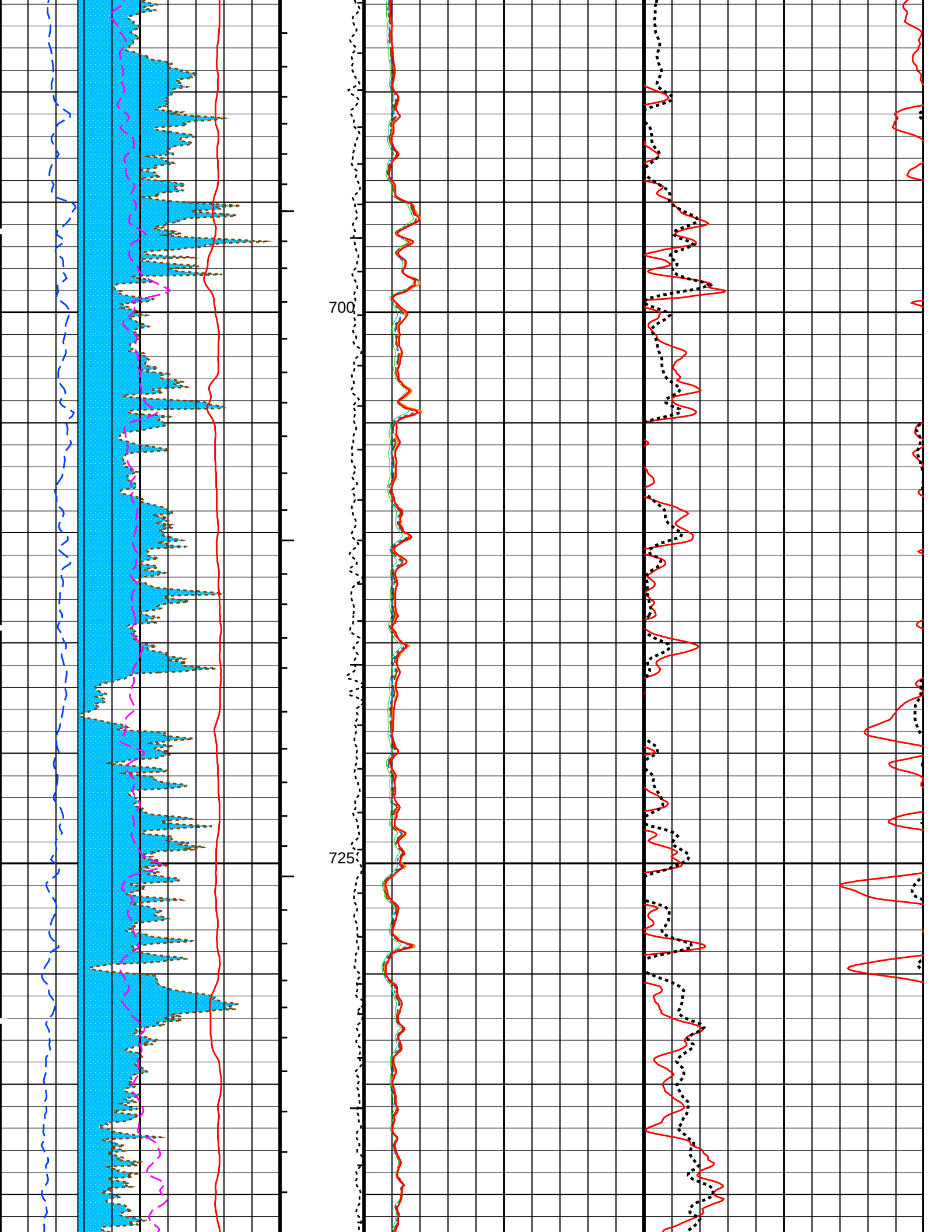
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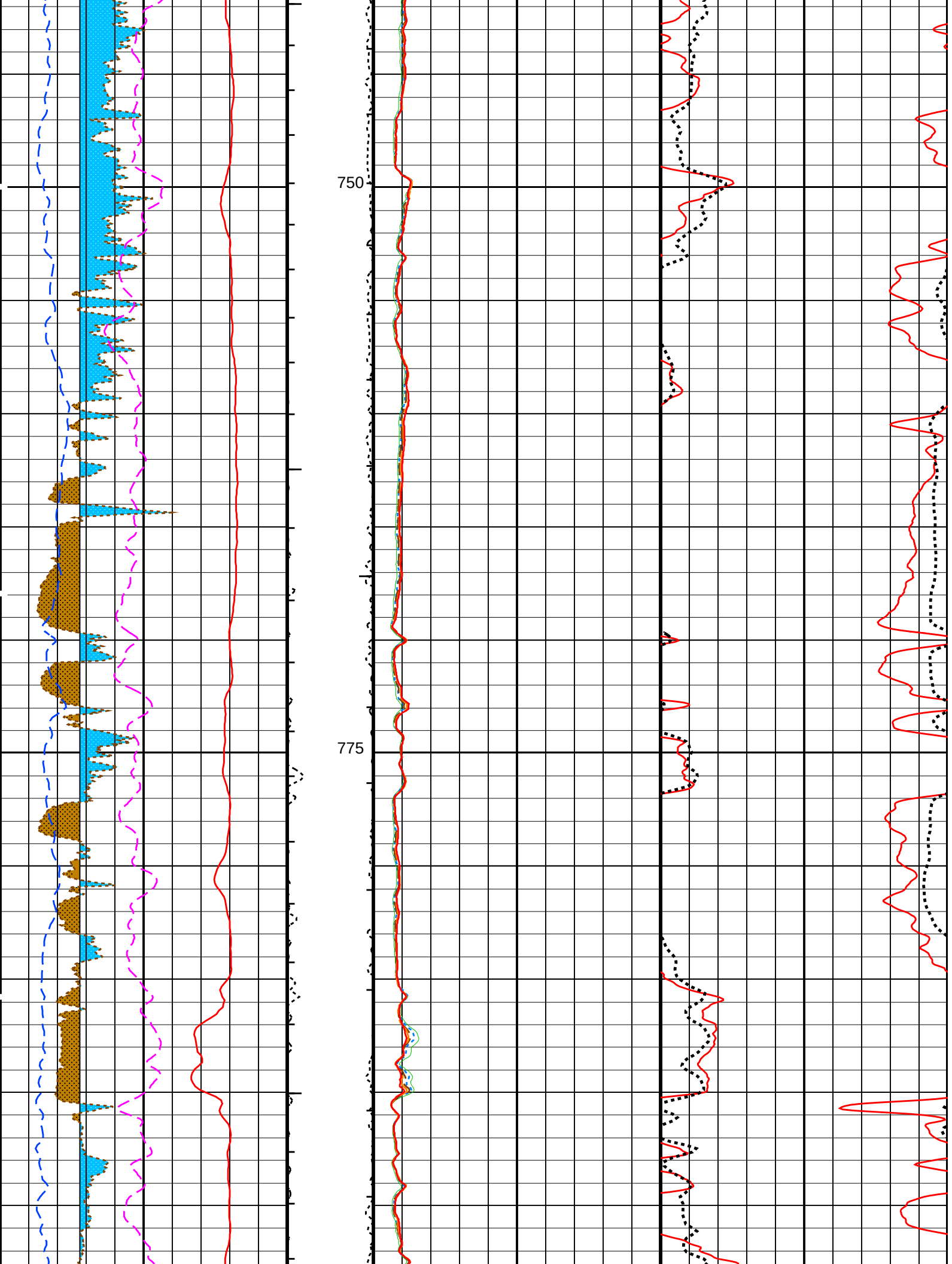
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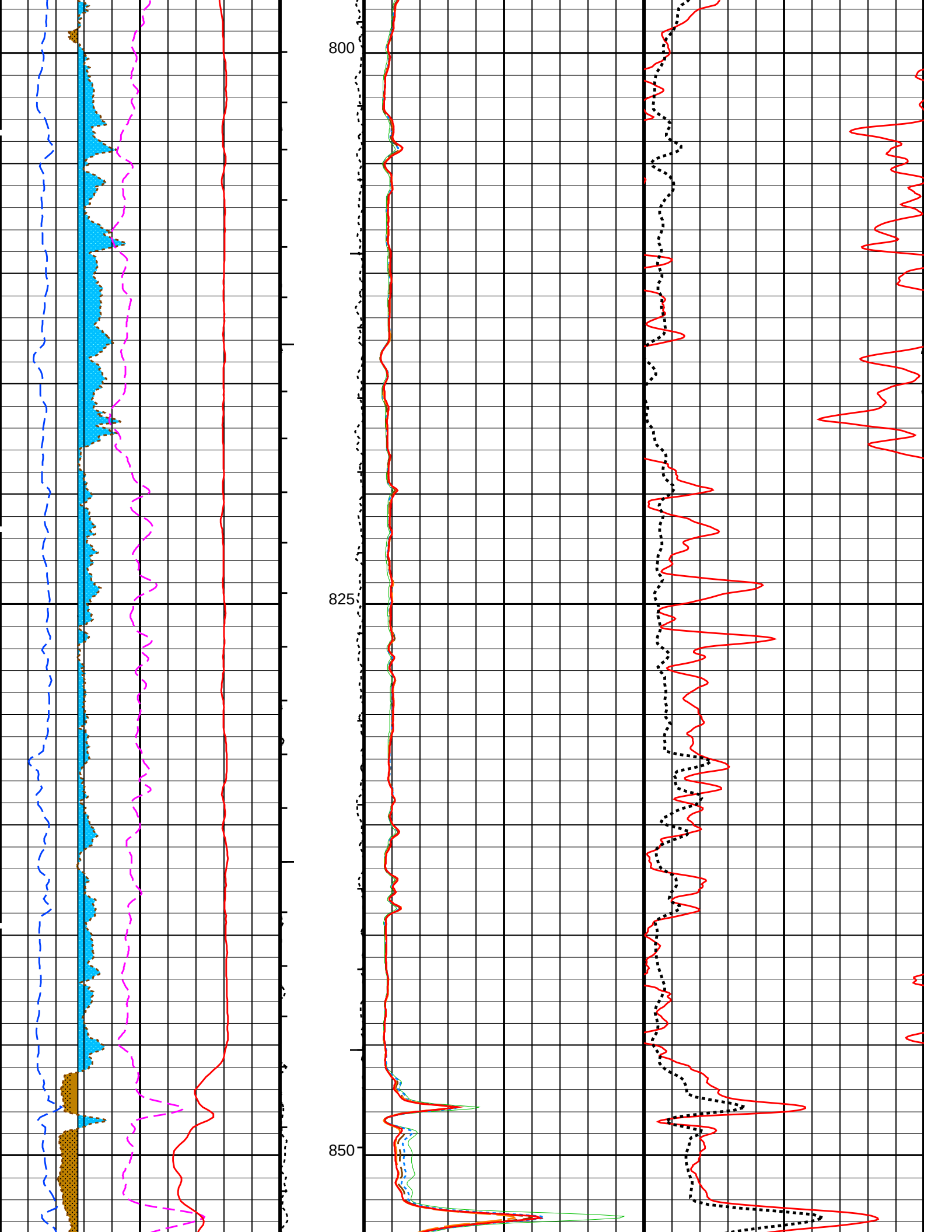
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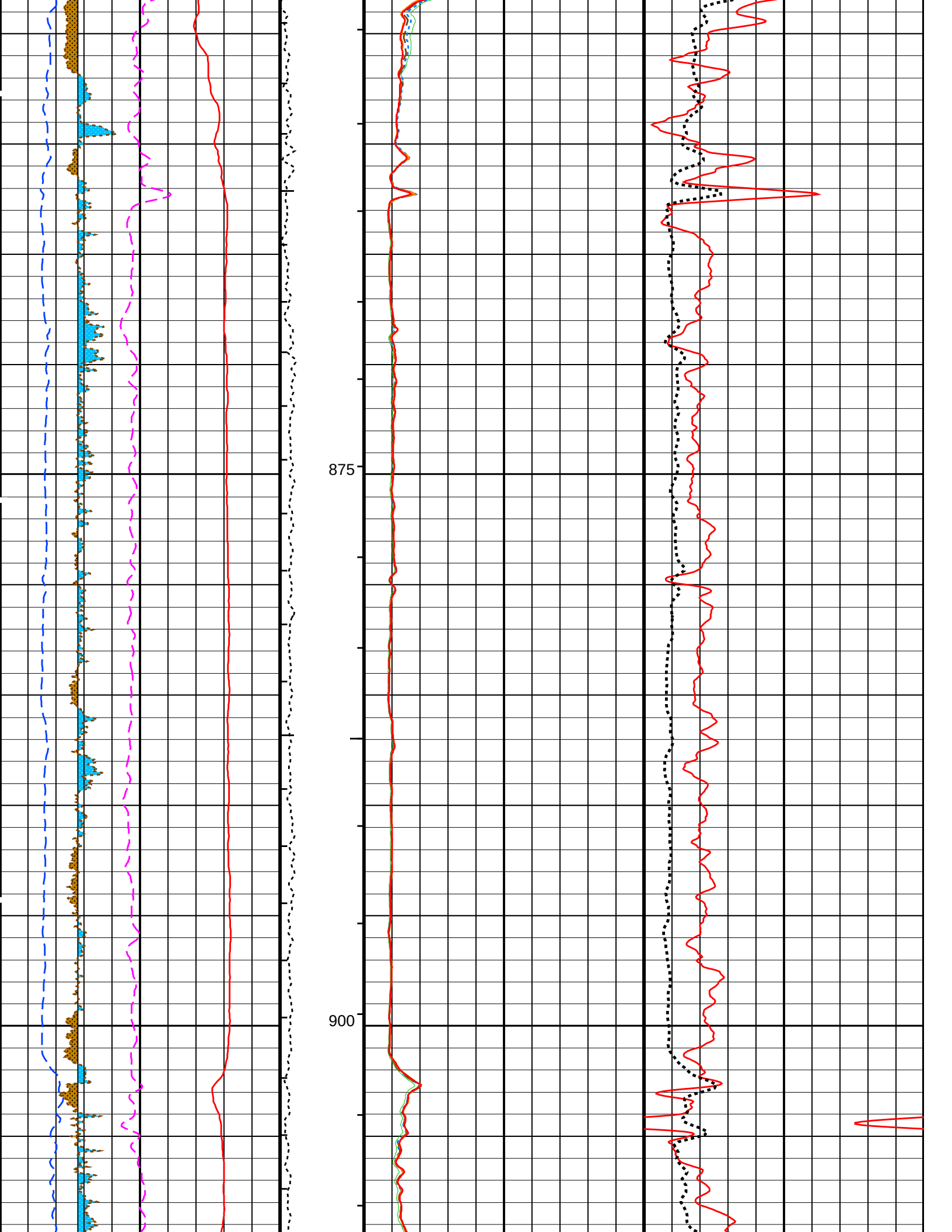
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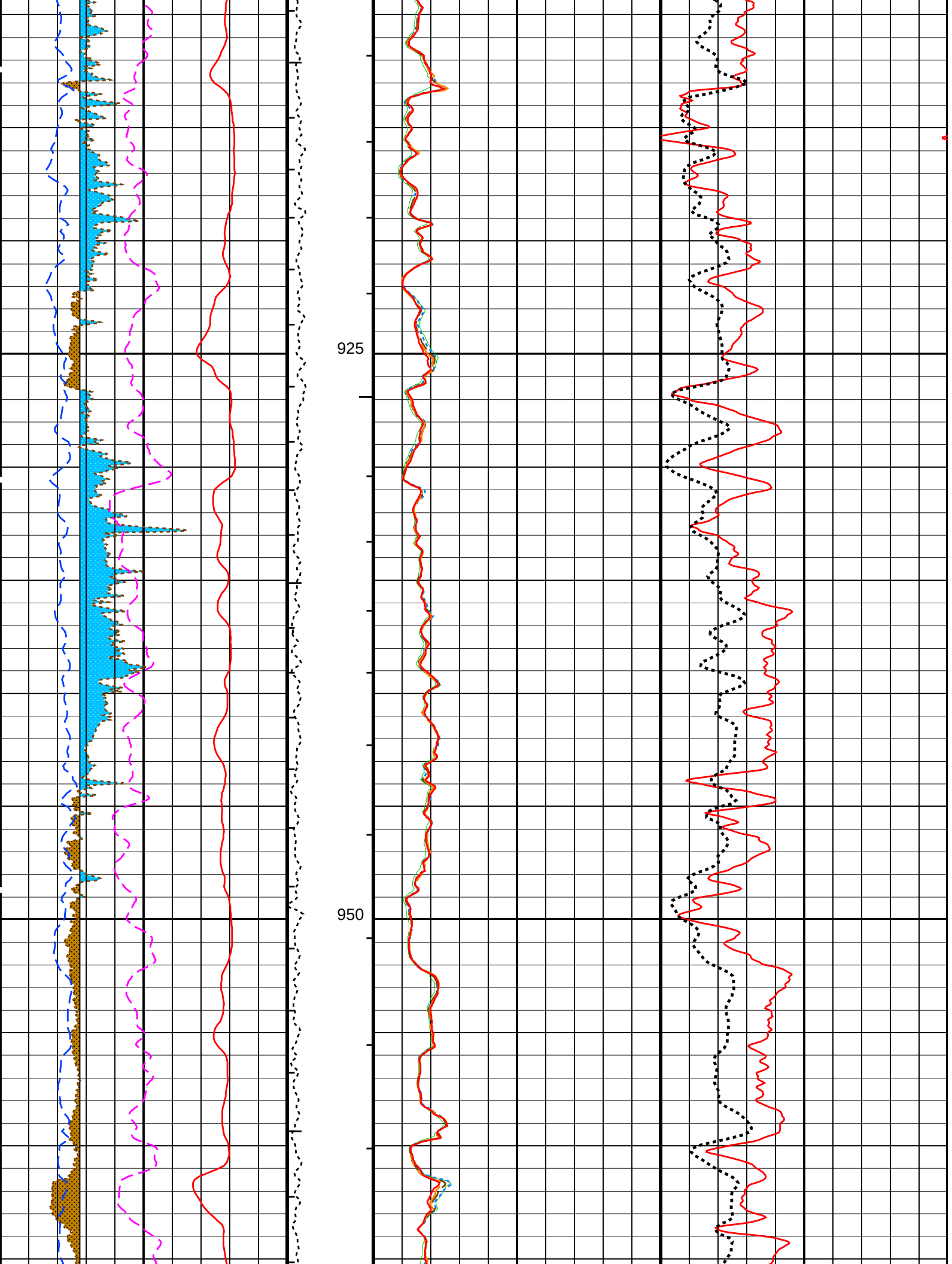
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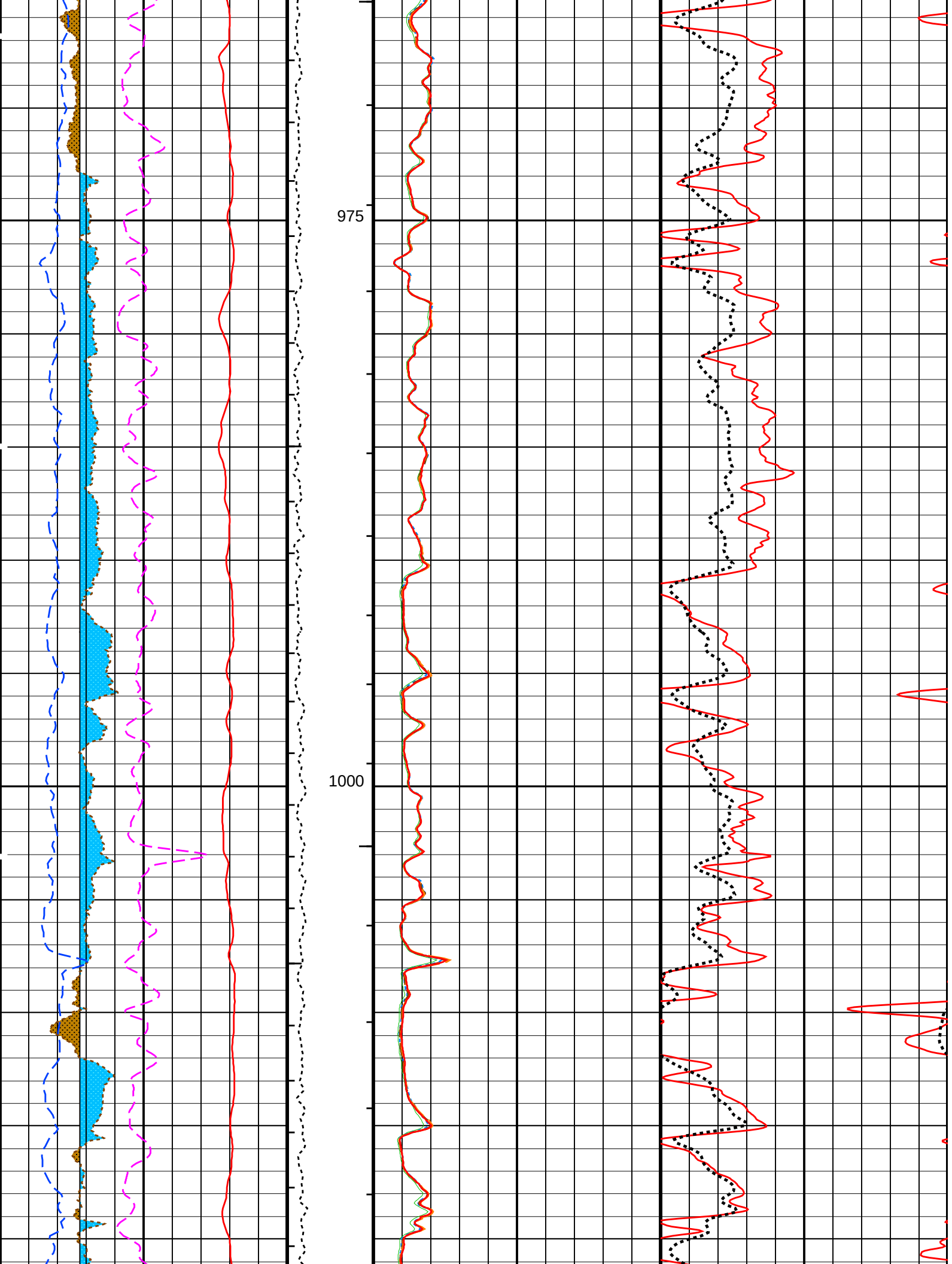
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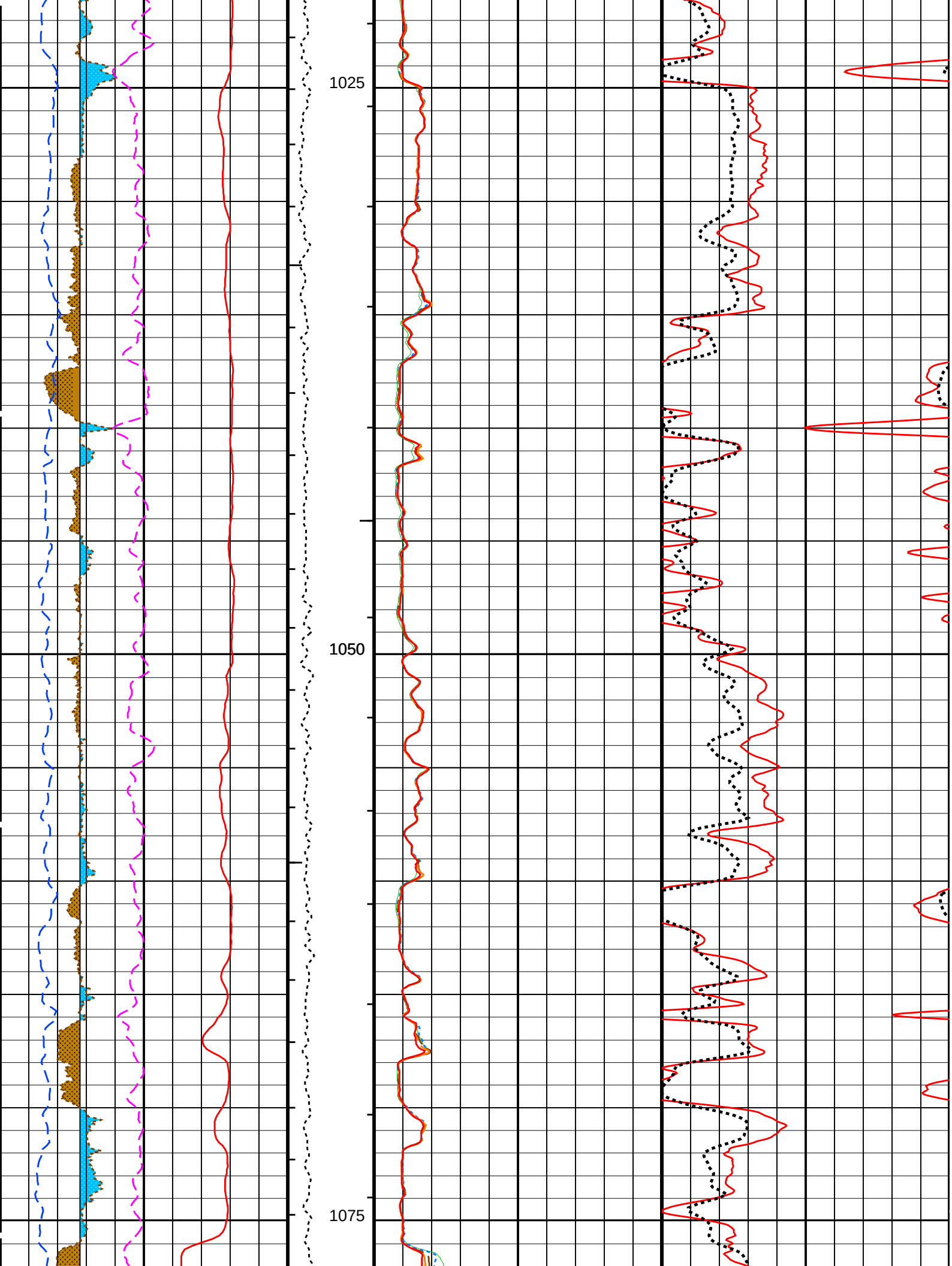
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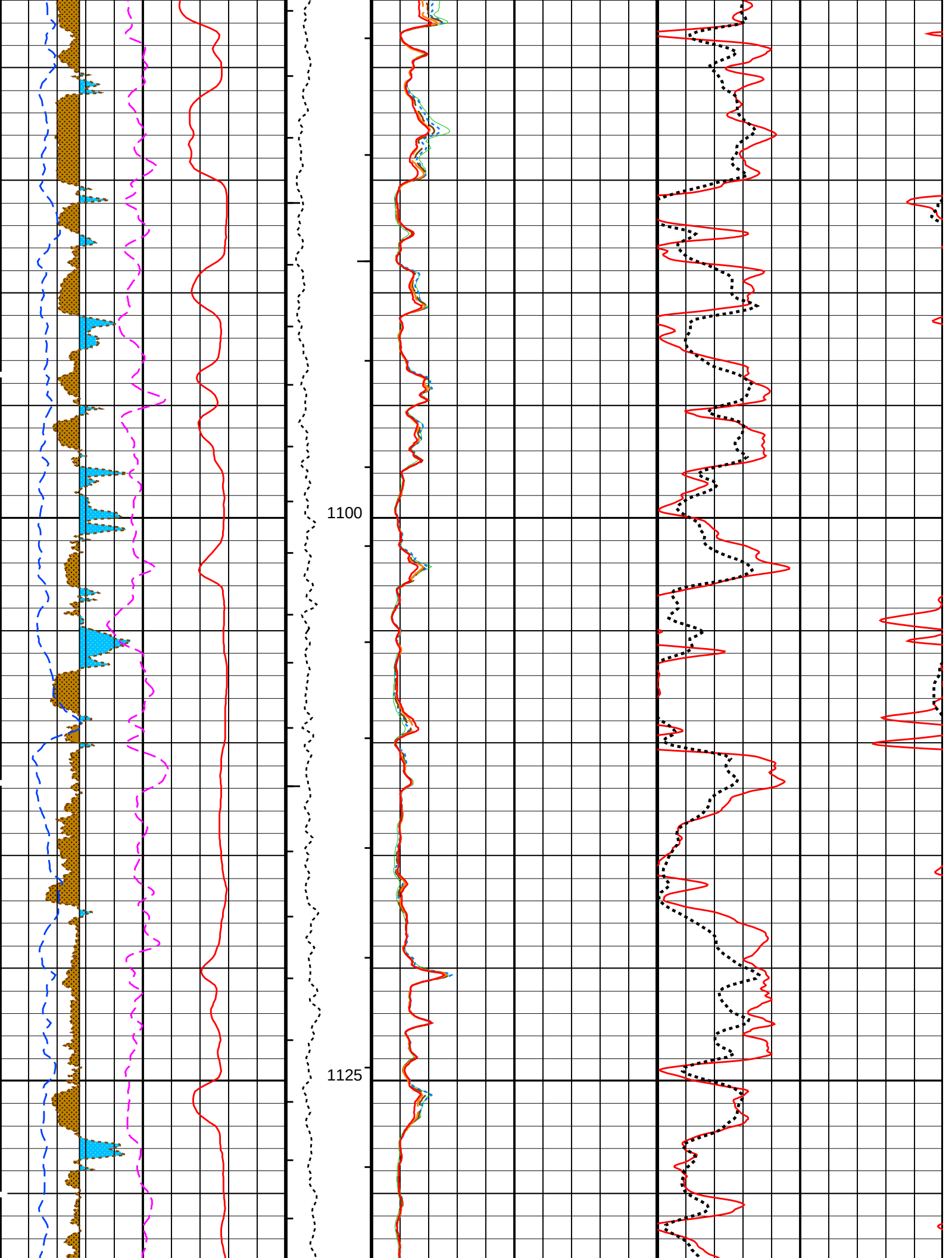
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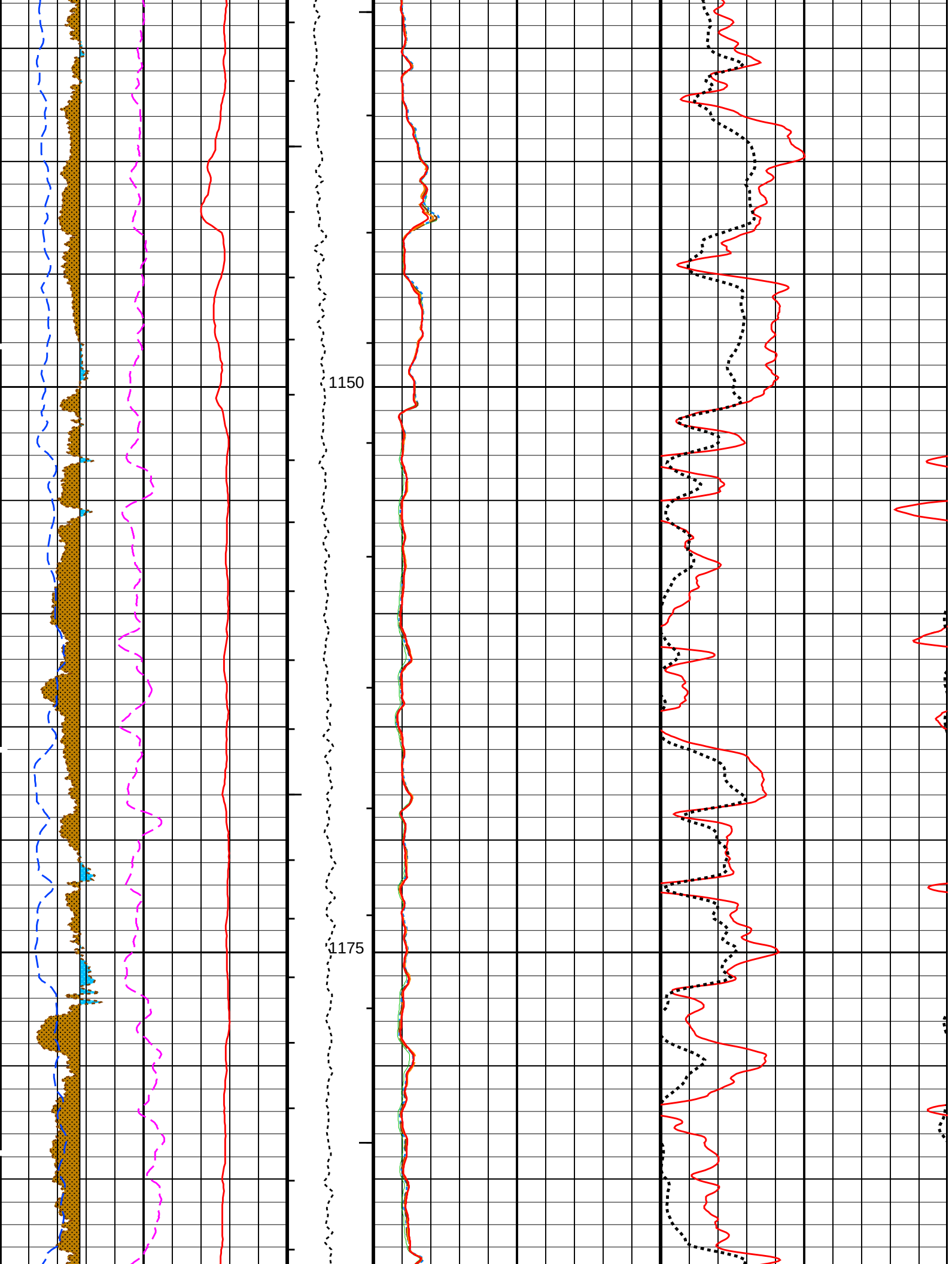
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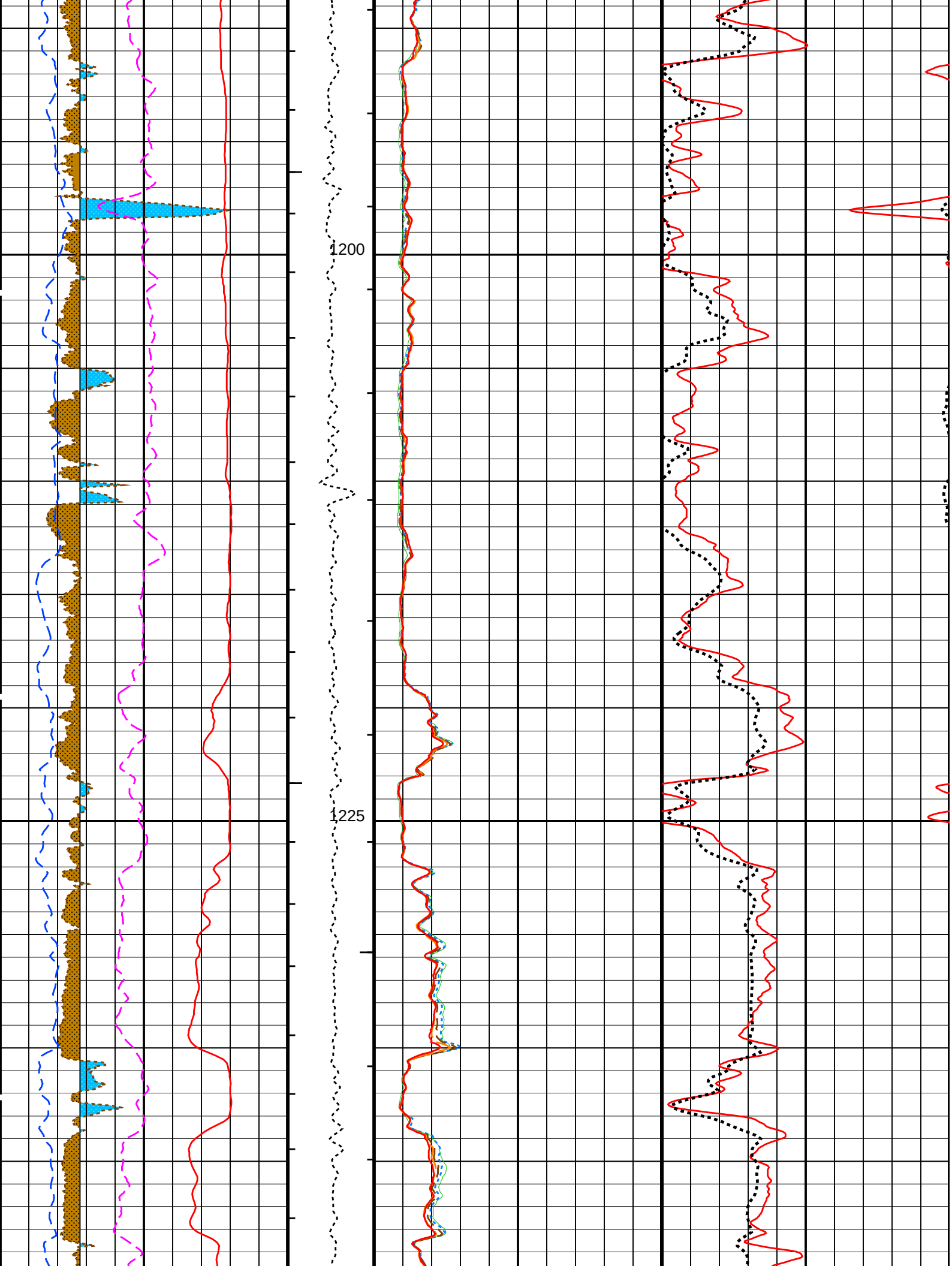
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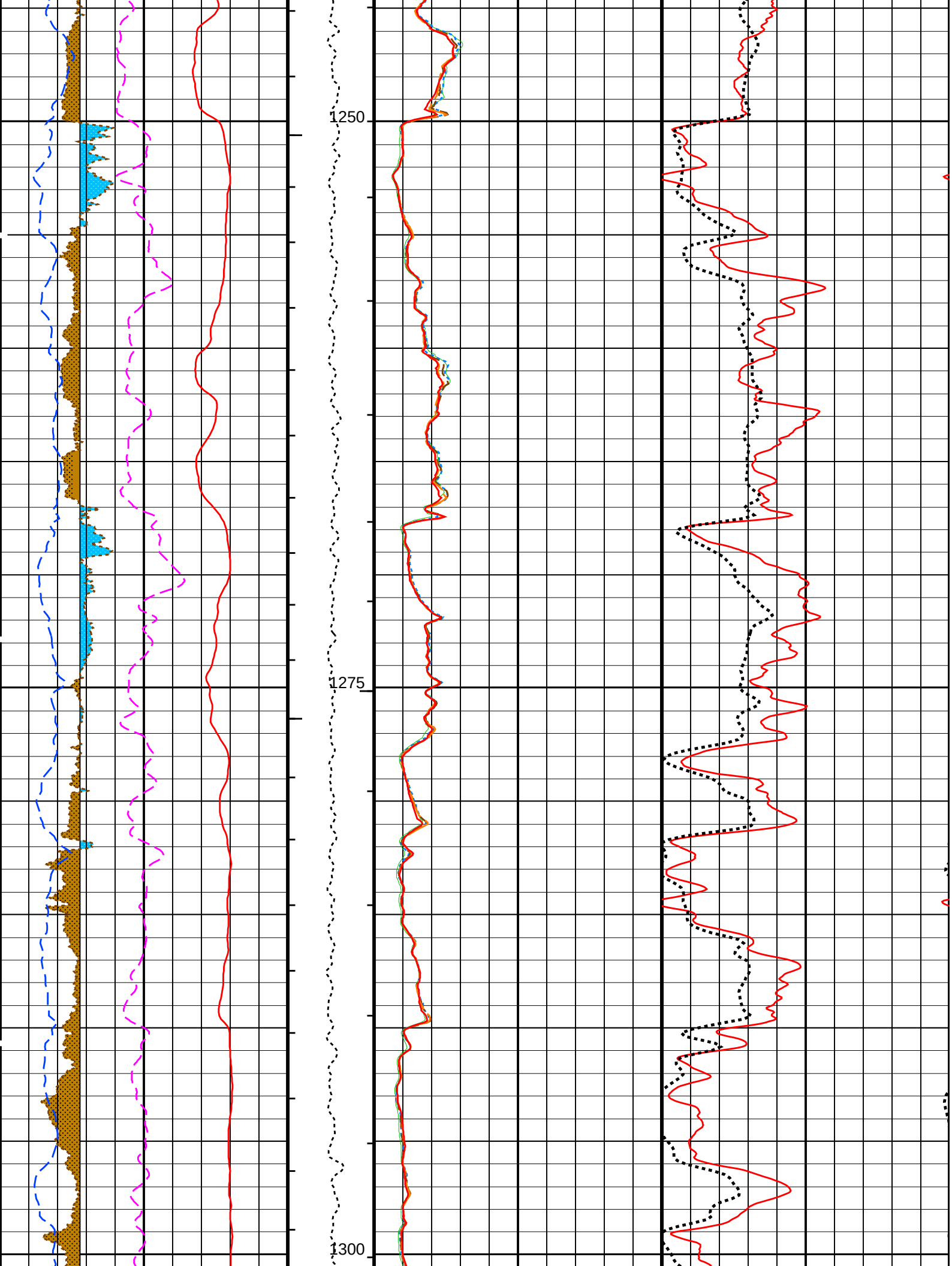
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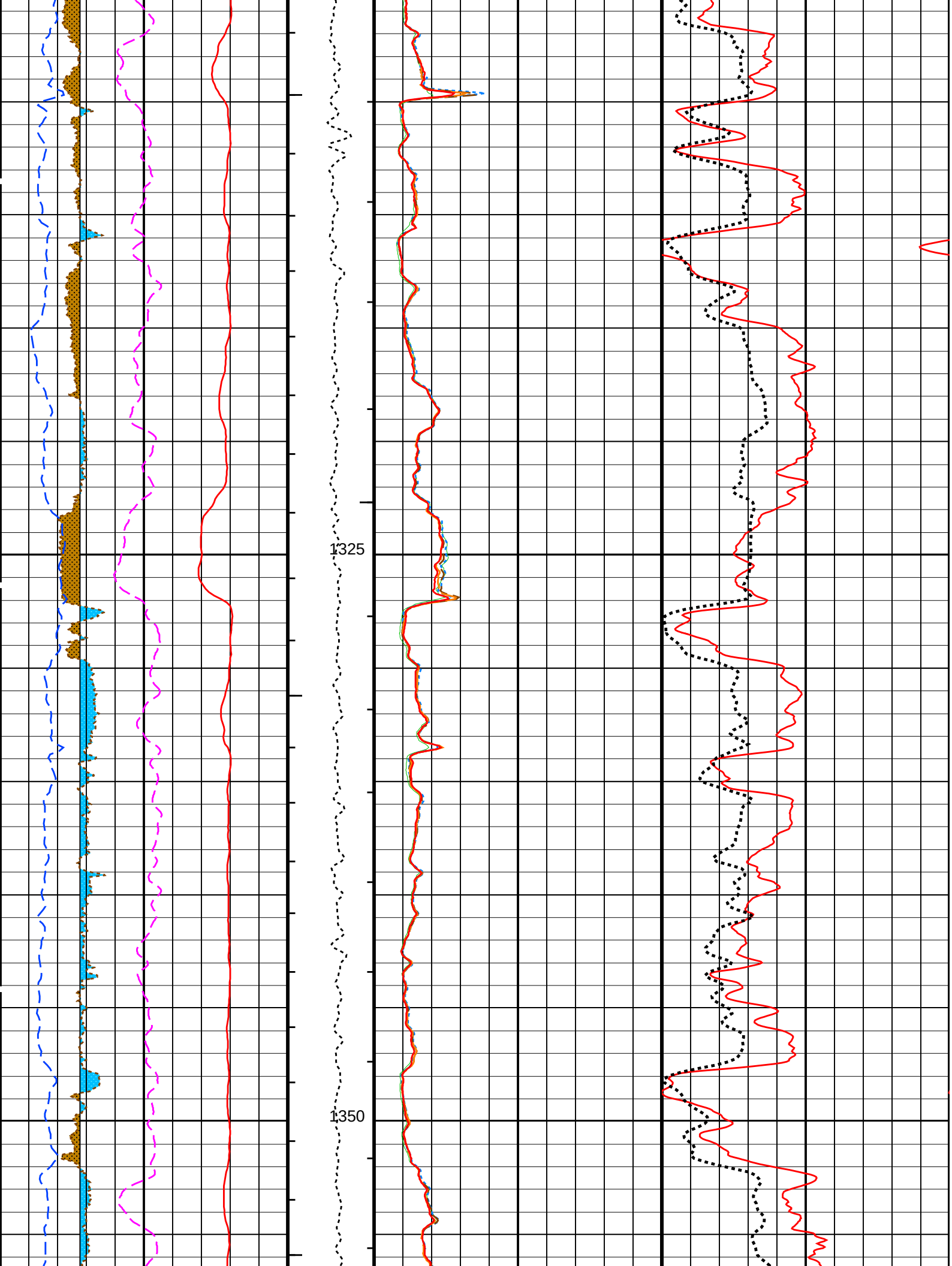
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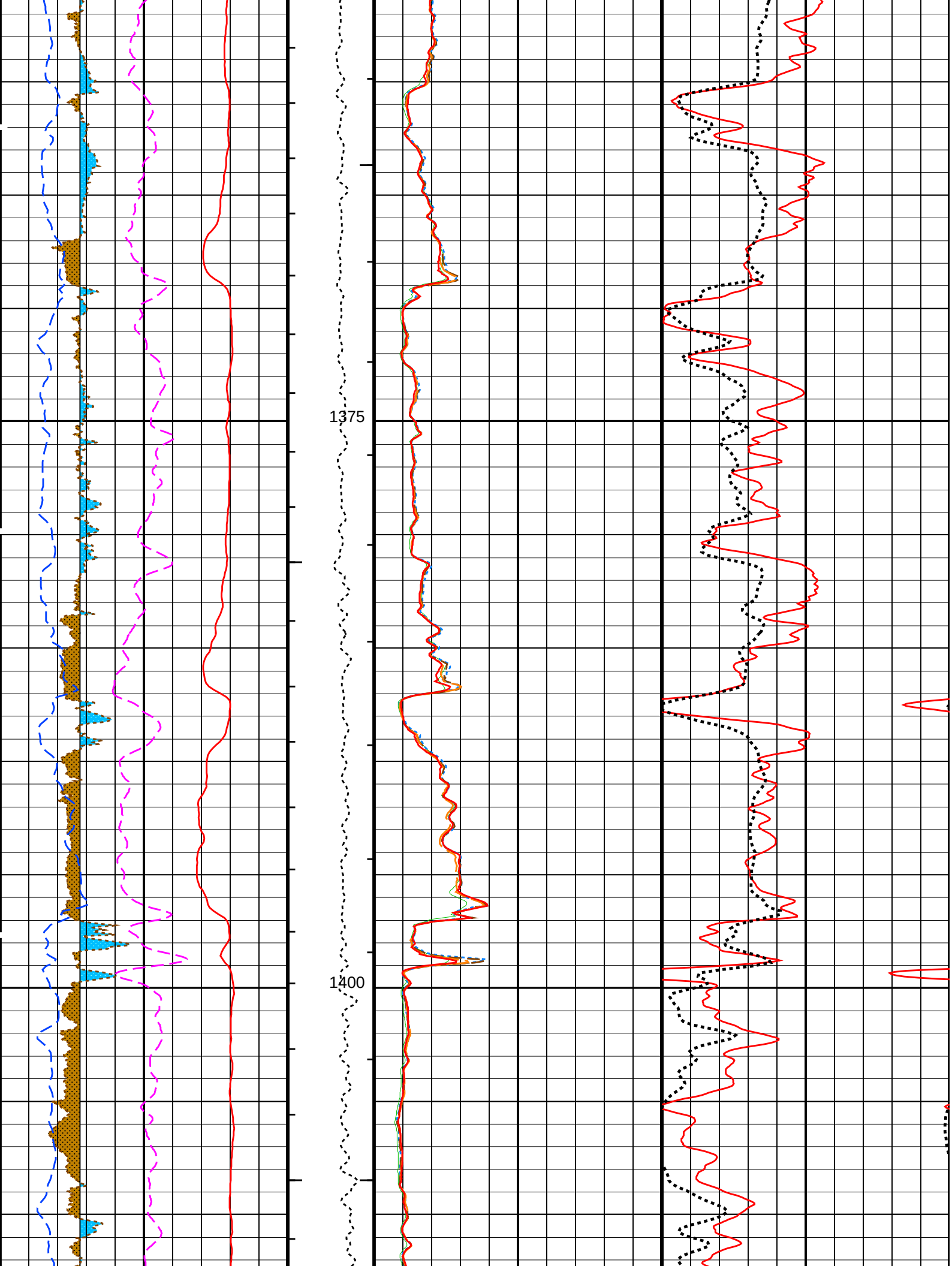
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