COMPANY: Lamont Doherty

WELL: ODP Leg 197, Site He-3A, Hole 1203A

FIELD: Detroit Seamount, Emperor Seamount Chain

OCEAN: Pacific

Company: Lamont Doherty
Well: ODP Leg 197, Site He-3A, Hole 1203A
Location: Detroit Seamount, Emperor Seamount Chain
Field:

Schlumberger

Density
APS/Porosity
Natural Gamma Ray

LOCATION

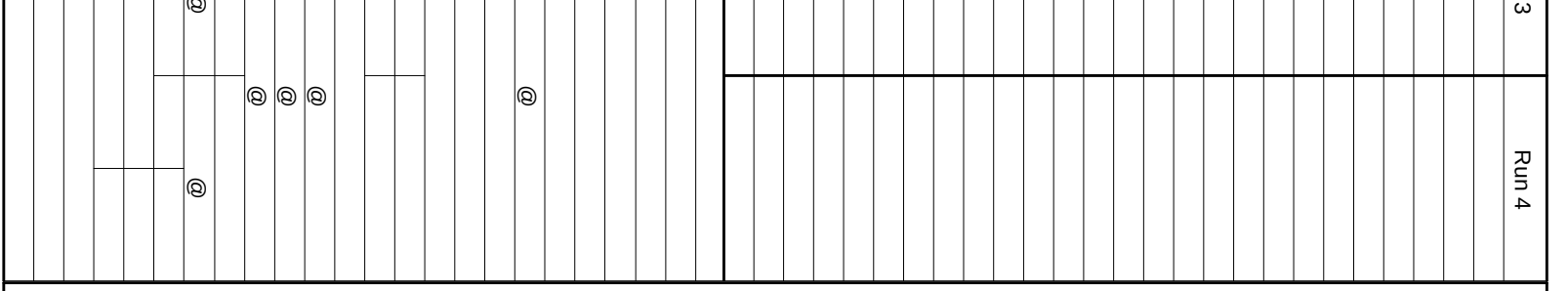
Elev.: K.B. 11.3 m
G.L. -2604 m
D.F. 11 m

Permanent Datum: MSL — Elev.: 0 m
Log Measured From: RKB — 11.3 m above Perm. Datum
Drilling Measured From: RKB

API Serial No.	Max. Hole Devi. 1 deg	Longitude 167.74 E	Latitude 50.95 N

	Run 1	Run 2	Run 3
Logging Date	23-Jul-2001		
Run Number	1		
Depth Driller	3519 m		
Schlumberger Depth	3520 m		
Bottom Log Interval	3510 m		
Top Log Interval	2604 m		
Casing Driller Size @ Depth	0.000 in @ 2806 m	@	@
Casing Schlumberger	2806 m		
Bit Size	9.875 in		
Type Fluid In Hole	Sepiolite		
MUD Density / Viscosity	1.066 g/cm3 / 80 s		
MUD Fluid Loss / PH	/		
MUD Source Of Sample	Flowline		
RM @ Measured Temperature	0.284 ohm.m @ 21 degC	@	@
RMF @ Measured Temperature	@	@	@
RMC @ Measured Temperature	@	@	@
Source RMF / RMC	/		
RM @ MRT / RMF @ MRT	0.320 @ 16 / @ 16	@ / @	@ / @
Maximum Recorded Temperatures	16 degC		
Circulation Stopped Time	23-Jul-2001 0:00		
Logger On Bottom Time	23-Jul-2001 14:13		
Unit Number / Location	99 Houston	/	
Recorded By	Kerry M. Swain		
Witnessed By	Florence Einaudi, Arno Buysch		

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



DISCLAIMER

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OTHER SERVICES1	OTHER SERVICES2
OS1: DSST/FMS	OS1:
OS2: TAP	OS2:
OS3: DLT	OS3:
OS4:	OS4:
OS5:	OS5:

REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
Hole cored with RCB.	
WHC used on all runs.	
Calm seas.	
Log measured in meters below rig floor (MBRF).	
TD Driller- 3519 MBRF, Logger- 3520 MBRF.	
Sea Floor Driller-2604 MBRF. Sea floor could not be determined from Log data.	
Bottom of drill pipe Driller- 2806 MBRF, Logger- 2809 MBRF.	
Sepiolite mud used to displace hole before logging.	
Low background measurement for HNGS master calibration due to weak background	
source and does not affect actual calibration/gain.	
Repeat Density data spliced into main log at 2825-3005mbrf because the LSHV	
became unstable in this area.	
Density LSHV unstable at 3455-3456mbrf and may cause spiking on the PEF or RHOB	
curves in this range only.	

RUN 1			RUN 2		
SERVICE ORDER #:			SERVICE ORDER #:		
PROGRAM VERSION:		9C2-303	PROGRAM VERSION:		
FLUID LEVEL:			FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

RUN 1 RUN 2

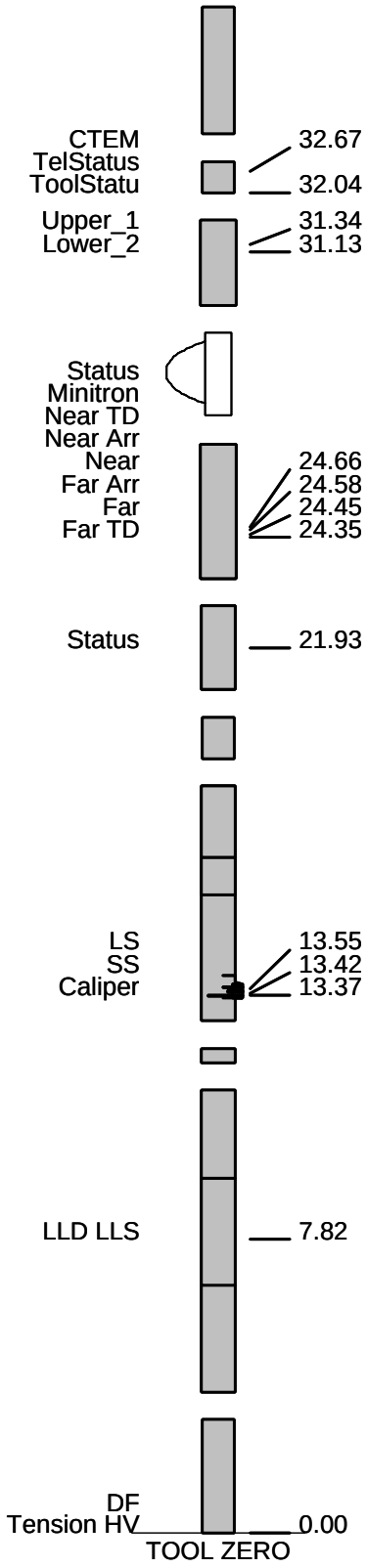
SURFACE EQUIPMENT

LCM-AA
SFT-281 24
SFT-178 4722
GSR-U 135
DTM-B

DOWNHOLE EQUIPMENT

LEH-QT 41.30

AH--Bridle-2 40.41
AH--Bridle-2 612



AH--Bridle-1 36.68
AH--Bridle-1 148

DTC-H 32.95

HNGS-BA 32.04
HNGS-BA 27
HNSH-BA 27

ILE-D 29.54
ILE-D 25

APS-BA 27.10
APS-BA 22
APH-AC 22
MNTR-F 4185

NPLC-B 23.16
NPLC-B 79
NPH-B 82

DTA-A 20.71
ECH-KE 8231

HLDT-A 19.49
GSR-Z 1846
HLDC-AA 11
HLDV-A 10
HLDS-B 10
HLDP-B 10
HEH-G 11
HEH-H 12

AH-169 12.61

DLT-E 12.20
DLH-CB 2893
DLC-D 930
DLS-F 929
DLE-E

AH-TAP 3.34
AH-TAP

TOOL ZERO

MAXIMUM STRING DIAMETER 3.88 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN METERS

Input DLIS Files

DEFAULT	SPLICE_DLL_LDL_APS_025	FN:1	PRODUCER	25-Jul-2001 05:32	3522.7 M	2581.1 M

Output DLIS Files

DEFAULT	DLL_LDL_APS_HNGS_026PUP	FN:42	PRODUCER	25-Jul-2001 05:35	3522.7 M	2590.2 M
REDUCE	DLL_LDL_APS_HNGS_026PUP	FN:43	PRODUCER	25-Jul-2001 05:35	3522.7 M	2590.2 M

OP System Version: 9C2-303

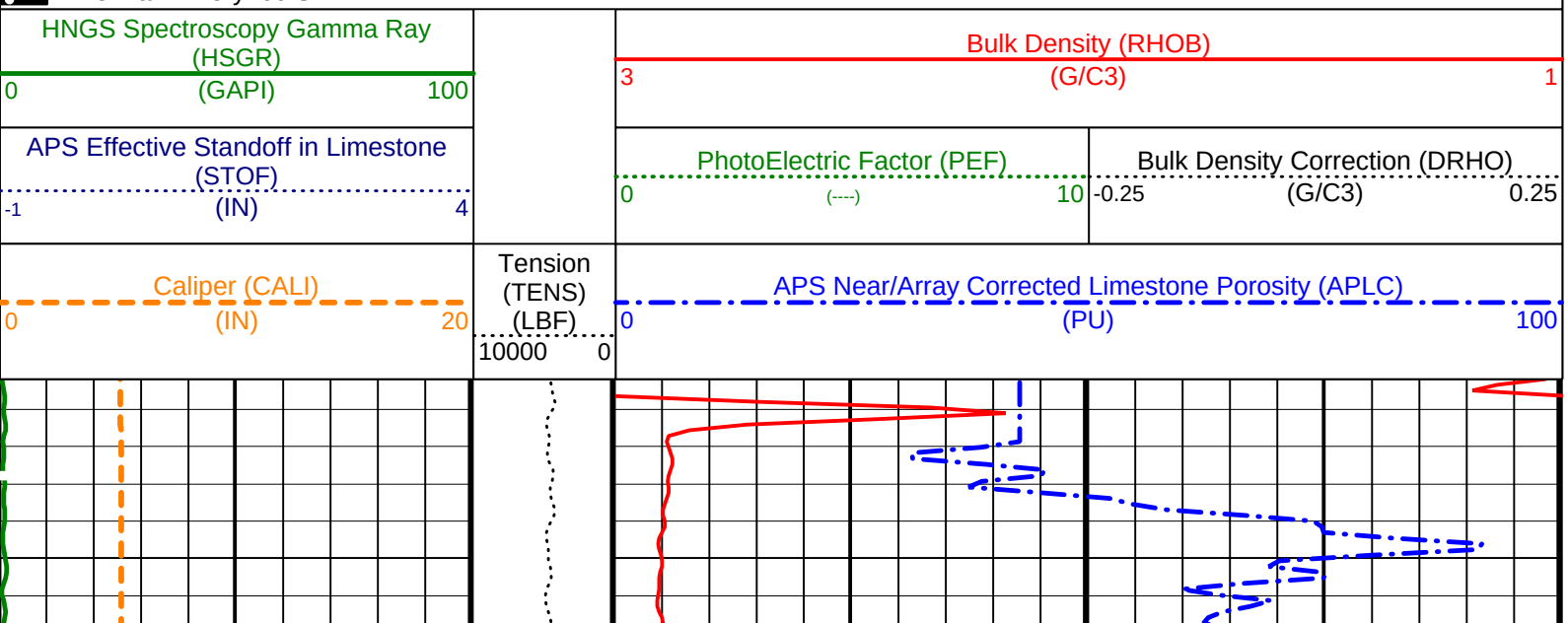
MCM

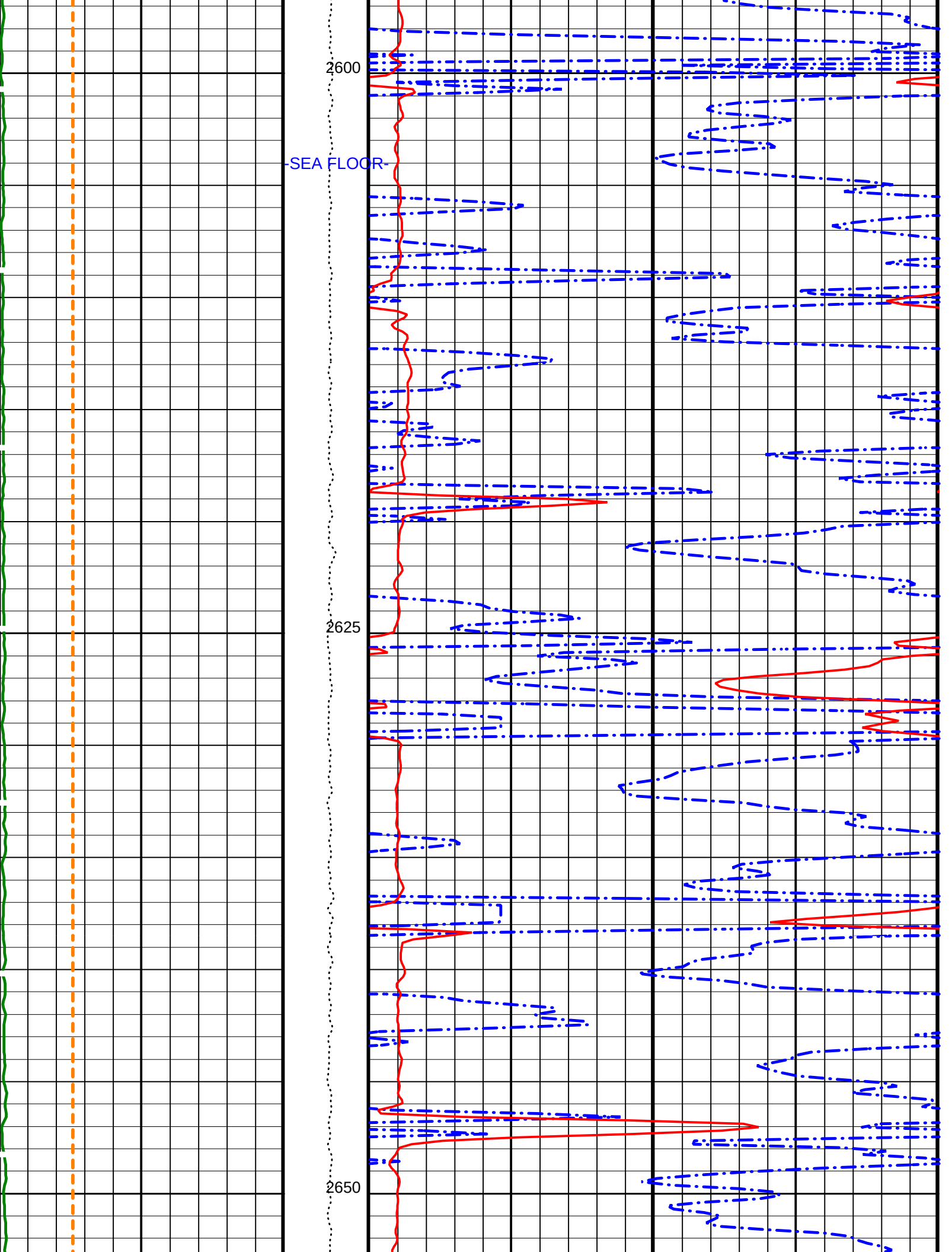
DLT-E	9C2-303	HLDT-A	9C2-303
DTA-A	9C2-303	NPLC-B	9C2-303
APS-BA	9C2-303	HNGS-BA	9C2-303
DTC-H	9C2-303		

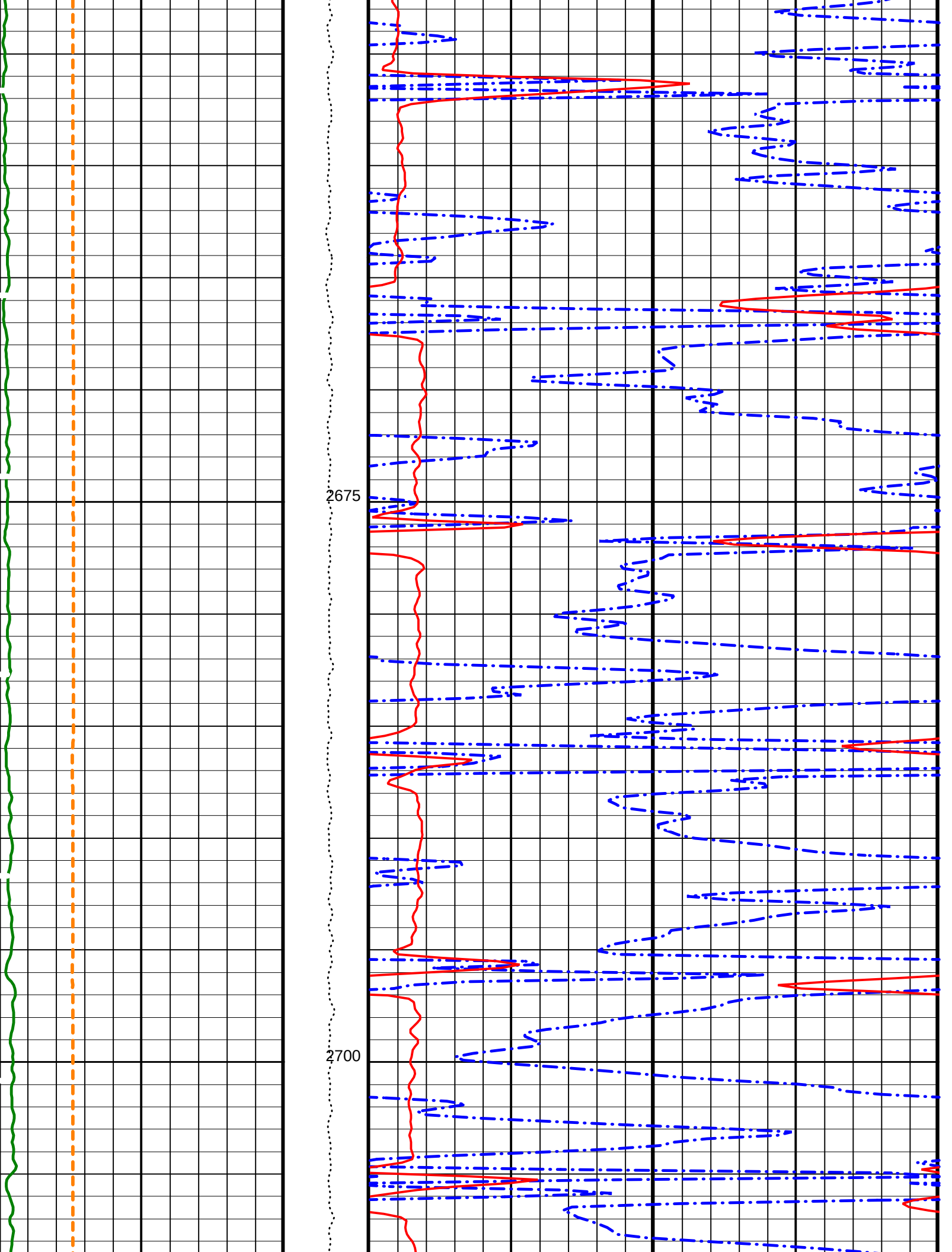
PIP SUMMARY

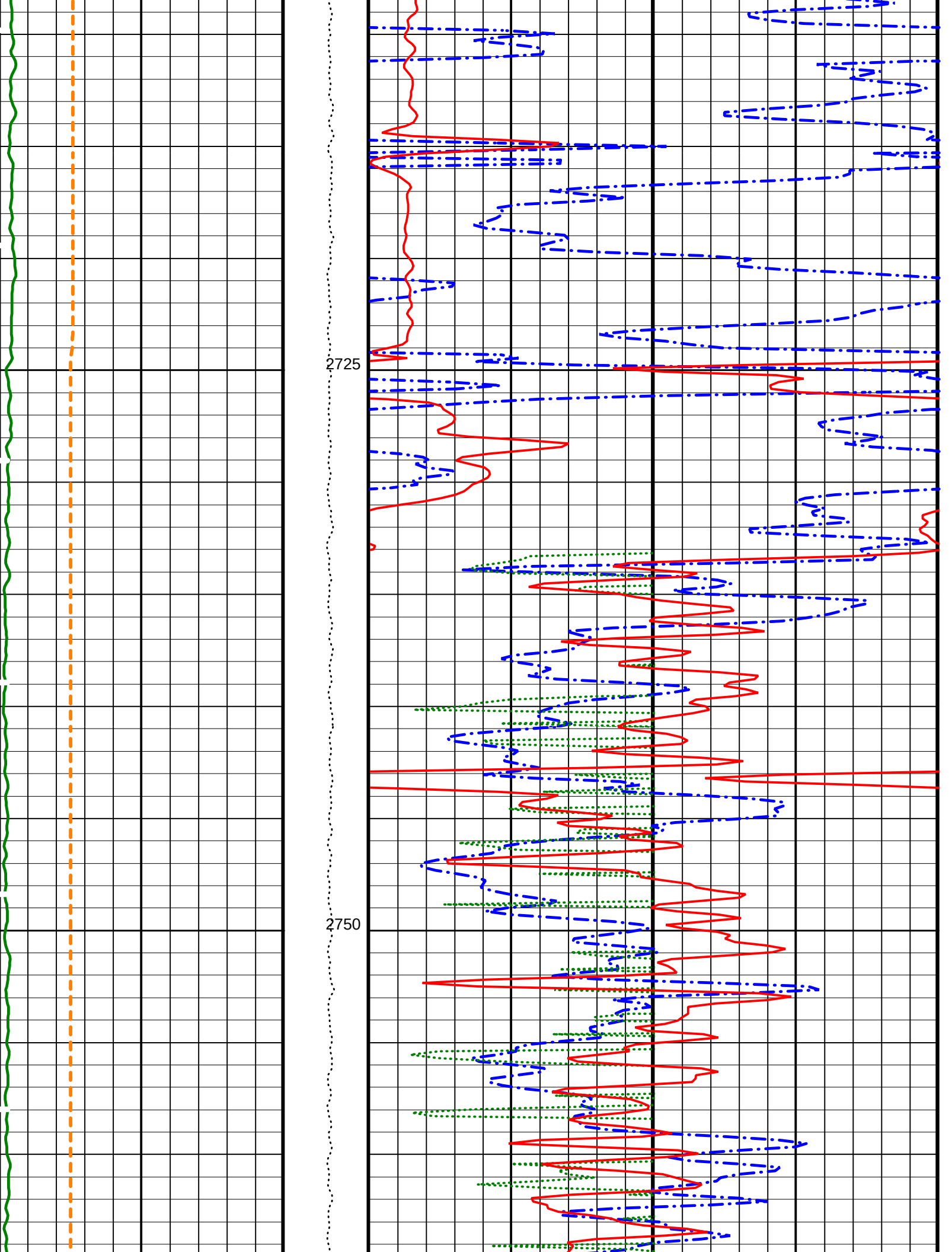
MAIN LOG

Time Mark Every 60 S




2600
-SEA FLOOR-
2625
2650


2675
2700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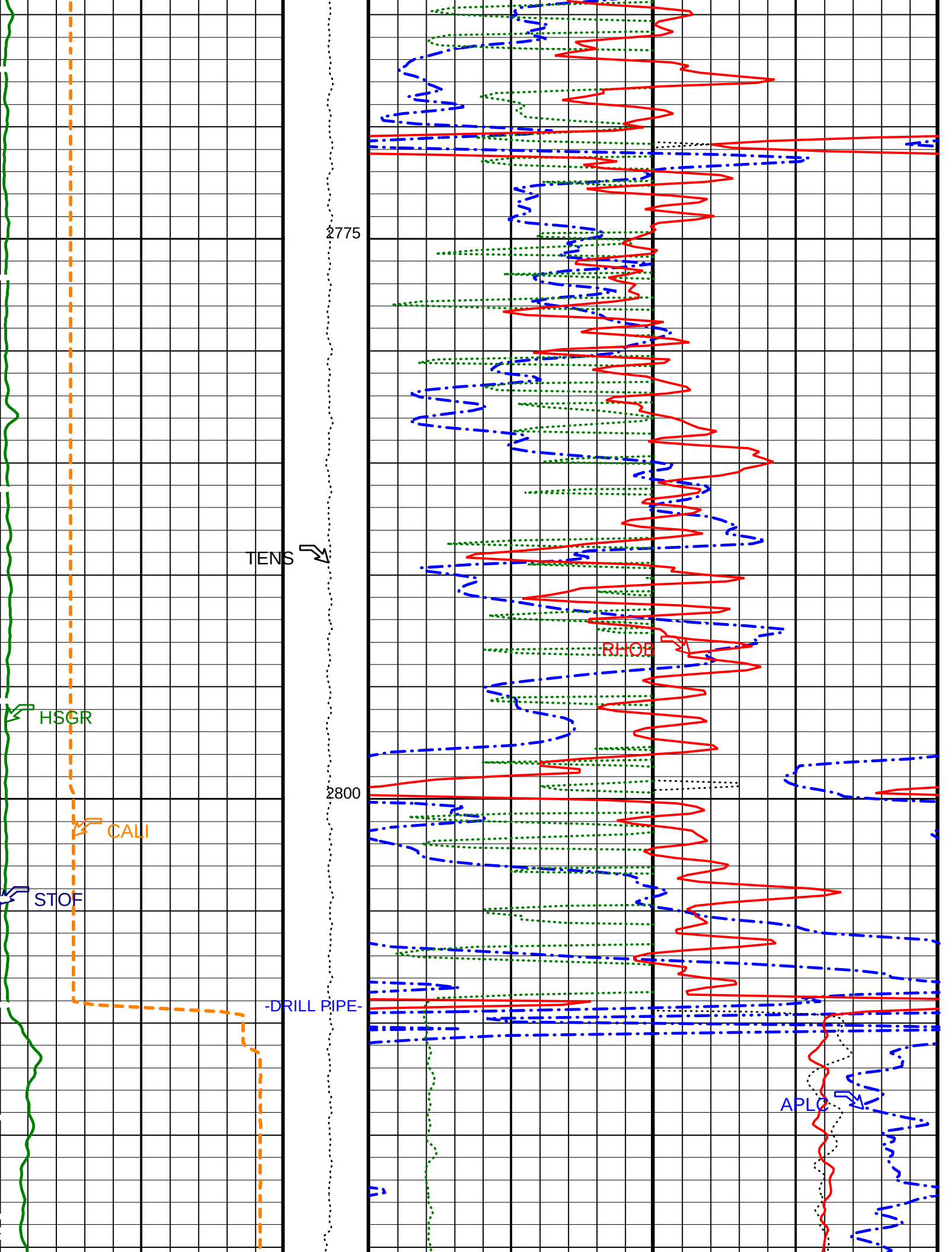
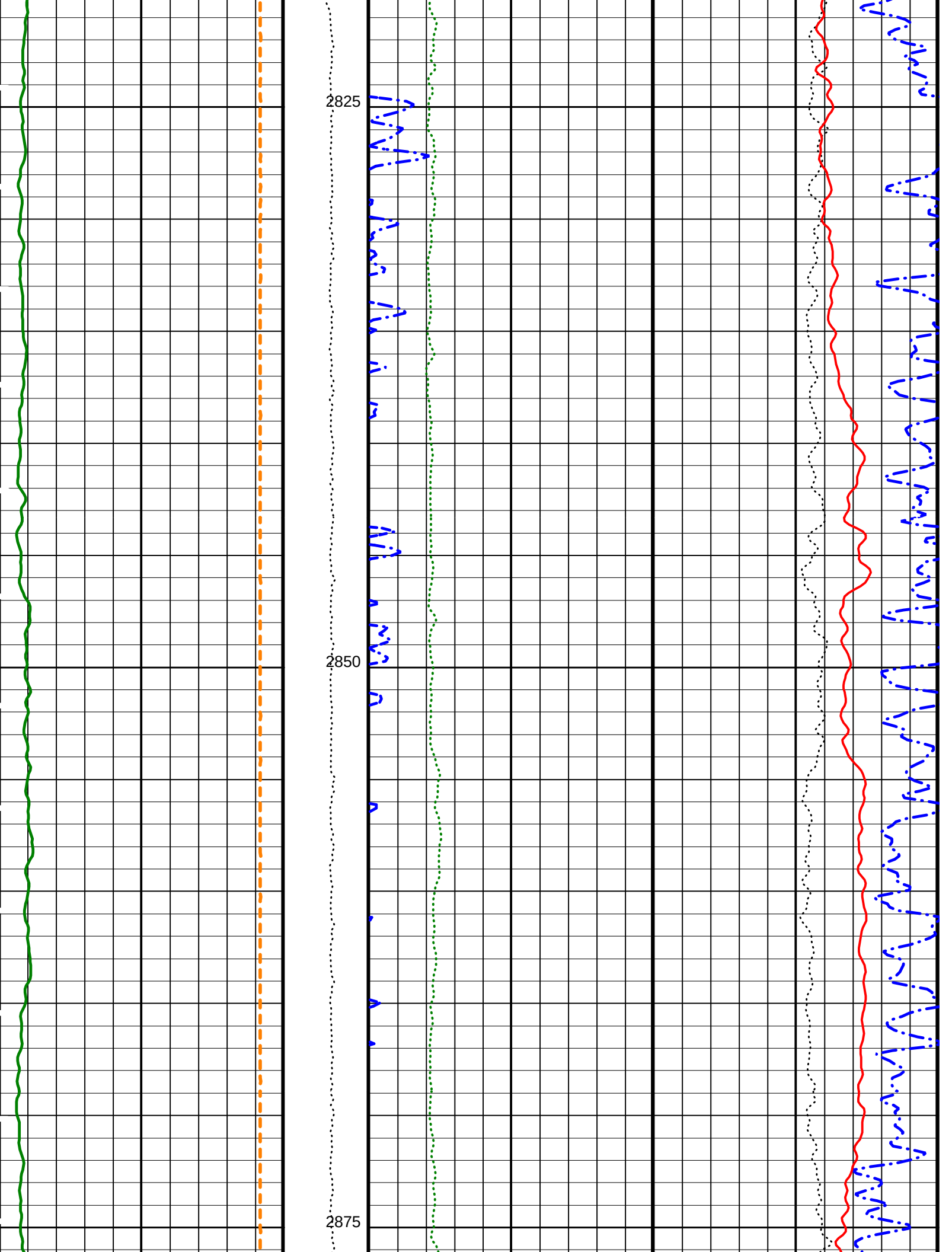

2775
TENS
RHOB
HSGR
2800
CALI
STOF
-DRILL PIPE-
APLC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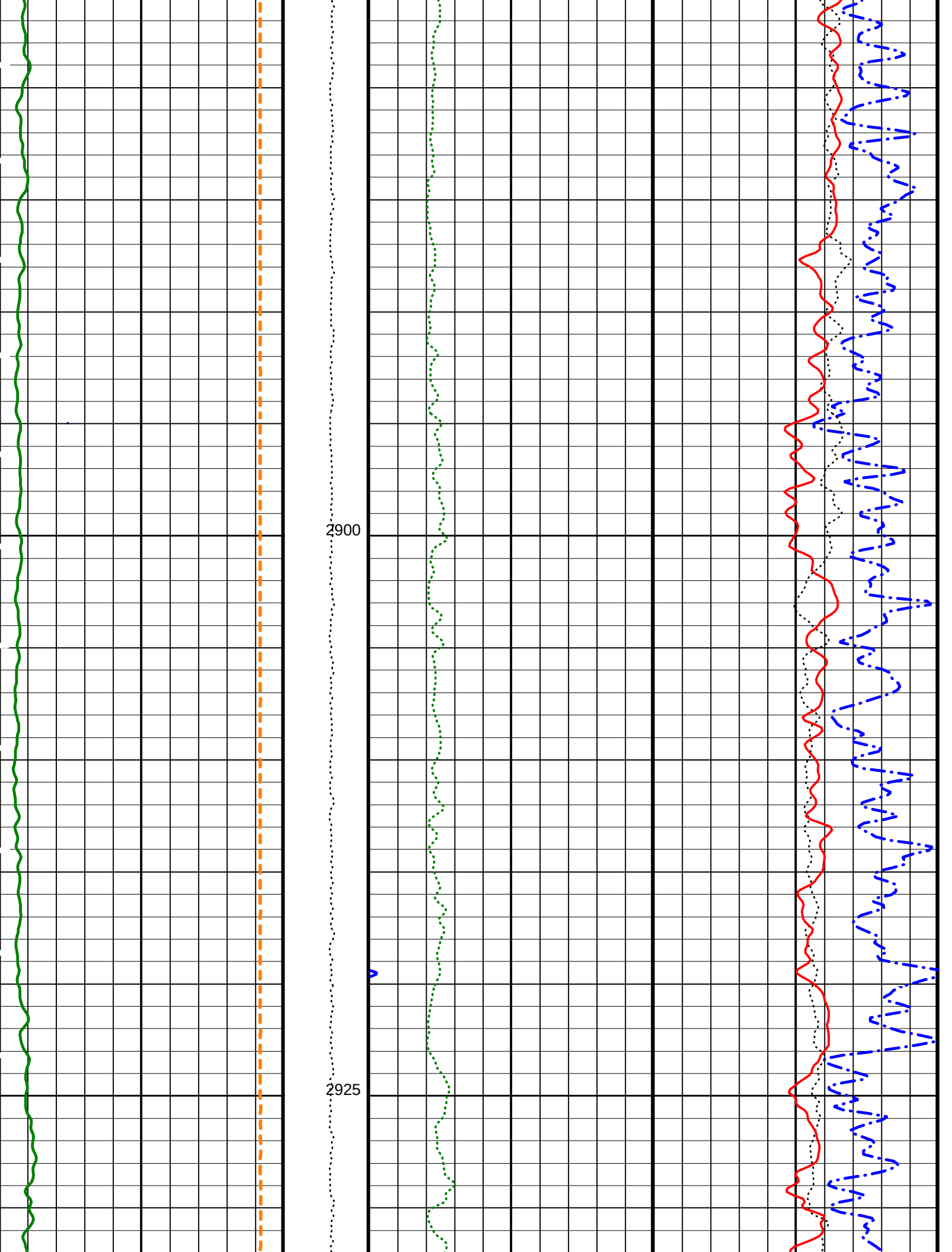
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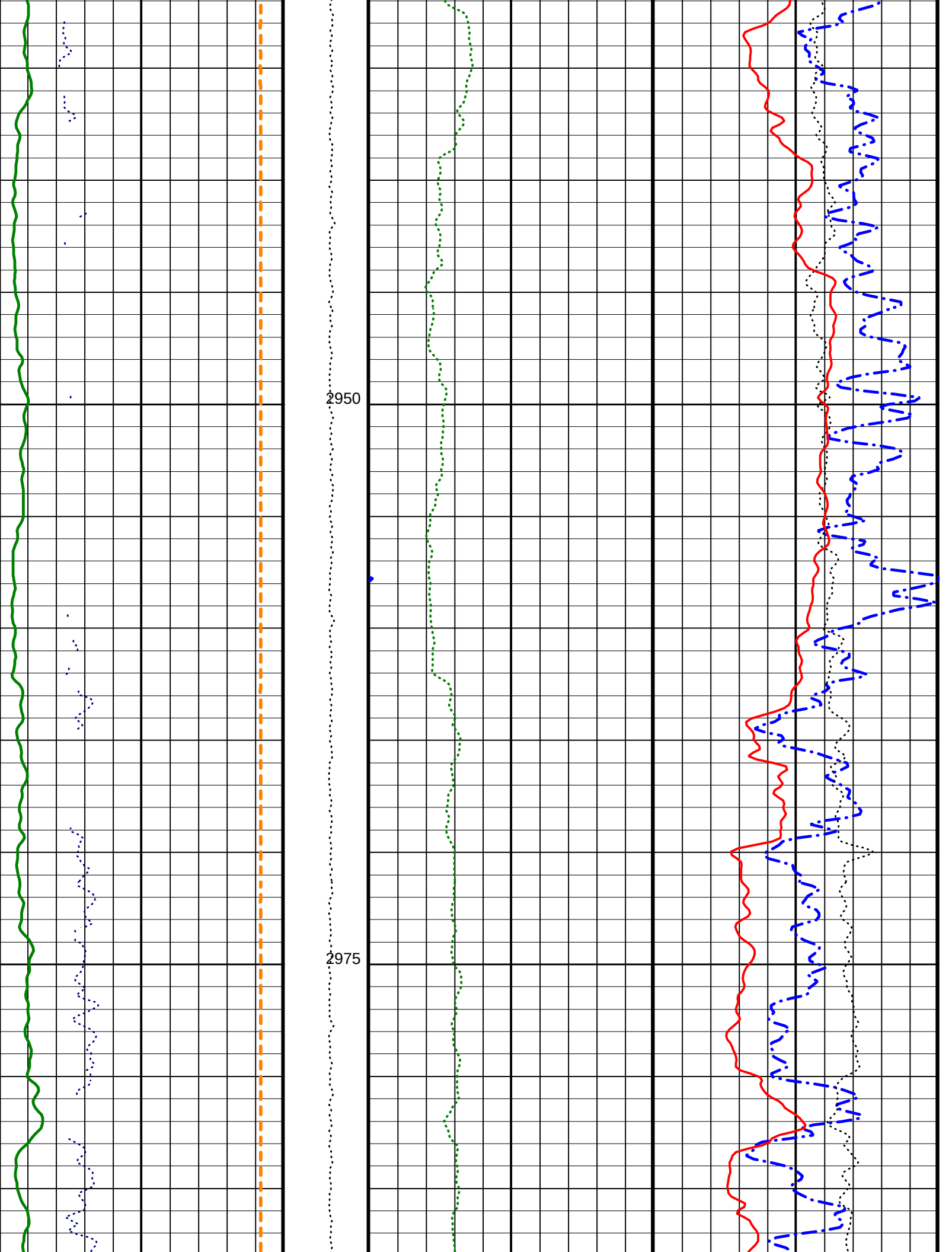
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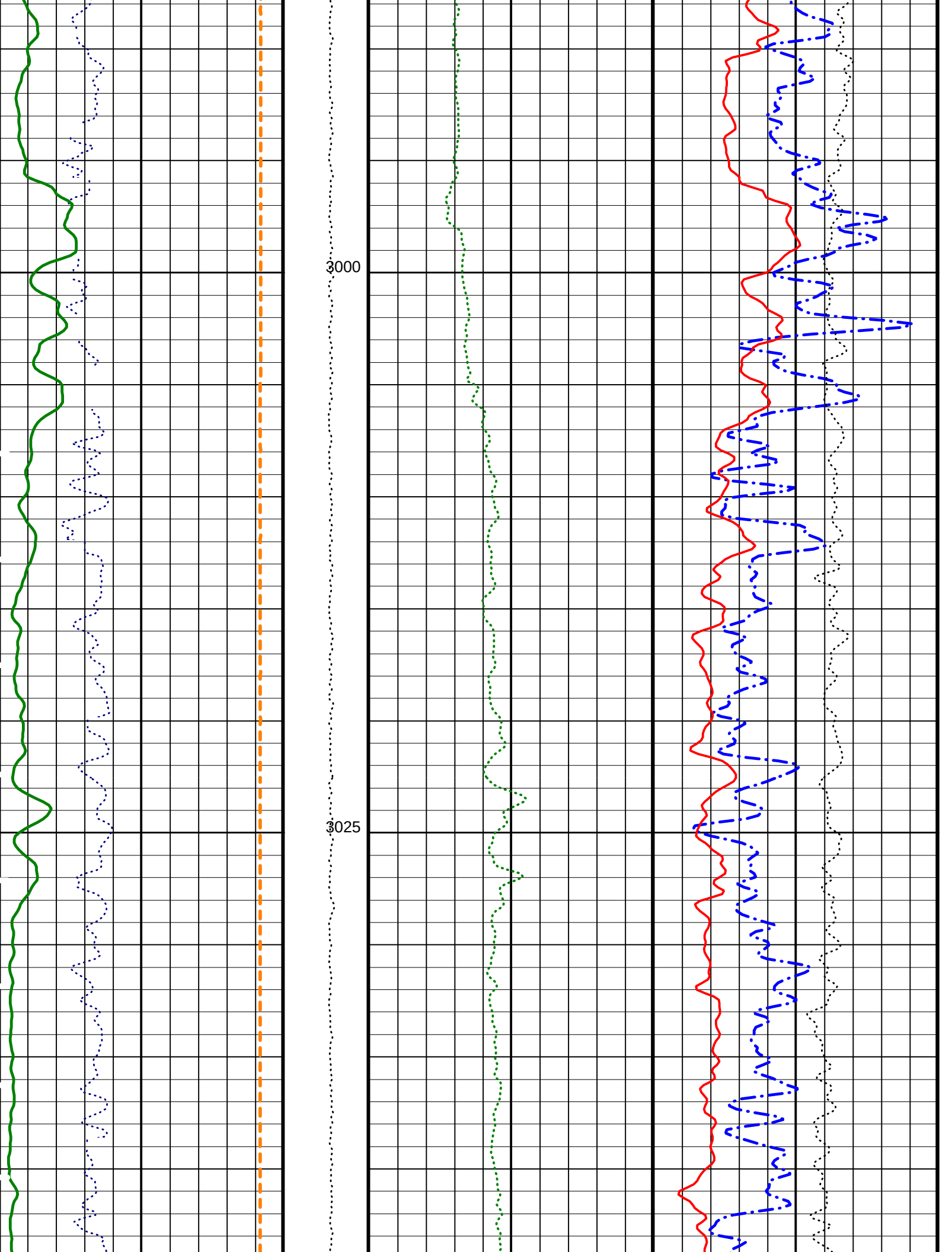
2975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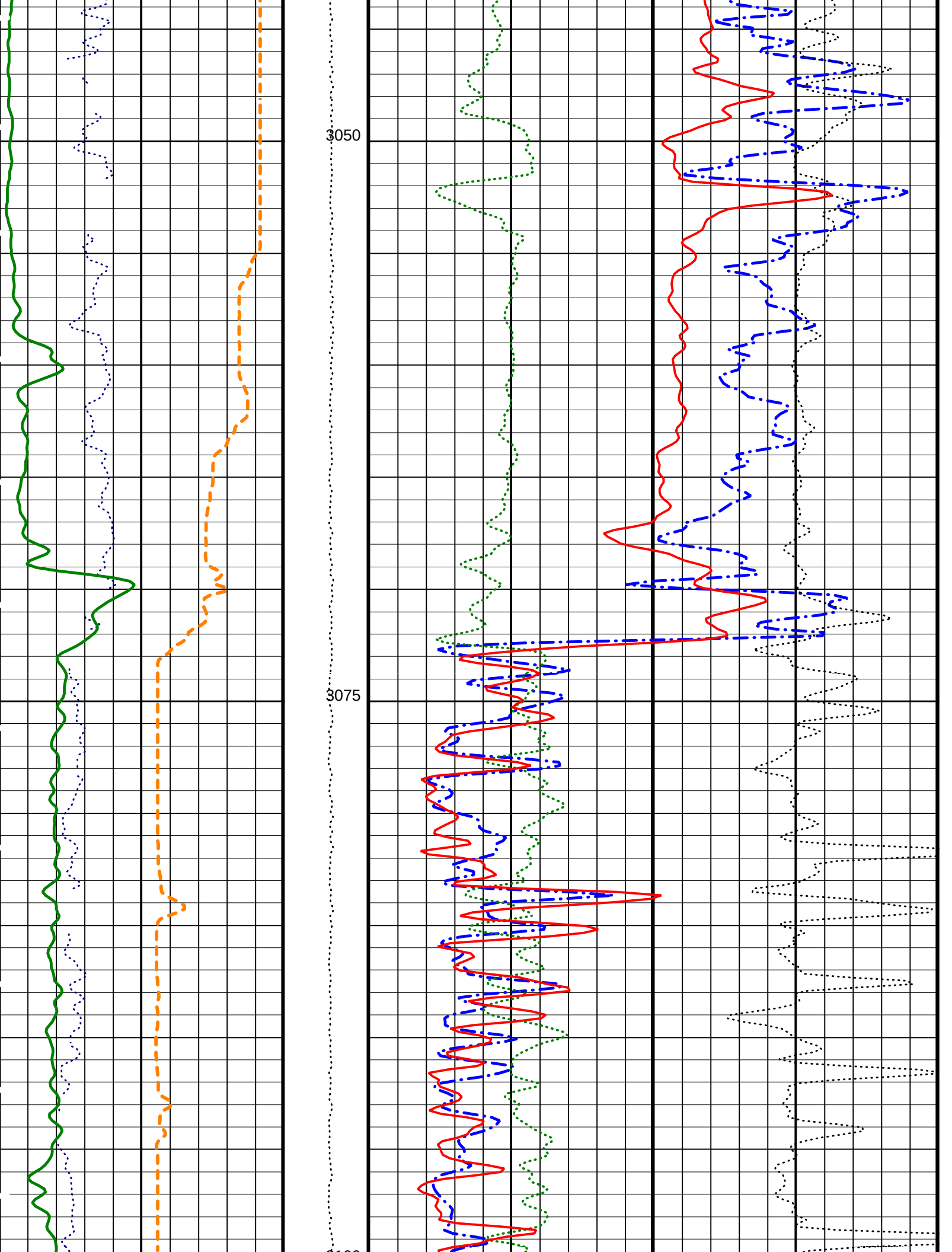
3025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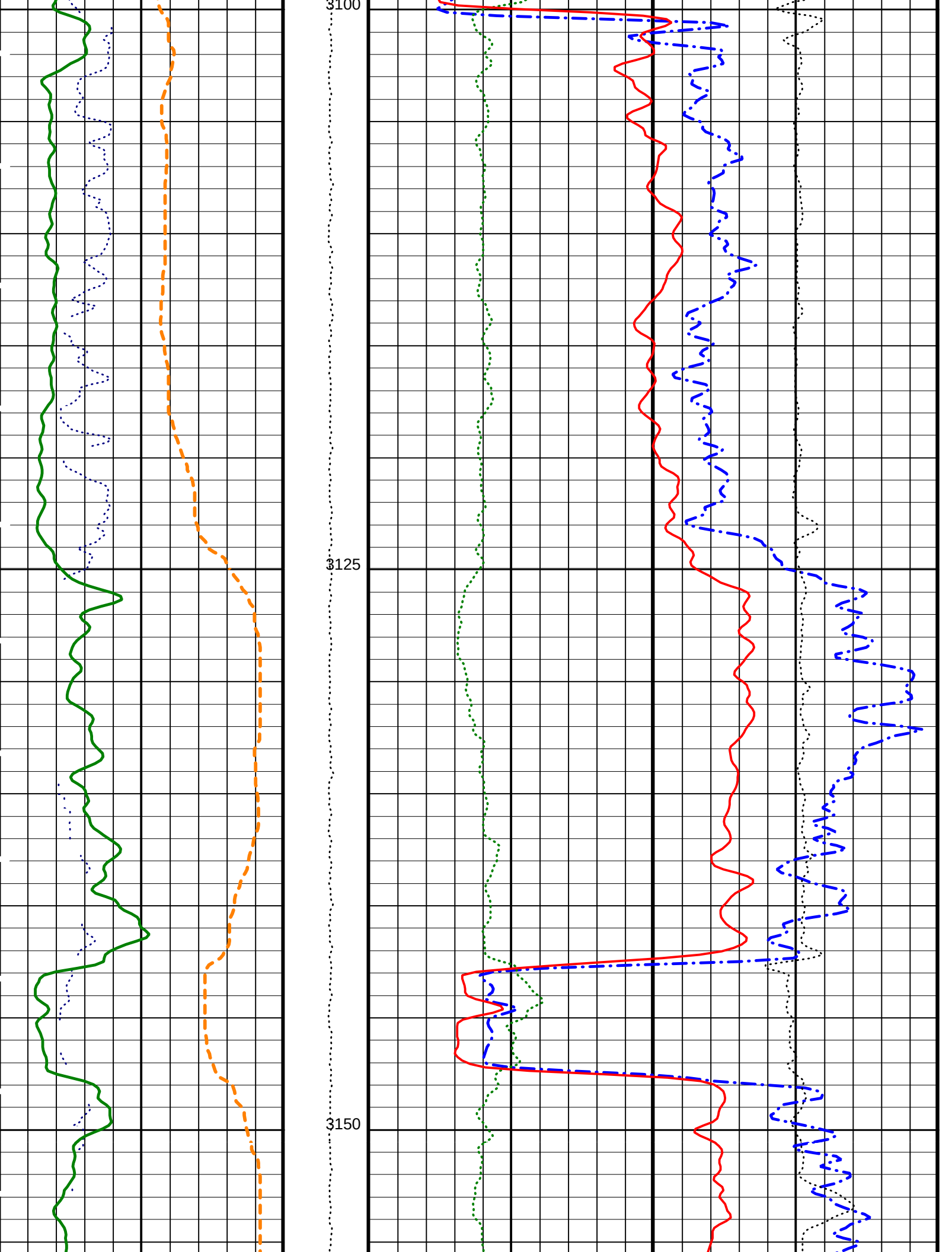
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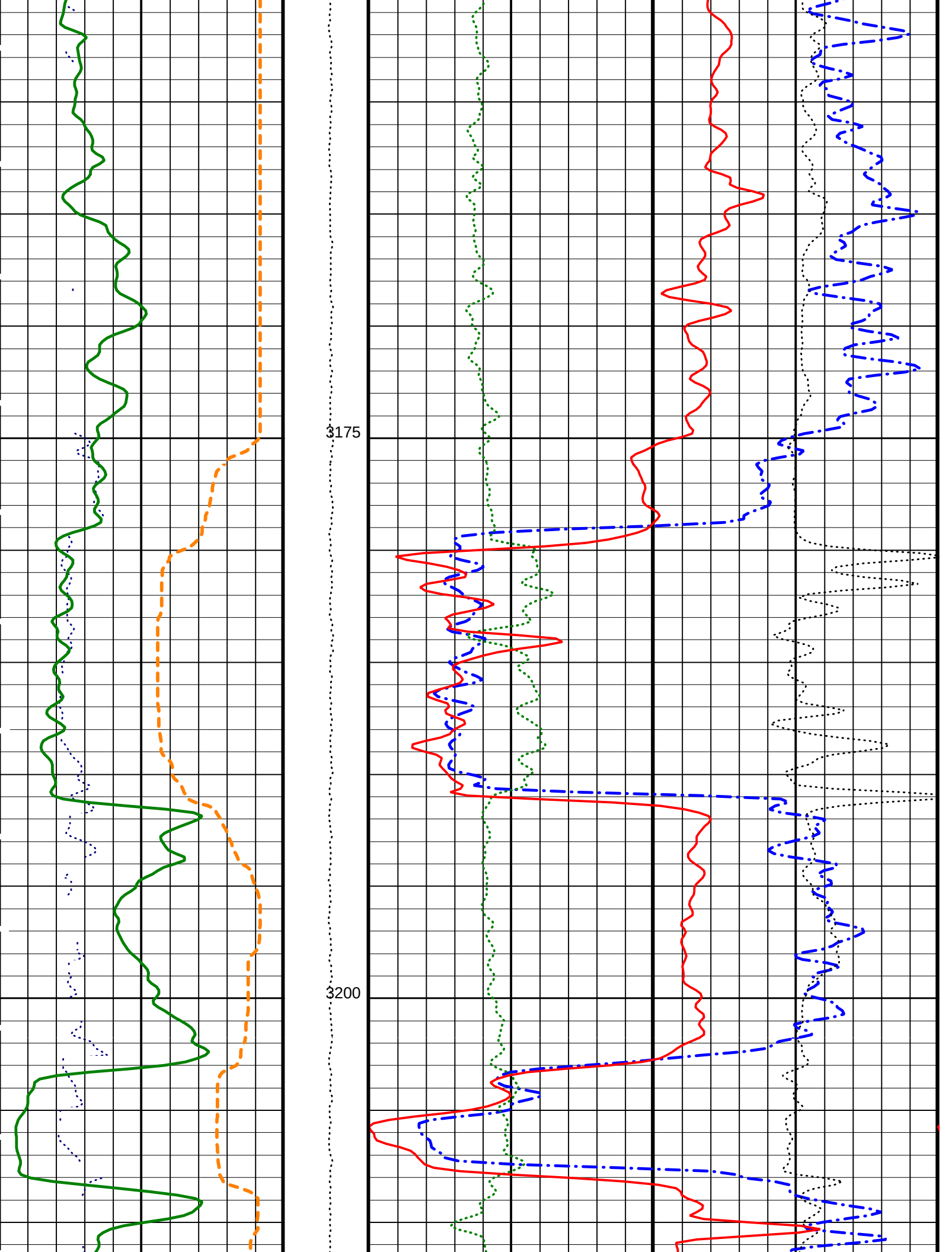
3125
3150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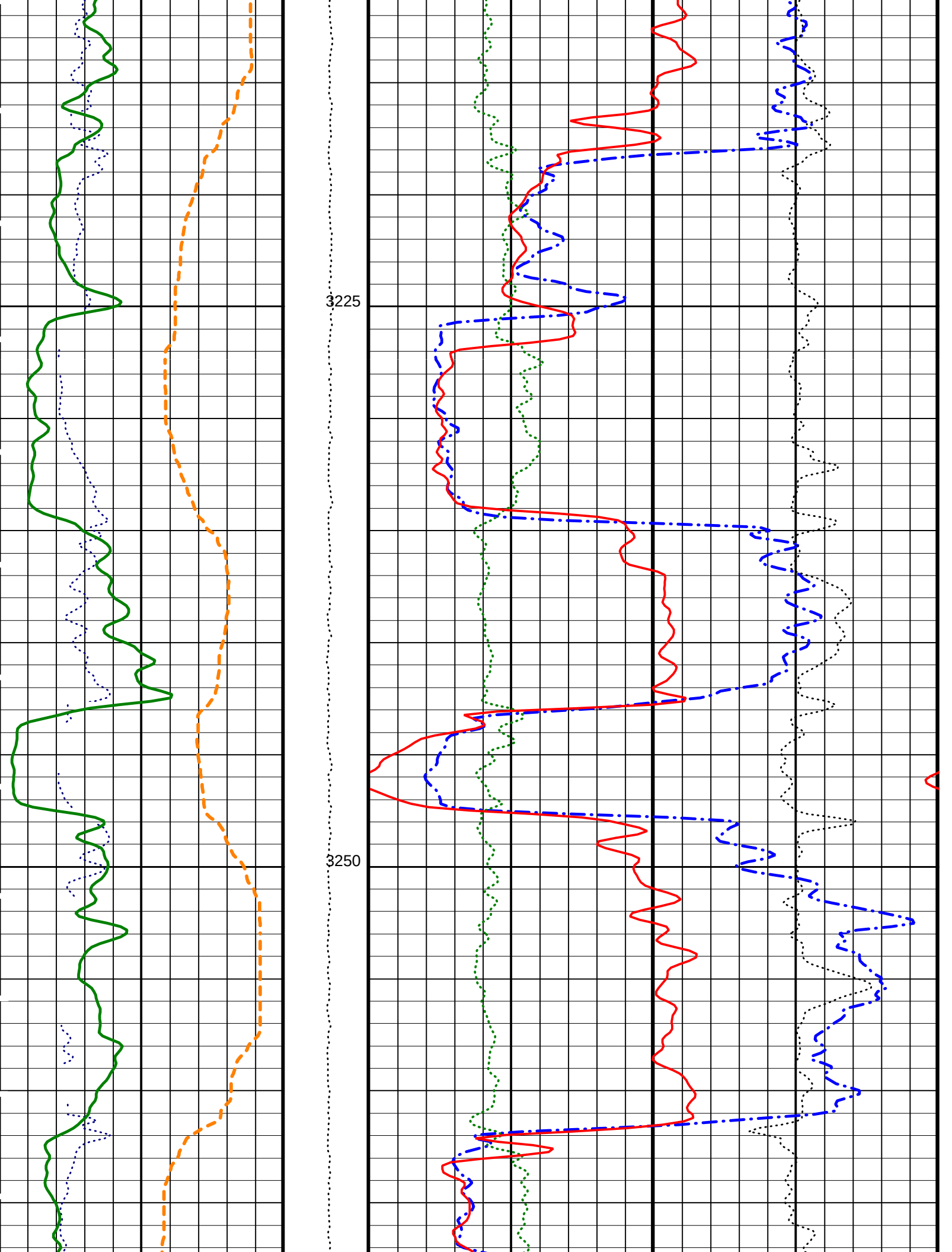
3200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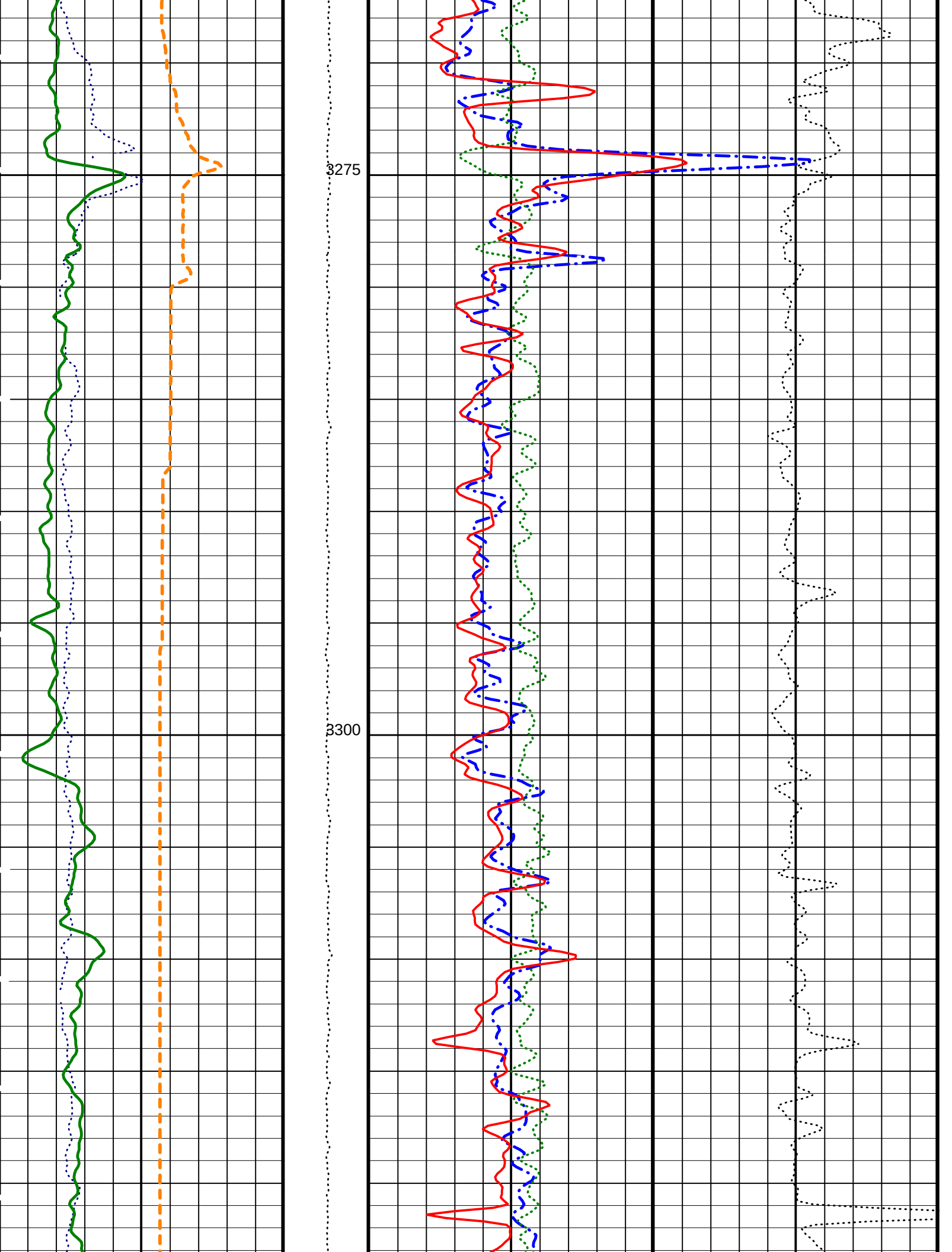
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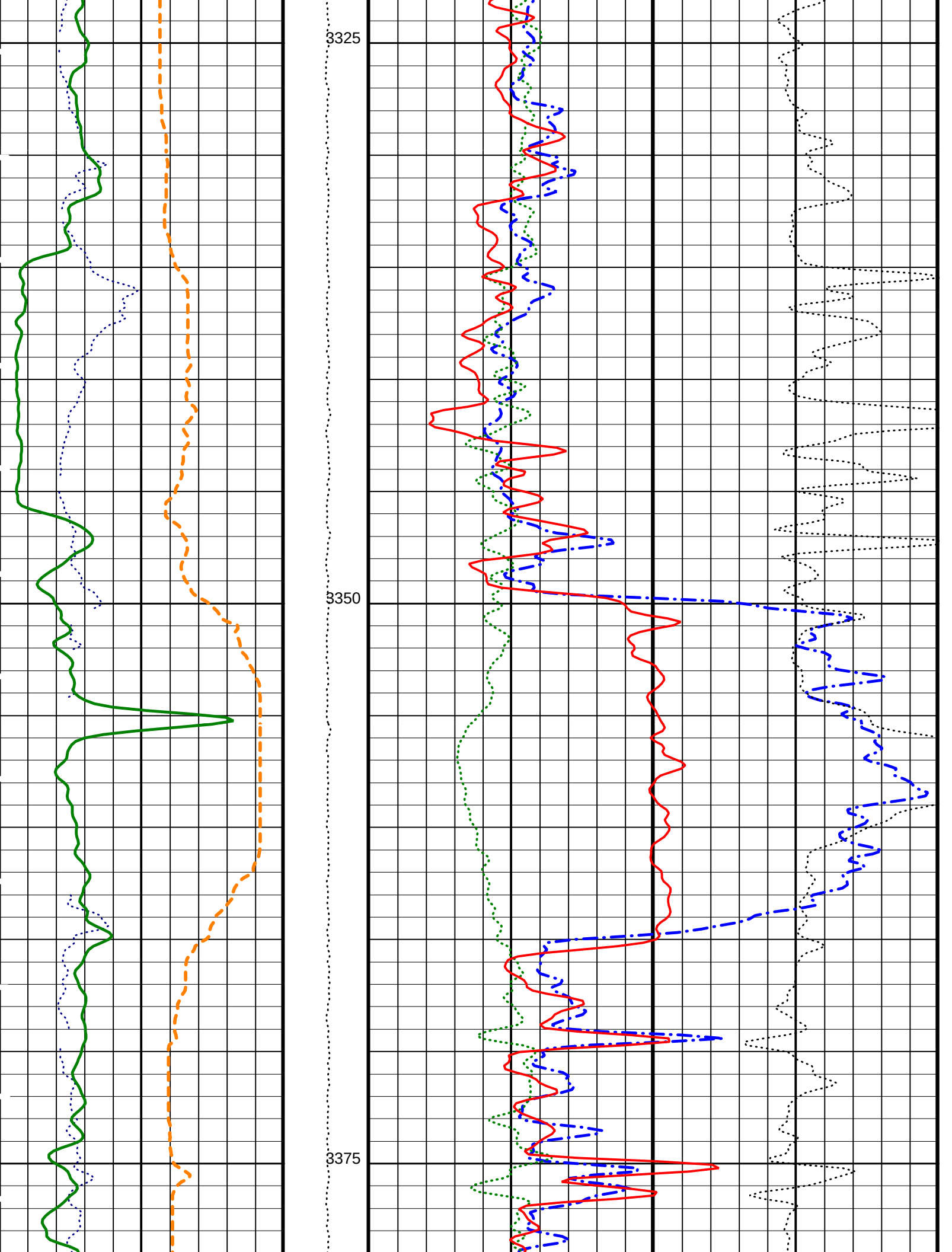
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3350
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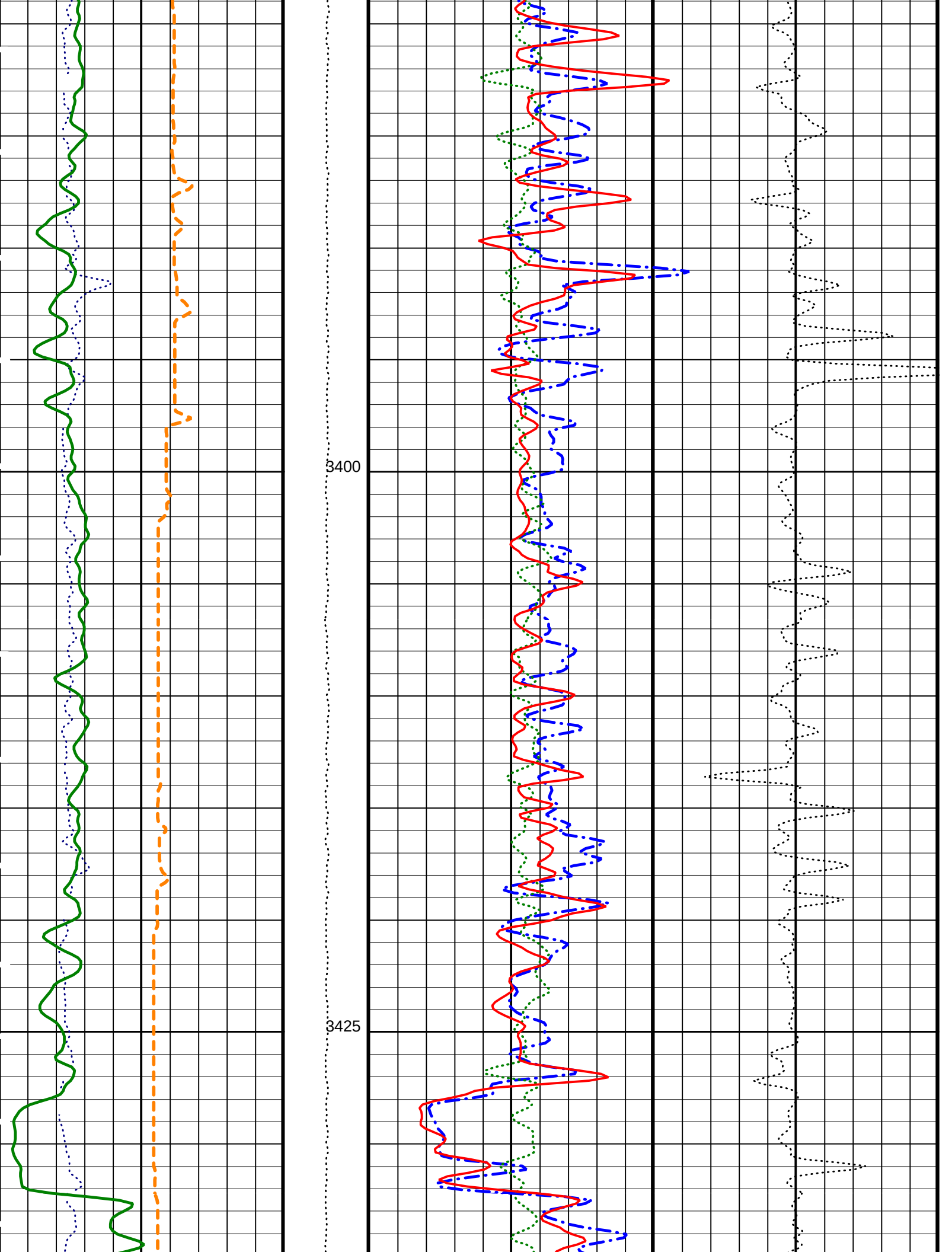
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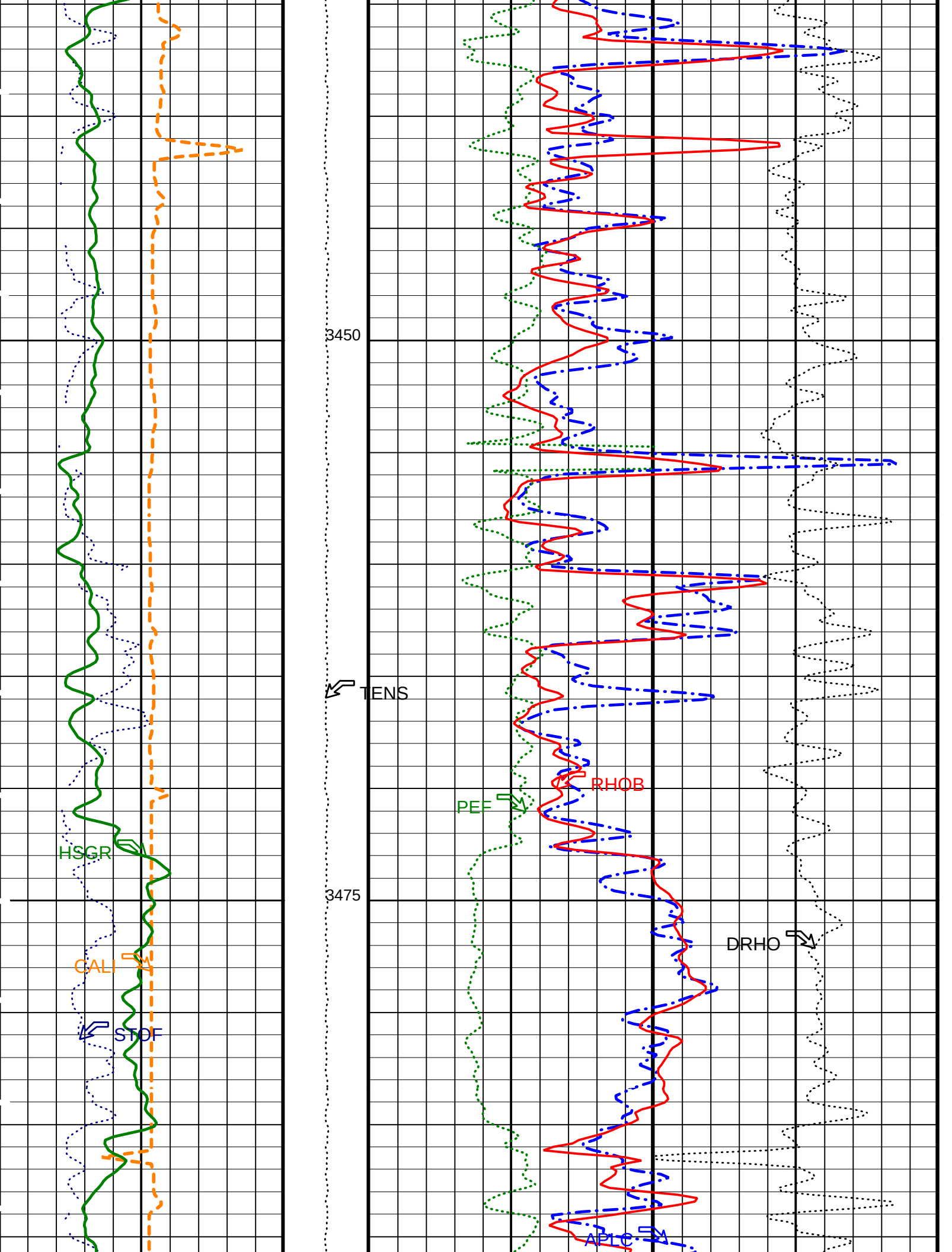
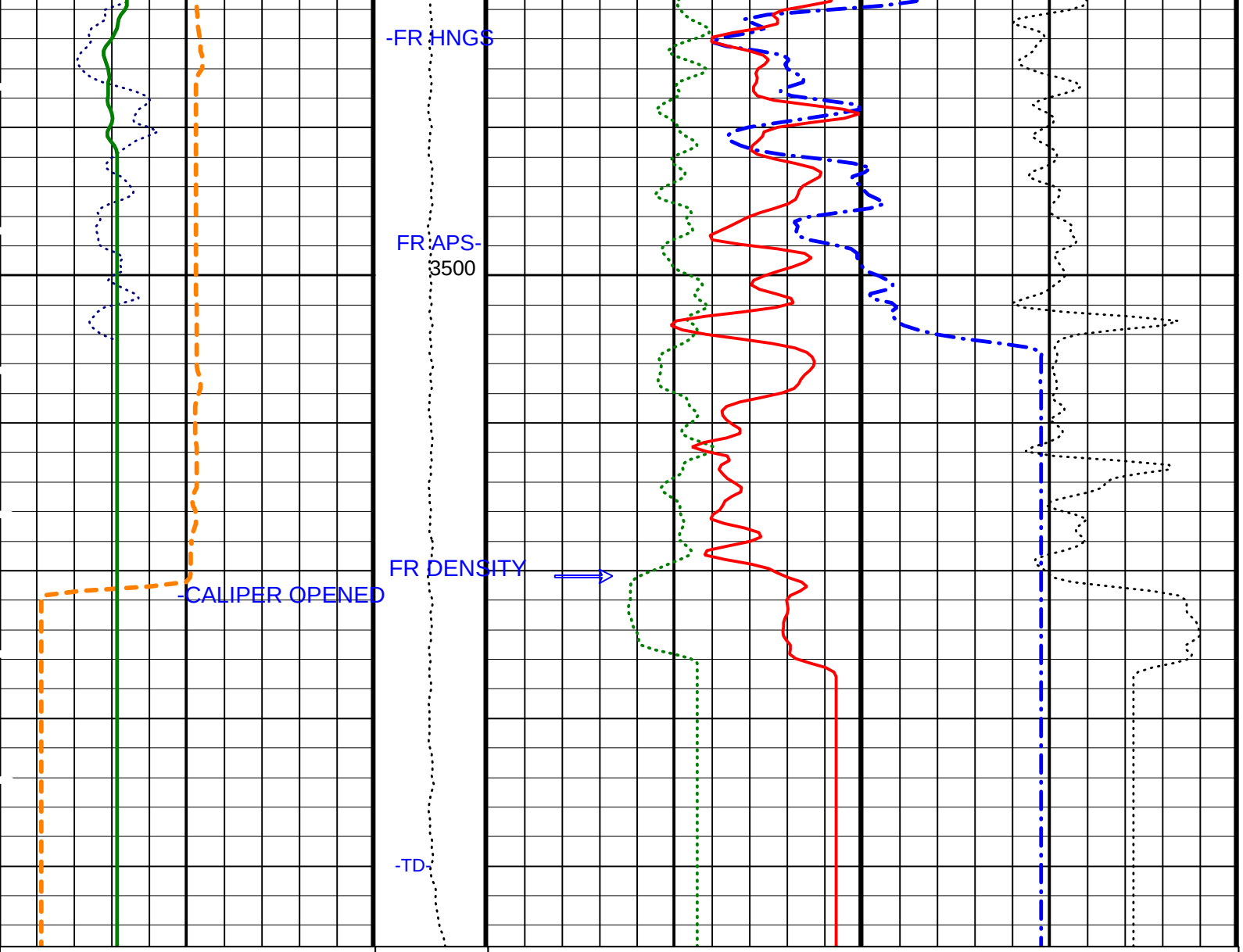
3425


3450
TENS
RHOB
PEF
HSGR
3475
DRHO
CALI
STOF
APLC



Caliper (CALI)
0 (IN) 20

Tension (TENS) (LBF)
10000 0

APS Near/Array Corrected Limestone Porosity (APLC)
0 (PU) 100

APS Effective Standoff in Limestone (STOF)
-1 (IN) 4

PhotoElectric Factor (PEF)
0 (----) 10

Bulk Density Correction (DRHO)
-0.25 (G/C3) 0.25

HNGS Spectroscopy Gamma Ray (HSGR)
0 (GAPI) 100

Bulk Density (RHOB)
3 (G/C3) 1

PIP SUMMARY

MAIN LOG

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	APS Cement Thickness Source	COMPUTED	
	Apparent Thickness of Cement	0	IN
	APS Software Version	0	
AASD	APS Thermal and Array Detectors High Voltage Setting	1968.98	V
ABOS	APS Neutron Burst-Off Background Subtraction Switch	ON	
ADSO	APS Array Detectors Data Source Switch	Both	
AFSD	APS Far Detector High Voltage Setting	2052.03	V
AHCS	APS Holesize Correction Source	GCSE	
AHSS	APS Holesize Correction Switch	ON	
ALTDPCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
AMTY	APS Environmental Corrections Mud Type	WaterBaseBarite	
ANSD	APS Near Detector High Voltage Setting	1748.3	V

AOTS	APS Old Temperature Sensor Switch	NO	
ASOS	APS Standoff Correction Switch	ON	
ATSS	APS Temperature-Pressure-Salinity Correction Switch	OFF	
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BFM	Borehole Fluid Medium	LIQUID	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	12	DEGC
BKSF	HNGS Borehole Fluid Excluder Sleeve Algorithm Factor	1	
BKSH	HNGS Borehole Fluid Excluder Sleeve Algorithm High Channel	245	
BKSL	HNGS Borehole Fluid Excluder Sleeve Algorithm Low Channel	17	
BS	Bit Size	9.875	IN
BSAL	Borehole Salinity	-50000.00	PPM
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSIZ	Current Casing Size	0.000	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
CWEI	Casing Weight	0.00	LB/F
D1PR	HNGS Detector 1 Calibration Thorium Peak Resolution	7.47657	%
D1TC	HNGS Detector 1 Calibration Temperature	15.7627	DEGC
D1TL	HNGS Detector 1 Calibration Thorium Peak Location	211.807	
D2PR	HNGS Detector 2 Calibration Thorium Peak Resolution	6.59237	%
D2TC	HNGS Detector 2 Calibration Temperature	14.9664	DEGC
D2TL	HNGS Detector 2 Calibration Thorium Peak Location	209.368	
DBCC	HNGS Barite Constant Correction Flag	NONE	
DFD	Drilling Fluid Density	1.07	G/C3
DHC	Density Hole Correction	BS	
DO	Depth Offset for Playback	0.0	M
DPPM	Density Porosity Processing Mode	HIRS	
DPRF	DEEP REFERENCE POWER	550	NW
FD	Fluid Density	1	G/C3
FSAL	Formation Salinity	-50000	PPM
GCF1_START	HNGS Detector 1 GCF Constant	1	
GCF2_START	HNGS Detector 2 GCF Constant	1	
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	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	-0.000954095	
HALF	HNGS Alpha Filter Length	60	IN
HATIM	HNGS Marquardt Accumulation Time	600	S
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
HSLV	HNGS Borehole Fluid Excluder Sleeve Status	NO	
HSVN	HNGS Spectral Standards Version Number	2.30388e-036	
KFAC	K FACTOR	SOND	
LLOO	LATEROLOG LOOP	OFF	
LSHC	LS Hardware Loop Control	DISALLOW	
MARQ_START	HNGS Marquardt Start-up Mode	INTERNAL	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MDEN	Matrix Density	2.71	G/C3
MST	Mud Sample Temperature	21.00	DEGC
NARC	APS Near/Array Calibration Ratio	1.06068	
NFRC	APS Near/Far Calibration Ratio	0.895338	
NOTS	NPLC Old Temperature Sensor	NO	
PBVSADP	Use alternate depth channel for playback	NO	
PLRM	POWER LOOP REFERENCE MODE	DEEP	
PP	Playback Processing	NORMAL	
QPPS	Quicklook Processing Pe Select	PEFL	
RDF1_START	HNGS Detector 1 RDF Constant	0	
RDF2_START	HNGS Detector 2 RDF Constant	0	
RMFS	Resistivity of Mud Filtrate Sample	-50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S1NA	HNGS Detector 1 Calibration Sodium Count Rate	19.4971	CPS
S1NG	HNGS Detector 1 Calibration End-On / Side-On Gain Ratio	0.99201	
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
S2NA	HNGS Detector 2 Calibration Sodium Count Rate	19.8566	CPS
S2NG	HNGS Detector 2 Calibration End-On / Side-On Gain Ratio	0.984299	
SABK	HNGS Statistical Uncertainty in Borehole Potassium Running Average	0.00011377	
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES	
SHT	Surface Hole Temperature	15	DEGC
SPRF	SHALLOW REFERENCE POWER	550	NW
SSHC	SS Hardware Loop Control	DISALLOW	
TD	Total Depth	3520	M
TDD	Total Depth - Driller	3519.00	M
TDL	Total Depth - Logger	3520.00	M
TPOS	Tool Position	ECCE	

TWS	Temperature of Connate Water Sample	37.78	DEGC
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.06295	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.97096	
WMUD	Mud Weight	1.066	G/C3

Format: APSLiquidPorosity_1 Vertical Scale: 1:200 Graphics File Created: 25-Jul-2001 05:36

OP System Version: 9C2-303

MCM

DLT-E	9C2-303	HLDT-A	9C2-303
DTA-A	9C2-303	NPLC-B	9C2-303
APS-BA	9C2-303	HNGS-BA	9C2-303
DTC-H	9C2-303		

Input DLIS Files

DEFAULT	SPLICE_DLL_LDL_APS_025	FN:1	PRODUCER	25-Jul-2001 05:32	3522.7 M	2581.1 M

Output DLIS Files

DEFAULT	DLL_LDL_APS_HNGS_026PUP	FN:42	PRODUCER	25-Jul-2001 05:35		
REDUCE	DLL_LDL_APS_HNGS_026PUP	FN:43	PRODUCER	25-Jul-2001 05:35		

Input DLIS Files

DEFAULT	DLL_LDL_APS_HNGS_006LUP	FN:8	PRODUCER	23-Jul-2001 17:29	3031.2 M	2903.5 M

Output DLIS Files

DEFAULT	DLL_LDL_APS_HNGS_021PUP	FN:36	PRODUCER	25-Jul-2001 05:01	3033.2 M	2912.5 M
REDUCE	DLL_LDL_APS_HNGS_021PUP	FN:37	PRODUCER	25-Jul-2001 05:01	3033.2 M	2912.5 M

OP System Version: 9C2-303

MCM

DLT-E	9C2-303	HLDT-A	9C2-303
DTA-A	9C2-303	NPLC-B	9C2-303
APS-BA	9C2-303	HNGS-BA	9C2-303
DTC-H	9C2-303		

PIP SUMMARY

REPEAT SECTION

Time Mark Every 60 S

HNGS Spectroscopy Gamma Ray (HSGR)
0 (GAPI) 100

Bulk Density (RHOB)
3 (G/C3) 1

APS Effective Standoff in Limestone (STOF)
-1 (IN) 4

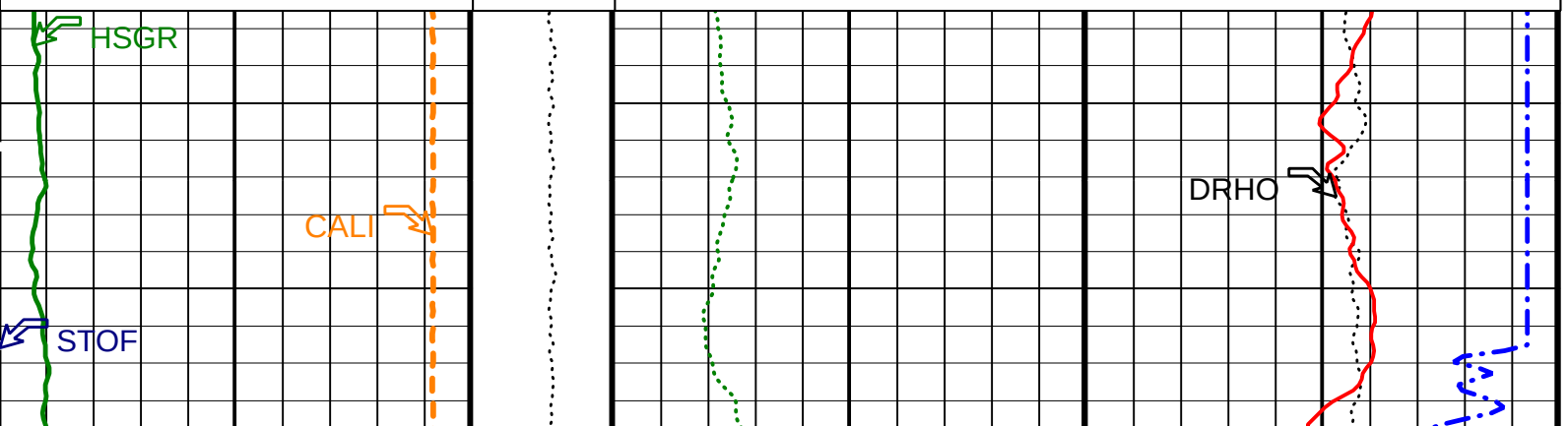
PhotoElectric Factor (PEF)
0 (----) 10

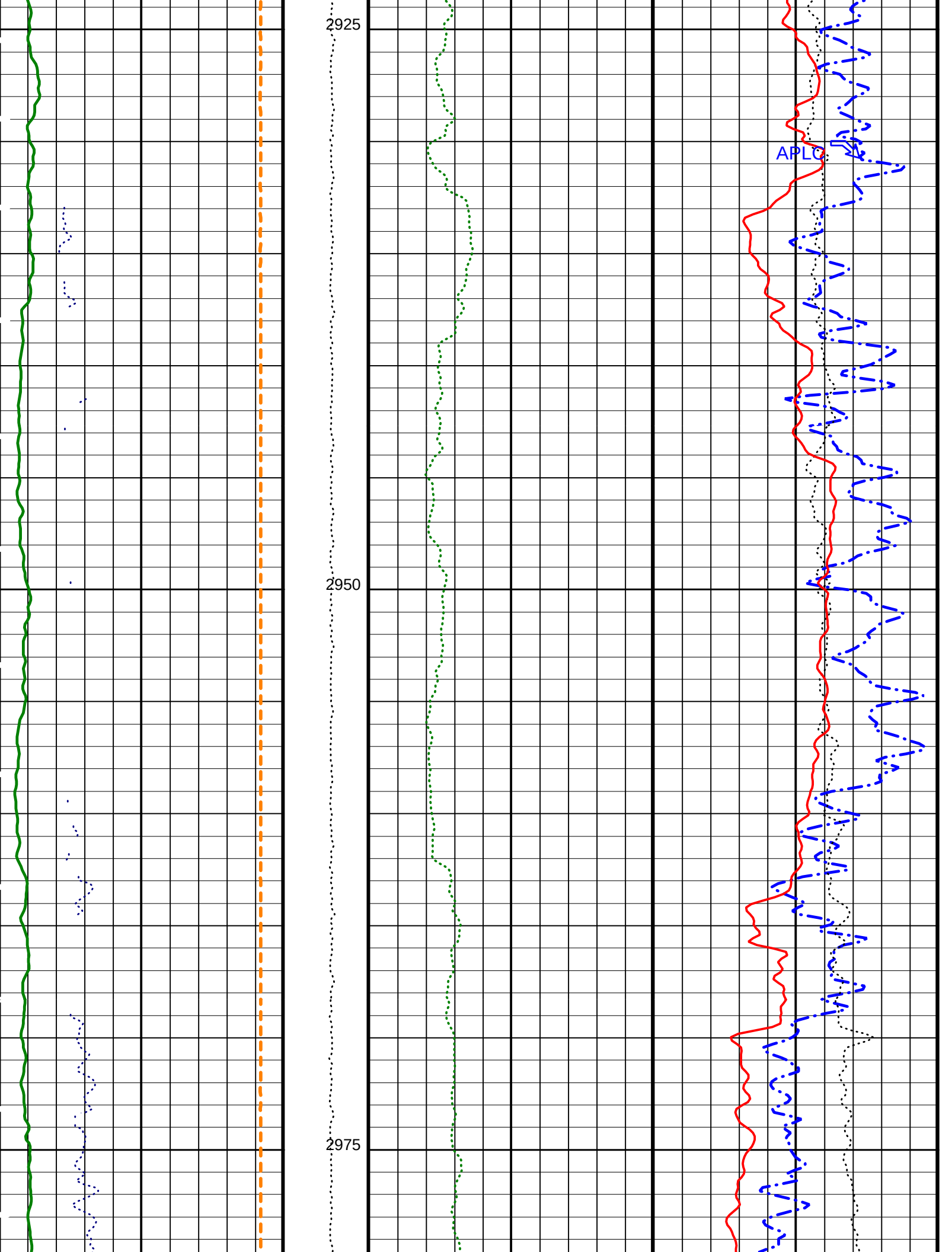
Bulk Density Correction (DRHO)
-0.25 (G/C3) 0.25

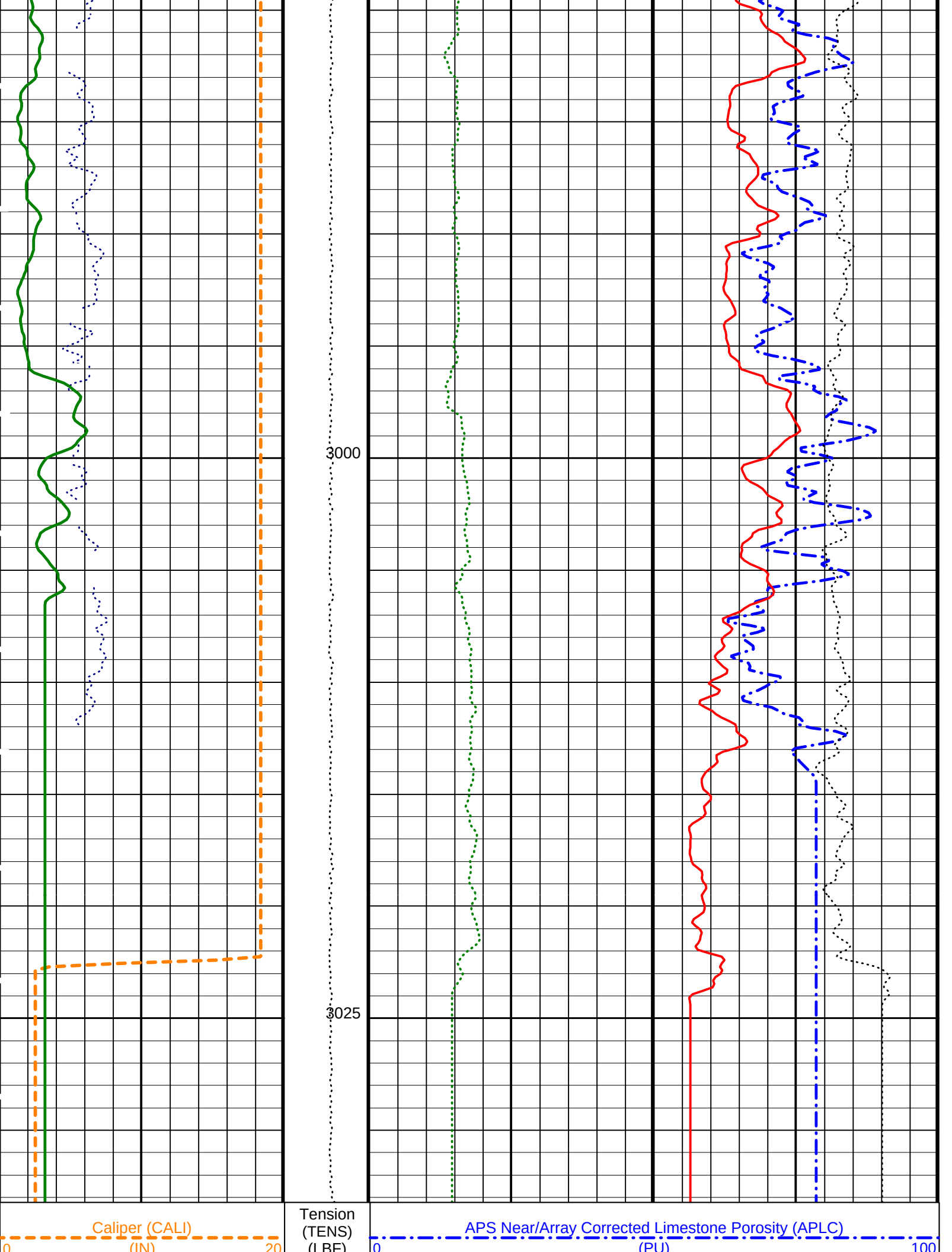
Caliper (CALI)
0 (IN) 20

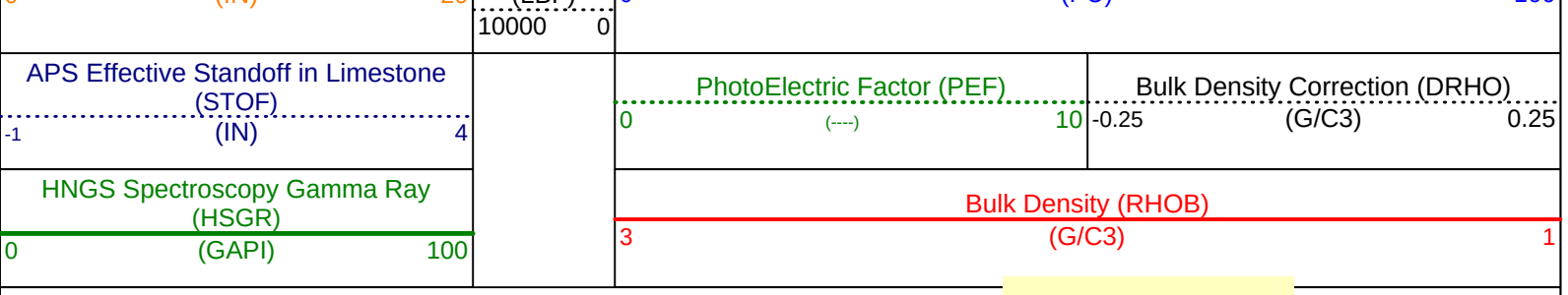
Tension (TENS) (LBF)
10000 0

APS Near/Array Corrected Limestone Porosity (APLC)
0 (PU) 100




2925
2950
2975
APLC


3000
3025
Caliper (CALI)
0
(IN)
20
Tension
(TENS)
(LBF)
APS Near/Array Corrected Limestone Porosity (APLC)
0
(PU)
100



Parameters

DLIS Name	Description	Value	
	APS Cement Thickness Source	COMPUTED	
	Apparent Thickness of Cement	0	IN
	APS Software Version	0	
AASD	APS Thermal and Array Detectors High Voltage Setting	1968.98	V
ABOS	APS Neutron Burst-Off Background Subtraction Switch	ON	
ADSO	APS Array Detectors Data Source Switch	Both	
AFSD	APS Far Detector High Voltage Setting	2052.03	V
AHCS	APS Holesize Correction Source	GCSE	
AHSS	APS Holesize Correction Switch	ON	
ALTDPCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
AMTY	APS Environmental Corrections Mud Type	WaterBaseBarite	
ANSD	APS Near Detector High Voltage Setting	1748.3	V
AOTS	APS Old Temperature Sensor Switch	NO	
ASOS	APS Standoff Correction Switch	ON	
ATSS	APS Temperature-Pressure-Salinity Correction Switch	OFF	
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BFM	Borehole Fluid Medium	LIQUID	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	12	DEGC
BKSF	HNGS Borehole Fluid Excluder Sleeve Algorithm Factor	1	
BKSH	HNGS Borehole Fluid Excluder Sleeve Algorithm High Channel	245	
BKSL	HNGS Borehole Fluid Excluder Sleeve Algorithm Low Channel	17	
BS	Bit Size	9.875	IN
BSAL	Borehole Salinity	-50000.00	PPM
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSIZ	Current Casing Size	0.000	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
CWEI	Casing Weight	0.00	LB/F
D1PR	HNGS Detector 1 Calibration Thorium Peak Resolution	7.47657	%
D1TC	HNGS Detector 1 Calibration Temperature	15.7627	DEGC
D1TL	HNGS Detector 1 Calibration Thorium Peak Location	211.807	
D2PR	HNGS Detector 2 Calibration Thorium Peak Resolution	6.59237	%
D2TC	HNGS Detector 2 Calibration Temperature	14.9664	DEGC
D2TL	HNGS Detector 2 Calibration Thorium Peak Location	209.368	
DBCC	HNGS Barite Constant Correction Flag	NONE	
DFD	Drilling Fluid Density	1.07	G/C3
DHC	Density Hole Correction	BS	
DO	Depth Offset for Playback	2.0	M
DPPM	Density Porosity Processing Mode	HIRS	
DPRF	DEEP REFERENCE POWER	550	NW
FD	Fluid Density	1	G/C3
FSAL	Formation Salinity	-50000	PPM
GCF1_START	HNGS Detector 1 GCF Constant	1	
GCF2_START	HNGS Detector 2 GCF Constant	1	
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	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	-0.000954095	
HALF	HNGS Alpha Filter Length	60	IN
HATIM	HNGS Marquardt Accumulation Time	600	S
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
HSLV	HNGS Borehole Fluid Excluder Sleeve Status	NO	
HSVN	HNGS Spectral Standards Version Number	7.99225e-033	
KFAC	K FACTOR	SOND	

LLOO	LATEROLOG LOOP	OFF	
LSHC	LS Hardware Loop Control	DISALLOW	
MARQ_START	HNGS Marquardt Start-up Mode	INTERNAL	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MDEN	Matrix Density	2.71	G/C3
MST	Mud Sample Temperature	21.00	DEGC
NARC	APS Near/Array Calibration Ratio	1.06068	
NFRC	APS Near/Far Calibration Ratio	0.895338	
NOTS	NPLC Old Temperature Sensor	NO	
PBVSADP	Use alternate depth channel for playback	NO	
PLRM	POWER LOOP REFERENCE MODE	DEEP	
PP	Playback Processing	NORMAL	
QPPS	Quicklook Processing Pe Select	PEFL	
RDF1_START	HNGS Detector 1 RDF Constant	0	
RDF2_START	HNGS Detector 2 RDF Constant	0	
RMFS	Resistivity of Mud Filtrate Sample	-50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S1NA	HNGS Detector 1 Calibration Sodium Count Rate	19.4971	CPS
S1NG	HNGS Detector 1 Calibration End-On / Side-On Gain Ratio	0.99201	
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
S2NA	HNGS Detector 2 Calibration Sodium Count Rate	19.8566	CPS
S2NG	HNGS Detector 2 Calibration End-On / Side-On Gain Ratio	0.984299	
SABK	HNGS Statistical Uncertainty in Borehole Potassium Running Average	0.00011377	
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES	
SHT	Surface Hole Temperature	15	DEGC
SPRF	SHALLOW REFERENCE POWER	550	NW
SSHC	SS Hardware Loop Control	DISALLOW	
TD	Total Depth	3520	M
TDD	Total Depth - Driller	3519.00	M
TDL	Total Depth - Logger	3520.00	M
TPOS	Tool Position	ECCE	
TWS	Temperature of Connate Water Sample	37.78	DEGC
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.06295	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.97096	
WMUD	Mud Weight	1.066	G/C3

Format: APSLiquidPorosity_1 Vertical Scale: 1:200 Graphics File Created: 25-Jul-2001 05:01

OP System Version: 9C2-303

MCM

DLT-E	9C2-303	HLDT-A	9C2-303
DTA-A	9C2-303	NPLC-B	9C2-303
APS-BA	9C2-303	HNGS-BA	9C2-303
DTC-H	9C2-303		

Input DLIS Files

DEFAULT	DLL_LDL_APS_HNGS_006LUP	FN:8	PRODUCER	23-Jul-2001 17:29	3031.2 M	2903.5 M

Output DLIS Files

DEFAULT	DLL_LDL_APS_HNGS_021PUP	FN:36	PRODUCER	25-Jul-2001 05:01
REDUCE	DLL_LDL_APS_HNGS_021PUP	FN:37	PRODUCER	25-Jul-2001 05:01

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
DUAL LATEROLOG - E Wellsite Calibration - DLT ELECTRONICS CALIBRATION Laterolog Measurement							
Before: 15-Jul-2001 0:11 After: Calibration not done							
MEASURED LLD	31.62	N/A	31.96	0	-31.96	0.9000	OHMM
MEASURED LLS	31.62	N/A	31.20	0	-31.20	0.9000	OHMM
Hostile Environment Litho Density - A Wellsite Calibration - Background Measurement							
Master: 15-Jun-2001 20:40 Before: 14-Jul-2001 18:01 After: 23-Jul-2001 20:19							
LSW1 Background	100.0	88.23	89.44	89.21	-0.2235	3.000	CPS
LSW2 Background	105.0	92.91	93.54	93.62	0.08755	3.150	CPS
LSW3 Background	210.0	180.2	179.9	181.4	1.473	6.300	CPS
LSW4 Background	290.0	241.8	238.2	242.4	4.204	8.700	CPS
LSW5 Background	610.0	534.7	531.6	533.3	1.729	18.30	CPS
SSW1 Background	100.0	87.60	86.10	87.71	1.610	3.000	CPS
SSW2 Background	200.0	171.6	170.6	169.7	-0.9623	6.000	CPS
SSW3 Background	530.0	453.1	451.3	450.5	-0.7892	15.90	CPS

SSW3 Background	530.0	453.1	451.3	450.5	-0.7892	15.90	CPS
SSW4 Background	280.0	239.2	239.8	236.3	-3.512	8.400	CPS
SSW5 Background	205.0	178.2	177.8	178.5	0.6447	6.150	CPS

Hostile Environment Litho Density - A Wellsite Calibration - Tool Quality Control Information High Voltage
Master: 15-Jun-2001 20:40 Before: 14-Jul-2001 18:01 After: 23-Jul-2001 20:19

LS Bkg. High Voltage	1128	1128	1126	1128	2.084	N/A	V
SS Bkg. High Voltage	1178	1178	1166	1172	5.733	N/A	V

Hostile Environment Litho Density - A Wellsite Calibration - Detectors Resolution From BKG Measurments
Master: 15-Jun-2001 20:40 Before: 14-Jul-2001 18:01 After: 23-Jul-2001 20:19

LS Background Resolution	1.000	1.042	1.027	1.011	-0.01611	N/A	
SS Background Resolution	1.000	0.9424	0.9251	0.9455	0.02044	N/A	

Hostile Environment Litho Density - A Wellsite Calibration - Caliper Calibration
Before: 14-Jul-2001 18:15

Caliper Small Ring	12.00	N/A	16.05	N/A	N/A	N/A	IN
Caliper Large Ring	18.25	N/A	23.85	N/A	N/A	N/A	IN

Hostile Environment Litho Density - A Master Calibration - Aluminum Measurement
Master: 16-Jun-2001 1:18

LSW1 Aluminum	648.4	632.4	--	--	--	--	CPS
LSW2 Aluminum	1018	1002	--	--	--	--	CPS
LSW3 Aluminum	1105	1046	--	--	--	--	CPS
LSW4 Aluminum	609.5	572.8	--	--	--	--	CPS
LSW5 Aluminum	533.8	510.1	--	--	--	--	CPS
SSW1 Aluminum	2664	2559	--	--	--	--	CPS
SSW2 Aluminum	7731	7504	--	--	--	--	CPS
SSW3 Aluminum	10380	10070	--	--	--	--	CPS
SSW4 Aluminum	4574	4442	--	--	--	--	CPS
SSW5 Aluminum	745.2	740.9	--	--	--	--	CPS

Hostile Environment Litho Density - A Master Calibration - Tool Quality Control Information: High Voltage
Master: 16-Jun-2001 1:18

LS Alum. High Voltage	1128	1130	--	--	--	--	V
SS Alum. High Voltage	1178	1167	--	--	--	--	V

Hostile Environment Litho Density - A Master Calibration - Detectors Resolution From Aluminum Measurment
Master: 16-Jun-2001 1:18

LS Aluminum Resolution	1.000	1.050	--	--	--	--	
SS Aluminum Resolution	1.000	1.041	--	--	--	--	

Hostile Environment Litho Density - A Master Calibration - Aluminum Measurement (Window Ratios)
Master: 16-Jun-2001 1:18

LSW1/(LSW4 + LSW5) Calc.	0.5400	0.5840	--	--	--	--	
LSW3/(LSW4 + LSW5) Calc.	0.9600	0.9663	--	--	--	--	
SSW1/(SSW4 + SSW5) Calc.	0.4600	0.4938	--	--	--	--	
SSW3/(SSW4 + SSW5) Calc.	1.900	1.943	--	--	--	--	

Hostile Environment Litho Density - A Master Calibration - Litholog Measurement
Master: 16-Jun-2001 1:12

LSW1 Iron	410.0	466.0	--	--	--	--	CPS
LSW2 Iron	870.0	891.0	--	--	--	--	CPS
LSW3 Iron	1030	1030	--	--	--	--	CPS
LSW4 Iron	590.0	576.8	--	--	--	--	CPS
LSW5 Iron	530.0	516.1	--	--	--	--	CPS
SSW1 Iron	1850	1964	--	--	--	--	CPS
SSW2 Iron	6500	6624	--	--	--	--	CPS
SSW3 Iron	10000	9744	--	--	--	--	CPS
SSW4 Iron	4500	4350	--	--	--	--	CPS
SSW5 Iron	750.0	720.4	--	--	--	--	CPS

Hostile Environment Litho Density - A Master Calibration - Tool Quality Control Information: High Voltage
Master: 16-Jun-2001 1:12

LS Lith High Voltage	1128	1129	--	--	--	--	V
SS Lith High Voltage	1178	1170	--	--	--	--	V

Hostile Environment Litho Density - A Master Calibration - Detectors Resolution From Litholog Measurment
Master: 16-Jun-2001 1:12

LS Lith Resolution	1.000	1.045	--	--	--	--	
SS Lith Resolution	1.000	1.044	--	--	--	--	

Accelerator-Porosity Tool Wellsite Calibration - Detector Background
Master: 26-Jun-2001 23:26 Before: 23-Jul-2001 13:09 After: 23-Jul-2001 18:48

Near Det Bkg Cntrate	30.00	32.20	33.05	32.10	-0.9472	N/A	CPS
Far Det Bkg Cntrate	30.00	31.23	33.07	33.37	0.2992	N/A	CPS
Array-1 Det Bkg Cntrate	30.00	29.14	29.47	28.69	-0.7808	N/A	CPS
Array-2 Det Bkg Cntrate	30.00	30.17	28.15	30.04	1.894	N/A	CPS
Array Therm Det Bkg Cntrate	30.00	32.58	31.31	31.09	-0.2128	N/A	CPS

Accelerator-Porosity Tool Wellsite Calibration - Calibration Ratios
Master: 26-Jun-2001 23:27

Near/Far Calibration Ratio	0.9250	0.8953	N/A	N/A	N/A	N/A	
Near/Array Calibration Ratio	1.030	1.061	N/A	N/A	N/A	N/A	

Accelerator-Porosity Tool Master Calibration - Tank Check
Master: 26-Jun-2001 23:27

Array-1 Standoff Porosity	10.25	11.60	--	--	--	--	PU
Array-2 Standoff Porosity	10.25	11.20	--	--	--	--	PU
Sigma Formation	27.50	27.44	--	--	--	--	CU

Hostile Natural Gamma Ray Sonde Wellsite Calibration - Detector 1 Check
Master: 15-Jul-2001 1:02 Before: 15-Jul-2001 0:48

Na 511 Peak Loc	40.00	40.62	40.70	N/A	N/A	1.000	
Na 511 Peak Res	15.50	15.66	15.17	N/A	N/A	2.000	%
High Voltage	1150	1112	1113	N/A	N/A	30.00	V
Na 1785 Peak Loc	142.6	145.1	146.0	N/A	N/A	7.000	
Na 1785 Peak Res	8.500	9.929	9.084	N/A	N/A	2.000	%
Temperature	15.50	15.77	15.77	N/A	N/A	N/A	DEGC
Na Count Rate	45.00	19.50	19.48	N/A	N/A	8.000	CPS

Hostile Natural Gamma Ray Sonde Wellsite Calibration - Detector 2 Check
Master: 15-Jul-2001 1:02 Before: 15-Jul-2001 0:48

Na 511 Peak Loc	40.00	40.48	40.59	N/A	N/A	1.000	
Na 511 Peak Res	15.50	15.26	14.04	N/A	N/A	2.000	%
High Voltage	1150	1198	1200	N/A	N/A	30.00	V
Na 1785 Peak Loc	142.6	143.7	144.7	N/A	N/A	7.000	
Na 1785 Peak Res	8.500	8.190	8.364	N/A	N/A	2.000	%
Temperature	15.50	15.00	14.95	N/A	N/A	N/A	DEGC
Na Count Rate	45.00	19.86	19.71	N/A	N/A	8.000	CPS

Hostile Natural Gamma Ray Sonde Wellsite Calibration - Ratio Of Detector 1 To Detector 2
Master: 15-Jul-2001 1:02 Before: 15-Jul-2001 0:48

Coincidence Count Rate Ratio	1.000	0.9812	0.9885	N/A	N/A	0.05000	

Hostile Natural Gamma Ray Sonde Master Calibration - Detector 1 Calibration
Master: 15-Jul-2001 0:55

Na 511 Peak Set Point	40.00	41.00	--	--	--	--	
Th Peak Loc	209.6	211.8	--	--	--	--	
Th Peak Res	7.000	7.477	--	--	--	--	%
Background Count Rate	142.5	17.17	--	--	--	--	CPS
Gain Ratio	1.000	0.9920	--	--	--	--	

Hostile Natural Gamma Ray Sonde Master Calibration - Detector 2 Calibration
Master: 15-Jul-2001 0:55

Na 511 Peak Set Point	40.00	41.00	--	--	--	--	
Th Peak Loc	209.6	209.4	--	--	--	--	
Th Peak Res	7.000	6.592	--	--	--	--	%
Background Count Rate	142.5	18.69	--	--	--	--	CPS
Gain Ratio	1.000	0.9843	--	--	--	--	

Accelerator-Porosity Tool - Detector Plateau Settings :

Near Detector Plateau Setting 1748 V
Far Detector Plateau Setting 2052 V
Array Detector Plateau Setting 1969 V

DUAL LATEROLOG - E / Equipment Identification

Primary Equipment:

Auxiliary Equipment:

Dual Laterolog Electrode	DLE - E	
Dual Laterolog Sonde	DLS - F	929
Dual Laterolog Housing	DLH - CB	2893
Dual Laterolog Cartridge	DLC - D	930
Laterolog Control Module	LCM - AA	

Hostile Environment Litho Density - A / Equipment Identification

Primary Equipment:

HOSTILE ENVIRONMENT LITHO DENSITY HIGH V	HLDV - A	10
HOSTILE ENVIRONMENT LITHO DENSITY CARTRI	HLDC - AA	11
Gamma Source Radioactive	GSR - Z	1846

Auxiliary Equipment:		
HOSTILE ENVIRONMENT LITHO DENSITY SONDE	HLDS - B	10
HOSTILE ENVIRONMENT ELECTRONICS CARTRIDG	HEH - H	12
HOSTILE ENVIRONMENT ELECTRONICS CARTRIDG	HEH - G	11
HOSTILE ENVIRONMENT LITHO DENSITY PAD	HLDP - B	10

Hostile Environment Litho Density - A Wellsite Calibration

Background Measurement

Phase	LSW1 Background CPS	Value
Master		88.23
Before		89.44
After		89.21
65.00 (Minimum)	100.0 (Nominal)	125.0 (Maximum)

Phase	LSW2 Background CPS	Value
Master		92.91
Before		93.54
After		93.62
70.00 (Minimum)	105.0 (Nominal)	130.0 (Maximum)

Phase	LSW3 Background CPS	Value
Master		180.2
Before		179.9
After		181.4
150.0 (Minimum)	210.0 (Nominal)	250.0 (Maximum)

Phase	LSW4 Background CPS	Value
Master		241.8
Before		238.2
After		242.4
220.0 (Minimum)	290.0 (Nominal)	330.0 (Maximum)

Phase	LSW5 Background CPS	Value
Master		534.7
Before		531.6
After		533.3
430.0 (Minimum)	610.0 (Nominal)	730.0 (Maximum)

Phase	SSW1 Background CPS	Value
Master		87.60
Before		86.10
After		87.71
70.00 (Minimum)	100.0 (Nominal)	120.0 (Maximum)

Phase	SSW2 Background CPS	Value
Master		171.6
Before		170.6
After		169.7
140.0 (Minimum)	200.0 (Nominal)	240.0 (Maximum)

Phase	SSW3 Background CPS	Value
Master		453.1
Before		451.3
After		450.5
380.0 (Minimum)	530.0 (Nominal)	630.0 (Maximum)

Phase	SSW4 Background CPS	Value
Master		239.2
Before		239.8
After		236.3
190.0 (Minimum)	280.0 (Nominal)	340.0 (Maximum)

Phase	SSW5 Background CPS	Value
Master		178.2
Before		177.8
After		178.5
140.0 (Minimum)	205.0 (Nominal)	250.0 (Maximum)

Master: 15-Jun-2001 20:40 Before: 14-Jul-2001 18:01 After: 23-Jul-2001 20:19

Hostile Environment Litho Density - A Wellsite Calibration

Detectors Resolution From BKG Measurments

Phase	LS Background Resolution	Value
Master		1.042
Before		1.027
After		1.011
0.7000 (Minimum)	1.000 (Nominal)	1.111 (Maximum)

Phase	SS Background Resolution	Value
Master		0.9424
Before		0.9251
After		0.9455
0.7000 (Minimum)	1.000 (Nominal)	1.111 (Maximum)

Master: 15-Jun-2001 20:40 Before: 14-Jul-2001 18:01

After: 23-Jul-2001 20:19

Hostile Environment Litho Density - A Master Calibration

Aluminum Measurement

Phase	LSW1 Aluminum CPS	Value
Master		632.4
440.0 (Minimum)	648.4 (Nominal)	840.0 (Maximum)

Phase	LSW2 Aluminum CPS	Value
Master		1002
840.0 (Minimum)	1018 (Nominal)	1200 (Maximum)

Phase	LSW3 Aluminum CPS	Value
Master		1046
920.0 (Minimum)	1105 (Nominal)	1280 (Maximum)

Phase	LSW4 Aluminum CPS	Value
Master		572.8
520.0 (Minimum)	609.5 (Nominal)	720.0 (Maximum)

Phase	LSW5 Aluminum CPS	Value
Master		510.1
450.0 (Minimum)	533.8 (Nominal)	670.0 (Maximum)

Phase	SSW1 Aluminum CPS	Value
Master		2559
1850 (Minimum)	2664 (Nominal)	2900 (Maximum)

Phase	SSW2 Aluminum CPS	Value
Master		7504
6200 (Minimum)	7731 (Nominal)	8500 (Maximum)

Phase	SSW3 Aluminum CPS	Value
Master		10070
8750 (Minimum)	10380 (Nominal)	11750 (Maximum)

Phase	SSW4 Aluminum CPS	Value
Master		4442
4000 (Minimum)	4574 (Nominal)	5400 (Maximum)

Phase	SSW5 Aluminum CPS	Value

Phase		Value
Master		740.9
	570.0 (Minimum) 745.2 (Nominal) 1110 (Maximum)	

Master: 16-Jun-2001 1:18

Hostile Environment Litho Density - A Master Calibration
Detectors Resolution From Aluminum Measurment

Phase	LS Aluminum Resolution	Value
Master		1.050
	0.7000 (Minimum) 1.000 (Nominal) 1.111 (Maximum)	

Phase	SS Aluminum Resolution	Value
Master		1.041
	0.7000 (Minimum) 1.000 (Nominal) 1.111 (Maximum)	

Master: 16-Jun-2001 1:18

Hostile Environment Litho Density - A Master Calibration
Aluminum Measurement (Window Ratios)

Phase	LSW1/(LSW4 + LSW5) Calc.	Value
Master		0.5840
	0.3400 (Minimum) 0.5400 (Nominal) 0.7400 (Maximum)	

Phase	LSW3/(LSW4 + LSW5) Calc.	Value
Master		0.9663
	0.7600 (Minimum) 0.9600 (Nominal) 1.160 (Maximum)	

Phase	SSW1/(SSW4 + SSW5) Calc.	Value
Master		0.4938
	0.3600 (Minimum) 0.4600 (Nominal) 0.5600 (Maximum)	

Phase	SSW3/(SSW4 + SSW5) Calc.	Value
Master		1.943
	1.700 (Minimum) 1.900 (Nominal) 2.100 (Maximum)	

Master: 16-Jun-2001 1:18

Hostile Environment Litho Density - A Master Calibration
Litholog Measurement

Phase	LSW1 Iron CPS	Value
Master		466.0
	310.0 (Minimum) 410.0 (Nominal) 510.0 (Maximum)	

Phase	LSW2 Iron CPS	Value
Master		891.0
	660.0 (Minimum) 870.0 (Nominal) 980.0 (Maximum)	

Phase	LSW3 Iron CPS	Value
Master		1030
	810.0 (Minimum) 1030 (Nominal) 1170 (Maximum)	

Phase	LSW4 Iron CPS	Value
Master		576.8
	470.0 (Minimum) 590.0 (Nominal) 670.0 (Maximum)	

Phase	LSW5 Iron CPS	Value
Master		516.1
	400.0 (Minimum) 530.0 (Nominal) 620.0 (Maximum)	

Phase	SSW1 Iron CPS	Value
Master		1964
	1400 (Minimum) 1850 (Nominal) 2120 (Maximum)	

Phase	SSW2 Iron CPS	Value
Master		6624
	5170 (Minimum) 6500 (Nominal) 7270 (Maximum)	

Phase	SSW3 Iron CPS	Value
Master		9744
	8100 (Minimum) 10000 (Nominal) 11000 (Maximum)	

Phase	SSW4 Iron CPS	Value
Master		4350
	3620 (Minimum) 4500 (Nominal) 5020 (Maximum)	

Phase	SSW5 Iron CPS	Value
Master		720.4
	470.0 (Minimum) 750.0 (Nominal) 10100 (Maximum)	

Master: 16-Jun-2001 1:12

Hostile Environment Litho Density - A Master Calibration
Detectors Resolution From Litholog Measurment

Phase	LS Lith Resolution	Value
Master		1.045
	0.7000 (Minimum) 1.000 (Nominal) 1.111 (Maximum)	

Phase	SS Lith Resolution	Value
Master		1.044
	0.7000 (Minimum) 1.000 (Nominal) 1.111 (Maximum)	

Master: 16-Jun-2001 1:12

Nuclear Porosity Lithology Cartridge - B / Equipment Identification

Primary Equipment: NPLC Cartridge	NPLC - B	79
Auxiliary Equipment: NPLC Housing	NPH - B	82

Accelerator-Porosity Tool / Equipment Identification

Primary Equipment:

Accelerator-Porosity Sonde	APS - BA	22
APS Minitron	MNTR - F	4185

Auxiliary Equipment:

Accelerator-Porosity Housing	APH - AC	22
APS Calibration Water Tank	SFT - 178	4722
APS Aluminium Calibrator Sleeve	SFT - 281	24

Accelerator-Porosity Tool Wellsite Calibration

Detector Background

Phase	Near Det Bkg Cntrate CPS	Value
Master		32.20
Before		33.05
After		32.10

0 (Minimum) 30.00 (Nominal) 50.00 (Maximum)

Phase	Far Det Bkg Cntrate CPS	Value
Master		31.23
Before		33.07
After		33.37

0 (Minimum) 30.00 (Nominal) 50.00 (Maximum)

Phase	Array-1 Det Bkg Cntrate CPS	Value
Master		29.14
Before		29.47
After		28.69

0 (Minimum) 30.00 (Nominal) 50.00 (Maximum)

Phase	Array-2 Det Bkg Cntrate CPS	Value
Master		30.17
Before		28.15
After		30.04

0 (Minimum) 30.00 (Nominal) 50.00 (Maximum)

Phase	Array Therm Det Bkg Cntrate CPS	Value
Master		32.58
Before		31.31
After		31.09

0 (Minimum) 30.00 (Nominal) 50.00 (Maximum)

Master: 26-Jun-2001 23:26 Before: 23-Jul-2001 13:09 After: 23-Jul-2001 18:48

Accelerator-Porosity Tool Wellsite Calibration

Calibration Ratios

Phase	Near/Far Calibration Ratio	Value
Master		0.8953

0.8000 (Minimum) 0.9250 (Nominal) 1.050 (Maximum)

Phase	Near/Array Calibration Ratio	Value
Master		1.061

0.9000 (Minimum) 1.030 (Nominal) 1.150 (Maximum)

Master: 26-Jun-2001 23:27

Accelerator-Porosity Tool Master Calibration

Detector Calibration

Phase	Near/Far Calibration Ratio	Value
Master		0.8953

0.8000 (Minimum) 0.9250 (Nominal) 1.050 (Maximum)

Phase	Near/Array Calibration Ratio	Value
Master		1.061

0.9000 (Minimum) 1.030 (Nominal) 1.150 (Maximum)

Master: 26-Jun-2001 23:27

Accelerator-Porosity Tool Master Calibration

Tank Check

Phase	Array-1 Standoff Porosity PU	Value
Master		11.60

5.500 (Minimum) 10.25 (Nominal) 15.00 (Maximum)

Phase	Array-2 Standoff Porosity PU	Value
Master		11.20

5.500 (Minimum) 10.25 (Nominal) 15.00 (Maximum)

Phase	Sigma Formation CU	Value
Master		27.44

20.00 (Minimum) 27.50 (Nominal) 35.00 (Maximum)

Master: 26-Jun-2001 23:27

Hostile Natural Gamma Ray Sonde / Equipment Identification

Primary Equipment:

HNGS Sonde	HNGS - BA	27

Auxiliary Equipment:

HNGS Sonde Housing	HNSH - BA	27
Gamma Source Radioactive	GSR - U	135

Hostile Natural Gamma Ray Sonde Wellsite Calibration

Detector 1 Check

Phase	Na 511 Peak Loc	Value
Master		40.62
Before		40.70

Phase	Na 511 Peak Res %	Value
Master		15.66
Before		15.17

Phase	High Voltage V	Value
Master		1112
Before		1113

Phase	Na 1785 Peak Loc	Value
Master		145.1
Before		146.0

135.0 (Minimum) 142.6 (Nominal) 150.3 (Maximum)

Phase	Na 1785 Peak Res %	Value
Master		9.929
Before		9.084

7.000 (Minimum) 8.500 (Nominal) 11.00 (Maximum)

Phase	Temperature DEGC	Value
Master		15.77
Before		15.77

-28.89 (Minimum) 15.50 (Nominal) 60.00 (Maximum)

Phase	Na Count Rate CPS	Value
Master		19.50
Before		19.48

15.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)

Master: 15-Jul-2001 1:02 Before: 15-Jul-2001 0:48

Hostile Natural Gamma Ray Sonde Wellsite Calibration

Detector 2 Check

Phase	Na 511 Peak Loc	Value
Master		40.48
Before		40.59

37.50 (Minimum) 40.00 (Nominal) 42.50 (Maximum)

Phase	Na 511 Peak Res %	Value
Master		15.26
Before		14.04

12.00 (Minimum) 15.50 (Nominal) 19.00 (Maximum)

Phase	High Voltage V	Value
Master		1198
Before		1200

900.0 (Minimum) 1150 (Nominal) 1600 (Maximum)

Phase	Na 1785 Peak Loc	Value
Master		143.7
Before		144.7

135.0 (Minimum) 142.6 (Nominal) 150.3 (Maximum)

Phase	Na 1785 Peak Res %	Value
Master		8.190
Before		8.364

7.000 (Minimum) 8.500 (Nominal) 11.00 (Maximum)

Phase	Temperature DEGC	Value
Master		15.00
Before		14.95

-28.89 (Minimum) 15.50 (Nominal) 60.00 (Maximum)

Phase	Na Count Rate CPS	Value
Master		19.86
Before		19.71

15.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)

Master: 15-Jul-2001 1:02 Before: 15-Jul-2001 0:48

Hostile Natural Gamma Ray Sonde Wellsite Calibration

Ratio Of Detector 1 To Detector 2

Phase	Coincidence Count Rate Ratio	Value
Master		0.9812
Before		0.9885

0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)

Master: 15-Jul-2001 1:02
Before: 15-Jul-2001 0:48

Hostile Natural Gamma Ray Sonde Master Calibration

Detector 1 Calibration

Phase	Na 511 Peak Set Point	Value
Master		41.00

38.00 (Minimum) 40.00 (Nominal) 42.00 (Maximum)

Phase	Th Peak Loc	Value
Master		211.8

201.0 (Minimum) 209.6 (Nominal) 218.3 (Maximum)

Phase	Th Peak Res %	Value
Master		7.477

5.000 (Minimum) 7.000 (Nominal) 9.000 (Maximum)

Phase	Background Count Rate CPS	Value
Master	EXCEEDS LIMIT	17.17

20.00 (Minimum) 142.5 (Nominal) 265.0 (Maximum)

Phase	Gain Ratio	Value
Master		0.9920

0.9400 (Minimum) 1.000 (Nominal) 1.060 (Maximum)

See Remarks

Master: 15-Jul-2001 0:55

Hostile Natural Gamma Ray Sonde Master Calibration

Detector 2 Calibration

Phase	Na 511 Peak Set Point	Value
Master		41.00

38.00 (Minimum) 40.00 (Nominal) 42.00 (Maximum)

Phase	Th Peak Loc	Value
Master		209.4

201.0 (Minimum) 209.6 (Nominal) 218.3 (Maximum)

Phase	Th Peak Res %	Value
Master		6.592

5.000 (Minimum) 7.000 (Nominal) 9.000 (Maximum)

Phase	Background Count Rate CPS	Value

Phase	Gain Ratio	Value

Master	EXCEEDS LIMIT		18.69	Master		0.9843	See Remarks
20.00 (Minimum)	142.5 (Nominal)	265.0 (Maximum)		0.9400 (Minimum)	1.000 (Nominal)	1.060 (Maximum)	

Master: 15-Jul-2001 0:55

COMPANY:	Lamont Doherty
WELL:	ODP Leg 197, Site He-3A, Hole 1203A
FIELD:	Detroit Seamount, Emperor Seamount Chain
OCEAN:	Pacific

BOTTOM LOG INTERVAL	3510 m
SCHLUMBERGER DEPTH	3520 m
DEPTH DRILLER	3519 m
KELLY BUSHING	11.3 m
DRILL FLOOR	11 m
GROUND LEVEL	-2604 m

Schlumberger

Density
APS/Porosity
Natural Gamma Ray