G01713

EXHIBIT # 2003B

MIDWEST SURVEYS

LOGGING • PERFORATING • CONSULTING SERVICES

Paola, Kansas 66071
Box 308
913/755-2128

FILING NO.

COMPANY PENSE BROTHERS DRILLING COMPANY, INC.
WELL NO. 1
FIELD D. HAHN LEASE
COUNTY BATES STATE MISSOURI

LOCATION:
SEC 11 TWP 41 RGE 32W

OTHER SERVICES:
CCL
PERFORATE

PERMANENT DATUM: G.L.	ELEV NA	ELEV K.B. NA	
LOG MEASURED FROM G.L.	FT ABOVE PERM. DATUM	D.F. NA	
DRILLING MEASURED FROM G.L.		G.L. NA	

DATE	6-6-90	6-6-90
RUN NO	1 NW	1 NW
TYPE LOG	GAMMA RAY	NEUTRON
DEPTH—DRILLER	NA	NA
DEPTH—LOGGER	303.0	303.0
BOTTOM LOGGED INTERVAL	294.0	302.0
TOP LOGGED INTERVAL	20.0	28.0
TYPE FLUID IN HOLE	WATER	WATER
SALINITY, PPM CL	NA	NA
DENSITY	NA	NA
LEVEL	FULL	FULL
MAX. REC. TEMP. DEG F.	NA	NA
OPERATING RIG TIME	NA	NA
RECORDED BY	S. WINDISCH	S. WINDISCH
WITNESSED BY	B. BLANCETT	B. BLANCETT

BORE-HOLE RECORD

RUN NO	BIT	FROM	TO

CASING RECORD

SIZE	WGT	FROM	TO
4 1/2		0.0	T.D.

RECEIVED AUG 19 1991 MO Oil & Gas Council

FOLD HERE

THIS READING AND LOG CONFORMS TO API RP 33

EQUIPMENT DATA

GAMMA RAY			NEUTRON		
RUN NO	1 NW		RUN NO	1 NW	
TOOL MODEL NO	102		LOG TYPE	NEU/NEU	
DIAMETER	1 11/16"		TOOL MODEL NO	102	
DETECTOR MODEL NO	E-1057		DIAMETER	1 11/16"	
TYPE	SCINT.		DETECTOR MODEL NO.	E-1031	
LENGTH	1" X 4"		TYPE	HE-3	
DISTANCE TO N. SOURCE	8.0		LENGTH	1" X 6"	
			SOURCE MODEL NO	71-1	
GENERAL			SERIAL NO	71-1-355B	
HOIST TRUCK NO	NA		SPACING	13"	
INSTRUMENT TRUCK NO	102		TYPE	AM241Be	
TOOL SERIAL NO	MS-0001		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	20.0	302.0	20	4.0	1.85/100	OL	10	4.0	1.35/100	OL	20

REFERENCE LITERATURE: 4 1/2" CEMENTED

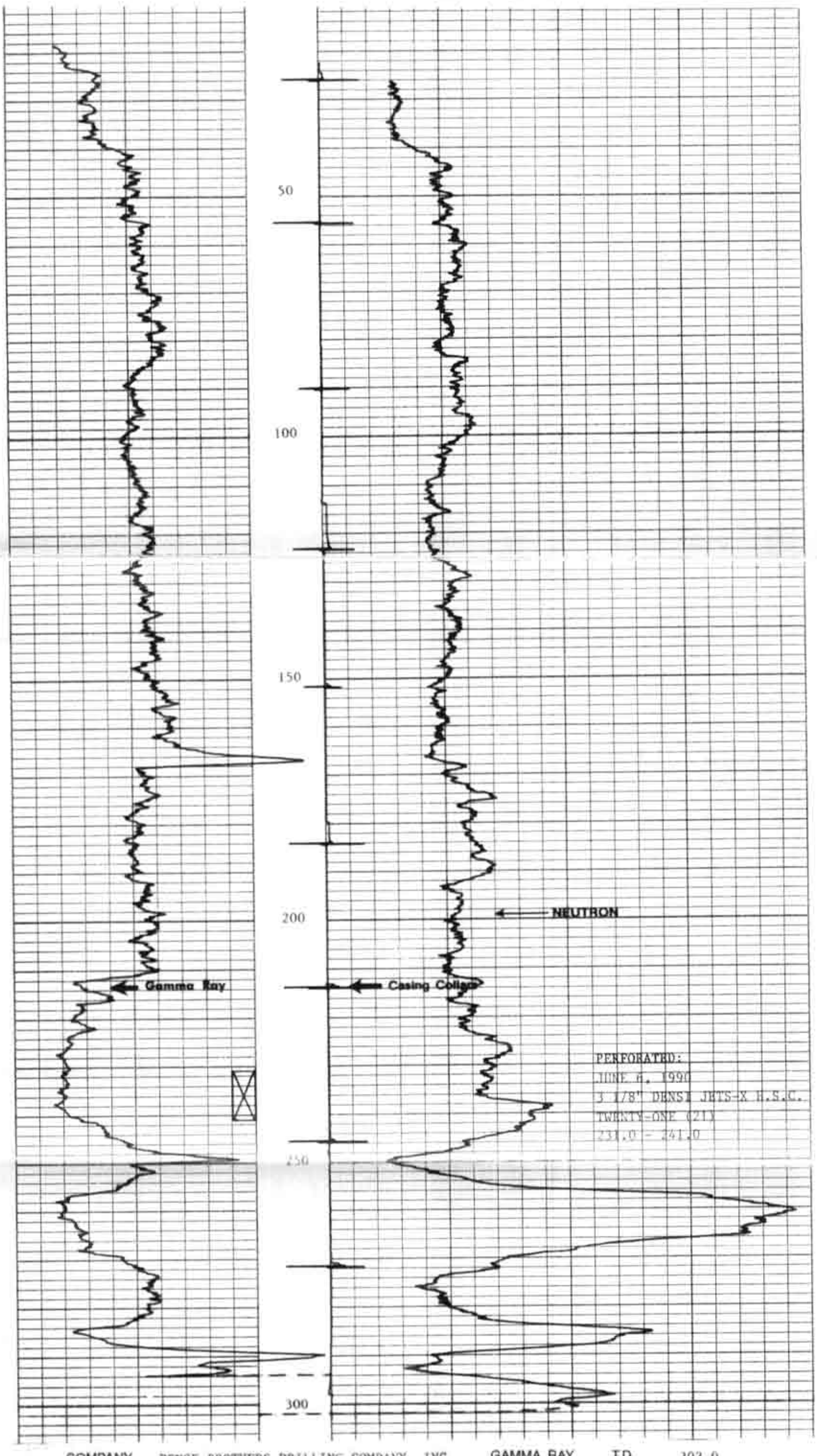
REMARKS D.C. PENSE BROTHERS DRILLING COMPANY, INC.

NSCO 1524B

GAMMA RAY DEPTH NEUTRON

CASING

COLLARS



COMPANY	PENSE BROTHERS DRILLING COMPANY, INC.	GAMMA RAY	T.D.	303.0
WELL	NO. 1	GAMMA RAY	R.D.	294.0
LEASE	D. HAHN	NEUTRON	T.D.	303.0
COUNTY	BATES, MISSOURI	NEUTRON	R.D.	302.0
DATE	JUNE 6, 1990	CASING SET @		T.D.