600319

ENERGY RESOURCES, INC.

Paola, Kansas 66071
P O Box 467
913 294 5050
Lawrence, Kansas 66044
1203 Iowa
913 841 8866

FILING NO.

COMPANY CARMEL ENERGY INC.
WELL WH 21
FIELD CHARLES WHITEFORD LEASE
COUNTY VERNON - MISSOURI

LOCATION: 1785.0 FWL 440.0 FNL
SEC 28 TWP 35N RGE 33W

OTHER SERVICES:

PERMANENT DATUM G.L. ELEV 802.8
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. 802.8

DATE	11-7-80	11-7-80
RUN NO	1 NW	1 NW
TYPE LOG	GAMMA RAY	NEUTRON
DEPTH—DRILLER		
DEPTH—LOGGER	181.7	181.7
BOTTOM LOGGED INTERVAL	176.2	180.7
TOP LOGGED INTERVAL	0.0	4.5
TYPE FLUID IN HOLE	WATER	WATER
SALINITY, PPM CL.		
DENSITY		
LEVEL	FULL	FULL
MAX. REC. TEMP., DEG F.		
OPERATING RIG TIME		
RECORDED BY	PRATT	PRATT
WITNESSED BY		

BORE-HOLE RECORD

RUN NO	BIT	FROM	TO

CASING RECORD

SIZE	WGT	FROM	TO
O/H		0	T.D.

NOV 14 1980
MO OIL & GAS COUNCIL

EQUIPMENT DATA

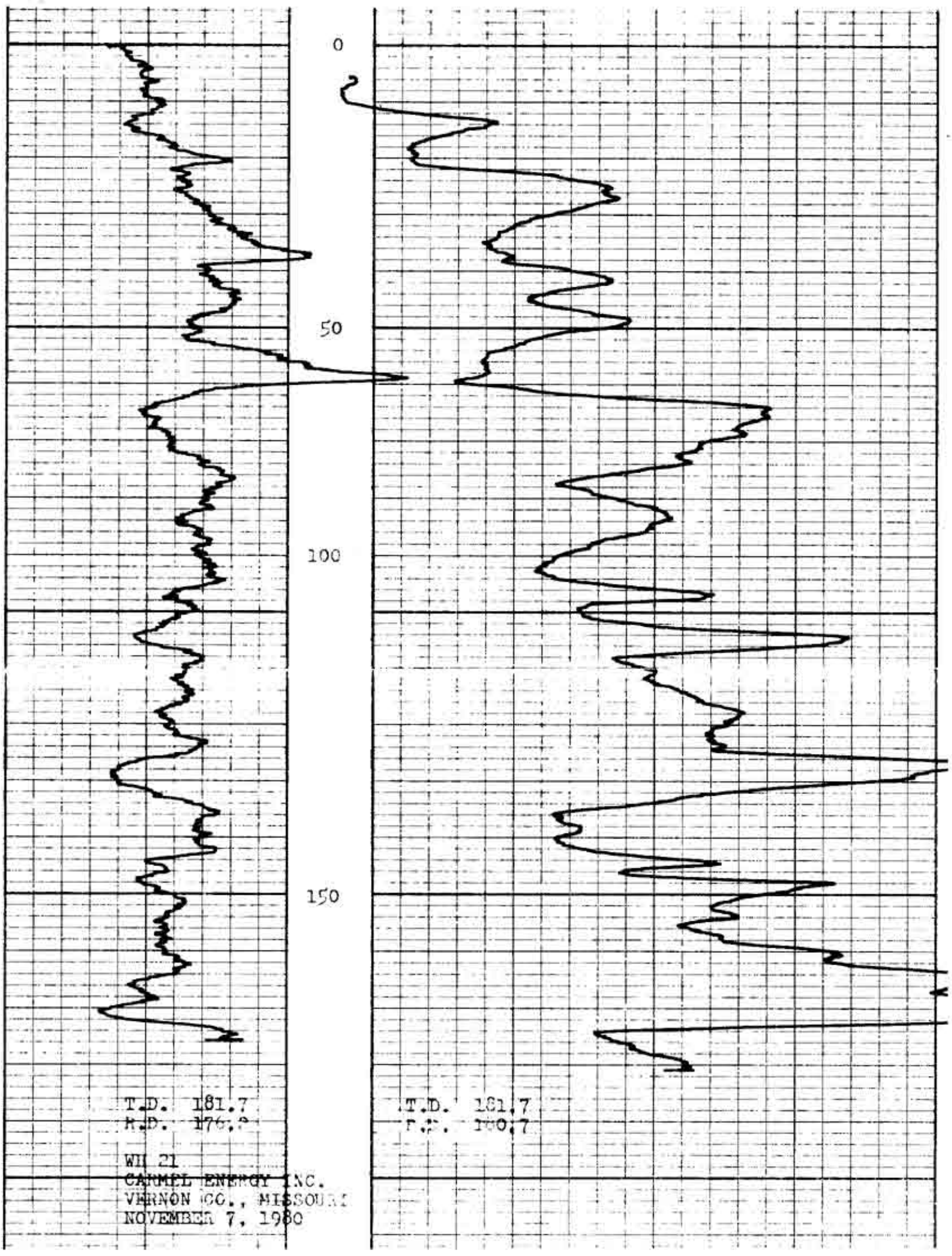
GAMMA RAY			NEUTRON		
RUN NO.	1 NW		RUN NO.	1 NW	
TOOL MODEL NO.	705		LOG TYPE	NEU/NEU	
DIAMETER	1 11/16"		TOOL MODEL NO.	705	
DETECTOR MODEL NO.	705-GE		DIAMETER	1 11/16"	
TYPE	GEIGER		DETECTOR MODEL NO.	705 HE-3	
LENGTH	1 3/8" x	18"	TYPE	HE	
DISTANCE TO N. SOURCE	4.5		LENGTH	1" x 6"	
			SOURCE MODEL 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	8 L	20

REFERENCE LITERATURE OPEN HOLE

REMARKS DRILLING CONTRACTOR: LAYNE-WESTERN COMPANY

GAMMA RAY DEPTH NEUTRON

CASING COLLARS