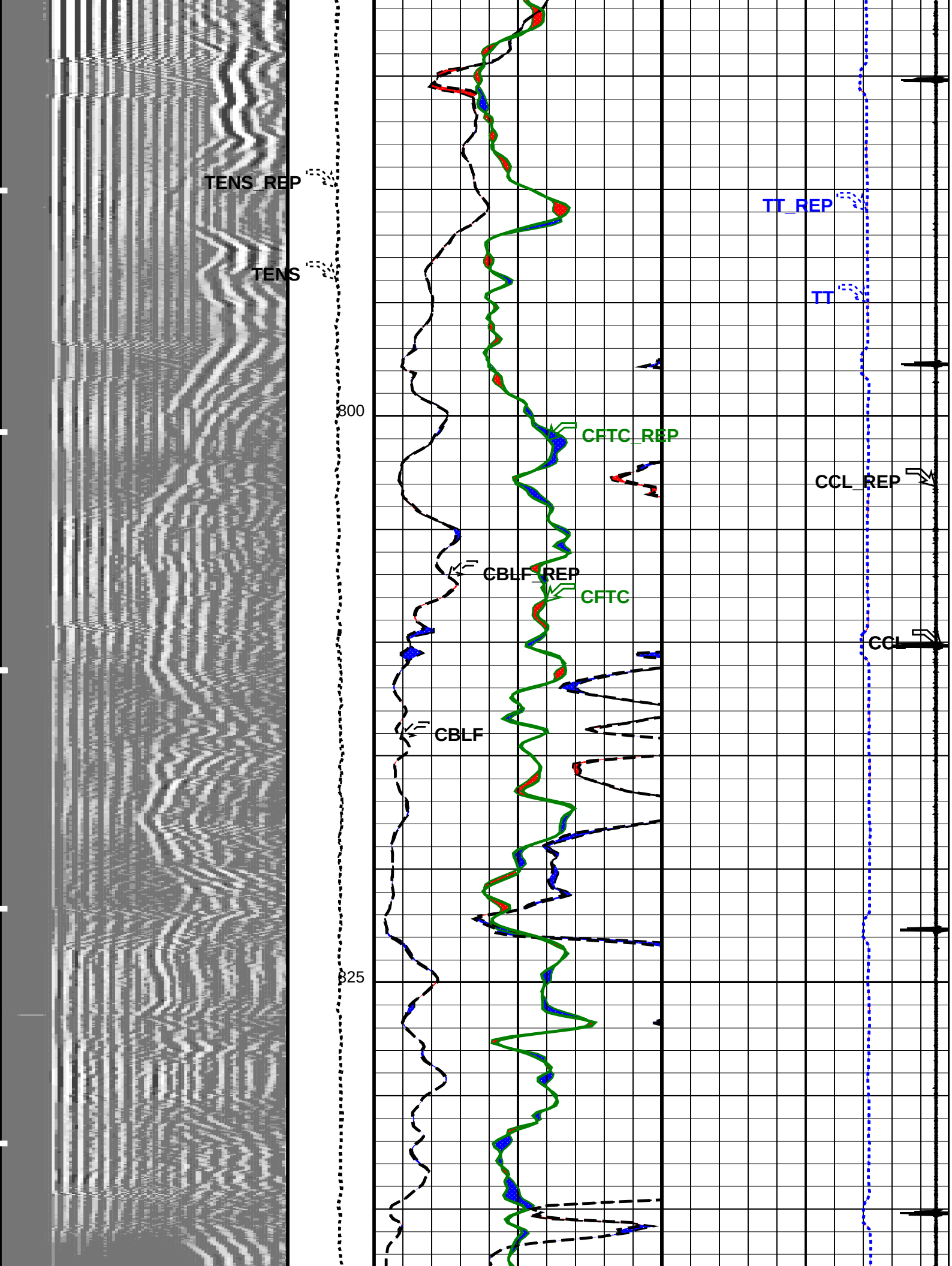
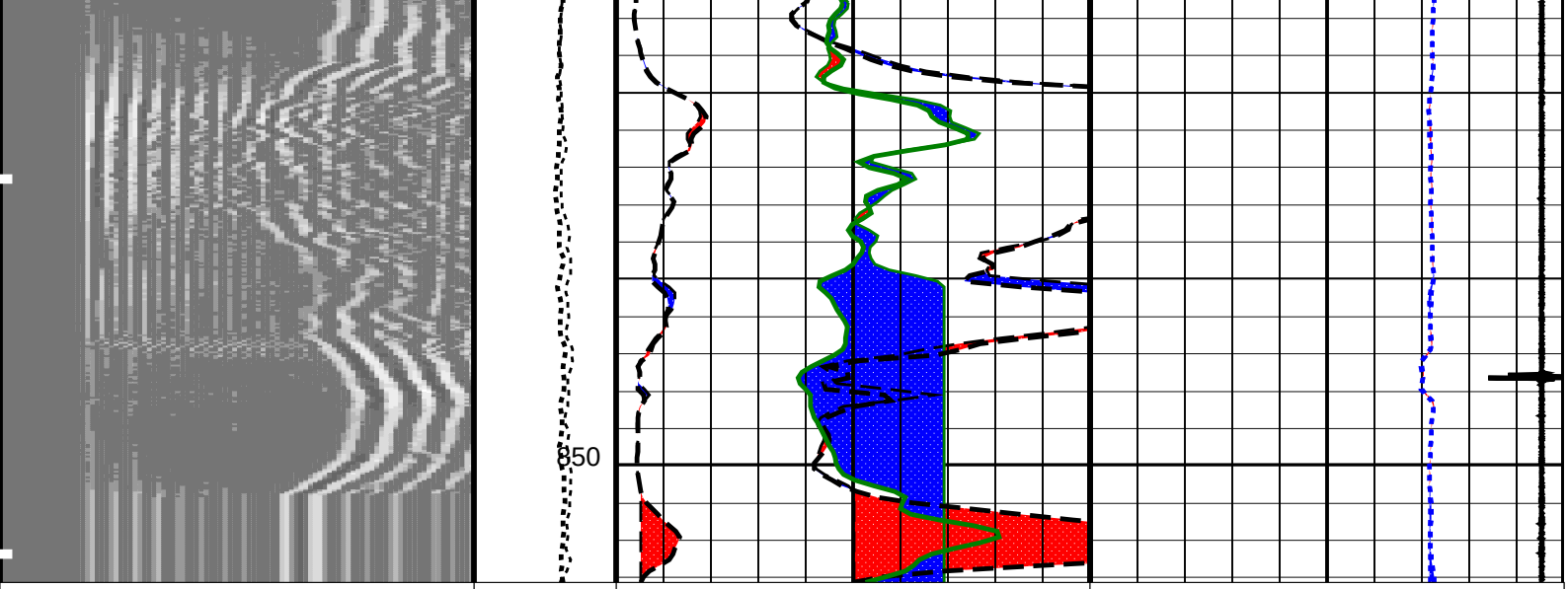

TENS_REP
TENS
TT_REP
TT
800
CFTC_REP
CCL_REP
CBLF_REP
CFTC
CCL
CBLF
825



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

CFTC_REP Curve (CFTC_REP)

0 (CPS) 1500

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	SDT−C: Sonic Digital − C		
AGC	Automatic Gain Control	ON	
AMSG	Auxilliary Minimum Sliding Gate	140	US
ASGL	Auxilliary Minimum Sliding Gate Width	100	US
BILI	Bond Index Level for Zone Isolation	0.8	
CBLG	CBL Gate Width	40	US
CDDEL	Digitizing Delay (Acq Monitor Checked)	200	US
CDSIN	Digitizer Sample Interval (Acq Monitor Checked)	DS10	
CDTS	C−Delta−T Shale	100	US/F
CDWCO	Digitizer Word Count (Acq Monitor Checked)	500	
CRMOD	Receiver Mode (Acq Monitor Checked)	B	
CSTR	Compressive Strength of Cement	13789.5	KPAA
CVDLM	VDL Firing Mode (Acq Monitor Checked)	UTFR	
CWMOD	Waveform Firing Mode (Acq Monitor Checked)	NONE	
DDE0	Digitizing Delay 0	200	US
DDEL	Digitizing Delay	200	US
DDMG	Downhole Differential Multi−Gain	10	
DETE	Detection	E1	
DSI0	Digitizer Sample Interval 0	10	US
DSIN	Digitizer Sample Interval	DS10	
DTCM	Delta−T Computation Mode	FULL	
DTF	Delta−T Fluid	189	US/F
DTM	Delta−T Matrix	56	US/F
DWC0	Digitizer Word Count 0	500	
DWCO	Digitizer Word Count	500	
FCF	CBL Fluid Compensation Factor	0.47	
GAI	Manual Gain	40	
GOBO	Good Bond	2	MV
ITTS	Integrated Transit Time Source	DT	
MCI	Minimum Cemented Interval for Isolation	1.4478	M
MGAI	Maximum Gain	3500	
MODE	Firing Mode	CBL	
MSA	Minimum Sonic Amplitude	1.05764	MV
NMSG	Near Minimum Sliding Gate	248	US
RATE	Firing Rate	R15	
RMOD	Receiver Mode	B	
SFAF	Sonic Formation Attenuation Factor	0	DB/M

SGAD	Sliding Gate	ON	
SGDT	Sliding Gate Delta−T	50	US/F
SGW	Sliding Gate Width	80	US
SLEV	Signal Level for AGC	5000	MV
SPFS	Sonic Porosity Formula	RAYMER_HUNT	
SPSO	Sonic Porosity Source	DT	
SWW	Sonic Window Width	13	MS
T0CA	T0 Correction	ON	
TSIG	Test Signal	OFF	
VDLG	VDL Manual Gain	5	
VDLM	VDL Firing Mode	UTFR	
WAGC	Waveform AGC	ON	
WGAI	Waveform Manual Gain WGAI	20	
WGDT	Waveform Gain Delta−T	240	US/F
WGIN	Waveform Gain Interval	4800	US
WMOD	Waveform Firing Mode	NONE	
CNT−H: Compensated Neutron − H			
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	CASED	
BHT	Bottom Hole Temperature (used in calculations)	100	DEGC
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	YES	
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	SANDSTONE	
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	15	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	8.500	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
DORL	Depth Offset for Repeat Analysis	0.0	M
MST	Mud Sample Temperature	−50000.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
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	2107.00	M
TDL	Total Depth − Logger	2090.50	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: CBL_Fluid_Compensated_REP Vertical Scale: 1:200 Graphics File Created: 03−Apr−2005 00:02

OP System Version: 11C0−305

MCM

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

Input DLIS Files

DEFAULT	SONIC_CNL_004LUP	FN:3	PRODUCER	02−Apr−2005 21:51	2094.3 M	732.4 M

Output DLIS Files

DEFAULT	SONIC_CNL_006LUP	FN:5	PRODUCER	03−Apr−2005 00:02

MAXIS EXPRESS

Schlumberger

TRAMO SIN CORRECCION DE PROFUNDIDAD

Company: **Well:**

Output DLIS Files

DEFAULT	SONIC_CNL_003LUP	FN:2	PRODUCER	02−Apr−2005 21:42	2091.1 M	2018.2 M

OP System Version: 11C0−305

MCM

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

PIP SUMMARY

Time Mark Every 60 S

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

Transit Time (TT)
400 (US) 200

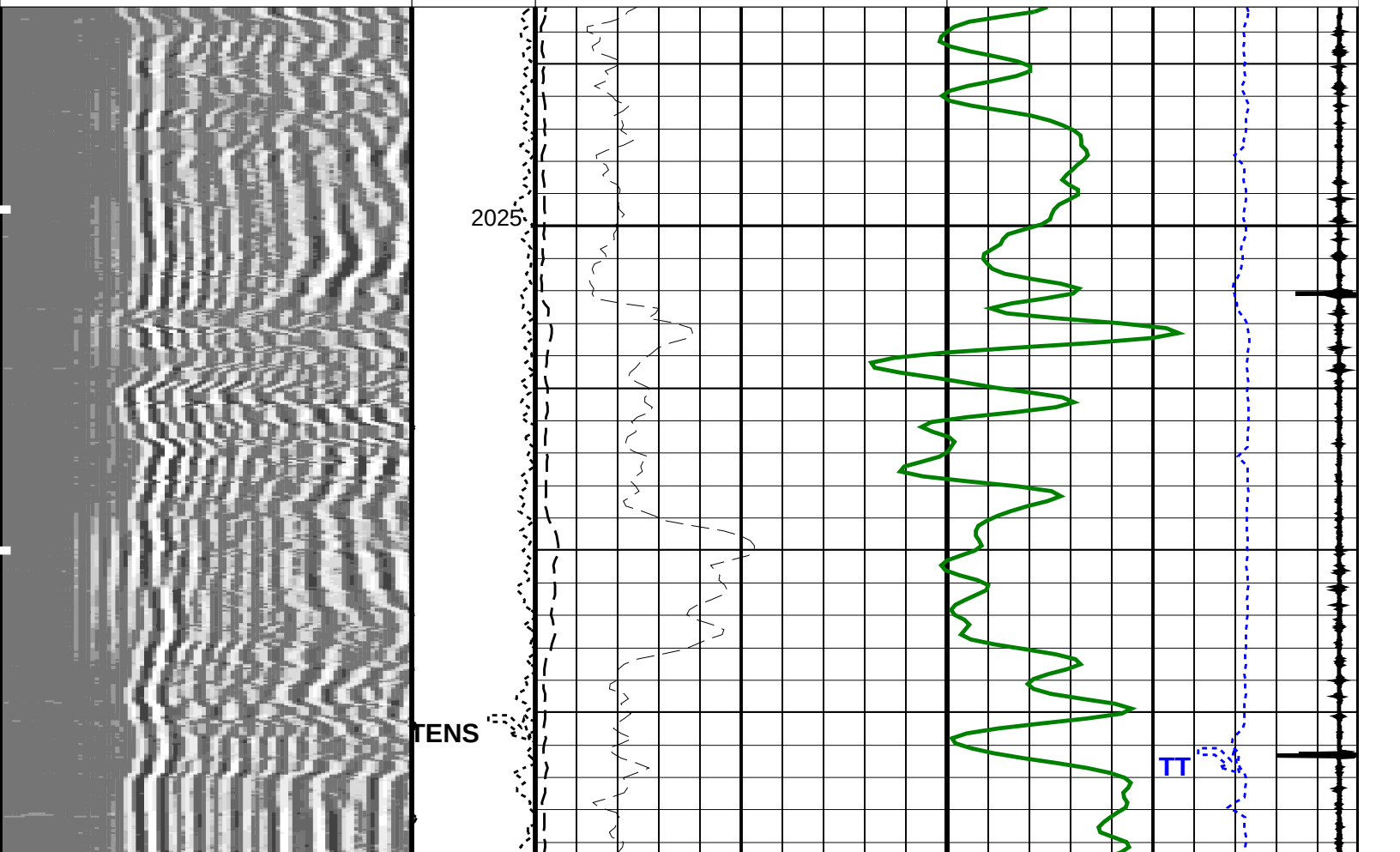
Far Thermal Counts (CFTC)
0 (CPS) 1500

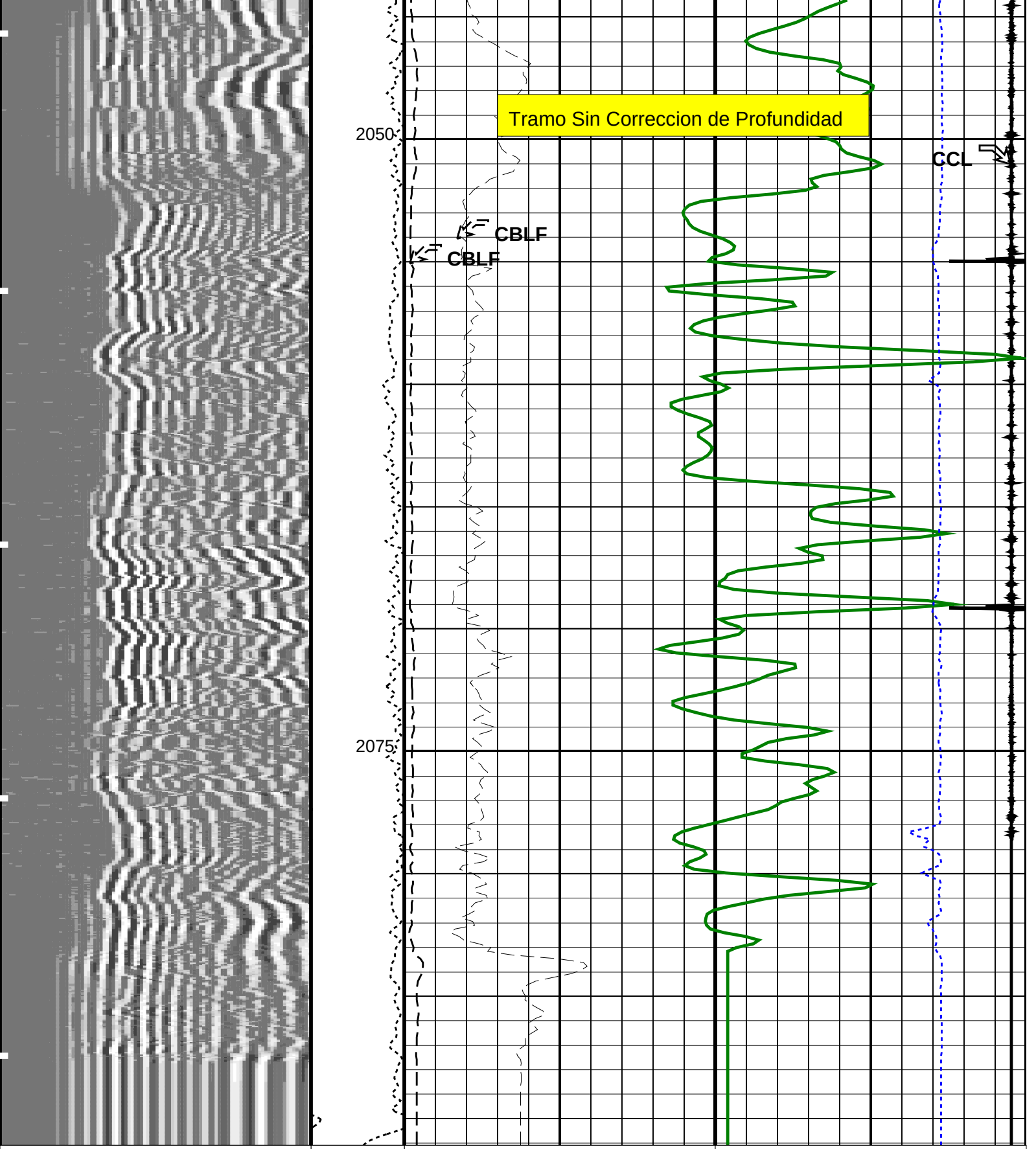
Min Amplitude Max
VDL VariableDensity (VDL)
200 (US) 1200

Tension (TENS) (LBF)
0 1000

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

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





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

Tension (TENS) (LBF)	
0	1000

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

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

Far Thermal Counts (CFTC)		
0	(CPS)	1500

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

Transit Time (TT)		
400	(US)	200

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	SDT−C: Sonic Digital − C		
AGC	Automatic Gain Control	ON	
AMSG	Auxilliary Minimum Sliding Gate	140	US
ASGL	Auxilliary Minimum Sliding Gate Width	100	US
BILI	Bond Index Level for Zone Isolation	0.8	
CBLG	CBL Gate Width	40	US
CDDEL	Digitizing Delay (Acq Monitor Checked)	200	US
CDSIN	Digitizer Sample Interval (Acq Monitor Checked)	DS10	
CDTS	C−Delta−T Shale	100	US/F
CDWCO	Digitizer Word Count (Acq Monitor Checked)	500	
CRMOD	Receiver Mode (Acq Monitor Checked)	B	
CSTR	Compressive Strength of Cement	13789.5	KPAA
CVDLM	VDL Firing Mode (Acq Monitor Checked)	UTFR	
CWMOD	Waveform Firing Mode (Acq Monitor Checked)	NONE	
DDE0	Digitizing Delay 0	200	US
DDEL	Digitizing Delay	200	US
DDMG	Downhole Differential Multi−Gain	10	
DETE	Detection	E1	
DSI0	Digitizer Sample Interval 0	10	US
DSIN	Digitizer Sample Interval	DS10	
DTCM	Delta−T Computation Mode	FULL	
DTF	Delta−T Fluid	189	US/F
DTM	Delta−T Matrix	56	US/F
DWC0	Digitizer Word Count 0	500	
DWCO	Digitizer Word Count	500	
FCF	CBL Fluid Compensation Factor	0.47	
GAI	Manual Gain	40	
GOBO	Good Bond	2	MV
ITTS	Integrated Transit Time Source	DT	
MCI	Minimum Cemented Interval for Isolation	1.4478	M
MGAI	Maximum Gain	3500	
MODE	Firing Mode	CBL	
MSA	Minimum Sonic Amplitude	1.05764	MV
NMSG	Near Minimum Sliding Gate	248	US
RATE	Firing Rate	R15	
RMOD	Receiver Mode	B	
SFAF	Sonic Formation Attenuation Factor	0	DB/M
SGAD	Sliding Gate	ON	
SGDT	Sliding Gate Delta−T	50	US/F
SGW	Sliding Gate Width	80	US
SLEV	Signal Level for AGC	5000	MV
SPFS	Sonic Porosity Formula	RAYMER_HUNT	
SPSO	Sonic Porosity Source	DT	
SWW	Sonic Window Width	13	MS
T0CA	T0 Correction	ON	
TSIG	Test Signal	OFF	
VDLG	VDL Manual Gain	5	
VDLM	VDL Firing Mode	UTFR	
WAGC	Waveform AGC	ON	
WGAI	Waveform Manual Gain WGAI	20	
WGDT	Waveform Gain Delta−T	240	US/F
WGIN	Waveform Gain Interval	4800	US
WMOD	Waveform Firing Mode	NONE	
	CNT−H: Compensated Neutron − H		
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	CASED	
BHT	Bottom Hole Temperature (used in calculations)	100	DEGC
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	YES	
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	SANDSTONE	
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	15	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	8.500	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
MST	Mud Sample Temperature	−50000.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
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	−50000.00	M
TDL	Total Depth − Logger	−50000.00	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: CBL_Fluid_Compensated Vertical Scale: 1:200 Graphics File Created: 02−Apr−2005 21:42

OP System Version: 11C0−305

MCM

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

Output DLIS Files

DEFAULT	SONIC_CNL_003LUP	FN:2	PRODUCER	02−Apr−2005 21:42	

NEUQUEN

MAXIS EXPRESS

Schlumberger

Analisis de Repetibilidad en Tramo sin Correccion

Company: Well:

Input DLIS Files

DEFAULT	SONIC_CNL_003LUP	FN:2	PRODUCER	02−Apr−2005 21:42	2091.1 M	2018.2 M

Output DLIS Files

DEFAULT	SONIC_CNL_004LUP	FN:3	PRODUCER	02−Apr−2005 21:51

OP System Version: 11C0−305

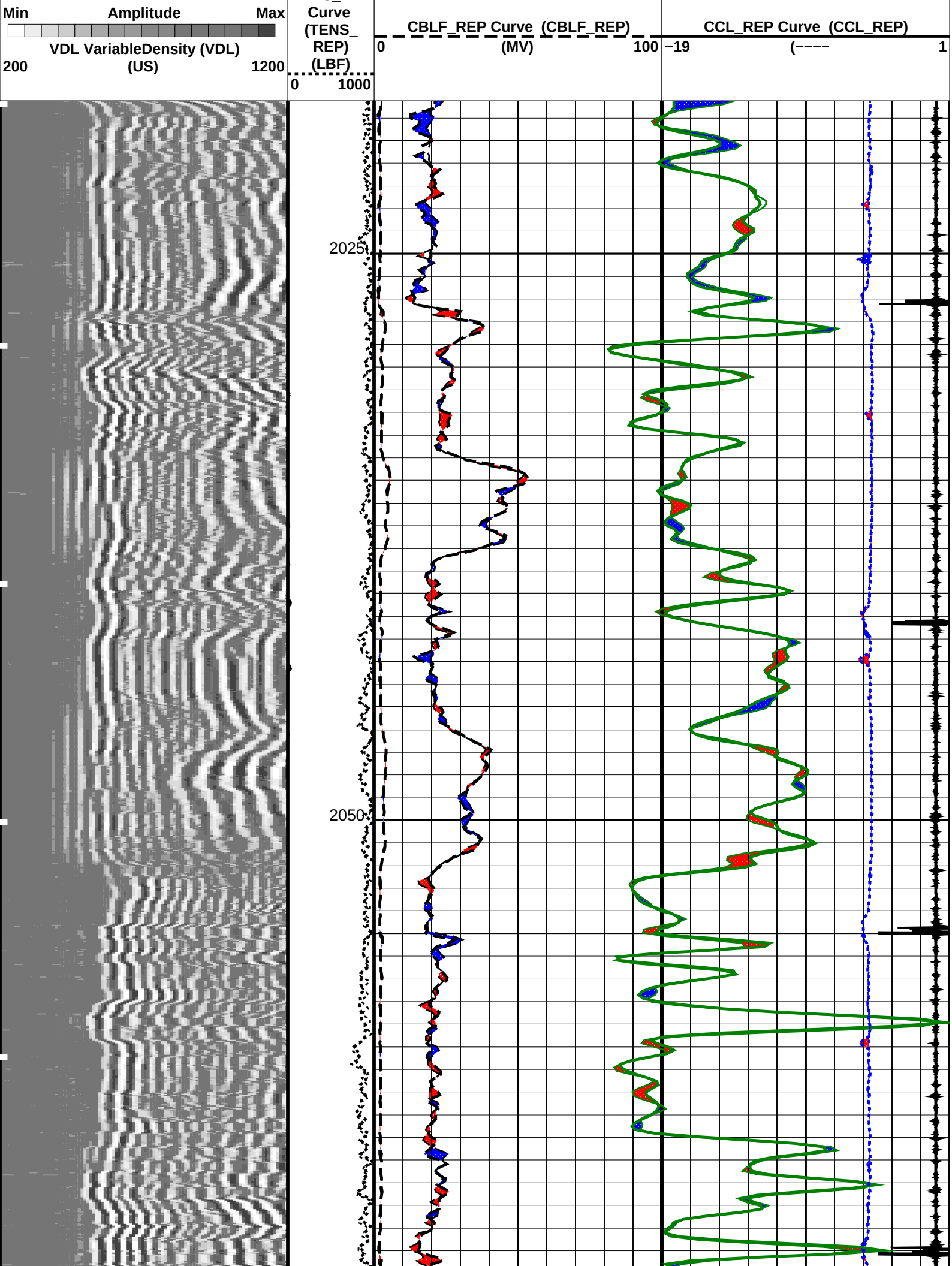
MCM

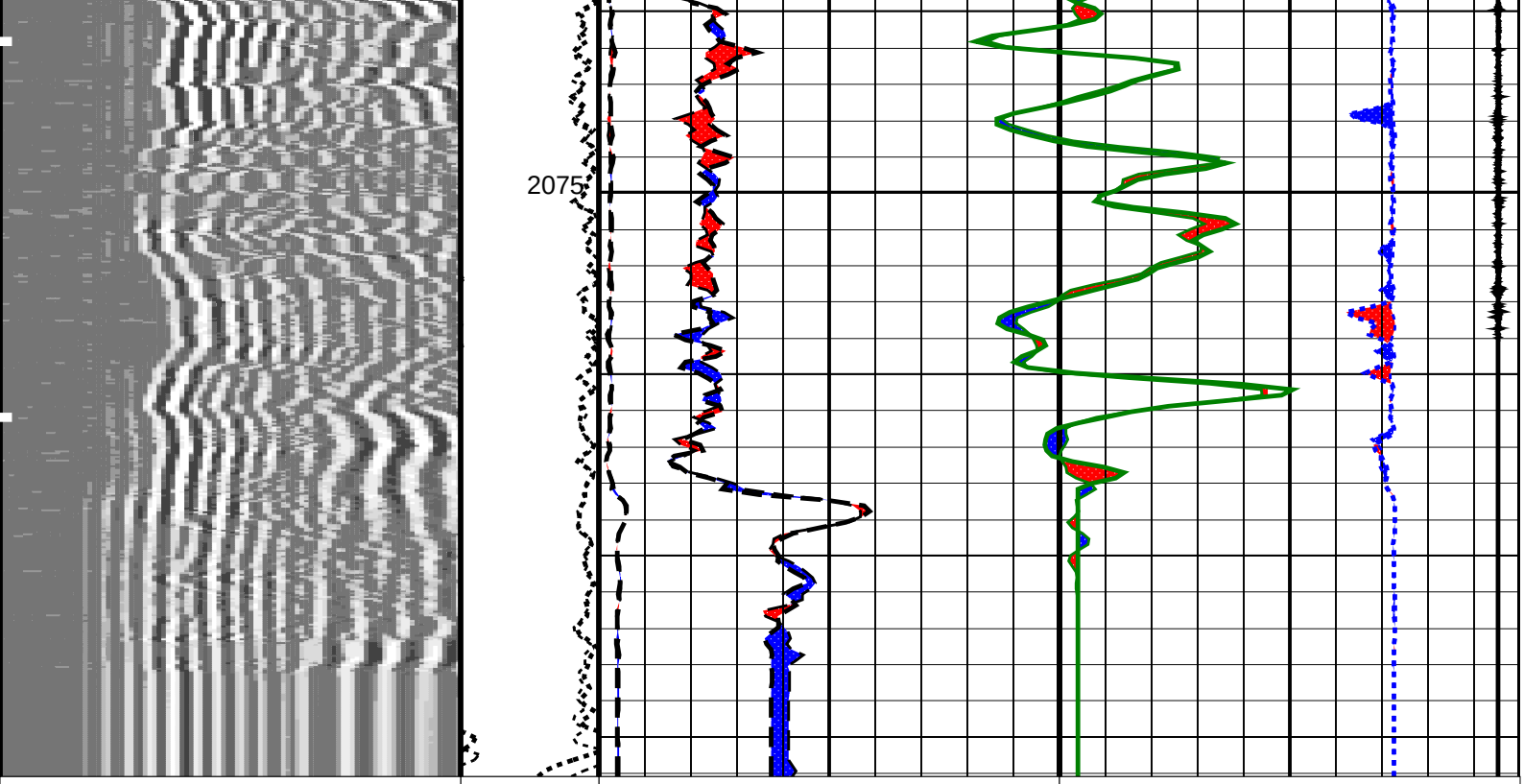
SDT−C	11C0−305	CNT−H	OP11−KP1
TCC−B	OP11−KP1	CAL−Y	11C0−305

PIP SUMMARY

Time Mark Every 60 S

		CFTC_REP Curve (CFTC_REP)	
		0 (CPS) 1500	
		CBLF2_REP Curve (CBLF_REP)	TT_REP Curve (TT_REP)
		0 (MV) 10	400 (US) 200
	TENS_REP		


Min
Amplitude
Max
VDL VariableDensity (VDL)
200
(US)
1200
Curve
(TENS_
REP)
(LBF)
0
1000
CBLF_REP Curve (CBLF_REP)
0
(MV)
100
CCL_REP Curve (CCL_REP)
−19
(----
1
2025
2050



PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	SDT−C: Sonic Digital − C		
AGC	Automatic Gain Control	ON	
AMSG	Auxilliary Minimum Sliding Gate	140	US
ASGL	Auxilliary Minimum Sliding Gate Width	100	US
BILI	Bond Index Level for Zone Isolation	0.8	
CBLG	CBL Gate Width	40	US
CDDEL	Digitizing Delay (Acq Monitor Checked)	200	US
CDSIN	Digitizer Sample Interval (Acq Monitor Checked)	DS10	
CDTS	C−Delta−T Shale	100	US/F
CDWCO	Digitizer Word Count (Acq Monitor Checked)	500	
CRMOD	Receiver Mode (Acq Monitor Checked)	B	
CSTR	Compressive Strength of Cement	13789.5	KPAA
CVDLM	VDL Firing Mode (Acq Monitor Checked)	UTFR	
CWMOD	Waveform Firing Mode (Acq Monitor Checked)	NONE	
DDE0	Digitizing Delay 0	200	US
DDEL	Digitizing Delay	200	US
DDMG	Downhole Differential Multi−Gain	10	
DETE	Detection	E1	
DSI0	Digitizer Sample Interval 0	10	US
DSIN	Digitizer Sample Interval	DS10	
DTCM	Delta−T Computation Mode	FULL	
DTF	Delta−T Fluid	189	US/F
DTM	Delta−T Matrix	56	US/F
DWC0	Digitizer Word Count 0	500	
DWCO	Digitizer Word Count	500	
FCF	CBL Fluid Compensation Factor	0.47	
GAI	Manual Gain	40	
GOBO	Good Bond	2	MV

ITTS	Integrated Transit Time Source	DT	
MCI	Minimum Cemented Interval for Isolation	1.4478	M
MGAI	Maximum Gain	3500	
MODE	Firing Mode	CBL	
MSA	Minimum Sonic Amplitude	1.05764	MV
NMSG	Near Minimum Sliding Gate	248	US
RATE	Firing Rate	R15	
RMOD	Receiver Mode	B	
SFAF	Sonic Formation Attenuation Factor	0	DB/M
SGAD	Sliding Gate	ON	
SGDT	Sliding Gate Delta−T	50	US/F
SGW	Sliding Gate Width	80	US
SLEV	Signal Level for AGC	5000	MV
SPFS	Sonic Porosity Formula	RAYMER_HUNT	
SPSO	Sonic Porosity Source	DT	
SWW	Sonic Window Width	13	MS
T0CA	T0 Correction	ON	
TSIG	Test Signal	OFF	
VDLG	VDL Manual Gain	5	
VDLM	VDL Firing Mode	UTFR	
WAGC	Waveform AGC	ON	
WGAI	Waveform Manual Gain WGAI	20	
WGDT	Waveform Gain Delta−T	240	US/F
WGIN	Waveform Gain Interval	4800	US
WMOD	Waveform Firing Mode	NONE	
CNT−H: Compensated Neutron − H			
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	CASED	
BHT	Bottom Hole Temperature (used in calculations)	100	DEGC
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	YES	
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	SANDSTONE	
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	15	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	8.500	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
DORL	Depth Offset for Repeat Analysis	0.0	M
MST	Mud Sample Temperature	−50000.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
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	−50000.00	M
TDL	Total Depth − Logger	−50000.00	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: CBL_Fluid_Compensated_REP Vertical Scale: 1:200 Graphics File Created: 02−Apr−2005 21:51

OP System Version: 11C0−305

MCM

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

Input DLIS Files

DEFAULT	SONIC_CNL_003LUP	FN:2	PRODUCER	02−Apr−2005 21:42	2091.1 M	2018.2 M

Output DLIS Files

MAXIS EXPRESS

Schlumberger

CALIBRACION

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
Compensated Neutron − H Wellsite Calibration − Zero Measurement							
Master: 31−Mar−2005 11:43 Before: 2−Apr−2005 15:03							
CNTC Background	1.000	0	0.5334	N/A	N/A	N/A	CPS
CFTC Background	0	0	1.598	N/A	N/A	N/A	CPS
Compensated Neutron − H Wellsite Calibration − Jig Measurement							
Master: 31−Mar−2005 11:58 Before: 2−Apr−2005 15:01							
CNTC Jig	2821	2821	2804	N/A	N/A	N/A	CPS
CFTC Jig	1169	1169	1181	N/A	N/A	N/A	CPS
CNTC/CFTC (Jig)	2.412	2.412	2.374	N/A	N/A	N/A	

The CNT Master Calibration Was Done With The Following Parameters :

NCT−B Water Temperature 15.0 DEGC.
Thermal Housing Size 3.375 IN.

Compensated Neutron − H / Equipment Identification

Primary Equipment:		
Compensated Neutron Cartridge	CNC − HA	212
Neutron Logging Source	NLS − KL	
Neutron Source Radioactive	NSR − F	2112
Compensated Neutron Box	CNB − AB	3625
Neutron Detector without Alpha Source	CND − NA	
Compensated Neutron Box	CNB − AB	3625
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
Before		0.5334	Before		1.598
	−0.010000 (Minimum) 1.000 (Nominal) 5.000 (Maximum)			−0.010000 (Minimum) 0 (Nominal) 5.000 (Maximum)	

Master: 31−Mar−2005 11:43 Before: 2−Apr−2005 15:03

Compensated Neutron − H Wellsite Calibration

Jig Measurement

Phase	CNTC Jig CPS	Value
Master		2821
Before		2804
2679 (Minimum)	2821 (Nominal)	2962 (Maximum)

Phase	CFTC Jig CPS	Value
Master		1169
Before		1181
1111 (Minimum)	1169 (Nominal)	1228 (Maximum)

Phase	CNTC/CFTC (Jig)	Value
Master		2.412
Before		2.374
2.372 (Minimum)	2.412 (Nominal)	2.452 (Maximum)

Master: 31−Mar−2005 11:58 Before: 2−Apr−2005 15:01

Compania: **YPF S.A.**

Schlumberger

Pozo: **YPF.Ch.EA−670**
Campo: **EL ALBA**
Provincia: **CHUBUT**
Pais: **ARGENTINA**

CONTROL DE CEMENTO
CBL VDL CNL CCL
1/200

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: EA-670***
Fecha de Extracción: 30/05/05
Fecha de Recepción: 30/05/05
Solicitado Por: REPSOL - YPF SA. ***Sr. Rogerio Marquez***
Objetivo del Análisis: Control de calidad.

PROTOCOLO Nº: 2310-05CR

Fecha Informe: 02/06/05

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

INFORME DE ENSAYO

PETROLEO HIDRATADO

DETERMINACION	NORMA	UNIDAD	VALORES ENCONTRADOS
% AT(%AL+D4007)	**S/N**	% $^{V}/_{V}$	28.0
% Agua Libre	**Procedimiento REPSOL YPF**	% $^{V}/_{V}$	0.0
Impureza Total	**ASTM D-4007 Mod.**	% $^{V}/_{V}$	28.0
Arena y Barro		% $^{V}/_{V}$	0.0
Agua Separada		% $^{V}/_{V}$	12.0
Emulsión		% $^{V}/_{V}$	16.0
Agua Exacta		% $^{V}/_{V}$	28.0
Densidad a 15ºC de petróleo	**ASTM D-5002**	g/cm^3	0.9579
Punto de escurrimiento	**ASTM D-97**	ºC	-4

VISCOSIDAD (**MU**) Y ESFUERZO DE CORTE (**TAU**) x REOMETRO

TEMP.	100 RPM		300 RPM		600 RPM	
	MU (cp)	**TAU** (Pas)	**MU** (cp)	**TAU** (Pas)	**MU** (cp)	**TAU** (Pas)
30ºC	3825	509	3811	1411	3778	2685
40ºC	2681	385	2671	954	2648	1806
50ºC	1879	243	1872	644	1856	1215

PETROLEO DESHIDRATADO

DETERMINACION	NORMA	UNIDAD	VALORES ENCONTRADOS
% de parafina	**UOP-86**	% $^{P}/_{p}$	7.9
% de Asfalteno	**SPE 23810**	% $^{P}/_{p}$	4.5

Analista: AG

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

LABORATORIO CAÑADON SECO

Epsilon S.R.L. Cañadon Seco (C.P. 9013)Tel/Fax 0297-4850216

Procedente de	Pozo EA-670	**Zona:**	M. Behr	**Protocolo Nº:**	01443-05CS
Solicitado por:	Ruth Kirn	**Pozo:**		**Fecha de Extracción:**	06/04/2005
Extraido por:	Terceros	**Bateria:**		**Fecha de Recepción:**	11/04/2005
Capa:				**Fecha de Análisis:**	11/04/2005

Análisis de Cromatografía Gaseosa Extendida

COMPONENTES	*% MOLAR*
N2	7,07
O2	2,05
CO2	3,00
CH4	84,70
C2H6	2,19
C3H8	0,27
iC4H10	0,21
nC4H10	0,11
iC5H12	0,06
nC5H12	0,07
C6H14	0,10
nC7H16	0,09
nC8H18	0,06
nC9H20	0,02
Total	100

Propiedades Físicas	
PM (Kg/Kmol)	18,873
Vm (m3/Kmol)	23,650
Densidad (abs)	0,798
Densidad (rel)	0,652
PCs (Kcal/m3)	8309,192
PCi (Kcal/m3)	7491,347
Compresib Z	0,997
ºT Critica (ºK)	190,441
Presion Critica (Atm)	44,766

Observaciones	Zona 961,5/63,5 mts Eq PI-222-Protocolo Nº 1439-05CR

Analista: Gomez Marcelo Javie

Por Lab. Epsilon S.R.L.

Los resultados consignados fueron obtenidos dentro de un sistema de calidad y son representativos de la muestra analizada

LABORATORIO CAÑADON SECO

Epsilon S.R.L. Cañadon Seco (C.P. 9013)Tel/Fax 0297-4850216

Procedente de	Pozo EA-670	Zona:	M. Behr	Protocolo Nº:	01443-05CS
Solicitado por:	Ruth Kirn	Pozo:		Fecha de Extracción:	06/04/2005
Extraido por:	Terceros	Bateria:		Fecha de Recepción:	11/04/2005
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Analista: Gomez Marcelo Javie

Por Lab. Epsilon S.R.L.

Los resultados consignados fueron obtenidos dentro de un sistema de calidad y son representativos de la muestra analizada

A: Aguilera
DE:Vahnovan

DISTRITO. M. BEHR / R. ALI

POZO: EA-670
ZONA: ALBA 2

FECHA: 30/03/2005
CUENTA:
EQUIPO:

PROGRAMA:

DISEÑO:

CAÑOS

1	**BAR COLLAR 2.7/8**	**1970**
1	**TBG FILTRO**	
1	**BHD**	**1960,35**
207	**TUBING LISO 2.7/8"**	

B/B

BBA 25-175-RHBC 24 4´ DE BOLLAND

14 B/B 1.1/2"	Grado D Nuevas
92 'B/B 3/4"	Grado D Nuevas
80 'B/B 7/8"	Grado D Nuevas
± 72 B/B 1"	Grado D Nuevas
TROZOS 1"	Grado D Nuevas

VASTAGO CROMADO 1 1/2" x 22´

Transportar: Dispositivo Leutert, Espaciadores, Valvula de 2" y niple de 2" sch 80 Tee prensa, Rattigan de 2.7/8", Cupla de vastago, valvula de 1" con niple, cruceta

AIB SIAM M-640-305-144 en locación VH-82

CARRERA 144
REGIMEN 6 GPM

INSTALACIÓN ELÉCTRICA

MOTOR **100 HP**

Bba 25-175 valvulas VM=VF=Ctitanio piston 4' c/ 10 anillos luz 0.07 Con dispositivo para Gas Mecánico; Sello arena

EA.a−660

TRC 325 310 300 290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 93 TRC
CDP 325 300 250 200 150 100 93 CDP

EA−6[illegible]

0.416
0.500
0.750
1.000
1.250
1.500
1.750
1.976

CII
oil+agua
CIII
oil+gas
CIV
oil
oil+gas
PF

F

mana3d
mig2
ILN797
Time

Schlumberger

RESUMEN DE LA OPERACION

MAXIS Field Log

Client: YPF S. A.
Field: EL ALBA
Well: EA-609
Run date: 2-Nov-2008

Tool: XPT-BA
Probe Type: Conventional probe
Gauge: CP_SAP
Gauge Resolution: 0.010 psi

Test	File	Depth M	TVD M	Drawdown Mobility MD/CP	Mud Pressure Before PSIA	Mud Pressure After PSIA	Last read build-up Pres PSIA	Formation Pressure PSIA	Test Type
2	39	1000.01	1000.01		1727.70	1712.96	140.35	140.35	Dry Test
3	40	999.70	999.70		1712.34	1713.15	131.27	131.27	Dry Test
4	41	1036.01	1036.01		1785.57	1769.94		982.97	Lost Seal
5	42	1035.91	1035.91		1772.06	1772.05		432.77	Lost Seal
6	43	1075.50	1075.50		1857.17	1844.83	135.62	135.62	Dry Test
8	49	1408.49	1408.49	3.99	2406.23	2394.75	1176.99	1176.99	Volumetric Limited draw-down
11	50	1509.00	1509.00	6.26	2624.14	2592.14	1302.33	1302.33	Volumetric Limited draw-down
12	51	1540.30	1540.30		2668.52	2645.35		765.76	Lost Seal
14	52	1540.60	1540.60		2647.18	2632.66	133.45	133.45	Dry Test
15	53	1550.50	1550.50		2668.37	2647.15	85.55	85.55	Dry Test
16	54	1557.00	1557.00	0.20	2677.87	2646.74	1546.14	1546.14	Volumetric Limited draw-down
17	55	1573.50	1573.50		2718.78	2676.01	148.38	148.38	Dry Test
18	56	1573.00	1573.00		2680.59	2669.34	114.89	114.89	Dry Test
-1	58	1587.50	1587.50		2726.72	2715.41			Lost Seal
22	59	1658.99	1658.99	16.31	2886.49	2852.95	1355.91	1355.91	Volumetric Limited draw-down
25	60	1595.80	1595.80	6.82	2718.33	2717.04	1475.45	1475.45	Volumetric Limited draw-down
27	61	1640.50	1640.50	2.73	2819.65	2809.92	1565.24	1565.24	Volumetric Limited draw-down
29	63	1672.00	1672.00		2886.08	2863.95		1727.92	Lost Seal
31	67	1765.01	1765.01	0.73	3056.43	3033.38	1760.12	1760.12	Volumetric Limited draw-down

EQUIPO: A DESIGNAR

YPF

REPARACION DE PRIMARIA

POZO:EA-670

PEP:

ESQUEMA DE POZO

OBJETIVO: Abrir Capas nuevas/Evaluar estado actual de producción

ESTADO: En Producción

CASING: 5 1/2"
14 #

9-5/8"

391,39

CAUDAL	FLUIDO	NIVEL	I-T

961,5/63,5

Gas seco p/ 50mm PD: 7Kg/cm2 ;
p/25mm PD: 9 Kg/cm2 ; p/13mm 12Kg/cm2
PE: 19 Kgcm2 Est. en 15`

Ctó

1048/50	1600	Pet.	855	12
1118/20	300	Pet.	998	6
1147,0/49,0 1152,0/54,0 1158,0/60,0 (E)	Aporta gas c/Pet. Muy viscoso no se puede pistonear, por semi surgencia, y ahogarse			
1182/85	400	Ag S/R	1040	
1212,5/15,0	S/E			
1535,0/37,0 1559,0/61,5 (D)				
1627/29,5	250	Pet. Visc.	1520	6
1719,0/22,0 1725,5/27,5 (C)	380	Petróleo	1582	20
1784,5/86,5	1000	Pet. Viscoso	1610	7
1913,5/14,5 (B)	350	Agua S/R	1785	
1947/50	1600	Pet. Viscoso	1750	69
1961,0/62,5 1973,0/75,0 (A)				
2040,00	Tapón "N" con D. Bayler			
2048/52	2400	Agua S/R	1850	

Collar: 2095,66

Zapato: 2103,48

P. Final: 2110,20

Programa Operativo

A. Montar Equipo de RTP de acuerdo a procedimientos.

Ultimo Control: ########

Neta: 4,40

Bruta: 8,00

%Agua: 50,00 #

1° Montar Equipo RTP según procedimientos

Calibrar hasta 2040 mbbp(tapon)

2° Si existe buena aislación, punzar las siguientes capas 4TPP; 0-90°; 32 grs

Capas	Carga	Fase	Profundidad Neutrón
1973,0/75,0	32gr.	0°-90°	
1961,0/62,5	32gr.	0°-90°	
1719,0/22,0	32gr.	0°-90°	
1559,0/61,5	32gr.	0°-90°	
1535,0/37,0	32gr.	0°-90°	
1158,0/60,0	22gr.	0°-90°	
1152,0/54,0	32gr.	0°-90°	
1147,0/49,0	32gr.	0°-90°	

3° Ensayar hasta estabilizar nivel, caudal y análisis, según esquema A) hasta E)

4° Si resultase SE probar admidión y reensayar.

5° En caso de extraer hidrocarburo tomar muestras para análisis y enviar a Epsilon.

6° En caso de ser gas medir presiones, tomar muestra y medir caudal.

7° De acuerdo a los resultados consultar pasos a seguir.

Prever estimulación con Gas-Oil a capas:

1147,0/49,0

1152,0/54,0

1158,0/60,0

8° Bajar Instalación de Producción

Petrofísica	
SW	Pronostico
50	Pet
68	Agua c/R
66	Agua c/R o S/E
58	Pet+Agua
68	Agua c/R
50	Pet
45	Pet
58	Pet

NOTA: CAPAS CON PORCENTAJES DE AGUA MAYORES A 50%:

CONSULTAR ANTES DE DAR POR FINALIZADO ENSAYO

EN CAPAS QUE APORTEN UN CAUDAL IMPORTANTE

(Mayor de 500l/h) DE AGUA Y/O HIDROCARBUROS, TOMAR

UNA MUESTRA Y ENVIARLA A EPSILON PARA EFECTUARLE UN

UN ANALISIS COMPLETO Y RESISTIVIDAD.

Prep: Genini/Cameselle

Geología Mbehr

DATOS A LLENAR						
			CARGAR DATOS			
		POZO	**EA-670**			
		BATERIA	Myburg			
		EQUIPO	KEY-08			
		FECHA	20/11/2009			
		RUBRO	Aumentar Producción			
	COSTO OBJETIVO		124.669,00			
NOMBRE DEL PROYECTO			Reparaciones de Primaria 2009			
		N°DE GRAFO				
		PEP	RS1EC.10Y4.58.R0006			
		ZONA	Myburg			
	FLUIDO DE TRABAJO		AGUA DULCE CON MARCAT 0,1% (MARBAR)			
FINALIZO PERFORACION			29 de marzo de 2005			
ULTIMA INTERVENCION			28 de agosto de 2009			
COORDENADAS						
		X	4.949.430,15			
		Y	2.582.170,82			
		Z	650,00			
COMPAÑIAS DE SERVICIO						
		TORRE	KEY ENERGY SERVICES			
		CEMENTACION	SAI			
		ESTIMULACION	SLB			
	MOTOR DE FONDO		CHRISTENSEN			
		COILED TUBING	-			
		CABLE	GEOLOG			
PARA PUNZAR						
		CAÑÓN Ø	Cañón Ø 4"	**4" ó 5"**		
		TIROS POR PIE	4 TxP 32 Grs	**4**		
CASING				**Ejemplos**		
EN BOCA DE POZO Ø Y mts.			**5 1/2"**	**7" a 23**		
	DIAMETRO Y LIBRAJE		**5 1/2" 14-15,5-17#**	**5-1/2" 15,5**		
5 1/2"	12,42	**15,5**	2.095,16			
6 5/8"	18,54	**0,0**				
7"	20,60	**0,0**				
9 5/8"	39,40	**15,4**	390,99			
Total de m³+5			**NO TOCAR "PARA USO DEL BACTERICIDA"**			**107,83**
	COLLAR DIFERENCIAL		2.095,16			
		ZAPATO	2.103,18			
	PROFUNDIDAD FINAL		2110,2			
INSTALACION FINAL						
		DEL POZO	Adjunta en "Instalación"			
MATERIAL DE BOMBEO						
		DEL POZO	Adjunta en "Instalación"			
HERRAMIENTA A BAJAR						
COLOCAR TIPO DE HTA.Y Ø			Fresa 120 mm			
	CALIBRAR HASTA		2040			
HERMETICIDAD DEL CSG DESDE						

ZONA M. BEHR 20/11/2009

YPF

UNIDAD DE NEGOCIOS ARGENTINA SUR
UNIDAD ECONOMICA CHUBUT - CAÑADON SECO
AREA MANANTIALES BEHR

PROGRAMA OPERATIVO del POZO : **EA-670**

SUBREGION : CH **ZONA :** Myburg **BAT:** Myburg

RUBRO:
PROYECTO: Reparaciones de Primaria 2009
COSTO OBJETIVO: U$S 124.669
COSTO ESTIMADO: U$S 94.893
DIAS ESTIMADOS: 8,3

FLUIDO DE REPARACION: AGUA DULCE CON MARCAT 0,1% (MARBAR)

EQUIPO : KEY-08 **CANTIDAD:** 30,9 m³

PEP RS1EC.10Y4.58.R0006

COMPAÑIAS ASIGNADAS:

CABLE: **GEOLOG**
TORRE: **KEY ENERGY SERVICES**
CEMENTACION: **SAI**
ESTIMULACION: **SLB**
MOTOR DE FONDO: **CHRISTENSEN**
COILED TUBING: **-**

FINALIZO PERFORACION : **29 de marzo de 2005**

ULTIMA INTERVENCION: **28 de agosto de 2009**

OBSERVACIONES:

COORDENADAS:
X: 4.949.430,15
Y: 2.582.170,82

COTA: **Z: 650,00**

Altura mesa Rotary: 3,5 m
Elevación mesa Rotary: - m

M. BEHR 20/11/2009

RESERVA N°:

PEP RS1EC.10Y4.58.R0006

UNIDAD ECONOMICA CHUBUT-CDON. SECO X: 4.949.430,15 Z: 650,00

DISTRITO ZONA CENTRAL Y: 2.582.170,82

PROGRAMA OPERATIVO : Reparaciones de Primaria 2009

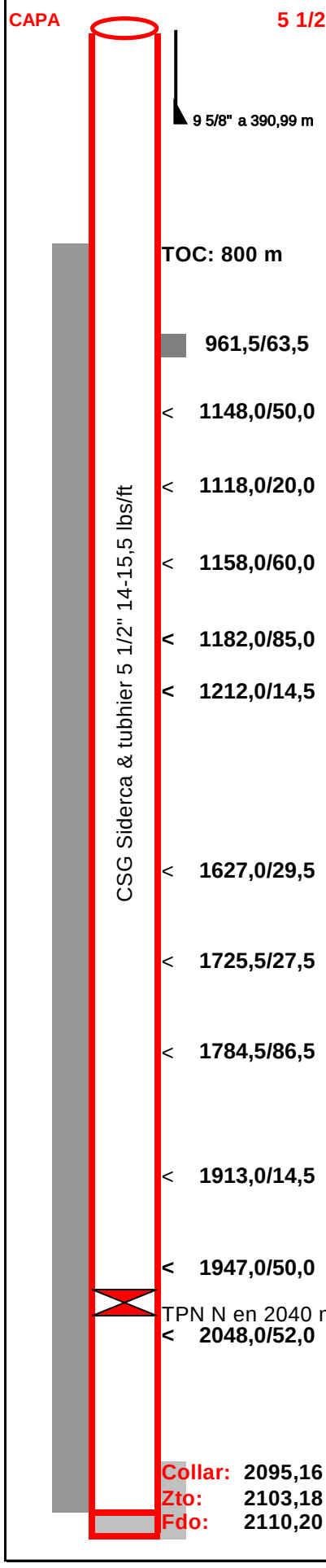
POZO : EA-670 **ZONA :** Myburg **SUBREGION :** CH **BAT:** Myburg

FLUIDO DE REPARACION: AGUA DULCE CON MARCAT 0,1% (MARBAR) **CANTIDAD:** 30,9 m³

INSTALACION FINAL: Adjunta en "Instalación"

INSTALACION BBEO: Adjunta en "Instalación"

EQUIPO: KEY-08 **COMPAÑIA WIRE LINE:** GEOLOG



PROGRAMA OPERATIVO

Nota: ***Referente MARBAR - Raúl Campoy 154-046003 - MARCAT (1 Lts x m3)***

Tope de cemento: 800 **m** . Fondo WL: 2090,5 **m**. **Buen cemento** en la zona registrada.

1º) Montar Equipo y realizar check list.
Antes de montar controlar presiones estaticas de directa e inversa.

2º) Retirar instalación existente especificada en solapa "Instalación"
Sacar varillas desarmando y revisando el estado
Sacar TBG. Si los mismos estan en buen estado, consultar reemplazo. Si no se reemplazan sacar a la torre. Caso contrario sacar desarmando.

3º) Bajar cañería y calibrar con fresa Ø 120 mm hasta 2040 m.
Circular una capacidad de CSG.

4º) Punzar con cañón 4" 0-90° 32gr previa correlación con neutrón las siguientes capas:

	Capa	Carga	TPP	Fase	Esp (m)
Punzar	1973,0/75,0	32 gr	4	0-90º	2
Punzar	1961,0/62,5	32 gr	4	0-90º	1,5
Punzar	1719,0/22,0	32 gr	4	0-90º	3
Punzar	1559,0/61,5	32 gr	4	0-90º	2,5
Punzar	1535,0/37,0	32 gr	4	0-90º	2
Repunzar	1158,0/60,0	22 gr	2	0-90º	2
Punzar	1152,0/54,0	32 gr	4	0-90º	2
Punzar	1147,0/49,0	32 gr	4	0-90º	2

5º) Bajar TPN y PKR, y ensayar por pistoneo las capas de la siguiente manera **A)**, **B)**, **C), D)** y **E)** como se indica en la solapa "Esquema"
En capas que resulten SE, probar admisión y luego reensayar.
En caso de ser gas medir presiones y tomar muestra.
En caso de extraer hidrocarburo tomar muestra para análisis y enviar a Epsilon.

6º) Bajar instalación final, a definir por Ing de producción
Guardia de Ing Manantiales Behr: 155934862.

7º) Desmontar equipo completo.

Nota: Preever cementación.

Referencias		
Ingeniero del pozo	Gialleonardo, Lucas	155940281
Geologo del pozo	Baigorria, Gabriel	154776148
Ing de producción	Donascimiento, Fernando	155934862

ADJUNTAR AL BALANCE DEL POZO EL BALANCE DE MATERIALES CON SUS RESP. FIRMAS.
COMPLETAR DIARIAMENTE LA PLANILLA DE BALANCE DE AGUA ENTREGADA POR EL COMPANY MAN.
REGISTRARLA EN EL ULTIMO PARTE DEL DAILY DRILLING LA ADMISIÓN TOTAL

NO REALIZAR RESERVAS DE SOLICITUD NI DEVOLUCIÓN DE MATERIALES
Solicitar las necesidades de materiales al geólogo operativo de turno
con copia a Claudio Gordillo

RECOMENDACIONES:

AL FINALIZAR EL POZO DEBERÁN PRESENTAR EL ESQUEMA DE LA INSTALACIÓN FINAL (SKETCHIT) SIENDO REQUISITO PARA CERTIFICAR, LA NO PRESENTACIÓN DEL MISMO SE TENDRÁ EN CUENTA PARA LA EVALUACIÓN CORRESPONDIENTE.-

CUANDO OCURRA CUALQUIER TIPO DE ACCIDENTE SE DEBE COMUNICAE EN FORMA INMEDIATA (Telefónicamente) AL JEFE DE DISTRITO, DONDE OCURRA EL MISMO.

**DURANTE LA ETAPA DE TRANSPORTE DEL EQUIPO PROCEDER:
EN CASO DE EXISTIR LINEAS ELECTRICAS EN EL RECORRIDO CUALQUIERA SEA LA ALTURA DE LAS MISMAS DAR AVISO AL SECTOR ENERGIA DE REPSOL-YPF POR INTERMEDIO DE COORDINACION DE PRODUCCION TELEF: 346000**

QUEDA TERMINANTEMENTE PROHIBIDO EL USO DE LLAVES STILSON PARA REALIZAR AJUSTES DE ENROSQUES Y DESENROSQUES DE TUBULARES EN BOCA DE POZO LOS MISMOS SE HARAN CON LLAVES DE POTENCIA.-

SE LES RECUERDA QUE TODA PAG (SIMPLE O DOBLE) USADA O NUEVA DEBERA CONTAR CON NIPLES DE ALTA PRESION - ESPESOR ENTRE 8 y 9 mm CON ROSCA Ø 2" LP DE'11,5 FILETES POR PULG. DE NO CONTAR CON ESTOS ELEMENTOS NO ARMAR LAS MISMAS.-

NOTA : TOMAR PRECAUCIONES PARA EVITAR DERRAMES DE FLUIDOS. AVISAR URGENTE A LA INSPECCION. ADEMAS SE INDICA QUE SE DEBE COMUNICAR A LA MAYOR BREVEDAD POSIBLE TODAS LAS NOVEDADES QUE REVISTAN EL CARACTER DE ACCIDENTES DE PERSONAL.-

ORDEN : DE TODOS LOS ENSAYOS CON INSTALACION FINAL SE DEBERA TOMAR UNA MUESTRA, DE LA ULTIMA HORA DE ENSAYO, DE TRES LITROS Y ENVIARLA DEBIDAMENTE IDENTIFICADA AL LABORATORIO EPSILON Km3, A EFECTOS DE REALIZAR EL ENSAYO DE VISCOSIDAD A TRES TEMPERATURAS, PUNTO DE ESCURRIMIENTO Y TENOR PARAFINICO.-

TRANSCRIPCION DE: **MEMORANDUM**

A: COMPAÑIAS DE SERVICIOS
DE: JEFE DE AREA DE OPERACIONES DE PRODUCCION REG. CDRO. RVDA.

SE RECUERDA A ESA COMPAÑIA QUE EN VIRTUD DE LO DISPUESTO POR LAS RESOLUCIONES S.E Nª 105/92 Y 252/93 QUEDA EXPRESAMENTE PROHIBIDO DESCARGAR CRUDO O DERIVADOS DE DE HIDROCARBUROS A LAS PILETAS NATURALES DE LOS POZOS. CUANDO UNA EMERGENCIA OPERATIVA GENERE LA CONTAMINACION DE UNA PILETA, ESA COMPAÑIA DEBERA SUBSANAR EL PROBLEMA A LA BREVEDAD.-

LA NO OBSERVANCIA DE ESTAS NORMAS,GENERARA LA INTERVENCION DE YPF S.A. PARA REPARAR LA CONTAMINACION CON CARGO ESA CIA. Y LA APLICACION DE LAS MULTAS CORRESPONDIENTES.-

RESPONSABLE

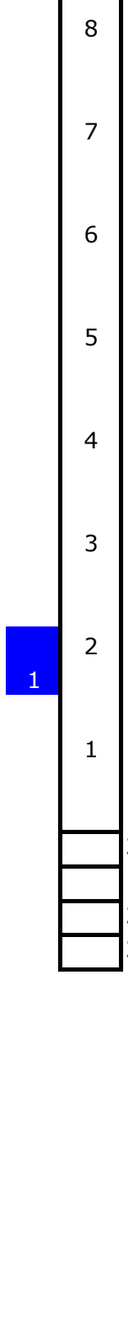
Ingeniería de Perforación y Workover de pozos

Unidad de Negocios Argentina Sur

TERMINACION / REPARACIÓN DE POZOS

Gerencia: Manantiales Behr | **Tipo de intervención** Repa. Prim. | **POZO** EA-670

ESQUEMA



Venver

PROGNOSIS DE Repa. Prim.	
Cementar patagoniano	no
Reparar Casing	no
Recuperar pesca	no
Rotar tapón	no
Reentubado	no
Csg suplementario	no
Profundidad pozo	2110 m
CBL - VDL metros a registrar	0 m
Intervalos punzados	8
Metros Punzados	17 m
Etapas de punzado	1
Cantidad de Ensayos	5
Horas de ensayo por intervalo	8 Hs
Cantidad de Cementaciones Normales	1
Cantidad de Cementaciones Correctivas	0
Cantidad de Estim. Matriciales	0
Horas de cierre acuohumectante	0 Hs
Horas Ensayo Estimulación Matricial	0 Hs
Cantidad de Fracturas	0
Control de arena	no
Gravel pack	no
Hs. De Fragüe arena recinada	0 Hs
Horas ensayo de fractura	0 Hs
Ensayo TST	0
Muestra PVT	0

PROGRAMA DE Repa. Prim.	
DTM y Montar equipo	18,0 hs
Acondicionar el Pozo	30,4 hs
Perfilar a pozo entubado	0,0 hs
Cemento normal	44,0 hs
Cemento correctivo	0,0 hs
Punzar formación	9,1 hs
Estimular	0,0 hs
Fracturar	0,0 hs
Controlar Arena	0,0 hs
Ensayar	63,4 hs
Bajar instalación final	20,5 hs
NPT	13,0 hs

RESUMEN DEL PRESUPUESTO	
TIEMPO DE TERMINACIÓN	**8,3 días**
COSTO DE TERMINACIÓN	**$ 94.893**
TIEMPO DRILLING ABC	**12,8 días**
COSTO DRILLING ABC	**$ 124.669**

COSTO DE LAS ETAPAS		
DTM y Montar equipo	$	9.475
Acondicionar el Pozo	$	8.808
Perfilar pozo	$	-
Cemento normal	$	5.000
Cemento correctivo	$	-
Punzar formación	$	11.540
Estimular	$	-
Fracturar	$	-
Controlar Arena	$	-
Ensayar	$	19.378
Bajar instalación final	$	5.947
NPT	$	2.830
Transp. Cargas	$	9.467
Cargas sociales	$	3.664
Inspección	$	1.653
Trailer y piletas	$	788

DESGLOSE DE COSTOS DE Repa. Prim.				
DTM y Montar equipo	18,0 hs	0,8 días	$	9.475
Acondicionar el Pozo	30,4 hs	1,3 días	$	8.808
Perfilar a pozo	0,0 hs	0,0 días	$	-
Cemento normal	44,0 hs	1,8 días	$	12.742
Cemento correctivo	0,0 hs	0,0 días	$	-
Punzar formación	9,1 hs	0,4 días	$	2.374
Estimular	0,0 hs	0,0 días	$	-
Fracturar	0,0 hs	0,0 días	$	-
Controlar Arena	0,0 hs	0,0 días	$	-
Ensayos individuales	63,4 hs	2,6 días	$	18.378
Ensayar fractura / estimulación	0,0 hs	0,0 días	$	-
Ensayo TST	0,0 hs	0,0 días	$	-
Tomar Muestra PVT	0,0 hs	0,0 días	$	-
Bajar instalación final	20,5 hs	0,9 días	$	5.947
Espera condiciones necesarias	13,0 hs	0,5 días	$	2.830
Remunerativos SUMEX+PEET	198,4 hs	8,3 días	$	3.664
COSTO DE EQUIPO DE TORRE		**8,3 días**	**$**	**64.218**
Camión chupa [usd/día]	1.200	1,0 días	$	1.200
Supervisor advisor [usd/mes]	0	8,3 días	$	-
Insp. Terminación [usd/mes]	6000	8,3 días	$	1.653
Pick UP 4x4 [usd/mes]	0	8,3 días	$	-
Transporte cargas sólidas [usd/mes]	15000	8,3 días	$	4.134
Transporte cargas Líquidas [usd/mes]	15000	8,3 días	$	4.134
Perfilar pozo	5,0		$	-
Cementar	5.000		$	5.000
Punzar formación	9.166	1	$	9.166
Fracturar	25.000	1	$	-
Controlar Arena	0	1	$	-
Fluido de Terminación	1.000	1	$	1.000
Estimular	10.000	0	$	-
Fresa	600	1	$	600
Alquiler de Motor de Fondo	3.000	1	$	3.000
Adicional alquiler de trailer	3939	8,3 días	$	543
Scio pileta ecológica	30	8,3 días	$	245
COSTO DE SERVICIOS			**$**	**30.675**
COSTO DE LA Repa. Prim.			**$**	**94.893**

TARIFARIO DE EQUIPO	
Hora Operativa normal	290
Hs. Stand by con personal	261
Hs. Stand by sin personal	87
Hs. Stand by con personal Clima/mantenim	218
Desmontaje Trasnporte y Montaje	9475
3a. Esceso de transporte (Km)	42
Tprte de pileta ecológica	174
Servicio de alquiler de trailer	3939
Servicio de pileta ecológica	24
Pago Mensual PEET	4585
Pago Mensual SUMEX	8712
Equipo de referencia	Venver

Tipo de Cambio U$s/$ 0,26315

Clase	Código	SubCod	Descripción	Monto en U$S	Monto en $	1
Ter	I EQ	100	TTE. Y MONTAJE DE EQUIPO	2287	27314	9474,7
Ter	I EQ	120	HS. OPERATIVA NORMAL	11084	132211	45874,9
Ter	I EQ	130	HS. STAND BY C/PERSONAL	573	6843	2374,1
Ter	I EQ	141	PARADO P/FACTOR CLIMATICO	688	8139	2829,7
Ter	I EQ	150	TTE. CARGAS LIQUIDAS	0	20269	5333,7
Ter	I EQ	165	TTE. CARGAS SÓLIDAS (GLOBAL)	0	15708	4133,7
Ter	I LG	110	SUPERVISIÓN	0	6283	1653,5
Ter	I LG	130	ALOJAMIENTO INSPECCION	131	1565	542,8
Ter	I SV	190	CEMENTO SERVICIO	3500	0	3500,0
Ter	I SV	200	CEMENTO MATERIALES	1500	0	1500,0
Ter	I MH	200	ADITIVOS VARIOS	1000	**0**	1000,0
Ter	I SV	230	PUNZADO SERVICIO	9166,33476	0	9166,3
Ter	I SV	305	PILETA ECOLOGICA	59	708	245,1
Ter	I SV	310	MOTOR DE FONDO ALQUILER	3000	0	3000,0
Ter	I SV	350	ALQUILER FRESAS	600	0	600,0
Ter	I SV	400	SERVICIOS VARIOS	3664	**0**	3664,4
			Totales	37252	219040	1
			Total en U$s	94.893		1

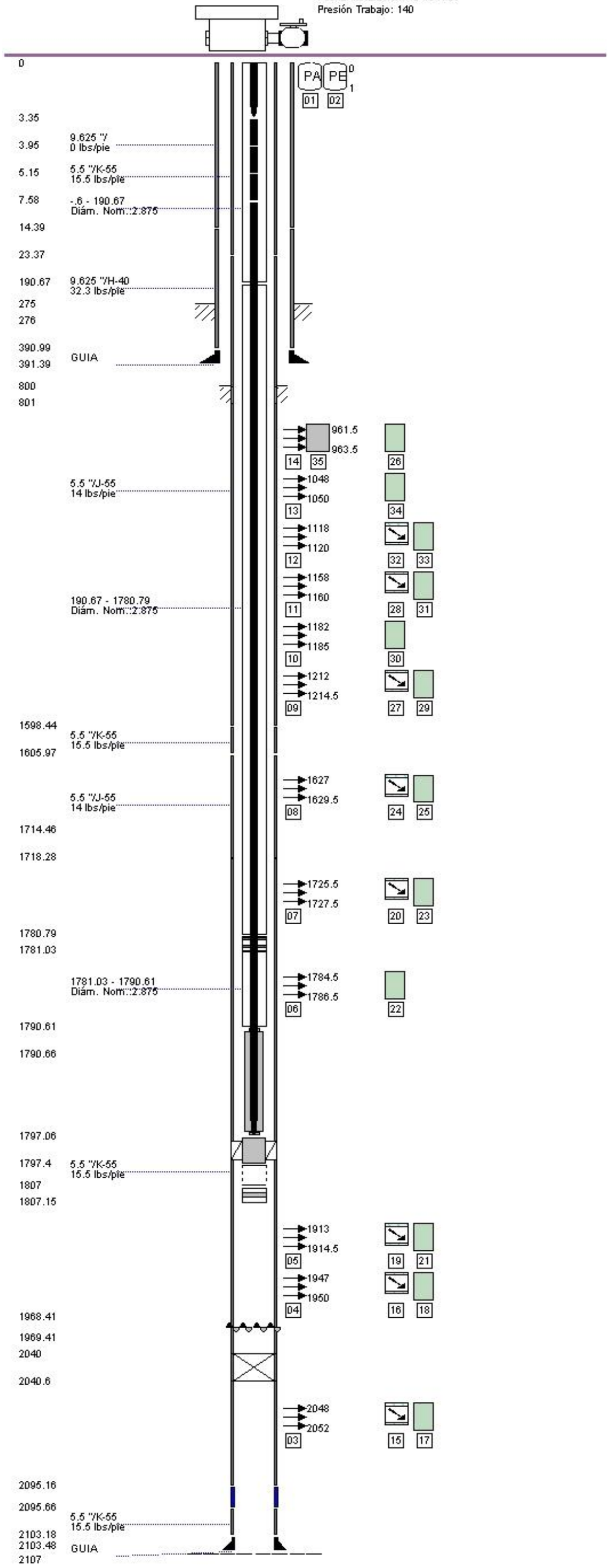
Instalación de Bombeo

N° Pieza	Componente	Tipo	Diametro Nominal (in)	Fabricante	Longitud	Tope	Condición	Diametro (in)	Libraje	Grado	Rosca	Calibre	Torque (lb/ft)
1	VASTAGO	PCP	1,25	WEATHERFORD	6,7	-3,35	NUEVO	0	0		API	0	0
1	TROZO VARILLA BOMBEO	ACERO	1	METALMECANICA	0,6	3,35	INSP.GRAD2	0	28,41	GRADO "D2"	API	0	0
1	TROZO VARILLA BOMBEO	ACERO	1	METALMECANICA	1,2	3,95	INSP.GRAD2	0	28,41	GRADO "D2"	API	0	0
1	TROZO VARILLA BOMBEO	ACERO	1	METALMECANICA	2,43	5,15	INSP.GRAD2	0	28,41	GRADO "D2"	API	0	0
224	VARILLA BOMBEO	ACERO	1	METALMECANICA	1.706,88	7,58	DEL POZO	0	28,41	GRADO "D"	API	0	0
10	VARILLA BOMBEO	ACERO	1	METALMECANICA	76,2	1.714,46	INSP.GRAD2	0	28,41	GRADO "D"	API	0	0
1	BOMBA PCP	BBA. PCP - ROTOR	1,259	OTROS	6,4	1.790,66	NUEVO						
					0	1.797,06							

Instalación final

N° Pieza	Componente	Tipo	Diametro Nominal (in)	Fabricante	Longitud	Tope	Condición	Diametro (in)	Libraje	Grado	Rosca	Calibre	Torque (lb/ft)
20	TUBING	ACERO	2,875	SIDERCA	191,27	-0,6	INSP.GRAD2	0	6,5	J-55	EUE	0	0
167	TUBING	ACERO	2,875	SIDERCA	1.590	190,67	DEL POZO	0	6,5	J-55	EUE	0	0
1	ZAPATO A COPAS	COPA RAC	2,875	YPF S.A.	0,24	1.780,79	NUEVO	0	0			0	0
1	TUBING	ACERO	2,875	SIDERCA	9,58	1.781,03	DEL POZO	0	6,5	J-55	EUE	0	0
1	BOMBA PCP	BBA. PCP - ESTATOR	2,375	OTROS	6,45	1.790,61	NUEVO	0	0			0	0
1	ANCLA TUBING	TORQUE	5,5	OTROS	0,34	1.797,06	NUEVO	0	0		EUE	0	0
1	FILTRO	DESARENADOR	2,875	YPF S.A.	9,6	1.797,40	REPARADO	0	0			0	0
1	CUPLA	PASADOR	2,875	YPF S.A.	0,15	1.807,00	DEL POZO	0	0	J-55		0	0
					0	1.807,15							

Tipo: PRODUCTOR PETROLEO
Proveedor: ABB VETCO GREY ARGENTINA S.A.
Fecha Instalación: 10-APR-05
Presión Trabajo: 140



Esquema

YPF

POZO: **EA-670**

EQUIPO: **KEY-08**

OBJETO: *Aumentar Producción*

Est.Actual :

PROYECTO: Reparaciones de Primaria 2009

CABLE	Cta	FRAC	Acido	M.Fdo.
GEOLOG	SAI	SLB	SLB	CHRISTENSEN

FLUIDO: AGUA DULCE CON MARCAT 0,1% (MARBAR)

PEP: RS1EC.10Y4.58.R0006

OI:

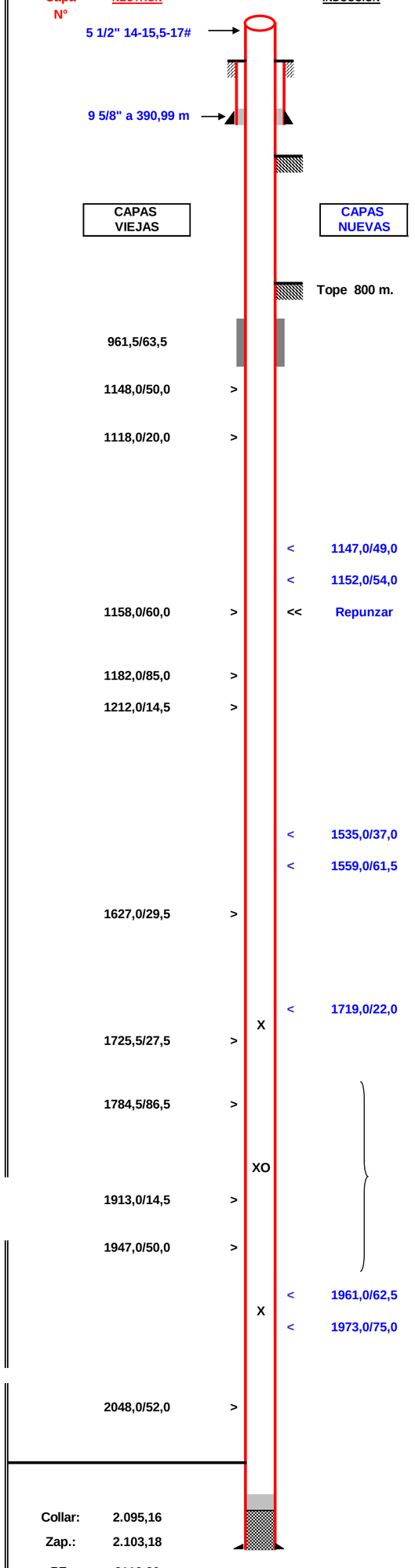
COSTO DRILLING ABC U$S:	124.669,00
PRESUPUESTO U$S:	94.892,74
ACTUAL U$S:	48.093,00

Inicio:	20/11/2009
Termino:	29/11/2009

Casing

Transporto equipo desde el pozo EN-634, sobre 25 Km.
Monto equipo completo.
Saco Instalacion de Producción (Varillas en single. Tbg a la torre)
Bajo Fresa 120 mm hasta 1938 m. Lavo relleno hasta 2040 m Tpn N. Saco hta.
Cia Geolog punzo con cañon 4" - 4 TPP - 32 Gr. **1973,0/75,0 - 1961,0/62,0 - 1719,0/22,0 - 1559,0/61,0 - 1535,0/37,0 - 1158,0/60,0 - 1152,0/54,0 - 1147,0/49,0**
Bajo Tpn y Pkr, ensaya por pistoneo según se indica con las letras: (A) - (B) - (C) - (D) - (E) - (F)
Saca PKR para cambiar y baja nuevamente
Cía SAI cementa capa **1719,0/22,0** con 20 bls.
Baja fresa + MDF rota cemento desde **1685** m hasta **1722** m
Baja packer realiza hermeticidad de capa cementada **1719,0/22,0**. OK
Baja instalación estator + tubing
Baja rotor + varillas.
Desmonta equipo

Prox: Stand By (EA-48)



	E	**897** l/h - **PF** - N: **986** m - IT: **30** % - D: **0,986** - Sal: **2,2** - PH: **7** - Temp: **30** °C **17 m de relleno**	6
	D	SE - Rompe formacion con 1500 psi. Admite 147 LPM con 1100 psi. **195** l/h - **ASF** - N: **1458** m - Sal: **3,3** - PH: **8** - Temp: **32** °C	4
	C	**2400** l/h - **ASF** - N: **1213** m - Sal: **2,2** - PH: **7** - Temp: **30** °C	6
	B	**600** l/h - **ASF c/Lrpleo** - N: **1573** m - Sal: **2,2** - PH: **7** - Temp: **30**°C	5
	A	SE - No rompe formacion. Admite 245 LPM con 1100 psi. **156** l/h - **ASF** - N: **1905** m - Sal: **2,8** - PH: **9** - Temp: **22** °C	3

Nota:

Instalación del pozo: C. Dent. + filtro + 2 tbg + ancla + estator + 1 tbg + BHD + 187 tbg

Rotor + 234 Var. 7/8" + 3 trozos 1" + Vastago 1,25"

Factor 30,0%

Hs de Formación	Datos Q Lts/h	IT %	Q m3/día	Bruta Estimada m3/día	Neta Estimada m3/día
6	2400	100%	57,60	17,28	
5	600	100%	14,40	4,32	
3	156	100%	3,74	1,12	
	Total		**75,744**	**22,723**	**0,000**

º) Montar Equipo y realizar check list.
Antes de montar controlar presiones estaticas de directa e inversa.

º) Retirar instalación existente especificada en solapa "Instalación"
Sacar varillas desarmando y revisando el estado
Sacar TBG. Si los mismos estan en buen estado, consultar reemplazo. Si no se reemplazan sacar a la torre. Caso contrario sacar desarmando.

º) Bajar cañería y calibrar con fresa Ø 120 mm hasta 2040 m.
Circular una capacidad de CSG.

º) Punzar con cañón 4" 0-90° 32gr previa correlación con neutrón las siguientes capas:

	Capa	Carga	TPP	Fase	Esp (m)
Punzar	1973,0/75,0	32 gr	4	0-90º	2
Punzar	1961,0/62,5	32 gr	4	0-90º	1,5
Punzar	1719,0/22,0	32 gr	4	0-90º	3
Punzar	1559,0/61,5	32 gr	4	0-90º	2,5
Punzar	1535,0/37,0	32 gr	4	0-90º	2
Repunzar	1158,0/60,0	22 gr	2	0-90º	2
Punzar	1152,0/54,0	32 gr	4	0-90º	2
Punzar	1147,0/49,0	32 gr	4	0-90º	2

º) Bajar TPN y PKR, y ensayar por pistoneo las capas de la siguiente manera **A)**, **B)**, **C), D)** **y** **E)** como se indica en la solapa "Esquema"
En capas que resulten SE, probar admisión y luego reensayar.
En caso de ser gas medir presiones y tomar muestra.
En caso de extraer hidrocarburo tomar muestra para análisis y enviar a Epsilon.

º) Bajar instalación final, a definir por Ing de producción
Guardia de Ing Manantiales Behr: 155934862.

º) Desmontar equipo completo.

DIVISION REGIONAL SUR
UNIDAD ECONOMICA CHUBUT - C.S.

REPSOL YPF — Schlumberger

EQUIPO: PI-222 **POZO:** EA-670

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

ESQUEMA DE TERMINACIÓN

OBJETIVO: Poner en Producción **INICIO:** 03-abr-05
ESTADO: Productivo **TERMINO:** 11-abr-05

CASING: 5 1/2" 14 # — ACTUAL: DTM al pozo Gra-627

9-5/8" — 391,39

		CAUDAL	FLUIDO	NIVEL	ANALISIS				SAL	Hs Ensayo	QB	QN
					I-T	DEN	Temp	A/SEP				
		Posible fractura p/control de arena										
961,50	12	Gas seco p/ 50mm PD: 7Kg/cm2 ; p/25mm PD: 9 Kg/cm2 ; p/13mm 12Kg/cm2								4		
963,50		PE: 19 Kgcm2 Est. en 15`										
		Ctó c/25 Bls. PI: 500 ; PF: 950 ; PC: 15600 PSI Hermeticidad positiva										
1048,00	11	1600	Pet.	855	12	0,937	34	12	5.8 /PH 9	5	11,52	10,14
1050,00												
1118,00	10	300	Pet.	998	6	0,921	20	5	4.6 /PH-9	5,5	2,16	2,03
1120,00												
		RF c/1800 psi										
1158,00	9	Aporta gas c/Pet. Muy viscoso no sepuede pistonear, por semi surgencia, y ahogarse										
1160,00		Circula con agua caliente ensaya con el mismo resultado anterior										
1182,00	8	400	Ag S/R	1040			25		3.5/ PH-8		2,88	0
1185,00												
1212,00	7	RF c/1800 psi										
1214,50		S/E								2,5		
1627,00	6	250	Pet. Visc.	1520	6	0,969	30	5	4.6 PH-11	6	1,80	1,69
1629,50												
1725,50	5	RF c/1900 psi										
1727,50		380	Petróleo	1582	20	0,950	30	18	4,09/PH:9	6	2,74	2,19
1784,50	4											
1786,50		1000	Pet. Viscoso	1610	7	0,950	30	8	4,6/PH:9	6	7,20	6,70
1913,00	3	RF c/2800 psi										
1914,50		350	Agua S/R	1785			35		2,9/9	6,5	2,52	0
		RF c/2200 psi										
1947,00	2	1600	Pet. Viscoso	1750	69	0.948	15	68	4,09/9	7	11,52	3,57
1950,00												
2040,00		Tapón "N" con D. Bayler										
2048,00	1	RF c/2800 psi										
2052,00		2400	Agua S/R	1850			35		3,5/8	6	17,28	0
											59,62	26,32

Collar: 2095,66
Zapato: 2103,48
P. Final: 2110,20

COMPANIA: **YPF S.A.**

POZO: **YPF.Ch.EA−695**

CAMPO: **EL ALBA**

PROVINCIA: **CHUBUT** PAIS: **ARGENTINA**

Schlumberger

COMBINADA

ESCALA: 1/200

Campo: EL ALBA
Locacion: CAS
Pozo: YPF.Ch.EA−695
Compania: YPF S.A.

LOCACION

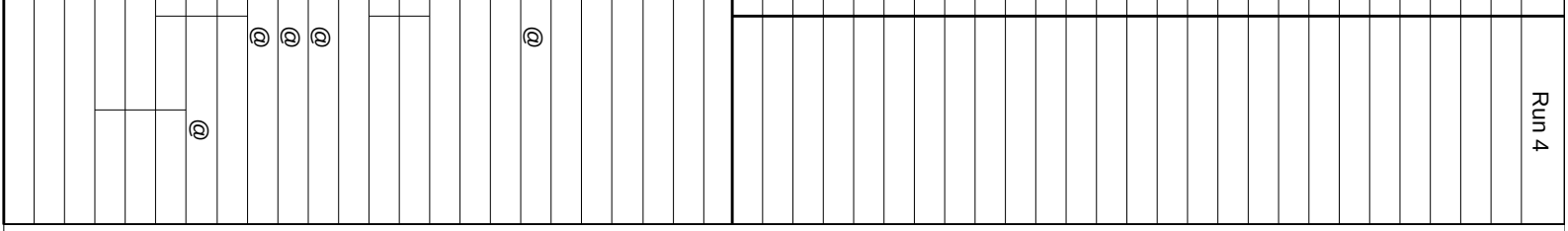
AIT−LDL−CNL−CAL
MDT

Elev.: B.V. 666.45 m
N. T. 661.9 m
M. R. 666.15 m

Ref. Permanente: NIVEL DEL TERRENO Elev.: 661.9 m
Reg. Medido Desde: NIVEL DEL TERRENO 0.0 m sobre nivel ref.
Perforacion Medida Desde: NIVEL DEL TERRENO

UWI: AR0100006830	Equipo PI−245	Longitud X: 4.949.913,10	Latitud Y: 2.584.937,96

							Run 1	Run 2	Run 3
Fecha		28−Jun−2006				Logging Date			
Corrida No.		1				Run Number			
Prof. Perforador		1800 m				Depth Driller			
Prof. Registro		1801.3 m				Logger Depth			
Primera Lectura		1798.9 m				Bottom Log Interval			
Ultima Lectura		349.7 m				Top Log Interval			
Fondo Tuberia Perforador		9.625 in @ 350.44 m		@		Casing Driller Size @ Depth	@		
Fondo Tuberia Registro		349.7 m				Casing Logger			
Diametro Trepano		8.750 in				Bit Size			
Tipo De Lodo		PHPA				Type Fluid In Hole			
Densidad	Viscosidad	1.17 g/cm3	55 s			MUD Density	Viscosity		
Perdidas	PH	6.5 cm3	8.5			MUD Fluid Loss	PH		
Fuente Muestra De Lodo		PILETA				MUD Source Of Sample			
RM @ Temp.		4.690 ohm.m @ 7 degC		@		RM @ Measured Temperature	@		
RMF @ Temp.		3.880 ohm.m @ 7 degC		@		RMF @ Measured Temperature	@		
RMC @ Temp.		6.700 ohm.m @ 7 degC		@		RMC @ Measured Temperature	@		
Fuente: RMF	RMC	PRENSA	PRENSA			Source RMF	RMC		
RM @ T. Fdo.	RMF @ T. Fdo.	1.472 @ 70	1.227 @ 70	@	@	RM @ MRT	RMF @ MRT	@	@	@
Temp. Maxima Medida		70 degC				Maximum Recorded Temperatures			
Circulacion Final	Hora	28−Jun−2006	12:15			Circulation Stopped	Time		
Registro Fondo	Hora	28−Jun−2006	23:00			Logger On Bottom	Time		
Unidad No.	Locacion	8116	ARCS			Unit Number	Location		
Registrado por:		A. AMID / D. ICHAZU				Recorded By			
Testigo		ANIBAL SILVEIRA				Witnessed By			



DEPTH SUMMARY LISTING

Date Created: 30−JUN−2006 10:19:37

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW−B	Type:	CMTD−B/A	Type:	7−46P
Serial Number:	4858	Serial Number:	1689	Serial Number:	77353
Calibration Date:	12−Nov−2004	Calibration Date:	14−Feb−2006	Length:	3000.15 M
Calibrator Serial Number:	31	Calibrator Serial Number:	1028	Conveyance Method:	Wireline
Calibration Cable Type:	7−46P	Calibration Gain:	1.28	Rig Type:	LAND
Wheel Correction 1:	−4	Calibration Offset:	41.00		
Wheel Correction 2:	−4				

Depth Control Parameters

Log Sequence:	First Log In the Well
Rig Up Length At Surface:	71.00 M
Rig Up Length At Bottom:	71.00 M
Rig Up Length Correction:	0.00 M
Stretch Correction:	2.10 M
Tool Zero Check At Surface:	0.00 M

Depth Control Remarks

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

OTROS SERVICIOS # 1		OTROS SERVICIOS # 2
OS1:	AIT−LDL−CNL−CAL	OS1:
OS2:	MDT	OS2:
OS3:		OS3:
OS4:		OS4:
OS5:	PI−245	OS5:

OBSERVACIONES: CORRIDA # 1	OBSERVACIONES: CORRIDA # 2
1. Primera carrera en el pozo y perfil de referencia de profundidad.	
2. Esquema del pozo segun datos del perforador.	
3. Herramienta corrida segun diagrama.	
4. AITH corrida descentralizada utilizando standoffs de 1,5".	
5. Maxima desviacion del pozo segun datos del perforador = 1 deg	
6. Maxima temperatura registrada 70 degC, tomada con termometro en punta de herramienta.	
7. Datos adicionales del lodo: Cl = 350 ppm. Ca = 80 ppm.	
8. Ultima circulacion termino el dia 28−Jun−06 a las 12:15 hs y duro 1 hora.	
9. FPHI = DPHI, FNUM = 0,81 y FEXP = 2 utilizados para el calculo de RWA.	

10. LDL y CNL corridos hasta 900 m a pedido del cliente.

CORRIDA #1			CORRIDA #2		
ORDEN DE SERVICIO:			ORDEN DE SERVICIO:		
VERSION DEL PROGRAMA:		14C0−302	VERSION DEL PROGRAMA:		
NIVEL DEL LODO:		0 m	NIVEL DEL LODO:		
INTERVALO REGISTRADO	COMIENZO	FINAL	INTERVALO REGISTRADO	COMIENZO	FINAL

DESCRIPCION DEL EQUIPO

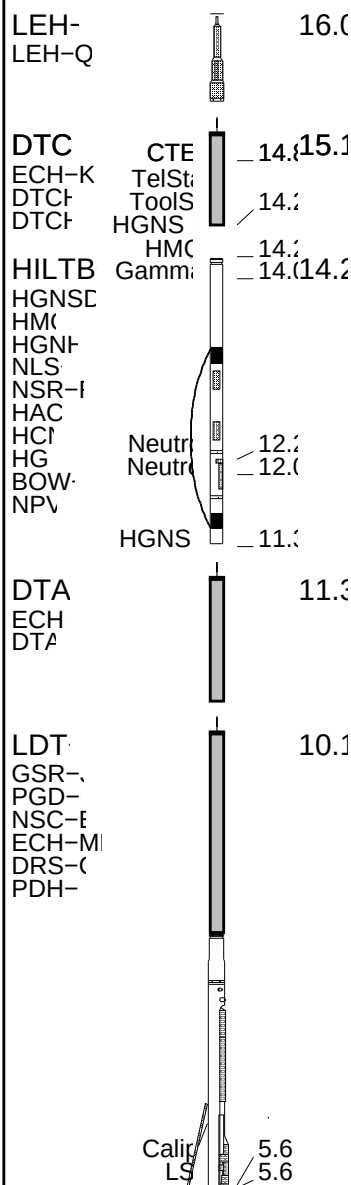
CORRIDA # 1

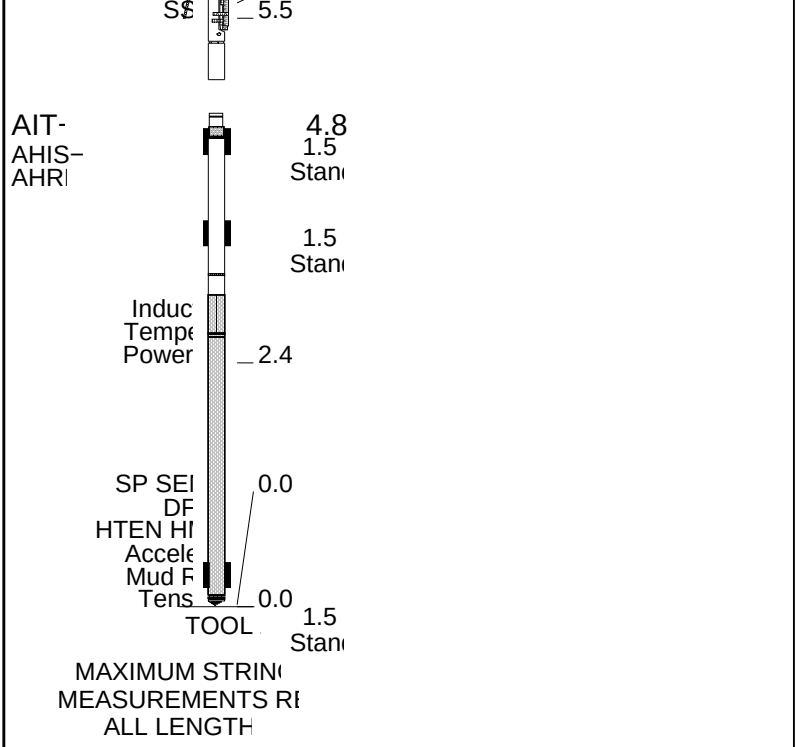
CORRIDA # 2

SURFACE I

GSR·
NCT
CNB·
NCS

DOWNHOLE





YPF.Ch.EA

Schlumbe

PI-24

Altura Mesa: 4

Nivel Terr

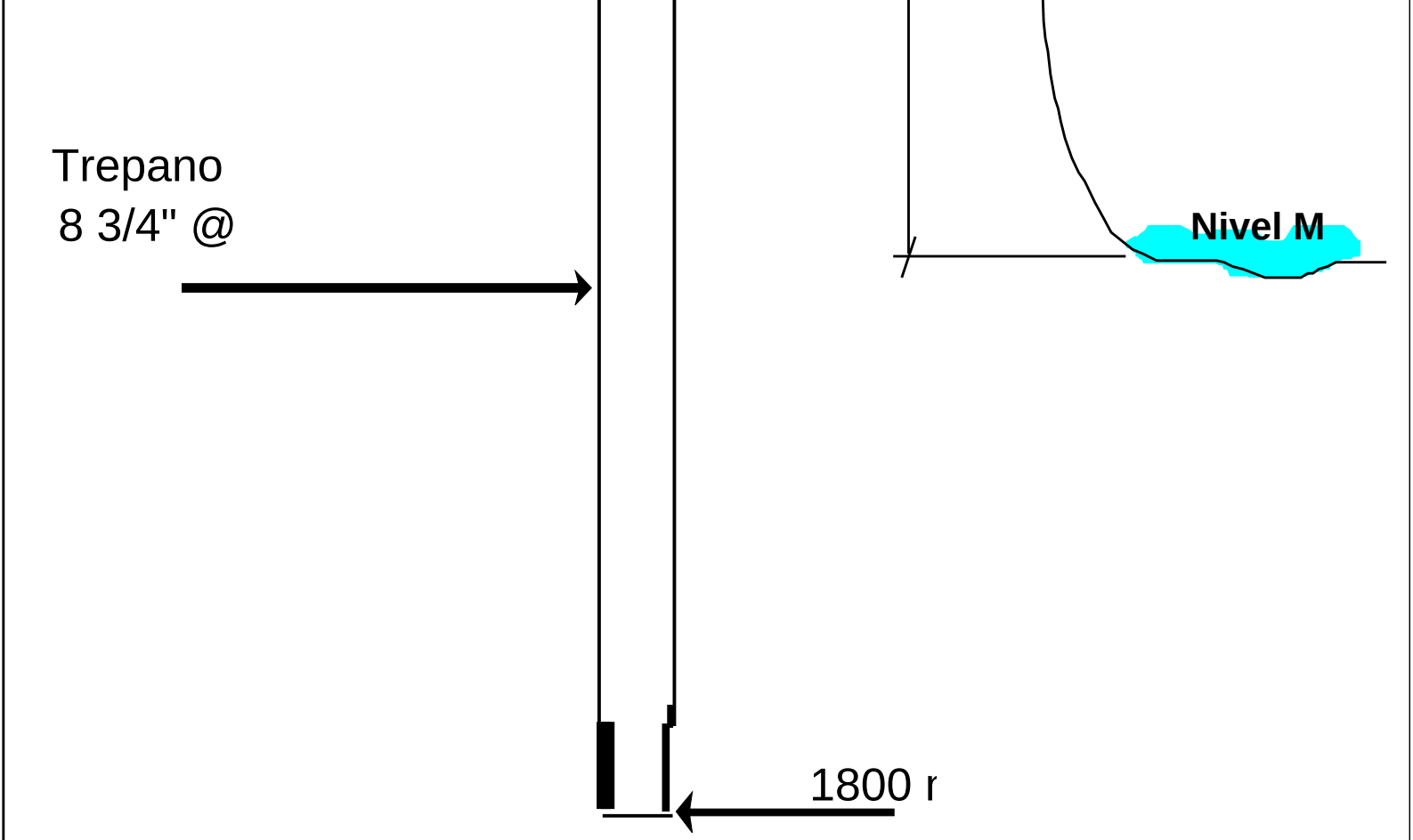
Nivel Refere

Casing 9 5

32.3 Lb/p

Zapato @ 350

Cota: 661.9



Schlumberger

TRAMO PRINCIPAL

MAXIS Field Log

Input DLIS Files

DEFAULT	AIT_LDL_TLD_MCFL_025LUP	FN:24	PRODUCER	30−Jun−2006 08:23	1806.9 M	291.0 M

Output DLIS Files

DEFAULT	AIT_LDL_TLD_MCFL_089PUP	FN:42	PRODUCER	30−Jun−2006 18:52	1807.0 M	345.0 M
CUST1	AIT_LDL_TLD_MCFL_089PUC	FN:43	CUSTOMER	30−Jun−2006 18:52	1807.0 M	345.0 M
CUST2	AIT_LDL_TLD_MCFL_089PUC	FN:44	CUSTOMER	30−Jun−2006 18:52	1807.0 M	345.0 M

Integrated Hole/Cement Volume Summary

Hole Volume = 58.27 M3

Cement Volume = 36.02 M3 (assuming 5.50 IN casing O.D.)

Computed from 1801.2 M to 349.8 M using data channel(s) CALI

OP System Version: 14C0−302

MCM

AIT−H	14C0−302	LDT−D	14C0−302
DTA−A	14C0−302	HILTB−FTB	14C0−302
DTC−H	14C0−302		

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
SPDR	0 MV/M	0 MV/M	1807.0 18:52:21
	0.03921 MV/M	0 MV/M	1300.0 18:53:18
	−0.25 MV/M	0.03921 MV/M	1044.9 18:53:47
	0 MV/M	−0.25 MV/M	1024.9 18:53:49

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

REVOQUE
From CALI to BS

CAVERNA
From BS to CALI

SP (SP)
−80 (MV) 20

RWA (RWA)
0 (OHMM) 1

PhotoElectric Factor (PEF)
0 (−−−− 5

Caliper (CALI)
6 (IN) 16

Bit Size (BS)
6 (IN) 16

Stuck Stretch (STIT)
0 (M) 20

Tension (TENS) (LBF)
0 1000

AIT−H 90 Inch Investigation (AHT90)
0 (OHMM) 10

AIT−H 60 Inch Investigation (AHT60)
0 (OHMM) 10

AIT−H 30 Inch Investigation (AHT30)
0 (OHMM) 10

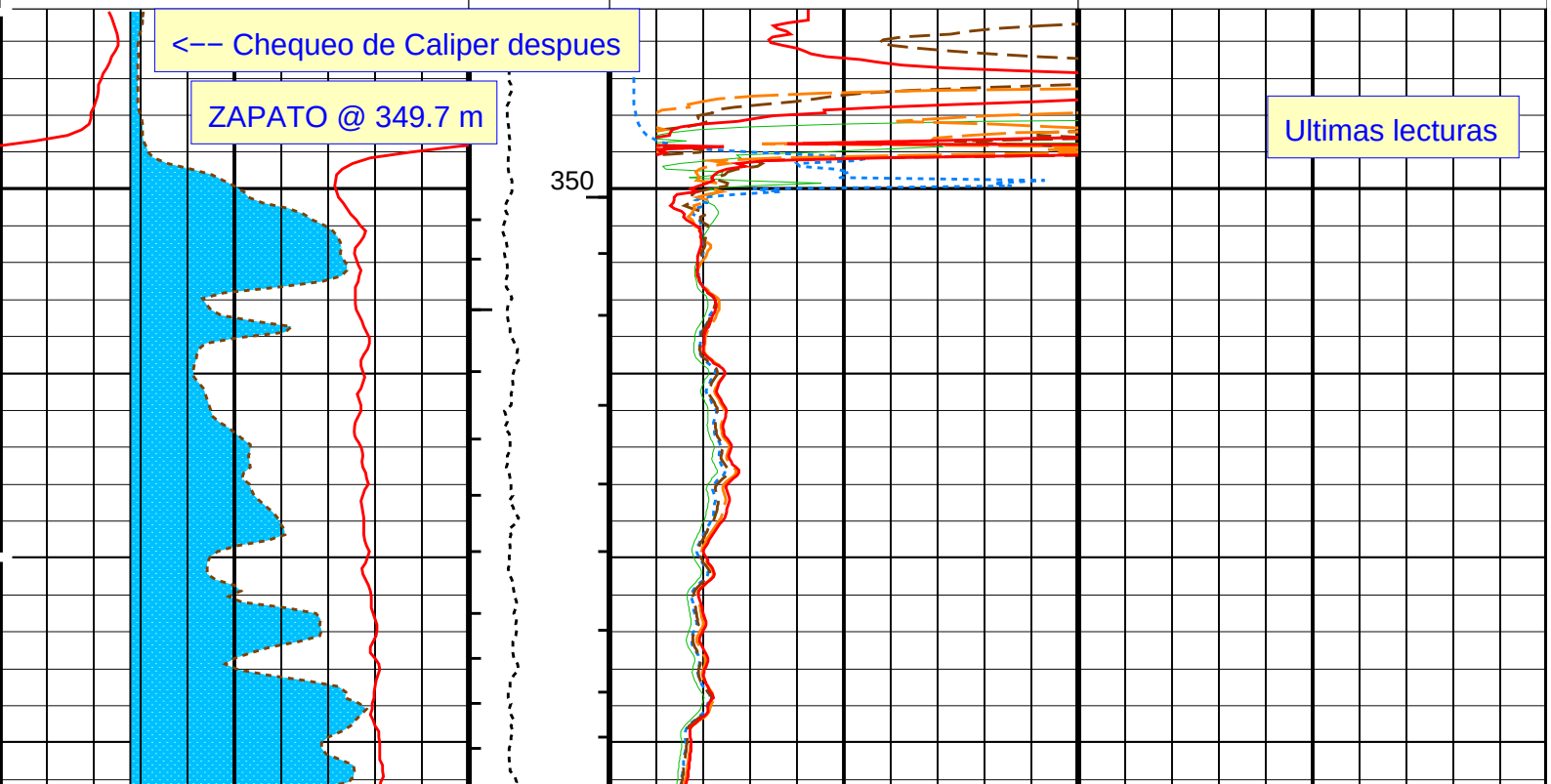
AIT−H 20 Inch Investigation (AHT20)
0 (OHMM) 10

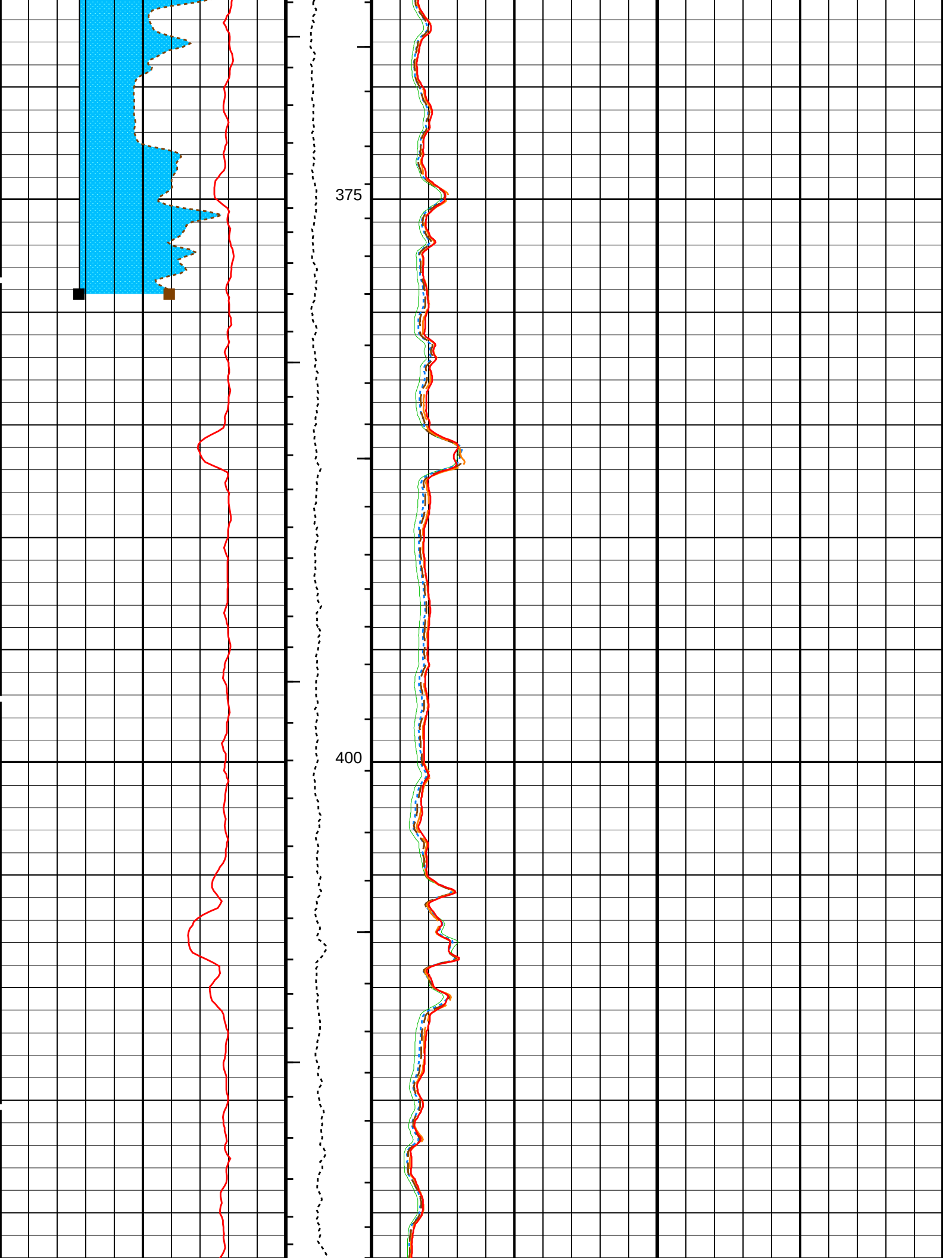
AIT−H 10 Inch Investigation (AHT10)
0 (OHMM) 10

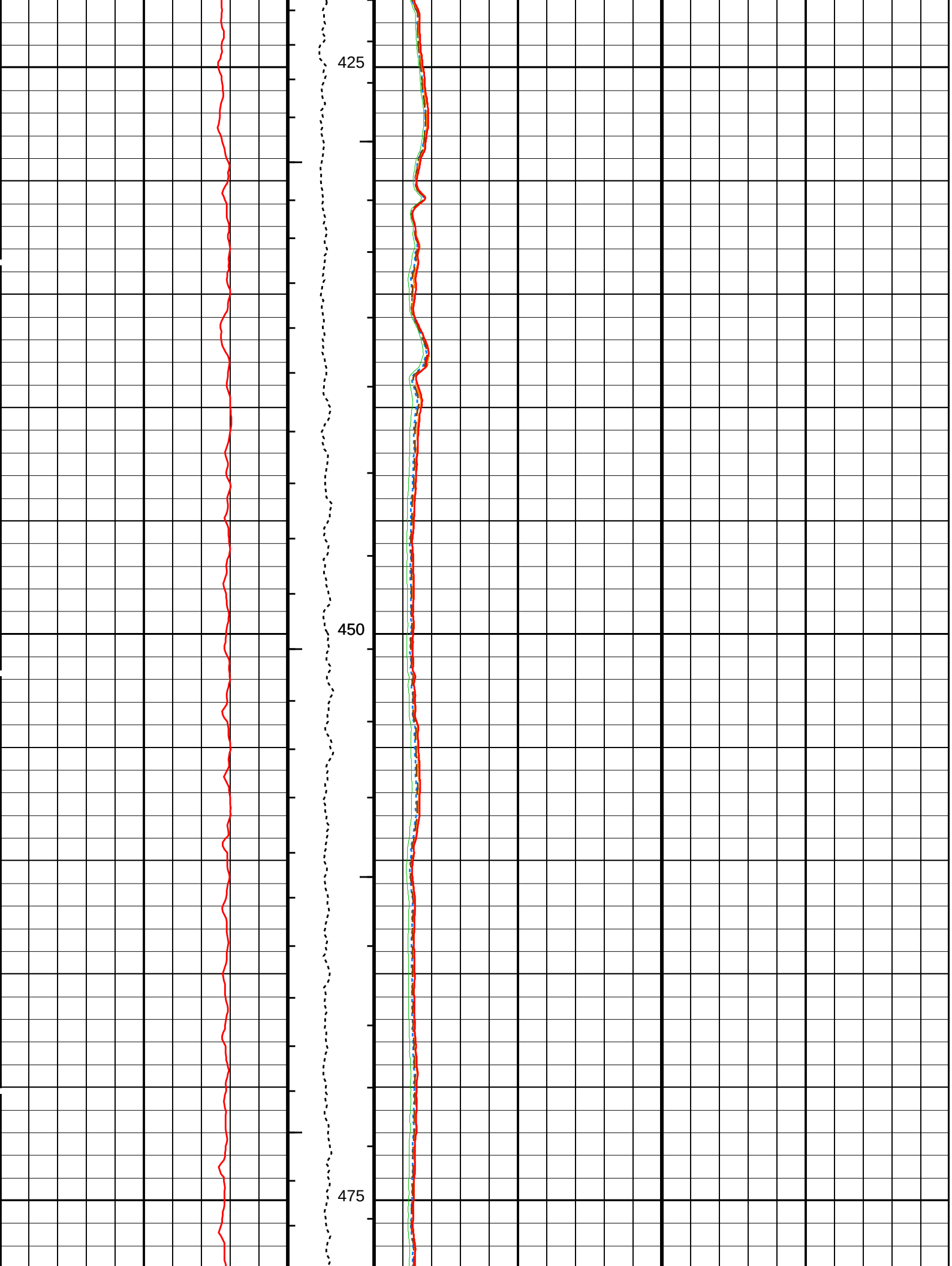
Gas
From DPHI to TNPH

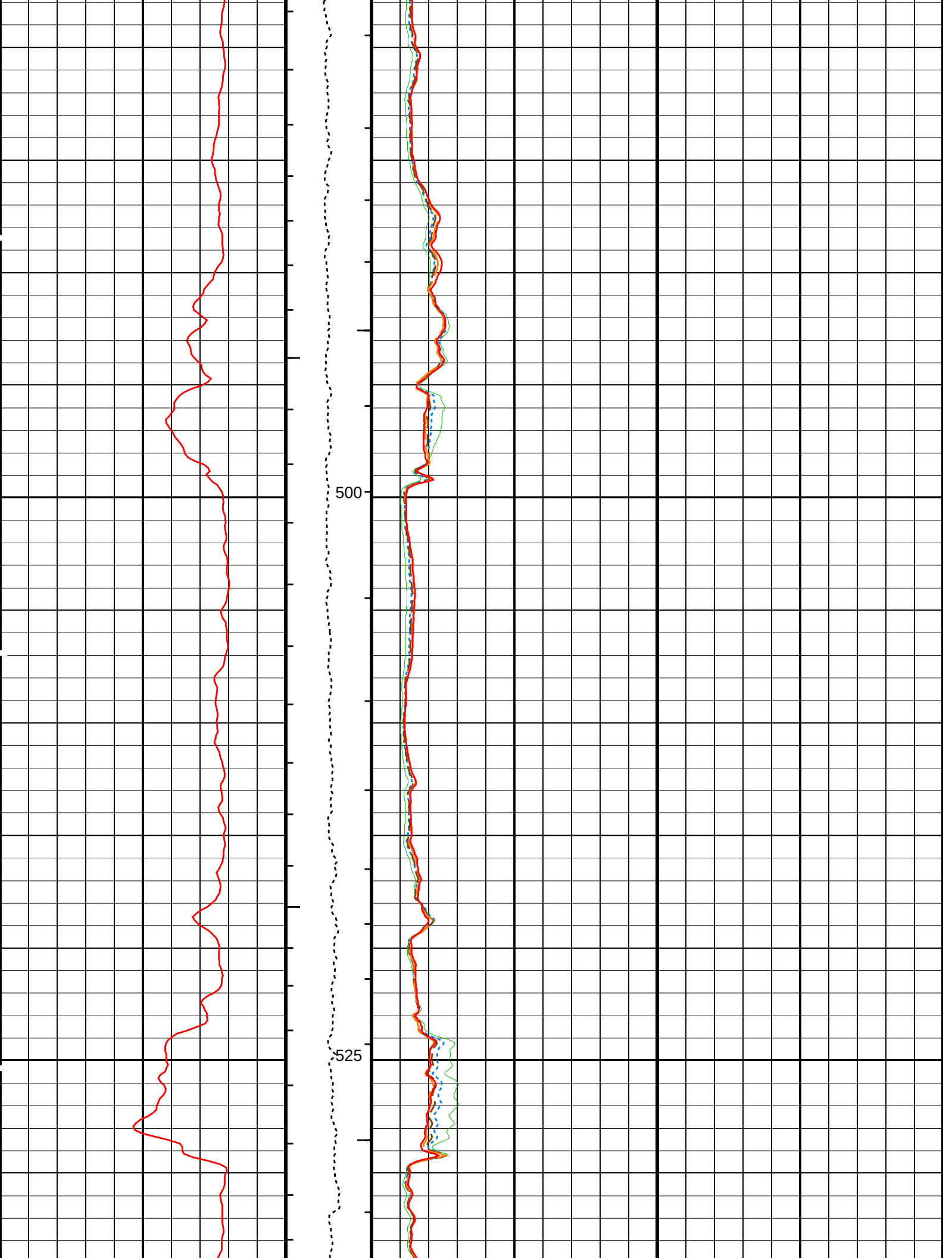
Env.Corr.Thermal Neutron Porosity (TNPH)
0.4 (V/V) 0

Density Porosity (DPHI)
0.4 (V/V) 0



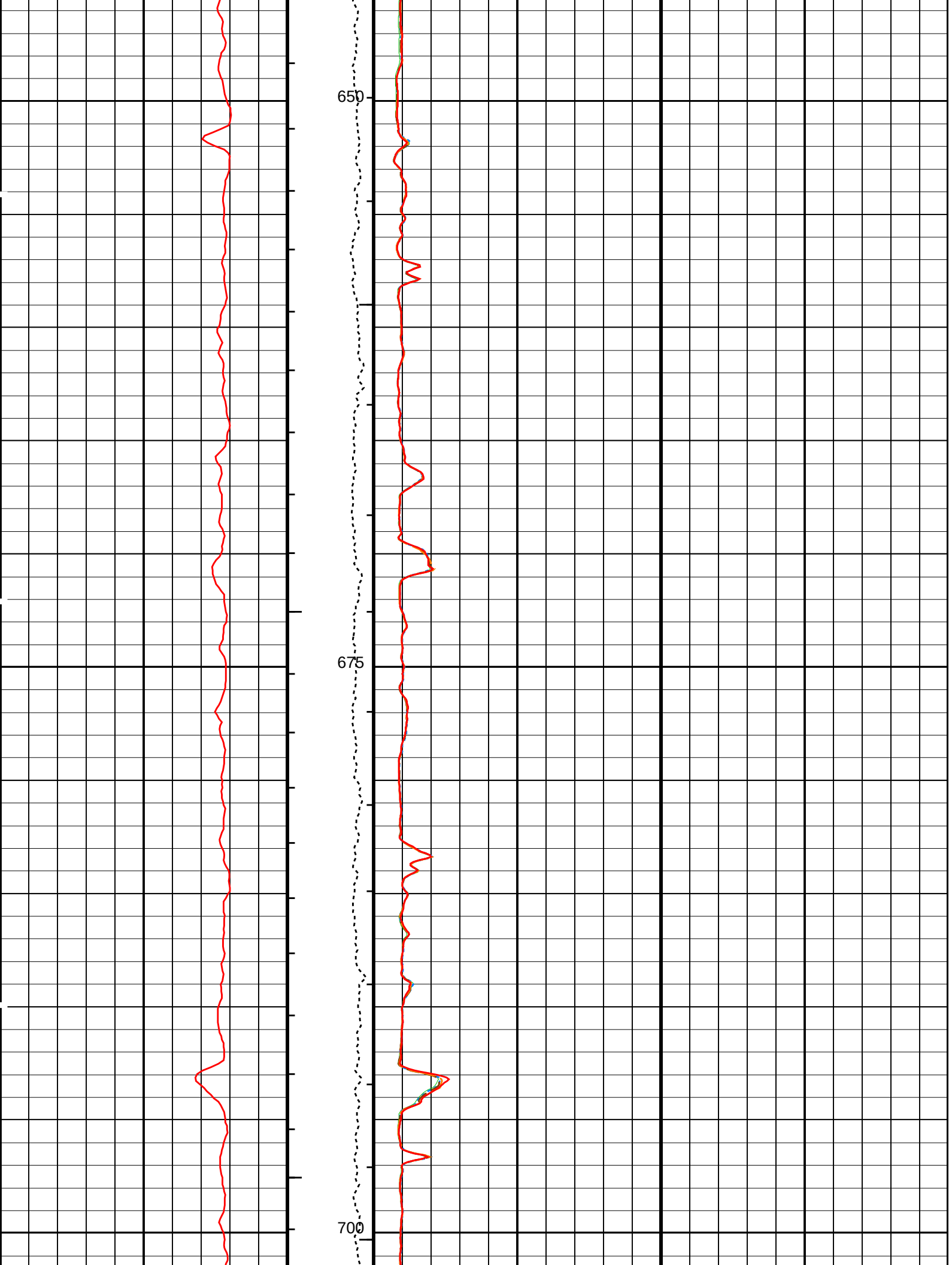

375
400

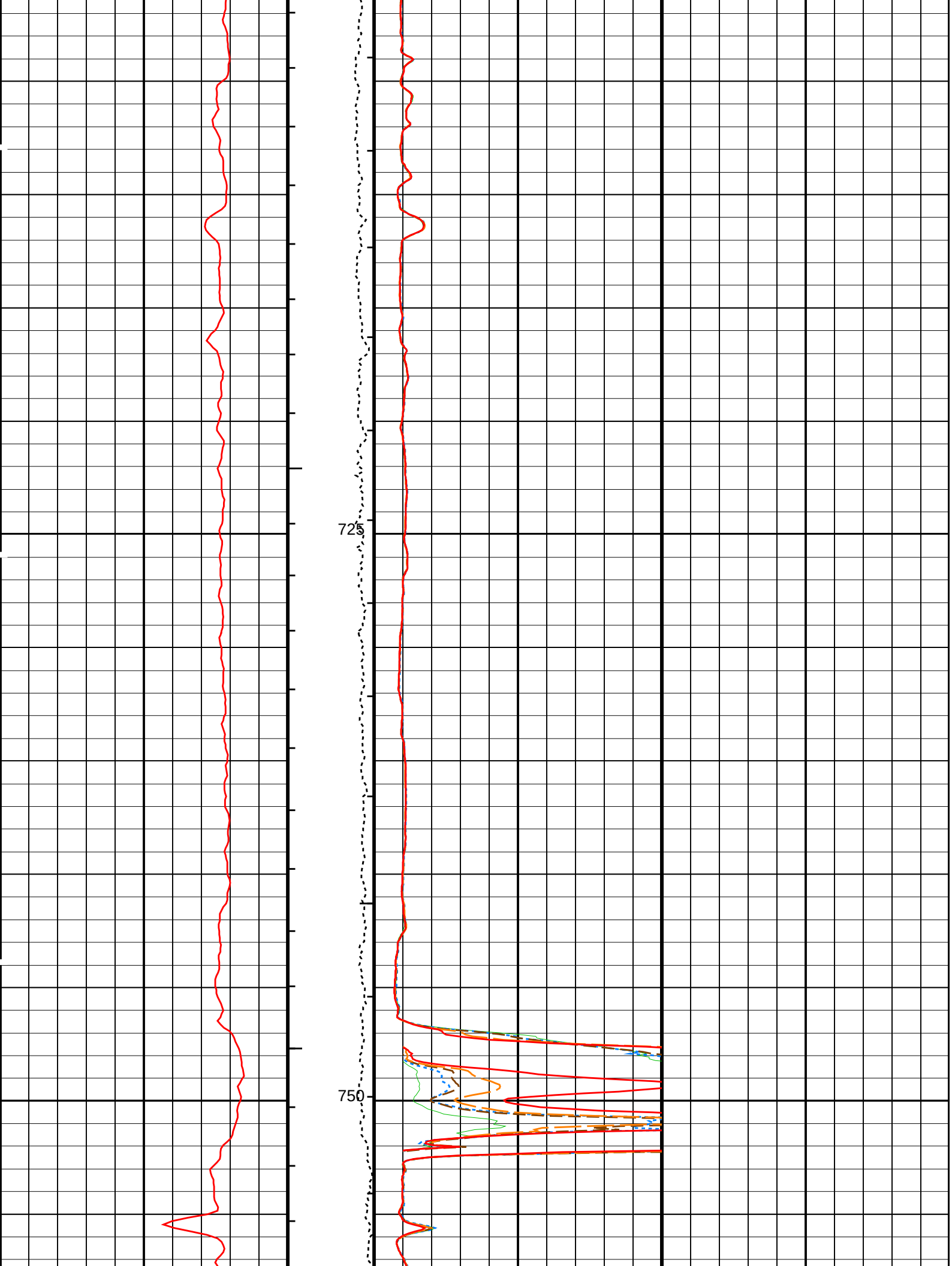

425
450
475


500
525


550
575


600
625


650
675
700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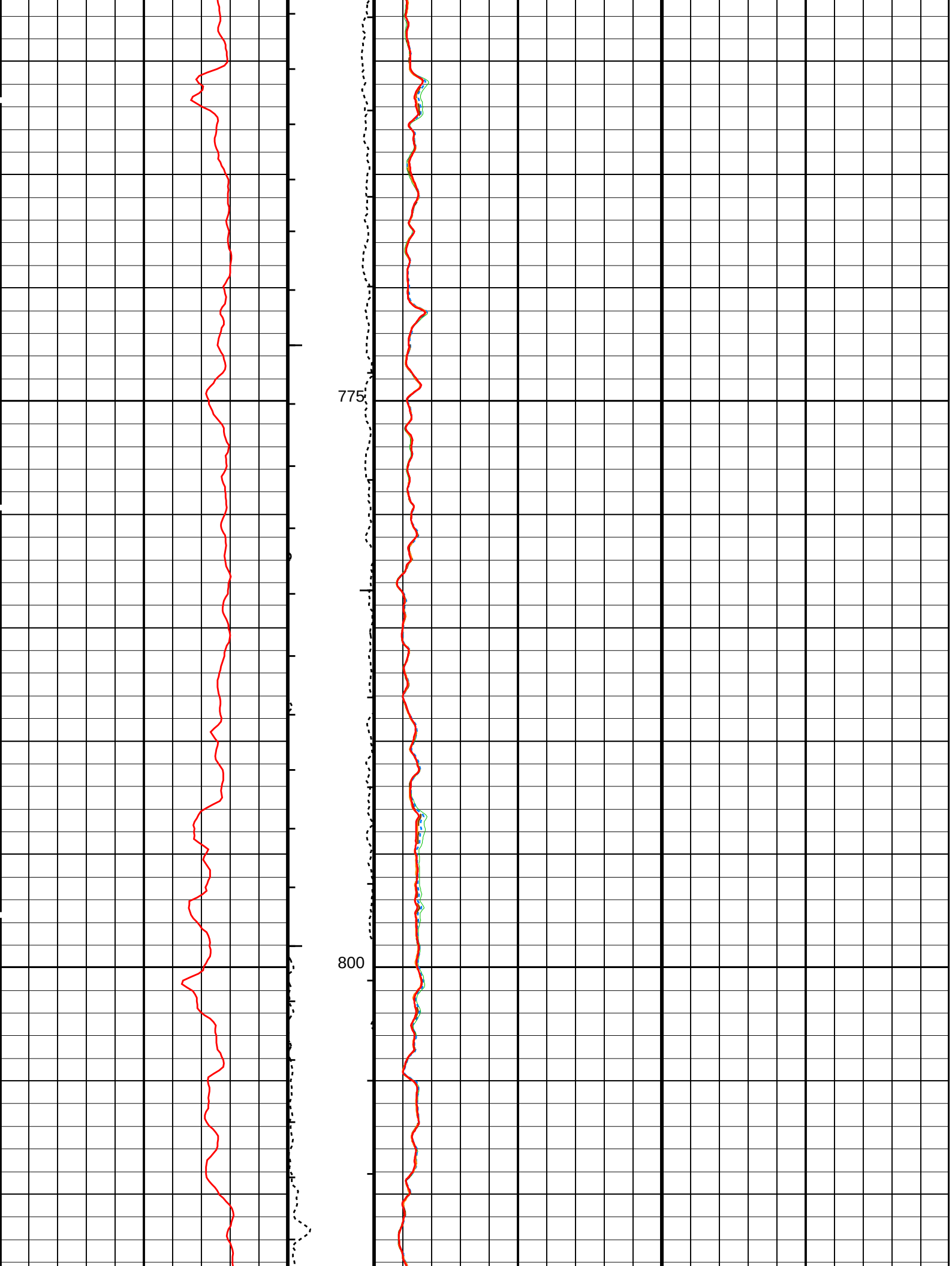
750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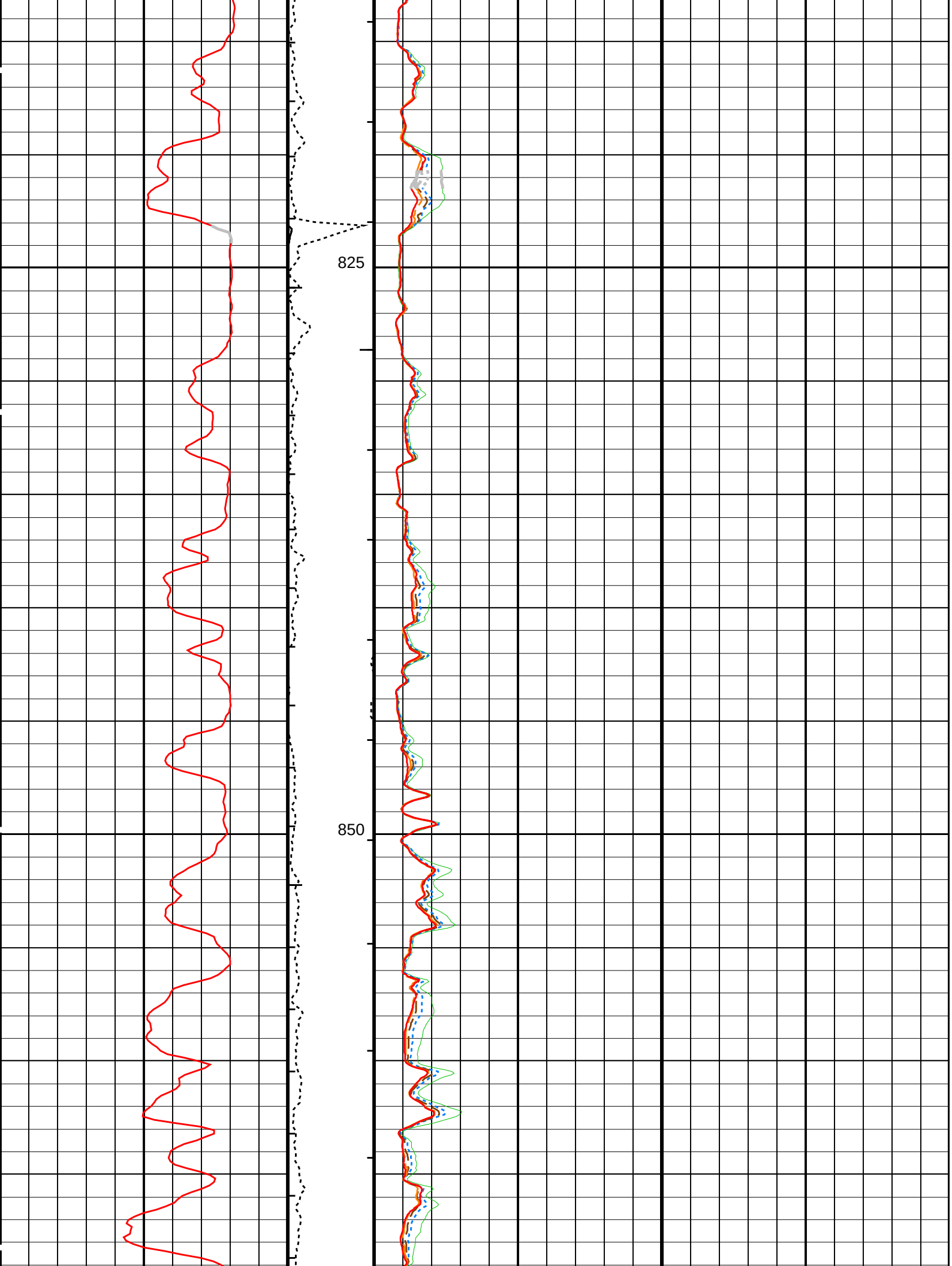
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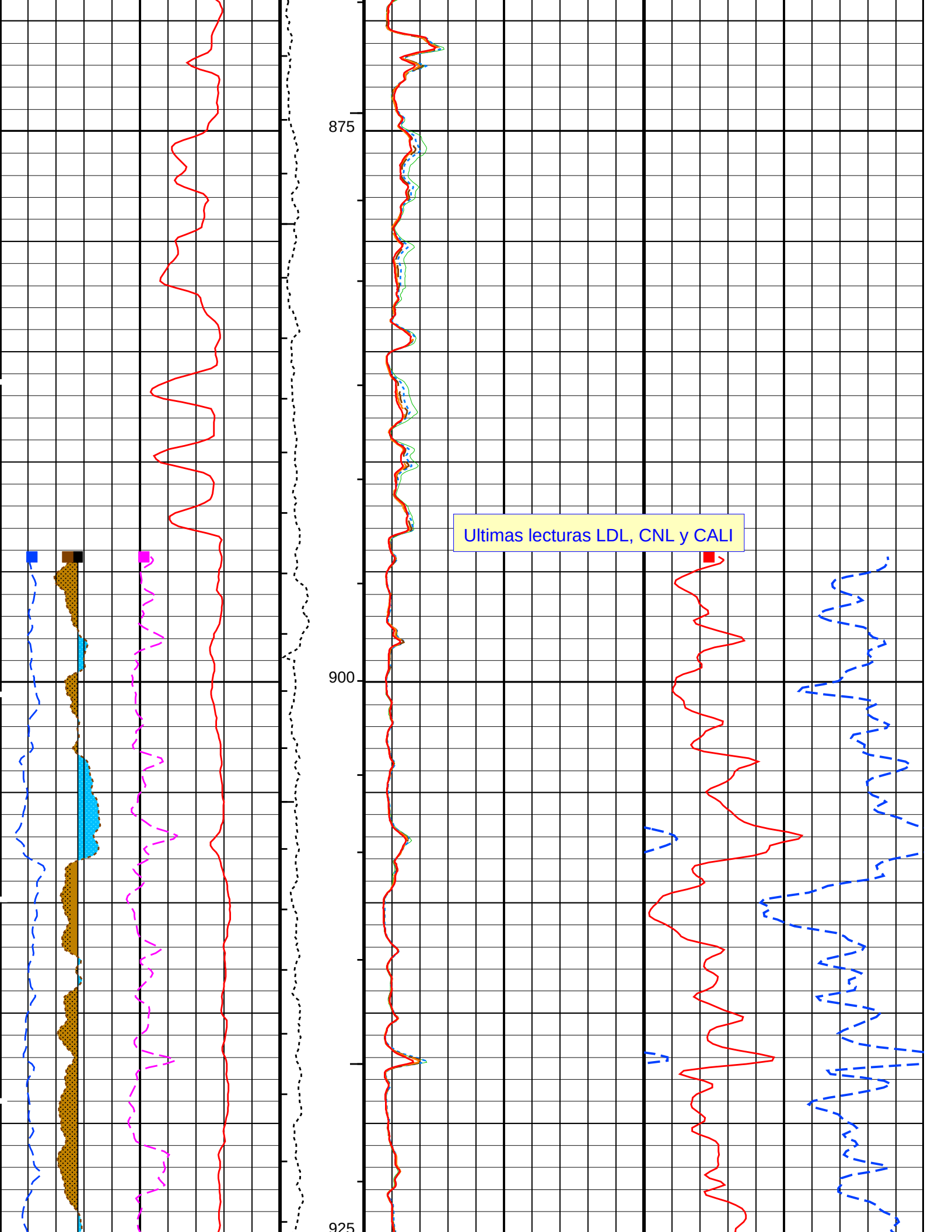
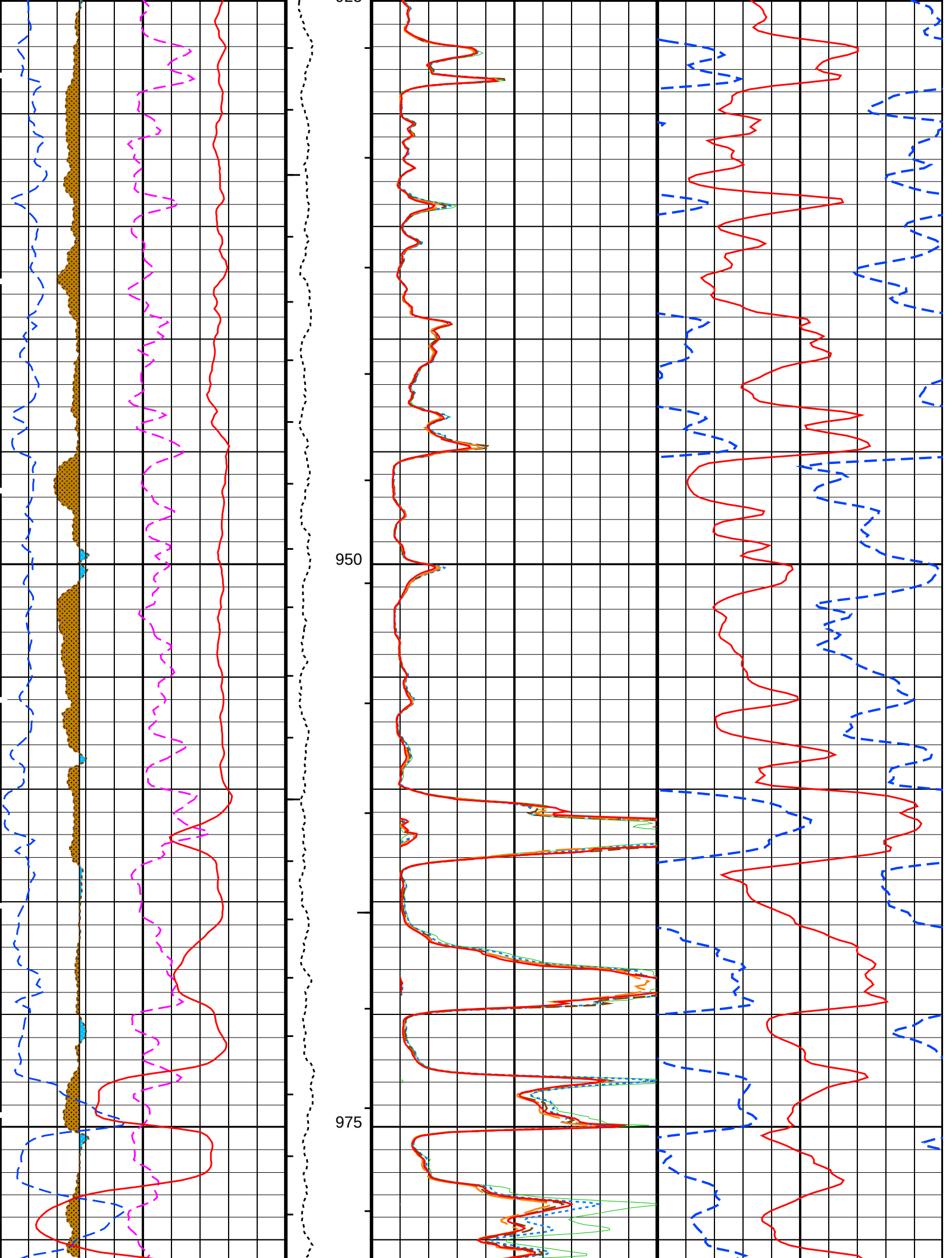
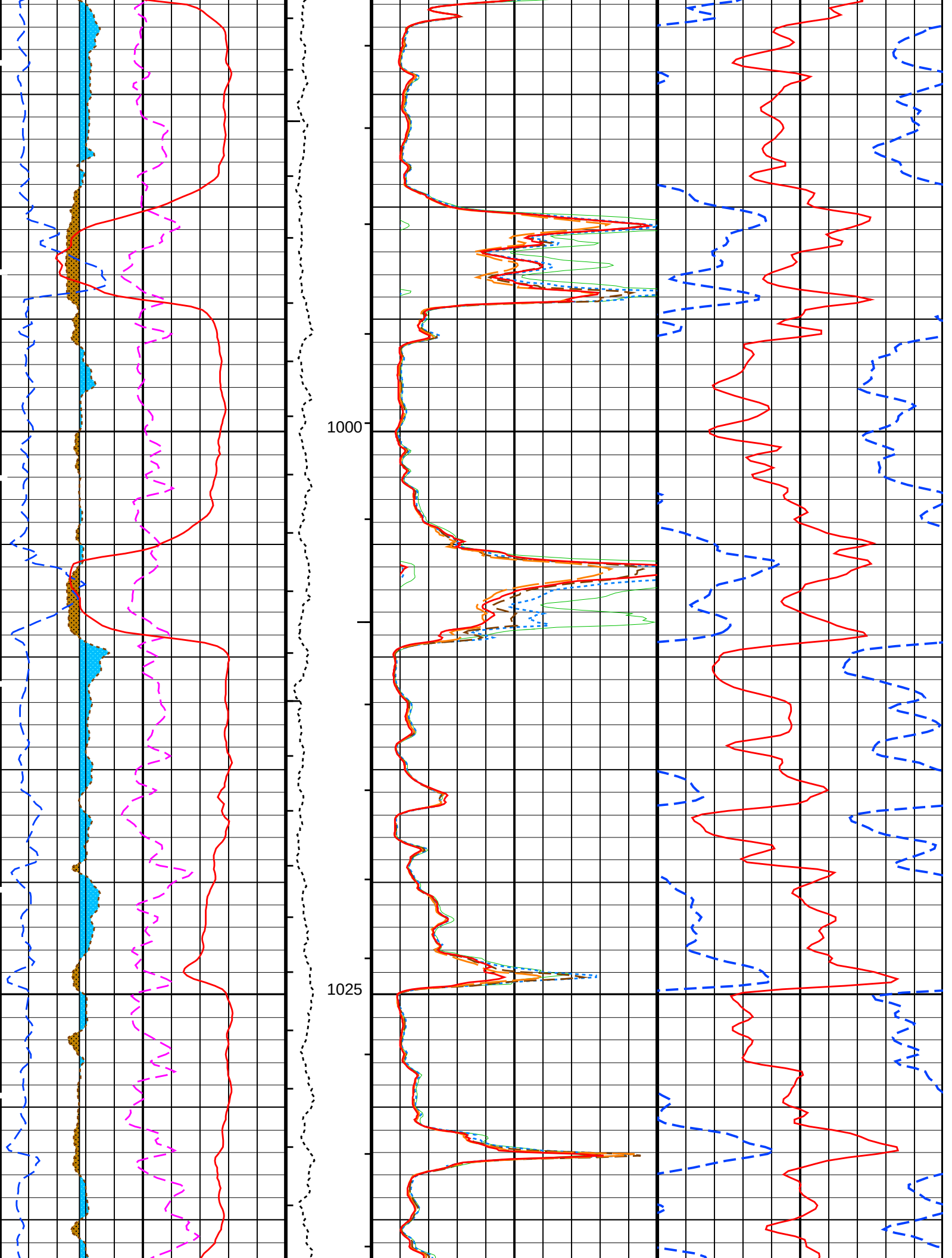
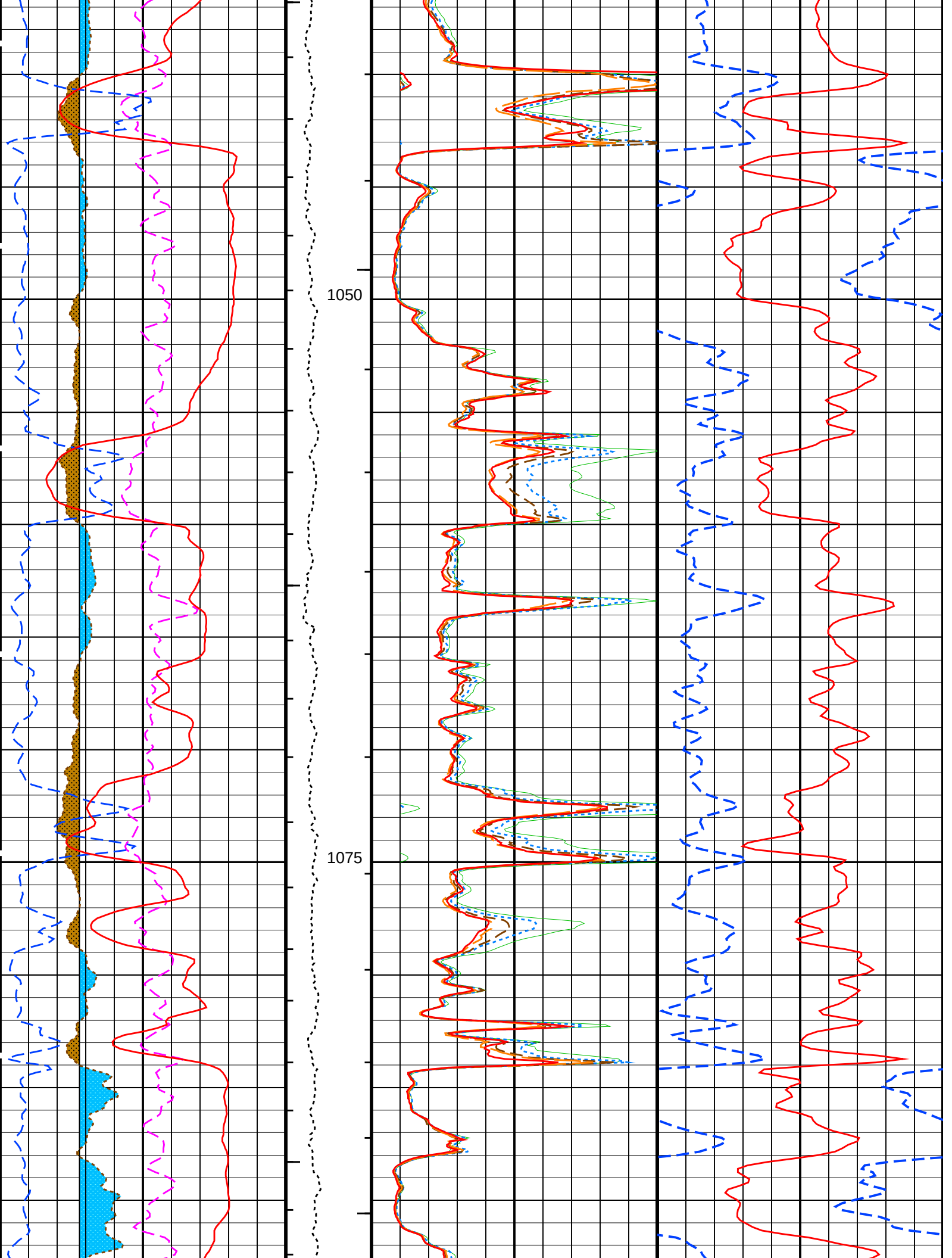
850


875
900
925
Ultimas lecturas LDL, CNL y CALI


950
975


1000
1025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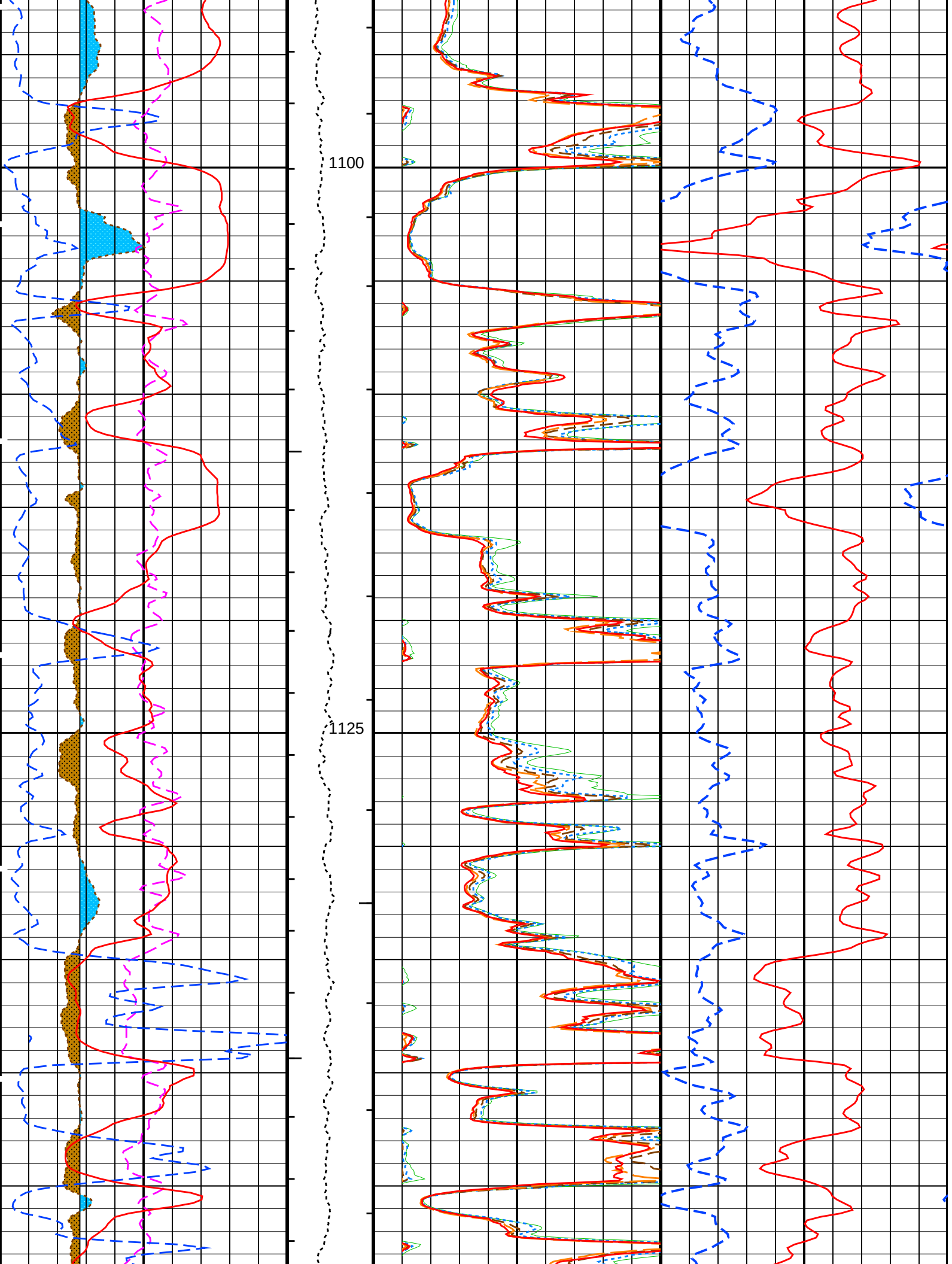
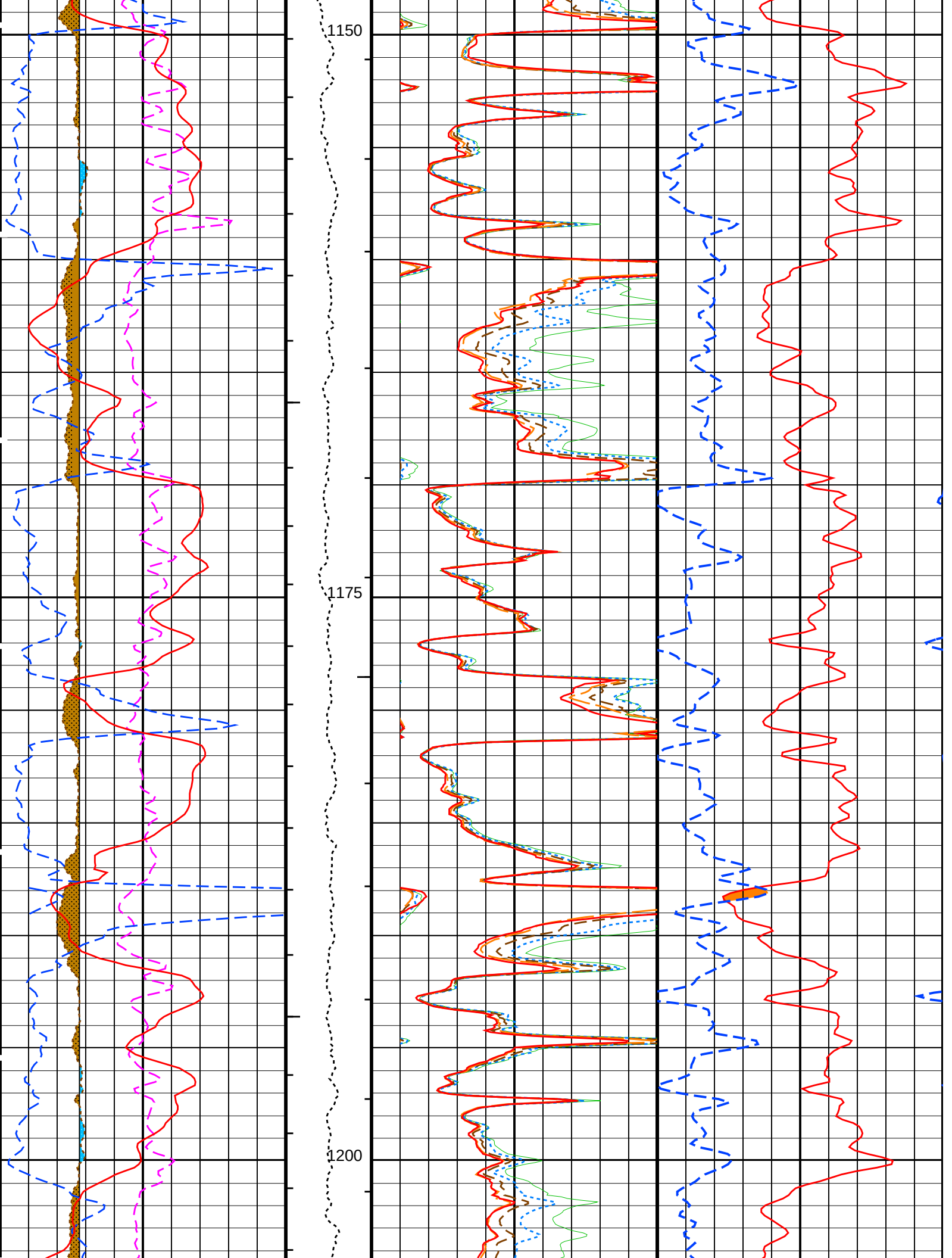
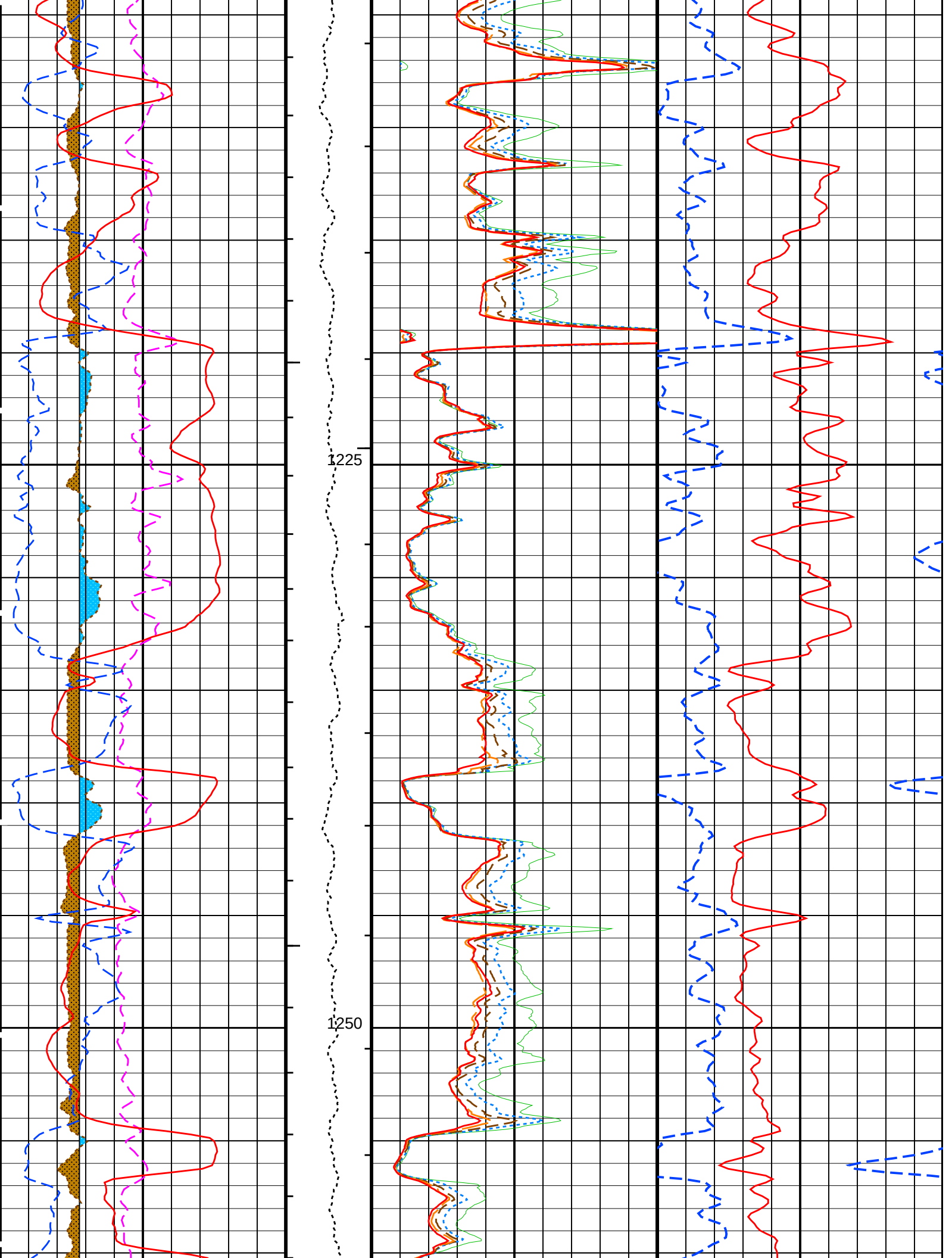
1075


1100
1125


1150
1175
1200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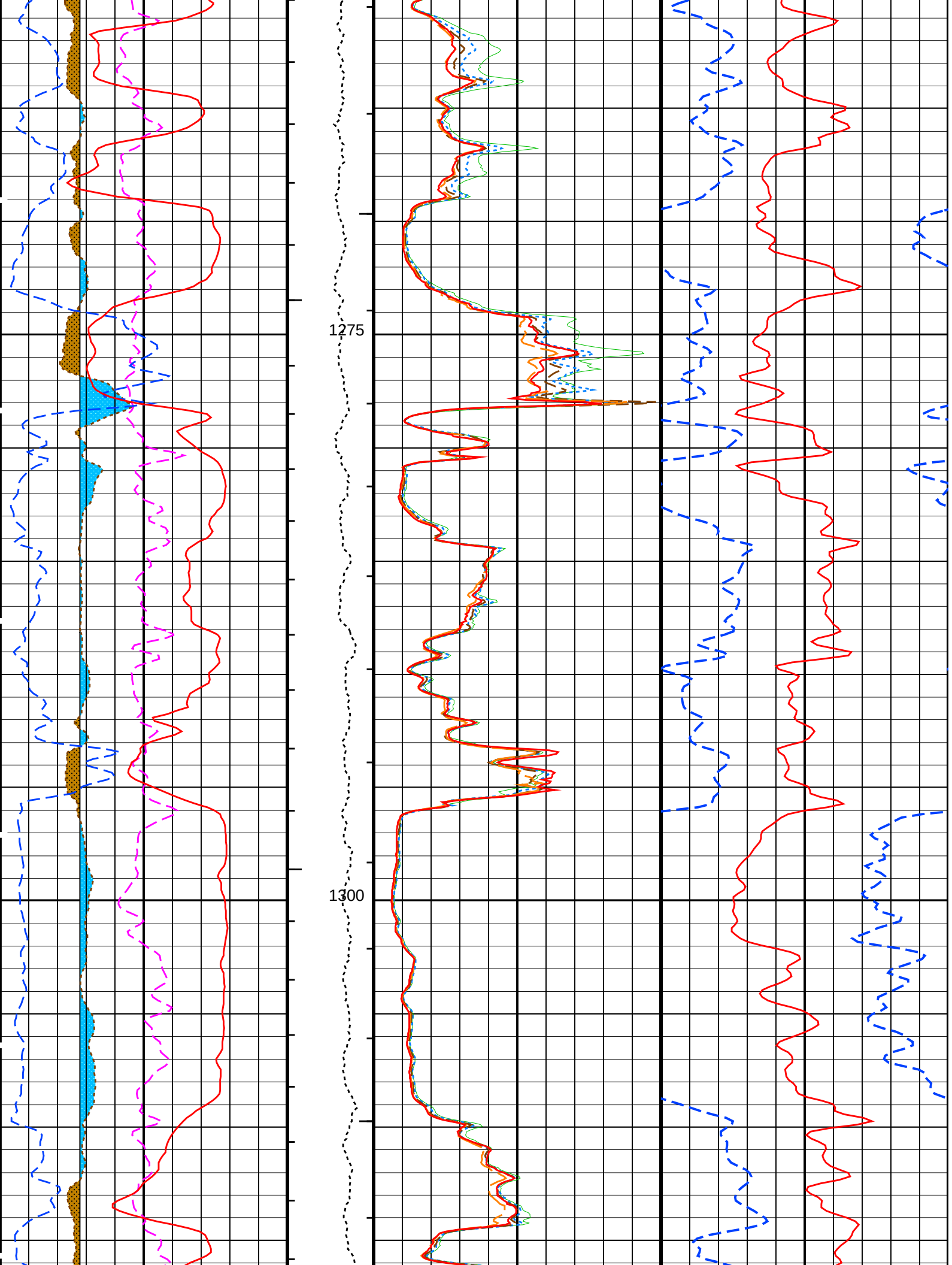
1250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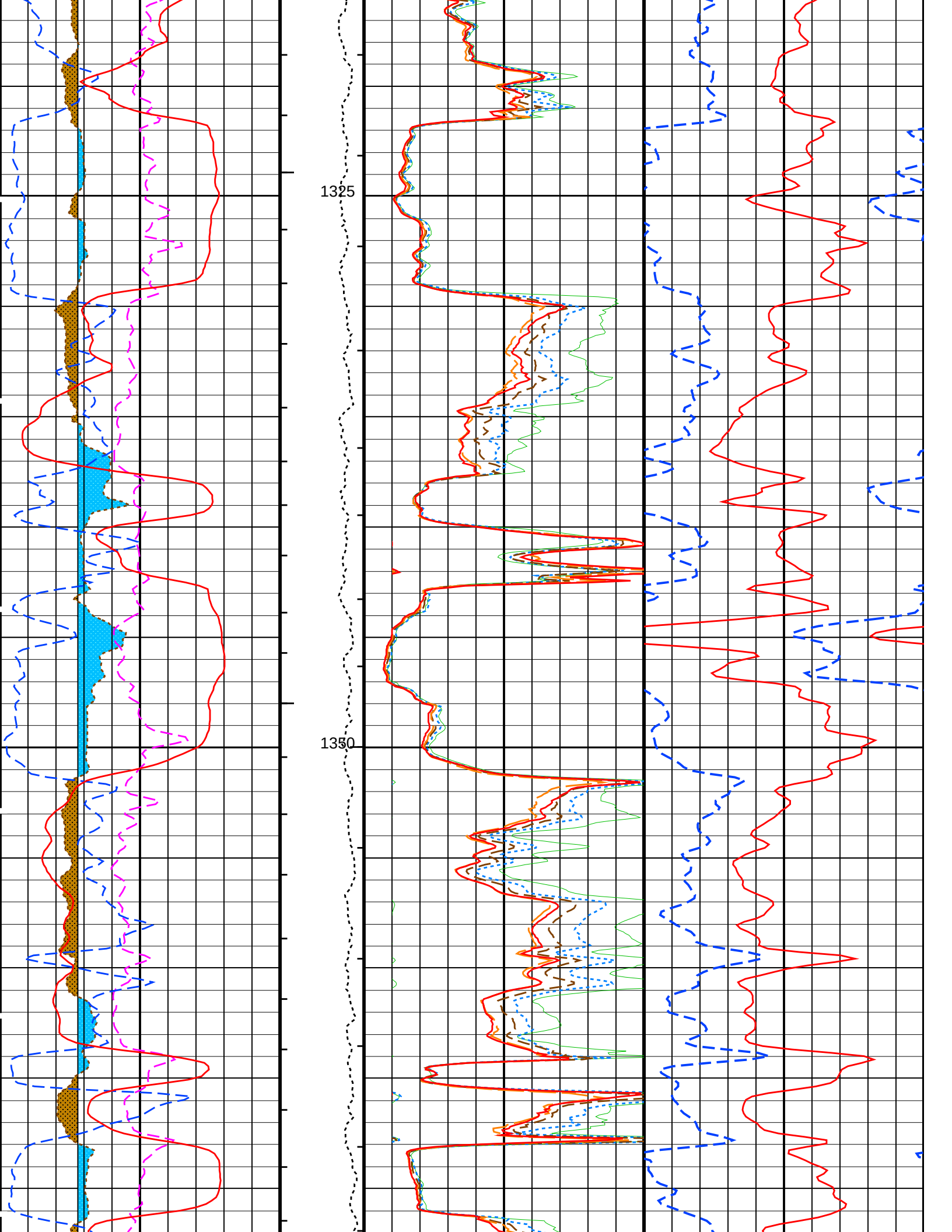
1300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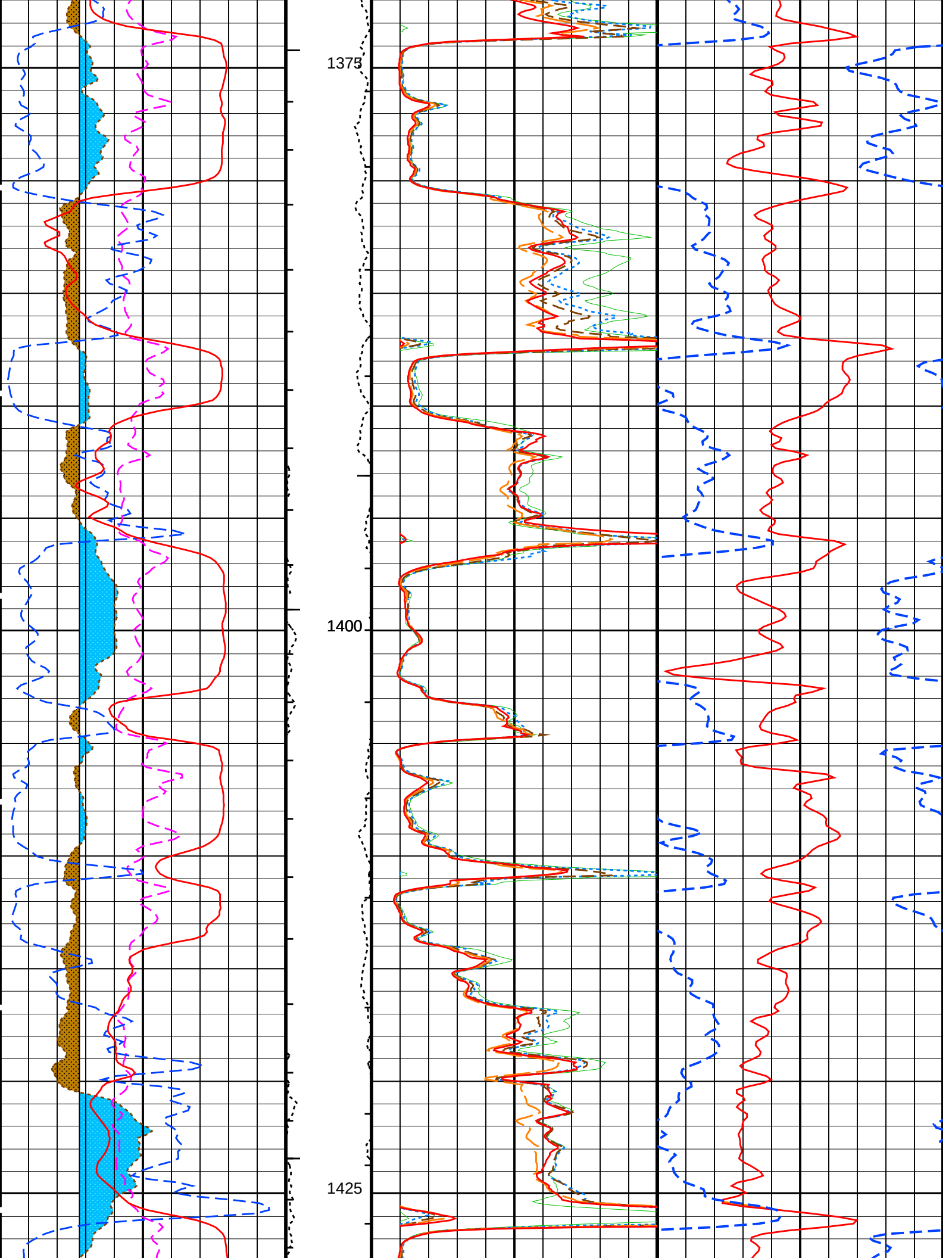
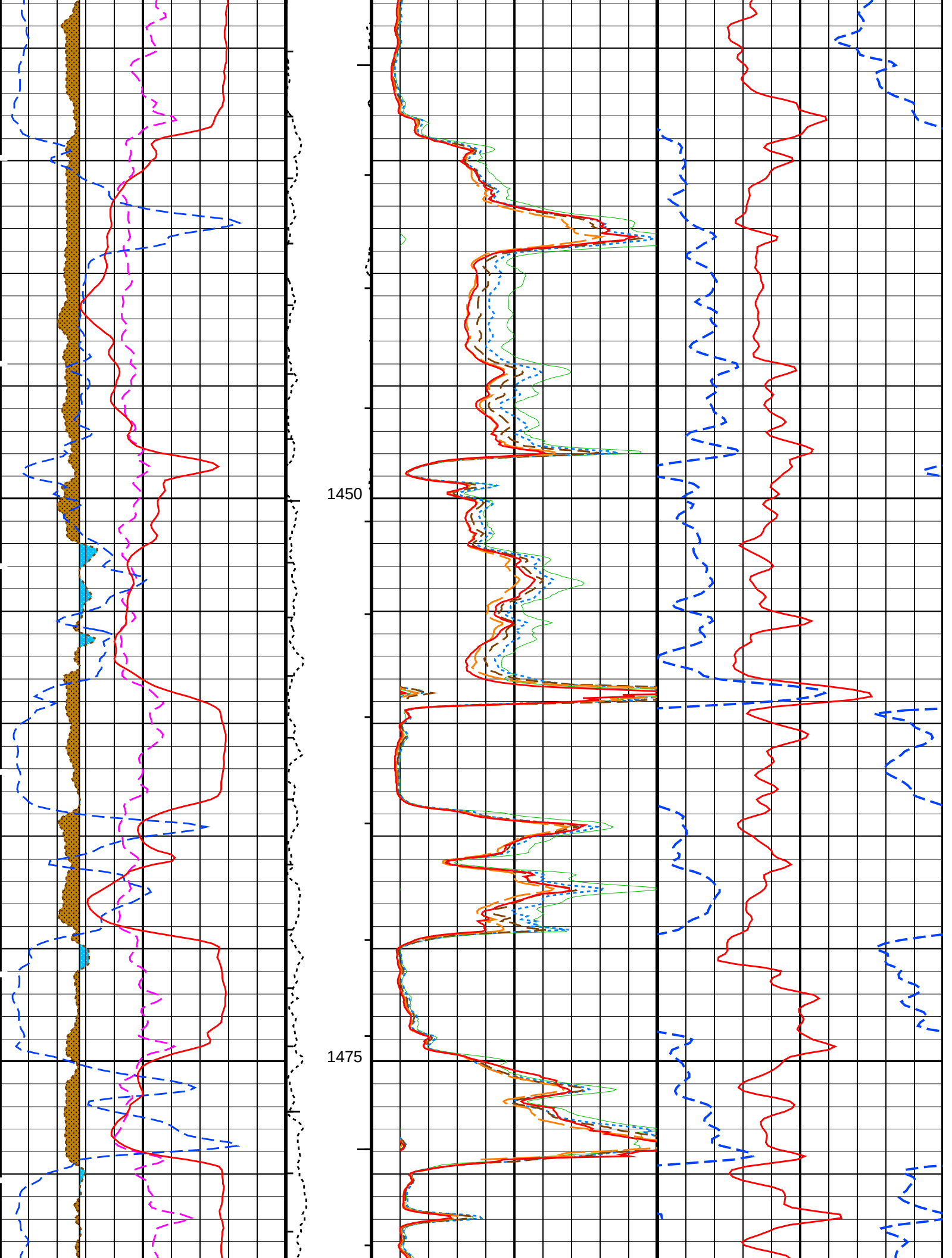
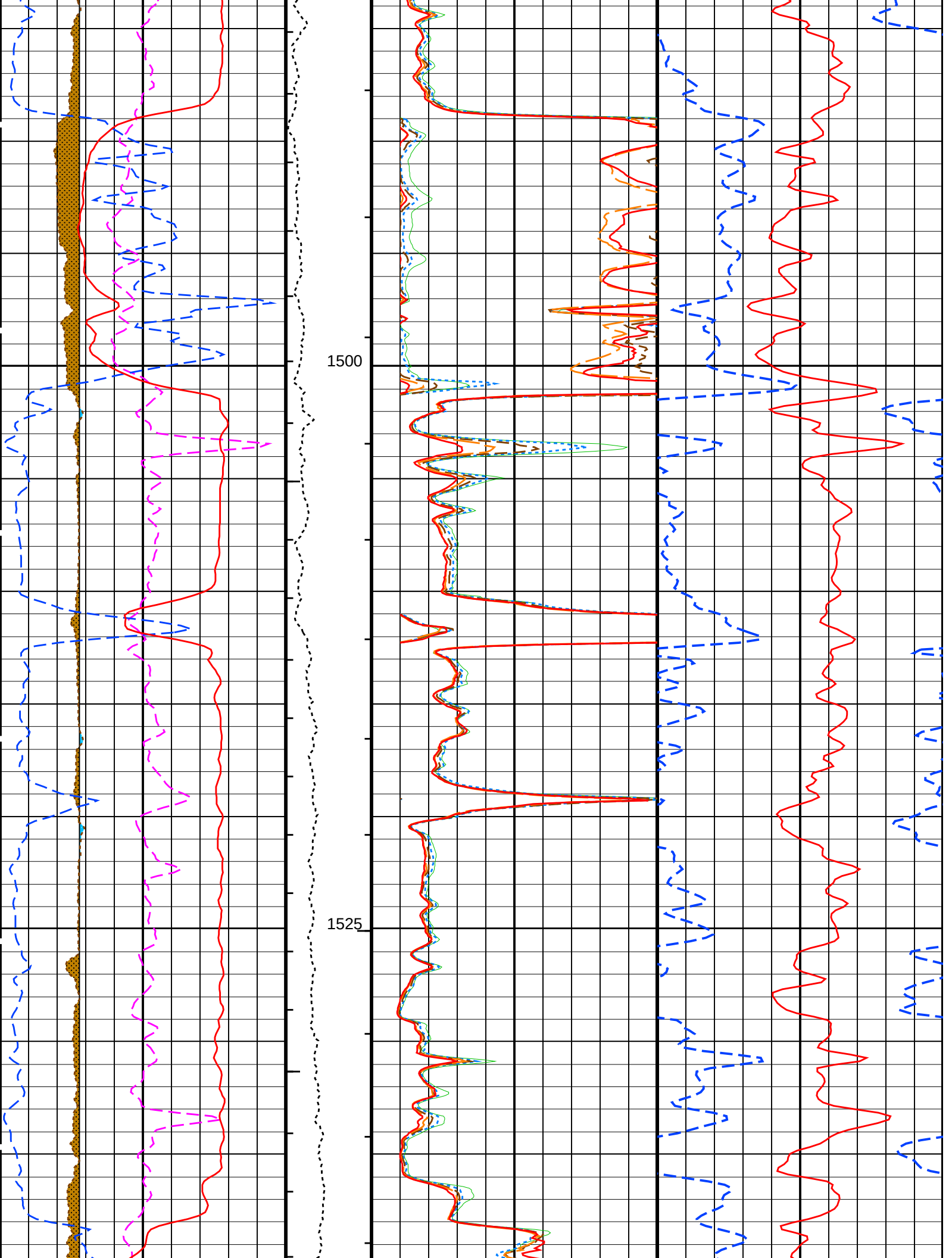
1350


1375
1400
1425


1450
1475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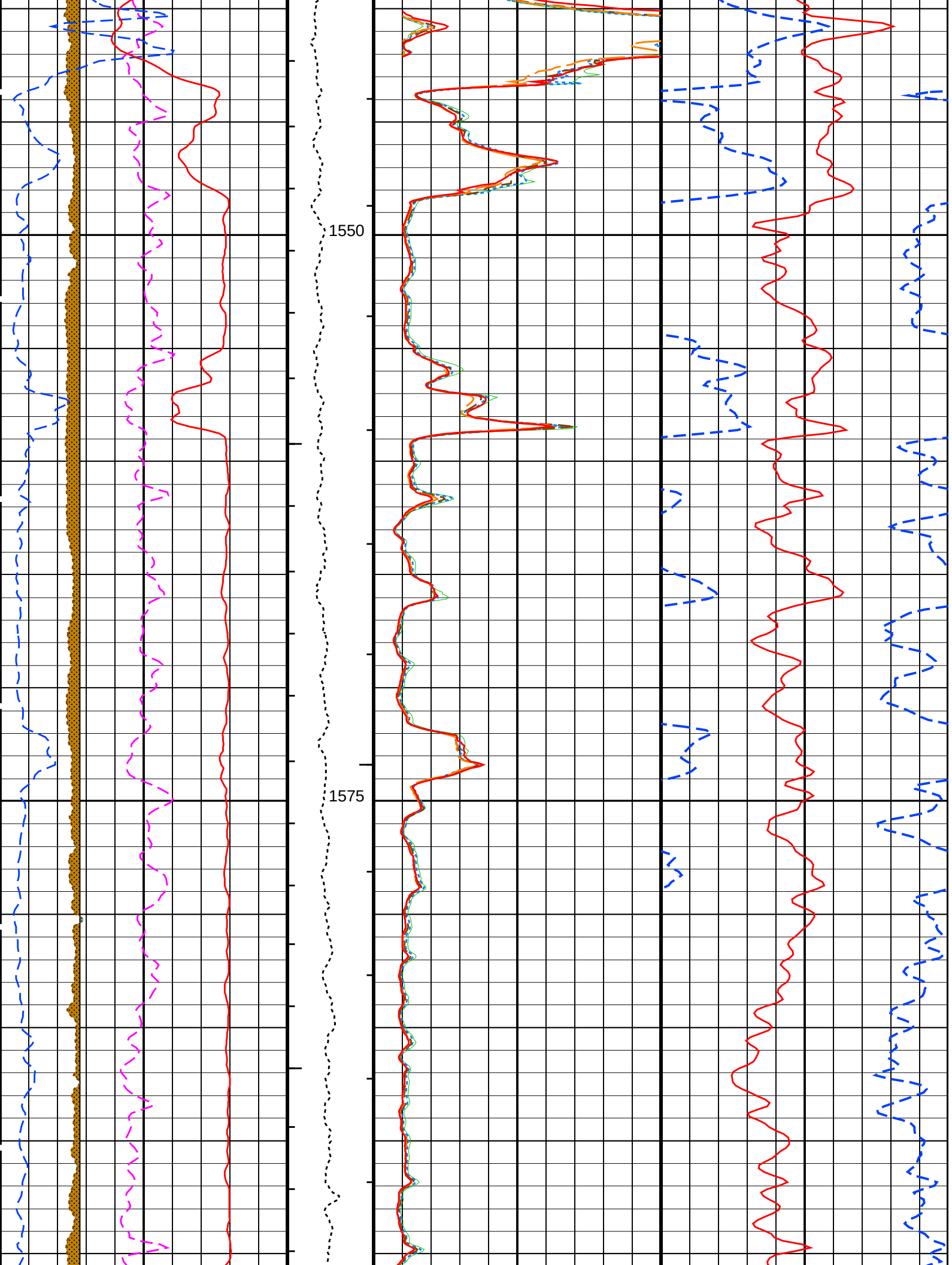
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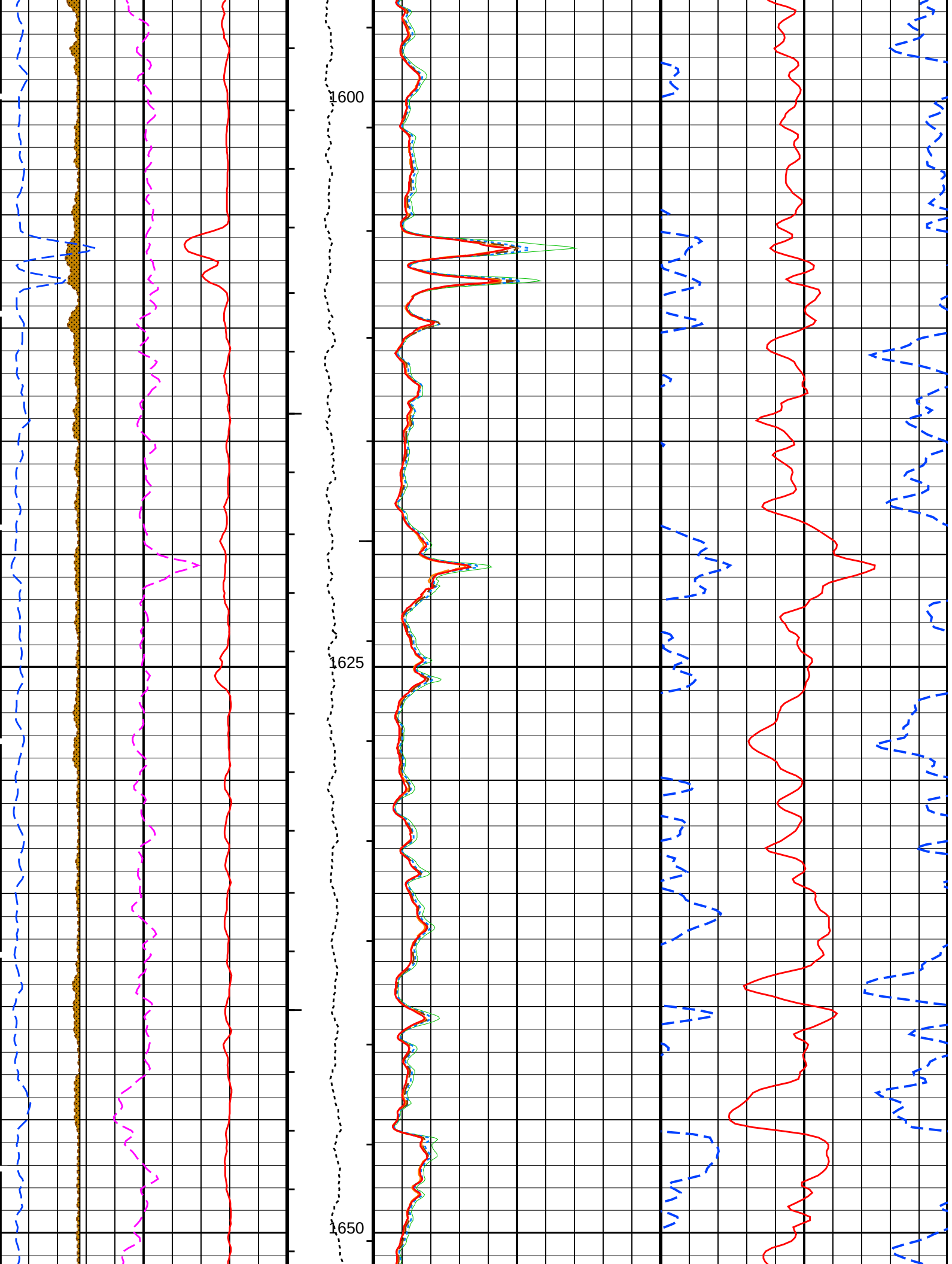
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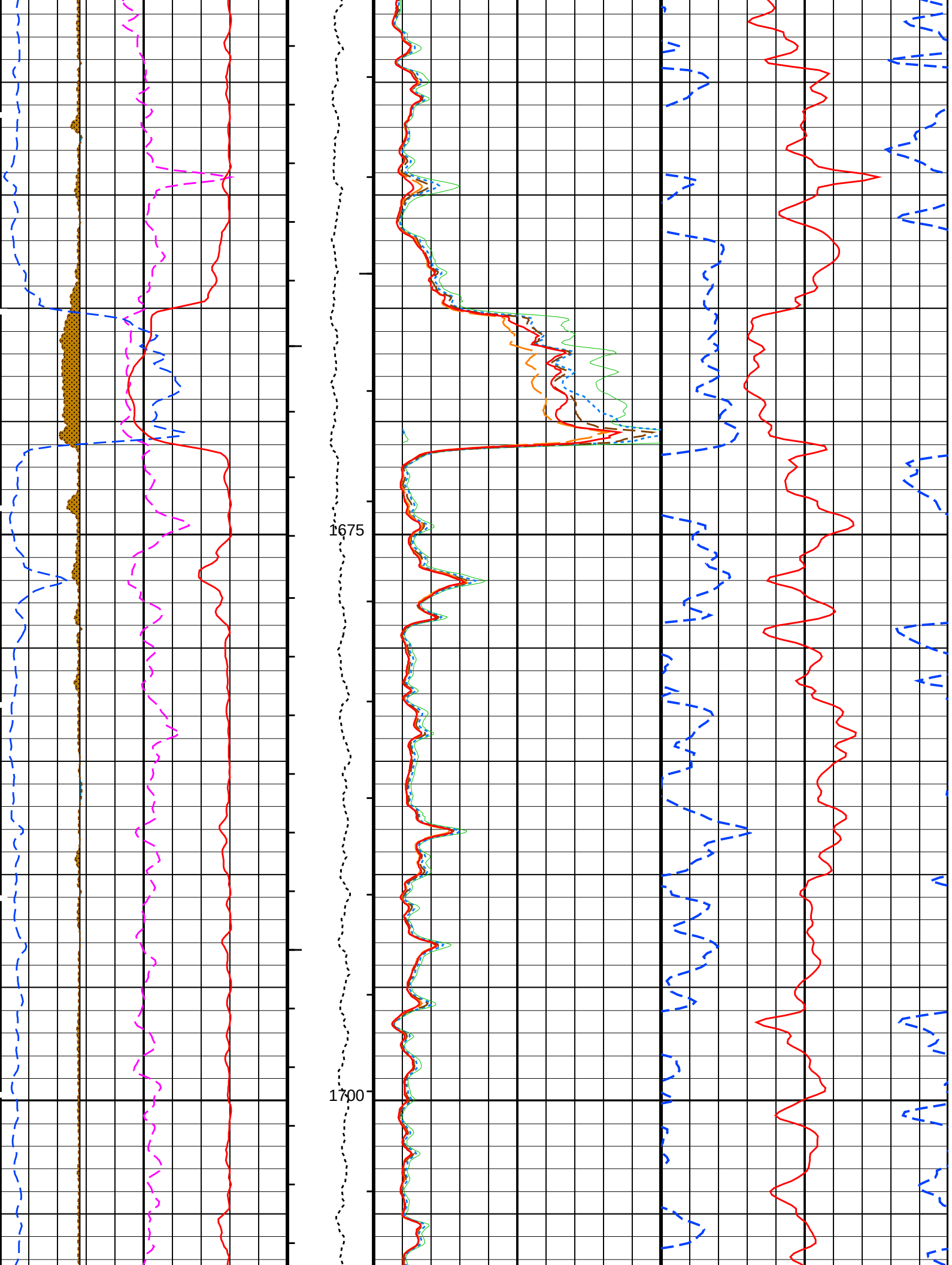
1650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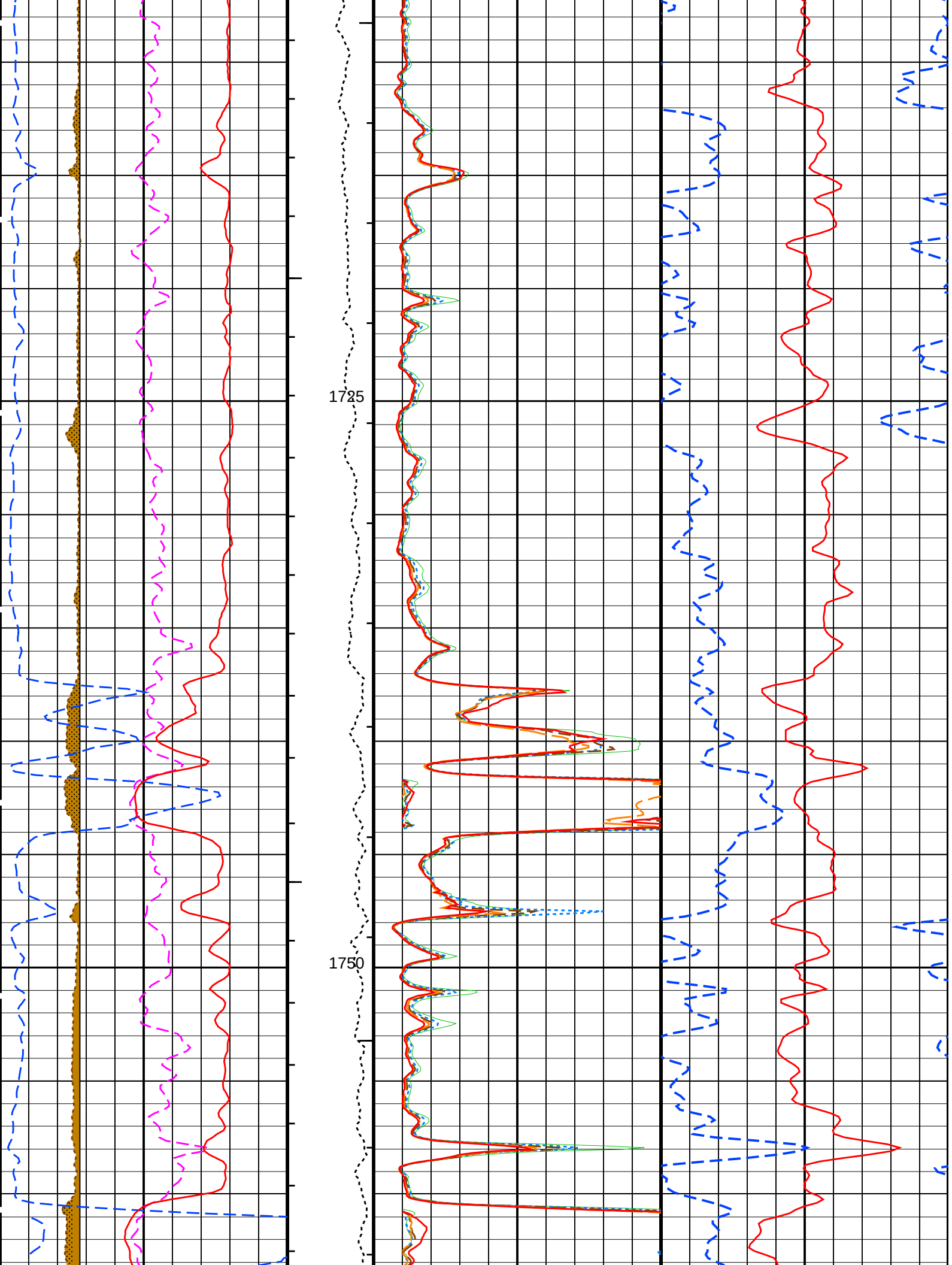
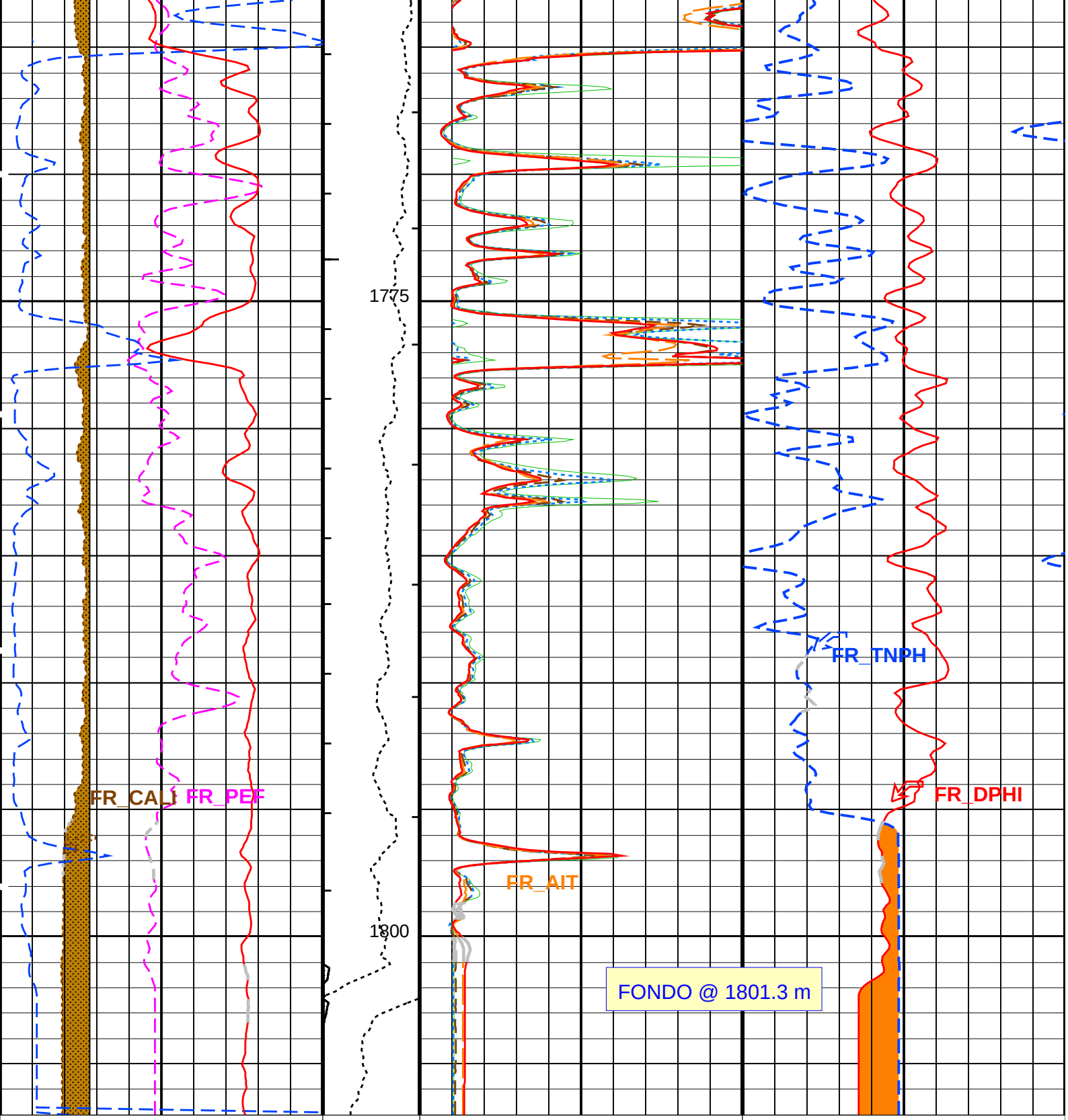
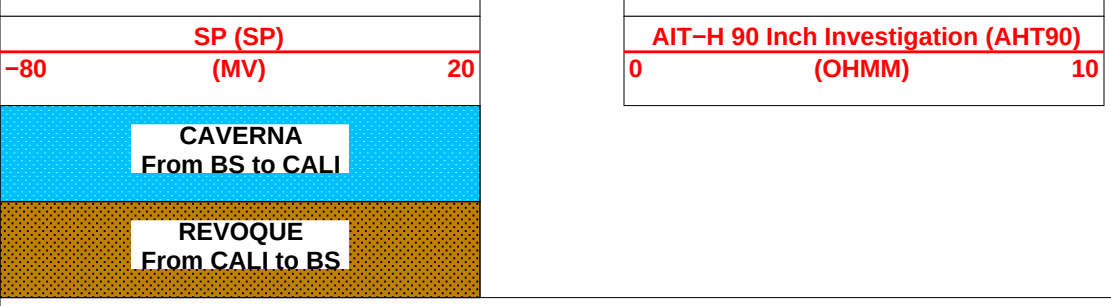
1700


1725
1750



Bit Size (BS) 6 (IN) 16	Tension (TENS) (LBF) 0 1000	AIT−H 10 Inch Investigation (AHT10) 0 (OHMM) 10
Caliper (CALI) 6 (IN) 16	Stuck Stretch (STIT) 0 (M) 20	AIT−H 20 Inch Investigation (AHT20) 0 (OHMM) 10
PhotoElectric Factor (PEF) 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

Density Porosity (DPHI) 0.4 (V/V) 0
Env.Corr.Thermal Neutron Porosity (TNPH) 0.4 (V/V) 0
Gas From DPHI to TNPH



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	
	AIT−H: Array Induction Tool − H		
AHBHM	Array Induction Borehole Correction Mode	2_ComputeStandoff	
AHBHV	Array Induction Borehole Correction Code Version Number	880	
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	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	70	DEGC
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	0.81	
FPHI	Form Factor Porosity Source	DPHI	
GCSE	Generalized Caliper Selection	CALI	
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	
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
RTCO	RTCO − Rt Invasion Correction	YES	
SHT	Surface Hole Temperature	20	DEGC
SPDR	SP Drift	0	MV/M
SPNV	SP Next Value	−4	MV
	LDT−D: Litho Density − D		
BFM	Borehole Fluid Medium	LIQUID	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	70	DEGC
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
FD	Fluid Density	1	G/C3
GCSE	Generalized Caliper Selection	CALI	
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	
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
MDEN	Matrix Density	2.65	G/C3
SHT	Surface Hole Temperature	20	DEGC
WMUD	Mud Weight	1.17	G/C3
	HILTB−FTB: High resolution Integrated Logging Tool−DTS		
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	70	DEGC
BSCO	Borehole Salinity Correction Option	YES	
CCCO	Casing & Cement Thickness Correction Option	NO	
DPPM	Density Porosity Processing Mode	HIRS	
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	0.81	
FPHI	Form Factor Porosity Source	DPHI	
FSAL	Formation Salinity	−50000	PPM
FSCO	Formation Salinity Correction Option	NO	

GCSE	Generalized Caliper Selection	CALI	
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	
HSCO	Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
MCCO	Mud Cake Correction Option	YES	
MCOR	Mud Correction	NATU	
MWCO	Mud Weight Correction Option	YES	
PTCO	Pressure/Temperature Correction Option	YES	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	20	DEGC
SOCN	Standoff Distance	0.125	IN
SOCO	Standoff Correction Option	YES	
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	DPHI	
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			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	70	DEGC
FCD	Future Casing (Outer) Diameter	5.5	IN
GCSE	Generalized Caliper Selection	CALI	
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	CALI	
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
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	1800.00	M
TDL	Total Depth − Logger	1801.30	M
System and Miscellaneous			
BS	Bit Size	8.750	IN
BSAL	Borehole Salinity	350.00	PPM
CSIZ	Current Casing Size	9.625	IN
CWEI	Casing Weight	32.30	LB/F
DFD	Drilling Fluid Density	1.17	G/C3
DO	Depth Offset for Playback	0.2	M
MST	Mud Sample Temperature	7.20	DEGC
PP	Playback Processing	RECOMPUTE	
RMFS	Resistivity of Mud Filtrate Sample	3.8800	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	1801.3	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: COMBINADA **Vertical Scale: 1:200** **Graphics File Created: 30−Jun−2006 18:52**

OP System Version: 14C0−302

MCM

AIT−H	14C0−302	LDT−D	14C0−302
DTA−A	14C0−302	HILTB−FTB	14C0−302
DTC−H	14C0−302		

Input DLIS Files

DEFAULT	AIT_LDL_TLD_MCFL_025LUP	FN:24	PRODUCER	30−Jun−2006 08:23	1806.9 M	291.0 M

Output DLIS Files

DEFAULT	AIT_LDL_TLD_MCFL_089PUP	FN:42	PRODUCER	30−Jun−2006 18:52
CUST1	AIT_LDL_TLD_MCFL_089PUC	FN:43	CUSTOMER	30−Jun−2006 18:52
CUST2	AIT_LDL_TLD_MCFL_089PUC	FN:44	CUSTOMER	30−Jun−2006 18:52

Schlumberger

TRAMO REPETIDO

MAXIS Field Log

Input DLIS Files

DEFAULT	AIT_LDL_TLD_MCFL_024LUP	FN:23	PRODUCER	30−Jun−2006 08:23	1805.0 M	1626.4 M

Output DLIS Files

DEFAULT	AIT_LDL_TLD_MCFL_091PUP	FN:48	PRODUCER	30−Jun−2006 19:01	1775.0 M	1700.9 M
CUST1	AIT_LDL_TLD_MCFL_091PUC	FN:49	CUSTOMER	30−Jun−2006 19:01	1775.0 M	1700.9 M
CUST2	AIT_LDL_TLD_MCFL_091PUC	FN:50	CUSTOMER	30−Jun−2006 19:01	1775.0 M	1700.9 M

Integrated Hole/Cement Volume Summary

Hole Volume = 2.76 M3

Cement Volume = 1.63 M3 (assuming 5.50 IN casing O.D.)

Computed from 1775.0 M to 1700.9 M using data channel(s) CALI

OP System Version: 14C0−302

MCM

AIT−H	14C0−302	LDT−D	14C0−302
DTA−A	14C0−302	HILTB−FTB	14C0−302
DTC−H	14C0−302		

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
SPDR	0 MV/M	0 MV/M	1775.0 19:01:15

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

REVOQUE
From CALI to BS

CAVERNA
From BS to CALI

SP (SP)
−80 (MV) 20

RWA (RWA)
0 (OHMM) 1

PhotoElectric Factor (PEF)
0 (−−−− 5

Caliper (CALI)
6 (IN) 16

Bit Size (BS)
6 (IN) 16

Stuck Stretch (STIT)
0 (M) 20

Tension (TENS) (LBF)
0 1000

AIT−H 90 Inch Investigation (AHT90)
0 (OHMM) 10

AIT−H 60 Inch Investigation (AHT60)
0 (OHMM) 10

AIT−H 30 Inch Investigation (AHT30)
0 (OHMM) 10

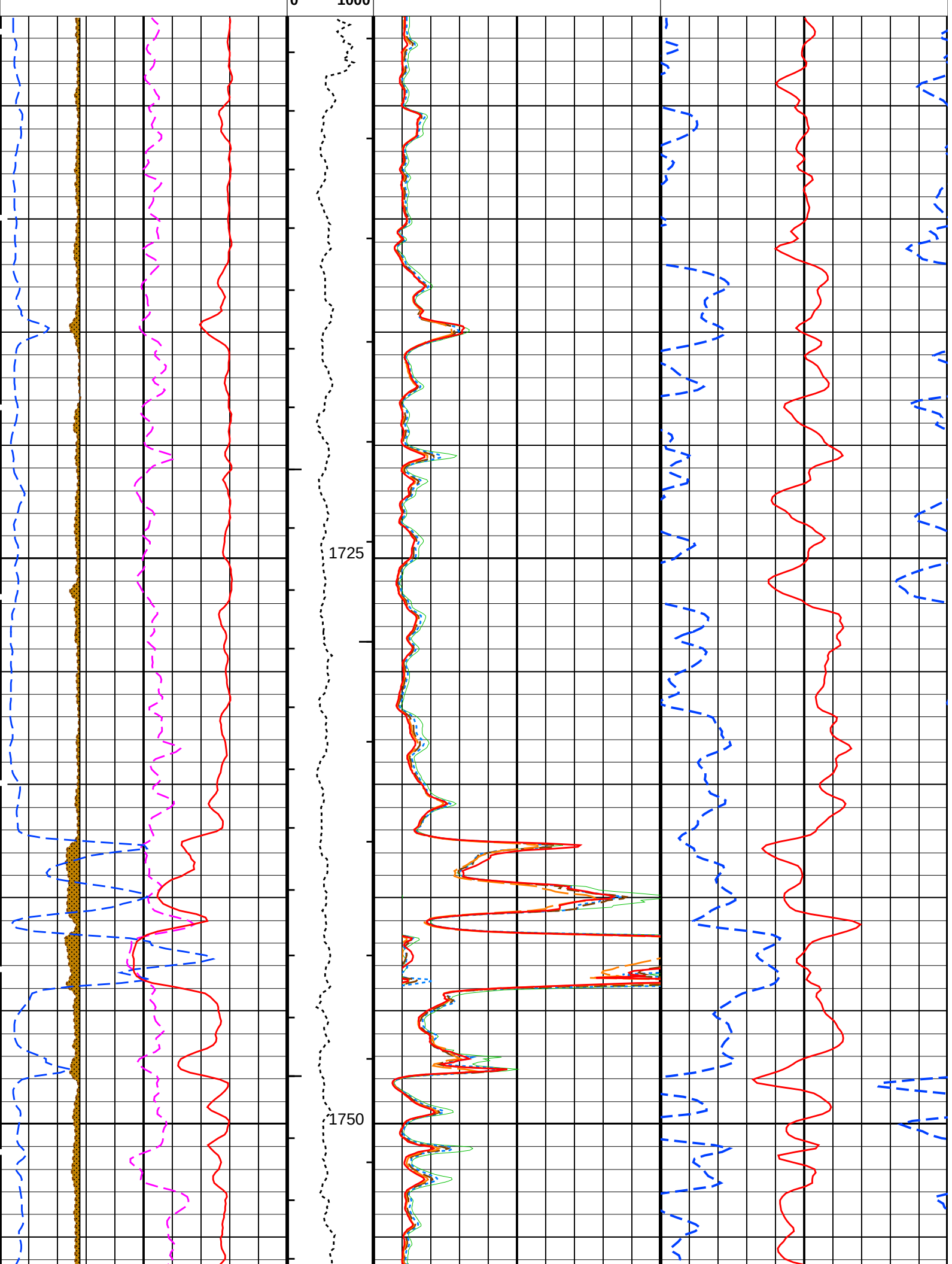
AIT−H 20 Inch Investigation (AHT20)
0 (OHMM) 10

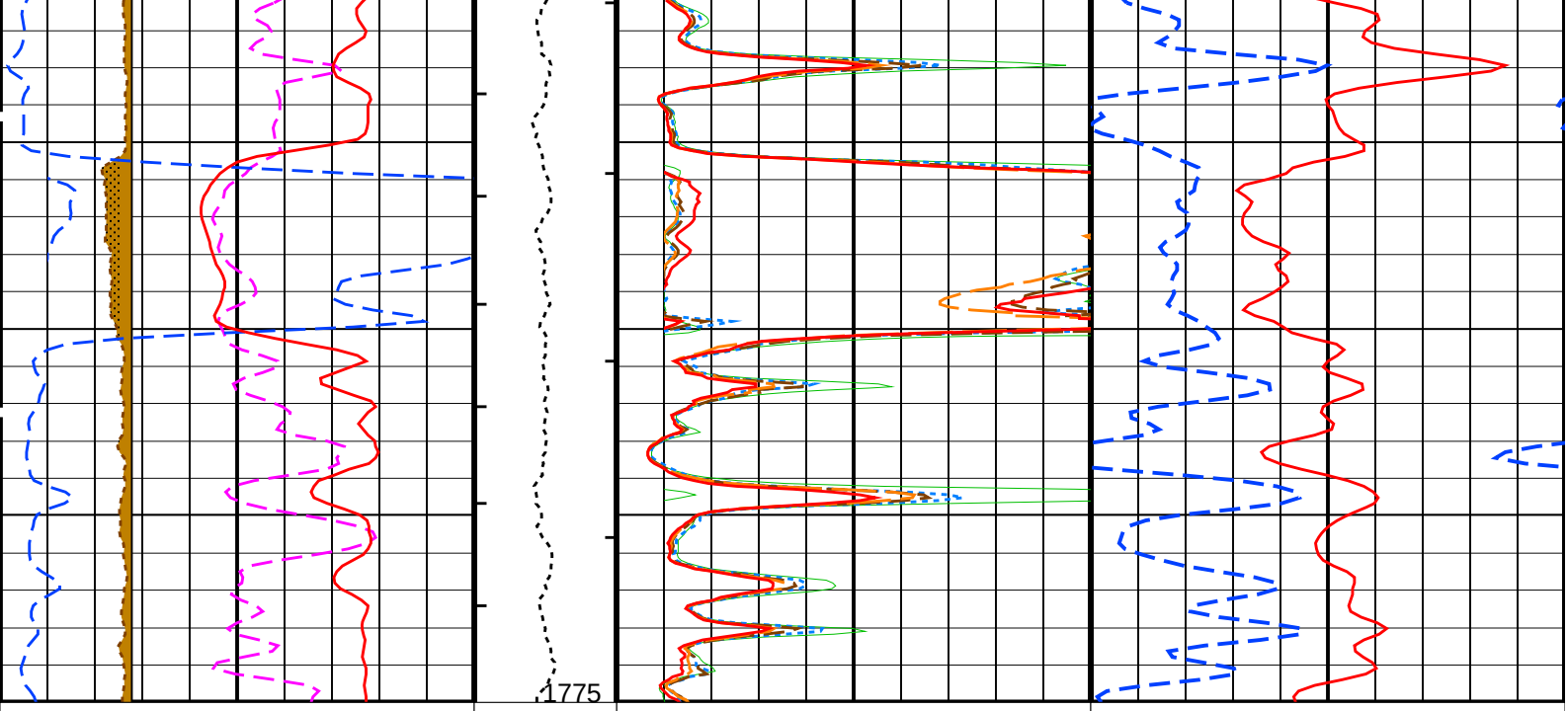
AIT−H 10 Inch Investigation (AHT10)
0 (OHMM) 10

Gas
From DPHI to TNPH

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

Density Porosity (DPHI)
0.4 (V/V) 0


0
1000
1725
1750



Bit Size (BS)	Tension (TENS)	AIT−H 10 Inch Investigation (AHT10)	Density Porosity (DPHI)
6 (IN) 16	(LBF) 0 1000	0 (OHMM) 10	0.4 (V/V) 0
Caliper (CALI)	**Stuck Stretch (STIT)**	**AIT−H 20 Inch Investigation (AHT20)**	**Env.Corr.Thermal Neutron Porosity (TNPH)**
6 (IN) 16	0 (M) 20	0 (OHMM) 10	0.4 (V/V) 0
PhotoElectric Factor (PEF)		**AIT−H 30 Inch Investigation (AHT30)**	**Gas From DPHI to TNPH**
0 (−−−− 5		0 (OHMM) 10	
RWA (RWA)		**AIT−H 60 Inch Investigation (AHT60)**	
0 (OHMM) 1		0 (OHMM) 10	
SP (SP)		**AIT−H 90 Inch Investigation (AHT90)**	
−80 (MV) 20		0 (OHMM) 10	
CAVERNA From BS to CALI			
REVOQUE From CALI to BS			

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	
	AIT−H: Array Induction Tool − H		
AHBHM	Array Induction Borehole Correction Mode	2_ComputeStandoff	
AHBHV	Array Induction Borehole Correction Code Version Number	880	
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	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	70	DEGC
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	0.81	
FPHI	Form Factor Porosity Source	DPHI	
GCSE	Generalized Caliper Selection	CALI	
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	
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
RTCO	RTCO − Rt Invasion Correction	YES	
SHT	Surface Hole Temperature	20	DEGC
SPDR	SP Drift	0	MV/M
SPNV	SP Next Value	−3	MV
LDT−D: Litho Density − D			
BFM	Borehole Fluid Medium	LIQUID	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	70	DEGC
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
FD	Fluid Density	1	G/C3
GCSE	Generalized Caliper Selection	CALI	
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	
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
MDEN	Matrix Density	2.65	G/C3
SHT	Surface Hole Temperature	20	DEGC
WMUD	Mud Weight	1.17	G/C3
HILTB−FTB: High resolution Integrated Logging Tool−DTS			
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	70	DEGC
BSCO	Borehole Salinity Correction Option	YES	
CCCO	Casing & Cement Thickness Correction Option	NO	
DPPM	Density Porosity Processing Mode	HIRS	
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	0.81	
FPHI	Form Factor Porosity Source	DPHI	
FSAL	Formation Salinity	−50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCSE	Generalized Caliper Selection	CALI	
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	
HSCO	Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
MCCO	Mud Cake Correction Option	YES	
MCOR	Mud Correction	NATU	
MWCO	Mud Weight Correction Option	YES	
PTCO	Pressure/Temperature Correction Option	YES	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	20	DEGC
SOCN	Standoff Distance	0.125	IN
SOCO	Standoff Correction Option	YES	
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	DPHI	
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			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	70	DEGC
FCD	Future Casing (Outer) Diameter	5.5	IN
GCSE	Generalized Caliper Selection	CALI	
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	CALI	
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
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	1800.00	M
TDL	Total Depth − Logger	1801.30	M
	System and Miscellaneous		
BS	Bit Size	8.750	IN
BSAL	Borehole Salinity	350.00	PPM
CSIZ	Current Casing Size	9.625	IN
CWEI	Casing Weight	32.30	LB/F
DFD	Drilling Fluid Density	1.17	G/C3
DO	Depth Offset for Playback	0.9	M
DORL	Depth Offset for Repeat Analysis	0.0	M
MST	Mud Sample Temperature	7.20	DEGC
PP	Playback Processing	RECOMPUTE	
RMFS	Resistivity of Mud Filtrate Sample	3.8800	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	1801.3	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: COMBINADA Vertical Scale: 1:200 Graphics File Created: 30−Jun−2006 19:01

OP System Version: 14C0−302

MCM

AIT−H	14C0−302	LDT−D	14C0−302
DTA−A	14C0−302	HILTB−FTB	14C0−302
DTC−H	14C0−302		

Input DLIS Files

DEFAULT	AIT_LDL_TLD_MCFL_024LUP	FN:23	PRODUCER	30−Jun−2006 08:23	1805.0 M	1626.4 M

Output DLIS Files

DEFAULT	AIT_LDL_TLD_MCFL_091PUP	FN:48	PRODUCER	30−Jun−2006 19:01		
CUST1	AIT_LDL_TLD_MCFL_091PUC	FN:49	CUSTOMER	30−Jun−2006 19:01		
CUST2	AIT_LDL_TLD_MCFL_091PUC	FN:50	CUSTOMER	30−Jun−2006 19:01		

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MAXIS Field Log

Input DLIS Files

DEFAULT	AIT_LDL_TLD_MCFL_024LUP	FN:23	PRODUCER	30−Jun−2006 08:23	1805.0 M	1626.4 M
DEFAULT	AIT_LDL_TLD_MCFL_089PUP	FN:42	PRODUCER	30−Jun−2006 18:52	1807.0 M	345.0 M

Output DLIS Files

DEFAULT	AIT_LDL_TLD_MCFL_091PUP	FN:48	PRODUCER	30−Jun−2006 19:01	1775.0 M	1700.9 M
CUST1	AIT_LDL_TLD_MCFL_091PUC	FN:49	CUSTOMER	30−Jun−2006 19:01	1775.0 M	1700.9 M
CUST2	AIT_LDL_TLD_MCFL_091PUC	FN:50	CUSTOMER	30−Jun−2006 19:01	1775.0 M	1700.9 M

Integrated Hole/Cement Volume Summary

Hole Volume = 2.76 M3

Cement Volume = 1.63 M3 (assuming 5.50 IN casing O.D.)

Computed from 1775.0 M to 1700.9 M using data channel(s) CALI

OP System Version: 14C0−302

MCM

AIT−H	14C0−302	LDT−D	14C0−302
DTA−A	14C0−302	HILTB−FTB	14C0−302
DTC−H	14C0−302		

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
SPDR	0 MV/M	0 MV/M	1775.0 19:01:15

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

REVOQUE
From CALI to BS

CAVERNA
From BS to CALI

SP_REP Curve (SP_REP)
−80 (MV) 20

RWA_REP Curve (RWA_REP)
0 (OHMM) 1

PEF_REP Curve (PEF_REP)
0 (−−−− 5

CALI_REP Curve (CALI_REP)
6 (IN) 16

BS_REP Curve (BS_REP)
6 (IN) 16

TENS_REP Curve (TENS_REP) (LBF)
0 1000

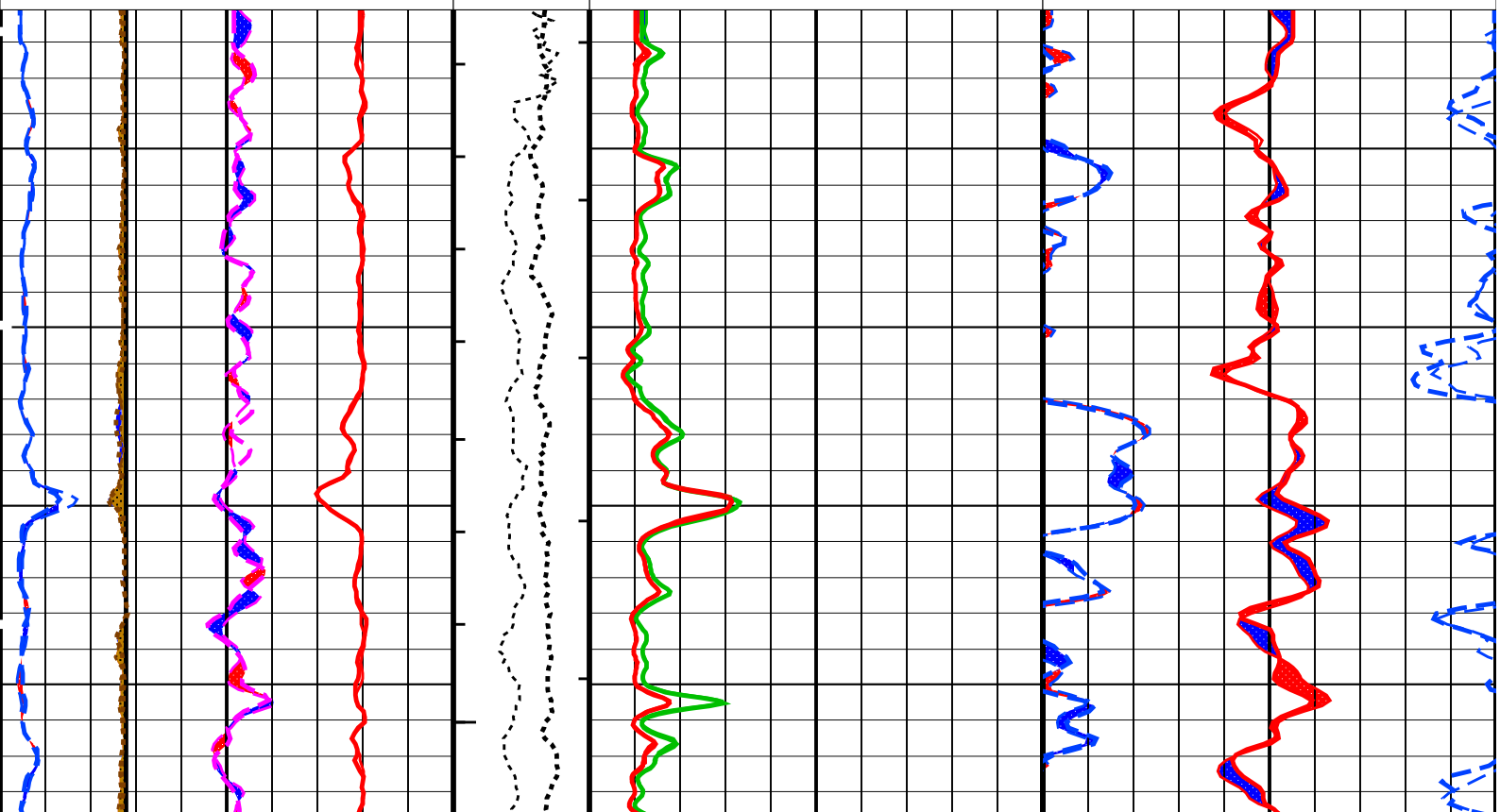
AHT90_REP Curve (AHT90_REP)
0 (OHMM) 10

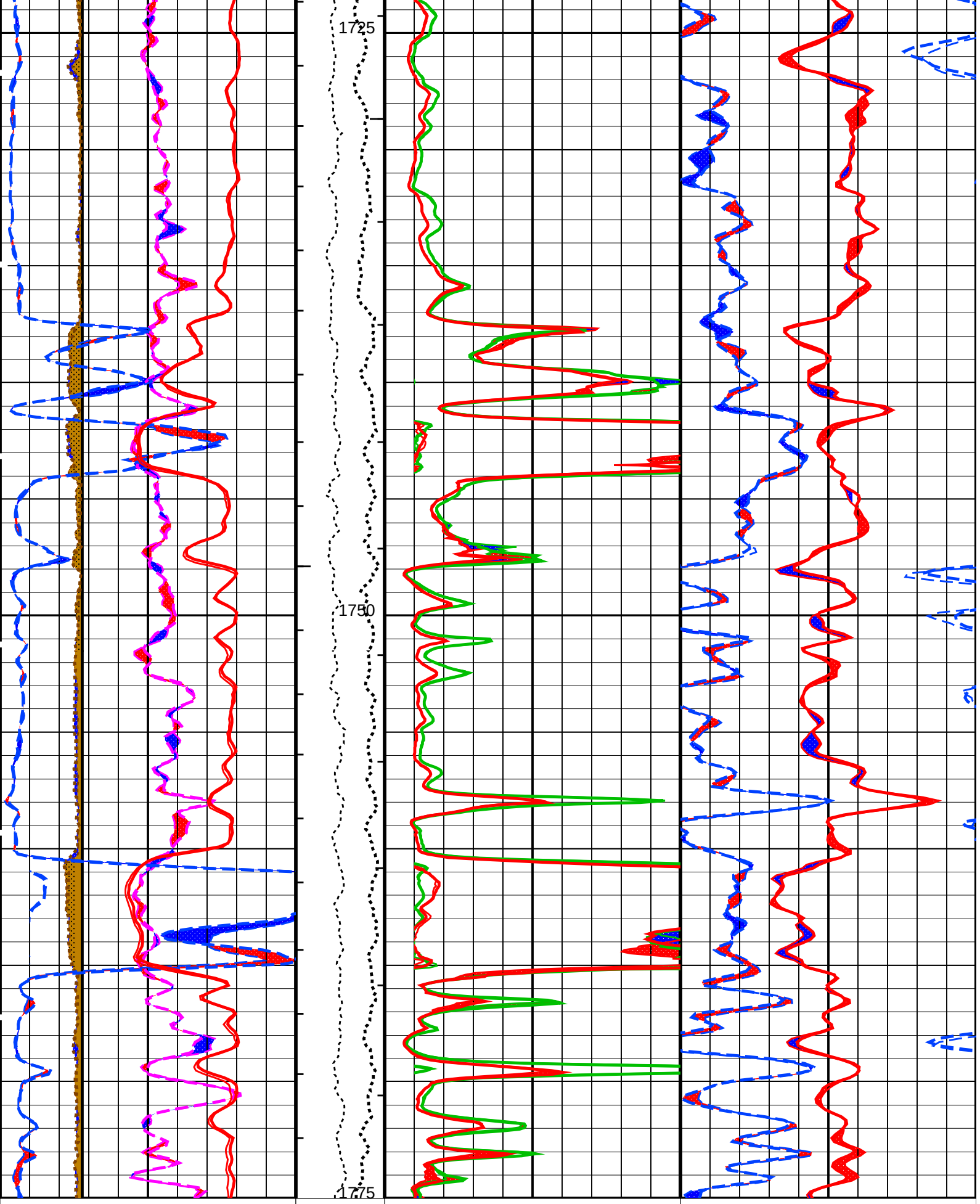
AHT10_REP Curve (AHT10_REP)
0 (OHMM) 10

Gas
From DPHI to TNPH

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

DPHI_REP Curve (DPHI_REP)
0.4 (V/V) 0





BS_REP Curve (BS_REP)

6 (IN) 16

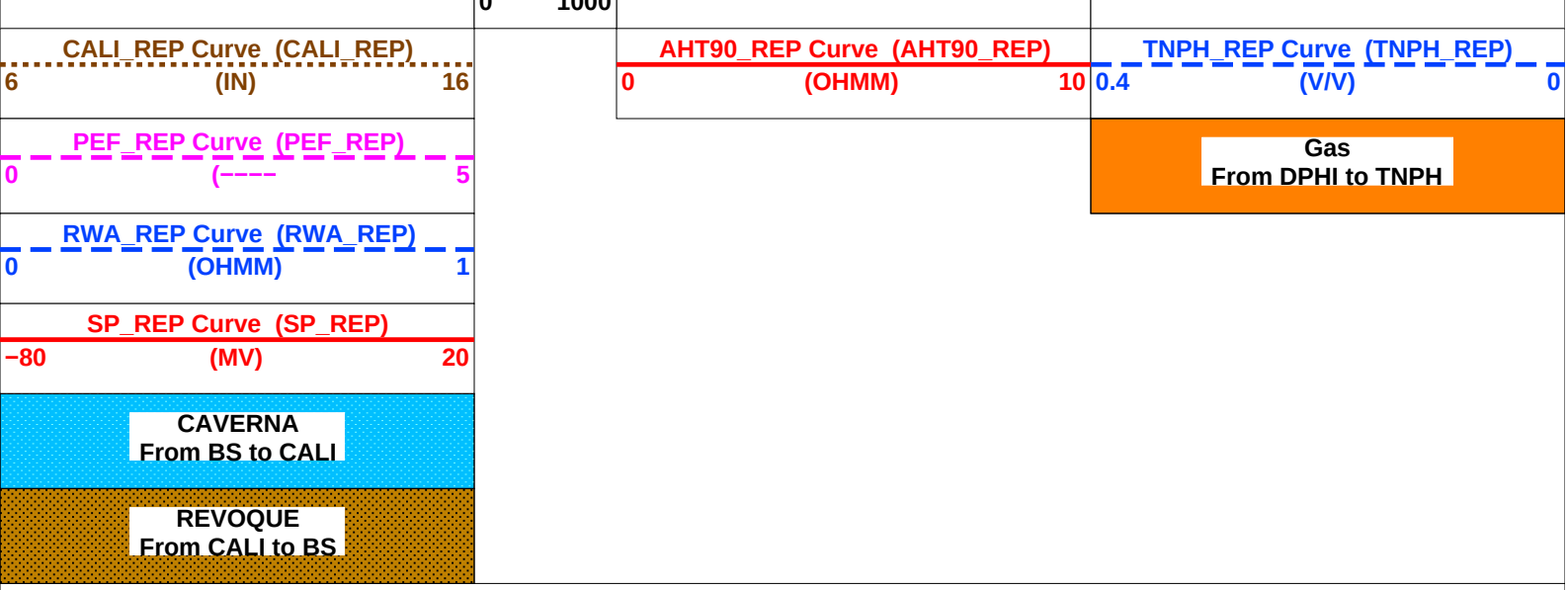
TENS_REP Curve (TENS_REP) (LBF)

AHT10_REP Curve (AHT10_REP)

0 (OHMM) 10

DPHI_REP Curve (DPHI_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	
	AIT−H: Array Induction Tool − H		
AHBHM	Array Induction Borehole Correction Mode	2_ComputeStandoff	
AHBHV	Array Induction Borehole Correction Code Version Number	880	
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	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	70	DEGC
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	0.81	
FPHI	Form Factor Porosity Source	DPHI	
GCSE	Generalized Caliper Selection	CALI	
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	
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
RTCO	RTCO − Rt Invasion Correction	YES	
SHT	Surface Hole Temperature	20	DEGC
SPDR	SP Drift	0	MV/M
SPNV	SP Next Value	−3	MV
	LDT−D: Litho Density − D		
BFM	Borehole Fluid Medium	LIQUID	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	70	DEGC
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
FD	Fluid Density	1	G/C3
GCSE	Generalized Caliper Selection	CALI	
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	
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
MDEN	Matrix Density	2.65	G/C3
SHT	Surface Hole Temperature	20	DEGC
WMUD	Mud Weight	1.17	G/C3
	HILTB−ETB: High resolution Integrated Logging Tool−DTS		

	HILTB-FTB: High Resolution Integrated Logging Tool DTS		
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	70	DEGC
BSCO	Borehole Salinity Correction Option	YES	
CCCO	Casing & Cement Thickness Correction Option	NO	
DPPM	Density Porosity Processing Mode	HIRS	
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	0.81	
FPHI	Form Factor Porosity Source	DPHI	
FSAL	Formation Salinity	−50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCSE	Generalized Caliper Selection	CALI	
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	
HSCO	Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
MCCO	Mud Cake Correction Option	YES	
MCOR	Mud Correction	NATU	
MWCO	Mud Weight Correction Option	YES	
PTCO	Pressure/Temperature Correction Option	YES	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	20	DEGC
SOCN	Standoff Distance	0.125	IN
SOCO	Standoff Correction Option	YES	
	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	DPHI	
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		
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	70	DEGC
FCD	Future Casing (Outer) Diameter	5.5	IN
GCSE	Generalized Caliper Selection	CALI	
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	CALI	
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
SHT	Surface Hole Temperature	20	DEGC
	STI: Stuck Tool Indicator		
TDL	Total Depth − Logger	1801.30	M
	System and Miscellaneous		
BS	Bit Size	8.750	IN
BSAL	Borehole Salinity	350.00	PPM
CSIZ	Current Casing Size	9.625	IN
CWEI	Casing Weight	32.30	LB/F
DFD	Drilling Fluid Density	1.17	G/C3
DO	Depth Offset for Playback	0.9	M
DORL	Depth Offset for Repeat Analysis	0.0	M
MST	Mud Sample Temperature	7.20	DEGC
PP	Playback Processing	RECOMPUTE	
RMFS	Resistivity of Mud Filtrate Sample	3.8800	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	1801.3	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: COMBINADA_REP **Vertical Scale: 1:200** **Graphics File Created: 30−Jun−2006 19:01**

OP System Version: 14C0−302

MCM

AIT−H	14C0−302	LDT−D	14C0−302
DTA−A	14C0−302	HILTB−FTB	14C0−302
DTC−H	14C0−302		

Input DLIS Files

DEFAULT	AIT_LDL_TLD_MCFL_024LUP	FN:23	PRODUCER	30−Jun−2006 08:23	1805.0 M	1626.4 M
DEFAULT	AIT_LDL_TLD_MCFL_089PUP	FN:42	PRODUCER	30−Jun−2006 18:52	1807.0 M	345.0 M

Output DLIS Files

DEFAULT	AIT_LDL_TLD_MCFL_091PUP	FN:48	PRODUCER	30−Jun−2006 19:01	
CUST1	AIT_LDL_TLD_MCFL_091PUC	FN:49	CUSTOMER	30−Jun−2006 19:01	
CUST2	AIT_LDL_TLD_MCFL_091PUC	FN:50	CUSTOMER	30−Jun−2006 19:01	

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MAXIS Field Log

Input DLIS Files

DEFAULT	AIT_LDL_TLD_MCFL_022LUP	FN:21	PRODUCER	30−Jun−2006 08:23	367.6 M	314.9 M

Integrated Hole/Cement Volume Summary

Hole Volume = 0.37 M3

Cement Volume = 0.29 M3 (assuming 5.50 IN casing O.D.)

Computed from 354.9 M to 349.8 M using data channel(s) CALI

OP System Version: 14C0−302

MCM

AIT−H	14C0−302	LDT−D	14C0−302
DTA−A	14C0−302	HILTB−FTB	14C0−302
DTC−H	14C0−302		

PIP SUMMARY

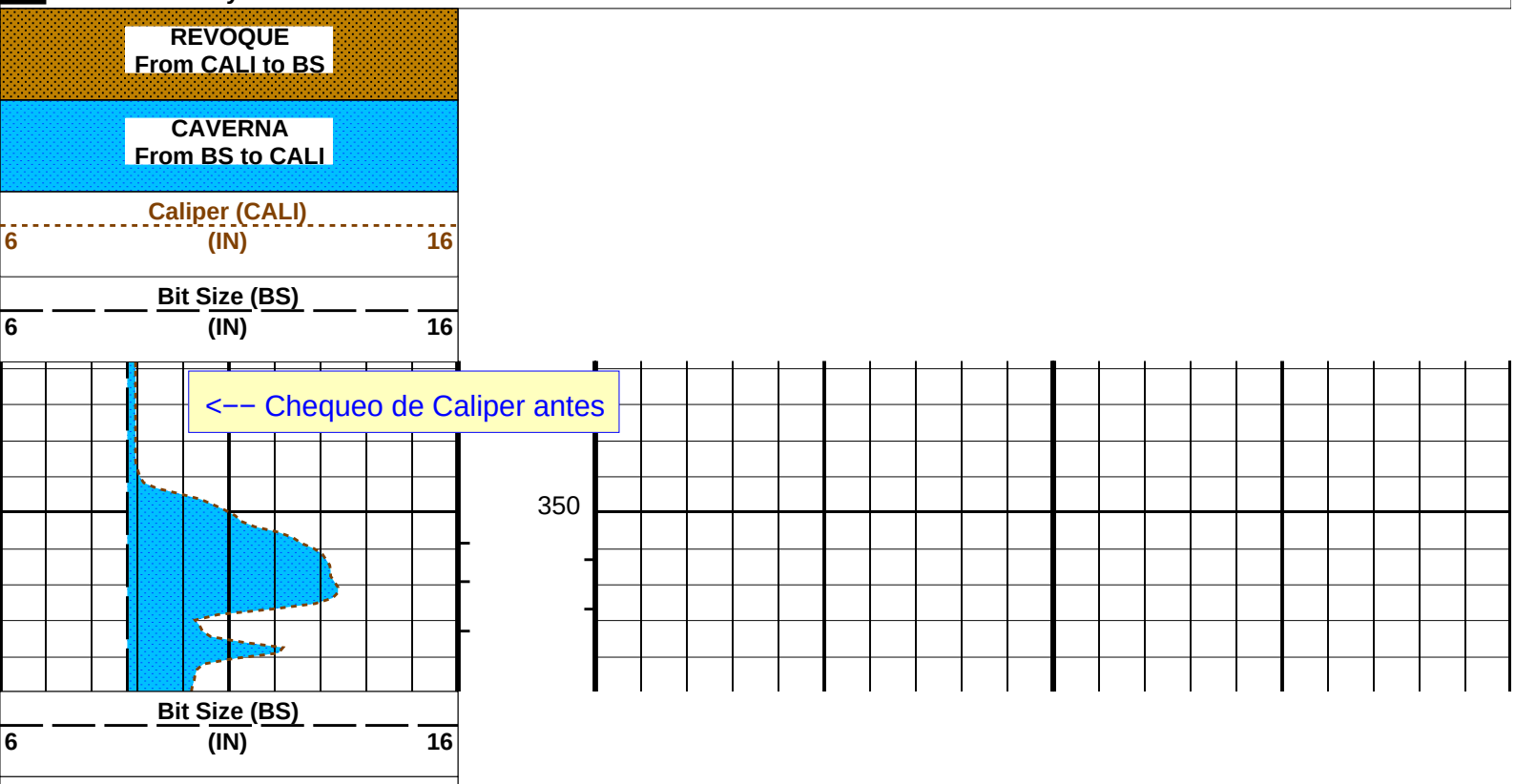
Integrated Hole Volume Minor Pip Every 0.1 M3

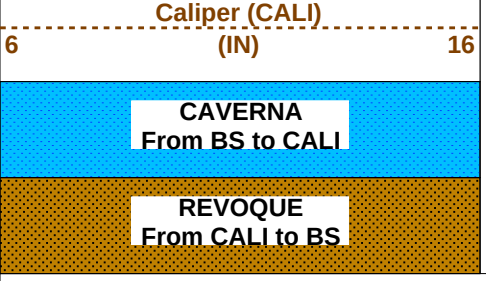
Integrated Hole Volume Major Pip Every 1 M3

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	CALI	
	System and Miscellaneous		
BS	Bit Size	8.750	IN
DO	Depth Offset for Playback	−1.0	M
DORL	Depth Offset for Repeat Analysis	0.0	M
PP	Playback Processing	RECOMPUTE	
TD	Total Depth	1801.3	M

Format: CALIPER Vertical Scale: 1:200 Graphics File Created: 30−Jun−2006 19:12

OP System Version: 14C0−302

MCM

AIT−H	14C0−302	LDT−D	14C0−302
DTA−A	14C0−302	HILTB−FTB	14C0−302
DTC−H	14C0−302		

Input DLIS Files

DEFAULT	AIT_LDL_TLD_MCFL_022LUP	FN:21	PRODUCER	30−Jun−2006 08:23	367.6 M	314.9 M

Input DLIS Files

DEFAULT	AIT_LDL_TLD_MCFL_022LUP	FN:21	PRODUCER	30−Jun−2006 08:23	367.6 M	314.9 M
DEFAULT	AIT_LDL_TLD_MCFL_089PUP	FN:42	PRODUCER	30−Jun−2006 18:52	1807.0 M	345.0 M

Integrated Hole/Cement Volume Summary

Hole Volume = 0.37 M3

Cement Volume = 0.29 M3 (assuming 5.50 IN casing O.D.)

Computed from 354.9 M to 349.8 M using data channel(s) CALI

OP System Version: 14C0−302

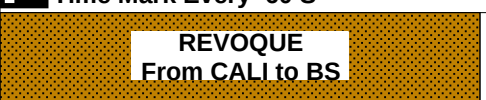
MCM

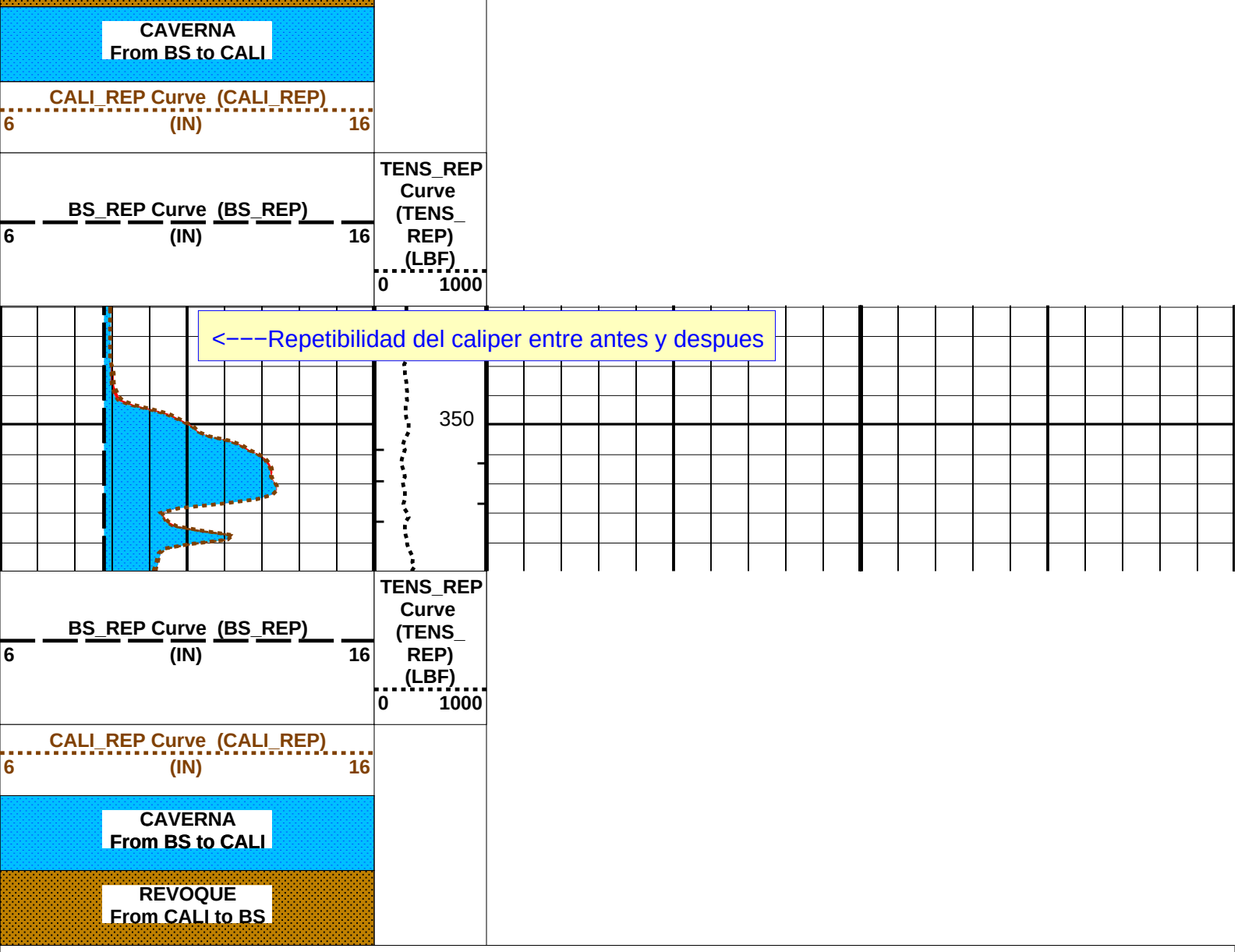
AIT−H	14C0−302	LDT−D	14C0−302
DTA−A	14C0−302	HILTB−FTB	14C0−302
DTC−H	14C0−302		

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	CALI	
	System and Miscellaneous		
BS	Bit Size	8.750	IN
DO	Depth Offset for Playback	−1.0	M
DORL	Depth Offset for Repeat Analysis	0.0	M
PP	Playback Processing	RECOMPUTE	
TD	Total Depth	1801.3	M

Format: CALIPER_REP Vertical Scale: 1:200 Graphics File Created: 30−Jun−2006 19:12

OP System Version: 14C0−302

MCM

AIT−H	14C0−302	LDT−D	14C0−302
DTA−A	14C0−302	HILTB−FTB	14C0−302
DTC−H	14C0−302		

Input DLIS Files

DEFAULT	AIT_LDL_TLD_MCFL_022LUP	FN:21	PRODUCER	30−Jun−2006 08:23	367.6 M	314.9 M
DEFAULT	AIT_LDL_TLD_MCFL_089PUP	FN:42	PRODUCER	30−Jun−2006 18:52	1807.0 M	345.0 M

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: 22−Jun−2006 12:20 Before: 28−Jun−2006 17:27							
Thru Cal Magnitude − 0	0	0.6264	0.6274	N/A	N/A	N/A	V
Thru Cal Magnitude − 1	0	1.286	1.288	N/A	N/A	N/A	V
Thru Cal Magnitude − 2	0	0.6373	0.6385	N/A	N/A	N/A	V
Thru Cal Magnitude − 3	0	0.7196	0.7206	N/A	N/A	N/A	V
Thru Cal Magnitude − 4	0	1.349	1.351	N/A	N/A	N/A	V
Thru Cal Magnitude − 5	0	1.958	1.961	N/A	N/A	N/A	V
Thru Cal Magnitude − 6	0	1.966	1.969	N/A	N/A	N/A	V
Thru Cal Magnitude − 7	0	1.400	1.400	N/A	N/A	N/A	V
Phase − 0	0	78.53	78.73	N/A	N/A	N/A	DEG
Phase − 1	0	77.45	77.64	N/A	N/A	N/A	DEG
Phase − 2	0	73.80	73.97	N/A	N/A	N/A	DEG
Phase − 3	0	73.03	73.20	N/A	N/A	N/A	DEG
Phase − 4	0	66.88	67.03	N/A	N/A	N/A	DEG
Phase − 5	0	65.08	65.19	N/A	N/A	N/A	DEG
Phase − 6	0	65.03	65.14	N/A	N/A	N/A	DEG
Phase − 7	0	61.71	61.62	N/A	N/A	N/A	DEG
Array Induction Tool − H Wellsite Calibration − Electronics Calibration Check − Auxilliary							
Master: 22−Jun−2006 12:20 Before: 28−Jun−2006 17:27							
Array Induction SPA Plus	990.5	992.2	991.6	N/A	N/A	N/A	MV
Array Induction SPA Zero	0	0.1053	0.1325	N/A	N/A	N/A	MV
Array Induction Temperature Pl	0.9150	0.9191	0.9185	N/A	N/A	N/A	V
Array Induction Temperature Ze	0	0.0001101	0.0001361	N/A	N/A	N/A	V
Array Induction Tool − H Wellsite Calibration − Test Loop Gain Correction							
Master: 22−Jun−2006 12:20							
Test Loop Gain Magnitude − 0	0	1.022	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude − 1	0	1.021	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude − 2	0	1.021	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude − 3	0	1.026	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude − 4	0	1.005	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude − 5	0	1.018	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude − 6	0	1.030	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude − 7	0	1.032	N/A	N/A	N/A	N/A	V
Phase − 0	0	2.290	N/A	N/A	N/A	N/A	DEG
Phase − 1	0	0.04832	N/A	N/A	N/A	N/A	DEG
Phase − 2	0	−0.2402	N/A	N/A	N/A	N/A	DEG
Phase − 3	0	0.06847	N/A	N/A	N/A	N/A	DEG
Phase − 4	0	0.06266	N/A	N/A	N/A	N/A	DEG
Phase − 5	0	−0.2160	N/A	N/A	N/A	N/A	DEG
Phase − 6	0	0.1292	N/A	N/A	N/A	N/A	DEG
Phase − 7	0	−0.3307	N/A	N/A	N/A	N/A	DEG
Array Induction Tool − H Wellsite Calibration − Sonde Error Correction							
Master: 22−Jun−2006 12:20							
R Sonde Error Correction − 0	0	−20.22	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction − 1	0	149.5	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction − 2	0	111.4	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction − 3	0	60.65	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction − 4	0	24.90	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction − 5	0	12.99	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction − 6	0	10.15	N/A	N/A	N/A	N/A	MM/M

R Sonde Error Correction − 7	0	0.3020	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction − 0	0	156.8	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction − 1	0	33.23	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction − 2	0	−73.81	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction − 3	0	80.54	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction − 4	0	22.74	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction − 5	0	20.38	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction − 6	0	8.771	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction − 7	0	−1.329	N/A	N/A	N/A	N/A	MM/M

Array Induction Tool − H Wellsite Calibration − Mud Gain Correction
Master: 22−Jun−2006 12:20

Coarse − Mag, Real, Imag − 0	0	0.9338	N/A	N/A	N/A	N/A	
Coarse − Mag, Real, Imag − 1	0	0.9338	N/A	N/A	N/A	N/A	
Coarse − Mag, Real, Imag − 2	0	0.9338	N/A	N/A	N/A	N/A	
Fine − Mag, Real, Imag − 0	0	0.9208	N/A	N/A	N/A	N/A	
Fine − Mag, Real, Imag − 1	0	0.9208	N/A	N/A	N/A	N/A	
Fine − Mag, Real, Imag − 2	0	0.9208	N/A	N/A	N/A	N/A	

Litho Density − D Wellsite Calibration − Background Measurement
Master: 15−Jun−2006 16:22 Before: 28−Jun−2006 21:10

LL Background	20.00	18.05	18.07	N/A	N/A	1.000	CPS
LU Background	76.00	69.41	69.61	N/A	N/A	1.000	CPS
LS Background	57.00	52.76	52.88	N/A	N/A	1.000	CPS
LITH Background	5.500	5.198	5.086	N/A	N/A	0.3000	CPS
SS1 Background	16.00	14.75	14.78	N/A	N/A	0.5000	CPS
SS2 Background	11.00	9.994	9.983	N/A	N/A	0.5000	CPS

Litho Density − D Wellsite Calibration − Tool Quality Control Information HV
Master: 15−Jun−2006 16:22 Before: 28−Jun−2006 21:10

LSHV Background	1500	1479	1498	N/A	N/A	N/A	V
SSHV Background	1500	1318	1326	N/A	N/A	N/A	V

Litho Density − D Wellsite Calibration − Detectors Resolution From BKG Measurments
Master: 15−Jun−2006 16:22 Before: 28−Jun−2006 21:10

LS Resolution Background	8.000	8.622	8.600	N/A	N/A	N/A	
SS Resolution Background	8.000	9.517	9.438	N/A	N/A	N/A	

Litho Density − D Wellsite Calibration − Caliper Calibration
Before: 28−Jun−2006 21:01

Caliper Small Ring	8.000	N/A	8.538	N/A	N/A	N/A	IN
Caliper Large Ring	12.00	N/A	12.97	N/A	N/A	N/A	IN

Litho Density − D Master Calibration − Aluminum Measurement
Master: 15−Jun−2006 16:48

LL Aluminum	90.00	81.09	−−	−−	−−	−−	CPS
LU Aluminum	135.0	121.5	−−	−−	−−	−−	CPS
LS Aluminum	155.0	141.8	−−	−−	−−	−−	CPS
LITH Aluminum	50.00	47.96	−−	−−	−−	−−	CPS
SS1 Aluminum	175.0	150.7	−−	−−	−−	−−	CPS
SS2 Aluminum	260.0	230.0	−−	−−	−−	−−	CPS

Litho Density − D Master Calibration − Litholog Measurement
Master: 15−Jun−2006 16:58

LL Iron	80.00	72.83	−−	−−	−−	−−	CPS
LU Iron	120.0	109.2	−−	−−	−−	−−	CPS
LS Iron	135.0	127.4	−−	−−	−−	−−	CPS
LITH Iron	30.00	30.94	−−	−−	−−	−−	CPS
SS1 Iron	155.0	136.7	−−	−−	−−	−−	CPS
SS2 Iron	245.0	210.5	−−	−−	−−	−−	CPS

Litho Density − D Master Calibration − Spectrum Quality Ratios
Master: 15−Jun−2006 16:58

QRLS Calculated	0.6500	0.6673	−−	−−	−−	−−	
QRSS Calculated	0.7200	0.6554	−−	−−	−−	−−	
QRLI Calculated	0.3900	0.3381	−−	−−	−−	−−	
QLIR Calculated	1.390	1.393	−−	−−	−−	−−	
QR Calculated	1.000	1.010	−−	−−	−−	−−	

High resolution Integrated Logging Tool−DTS Wellsite Calibration − Detector Calibration
Before: 28−Jun−2006 17:13

Gamma Ray Background	30.00	N/A	32.48	N/A	N/A	N/A	GAPI
Gamma Ray (Jig − Bkg)	153.0	N/A	153.0	N/A	N/A	13.91	GAPI
Gamma Ray (Calibrated)	165.0	N/A	165.0	N/A	N/A	15.00	GAPI

High resolution Integrated Logging Tool−DTS Wellsite Calibration − Zero Measurement
Master: 27−Jun−2006 12:09 Before: 28−Jun−2006 17:16

CNTC Background	32.92	32.92	31.75	N/A	N/A	4.938	CPS
CFTC Background	31.82	31.82	33.05	N/A	N/A	4.773	CPS

High resolution Integrated Logging Tool−DTS Wellsite Calibration − Ratio Measurement
Master: 27−Jun−2006 12:09

Thermal Near Corr. (Tank)	6031	5332	N/A	N/A	N/A	N/A	CPS
Thermal Far Corr. (Tank)	2793	2296	N/A	N/A	N/A	N/A	CPS
CNTC/CFTC (Tank)	2.159	2.322	N/A	N/A	N/A	N/A	

High resolution Integrated Logging Tool−DTS Wellsite Calibration − Accelerometer Calibration
Before: 28−Jun−2006 17:28

Z−Axis Acceleration	9.810	N/A	9.799	N/A	N/A	N/A	M/S2

The GLS−VJ source activity is acceptable.

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

NCT−B Water Temperature 8.0 DEGC.
Thermal Housing Size 3.367 IN.
NSR−F serial number 1089

Array Induction Tool − H / Equipment Identification

Primary Equipment:

Rm/SP Bottom Nose	AHRM − A	
Array Induction Sonde	AHIS − BA	25

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	0.6264		0.6050	78.53		71.00
	Before	0.6274			78.73		
1	**Master**	**1.286**		1.270	**77.45**		70.00
	Before	1.288			77.64		
2	Master	0.6373		0.6230	73.80		66.00
	Before	0.6385			73.97		
3	Master	0.7196		0.7040	73.03		65.00
	Before	0.7206			73.20		
4	Master	1.349		1.337	66.88		59.00
	Before	1.351			67.03		
5	Master	1.958		1.955	65.08		57.00
	Before	1.961			65.19		
6	Master	1.966		1.955	65.03		57.00
	Before	1.969			65.14		
7	Master	1.400		1.415	61.71		53.00
	Before	1.400			61.62		
		60.00 % (Minimum)	140.0 % (Nominal) (Maximum)		Nom −60.00 (Minimum)	Nom + 60.00 (Nominal) (Maximum)	

Master: 22−Jun−2006 12:20 Before: 28−Jun−2006 17:27

Array Induction Tool − H Wellsite Calibration
Electronics Calibration Check − Auxilliary

Phase	Array Induction SPA Plus MV	Value
Master		992.2
Before		991.6
	941.0 (Minimum) 990.5 (Nominal) 1040 (Maximum)	

Phase	Array Induction SPA Zero MV	Value
Master		0.1053
Before		0.1325
	−50.00 (Minimum) 0 (Nominal) 50.00 (Maximum)	

Phase	Array Induction Temperature Plus V	Value

Phase	Array Induction Temperature Zero V	Value

Master			0.9191	Master			0.0001101
Before			0.9185	Before			0.0001361
0.8700 (Minimum)	0.9150 (Nominal)	0.9600 (Maximum)		−0.05000 (Minimum)	0 (Nominal)	0.05000 (Maximum)	

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Array Induction Tool − H Wellsite Calibration

Test Loop Gain Correction

Idx	Value	Test Loop Gain Magnitude V			Value	Phase DEG		
0	1.022				2.290			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		−3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
1	1.021				0.04832			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		−3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
2	1.021				−0.2402			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		−3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
3	1.026				0.06847			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		−3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
4	1.005				0.06266			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		−3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
5	1.018				−0.2160			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		−3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
6	1.030				0.1292			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		−3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
7	1.032				−0.3307			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		−3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)

Master: 22−Jun−2006 12:20

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	−20.22				156.8			
		−231.0 (Minimum)	−56.00 (Nominal)	119.0 (Maximum)		−2250 (Minimum)	0 (Nominal)	2250 (Maximum)
1	149.5				33.23			
		114.0 (Minimum)	159.0 (Nominal)	204.0 (Maximum)		−625.0 (Minimum)	0 (Nominal)	625.0 (Maximum)
2	111.4				−73.81			
		66.00 (Minimum)	111.0 (Nominal)	156.0 (Maximum)		−350.0 (Minimum)	0 (Nominal)	350.0 (Maximum)
3	60.65				80.54			
		39.00 (Minimum)	64.00 (Nominal)	89.00 (Maximum)		−250.0 (Minimum)	0 (Nominal)	250.0 (Maximum)
4	24.90				22.74			
		15.00 (Minimum)	25.00 (Nominal)	35.00 (Maximum)		−63.00 (Minimum)	0 (Nominal)	63.00 (Maximum)
5	12.99				20.38			
		4.000 (Minimum)	14.00 (Nominal)	24.00 (Maximum)		−50.00 (Minimum)	0 (Nominal)	50.00 (Maximum)
6	10.15				8.771			
		5.000 (Minimum)	10.00 (Nominal)	15.00 (Maximum)		−30.00 (Minimum)	0 (Nominal)	30.00 (Maximum)
7	0.3020				−1.329			
		−5.000 (Minimum)	0 (Nominal)	5.000 (Maximum)		−30.00 (Minimum)	0 (Nominal)	30.00 (Maximum)

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Array Induction Tool − H Wellsite Calibration

Mud Gain Correction

Idx	Value	Coarse − Mag, Real, Imag	Value	Fine − Mag, Real, Imag
0	0.9338	0.8000 (Minimum) 1.000 (Nominal) 1.200 (Maximum)	0.9208	0.8000 (Minimum) 1.000 (Nominal) 1.200 (Maximum)
1	0.9338	0.8000 (Minimum) 1.000 (Nominal) 1.200 (Maximum)	0.9208	0.8000 (Minimum) 1.000 (Nominal) 1.200 (Maximum)
2	0.9338	0.8000 (Minimum) 1.000 (Nominal) 1.200 (Maximum)	0.9208	0.8000 (Minimum) 1.000 (Nominal) 1.200 (Maximum)

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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	0.6264		0.6050	78.53		71.00
1	Master	1.286		1.270	77.45		70.00
2	Master	0.6373		0.6230	73.80		66.00
3	Master	0.7196		0.7040	73.03		65.00
4	Master	1.349		1.337	66.88		59.00
5	Master	1.958		1.955	65.08		57.00
6	Master	1.966		1.955	65.03		57.00
7	Master	1.400		1.415	61.71		53.00
		60.00 % (Minimum) (Nominal) 140.0 % (Maximum)			Nom −60.00 (Minimum) (Nominal) Nom + 60.00 (Maximum)		

Master: 22−Jun−2006 12:20

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		992.2	Master		0.1053
	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		0.9191	Master		0.0001101
	0.8700 (Minimum) 0.9150 (Nominal) 0.9600 (Maximum)			−0.05000 (Minimum) 0 (Nominal) 0.05000 (Maximum)	

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Array Induction Tool − H Master Calibration

Test Loop Gain Correction

Idx	Value	Test Loop Gain Magnitude V	Value	Phase DEG
0	1.022	0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)	2.290	−3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)
1	1.021	0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)	0.04832	−3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)
2	1.021	0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)	−0.2402	−3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)
3	1.026	0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)	0.06847	−3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)
4	1.005	0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)	0.06266	−3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)
5	1.018	0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)	−0.2160	−3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)
6	1.030		0.1292	

		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		−3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
7	1.032				−0.3307			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		−3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)

Master: 22−Jun−2006 12:20

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	−20.22				156.8			
		−231.0 (Minimum)	−56.00 (Nominal)	119.0 (Maximum)		−2250 (Minimum)	0 (Nominal)	2250 (Maximum)
1	149.5				33.23			
		114.0 (Minimum)	159.0 (Nominal)	204.0 (Maximum)		−625.0 (Minimum)	0 (Nominal)	625.0 (Maximum)
2	111.4				−73.81			
		66.00 (Minimum)	111.0 (Nominal)	156.0 (Maximum)		−350.0 (Minimum)	0 (Nominal)	350.0 (Maximum)
3	60.65				80.54			
		39.00 (Minimum)	64.00 (Nominal)	89.00 (Maximum)		−250.0 (Minimum)	0 (Nominal)	250.0 (Maximum)
4	24.90				22.74			
		15.00 (Minimum)	25.00 (Nominal)	35.00 (Maximum)		−63.00 (Minimum)	0 (Nominal)	63.00 (Maximum)
5	12.99				20.38			
		4.000 (Minimum)	14.00 (Nominal)	24.00 (Maximum)		−50.00 (Minimum)	0 (Nominal)	50.00 (Maximum)
6	10.15				8.771			
		5.000 (Minimum)	10.00 (Nominal)	15.00 (Maximum)		−30.00 (Minimum)	0 (Nominal)	30.00 (Maximum)
7	0.3020				−1.329			
		−5.000 (Minimum)	0 (Nominal)	5.000 (Maximum)		−30.00 (Minimum)	0 (Nominal)	30.00 (Maximum)

Master: 22−Jun−2006 12:20

Array Induction Tool − H Master Calibration

Mud Gain Correction

Idx	Value	Coarse − Mag, Real, Imag			Value	Fine − Mag, Real, Imag		
0	0.9338				0.9208			
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)
1	0.9338				0.9208			
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)
2	0.9338				0.9208			
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)

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Litho Density − D / Equipment Identification

Primary Equipment:		
Nuclear Services Cartridge	NSC − E	2772
Powered Gamma Detector	PGD − G	901
Gamma Source Radioactive	GSR − J	3766
Auxiliary Equipment:		
Density Resistivity Sonde	DRS − C	6934
Electronics Cartridge Housing	ECH − MKA	2777
Powered Detector Housing	PDH − L	840

Litho Density − D Wellsite Calibration

Background Measurement

Phase	LL Background CPS	Value	Phase	LU Background CPS	Value	Phase	LS Background CPS	Value
Master		18.05	Master		60.41	Master		53.76

Phase		Value
Master		18.05
Before		18.07
15.00 (Minimum)	20.00 (Nominal)	25.00 (Maximum)

Phase		Value
Master		69.41
Before		69.61
58.00 (Minimum)	76.00 (Nominal)	94.00 (Maximum)

Phase		Value
Master		52.76
Before		52.88
43.00 (Minimum)	57.00 (Nominal)	72.00 (Maximum)

Phase	LITH Background CPS	Value
Master		5.198
Before		5.086
4.000 (Minimum)	5.500 (Nominal)	7.000 (Maximum)

Phase	SS1 Background CPS	Value
Master		14.75
Before		14.78
12.00 (Minimum)	16.00 (Nominal)	19.50 (Maximum)

Phase	SS2 Background CPS	Value
Master		9.994
Before		9.983
8.000 (Minimum)	11.00 (Nominal)	13.50 (Maximum)

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Litho Density − D Wellsite Calibration

Detectors Resolution From BKG Measurments

Phase	LS Resolution Background	Value
Master		8.622
Before		8.600
5.000 (Minimum)	8.000 (Nominal)	11.50 (Maximum)

Phase	SS Resolution Background	Value
Master		9.517
Before		9.438
5.000 (Minimum)	8.000 (Nominal)	11.50 (Maximum)

Master: 15−Jun−2006 16:22 Before: 28−Jun−2006 21:10

Litho Density − D Master Calibration

Aluminum Measurement

Phase	LL Aluminum CPS	Value
Master		81.09
70.00 (Minimum)	90.00 (Nominal)	125.0 (Maximum)

Phase	LU Aluminum CPS	Value
Master		121.5
100.0 (Minimum)	135.0 (Nominal)	194.0 (Maximum)

Phase	LS Aluminum CPS	Value
Master		141.8
120.0 (Minimum)	155.0 (Nominal)	217.0 (Maximum)

Phase	LITH Aluminum CPS	Value
Master		47.96
35.00 (Minimum)	50.00 (Nominal)	74.00 (Maximum)

Phase	SS1 Aluminum CPS	Value
Master		150.7
125.0 (Minimum)	175.0 (Nominal)	256.0 (Maximum)

Phase	SS2 Aluminum CPS	Value
Master		230.0
210.0 (Minimum)	260.0 (Nominal)	353.0 (Maximum)

Master: 15−Jun−2006 16:48

Litho Density − D Master Calibration

Litholog Measurement

Phase	LL Iron CPS	Value
Master		72.83
60.00 (Minimum)	80.00 (Nominal)	114.0 (Maximum)

Phase	LU Iron CPS	Value
Master		109.2
85.00 (Minimum)	120.0 (Nominal)	177.0 (Maximum)

Phase	LS Iron CPS	Value
Master		127.4
100.0 (Minimum)	135.0 (Nominal)	193.0 (Maximum)

Phase	LITH Iron CPS	Value
Master		30.94
15.00 (Minimum)	30.00 (Nominal)	51.00 (Maximum)

Phase	SS1 Iron CPS	Value
Master		136.7
105.0 (Minimum)	155.0 (Nominal)	234.0 (Maximum)

Phase	SS2 Iron CPS	Value
Master		210.5
190.0 (Minimum)	245.0 (Nominal)	325.0 (Maximum)

Master: 15−Jun−2006 16:58

Litho Density − D Master Calibration

Spectrum Quality Ratios

Phase	QRLS Calculated	Value
Master		0.6673
0.6000 (Minimum)	0.6500 (Nominal)	0.7000 (Maximum)

Phase	QRSS Calculated	Value
Master		0.6554
0.6200 (Minimum)	0.7200 (Nominal)	0.8200 (Maximum)

Phase	QRLI Calculated	Value
Master		0.3381
0.2900 (Minimum)	0.3900 (Nominal)	0.4500 (Maximum)

Phase	QLIR Calculated	Value
Master		1.393
1.290 (Minimum)	1.390 (Nominal)	1.450 (Maximum)

Phase	QR Calculated	Value
Master		1.010
0.9800 (Minimum)	1.000 (Nominal)	1.020 (Maximum)

Master: 15−Jun−2006 16:58

High resolution Integrated Logging Tool−DTS / Equipment Identification

Primary Equipment:

HILT Gamma−Ray Neutron Sonde−DTS	HGNS − B	704
HILT Gamma−Ray Device	HGR −	
HILT Neutron Detector with Alpha Source	HCNT −	
Z−Axis Accelerometer	HACC −	
Neutron Logging Source	NLS − KL	
Neutron Source Radioactive	NSR − E	1080

Neutron Source Radioactive	NSR − F	1089
Compensated Neutron Box	CNB − AB	
HTBC Communication Assembly DTS Mode	HMCA −	
Auxiliary Equipment:		
Neutron Calibration Tank	NCT − B	
Gamma Source Radioactive	GSR − U/Y	

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Detector Calibration

Phase	Gamma Ray Background GAPI	Value	Phase	Gamma Ray (Jig − Bkg) GAPI	Value	Phase	Gamma Ray (Calibrated) GAPI	Value
Before		32.48	Before		153.0	Before		165.0
0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)	139.1 (Minimum)	153.0 (Nominal)	167.0 (Maximum)	150.0 (Minimum)	165.0 (Nominal)	180.0 (Maximum)

Before: 28−Jun−2006 17:13

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Zero Measurement

Phase	CNTC Background CPS	Value	Phase	CFTC Background CPS	Value
Master		32.92	Master		31.82
Before		31.75	Before		33.05
5.000 (Minimum)	32.92 (Nominal)	40.00 (Maximum)	5.000 (Minimum)	31.82 (Nominal)	40.00 (Maximum)

Master: 27−Jun−2006 12:09 Before: 28−Jun−2006 17:16

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Ratio Measurement

Phase	Thermal Near Corr. (Tank) CPS	Value	Phase	Thermal Far Corr. (Tank) CPS	Value	Phase	CNTC/CFTC (Tank)	Value
Master		5332	Master		2296	Master		2.322
5000 (Minimum)	6031 (Nominal)	7200 (Maximum)	2075 (Minimum)	2793 (Nominal)	3125 (Maximum)	2.120 (Minimum)	2.159 (Nominal)	2.540 (Maximum)

Master: 27−Jun−2006 12:09

High resolution Integrated Logging Tool−DTS

Wellsite Calibration

Accelerometer Calibration

Phase	Z−Axis Acceleration M/S2	Value
Before		9.799
9.610 (Minimum)	9.810 (Nominal)	10.01 (Maximum)

Before: 28−Jun−2006 17:28

High resolution Integrated Logging Tool−DTS Master Calibration

Zero Measurement

Phase	CNTC Background CPS	Value	Phase	CFTC Background CPS	Value
Master		32.92	Master		31.82
5.000 (Minimum)	32.92 (Nominal)	40.00 (Maximum)	5.000 (Minimum)	31.82 (Nominal)	40.00 (Maximum)

Master: 27−Jun−2006 12:09

High resolution Integrated Logging Tool−DTS Master Calibration

Tank Measurement

Phase	Thermal Near Corr. (Tank) CPS	Value	Phase	Thermal Far Corr. (Tank) CPS	Value	Phase	CNTC/CFTC (Tank)	Value
Master		5332	Master		2296	Master		2.322
5000 (Minimum)	6031 (Nominal)	7200 (Maximum)	2075 (Minimum)	2793 (Nominal)	3125 (Maximum)	2.120 (Minimum)	2.159 (Nominal)	2.540 (Maximum)

Master: 27−Jun−2006 12:09

COMPANIA:	**YPF S.A.**
POZO:	**YPF.Ch.EA-695**
CAMPO:	**EL ALBA**
PROVINCIA:	**CHUBUT**
PAIS:	**ARGENTINA**

PRIMERA LECTURA	1798.9 m
PROFUNDIDAD PERFIL	1801.3 m
PROF. PERFORADOR	1800 m
BUJE DE VASTAGO	666.45 m
MESA ROTATIVA	666.15 m
NIVEL TERRENO	661.9 m

Schlumberger

COMBINADA

ESCALA: 1/200

REPSOL YPF

ALTA Y BAJA DE POZOS

Gordillo/MERCADO fax 4355
Para:
De:

FECHA: 27-oct-06
ZONA: MANANTIALES BEHR

POZO	SISTEMA COL. PETROLEO	SIST.EXTR.	NVO./REP./REACT.	TIPO POZO	SISTEMA COL. PET	SISTEMA COL. GAS	NOMBRE COLECTOR GAS	FECHA ALTA	BRUTA	%	AGUA	PET	GAS (m3/d)	N° CELDA	GRUPO
EA-695	BATERIA EL ALBA 2	BBEO.MEC	ENTRA AL TOTAL	PROD.PET	SI	SI	UNIDAD DE SEPARACIÓN	01/10/2006	2,0	35,0%	0,70	1,30	0,0	EL ALBA	EL ALBA 2
			POZO NUEVO				EL ALBA 2								
RA-215	TKS.RA 201	PCP	ENTRA ALTOTAL SALE RTP	Prod.Pet	SI	NO		03/10/2006	8,4	98,0%	8,23	0,17		RESTINGA ALI	RESTINGA ALI 1
ASD-422	Bateria San Diego	BBEO.ELECTRO	ENTRA ALTOTAL SALE RTP	Prod.Pet	SI	SI	Unidad de separ. San Diego	20/10/2006	183,0	97,90%	179,2	3,84	0,0	San Diego	San Diego

.....
FIRMA RESERVORIOS

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Ergas Juan Eduardo
FIRMA PRODUCCIÓN

REPSOL YPF

ALTA Y BAJA DE POZOS

POZO	BAT.	AIB - CABEZAL	CARRERA - REGIMEN	TIPO BOMBA	PRESION TUBING	PRESION CASING
SDS-604	San Diego	MII-912D-365-168	168"-8.75 GPM	2 1/2"	8	4
ASD-423	San Diego	MII-912D-365-168	168"-6 GPM	2"	10	12

GEOLOG

CS400

SECTOR BOND TOOL
CBL-VDL-NEUTRON

Doble Aqui

Archivo No.

1:200

COMPAÑIA YPF S.A.

POZO YPF.Ch.EA-695

CAMPO EL ALBA

PROVINCIA CHUBUT PAIS ARGENTINA

LOCALIZACION X: 4.949.913,10
COORDENADAS: Y: 2.584.937,96

Otros Servicios:
IS-CBL-VDL-NL.-

Ref.Perman. NIVEL TERRENO Elev. 666,15
Reg.Desde N.T , 0.00 m Sobre Ref.Perm.
Perf. Medida Desde Nivel Terreno

ELEV.K.B.
M.R.
N.T. 666,15

Fecha	03 JULIO 2006.-
Carrera No.	1 (UNO)
Tipo de Regis.	IS-CBL-VDL-NEUTRON.-
Prof. Perf.	1800.00 Mts.
Prof.Registro	1776.00 Mts.
Int.Reg.Fondo	1775.00 Mts.
Int.Reg.Tope	950.00 Mts.
Fluido	AGUA
Nivel Fluido	LLENO
Unidad No.	# 4731
Ubicacion Base	CANADON SECO
Registrado Por	V. MEGHELLA
Presen. Por	

Densidad De Tiros	Numero Tiros	Intervalo Desde	Intervalo Hasta

Tipo de Canon
Diametro Canon

Tabla de Datos/Tuberia/Revest

Diam.	Peso	Desde	Hasta
9 5/8"	32.0 #	SUPF.	350.44
5 1/2"	15.5 #	SUPF.	1797,83

Localizacion de Cuellos		Otros Servicios			
Revest.	Tuberia	Servicio	Tipo	Diam.	Prof.
		Tapon			
		Packer			
		Retenedor			

Fondo Tub.	Diam. Canasta
Nipple Asent	Diam. Aro Calib.

TODAS LAS INTERPRETACIONES SON OPINIONES BASADAS EN INFERENCIAS DE MEDIDAS ELECTRICAS U OTRAS MEDICIONES Y NO PODEMOS GARANTIZAR NI GARANTIZAMOS, LA EXACTITUD O VALIDEZ DE NINGUNA INTERPRETACION Y NO ASUMIMOS, EXCEPTO EN EL CASO DE NEGLIGENCIA DE NUESTRA PARTE, RESPONSABILIDAD ALGUNA POR PERDIDAS, COSTOS O DANOS INCURRIDOS O SUFRIDOS POR PERSONA ALGUNA COMO RESULTADO DE CUALQUIER INTERPRETACION HECHA POR ALGUNO DE NUESTROS FUNCIONARIOS, AGENTES O EMPLEADOS, ESTAS INTERPRETACIONES TAMBIEN ESTAN SUJETAS A LOS TERMINOS Y CONDICIONES GENERALES ESTIPULADAS EN NEUSTRA LISTA DE PRECIOS VIGENTE.

REMARKS Rig: # MASTIL Service Order # EA695

BHT 85 °C

NOTA:REGISTRO CORRELACIONADO CON INDUCCION DE SCHLUMBERGER,28-06-2006.-

Prints: 4

EQUIPMENT DATA

Run No.	Tool Type	Tool No.	Other
UNO	SBT	SB01	
UNO	TELEMETRIA-CCL	SB04	
UNO	NEUTRON	SB02	

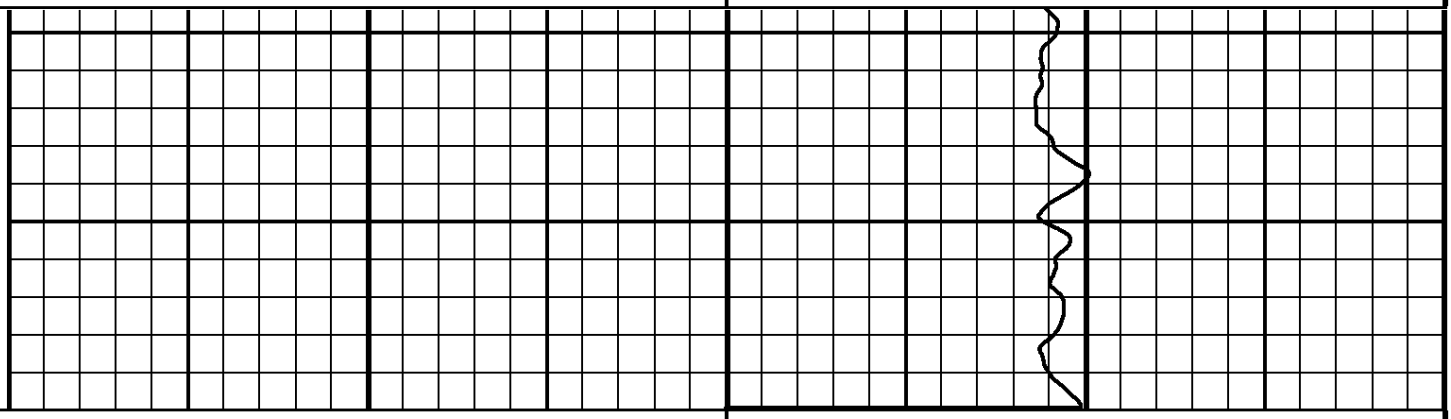
v.09.07.2000 VERSION: 1.64

V. ESTADISTICA

EA695VE

FINISH DEPTH: **824.9** METERS DIRECTION: **TIME** DATE: **07/03/2006** TIME: **23:16** MODE: **ORIGINAL**

NEUTRON
0 Unid. API 300



NEUTRON
0 Unid. API 300

START DEPTH: **824.9** METERS DIRECTION: **TIME** DATE: **07/03/2006** TIME: **23:15** MODE: **ORIGINAL**

EA695VE

V. ESTADISTICA

v.09.07.2000 VERSION: 1.64

VERSION: 1.64

CANERIA LIBRE

EA695CL

FINISH DEPTH: **830.8** METERS DIRECTION: **UP** DATE: **07/03/2006** TIME: **23:33** MODE: **ORIGINAL**

ARRIBO CAN. LIBRE
200 uSeg. 1200

CBL 3' AMP.
0 %Can.Libre 10

CCL
-1800 mV. 200

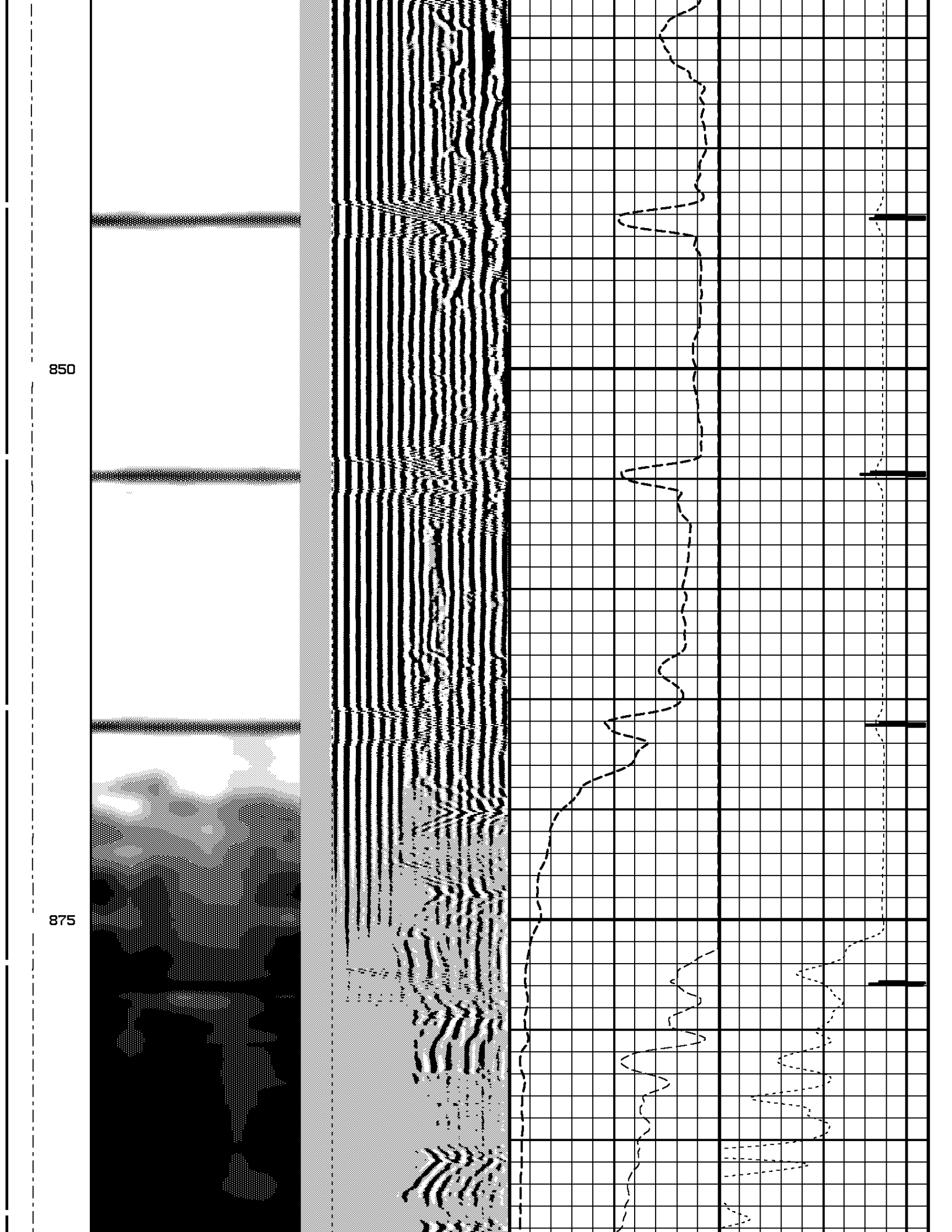
ENERGIA VARIABLE
0 85

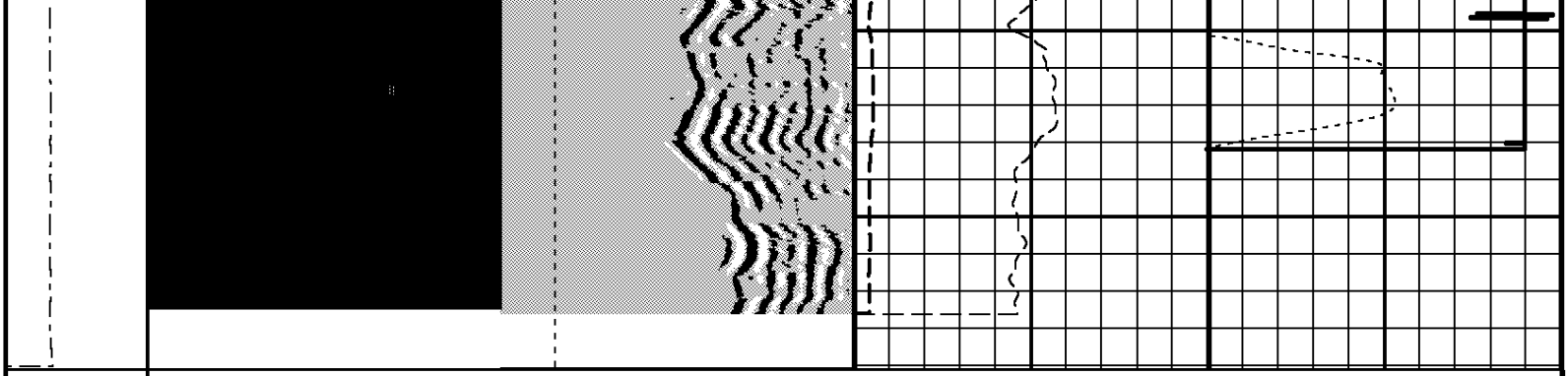
VDL 5'
200 uSeg. 1200

CBL 3'
0 %Can.Libre 100

TIEMPO DE TRANSITO
400 uSeg. 200

TENSION
0 1000


850
875



TENSION
0 1000

ENERGIA VARIABLE	VDL 5'	CBL 3'	TIEMPO DE TRANSITO
0 85	200 uSeg. 1200	0 %Can.Libre 100	400 uSeg. 200
	ARRIBO CAN. LIBRE	CBL 3' AMP.	CCL
	200 uSeg. 1200	0 %Can.Libre 10	-1800 mV. 200

START DEPTH: **899.1** METERS DIRECTION: **UP** DATE: **07/03/2006** TIME: **23:31** MODE: **ORIGINAL**

EA695CL

CANERIA LIBRE

VERSION: 1.64

VERSION: 1.64

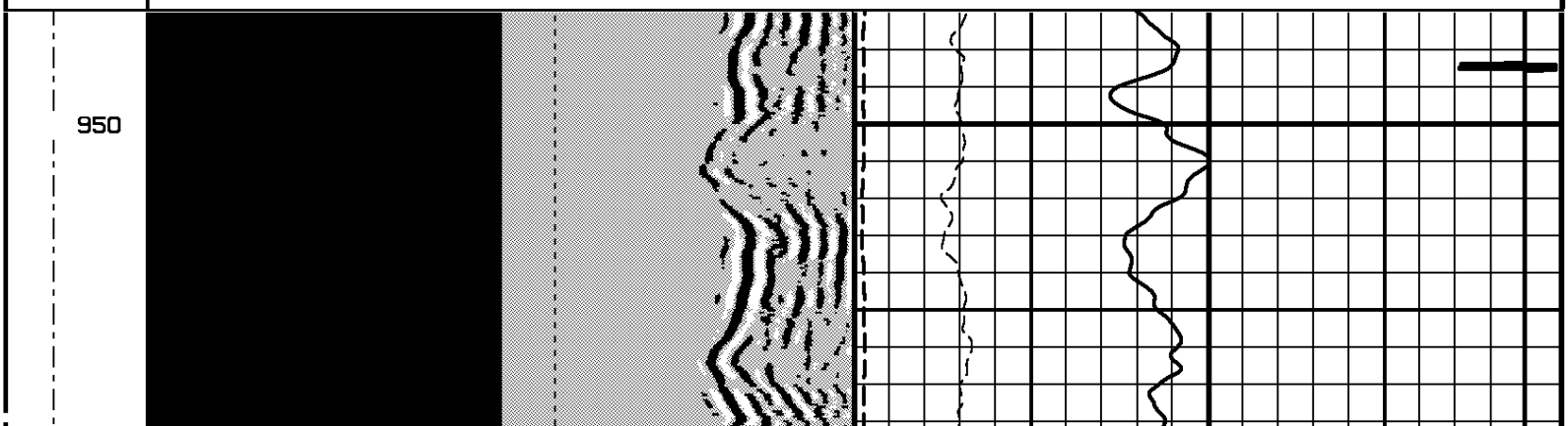
TRAMO PRINCIPAL

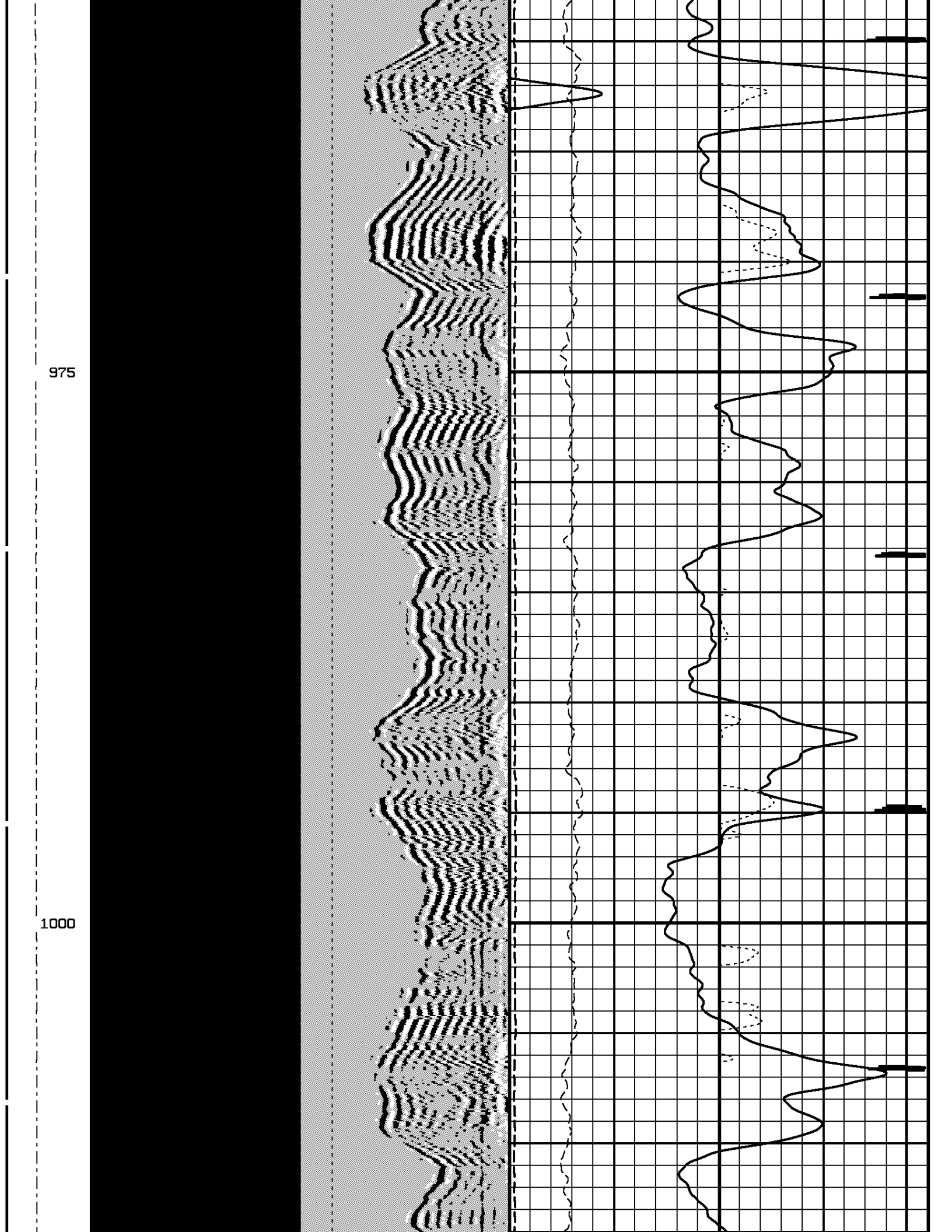
EA695TP

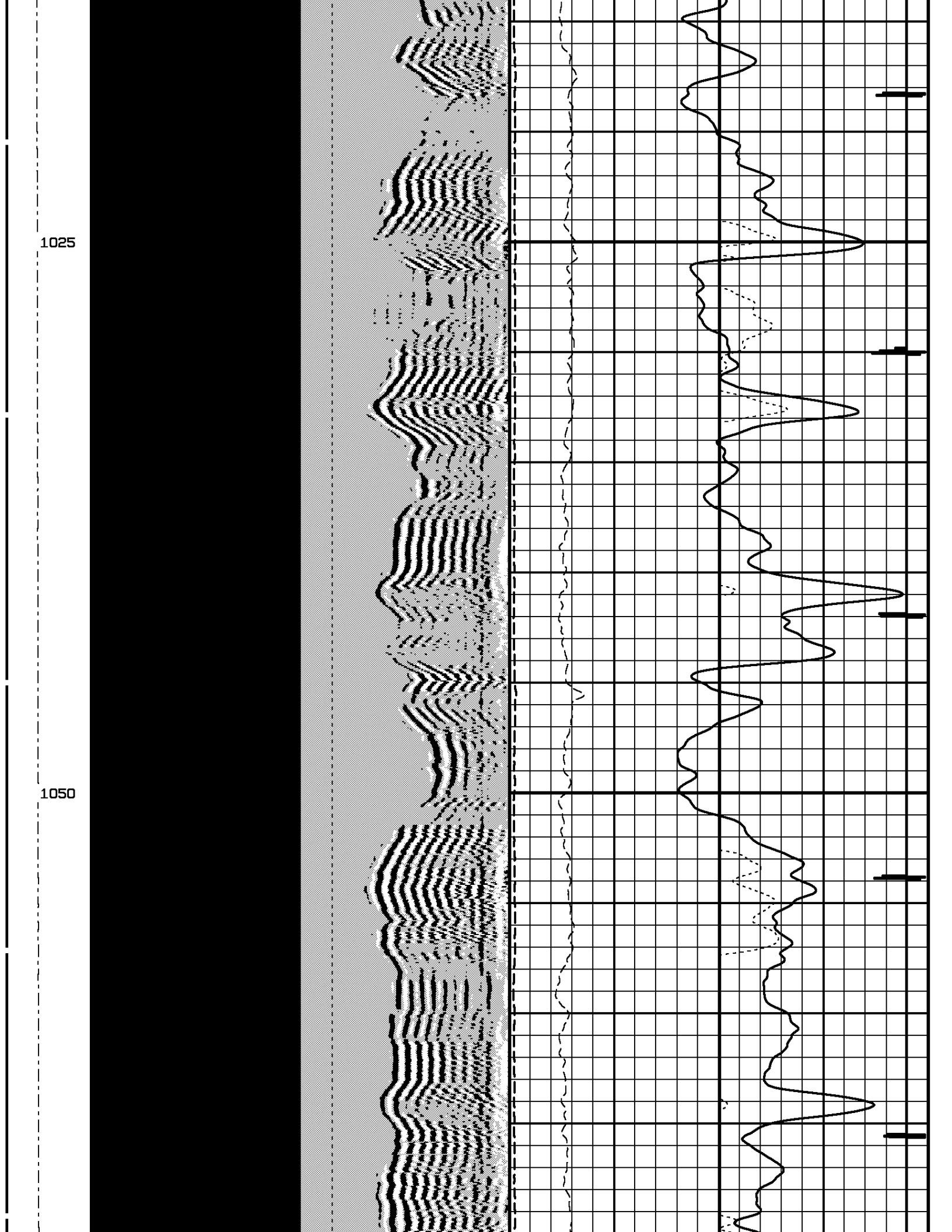
FINISH DEPTH: **948.3** METERS DIRECTION: **UP** DATE: **07/04/2006** TIME: **00:07** MODE: **ORIGINAL**

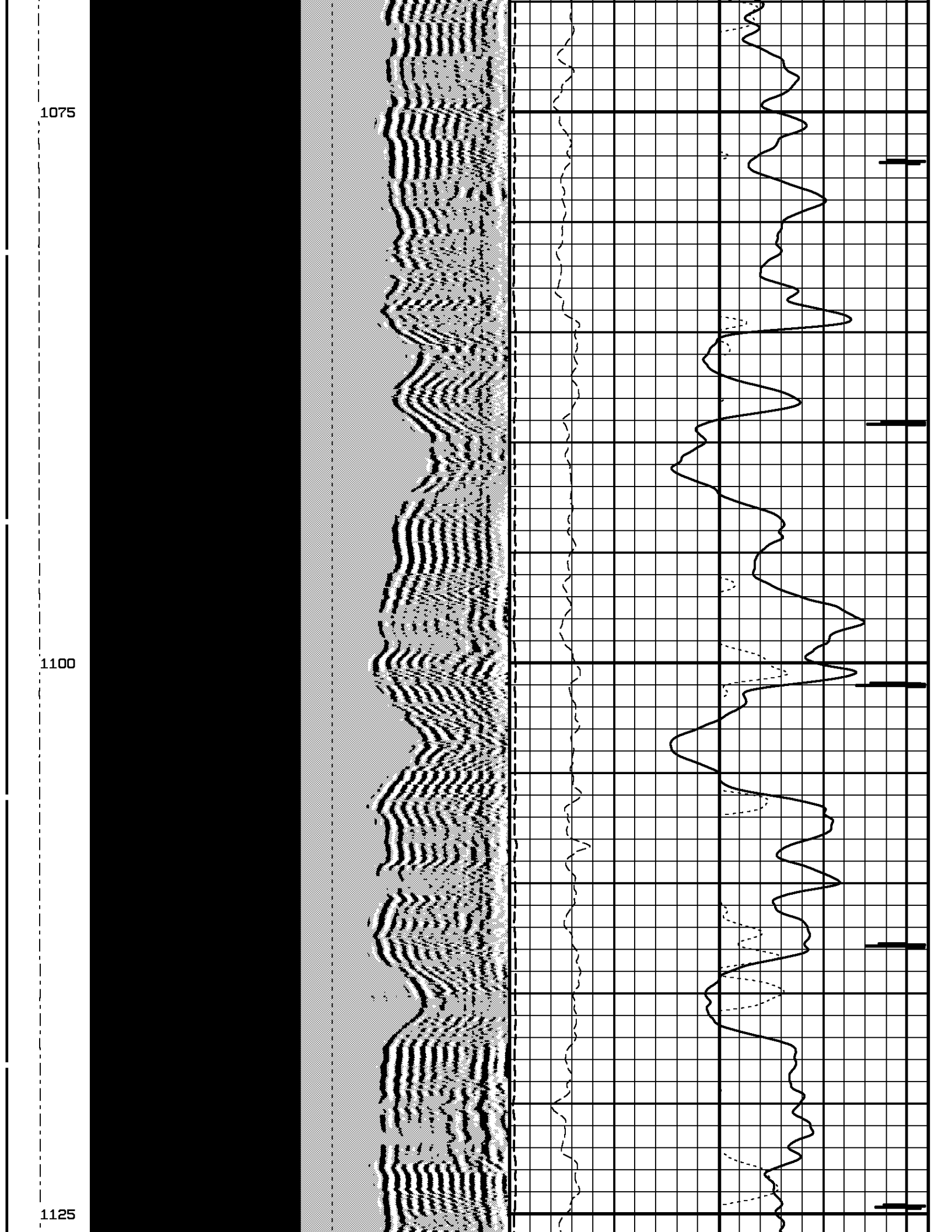
		NEUTRON	
		0 Unid.API 300	
	ARRIBO CAN. LIBRE	CBL 3' AMP.	CCL
	200 uSeg. 1200	0 %Can.Libre 10	-1800 mV. 200
ENERGIA VARIABLE	VDL 5'	CBL 3'	TIEMPO DE TRANSITO
0 85	200 uSeg. 1200	0 %Can.Libre 100	400 uSeg. 200

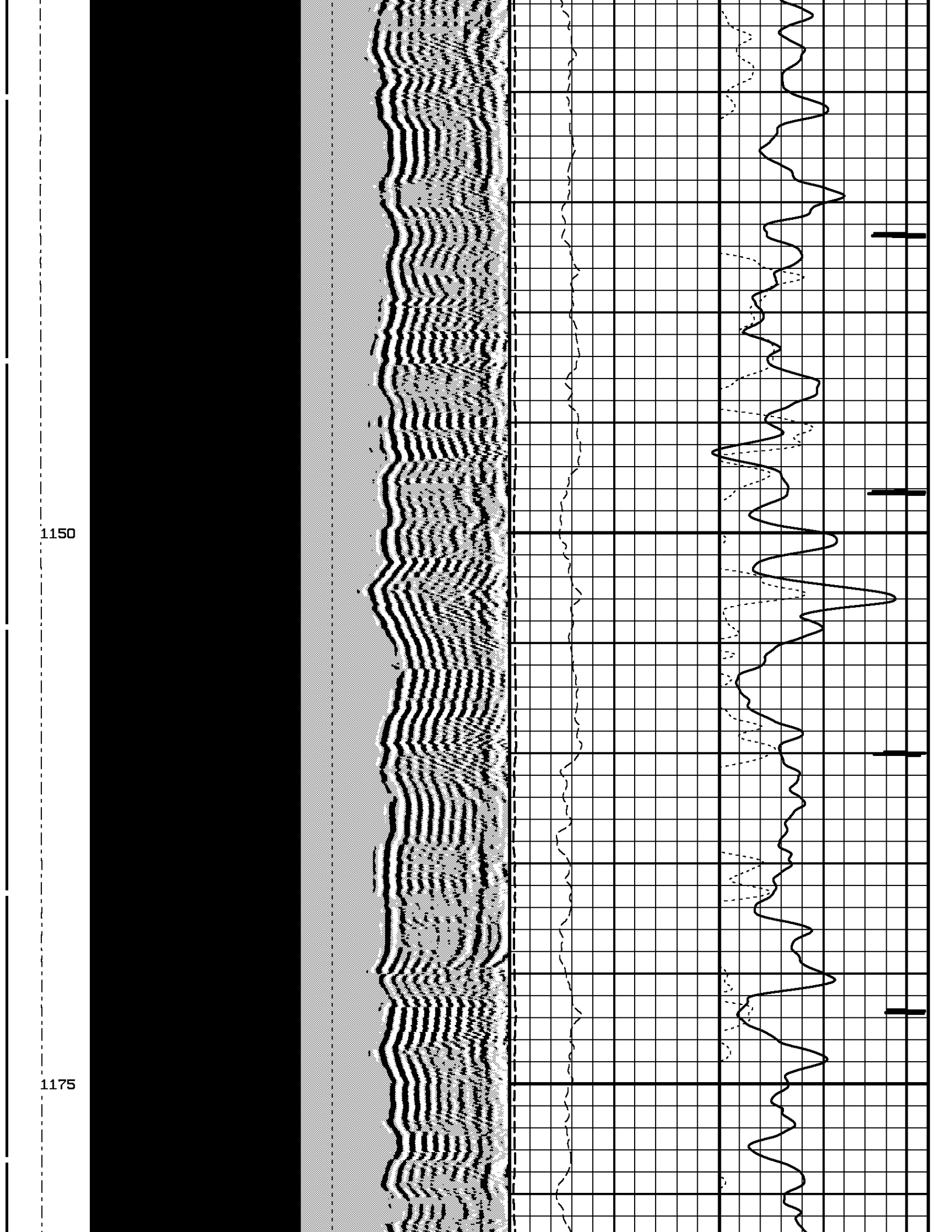
TENSION
0 1000

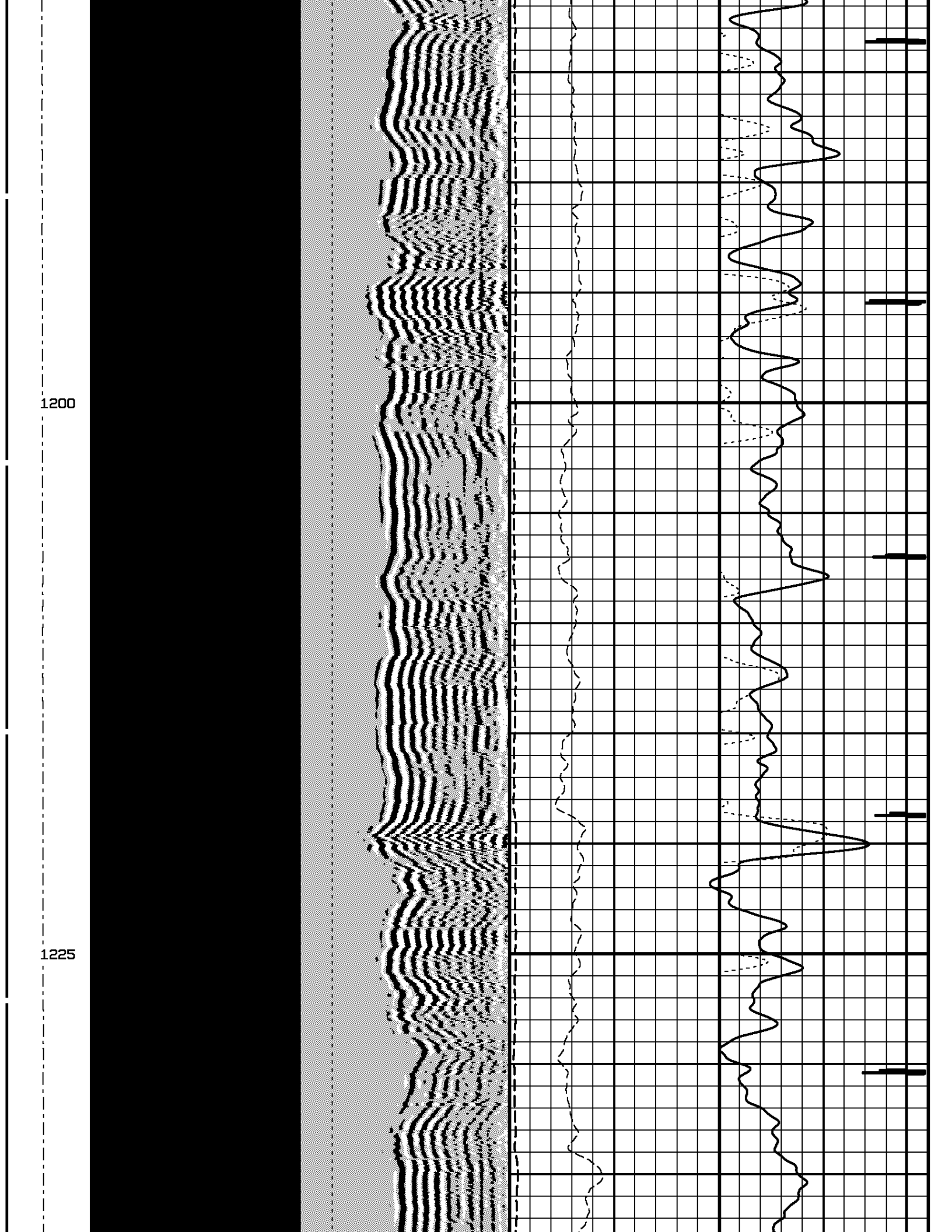


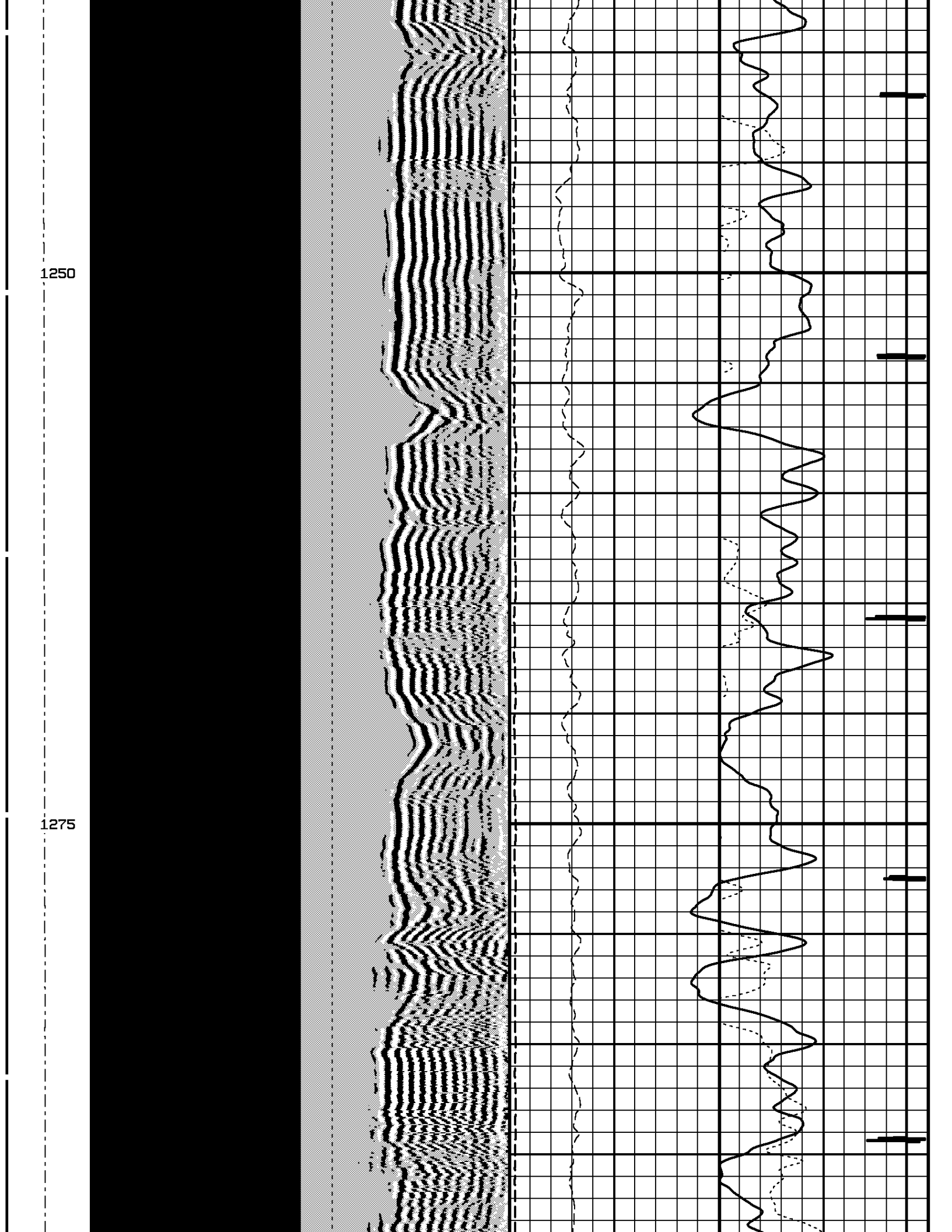

975
1000


1025
1050


1075
1100
1125


1150
1175


1200
1225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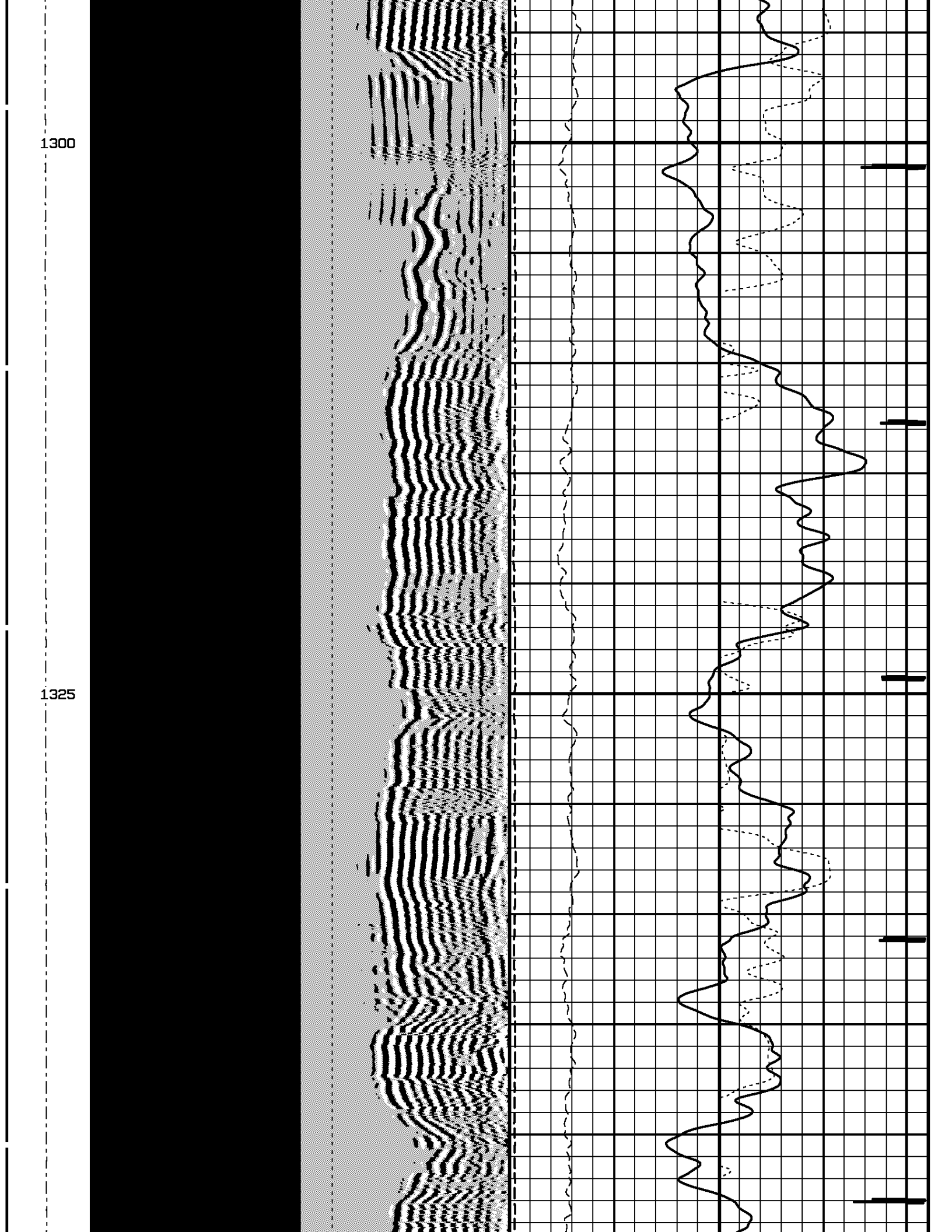
1275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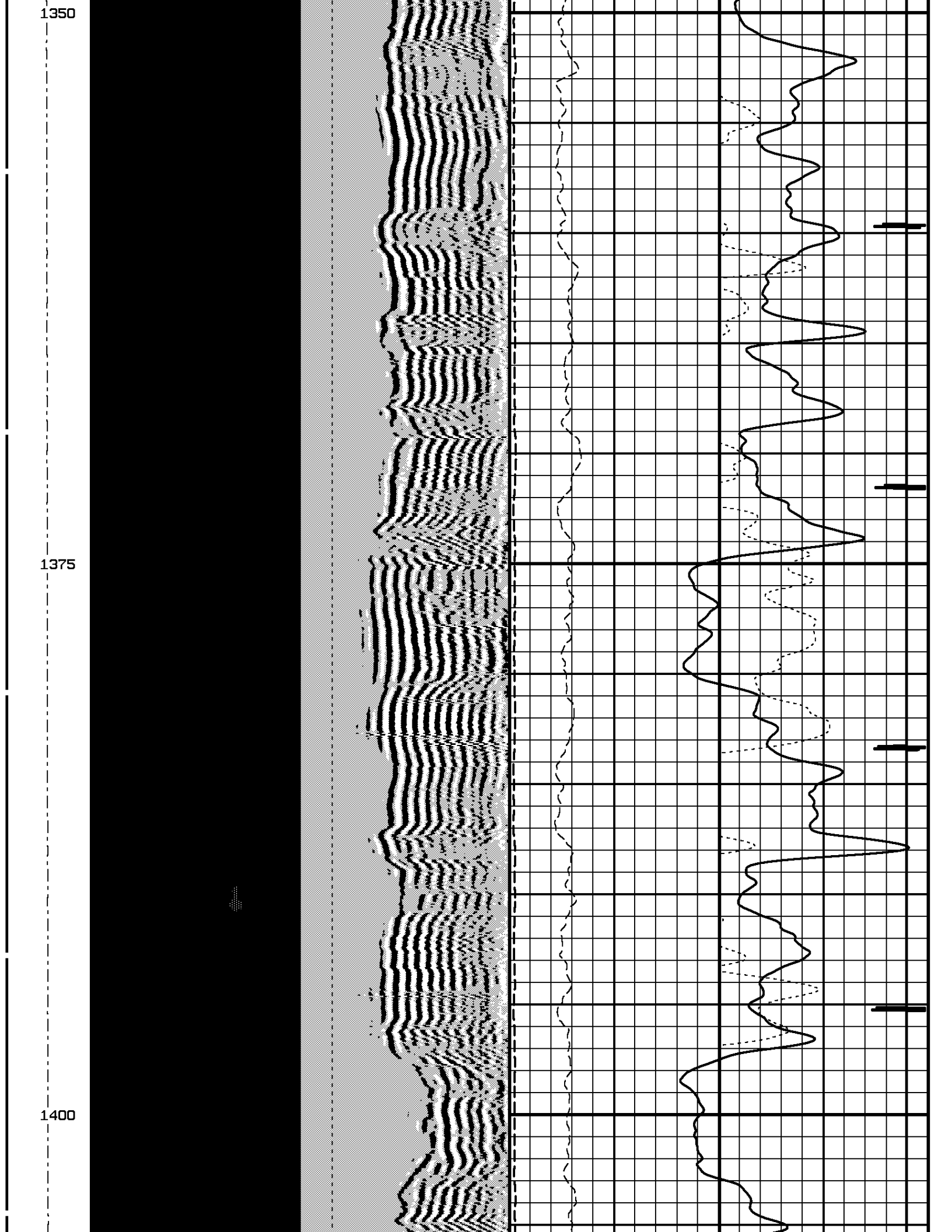
1325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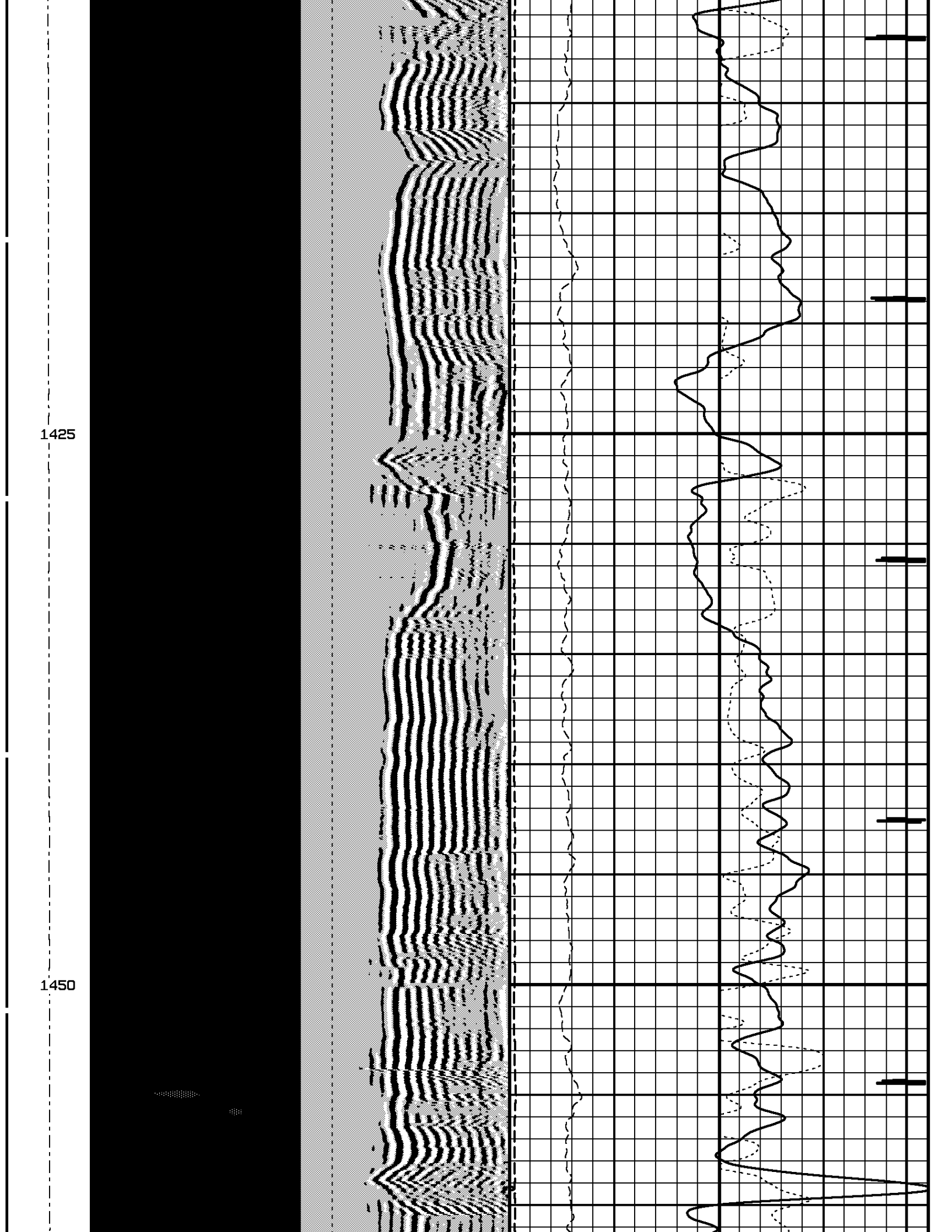
1375
1400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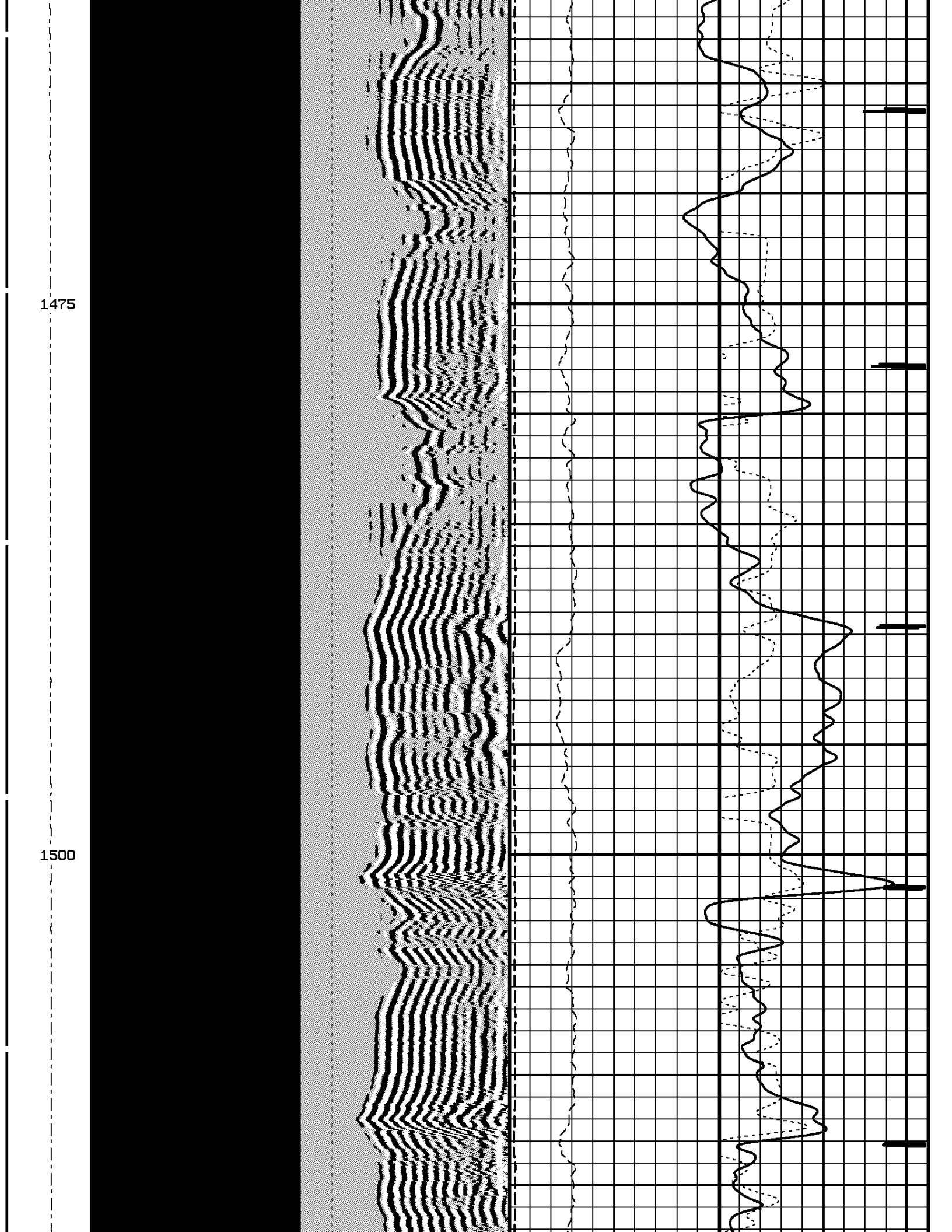
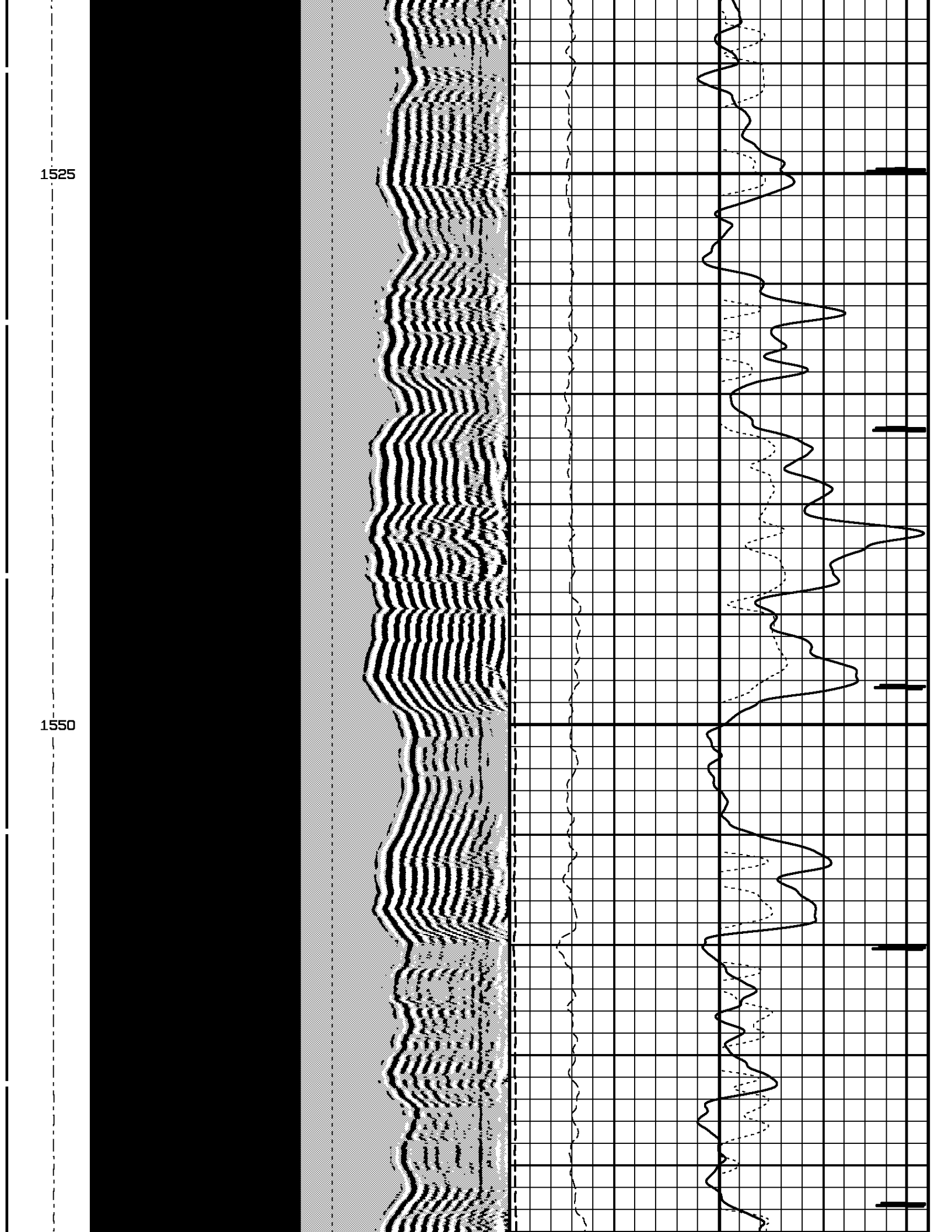
1450


1475
1500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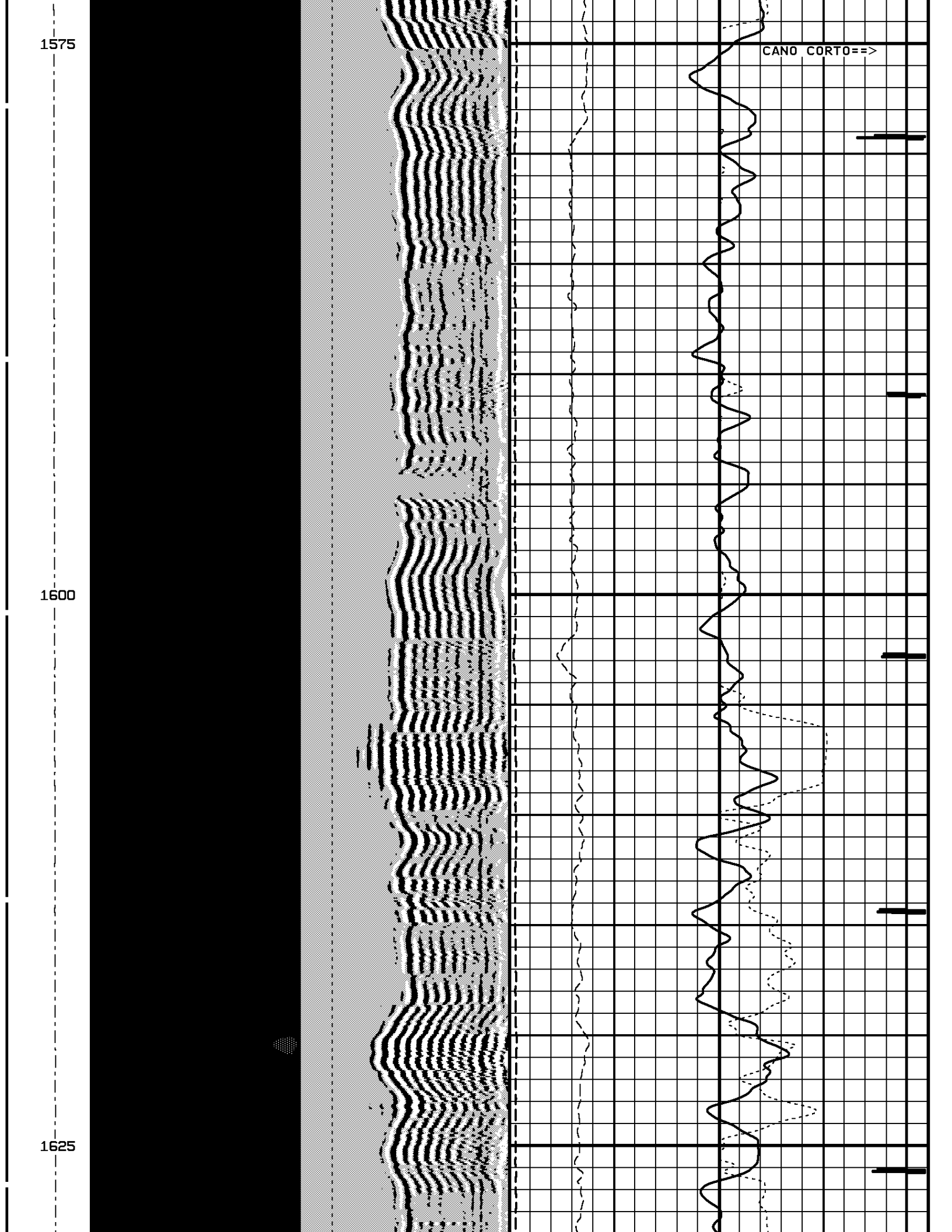
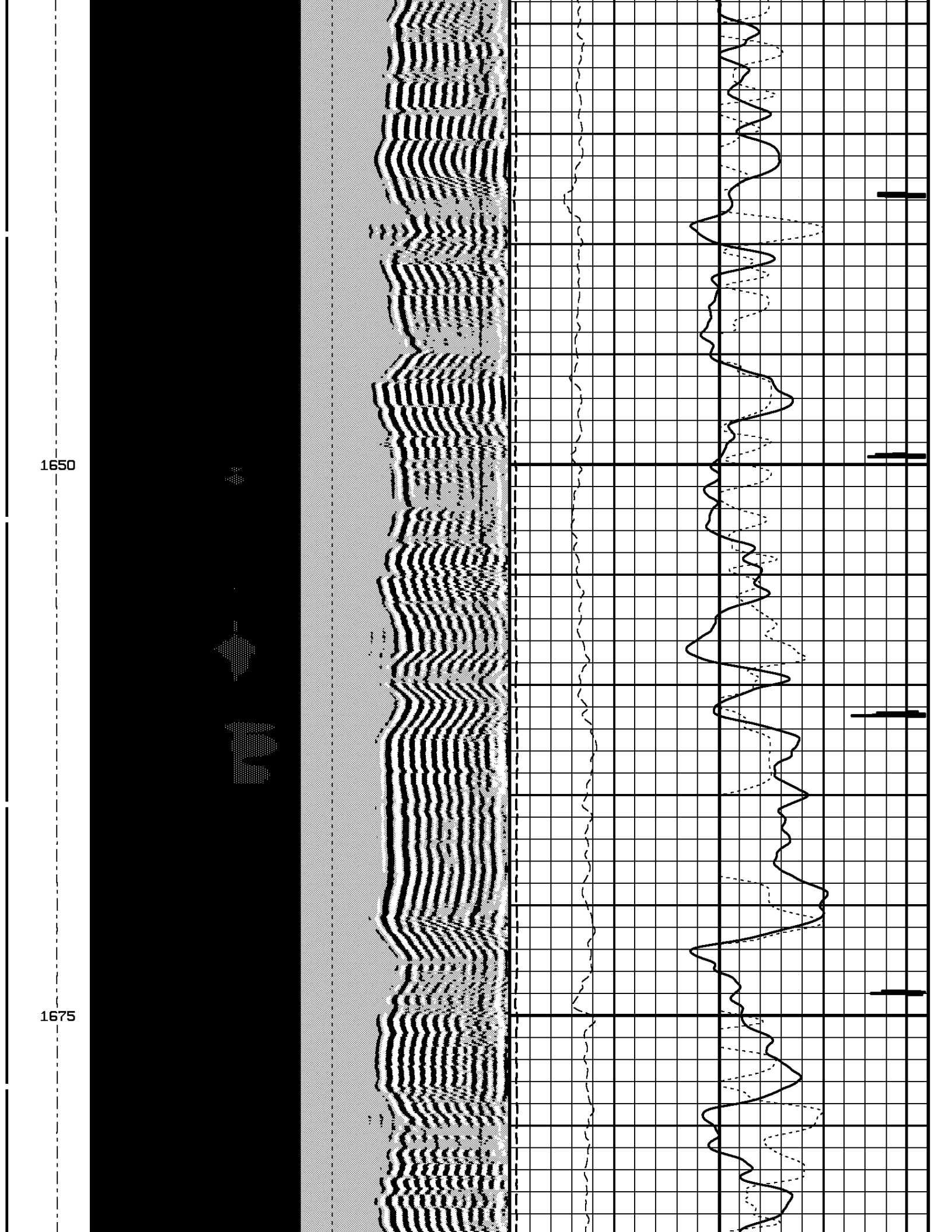
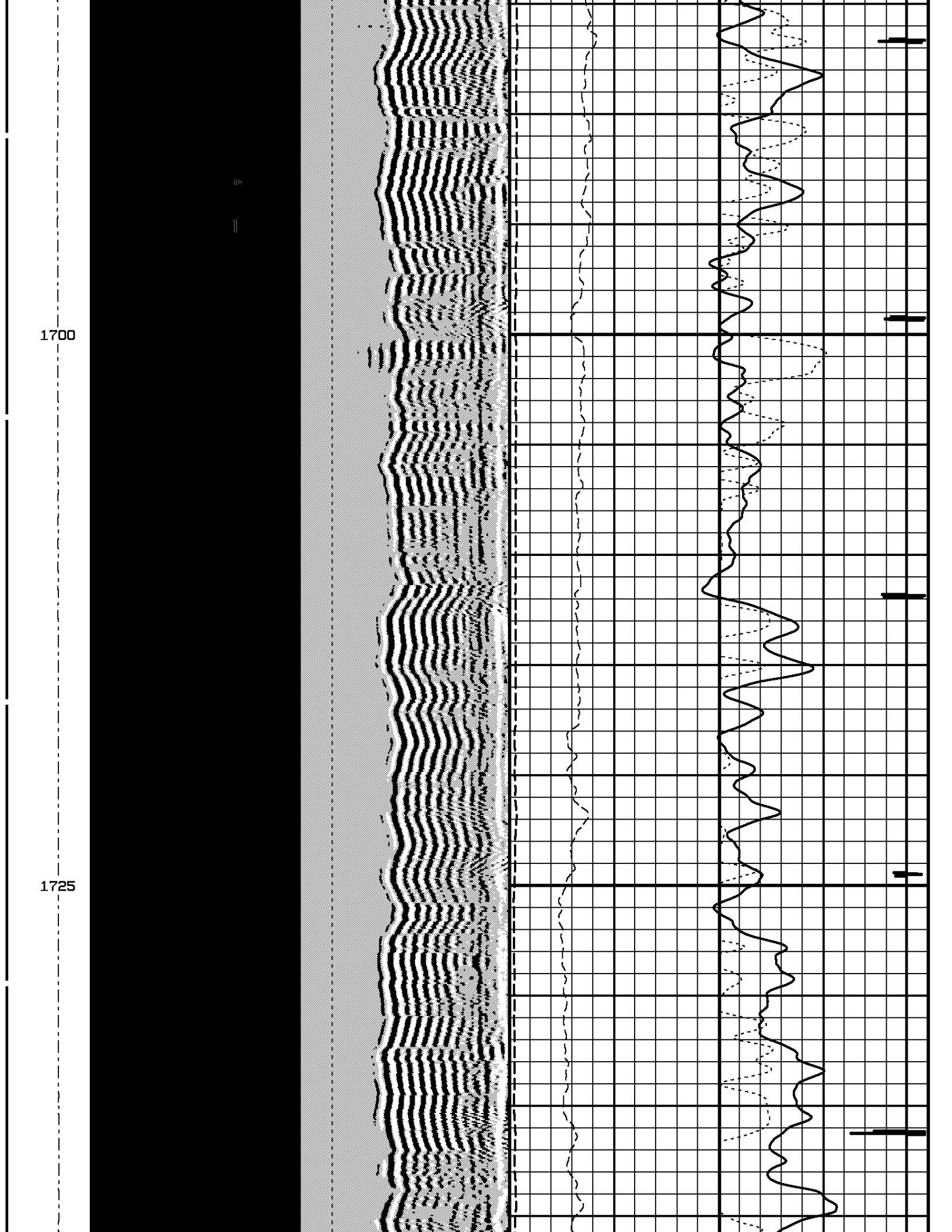
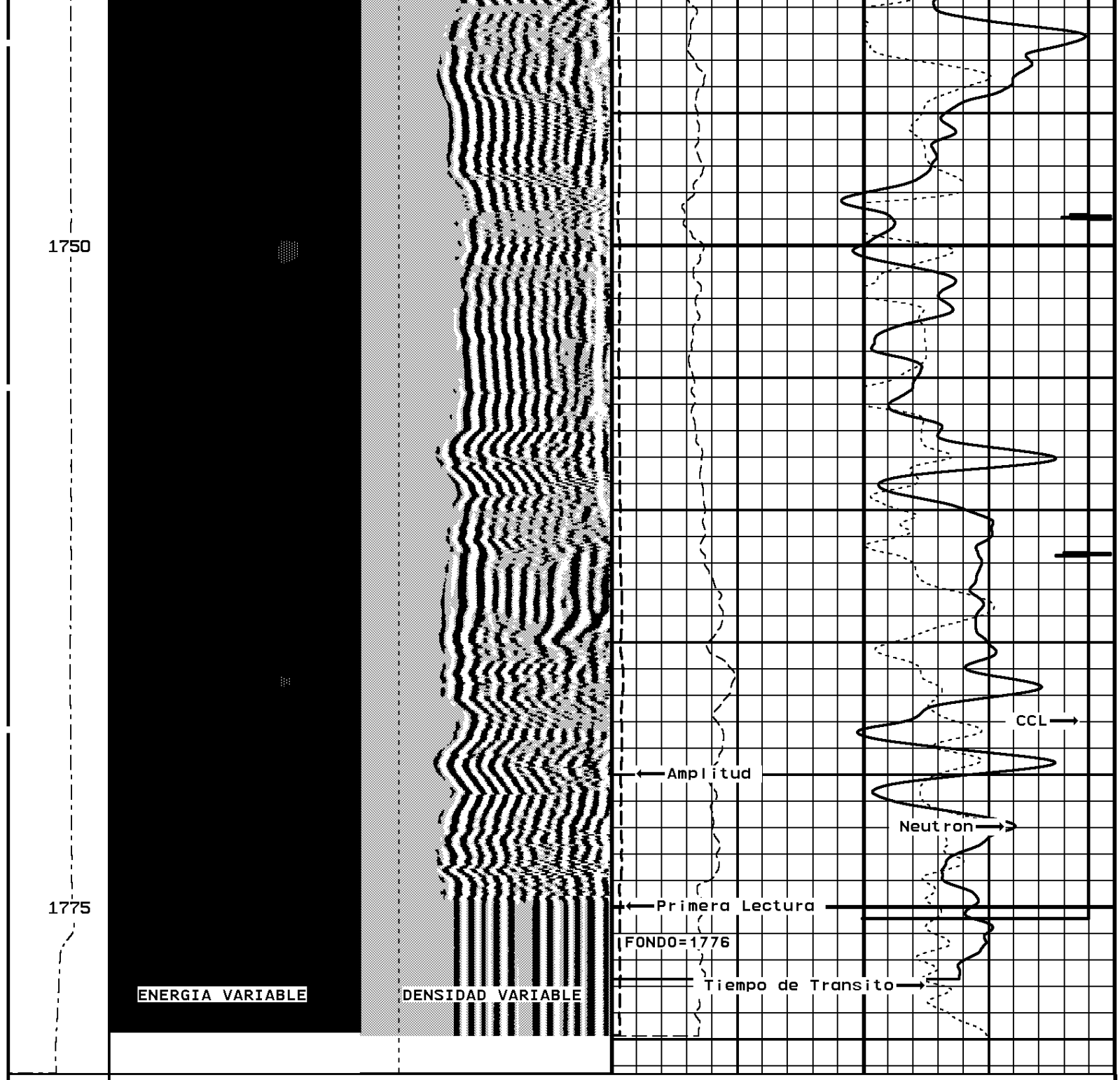
1550


1575
1600
1625
CANO CORTO==>


1650
1675


1700
1725



TENSION
0 1000

ENERGIA VARIABLE	VDL 5'	CBL 3'	TIEMPO DE TRANSITO
0 85	200 uSeg. 1200	0 %Can.Libre 100	400 uSeg. 200
	ARRIBO CAN. LIBRE	CBL 3' AMP.	CCL
	200 uSeg. 1200	0 %Can.Libre 10	-1800 mV. 200
		NEUTRON	
		0 Unid.API 300	

START DEPTH: **1781.3** METERS DIRECTION: **UP** DATE: **07/03/2006** TIME: **23:49** MODE: **ORIGINAL**

EA695TP

TRAMO PRINCIPAL

VERSION: 1.64

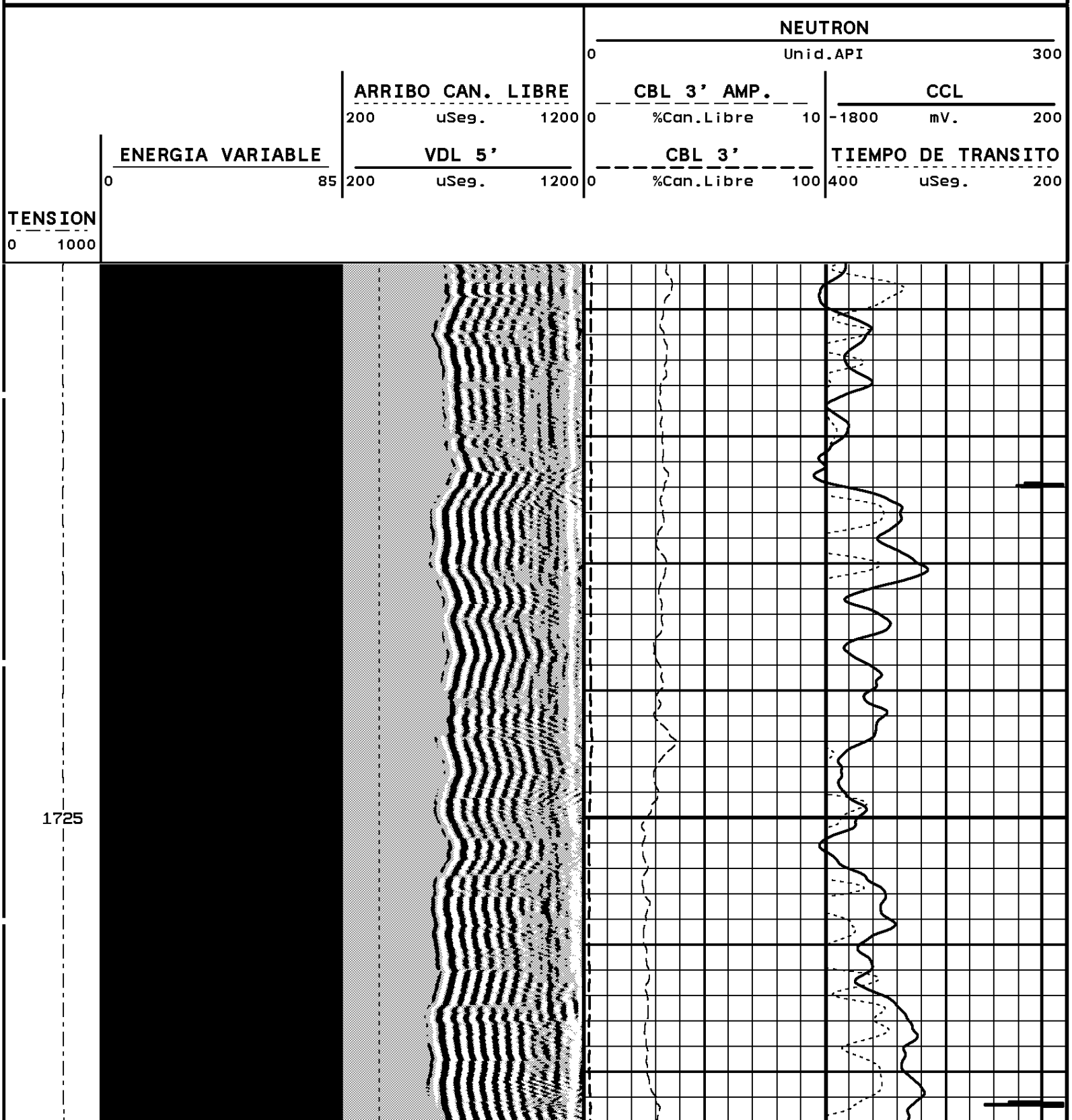
v.09.07.2000

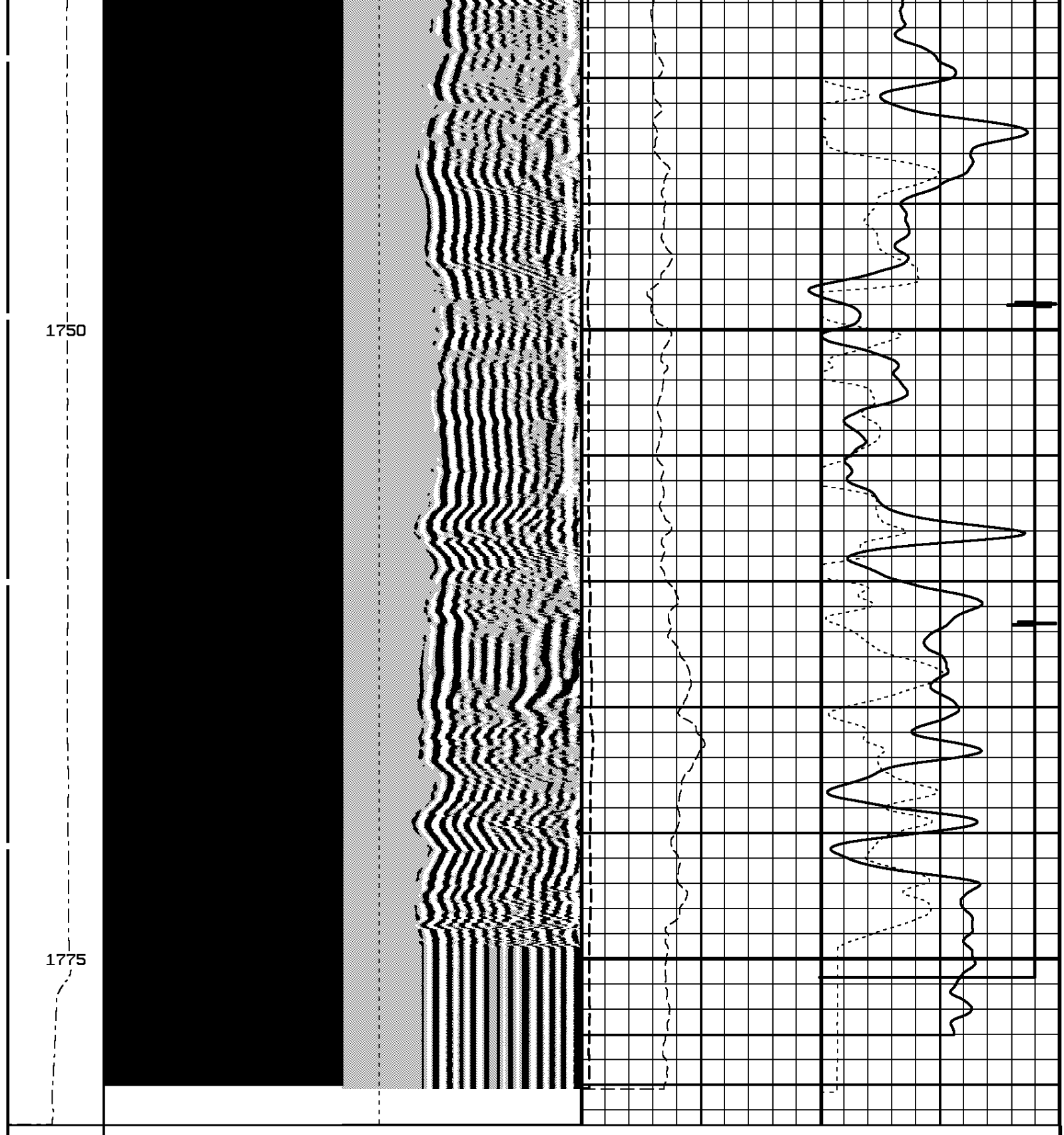
VERSION: 1.64

TRAMO REPETIDO

EA695TR

FINISH DEPTH: **1704.5** METERS DIRECTION: **UP** DATE: **07/04/2006** TIME: **00:11** MODE: **ORIGINAL**





TENSION
0 1000

ENERGIA VARIABLE
0 85

VDL 5'
200 uSeg. 1200

ARRIBO CAN. LIBRE
200 uSeg. 1200

CBL 3'
0 %Can.Libre 100

CBL 3' AMP.
0 %Can.Libre 10

TIEMPO DE TRANSITO
400 uSeg. 200

CCL
-1800 mV. 200

NEUTRON
0 Unid.API 300

START DEPTH: 1781.6 METERS DIRECTION: UP DATE: 07/04/2006 TIME: 00:09 MODE: ORIGINAL

START DEPTH: 1751.8 METERS DIRECTION: UP DATE: 07/04/2006 TIME: 00:03 MODE: ORIGINAL

EA695TR

TRAMO REPETIDO

v.09.07.2000 VERSION: 1.64

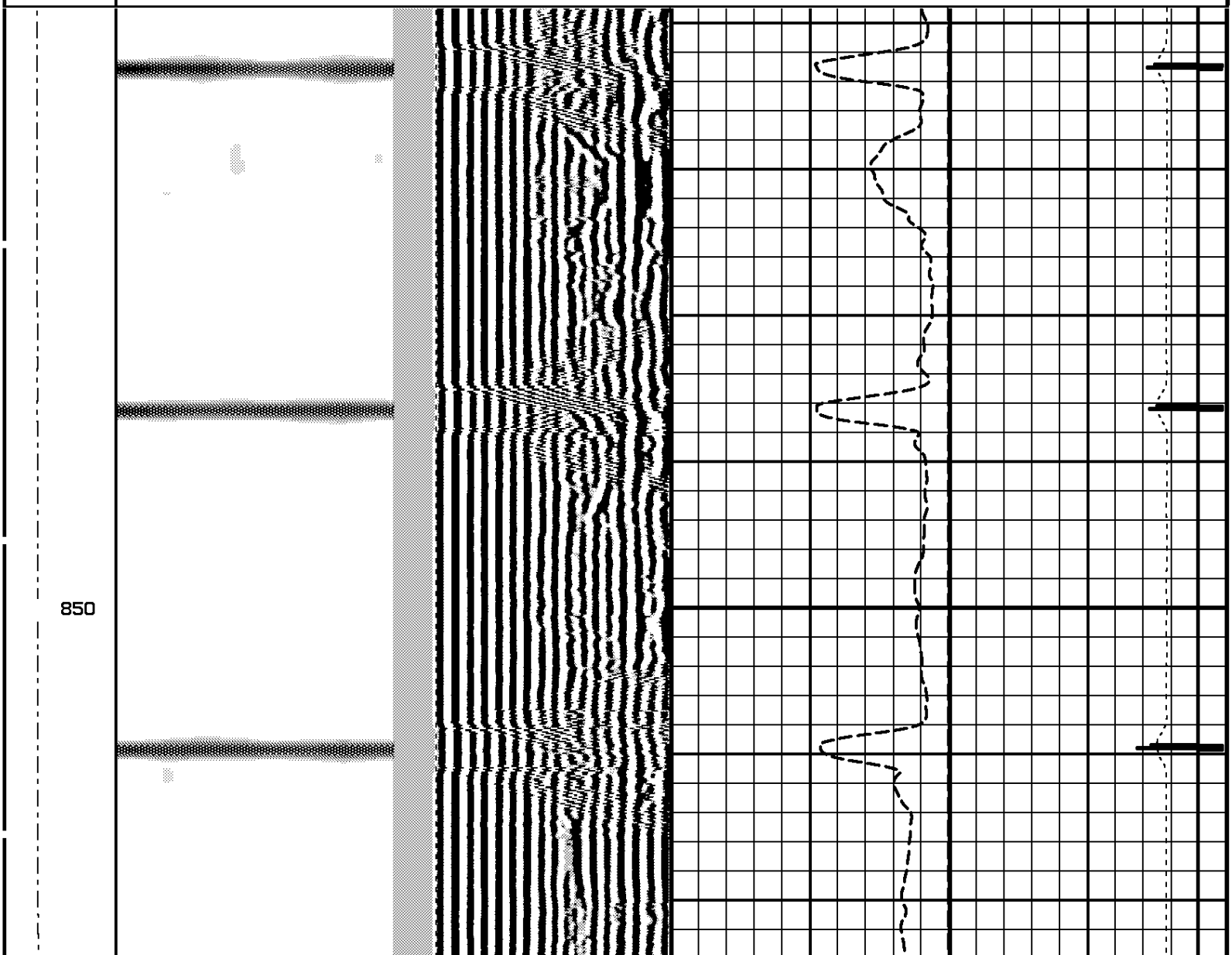
VERSION: 1.64

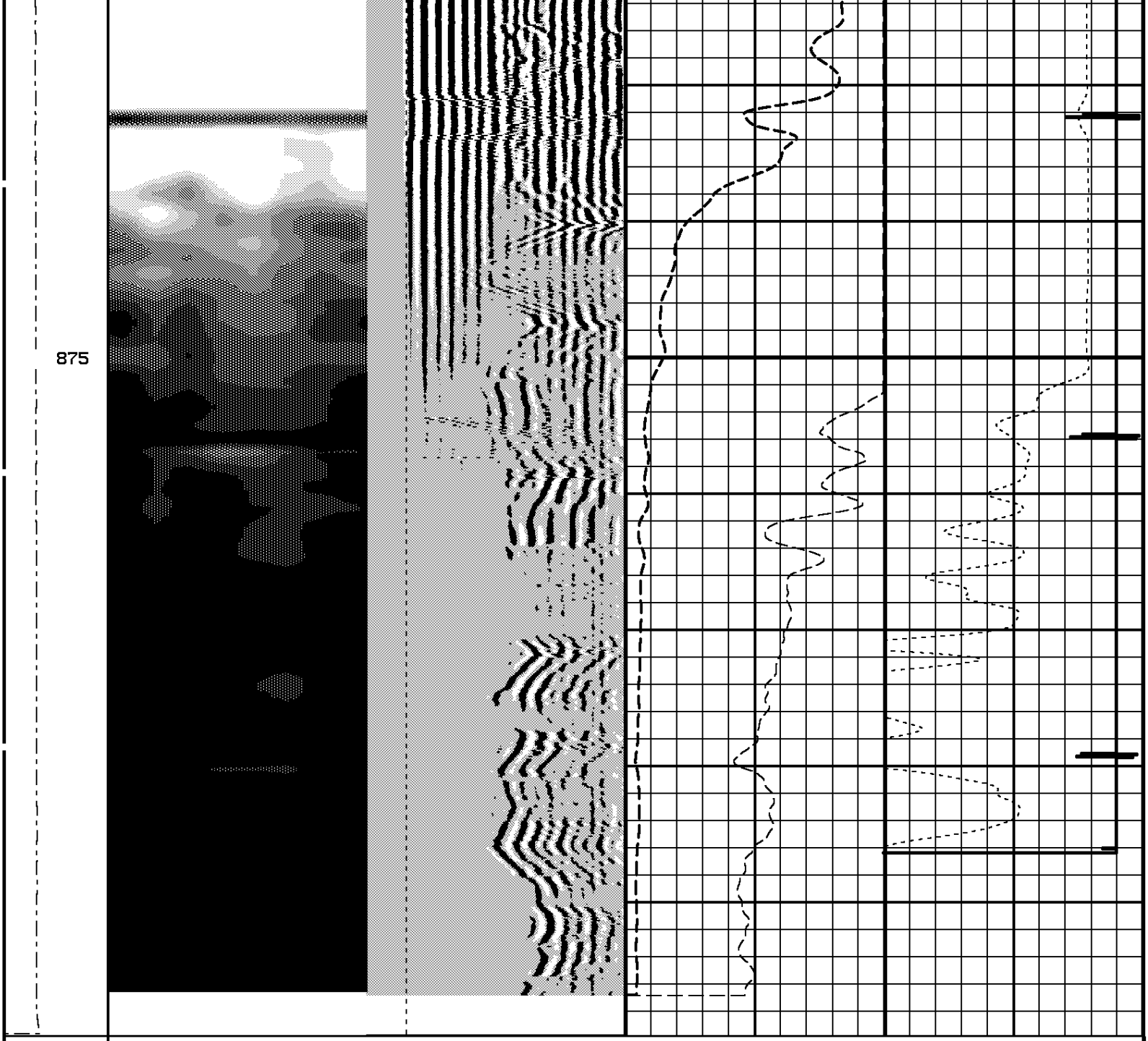
REPETIDO CBL

EA695RCBL

FINISH DEPTH: **830.8** METERS DIRECTION: **UP** DATE: **07/03/2006** TIME: **23:37** MODE: **ORIGINAL**

	ARRIBO CAN. LIBRE	CBL 3' AMP.	CCL
	200 uSeg. 1200	0 %Can.Libre 10	-1800 mV. 200
ENERGIA VARIABLE	VDL 5'	CBL 3'	TIEMPO DE TRANSITO
0 85	200 uSeg. 1200	0 %Can.Libre 100	400 uSeg. 200
TENSION			
0 1000			





TENSION
0 1000

ENERGIA VARIABLE	VDL 5'	CBL 3'	TIEMPO DE TRANSITO
0 85	200 uSeg. 1200	0 %Can.Libre 100	400 uSeg. 200
	ARRIBO CAN. LIBRE	CBL 3' AMP.	CCL
	200 uSeg. 1200	0 %Can.Libre 10	-1800 mV. 200

START DEPTH: **899.9** METERS DIRECTION: **UP** DATE: **07/03/2006** TIME: **23:35** MODE: **ORIGINAL**

EA695RCBL

REPETIDO CBL

VERSION: 1.64

REMARKS

ANALISIS DE REPETIBILIDAD

VERSION: 1.64

FINISH DEPTH: **1705.3** METERS DIRECTION: **UP** DATE: **07/04/2006** TIME: **00:15** MODE: **ORIGINAL**

NEUTRON Repetido
0 Unid.API 300

NEUTRON
0 Unid.API 300

CBL 3' AMPL. Rep.
0 %Can.Libre 10

CBL 3' Repetido
0 %Can.Libre 100

T. DE TRANSITO Rep
400 uSeg. 200

ARRIBO CAN. LIBRE
200 uSeg. 1200

CBL 3' AMP.
0 %Can.Libre 10

CCL
-1800 mV. 200

ENERGIA VARIABLE
0 85

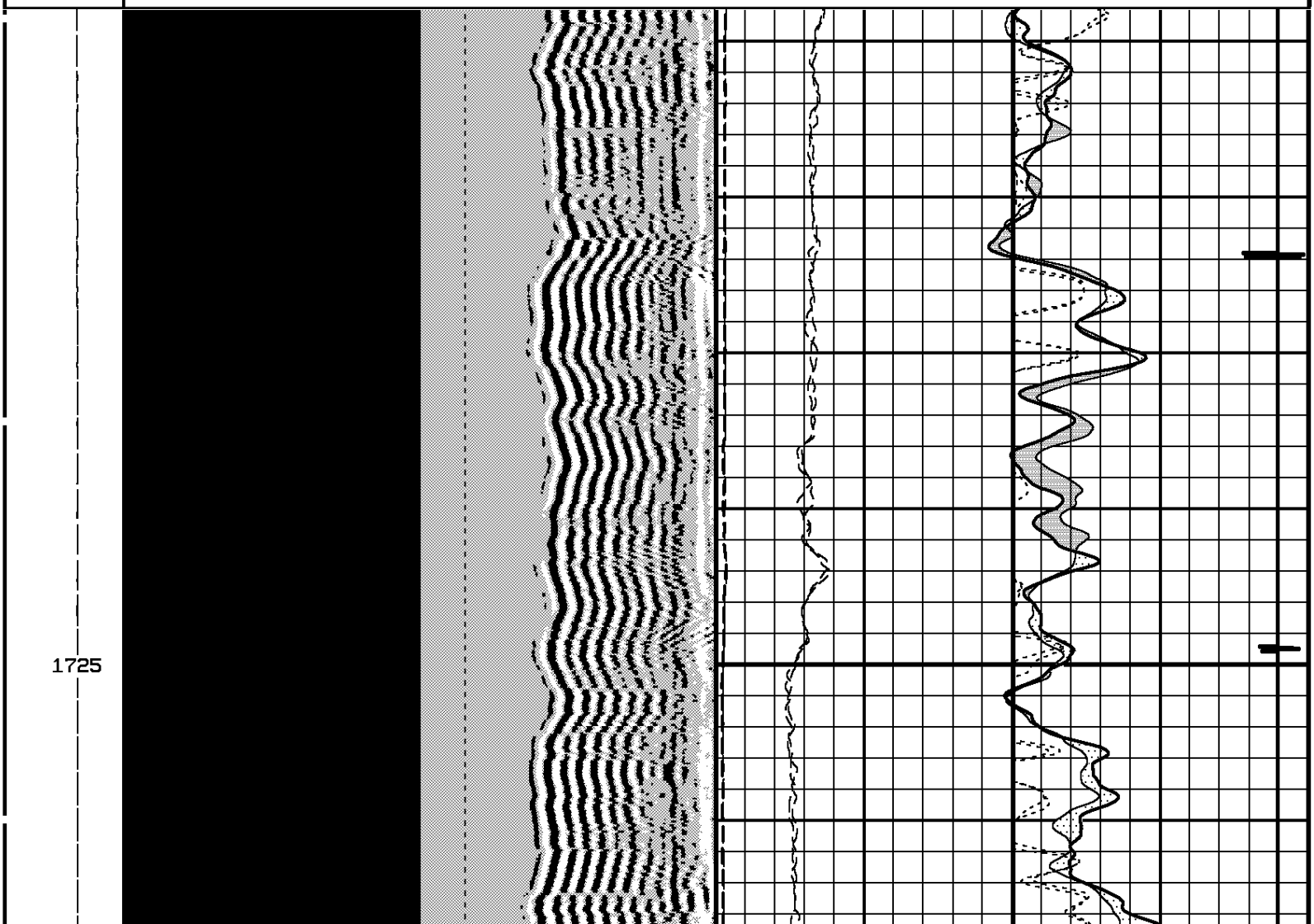
VDL 5'
200 uSeg. 1200

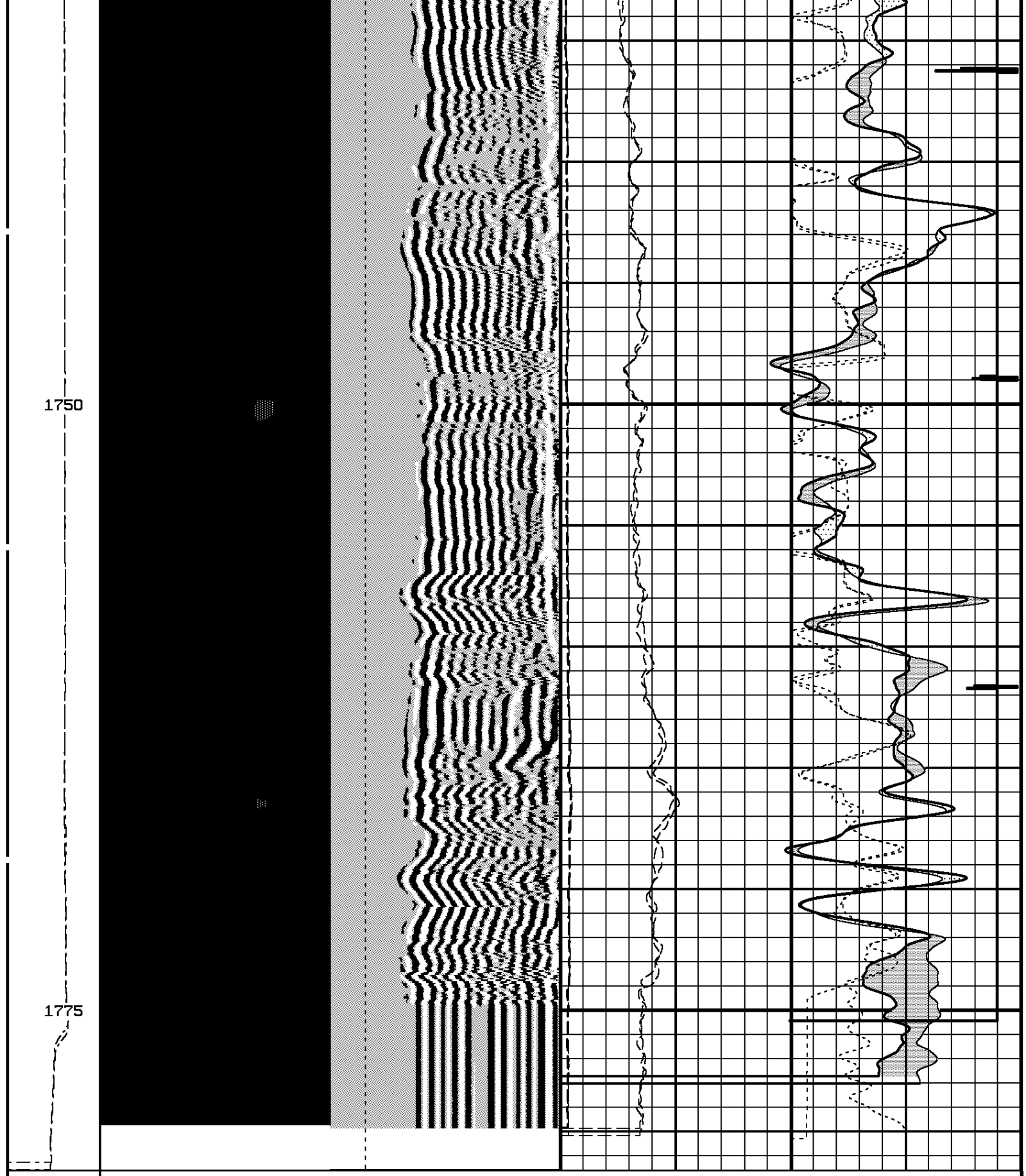
CBL 3'
0 %Can.Libre 100

TIEMPO DE TRANSITO
400 uSeg. 200

TENSION
0 1000

TENSION
0 1000





TENSION
0 1000

TENSION
0 1000

ENERGIA VARIABLE
0 85

VDL 5'
200 uSeg. 1200

CBL 3'
0 %Can.Libre 100

TIEMPO DE TRANSITO
400 uSeg. 200

ARRIBO CAN. LIBRE
200 uSeg. 1200

CBL 3' AMP.
0 %Can.Libre 10

CCL
-1800 mV. 200

CBL 3' Repetido
0 %Can.Libre 100

T. DE TRANSITO Rep
400 uSeg. 200

CBL 3' AMPL. Rep.
0 %Can.Libre 10

NEUTRON
0 Unid.API 300

NEUTRON Repetido
0 Unid.API 300

START DEPTH: **1781.6** METERS DIRECTION: **UP** DATE: **07/04/2006** TIME: **00:14** MODE: **ORIGINAL**

VERSION: 1.64

REMARKS

ANALISIS DE REPETIBILIDAD

VERSION: 1.64

FINISH DEPTH: **830.8** METERS DIRECTION: **UP** DATE: **07/03/2006** TIME: **23:40** MODE: **ORIGINAL**

CBL 3' AMPL. Rep
0 %Can.Libre 10

CBL 3' Repetido
0 %Can.Libre 100

T. DE TRANSITO Rep
400 uSeg. 200

ARRIBO CAN. LIBRE
200 uSeg. 1200

CBL 3' AMP.
0 %Can.Libre 10

CCL
-1800 mV. 200

ENERGIA VARIABLE
0 85

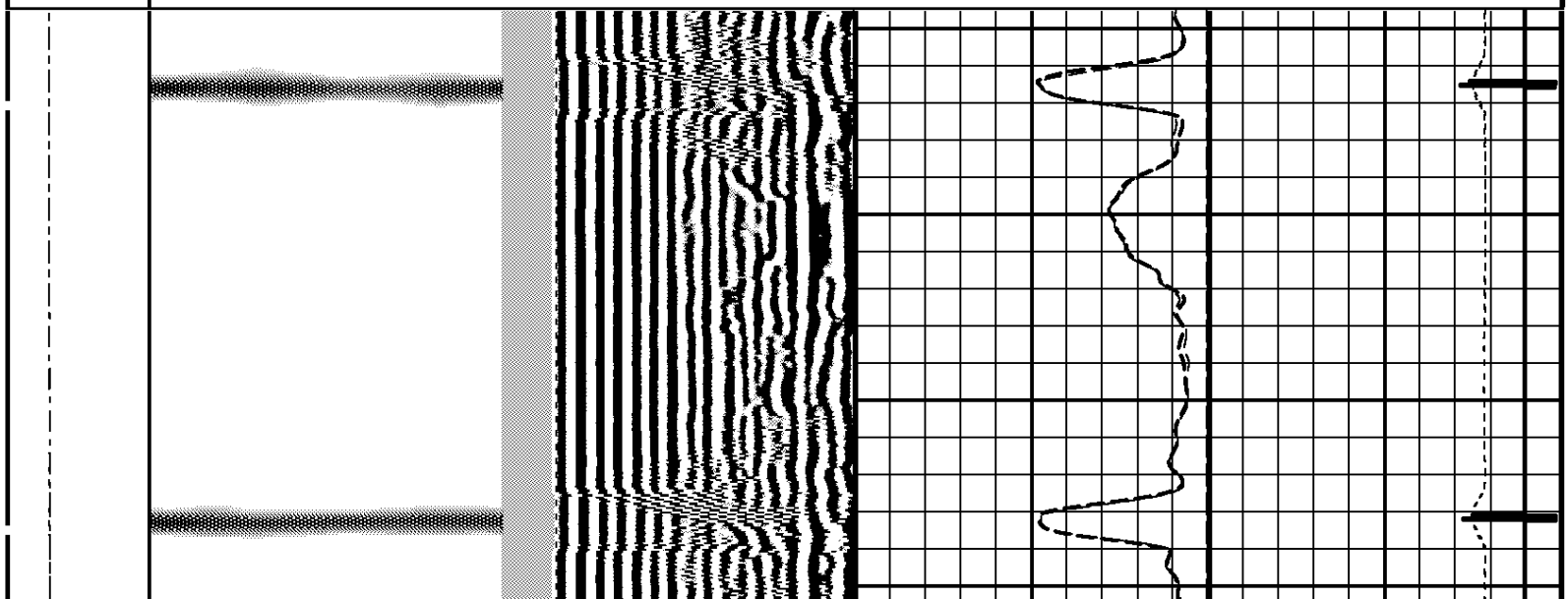
VDL 5'
200 uSeg. 1200

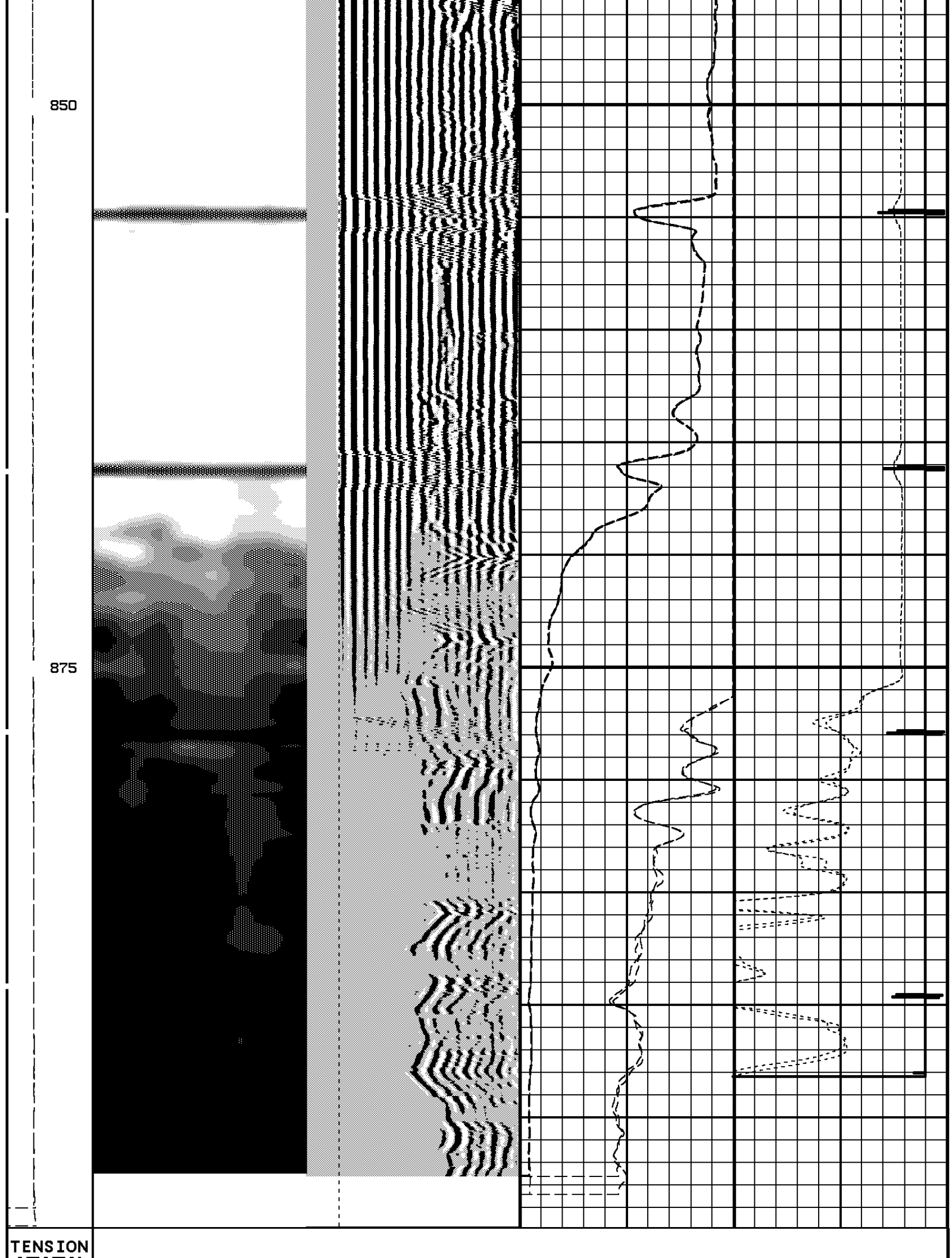
CBL 3'
0 %Can.Libre 100

TIEMPO DE TRANSITO
400 uSeg. 200

TENSION
0 1000

TENSION
0 1000




850
875
TENSION

0 1000			
TENSION			
0 1000			
	ENERGIA VARIABLE	VDL 5'	CBL 3'
	0 85	200 uSeg. 1200	0 %Can.Libre 100
		ARRIBO CAN. LIBRE	CBL 3' AMP.
		200 uSeg. 1200	0 %Can.Libre 10
			CBL 3' Repetido
			0 %Can.Libre 100
			CBL 3' AMPL. Rep
			0 %Can.Libre 10

TIEMPO DE TRANSITO	
400 uSeg. 200	
CCL	
-1800 mV. 200	
T. DE TRANSITO Rep	
400 uSeg. 200	

START DEPTH: **899.9** METERS DIRECTION: **UP** DATE: **07/03/2006** TIME: **23:39** MODE: **ORIGINAL**

VERSION: 1.64

Single Conductor Adaptor Head

Weight	1.0 Kgr.
Length	0.3 mts.
Max. Diameter	36.5 mm.

Total Stack Weight 103.8 Kgr. in air
Total Stack Length 8.46 mts.

Slim Hole Centralizer

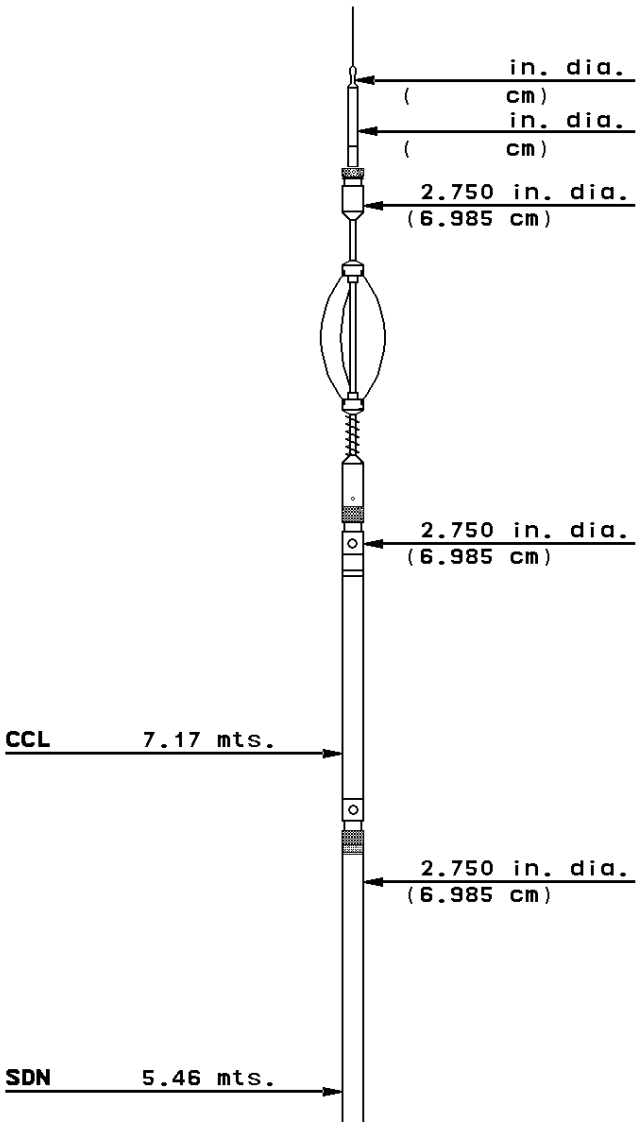
Weight	8.5 Kgr.
Length	0.85 mts.
Max. Diameter	70.0 mm.

Collar Locator

Weight	18.14 Kgr.
Length	1.03 mts.
Max. Diameter	70.0 mm.

Single Detector Neutron

Weight	27.3 Kgr.
Length	1.50 mts.
Max. Diameter	70.0 mm.



Slim Hole Centralizer

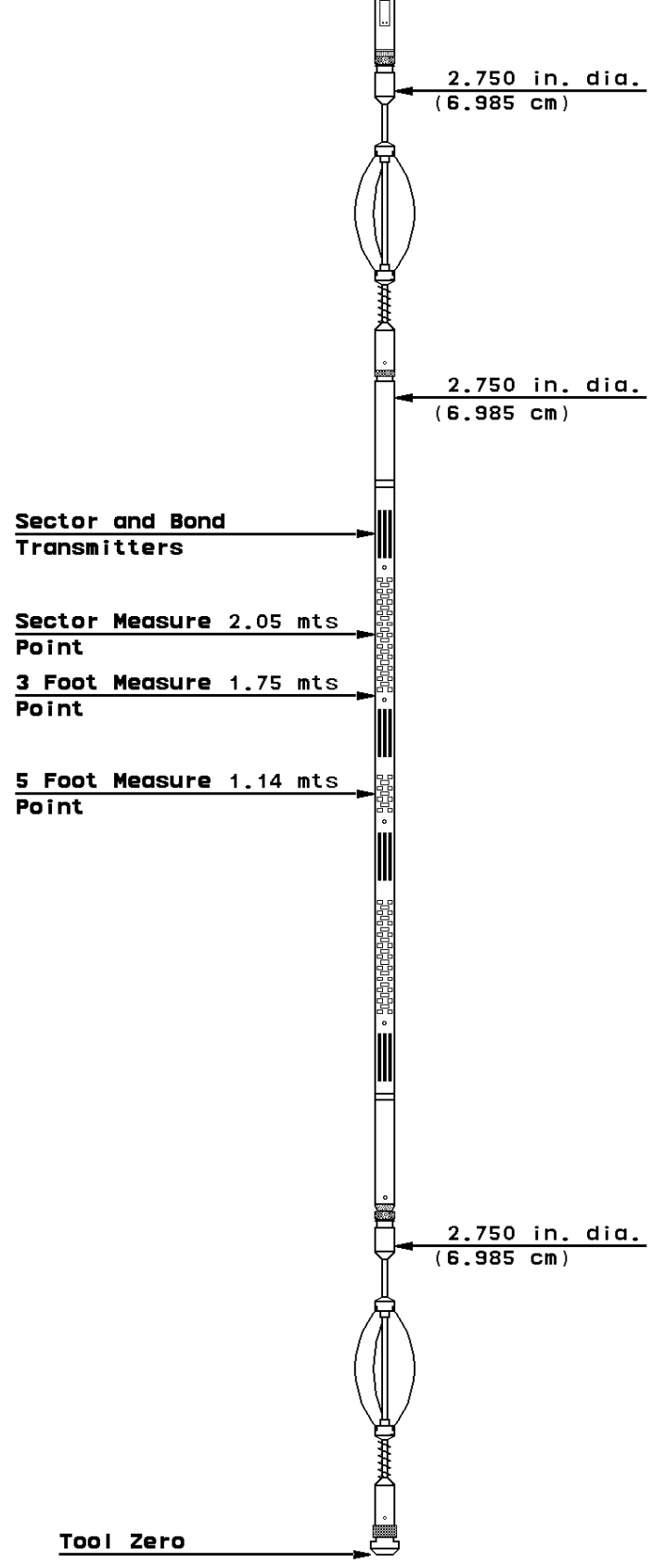
Weight	8.5 Kgr.
Length	0.85 mts.
Max. Diameter	70.0 mm.

Sector Bond

Weight	41.0 Kgr.
Length	3.14 mts.
Max. Diameter	70.0 mm.

Slim Hole Centralizer

Weight	8.5 Kgr.
Length	0.85 mts.
Max. Diameter	70.0 mm.



COMPANIA YPF S.A.

POZO YPF.Ch.EA-695

CAMPO EL ALBA PAIS ARG.

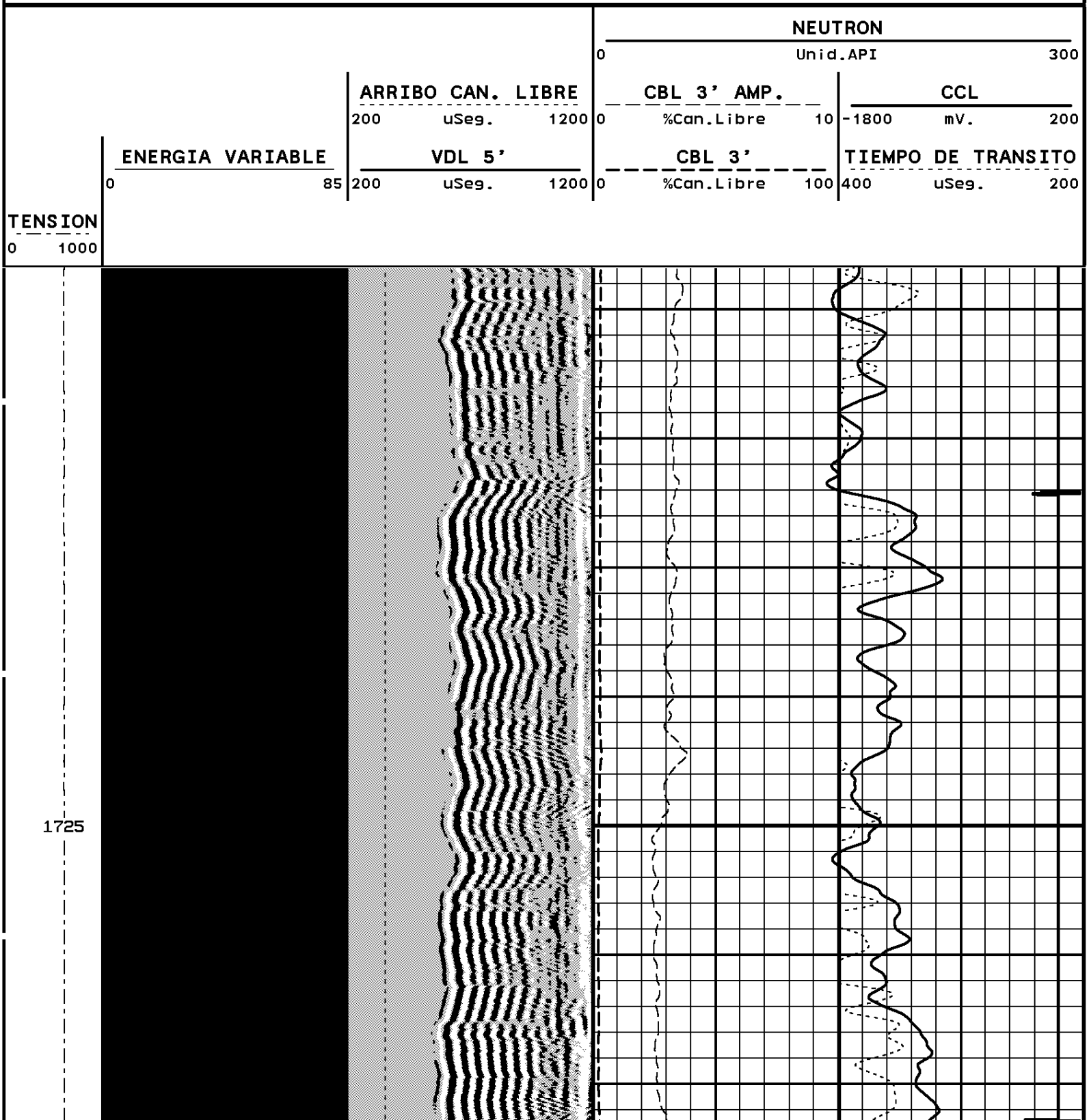
GEOLOG

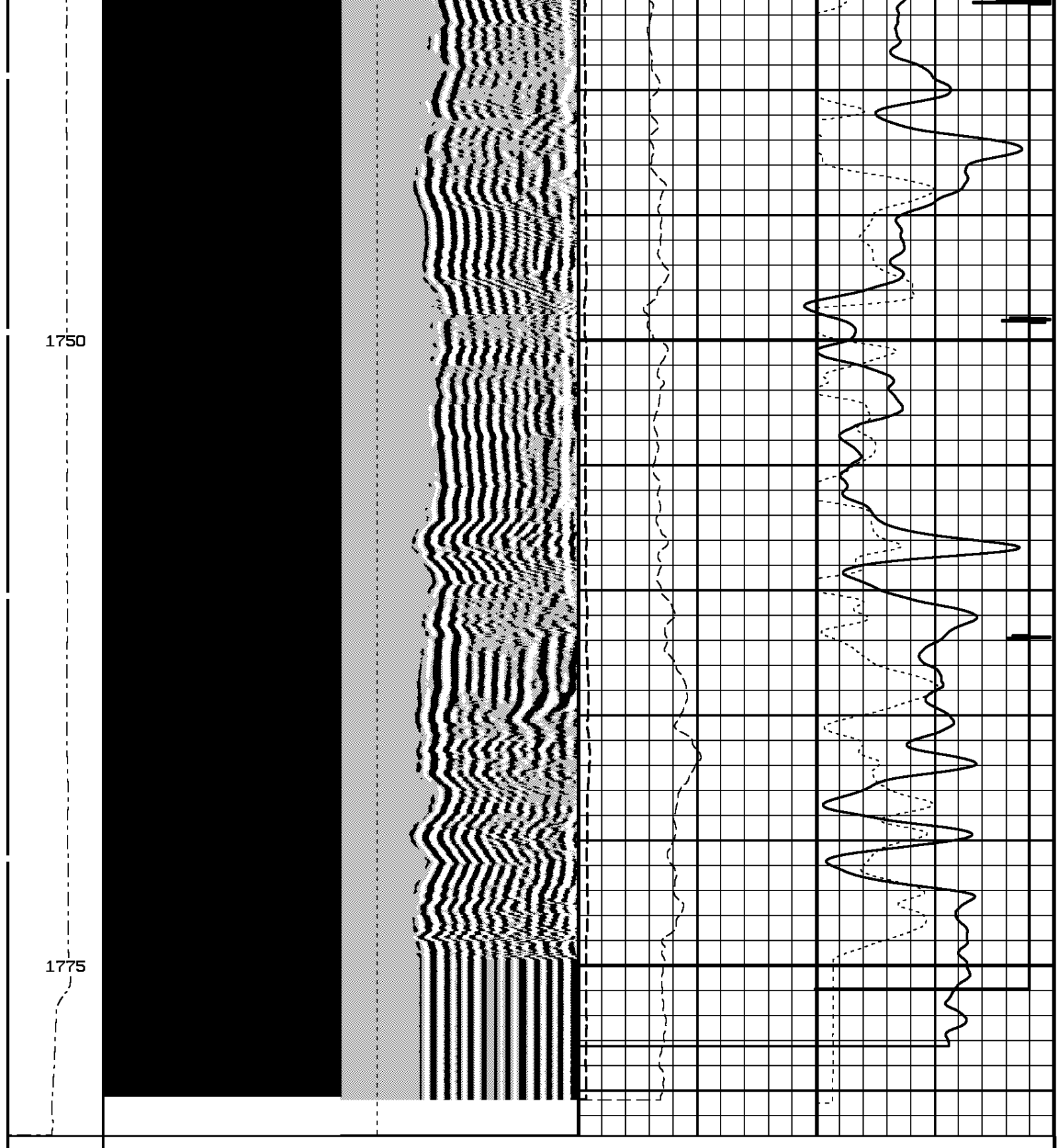
v.09.07.2000 VERSION: 1.64

PROF. MEDIDA

EA695PM

FINISH DEPTH: **1704.7** METERS DIRECTION: **UP** DATE: **07/03/2006** TIME: **23:44** MODE: **ORIGINAL**





TENSION
0 1000

ENERGIA VARIABLE
0 85

VDL 5'
200 uSeg. 1200

ARRIBO CAN. LIBRE
200 uSeg. 1200

CBL 3'
0 %Can.Libre 100

CBL 3' AMP.
0 %Can.Libre 10

TIEMPO DE TRANSITO
400 uSeg. 200

CCL
-1800 mV. 200

NEUTRON
0 Unid.API 300

START DEPTH: **1781.8** METERS DIRECTION: **UP** DATE: **07/03/2006** TIME: **23:42** MODE: **ORIGINAL**

EA695PM

PROF. MEDIDA

v.09.07.2000 VERSION: 1.64

GUILLERMO D. SILVESTRE
AGRIMENSOR
Ameghino Nº 1.101 - Tel/Fax: (0297)-4441220
COMODORO RIVADAVIA

Schlumberger

COORDENADAS Y COTA DEFINITIVAS

COMPANIA:	REPSOL–YPF	**YACIMIENTO:**	MANANTIALES BEHR
POZO:	EA–695	**SIST. GEODESICO:**	PAMPA DEL CASTILLO
BATERIA:		**PROVINCIA:**	CHUBUT

EA-695

COORDENADA X: 4.949.913,10

COORDENADA Y: 2.584.937,96

COTA: 661,90 m.

Datum: WGS-84

LATITUD: −45° 35' 57,7348"

LONGITUD: −67° 54' 50,8032"

ALTITUD (ASE): 676,60 m.

OPERADOR: Guillermo D. Silvestre AGRIMENSOR	**FECHA:** 23/JUNIO/2006

A: Tenorio
DE:Vahnovan

DISTRITO. M. BEHR / R. ALI

POZO: EA-695
ZONA: ALBA 2

FECHA: 16/07/2006
CUENTA:
EQUIPO:

PROGRAMA:

DISEÑO:

CAÑOS

1	**BAR COLLAR 2.7/8**	**1765**
1	**TUBING LISO 2.7/8"**	
1	**BHD**	**1755,35**
67	**TUBING LISO 2.7/8"**	
1	**ANCLA AT-4 Nueva**	**1122,2**
119	**TUBING LISO 2.7/8"**	

B/B

BBA 25-175-RHBC 24 4´ DE BOLLAND

12 B/B 1.1/2"	Grado D Nuevas
88 'B/B 3/4"	Grado D Nuevas
66 'B/B 7/8"	Grado D Nuevas
± 65 B/B 1"	Grado D Nuevas
TROZOS 1"	Grado D Nuevas

VASTAGO CROMADO 1 1/2" x 22´

Transportar: Dispositivo Leutert, Espaciadores, Valvula de 2" y niple de 2" sch 80 Tee prensa, Rattigan de 2.7/8", Cupla de vastago, valvula de 1" con niple, cruceta

AIB Siam M-640

CARRERA 168
REGIMEN 6 GPM

INSTALACIÓN ELÉCTRICA

MOTOR **75 HP**

Bba 25-175 valvulas VM=VF=Ctitanio piston 4' c/ 10 anillos luz 0.07 Con dispositivo para Gas Mecánico; Sello arena

REPSOL YPF	PEDIDO DE OPERACIONES	1-ADM.	2-AREA	3-ZONA	4-PEDIDO Nro.

5-OBJETO:	6-FECHA DE EJECUCION REQUERIDA			7-EJECUTANTE
PERFILAJE POZO ENTUBADO	Dia	Mes	Año	
YPF. Ch. EA - 695	**03**	**07**	**2006**	***GEOLOG S.A.***

8-OPERACION PEDIDA

NEUTRON de CORRELACIÓN (N)

Registrar en los siguientes tramos:

Desde:	**1789**	**m. (Fondo)**	**Hasta:**	**950 m.**	839
Desde:	**0**	**m.**	**Hasta:**	**0 m.**	0
					839

CEMENTACION-IMAGEN SEGMENTADA (CBL-VDL-IS)

Registrar en los siguientes tramos:

Desde:	**1789**	**m. (Fondo)**	**Hasta:**	**950 m.**	839
Desde:	**0**	**m.**	**Hasta:**	**0 m.**	0
					839

Registrar tope anillo de cemento y cañería libre

OBSERVACIONES:

NOTA: **Operación a realizar con Mastil de la Compañía.**

FONDO MINIMO: **0 m.**

Diámetro Casing: 5 1/2" de 15.5 lbs/pie (---/--- mm.) **Obs:** *Cumple frague el día* ***03/07/2006*** *a las* ***####*** ***Hs.***

ZAPATO: 1797,83 m.

COLLAR: 1789,48 m.

9- SOLICITANTE		10- RESPONSABLE DE EJECUCIÓN		11- CONTROL EJECUCION	
03/07/2006	***Nelso D. Lovera***	24/06/2014		24/06/2014	
FECHA	FIRMA	FECHA	FIRMA	FECHA	FIRMA

Project Marker Data Manager - chmb_gf5

Table Setup

Select... | All Surfaces | Markers... | Attributes... | Sort... | Filter...

Selection Source: Database (7607) Subset (6) Display (6)

Marker Information - 6 of 7607 data items

Borehole Name	Borehole UWI	Name	MD (m)	TWT (ms)
EA-695	EA-695	Marker	1800	1438.01
EA-695	EA-695	CII	852.044	798
EA-695	EA-695	CIII	1064.21	958
EA-695	EA-695	C IV	1512.42	1240
EA-695	EA-695	Falla	1823.53	1452
EA-695	EA-695	Marker		

New Markers

Add... | Target Surface... | Type: Strat | Target Borehole... | EA-695

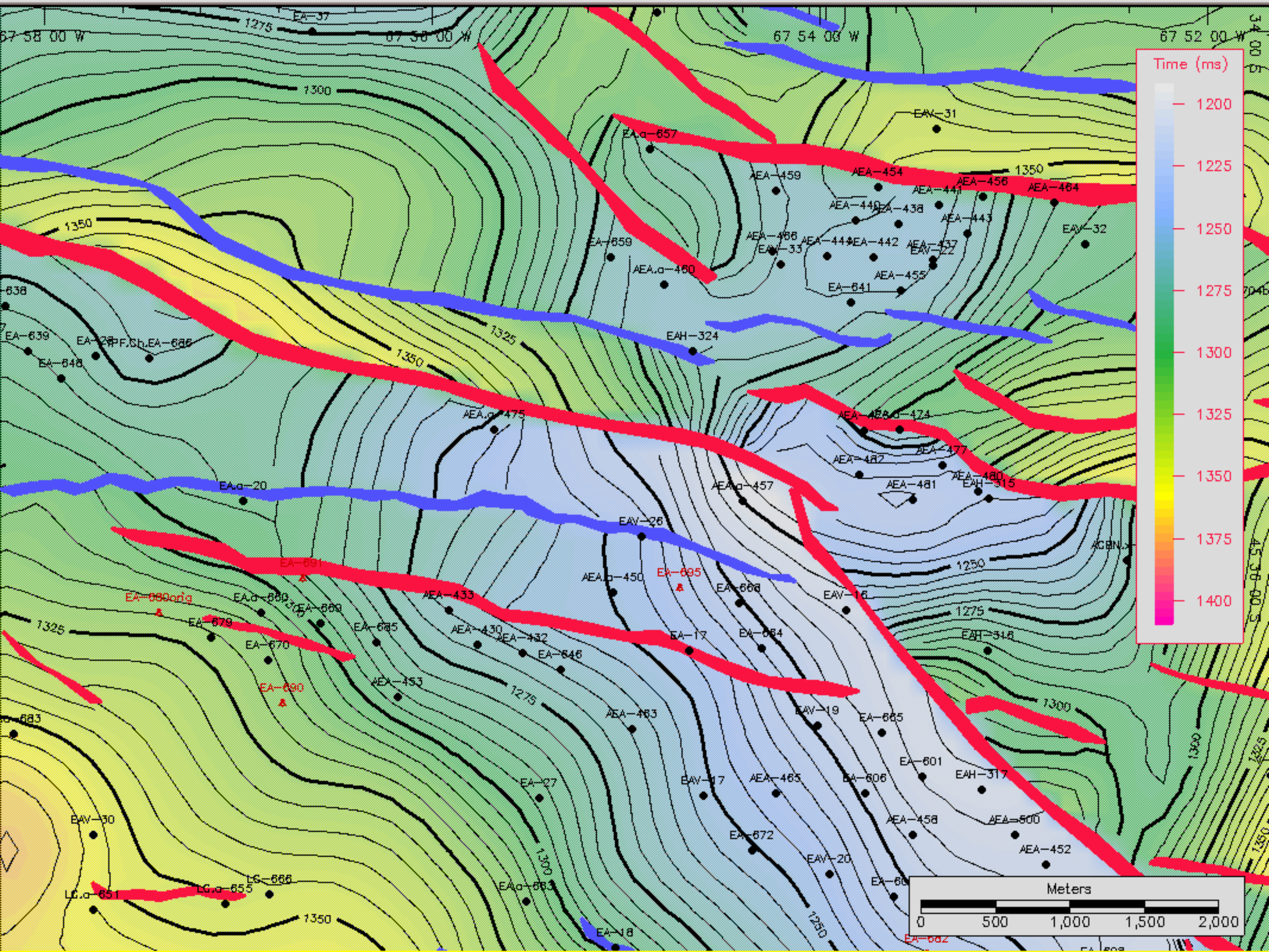
Create Surface

Operations

Convert To: Depth | Switch To: Strat

Shift Markers: MD

OK | Apply | Reset | Cancel | Help


67 58 00 W
67 56 00 W
67 54 00 W
67 52 00 W
Time (ms)
1200
1225
1250
1275
1300
1325
1350
1375
1400
Meters
0
500
1,000
1,500
2,000
EA-37
EAV-31
EA.a-657
AEA-459
AEA-454
AEA-456
AEA-464
AEA-441
AEA-440
AEA-438
AEA-443
EAV-32
EA-659
AEA.a-460
AEA-466
EAV-33
AEA-444
EA-442
AEA-437
EAV-22
AEA-455
EA-641
EAH-324
EA-639
EA-648
EA-638
EA-686
AEA.a-475
AEA-474
AEA-477
AEA-482
AEA-480
AEA-481
EAH-315
EA.a-20
EAV-26
AEA.a-457
EA-691
EA-695
AEA.a-450
EA-668
EA-680orig
EA.a-680
EA-669
EA-679
EA-685
EA-670
AEA-433
AEA-430
AEA-432
EA-646
EA-17
EA-664
EAV-16
EAH-316
EA-690
AEA-453
AEA-463
EAV-19
EA-665
EA-601
EAH-317
EA-27
EAV-17
AEA-465
EA-606
AEA-458
AEA-500
AEA-452
EA-672
EAV-20
EAV-30
LG-666
LG.a-655
LG.a-651
EA.a-663
EA-18
1250
1275
1300
1325
1350

COMPANIA: **YPF S.A.**

POZO: **YPF.Ch.EA−695**

CAMPO: **EL ALBA**

PROVINCIA: **CHUBUT** PAIS: **ARGENTINA**

Schlumberger

PROBADOR DE PRESIONES

ESCALA: 1/200

Campo: EL ALBA
Locacion: CAS
Pozo: YPF.Ch.EA−695
Compania: YPF S.A.

LOCACION

AIT−LDL−CNL−CAL
MDT

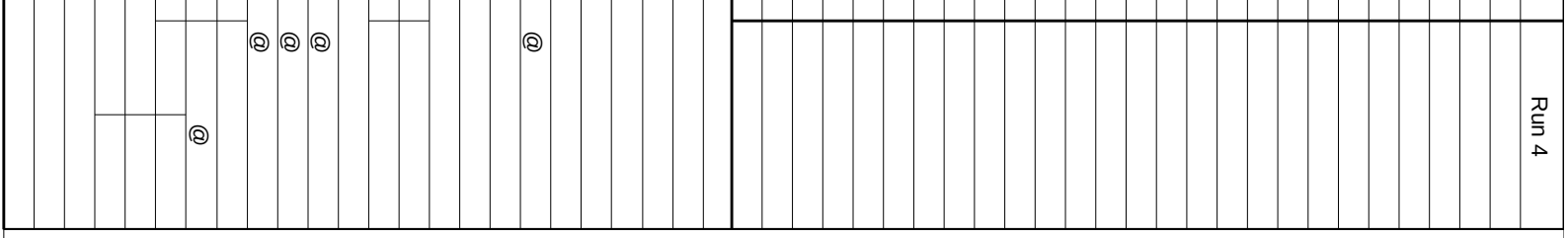
Elev.: B.V. 666.45 m
N. T. 661.9 m
M. R. 666.15 m

Ref. Permanente: NIVEL DEL TERRENO Elev.: 661.9 m
Reg. Medido Desde: NIVEL DEL TERRENO 0.0 m sobre nivel ref.
Perforacion Medida Desde: NIVEL DEL TERRENO

UWI: AR0100006830	Equipo PI−245	Longitud X: 4.949.913,10	Latitud Y: 2.584.937,96

	Run 1	Run 2	Run 3

Fecha		29−Jun−2006				Logging Date			
Corrida No.		2				Run Number			
Prof. Perforador		1800 m				Depth Driller			
Prof. Registro		1801.3 m				Logger Depth			
Primera Lectura		1764 m				Bottom Log Interval			
Ultima Lectura		1121 m				Top Log Interval			
Fondo Tuberia Perforador		9.625 in @ 350.44 m		@		Casing Driller Size @ Depth		@	
Fondo Tuberia Registro		349.7 m				Casing Logger			
Diametro Trepano		8.750 in				Bit Size			
Tipo De Lodo		PHPA				Type Fluid In Hole			
Densidad	Viscosidad	1.17 g/cm3	55 s			MUD Density	Viscosity		
Perdidas	PH	6.5 cm3	8.5			MUD Fluid Loss	PH		
Fuente Muestra De Lodo		PILETA				Source Of Sample			
RM @ Temp.		4.690 ohm.m @ 7 degC		@		RM @ Measured Temperature		@	
RMF @ Temp.		3.880 ohm.m @ 7 degC		@		RMF @ Measured Temperature		@	
RMC @ Temp.		6.700 ohm.m @ 7 degC		@		RMC @ Measured Temperature		@	
Fuente: RMF	RMC	PRENSA	PRENSA			Source RMF	RMC		
RM @ T. Fdo.	RMF @ T. Fdo.	1.472 @ 70	1.227 @ 70	@	@	RM @ MRT	RMF @ MRT	@	@ @
Temp. Maxima Medida		70 degC				Maximum Recorded Temperatures			
Circulacion Final	Hora	28−Jun−2006	12:15			Circulation Stopped	Time		
Registro Fondo	Hora	29−Jun−2006	12:45			Logger On Bottom	Time		
Unidad No.	Locacion	8116	ARCS			Unit Number	Location		
Registrado por:		O. CASTILLO				Recorded By			
Testigo		ANIBAL SILVEIRA				Witnessed By			



DEPTH SUMMARY LISTING

Date Created: 30−JUN−2006 15:52:34

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW−B	Type:	CMTD−B/A	Type:	7−46P
Serial Number:	4858	Serial Number:	1689	Serial Number:	77353
Calibration Date:	12−Nov−2004	Calibration Date:	14−Feb−2006	Length:	3000.15 M
Calibrator Serial Number:	31	Calibrator Serial Number:	1028		
Calibration Cable Type:	7−46P	Calibration Gain:	1.28	Conveyance Method:	Wireline
Wheel Correction 1:	−4	Calibration Offset:	41.00	Rig Type:	LAND
Wheel Correction 2:	−4				

Depth Control Parameters

Log Sequence:	Subsequent Log In the Well
Reference Log Name:	AIT−LDL−CNL−CAL
Reference Log Run Number:	1
Reference Log Date:	28−Jun−2006

Depth Control Remarks

1. Procedimiento Estandar de Control de Profundidad de Schlumberger aplicado a esta carrera.
2. Perfil correlacionado con registro AIT−LDL−CNL−CALI del dia 28−Jun−200
3.
4.
5.
6.

OTROS SERVICIOS # 1		OTROS SERVICIOS # 2
OS1:	AIT−LDL−CNL−CAL	OS1:
OS2:	MDT	OS2:
OS3:		OS3:
OS4:		OS4:
OS5:	PI−245	OS5:

OBSERVACIONES: CORRIDA # 1	OBSERVACIONES: CORRIDA # 2
1. Perfil correlacionado con registro AIT−LDL−CNL−CALI del 28−Jun−2006.	
2. Esquema del pozo segun datos del perforador.	
3. Herramienta corrida segun diagrama.	
4. Herramienta corrida con 2 precamaras de 10 cc y packer estandar.	
5. Maxima desviacion del pozo segun datos del perforador = 1 deg	
6. Maxima temperatura registrada 70 degC, tomada con termometro en punta de herramienta.	
7. Datos adicionales del lodo: Cl = 350 ppm. Ca = 80 ppm.	
8. Ultima circulacion termino el dia 28−Jun−2006 a las 12:15 hs y duro 1 hora.	
9. Puntos solicitados: 8, Normales:7, Sin entrada: 1, Perdida de Sello: 0	

10. Cliente presente en todos los pretests.

11. Pretest @ 1762 m repetido para comprobacion de lectura de la herramienta.

12. En el pretest 1138,5 m se comenzo a identificar fluido para tomar muestra. Bombeados 20lts.
Luego se tapo el probe sin determinar el fluido. Se saco herramienta para limpiar.

CORRIDA #1			CORRIDA #2		
ORDEN DE SERVICIO:			ORDEN DE SERVICIO:		
VERSION DEL PROGRAMA:	14C0−302		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

MRPI
GSR·
WITM (

DOWNHOLE

LEH-
LEH·

15.5

TCC-
ECH·
TCC

14.6

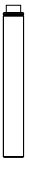
TelSt _ 13.

SGT
SGH
SGC
SGD-

Gamm _ 13.(13.7

MRF
MRP(

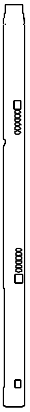
12.1



PC _ 10.

MRM
BOTT
BOTT
BOTT
BOTT
BOTT
BOTT
MRMS

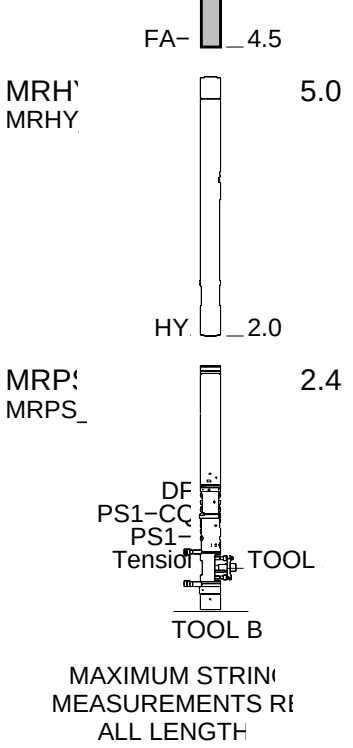
10.5



MS _ 6.1

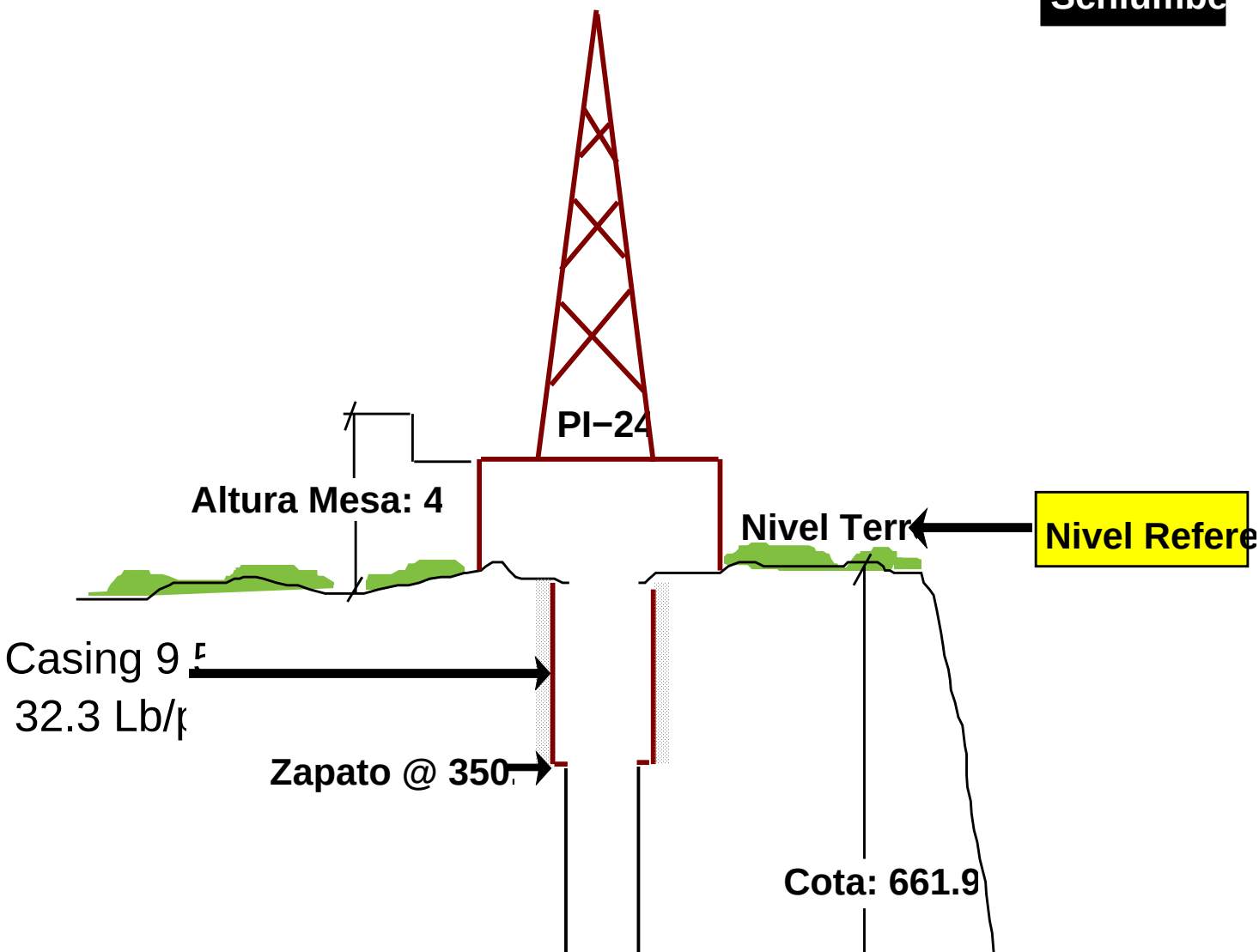
LF/
MRF/

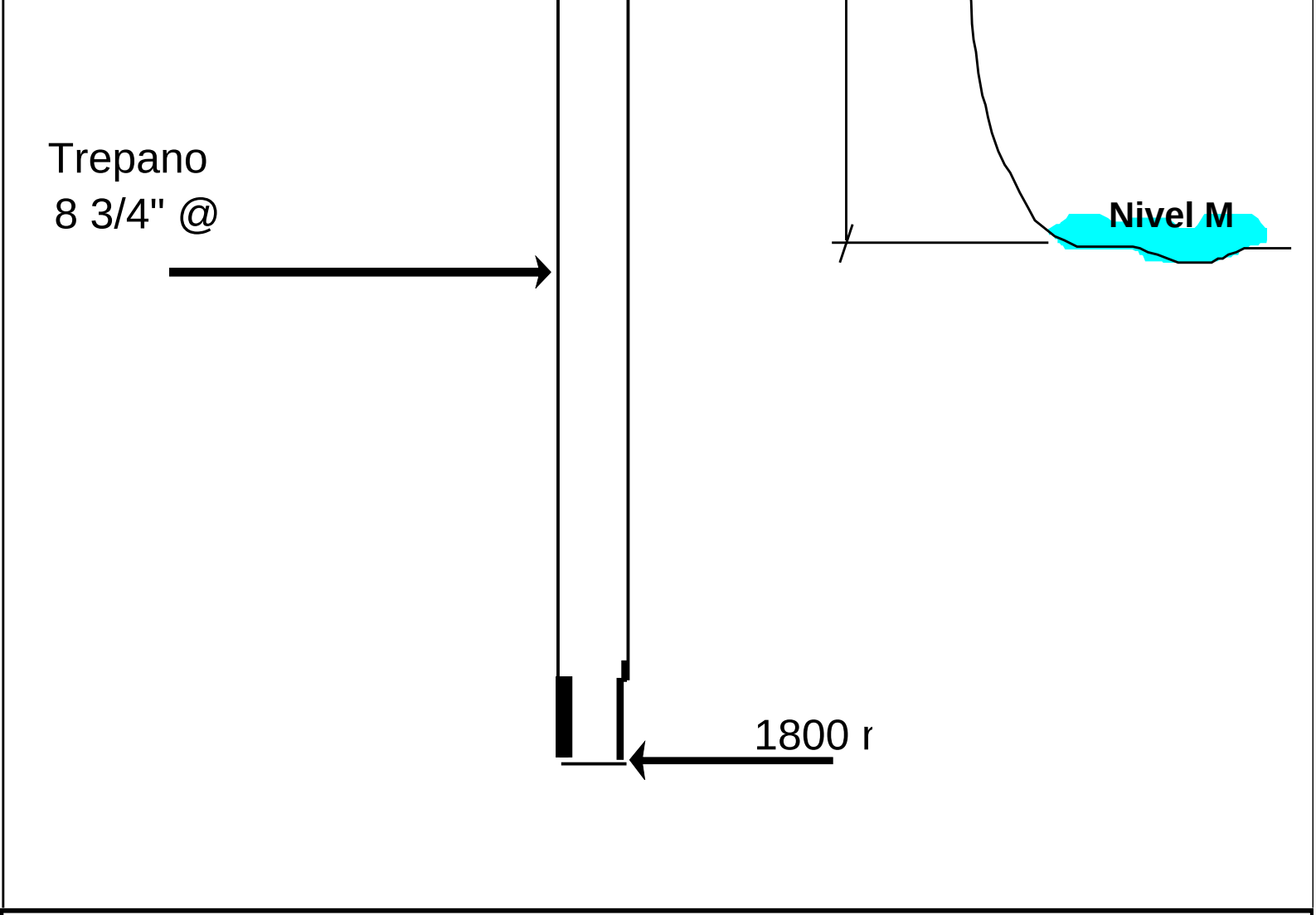
6.5



YPF.Ch.EA

Schlumbe





Schlumberger

RESUMEN DE LA OPERACION

MAXIS Field Log

Client:	**YPF S.A.**	**Tool:**	**MRPS_1−**
Field:	**EL ALBA**	**Probe Type:**	**Conventional probe**
Well:	**YPF.Ch.EA−695**	**Gauge:**	**BQP1**
Run date:	**29−Jun−2006**	**Gauge Resolution:**	**0.010 psi**

Test	File	Depth M	TVD M	Drawdown Mobility MD/CP	Mud Pressure Before PSIA	Mud Pressure After PSIA	Last read build−up Pres PSIA	Formation Pressure PSIA	Test Type
1	44	1294.27	1294.27	0.03	2185.85	2066.68	1281.31	1281.31	Volumetric Pretest
3	45	1668.28	1668.28	166.95	2868.82	2858.71	1567.39	1567.39	Volumetric Pretest
5	47	1738.32	1738.32		2882.21	2873.56	69.14	69.14	Dry Test
7	48	1742.46	1742.46	2.39	2871.06	2858.36	1602.04	1602.04	Volumetric Pretest
12	49	1763.98	1763.98	2.55	2908.29	2893.98	1745.21	1745.21	Volumetric Pretest
2	33	1120.99	1120.99	1.12	1863.36	1842.51	898.50	898.50	Volumetric Pretest
5	34	1138.48	1138.48	130.73	1871.36	1846.48	736.12	736.12	Volumetric Pretest
6	35	1188.27	1188.27	1.23	1942.75	1928.67	897.51	897.51	Volumetric Pretest

0	33	1188.27	1188.27	1.23	1942.73	1928.07	897.31	897.31	Volumetric Pretest

Schlumberger

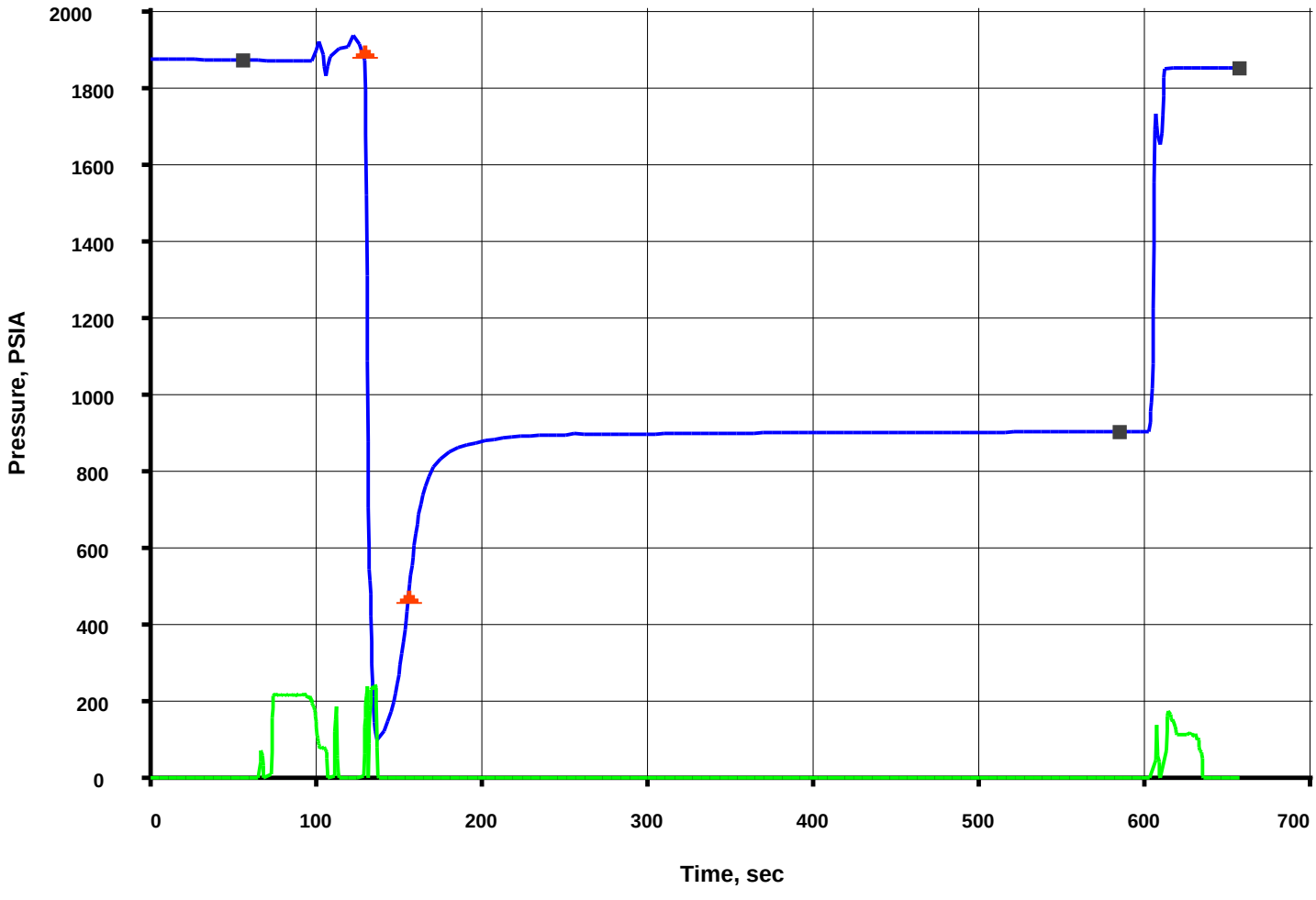
PRETEST@1121 M

MAXIS Field Log

File 33 Depth, M: 1120.99

Volumetric Pretest − Large−Diameter probe

Mud Pressure before test, PSIA:	1863.36
Mud Pressure after test, PSIA:	1842.6
Last build−up pressure, PSIA:	898.5
Draw−down mobility, md/cp:	1.1



T0: 156.0sec Production time: 25.2sec

Pretest Volume: 10.2cc – MRPS_1– BQP1 Resolution: 0.010psi

Company: **Well:**

Output DLIS Files

DEFAULT MDT_OFA_033LTP FN:32 PRODUCER 29–Jun–2006 03:51 1121.0 M 1.7 M

Elapsed Time (s)	Event Summary
607.5	Retract Single Probe Module (MRPS) 1
124.5	Vert Pretest 10.2 cc @ 60 C3/M Single Probe Module (MRPS) 1
69.0	Probe Set @ 1121.0 M Single Probe Module (MRPS) 1

PIP SUMMARY

Time Mark Every 60 S

MRPS 1 Resistivity Cell Temperature (B1TR)
100 (DEGF) 150

MRPS 1 Flowline Fluid Resistivity (BFR1)
0 (OHMM) 1

MRPS 1 Quartz Gauge Temperature (BQT1)
100 (DEGF) 150

MRPS 1 Quartz Gauge Pressure (BQP1)
0 (PSIA) 5000

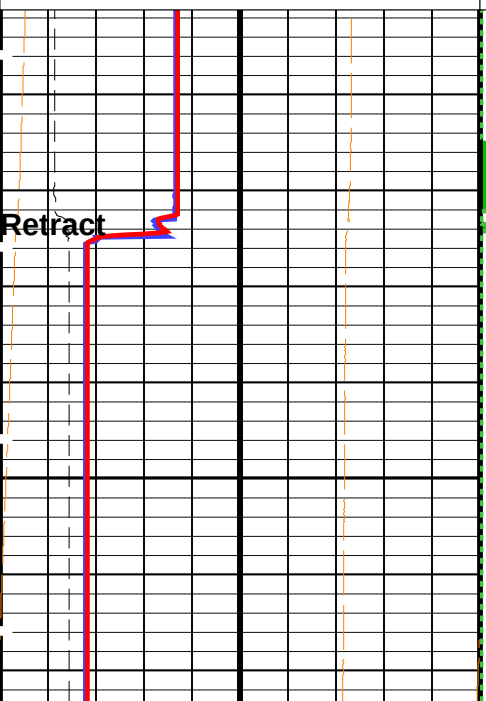
MRHY 1 Motor Speed (HMS1) (RPM)
0 8000

MRPS 1 Quartz Gauge Pressure (BQP1)
0 (PSIA) 10

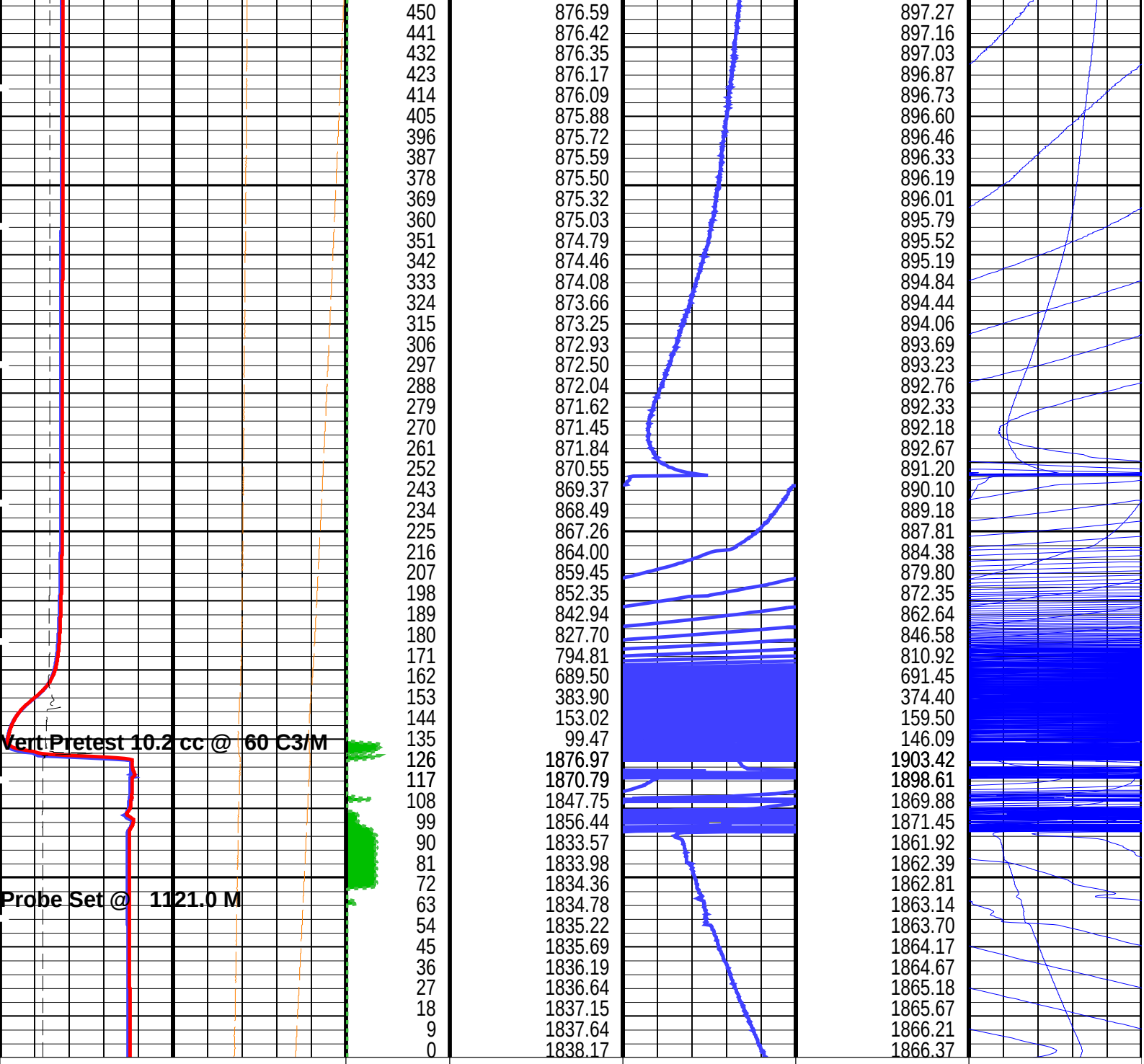
MRPS 1 Strain Gauge Pressure (BSG1)
0 (PSIG) 5000

MRPS 1 Strain Gauge Pressure (BSG1)
0 (PSIG) 10

MRPS 1 Quartz Gauge Pressure (BQP1)
0 (PSIA) 1



Elapsed Time (ETIM) (S)	MRPS 1 Strain Gauge Pressure (BSG1) (PSIG)	MRPS 1 Quartz Gauge Pressure (BQP1) (PSIA)
666	1815.45	1842.51
657	1815.75	1842.63
648	1816.05	1842.94
639	1816.34	1843.24
630	1816.48	1843.26
621	1816.32	1843.36
612	1814.54	1841.83
603	977.06	995.70
594	878.03	898.74
585	877.96	898.51
576	877.88	898.45
567	877.88	898.41
558	877.81	898.37
549	877.86	898.39
540	877.87	898.52
531	878.27	898.93
522	879.47	900.21
513	877.29	897.94
504	877.18	897.85
495	877.11	897.77
486	877.04	897.66
477	876.94	897.57
468	876.79	897.48
459	876.76	897.38



MRPS 1 Strain Gauge Pressure (BSG1)	Elapsed Time (ETIM)	MRPS 1 Strain Gauge Pressure (BSG1)	MRPS 1 Strain Gauge Pressure (BSG1)	MRPS 1 Quartz Gauge Pressure (BQP1)	MRPS 1 Quartz Gauge Pressure (BQP1)
0 (PSIG) 5000	(S)	(PSIG)	0 (PSIG) 10	(PSIA)	0 (PSIA) 1
MRPS 1 Quartz Gauge Pressure (BQP1)	MRHY 1 Motor Speed (HMS1)				MRPS 1 Quartz Gauge Pressure (BQP1)
0 (PSIA) 5000	(RPM)				0 (PSIA) 10
	0 8000				
MRPS 1 Quartz Gauge Temperature (BQT1)					
100 (DEGF) 150					
MRPS 1 Flowline Fluid Resistivity (BFR1)					
0 (OHMM) 1					
MRPS 1 Resistivity Cell Temperature (B1TR)					

100 (DEGF) 150

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	MRPS_1: Single Probe Module (MRPS) 1		
QGCA	Quartz Gauge Pressure Correction Applied	DYCO	
QGDA	Quartz Gauge Deviation Angle	0	DEG
QGFD	Quartz Gauge Flow Line Density	1	G/C3
	LFA: Live Fluid Analyzer		
PDCO	Probe Depth Correction Offset	0	M
	MRPC: Power Cartridge		
PDCO	Probe Depth Correction Offset	0	M

Format: MRPS_1_SGQG_Station Vertical Scale: 1" per 60S Graphics File Created: 29−Jun−2006 03:51

OP System Version: 14C0−302

MCM

MRPS_1	14C0−302	MRHY_1	14C0−302
LFA	14C0−302	MRPO	14C0−302
MRMS_1	14C0−302	MRPC	14C0−302
SGT−L	14C0−302	TCC−BF	14C0−302

Output DLIS Files

DEFAULT MDT_OFA_033LTP FN:32 PRODUCER 29−Jun−2006 03:51

Schlumberger

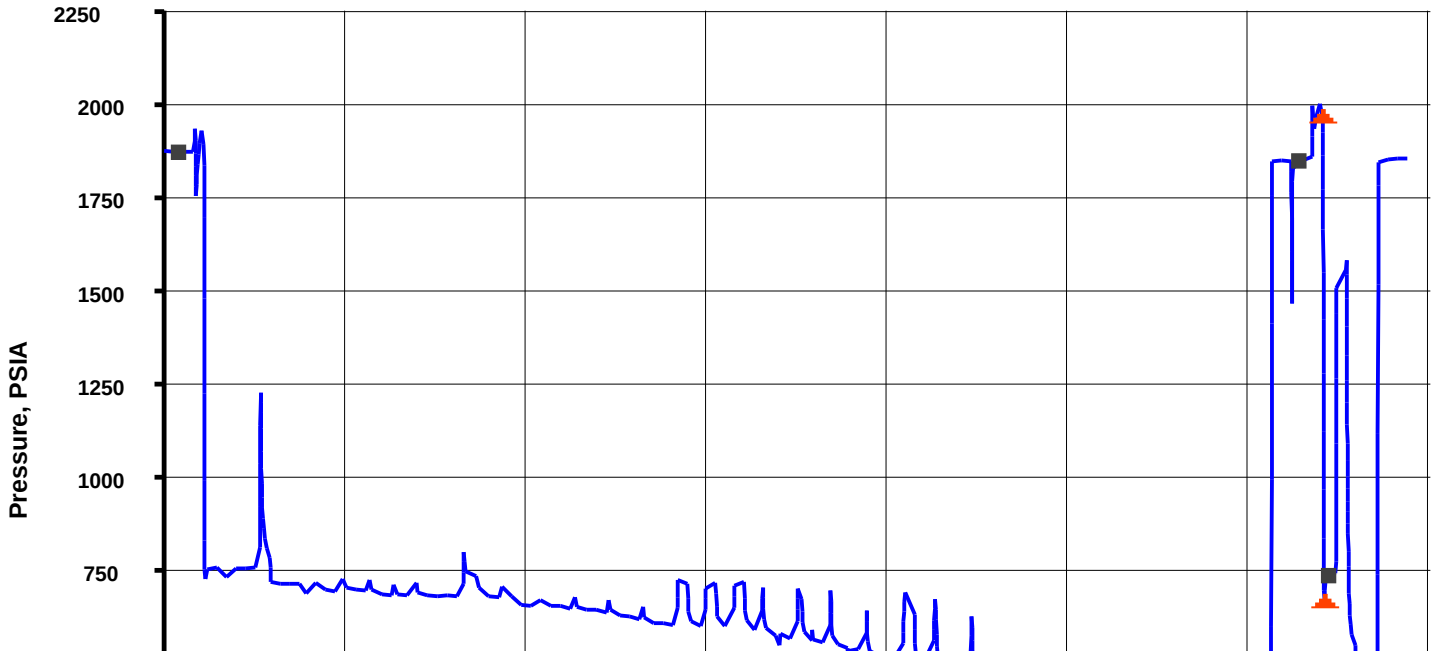
PRETEST@1138.5 M

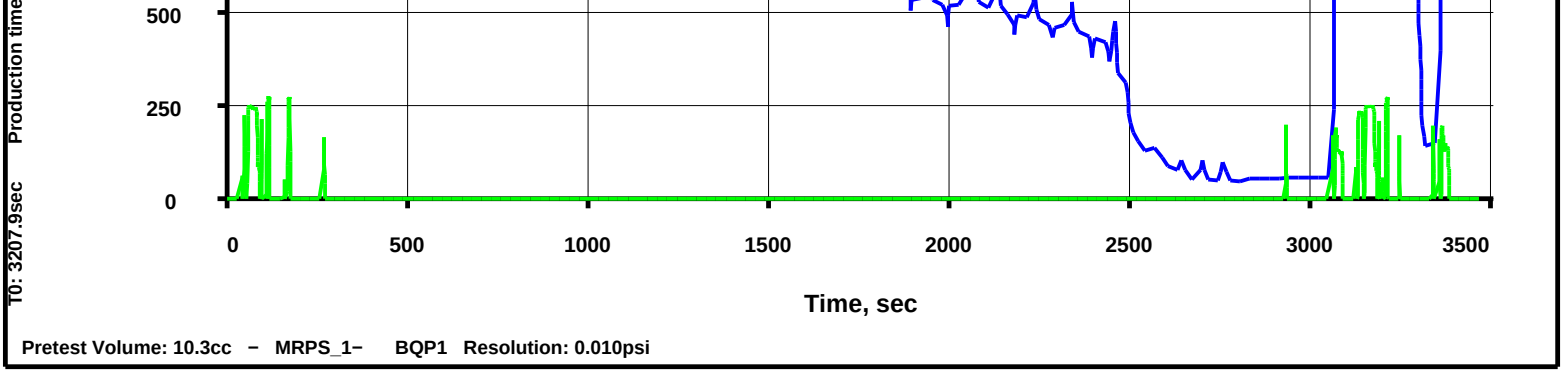
MAXIS Field Log

File 34 Depth, M: 1138.48

Volumetric Pretest − Large−Diameter probe

Mud Pressure before test, PSIA:	1871.36
Mud Pressure after test, PSIA:	1846.48
Last build−up pressure, PSIA:	736.12
Draw−down mobility, md/cp:	130.7





Company: **Well:**

Output DLIS Files

DEFAULT **MDT_OFA_034LTP** **FN:33** **PRODUCER** **29–Jun–2006 04:06** **1138.5 M** **8.8 M**

Elapsed Time (s)	Event Summary
3351.6	Retract Single Probe Module (MRPS) 1
3310.2	Pumping Stopped 366.0 C3 Dual Pumpout Module (MRPO)
3262.5	Pump Out Started Dual Pumpout Module (MRPO)
3197.1	Vert Pretest 10.3 cc @ 60 C3/M Single Probe Module (MRPS) 1
3140.4	Probe Set @ 1138.6 M Single Probe Module (MRPS) 1
3057.6	Retract Single Probe Module (MRPS) 1
2912.1	Pumping Stopped 20130.0 C3 Dual Pumpout Module (MRPO)
291.0	Pump Out Started Dual Pumpout Module (MRPO)
165.0	Vert Pretest 10.1 cc @ 60 C3/M Single Probe Module (MRPS) 1
106.8	Vert Pretest 10.1 cc @ 60 C3/M Single Probe Module (MRPS) 1
54.0	Probe Set @ 1138.5 M Single Probe Module (MRPS) 1

PIP SUMMARY

Time Mark Every 60 S

MRPS 1 Resistivity Cell Temperature (B1TR)
100 (DEGF) 150

MRPS 1 Flowline Fluid Resistivity (BFR1)
0 (OHMM) 1

MRPS 1 Quartz Gauge Temperature (BQT1)
100 (DEGF) 150

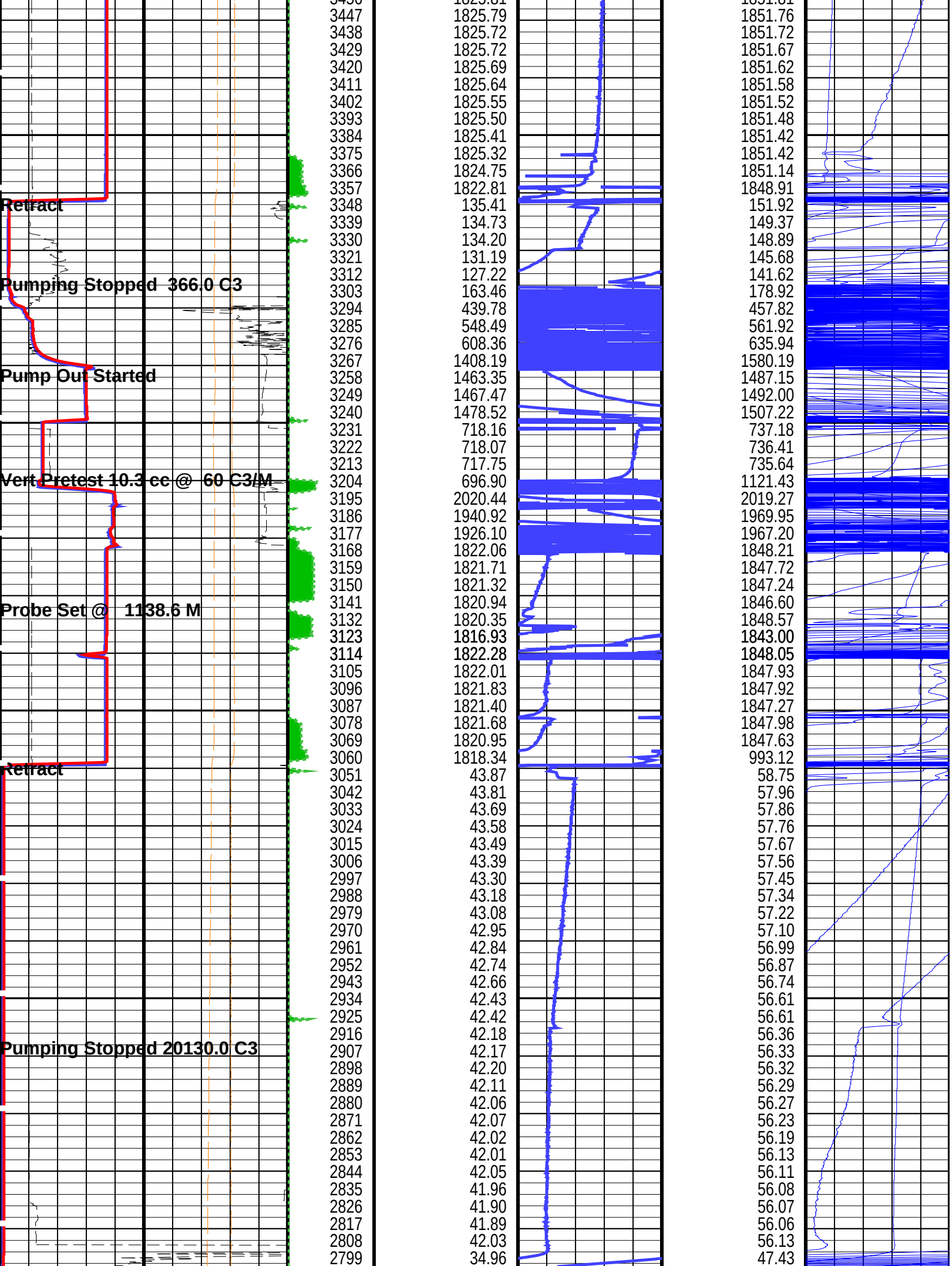
MRPS 1 Quartz Gauge Pressure (BQP1)
0 (PSIA) 5000

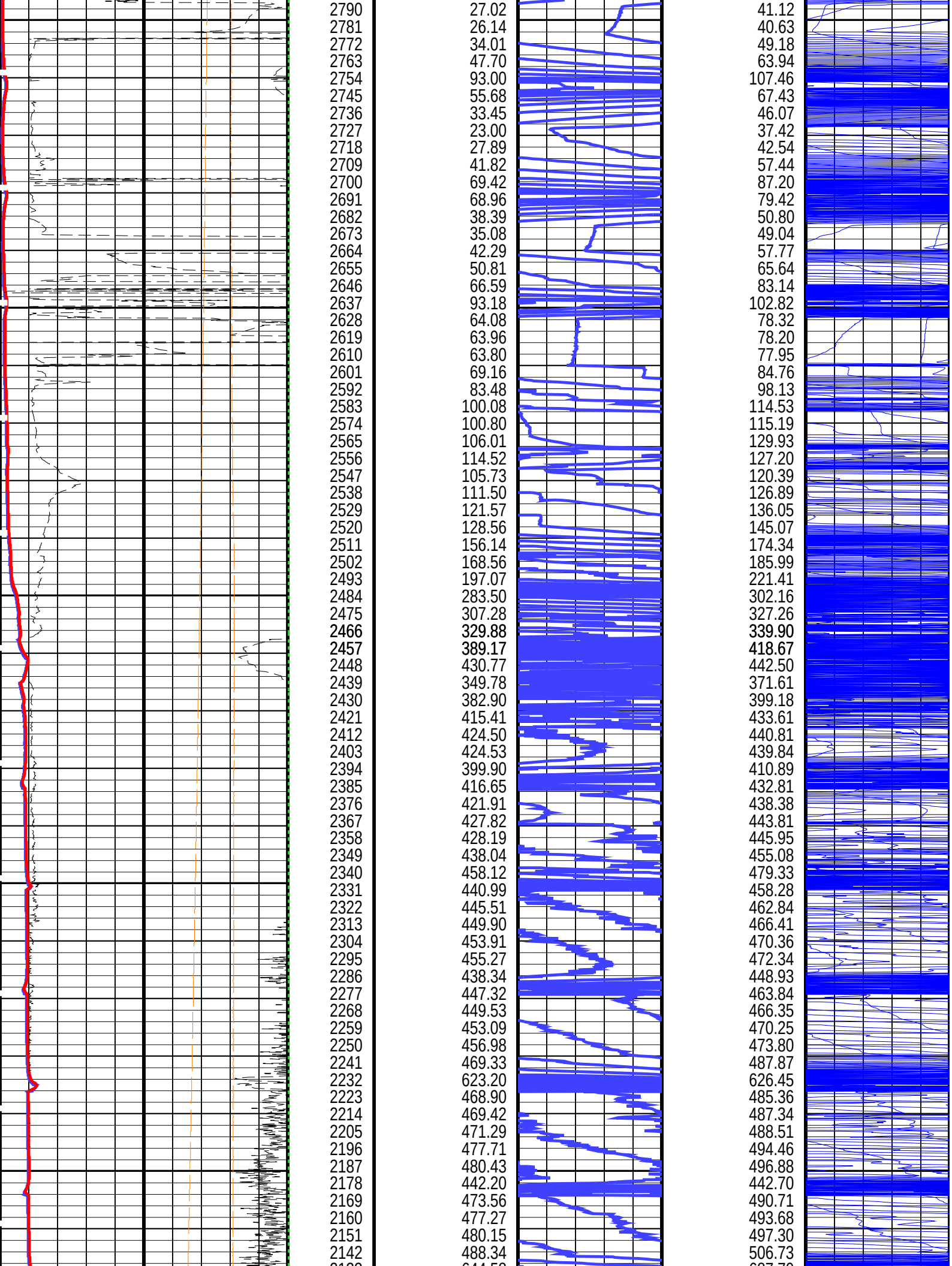
MRHY 1 Motor Speed (HMS1) (RPM)
0 8000

MRPS 1 Quartz Gauge Pressure (BQP1)
0 (PSIA) 10

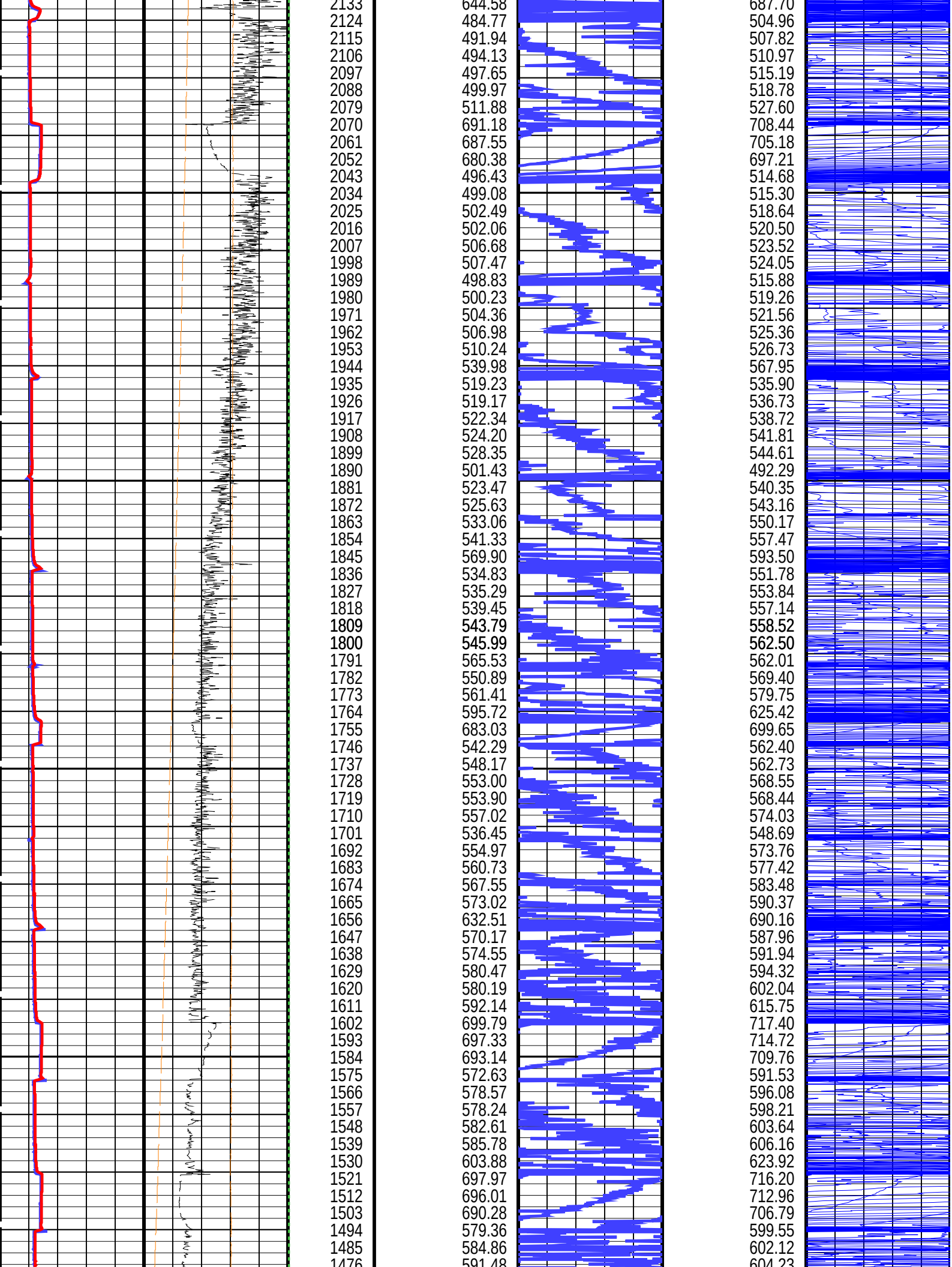
MRPS 1 Strain Gauge Pressure (BSG1)
0 (PSIG) 5000

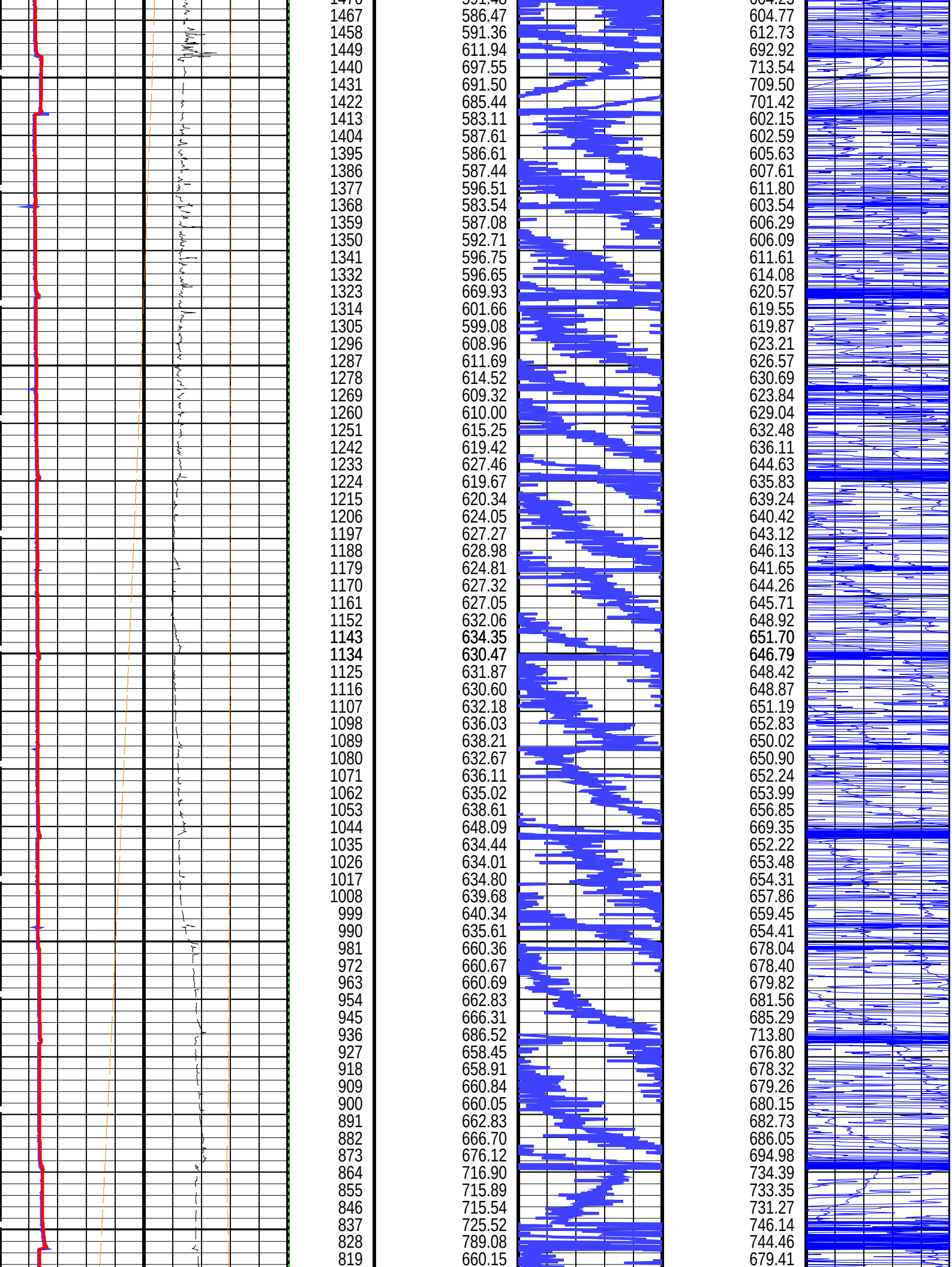
Elapsed Time (ETIM) (S)	MRPS 1 Strain Gauge Pressure (BSG1) (PSIG)	MRPS 1 Strain Gauge Pressure (BSG1) 0 (PSIG) 10	MRPS 1 Quartz Gauge Pressure (BQP1) (PSIA)	MRPS 1 Quartz Gauge Pressure (BQP1) 0 (PSIA) 1
3465	1825.86		1851.82	
3456	1825.81		1851.81	

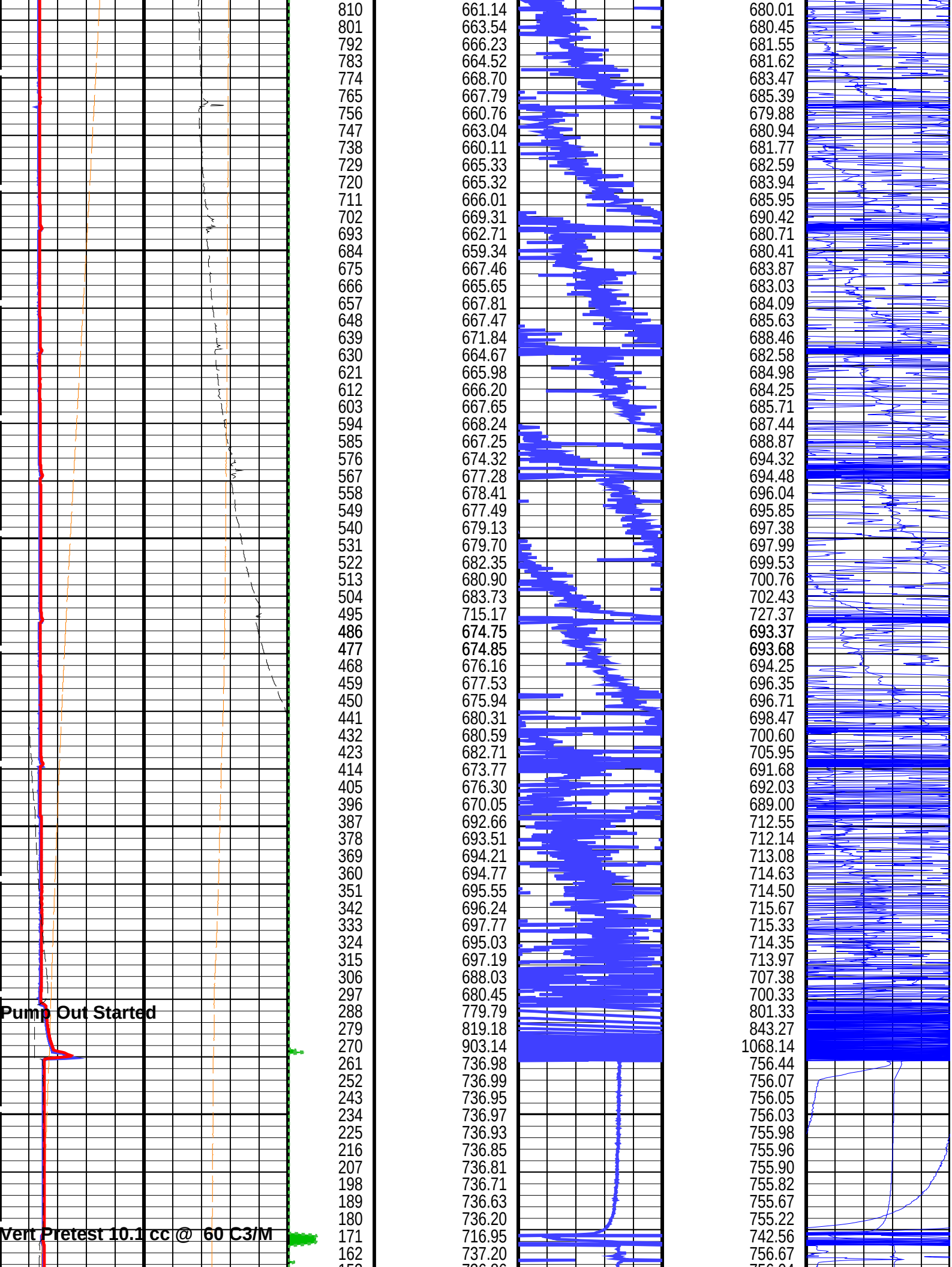

Retract
Pumping Stopped 366.0 C3
Pump Out Started
Vert Pretest 10.3 cc @ 60 C3/M
Probe Set @ 1138.6 M
Retract
Pumping Stopped 20130.0 C3

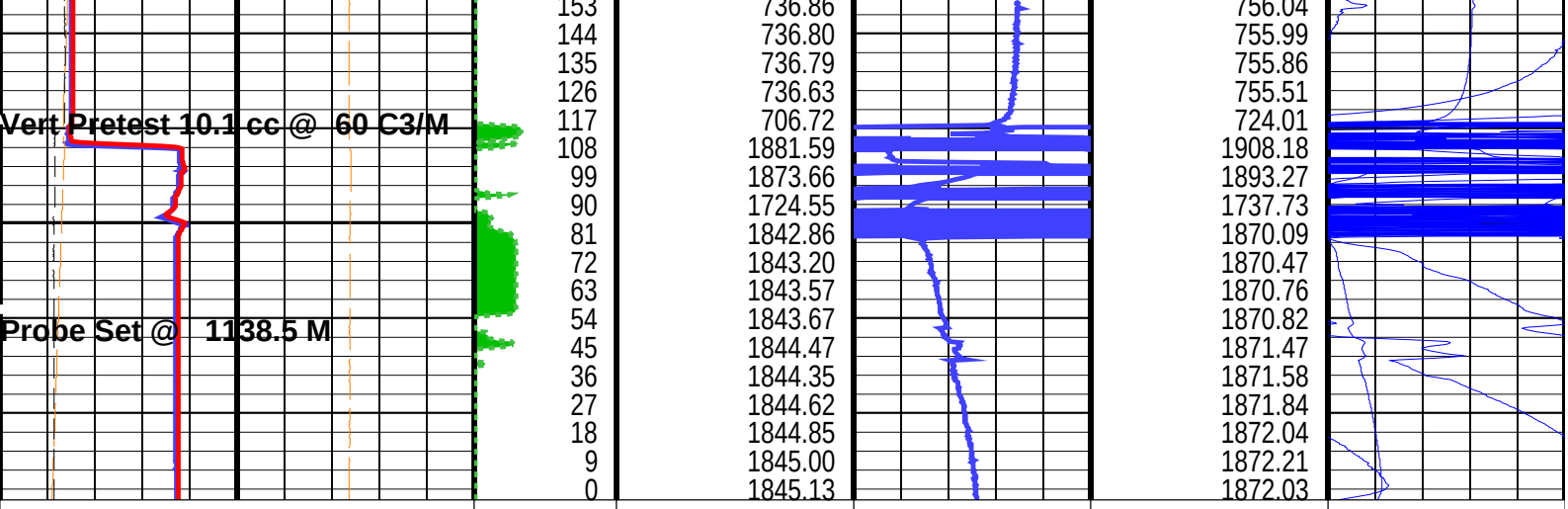


2790	27.02	41.12
2781	26.14	40.63
2772	34.01	49.18
2763	47.70	63.94
2754	93.00	107.46
2745	55.68	67.43
2736	33.45	46.07
2727	23.00	37.42
2718	27.89	42.54
2709	41.82	57.44
2700	69.42	87.20
2691	68.96	79.42
2682	38.39	50.80
2673	35.08	49.04
2664	42.29	57.77
2655	50.81	65.64
2646	66.59	83.14
2637	93.18	102.82
2628	64.08	78.32
2619	63.96	78.20
2610	63.80	77.95
2601	69.16	84.76
2592	83.48	98.13
2583	100.08	114.53
2574	100.80	115.19
2565	106.01	129.93
2556	114.52	127.20
2547	105.73	120.39
2538	111.50	126.89
2529	121.57	136.05
2520	128.56	145.07
2511	156.14	174.34
2502	168.56	185.99
2493	197.07	221.41
2484	283.50	302.16
2475	307.28	327.26
2466	329.88	339.90
2457	389.17	418.67
2448	430.77	442.50
2439	349.78	371.61
2430	382.90	399.18
2421	415.41	433.61
2412	424.50	440.81
2403	424.53	439.84
2394	399.90	410.89
2385	416.65	432.81
2376	421.91	438.38
2367	427.82	443.81
2358	428.19	445.95
2349	438.04	455.08
2340	458.12	479.33
2331	440.99	458.28
2322	445.51	462.84
2313	449.90	466.41
2304	453.91	470.36
2295	455.27	472.34
2286	438.34	448.93
2277	447.32	463.84
2268	449.53	466.35
2259	453.09	470.25
2250	456.98	473.80
2241	469.33	487.87
2232	623.20	626.45
2223	468.90	485.36
2214	469.42	487.34
2205	471.29	488.51
2196	477.71	494.46
2187	480.43	496.88
2178	442.20	442.70
2169	473.56	490.71
2160	477.27	493.68
2151	480.15	497.30
2142	488.34	506.73


2133 644.58 687.70
2124 484.77 504.96
2115 491.94 507.82
2106 494.13 510.97
2097 497.65 515.19
2088 499.97 518.78
2079 511.88 527.60
2070 691.18 708.44
2061 687.55 705.18
2052 680.38 697.21
2043 496.43 514.68
2034 499.08 515.30
2025 502.49 518.64
2016 502.06 520.50
2007 506.68 523.52
1998 507.47 524.05
1989 498.83 515.88
1980 500.23 519.26
1971 504.36 521.56
1962 506.98 525.36
1953 510.24 526.73
1944 539.98 567.95
1935 519.23 535.90
1926 519.17 536.73
1917 522.34 538.72
1908 524.20 541.81
1899 528.35 544.61
1890 501.43 492.29
1881 523.47 540.35
1872 525.63 543.16
1863 533.06 550.17
1854 541.33 557.47
1845 569.90 593.50
1836 534.83 551.78
1827 535.29 553.84
1818 539.45 557.14
1809 543.79 558.52
1800 545.99 562.50
1791 565.53 562.01
1782 550.89 569.40
1773 561.41 579.75
1764 595.72 625.42
1755 683.03 699.65
1746 542.29 562.40
1737 548.17 562.73
1728 553.00 568.55
1719 553.90 568.44
1710 557.02 574.03
1701 536.45 548.69
1692 554.97 573.76
1683 560.73 577.42
1674 567.55 583.48
1665 573.02 590.37
1656 632.51 690.16
1647 570.17 587.96
1638 574.55 591.94
1629 580.47 594.32
1620 580.19 602.04
1611 592.14 615.75
1602 699.79 717.40
1593 697.33 714.72
1584 693.14 709.76
1575 572.63 591.53
1566 578.57 596.08
1557 578.24 598.21
1548 582.61 603.64
1539 585.78 606.16
1530 603.88 623.92
1521 697.97 716.20
1512 696.01 712.96
1503 690.28 706.79
1494 579.36 599.55
1485 584.86 602.12
1476 591.48 604.23


1467 586.47 604.77
1458 591.36 612.73
1449 611.94 692.92
1440 697.55 713.54
1431 691.50 709.50
1422 685.44 701.42
1413 583.11 602.15
1404 587.61 602.59
1395 586.61 605.63
1386 587.44 607.61
1377 596.51 611.80
1368 583.54 603.54
1359 587.08 606.29
1350 592.71 606.09
1341 596.75 611.61
1332 596.65 614.08
1323 669.93 620.57
1314 601.66 619.55
1305 599.08 619.87
1296 608.96 623.21
1287 611.69 626.57
1278 614.52 630.69
1269 609.32 623.84
1260 610.00 629.04
1251 615.25 632.48
1242 619.42 636.11
1233 627.46 644.63
1224 619.67 635.83
1215 620.34 639.24
1206 624.05 640.42
1197 627.27 643.12
1188 628.98 646.13
1179 624.81 641.65
1170 627.32 644.26
1161 627.05 645.71
1152 632.06 648.92
1143 634.35 651.70
1134 630.47 646.79
1125 631.87 648.42
1116 630.60 648.87
1107 632.18 651.19
1098 636.03 652.83
1089 638.21 650.02
1080 632.67 650.90
1071 636.11 652.24
1062 635.02 653.99
1053 638.61 656.85
1044 648.09 669.35
1035 634.44 652.22
1026 634.01 653.48
1017 634.80 654.31
1008 639.68 657.86
999 640.34 659.45
990 635.61 654.41
981 660.36 678.04
972 660.67 678.40
963 660.69 679.82
954 662.83 681.56
945 666.31 685.29
936 686.52 713.80
927 658.45 676.80
918 658.91 678.32
909 660.84 679.26
900 660.05 680.15
891 662.83 682.73
882 666.70 686.05
873 676.12 694.98
864 716.90 734.39
855 715.89 733.35
846 715.54 731.27
837 725.52 746.14
828 789.08 744.46
819 660.15 679.41


Pump Out Started
Vert Pretest 10.1 cc @ 60 C3/M



MRPS 1 Strain Gauge Pressure (BSG1)	Elapsed Time (ETIM)	MRPS 1 Strain Gauge Pressure (BSG1)	MRPS 1 Strain Gauge Pressure (BSG1)	MRPS 1 Quartz Gauge Pressure (BQP1)	MRPS 1 Quartz Gauge Pressure (BQP1)
0 (PSIG) 5000	(S)	(PSIG)	0 (PSIG) 10	(PSIA)	0 (PSIA) 1

MRPS 1 Quartz Gauge Pressure (BQP1)	MRHY 1 Motor Speed (HMS1)	MRPS 1 Quartz Gauge Pressure (BQP1)
0 (PSIA) 5000	0 (RPM) 8000	0 (PSIA) 10

MRPS 1 Quartz Gauge Temperature (BQT1)
100 (DEGF) 150

MRPS 1 Flowline Fluid Resistivity (BFR1)
0 (OHMM) 1

MRPS 1 Resistivity Cell Temperature (B1TR)
100 (DEGF) 150

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	MRPS_1: Single Probe Module (MRPS) 1		
QGCA	Quartz Gauge Pressure Correction Applied	DYCO	
QGDA	Quartz Gauge Deviation Angle	0	DEG
QGFD	Quartz Gauge Flow Line Density	1	G/C3
	LFA: Live Fluid Analyzer		
PDCO	Probe Depth Correction Offset	0	M
	MRPC: Power Cartridge		
PDCO	Probe Depth Correction Offset	0	M

Format: MRPS_1_SGQG_Station **Vertical Scale: 1" per 60S** **Graphics File Created: 29-Jun-2006 04:07**

OP System Version: 14C0-302

MCM

MRPS_1	14C0-302	MRHY_1	14C0-302
LFA	14C0-302	MRPO	14C0-302
MRMS_1	14C0-302	MRPC	14C0-302
SGT-L	14C0-302	TCC-BF	14C0-302

Output DLIS Files

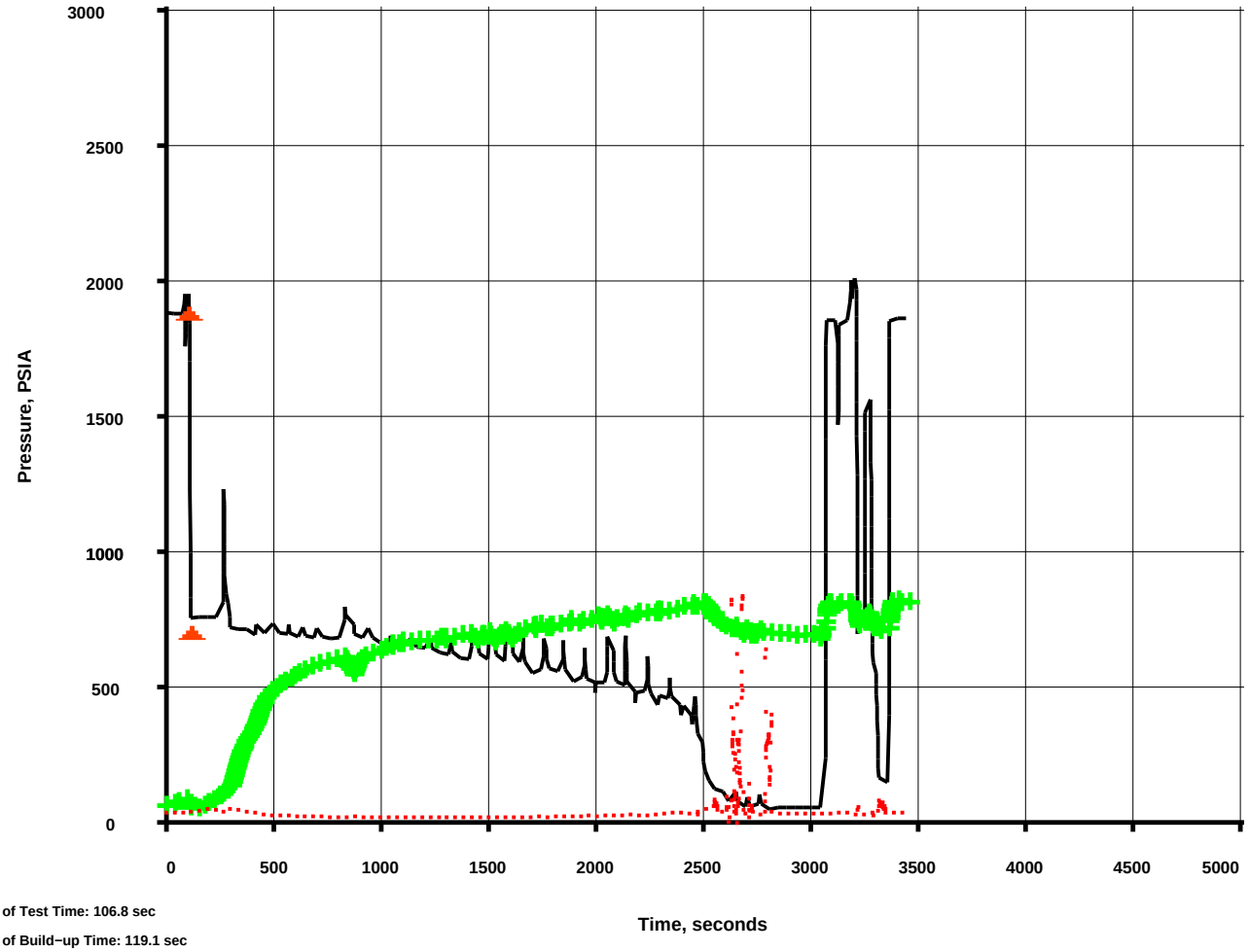
DEFAULT	MDT_OFA_034LTP	FN:33	PRODUCER	29-Jun-2006 04:06

Schlumberger

LFA@1138.5 M

MAXIS Field Log

File 34 Probe Depth (BQP1) 1138.5 M



Start of Test Time: 106.8 sec

Start of Build−up Time: 119.1 sec

Reference pressure st start of build−up (BQP1) 1915.8 PSIA.

Company: Well:

Output DLIS Files

DEFAULT	MDT_OFA_034LTP	FN:33	PRODUCER	29−Jun−2006 04:06	1138.5 M 8.8 M

Elapsed Time (s)	Event Summary
3351.6	Retract Single Probe Module (MRPS) 1
3310.2	Pumping Stopped 366.0 C3 Dual Pumpout Module (MRPO)
3262.5	Pump Out Started Dual Pumpout Module (MRPO)
3197.1	Vert Pretest 10.3 cc @ 60 C3/M Single Probe Module (MRPS) 1
3140.4	Probe Set @ 1138.6 M Single Probe Module (MRPS) 1

3057.6	Retract Single Probe Module (MRPS) 1
2912.1	Pumping Stopped 20130.0 C3 Dual Pumpout Module (MRPO)
291.0	Pump Out Started Dual Pumpout Module (MRPO)
165.0	Vert Pretest 10.1 cc @ 60 C3/M Single Probe Module (MRPS) 1
106.8	Vert Pretest 10.1 cc @ 60 C3/M Single Probe Module (MRPS) 1
54.0	Probe Set @ 1138.5 M Single Probe Module (MRPS) 1

PIP SUMMARY

Time Mark Every 60 S

MRPS 1 Flowline Fluid Resistivity (BFR1)
0 (OHMM) 1

LFA Optical Density Channel 9 (FAOD_LFA[9])
−36 (---- 4

LFA Optical Density Channel 8 (FAOD_LFA[8])
−32 (---- 8

LFA Optical Density Channel 7 (FAOD_LFA[7])
−28 (---- 12

LFA Optical Density Channel 6 (FAOD_LFA[6])
−24 (---- 16

LFA Optical Density Channel 5 (FAOD_LFA[5])
−20 (---- 20

LFA Optical Density Channel 4 (FAOD_LFA[4])
−16 (---- 24

LFA Optical Density Channel 3 (FAOD_LFA[3])
−12 (---- 28

LFA Optical Density Channel 2 (FAOD_LFA[2])
−8 (---- 32

LFA Optical Density Channel 1 (FAOD_LFA[1])
−4 (---- 36

LFA Optical Density Channel 0 (FAOD_LFA[0])
0 (---- 40

MRPO Hydraulic Pump Output Volume (POPV)
0 (C3) 1000

MRPO Motor Speed (POMS)
0 (RPM) 5000

MRPS 1 Quartz Gauge Pressure (BQP1)
0 (PSIA) 10000

MRPS 1 Strain Gauge Pressure (BSG1)
0 (PSIG) 10000

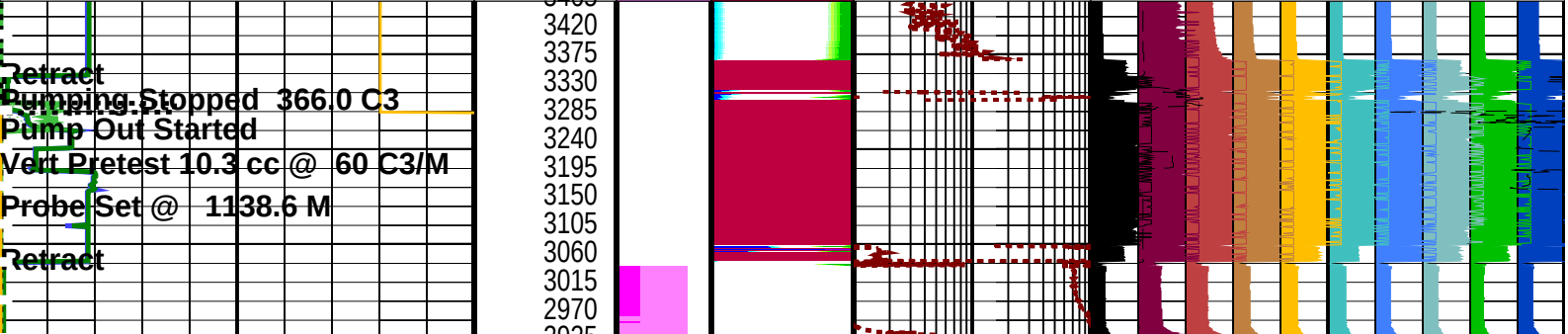
MRPO Solenoid 3 Status (POS3)
5 (---- 0

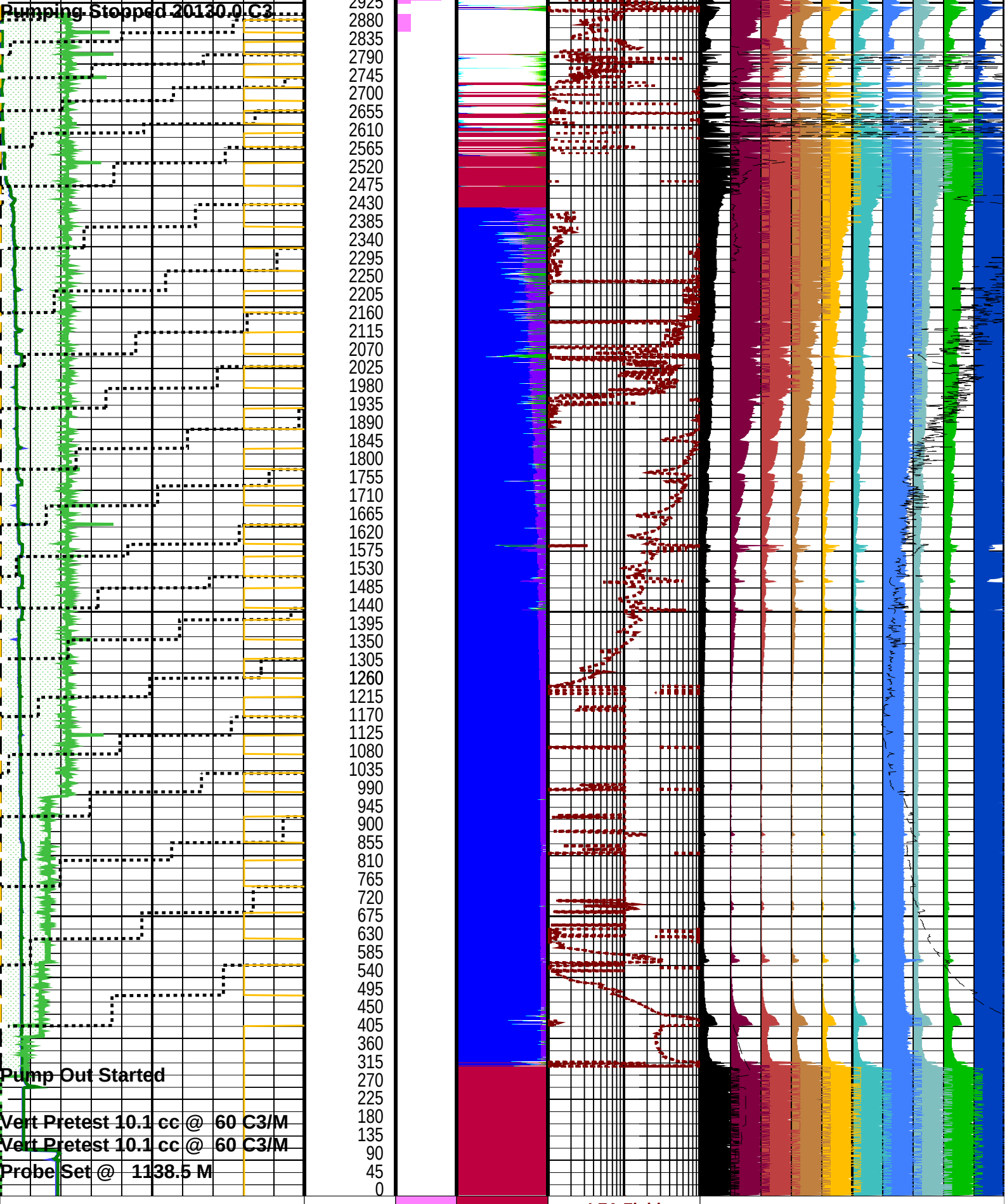
High Gas
Oil
Medium Gas
Water
Low Gas
Highly Absorbing Fluid

LFA Fluid Coloration (FCOL_LFA)
(----
0.000001 0.0001

LFA Fluid Coloration (FCOL_LFA)
0.0001 (---- 0.01

Elapsed Time (ETIM) (S)





MRPO Solenoid 3 Status (POS3)	Elapsed Time (ETIM) (S)	Low Gas	Highly Absorbing Fluid	LFA Fluid Coloration (FCOL_LFA)	LFA Optical Density Channel 0 (FAOD_LFA[0])
5 (---- 0				0.0001 (---- 0.01	0 (---- 40
MRPS 1 Strain Gauge Pressure (BSG1)		Mediu	Water	LFA Fluid Coloration (FCOL_LFA)	LFA Optical Density Channel 1 (FAOD_LFA[1])

0 (PSIG) 10000

MRPS 1 Quartz Gauge Pressure (BQP1)

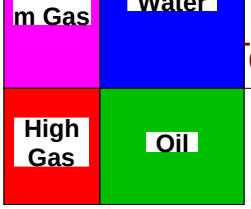
0 (PSIA) 10000

MRPO Motor Speed (POMS)

0 (RPM) 5000

MRPO Hydraulic Pump Output Volume (POPV)

0 (C3) 1000



LFA) (----

0.000001 0.0001

−4 (---- 36

LFA Optical Density Channel 2 (FAOD_LFA[2])

−8 (---- 32

LFA Optical Density Channel 3 (FAOD_LFA[3])

−12 (---- 28

LFA Optical Density Channel 4 (FAOD_LFA[4])

−16 (---- 24

LFA Optical Density Channel 5 (FAOD_LFA[5])

−20 (---- 20

LFA Optical Density Channel 6 (FAOD_LFA[6])

−24 (---- 16

LFA Optical Density Channel 7 (FAOD_LFA[7])

−28 (---- 12

LFA Optical Density Channel 8 (FAOD_LFA[8])

−32 (---- 8

LFA Optical Density Channel 9 (FAOD_LFA[9])

−36 (---- 4

MRPS 1 Flowline Fluid Resistivity (BFR1)

0 (OHMM) 1

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	MRPS_1: Single Probe Module (MRPS) 1		
QGCA	Quartz Gauge Pressure Correction Applied	DYCO	
QGDA	Quartz Gauge Deviation Angle	0	DEG
QGFD	Quartz Gauge Flow Line Density	1	G/C3
	LFA: Live Fluid Analyzer		
C1C7SIG_LFA	LFA C1/C7 Signal Values in 1g/cc	** V **	
CEXP_LFA	LFA Coloration Exponent	4.6	
FAGM_LFA	LFA GOR Allow/Disallow Mode	ALLOW	
FAJM_LFA	LFA Job Mode	LFA	
FATCM_LFA	LFA Temp. Coef. Measure Mode	** V **	
FATCS_LFA	LFA Temp. Coef. Source Mode	** V **	
GASH_LFA	LFA Gas Indicator High Level Threshold	0.4	
GASL_LFA	LFA Gas Indicator Low Level Threshold	0.05	
GASM_LFA	LFA Gas Indicator Medium Level Threshold	0.1	
GORD_LFA	LFA GOR Disqualification Level	0.1	
PDCO	Probe Depth Correction Offset	0	M
SATL_LFA	LFA Saturation Level of Optical Density Measurement	** V **	
TCPS_STATUS_LFA	LFA Temperature Compensation Coefficient Status	NOT_VALID	
	MRPC: Power Cartridge		
PDCO	Probe Depth Correction Offset	0	M

Format: LFA_Station Vertical Scale: 1" per 300S Graphics File Created: 29−Jun−2006 04:07

OP System Version: 14C0−302

MCM

MRPS_1	14C0−302	MRHY_1	14C0−302
LFA	14C0−302	MRPO	14C0−302
MRMS_1	14C0−302	MRPC	14C0−302
SGT−I	14C0−302	TCC−BE	14C0−302

Output DLIS Files

DEFAULT	MDT_OFA_034LTP	FN:33	PRODUCER	29−Jun−2006 04:06	

Schlumberger

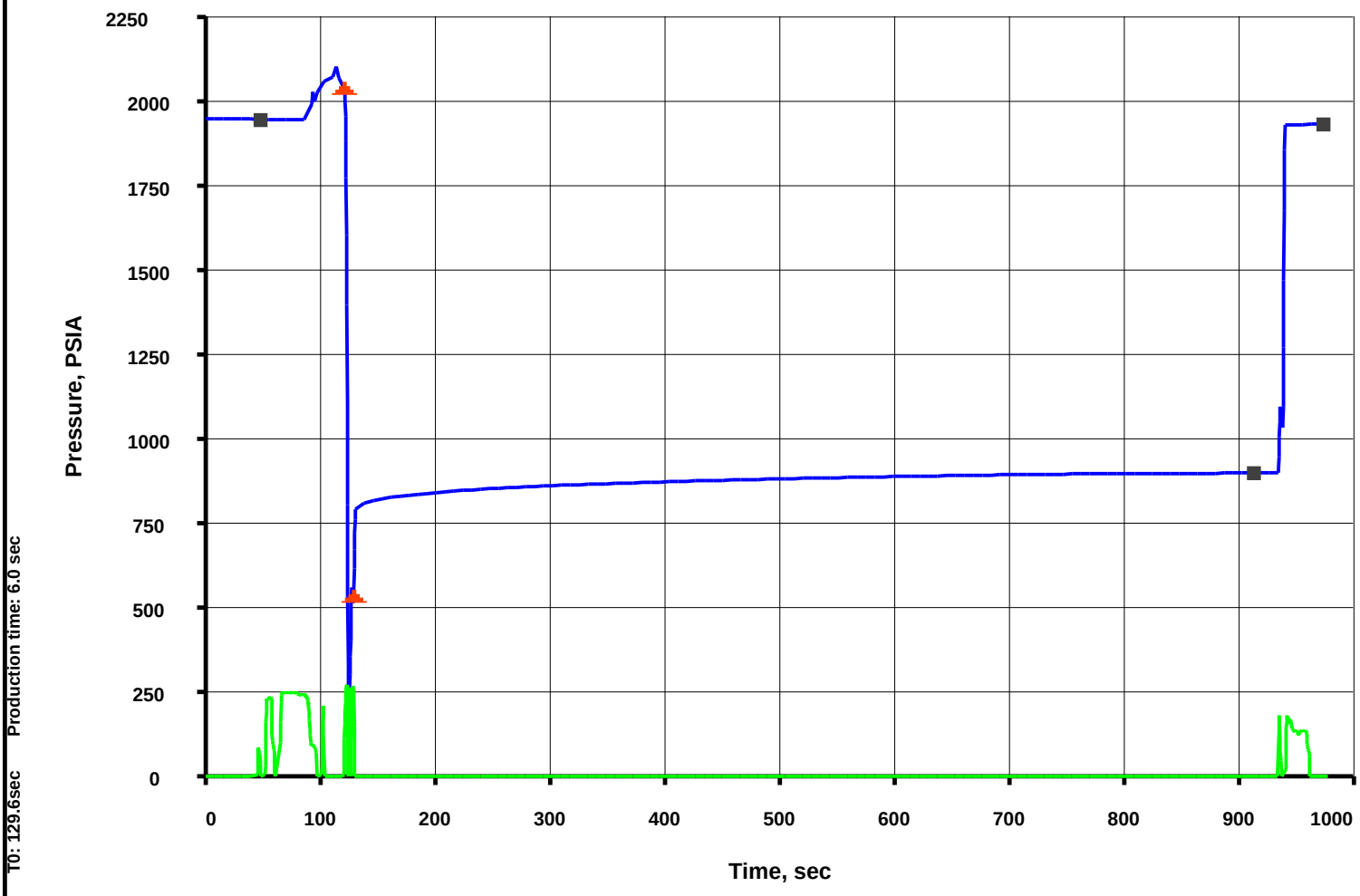
PRETEST@1188.3 M

MAXIS Field Log

File 35 Depth, M: 1188.27

Volumetric Pretest − Large−Diameter probe

Mud Pressure before test, PSIA:	1942.75
Mud Pressure after test, PSIA:	1928.68
Last build−up pressure, PSIA:	897.51
Draw−down mobility, md/cp:	1.2



Pretest Volume: 10.3cc − MRPS_1− BQP1 Resolution: 0.010psi

Company: Well:

Output DLIS Files

DEFAULT	MDT_OFA_035LTP	FN:34	PRODUCER	29−Jun−2006 05:11	1188.3 M	2.5 M

Elapsed Time (s)	Event Summary

Time (s)	Event Summary
937.2	Retract Single Probe Module (MRPS) 1
116.7	Vert Pretest 10.3 cc @ 60 C3/M Single Probe Module (MRPS) 1
61.2	Probe Set @ 1188.3 M Single Probe Module (MRPS) 1

PIP SUMMARY

Time Mark Every 60 S

MRPS 1 Resistivity Cell Temperature (B1TR)
100 (DEGF) 150

MRPS 1 Flowline Fluid Resistivity (BFR1)
0 (OHMM) 1

MRPS 1 Quartz Gauge Temperature (BQT1)
100 (DEGF) 150

MRPS 1 Quartz Gauge Pressure (BQP1)
0 (PSIA) 5000

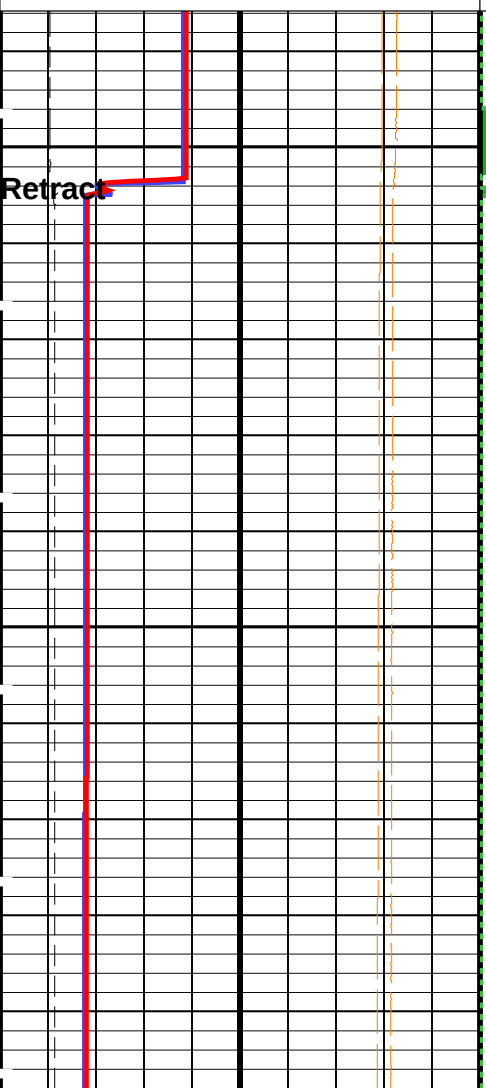
MRHY 1 Motor Speed (HMS1) (RPM)
0 8000

MRPS 1 Quartz Gauge Pressure (BQP1)
0 (PSIA) 10

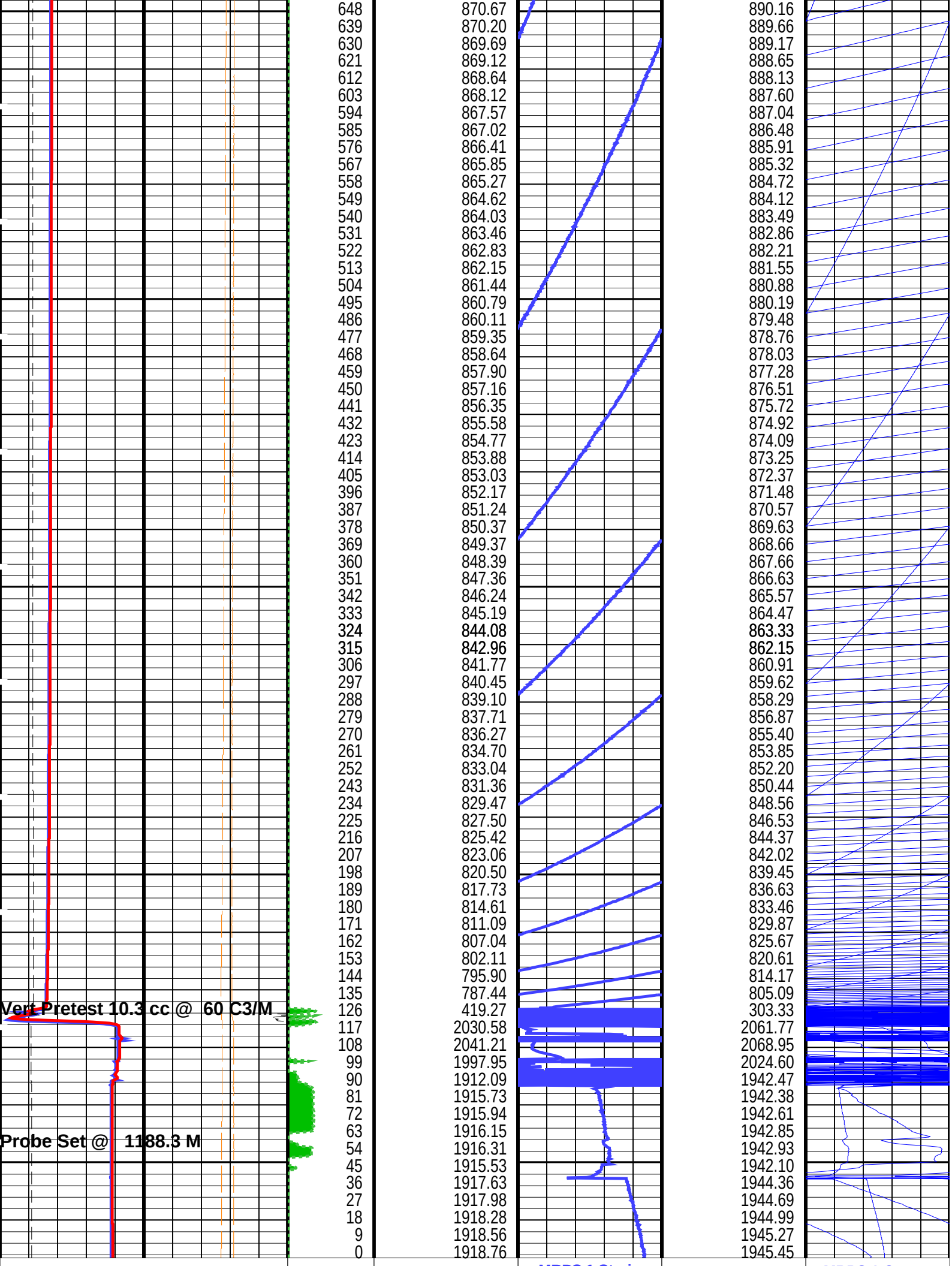
MRPS 1 Strain Gauge Pressure (BSG1)
0 (PSIG) 5000

MRPS 1 Strain Gauge Pressure (BSG1)
0 (PSIG) 10

MRPS 1 Quartz Gauge Pressure (BQP1)
0 (PSIA) 1



Elapsed Time (ETIM) (S)	MRPS 1 Strain Gauge Pressure (BSG1) (PSIG)	MRPS 1 Quartz Gauge Pressure (BQP1) (PSIA)
981	1902.16	1928.67
972	1902.12	1928.67
963	1902.10	1928.51
954	1901.69	1928.49
945	1900.77	1928.14
936	1063.37	1094.93
927	877.91	897.62
918	877.84	897.51
909	877.84	897.49
900	877.82	897.47
891	877.84	897.44
882	877.80	897.42
873	877.77	897.38
864	877.71	897.33
855	877.64	897.29
846	877.59	897.21
837	877.51	897.14
828	877.44	897.03
819	877.30	896.89
810	877.11	896.72
801	876.95	896.51
792	876.69	896.28
783	876.45	896.02
774	876.16	895.74
765	875.90	895.44
756	875.55	895.11
747	875.21	894.78
738	874.87	894.43
729	874.50	894.07
720	874.14	893.68
711	873.77	893.28
702	873.27	892.87
693	872.94	892.45
684	872.49	892.01
675	872.08	891.57
666	871.57	891.11
657	871.13	890.64


Vert Pretest 10.3 cc @ 60 C3/M
Probe Set @ 1188.3 M
648 870.67 890.16
639 870.20 889.66
630 869.69 889.17
621 869.12 888.65
612 868.64 888.13
603 868.12 887.60
594 867.57 887.04
585 867.02 886.48
576 866.41 885.91
567 865.85 885.32
558 865.27 884.72
549 864.62 884.12
540 864.03 883.49
531 863.46 882.86
522 862.83 882.21
513 862.15 881.55
504 861.44 880.88
495 860.79 880.19
486 860.11 879.48
477 859.35 878.76
468 858.64 878.03
459 857.90 877.28
450 857.16 876.51
441 856.35 875.72
432 855.58 874.92
423 854.77 874.09
414 853.88 873.25
405 853.03 872.37
396 852.17 871.48
387 851.24 870.57
378 850.37 869.63
369 849.37 868.66
360 848.39 867.66
351 847.36 866.63
342 846.24 865.57
333 845.19 864.47
324 844.08 863.33
315 842.96 862.15
306 841.77 860.91
297 840.45 859.62
288 839.10 858.29
279 837.71 856.87
270 836.27 855.40
261 834.70 853.85
252 833.04 852.20
243 831.36 850.44
234 829.47 848.56
225 827.50 846.53
216 825.42 844.37
207 823.06 842.02
198 820.50 839.45
189 817.73 836.63
180 814.61 833.46
171 811.09 829.87
162 807.04 825.67
153 802.11 820.61
144 795.90 814.17
135 787.44 805.09
126 419.27 303.33
117 2030.58 2061.77
108 2041.21 2068.95
99 1997.95 2024.60
90 1912.09 1942.47
81 1915.73 1942.38
72 1915.94 1942.61
63 1916.15 1942.85
54 1916.31 1942.93
45 1915.53 1942.10
36 1917.63 1944.36
27 1917.98 1944.69
18 1918.28 1944.99
9 1918.56 1945.27
0 1918.76 1945.45

MRPS 1 Strain Gauge Pressure (BSG1) 0 (PSIG) 5000	Elapsed Time (ETIM) (S)	MRPS 1 Strain Gauge Pressure (BSG1) (PSIG)	MRPS 1 Strain Gauge Pressure (BSG1) 0 (PSIG) 10	MRPS 1 Quartz Gauge Pressure (BQP1) (PSIA)	MRPS 1 Quartz Gauge Pressure (BQP1) 0 (PSIA) 1
MRPS 1 Quartz Gauge Pressure (BQP1) 0 (PSIA) 5000	MRHY 1 Motor Speed (HMS1) (RPM) 0 8000				MRPS 1 Quartz Gauge Pressure (BQP1) 0 (PSIA) 10
MRPS 1 Quartz Gauge Temperature (BQT1) 100 (DEGF) 150					
MRPS 1 Flowline Fluid Resistivity (BFR1) 0 (OHMM) 1					
MRPS 1 Resistivity Cell Temperature (B1TR) 100 (DEGF) 150					

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	MRPS_1: Single Probe Module (MRPS) 1		
QGCA	Quartz Gauge Pressure Correction Applied	DYCO	
QGDA	Quartz Gauge Deviation Angle	0	DEG
QGFD	Quartz Gauge Flow Line Density	1	G/C3
	LFA: Live Fluid Analyzer		
PDCO	Probe Depth Correction Offset	0	M
	MRPC: Power Cartridge		
PDCO	Probe Depth Correction Offset	0	M

Format: MRPS_1_SGQG_Station **Vertical Scale: 1" per 60S** **Graphics File Created: 29−Jun−2006 05:11**

OP System Version: 14C0−302

MCM

MRPS_1	14C0−302	MRHY_1	14C0−302
LFA	14C0−302	MRPO	14C0−302
MRMS_1	14C0−302	MRPC	14C0−302
SGT−L	14C0−302	TCC−BF	14C0−302

Output DLIS Files

DEFAULT **MDT_OFA_035LTP** **FN:34** **PRODUCER** **29−Jun−2006 05:11**

Schlumberger

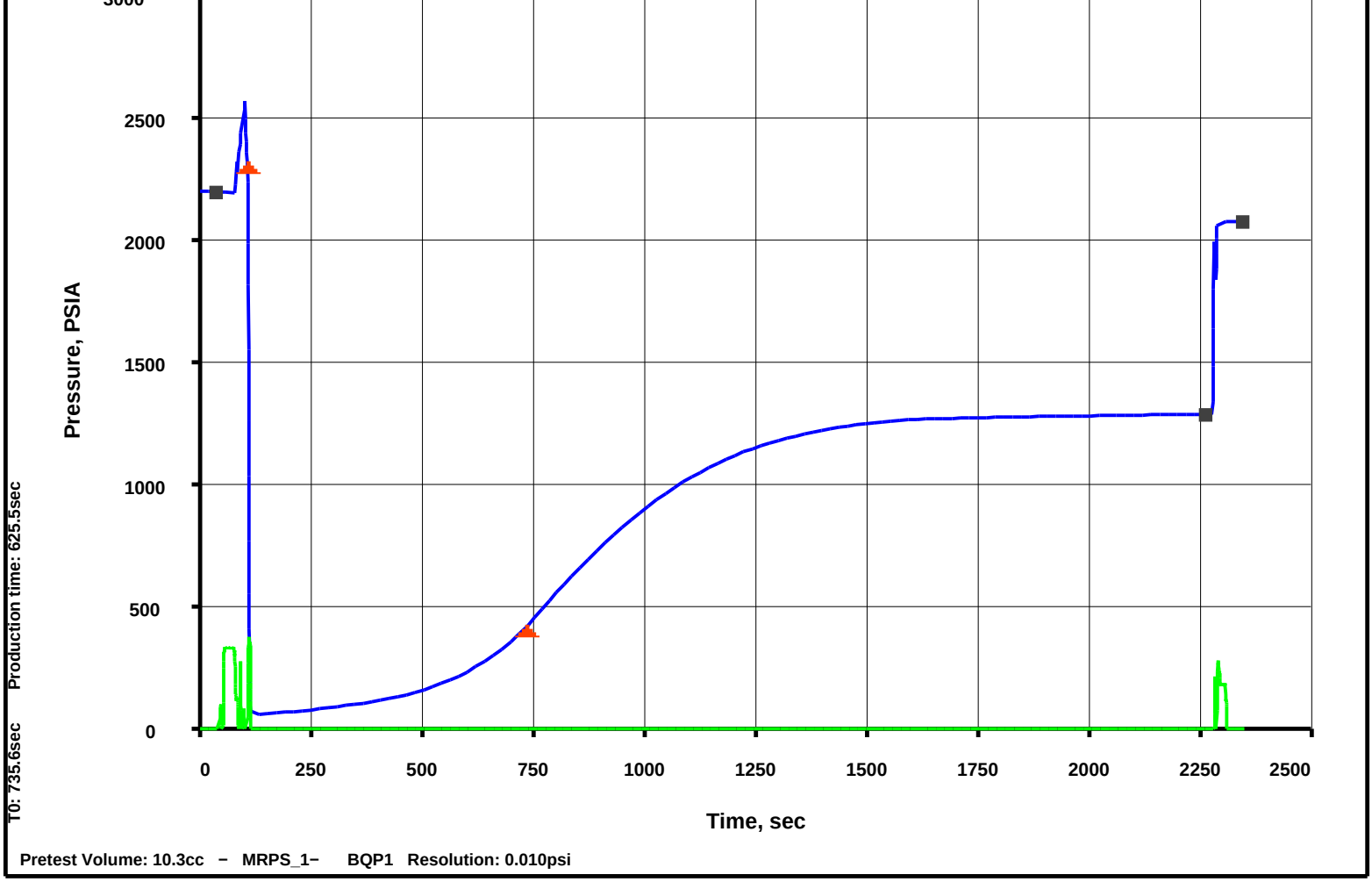
PRETEST@1294.3 M

MAXIS Field Log

File 44 **Depth, M: 1294.27**

Volumetric Pretest − Large−Diameter probe

Mud Pressure before test, PSIA:	2185.85
Mud Pressure after test, PSIA:	2066.68
Last build−up pressure, PSIA:	1281.31
Draw−down mobility, md/cp:	0.03



Company: **Well:**

Output DLIS Files

DEFAULT **MDT_044LTP** **FN:43** **PRODUCER** **29–Jun–2006 10:40**

Elapsed Time (s)	Event Summary
2285.1	Retract Single Probe Module (MRPS) 1
104.1	Vert Pretest 10.3 cc @ 60 C3/M Single Probe Module (MRPS) 1
49.5	Probe Set @ 1294.3 M Single Probe Module (MRPS) 1

PIP SUMMARY

Time Mark Every 60 S

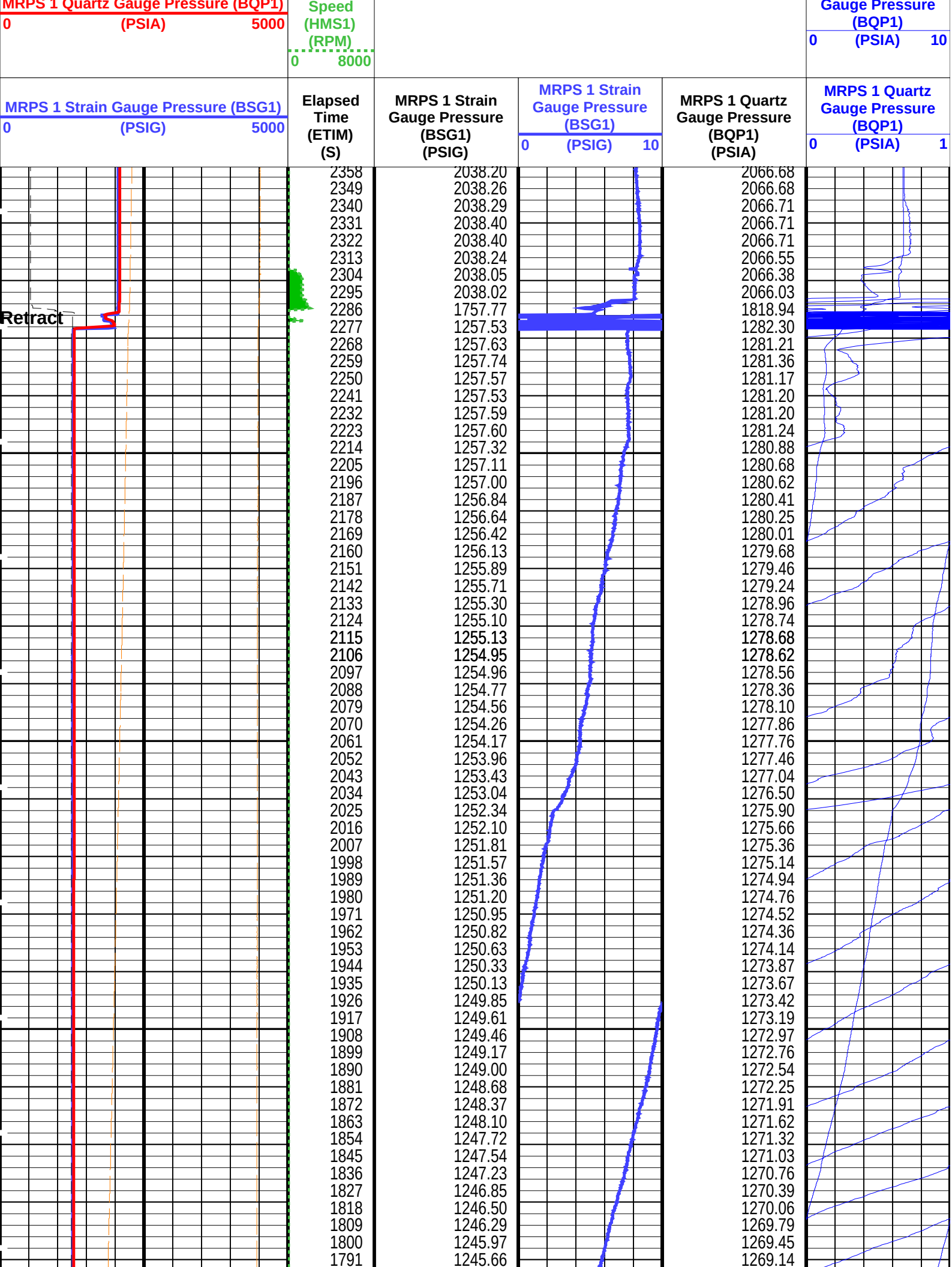
MRPS 1 Resistivity Cell Temperature (B1TR)
100 (DEGF) 150

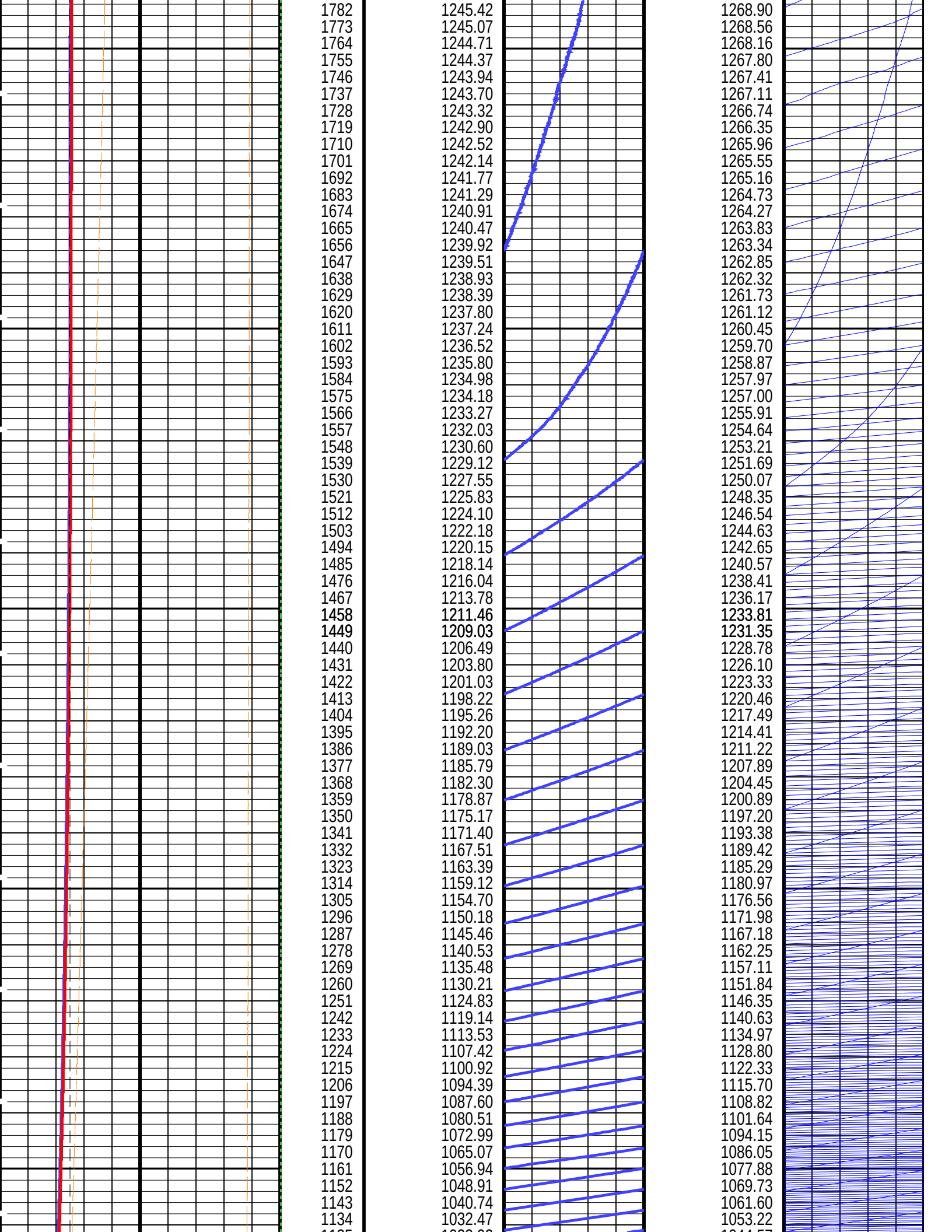
MRPS 1 Flowline Fluid Resistivity (BFR1)
0 (OHMM) 1

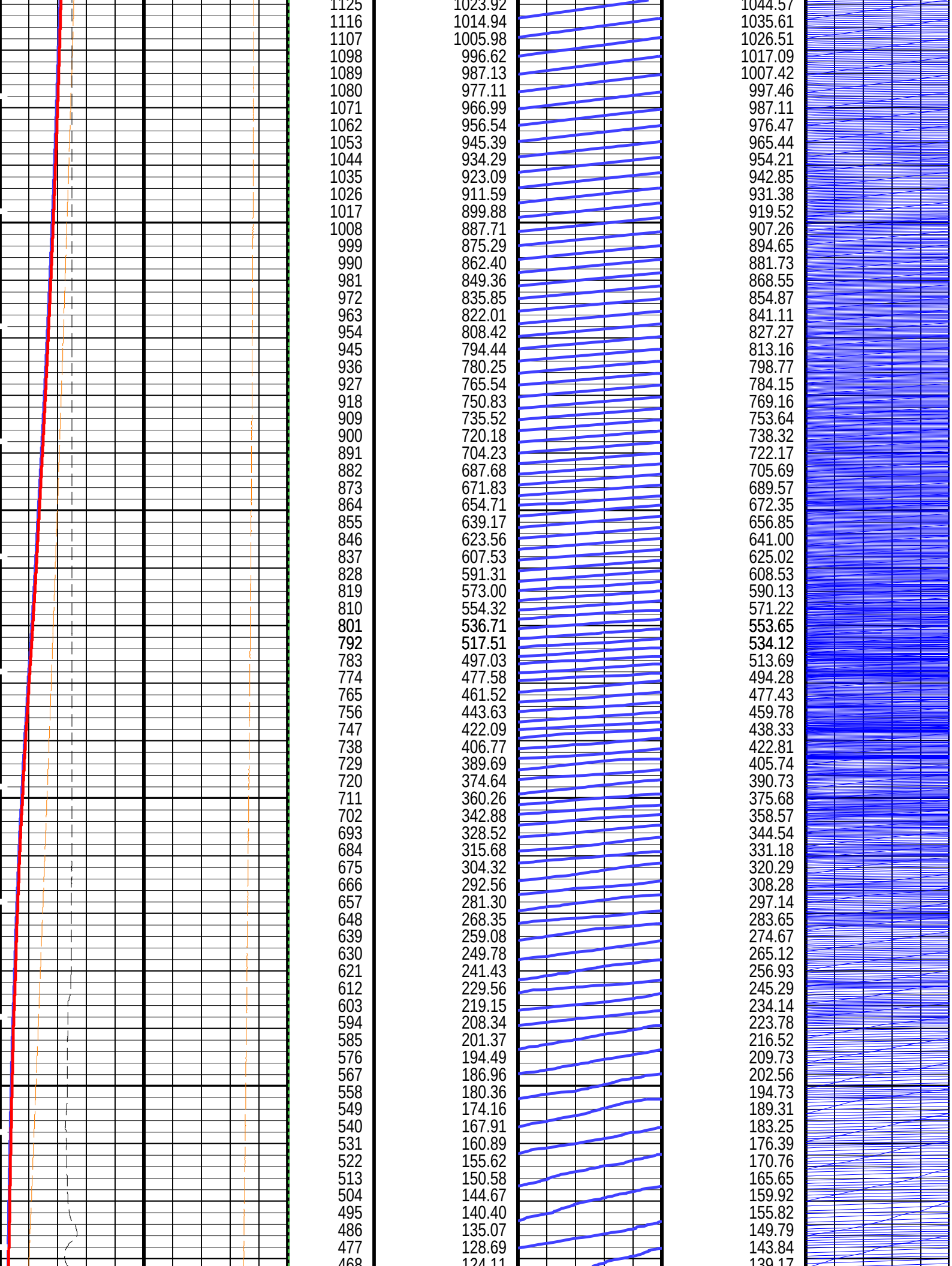
MRPS 1 Quartz Gauge Temperature (BQT1)
100 (DEGF) 150

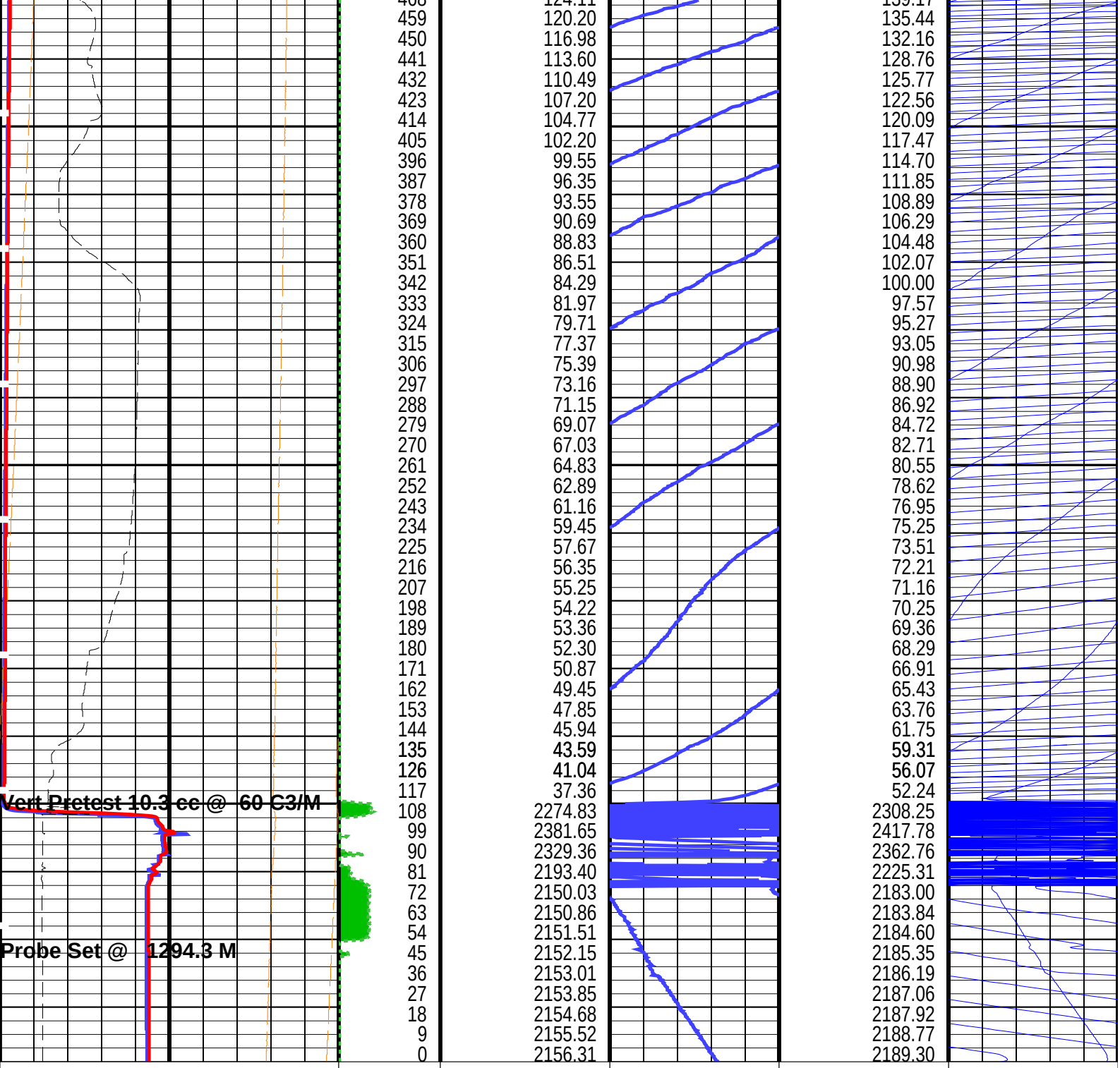
MRHY 1 Motor

MRPS 1 Quartz


MRPS 1 Quartz Gauge Pressure (BQP1)
0 (PSIA) 5000
Speed (HMS1) (RPM)
0 8000
Gauge Pressure (BQP1)
0 (PSIA) 10
MRPS 1 Strain Gauge Pressure (BSG1)
0 (PSIG) 5000
Elapsed Time (ETIM) (S)
MRPS 1 Strain Gauge Pressure (BSG1) (PSIG)
MRPS 1 Strain Gauge Pressure (BSG1)
0 (PSIG) 10
MRPS 1 Quartz Gauge Pressure (BQP1) (PSIA)
MRPS 1 Quartz Gauge Pressure (BQP1)
0 (PSIA) 1
Retract
2358 2038.20 2066.68
2349 2038.26 2066.68
2340 2038.29 2066.71
2331 2038.40 2066.71
2322 2038.40 2066.71
2313 2038.24 2066.55
2304 2038.05 2066.38
2295 2038.02 2066.03
2286 1757.77 1818.94
2277 1257.53 1282.30
2268 1257.63 1281.21
2259 1257.74 1281.36
2250 1257.57 1281.17
2241 1257.53 1281.20
2232 1257.59 1281.20
2223 1257.60 1281.24
2214 1257.32 1280.88
2205 1257.11 1280.68
2196 1257.00 1280.62
2187 1256.84 1280.41
2178 1256.64 1280.25
2169 1256.42 1280.01
2160 1256.13 1279.68
2151 1255.89 1279.46
2142 1255.71 1279.24
2133 1255.30 1278.96
2124 1255.10 1278.74
2115 1255.13 1278.68
2106 1254.95 1278.62
2097 1254.96 1278.56
2088 1254.77 1278.36
2079 1254.56 1278.10
2070 1254.26 1277.86
2061 1254.17 1277.76
2052 1253.96 1277.46
2043 1253.43 1277.04
2034 1253.04 1276.50
2025 1252.34 1275.90
2016 1252.10 1275.66
2007 1251.81 1275.36
1998 1251.57 1275.14
1989 1251.36 1274.94
1980 1251.20 1274.76
1971 1250.95 1274.52
1962 1250.82 1274.36
1953 1250.63 1274.14
1944 1250.33 1273.87
1935 1250.13 1273.67
1926 1249.85 1273.42
1917 1249.61 1273.19
1908 1249.46 1272.97
1899 1249.17 1272.76
1890 1249.00 1272.54
1881 1248.68 1272.25
1872 1248.37 1271.91
1863 1248.10 1271.62
1854 1247.72 1271.32
1845 1247.54 1271.03
1836 1247.23 1270.76
1827 1246.85 1270.39
1818 1246.50 1270.06
1809 1246.29 1269.79
1800 1245.97 1269.45
1791 1245.66 1269.14


1782 1245.42 1268.90
1773 1245.07 1268.56
1764 1244.71 1268.16
1755 1244.37 1267.80
1746 1243.94 1267.41
1737 1243.70 1267.11
1728 1243.32 1266.74
1719 1242.90 1266.35
1710 1242.52 1265.96
1701 1242.14 1265.55
1692 1241.77 1265.16
1683 1241.29 1264.73
1674 1240.91 1264.27
1665 1240.47 1263.83
1656 1239.92 1263.34
1647 1239.51 1262.85
1638 1238.93 1262.32
1629 1238.39 1261.73
1620 1237.80 1261.12
1611 1237.24 1260.45
1602 1236.52 1259.70
1593 1235.80 1258.87
1584 1234.98 1257.97
1575 1234.18 1257.00
1566 1233.27 1255.91
1557 1232.03 1254.64
1548 1230.60 1253.21
1539 1229.12 1251.69
1530 1227.55 1250.07
1521 1225.83 1248.35
1512 1224.10 1246.54
1503 1222.18 1244.63
1494 1220.15 1242.65
1485 1218.14 1240.57
1476 1216.04 1238.41
1467 1213.78 1236.17
1458 1211.46 1233.81
1449 1209.03 1231.35
1440 1206.49 1228.78
1431 1203.80 1226.10
1422 1201.03 1223.33
1413 1198.22 1220.46
1404 1195.26 1217.49
1395 1192.20 1214.41
1386 1189.03 1211.22
1377 1185.79 1207.89
1368 1182.30 1204.45
1359 1178.87 1200.89
1350 1175.17 1197.20
1341 1171.40 1193.38
1332 1167.51 1189.42
1323 1163.39 1185.29
1314 1159.12 1180.97
1305 1154.70 1176.56
1296 1150.18 1171.98
1287 1145.46 1167.18
1278 1140.53 1162.25
1269 1135.48 1157.11
1260 1130.21 1151.84
1251 1124.83 1146.35
1242 1119.14 1140.63
1233 1113.53 1134.97
1224 1107.42 1128.80
1215 1100.92 1122.33
1206 1094.39 1115.70
1197 1087.60 1108.82
1188 1080.51 1101.64
1179 1072.99 1094.15
1170 1065.07 1086.05
1161 1056.94 1077.88
1152 1048.91 1069.73
1143 1040.74 1061.60
1134 1032.47 1053.22


1125 1023.92 1044.57
1116 1014.94 1035.61
1107 1005.98 1026.51
1098 996.62 1017.09
1089 987.13 1007.42
1080 977.11 997.46
1071 966.99 987.11
1062 956.54 976.47
1053 945.39 965.44
1044 934.29 954.21
1035 923.09 942.85
1026 911.59 931.38
1017 899.88 919.52
1008 887.71 907.26
999 875.29 894.65
990 862.40 881.73
981 849.36 868.55
972 835.85 854.87
963 822.01 841.11
954 808.42 827.27
945 794.44 813.16
936 780.25 798.77
927 765.54 784.15
918 750.83 769.16
909 735.52 753.64
900 720.18 738.32
891 704.23 722.17
882 687.68 705.69
873 671.83 689.57
864 654.71 672.35
855 639.17 656.85
846 623.56 641.00
837 607.53 625.02
828 591.31 608.53
819 573.00 590.13
810 554.32 571.22
801 536.71 553.65
792 517.51 534.12
783 497.03 513.69
774 477.58 494.28
765 461.52 477.43
756 443.63 459.78
747 422.09 438.33
738 406.77 422.81
729 389.69 405.74
720 374.64 390.73
711 360.26 375.68
702 342.88 358.57
693 328.52 344.54
684 315.68 331.18
675 304.32 320.29
666 292.56 308.28
657 281.30 297.14
648 268.35 283.65
639 259.08 274.67
630 249.78 265.12
621 241.43 256.93
612 229.56 245.29
603 219.15 234.14
594 208.34 223.78
585 201.37 216.52
576 194.49 209.73
567 186.96 202.56
558 180.36 194.73
549 174.16 189.31
540 167.91 183.25
531 160.89 176.39
522 155.62 170.76
513 150.58 165.65
504 144.67 159.92
495 140.40 155.82
486 135.07 149.79
477 128.69 143.84
468 124.11 139.17



Elapsed Time (ETIM) (S)	MRPS 1 Strain Gauge Pressure (BSG1) (PSIG)	MRPS 1 Strain Gauge Pressure (BSG1) 0 (PSIG) 10	MRPS 1 Quartz Gauge Pressure (BQP1) (PSIA)	MRPS 1 Quartz Gauge Pressure (BQP1) 0 (PSIA) 1
459	120.20		135.44	
450	116.98		132.16	
441	113.60		128.76	
432	110.49		125.77	
423	107.20		122.56	
414	104.77		120.09	
405	102.20		117.47	
396	99.55		114.70	
387	96.35		111.85	
378	93.55		108.89	
369	90.69		106.29	
360	88.83		104.48	
351	86.51		102.07	
342	84.29		100.00	
333	81.97		97.57	
324	79.71		95.27	
315	77.37		93.05	
306	75.39		90.98	
297	73.16		88.90	
288	71.15		86.92	
279	69.07		84.72	
270	67.03		82.71	
261	64.83		80.55	
252	62.89		78.62	
243	61.16		76.95	
234	59.45		75.25	
225	57.67		73.51	
216	56.35		72.21	
207	55.25		71.16	
198	54.22		70.25	
189	53.36		69.36	
180	52.30		68.29	
171	50.87		66.91	
162	49.45		65.43	
153	47.85		63.76	
144	45.94		61.75	
135	43.59		59.31	
126	41.04		56.07	
117	37.36		52.24	
108	2274.83		2308.25	
99	2381.65		2417.78	
90	2329.36		2362.76	
81	2193.40		2225.31	
72	2150.03		2183.00	
63	2150.86		2183.84	
54	2151.51		2184.60	
45	2152.15		2185.35	
36	2153.01		2186.19	
27	2153.85		2187.06	
18	2154.68		2187.92	
9	2155.52		2188.77	
0	2156.31		2189.30	

MRPS 1 Strain Gauge Pressure (BSG1)
0 (PSIG) 5000

MRPS 1 Quartz Gauge Pressure (BQP1)
0 (PSIA) 5000

MRHY 1 Motor Speed (HMS1) (RPM)
0 8000

MRPS 1 Quartz Gauge Pressure (BQP1)
0 (PSIA) 10

MRPS 1 Quartz Gauge Temperature (BQT1)
100 (DEGF) 150

MRPS 1 Flowline Fluid Resistivity (BFR1)
0 (OHMM) 1

MRPS 1 Resistivity Cell Temperature

(B1TR)

100 (DEGF) 150

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	MRPS_1: Single Probe Module (MRPS) 1		
QGCA	Quartz Gauge Pressure Correction Applied	DYCO	
QGDA	Quartz Gauge Deviation Angle	0	DEG
QGFD	Quartz Gauge Flow Line Density	1	G/C3
	MRPC: Power Cartridge		
PDCO	Probe Depth Correction Offset	0	M

Format: MRPS_1_SGQG_Station Vertical Scale: 1" per 60S Graphics File Created: 29−Jun−2006 10:40

OP System Version: 14C0−302

MCM

MRPS_1	14C0−302	MRHY_1	14C0−302
MRPC	14C0−302	SGT−L	14C0−302
TCC−BF	14C0−302		

Output DLIS Files

DEFAULT MDT_044LTP FN:43 PRODUCER 29−Jun−2006 10:40

Schlumberger

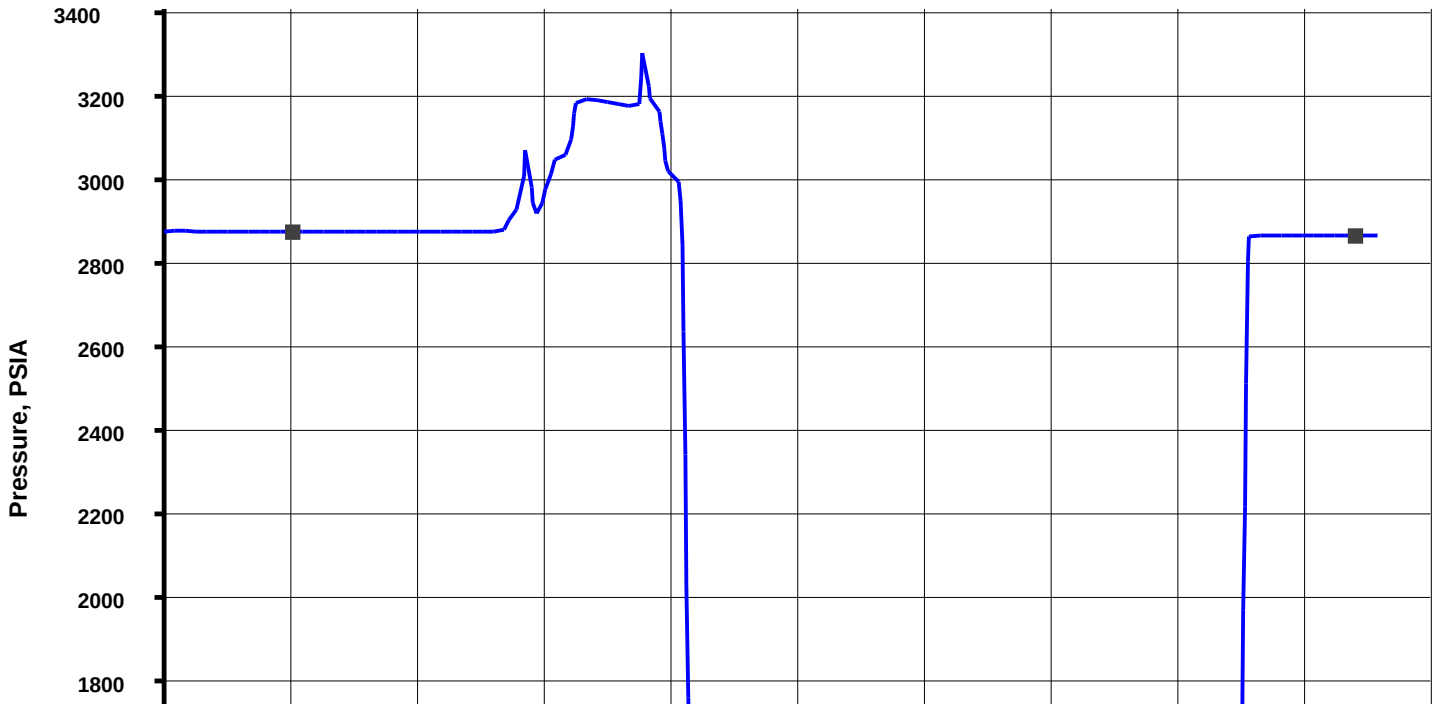
PRETEST@1668.3 M

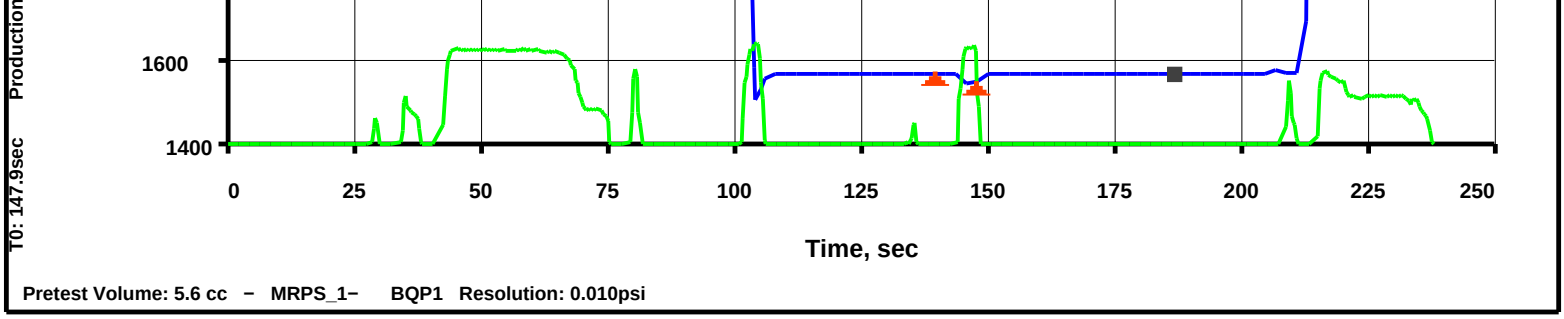
MAXIS Field Log

File 45 Depth, M: 1668.28

Volumetric Pretest − Large−Diameter probe

Mud Pressure before test, PSIA:	2868.82
Mud Pressure after test, PSIA:	2858.71
Last build−up pressure, PSIA:	1567.39
Draw−down mobility, md/cp:	167





Company: **Well:**

Output DLIS Files

DEFAULT **MDT_045LTP** **FN:44** **PRODUCER** **29–Jun–2006 11:32** **1668.3 M** **0.6 M**

Elapsed Time (s)	Event Summary
211.2	Retract Single Probe Module (MRPS) 1
139.8	Vert Pretest 5.6 cc @ 60 C3/M Single Probe Module (MRPS) 1
97.2	Vert Pretest 5.2 cc @ 60 C3/M Single Probe Module (MRPS) 1
38.7	Probe Set @ 1668.3 M Single Probe Module (MRPS) 1

PIP SUMMARY

Time Mark Every 60 S

MRPS 1 Resistivity Cell Temperature (B1TR)
100 (DEGF) 150

MRPS 1 Flowline Fluid Resistivity (BFR1)
0 (OHMM) 1

MRPS 1 Quartz Gauge Temperature (BQT1)
100 (DEGF) 150

MRPS 1 Quartz Gauge Pressure (BQP1)
0 (PSIA) 5000

MRHY 1 Motor Speed (HMS1) (RPM)
0 8000

MRPS 1 Quartz Gauge Pressure (BQP1)
0 (PSIA) 10

MRPS 1 Strain Gauge Pressure (BSG1)
0 (PSIG) 5000

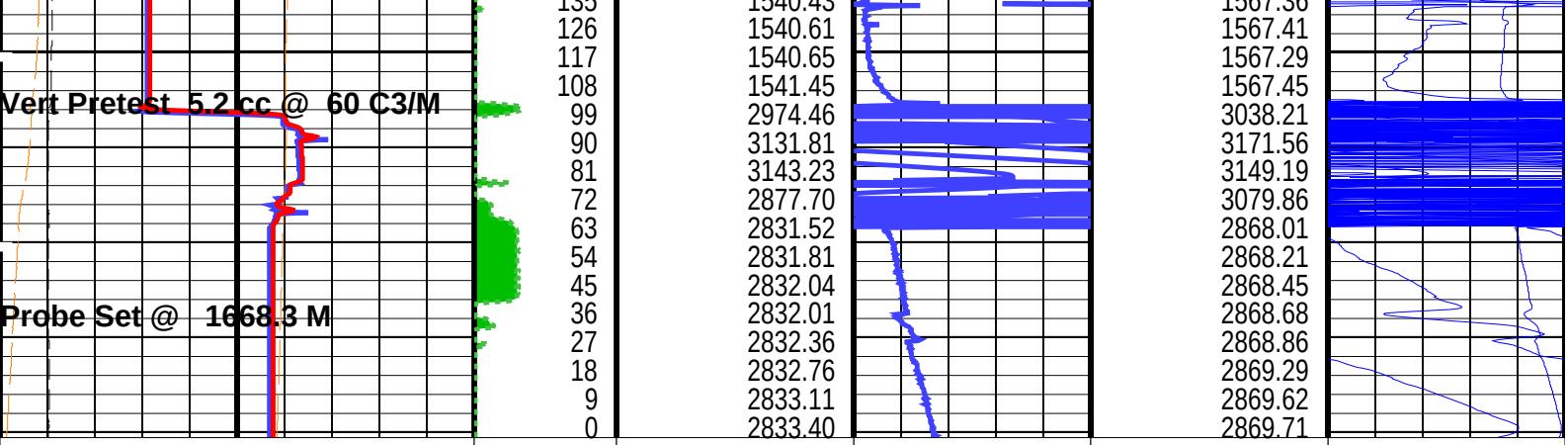
MRPS 1 Strain Gauge Pressure (BSG1)
0 (PSIG) 10

MRPS 1 Quartz Gauge Pressure (BQP1)
0 (PSIA) 1

Elapsed Time (ETIM) (S)	MRPS 1 Strain Gauge Pressure (BSG1) (PSIG)	MRPS 1 Quartz Gauge Pressure (BQP1) (PSIA)
243	2823.70	2858.55
234	2824.42	2859.34
225	2824.43	2859.67
216	2822.17	2858.90
207	1540.84	1574.79
198	1540.50	1567.41
189	1540.44	1567.39
180	1540.39	1567.37
171	1540.38	1567.33
162	1540.37	1567.26
153	1540.28	1567.13
144	1538.68	1567.20

Retract

Vert Pretest 5.6 cc @ 60 C3/M



MRPS 1 Strain Gauge Pressure (BSG1)	Elapsed Time (ETIM) (S)	MRPS 1 Strain Gauge Pressure (BSG1) (PSIG)	MRPS 1 Strain Gauge Pressure (BSG1)	MRPS 1 Quartz Gauge Pressure (BQP1) (PSIA)	MRPS 1 Quartz Gauge Pressure (BQP1)
0 (PSIG) 5000			0 (PSIG) 10		0 (PSIA) 1
MRPS 1 Quartz Gauge Pressure (BQP1)	MRHY 1 Motor Speed (HMS1) (RPM)				MRPS 1 Quartz Gauge Pressure (BQP1)
0 (PSIA) 5000	0 8000				0 (PSIA) 10
MRPS 1 Quartz Gauge Temperature (BQT1)					
100 (DEGF) 150					
MRPS 1 Flowline Fluid Resistivity (BFR1)					
0 (OHMM) 1					
MRPS 1 Resistivity Cell Temperature (B1TR)					
100 (DEGF) 150					

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	MRPS_1: Single Probe Module (MRPS) 1		
QGCA	Quartz Gauge Pressure Correction Applied	DYCO	
QGDA	Quartz Gauge Deviation Angle	0	DEG
QGFD	Quartz Gauge Flow Line Density	1	G/C3
	MRPC: Power Cartridge		
PDCO	Probe Depth Correction Offset	0	M

Format: MRPS_1_SGQG_Station Vertical Scale: 1" per 60S Graphics File Created: 29-Jun-2006 11:32

OP System Version: 14C0-302

MCM

MRPS_1	14C0-302	MRHY_1	14C0-302
MRPC	14C0-302	SGT-L	14C0-302
TCC-BF	14C0-302		

Output DLIS Files

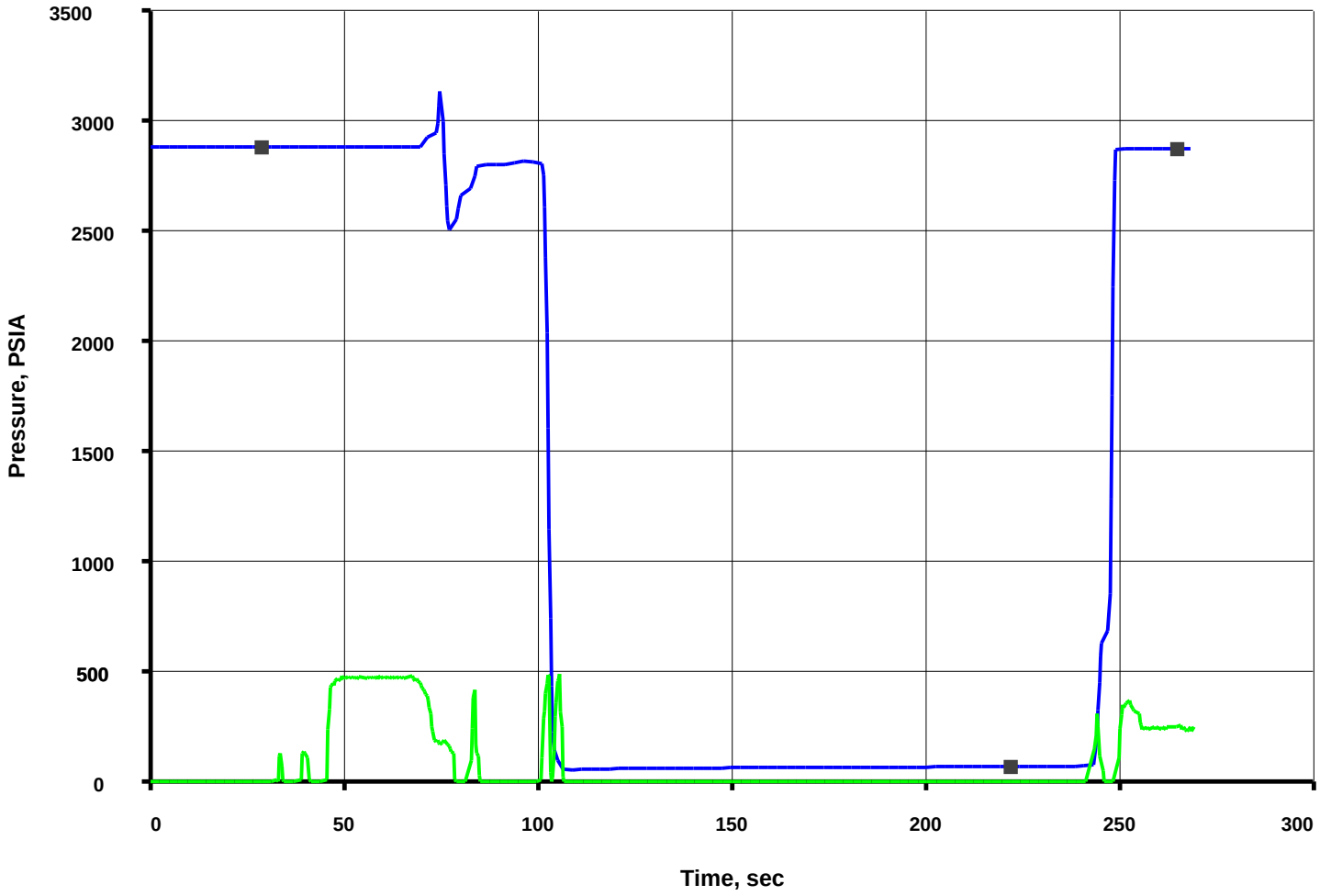
DEFAULT	MDT_045LTP	FN:44	PRODUCER	29-Jun-2006 11:32

Schlumberger

PRETEST@1738.3 M

File 47 Depth, M: 1738.32 Dry Test − Large−Diameter probe

Mud Pressure before test, PSIA:	2882.21
Mud Pressure after test, PSIA:	2873.56
Last build−up pressure, PSIA:	69.14



Pretest Volume: 5.5 cc − MRPS_1− BQP1 Resolution: 0.010psi

Company: Well:

Output DLIS Files

DEFAULT MDT_047LTP FN:46 PRODUCER 29−Jun−2006 12:10

Elapsed Time (s)	Event Summary
246.0	Retract Single Probe Module (MRPS) 1
96.9	Vert Pretest 5.5 cc @ 60 C3/M Single Probe Module (MRPS) 1
42.0	Probe Set @ 1738.3 M Single Probe Module (MRPS) 1

PIP SUMMARY

Time Mark Every 60 S

MRPS 1 Resistivity Cell Temperature (B1TR)

100 (DEGF) 150

MRPS 1 Flowline Fluid Resistivity (BFR1)
0 (OHMM) 1

MRPS 1 Quartz Gauge Temperature (BQT1)
100 (DEGF) 150

MRPS 1 Quartz Gauge Pressure (BQP1)
0 (PSIA) 5000

MRHY 1 Motor Speed (HMS1) (RPM)
0 8000

MRPS 1 Quartz Gauge Pressure (BQP1)
0 (PSIA) 10

MRPS 1 Strain Gauge Pressure (BSG1)
0 (PSIG) 5000

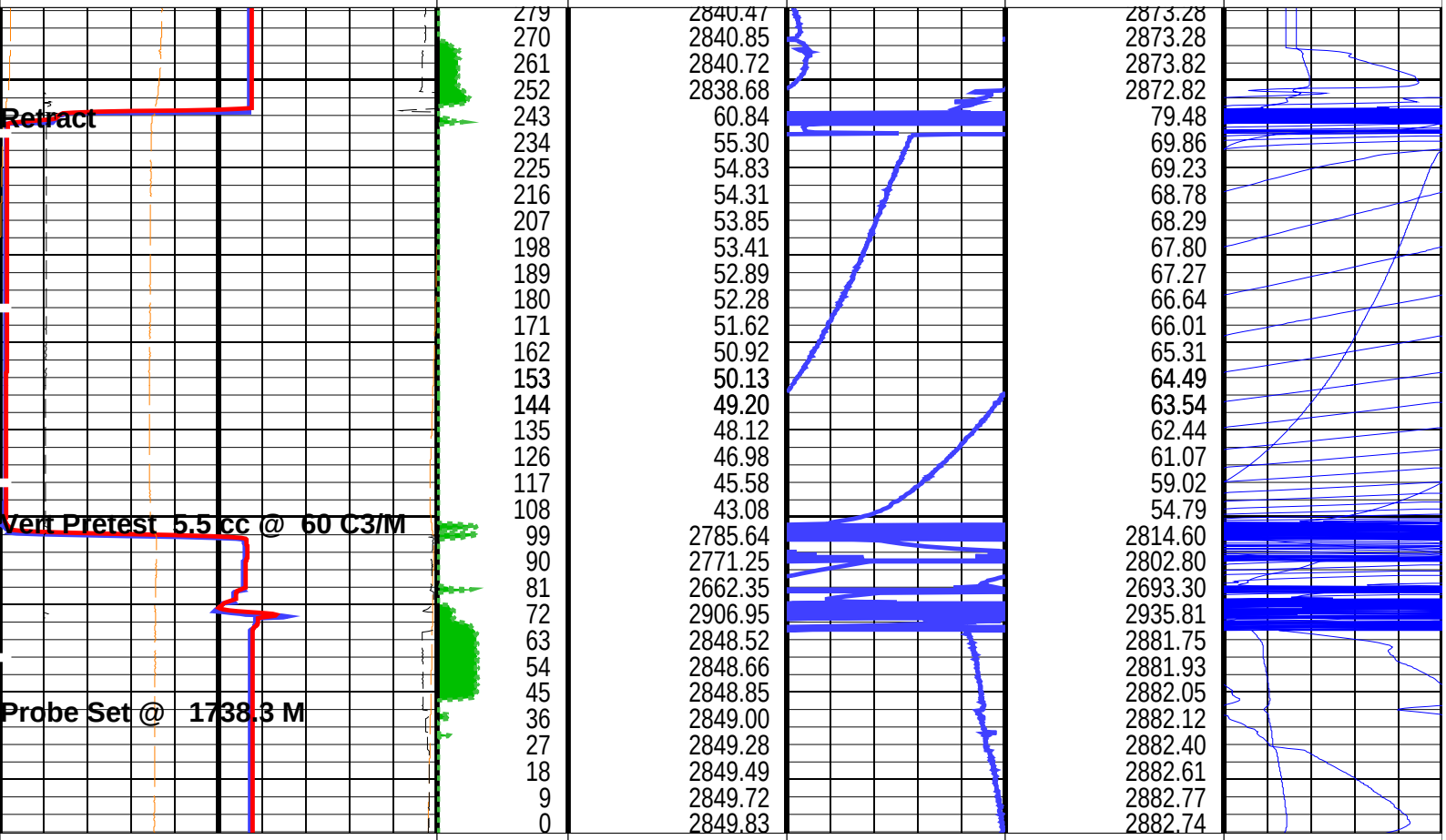
Elapsed Time (ETIM) (S)

MRPS 1 Strain Gauge Pressure (BSG1) (PSIG)

MRPS 1 Strain Gauge Pressure (BSG1)
0 (PSIG) 10

MRPS 1 Quartz Gauge Pressure (BQP1) (PSIA)

MRPS 1 Quartz Gauge Pressure (BQP1)
0 (PSIA) 1



Elapsed Time (ETIM) (S)	MRPS 1 Strain Gauge Pressure (BSG1) (PSIG)	MRPS 1 Quartz Gauge Pressure (BQP1) (PSIA)
279	2840.47	2873.28
270	2840.85	2873.28
261	2840.72	2873.82
252	2838.68	2872.82
243	60.84	79.48
234	55.30	69.86
225	54.83	69.23
216	54.31	68.78
207	53.85	68.29
198	53.41	67.80
189	52.89	67.27
180	52.28	66.64
171	51.62	66.01
162	50.92	65.31
153	50.13	64.49
144	49.20	63.54
135	48.12	62.44
126	46.98	61.07
117	45.58	59.02
108	43.08	54.79
99	2785.64	2814.60
90	2771.25	2802.80
81	2662.35	2693.30
72	2906.95	2935.81
63	2848.52	2881.75
54	2848.66	2881.93
45	2848.85	2882.05
36	2849.00	2882.12
27	2849.28	2882.40
18	2849.49	2882.61
9	2849.72	2882.77
0	2849.83	2882.74

MRPS 1 Strain Gauge Pressure (BSG1)
0 (PSIG) 5000

Elapsed Time (ETIM) (S)

MRPS 1 Strain Gauge Pressure (BSG1) (PSIG)

MRPS 1 Strain Gauge Pressure (BSG1)
0 (PSIG) 10

MRPS 1 Quartz Gauge Pressure (BQP1) (PSIA)

MRPS 1 Quartz Gauge Pressure (BQP1)
0 (PSIA) 1

MRPS 1 Quartz Gauge Pressure (BQP1)
0 (PSIA) 5000

MRHY 1 Motor Speed (HMS1) (RPM)
0 8000

MRPS 1 Quartz Gauge Pressure (BQP1)
0 (PSIA) 10

MRPS 1 Quartz Gauge Temperature (BQT1)
100 (DEGF) 150

MRPS 1 Flowline Fluid Resistivity (BFR1)
0 (OHMM) 1

MRPS 1 Resistivity Cell Temperature (B1TR)

100 (DEGF) 150

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	MRPS_1: Single Probe Module (MRPS) 1		
QGCA	Quartz Gauge Pressure Correction Applied	DYCO	
QGDA	Quartz Gauge Deviation Angle	0	DEG
QGFD	Quartz Gauge Flow Line Density	1	G/C3
	MRPC: Power Cartridge		
PDCO	Probe Depth Correction Offset	0	M

Format: MRPS_1_SGQG_Station Vertical Scale: 1" per 60S Graphics File Created: 29−Jun−2006 12:10

OP System Version: 14C0−302

MCM

MRPS_1	14C0−302	MRHY_1	14C0−302
MRPC	14C0−302	SGT−L	14C0−302
TCC−BF	14C0−302		

Output DLIS Files

DEFAULT MDT_047LTP FN:46 PRODUCER 29−Jun−2006 12:10

Schlumberger

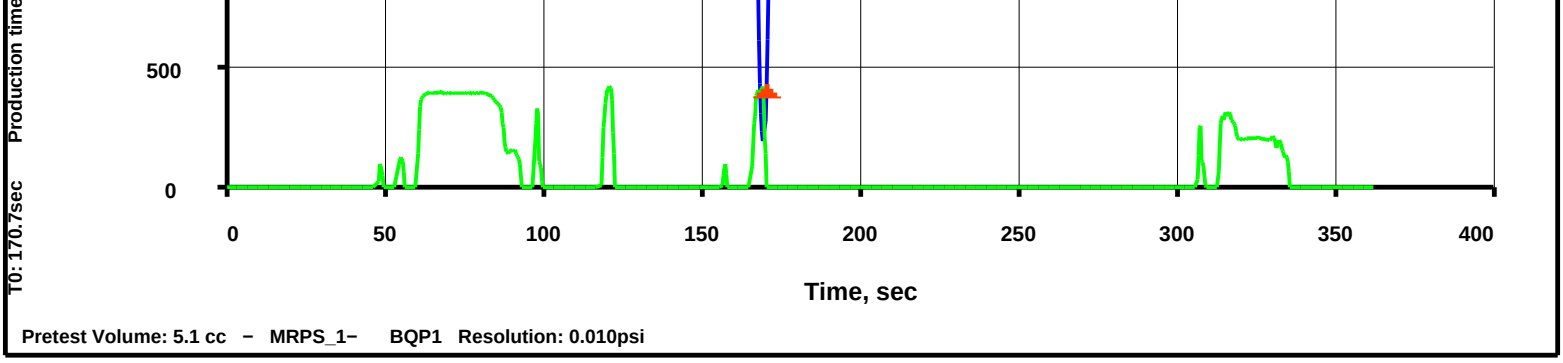
PRETEST@1742.5 M

MAXIS Field Log

File 48 Depth, M: 1742.46

Volumetric Pretest − Large−Diameter probe

Mud Pressure before test, PSIA:	2871.06
Mud Pressure after test, PSIA:	2858.36
Last build−up pressure, PSIA:	1602.04
Draw−down mobility, md/cp:	2.4



Company: **Well:**

Output DLIS Files

DEFAULT **MDT_048LTP** **FN:47** **PRODUCER** **29–Jun–2006 12:17** **1742.5 M** **1.0 M**

Elapsed Time (s)	Event Summary
309.3	Retract Single Probe Module (MRPS) 1
161.7	Vert Pretest 5.1 cc @ 60 C3/M Single Probe Module (MRPS) 1
114.0	Vert Pretest 5.3 cc @ 60 C3/M Single Probe Module (MRPS) 1
56.7	Probe Set @ 1742.5 M Single Probe Module (MRPS) 1

PIP SUMMARY

Time Mark Every 60 S

MRPS 1 Resistivity Cell Temperature (B1TR)
100 (DEGF) 150

MRPS 1 Flowline Fluid Resistivity (BFR1)
0 (OHMM) 1

MRPS 1 Quartz Gauge Temperature (BQT1)
100 (DEGF) 150

MRPS 1 Quartz Gauge Pressure (BQP1)
0 (PSIA) 5000

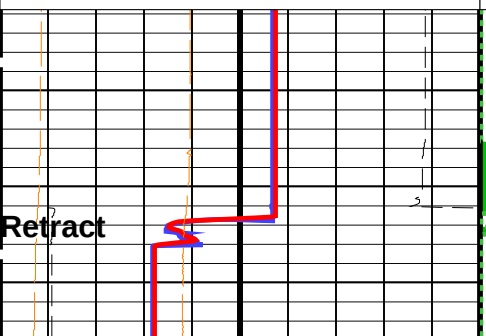
MRHY 1 Motor Speed (HMS1) (RPM)
0 8000

MRPS 1 Quartz Gauge Pressure (BQP1)
0 (PSIA) 10

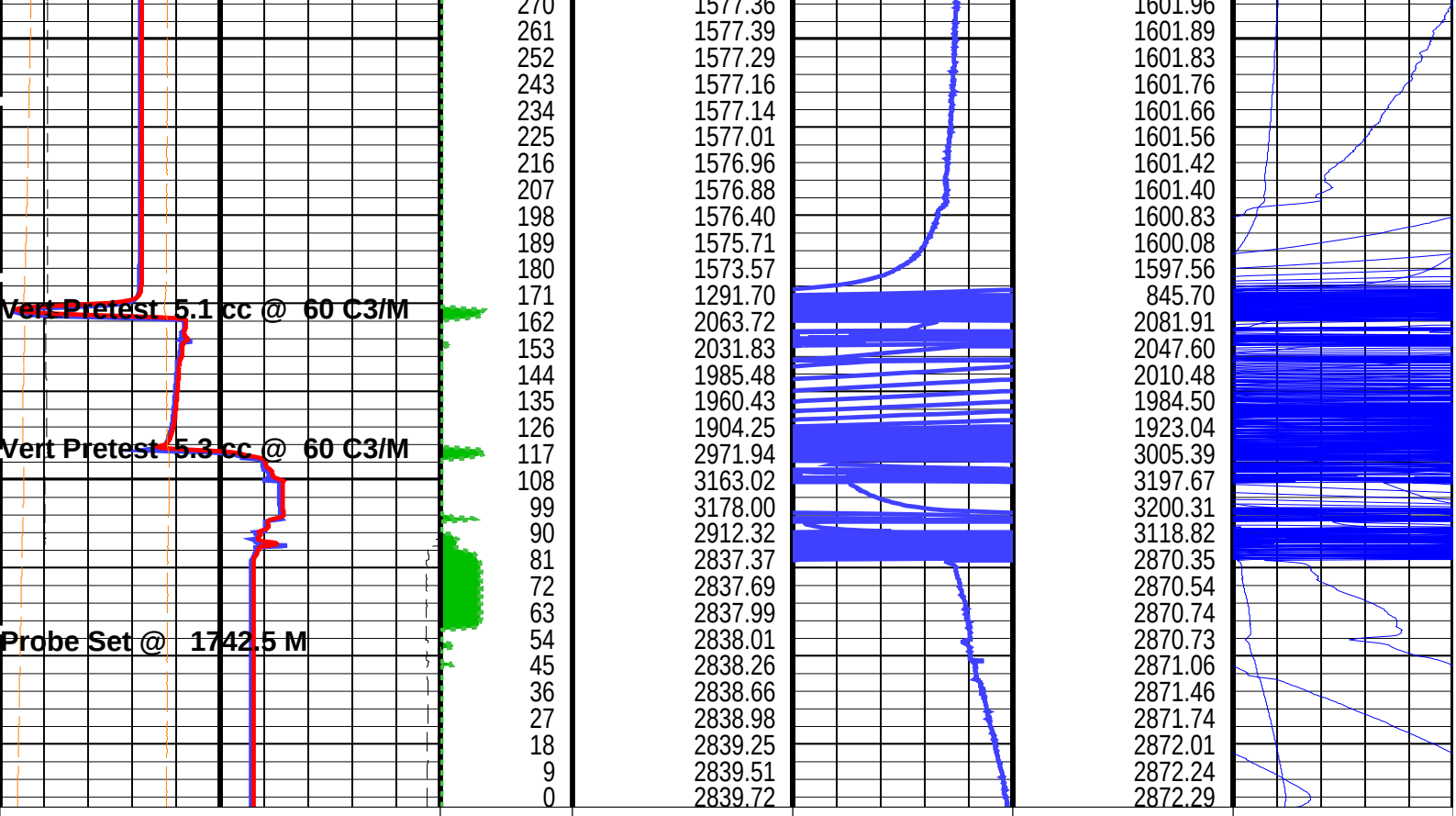
MRPS 1 Strain Gauge Pressure (BSG1)
0 (PSIG) 5000

MRPS 1 Strain Gauge Pressure (BSG1)
0 (PSIG) 10

MRPS 1 Quartz Gauge Pressure (BQP1)
0 (PSIA) 1



Elapsed Time (ETIM) (S)	MRPS 1 Strain Gauge Pressure (BSG1) (PSIG)	MRPS 1 Quartz Gauge Pressure (BQP1) (PSIA)
369	2825.73	2858.24
360	2826.15	2858.38
351	2826.61	2858.81
342	2827.10	2859.23
333	2827.25	2859.04
324	2827.41	2859.90
315	2823.70	2858.95
306	1863.79	1937.35
297	1577.46	1602.38
288	1577.44	1602.04
279	1577.38	1602.00



MRPS 1 Strain Gauge Pressure (BSG1)	Elapsed Time (ETIM) (S)	MRPS 1 Strain Gauge Pressure (BSG1) (PSIG)	MRPS 1 Strain Gauge Pressure (BSG1)	MRPS 1 Quartz Gauge Pressure (BQP1) (PSIA)	MRPS 1 Quartz Gauge Pressure (BQP1)
0 (PSIG) 5000			0 (PSIG) 10		0 (PSIA) 1
MRPS 1 Quartz Gauge Pressure (BQP1)	MRHY 1 Motor Speed (HMS1) (RPM)				MRPS 1 Quartz Gauge Pressure (BQP1)
0 (PSIA) 5000	0 8000				0 (PSIA) 10
MRPS 1 Quartz Gauge Temperature (BQT1)					
100 (DEGF) 150					
MRPS 1 Flowline Fluid Resistivity (BFR1)					
0 (OHMM) 1					
MRPS 1 Resistivity Cell Temperature (B1TR)					
100 (DEGF) 150					

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	MRPS_1: Single Probe Module (MRPS) 1		
QGCA	Quartz Gauge Pressure Correction Applied	DYCO	
QGDA	Quartz Gauge Deviation Angle	0	DEG
QGFD	Quartz Gauge Flow Line Density	1	G/C3
	MRPC: Power Cartridge		
PDCO	Probe Depth Correction Offset	0	M

Format: MRPS_1_SGQG_Station Vertical Scale: 1" per 60S Graphics File Created: 29−Jun−2006 12:17

OP System Version: 14C0−302

MCM

MRPS_1	14C0−302	MRHY_1	14C0−302

MRPC	14C0−302	SGT−L	14C0−302
TCC−BF	14C0−302		

Output DLIS Files

DEFAULT	MDT_048LTP	FN:47	PRODUCER	29−Jun−2006 12:17

Schlumberger

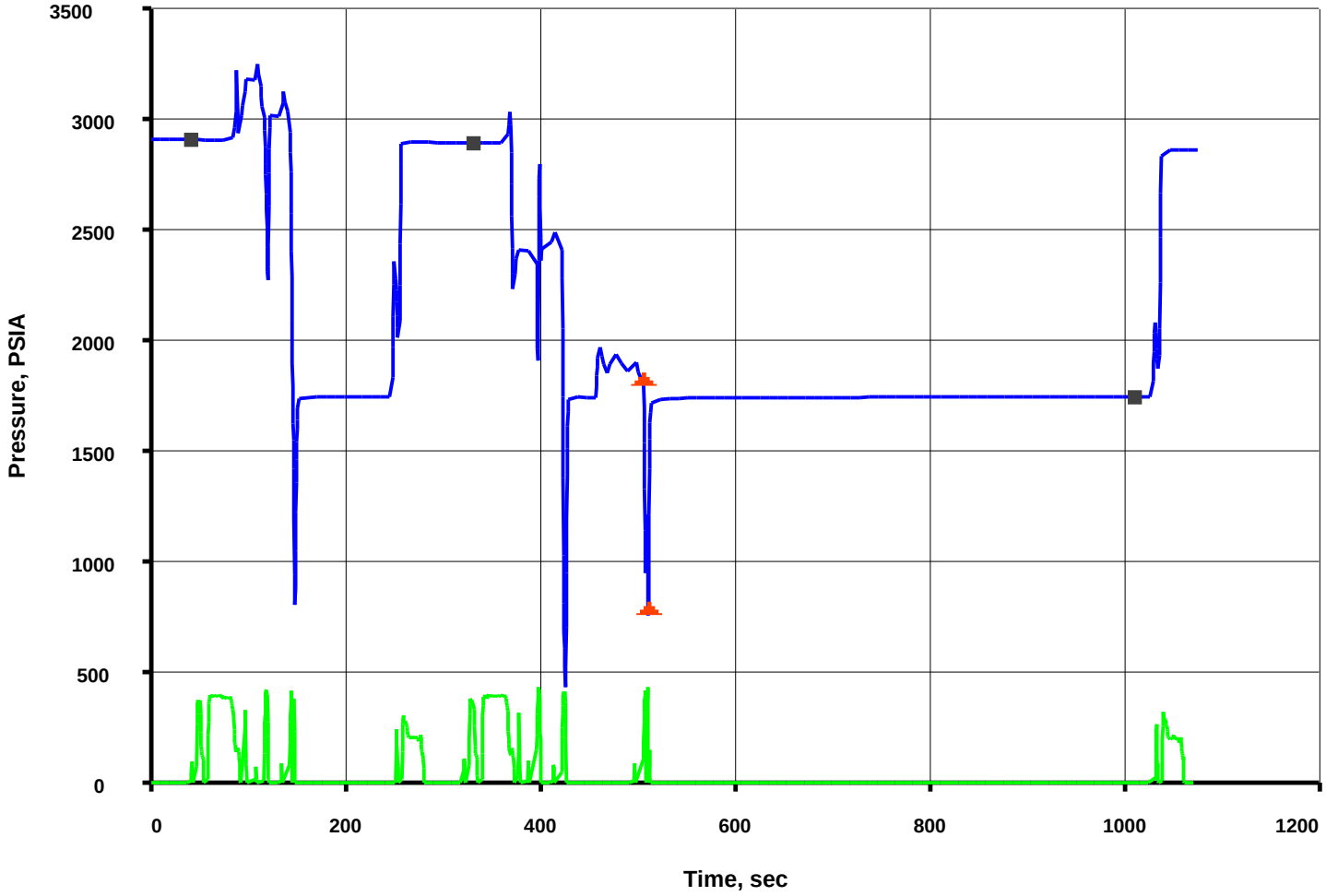
PRETEST@1762.0 M

MAXIS Field Log

File 49 Depth, M: 1763.98

Volumetric Pretest − Large−Diameter probe

Mud Pressure before test, PSIA:	2908.29
Mud Pressure after test, PSIA:	2893.98
Last build−up pressure, PSIA:	1745.21
Draw−down mobility, md/cp:	2.6



Pretest Volume: 5.2 cc − MRPS_1− BQP1 Resolution: 0.010psi

Company: Well:

Output DLIS Files

DEFAULT	MDT_049LTP	FN:48	PRODUCER	29−Jun−2006 12:27

Elapsed

Elapsed Time (s)	Event Summary
1034.7	Retract Single Probe Module (MRPS) 1
501.3	Vert Pretest 5.2 cc @ 60 C3/M Single Probe Module (MRPS) 1
417.6	Vert Pretest 5.3 cc @ 60 C3/M Single Probe Module (MRPS) 1
391.8	Vert Pretest 5.0 cc @ 60 C3/M Single Probe Module (MRPS) 1
336.3	Probe Set @ 1764.0 M Single Probe Module (MRPS) 1
254.1	Retract Single Probe Module (MRPS) 1
138.3	Vert Pretest 5.2 cc @ 60 C3/M Single Probe Module (MRPS) 1
111.9	Vert Pretest 5.7 cc @ 60 C3/M Single Probe Module (MRPS) 1
54.6	Probe Set @ 1764.0 M Single Probe Module (MRPS) 1

PIP SUMMARY

Time Mark Every 60 S

MRPS 1 Resistivity Cell Temperature (B1TR)
100 (DEGF) 150

MRPS 1 Flowline Fluid Resistivity (BFR1)
0 (OHMM) 1

MRPS 1 Quartz Gauge Temperature (BQT1)
100 (DEGF) 150

MRPS 1 Quartz Gauge Pressure (BQP1)
0 (PSIA) 5000

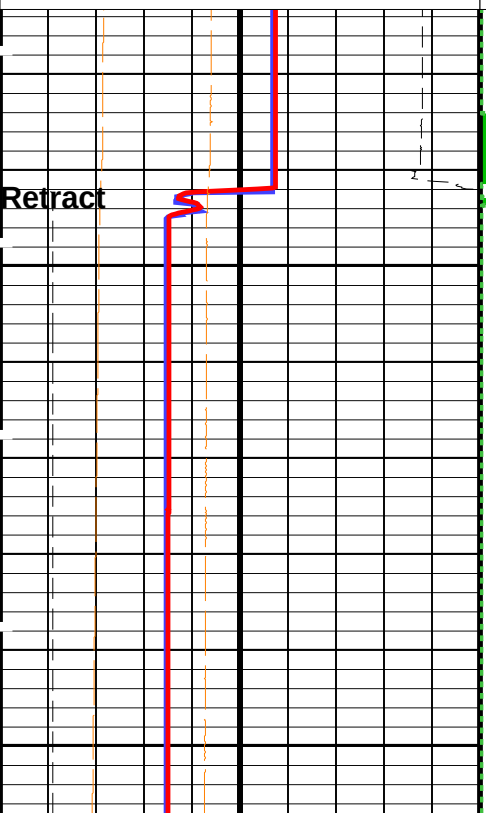
MRHY 1 Motor Speed (HMS1) (RPM)
0 8000

MRPS 1 Quartz Gauge Pressure (BQP1)
0 (PSIA) 10

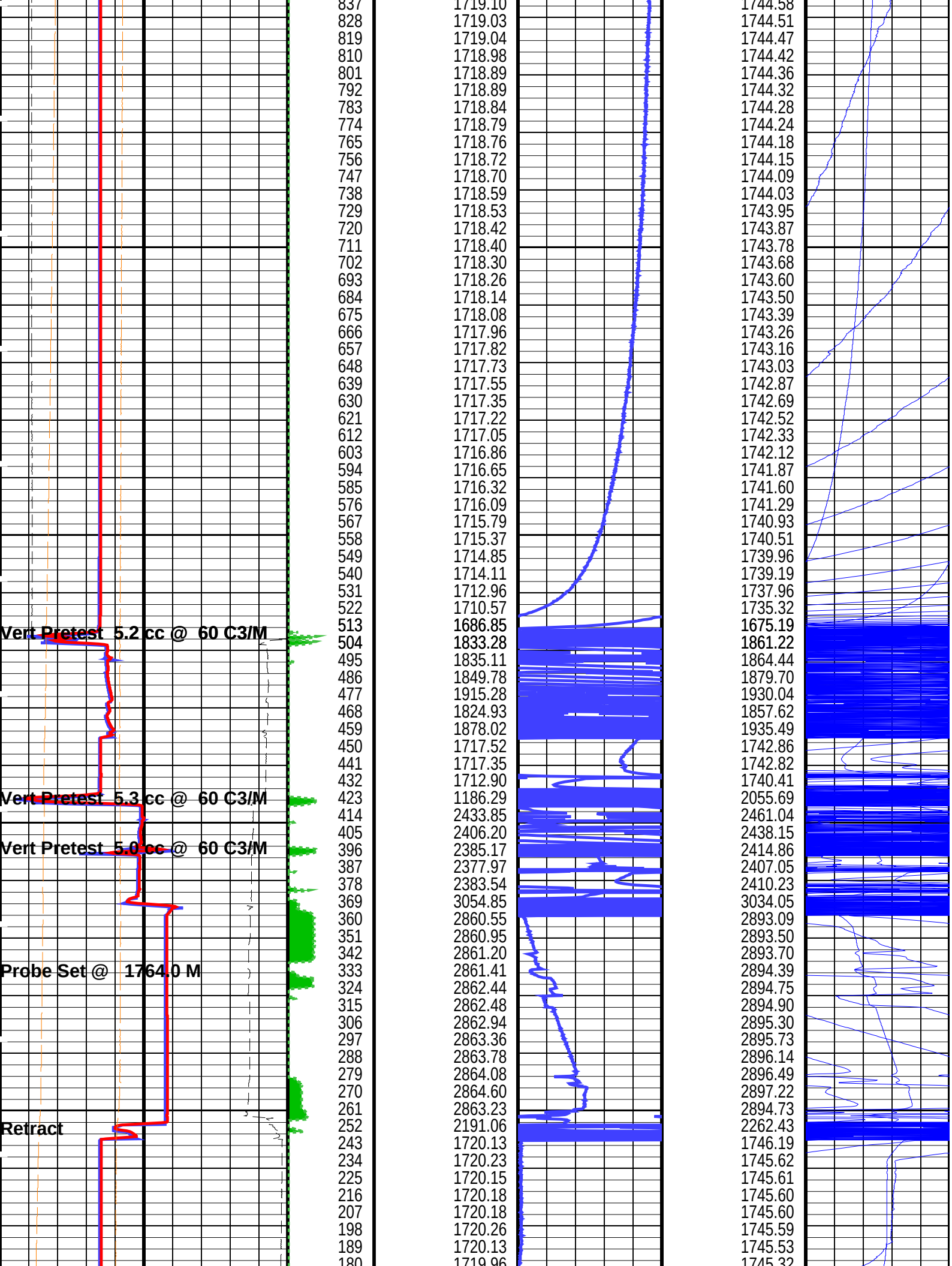
MRPS 1 Strain Gauge Pressure (BSG1)
0 (PSIG) 5000

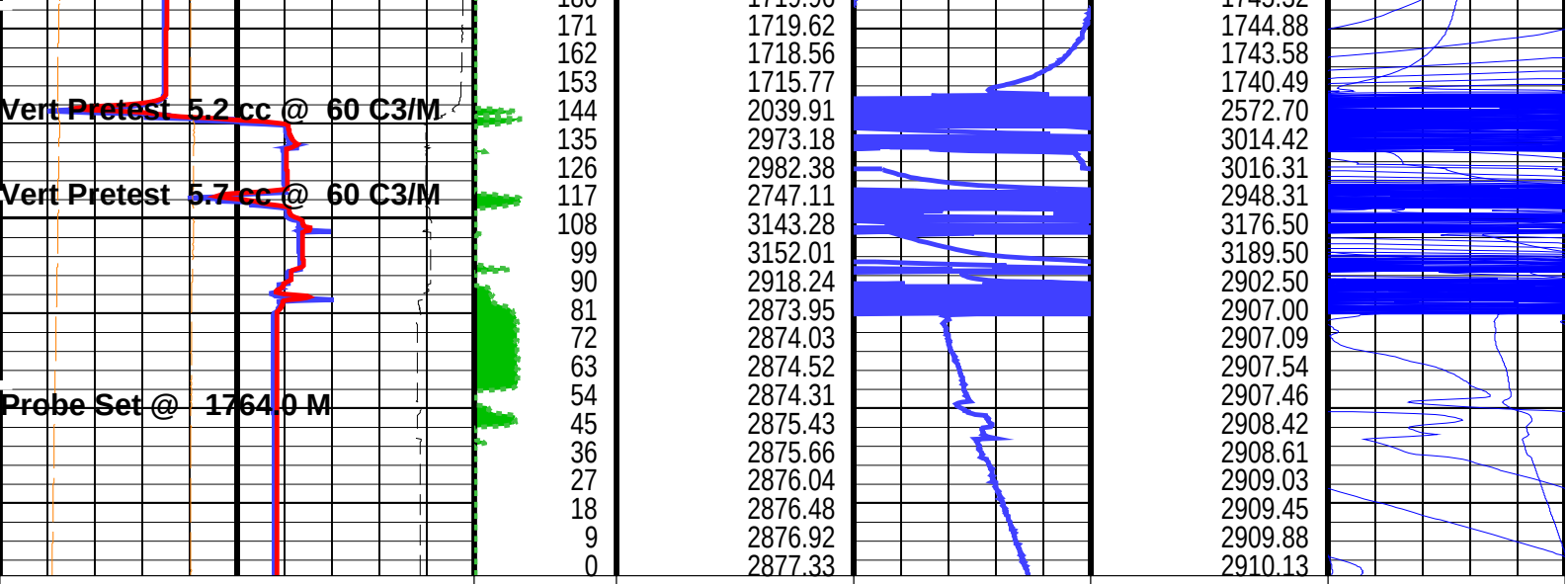
MRPS 1 Strain Gauge Pressure (BSG1)
0 (PSIG) 10

MRPS 1 Quartz Gauge Pressure (BQP1)
0 (PSIA) 1



Elapsed Time (ETIM) (S)	MRPS 1 Strain Gauge Pressure (BSG1) (PSIG)	MRPS 1 Quartz Gauge Pressure (BQP1) (PSIA)
1089	2827.57	2859.98
1080	2828.10	2859.98
1071	2828.46	2860.33
1062	2828.46	2860.13
1053	2829.58	2861.65
1044	2828.44	2860.46
1035	1892.44	1861.95
1026	1719.65	1745.74
1017	1719.65	1745.22
1008	1719.63	1745.19
999	1719.66	1745.17
990	1719.61	1745.15
981	1719.58	1745.13
972	1719.58	1745.10
963	1719.56	1745.08
954	1719.53	1745.06
945	1719.49	1745.03
936	1719.49	1745.00
927	1719.46	1744.97
918	1719.40	1744.93
909	1719.42	1744.90
900	1719.40	1744.87
891	1719.27	1744.83
882	1719.27	1744.80
873	1719.28	1744.75
864	1719.18	1744.71
855	1719.20	1744.66
846	1719.13	1744.63


Vert Pretest 5.2 cc @ 60 C3/M
Vert Pretest 5.3 cc @ 60 C3/M
Vert Pretest 5.0 cc @ 60 C3/M
Probe Set @ 1764.0 M
Retract



MRPS 1 Strain Gauge Pressure (BSG1) 0 (PSIG) 5000	Elapsed Time (ETIM) (S)	MRPS 1 Strain Gauge Pressure (BSG1) (PSIG)	MRPS 1 Strain Gauge Pressure (BSG1) 0 (PSIG) 10	MRPS 1 Quartz Gauge Pressure (BQP1) (PSIA)	MRPS 1 Quartz Gauge Pressure (BQP1) 0 (PSIA) 1
MRPS 1 Quartz Gauge Pressure (BQP1) 0 (PSIA) 5000	MRHY 1 Motor Speed (HMS1) (RPM) 0 8000				MRPS 1 Quartz Gauge Pressure (BQP1) 0 (PSIA) 10
MRPS 1 Quartz Gauge Temperature (BQT1) 100 (DEGF) 150					
MRPS 1 Flowline Fluid Resistivity (BFR1) 0 (OHMM) 1					
MRPS 1 Resistivity Cell Temperature (B1TR) 100 (DEGF) 150					

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	MRPS_1: Single Probe Module (MRPS) 1		
QGCA	Quartz Gauge Pressure Correction Applied	DYCO	
QGDA	Quartz Gauge Deviation Angle	0	DEG
QGFD	Quartz Gauge Flow Line Density	1	G/C3
	MRPC: Power Cartridge		
PDCO	Probe Depth Correction Offset	0	M

Format: MRPS_1_SGQG_Station Vertical Scale: 1" per 60S Graphics File Created: 29-Jun-2006 12:27

OP System Version: 14C0-302

MCM

MRPS_1	14C0-302	MRHY_1	14C0-302
MRPC	14C0-302	SGT-L	14C0-302
TCC-BF	14C0-302		

Output DLIS Files

DEFAULT	MDT_049LTP	FN:48	PRODUCER	29-Jun-2006 12:27

Schlumberger

CORRELACIONES

MAXIS Field Log

Company: **Well:**

Output DLIS Files

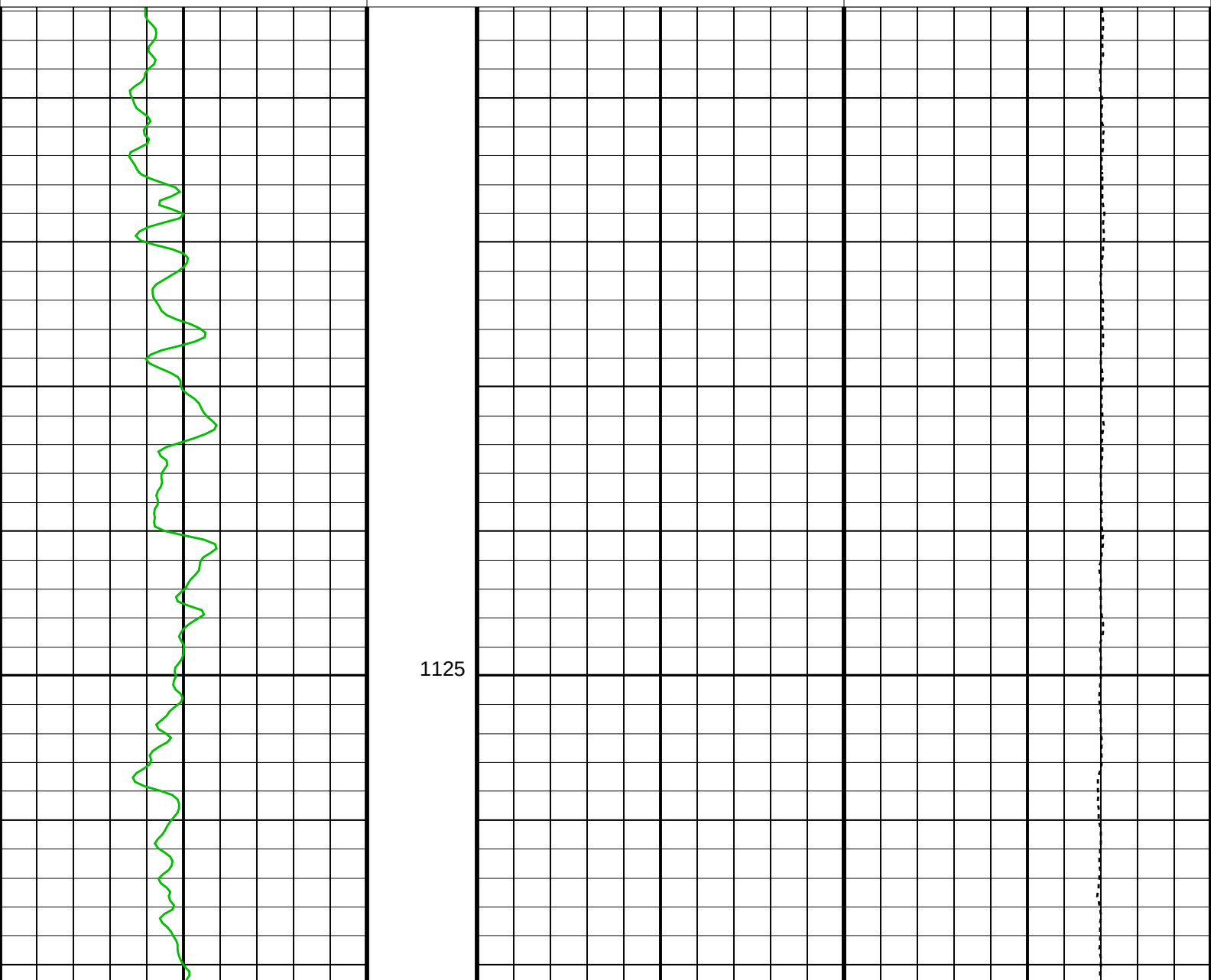
DEFAULT	MDT_OFA_031LUP	FN:30	PRODUCER	29−Jun−2006 03:35	1153.2 M	1101.9 M

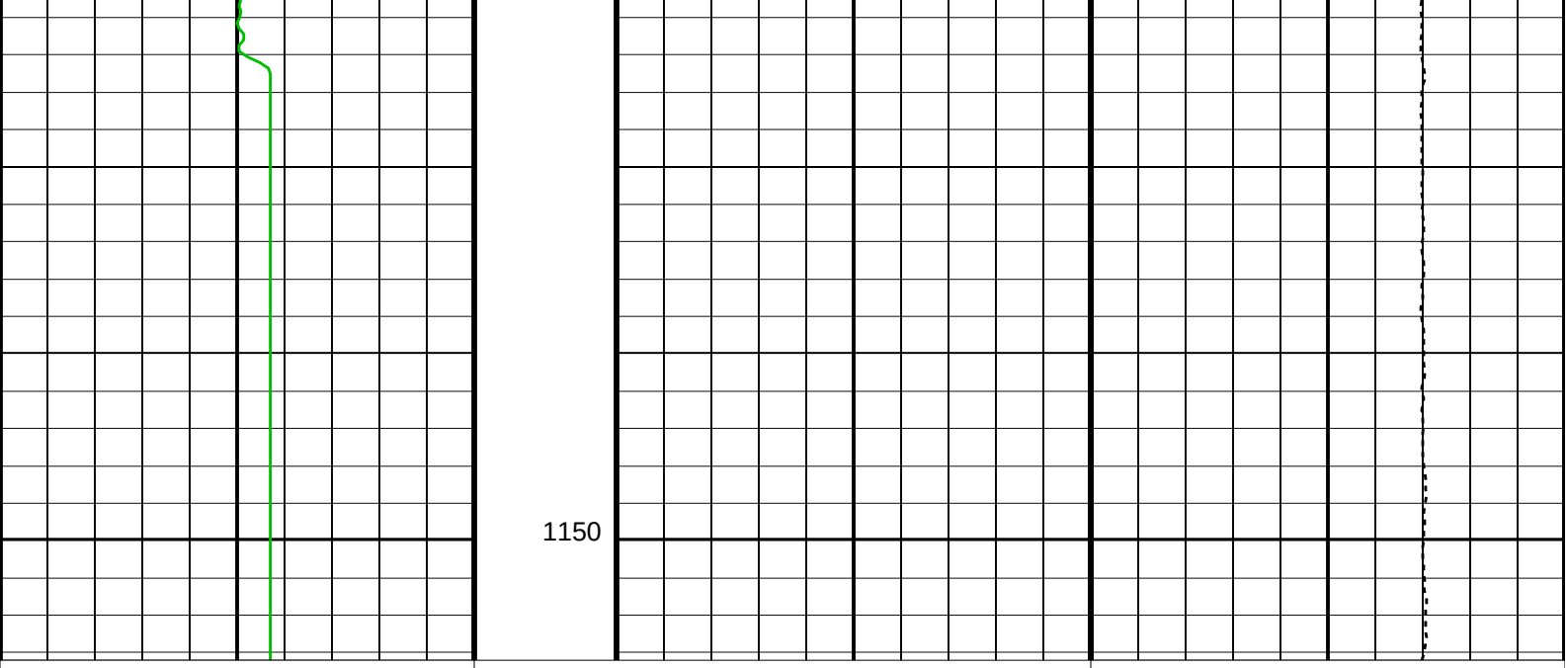
OP System Version: 14C0−302

MCM

MRPS_1	14C0−302	MRHY_1	14C0−302
LFA	14C0−302	MRPO	14C0−302
MRMS_1	14C0−302	MRPC	14C0−302
SGT−L	14C0−302	TCC−BF	14C0−302

Gamma Ray (GR)				Tension (TENS)	
0	(GAPI)	150		10000	(LBF) 0





Gamma Ray (GR)
0 (GAPI) 150

Tension (TENS)
10000 (LBF) 0

Parameters

DLIS Name	Description	Value
	LFA: Live Fluid Analyzer	
PDCO	Probe Depth Correction Offset	0 M
	MRPC: Power Cartridge	
PDCO	Probe Depth Correction Offset	0 M

Format: CORRELATION Vertical Scale: 1:200 Graphics File Created: 29−Jun−2006 03:35

OP System Version: 14C0−302

MCM

MRPS_1	14C0−302	MRHY_1	14C0−302
LFA	14C0−302	MRPO	14C0−302
MRMS_1	14C0−302	MRPC	14C0−302
SGT−L	14C0−302	TCC−BF	14C0−302

Output DLIS Files

DEFAULT	MDT_OFA_031LUP	FN:30	PRODUCER	29−Jun−2006 03:35	

Company: Well:

Output DLIS Files

DEFAULT	MDT_042LUP	FN:41	PRODUCER	29−Jun−2006 10:32	1267.7 M	1242.4 M

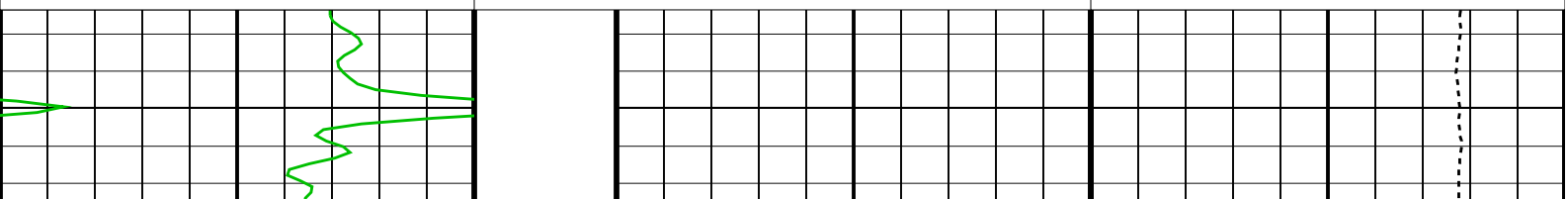
OP System Version: 14C0−302

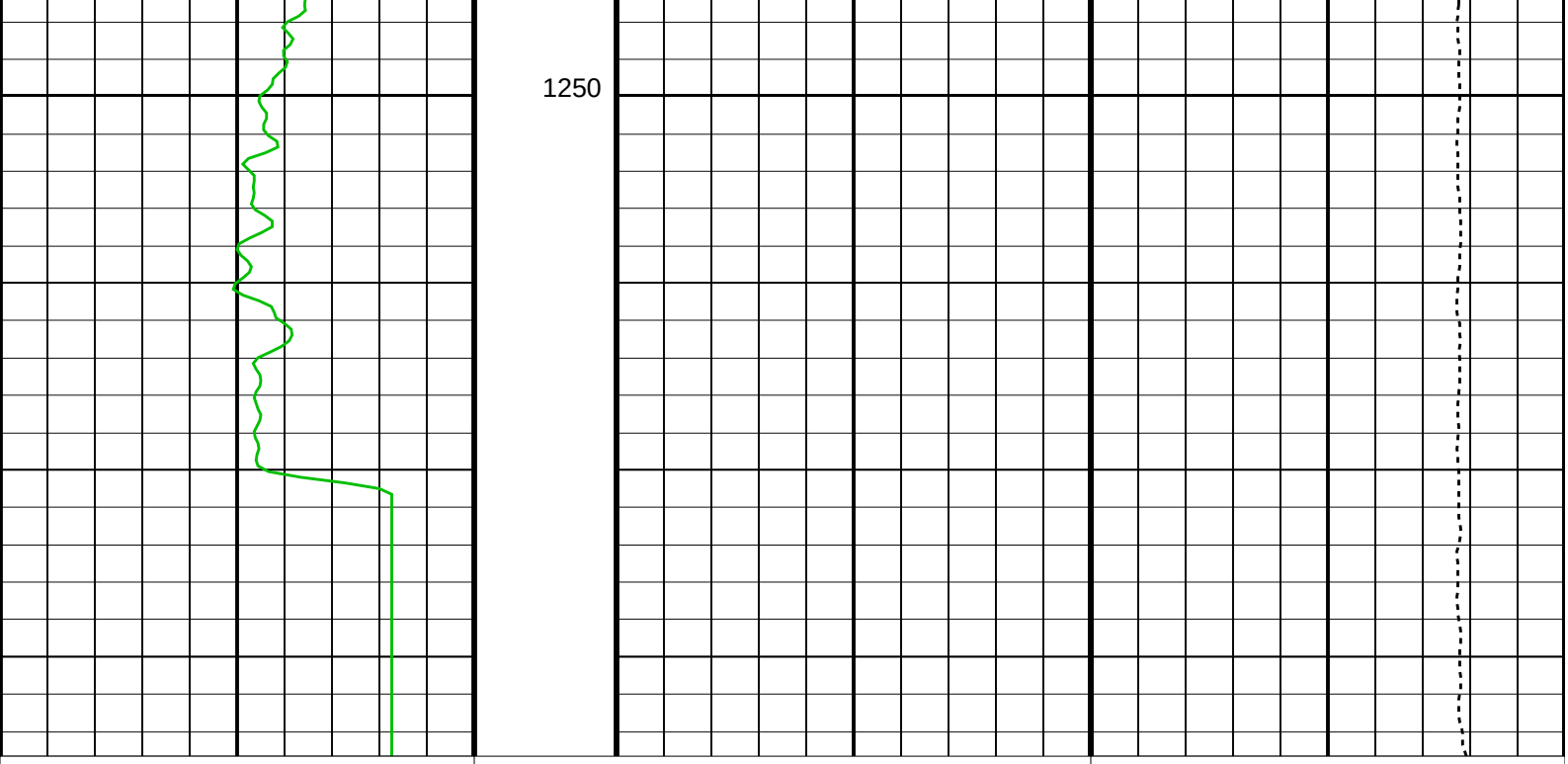
MCM

MRPS_1	14C0−302	MRHY_1	14C0−302
MRPC	14C0−302	SGT−L	14C0−302
TCC−BF	14C0−302		

Gamma Ray (GR)
0 (GAPI) 150

Tension (TENS)
10000 (LBF) 0





Parameters

DLIS Name	Description	Value
PDCO	MRPC: Power Cartridge Probe Depth Correction Offset	0 M

Format: CORRELATION Vertical Scale: 1:200 Graphics File Created: 29−Jun−2006 10:32

OP System Version: 14C0−302

MCM

MRPS_1	14C0−302	MRHY_1	14C0−302
MRPC	14C0−302	SGT−L	14C0−302
TCC−BF	14C0−302		

Output DLIS Files

DEFAULT MDT_042LUP FN:41 PRODUCER 29−Jun−2006 10:32

Schlumberger

CALIBRACION

MAXIS Field Log

MASTER CALIBRATION SUMMARY: Quartz Gauge (Single Probe Module 1)

Calibration Pressure Unit: PSIA

Calibration Temperature Unit: DEGC

Sensor Comment:	**:**
Sensor Serial Number:	**0190**
Sensor Calibration Date (DDMMYY):	**120202**
Pressure Model:	**P=F(Fc,Fb)**
Pressure Matrix:	**66**
Pressure CRC:	**C6C8**
Temperature Model:	**T=F(Fb,Fc)**
Temperature Matrix:	**66**
Temperature CRC:	**7262**
Clock Comment:	**:**
Clock Serial Number:	**620**
Clock Calibration Date (DDMMYY):	**170102**
Clock Model:	**Fclk=F(Fb'−Fc')**
Clock Matrix:	**16**
Clock CRC:	**FA79**
Fc Offset:	**+.514400000000E+07 Hz**
Fb Offset:	**+.558800000000E+07 Hz**
R Offset:	**+.470000000000E+06 Hz**

Pressure Coefficients

	Fb**0	Fb**1	Fb**2	Fb**3
Fc0**	+.571239452275E+0	−.181372313898E−0	−.118943880868E−0	−.986455100182E−1
Fc1**	−.107049306737E+0	−.128880131495E−0	−.911384689621E−1	+.484107088151E−1
Fc2**	+.112882605008E−0	+.498457703730E−1	+.902361683627E−1	0.0
Fc3**	+.258973918781E−1	0.0	0.0	0.0
Fc4**	**0.0**	**0.0**	**0.0**	**0.0**
Fc5**	0.0	0.0	0.0	0.0

	Fb**4	Fb**5
Fc0**	−.178003595327E−1	−.223534445461E−1
Fc1**	+.251413399109E−1	0.0
Fc2**	0.0	0.0
Fc3**	0.0	0.0
Fc4**	0.0	0.0
Fc5**	0.0	0.0

Temperature Coefficients

	Fc**0	Fc**1	Fc**2	Fc**3
Fb0**	+.942734590474E+0	−.234883671014E−0	+.668003692343E−0	+.163439577304E−1
Fb1**	−.620357278758E−0	+.206380305088E−0	+.171407223844E−1	0.0
Fb2**	−.344220341729E−0	+.420788225560E−1	+.220232791758E−1	0.0
Fb3**	−.319874149203E−1	+.103696594514E−1	0.0	0.0
Fb4**	−.228340967657E−1	+.238779228963E−2	0.0	0.0
Fb5**	+.381757283573E−2	0.0	0.0	0.0

	Fc**4	Fc**5
Fb0**	0.0	0.0

Fb**1	0.0	0.0
Fb**2	0.0	0.0
Fb**3	0.0	0.0
Fb**4	0.0	0.0
Fb**5	0.0	0.0

Clock Coefficients

F'b/F'c**0	+.517533948463E+0
F'b/F'c**1	+.646960296962E−0
F'b/F'c**2	+.607338552283E−0
F'b/F'c**3	−.665323443386E−1
F'b/F'c**4	−.492821797923E−1
F'b/F'c**5	+.493863972092E−2

COMPANIA:	**YPF S.A.**
POZO:	**YPF.Ch.EA−695**
CAMPO:	**EL ALBA**
PROVINCIA:	**CHUBUT**
PAIS:	**ARGENTINA**

PRIMERA LECTURA	1764 m
PROFUNDIDAD PERFIL	1801.3 m
PROF. PERFORADOR	1800 m
BUJE DE VASTAGO	666.45 m
MESA ROTATIVA	666.15 m
NIVEL TERRENO	661.9 m

Schlumberger

PROBADOR DE PRESIONES

ESCALA: 1/200

REPSOL YPF

PROGRAMA de TERMINACION

Pozo: EA- 695

UE CH-CS

MANANTIALES BEHR

FECHA: 05-jul-06

A. Montar equipo PI- XXX. Armar BOP.

B. Calibrar pozo hasta válvula en 1789,48 mbbp.

C. Si buena aislación punzar con cañón de 4" 4TPP las siguientes zonas:
(Ver CBL-VDL)

		Profundidad induccion		Ensayo	Prof Neutron	Carga
CIV	1	**1760,5/ 1762**	**2,5**	Individual		**32gr, 0°-180°**
CIV	2	**1741,5/ 1743**	**1,5**	Individual		**32gr, 0°-90°**
CIII	3	**1539,5/ 1542**	**1,5**	Individual		**32gr, 0°-90°**
C III	4	**1510,5/ 1512**	**1,5**	Individual		**32gr, 0°-90°**
C III	5	**1293/ 1295,5**	**2,5**	Individual		**32gr, 0°-90°**
C III	6	**1180/ 1181,5**	**1,5**	Individual		**32gr, 0°-90°**
C III	7	**1138/1139,5**	**1,5**	Individual		**32gr, 0°-90°**
C III	8	**1105,5/ 1107**	**1,5**	Individual		**32gr, 0°-90°**
		TOTAL:	**14**	m		

C.Ensayar las zonas punzadas desde fondo a superficie.
En las capas 1, 2, 3,4,5 y 8 probar admisión previo ensayo.

De las capas con aporte de fluido tomar muestras para su análisis; en caso de ser gas medir presiones y tomar muestra.

D. De acuerdo al resultado se indicará el programa a seguir
Prever Fractura

Diseño de Csg : 5 1/2"
Caños Marca: **Zapato: 1797,83 m**
Collar Diferencial: 1789,48m **Fondo: 1801,3m**

Preparado por:	
Biocca	

REPSOL YPF

PROGRAMA de TERMINACION

Pozo: EA

UE CH-CS

MANANTIALES BEHR

FECHA: /2006

Punzar con cañón de 4" 4TPP las siguientes zonas:

Profundidad induccion	Ensayo	Prof Neutron	Carga

Diseño de Csg : 5 1/2"

Caños Marca: **Zapato: m**

Collar Diferencial: m **Fondo: m**

Preparado por:	

COMPANIA: YPF S.A.

POZO: YPF.Ch.EA−695

CAMPO: EL ALBA

PROVINCIA: CHUBUT **PAIS:** ARGENTINA

Schlumberger

QUICKLOOK

ESCALA: 1/200

Campo: EL ALBA
Locacion: CAS
Pozo: YPF.Ch.EA−695
Compania: YPF S.A.

LOCACION

AIT−LDL−CNL−CAL
MDT

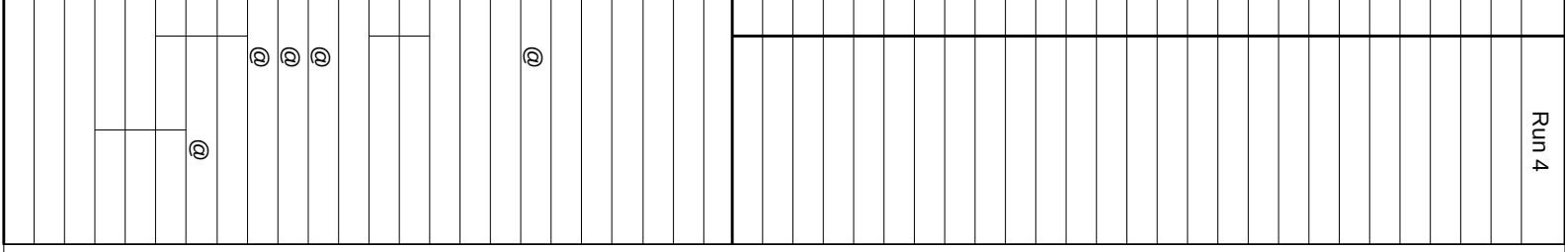
Elev.: B.V. 666.45 m
N. T. 661.9 m
M. R. 666.15 m

Ref. Permanente: NIVEL DEL TERRENO Elev.: 661.9 m
Reg. Medido Desde: NIVEL DEL TERRENO 0.0 m sobre nivel ref.
Perforacion Medida Desde: NIVEL DEL TERRENO

UWI: AR0100006830	Equipo PI−245	Longitud X: 4.949.913,10	Latitud Y: 2.584.937,96

Fecha		28−Jun−2006				Logging Date	
Corrida No.		1				Run Number	
Prof. Perforador		1800 m				Depth Driller	
Prof. Registro		1801.3 m				Logger Depth	
Primera Lectura		1798.9 m				Bottom Log Interval	
Ultima Lectura		349.7 m				Top Log Interval	
Fondo Tuberia Perforador		9.625 in @ 350.44 m		@		Casing Driller Size @ Depth	@
Fondo Tuberia Registro		349.7 m				Casing Logger	
Diametro Trepano		8.750 in				Bit Size	
Tipo De Lodo		PHPA				Type Fluid In Hole	
Densidad	Viscosidad	1.17 g/cm3	55 s			MUD Density	Viscosity
Perdidas	PH	6.5 cm3	8.5			MUD Fluid Loss	PH
Fuente Muestra De Lodo		PILETA				Source Of Sample	
RM @ Temp.		4.690 ohm.m @ 7 degC		@		RM @ Measured Temperature	@
RMF @ Temp.		3.880 ohm.m @ 7 degC		@		RMF @ Measured Temperature	@
RMC @ Temp.		6.700 ohm.m @ 7 degC		@		RMC @ Measured Temperature	@
Fuente: RMF	RMC	PRENSA	PRENSA			Source RMF	RMC
RM @ T. Fdo.	RMF @ T. Fdo.	1.472 @ 70	1.227 @ 70	@	@	RM @ MRT	RMF @ MRT @ @ @
Temp. Maxima Medida		70 degC				Maximum Recorded Temperatures	
Circulacion Final	Hora	28−Jun−2006	12:15			Circulation Stopped	Time
Registro Fondo	Hora	28−Jun−2006	23:00			Logger On Bottom	Time
Unidad No.	Locacion	8116	ARCS			Unit Number	Location
Registrado por:		A. AMID / D. ICHAZU				Recorded By	
Testigo		ANIBAL SILVEIRA				Witnessed By	

	Run 1	Run 2	Run 3



DEPTH SUMMARY LISTING

Date Created: 30−JUN−2006 10:19:37

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW−B	Type:	CMTD−B/A	Type:	7−46P
Serial Number:	4858	Serial Number:	1689	Serial Number:	77353
Calibration Date:	12−Nov−2004	Calibration Date:	14−Feb−2006	Length:	3000.15 M
Calibrator Serial Number:	31	Calibrator Serial Number:	1028	Conveyance Method:	Wireline
Calibration Cable Type:	7−46P	Calibration Gain:	1.28	Rig Type:	LAND
Wheel Correction 1:	−4	Calibration Offset:	41.00		
Wheel Correction 2:	−4				

Depth Control Parameters

Log Sequence:	First Log In the Well
Rig Up Length At Surface:	71.00 M
Rig Up Length At Bottom:	71.00 M
Rig Up Length Correction:	0.00 M
Stretch Correction:	2.10 M
Tool Zero Check At Surface:	0.00 M

Depth Control Remarks

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

OTROS SERVICIOS # 1		OTROS SERVICIOS # 2	
OS1:	AIT−LDL−CNL−CAL	OS1:	
OS2:	MDT	OS2:	
OS3:		OS3:	
OS4:		OS4:	
OS5:	PI−245	OS5:	

OBSERVACIONES: CORRIDA # 1	OBSERVACIONES: CORRIDA # 2
1. Primera carrera en el pozo y perfil de referencia de profundidad.	
2. Esquema del pozo segun datos del perforador.	
3. Herramienta corrida segun diagrama.	
4. AITH corrida descentralizada utilizando standoffs de 1,5".	
5. Maxima desviacion del pozo segun datos del perforador = 1 deg	
6. Maxima temperatura registrada 70 degC, tomada con termometro en punta de herramienta.	
7. Datos adicionales del lodo: Cl = 350 ppm. Ca = 80 ppm.	
8. Ultima circulacion termino el dia 28−Jun−06 a las 12:15 hs y duro 1 hora.	

9. FPHI = DPHI, FNUM = 0,81 y FEXP = 2 utilizados para el calculo de RWA.

10. LDL y CNL corridos hasta 900 m a pedido del cliente.

CORRIDA #1			CORRIDA #2		
ORDEN DE SERVICIO:			ORDEN DE SERVICIO:		
VERSION DEL PROGRAMA:	14C0−302		VERSION DEL PROGRAMA:		
NIVEL DEL LODO:	0 m		NIVEL DEL LODO:		
INTERVALO REGISTRADO	COMIENZO	FINAL	INTERVALO REGISTRADO	COMIENZO	FINAL

DESCRIPCION DEL EQUIPO

CORRIDA # 1

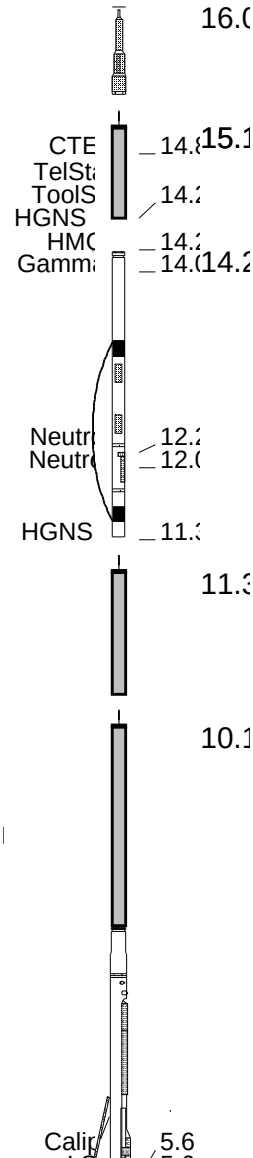
CORRIDA # 2

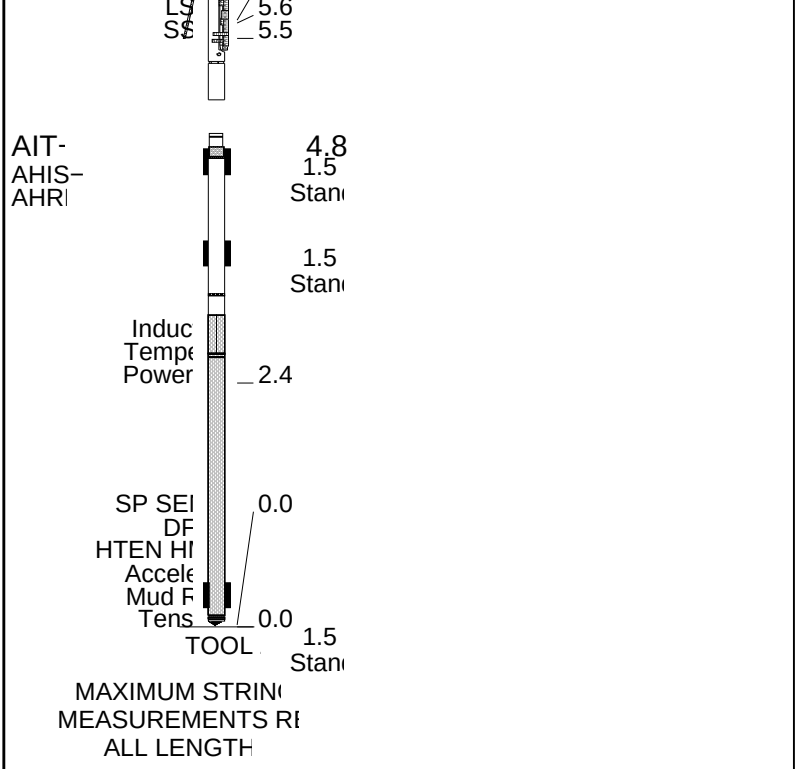
SURFACE I

GSR·
NCT
CNB·
NCS

WITM (

DOWNHOLE





YPF.Ch.EA

Schlumbe

PI–24

Altura Mesa: 4

Nivel Terr

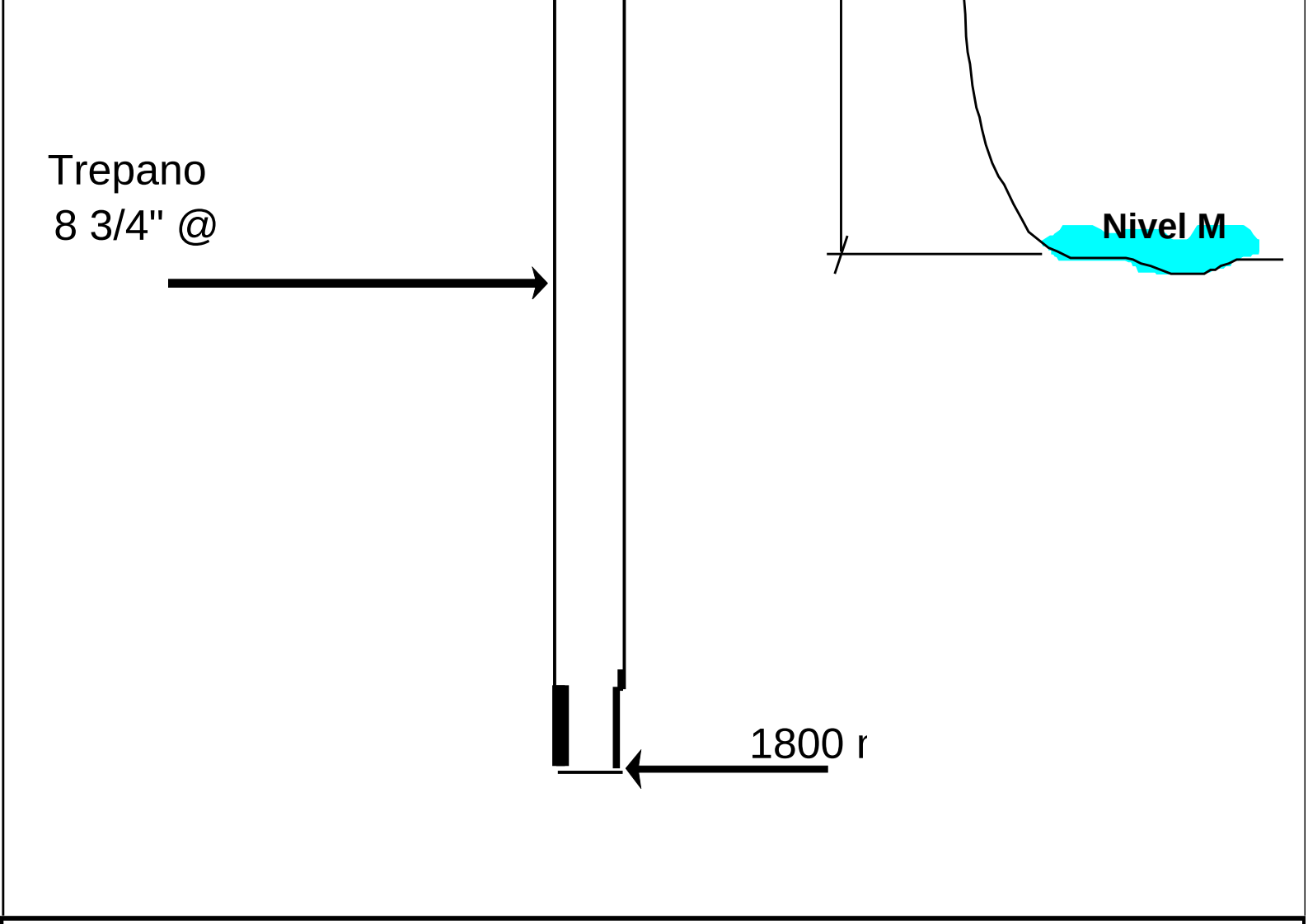
Nivel Refere

Casing 9 5

32.3 Lb/p

Zapato @ 350

Cota: 661.9



Schlumberger

TRAMO PRINCIPAL

MAXIS Field Log

Input DLIS Files

DEFAULT	AIT_LDL_TLD_MCFL_025LUP	FN:24	PRODUCER	30−Jun−2006 08:23	1806.9 M	291.0 M

Output DLIS Files

DEFAULT	AIT_LDL_TLD_MCFL_089PUP	FN:42	PRODUCER	30−Jun−2006 18:52	1807.0 M	345.0 M
CUST1	AIT_LDL_TLD_MCFL_089PUC	FN:43	CUSTOMER	30−Jun−2006 18:52	1807.0 M	345.0 M
CUST2	AIT_LDL_TLD_MCFL_089PUC	FN:44	CUSTOMER	30−Jun−2006 18:52	1807.0 M	345.0 M

OP System Version: 14C0−302

MCM

AIT−H	14C0−302	LDT−D	14C0−302
DTA−A	14C0−302	HILTB−FTB	14C0−302
DTC−H	14C0−302		

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
SPDR	0 MV/M	0 MV/M	1807.0 18:52:21
	0.03921 MV/M	0 MV/M	1300.0 18:53:18
	−0.25 MV/M	0.03921 MV/M	1044.9 18:53:47
	0 MV/M	−0.25 MV/M	1024.9 18:53:49

PIP SUMMARY

Time Mark Every 60 S

REVOQUE From CALI to BS

Tension (TENS) (LBF) 0 1000

CAVERNA From BS to CALI

Caliper (CALI) 6 (IN) 16

Bit Size (BS) 6 (IN) 16

SP (SP) −80 (MV) 20

PhotoElectric Factor (PEF) 0 (---- 5

AIT−H 90 Inch Investigation (AHT90) 1 (OHMM) 100

AIT−H 60 Inch Investigation (AHT60) 1 (OHMM) 100

AIT−H 30 Inch Investigation (AHT30) 1 (OHMM) 100

AIT−H 20 Inch Investigation (AHT20) 1 (OHMM) 100

AIT−H 10 Inch Investigation (AHT10) 1 (OHMM) 100

Gas From DPHI to TNPH

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

Density Porosity (DPHI) 0.4 (V/V) 0

Invasion From AHTD2 to F4

RWA (RWA) 0 (OHMM) 2

AHF90/AHF10 (LC02) 0 (---- 2

AHT90/AHT10 (LC01) 0 (---- 2

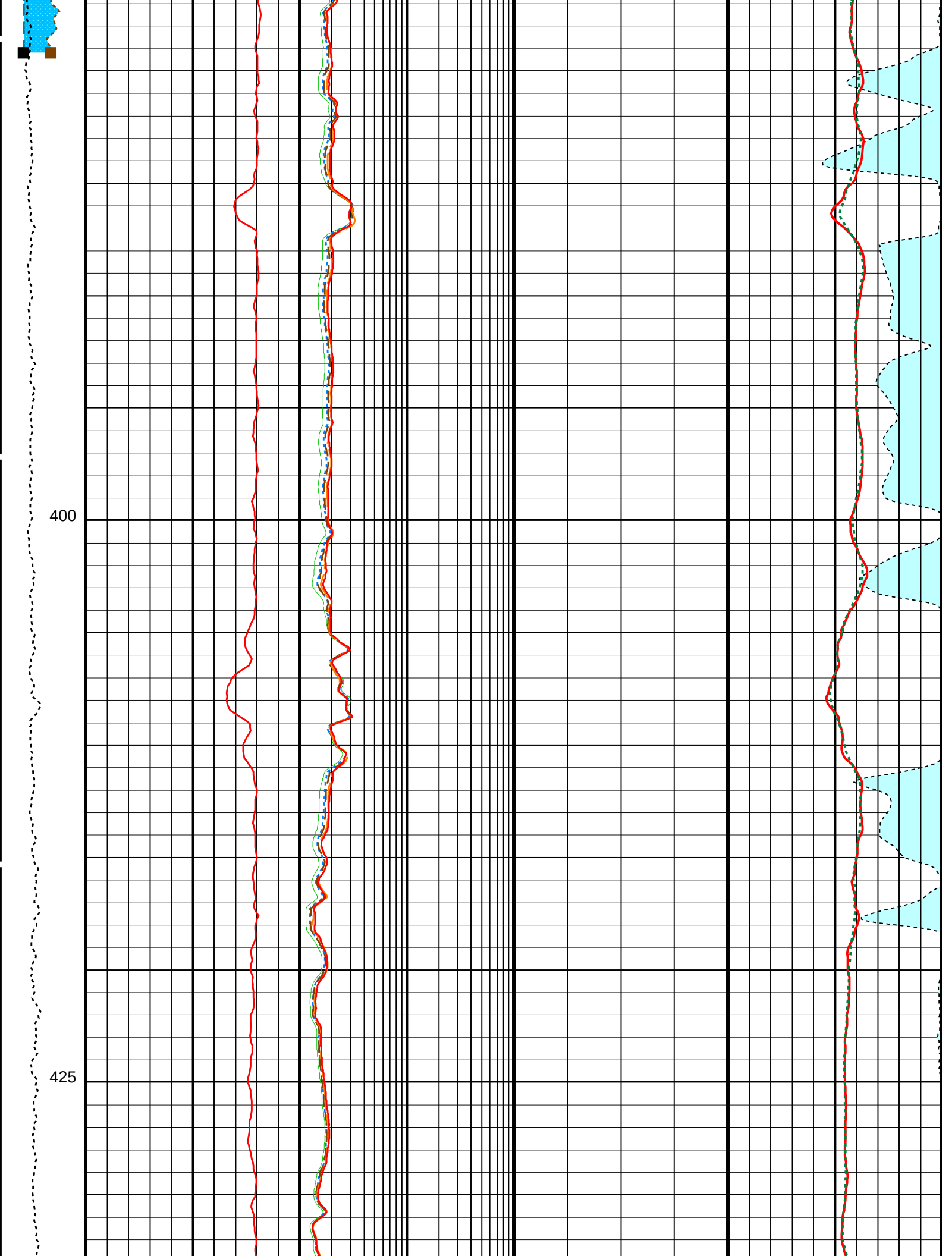
AIT−H Outer Invasion Diameter (AHTD2) 210 (IN) 10

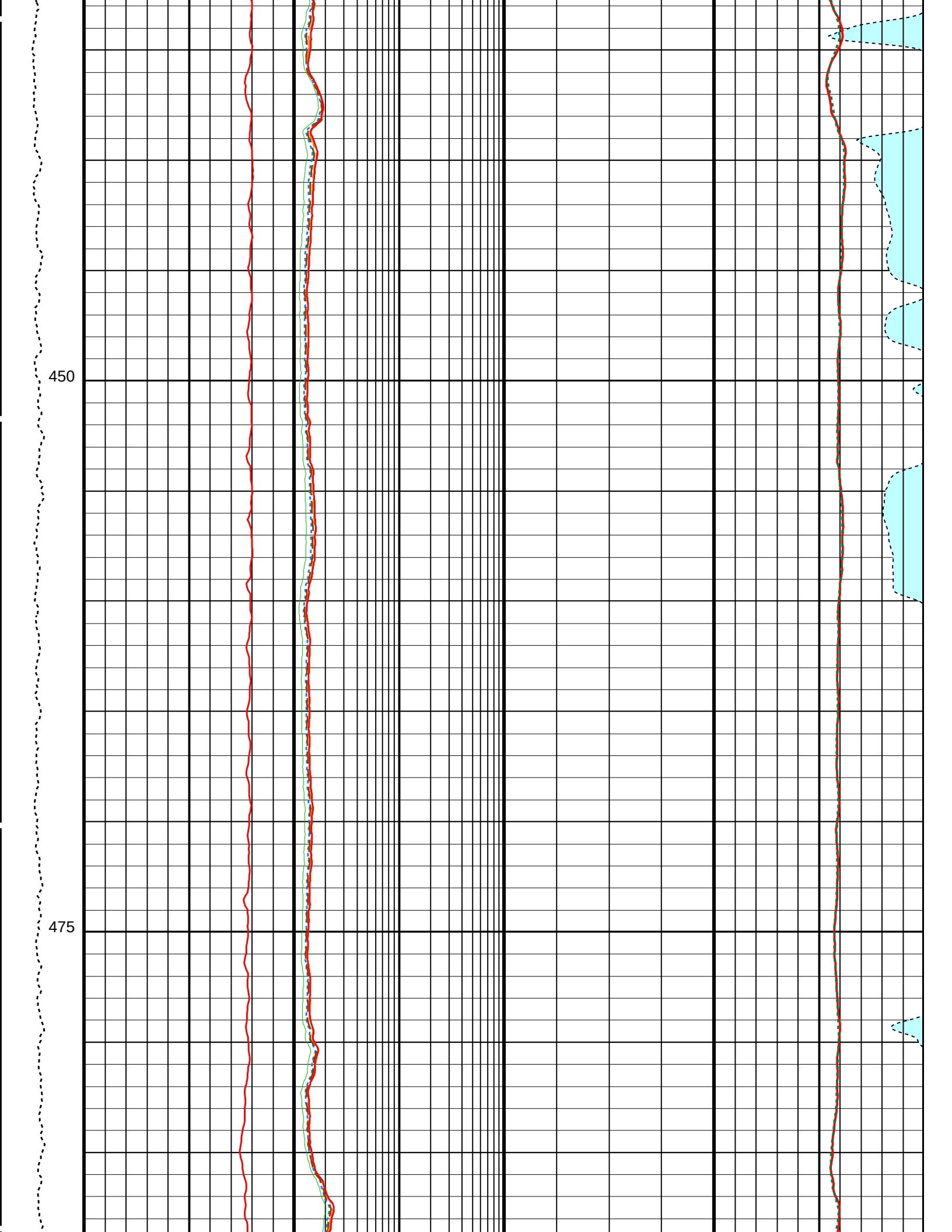
ZAPATO @ 349.7 m

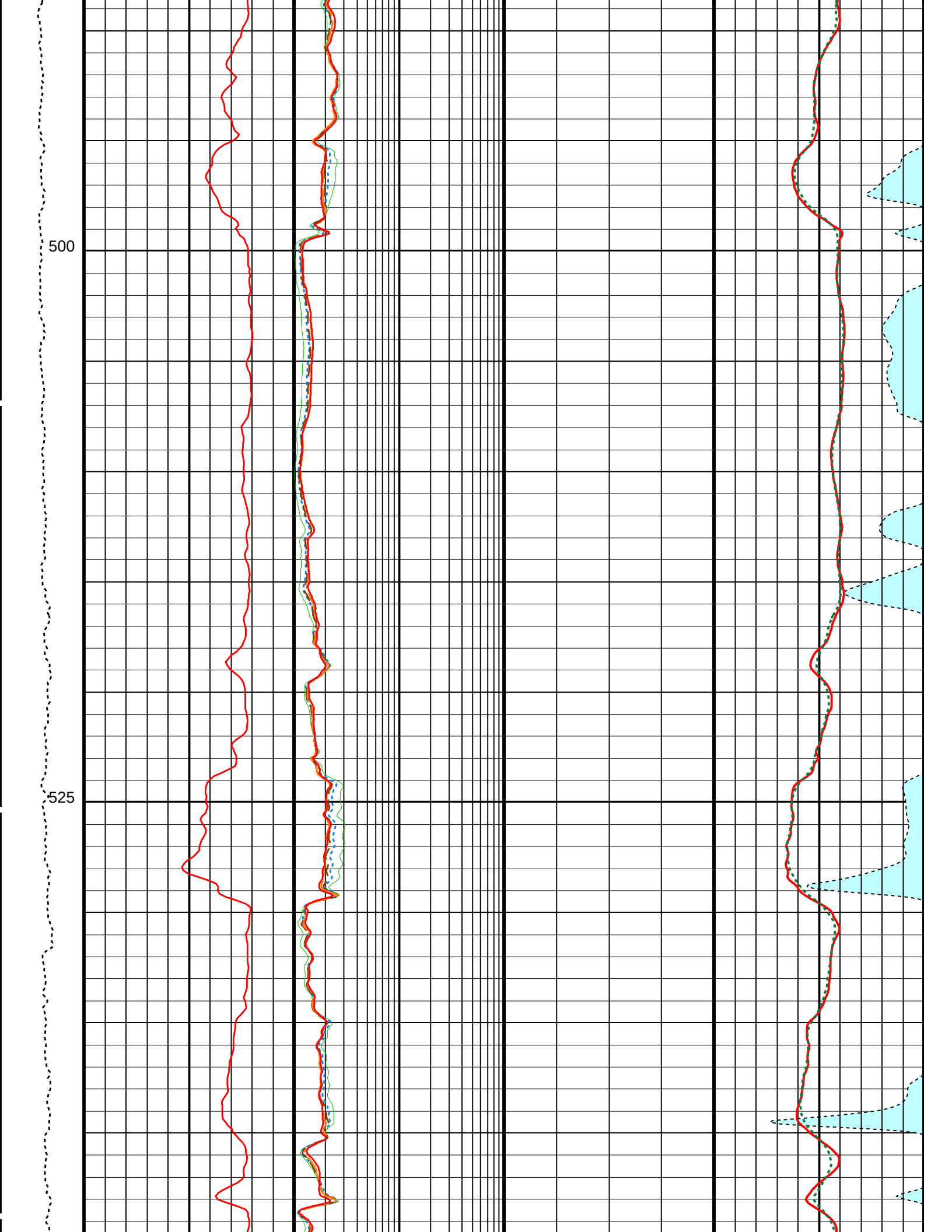
Ultimas lecturas

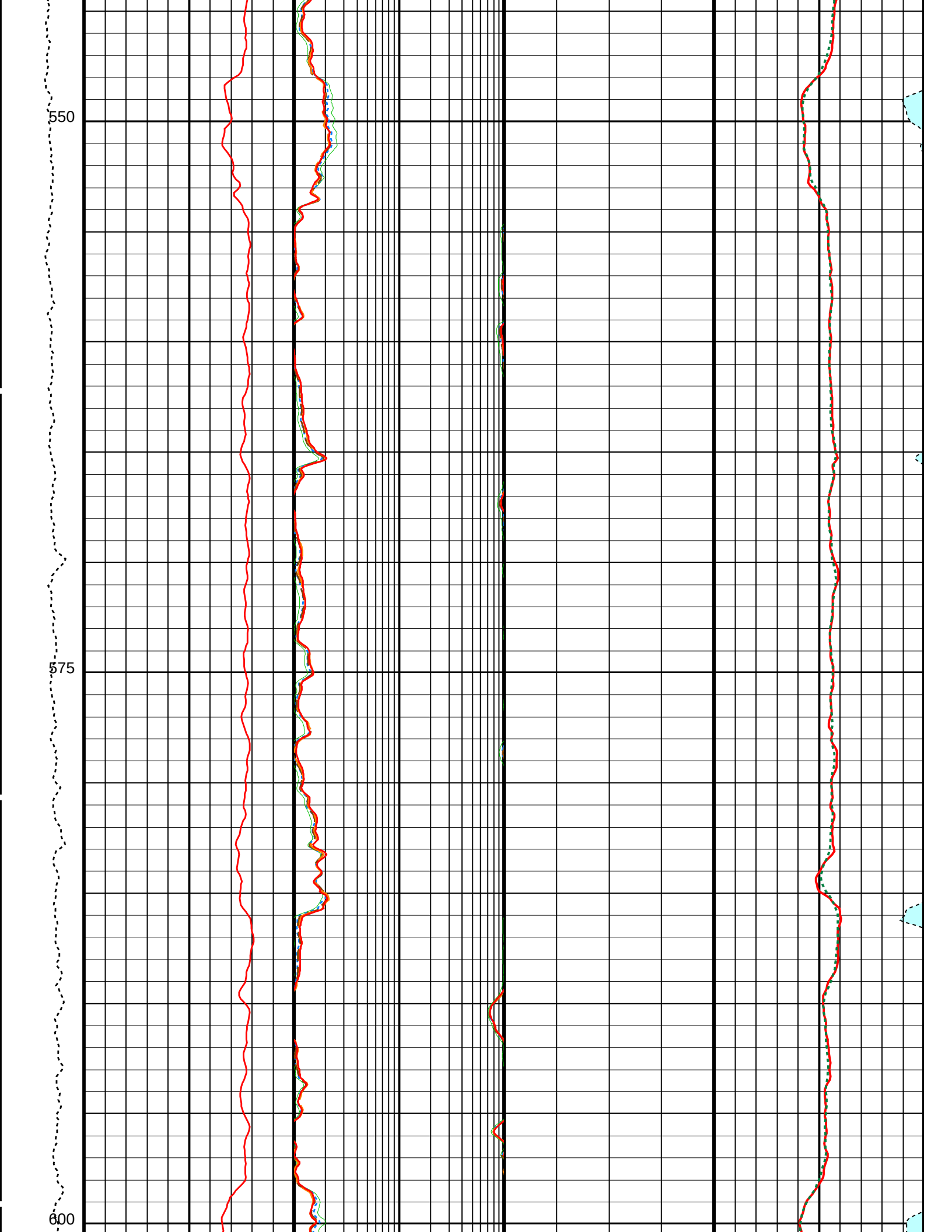
350

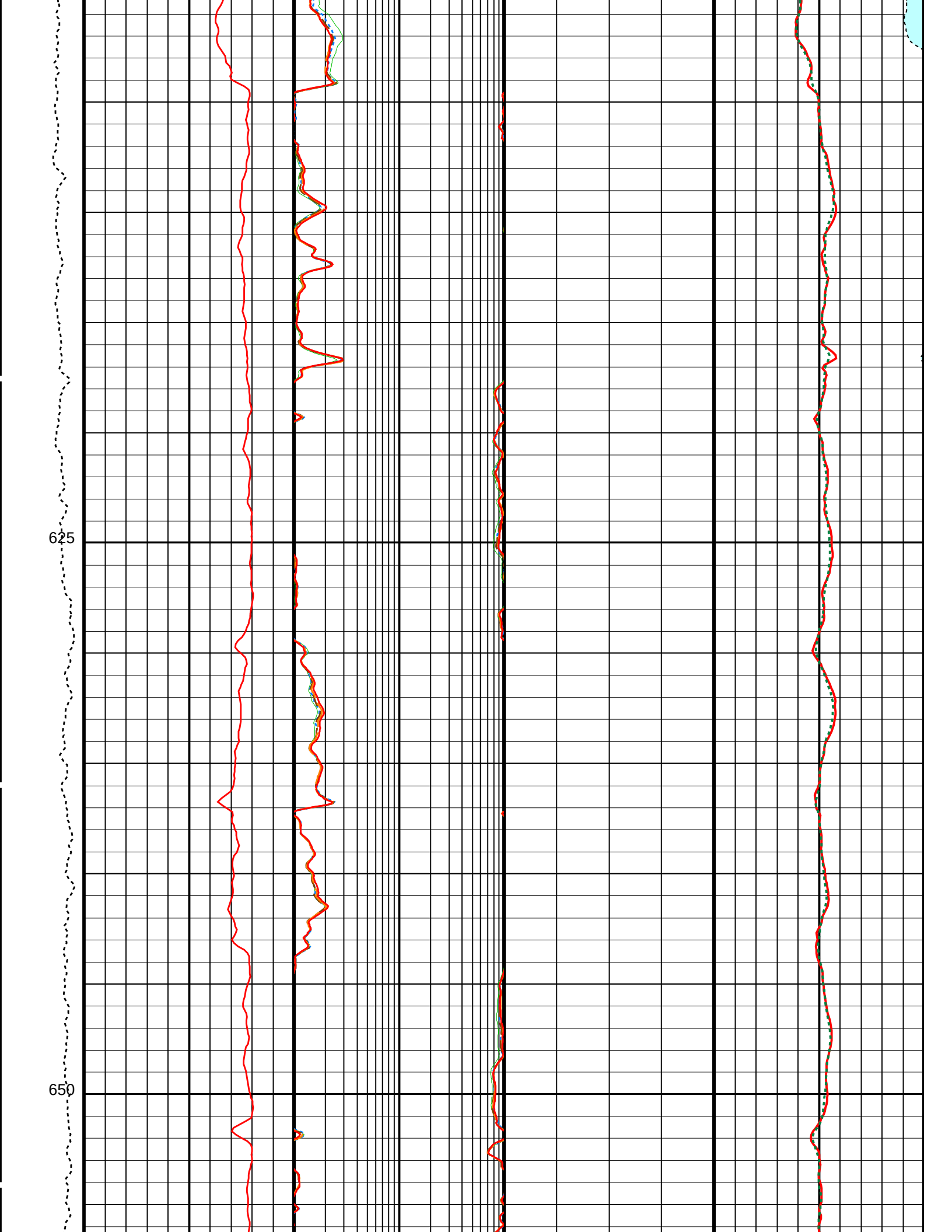
375

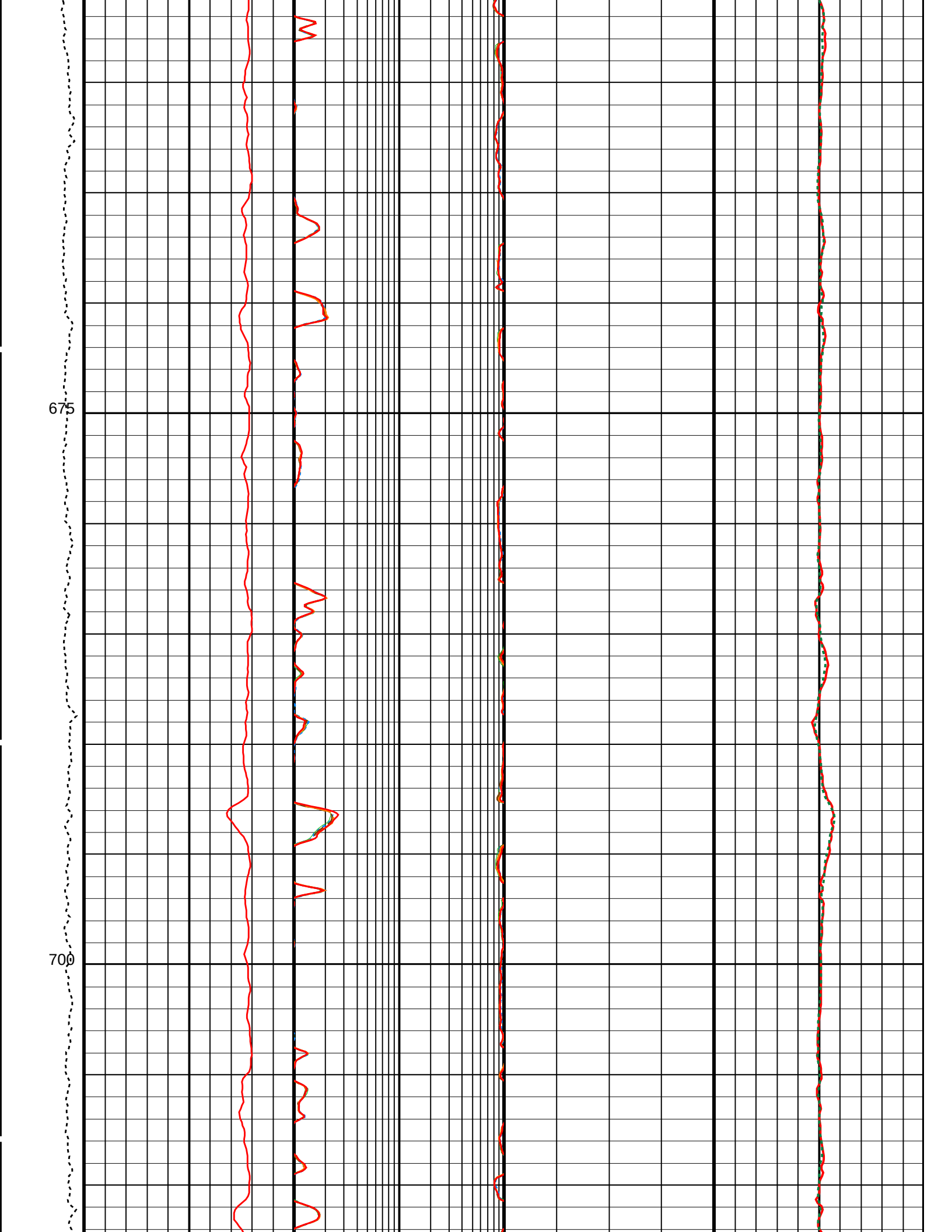

400
425

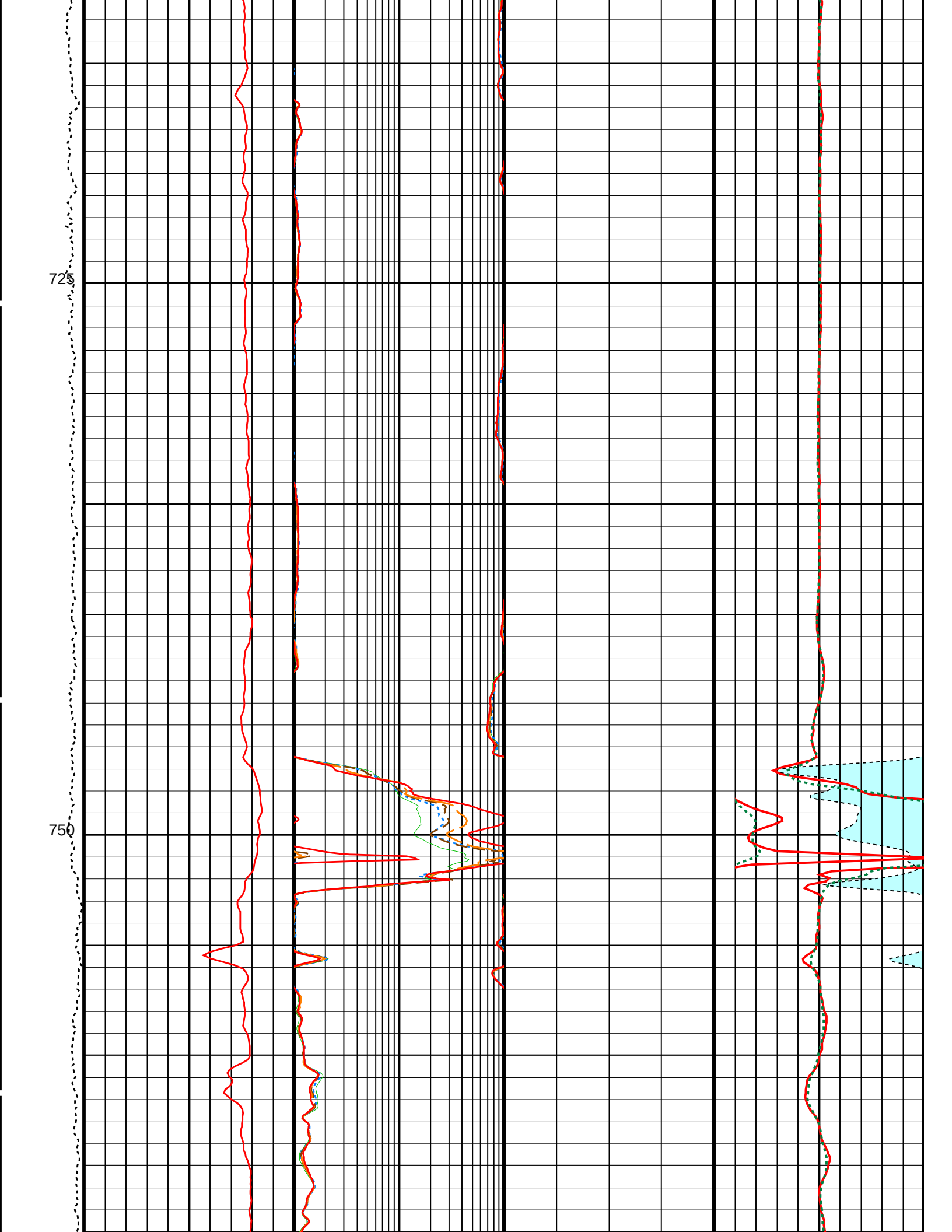

450
475

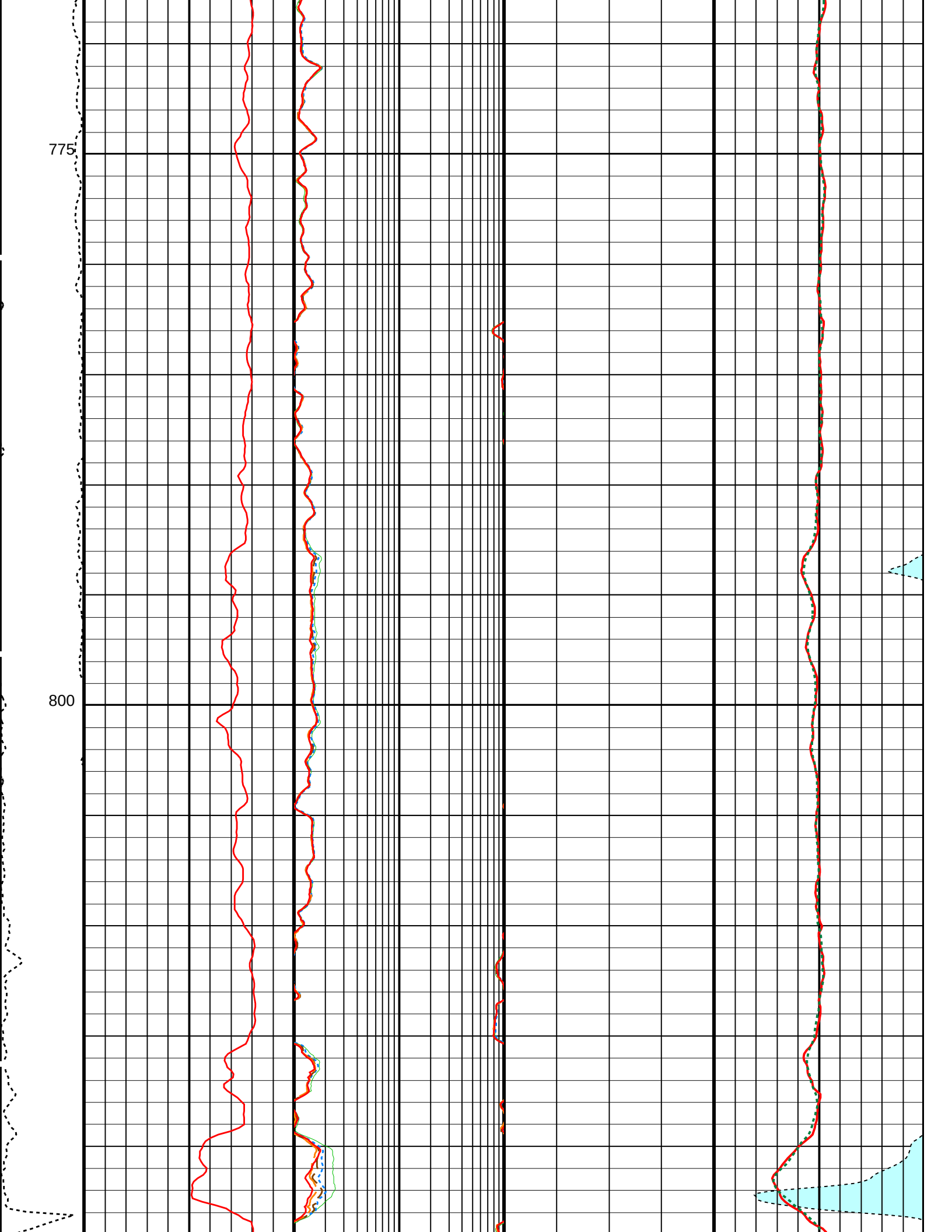

500
525

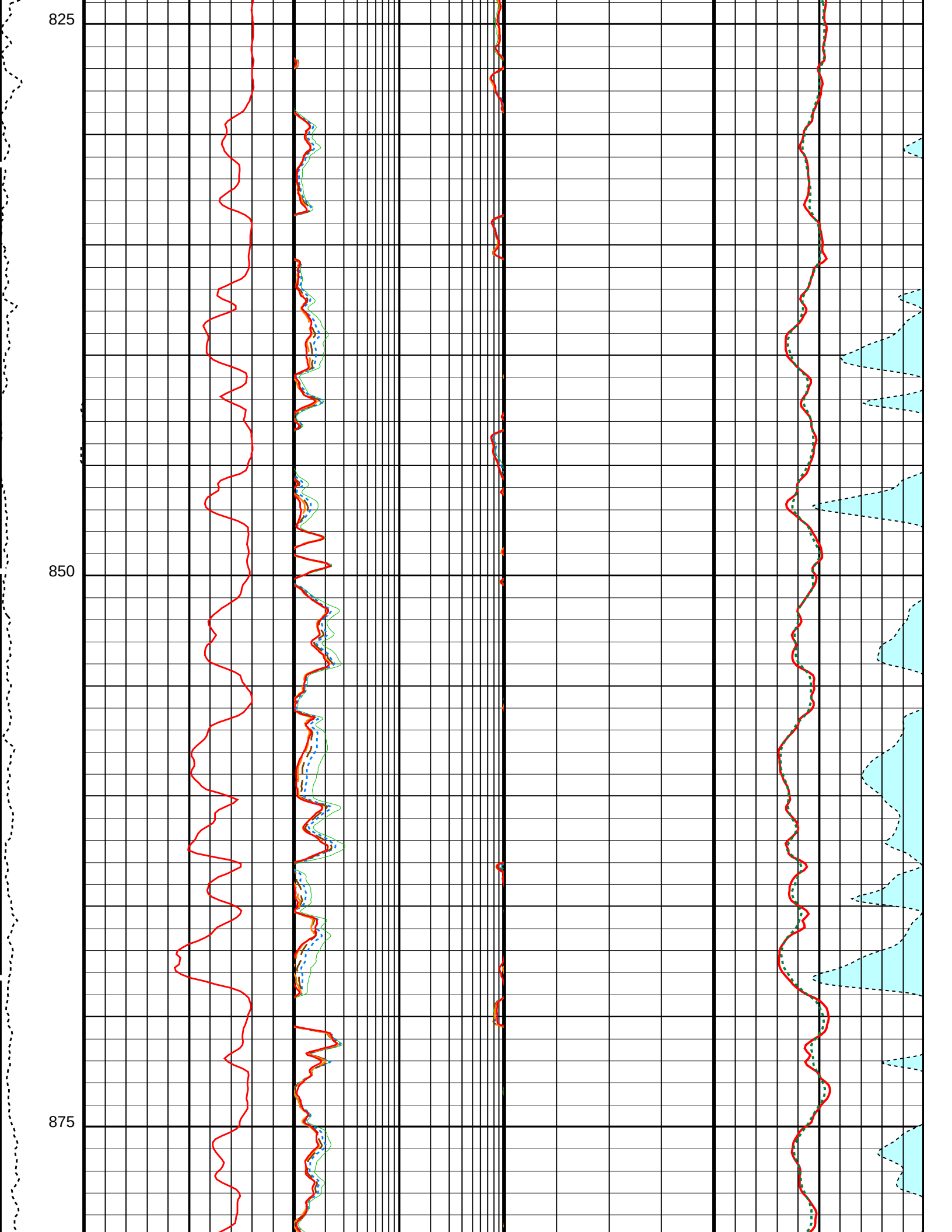

550
575
600

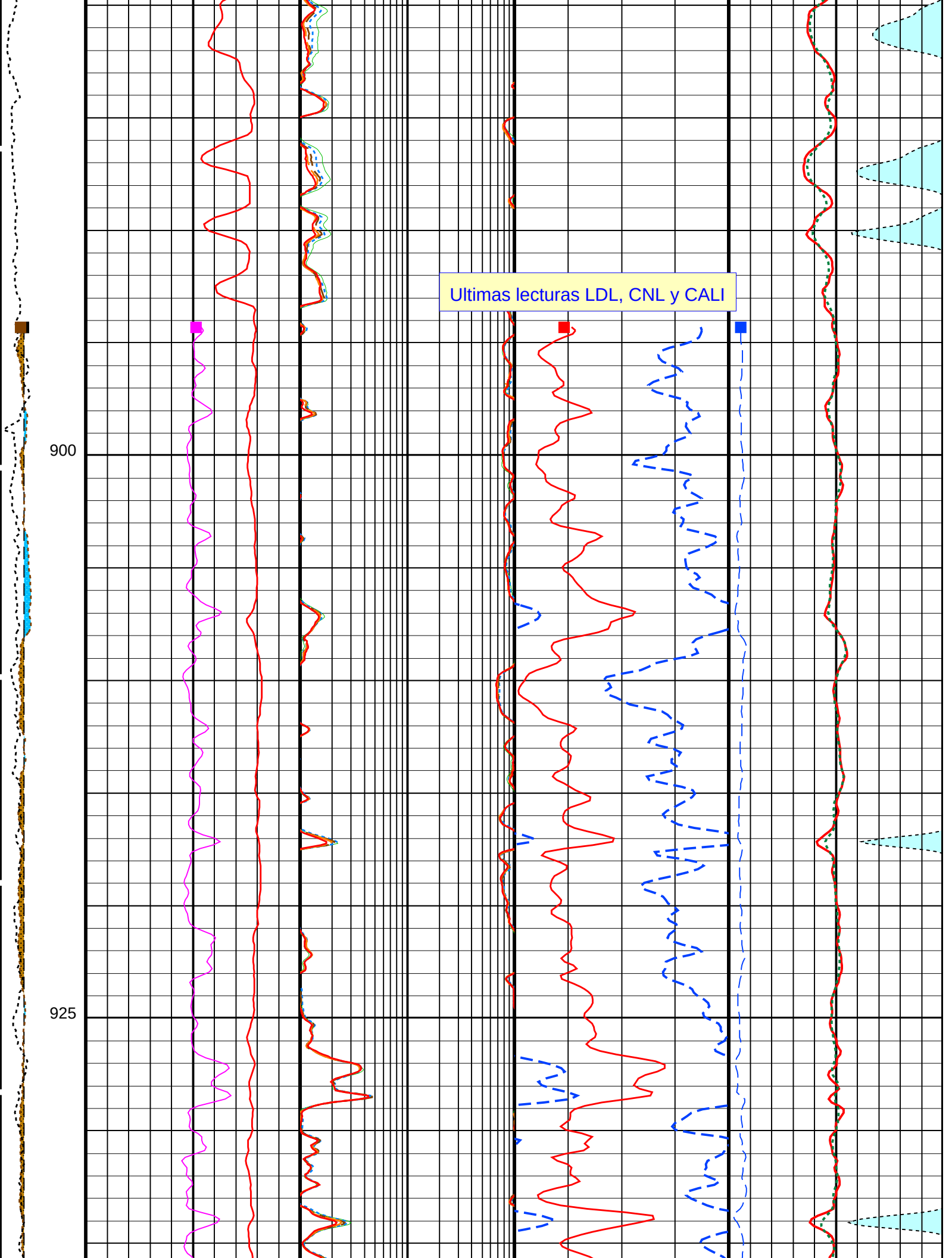

625
650

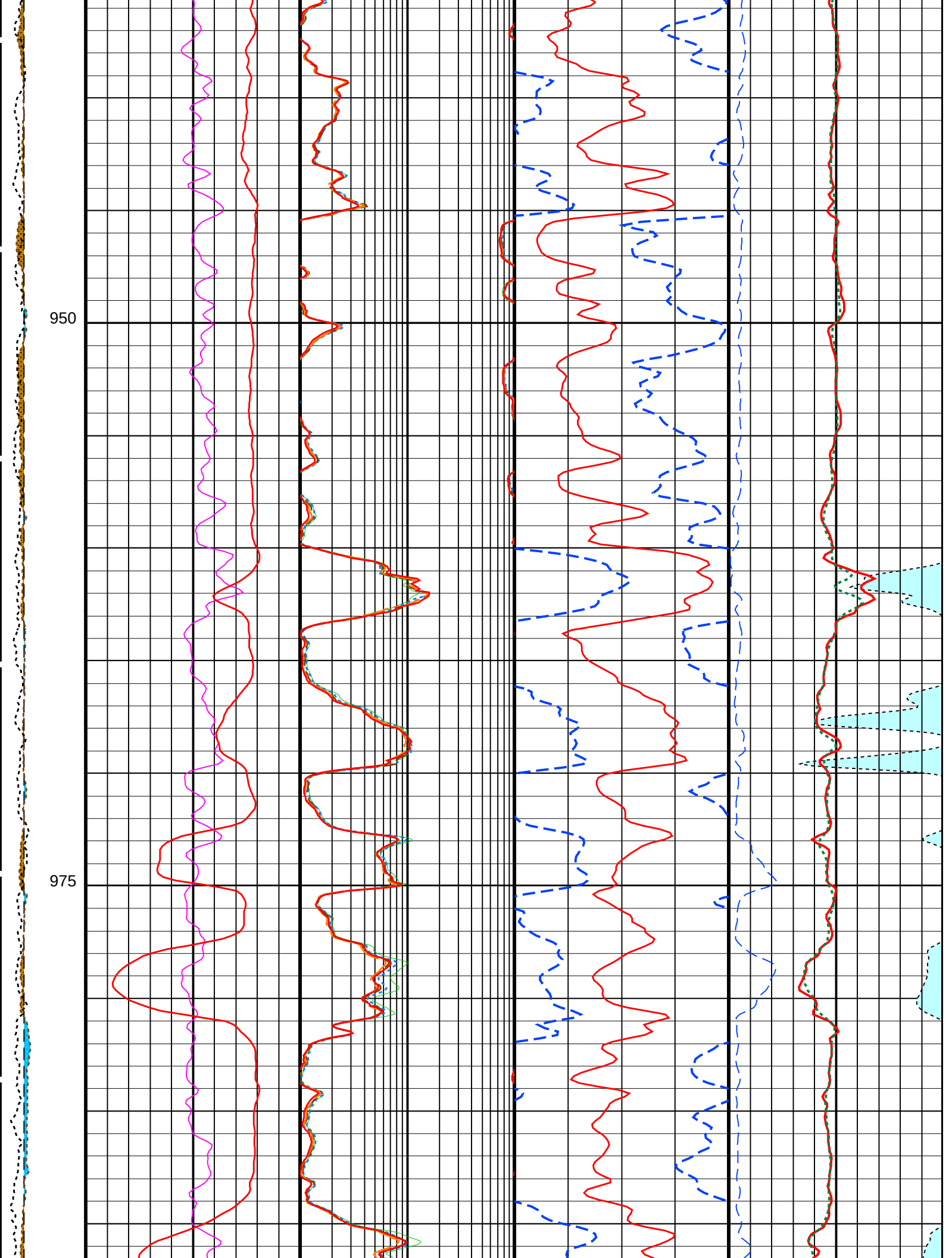

675
700

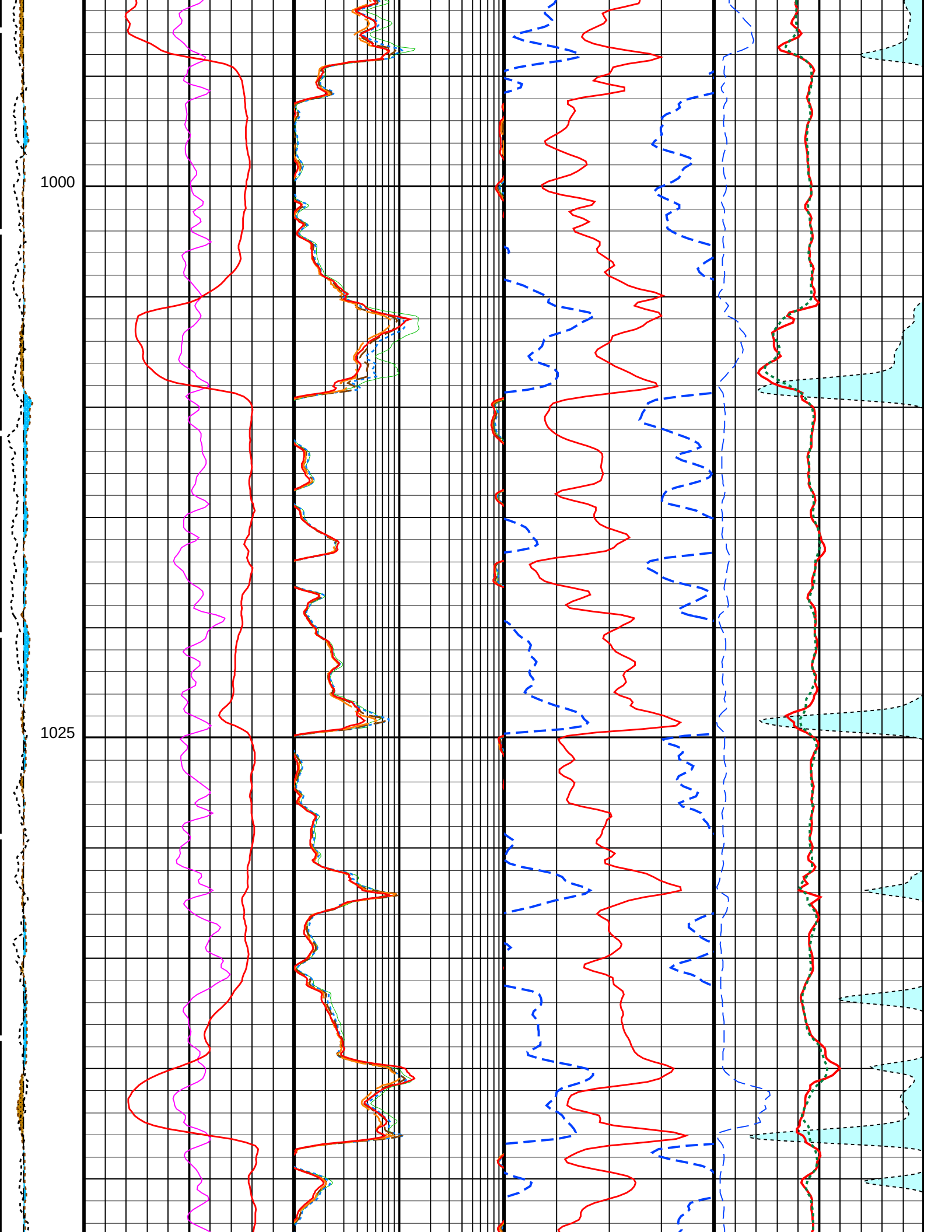

725
750

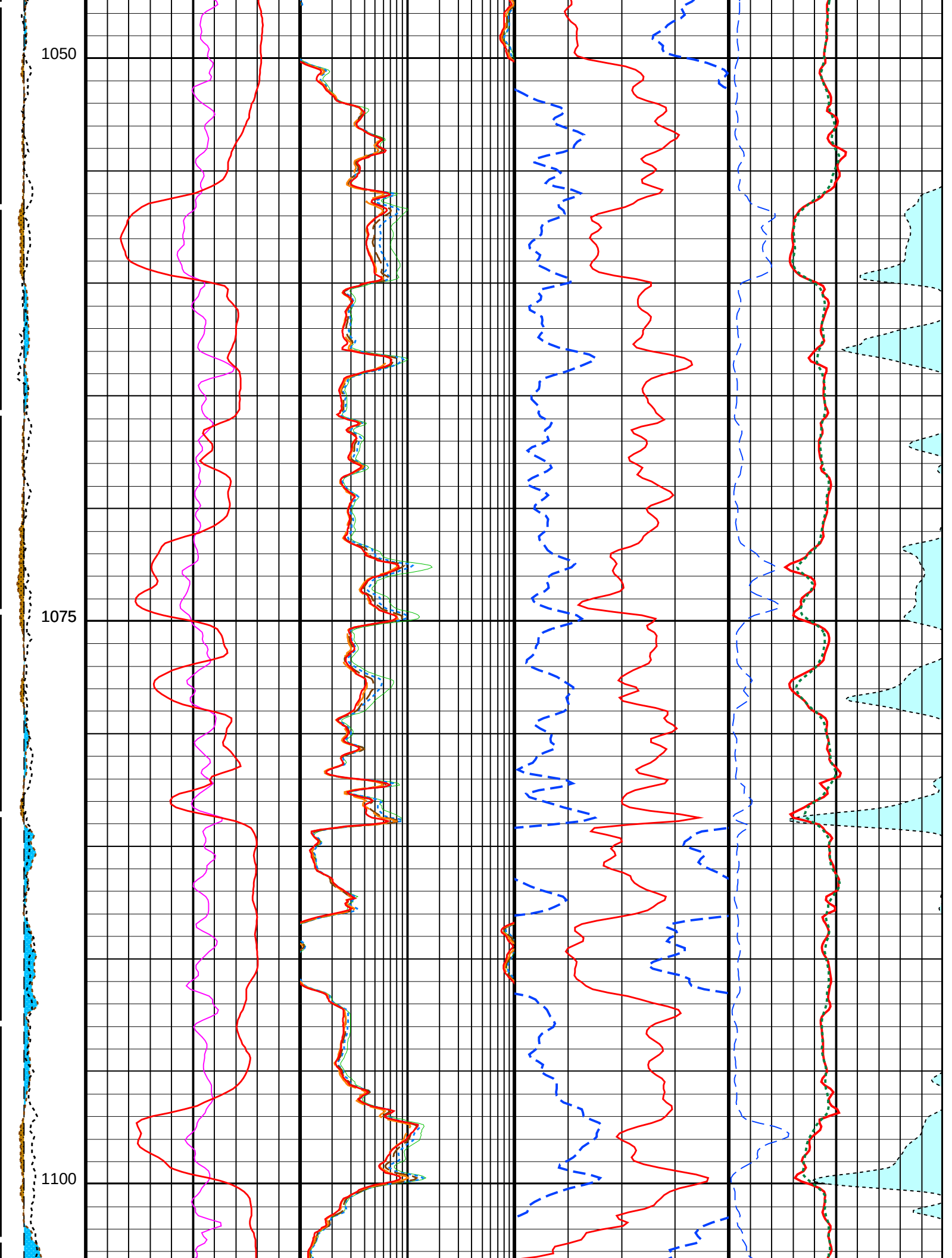

775
800

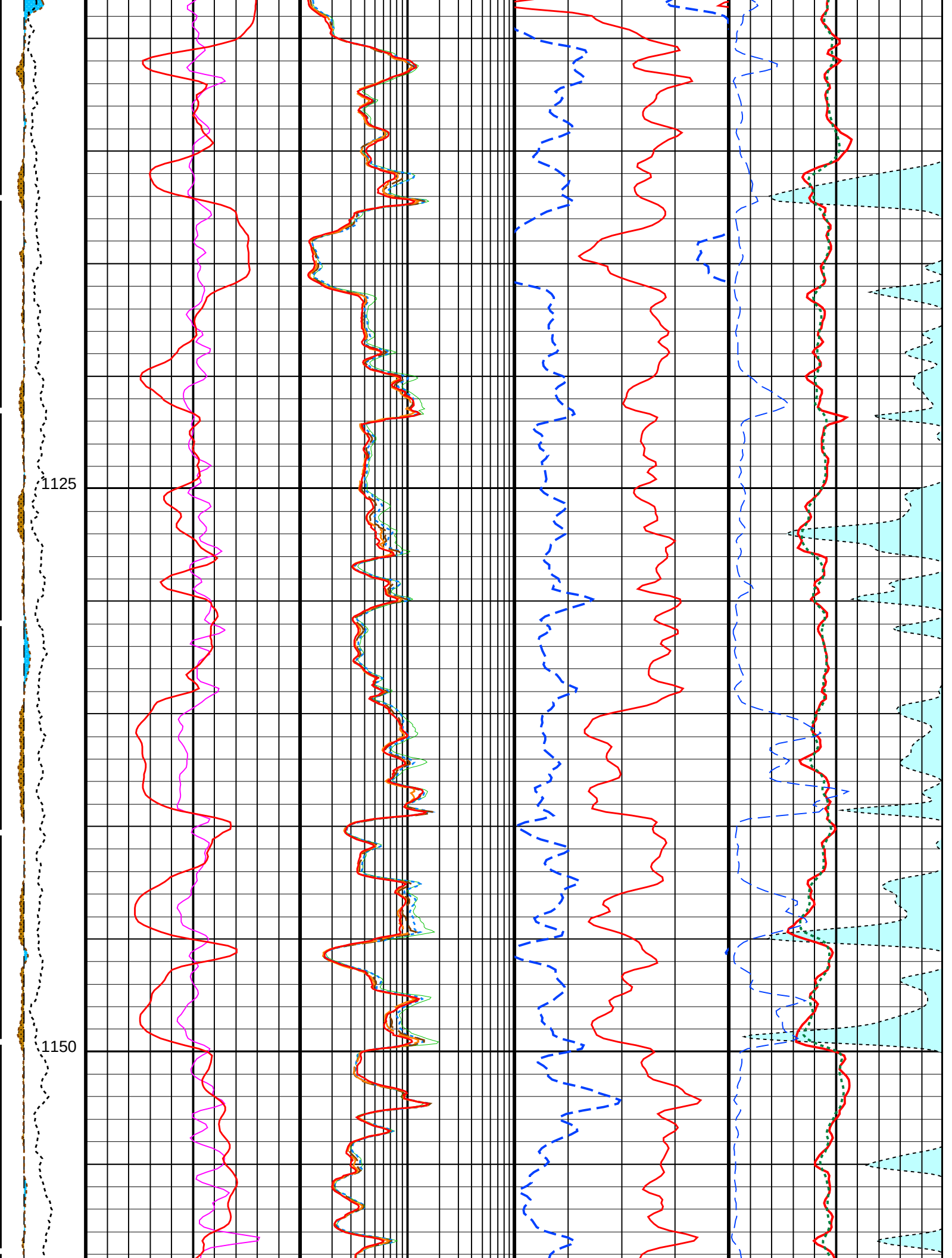

825
850
875


Ultimas lecturas LDL, CNL y CALI
900
925


950
975


1000
1025


1050
1075
1100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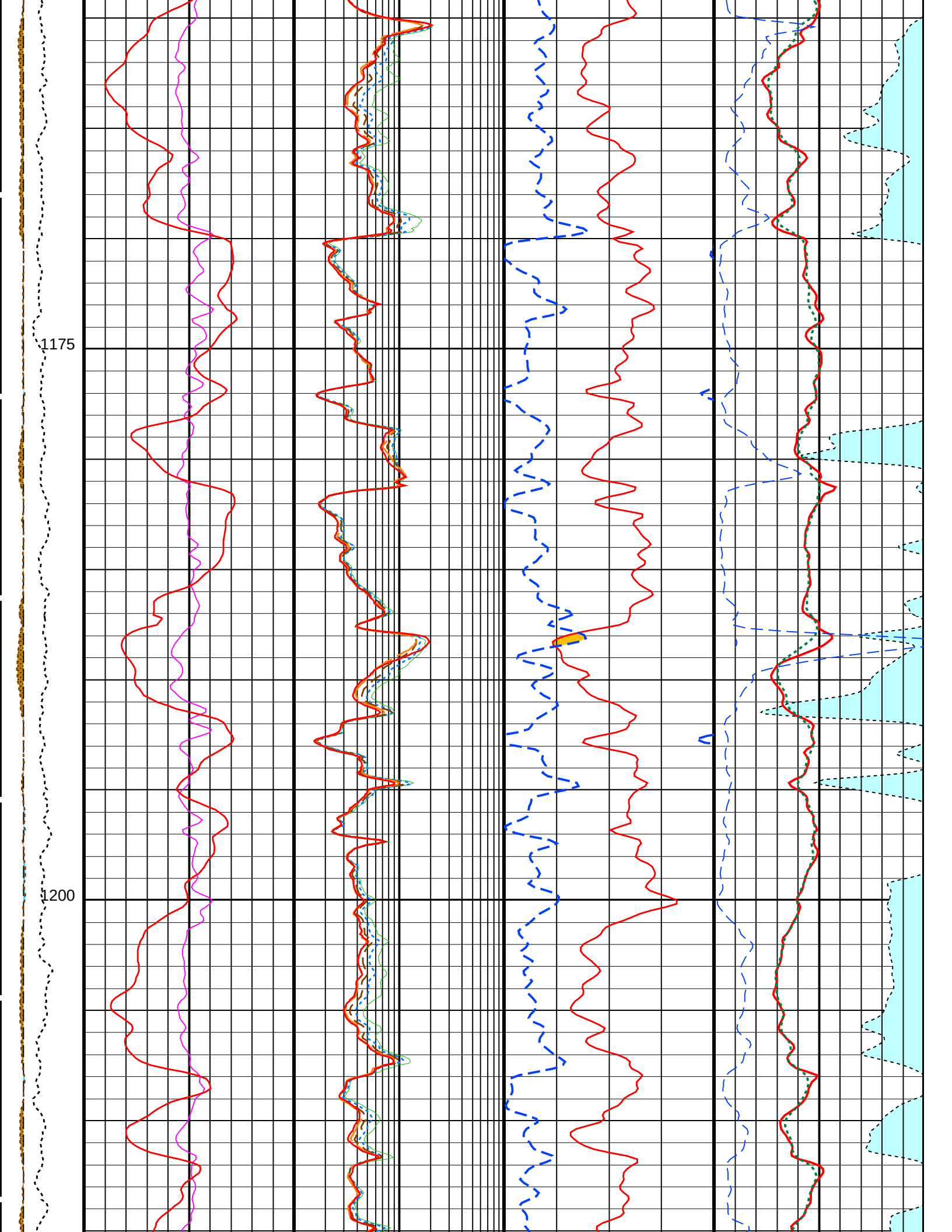
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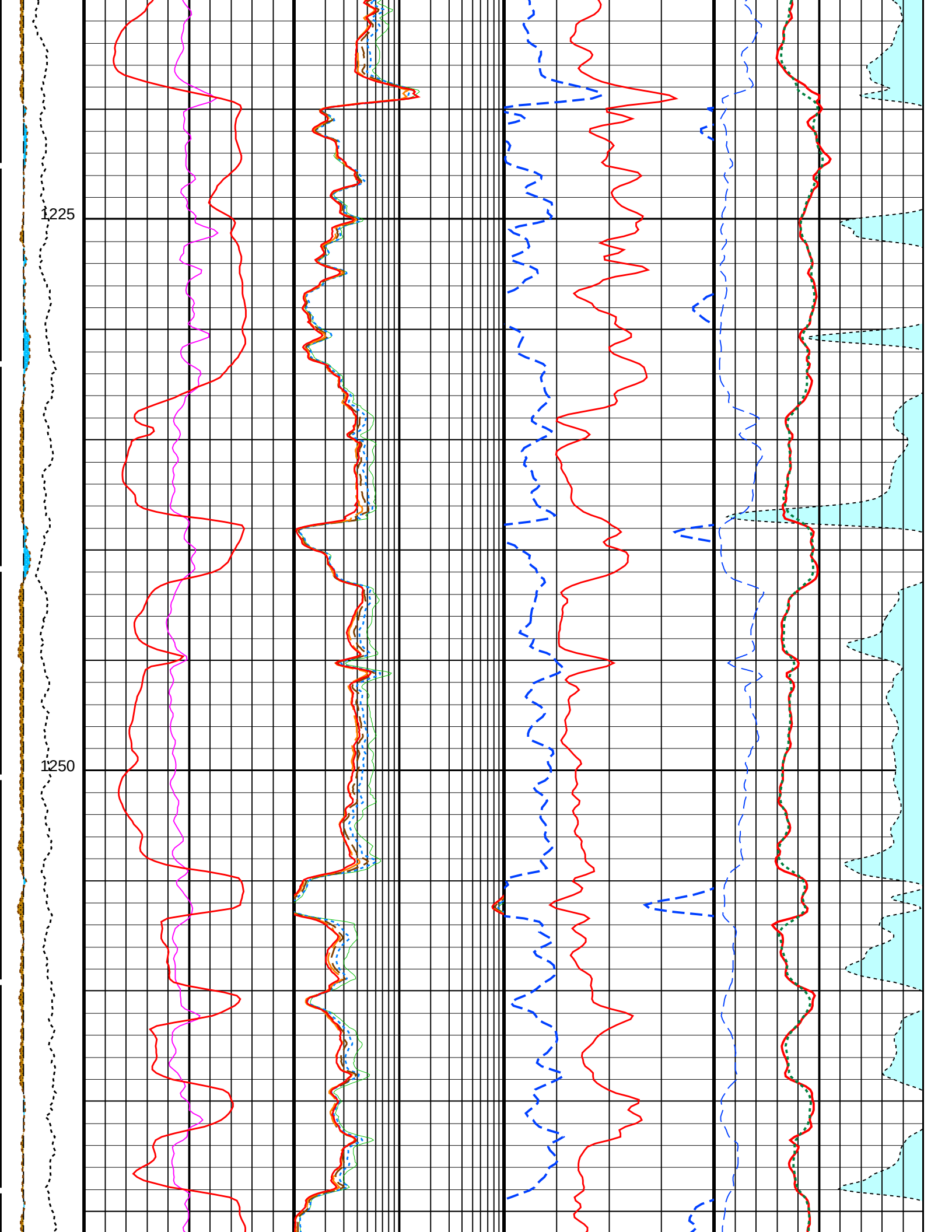
1200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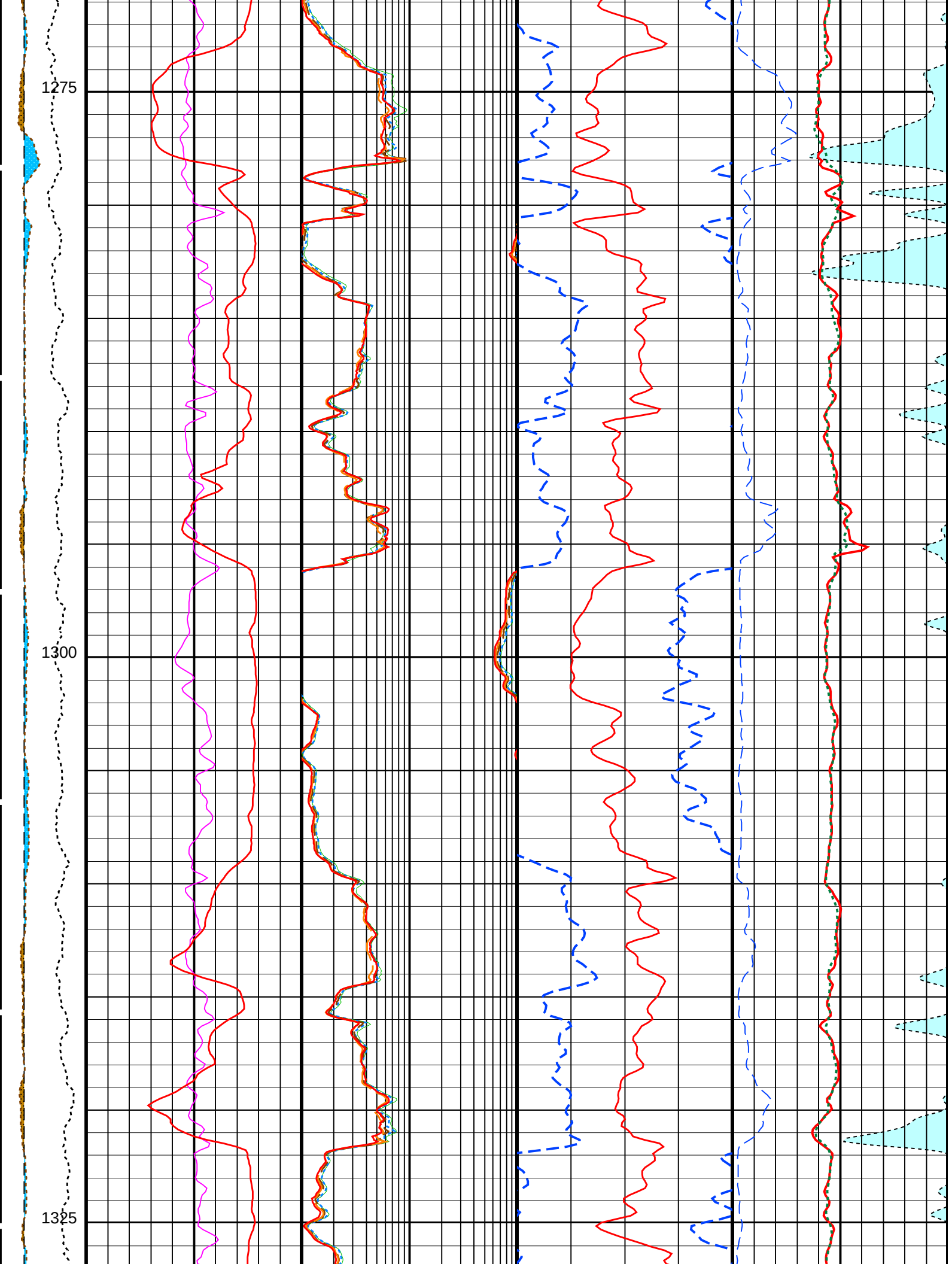
1250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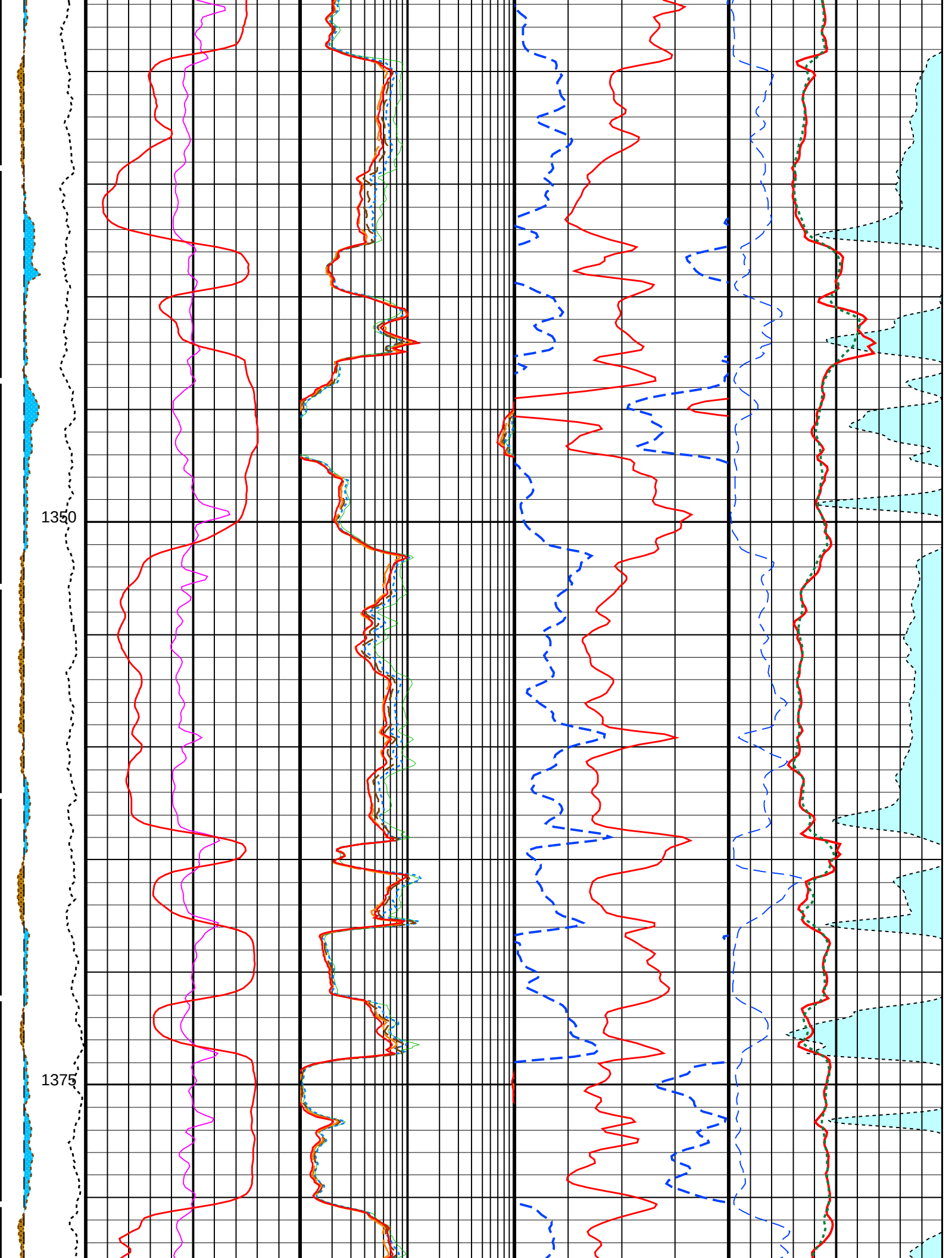
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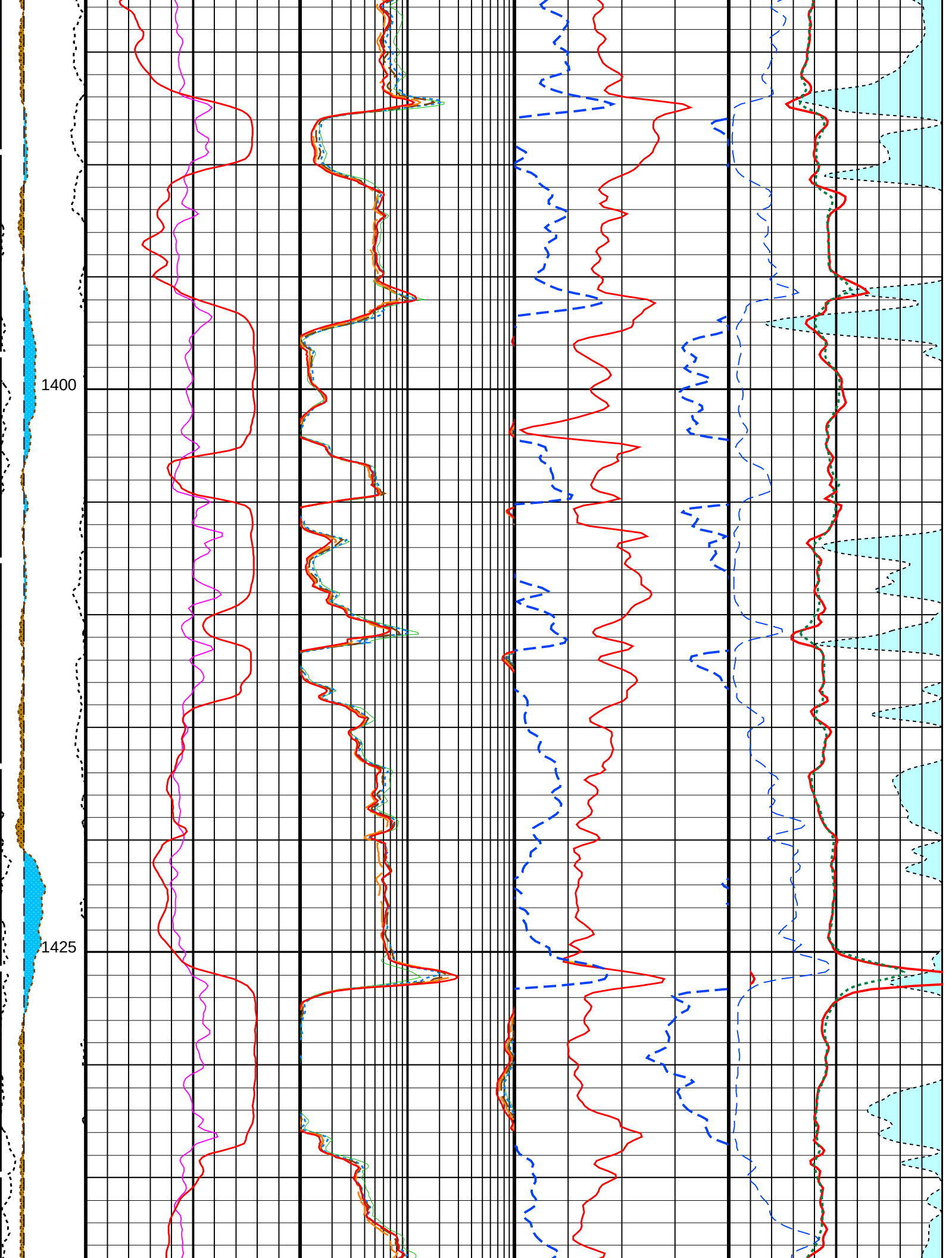
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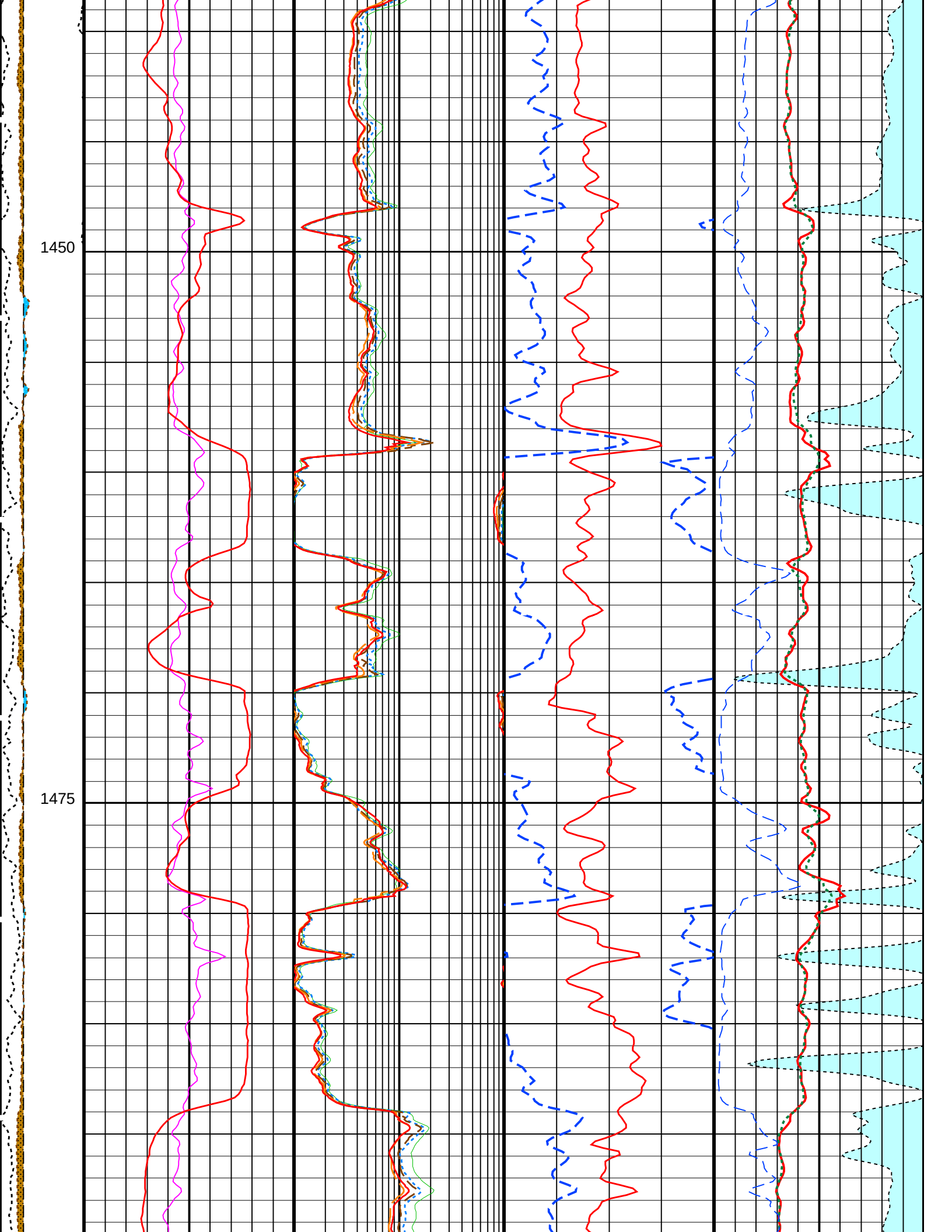
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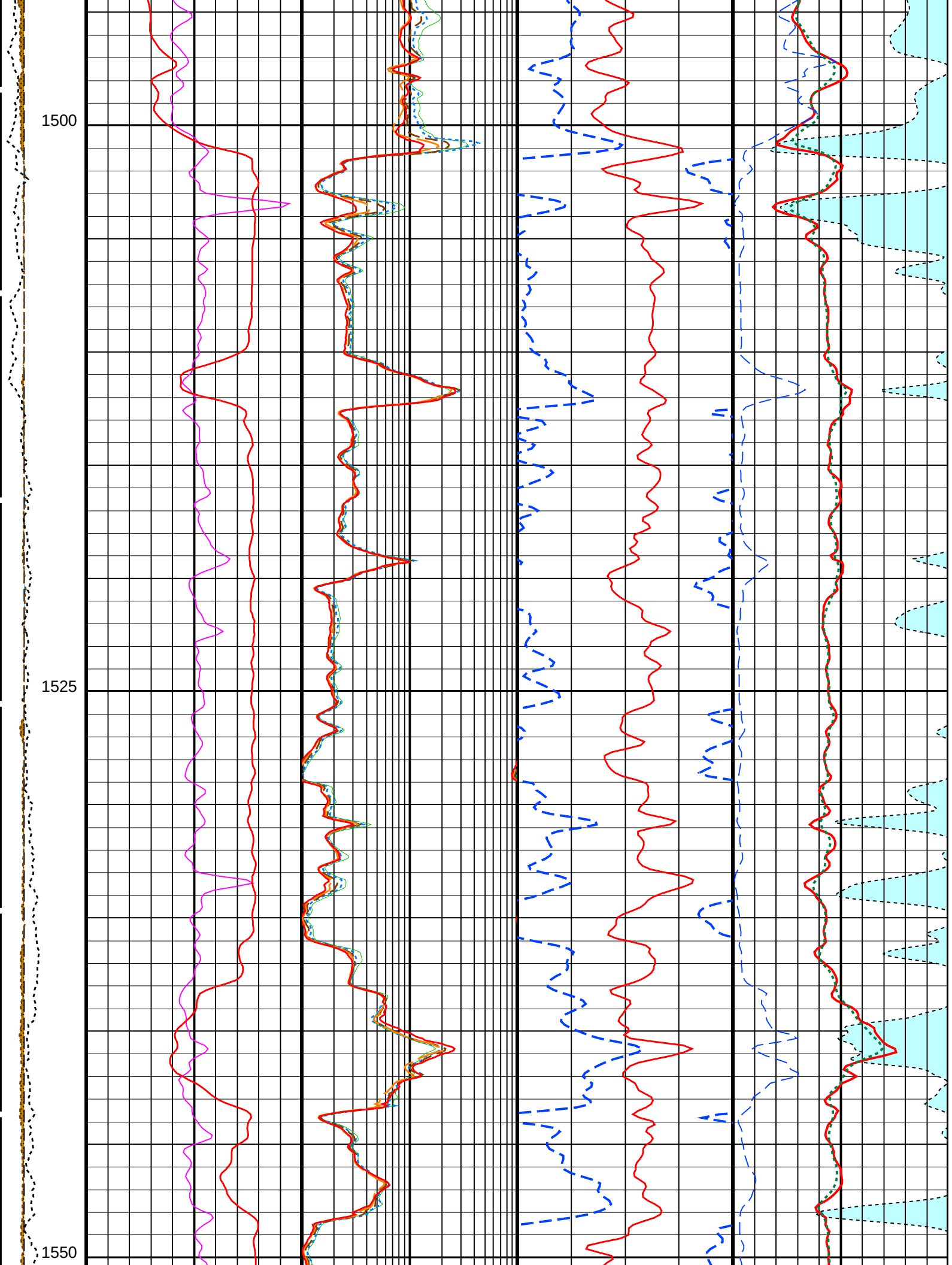
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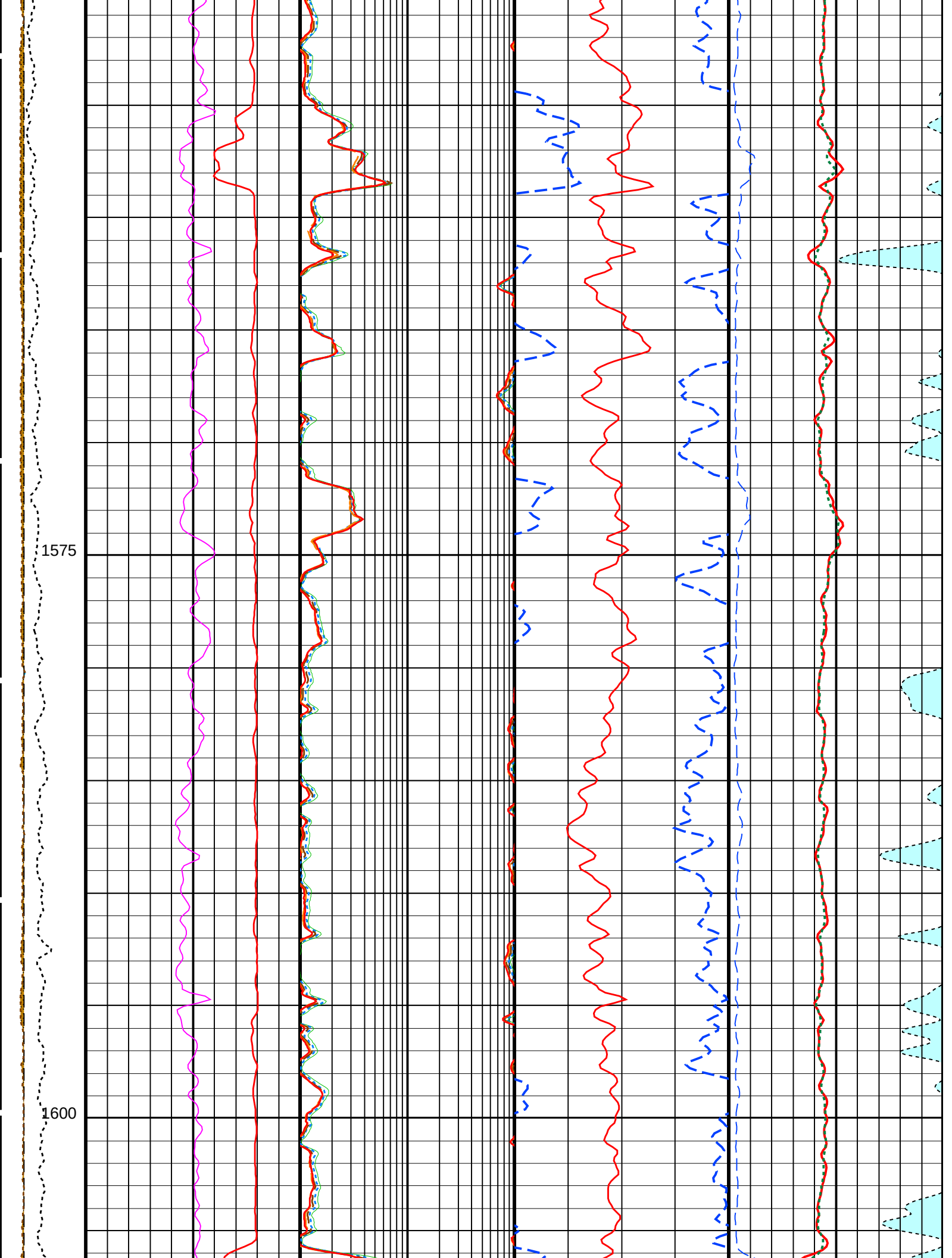
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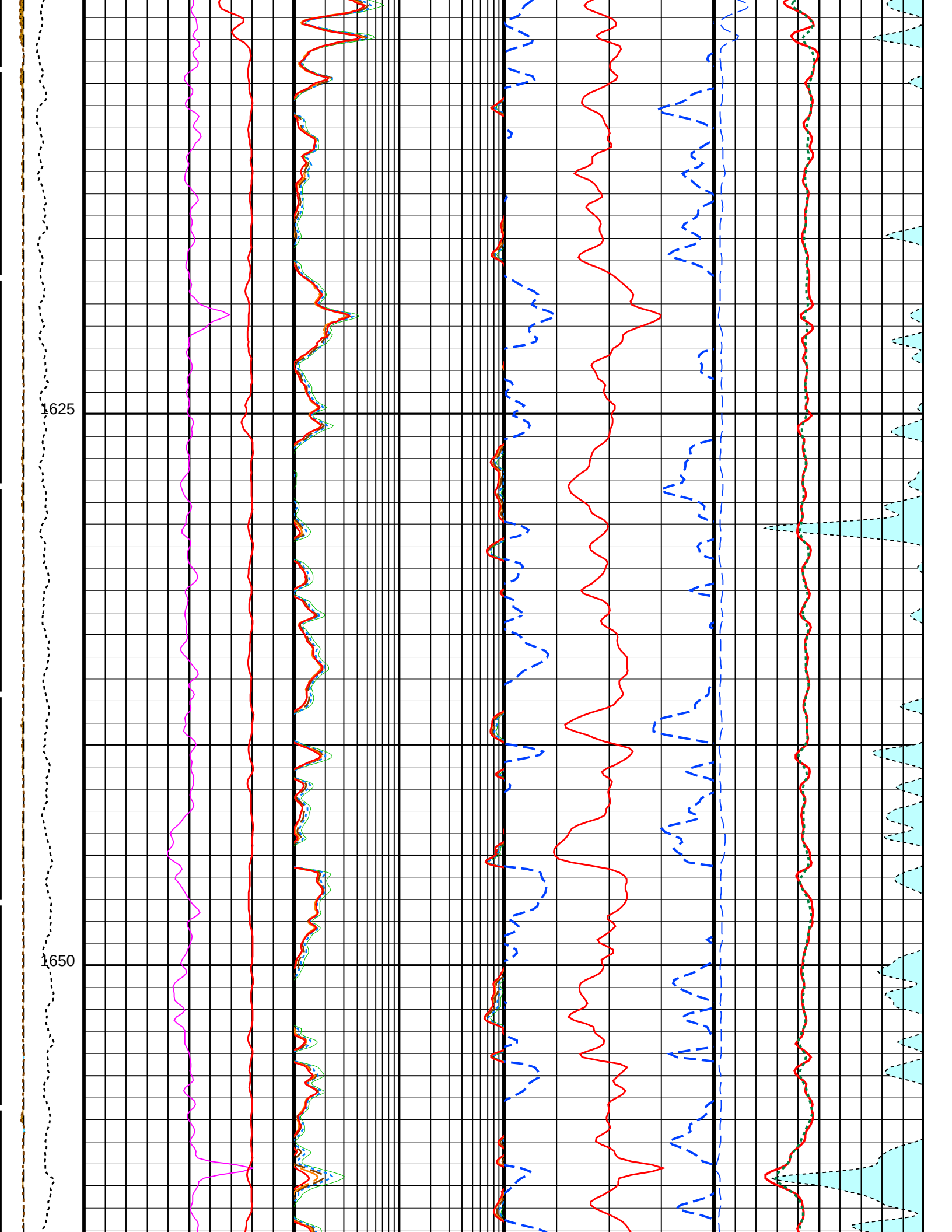
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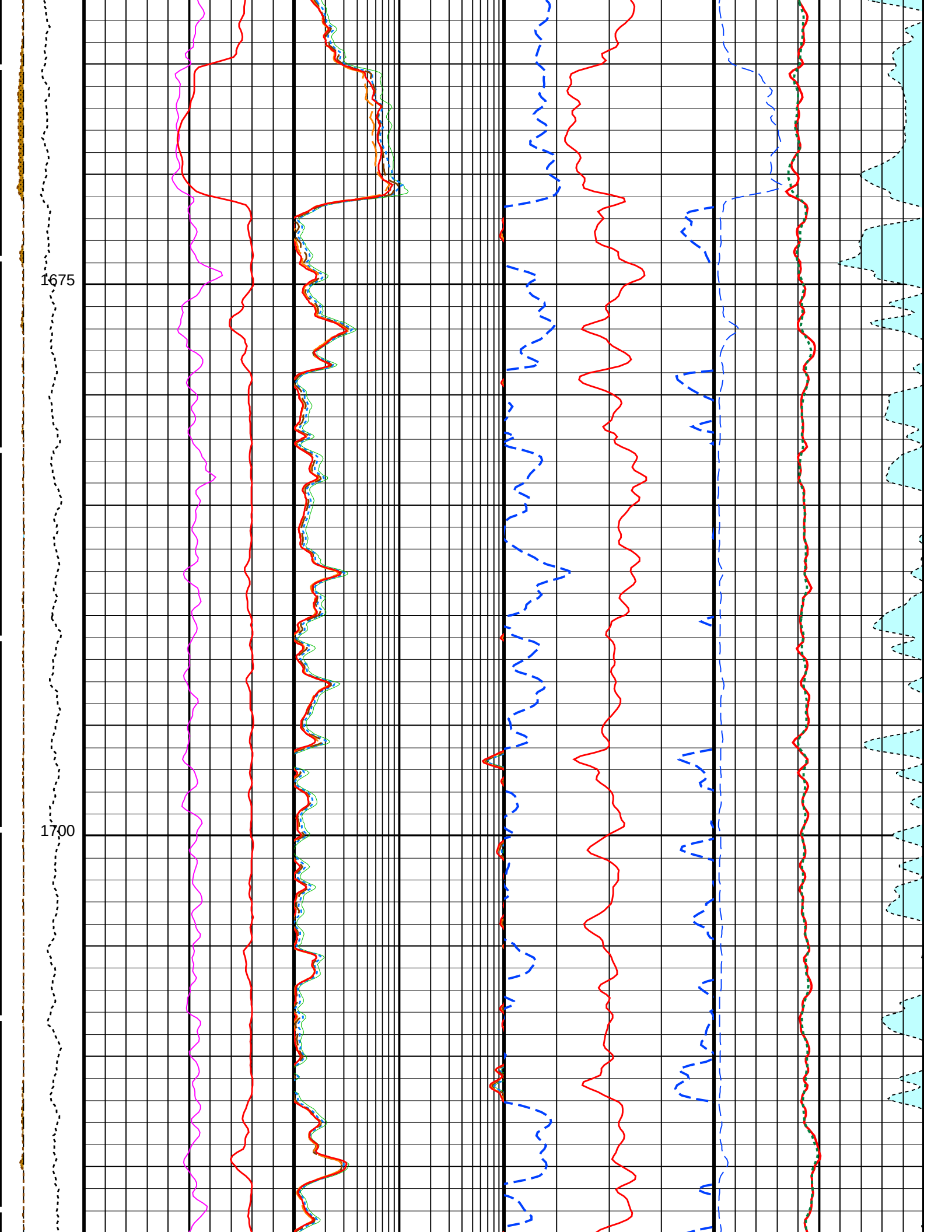
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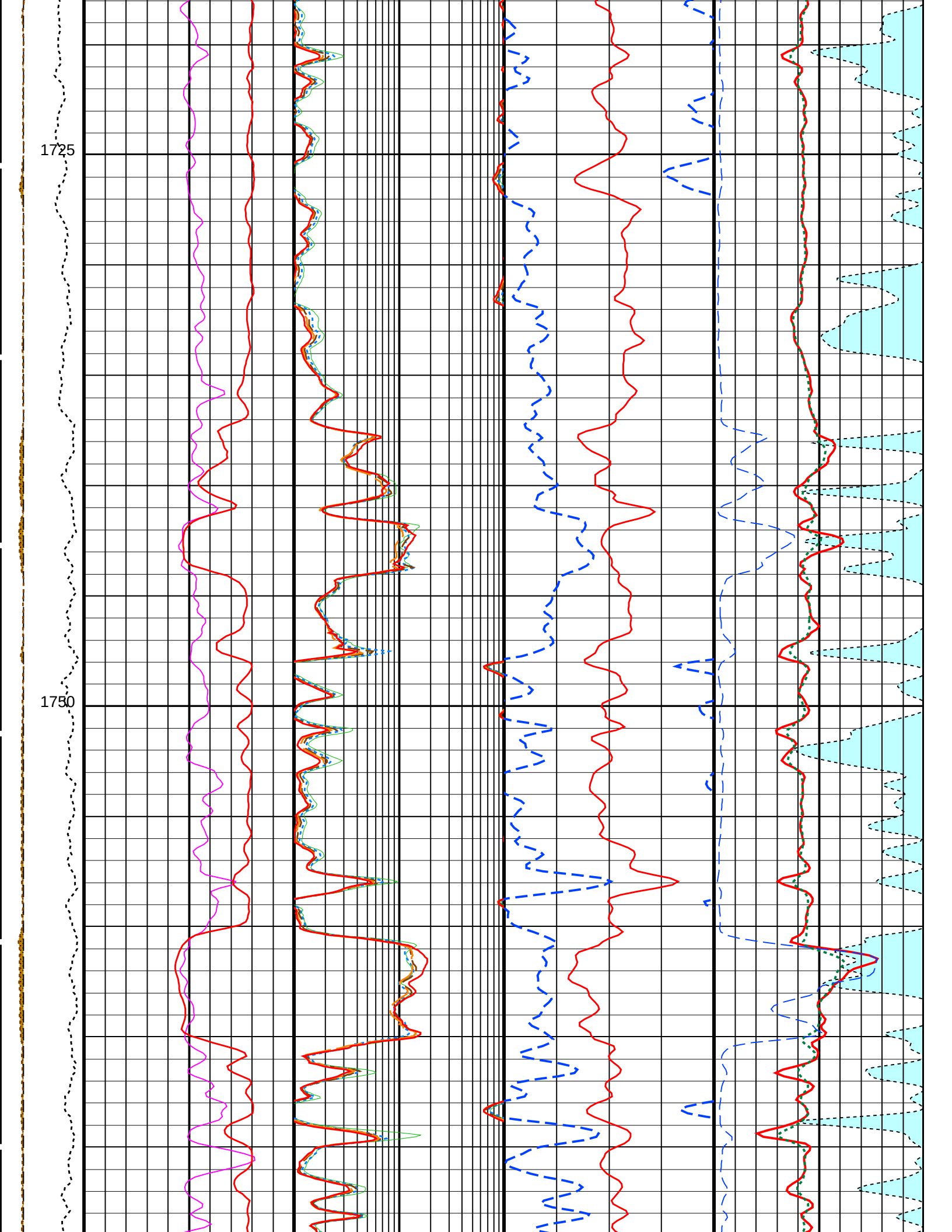
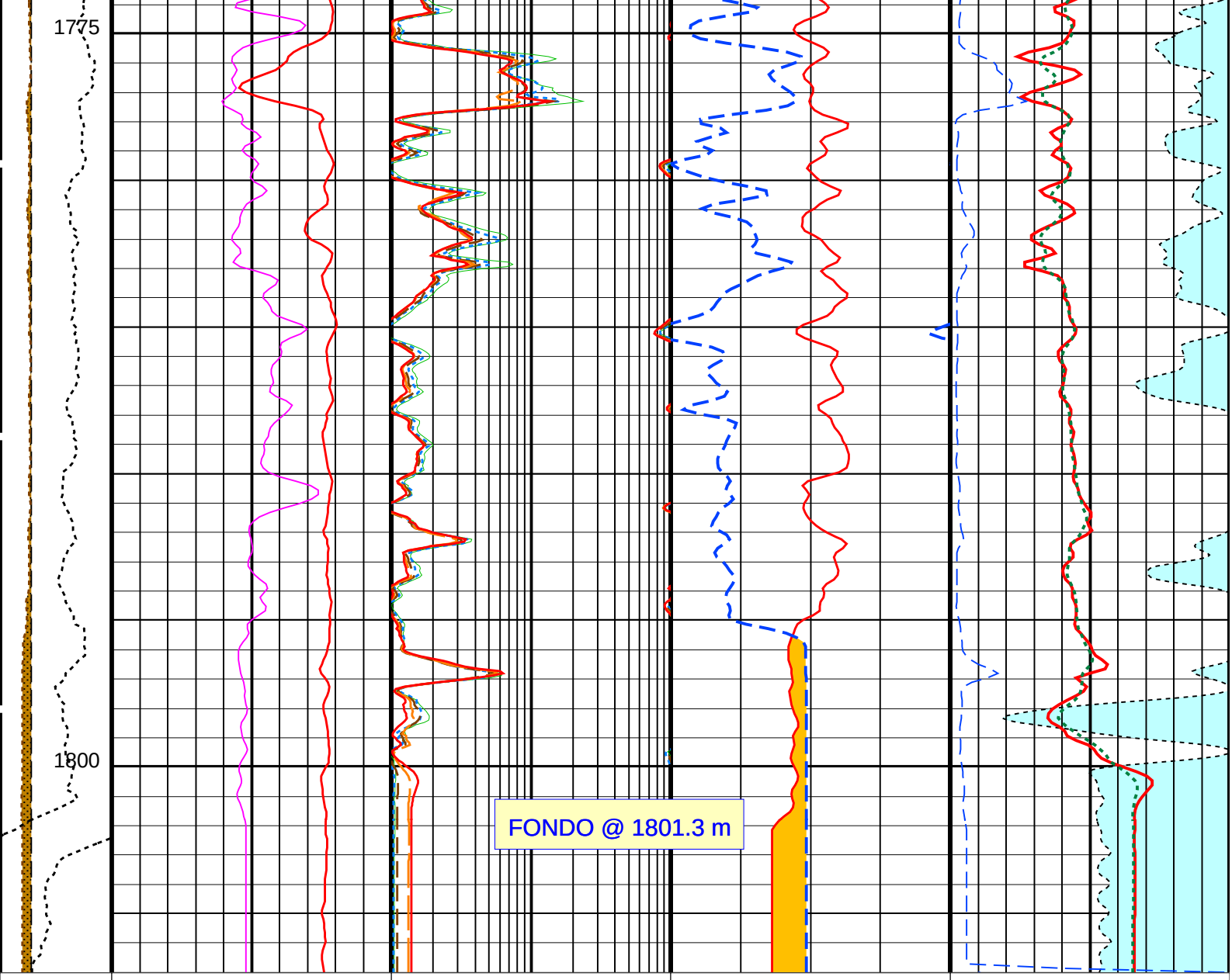

1725
1750



Bit Size (BS) 6 (IN) 16	PhotoElectric Factor (PEF) 0 (----- 5	AIT−H 10 Inch Investigation (AHT10) 1 (OHMM) 100	Density Porosity (DPHI) 0.4 (V/V) 0	AIT−H Outer Invasion Diameter (AHTD2) 210 (IN) 10
Caliper (CALI) 6 (IN) 16	SP (SP) −80 (MV) 20	AIT−H 20 Inch Investigation (AHT20) 1 (OHMM) 100	Env.Corr.Thermal Neutron Porosity (TNPH) 0.4 (V/V) 0	AHT90/AHT10 (LC01) 0 (----- 2
CAVERNA From BS to CALI		AIT−H 30 Inch Investigation (AHT30) 1 (OHMM) 100	Gas From DPHI to TNPH	AHF90/AHF10 (LC02) 0 (----- 2
Tension (TENS) (LBF) 0 1000		AIT−H 60 Inch Investigation (AHT60) 1 (OHMM) 100		RWA (RWA) 0 (OHMM) 2
REVOQUE From CALI to BS		AIT−H 90 Inch Investigation (AHT90) 1 (OHMM) 100		Invasion From AHTD2 to F4

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value

AIT−H: Array Induction Tool − H			
AHBHM	**Array Induction Borehole Correction Mode**	**2_ComputeStandoff**	
AHBHV	**Array Induction Borehole Correction Code Version Number**	**880**	
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**	
BHS	**Borehole Status**	**OPEN**	
BHT	**Bottom Hole Temperature (used in calculations)**	**70**	**DEGC**
FEXP	**Form Factor Exponent**	**2**	
FNUM	**Form Factor Numerator**	**0.81**	
FPHI	**Form Factor Porosity Source**	**DPHI**	
GCSE	**Generalized Caliper Selection**	**CALI**	
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**	
ISSBAR	**Barite Mud Switch**	**NOBARITE**	
MATR	**Rock Matrix for Neutron Porosity Corrections**	**SANDSTONE**	
RTCO	**RTCO − Rt Invasion Correction**	**YES**	
SHT	**Surface Hole Temperature**	**20**	**DEGC**
SPDR	**SP Drift**	**0**	**MV/M**
SPNV	**SP Next Value**	**−4**	**MV**
LDT−D: Litho Density − D			
BFM	**Borehole Fluid Medium**	**LIQUID**	
BHS	**Borehole Status**	**OPEN**	
BHT	**Bottom Hole Temperature (used in calculations)**	**70**	**DEGC**
DHC	**Density Hole Correction**	**BS**	
DPPM	**Density Porosity Processing Mode**	**HIRS**	
FD	**Fluid Density**	**1**	**G/C3**
GCSE	**Generalized Caliper Selection**	**CALI**	
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**	
ISSBAR	**Barite Mud Switch**	**NOBARITE**	
MATR	**Rock Matrix for Neutron Porosity Corrections**	**SANDSTONE**	
MDEN	**Matrix Density**	**2.65**	**G/C3**
SHT	**Surface Hole Temperature**	**20**	**DEGC**
WMUD	**Mud Weight**	**1.17**	**G/C3**
HILTB−FTB: High resolution Integrated Logging Tool−DTS			
BHFL	**Borehole Fluid Type**	**WATER**	
BHS	**Borehole Status**	**OPEN**	
BHT	**Bottom Hole Temperature (used in calculations)**	**70**	**DEGC**
BSCO	**Borehole Salinity Correction Option**	**YES**	
CCCO	**Casing & Cement Thickness Correction Option**	**NO**	
DPPM	**Density Porosity Processing Mode**	**HIRS**	
FEXP	**Form Factor Exponent**	**2**	
FNUM	**Form Factor Numerator**	**0.81**	
FPHI	**Form Factor Porosity Source**	**DPHI**	
FSAL	**Formation Salinity**	**−50000**	**PPM**
FSCO	**Formation Salinity Correction Option**	**NO**	
GCSE	**Generalized Caliper Selection**	**CALI**	
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**	
HSCO	**Hole Size Correction Option**	**YES**	
ISSBAR	**Barite Mud Switch**	**NOBARITE**	
MATR	**Rock Matrix for Neutron Porosity Corrections**	**SANDSTONE**	
MCCO	**Mud Cake Correction Option**	**YES**	
MCOR	**Mud Correction**	**NATU**	
MWCO	**Mud Weight Correction Option**	**YES**	
PTCO	**Pressure/Temperature Correction Option**	**YES**	
SDAT	**Standoff Data Source**	**SOCN**	
SHT	**Surface Hole Temperature**	**20**	**DEGC**
SOCN	**Standoff Distance**	**0.125**	**IN**
SOCO	**Standoff Correction Option**	**YES**	
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**	**DPHI**	
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		
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	70	DEGC
GCSE	Generalized Caliper Selection	CALI	
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	
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
SHT	Surface Hole Temperature	20	DEGC
	STI: Stuck Tool Indicator		
TDL	Total Depth − Logger	1801.30	M
	System and Miscellaneous		
BS	Bit Size	8.750	IN
BSAL	Borehole Salinity	350.00	PPM
CSIZ	Current Casing Size	9.625	IN
CWEI	Casing Weight	32.30	LB/F
DFD	Drilling Fluid Density	1.17	G/C3
DO	Depth Offset for Playback	0.2	M
MST	Mud Sample Temperature	7.20	DEGC
PP	Playback Processing	RECOMPUTE	
RMFS	Resistivity of Mud Filtrate Sample	3.8800	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	1801.3	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: QUICKLOOK **Vertical Scale: 1:200** **Graphics File Created: 30−Jun−2006 18:52**

OP System Version: 14C0−302

MCM

AIT−H	14C0−302	LDT−D	14C0−302
DTA−A	14C0−302	HILTB−FTB	14C0−302
DTC−H	14C0−302		

Input DLIS Files

DEFAULT	AIT_LDL_TLD_MCFL_025LUP	FN:24	PRODUCER	30−Jun−2006 08:23	1806.9 M	291.0 M

Output DLIS Files

DEFAULT	AIT_LDL_TLD_MCFL_089PUP	FN:42	PRODUCER	30−Jun−2006 18:52		
CUST1	AIT_LDL_TLD_MCFL_089PUC	FN:43	CUSTOMER	30−Jun−2006 18:52		
CUST2	AIT_LDL_TLD_MCFL_089PUC	FN:44	CUSTOMER	30−Jun−2006 18:52		

Schlumberger

TRAMO REPETIDO

MAXIS Field Log

Input DLIS Files

DEFAULT	AIT_LDL_TLD_MCFL_024LUP	FN:23	PRODUCER	30−Jun−2006 08:23	1805.0 M	1626.4 M

Output DLIS Files

DEFAULT	AIT_LDL_TLD_MCFL_091PUP	FN:48	PRODUCER	30−Jun−2006 19:01	1775.0 M	1700.9 M
CUST1	AIT_LDL_TLD_MCFL_091PUC	FN:49	CUSTOMER	30−Jun−2006 19:01	1775.0 M	1700.9 M
CUST2	AIT_LDL_TLD_MCFL_091PUC	FN:50	CUSTOMER	30−Jun−2006 19:01	1775.0 M	1700.9 M

OP System Version: 14C0−302

MCM

AIT−H	14C0−302	LDT−D	14C0−302

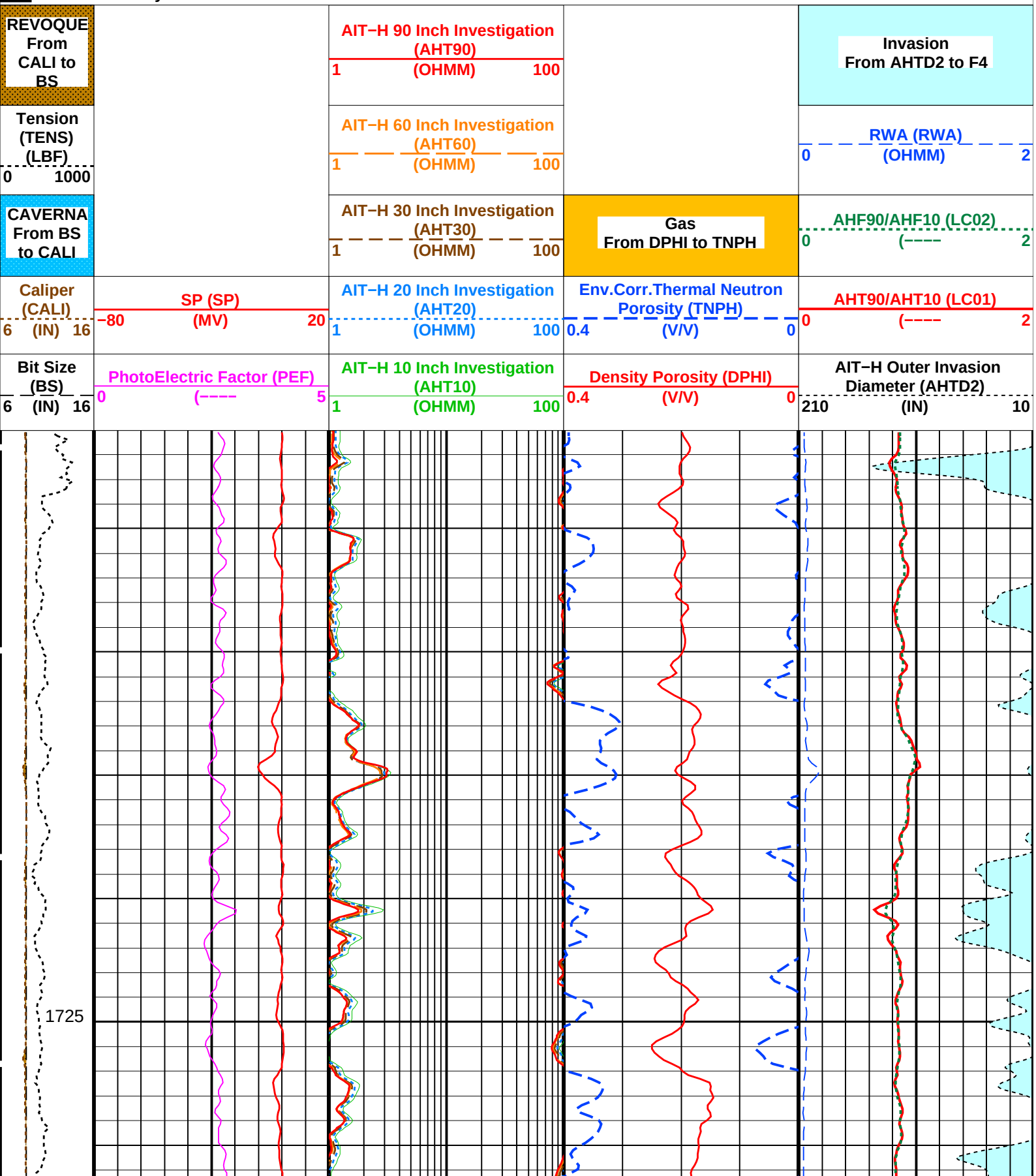
DTA−A	14C0−302	HILTB−FTB	14C0−302
DTC−H	14C0−302		

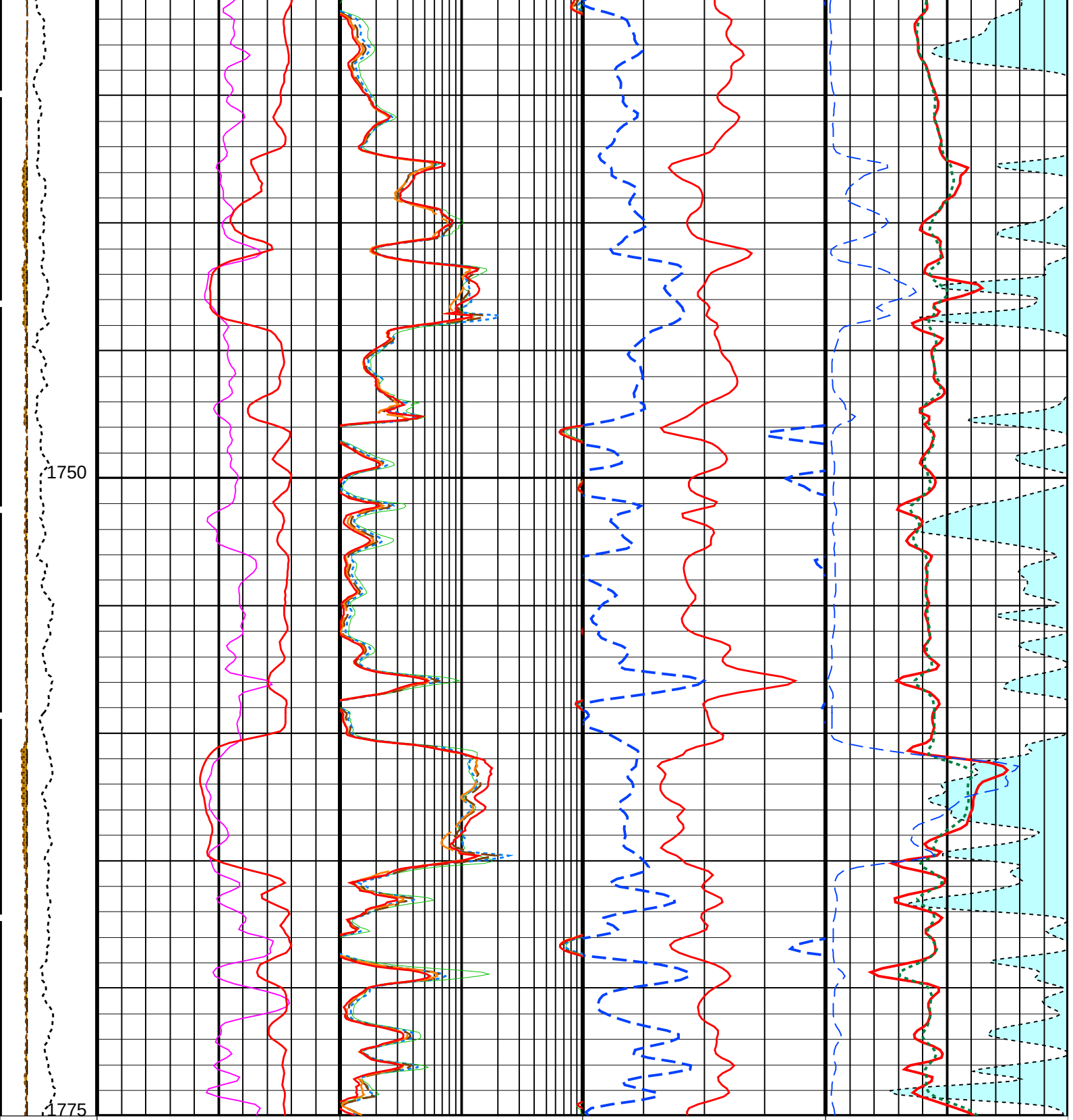
Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
SPDR	0 MV/M	0 MV/M	1775.0 19:01:15

PIP SUMMARY

Time Mark Every 60 S





Bit Size (BS) 6 (IN) 16	PhotoElectric Factor (PEF) 0 (----- 5	AIT−H 10 Inch Investigation (AHT10) 1 (OHMM) 100	Density Porosity (DPHI) 0.4 (V/V) 0	AIT−H Outer Invasion Diameter (AHTD2) 210 (IN) 10
Caliper (CALI) 6 (IN) 16	SP (SP) −80 (MV) 20	AIT−H 20 Inch Investigation (AHT20) 1 (OHMM) 100	Env.Corr.Thermal Neutron Porosity (TNPH) 0.4 (V/V) 0	AHT90/AHT10 (LC01) 0 (----- 2
CAVERNA From BS to CALI		AIT−H 30 Inch Investigation (AHT30) 1 (OHMM) 100	Gas From DPHI to TNPH	AHF90/AHF10 (LC02) 0 (----- 2
Tension (TENS) (LBF)		AIT−H 60 Inch Investigation (AHT60) 1 (OHMM) 100		RWA (RWA) 0 (OHMM) 2

0	1000				
REVOQUE From CALI to BS		AIT−H 90 Inch Investigation (AHT90)			Invasion From AHTD2 to F4
		1	(OHMM)	100	

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	AIT−H: Array Induction Tool − H		
AHBHM	Array Induction Borehole Correction Mode	2_ComputeStandoff	
AHBHV	Array Induction Borehole Correction Code Version Number	880	
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	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	70	DEGC
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	0.81	
FPHI	Form Factor Porosity Source	DPHI	
GCSE	Generalized Caliper Selection	CALI	
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	
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
RTCO	RTCO − Rt Invasion Correction	YES	
SHT	Surface Hole Temperature	20	DEGC
SPDR	SP Drift	0	MV/M
SPNV	SP Next Value	−3	MV
	LDT−D: Litho Density − D		
BFM	Borehole Fluid Medium	LIQUID	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	70	DEGC
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
FD	Fluid Density	1	G/C3
GCSE	Generalized Caliper Selection	CALI	
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	
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
MDEN	Matrix Density	2.65	G/C3
SHT	Surface Hole Temperature	20	DEGC
WMUD	Mud Weight	1.17	G/C3
	HILTB−FTB: High resolution Integrated Logging Tool−DTS		
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	70	DEGC
BSCO	Borehole Salinity Correction Option	YES	
CCCO	Casing & Cement Thickness Correction Option	NO	
DPPM	Density Porosity Processing Mode	HIRS	
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	0.81	
FPHI	Form Factor Porosity Source	DPHI	
FSAL	Formation Salinity	−50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCSE	Generalized Caliper Selection	CALI	
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	
HSCO	Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
MCCO	Mud Cake Correction Option	YES	

MCOR	Mud Correction	NATU	
MWCO	Mud Weight Correction Option	YES	
PTCO	Pressure/Temperature Correction Option	YES	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	20	DEGC
SOCN	Standoff Distance	0.125	IN
SOCO	Standoff Correction Option	YES	
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	DPHI	
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			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	70	DEGC
GCSE	Generalized Caliper Selection	CALI	
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	
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
SHT	Surface Hole Temperature	20	DEGC
STI: Stuck Tool Indicator			
TDL	Total Depth − Logger	1801.30	M
System and Miscellaneous			
BS	Bit Size	8.750	IN
BSAL	Borehole Salinity	350.00	PPM
CSIZ	Current Casing Size	9.625	IN
CWEI	Casing Weight	32.30	LB/F
DFD	Drilling Fluid Density	1.17	G/C3
DO	Depth Offset for Playback	0.9	M
DORL	Depth Offset for Repeat Analysis	0.0	M
MST	Mud Sample Temperature	7.20	DEGC
PP	Playback Processing	RECOMPUTE	
RMFS	Resistivity of Mud Filtrate Sample	3.8800	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	1801.3	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: QUICKLOOK **Vertical Scale: 1:200** **Graphics File Created: 30−Jun−2006 19:01**

OP System Version: 14C0−302

MCM

AIT−H	14C0−302	LDT−D	14C0−302
DTA−A	14C0−302	HILTB−FTB	14C0−302
DTC−H	14C0−302		

Input DLIS Files

DEFAULT	AIT_LDL_TLD_MCFL_024LUP	FN:23	PRODUCER	30−Jun−2006 08:23	1805.0 M	1626.4 M

Output DLIS Files

DEFAULT	AIT_LDL_TLD_MCFL_091PUP	FN:48	PRODUCER	30−Jun−2006 19:01
CUST1	AIT_LDL_TLD_MCFL_091PUC	FN:49	CUSTOMER	30−Jun−2006 19:01
CUST2	AIT_LDL_TLD_MCFL_091PUC	FN:50	CUSTOMER	30−Jun−2006 19:01

COMPANIA:	**YPF S.A.**
POZO:	**YPF.Ch.EA−695**
CAMPO:	**EL ALBA**
PROVINCIA:	**CHUBUT**
PAIS:	**ARGENTINA**

PRIMERA LECTURA	1798.9 m
PROFUNDIDAD PERFIL	1801.3 m
PROF. PERFORADOR	1800 m
BUJE DE VASTAGO	666.45 m
MESA ROTATIVA	666.15 m
NIVEL TERRENO	661.9 m

Schlumberger

QUICKLOOK

ESCALA: 1/200

EA-695

Solicitud Perfilaje Pozo entubado
Registrar Neutrón de correlación en los tramos:

1780/ 950 mbbp

Registrar CBL-VDL desde fondo (1780m) continuo hasta 950m.
Registrar tope de cemento y cañería libre 30 m.

Fondo mínimo 1780m.

Casing: 51/2”
Zapato: 1797.83mbbp
Collar: 1789.48 mbbp
Vinculó casing 19.30hs Día 30 de Junio 2006.

Client:	**YPF S.A.**	**Tool:**	**MRPS_1−**
Field:	**EL ALBA**	**Probe Type:**	**Conventional probe**
Well:	**YPF.Ch.EA−695**	**Gauge:**	**BQP1**
Run date:	**29−Jun−2006**	**Gauge Resolution:**	**0.010 psi**

Test	File	Depth M	TVD M	Drawdown Mobility MD/CP	Mud Pressure Before PSIA	Mud Pressure After PSIA	Last read build−up Pres PSIA	Formation Pressure PSIA	Test Type
1	44	1294.27	1294.27	0.03	2185.85	2066.68	1281.31	1281.31	Volumetric Pretest
3	45	1668.28	1668.28	166.95	2868.82	2858.71	1567.39	1567.39	Volumetric Pretest
5	47	1738.32	1738.32		2882.21	2873.56	69.14	69.14	Dry Test
7	48	1742.46	1742.46	2.39	2871.06	2858.36	1602.04	1602.04	Volumetric Pretest
12	49	1763.98	1763.98	2.55	2908.29	2893.98	1745.21	1745.21	Volumetric Pretest
2	33	1120.99	1120.99	1.12	1863.36	1842.51	898.50	898.50	Volumetric Pretest
5	34	1138.48	1138.48	130.73	1871.36	1846.48	736.12	736.12	Volumetric Pretest
6	35	1188.27	1188.27	1.23	1942.75	1928.67	897.51	897.51	Volumetric Pretest

DATOS A LLENAR				
			CARGAR DATOS	
		POZO	**EA-695**	
		BATERIA		
		EQUIPO	PI 222	
		FECHA	05/07/2006	
		RUBRO	TERMINACION	
	COSTO OBJETIVO		65.000	
NOMBRE DEL PROYECTO				
		N°DE GRAFO		
		PEP:	**RS1EC.6E07.53.P0005**	
		ZONA	EL ALBA	
	FLUIDO DE TRABAJO		AGUA DE REC. SEC.	
FINALIZO PERFORACION			30 de junio de 2006	
	ULTIMA INTERVENCION			
COORDENADAS				
		X	4,949,914.00	4.837.999,00
		Y	2,584,939.00	2.606.340,00
		Z	661,00	286,38
COMPAÑIAS DE SERVICIO				
		CABLE	GEOLOG	
		TORRE	PRIDE INT.	
		CEMENTACION	SCHL	
		ESTIMULACION	SCHL	
	MOTOR DE FONDO		CHRISTENSEN RODER	
		COILED TUBING	-	
PARA PUNZAR				
		CAÑÓN Ø	Cañón Ø 4"	**4" ó 5"**
		TIROS POR PIE	4 TxP 32 Grs	**4**
CASING				**Ejemplos**
EN BOCA DE POZO Ø Y mts.			**5 1/2"**	**7" a 23**
	DIAMETRO Y LIBRAJE		**5 1/2" 14 #**	**5-1/2" 15,5**
5 1/2"	12,50	**22,5**	1797,83	
6 5/8"	18,54	**0,0**		
7"	20,60	**0,0**		
9 5/8"	39,40	**13,8**	350,44	
Total de m³+5			← **NO TOCAR "PARA USO DEL BACTERICIDA"**	
	COLLAR DIFERENCIAL		1.789,48	
		ZAPATO	1.797,83	
	PROFUNDIDAD FINAL		1.801,30	
INSTALACION FINAL				
		DEL POZO		
MATERIAL DE BOMBEO				
		DEL POZO		
HERRAMIENTA A BAJAR				
COLOCAR TIPO DE HTA.Y Ø			Fresa Ø 120 mm	
	CALIBRAR HASTA		-	
HERMETICIDAD DEL CSG DESDE			-	

M. BEHR 05/07/2006

DIVISION REGIONAL SUR
UNIDAD ECONOMICA CHUBUT - CAÑADON SECO
DISTRITO ZONA CENTRAL

PROGRAMA OPERATIVO del POZO : **EA-695**

SUBREGION : CH **ZONA :** EL ALBA **BAT.**

RUBRO: TERMINACION
PROYECTO:
COSTO OBJETIVO: U$S 65.000
COSTO ESTIMADO: U$S
DIAS ESTIMADOS: 8,25

FLUIDO DE REPARACION: AGUA DE REC. SEC.

EQUIPO : PI 222 **CANTIDAD:** 36,3 m³

PEP: RS1EC.6E07.53.P0005

COMPAÑIAS ASIGNADAS:

CABLE:	**GEOLOG**
TORRE:	**PRIDE INT.**
CEMENTACION:	**SCHL**
ESTIMULACION:	**SCHL**
MOTOR DE FONDO:	**CHRISTENSEN RODER**
COILED TUBING:	**-**

FINALIZO PERFORACION : **30 de junio de 2006**

ULTIMA INTERVENCION:

OBSERVACIONES:

COORDENADAS:

X: 4,949,914.00
Y: 2,584,939.00

COTA: **Z:** 661,00

Altura mesa Rotary: 3,5 m

Elevación mesa Rotary: - m

M. BEHR 05/07/2006

PEP: RS1EC.6E07.53.P0005

UNIDAD ECONOMICA CHUBUT-CDON. SECO
DISTRITO ZONA CENTRAL

X: 4,949,914.00 Z: 661,00
Y: 2,584,939.00

PROGRAMA OPERATIVO : TERMINACION

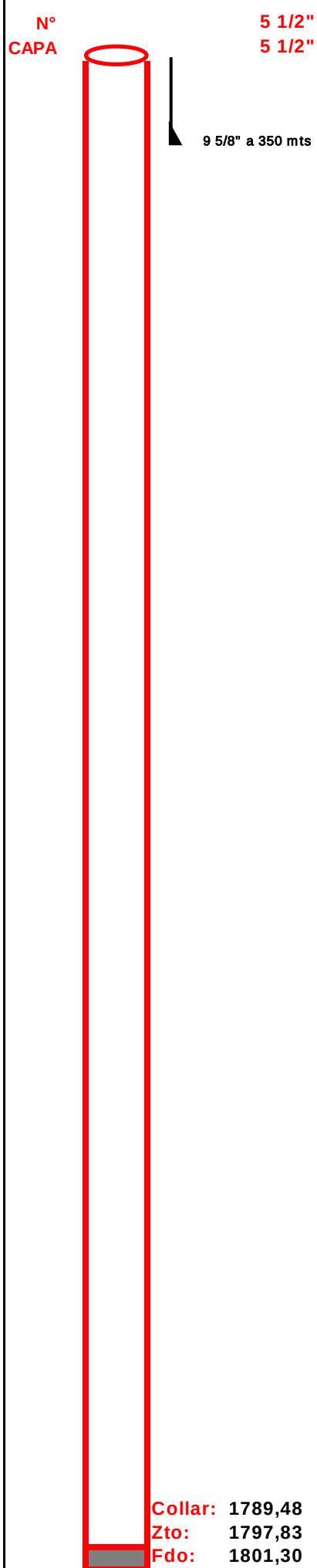
POZO : EA-695 **ZONA : EL ALBA** **SUBREGION : CH** **BAT.**

FLUIDO DE REPARACION: AGUA DE REC. SEC. **CANTIDAD:** 36,3 m³

INSTALACION FINAL:

INSTALACION BBEO:

EQUIPO: PI 222 **COMPAÑIA WIRE LINE: GEOLOG**



PROGRAMA OPERATIVO

1º) Montar equipo completo y BOP de acuerdo al manual de procedimiento. Probar funcionamiento hidraúlico de BOP.- Probar lineas c/2500 PSI. Llenar pozo con fluido de reparación: **Agua de Rec. Sec.**
Armar linea de venteo de gas.

2º) La Cía. de Cable punzará y repunzará con cañón de **4" 32 grs (0-90º)** las siguientes capas:

INDUCCION

A) 1760,5/62,0 (0-180º)

B) 1741,5/43,0

C) 1539,5/42,0

D) 1510,5/12,0

E) 1293,0/95,5

F) 1180,0/81,5

G) 1138,0/39,5

H) 1105,5/07,0

3º) Bajar TPN/PKR con c/b 2-7/8"J-55. Ensayar las capas indicadas con las letras: **A, B, C, D, E, F, G y H.**
Estabilizando Caudal, Nivel e Análisis.
En las capas A, B, C, D, E y H, probar admisión previo al ensayo.

NOTA: De las capas con aporte de fluido tomar muestras para su análisis; en caso de ser gas medir presiones y tomar muestra.

4º) De acuerdo al resultado los ensayos se determinará programa a seguir.

NOTA: Preveer Fractura

RECOMENDACIONES:

AL FINALIZAR EL POZO DEBERAN PRESENTAR EL ESQUEMA DE LA INSTALACION FINAL (SKETCHIT) SIENDO REQUISITO PARA CERTIFICAR, LA NO PRESENTACION DEL MISMO SE TENDRA EN CUENTA PARA LA EVALUACION CORRESPONDIENTE.-

CUANDO OCURRA CUALQUIER TIPO DE ACCIDENTE SE DEBE COMUNICAE EN FORMA INMEDIATA (Telefónicamente) AL JEFE DE DISTRITO, DONDE OCURRA EL MISMO.

DURANTE LA ETAPA DE TRANSPORTE DEL EQUIPO PROCEDER: EN CASO DE EXISTIR LINEAS ELECTRICAS EN EL RECORRIDO CUALQUIERA SEA LA ALTURA DE LAS MISMAS DAR AVISO AL SECTOR ENERGIA DE REPSOL-YPF POR INTERMEDIO DE COORDINACION DE PRODUCCION TELEF: 4361 - 4365 Y FAX 4363.-L73

QUEDA TERMINANTEMENTE PROHIBIDO EL USO DE LLAVES STILSON PARA REALIZAR AJUSTES DE ENROSQUES Y DESENROSQUES DE TUBULARES EN BOCA DE POZO LOS MISMOS SE HARAN CON LLAVES DE POTENCIA.-

SE LES RECUERDA QUE TODA PAG (SIMPLE O DOBLE) USADA O NUEVA DEBERA CONTAR CON NIPLES DE ALTA PRESION - ESPESOR ENTRE 8 y 9 mm CON ROSCA Ø 2" LP DE'11,5 FILETES POR PULG. DE NO CONTAR CON ESTOS ELEMENTOS NO ARMAR LAS MISMAS.-

NOTA : TOMAR PRECAUCIONES PARA EVITAR DERRAMES DE FLUIDOS. AVISAR URGENTE A LA INS-PECCION. ADEMAS SE INDICA QUE SE DEBE COMUNICAR A LA MAYOR BREVEDAD POSIBLE TODAS LAS NOVEDADES QUE REVISTAN EL CARACTER DE ACCIDENTES DE PERSONAL.-

ORDEN : DE TODOS LOS ENSAYOS CON INSTALACION FINAL SE DEBERA TOMAR UNA MUESTRA, DE LA ULTIMA HORA DE ENSAYO, DE TRES LITROS Y ENVIARLA DEBIDAMENTE IDENTIFICADA AL LABORATORIO EPSILON Km3, A EFECTOS DE REALIZAR EL ENSAYO DE VISCOSIDAD A TRES TEMPERATURAS, PUNTO DE ESCURRIMIENTO Y TENOR PARAFINICO.-

TRANSCRIPCION DE: **MEMORANDUM**

A: COMPAÑIAS DE SERVICIOS
DE: JEFE DE AREA DE OPERACIONES DE PRODUCCION REG. CDRO. RVDA.

SE RECUERDA A ESA COMPAÑIA QUE EN VIRTUD DE LO DISPUESTO POR LAS RESOLUCIONES S.E Nª 105/92 Y 252/93 QUEDA EXPRESAMENTE PROHIBIDO DESCARGAR CRUDO O DERIVADOS DE DE HIDROCARBUROS A LAS PILETAS NATURALES DE LOS POZOS. CUANDO UNA EMERGENCIA OPERATIVA GENERE LA CONTAMINACION DE UNA PILETA, ESA COMPAÑIA DEBERA SUBSANAR EL PROBLEMA A LA BREVEDAD.-

LA NO OBSERVANCIA DE ESTAS NORMAS,GENERARA LA INTERVENCION DE YPF S.A. PARA REPARAR LA CONTAMINACION CON CARGO ESA CIA. Y LA APLICACION DE LAS MULTAS CORRES-PONDIENTES.-

RESPONSABLE	**LUCAS S. MORENO**

PRESUPUESTO POZO EA-695

PEP: RS1EC.6E07.53.P0005

	CAN.	ITEM	HS.	$	U$S	DESCRIPCION DE MANIOBRAS
Unidad	1	3	10,00	2440,63	528,28	DTM Equipo completo, Colocar BOP.
Unidad	0	6	0,00	0,00	0,00	
Horas	100	1	100,00	19525,52	4226,25	Bajar TPN/PKR y realiza 8 ensayos . Prueba admisión en 5 capas.
Horas	6	1	6,00	1171,53	253,58	Movimiento por cambio de zona.
Horas	4	1	4,00	781,02	169,05	Fractura una capa.
Horas	12	1	12,00	2343,06	507,15	Reensaya zona fracturada.
Horas	24	1	24,00	4686,12	1014,30	Bajar instalación final.
Horas	0	1	0,00	0,00	0,00	
Horas	0	1	0,00	0,00	0,00	
Horas	0	1	0,00	0,00	0,00	
Horas	0	1	0,00	0,00	0,00	
Horas	0	1	0,00	0,00	0,00	
Horas	0	1	0,00	0,00	0,00	
Horas	0	1	0,00	0,00	0,00	
Horas	0	1	0,00	0,00	0,00	
Horas	0	1	0,00	0,00	0,00	
Horas	0	1	0,00	0,00	0,00	
Horas	0	1	0,00	0,00	0,00	
Horas	0	1	0,00	0,00	0,00	
Horas	0	1	0,00	0,00	0,00	
Horas	0	1	0,00	0,00	0,00	
Horas	0	1	0,00	0,00	0,00	
Horas	10	2A	10,00	1757,15	380,36	Stand By Wireline
Horas	6	2A	6,00	1054,29	228,22	Stand By Cía. de Fractura.
Horas	6	2A	6,00	1054,29	228,22	Stand By Frague de arena.
Horas	0	2A	0,00	0,00	0,00	Stand By
Horas	8	2A	8,00	1405,72	304,29	Stand by por reuniones de seguridad, carga y descarga de mat.
Horas	0	2A	0,00	0,00	0,00	
Horas	0	2B	0,00	0,00	0,00	Stand by sin personal.
	12	2C	12,00	1522,98	329,66	Equipo parado por inclemencias de tiempo.-

Total Horas incl.DTM	198,00
Total de Días	8,25

RESUMEN		UNI	Tarifa Nueva RTP		
ITEM	CANTIDAD	COSTO	($1,1310)	(U$S 0.2450)	
1 (Opert.Normal)	146,00	25.185,00	$28.507,25	U$S	6170,33
2A (SB c/Pers.)	30,00	4.657,50	$5.271,45	U$S	1141,09
2B (SB s/Pers.)	0,00	0,00	$0,00	U$S	0,00
2C (Factor Clima)	12,00	1.345,56	$1.522,98	U$S	329,66
3 (DTM)	10,00	2.156,25	$2.440,63	U$S	528,28
3B (C.Sólidas)	0,28	2.938,80	$3.326,38	U$S	720,00
3C (Carg.y Desc.)	0,28	715,00	$809,30	U$S	175,18
4B (C.Líquidas)	0,28	2.137,31	$2.419,19	U$S	523,64
5 (Pileta Ecol.)	8,00	120,00	$135,80	U$S	29,40
5A (Tpte.pil.ecol.)	1,00	110,00	$124,51	U$S	26,95
6 (Conj.DSK-Pieza)	0,00	0,00	$0,00	U$S	0,00
7 (Aumento comb.)	0,00	0,00	$0,00	U$S	0,00
Subtotal	198,00	39.365,41	$44.557,48	U$S	9.644,53
Wire	Perfil N Corr.+N F	0,00	$0,00	U$S	0,00
	Punzado	0,00	$0,00	U$S	0,00
Line	Fijado de Tapón	0,00	$0,00	U$S	0,00
Cementación		0,00	$0,00	U$S	0,00
Fractura Hidráulica		25.000,00	$0,00	U$S	25000,00
Htas. de fractura		0,00	$0,00	U$S	0,00
Estimulación äcida		0,00	$0,00	U$S	0,00
Bombeo - Prueba de admisión		0,00	$0,00	U$S	0,00
Fresa		600,00	$453,04	U$S	288,00
Válvula Implosora		0,00	$0,00	U$S	0,00
Hot-Oil + Camión chupa		0,00	$0,00	U$S	0,00
Camión Chupa		0,00	$0,00	U$S	0,00
Transporte Gasoil		0,00	$0,00	U$S	0,00
Coiled Tubing		0,00	$0,00	U$S	0,00
Motor de fondo		2.800,00	$840,00	U$S	1960,00
Gas-Oil($104xm3)		0,00	$0,00	U$S	0,00
Alquiler de Radio		0,00	$0,00	U$S	0,00
Limpieza de Locación		400,00	$240,00	U$S	160,00
Subtotal		28.800,00	$1.533,04	U$S	27.408,00
TOTAL		**68.165,41**	**$46.090,52**	**U$S**	**37.052,53**
OBJETIVO (U$S)		65.000	PRESUPUESTO		
Capas punzadas		8	TOTAL EN U$S		52415,88
Profundidad		1.789,48			
Nº de Pruebas		6	Tipo de cambio:		
N° de Ensayos		8	0,33333		

POZO:	***EA-695***
EQUIPO:	***PI 222***

Inicio:	**11/07/2006**
Termino:	**19/07/2006**

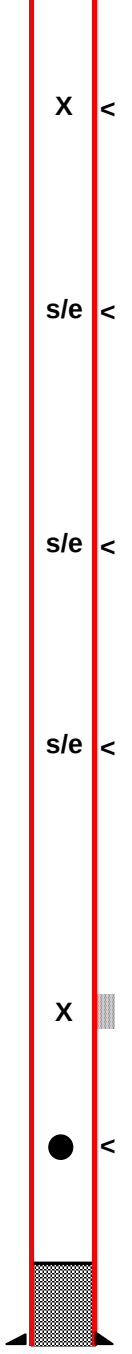
OBJETO:	***TERMINACION***				**PEP:** **RS1EC.6E07.53.P0005**
Est.Actual :					**PROXIMO POZO: A CONFIRMAR**
PROYECTO:					**COSTO OBJETIVO U$S:** **65000**
CABLE	**Cta**	**FRAC**	**Acido**	**M.Fdo.**	**PRESUPUESTO $:** -
GEOLOG	**SCHL**	**SCHL**	**SCHL**	**Christ.**	**PRESUPUESTO U$S:**
FLUIDO:	**Agua de Rec. Sec.**				**SALINIDAD:** **g/l**

Transporta equipo del pozo EA-691 al EA-691 (10 kms). Monta equipo. Prueba lineas y cierres de BOP: OK. Ingresa a locación y monta Cía. GEOLOG. Punza según programa (1760,5/62 - 1741,5 1539,5/42 - 1510,5/12 - 1293/95,5 - 1180/81,5 - 1138/39,5 - 1105,5/07 mts). Baja TBG c/Fresa de para ampliar cámara por debajo del primer punzado. Profundiza hasta 1785,33 mts. Circula pozo Saca herramienta de rotación. Baja conunto de TPN/PKR. Ensaya la zona **A**. Prueba admisión. Ensaya **A - B - C - D - E - F - G - H**.

Cia. BJ cementó zona 1741,5/43,0, rota cemento y prueba hermeticidad positivo.-
Bajó instalación de tbg :
116 tbg Ø2.7/8" + Ancla: 1119m + 66 tbg + NAC: 1756 m + 1 tbg + C/pasador: 1766m
Bajó instalación de B/B:
Vtgo.+ 62 v/bØ1" + 66 v/bØ7/8" + 88 v/bØ3/4" + 12 b/PØ1.1/2" + bba 1756m

Desmonta equipo

Transporta equipo al pozo Gbk - 708



CIII	s/e	<	1105,5/07,0	}	H	S/E
CIII	XO	<	1138,0/39,5	}	G	**2320 l/h. ASFc/ARP N: 925 mts (AS: 100 % - Sal:4,6 %° - PH: 8 - 25ºC)**
CIII	X	<	1180,0/81,5	}	F	**120 l/h. ASF N: 1126 mts (AS: 100 % - Sal: 4,6 %° - PH: 8 - 20ºC)**
CIII	s/e	<	1293,0/95,5	}	E	S/E
CIII	s/e	<	1510,5/12,0	}	D	S/E
CIII	s/e	<	1539,5/42,0	}	C	S/E
CIV	X		1741,5/43,0	}	B	Rompe Fm. con 2150 psi - Admite con 2150 psi: 174 LxM. **2400 l/h. ASF N: 1300 mts (AS: 100 % - Sal: 0,8 %° - PH: 8 - 30ºC)** **Cemntó a presión**
CIV	●	<	1760,5/62,0	}	A	Rompe Fm. con 2700 psi - Admite con 2000 psi: 440 LxM. **580 l/h. PF N: 1549 mts (AS: 10 % - D: 0,900 - Sal: 4,2 %° - PH: 7 - 20ºC)**

Collar: 1.789,48
Zap.: 1.797,83
PF: 1801,30

REFERENCIAS

	Tapón Fijo
	CSG Roto

Inst. de tbg:

116 tbg Ø2.7/8" + Ancla:1119m + 66 tbg + NAC: 1756m + 1 tbg + C/P.: 1766m

Inst. de B/B:

Vtgo.+ 62 v/bØ1" + 66 v/bØ7/8" + 88 v/bØ3/4" + 12 b/PØ1.1/2" + bba 1756m