

MICROLOG

VAL ENERGY INC. STAN MICHEL 6-16 UNKNOWN BARBER KANSAS				COMPANY VAL ENERGY INC. WELL STAN MICHEL 6-16 FIELD UNKNOWN COUNTY BARBER STATE KANSAS			
COMPANY WELL FIELD COUNTY STATE				Sect. 16 Twp. 34S Rge. 11W		Other Services: DSNT / SDLT ACRT	
Permanent Datum Log measured from Drilling measured from				GROUND LEVEL KELLY BUSHING KELLY BUSHING		Elev. 1373.0 ft 11.0 ft above perm. Datum Elev. K.B. D.F. G.L.	
Date	09-Apr-11						
Run No.	ONE						
Depth - Driller	4800.00 ft						
Depth - Logger	4784.0 ft						
Bottom - Logged Interval	4762.0 ft						
Top - Logged Interval	3200.0 ft						
Casing - Driller	8.625 in @ 717.0 ft				@		@
Casing - Logger	716.0 ft						
Bit Size	7.875 in				@		@
Type Fluid in Hole	WATER BASED MUD						
Density	Viscosity	9.0 cP	53.00 s/cP				
PH	Fluid Loss	9.50 pH	8.0 cpm				
Source of Sample				FLOW LINE			
Rm @ Meas. Temperature	0.580 ohmm @ 87.00 degF				@		@
Rmf @ Meas. Temperature	0.60 ohmm @ 74.00 degF				@		@
Rmc @ Meas. Temperature	0.770 ohmm @ 74.00 degF				@		@
Source Rmf	Rmc	MEAS.	MEAS.				
Rm @ BHT	0.07 ohmm @ 122.0 degF				@		@
Time Since Circulation				4.0 hr			
Time on Bottom				10-Apr-11 00:45			
Max. Rec. Temperature	122.0 degF @ 4784.0 ft				@		@
Equipment	11072147 LIBERAL						
Recorded By	C. HAVERKAMP						
Witnessed By	S. VANBUSKIRK						

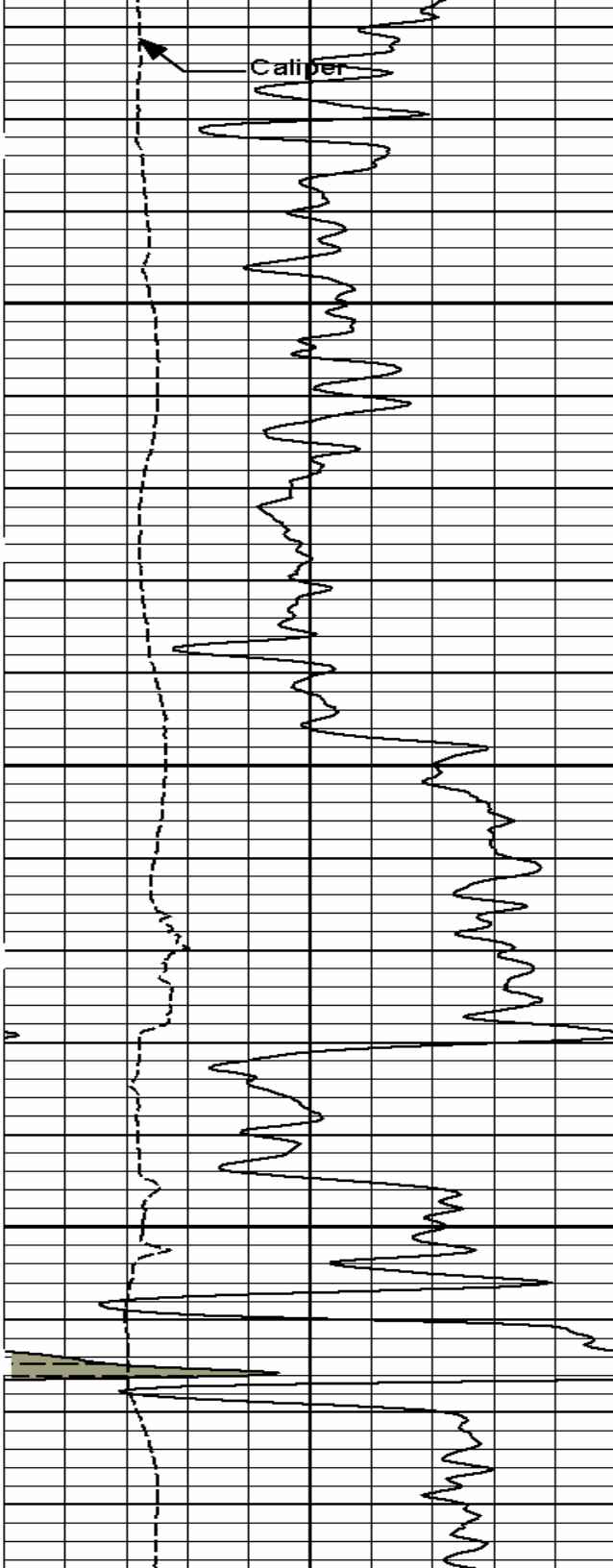
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Service Ticket No.: 8089109						API Serial No.: 15-007-23675						PGM Version: VL INSITE R3 2.1 (Build 7)					
CHANGE IN MUD TYPE OR ADDITIONAL SAMPLE								RESISTIVITY SCALE CHANGES									
Date	Sample No.					Type Log	Depth	Scale Up Hole				Scale 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	MICROLOG	RUBBER		ADJ.		N/A					
Rmc @ Meas. Temp.		@		@													
Source Rmf	Rmc																

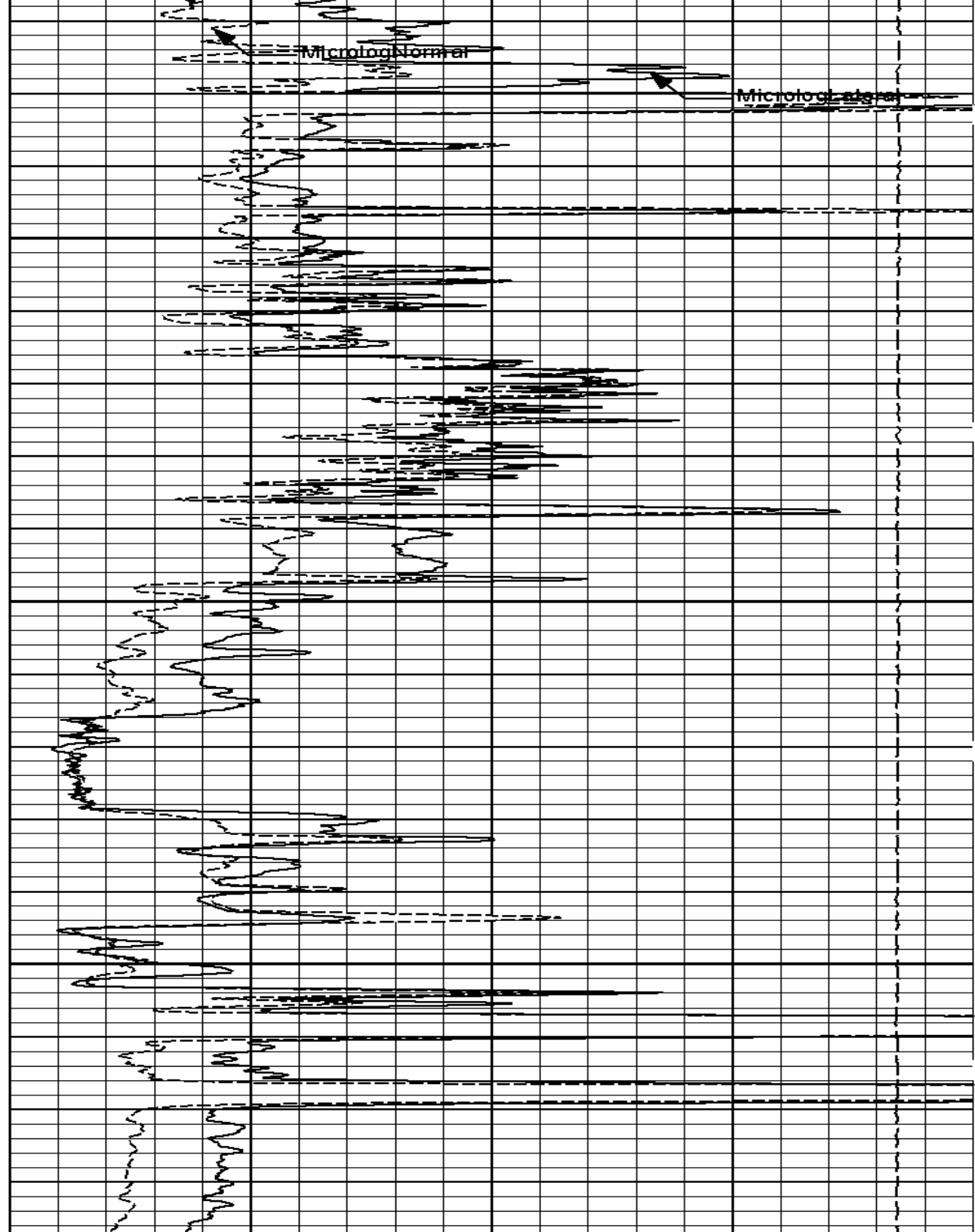
Rm @ BHT	@	@												
Rmf @ BHT	@	@												
Rmc @ BHT	@	@												
EQUIPMENT DATA														
GAMMA		ACOUSTIC		DENSITY		NEUTRON								
Run No.	ONE	Run No.		Run No.		Run No.								
Serial No.	10748374	Serial No.		Serial No.		Serial No.								
Model No.	GTET	Model No.		Model No.		Model No.								
Diameter	3.625"	No. of Cent.		Diameter		Diameter								
Detector Model No.	T-102	Spacing		Log Type		Log Type								
Type	SCINT			Source Type		Source Type								
Length	8"	LSA [Y/N]		Serial No.		Serial No.								
Distance to Source	10'	FWDA [Y/N]		Strength		Strength								
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	
OEN	4784'	3200'	REC	0	150									
DIRECTIONAL INFORMATION														
Maximum Deviation @						KOP @								
Remarks: SP-GTET-DSNT-SDLT-ACRT RAN IN COMBINATION.														
ANNULAR HOLE VOLUME CALCULATED FOR 5.5 INCH CASING.														
CHLORIDES REPORTED AT 4000 PPM.														
LCM REPORTED AT 6 LB/BBL.														
TOOL SURVEYS NOT PERFORMED PER CUSTOMER REQUEST.														
YOUR CREW: A. VAQUERA, F. VILLA														
THANK YOU FOR USING HALLIBURTON ENERGY SERVICES. LIBERAL, KS 620-624-8123														
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														

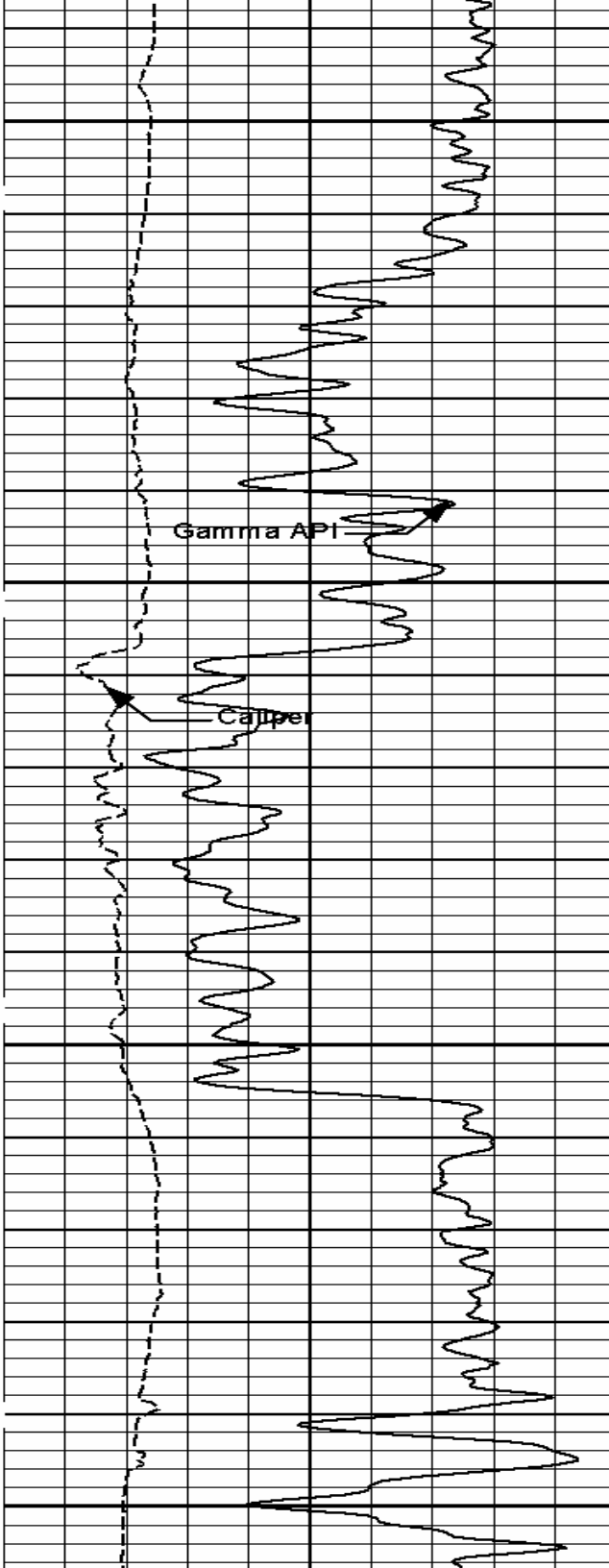
5 INCH MAIN LOG

			PERMEABLE		
SHALE		Tension Pull	0		
Gamma API		Tension Pull	0		
api		10	0		
Caliper		1 : 240	0		
inches		ft	0		
3200					
3300					



3400

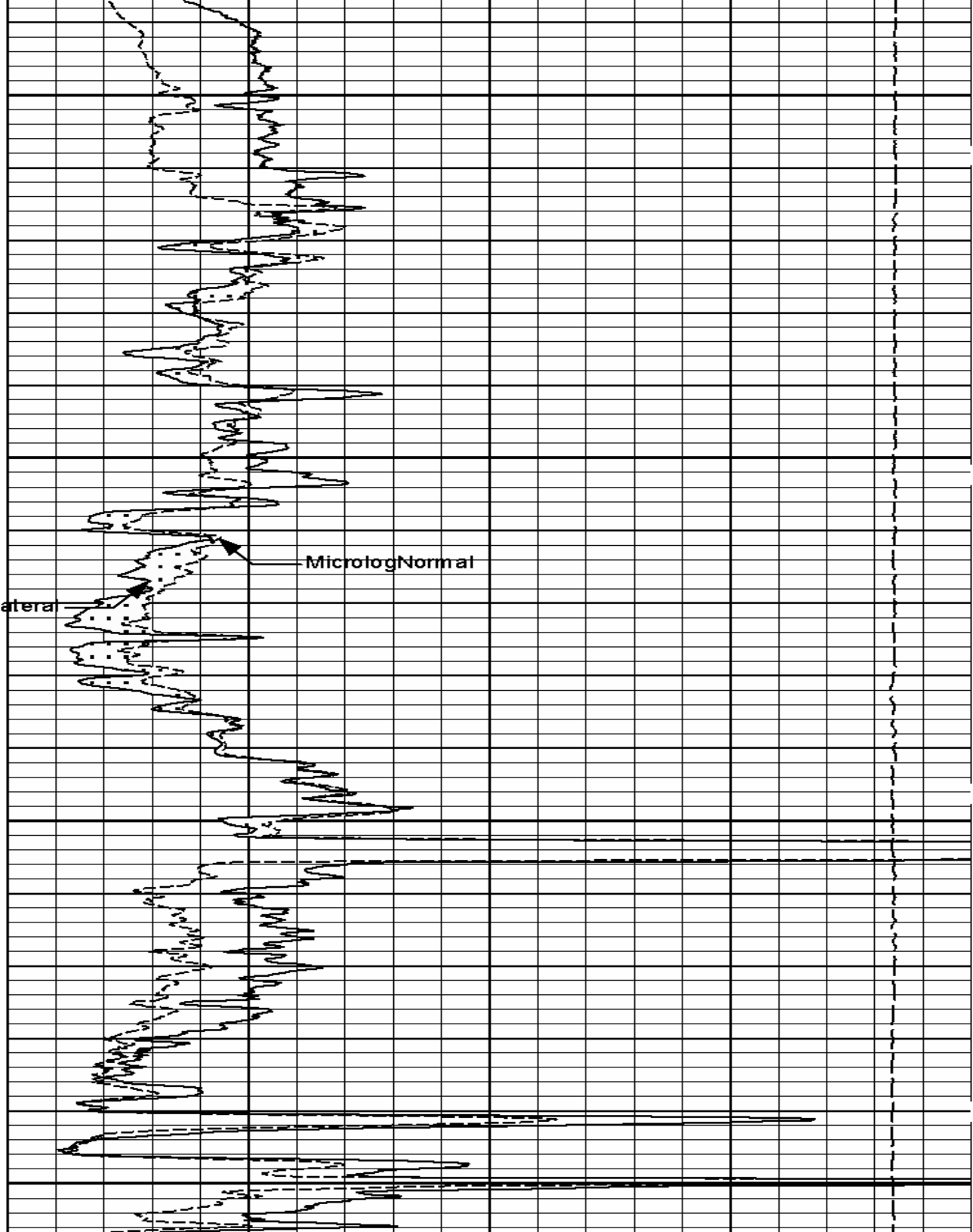




3500

MicrologLateral

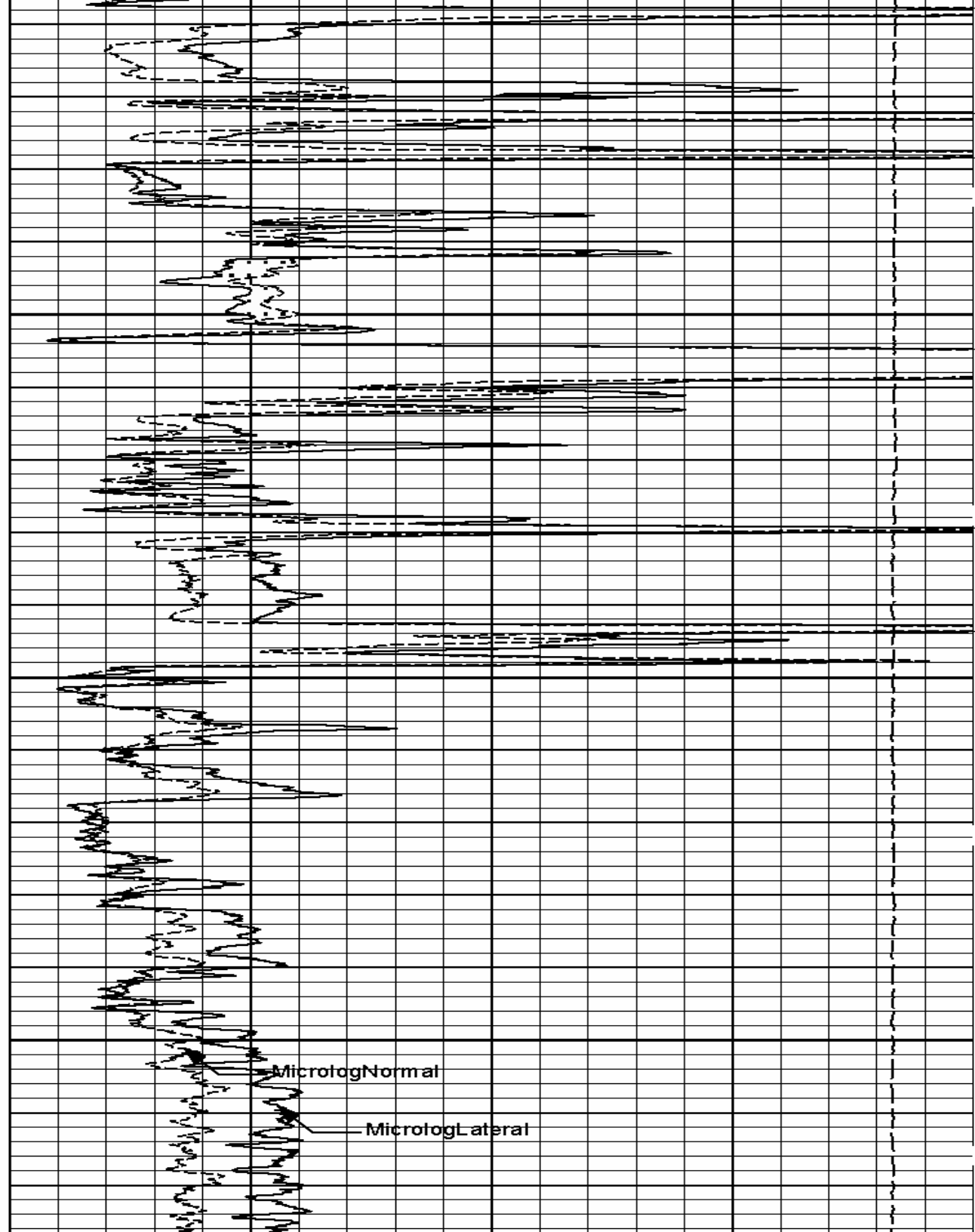
3600

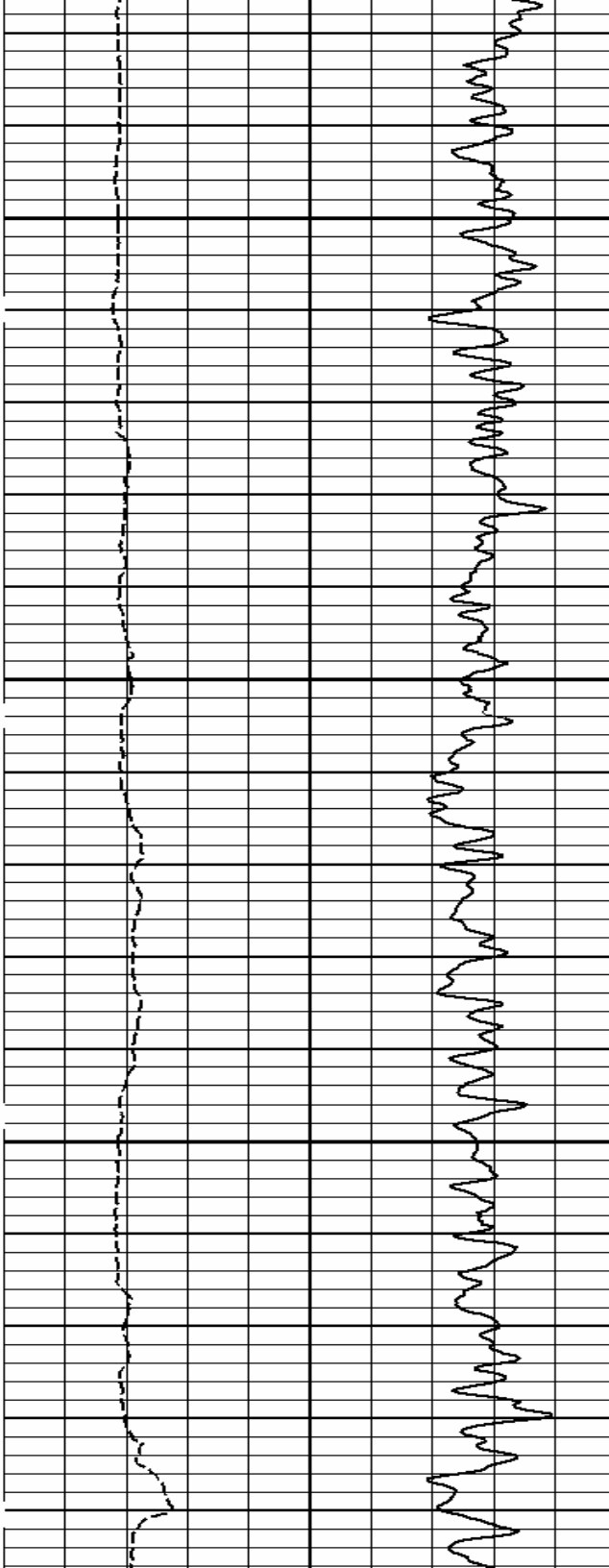




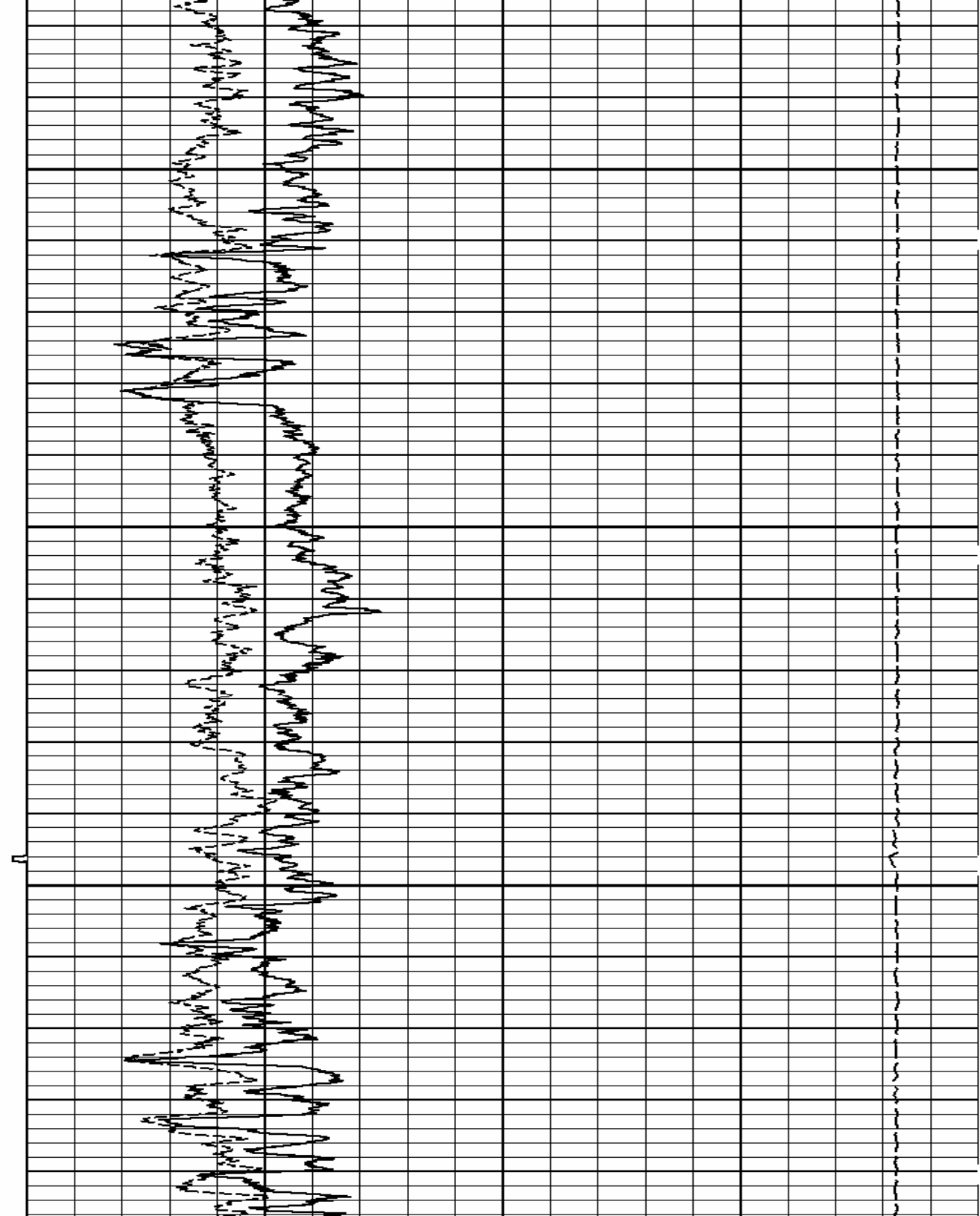
3700

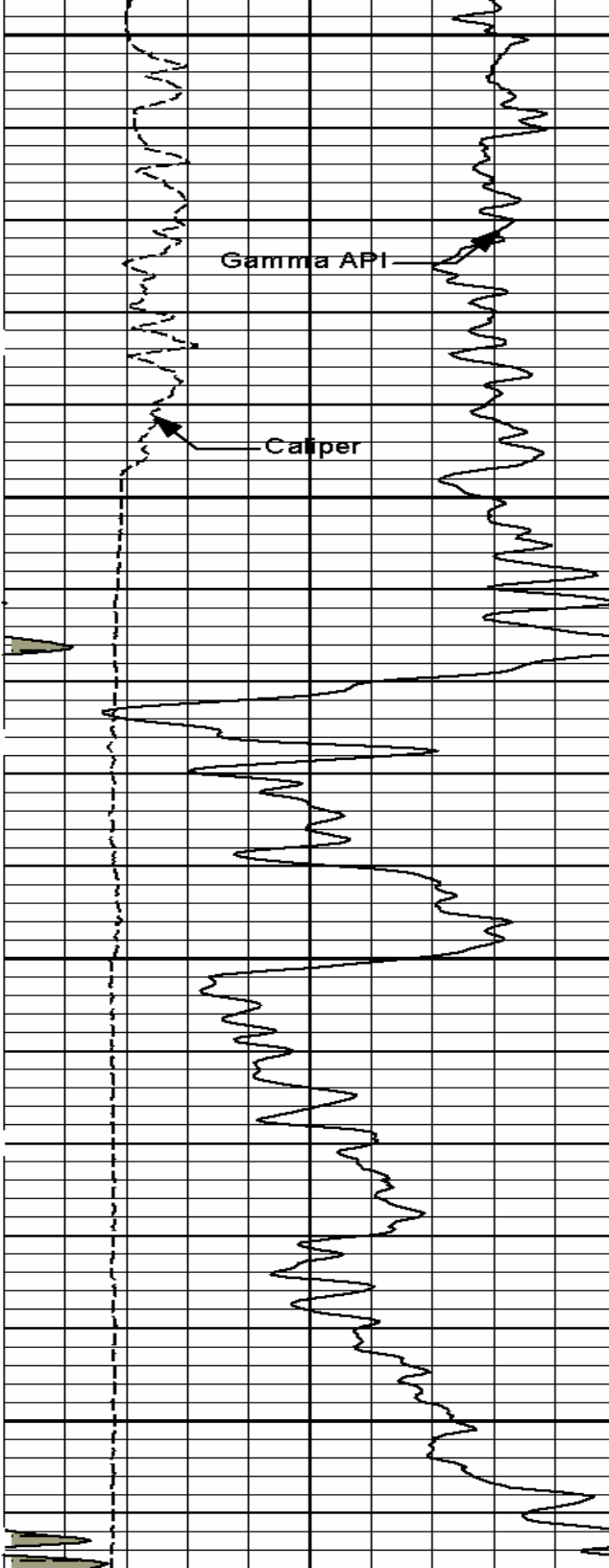
3800





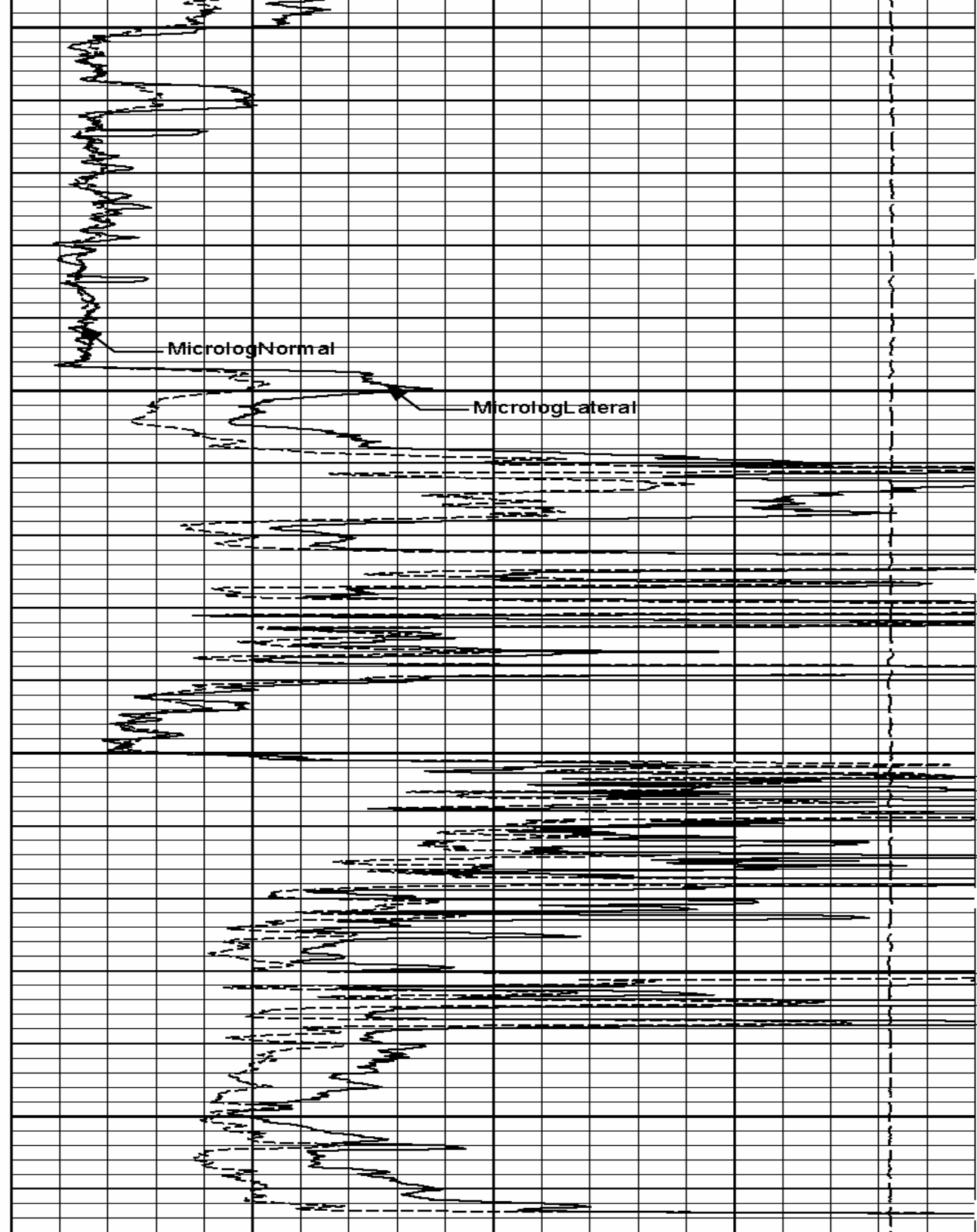
3900

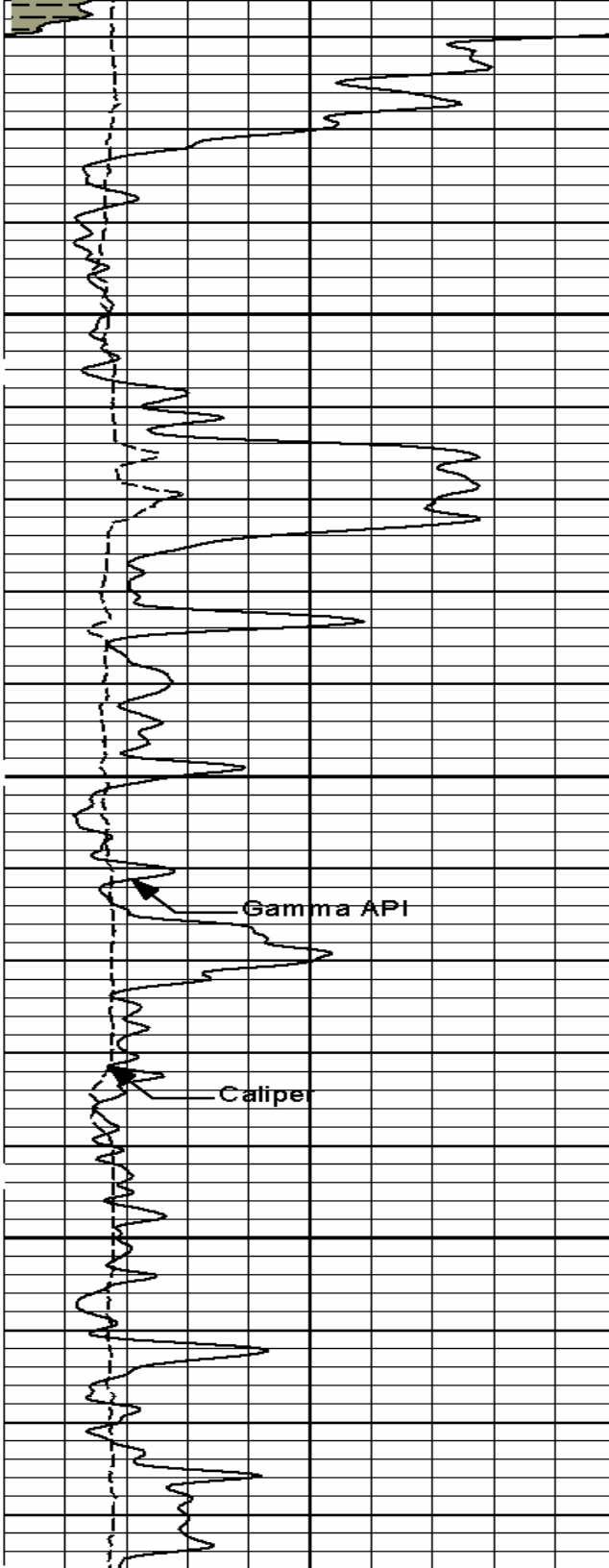




4000

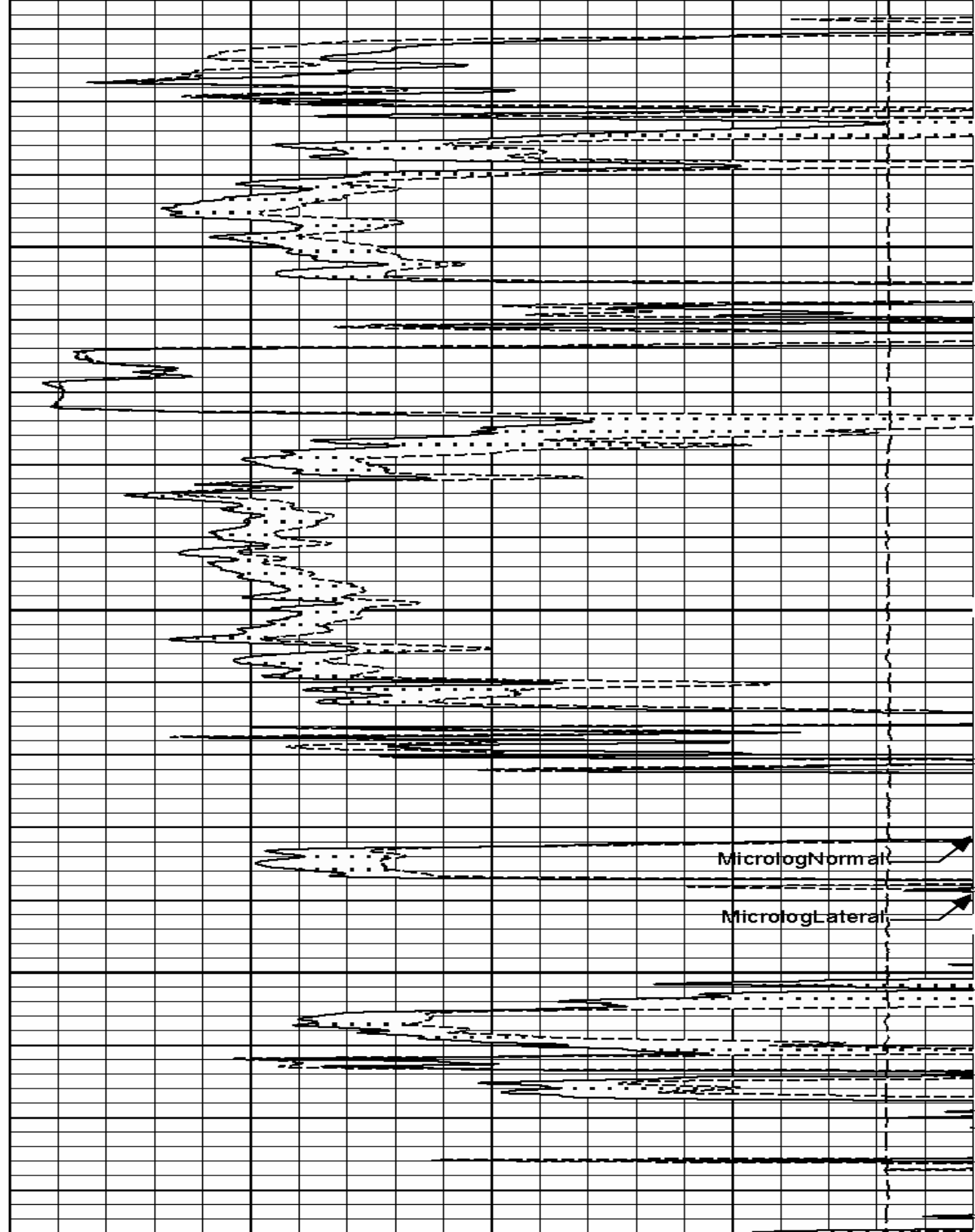
4100

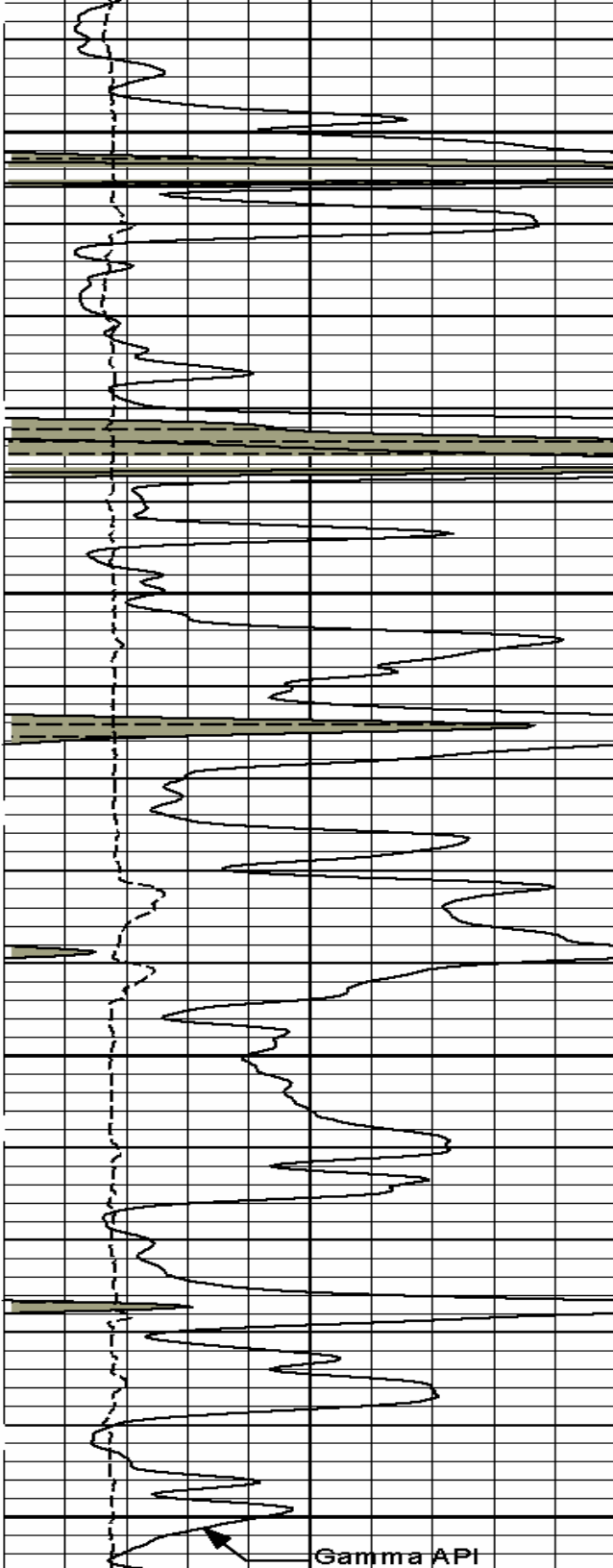




4200

4300

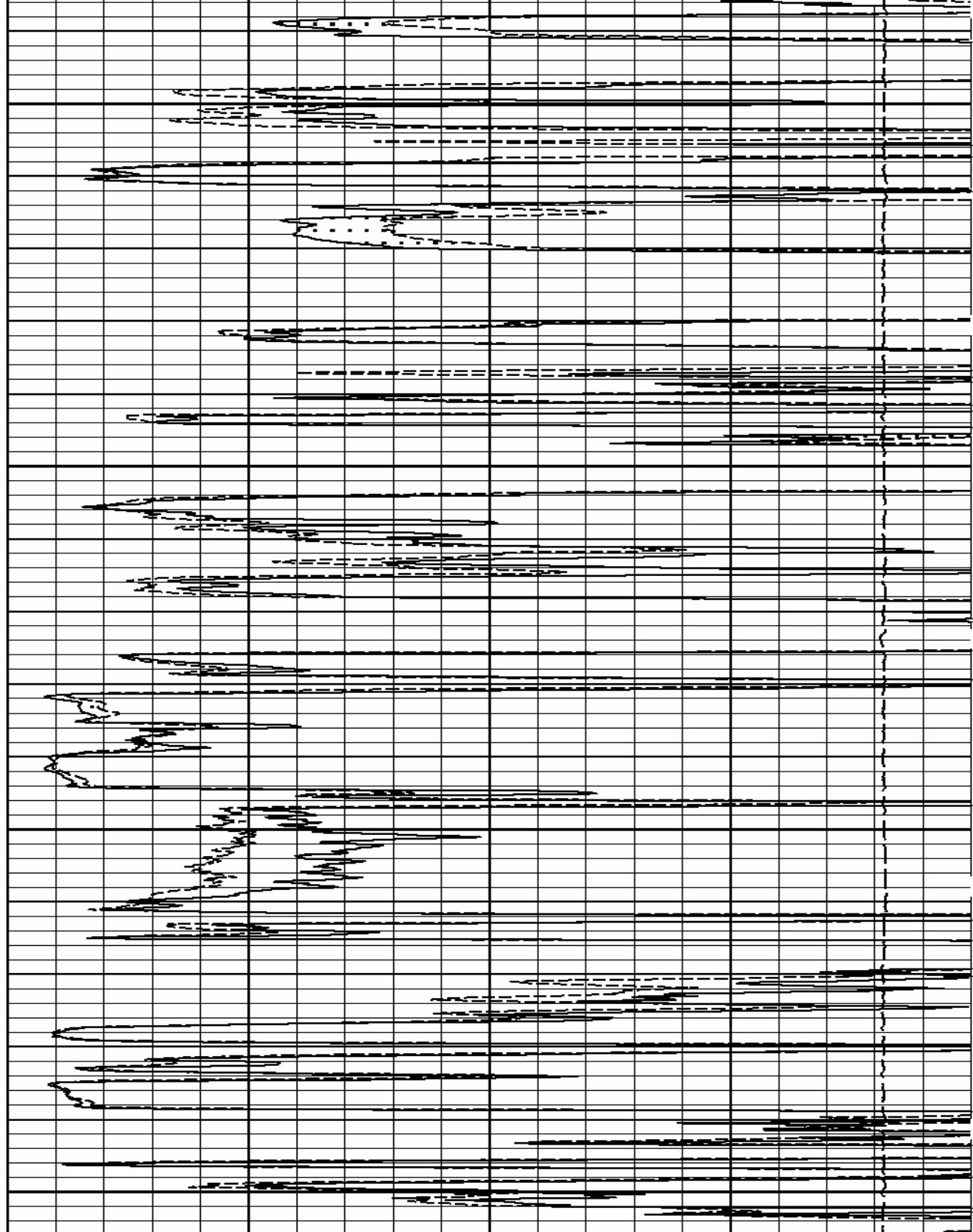


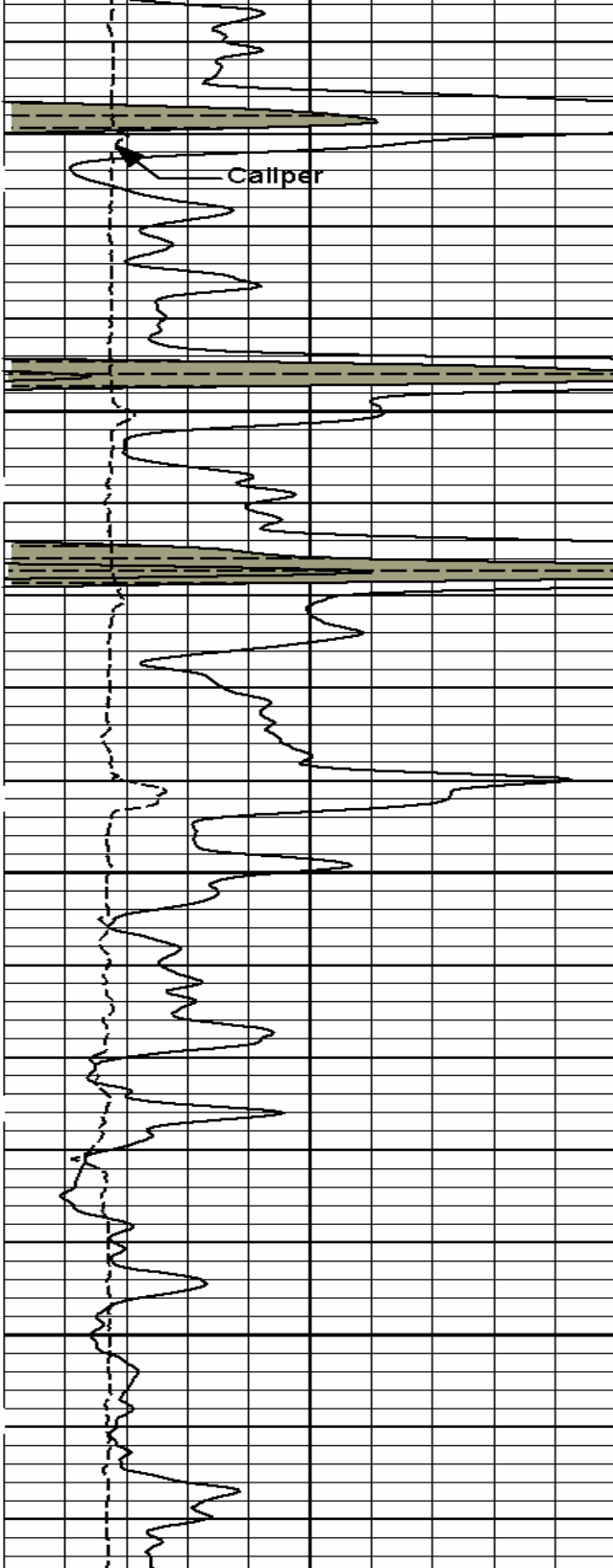


4400

4500

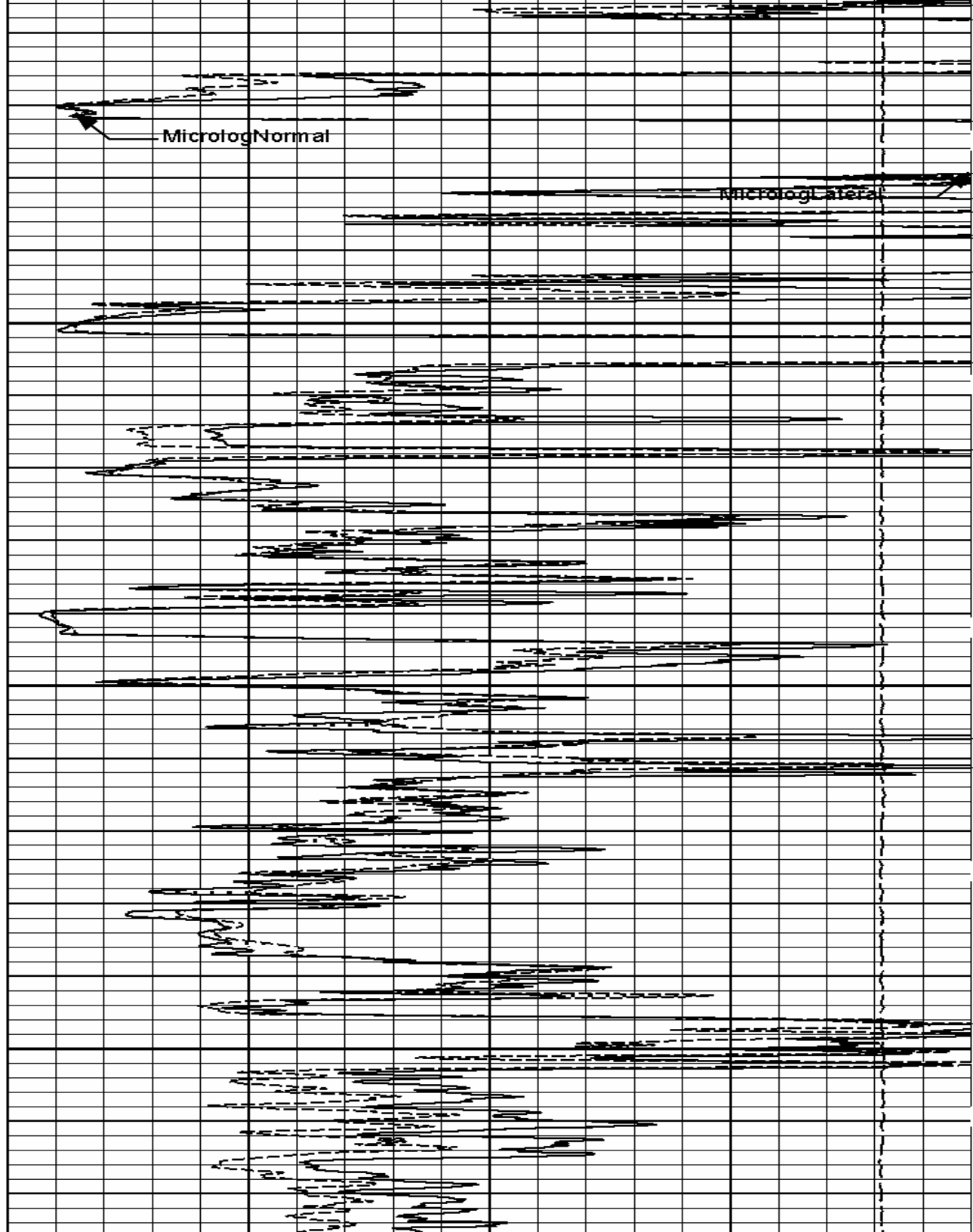
Gamma API





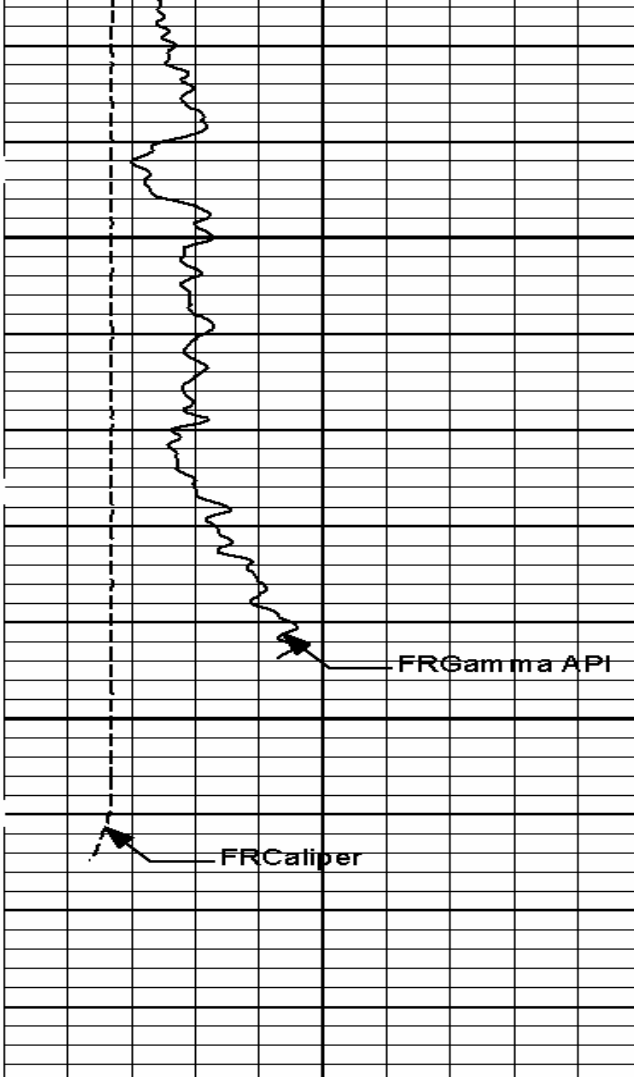
Caliper

4600



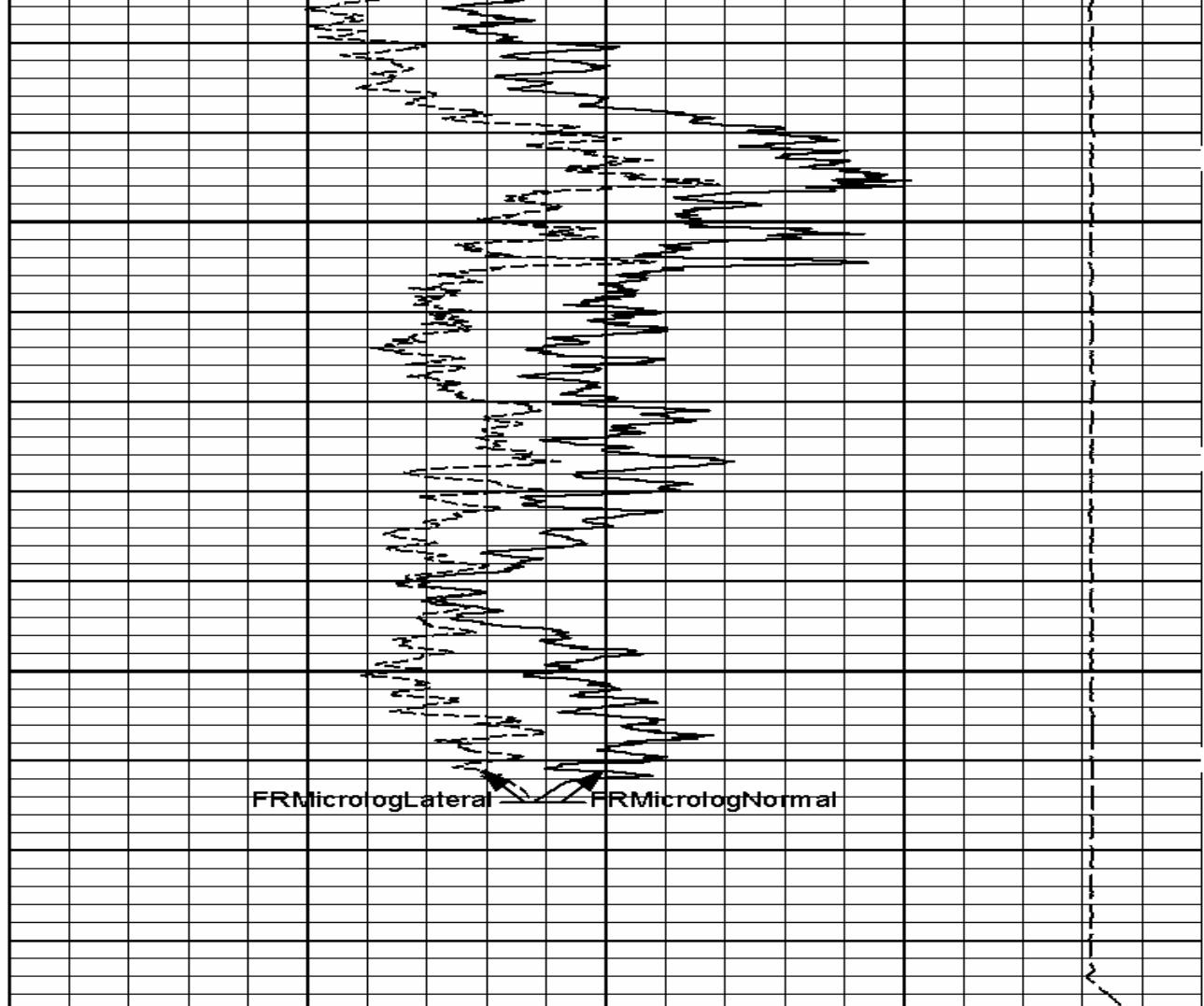
Microlog Normal

Microlog Lateral



4700

TD



6	Caliper	16
	inches	
0	Gamma API	150
	api	
	SHALE	

1 : 240	ft
Tension Pull	10
Tension Pull	0

15K	Tension	0
	pounds	
0	MicrologLateral	20
	ohm-metre	
0	MicrologNormal	20
	ohm-metre	
: : : : : PERMEABLE : : : : :		

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Plot Time: 10-Apr-11 00:18:04
 Plot Range: 3196 ft to 4787.67 ft
 Data: STANMICHEL_6_16\Well Based\DETAIL\
 Plot File: \\-LOCAL-STANMICHEL_6_16\0001 SP-GTET-DSN-SDL-ACRT-CH\MICRO\Microlog_IQ_5_main_lib

5 INCH MAIN LOG

HALLIBURTON

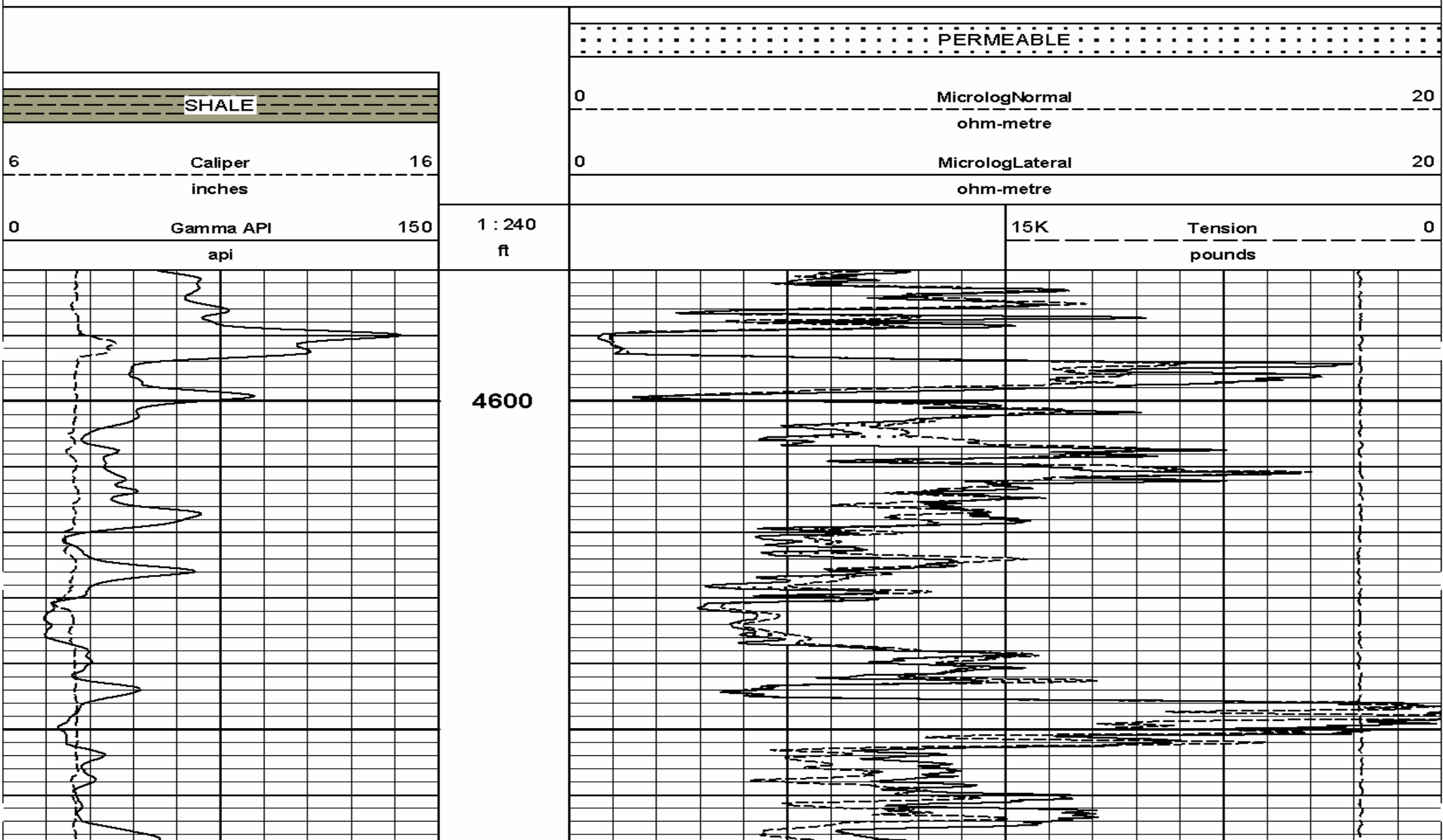
Plot Time: 10-Apr-11 00:18:04

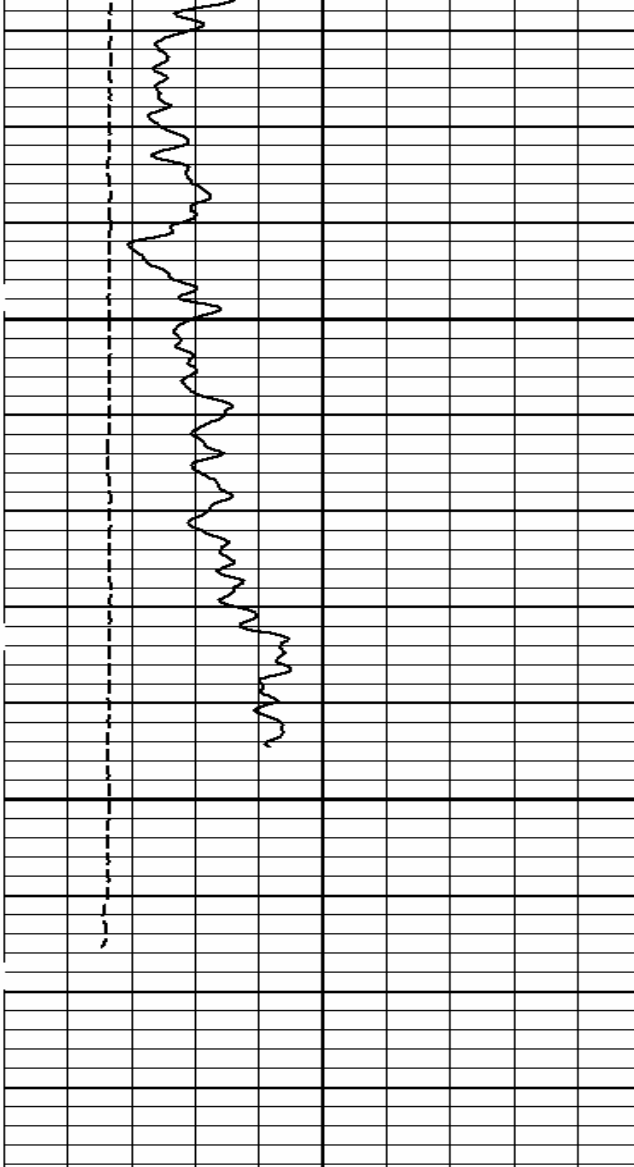
Plot Range: 4580 ft to 4788.42 ft

Data: STANMICHEL_6_16\Well Based\REPEAT\

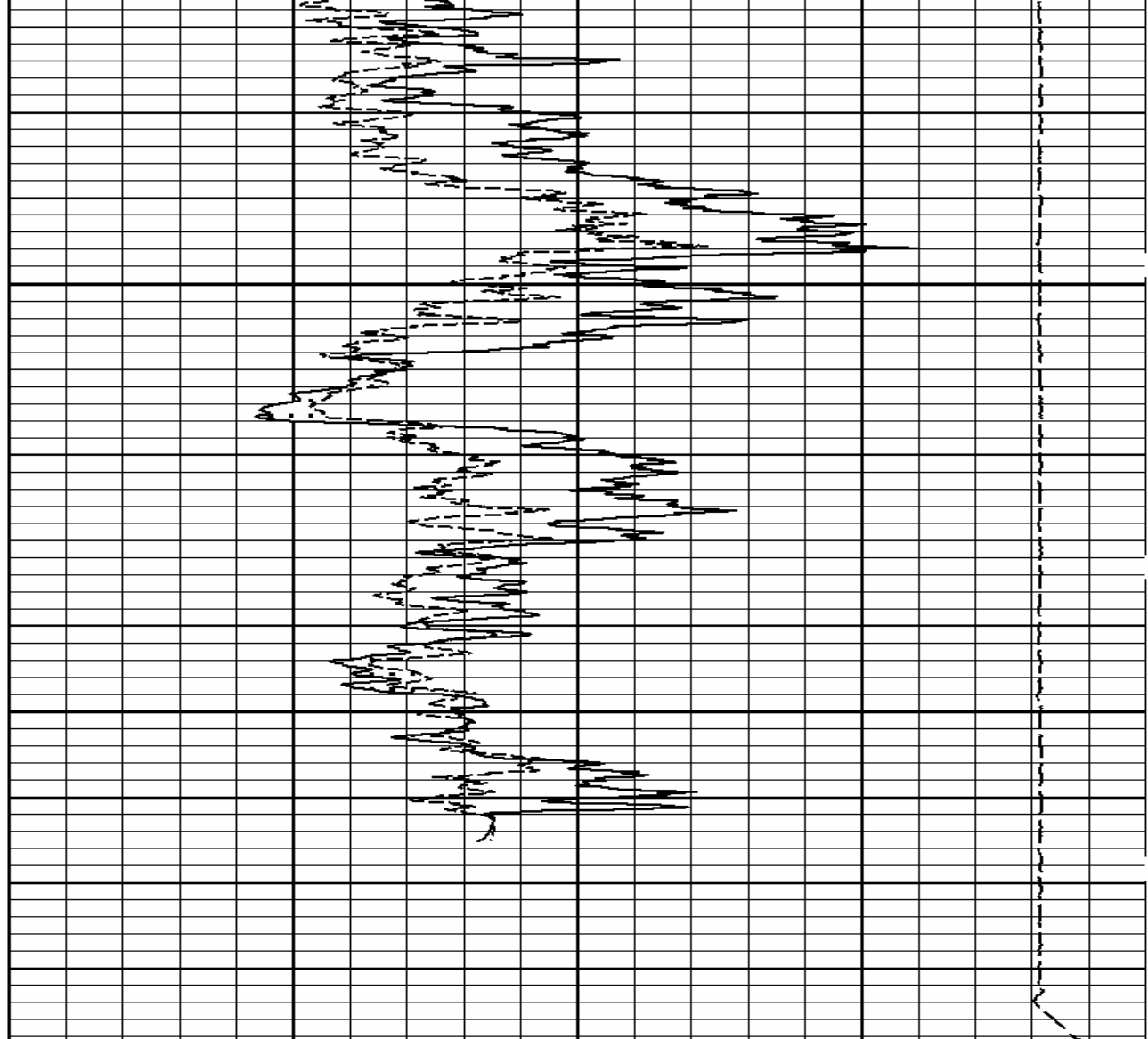
Plot File: \\-LOCAL-1\STANMICHEL_6_16\0001 SP-GTET-DSN-SDL-ACRT-CH\MICRO\Microlog_IQ_5_rep_lib

REPEAT SECTION





4700



0	Gamma API	150
	api	
6	Caliper	16
	inches	
SHALE		

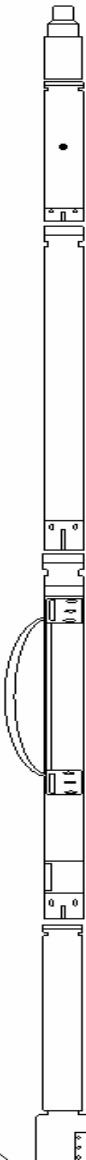
1 : 240
ft

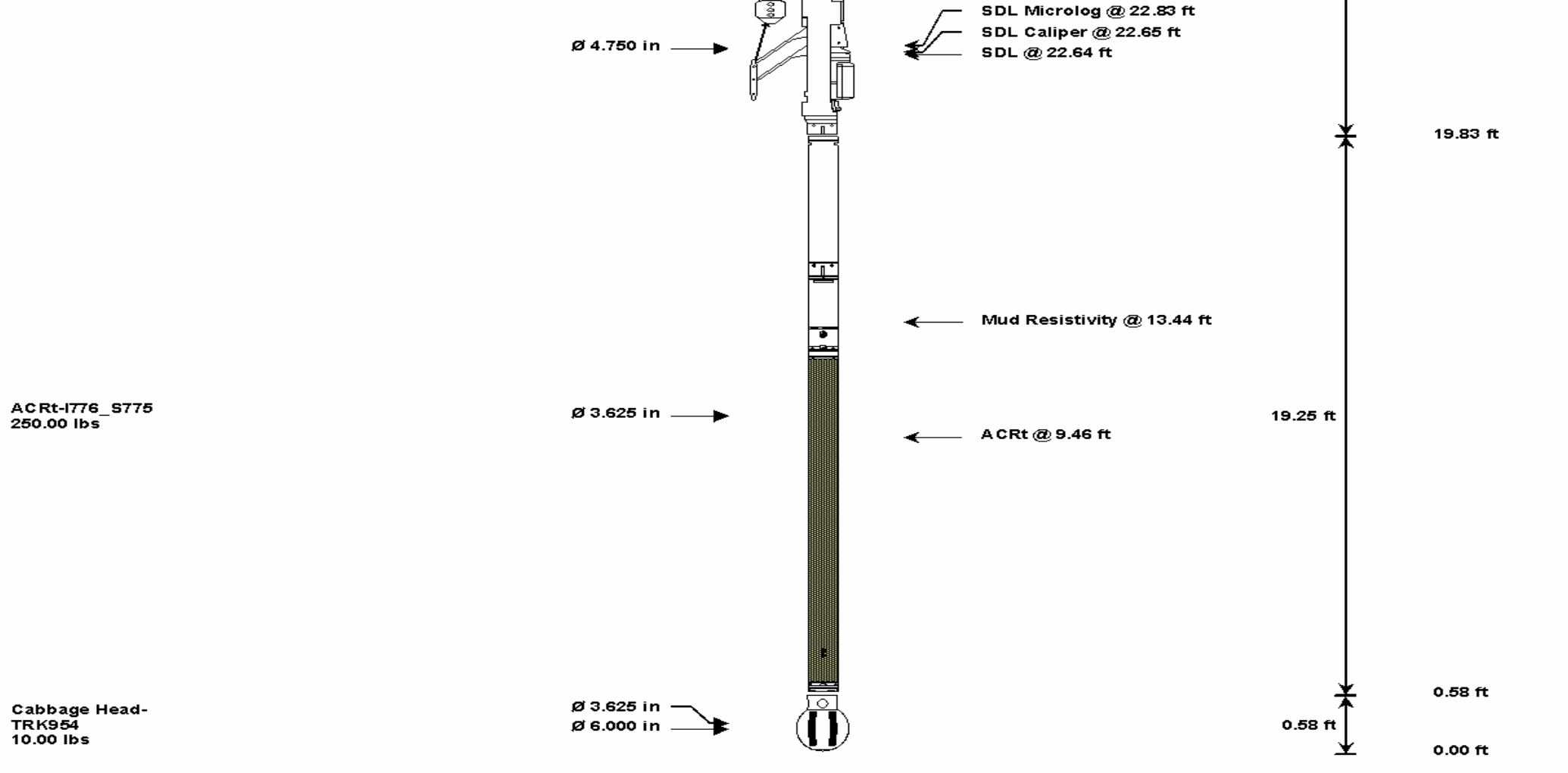
	15K	Tension	0
		pounds	
0	MicrologLateral		20
	ohm-metre		
0	MicrologNormal		20
	ohm-metre		
PERMEABLE			

REPEAT SECTION

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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	54.51 ft
SP Sub-TRK954 60.00 lbs		Ø 3.625 in →		← SP @ 50.81 ft	3.74 ft	52.59 ft
GTET-10748374 165.00 lbs		Ø 3.625 in →		← GammaRay @ 42.79 ft	8.52 ft	48.85 ft
DSNT-10755066 174.00 lbs	DSN Decentralizer- 11005605 6.60 lbs	Ø 3.625 in* → Ø 3.625 in →		← DSN Far @ 33.39 ft ← DSN Near @ 32.64 ft	9.69 ft	40.33 ft
						30.64 ft
SDLT- 1066_M85803_P45 360.00 lbs		Ø 4.500 in →			10.81 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	52.59	300.00
SP	SP Sub	TRK954	60.00	3.74	48.85	300.00
GTET	Gamma Telemetry Tool	10748374	165.00	8.52	40.33	60.00
DSNT	Dual Spaced Neutron	10755066	174.00	9.69	30.64	60.00
DCNT	DSN Decentralizer	11005605	6.60	5.13	33.97	300.00
SDLT	Spectral Density Tool	I066_M85803_P45	360.00	10.81	19.83	60.00
ACRt	Array Compensated True Resistivity	I776_S775	250.00	19.25	0.58	300.00
CBHD	Cabbage Head	TRK954	10.00	0.58	0.00	300.00
Total			1,055.60	54.51		

* Not included in Total Length and Length Accumulation.

Data: STANMICHEL_6_16\0001 SP-GTET-DSN-SDL-ACRT-CH\IDLE Date: 09-Apr-11 22:00:59

CALIBRATION REPORT

NATURAL GAMMA RAY TOOL SHOP CALIBRATION

Tool Name: GTET - 10748374

Reference Calibration Date: 21-Jan-11 12:21:50

Engineer: S. JUNG

Calibration Date: 24-Feb-11 21:56:53

Software Version: WL INSITE R3.2.0 (Build 7)

Calibration Version: 1

Calibrator Source S/N: 185

Calibrator API Reference:228.00 api

Equivalent Calibrator API Reference:232.0 api

Measurement	Measured	Calibrated	Units
Background	38.4	37.8	api
Background + Calibrator	273.6	269.8	api
Calibrator	231.5	232.0	api

MICRO LOG SHOP CALIBRATION

Tool Name: SDLT - I066_M85803_P45

Reference Calibration Date: 30-Jun-10 22:26:57

Engineer: T. BRIDGEMAN

Calibration Date: 08-Jul-10 14:51:50

Software Version: WL INSITE R3.0.4 (Build 6)

Calibration Version: 1

CALIBRATION COEFFICIENT SUMMARY

Measurement	Micro Log Normal		Micro Log Lateral		Units
	Measured	Calibrated	Measured	Calibrated	
Tool Zero	-0.08	-0.07	-0.00	-0.01	ohmm
Calibration Point #1	-0.00	0.00	0.01	0.00	ohmm
Calibration Point #2	20.03	20.00	19.95	20.00	ohmm
Internal Reference	19.94	19.91	19.93	19.97	ohmm

Measurement	Micro Log Normal Tool Value	Micro Log Lateral Tool Value	Units
Tool Zero	-0.34	1.08	V
Calibration Point #1	18.81	4.48	V
Calibration Point #2	5308.09	6887.67	V
Internal Reference	5285.45	6878.16	V

CALIBRATION SUMMARY

Sensor	Shop	Field	Post	Difference	Tolerance	Units
GTET-10748374						
Gamma Ray Calibrator	232.0	-----	-----	0.0	+/- 9.00	api
SDLT-I066_M85803_P45						
MicroLog Normal	19.91	-----	-----	0.00	-----	ohmm

MicroLog Lateral	19.97	-----	-----	0.00	-----	ohmm
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Data: STANMICHEL_6_16\0001 SP-GTET-DSN-SDL-ACRT-CH\001 09-Apr-11 22:08 Dn @-2.0f Date: 09-Apr-11 22:32:02

HALLIBURTON

INPUTS, DELAYS AND FILTERS TABLE

Mnemonic	Input Description	Depth Panel	Delay (ft)	Filter Type	Filter Length (ft)
TENS	Tension		0.00	NO	
SP Sub					
PLTC	Plot Control Mask		50.81	NO	
SP	Spontaneous Potential		50.81	BLK	1.250
SPR	Raw Spontaneous Potential		50.81	NO	
SPO	Spontaneous Potential Offset		50.81	NO	
GTET					
TPUL	Tension Pull		42.79	NO	
GR	Natural Gamma Ray API		42.79	TRI	1.750
GRU	Unfiltered Natural Gamma Ray API		42.79	NO	
EGR	Natural Gamma Ray API with Enhanced Vertical Resolution		42.79	W	1.416 , 0.750
ACCZ	Accelerometer Z		0.00	BLK	0.083
DEVI	Inclination		0.00	NO	
DSNT					
TPUL	Tension Pull		32.54	NO	
RNDS	Near Detector Telemetry Counts		32.64	BLK	1.417
RFDS	Far Detector Telemetry Counts		33.39	TRI	0.583
DNTT	DSN Tool Temperature		32.64	NO	
DSNS	DSN Tool Status		32.54	NO	
ERND	Near Detector Telemetry Counts EVR		32.64	BLK	0.000
ERFD	Far Detector Telemetry Counts EVR		33.39	BLK	0.000
ENTM	DSN Tool Temperature EVR		32.64	NO	
SDLT					
TPUL	Tension Pull		22.64	NO	
NAB	Near Above		22.46	BLK	0.920
NHI	Near Cesium High		22.46	BLK	0.920
NLO	Near Cesium Low		22.46	BLK	0.920
NVA	Near Valley		22.46	BLK	0.920
NBA	Near Barite		22.46	BLK	0.920

NDE	Near Density	22.46	BLK	0.920
NPK	Near Peak	22.46	BLK	0.920
NLI	Near Lithology	22.46	BLK	0.920
NBAU	Near Barite Unfiltered	22.46	BLK	0.250
NLIU	Near Lithology Unfiltered	22.46	BLK	0.250
FAB	Far Above	22.81	BLK	0.250
FHI	Far Cesium High	22.81	BLK	0.250
FLO	Far Cesium Low	22.81	BLK	0.250
FVA	Far Valley	22.81	BLK	0.250
FBA	Far Barite	22.81	BLK	0.250
FDE	Far Density	22.81	BLK	0.250
FPK	Far Peak	22.81	BLK	0.250
FLI	Far Lithology	22.81	BLK	0.250
PTMP	Pad Temperature	22.65	BLK	0.920
NHV	Near Detector High Voltage	19.83	NO	
FHV	Far Detector High Voltage	19.83	NO	
ITMP	Instrument Temperature	19.83	NO	
DDHV	Detector High Voltage	19.83	NO	
TPUL	Tension Pull	22.65	NO	
PCAL	Pad Caliper	22.65	TRI	0.250
ACAL	Arm Caliper	22.65	TRI	0.250
TPUL	Tension Pull	22.83	NO	
MINV	Microlog Lateral	22.83	BLK	0.750
MNOR	Microlog Normal	22.83	BLK	0.750

ACRt

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
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	
Data: STANMICHEL_6_16\0001 SP-GTET-DSN-SDL-ACRT-CH\IDLE		Date : 09-Apr-11 22:01:40		

HALLIBURTON

PARAMETERS REPORT

Depth (ft)	Tool Name	Mnemonic	Description	Value	Units
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TOP					
3200.00	SHARED	UBS	Use Bit Size instead of Caliper for all applications.	Yes	
	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	9.000	ppg
	SHARED	WAGT	Weighting Agent	Natural	
	SHARED	BSAL	Borehole salinity	4000.00	ppm
	SHARED	FSAL	Formation Salinity NaCl	0.00	ppm
	SHARED	KPCT	Percent K in Mud by Weight?	0.00	%
	SHARED	RMUD	Mud Resistivity	0.580	ohm m
	SHARED	TRM	Temperature of Mud	87.0	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	4784.00	ft
	SHARED	BHT	Bottom Hole Temperature	122.0	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	
	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	Centered	
	DSNT	DNOK	Process DSN?	Yes	
	DSNT	DEOK	Process DSN EVR?	No	
	DSNT	NLIT	Neutron Lithology	Limestone	
	DSNT	DNSO	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	DNOK	Process Density?	Yes	
	SDLT	DNOK	Process Density EVR?	No	
	SDLT	CB	Logging Calibration Blocks?	No	
	SDLT	SPVT	SDLT Pad Temperature Valid?	Yes	
	SDLT	DTWN	Disable temperature warning	No	
	SDLT	DMA	Formation Density Matrix	2.710	g/cc
	SDLT	DFL	Formation Density Fluid	1.000	g/cc

	SDLT	CLOK	Process Caliper Outputs?	Yes	
	SDLT	MLOK	Process MicroLog Outputs?	Yes	
	ACRt	RTOK	Process ACRt?	Yes	
	ACRt	MNSO	Minimum Tool Standoff	1.50	in
	ACRt	TCS1	Temperature Correction Source	FP Lwr & FP Up	
	ACRt	TPOS	Tool Position	Free Hanging	
	ACRt	RMOP	Rmud Source	Mud Cell	
	ACRt	RMIN	Minimum Resistivity for MAP	0.20	ohm m
	ACRt	RMIN	Maximum Resistivity for MAP	200.00	ohm m
	ACRt	THQY	Threshold Quality	0.50	
BOTTOM_____					
Data: STANMICHEL_6_16\0001 SP-GTET-DSN-SDL-ACRT-CH\IDLE				Date: 09-Apr-11 23:31:32	

COMPANY	VAL ENERGY INC.				
WELL	STAN MICHEL 6-16				
FIELD	UNKNOWN				
COUNTY	BARBER	STATE	KANSAS		
HALLIBURTON			MICROLOG		