

**Weatherford®****CALIPER LOG
MGS-CALIPER
SCALE 2":100**

COMPANY

SAVIA PERU S.A

WELL

LOG-31D

FIELD

LOBITOS OFFSHORE

PROVINCE/COUNTY

PIURA

COUNTRY/STATE

PERU

LOCATION

N: 9°508,651.50 m
E: 459,047.72 mLatitude
LongitudeOther Services
MDL
MPD
MDN

Permanent Datum SEA LVL, Elevation 335 feet

Log Measured From KB

Drilling Measured From KB

Elevations:
KB 50.00 feet
DF 50.00
GL 335.00

Date 12-JUN-2013

Run Number 1

Service Order 825

Depth Driller 7668.00 feet

Depth Logger 7638.60 feet

First Reading 5307.00 feet

Last Reading 3100.00 feet

Casing Driller 2521.00 feet

Casing Logger 2521.00 feet

Bit Size 8.500 inches

Hole Fluid Type WBAC

Density / Viscosity 11.30 lb/USg 51.00 Sec/qt

PH / Fluid Loss 9.20 5.20 ml/30Min

Sample Source ACTIVE PIT

Rm @ Measured Temp 0.15 @ 70.0 ohm-m

Rmf @ Measured Temp 0.07 @ 70.0 ohm-m

Rmc @ Measured Temp 0.34 @ 70.0 ohm-m

Source Rmf / Rmc PRESS

Rm @ BHT 0.10 @ 102.0 ohm-m

Time Since Circulation 1 HOUR

Max Recorded Temp 102.00 deg F

Equipment / Base 2 TALARA

Recorded By J. GUERRERO

Witnessed By A. ORTEGA

REMARKS

- Objective: To obtain accurate open hole Gamma Ray, Neutron, Caliper, Resistivity Log (Dual Laterolog) in Compact Well Shuttle - Messenger Conveyance.
- Maximum recorded temperature 102 degF recorded.
- Fluid resistivity measurements during logging operation: Rmf= 0.07 @ 70deg F, Rm=0.15@ 70Deg F, Rmc=0.34@ 70degF.
- This is a deviated well with a maximum deviation of 63.84 degrees @ 4376 ft.
- Well sketch per driller's depth.
- Bottom not tagged due to nature of the conveyance. Maximum depth recorded in Log header (7638.60ft) is the maximum depth reached by the induction tool in the run.
- Main Section from 7638.60ft ft to 4950 ft, as requested.
- No Repeat Section performed due to deployment method used in the job.
- Resistivity curves (Dual laterolog) presented in this log are not corrected for borehole conditions.
- Neutron log is corrected by temperature and borehole size by the density caliper.
- Density log is corrected for mud density and borehole size by density caliper.
- Calculated Volumes and caliper averages from 7638.60ft to 4950 ft, for a future 5.5 O.D casing:
Hole Volume= 1240 FT 3
Annular Volume = 805 FT 3
Caliper Average = 9.30 in.
Caliper Max = 12.64 in @ 7445 ft.
- Operation started at 20:00 11-06-2013.
We reached bottom at 11:00 12-06-2013.
Deployment was done at 11:30 12-06-2013.
Log interval was finished at 15:30 12-06-2013.
Job was finished at 20:00 12-06-2013.

Crew at your service

J. Guerrero, J Jimenez, J. Escobar, E. Cruz

Bit Size
inchesDepth From
feetDepth To
feet

12.250

0.00

2521.00

8.500

2521.00

7668.00

CASING RECORD

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	9.625	0.00	2521.00	43.00

WELL DIAGRAM

9.63 in Casing: 0.00 ft

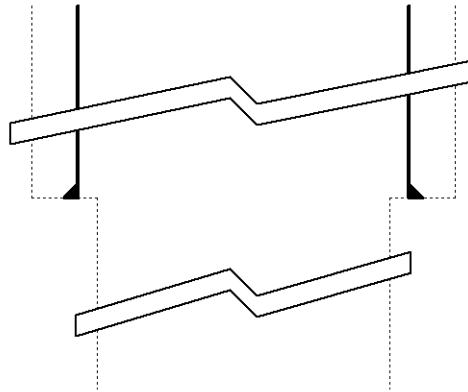
12.25 in Bit size: 0.00 - 2521.00 ft

9.63 in Casing shoe: 2521.00 ft

8.50 in Bit size: 2521.00 - 7668.00 ft

Total bit depth: 7668.00 ft

Temperature: 102.00 Degrees F



DOWNHOLE EQUIPMENT

D:\LOGS\PERU\ITALARA\LO6-CWS\LO6-31D-DSC-FINAL-HVOL-AVOL-COMPLETE.dta

Shuttle Running Tool 5" (SRT B)

SRT-A 2 LG: 6.47 ft WT: 37.5 lb OD: 2.52 in

SKJ-E.A Compact Knuckle Joint

SKJ-E.A 170 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

MBS-A.A 400v Compact Battery Sub

MBS-A.A 56 LG: 14.24 ft WT: 105.8 lb OD: 2.24 in

Compact Stiff Bridle Electrode Sub.

MBE-C.B 261 LG: 12.33 ft WT: 77.2 lb OD: 2.28 in

Compact Stiff Bridle Electrode Sub.

MBE-C.B 262 LG: 12.33 ft WT: 77.2 lb OD: 2.28 in

Compact Stiff Bridle Electrode Sub.



Compact Gain Drive Electrode Sub.
MBE-A.A 56 LG: 12.33 ft WT: 77.2 lb OD: 2.24 in

Compact Comms Gamma
MCG-D.A 261 LG: 8.70 ft WT: 63.9 lb OD: 2.24 in

Compact Memory Sub. A.C
MMS-A.C 1 LG: 3.12 ft WT: 22.0 lb OD: 2.24 in

SKJ-E.A Compact Knuckle Joint
SKJ-E.A 171 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

SHA-J.B Compact Swivel Head Adaptor
SHA-J.B 479 LG: 2.30 ft WT: 22.0 lb OD: 2.24 in

MIS-D.B Compact Inline Bowspring sub
MIS-D.B 755 LG: 5.70 ft WT: 33.1 lb OD: 2.24 in

Compact Neutron
MDN-C.A 441 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in

Compact Density/Caliper
MPD-C.A 197 LG: 9.59 ft WT: 90.4 lb OD: 2.24 in

MIS-D.B Compact Inline Bowspring sub
MIS-D.B 756 LG: 5.70 ft WT: 33.1 lb OD: 2.24 in

SHA-H Compact Swivel Head Adaptor
SHA-H 180 LG: 2.30 ft WT: 22.0 lb OD: 2.24 in

SKJ-E.A Compact Knuckle Joint
SKJ-E.A 180 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

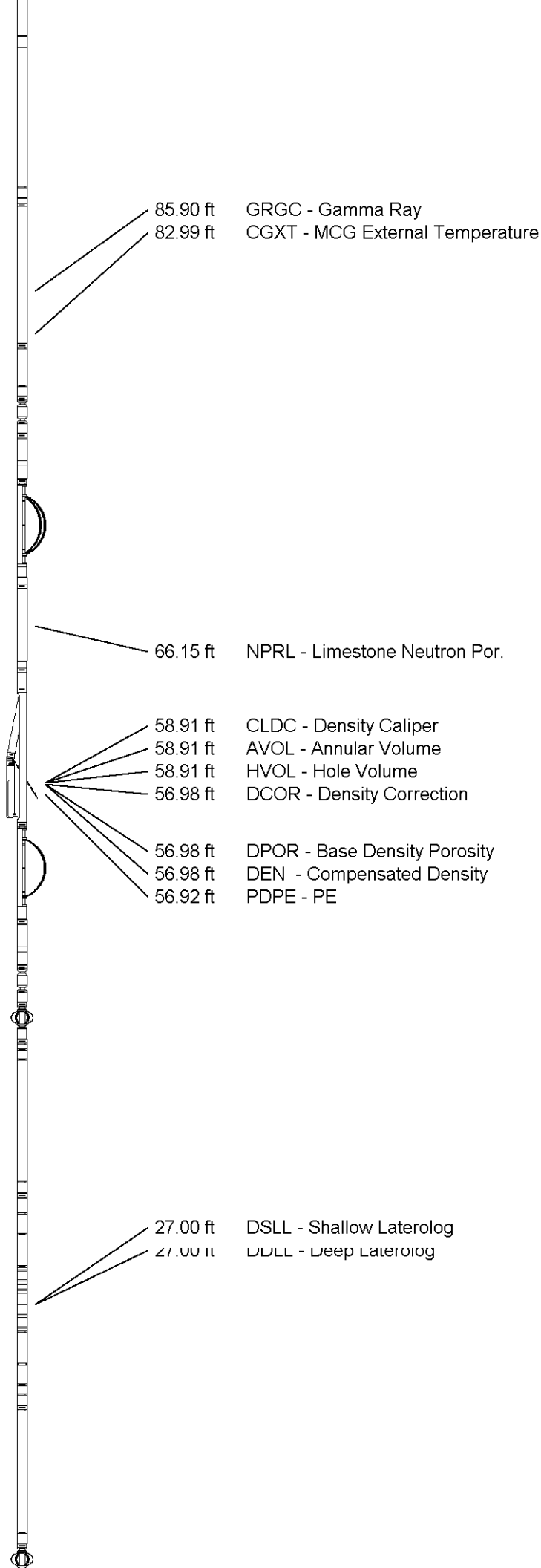
MIS-B Compact Inline Standoff sub
MIS-B 99 LG: 2.14 ft WT: 15.4 lb OD: 2.24 in

Compact Upper Guard sub
MUG-B.B 260 LG: 8.98 ft WT: 68.3 lb OD: 2.24 in

Compact Laterolog Electrode Sub.
MLE-D.A 228 LG: 12.34 ft WT: 92.6 lb OD: 2.24 in

Compact Lower Guard Sub.
MLG-B.B 257 LG: 8.00 ft WT: 55.1 lb OD: 2.24 in

MIS-B Compact Inline Standoff sub



MIS-B 98 LG: 2.14 ft WT: 15.4 lb OD: 2.24 in

Compact Induction

MAI-B.A 223 LG: 10.81 ft WT: 48.5 lb OD: 2.24 in

Total Length: 151.05 ft Weight: 1080.3 lb

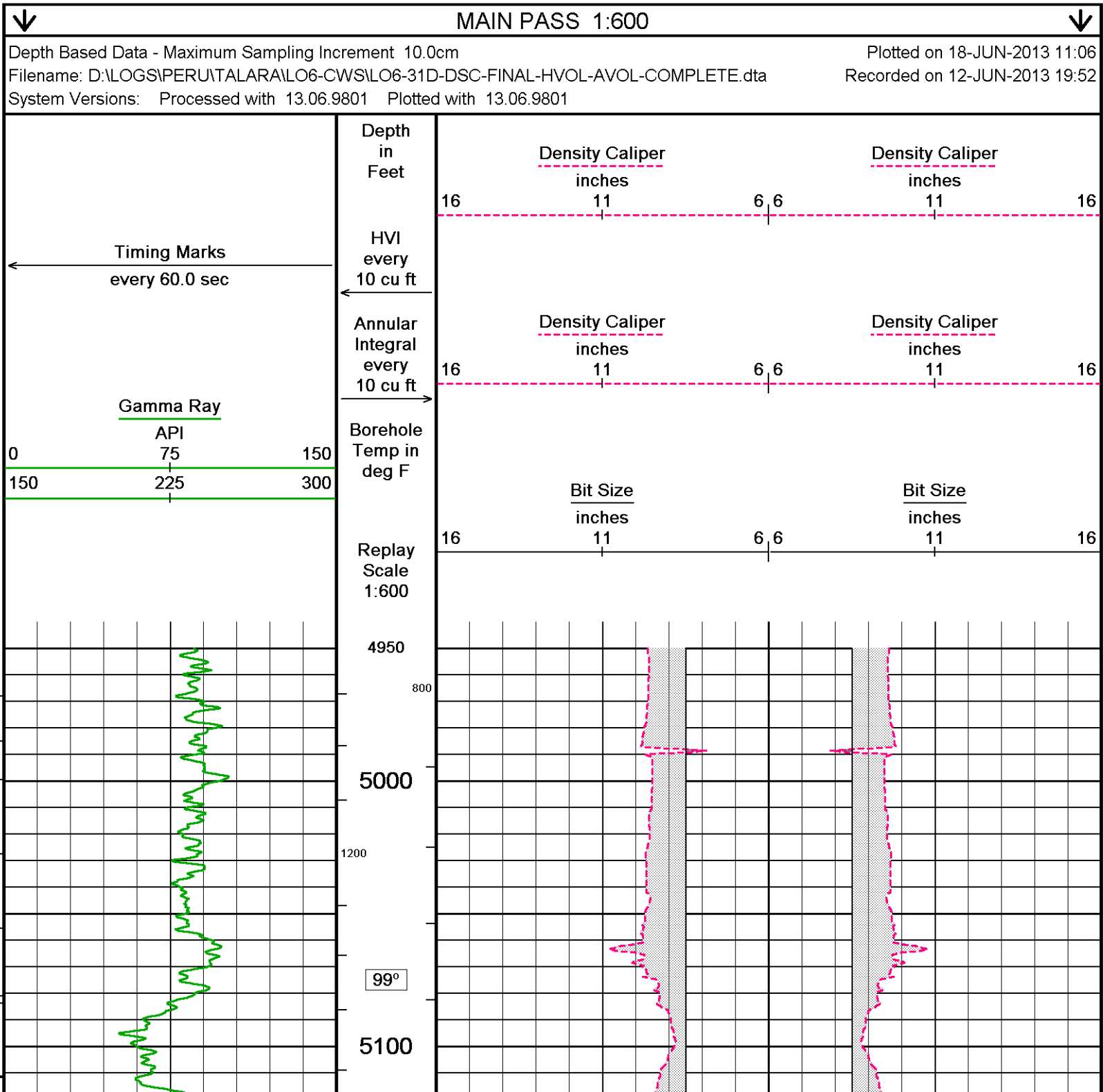


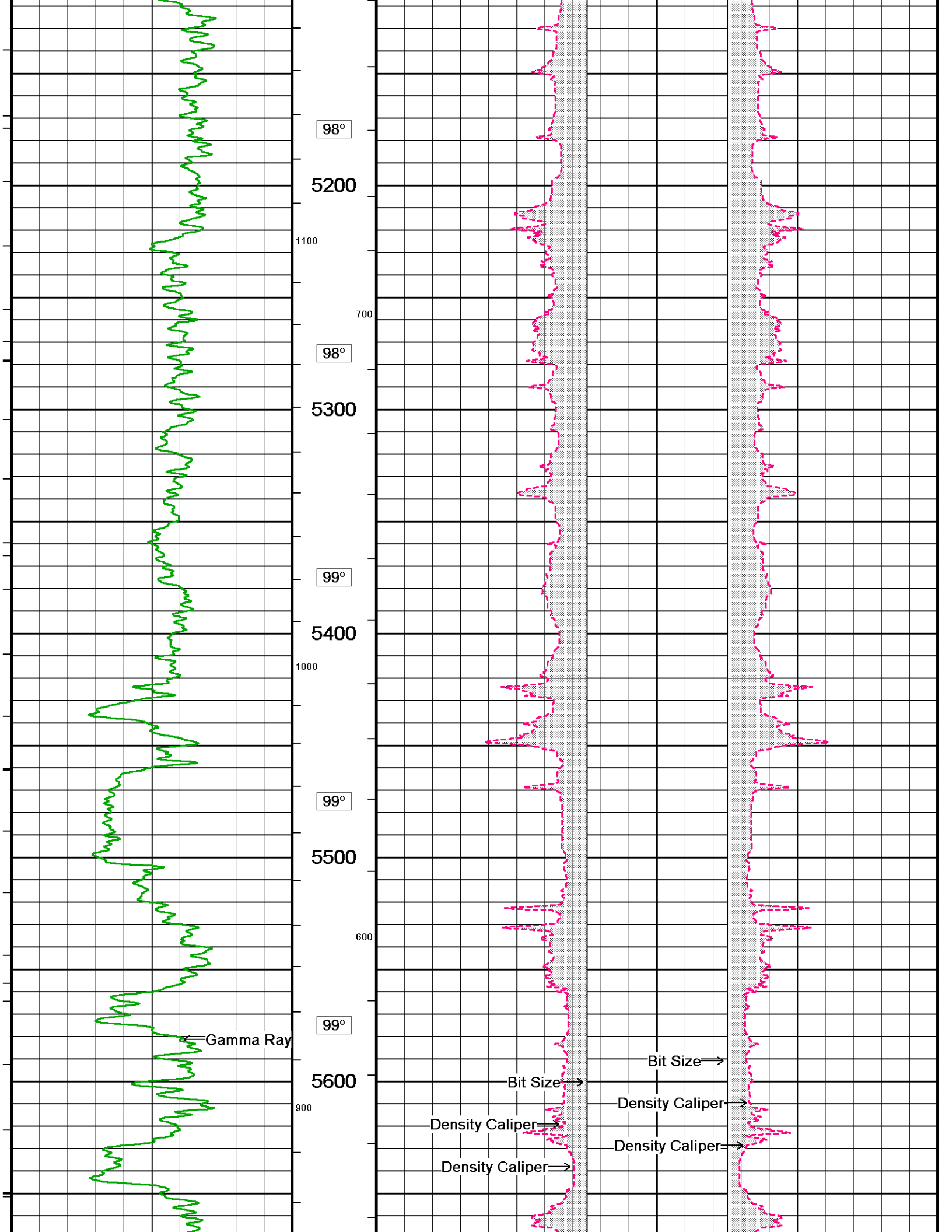
Tool Zero

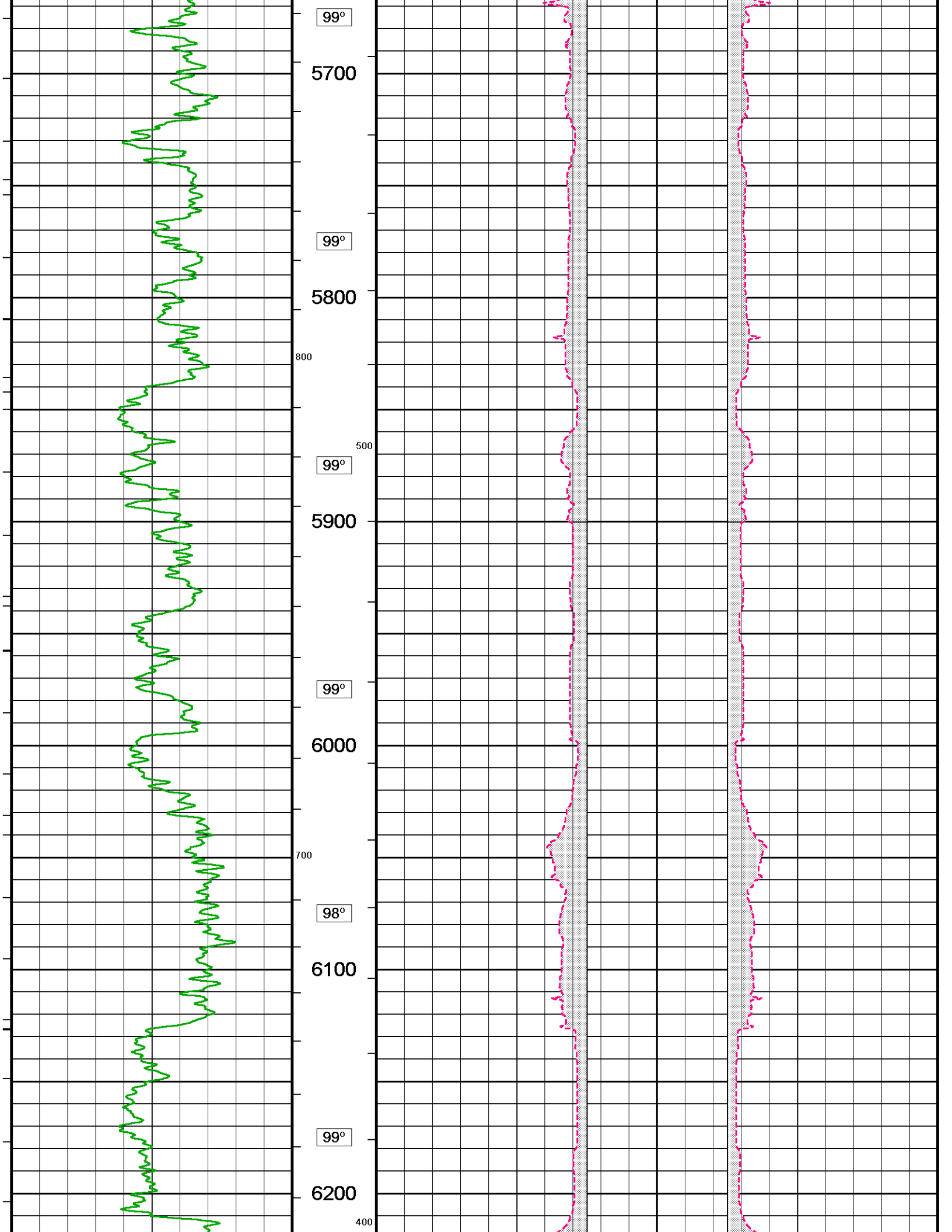
(0.13ft from bottom)

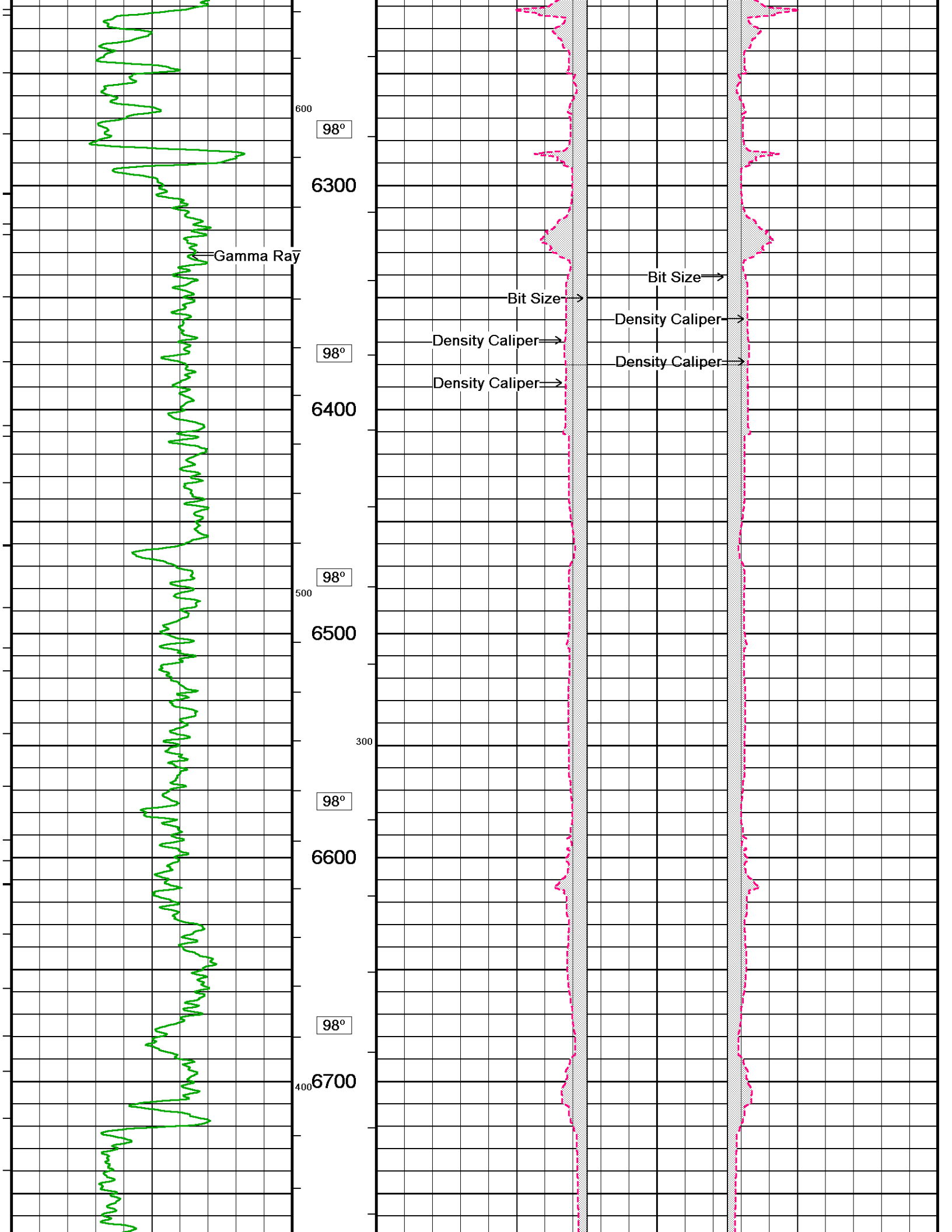
All measurements relative to tool zero.

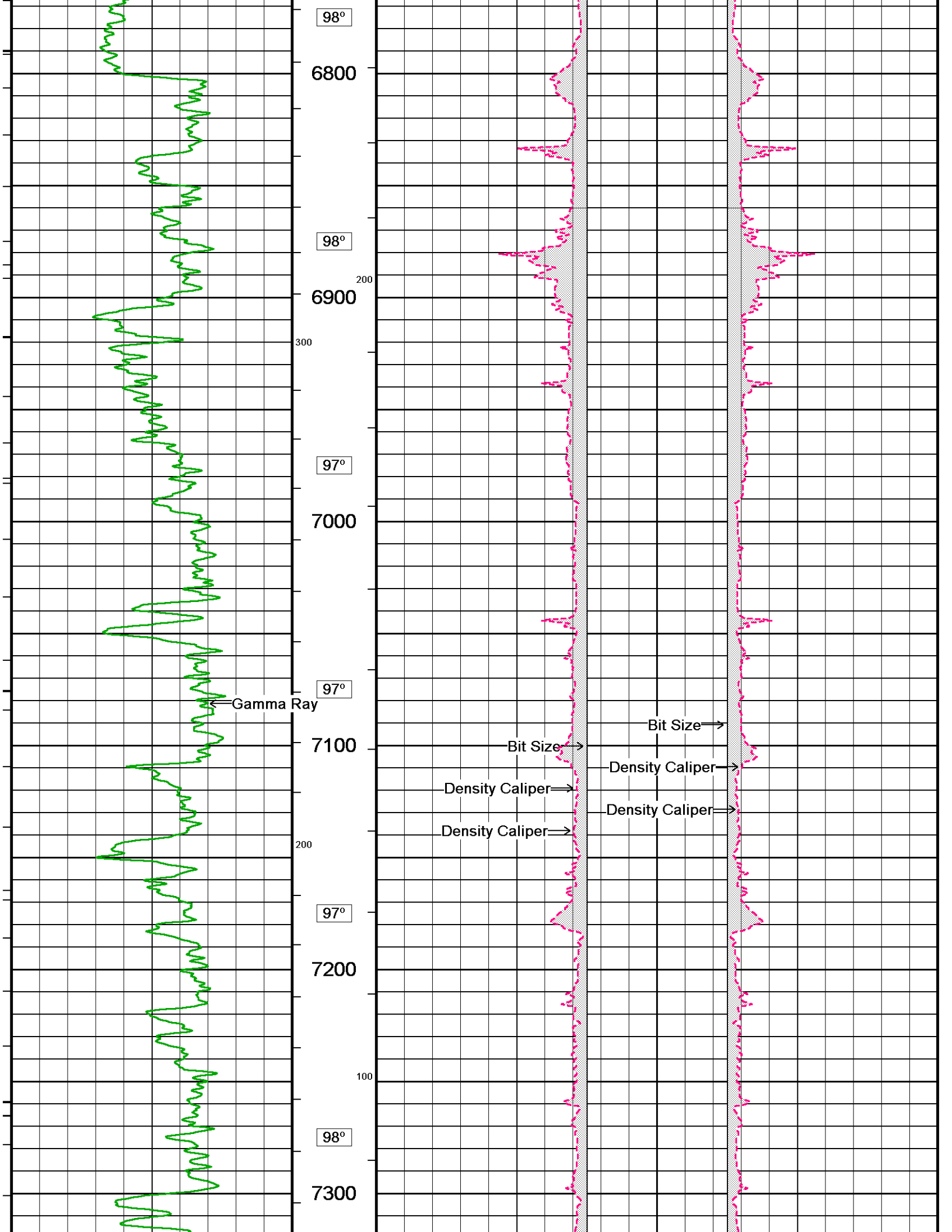
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions in our price schedule.

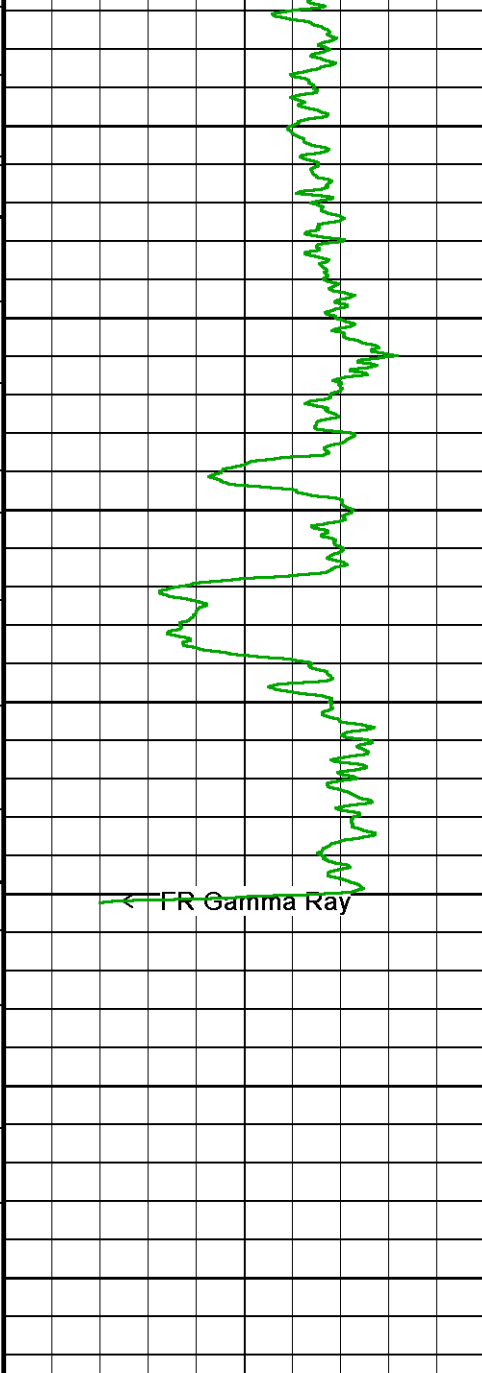












99°

7400

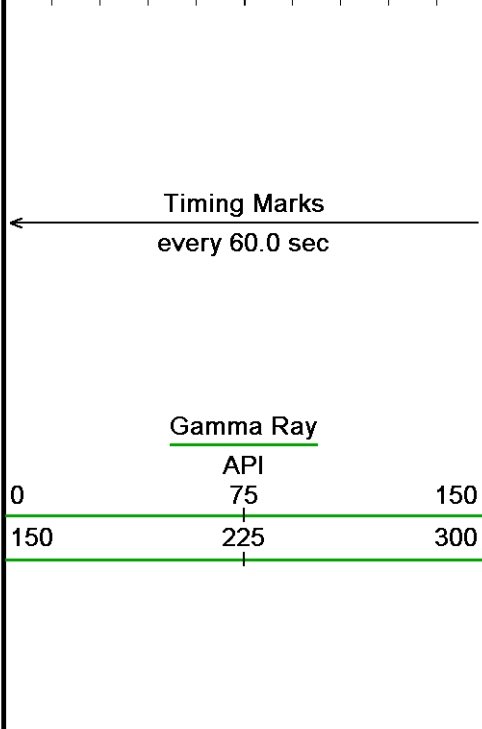
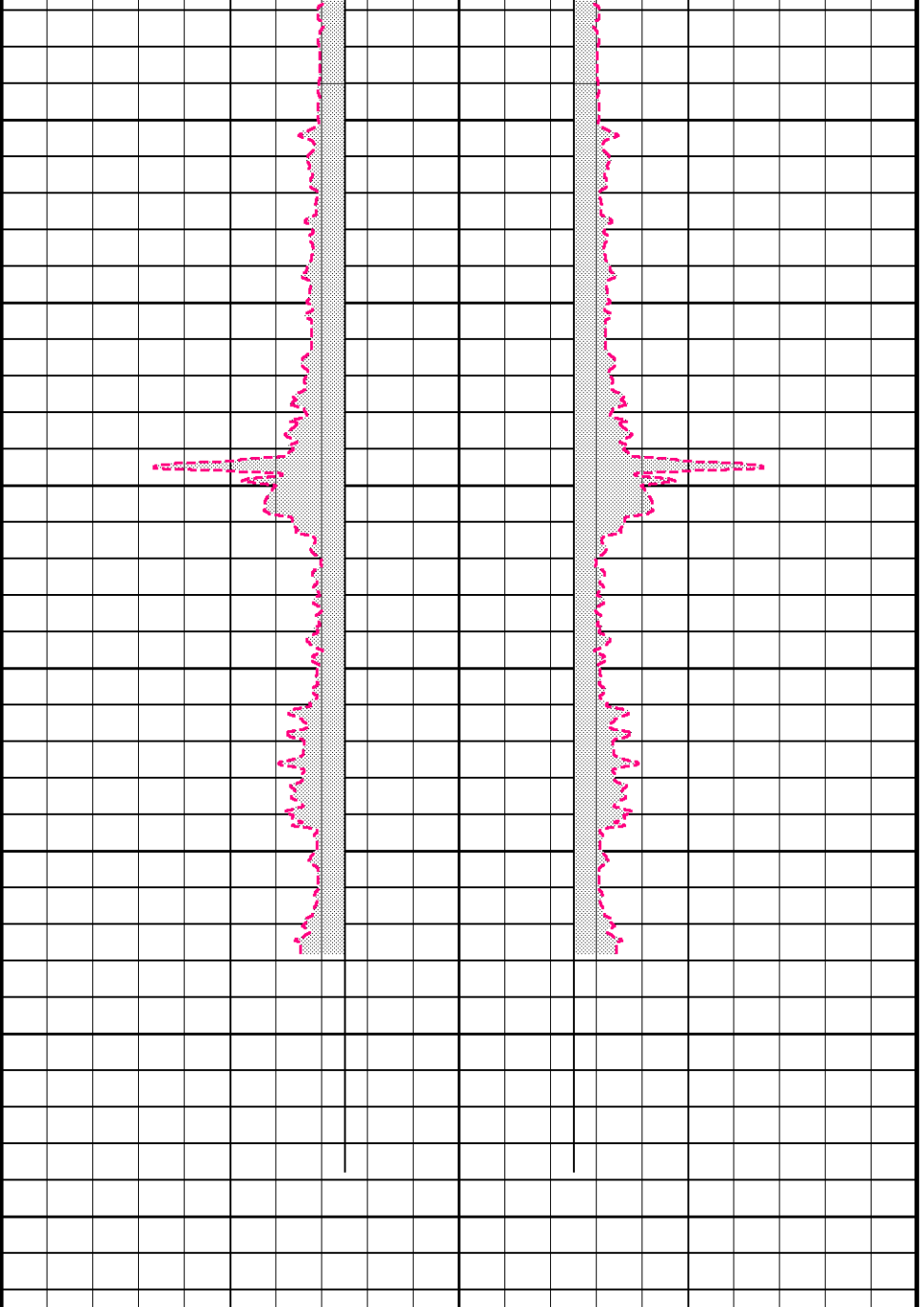
102°

7500

0

7600

Depth in Feet

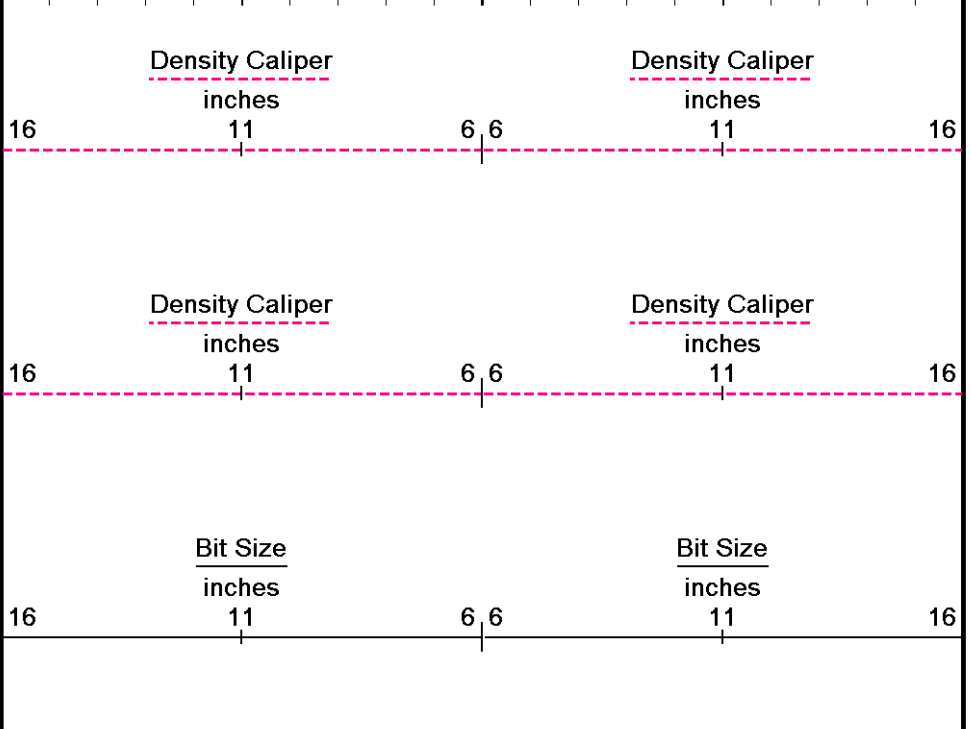


HVI every 10 cu ft

Annular Integral every 10 cu ft

Borehole Temp in deg F

Replay Scale 1:600





MAIN PASS 1:600



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FIELD	LOBITOS OFFSHORE
PROVINCE/COUNTY	PIURA
COUNTRY/STATE	PERU

Elevation Kelly Bushing	50.00	feet
Elevation Drill Floor	50.00	feet
Elevation Ground Level	335.00	feet

First Reading	5307.00	feet
Depth Driller	7668.00	feet
Depth Logger	7638.60	feet

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