

Confidentiality Requested:

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 - DESCRIPTION OF WELL & LEASE

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

New Well  Re-Entry  Workover

Oil  WSW  SWD

Gas  DH  EOR

OG  GSW

CM (Coal Bed Methane)

Cathodic  Other (Core, Expl., etc.): \_\_\_\_\_

If Workover/Re-entry: Old Well Info as follows:

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_

Deepening  Re-perf.  Conv. to EOR  Conv. to SWD

Plug Back  Liner  Conv. to GSW  Conv. to Producer

Commingled Permit #: \_\_\_\_\_

Dual Completion Permit #: \_\_\_\_\_

SWD Permit #: \_\_\_\_\_

EOR Permit #: \_\_\_\_\_

GSW Permit #: \_\_\_\_\_

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE  NW  SE  SW

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum:  NAD27  NAD83  WGS84

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_

feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

Location of fluid disposal if hauled offsite:

Operator Name: \_\_\_\_\_

Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_

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  Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**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 <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No  List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, 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 / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

1. Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*
3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____			
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025  
Cell 785-324-1041

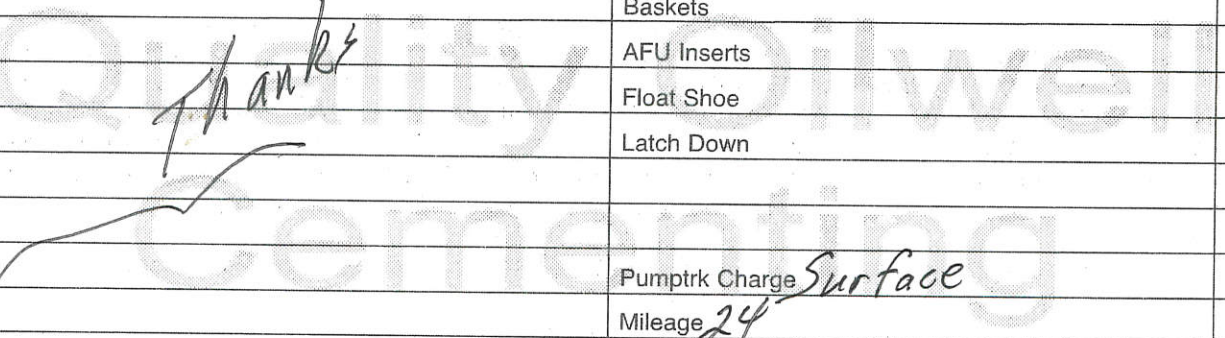
Home Office P.O. Box 32 Russell, KS 67665

No. 1445

Date	6-17-19	Sec.	23	Twp.	11	Range	17	County	Ellis	State	KS	On Location		Finish	11:45pm
Location								Cocell + River Road 1/4 S E into							
Lease	J. L. Ramsey		Well No.		1-23		Owner								
Contractor	Mountain 8		To Quality Oilwell Cementing, Inc.												
Type Job	Surface		You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.												
Hole Size	12 1/4		T.D.		232		Charge To								
Csg.	8 5/8		Depth		231		Patterson Energy								
Tbg. Size			Depth				Street								
Tool			Depth				City								
Cement Left in Csg.	10'		Shoe Joint				State								
Meas Line								Displace 14BL							
<b>EQUIPMENT</b>															
Pumptrk	5	No.	Cementer	Craig		Common		130							
			Helper	T.M.		Poz. Mix		30							
Bulktrk		No.	Driver	Jack		Gel.		3							
Bulktrk	15	No.	Driver			Calcium		6							
<b>JOB SERVICES &amp; REMARKS</b>															
Remarks:	Hulls														
Rat Hole	Salt														
Mouse Hole	Flowseal														
Centralizers	Kol-Seal														
Baskets	Mud CLR 48														
D/V or Port Collar	CFL-117 or CD110 CAF 38														
8 5/8 on bottom - Est. Circulation. Mix 160SK & Displace.															
Cement Circulated?															
<b>FLOAT EQUIPMENT</b>															
Guide Shoe															
Centralizer															
Baskets															
AFU Inserts															
Float Shoe															
Latch Down															
Pumptrk Charge Surface															
Mileage 24															
Tax															
Discount															
Total Charge															
X Signature <i>[Signature]</i>															

Thanks

~~8/18/19~~



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Phone 785-483-2025  
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 1329

Date	6.22.19	Sec.	23	Twp.	11S	Range	17W	County	Ellis	State	KS	On Location		Finish	1:00 pm <del>1:15</del>
Lease								Location							
JL RUMSEY								Cordell & River Road 1 1/4 S Pinto							
Well No. #1-23								Owner							
Contractor								To Quality Oilwell Cementing, Inc.							
Murfin Drilling Inc.								You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.							
Type Job								Charge To							
DV - Long String								Patterson Energy							
Hole Size								T.D.							
7 7/8								3410							
Csg.								Depth							
5 1/2 #17															
Tbg. Size								City							
								State							
Tool								The above was done to satisfaction and supervision of owner agent or contractor.							
DV Tool															
Cement Left in Csg.								Cement Amount Ordered							
38.63								175 SK 10% 5' gal							
Meas Line								Displace							
								82- 500 mud 10 gal KCL							
<b>EQUIPMENT</b>												Common			
Pumptrk												175			
No. 018												Poz. Mix			
Cementer															
Helper															
Driver															
Bulktrk												Gel.			
No. 3															
Driver												Calcium			
Bulktrk												Hulls			
No. 14												KCL 1 gal			
Driver												Salt 15			
<b>JOB SERVICES &amp; REMARKS</b>												Flowseal			
Remarks:												Kol-Seal 750#			
Bottom Stage												Mud CLR 48 500 gal			
Rat Hole												CFL-117 or CD110 CAF 38			
Mouse Hole												Sand			
Centralizers												Handling 195			
Baskets												Mileage			
DV or Port Collar												<b>FLOAT EQUIPMENT</b>			
5 1/2 size												5 1/2			
Ballup												Guide Shoe			
Est. Circulation Pump 500 gal mud												Triplex shoe			
Clear 10 BK KCL Mix 175 SK +												Centralizer 6			
Displace Plug. Displace with												Baskets 3			
6.3 BK water 18 BK mud 1 BK water												AFU Inserts			
to land plug. Plug landed @ 1500'												Float Shoe			
L.H. pressure 800'												DV Tool			
Drop foot + Est. Circulation												Latch Down			
Triplex shoe opened @ 1000'															
Thanks!												Pumptrk Charge			
												prod string			
												Bottom stage			
												Mileage			
												Tax			
												Discount			
												Total Charge			
Signature															
Ann Weaverling															

# QUALITY OILWELL CEMENTING, INC.

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Phone 785-483-2025  
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 1330

Date	Sec.	Twp.	Range	County	State	On Location	Finish
6-22-19	23	11S	17W	Et. 3	KS		2:45

Location Cadotte River Road 1/4 S Pinto

Lease	Well No.	Owner	
JL Rumsey	#1-23	To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.	
Contractor	Type Job	Charge To	
man #8	DV JOB	Patterson Energy	
Hole Size	T.D.	Street	
7 7/8			
Csg.	Depth	City	
5 1/2 17#		State	
Tbg. Size	Depth	The above was done to satisfaction and supervision of owner agent or contractor.	
	1094		
Tool	Shoe Joint	Cement Amount Ordered	
DV Tool		235 @ 20 QMDC 1/4 #10	
Cement Left in Csg.			
Meas Line	Displace		

**EQUIPMENT**

Pumptrk	No.	Cement Helper	Common
18		Tony	235 @ 20 QMDC
Bulktrk	No.	Driver	Poz. Mix
		Cravos	
Bulktrk	No.	Driver	Gel.
14		Michael	
			Calcium

**JOB SERVICES & REMARKS**

Remarks:	Hulls
Rat Hole	Salt
305K	Flowseal
Mouse Hole	58#
155K	Kol-Seal
Centralizers	Mud CLR 48
Baskets	CFL-117 or CD110 CAF 38
D/V or Port Collar	Sand

Plug Rathole & Mousehole.  
Cement DV Tool with 1995K.  
Displace Plug. Lend 24500 (2145) plug down!  
Cement to surface.

*Thanks!*

Handling	235
Mileage	
Guide Shoe	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	

Pumptrk Charge	prod string	Top Stage
Mileage	24	

X Signature Chris W. Sawley

Tax	
Discount	
Total Charge	

# **Geological Report**

**J.L. Rumsey #1-23**  
1530' FNL & 1840' FEL  
Sec. 23 T11s R17w  
Ellis County, Kansas



**Patterson Energy, LLC.**

## General Data

Well Data: Patterson Energy, LLC.  
J.L. Rumsey #1-23  
1530' FNL & 1840' FEL  
Sec. 23 T11s R17w  
Ellis County, Kansas  
API # 15-051-26957-0000

Drilling Contractor: Murfin Drilling Co. Rig #8

Geologist: Jason T Alm

Spud Date: June 17, 2019

Completion Date: June 22, 2019

Elevation: 1905' Ground Level  
1910' Kelly Bushing

Directions: Catherine KS, East 1.5 mi to Codell Rd. North ~5.5  
mi. East into location.

Casing: 232' 8 5/8" surface casing  
3394' 5 1/2" production casing

Samples: 10' wet and dry, 2800' to RTD

Drilling Time: 2800' to RTD

Electric Logs: Gemini Wireline "Casey Patterson"  
CNL/CDL, DIL

Drillstem Tests: None

Problems: None

Remarks: Triplex Shoe set @ 3394'



## Formation Tops

	<b>Patterson Energy, LLC.</b> <b>J.L. Rumsey #1-23</b> <b>Sec. 23 T11s R17w</b> <b>1530' FNL &amp; 1840' FEL</b>
<b>Formation</b>	
Anhydrite	<b>1102' +808</b>
Base	<b>1140' +770</b>
Topeka	<b>2818' -908</b>
Heebner	<b>3054' -1144</b>
Toronto	<b>3076' -1166</b>
Lansing	<b>3102' -1192</b>
BKC	<b>3336' -1426</b>
Simpson	<b>3357' -1447</b>
Arbuckle	<b>3388' -1478</b>
LTD	<b>3408' -1498</b>
RTD	<b>3410' -1500</b>

## Sample Zone Descriptions

<b>Topeka 30'</b>	<b>(2848' -938): Not Tested</b> Ls – Fine crystalline, oolitic in part with poor scattered micro oomoldic and poor to fair inter-crystalline porosity, light to fair spotted oil stain, slight show of free oil when broken, light free on cup, dull yellow fluorescents.
<b>LKC “B” zone</b>	<b>(3112' -1202): Not Tested</b> Ls – Fine crystalline, slightly oolitic, sucrosic in part with poor inter-crystalline porosity, light to fair scattered oil stain, very light show of free oil, light odor, very dull yellow fluorescents.
<b>LKC “C” zone</b>	<b>(3128' -1218): Not Tested</b> Ls – Fine crystalline, oolitic packstone in part with good micro-oomoldic porosity, light to fair spotted oil stain in porosity, slight show of free oil when broken, light odor, dull yellow fluorescents.
<b>LKC “I” zone</b>	<b>(3254' -1344): Not Tested</b> Ls – Fine to sub-crystalline, oolitic in part with poor scattered oolitic and scattered poor pinpoint vuggy porosity, light to scattered fair oil stain, very slight show of free oil when broken, light gassy odor, dull yellow fluorescents.
<b>Simpson</b>	<b>(3357' -1447): Not Tested</b> Dolo – Fine crystalline with poor inter-crystalline and scattered vuggy porosity, fair oil stain in vugs, slight show of free oil on cup, strong odor, many medium grained sandstone clusters with light oil stain and slight show of free oil.

**Arbuckle (3388' -1478): Not Tested**

Dolo – Fine to medium sucrosic crystalline in part with poor to scattered fair inter-crystalline and vuggy porosity, light to fair oil stain, few pieces with light saturation, show of free oil on cup and show of free oil when broken, strong odor, dull yellow fluorescents, slight oolitic chert, few pieces of dolomite medium rhombic crystalline.

**Structural Comparison**

	<b>Patterson Energy, LLC. J.L. Rumsey #1-23 Sec. 23 T11s R17w 1530' FNL &amp; 1840' FEL</b>	Shell Oil Co. Rumsey #34 Sec. 23 T11s R17w C SW NE		Shell Oil Co. Rumsey #28 Sec. 23 T11s R17w NE SW NE	
<b>Formation</b>					
Anhydrite	<b>1102' +808</b>	1106' +806	<b>(+2)</b>	NA	<b>NA</b>
Base	<b>1140' +770</b>	NA	<b>NA</b>	NA	<b>NA</b>
Topeka	<b>2818' -908</b>	2832' -920	<b>(+12)</b>	2844' -922	<b>(+14)</b>
Heebner	<b>3054' -1144</b>	3059' -1147	<b>(+3)</b>	NA	<b>NA</b>
Toronto	<b>3076' -1166</b>	3081' -1169	<b>(+3)</b>	NA	<b>NA</b>
Lansing	<b>3102' -1192</b>	3107' -1195	<b>(+3)</b>	NA	<b>NA</b>
BKC	<b>3336' -1426</b>	NA	<b>NA</b>	NA	<b>NA</b>
Simpson	<b>3357' -1447</b>	NA	<b>NA</b>	3384' -1462	<b>(+15)</b>
Arbuckle	<b>3388' -1478</b>	3393' -1481	<b>(+3)</b>	3406' -1484	<b>(+6)</b>

**Summary**

The location J.L. Rumsey #1-23 was found via 3-D seismic survey. The new well ran structurally as expected via the survey. No Drill Stem Tests were conducted. After all gathered data had been examined the decision was made to run 5 ½ inch production casing to further evaluate the J.L. Rumsey #1-23 well.

**Recommended Perforations**

**Primary:**

**Arbuckle 3394' – 3410' Not Tested**

**Secondary:**

**LKC I zone 3254' – 3259' Not Tested**

**LKC C zone 3132' – 3136' Not Tested**

**Before Abandonment:**

**Topeka 30' zone 2848' – 2854' Not Tested**

Respectfully Submitted,

Jason T Alm  
Hard Rock Consulting, Inc.