

2-20-8w

State Geological Survey
WICHITA, BRANCH

KANSAS DRILLERS LOG

S. 2 T. 20 R. 8 ^K/_W

API No. 15 — 159 — 20,545
County Number

Loc. NW NE SW

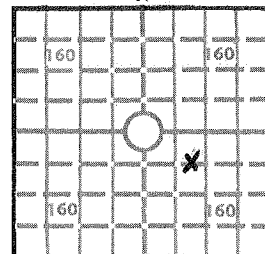
Operator
Northern Natural Gas Co.

County Rice

Address
Box 88 Lyons, Kansas

640 Acres
N

Well No. #2-03 Lease Name Poland



Footage Location
2310 feet from (S) line 990 feet from (E) line

Elev.: Gr. 1694

Principal Contractor GRAVES DRILLING CO Geologist

Spud Date 3-15-75 Total Depth 3540 P.B.T.D.

Date Completed 4-10-75 Oil Purchaser

DF _____ KB 1704

CASING RECORD

Report of all strings set — surface, intermediate, production, etc.

Purpose of string	Size hole drilled	Size casing set (in O.D.)	Weight lbs/ft.	Setting depth	Type cement	Sacks	Type and percent additives
<u>SURFACE</u>	<u>12 1/4"</u>	<u>8 5/8"</u>	<u>23#</u>	<u>1087</u>	<u>50-50 Pozmix</u>	<u>500</u>	<u>2% GEL</u> <u>2% CACL</u>
<u>PRODUCTION</u>	<u>7 7/8"</u>	<u>5 1/2"</u>	<u>15.5#</u>	<u>3540</u>	<u>50-50 Pozmix</u>	<u>675</u>	<u>18% SALT</u>

LINER RECORD

PERFORATION RECORD

Top, ft.	Bottom, ft.	Sacks cement	Shots per ft.	Size & type	Depth interval
			<u>2</u>	<u>.5" JET</u>	<u>3304-24'</u>
			<u>2</u>	<u>.5" JET</u>	<u>3334-54'</u>

TUBING RECORD

Size	Setting depth	Packer set at
<u>2 7/8"</u>	<u>3336</u>	<u>3328</u>

ACID, FRACTURE, SHOT, CEMENT SQUEEZE RECORD

Amount and kind of material used	Depth interval treated
<u>1500 GAL. 15% HCL w/2 SEALER BALLS/BBL.</u>	<u>3304-24' & 3334-54'</u>

INITIAL PRODUCTION

Date of first production	Producing method (flowing, pumping, gas lift, etc.)
<u>GAS STORAGE WELL</u>	
RATE OF PRODUCTION PER 24 HOURS	Oil Gas Water Gas-oil ratio
	bbls. MCF bbls. CFPB
Disposition of gas (vented, used on lease or sold)	Producing interval (s)

INSTRUCTIONS: As provided in KCC Rule 82-2-125, within 90 days after completion of a well, one completed copy of this Drillers Log shall be transmitted to the State Geological Survey of Kansas, 4150 Monroe Street, Wichita, Kansas 67209. Copies of this form are available from the Conservation Division, State Corporation Commission, 3830 So. Meridian (P.O. Box 17027), Wichita, Kansas 66217. Phone AC 316-522-2206. If confidential custody is desired, please note Rule 82-2-125. Drillers Logs will be on open file in the Oil and Gas Division, State Geological Survey of Kansas, Lawrence, Kansas 66044.

Operator

NORTHERN NATURAL GAS CO.

DESIGNATE TYPE OF COMP.: OIL, GAS, DRY HOLE, SWDW, ETC.:

GAS STORAGE WELL

Well No.

2-03

Lease Name

POLAND

S 2 T 20 R 8 W

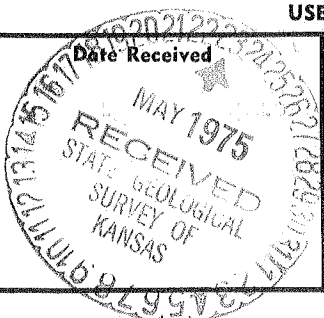
WELL LOG

Show all important zones of porosity and contents thereof; cored intervals, and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries.

SHOW GEOLOGICAL MARKERS, LOGS RUN, OR OTHER DESCRIPTIVE INFORMATION.

FORMATION DESCRIPTION, CONTENTS, ETC.	TOP	BOTTOM	NAME	DEPTH
(TRAP HOLE)			GR-N	0-3541'
HUCHINSON SALT	743	994	DENSITY	1087-3541'
CHASE GROUP	1167		SONIC	1087-3535'
COONICK GROVE GROUP	1507		MICRO-SEISM.	0-3535'
TARKIO LM.	2038			
HOWARD LM.	2266		DIPMETER	3150-3538'
HEEBNER SH. SALT WATER	2650			
LANGING/K.C. GROUP	2825			
BASAL PENN. SH+CONG.	3153			
VIOLA	3196			
SIMPSON GROUP	3241			
ARBOCKLE	3295			
SIMPSON DST	3234	3255		
I.F.P. 310-355"				
I.C.I.P. 450"				
F.F.P. 356-366"				
F.C.I.P. 448"				
GAS TO SURFACE IN 1 MIN.				
REC. 85' MUDDY SALT WATER				
FLOWED 3,454,000 CF				

USE ADDITIONAL SHEETS, IF NECESSARY, TO COMPLETE WELL RECORD.



Gary H. Wilson
 Signature
 Project Engineer
 Title
 4-15-75
 Date