

# Timothy G. Pierce

## Petroleum Geologist

### GEOLOGIST'S REPORT DRILLING TIME AND SAMPLE LOG

COMPANY N-10 Exploration, LLC

LEASE Medicine River Ranch 'E' #2

FIELD Landis

LOCATION 1075' FNL & 817' FEL

SEC 22 TWPSP 34S RGE 11W

COUNTY Barber STATE Kansas

CONTRACTOR Hardt Drilling Rig #1

SPUD 8-16-2013 COMP 8-23-2013

RTD 5060 LTD 5060

MUD UP 2873 TYPE MUD Chemical

SAMPLES SAVED FROM 4000 TO RTD

DRILLING TIME KEPT FROM 4000 TO RTD

SAMPLES EXAMINED FROM 4000 TO RTD

GEOLOGICAL SUPERVISION FROM 4050 to RTD

GEOLOGIST ON WELL Tim Pierce

#### ELEVATIONS

KB 1352'

DF \_\_\_\_\_

GL 1342'

Measurements Are All  
From Kelly Bushing

#### CASING

CONDUCTOR \_\_\_\_\_

SURFACE 8-5/8" at 266'

PRODUCTION 5-1/2" at 5055'

#### ELECTRICAL SURVEYS

DIL / CN-CD

Pioneer Energy Svcs.

#### FORMATION TOPS

#### ELECTRIC LOG

#### SAMPLE

Heebner Sh. 3635 (2283) NA

Iatan L.S. 4068 (-2716) 4068 (-2716)

Stark Sh. 4329 (-2977) 4329 (-2977)

Cherokee Sh. 4554 (-3202) 4555 (-3203)

Mississippi 4603 (-3251) 4605 (-3253)

Chattanooga Sh. 4881 (-3529) 4882 (-3530)

Viola 4940 (-3588) 4940 (-3588)

Simpson 5032 (-3680) 5033 (-3681)

22



API # 15-007-24,056

REMARKS Samples and electric logs indicate probable production from the Mississippi at 4613'- 4660'.

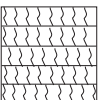
A slight oil show was noted in the Viola but electric logs indicate a lack of zone development.

Gas shows were observed in the Chattanooga Shale and Hushpuckney Shale.

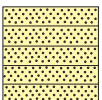
There were no other zones of interest indicated by samples or electric logs.

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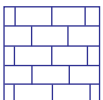
### LEGEND



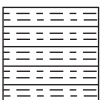
Anhydrite



Sandstone



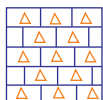
Limestone



Shale



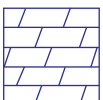
Carb Sh



Cherty LS



Chert



Dolomite

#### DEPTI

#### LITHOLC

#### GAS SCALE

#### SAMPLE DESCRIPTION

#### REMARKS

DRILLING TIME IN  
MINUTES PER FOOT

Rate of Penetration Decreases



