

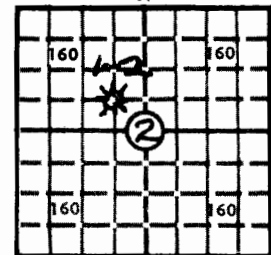
KANSAS DRILLERS LOG

API No. 15 — 025 — 10130-0001
County Number

S. 2 T. 35 R. 25 W

Loc. SE NW

County Clark

640 Acres
N

Locate well correctly

Elev.: Gr. 1981

DF KB 1993.5

Operator

Northern Natural Gas Co., Exploration Division

Address

P.O. Box 35288, Tulsa, Oklahoma 74135

Well No.

#1-2

Lease Name

Theis "W" OWWO

Footage Location

1980 feet from (N) XX line

1980 feet from XXX (W) line

Principal Contractor

Rine Drilling Company

Geologist

Charles W. Hickok

Spud Date

November 9, 1976

Total Depth

6165'

P.B.T.D.

5686'

Date Completed

January 13, 1977

Oil Purchaser

UPG, Liberal, Kansas

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		13 3/8"		100'			
Surface		8 5/8"		604.59'			
Production	7 7/8"	4 1/2"	11.6	5937'	50-50 Poz	250	2% Gel

LINER RECORD

PERFORATION RECORD

Top, ft.	Bottom, ft.	Sacks cement	Shots per ft.	Size & type	Depth interval
None					
TUBING RECORD			1 per 2 ft.	.39" Mark I	5712-18
			1 per 2 ft.	.39" Mark I	5786-92
Size	Setting depth	Packer set at	1 per 2 ft.	.39" Mark I	5798-5806
			1 per 2 ft.	.39" Mark I	5830-34

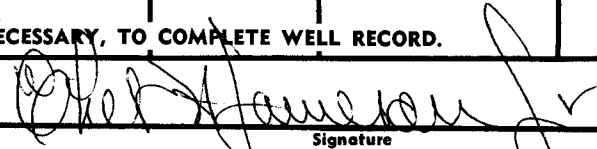
ACID, FRACTURE, SHOT, CEMENT SQUEEZE RECORD

Amount and kind of material used	Depth interval treated
Acidized 1500 gal 15% HCl	All above
Acid & frac 12,000 gal 15% HCl w/20,000 gal gelled water with	All above
ball sealers	

INITIAL PRODUCTION

Date of first production April 20, 1977		Producing method (flowing, pumping, gas lift, etc.) Flowing			
RATE OF PRODUCTION PER 24 HOURS	Oil None bbls.	Gas 500 MCF	Water Trace bbls.	Gas-oil ratio - CFPB	
Disposition of gas (vented, used on lease or sold) Interstate Sales			Producing interval(s) Above perf. interval		

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 Company		DESIGNATE TYPE OF COMP.: OIL, GAS, DRY HOLE, SWDW, ETC.:	
Well No. 1-2	Lease Name Theis 'W'	Gas Well	
S <u>2</u> T <u>35</u> R <u>25</u> 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
Limestone & Shale	5708	6127	Chester
DST #1 (Misrun)	5981	6163	
DST #2 Open 60 Min. FP 126-140 psi Closed 60 Min. SIP 252 psi Open 120 Min. FP 140-238 psi Closed 120 Min. SIP 462 psi Recovered 20' SGCM	5995	6163	
USE ADDITIONAL SHEETS, IF NECESSARY, TO COMPLETE WELL RECORD.			
Date Received	 Signature Director of Production & Engineering Title May 17, 1977 Date		