COMPENSATED DENSITY/NEUTRON LOG

Casedhole Solutions

Company	L.D. DRILLING, INC.
Well	KEASLING-PORSCH UNIT #1
Field	WILDCAT
County	SHERIDAN
State	KANSAS

Company L.D. DRILLING, INC.
Well KEASLING-PORSCH UNIT #1
Field WILDCAT
County SHERIDAN State KANSAS

Location: API # : 15-139-21411-00-00
185' FSL & 1795' FEL
SW - SE - SW - SE
SEC 32 TWP 6S RGE 29W

Other Services: DIL

Permanent Datum: GROUND LEVEL Elevation 2834
Log Measured From: KELLY BUSHING 5' A.G.L
Drilling Measured From: KELLY BUSHING

Elevation: K.B. 2839, D.F. 2837, G.L. 2834

Date	10-10-15		
Run Number	ONE		
Depth Driller	4578'		
Depth Logger	4578'		
Bottom Logged Interval	4554'		
Top Log Interval	3500'		
Casing Driller	8 5/8 @ 357'		
Casing Logger	357'		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 700 PPM	
Density / Viscosity	9.3/64		
pH / Fluid Loss	10.5/6.8		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	1.50 @ 90F		
Rmf @ Meas. Temp	1.10 @ 90F		
Rmc @ Meas. Temp	1.80 @ 90F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	1.10 @ 121F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	120F		
Equipment Number	3802		
Location	HAYS, KANSAS		
Recorded By	IAN MABB		
Witnessed By	KIM SHOEMAKER		

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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

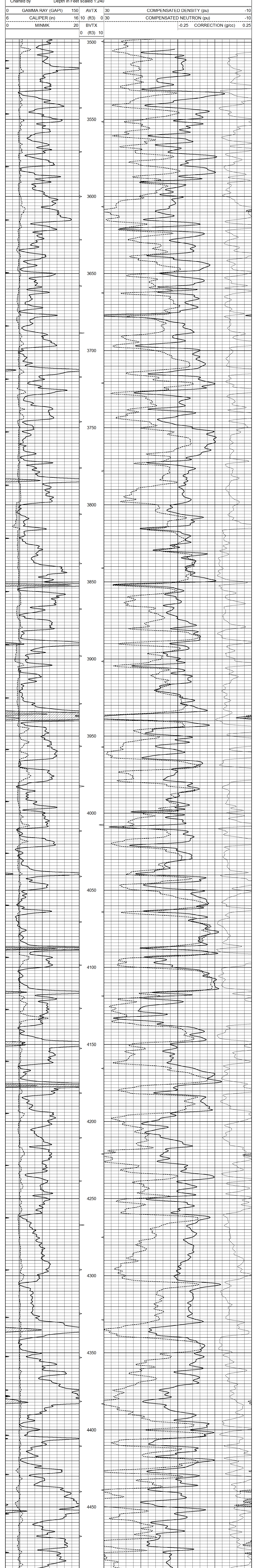
THANK YOU FOR USING C & J CASEDHOLE SOLUTIONS, HAYS, KS. (785) 628-6395
DIRECTIONS : HOXIE, KS. - 7 MILES WEST TO RD 70 - NORTH 7 MILES TO RD 90 - 1/4 WEST NORTH INTO

MAIN SECTION

Casedhole Solutions

Database File	26613ddn.db
Dataset Pathname	pass3.1
Presentation Format	_den_neu
Dataset Creation	Sat Oct 10 09:26:32 2015
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			



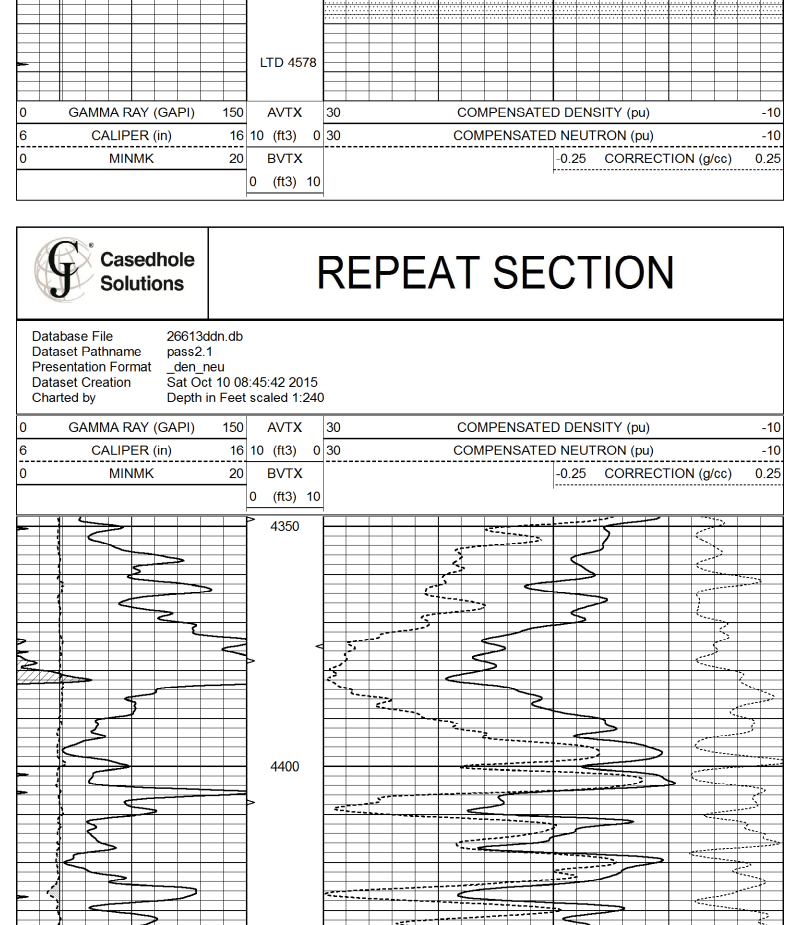
0	GAMMA RAY (GAPI)	150	AVTX	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3) 0	30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	BVTX	-0.25	CORRECTION (g/cc)	0.25
			0 (ft3) 10			

REPEAT SECTION

Casedhole Solutions

Database File	26613ddn.db
Dataset Pathname	pass2.1
Presentation Format	_den_neu
Dataset Creation	Sat Oct 10 08:45:42 2015
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	26613ddn.db
Dataset Pathname	pass3.1
Dataset Creation	Sat Oct 10 09:26:32 2015

Dual Induction Calibration Report

Serial-Model:	FW1410-56-Probe
Surface Cal Performed:	Fri Mar 13 14:03:50 2015
Downhole Cal Performed:	Fri Mar 13 15:37:29 2015
After Survey Verification Performed:	Fri Mar 13 15:37:29 2015

Surface Calibration

	Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.008	0.765	V	1.000	400.000	mmho/m	527.061	-3.201
Medium	-0.056	0.761	V	1.000	464.000	mmho/m	567.187	32.510
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.005	0.624	V	0.000	400.000	mmho/m	645.611	-3.034
Medium	0.012	0.721	V	0.000	464.000	mmho/m	653.591	-7.532

Downhole Calibration

	Readings			References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	-0.647	301.329	mmho/m	-0.780	336.378	mmho/m	1.117	-0.058
Medium	38.256	411.013	mmho/m	39.046	441.706	mmho/m	1.080	-2.280
LL3		7.471	V		1500.000	Ohm-m		
		0.001	V		20.000	Ohm-m		
		-7.085	V		6000.000	mmho-m		

After Survey Verification

	Readings			Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	-0.647	301.329	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	38.256	411.013	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: Wed Feb 11 18:53:41 2015

	Background	Aluminum	Magnesium	
Window 1	613.01	6027.40	27508.60	cps
Window 2	48.21	1424.77	7132.66	cps
Window 4	266.48	1373.19	5767.15	cps
Window 5	622.07	10090.30	18937.90	cps
Window 6	49.07	1682.84	3271.18	cps
Window 8	298.04	3248.38	5980.58	cps
Bulk Density	-	2.6020	1.6830	g/cc
Pe	-	3.0000	2.5070	b/e

LS Alpha:	: -1.8451	SS Alpha:	: -0.7542	LS CPE:	: 1.0882
LS Beta:	: 138648.8473	SS Beta:	: 21960.9250	SS CPE:	: 1.5181

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 18:53:41 2015

Results Readings		References (in)			
Low	High	Low	High	Gain	Offset
5123.0	9461.6	8.5	14.0	0.0	1.5

Before Survey Caliper Verification — Performed:

	Reference	Reading
Caliper (in)		

After Survey Caliper Verification — Performed:

	Reference	Reading
Caliper (in)		

Compensated Neutron Calibration Report

Serial Number:	080620PMC
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:	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