

Confidentiality Requested:

Yes No

#### KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION

1192362

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:	SecTwpS. R 🗌 East 🗌 West
Address 2:	Feet from
City: State: Zip:+	Feet from _ East / _ West Line of Section
Contact Person:	Footages Calculated from Nearest Outside Section Corner:
Phone: ()	□NE □NW □SE □SW
CONTRACTOR: License #	GPS Location: Lat:, Long:
Name:	(e.g. xx.xxxxxx) (e.gxxx.xxxxxxx)
Wellsite Geologist:	Datum: NAD27 NAD83 WGS84
Purchaser:	County:
Designate Type of Completion:	Lease Name: Well #:
☐ New Well ☐ Re-Entry ☐ Workover	Field Name:
Oil WSW SWD SIOW Gas D&A ENHR SIGW OG GSW Temp. Abd. CM (Coal Bed Methane) Cathodic Other (Core, Expl., etc.):  If Workover/Re-entry: Old Well Info as follows:	Producing Formation: Kelly Bushing: Total Vertical Depth: Plug Back Total Depth: Feet Multiple Stage Cementing Collar Used? Yes No If yes, show depth set: Feet
Operator:	If Alternate II completion, cement circulated from: sx cmt.
Well Name:  Original Comp. Date:  Deepening Re-perf. Conv. to ENHR Conv. to SWD Plug Back Conv. to GSW Conv. to Producer	Drilling Fluid Management Plan (Data must be collected from the Reserve Pit)
Commingled Permit #:	Chloride content: ppm Fluid volume: bbls  Dewatering method used:  Location of fluid disposal if hauled offsite:  Operator Name:
GSW Permit #:	Lease Name: License #:
Spud Date or Date Reached TD Completion Date or Recompletion Date Recompletion Date	Quarter         Sec.         Twp.         S. R.         East         West           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 Two



Operator Name:			L	ease Name: _			Well #:		
Sec Twp	S. R	East We	est C	County:					
INSTRUCTIONS: Shopen and closed, flow and flow rates if gas to	ring and shut-in pres	sures, whether sh	ut-in pressur	e reached stati	c level, hydrosta	tic pressures, bott			
Final Radioactivity Lo files must be submitted					gs must be ema	iled to kcc-well-log	gs@kcc.ks.go	. Digital electronic log	
Drill Stem Tests Taker (Attach Additional		Yes	No	L		n (Top), Depth an		Sample	
Samples Sent to Geo	logical Survey	Yes	No	Nam	e		Тор	Datum	
Cores Taken Electric Log Run		Yes Yes	No No						
List All E. Logs Run:									
		(	CASING REC	ORD Ne	w Used				
		· ·		ıctor, surface, inte	ermediate, producti		T		
Purpose of String	Size Hole Drilled	Size Casin Set (In O.D		Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives	
		ADD	ITIONAL CEN	MENTING / SQL	JEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cem	ent #	# Sacks Used Type and Percent Additives					
Perforate Protect Casing	100 20111111								
Plug Back TD Plug Off Zone									
1 lag on zono									
Did you perform a hydrau	ulic fracturing treatment	on this well?			Yes	No (If No, ski)	o questions 2 ar	nd 3)	
Does the volume of the to		•				_	o question 3)	(" 100 ")	
Was the hydraulic fractur	ing treatment information	on submitted to the c	hemical disclo	sure registry?	Yes	No (If No, fill o	out Page Three	of the ACO-1)	
Shots Per Foot		ION RECORD - Bri Footage of Each Int			Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used)  Depth				
	, ,				,		,		
TUBING RECORD:	Size:	Set At:	Pa	acker At:	Liner Run:				
						Yes No			
Date of First, Resumed	Production, SWD or Ef		cing Method: owing	Pumping	Gas Lift C	ther <i>(Explain)</i>			
Estimated Production Per 24 Hours	Oil	Bbls. G	as Mcf	Wate	er Bl	ols. G	ias-Oil Ratio	Gravity	
DIODOCITI	ON OF CAS:		, 4 CT - 1		TION:		DRODUCTIO	AN INTEDVAL.	
Vented Solo	ON OF GAS:  Used on Lease	Open Ho		IOD OF COMPLE $\Box$		nmingled	PHODUCIIC	ON INTERVAL:	
	bmit ACO-18.)	Other (S	necify)	(Submit		mit ACO-4)			

Form	ACO1 - Well Completion
Operator	O'Brien Energy Resources Corp.
Well Name	Hush 1-16
Doc ID	1192362

# Tops

Name	Тор	Datum
Heebner	4400'	-1661'
Toronto	4418'	-1675'
Lansing	4490'	-1757'
Marmaton	5164'	-2421'
Cherokee	5338'	-2595'
Atoka	5630'	-2887'
Morrow	5690'	-2947'
Mississippi Chester	5772'	-3029'
Ste. Genevieve	6010'	-3267'
St. Louis	6186'	-5443'

Form	ACO1 - Well Completion
Operator	O'Brien Energy Resources Corp.
Well Name	Hush 1-16
Doc ID	1192362

#### Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight		Type Of Cement		Type and Percent Additives
SURFACE	12.25	8.6250	24	1493	acon blend		3%CaCl, floseal
PRODUC TION	7.875	4.5	10.5	6334	AA2	175	



## **Cement Report**

		ii, Nalisas				· · · · · · · · · · · · · · · · · · ·		,		
Ohrien Enersy			Lease No.			Date  - - 4				
Lease /fu.	sh			Well # 1-16 Ser			Servic	rvice Receipt 472/		
Casing 8	14	Depth /4/	92	County	County State		State	e KS		
Job Type	42 501	Face	Formation			Legal Description	10	10-33-	30	
		Pipe (	Data			Perforating			Cemen	it Data
Casing size	85/2		Tubing Size	3		Shots/F	-t		Lead 4	100sk Alon
5 4	192		Depthy 42		From		Го	- 1	29544	3-5K
Volume Q	2411		Volume		From	1	Го		18,16d	-St 11.4#
Max Press	16001		Max Press		From		ĺο			150st Class C
Well Conne	ction 65/		Annulus Vol.		From	1	Го		1.344	2-5K
Plug Depth	1450		Packer Depth		From		Го		6.3360	1-51 14.84
Time	Casing Pressure	Tubing Pressure	Bbls. Pumbed	Rate				Service Log		
745						A	criv	e On La	otion	
800						SAL	4	Meety	Rich	
820						Cira	las	t W/ni	4	
850						the second secon		Tob	<i>,</i> .	
900	1800		1.0	1.0			-	Tes1		
910	300		210	5.5		Pom	L	ead con	10114	ť
940	200		36	5.0		Pum		1 conte		
955								Plus - Wa		
1000	300		82	5.0			_	spece		
1025	600		10-52	7.0			-	Dun		
1030	1100		1.1	11		ha	ne	Place File	not thell	
1130							305	Play- Fle	fe	
							-			
							3m	ext To	Serta	e
	·									
Service Unit	70.5		70897-19570	38111-375	547	58117-1957 Cesm	18			
Driver Name	122y		SAM	Morio	7 -	Cesm				

Nover P

Customer Representative

Station Manager

1221

Cementer

Taylor Printing, Inc.

ENERGY SERVICES Liberal, Kansas **Cement Report** Lease No. iomer Brien Energy Service Receipt Lease -16 State K County Casing Legal Description Formation Job Type **Perforating Data Cement Data** Pipe Data Lead 175,5K AA-2 **Tubing Size** Casing size 10.5 Shots/Ft From Depth Depth To Volume From Volume From To Max Press Tail in Max Press To Annulus Vol. From Well Connection To From Packer Depth Plug Depth Tubing Casing Pressure Service Log Pressure Bbls. Pumbed Rate Time 04130 3000 0 12 5 400 240 Ø 260 560 740-1380 100 Service Units **Driver Names** 

Station Manager

Customer Representative

Cementer

Taylor Printing, Inc.

### O'Brien Energy Resources, Inc. Hush No. 1-16, Bruno Prospect Section 16, T33S, R30W

Meade County, Kansas January, 2014

#### Well Summary

The O'Brien Energy Resources, Corporation, Hush No. 1-16 was drilled to a total depth of 6360' in the Mississippian St. Louis Formation without any problems. It offset the Columbian Fuel Corp., Armentrout by approximately 1700' to the North. The Cherokee and Atoka ran 5' low relative to this offset. The Morrow came in 2' high and the Morrow "B" Sandstone, 10' high. The Morrow ran 27' low relative to the Butler No. 1-9 to the North.

An excellent hydrocarbon show was documented in the Morrow "B" Sandstone(5710'-5724') – Salt and pepper, light to medium brown, clear and translucent, very friable, fine upper to very course lower and conglomeritic in size, very poorly sorted subangular to angular grains, calcareous cement, clean to occasional clay infill, excellent intergranular porosity, bright light yellow to occasional pale blue hydrocarbon fluorescence in all the sand, good streaming cut, medium brown oil stain and live oil, with abundant very course and poorly sorted unconsolidated grains with light yellow hydrocarbon fluorescence and slow streaming cut on the individual grains. A 25 Unit gas increase occurred.

4 1/2" production casing was run on the Hush No. 1-16 on 1/8/14

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. 1-16, Bruno Prospect

Location: 1320' FNL & 1637' FEL, Section 16, T33S, R30W, Meade County,

Kansas – Southeast of Plains.

Elevation: Ground Level 2731', Kelly Bushing 2743'

Contractor: Duke Drilling Rig No. 6, Type: Double jacknife, triple stand, Toolpusher

Terry Sorter, Drillers: Saul Garcia, Richard TaFaya, Darryl LaRoche

Company Man: Roger Pearson – Liberal, Kansas

Spud Date: 12/31/13

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 1500'.

Mud Program: Mud Co./Service Mud Inc., Engineer Terry Ison, displaced 2644' with

Chemical Gel/LCM.

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

Drake, CO 80515, 720/220-4860.

Samples: 20' 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 set to TD on 1/8/14.

## WELL CHRONOLOGY

DATE	6 AM E <u>DEPTH</u>	<b>FOOTAGE</b>	RIG ACTIVITY			
12/26	5-12/28/13		Rig down and service rig. Work on mud pump.			
12/30 up and	l mix spud mud	l.	Move and rig up rotary tools. Saul injured his finger. Rig			
	1143' chole. Repack s	1143' swivel. Spud in	Service and change out swivel. Drill rathole and 12 1/4" surface hole to 1143.			
1/1/14 1530' 388' To 1500' and circulate and condition mud. Drop survey(1 deg.) and trip for surface casing. Run and cement 35 joints of 8 5/8" casing set at 1500' – did circulate. Wait on cement. Nipple up and pressure test BOP. Trip in and drill plug and cement and 7 7/8" to 1530'.						
1/2 pump.	2535' To 2535'. Surv	1005' veys(1 deg.).	To 1798' and trip for Bit No. 3. Service mud lines and weld			
1/3 survey	2735' v(1/2 deg.).	1200'	To 2644' and displace mud system. Service rig and			
1/4	4870'	1135'	Service and survey(3/4 deg.).			
1/5	5490'	835'	Service and survey(1 deg.).			
1/6 circula	6360'TD ate and trip out	35' for logs.	To 6360' and circulate and condition mud. Wiper trip and			
1/7	TD		Trip for logs and run Elogs. Trip in open ended.			
1/8 casing	TD to TD. Rig dov	wn.	Trip out laying down and run and cement 4 1/2" production			

#### **BIT RECORD**

<u>NO.</u>	<b>MAKE</b>	<b>TYPE</b>	<b>SIZE</b>	<u>OUT</u>	<b>FOOTAGE</b>
	<b>HOURS</b>				

1	J2	GA1PGC	12 ¼"	1500'	1500'	23
2	RR		7 7/8"	1798'	298'	8
3 1/2	HTC	DP506	7 7/8"	6360'	4562'	102
				Total Rota	ating Hours:	117 1/2
				Ay	verage:	54.12
				Ft/hr		

#### **DEVIATION RECORD - degree**

491' ¼, 254' ¼, 1299' ½, 1500' 1, 2518' 1, 3520' ¾, 4023' ¾, 4493' 1, 5560' 1, 6360' 3/4

#### **MUD PROPERTIES**

DATE LC	<u>DEPTH</u> M-LBS/BBL	<u>WT</u>	<u>VIS</u>	<u>PV</u>	<u>YP</u>	<u>pH</u>	<u>WL</u>	<u>CL</u>	
12/31	643'	9.6	54	14	14	7.0	nc	225	3
1/2	1799'	8.8	28	1	2	7.0	nc	38.3	0
1/3	2887'	8.8	42	10	12	7.0	nc	51K	2
1/4	4563'	9.4	17	17	9.5	9.5	8.0	3.6K	3
1/5	5245'	9.4	63	16	20	10.5	6.4	3.5K	2
1/6	6046'	9.6	46	14	10	9.0	8.8	3.5K	1

#### **ELECTRIC LOG FORMATION TOPS-** KB Elev. 2679'

			*Armentrout No. 1	
<b>FORMATION</b>	<b>DEPTH</b>	<b>DATUM</b>	<b>DATUM</b>	<b>POSITION</b>
Surface Casing	1495'			
Heebner	4400'	-1661'	-1659'	-2'
Toronto	4418'	-1675'	-1680'	+5'
Lansing	4490'	-1757'	-1759'	+2'
Marmaton	5164'	-2421'	-2413'	-8'
Cherokee	5338'	-2595'	-2590'	-5'
Atoka	5630'	-2887'	-2882'	-5'
Morrow	5690'	-2947'	-2949'	+2'
"B" SS	5710'	-2967'	-2977'	+10'
Mississippi Chester	5772'	-3029'		
Ste. Genevieve	6010'	-3267'		
St. Louis	6186'	-5443'		
TD	6360'			

<sup>\*</sup>Columbian Fuel Corp., Armentrout No. 1, approximately 1700' to the South, KB Elevation 2745'.