600290

ENERGY RESOURCES, INC.

Paola, Kansas 66071
P. O. Box 467
913 294 5050

Lawrence, Kansas 66044
1203 Iowa
913 841-8884

RELEASED

FILING NO. _____

COMPANY CARMEL ENERGY INC.

WELL NO. WH - 31

FIELD CHARLES WHITEFORD LEASE

COUNTY VERNON - MISSOURI

LOCATION: 989.0 FNL 516.0 FWL

SEC 28 TWP 35N RGE 33W

OTHER SERVICES:

PERMANENT DATUM: G.L. ELEV. 823.3

LOG MEASURED FROM G.L. FT ABOVE PERM. DATUM

DRILLING MEASURED FROM G.L.

ELEV.: K.B. N.A. D.F. N.A. G.L. 823.3

DATE	11-26-80	11-26-80
RUN NO	1 NW	1 NW
TYPE LOG	GAMMA RAY	NEUTRON
DEPTH—DRILLER		
DEPTH—LOGGER	186.3	186.3
BOTTOM LOGGED INTERVAL	180.8	185.3
TOP LOGGED INTERVAL	0.0	4.5
TYPE FLUID IN HOLE	WATER	WATER
SALINITY, PPM CL		
DENSITY		
LEVEL	10.0	10.0
MAX. REC. TEMP., DEG F.		
OPERATING RIG TIME		
RECORDED BY	MORGAN	MORGAN
WITNESSED BY		

BORE-HOLE RECORD

RUN NO.	BIT	FROM	TO

CASING RECORD

SIZE	WGT	FROM	TO
OPEN HOLE			

DEC 08 1980
NO. OIL & GAS COUNCIL

FOLD HERE

THIS HEADING AND THIS INFORMATION ...

EQUIPMENT DATA

GAMMA RAY			NEUTRON		
RUN NO.	1 NW		RUN NO.	1 NW	
TOOL MODEL NO.	705		LOG TYPE	NEU/NEU	
DIAMETER	1 11/16"		TOOL MODEL NO	705	
DETECTOR MODEL NO	705-GE		DIAMETER	1 11/16"	
TYPE	GEIGER		DETECTOR MODEL NO.	705 HE-3	
LENGTH	1 3/8" x 18"		TYPE	HE	
DISTANCE TO N. SOURCE	4.5		LENGTH	1" x 6"	
			SOURCE MODEL NO.	71-1	
GENERAL			SERIAL NO	71-1-335 G	
HOIST TRUCK NO	0020		SPACING	13"	
INSTRUMENT TRUCK NO	0020		TYPE	AMBE-241	
TOOL SERIAL NO.	0002		STRENGTH	3 CI	

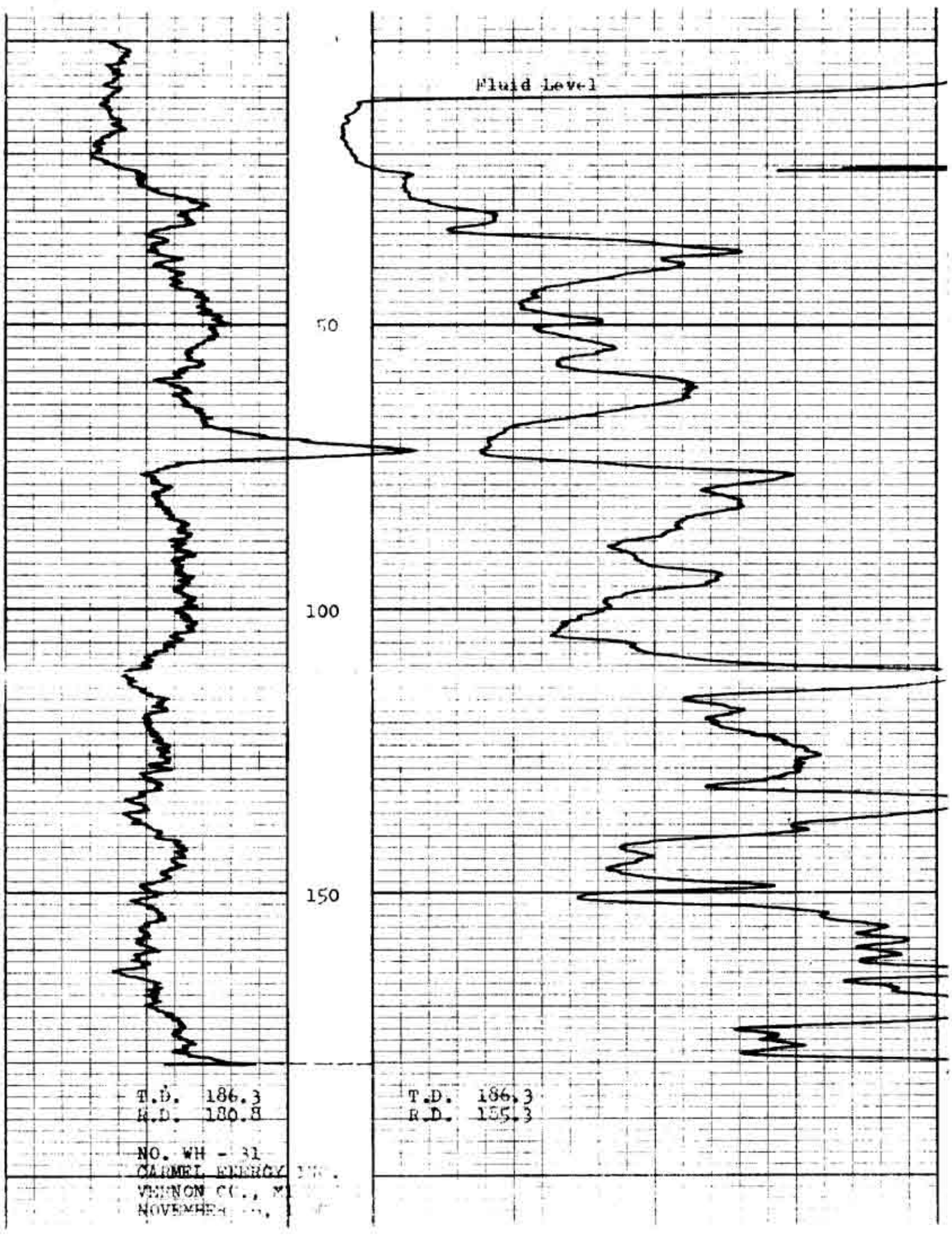
LOGGING DATA

GENERAL				GAMMA RAY				NEUTRON			
RUN NO	DEPTHS FROM	DEPTHS TO	SPEED FT/MIN	T.C. SEC	SENS SETTINGS	ZERO DIV. L OR R	API G.R. UNITS PER LOG DIV.	T.C. SEC.	SENS. SETTINGS	ZERO DIV. L OR R	API N UNITS PER LOG DIV
1	0	T.D.	20	4.0	100/075	0	10	4.0	500/100	5 L	20

REFERENCE LITERATURE: OPEN HOLE

REMARKS: DRILLING CONTRACTOR: LAYNE-WESTERN COMPANY

NSI O 16740

GAMMA RAY DEPTH NEUTRON

CASING COLLARS