

HALLIBURTON

DUAL SPACED NEUTRON SPECTRAL DENSITY LOG

COMPANY		OXY USA INC.			
WELL		GARDEN CITY I-1			
FIELD		GARDEN CITY			
COUNTY		FINNEY			
STATE		KANSAS			
Permanent Datum Log measured from Drilling measured from	GL KB KB	Sect. 26	Twp. 23S	Rge. 34W	Elev. 2941.1 ft D.F. 2951.1 ft G.L. 2941.1 ft
	Location (SHL) 330' FNL & 330' FWL				
API No. 15055221930000		Other Services: DSN / SDL MICROLOG BSAT ACRT			
COUNTY		FINNEY		STATE KANSAS	
WELL		GARDEN CITY I-1			
FIELD		GARDEN CITY			
COUNTY		FINNEY			
STATE		KANSAS			
Date	19-Jan-13				
Run No.	ONE				
Depth - Driller	5095.00 ft				
Depth - Logger	5010.0 ft				
Bottom - Logged Interval	4966				
Top - Logged Interval	3700				
Casing - Driller	8.625 in @ 1806.0 ft				
Casing - Logger	1806.0 ft				
Bit Size	7.875 in				
Type Fluid in Hole	WATER BASED MUD				
Density	9.2 ppq	37.00	s/qt		
PH	10.00 pH	10.4	cpm		
Source of Sample	MUDPIT				
Rm @ Meas. Temperature	0.710 ohmm @ 65.00 degF				
Rmf @ Meas. Temperature	0.60 ohmm @ 65.00 degF				
Rmc @ Meas. Temperature	0.820 ohmm @ 65.00 degF				
Source Rmf	MEASURED	MEASURED			
Rm @ BHT	0.38 ohmm @ 127.0 degF				
Time Since Circulation	10.0 hr				
Time on Bottom	19-Jan-13 05:18				
Max. Rec. Temperature	127.0 degF @ 5010.0 ft				
Equipment	10782954	LIBERAL			
Recorded By	S. INGERSOLL				
Witnessed By	P. DURRETT				

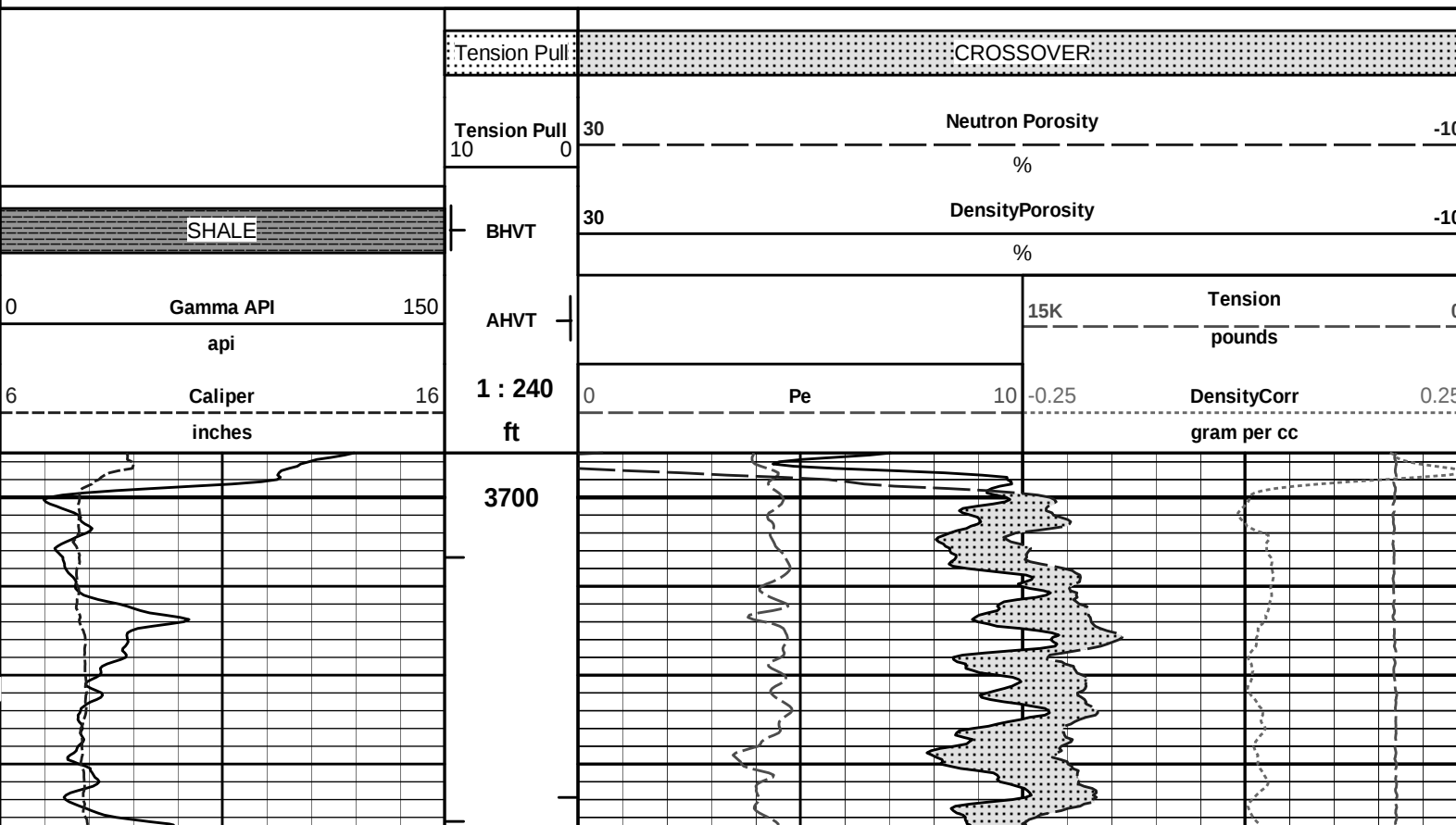
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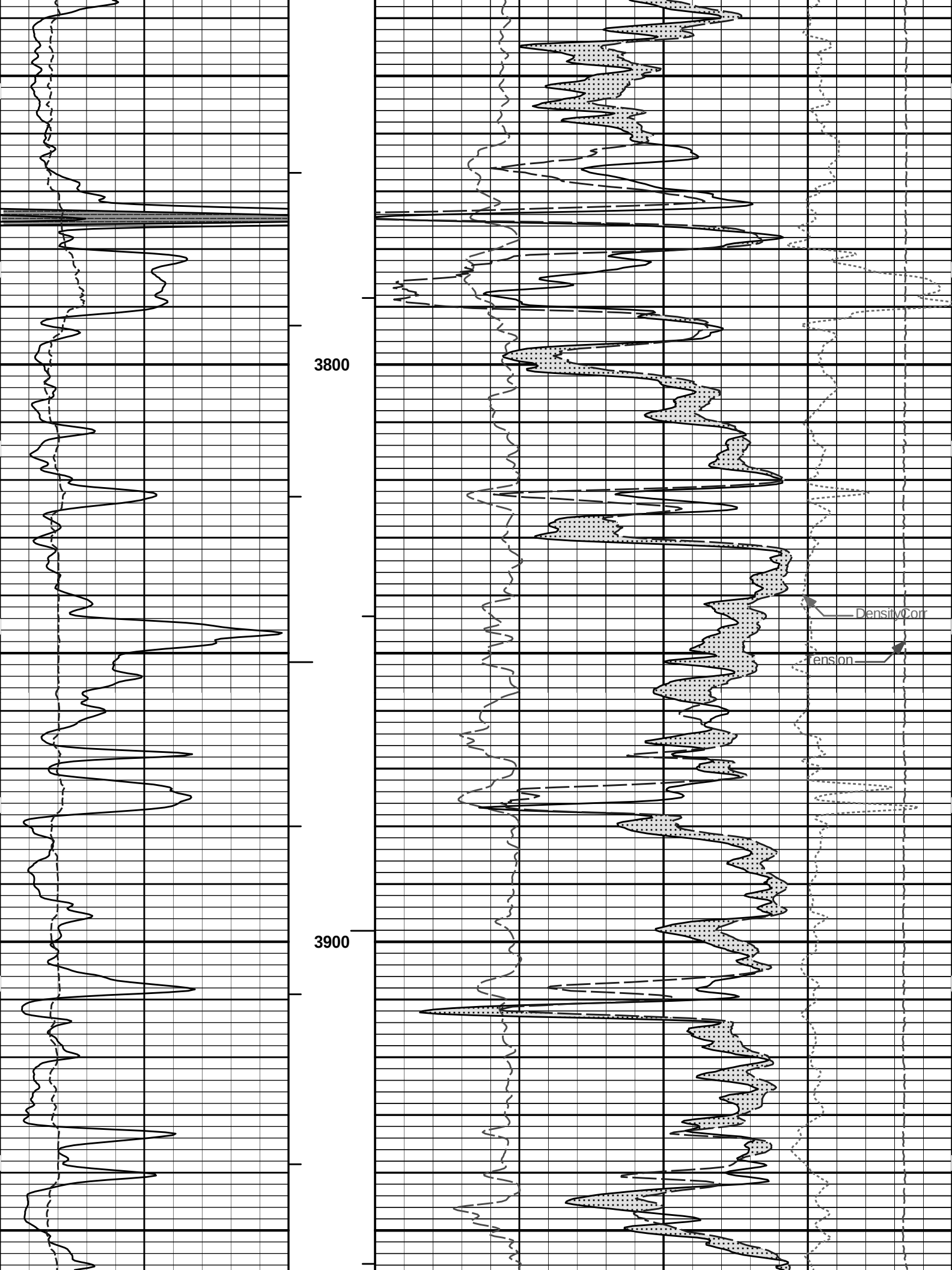
Service Ticket No.: 900141137				API Serial No.: 15055221930000				PGM Version: WL INSITE R3.6.0 (Build 3)											
CHANGE IN MUD TYPE OR ADDITIONAL SAMPLE								RESISTIVITY SCALE CHANGES											
Date	Sample No.							Type Log	Depth	Scale Up Hole	Scale Down Hole								
Depth-Driller																			
Type Fluid in Hole																			
Density	Viscosity																		
Ph	Fluid Loss																		
Source of Sample								RESISTIVITY EQUIPMENT DATA											
Rm @ Meas. Temp		@		@		Run No.	Tool Type & No.	Pad Type	Tool Pos.	Other									
Rmf @ Meas. Temp.		@		@		ONE	ACRT	N/A	1.5" S.O.										
Rmc @ Meas. Temp.		@		@			10800784												
Source Rmf	Rmc																		
Rm @ BHT		@		@															
Rmf @ BHT		@		@															
Rmc @ BHT		@		@															
EQUIPMENT DATA																			
GAMMA				ACOUSTIC				DENSITY				NEUTRON							
Run No.	ONE			Run No.	ONE			Run No.	ONE			Run No.	ONE						
Serial No.	10748374			Serial No.	10747684			Serial No.	10685803			Serial No.	10755066						
Model No.	GTET			Model No.	BSAT			Model No.	SDLT			Model No.	DSNT						
Diameter	3.625"			No. of Cent.	2			Diameter	5.3"			Diameter	3.625"						
Detector Model No.	GTET			Spacing	.5'			Log Type	GAM-GAM			Log Type	NEU-NEU						
Type	SCINT							Source Type	CS-137			Source Type	AM-241BE						
Length	8"			LSA [Y/N]				Serial No.	5073GW			Serial No.	DSN-436						
Distance to Source	N/A			FWDA [Y/N]				Strength	1.5 CI			Strength	15 CI						
LOGGING DATA																			
GENERAL				GAMMA				ACOUSTIC				DENSITY				NEUTRON			

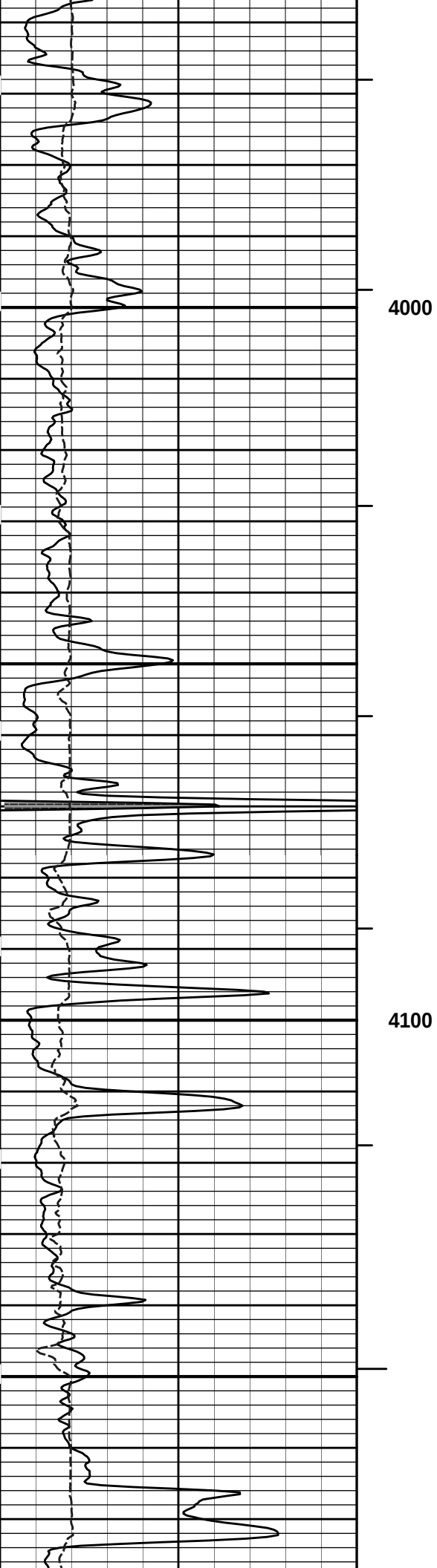
[illegible]

HALLIBURTON

5 INCH MAIN LOG

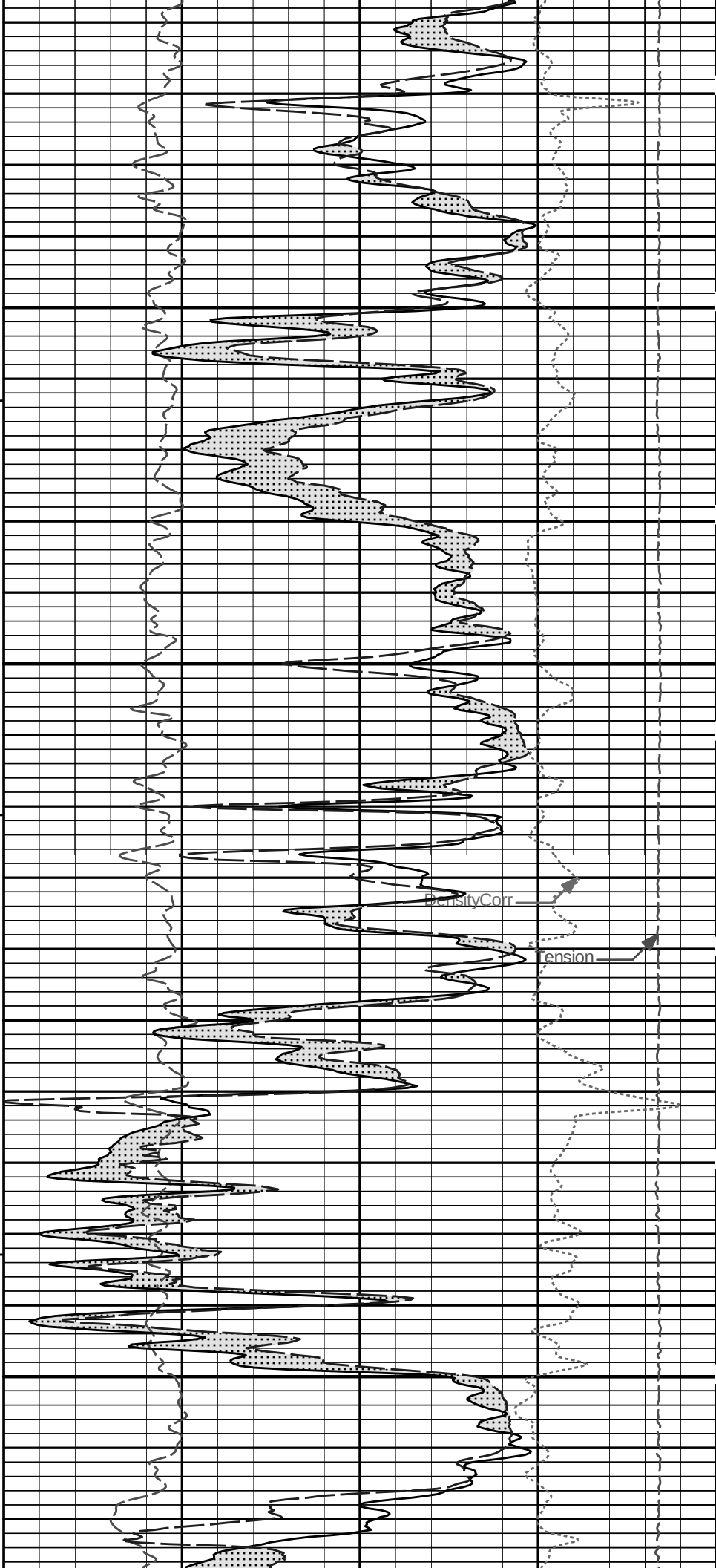






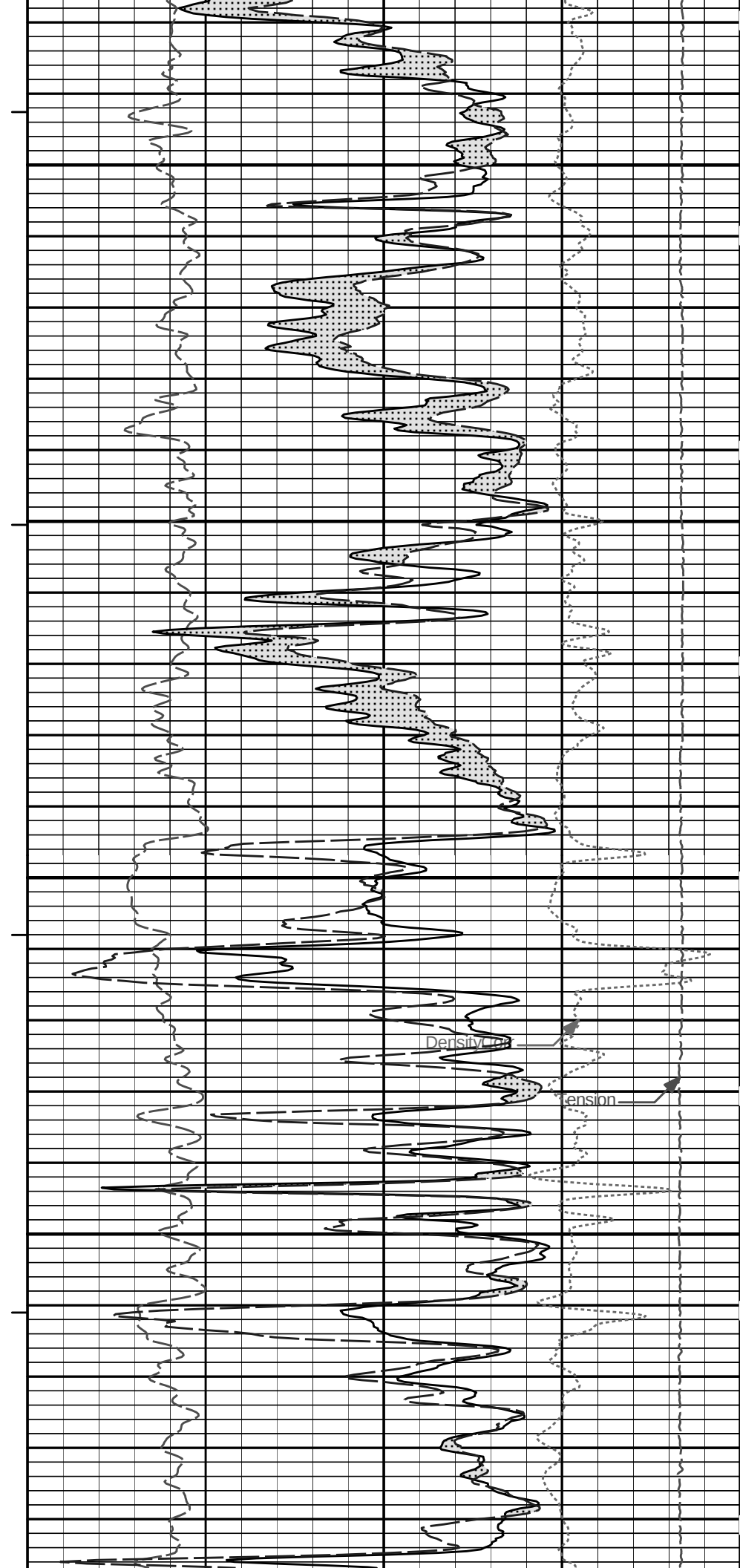
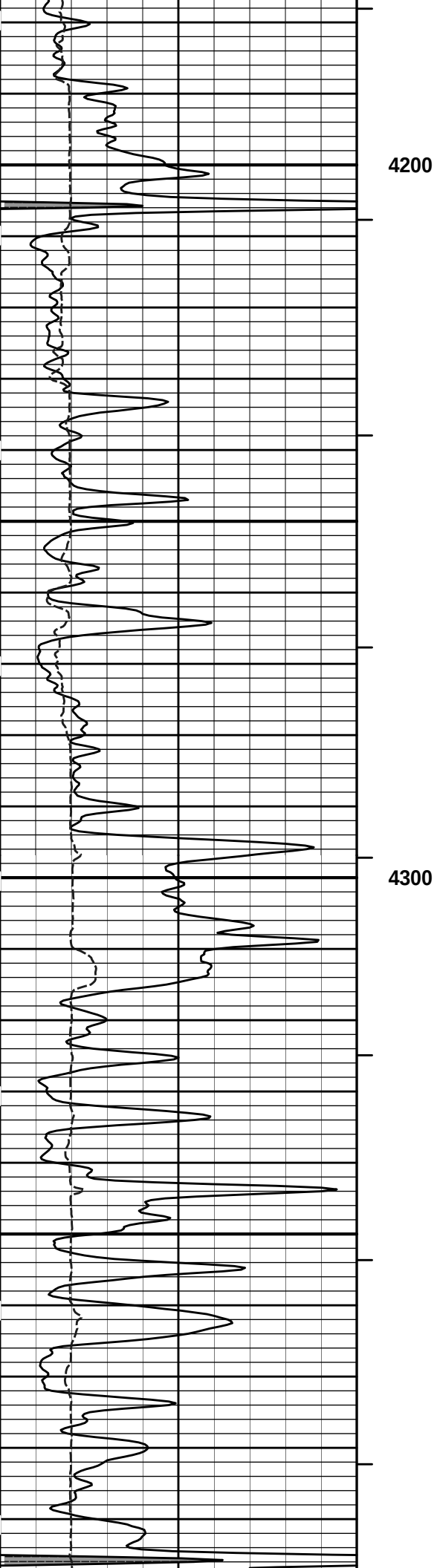
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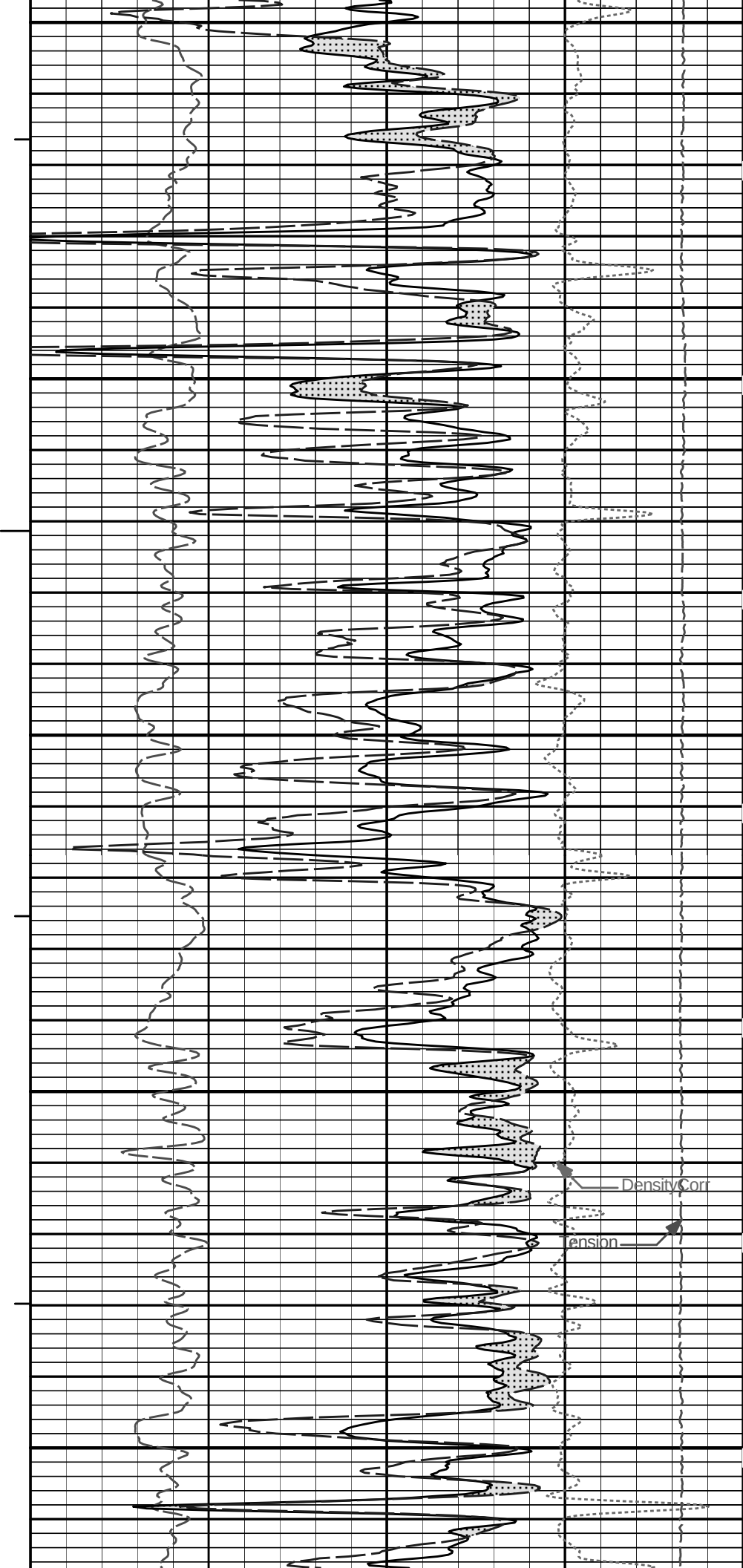
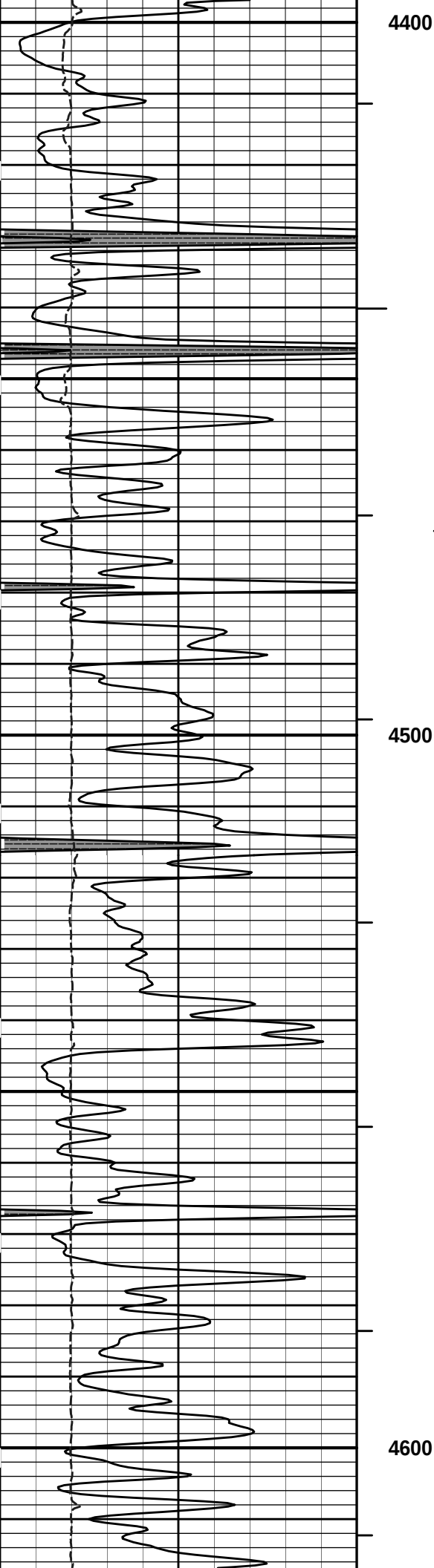
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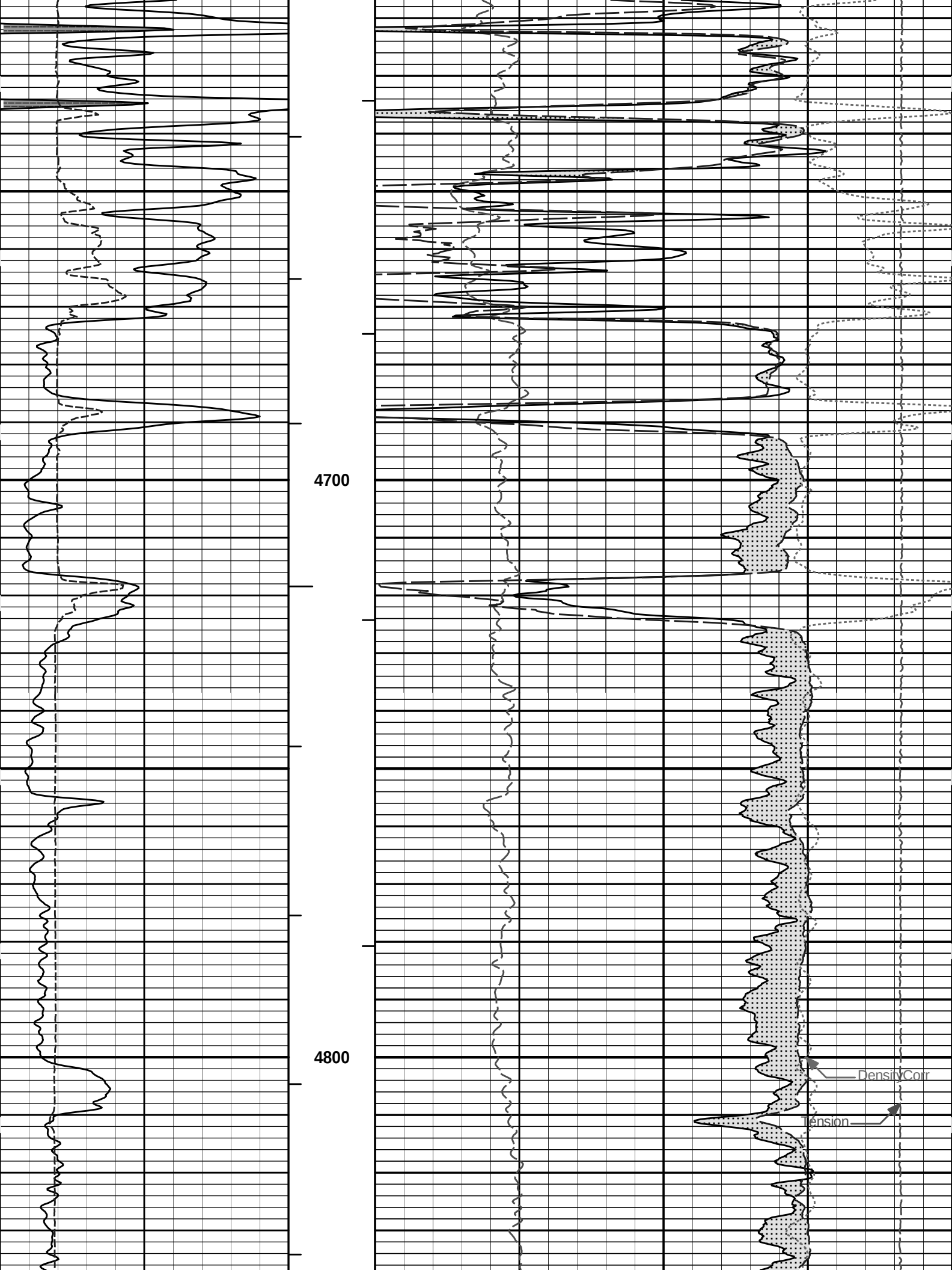


DensityCorr

tension









6	Caliper	16	1 : 240	0	Pe	10	-0.25	DensityCorr	0.25
	inches		ft					gram per cc	
0	Gamma API	150	AHVT				15K	Tension	0
	api							pounds	
	SHALE		BHVT	30	DensityPorosity				-10
					%				
			Tension Pull	30	Neutron Porosity				-10
			10 0		%				
					GROSSOVER				

HALLIBURTON

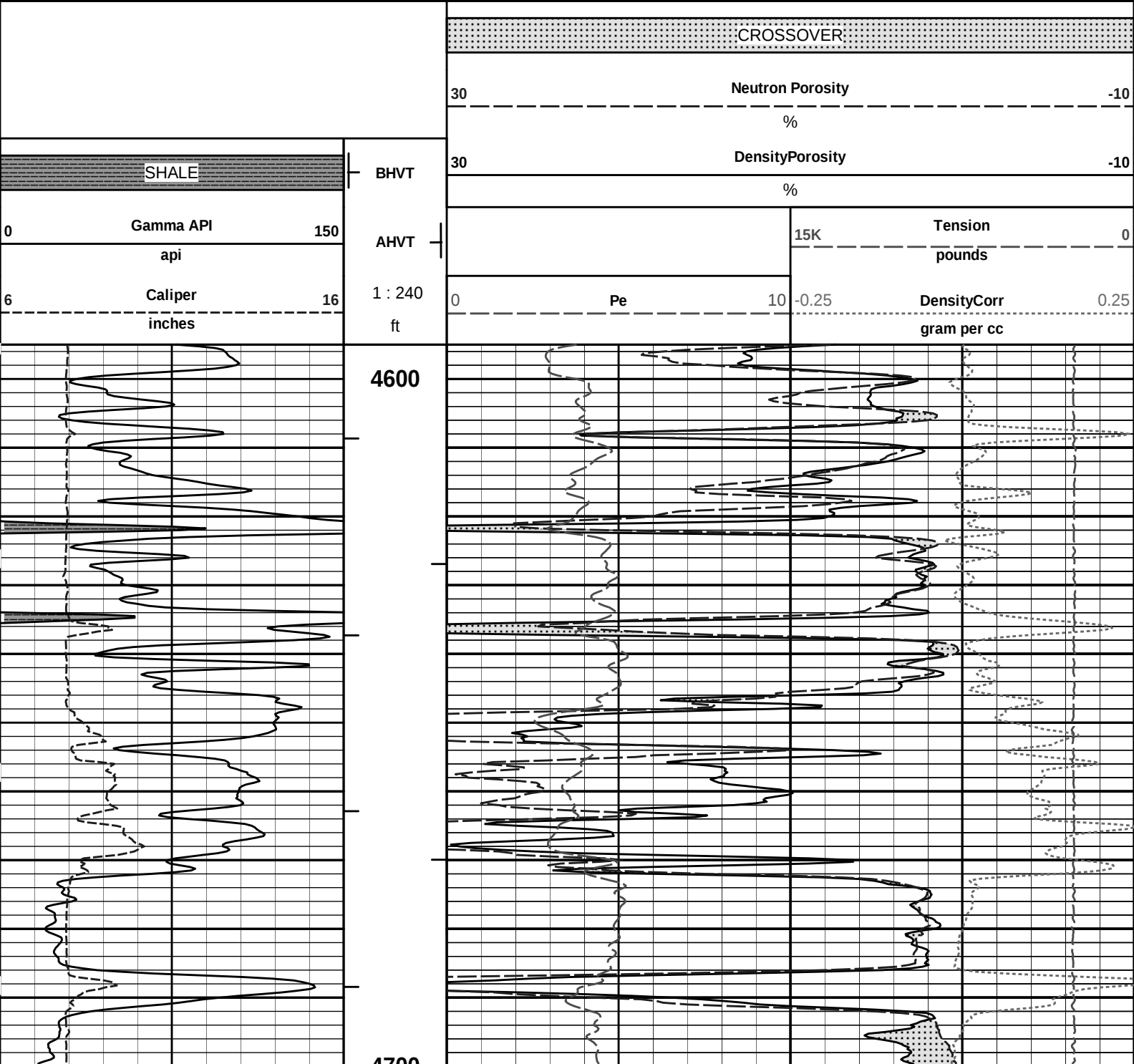
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Plot Range: 3695 ft to 5011.92 ft
Data: GARDEN_CITY_I-1\Well Based\GARDEN_CITY_I-1_DETAIL\
Plot File: \\POROSITY\Porosity_Q_5_MAIN_LIB

5 INCH MAIN LOG

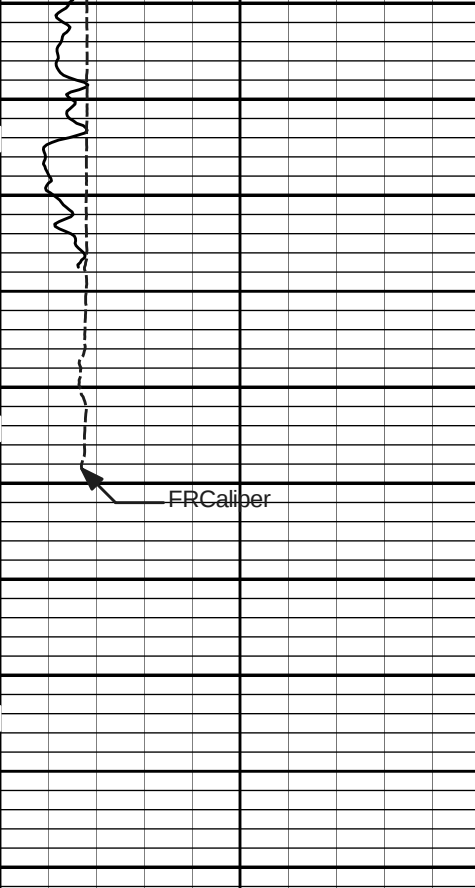
HALLIBURTON

Plot Time: 19-Jan-13 09:22:39
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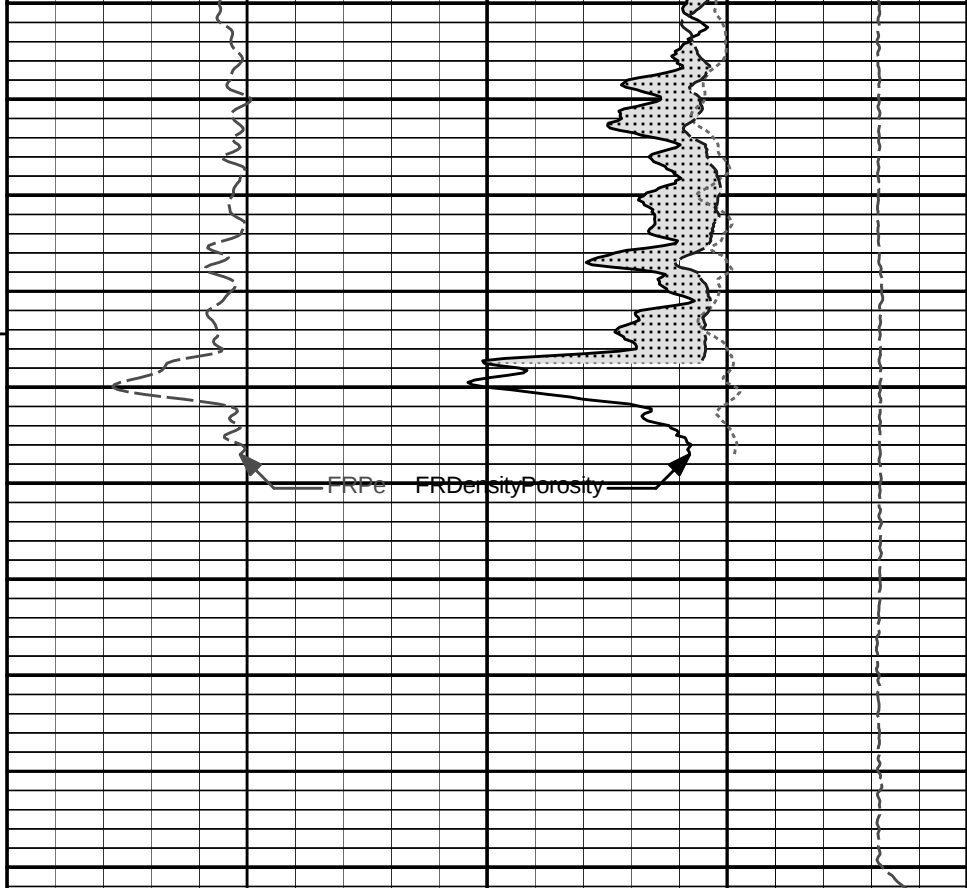
REPEAT SECTION







5000



6	Caliper	16
	inches	
0	Gamma API	150
	api	
	SHALE	

1 : 240
ft

AHVT
BHVT

0	Pe	10	-0.25	DensityCorr	0.25
				gram per cc	
			15K	Tension	0
				pounds	
30	DensityPorosity				-10
	%				
30	Neutron Porosity				-10
	%				
	CROSSOVER				

HALLIBURTON

Plot Time: 19-Jan-13 09:22:43
Plot Range: 4595 ft to 5012.83 ft
Data: GARDEN_CITY_I-1\Well Based\15055221930000GARDENCITY_I-1REP\
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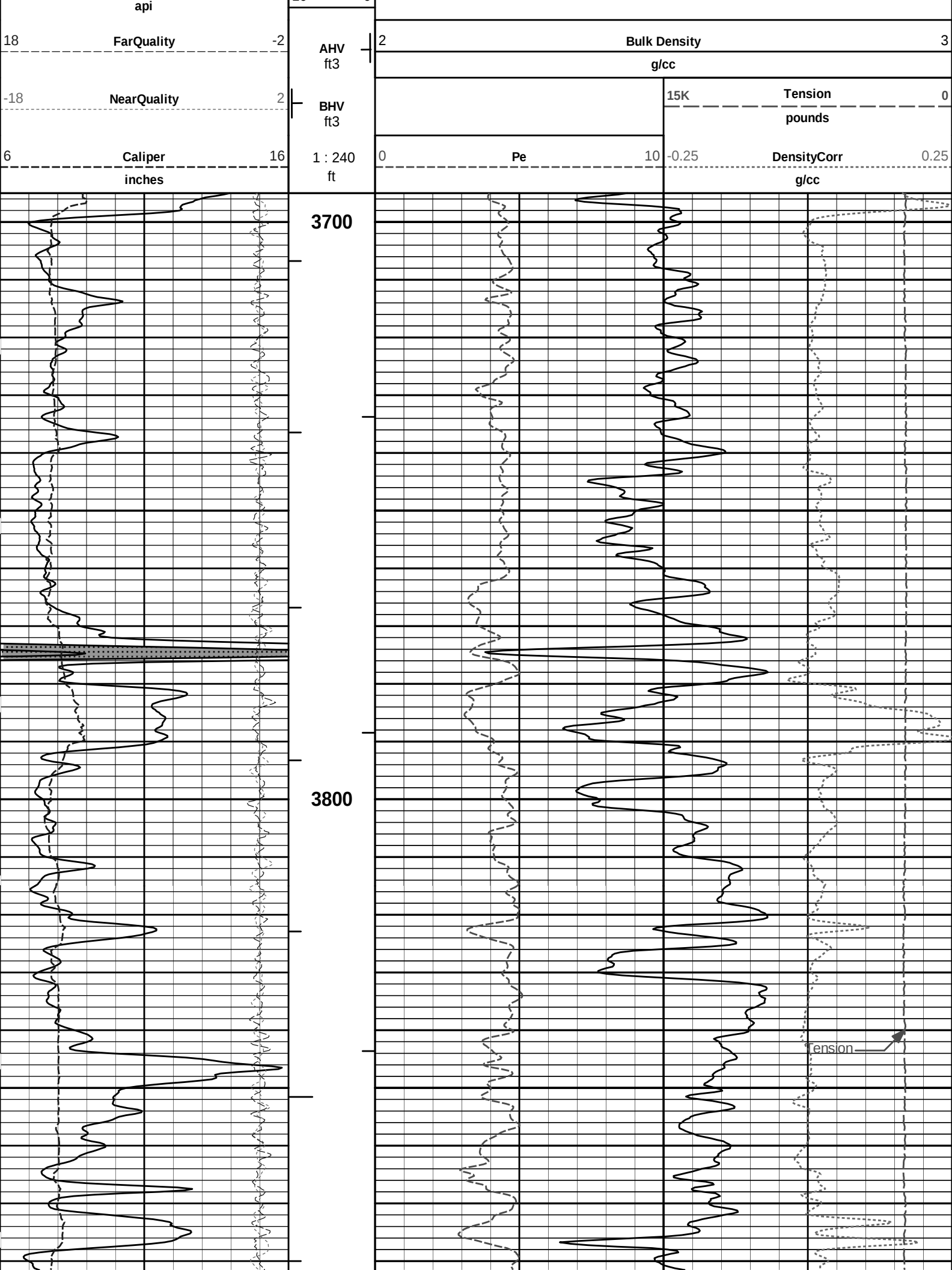
REPEAT SECTION

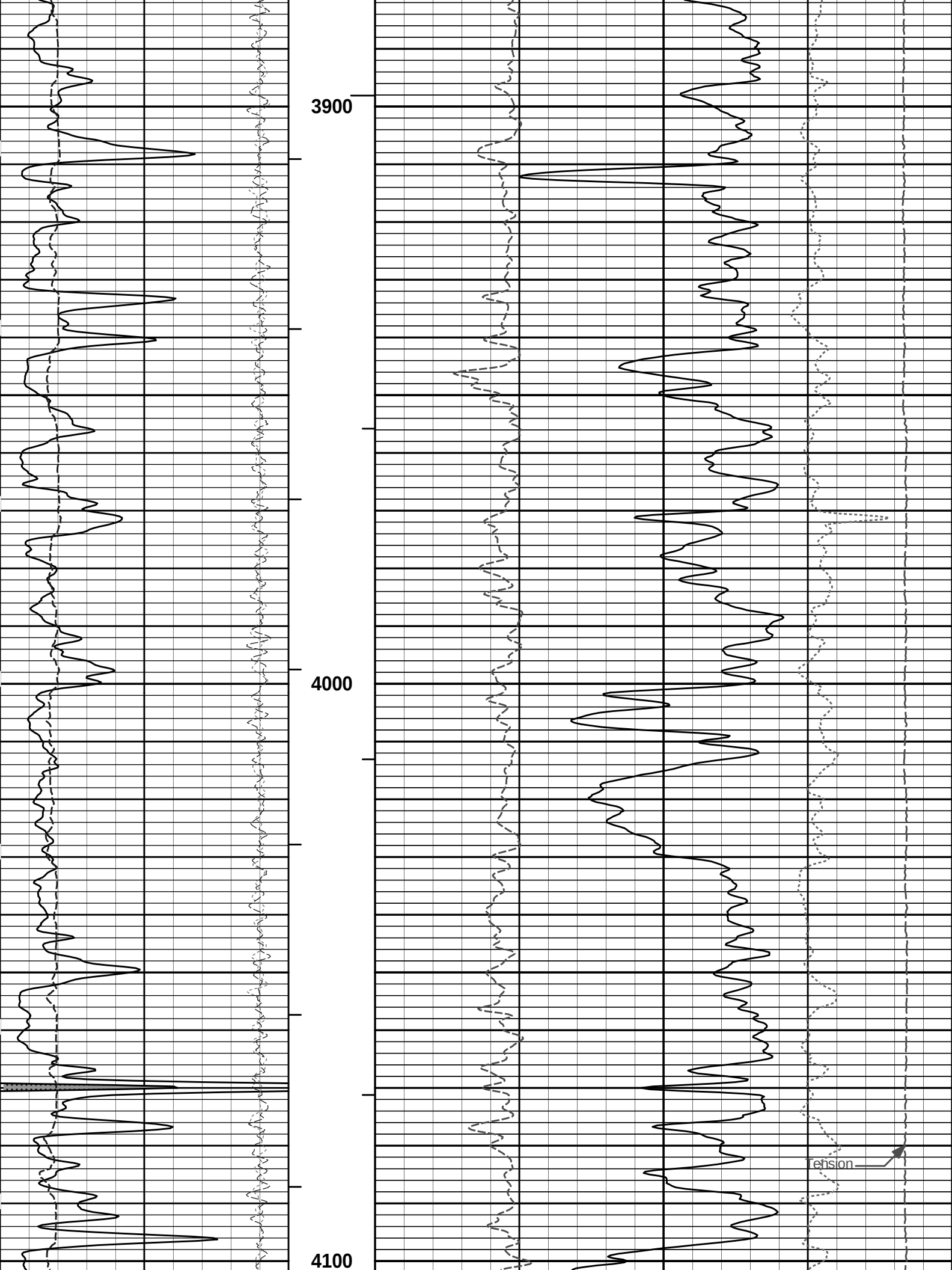
HALLIBURTON

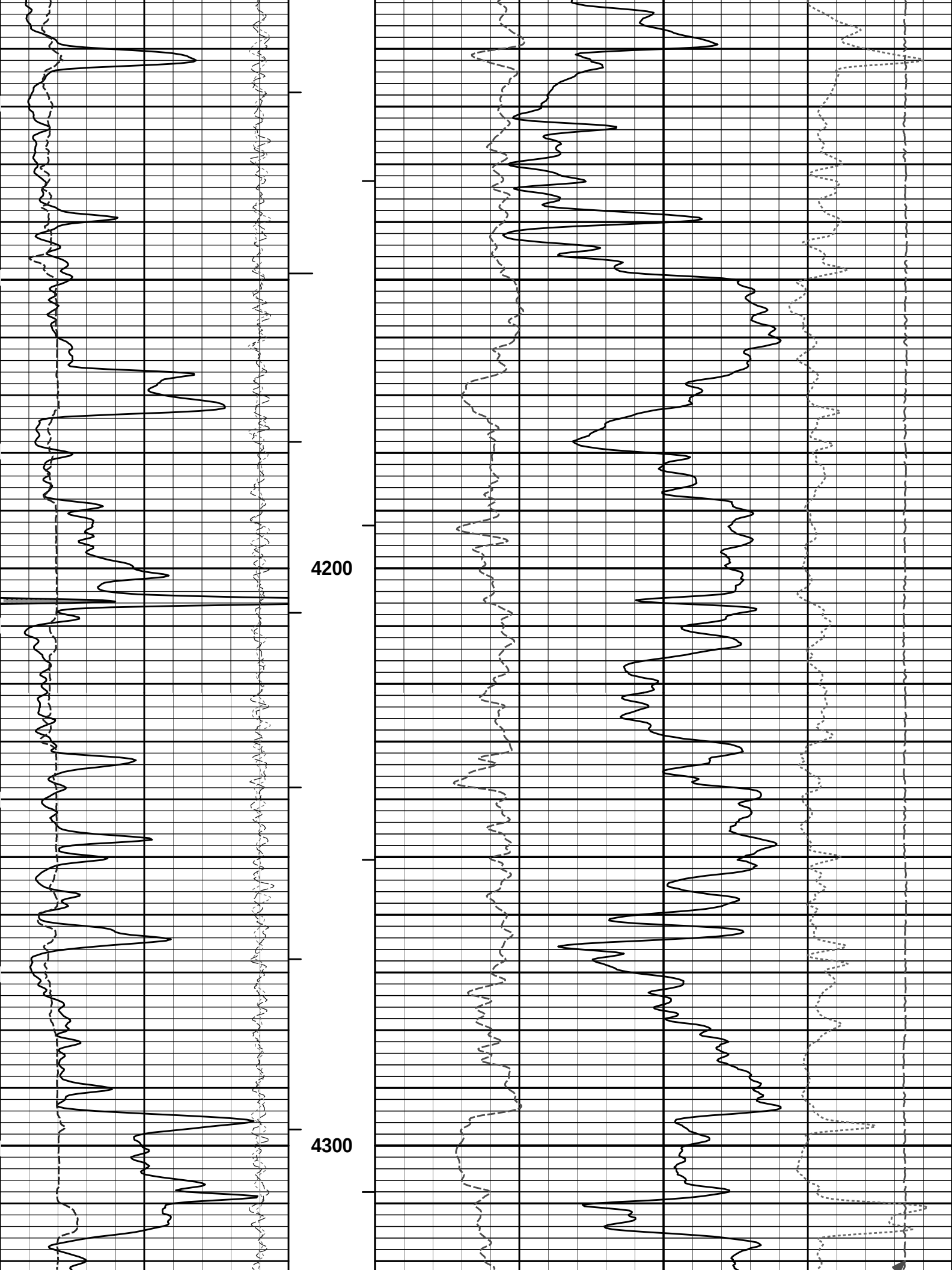
Plot Time: 19-Jan-13 09:22:43
Plot Range: 3695 ft to 5011.92 ft
Data: GARDEN_CITY_I-1\Well Based\GARDEN_CITY_I-1_DETAIL\
Plot File: \\LOCAL-GARDEN_CITY_I-1\Well Based\POROSITY\BULKD_5_MAIN_LIB

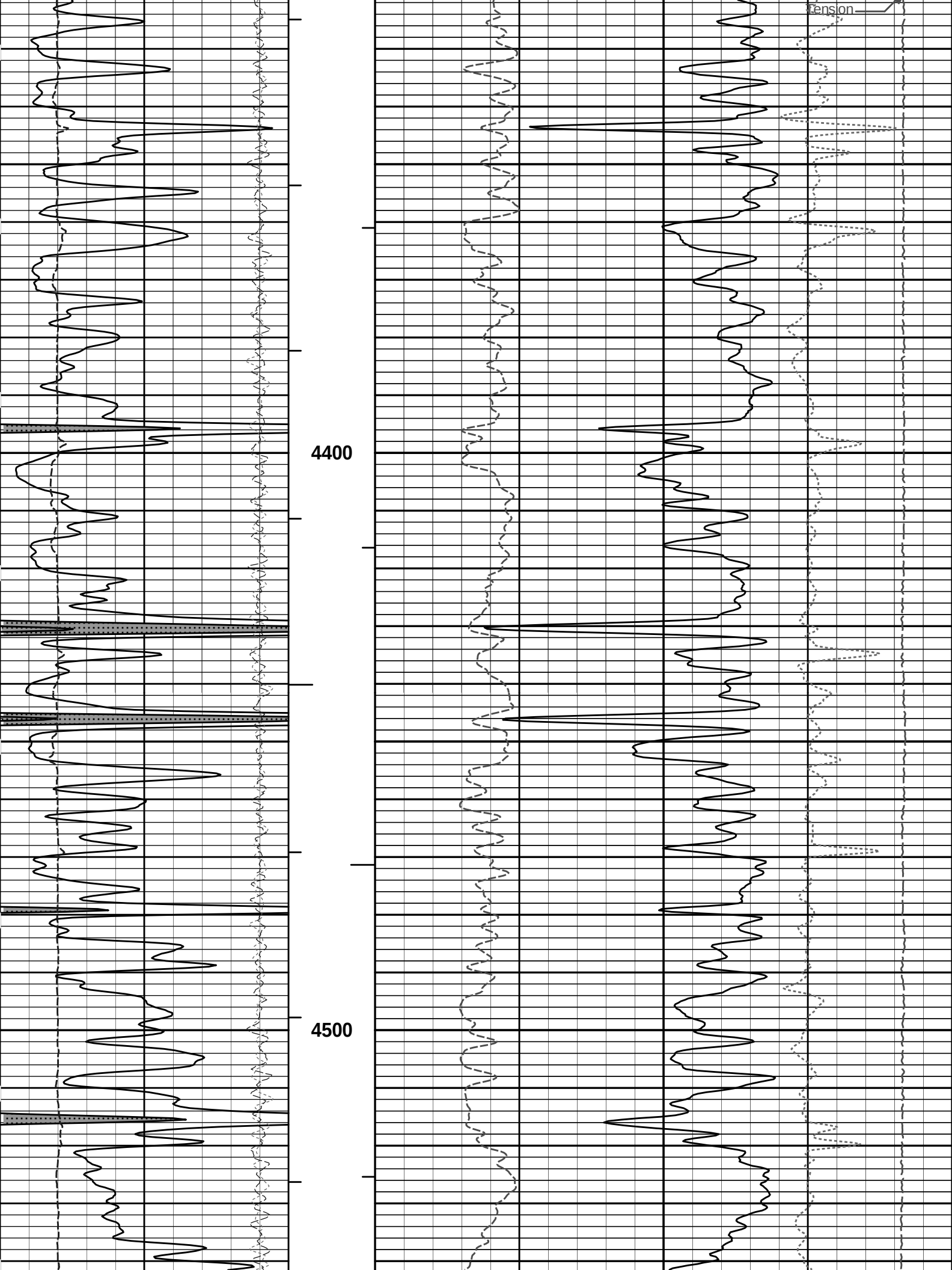
5 INCH MAIN LOG

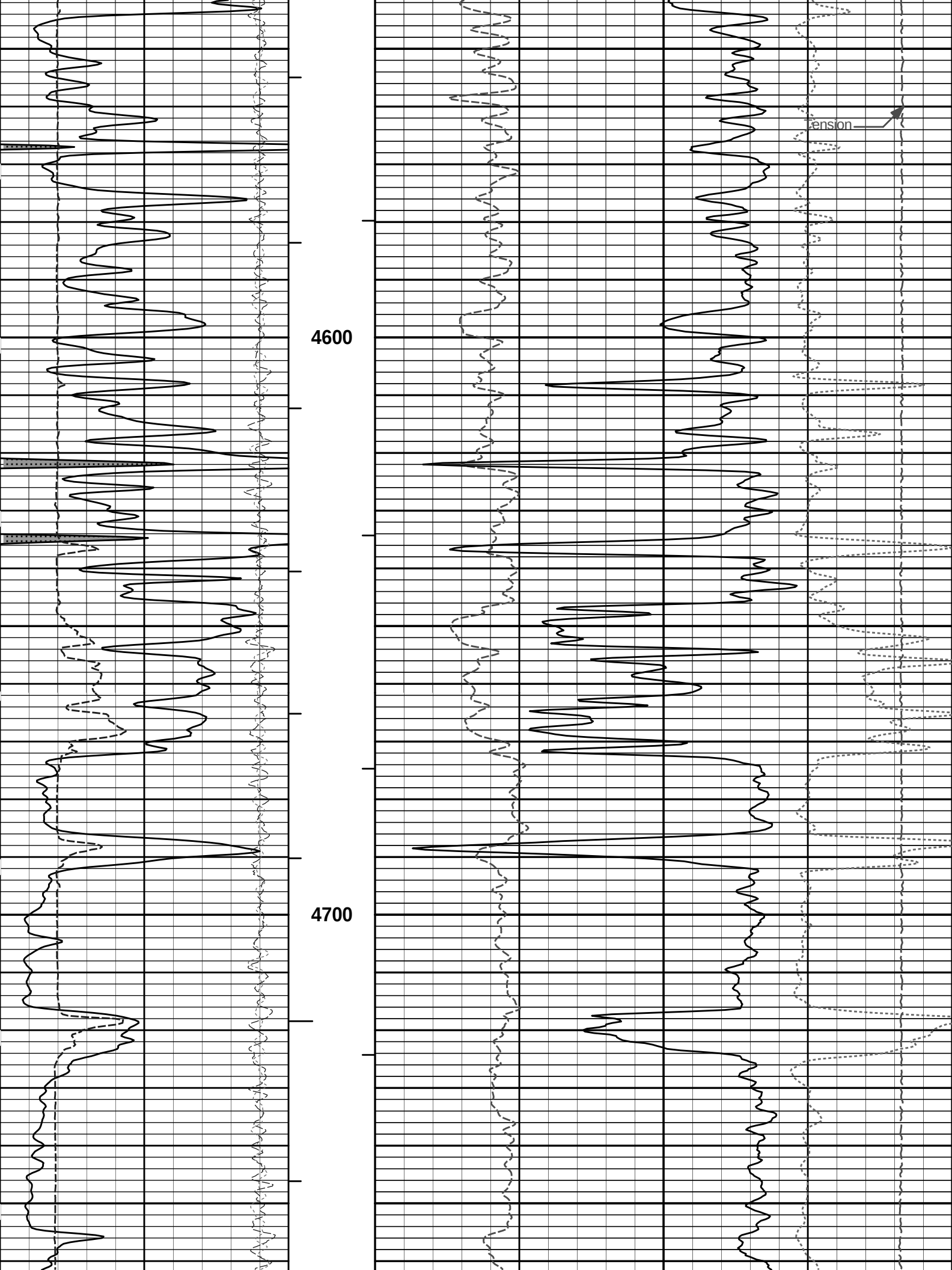
	SHALE	Tension Pull
0	Gamma Ray	150
		Tension Pull
		10 0

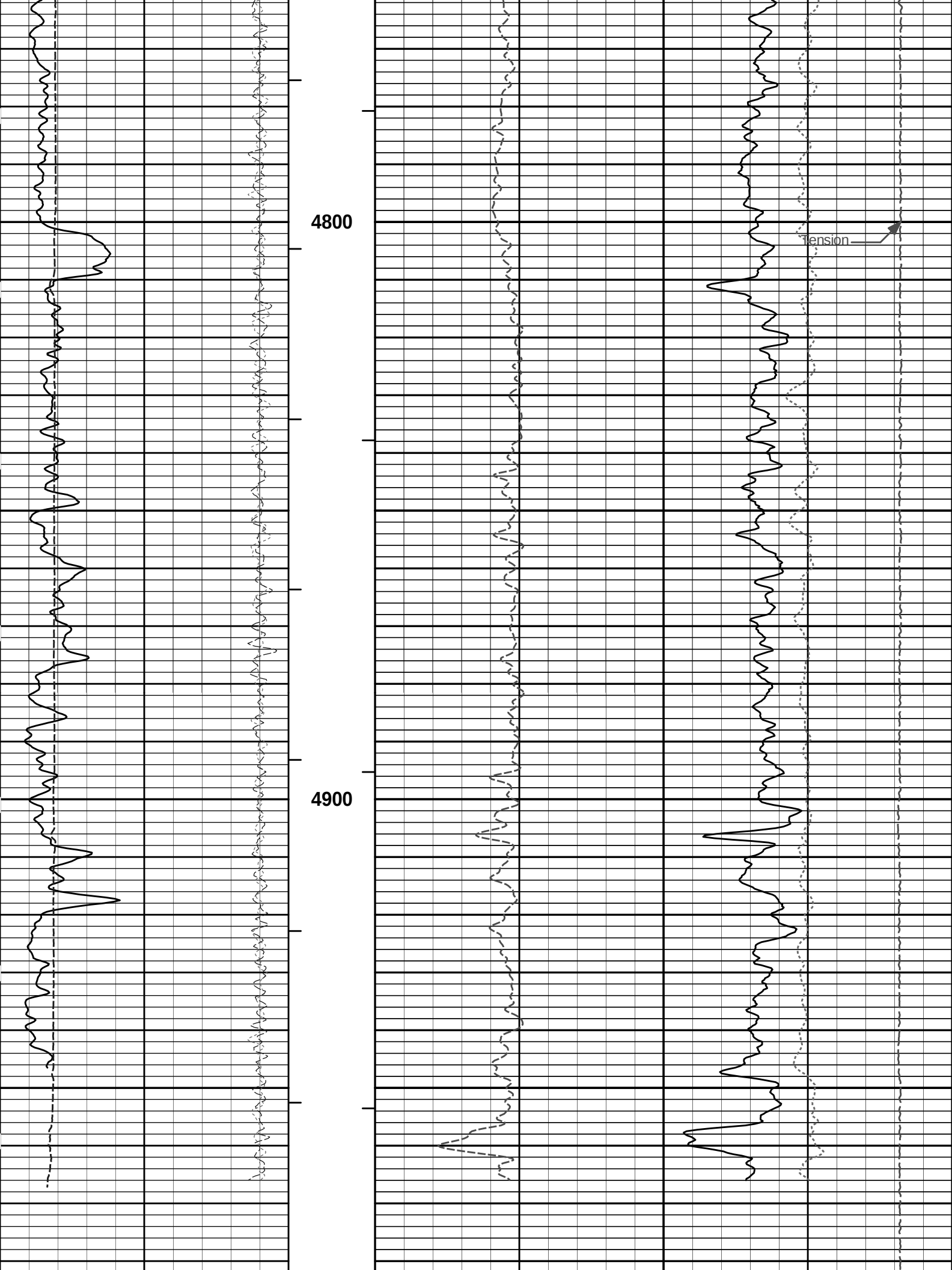


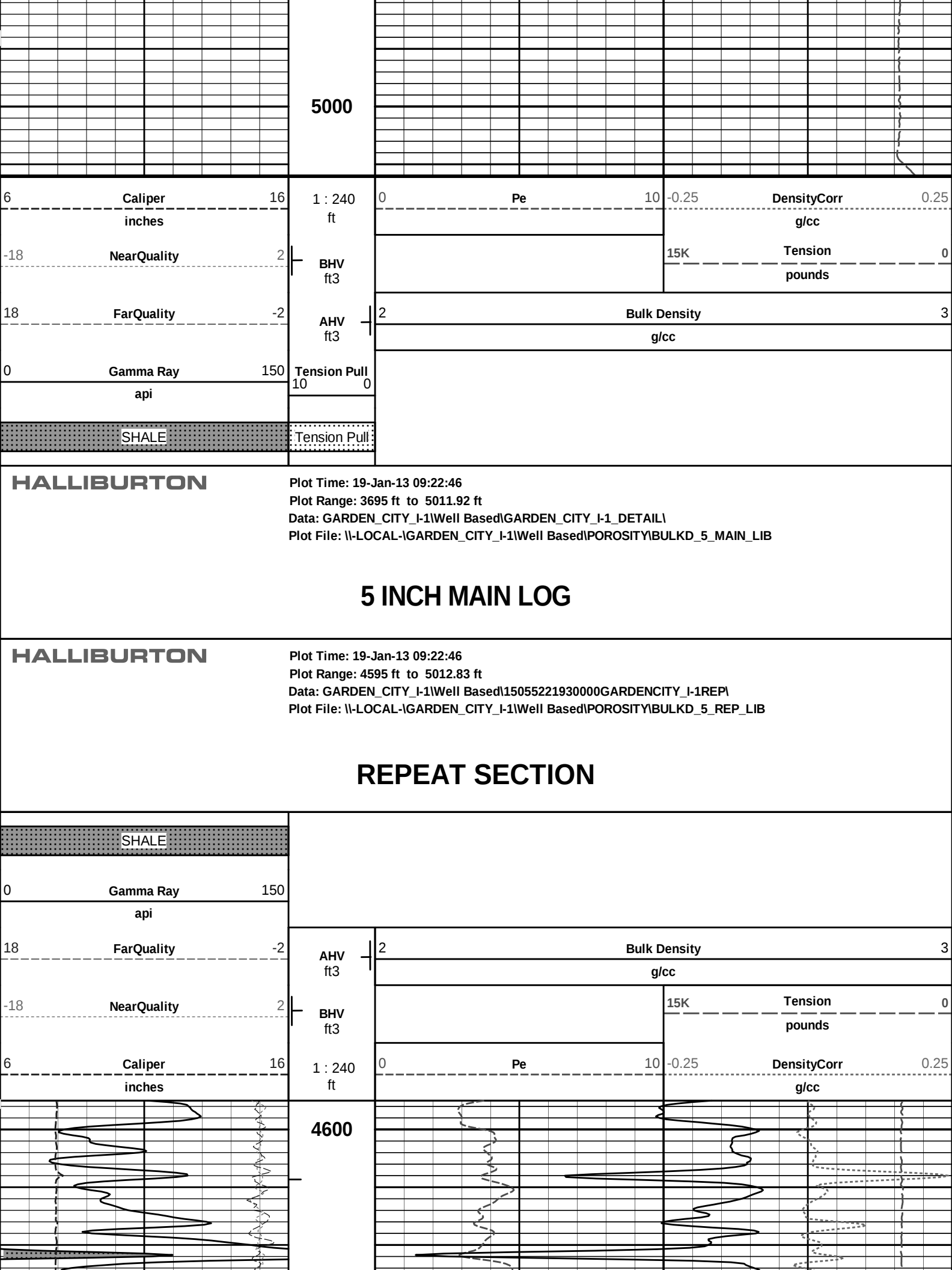


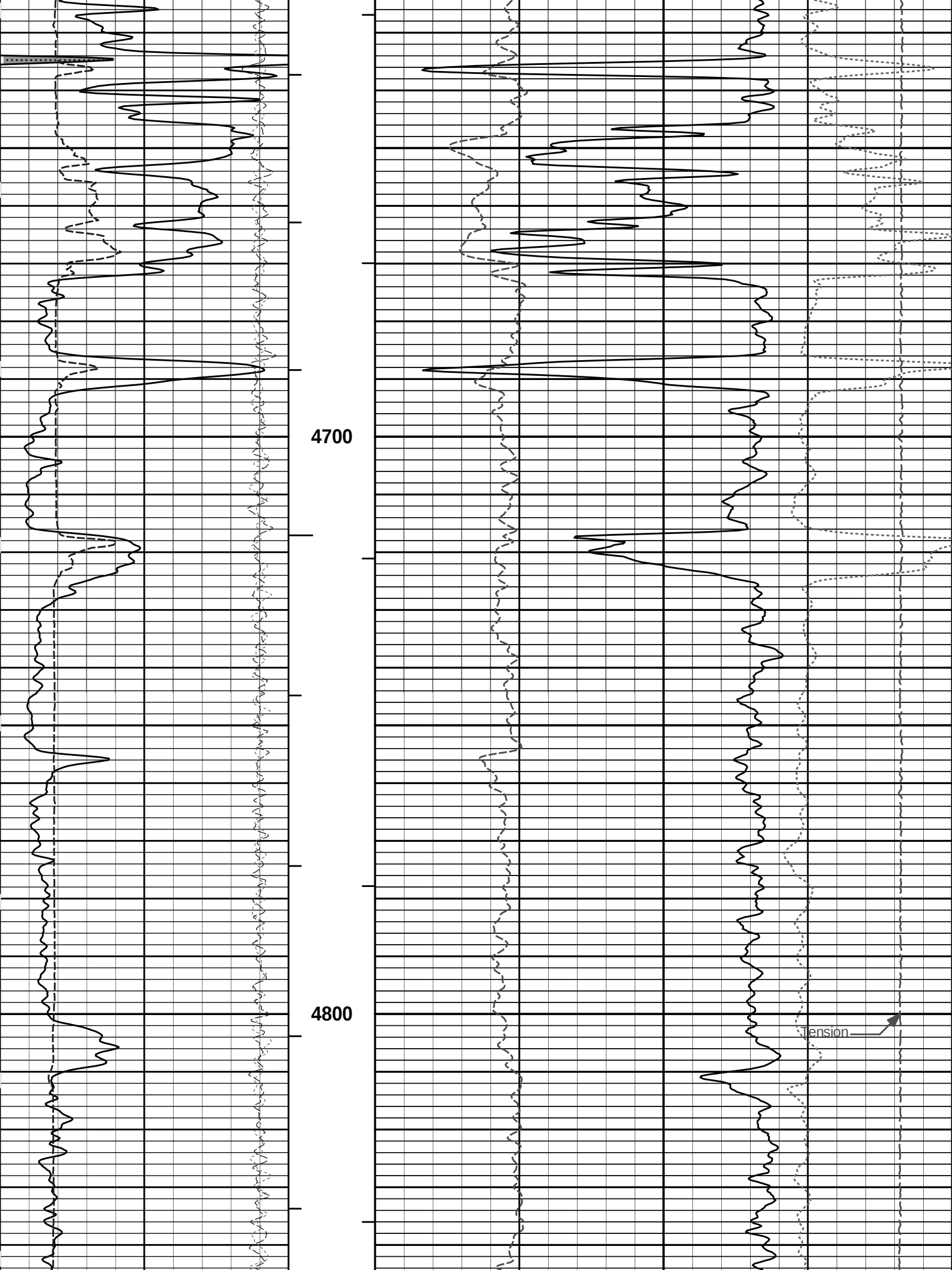










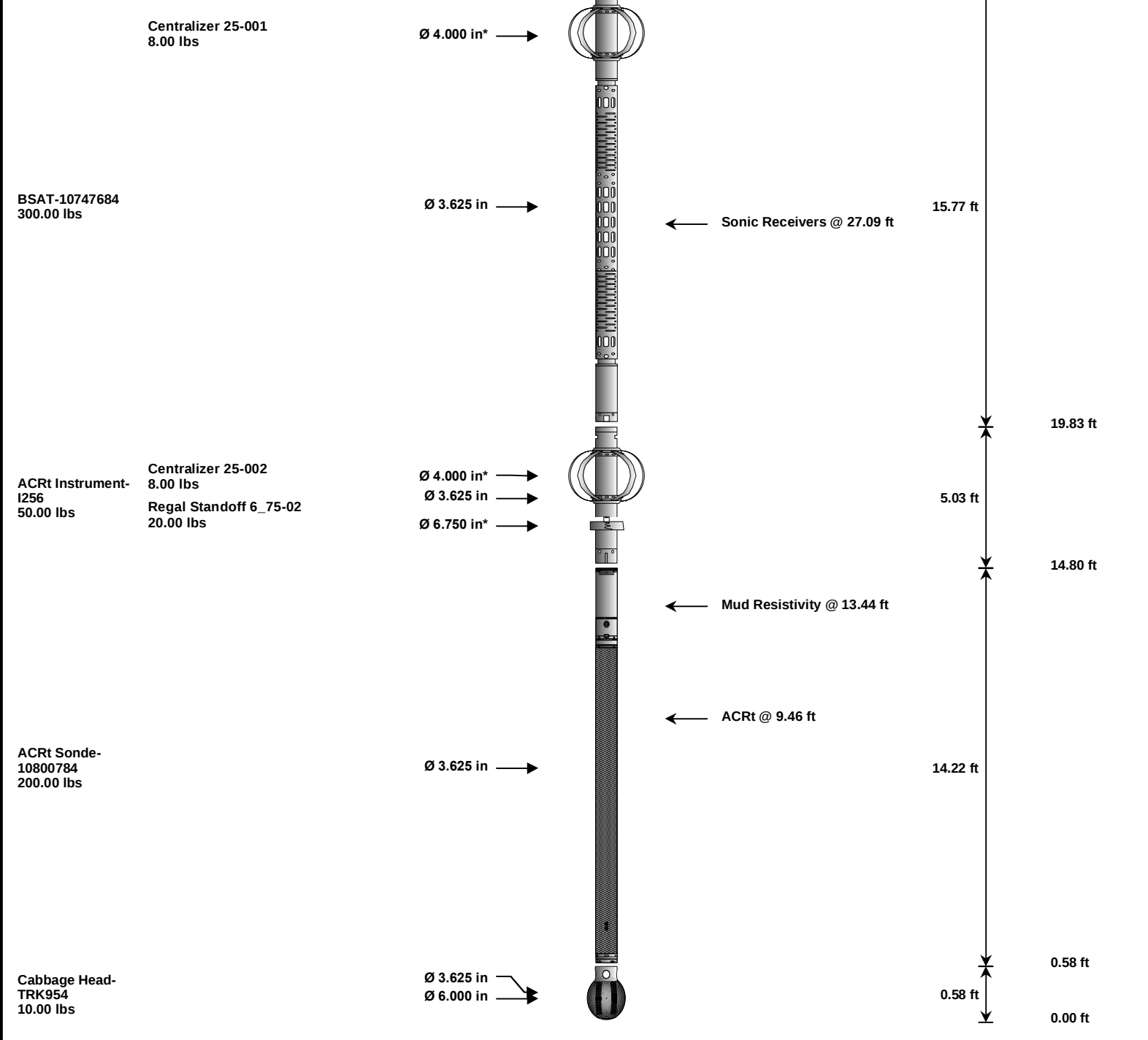


REPEAT SECTION

HALLIBURTON

TOOL STRING DIAGRAM REPORT

Description	Overbody Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length
Cable Head- PROT01 30.00 lbs		Ø 3.625 in →			1.92 ft	75.95 ft
SP Sub-11441709 60.00 lbs		Ø 3.625 in →		← SP @ 72.26 ft	3.74 ft	74.03 ft
GTET-10748374 165.00 lbs		Ø 3.625 in →		← GammaRay @ 64.23 ft	8.52 ft	70.30 ft
DSNT-10755066 174.00 lbs	DSN Decentralizer- 10735145 6.60 lbs	Ø 5.000 in* → Ø 3.625 in →		← DSN Far @ 54.84 ft ← DSN Near @ 54.09 ft	9.69 ft	61.78 ft
SDLT-10685803 360.00 lbs	SDLT Pad-10714945 65.00 lbs Microlog Pad-10685803 8.00 lbs	Ø 4.500 in → Ø 4.750 in* → Ø 4.750 in* →		Microlog @ 44.28 ft SDL Caliper @ 44.09 ft SDL @ 44.08 ft	10.81 ft	52.09 ft
Flex Joint- 10989947 140.00 lbs		Ø 3.625 in →			5.67 ft	41.28 ft
						35.61 ft



Mnemonic		Tool Name	Serial Number	Weight (lbs)	Length (ft)	Accumulated Length (ft)	Max.Log. Speed (fpm)
CH	Standard OH Cable Head	PROT01		30.00	1.92	74.03	300.00
SP	SP Sub	11441709		60.00	3.74	70.30	300.00
GTET	Gamma Telemetry Tool	10748374		165.00	8.52	61.78	60.00
DSNT	Dual Spaced Neutron	10755066		174.00	9.69	52.09	60.00
DCNT	DSN Decentralizer	10735145		6.60	5.13	* 55.42	300.00
SDLT	Spectral Density Tool	10685803		360.00	10.81	41.28	60.00
SDLP	Density Insite Pad	10714945		65.00	2.55	* 43.49	60.00
MICP	Microlog Pad	10685803		8.00	1.00	* 43.78	60.00
FLEX	Flex Joint	10989947		140.00	5.67	35.61	300.00
BSAT	Borehole Sonic Array Tool	10747684		300.00	15.77	19.83	60.00
OBCEN	Centralizer - 25 in. Overbody	001		8.00	2.08	* 32.78	300.00
ACRt	Array Compensated True Resistivity Instrument Section	I256		50.00	5.03	14.80	300.00
RSOF	Regal Standoff 6.75in	02		20.00	0.52	* 16.05	300.00
OBCEN	Centralizer - 25 in. Overbody	002		8.00	2.08	* 16.96	300.00
ACRt	Array Compensated True Resistivity Sonde Section	10800784		200.00	14.22	0.58	300.00
CBHD	Cabbage Head	TRK954		10.00	0.58	0.00	300.00
Total				1,604.60	75.95		

* Not included in Total Length and Length Accumulation.

HALLIBURTON

PARAMETERS REPORT

Depth (ft))	Tool Name	Mnemonic	Description	Value	Units
TOP					
	SHARED	BS	Bit Size	7.875	in
	SHARED	UBS	Use Bit Size instead of Caliper for all applications.	No	
	SHARED	MDBS	Mud Base	Water	
	SHARED	MDWT	Borehole Fluid Weight	9.200	ppg
	SHARED	WAGT	Weighting Agent	Natural	
	SHARED	BSAL	Borehole salinity	0.00	ppm
	SHARED	FSAL	Formation Salinity NaCl	0.00	ppm
	SHARED	KPCT	Percent K in Mud by Weight?	0.00	%
	SHARED	RMUD	Mud Resistivity	1.000	ohmm
	SHARED	TRM	Temperature of Mud	75.0	degF
	SHARED	CSD	Logging Interval is Cased?	No	
	SHARED	ICOD	AHV Casing OD	5.500	in
	SHARED	ST	Surface Temperature	75.0	degF
	SHARED	TD	Total Well Depth	5095.00	ft
	SHARED	BHT	Bottom Hole Temperature	120.0	degF
	SHARED	SVTM	Navigation and Survey Master Tool	NONE	
	SHARED	AZTM	High Res Z Accelerometer Master Tool	GTET	
	SHARED	TEMM	Temperature Master Tool	NONE	
	SHARED	BHSM	Borehole Size Master Tool	NONE	
	Rwa / CrossPlot	XPOK	Process Crossplot?	Yes	
	Rwa / CrossPlot	FCHO	Select Source of F	Automatic	
	Rwa / CrossPlot	AFAC	Archie A factor	0.6200	
	Rwa / CrossPlot	MFAC	Archie M factor	2.1500	
	Rwa / CrossPlot	RMFR	Rmf Reference	0.10	ohmm
	Rwa / CrossPlot	TMFR	Rmf Ref Temp	75.00	degF
	Rwa / CrossPlot	RWA	Resistivity of Formation Water	0.05	ohmm
	Rwa / CrossPlot	ADP	Use Air Porosity to calculate CrossplotPhi	No	
	GTET	GROK	Process Gamma Ray?	Yes	
	GTET	GRSO	Gamma Tool Standoff	0.000	in
	GTET	GEOK	Process Gamma Ray EVR?	No	
	GTET	TPOS	Tool Position for Gamma Ray Tools.	Eccentered	
	DSNT	DNOK	Process DSN?	Yes	
	DSNT	DEOK	Process DSN EVR?	No	
	DSNT	NLIT	Neutron Lithology	Limestone	
	DSNT	DSNO	DSN Standoff - 0.25 in (6.35 mm) Recommended	0.250	in
	DSNT	DNTP	Temperature Correction Type	None	
	DSNT	DPRS	DSN Pressure Correction Type	None	
	DSNT	SHCO	View More Correction Options	No	
	DSNT	UTVD	Use TVD for Gradient Corrections?	No	
	DSNT	LHWT	Logging Horizontal Water Tank?	No	
	SDLT	CLOK	Process Caliper Outputs?	Yes	

SDLT Pad	DNOK	Process Density?	Yes	
SDLT Pad	DNOK	Process Density EVR?	No	
SDLT Pad	CB	Logging Calibration Blocks?	No	
SDLT Pad	SPVT	SDLT Pad Temperature Valid?	Yes	
SDLT Pad	DTWN	Disable temperature warning	No	
SDLT Pad	DMA	Formation Density Matrix	2.710	g/cc
SDLT Pad	DFL	Formation Density Fluid	1.000	g/cc
Microlog Pad	MLOK	Process MicroLog Outputs?	Yes	
BSAT	MBOK	Compute BCAS Results?	Yes	
BSAT	FLLO	Frequency Filter Low Pass Value?	5000	Hz
BSAT	FLHI	Frequency Filter High Pass Value?	27000	Hz
BSAT	DTFL	Delta -T Fluid	189.00	uspf
BSAT	DTMT	Delta -T Matrix Type	User define	
BSAT	DTMA	Delta -T Matrix	47.60	uspf
BSAT	DTSH	Delta -T Shale	100.00	uspf
BSAT	SPEQ	Acoustic Porosity Equation	Wylie	
ACRt Sonde	RTOK	Process ACRT?	Yes	
ACRt Sonde	MNSO	Minimum Tool Standoff	1.50	in
ACRt Sonde	TCS1	Temperature Correction Source	FP Lwr & FP Up	
ACRt Sonde	TPOS	Tool Position	Free Hanging	
ACRt Sonde	RMOP	Rmud Source	Mud Cell	
ACRt Sonde	RMIN	Minimum Resistivity for MAP	0.20	ohmm
ACRt Sonde	RMIN	Maximum Resistivity for MAP	200.00	ohmm
ACRt Sonde	THQY	Threshold Quality	0.50	
ACRt Sonde	MRFX	Fixed mud resistivity	2000	ohmm
BOTTOM				
Data: GARDEN_CITY_I-110001 SP-GTET-DSNT-SDLT-FLEX-BSAT-ACRT-CH1005 19-Jan-13 05:18 Up @5011.8f				Date: 19-Jan-13 06:34:36

HALLIBURTON			
CALIBRATION REPORT			
NATURAL GAMMA RAY TOOL SHOP CALIBRATION			
Tool Name:	GTET - 10748374	Reference Calibration Date:	19-Dec-12 08:49:49
Engineer:	T. HYDE	Calibration Date:	17-Jan-13 13:03:23
Software Version:	WL INSITE R3.6.0 (Build 3)	Calibration Version:	1
Calibrator Source S/N: TB-185			
Calibrator API Reference:228.00 api			
Equivalent Calibrator API Reference:232.0 api			
	Measurement	Measured	Calibrated
	Background	47.0	47.4
	Background + Calibrator	277.4	279.4
	Calibrator	230.4	232.0
NATURAL GAMMA RAY TOOL FIELD CALIBRATION			
Tool Name:	GTET - 10748374	Reference Calibration Date:	17-Jan-13 13:03:23
Engineer:	T. HYDE	Calibration Date:	17-Jan-13 13:06:37
Software Version:	WL INSITE R3.6.0 (Build 3)	Calibration Version:	1
Calibrator Source S/N: TB-185			
Calibrator API Reference:228.00 api			
Equivalent Calibrator API Reference:232.0 api			
	Field Verification	Shon	Field

Field Verification	Shop	Field	Units
Background	47.4	47.8	api
Background + Calibrator	279.4	282.5	api
Calibrator	232.0	234.7	api

Shop	Field	Difference	Tolerance
232.0	234.7	-2.7	+/- 9.00

DUAL SPACED NEUTRON SHOP CALIBRATION

Tool Name:	DSNT - 10755066	Reference Calibration Date:	19-Dec-12 09:31:50
Engineer:	T. HYDE	Calibration Date:	18-Jan-13 10:41:33
Software Version:	WL INSITE R3.6.0 (Build 3)	Calibration Version:	1

Logging Source S/N: DSN-436
 Tank Serial Number: 105060
 Reference value assigned to Tank: 51.680
 Snow Block S/N: TRK_954
 Calibration Tank Water Temperature: 62 degF
 Min. Tool Housing Outside Diameter: 3.620 in

CALIBRATION CONSTANTS			
Measurement	Prev. Value	New Value	Control Limit On New Value
Gain:	0.947	0.946	0.900 - 1.100

WATER TANK SUMMARY (Horizontal Water Tank)				
Measurement	Current Reading (Previous Coef.)	Calibrated (New Coef.)	Change	Control Limit On Change
Porosity (decp):	0.2111	0.2106	0.0004	+/- 0.0020
Calibrated Ratio:	9.73	9.72	0.015	+/- 0.050

VERIFIER		
Measurement	Value	Control Limit
Snow-Block Porosity (decp):	0.0612	0.02000 - 0.09000

PASS/FAIL SUMMARY	
Background Check:	Passed
Gain-Range Check:	Passed
Snow-Block Check:	Passed

DUAL SPACED NEUTRON FIELD CALIBRATION

Tool Name:	DSNT - 10755066	Reference Calibration Date:	18-Jan-13 10:41:33
Engineer:	T. HYDE	Calibration Date:	18-Jan-13 10:43:13
Software Version:	WL INSITE R3.6.0 (Build 3)	Calibration Version:	1

Logging Source S/N: DSN-436
 Snow Block S/N: TRK_954

NEUTRON FIELD-CHECK SUMMARY				
	Shop	Field	Difference	Control Limit On Change
Snow-Block Porosity (decp):	0.0612	0.0611	-0.0001	+/- 0.0150

PASS/FAIL SUMMARY	
Block Change Check:	Passed
Snow Block Stat Check:	Passed

DENSITY CALIPER SHOP CALIBRATION

Tool Name:	SDLT - 10685803	Reference Calibration Date:	18-Jan-13 09:58:36
Engineer:	T. HYDE	Calibration Date:	18-Jan-13 10:03:41
Software Version:	WL INSITE R3.6.0 (Build 3)	Calibration Version:	1
Host Tool Name:	DSNT - 10755066		

CALIBRATION COEFFICIENTS

Measurement	Previous Value	New Value	Control Limit On New Value
Pad Offset	-4650.98	-4634.87	-7000.00 - -1000.00
Pad Gain	0.0003964	0.0003949	0.000200 - 0.000600
Arm Offset	-2226.61	-2519.31	-5000.00 - 3000.00
Arm Gain	0.0005361	0.0005659	0.000300 - 0.000700
Arm Power	-0.000006657	-0.000008059	-0.000010000 - 0.000010000

The ring diameter is computed from: DIAMETER = PAD EXTENSION + ARM EXTENSION + TOOL DIAMETER

Tool Diameter: 4.50 in

CALIBRATION RINGS

Measurement	Current Reading (Previous Coeff.)	Calibrated (New Coeff.)	Change	Control Limit On New Value
PAD EXTENSION:				
Small Ring (in)	2.00	2.00	0.00	+/- 0.20
Medium Ring (in)	3.76	3.75	-0.01	+/- 0.20
RING DIAMETER:				
Small Ring (in)	6.54	6.50	-0.04	+/- 0.20
Medium Ring (in)	8.22	8.25	0.03	+/- 0.20
Large Ring (in)	14.94	15.00	0.06	+/- 0.20

PASS/FAIL SUMMARY

Calibration-Coefficients Range Check:	Passed
Ring-Measurement Check:	Passed

PASS/FAIL SUMMARY

Calibration-Coefficients Range Check:	Passed
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SPECTRAL DENSITY SHOP CALIBRATION

Tool Name:	SDLT Pad - 10714945	Reference Calibration Date:	25-Nov-12 17:20:05
Engineer:	S. INGERSOLL	Calibration Date:	27-Dec-12 14:52:08
Software Version:	WL INSITE R3.6.0 (Build 3)	Calibration Version:	1

Logging Source S/N: 5073GW

Aluminum Block S/N: 63061

Density: 2.591g/cc

Pe: 3.170

Magnesium Block S/N: 63393

Density: 1.690g/cc

Pe: 2.594

DENSITY CALIBRATION SUMMARY

Measurement	Previous Value	New Value	Control Limit
Near Bar Gain	1.0471	1.0194	0.90 - 1.10
Near Dens Gain	1.0210	0.9911	0.90 - 1.10
Near Peak Gain	1.0080	0.9996	0.90 - 1.10
Near Lith Gain	0.9799	0.9637	0.90 - 1.10
Far Bar Gain	1.0107	0.9937	0.90 - 1.10
Far Dens Gain	1.0023	0.9836	0.90 - 1.10
Far Peak Gain	0.9966	0.9803	0.90 - 1.10
Far Lith Gain	0.9736	0.9626	0.90 - 1.10

Near Bar Offset	-0.1342	0.1283	NONE
Near Dens Offset	0.0896	0.3542	NONE
Near Peak Offset	0.1977	0.2642	NONE
Near Lith Offset	0.4013	0.5301	NONE
Far Bar Offset	0.0937	0.2561	NONE
Far Dens Offset	0.1536	0.3280	NONE
Far Peak Offset	0.2052	0.3491	NONE
Far Lith Offset	0.3656	0.4598	NONE
Near Bar Background	981.07	978.58	700 - 1450
Near Dens Background	326.98	325.54	230 - 480
Near Peak Background	142.65	141.17	100 - 210
Near Lith Background	174.30	173.43	125 - 260
Far Bar Background	500.97	504.27	450 - 900
Far Dens Background	194.51	195.52	175 - 345
Far Peak Background	76.27	76.60	70 - 140
Far Lith Background	81.30	80.95	75 - 145

CALIBRATION BLOCK SUMMARY				
Measurement	Current Reading (Previous Coef)	Calibrated (New Coef)	Change	Control Limit On Change
MAGNESIUM				
Density (g/cc)	1.689	1.690	0.001	+/- 0.015
Pe	2.457	2.548	0.091	+/- 0.150
ALUMINUM				
Density (g/cc)	2.602	2.591	-0.011	+/- 0.01500
Pe	3.010	3.122	0.112	+/- 0.150

TOOL SUMMARY				
Measurement	Near Detector		Far Detector	
	Value	Control Limits	Value	Control Limits
QUALITY				
Background	-0.0012	+/- 0.0110	0.0000	+/- 0.0140
Magnesium Block	-0.0011	+/- 0.0110	-0.0017	+/- 0.0140
Aluminum Block	0.0007	+/- 0.0110	-0.0002	+/- 0.0140
Resolution	9.82	6.00 - 11.50	9.23	6.00 - 11.50
Internal Verifier(B+D+P+L)	1619	1200 - 2700	857	800 - 1700

PASS/FAIL SUMMARY	
Background Quality Check:	Passed
Background Range Check:	Passed
Background Resolution Check:	Passed
Background Verification Check:	Passed
Magnesium Quality Check:	Passed
Aluminum Quality Check:	Passed
Gains Check:	Passed
Changes in Calibration Blocks:	Passed

SPECTRAL DENSITY FIELD CHECK

Tool Name:	SDLT Pad - 10714945	Reference Calibration Date:	27-Dec-12 14:52:08
Engineer:	S. INGERSOLL	Calibration Date:	15-Jan-13 14:36:56
Software Version:	WL INSITE R3.6.0 (Build 3)	Calibration Version:	1

Pad Temperature: 47.0 degF

DENSITY FIELD CALIBRATION SUMMARY				
Measurement	Shop	Field	Change	Control Limit +/-
Near (B+D+P+L) cps	1618.724	1615.322	-3.402	16.173
Far (B+D+P+L) cps	857.337	856.729	-0.608	16.042
Near Resolution	9.82	10.08	0.260	0.50
Far Resolution	9.23	9.46	0.230	1.00

PASS/FAIL SUMMARY	
Bkg Quality Check:	Passed
Bkg Resolution Check:	Passed
Bkg Verification Check:	Passed

SDLT CALIPER FIELD CALIBRATION

Tool Name:	SDLT - 10685803	Reference Calibration Date:	18-Jan-13 10:03:41
Engineer:	T. HYDE	Calibration Date:	18-Jan-13 10:05:50
Software Version:	WL INSITE R3.6.0 (Build 3)	Calibration Version:	1

MEASURED CALIPER VALUES				
Measurement	Shop	Field	Change	Control Limit On New Value
Pad Extension	3.75	3.75	0.00	+/- 0.10
Ring Diameter	8.25	8.21	-0.04	+/- 0.15

PASS/FAIL SUMMARY	
Pad Extension Check:	Passed
Diameter Check:	Passed

CALIBRATION SUMMARY

Sensor	Shop	Field	Post	Difference	Tolerance	Units
GTET-10748374						
Gamma Ray Calibrator	232.0	234.7	-----	-2.7	+/- 9.00	api
DSNT-10755066						
Snow-Block Porosity	0.0612	0.0611	-----	0.0001	+/- 0.0150	decP
SDLT-10685803						
Pad Extension	3.75	3.75	-----	0.00	+/-0.10	in
Ring Diameter	8.25	8.21	-----	0.04	+/-0.15	in
SDLT Pad-10714945						
Near(B+D+P+L)	1618.724	1615.322	-----	3.402	+/-16.173	cps
Far(B+D+P+L)	857.337	856.729	-----	0.608	+/-16.042	cps

Data: GARDEN_CITY_I-10001 SP-GTET-DSNT-SDLT-FLEX-BSAT-ACRT-CH005 19-Jan-13 05:18 Up @5011.8f Date: 19-Jan-13 06:36:02

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INPUTS, DELAYS AND FILTERS TABLE

Mnemonic	Input Description	Delay (ft)	Filter Type	Filter Length (ft)
Depth Panel				
TENS	Tension	0.00	NO	
SP Sub				
PLTC	Plot Control Mask	72.25	NO	

SP	Spontaneous Potential	72.25	BLK	1.250
SPR	Raw Spontaneous Potential	72.25	NO	
SPO	Spontaneous Potential Offset	72.25	NO	
GTET				
TPUL	Tension Pull	64.23	NO	
GR	Natural Gamma Ray API	64.23	TRI	1.750
GRU	Unfiltered Natural Gamma Ray API	64.23	NO	
EGR	Natural Gamma Ray API with Enhanced Vertical Resolution	64.23	W	1.416 , 0.750
ACCZ	Accelerometer Z	0.00	BLK	0.083
DEVI	Inclination	0.00	NO	
DSNT				
TPUL	Tension Pull	53.99	NO	
RNDS	Near Detector Telemetry Counts	54.09	BLK	1.417
RFDS	Far Detector Telemetry Counts	54.84	TRI	0.583
DNTT	DSN Tool Temperature	54.09	NO	
DSNS	DSN Tool Status	53.99	NO	
ERND	Near Detector Telemetry Counts EVR	54.09	BLK	0.000
ERFD	Far Detector Telemetry Counts EVR	54.84	BLK	0.000
ENTM	DSN Tool Temperature EVR	54.09	NO	
SDLT				
TPUL	Tension Pull	44.09	NO	
PCAL	Pad Caliper	44.09	TRI	0.250
ACAL	Arm Caliper	44.09	TRI	0.250
BSAT				
TPUL	Tension Pull	27.09	NO	
STAT	Status	27.09	NO	
DLYT	Delay Time	27.09	NO	
SI	Sample Interval	27.09	NO	
TXRX	Raw Telemetry 10 Receivers	27.09	NO	
FRMC	Tool Frame Count	27.09	NO	
GMOD	Gain processing mode	19.83	NO	
ACRt Sonde				
TPUL	Tension Pull	2.97	NO	
F1R1	ACRT 12KHz - 80in R value	9.22	BLK	0.000
F1X1	ACRT 12KHz - 80in X value	9.22	BLK	0.000
F1R2	ACRT 12KHz - 50in R value	6.72	BLK	0.000
F1X2	ACRT 12KHz - 50in X value	6.72	BLK	0.000
F1R3	ACRT 12KHz - 29in R value	5.22	BLK	0.000
F1X3	ACRT 12KHz - 29in X value	5.22	BLK	0.000
F1R4	ACRT 12KHz - 17in R value	4.22	BLK	0.000
F1X4	ACRT 12KHz - 17in X value	4.22	BLK	0.000
F1R5	ACRT 12KHz - 10in R value	3.72	BLK	0.000
F1X5	ACRT 12KHz - 10in X value	3.72	BLK	0.000
F1R6	ACRT 12KHz - 6in R value	3.47	BLK	0.000
F1X6	ACRT 12KHz - 6in X value	3.47	BLK	0.000
F2R1	ACRT 36KHz - 80in R value	9.22	BLK	0.000
F2X1	ACRT 36KHz - 80in X value	9.22	BLK	0.000
F2R2	ACRT 36KHz - 50in R value	6.72	BLK	0.000
F2X2	ACRT 36KHz - 50in X value	6.72	BLK	0.000
F2R3	ACRT 36KHz - 29in R value	5.22	BLK	0.000
F2X3	ACRT 36KHz - 29in X value	5.22	BLK	0.000
F2R4	ACRT 36KHz - 17in R value	4.22	BLK	0.000
F2X4	ACRT 36KHz - 17in X value	4.22	BLK	0.000
F2R5	ACRT 36KHz - 10in R value	3.72	BLK	0.000
F2X5	ACRT 36KHz - 10in X value	3.72	BLK	0.000
F2R6	ACRT 36KHz - 6in R value	3.47	BLK	0.000
F2X6	ACRT 36KHz - 6in X value	3.47	BLK	0.000

F2R4	ACRT 36KHz - 17in R value	4.22	BLK	0.000
F2X4	ACRT 36KHz - 17in X value	4.22	BLK	0.000
F2R5	ACRT 36KHz - 10in R value	3.72	BLK	0.000
F2X5	ACRT 36KHz - 10in X value	3.72	BLK	0.000
F2R6	ACRT 36KHz - 6in R value	3.47	BLK	0.000
F2X6	ACRT 36KHz - 6in X value	3.47	BLK	0.000
F3R1	ACRT 72KHz - 80in R value	9.22	BLK	0.000
F3X1	ACRT 72KHz - 80in X value	9.22	BLK	0.000
F3R2	ACRT 72KHz - 50in R value	6.72	BLK	0.000
F3X2	ACRT 72KHz - 50in X value	6.72	BLK	0.000
F3R3	ACRT 72KHz - 29in R value	5.22	BLK	0.000
F3X3	ACRT 72KHz - 29in X value	5.22	BLK	0.000
F3R4	ACRT 72KHz - 17in R value	4.22	BLK	0.000
F3X4	ACRT 72KHz - 17in X value	4.22	BLK	0.000
F3R5	ACRT 72KHz - 10in R value	3.72	BLK	0.000
F3X5	ACRT 72KHz - 10in X value	3.72	BLK	0.000
F3R6	ACRT 72KHz - 6in R value	3.47	BLK	0.000
F3X6	ACRT 72KHz - 6in X value	3.47	BLK	0.000
RMUD	Mud Resistivity	12.76	BLK	0.000
F1RT	Transmitter Reference 12 KHz Real Signal	2.97	BLK	0.000
F1XT	Transmitter Reference 12 KHz Imaginary Signal	2.97	BLK	0.000
F2RT	Transmitter Reference 36 KHz Real Signal	2.97	BLK	0.000
F2XT	Transmitter Reference 36 KHz Imaginary Signal	2.97	BLK	0.000
F3RT	Transmitter Reference 72 KHz Real Signal	2.97	BLK	0.000
F3XT	Transmitter Reference 72 KHz Imaginary Signal	2.97	BLK	0.000
TFPU	Upper Feedpipe Temperature Calculated	2.97	BLK	0.000
TFPL	Lower Feedpipe Temperature Calculated	2.97	BLK	0.000
ITMP	Instrument Temperature	2.97	BLK	0.000
TCVA	Temperature Correction Values Loop Off	2.97	NO	
TIDV	Instrument Temperature Derivative	2.97	NO	
TUDV	Upper Temperature Derivative	2.97	NO	
TLDV	Lower Temperature Derivative	2.97	NO	
TRBD	Receiver Board Temperature	2.97	NO	
SDLT Pad				
TPUL	Tension Pull	44.08	NO	
NAB	Near Above	43.90	BLK	0.920
NHI	Near Cesium High	43.90	BLK	0.920
NLO	Near Cesium Low	43.90	BLK	0.920
NVA	Near Valley	43.90	BLK	0.920
NBA	Near Barite	43.90	BLK	0.920
NDE	Near Density	43.90	BLK	0.920
NPK	Near Peak	43.90	BLK	0.920
NLI	Near Lithology	43.90	BLK	0.920
NBAU	Near Barite Unfiltered	43.90	BLK	0.250
NLIU	Near Lithology Unfiltered	43.90	BLK	0.250
FAB	Far Above	44.26	BLK	0.250
FHI	Far Cesium High	44.26	BLK	0.250
FLO	Far Cesium Low	44.26	BLK	0.250
FVA	Far Valley	44.26	BLK	0.250
FBA	Far Barite	44.26	BLK	0.250
FDE	Far Density	44.26	BLK	0.250
FPK	Far Peak	44.26	BLK	0.250
FLI	Far Lithology	44.26	BLK	0.250
PTMP	Pad Temperature	44.09	BLK	0.920
NHV	Near Detector High Voltage	43.49	NO	

FHV	Far Detector High Voltage	43.49	NO	
ITMP	Instrument Temperature	43.49	NO	
DDHV	Detector High Voltage	43.49	NO	
Microlog Pad				
TPUL	Tension Pull	44.28	NO	
MINV	Microlog Lateral	44.28	BLK	0.750
MNOR	Microlog Normal	44.28	BLK	0.750
Data: GARDEN_CITY_I-1\0001 SP-GTET-DSNT-SDLT-FLEX-BSAT-ACRT-CHI005 19-Jan-13 05:18 Up @5011.8f				Date: 19-Jan-13 06:32:27

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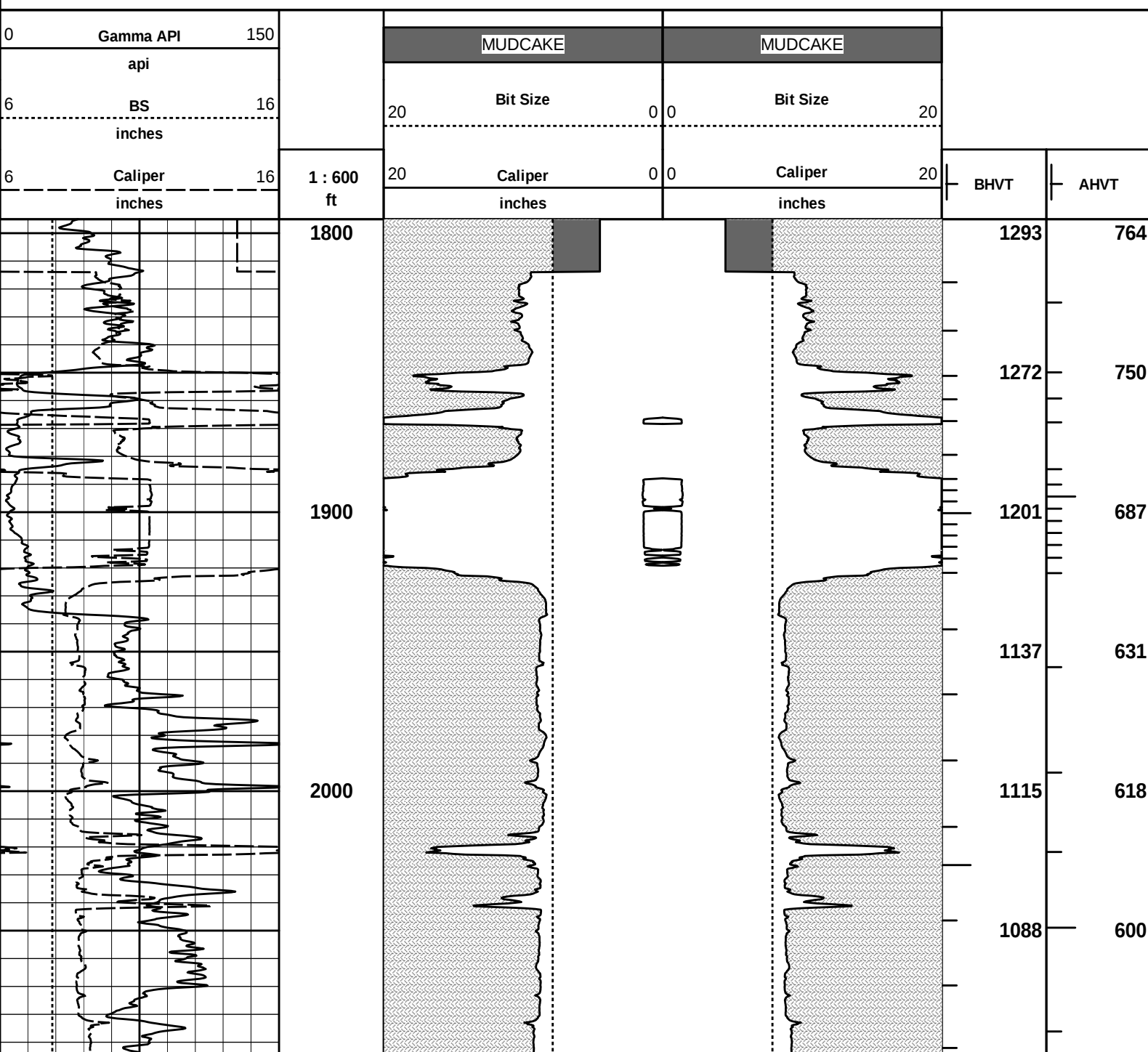
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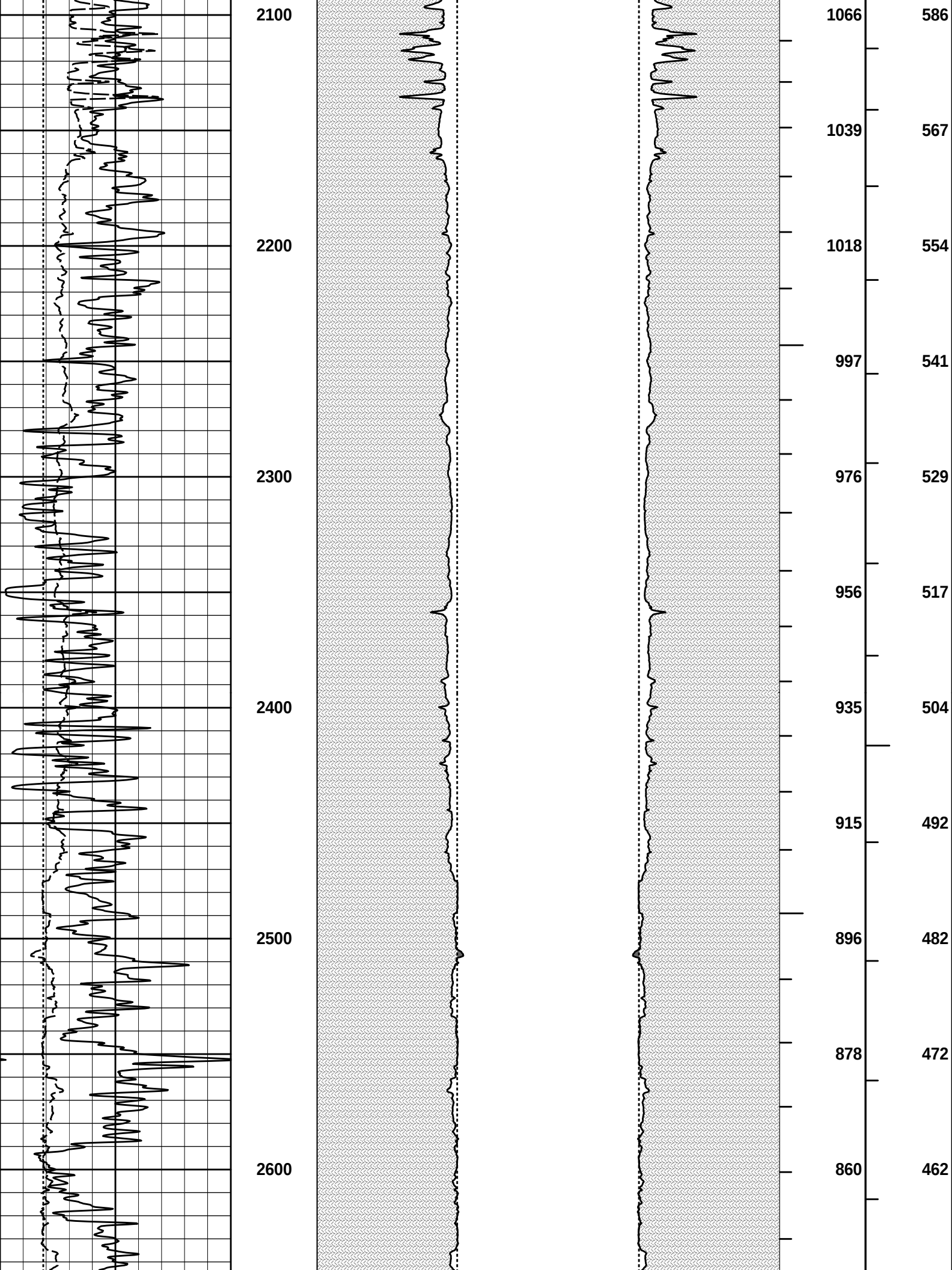
Plot Range: 1795 ft to 5011.92 ft

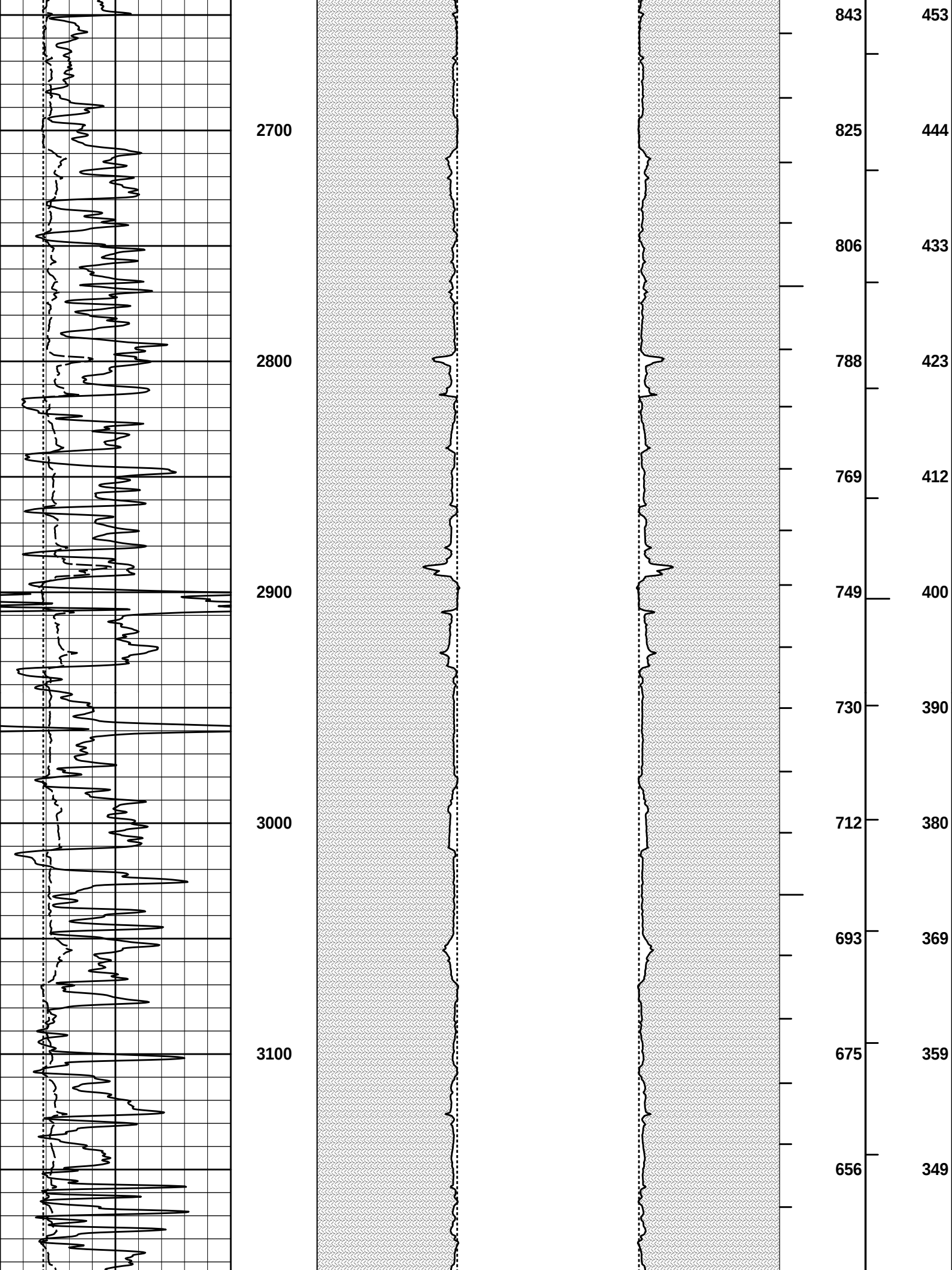
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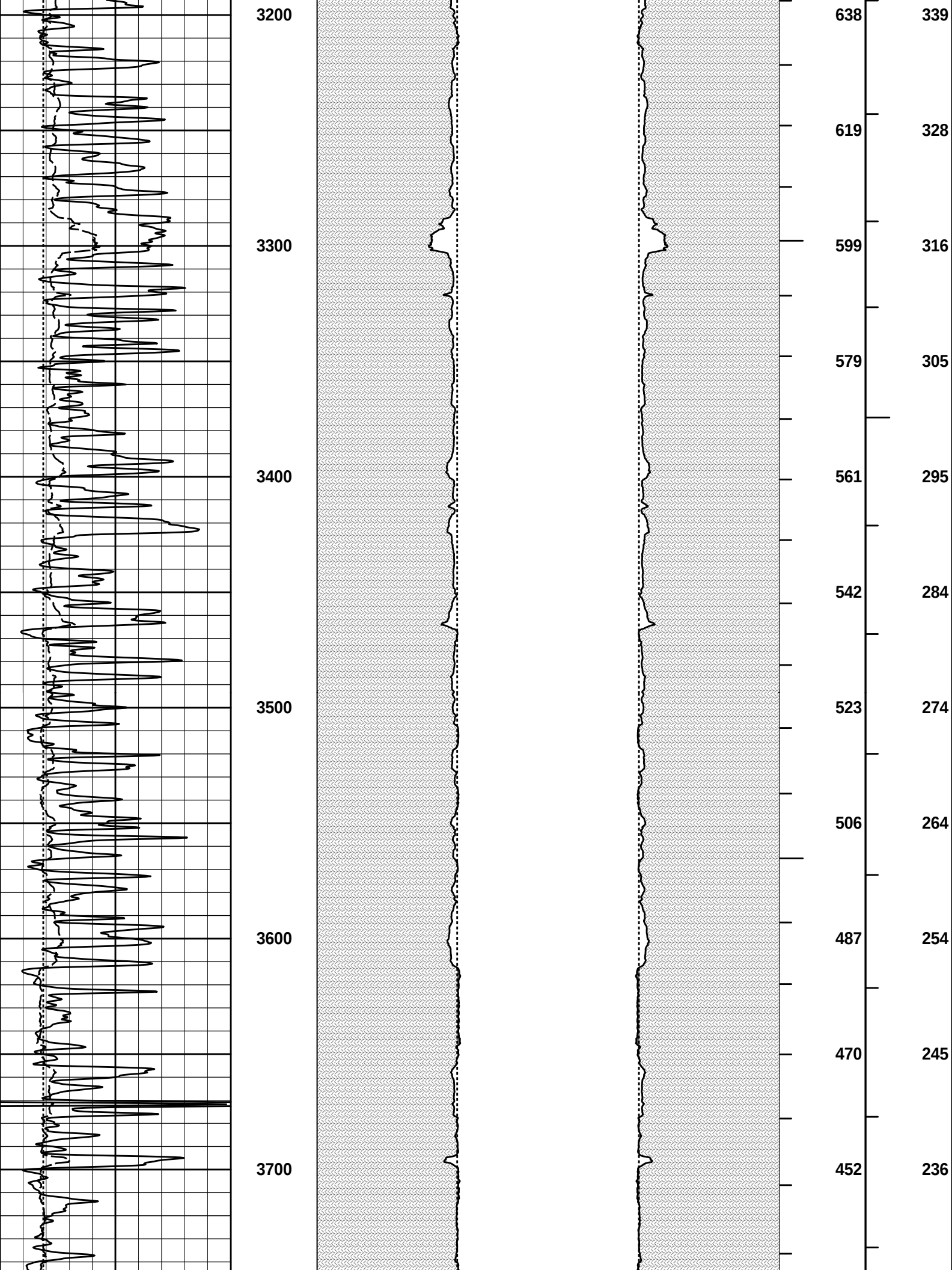
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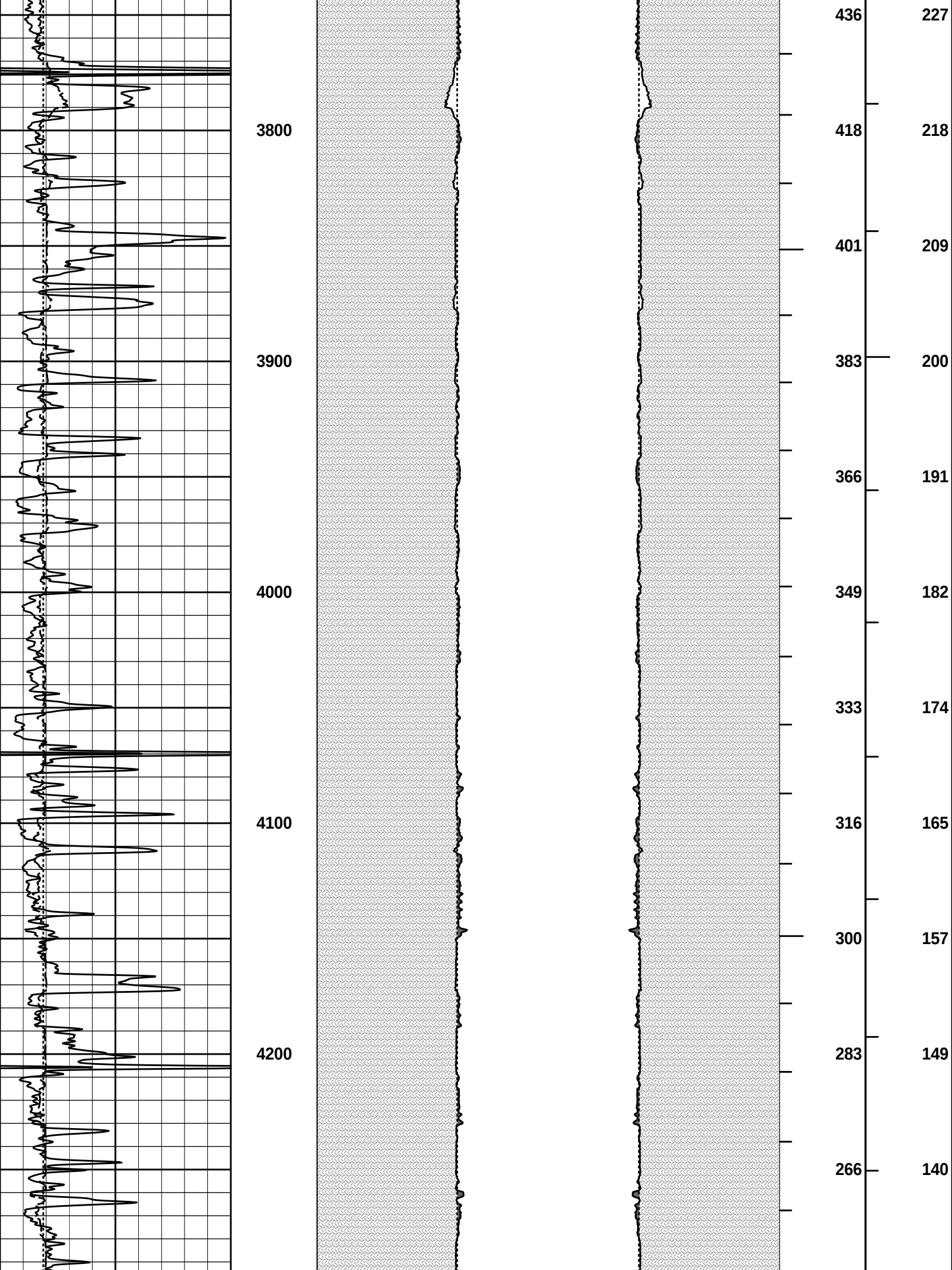
ANNULAR HOLE VOLUME PLOT (5.5 INCH)

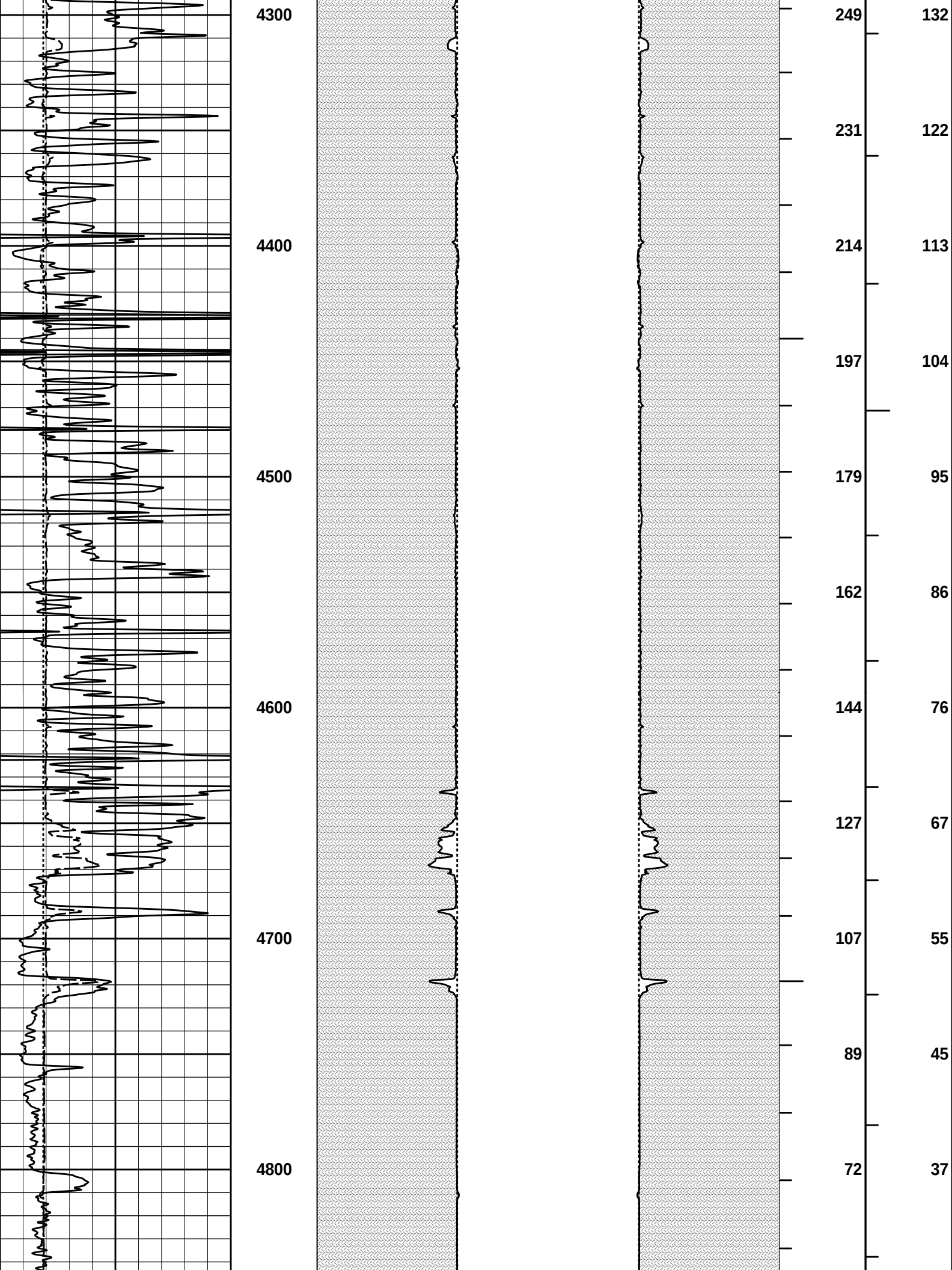


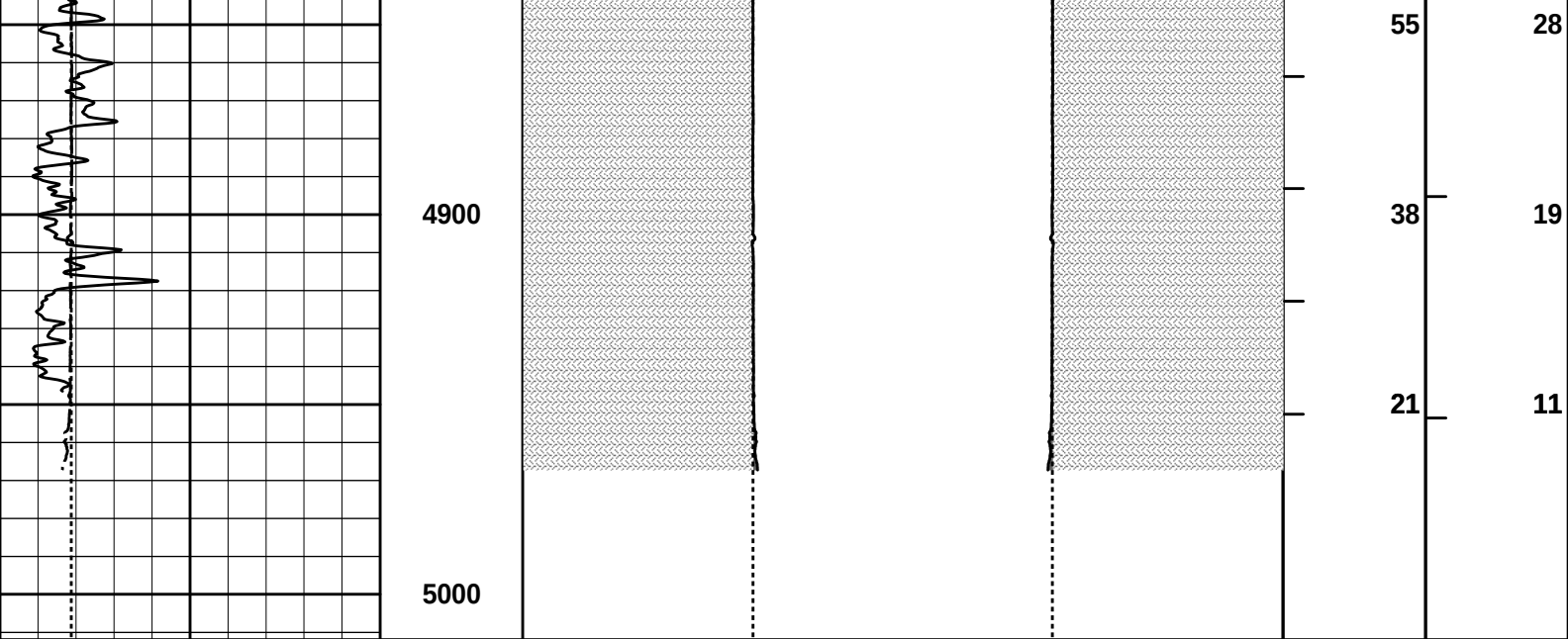












6	Caliper	16	1 : 600 ft	20	Caliper	0 0	20	BHVT	AHVT
	inches				inches				
6	BS	16		20	Bit Size	0 0	20		
	inches								
0	Gamma API	150			MUDCAKE		MUDCAKE		
	api								

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Plot Time: 19-Jan-13 09:22:57
Plot Range: 1795 ft to 5011.92 ft
Data: GARDEN_CITY_I-1\Well Based\GARDEN_CITY_I-1_CASING\
Plot File: \\-LOCAL-\GARDEN_CITY_I-1\Well Based\POROSITY\AHV_5_5_INCH_2_IQ_LIB

ANNULAR HOLE VOLUME PLOT (5.5 INCH)

COMPANY	OXY USA INC.		
WELL	GARDEN CITY I-1		
FIELD	GARDEN CITY		
COUNTY	FINNEY	STATE	KANSAS
HALLIBURTON		DUAL SPACED NEUTRON SPECTRAL DENSITY LOG	