KOLAR Document ID: 1635982

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 # 32218
Name: TDR Construction, Inc.
Address 1: PO BOX 339
Address 2:
City: LOUISBURG State: KS Zip: 66053 + 0339
Contact Person: Lance Town
Phone: (913) 710-5400
CONTRACTOR: License # 32218
Name: TDR Construction, Inc.
Wellsite Geologist: NA
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 #:

01/10/2022	01/13/2022	01/15/2022
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No.: 15-121-31664-00-00
Spot Description:
SE - NW - NW - NE Sec. 18 Twp. 16 S. R. 24 ☑ East ☐ West
4749 Feet from ☐ North / ☑ South Line of Section
2099 Feet from ☑ East / ☐ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☐ NE ☐ NW ☑ SE ☐ SW
GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Miami
Lease Name: WARD Well #: 5
Field Name: Paola/Rantoul
Producing Formation: Squirrel
Elevation: Ground: 1084 Kelly Bushing: 1084
Total Vertical Depth: 820 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 21 Feet
Multiple Stage Cementing Collar Used? ☐ Yes ☑ No
If yes, show depth set: Feet
If Alternate II completion, cement circulated from: 0
feet depth to: 21 w/ 6 sx cmt.

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)

Chloride content: 1500 ppm Fluid volume: 60 bbls
Dewatering method used: Evaporated
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:** David Befort **Date:** 06/22/2022

Operator Name: TDR Construction, Inc. Lease Name: WARD Well #: 5

Sec. 18 Twp. 16 S. R. 24 ☑ East ☐ West County: Miami

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 ☐ Yes ☑ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☐ Yes ☑ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☐ Yes ☑ No

Geologist Report / Mud Logs ☐ Yes ☑ No

List All E. Logs Run:

☐ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
Squirrel	753	GL

CASING RECORD ☑ New ☐ 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
Surface	9	6.25	12	21	Portland	6	50/50 POZ
Production	5.625	2.875	6.5	785	Portland	102	50/50 POZ

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
☐ Perforate ☐ Protect Casing ☐ Plug Back TD ☐ 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: 01/15/2022

Producing Method: ☐ Flowing ☑ Pumping ☐ Gas Lift ☐ Other *(Explain)*

Estimated Production Per 24 Hours	Oil	Bbls.	Gas	Mcf	Water	Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS:
☐ Vented ☐ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION:
☑ Open Hole ☐ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*

PRODUCTION INTERVAL:

Top	Bottom
753	785

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record *(Amount and Kind of Material Used)*

TUBING RECORD: Size: Set At: Packer At:

Mail to: KCC - Conservation Division, 266 N. Main, Suite 220, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	TDR Construction, Inc.
Well Name	WARD 5
Doc ID	1635982

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	9	6.25	12	21	Portland	6	50/50 POZ
Production	5.625	2.875	6.5	785	Portland	102	50/50 POZ

County, KS
Well: Ward #5
Lease Owner: TDR

TDR Construction, Inc.
913-710-5400

Commenced Spudding:
01/10/2022

WELL LOG

Thickness of Strata	Formation	Total Depth
0-9	Soil-Clay	9
9	Lime	18
11	Sandy Shale	29
16	Lime	45
17	Shale	62
4	Sandy Shale	66
2	Shale	68
16	Lime	84
66	Shale	150
22	Lime	172
12	Shale	184
11	Lime	195
19	Shale	214
4	Red Bed	218
8	Shale	226
4	Lime	230
41	Shale	271
10	Lime	281
16	Shale	297
25	Lime	322
7	Shale	329
20	Lime	349
4	Shale	353
2	Lime	355
3	Shale	358
10	Lime	368
12	Shale	380
7	Sand	387
20	Shale	407
17	Sand	424
20	Sandy Shale	444
56	Shale	500
10	Sandy Shale	510
72	Shale	582
8	Lime	590
2	Shale	592
3	Sand	595
14	Shale	609
5	Lime	614
6	Shale	620

County, KS
Well: Ward #5
Lease Owner: TDR

TDR Construction, Inc.
913-710-5400

Commenced Spudding:
01/10/2022

1	Lime	621
2	Shale	623
4	Lime	627
7	Shale	634
7	Lime	641
9	Shale	650
1	Lime	651
9	Shale	660
4	Lime	664
59	Shale	723
4	Sand	727
27	Sandy Shale	754
32	Shale	786
10	Sand	796
24	Shale	820-TD

CEMENT TREATMENT REPORT

Customer:	TDR Construction	Well:	Ward 5	Ticket:	EP3694
City, State:	Louisburg, KS	County:	MI, KS	Date:	1/13/2022
Field Rep:	Lance Town	S-T-R:	18-16-24	Service:	longstring

Downhole Information	
Hole Size:	6 3/4 in
Hole Depth:	820 ft
Casing Size:	4 1/2 in
Casing Depth:	785 ft
Tubing / Liner:	in
Depth:	ft
Tool / Packer:	baffle
Tool Depth:	753 ft
Displacement:	12.01 bbls

Calculated Slurry - Lead	
Blend:	Econobond
Weight:	13.65 ppg
Water / Sx:	7.12 gal / sx
Yield:	1.56 ft^3 / sx
Annular Bbls / Ft.:	bbs / ft.
Depth:	ft
Annular Volume:	0.0 bbls
Excess:	
Total Slurry:	28.34 bbls
Total Sacks:	102 sx

Calculated Slurry - Tail	
Blend:	
Weight:	ppg
Water / Sx:	gal / sx
Yield:	ft^3 / sx
Annular Bbls / Ft.:	bbs / ft.
Depth:	ft
Annular Volume:	0 bbls
Excess:	
Total Slurry:	0.0 bbls
Total Sacks:	0 sx

TIME	RATE	PSI	STAGE BBLs	TOTAL BBLs	REMARKS
3:00 PM			-	-	on location, held safety meeting
				-	
	4.0			-	established circulation
	4.0			-	mixed and pumped 200# Bentonite Gel followed by 4 bbls fresh water
	4.0			-	mixed and pumped 6 bbls dye marker
	4.0			-	mixed and pumped 102 sks Econobond cement
	4.0			-	dye marker to surface
	4.0			-	flushed pump clean
	4.0			-	pumped 4 1/2" rubber plug to baffle with 12.01 bbs fresh water, cement to surface
	1.0			-	pressured to 800 PSI, well held pressure
				-	released pressure to set float valve
	4.0				washed up equipment
4:00 PM					left location

CREW		UNIT
Cementer:	Casey Kennedy	89
Pump Operator:	Nick Beets	238
Bulk:	Pat Sanborn	248
H2O:	Keith Detwiler	124

SUMMARY		
Average Rate	Average Pressure	Total Fluid
3.7 bpm	- psi	- bbls

ftv: 15-2021/01/25
mplv: 236-2021/12/16

Short Cuts

TANK CAPACITY

BBLS. (42 gal.) equals D^2x.14xh
D equals diameter in feet.
h equals height in feet.

BARRELS PER DAY

Multiply gals. per minute x 34.2

HP equals BPH x PSI x .0004
BPH - barrels per hour
PSI - pounds square inch

TO FIGURE PUMP DRIVES

*** D - Diameter of Pump Sheave**
*** d - Diameter of Engine Sheave**
SPM - Strokes per minute
RPM - Engine Speed
R - Gear Box Ratio
***C - Shaft Center Distance**

D - RPMxd over SPMxR
d - SPMxRxD over RPM
SPM - RPMXD over RxD
R - RPMXD over SPMxD

BELT LENGTH - $2C + 1.57(D + d) + \frac{(D-d)^2}{4C}$

* Need these to figure belt length

TO FIGURE AMPS: $\frac{\text{WATTS}}{\text{VOLTS}}$ = AMPS

746 WATTS equal 1 HP

0.1

Log Book

Well No. 5

Farm Ward

KS (State) Miami (County)

18 (Section) 16 (Township) 24 (Range)

For TDR Construction (Well Owner)

Town Oilfield Services, Inc.
1207 N. 1st East
Louisburg, KS 66053
913-710-5400

Ward Farm: Miami County

ICS State; Well No. 5

Elevation 1064

Commenced Spuding 1-10 2022

Finished Drilling 1-13 2022

Driller's Name Wesley Dollard

Driller's Name Ryan Ward

Driller's Name

Tool Dresser's Name

Tool Dresser's Name

Tool Dresser's Name

Contractor's Name TDR

18 16 24

(Section) (Township) (Range)

Distance from S line, 4750 ft.

Distance from E line, 2100 ft.

6 sacks 4½ casing

12 hrs

6¾ borehole

CASING AND TUBING RECORD

10" Set		10" Pulled	
8" Set	21	8" Pulled	
6¼" Set		6¼" Pulled	
4" Set		4" Pulled	
2" Set		2" Pulled	

CASING AND TUBING MEASUREMENTS

Feet	In.	Feet	In.	Feet	In.
753		Bottle			
785		Float		4½	
820		TD			

Thickness of Strata	Formation	Total Depth	Remarks
0-9	Soil- clay	9	
9	Lime	18	
11	Sandy Shale	29	
16	Lime	45	
17	Shale	62	redbed
4	Sandy Shale	66	
2	Shale	68	
16	Lime	84	
66	Shale	150	
22	Lime	172	
12	Shale	184	
11	Lime	195	
19	Shale	214	Some sand - no oil or gas
4	redbed	218	
8	Shale	226	
4	Lime	230	
41	Shale	271	
10	Lime	281	
16	Shale	297	
25	Lime	322	
7	Shale	329	
20	Lime	349	
4	shale	353	
2	Lime	355	
3	Shale	358	
10	Lime	368	Hertha
12	Shale	380	

380

Thickness of Strata	Formation	Total Depth	Remarks
7	Sand	387	mostly solid - good bleed
20	Shale	407	
17	Sand	424	water
20	Sandy Shale	444	
56	Shale	500	
10	Sandy Shale	510	
72	Shale	582	
8	Lime	590	
2	Shale	592	
3	Sand	595	no oil or gas
14	Shale	609	
5	Lime	614	
6	Shale	620	
1	Lime	621	
2	Shale	623	
4	Lime	627	
7	Shale	634	
7	Lime	641	
9	Shale	650	
1	Lime	651	
9	Shale	660	
4	Lime	664	
59	Shale	723	
4	Sand	727	gas odor - clean brown sand
27	Sandy Shale	754	
32	Shale	786	
10	Sand	796	no oil or gas

796

Thickness of Strata	Formation	Total Depth	Remarks
24	Shale	820	TD