

HALLIBURTON

MICROLOG

COMPANY				CULBREATH OIL & GAS COMPANY, LLC			
WELL				RIEDEL #1-5			
FIELD/BLOCK				WILDCAT			
COUNTY				SHERIDAN			
STATE				KANSAS			
Permanent Datum				GL			
Log measured from				KB			
Drilling measured from				KB			
Date				28-Oct-16			
Run No.				ONE			
Depth - Driller				4230.0 ft			
Depth - Logger				4230.0 ft			
Bottom - Logged Interval				4206.00 ft			
Top - Logged Interval				3400.00 ft			
Casing - Driller				8.625 in @ 269.0 ft			
Casing - Logger				268.0 ft			
Bit Size				7.875 in			
Type Fluid in Hole				Water Based Mud			
Density				9.1 ppg			
PH				9.50 pH			
Source of Sample				MUD PIT			
Rm @ Meas. Temperature				0.93 ohmm @ 75.00 degF			
Rmf @ Meas. Temperature				0.79 ohmm @ 75.00 degF			
Rmc @ Meas. Temperature				1.12 ohmm @ 75.00 degF			
Source Rmf				MEAS			
Rm @ BHT				0.63 ohmm @ 113.0 degF			
Time Since Circulation				4.00 hr			
Time on Bottom				28-Oct-16 17:00			
Max. Rec. Temperature				113.00 degF @ 4250.0 ft			
Equipment				11072142 EL RENO			
Recorded By				JORGE ORLANDO PEREZ			
Witnessed By				RICHARD BELL			

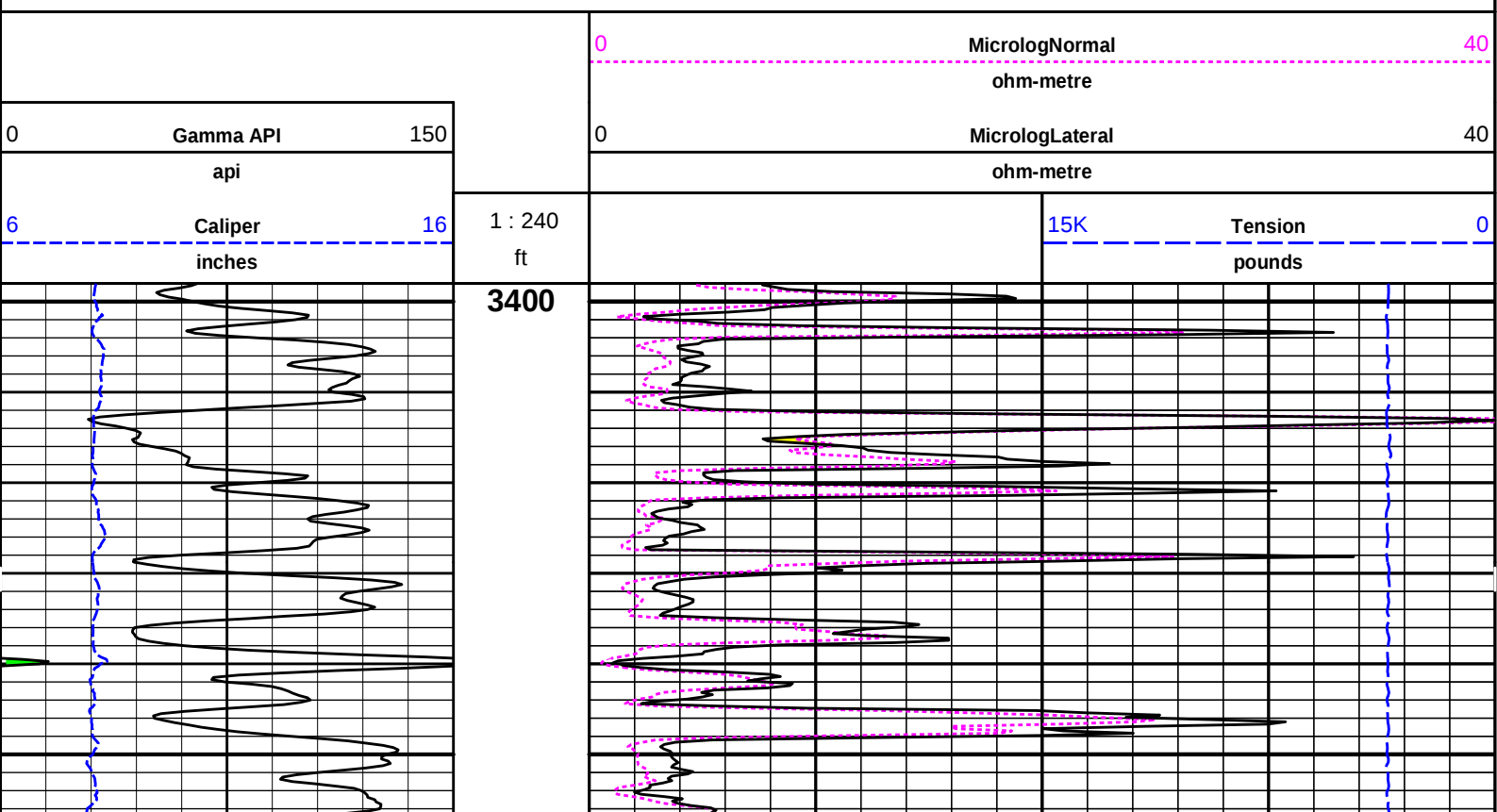
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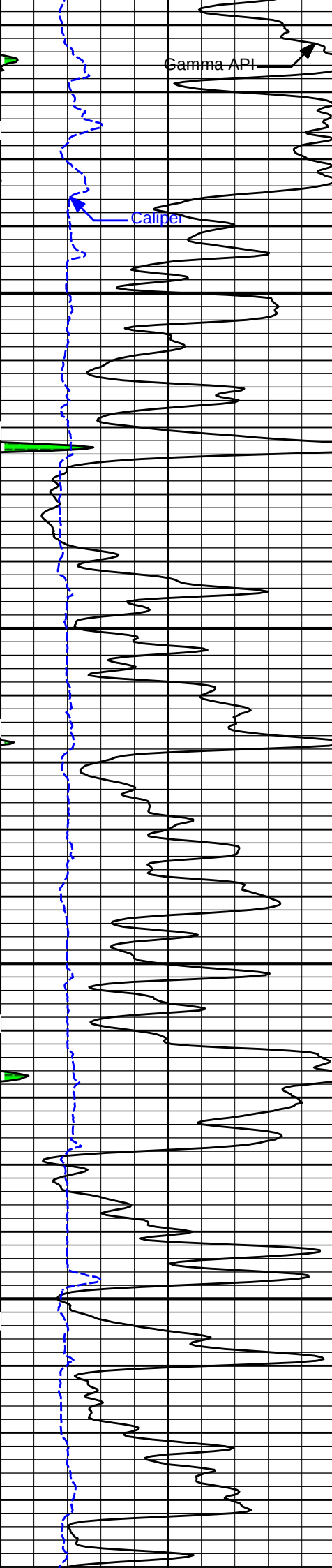
Service Ticket No.: 903627714				API No.: 15-179-21423-00-00				PGM Version: WL INSITE R5.0.5 (Build 8)																					
CHANGE IN MUD TYPE OR ADDITIONAL SAMPLE						RESISTIVITY SCALE CHANGES																							
Date		Sample No.				Type Log		Depth		Scale Up Hole		Scale Down Hole																	
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-11022962																					
Source Rmf		Rmc						S-11005909																					
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.		10950489		Serial No.		11019643															
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.		DSN-424															
Distance to Source		N/A		FWDA [Y/N]				Strength		1.5 Ci		Strength		15.0 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		L R		L R		L R		L R											
ONE		TD		CSG		PEC		0		150		30		10		47.6 uSec/ft		30		10		2.71 gr/cc		30		10		LIME	

[illegible]**HALLIBURTON**

Plot Time: 28-Oct-16 19:04:21
Plot Range: 3398 ft to 4255.17 ft
Data: RIEDEL_1-5\Well Based\DETAIL\
Plot File: \\LOCAL-RIEDEL_1-5\Well Based\MICROLOG\LR MICROLOG 5 MAIN

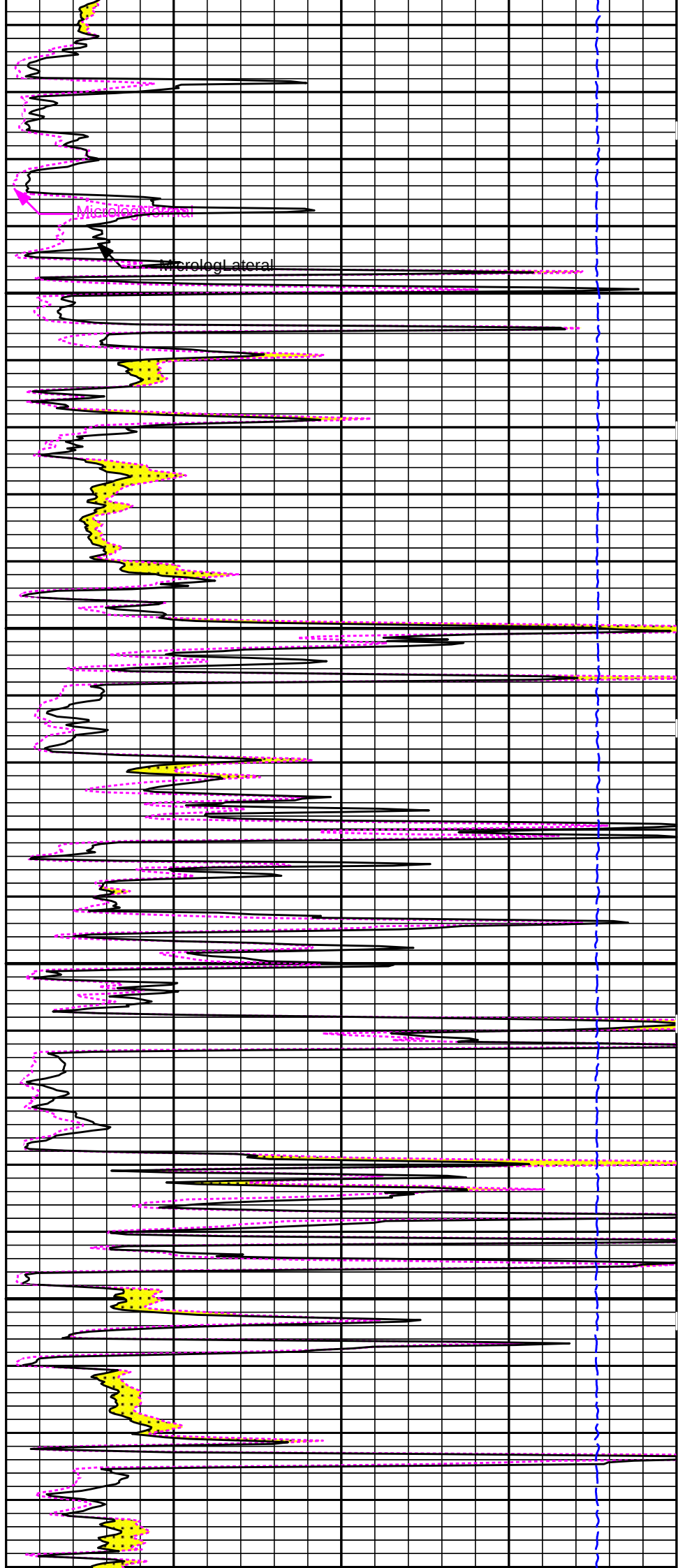
**5 IN = 100 FT MD
MAIN PASS**

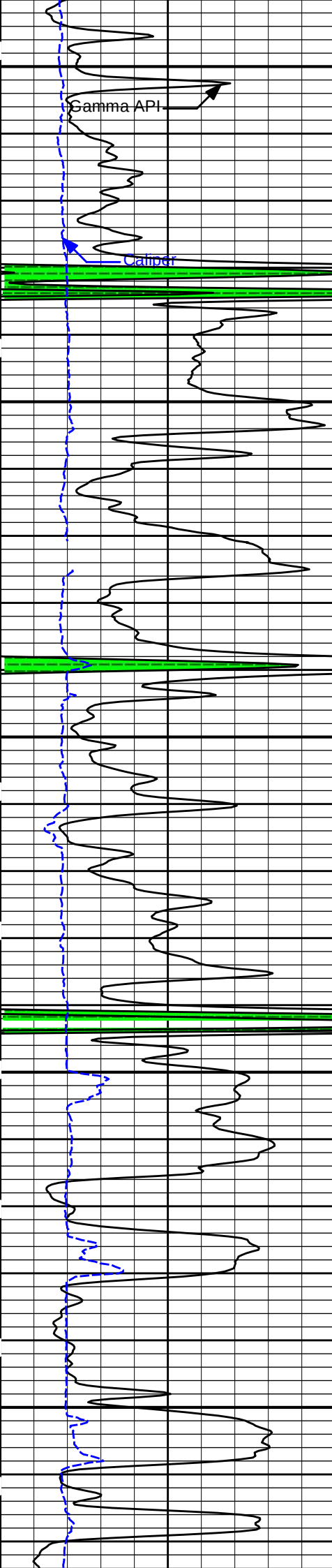




3500

3600

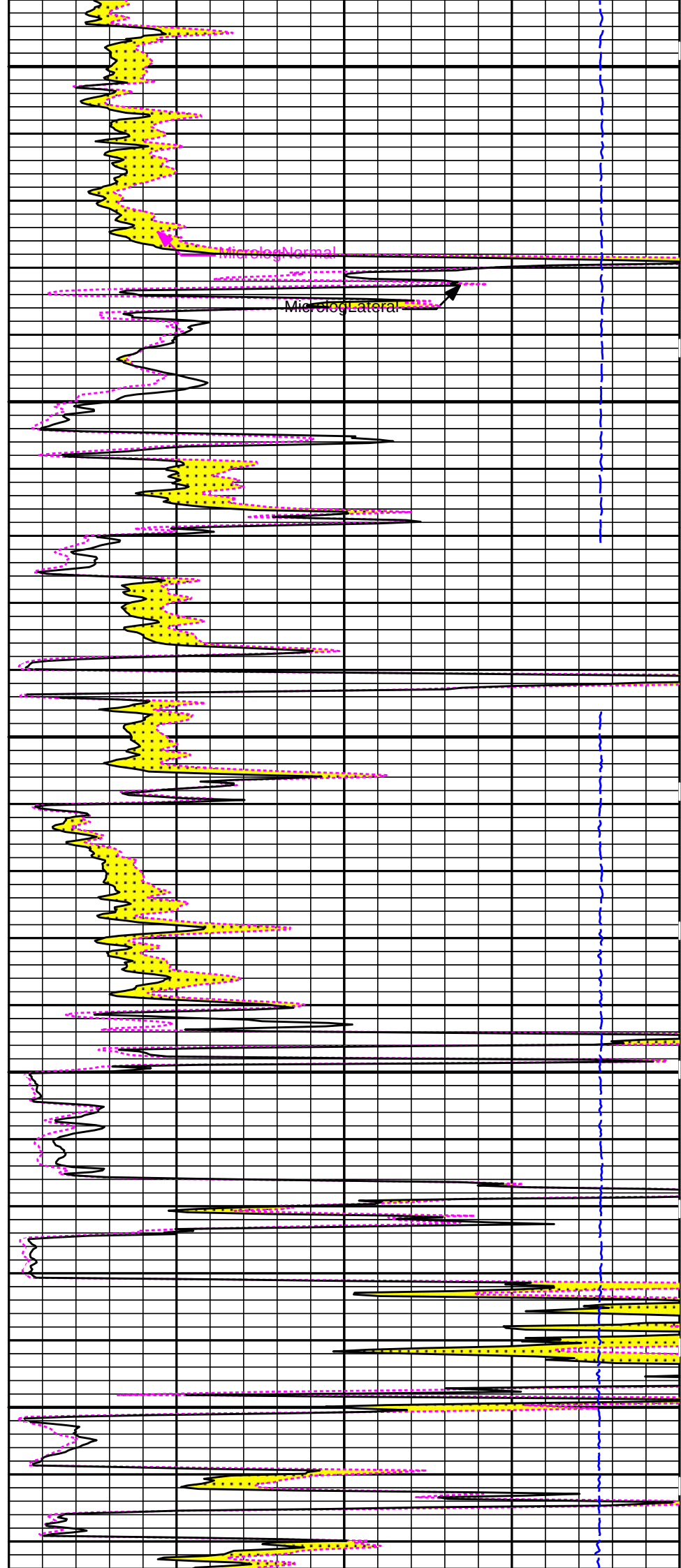


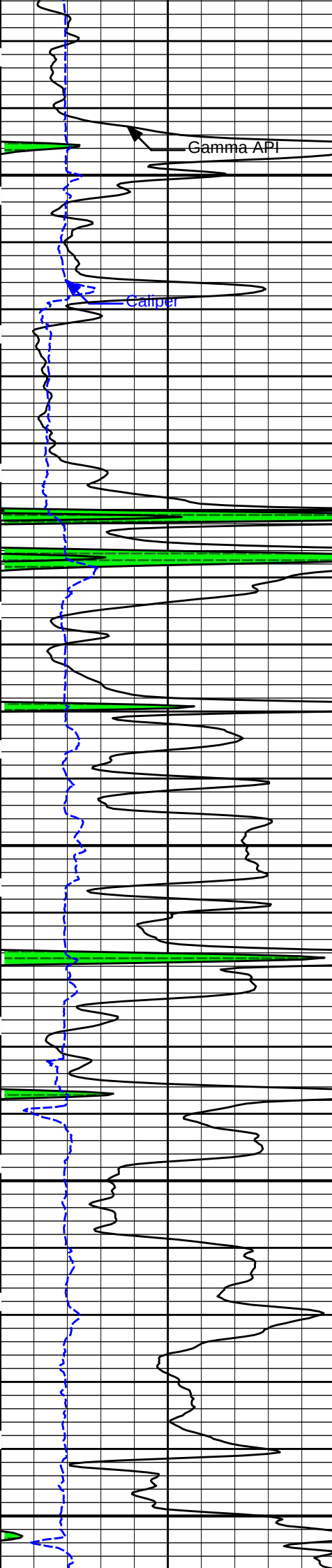


3700

3800

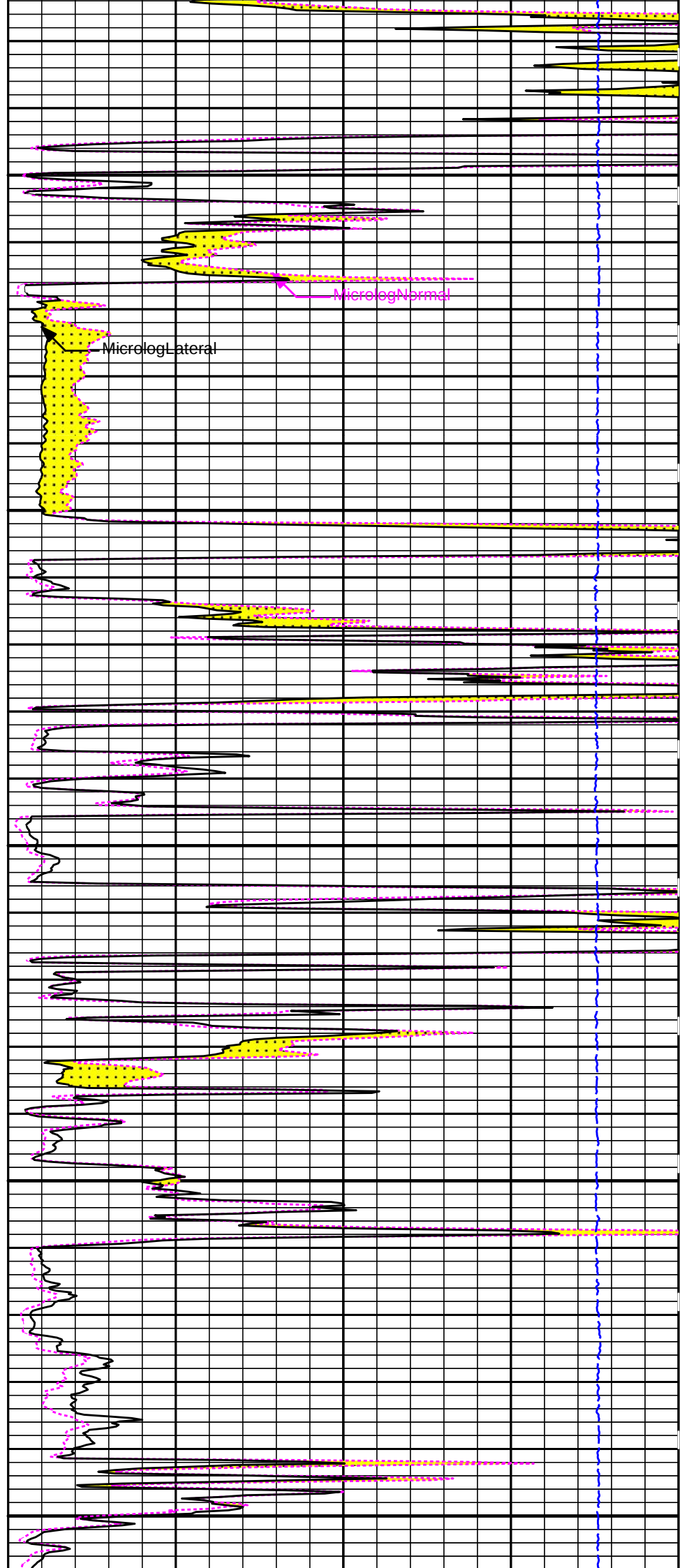
3900

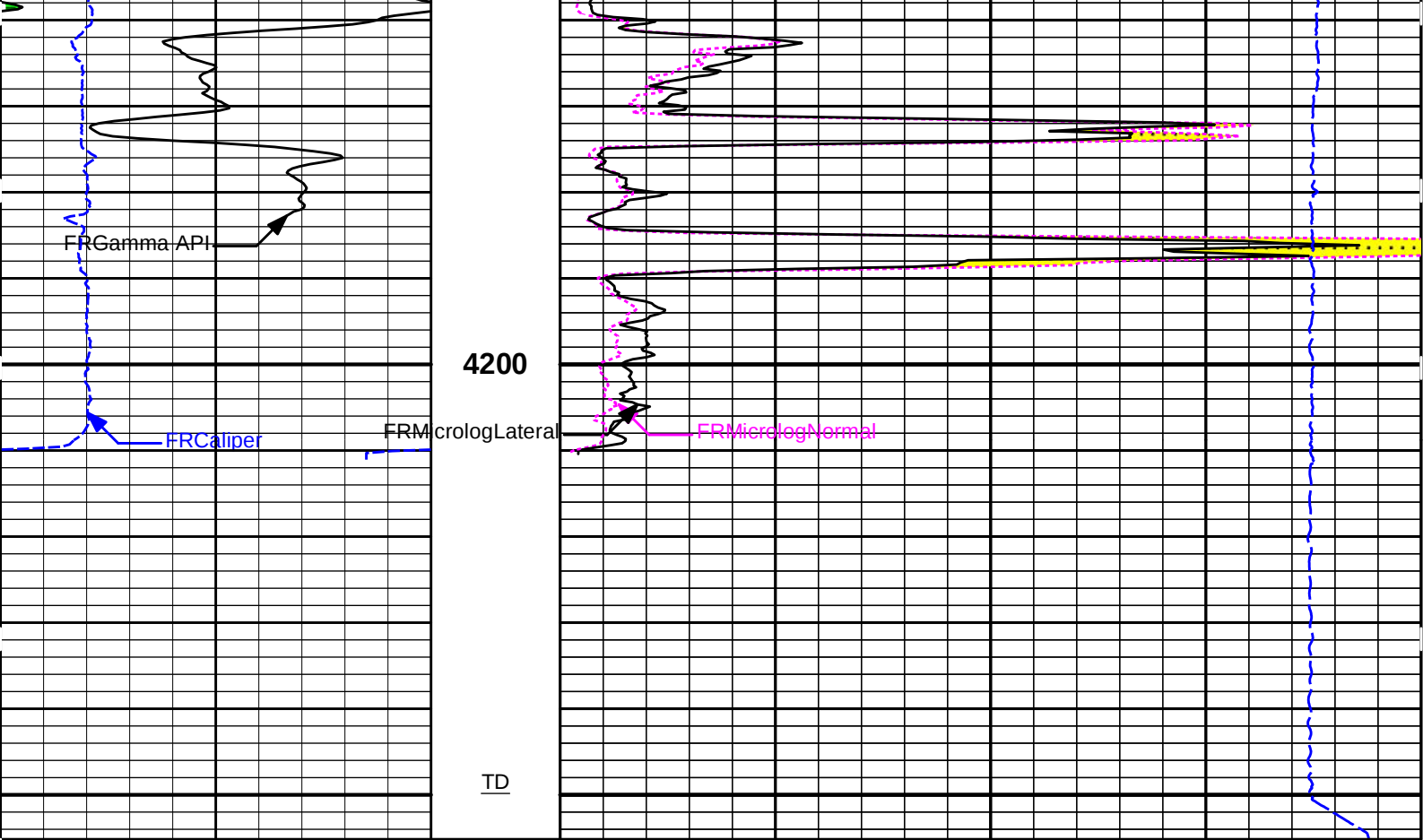




4000

4100





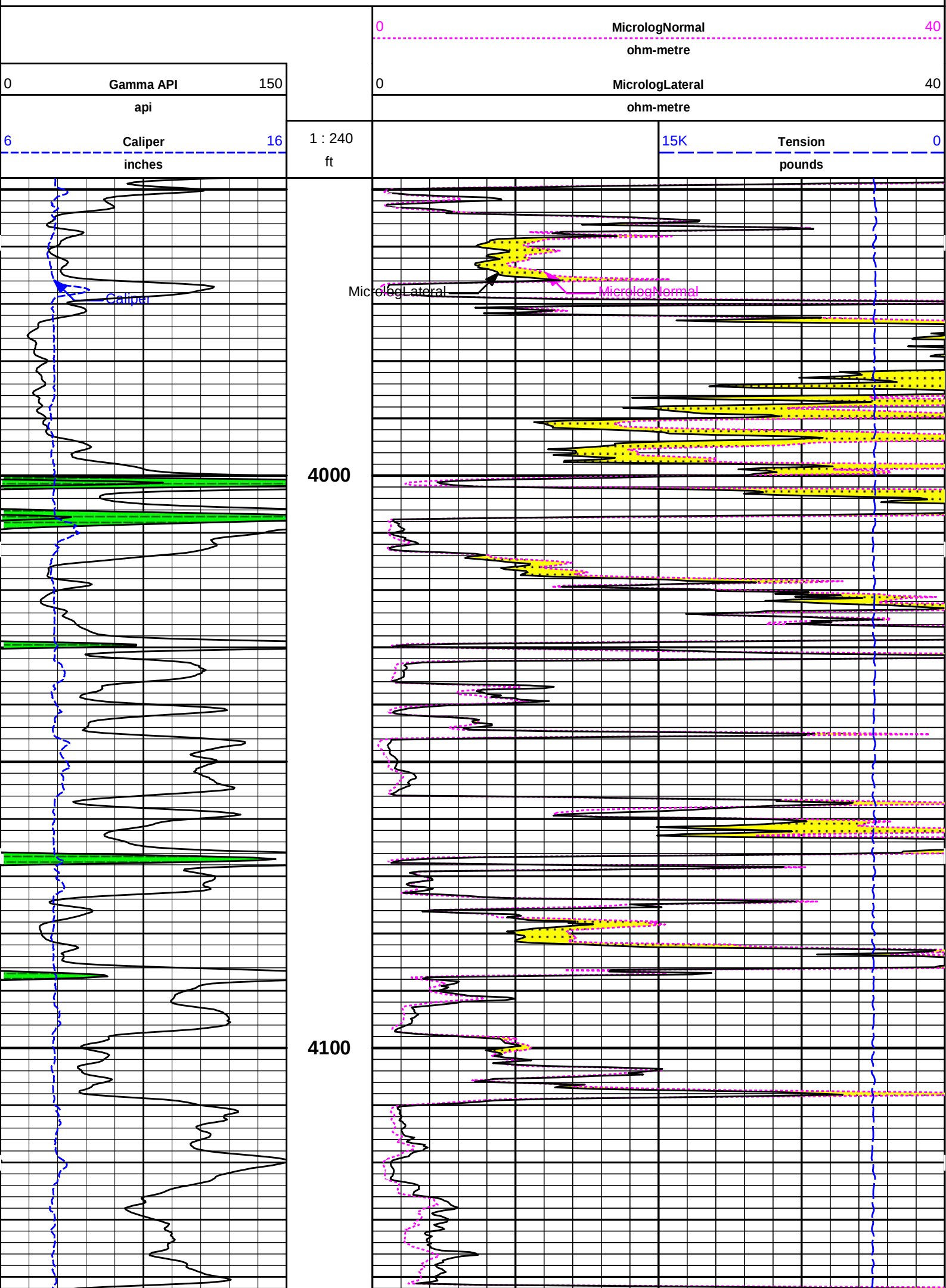
6	Caliper	16	1 : 240	15K	Tension	0
	inches		ft		pounds	
0	Gamma API	150		0	MicrologLateral	40
	api				ohm-metre	
				0	MicrologNormal	40
					ohm-metre	

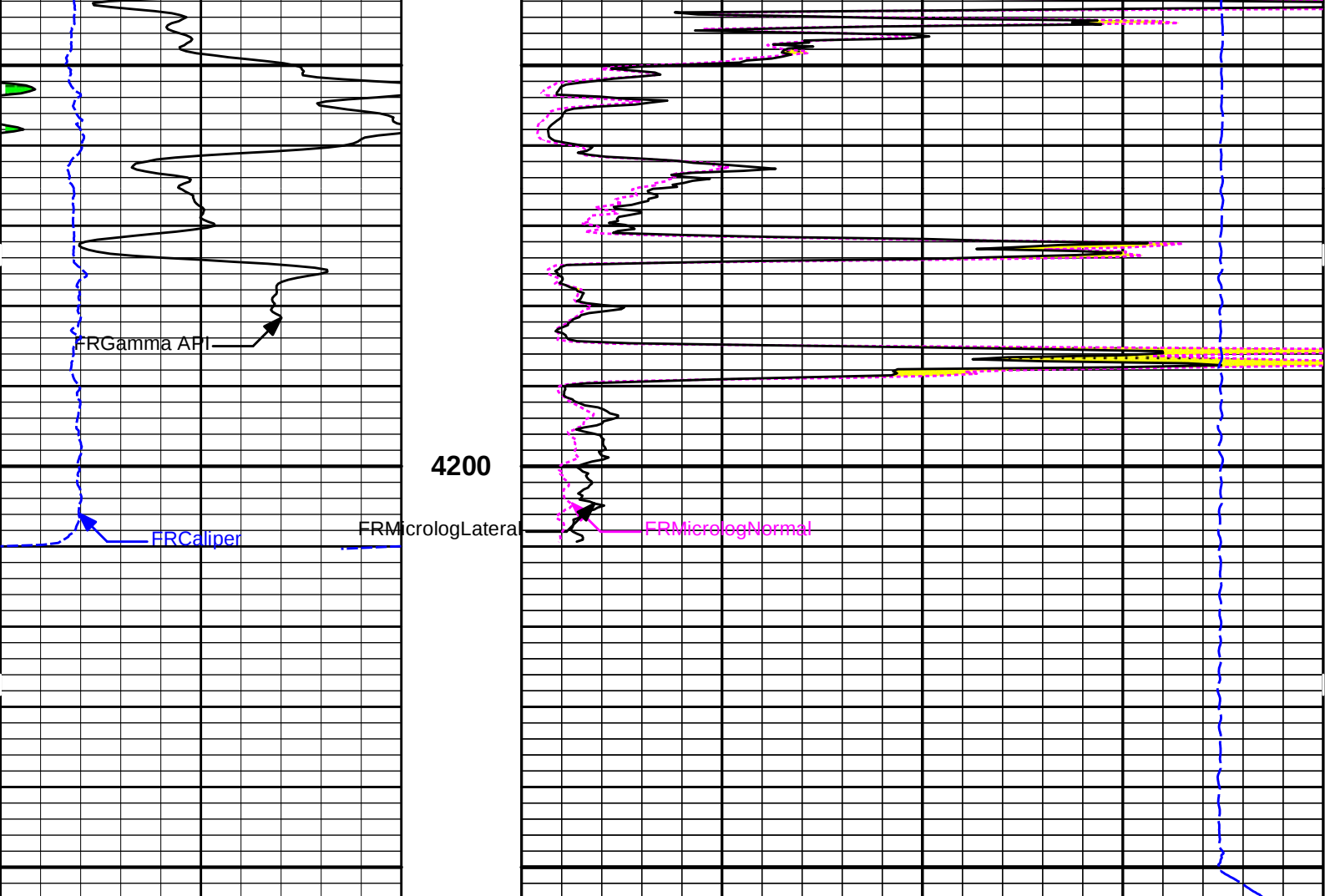
HALLIBURTON	Plot Time: 28-Oct-16 19:04:22 Plot Range: 3398 ft to 4255.17 ft Data: RIEDEL_1-5\Well Based\DETAIL\ Plot File: \\-LOCAL-\\RIEDEL_1-5\Well Based\MICROLOG\ELR_MICROLOG_5_MAIN
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5 IN = 100 FT MD MAIN PASS

HALLIBURTON	Plot Time: 28-Oct-16 19:04:23 Plot Range: 3948 ft to 4253.92 ft Data: RIEDEL_1-5\Well Based\REPEAT\ Plot File: \\-LOCAL-\\RIEDEL_1-5\Well Based\MICROLOG\ELR_MICROLOG_5_REPEAT
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5 IN = 100 FT MD REPEAT PASS





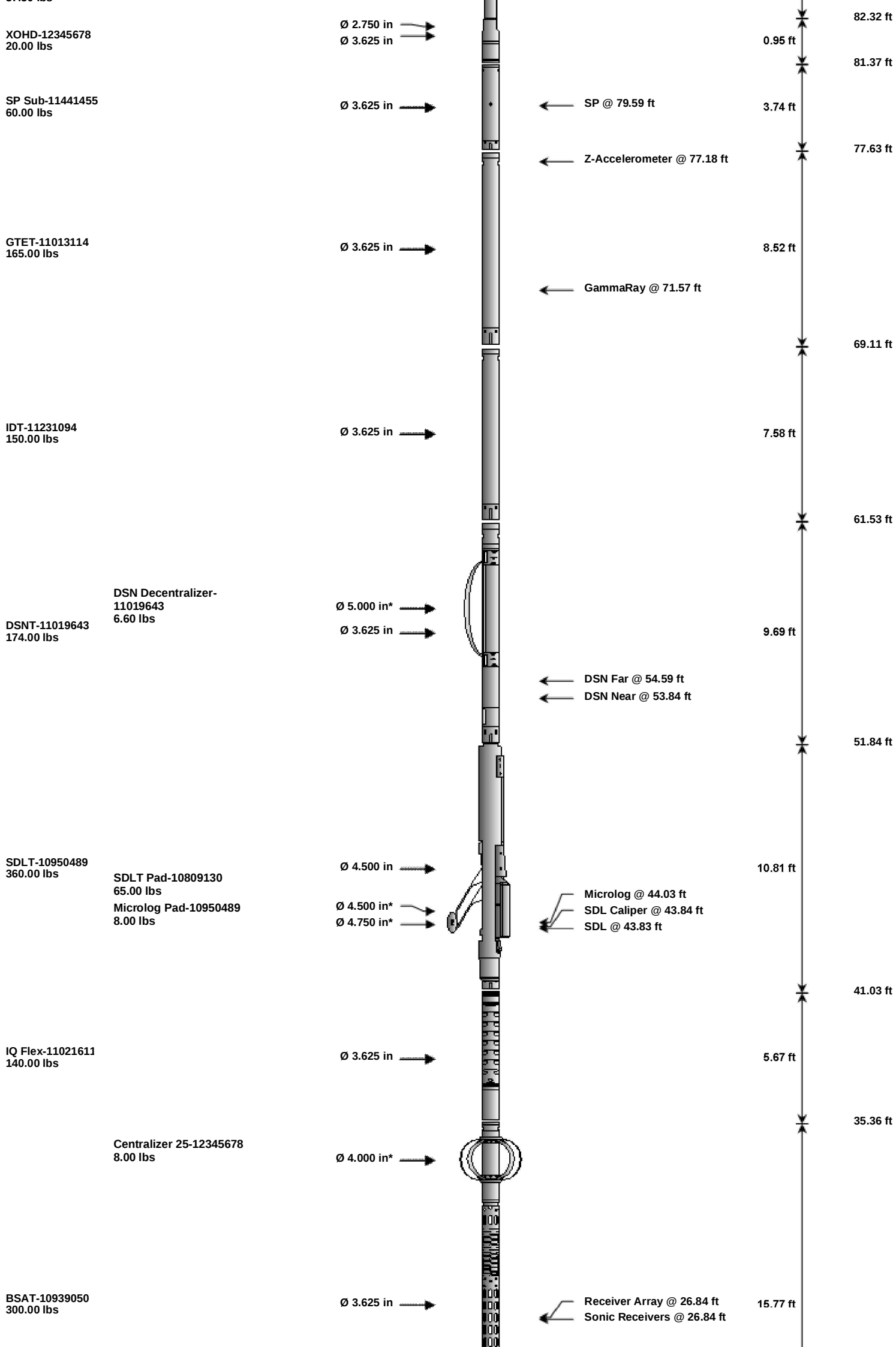
6	Caliper	16	1 : 240		15K	Tension	0
	inches		ft			pounds	
0	Gamma API	150		0	MicrologLateral		40
	api				ohm-metre		
				0	MicrologNormal		40
					ohm-metre		

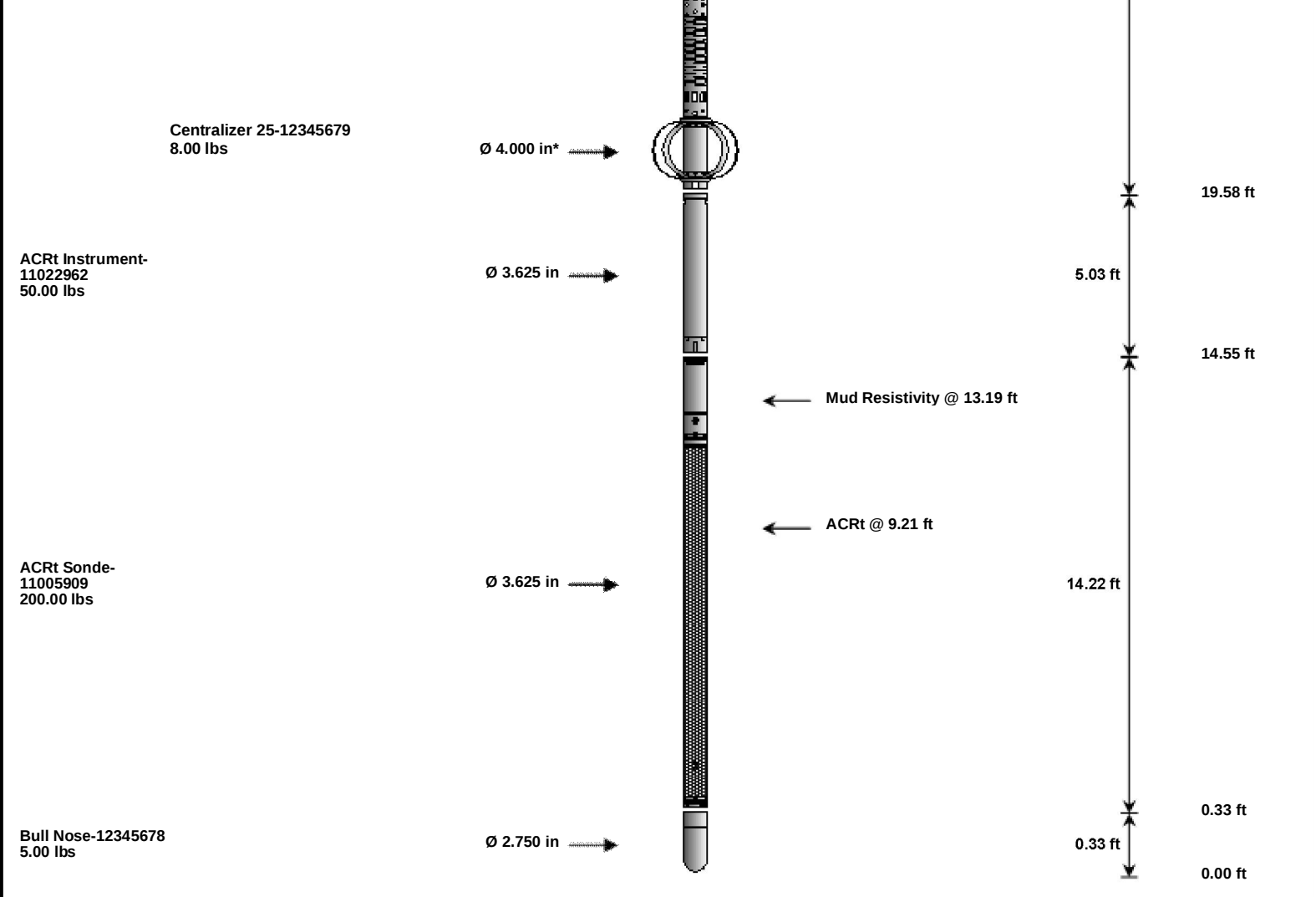
HALLIBURTON	Plot Time: 28-Oct-16 19:04:24 Plot Range: 3948 ft to 4253.92 ft Data: RIEDEL_1-5\Well Based\REPEAT\ Plot File: \\-LOCAL-\\RIEDEL_1-5\Well Based\MICROLOG\ELR_MICROLOG_5_REPEAT
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5 IN = 100 FT MD REPEAT PASS

HALLIBURTON
TOOL STRING DIAGRAM REPORT

Description	Overbody Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length
CH_HOS-00000025 37.50 lbs		Ø 2.750 in		Temperature @ 84.32 ft	2.25 ft	84.57 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		00000025	37.50	2.25	82.32	300.00
XOHD	Hostile to Dits Cross Over		12345678	20.00	0.95	81.37	300.00
SP	SP Sub		11441455	60.00	3.74	77.63	300.00
GTET	Gamma Telemetry Tool		11013114	165.00	8.52	69.11	60.00
IDT	Insite Directional Tool		11231094	150.00	7.58	61.53	60.00
DSNT	Dual Spaced Neutron		11019643	174.00	9.69	51.84	60.00
DCNT	DSN Decentralizer		11019643	6.60	5.13	* 55.17	300.00
SDLT	Spectral Density Tool		10950489	360.00	10.81	41.03	60.00
SDLP	Density Insite Pad		10809130	65.00	2.55	* 43.24	60.00
MICP	Microlog Pad		10950489	8.00	1.00	* 43.53	60.00
IQF	IQ Flex tool		11021611	140.00	5.67	35.36	300.00
BSAT	Borehole Sonic Array Tool		10939050	300.00	15.77	19.58	60.00
OBCEN	Centralizer - 25 in. Overbody		12345679	8.00	2.08	* 19.89	300.00
OBCEN	Centralizer - 25 in. Overbody		12345678	8.00	2.08	* 32.71	300.00
ACRt	Array Compensated True Resistivity Instrument Section		11022962	50.00	5.03	14.55	120.00
ACRt	Array Compensated True Resistivity Sonde Section		11005909	200.00	14.22	0.33	120.00
BLNS	Bull Nose		12345678	5.00	0.33	0.00	300.00
Total				1,757.10	84.57		
* Not included in Total Length and Length Accumulation.							
Data: RIEDEL_1-5\0001 GTET-IDT-DSN-SDL-BSAT-ACRT\IDLE							
Date: 28-Oct-16 15:09:26							

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	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	2000.00	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	4230.00	ft
	SHARED	BHT	Bottom Hole Temperature	113.0	degF
	SHARED	SVTM	Navigation and Survey Master Tool	IDT	
	SHARED	AZTM	High Res Z Accelerometer Master Tool	IDT	
	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	SDLT	
	Rwa / CrossPlot	ROIN	Input for RO Calculation	Rwa	
	GTET	GROK	Process Gamma Ray?	Yes	
	GTET	GEOK	Process Gamma Ray EVR?	Yes	
	GTET	TPOS	Tool Position for Gamma Ray Tools.	Eccentered	
	GTET	BHSM	Borehole Size Source Tool	SDLT	
	IDT	WRTI	Survey Writing Interval	30	ft
	IDT	SOPT	Smoothing Option	None	
	DSNT	DNOK	Process DSN?	Yes	
	DSNT	DEOK	Process DSN EVR?	Yes	
	DSNT	NLIT	Neutron Lithology	Limestone	
	DSNT	DNSO	DSN Standoff - 0.25 in (6.35 mm) Recommended	0.250	in
	DSNT	DNTT	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	
	DSNT	BHSM	Borehole Size Source Tool	SDLT	
	SDLT	CLOK	Process Caliper Outputs?	Yes	
	Microlog Pad	MLOK	Process MicroLog Outputs?	Yes	
	SDLT Pad	DNOK	Process Density?	Yes	
	SDLT Pad	DNOK	Process Density EVR?	Yes	
	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
	SDLT Pad	BHSM	Borehole Size Source Tool	SDLT	

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 Pore Fluid	189.00	uspf
BSAT	DTMT	Delta -T Matrix Type	Limestone 47.6	
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	RMAX	Maximum Resistivity for MAP	200.00	ohmm
ACRt Sonde	THQY	Threshold Quality	0.50	
ACRt Sonde	MRFX	Fixed mud resistivity	2000	ohmm
ACRt Sonde	BHSM	Borehole Size Source Tool	SDLT	
ACRt Sonde	MBFL	Apply Corkscrew Effect?	No	
BOTTOM				
Data: RIEDEL_1-5\0001 GTET-IDT-DSN-SDL-BSAT-ACRTIDLE			Date: 28-Oct-16 15:24:19	



CALIBRATION REPORT

NATURAL GAMMA RAY TOOL SHOP CALIBRATION

Tool Name: GTET - 11013114

Reference Calibration Date: 22-Dec-15 09:34:24

Engineer: MICHAEL RICHTER

Calibration Date: 04-Oct-16 13:37:27

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	37.2	46.4	api
Background + Calibrator	253.2	316.1	api
Calibrator	216.0	269.6	api

NATURAL GAMMA RAY TOOL FIELD CALIBRATION

Tool Name: GTET - 11013114

Reference Calibration Date: 04-Oct-16 13:37:27

Engineer: MICHAEL RICHTER

Calibration Date: 09-Oct-16 14:00:11

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	46.4	61.9	api
Background + Calibrator	316.1	337.4	api
Calibrator	269.6	275.5	api

Shop	Field	Difference	Tolerance
269.6	275.5	-5.9	+/- 9.00

DENSITY CALIPER SHOP CALIBRATION

Tool Name: SDLT - 10950489

Reference Calibration Date: 25-Jul-16 09:22:10

Engineer: MICHAEL RICHTER

Calibration Date: 04-Oct-16 12:53:22

Engineer: MICHAEL RICHTER		Calibration Date: 04-Oct-16 11:00:22			
Software Version: WL INSITE R5.0.5 (Build 8)		Calibration Version: 1			
Host Tool Name: DSNT - 11019643					
	CALIBRATION COEFFICIENTS				
	Measurement	Previous Value	New Value	Control Limit On New Value	
	Pad Offset	-3922.84	-3694.68	-7000.00 - -1000.00	
	Pad Gain	0.0003897	0.0003934	0.0002000 - 0.0006000	
	Arm Offset	-3528.51	-3798.70	-5000.00 - 3000.00	
	Arm Gain	0.0004727	0.0005144	0.000300 - 0.000700	
	Arm Power	-0.000002590	-0.000006288	-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)	1.89	2.00	0.11	+/- 0.20
	Medium Ring (in)	3.63	3.75	0.12	+/- 0.20
	RING DIAMETER:				
	Small Ring (in)	6.40	6.50	0.10	+/- 0.20
	Medium Ring (in)	8.08	8.25	0.17	+/- 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:	SDLT - 10950489		Reference Calibration Date:	04-Oct-16 12:53:22
Engineer:	WHITLOCK		Calibration Date:	18-Oct-16 12:02:47
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	3.75	3.73	-0.02 +/- 0.10
	Ring Diameter	8.25	8.21	-0.04 +/- 0.15
PASS/FAIL SUMMARY				
Pad Extension Check:			Passed	
Diameter Check:			Passed	

MICRO LOG SHOP CALIBRATION			
Tool Name:	Microlog Pad - 10950489	Reference Calibration Date:	09-Oct-16 13:21:16
Engineer:	MICHAEL RICHTER	Calibration Date:	09-Oct-16 13:23:09
Software Version:	WL INSITE R5.0.5 (Build 8)	Calibration Version:	1
Host Tool Name:	DSNT - 11019643		

	CALIBRATION COEFFICIENT SUMMARY				
	Measurement	Micro Log Normal		Micro Log Lateral	
		Measured	Calibrated	Measured	Calibrated Units
	Tool Zero	-0.19	-0.74	-0.00	-0.01 ohmm
	Calibration Point #1	0.53	0.00	0.01	0.00 ohmm
	Calibration Point #2	20.00	20.00	20.00	20.00 ohmm
Initial Defect		10.00	10.00	10.00	10.00 ohmm

Internal Reference	19.89	19.89	19.99	19.99	ohmm
Measurement	Micro Log Normal Tool Value		Micro Log Lateral Tool Value		Units
Tool Zero	-0.57		0.29		V
Calibration Point #1	191.68		4.08		V
Calibration Point #2	5377.48		7012.14		V
Internal Reference	5347.85		7007.18		V

MICRO LOG FIELD CHECK					
Tool Name:	Microlog Pad - 10950489			Reference Calibration Date:	09-Oct-16 13:23:09
Engineer:	WHITLOCK			Calibration Date:	18-Oct-16 12:03:23
Software Version:	WL INSITE R5.0.5 (Build 8)			Calibration Version:	1

	Measurement	Micro Log Normal		Micro Log Lateral		Units
		Shop	Field	Shop	Field	
	Tool Zero	-0.74	-0.74	-0.01	-0.01	ohmm
	Internal Reference	19.89	19.87	19.99	19.96	ohmm
Summary						
	Signal	Shop	Field	Difference		Tolerance
	Microlog Normal	19.89	19.87	0.02		+/- 0.80
	Microlog Lateral	19.99	19.96	0.03		+/- 0.80

CALIBRATION SUMMARY						
Sensor	Shop	Field	Post	Difference	Tolerance	Units
GTET-11013114						
Gamma Ray Calibrator	269.6	275.5	-----	-5.9	+/- 9.00	api
SDLT-10950489						
Pad Extension	3.75	3.73	-----	0.02	+/-0.10	in
Ring Diameter	8.25	8.21	-----	0.04	+/-0.15	in
Microlog Pad-10950489						
MicroLog Normal	19.89	19.87	-----	0.02	+/-0.80	ohmm
MicroLog Lateral	19.99	19.96	-----	0.03	+/-0.80	ohmm
Data: RIEDEL_1-5I0001 GTET-IDT-DSN-SDL-BSAT-ACRTIDLE					Date: 28-Oct-16 15:23:17	

HALLIBURTON						
INPUTS, DELAYS AND FILTERS TABLE						

Mnemonic	Input Description	Delay (ft)	Filter Type	Filter Length (ft)
Depth Panel				
TENS	Tension	0.00	NO	
Rwa / CrossPlot				
TPUL	Tension Pull	84.57	NO	
BS	Bit Size	84.57	NO	
HDIA	Measured Hole Diameter	0.00	NO	
CH_HOS				
DHTN	DownholeTension	0.00	BLK	0.000
SP Sub				
PLTC	Plot Control Mask	79.59	NO	
SP	Spontaneous Potential	79.59	BLK	1.250
SPR	Raw Spontaneous Potential	79.59	NO	
SPO	Spontaneous Potential Offset	79.59	NO	

GTET				
TPUL	Tension Pull	71.57	NO	
GR	Natural Gamma Ray API	71.57	TRI	1.750
GRU	Unfiltered Natural Gamma Ray API	71.57	NO	
EGR	Natural Gamma Ray API with Enhanced Vertical Resolution	71.57	W	1.416 , 0.750
HDIA	Measured Hole Diameter	0.00	NO	
ACCZ	Accelerometer Z	0.00	BLK	0.083
DEVI	Inclination	0.00	NO	
IDT				
TPUL	Tension Pull	62.53	NO	
ACCX	Accelerometer X	62.53	NO	
ACCY	Accelerometer Y	62.53	NO	
ACCZ	Accelerometer Z	62.53	NO	
MAGX	magnetometer x with unit	62.53	NO	
MAGY	Magnetometer Y with unit	62.53	NO	
MAGZ	magnetometer z with unit	62.53	NO	
IAMP	Accelerometer Temperature	62.53	NO	
MTMP	Magnetometer Temperature	62.53	NO	
DSNT				
TPUL	Tension Pull	53.74	NO	
RNDS	Near Detector Telemetry Counts	53.84	BLK	1.417
RFDS	Far Detector Telemetry Counts	54.59	TRI	0.583
DNTT	DSN Tool Temperature	53.84	NO	
DSNS	DSN Tool Status	53.74	NO	
ERND	Near Detector Telemetry Counts EVR	53.84	BLK	0.000
ERFD	Far Detector Telemetry Counts EVR	54.59	BLK	0.000
ENTM	DSN Tool Temperature EVR	53.84	NO	
HDIA	Measured Hole Diameter	0.00	NO	
SDLT				
TPUL	Tension Pull	43.84	NO	
PCAL	Pad Caliper	43.84	TRI	0.250
ACAL	Arm Caliper	43.84	TRI	0.250
BSAT				
TPUL	Tension Pull	26.84	NO	
STAT	Status	26.84	NO	
DLYT	Delay Time	26.84	NO	
SI	Sample Interval	26.84	NO	
TXRX	Raw Telemetry 10 Receivers	26.84	NO	
FRMC	Tool Frame Count	26.84	NO	
GMOD	Gain processing mode	19.58	NO	
ACRt Sonde				
TPUL	Tension Pull	2.73	NO	
F1R1	ACRT 12KHz - 80in R value	8.98	BLK	0.000
F1X1	ACRT 12KHz - 80in X value	8.98	BLK	0.000
F1R2	ACRT 12KHz - 50in R value	6.48	BLK	0.000
F1X2	ACRT 12KHz - 50in X value	6.48	BLK	0.000
F1R3	ACRT 12KHz - 29in R value	4.98	BLK	0.000
F1X3	ACRT 12KHz - 29in X value	4.98	BLK	0.000
F1R4	ACRT 12KHz - 17in R value	3.98	BLK	0.000
F1X4	ACRT 12KHz - 17in X value	3.98	BLK	0.000
F1R5	ACRT 12KHz - 10in R value	3.48	BLK	0.000
F1X5	ACRT 12KHz - 10in X value	3.48	BLK	0.000
F1R6	ACRT 12KHz - 6in R value	3.23	BLK	0.000
F1X6	ACRT 12KHz - 6in X value	3.23	BLK	0.000
F2R1	ACRT 36KHz - 80in R value	8.98	BLK	0.000

F2X1	ACRT 36KHz - 80in X value	8.98	BLK	0.000
F2R2	ACRT 36KHz - 50in R value	6.48	BLK	0.000
F2X2	ACRT 36KHz - 50in X value	6.48	BLK	0.000
F2R3	ACRT 36KHz - 29in R value	4.98	BLK	0.000
F2X3	ACRT 36KHz - 29in X value	4.98	BLK	0.000
F2R4	ACRT 36KHz - 17in R value	3.98	BLK	0.000
F2X4	ACRT 36KHz - 17in X value	3.98	BLK	0.000
F2R5	ACRT 36KHz - 10in R value	3.48	BLK	0.000
F2X5	ACRT 36KHz - 10in X value	3.48	BLK	0.000
F2R6	ACRT 36KHz - 6in R value	3.23	BLK	0.000
F2X6	ACRT 36KHz - 6in X value	3.23	BLK	0.000
F3R1	ACRT 72KHz - 80in R value	8.98	BLK	0.000
F3X1	ACRT 72KHz - 80in X value	8.98	BLK	0.000
F3R2	ACRT 72KHz - 50in R value	6.48	BLK	0.000
F3X2	ACRT 72KHz - 50in X value	6.48	BLK	0.000
F3R3	ACRT 72KHz - 29in R value	4.98	BLK	0.000
F3X3	ACRT 72KHz - 29in X value	4.98	BLK	0.000
F3R4	ACRT 72KHz - 17in R value	3.98	BLK	0.000
F3X4	ACRT 72KHz - 17in X value	3.98	BLK	0.000
F3R5	ACRT 72KHz - 10in R value	3.48	BLK	0.000
F3X5	ACRT 72KHz - 10in X value	3.48	BLK	0.000
F3R6	ACRT 72KHz - 6in R value	3.23	BLK	0.000
F3X6	ACRT 72KHz - 6in X value	3.23	BLK	0.000
RMUD	Mud Resistivity	12.52	BLK	0.000
F1RT	Transmitter Reference 12 KHz Real Signal	2.73	BLK	0.000
F1XT	Transmitter Reference 12 KHz Imaginary Signal	2.73	BLK	0.000
F2RT	Transmitter Reference 36 KHz Real Signal	2.73	BLK	0.000
F2XT	Transmitter Reference 36 KHz Imaginary Signal	2.73	BLK	0.000
F3RT	Transmitter Reference 72 KHz Real Signal	2.73	BLK	0.000
F3XT	Transmitter Reference 72 KHz Imaginary Signal	2.73	BLK	0.000
TFPU	Upper Feedpipe Temperature Calculated	2.73	BLK	0.000
TFPL	Lower Feedpipe Temperature Calculated	2.73	BLK	0.000
ITMP	Instrument Temperature	2.73	BLK	0.000
TCVA	Temperature Correction Values Loop Off	2.73	NO	
TIDV	Instrument Temperature Derivative	2.73	NO	
TUDV	Upper Temperature Derivative	2.73	NO	
TLDV	Lower Temperature Derivative	2.73	NO	
TRBD	Receiver Board Temperature	2.73	NO	
HDIA	Measured Hole Diameter	0.00	NO	
Microlog Pad				
TPUL	Tension Pull	44.03	NO	
MINV	Microlog Lateral	44.03	BLK	0.750
MNOR	Microlog Normal	44.03	BLK	0.750
SDLT Pad				
TPUL	Tension Pull	43.83	NO	
NAB	Near Above	43.66	BLK	0.920
NHI	Near Cesium High	43.66	BLK	0.920
NLO	Near Cesium Low	43.66	BLK	0.920
NVA	Near Valley	43.66	BLK	0.920
NBA	Near Barite	43.66	BLK	0.920
NDE	Near Density	43.66	BLK	0.920
NPK	Near Peak	43.66	BLK	0.920
NLI	Near Lithology	43.66	BLK	0.920
NBAU	Near Barite Unfiltered	43.66	BLK	0.250
NLIU	Near Lithology Unfiltered	43.66	BLK	0.250
FAB	Far Above	44.01	BLK	0.250
FHI	Far Cesium High	44.01	BLK	0.250

FLO	Far Cesium Low	44.01	BLK	0.250
FVA	Far Valley	44.01	BLK	0.250
FBA	Far Barite	44.01	BLK	0.250
FDE	Far Density	44.01	BLK	0.250
FPK	Far Peak	44.01	BLK	0.250
FLI	Far Lithology	44.01	BLK	0.250
PTMP	Pad Temperature	43.84	BLK	0.920
NHV	Near Detector High Voltage	43.24	NO	
FHV	Far Detector High Voltage	43.24	NO	
ITMP	Instrument Temperature	43.24	NO	
DDHV	Detector High Voltage	43.24	NO	
HDIA	Measured Hole Diameter	0.00	NO	
Data: RIEDEL_1-5\0001 GTET-IDT-DSN-SDL-BSAT-ACRT\IDLE			Date: 28-Oct-16 15:24:32	

COMPANY	CULBREATH OIL & GAS COMPANY, LLC		
WELL	RIEDEL #1-5		
FIELD	WILDCAT		
COUNTY	SHERIDAN	STATE	KANSAS
HALLIBURTON		MICROLOG	