

Tucker
ENERGY SERVICES

BOREHOLE VOLUME

CALIPER 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
Drilling Measured From: KB
Log Measured From: KB
Above Permanent Datum: 7.00 Ft
Elevations: KB 1911.00 Ft, DF 1910.00 Ft, GL 1904.00 Ft

Services: CNT, PTT, LDT, MLT

Date	2012-12-05	
Run Number	1	
Depth--Driller	3440.0	Ft
Depth--Logger	3439.0	Ft
First Reading	3406.0	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
RMG@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	

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	3439.00	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

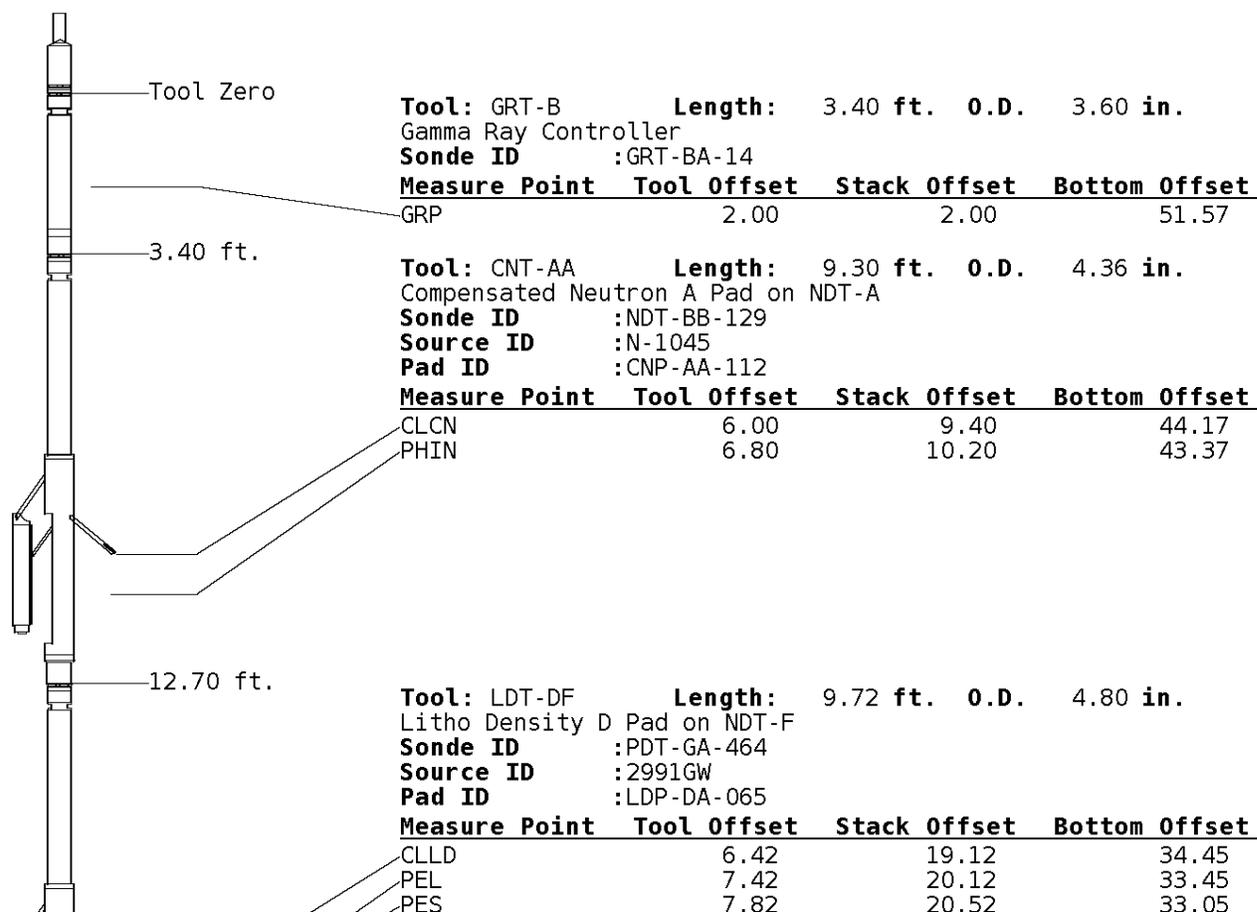
ALL PRESENTATIONS AS PER CUSTOMER REQUEST.
 GRT, CNT, LDT, MLT, AND PIT RUN IN COMBINATION.
 CALIPERS ORIENTED ON X-Y AXIS.
 2.71 G/CC USED TO CALCULATED POROSITY.
 ANNULAR HOLE VOLUME CALCULATED USING 5.50" PRODUCTION CASING.
 DETAIL PRESENTED TO 2550'
 ANHYDRATE SECTION IS 950' TO SCG

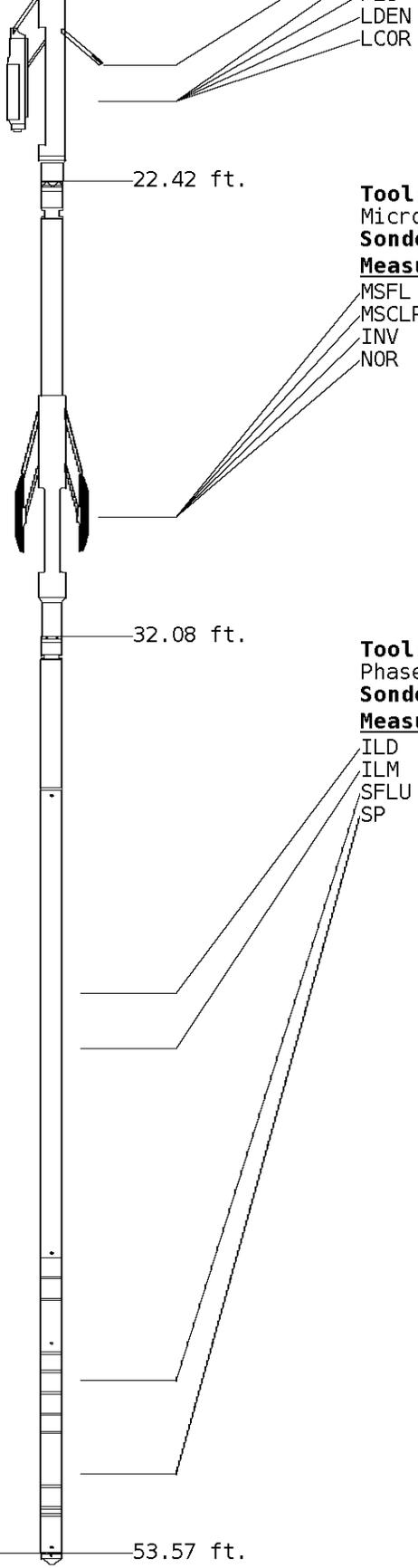
GRT: GRP.
 CNT: PHIN, CLCNIN.
 LDT: PORL, LCORN, PECLN, LDENN, PORLLS, CLLDIN.
 MLT: NOR_RF, INV_RF, MSCLPIN.
 PIT: ILD, ILM, SPU, SFLAEC.

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.





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

BIT SIZE INCHES (IN)	
6	16

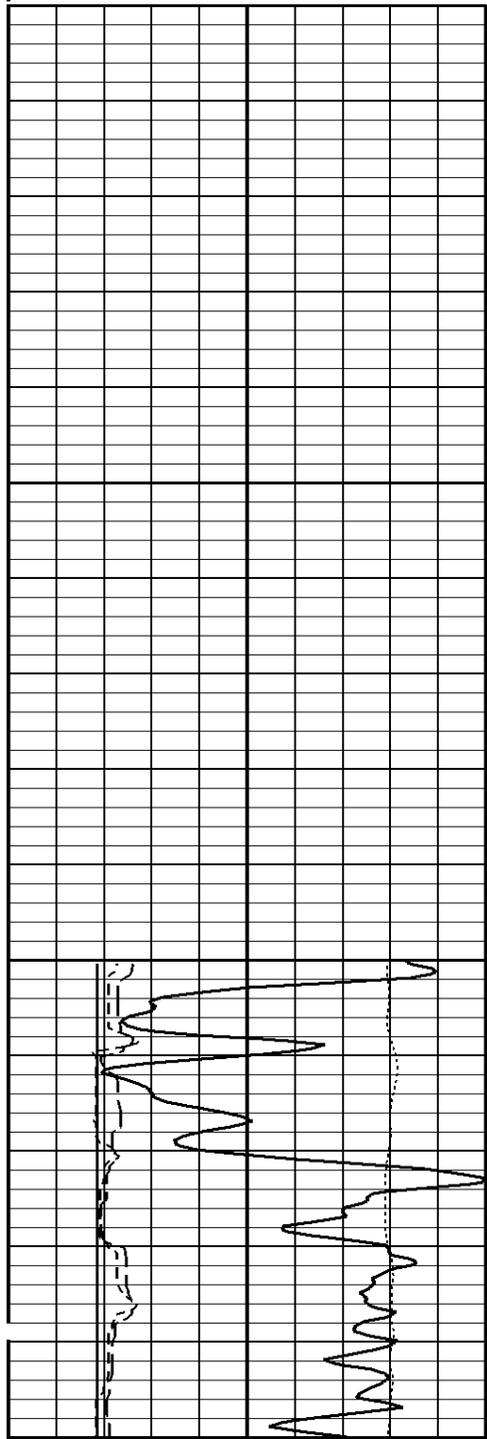
Y CALIPER INCHES (IN)	
16	26

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

**BOREHOLE VOLUME
CU.FT**

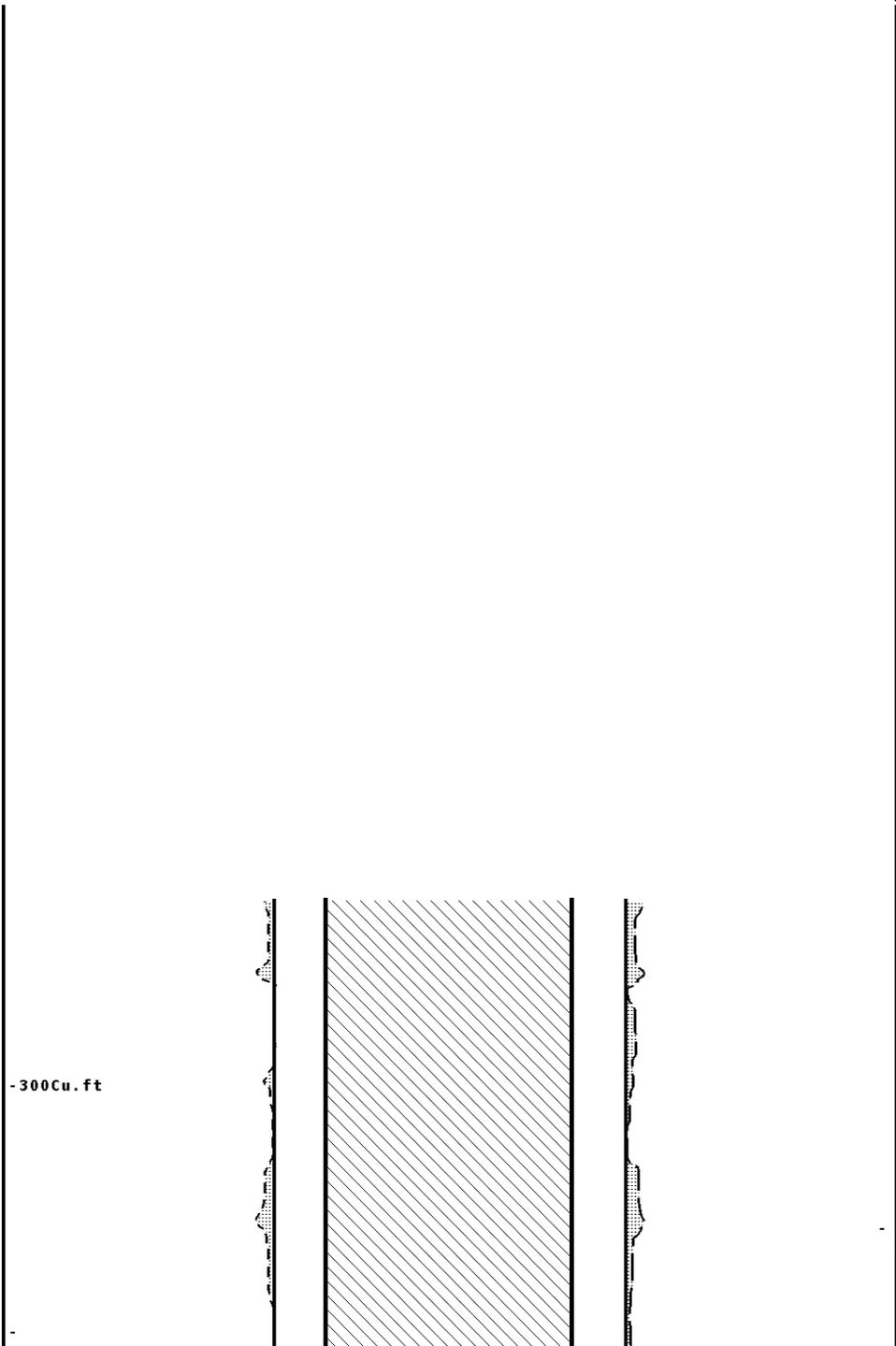
**ANNULAR HOLE VOLUME
CU.FT.**

1:240 MAIN SECTION



2500

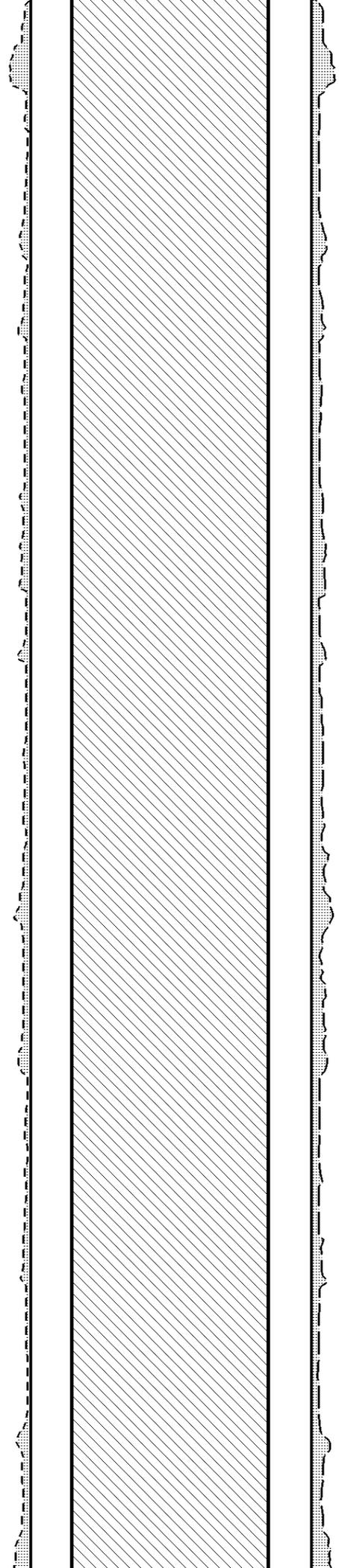
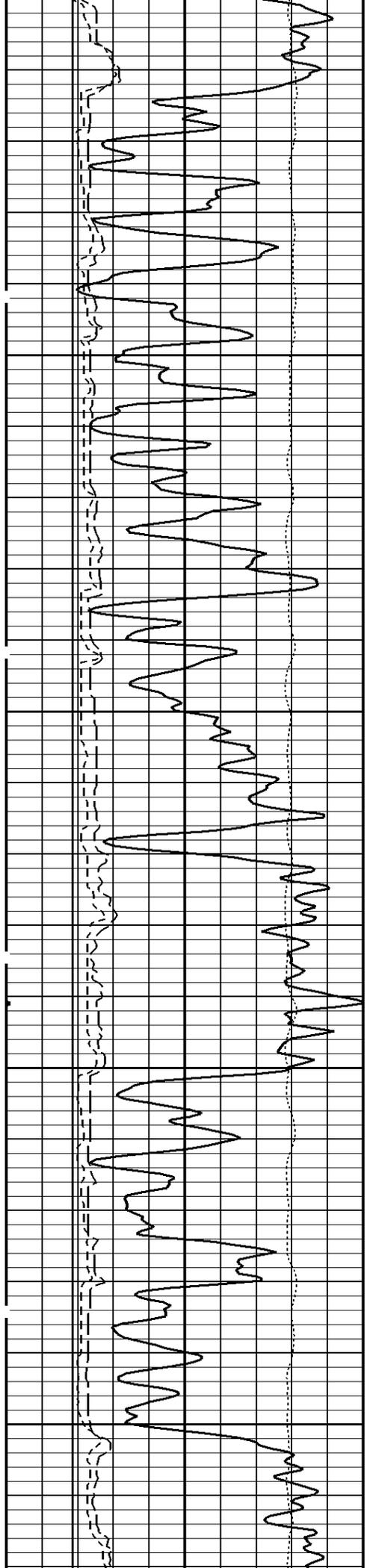
2600

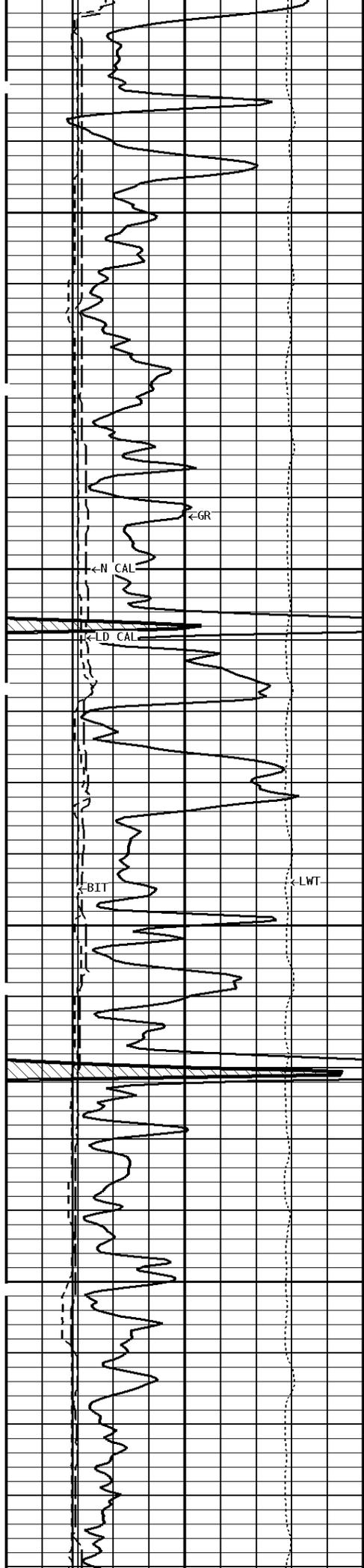


2600

2700

2800

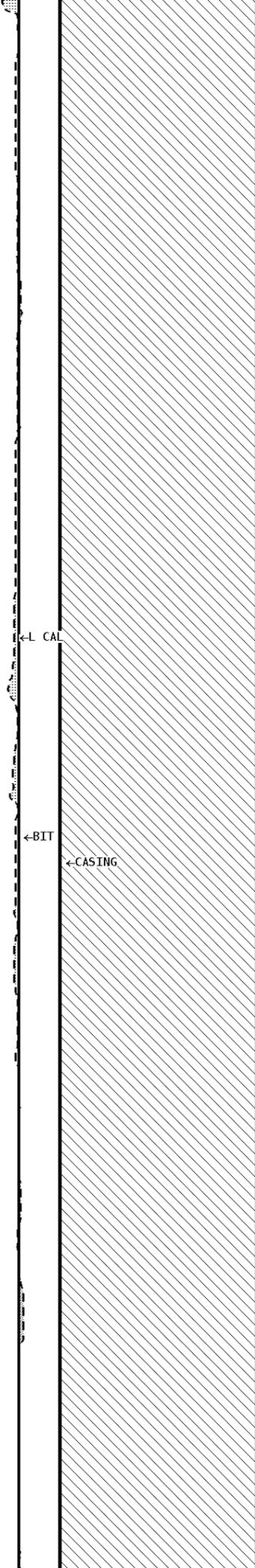




-200Cu.ft

2900

3000



100Cu.ft-

←N CAL

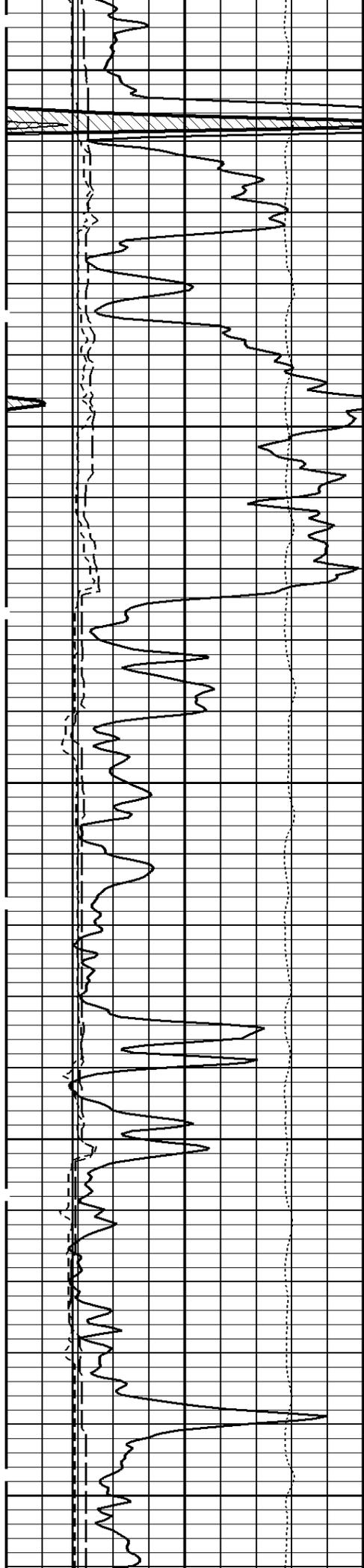
←L CAL

←BIT

←CASING

←BIT

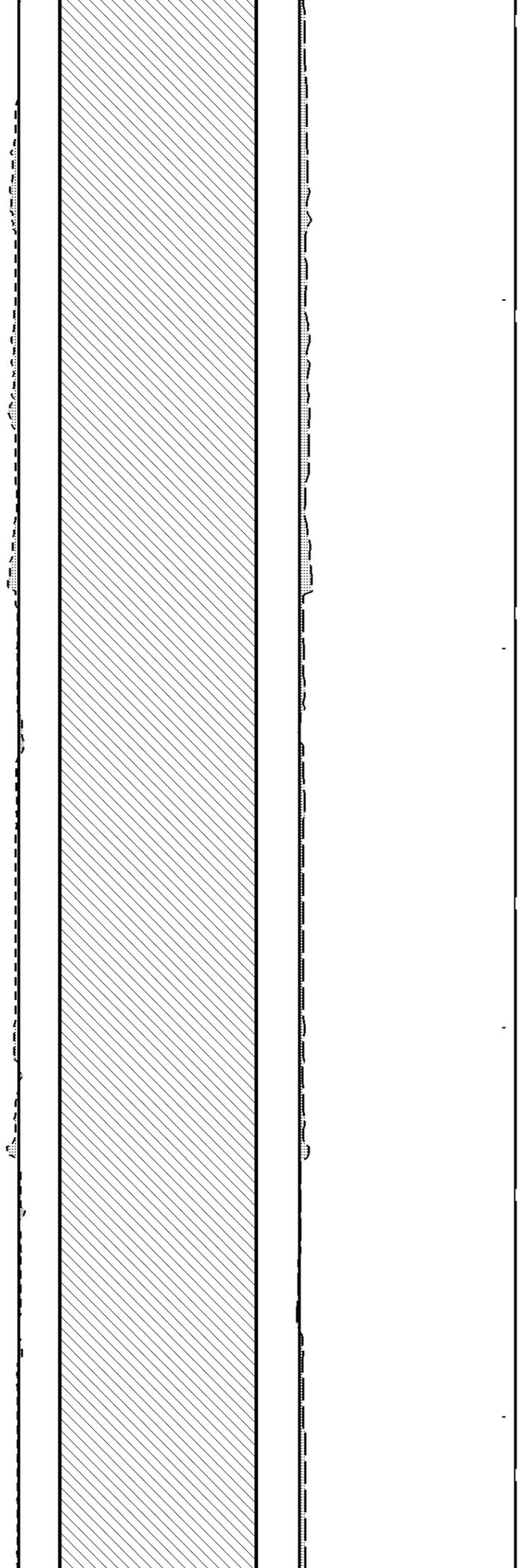
←CASING

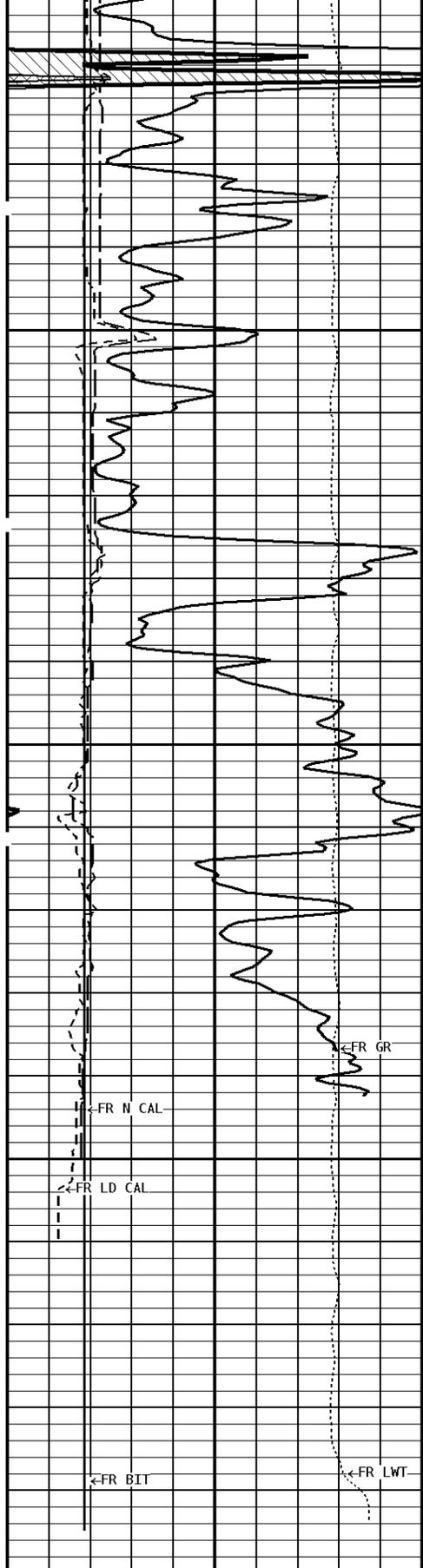


3100

-100Cu. ft

3200



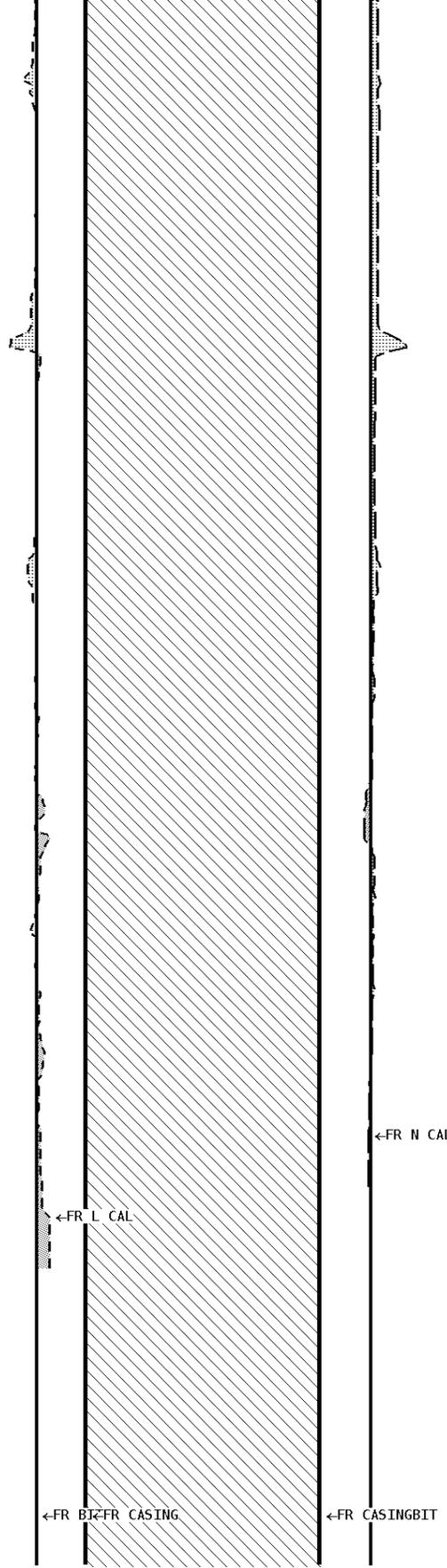


3300

3400

3439

1:240 MAIN SECTION

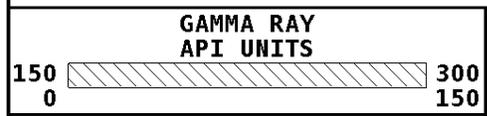


←FR N CAL

←FR L CAL

←FR BIT CASING

←FR CASINGBIT



TENSION LBS	
10000	0
X CALIPER INCHES (IN)	
16 6	26 16
Y CALIPER INCHES (IN)	
16 6	26 16
BIT SIZE INCHES (IN)	
6	16

*** Borehole Zone Factors ***

Zone 1 99999.0 to 0.0 Feet	
Drill Bit Size _____	7.875 in
Casing Diameter _____	5.500 in

*** Calibration Summary ***

Shop Calibration GRT-B					
Performed : 16-NOV-2012			Time : 13:00		
Sensor Suite : GR-GR5			ID : GRT-BA-14		
	Measured	Units	Calibrated	Units	
	Background	Jig	Jig		
GR	52	368	CPS	175	GRAPI
Shop Calibration CNT-AA					
Performed : 01-AUG-2012			Time : 10:49		
Sensor Suite : CALI-BCN			ID : NDT-BB-129		
	Jig - Measured		Jig - Calibrated		Units
	Ring#1	Ring#2	Ring#1	Ring#2	
CL # 1	8.9	13.6	6.0	12.0	IN.
Shop Calibration LDT-DF					
Performed : 01-AUG-2012			Time : 11:07		
Sensor Suite : CALI-LTH			ID : PDT-GA-464		
	Jig - Measured		Jig - Calibrated		Units
	Ring#1	Ring#2	Ring#1	Ring#2	
CL # 1	7.7	11.0	6.0	12.0	IN.