Confidentiality Requested:
☐ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1149940

Form ACO-1
August 2013
Form must be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 6044
Name: Stelbar Oil Corporation, Inc.
Address 1: 1625 N WATERFRONT PKWY
Address 2:
City: WICHITA State: KS Zip: 67206 + 6602
Contact Person: Roscoe L. Mendenhall
Phone: (316) 264-8378
CONTRACTOR: License # 5123
Name: Pickrell Drilling Company, Inc.
Wellsite Geologist: Dave Goldak
Purchaser: N/A

Designate Type of Completion:

☑ New Well ☐ Re-Entry ☐ Workover

☐ Oil ☐ WSW ☐ SWD ☐ SIOW
☐ Gas ☑ D&A ☐ ENHR ☐ SIGW
☐ OG ☐ GSW ☐ Temp. Abd.
☐ CM *(Coal Bed Methane)*
☐ Cathodic ☐ Other *(Core, Expl., etc.)*:

If Workover/Re-entry: Old Well Info as follows:

Operator:
Well Name:
Original Comp. Date: Original Total Depth:

☐ Deepening ☐ Re-perf. ☐ Conv. to ENHR ☐ Conv. to SWD
☐ Plug Back ☐ Conv. to GSW ☐ Conv. to Producer

☐ Commingled Permit #:
☐ Dual Completion Permit #:
☐ SWD Permit #:
☐ ENHR Permit #:
☐ GSW Permit #:

06/04/2013	06/11/2013	06/13/2013
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-171-20944-00-00
Spot Description:
SE - SW - NW - NW Sec. 31 Twp. 17 S. R. 33 ☐ East ☑ West
1162 Feet from ☑ North / ☐ South Line of Section
336 Feet from ☐ East / ☑ West Line of Section

Footages Calculated from Nearest Outside Section Corner:
☐ NE ☑ NW ☐ SE ☐ SW

GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Scott
Lease Name: Hess Well #: 1-31
Field Name: Unknown
Producing Formation: N/A
Elevation: Ground: 3081 Kelly Bushing: 3088
Total Vertical Depth: 4930 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 396 Feet
Multiple Stage Cementing Collar Used? ☐ Yes ☑ No
If yes, show depth set: Feet
If Alternate II completion, cement circulated from:
feet depth to: w/ sx cmt.

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)

Chloride content: 5000 ppm Fluid volume: 1000 bbls
Dewatering method used: Evaporated

Location of fluid disposal if hauled offsite:

Operator Name:
Lease Name: License #:
Quarter Sec. Twp. S. R. ☐ East ☐ West
County: Permit #:

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

☑ **Confidentiality Requested**
Date: 09/06/2013
☑ **Confidential Release Date:** 09/06/2015
☑ **Wireline Log Received**
☐ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☐ I ☑ II ☐ III **Approved by:** NAOMI JAMES **Date:** 09/10/2013

1149940

Operator Name: Stelbar Oil Corporation, Inc. Lease Name: Hess Well #: 1-31

Sec. 31 Twp. 17 S. R. 33 ☐ East ☑ West County: Scott

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken ☑ Yes ☐ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☑ Yes ☐ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

List All E. Logs Run:
Attached

☐ Log Formation (Top), Depth and Datum ☑ Sample

Name	Top	Datum
Attached	Attached	Attached

CASING RECORD ☑ New ☐ Used
Report all strings set-conductor, surface, intermediate, production, etc.

Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12.250	8.6250	23	396	Class C	250	2% CC / 1/4# cellflake/sx.

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
___ Perforate ___ Protect Casing ___ Plug Back TD ___ Plug Off Zone	- -			

Did you perform a hydraulic fracturing treatment on this well? ☐ Yes ☐ No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? ☐ Yes ☐ No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? ☐ Yes ☐ No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record *(Amount and Kind of Material Used)*	Depth

TUBING RECORD: Size: Set At: Packer At: Liner Run: ☐ Yes ☐ No

Date of First, Resumed Production, SWD or ENHR. Producing Method: ☐ Flowing ☐ Pumping ☐ Gas Lift ☐ Other *(Explain)* _____

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS:
☐ Vented ☐ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION:
☐ Open Hole ☐ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*
☐ Other *(Specify)* _____

PRODUCTION INTERVAL:
_____
_____

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	Stelbar Oil Corporation, Inc.
Well Name	Hess 1-31
Doc ID	1149940

All Electric Logs Run

Array Induction Shallow Focused Electric Log
Compact Photo Density Compensated Neutron Microresistivity Log
Compensated Sonic w/Integrated Transit Time
Microresistivity Log

Form	ACO1 - Well Completion
Operator	Stelbar Oil Corporation, Inc.
Well Name	Hess 1-31
Doc ID	1149940

Tops

Name	Top	Datum
B/Anhydrite	2446	+642
Heebner Shale	4007	-919
Lansing	4050	-962
Mun Crk Sh	4242	-1154
Stark Shale	4342	-1254
Base/KC	4462	-1374
Marmaton	4494	-1406
Pawnee	4570	-1482
Cher Shale	4618	-1530
Johnson Zn	4682	-1594
Morrow Shale	4776	-1688
Mississippian	4833	-1745
RTD	4930	-1842

BASIC ENERGY SERVICES
PRESSURE PUMPING & WIRELINE

1700 S. Country Estates Rd.
Liberal, Kansas 67905
Phone 620-624-2277

FIELD SERVICE TICKET
1717 04451 A

DATE TICKET NO.

DATE OF JOB 6-3-13 DISTRICT 1717	NEW WELL ☒ OLD WELL ☐ PROD ☐ INJ ☐ WDW ☐ CUSTOMER ORDER NO.:
CUSTOMER Stelbar	LEASE Hess WELL NO. 1-31
ADDRESS	COUNTY Scott STATE KS
CITY STATE	SERVICE CREW Ruben - Carlos - Cesar
AUTHORIZED BY Tyce Davis	JOB TYPE: 2-42 Surface 8 5/8

EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS
				78940	9.5
				387501984 2	9.5
				3811937547	9.5

	DATE	AM/PM	TIME
TRUCK CALLED	6-3-13	AM	1900
ARRIVED AT JOB		AM	2200
START OPERATION		AM	0201
FINISH OPERATION		AM	0234
RELEASED		AM	0430
MILES FROM STATION TO WELL			100

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).
The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

SIGNED: _____
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	$ AMOUNT
CL 110	Premium Plus Cement	SK	250		4075 00
CC 109	Calcium Chloride	Lb	470		493 50
CC 102	Cello Flake	Lb	63		233 10
CF 753	Baffle Plat Aluminum 8 5/8	eq	1		170 00
CF 153	Wooden Cement Plug 8 5/8	eq	1		160 00
E 101	Heavy Equipment Mileage	mi	200		1400 00
CE 240	Blending and Mixing Service Charges	SK	250		350 00
E 113	Proppant and Bulk Delivery Charges	TM	1175		1880 00
CE 200	Depth Charge 0-500	4hrs	1		1000 00
CE 504	Plug Container Utilization Charge	Job	1		250 00
E 100	Unit Mileage Charge - Pick up	mi	100		425 00
5003	Service Supervisor, first 8 hrs on loc.	ea	1		175 00

CHEMICAL / ACID DATA:			

SUB TOTAL		6914 04
SERVICE & EQUIPMENT	%TAX ON $	
MATERIALS	%TAX ON $	
TOTAL		

SERVICE REPRESENTATIVE Ruben Montes

THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: _____
(WELL OWNER OPERATOR CONTRACTOR OR AGENT)

FIELD SERVICE ORDER NO.

CLOUD LITHO - Abilene, TX

BASIC ENERGY SERVICES
Liberal, Kansas

Cement Report

Customer: Shelbar	Lease No.	Date: 6-3-13	
Lease: Hess	Well #: 1-31	Service Receipt	
Casing	Depth	County: Scott	State: Kansas
Job Type	Formation	Legal Description	

Pipe Data		Perforating Data		Cement Data
Casing size: 8 5/8 23#	Tubing Size	Shots/Ft		Lead 250 SKS @ 14.8 2y. cc 1/4# Poly flake
Depth: 396'	Depth	From	To	
Volume: 23 bbls	Volume	From	To	
Max Press	Max Press	From	To	Tail in
Well Connection	Annulus Vol.	From	To	
Plug Depth: 356'	Packer Depth	From	To	

Time	Casing Pressure	Tubing Pressure	Bbls. Pumbed	Rate	Service Log
2200					On Location Rig up
0145					Safety Meeting
0157	2500			5	Pressure Test
0200	100		59	4	Pump 250 SKS @ 14.8 PPG
0217					Drop Plug
0218				4	Start Displacement
0223	100		14	2	Slow Rate
0234	350		23	2	Plug land - Held Casing Stayed with 350PSI
0236	0				Release Pressure on my Iron

Service Units	78940	387501842	38119 37547			
Driver Names	Ruben	Carlos	Cesar			

Mike
Customer Representative

Jerry Bennett
Station Manager

Ruben Montano
Cementer

BASIC ENERGY SERVICES
PRESSURE PUMPING & WIRELINE

1700 S. Country Estates Rd.
Liberal, Kansas 67905
Phone 620-624-2277

FIELD SERVICE TICKET
1717 04429 A

DATE TICKET NO.

DATE OF JOB 6/12/13 DISTRICT 1717	NEW WELL ☑ OLD WELL ☐ PROD ☐ INJ ☐ WDW ☐ CUSTOMER ORDER NO.:
CUSTOMER Stelbar	LEASE Hess 1-31 WELL NO.
ADDRESS	COUNTY Scott STATE KS
CITY STATE	SERVICE CREW Jon O., Ed M., Gregorio,
AUTHORIZED BY Tyce JRB	JOB TYPE: 242 PTA

EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS
748939	4.5				
37223 37726	4.5				
14354 19578	4.5				

	DATE	TIME
TRUCK CALLED	AM PM	9:00
ARRIVED AT JOB	AM PM	2:30
START OPERATION	AM PM	5:46
FINISH OPERATION	AM PM	6:40
RELEASED	AM PM	7:00
MILES FROM STATION TO WELL		100

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).
The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

SIGNED: X Mike Kern
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	$ AMOUNT
CL103	60/40 POZ	SK	280		3360 00
CC200	Cement Gel	LB	482		120 50
CC102	Cellofalke	LB	47		262 70
E101	Heavy Equip. Mileage	MI	200		1400 00
CE240	Blending & Mixing Charge	SK	280		392 00
E113	Bulk Delivery	TM	1205		1928 00
CE203	Depth Charge 2001 to 3000'	4hr	1		1800 00
E100	Pickup Mileage	MI	100		425 00
5003	Service Supervisor	EA	1		175 00

SUB TOTAL 6,904.20

CHEMICAL / ACID DATA:			

SERVICE & EQUIPMENT	%TAX ON $	
MATERIALS	%TAX ON $	
	TOTAL	

SERVICE REPRESENTATIVE Chad Hinz

THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: X Mike Kern
(WELL OWNER OPERATOR CONTRACTOR OR AGENT)

FIELD SERVICE ORDER NO.

CLOUD LITHO - Abilene, TX

BASIC ENERGY SERVICES
Liberal, Kansas

Cement Report

Customer Stelbar	Lease No.	Date
Lease Hess	Well # 1-31	Service Receipt
Casing / Depth 2430'	County Scott	State KS
Job Type PTA	Formation	Legal Description 31-17-33

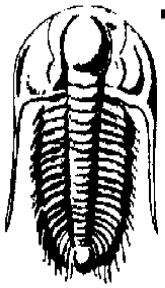
Pipe Data		Perforating Data		Cement Data
Casing size	Tubing Size 4 1/2 DP	Shots/Ft		Lead 280 SX 60/40 POZ @ 13.5# 1.51 7.50
Depth	Depth	From	To	
Volume	Volume	From	To	
Max Press	Max Press	From	To	Tail in
Well Connection Drill Pin	Annulus Vol.	From	To	
Plug Depth	Packer Depth	From	To	

Time	Casing Pressure	Tubing Pressure	Bbls. Pumbed	Rate	Service Log
14:30					on Loc, Spot & R.U., Safety Mtg
15:46		100	10	4	H2O @ 2430'
15:48		100	13.4	4	Mix 50 sx @ 13.5#
15:52		0	2	4	H2O
15:52		150	29	8	Mud
16:51		100	10	4	H2O @ 1440'
16:53		100	21.5	4.5	Mix 60 sx @ 13.5#
16:59		0	2	4	H2O
17:35		80	10	4	H2O @ 750'
17:37		80	13.4	4	Mix 50 sx
17:41		0	2	4	H2O
18:00		30	10	4	H2O @ 420'
18:02		30	13.5	4	Mix 50 sx
18:05		0	2	4	H2O
18:23		0	5.3	3	Mix 20 sx @ 60'
18:35		0	8		Plug Rathole

Service Units	78939	37223 39926	14354 19576			
Driver Names	CHinz	E. Mendoza	G. Sandoval	J. Ortiz		

Customer Representative | Station Manager | Cementer

Taylor Printing, Inc.



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Stelbar Oil Corp**

1625 N. Waterfront PKWY
Wichita, KS 67206

ATTN: Dave Goldak

Hess #1-31

31-17s-33w Scott,KS

Start Date: 2013.06.09 @ 23:40:51

End Date: 2013.06.10 @ 06:53:06

Job Ticket #: 49211 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2013.06.13 @ 08:38:38

DRILL STEM TEST REPORT

Stelbar Oil Corp

1625 N. Waterfront PKWY
Wichita, KS 67206

ATTN: Dave Goldak

31-17s-33w Scott,KS

Hess #1-31

Job Ticket: 49211 **DST#: 1**

Test Start: 2013.06.09 @ 23:40:51

GENERAL INFORMATION:

Formation: **Marmaton - Pawnee**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 02:08:36
Time Test Ended: 06:53:06

Test Type: Conventional Bottom Hole (Initial)
Tester: Shane McBride
Unit No: 55

Interval: 4460.00 ft (KB) To 4626.00 ft (KB) (TVD)
Total Depth: 4626.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

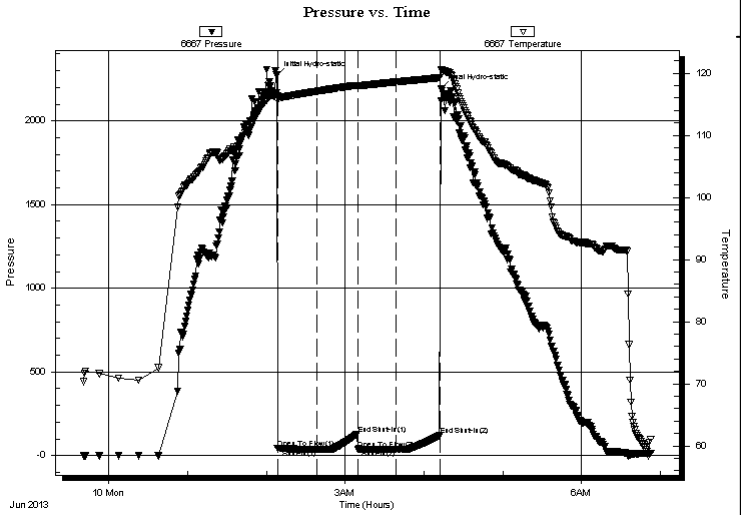
Reference Elevations: 3088.00 ft (KB)
3080.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6667 **Inside**

Press@RunDepth: 36.39 psig @ 4461.00 ft (KB)
Start Date: 2013.06.09 End Date: 2013.06.10
Start Time: 23:40:51 End Time: 06:53:06

Capacity: 8000.00 psig
Last Calib.: 2013.06.10
Time On Btm: 2013.06.10 @ 02:07:51
Time Off Btm: 2013.06.10 @ 04:13:21

TEST COMMENT: 1/2" blow died in 22 min.
No return
No blow
No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2269.37	116.81	Initial Hydro-static
1	40.21	116.30	Open To Flow (1)
31	36.75	117.08	Shut-In(1)
62	128.81	118.06	End Shut-In(1)
62	38.77	118.00	Open To Flow (2)
91	36.39	118.57	Shut-In(2)
124	120.99	119.27	End Shut-In(2)
126	2193.66	120.49	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud 100% m	0.07

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

Stelbar Oil Corp

1625 N. Waterfront PKWY
Wichita, KS 67206

ATTN: Dave Goldak

31-17s-33w Scott,KS

Hess #1-31

Job Ticket: 49211 **DST#: 1**

Test Start: 2013.06.09 @ 23:40:51

GENERAL INFORMATION:

Formation: **Marmaton - Pawnee**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 02:08:36
Time Test Ended: 06:53:06

Test Type: Conventional Bottom Hole (Initial)
Tester: Shane McBride
Unit No: 55

Interval: 4460.00 ft (KB) To 4626.00 ft (KB) (TVD)
Total Depth: 4626.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

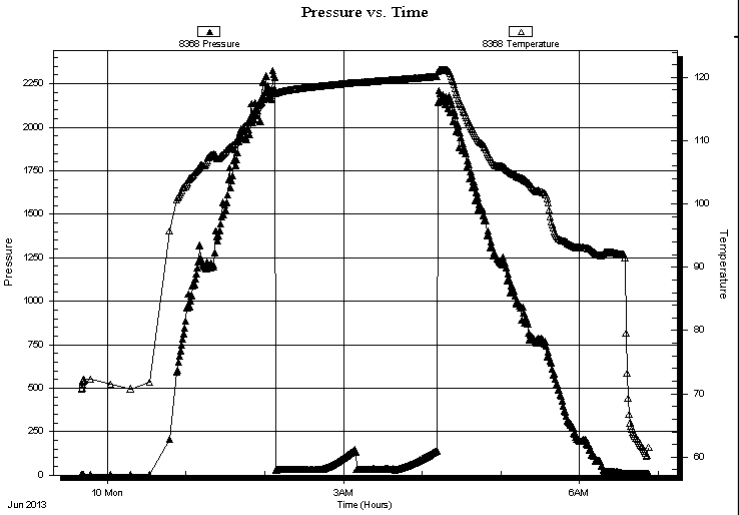
Reference Elevations: 3088.00 ft (KB)
3080.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8368 **Outside**

Press@RunDepth: psig @ 4461.00 ft (KB)
Start Date: 2013.06.09 End Date: 2013.06.10
Start Time: 23:40:22 End Time: 06:52:46

Capacity: 8000.00 psig
Last Calib.: 2013.06.10
Time On Btm:
Time Off Btm:

TEST COMMENT: 1/2" blow died in 22 min.
No return
No blow
No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud 100% m	0.07

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

TOOL DIAGRAM

Stelbar Oil Corp

1625 N. Waterfront PKWY
Wichita, KS 67206

ATTN: Dave Goldak

31-17s-33w Scott,KS

Hess #1-31

Job Ticket: 49211 **DST#: 1**

Test Start: 2013.06.09 @ 23:40:51

Tool Information

Drill Pipe:	Length:	4434.00 ft	Diameter:	3.80 inches	Volume:	62.20 bbl	Tool Weight:		2000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:		25000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight to Pull Loose:		85000.00 lb
					Total Volume:	62.20 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		5.00 ft					String Weight:	Initial	63000.00 lb
Depth to Top Packer:		4460.00 ft						Final	63000.00 lb
Depth to Bottom Packer:		ft							
Interval between Packers:		166.00 ft							
Tool Length:		197.00 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			4430.00		
Shut In Tool	5.00			4435.00		
Sampler	3.00			4438.00		
Hydraulic tool	5.00			4443.00		
Jars	5.00			4448.00		
Safety Joint	3.00			4451.00		
Packer	5.00			4456.00	31.00	Bottom Of Top Packer
Packer	4.00			4460.00		
Stubb	1.00			4461.00		
Recorder	0.00	6667	Inside	4461.00		
Recorder	0.00	8368	Outside	4461.00		
Perforations	33.00			4494.00		
Change Over Sub	1.00			4495.00		
Drill Pipe	125.00			4620.00		
Change Over Sub	1.00			4621.00		
Bullnose	5.00			4626.00	166.00	Bottom Packers & Anchor
Total Tool Length:	**197.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Stelbar Oil Corp

1625 N. Waterfront PKWY
Wichita, KS 67206

ATTN: Dave Goldak

31-17s-33w Scott,KS

Hess #1-31

Job Ticket: 49211 **DST#: 1**

Test Start: 2013.06.09 @ 23:40:51

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	0 ppm
Viscosity:	56.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	8.75 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4300.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	mud 100% m	0.070

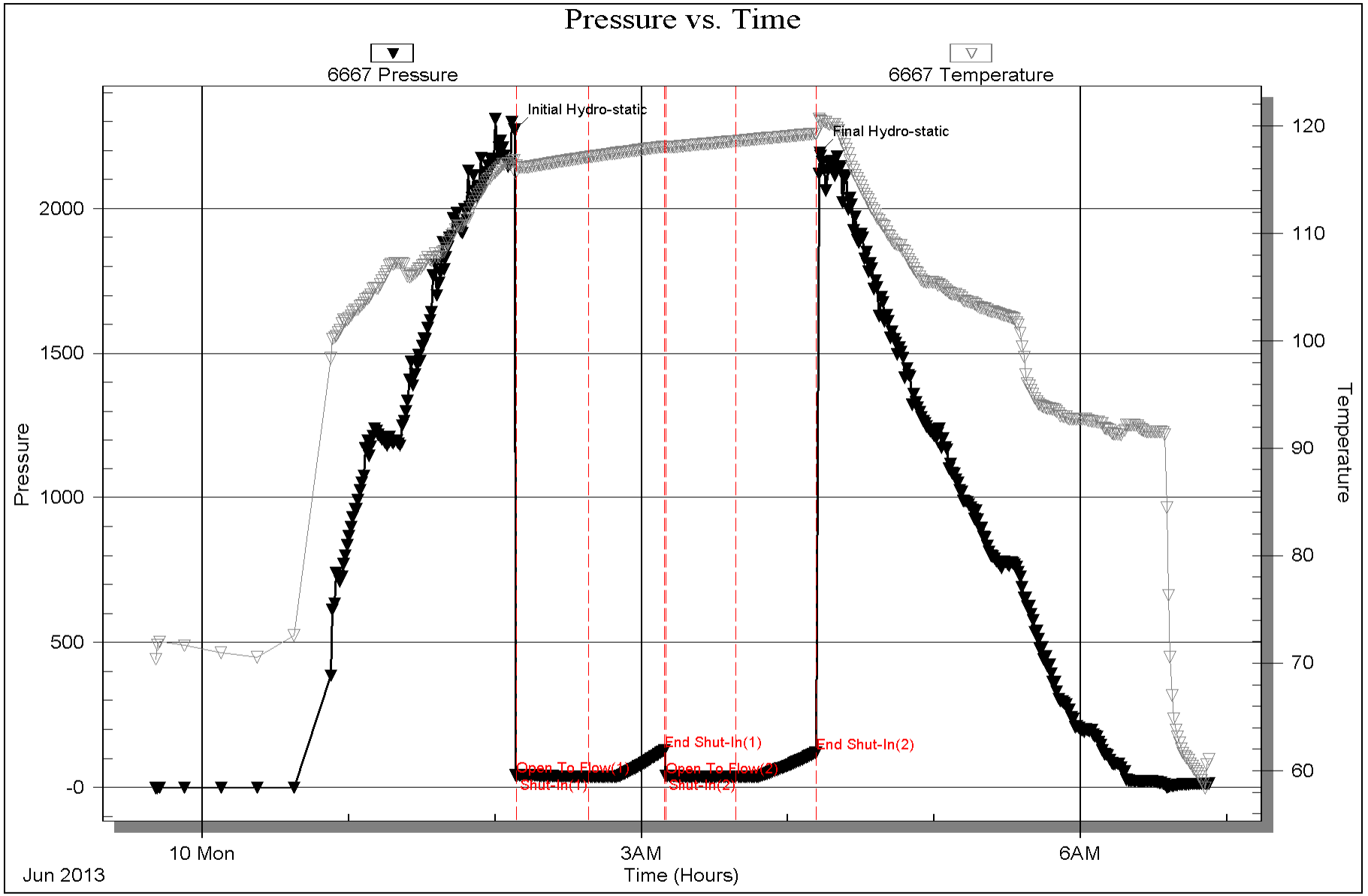
Total Length: 5.00 ft Total Volume: 0.070 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

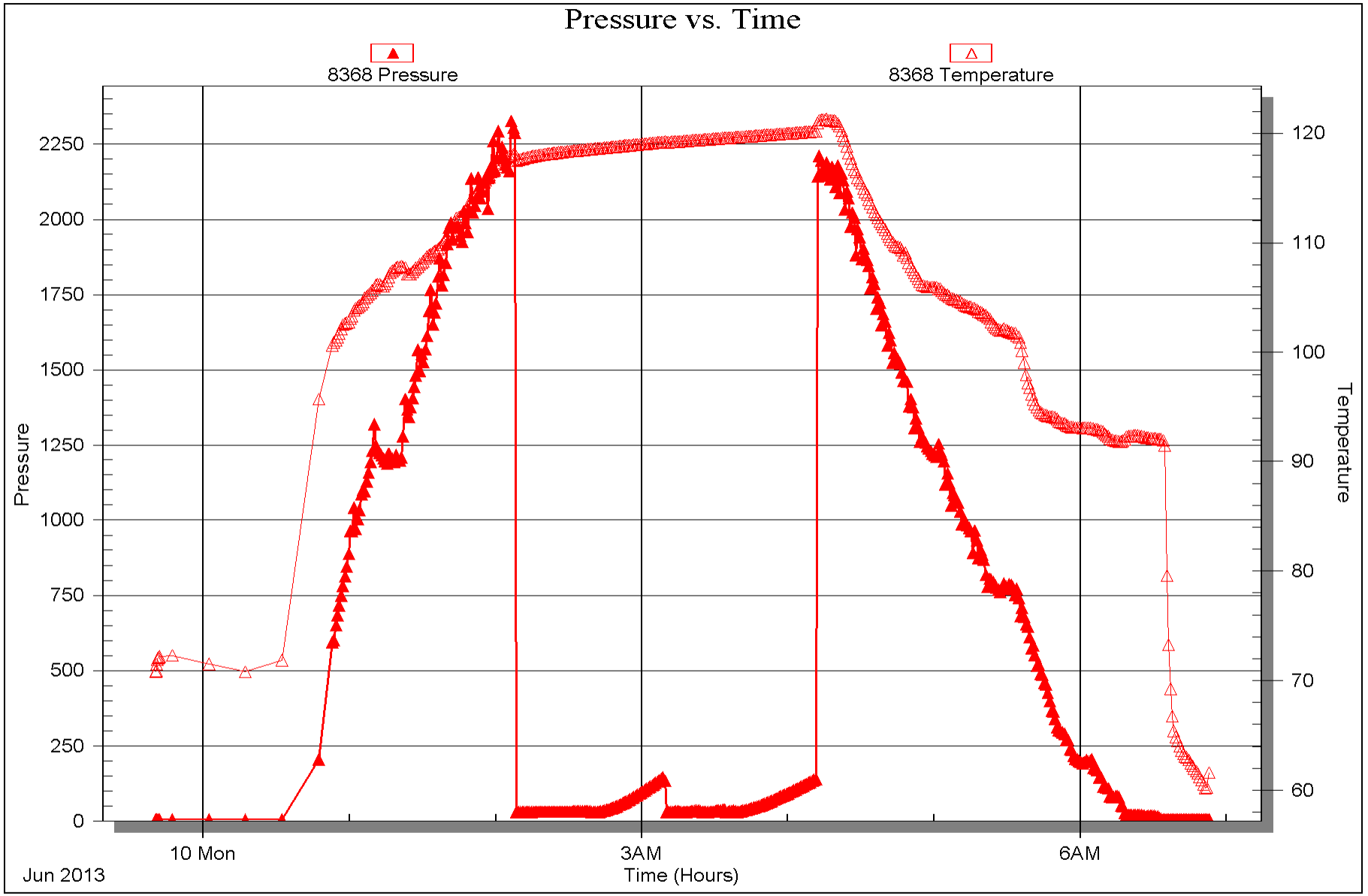
Recovery Comments: sampler 20 psi 2000ml mud

Serial #: 6667 **Inside** Stelbar Oil Corp Hess #1-31 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 49211 Printed: 2013.06.13 @ 08:38:41

Serial #: 8368 **Outside** Stelbar Oil Corp Hess #1-31 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 49211 Printed: 2013.06.13 @ 08:38:41

DRILL STEM TEST REPORT

Prepared For: **Stelbar Oil Corp**

1625 N. Waterfront PKWY
Wichita, KS 67206

ATTN: Dave Goldak

Hess #1-31

31-17s-33w Scott,KS

Start Date: 2013.06.11 @ 23:28:44

End Date: 2013.06.12 @ 06:44:08

Job Ticket #: 49212 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2013.06.13 @ 08:37:56

DRILL STEM TEST REPORT

Stelbar Oil Corp

1625 N. Waterfront PKWY
Wichita, KS 67206

ATTN: Dave Goldak

31-17s-33w Scott,KS

Hess #1-31

Job Ticket: 49212 **DST#: 2**

Test Start: 2013.06.11 @ 23:28:44

GENERAL INFORMATION:

Formation: **Johnson**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 01:59:09
Time Test Ended: 06:44:08

Test Type: Conventional Straddle (Reset)
Tester: Shane McBride
Unit No: 55

Interval: 4744.00 ft (KB) To 4766.00 ft (KB) (TVD)
Total Depth: 4930.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

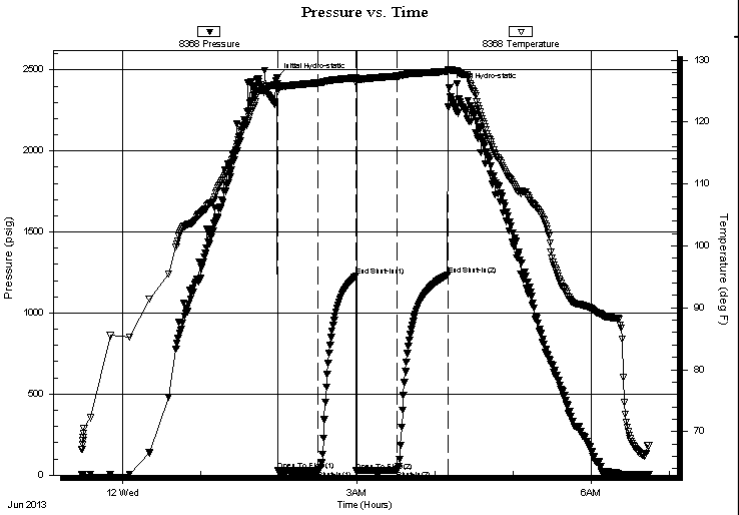
Reference Elevations: 3088.00 ft (KB)
3080.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8368 **Outside**

Press@RunDepth: 28.06 psig @ 4745.00 ft (KB)
Start Date: 2013.06.11 End Date: 2013.06.12
Start Time: 23:28:44 End Time: 06:44:08

Capacity: 8000.00 psig
Last Calib.: 2013.06.12
Time On Btm: 2013.06.12 @ 01:58:54
Time Off Btm: 2013.06.12 @ 04:11:09

TEST COMMENT: 1/4" blow died in 16 min.
No return
No blow
No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2454.33	126.13	Initial Hydro-static
1	27.44	125.01	Open To Flow (1)
31	27.08	126.32	Shut-In(1)
61	1228.33	127.15	End Shut-In(1)
61	26.21	126.32	Open To Flow (2)
92	28.06	127.41	Shut-In(2)
131	1234.14	128.17	End Shut-In(2)
133	2392.20	128.51	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
3.00	mud 100% m	0.04

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

Stelbar Oil Corp

1625 N. Waterfront PKWY
Wichita, KS 67206

ATTN: Dave Goldak

31-17s-33w Scott,KS

Hess #1-31

Job Ticket: 49212 **DST#: 2**

Test Start: 2013.06.11 @ 23:28:44

GENERAL INFORMATION:

Formation: **Johnson**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 01:59:09
Time Test Ended: 06:44:08

Test Type: Conventional Straddle (Reset)
Tester: Shane McBride
Unit No: 55

Interval: 4744.00 ft (KB) To 4766.00 ft (KB) (TVD)
Total Depth: 4930.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

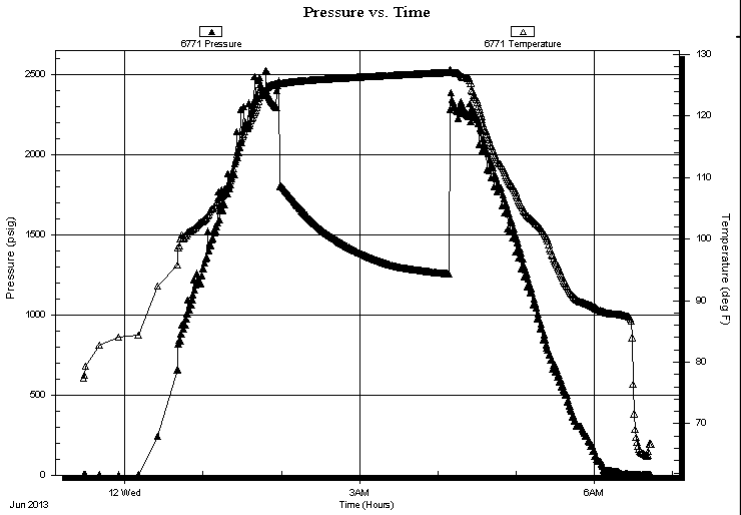
Reference Elevations: 3088.00 ft (KB)
3080.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6771 **Below (Straddle)**

Press@RunDepth: psig @ 4768.00 ft (KB)
Start Date: 2013.06.11 End Date: 2013.06.12
Start Time: 23:28:20 End Time: 06:43:20

Capacity: 8000.00 psig
Last Calib.: 2013.06.12
Time On Btm:
Time Off Btm:

TEST COMMENT: 1/4" blow died in 16 min.
No return
No blow
No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
3.00	mud 100% m	0.04

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

Stelbar Oil Corp

1625 N. Waterfront PKWY
Wichita, KS 67206

ATTN: Dave Goldak

31-17s-33w Scott,KS

Hess #1-31

Job Ticket: 49212 **DST#: 2**

Test Start: 2013.06.11 @ 23:28:44

GENERAL INFORMATION:

Formation: **Johnson**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 01:59:09
Time Test Ended: 06:44:08

Test Type: Conventional Straddle (Reset)
Tester: Shane McBride
Unit No: 55

Interval: 4744.00 ft (KB) To 4766.00 ft (KB) (TVD)
Total Depth: 4930.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

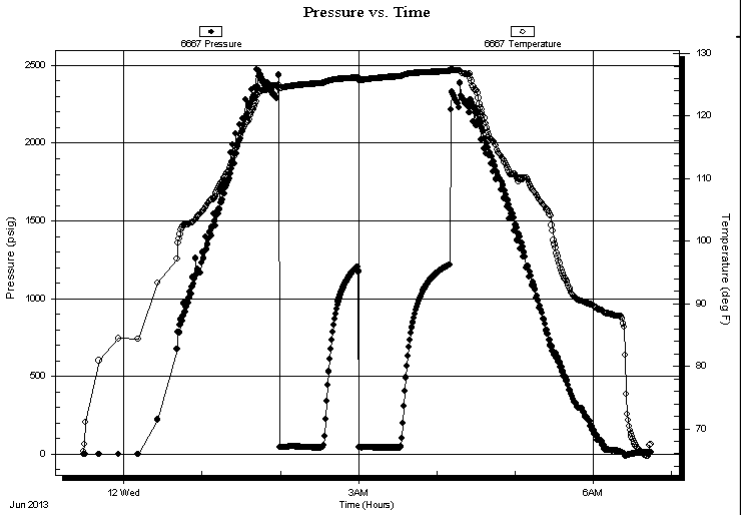
Reference Elevations: 3088.00 ft (KB)
3080.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6667 **Inside**

Press@RunDepth: psig @ 4745.00 ft (KB)
Start Date: 2013.06.11 End Date: 2013.06.12
Start Time: 23:29:09 End Time: 06:44:24

Capacity: 8000.00 psig
Last Calib.: 2013.06.12
Time On Btm:
Time Off Btm:

TEST COMMENT: 1/4" blow died in 16 min.
No return
No blow
No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
3.00	mud 100% m	0.04

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

TOOL DIAGRAM

Stelbar Oil Corp

1625 N. Waterfront PKWY
Wichita, KS 67206

ATTN: Dave Goldak

31-17s-33w Scott,KS

Hess #1-31

Job Ticket: 49212 **DST#: 2**

Test Start: 2013.06.11 @ 23:28:44

Tool Information

Drill Pipe:	Length:	4746.00 ft	Diameter:	3.80 inches	Volume:	66.57 bbl	Tool Weight:		2000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:		30000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight to Pull Loose:		90000.00 lb
					Total Volume:	66.57 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		33.00 ft					String Weight:	Initial	66000.00 lb
Depth to Top Packer:		4744.00 ft						Final	66000.00 lb
Depth to Bottom Packer:		4930.00 ft							
Interval between Packers:		186.00 ft							
Tool Length:		217.00 ft							
Number of Packers:		3	Diameter:	6.75 inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			4714.00		
Shut In Tool	5.00			4719.00		
Sampler	3.00			4722.00		
Hydraulic tool	5.00			4727.00		
Jars	5.00			4732.00		
Safety Joint	3.00			4735.00		
Packer	5.00			4740.00	31.00	Bottom Of Top Packer
Packer	4.00			4744.00		
Stubb	1.00			4745.00		
Recorder	0.00	6667	Inside	4745.00		
Recorder	0.00	8368	Outside	4745.00		
Perforations	17.00			4762.00		
Blank Off Sub	1.00			4763.00		
top of s packer	3.00			4766.00		
Packer - Shale	0.00			4766.00		
Stubb	1.00			4767.00		
Anchor	1.00			4768.00		
Recorder	0.00	6771	Below	4768.00		
Change Over Sub	1.00			4769.00		
Drill Pipe	155.00			4924.00		
Change Over Sub	1.00			4925.00		
Bullnose	5.00			4930.00	186.00	Bottom Packers & Anchor
Total Tool Length:	**217.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Stelbar Oil Corp

1625 N. Waterfront PKWY
Wichita, KS 67206

ATTN: Dave Goldak

31-17s-33w Scott,KS

Hess #1-31

Job Ticket: 49212 **DST#: 2**

Test Start: 2013.06.11 @ 23:28:44

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	0 ppm
Viscosity:	53.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	8.73 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	5000.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
3.00	mud 100% m	0.042

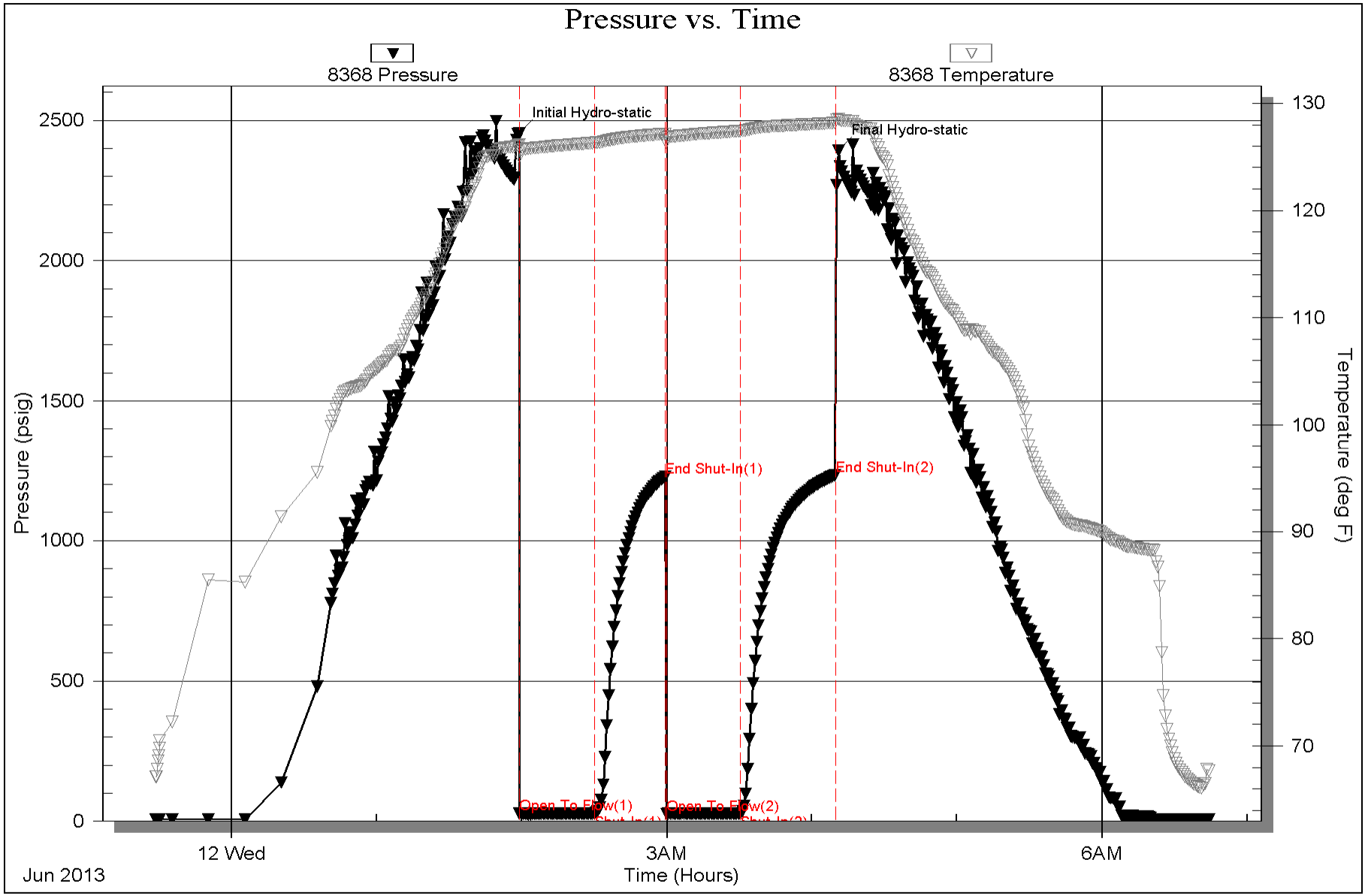
Total Length: 3.00 ft Total Volume: 0.042 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

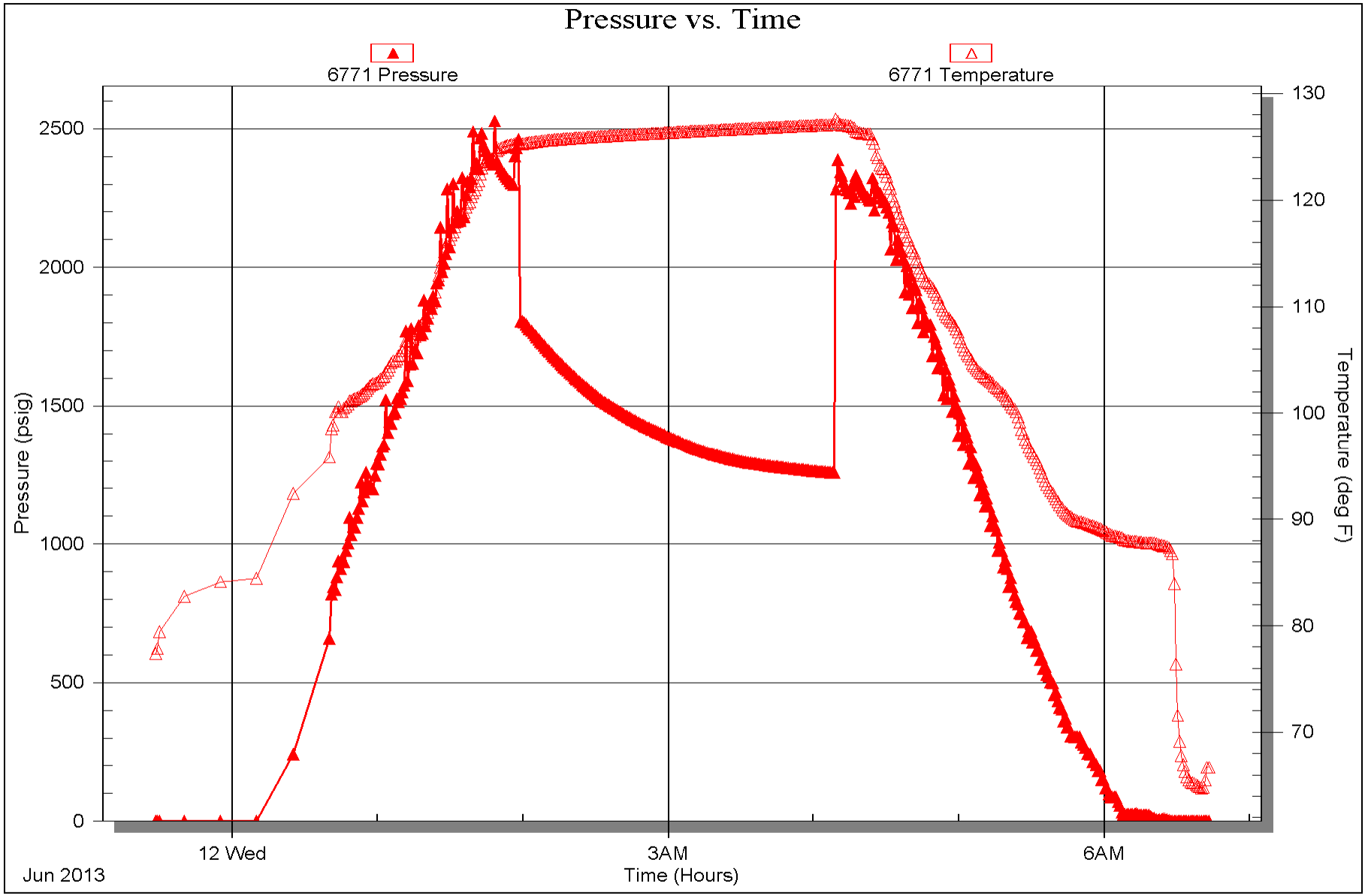
Recovery Comments: sampler 15 psi 2000 ml mud

Serial #: 8368 **Outside** Stelbar Oil Corp Hess #1-31 DST Test Number: 2



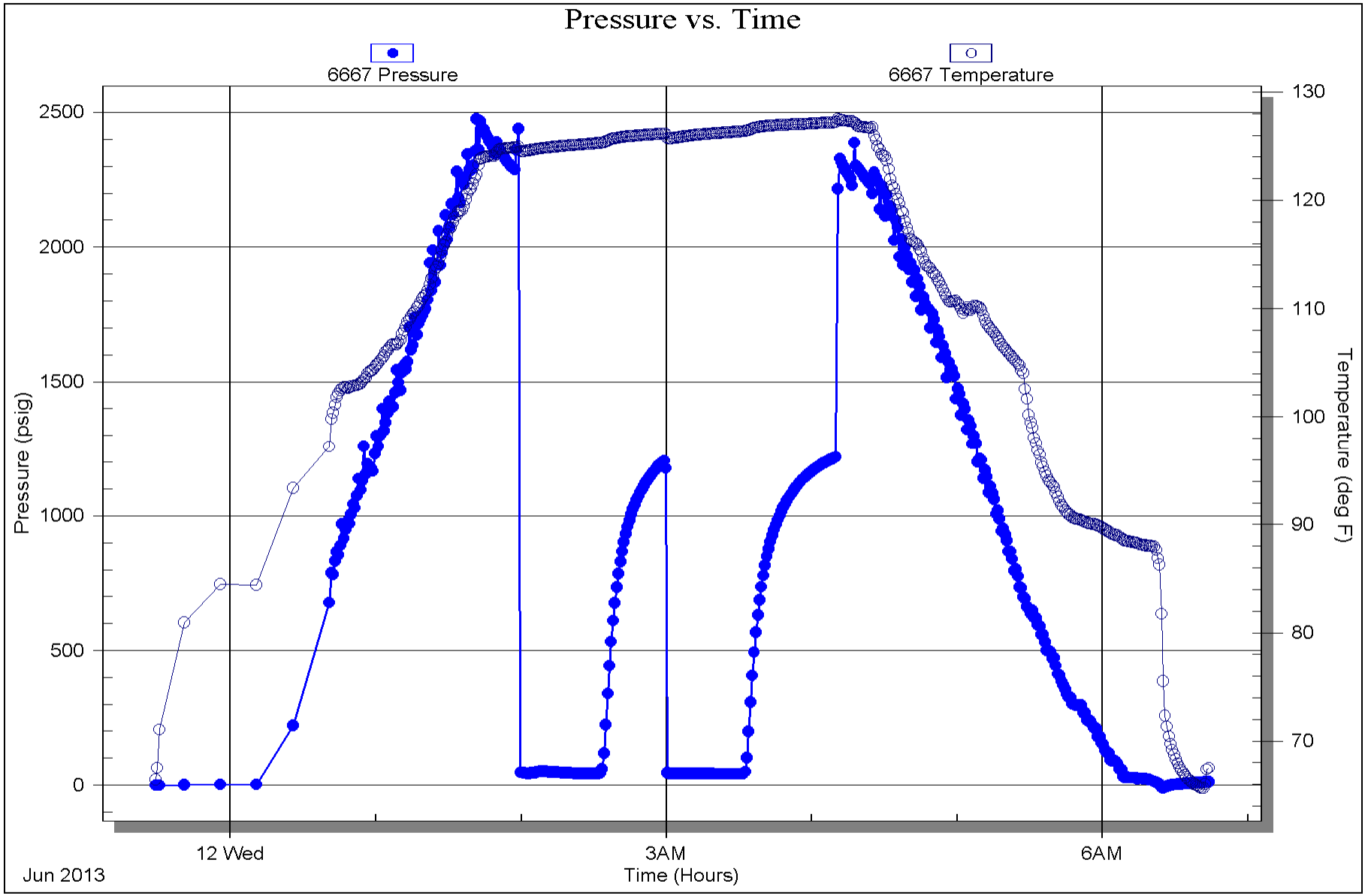
Trilobite Testing, Inc Ref. No: 49212 Printed: 2013.06.13 @ 08:37:59

Serial #: 6771 Below (Straddle) Oil Corp Hess #1-31 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 49212 Printed: 2013.06.13 @ 08:37:59

Serial #: 6667 **Inside** Stelbar Oil Corp Hess #1-31 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 49212 Printed: 2013.06.13 @ 08:37:59

TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

4/10

Test Ticket

NO. 49211

Well Name & No. Hess #1-31 Test No. #1 Date 6/10/13

Company Stelbar Oil Corp Elevation 3088 KB 3080 GL

Address 1625 N. Waterfront Pkwy, Wichita, Ks 67206

Co. Rep / Geo. Dave Goblak Rig Pickrell #10

Location: Sec. 31 Twp. 17s Rge. 33w Co. Scott State Ks

Interval Tested 4460 4626 Zone Tested Marmaton - Pawnee

Anchor Length 166 Drill Pipe Run 4434 Mud Wt. 9.2

Top Packer Depth 4455 Drill Collars Run — Vis 56

Bottom Packer Depth 4460 Wt. Pipe Run — WL 8.8

Total Depth 4626 Chlorides 4300 ppm System LCM #1

Blow Description 1/2" in @ open, died in 22 min.
No return
No blow
No return

Rec 5'	Feet of Mud	%gas	%oil	%water	100	%mud
Rec	Feet of	%gas	%oil	%water		%mud
Rec	Feet of	%gas	%oil	%water		%mud
Rec	Feet of	%gas	%oil	%water		%mud
Rec	Feet of	%gas	%oil	%water		%mud

Rec Total 5' BHT 120° Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic	2269	☒ Test	1250	T-On Location	22:25
(B) First Initial Flow	40	☒ Jars	250	T-Started	23:40
(C) First Final Flow	36	☒ Safety Joint	75	T-Open	02:09
(D) Initial Shut-In	128	☒ Circ Sub	N/C	T-Pulled	04:09
(E) Second Initial Flow	38	☐ Hourly Standby		T-Out	07:00
(F) Second Final Flow	36	☒ Mileage	26 RT 40.30	Comments	
(G) Final Shut-In	120	☒ Sampler	250		
(H) Final Hydrostatic	2193	☐ Straddle		☐ Ruined Shale Packer	
		☐ Shale Packer		☐ Ruined Packer	
Initial Open	30	☐ Extra Packer		☐ Extra Copies	
Initial Shut-In	30	☐ Extra Recorder		Sub Total	0
Final Flow	30	☐ Day Standby		Total	1865.30
Final Shut-In	30	☐ Accessibility		MP/DST Disc't	
		Sub Total	1865.30		

Approved By [signature] Our Representative [signature]

TRILOBITE TESTING, INC.

P.O. Box 362 • Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. 49211 Date 6/10/13

Company Name Shelbar Oil Corp

Lease Hess #1-31 Test No. #1 (4460 – 4626) Mississippian – Pawnee

County Scott, KS Sec. 31 Twp. 17S Rng. 33W

SAMPLER RECOVERY

Gas — ML

Oil — ML

Mud 2000 ML

Water — ML

Other — ML

Pressure 20 PSI

Total 2000 ML

PIT MUD ANALYSIS

Chlorides 4300 ppm.

Resistivity 1.499 ohms @ 65° F

Viscosity 56

Mud Weight 9.2

Filtrate 8.8

Other LCM #1

SAMPLER ANALYSIS

Resistivity 1.388 ohms @ 62° F

Chlorides 4900 ppm.

Gravity — corrected @60F

PIPE RECOVERY

TOP

Resistivity 1,388 ohms @ 62 F

Chlorides 4900 ppm.

MIDDLE

Resistivity 1,388 ohms @ 62° F

Chlorides 4900 ppm.

BOTTOM

Resistivity 1,388 ohms @ 62° F

Chlorides 4900 ppm.

Printcraft Printers 9/01

TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

4/10

Test Ticket

NO. 49212

Well Name & No. Hess # 1-31 Test No. #2 Date 6/12/13

Company Stelbar Oil Corp Elevation 3088 KB 3086 GL

Address 11025 N. Waterfront PKWY, Wichita KS 67206

Co. Rep / Geo. Dave Goldak Rig Pickrell

Location: Sec. 31 Twp. 17S Rge. 33W Co. Scott State KS

Interval Tested 4744 4766 Zone Tested Johnson

Anchor Length 22 Drill Pipe Run 4746 Mud Wt. 9.2

Top Packer Depth 4239 – 4744 Drill Collars Run — Vis 53

Bottom Packer Depth 4766 Wt. Pipe Run — WL 8.8

Total Depth 4930 Chlorides 5000 ppm System LCM #2

Blow Description 1/4" in blow died in 16min.
No return
No blow
No return

Rec 3'	Feet of Mud	%gas	%oil	%water 100	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 3' BHT 128° Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic	2454	☒ Test	1250	T-On Location	23:00
(B) First Initial Flow	27	☒ Jars	250	T-Started	23:28
(C) First Final Flow	27	☒ Safety Joint	75	T-Open	02:00
(D) Initial Shut-In	1228	☒ Circ Sub	N/C	T-Pulled	04:00
(E) Second Initial Flow	26	☐ Hourly Standby		T-Out	07:00
(F) Second Final Flow	28	☒ Mileage	2 UNIT 40.30	Comments	
(G) Final Shut-In	1234	☒ Sampler	250		
(H) Final Hydrostatic	2392	☒ Straddle	600	☐ Ruined Shale Packer	
		☒ Shale Packer	250	☐ Ruined Packer	
Initial Open	30	☐ Extra Packer		☐ Extra Copies	
Initial Shut-In	30	☐ Extra Recorder		Sub Total	533.33
Final Flow	30	☐ Day Standby	1d 16h	Total	3248.63
Final Shut-In	30	☐ Accessibility		MP/DST Disc't	
		Sub Total	2715.30		

Approved By [signature] Our Representative [signature]

TRILOBITE TESTING, INC.

P.O. Box 362 • Hays, Kansas 67601

FLUID SAMPLER DATA

49242

Date 6/12/13

Name Stelbar Oil Corp

Less #1-31

Test No. #2 4744-4766 Johnson

Scott, Ks

Sec. 31 Twp. 17s Rng. 33w

SAMPLER RECOVERY

_____ ML

_____ ML

2000 ML

_____ ML

_____ ML

_____ ML

15 PSI ~~ML~~

2000 ML ML

PIT MUD ANALYSIS

Chlorides 5000 ppm.

Resistivity 1.17 ohms @ 74° F

Viscosity 53

Mud Weight 9.2

Filtrate 8.8

Other LCM #2

SAMPLER ANALYSIS

y 1.22 ohms @ 72° F

5200 ppm.

_____ corrected @60F

PIPE RECOVERY

TOP
Resistivity 1.22 ohms @ 72° F

Chlorides 5200 ppm.

MIDDLE
Resistivity 1.22 ohms @ 72° F

Chlorides 5200 ppm.

BOTTOM
Resistivity 1.22 ohms @ 72° F

Chlorides 5200 ppm.

Conservation Division
Finney State Office Building
130 S. Market, Rm. 2078
Wichita, KS 67202-3802

Kansas
Corporation Commission

Phone: 316-337-6200
Fax: 316-337-6211
http://kcc.ks.gov/

June 28, 2013

Roscoe L. Mendenhall
Stelbar Oil Corporation, Inc.
1625 N WATERFRONT PKWY
WICHITA, KS 67206-6602

Re: ACO1
API 15-171-20944-00-00
Hess 1-31
NW/4 Sec.31-17S-33W
Scott County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,
Roscoe L. Mendenhall

GEOLOGIC REPORT

DAVID J. GOLDAK

WICHITA, KANSAS

Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name:	**Hess #1-31**		
Location:	**Section 31 - T17S - R33W**		
License Number:	**API: 15-171-20944**	**Region:**	**Scott Co., KS**
Spud Date:	**06 / 03 / 2013**	**Drilling Completed:**	**06 / 12 / 2013**
Surface Coordinates:	**1162' FNL and 336' FWL** **Approx. W/2 - W/2 - NW**		
Bottom Hole Coordinates:			
Ground Elevation (ft):	**3081'**	**K.B. Elevation (ft):**	**3088'**
Logged Interval (ft):	**3550' To: 4930'**	**Total Depth (ft):**	**4930'**
Formation:	**Mississippian**		
Type of Drilling Fluid:	**Chemical - Mud Co**		

OPERATOR

Company: **Stelbar Oil Corporation**
Address: **1625 N. Waterfront Pkwy, Suite 200**
Wichita, Kansas 67206-6602

GEOLOGIST

Name: **David J. Goldak**
Company: **D. J. GOLDAK, INC.**
Address: **155 N. Market, Suite 710**
Wichita, Kansas 67202

General Info

CONTRACTOR: Pickrell Drilling, Rig #10

BIT RECORD:

No.	Size	Make	Jets	Out	Feet	Hours
1	12-1/4	JZ-L116	3-14s	400	400	4.75
2	7-7/8	JZ-?-PDC	5-14s	3900	3500	47.25
3	7-7/8	JZ-HA25TL	3-14s	4930	1030	53.50

SURVEYS: 400'-0.50, 939'-0.75, 1408'-0.50, 1877'-0.50, 2502'-0.25, 3900'-0.75, 4930'-0.75

GENERAL DRILLING AND PUMP INFORMATION:
Drilling with 36,000-38,000 lbs. on bit and 70-75 RPM.
Running 8 stands of collars (6.25"x2.25"): 492.70'
Pumping 60 S/M, 7.32 B/M, and 950 psi at standpipe.

Daily Status

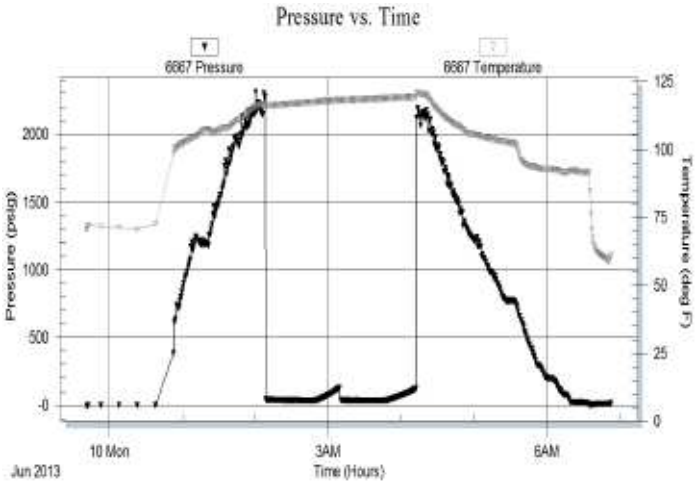
06/03/13 - Spud at 3:00 PM; Set 8-5/5" csg. @ 396'
06/04/13 - 400' WOC
06/05/13 - 1,790' Drilling with PDC bit
06/06/13 - 2,805' Drilling; Down for repairs early AM 06/07
06/07/13 - 3,550' Drilling; Bit trip @ 3,900'
06/08/13 - 4,090' Drilling
06/09/13 - 4,490' Drilling
06/10/13 - 4,626' TOH with DST #1
06/11/13 - 4,845' Drilling; TD @ 4,930'; Log well
06/12/13 - 4,930' TOH with DST #2

DST #1: 4,460' - 4,626' (Marm & Pawnee)
30" - 30" - 30" - 30"

IF: 1/2 inch blow, died in 22 minutes
ISI: No blow back
FF: No blow
FSI: No blow back

RECOVERY: 5' Total Fluid, consisting of:
5' Mud (100% Mud)
Sampler: 2000 ml Mud @ 20 psi

SIP: 128-120; FP: 40-36, 38-36; HP: 2269-2193; BHT: 120

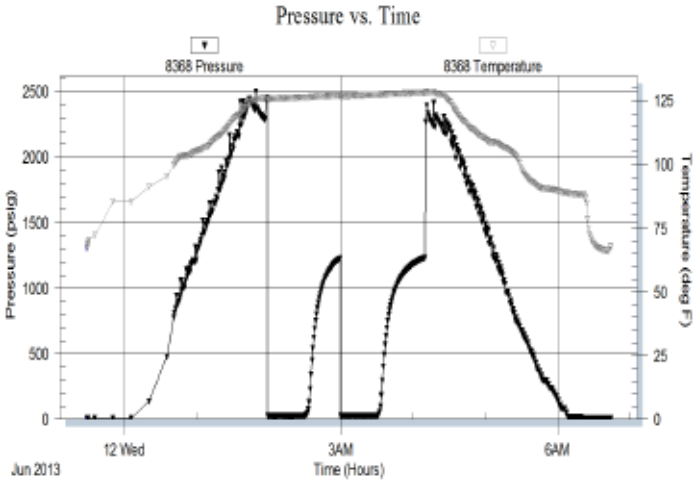


DST #2: 4,744' - 4,766' (Johnson Zone)
30" - 30" - 30" - 30"

IF: 1/4 inch blow, died in 16 minutes
ISI: No blow back
FF: No blow
FSI: No blow back

RECOVERY: 3' Total Fluid, consisting of:
3' Mud (100% Mud)
Sampler: 2000 ml Mud @ 15 psi

SIP: 1228-1234; FP: 27-27, 26-28; HP: 2454-2392
BHT: 128



ROCK TYPES

- Anhy
- Bent
- Brec
- Cht
- Clyst
- Coal
- Congl
- Dol
- Gyp
- Igne
- Lmst
- Meta
- Mrlst
- Salt
- Shale
- Shcol
- Shgy
- Sltst
- Ss
- Till
- Carb sh
- Dol
- Dtd
- Gry sh
- Sandylms
- Shale
- Sltstn
- Shlyslts
- Sltysh
- Lms

ACCESSORIES

MINERAL
- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Brecfrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymin
- Kaol
- Marl
- Minxl
- Nodule
- Phos
- Pyr
- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff
- Chlorite
- Dol
- Sand
- Slty

FOSSIL
- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram
- Fossil
- Gastro
- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom
- Fuss
- Oomold

STRINGER
- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg
- Carbsh
- Clystn
- Dol
- Grysh
- Gryslt
- Lms
- Sandylms
- Sh
- Sltstn

TEXTURE
- Boundst
- Chalky
- Cryxln
- Earthy
- Finexln
- Grainst
- Lithogr
- Microxln
- Mudst
- Packst
- Wackest

OTHER SYMBOLS

POROSITY TYPE
- Earthy
- Fenest
- Fracture
- Inter
- Moldic
- Organic
- Pinpoint
- Vuggy

SORTING
- Well
- Moderate
- Poor

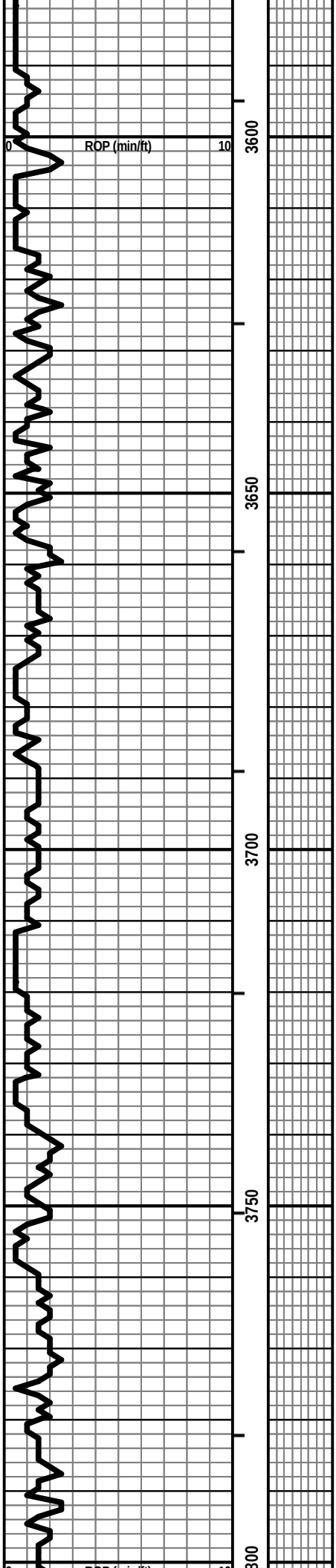
ROUNDING
- Rounded
- Subrnd
- Subang
- Angular

OIL SHOWS
- Even
- Spotted
- Ques
- Dead
- Gas show

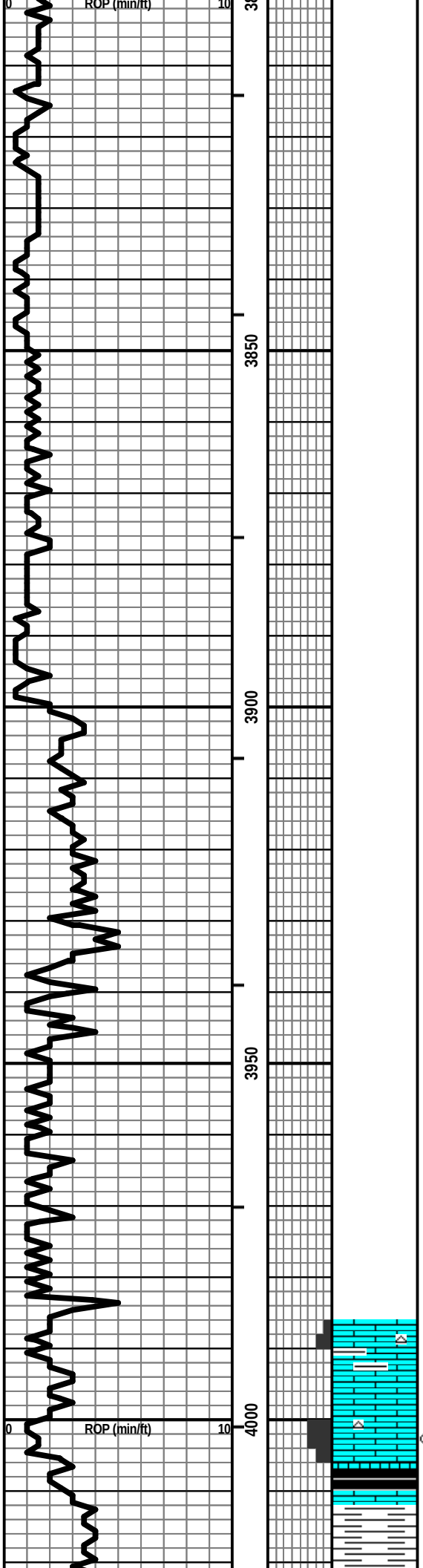
INTERVALS
- Core
- Dst
- Dst_1_t
- Dst_1_b
- Dst

EVENTS
- Rft
- Sidewall
- Conn

Curve Track 1 ROP (min/ft)	Depth	Porosity 24% 18% 12% 6%	Lithology	Oil Shows	Geological Descriptions	Remarks
0 ROP (min/ft) 10	3550					DRLG WITH BIT #2: 7-7/8" PDC NEW JZ-? Model; JETS: 14-14-14-14-14 DISPLACE MUD SYSTEM @ 3,573'



Vis: 54, Wt: 8.7, YP: 21,
GelS: 15/40, pH: 11.0, WL: 6.4,
Chl: 2,000, Sol: 2.8, LCM: 2#



Vis: 51, Wt: 8.7, LCM: 2#

BIT TRIP @ 3,900'

PIPE STRAP @ 3,900': LONG 0.55'

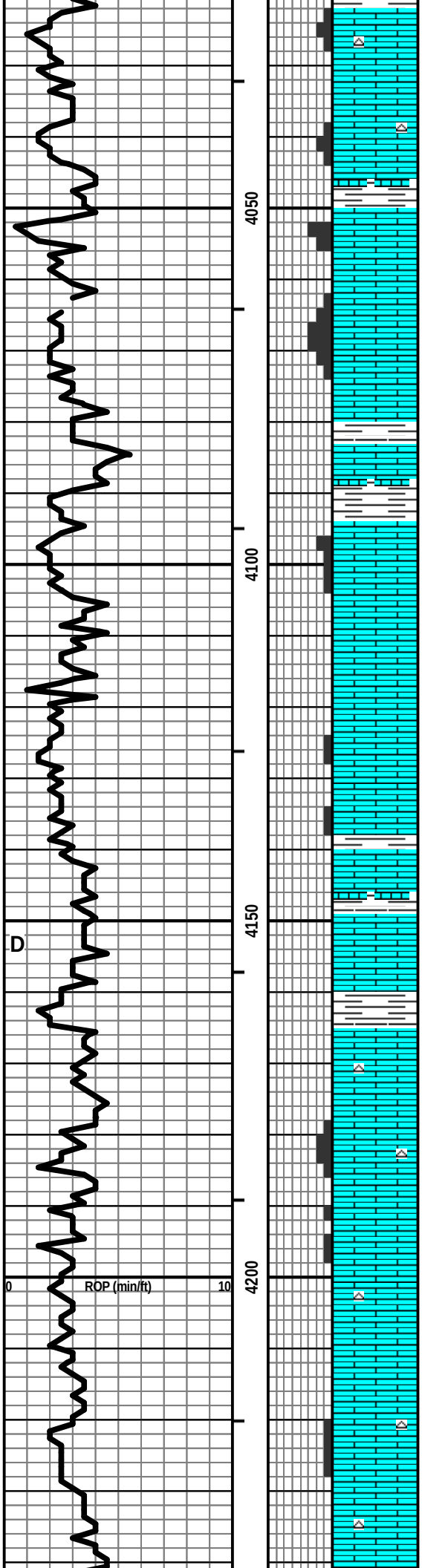
DRLG WITH BIT #3: 7-7/8" CONV
NEW JZ-HA25TL; JETS: 14-14-14

NO WELL SAMPLES WERE COLLECTED FROM 3920' THROUGH 3990'

LS - CRM / TAN, VF / F XLN, FOSS IN PT, SCAT F VUG + INTXLN POR, CHKY / DNS IN PT, NS W/ SCAT CHT - WHT / LT GY W/ SCAT SH - GY / GRN

LS - CRM / TAN, F XLN, SL FOSS, F / G INTXLN POR, F VUG POR, VSS ASPH, NO ODOR, SCAT BLK SPTY STN W/ CHT - AS ABOVE W/ SH - BLK / GY / GRN, CARB IN PT

HEEBNER 4007 (-919)



LS - CRM / WHT / TAN, VF / F / SCAT M XLN, FOSS IN PT, P / F INTXLN + PPT POR IN PT, SCAT MOLDIC POR, CHKY / DNS IN PT, NS W/ CHT - GY / WHT

LS - CRM / TAN, PRED F XLN, FOSS + OOL, F / G INTXLN + MOLDIC POR IN PT, SCAT VUG POR, NS

LS - CRM / WHT, PRED F XLN, FOSS + OOL, F / G INTXLN + MOLDIC POR IN PT, NS

PRED SH - GY / GRN W/ LS - CRM / TAN, VF / F XLN, FOSS IN PT, PRED DNS, NS

LS - CRM / TAN, VF / F XLN, FOSS, SL OOL, P / SCAT F INTXLN + PPT POR, SCAT CHKY, NS

LS - CRM / WHT / TAN, F XLN, FOSS IN PT, SCAT P / TR F INTXLN + PPT POR, CHKY IN PT / DNS, NS

LS - CRM / TAN, VF / F XLN, SCAT REXLN CALC, FOSS IN PT, PRED DNS, NS W/ ABNT SH - GY / GRN / RED

LS - CRM / TAN / GY, MOT IN PT, F XLN, OOL, TR FOSS, P / F INTPART POR IN PT, SCAT P OOM + PPT POR TO DNS, NS W/ CHT - LT GY / WHT

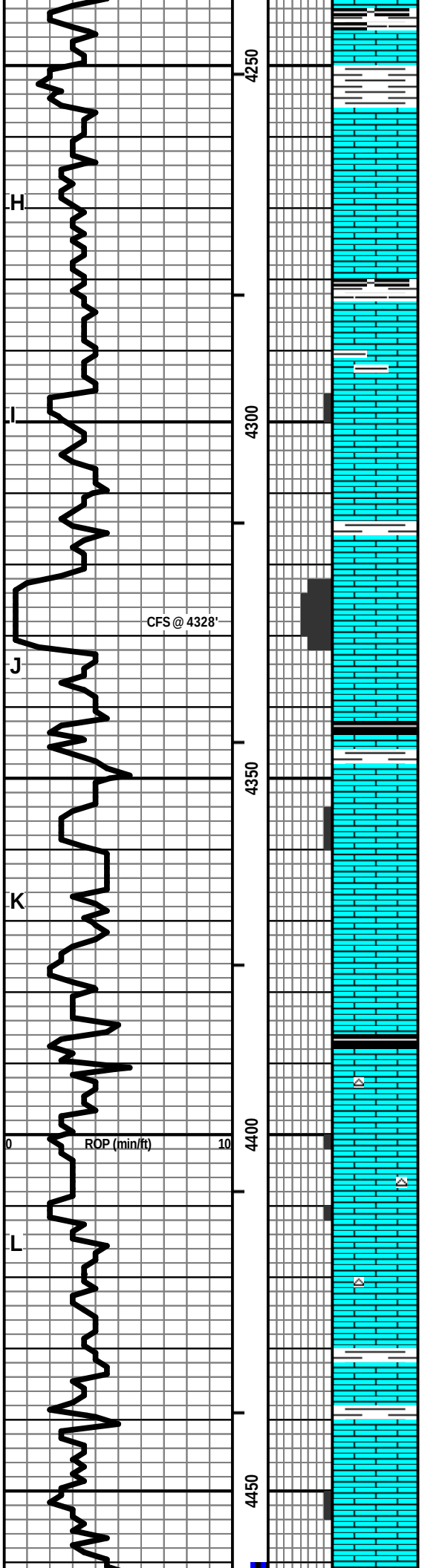
LS - CRM / TAN / GY, VF / M XLN, OOL IN PT, SCAT P INTPART + PPT POR, CHKY IN PT, PRED DNS, NS W/ CHT - LT GY / WHT

TORONTO 4022 (-934)

Vis: 50, Wt: 9.0, LCM: 1#

LANSING 4050 (-962)

Vis: 48, Wt: 9.0, YP: 18, GelS: 14/34, pH: 10.5, WL: 8.0, Chl: 4,500, Sol: 4.8, LCM: 2#



SH - BLK / GY / GRN, CARB IN PT W/ LS - GY / CRM, VF / F XLN, SL FOSS, PRED DNS, NS

LS - CRM / TAN, VF / F XLN, SCAT REXLN CALC, FOSS + OOL IN PT, SCAT CHKY, PRED DNS, NS

LS - CRM / TAN, VF / F XLN, OOL IN PT, SL FOSS, TR P INTXLN POR, NSFO, NO ODOR, TR SPTY STN

LS - CRM / LT GY, F XLN, OOL, G OOM + INTXLN POR, NS, NO ODOR, NO STN

LS - ASABOVE, NS W/ LS - CRM / TAN, F XLN, SCAT OOL, PRED DNS, NS W/ SH - BLK, CARB

LS - CRM / TAN / GY, VF / F XLN, OOL IN PT, SCAT P PPT + OOM POR, NS W/ ABNT CAVINGS (G OOM POR, NS)

LS - CRM / GY / SCAT TAN, MOT IN PT, VF / F XLN, OOL IN PT, CHKY IN PT, PRED DNS, NS

LS - CRM / TAN, VF / F / SCAT M XLN, SCAT OOL, TR P OOM POR, PRED DNS, NS W/ SCAT CHT - LT GY / WHT

LS - CRM / TAN / GY, MOT IN PT, VF / F XLN, SCAT OOL, CHKY IN PT, PRED DNS, NS W/ SCAT CHT - LT GY / WHT

LS - V SIMILAR TO ABOVE, NS

LS - CRM / TAN, F XLN, OOL, SL FOSS, TR P OOM + INTXLN POR, SCAT CHKY, PRED DNS, NS

MUNCIE CREEK 4242 (-1154)

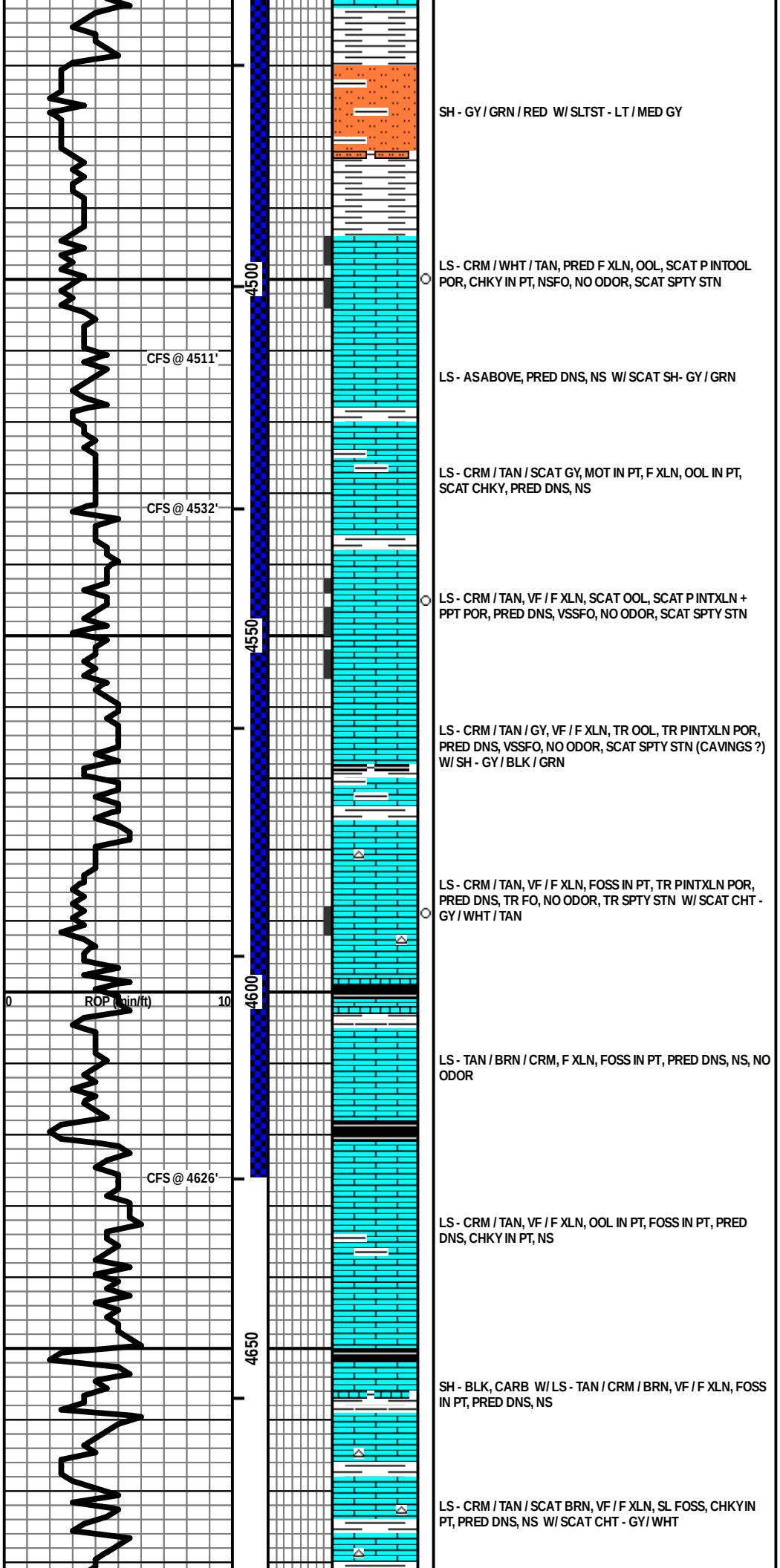
Vis: 68, Wt: 9.2, LCM: 1#

STARK SHALE 4342 (-1254)

Wt: 9.3, Vis: 86 LCM: 1#;
ADDING WATER @ 5 GPM

REDUCE PUMP RATE
TO 58 S/M @ 4,400'

Vis: 120+, Wt: 9.2, LCM: 1#;
ADDING WATER @ 10 GPM;
JET; PREPARE PREMIX



BASE OF KC 4462 (-1374)

SH - GY / GRN / RED W/ SLTST - LT / MED GY

MARMATON 4494 (-1406)

LS - CRM / WHT / TAN, PRED F XLN, OOL, SCAT P INTOOL POR, CHKY IN PT, NSFO, NO ODOR, SCAT SPTY STN

Vis: 56, Wt: 9.2, YP: 21,
GelS: 15/41, pH: 10.5, WL: 8.8,
Chl: 4,300, Sol: 6.2, LCM: 1#

LS - ASABOVE, PRED DNS, NS W/ SCAT SH- GY / GRN

LS - CRM / TAN / SCAT GY, MOT IN PT, F XLN, OOL IN PT, SCAT CHKY, PRED DNS, NS

DST #1: 4460'-4626' (Marm & Pawnee)
30" - 30" - 30" - 30"

IF: 1/2 inch blow, died in 22 min.
ISI: No blow back
FF: No blow
FSI: No blow back

RECOVERY: 5' Total Fluid:
5' Mud (100% M)
Sampler: 2000 ml Mud @ 20 psi

SIP: 128-120 HP: 2269-2193
FP: 40-36, 38-36 BHT: 120

LS - CRM / TAN, VF / F XLN, SCAT OOL, SCAT P INTXLN + PPT POR, PRED DNS, VSSFO, NO ODOR, SCAT SPTY STN

LS - CRM / TAN / GY, VF / F XLN, TR OOL, TR PINTXLN POR, PRED DNS, VSSFO, NO ODOR, SCAT SPTY STN (CAVINGS ?) W/ SH - GY / BLK / GRN

PAWNEE 4570 (-1482)

LS - CRM / TAN, VF / F XLN, FOSS IN PT, TR PINTXLN POR, PRED DNS, TR FO, NO ODOR, TR SPTY STN W/ SCAT CHT - GY / WHT / TAN

LS - TAN / BRN / CRM, F XLN, FOSS IN PT, PRED DNS, NS, NO ODOR

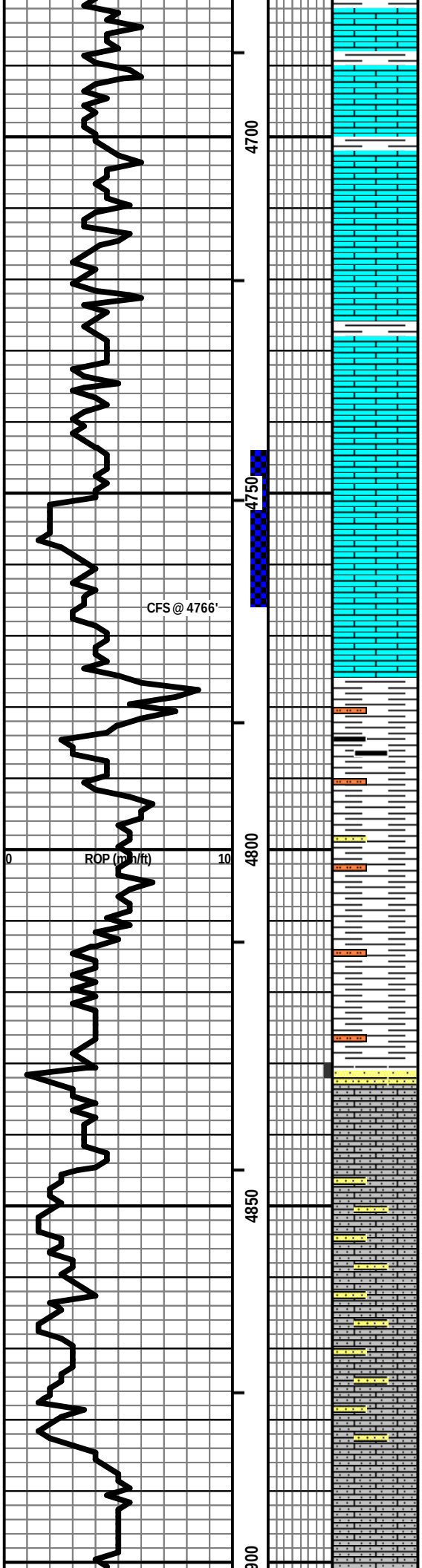
CHEROKEE SH 4618 (1530)

Vis: 58, Wt: 9.5, YP: 21,
GelS: 15/42, pH: 10.0, WL: 9.6,
Chl: 6,000, Sol: 8.2, LCM: Tr

LS - CRM / TAN, VF / F XLN, OOL IN PT, FOSS IN PT, PRED DNS, CHKY IN PT, NS

SH - BLK, CARB W/ LS - TAN / CRM / BRN, VF / F XLN, FOSS IN PT, PRED DNS, NS

LS - CRM / TAN / SCAT BRN, VF / F XLN, SL FOSS, CHKY IN PT, PRED DNS, NS W/ SCAT CHT - GY / WHT



JOHNSON ZONE 4682 (-1594)

(FAIR SAMPLE QUALITY) MOD AMT SH & CAVINGS W/ LS - CRM / TAN, VF / F XLN, FOSS IN PT, SUBCHKY IN PT, PRED DNS, NS

DST #2: 4744'-4766' (Johnson Zone)
(Straddle test) 30" - 30" - 30" - 30"

IF: 1/4 inch blow, died in 16 min.
ISI: No blow back
FF: No blow
FSI: No blow back

RECOVERY: 3' Total Fluid:
3' Mud (100% M)
Sampler: 2000 ml Mud @ 15 psi

SIP: 1228-1234 HP: 2454-2392
FP: 27-27, 26-28 BHT: 128

(POOR SAMPLE QUALITY) MOD AMT SH & CAVINGS W/ LS - CRM / TAN / SCAT BRN, VF / F XLN, FOSS IN PT, TR P / F FOSSMOLD POR, PRED DNS, VSSGB, NSO, NO ODOR, NO STN (CAVINGS ?)

(V POOR SAMPLE QUALITY) ABNT SH & CAVINGS W/ SCAT LS - CRM / TAN, VF / F XLN, SL FOSS, SUBCHKY IN PT, PRED DNS, NS, NO ODOR

Vis: 56, Wt: 9.4, LCM: 1#

(V POOR SAMPLE QUALITY) ABNT SH & CAVINGS W/ SCAT LS - AS ABOVE, PRED DNS, TR INTXLN POR (CAVINGS ?), NS, NO ODOR

V POOR SAMPLE QUALITY - ABNT SHALE AND CAVINGS; JET NEAR SUCTION-LINE OF SUCTION PIT; CLEAN-OUT MUD PUMP AND SUCTION-LINE.

MORROW SH 4776 (-1688)

SH - GY / GRN / RED / SCAT BLK, SLTYIN PT W/ SCAT PYR W/ SCAT COAL

SH - GY / GRN / RED / SCAT BLK, SLTYIN PT W/ SCAT PYR W/ TR SS - LT GY, VF QTZ GR, W SRTD, SA / SR, SIL CEM, SL MIC, NO VIS POR, NS

SH - GY / GRN / RED / SCAT BLK, SLTYIN PT W/ SCAT PYR

MISS. ST GEN 4833 (-1745)

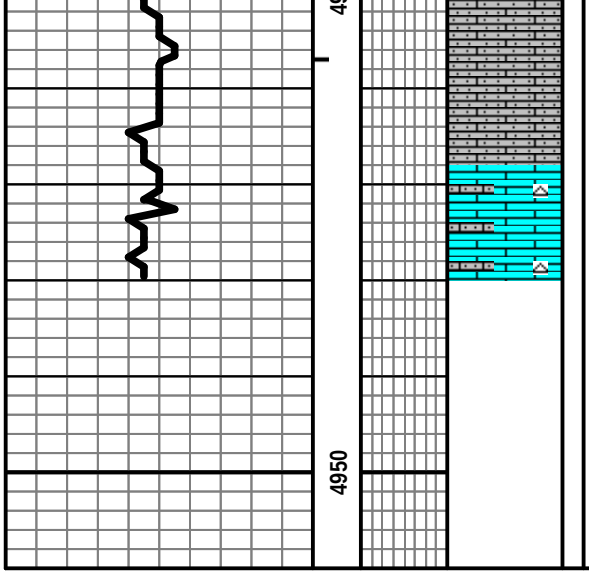
LS - WHT / CRM / LT GY, VF XLN, OOL, AREN, VF QTZ GR, TR P INTOOL POR, CHKYIN PT, PRED DNS, NS W/ TR SS - LT GY, VF QTZ GR, W SRTD, SA / SR, P / F INTGR POR, NS, NO ODOR

LS - WHT / CRM / LT GY, VF XLN, OOL, AREN, VF QTZ GR, SCAT GLAUC, CHKY IN PT, PRED DNS, NS W/ SS - LT GY, VF / SCAT F QTZ GR, W SRTD, SA / SR, SIL CEM, P / SCAT F INTGR POR, NS

LS - WHT / CRM / LT GY, VF XLN, OOL, AREN, VF QTZ GR, CHKY IN PT, PRED DNS, NS W/ SS - LT GY, VF / SCAT F QTZ GR, W SRTD, SA / SR, SIL CEM, P/ SCAT F INTGR POR, NS

Vis: 53, Wt: 9.2, YP: 21,
GelS: 15/39, pH: 10.0, WL: 8.8,
Chl: 5,000, Sol: 6.1, LCM: 2#

LS - WHT / CRM / LT GY, VF XLN, OOL, AREN, VF QTZ GR, CHKY IN PT, PRED DNS, NS W/ SCAT SS - AS ABOVE, NS



LS - WHT / CRM / LT GY, VF XLN, OOL, AREN, VF QTZ GR, CHKY IN PT, PRED DNS, NS W/ SCAT SS - AS ABOVE, NS

LS - ASABOVE W/ LS - CRM / TAN, VF / F XLN, OOL IN PT, AREN IN PT, PRED DNS, NS W/ SCAT CHT - LT GY / ORG

TOTAL DEPTH 4930 (-1842)

Weatherford®

COMPACT PHOTO DENSITY COMPENSATED NEUTRON MICRORESISTIVITY LOG

COMPANY	STELBAR OIL CORPORATION, INC.
WELL	HESS #1-31
FIELD	WILDCAT
PROVINCE/COUNTY	SCOTT
COUNTRY/STATE	U.S.A. / KANSAS
LOCATION	1162' FNL & 336' FWL

SEC	TWP	RGE	Other Services
31	17S	33W	MAI/MFE MSS

API Number 15-171-20944
Permit Number

Permanent Datum GL, Elevation 3081 feet
Log Measured From KB
Drilling Measured From KB

Elevations:	feet
KB	3088.00
DF	3087.00
GL	3081.00

Date	11-JUN-2013			
Run Number	ONE			
Service Order	3539038			
Depth Driller	4930.00	feet		
Depth Logger	4930.00	feet		
First Reading	4898.00	feet		
Last Reading	3550.00	feet		
Casing Driller	390.00	feet		
Casing Logger	396.00	feet		
Bit Size	7.875	inches		
Hole Fluid Type	CHEMICAL			
Density / Viscosity	9.20 lb/USg		53.00 CP	
PH / Fluid Loss	10.00		8.80 ml/30Min	
Sample Source	MUDPIT			
Rm @ Measured Temp	0.58 @ 90.0	ohm-m		
Rmf @ Measured Temp	0.46 @ 90.0	ohm-m		
Rmc @ Measured Temp	0.70 @ 90.0	ohm-m		
Source Rmf / Rmc	CALC		CALC	
Rm @ BHT	0.42 @123.0	ohm-m		
Time Since Circulation	4 HOURS			
Max Recorded Temp	123.00	deg F		
Equipment / Base	13057		LIB	
Recorded By	ADAM SILL			
Witnessed By	DAVE GOLDAK			
JOB #	LB13-170			

BOREHOLE RECORD

Last Edited: 11-JUN-2013 15:18

Bit Size inches	Depth From feet	Depth To feet
7.875	390.00	4930.00

CASING RECORD

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	8.625	0.00	390.00	24.00

REMARKS

- SOFTWARE ISSUE: WLS 13.05.9583.
- MCG, MML, MDN, MPD, MFE, MSS, MAI RAN IN COMBINATION.
  - HARDWARE: DUAL BOWSPRING USED ON MDN.
  0.5 INCH STANDOFF USED ON MFE.
  TWO 0.5 INCH STANDOFFS USED ON MSS.
  0.5 INCH STANDOFF USED ON MAI.
- 2.71 G/CC LIMESTONE DENSITY MATRIX USED TO CALCULATE POROSITY.
- BOREHOLE RUGOSITY, TIGHT PULLS, AND WASHOUTS WILL AFFECT DATA QUALITY.
- ALL INTERVALS LOGGED AND SCALED PER CUSTOMER'S REQUEST.
- TOTAL HOLE VOLUME FROM TD TO SURFACE CASING: 2500 CU. FT.
- ANNULAR HOLE VOLUME WITH 5.5 INCH PRODUCTION CASING FROM TD TO 3550 FEET: 330 CU. FT.

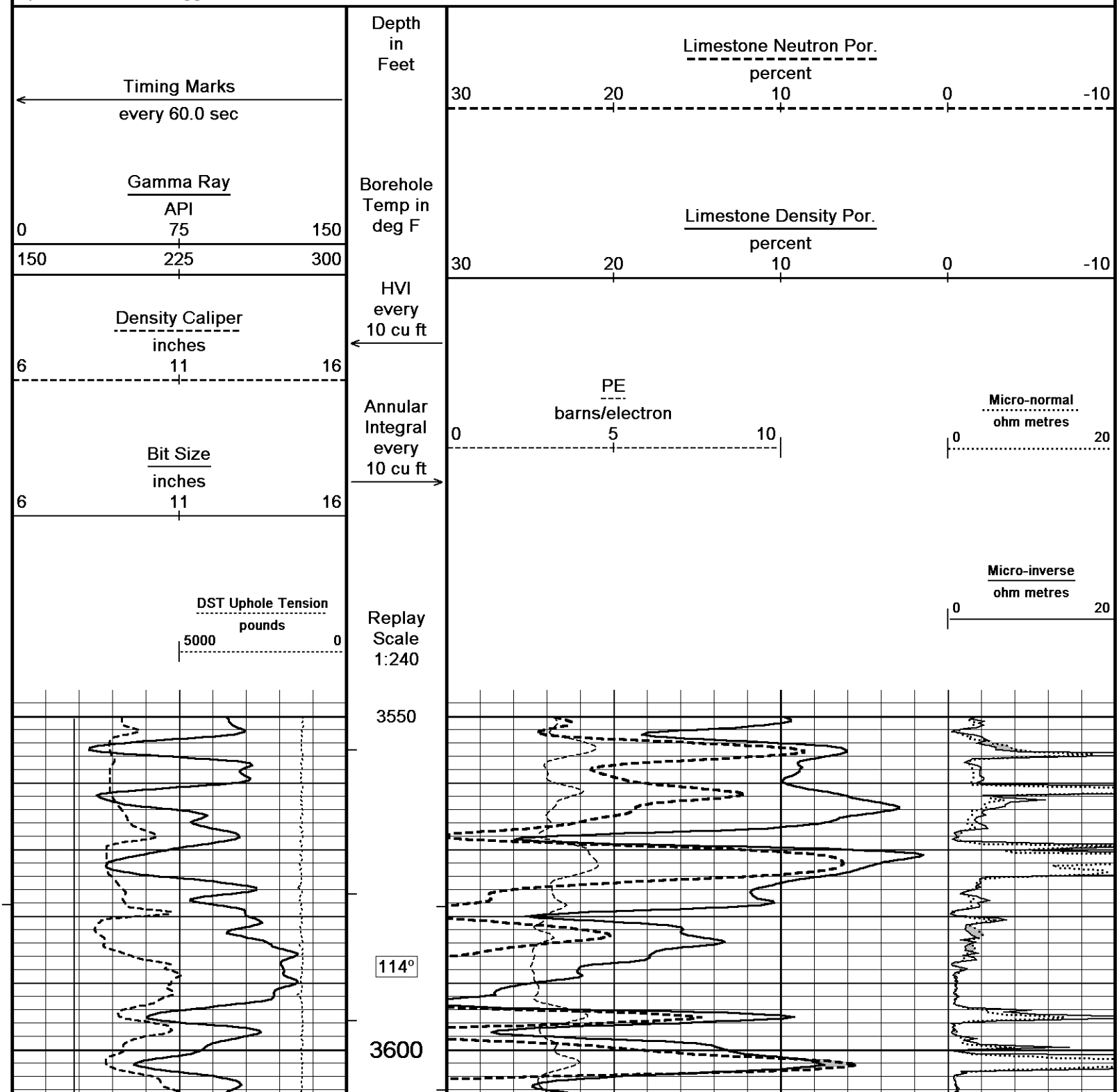
- RIG: PICKRELL #10.

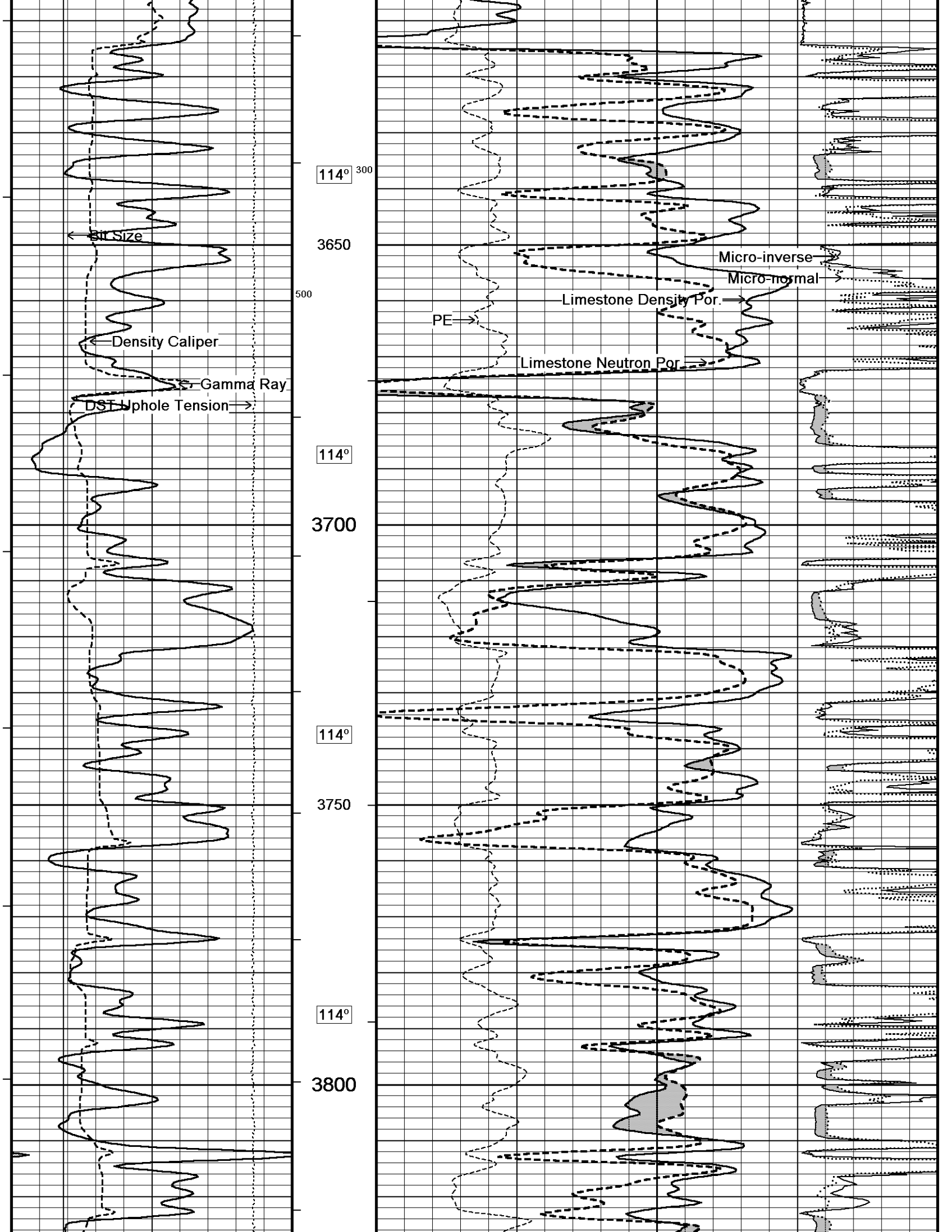
- ENGINEER: A. SILL.

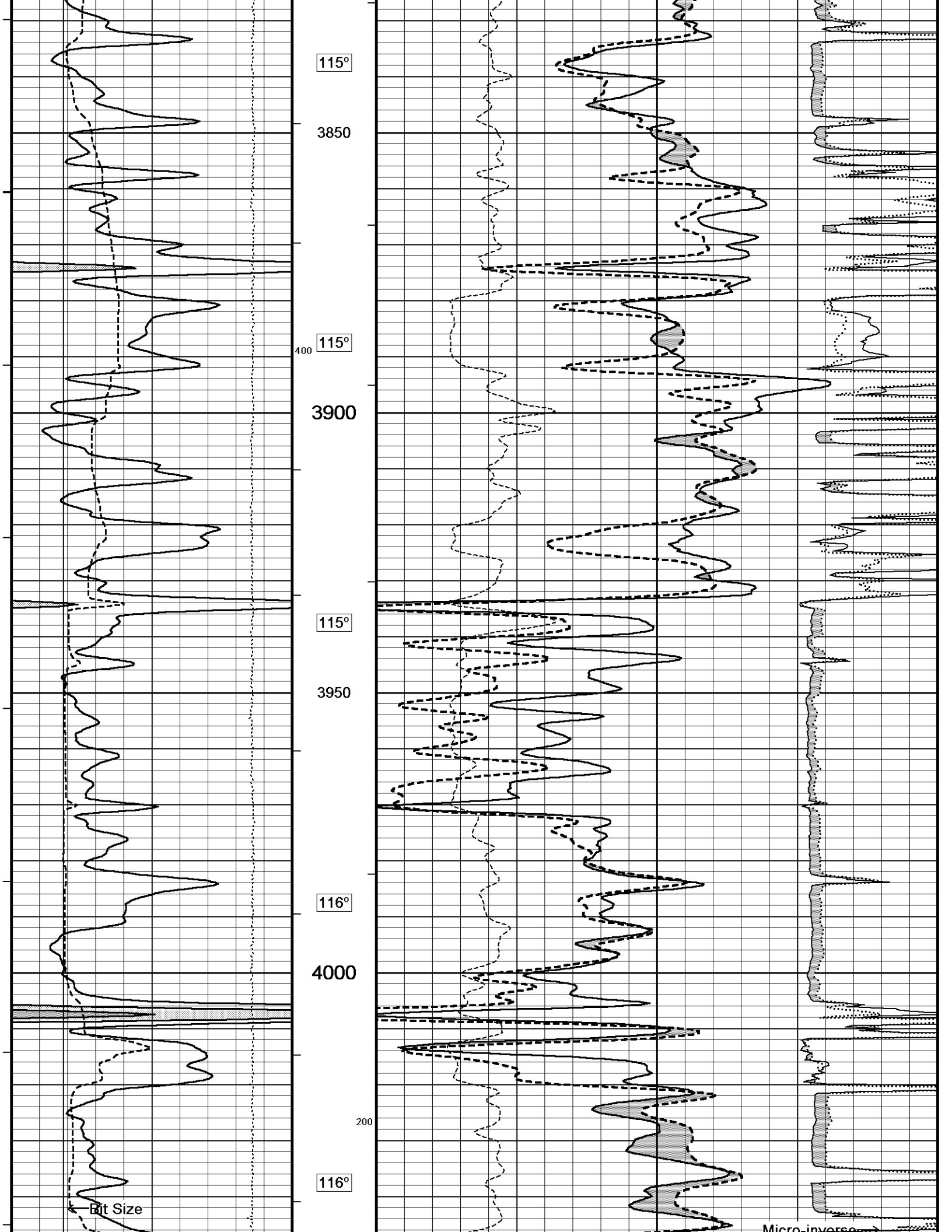
- OPERATOR(S): M. SLOBODKIN.

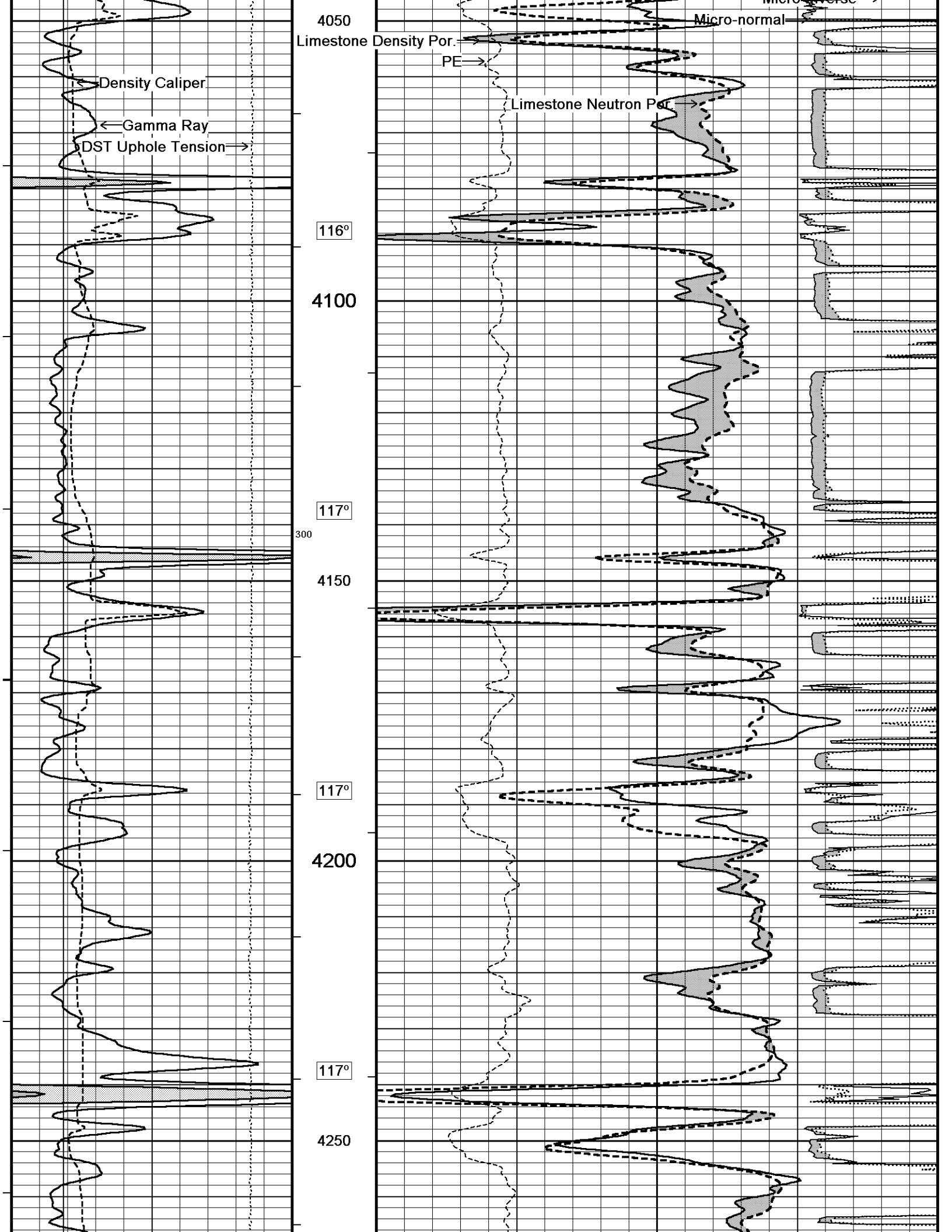
5 INCH MAIN

Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 11-JUN-2013 21:47
Filename: C:\Minimus 13.05.9583\Logs\Stelbar Hess 1-31\Stelbar Hess 1-31_003.dta
Recorded on 11-JUN-2013 18:07
System Versions: Logged with 13.05.9583 Processed with 13.05.9583 Plotted with 13.05.9583




114°
300
3650
500
Bit Size
Micro-inverse
Micro-normal
Limestone Density Por.
PE
Density Caliper
Limestone Neutron Por.
Gamma Ray
DST Uphole Tension
114°
3700
114°
3750
114°
3800


115°
3850
115°
400
3900
115°
3950
116°
4000
200
116°
Bit Size
Micro-inverse


4050
Micro-normal
Limestone Density Por.
PE
Density Caliper
Limestone Neutron Por.
Gamma Ray
DST Uphole Tension
116°
4100
117°
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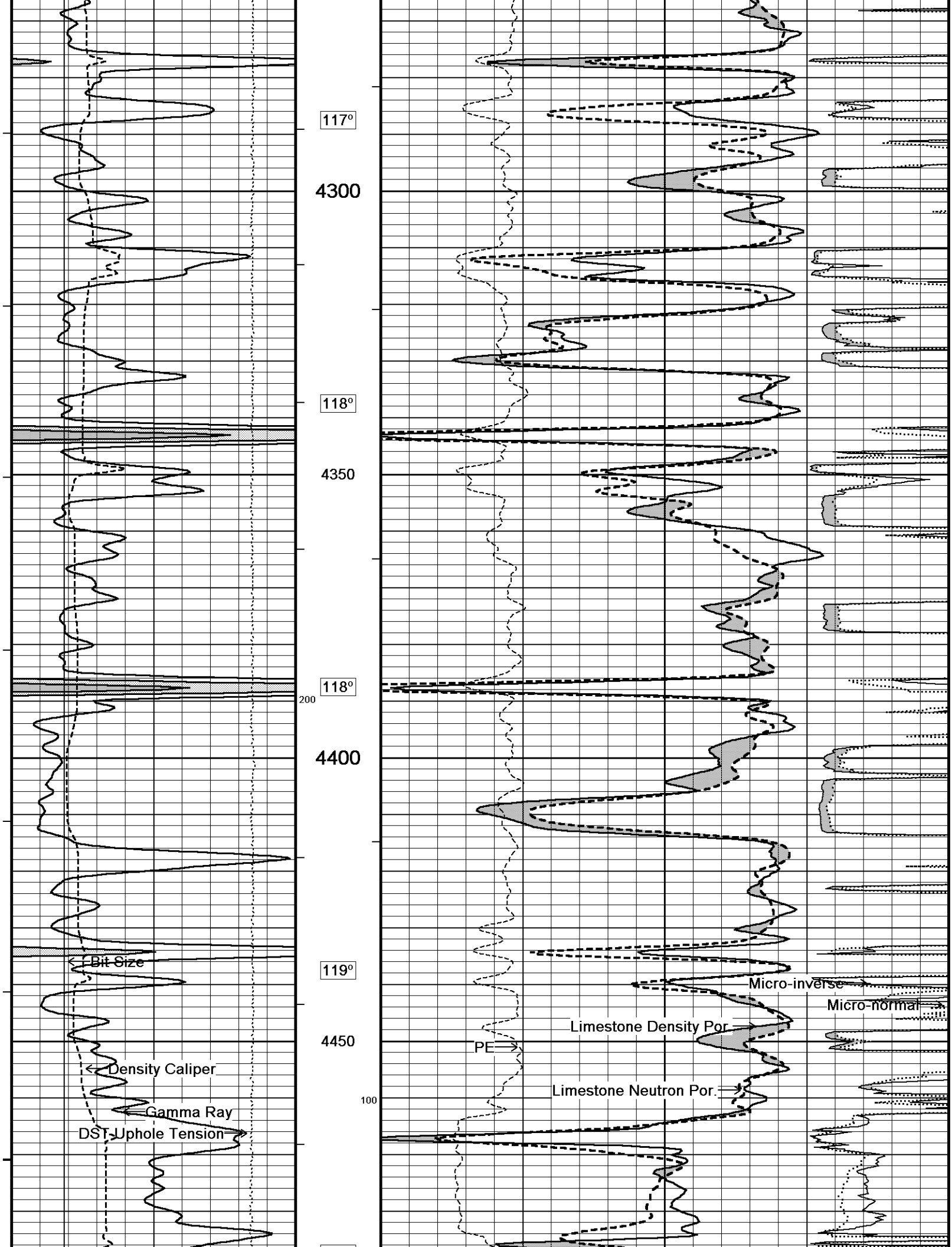
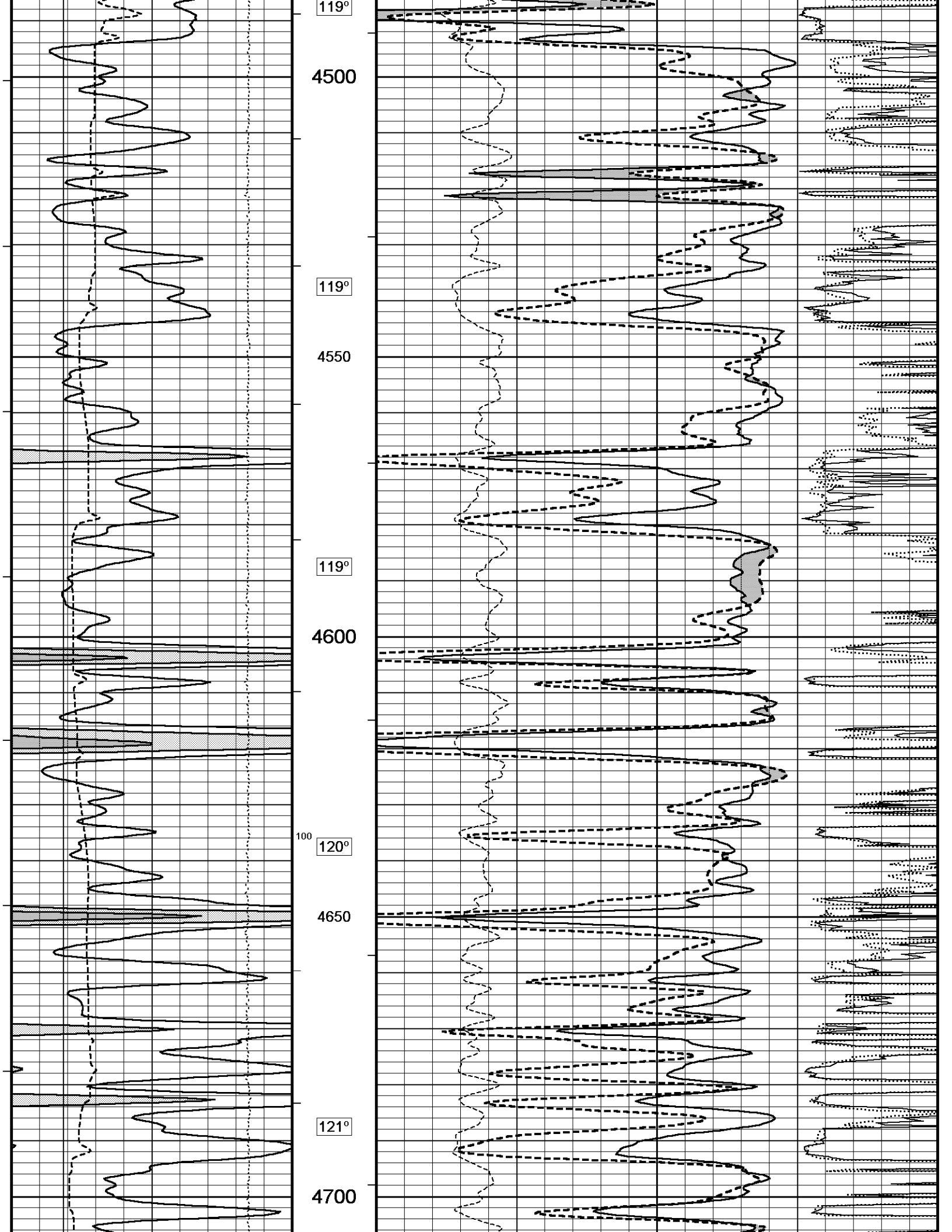
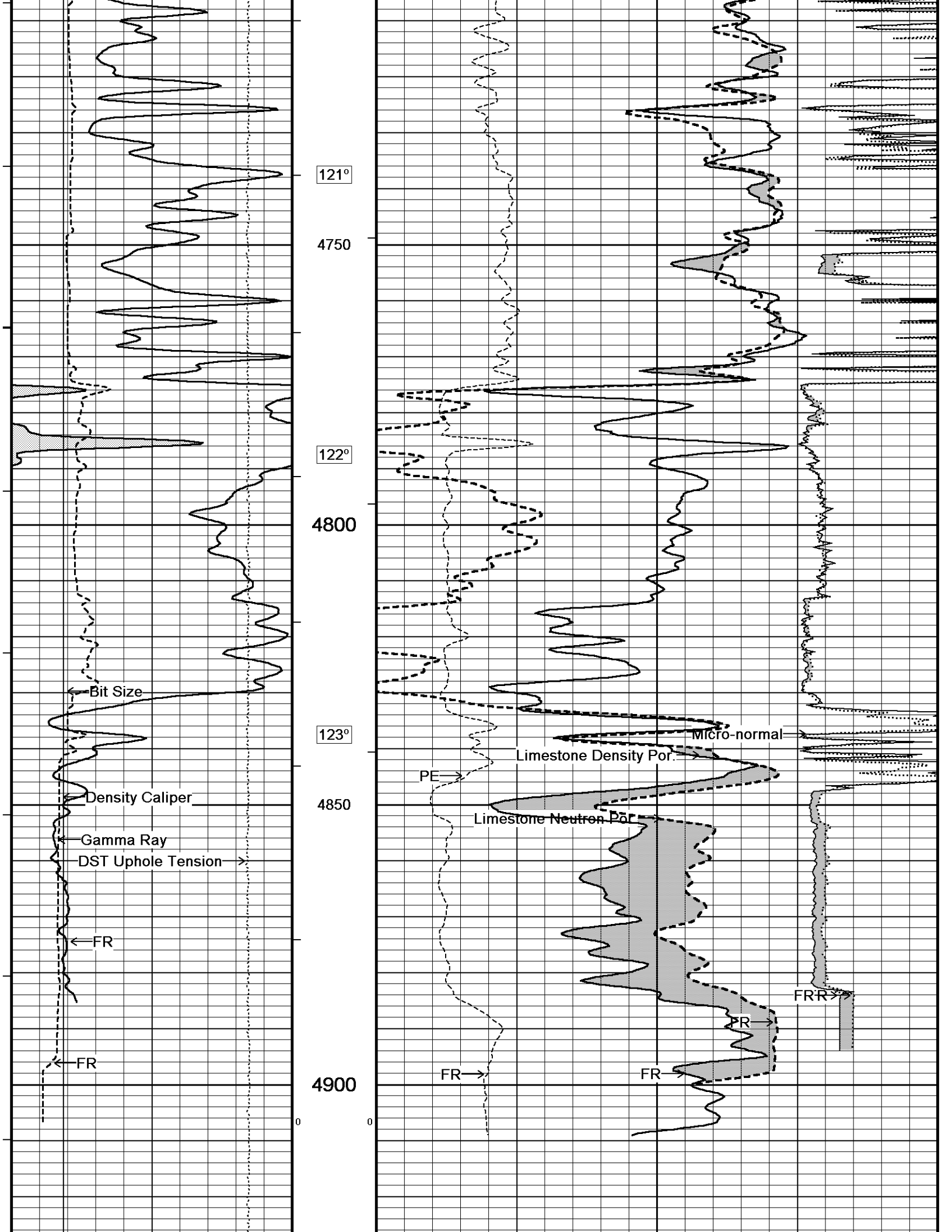
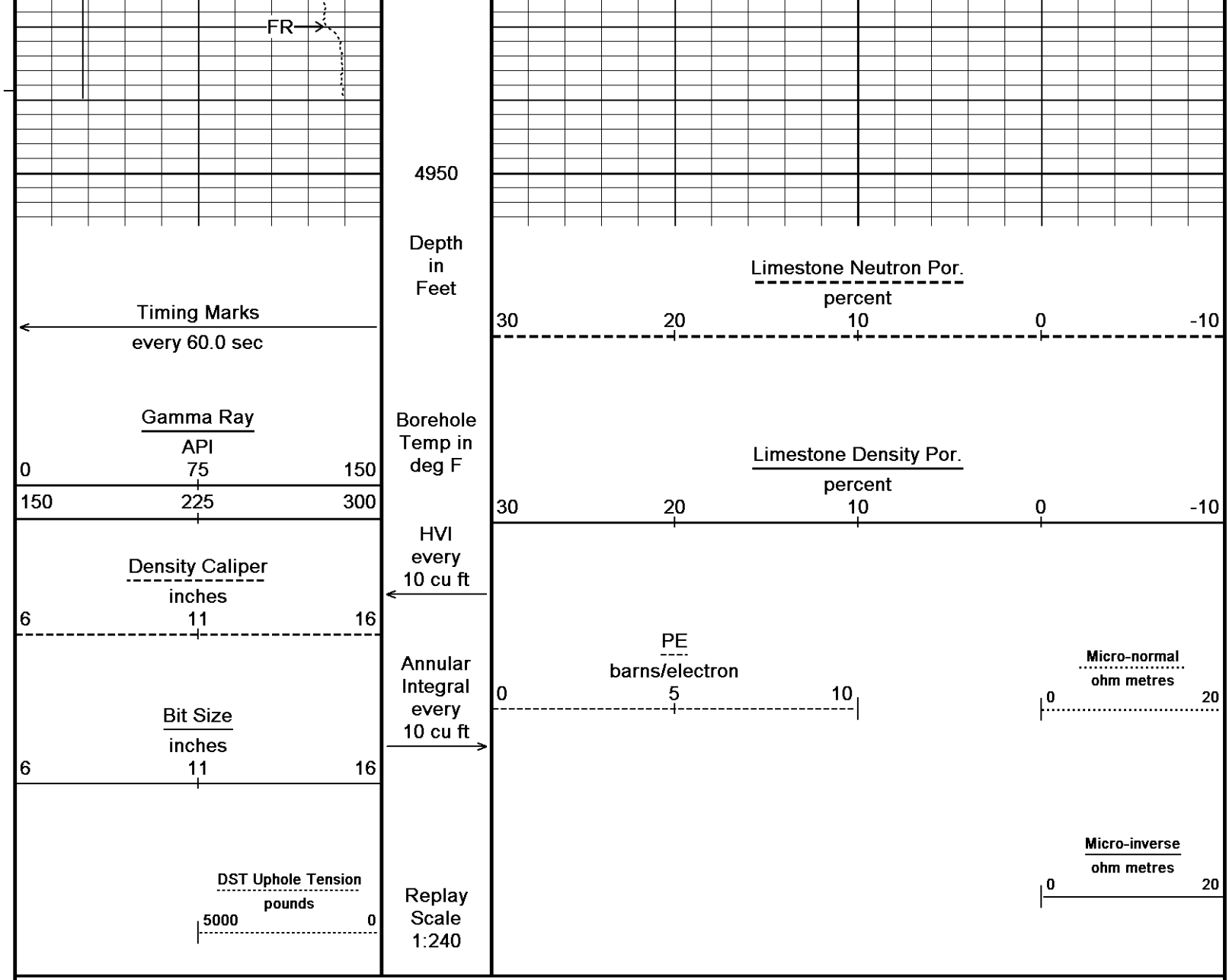
4150
117°
4200
117°
4250


117°
4300
118°
4350
118°
200
4400
119°
4450
100
Bit Size
Density Caliper
Gamma Ray
DST-Uphole Tension
PE
Micro-inverse
Micro-normal
Limestone Density Por
Limestone Neutron Por.


119°
4500
119°
4550
119°
4600
100
120°
4650
121°
4700


121°
4750
122°
4800
123°
4850
4900
Bit Size
Density Caliper
Gamma Ray
DST Uphole Tension
FR
FR
PE
FR
Micro-normal
Limestone Density Por.
Limestone Neutron Por.
FR
FR
FR R
0
0

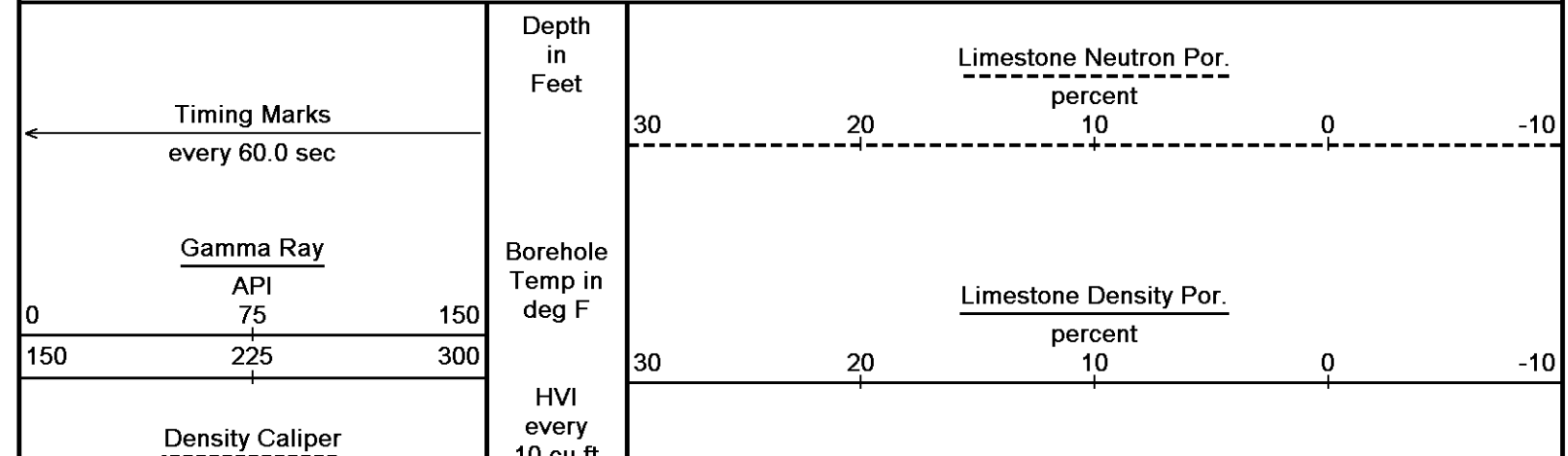


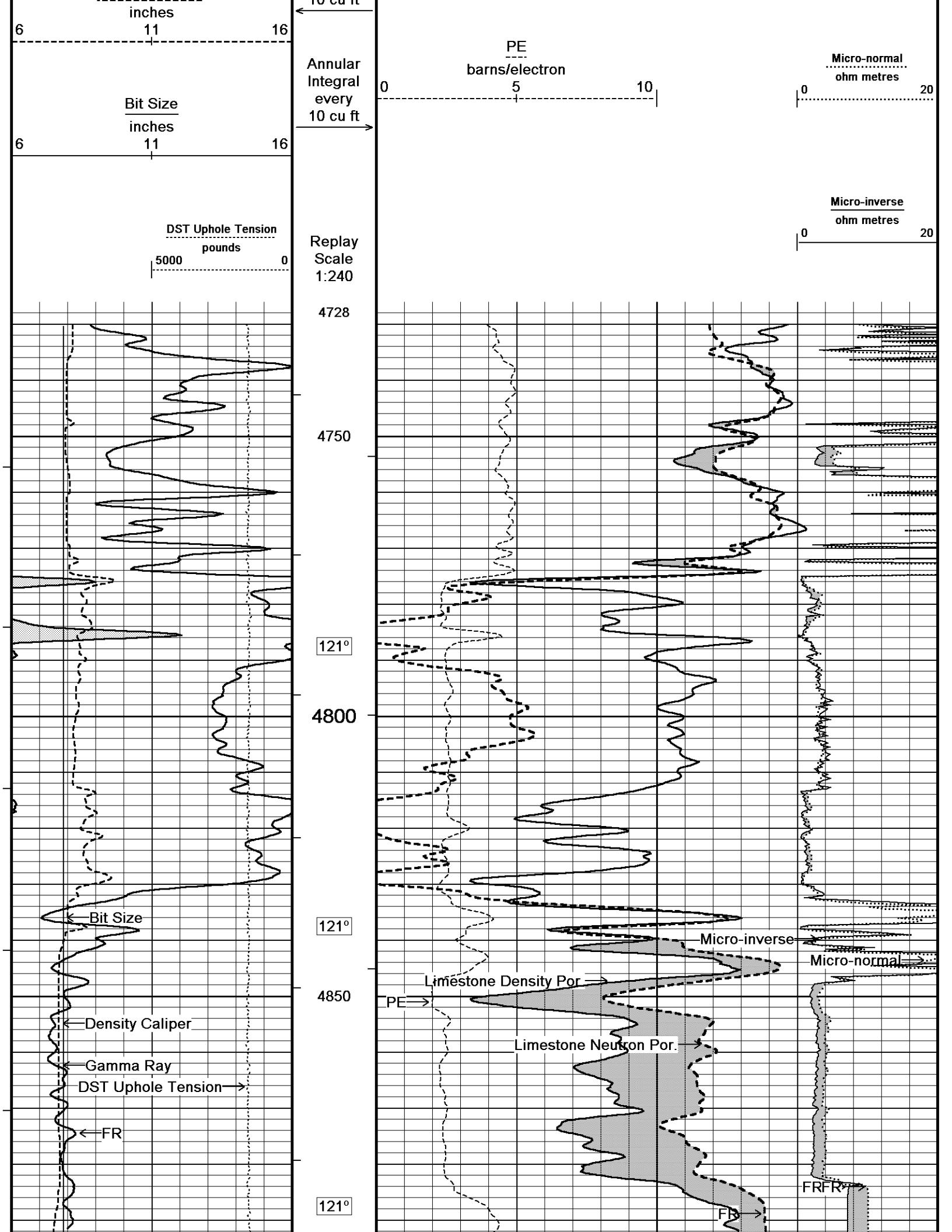
Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 11-JUN-2013 21:47
Filename: C:\Minimus 13.05.9583\Logs\Stelbar Hess 1-31\Stelbar Hess 1-31_003.dta
Recorded on 11-JUN-2013 18:07
System Versions: Logged with 13.05.9583 Processed with 13.05.9583 Plotted with 13.05.9583

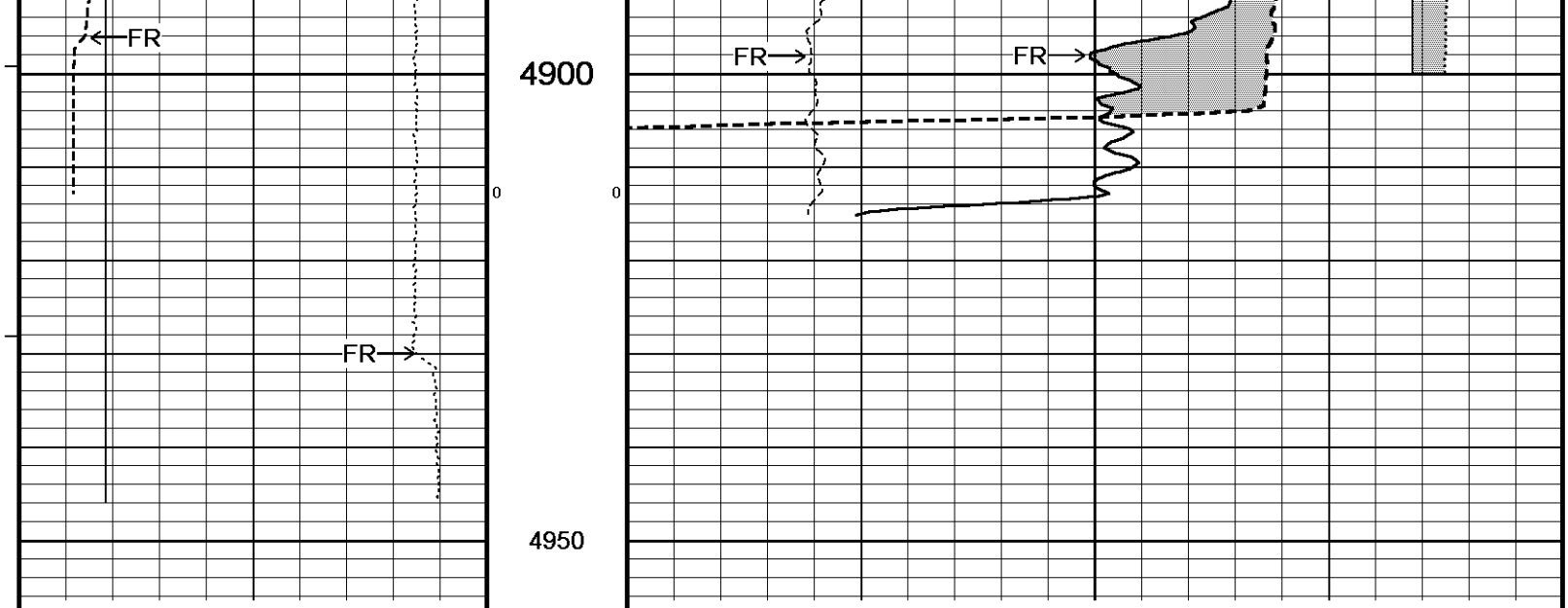
5 INCH MAIN

REPEAT SECTION

Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 11-JUN-2013 21:47
Filename: C:\Minimus 13.05.9583\Logs\Stelbar Hess 1-31\Stelbar Hess 1-31_002.dta
Recorded on 11-JUN-2013 17:41
System Versions: Logged with 13.05.9583 Processed with 13.05.9583 Plotted with 13.05.9583




inches
6
11
16
Bit Size
inches
6
11
16
Annular
Integral
every
10 cu ft
PE
barns/electron
0
5
10
Micro-normal
ohm metres
0
20
Micro-inverse
ohm metres
0
20
DST Uphole Tension
pounds
5000
0
Replay
Scale
1:240
4728
4750
121°
4800
121°
4850
121°
Bit Size
Density Caliper
Gamma Ray
DST Uphole Tension
FR
Micro-inverse
Micro-normal
Limestone Density Por
PE
Limestone Neutron Por.
FR
FR



Depth in Feet

Timing Marks
every 60.0 sec

Gamma Ray
API
0 75 150
150 225 300

Density Caliper
inches
6 11 16

Bit Size
inches
6 11 16

DST Uphole Tension
pounds
5000 0

Borehole Temp in deg F

HVI every 10 cu ft

Annular Integral every 10 cu ft

Replay Scale 1:240

Limestone Neutron Por.
percent
30 20 10 0 -10

Limestone Density Por.
percent
30 20 10 0 -10

PE
barns/electron
0 5 10

Micro-normal
ohm metres
0 20

Micro-inverse
ohm metres
0 20

Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 11-JUN-2013 21:47
Filename: C:\Minimus 13.05.9583\Logs\Stelbar Hess 1-31\Stelbar Hess 1-31_002.dta
Recorded on 11-JUN-2013 17:41
System Versions: Logged with 13.05.9583 Processed with 13.05.9583 Plotted with 13.05.9583

REPEAT SECTION

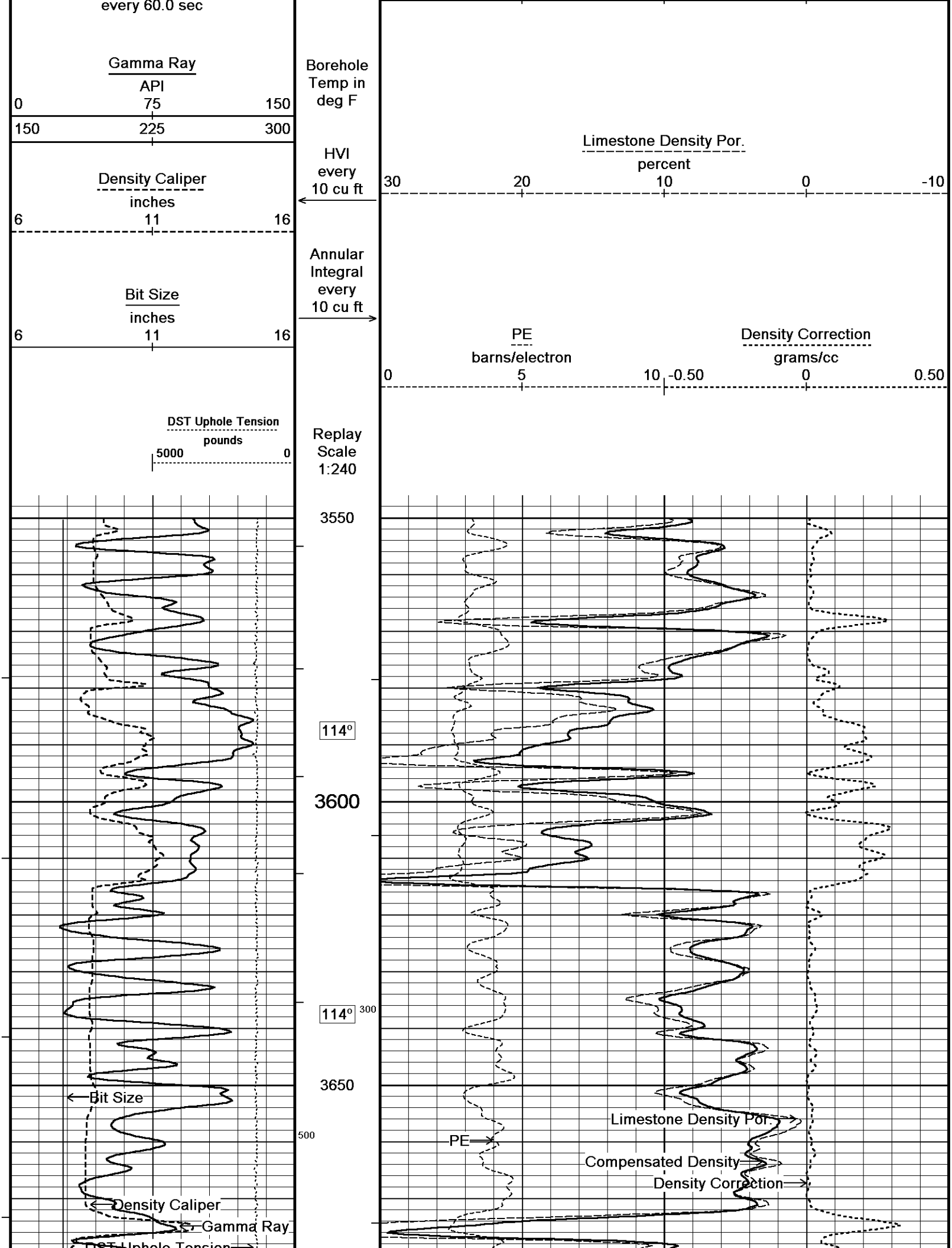
5 INCH MAIN

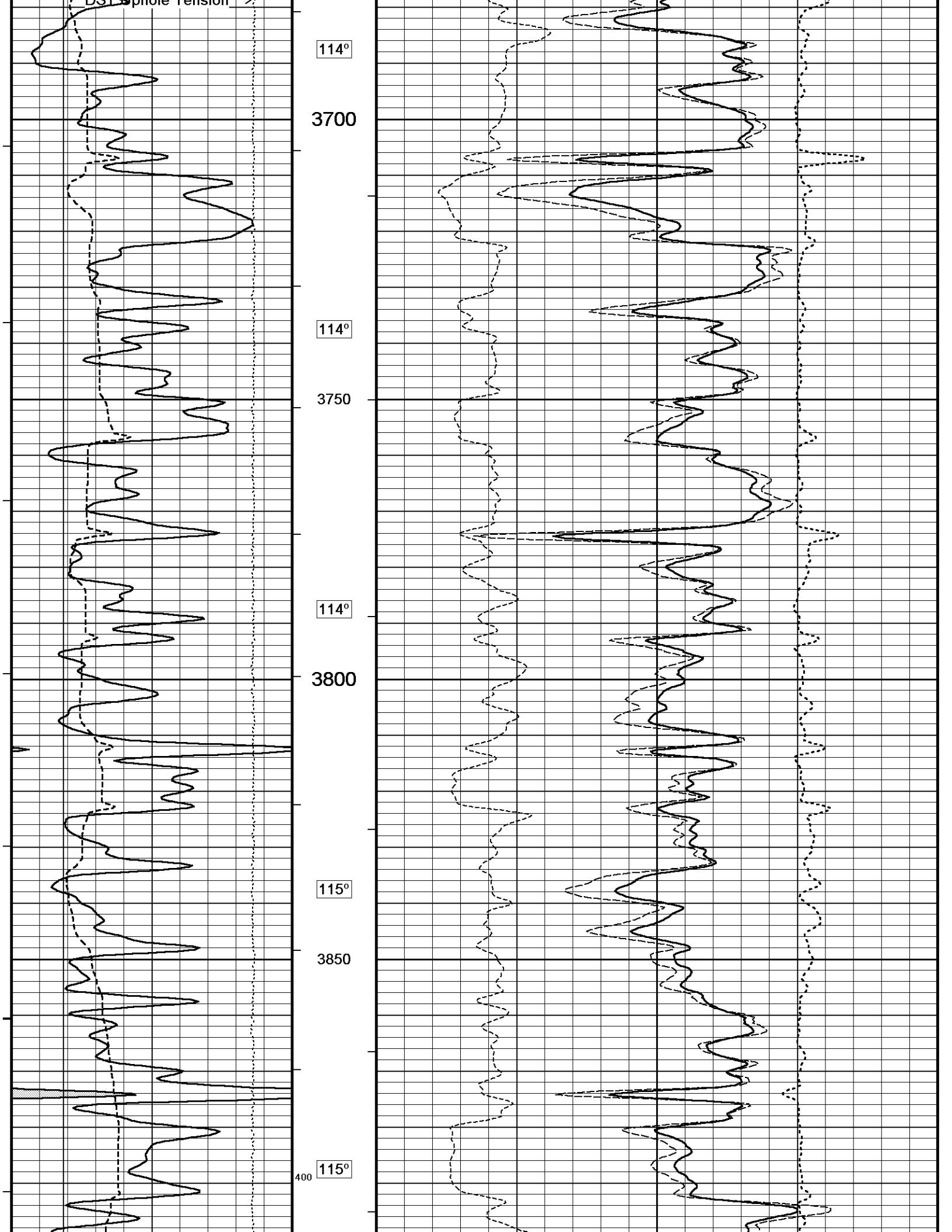
Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 11-JUN-2013 21:47
Filename: C:\Minimus 13.05.9583\Logs\Stelbar Hess 1-31\Stelbar Hess 1-31_003.dta
Recorded on 11-JUN-2013 18:07
System Versions: Logged with 13.05.9583 Processed with 13.05.9583 Plotted with 13.05.9583

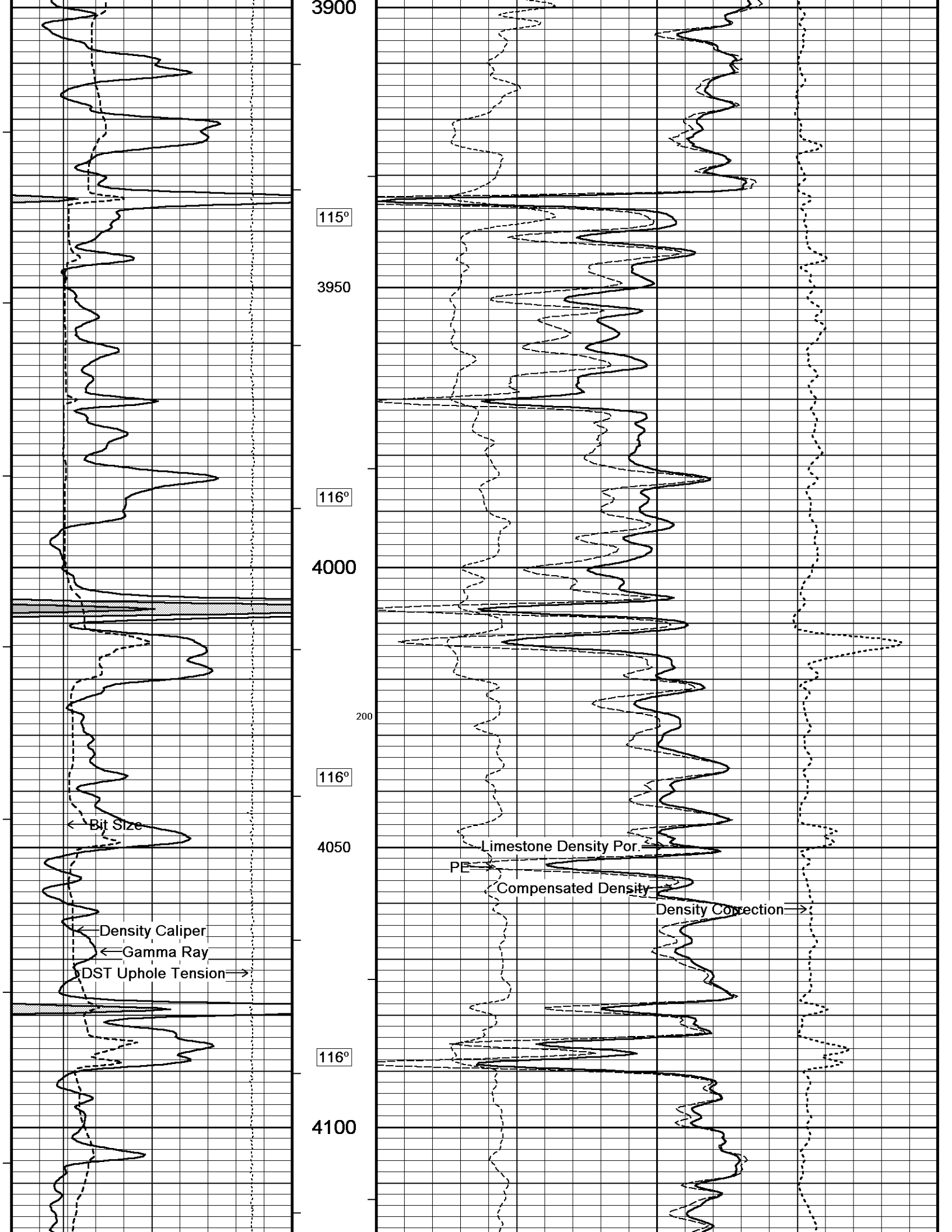
Depth in Feet

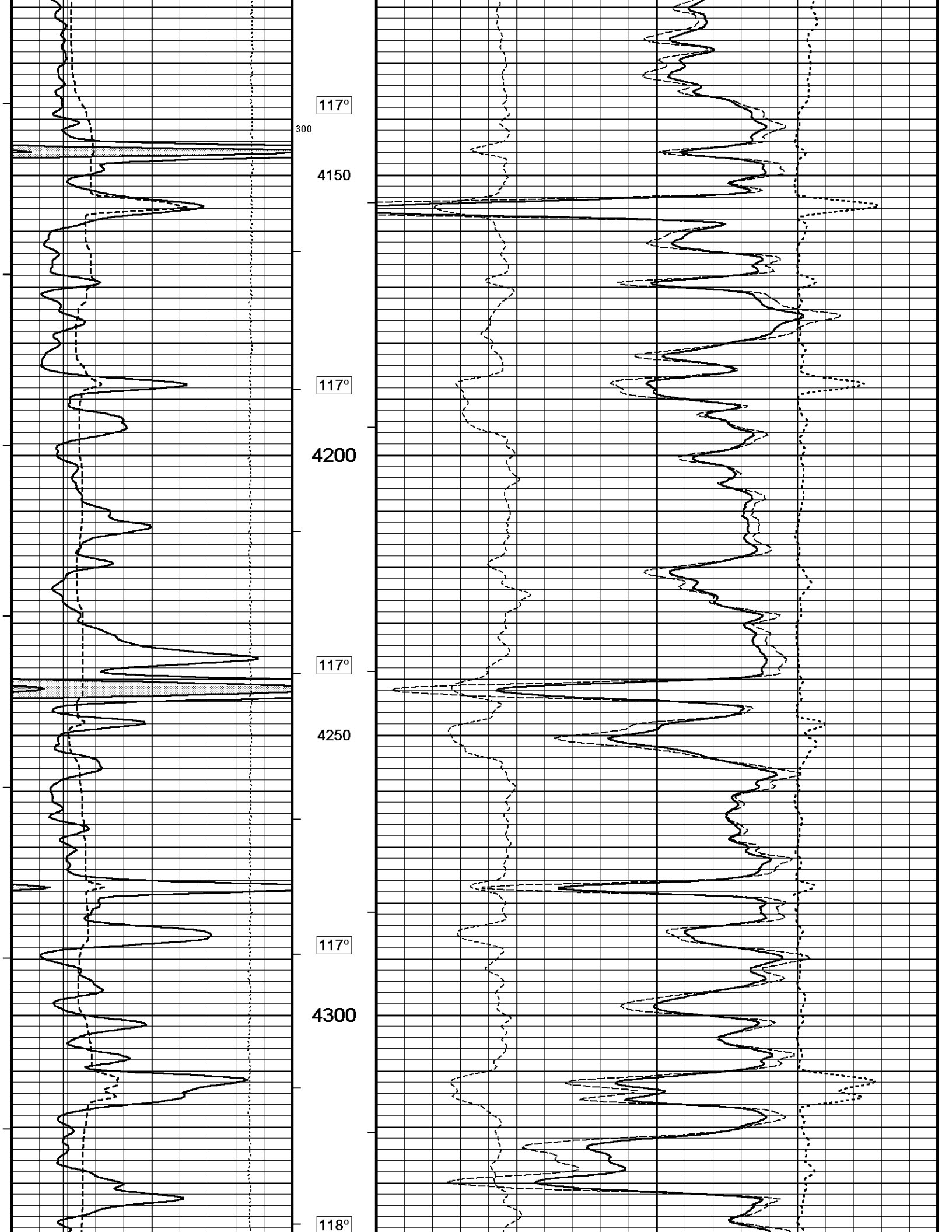
Timing Marks

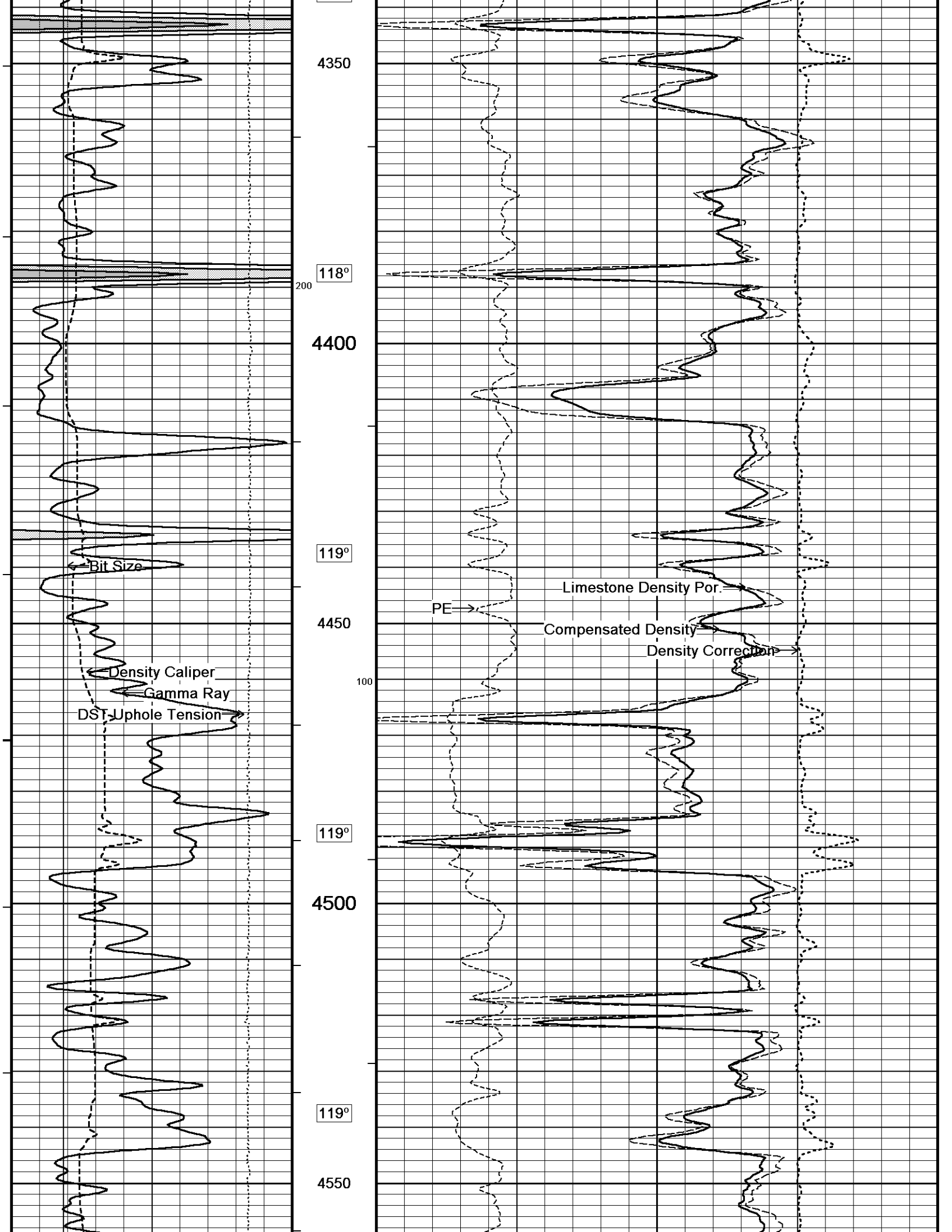
Compensated Density
grams/cc
2 2.25 2.50 2.75 3

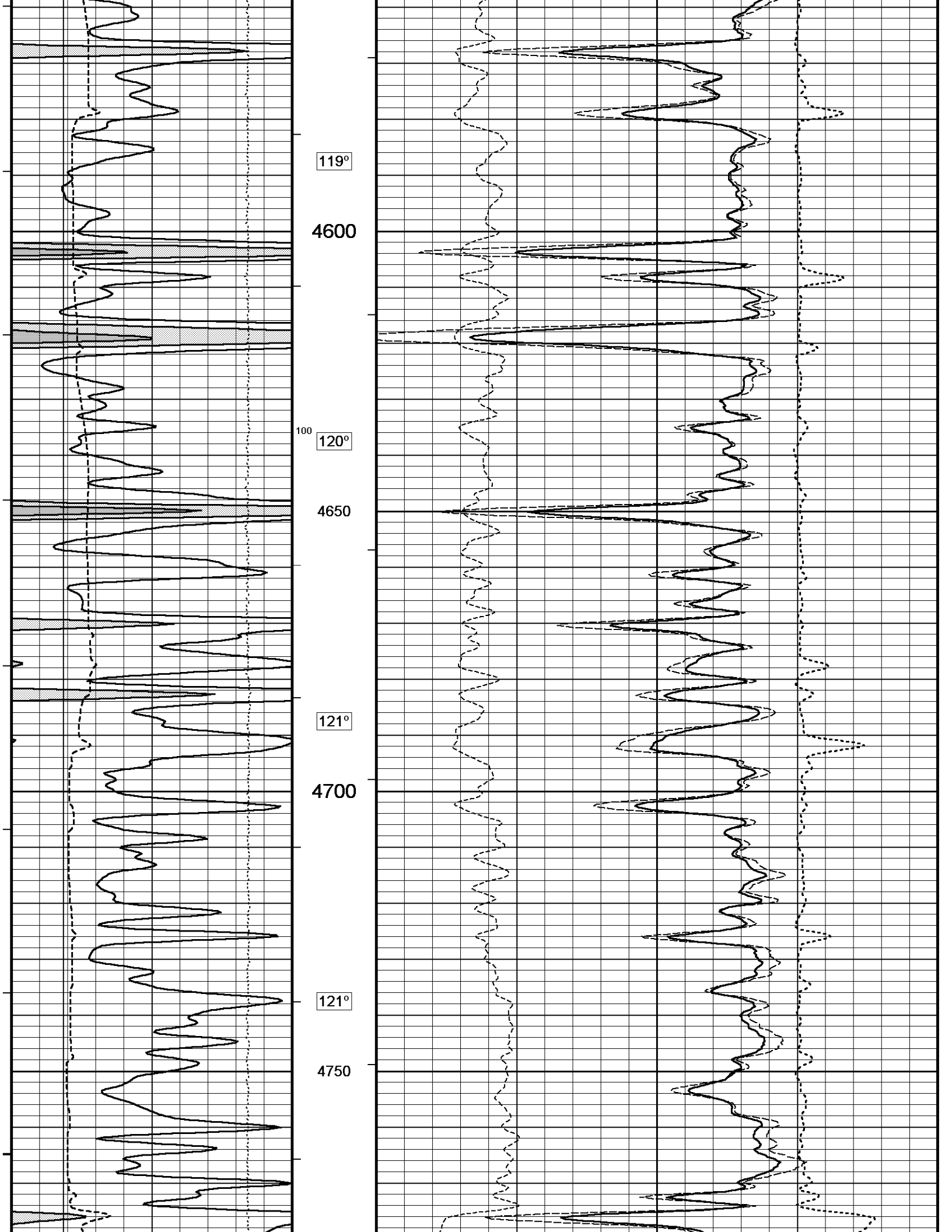

every 60.0 sec
Gamma Ray
API
0
75
150
150
225
300
Density Caliper
inches
6
11
16
Bit Size
inches
6
11
16
DST Uphole Tension
pounds
5000
0
Borehole Temp in deg F
HVI every 10 cu ft
Annular Integral every 10 cu ft
Replay Scale 1:240
Limestone Density Por.
percent
30
20
10
0
-10
PE
barns/electron
0
5
10
Density Correction
grams/cc
-0.50
0
0.50
3550
114°
3600
114°
300
3650
500
Bit Size
Density Caliper
Gamma Ray
DST Uphole Tension
PE
Limestone Density Por.
Compensated Density
Density Correction

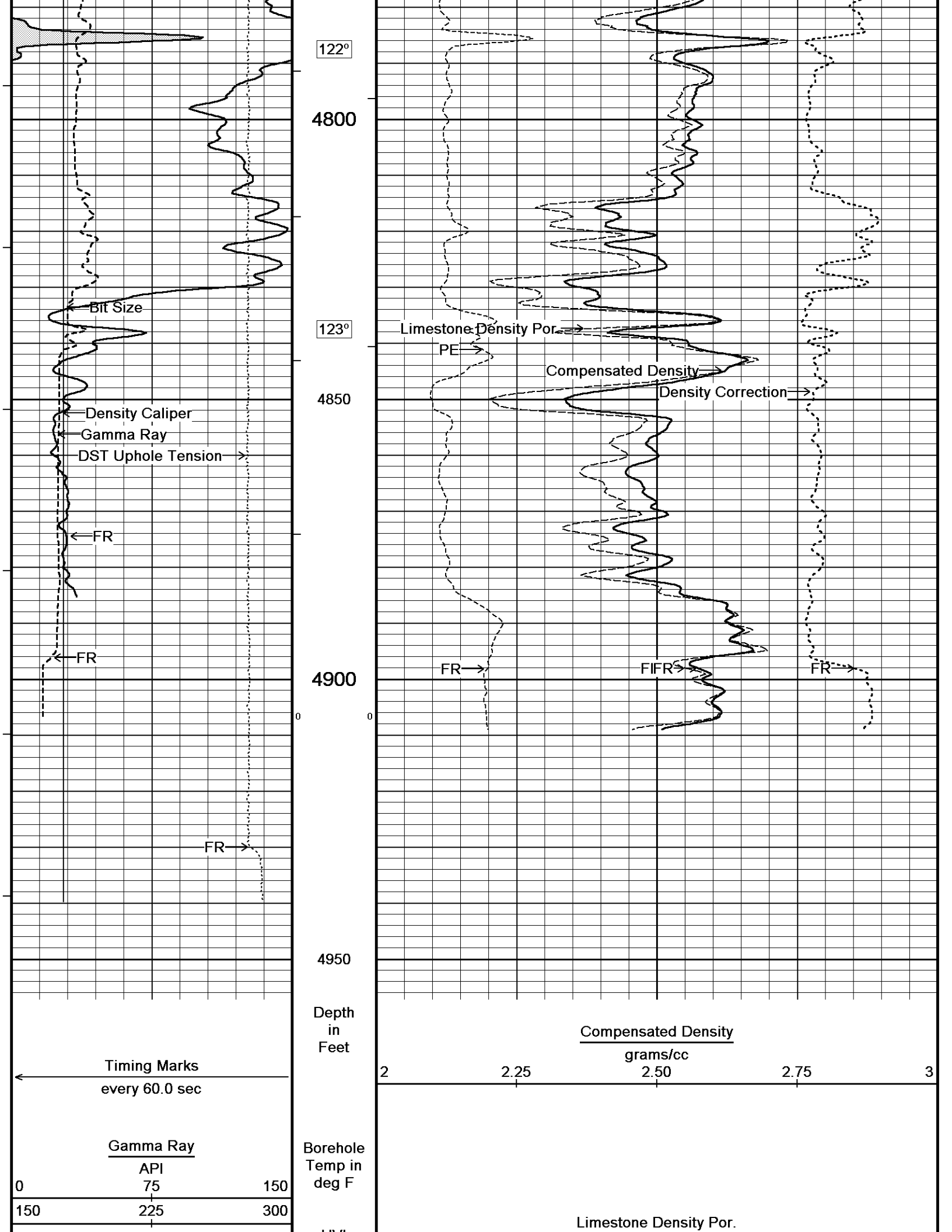

DSI Sphole Tension
114°
3700
114°
3750
114°
3800
115°
3850
115°
400

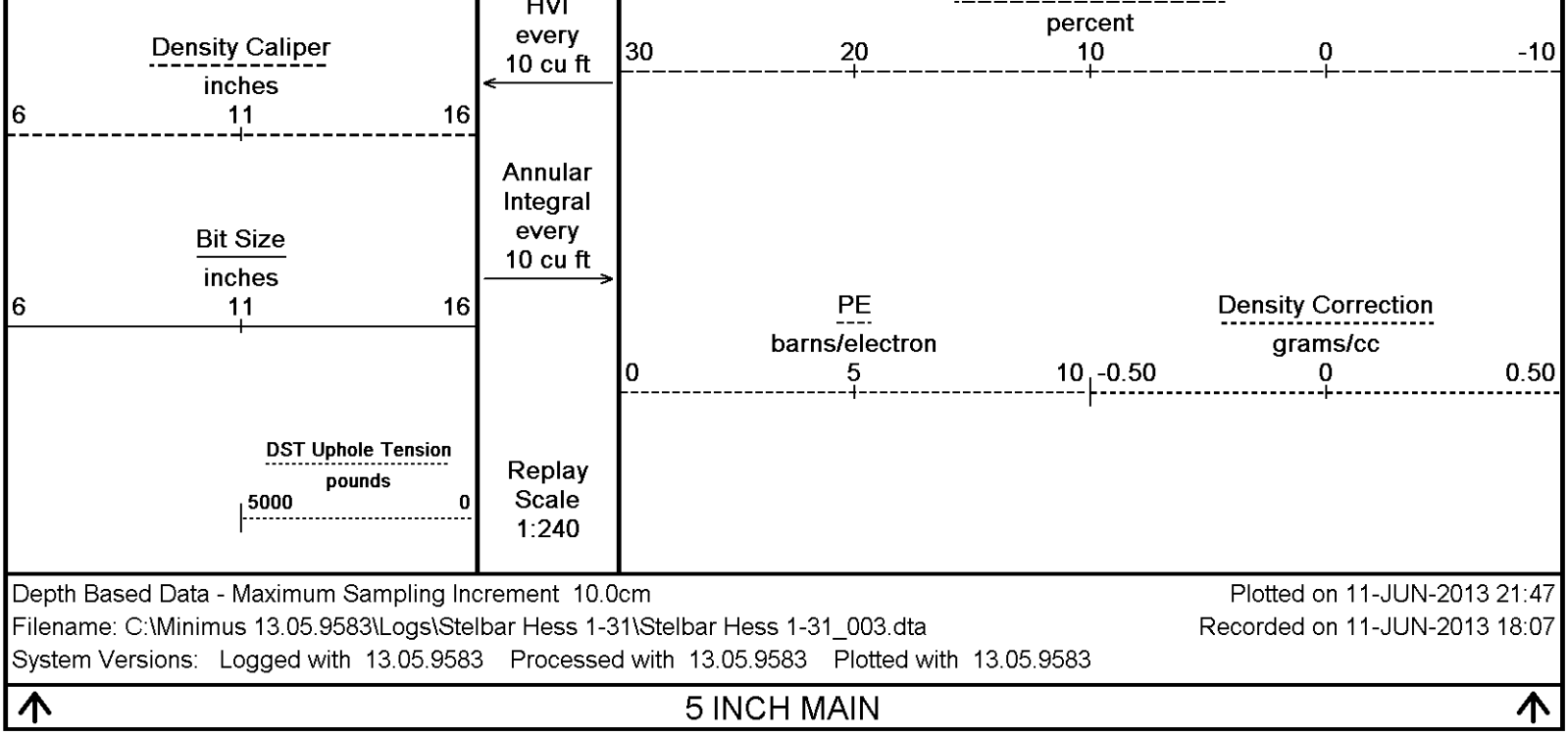

3900
115°
3950
116°
4000
200
116°
Bit Size
4050
Limestone Density Por
PE
Compensated Density
Density Correction
Density Caliper
Gamma Ray
DST Uphole Tension
116°
4100


117°
300
4150
117°
4200
117°
4250
117°
4300
118°


4350
118°
200
4400
119°
Bit Size
Limestone Density Por.
PE
4450
Compensated Density
Density Correction
100
Density Caliper
Gamma Ray
DST-Uphole Tension
119°
4500
119°
4550


119°
4600
100
120°
4650
121°
4700
121°
4750


122°
4800
123°
4850
4900
4950
Bit Size
Density Caliper
Gamma Ray
DST Uphole Tension
FR
FR
FR
Limestone Density Por.
PE
Compensated Density
Density Correction
FR
FIFR
FR
0
0
Depth
in
Feet
Timing Marks
every 60.0 sec
Gamma Ray
API
0
75
150
150
225
300
Borehole
Temp in
deg F
Compensated Density
grams/cc
2
2.25
2.50
2.75
3
Limestone Density Por.



Depth Based Data - Maximum Sampling Increment 10.0cm — Plotted on 11-JUN-2013 21:47
Filename: C:\Minimus 13.05.9583\Logs\Stelbar Hess 1-31\Stelbar Hess 1-31_003.dta — Recorded on 11-JUN-2013 18:07
System Versions: Logged with 13.05.9583 Processed with 13.05.9583 Plotted with 13.05.9583

5 INCH MAIN

REPEAT SECTION

Depth Based Data - Maximum Sampling Increment 10.0cm — Plotted on 11-JUN-2013 21:47
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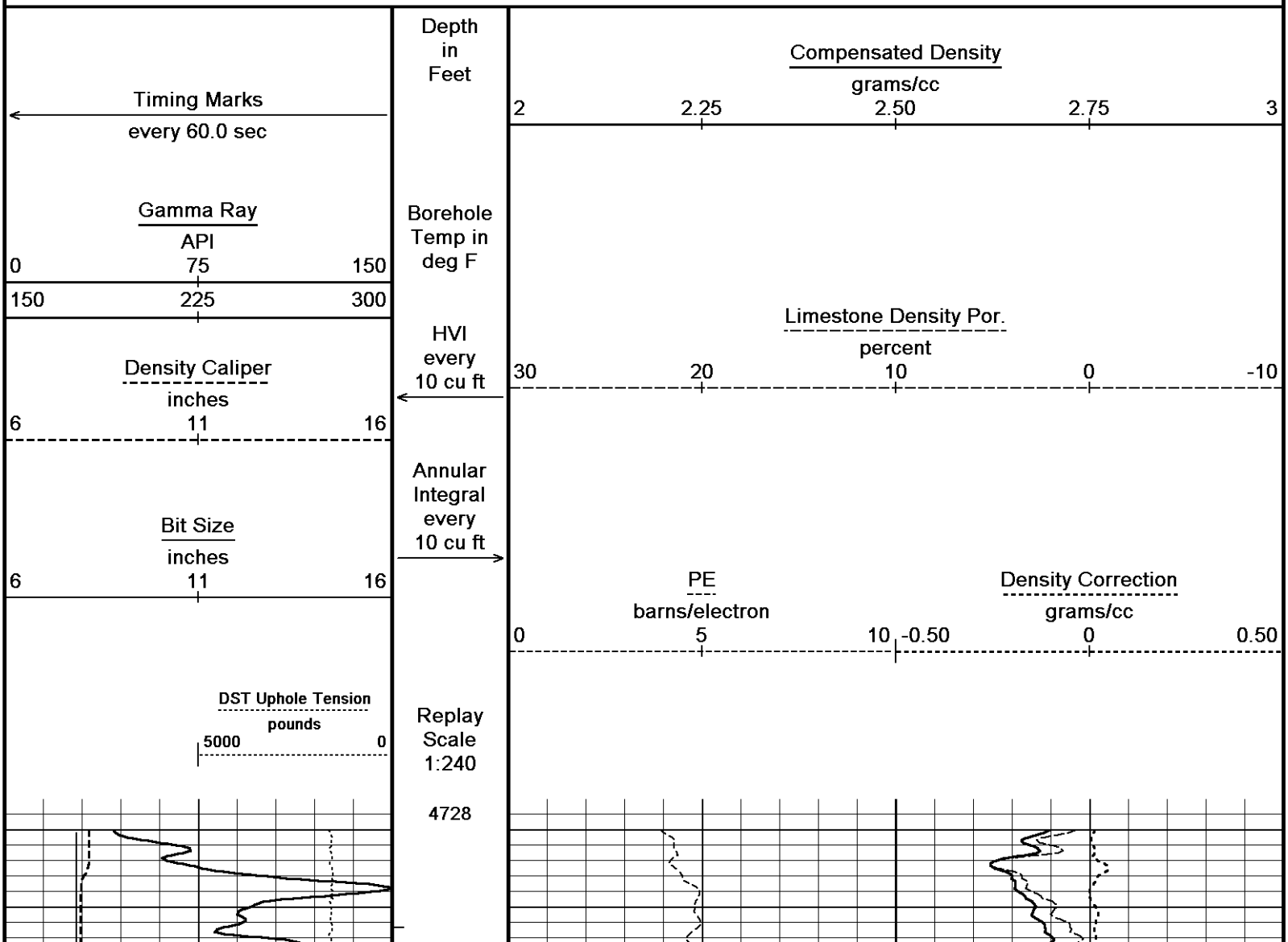
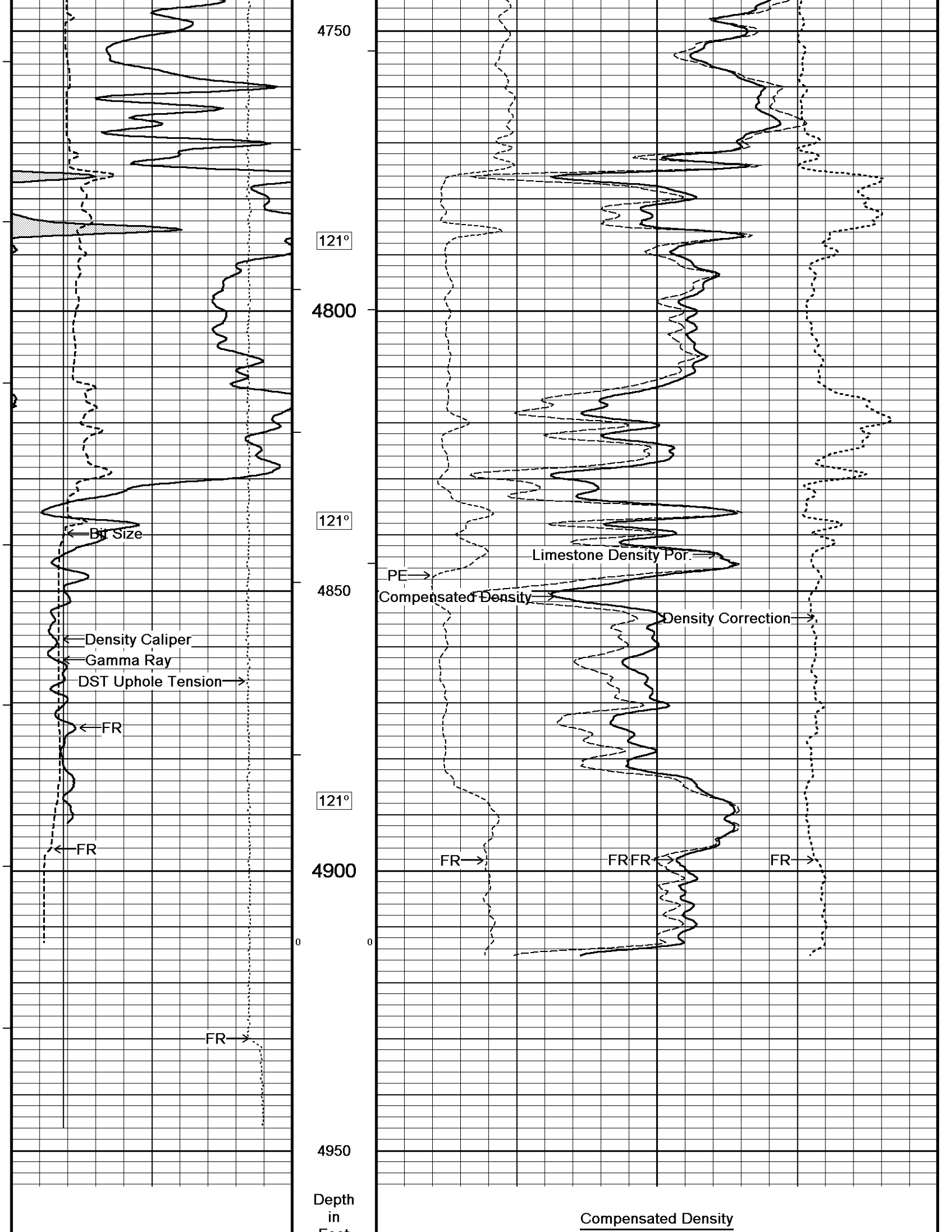
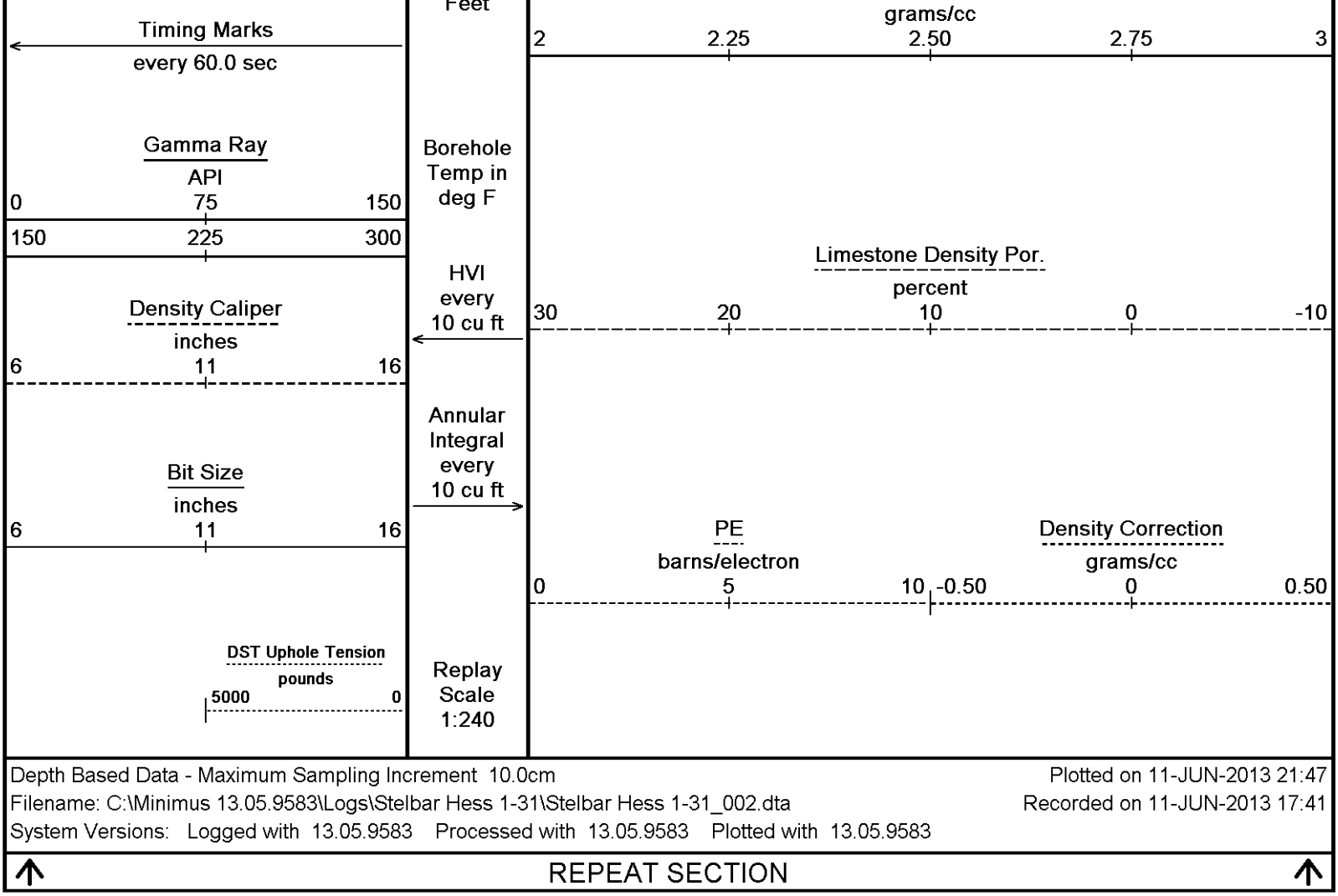
System Versions: Logged with 13.05.9583 Processed with 13.05.9583 Plotted with 13.05.9583




4750
121°
4800
121°
4850
121°
4900
4950
Depth
in
Feet
Bit Size
Density Caliper
Gamma Ray
DST Uphole Tension
FR
FR
FR
PE
Compensated Density
Limestone Density Por.
Density Correction
FR
FR FR
FR
0
0
Compensated Density



Depth Based Data - Maximum Sampling Increment 10.0cm — Plotted on 11-JUN-2013 21:47

Filename: C:\Minimus 13.05.9583\Logs\Stelbar Hess 1-31\Stelbar Hess 1-31_002.dta — Recorded on 11-JUN-2013 17:41

System Versions: Logged with 13.05.9583 Processed with 13.05.9583 Plotted with 13.05.9583

REPEAT SECTION

BEFORE SURVEY CALIBRATION

C:\Minimus 13.05.9583\Logs\Stelbar Hess 1-31\Stelbar Hess 1-31_002.dta

General Constants All 000

Last Edited on 11-JUN-2013,15:21

General Parameters		
Mud Resistivity	0.580	ohm-metres
Mud Resistivity Temperature	90.000	degrees F
Water Level	0.000	feet
Borehole Fluid Processing	Wet Hole	
Hole/Annular Volume and Differential Caliper Parameters		
HVOL Method	Single Caliper	
HVOL Caliper 1	Density Caliper	
HVOL Caliper 2	N/A	
Annular Volume Diameter	5.500	inches
Caliper for Differential Caliper	Density Caliper	
Rwa Parameters		
Porosity used	Base Density Porosity	
Resistivity used	Array Ind. Six Res Rt	
RWA Constant A	0.610	
RWA Constant M	2.150	
SW/APOR Tool Source	0.000	

Gamma Calibration MCG-C 208

Field Calibration on 11-JUN-2013 09:43

	Measured	Calibrated (API)
Background	67	46
Calibrator (Gross)	1140	771
Calibrator (Net)	1072	725

Gamma Constants MCG-C 208

Last Edited on 11-JUN-2013,15:21

Gamma Calibrator Number	GRC038	
Mud Density	1.10	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Eccentred	
Concentration of KCl		kppm
K Mud Type	Chloride	
K Mud Concentration	0.00	%

High Resolution Temperature Calibration MCG-C 208

Field Calibration on 07-JUN-2013,09:16

	Measured	Calibrated(Deg F)
Lower	50.00	50.00
Upper	75.00	75.00

High Resolution Temperature Constants MCG-C 208

Last Edited on 07-JUN-2013,09:15

Pre-filter Length	11

Caliper Calibration MPD-B 31

Base Calibration on 19-MAY-2013 17:48
Field Calibration on 11-JUN-2013 09:25

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	17088	3.99
2	25888	5.98
3	34607	7.97
4	42944	9.86
5	52301	11.92
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
5.95	5.98

Photo Density Calibration MPD-B 31

Base Calibration on 19-MAY-2013 18:09
Field Check on 11-JUN-2013 09:29

Density Calibration

Base Calibration	Measured		Calibrated (sdu)	
	Near	Far	Near	Far
Reference 1	45338	23124	59556	30836
Reference 2	18546	1915	24941	2541

Field Check at Base

677.6	838.3

Field Check

673.2	833.0

PE Calibration

Base Calibration	Measured			Calibrated
	WS	WH	Ratio	Ratio
Background	125	601		
Reference 1	19261	45226	0.429	0.371
Reference 2	5568	18464	0.305	0.272

Field Check at Base

125.4	601.0

Field Check

125.5	598.6

Density Constants MPD-B 31

Last Edited on 11-JUN-2013,15:20

Density Source Id	254	
Nylon Calibrator Number	DNCE695	
Aluminium Calibrator Number	DACD698	
Density Shoe Profile	8 inch	
Caliper Source for Processing	Density Caliper	
PE Correction to Density	Not Applied	
Mud Density	1.10	gm/cc
Mud Density Z/A Multiplier	1.11	
Mud Filtrate Density	1.00	gm/cc
Dry Hole Mud Filtrate Density	1.00	gm/cc

DNCT	0.00	gm/cc
CRCT	0.00	gm/cc
Density Z/A Correction	Hybrid	

Matrix Density (gm/cc)	Depth (ft)
2.71	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	

DOWNHOLE EQUIPMENT

C:\Minimus 13.05.9583\Logs\Stelbar Hess 1-31\Stelbar Hess 1-31_002.dta

3/8" Triple Cone Cable Head (MCB C A)
MCB-C.A 5 LG: 1.58 ft WT: 15.4 lb OD: 2.24 in

Compact Comms Gamma
MCG-C 208 LG: 8.70 ft WT: 63.9 lb OD: 2.24 in

Compact Micro-log
MML-A 16 LG: 7.97 ft WT: 81.6 lb OD: 2.24 in

Compact Neutron
MDN-A.B 65 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in

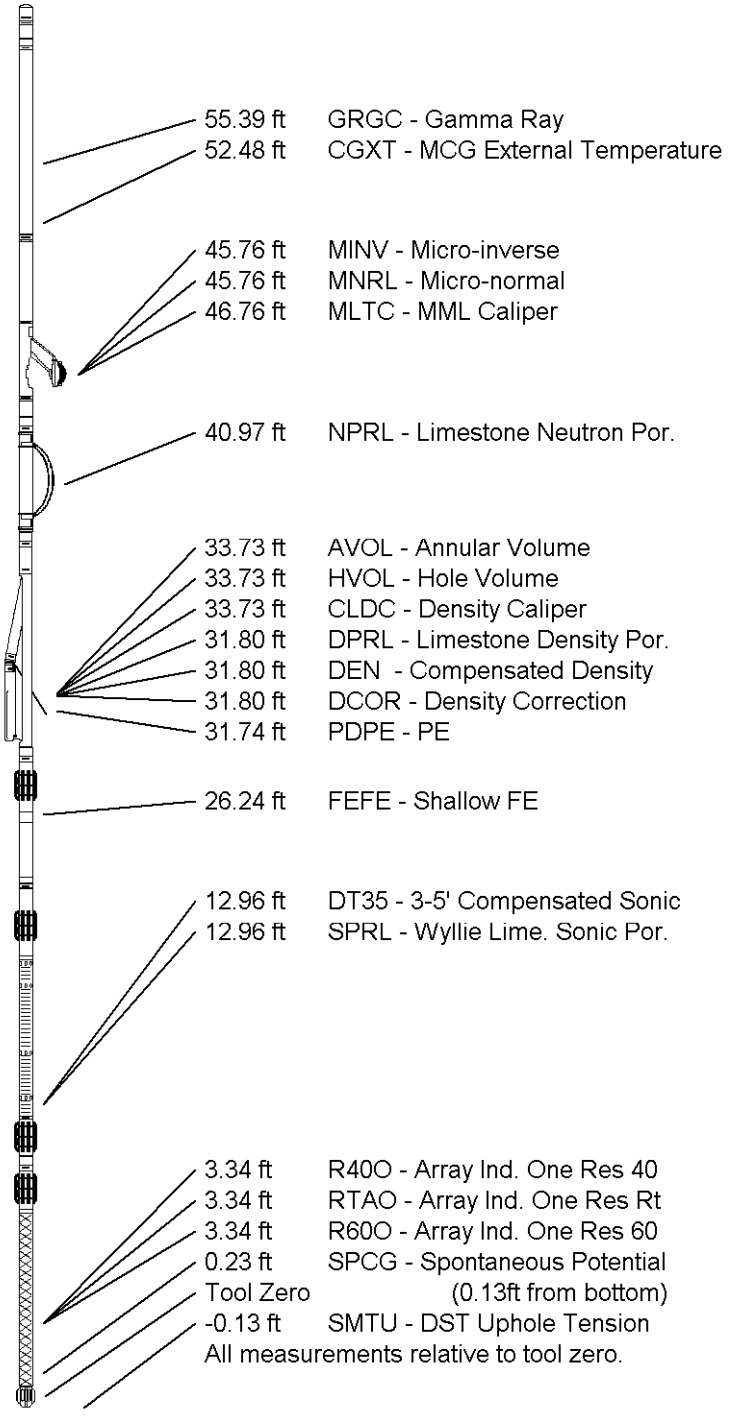
Compact Density/Caliper
MPD-B 31 LG: 9.59 ft WT: 90.4 lb OD: 2.45 in

Compact Focussed Electric
MFE-B.J 352 LG: 6.05 ft WT: 48.5 lb OD: 2.24 in

Compact Sonic
MSS-A.A 126 LG: 12.52 ft WT: 72.8 lb OD: 2.24 in

Compact Induction
MAI-A.A 45 LG: 10.81 ft WT: 48.5 lb OD: 2.24 in

Total Length: 62.25 ft Weight: 471.8 lb



COMPANY	STELBAR OIL CORPORATION, INC.

WELL	HESS #1-31
FIELD	WILDCAT
PROVINCE/COUNTY	SCOTT
COUNTRY/STATE	U.S.A. / KANSAS

Elevation Kelly Bushing	3088.00	feet	First Reading	4898.00	feet
Elevation Drill Floor	3087.00	feet	Depth Driller	4930.00	feet
Elevation Ground Level	3081.00	feet	Depth Logger	4930.00	feet

Weatherford®

COMPACT PHOTO DENSITY
COMPENSATED NEUTRON
MICRORESISTIVITY LOG

Weatherford®

ARRAY INDUCTION SHALLOW FOCUSED ELECTRIC LOG

COMPANY	STELBAR OIL CORPORATION, INC.
WELL	HESS #1-31
FIELD	WILDCAT
PROVINCE/COUNTY	SCOTT
COUNTRY/STATE	U.S.A. / KANSAS
LOCATION	1162' FNL & 336' FWL

SEC	TWP	RGE	Other Services
31	17S	33W	MPD/MDN MML
			MSS

API Number 15-171-20944
Permit Number

Permanent Datum GL, Elevation 3081 feet
Log Measured From KB
Drilling Measured From KB

Elevations:	feet
KB	3088.00
DF	3087.00
GL	3081.00

Date	11-JUN-2013			
Run Number	ONE			
Service Order	3539038			
Depth Driller	4930.00	feet		
Depth Logger	4930.00	feet		
First Reading	4927.00	feet		
Last Reading	396.00	feet		
Casing Driller	390.00	feet		
Casing Logger	396.00	feet		
Bit Size	7.875	inches		
Hole Fluid Type	CHEMICAL			
Density / Viscosity	9.20 lb/USg		53.00 CP	
PH / Fluid Loss	10.00		8.80 ml/30Min	
Sample Source	MUDPIT			
Rm @ Measured Temp	0.58 @ 90.0	ohm-m		
Rmf @ Measured Temp	0.46 @ 90.0	ohm-m		
Rmc @ Measured Temp	0.70 @ 90.0	ohm-m		
Source Rmf / Rmc	CALC		CALC	
Rm @ BHT	0.42 @123.0	ohm-m		
Time Since Circulation	4 HOURS			
Max Recorded Temp	123.00	deg F		
Equipment / Base	13057		LIB	
Recorded By	ADAM SILL			
Witnessed By	DAVE GOLDAK			
JOB #	LB13-170			

BOREHOLE RECORD

Last Edited: 11-JUN-2013 15:18

Bit Size inches	Depth From feet	Depth To feet
7.875	390.00	4930.00

CASING RECORD

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	8.625	0.00	390.00	24.00

REMARKS

- SOFTWARE ISSUE: WLS 13.05.9583.
- MCG, MML, MDN, MPD, MFE, MSS, MAI RAN IN COMBINATION.
  - HARDWARE: DUAL BOWSPRING USED ON MDN.
  0.5 INCH STANDOFF USED ON MFE.
  TWO 0.5 INCH STANDOFFS USED ON MSS.
  0.5 INCH STANDOFF USED ON MAI.
- 2.71 G/CC LIMESTONE DENSITY MATRIX USED TO CALCULATE POROSITY.
- BOREHOLE RUGOSITY, TIGHT PULLS, AND WASHOUTS WILL AFFECT DATA QUALITY.
- ALL INTERVALS LOGGED AND SCALED PER CUSTOMER'S REQUEST.
- TOTAL HOLE VOLUME FROM TD TO SURFACE CASING: 2500 CU. FT.
- ANNULAR HOLE VOLUME WITH 5.5 INCH PRODUCTION CASING FROM TD TO 3550 FEET: 330 CU. FT.

- RIG: PICKRELL #10.

- ENGINEER: A. SILL.

- OPERATOR(S): M. SLOBODKIN.

2 INCH MAIN

Depth Based Data - Maximum Sampling Increment 10.0cm — Plotted on 11-JUN-2013 21:47

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System Versions: Logged with 13.05.9583 Processed with 13.05.9583 Plotted with 13.05.9583

Timing Marks
every 60.0 sec

Gamma Ray
API
0 75 150
150 225 300

Spontaneous Potential
millivolts
– → | 20 | ← +

Bit Size
inches
6 11 16

DST Uphole Tension
pounds
5000 0

Depth In Feet

Borehole Temp in deg F

Replay Scale 1:600

Array Ind. One Cond Ct
mmhos
1000 750 500 250 0
2000 1750 1500 1250 1000

Shallow FE
ohm metres
0 25 50
0 250 500

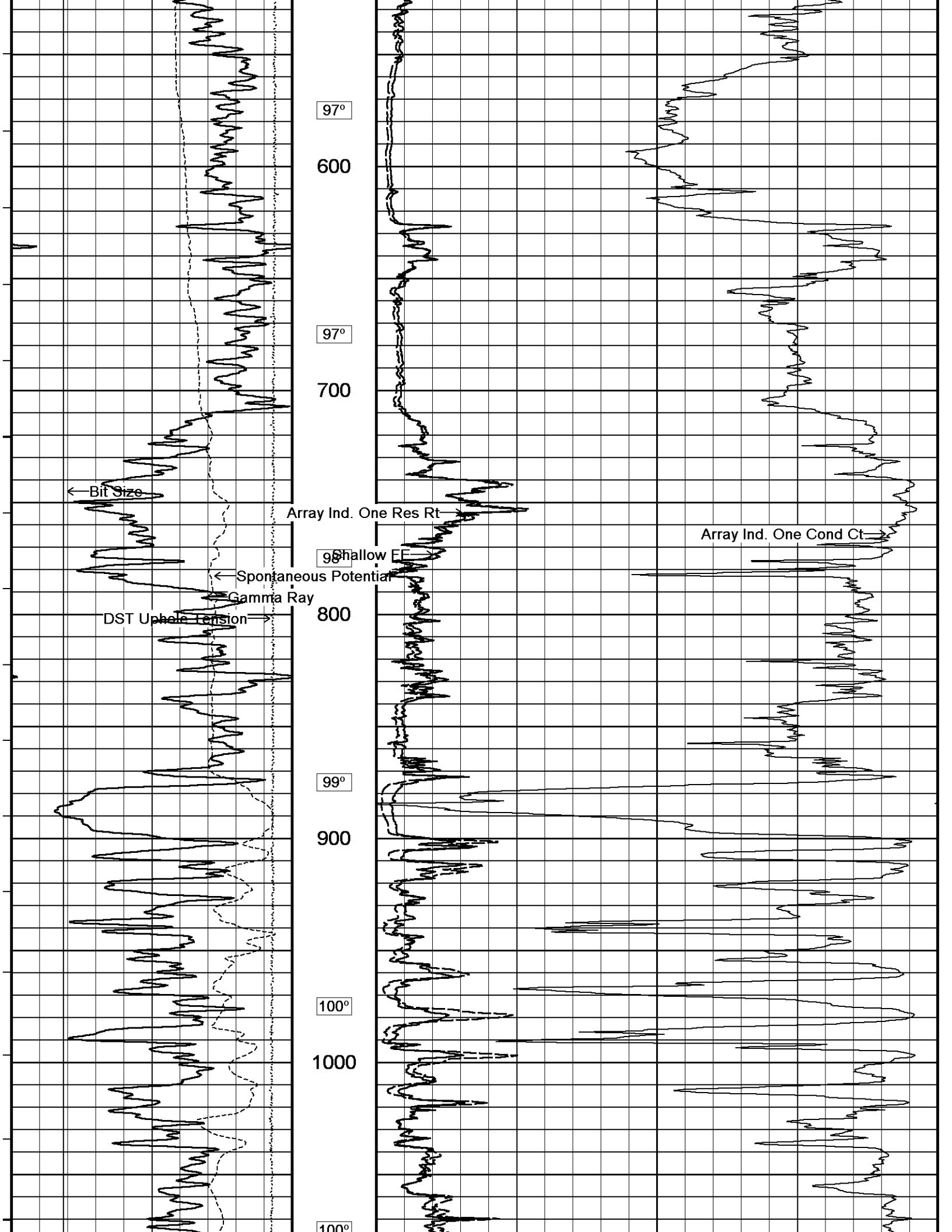
Array Ind. One Res Rt
ohm metres
0 25 50
0 250 500

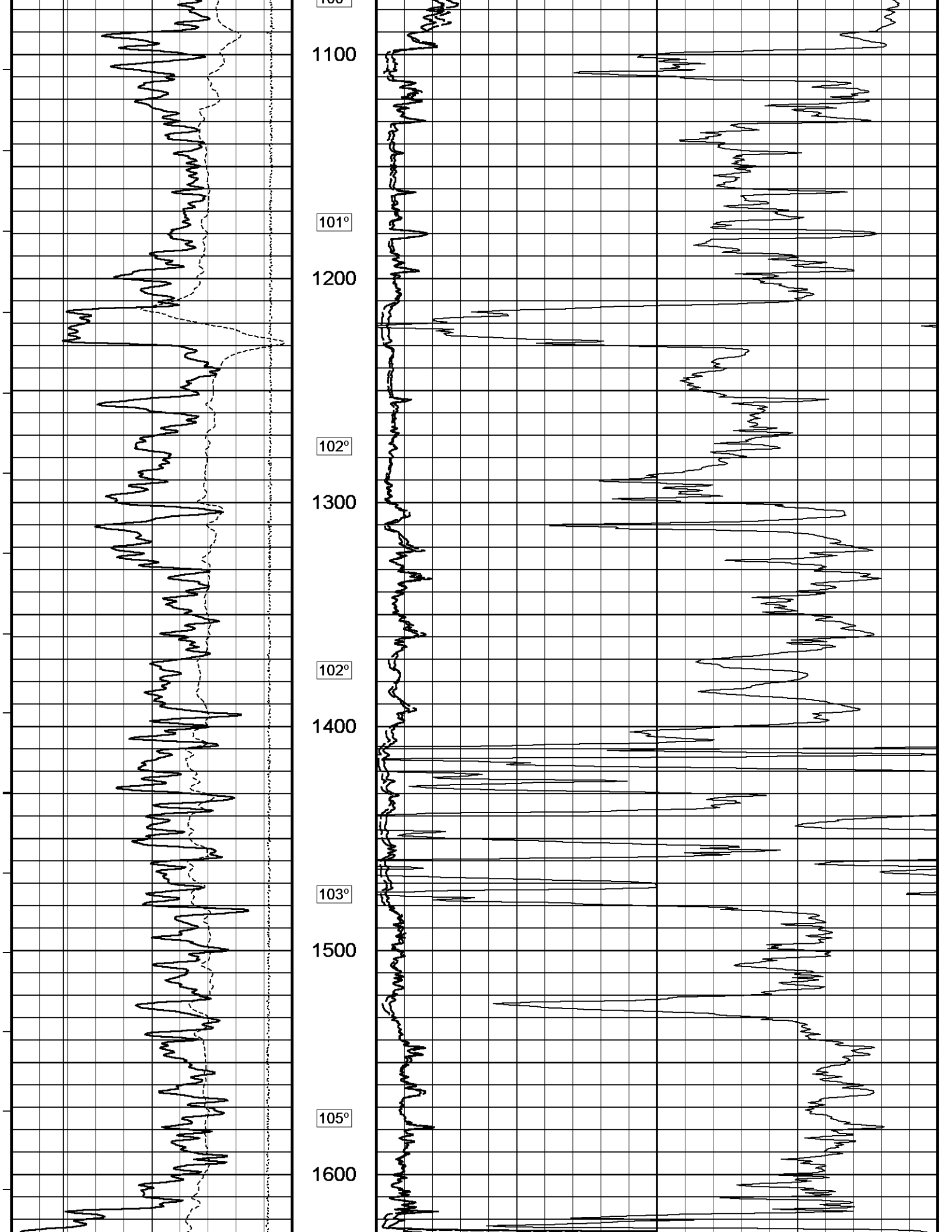
380 Casing Shoe

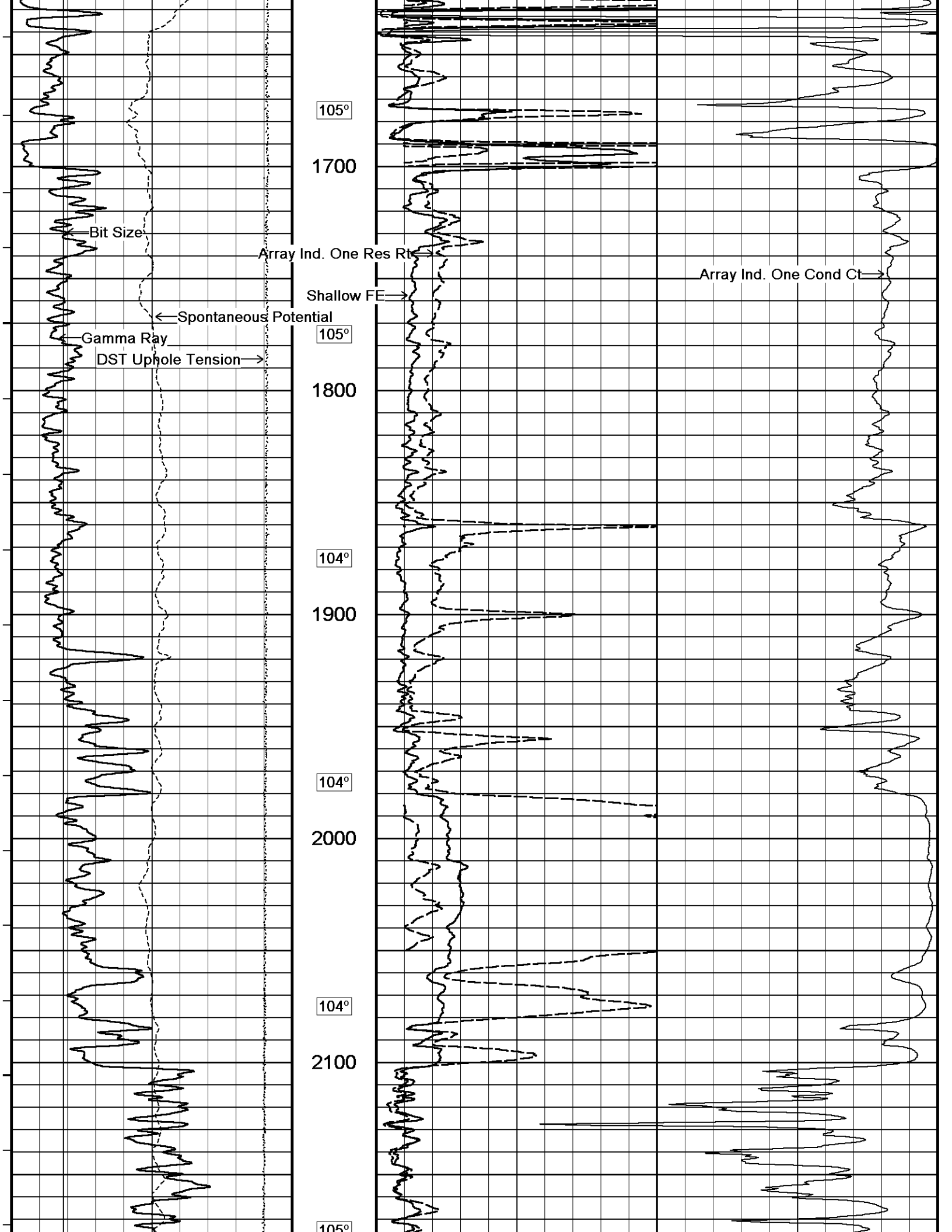
400

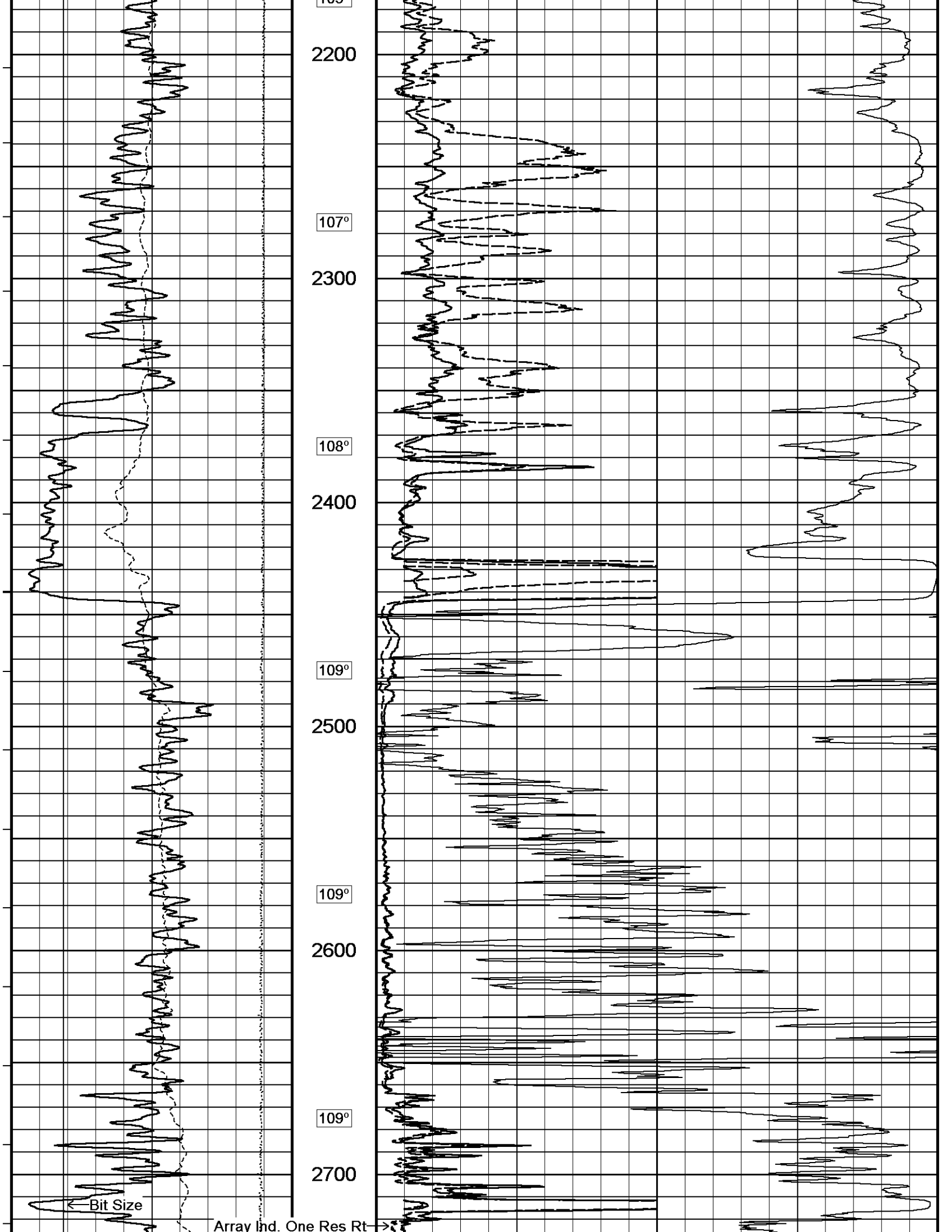
98°

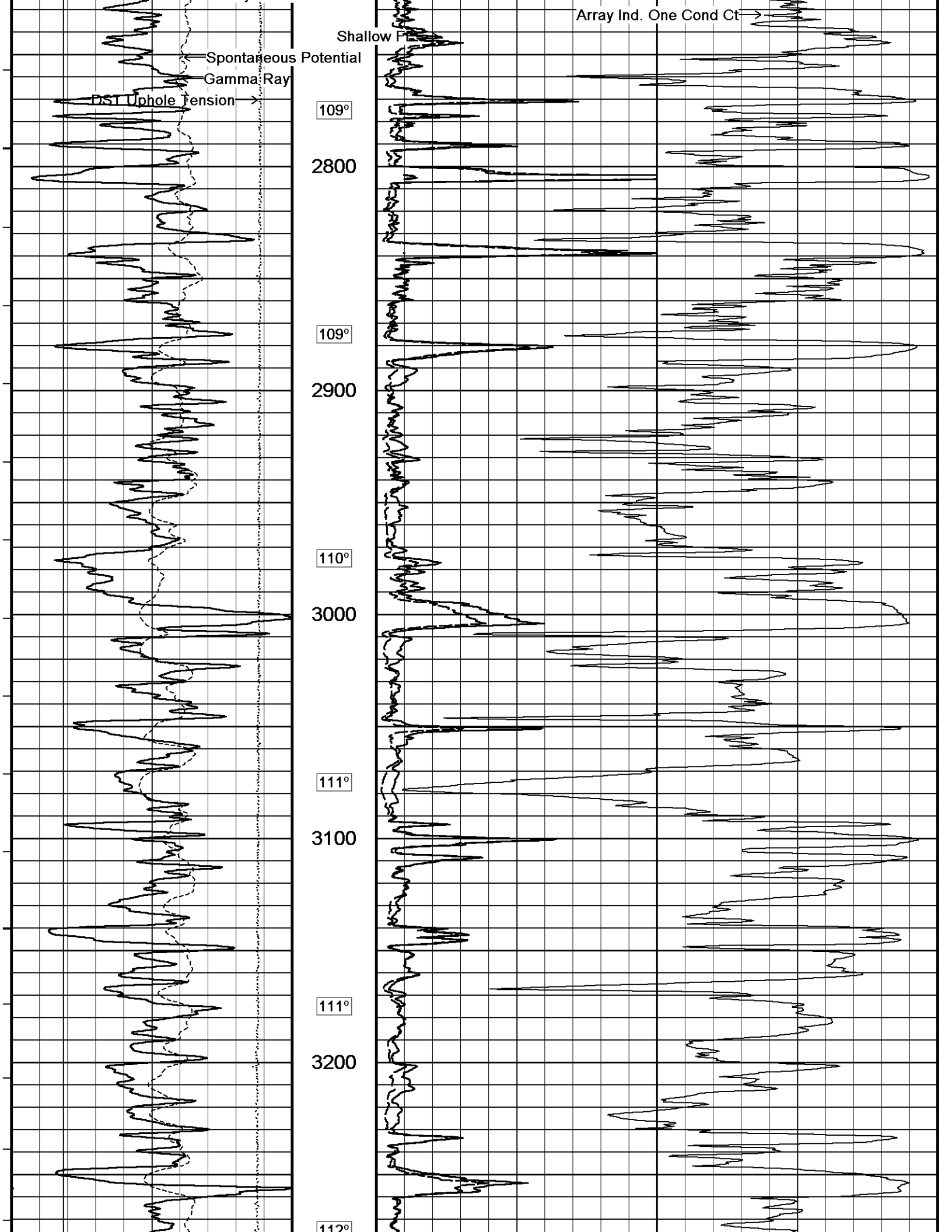
500

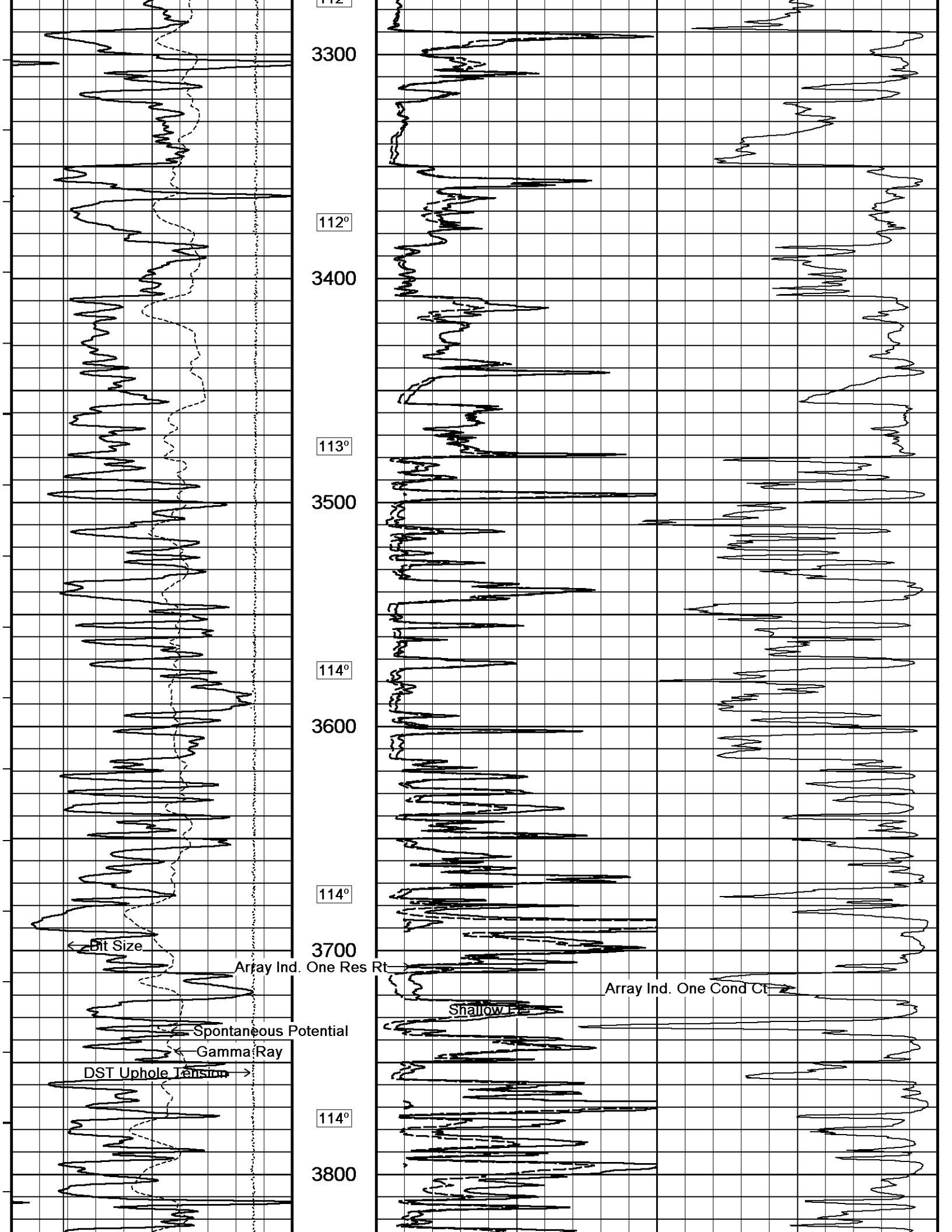

97°
600
97°
700
Bit Size
Array Ind. One Res Rt
Array Ind. One Cond Ct
Shallow EE
98°
Spontaneous Potential
Gamma Ray
800
DST Uphole Tension
99°
900
100°
1000
100°

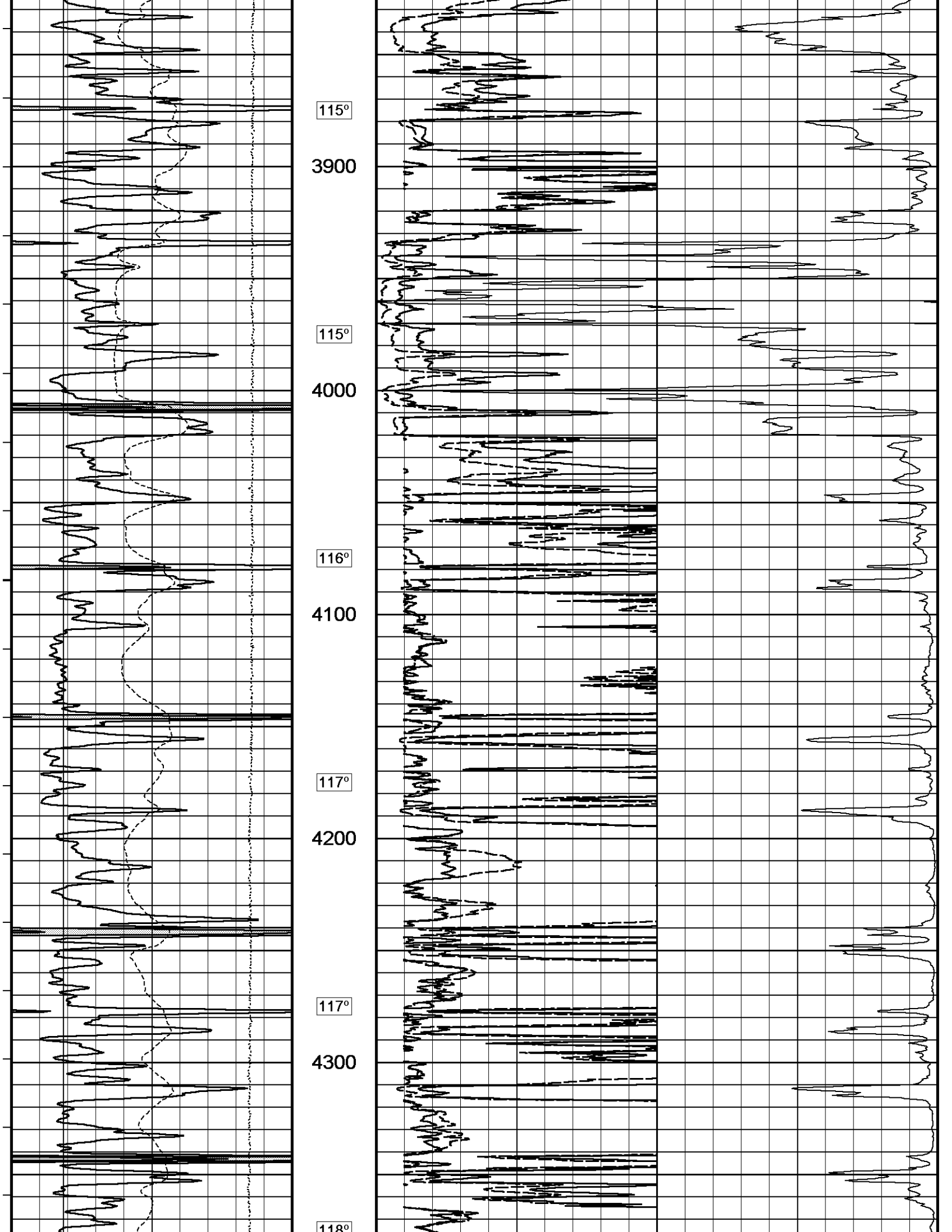

1100
101°
1200
102°
1300
102°
1400
103°
1500
105°
1600

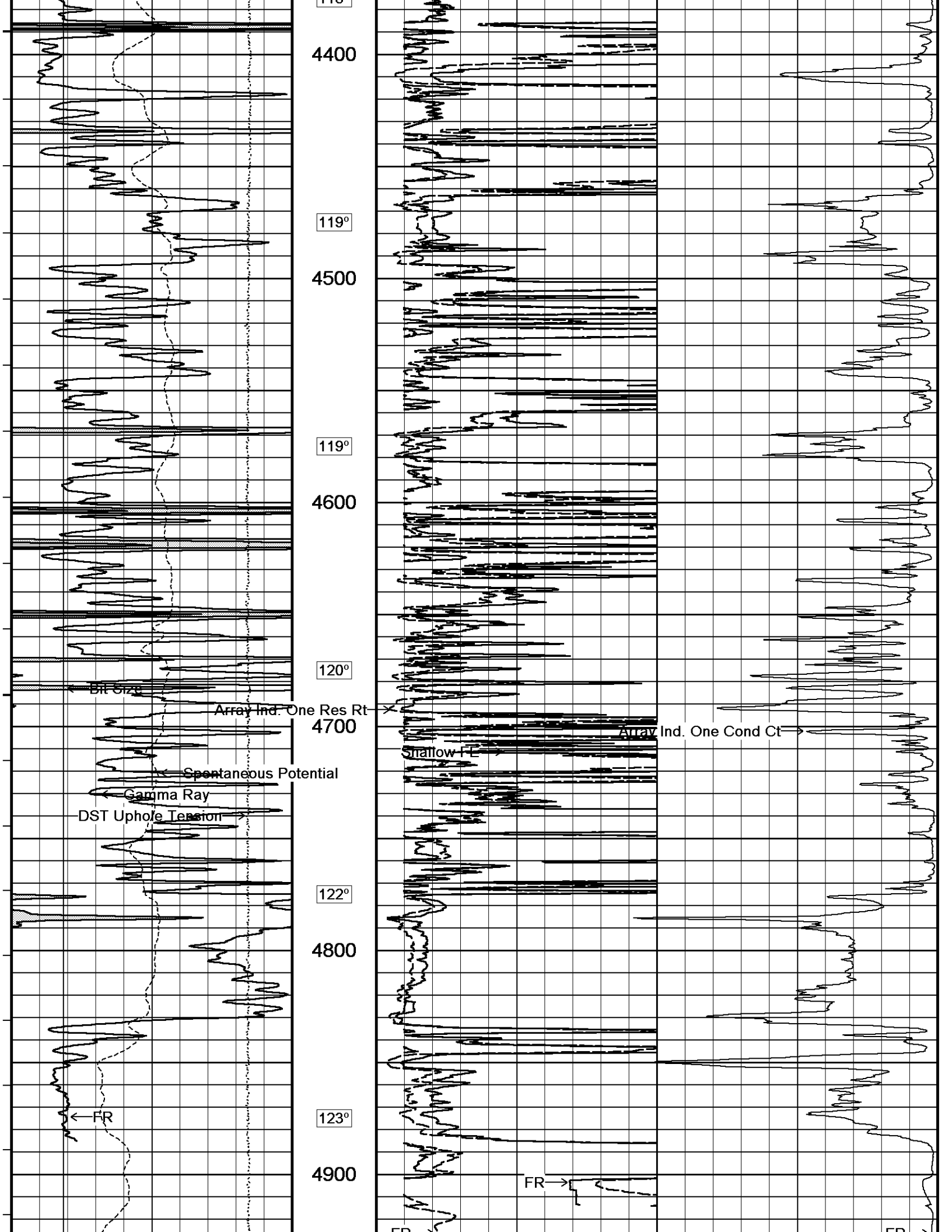

105°
1700
Bit Size
Array Ind. One Res Rt
Array Ind. One Cond Ct
Shallow FE
Spontaneous Potential
105°
Gamma Ray
DST Uphole Tension
1800
104°
1900
104°
2000
104°
2100
105°

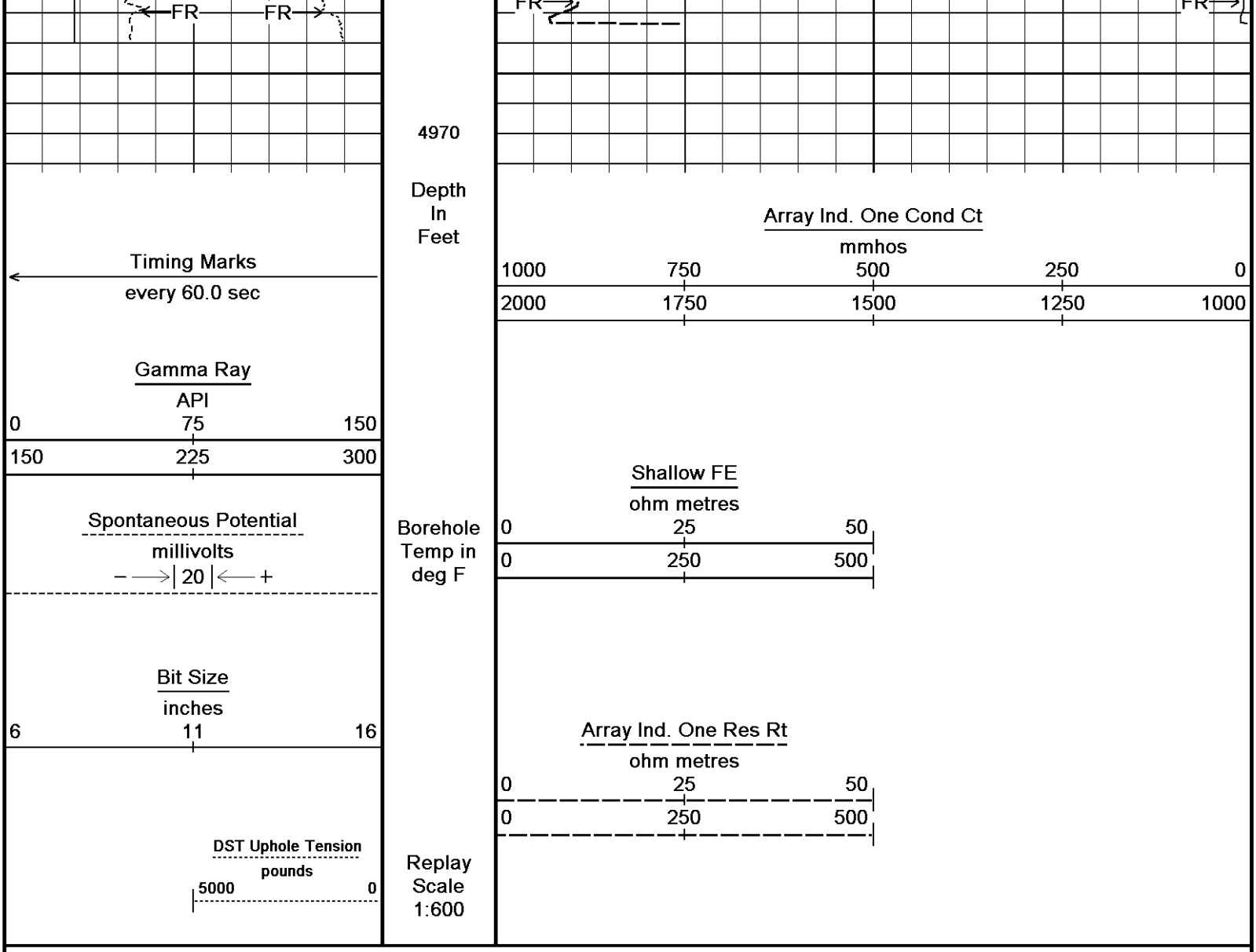

2200
107°
2300
108°
2400
109°
2500
109°
2600
109°
2700
Bit Size
Array Ind. One Res Rt


Array Ind. One Cond Ct
Shallow F
Spontaneous Potential
Gamma Ray
DST Uphole Tension
109°
2800
109°
2900
110°
3000
111°
3100
111°
3200
112°


112°
3300
112°
3400
113°
3500
114°
3600
114°
3700
114°
3800
Bit Size
Array Ind. One Res Rt
Array Ind. One Cond Ct
Shallow Res
Spontaneous Potential
Gamma Ray
DST Uphole Tension


115°
3900
115°
4000
116°
4100
117°
4200
117°
4300
118°


4400
119°
4500
119°
4600
120°
Bit Size
Array Ind. One Res Rt
4700
Array Ind. One Cond Ct
Shallow FL
Spontaneous Potential
Gamma Ray
DST Uphole Tension
122°
4800
FR
123°
4900
FR
FR

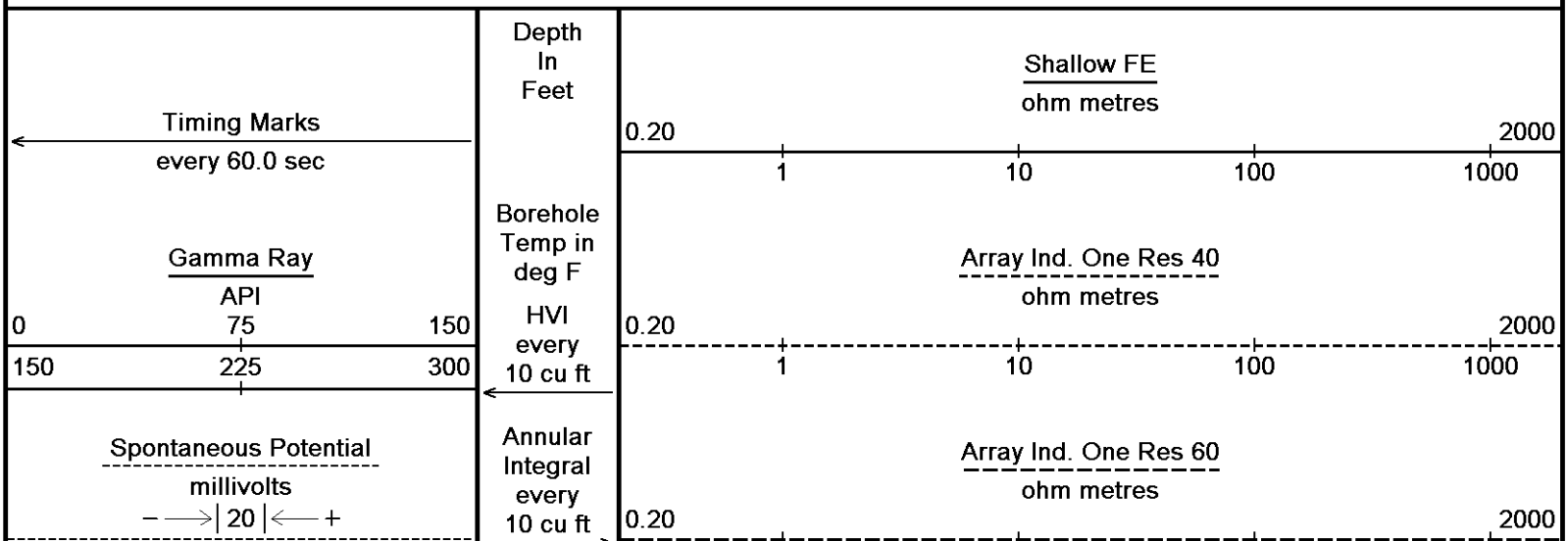


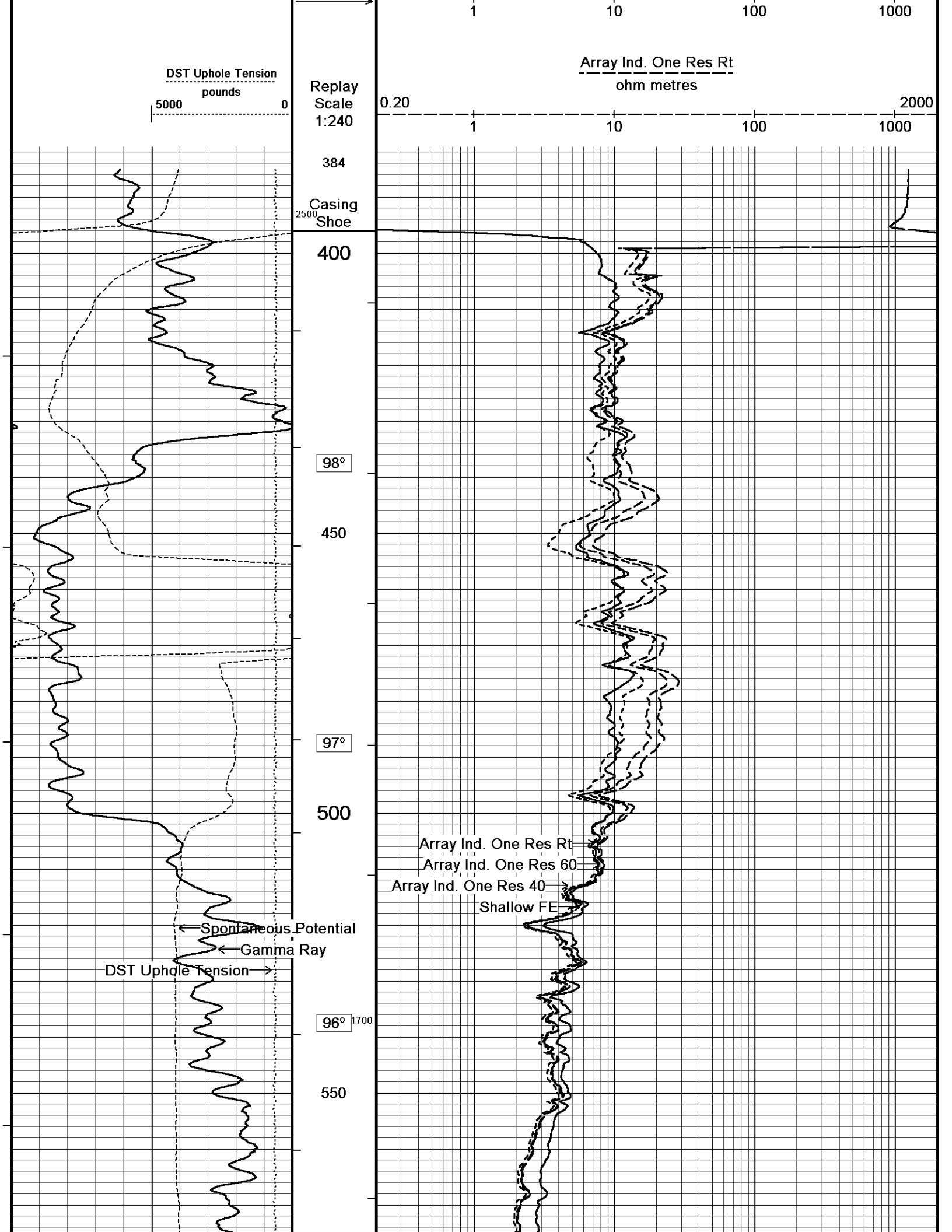
Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 11-JUN-2013 21:47
Filename: C:\Minimus 13.05.9583\Logs\Stelbar Hess 1-31\Stelbar Hess 1-31_003.dta
Recorded on 11-JUN-2013 18:07
System Versions: Logged with 13.05.9583 Processed with 13.05.9583 Plotted with 13.05.9583

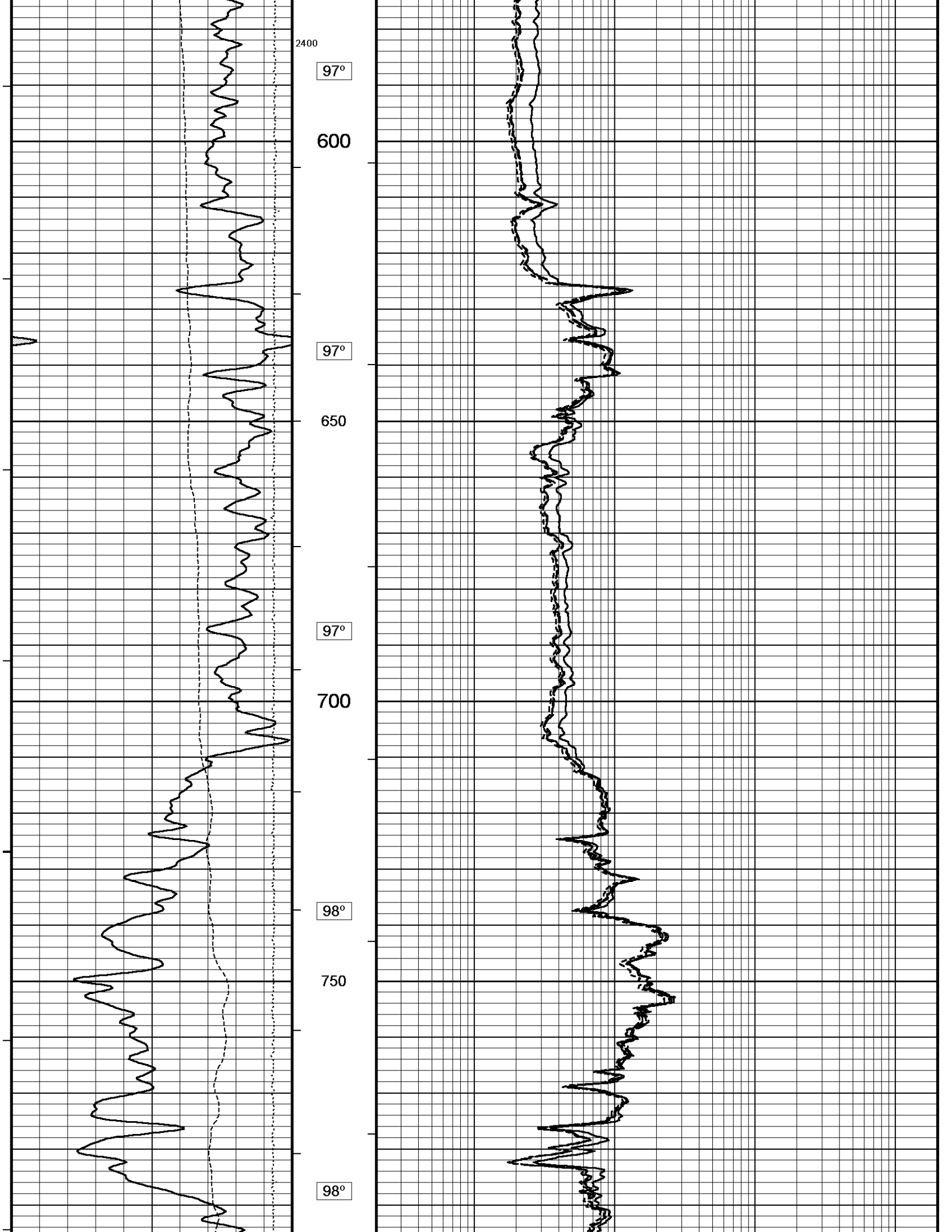
2 INCH MAIN

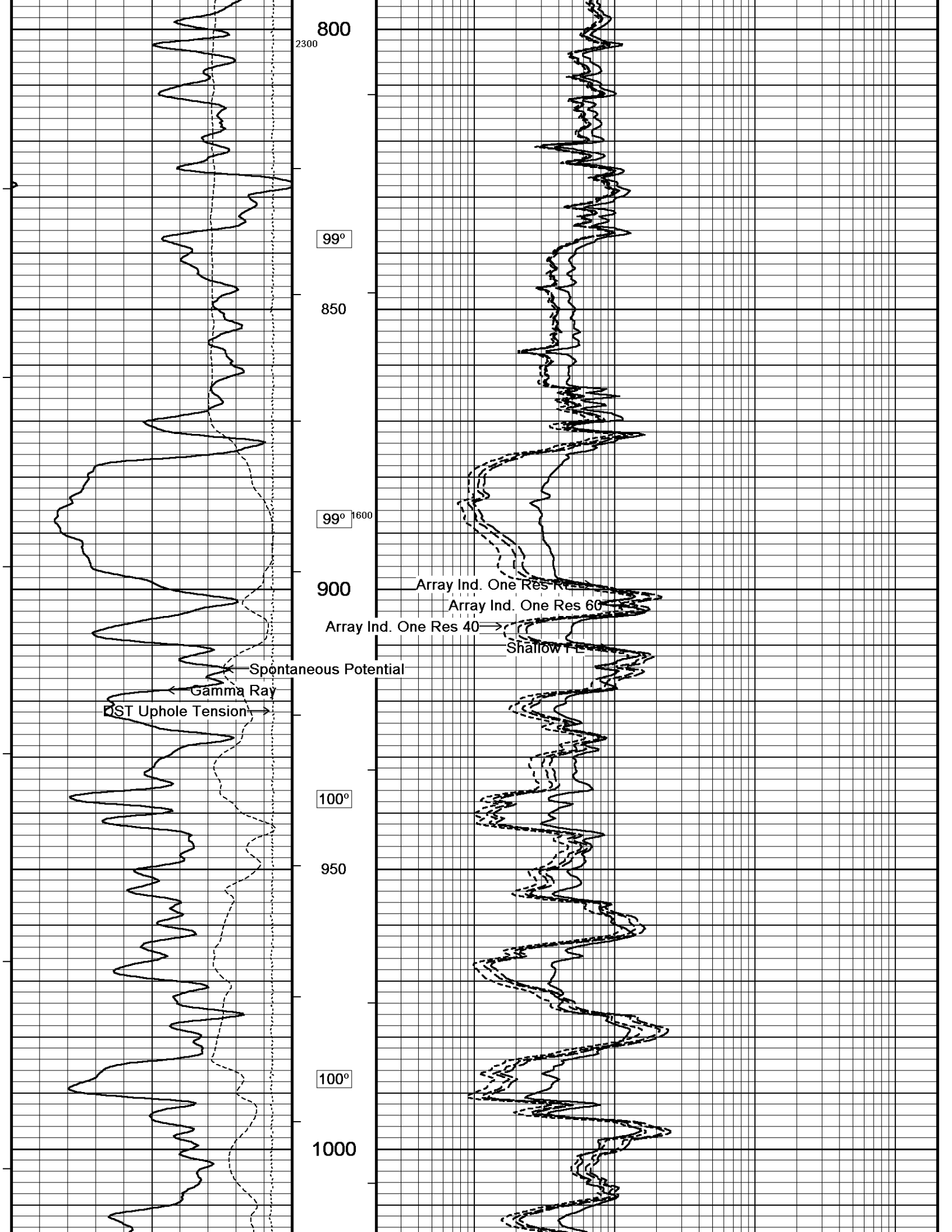
5 INCH MAIN

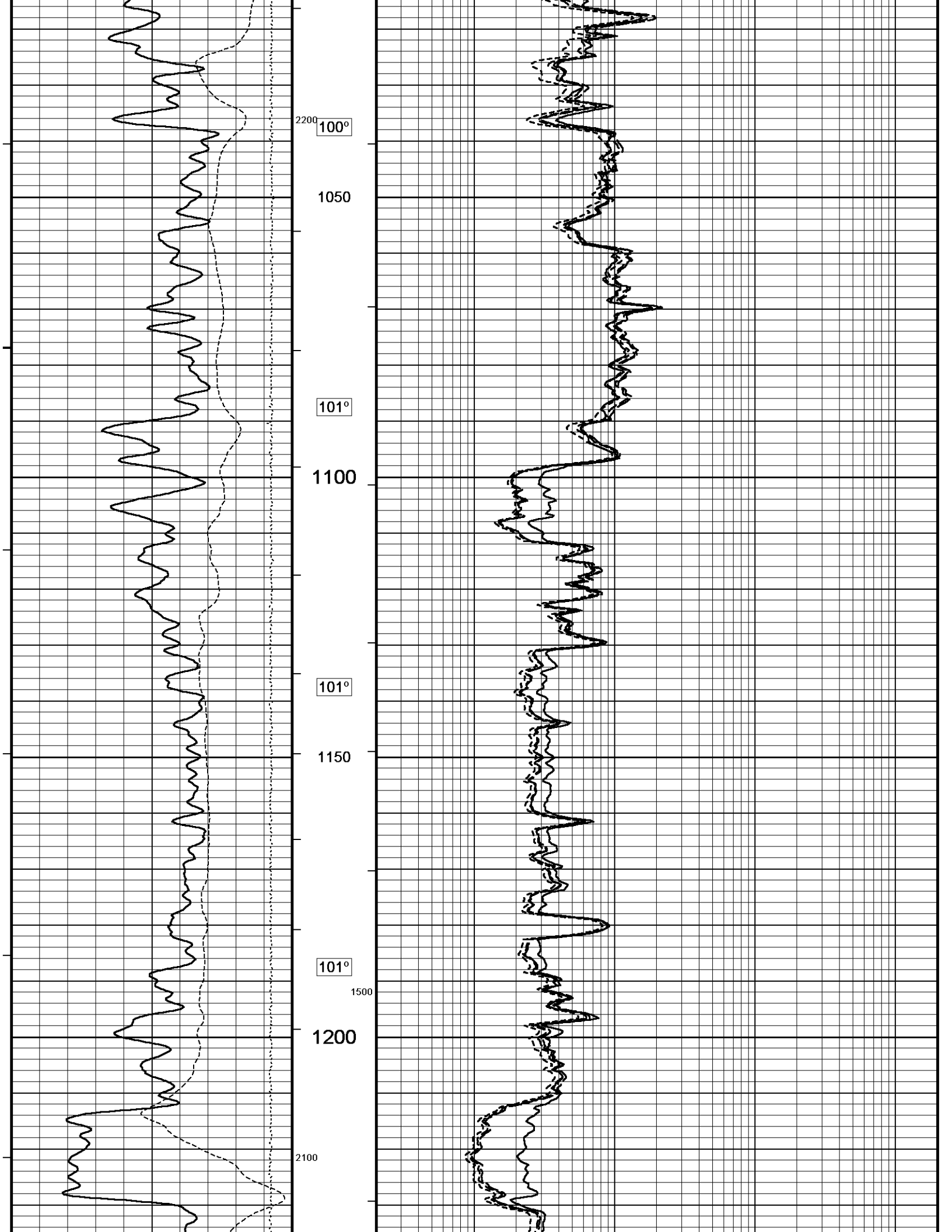
Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 11-JUN-2013 21:47
Filename: C:\Minimus 13.05.9583\Logs\Stelbar Hess 1-31\Stelbar Hess 1-31_003.dta
Recorded on 11-JUN-2013 18:07
System Versions: Logged with 13.05.9583 Processed with 13.05.9583 Plotted with 13.05.9583

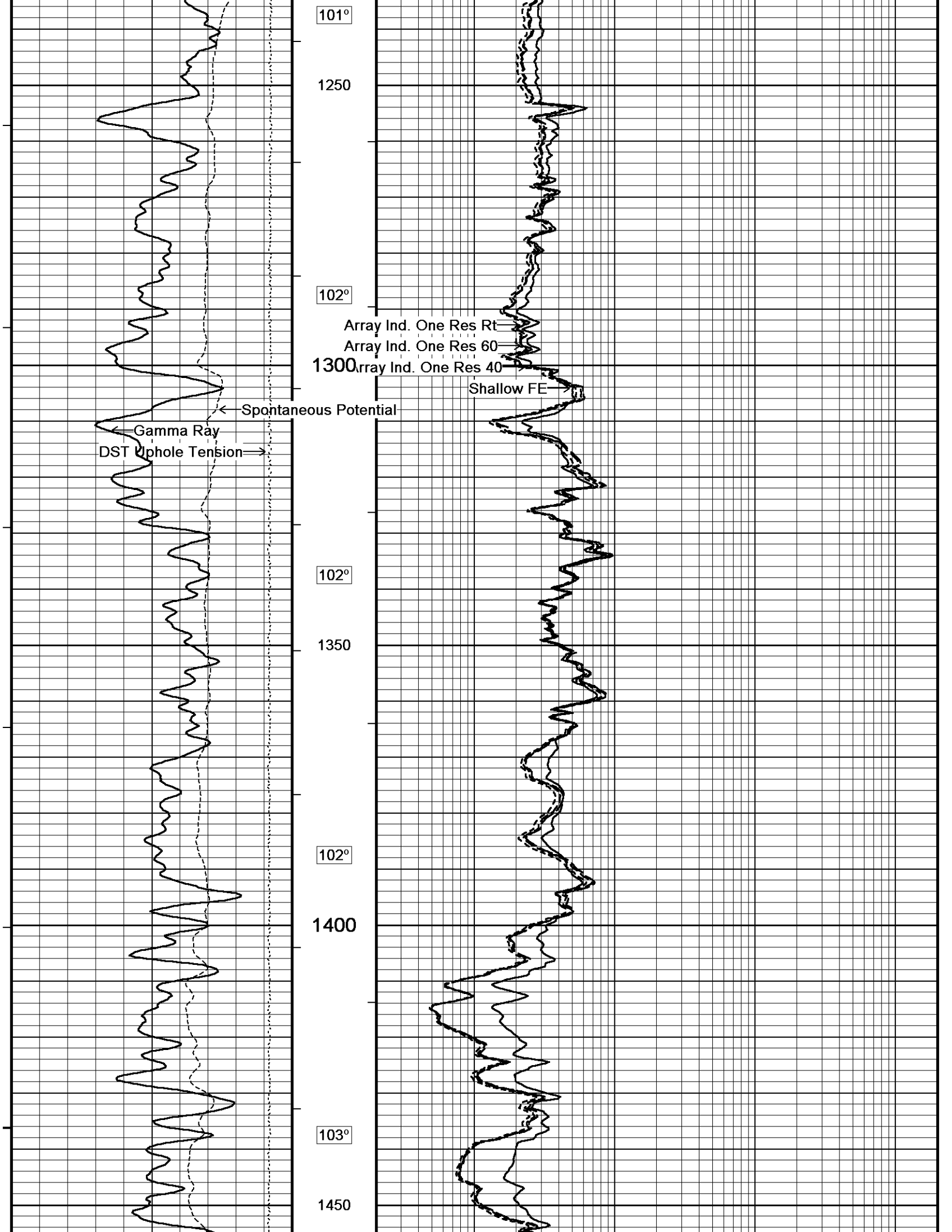


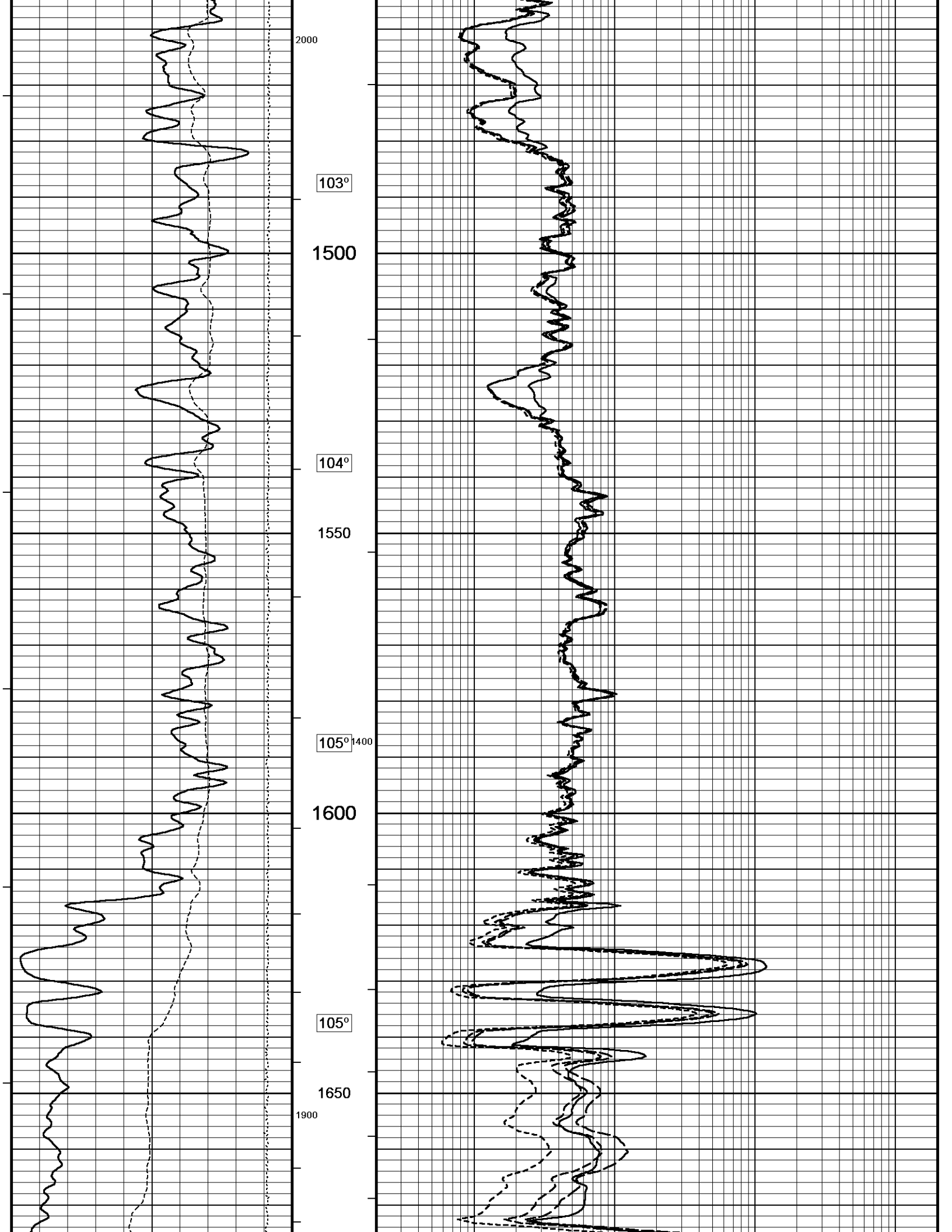

1
10
100
1000
Array Ind. One Res Rt
ohm metres
0.20
2000
DST Uphole Tension
pounds
5000
0
Replay
Scale
1:240
384
Casing
Shoe
2500
400
98°
450
97°
500
96°
1700
550
Array Ind. One Res Rt
Array Ind. One Res 60
Array Ind. One Res 40
Shallow FE
Spontaneous Potential
Gamma Ray
DST Uphole Tension

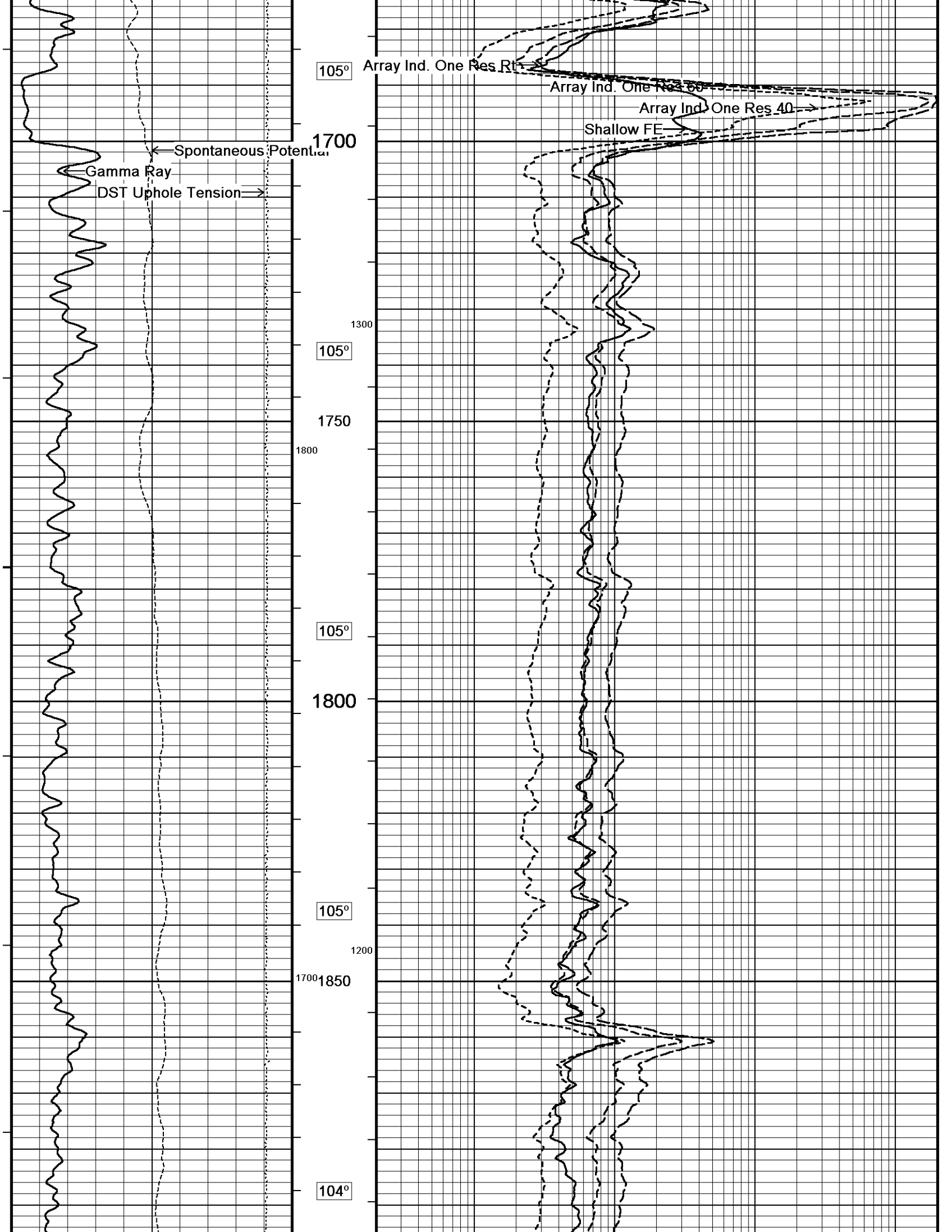

2400
97°
600
97°
650
97°
700
98°
750
98°

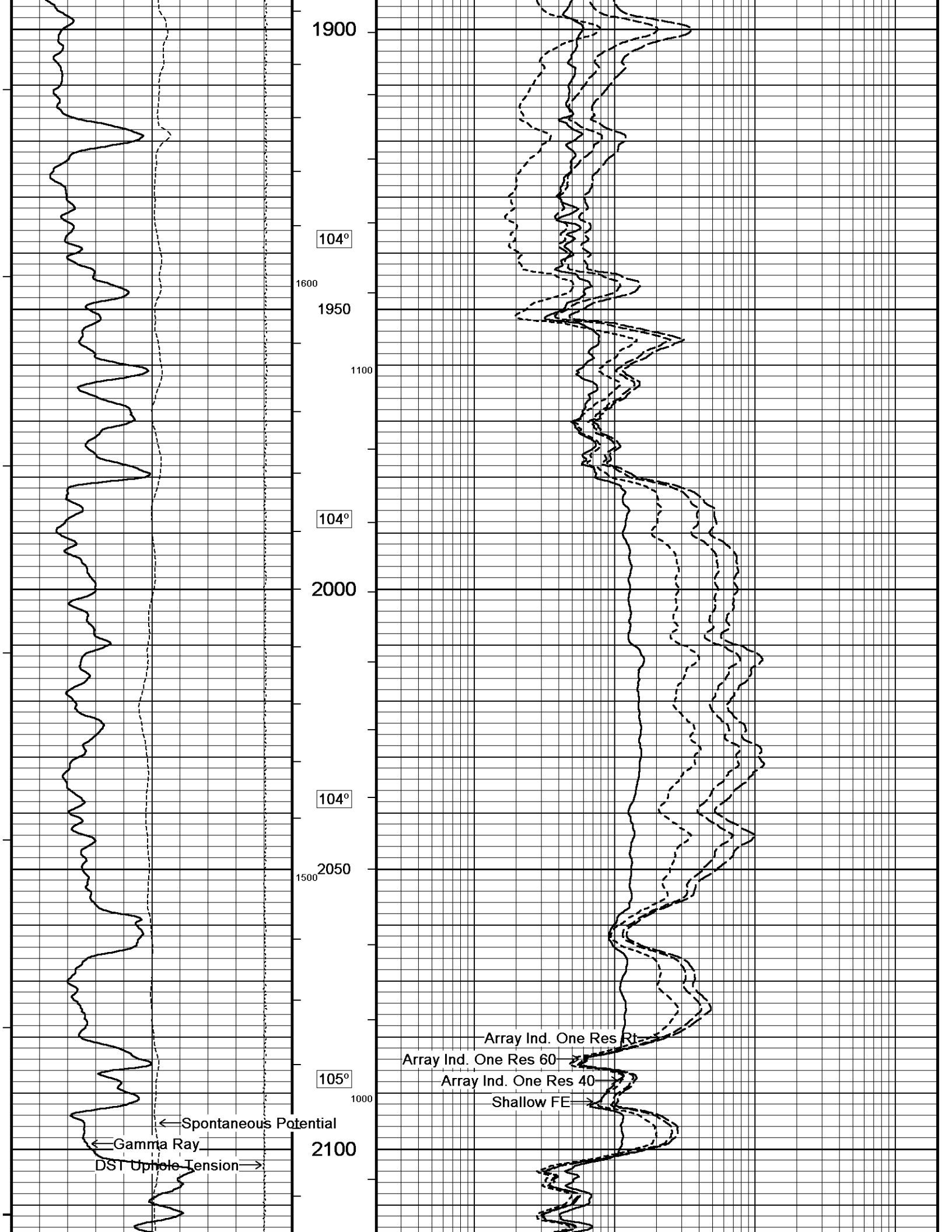

800
2300
99°
850
99°
1600
900
Array Ind. One Res 60
Array Ind. One Res 40
Shallow FE
Spontaneous Potential
Gamma Ray
DST Uphole Tension
100°
950
100°
1000

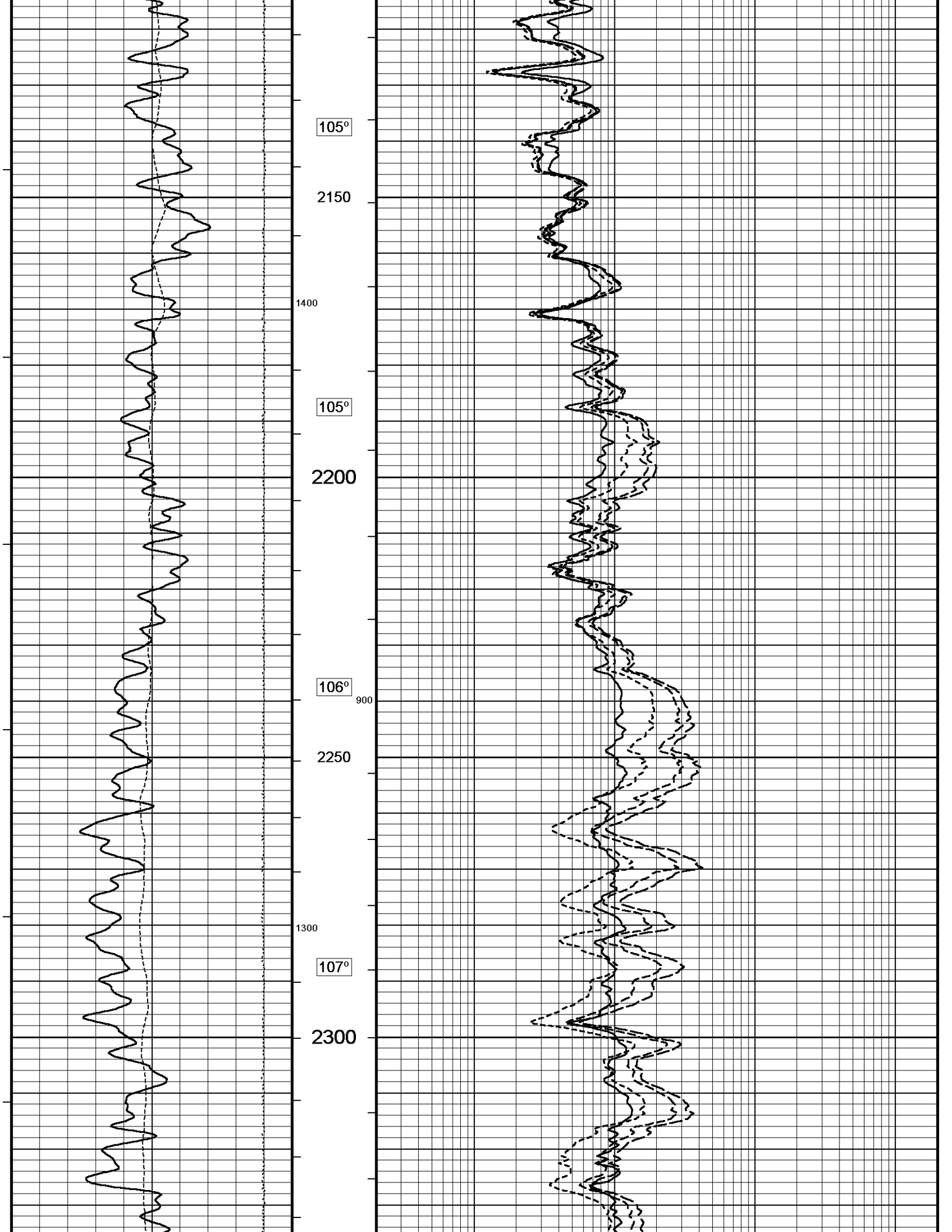

2200
100°
1050
101°
1100
101°
1150
101°
1500
1200
2100

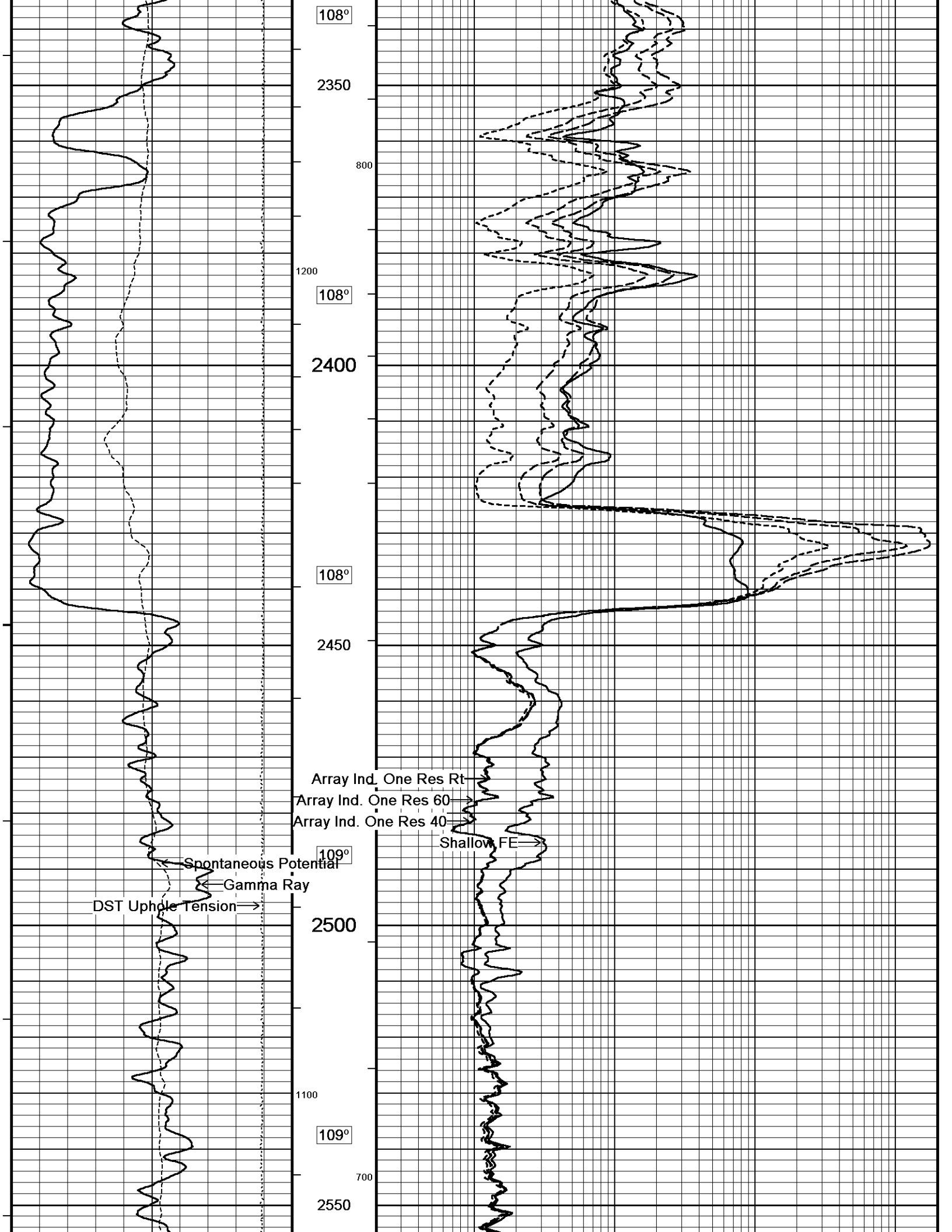

101°
1250
102°
Array Ind. One Res Rt
Array Ind. One Res 60
1300
rray Ind. One Res 40
Shallow FE
Spontaneous Potential
Gamma Ray
DST Uphole Tension
102°
1350
102°
1400
103°
1450

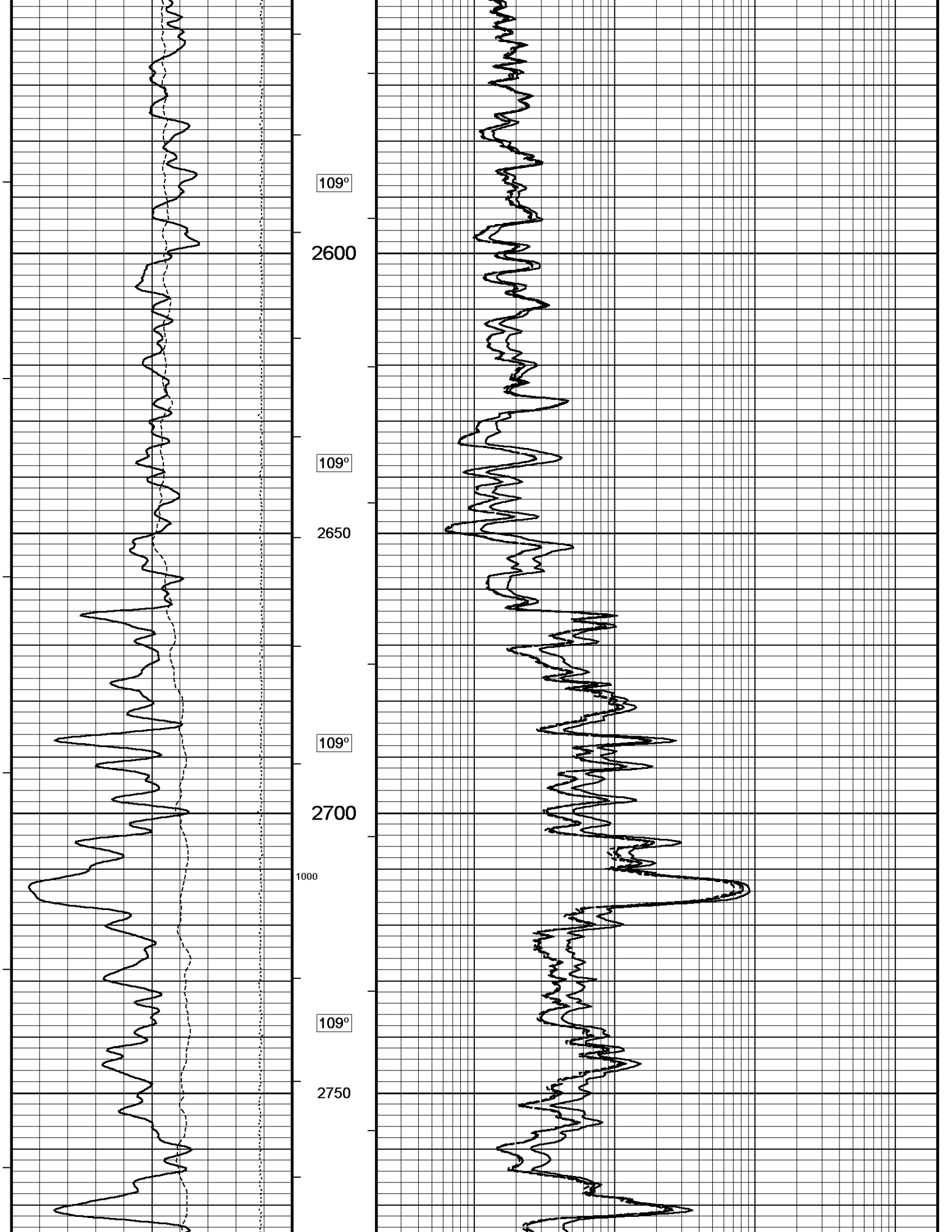

2000
103°
1500
104°
1550
105°
1400
1600
105°
1650
1900

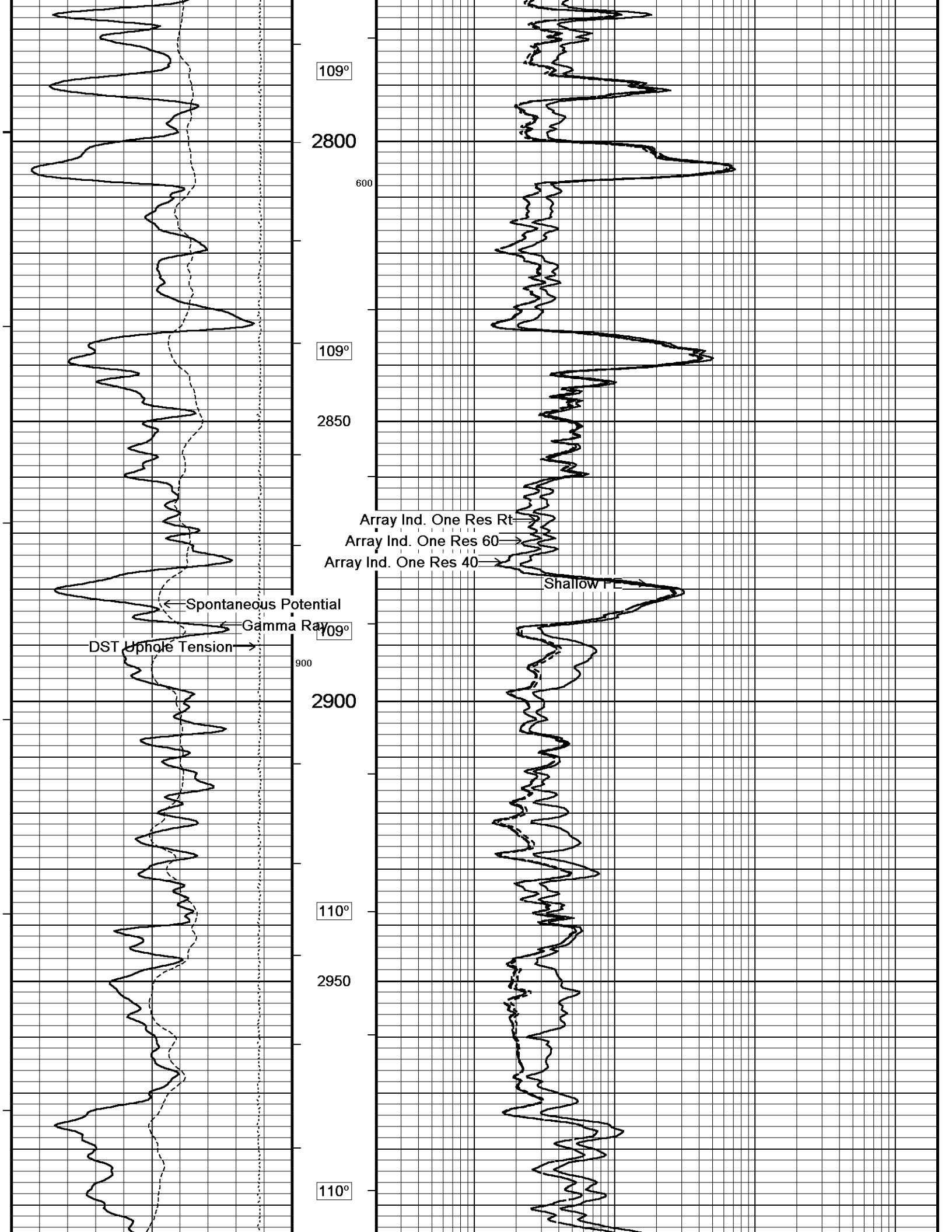

Array Ind. One Res Rt
Array Ind. One Res 60
Array Ind. One Res 40
Shallow FE
Spontaneous Potential
Gamma Ray
DST Uphole Tension
105°
105°
105°
105°
104°
1700
1750
1800
1850
1300
1800
1700
1200

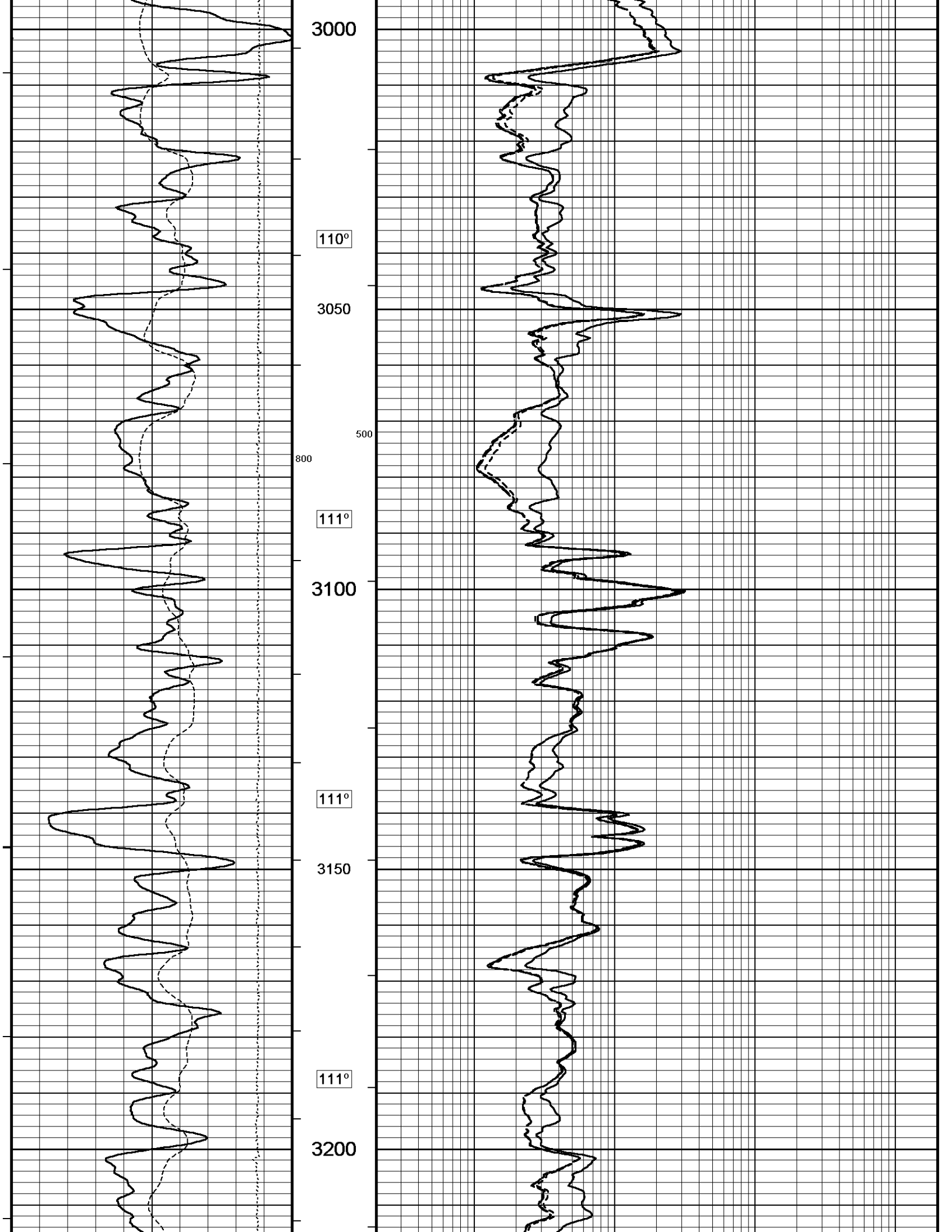

1900
104°
1600
1950
1100
104°
2000
104°
1500
2050
105°
1000
2100
⟸Spontaneous Potential
⟸Gamma Ray
DST Uphole Tension⟹
Array Ind. One Res Rt
Array Ind. One Res 60
Array Ind. One Res 40
Shallow FE

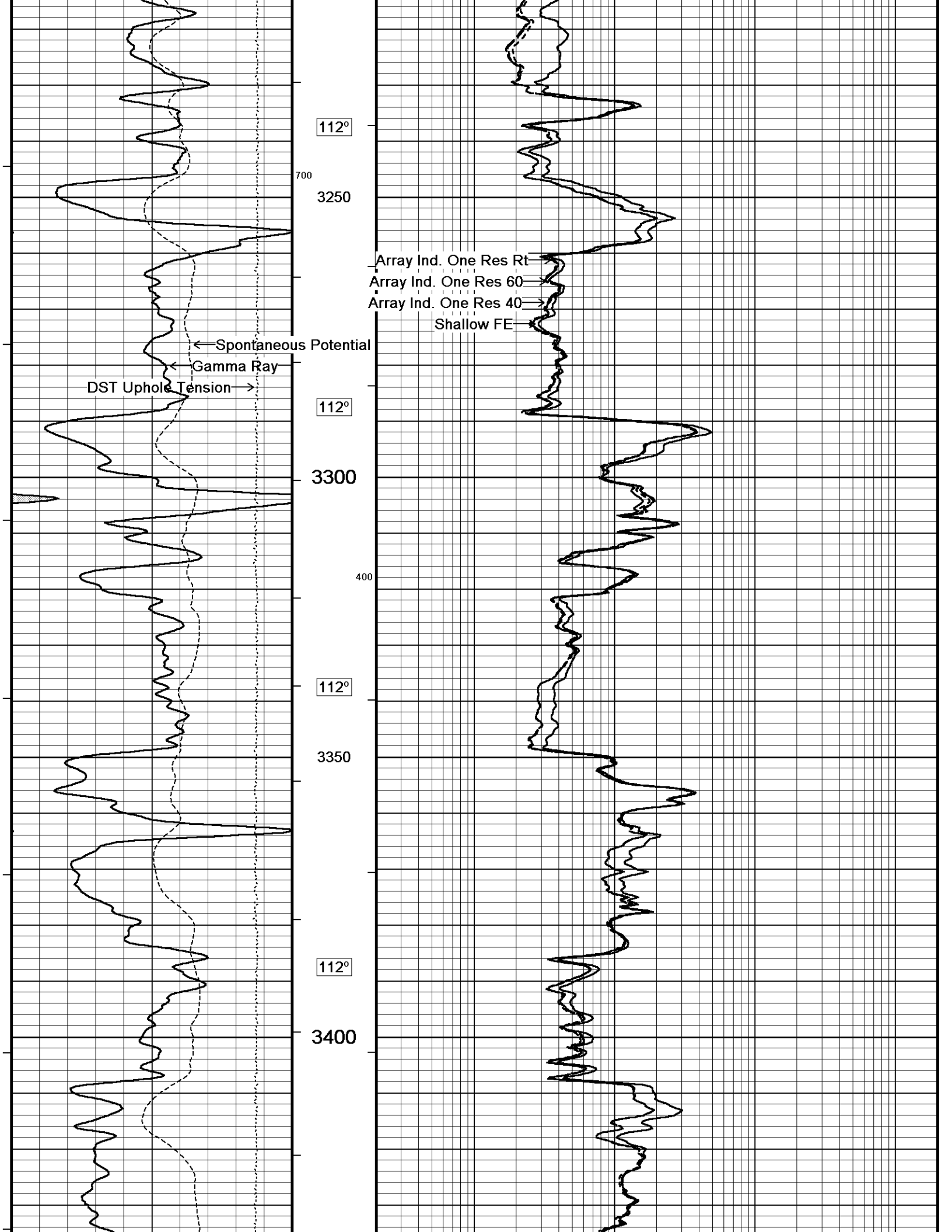

105°
2150
1400
105°
2200
106°
900
2250
1300
107°
2300

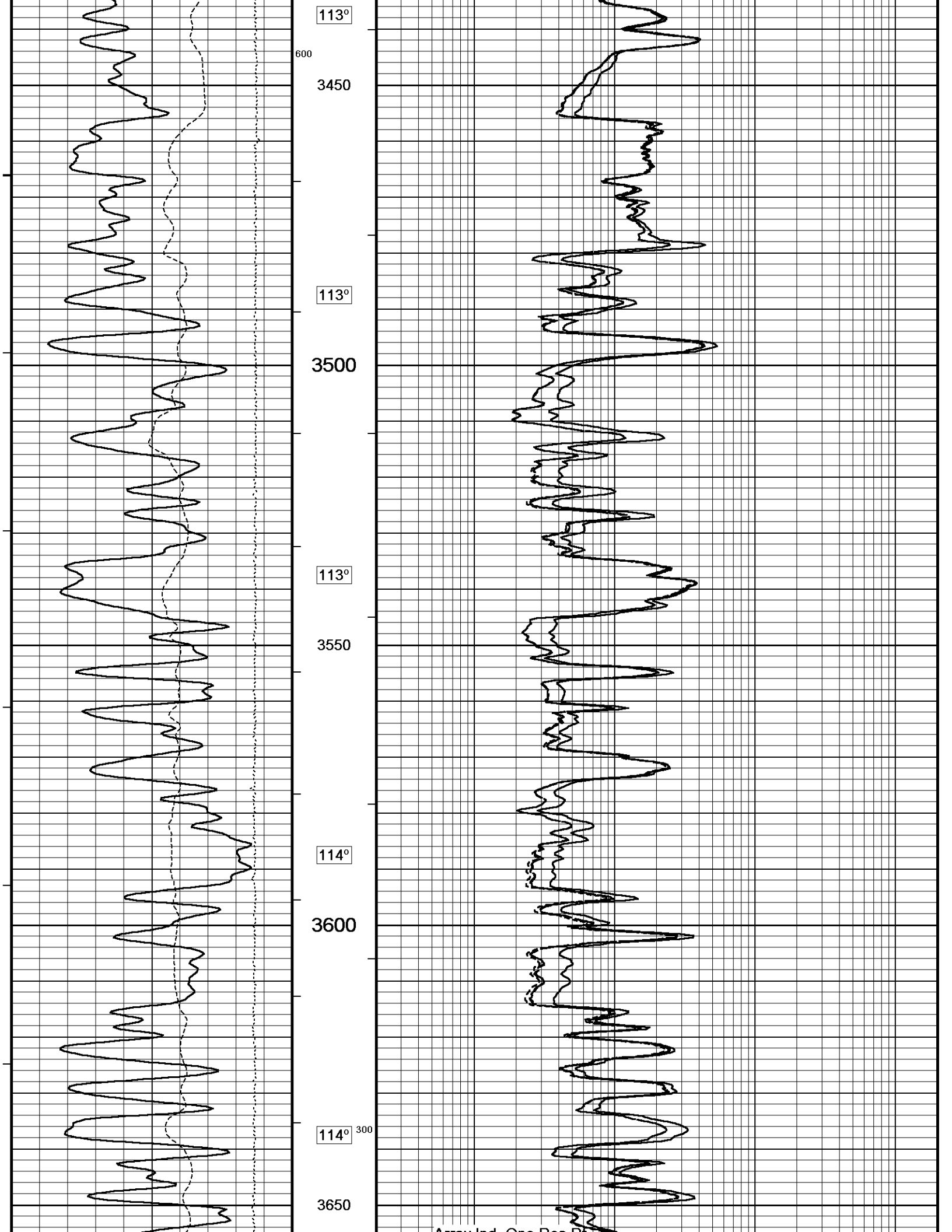

108°
2350
800
1200
108°
2400
108°
2450
Array Ind. One Res Rt
Array Ind. One Res 60
Array Ind. One Res 40
Shallow FE
109°
Spontaneous Potential
Gamma Ray
DST Uphole Tension
2500
1100
109°
700
2550

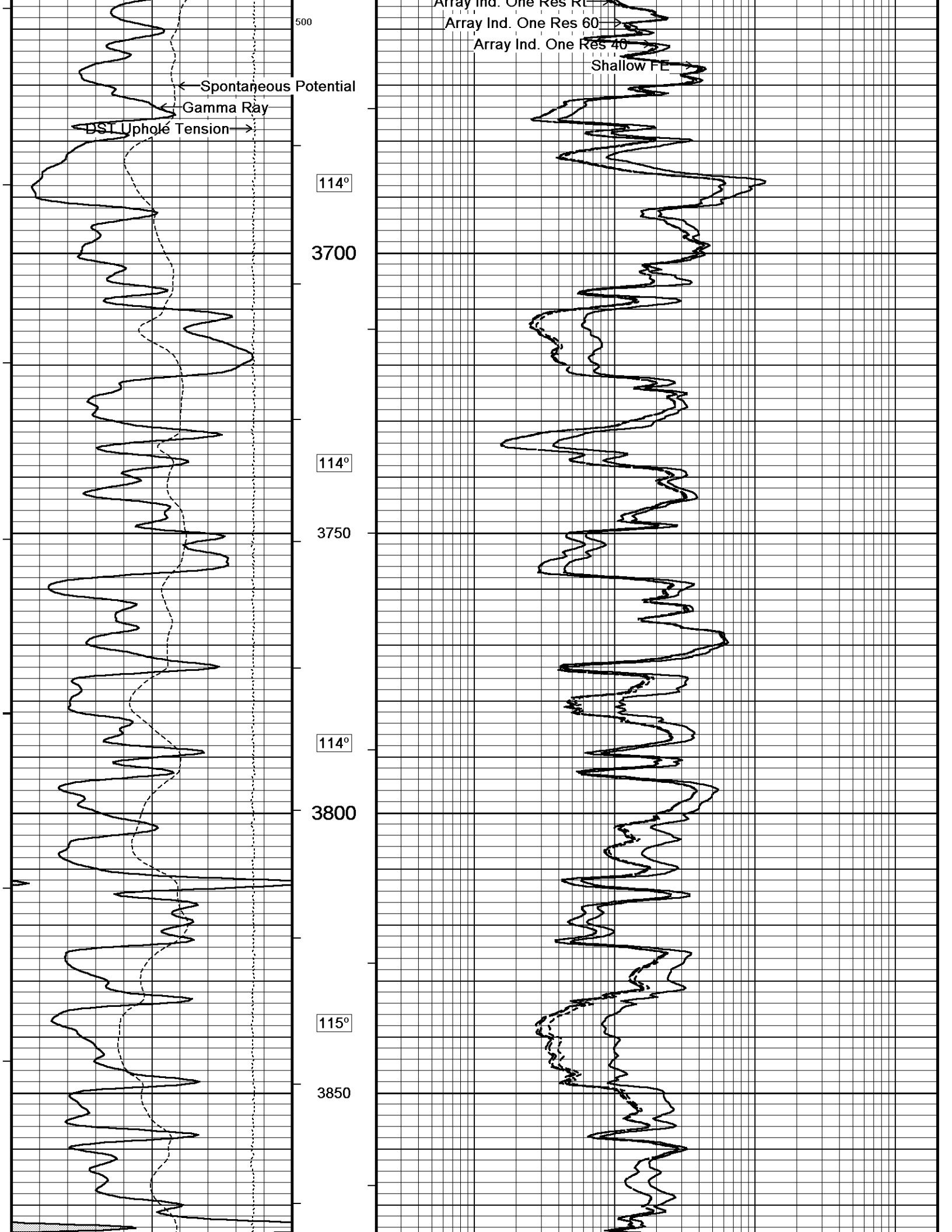

109°
2600
109°
2650
109°
2700
1000
109°
2750

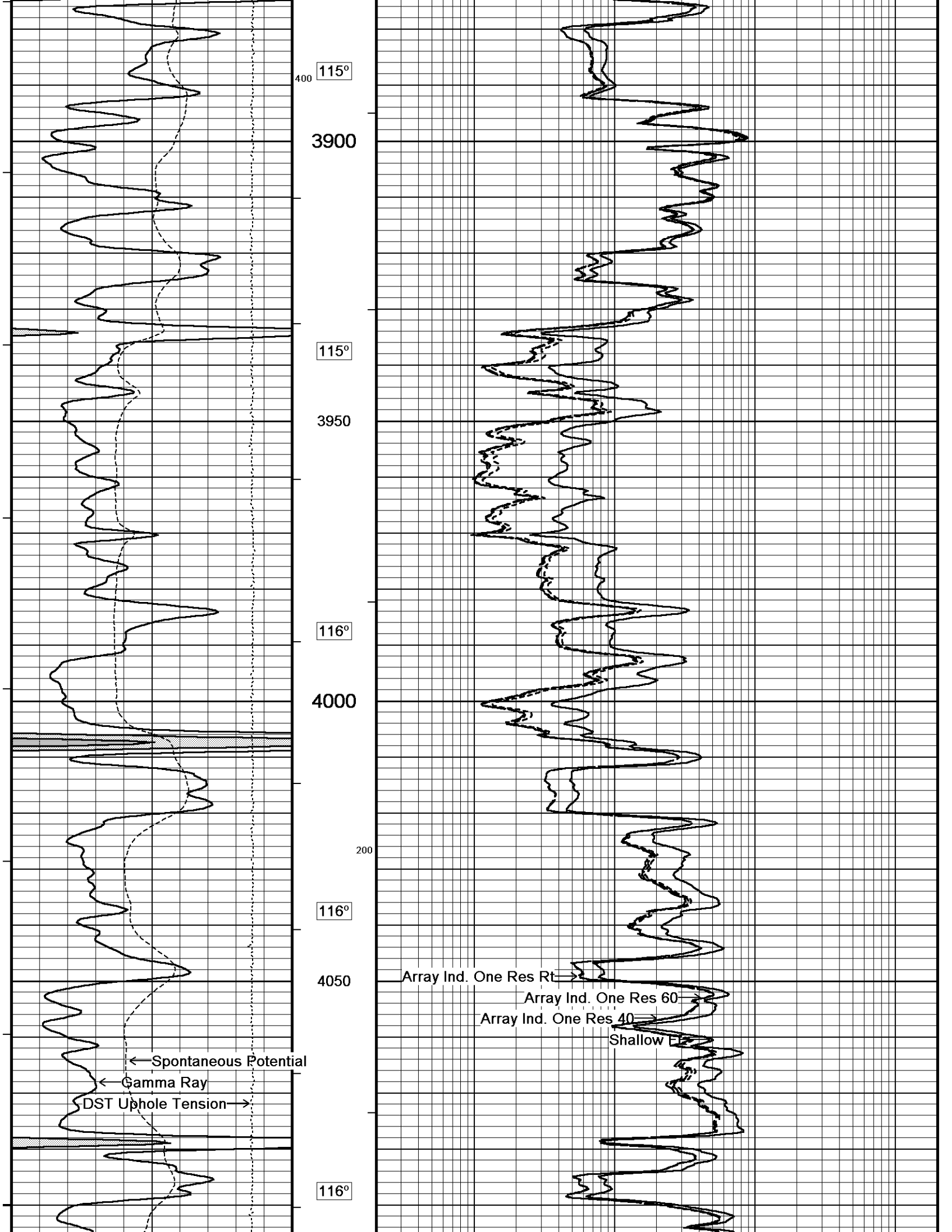

109°
2800
600
109°
2850
Array Ind. One Res Rt
Array Ind. One Res 60
Array Ind. One Res 40
Shallow FE
Spontaneous Potential
Gamma Ray
DST Uphole Tension
109°
900
2900
110°
2950
110°

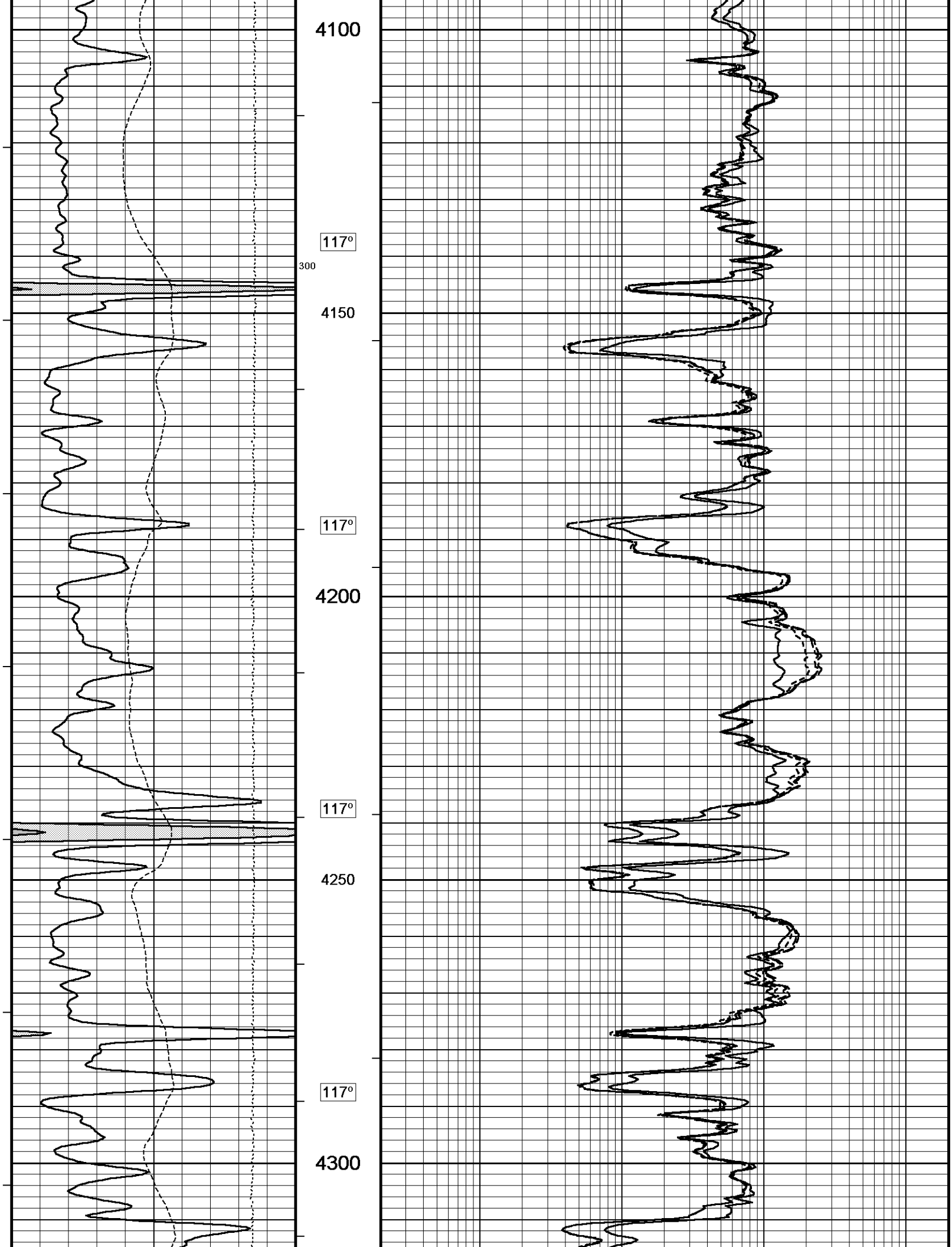

3000
110°
3050
500
800
111°
3100
111°
3150
111°
3200

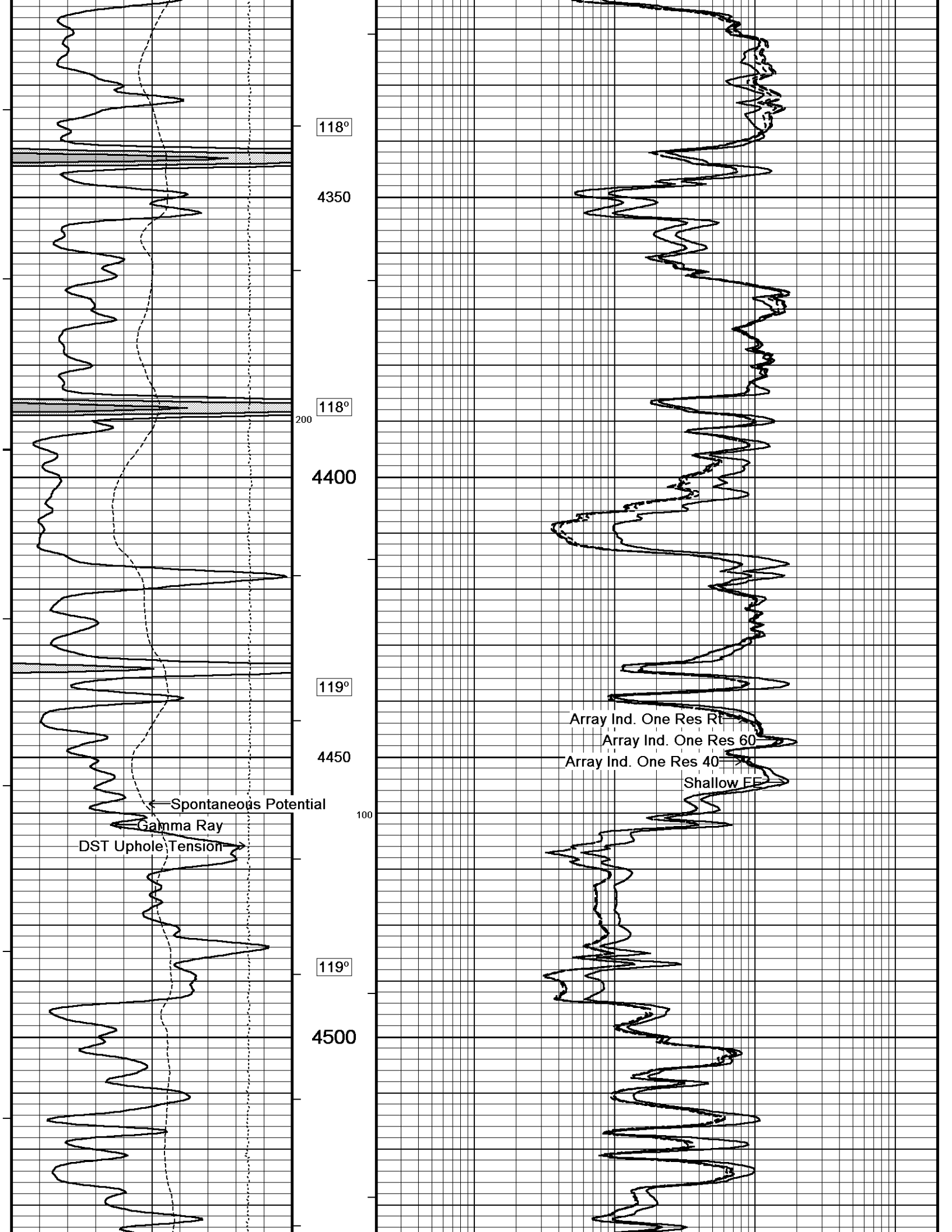

112°
700
3250
Array Ind. One Res Rt
Array Ind. One Res 60
Array Ind. One Res 40
Shallow FE
Spontaneous Potential
Gamma Ray
DST Uphole Tension
112°
3300
400
112°
3350
112°
3400

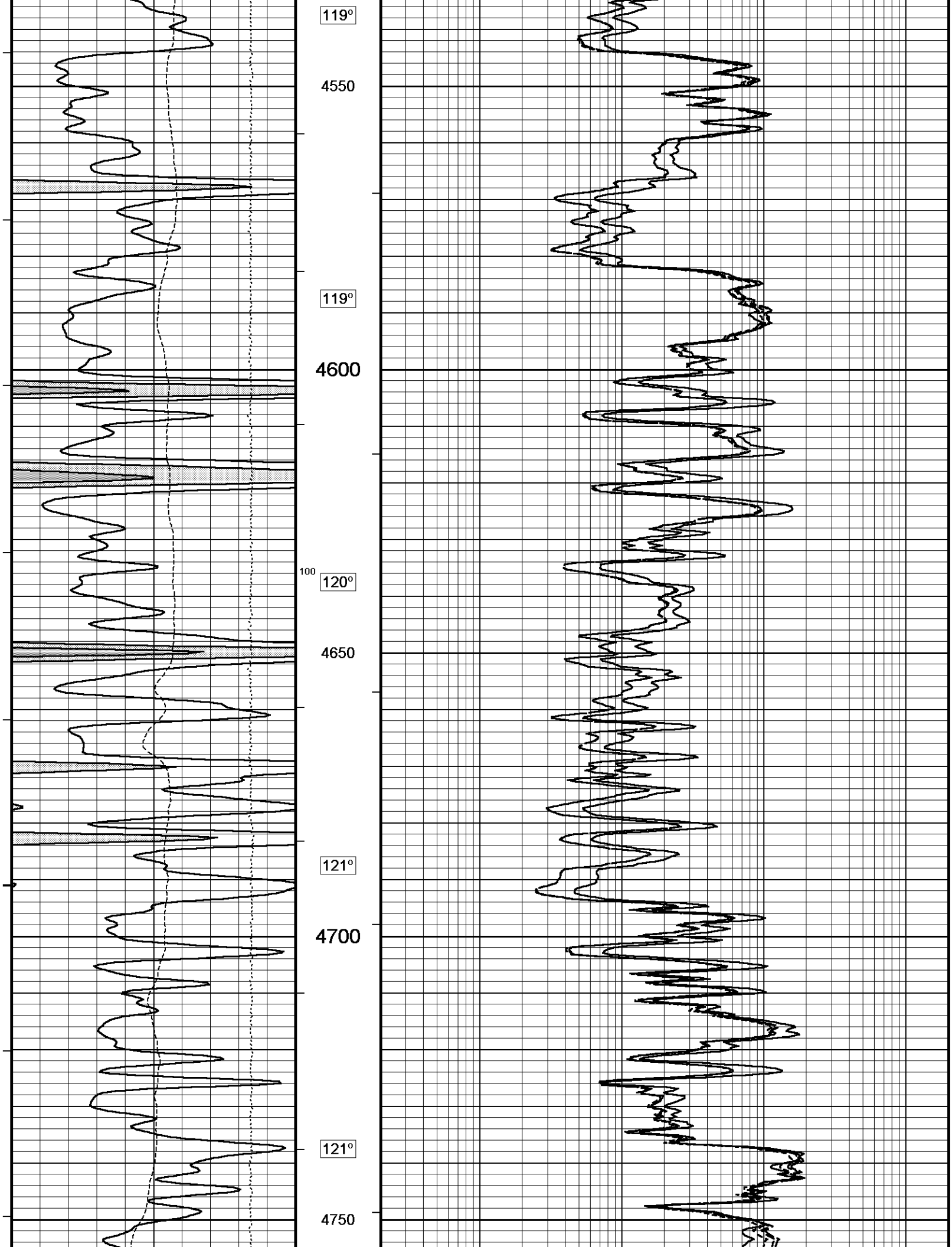

113°
600
3450
113°
3500
113°
3550
114°
3600
114°
300
3650

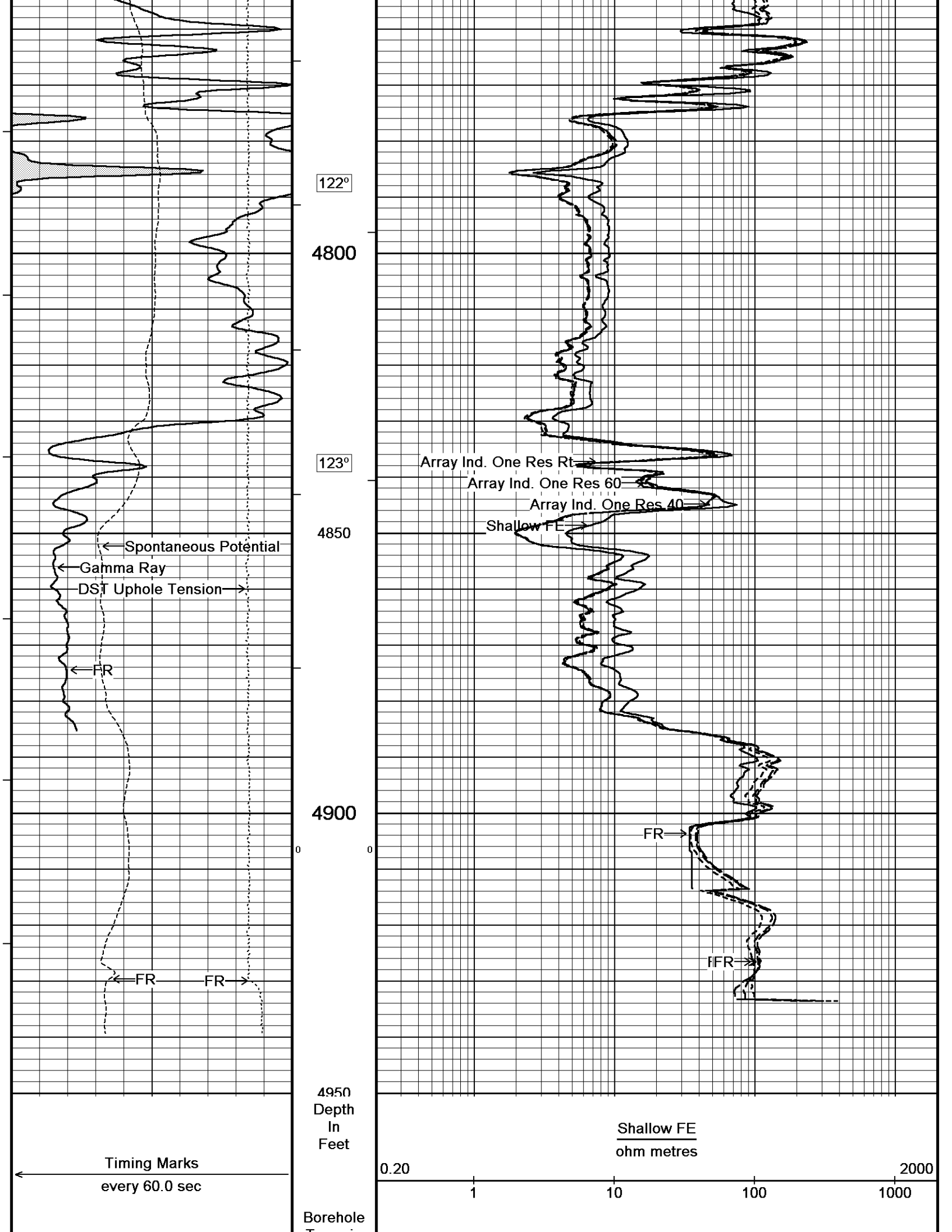

Array Ind. One Res RT
Array Ind. One Res 60
Array Ind. One Res 40
Shallow FE
500
Spontaneous Potential
Gamma Ray
DST Uphole Tension
114°
3700
114°
3750
114°
3800
115°
3850


400
115°
3900
115°
3950
116°
4000
200
116°
4050
116°
Array Ind. One Res Rt
Array Ind. One Res 60
Array Ind. One Res 40
Shallow Fl
Spontaneous Potential
Gamma Ray
DST Uphole Tension


4100
117°
300
4150
117°
4200
117°
4250
117°
4300


118°
4350
118°
200
4400
119°
4450
Spontaneous Potential
Gamma Ray
DST Uphole Tension
100
119°
4500
Array Ind. One Res Rt
Array Ind. One Res 60
Array Ind. One Res 40
Shallow EE


119°
4550
119°
4600
100
120°
4650
121°
4700
121°
4750


122°
4800
123°
4850
4900
4950
Spontaneous Potential
Gamma Ray
DST Uphole Tension
FR
FR
FR
Array Ind. One Res Rt
Array Ind. One Res 60
Array Ind. One Res 40
Shallow FE
FR
FR
0
0
Depth
In
Feet
Timing Marks
every 60.0 sec
Shallow FE
ohm metres
0.20
2000
1
10
100
1000
Borehole

Temp in deg F

Gamma Ray
API
0 75 150
150 225 300

HVI every 10 cu ft

Array Ind. One Res 40
ohm metres
0.20 2000
1 10 100 1000

Spontaneous Potential
millivolts
− → | 20 | ← +

Annular Integral every 10 cu ft

Array Ind. One Res 60
ohm metres
0.20 2000
1 10 100 1000

DST Uphole Tension
pounds
5000 0

Replay Scale 1:240

Array Ind. One Res Rt
ohm metres
0.20 2000
1 10 100 1000

Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 11-JUN-2013 21:47
Filename: C:\Minimus 13.05.9583\Logs\Stelbar Hess 1-31\Stelbar Hess 1-31_003.dta
Recorded on 11-JUN-2013 18:07
System Versions: Logged with 13.05.9583 Processed with 13.05.9583 Plotted with 13.05.9583

5 INCH MAIN

REPEAT SECTION

Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 11-JUN-2013 21:47
Filename: C:\Minimus 13.05.9583\Logs\Stelbar Hess 1-31\Stelbar Hess 1-31_002.dta
Recorded on 11-JUN-2013 17:41
System Versions: Logged with 13.05.9583 Processed with 13.05.9583 Plotted with 13.05.9583

Depth in Feet

Timing Marks
every 60.0 sec

Shallow FE
ohm metres
0.20 2000
1 10 100 1000

Borehole Temp in deg F

Gamma Ray
API
0 75 150
150 225 300

HVI every 10 cu ft

Array Ind. One Res 40
ohm metres
0.20 2000
1 10 100 1000

Spontaneous Potential
millivolts
− → | 20 | ← +

Annular Integral every 10 cu ft

Array Ind. One Res 60
ohm metres
0.20 2000
1 10 100 1000

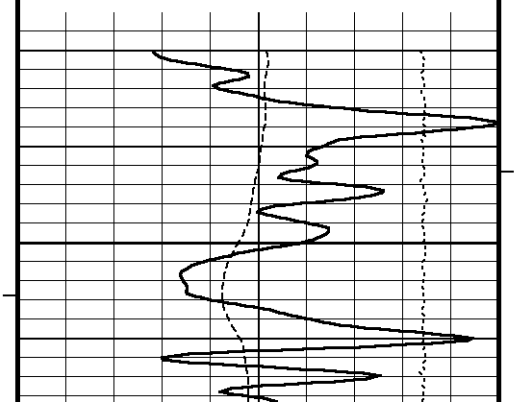
DST Uphole Tension
pounds
5000 0

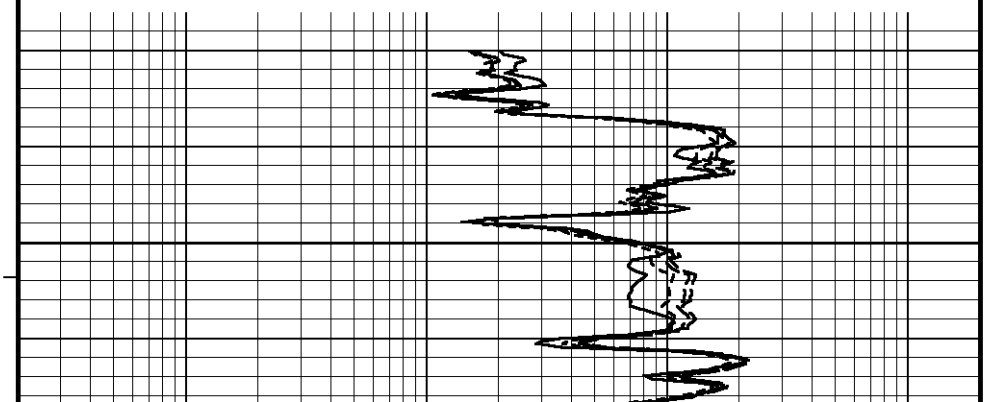
Replay Scale 1:240

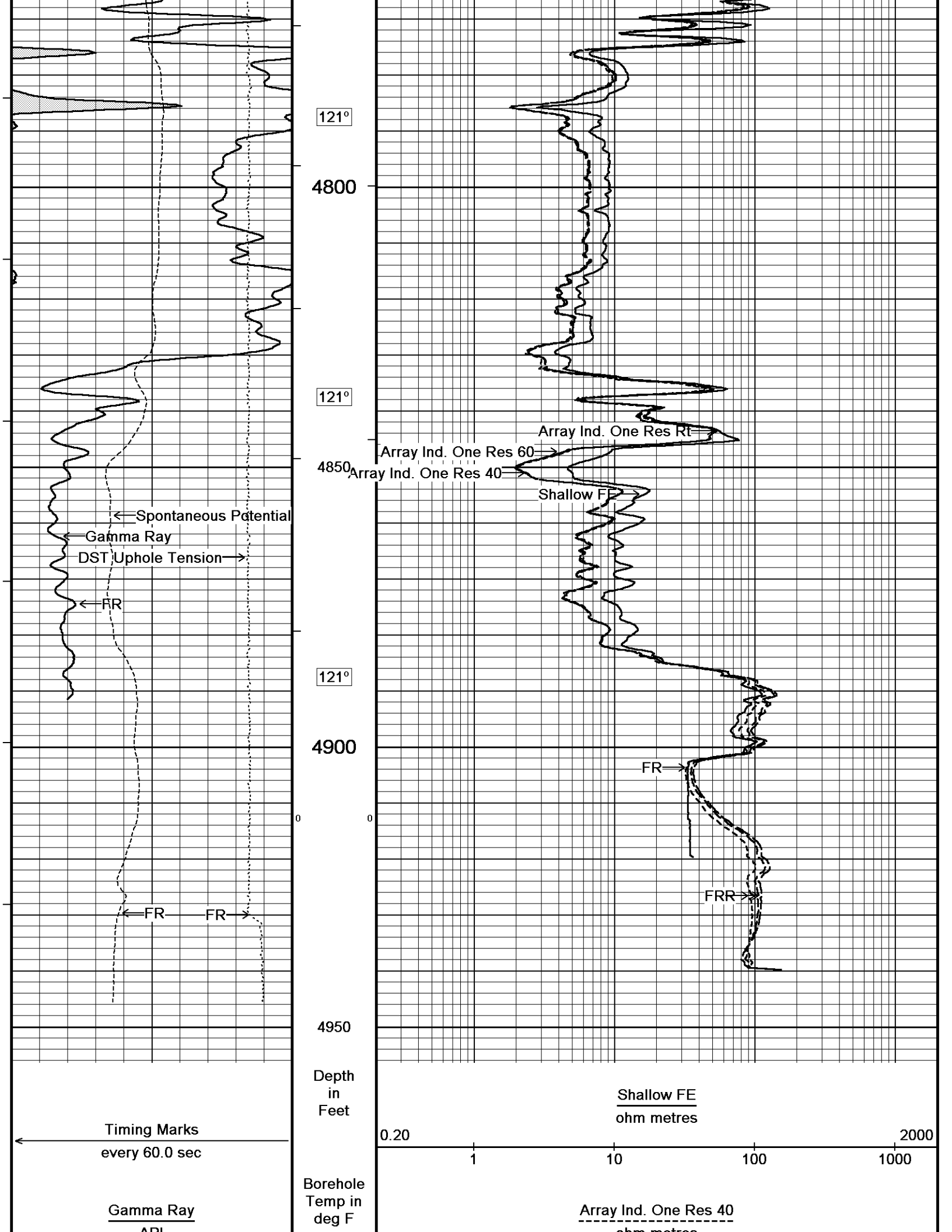
Array Ind. One Res Rt
ohm metres
0.20 2000
1 10 100 1000

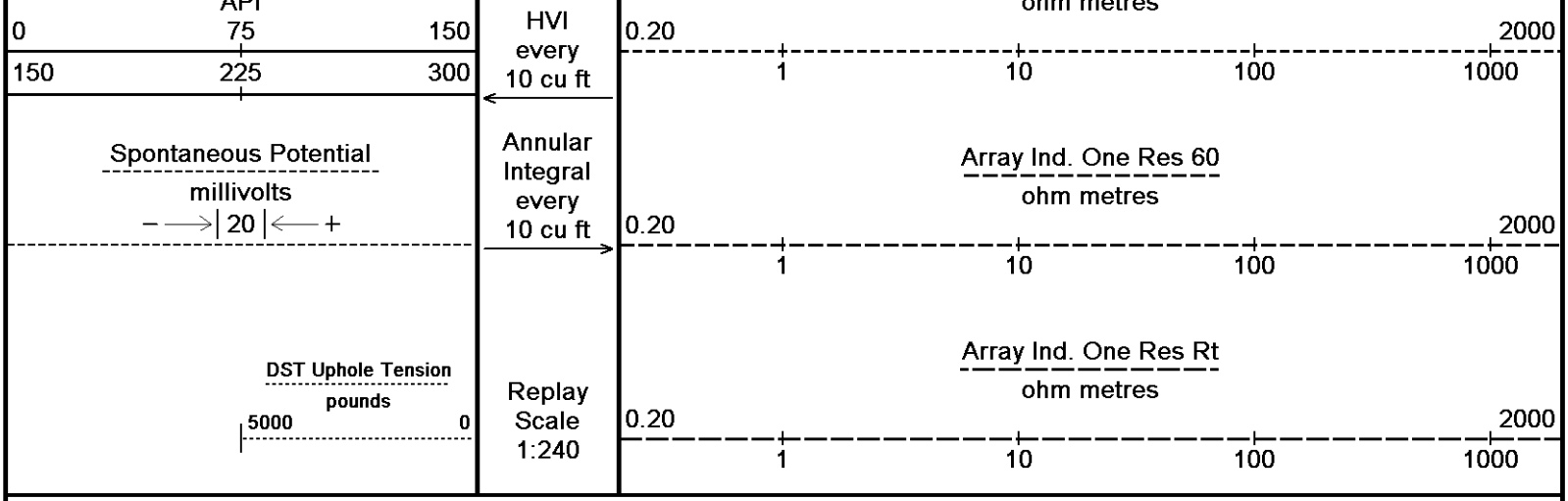
4728

4750






121°
4800
121°
Array Ind. One Res Rt
Array Ind. One Res 60
4850
Array Ind. One Res 40
Shallow FE
Spontaneous Potential
Gamma Ray
DST Uphole Tension
FR
121°
4900
FR
0
0
FR
FR
FRR
4950
Depth
in
Feet
Timing Marks
every 60.0 sec
Shallow FE
ohm metres
0.20
2000
1
10
100
1000
Borehole
Temp in
deg F
Gamma Ray
API
Array Ind. One Res 40
ohm metres



Depth Based Data - Maximum Sampling Increment 10.0cm — Plotted on 11-JUN-2013 21:47

Filename: C:\Minimus 13.05.9583\Logs\Stelbar Hess 1-31\Stelbar Hess 1-31_002.dta — Recorded on 11-JUN-2013 17:41

System Versions: Logged with 13.05.9583 Processed with 13.05.9583 Plotted with 13.05.9583

REPEAT SECTION

BEFORE SURVEY CALIBRATION

C:\Minimus 13.05.9583\Logs\Stelbar Hess 1-31\Stelbar Hess 1-31_002.dta

General Constants All 000

Last Edited on 11-JUN-2013,15:21

General Parameters		
Mud Resistivity	0.580	ohm-metres
Mud Resistivity Temperature	90.000	degrees F
Water Level	0.000	feet
Borehole Fluid Processing	Wet Hole	
Hole/Annular Volume and Differential Caliper Parameters		
HVOL Method	Single Caliper	
HVOL Caliper 1	Density Caliper	
HVOL Caliper 2	N/A	
Annular Volume Diameter	5.500	inches
Caliper for Differential Caliper	Density Caliper	
Rwa Parameters		
Porosity used	Base Density Porosity	
Resistivity used	Array Ind. Six Res Rt	
RWA Constant A	0.610	
RWA Constant M	2.150	
SW/APOR Tool Source	0.000	

Gamma Calibration MCG-C 208

Field Calibration on 11-JUN-2013 09:43

	Measured	Calibrated (API)
Background	67	46
Calibrator (Gross)	1140	771
Calibrator (Net)	1072	725

Gamma Constants MCG-C 208

Last Edited on 11-JUN-2013,15:21

Gamma Calibrator Number	GRC038	
Mud Density	1.10	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Eccentred	
Concentration of KCl		kppm
K Mud Type	Chloride	
K Mud Concentration	0.00	%

High Resolution Temperature Calibration MCG-C 208

Field Calibration on 07-JUN-2013,09:16

	Measured	Calibrated(Deg F)
Lower	50.00	50.00
Upper	75.00	75.00

High Resolution Temperature Constants MCG-C 208

Last Edited on 07-JUN-2013,09:15

Pre-filter Length	11

FE Calibration MFE-B.J 352

Base Calibration on 16-MAY-2013 15:06
Field Check on 11-JUN-2013 09:24

Base Calibration

	Measured	Calibrated (ohm-m)
Reference 1	0.0	0.0
Reference 2	963.9	126.8
Base Check		281.3
Field Check		281.3

FE Constants MFE-B.J 352

Last Edited on 11-JUN-2013,15:20

Running Mode	No Sleeve	
MFE K Factor	0.1268	
Caliper Source for FE correction	Density Caliper	
Caliper Value for FE correction	N/A	inches
Rm Source for FE correction	Temperature Corr	
Temp. for Rm Corr.	MCG External Temperature	
Stand-off	0.5	inches

Induction Calibration MAI-A.A 45

Base Calibration on 21-MAY-2013,16:47
Field Check on 11-JUN-2013 09:22

Base Calibration

Test Loop Calibration

Channel	Measured Low	Measured High	Calibrated (mmho/m) Low	Calibrated (mmho/m) High
1	14.4	472.6	9.3	966.2
2	5.7	374.0	7.6	821.4
3	3.4	261.2	5.2	566.0
4	2.5	133.9	2.6	279.2

Array Temperature 0.0 Deg F

Channel	Base Check (mmho/m) Low	Base Check (mmho/m) High	Field Check (mmho/m) Low	Field Check (mmho/m) High
1			19.6	3852.6
2			32.0	3629.9
3			28.8	3049.8
4			18.4	2079.3
Deep			16.2	1911.4
Medium			42.5	4061.1
Shallow			50.0	5484.0

Array Temperature 81.1 Deg F

Induction Constants MAI-A.A 45

Last Edited on 11-JUN-2013,18:01

Induction Model	RtAP-WBM	
Caliper for Borehole Corr.	Density Caliper	
Hole Size for Borehole Correction	N/A	inches
Tool Centred	No	
Stand-off Type	Fins	
Stand-off	0.50	inches
Number of Fins on Stand-off	8.0000	
Stand-off Fin Angle	45.00	degrees
Stand-off Fin Width	0.5000	inches
Borehole Corr. Rm Source	Temperature Corr	
Temp. for Rm Corr.	MCG External Temperature	
Squasher Start	0.0020	mhos/metre
Squasher Offset	N/A	mhos/metre

Borehole Normalisation

DRM1	0.0000	DRC1	0.0000
DRM2	0.0000	DRC2	0.0000
MRM1	0.0000	MRC1	0.0000
MRM2	0.0000	MRC2	0.0000
SRM1	0.0000	SRC1	0.0000
SRM2	0.0000	SRC2	0.0000

Calibration Site Corrections		
Channel 1	0.00	mmhos/metre
Channel 2	0.00	mmhos/metre
Channel 3	0.00	mmhos/metre
Channel 4	0.00	mmhos/metre

Apparent Porosity and Water Saturation Constants		
Archie Constant (A)	1.00	
Cementation Exponent (M)	2.00	
Saturation Exponent (N)	2.00	
Saturation of Water for Apor	100.00	percent
Resistivity of Water for Apor and Sw	0.05	ohm-m
Resistivity of Mud Filtrate for Sw	0.00	ohm-m
Source for Rt	0.00	
Source for Rxo	0.00	

Caliper Calibration MPD-B 31

Base Calibration on 19-MAY-2013 17:48
Field Calibration on 11-JUN-2013 09:25

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	17088	3.99
2	25888	5.98
3	34607	7.97
4	42944	9.86
5	52301	11.92
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
5.95	5.98

DOWNHOLE EQUIPMENT

C:\Minimus 13.05.9583\Logs\Stelbar Hess 1-31\Stelbar Hess 1-31_002.dta

3/8" Triple Cone Cable Head (MCB C A)
MCB-C.A 5 LG: 1.58 ft WT: 15.4 lb OD: 2.24 in

Compact Comms Gamma
MCG-C 208 LG: 8.70 ft WT: 63.9 lb OD: 2.24 in

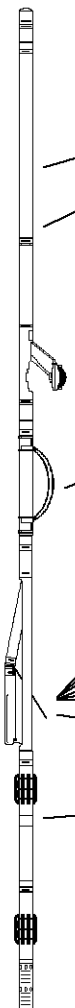
Compact Micro-log
MML-A 16 LG: 7.97 ft WT: 81.6 lb OD: 2.24 in

Compact Neutron
MDN-A.B 65 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in

Compact Density/Caliper
MPD-B 31 LG: 9.59 ft WT: 90.4 lb OD: 2.45 in

Compact Focussed Electric
MFE-B.J 352 LG: 6.05 ft WT: 48.5 lb OD: 2.24 in

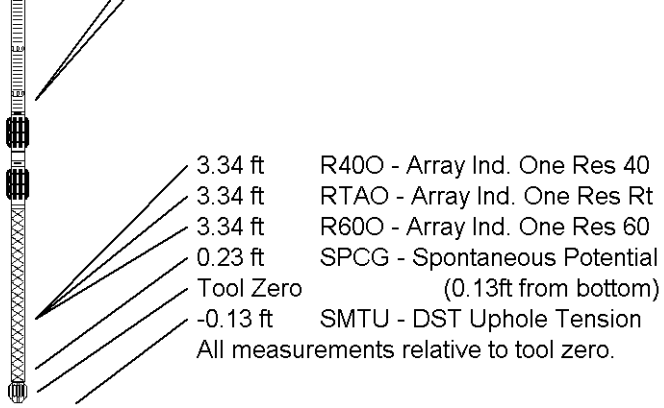
Compact Sonic
MSS-A.A 126 LG: 12.52 ft WT: 72.8 lb OD: 2.24 in



55.39 ft	GRGC - Gamma Ray
52.48 ft	CGXT - MCG External Temperature
45.76 ft	MINV - Micro-inverse
45.76 ft	MNRL - Micro-normal
46.76 ft	MLTC - MML Caliper
40.97 ft	NPRL - Limestone Neutron Por.
33.73 ft	AVOL - Annular Volume
33.73 ft	HVOL - Hole Volume
33.73 ft	CLDC - Density Caliper
31.80 ft	DPRL - Limestone Density Por.
31.80 ft	DEN - Compensated Density
31.80 ft	DCOR - Density Correction
31.74 ft	PDPE - PE
26.24 ft	FEFE - Shallow FE
12.96 ft	DT35 - 3-5' Compensated Sonic
12.96 ft	SPRL - Wyllie Lime. Sonic Por.

Compact Induction
MAI-A.A 45 LG: 10.81 ft WT: 48.5 lb OD: 2.24 in

Total Length: 62.25 ft Weight: 471.8 lb



COMPANY	STELBAR OIL CORPORATION, INC.
WELL	HESS #1-31
FIELD	WILDCAT
PROVINCE/COUNTY	SCOTT
COUNTRY/STATE	U.S.A. / KANSAS

Elevation Kelly Bushing	3088.00	feet	First Reading	4927.00	feet
Elevation Drill Floor	3087.00	feet	Depth Driller	4930.00	feet
Elevation Ground Level	3081.00	feet	Depth Logger	4930.00	feet

Weatherford®

ARRAY INDUCTION
SHALLOW FOCUSED
ELECTRIC LOG

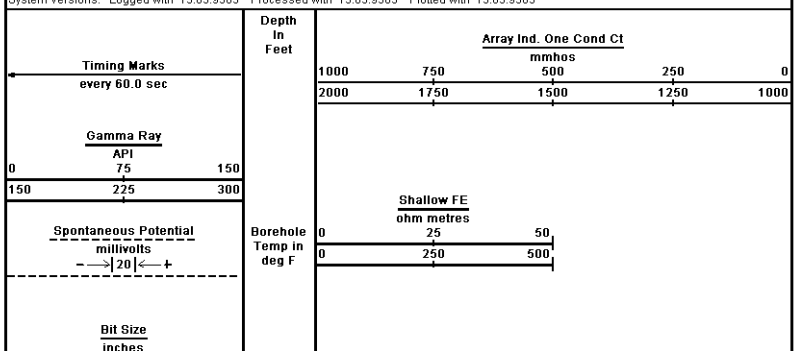
COMPANY	STELBAR OIL CORPORATION, INC.
WELL	HESS #1-31
FIELD	WILDCAT
PROVINCE/COUNTY	SCOTT
COUNTRY/STATE	U.S.A. / KANSAS
LOCATION	1162' FNL & 336' FWL
SEC	31
TWP	17S
RGE	33W
API Number	15-171-20944
Permanent Datum	GL Elevation 3081 feet
Log Measured From	KB
Drilling Measured From	KB
Other Services	MPD/MDN MSS
	MML
Elevations: KB	3088.00 feet
DF	3087.00
GL	3081.00

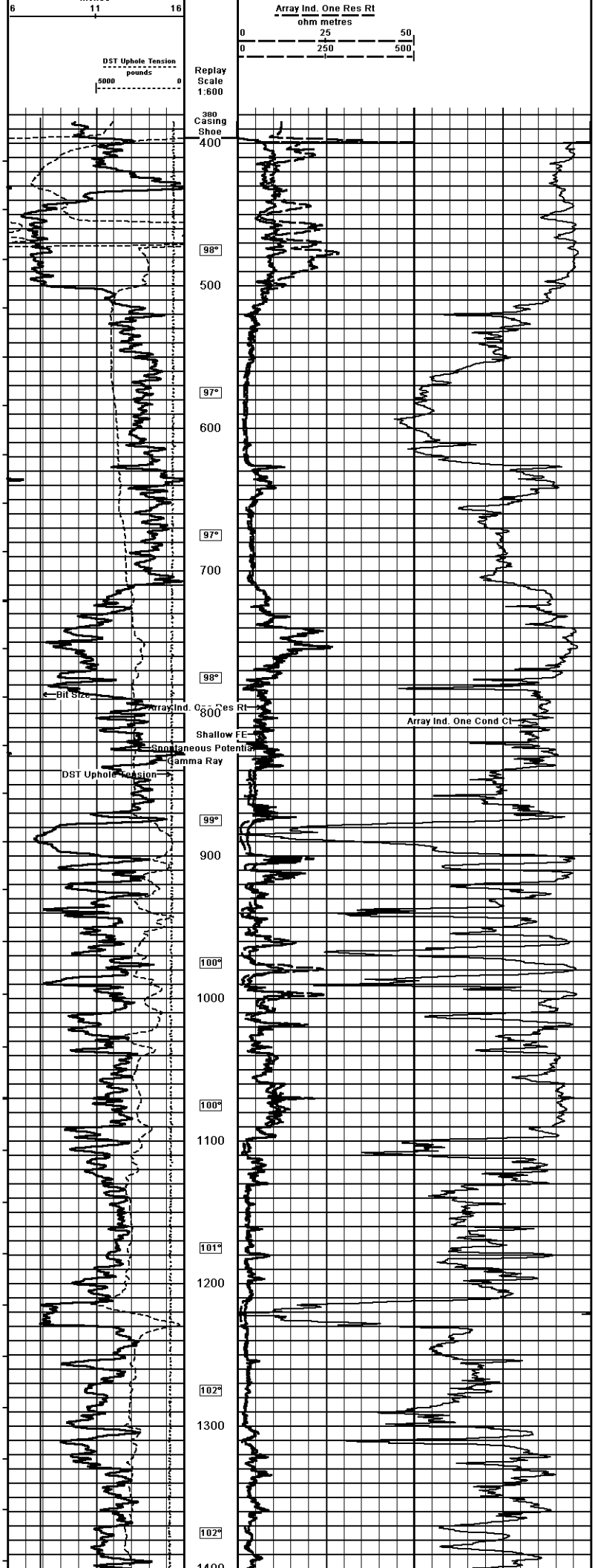
ARRAY INDUCTION
SHALLOW FOCUSED
ELECTRIC LOG

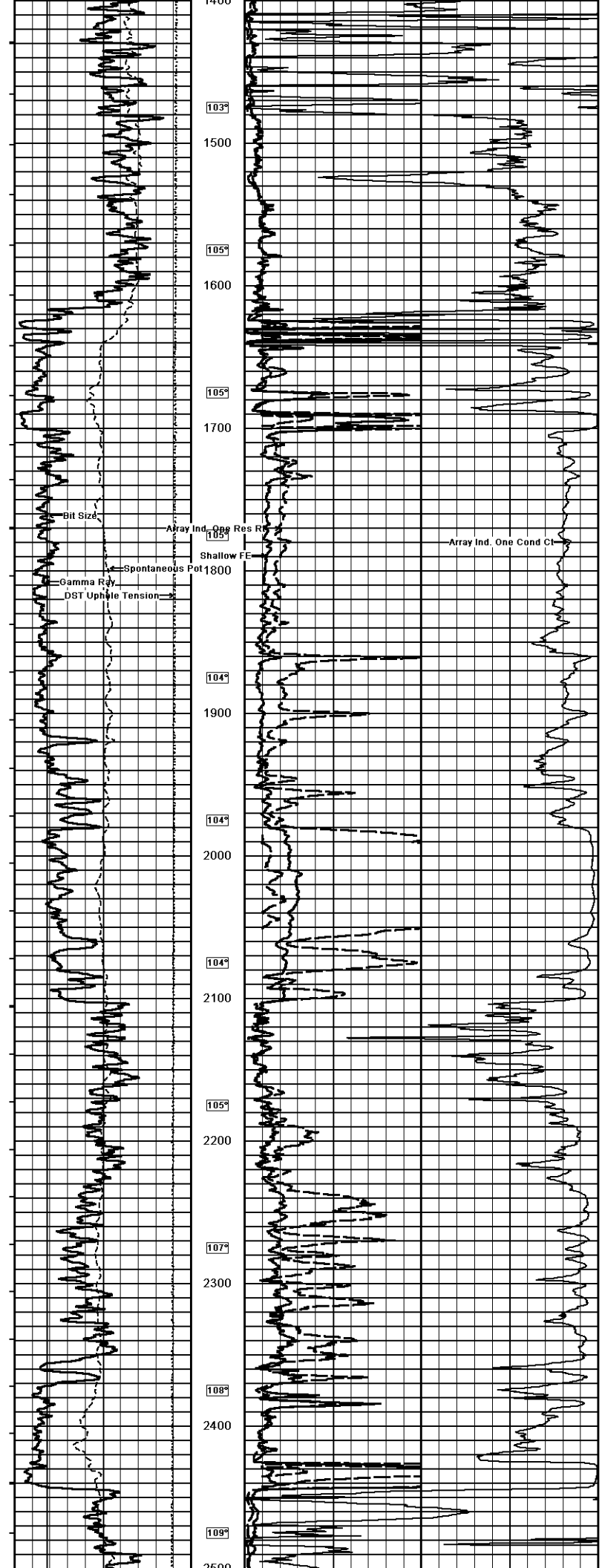
Date	11-JUN-2013		
Run Number	ONE		
Service Order	3539038		
Depth Driller	4930.00	feet	
Depth Logger	4930.00	feet	
First Reading	4927.00	feet	
Last Reading	396.00	feet	
Casing Driller	390.00	feet	
Casing Logger	396.00	feet	
Bit Size	7.875	inches	
Hole Fluid Type	CHEMICAL		
Density/Viscosity	9.20 lbt/USg	53.00 CP	
PH / Fluid Loss	10.00	8.80 ml/30Min	
Sample Source	MUDPIT		
Rm @ Measured Temp	0.58 @ 90.0	ohm-m	
Rmf @ Measured Temp	0.46 @ 90.0	ohm-m	
Rmc @ Measured Temp	0.70 @ 90.0	ohm-m	
Source Rmf / Rmc	CALC	CALC	
Rm @ BHT	0.42 @ 123.0	ohm-m	
Time Since Circulation	4 HOURS		
Max Recorded Temp	123.00	deg F	
Equipment / Base	13057	LIB	
Recorded By	ADAM SILL		
Witnessed By	DAVE GOLDAK		
JOB #	LB13-170		

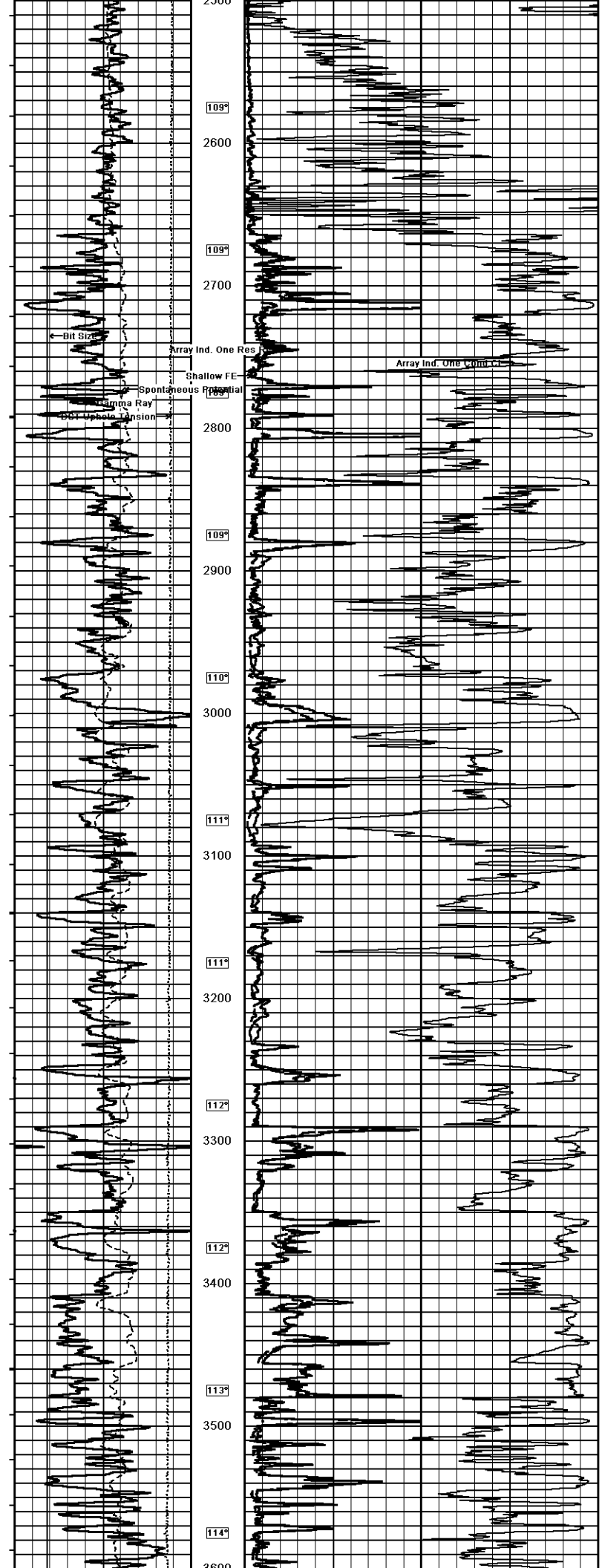
1 INCH MAIN

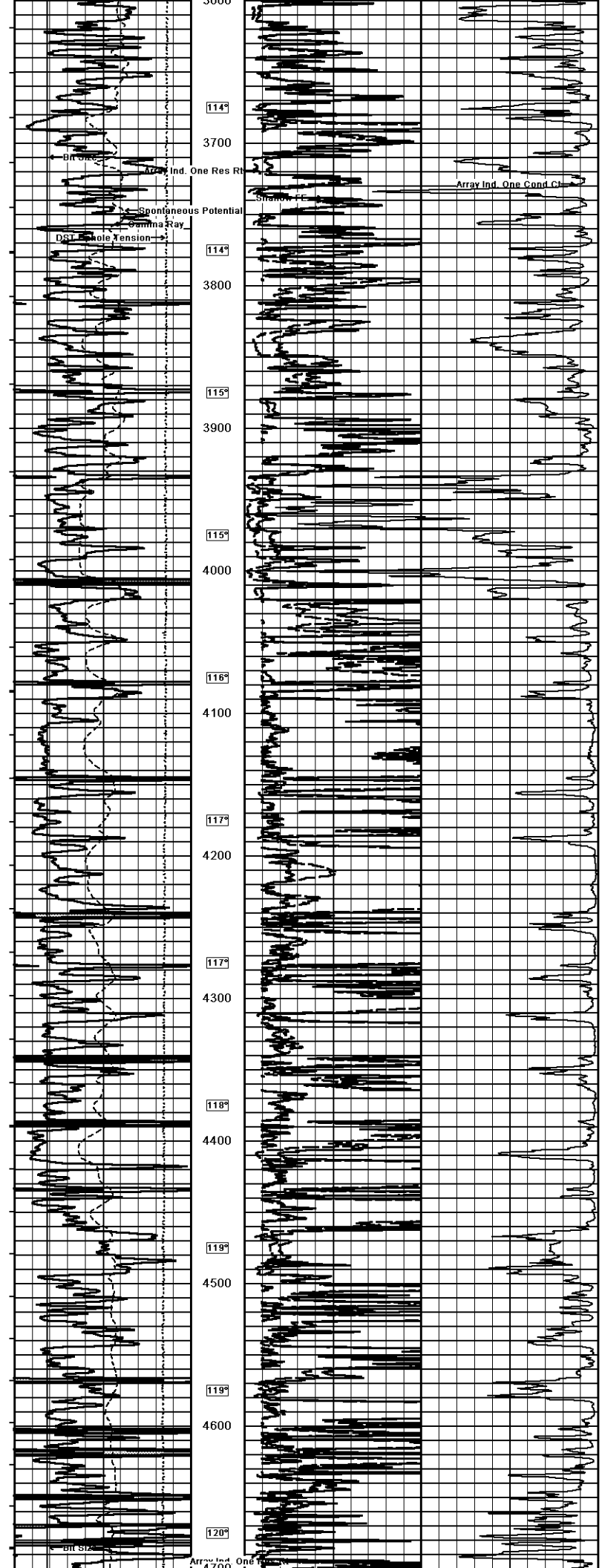
Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 11-JUN-2013 21:47
Filename: C:\Minimus 13.05.9583\Logs\Stelbar Hess 1-31\Stelbar Hess 1-31_003.dta
Recorded on 11-JUN-2013 18:07
System Versions: Logged with 13.05.9583 Processed with 13.05.9583 Plotted with 13.05.9583

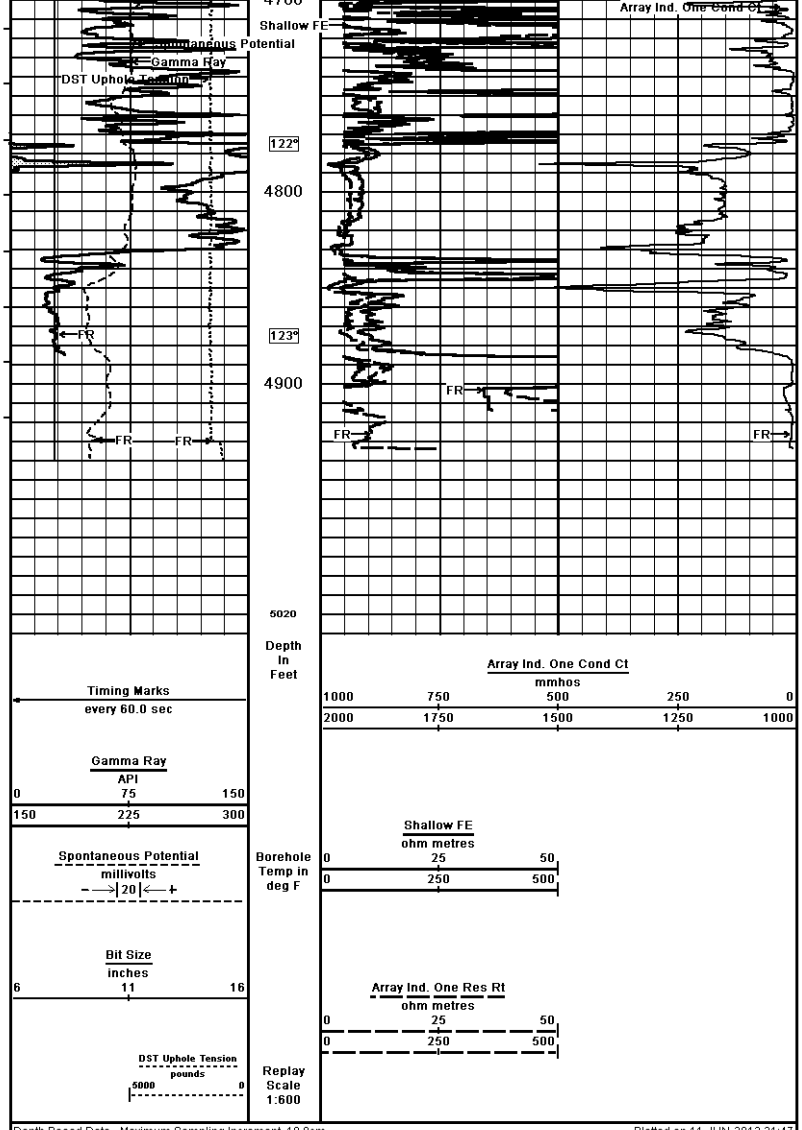



6
11
16
DST Uphole Tension
pounds
5000
0
Replay
Scale
1:600
380
Casing
Shoe
400
98°
500
97°
600
97°
700
98°
Bit Size
800
Shallow FE
Spontaneous Potential
Gamma Ray
DST Uphole Tension
99°
900
100°
1000
100°
1100
101°
1200
102°
1300
102°
1400
Array Ind. One Res Rt
ohm metres
0
25
50
0
250
500
Array Ind. One Cond Ct


1400
103°
1500
105°
1600
105°
1700
Bit Size
Array Ind. One Res Rt
105°
Shallow FE
Spontaneous Pot
1800
Gamma Ray
DST Uphole Tension
Array Ind. One Cond Ct
104°
1900
104°
2000
104°
2100
105°
2200
107°
2300
108°
2400
109°
2500


Bit Size
Array Ind. One Res
Array Ind. One Cond
Shallow FE
Spontaneous Potential
Gamma Ray
DGT Uphole Tension
109°
110°
111°
112°
113°
114°
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500


3600
114°
3700
Bit Size
Array Ind. One Res Rt
Array Ind. One Cond Ct
Shallow FE
Spontaneous Potential
Gamma Ray
DST Cable Tension
114°
3800
115°
3900
115°
4000
116°
4100
117°
4200
117°
4300
118°
4400
119°
4500
119°
4600
120°
Bit Size
Array Ind. One Res Rt
4700



Depth Based Data - Maximum Sampling Increment 10.0cm — Plotted on 11-JUN-2013 21:47
Filename: C:\Minimus 13.05.9583\Logs\Stelbar Hess 1-31\Stelbar Hess 1-31_003.dta — Recorded on 11-JUN-2013 18:07
System Versions: Logged with 13.05.9583 Processed with 13.05.9583 Plotted with 13.05.9583

1 INCH MAIN

COMPANY	STELBAR OIL CORPORATION, INC.
WELL	HESS #1-31
FIELD	WILDCAT
PROVINCE/COUNTY	SCOTT
COUNTRY/STATE	U.S.A. / KANSAS

Elevation Kelly Bushing	3088.00	feet	First Reading	4927.00	feet
Elevation Drill Floor	3087.00	feet	Depth Driller	4930.00	feet
Elevation Ground Level	3081.00	feet	Depth Logger	4930.00	feet

Weatherford

ARRAY INDUCTION
SHALLOW FOCUSED
ELECTRIC LOG

MICRORESISTIVITY LOG

COMPANY	STELBAR OIL CORPORATION, INC.
WELL	HESS #1-31
FIELD	WILDCAT
PROVINCE/COUNTY	SCOTT
COUNTRY/STATE	U.S.A. / KANSAS
LOCATION	1162' FNL & 336' FWL

SEC	TWP	RGE	Other Services
31	17S	33W	MPD/MDN MAI/MFE
			MSS

API Number 15-171-20944
Permit Number

Permanent Datum GL, Elevation 3081 feet
Log Measured From KB
Drilling Measured From KB

Elevations:	feet
KB	3088.00
DF	3087.00
GL	3081.00

Date	11-JUN-2013			
Run Number	ONE			
Service Order	3539038			
Depth Driller	4930.00	feet		
Depth Logger	4930.00	feet		
First Reading	4884.00	feet		
Last Reading	3550.00	feet		
Casing Driller	390.00	feet		
Casing Logger	396.00	feet		
Bit Size	7.875	inches		
Hole Fluid Type	CHEMICAL			
Density / Viscosity	9.20 lb/USg		53.00 CP	
PH / Fluid Loss	10.00		8.80 ml/30Min	
Sample Source	MUDPIT			
Rm @ Measured Temp	0.58 @ 90.0	ohm-m		
Rmf @ Measured Temp	0.46 @ 90.0	ohm-m		
Rmc @ Measured Temp	0.70 @ 90.0	ohm-m		
Source Rmf / Rmc	CALC		CALC	
Rm @ BHT	0.42 @123.0	ohm-m		
Time Since Circulation	4 HOURS			
Max Recorded Temp	123.00	deg F		
Equipment / Base	13057		LIB	
Recorded By	ADAM SILL			
Witnessed By	DAVE GOLDAK			
JOB #	LB13-170			

BOREHOLE RECORD

Last Edited: 11-JUN-2013 15:18

Bit Size inches	Depth From feet	Depth To feet
7.875	390.00	4930.00

CASING RECORD

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	8.625	0.00	390.00	24.00

REMARKS

- SOFTWARE ISSUE: WLS 13.05.9583.
- MCG, MML, MDN, MPD, MFE, MSS, MAI RAN IN COMBINATION.
  - HARDWARE: DUAL BOWSPRING USED ON MDN.
  0.5 INCH STANDOFF USED ON MFE.
  TWO 0.5 INCH STANDOFFS USED ON MSS.
  0.5 INCH STANDOFF USED ON MAI.
- 2.71 G/CC LIMESTONE DENSITY MATRIX USED TO CALCULATE POROSITY.
- BOREHOLE RUGOSITY, TIGHT PULLS, AND WASHOUTS WILL AFFECT DATA QUALITY.
- ALL INTERVALS LOGGED AND SCALED PER CUSTOMER'S REQUEST.
- TOTAL HOLE VOLUME FROM TD TO SURFACE CASING: 2500 CU. FT.
- ANNULAR HOLE VOLUME WITH 5.5 INCH PRODUCTION CASING FROM TD TO 3550 FEET: 330 CU. FT.

- RIG: PICKRELL #10.

- ENGINEER: A. SILL.

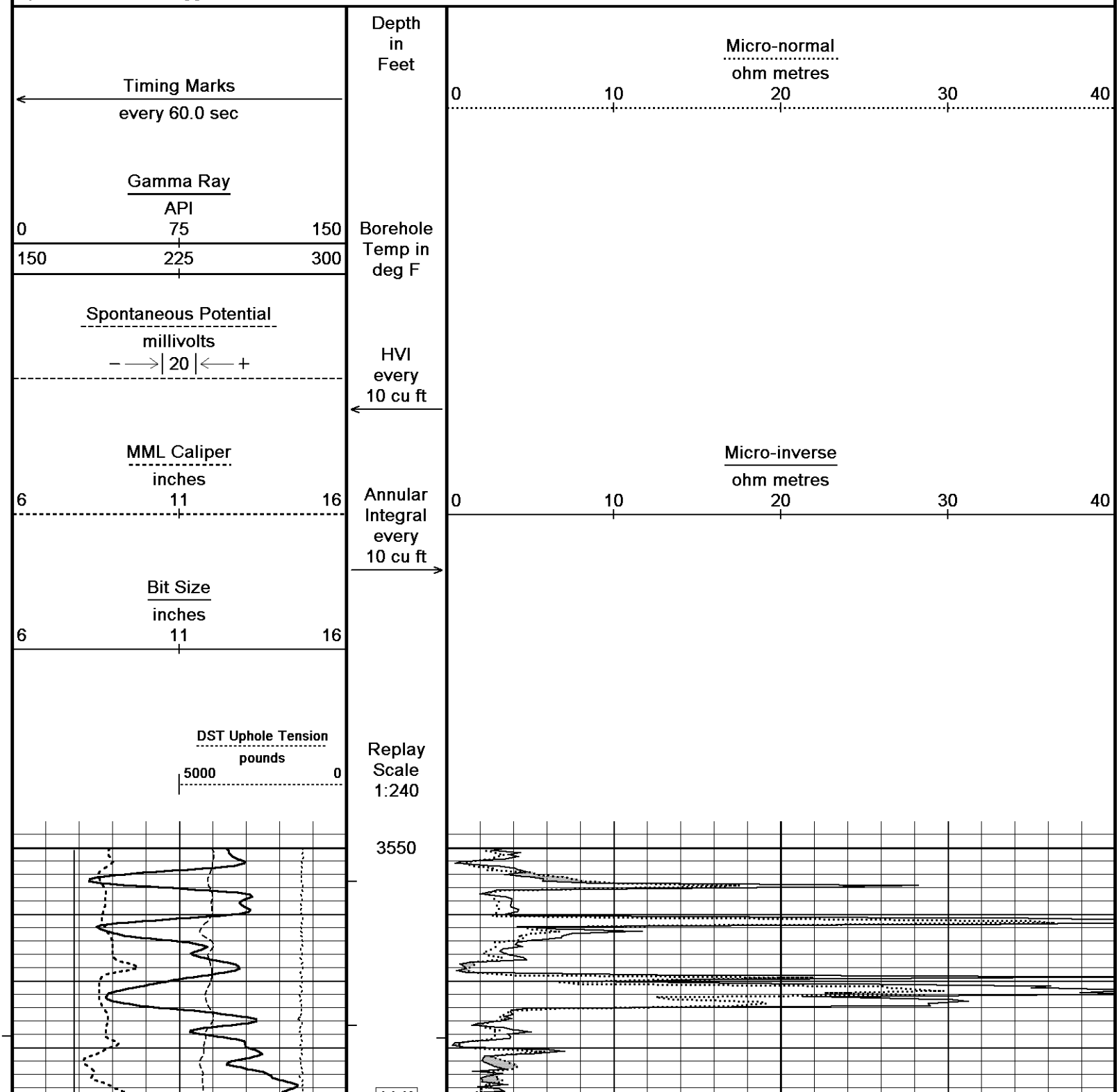
- OPERATOR(S): M. SLOBODKIN.

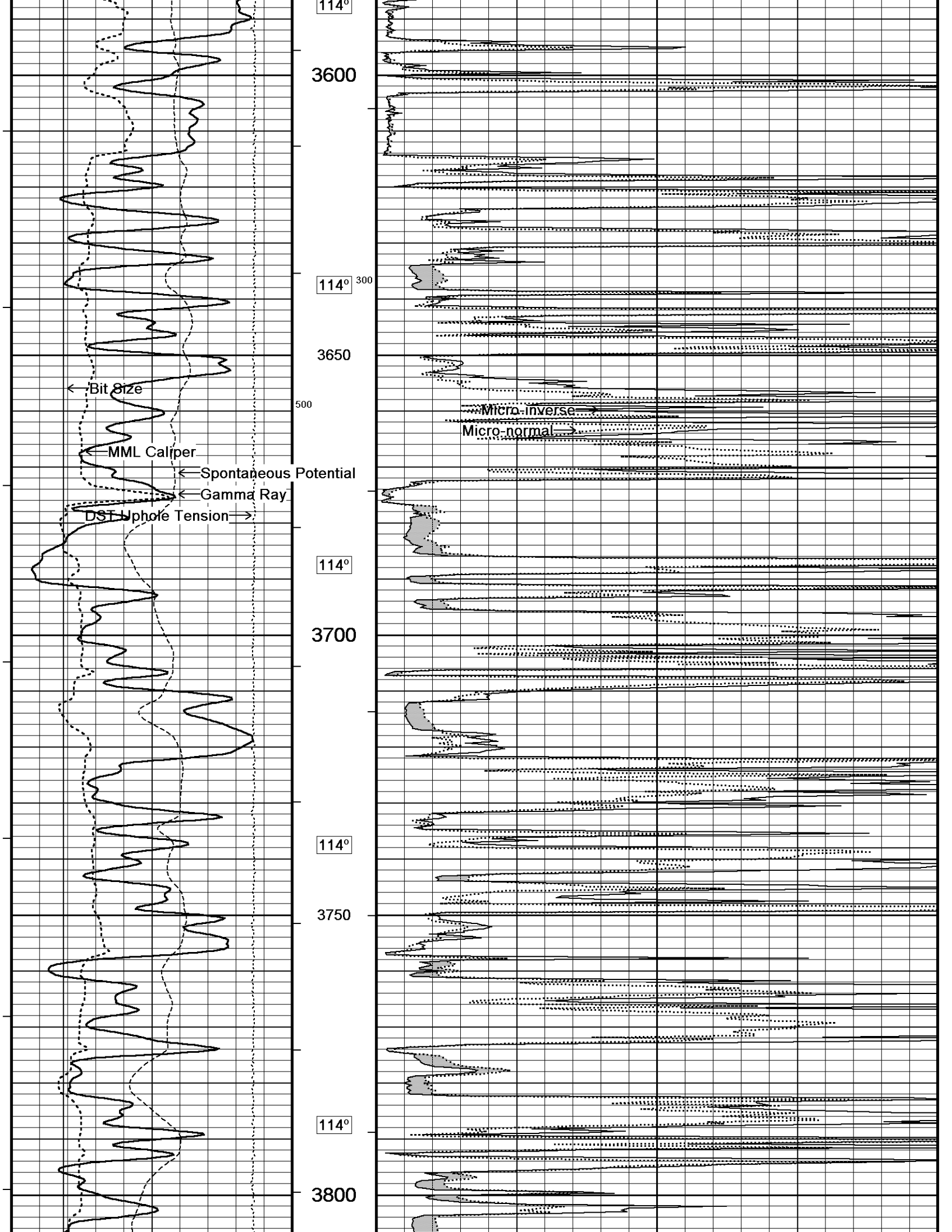
5 INCH MAIN

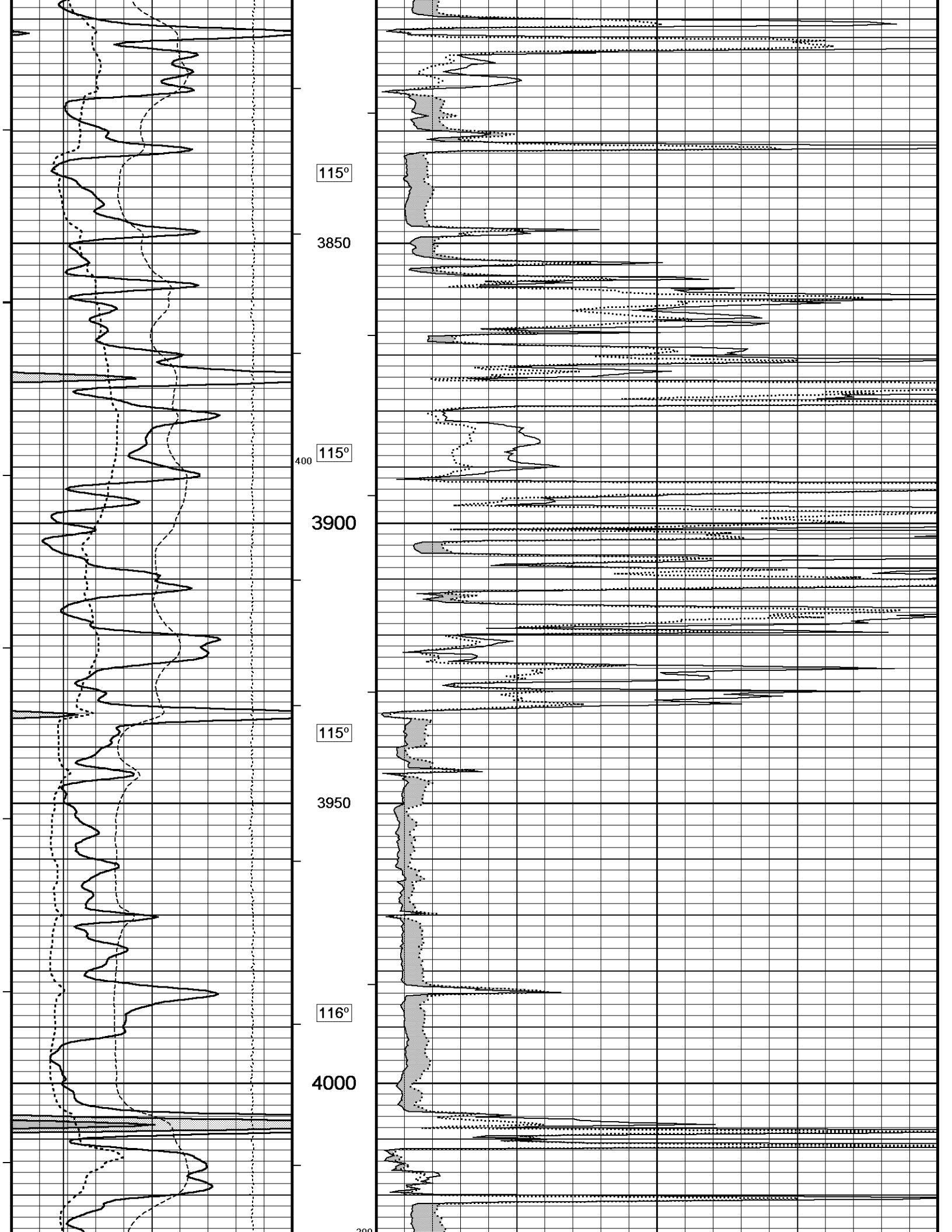
Depth Based Data - Maximum Sampling Increment 10.0cm — Plotted on 11-JUN-2013 21:48

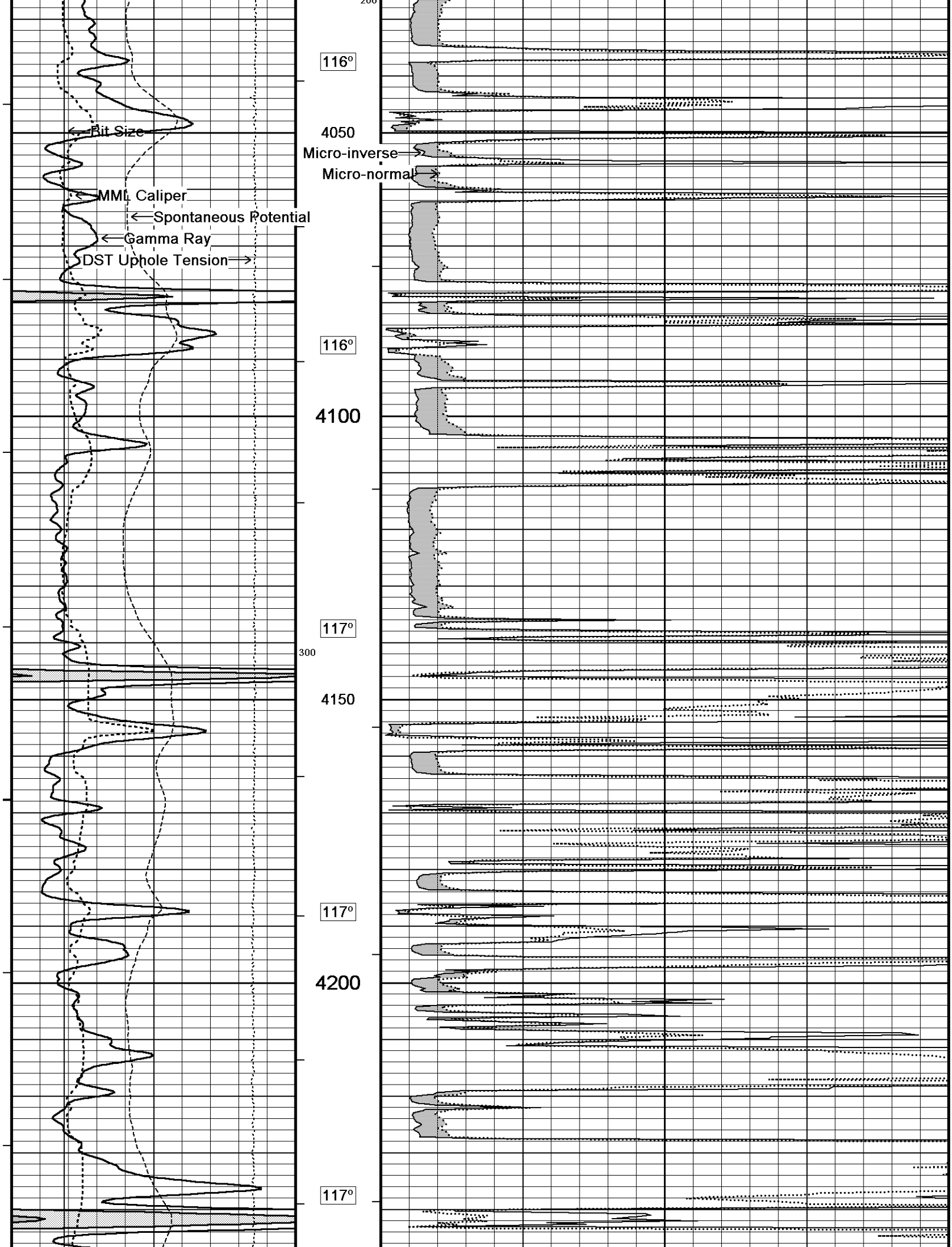
Filename: C:\Minimus 13.05.9583\Logs\Stelbar Hess 1-31\Stelbar Hess 1-31_003.dta — Recorded on 11-JUN-2013 18:07

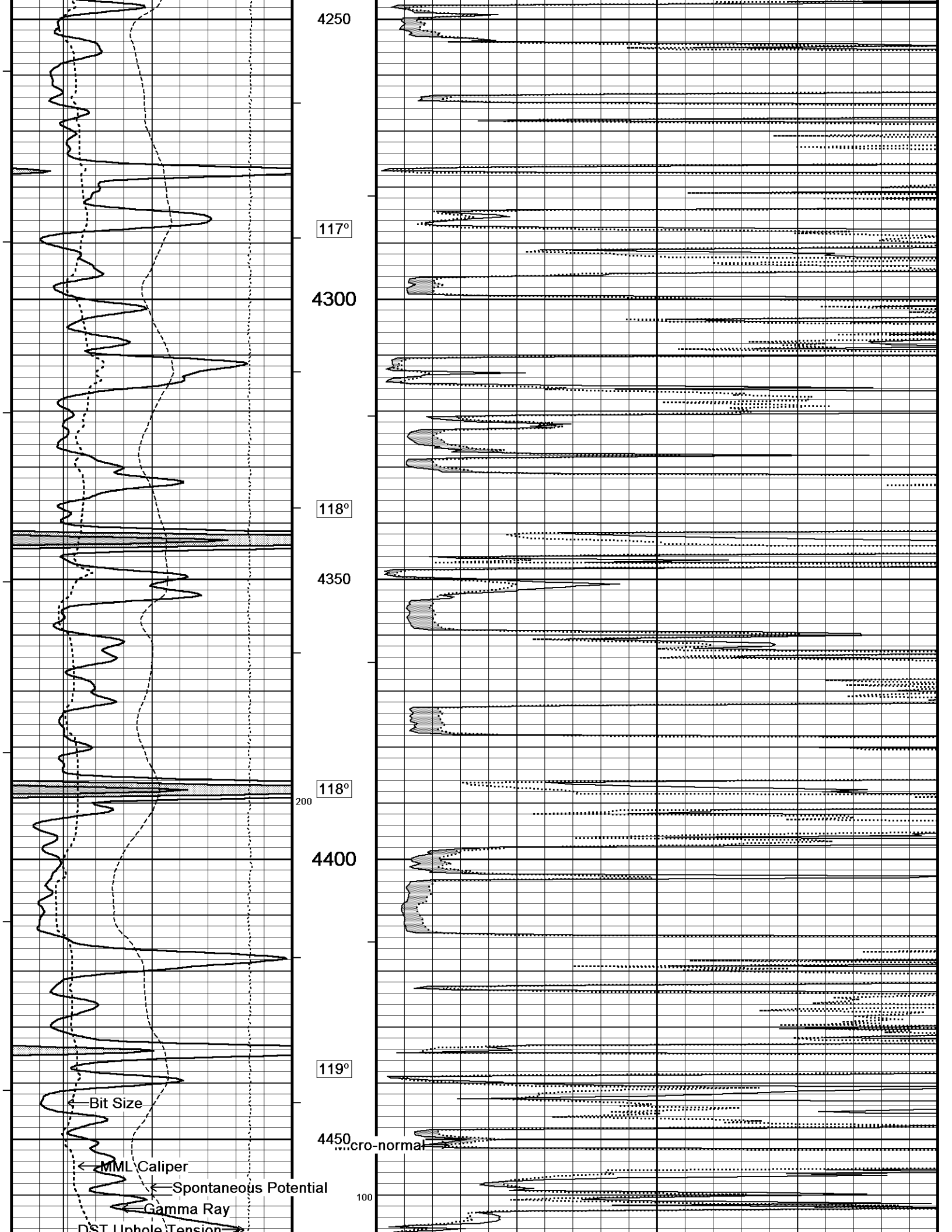
System Versions: Logged with 13.05.9583 Processed with 13.05.9583 Plotted with 13.05.9583

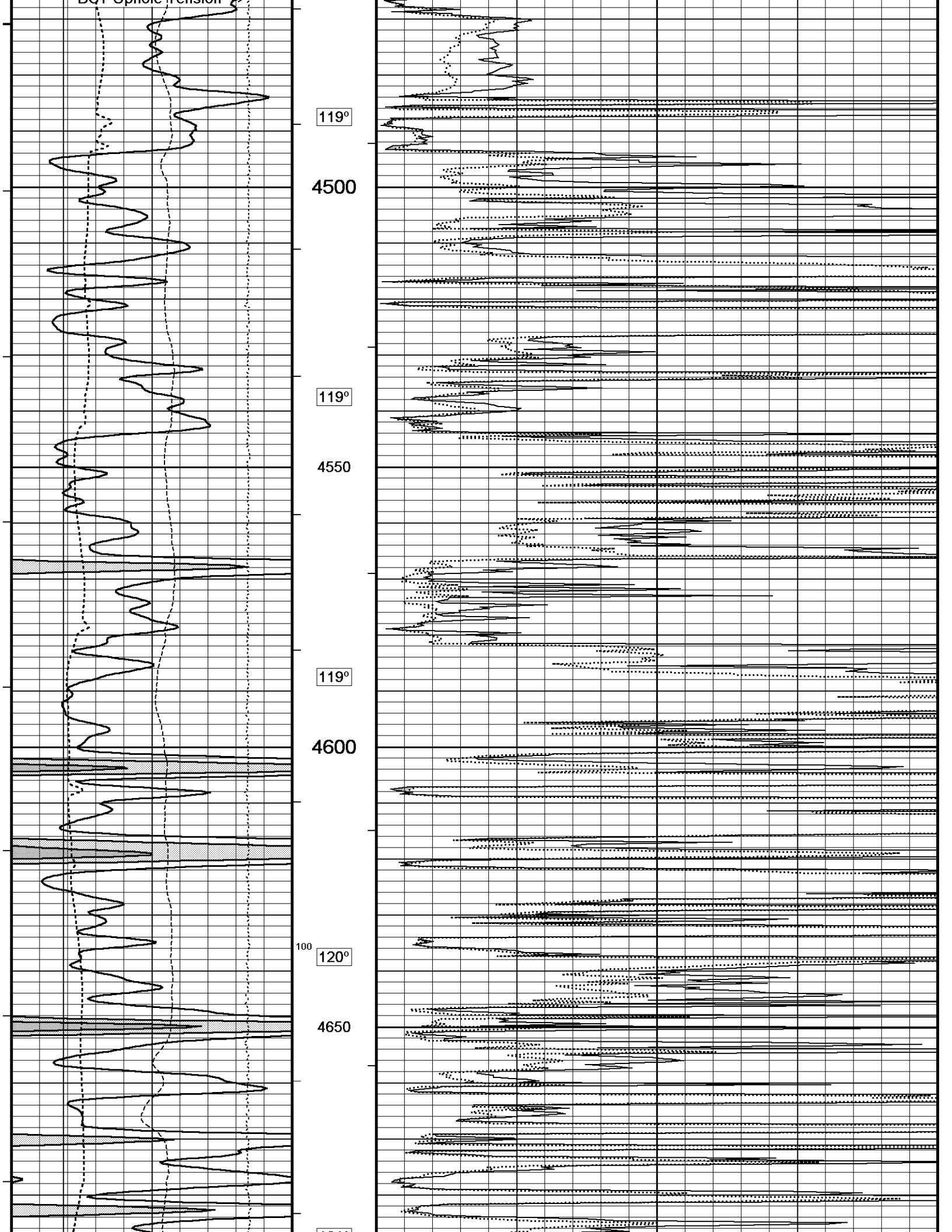


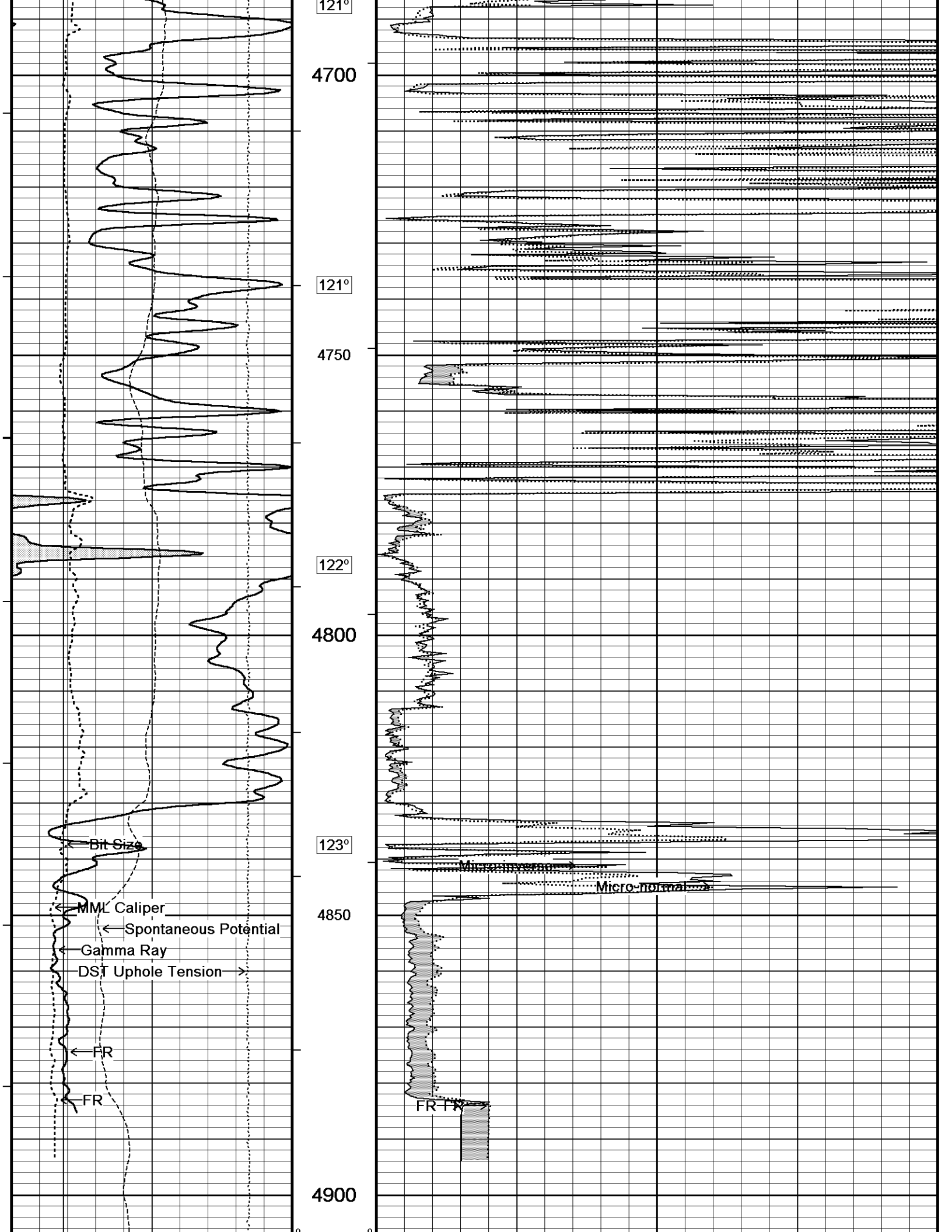

114°
3600
114°
300
3650
Bit Size
500
Micro-inverse
Micro-normal
MML Caliper
Spontaneous Potential
Gamma Ray
DST Uphole Tension
114°
3700
114°
3750
114°
3800

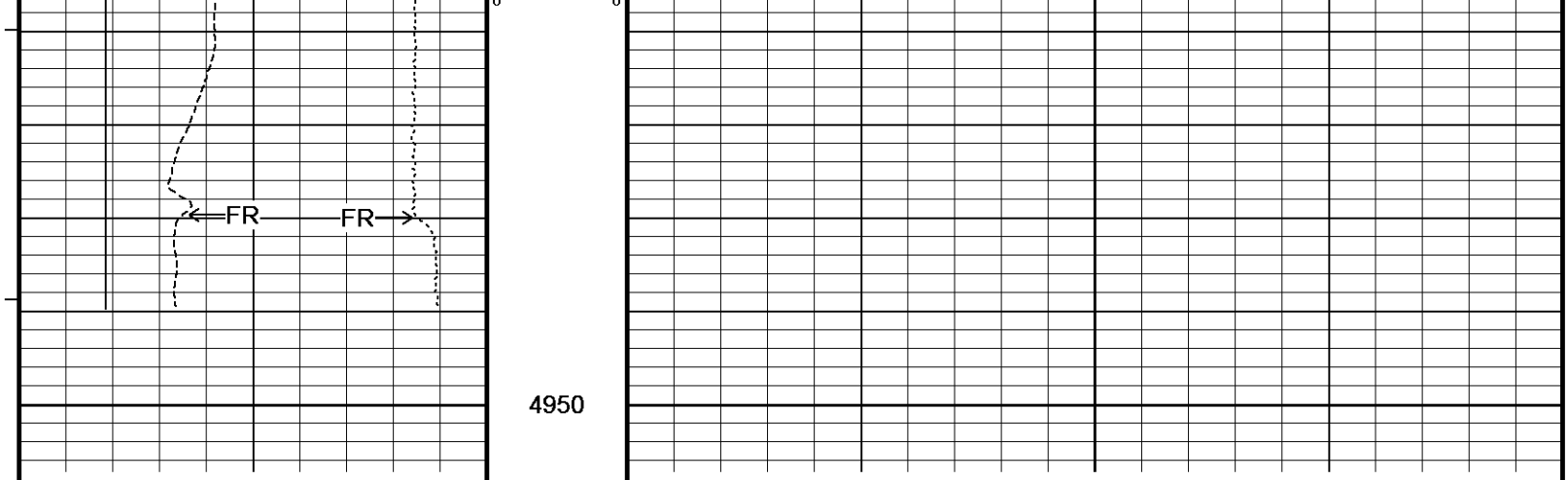

115°
3850
400
115°
3900
115°
3950
116°
4000


200
116°
Bit Size
4050
Micro-inverse
Micro-normal
MML Caliper
Spontaneous Potential
Gamma Ray
DST Uphole Tension
116°
4100
117°
300
4150
117°
4200
117°


4250
117°
4300
118°
4350
118°
200
4400
119°
Bit Size
4450
...cro-normal
MML Caliper
Spontaneous Potential
Gamma Ray
DST Uphole Tension
100


BQT Spindle Tension
119°
4500
119°
4550
119°
4600
100
120°
4650


121°
4700
121°
4750
122°
4800
123°
4850
4900
Bit Size
MML Caliper
Spontaneous Potential
Gamma Ray
DST Uphole Tension
FR
FR
Micro-inverse
Micro-normal
FR TR



4950

Depth in Feet

Timing Marks
every 60.0 sec

Micro-normal
ohm metres
0 10 20 30 40

Gamma Ray
API
0 75 150
150 225 300

Borehole Temp in deg F

Spontaneous Potential
millivolts
− → | 20 | ← +

HVI every 10 cu ft

MML Caliper
inches
6 11 16

Micro-inverse
ohm metres
0 10 20 30 40

Annular Integral every 10 cu ft

Bit Size
inches
6 11 16

DST Uphole Tension
pounds
5000 0

Replay Scale 1:240

Depth Based Data - Maximum Sampling Increment 10.0cm — Plotted on 11-JUN-2013 21:48
Filename: C:\Minimus 13.05.9583\Logs\Stelbar Hess 1-31\Stelbar Hess 1-31_003.dta — Recorded on 11-JUN-2013 18:07
System Versions: Logged with 13.05.9583 Processed with 13.05.9583 Plotted with 13.05.9583

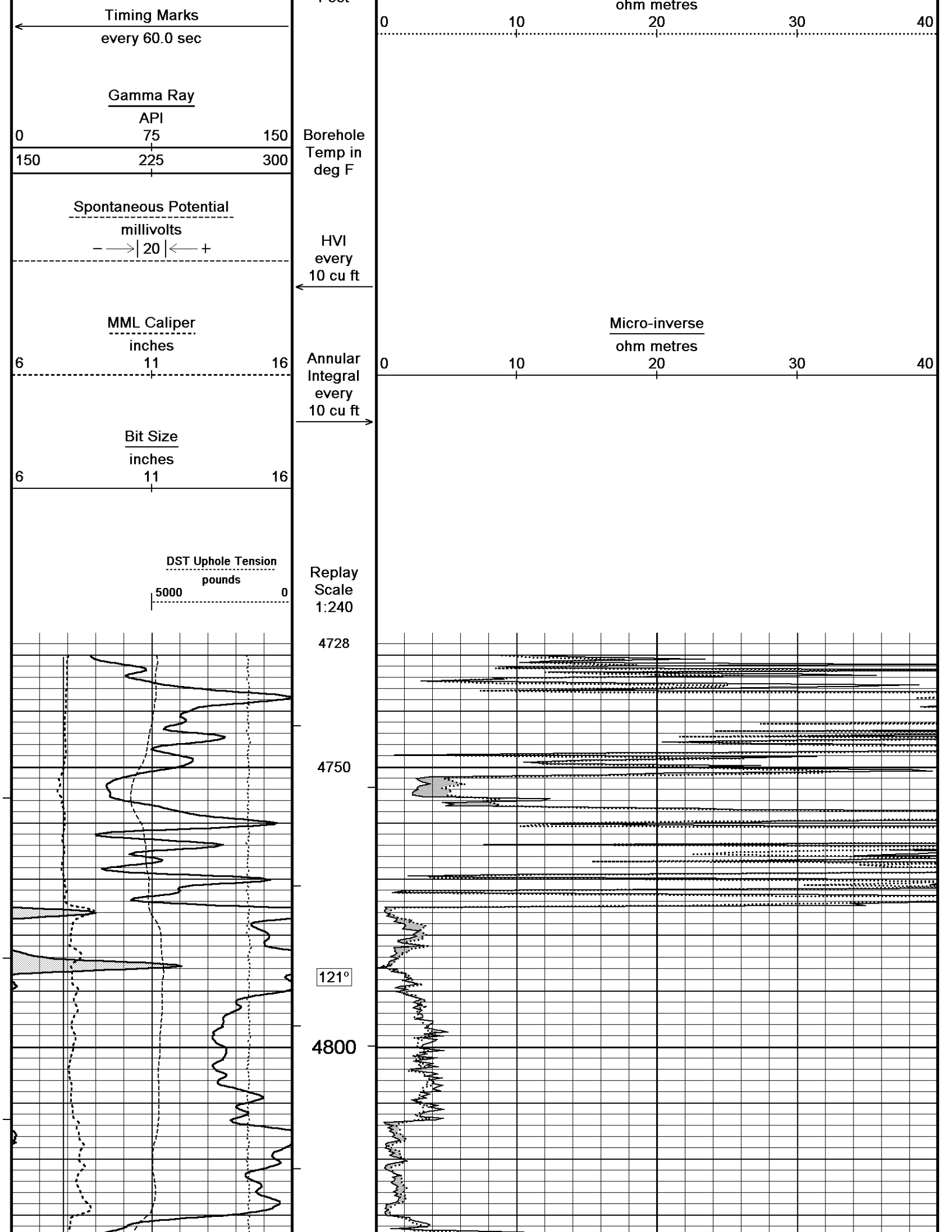
5 INCH MAIN

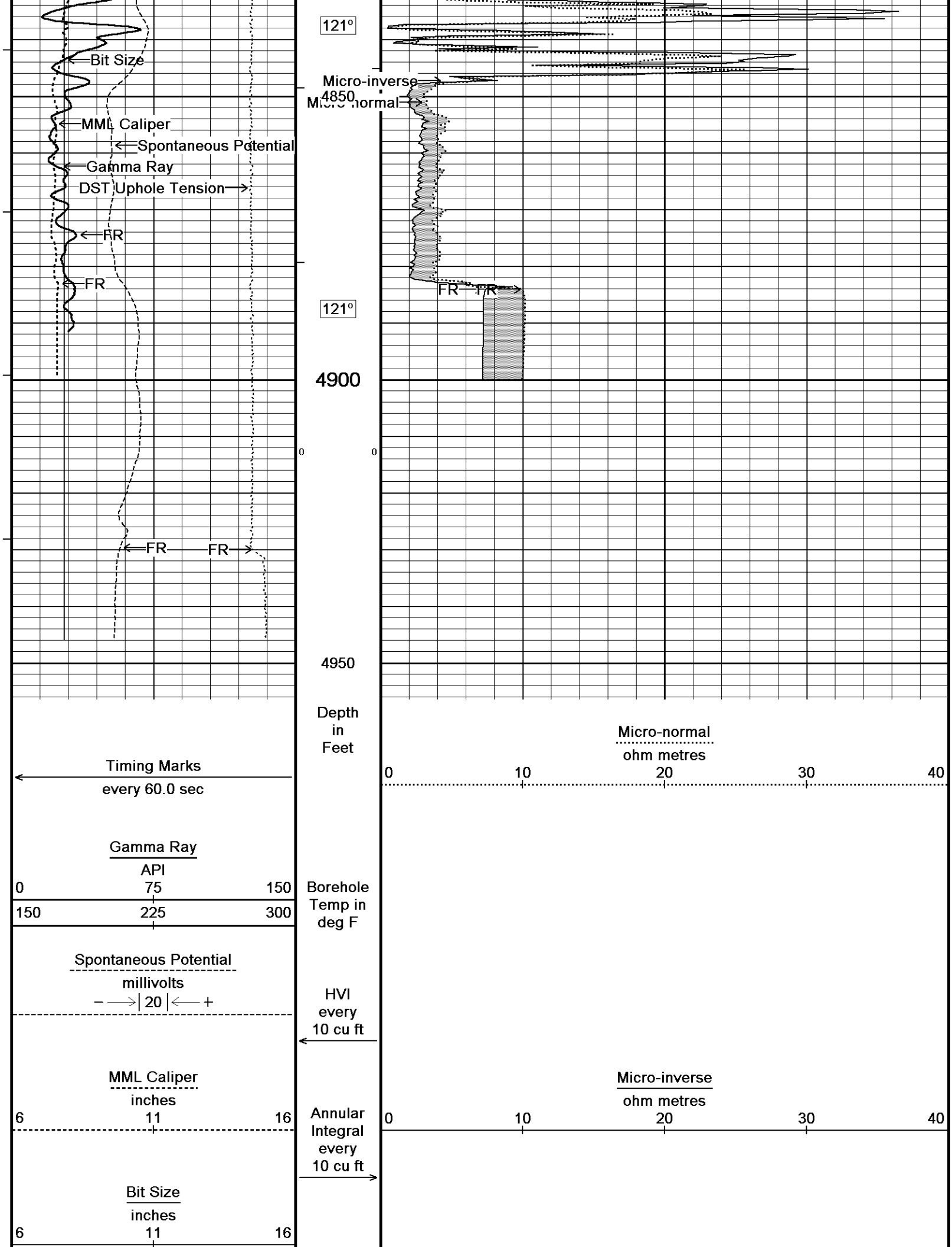
REPEAT SECTION

Depth Based Data - Maximum Sampling Increment 10.0cm — Plotted on 11-JUN-2013 21:48
Filename: C:\Minimus 13.05.9583\Logs\Stelbar Hess 1-31\Stelbar Hess 1-31_002.dta — Recorded on 11-JUN-2013 17:41
System Versions: Logged with 13.05.9583 Processed with 13.05.9583 Plotted with 13.05.9583

Depth in Feet

Micro-normal
ohm metres
0 10 20 30 40


Timing Marks
every 60.0 sec
Gamma Ray
API
0
75
150
150
225
300
Spontaneous Potential
millivolts
– 20 +
MML Caliper
inches
6
11
16
Bit Size
inches
6
11
16
DST Uphole Tension
pounds
5000
0
Borehole Temp in deg F
HVI every 10 cu ft
Annular Integral every 10 cu ft
Replay Scale 1:240
ohm metres
0
10
20
30
40
Micro-inverse
ohm metres
0
10
20
30
40
4728
4750
121°
4800


121°
Bit Size
Micro-inverse
4850
Micro-normal
MML Caliper
Spontaneous Potential
Gamma Ray
DST Uphole Tension
FR
FR
FR
FR
FR
121°
4900
0
0
4950
Depth
in
Feet
Micro-normal
ohm metres
0
10
20
30
40
Timing Marks
every 60.0 sec
Gamma Ray
API
0
75
150
150
225
300
Borehole
Temp in
deg F
Spontaneous Potential
millivolts
− 20 +
HVI
every
10 cu ft
MML Caliper
inches
6
11
16
Annular
Integral
every
10 cu ft
Micro-inverse
ohm metres
0
10
20
30
40
Bit Size
inches
6
11
16

DST Uphole Tension
pounds
5000 0

Replay
Scale
1:240

Depth Based Data - Maximum Sampling Increment 10.0cm — Plotted on 11-JUN-2013 21:48
Filename: C:\Minimus 13.05.9583\Logs\Stelbar Hess 1-31\Stelbar Hess 1-31_002.dta — Recorded on 11-JUN-2013 17:41
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REPEAT SECTION

BEFORE SURVEY CALIBRATION

C:\Minimus 13.05.9583\Logs\Stelbar Hess 1-31\Stelbar Hess 1-31_002.dta

General Constants All 000

Last Edited on 11-JUN-2013,15:21

General Parameters		
Mud Resistivity	0.580	ohm-metres
Mud Resistivity Temperature	90.000	degrees F
Water Level	0.000	feet
Borehole Fluid Processing	Wet Hole	
Hole/Annular Volume and Differential Caliper Parameters		
HVOL Method	Single Caliper	
HVOL Caliper 1	Density Caliper	
HVOL Caliper 2	N/A	
Annular Volume Diameter	5.500	inches
Caliper for Differential Caliper	Density Caliper	
Rwa Parameters		
Porosity used	Base Density Porosity	
Resistivity used	Array Ind. Six Res Rt	
RWA Constant A	0.610	
RWA Constant M	2.150	
SW/APOR Tool Source	0.000	

Gamma Calibration MCG-C 208

Field Calibration on 11-JUN-2013 09:43

	Measured	Calibrated (API)
Background	67	46
Calibrator (Gross)	1140	771
Calibrator (Net)	1072	725

Gamma Constants MCG-C 208

Last Edited on 11-JUN-2013,15:21

Gamma Calibrator Number	GRC038	
Mud Density	1.10	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Eccentred	
Concentration of KCl		kppm
K Mud Type	Chloride	
K Mud Concentration	0.00	%

High Resolution Temperature Calibration MCG-C 208

Field Calibration on 07-JUN-2013,09:16

	Measured	Calibrated(Deg F)
Lower	50.00	50.00
Upper	75.00	75.00

High Resolution Temperature Constants MCG-C 208

Last Edited on 07-JUN-2013,09:15

Pre-filter Length	11

Micro Normal and Micro Inverse Calibration MML-A 16

Base Calibration on 16-MAY-2013 12:07
Field Check on 11-JUN-2013 09:31

Base Calibration

Channel	Measured Resistor 1	Measured Resistor 2	Calibrated (ohm-m) Resistor 1	Calibrated (ohm-m) Resistor 2

Micro Normal	12.1	60.2	5.0	25.0
Micro Inverse	15.6	78.4	5.0	25.0

Channel	Base Check (ohm-m)	Field Check (ohm-m)
Micro Normal	62.9	62.9
Micro Inverse	48.2	48.2

Micro Normal and Micro Inverse Constants MML-A 16

Last Edited on 11-JUN-2013,15:20

Pad Type	8-12 in Soft Rubber Inflatable 006-9011-159	
Micro Normal K Factor	1.0000	
Micro Inverse K Factor	1.0000	
Standoff Offset	N/A	inches

Caliper Calibration MML-A 16

Base Calibration on 16-MAY-2013 11:56
Field Calibration on 11-JUN-2013 09:30

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	14258	5.98
2	17442	7.97
3	20671	9.86
4	24432	11.92
5	0	0.00
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
6.07	5.98

Caliper Calibration MPD-B 31

Base Calibration on 19-MAY-2013 17:48
Field Calibration on 11-JUN-2013 09:25

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	17088	3.99
2	25888	5.98
3	34607	7.97
4	42944	9.86
5	52301	11.92
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
5.95	5.98

DOWNHOLE EQUIPMENT

C:\Minimus 13.05.9583\Logs\Stelbar Hess 1-31\Stelbar Hess 1-31_002.dta

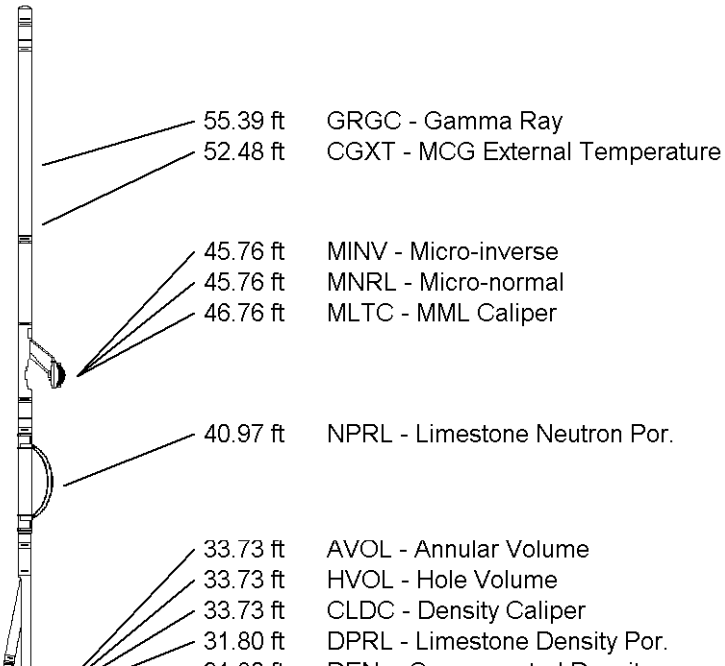
3/8" Triple Cone Cable Head (MCB C A)
MCB-C.A 5 LG: 1.58 ft WT: 15.4 lb OD: 2.24 in

Compact Comms Gamma
MCG-C 208 LG: 8.70 ft WT: 63.9 lb OD: 2.24 in

Compact Micro-log
MML-A 16 LG: 7.97 ft WT: 81.6 lb OD: 2.24 in

Compact Neutron
MDN-A.B 65 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in

Compact Density/Caliper
MPD-B 31 LG: 9.59 ft WT: 90.4 lb OD: 2.45 in



Compact Focussed Electric
MFE-B.J 352 LG: 6.05 ft WT: 48.5 lb OD: 2.24 in

Compact Sonic
MSS-A.A 126 LG: 12.52 ft WT: 72.8 lb OD: 2.24 in

Compact Induction
MAI-A.A 45 LG: 10.81 ft WT: 48.5 lb OD: 2.24 in

Total Length: 62.25 ft Weight: 471.8 lb

31.80 ft	DEN - Compensated Density
31.80 ft	DCOR - Density Correction
31.74 ft	PDPE - PE
26.24 ft	FEFE - Shallow FE
12.96 ft	DT35 - 3-5' Compensated Sonic
12.96 ft	SPRL - Wyllie Lime. Sonic Por.
3.34 ft	R40O - Array Ind. One Res 40
3.34 ft	RTAO - Array Ind. One Res Rt
3.34 ft	R60O - Array Ind. One Res 60
0.23 ft	SPCG - Spontaneous Potential
Tool Zero	(0.13ft from bottom)
-0.13 ft	SMTU - DST Uphole Tension

All measurements relative to tool zero.

COMPANY	STELBAR OIL CORPORATION, INC.
WELL	HESS #1-31
FIELD	WILDCAT
PROVINCE/COUNTY	SCOTT
COUNTRY/STATE	U.S.A. / KANSAS

Elevation Kelly Bushing	3088.00	feet	First Reading	4884.00	feet
Elevation Drill Floor	3087.00	feet	Depth Driller	4930.00	feet
Elevation Ground Level	3081.00	feet	Depth Logger	4930.00	feet

Weatherford®

MICRORESISTIVITY LOG

Weatherford®

COMPENSATED SONIC WITH INTEGRATED TRANSIT TIME

COMPANY	STELBAR OIL CORPORATION, INC.
WELL	HESS #1-31
FIELD	WILDCAT
PROVINCE/COUNTY	SCOTT
COUNTRY/STATE	U.S.A. / KANSAS
LOCATION	1162' FNL & 336' FWL

SEC	TWP	RGE	Other Services
31	17S	33W	MPD/MDN MAI/MFE
			MML

API Number 15-171-20944
Permit Number

Permanent Datum GL, Elevation 3081 feet
Log Measured From KB
Drilling Measured From KB

Elevations:	feet
KB	3088.00
DF	3087.00
GL	3081.00

Date	11-JUN-2013			
Run Number	ONE			
Service Order	3539038			
Depth Driller	4930.00	feet		
Depth Logger	4930.00	feet		
First Reading	4917.00	feet		
Last Reading	396.00	feet		
Casing Driller	390.00	feet		
Casing Logger	396.00	feet		
Bit Size	7.875	inches		
Hole Fluid Type	CHEMICAL			
Density / Viscosity	9.20 lb/USg		53.00 CP	
PH / Fluid Loss	10.00		8.80 ml/30Min	
Sample Source	MUDPIT			
Rm @ Measured Temp	0.58 @ 90.0	ohm-m		
Rmf @ Measured Temp	0.46 @ 90.0	ohm-m		
Rmc @ Measured Temp	0.70 @ 90.0	ohm-m		
Source Rmf / Rmc	CALC		CALC	
Rm @ BHT	0.42 @123.0	ohm-m		
Time Since Circulation	4 HOURS			
Max Recorded Temp	123.00	deg F		
Equipment / Base	13057		LIB	
Recorded By	ADAM SILL			
Witnessed By	DAVE GOLDAK			
JOB #	LB13-170			

BOREHOLE RECORD

Last Edited: 11-JUN-2013 15:18

Bit Size inches	Depth From feet	Depth To feet
7.875	390.00	4930.00

CASING RECORD

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	8.625	0.00	390.00	24.00

REMARKS

- SOFTWARE ISSUE: WLS 13.05.9583.
- MCG, MML, MDN, MPD, MFE, MSS, MAI RAN IN COMBINATION.
  - HARDWARE: DUAL BOWSPRING USED ON MDN.
  0.5 INCH STANDOFF USED ON MFE.
  TWO 0.5 INCH STANDOFFS USED ON MSS.
  0.5 INCH STANDOFF USED ON MAI.
- 2.71 G/CC LIMESTONE DENSITY MATRIX USED TO CALCULATE POROSITY.
- BOREHOLE RUGOSITY, TIGHT PULLS, AND WASHOUTS WILL AFFECT DATA QUALITY.
- ALL INTERVALS LOGGED AND SCALED PER CUSTOMER'S REQUEST.
- TOTAL HOLE VOLUME FROM TD TO SURFACE CASING: 2500 CU. FT.
- ANNULAR HOLE VOLUME WITH 5.5 INCH PRODUCTION CASING FROM TD TO 3550 FEET: 330 CU. FT.

- RIG: PICKRELL #10.

- ENGINEER: A. SILL.

- OPERATOR(S): M. SLOBODKIN.

5 INCH MAIN

Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 11-JUN-2013 21:45
Filename: C:\Minimus 13.05.9583\Logs\Stelbar Hess 1-31\Stelbar Hess 1-31_003.dta
Recorded on 11-JUN-2013 18:07
System Versions: Logged with 13.05.9583 Processed with 13.05.9583 Plotted with 13.05.9583

Timing Marks
every 60.0 sec

Gamma Ray
API
0 75 150
150 225 300

MML Caliper
inches
6 11 16

Bit Size
inches
6 11 16

DST Uphole Tension
pounds
5000 0

Depth In Feet

Borehole Temp in deg F

Replay Scale 1:240

384

Casing Shoe

400

3-5' Compensated Sonic
microsec/foot
140 115 90 65 40

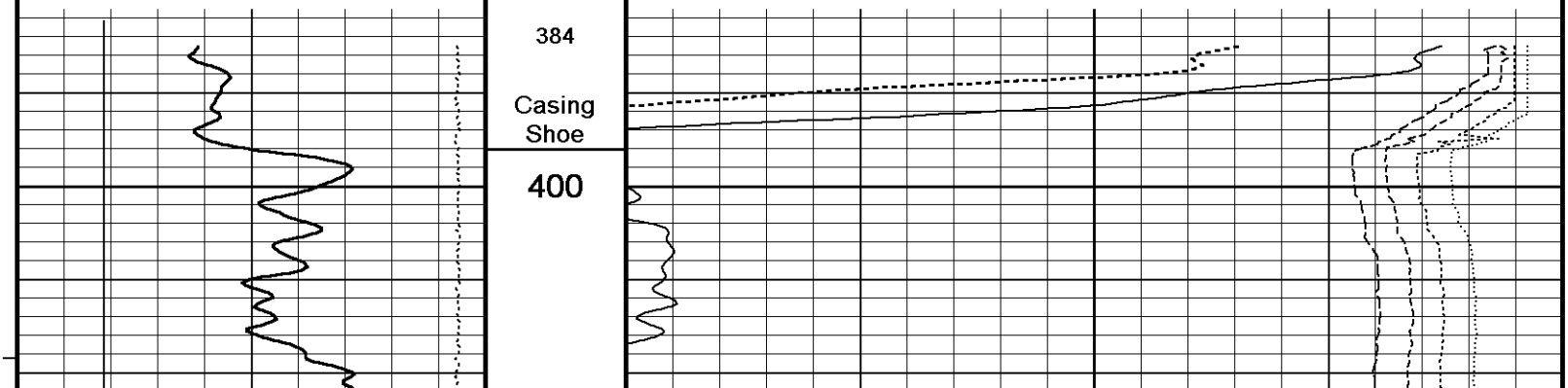
Wyllie Lime. Sonic Por.
percent
30 20 10 0 -10

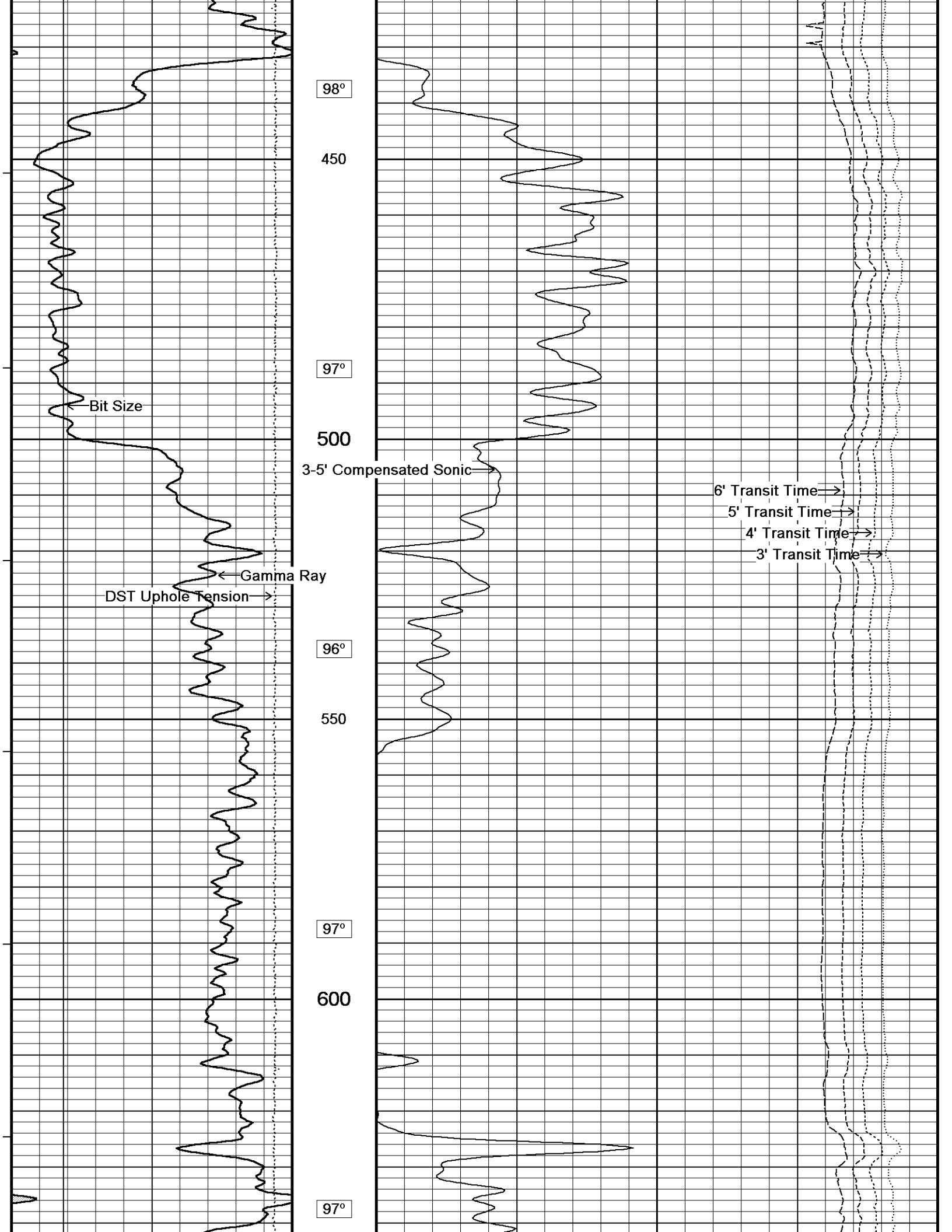
3' Transit Time
microseconds
1100 100

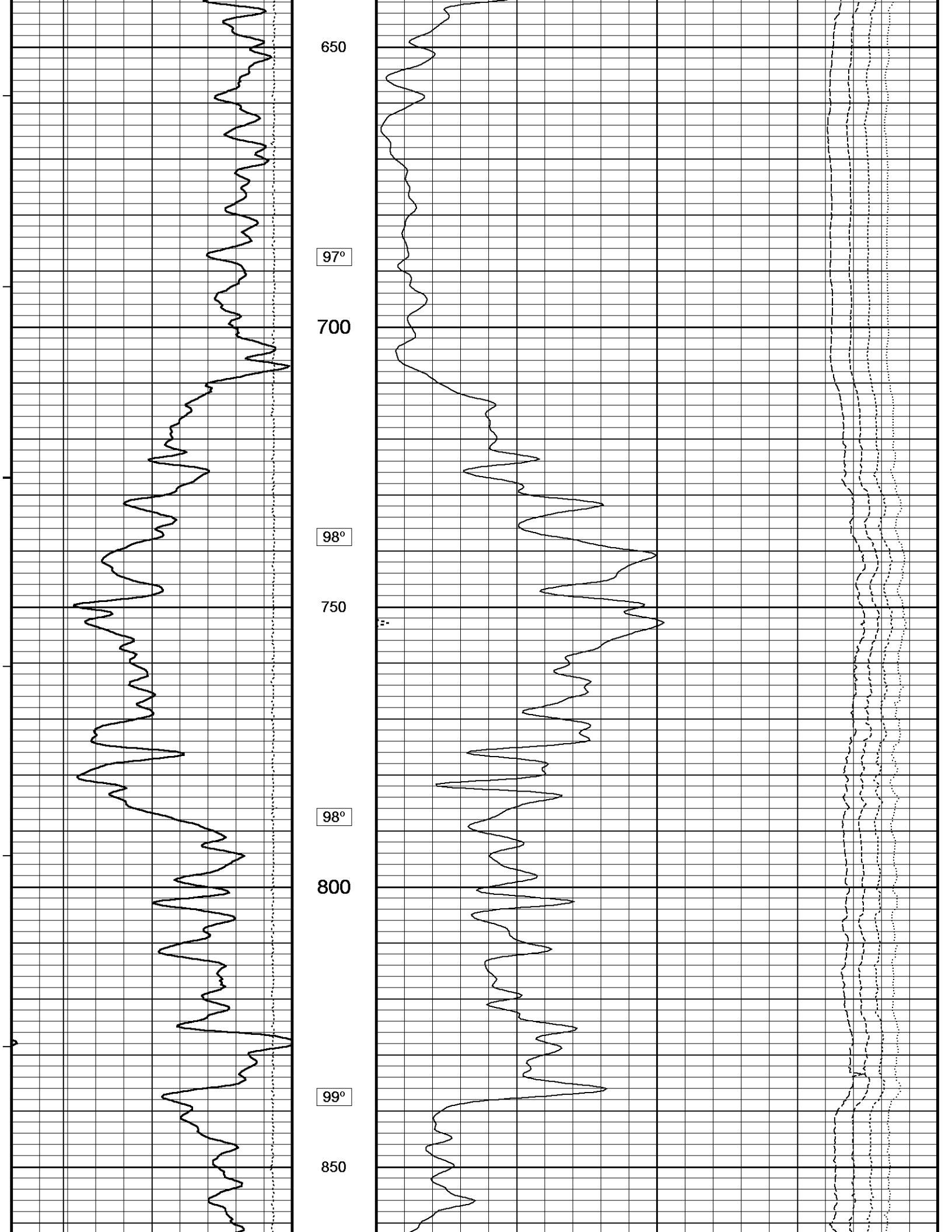
4' Transit Time
microseconds
1100 100

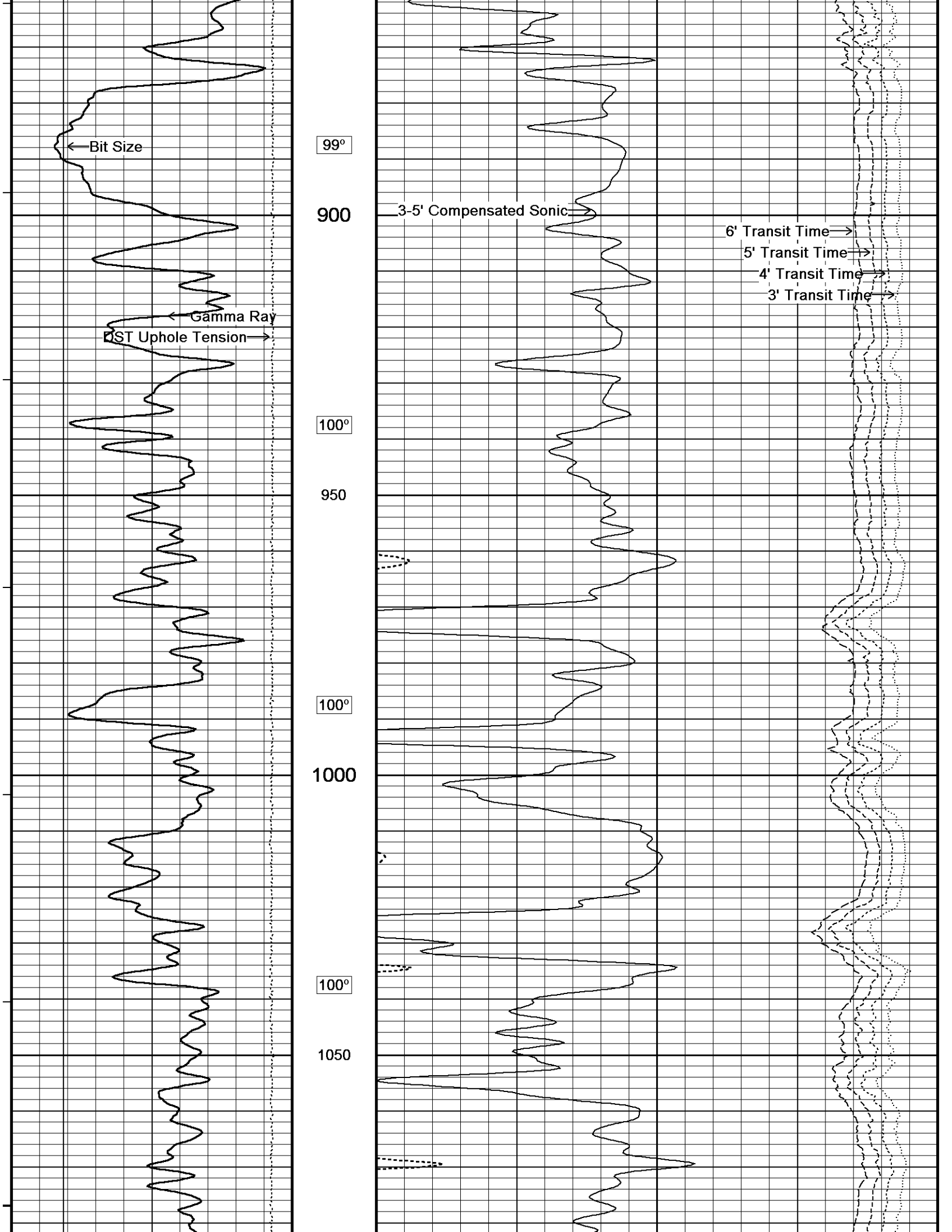
5' Transit Time
microseconds
1100 100

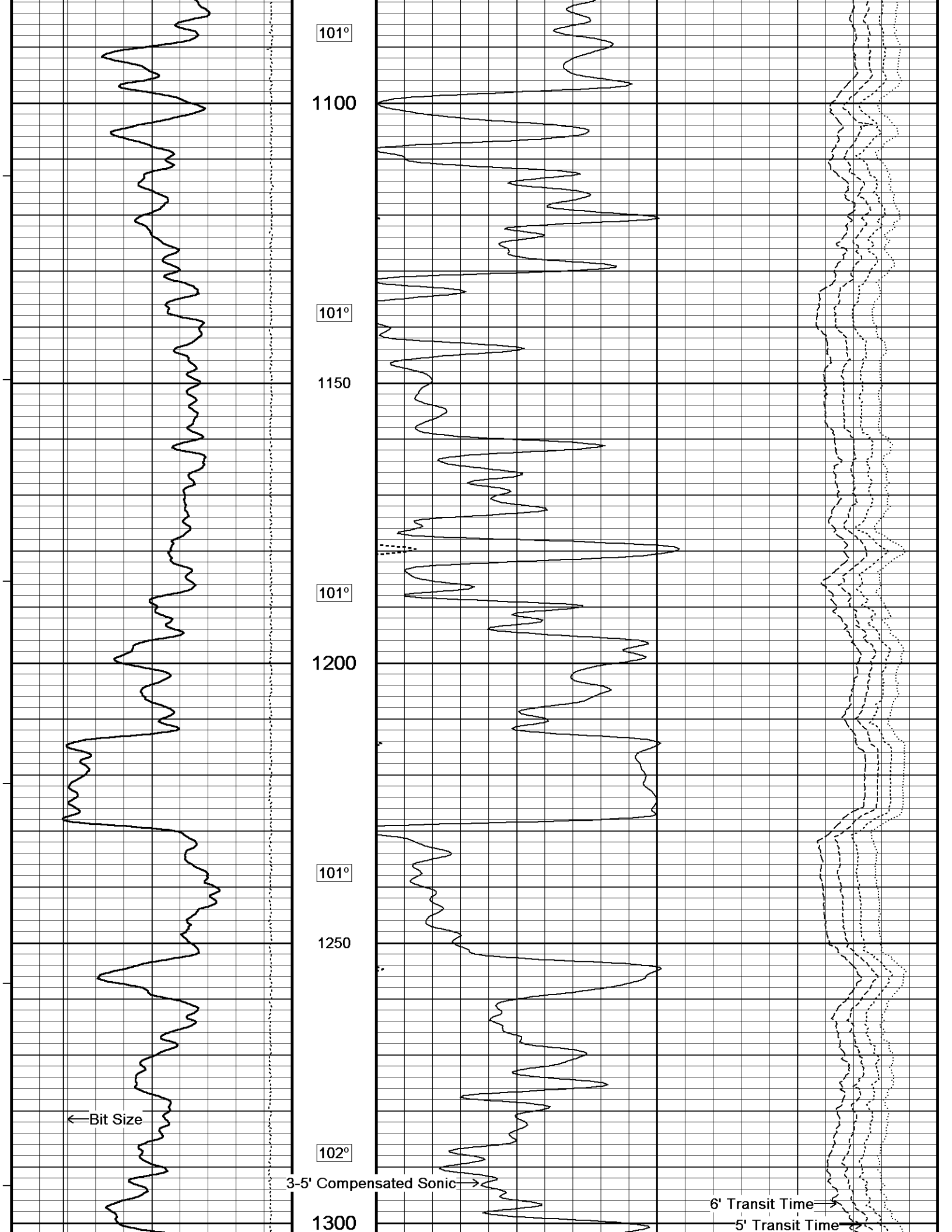
6' Transit Time
microseconds
1100 100

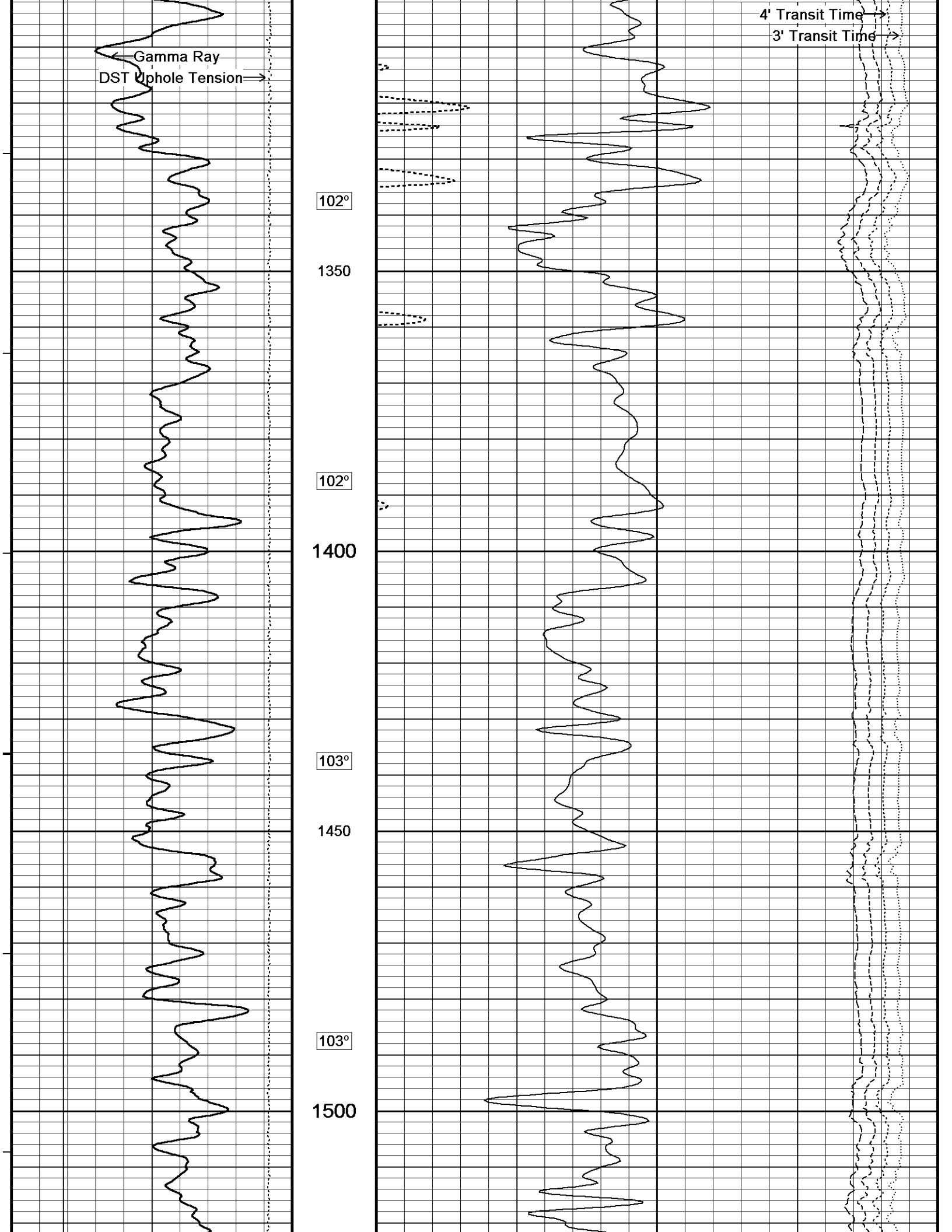


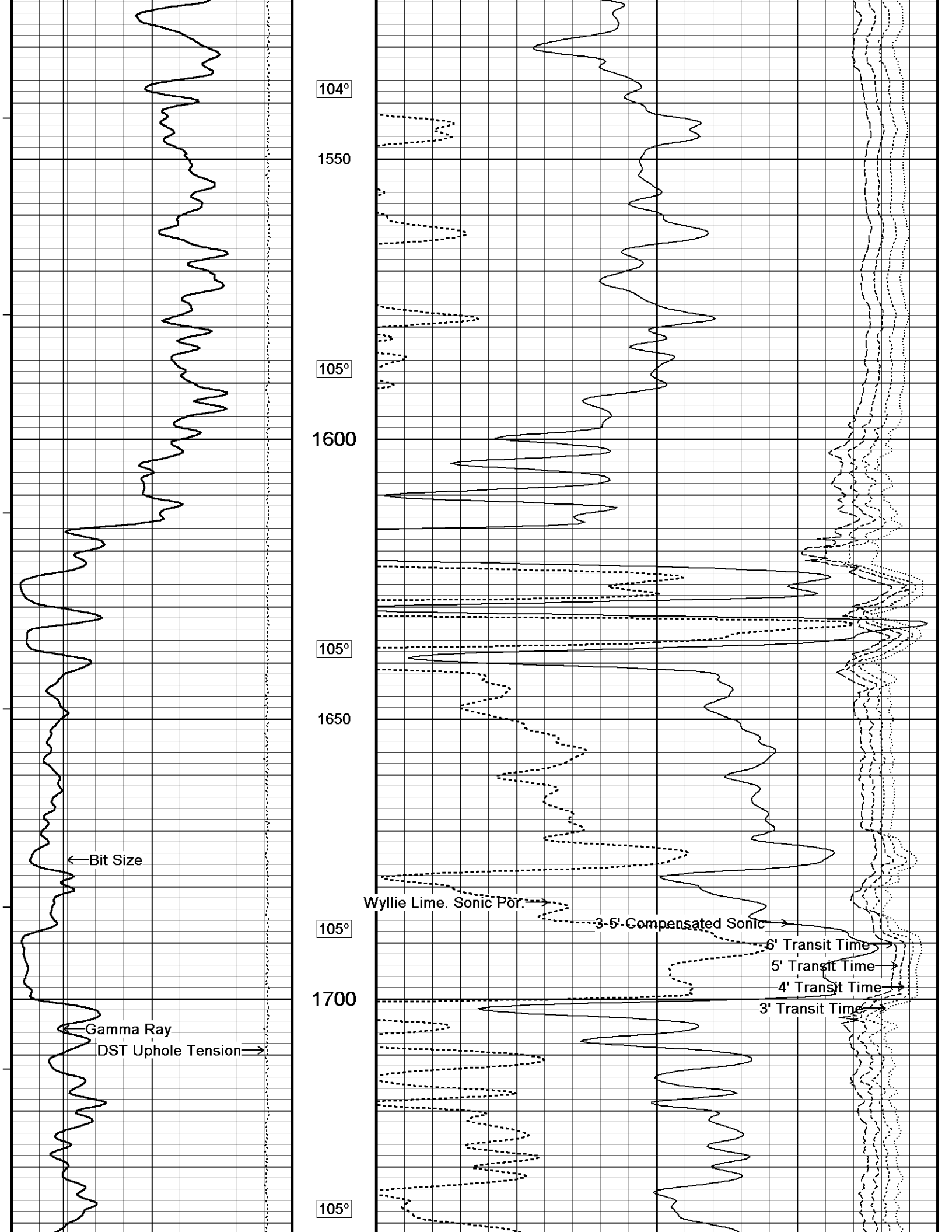

98°
450
97°
Bit Size
500
3-5' Compensated Sonic
6' Transit Time
5' Transit Time
4' Transit Time
3' Transit Time
Gamma Ray
DST Uphole Tension
96°
550
97°
600
97°

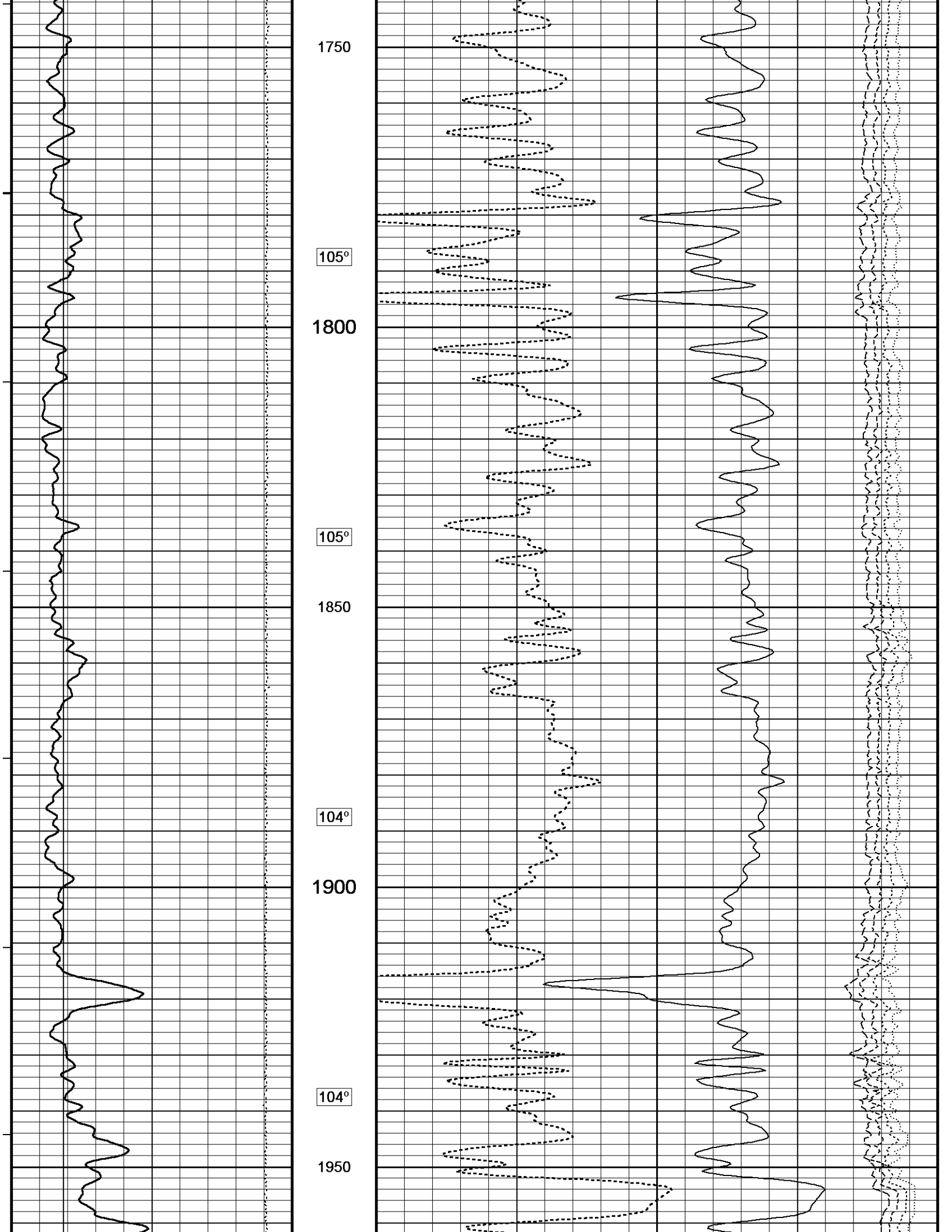

650
97°
700
98°
750
98°
800
99°
850

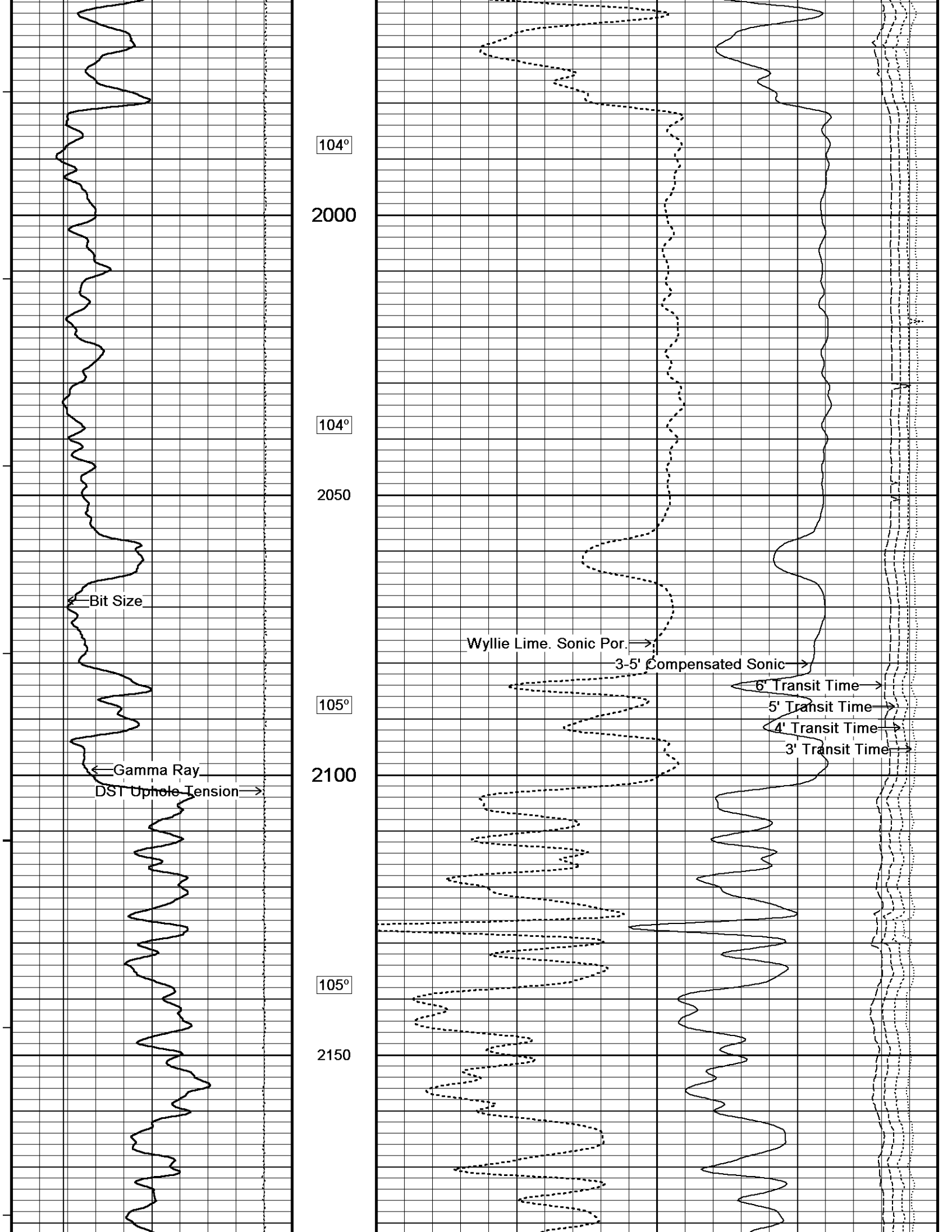

Bit Size
99°
900
3-5' Compensated Sonic
6' Transit Time
5' Transit Time
4' Transit Time
3' Transit Time
Gamma Ray
DST Uphole Tension
100°
950
100°
1000
100°
1050

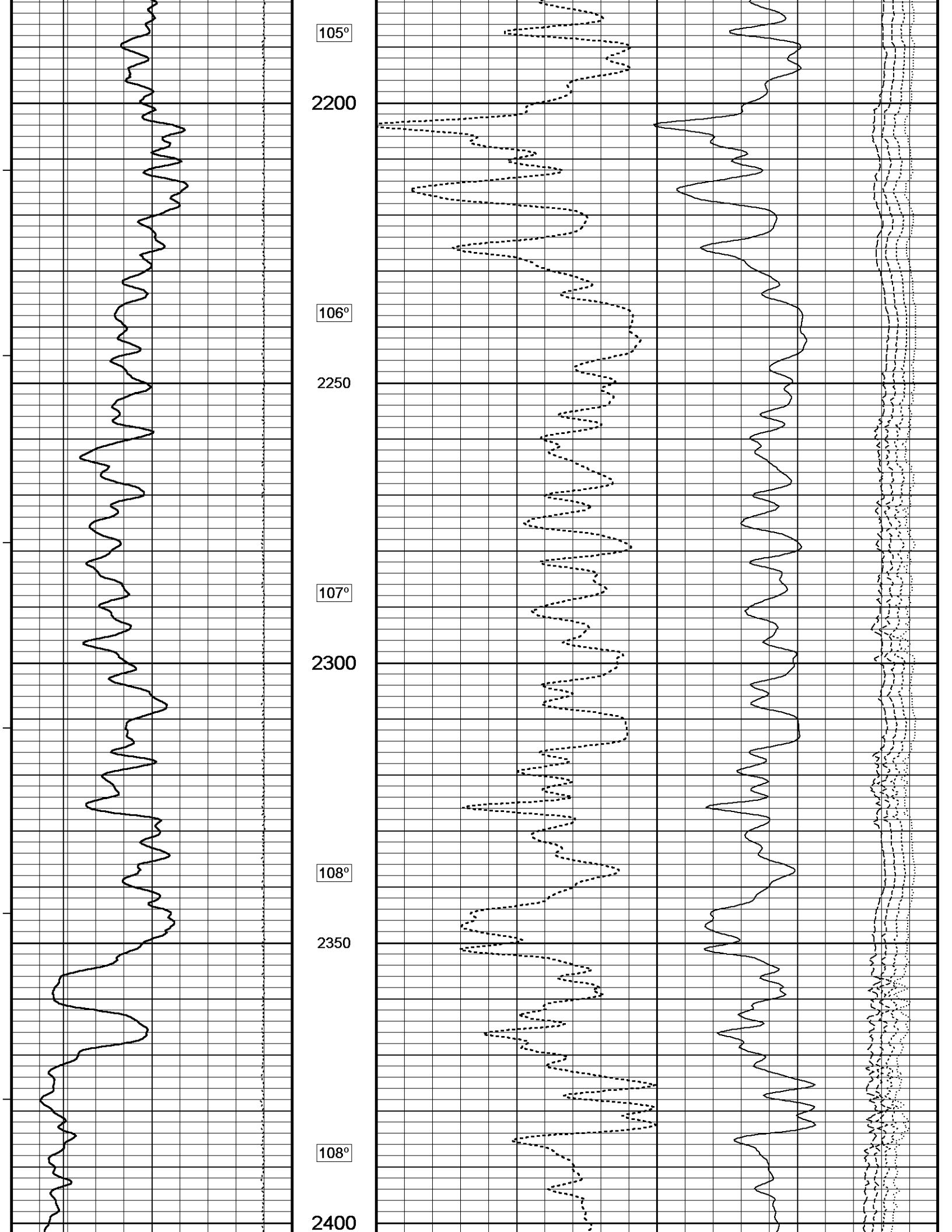

101°
1100
101°
1150
101°
1200
101°
1250
102°
1300
Bit Size
3-5' Compensated Sonic
6' Transit Time
5' Transit Time

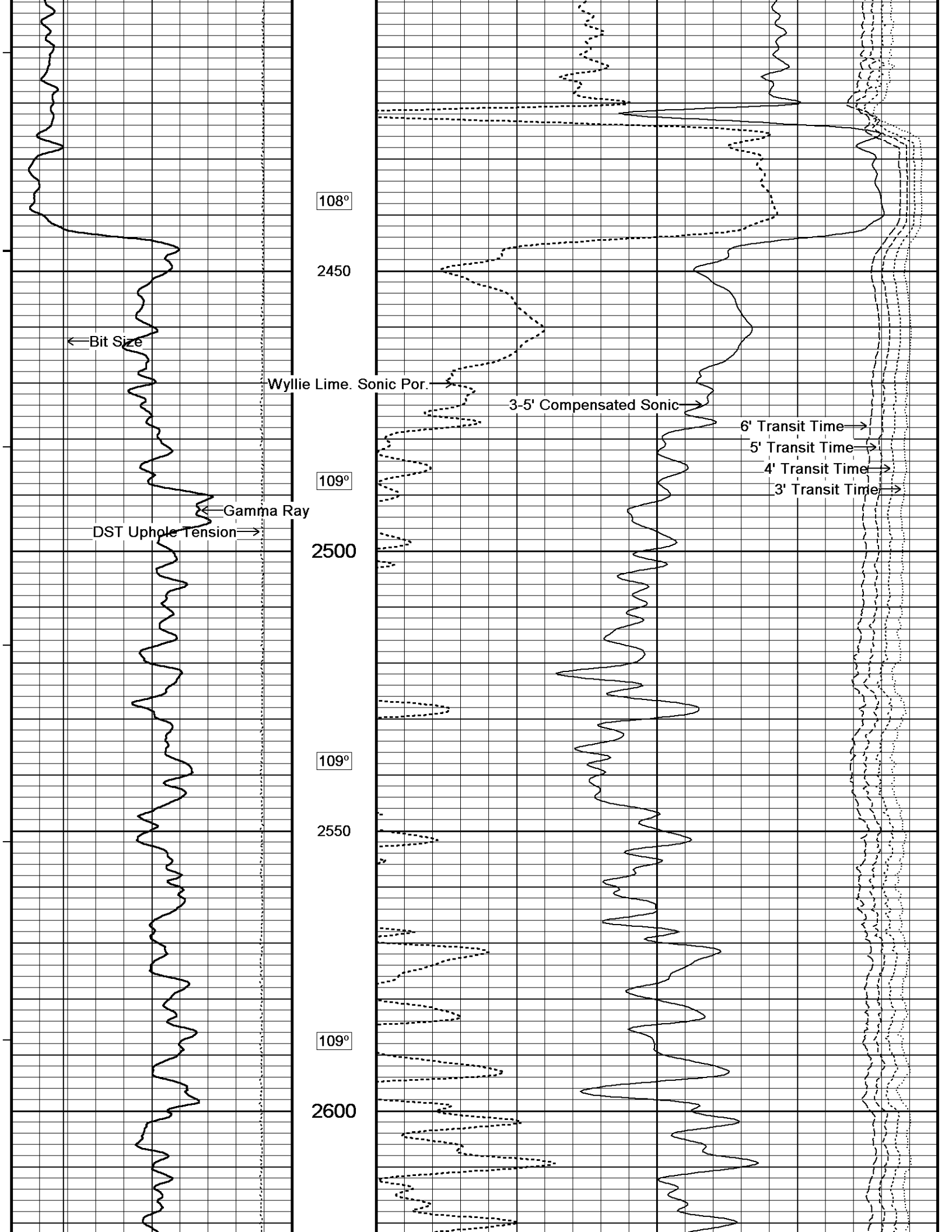

Gamma Ray
DST Uphole Tension
4' Transit Time
3' Transit Time
102°
1350
102°
1400
103°
1450
103°
1500

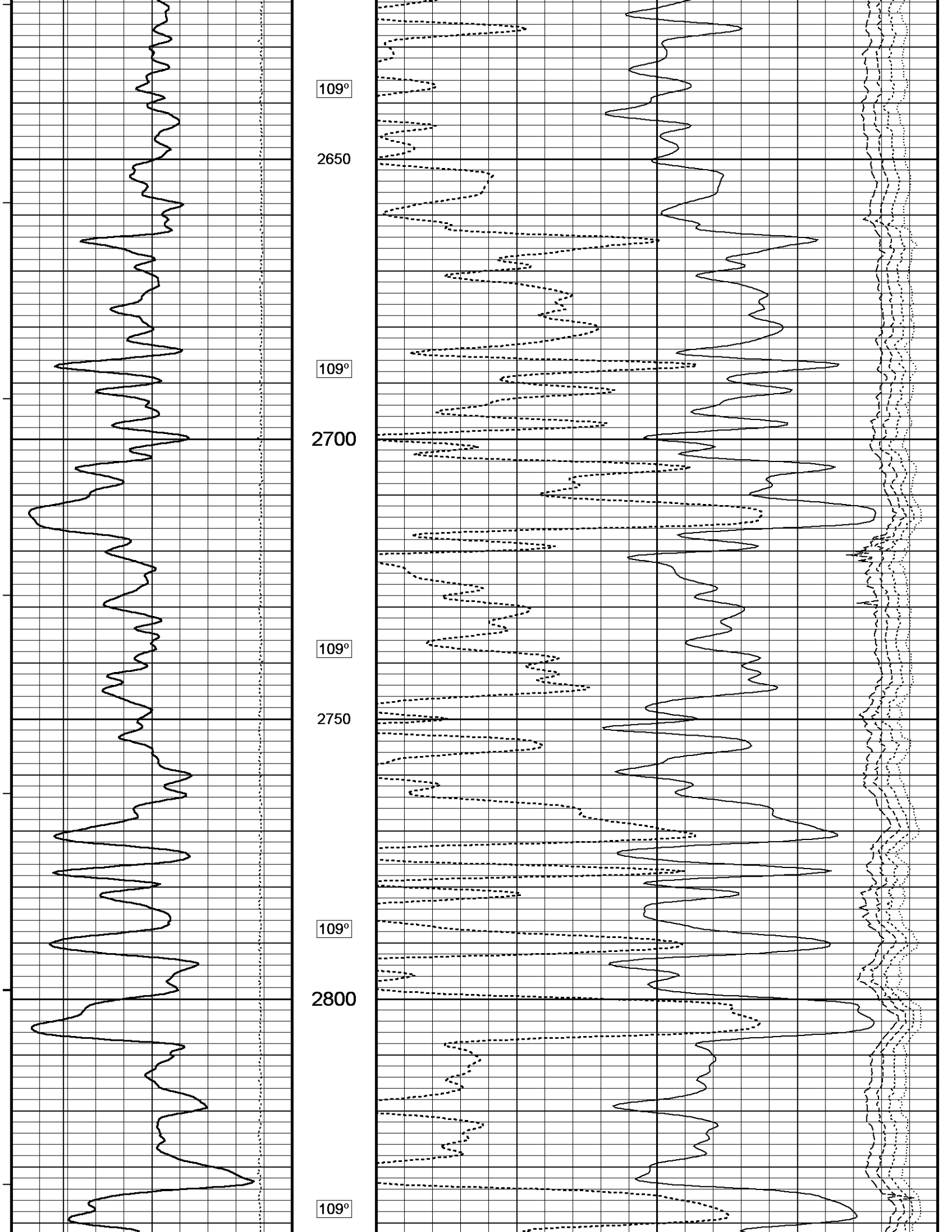

104°
1550
105°
1600
105°
1650
105°
1700
105°
←Bit Size
Gamma Ray
DST Uphole Tension→
Wyllie Lime. Sonic Por.→
3-5'-Compensated Sonic→
6' Transit Time→
5' Transit Time→
4' Transit Time→
3' Transit Time→

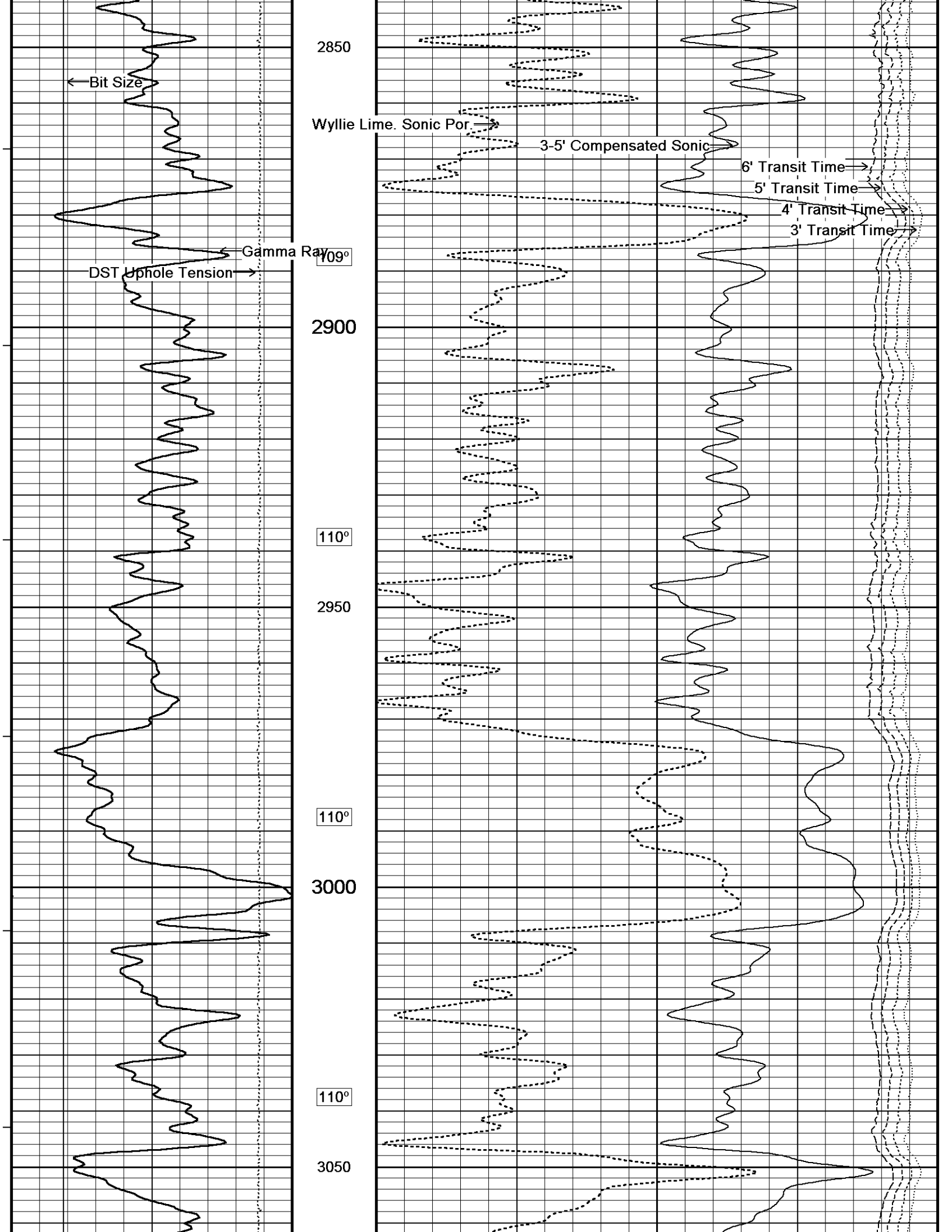

1750
105°
1800
105°
1850
104°
1900
104°
1950

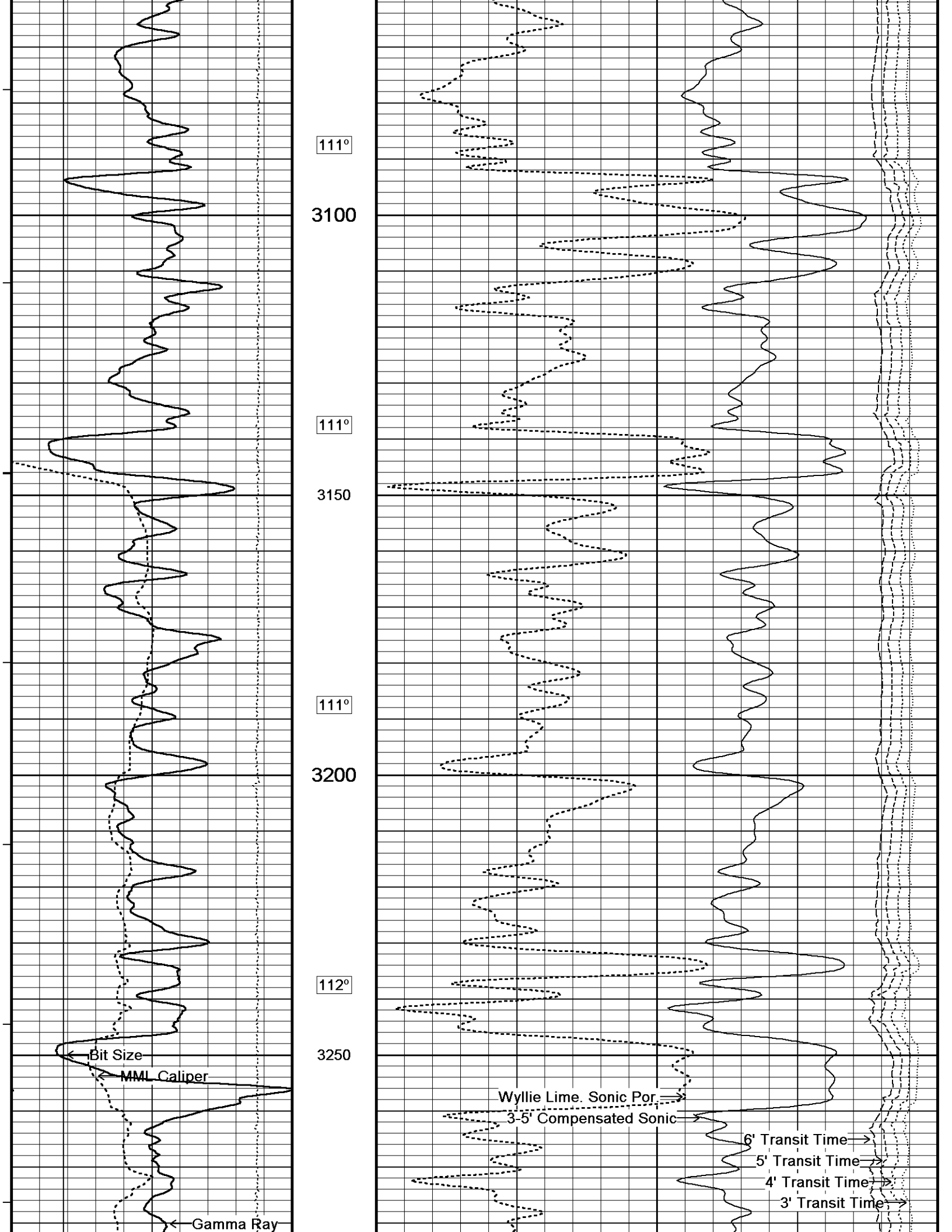

104°
2000
104°
2050
Bit Size
Wyllie Lime. Sonic Por.
3-5' Compensated Sonic
6' Transit Time
5' Transit Time
4' Transit Time
3' Transit Time
105°
Gamma Ray
2100
DST Uphole Tension
105°
2150

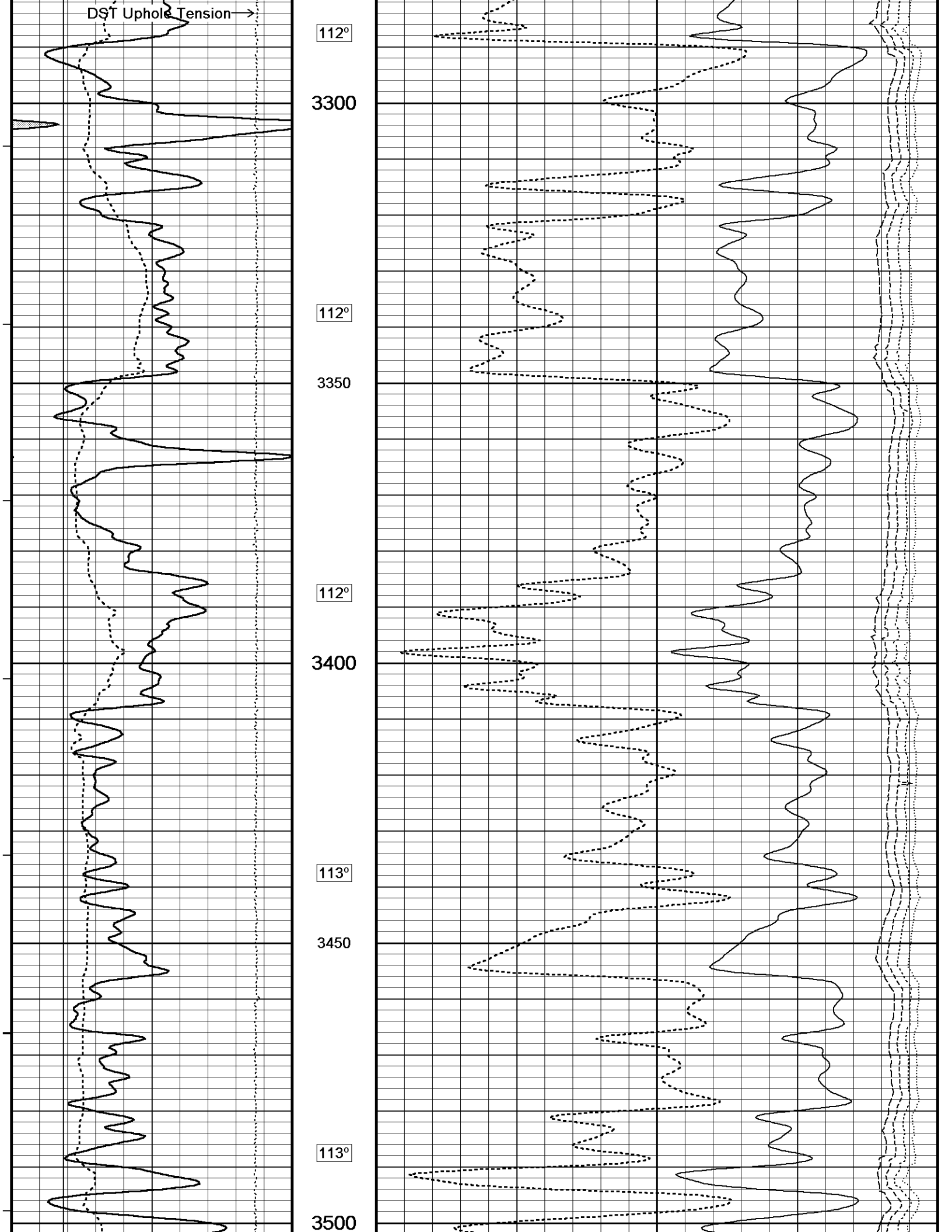

105°
2200
106°
2250
107°
2300
108°
2350
108°
2400

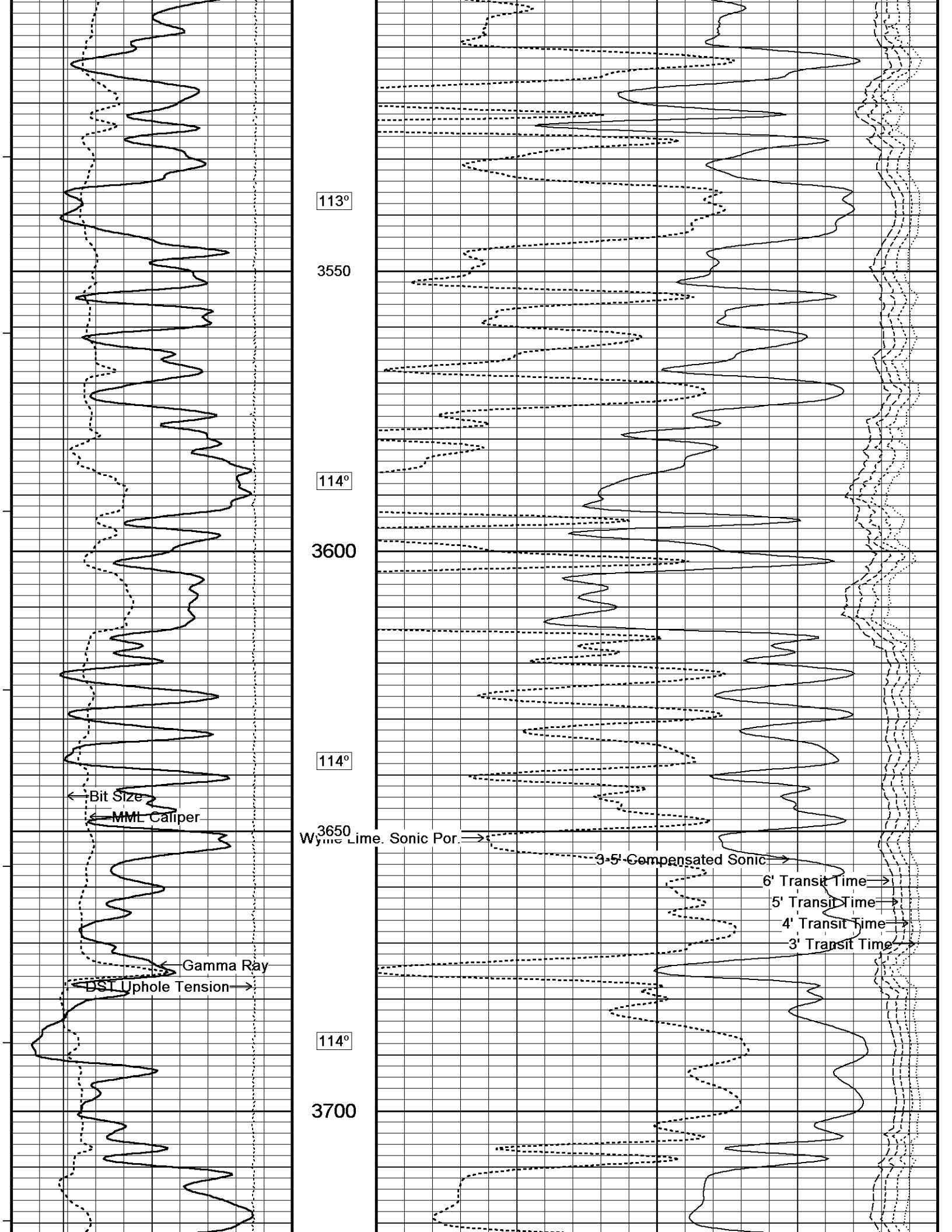

108°
2450
Bit Size
Wyllie Lime. Sonic Por.
3-5' Compensated Sonic
6' Transit Time
5' Transit Time
4' Transit Time
3' Transit Time
109°
Gamma Ray
DST Uphole Tension
2500
109°
2550
109°
2600

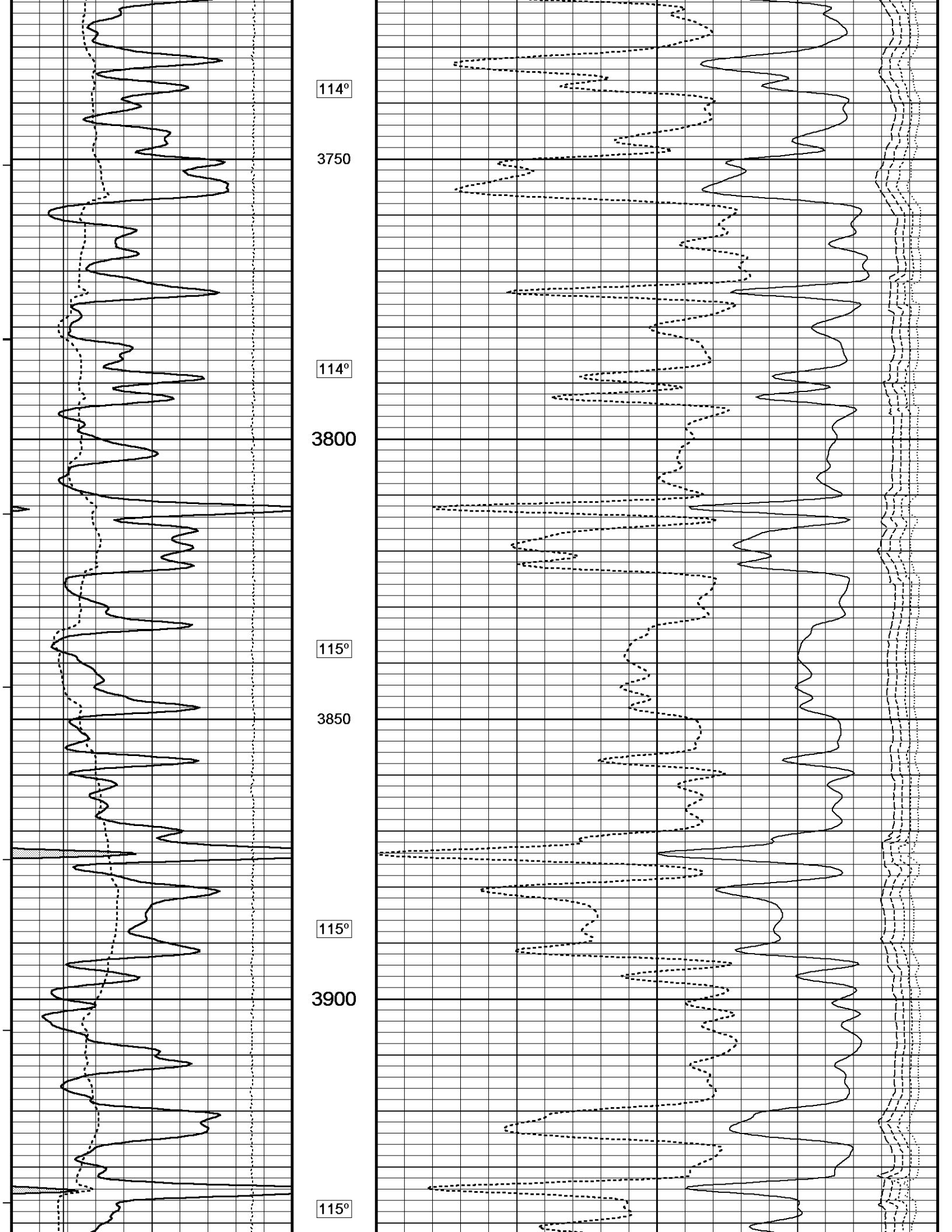

109°
2650
109°
2700
109°
2750
109°
2800
109°

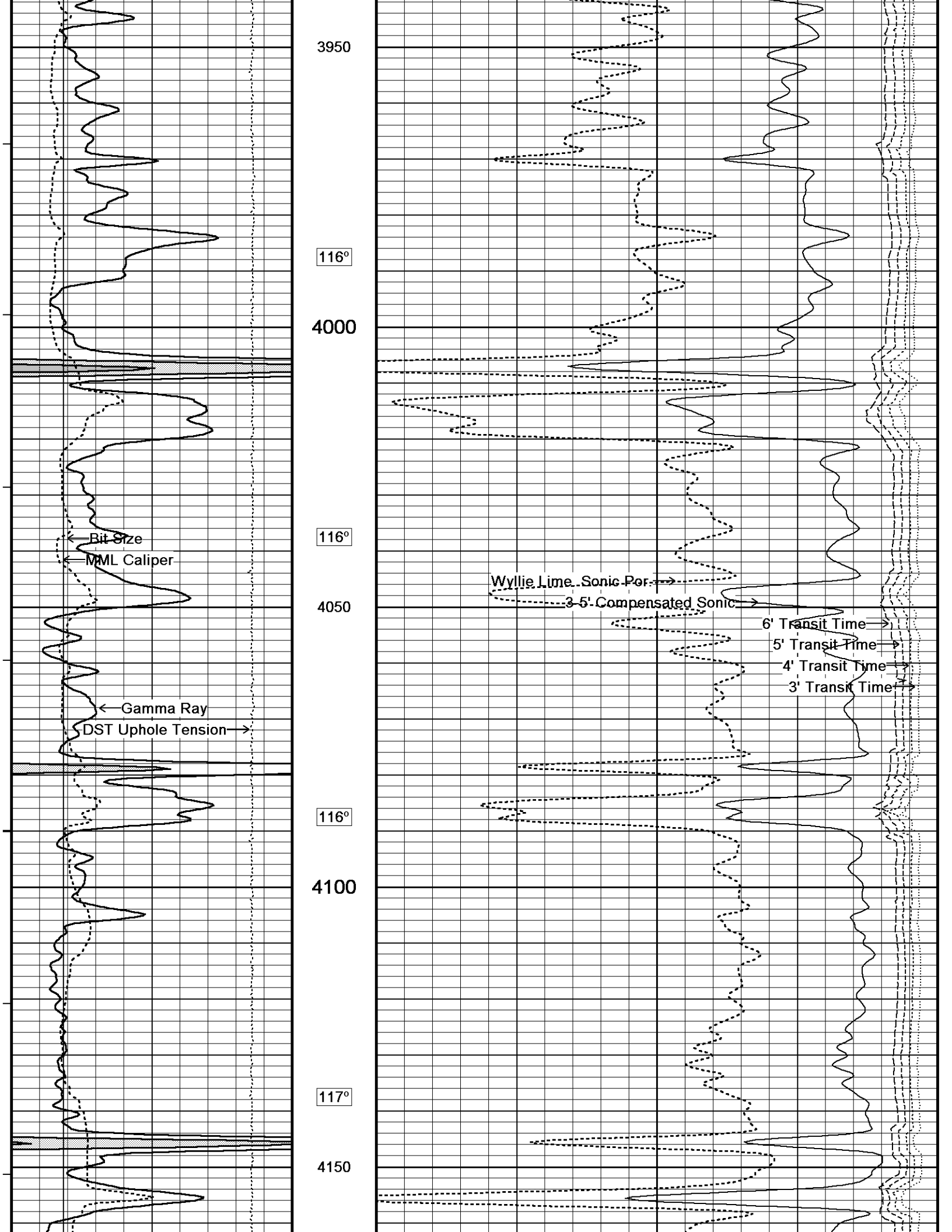

2850
Bit Size
Wyllie Lime. Sonic Por.
3-5' Compensated Sonic
6' Transit Time
5' Transit Time
4' Transit Time
3' Transit Time
Gamma Ray
109°
DST Uphole Tension
2900
110°
2950
110°
3000
110°
3050

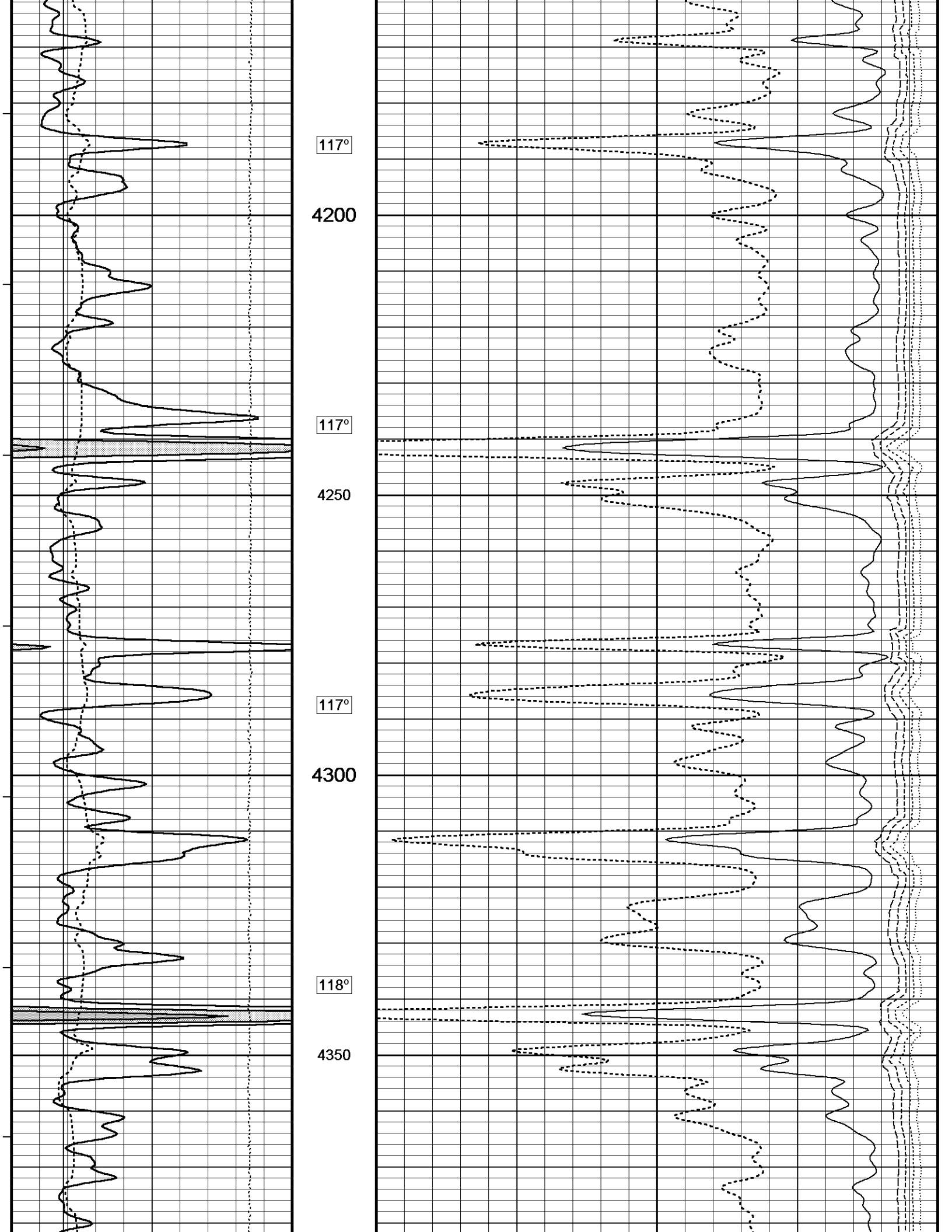

111°
3100
111°
3150
111°
3200
112°
3250
Bit Size
MML Caliper
Gamma Ray
Wyllie Lime. Sonic Por.
3-5' Compensated Sonic
6' Transit Time
5' Transit Time
4' Transit Time
3' Transit Time

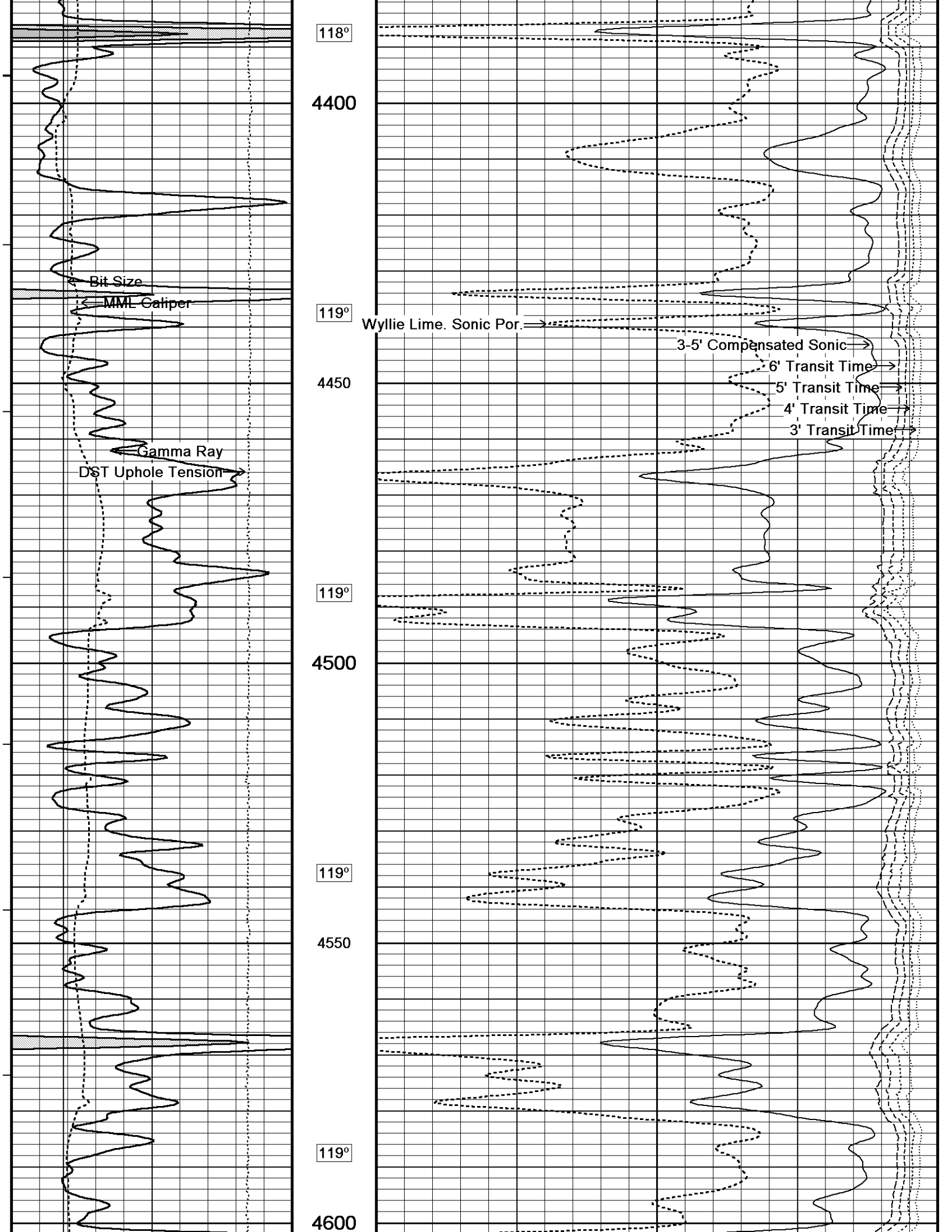

DST Uphole Tension
112°
3300
112°
3350
112°
3400
113°
3450
113°
3500

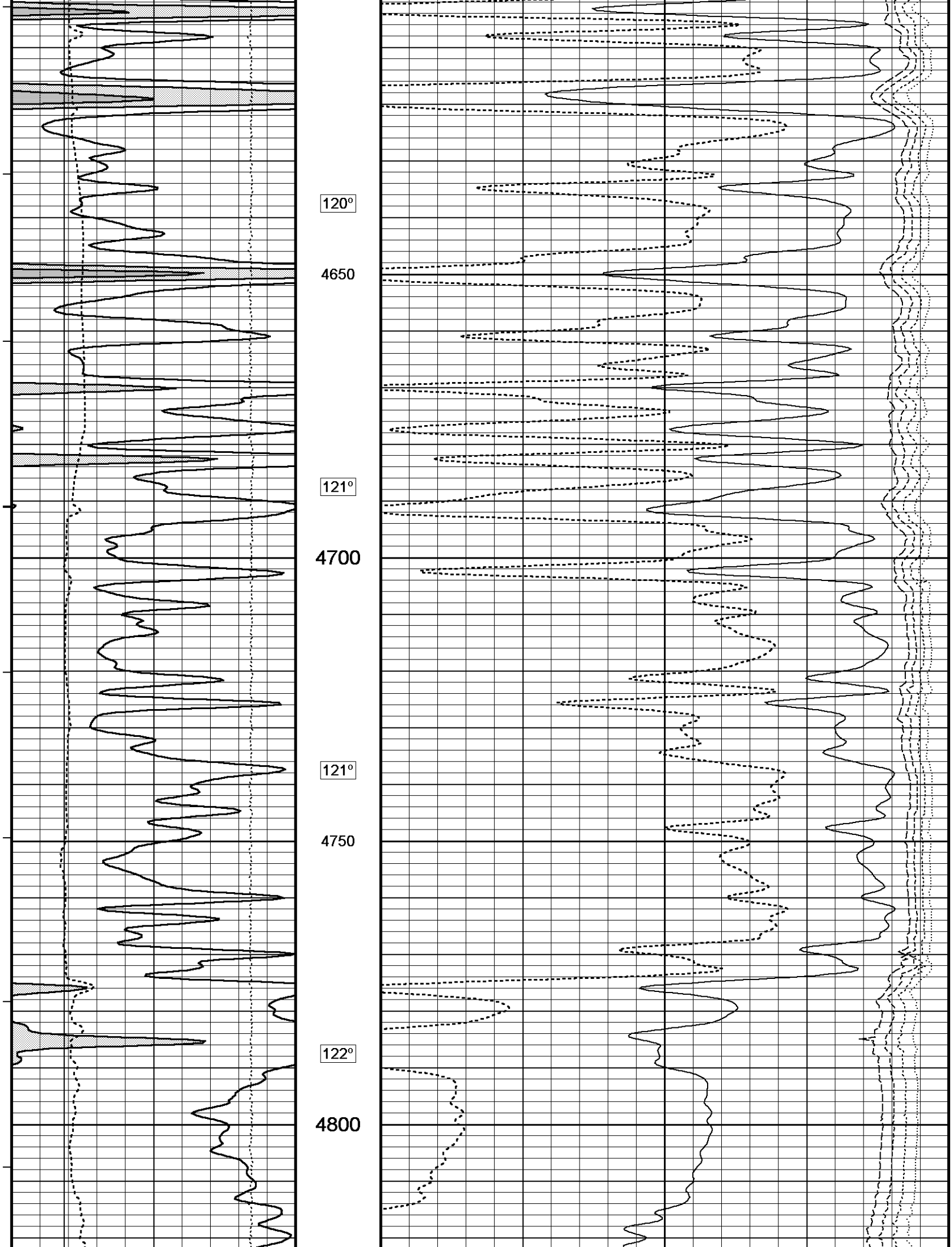

113°
3550
114°
3600
114°
Bit Size
MML Caliper
3650
Wylie Lime. Sonic Por.
3-5' Compensated Sonic
6' Transit Time
5' Transit Time
4' Transit Time
3' Transit Time
Gamma Ray
DST Uphole Tension
114°
3700

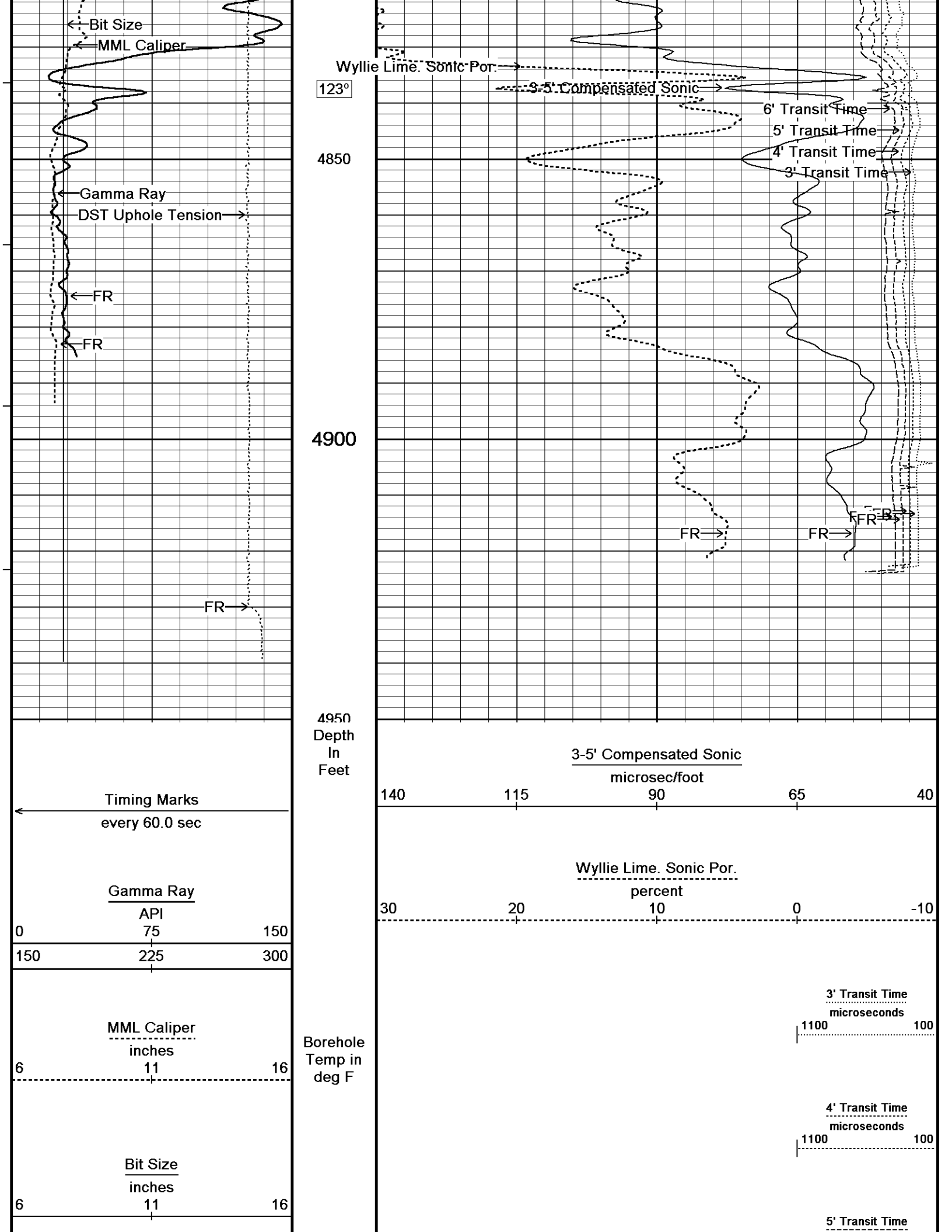

114°
3750
114°
3800
115°
3850
115°
3900
115°


3950
116°
4000
116°
Bit Size
MML Caliper
Wyllie Lime Sonic Por
3-5' Compensated Sonic
4050
6' Transit Time
5' Transit Time
4' Transit Time
3' Transit Time
Gamma Ray
DST Uphole Tension
116°
4100
117°
4150


117°
4200
117°
4250
117°
4300
118°
4350


118°
4400
Bit Size
MML Caliper
119°
Wyllie Lime. Sonic Por.
3-5' Compensated Sonic
6' Transit Time
5' Transit Time
4' Transit Time
3' Transit Time
4450
Gamma Ray
DST Uphole Tension
119°
4500
119°
4550
119°
4600


120°
4650
121°
4700
121°
4750
122°
4800


Bit Size
MML Caliper
Gamma Ray
DST Uphole Tension
FR
FR
FR
Wyllie Lime. Sonic Por.
123°
3-5' Compensated Sonic
6' Transit Time
5' Transit Time
4' Transit Time
3' Transit Time
4850
4900
FR
FR
FR
4950
Depth
In
Feet
Timing Marks
every 60.0 sec
Gamma Ray
API
0
75
150
150
225
300
MML Caliper
inches
6
11
16
Bit Size
inches
6
11
16
Borehole
Temp in
deg F
3-5' Compensated Sonic
microsec/foot
140
115
90
65
40
Wyllie Lime. Sonic Por.
percent
30
20
10
0
-10
3' Transit Time
microseconds
1100
100
4' Transit Time
microseconds
1100
100
5' Transit Time

microseconds
1100 100

DST Uphole Tension
pounds
5000 0

Replay
Scale
1:240

6' Transit Time
microseconds
1100 100

Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 11-JUN-2013 21:45
Filename: C:\Minimus 13.05.9583\Logs\Stelbar Hess 1-31\Stelbar Hess 1-31_003.dta
Recorded on 11-JUN-2013 18:07
System Versions: Logged with 13.05.9583 Processed with 13.05.9583 Plotted with 13.05.9583

5 INCH MAIN

REPEAT SECTION

Depth Based Data - Maximum Sampling Increment 10.0cm
Filename: C:\Minimus 13.05.9583\Logs\Stelbar Hess 1-31\Stelbar Hess 1-31_002.dta
System Versions: Logged with 13.05.9583 Processed with 13.05.9583 Plotted with 13.05.9583
Plotted on 11-JUN-2013 21:45
Recorded on 11-JUN-2013 17:41

Depth
in
Feet

Timing Marks
every 60.0 sec

3-5' Compensated Sonic
microsec/foot
140 115 90 65 40

Gamma Ray
API
0 75 150
150 225 300

Wyllie Lime. Sonic Por.
percent
30 20 10 0 -10

3' Transit Time
microseconds
1100 100

MML Caliper
inches
6 11 16

Borehole
Temp in
deg F

4' Transit Time
microseconds
1100 100

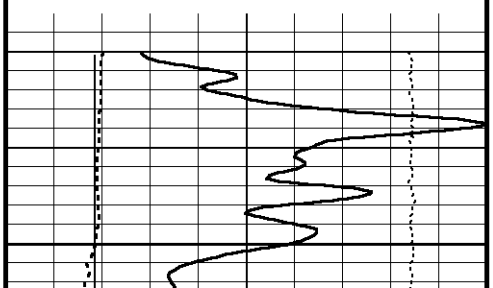
Bit Size
inches
6 11 16

5' Transit Time
microseconds
1100 100

DST Uphole Tension
pounds
5000 0

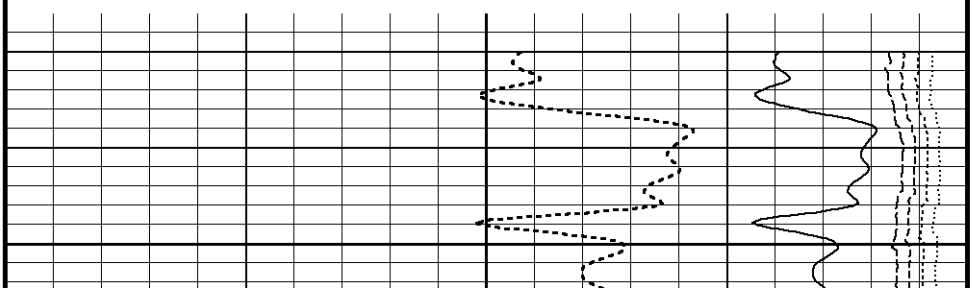
Replay
Scale
1:240

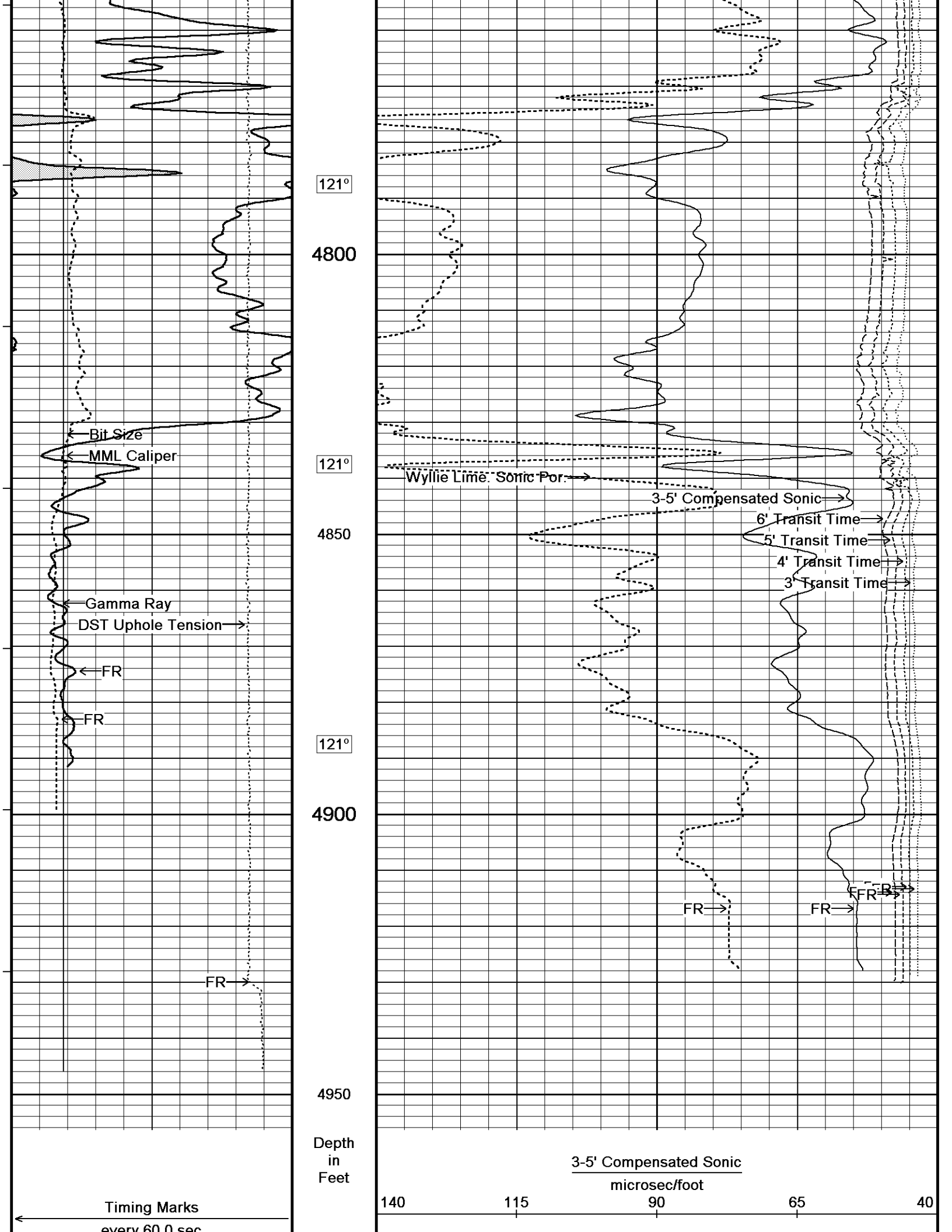
6' Transit Time
microseconds
1100 100



4728

4750




121°
4800
121°
4850
121°
4900
4950
Bit Size
MML Caliper
Gamma Ray
DST Uphole Tension
FR
FR
FR
Wyllie Lime. Sonic Por.
3-5' Compensated Sonic
6' Transit Time
5' Transit Time
4' Transit Time
3' Transit Time
FR
FR
FR
Depth
in
Feet
Timing Marks
every 60.0 sec
3-5' Compensated Sonic
microsec/foot
140
115
90
65
40

every 60.0 sec

Gamma Ray
API
0 75 150
150 225 300

MML Caliper
inches
6 11 16

Bit Size
inches
6 11 16

DST Uphole Tension
pounds
5000 0

Borehole Temp in deg F

Replay Scale 1:240

Wyllie Lime. Sonic Por.
percent
30 20 10 0 -10

3' Transit Time
microseconds
1100 100

4' Transit Time
microseconds
1100 100

5' Transit Time
microseconds
1100 100

6' Transit Time
microseconds
1100 100

Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 11-JUN-2013 21:45
Filename: C:\Minimus 13.05.9583\Logs\Stelbar Hess 1-31\Stelbar Hess 1-31_002.dta
Recorded on 11-JUN-2013 17:41
System Versions: Logged with 13.05.9583 Processed with 13.05.9583 Plotted with 13.05.9583

REPEAT SECTION

BEFORE SURVEY CALIBRATION

C:\Minimus 13.05.9583\Logs\Stelbar Hess 1-31\Stelbar Hess 1-31_002.dta

General Constants All 000

Last Edited on 11-JUN-2013,15:21

General Parameters		
Mud Resistivity	0.580	ohm-metres
Mud Resistivity Temperature	90.000	degrees F
Water Level	0.000	feet
Borehole Fluid Processing	Wet Hole	
Hole/Annular Volume and Differential Caliper Parameters		
HVOL Method	Single Caliper	
HVOL Caliper 1	Density Caliper	
HVOL Caliper 2	N/A	
Annular Volume Diameter	5.500	inches
Caliper for Differential Caliper	Density Caliper	
Rwa Parameters		
Porosity used	Base Density Porosity	
Resistivity used	Array Ind. Six Res Rt	
RWA Constant A	0.610	
RWA Constant M	2.150	
SW/APOR Tool Source	0.000	

Gamma Calibration MCG-C 208

Field Calibration on 11-JUN-2013 09:43

	Measured	Calibrated (API)
Background	67	46
Calibrator (Gross)	1140	771

Calibrator (Net)	1072	725

Gamma Constants MCG-C 208

Last Edited on 11-JUN-2013,15:21

Gamma Calibrator Number	GRC038	
Mud Density	1.10	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Eccentred	
Concentration of KCl		kppm
K Mud Type	Chloride	
K Mud Concentration	0.00	%

High Resolution Temperature Calibration MCG-C 208

Field Calibration on 07-JUN-2013,09:16

	Measured	Calibrated(Deg F)
Lower	50.00	50.00
Upper	75.00	75.00

High Resolution Temperature Constants MCG-C 208

Last Edited on 07-JUN-2013,09:15

Pre-filter Length	11

Caliper Calibration MML-A 16

Base Calibration on 16-MAY-2013 11:56
Field Calibration on 11-JUN-2013 09:30

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	14258	5.98
2	17442	7.97
3	20671	9.86
4	24432	11.92
5	0	0.00
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
6.07	5.98

Sonic Constants MSS-A.A 126

Last Edited on

Maximum Boundary Contrast	100.00	micro-sec/ft
Fluid Transit Time	189.00	micro-sec/ft
Limestone Transit Time	47.50	micro-sec/ft
Sandstone Transit Time	55.50	micro-sec/ft
Dolomite Transit Time	43.50	micro-sec/ft
Sonic used for Porosities	3-5' Compensated	
Correction for Sonde Skew	Applied	
Cycle Stretch Algorithm	Applied	
MN3FT	0.00	micro-sec
MX3FT	1500.00	micro-sec
Hunt-Raymer Constant	83.13	micro-sec/ft
Sonde Mode	Compensated	
Hole Type	Open Hole	

Sonde Parameters

	Measured	Calibrated
Offset	0.0000	0.0000
Free Pipe	0.0000	

Peak Amplitude Source

Waveform	Start Time (micro-sec)	Width (micro-sec)	Pre Gain	Start Gain	Discriminator (mV)
3'					
4'					
5'					
6'					

Processed Fixed Gate Parameters

Waveform Used For Processing N/A

Start Time (micro-sec)	End Time (micro-sec)	Discriminator (mV)	Depth (m)
0.00	0.00	0.00	
0.00	0.00	0.00	0.00
			0.00

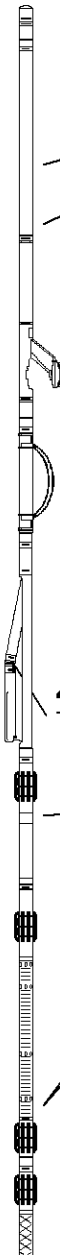
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00
		0.00
		0.00

Full Waveform Parameters

Use 3' Waveform to derive TR	No	
Use 4' Waveform to derive TR	No	
Use 5' Waveform to derive TR	No	
Use 6' Waveform to derive TR	No	
3' Waveform Discriminator Level	0.30	mV
4' Waveform Discriminator Level	0.30	mV
5' Waveform Discriminator Level	0.15	mV
6' Waveform Discriminator Level	0.15	mV
3' Waveform Filter		
4' Waveform Filter		
5' Waveform Filter		
6' Waveform Filter		
Semblance Level	0.50	
Semblance Window Width	120.00	micro-sec
Sonic 1 Despiker	100.00	micro-sec/ft
Sonic 2 Despiker	100.00	micro-sec/ft

DOWNHOLE EQUIPMENT

C:\Minimus 13.05.9583\Logs\Stelbar Hess 1-31\Stelbar Hess 1-31_002.dta



3/8" Triple Cone Cable Head (MCB C A)
MCB-C.A 5 LG: 1.58 ft WT: 15.4 lb OD: 2.24 in

Compact Comms Gamma
MCG-C 208 LG: 8.70 ft WT: 63.9 lb OD: 2.24 in
- 55.39 ft GRGC - Gamma Ray
- 52.48 ft CGXT - MCG External Temperature

Compact Micro-log
MML-A 16 LG: 7.97 ft WT: 81.6 lb OD: 2.24 in
- 45.76 ft MINV - Micro-inverse
- 45.76 ft MNRL - Micro-normal
- 46.76 ft MLTC - MML Caliper

Compact Neutron
MDN-A.B 65 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in
- 40.97 ft NPRL - Limestone Neutron Por.

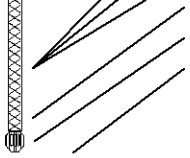
Compact Density/Caliper
MPD-B 31 LG: 9.59 ft WT: 90.4 lb OD: 2.45 in
- 33.73 ft AVOL - Annular Volume
- 33.73 ft HVOL - Hole Volume
- 33.73 ft CLDC - Density Caliper
- 31.80 ft DPRL - Limestone Density Por.
- 31.80 ft DEN - Compensated Density
- 31.80 ft DCOR - Density Correction
- 31.74 ft PDPE - PE

Compact Focussed Electric
MFE-B.J 352 LG: 6.05 ft WT: 48.5 lb OD: 2.24 in
- 26.24 ft FEFE - Shallow FE

Compact Sonic
MSS-A.A 126 LG: 12.52 ft WT: 72.8 lb OD: 2.24 in
- 12.96 ft DT35 - 3-5' Compensated Sonic
- 12.96 ft SPRL - Wyllie Lime. Sonic Por.

Compact Induction
MAI-A.A 45 LG: 10.81 ft WT: 48.5 lb OD: 2.24 in
- 3.34 ft R40O - Array Ind. One Res 40
- 3.34 ft RTAO - Array Ind. One Res Rt
- 3.34 ft R60O - Array Ind. One Res 60

Total	Length: 62.25 ft	Weight: 471.8 lb



0.23 ft SPCG - Spontaneous Potential
Tool Zero (0.13ft from bottom)
-0.13 ft SMTU - DST Uphole Tension
All measurements relative to tool zero.

COMPANY	STELBAR OIL CORPORATION, INC.
WELL	HESS #1-31
FIELD	WILDCAT
PROVINCE/COUNTY	SCOTT
COUNTRY/STATE	U.S.A. / KANSAS

Elevation Kelly Bushing	3088.00	feet	First Reading	4917.00	feet
Elevation Drill Floor	3087.00	feet	Depth Driller	4930.00	feet
Elevation Ground Level	3081.00	feet	Depth Logger	4930.00	feet

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COMPENSATED SONIC
WITH INTEGRATED TRANSIT TIME

COMPENSATED NEUTRON ACOUSTIC POROSITY OVERLAY

Weatherford®

COMPANY	STELBAR OIL CORPORATION, INC.
WELL	HESS #1-31
FIELD	WILDCAT
PROVINCE/COUNTY	SCOTT
COUNTRY/STATE	U.S.A. / KANSAS
LOCATION	1162' FNL & 336' FWL

SEC	TWP	RGE	Other Services
31	17S	33W	

API Number 15-171-20944
Permit Number

Permanent Datum GL, Elevation 3081 feet
Log Measured From KB
Drilling Measured From KB

Elevations:	feet
KB	3088.00
DF	3087.00
GL	3081.00

Date	11-JUN-2013			
Run Number	ONE			
Service Order	3539038			
Depth Driller	4930.00	feet		
Depth Logger	4930.00	feet		
First Reading	4927.00	feet		
Last Reading	396.00	feet		
Casing Driller	390.00	feet		
Casing Logger	396.00	feet		
Bit Size	7.875	inches		
Hole Fluid Type	CHEMICAL			
Density / Viscosity	9.20 lb/USg		53.00 CP	
PH / Fluid Loss	10.00		8.80 ml/30Min	
Sample Source	MUDPIT			
Rm @ Measured Temp	0.58 @ 90.0	ohm-m		
Rmf @ Measured Temp	0.46 @ 90.0	ohm-m		
Rmc @ Measured Temp	0.70 @ 90.0	ohm-m		
Source Rmf / Rmc	CALC		CALC	
Rm @ BHT	0.42 @123.0	ohm-m		
Time Since Circulation	4 HOURS			
Max Recorded Temp	123.00	deg F		
Equipment / Base	13057		LIB	
Recorded By	ADAM SILL			
Witnessed By	DAVE GOLDAK			
JOB #	LB13-170			

BOREHOLE RECORD

Last Edited: 11-JUN-2013 15:18

Bit Size inches	Depth From feet	Depth To feet
7.875	390.00	4930.00

CASING RECORD

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	8.625	0.00	390.00	24.00

REMARKS

- SOFTWARE ISSUE: WLS 13.05.9583.
- MCG, MML, MDN, MPD, MFE, MSS, MAI RAN IN COMBINATION.
  - HARDWARE: DUAL BOWSPRING USED ON MDN.
  0.5 INCH STANDOFF USED ON MFE.
  TWO 0.5 INCH STANDOFFS USED ON MSS.
  0.5 INCH STANDOFF USED ON MAI.
- 2.71 G/CC LIMESTONE DENSITY MATRIX USED TO CALCULATE POROSITY.
- BOREHOLE RUGOSITY, TIGHT PULLS, AND WASHOUTS WILL AFFECT DATA QUALITY.
- ALL INTERVALS LOGGED AND SCALED PER CUSTOMER'S REQUEST.
- TOTAL HOLE VOLUME FROM TD TO SURFACE CASING: 2500 CU. FT.
- ANNULAR HOLE VOLUME WITH 5.5 INCH PRODUCTION CASING FROM TD TO 3550 FEET: 330 CU. FT.

- RIG: PICKRELL #10.

- ENGINEER: A. SILL.

- OPERATOR(S): M. SLOBODKIN.

5 INCH MAIN

Depth Based Data - Maximum Sampling Increment 10.0cm — Plotted on 11-JUN-2013 21:48

Filename: C:\Minimus 13.05.9583\Logs\Stelbar Hess 1-31\Stelbar Hess 1-31_003.dta — Recorded on 11-JUN-2013 18:07

System Versions: Logged with 13.05.9583 Processed with 13.05.9583 Plotted with 13.05.9583

Timing Marks
every 60.0 sec

Gamma Ray
API
0 75 150
150 225 300

Spontaneous Potential
millivolts
– → | 20 | ← +

Density Caliper
inches
6 11 16

Bit Size
inches
6 11 16

DST Uphole Tension
pounds
5000 0

Depth in Feet

Borehole Temp in deg F

HVI every 10 cu ft

Annular Integral every 10 cu ft

Replay Scale 1:240

2400

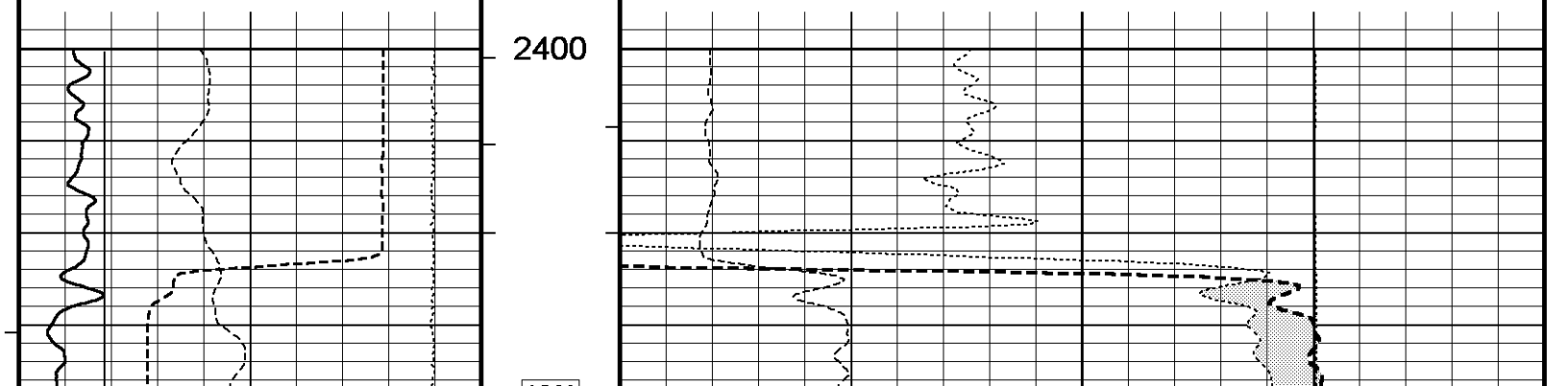
Limestone Neutron Por.
percent
30 20 10 0 -10

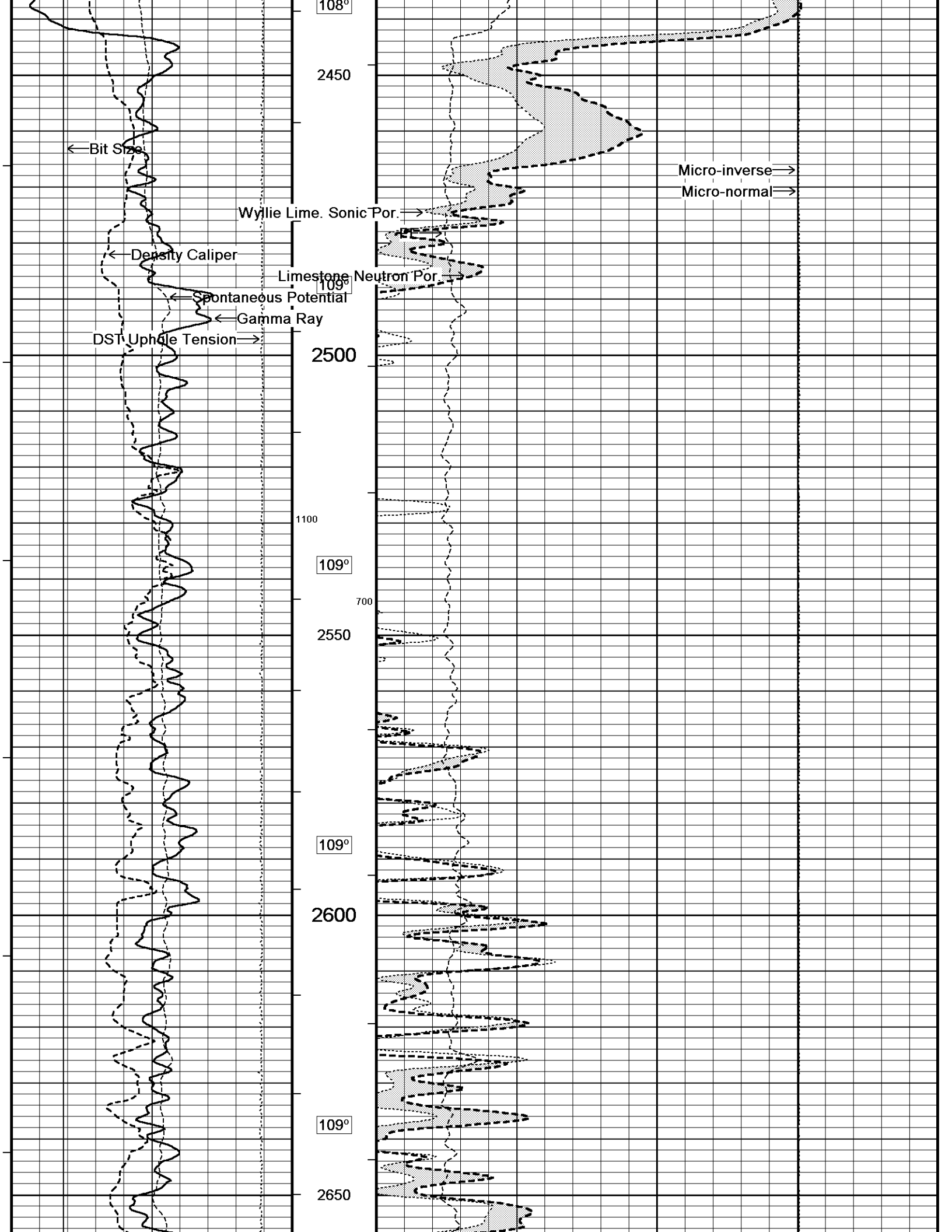
Wyllie Lime. Sonic Por.
percent
30 20 10 0 -10

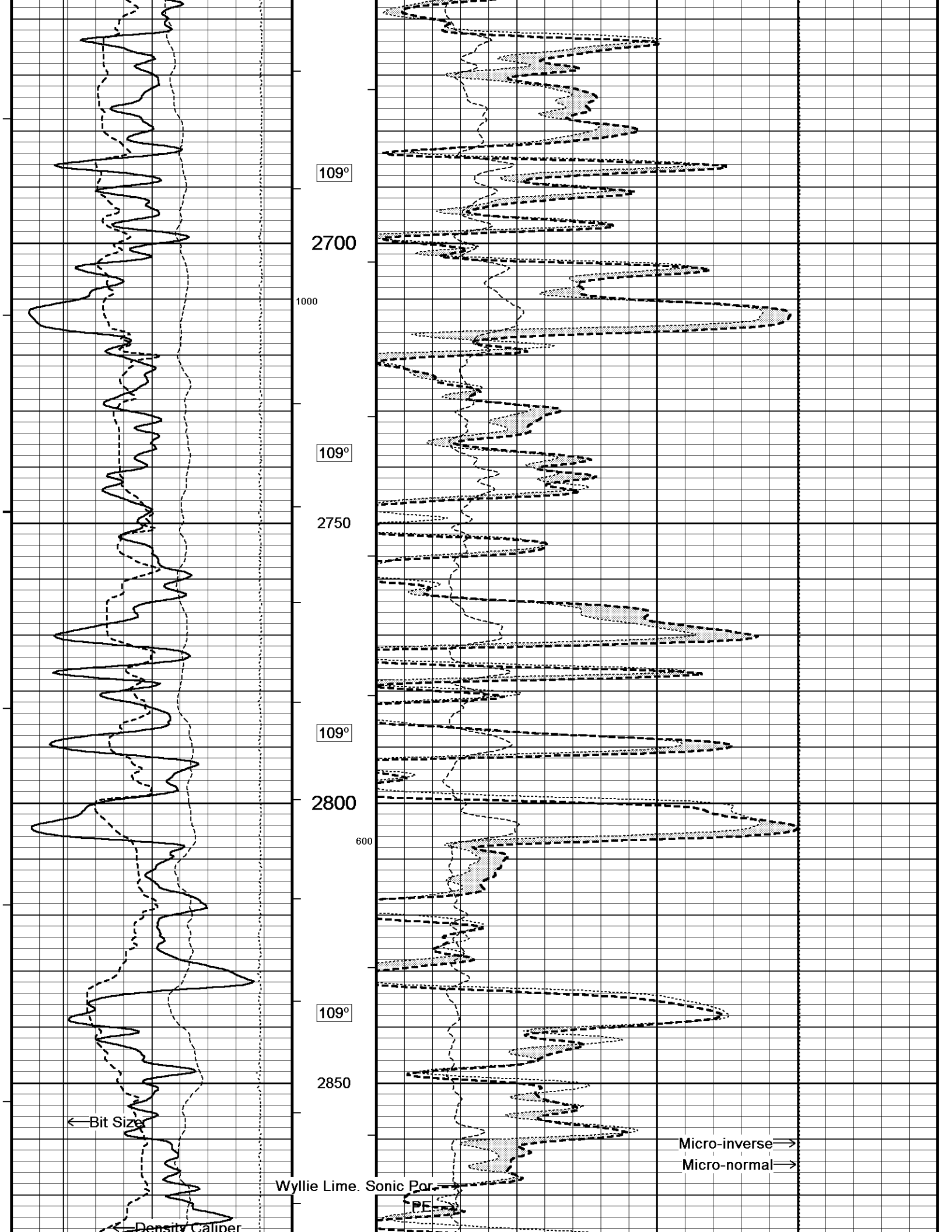
PE
barns/electron
0 5 10

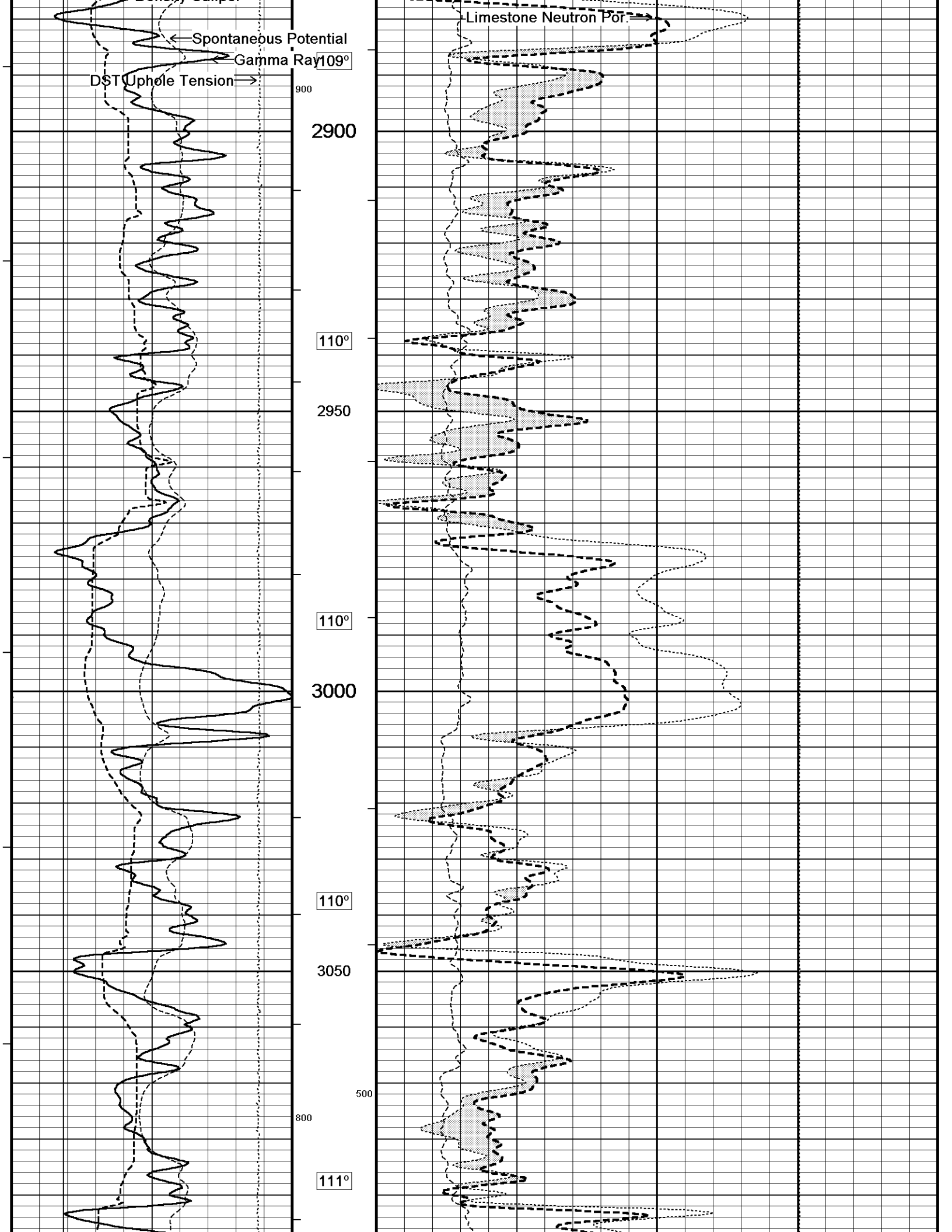
Micro-normal
ohm metres
0 30

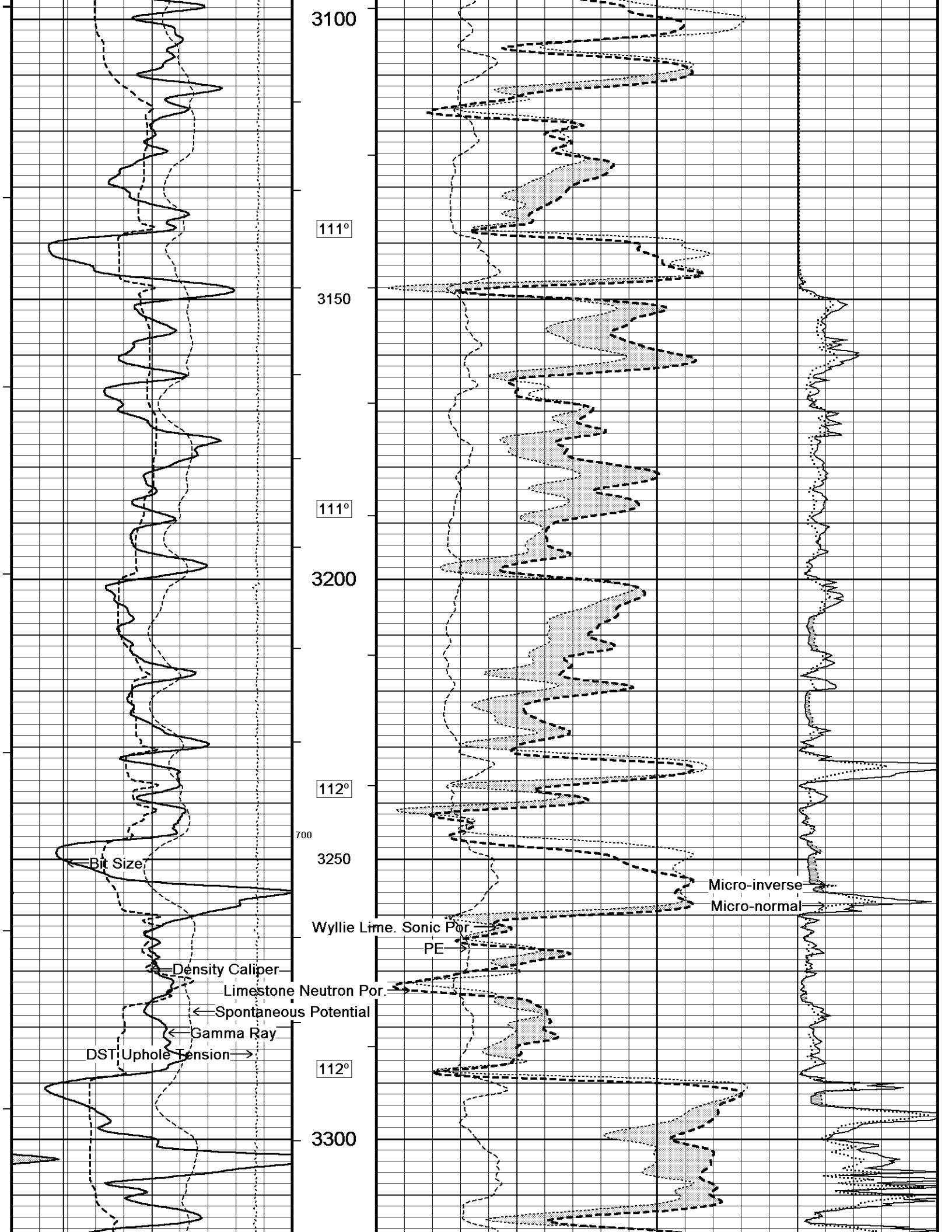
Micro-inverse
ohm metres
0 30

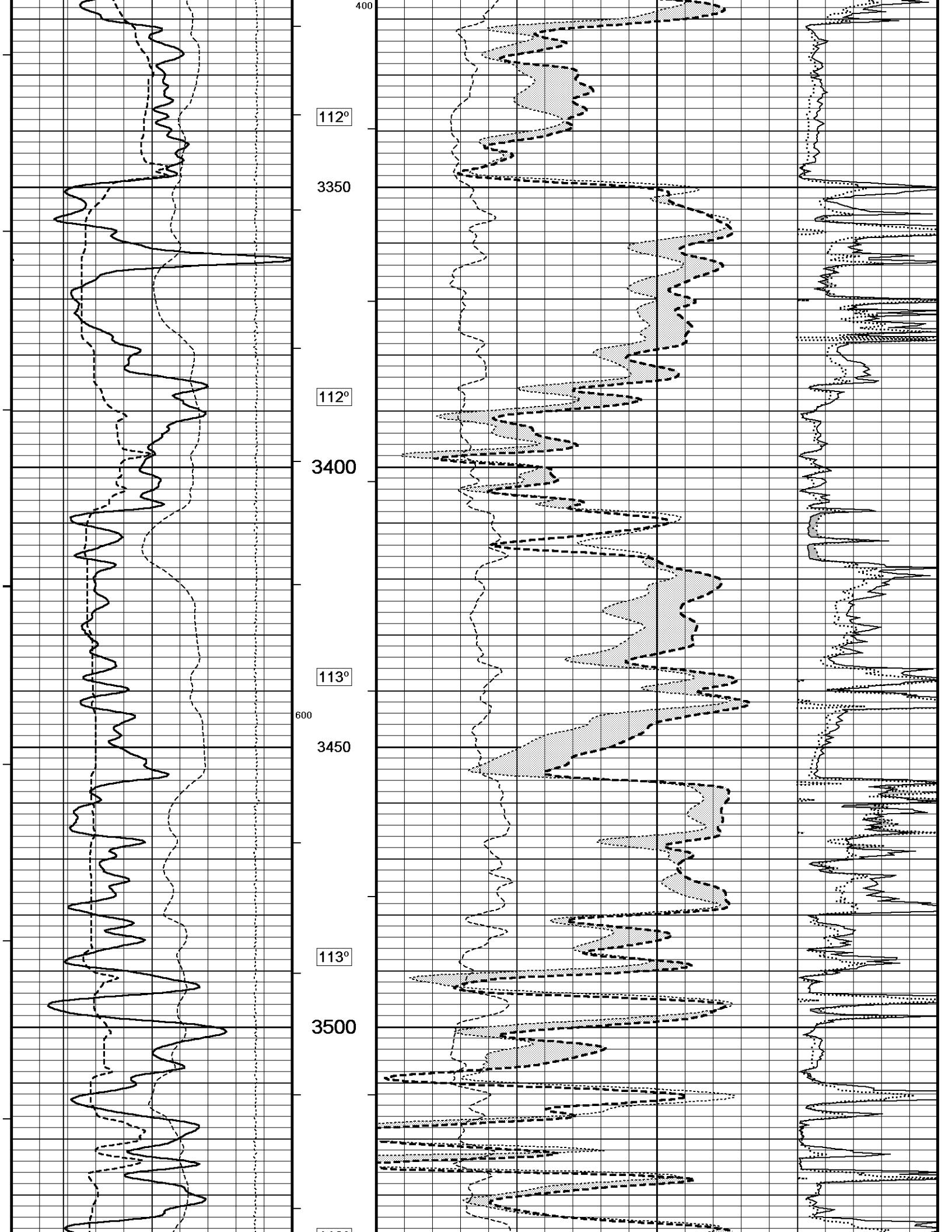


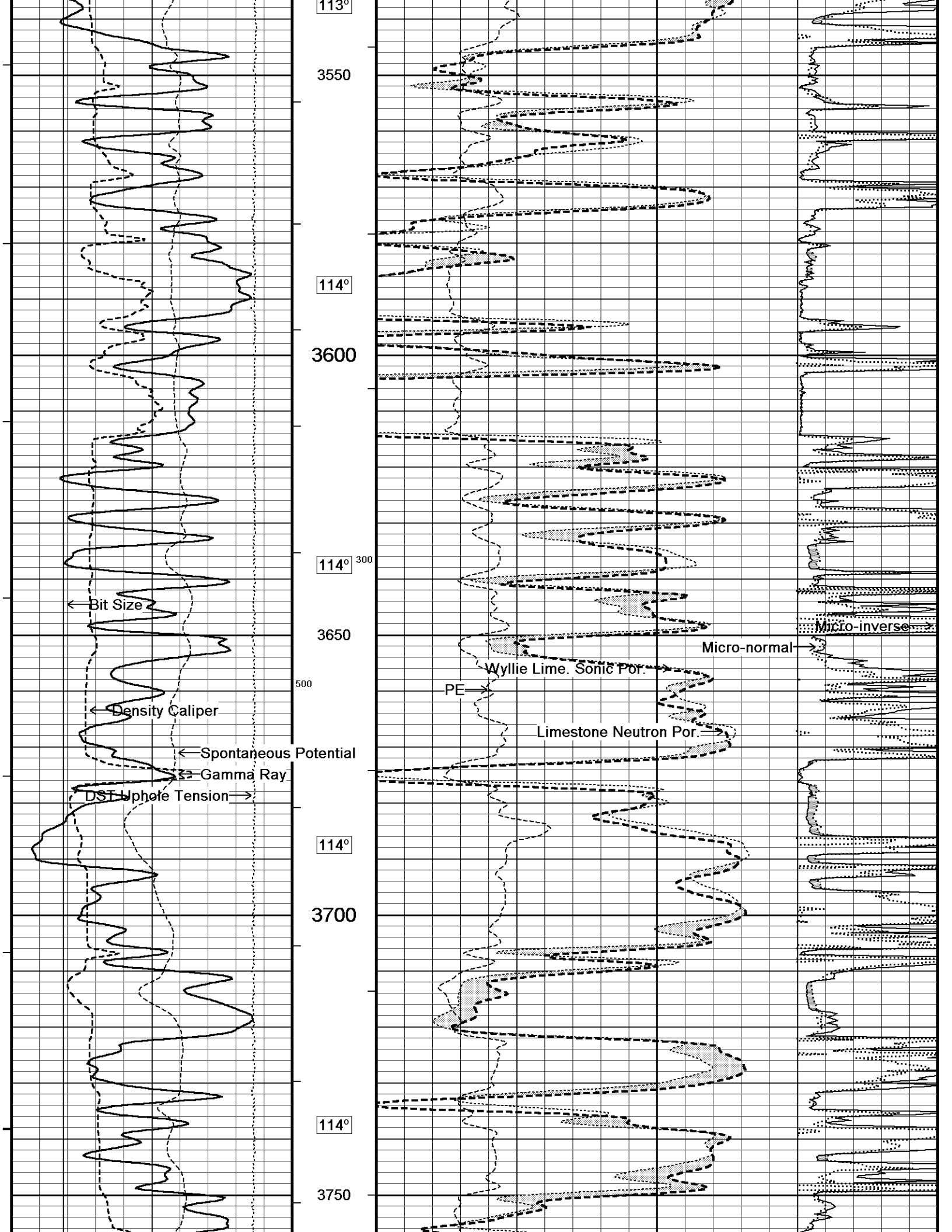

108°
2450
Bit Size
Micro-inverse
Micro-normal
Wyllie Lime. Sonic Por.
PE
Density Caliper
Limestone Neutron Por.
109°
Spontaneous Potential
Gamma Ray
DST Uphole Tension
2500
1100
109°
700
2550
109°
2600
109°
2650

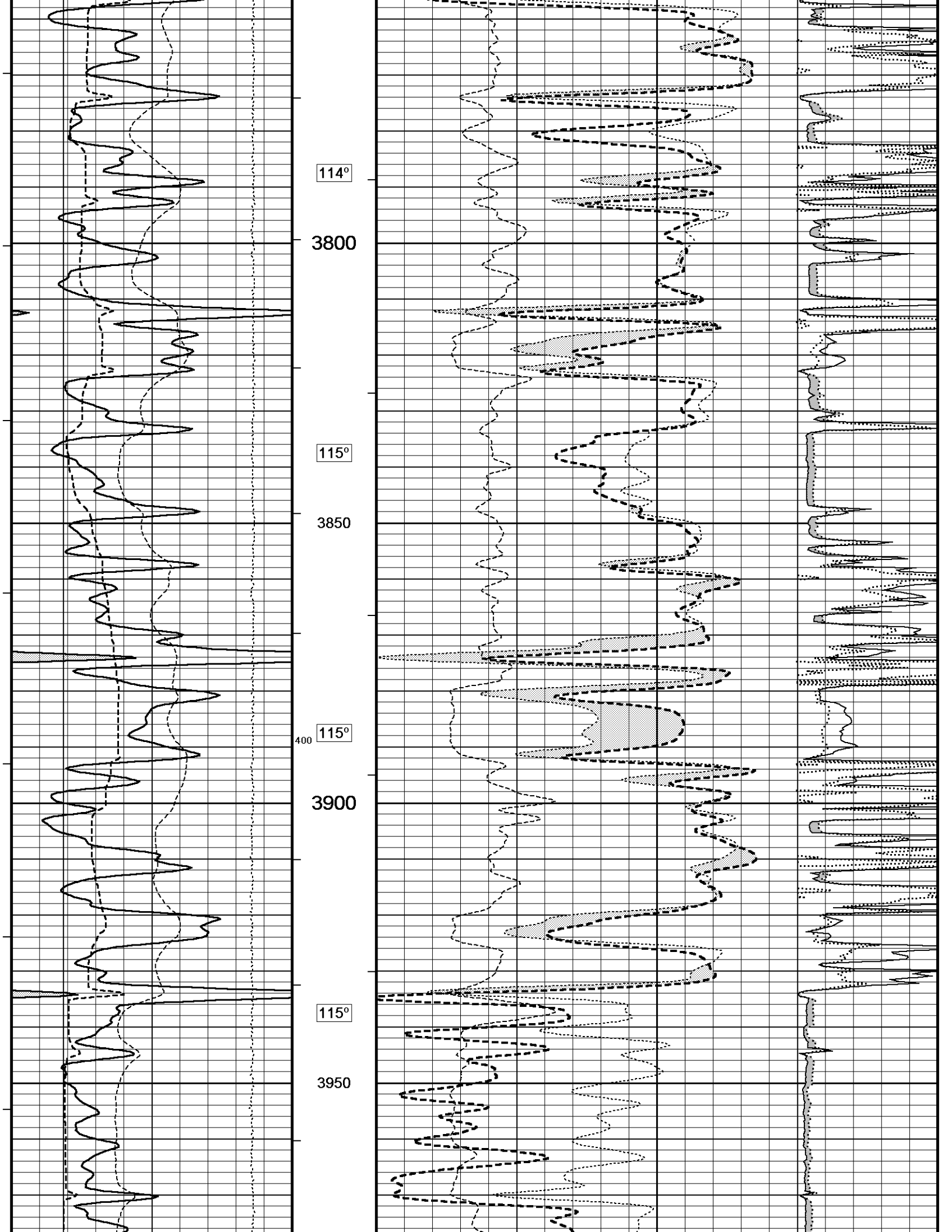

109°
2700
1000
109°
2750
109°
2800
600
109°
2850
Bit Size
Micro-inverse
Micro-normal
Wyllie Lime. Sonic Por.
PE
Density Caliper

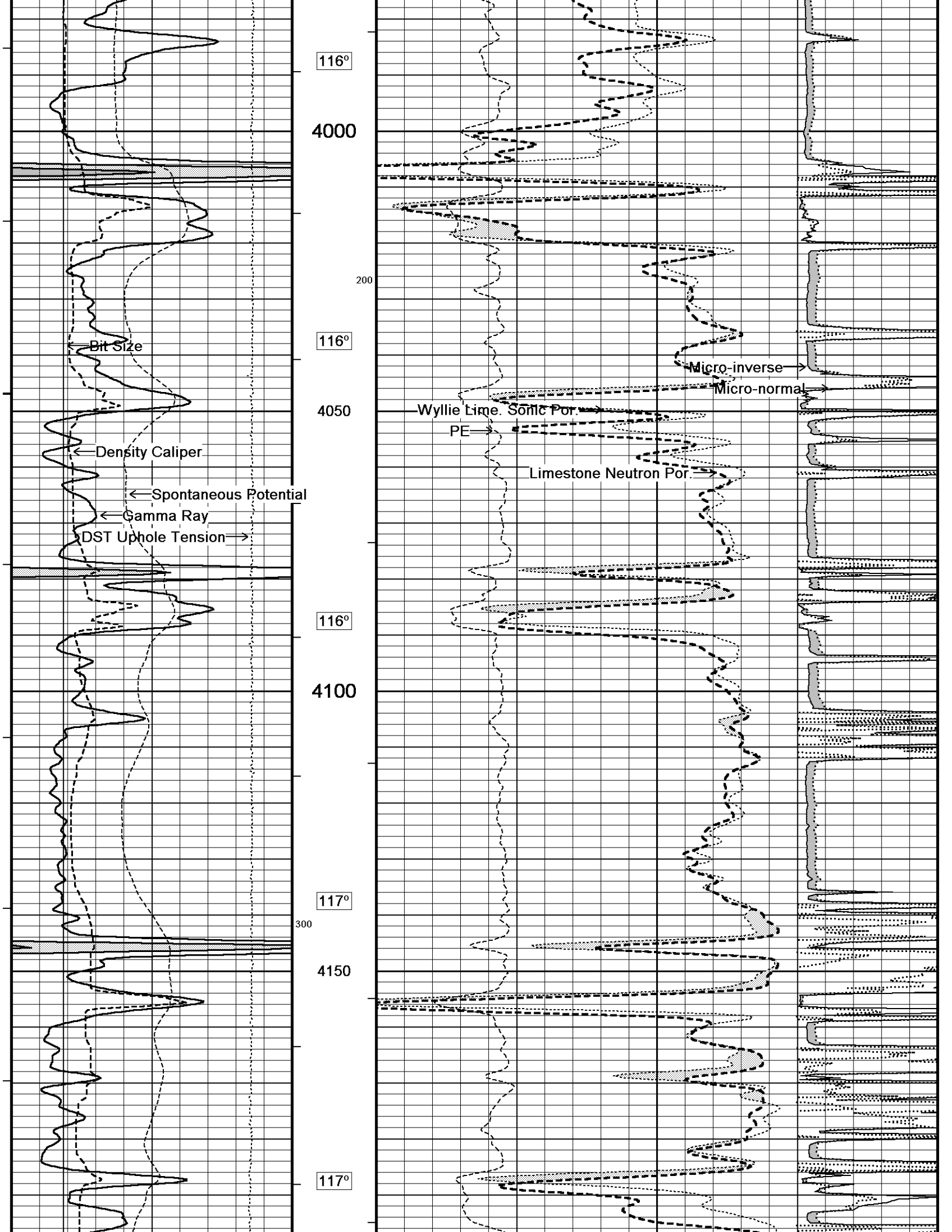

Limestone Neutron Por.
Spontaneous Potential
Gamma Ray
DST Uphole Tension
109°
900
2900
110°
2950
110°
3000
110°
3050
500
800
111°

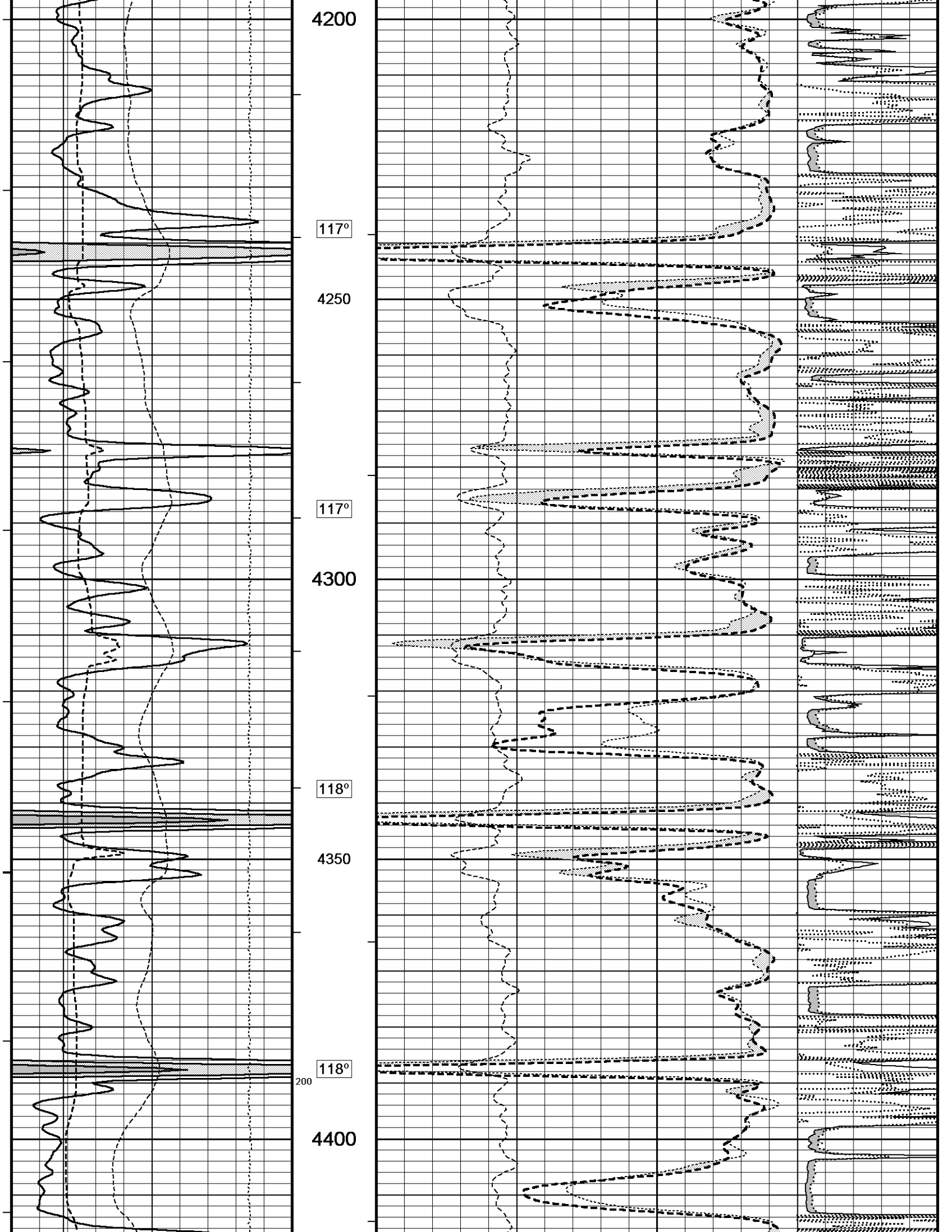

3100
111°
3150
111°
3200
112°
700
3250
Bit Size
Micro-inverse
Micro-normal
Wyllie Lime. Sonic Por.
PE
Density Caliper
Limestone Neutron Por.
Spontaneous Potential
Gamma Ray
DST Uphole Tension
112°
3300

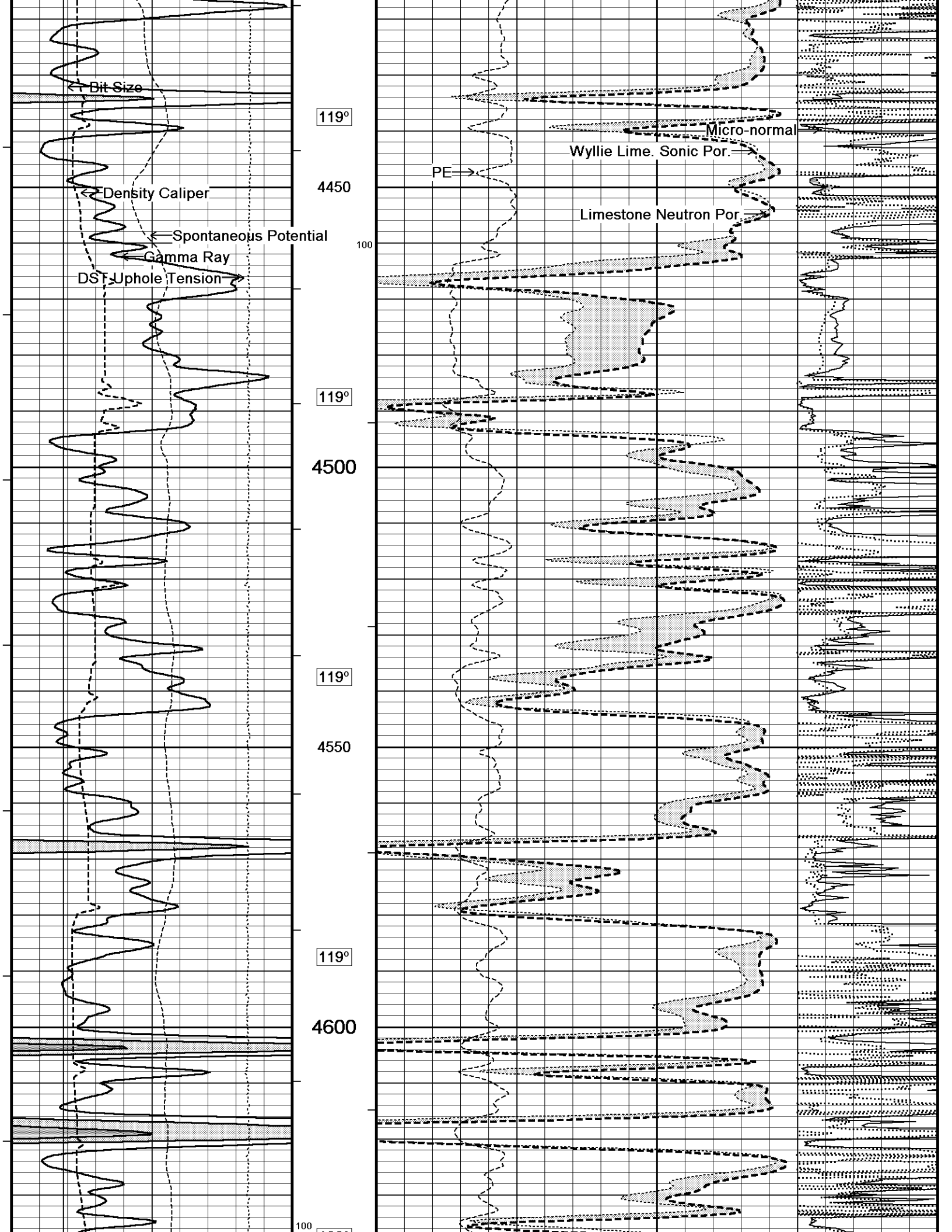

400
112°
3350
112°
3400
113°
600
3450
113°
3500

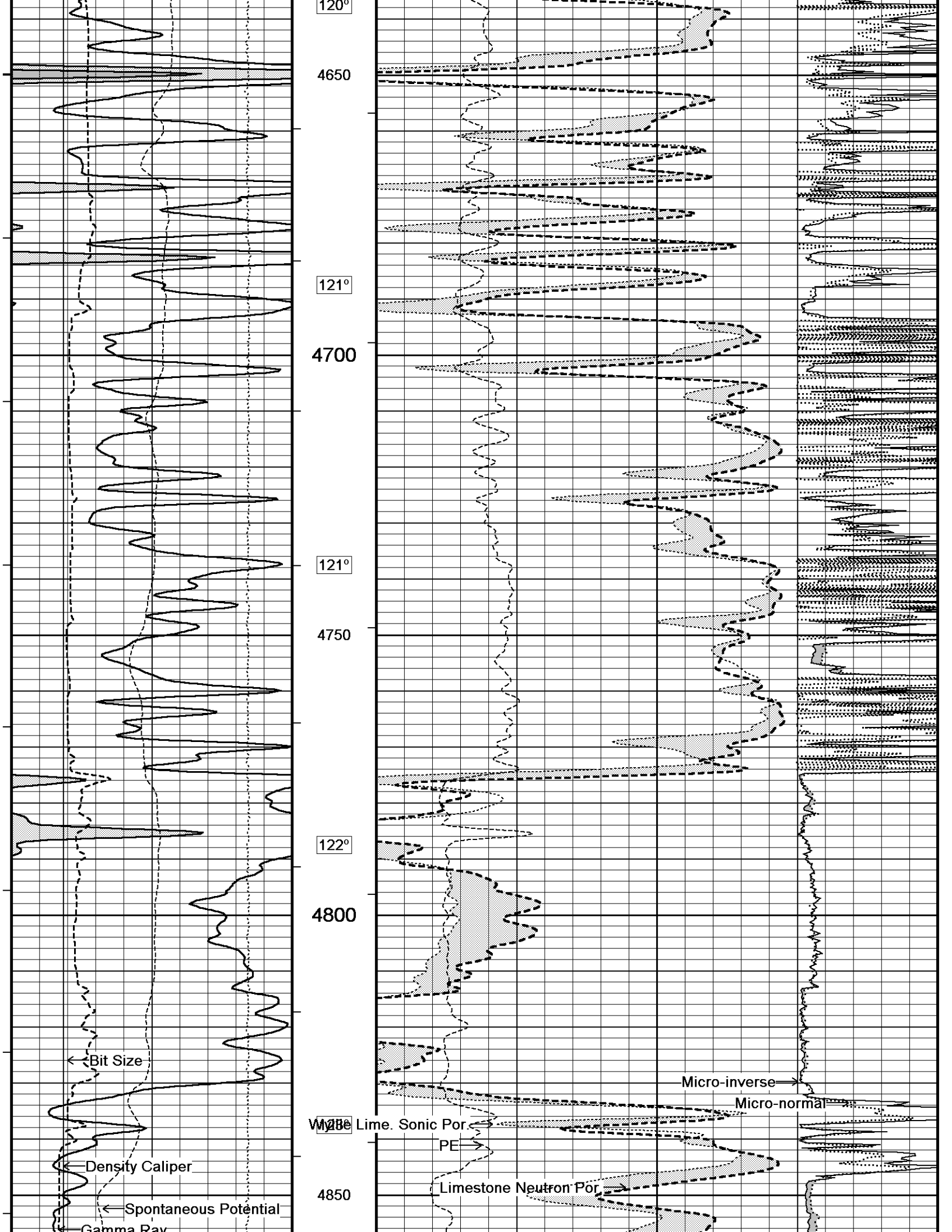

113°
3550
114°
3600
114°
300
Bit Size
3650
Micro-inverse
Micro-normal
Wyllie Lime. Sonic Por.
PE
500
Density Caliper
Limestone Neutron Por.
Spontaneous Potential
Gamma Ray
DST Uphole Tension
114°
3700
114°
3750

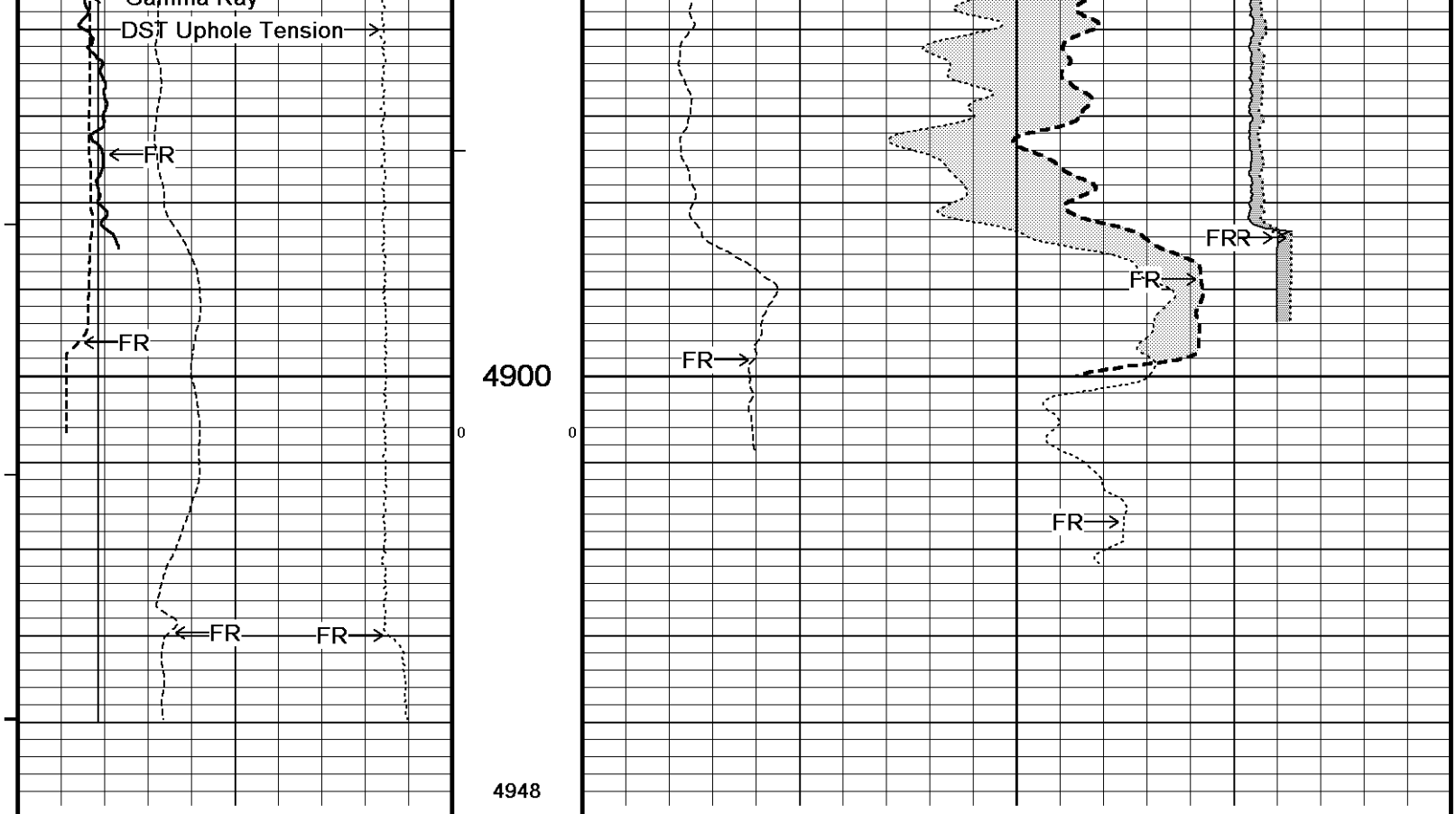

114°
3800
115°
3850
400
115°
3900
115°
3950


116°
4000
200
116°
Bit Size
Micro-inverse
Micro-normal
4050
Wyllie Lime. Sonic Por.
PE
Density Caliper
Limestone Neutron Por.
Spontaneous Potential
Gamma Ray
DST Uphole Tension
116°
4100
117°
300
4150
117°


4200
117°
4250
117°
4300
118°
4350
118°
200
4400


Bit Size
Density Caliper
Spontaneous Potential
Gamma Ray
DST Uphole Tension
119°
4450
119°
4500
119°
4550
119°
4600
100
100
Micro-normal
Wyllie Lime. Sonic Por.
PE
Limestone Neutron Por.


120°
4650
121°
4700
121°
4750
122°
4800
4850
Bit Size
Density Caliper
Spontaneous Potential
Gamma Ray
Micro-inverse
Micro-normal
White Lime. Sonic Por.
PE
Limestone Neutron Por.



4948

Depth in Feet

Timing Marks
every 60.0 sec

Gamma Ray
API
0 75 150
150 225 300

Spontaneous Potential
millivolts
− → | 20 | ← +

Density Caliper
inches
6 11 16

Bit Size
inches
6 11 16

DST Uphole Tension
pounds
5000 0

Borehole Temp in deg F

HVI every 10 cu ft

Annular Integral every 10 cu ft

Replay Scale 1:240

Limestone Neutron Por.
percent
30 20 10 0 -10

Wyllie Lime. Sonic Por.
percent
30 20 10 0 -10

PE
barns/electron
0 5 10

Micro-normal
ohm metres
0 30

Micro-inverse
ohm metres
0 30

Depth Based Data - Maximum Sampling Increment 10.0cm

Plotted on 11-JUN-2013 21:49

Filename: C:\Minimus 13.05.9583\Logs\Stelbar Hess 1-31\Stelbar Hess 1-31_003.dta Recorded on 11-JUN-2013 18:07
System Versions: Logged with 13.05.9583 Processed with 13.05.9583 Plotted with 13.05.9583

5 INCH MAIN

COMPANY	STELBAR OIL CORPORATION, INC.
WELL	HESS #1-31
FIELD	WILDCAT
PROVINCE/COUNTY	SCOTT
COUNTRY/STATE	U.S.A. / KANSAS

Elevation Kelly Bushing	3088.00	feet	First Reading		feet
Elevation Drill Floor	3087.00	feet	Depth Driller	4930.00	feet
Elevation Ground Level	3081.00	feet	Depth Logger	4930.00	feet

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COMPENSATED NEUTRON
ACOUSTIC POROSITY
OVERLAY