



**LITHO DENSITY
NEUTRON
LOG**

Company Coachman Energy Operating Well Penney 1-14-15-20 Field Wildcat County Ellis State Kansas	Company Coachman Energy Operating Company, LLC Well Penney 1-14-15-20 Field Wildcat County Ellis State Kansas
Location: SEC 14 TWP 15S RGE 20W 125' FSL & 555' FEL	API #: 15 051 26867 Ground Level Elevation 2044' KB 8' AGL KB
Permanent Datum Log Measured From Drilling Measured From	Other Services DIL ML BCS Elevation K.B. 2052' D.F. 2051' G.L. 2044'

Date	3-27-17
Run Number	One
Depth Driller	3770'
Depth Logger	3772'
Bottom Logged Interval	3750'
Top Log Interval	3000'
Casing Driller	8 5/8" @ 221'
Casing Logger	221'
Bit Size	7 7/8"
Type Fluid in Hole	Chemical
Density / Viscosity	9.4/55
pH / Fluid Loss	10.5/8.8
Source of Sample	Pit
Rm @ Meas. Temp	2.9@72degf
Rmf @ Meas. Temp	2.17@72degf
Rmc @ Meas. Temp	3.48@72degf
Source of Rmf / Rmc	Calculated
Rm @ BHT	1.86@112degf
Time Circulation Stopped	2.00 p.m.
Time Logger on Bottom	4.45 p.m.
Maximum Recorded Temperature	112degf
Equipment Number	T-127
Location	Hays, KS
Recorded By	Casey Patterson
Witnessed By	Mr. Bob Plante

<<< Fold Here >>>

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 interpretation, and we shall not, except in the case of gross or willful 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 set out in our current Price Schedule.

Comments

Antonino Rd. West to 180th Ave., then 3 mi. South to Chetolah Gold Rd.,
 then 1mi West to cattle Guard on county Rd.,
 Continue West through cattle guard this is cattle guard #1,
 West on this Rd. to the Third Cattle Guard(approx. 2 mi.)
 Approximatley 900' West of Third Cattle Guard to Ingress Path on South Side of County Rd.
 Follow path South to Location(about 1 mi South)

Thanks for using Gemini Wireline LLC
 785-625-1182

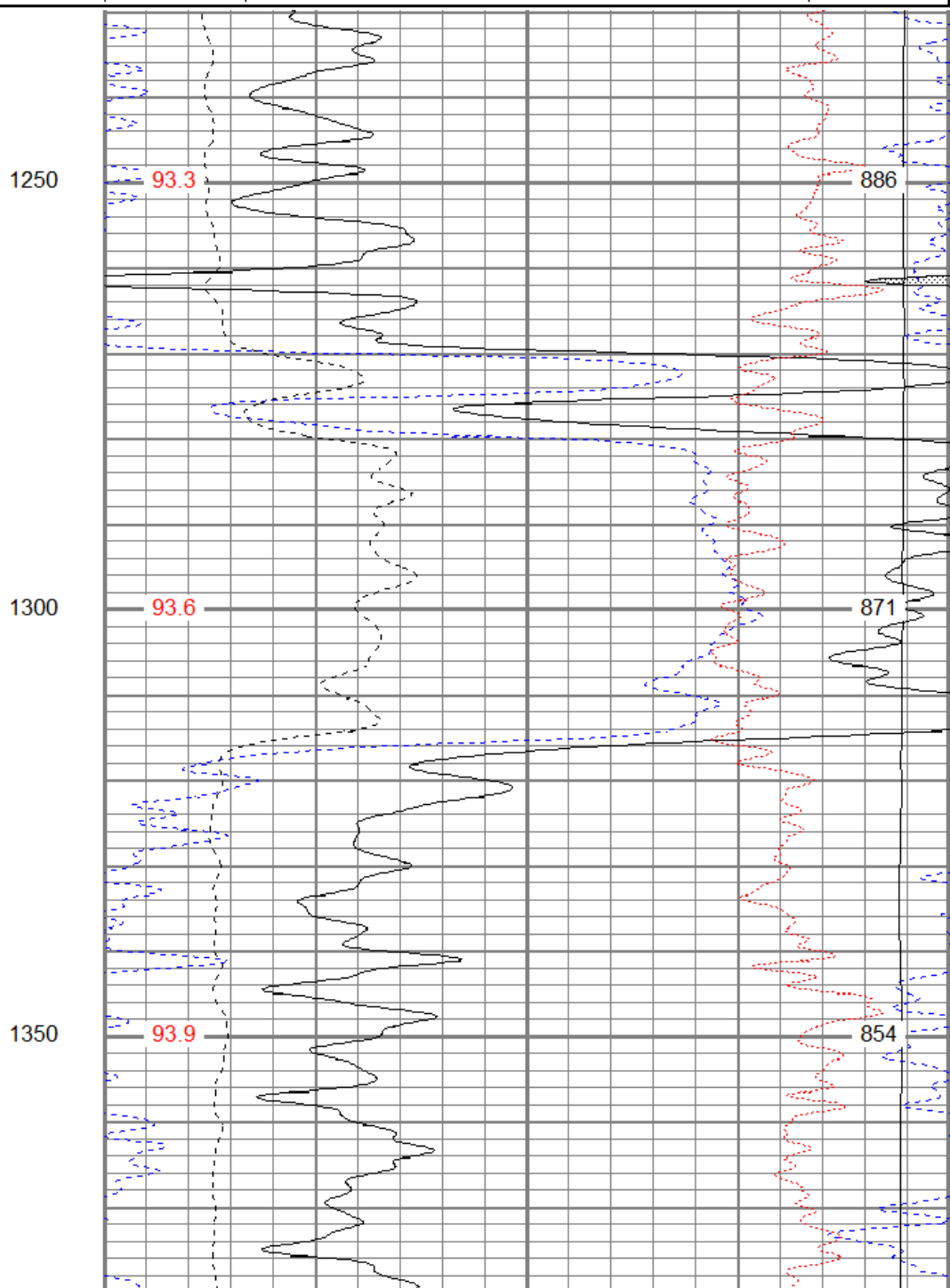
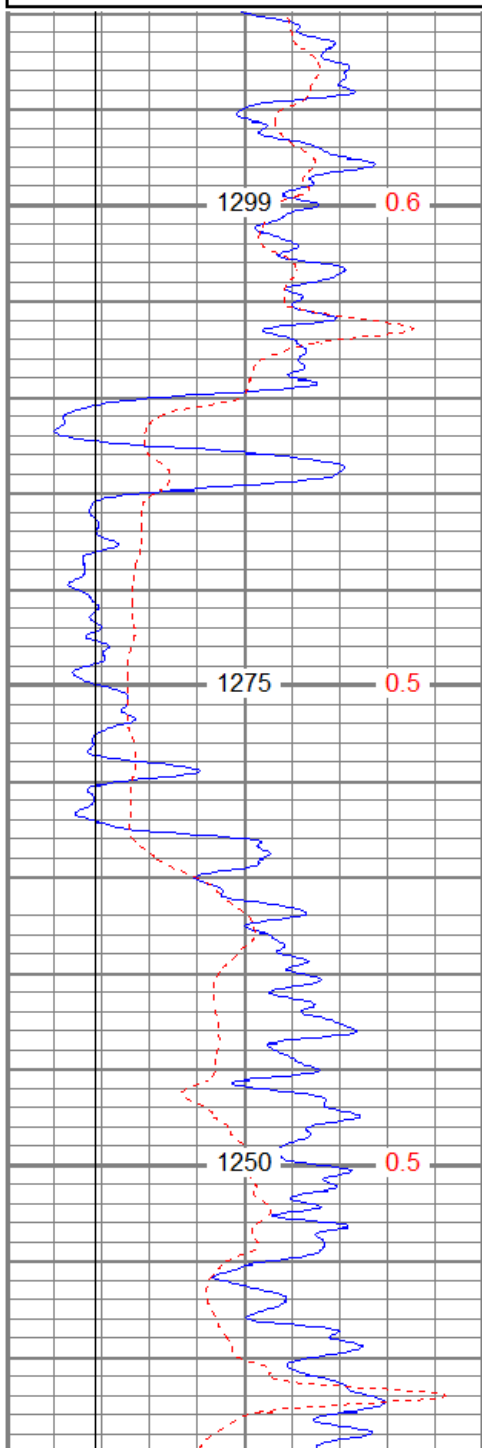


Main Pass

Database File cepenny1-14-15-20oh.db
 Dataset Pathname pass2.1
 Presentation Format digital_kcdnl
 Dataset Creation Mon Mar 27 18:27:58 2017
 Charted by Depth in Feet scaled 1:240

0	GR (GAPI)	150
6	BOREID (in)	16
6	MCAL (in)	16
	TBHV (ft3)	DEVI (deg)

30	NPOR (pu)	-10			
30	DPOR (pu)	-10			
70	DPOR (pu)	30			
0	Pe (barn)	10	-0.25	RHOC (g/cc)	0.25
	TEMP (degF)	8000	LTEN (lb)	0	ABHV (ft3)



0	GR (GAPI)	150
6	BOREID (in)	16
6	MCAL (in)	16
	TBHV (ft3)	DEVI (deg)

30	NPOR (pu)	-10			
30	DPOR (pu)	-10			
70	DPOR (pu)	30			
0	Pe (barn)	10	-0.25	RHOC (g/cc)	0.25

TEMP
(degF)

8000

LTEN (lb)

0

ABHV (ft3)

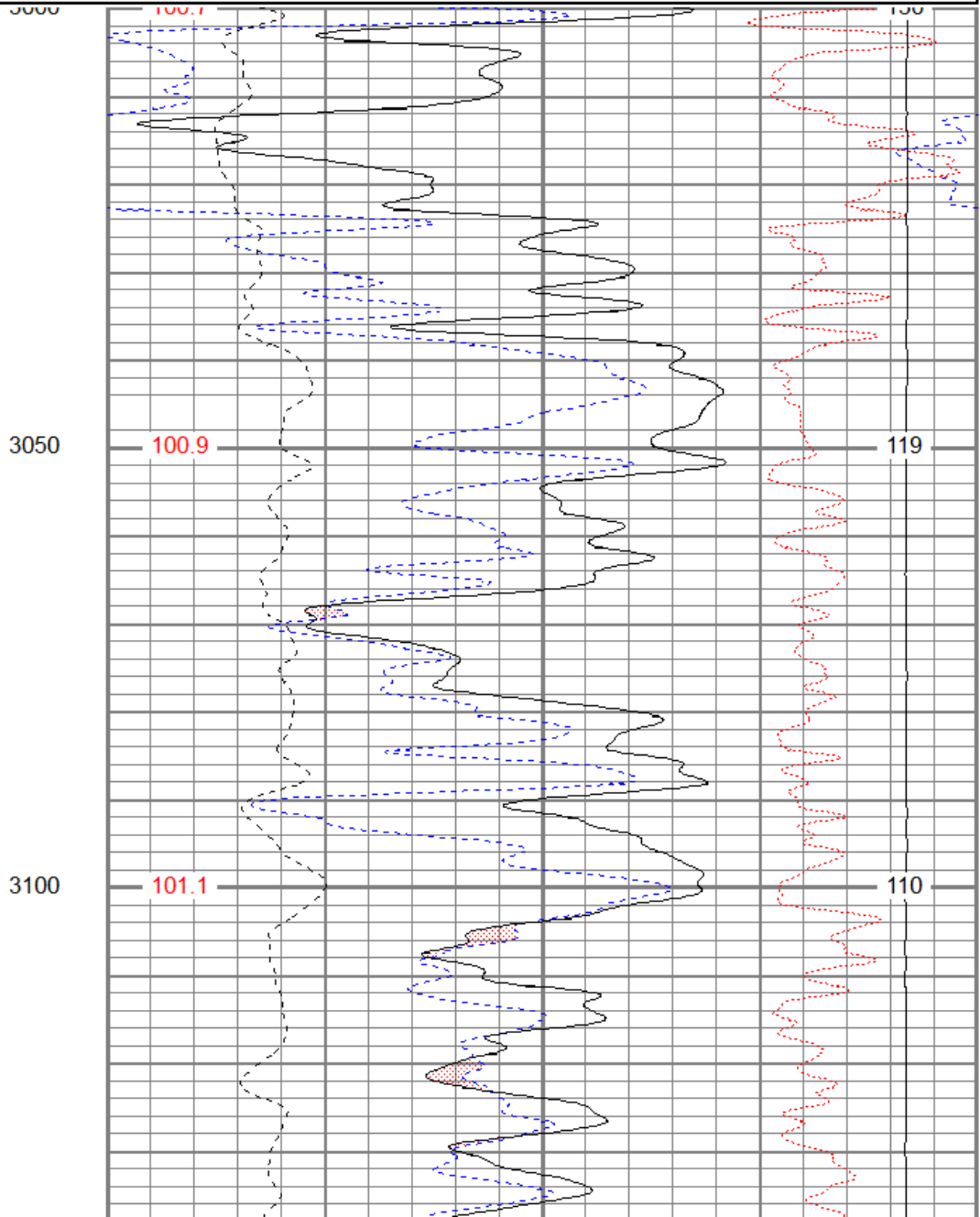
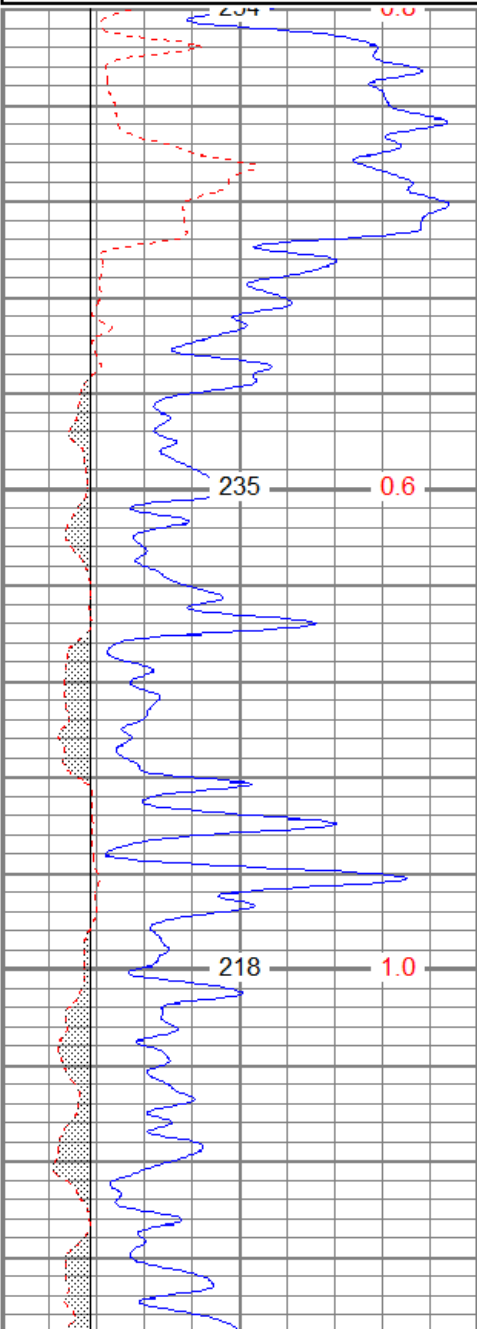


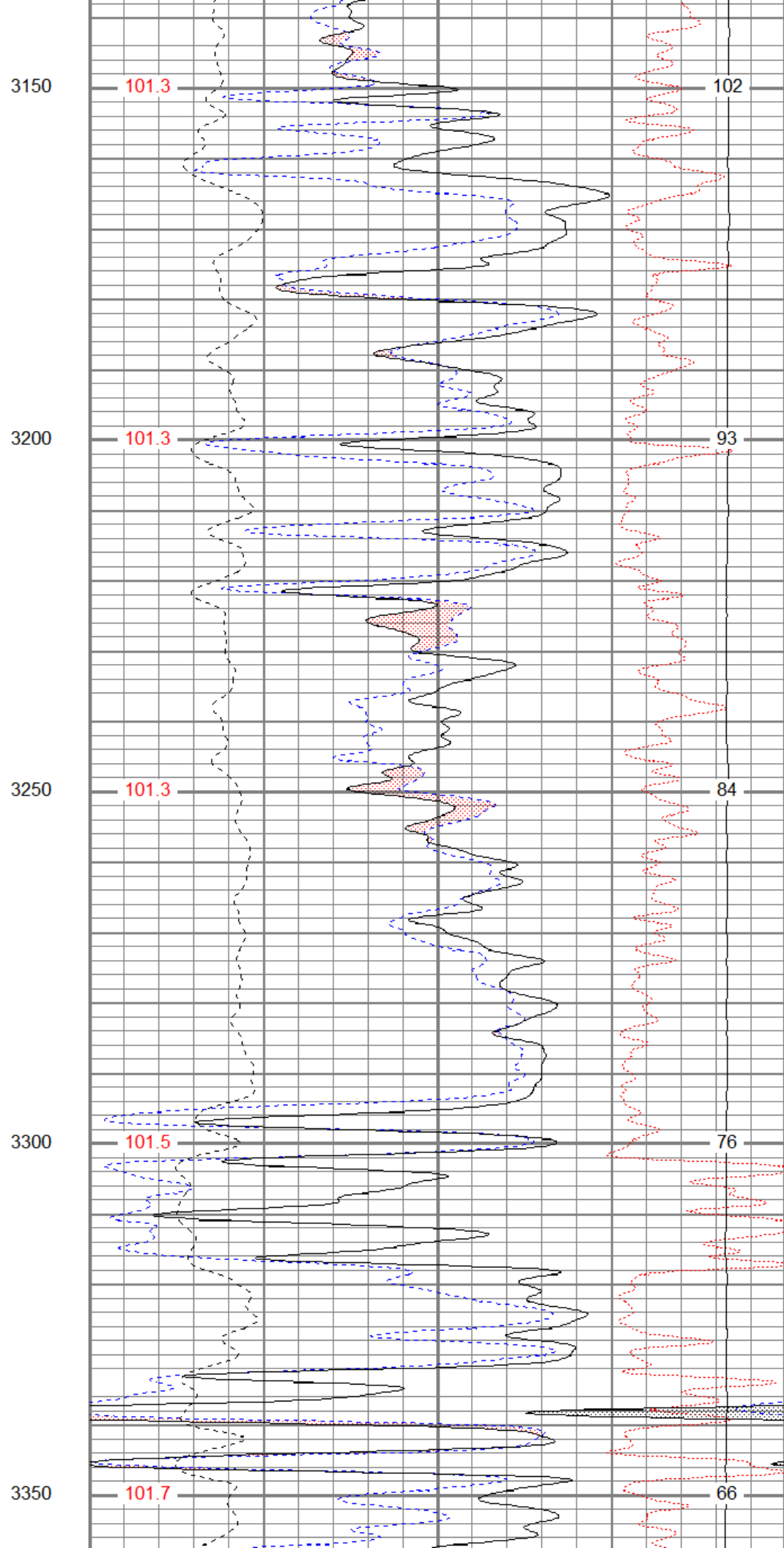
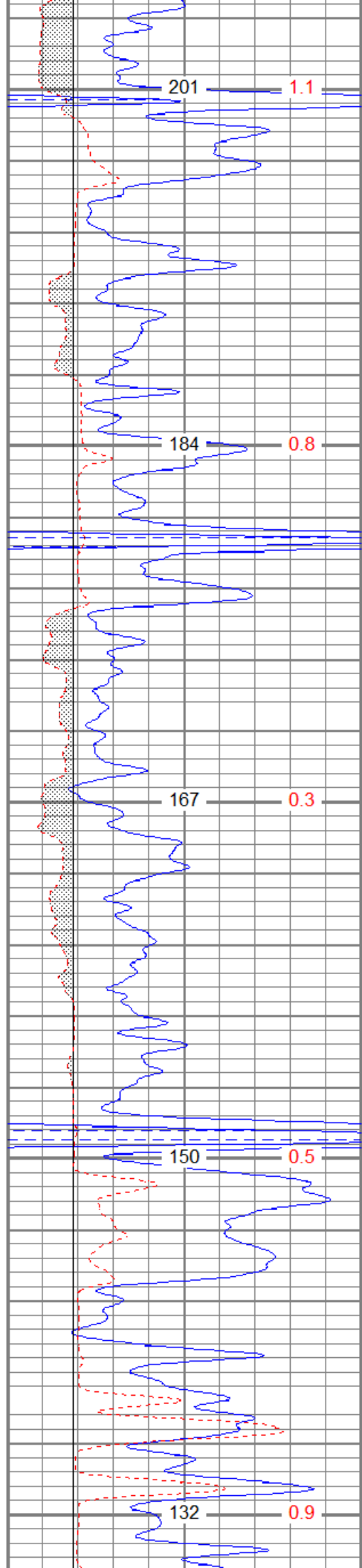
Main Pass

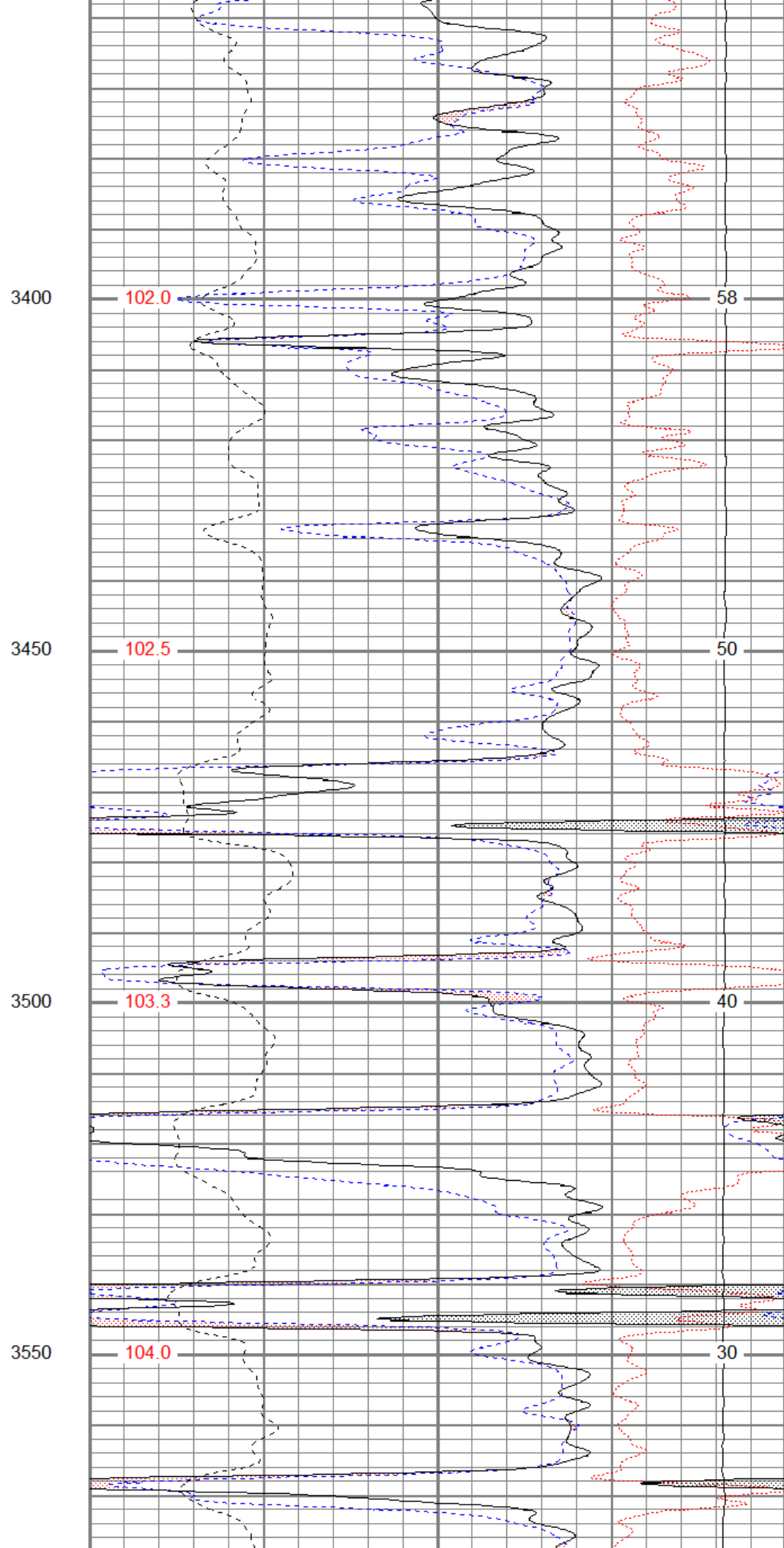
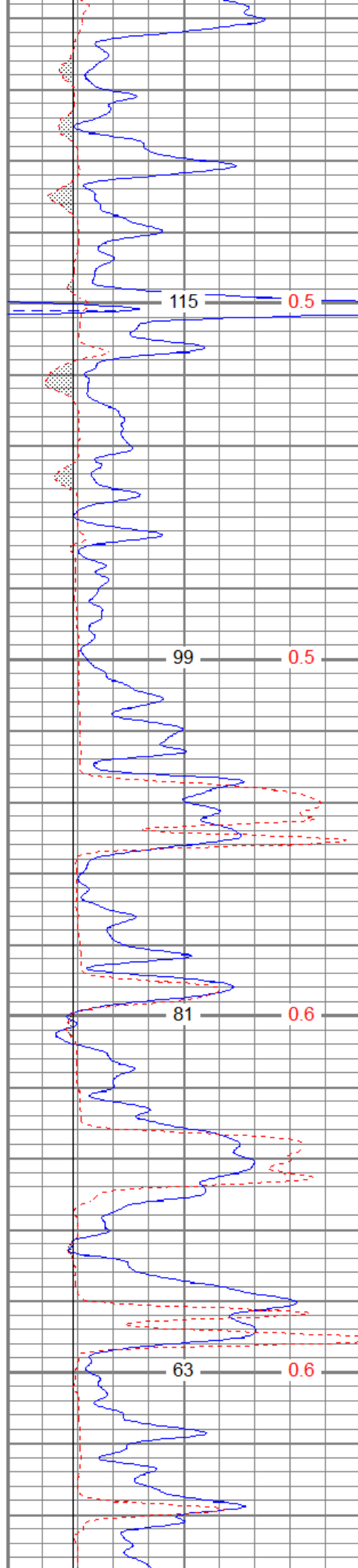
Database File cepenny1-14-15-20oh.db
 Dataset Pathname pass2.1
 Presentation Format digital_kcdnl
 Dataset Creation Mon Mar 27 18:27:58 2017
 Charted by Depth in Feet scaled 1:240

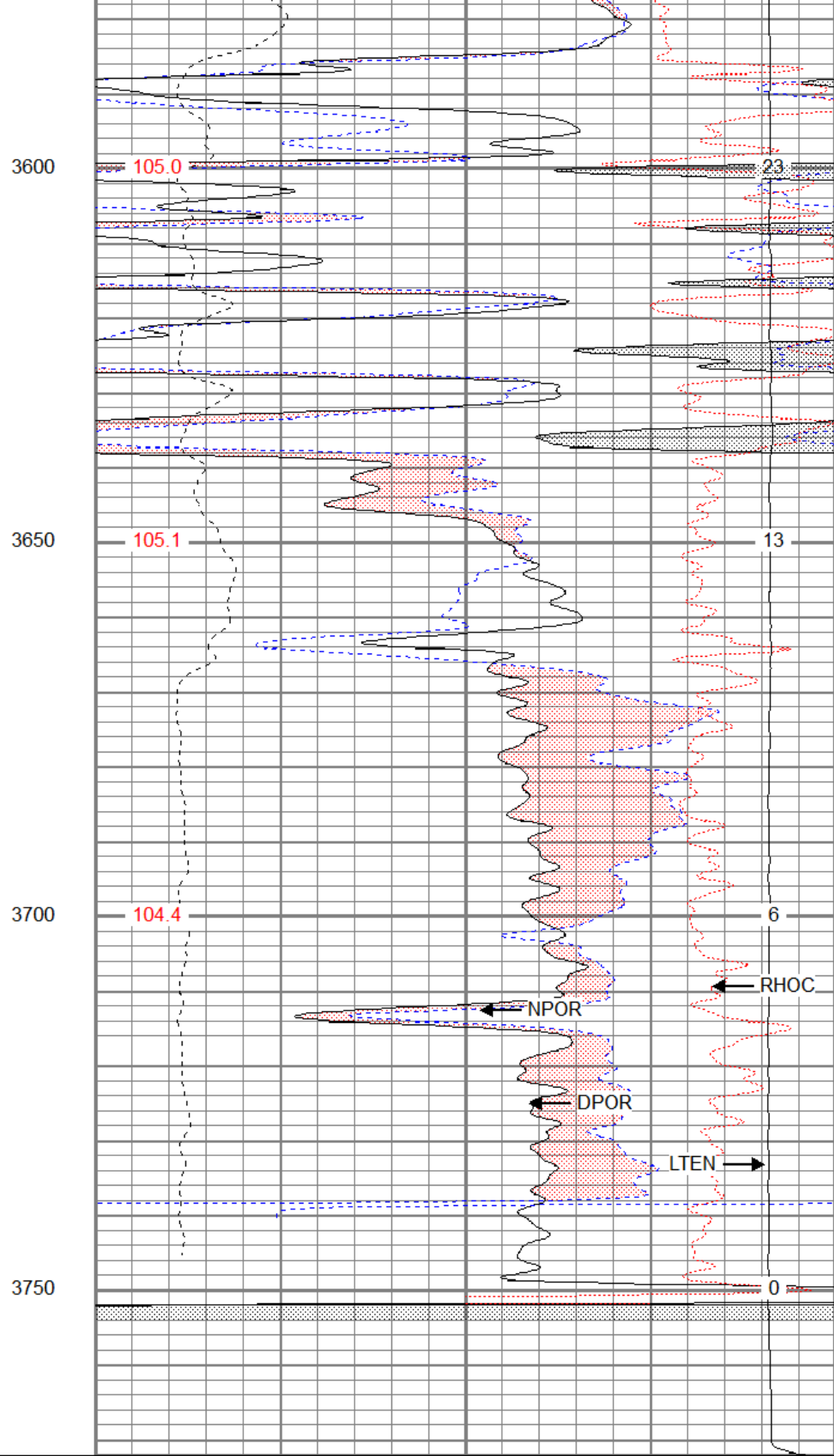
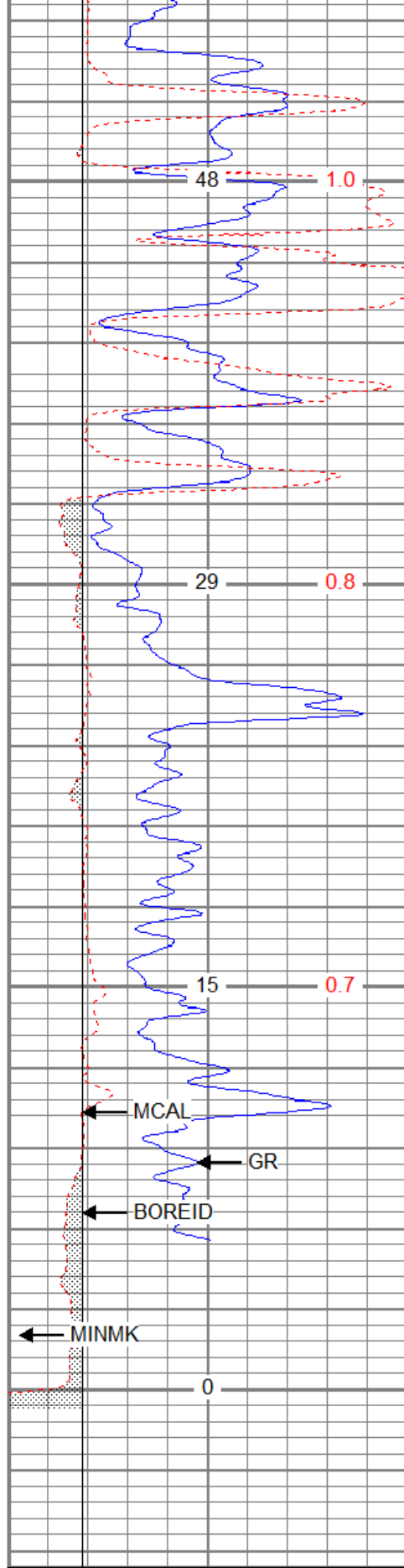
0	GR (GAPI)	150
6	BOREID (in)	16
6	MCAL (in)	16
	TBHV (ft3)	DEVI (deg)

30	NPOR (pu)	-10			
30	DPOR (pu)	-10			
70	DPOR (pu)	30			
0	Pe (barn)	10	-0.25	RHOC (g/cc)	0.25
	TEMP (degF)	8000		LTEN (lb)	0
					ABHV (ft3)









0	GR (GAPI)	150
6	BOREID (in)	16
6	MCAL (in)	16
	TBHV (ft3)	DEVI (deg)

30	NPOR (pu)	-10	
30	DPOR (pu)	-10	
70	DPOR (pu)	30	
0	Pe (barn)	10 -0.25	
		RHOC (g/cc)	0.25

TEMP (degF)	8000	LTEN (lb)	0
			ABHV (ft3)

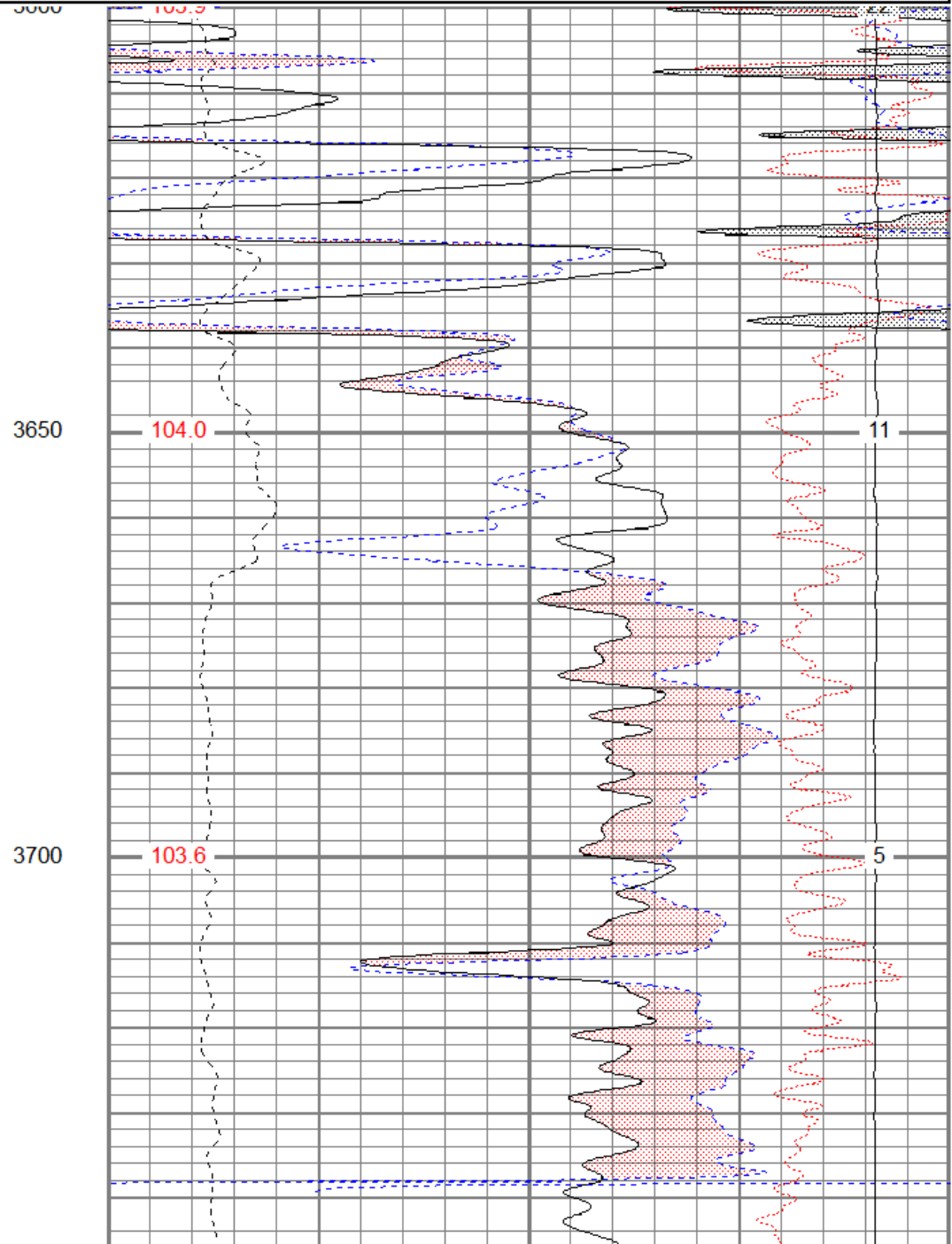
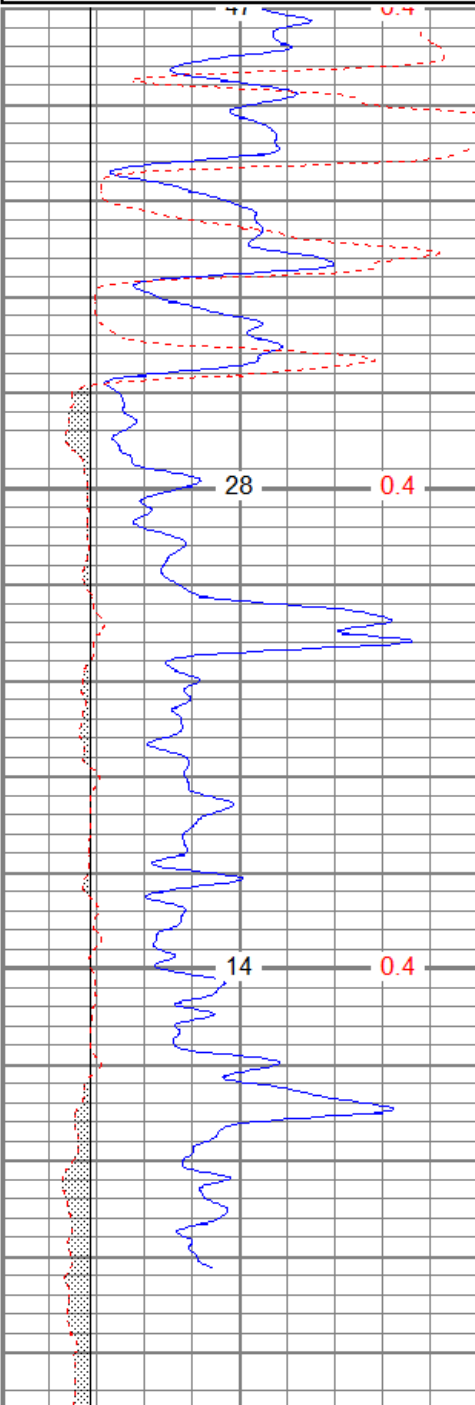


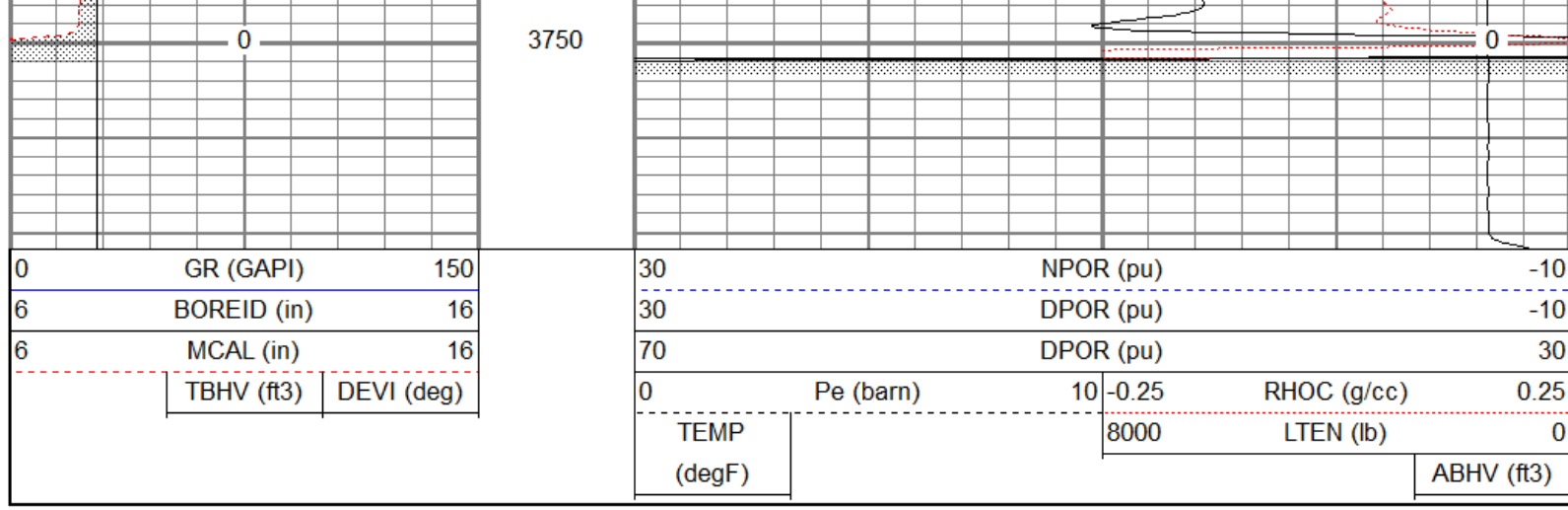
Repeat Section

Database File cepenny1-14-15-20oh.db
 Dataset Pathname pass1.1
 Presentation Format digital_kcdnl
 Dataset Creation Mon Mar 27 19:14:42 2017
 Charted by Depth in Feet scaled 1:240

0	GR (GAPI)	150
6	BOREID (in)	16
6	MCAL (in)	16
	TBHV (ft3)	DEVI (deg)

30	NPOR (pu)	-10			
30	DPOR (pu)	-10			
70	DPOR (pu)	30			
0	Pe (barn)	10	-0.25	RHOC (g/cc)	0.25
	TEMP (degF)	8000		LTEN (lb)	0
					ABHV (ft3)





Calibration Report

Database File cepenny1-14-15-20oh.db
 Dataset Pathname pass2.1
 Dataset Creation Mon Mar 27 18:27:58 2017

Dual Induction Calibration Report

Serial-Model: 1989-ADM
 Surface Cal Performed: Fri Dec 09 04:19:59 2016
 Downhole Cal Performed: Fri Dec 09 04:20:05 2016
 After Survey Verification Performed: Fri Dec 09 04:20:08 2016

Surface Calibration

Loop:	Readings				References			Results	
	Air	Loop			Air	Loop		m	b
Deep	0.002	0.656	V	0.000	350.000	mmho/m	535.560	-1.118	
Medium	0.003	0.745	V	0.000	400.000	mmho/m	538.828	-1.427	
Internal:	Zero	Cal		Zero	Cal		m	b	
Deep	0.002	0.656	V	0.000	350.000	mmho/m	535.220	-1.003	
Medium	0.003	0.745	V	0.000	550.000	mmho/m	741.357	-2.036	

Downhole Calibration

Internal:	Readings				References			Results	
	Zero	Cal			Zero	Cal		m	b
Deep	-0.036	349.993	mmho/m	-0.114	350.108	mmho/m	1.001	-0.078	
Medium	0.039	400.181	mmho/m	0.053	399.799	mmho/m	0.999	0.013	
Shallow	2.503	0.015	V	500.000	2.000	Ohm-m	180.177	-2.046	

After Survey Verification

Internal:	Readings				Targets			Results	
	Zero	Cal			Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	-0.036	349.993	mmho/m	1.001	-0.078	
Medium	0.000	0.000	mmho/m	0.039	400.181	mmho/m	0.999	0.013	
Shallow	0.000	0.000	Ohm-m	500.000	2.000	Ohm-m	1.000	0.000	

Neutron Calibration Report

Serial Number: Admyr
 Tool Model: G
 Performed: Thu Mar 09 09:56:12 2017

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

Gamma Ray Calibration Report

Serial Number: 1
 Tool Model: A
 Performed: Thu Mar 09 09:56:15 2017
 Calibrator Value: 1.0 GAPI
 Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps
 Sensitivity: 0.9000 GAPI/cps

Temperature Calibration Report

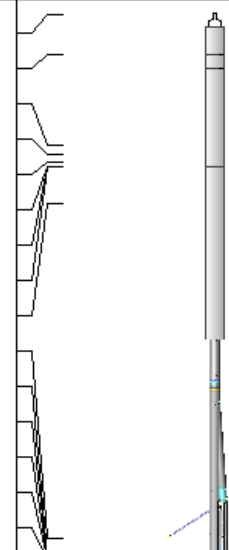
Serial Number: 1
 Tool Model: A
 Performed: Sat Apr 09 21:14:20 2016

	Reference	Reading
Low Reference:	0.00 degF	0.00 degF
High Reference:	32.00 degF	32.00 degF
Gain:	1.00	
Offset:	0.00	
Delta Spacing	1	

Inclinometer Calibration Report

Performed: Thu Mar 09 10:44:26 2017

	Low Read.	High Read.	Low Ref.	High Ref.	
X Accelerometer	205.00	1843.00	-1.00	1.00	gee
Y Accelerometer	205.00	1843.00	-1.00	1.00	gee
Z Accelerometer					gee

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
PSTAT	39.60		CHD-STD	0.50	1.69	1.00
GR	38.32		ADT1PULSE-A (1)	0.83	3.50	10.00
TEMP	35.35		Pulsed Interface Tool #1			
ASTAT	35.06		ADT1ADC-A (1)	0.83	3.50	10.00
GRD	34.81		Analog Interface #1			
ACCY	34.65		ADT1SENSORS-A (1)	4.54	3.50	10.00
ACCX	34.65					
SSTAT	34.65		NEU-G (Admyr)	5.65	3.50	85.00
NEU	33.46		Gearhart Epithermal			
LStat	22.54					
LS8	21.88					
LS7	21.88					
LS6	21.88					
LS5	21.88		ADT1LITH-A (1)	9.29	3.50	240.00
LS4	21.88	Admyr Litho Density Tool				

LS3	21.88				
LS2	21.88				
LS1	21.88				
LSV	21.88				
LSD	21.86				
SSV	21.67				
SS8	21.67				
SS7	21.67				
SS6	21.67				
SS5	21.67				
SS4	21.67				
SS3	21.67				
SS2	21.67				
SS1	21.67				
DCAL	21.61				
SSD	21.27				
SP	10.60				
CILD	10.60				
CILM	6.89				
RLL3	1.70				
TR_Mon	0.00				

DIL-ADM (1989)
Dual Induction

19.71

4.00

300.00

Dataset: cepenny1-14-15-20oh.db: field/well/run1/pass2.1
 Total length: 39.69 ft
 Total weight: 656.00 lb
 O.D.: 4.00 in