# O'Brien Energy Resources, Inc. Hush No. 2-9, Bruno NE Prospect Section 9, T33S, R30W

Meade County, Kansas October, 2015

# Well Summary

The O'Brien Energy Resources, Corporation, Hush No. 2-9, Bruno NE Prospect, was drilled to a total depth of 6400' in the Mississippian St. Louis Formation without any problems. It offset the Hush No. 1-16 by approximately 2000' to the Northeast. The Heebner came in 10' high relative to this offset. The Lansing, Marmaton and Cherokee ran 7', 8', and 9' high respectively. The Morrow came in 8' high and some structure was gained as the Chester came in 13'.

An excellent hydrocarbon show occurred in the Upper Chester from 5754' to 5766' and consists of Limestone: Medium brown, biomicrite, microcrystalline, microsucrosic to sucrosic in part, brittle, clean, subchalky in part, fossiliferous, sandy, occasionally good interparticle porosity, intercrystalline porosity, even light brown matrix oil stain, bright light yellow hydrocarbon fluorescence in 20% of the samples, excellent streaming cut, abundant live bleeding oil and gas bubbles, oil odor, excellent show, dissipates somewhat when dried. A 600 Unit gas kick occurred on the hotwire.

No Morrow 'B" Sandstone was encountered however an upper Morrow Sandstone with show was documented from 5674' to 5676' and consisting of a very fine Sandstone to Siltstone, Medium to dark brown to gray, hard, very fine well sorted grains, calcareous cement, no fluorescence, slow bleeding cut. A trace of formation gas was recorded.

Typical shows and of low quality were documented in the Basil Chester/Ste. Genevieve (attached mudlog).

 $4\frac{1}{2}$ " production casing was run on the Hush No. 2-16 on 11/3/15 to production test the Upper Chester.

Respectfully Submitted,

Peter Debenham

## WELL DATA

Operator: O'Brien Energy Resources, Inc., John Forma – Portsmouth, NH

Geologist: Paul Wiemann – Denver, CO

Prospect Geologist: Ed Schuett, David Ward

Well: Hush No. 2-9, Bruno NE Prospect

Location: 100' FSL & 660' FEL, Section 9, T33S, R30W, Meade County, Kansas – 5

miles South of Plains.

Elevation: Ground Level 2729', Kelly Bushing 2742'

Contractor: Duke Drilling Rig No. 9, Type: Double jacknife, triple stand, Toolpusher

Emigdio Rajas, Drillers: Victor Martinez, Alejandro V., Fernando Jurado

Company Man: Roger Pearson – Liberal, Kansas

Spud Date: 10/28/15

Total Depth: 1/7/14, Driller 5360', Logger 5356', Mississippi St. Louis

Casing Program: 35 joints of 8 5/8", J55, 24Lbs/ft, set at 1495'.

Mud Program: Winter Mud, engineer Kris McCune, displaced 2600' with Chemical Gel/LCM.

Wellsite Consultant: Peter Debenham with mudlogging trailer, Call depth 3000', Box 350, Drake,

CO 80515, 720/220-4860.

Samples: 30' samples, dry cut sent to the KGS log Library, Wichita.

Electric Logs: Weatherford, engineer Adam Sill, 1)Dual Induction 2) Compensated Neutron

Litho Density 3) Microlog – high res. repeat.

Status:  $4\frac{1}{2}$ " production casing run on the Hush No. 2-9 on  $11\frac{3}{15}$ .

### WELL CHRONOLOGY

# Midnight DATE DEPTH FOOTAGE RIGACTIVITY

10/28 1495' 1495' Rig on location and rigged up – dry watch. Mix spud mud. Drill rat hole and mouse hole. Spud in 12 ½" to 1495' and circulate. Survey(1 deg.). Wiper trip and circulate. Drop survey(3/4 deg.) and trip out and rig up casing crew.

10/29 2250' 755' Run and cement 35 joints of 8 5/8" casing set at 1495'. Wait on cement – did circulate. Clean pits and nipple up BOP. Drill plug and cement and 7 7/8" to 1650' and trip for bit no. 3. To 2250'.

10/30 3900' 1650' Clean pits and surveys(1 deg.). Displace mud system at 2600'.

10/31 4970' 1070' To 4545' and circulate and wait on Geologist. Survey(1 deg.). To 4970' and drilling.

11/1 5990' 1020' To 5024' and circulate. Wiper trip 54 stands and break circulation. To 5990'. Work on mud pump, change piston head.

11/2 6400'TD 410' To 6400'TD and circulate. Wiper trip and circulate. Drop survey(1 deg.) and trip for logs and run Elogs.

11/3 TD Run Elogs. Trip in and circulate. Trip out laying down and run and cement 4 ½" production casing to TD. Rig down.

### **BIT RECORD**

<u>NO.</u>	MAKE	<b>TYPE</b>	<b>SIZE</b>	<u>OUT</u>	<b>FOOTAGE</b>	<b>HOURS</b>
1 2 3	PDC RR HA28Q PLT 616	12 1/4"	12 ½" 7 7/8' 7 7/8"	1495' 1650' 6400'	1495' 155' 4750'	6 3/4 3/4 60 1/4
					Total Rotating Hours: Average:	

## **DEVIATION RECORD - degree**

825' 3/4, 1495' 3/4, 3606' 1, 2596' 1, 6400' 1

#### **MUD PROPERTIES**

<b>DATE</b>	<b>DEPTH</b>	$\overline{\mathbf{WT}}$	<u>VIS</u>	<u><b>PV</b></u>	<u>YP</u>	<u>pH</u>	$\underline{\mathbf{WL}}$	<u>CL</u>	<u>LCM-</u> LBS/BBL
10/29	1495'	8.3							
10/30	2976'	8.8	46	16	12	9.0	18.8	7.2K	4
11/1	5295'	9.3	44	17	9	10.0	8.8	4.8K	6

# **ELECTRIC LOG FORMATION TOPS-** KB Elev. 2742'

			*Hush No. 1-16		
<b>FORMATION</b>	<b>DEPTH</b>	<b>DATUM</b>	<b>DATUM</b>	<b>POSITION</b>	
Surface Casing	1492'				
Heebner	4393'	-1651'	-1661'	+10'	
Toronto	4418'	-1676'	-1675'	-1'	
Lansing	4490'	-1748'	-1757'	+9'	
Marmaton	5156'	-2414'	-2421'	+7'	
Cherokee	5331'	-2589'	-2595'	+8'	
Atoka	5623'	-2881'	-2887'	+6'	
Morrow	5667'	-2925'	-2933'	+8'	
"B" SS	NP		-2967'		
Mississippi Chester	5740'	-2998'	-3011'	+13'	
Ste. Genevieve	6013'	-3271'	-3267'	-4'	
St. Louis	6178'	-3436'	-3435'	-1'	
TD	6399'	-3657'			

<sup>\*</sup>Hush No. 1-16, 1320' FNL & 1637' FEL, sec. 16 – app. 2000' to the SW, KB Elev. 2743'.