Company	L.D. DRILLING, INC.
Well	SKOLAUT-MAULER UNIT #1-14
Field	LAUD
County	BARTON
State	KANSAS

Casedhole Solutions

COMPENSATED DENSITY/NEUTRON LOG

Company L.D. DRILLING, INC.
Well SKOLAUT-MAULER UNIT #1-14
Field LAUD
County BARTON State KANSAS

Location: API #: 15-009-26141-00-00
SW - SW - NW - SW
1585' FSL & 130' FWL
SEC. 14 TWP 18S RGE 14W

Other Services
DIL/MEL
SON

Permanent Datum GROUND LEVEL Elevation 1909
Log Measured From KELLY BUSHING 5' A.G.L.
Drilling Measured From KELLY BUSHING

Elevation
K.B. 1914
D.F. 1912
G.L. 1909

Date	3-23-16	
Run Number	ONE	
Depth Driller	3520	
Depth Logger	3520	
Bottom Logged Interval	3496	
Top Log Interval	2700	
Casing Driller	8 5/8 @ 855	
Casing Logger	856	
Bit Size	7 7/8	
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 8,800 PPM
Density / Viscosity	9.2 55	
pH / Fluid Loss	8.5 15	
Source of Sample	FLOWLINE	
Rm @ Meas. Temp	0.40 @ 83F	
Rmf @ Meas. Temp	0.30 @ 83F	
Rmc @ Meas. Temp	0.48 @ 83F	
Source of Rmf / Rmc	MEASUREMENT	
Rm @ BHT	0.30 @ 112F	
Time Circulation Stopped	2 HOURS	
Time Logger on Bottom		
Maximum Recorded Temperature	112F	
Equipment Number	3802	
Location	HAYS, KANSAS	
Recorded By	IAN MABB	
Witnessed By	KIM SHOEMAKER	

<<< Fold Here >>>

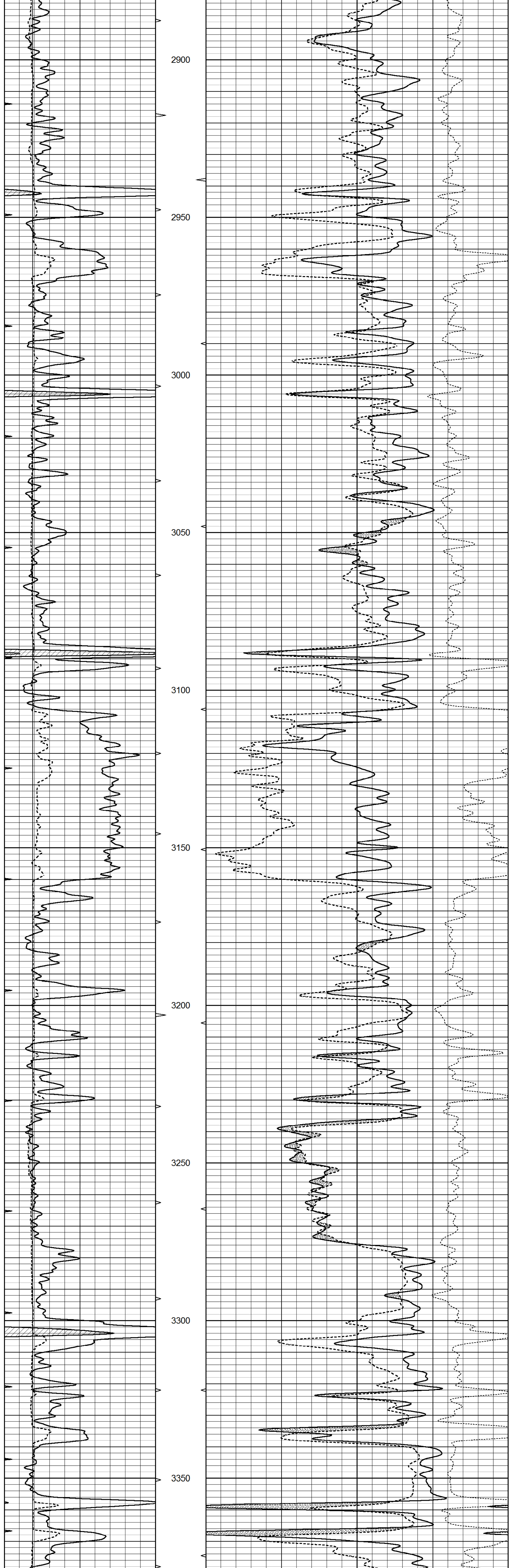
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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 : HWY 281 & HWY 4 - SOUTH ON BOYD RD. 3 1/2 MILES - EAST INTO

Database File 30958ddn8.db
Dataset Pathname pass3.2
Presentation Format _den_neu
Dataset Creation Wed Mar 23 06:40:55 2016
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			



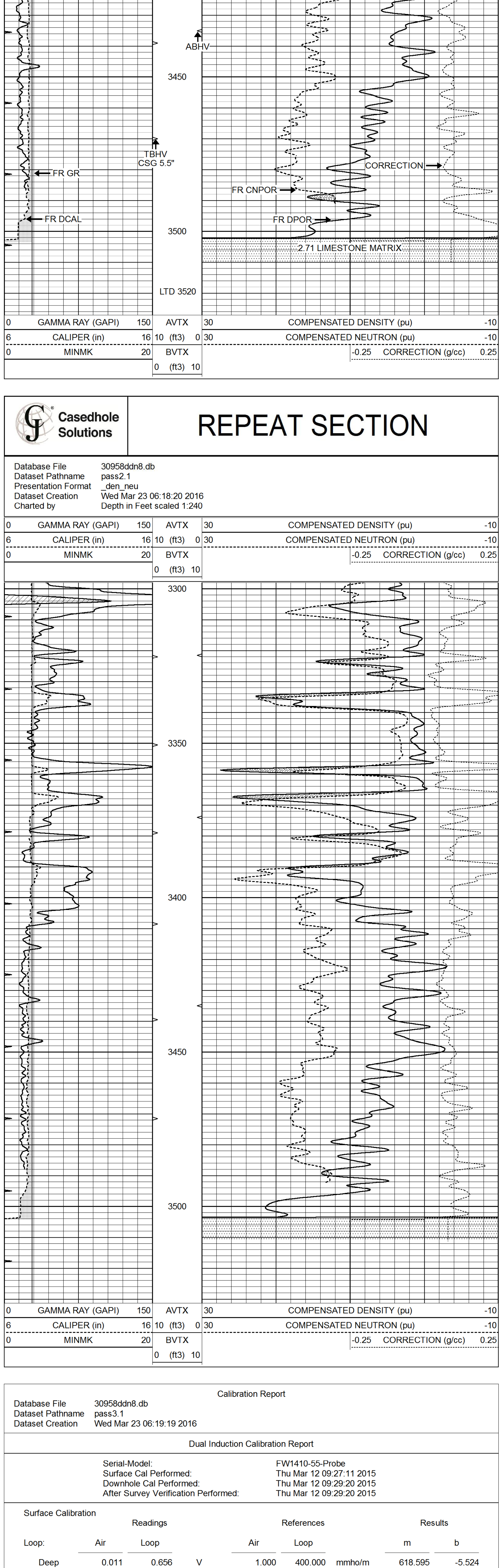
0	GAMMA RAY (GAPI)	150	AVTX	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3) 0	30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	BVTX	-0.25	CORRECTION (g/cc)	0.25
			0 (ft3) 10			

Casedhole Solutions

REPEAT SECTION

Database File 30958ddn8.db
Dataset Pathname pass2.1
Presentation Format _den_neu
Dataset Creation Wed Mar 23 06:18:20 2016
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 30958ddn8.db
Dataset Pathname pass3.1
Dataset Creation Wed Mar 23 06:19:19 2016

Dual Induction Calibration Report

Serial-Model: FW1410-55-Probe
Surface Cal Performed: Thu Mar 12 09:27:11 2015
Downhole Cal Performed: Thu Mar 12 09:29:20 2015
After Survey Verification Performed: Thu Mar 12 09:29:20 2015

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: 140703
Model: V4_10P
Source Number: 74GBq-19

Master Calibration Performed: Wed Feb 11 16:57:09 2015

	Background	Aluminum	Magnesium	
Window 1	594.39	6349.98	29204.00	cps
Window 2	47.14	1460.46	7334.94	cps
Window 4	261.52	1478.45	6338.23	cps
Window 5	633.19	10381.10	19565.80	cps
Window 6	49.78	1758.01	3436.39	cps
Window 8	302.39	3297.16	6093.06	cps
Bulk Density	-	2.6020	1.6830	g/cc
Pe	-	3.0000	2.5070	b/e

LS Alpha: : -1.8570 SS Alpha: : -0.7600 LS CPE: : 1.1652
LS Beta: : 157430.0395 SS Beta: : 22665.8398 SS CPE: : 1.4739

Before Survey Backround 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: Wed Feb 11 16:57:09 2015

Results Readings		References (in)			
Low	High	Low	High	Gain	Offset
5280.9	9455.1	8.6	14.0	0.0	1.3

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: 070558
Tool Model: Probe1
Performed: Tue Jun 10 17:54:10 2014

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.3000 GAPI/cps