

WICHITA BRANCH

## KANSAS DRILLERS LOG

## IMPORTANT

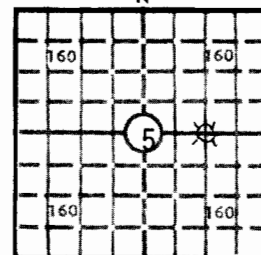
Kans. Geo. Survey request  
samples on this well.

5-35-25W

S. 5 T. 35 R. 25 W

Loc. C E2

County Clark

640 Acres  
N

Locate well correctly

Elev.: Gr. 2029'

DF 2038' KB 2041'

API No. 15 — 025 — 20,208  
County Number

Operator

Northern Natural Gas Company

Address

P. O. Box 35288 Tulsa, Oklahoma

Well No.

#1-5

Lease Name

Theis "W"

Footage Location

2640 feet from XX (S) line 1320 feet from (E) (W) line

Principal Contractor

Rine Drilling

Geologist

Spud Date

4/26/78

Total Depth

6035'

P.B.T.D.

5967'

Date Completed

6/2/78

Oil Purchaser

UPG

## 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
Conductor	26"	20"		63'	readi-mix	6½ yards	
Surface	12¼"	8-5/8"	23#	816'	Hall lt Class H	300 sx 150 sx	2% CC, ¼# Flocele 3% CC
Production	7-7/8"	4½"	10.5#	6030'	Poz mix	150 sx	18% salt, ¼# Flocele, 2% Hilae

## LINER RECORD

## PERFORATION RECORD

Top, ft.	Bottom, ft.	Sacks cement	Shots per ft.	Size & type	Depth interval
			1	0.39"	5822-26'
TUBING RECORD			1	0.39"	5840-42'
Size 2-3/8"	Setting depth 5753'	Packer set at none	1	0.39"	5867-75'

## ACID, FRACTURE, SHOT, CEMENT SQUEEZE RECORD

Amount and kind of material used	Depth interval treated
2000 g 7½% MEC acid w/4 g RD-11, 4 g LST-35, 2 g CS-1 & 20 balls.	5822-75'
14,000 g retarded 28% HCl & 14,000 g gelled 2% KCl wtr & 7 balls (acid contained RD-11, LST-35, NM-7.)	5822-75'

## INITIAL PRODUCTION

Date of first production

Ran production test 6/1/78.

Producing method (flowing, pumping, gas lift, etc.)

Flowing

RATE OF PRODUCTION  
PER 24 HOURS

Oil

15.8

Gas

975

Water

0

Gas-oil ratio

63,000

CFPB

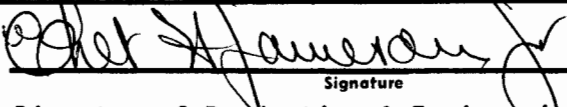
Disposition of gas (vented, used on lease or sold)

WOPL.

Producing interval(s)

5822-26'; 5840-42'; 5867-75'.

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 <b>Northern Natural Gas Company</b>		DESIGNATE TYPE OF COMP.: OIL, GAS, DRY HOLE, SWDW, ETC.: <b>Gas Well</b>	
Well No. <b>1-5</b>	Lease Name <b>Theis "W"</b>		
S <u>5</u> T <u>35</u> R <u>25</u> <sup>E</sup> / <sub>W</sub>			
<b>WELL LOG</b> 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
Surface	0	74	
Red bed	74	647	
Red bed & gypsum	647	823	
Red bed	823	1425	
Red bed & anhydrite	1425	1816	
Red bed, anhydrite, shale	1816	2205	
Anhydrite & shale	2205	2564	
Shale	2564	3286	
Dolomite	3286	3541	
Shale	3541	3970	
Dolomite	3970	4256	
Line & shale	4256	6035	
Ran Schlumberger DIL & CN-FDC/GR Logs.			
USE ADDITIONAL SHEETS, IF NECESSARY, TO COMPLETE WELL RECORD.			
Date Received	<div style="text-align: right;">           Signature          Director of Production &amp; Engineering          Title          June 14, 1978          Date       </div>		