Tucker ENERGY SERVICES

MICRO LOG

Company MG OIL INC.
Well POPP #4
Field NUSS SOUTH
County BARTON
State KANSAS
Country USA
API No. 15-00925785

File No : TUL-57644
Company : MG OIL INC.
Well : POPP #4
Field : NUSS SOUTH
County : BARTON
State : KANSAS
Country : USA
API No : 15-00925785

Location :
2285' FNL & 1870' FWL
NE SW SE NW

LSD : **Sect :** 15 **Twp :** 16S **Rge :** 14W

Permanent Datum:	GL	**Elevations:**		**Services:**	
Drilling Measured From:	KB	**KB** 1911.00	Ft	CNT	PIT
Log Measured From:	KB	**DF** 1910.00	Ft	LDT	
Above Permanent Datum:	7.00 Ft	**GL** 1904.00	Ft	MLT	

Date	2012-12-05			
Run Number	1			
Depth--Driller	3440.0 Ft			
Depth--Logger	3439.0 Ft			
First Reading	3416.0 Ft			
Last Reading	890.0 Ft			
Casing--Driller	890.0 Ft			
Casing--Logger	890.0 Ft			
Bit Size	7.875 In			
Casing Size	8.625 In			
Hole Fluid Type	WBM			
Density	9.3 LBS/GAL			
Fluid Loss	10.4 CC			
PH/Viscosity	8.5	58.0 SEC		
Sample Source	MEASURED			
RM@Measured Temp.	0.900 @ 70 F			
RMF@Measured Temp	0.770 @ 70 F			
RMC@Measured Temp.	1.040 @ 70 F			
Source RMF/RMC	CALCULATED	CALCULATED		
RM@BHT	0.630 @ 104 F			
Time Circulation Stopped				
Max Recorded Temp.	104 F			
Equipment/Base	TRK 119	TULSA		
Recorded By	S. DAVIS			
Witnessed By	C. COUNTS			

Bitsize Intervals

Size (In)	Bottom (Ft)
7.875	3439.00

Casing Strings

Size (In)	Weight (Lbs)	Bottom (Ft)
8.625	20.00	890.00

Run Number	1		
Date	2012-12-05		
Date/Time On Bottom	2012-12-05 19:45		
Depth to Fluid	0.0	Ft	
Salinity	5500.000	PPM	
RMF@BHT	0.530 @ 104	F	
RMC@BHT	0.720 @ 104	F	

Run Number 1

Comments

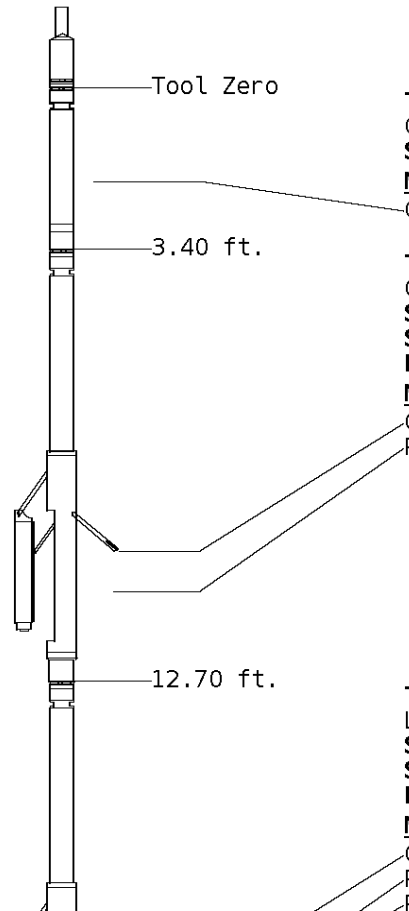
ALL PRESENTATIONS AS PER CUSTOMER REQUEST.
GRT, CNT, LDT, MLT, AND PIT RUN IN COMBINATION.
CALIPERS ORIENTED ON X-Y AXIS.
2.71 G/CC USED TO CALCULATED POROSITY.
ANNULAR HOLE VOLUME CALCULATED USING 5.50" PRODUCTION CASING.
DETAIL PRESENTED TO 2550'

GRT: GRP.
CNT: PHIN, CLCNIN.
LDT: PORL, LCORN, PECLN, LDENN, PORLLS, CLLDIN.
MLT: NOR_RF, INV_RF, MSCLPIN.
PIT: ILD, ILM, SPU, SFLAEC.

OPERATORS:
B. COLWILL
J. KLINE

Tool String Schematic

Total Tool Length - 53.57 **ft.**
Maximum Outside diameter - 6.00 **in.**
Net Weight in Air - 943.00 **lbs.**



Tool: GRT-B **Length:** 3.40 **ft.** **O.D.** 3.60 **in.**
Gamma Ray Controller
Sonde ID :GRT-BA-14

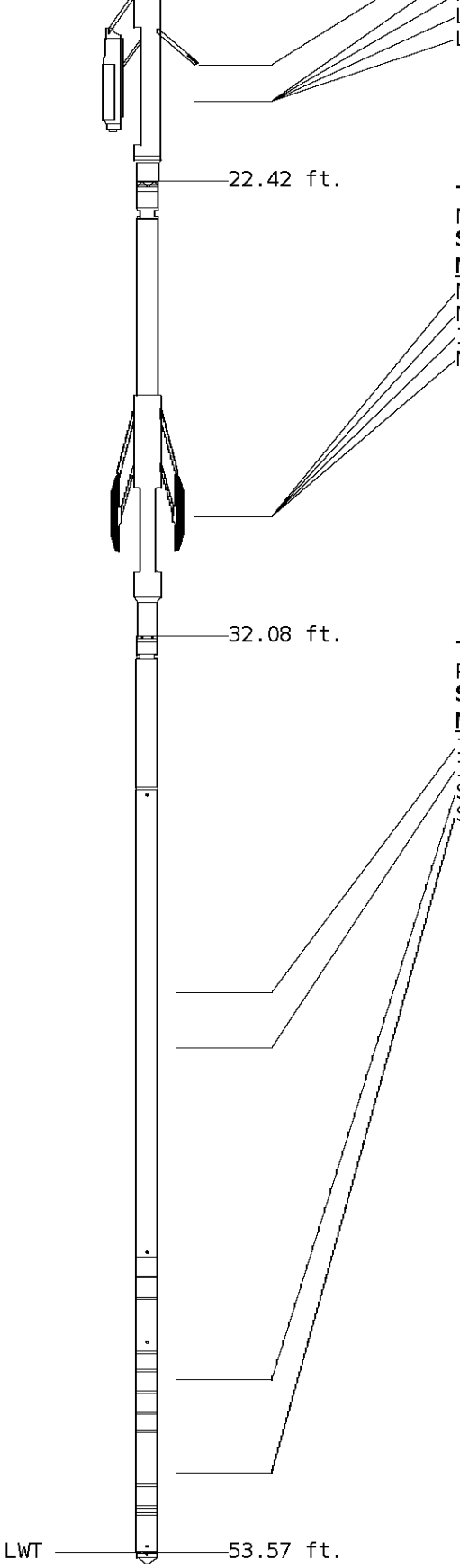
Measure Point	Tool Offset	Stack Offset	Bottom Offset
GRP	2.00	2.00	51.57

Tool: CNT-AA **Length:** 9.30 **ft.** **O.D.** 4.36 **in.**
Compensated Neutron A Pad on NDT-A
Sonde ID :NDT-BB-129
Source ID :N-1045
Pad ID :CNP-AA-112

Measure Point	Tool Offset	Stack Offset	Bottom Offset
CLCN	6.00	9.40	44.17
PHIN	6.80	10.20	43.37

Tool: LDT-DF **Length:** 9.72 **ft.** **O.D.** 4.80 **in.**
Litho Density D Pad on NDT-F
Sonde ID :PDT-GA-464
Source ID :2991GW
Pad ID :LDP-DA-065

Measure Point	Tool Offset	Stack Offset	Bottom Offset
CLLD	6.42	19.12	34.45
PEL	7.42	20.12	33.45
PES	7.82	20.52	33.05



LDEN	7.62	20.32	33.25
LCOR	7.62	20.32	33.25

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	30.02	23.55
MSCLP	7.60	30.02	23.55
INV	7.60	30.02	23.55
NOR	7.60	30.02	23.55

Tool: PIT-CA **Length:** 21.49 **ft.** **O.D.** 3.62 **in.**
Phased Dual Induction w/ RM & D
Sonde ID :PIT-AC-22

Measure Point	Tool Offset	Stack Offset	Bottom Offset
ILD	8.92	41.00	12.56
ILM	10.10	42.18	11.39
SFLU	17.49	49.57	4.00
SP	20.60	52.68	0.88

Well File: mg-oil-popp-4-mstk-dec-05 **Scale:** 1:240
Segment: V1.D1.S6 MN **Acquired:** 2012-12/05 19:58 3.2.0-11401
Reference: 0 **Processed:** 2012-12/05 21:01 3.2.0-11401

TENSION
LBS

10000 **0**

BIT SIZE
INCHES (IN)

6 16

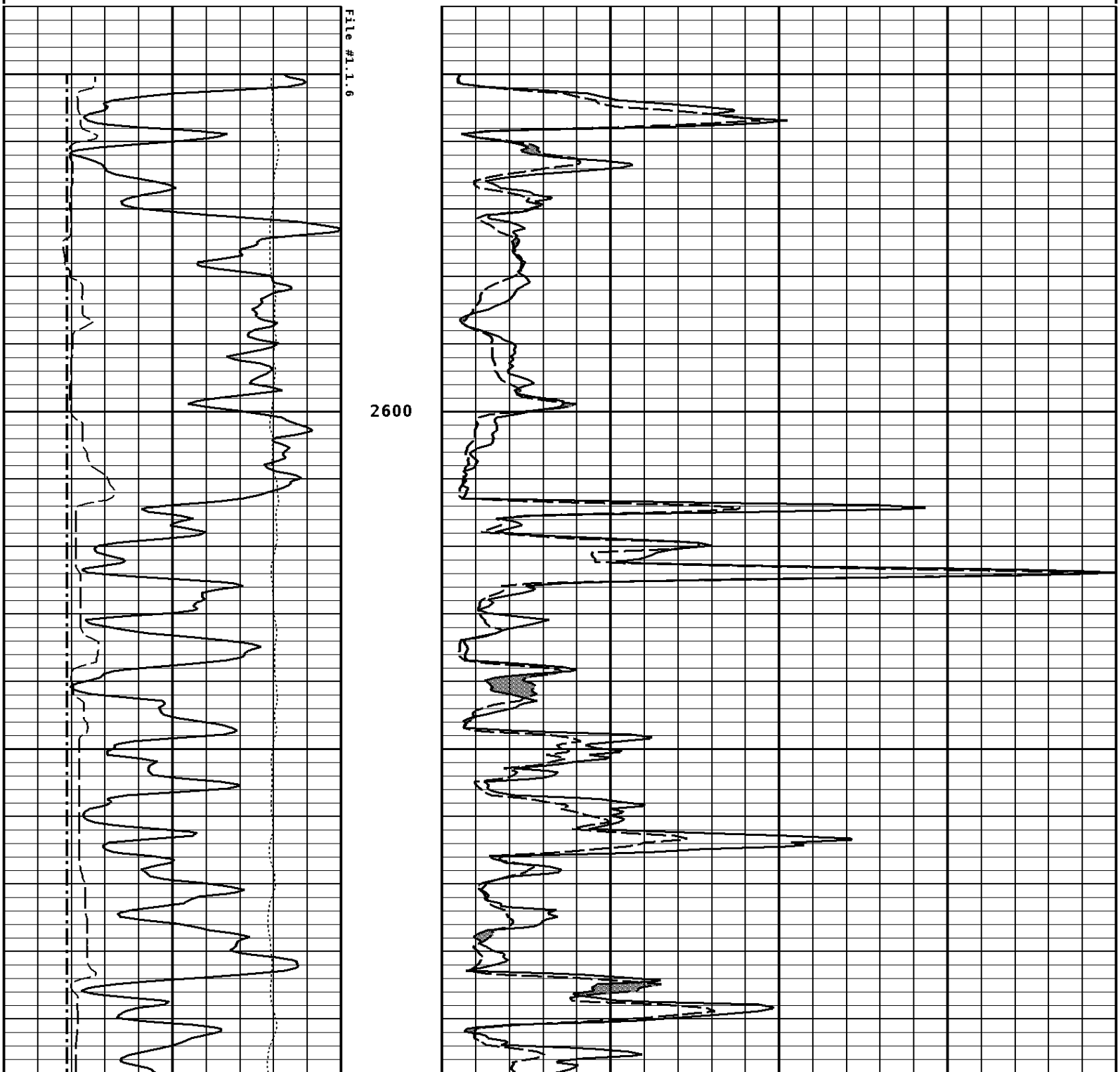
GAMMA RAY
API UNITS
150 300
0 150

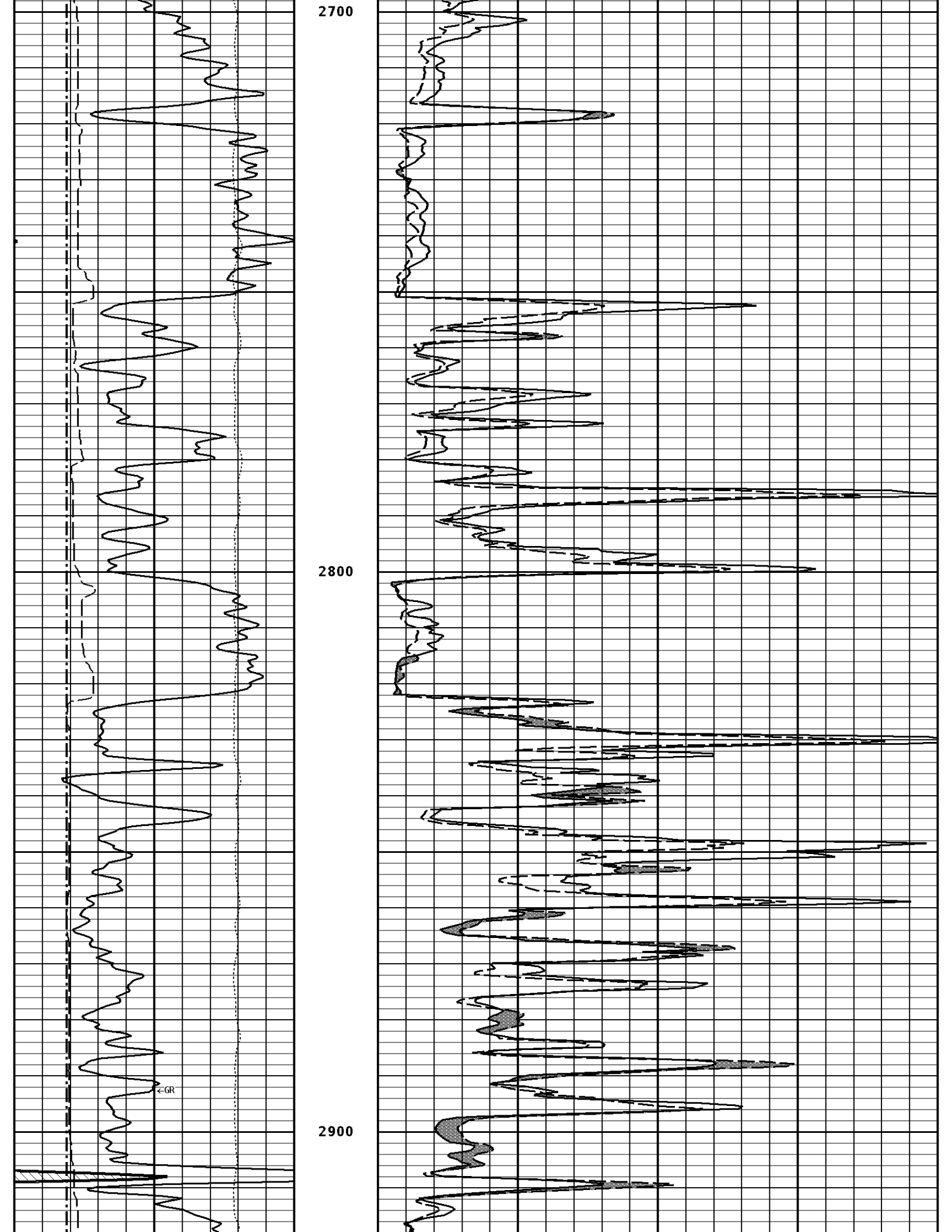
CALIPER MICRO
INCHES (IN)
16 26
6 16

MICRO-INVERSE
OHMM
0 40

MICRO-NORMAL
OHMM
0 40

1:240 MAIN SECTION

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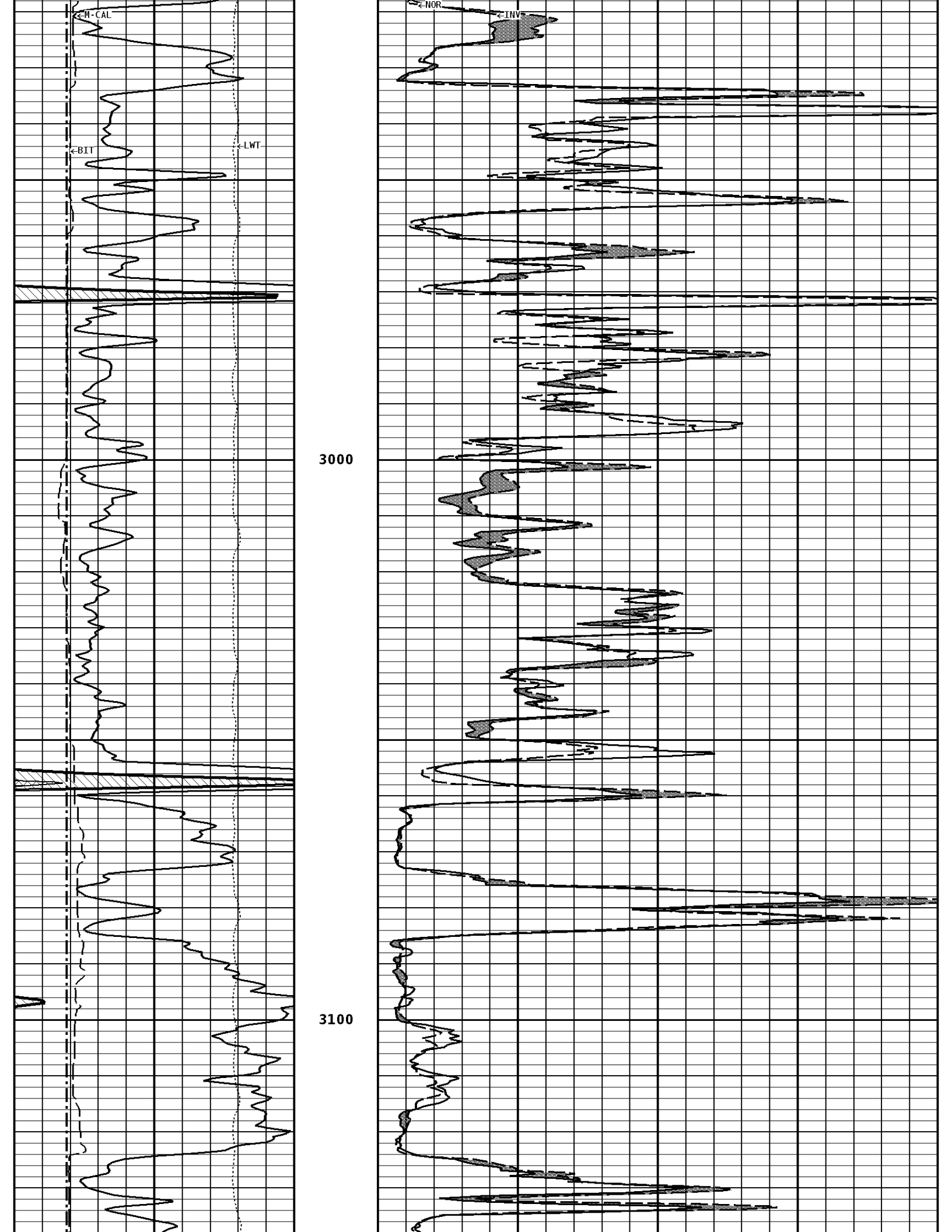
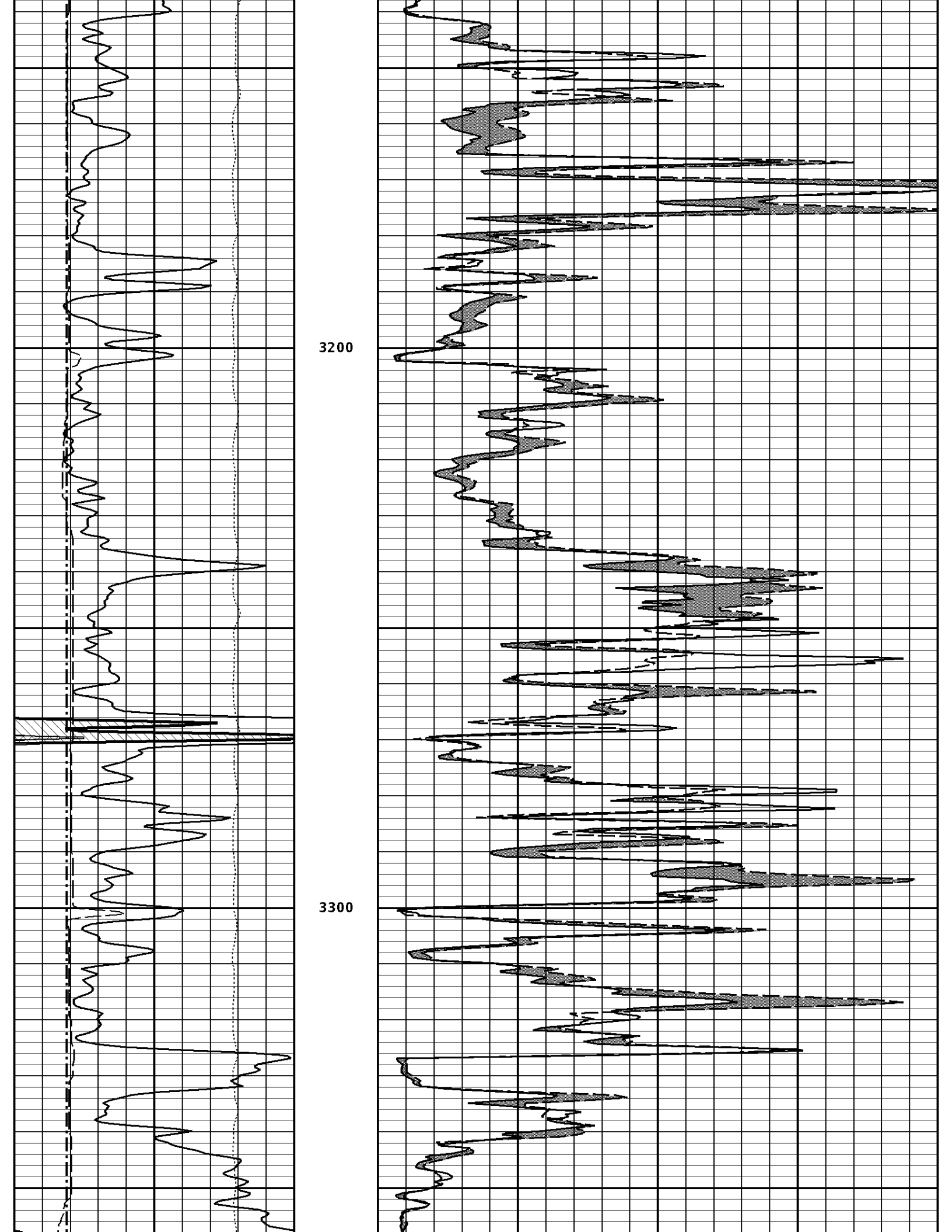
2800
2900
←GR


M-CAL
BIT
LWT
NOR
INV
3000
3100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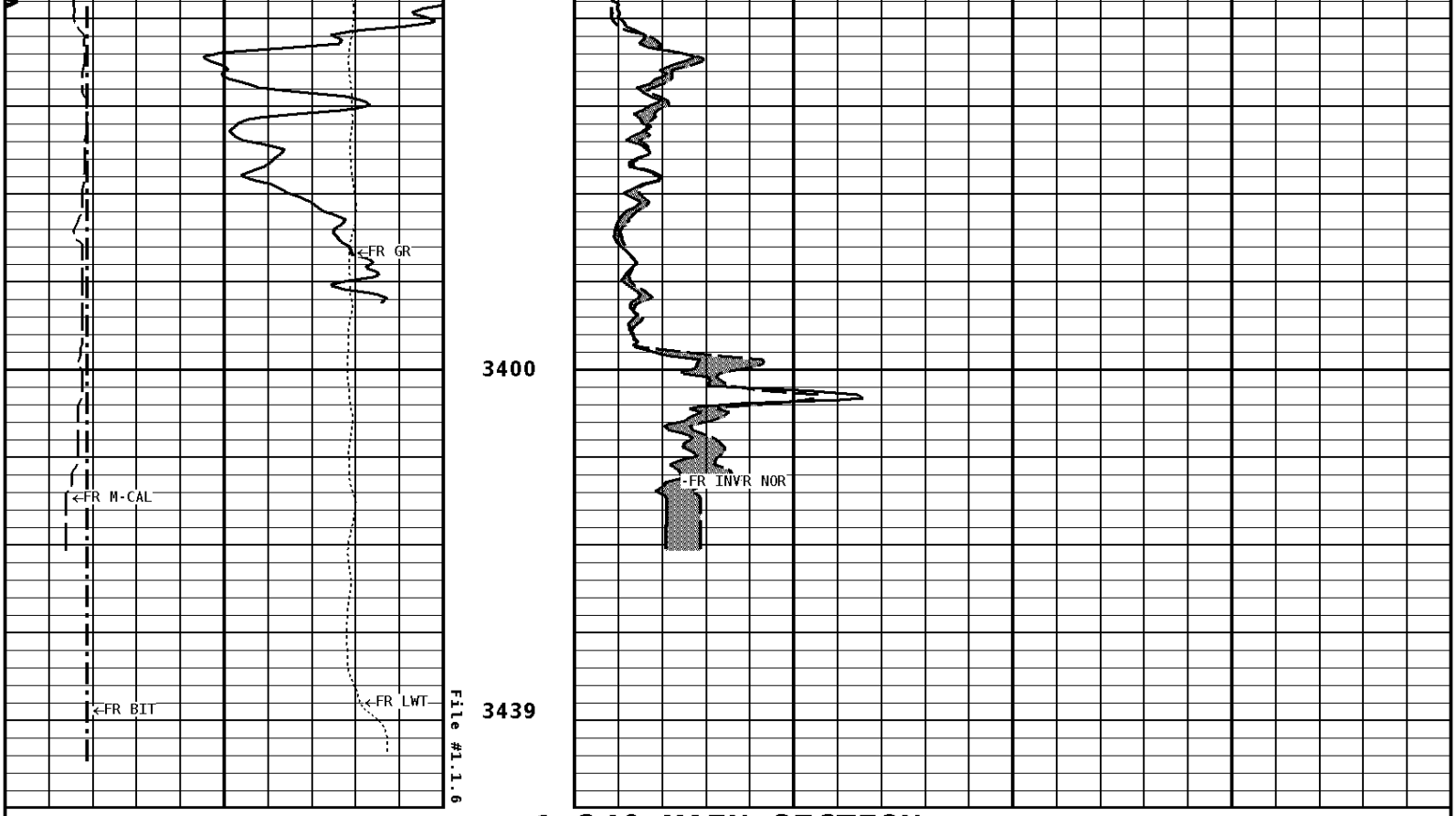


1:240 MAIN SECTION

CALIPER MICRO
INCHES (IN)
16 — 26
6 — 16

GAMMA RAY
API UNITS
150 — 300
0 — 150

BIT SIZE
INCHES (IN)
6 — 16

TENSION
LBS
10000 — 0

MICRO-NORMAL
OHMM
0 — 40

MICRO-INVERSE
OHMM
0 — 40

Well File:	mg-oil-popp-4-mstk-dec-05	**Scale:**	1:240
Segment:	V1.D1.S5 RP	**Acquired:**	2012-12/05 19:45 3.2.0-11401
Reference:	0	**Processed:**	2012-12/05 21:01 3.2.0-11401

TENSION
LBS
10000 — 0

BIT SIZE
INCHES (IN)
6 — 16

GAMMA RAY
API UNITS
150 300
0 150

MICRO-INVERSE
OHMM
0 40

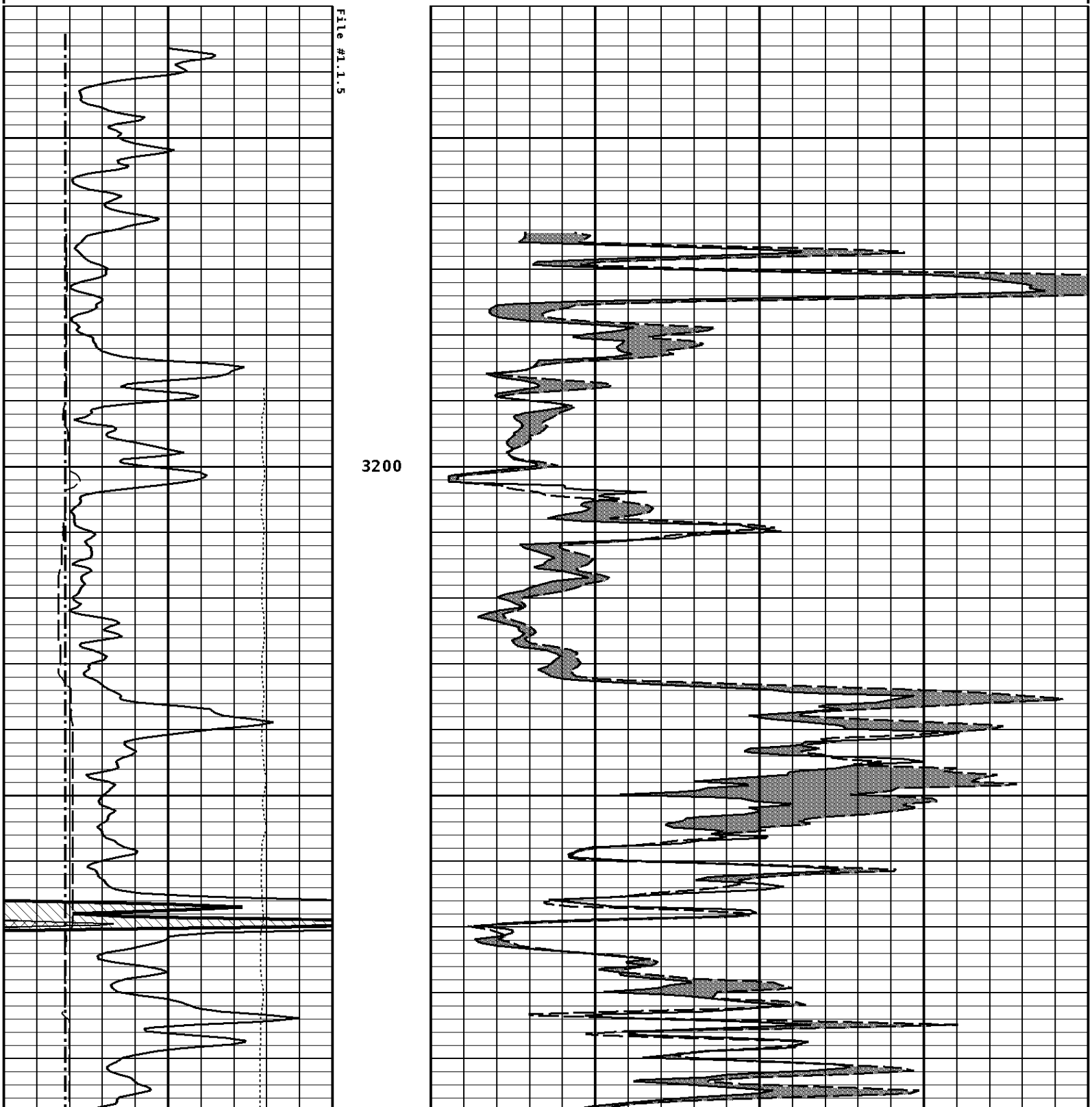
CALIPER MICRO
INCHES (IN)
16 26
6 16

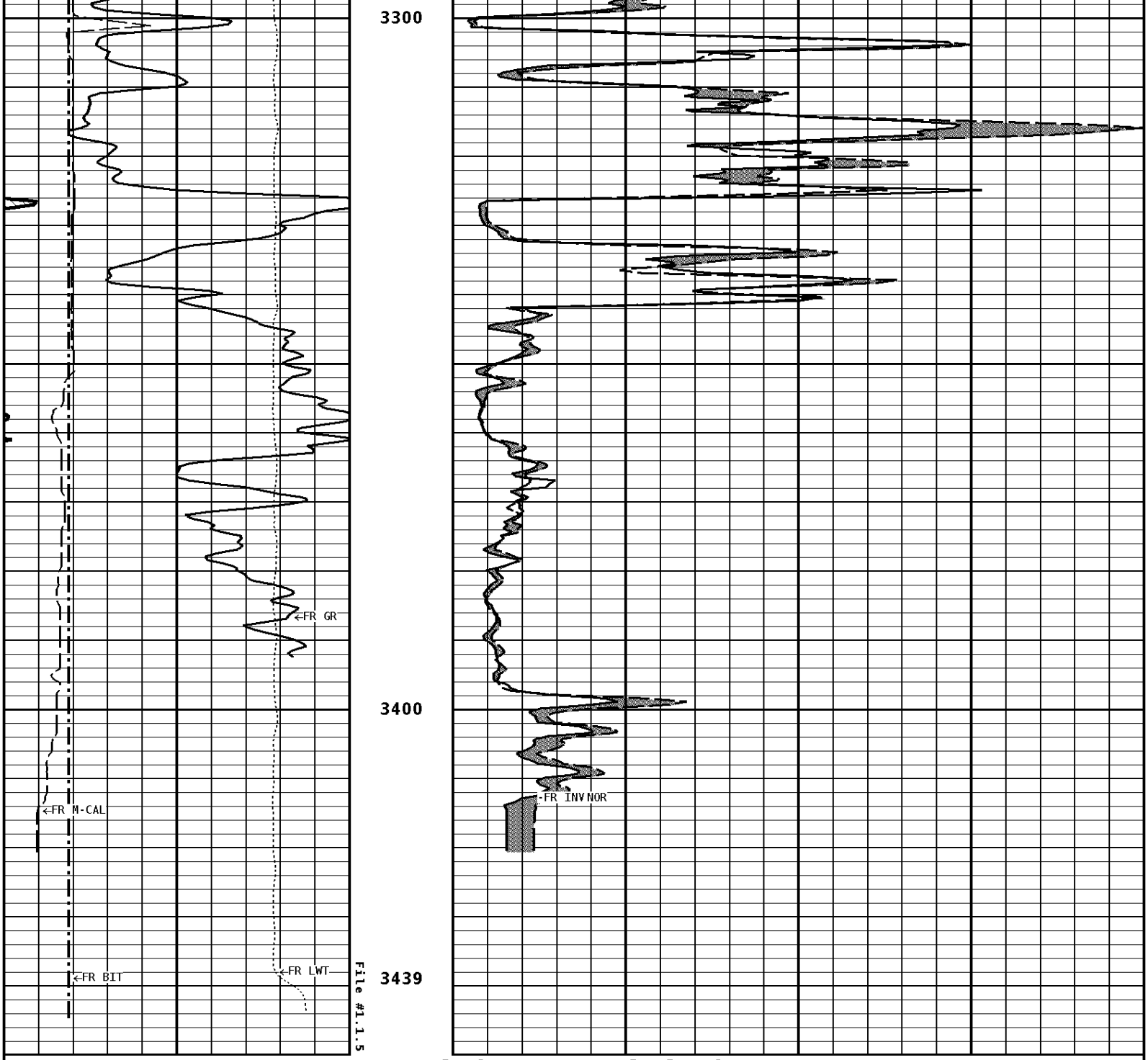
MICRO-NORMAL
OHMM
0 40

1:240 REPEAT SECTION

File #1.1.5

3200





1:240 REPEAT SECTION

CALIPER MICRO INCHES (IN)	MICRO-NORMAL OHMM
16 to 26 6 to 16	0 to 40
GAMMA RAY API UNITS	**MICRO-INVERSE OHMM**
150 to 300 0 to 150	0 to 40
BIT SIZE INCHES (IN)	
6 to 16	

TENSION LBS	
10000	0

* Calibration Summary *

Shop Calibration GRT-B

Performed : 16-NOV-2012 Time : 13:00
Sensor Suite : GR-GR5 ID : GRT-BA-14

	Measured Background	Measured Jig	Units	Calibrated Jig	Units
GR	52	368	CPS	175	GRAPI

Shop Calibration MST-DA

Performed : 01-OCT-2012 Time : 10:58
Sensor Suite : CALI-MSN ID : MST-DA-36

	Jig - Measured Ring#1	Jig - Measured Ring#2	Jig - Calibrated Ring#1	Jig - Calibrated Ring#2	Units
CL # 1	7.4	12.2	6.0	12.0	IN.

Performed : 01-OCT-2012 Time : 09:18
Sensor Suite : MSTDA-NI ID : MST-DA-36

Internal

	Measured Zero	Measured Reference	Units	Calibrated Zero	Calibrated 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 : 01-OCT-2012 Time : 14:53
Sensor Suite : MSTDAMSF ID : MST-DA-36

Internal

	Measured Zero	Measured Reference	Units	Calibrated Zero	Calibrated 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