

IMPORTANT
Kans. Geo. Survey request
samples on this well.

KANSAS DRILLERS LOG

S. 13 T. 21 R. 18 ^K_W
Loc. C NE
County Pawnee

API No. 15 — 145 — 20,362
County Number

Operator
Northern Natural Gas Company

Address
Post Office Box 35288, Tulsa, Oklahoma 74135

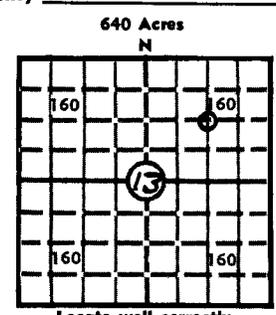
Well No. #1-13 Lease Name Lucas

Footage Location
1320 feet from (N) ~~XX~~ line 1320 feet from (E) ~~XX~~ line

Principal Contractor Emphasis Oil Operations Geologist Bill Little

Spud Date January 24, 1975 Total Depth 2155 P.B.T.D. 2144

Date Completed February 28, 1975 Oil Purchaser Gas Well



Locate well correctly
Elev.: Gr. 2090
2095
DF _____ KB _____

CASING RECORD

Report of oil 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
Surface	12-1/4"	8-5/8"	24	828	50-50 Poz. Common	200 150	3% CaCl. 3% CaCl
Production	7-7/8"	4-1/2"	10.78	2154	50-50 Poz.	125	18% Salt w/CFR

LINER RECORD

PERFORATION RECORD

Top, ft.	Bottom, ft.	Sacks cement	Shots per ft.	Size & type	Depth interval
None	-	-	2	Jet DP	2104-2116
TUBING RECORD			2	Jet DP	2130-2136
			2	Jet DP	2052-2062
Size <u>2-3/8"</u>	Setting depth <u>2141</u>	Packer set at <u>None</u>	2	Jet DP	2073-2081

ACID, FRACTURE, SHOT, CEMENT SQUEEZE RECORD

Amount and kind of material used	Depth interval treated
Acidized w/750 Gal. Gas well Acid (HCL with Alcohol)	2104-2136
Acidized w/3000 Gal. Gas Well Acid	" "
Acidized w/750 Gal. Gas Well Acid	2052-2081
Acidized w/3000 Gal. Gas Well Acid	" "

INITIAL PRODUCTION

Date of first production Shut-in - wait on pipeline Producing method (flowing, pumping, gas lift, etc.) Flow on test

RATE OF PRODUCTION PER 24 HOURS	Oil	Gas	Water	Gas-oil ratio
	-	520 bbls. MCF	24 bbls.	- CFPB

Disposition of gas (vented, used on lease or sold) Shut-in wait on pipeline Producing interval (s) As perforated above.

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 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 644.

Well No. #1-13	Lease Name Lucas	Gas
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S 13 T 21 S R 18 ^{EX}_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
Anhydrite	1109	1134		
Dolomite	2050	2080	Herington-Krider	
Dolomite	2100	2135	Winfield	

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

Date Received	<p><i>Charles W. Kichok</i> Signature</p> <p>Production Superintendent</p> <hr/> <p>December 2, 1975</p> <hr/> <p>Date</p>
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