Schlumberger

Company: Lamont Doherty

Well: ODP Leg 206, Site 1256D
Field: Fast Spreading Crust
Country: Coata Rica Ocean: Pacific Ocean

APS/HLDT Porosity Log

Country: Coata Rica
Field: Fast Spreading Crust
Location: Rig- Joides Resolution
Well: ODP Leg 206, Site 1256D
Company: Lamont Doherty

LOCATION

Rig- Joides Resolution

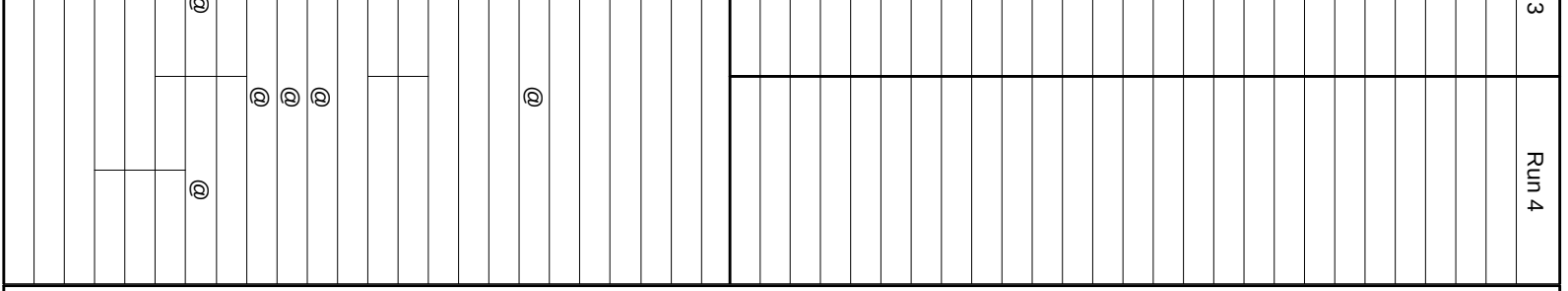
Elev.: K.B. 11.3 m
G.L. -3645.4 m
D.F. 11 m

Permanent Datum: GROUND LEVEL Elev.: 0 m
Log Measured From: DES 11.3 m above Perm. Datum
Drilling Measured From: DES

API Serial No.	Max. Hole Devi.	Longitude 91.9343 W	Latitude 6.7365 N

	Run 1	Run 2	Run
Logging Date			
Run Number	1		
Depth Driller	4397.4 m		
Schlumberger Depth	4392.5 m		
Bottom Log Interval	4387.5 m		
Top Log Interval	3881 m		
Casing Driller Size @ Depth	0.000 in @ 3914.47 m	@	
Casing Schlumberger	3912 m		
Bit Size	9.875 in		
Type Fluid In Hole	SALT WATER		
MUD Density / Viscosity	1.066 g/cm3		
MUD Fluid Loss / PH			
MUD Source Of Sample			
RM @ Measured Temperature	0.322 ohm.m @ 23 degC	@	
RMF @ Measured Temperature	@	@	
RMC @ Measured Temperature	@	@	
Source RMF / RMC			
RM @ MRT / RMF @ MRT	0.362 @ 18	@ 18 @	@
Maximum Recorded Temperatures	18 degC		
Circulation Stopped / Time	12/27/02	1100	
Logger On Bottom / Time	12/28/02	See Log	
Unit Number / Location	99 Houston		
Recorded By	Steve Kittredge		
Witnessed By	FLORENCE EINAUDI		

	Run 1	Run 2	Run
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

THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE OF AND RELIANCE UPON THE RECORDED-DATA; AND (c) CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISION MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA.

OTHER SERVICES1	OTHER SERVICES2
OS1: MESTB/SGTN/DSI	OS1:
OS2: UBI	OS2:
OS3: WST	OS3:
OS4:	OS4:
OS5:	OS5:

REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
Hole cored with RCB	
All depths in Meters Below Rig Floor (MBRF).	
SEA WATER USED TO FILL THE HOLE.	
WHC was run.	
Sea Floor- 3645.4 MBRF	
Total Depth Driller- 4397.4 MBRF.	
Total Depth Logger- 4392.5 MBRF.	
Casing Driller-3914.47 MBRF.	
CASING LOGGER- 3912 MBRF.	
SEA FLOOR DRILLER- 3645.4 MBRF.	

RUN 1

SERVICE ORDER #:
PROGRAM VERSION: 10C0-306
FLUID LEVEL:

LOGGED INTERVAL	START	STOP

RUN 2

SERVICE ORDER #:
PROGRAM VERSION:
FLUID LEVEL:

LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

RUN 1

SURFACE EQUIPMENT

LCM-AA 909
SFT-281 24
SFT-178 4722
GSR-U 135

WITM (DTS)-A

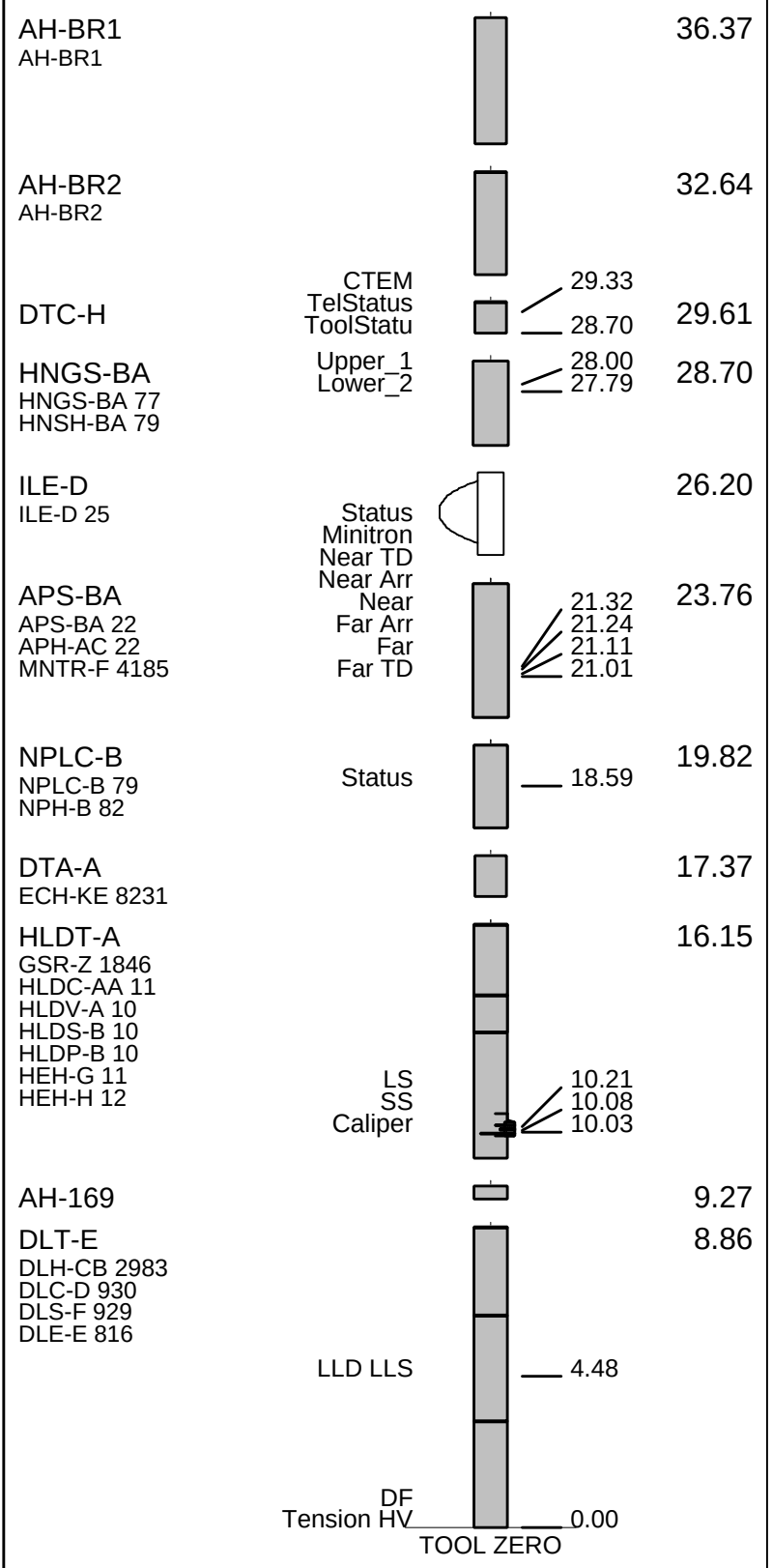
DOWNHOLE EQUIPMENT

BSP 61.64
BRT-S

SP SPARC — 40.59

LEH-QT 37.26

RUN 2



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

Output DLIS Files

DEFAULT	DLL_LDL_APS_NGS_027LUP	FN:21	PRODUCER	28-Dec-2002 15:18	4153.7 M	4091.6 M
DLL_CUST	DLL_LDL_APS_NGS_027LUP	FN:22	PRODUCER	28-Dec-2002 15:18	4153.7 M	4091.6 M

OP System Version: 10C0-306

MCM

REPEAT LOG

DLT-E	10C0-306	HLDT-A	10C0-306
DTA-A	10C0-306	NPLC-B	OP10-KP1
APS-BA	OP10-KP1	HNGS-BA	OP10-KP1
DTC-H	10C0-306	BSP	10C0-306

PIP SUMMARY

Time Mark Every 60 S

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

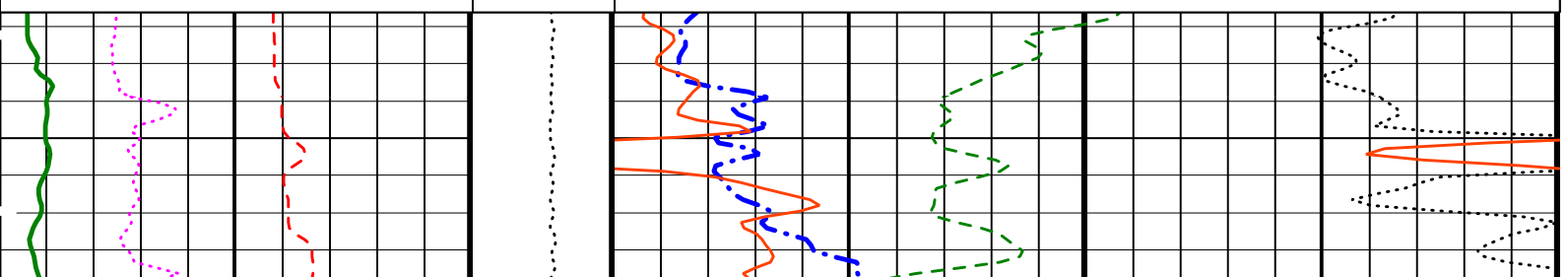
APS Effective Standoff in Limestone (STOF)
-1 (IN) 4

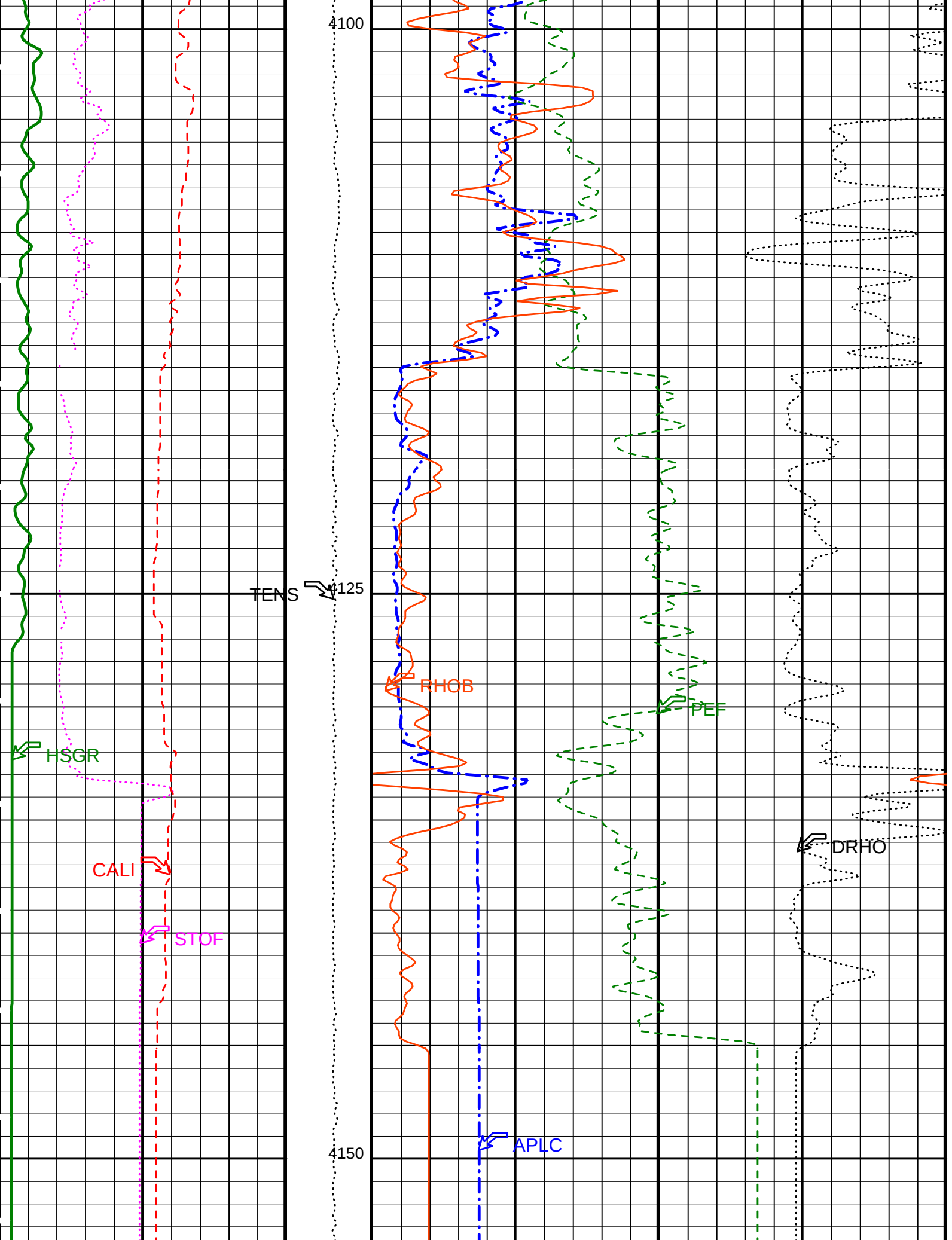
PhotoElectric Factor (PEF)
0 (----) 10

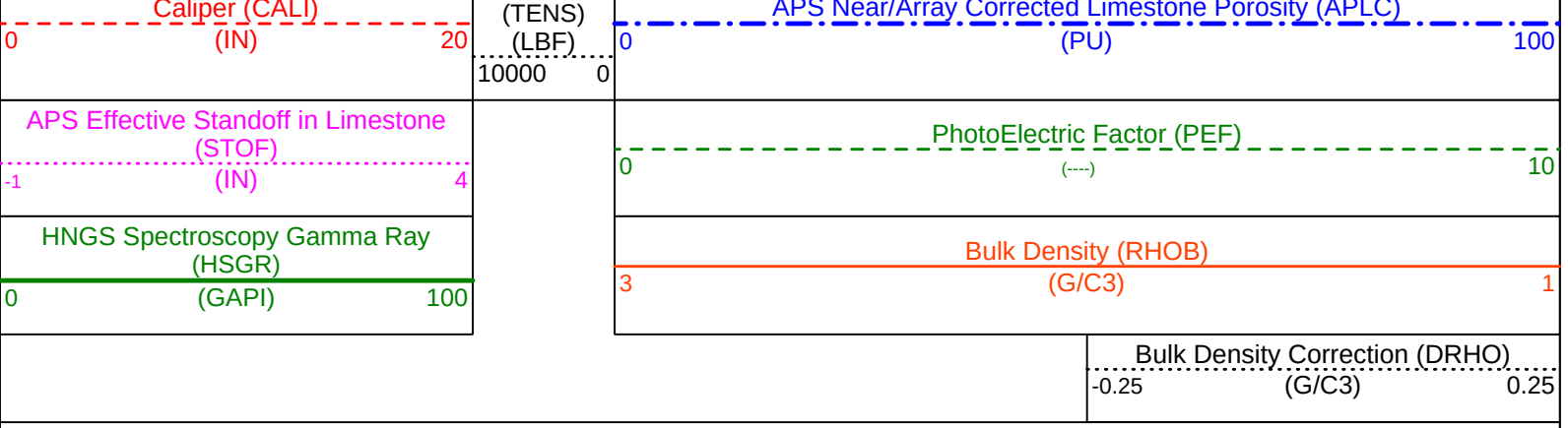
Caliper (CALI)
0 (IN) 20

Tension (TENS) (LBF)
10000 0

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




4100
4125
4150
TENS
HSGR
CALI
STOF
RHOB
PEF
DRHO
APLC
Tension



PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	HLDT-A: Hostile Environment Litho Density - A		
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
QPPS	Quicklook Processing Pe Select	PEFL	
WMUD	Mud Weight	1.1	G/C3
	APS-BA: Accelerator-Porosity Tool		
	APS Software Version	5	
AASD	APS Thermal and Array Detectors High Voltage Setting	1958.44	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	2072.71	V
AHCS	APS Holesize Correction Source	GCSE	
AHSS	APS Holesize Correction Switch	ON	
AMTY	APS Environmental Corrections Mud Type	WaterBaseBarite	
ANSD	APS Near Detector High Voltage Setting	1727.99	V
ASOS	APS Standoff Correction Switch	ON	
ATSS	APS Temperature-Pressure-Salinity Correction Switch	OFF	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	15	DEGC
DPPM	Density Porosity Processing Mode	HIRS	
FSAL	Formation Salinity	35000	PPM
GCSE	Generalized Caliper Selection	CALI	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
NARC	APS Near/Array Calibration Ratio	1.05708	
NFRC	APS Near/Far Calibration Ratio	0.893553	
SHT	Surface Hole Temperature	20	DEGC
	HNGS-BA: Hostile Natural Gamma Ray Sonde		
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	15	DEGC
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	CALI	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
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	-0.00235704	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES	
SHT	Surface Hole Temperature	20	DEGC
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.00989	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.13112	
	System and Miscellaneous		
BS	Bit Size	9.875	IN

BSAL	Borehole Salinity	35000.00	PPM
CSIZ	Current Casing Size	0.000	IN
CWEI	Casing Weight	0.00	LB/F
DFD	Drilling Fluid Density	1.07	G/C3
TD	Total Depth	4397.4	M

Format: APSLiquidPorosity_1 Vertical Scale: 1:200 Graphics File Created: 28-Dec-2002 15:18

OP System Version: 10C0-306

MCM

DLT-E	10C0-306	HLDT-A	10C0-306
DTA-A	10C0-306	NPLC-B	OP10-KP1
APS-BA	OP10-KP1	HNGS-BA	OP10-KP1
DTC-H	10C0-306	BSP	10C0-306

Output DLIS Files

DEFAULT	DLL_LDL_APS_NGS_027LUP	FN:21	PRODUCER	28-Dec-2002 15:18		
DLL_CUST	DLL_LDL_APS_NGS_027LUP	FN:22	PRODUCER	28-Dec-2002 15:18		

Output DLIS Files

DEFAULT	DLL_LDL_APS_NGS_026LUP	FN:19	PRODUCER	28-Dec-2002 13:14	4393.7 M	3881.6 M
DLL_CUST	DLL_LDL_APS_NGS_026LUP	FN:20	PRODUCER	28-Dec-2002 13:15	4393.7 M	3881.6 M

OP System Version: 10C0-306

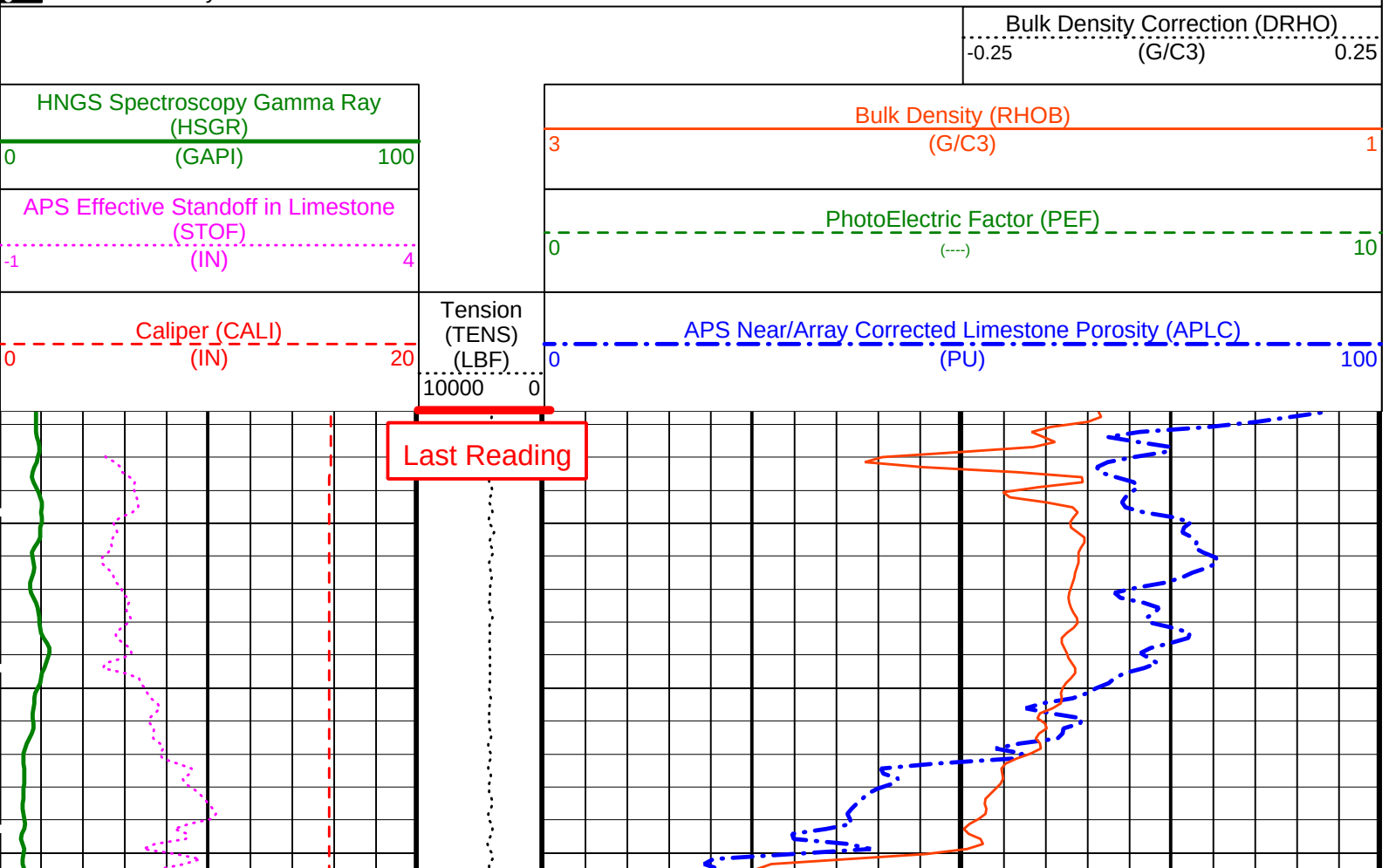
MCM

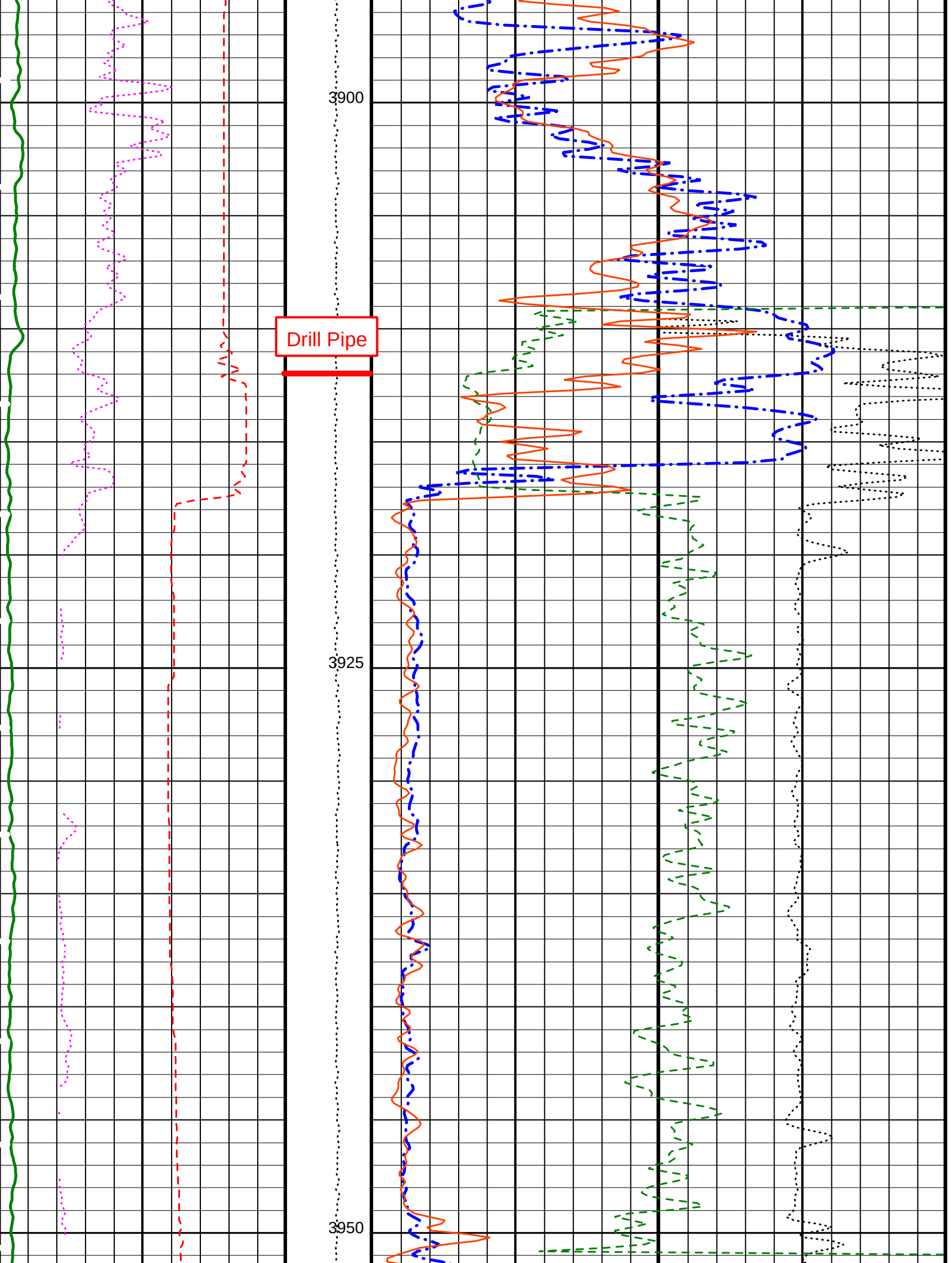
MAIN UP LOG

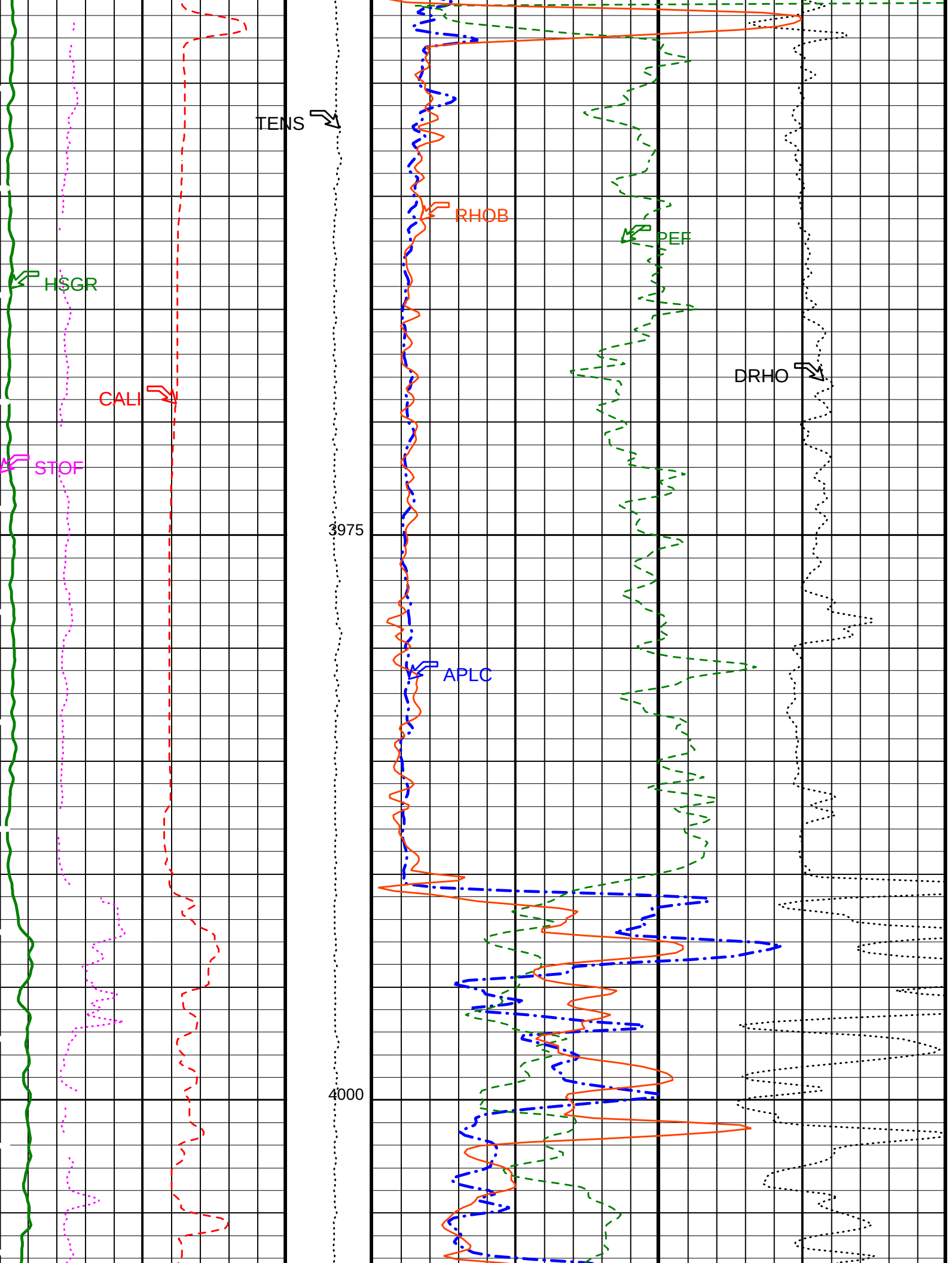
DLT-E	10C0-306	HLDT-A	10C0-306
DTA-A	10C0-306	NPLC-B	OP10-KP1
APS-BA	OP10-KP1	HNGS-BA	OP10-KP1
DTC-H	10C0-306	BSP	10C0-306

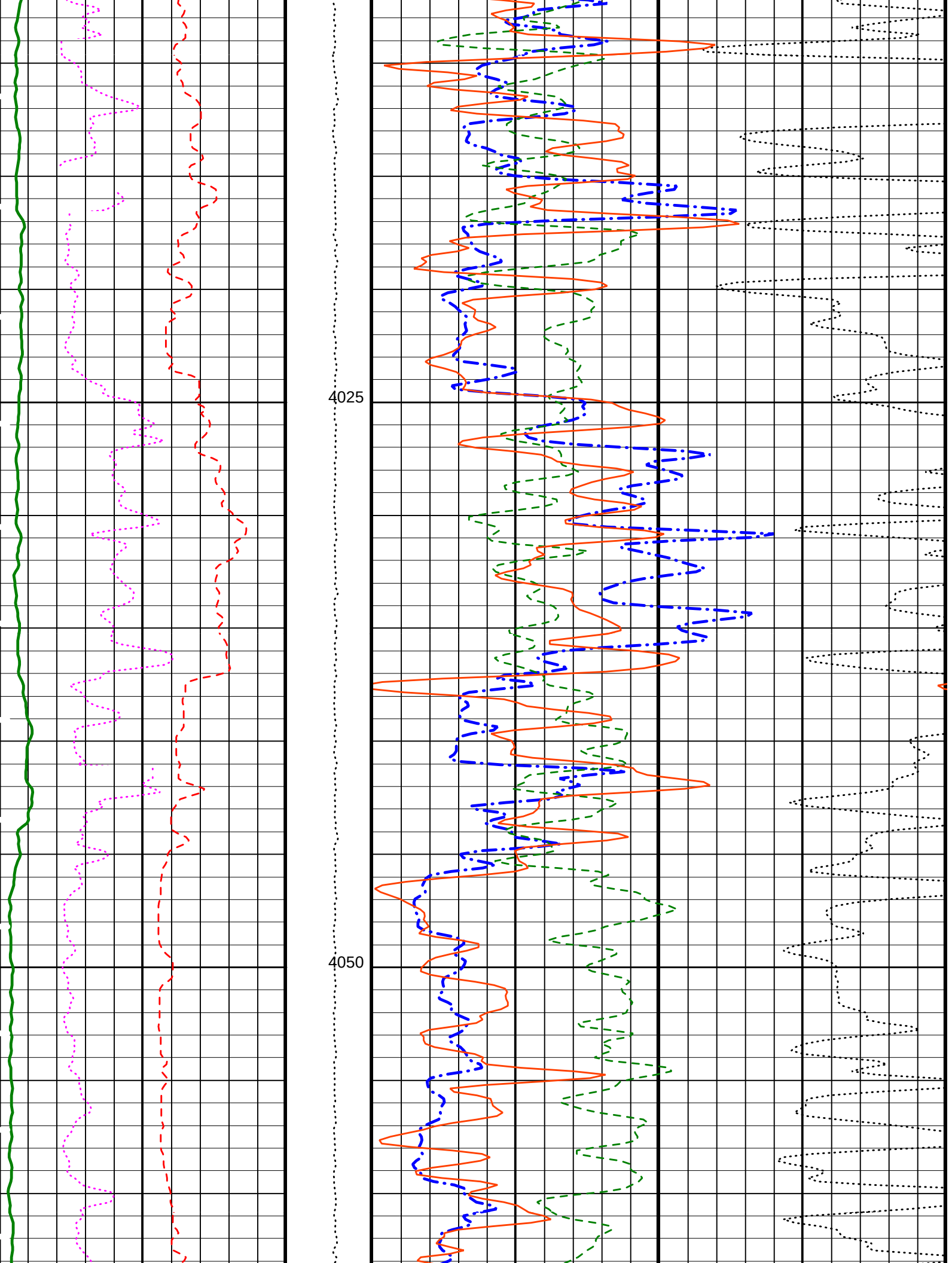
PIP SUMMARY

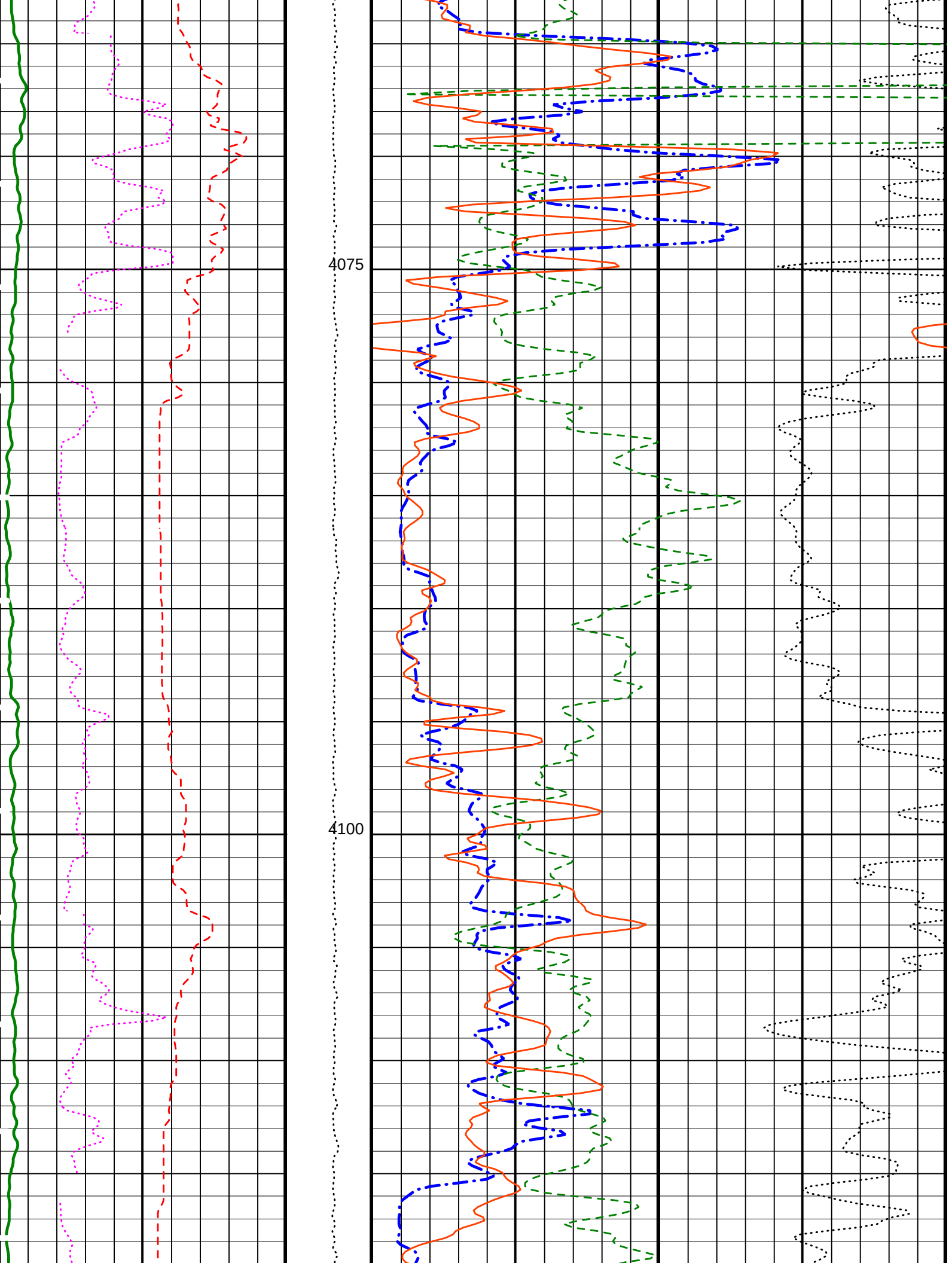
Time Mark Every 60 S

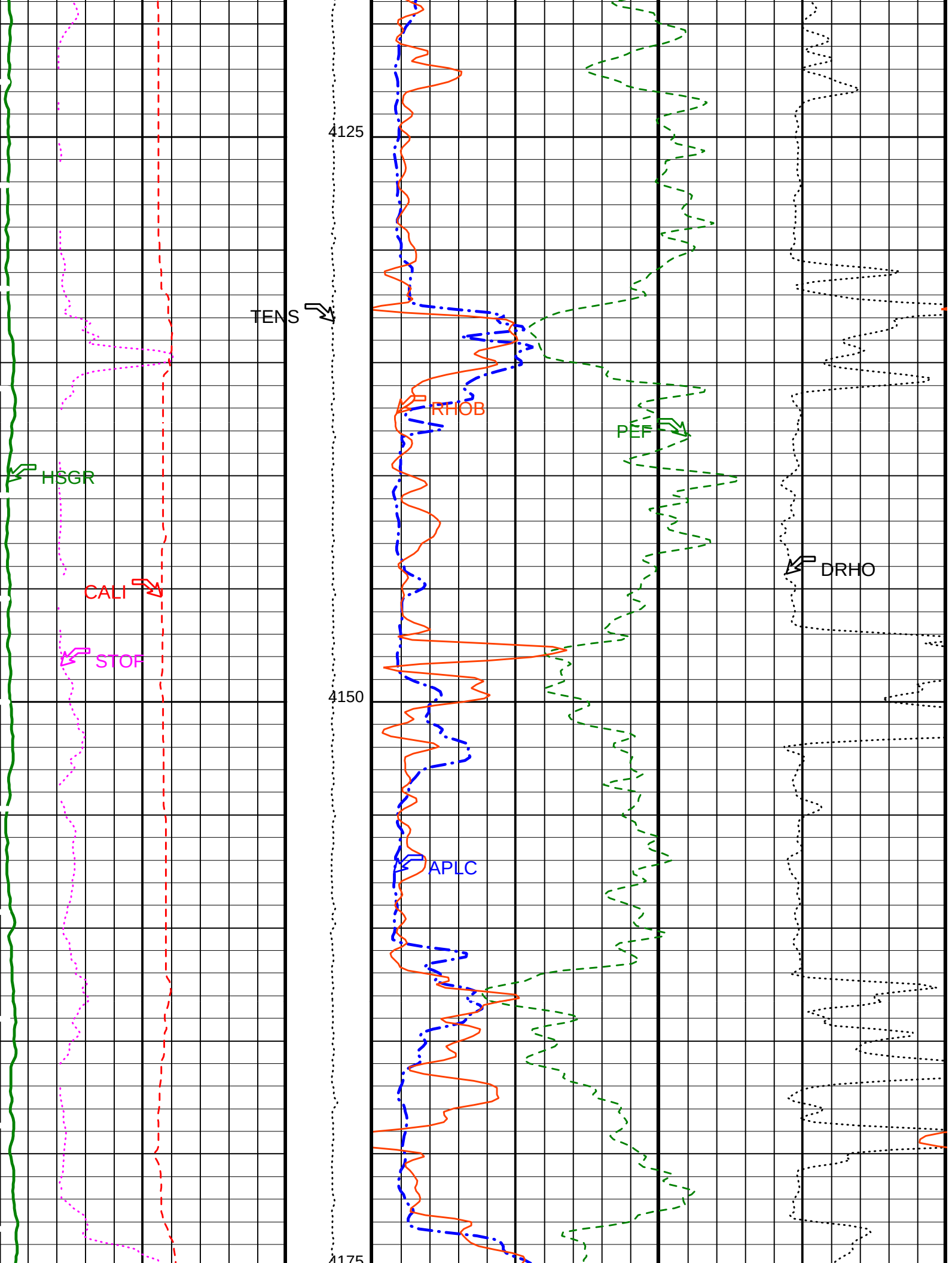


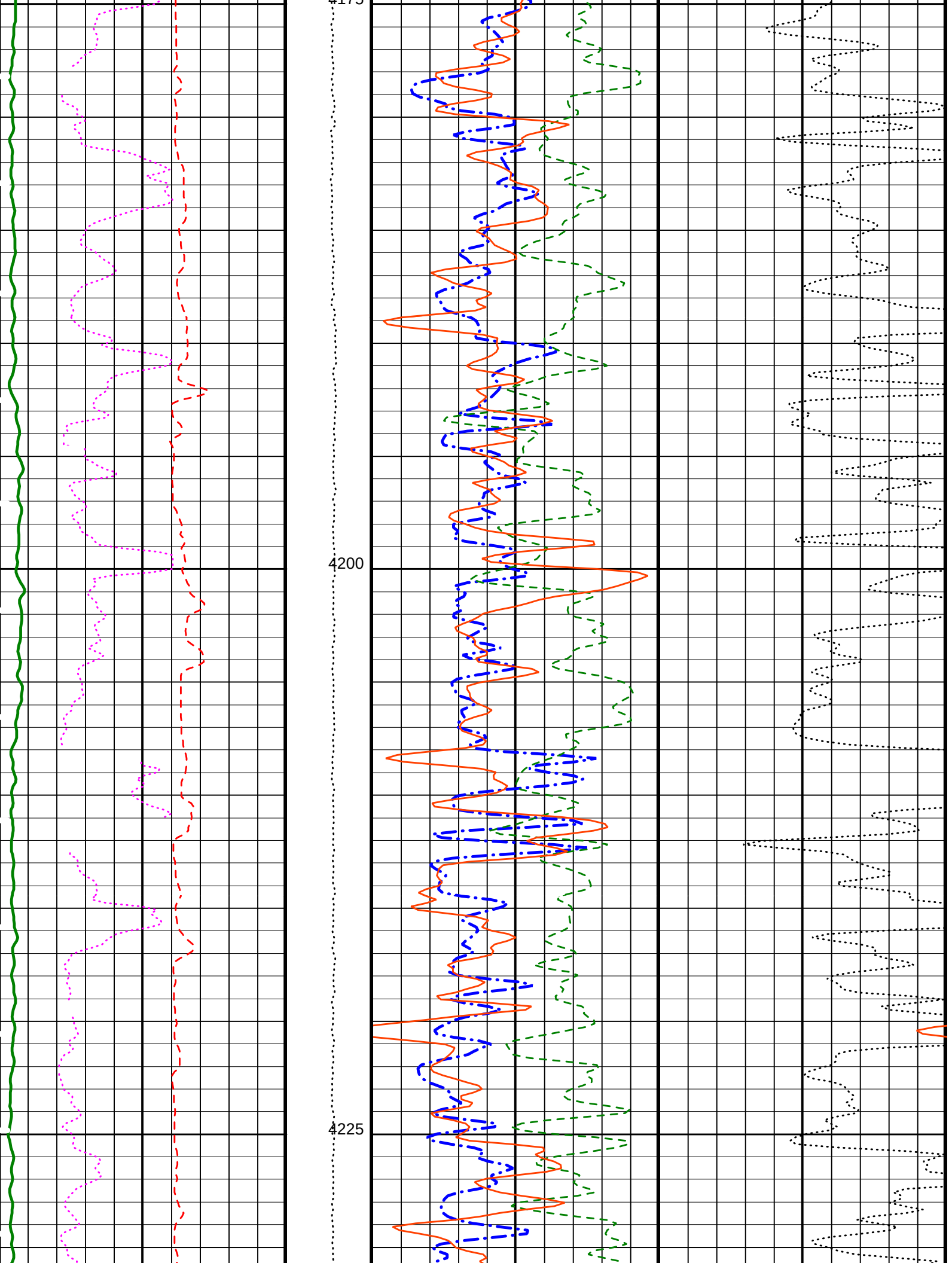

3900
Drill Pipe
3925
3950

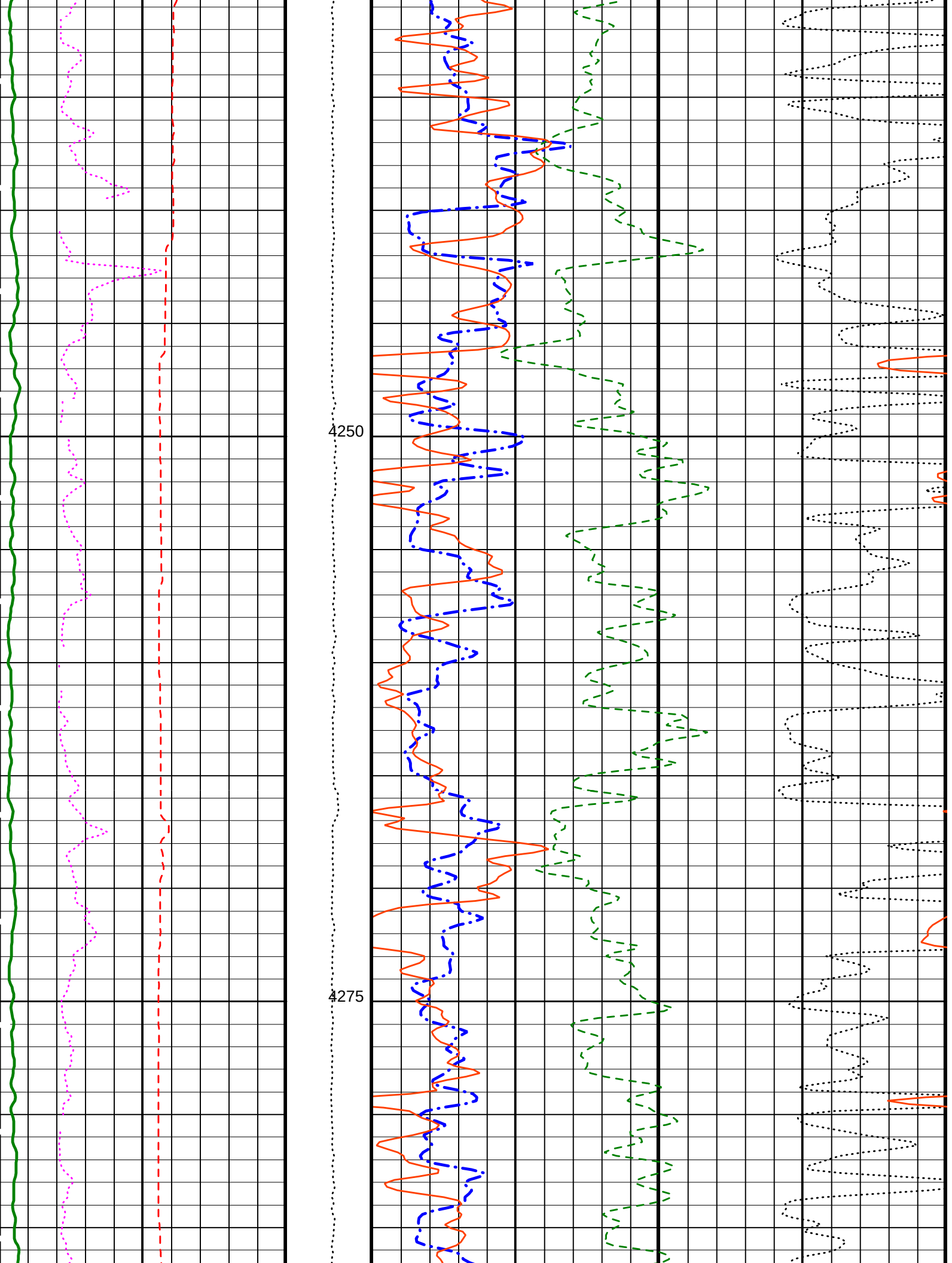

TENS
RHOB
PEF
HSGR
DRHO
CALI
STOF
APLC
3975
4000

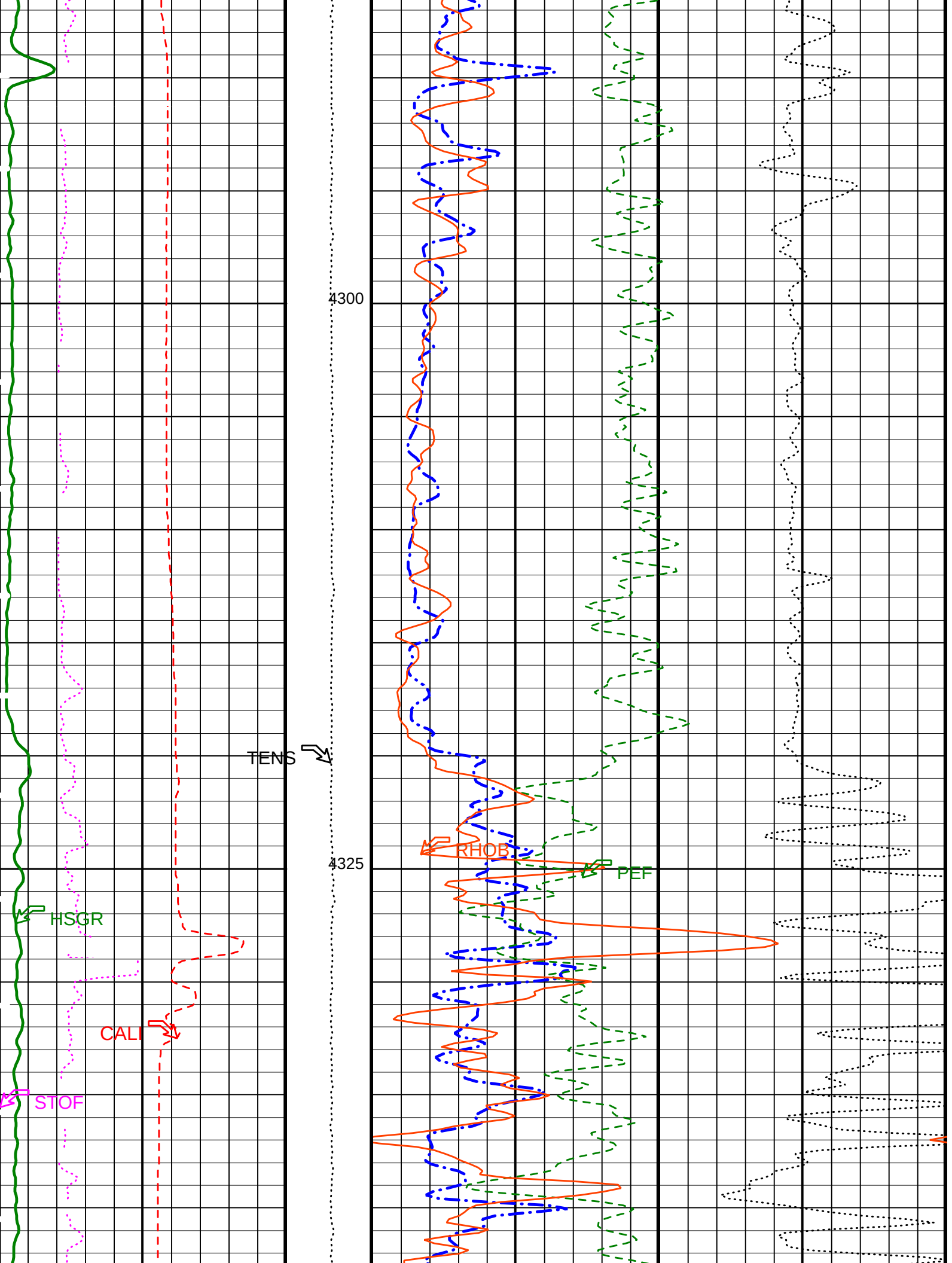

4025
4050

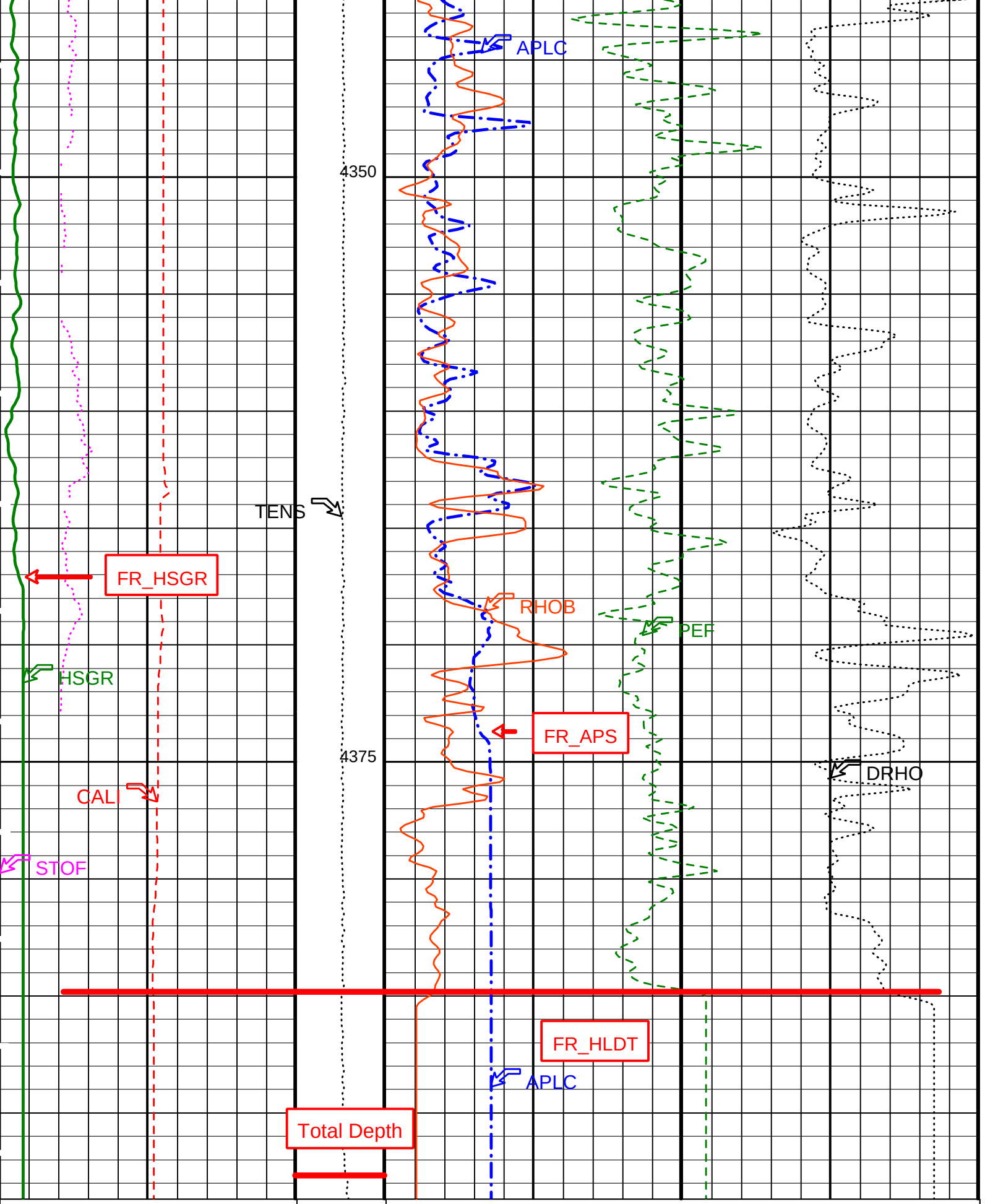

4075
4100


4125
TENS
RHOB
PEF
HSGR
DRHO
CALI
STOP
4150
APLC
4175


4200
4225


4250
4275


4300
4325
TENS
RHOB
PEF
HSGR
CALI
STOF



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

PhotoElectric Factor (PEF)

(STOF)

-1 (IN) 4

HNGS Spectroscopy Gamma Ray (HSGR)

0 (GAPI) 100

PhotoElectric Factor (PEF)

0 (----) 10

Bulk Density (RHOB)

3 (G/C3) 1

Bulk Density Correction (DRHO)

-0.25 (G/C3) 0.25

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	HLDT-A: Hostile Environment Litho Density - A		
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
QPPS	Quicklook Processing Pe Select	PEFL	
WMUD	Mud Weight	1.1	G/C3
	APS-BA: Accelerator-Porosity Tool		
	APS Software Version	5	
AASD	APS Thermal and Array Detectors High Voltage Setting	1958.44	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	2072.71	V
AHCS	APS Holesize Correction Source	GCSE	
AHSS	APS Holesize Correction Switch	ON	
AMTY	APS Environmental Corrections Mud Type	WaterBaseBarite	
ANSD	APS Near Detector High Voltage Setting	1727.99	V
ASOS	APS Standoff Correction Switch	ON	
ATSS	APS Temperature-Pressure-Salinity Correction Switch	OFF	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	15	DEGC
DPPM	Density Porosity Processing Mode	HIRS	
FSAL	Formation Salinity	35000	PPM
GCSE	Generalized Caliper Selection	CALI	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
NARC	APS Near/Array Calibration Ratio	1.05708	
NFRC	APS Near/Far Calibration Ratio	0.893553	
SHT	Surface Hole Temperature	20	DEGC
	HNGS-BA: Hostile Natural Gamma Ray Sonde		
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	15	DEGC
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	CALI	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
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	-0.0089739	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES	
SHT	Surface Hole Temperature	20	DEGC
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.833538	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.846703	
	System and Miscellaneous		
BS	Bit Size	9.875	IN
BSAL	Borehole Salinity	35000.00	PPM
CSIZ	Current Casing Size	0.000	IN
CWEI	Casing Weight	0.00	LB/F
DFD	Drilling Fluid Density	1.07	G/C3
TD	Total Depth	4397.4	M

Format: APSLiquidPorosity_1 Vertical Scale: 1:200 Graphics File Created: 28-Dec-2002 13:15

OP System Version: 10C0-306

MCM

DLT-E	10C0-306	HLDT-A	10C0-306
DTA-A	10C0-306	NPLC-B	OP10-KP1
APS-BA	OP10-KP1	HNGS-BA	OP10-KP1
DTC-H	10C0-306	BSP	10C0-306

Output DLIS Files

DEFAULT	DLL_LDL_APS_NGS_026LUP	FN:19	PRODUCER	28-Dec-2002 13:14
DLL_CUST	DLL_LDL_APS_NGS_026LUP	FN:20	PRODUCER	28-Dec-2002 13:15

Company: Lamont Doherty

Schlumberger

Well: ODP Leg 206, Site 1256D
Field: Fast Spreading Crust
Country: Coata Rica
Ocean: Pacific Ocean

APS/HLDT Porosity Log