GD2441 OGC #21771 RELEASED

CORNISH

WIRELINE SERVICES, INC.

PHONE 431-9306 P.O. DRAWER H CHANUTE, KANSAS

CEMENT BOND — VARIABLE DENSITY

FILING NO.

COMPANY CARMEL ENERGY, INC. RECEIVED

WELL DISSH NO. IF-N14L MAR 2 0 1985

FIELD Ida Fauvergue MO. OIL & GAS COUNCIL

COUNTY VERNON STATE MISSOURI

LOCATION 2593.48' W TO W/L
2158.29' S TO S/L

Sec. 33 Twp. 35N Rge. 33W

OTHER SERVICES: 3-25-85: GR/N

Permanent Datum: G.L. Elev. 795.8'
Log Measured from TOP OF FLANGE Ft. Above Perm. Datum
Drilling Measured From G.L.

Elev.: K.B. D.F. G.L. 795.8'

Date	3-25-85	Type Fluid in Hole	WATER
Run No.	1 NW	Dens. / Visc.	
Depth—Driller		Max. Rec. Temp.	
Depth—Logger	157.0'	Est. Cement Top	
Btm. Log Interval	151.2'	Equip. / Location	105 C
Top Log Interval	7.0'	Recorded By	LYNCH, L.
Open Hole Size		Witnessed By	STUESSE, G.

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

PRIMARY CEMENTING DATA

STRING	Surface	Protection	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.				

FOLD HERE

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. Pipe reciprocated during Pumping: Yes ____ No ____
Returns: Full ____ Partial ____ None ____ Pipe reciprocated after plug down: Yes ____ min., No ____

CASING BOND — BOND INCREASES 100% ↓ 0%

DEPTH

TRANSIT TIME — 640 MICROSECONDS 140

VARIABLE DENSITY — 200 MICROSECONDS 1000

CASING COLLARS

NSCO-18084

DISSH NO. IF-N14L

CARMEL ENERGY, INC.

VERNON COUNTY, MISSOURI

MARCH 25, 1985

BOND WITH MSC

33/35N/33W