

O'Brien Energy Resources, Inc.

Vail No. 7-31

Section 31, T33S, R29W

Meade County, Kansas

November, 2014

Well Summary

The O'Brien Energy Resources, Corporation, Vail No. 7-31 was drilled to a total depth of 6500' in the Mississippian St. Louis Formation. One of the closest offset was the Vail No. 5-31, 1750' to the North. Formation tops ran relatively even with this well. The Heebner and Lansing, 10' high, the Lansing and Cherokee came in flat, the Morrow, 3' high and the Morrow "C" Sandstone, 7' high, the Chester came in 5' high.

An excellent hydrocarbon show occurred in the Morrow "C" Sandstone(5836'-5860'): Speckled green, salt & pepper, light brown to gray, gray green, translucent, friable to hard, fine lower well sorted subround grains, siliceous cement, calcareous, clean to argillaceous in part, very glauconitic, predominantly good visible intergranular porosity, mottled pale blue hydrocarbon fluorescence in all the sand, slow bleeding cut, no stain. The show dissipates when dried. A 340 Unit gas kick occurred.

Additional minor shows with gas increases occurred in the Chester and St. Louis(mudlog).

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: Vail No. 7-31, Novinger East Field

Location: 2210' FSL & 1320' FWL, Section 31, T33S, R29W, Meade County, Kansas –
10 miles South and east of Plains.

Elevation: Ground Level 2666', Kelly Bushing 2678'

Contractor: Duke Drilling Rig No. 6, Type: Double jackknife, triple stand, Toolpusher Allan
Cain, Drillers: Saul Garcia, Jack Cargle, Paul(Pollywag) Burns

Company Man: Roger Pearson – Liberal, Kansas

Spud Date: 10/29/14

Total Depth: 11/5/14, Driller 6500', Logger 6495', Mississippi St. Louis

Casing Program: 35 joints of 8 5/8", J55, 24Lbs/ft, set at 1488' with 300 sacks Con A(3%cc & ¼
lb Cello Flake) and 150 sacks Class C(2% & ¼).

Mud Program: Mud Co./Service Mud Inc., Engineer Justin Whiting, displaced 2582' with
Chemical Gel/LCM.

Wellsite Consultant: Peter Debenham with mudlogging trailer, Call depth 3000', Box 350, Drake,
CO 80515, 720/220-4860.

Samples: 30' to 4800', 10' to TD. One set dry cut sent to KGS sample log library.

Electric Logs: Weatherford, engineer Ben Weldin, 1)Dual Induction 2) Compensated Neutron
Litho Density 3) Microlog, high resolution.

Status: 4 1/2 " production casing to TD on 11/6/14.

WELL CHRONOLOGY

<u>6 AM</u>	<u>DATE</u>	<u>DEPTH</u>	<u>FOOTAGE</u>	<u>RIG ACTIVITY</u>
	10/28			Rig down and move to and rig up rotary tools.
	10/29	1423'	1423'	Rig up rotary tools and dig ditches and mix spud mud. Drill mouse hole and rat ole. Spud in 12 1/4" surface hole to 1423'.
	10/30	1525'	102'	To 1492' and circulate and wiper trip and trip out. Rig up casing crew and run and cement 35 joints of 8 5/8" set at 1488' with 360 sacks A com(3% cc and 1/4 lb/bbl floseal and 180 sacks Class C(2% cc). Plug sdown 10am – did circulate. Nipple up BOP and trip in and pressure test BOP. Drill plug and cement and new hole to 1525'.
	10/31	2514'	989'	To 1702' and circulate and trip out for Bit no. 3. Service rig and work with welder. To 1983' and drop survey(MR) and trip for plugged bit. To 25` 2514'.
	11/1	3538'	1024'	Clean suction and mud up at 2600'. Survey(0.3 deg.) and work on pump and swab.
	11/2	4715'	1177'	Survey(.02.) and service rig. Change out valve line.
	11/3	5302'	587'	To 5002' and circulate and trip for Bit No. 4. Replace alternator on motor 1 and 2. Trip in and service and survey and function test BOP.
	11/4	6390'	1088'	Service. Circulate samples at 5873'.
	11/5	6500'TD	110'	To TD and circulate and wiper trip 43 stands and conditon mud. Trap out for logs and run eLogs. Unload casing on racks. Trip in and circulate.
	11/6	TD		Trip out laying down and run and cement 4 1/2" production casing to RD. Rig down.

BIT RECORD

<u>NO.</u>	<u>MAKE</u>	<u>TYPE</u>	<u>SIZE</u>	<u>OUT</u>	<u>FOOTAGE</u>	<u>HOURS</u>
1	HC	D605F	12 1/4"	1492'	1492'	16
2	HC	RR	7 7/8"	1702'	210'	2 1/2
3	HC	DP506	7 7/8"	5002'	3300'	64
4	HC	DP506	7 7/8"	6500'	1498'	32 3/4
Total Rotating Hours:						115
Average:						56.5 Ft/hr

DEVIATION RECORD - degree

527' 0.1, 1492' 0.1, 1983'- MR, 2514' 0.6, 3166' 0.2, 3974' 0, 5002', 6500' 0.6

MUD PROPERTIES

<u>DATE</u>	<u>DEPTH</u>	<u>WT</u>	<u>VIS</u>	<u>PV</u>	<u>YP</u>	<u>pH</u>	<u>WL</u>	<u>CL</u>	<u>LCM-LBS/BBL</u>
11/28	0'	Make up water							
11/29	315'	9.3	39	4	6	8.0	n/c	100	5
11/31	637'	9.45	29	2	2	7.0	n/c	83K	0
11/01	3087'	8.9	34	4	4	8.0	n/c	9K	2
11/02	4086'	9.4	44	13	14	9.0	14.4	7.8K	3
11/03	5002'	9.3	49	16	17	11.0	8.8	4.7K	4
11/04	5873'	9.35	58	16	18	9.5	9.6	4.1K	3 ½
11/05	6500'	9.35	56	17	18	10.0	8.8	3.9K	5

ELECTRIC LOG FORMATION TOPS- KB Elev. 2678'

<u>FORMATION</u>	<u>DEPTH</u>	<u>DATUM</u>	<u>*Vail No. 5-31</u>	
			<u>DATUM</u>	<u>POSITION</u>
Heebner	4487'	-1804'	-1814'	+10'
Toronto	4518'	-1840'	-1851'	+11'
Lansing	4651'	-1973'	-1973'	0'
Marmaton	5292'	-2614'	-2611'	-3'
Cherokee	5545'	-2773'	-2773'	0'
Atoka	5734'	-3056'	-3051'	-5'
Morrow	5784'	-3106'	-3109'	+3'
"B"/"C" SS	5836'	-3158'	-3165'	+7'
Mississippi Chester	5920'	-3242'	-3247'	+5'
Chester SS	Not present		-3109'	
Ste. Genevieve	6192'	-3514'	-3509'	-5'
St. Louis	6296'	-3618'	-3593'	-25'
TD	6500'			

*Vail No. 5-31, 1320'FNL & 1320'FWL, section 31 – 1750' to the North, K.B. Elevation 2683'.