

HALLIBURTON

QUAD COMBO
HR/BOS/SDL/DSN

2"-100'

COMPANY NORTHWEST NATURAL GAS
WELL IW 23ACH-3-65
FIELD MIST (FLORA POOL STORAGE)
COUNTY COLUMBIA STATE OR

COMPANY NORTHWEST NATURAL GAS
WELL IW 23ACH-3-65
FIELD MIST (FLORA POOL STORAGE)
COUNTY COLUMBIA STATE OR

API No. 36-008-00366
Location 2942.2' N 96.25' 22" W
1568.2' N 08.29' 38" E
FROM THE SOUTHEAST 1/4
OF SECTION 9, T68N
R. 12E, S. 3E
T68N R. 12E S. 3E
T68N R. 12E S. 3E
TWP 6N R. 12E S. 3E

Other Services
BMT-4

Permeant Datum GL Elev. 1089.3'
Log measured from K.B. 14.0' above perm. datum Elev. : K.B. 1047.3'
Drilling measured from K.B. Elev. 1089.3'

Date	MAY-20-2007
Run No.	ONE
Depth - Driller	2618'
Depth - Logger	2618'
Bottom - Logged Interval	2618'
Top - Logged Interval	688'
Casing - Driller	13.975' @ 688'
Casing - Logger	585'
Bit Size	8750'
Type Fluid in Hole	GEL
Dens. / Visc.	8.0 / 7.4
Ph. / Fluid Loss	8.0 / 7.4
Source of Sample	ROWLINE
Rm @ Meas. Temp.	2.820 @ 64 F
Rmf @ Meas. Temp.	2.220 @ 62 F
Rmc @ Meas. Temp.	1.250 @ 68 F
Source Rmf / Rmc	MEAS / MEAS
Rm @ BHT	1.806 @ 98 F
Rmf @ BHT	1.457 @ 98 F
Rmc @ BHT	0.786 @ 98 F
Time Since Circ.	06-20 0900
Time on Bottom	06-21 0845
Whe. Pac. Temp.	98 F @ TD
Equip. / Location	4898 / WFLD
Recorded By	G. ROUSSEAU
Witnessed By	J. NEYER

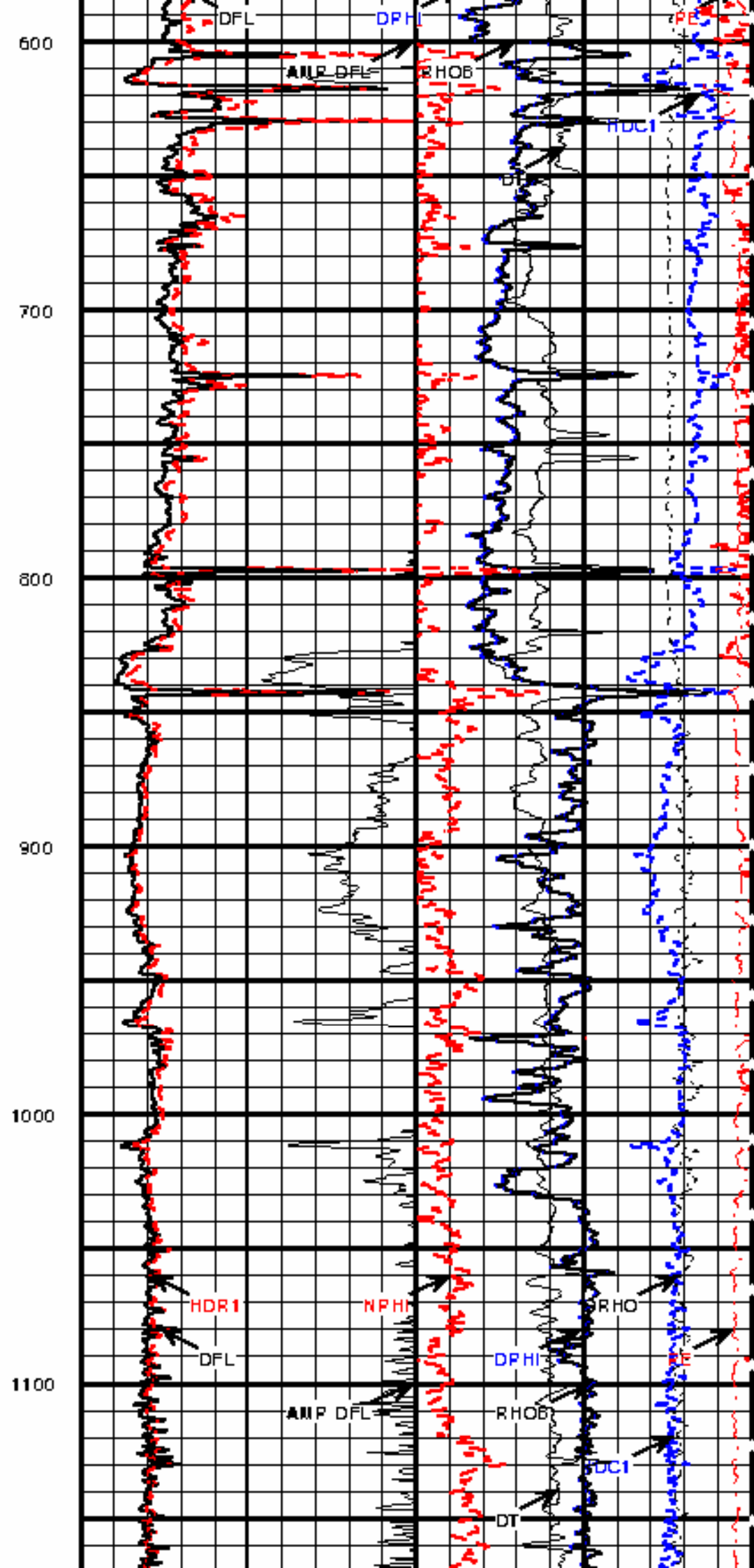
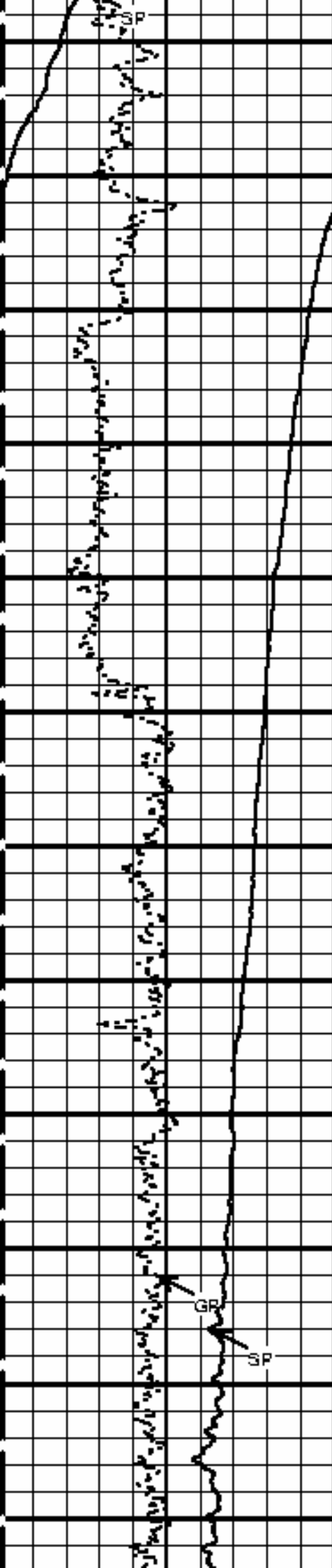
Service Ticket No.: 5118244 API Serial No.: 36-008-00366 PGM Version:

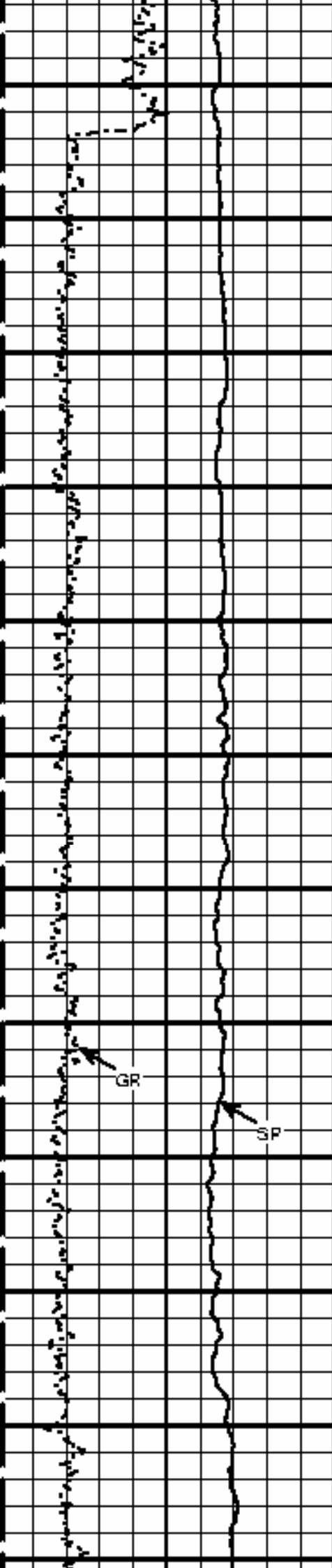
CHANGE IN MUD TYPE OR ADDITIONAL SAMPLES				RESISTIVITY SCALE CHANGES			
Date / Sample No.			Type Log	Depth	Scale Up Hole	Scale Down Hole	
Depth - Driller							
Type Fluid							
In Hole							
Dens. / Visc.							
Ph. / Fluid Loss							
Source of Sample							
RESISTIVITY EQUIPMENT DATA							
Rm @ Meas. Temp.	2.820 @ 64 F	@	Run No.	Tool Type & No.	Pad Type	Tool Pos.	Other
Rmf @ Meas. Temp.	2.220 @ 62 F	@	ONE	HRIT #211_132	NA	1.50' SO	NA
Rmc @ Meas. Temp.	1.250 @ 68 F	@					
Source Rmf / Rmc	MEAS / MEAS	/					
Rm @ BHT	1.806 @ 98 F	@					
Rmf @ BHT	1.457 @ 98 F	@					
Rmc @ BHT	0.786 @ 98 F	@					

EQUIPMENT DATA							
GAMMA		ACOUSTIC		DENSITY		NEUTRON	
Run No.	ONE	Run No.	ONE	Run No.	ONE	Run No.	ONE
Serial No.	A-180	Serial No.	4601 254	Serial No.	1714M741	Serial No.	D6
Model No.	NGRT	Model No.	305B BCS	Model No.	SDLT-DA	Model No.	DSNT-X
Diameter	3.636"	No. of Cent.	TWO	Diameter	6.800"	Diameter	3.625"
Detector Model No.	432	Spacing	2 FEET	Log Type	GAM-GAM	Log Type	NELJ-NELJ
Type	SCINT.			Source Type	C8-137	Source Type	AME41BE
Length	4.03'	LSA [Y / N]	NO	Serial No.	2694GW	Serial No.	DSN-307
Distance to Source	11.0'	PWDA [Y / N]	NO	Strength	1.5 CI	Strength	15.0 CI

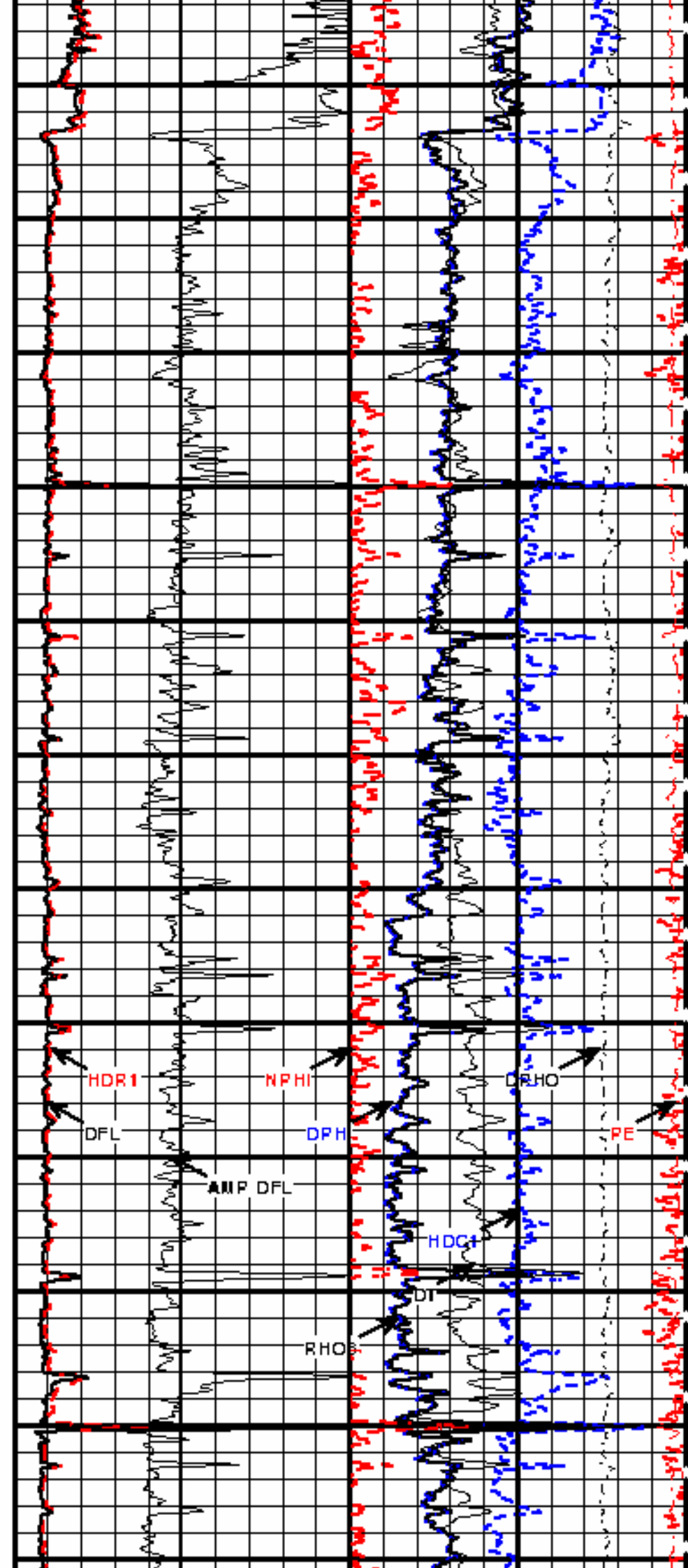
LOGGING DATA														
GENERAL			GAMMA		ACOUSTIC			DENSITY			NEUTRON			
Run	Depth		Speed	Scale		Scale			Scale					
No.	From	To	Ft / Min	L	R	L	R	Matrix	L	R	Matrix	L	R	Matrix
ONE	9516'	589'	25	0	160	160	60	65.5	1.65	2.65	2.65	90	0	SAND

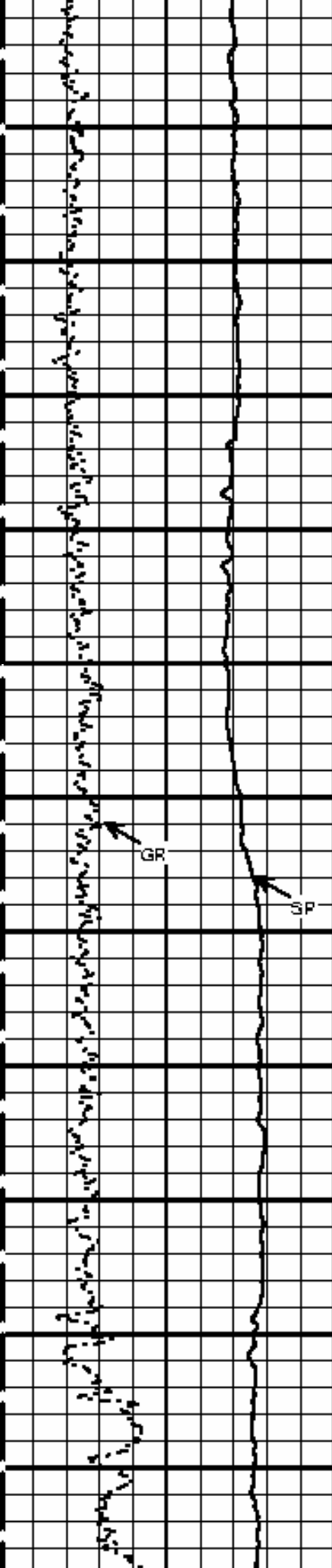
Fold Here



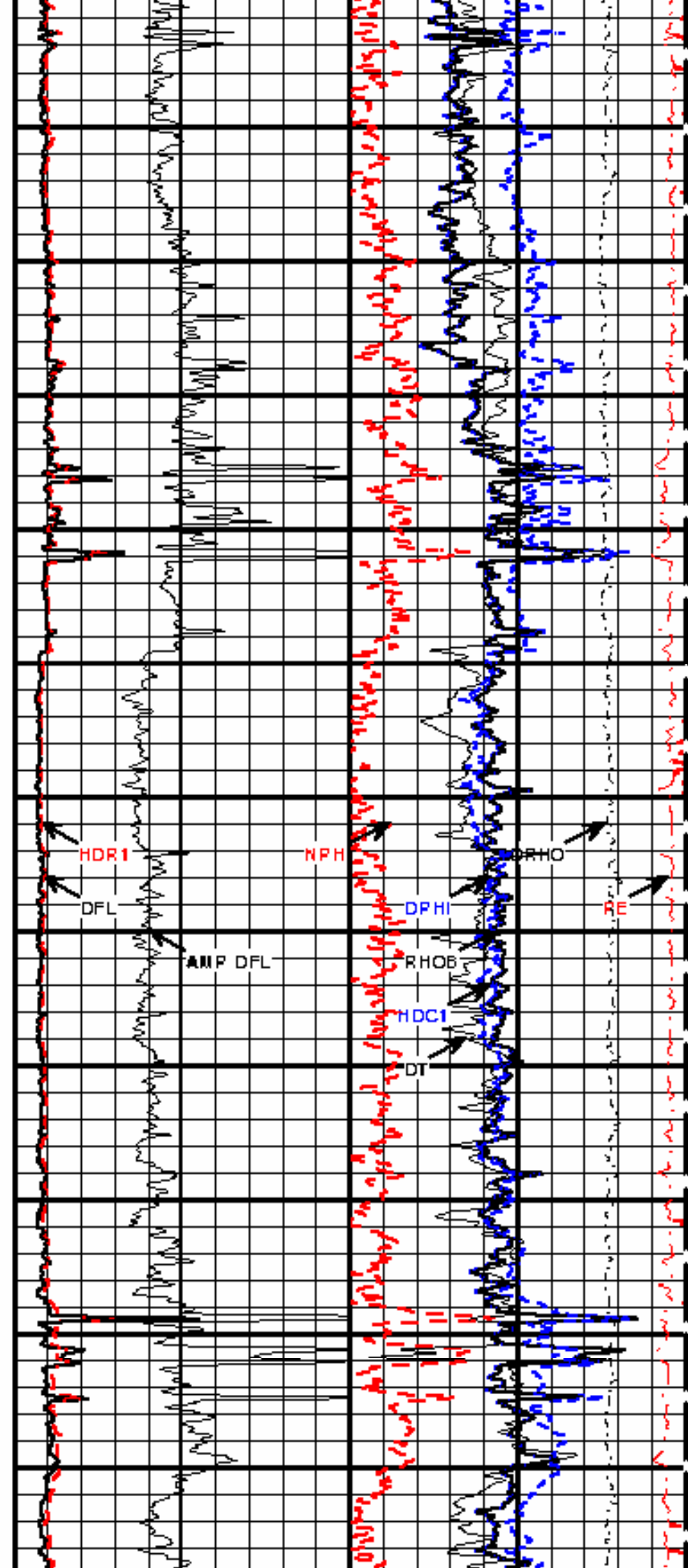


1200
1300
1400
1500
1600
1700

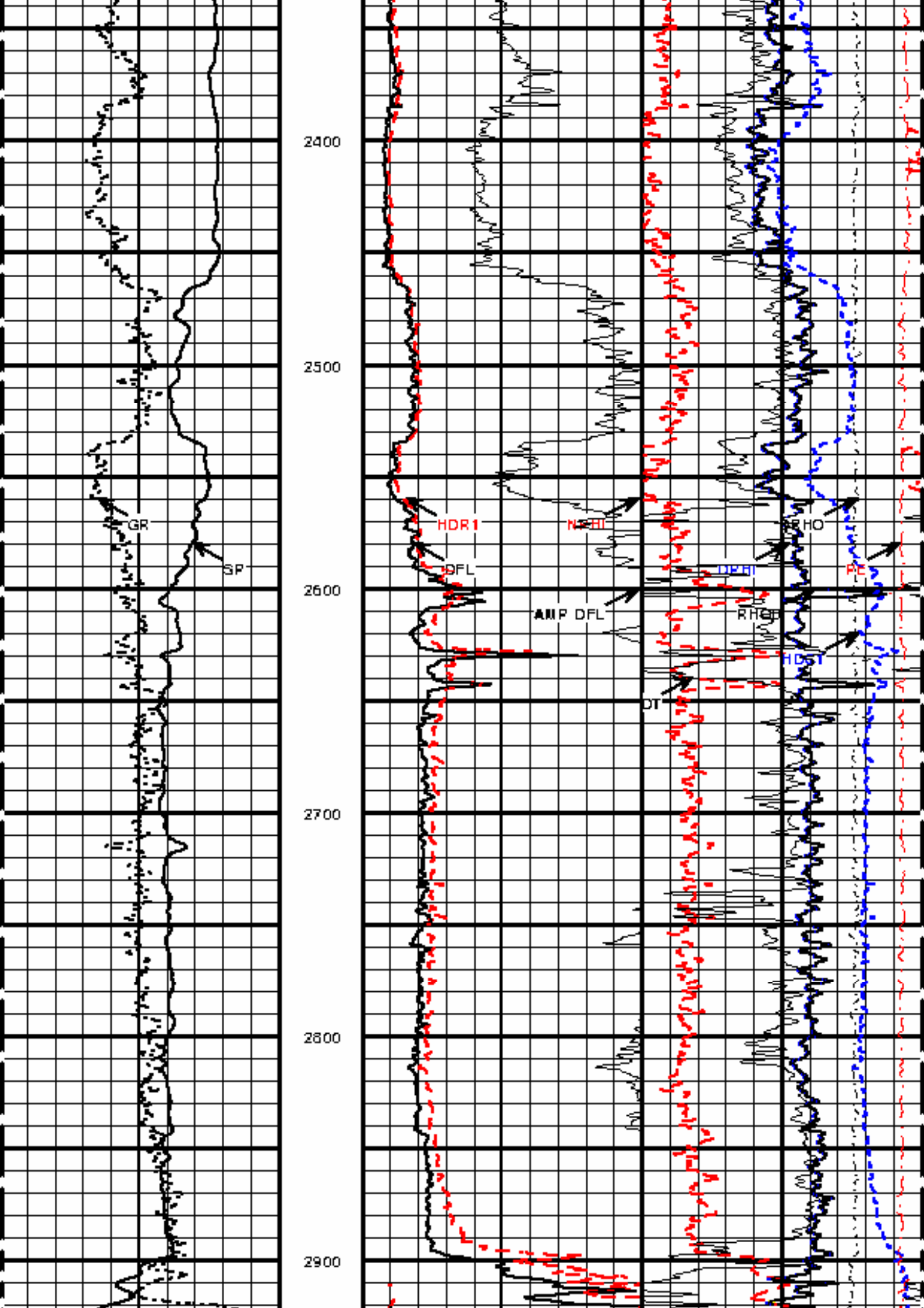


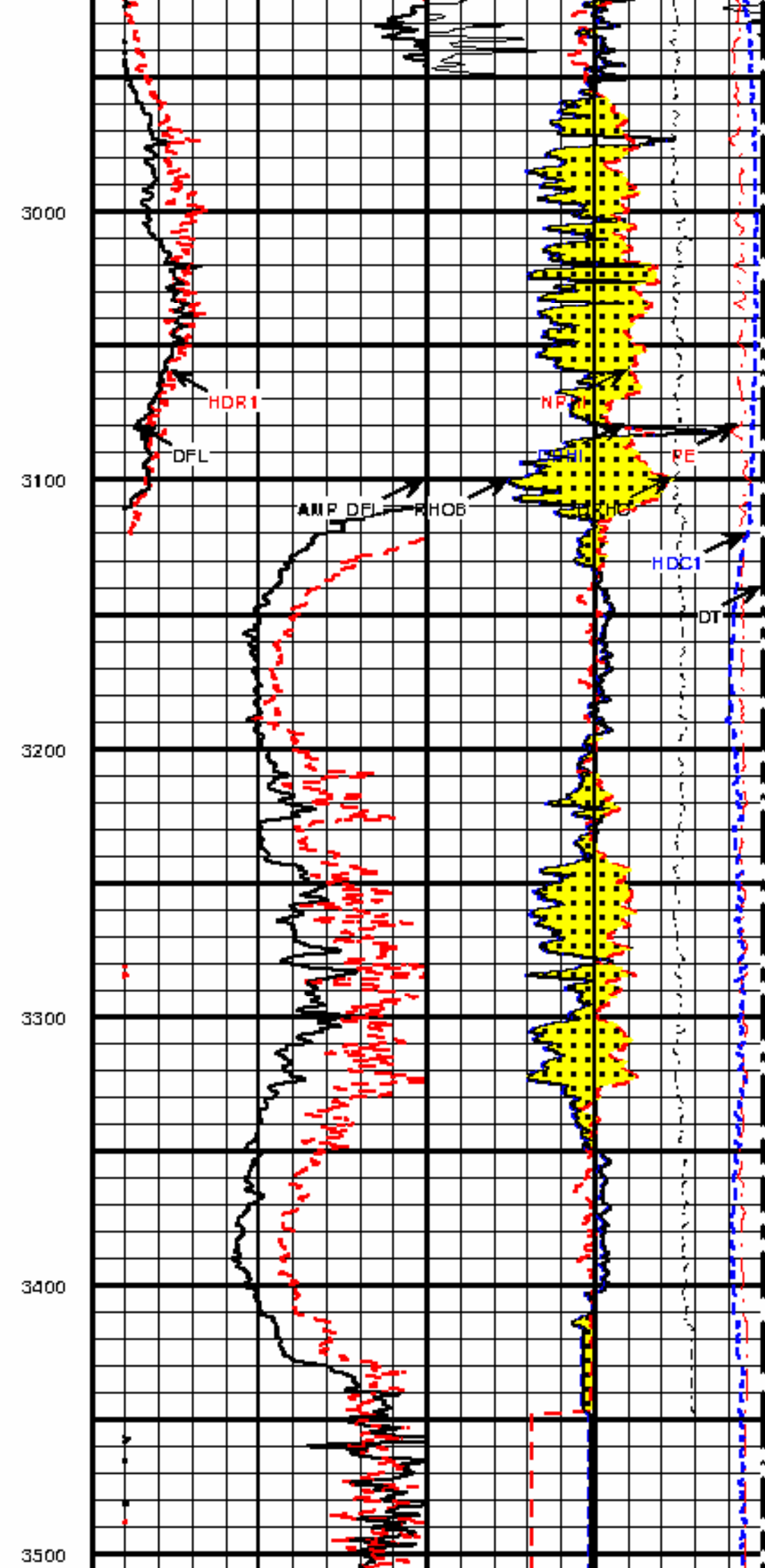
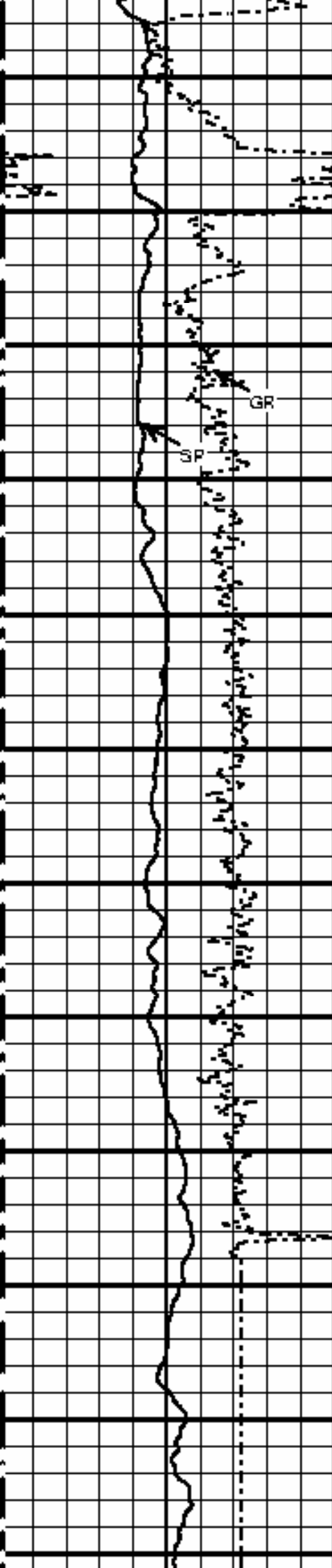


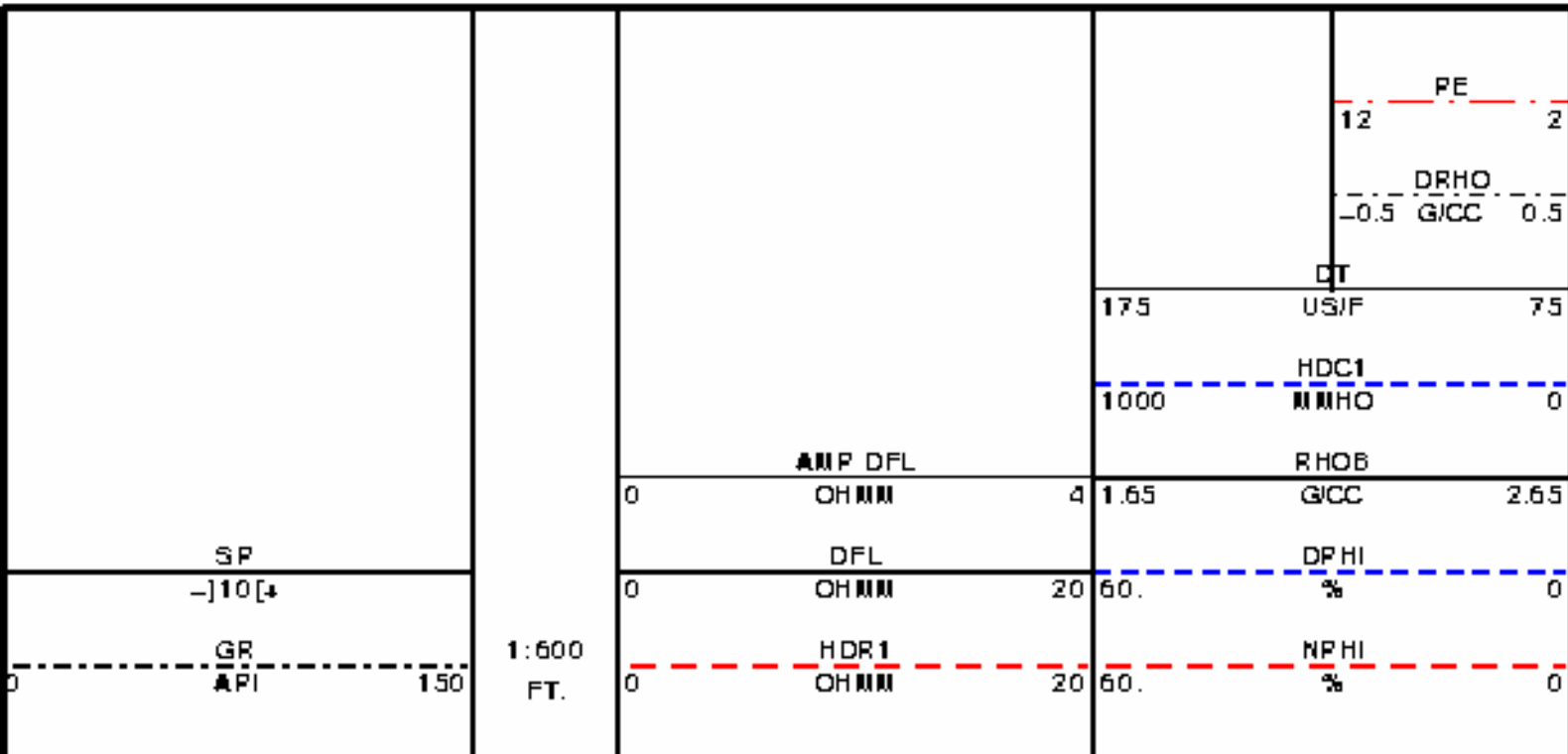
1800
1900
2000
2100
2200
2300



HDR1
DFL
AMP DFL
NPH
DPHI
RHO
RHOB
HDC1
DT
RE







Version No: | hc:3.0
 Data File: FF_TP_MER2.cls
 Format File: 2.TIF.spc
 Plot Time: 2007-05-21 07:29:58
 Database Time: 05:30:42

HALLIBURTON

Top Depth: 470.01
 Bottom Depth: 3516.76

COMPANY NORTHWEST NATURAL GAS
 WELL W 23ACH-3-65
 FIELD MIST (FLORA POOL STORAGE)
 COUNTY COLUMBIA STATE OR

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QUAD COMBO
 HRI/BCS/SDL/DSN
 2"=100'