KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION

1241805

Form ACO-1 August 2013 Form must be Typed Form must be Signed All blanks must be Filled

WELL COMPLETION FORM

WELL HISTORY -	DESCRIPTION	OF WELL &	LEASE

OPERATOR: License #	API No. 15
Name:	Spot Description:
Address 1:	Sec TwpS. R East 🗌 West
Address 2:	Feet from Dorth / South Line of Section
City: State: Zip:+	Feet from East / West Line of Section
Contact Person:	Footages Calculated from Nearest Outside Section Corner:
Phone: ()	
CONTRACTOR: License #	
Name:	(e.g. xx.xxxx) (e.gxxx.xxxx)
Wellsite Geologist:	
Purchaser:	County:
Designate Type of Completion:	Lease Name: Well #:
New Well Re-Entry Workover	Field Name:
	Producing Formation:
	OW Elevation: Ground: Kelly Bushing:
	GW Total Vertical Depth: Plug Back Total Depth:
	Imp. Abd. Amount of Surface Pipe Set and Cemented at: Feet
CM (Coal Bed Methane) Cathodic Other (Core, Expl., etc.):	Multiple Stage Cementing Collar Used? Yes No
If Workover/Re-entry: Old Well Info as follows:	If yes, show depth set: Feet
Operator:	
Well Name:	
Original Comp. Date: Original Total Depth:	
Deepening Re-perf. Conv. to ENHR Conv	
Plug Back Conv. to GSW Conv.	to Producer (Data must be collected nom the Reserve Fit)
Commingled Permit #:	Chloride content: ppm Fluid volume: bbls
Dual Completion Permit #:	Dewatering method used:
SWD Permit #:	
ENHR Permit #:	
GSW Permit #:	
	Lease Name: License #:
Spud Date or Date Reached TD Completion D	
Recompletion Date Recompletion	Date County: Permit #:

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY
Confidentiality Requested
Date:
Confidential Release Date:
Wireline Log Received
Geologist Report Received
UIC Distribution
ALT I II III Approved by: Date:

	Page Iwo	1241805
Operator Name:	_ Lease Name:	Well #:
Sec TwpS. R East West	County:	
INCTRUCTIONS, Chow important tang of formations populated D	otail all carea. Depart all final	annian of drill atoma tooto giving interval tootod, time tool

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken (Attach Additional She	eets)	Yes No		0	on (Top), Depth ai		Sample
Samples Sent to Geolog	jical Survey	Yes No	Name	•		Тор	Datum
Cores Taken Electric Log Run		Yes No					
List All E. Logs Run:							
		CASING Report all strings set-c	RECORD New		ion, etc.		
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
		ADDITIONAL	CEMENTING / SQU	EEZE RECORD			

Purpose: Perforate	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
Protect Casing Plug Back TD				
Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well?	Yes
Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?	Yes
Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?	Yes

Yes	No
Yes	No

No

(If No, skip questions 2 and 3) (If No, skip question 3)

(If No, fill out Page Three of the ACO-1)

Shots Per Foot		PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated						ement Squeeze Record d of Material Used)	Depth	
TUBING RECORD:	Size:		Set At:		Packer	r At:	Liner F	Run:	No	
Date of First, Resumed	Production	, SWD or ENHF	ł.	Producing Me	thod:	ping	Gas Lift	Other (Explain)		
Estimated Production Per 24 Hours		Oil Bb	S.	Gas	Mcf	Wate	ər	Bbls.	Gas-Oil Ratio	Gravity
DISPOSITI		s.			METHOD	OF COMPLE			PRODUCTION INTE	R\/AI ·
Vented Solo	Use	ed on Lease		Dpen Hole Dther <i>(Specify)</i> _	Perf.		Comp.	Commingled (Submit ACO-4)		

Form	ACO1 - Well Completion
Operator	O'Brien Energy Resources Corp.
Well Name	Vail 7-31
Doc ID	1241805

Tops

Name	Тор	Datum
Heebner	4487'	-1804'
Toronto	4518'	-1840
Lansing	4651'	-1973
Marmaton	5292'	-2614
Cherokee	5545'	-2773
Atoka	5734'	-3056
Morrow	5784'	-3106
Chester	5920'	-3242
Ste. Genevieve	6192'	-3514
St. Louis	6296'	-3618

Form	ACO1 - Well Completion
Operator	O'Brien Energy Resources Corp.
Well Name	Vail 7-31
Doc ID	1241805

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement		Type and Percent Additives
Surface	12.25	8.625	24	1488	Aconn Blend		3% CaCl & 1/4# floseal
Production	7.875	4.5	10.5	6460	AA-2	150	

Customer	Abrien	I, Kansas		Lease No. Val - 7-31			Date 10-30-19		
Lease	ASI	15 wengi	1	Well # 7-31		/ 51	Service Receipt 1717 - 5204-A		
Casing Q	s /gh	Depth / (4	881	County Mende			State ()	2	
Iob Type	a stalle	Syntaca	Formation	1 110	/mun C	Legal Description	DI 3/-	331.	29
	0 18 -	Pipe [L Data			Perforatin	~ /		Cement Data
Casing size	OST.	11	Tubing Size	Shot					
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/olume	100		Volume		From		То		3% CACLZ WCA
Max Press		·	Max Press		From		То		Tail in 15D ch s
Nell Conne	ction		Annulus Vol.		From		То		Tail in 150 stes Premium Plus Cerri
Plug Depth	14410		Packer Depth		From		То		2% CALL
	Casing	Tubing		1	+	· · · · · · · · · · · · · · · · · · ·			
Time	Pressure	Pressure	Bbls. Pumbed	Rate	Rate Service Log				
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Driver Nam			Shin	Ricky		Hector			

Customer Representative

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Station Manager

Rocen Brown Cementer Tav

Tavlor Printing, Inc.

Ľ	ENERGY	SERVICE: I, Kansas	S					Cement Report	
Customer	BRIEN E			Lease No.	DAil	7-31	Date /	Date 11-6-14	
Lease V		11		Well # 7-				"1717-05207 - A	
Casing 4	$\frac{1}{1}$	Depth 64	159'	County W	VEPAR		State SS		
Job Type 4	1/2 LS 2	stage	Formation	. I		Legal Descriptio	in 3/-33.	-29	
		Pipe [Data		Perforating Da			Cement Data	
Casing size	4/2"		Tubing Size		Shots/Ft			Lead/StStage	
Depth 6	459		Depth	Depth			То	- 2255ks 14.8 AP9 -53 W-60, 103, satt -69, C-15 54 Gilsoni 1/4 Definimen	
Volume	03		Volume		From		То	1/4 Definimum	
Max Press			Max Press		From		То	Fail in True Street	
Well Conne	ction		Annulus Vol.		From		То		
Plug Depth	6420'- 4	+570'	Packer Depth		From		То	14 Deformen	
Time	Casing Pressure	Tubing Pressure	Bbis. Pumbed	Rate			Service		
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					ļ	5	IAN/CS'		
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Service Un	its 89	315	70897-19570						
Driver Nam	ies Roa	en	SAM	Rohail	eo				

KOGER VEARSON

JEARY BENNett

KOGOM BROWN)

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 jacknife, 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 & $\frac{1}{4}$ lb Cello Flake) and 150 sacks Class C(2% & $\frac{1}{4}$).
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

6 AMDATE DEPTHFOOTAGERIG ACTIVITY

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 ¼ 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'.

11/13538'1024'Clean suction and mud up at 2600'. Survey(0.3 deg.) and workon 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.

11/6TDTrip out laying down and run and cement 4 1/2" production casingto RD. Rig down.

BIT RECORD

<u>NO.</u>	<u>MAKE</u>	<u>TYPE</u>	<u>SIZE</u>	<u>OUT</u>	FOOTAGE	HOURS
1	HC	D605F	12 ¼"	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 Rotati	ng 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

DATE	DEPTH	<u>WT</u>	VIS	<u>PV</u>	<u>YP</u>	<u>pH</u>	<u>WL</u>	<u>CL</u>	LCM-LBS/BBL
11/28	0'	Make	up wat	er					
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 1/2
11/05	6500'	9.35	56	17	18	10.0	8.8	3.9K	5

ELECTRIC LOG FORMATION TOPS- KB Elev. 2678'

			<u>*Vail No. 5-31</u>		
FORMATION	DEPTH	DATUM	DATUM	POSITION	
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'.