Company	VAUGHN GOOD OIL COMPANY
Well	NUSSER #5-16
Field	S.E. HARDTNER
County	BARBER
State	KANSAS

RECON

BOREHOLE
VOLUME
X-Y CALIPER

SEC	TWP	RGE
16	03S	12W

Location. 1290' FNL & 1155' FWL — SE NW NW
SURF. SAME — API#. 015-007-24061-0000

Permanent Datum . Ground Level Elev 1401
Log Measured From . Kelly Bushing
Drilling Measured From Kelly Bushing

OTHER SERVICES:
DIL LDT
CNL MEL

ELEVATIONS K.B. 1414
G.L. 1401
D.F. 1412

Date		15-SEP-2013					
Run No.		ONE					
TD Driller		5675	ft.			ft.	
TD RECON		5669	ft.			ft.	
Bot Logged Interval		5668	ft.			ft.	
Top Logged Interval		550	ft.			ft.	
Casing Depth Driller		8 5/8	in.	@ 376		in.	@
Casing Depth RECON		8 5/8	in.	@ 388		in.	@
Bit Size		7 7/8	in.			in.	
Drilling Fluid Type		CHEM/GEL					
Density	Viscosity	9.4 ppg		65 sec/qt			
Fluid Loss	PH	8.8 cm/30min		10.5 strip			
Source Of Sample		Flowline					
RM @ Measured Temp		0.690	Ohmm	@ 75		Ohmm	@
RMF @ Measured Temp		0.517	Ohmm	@ 75		Ohmm	@
RMC @ Measured Temp		0.862	Ohmm	@ 75		Ohmm	@
RM @ MRT		0.395	Ohmm	@ 136		Ohmm	@
Max Recorded Temp		136	DegF			DegF	
Time Drilling Stopped		15-SEP-2013		04:00			
Time Circulation Stopped		15-SEP-2013		09:00			
Time Logger On Bottom		15-SEP-2013		13:42			
Unit Num	Location	S409		OKLAHOMA CITY, OK			
Recorded By		H. GARCIA					
Witnessed By		MR. V. GOOD					

All interpretations are based on inferences from electrical or other readings, and therefore, RECON cannot and will not guarantee the accuracy of any interpretations of log data. RECON shall not be liable for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from interpretations made by any of our officers, agents or employees, except in the case of provable Gross Negligence or willfull damage. Interpretations are also subject to the terms and conditions of our Price Schedule and General Service Agreement.

RIG INFORMATION

Drill Contr/Rig# MENDENHALL DRLG. #3

GENERAL REMARKS SECTION

FIRST RUN IN THE HOLE
CNL AND LDT LOGGED IN A LIMESTONE MATRIX
TOP MARK - 246.7, BOTTOM MARK - 5550.6
CNL/LDT LOGGED MATRIX: 2.71 g/cc.

CHLORIDES: 6000 mg/l
LCM: 8 lb/bbl

AHV CALCULATED ON 5.5" PROD. CASING

CREW: M. CALLENTINE

THANK YOU FOR USING RECON PETROTECHNOLOGIES LTD.

CEMENT VOLUME CALCULATIONS SUMMARY

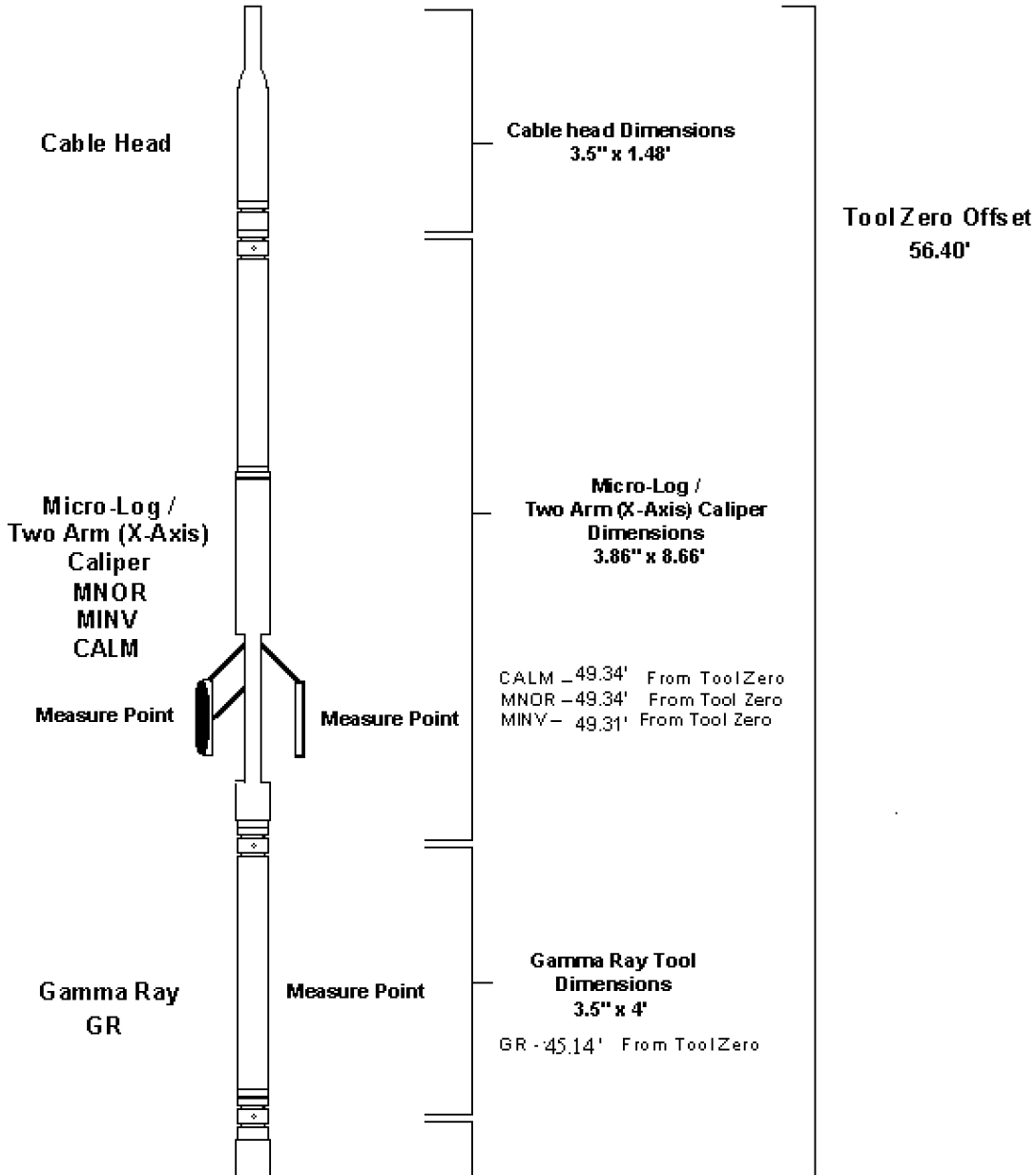
Tool Type	**LDT-CNT**		
Tool Serial #	**RN2016 / RL4106**	**Caliper Type**	**X-Y CALIPERS**

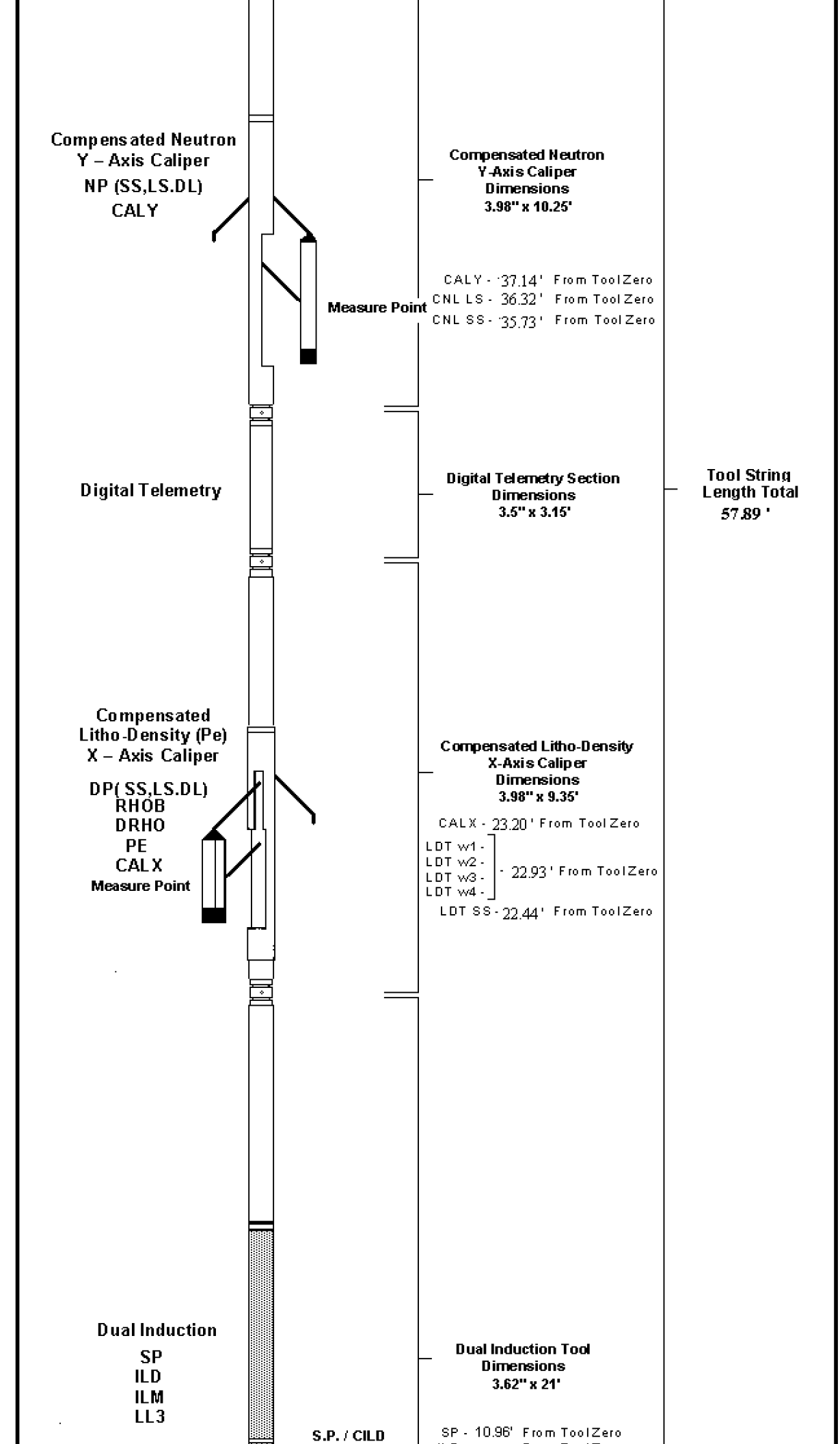
	Borehole Total	Annular Volume with Casing	From Depth (MKb)	To Depth (MKb)
VOLUMES	**572.877 Cubic Feet**	**295.994 Cubic Feet**	**4000**	**TD 5669**

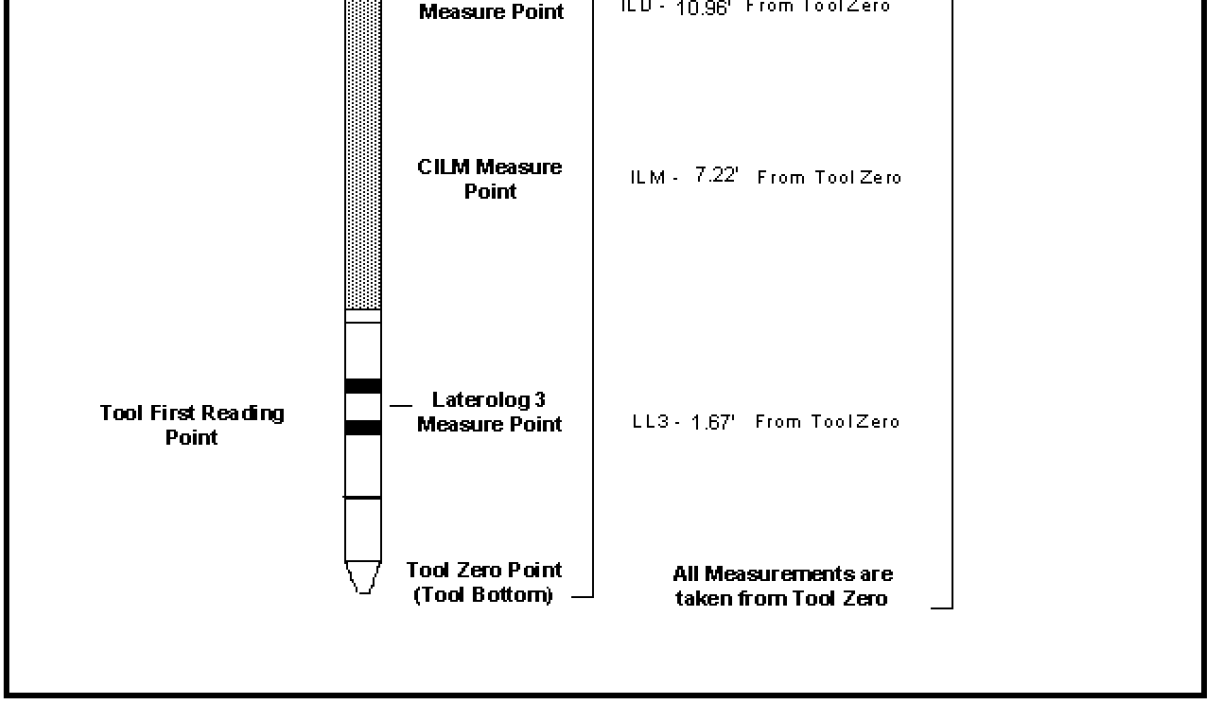
CASING INFORMATION

	SIZE (in)	GRADE	WEIGHT (lbs/ft)	ID (in)	TOP DEPTH	BOT DEPTH
SURFACE CASING	**8 5/8**	**J-55**	**24**	**8.097**	**Surface**	**388**
INTERMEDIATE CASING	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
PRODUCION CASING	**5 1/2**	**J-55**	**15.5**	**4.950**	**Surface**	**TD**

DUAL INDUCTION – SP / GAMMA RAY /
COMPENSATED LITHO-DENSITY / X-CALIPER
COMPENSATED NEUTRON / Y-CALIPER
MICRO - LOG / M-CALIPER




Compensated Neutron
Y – Axis Caliper
NP (SS,LS.DL)
CALY
Measure Point
Compensated Neutron
Y-Axis Caliper
Dimensions
3.98" x 10.25'
CALY - 37.14' From ToolZero
CNL LS - 36.32' From ToolZero
CNL SS - 35.73' From ToolZero
Digital Telemetry
Digital Telemetry Section
Dimensions
3.5" x 3.15'
Tool String
Length Total
57.89 '
Compensated
Litho-Density (Pe)
X – Axis Caliper
DP(SS,LS.DL)
RHOB
DRHO
PE
CALX
Measure Point
Compensated Litho-Density
X-Axis Caliper
Dimensions
3.98" x 9.35'
CALX - 23.20' From ToolZero
LDT w1 -
LDT w2 -
LDT w3 -
LDT w4 -
22.93' From ToolZero
LDT SS - 22.44' From ToolZero
Dual Induction
SP
ILD
ILM
LL3
Dual Induction Tool
Dimensions
3.62" x 21'
S.P. / CILD
SP - 10.96' From ToolZero

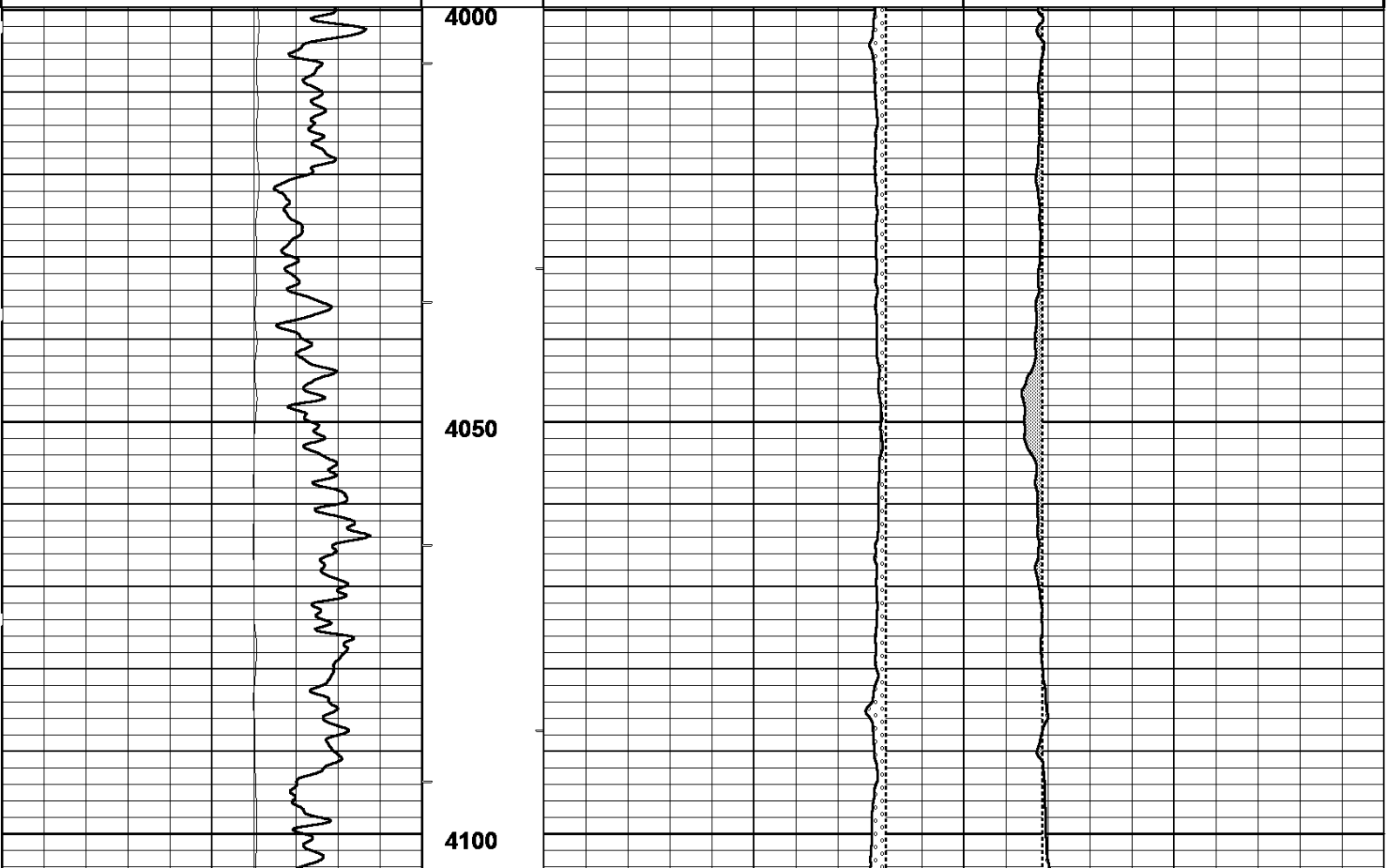


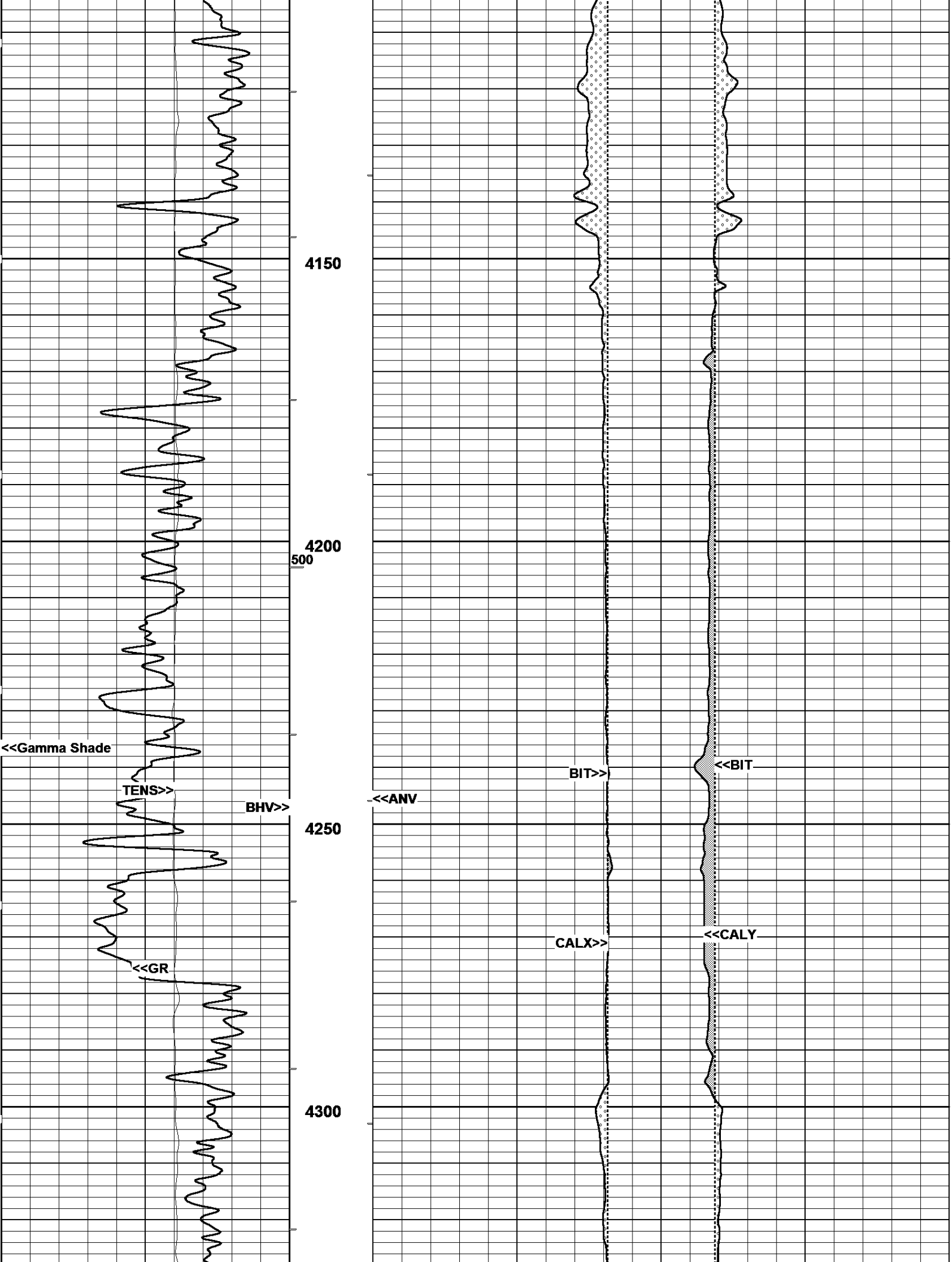
09/15/2013
16:01:11 => End Time

BOREHOLE VOLUME (5"/100Ft)

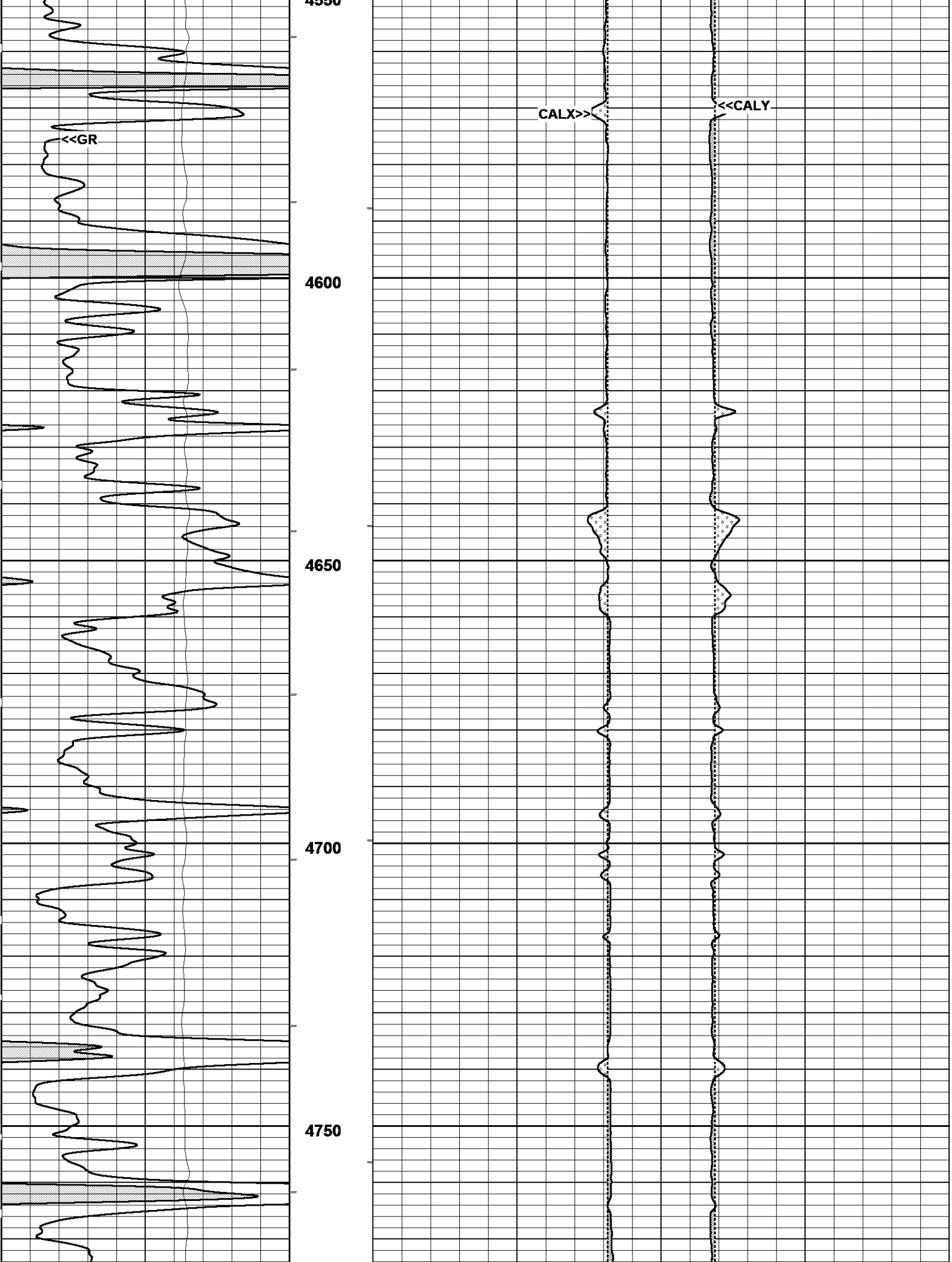
Log UP - (VER 11.14a)
End Depth=> 3999.90 Feet

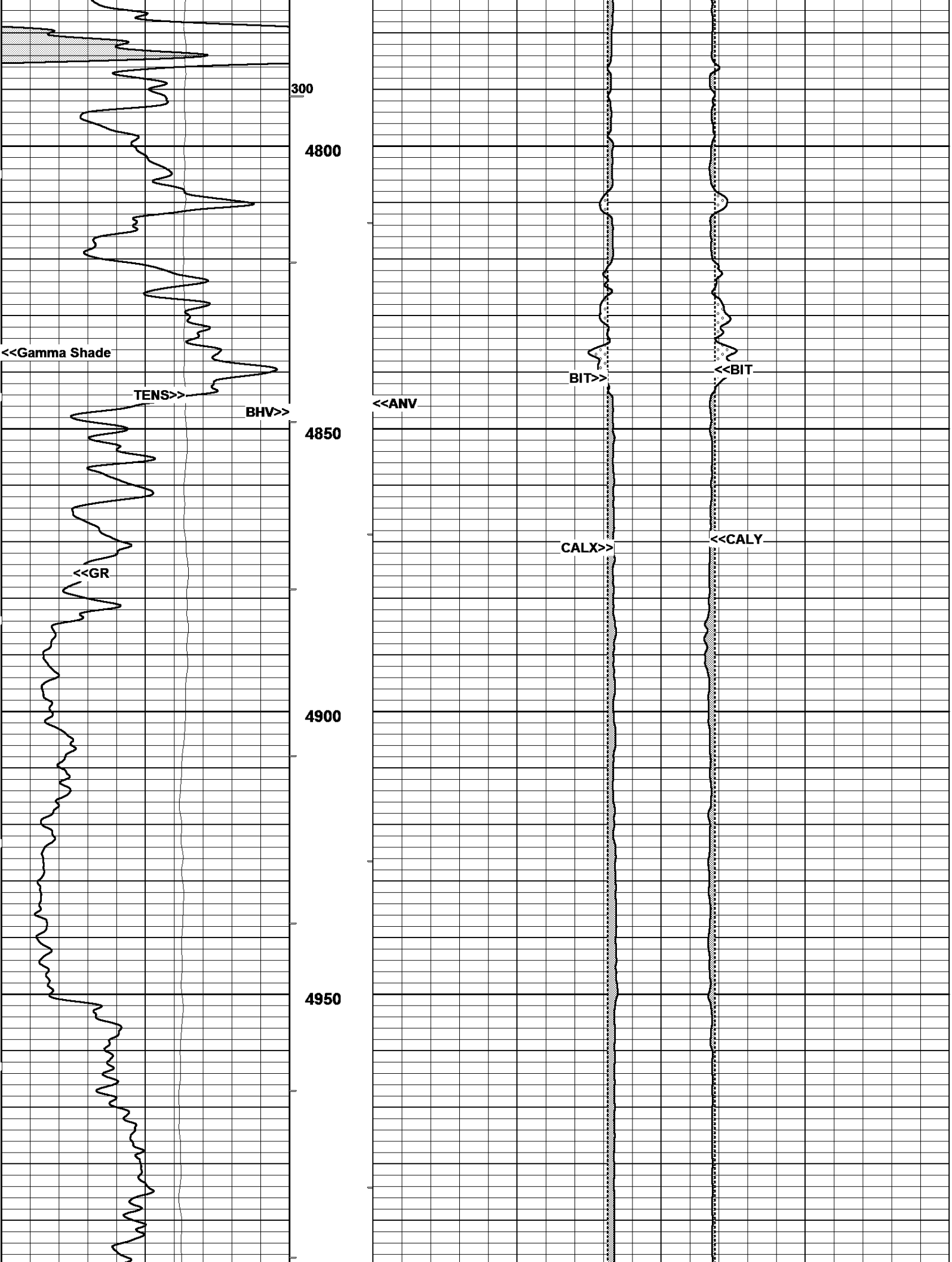
Tension (TENS)			Bit Size X-CAL (BIT)			Bit Size Y-CAL (BIT)		
0.	Lbs	5000.	16.	Ref in	6.	6.	Ref in	16.
Gamma Ray (GR)			**X-Caliper (CALX)**			**Y-Caliper (CALY)**		
0.	API	150.	16.	in	6.	6.	in	16.

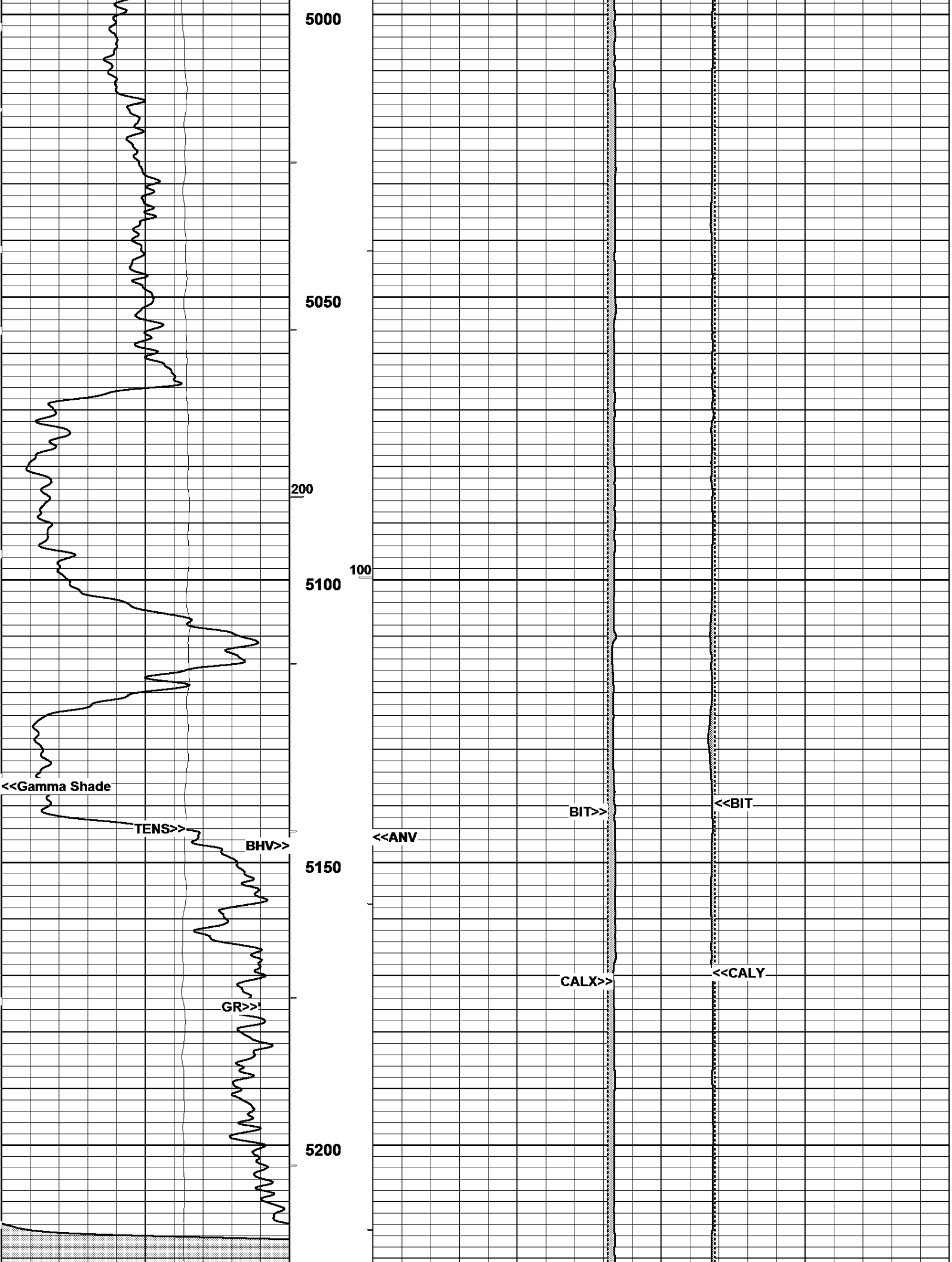


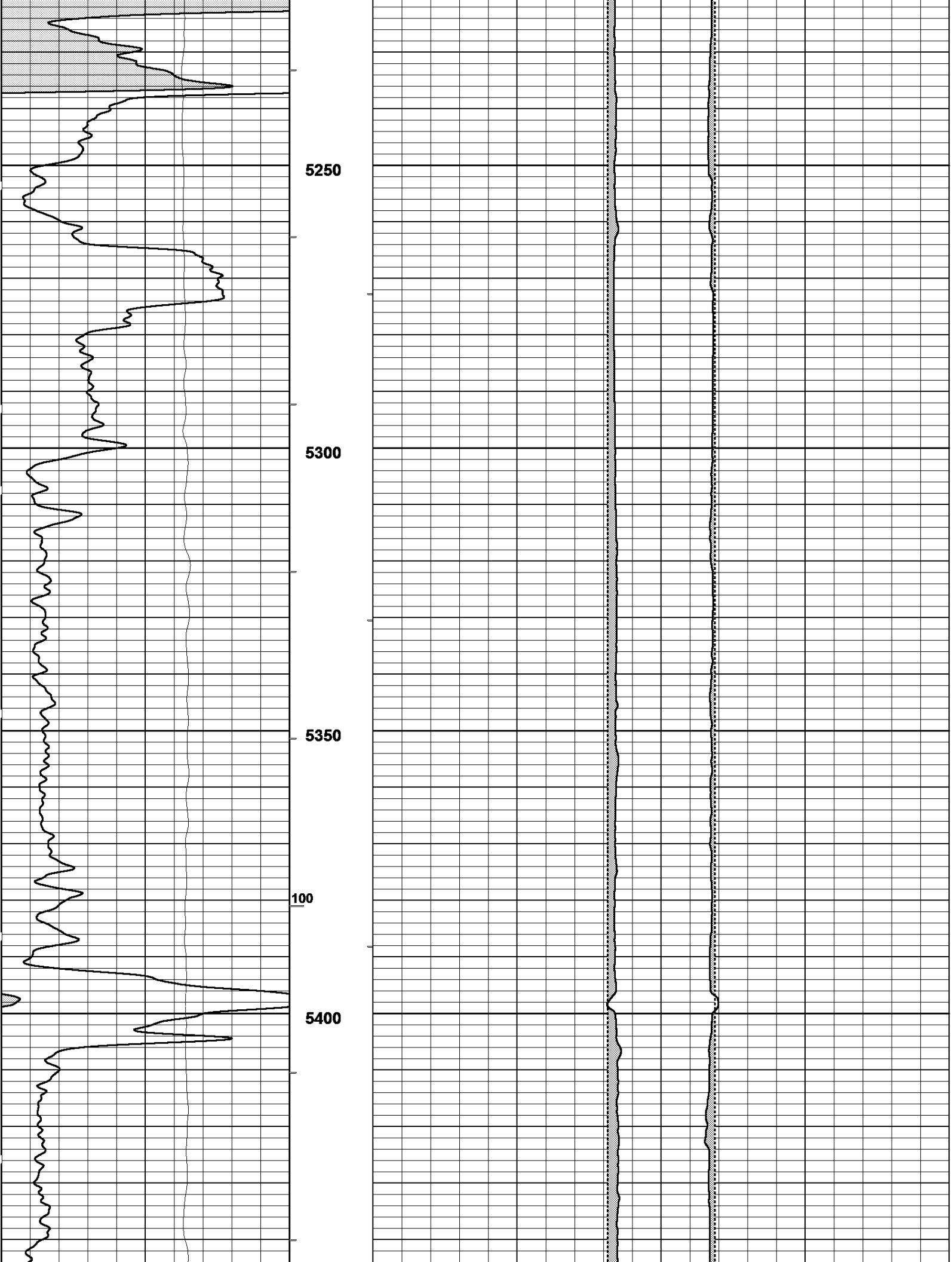

4150
4200
500
4250
4300
<<Gamma Shade
TENS>>
BHV>>
<<GR
<<ANV
BIT>>
<<BIT
CALX>>
<<CALY

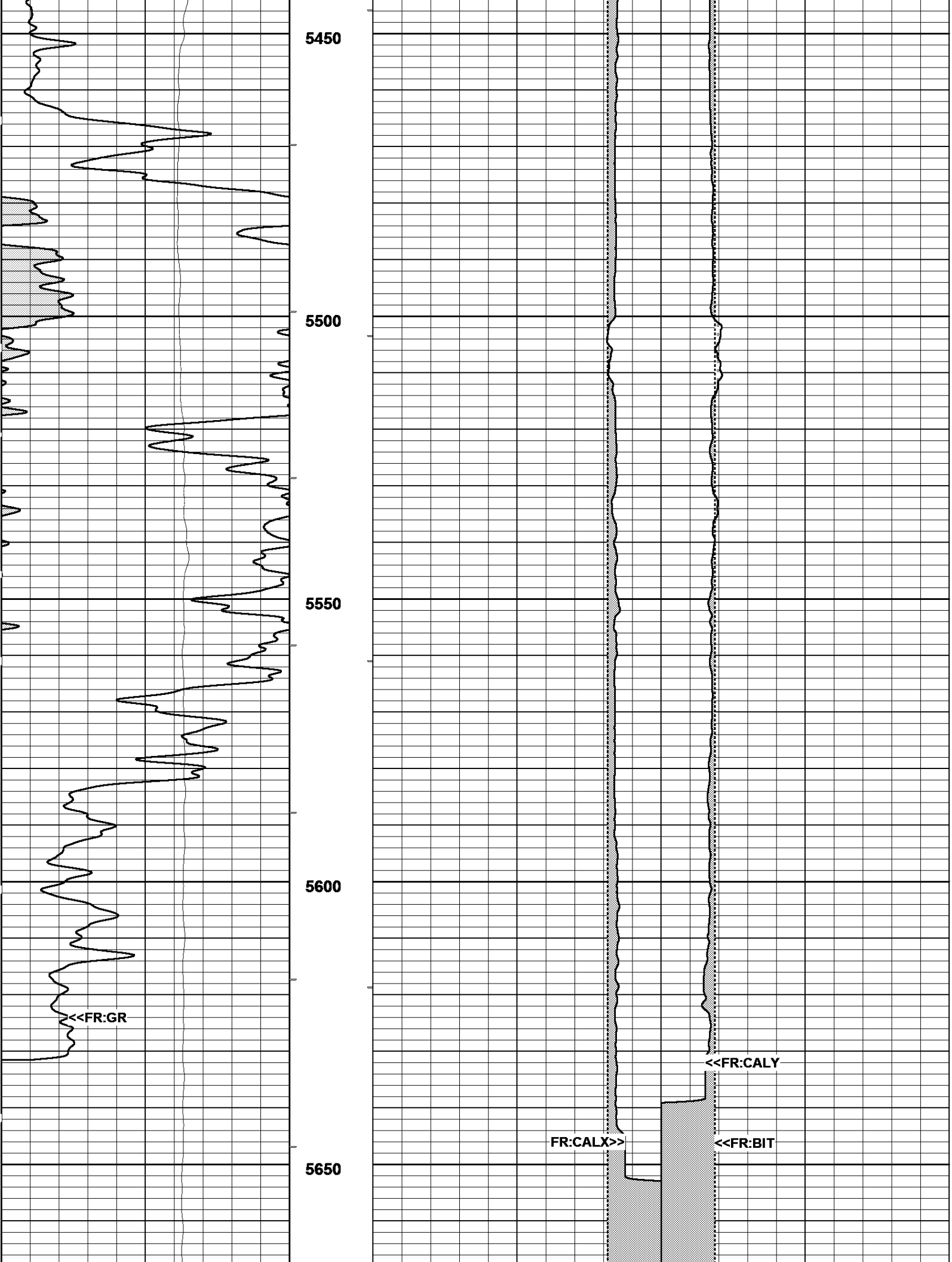

4350
4400
4450
400
4500
200
<<Gamma Shade
TENS>>
BHV>>
<<ANV
BIT>>
<<BIT

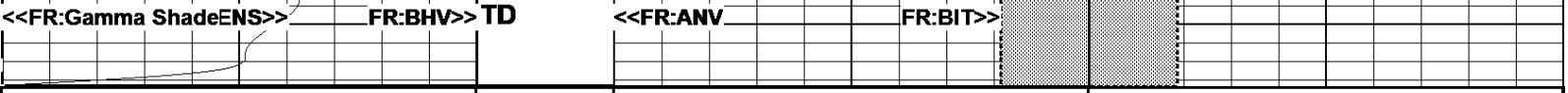

4550
<<GR
4600
CALX>>
<<CALY
4650
4700
4750


300
4800
<<Gamma Shade
TENS>>
BHV>>
<<ANV
BIT>>
<<BIT
4850
CALX>>
<<CALY
<<GR
4900
4950


5000
5050
200
100
5100
<<Gamma Shade
TENS>>
BHV>>
<<ANV
5150
BIT>>
<<BIT
CALX>>
<<CALY
GR>>
5200


5250
5300
5350
100
5400


5450
5500
5550
5600
5650
<<FR:GR
<<FR:CALY
FR:CALX>>
<<FR:BIT



Gamma Ray (GR)		X-Caliper (CALX)		Y-Caliper (CALY)	
0. API 150.		16. in 6.		6. in 16.	
Tension (TENS)		**Bit Size X-CAL (BIT)**		**Bit Size Y-CAL (BIT)**	
0. Lbs 5000.		16. Ref in 6.		6. Ref in 16.	

09/15/2013
14:04:48 => Start Time

BOREHOLE VOLUME (5"/100Ft)

Log UP - (VER 11.14a)
Start Depth=> 5676.60 Feet

GAMMA RAY CALIBRATION

SERIAL NUM	RG3011
BLANKET NUM	1A

MASTER CALIBRATIONS

	BackGrnd	CalVal: 135.000 API	Gain/Offset	CALIBRATION DATE	CALIBRATION TIME
BASE CALS	63.747 - raw	438.653 - raw	0.360 - gain 0.000 - off	M/D/Y> 8/27/2013	H:M:S> 15:31:34

X CALIPER

SERIAL NUM	RL4106

MASTER CALIBRATIONS

	ZeroVal: 6.500 mm	CalVal: 9.000 mm	Gain/Offset	CALIBRATION DATE	CALIBRATION TIME
BASE CALS	3760.790 - raw	4981.730 - raw	0.002 - gain -1.201 - off	M/D/Y> 8/27/2013	H:M:S> 10:34:6

Y CALIPER CALIBRATIONS

SERIAL NUM	RN2016

MASTER CALIBRATIONS

	ZeroVal: 6.500 IN	CalVal: 9.000 IN	Gain/Offset	CALIBRATION DATE	CALIBRATION TIME
BASE CALS	1007.959 - raw	1479.160 - raw	0.005 - gain 1.152 - off	M/D/Y> 8/27/2013	H:M:S> 14:16:8

Company	VAUGHN GOOD OIL COMPANY
Well	NUSSER #5-16
Field	S.E. HARDTNER
County	BARBER
State	KANSAS

RECON

BOREHOLE
VOLUME
X-Y CALIPER