

Tucker
ENERGY SERVICES

MICRO LOG

Company AZTEC OIL CO.
Well COOPER D #4
Field
County BUTLER
State KANSAS
Country USA
API No. 15-015-23950-0000

File No : TUL-57363
Company : AZTEC OIL CO.
Well : COOPER D #4
Field :
County : BUTLER
State : KANSAS
Country : USA
API No : 15-015-23950-0000

Location :
2250' FNL & 820' FEL
SW SE NE

LSD : Sect : 31 Twp : 28S Rge : 8E

Permanent Datum: GL Elevations: KB 1623.00 Ft GRT XYT CST
Drilling Measured From: KB DF 1622.00 CNT MLT
Log Measured From: KB GL 1613.00 PIT
Above Permanent Datum: 10.00 Ft

Date	2012-08-09		
Run Number	1		
Depth--Driller	3300.0	Ft	
Depth--Logger	3296.0	Ft	
First Reading	3259.0	Ft	
Last Reading	2000.0	Ft	
Casing--Driller	224.0	Ft	
Casing--Logger	224.0	Ft	
Bit Size	7.875	In	
Casing Size	8.625	In	
Hole Fluid Type	GEL		
Density	9.5	LBS/GAL	
Fluid Loss	9.0	CC	
PH/Viscosity	9.0	50.0 SEC	
Sample Source	MEASURED		
RM@Measured Temp.	4.000 @ 79 F		
RMF@Measured Temp	3.000 @ 79 F		
RMC@Measured Temp.	5.000 @ 79 F		
Source RMF/RMC	CALCULATED/CALCULATED		
RM@BHT	2.960 @ 109 F		
Time Circulation Stopped	2012-08-09 06:00		
Max Recorded Temp.	109 F		
Equipment/Base	TRUCK 119 TULSA		
Recorded By	R. FRANKLIN / C. PAYNE		
Witnessed By	M. CROSS / B. STOUT		

The customer is hereby warned that by providing the log data herein, T. E. S. does not agree to provide any interpretation of log data, conversion of log data to physical rock parameters or recommendations. T. E. S. does not guarantee or warrant either expressly or impliedly, the accuracy of any interpretation of log data, conversion of log data to physical rock parameters or recommendations which may be given by T. E. S. personnel. Any interpretation, conversion or recommendation is not part of the consideration for the agreement between the parties and is not part of any part of the charge by T. E. S. for its services. Any user of the log data is warned that said user is not entitled to rely on interpretations, conversions or recommendations as aforesaid.

Bitsize Intervals		Casing Strings		
Size (In)	Bottom (Ft)	Size (In)	Weight (Lbs)	Bottom (Ft)
7.875	3300.00	8.625	24.00	224.00

Run Number	1	
Date	2012-08-09	
Date/Time On Bottom	2012-08-09 10:00	
Depth to Fluid	0.0 Ft	
Salinity	800.000 PPM	
RMF@BHT	2.220 @ 109 F	
RMC@BHT	3.700 @ 109 F	

Run Number 1

Comments

ALL PRESENTATIONS AS PER CUSTOMER REQUEST
 GRT, CNT, LDT, MLT, CST AND PIT RUN IN COMBINATION.
 CALIPERS ORIENTED ON X-Y AXIS.
 2.71 G/CC USED TO CALCULATED POROSITY.
 ANNULAR HOLE VOLUME CALCULATED UISING 5.500" PRODUCTION CASING.

SP SPIKE AT 2000' DUE TO SPLICE.

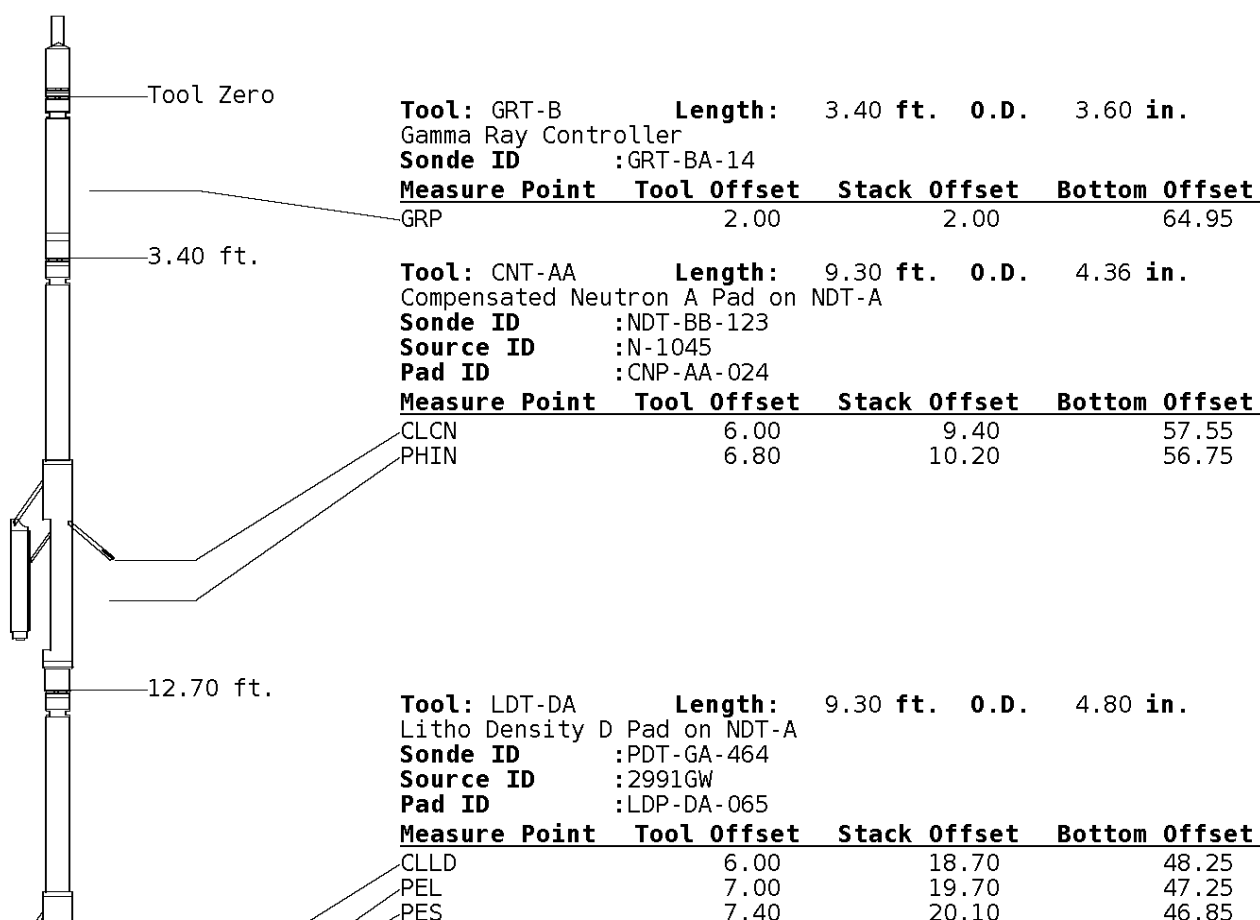
GRT: GRP.
 CNT: PHIN, CLCNIN
 LDT: PORL, LCORN, PECLN, LDENN, PORLLS, CLLDIN.
 MLT: NOR_R, INV_R, MSCLPIN.
 CST: PORS, DDCDTE, TT1PF, TT3PF, ITT.
 PIT: ILD, ILM, SPU, SFLAEC

OPERATORS:

J. THOMAS
 D. HOPPER

Tool String Schematic

Total Tool Length - 66.95 ft.
Maximum Outside diameter - 6.00 in.
Net Weight in Air - 1171.00 lbs.



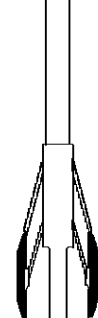


7.20 19.90 47.05
7.20 19.90 47.05

22.00 ft.

Tool: MST-DA **Length:** 9.66 ft. **O.D.** 6.00 in.
Micro Spherically Focused (IC)
Sonde ID :MST-DA-36

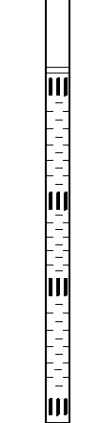
Measure Point	Tool Offset	Stack Offset	Bottom Offset
MSFL	7.60	29.60	37.35
MSCLP	7.60	29.60	37.35
INV	7.60	29.60	37.35
NOR	7.60	29.60	37.35



31.66 ft.

Tool: CST-AD **Length:** 13.80 ft. **O.D.** 3.60 in.
Open Hole Sonic
Sonde ID :CST-AD-078

Measure Point	Tool Offset	Stack Offset	Bottom Offset
TT1	4.80	36.46	30.49
TT3	5.80	37.46	29.49
CDT	7.30	38.96	27.99
TT4	8.80	40.46	26.49
TT2	9.80	41.46	25.49



45.46 ft.

Tool: PIT-CA **Length:** 21.49 ft. **O.D.** 3.62 in.
Phased Dual Induction w/ RM & D
Sonde ID :PIT-AC-022

Measure Point	Tool Offset	Stack Offset	Bottom Offset
ILD	8.92	54.38	12.56
ILM	10.10	55.56	11.39
SFLU	17.49	62.95	4.00
SP	20.60	66.06	0.88



LWT 66.95 ft.

Well File: AZTEC_COOPER-D-4_AUG9_QUINT

Segment: V1.D1.S19 MAIN

Reference: 0

Scale: 1:240

Acquired: Not Available

Processed: Not Available

TENSION
LBS

10000

0

BIT SIZE
INCHES (IN)

6

16

GAMMA RAY
API UNITS

150
0

300
150

CALIPER MICRO
INCHES (IN)

16
6

26
16

MICRO-INVERSE
OHMM

0

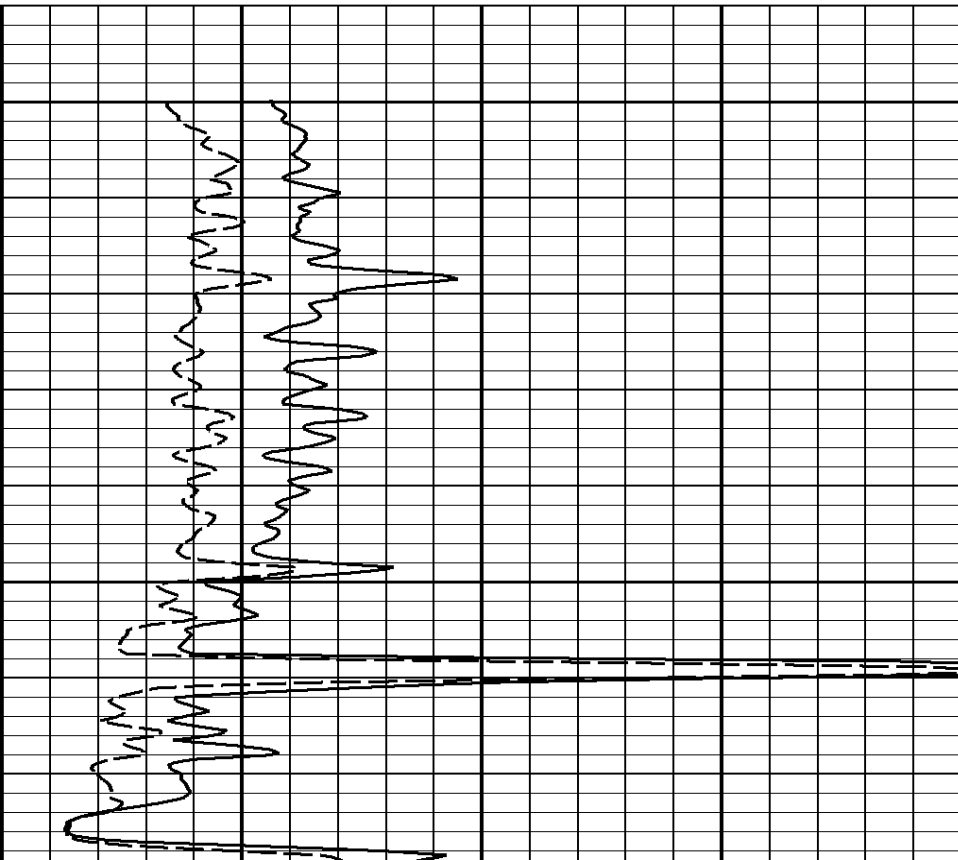
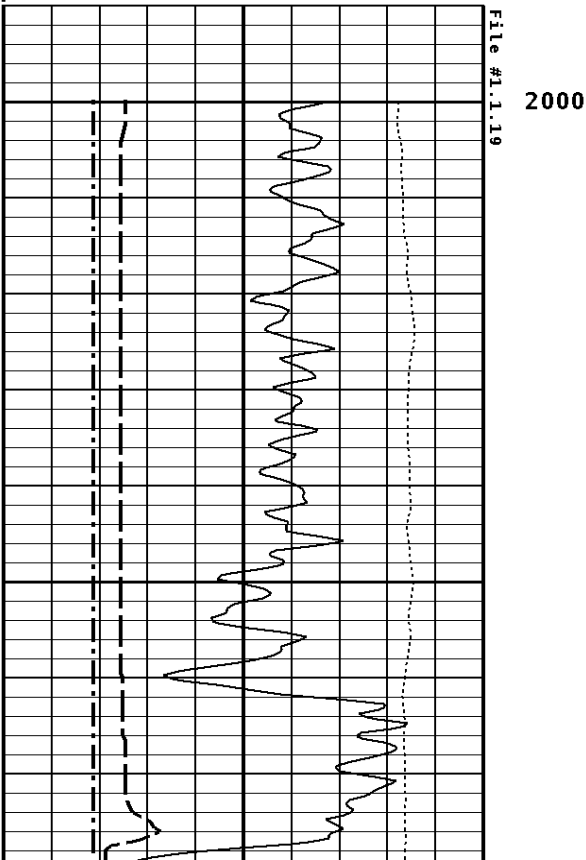
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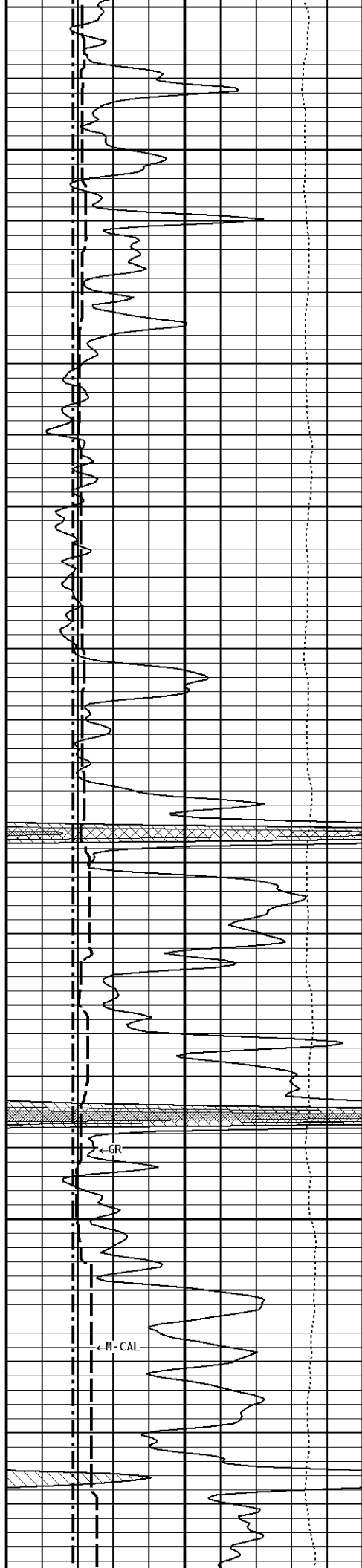
MICRO-NORMAL
OHMM

0

40

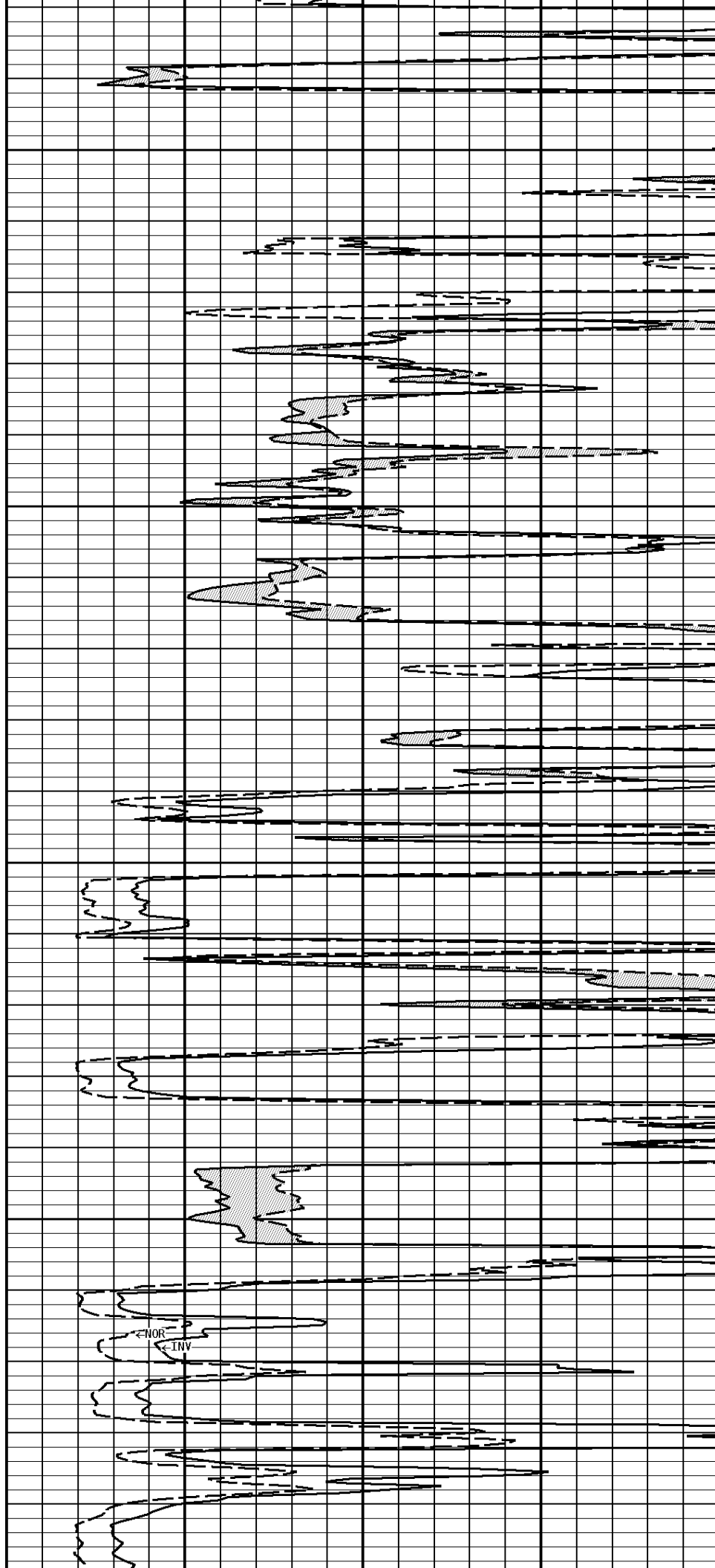
1:240 MAIN SECTION



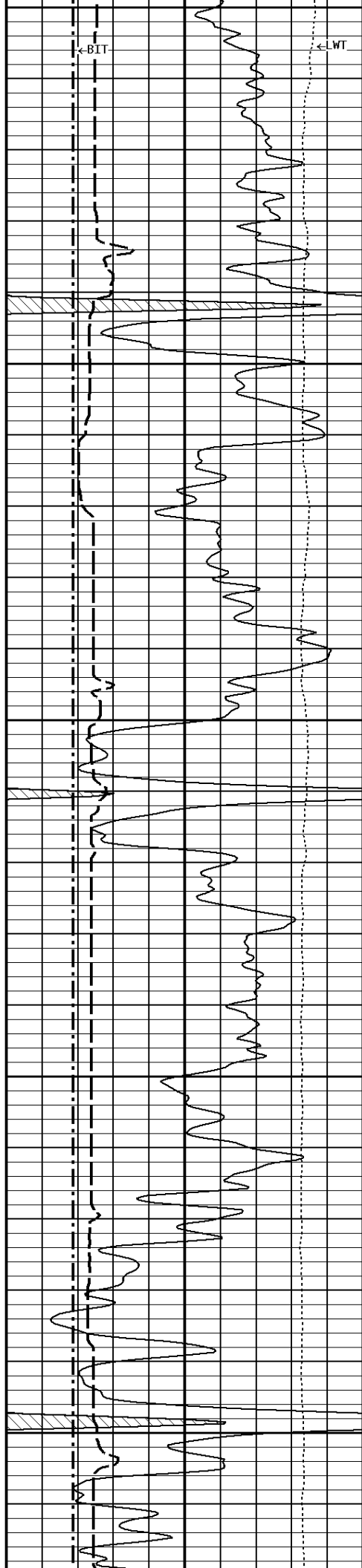


2100

2200

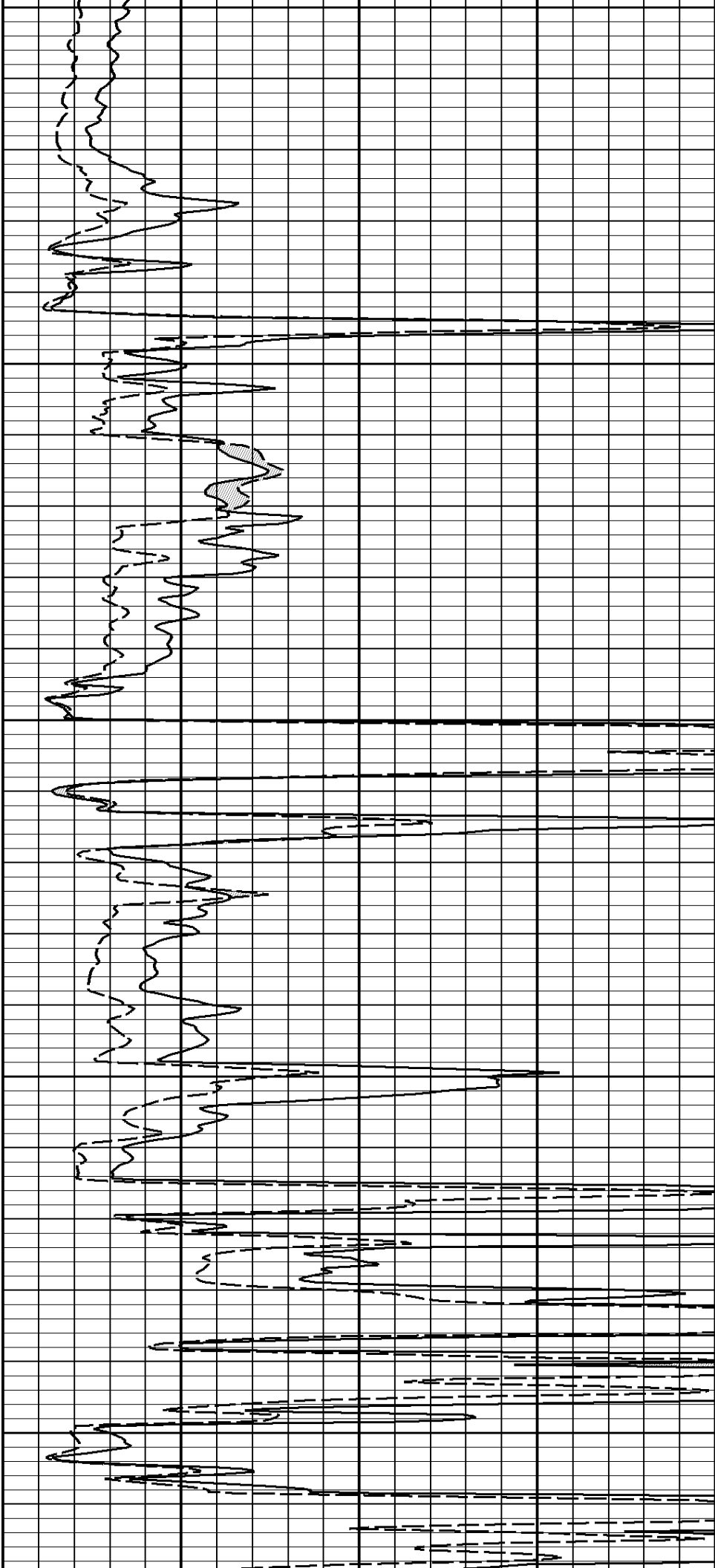


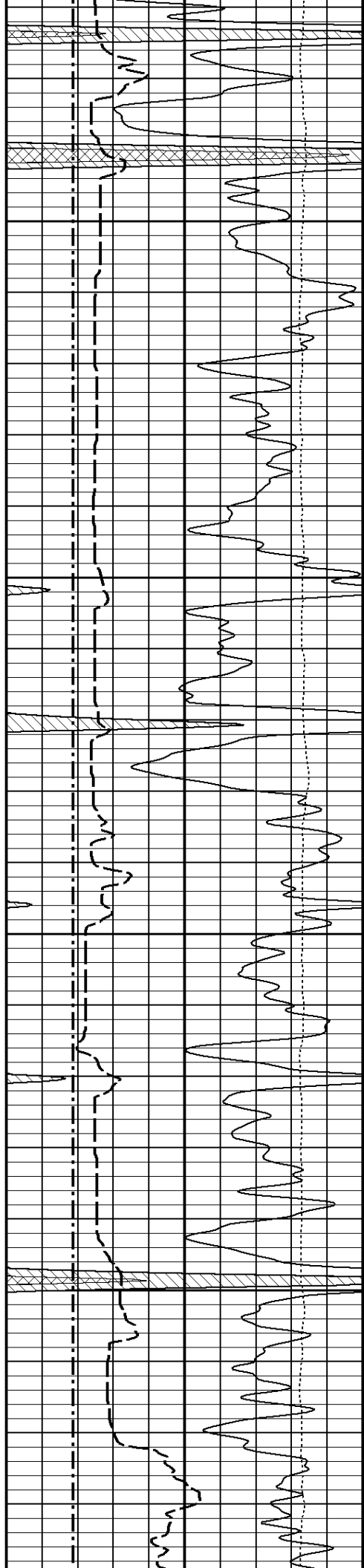
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2400

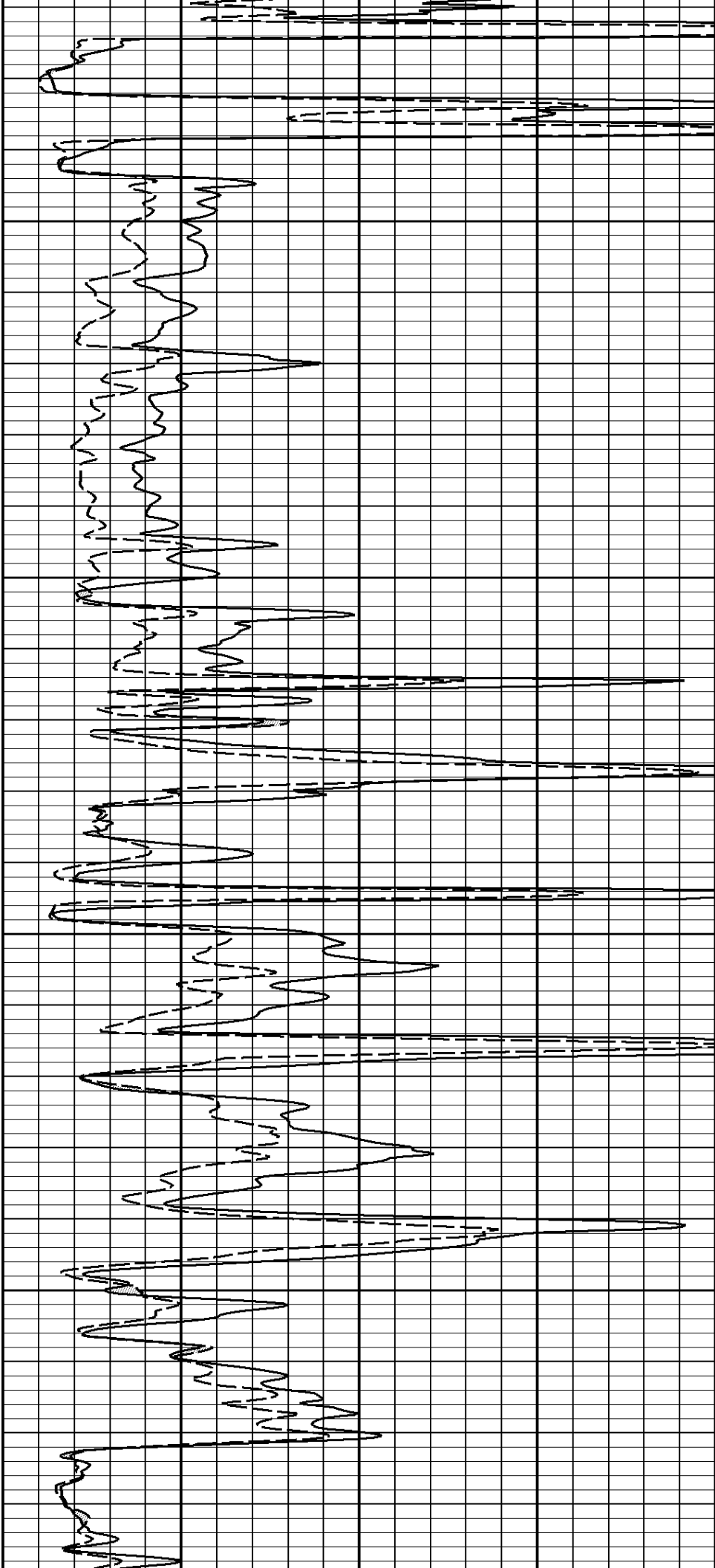
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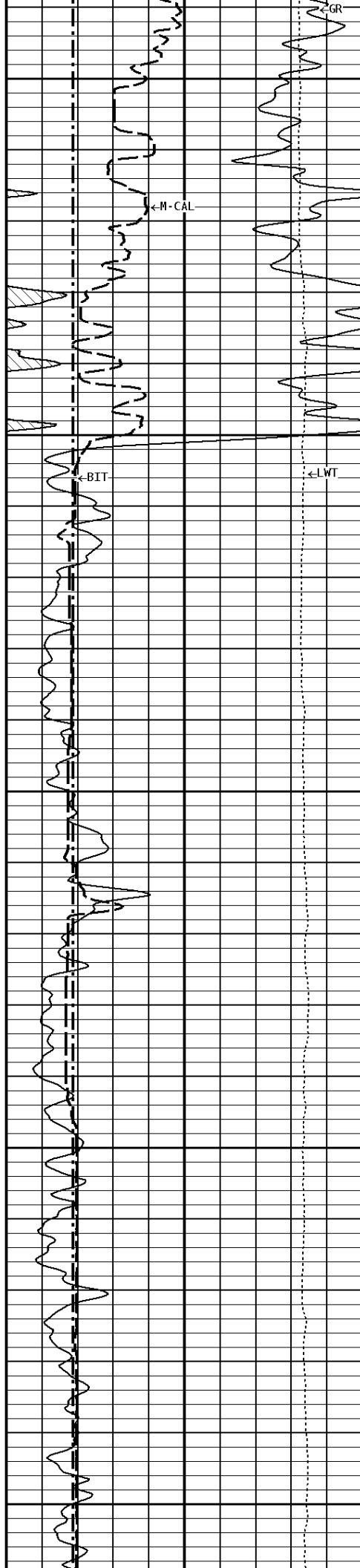




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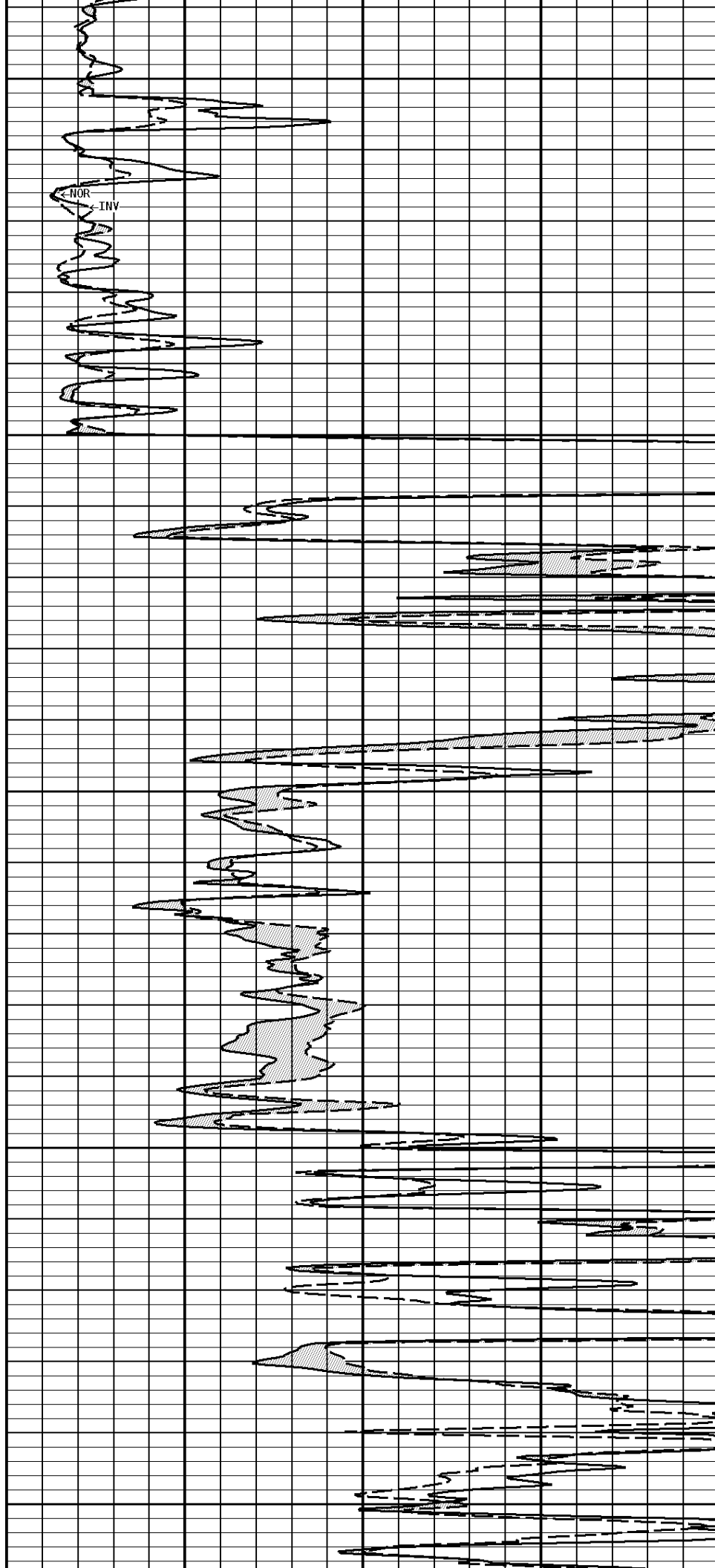
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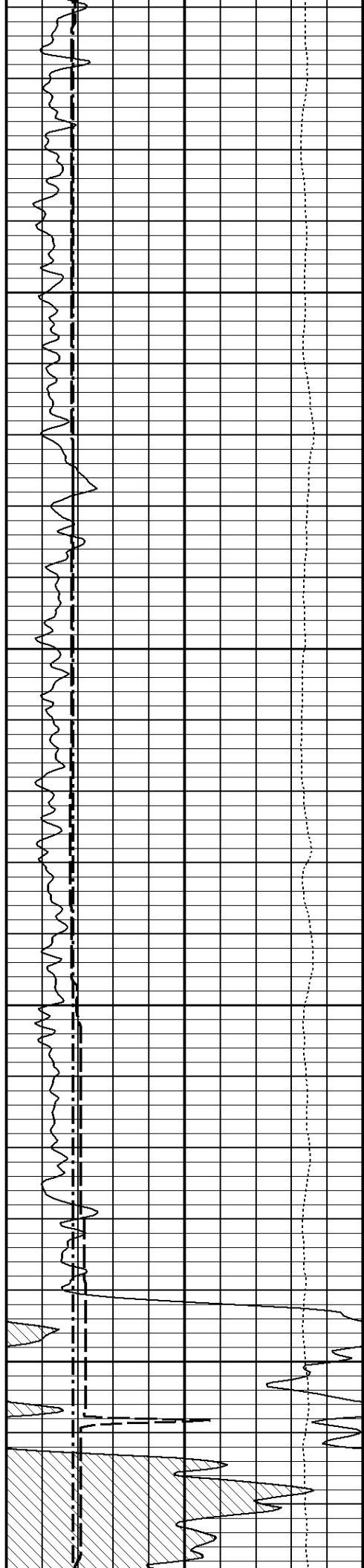




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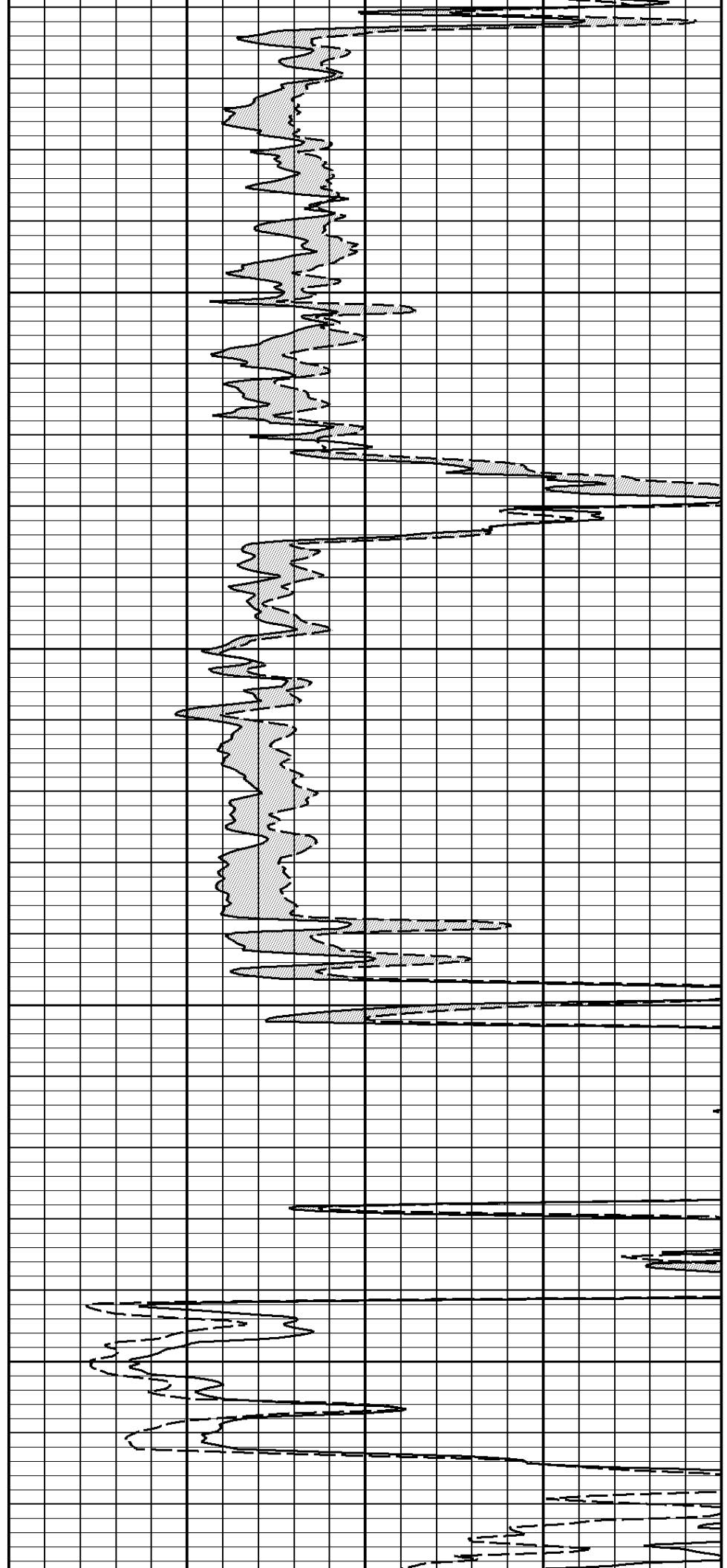
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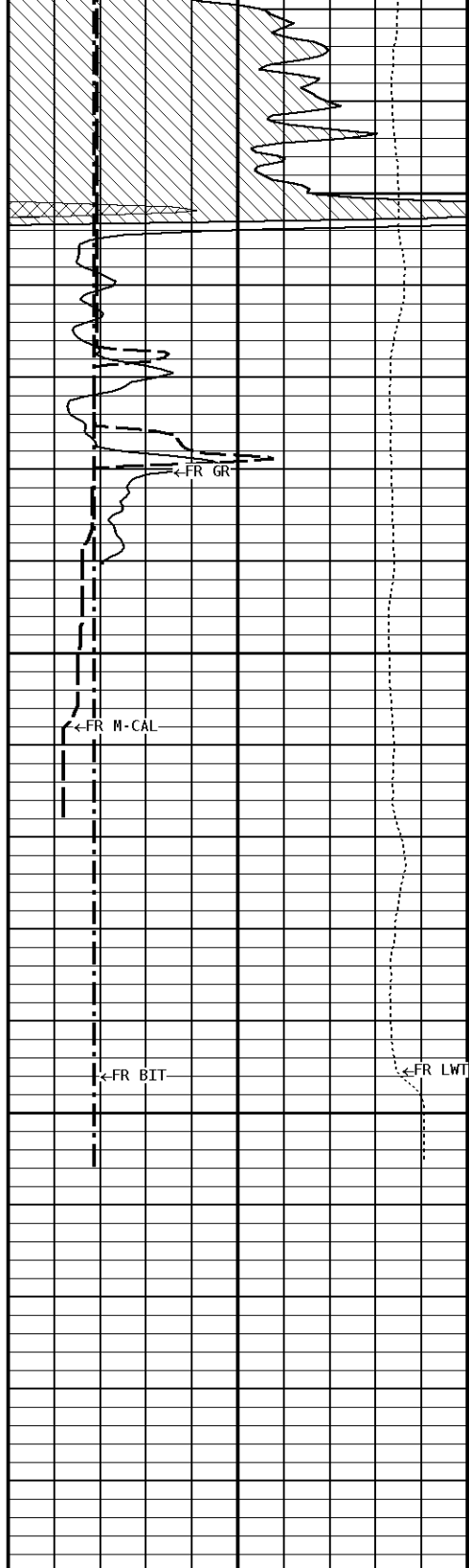




3000

3100

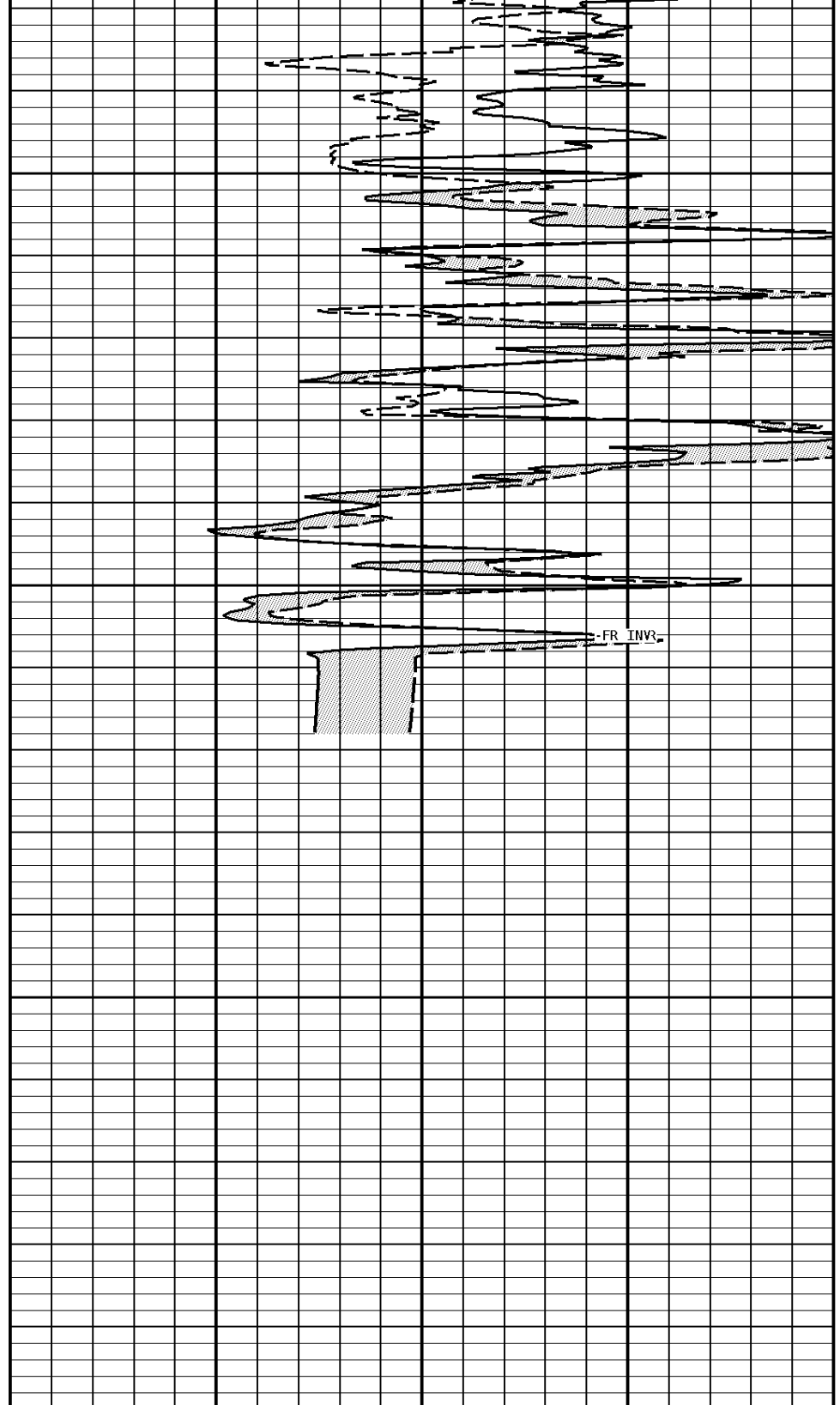




3200

3296
3300

File #1.1.19



1:240 MAIN SECTION

CALIPER MICRO
INCHES (IN)

16 26
6 16

GAMMA RAY
API UNITS

150 300
0 150

MICRO-NORMAL
OHMM

0 40

MICRO-INVERSE
OHMM

0 40

BIT SIZE INCHES (IN)	
6	16
TENSION LBS	
10000	0

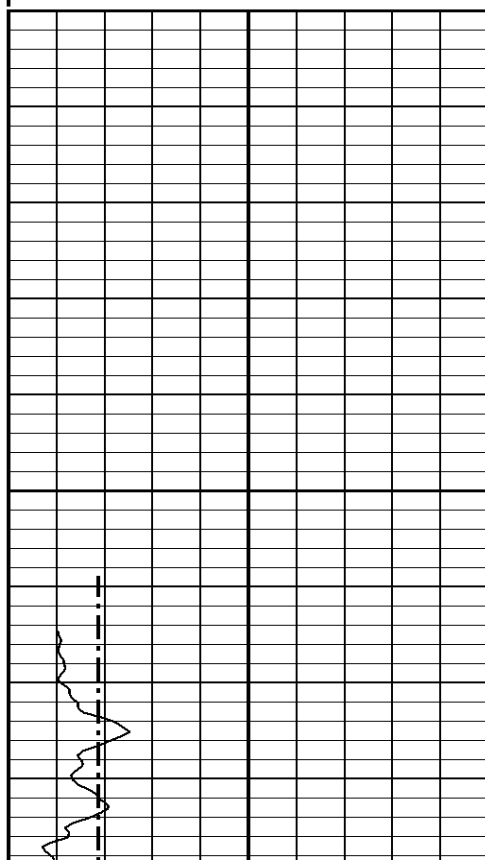
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Well File: AZTEC COOPER-D-4 AUG9 QUINT Segment: V1.D1.S20 REPEAT Reference: 0	Scale: 1:240 Acquired: 2012-08/09 11:44 3.2.0-11172 Processed: 2012-08/09 14:22 3.2.0-11172
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TENSION LBS	
10000	0
BIT SIZE INCHES (IN)	
6	16
GAMMA RAY API UNITS	
150	300
0	150
CALIPER MICRO INCHES (IN)	
16	26
6	16

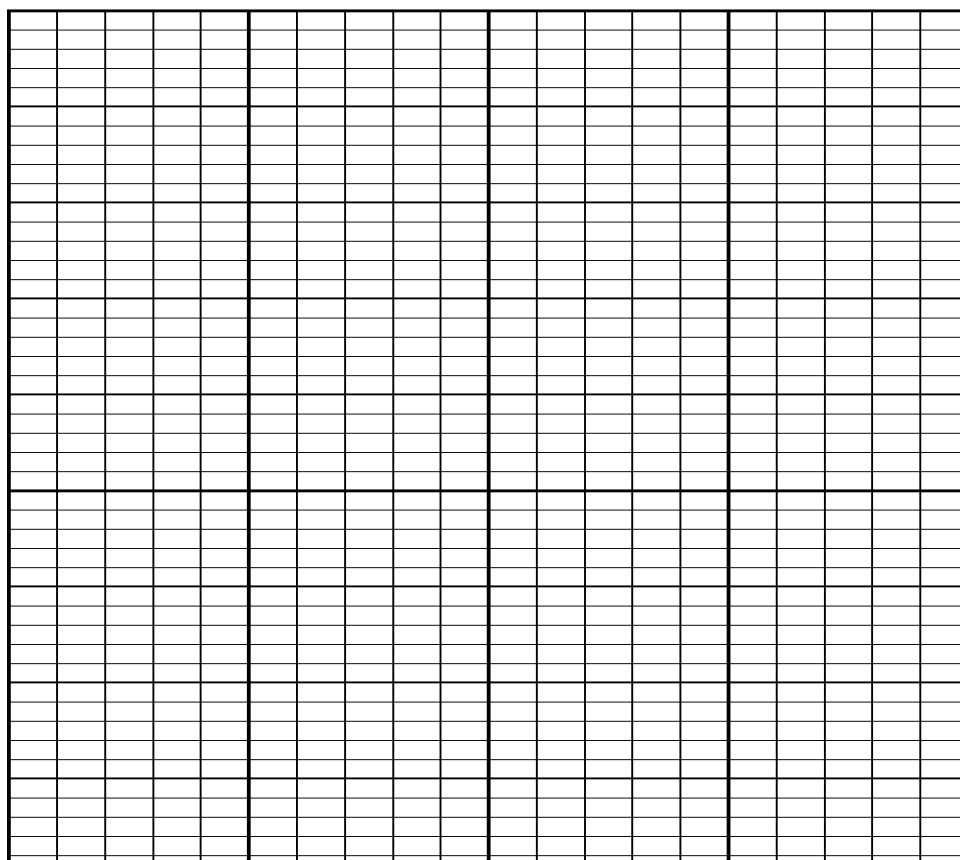
MICRO-INVERSE OHMM	
0	40
MICRO-NORMAL OHMM	
0	40

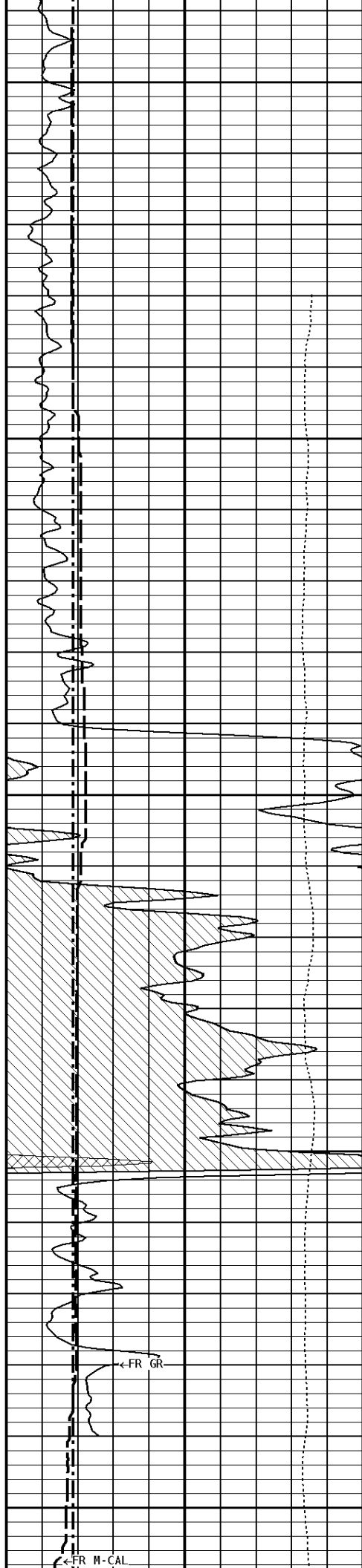
1:240 REPEAT SECTION



File #1.1.20

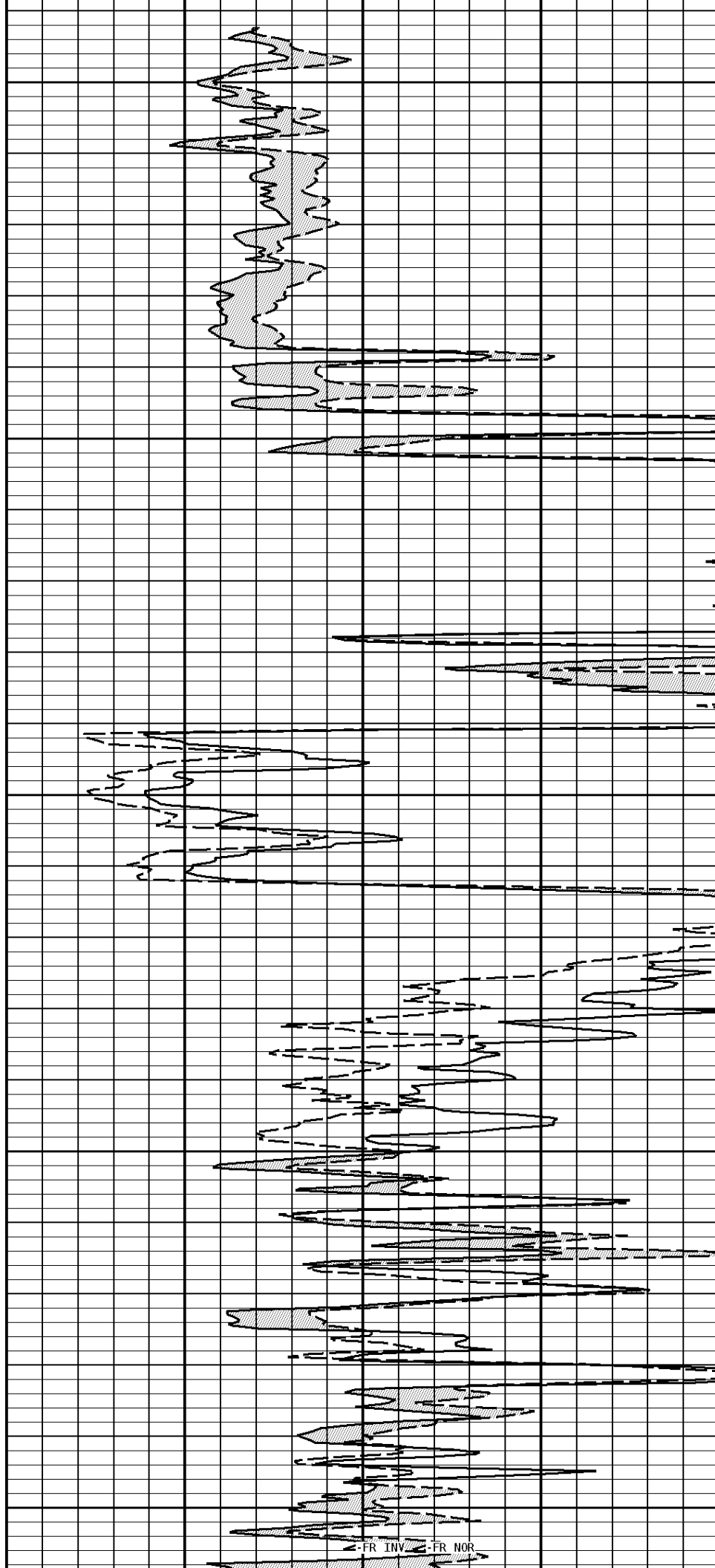
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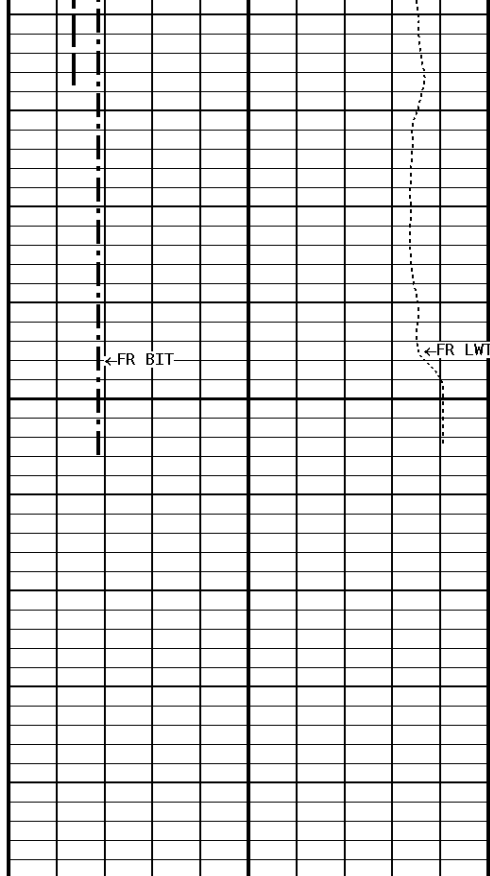




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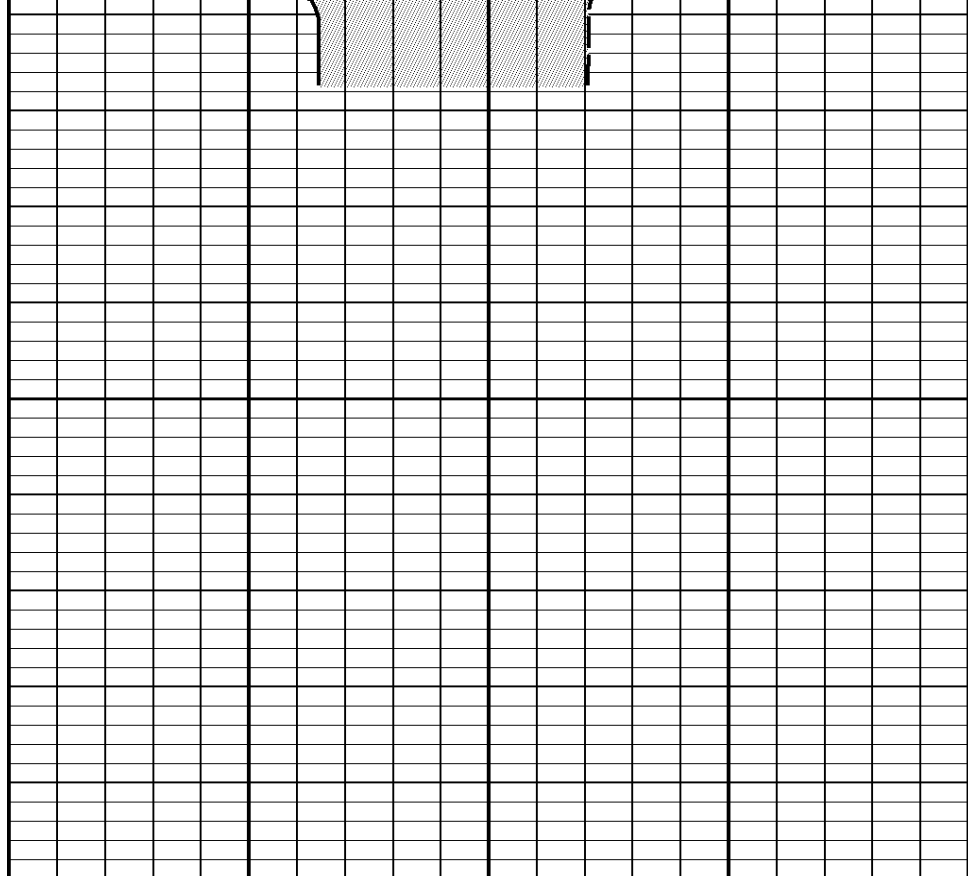
3200





3296
3300

File #1.1.20



1:240 REPEAT SECTION

CALIPER MICRO INCHES (IN)	
16 6	26 16
GAMMA RAY API UNITS	
150 0	300 150
BIT SIZE INCHES (IN)	
6	16
TENSION LBS	
10000	0

MICRO-NORMAL OHMM	
0	40
MICRO-INVERSE OHMM	
0	40

*** Calibration Summary ***

Shop Calibration GRT-B					
Performed : 16-MAY-2011			Time : 09:49		
Sensor Suite : GR-GR5			ID : GRT-BA-14		
	Measured	Units	Calibrated	Units	
GR	Background	Jig	Jig	GR-API	
	50	361	175		
		CPS			
Shop Calibration MST-DA					
Performed : 01-Aug-2012			Time : 10:58		
Sensor Suite : CALI-MSN			ID : MST-DA-36		

CL # 1	Jig - Measured		Units
	Ring#1	Ring#2	
	4.7	9.5	IN.
Performed : 19-APR-2012 Time : 09:18 Sensor Suite : MSTDA-NI ID : MST-DA-36			
Internal			
	Measured		Calibrated
	Zero	Reference	Units
INV-V	221.0	21282.7	0.00 1946.00 MV
NOR-V	164.0	21140.6	0.00 1546.00 MV
IN-C	157.3	21367.2	0.00 15.46 UA
INV-R			40.71 OHMM
NOR-R			55.11 OHMM
Performed : 09-APR-2012 Time : 14:53 Sensor Suite : MSTDAMSF ID : MST-DA-36			
Internal			
	Measured		Calibrated
	Zero	Reference	Units
MSFC	150.0	58600.0	0.00 1522.00 UA
MSFB	32800.0	62500.0	0.00 1522.00 MA
MOM1	150.0	5950.0	0.00 1522.00 MV
MSFRA			43.30 OHMM



Tucker
ENERGY SERVICES

Company: AZTEC OIL CO.
 Well: COOPER D #4
 Location: 2250' FNL & 820' FEL
 Logged: 2012-08-09
 K.B. Elev: 1623.0