



**GAMMA RAY  
NEUTRON  
LOG**

Company **ENTRANSCO ENERGY, LLC**  
 Well **T. WIEBE NO.30-2**  
 Field **HAZLETT**  
 County **BUTLER** State **KANSAS**

Comp. ENTRANSCO ENERGY, LLC  
 Well T. WIEBE NO.30-2  
 Field HAZLETT  
 Co. BUTLER  
 State KANSAS

Location: API #: 15-015-24102-00-00 Other Services  
 1650' FSL & 825' FEL  
 E2 SW NE SE  
 SEC 30 TWP 23S RGE 5E  
 Permanent Datum GROUND LEVEL Elevation 1470'  
 Log Measured From KB 6' Above Perm. Datum  
 Drilling Measured From KELLY BUSHING  
 CBL  
 PERFORATE  
 Elevation  
 K.B. 1476'  
 D.F. 1475'  
 G.L. 1470'

Date of Service	9/27/2018			
Run Number	ONE			
Depth Driller or PBTD	2600'			
Depth Logger	2578'			
Bottom Log Interval	2577'			
Top Log Interval	1000'			
Open Hole Size	7.875"			
Type Fluid	WATER			
Fluid Level	FULL			
Fluid Density	N/A			
Max. Recorded Temperature	110 DEG. F.			
Max. Wellhead Pressure	00 PSI			
Wellhead Connection	N/A			
Estimated Cement Top	1270'			
Unit Number	P-106			
Wireline Size	.288"			
Location	HAYS, KS			
Recorded By	M. HISS			
Witnessed By	RAY GILBERT			
Tubing Record	Size	WFt	Top	Bottom
Surface Casing	8.625"	23#	00'	211'
Production Casing	4.5"	11.5#	00'	TD
Liner Record				

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All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not 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.

Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.  
 NEWTON KANSAS  
 EAST ON FIRST ST. (150TH) TO NW PURITY SPRING RD,  
 2 SOUTH TO 130TH RD,  
 NORTH AND WEST INTO.

THANK YOU FOR USING PIONEER ENERGY SERVICES!

Your Pioneer Energy Services Crew	Tool Data - Services	Serial Number
Engineer: M. HISS Operator: K. PFANNENSTIEL Operator: Operator:		

# Log Variables

DatabaseC:\ProgramData\Warrior\Data\transco\_t\_wiebe#30-2\_cbl\_grn.db  
Dataset field/well/run1/pass4/\_vars\_

## Top - Bottom

BOREID in 7.875	BOTTEMP degF 110	CASEOD in 4.5	CASETHCK in 0.25	CASEWGHT lb/ft 11.5	MAXAMPL mV 0	MINAMPL mV 1	MINATTN db/ft 0.08
NPORSEL Limestone	NPORSHIFT 0	PERFS 0	PPT usec 0	SRFTEMP degF 70	TDEPTH ft 2580		

## Variable Description

BOREID : Borehole I.D.  
BOTTEMP : Bottom Hole Temperature  
CASEOD : Casing O.D.  
CASETHCK : Casing Thickness  
CASEWGHT : Casing Weight  
MAXAMPL : Maximum Amplitude  
MINAMPL : Minimum Amplitude

MINATTN : Minimum Attenuation  
NPORSEL : Neutron Porosity Curve Select  
NPORSHIFT : NPORSHIFT  
PERFS : Perforation Flag  
PPT : Predicted Pipe Time  
SRFTEMP : Surface Temperature  
TDEPTH : Total Depth

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)	
			Cable Head-Titan_144 1 7/16" Titan Cable Head	1.03	1.44	2.00	
			Centralizer-275 Probe 2 3/4" Probe Adjustable Spring Centralizer	2.88	2.75	15.00	
			PROBE-RBT-DIGITAL-RBL-D (080554) Probe 2 3/4" Radii Bond-Digital	8.75	2.75	100.00	
WVFS8	16.35						
WVFS7	16.35						
WVFS6	16.35						
WVFS5	16.35						
WVFS4	16.35						
WVFS3	16.35						
WVFS2	16.35						
WVFS1	16.35						
WVFCAL	16.35						
WV3FT	16.35						
WV5FT	15.35						
HEADVOLT	12.17		Centralizer-275 Probe 2 3/4" Probe Adjustable Spring Centralizer	2.88	2.75	15.00	
CCL	8.39						

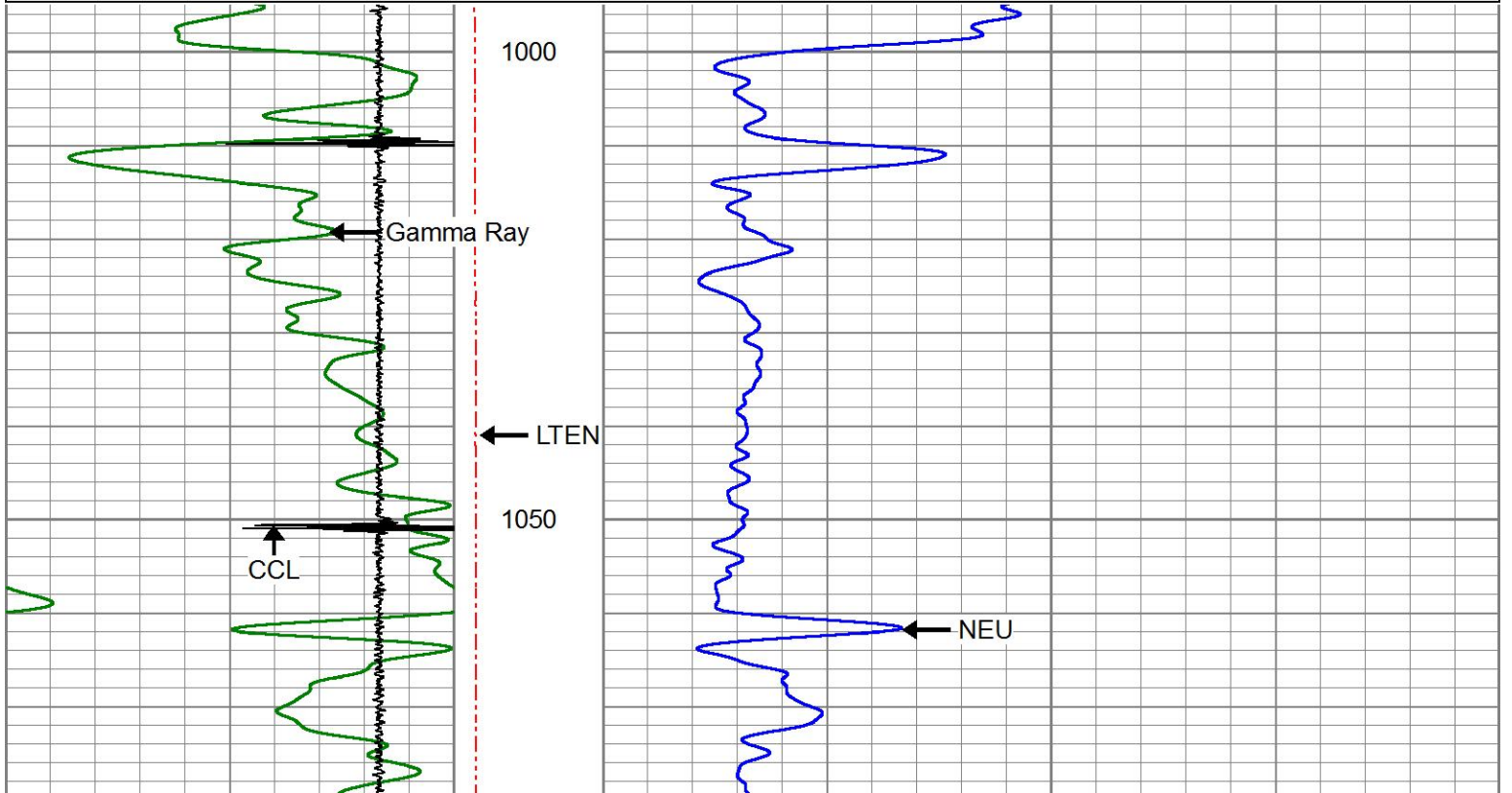
GR	7.08		PROBE-GR/CCL-DIGITAL-275 Probe GR-4.54 (11102.75 Probe 2 3/4" Gamma Ray / CCL DIGITAL			60.00
NEU	1.08		NEU-PRNEU (ProbeNEU1)	4.75	1.88	

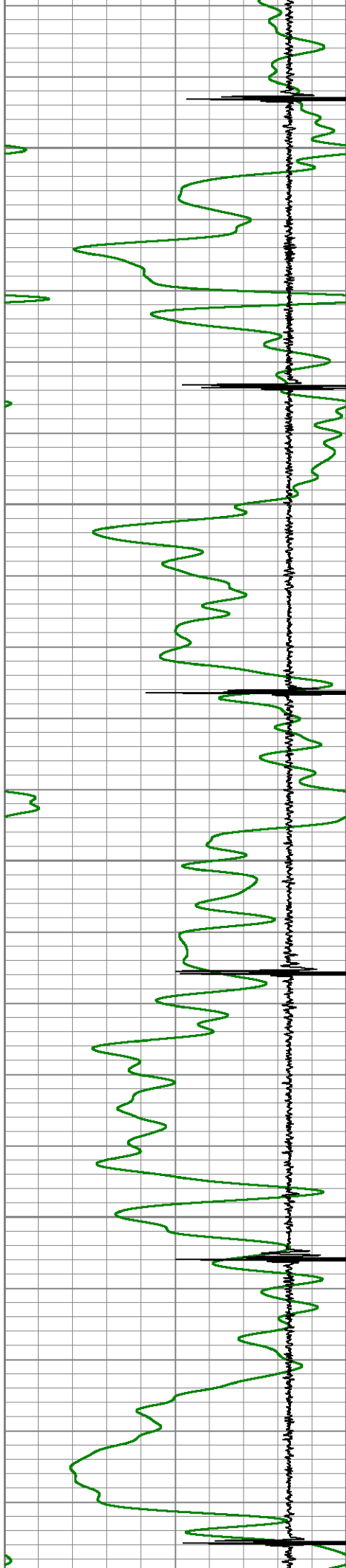
Dataset: entransco\_t\_wiebe#30-2\_cbl\_grn.db: field/well/run1/pass4  
 Total length: 24.83 ft  
 Total weight: 192.00 lb  
 O.D.: 2.75 in

	<h1>MAIN LOG</h1>
	<h2>ZERO PSI APPLIED AT SURFACE</h2>

Database File	entransco_t_wiebe#30-2_cbl_grn.db
Dataset Pathname	pass4
Presentation Format	pinr_gr-n-ccl
Dataset Creation	Thu Sep 27 09:17:52 2018
Charted by	Depth in Feet scaled 1:240

0	GR (GAPI)	150	LTEN	20	NEU (NAPI)	315
-5	CCL	1	0	(lb2000)		





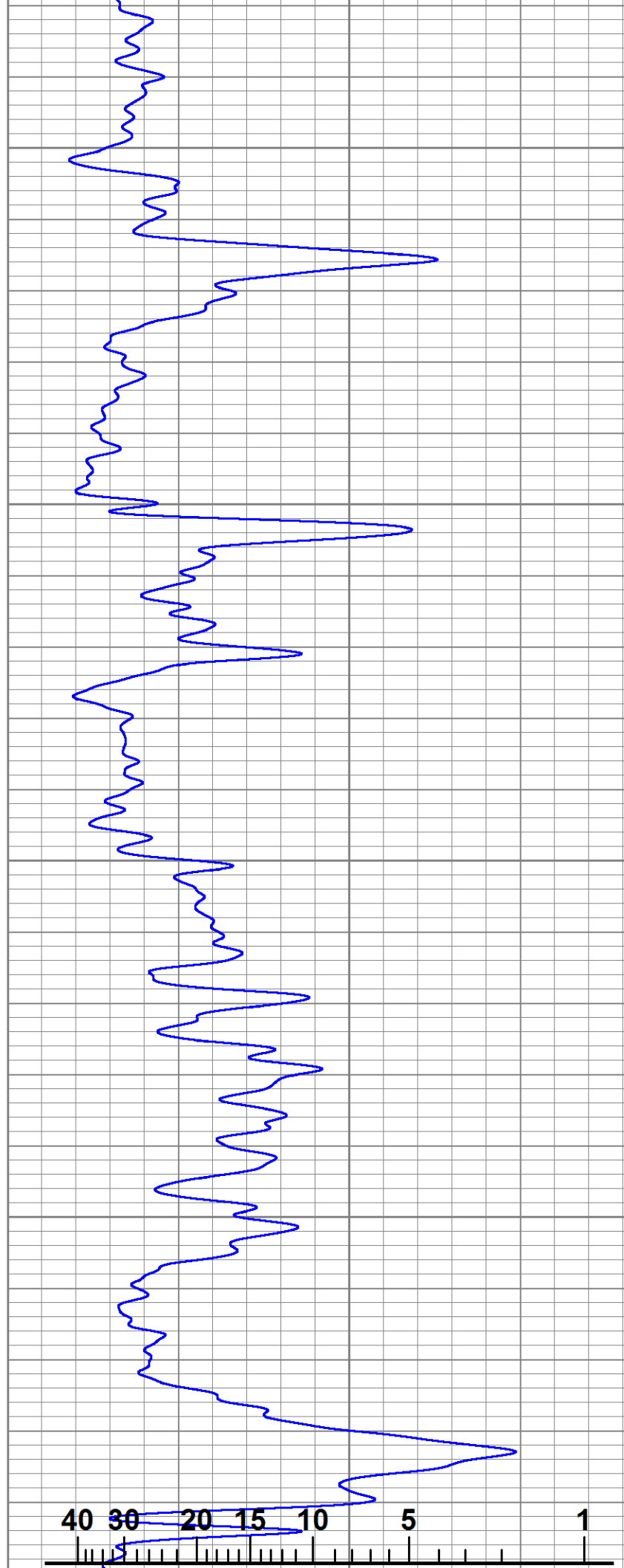
1100

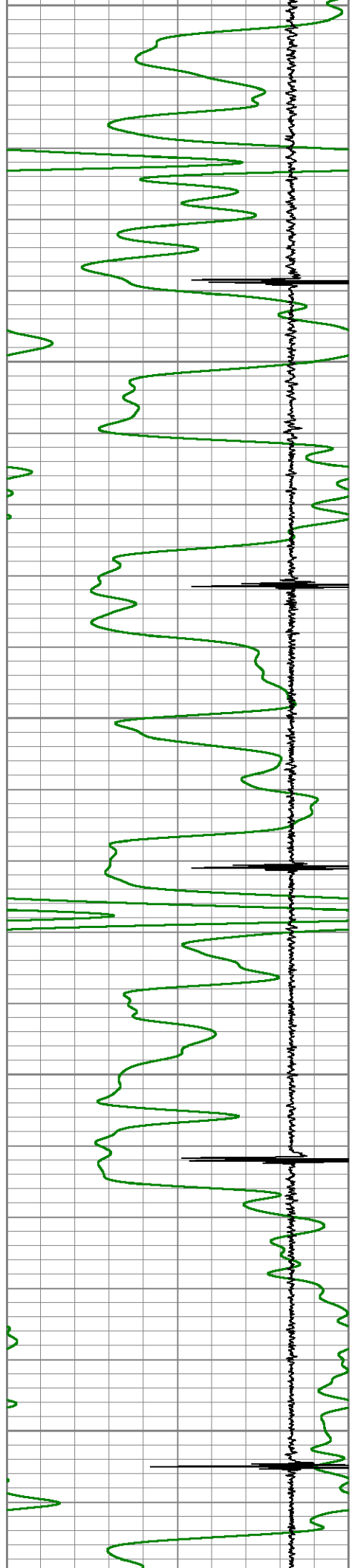
1150

1200

1250

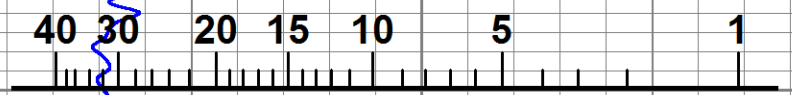
40 30 20 15 10 5 1



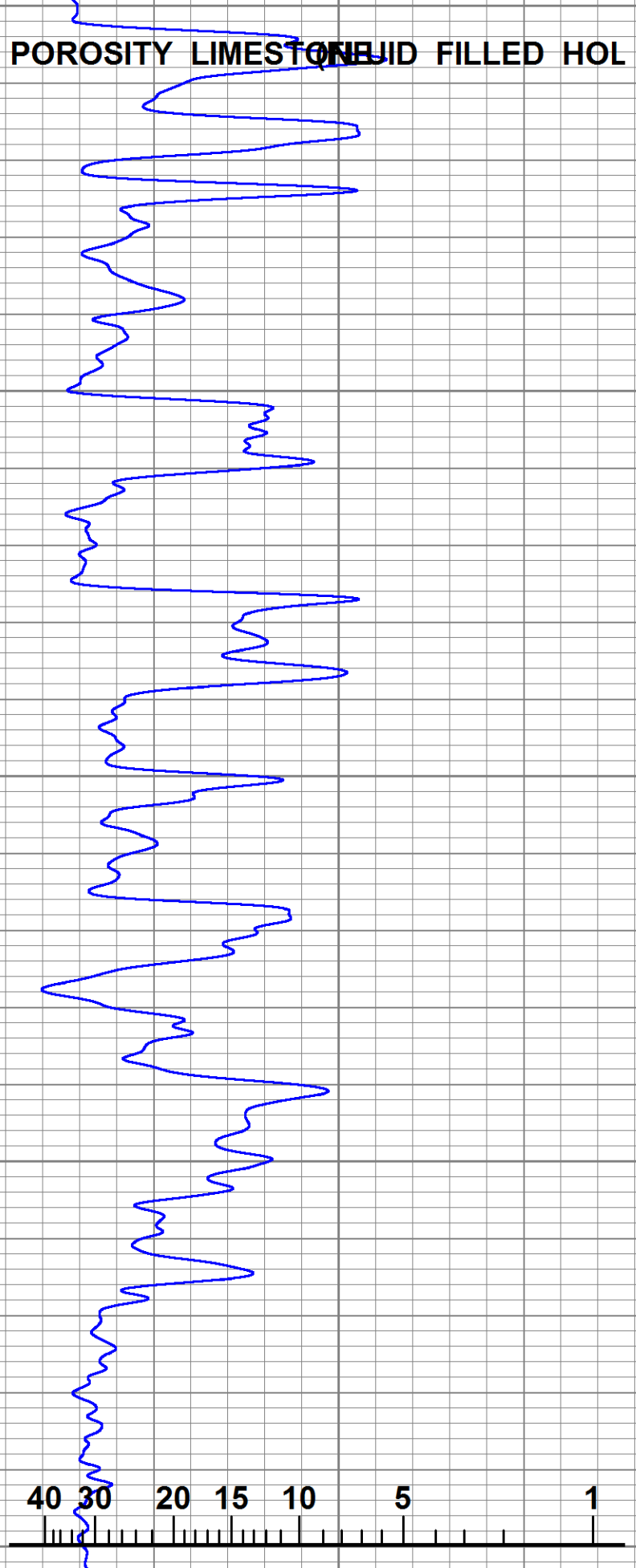


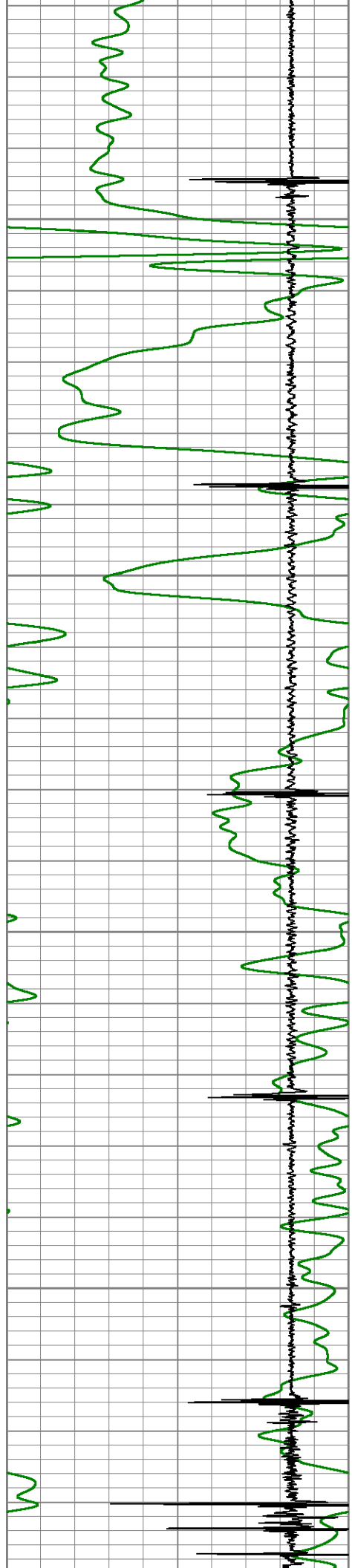
1300  
1350  
1400  
1450  
1500

POROSITY LIMESTONE  
FLUID FILLED HOL



POROSITY LIMESTONE  
FLUID FILLED HOL



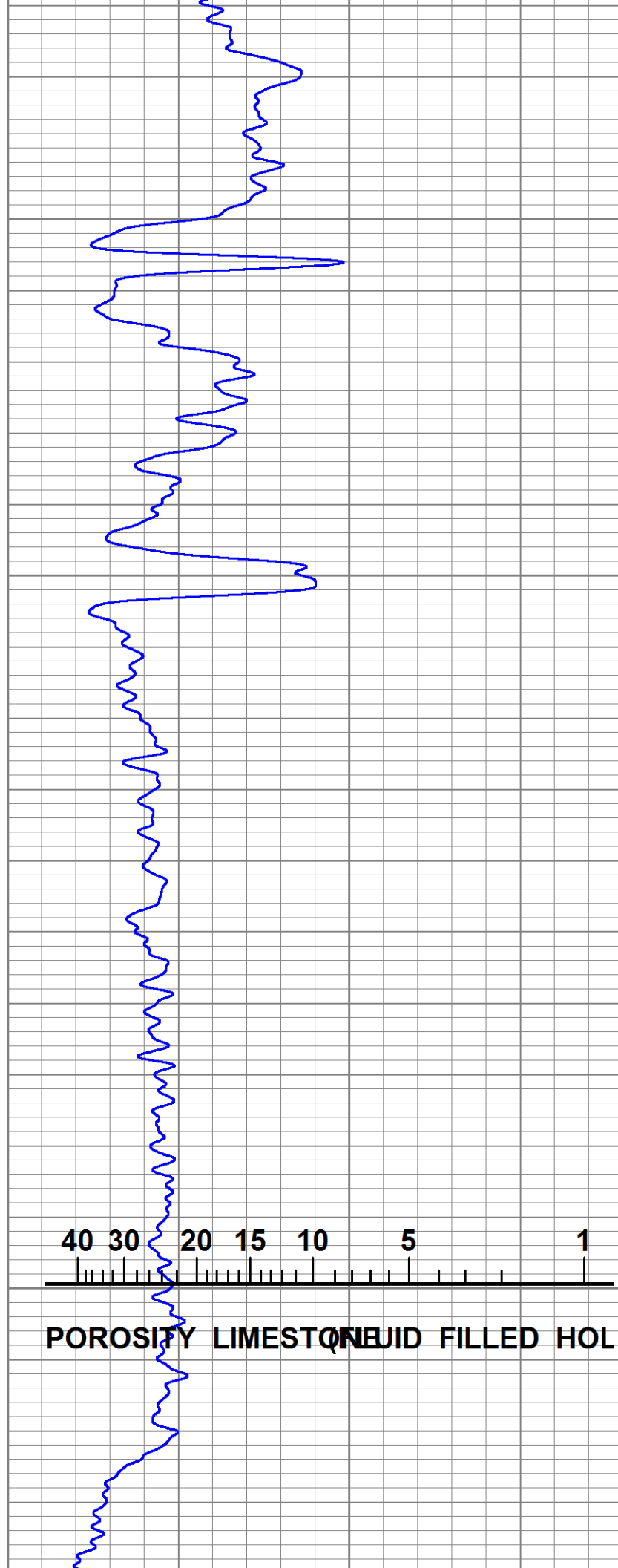


1550

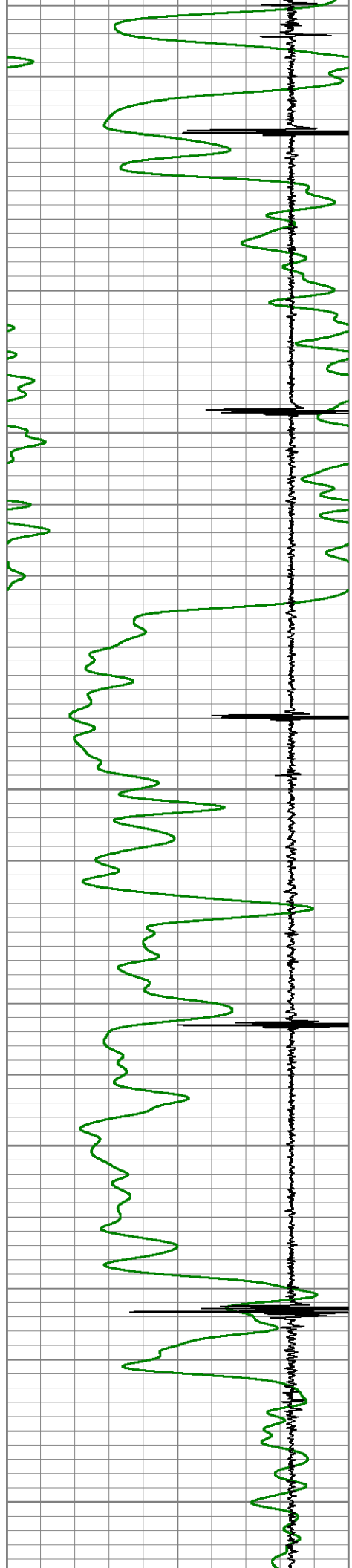
1600

1650

1700



40 30 20 15 10 5 1  
POROSITY LIMESTONE  
UID FILLED HOL



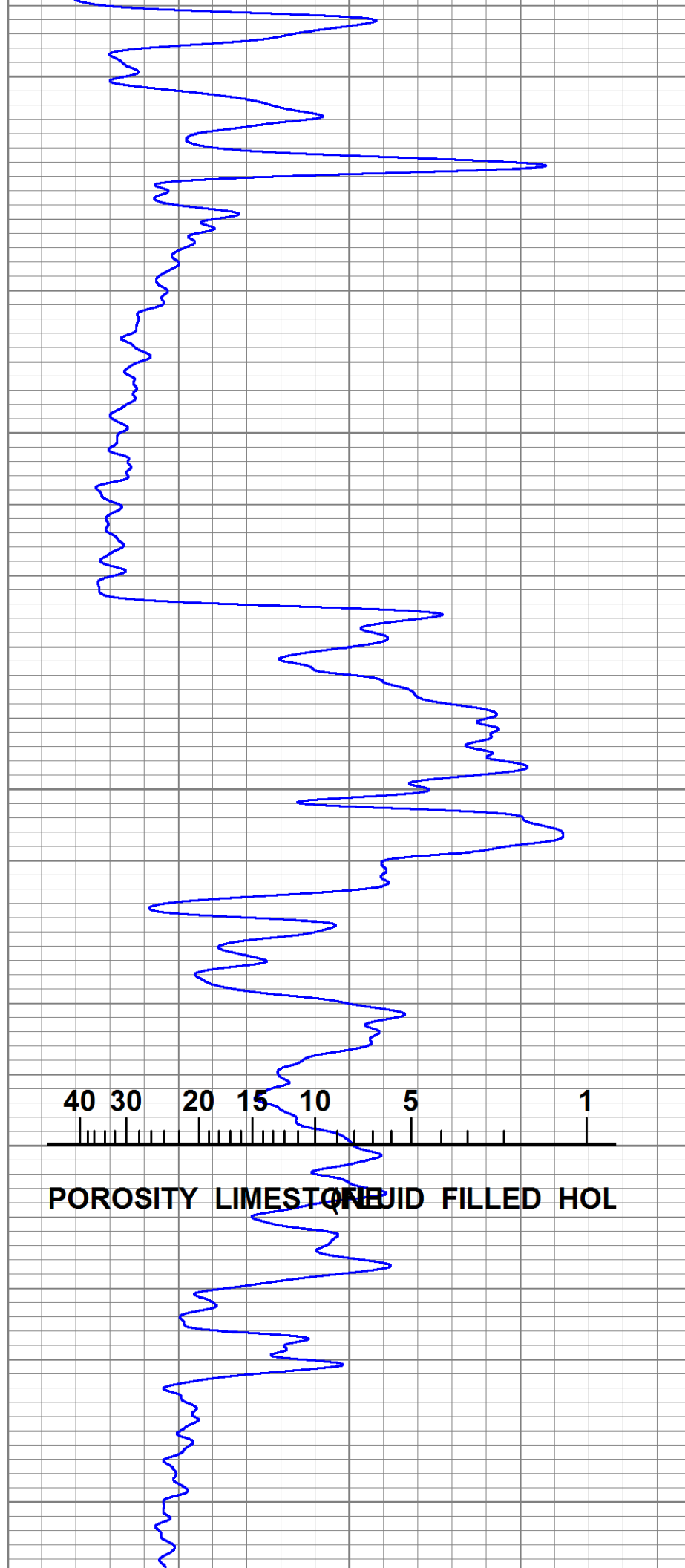
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1800

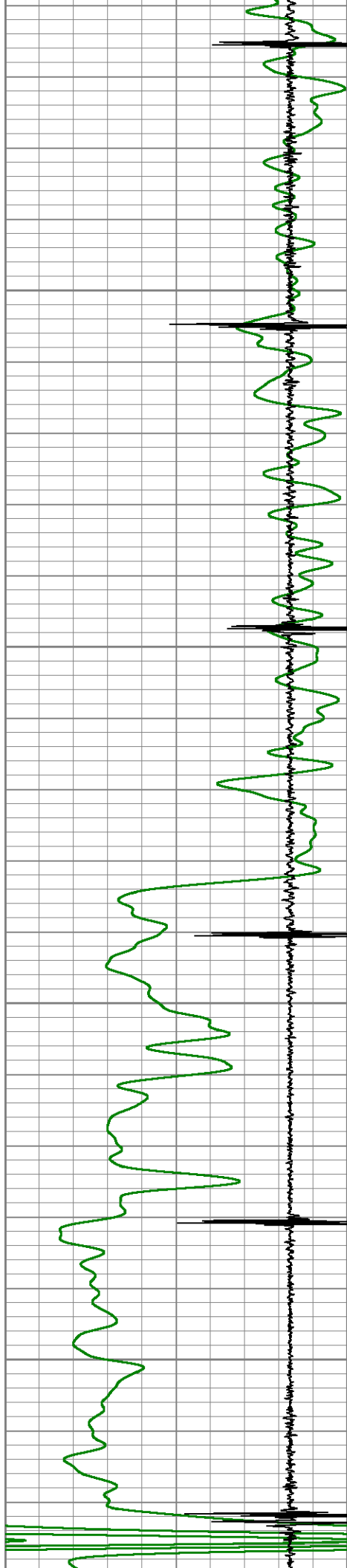
1850

1900

1950



40 30 20 15 10 5 1  
POROSITY LIMESTONE  
FLUID FILLED HOL

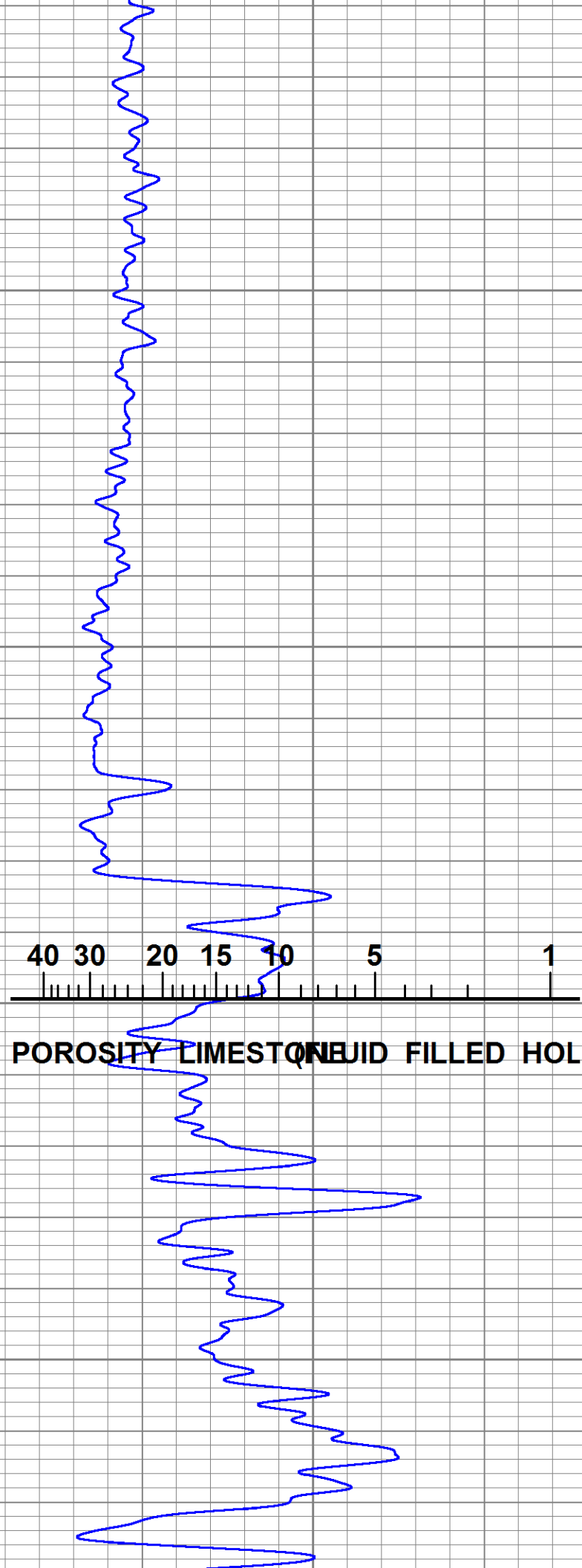


2000

2050

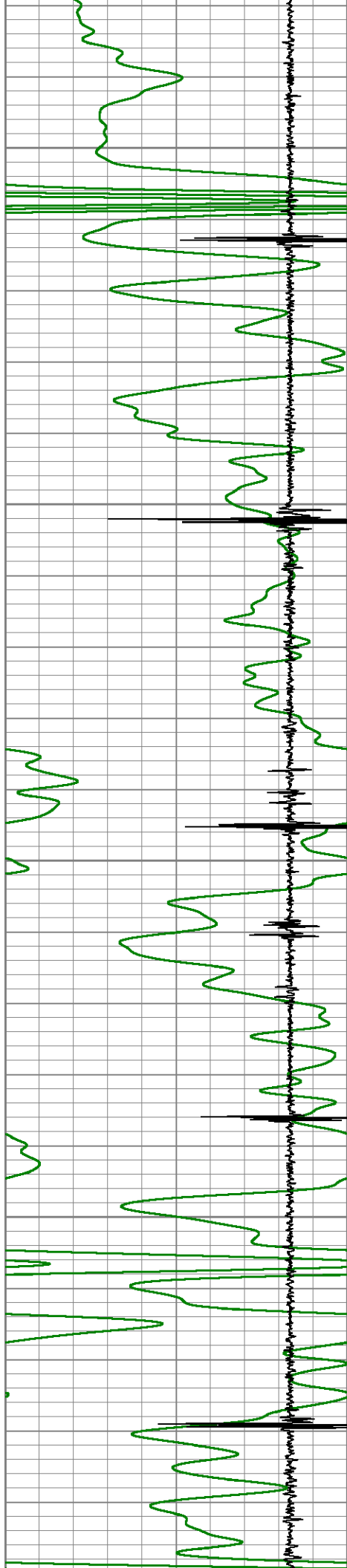
2100

2150



40 30 20 15 10 5 1

POROSITY LIMESTONE FILLED HOLE

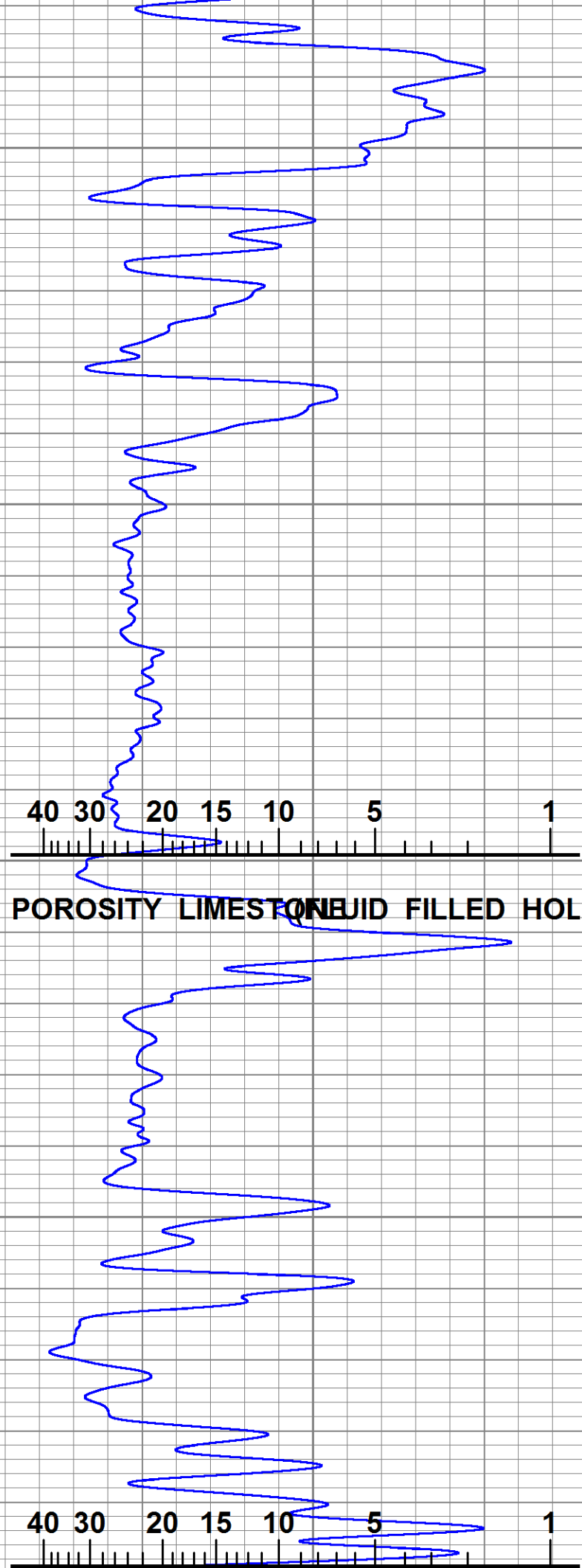


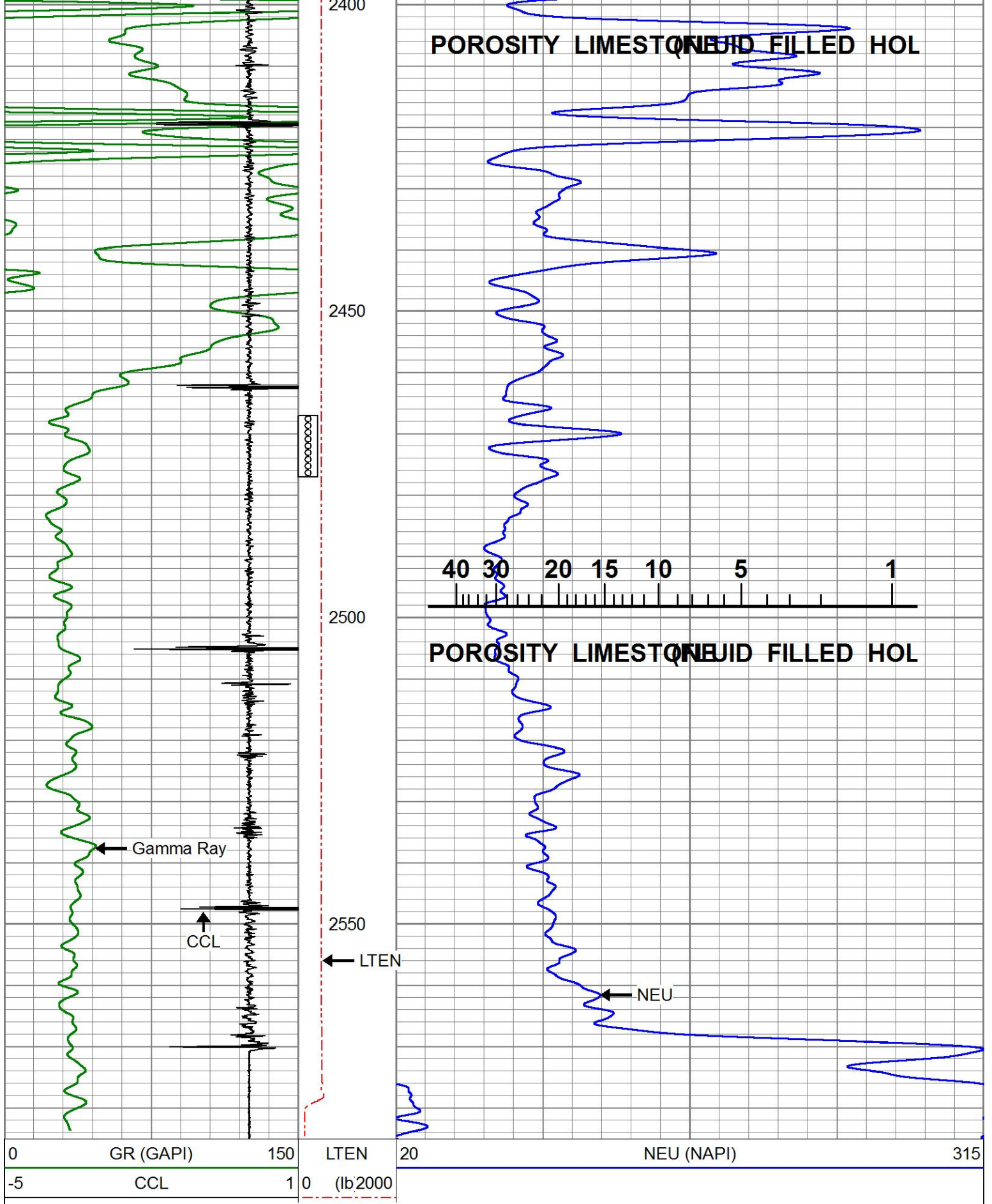
2200

2250

2300

2350



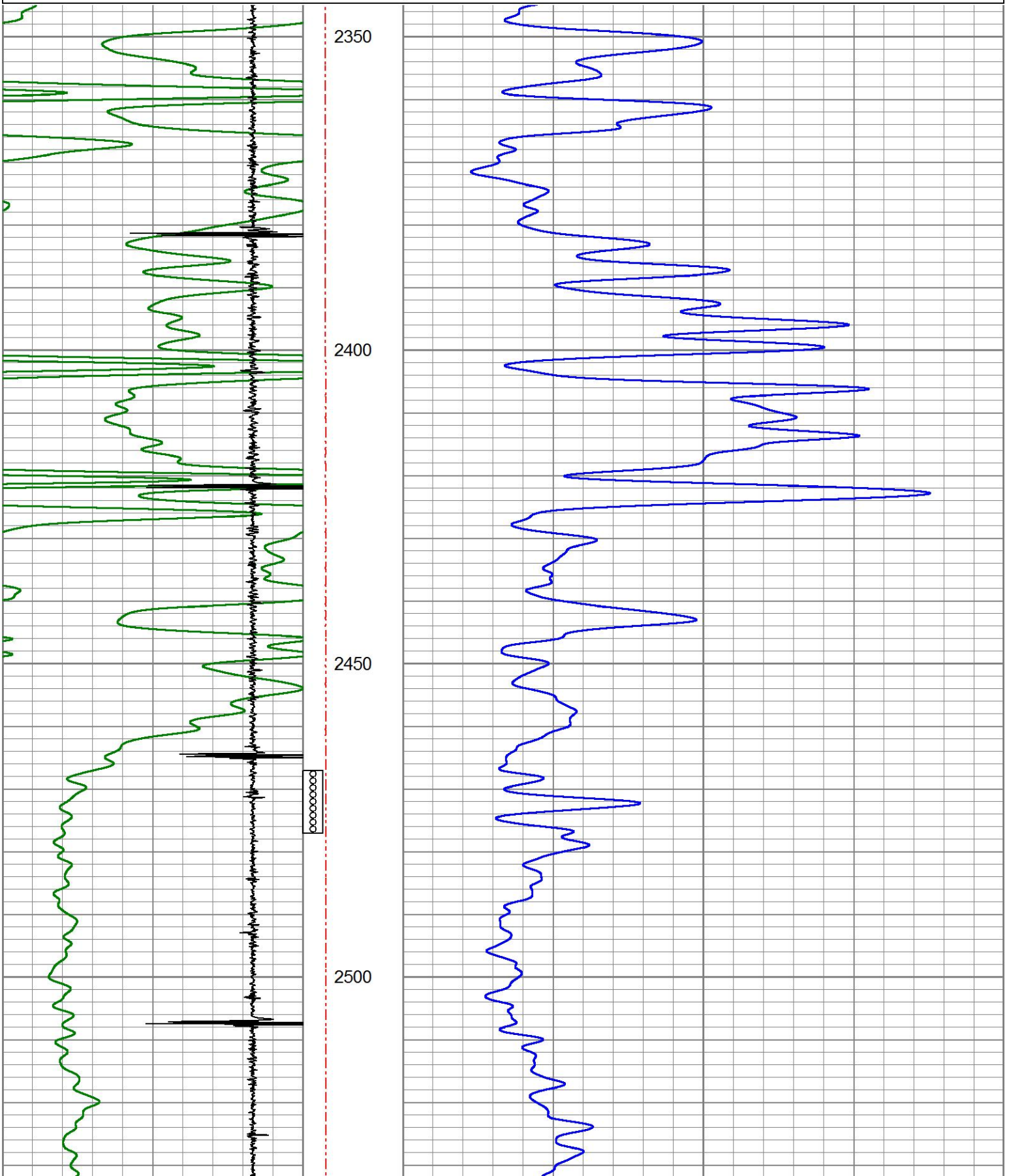


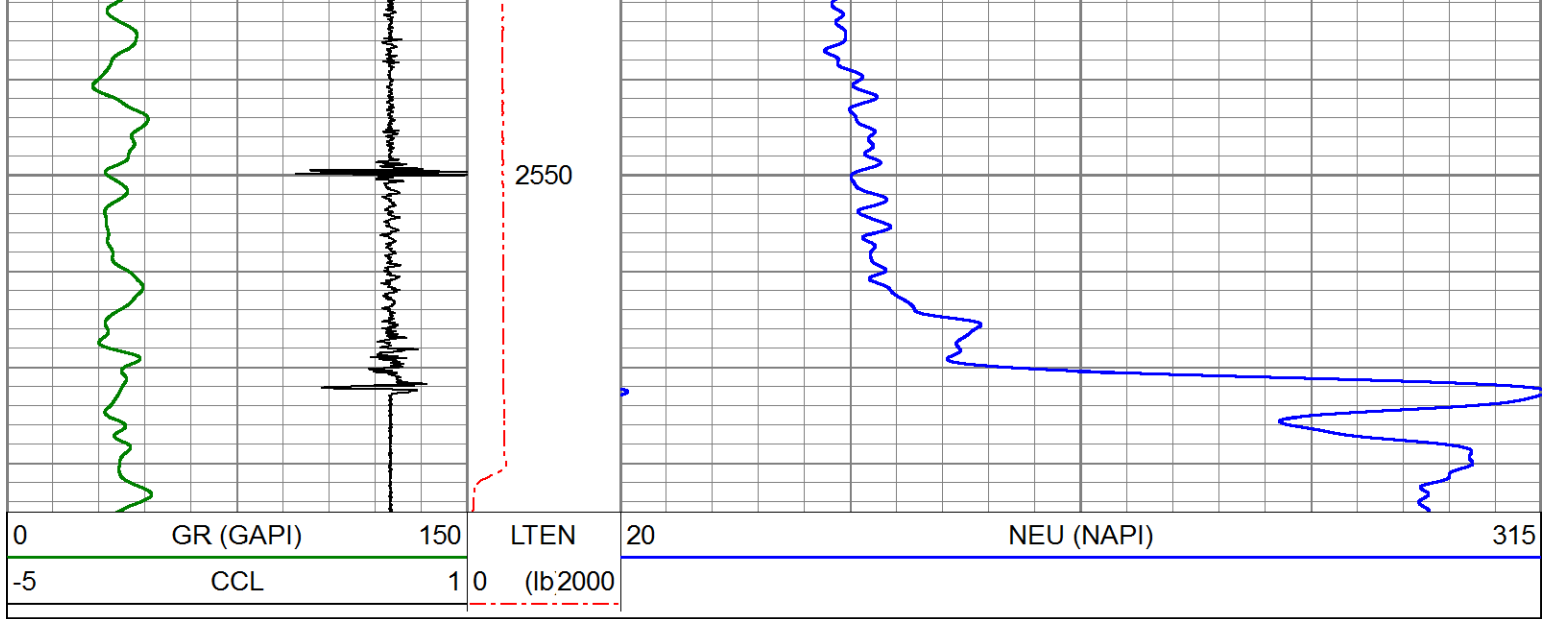
REPEAT SECTION

ZERO PSI APPLIED AT SURFACE

Database File entransco\_t\_wiebe#30-2\_cbl\_grn.db  
Dataset Pathname pass3  
Presentation Format pinr\_gr-n-ccl  
Dataset Creation Thu Sep 27 09:07:18 2018  
Charted by Depth in Feet scaled 1:240

0	GR (GAPI)	150	LTEN	20	NEU (NAPI)	315
-5	CCL	1	0	(lb)2000		





Calibration Report

Database File      entransco\_t\_wiebe#30-2\_cbl\_grn.db  
 Dataset Pathname    pass4  
 Dataset Creation    Thu Sep 27 09:17:52 2018

Neutron Calibration Report

Serial Number:            ProbeNEU1  
 Tool Model:              PRNEU  
 Performed:                (Not Performed)

Calibrator Value:         1                          NAPI  
 Calibrator Reading:      1                          cps  
 Sensitivity:                1                          NAPI/cps

Gamma Ray Calibration Report

Serial Number:            111032  
 Tool Model:                275 Probe GR-CCL  
 Performed:                Wed Sep 26 09:20:51 2018

Calibrator Value:         1.0                        GAPI  
 Background Reading:      0.0                        cps  
 Calibrator Reading:      1.0                        cps  
 Sensitivity:                1.0000                    GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number:            080554  
 Tool Model:                RBL-D

Calibration Casing Diameter: 4.500                    in  
 Calibration Depth:        956.262                   ft

Master Calibration, performed Thu Sep 27 08:55:42 2018:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.002	1.510	0.700	81.196	53.376	0.577

CAL	0.003	1.720				
5'	0.003	1.404	0.700	81.196	57.452	0.556
SUM						
S1	0.018	1.439	0.000	100.000	70.410	-1.300
S2	0.008	1.417	0.000	100.000	71.006	-0.586
S3	0.008	1.449	0.000	100.000	69.401	-0.546
S4	0.011	1.510	0.000	100.000	66.717	-0.748
S5	0.011	1.560	0.000	100.000	64.531	-0.696
S6	0.017	1.614	0.000	100.000	62.618	-1.042
S7	0.008	1.629	0.000	100.000	61.705	-0.520
S8	0.008	1.511	0.000	100.000	66.566	-0.560

Air Zero Calibration, performed Thu Sep 27 08:43:52 2018:

	Raw (v)	Calibrated (v)	Results
	Zero	Zero	Offset
3'	0.000	0.000	0.000
5'	0.000	0.000	0.000
SUM			
S1	0.000	0.000	0.000
S2	0.000	0.000	0.000
S3	0.000	0.000	0.000
S4	0.000	0.000	0.000
S5	0.000	0.000	0.000
S6	0.000	0.000	0.000
S7	0.000	0.000	0.000
S8	0.000	0.000	0.000



**PIONEER**  
Pioneer Energy Services

Company ENTRANSCO ENERGY, LLC  
 Well T. WIEBE NO.30-2  
 Field HAZLETT  
 County BUTLER  
 State KANSAS