G02446 OGC# 21779 CONFIDENTIAL RELEASED

CORNISH

WIRELINE SERVICES, INC.

PHONE 431-9308 P.O. DRAWER H CHANUTE, KANSAS

CEMENT BOND — VARIABLE DENSITY

FILING NO.

COMPANY CARMEL ENERGY, INC.

WELL DISSH NO. ES-N10U

FIELD Sitz

COUNTY VERNON STATE MISSOURI

MAR 28 1985 MO. OIL & GAS COUNCIL

LOCATION 2553.13' E TO E/L
2396.50' S TO S/L

Sec. 33 Twp. 35N Rge. 33W

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

Permanent Datum: G.L. Elev. 792.1'
Log Measured from TOP OF FLANGE Ft. Above Perm. Datum
Drilling Measured From G.L.

Elev.: K.B. D.F. G.L. 792.1'

Date	3-25-85	Type Fluid in Hole	WATER
Run No.	1 NW	Dens. / Visc.	
Depth—Driller		Max. Rec. Temp.	
Depth—Logger	138.8'	Est. Cement Top	
Btm. Log Interval	133.0'	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

Started pumping cement
Plug on bottom
Release pressure
Start Cement Bond Log
Finish Cement Bond Log

Hours from start of operation

Equipment Data
Type standoff
Logging speed
Bias: Max.
Cartridge No.
Spacing

Pipe reciprocated during Pumping: Yes ____ No ____
Pipe reciprocated after plug down: Yes ____ min. No

Preceding Fluid ____ Volume ____ bbls.
Returns: Full ____ Partial ____ None ____

VARIABLE DENSITY 1000 200 MICROSECONDS

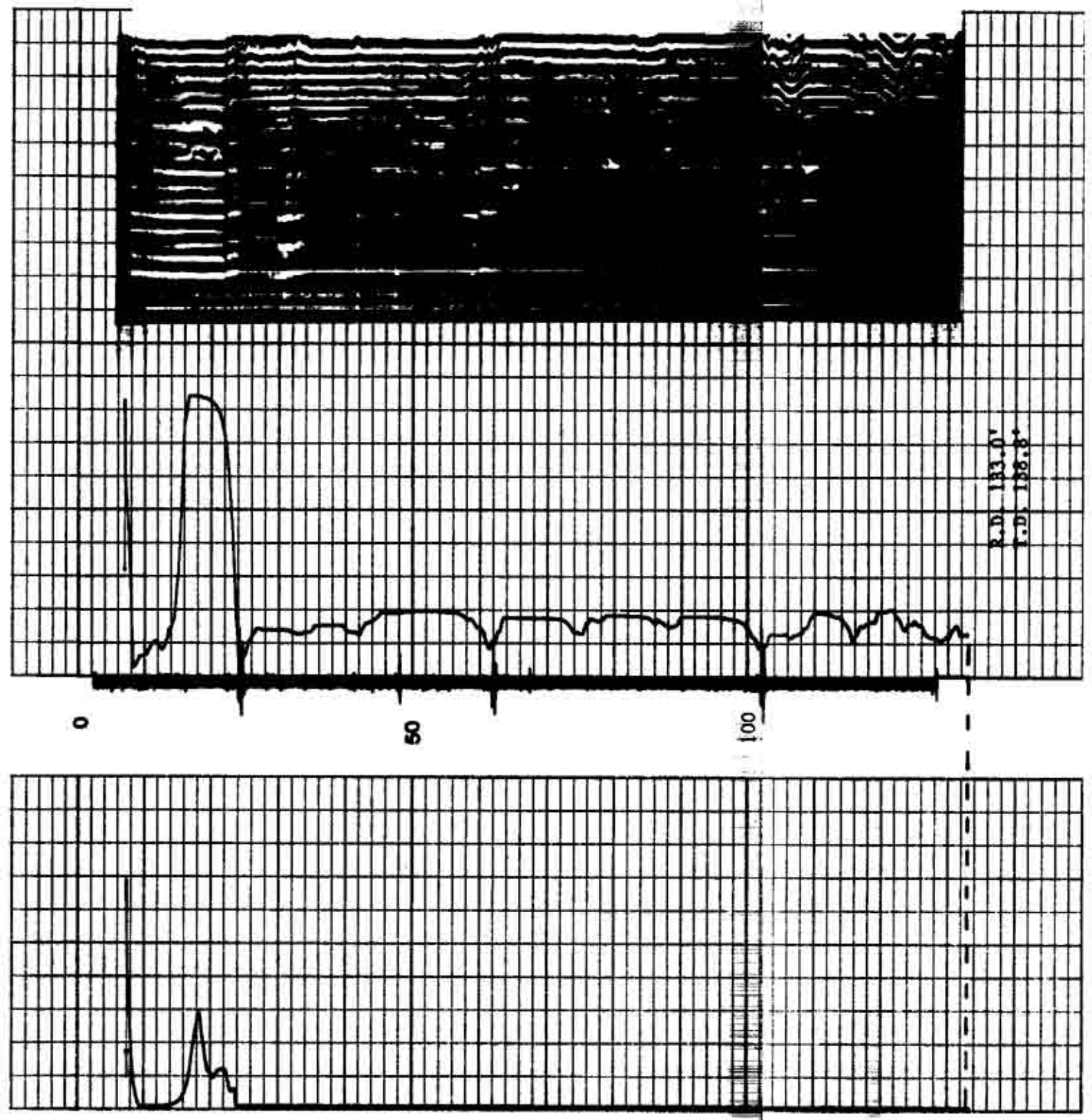
TRANSIT TIME 140 640 MICROSECONDS

CASING COLLARS

DEPTH

CASING BOND BOND INCREASES 0% 100%

NSCO-19064



DISSH NO. ES-N10U
CARMEL ENERGY, INC.
VERNON COUNTY, MISSOURI
MARCH 25, 1985
BOND LOG WITH MSG

33/35N/33W