



BOREHOLE PROFILE

FILE NO: MD11798	COMPANY HOLLY FRONTIER - NAVAJO
API NO: 30-015-44677	WELL NAVAJO REFINING WDW #4
	FIELD ARTESIA
	COUNTY EDDY
	STATE NEW MEXICO

Ver. 4.10	LOCATION: 1217' FSL & 2443' FWL SECTION 23, T17S, R27E N.M.P.M. SURVEY	OTHER SERVICES
-----------	---	----------------

PERMANENT DATUM	GL	ELEVATION	3565.8 FT	ELEVATIONS: KB 3585.8 FT DF 3584.8 FT GL 3565.8 FT
LOG MEASURED FROM	KB	20 FT	ABOVE P.D.	
DRILL. MEAS. FROM	KB			

DATE	09-May-2018		
RUN	TRIP	1	1
SERVICE ORDER	128981		
DEPTH DRILLER	1680 FT		
DEPTH LOGGER	1680 FT		
BOTTOM LOGGED INTERVAL	80 FT		
TOP LOGGED INTERVAL	50 FT		
CASING DRILLER	20 IN @ 80 FT		
CASING LOGGER	107 FT		
BIT SIZE	17.5 IN		
TYPE OF FLUID IN HOLE	WBM		
DENSITY	VISCOSITY	10.2 LB/G	28 CP
PH	FLUID LOSS	10	N/A
SOURCE OF SAMPLE	FLOWLINE		
RM AT MEAS. TEMP.	0.063 OHMM @ 75 DEGF		
RMF AT MEAS. TEMP.	0.054 OHMM @ 75 DEGF		
RMC AT MEAS. TEMP.	0.085 OHMM @ 75 DEGF		
SOURCE OF RMF	RMC	MEASURED	
RM AT BHT	0.073 OHMM @ 88 DEGF		
TIME SINCE CIRCULATION	6 HRS		
MAX. RECORDED TEMP.	90 DEGF		
EQUIP. NO.	LOCATION	HL6845	MIDLAND, TX
RECORDED BY	JKOSKI		
WITNESSED BY	KCOOK		

IN MAKING INTERPRETATIONS OF LOGS OUR EMPLOYEES WILL GIVE THE CUSTOMER THE BENEFIT OF THEIR BEST JUDGEMENT. BUT SINCE ALL INTERPRETATIONS ARE OPINIONS BASED ON INFERENCES FROM ELECTRICAL OR OTHER MEASUREMENTS, WE CANNOT, AND WE DO NOT GUARANTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATION. WE SHALL NOT BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COST, DAMAGES, OR EXPENSES WHATSOEVER INCURRED OR SUSTAINED BY THE CUSTOMER RESULTING FROM ANY INTERPRETATION MADE BY ANY OF OUR EMPLOYEES.

BOREHOLE RECORD		
BIT SIZE	FROM	TO
17.5 IN	80 FT	1680 FT

CASING RECORD				
SIZE	WEIGHT	GRADE	FROM	TO
20 IN			0 FT	80 FT
13.375 IN				

REMARKS
RUN 1 TRIP 1: BOREHOLE AND CEMENT VOLUME PRESENTED (TOTAL VOLUME LESS 13.375" CASING) 1 SMALL TICK = 10 CUBIC FEET 1 MEDIUM TICK = 100 CUBIC FEET 1 LARGE TICK = 1000 CUBIC FEET RIG: PATRIOT#4 CREW: J. ESPINOZA / R. SANCHEZ

EQUIPMENT DATA					
RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
1	1	TTRM	3981XA	10348286	FREE
1	1	COMM	3514XA	10570247	FREE

1	1	GAMMA	1329XA	Z177857	FREE
1	1	ISO	4485XA	12448494	CENTRALIZED
1	1	6CAL	4253XA	12408673	CENTRALIZED
1	1	RTEX	1249XA	13339146	CENTRALIZED
1	1	MLL	1243XA	12650281	PAD DEVICE
1	2	CN	2446XA	10080837	D.CENT
1	2	ZDL	2234XA	12429124	PAD DEVICE

INSTRUMENT CONFIGURATION

Source File: C:\Users\koscj\sd\Desktop\WSP2\p87cc~tdg.meta

CABLEHEAD

Diameter : 3.38"
Length : 5.50'
Weight : 24 lbs
Series : CABL338
Mnemonic : CBLH
Measure Point: 2.75': CABLEHEAD TOP

TTRM SUB

Diameter : 3.63"
Length : 3.83'
Weight : 62 lbs
Series : 3981XA
Mnemonic : TTRM

WTS COMMON REMOTE

Diameter : 3.63"
Length : 6.36'
Weight : 126 lbs
Series : 3514XB
Mnemonic : WTS

DIGITAL SPECTRALOG

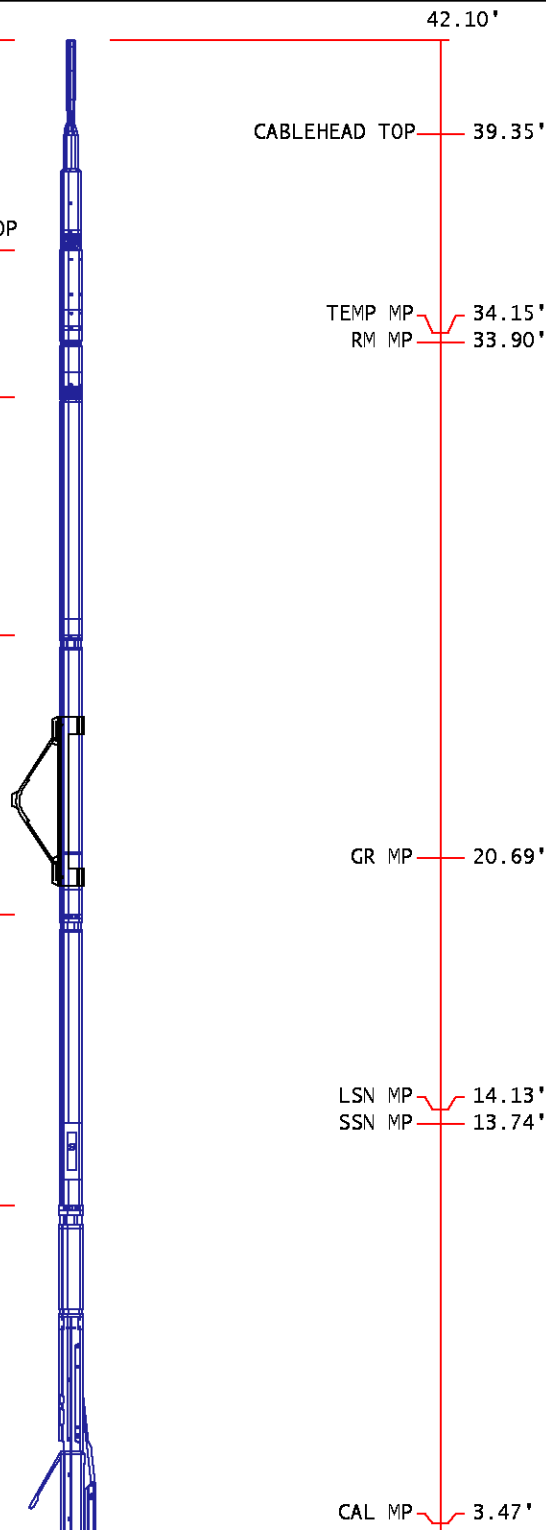
Diameter : 3.63"
Length : 7.31'
Weight : 130 lbs
Series : 1329XA
Mnemonic : DSL
Measure Point: 1.60': GR MP

COMPENSATED NEUTRON

Diameter : 3.63"
Length : 7.59'
Weight : 150 lbs
Series : 2446XA
Mnemonic : CN
Measure Point: 2.63': LSN MP
Measure Point: 2.24': SSN MP

Z-DENSILOG

Diameter : 4.88"
Length : 11.22'
Weight : 360 lbs
Series : 2234XA
Mnemonic : ZDL
Measure Point: 3.19': CAL MP
Measure Point: 2.47': LSD MP
Measure Point: 2.07': SSD MP



BULL PLUG 3 3/8

TOTAL LENGTH: 42.10'
TOTAL WEIGHT: 869 lbs
MAX DIAMETER: 0'4.88"

LSD MP 2.75'
SSD MP 2.35'

0.00'

MAIN LOG 2"/100FT SCALE

ECLIPS 7.0i ECLIPS General Release Rel 7.0i Thu Jun 08 20:36:10 CDT 2017

Patches: 3

Plotted: Thu May 10 08:29:25 2018

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/md11798/p87ccwgiR02.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 77.500 ft BOTTOM DEPTH: 1687.391 ft

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
TENSION	FILTER ()	medium (1)		TOP	BOTTOM
GR	FILTER ()	medium (1)		"	"

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	13.375	in	TOP	BOTTOM
CALIPER SELECTION	X-Y VS MULTI-ARM SEL	MULTI-ARM CAL		"	"
BIT SIZE	BIT SIZE	17.500	in	"	"
		12.250	in	1687.391	BOTTOM

CURVE DESCRIPTION REPORT

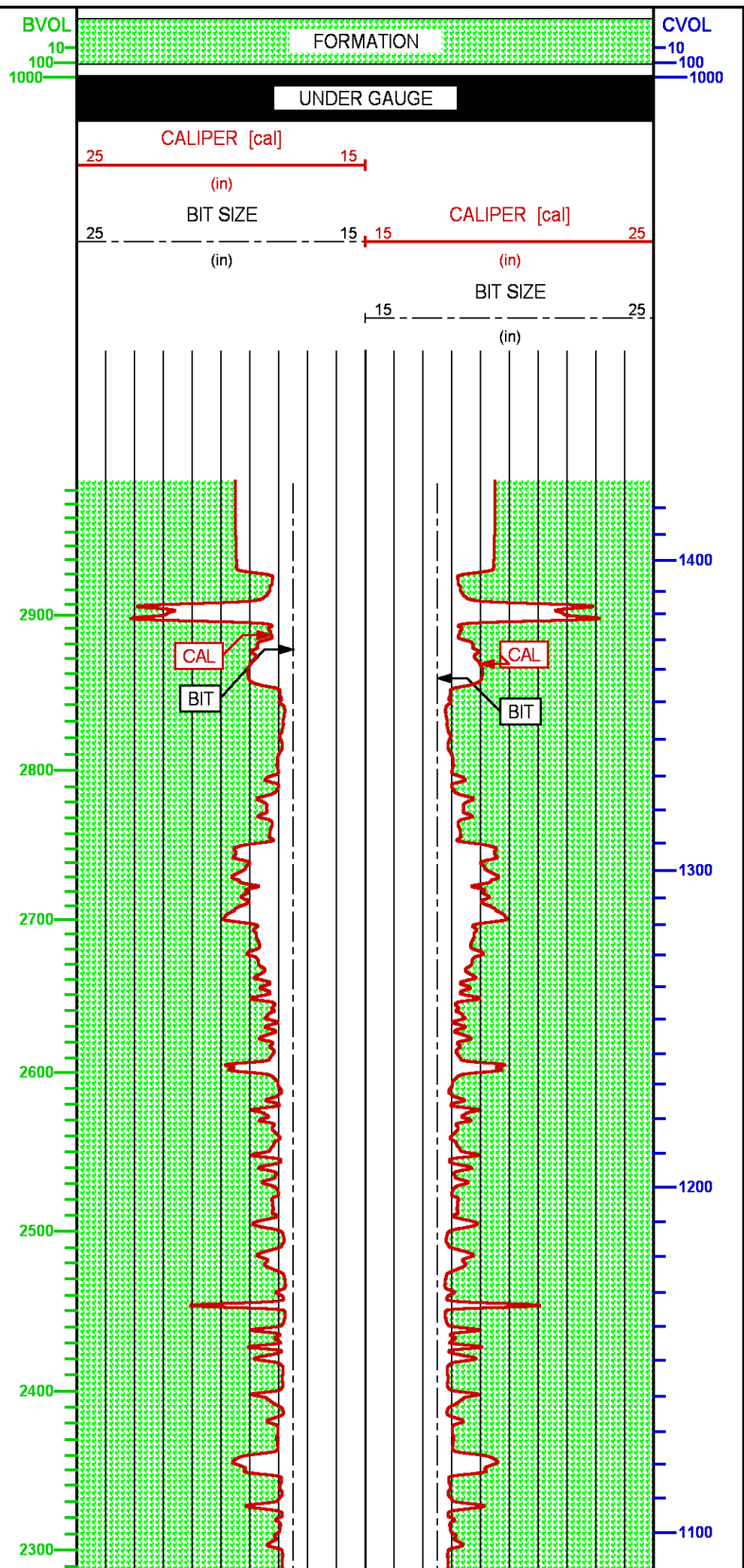
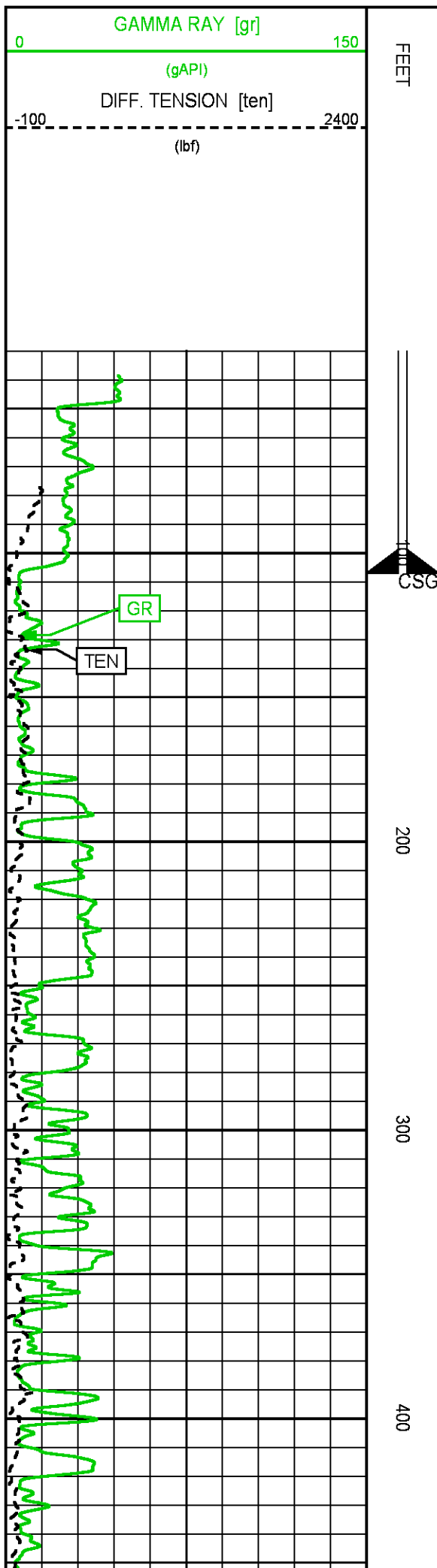
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:BIT	N/A	BIT SIZE
F1:BVOL	N/A	BOREHOLE VOLUME
F1:CAL	N/A	CALIPER
F1:CVOL	N/A	CEMENT VOLUME
F1:GR	N/A	GAMMA RAY
F1:TEN	N/A	DIFFERENTIAL TENSION

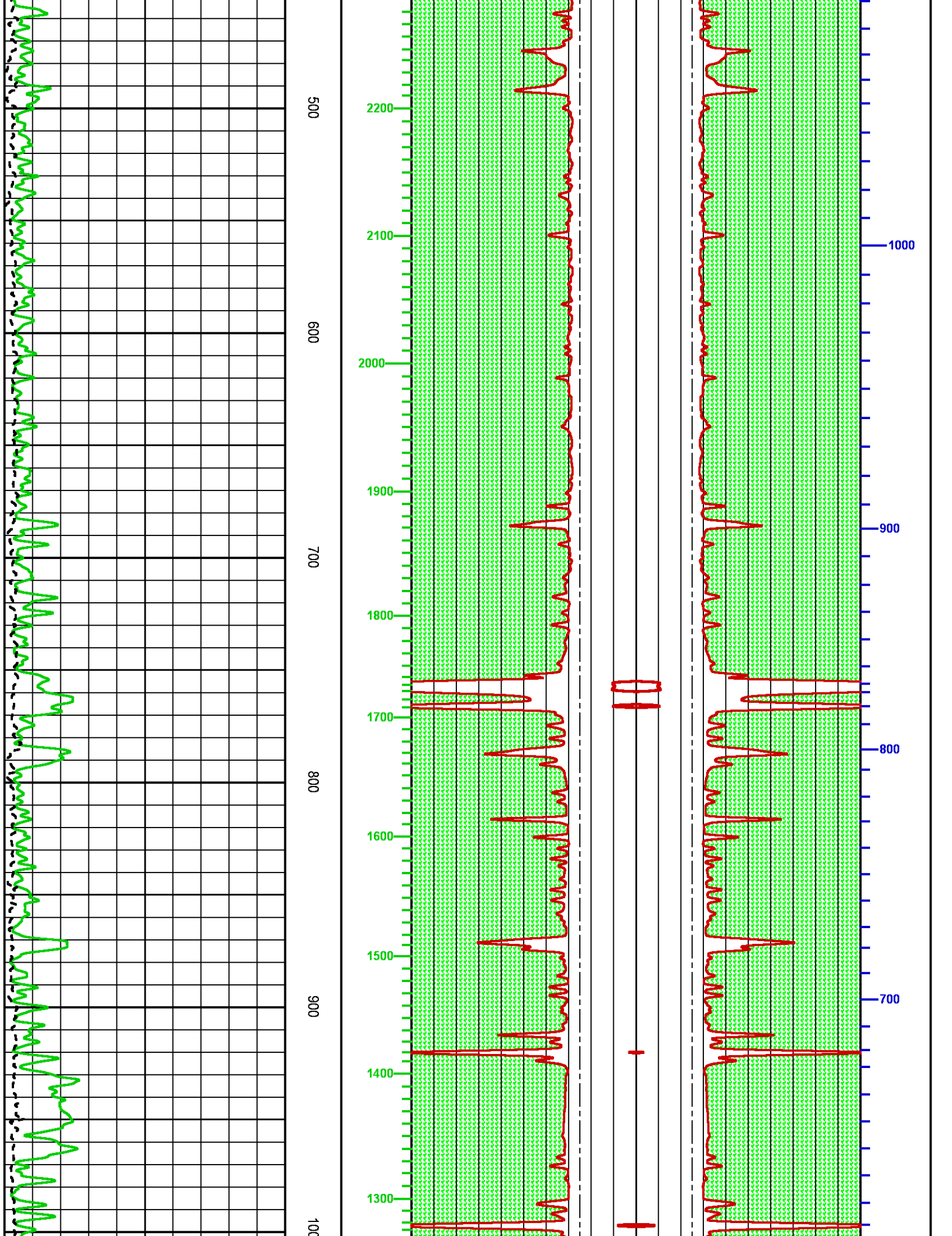
CURVE MEASURE POINT OFFSET

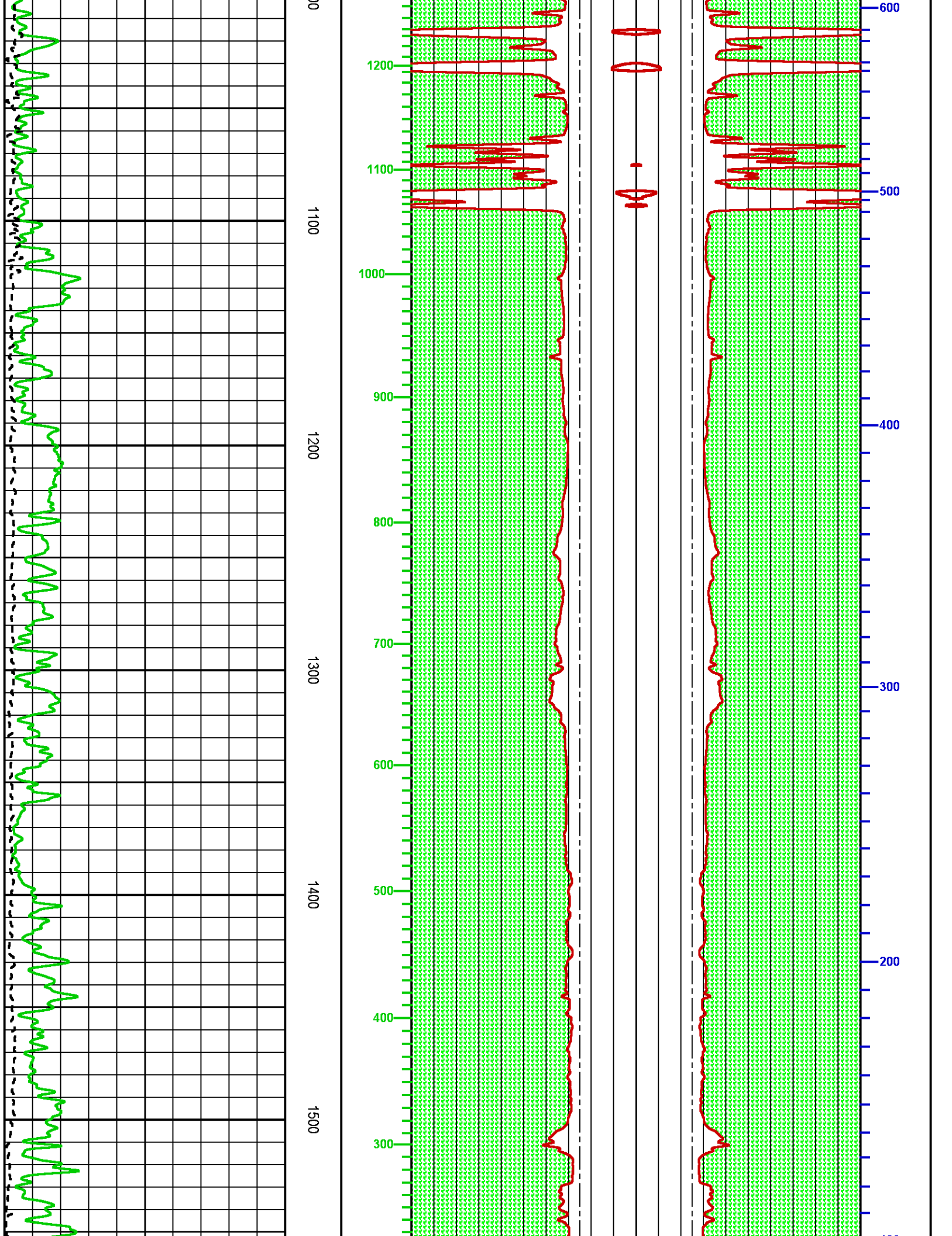
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
BIT	0.00	CAL	-3.50	GR	-38.62	TEN	0.00

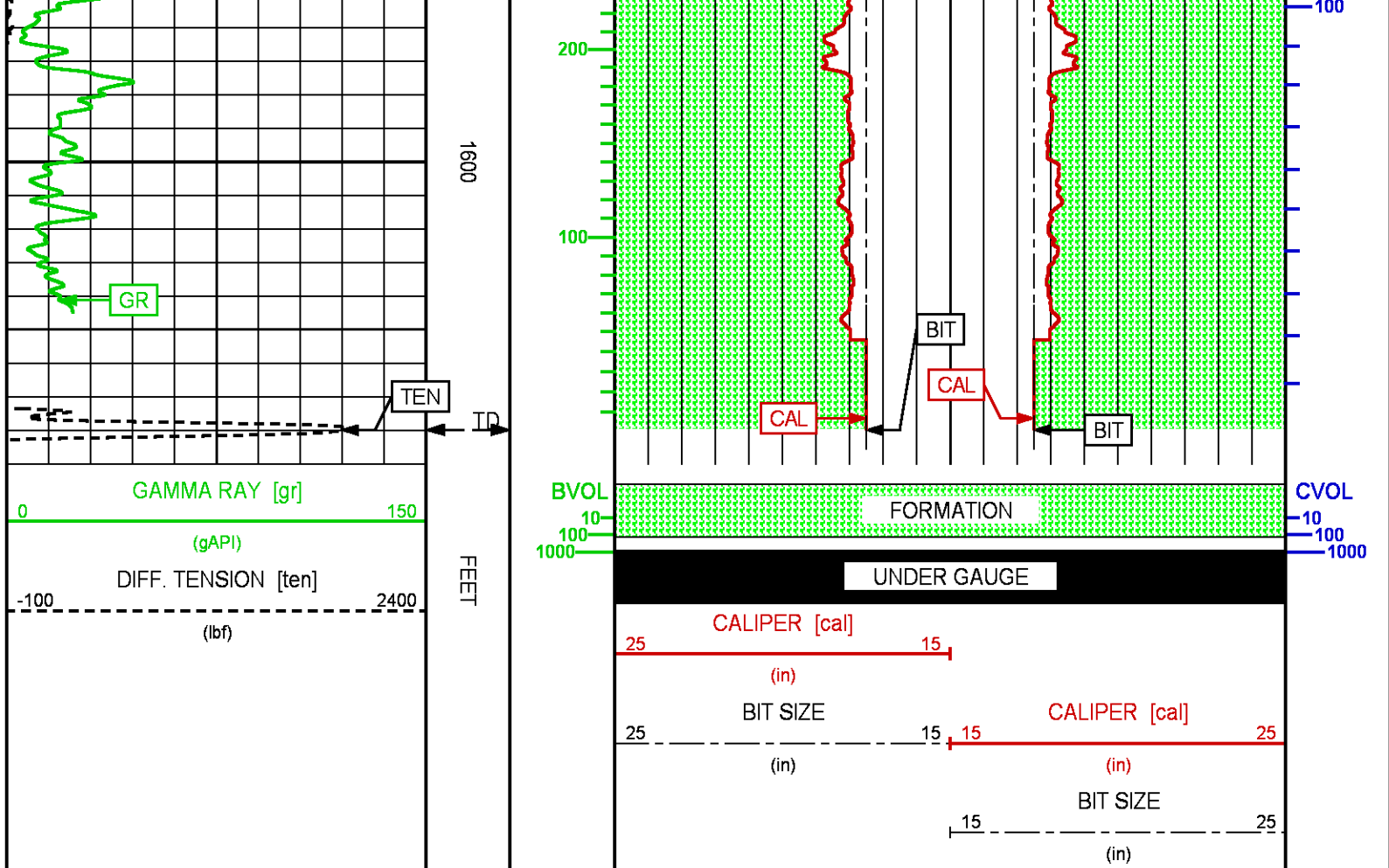
Presentation : SysA:/dat1a/md11798/bhp1cal.fvpdf [2"/100' Scale]
Plot Interval : 38.5 - 1685.5 Feet

Data File 1 : F1 : SysA:C:\Users\koskjusd\Desktop\WSP2\p87ccwgiR02.aff
Created On : N/A
Company : 3 BEAR DELAWARE OPERATING NM LLC
Well : LIBBY BERRY SWD #1
Field : WILDCAT
File Interval : 24 - 1685.5 Feet
OCT : p87ccwgi









CALIBRATION / VERIFICATION SUMMARY

Source File: C:\Users\koskjusd\Desktop\WSP2\p87cc.tp1

CAL PRIMARY CALIBRATION SUMMARY

TOOL #: 2234XA 12429124

DATE/TIME PERFORMED: Sun Apr 15 11:25:49 2018

UNIT #: 5753XD 10215900

	SMALL RING	LARGE RING	MULT	ADD	SMALL RING (in)	LARGE RING (in)
CALIPER	2020.4	2931.2	0.00782	-7.93017	7.875	15.000

**BAKER
HUGHES**
a GE company



ECLIPS

COMPANY

HOLLY FRONTIER - NAVAJO

WELL

NAVAJO REFINING WDW #4

FIELD

ARTESIA

COUNTY

EDDY

STATE

NEW MEXICO

FILE NO:

MD11798

API NO:

30-015-44677

LOCATION:

1217' FSL & 2443' FWL
SECTION 23, T17S, R27E
N.M.P.M. SURVEY

ELEVATIONS:

KB 3585.8 FT

DF 3584.8 FT

GL 3565.8 FT

DATE

09-May-2018

