



**COMPLETION  
& PRODUCTION  
SERVICES CO.**

**COMPENSATED  
DENSITY / NEUTRON  
LOG**

Company FOURWINDS OIL CORPORATION  
Well VANLOENEN UNIT #1  
Field WILDCAT  
County NORTON State KANSAS

Location: API #: 15-137-20726-00-00

1340' FSL & 650' FEL  
SW - SE - NE - SE

Permanent Datum GROUND LEVEL Elevation 1996  
Log Measured From KELLY BUSHING 5' A.G.L.  
Drilling Measured From KELLY BUSHING

Other Services  
DILMEL

Elevation  
K.B. 2001  
D.F. 1999  
G.L. 1996

Date	11/30/14		
Run Number	ONE		
Depth Driller	3490		
Depth Logger	3490		
Bottom Logged Interval	3486		
Top Log Interval	2850		
Casing Driller	8 5/8 @ 220'		
Casing Logger	220'		
Bit Size	7.875		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.0/43	CHLORIDES 1,000 PPM	
pH / Fluid Loss	10.0/8.0		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	1.1 @ 71F		
Rmf @ Meas. Temp	0.83 @ 71F		
Rmc @ Meas. Temp	1.32 @ 71F		
Source of Rmf / Rmc	MEASURED		
Rm @ BHT	0.70 @ 111F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	111F		
Equipment Number	3802		
Location	HAYS, KS.		
Recorded By	IAN MABB		
Witnessed By	JEFF LAWLER		

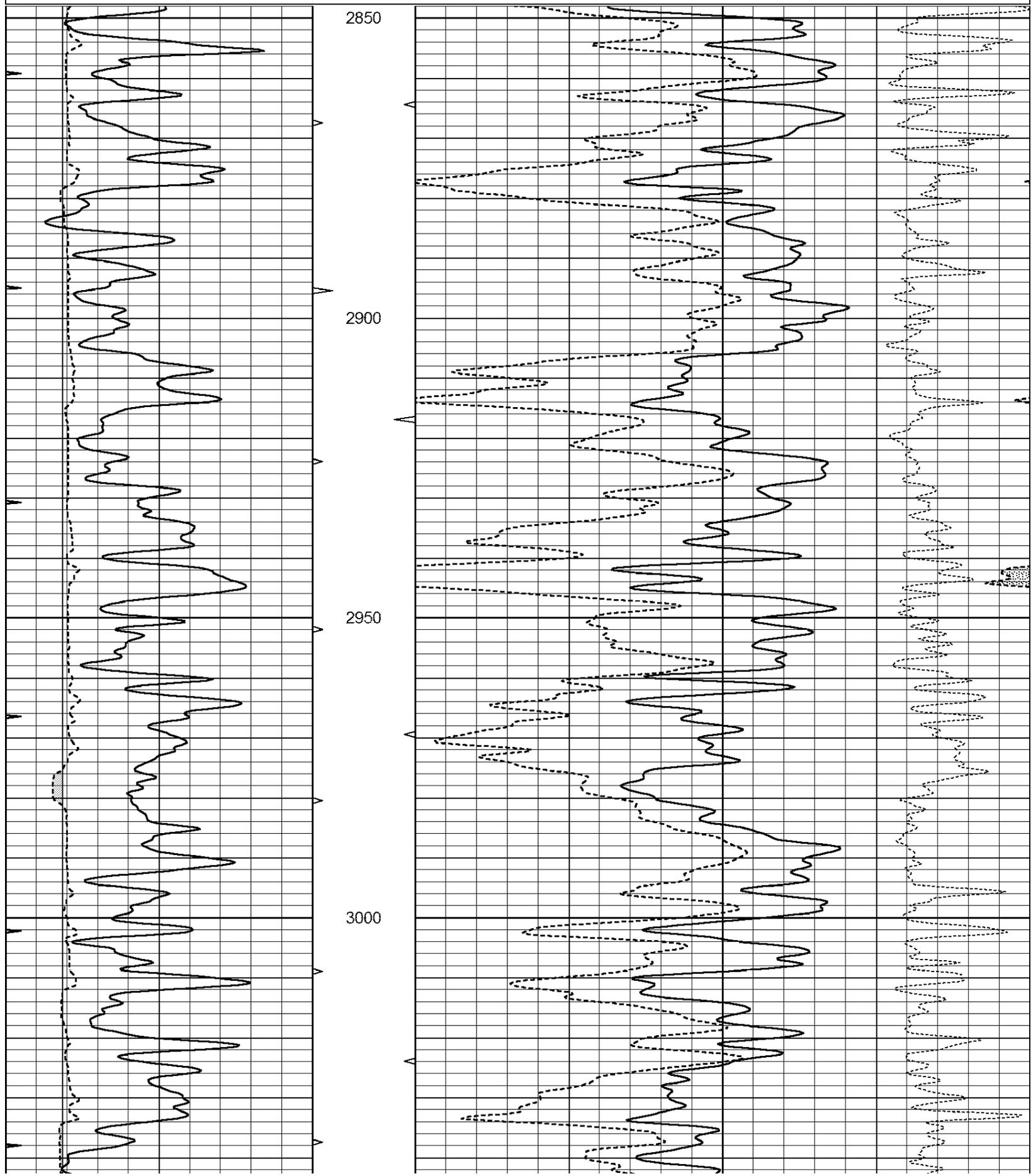
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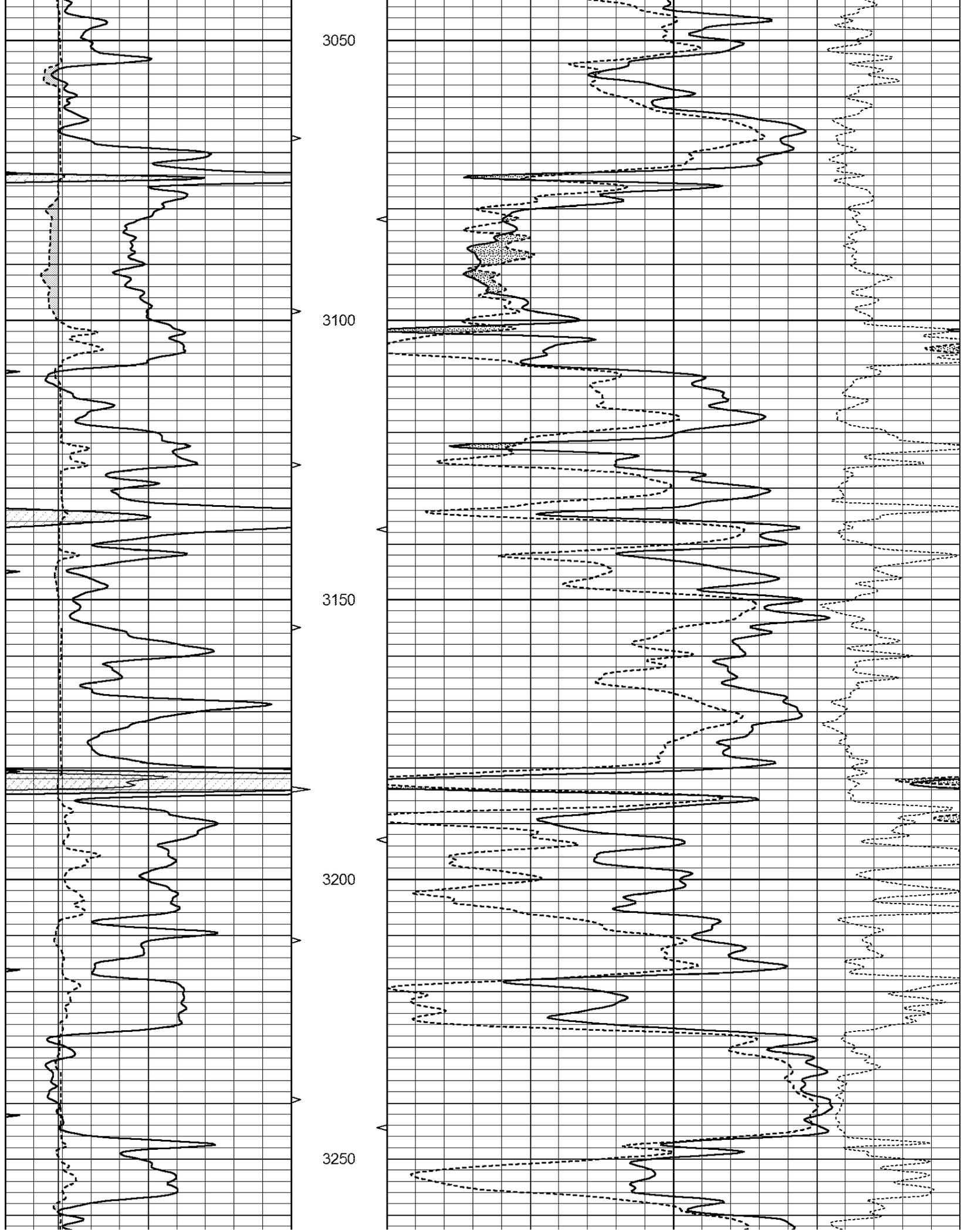
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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.

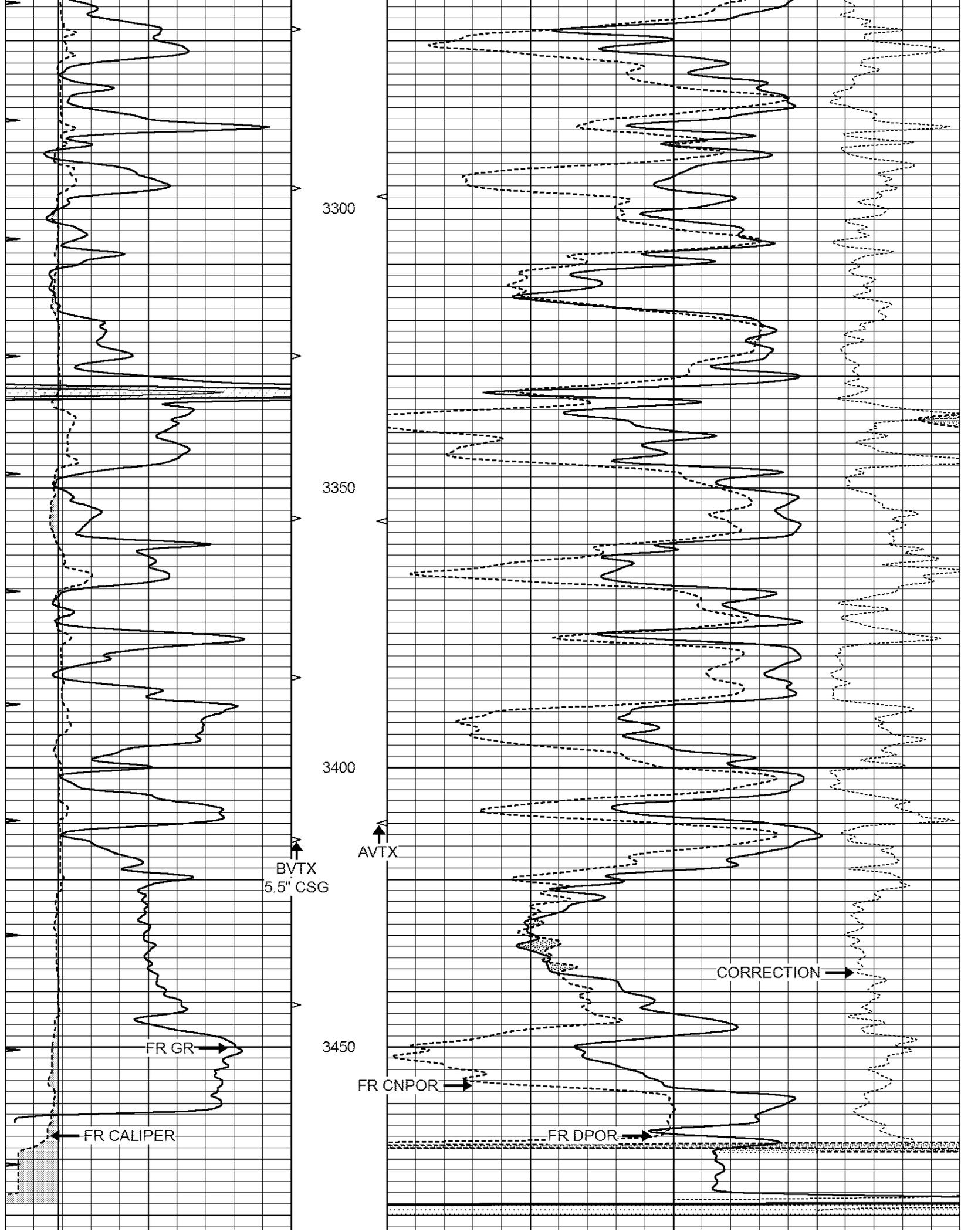
Comments

NABORS COMPLETION & PRODUCTION SERVICES CO.  
785 ( 628 - 6395 )  
THANK YOU FOR YOUR BUSINESS  
DIRECTIONS : LOGAN, KS. - 3 1/2 MILES WEST - SOUTH INTO

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		







LTD 3490

2.71 LIMESTONE MATRIX

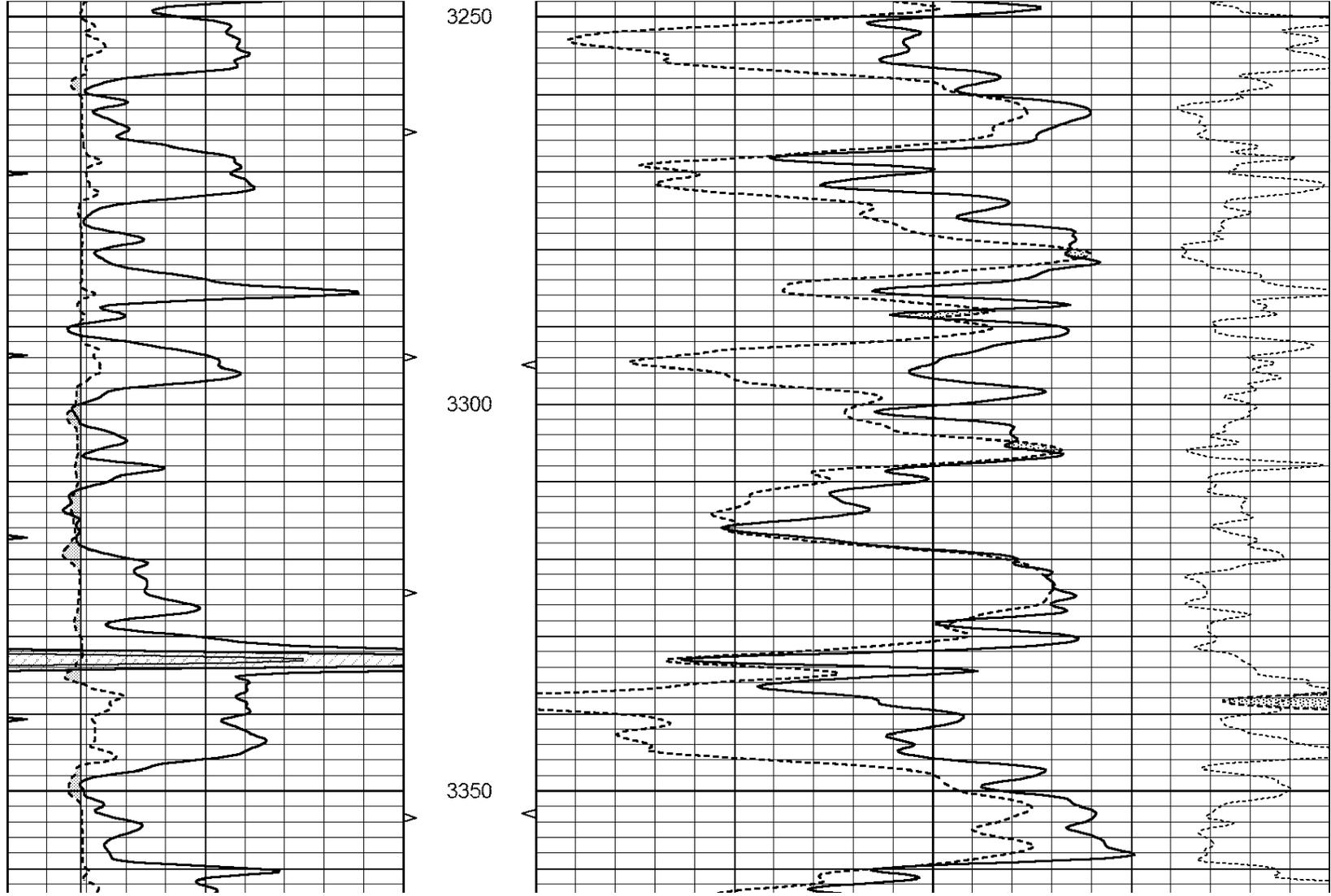
0	GAMMA RAY (GAPI)	150	3500	AVTX	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3)	0	30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	BVTX			-0.25 CORRECTION (g/cc)	0.25
			0 (ft3)	10			

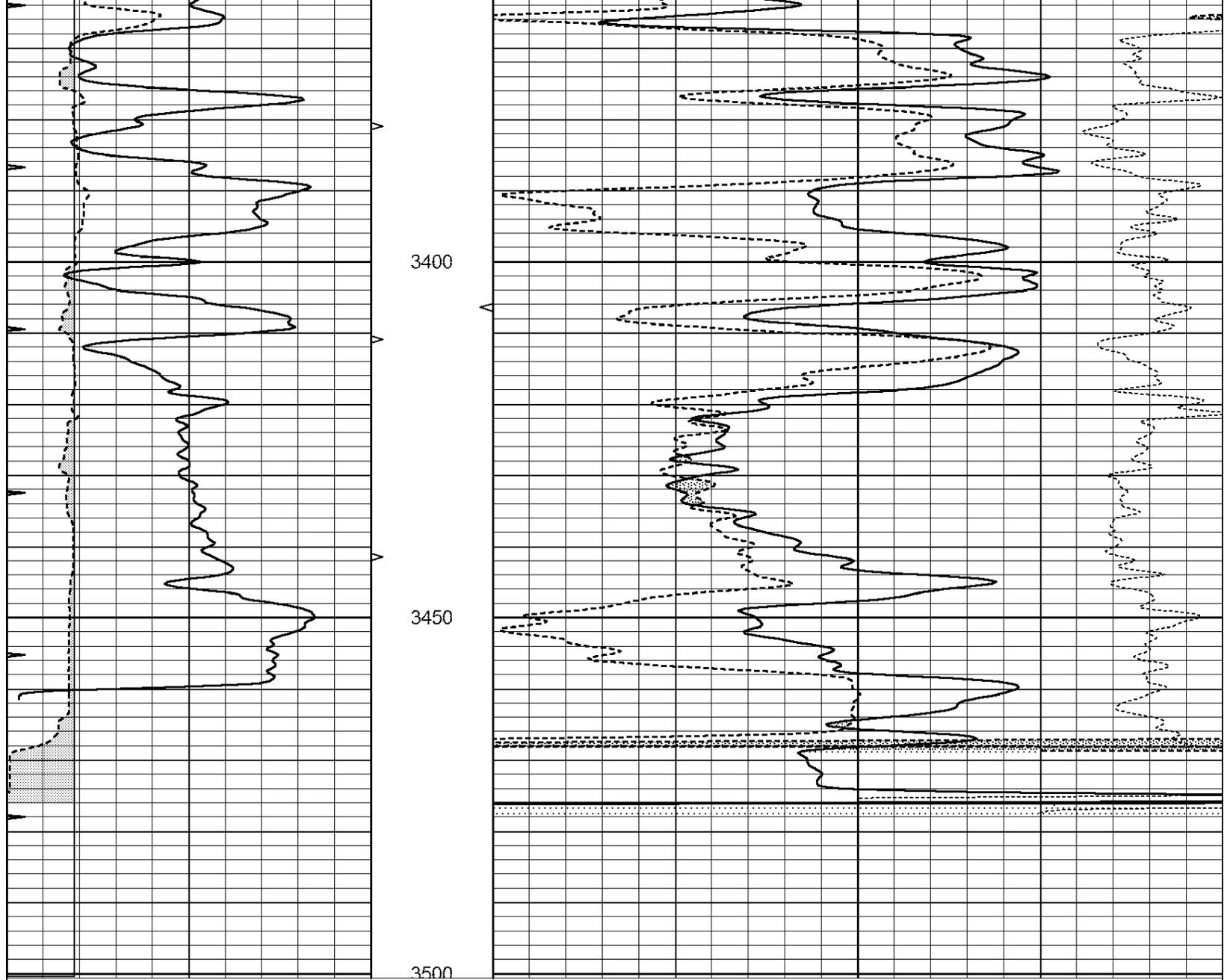


# REPEAT SECTION

Database File: 26267ddn.db  
 Dataset Pathname: pass2.3  
 Presentation Format: \_den\_neu  
 Dataset Creation: Sun Nov 30 22:04:07 2014  
 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			





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			

Calibration Report

Database File: 26267ddn.db  
 Dataset Pathname: pass3.2  
 Dataset Creation: Sun Nov 30 20:50:25 2014 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model: PROBE7-DILG  
 Surface Cal Performed: Mon Nov 24 11:09:57 2014  
 Downhole Cal Performed: Sat Jan 19 19:51:38 2013  
 After Survey Verification Performed: Sat Jan 19 19:51:38 2013

Surface Calibration

Loop:	Readings		References		Results	
	Air	Loop	Air	Loop	m	b
Deep	0.702	0.700	0.000	100.000	500.000	11.000

Deep	0.795	0.790	V	0.000	400.000	mmho/m	520.000	14.000
Medium	0.992	1.002	V	0.000	464.000	mmho/m	570.000	-28.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.041	0.642	V	0.000	400.000	mmho/m	664.874	-27.011
Medium	0.035	0.802	V	0.000	464.000	mmho/m	604.936	-21.367

Downhole Calibration								
	Readings			References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	135384.000	27094.500	mmho/m	135400.000	27082.400	mmho/m	1.000	-19.259
Medium	-47330.100	-9381.740	mmho/m	-47327.100	-9389.280	mmho/m	1.000	-10.154
LL3		7.322	V		1400.000	Ohm-m		
		0.038	V		20.000	Ohm-m		
		-7.273	V		4000.000	mmho-m		

After Survey Verification								
	Readings			Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	135384.000	27094.500	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	-47330.100	-9381.740	mmho/m	1.000	0.000
LL3		0.000	Ohm-m		1400.000	Ohm-m		
		0.000	Ohm-m		20.000	Ohm-m		
		0.000	mmho-m		4000.000	mmho-m		

**Compensated Density Calibration Report**

Serial-Model:	GEAR5-GEARHART
Source / Verifier:	147 / 147
Master Calibration Performed:	Sat Nov 29 00:24:07 2014
Before Survey Verification Performed:	
After Survey Verification Performed:	

Master Calibration						
	Density		Far Detector	Near Detector		
Magnesium	1.710	g/cc	848.07	511.00	cps	
Aluminum	2.610	g/cc	183.22	341.84	cps	
	Spine Angle = 75.30		Density/Spine Ratio = 0.568			
	Size		Reading			
Small Ring	8.20	in	1.64	V		
Large Ring	14.00	in	2.93	V		

Before Survey Verification					
	Target		Measured		
		g/cc			g/cc
		g/cc			g/cc
		g/cc			g/cc

After Survey Verification					
	Target		Measured		
		g/cc			g/cc
		g/cc			g/cc
		g/cc			g/cc

**Compensated Neutron Calibration Report**

Serial Number: 080620  
Tool Model: Probe

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:	46001	
Tool Model:	Probe1	
Performed:	Mon Nov 24 09:45:18 2014	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.2600	GAPI/cps