

HALLIBURTON										MICRO LOG									
COMPANY					CMX, INC.					COMPANY					CMX, INC.				
WELL					LEGHORN #1-22					WELL					LEGHORN #1-22				
FIELD/BLOCK					CHASE-SILICA					FIELD/BLOCK					CHASE-SILICA				
COUNTY					BARTON					COUNTY					BARTON				
STATE					KANSAS					STATE					KANSAS				
Permanent Datum					GL					Other Services: ACRT BSAT MICRO DSNT/SDLT					Elev.: K.B. 1767.0 ft				
Log measured from					KB					Elev. 1759.0 ft					D.F. 1767.0 ft				
Drilling measured from					KB					Elev. 1759.0 ft					G.L. 1759.0 ft				
Date					08-Mar-17														
Run No.					ONE														
Depth - Driller					3312.0 ft														
Depth - Logger					3310.0 ft														
Bottom - Logged Interval					3307.0 ft														
Top - Logged Interval					252.0 ft														
Casing - Driller					8.625 in					@					@				
Casing - Logger					252.0 ft														
Bit Size					7.875 in					@					@				
Type Fluid in Hole					Water Based Mud														
Density					9.1 ppg					57.00 sl/qt									
PH					9.20 pH					7.6 cpm									
Source of Sample					FLOWLINE														
Rm @ Meas. Temperature					0.54 ohmm					@ 75.00 degF					@				
Rmf @ Meas. Temperature					0.45 ohmm					@ 75.00 degF					@				
Rmc @ Meas. Temperature					0.63 ohmm					@ 75.00 degF					@				
Source Rmf					CALC					CALC									
Rm @ BHT					0.42 ohmm					@ 103.0 degF					@				
Time Since Circulation					15:52 hr														
Time on Bottom					08-Mar-17 11:52														
Max. Rec. Temperature					103.00 degF					@ 3310.0 ft					@				
Equipment					11072142					EL RENO, OK									
Recorded By					THOMAS HYDE														
Witnessed By					K. LEBLANC														

Service Ticket No.: 903889174						API No.: 15-009-26165-00-00						PGM Version: WL INSITE R5.0.5 (Build 8)																	
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		CENT.		N/A																	
Rmc @ Meas. Temp.		@		@			I-11026094																						
Source Rmf	Rmc						S-11024142																						
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.		11013114		Serial No.		10939050		Serial No.		10960494		Serial No.		10993115															
Model No.		GTET		Model No.		BSAT		Model No.		SDLT		Model No.		DSNT															
Diameter		3.625"		No. of Cent.		2		Diameter		5.5"		Diameter		3.625"															
Detector Model No.		T-102		Spacing		EVEN		Log Type		GAM-GAM		Log Type		NEU-NEU															
Type		SCINT						Source Type		Cs137		Source Type		Am241Be															
Length		8"		LSA [Y/N]				Serial No.		5168GW		Serial No.		DSD-424															
Distance to Source		N/A		FWDA [Y/N]				Strength		1.5 Ci		Strength		15 Ci															
LOGGING DATA																													
GENERAL				GAMMA		ACOUSTIC			DENSITY				NEUTRON																
Run		Depth		Speed		Scale		Scale		Matrix		Scale		Matrix		Scale		Matrix											
No.		From		To		ft/min		L		R		L		R		L		R		Matrix									
ONE		2210		252		REC		0		150		20		10		47.6		20		10		2.71		20		210		LIME	

ONE	3510	252	REC	0	150	30	-10	47.0	30	-10	2.71	30	510	TIME
DIRECTIONAL INFORMATION														
Maximum Deviation @								KOP @						
Remarks: RUN 1: GTET														
RUN 2: GTET-DSNT-SDLT														
RUN 3: GTET-BSAT-ACRT														
TOOLS RUN PER CUSTOMER REQUEST														
ANNULAR HOLE VOLUME CALCULATED FOR 5.5 INCH CASING														
TODAY'S CREW K. KING T. SUMNER														
THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES EL RENO, OK 405-278-9685														
HALLIBURTON DOES NOT GUARANTEE THE ACCURACY OF ANY INTERPRETATION OF THE LOG DATA, CONVERSION OF LOG DATA TO PHYSICAL ROCK PARAMETERS OR RECOMMENDATIONS WHICH MAY BE GIVEN BY HALLIBURTON PERSONNEL OR WHICH APPEAR ON THE LOG OR IN ANY OTHER FORM. ANY USER OF SUCH DATA, INTERPRETATIONS, CONVERSIONS, OR RECOMMENDATIONS AGREES THAT HALLIBURTON IS NOT RESPONSIBLE EXCEPT WHERE DUE TO GROSS NEGLIGENCE OR WILLFUL MISCONDUCT, FOR ANY LOSS, DAMAGES, OR EXPENSES RESULTING FROM THE USE THEREOF. HALLIBURTON														



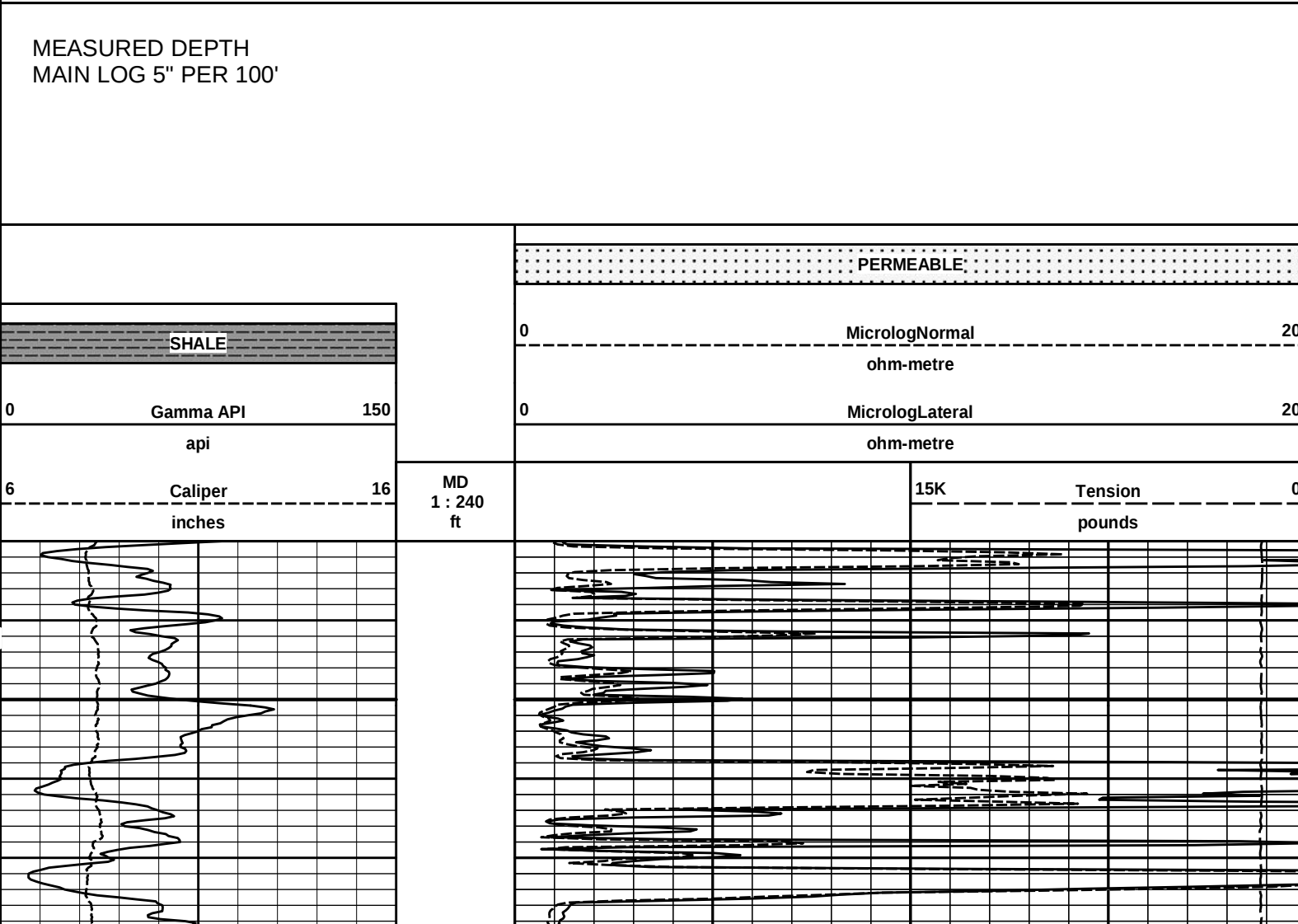
Plot Time: 08-Mar-17 12:50:17

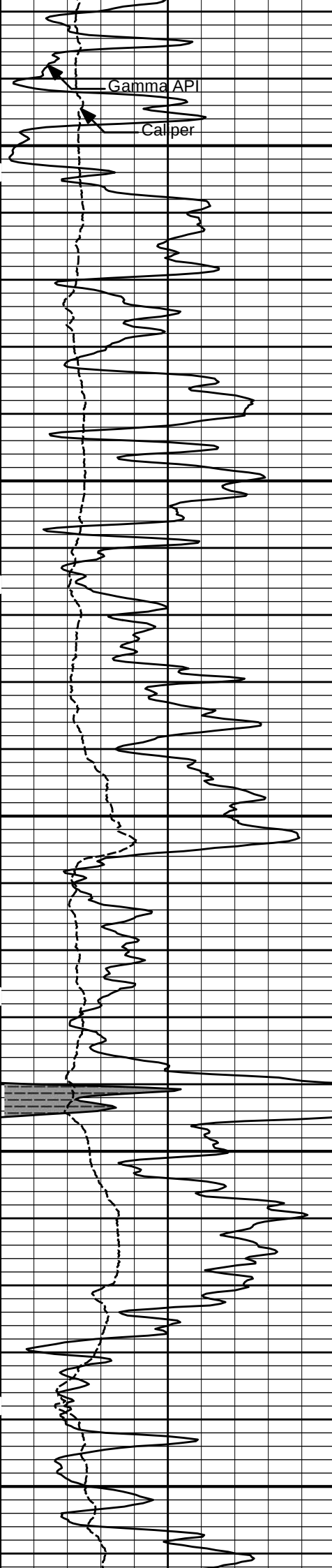
Plot Range: 1330 ft to 3313.67 ft

Data: LEGHORN_1-22\Well Based*

Plot File: \\-LOCAL-\\LEGHORN_1-22\0003 GTET-BSAT-ACRT\MICRO\Microlog_IQ_5_main_lib

5 INCH MAIN LOG

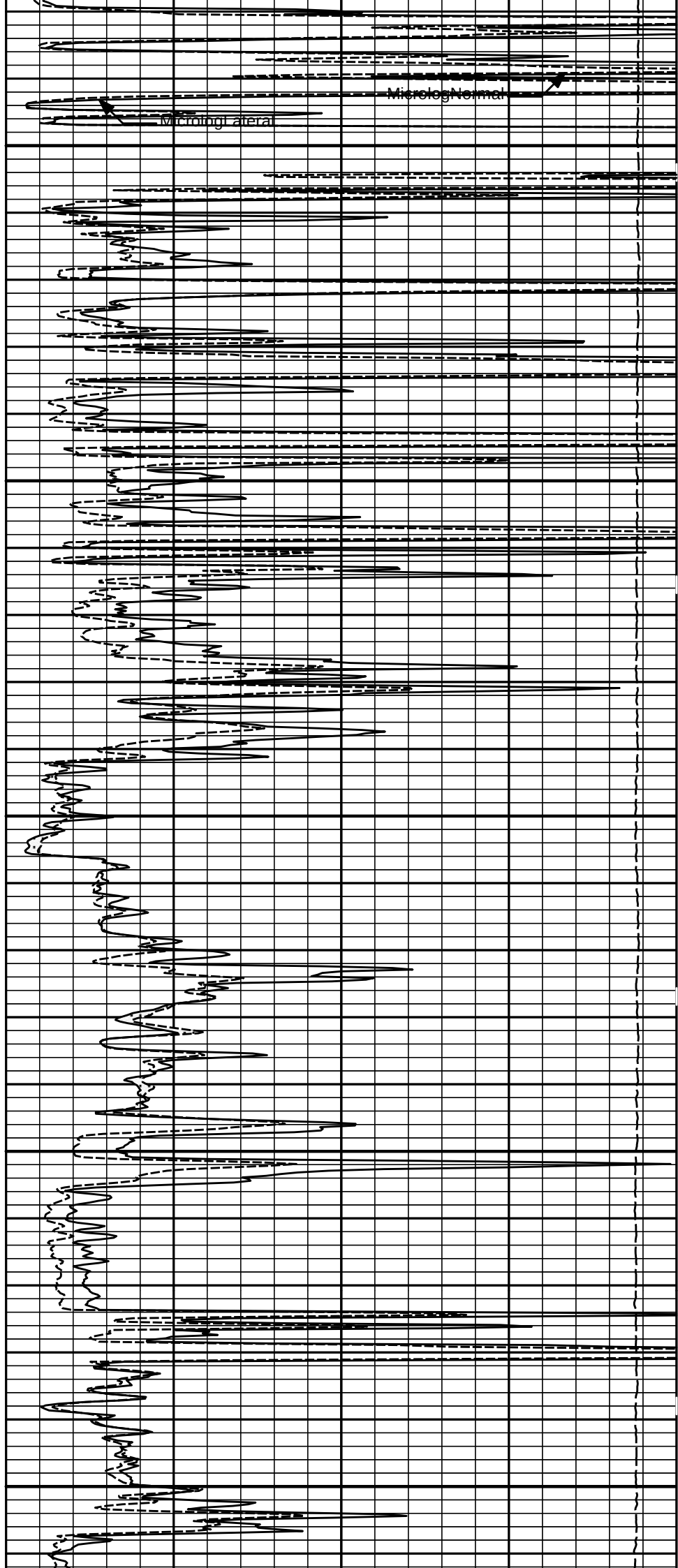




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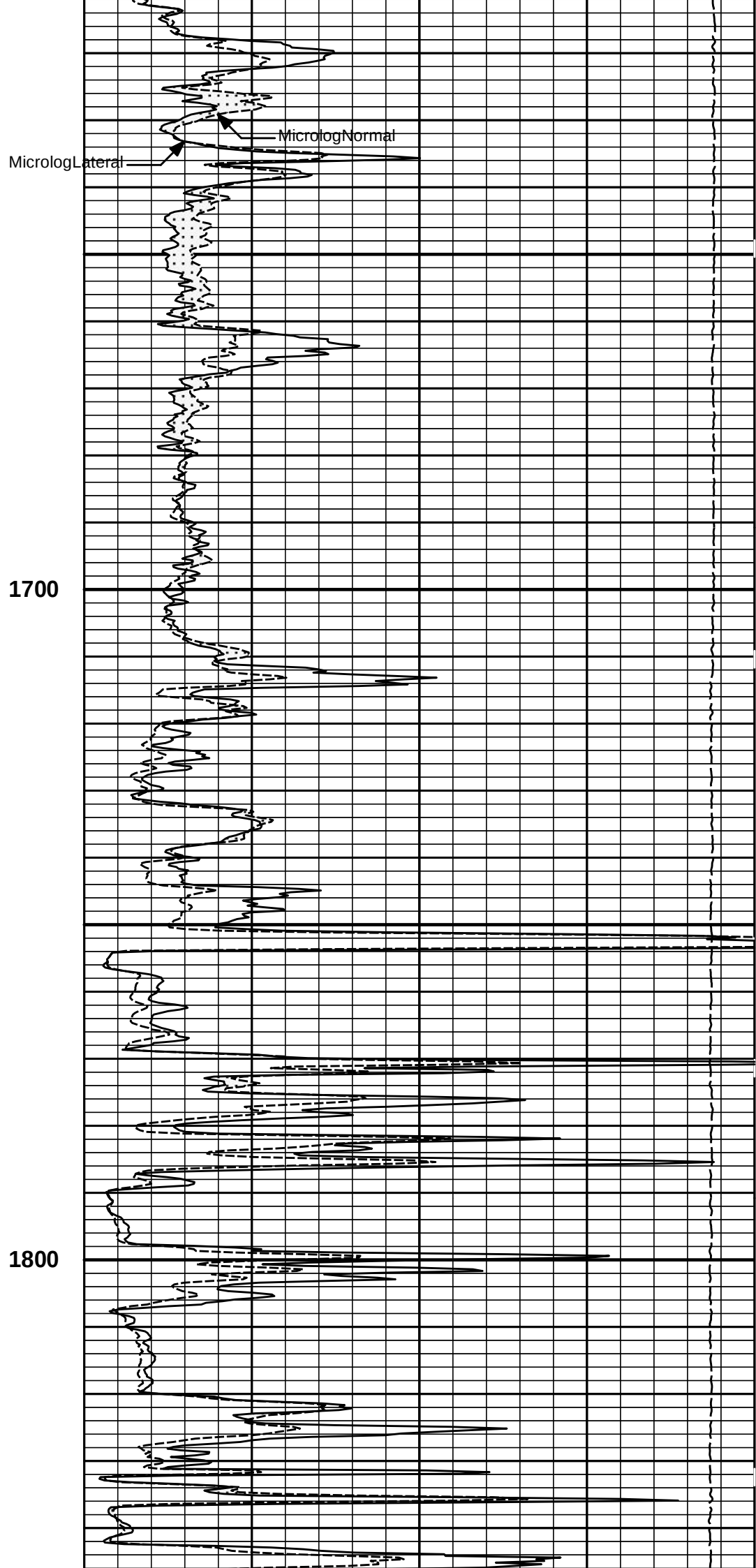
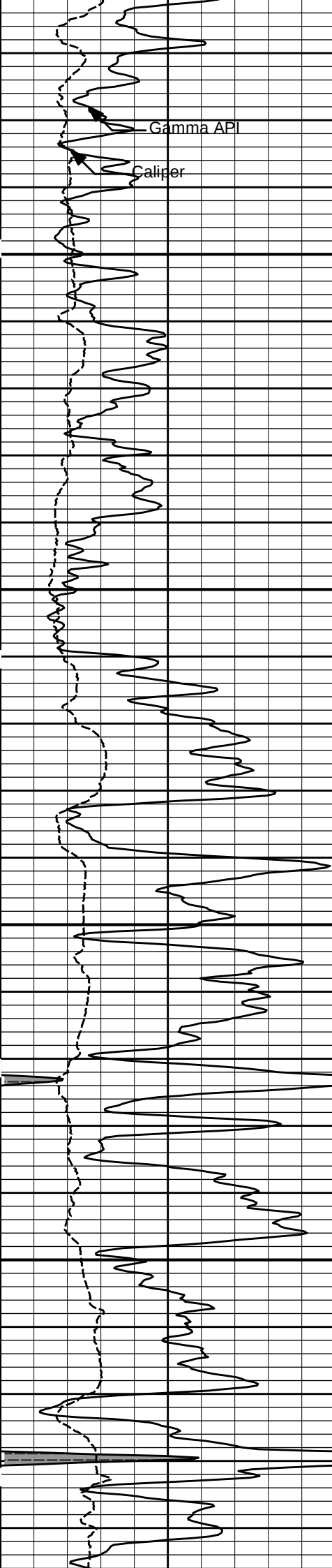
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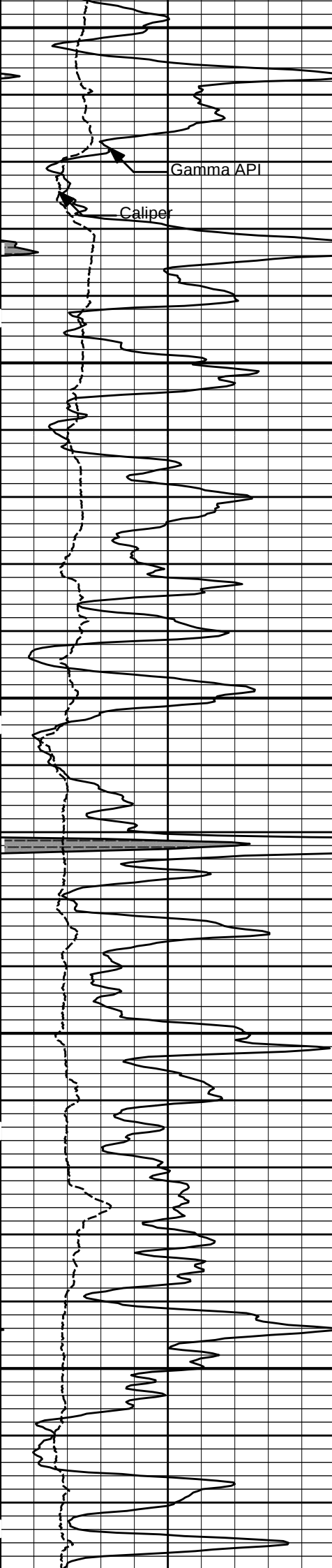
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Microlog Lateral

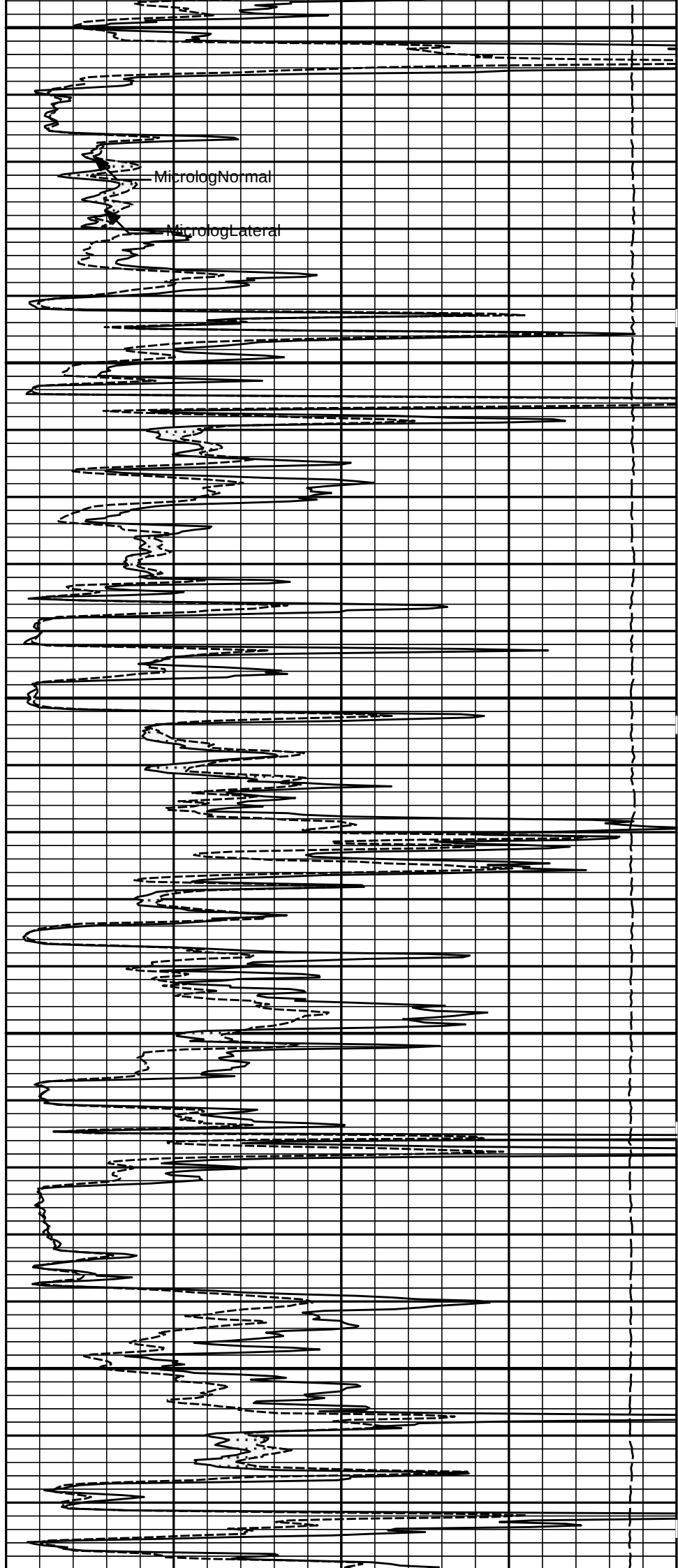
Microlog Normal

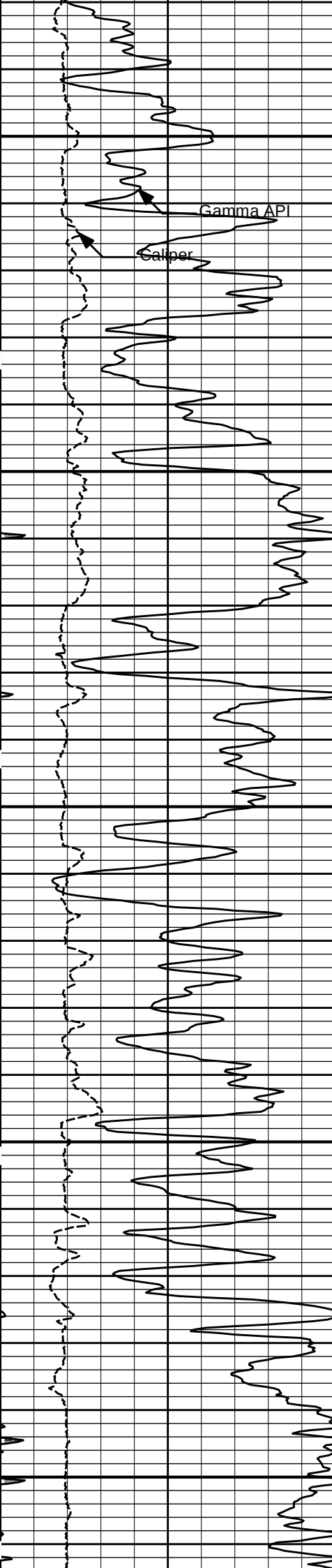




1900

2000





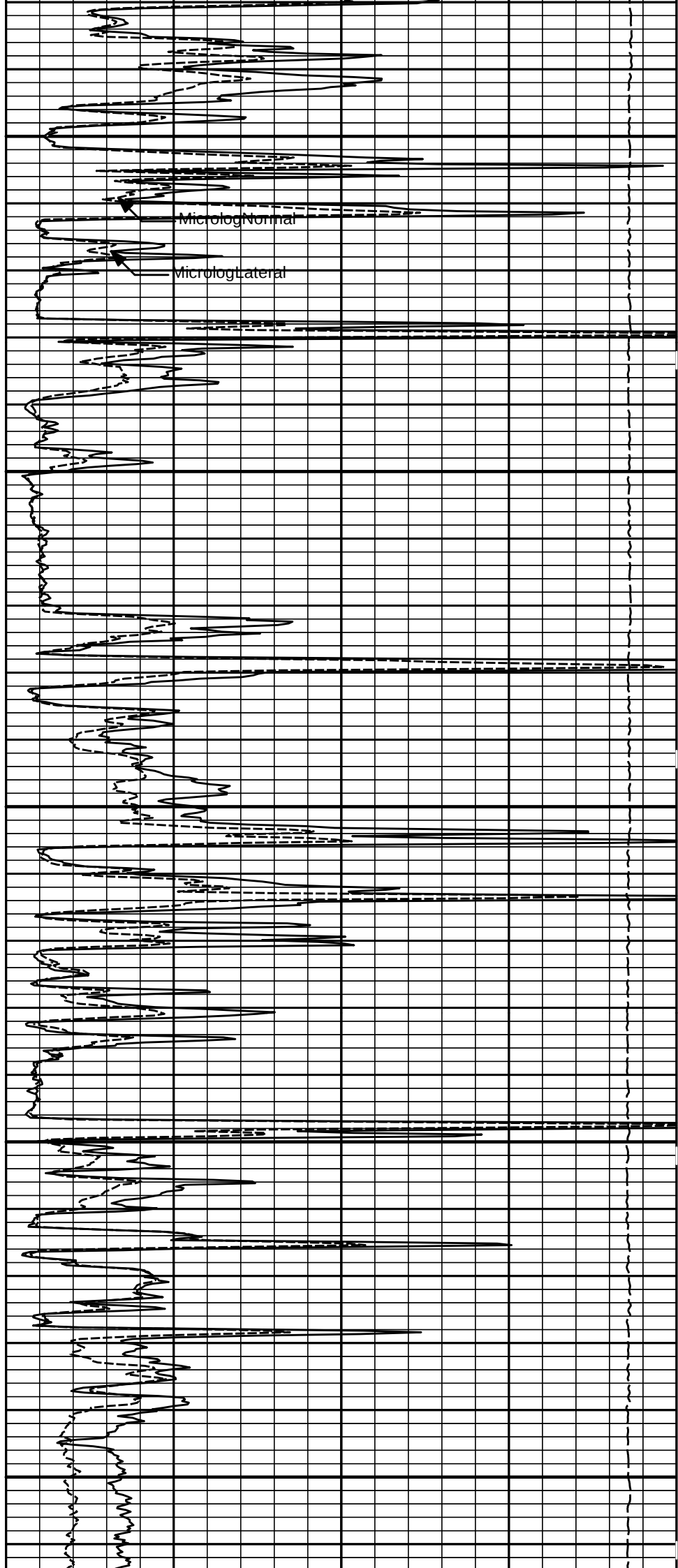
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Gamma API

Caliper

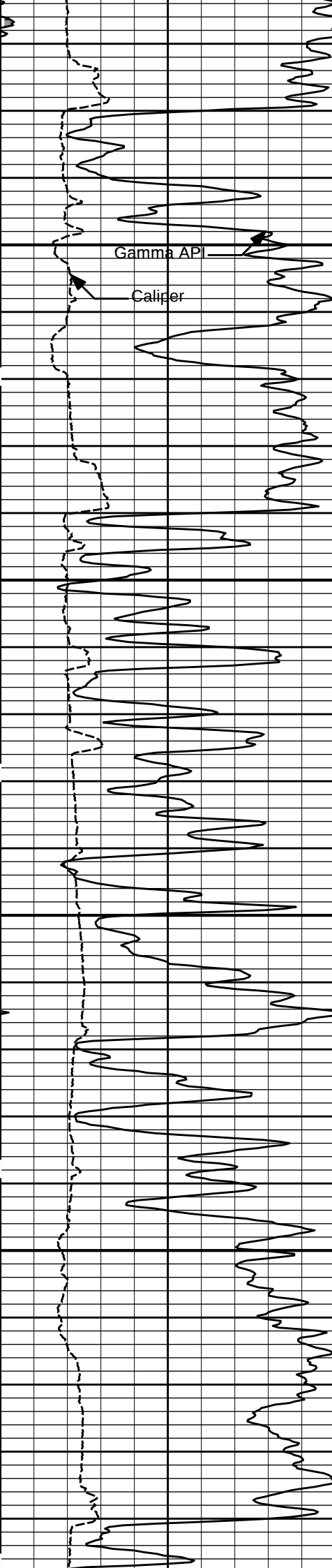
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2300



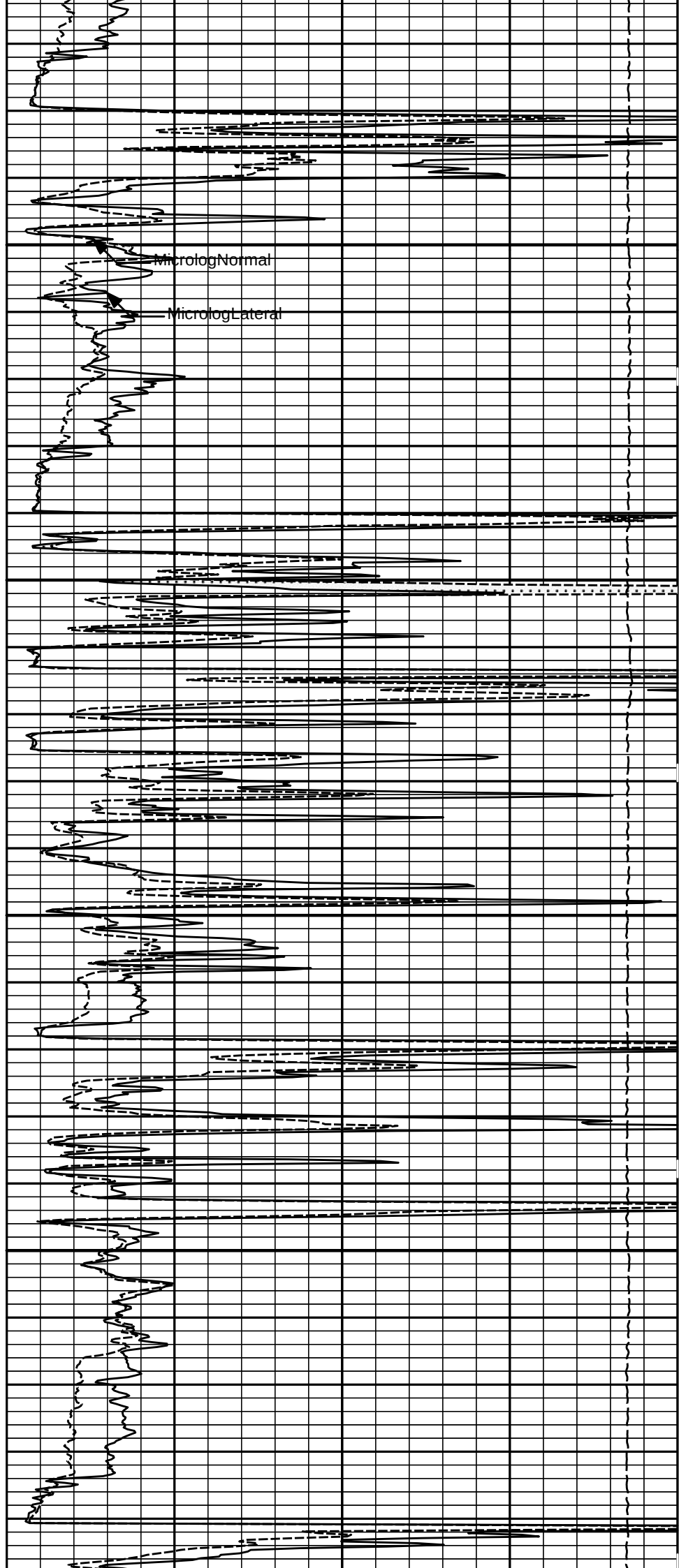
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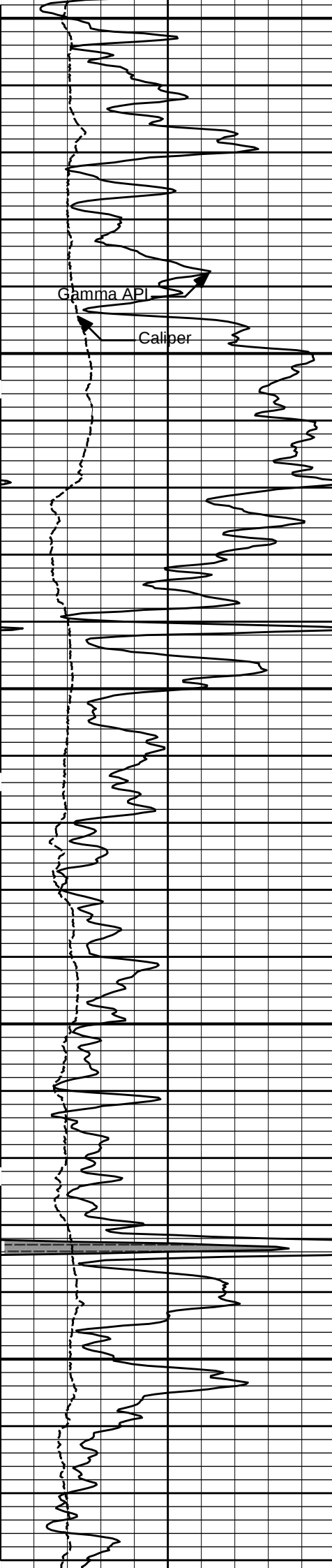
MicrologLateral



2400

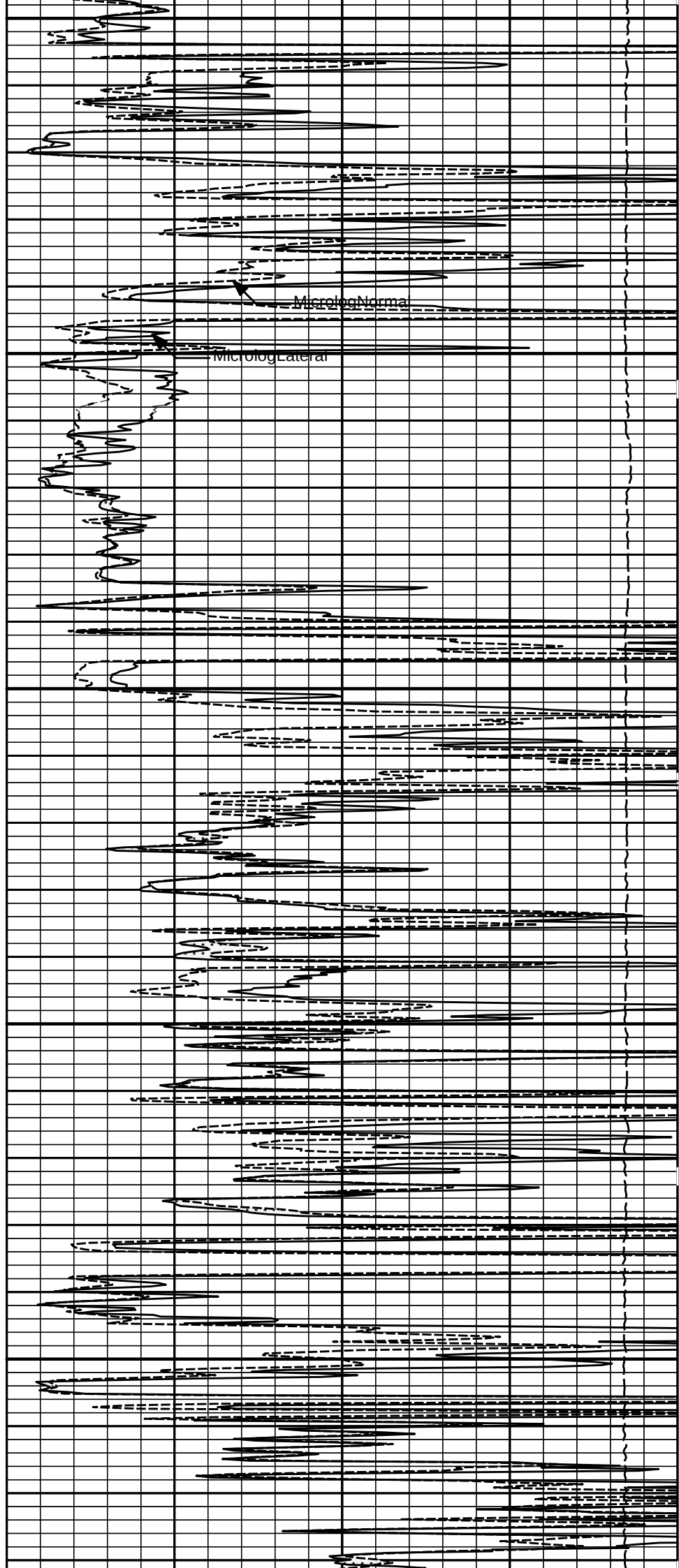
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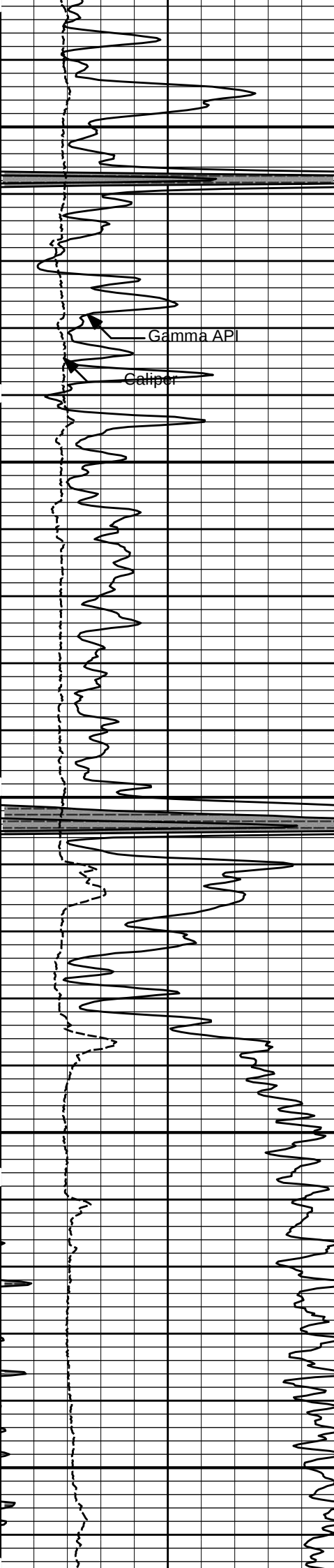




2600

2700

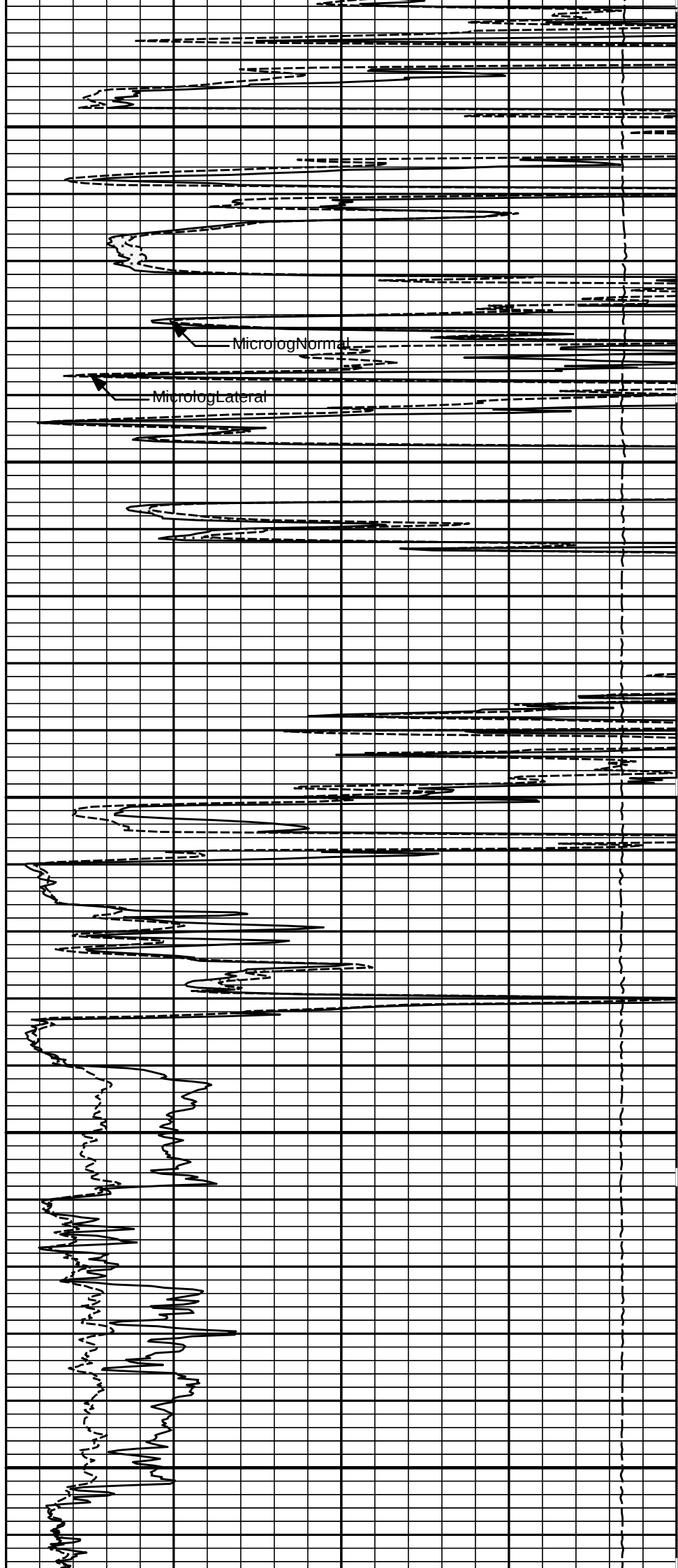


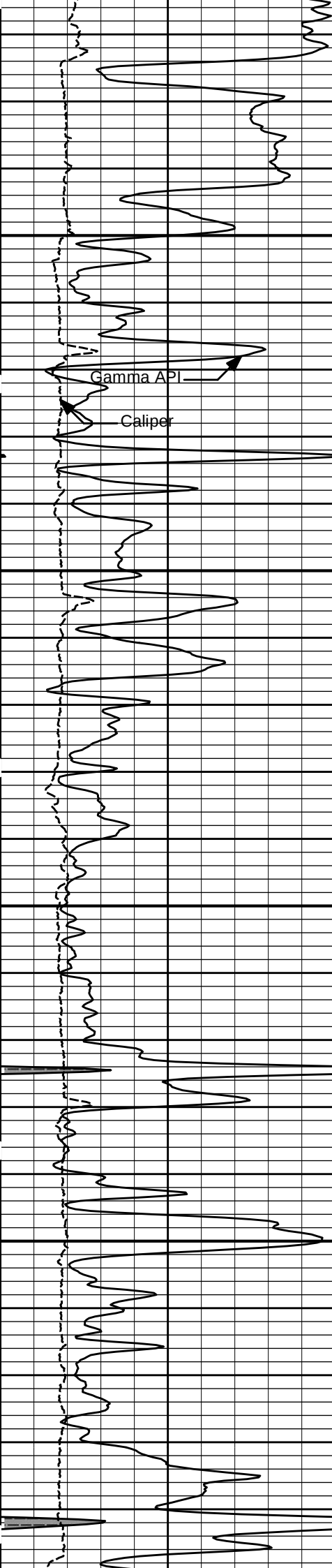


2800

2900

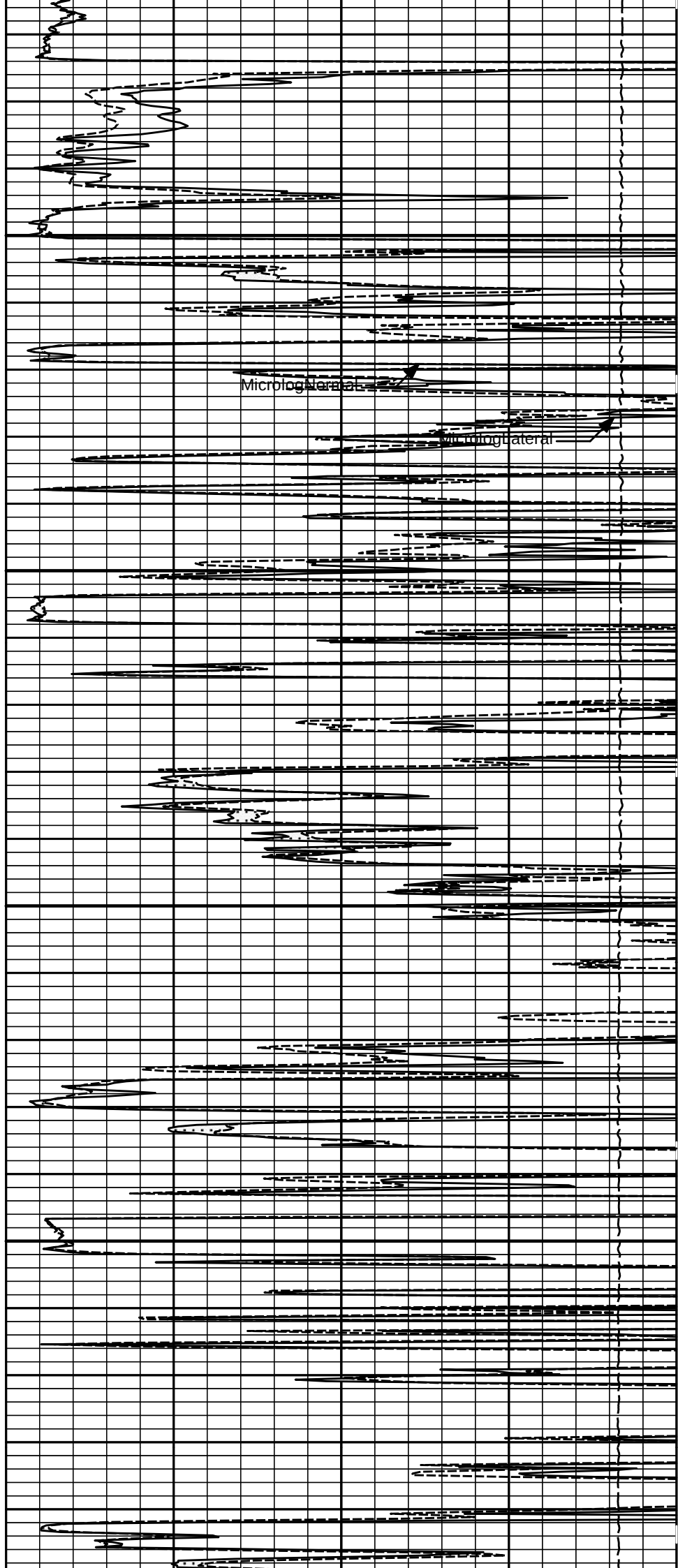
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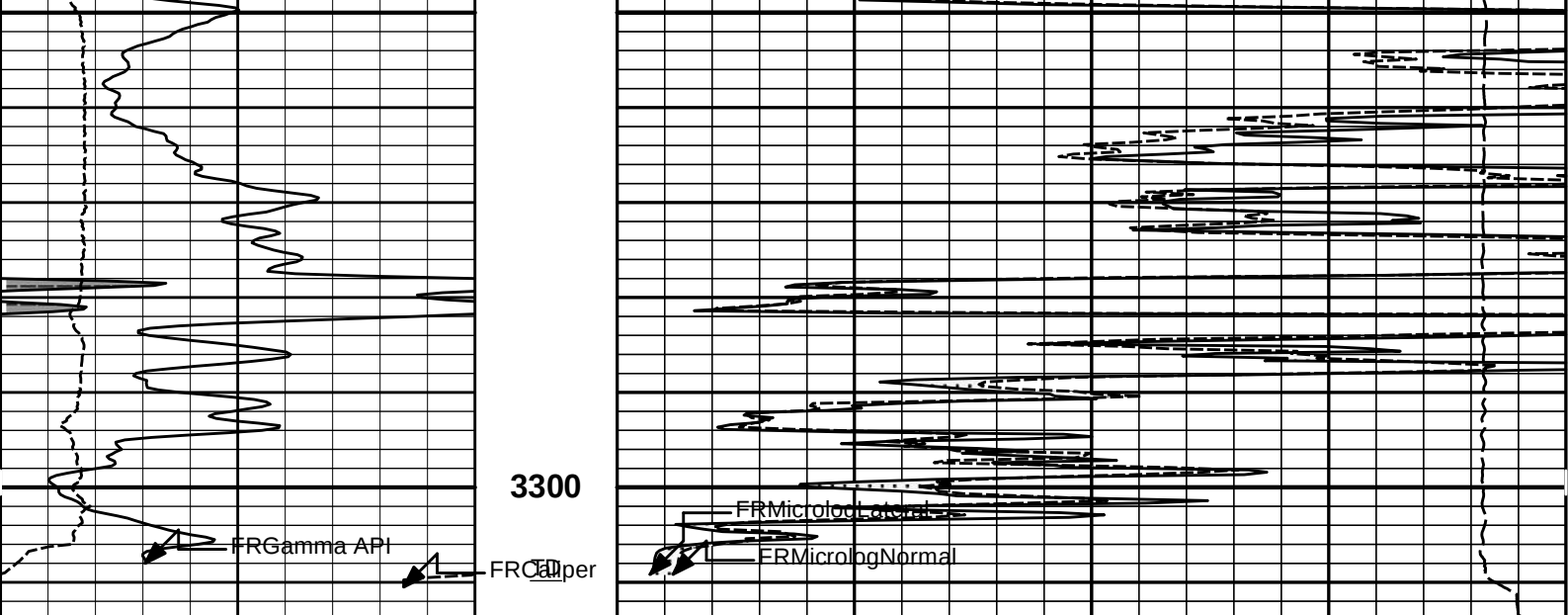




3100

3200





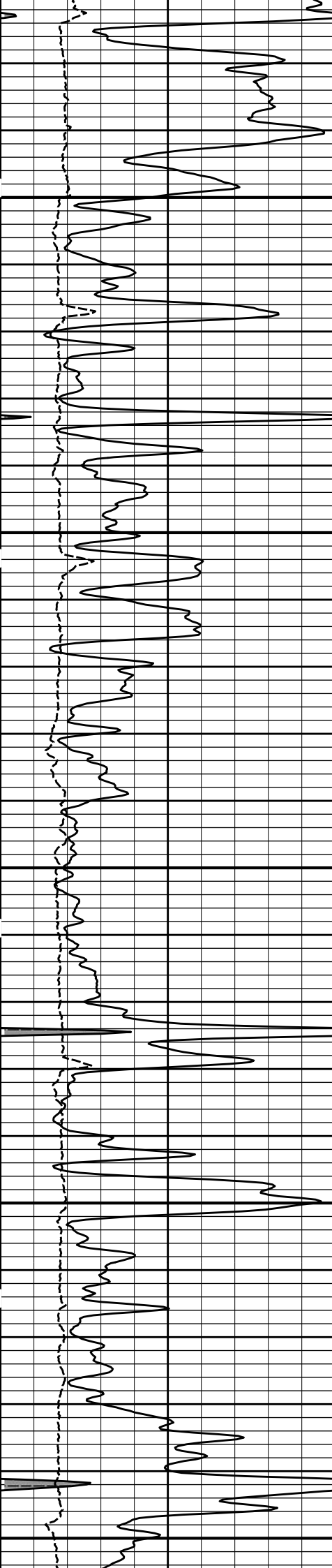
6	Caliper	16	MD	1 : 240	15K	Tension	0
	inches		ft			pounds	
0	Gamma API	150			0	MicrologLateral	20
	api					ohm-metre	
	SHALE				0	MicrologNormal	20
						ohm-metre	
						PERMEABLE	

HALLIBURTON	Plot Time: 08-Mar-17 12:50:19 Plot Range: 1330 ft to 3313.67 ft Data: LEGHORN_1-22\Well Based*\ Plot File: \\-LOCAL-\\LEGHORN_1-22\\0003 GTET-BSAT-ACRT\MICRO\Microlog_IQ_5_main_lib
5 INCH MAIN LOG	

MEASURED DEPTH MAIN LOG 5" PER 100'
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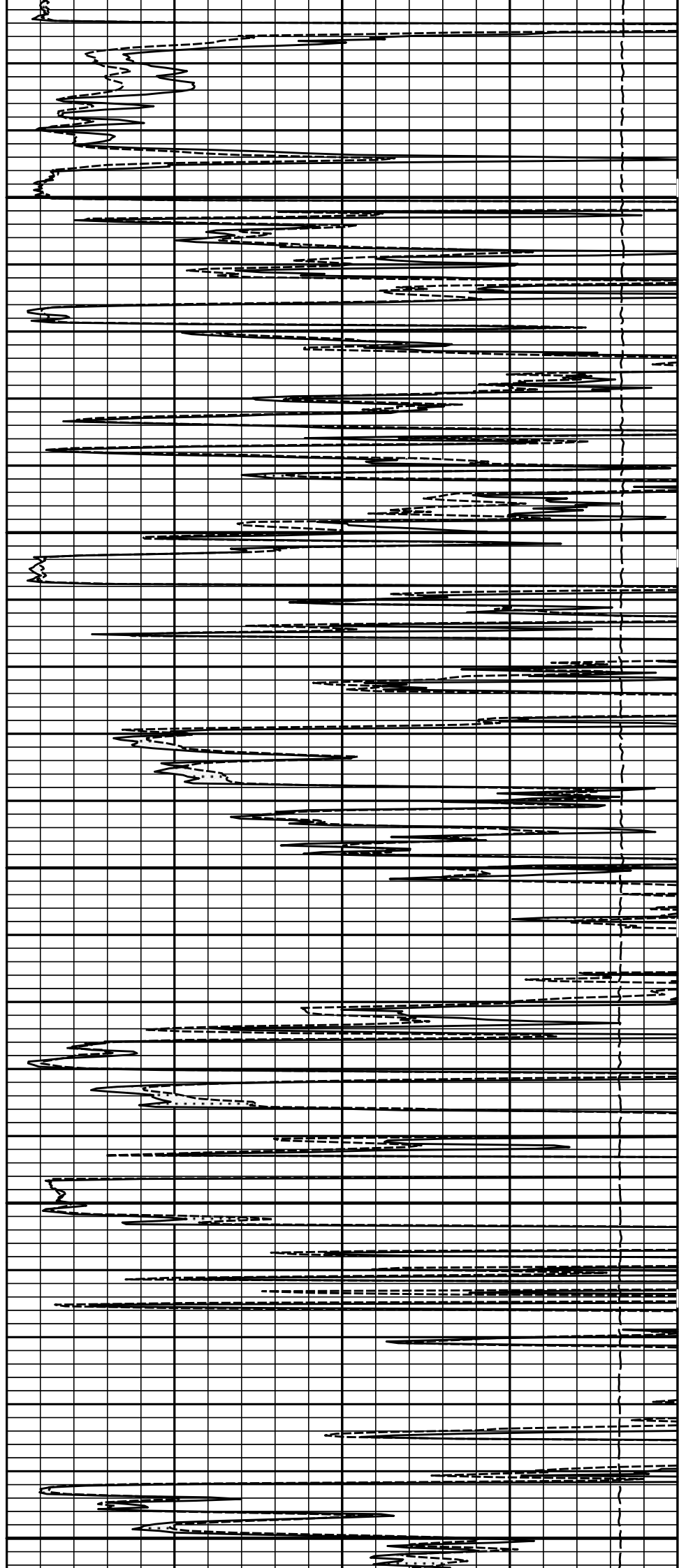
HALLIBURTON	Plot Time: 08-Mar-17 12:50:19 Plot Range: 3020 ft to 3311.75 ft Data: LEGHORN_1-22\Well Based*\ Plot File: \\-LOCAL-\\LEGHORN_1-22\\0003 GTET-BSAT-ACRT\MICRO\Microlog_IQ_5_rep_lib
REPEAT SECTION	

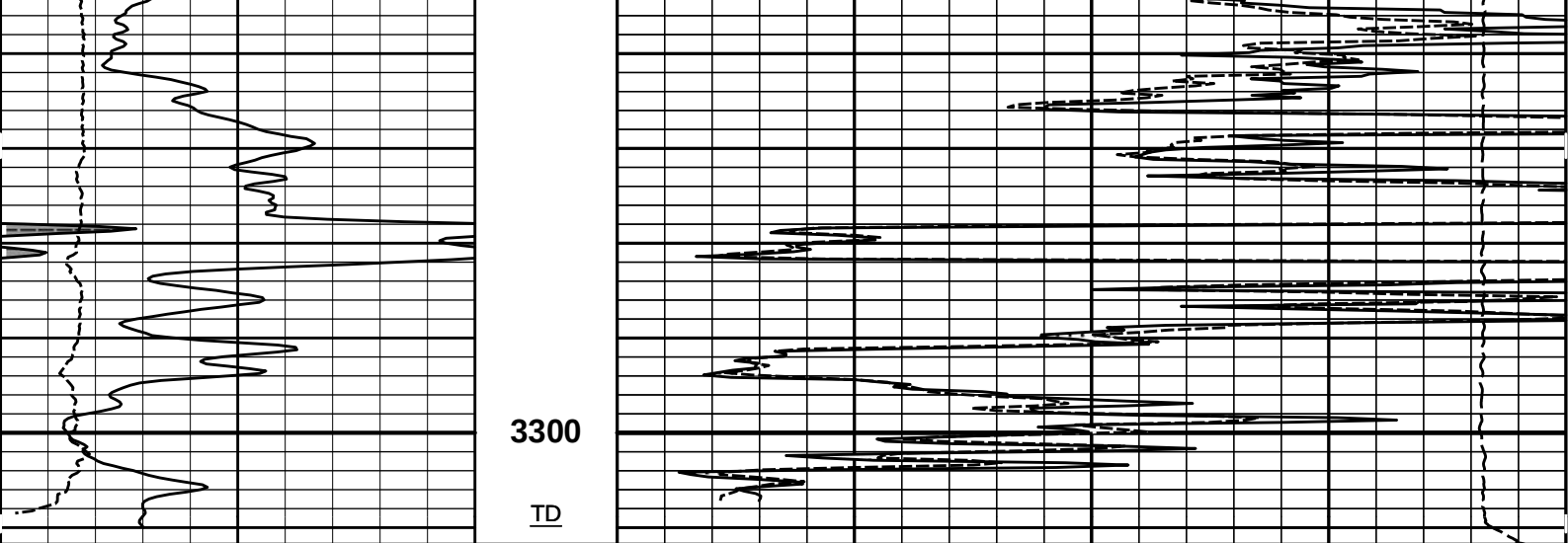
			PERMEABLE			
SHALE		0	MicrologNormal		20	
			ohm-metre			
0			MicrologLateral		20	
Gamma API		150	ohm-metre			
api						
6		MD 1 : 240 ft	15K		Tension	0
Caliper					pounds	
inches						



3100

3200





6	Caliper	16	MD	1 : 240	15K	Tension	0
	inches		ft			pounds	
0	Gamma API	150		0	MicrologLateral		20
	api				ohm-metre		
	SHALE			0	MicrologNormal		20
					ohm-metre		
					PERMEABLE		

HALLIBURTON

Plot Time: 08-Mar-17 12:50:20
Plot Range: 3020 ft to 3311.75 ft
Data: LEGHORN_1-22\Well Based*\
Plot File: \\-LOCAL-\\LEGHORN_1-22\0003 GTET-BSAT-ACRT\MICRO\Microlog_IQ_5_rep_lib

REPEAT SECTION

HALLIBURTON

CALIBRATION REPORT

NATURAL GAMMA RAY TOOL SHOP CALIBRATION			
Tool Name:	GTET - 11013114	Reference Calibration Date:	03-Jan-17 10:45:31
Engineer:	THOMAS HYDE	Calibration Date:	15-Feb-17 11:45:58
Software Version:	WL INSITE R5.0.5 (Build 8)	Calibration Version:	1
Calibrator Source S/N: TB-146 Calibrator API Reference:265.00 api Equivalent Calibrator API Reference:269.6 api			
Measurement	Measured	Calibrated	Units
Background	34.7	35.1	api
Background + Calibrator	301.7	304.7	api
Calibrator	266.9	269.6	api

NATURAL GAMMA RAY TOOL FIELD CALIBRATION			
Tool Name:	GTET - 11013114	Reference Calibration Date:	15-Feb-17 11:45:58
Engineer:	THOMAS HYDE	Calibration Date:	06-Mar-17 09:20:23
Software Version:	WL INSITE R5.0.5 (Build 8)	Calibration Version:	1
Calibrator Source S/N: TB-146 Calibrator API Reference:265.00 api Equivalent Calibrator API Reference:269.6 api			
Field Verification	Shop	Field	Units
Background	34.7	35.1	api
Background + Calibrator	301.7	304.7	api
Calibrator	266.9	269.6	api

Background		35.1	42.9	api
Background + Calibrator		304.7	314.5	api
Calibrator		269.6	271.6	api
Shop	Field	Difference	Tolerance	
269.6	271.6	-2.0	+/- 9.00	
DUAL SPACED NEUTRON SHOP CALIBRATION				
Tool Name:	DSNT2 - 10993115		Reference Calibration Date:	30-Dec-16 11:16:49
Engineer:	THOMAS HYDE		Calibration Date:	15-Feb-17 10:08:17
Software Version:	WL INSITE R5.0.5 (Build 8)		Calibration Version:	1
Logging Source S/N: DSN-424 Tank Serial Number: 12345678 Reference value assigned to Tank: 56.100 Snow Block S/N: 12345678 Calibration Tank Water Temperature: 65 degF Min. Tool Housing Outside Diameter: 3.625 in				
CALIBRATION CONSTANTS				
Measurement	Prev. Value	New Value	Control Limit On New Value	
Gain:	0.99555	0.99927	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):	0.2346	0.2358	0.0012	+/- 0.0020
Calibrated Ratio:	10.5202	10.5595	0.039	+/- 0.050
VERIFIER				
Measurement	Value		Control Limit	
Snow-Block Porosity (decp):	0.0773		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:	DSNT2 - 10993115		Reference Calibration Date:	15-Feb-17 10:08:17
Engineer:	THOMAS HYDE		Calibration Date:	06-Mar-17 10:20:05
Software Version:	WL INSITE R5.0.5 (Build 8)		Calibration Version:	1
Logging Source S/N: DSN-424 Snow Block S/N: 12345678				
NEUTRON FIELD-CHECK SUMMARY				
	Shop	Field	Difference	Control Limit On Change
Snow-Block Porosity (decp):	0.0773	0.0660	-0.0112	+/- 0.0150
PASS/FAIL SUMMARY				
Block Change Check:			Passed	
Snow Block Stat Check:			Passed	
Temperature Check:			Passed	
DENSITY CALIPER SHOP CALIBRATION				
Tool Name:	SDLT2 - 10960494		Reference Calibration Date:	30-Dec-16 13:17:47
Engineer:	THOMAS HYDE		Calibration Date:	15-Feb-17 10:57:19

Software Version: WL INSITE R5.0.5 (Build 8)		Calibration Version: 1		
Host Tool Name: DSNT - 10993115				
CALIBRATION COEFFICIENTS				
Measurement	Previous Value	New Value	Control Limit On New Value	
Pad Offset	-3118.65	-3310.58	-7000.00 - -1000.00	
Pad Gain	0.0003874	0.0003830	0.0002000 - 0.0006000	
Arm Offset	-1858.38	-1958.93	-5000.00 - 3000.00	
Arm Gain	0.0005435	0.0005465	0.000300 - 0.000700	
Arm Power	-0.000006322	-0.000006807	-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)	2.10	2.00	-0.10	+/- 0.20
Medium Ring (in)	3.87	3.75	-0.12	+/- 0.20
RING DIAMETER:				
Small Ring (in)	6.62	6.50	-0.12	+/- 0.20
Medium Ring (in)	8.37	8.25	-0.12	+/- 0.20
Large Ring (in)	15.19	15.00	-0.19	+/- 0.20
PASS/FAIL SUMMARY				
Calibration-Coefficients Range Check:			Passed	
Ring-Measurement Check:			Passed	
PASS/FAIL SUMMARY				
Calibration-Coefficients Range Check:			Passed	

SDLT CALIPER FIELD CALIBRATION				
Tool Name:	SDLT2 - 10960494	Reference Calibration Date:	15-Feb-17 10:57:19	
Engineer:	THOMAS HYDE	Calibration Date:	15-Feb-17 11:06:55	
Software Version:	WL INSITE R5.0.5 (Build 8)	Calibration Version:	1	
MEASURED CALIPER VALUES				
Measurement	Shop	Field	Change	Control Limit On New Value
Pad Extension	3.87	3.96	0.09	+/- 0.10
Ring Diameter	8.25	8.26	0.01	+/- 0.15
PASS/FAIL SUMMARY				
Pad Extension Check:			Passed	
Diameter Check:			Passed	

MICRO LOG SHOP CALIBRATION					
Tool Name:	Microlog Pad2 - 10960494	Reference Calibration Date:	30-Jan-17 09:58:55		
Engineer:	THOMAS HYDE	Calibration Date:	15-Feb-17 11:16:24		
Software Version:	WL INSITE R5.0.5 (Build 8)	Calibration Version:	1		
Host Tool Name:	DSNT - 10993115				
CALIBRATION COEFFICIENT SUMMARY					
Measurement	Micro Log Normal		Micro Log Lateral		Units
	Measured	Calibrated	Measured	Calibrated	
Tool Zero	-0.12	-0.00	-0.01	-0.01	ohmm
Calibration Point #1	-0.12	0.00	-0.00	0.00	ohmm
Calibration Point #2	20.14	20.00	20.12	20.00	ohmm
Internal Reference	10.00	10.00	20.00	10.00	ohmm

Internal Reference		19.96	19.82	20.08	19.96	ohmm
Measurement	Micro Log Normal Tool Value		Micro Log Lateral Tool Value		Units	
Tool Zero		-0.03		0.18		V
Calibration Point #1		0.62		2.16		V
Calibration Point #2		5354.58		6954.39		V
Internal Reference		5306.38		6941.85		V

MICRO LOG FIELD CHECK					
Tool Name:	Microlog Pad2 - 10960494			Reference Calibration Date:	15-Feb-17 11:16:24
Engineer:	THOMAS HYDE			Calibration Date:	06-Mar-17 09:48:55
Software Version:	WL INSITE R5.0.5 (Build 8)			Calibration Version:	1

Measurement	Micro Log Normal		Micro Log Lateral		
	Shop	Field	Shop	Field	Units
Tool Zero	-0.00	-0.00	-0.01	-0.01	ohmm
Internal Reference	19.82	19.80	19.96	19.95	ohmm
Summary					
Signal	Shop	Field	Difference	Tolerance	
Microlog Normal	19.82	19.80	0.02	+/- 0.80	
Microlog Lateral	19.96	19.95	0.01	+/- 0.80	

SPECTRAL DENSITY SHOP CALIBRATION					
Tool Name:	SDLT Pad2 - 10844781			Reference Calibration Date:	16-Jan-17 11:35:57
Engineer:	THOMAS HYDE			Calibration Date:	15-Feb-17 10:34:52
Software Version:	WL INSITE R5.0.5 (Build 8)			Calibration Version:	1

Logging Source S/N: 5168GW			
Aluminum Block S/N: EL RENO STD ALUMINUM		Density: 2.581g/cc	Pe: 3.170
Magnesium Block S/N: EL RENO		Density: 1.687g/cc	Pe: 2.594

DENSITY CALIBRATION SUMMARY			
Measurement	Previous Value	New Value	Control Limit
Near Bar Gain	1.0522	1.0309	0.90 - 1.10
Near Dens Gain	1.0266	1.0231	0.90 - 1.10
Near Peak Gain	1.0431	1.0388	0.90 - 1.10
Near Lith Gain	1.0351	1.0502	0.90 - 1.10
Far Bar Gain	1.0202	1.0155	0.90 - 1.10
Far Dens Gain	1.0076	1.0019	0.90 - 1.10
Far Peak Gain	1.0028	0.9981	0.90 - 1.10
Far Lith Gain	0.9836	0.9787	0.90 - 1.10
Near Bar Offset	-0.1880	0.0062	NONE
Near Dens Offset	0.0170	0.0482	NONE
Near Peak Offset	-0.1345	-0.0962	NONE
Near Lith Offset	-0.0683	-0.1934	NONE
Far Bar Offset	0.0609	0.0977	NONE
Far Dens Offset	0.1544	0.2046	NONE
Far Peak Offset	0.1901	0.2284	NONE
Far Lith Offset	0.3223	0.3594	NONE
Near Bar Background	740.53	739.74	700 - 1450
Near Dens Background	243.10	242.61	230 - 480
Near Peak Background	106.54	104.86	100 - 210
Near Lith Background	128.74	129.75	125 - 260
Far Bar Background	480.78	481.43	450 - 900
Far Dens Background	187.67	189.84	175 - 345
Far Peak Background	71.66	71.99	70 - 140

Far Peak Background	74.66	74.90	70 - 140
Far Lith Background	77.43	77.43	75 - 145

CALIBRATION BLOCK SUMMARY

Measurement	Current Reading (Previous Coef)	Calibrated (New Coef)	Change	Control Limit On Change
MAGNESIUM				
Density (g/cc)	1.683	1.687	0.004	+/- 0.015
Pe	2.563	2.551	-0.012	+/- 0.150
ALUMINUM				
Density (g/cc)	2.580	2.581	0.001	+/- 0.01500
Pe	3.088	3.123	0.035	+/- 0.150

TOOL SUMMARY

Measurement	Near Detector		Far Detector	
	Value	Control Limits	Value	Control Limits
QUALITY				
Background	-0.0008	+/- 0.0110	-0.0038	+/- 0.0140
Magnesium Block	-0.0015	+/- 0.0110	-0.0003	+/- 0.0140
Aluminum Block	0.0007	+/- 0.0110	0.0007	+/- 0.0140
Resolution	9.64	6.00 - 11.50	8.97	6.00 - 11.50
Internal Verifier(B+D+P+L)	1217	1200 - 2700	824	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 Pad2 - 10844781	Reference Calibration Date:	15-Feb-17 10:34:52
Engineer:	THOMAS HYDE	Calibration Date:	06-Mar-17 09:51:21
Software Version:	WL INSITE R5.0.5 (Build 8)	Calibration Version:	1

Pad Temperature: 71.6 degF

DENSITY FIELD CALIBRATION SUMMARY

Measurement	Shop	Field	Change	Control Limit +/-
Near (B+D+P+L) cps	1216.954	1211.367	-5.587	14.156
Far (B+D+P+L) cps	823.596	820.291	-3.305	15.823
Near Resolution	9.64	9.62	-0.020	0.50
Far Resolution	8.97	8.71	-0.260	1.00

PASS/FAIL SUMMARY

Bkg Quality Check:	Passed
Bkg Resolution Check:	Passed
Bkg Verification Check:	Passed

CALIBRATION SUMMARY

Sensor	Shop	Field	Post	Difference	Tolerance	Units
GTET-11013114						
Gamma Ray Calibrator	269.6	271.6	-----	-2.0	+/- 9.00	api

Snow-Block Porosity	0.0773	0.0660	-----	0.0113	+/- 0.0150	decp
SDLT2-10960494						
Pad Extension	3.75	3.96	-----	-0.21	+/-0.10	in
Ring Diameter	8.25	8.26	-----	-0.01	+/-0.15	in
Microlog Pad2-10960494						
MicroLog Normal	19.82	19.80	-----	0.02	+/-0.80	ohmm
MicroLog Lateral	19.96	19.95	-----	0.01	+/-0.80	ohmm
SDLT Pad2-10844781						
Near(B+D+P+L)	1216.954	1211.367	-----	5.587	+/-14.156	cps
Far(B+D+P+L)	823.596	820.291	-----	3.305	+/-15.823	cps

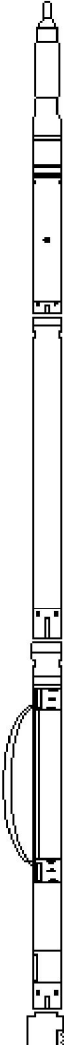
Data: LEGHORN_1-2210002 GTET-DSN2-SDL2\IDLE	Date: 08-Mar-17 10:10:24
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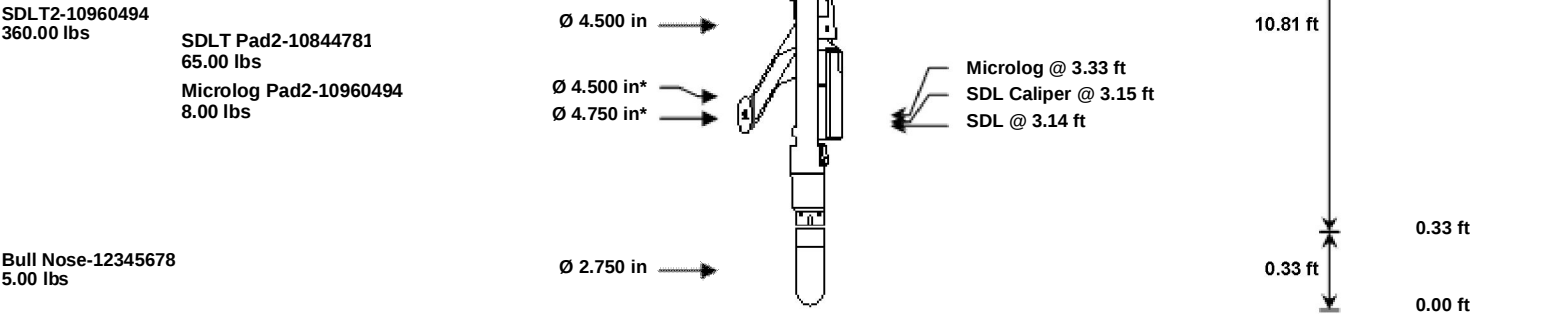
HALLIBURTON

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	9.100	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	2.000	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	CSTR	Compressive Strength	1000.00	psia
	SHARED	ST	Surface Temperature	75.0	degF
	SHARED	TD	Total Well Depth	3310.00	ft
	SHARED	BHT	Bottom Hole Temperature	200.0	degF
	SHARED	SVTM	Navigation and Survey Master Tool	NONE	
	SHARED	AZTM	High Res Z Accelerometer Master Tool	GTET	
	SHARED	TEMM	CBM Temperature Master Tool	GTET	
	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	
	Rwa / CrossPlot	BHSM	Borehole Size Source Tool	SDLT2	
	Rwa / CrossPlot	ROIN	Input for RO Calculation	Rwa	
	GTET	GROK	Process Gamma Ray?	Yes	
	GTET	GEOK	Process Gamma Ray EVR?	No	
	GTET	TPOS	Tool Position for Gamma Ray Tools.	Eccentered	
	GTET	BHSM	Borehole Size Source Tool	SDLT2	

DSNT2	DNOK	Process DSN?	Yes	
DSNT2	DEOK	Process DSN EVR?	No	
DSNT2	NLIT	Neutron Lithology	Limestone	
DSNT2	DNSO	DSN Standoff - 0.25 in (6.35 mm) Recommended	0.250	in
DSNT2	DNTT	Temperature Correction Type	None	
DSNT2	DPRS	DSN Pressure Correction Type	None	
DSNT2	SHCO	View More Correction Options	No	
DSNT2	UTVD	Use TVD for Gradient Corrections?	No	
DSNT2	LHWT	Logging Horizontal Water Tank?	No	
DSNT2	BHSM	Borehole Size Source Tool	SDLT2	
SDLT2	CLOK	Process Caliper Outputs?	Yes	
Microlog Pad2	MLOK	Process MicroLog Outputs?	Yes	
SDLT Pad2	DNOK	Process Density?	Yes	
SDLT Pad2	DNOK	Process Density EVR?	No	
SDLT Pad2	CB	Logging Calibration Blocks?	No	
SDLT Pad2	SPVT	SDLT Pad Temperature Valid?	Yes	
SDLT Pad2	DTWN	Disable temperature warning	No	
SDLT Pad2	DMA	Formation Density Matrix	2.710	g/cc
SDLT Pad2	DFL	Formation Density Fluid	1.000	g/cc
SDLT Pad2	BHSM	Borehole Size Source Tool	SDLT2	
BOTTOM				
Data: LEGHORN_1-2210002 GTET-DSN2-SDLT2IDLE			Date: 08-Mar-17 12:20:57	

HALLIBURTON TOOL STRING DIAGRAM REPORT						
Description	Overbody Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length
CH_HOS-11459024 37.50 lbs		Ø 2.750 in →		← Temperature @ 36.04 ft	2.50 ft	36.54 ft
XOHD-11572809 20.00 lbs		Ø 2.750 in → Ø 3.625 in →			0.95 ft	34.04 ft
SP Sub-11441455 60.00 lbs		Ø 3.625 in →		← SP @ 31.31 ft	3.74 ft	33.09 ft
				← Z-Accelerometer @ 28.90 ft		29.35 ft
GTET-11013114 165.00 lbs		Ø 3.625 in →			8.52 ft	
				← GammaRay @ 23.29 ft		20.83 ft
DSN Decentralizer-10993115 6.60 lbs		Ø 5.000 in* → Ø 3.625 in →			9.69 ft	
DSNT2-10993115 174.00 lbs				← DSN Far @ 13.90 ft ← DSN Near @ 13.15 ft		11.15 ft



Mnemonic	Tool Name	Serial Number	Weight (lbs)	Length (ft)	Accumulated Length (ft)	Max.Log. Speed (fpm)
CH_HOS	Hostile Cable Head with Load Cell	11459024	37.50	2.50	34.04	300.00
XOHD	Hostile to Dits Cross Over	11572809	20.00	0.95	33.09	300.00
SP	SP Sub	11441455	60.00	3.74	29.35	300.00
GTET	Gamma Telemetry Tool	11013114	165.00	8.52	20.83	60.00
DSNT	Dual Spaced Neutron	10993115	174.00	9.69	11.15	60.00
DCNT	DSN Decentralizer	10993115	6.60	5.13	14.48	300.00
SDLT	Spectral Density Tool	10960494	360.00	10.81	0.33	60.00
SDLP	Density Insite Pad	10844781	65.00	2.55	2.54	60.00
MICP	Microlog Pad	10960494	8.00	1.00	2.83	60.00
BLNS	Bull Nose	12345678	5.00	0.33	0.00	300.00
Total			901.10	36.54		

* Not included in Total Length and Length Accumulation.

Data: LEGHORN_1-22\0002 GTET-DSN2-SDL2\IDLE Date: 08-Mar-17 10:04:57

COMPANY	CMX, INC.		
WELL	LEGHORN #1-22		
FIELD	CHASE-SILICA		
COUNTY	BARTON	STATE	KANSAS
HALLIBURTON		MICRO LOG	