



COMPENSATED DENSITY/NEUTRON LOG

Company DOWNING NELSON OIL COMPANY, INC.

Well DOERR #5-34

Field

County ELLIS

State KANSAS

Location: API # : 15-051-26979-0000

1790' FSL & 2289' FWL

Other Services
DIL/MEL

SEC 34 TWP 15S RGE 19W3

Elevation

Permanent Datum GROUND LEVEL Elevation 2043
Log Measured From KELLY BUSHING 8' A.G.L.
Drilling Measured From KELLY BUSHING

K.B. 2051
D.F. 2049
G.L. 2043

Date 12/8/19

Run Number ONE

Depth Driller 3639

Depth Logger 3640

Bottom Logged Interval 3616

Top Log Interval 2900

Casing Driller 8 5/8" @ 1260'

Casing Logger 1260'

Bit Size 7 7/8

Type Fluid in Hole CHEMICAL MUD CHLORIDES 8000 PPM

Density / Viscosity 9.1/47

pH / Fluid Loss 9.5/8.8

Source of Sample FLOWLINE

Rm @ Meas. Temp .75 @ 60F

Rmf @ Meas. Temp .56 @ 60F

Rmc @ Meas. Temp .90 @ 60F

Source of Rmf / Rmc MEASUREMENT

Rm @ BHT .40 @ 112F

Time Circulation Stopped 2 HOURS

Time Logger on Bottom 112F

Maximum Recorded Temperature 112F

Equipment Number 3802

Location HAYS, KANSAS

Recorded By JASON CAPPELLUCCI

Witnessed By MARC DOWNING

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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

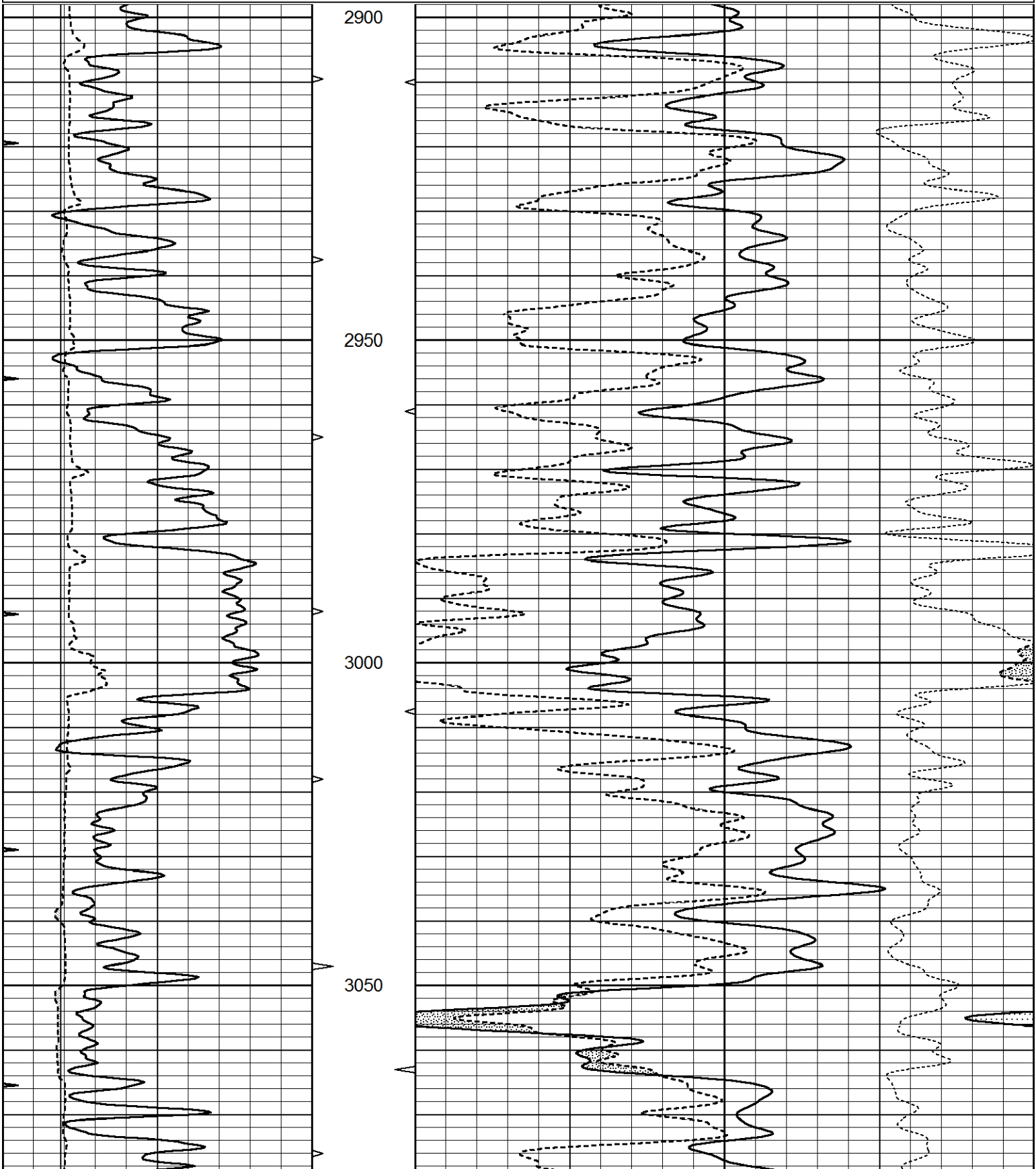
THANK YOU FOR USING ELI WIRELINE SERVICES, HAYS, KS. (785) 628-6395
DIRECTIONS
SCHOENCHEN, KS. - 5 WEST TO 200TH RD. - 1/2 SOUTH - WEST INTO

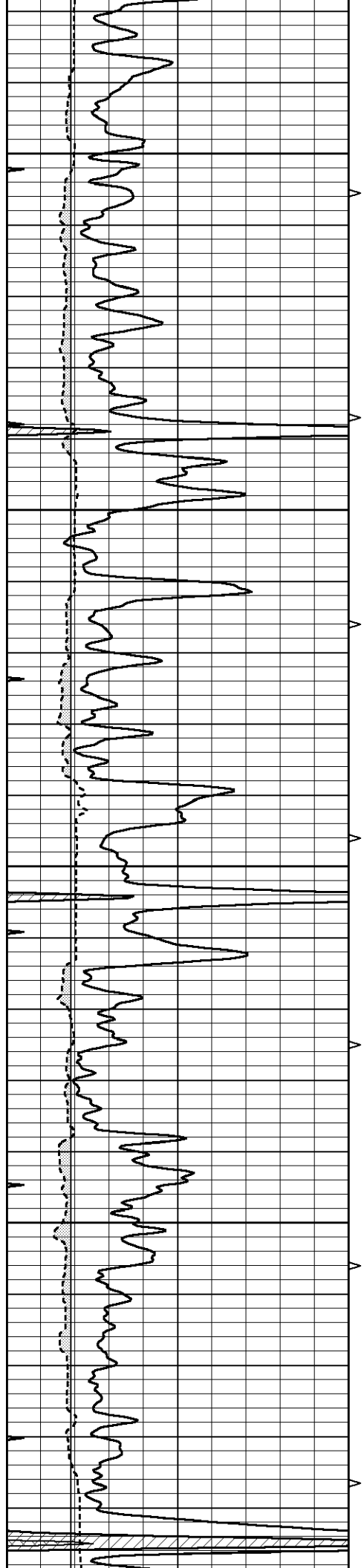


MAIN SECTION

Database File	4439ddn.db
Dataset Pathname	pass3.1
Presentation Format	_den_neu
Dataset Creation	Sun Dec 08 22:23:45 2019
Charted by	Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	AVTX	30	COMPENSATED DENSITY (pu)			-10	
6	CALIPER (in)	16	10 (ft3)	0	30	COMPENSATED NEUTRON (pu)			-10
0	MINMK	20	BVTX			-0.25	CORRECTION (g/cc)	0.25	
			0 (ft3)	10					



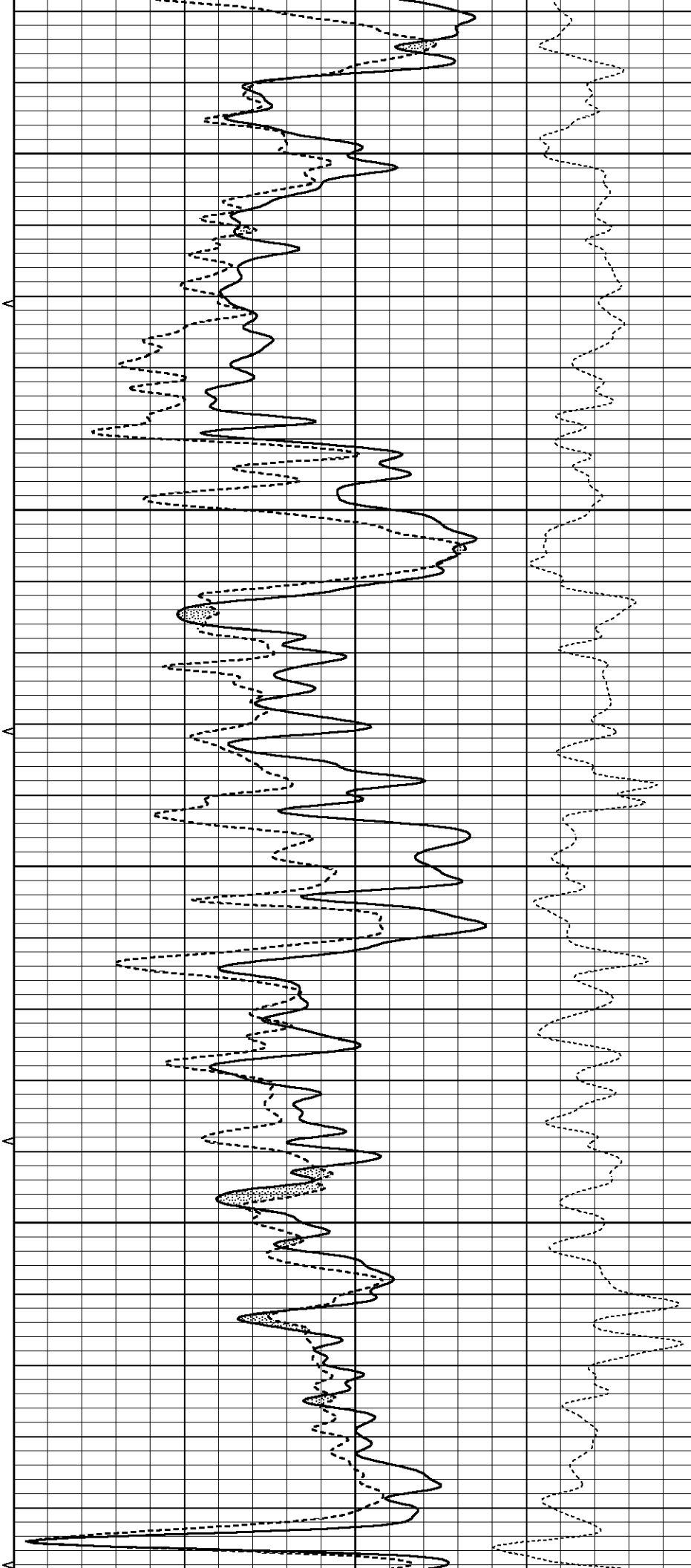


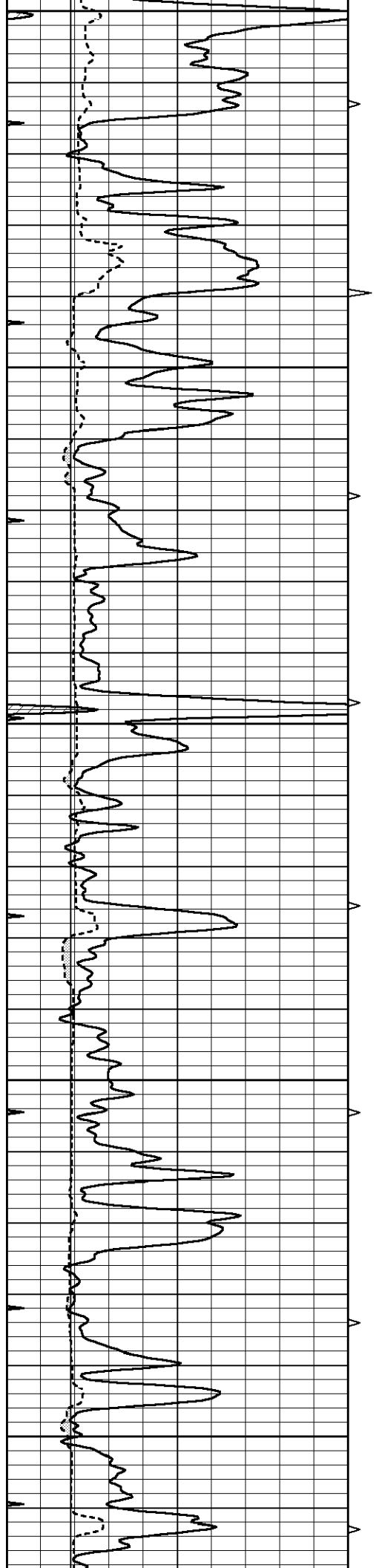
3100

3150

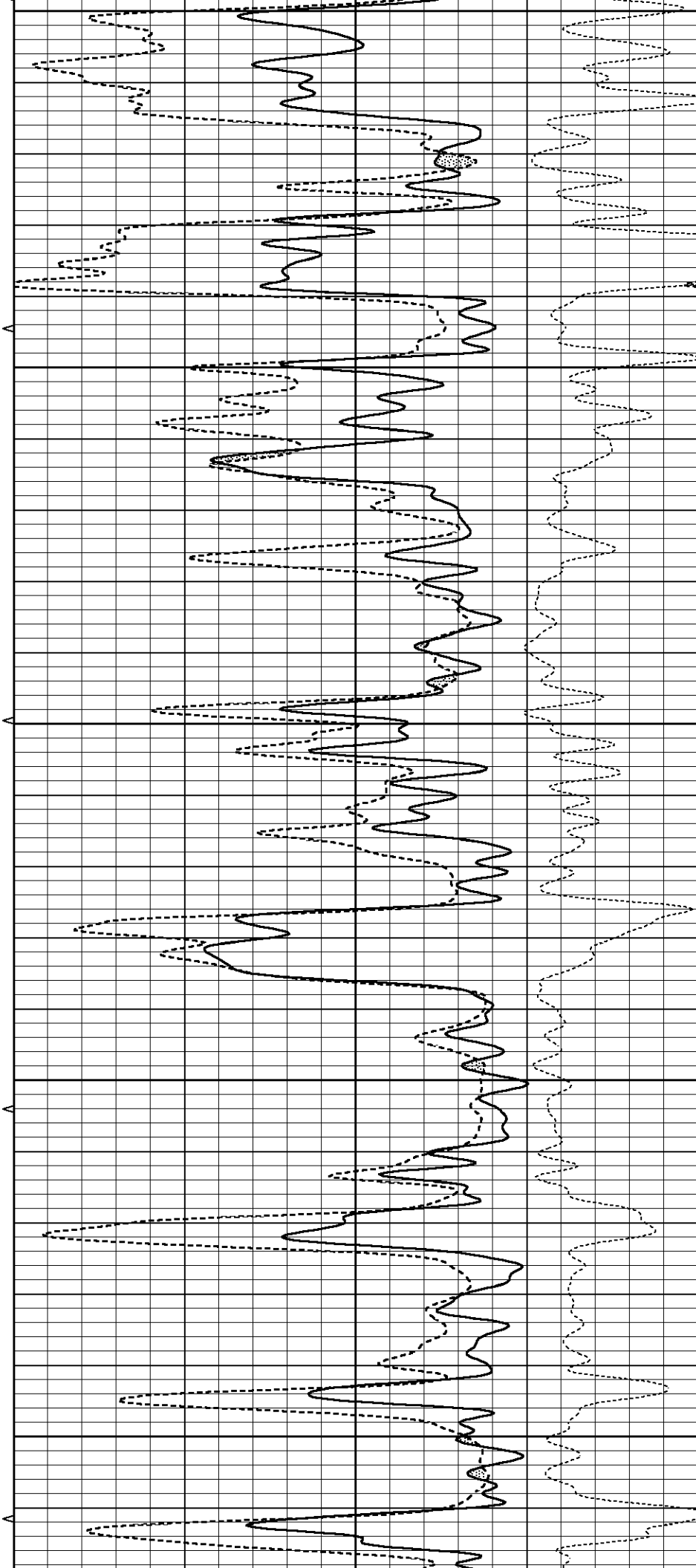
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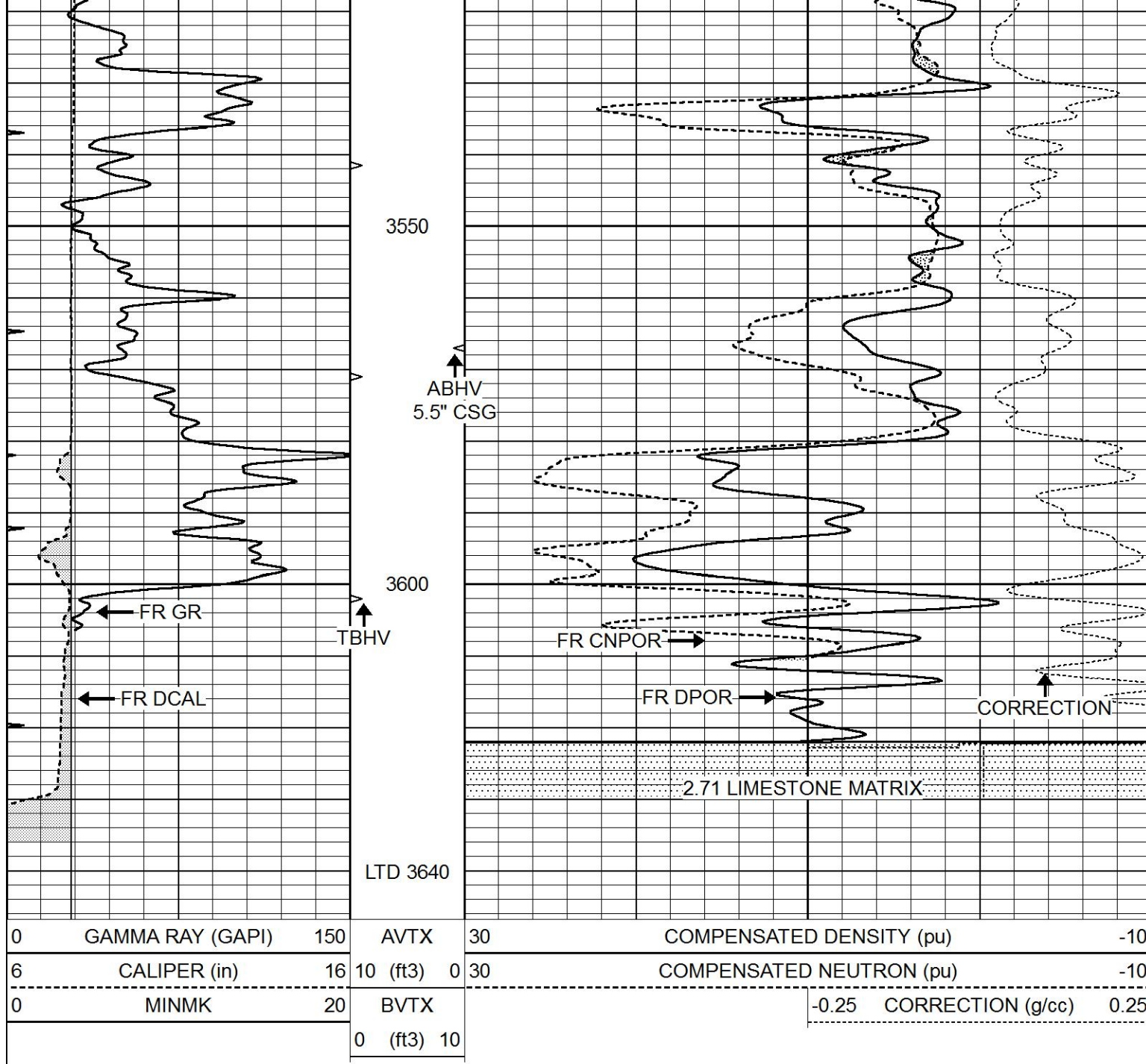
3250





3300
3350
3400
3450
3500

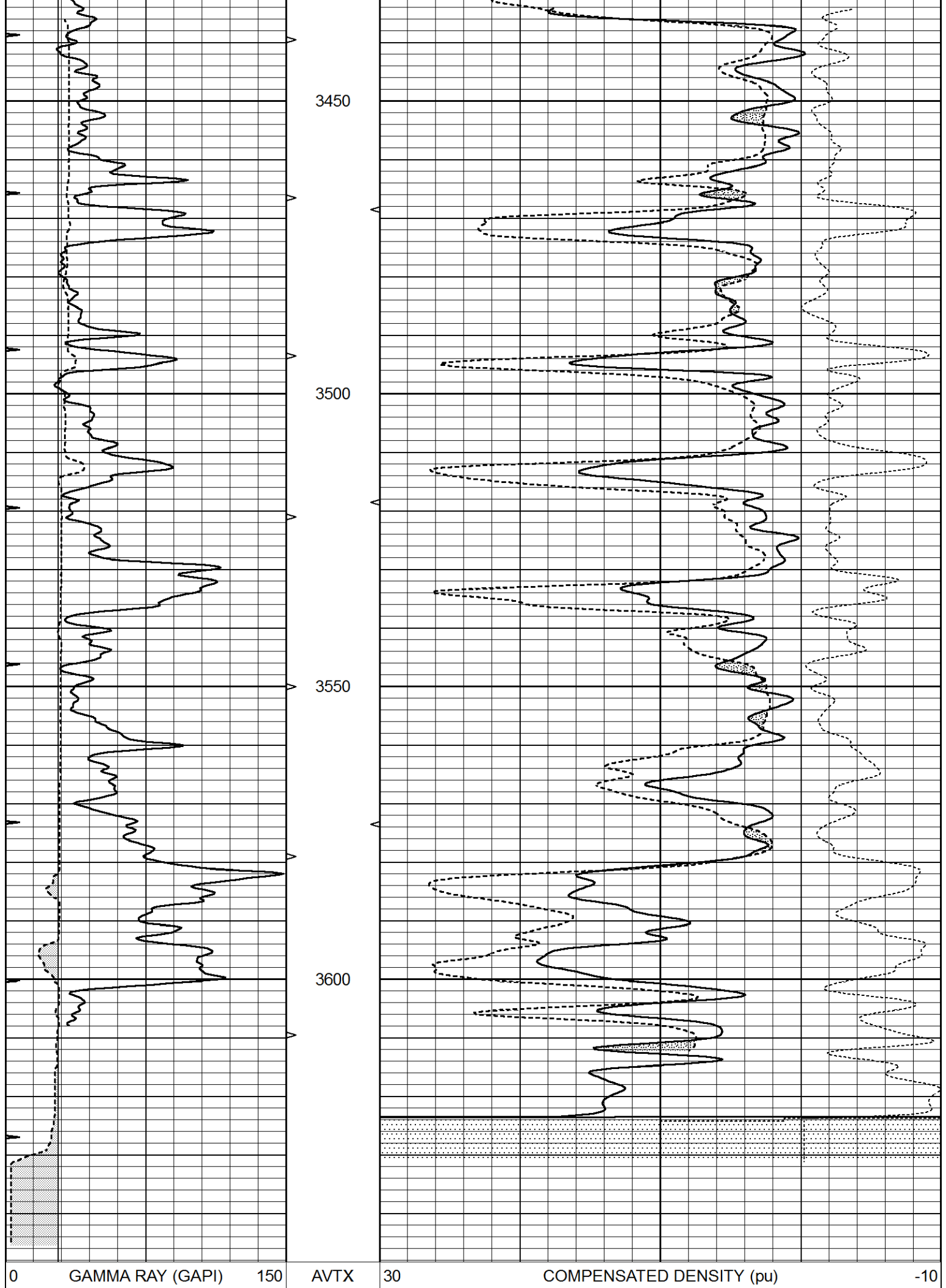




REPEAT SECTION

Database File 4439ddn.db
 Dataset Pathname pass2.1
 Presentation Format _den_neu
 Dataset Creation Sun Dec 08 22:22:43 2019
 Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	AVTX	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3)	0 30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	BVTX		-0.25 CORRECTION (g/cc)	0.25
			0 (ft3)	10		



6	CALIPER (in)	16	10 (ft3)	0	30	COMPENSATED NEUTRON (pu)			-10
0	MINMK	20	BVTX			-0.25	CORRECTION (g/cc)	0.25	
			0 (ft3)	10					

Calibration Report									
Database File	4439ddn.db								
Dataset Pathname	pass2.1								
Dataset Creation	Sun Dec 08 22:22:43 2019								
Dual Induction Calibration Report									
Serial-Model:					FW1410-55-Probe				
Surface Cal Performed:					Tue Feb 19 11:44:18 2019				
Downhole Cal Performed:					Tue Feb 19 11:44:24 2019				
After Survey Verification Performed:					Tue Feb 19 11:44:27 2019				
Surface Calibration									
		Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b	
Deep	0.011	0.656	V	1.000	400.000	mmho/m	618.595	-5.524	
Medium	-0.000	0.731	V	1.000	464.000	mmho/m	632.856	1.197	
Internal:	Zero	Cal		Zero	Cal		m	b	
Deep	0.007	0.649	V	0.000	400.000	mmho/m	623.784	-4.595	
Medium	0.004	0.743	V	0.000	464.000	mmho/m	627.284	-2.251	
Downhole Calibration									
		Readings			References			Results	
	Zero	Cal		Zero	Cal		m'	b'	
Deep	-0.824	395.917	mmho/m	-0.976	397.550	mmho/m	1.004	-0.149	
Medium	3.565	471.327	mmho/m	3.468	471.590	mmho/m	1.001	-0.099	
LL3		7.503	V		1500.000	Ohm-m			
		0.001	V		20.000	Ohm-m			
		-7.481	V		3745.000	mmho-m			
After Survey Verification									
		Readings			Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'	
Deep	0.000	0.000	mmho/m	-0.824	395.917	mmho/m	1.000	0.000	
Medium	0.000	0.000	mmho/m	3.565	471.327	mmho/m	1.000	0.000	
LL3		0.000	Ohm-m		1500.000	Ohm-m			
		0.000	Ohm-m		20.000	Ohm-m			
		0.000	mmho-m		3745.000	mmho-m			
Litho Density Calibration Report									
Serial: 140704									
Model: V4_10P									
Source Number: 74GBq-19									
Master Calibration					Performed: Fri Jan 18 10:53:52 2019				
	Background		Aluminum		Magnesium				
Window 1	563.20		5403.39		24190.50	cps			
Window 2	44.78		1243.51		6049.93	cps			
Window 4	247.62		1222.40		5239.60	cps			
Window 5	568.17		8975.27		17094.80	cps			
Window 6	44.42		1124.22		2222.22	cps			

Window 6	44.48	1484.88	2922.28	cps	
Window 8	270.82	2877.34	5377.89	cps	
Bulk Density	-	2.6020	1.6830	g/cc	
Pe	-	3.0000	2.5070	b/e	
LS Alpha:	: -1.8641	SS Alpha:	: -0.7692	LS CPE:	: 1.1004
LS Beta:	: 127931.7253	SS Beta:	: 20075.8142	SS CPE:	: 1.5209

Before Survey Background Counts Verification			Performed: Wed Dec 31 18:00:00 1969		
Window 1	0.00	cps			
Window 2	0.00	cps			
Window 4	0.00	cps			
Window 5	0.00	cps			
Window 6	0.00	cps			
Window 8	0.00	cps			

After Survey Background Counts Verification			Performed: Wed Dec 31 18:00:00 1969		
Window 1	0.00	cps			
Window 2	0.00	cps			
Window 4	0.00	cps			
Window 5	0.00	cps			
Window 6	0.00	cps			
Window 8	0.00	cps			

Lithodensity Caliper Calibration			Performed: Fri Jan 18 10:53:52 2019		
Results	Readings	References (in)			
Low	High	Low	High	Gain	Offset
3586.3	5529.9	8.0	16.0	0.0	-6.8

Before Survey Caliper Verification			Performed:		
	Reference	Reading			
	_____	_____			
Caliper (in)					

After Survey Caliper Verification			Performed:		
	Reference	Reading			
	_____	_____			
Caliper (in)					

Compensated Neutron Calibration Report					
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Serial Number:		080621PMC			
Tool Model:		NABORS			

PRE-SURVEY VERIFICATION					
	Detector	Readings	Measured	Target	
	Short Space	cps			
	Long Space	cps	pu	pu	

POST-SURVEY VERIFICATION					
	Detector	Readings	Measured	Target	

Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu
Gamma Ray Calibration Report			
Serial Number:	7		
Tool Model:	Probe1		
Performed:	Tue Feb 19 11:45:10 2019		
Calibrator Value:	1.0	GAPI	
Background Reading:	0.0	cps	
Calibrator Reading:	1.0	cps	
Sensitivity:	0.4800	GAPI/cps	