



**COMPENSATED
DENSITY/NEUTRON
LOG**

Company RL INVESTMENT, LLC.
Well BOLLIG "A" #3
Field GURK EAST
County GRAHAM State KANSAS

Location: 1275' FNL & 550' FWL
API #: 15-065-24210-0000
Other Services DILMEL
Permanent Datum GROUND LEVEL Elevation 2525
Log Measured From KELLY BUSHING 7' A.G.L
Drilling Measured From KELLY BUSHING
Elevation
SEC 17 TWP 10S RGE 25W
K.B. 2532
D.F. 2530
G.L. 2525

Date	12/7/21
Run Number	ONE
Depth Driller	4100
Depth Logger	4098
Bottom Logged Interval	4074
Top Log Interval	3450
Casing Driller	8 5/8" @ 224
Casing Logger	224
Bit Size	7 7/8
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.3/47
pH / Fluid Loss	10.0/8.0
Source of Sample	FLOWLINE
Rm @ Meas. Temp	1.30 @ 62F
Rmf @ Meas. Temp	0.97 @ 62F
Rmc @ Meas. Temp	1.56 @ 62F
Source of Rmf / Rmc	MEASUREMENT
Rm @ BHT	0.68 @ 117F
Time Circulation Stopped	2 HOURS
Time Logger on Bottom	////
Maximum Recorded Temperature	117F
Equipment Number	3802
Location	HAYS, KANSAS
Recorded By	JASON CAPPELLUCCI
Witnessed By	RICHARD BELL

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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

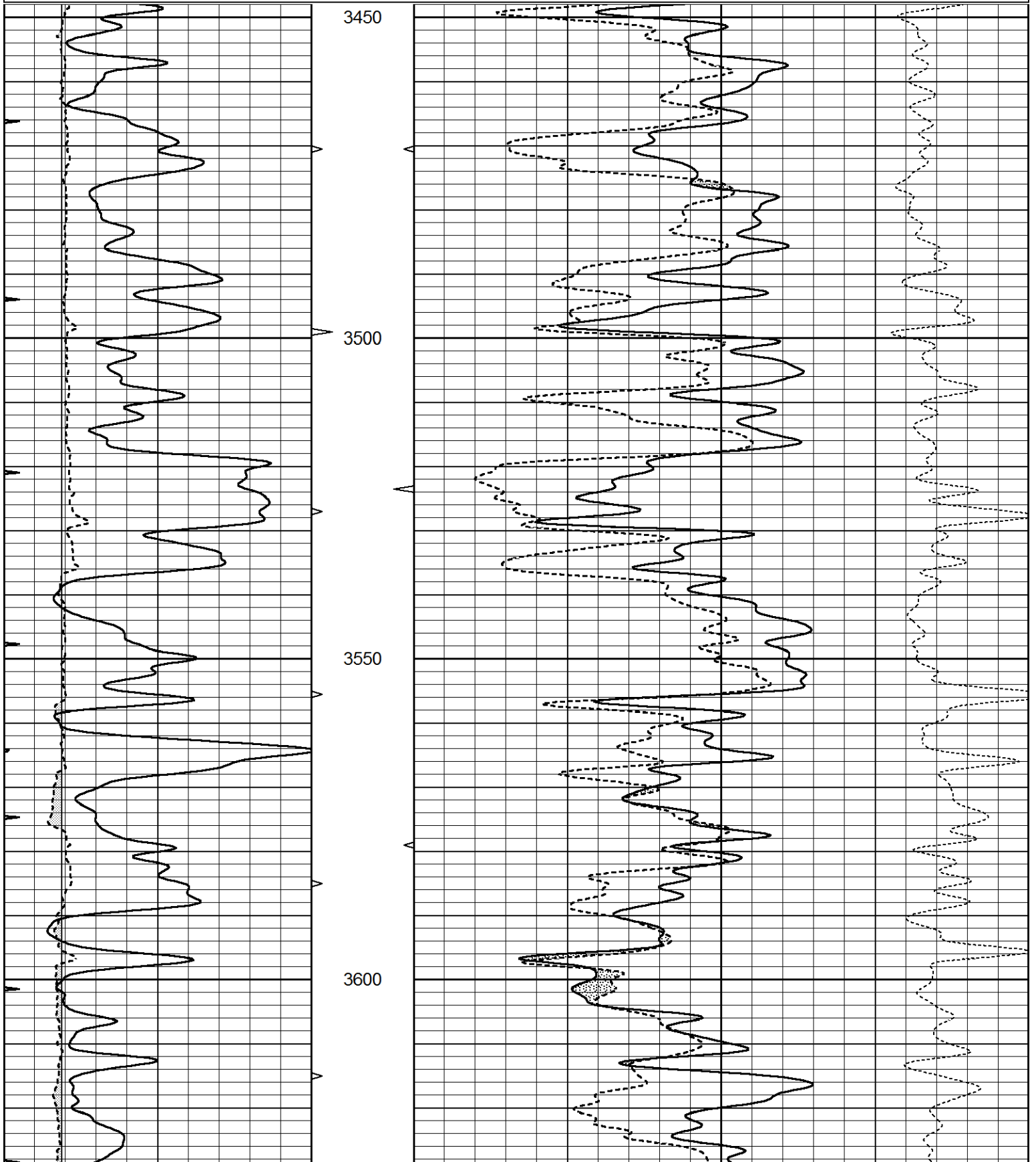
THANK YOU FOR USING ELI WIRELINE SERVICES, HAYS, KS. (785) 628-6395
DIRECTIONS
ST. PETER, KS. - 3 WEST ON RD. M - 1/2 SOUTH - EAST INTO

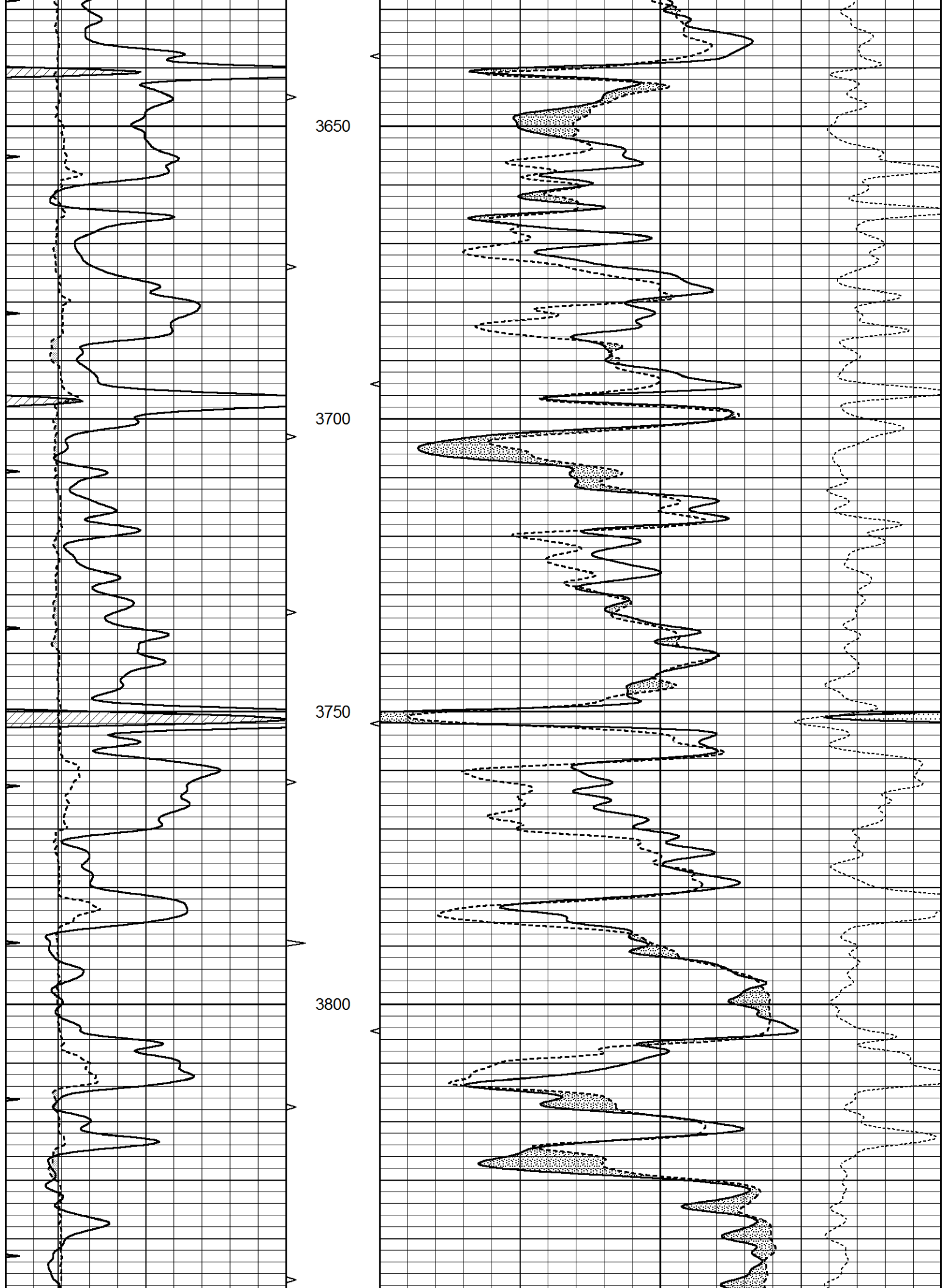


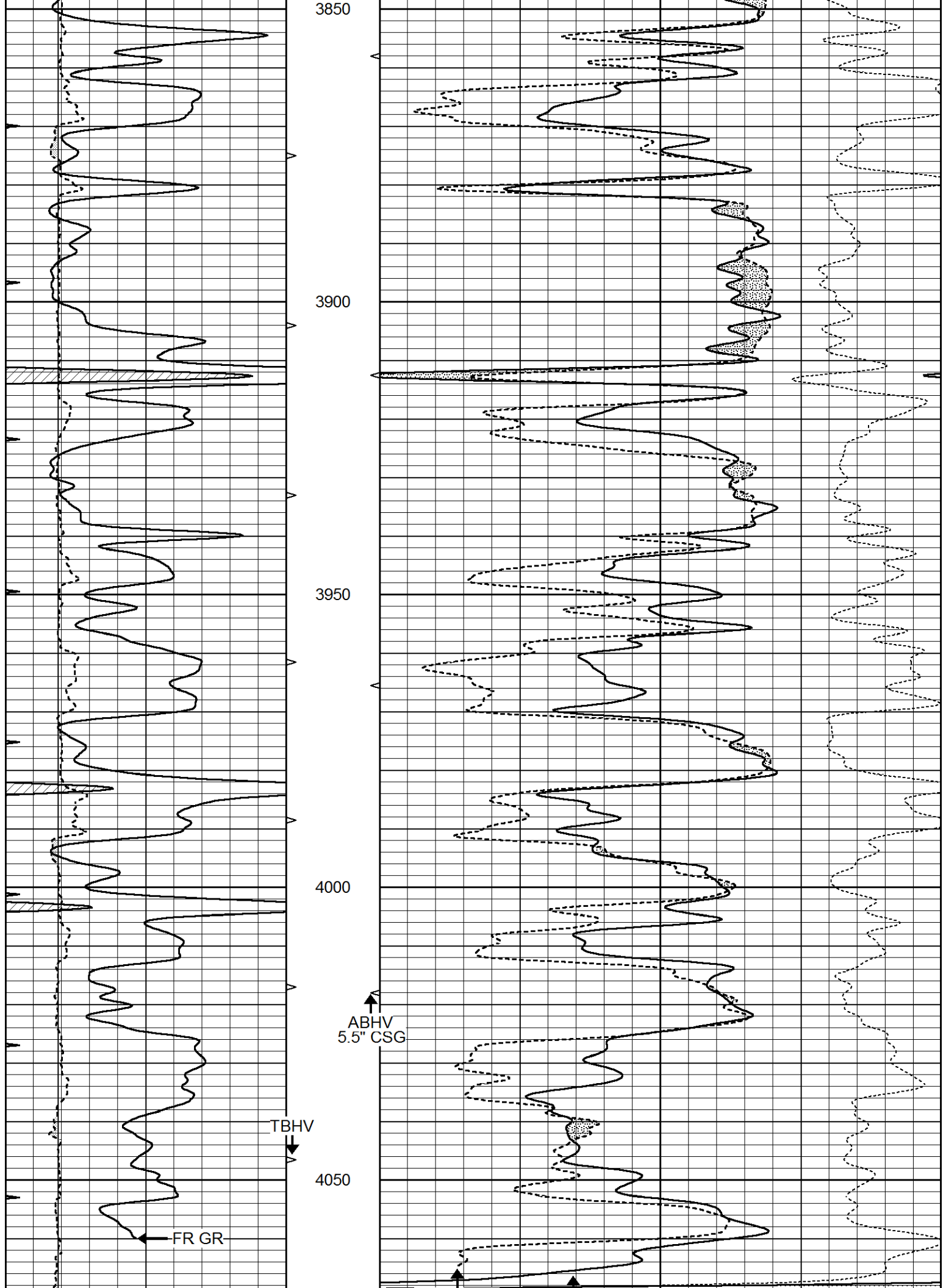
MAIN SECTION

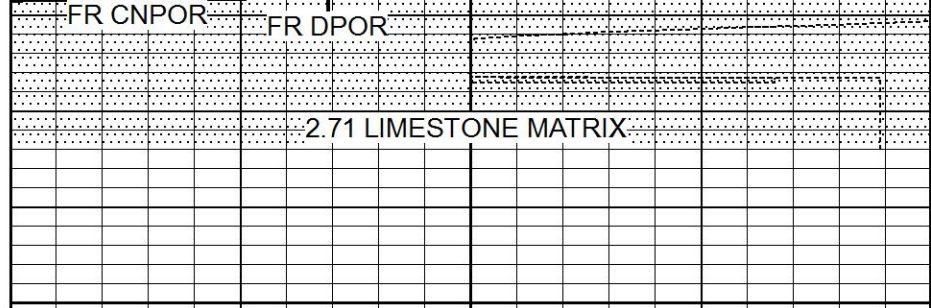
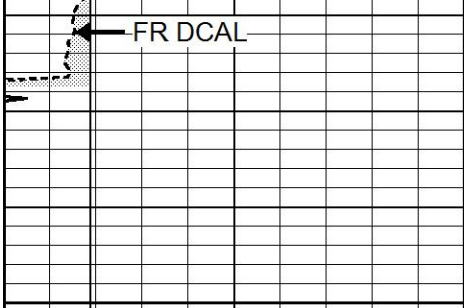
Database File 6060ddn.db
 Dataset Pathname pass3.1
 Presentation Format _den_neu
 Dataset Creation Tue Dec 07 14:54:49 2021
 Charted by Depth in Feet scaled 1:240

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









LTD 4098
4100

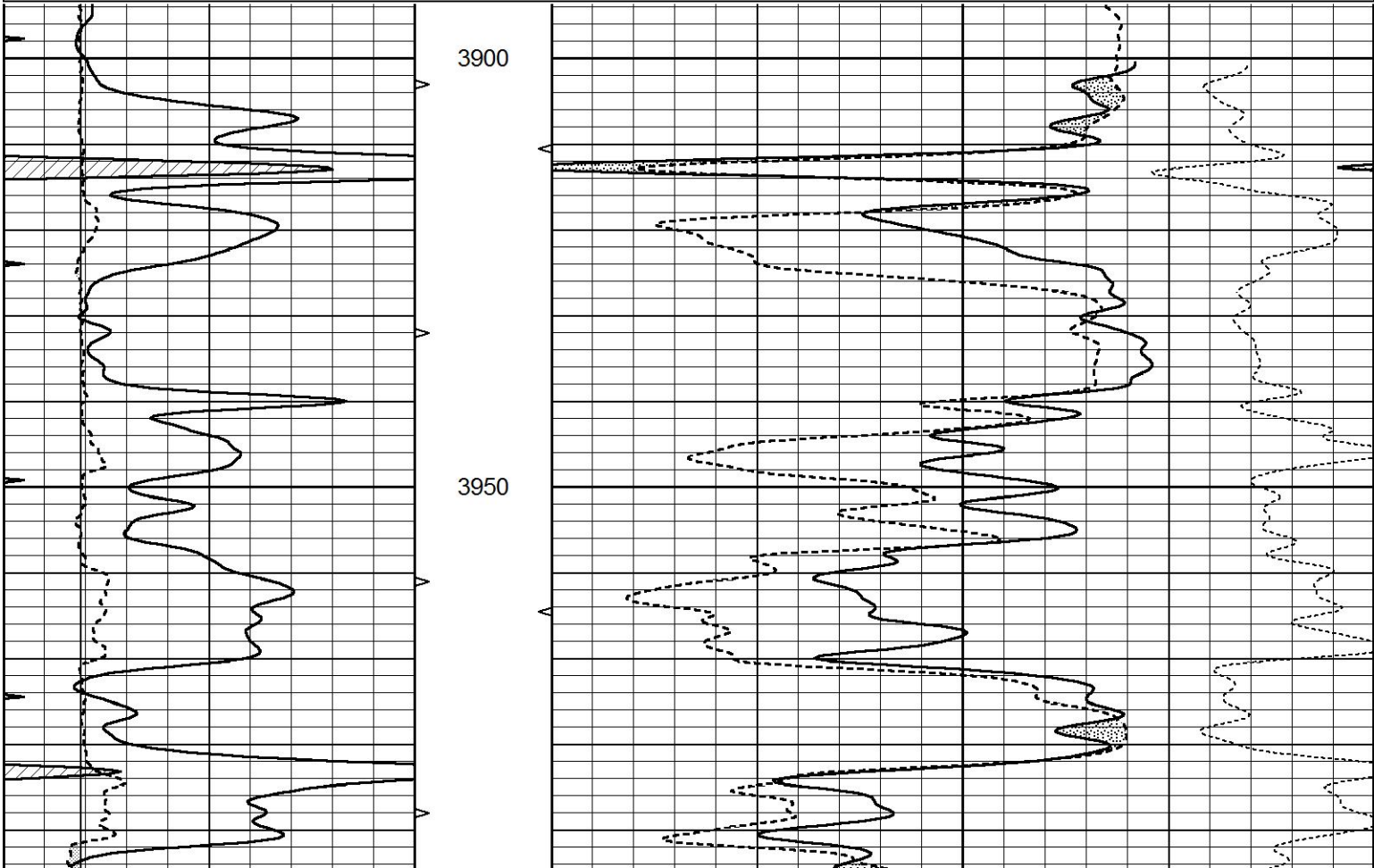
0	GAMMA RAY (GAPI)	150	AVTX	30	COMPENSATED DENSITY (pu)	-10
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			0 (ft3) 10			

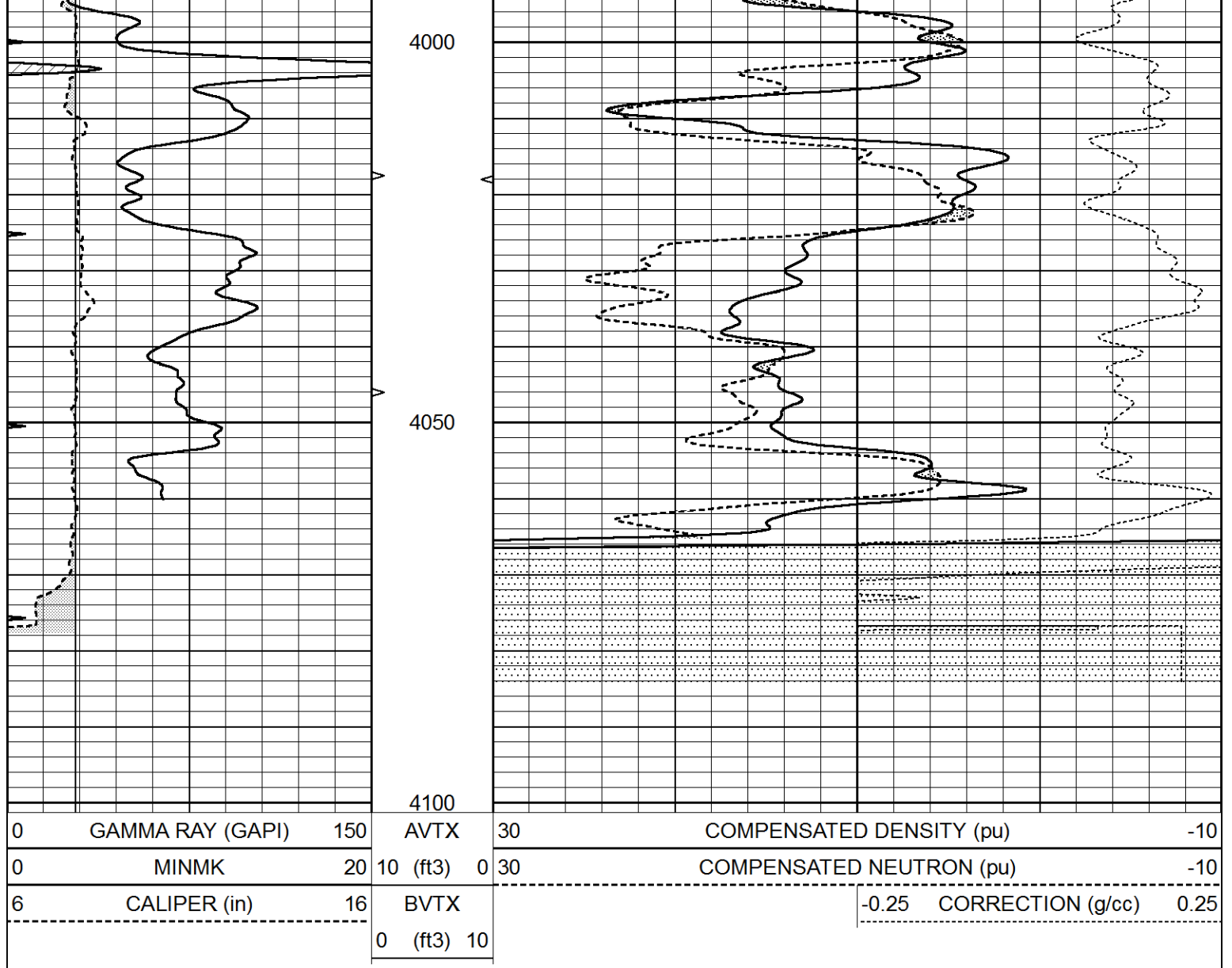


MAIN SECTION

Database File 6060ddn.db
 Dataset Pathname pass2.1
 Presentation Format _den_neu
 Dataset Creation Tue Dec 07 14:53:33 2021
 Charted by Depth in Feet scaled 1:240

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





Calibration Report

Database File 6060ddn.db
 Dataset Pathname pass2.1
 Dataset Creation Tue Dec 07 14:53:33 2021

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

Loop:	Readings				References			Results	
	Air	Loop	V		Air	Loop	mmho/m	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

	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: Mon Dec 07 12:12:14 2020			
	Background	Aluminum		Magnesium			
Window 1	557.73	5525.14		24361.20	cps		
Window 2	47.08	1245.09		5901.17	cps		
Window 4	239.06	1250.70		5456.76	cps		
Window 5	564.08	8300.56		16134.07	cps		
Window 6	44.21	1356.78		2705.40	cps		
Window 8	267.87	2686.97		5150.30	cps		
Bulk Density	-	2.6020		1.6830	g/cc		
Pe	-	3.0000		2.5070	b/e		
LS Alpha:	: -1.8719	SS Alpha:	: -0.8000	LS CPE:		: 1.1424	
LS Beta:	: 135562.6841	SS Beta:	: 20128.7209	SS CPE:		: 1.5489	

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: Mon Dec 07 12:12:14 2020		
Results	Readings	References (in)			

Low	High	Low	High	Gain	Offset
5852.8	8972.7	8.0	14.0	0.0	-3.4
Before Survey Caliper Verification		Performed:			
	Reference	Reading			
Caliper (in)	_____	_____			
After Survey Caliper Verification		Performed:			
	Reference	Reading			
Caliper (in)	_____	_____			
Compensated Neutron Calibration Report					
		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	
	Short Space	cps			
	Long Space	cps	pu		pu
Gamma Ray Calibration Report					
Serial Number:		7			
Tool Model:		Probe1			
Performed:		Tue Jan 19 17:50:08 2021			
Calibrator Value:		1.0	GAPI		
Background Reading:		0.0	cps		
Calibrator Reading:		1.0	cps		
Sensitivity:		0.5300	GAPI/cps		