



**COMPLETION
& PRODUCTION
SERVICES CO.**

**MICRO
LOG**

Company DOWNING NELSON OIL CO., INC.
Well CMKL #18
Field ERNST NORTHWEST
County GRAHAM
State KANSAS

Company DOWNING NELSON OIL CO., INC.
Well CMKL #18
Field ERNST NORTHWEST
County GRAHAM State KANSAS

Location: API # : 15-065-24000-00-00
560' FSL & 2100' FEL
NE - SW - SW - SE
SEC 18 TWP 9S RGE 23W
Permanent Datum GROUND LEVEL Elevation 2414
Log Measured From KELLY BUSHING 8' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services CNL/CDL DIL
Elevation K.B. 2422 D.F. 2420 G.L. 2414

Date	1-16-14
Run Number	TWO
Depth Driller	4025
Depth Logger	4024
Bottom Logged Interval	4022
Top Log Interval	3400
Casing Driller	8 5/8" @ 219
Casing Logger	218
Bit Size	7 7/8"
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.2/55
pH / Fluid Loss	10.0/8.0
Source of Sample	FLOWLINE
Rm @ Meas. Temp	1.50 @ 71F
Rmt @ Meas. Temp	1.12 @ 71F
Rmc @ Meas. Temp	1.80 @ 71F
Source of Rmf / Rmc	MEASUREMENT
Rm @ BHT	0.92 @ 116F
Time Circulation Stopped	2 HOURS
Time Logger on Bottom	
Maximum Recorded Temperature	116F
Equipment Number	4010
Location	HAYS, KANSAS
Recorded By	IAN MAAB
Witnessed By	RON NELSON

<<< Fold Here >>>

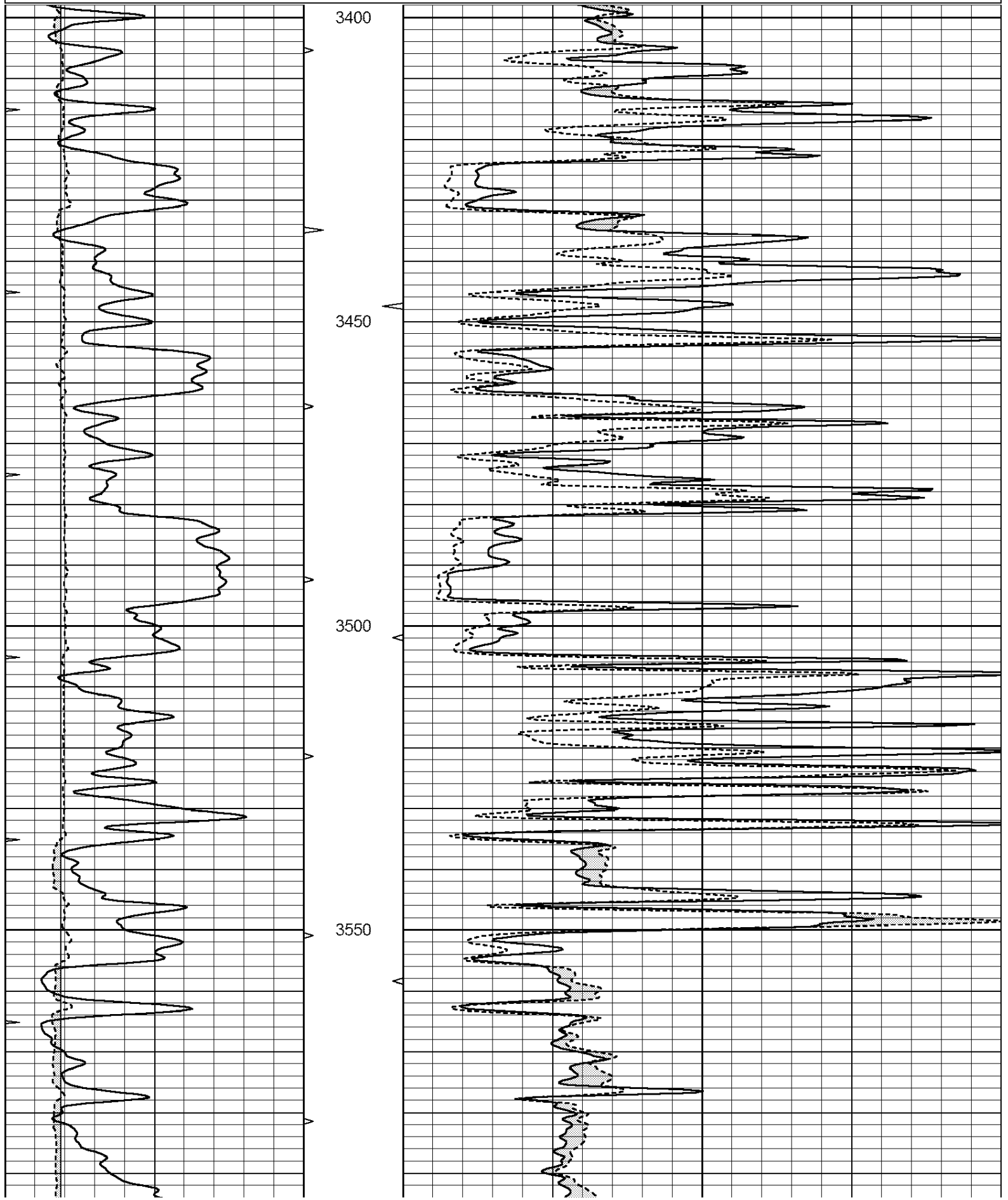
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

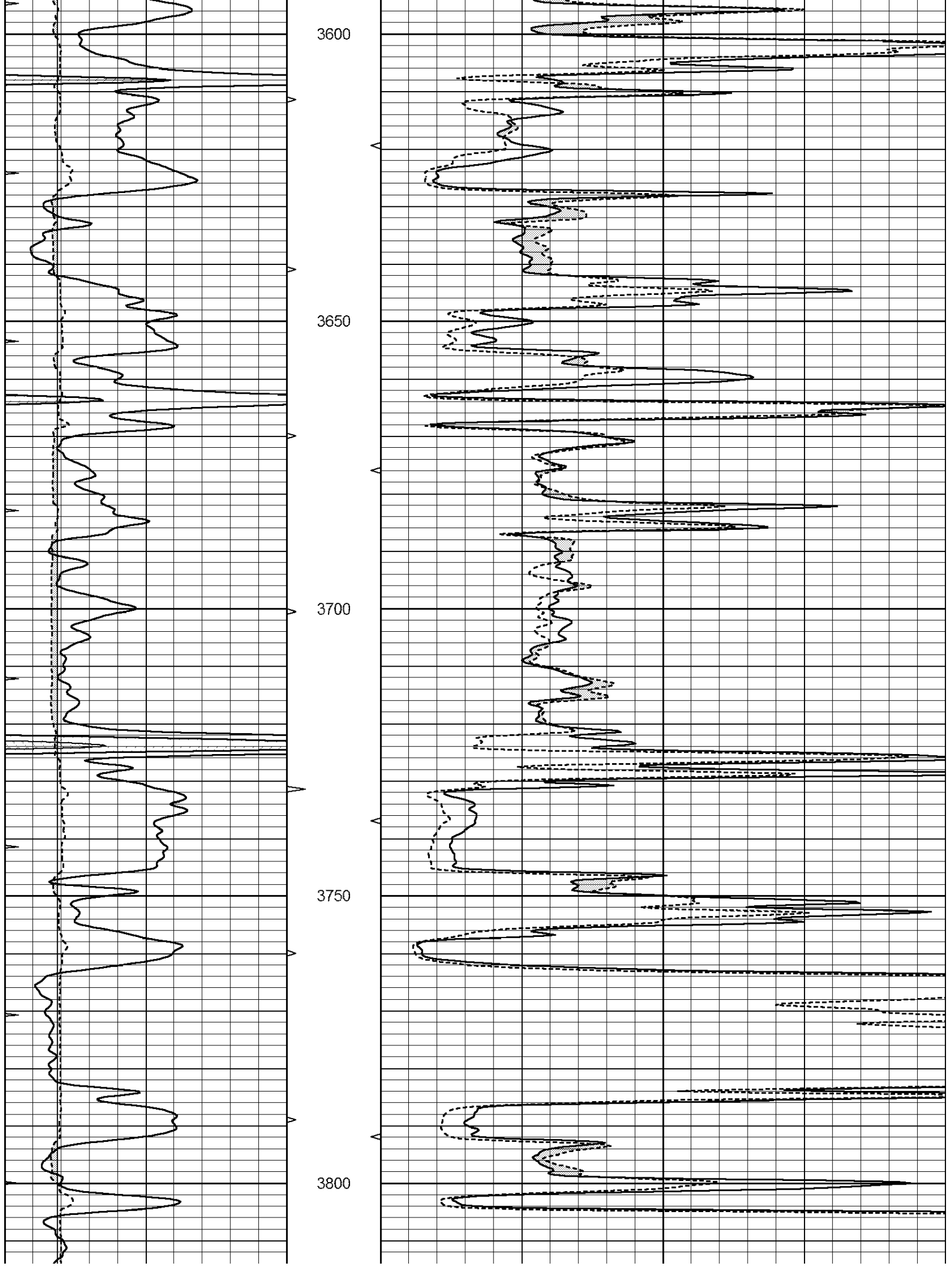
Comments

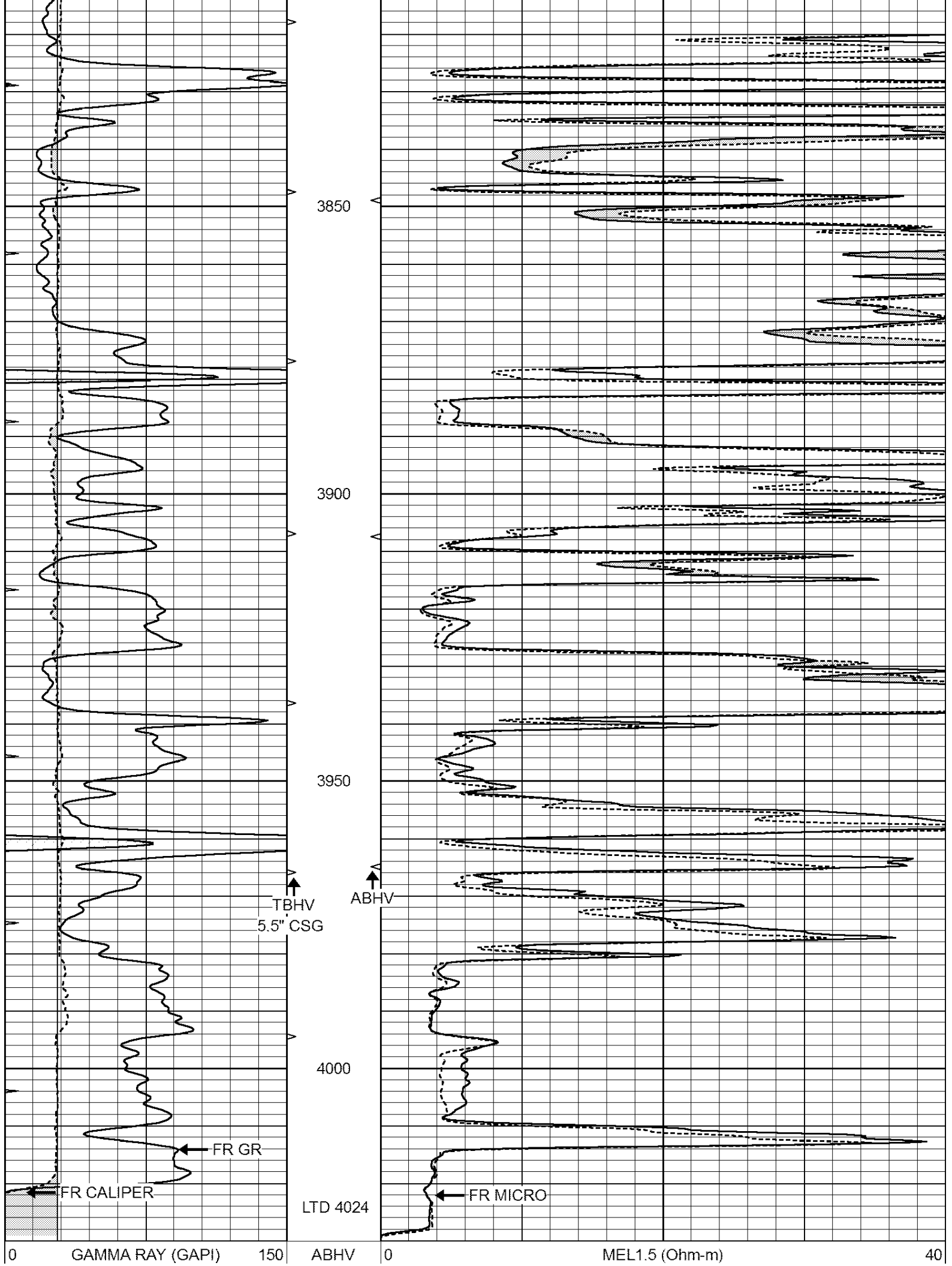
THANK YOU FOR USING NABORS, HAYS, KS. (785) 628-6395
DIRECTIONS:
WAKEENEY, KS. - NORTH TO RD H (RED LINE RD.) - WEST 4 MILES TO RD 220 - NORTH 2 1/4 MILES TO A LEASE RD FOLLOW THE LEASE RD NORTH AND BACK EAST THEN SOUTH

Database File: 23875ddn.db
Dataset Pathname: pass6.1
Presentation Format: _micro
Dataset Creation: Thu Jan 16 08:38:27 2014 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:240

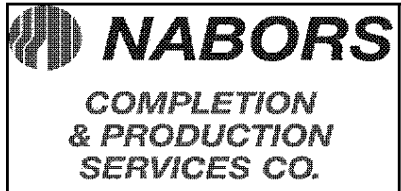
0	GAMMA RAY (GAPI)	150	ABHV	0	MEL1.5 (Ohm-m)	40
6	CALIPER (in)	16	10 (ft3)	0	MEL2.0 (Ohm-m)	40
0	MINMK	20	TBHV			
			0 (ft3)	10		







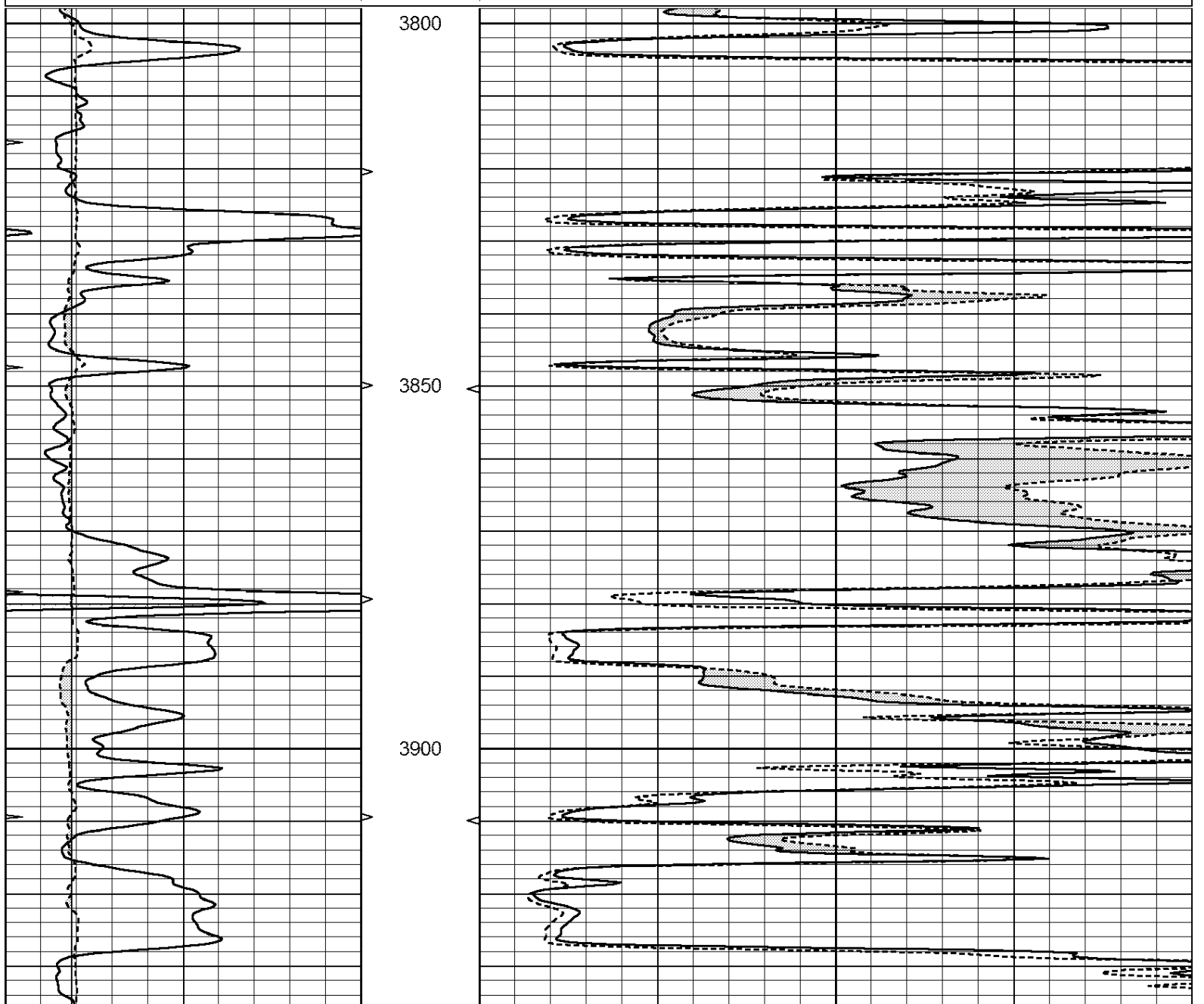
6	CALIPER (in)	16	10 (ft3)	0 0	MEL2.0 (Ohm-m)	40
0	MINMK	20	TBHV			
			0 (ft3)	10		

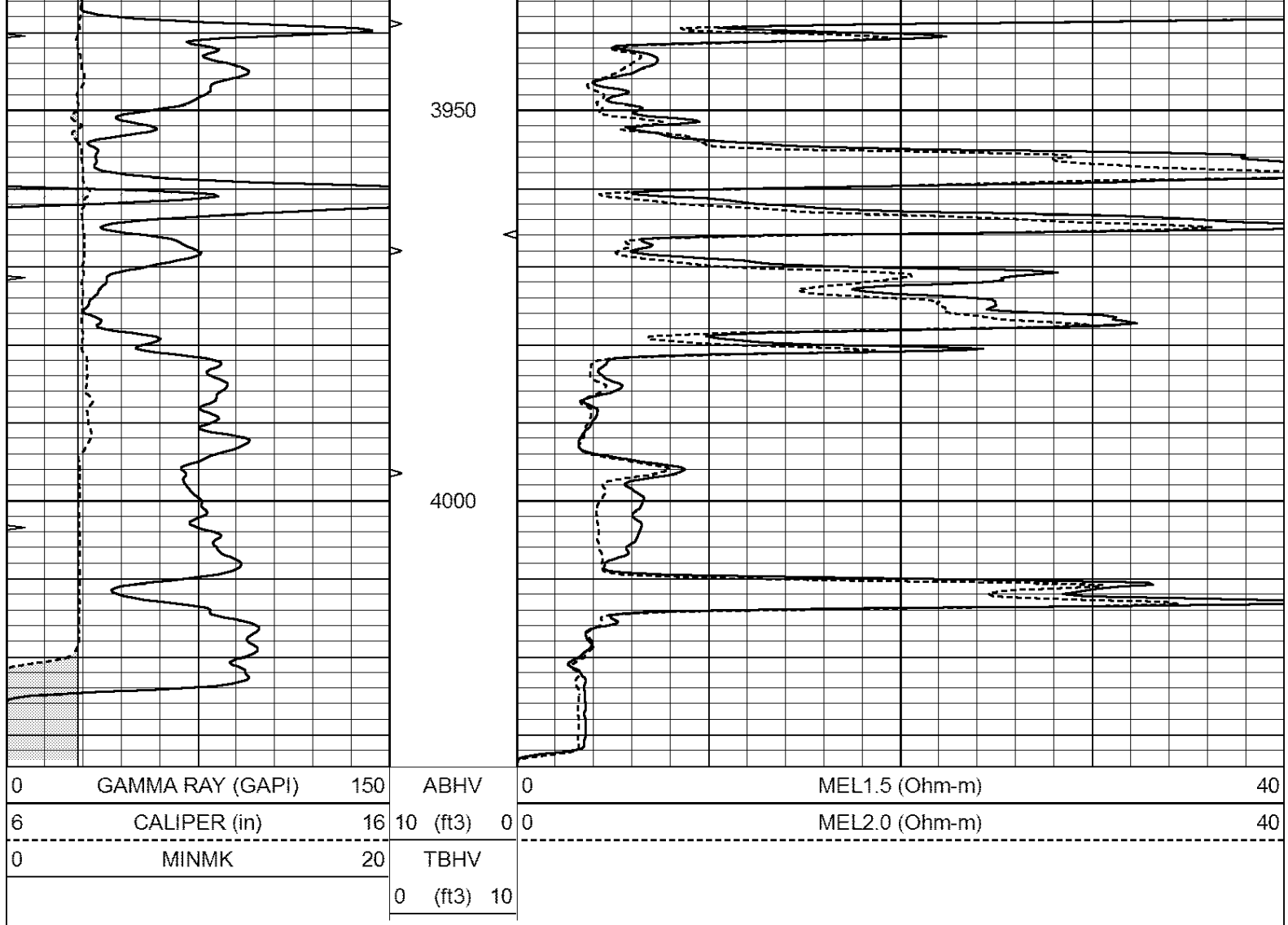


REPEAT SECTION

Database File: 23875ddn.db
 Dataset Pathname: pass5.3
 Presentation Format: _micro
 Dataset Creation: Thu Jan 16 08:20:46 2014 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	ABHV	0	MEL1.5 (Ohm-m)	40
6	CALIPER (in)	16	10 (ft3)	0 0	MEL2.0 (Ohm-m)	40
0	MINMK	20	TBHV			
			0 (ft3)	10		





Calibration Report

Database File: 23875ddn.db
 Dataset Pathname: pass6.1
 Dataset Creation: Thu Jan 16 08:38:27 2014 by Calc Open-Cased 090629

MICRO Calibration Report

Serial Number:	MICRO6	
Tool Model:	PROBE	
Performed:	Thu Jan 02 15:52:11 2014	
Caliper Calibration:	Gain=5.542	Offset=-0.920
References	Low Cal	High Cal
Readings	8.000	14.000
	1.431	2.513
1.5" Calibration:	Gain=38.075	Offset=0.000
References	Low Cal	High Cal
Readings	0.000	20.000
	0.004	1.196
2" Calibration:	Gain=39.041	Offset=0.000
References	Low Cal	High Cal
Readings	0.000	20.000
	0.006	0.913

Serial Number: GR6
Tool Model: OPEN
Performed: Fri Nov 29 08:34:37 2013

Calibrator Value: 150.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 276.0 cps

Sensitivity: 0.6035 GAPI/cps