

GEOLOGICAL REPORT

Dan A. Nixon, Petroleum Geologist - Licensed & Certified

Well Name: #4 Henry

Location: Approx. SW SE SW NW
2330' FNL, 985' FWL
Section 35, T3S-R24W
Norton County, Kansas

Operator: R.P. Nixon Oper., Inc.
207 West 12th Street
Hays, KS 67601-3898

Contractor: Discovery Drilling, Inc.
1029 Reservation Road
Hays, Kansas 67601

Elevation: Central Kansas Surveying and Mapping
2344 Washington
Great Bend, Kansas 67530
Rotary Bushing: 2413'
Ground Level: 2405'

Samples: Ten foot samples from 3100'
to 3400' and five foot samples
from 3400' to 3650'.

Time Log: One foot intervals from 3100'
to 3650' RTD. A copy of the
time log is available upon request.

Surface Casing: 8 5/8" @ 263' w/180 sacks, 80/20 cement, 3%
CaCl, 2% gel

Production Casing: 5-1/2" @ 3732' w/100 sacks cement

Port Collar or DV Tool: Cemented @ 2025' with 345 sacks

Spud Date: 2/17/19
Completion Date: 2/22/19

API# 15-137-20750-00-00

FORMATION TOPS:	SAMPLE DEPTH	MINUS DATUM
Anhydrite (driller's)	1983'	+430
Anhydrite Base (driller's)	2014'	+399
Heebner Shale	3429'	-1016
Toronto Lime	3456	-1043
Lansing	3472'	-1059
Base of the Kansas City	3655'	-1242
Arbuckle	3729'	-1316
Reagan Sand	3733'	-1320
Total Depth	3740'	-1327

SAMPLE ANALYSIS OF ZONES OF INTEREST:

Lansing	3504'-10'	Tight, fine crystalline, white limestone, trace of rare spotty stain. Trace of dead oil staining. Trace of very slight, poor vuggy porosity with no show of free oil or odor in the wet samples. Not worthy of testing.
	3585'-89'	White, fine crystalline, tight limestone with very slight vuggy porosity and trace of rare spotty stain. Poor pinpoint porosity in part. No show of free oil or odor in the wet samples. Not worthy of testing.
Arbuckle	3729'-33''	Upper few feet contained fine crystalline, sucrosic grey dolomite, saturated stain in part, with poor inter-crystalline porosity. These samples had a show of free oil and good odor. There were occasional medium crystalline, grey, barren tight dolomite samples, with green glauconite inclusions. There was only a slight show of free oil and faint odor in these samples. Test this interval. Note: The #1 Henry producer, to the east approximately 2 locations (R.P. Nixon Oper., Inc.), had a very similar sample description in this same upper interval. This well still produces just over 8 BOPD from the Arbuckle formation. It was completed in 1957 (62 years).
Reagan Sand	3733'-40'	Fine grained, well-sorted, frosty, rounded sandstone, light spotty and occasional saturated staining, with a show of free oil and good odor. Poor inter-granular porosity. Black biotite and glauconite inclusions. Test this zone.

REMARKS:

Structurally, the Lansing top on the #4 Henry ran flat with the #2 Henry (R.P. Nixon Oper., Inc.), the well in which casing was set and is located about 2 locations east and 1 location south of location. The #4 Henry also ran 6' low to the #1 Henry (R.P. Nixon Oper., Inc.), our Arbuckle producer about 2 locations to the east of location.

The Arbuckle top on the #4 Henry ran 1' low to the same #2 Henry and 7' low to the same #1 Henry.

Based on its structural position to surrounding wells, in addition to the favorable show in the Arbuckle (and Reagan Sand) samples, 5-1/2" casing was cemented at 3732' with 100 sacks of cement for further testing.

Respectfully Submitted,



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