037-20592

CORNISH

WIRELINE SERVICES, INC.
P.O. DRAWER H
CHANUTE, KANSAS

PHONE 431-9308

CEMENT BOND — VARIABLE DENSITY

FILING NO.

COMPANY PENSE BROTHERS DRILLING CONTRACTORS

WELL HONSINGER NO. 3

FIELD

COUNTY CASS STATE MISSOURI

LOCATION Sec. 5 Twp. 44N Rge. 33W

OTHER SERVICES

Permanent Datum: GROUND LEVEL Elev.: Elev.: K.B. D.F. G.L.

Log Measured From: G.L. Ft. Above Perm. Datum

Drilling Measured From: G.L.

Date	9-28-95	Type Fluid in Hole	WATER
Run No.	1 NW	Dens.	Visc.
Depth—Driller		Max. Rec. Temp.	
Depth—Logger	449.2	Est. Cement Top	
Bottom Log Interval	443.4	Equipment Location	105 CHANUTE
Top Log Interval	0.0'	Recorded By	CORNISH, J.
Open Hole Size		Witnessed By	BLANCETT & PENSE, C.

CASING REC.	Size	Wt/Ft	Grade	Type Joint	Top	Bottom
Surface String						
Prod. String						
Prod. String	4½"			COLLAR	0	T.D.
Liner						

PRIMARY CEMENTING DATA

STRING	Surface	Production	Liner
Vol. of cement			
Type of cement			
Additive			
Additive by %			
Retarder			
Retarder by %			
Wt. of slurry			
Water loss			
Drill. mud type			
Drilling mud wt.			

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10 Oil & Gas Cons

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COMPRESSIVE STRENGTH (p.s.i. Curing Temp.)

Time Elapsed	Surface		Protective		Production		Liner	
24 hrs.		°F		°F		°F		°F
48 hrs.		°F		°F		°F		°F
72 hrs.		°F		°F		°F		°F

PRIMARY CEMENTING PROCEDURE

	Hour — date	Hours from start of operation
Started pumping cement		
Plug on bottom		
Release pressure		
Start Cement Bond Log		
Finish Cement Bond Log		

Equipment Data

Type standoff

Logging speed

Bias: Max.

Cartridge No.

Spacing

Preceding fluid _____ Volume _____ bbls.

Returns: Full _____ Partial _____ None _____

Pipe reciprocated during Pumping: Yes _____ No _____

Pipe reciprocated after plug down: Yes _____ min. No _____

CASING BOND

BOND INCREASES

100% ← 0%

DEPTH

TRANSIT TIME

640 140

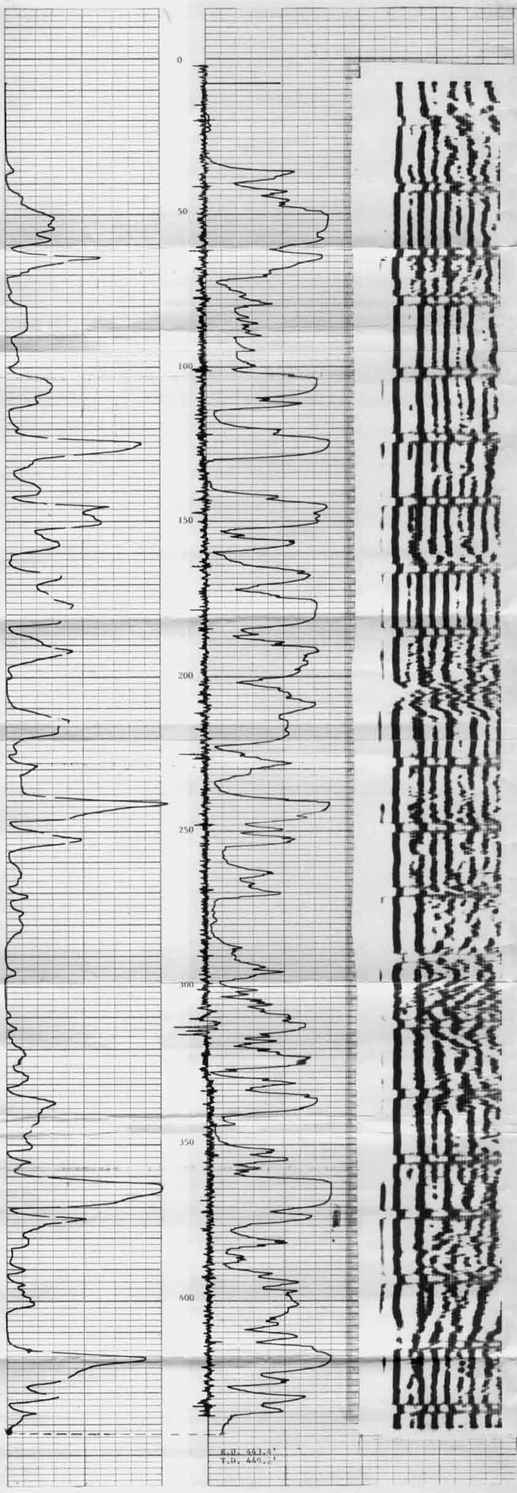
MICROSECONDS

CASING COLLARS

VARIABLE DENSITY

200 1000

MICROSECONDS



HONSINGER NO. 3

PENSE BROTHERS DRILLING CONTRACTORS

CASS COUNTY, MISSOURI

SEPTEMBER 28, 1995

BOND WITH MSG

5/44N/33W