Schlumberger

SIDEWALL NEUTRON POROSITY LOG

COUNTY	
FIELD or LOCATION	
WELL	
COMPANY	

COMPANY COLUMBIA GAS TRANSMISSION CORPORATION

WELL COLUMBIA GAS TRANSMISSION #20,401

FIELD LAUREL HILL

COUNTY LINCOLN STATE W. VA.

Location: WATERS FOURTEEN MILE CREEK PERMIT #LIN-1648 MAP #64 28-41, QUAD: RANGER, DIST: LAUREL HILL, DIV: HAMLIN

Other Services: FDC-GR, DIS, TEMP

Permanent Datum: G.L. ; Elev.: 1027.6
Log Measured From K.B. , 10 Ft. Above Perm. Datum
Drilling Measured From K.B.

Elev.: K.B. 1037.6
D.F. -
G.L. 1027.6

Date	FEB. 27, 1976			
Run No.	ONE			
Depth—Driller	3920			
Depth—Logger	3928			
Btm. Log Interval	3926			
Top Log Interval	1834			
Casing—Driller	9 5/8 @ 1837	@	@	@
Casing—Logger	1834			
Bit Size	8 3/4			
Type Fluid in Hole	AIR			
Dens. / Visc.	- / -			
pH / Fluid Loss	- / - ml	ml	ml	ml
Source of Sample	NONE			
Rm @ Meas. Temp.	- @ - °F	@ °F	@ °F	@ °F
Rmf @ Meas. Temp.	- @ - °F	@ °F	@ °F	@ °F
Rmc @ Meas. Temp.	- @ - °F	@ °F	@ °F	@ °F
Source: Rmf / Rmc	- / -			
Rm @ BHT	- @ - °F	@ °F	@ °F	@ °F
TIME Circulation Stopped	0100			
TIME Logger on Bottom	1030			
Max. Rec. Temp.	98 °F	°F	°F	°F
Equip. / Location	7699 / PAINTSVILLE			
Recorded By	PURCELL			
Witnessed By	CONEFREY			

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

Run No.	ONE			
Service Order No.	16690			
Fluid Level	EMPTY			

SCALE CHANGES

Type Log	Depth	Scale Up Hole	Scale Down Hole

EQUIPMENT DATA

Panel No.	187			
Cart No.	227			
Skid No.	95			
Sonde No.	120			
G. R. Cart No.	1100			
TTR No.	-			
Calibrator	61			
Mem Panel No.	219			

LOGGING DATA

Matrix	Mud Corr. PPM $\times 10^6$	Temp. °F	ϕ Scale	Depth From	Depth To
LM/AIR	-	-	30,-10	3926	1834

CALIBRATION DATA

Speed - F.P.M.			
GR	BKG. CPS		
GR	Source CPS		
GR	Tc Sec		
Neutron ACPS.	Before Log	Drawer In	368
Neutron ACPS.	Before Log	Drawer Out	266
Neutron ACPS.	After Log	Drawer In	368
Neutron ACPS.	After Log	Drawer Out	266

REMARKS

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 4 of our General Terms and Conditions as set out in our current Price Schedule.

CALIPER DIAM. IN INCHES 6 — 16

GAMMA RAY API UNITS 0 — 200; 200 — 400

DEPTHS

POROSITY INDEX (%) 30 20 10 0 −10

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GAMMA RAY API UNITS 0 — 200; 200 — 400

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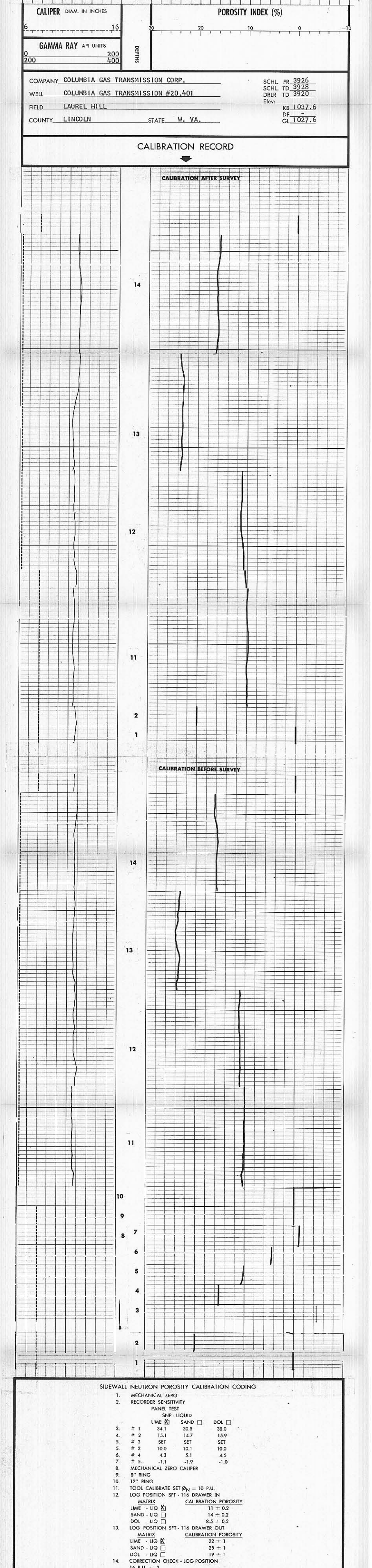
POROSITY INDEX (%) 30 20 10 0 −10

COMPANY COLUMBIA GAS TRANSMISSION CORP.
WELL COLUMBIA GAS TRANSMISSION #20,401
FIELD LAUREL HILL
COUNTY LINCOLN STATE W. VA.

SCHL. FR 3926
SCHL. TD 3928
DRLR TD 3920
Elev: KB 1037.6
DF -
GL 1027.6

CALIBRATION RECORD



SIDEWALL NEUTRON POROSITY CALIBRATION CODING

1. MECHANICAL ZERO
2. RECORDER SENSITIVITY

PANEL TEST
SNP - LIQUID

		LIME ☒	SAND ☐	DOL ☐
3.	# 1	34.1	30.8	38.0
4.	# 2	15.1	14.7	15.9
5.	# 3	SET	SET	SET
5.	# 3	10.0	10.1	10.0
6.	# 4	4.3	5.1	4.5
7.	# 5	-1.1	-1.9	-1.0

8. MECHANICAL ZERO CALIPER
9. 8" RING
10. 12" RING
11. TOOL CALIBRATE SET $\phi_N = 10$ P.U.
12. LOG POSITION SFT - 116 DRAWER IN

MATRIX	CALIBRATION POROSITY
LIME - LIQ ☒	11 ± 0.2
SAND - LIQ ☐	14 ± 0.2
DOL - LIQ ☐	8.5 ± 0.2

13. LOG POSITION SFT - 116 DRAWER OUT

MATRIX	CALIBRATION POROSITY
LIME - LIQ ☒	22 ± 1
SAND - LIQ ☐	25 ± 1
DOL - LIQ ☐	19 ± 1

14. CORRECTION CHECK - LOG POSITION 16 P.U. ± .3

GAMMA RAY CALIBRATION CODING

1. MECHANICAL ZERO
2. ELECTRICAL ZERO
3. RECORDER SENSITIVITY
4. MEMORIZER ADJUSTMENT
5. BACKGROUND
6. CALIBRATE - SOURCE IN PLACE