Schlumberger

DUAL INDUCTION - LATEROLOG

COMPANY	NORTHLAND ROYALTY
WELL	Linville #1
FIELD	Wildcat
COUNTY	Buchanan
STATE	MISSOURI
Location	S/2 - NE - NE
API Serial No.	
Sec.	31
Twp.	56N
Rge.	35W
Other Services	FDC-CNL-GR

Permanent Datum: Grd Level ; Elev.: 1112
Log Measured From GL , 0 Ft. Above Perm. Datum
Drilling Measured From GL
Elev.: K.B. ; D.F. ; G.L. 1112

Date	1/19/76
Run No.	one
Depth - Driller	1500
Depth - Logger	1501
Btm. Log Interval	1495
Top Log Interval	85
Casing - Driller	7" @ 85
Casing - Logger	85
Bit Size	6 1/4
Type Fluid in Hole	Gel
Fluid Level	Full
Dens. / Visc.	9.4 / 47
pH / Fluid Loss	-
Source of Sample	Pit
Rm @ Meas. Temp.	3.01 @ 61 °F
Rmf @ Meas. Temp.	2.52 @ 67 °F
Rmc @ Meas. Temp.	-
Source: Rmf / Rmc	calc
Rm @ BHT	2.32 @ 84 °F
Time Since Circ.	4 hr
Max. Rec. Temp.	84 °F
Equip. / Location	7740 / Wichita
Recorded By	Thompson / Chaney
Witnessed By	Mr. SHEEHAN

The well name, location and borehole reference data were furnished by the customer.

CHANGES IN MUD TYPE OR ADDITIONAL SAMPLES

Date / Sample No.		
Depth - Driller		
Type Fluid in Hole		
Dens. / Visc.		
ph / Fluid Loss	ml	ml
Source of Sample		
Rm @ Meas. Temp.	@ °F	@ °F
Rmf @ Meas. Temp.	@ °F	@ °F
Rmc @ Meas. Temp.	@ °F	@ °F
Source: Rmf / Rmc		
Rm @ BHT	@ °F	@ °F
Rmf @ BHT	@ °F	@ °F
Rmc @ BHT	@ °F	@ °F

SCALE CHANGES

Type Log	Depth	Scale Up Hole	Scale Down Hole

EQUIPMENT DATA

Run No.	one
Panel No.	CB 204
Cart. No.	B 151
Sonde No.	DB 43
Mem. Panel No.	B 118
G.R. Cart. No.	—
G.R. Panel No.	—
TTR No.	—
Cent. Device	none
Stand off - Inches	0
Time Const - Sec.	—
Speed - F.P.M.	80

REMARKS

Service Order No. - 23001

☒ Surface determined sonde errors used.
☐ Sonde error corrected for inch borehole signed at Rm =
☐ Induction zero set in hole at depth of feet.

CALIBRATION DATA

CALIBRATION	BACKGND CPS	SOURCE CPS	GALV. INCR. DIVISION	SENS. TAP (FOR CAL.)	SENS. TAP (RECORD)	TIME CONST.
GAMMA RAY:						

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 interpretations, 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 Clause 7 of our General Terms and Conditions as set out in our current Price Schedule.

DUAL INDUCTION CALIBRATION FILM CODING

1. MECHANICAL ZERO
2. 1 OHM-M
3. 100 OHM-M
4. ELECTRICAL ZERO (500 OHM-M)
5. 2 OHM-M
6. SONDE ERRORS (+2 MMHO)
7. ZERO SIGNAL IN AIR
8. ILd TEST LOOP (2 OHM SIGNAL)
9. ILm TEST LOOP (2 OHM SIGNAL)
10. Rxo/Rt UNITY
11. Rxo/Rt CALIBRATE