KOLAR Document ID: 1405310

Confident	tiality Re	equested:
Yes	No	

KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION Form ACO-1 January 2018 Form must be Typed Form must be Signed All blanks must be Filled

WELL COMPLETION FORM

	-	-	-	-		
WELL HISTORY -	·D	ESCRIPTION	V OF V	NELL	&	LEASE

OPERATOR: License #	API No.:
Name:	Spot Description:
Address 1:	
Address 2:	Feet from North / 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 #	GPS Location: Lat:, Long:
Name:	(e.g. xx.xxxxx) (e.gxxx.xxxxx)
Wellsite Geologist:	Datum: NAD27 NAD83 WGS84
Purchaser:	County:
Designate Type of Completion:	Lease Name: Well #:
New Well Re-Entry Workover	Field Name:
	Producing Formation:
	Elevation: Ground: Kelly Bushing:
	Total Vertical Depth: Plug Back Total Depth:
	Amount of Surface Pipe Set and Cemented at: Feet
Cathodic Other (Core, Expl., etc.):	Multiple Stage Cementing Collar Used?
If Workover/Re-entry: Old Well Info as follows:	If yes, show depth set: Feet
Operator:	If Alternate II completion, cement circulated from:
Well Name:	feet depth to:w/sx cmt.
Original Comp. Date: Original Total Depth:	
Deepening Re-perf. Conv. to EOR Conv. to SWD	Drilling Fluid Management Plan
Plug Back Liner Conv. to GSW Conv. to Producer	(Data must be collected from the Reserve Pit)
	Chloride content: ppm Fluid volume: bbls
Commingled Permit #:	Dewatering method used:
Dual Completion Permit #:	
SWD Permit #:	Location of fluid disposal if hauled offsite:
	Operator Name:
GSW Permit #:	Lease Name: License #:
	Quarter Sec TwpS. R East West
Spud Date or Date Reached TD Completion Date or Recompletion Date 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 Drill Stem Tests Received						
Geologist Report / Mud Logs Received						
UIC Distribution						
ALT I II III Approved by: Date:						

KOLAR Document ID: 1405310

Operator Name:	Lease Name: Well #:
Sec TwpS. R East 🗌 West	County:

Page Two

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 Sh	Y	es 🗌 No			og Formatio	n (Top), Depth	and Datum	Sample		
Samples Sent to Geolog	nical Survey		és 🗌 No	Ν	lame	e		Тор	Datum	
Cores Taken Electric Log Run Geologist Report / Mud Logs List All E. Logs Run:			ies No ies No ies No							
		Repo	CASING I	RECORD] Ne	w Used rmediate, productio	on, etc.			
Purpose of String	Size Hole Drilled	Siz Se	ze Casing tt (In O.D.)	Weight Lbs. / Ft.		Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives	
			ADDITIONAL	CEMENTING /	SQU	EEZE RECORD				
Purpose: Depth Top Bottom Perforate Protect Casing Plug Back TD Plug Off Zone		Туре	e of Cement	# Sacks Used	Type and Percent Additives					
 Did you perform a hydra Does the volume of the is Was the hydraulic fractu 	ulic fracturing treatme total base fluid of the h ring treatment informa	nt on this w hydraulic fra tion submit	vell? acturing treatment tted to the chemica	exceed 350,000 al disclosure regis	gallo stry?	Yes Yes Yes Yes	 □ No (If No, s □ No (If No, s □ No (If No, f 	kip questions 2 ar kip question 3) ill out Page Three	nd 3) of the ACO-1)	
Injection:			Flowing	Pumping		Gas Lift 🗌 O	ther <i>(Explain)</i>			
Estimated Production Per 24 Hours	Oil	Bbls.	Gas Mcf		Water Bbls. G			Gas-Oil Ratio	Gravity	
DISPOSITION	I OF GAS:		METHOD OF			F COMPLETION:			PRODUCTION INTERVAL:	
Vented Sold (If vented, Subm	Used on Lease		Open Hole	Perf. D	Dually Comp. Commingled (Submit ACO-5) (Submit ACO-4)		mingled	Iop Bottom		
Shots Per Perf Foot	oration Perfora Top Botto	ition m	Bridge Plug Type	Bridge Plug Set At		Acid,	Fracture, Shot, C (Amount and Ki	ementing Squeeze	Record	
	Size:	Set At:		Packer At:						

Form	ACO1 - Well Completion
Operator	O'Brien Energy Resources Corp.
Well Name	MARY 3-1
Doc ID	1405310

Tops

Name	Тор	Datum
Heebner	4315	-2050
Lansing	4508	-2243
Stark SH	4862	-2597
Marmaton	5016	-2751
Pawnee	5060	-2795
Cherokee	5114	-2849
Morrow	5218	-2953
Mississippi	5240	-2975
Warsaw	6090	-3825
Viola	6180	-3915
Simpson	6431	-4166
Arbuckle	6446	-4181

Form	ACO1 - Well Completion
Operator	O'Brien Energy Resources Corp.
Well Name	MARY 3-1
Doc ID	1405310

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12.25	8.625	24	732	Premium Plus	290	3%CaCl, 1/4#floseal



Liberal Yard #1717 - Phone 620-624-2277 - 1700 S. Country Estates Road, Liberal KS 67901

ON LOC, SAFTEY MTG, R.U.

TEST LINES

START LEAD @ 11.4#

PRESSURE PUMPING

3:00

12:56

12:58 PM

5.3

Customer: **Obrien Energy** 96815 38119-19570 6 HRS **Operator TRK No.: Cement Pump No.:** Address: 18 Congress St. Suite 207 Bulk TRK No.: 14355-37724 1718-15577 L Ticket #: city, State, Zip: Portsmouth NH 03801 **Z42 Cement Surface Casing** Job Type: Service District: OIL Well Type: Ks Clark Mary 3-1 Well Name and No.: 1,21,22 State: County: Well Location: **Truck Loaded On** Type of Cmt Additives Sacks 3%CaCl, 1/4#POLYFLAKE, .2%WCA-1 14355-37724 Front Back A-CON 140 Back Front 2%CaCl, 1/4#POLYFLAKE **PREMIUM PLUS** 150 Back Front Man Hours / Personnel CU. FT. Lead/Tail: Water Requirements Cu/Ft/sk Weight #1 Gal. 44 Man Hours: 413 Lead: 2.95 18.1 11.4 3 Tail: 6.33 201 # of Men on Job: 1.34 14.8 **Description of Operation and Materials** Pressure(PSI) Volume Time Pumps Casing (BPM) Tubing (BBLS) С (am/pm) Т

1600

80

Job Log

1.10 014	5.2	72 5			100		ON TAIL @ 14 8#	
1:12 PM	0.3	13.5			100	CLIII	T DOMNI DROP PILLO	
1:20 PM		36				SHU	T DOWN, DROP FLUG	
13:24	5				90	ST	ART DISPLACEMENT	
13:30	2	30			130		SLOW RATE	
1:37 PM		44.5			210-800		PLUG DOWN	
13:39					800-0	RELE	EASE PSI, FLOAT HELD	
							JOB COMPLETE	
						THANK Y	OU FOR YOUR BUSINESS	SIII
1925 Welter Harrison and and a second second								
a ar an								
	1							
	1							
Land Amerikan Contractor Contractor								
and the state of the								
Size Hole	12 1/4	Depth		747		TYPE		
Size & Wt. Csg.	8 5/8 24	Depth	747.49	New / Used		Packer	Depth	
lbg.		Depth				Retainer	Depth	
Top Plugs		Туре				Perfs	CIBP	





Liberal Yard #1717 - Phone 620-624-2277 - 1700 S. Country Estates Road, Liberal KS 67901

PRESSURE PUMPING

•

Provent in succession	a construction of the second s		115	G	Job Lo	g						
Customer	2	Obrien Energy	y		Gement Pump	No.:	38119-19	9570 13 HRS	Operator TPK No.	000		
Address	18 Congre	ss St. Suite 20	7	Ticket #: Job Type:		1718	-15581 1	Pulli This Ho.:	908	15		
City, State, Zip:	Portsmout	h NH 03801					742 Comont Diverto Albert					
Service District:					Well T	Vani		242 Cement Plug to Abandon				
Vell Name and No.		Mary 3-1				ype:		1				
Туре	of Cmt	Sacka	1		Well Loca	tion:	1,21,2	2 Count	^{yz} Clark	State:	K	
		Jacks	-		Additive	85			Truck Loa	ded On		
60/40	POZ	200			4%GEL	-		14354-19578 Front		Front	Back	
										Front	Back	
										Front	Back	
Lead	/Tail:	Weight #1 Gal.	Cu	/Ft/sk	Water F	Requi	rements	CU. FT.	Man H	lours / Personr	nel	
Le	ad:	13.5	1	.68		8.86		336	Man Hours:	43		
Ta	all:								# of Men on Job:	3		
Time		Volume	P	umps	Pr	essure	(PSI)	D	escription of Operation	on and Materials	Materials	
(am/pm)	(BPM)	(BBLS)	T	С	Tubing		Casing					
21:30								0	N LOC, SAFTE	Y MTG. R.U.		
4:07	3	10			110			H2O SPACER				
4:11 AM	3	14.96			110				MIX 50 SXC	01250'		
4:16 AM	3	3				-		H2O SPACER				
4:10 AIVI	4	10			70	-		MUD				
4.00	3.9	10			100	-			H2O SPA	CER		
5:03 AM	4.3	14.96			100	-		MIX 50SX@760'				
5:45	3.9	10				-			DISPLAC	CE		
5:48	3.9	9	-		70	+			H2O SPAC	CER		
5:50	3.9				70	+-			MIX 30 SX	@240'		
8:08	3	6		-+		+-			DISPLAC	E		
6:24		9&6		-		+			PLUG @	60'		
						-			PLUG RH, AN	ID MH		
						-		THANK	JOB COMPL	ETE		
								INAINA	TOUFORYOL	R BUSINESSI	1	
						-						
			-									
Size Hole		Devil										
Size & Wt. Cag.		Depth					Т	YPE				
tbg.		Depth			New / Used		P	acker	Der	oth		
Top Plugs		Type					R	etainer	Der	oth		
/		110 11		1		-	P	erfs		0		



O'Brien Energy Resources, Inc. Mary No. 3-1, Daily Prospect, Granger Creek Field Section 1, T31S, R22W

Clark County, Kansas December 2017

Well Summary

The O'Brien Energy Resources, Corporation, Mary No. 1-1, Daily Prospect was drilled to a total depth of 6500' in the Arbuckle Formation. The Mary No. 1-1 was drilled ¹/₂ mile to the East of the Falcon Exploration Shrauner No. 1-6. The Heebner, Brown Limestone and Lansing ran 8', 10' and 12' high relative to this offset. Formation tops from the Stark Shale to the Morrow ran 6' to 8' high. A thinner Morrow section pushed the top of the Mississippi 30' high. The Simpson Sandstone and Arbuckle came in 1' and 3' low.

A quality hydrocarbon show occurred in the Upper Mississippi(5252'-5256') and consists of a Limestone: White, finely crystalline, very soft chalky and amorphous when wet, brittle when dry, clean, fossiliferous and oolitic with occasional interparticle porosity, trace visible intercrystalline and fine vuggy porosity, bright light yellow hydrocarbon fluorescence in 12% of the samples, good streaming to slow bleeding cut, trace light mottled oil stain and live oil, slight oil odor, occasional even brown matrix oil stain, show dissipates when dry. A 100 Unit gas increase was documented. 18 percent density porosity is noted on logs.

Additional minor tight oil shows were documented in the Morrow and Cherokee limestone's.

 $4 \frac{1}{2}$ " production casing was run on the Mary No. 1-1 on 12/20/15 to production test the Upper Mississippi.

Respectfully Submitted,

Peter Debenham

WELL DATA

Operator:	O'Brien Energy Resources, Inc., John Forma – Portsmouth, NH Geologist: Paul Wiemann – Denver, CO						
Prospect Geologist:	David Ward, Ed Schuett, Denver						
Well:	Mary No. 3-1, Daily Prospect, Granger Creek Field						
Location:	2377' FSL & 1760' FEL, Section 1, T31S, R22W, Clark Co., Kansas, South of Bucklin.						
Elevation:	Ground Level 2252', Kelly Bushing 2264'						
Contractor:	Duke Drilling Rig No. 1, Type: Double jacknife, triple stand, Toolpusher: Mike Godfrey, Drillers: Carlos Harcia, Saul Garcia, Henry Diaz						
Company Man:	Dana Greathouse						
Spud Date:	12/21/17						
Total Depth:	2/20/17, Driller', Logger', Mississippi.						
Casing Program:	13 joints of 8 5/8", J55, 24Lbs/ft, set at 647'.						
Mud Program:	Winter Mud, Engineer Drew Smith, Chemical/gel, displaced 3200'.						
Wellsite Consultant:	Peter Debenham Call depth 3000', Box 350, Drake, CO 80515, 720/220-4860.						
Samples:	30' to 5200', 20' to TD. One dry cut sent to the KS Sample Log Library, Wichita.						
Electric Logs:	Weatherford, engineer Adam Sill, Array Induction, Compensated Neutron/Density, Hi Res.						
Status:	4 $\frac{1}{2}$ " production casing run on 12/20/15 for Upper Mississippian oil production.						

WELL CHRONOLOGY

6 AM <u>DATE DEPTH</u> <u>FOOTAGE</u> <u>RIG ACTIVITY</u>

2/20 70' 7' Move to location and rig up rotary tools. Slip and cut 115' of drill line. Mix spud mud. Drill rathole and mouse hole and spud in $12 \frac{1}{4}$ " surface hole to 70'.

2/21 747' 677' To 747' and circulate and wiper trip. Drop survey(1/2 deg.) and trip for surface casing. Run and cement 17 joints of 8 5/8" casing set at 732' with 140 sacks H-Con(3%cc, $\frac{1}{4}$ lb/ft fs, tail 150 sacks Prem Plus(2%cc & $\frac{1}{4}$ fs). Plug down 1:45 pm – did circulate. Wait on cement and drain rig and shut down for XMass.

2/27 1587' 840' Fire up rig. Trip in and drill plug and cement and new 7 7/8" hole to 1587'. Survey(3/4 deg.).

2/28	3030'	1443'	Surveys(3/4 deg.).

2/29 3922' 892' Displace mud system at 3200'. Surveys(3/4 - 1 deg.).

BIT RECORD

<u>NO.</u>	<u>SIZE</u> HOURS	MAKE	<u>TYPE</u>	OUT	FOOTAGE	
1 2	12 ¼" 7 7/8"	PLS 516-D7 PLT 616-S6		747'	747'	7

Total Rotating Hours:	111 1/2
Average:	58.3
Ft/hr	

DEVIATION RECORD - degree

747' 1/2, 1334' 3/4, 1840' 1, 2249' 3/4, 2786' 3/4, 3229' 1, 3734' 1, 4239' 3/4, 4742' 1,

MUD PROPERTIES

<u>DATE</u> LBS/BBL	<u>DEPTH</u>	<u>WT</u>	<u>VIS</u>	<u>PV</u>	<u>YP</u>	<u>рН</u>	<u>WL</u>	<u>CL</u>	LCM-
12/21	747'	9.8	42	10	27	7.5	n/c	3.5K	6
12/22	747'	Down	n for XN	Mass					
12/28	2344'	9.5	29	5	4	7.5	n/c	82.5K	
12/29	3360'	8.6	45	10	28	10.0	12.0	11.4K	3
12/30	4405'	9.2	40	12	6	11.5	9.5	11.5K	

ELECTRIC LOG FORMATION TOPS- KB Elev. 2265'

			<u>*Shrauner No. 1-6</u>		
FORMATION	DEPTH	DATUM	DATUM	POSITION	
Casing	647'				
Heebner	4315'	-2050'	-2058'	+8'	
Lansing	4508'	-2243'	-2255'	+12'	
Stark SH	4862'	-2597'	-2601'	+4'	
Marmaton	5016'	-2751'	-2759'	+8'	
Pawnee	5060'	-2795'	-2803'	+8'	
Cherokee	5114'	-2849'	-2855'	+6'	
Morrow	5218'	-2953'	-2961'	+8'	
Mississippi	5240'	-2975'	-3005'	+30'	
Warsaw	6090'	-3825'	-3826'	+1'	
Viola	6180'	-3915'	-3918'	+3'	
Simpson SS	6431'	-4166'	-4165'	-1'	
Arbuckle	6446'	-4181'	-4178'	-3'	
TD	5692'				

*Falcon Exploration, Shrauner No. 1-6, 1740'FNL & 330'FWL, Sec. 6 – app. 2640' to the W NW, K.

b. Elev. 2187'.