[redacted] 1246595

Confidentiality Requested:
☑ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

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 # 33999
Name: Linn Operating, Inc.
Address 1: 600 TRAVIS STE 5100
Address 2:
City: HOUSTON State: TX Zip: 77002 + 3018
Contact Person: Shawn Hildreth
Phone: (281) 840-4234
CONTRACTOR: License # 32721
Name: Eldredge Well Service LLC
Wellsite Geologist: Bill Coppedge
Purchaser:

Designate Type of Completion:
☑ New Well ☐ Re-Entry ☐ Workover

☐ 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:
Operator:
Well Name:
Original Comp. Date: Original Total Depth:

☐ Deepening ☐ Re-perf. ☐ Conv. to ENHR ☐ Conv. to SWD
☐ Plug Back ☐ Conv. to GSW ☐ Conv. to Producer

☐ Commingled Permit #:
☐ Dual Completion Permit #:
☐ SWD Permit #:
☐ ENHR Permit #:
☐ GSW Permit #:

2/5/2015	2/7/2015	2/19/2015
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-067-21810-00-00
Spot Description:
SW SW SW SW Sec. 27 Twp. 27 S. R. 38 ☐ East ☑ West
242 Feet from ☐ North / ☑ South Line of Section
187 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: Grant
Lease Name: TILLIE CLOW Well #: 5 ATU-259
Field Name: Hugoton-Panoma
Producing Formation: Chase & Council Grove
Elevation: Ground: 3112 Kelly Bushing: 3119
Total Vertical Depth: 2857 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 730 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: 0 ppm Fluid volume: 0 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: 03/19/2015
☑ **Confidential Release Date:** 03/18/2017
☑ **Wireline Log Received**
☐ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** NAOMI JAMES **Date:** 03/20/2015

[redacted]

1246595

Operator Name: Linn Operating, Inc. Lease Name: TILLIE CLOW Well #: 5 ATU-259

Sec. 27 Twp. 27 S. R. 38 ☐ East ☑ West County: Grant

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

List All E. Logs Run:

Pulse Neutron Decay Log
PND-S Well Evalulation Log

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

Name	Top	Datum
KRIDER	2375	KB
WINDFIELD	2413	KB
TOWANDA	2483	KB
FT_RILEY	2532	KB
FUNSTON	2659	KB
CROUSE	2717	KB

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	12.25	8.625	24	730	Premium Class C	450	
Production	7.875	5.50	15.50	2857	O-Tex LowDense	395	

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	-			
	-			

Did you perform a hydraulic fracturing treatment on this well? ☑ Yes ☐ No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? ☐ Yes ☑ No *(If No, skip question 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)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record *(Amount and Kind of Material Used)*	Depth
2	Chase Perfs - 2357-2442	Frac Chase & Council Grove w/N2 Foam 628,000 SCF	
4	2487-2560	& 250,336 LB 16/30 brown sand	
2	Council Grove Perfs - 2662-2665		

TUBING RECORD: Size: Set At: Packer At: Liner Run: ☐ Yes ☐ No

Date of First, Resumed Production, SWD or ENHR. 2/23/2015

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

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
		314			

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)* ☐ Other *(Specify)*

PRODUCTION INTERVAL:

Form	ACO1 - Well Completion
Operator	Linn Operating, Inc.
Well Name	TILLIE CLOW 5 ATU-259
Doc ID	1246595

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	730	Premium Class C	450	
Production	7.875	5.50	15.50	2857	O-Tex LowDense	395	

JOB SUMMARY

Project Number	Ticket Date
TN # 1489	2/6/2015

County	Company	Customer Rep
Grant	Linn Energy	Orlando

Lease Name	Well No.	Job Type	Employee Name
Tillie Clow	5 ATU-259	Surface	MARIO ABREGO

EMP NAME

MARIO ABREGO						
SHAWN COTTON						
TONY LEWIS						
JONNY BLACKWOOD						

Form. Name Cisco-Council Grove Type: ______

Packer Type ______ Set At ______
Bottom Hole Temp. ______ Pressure ______
Retainer Depth ______ Total Depth ______

	Called Out	On Location	Job Started	Job Completed
Date	2/5/2015	02/05/15	02/05/15	02/06/15
Time	1:00PM	7:00PM	11:50PM	1:00AM

Tools and Accessories

Type and Size	Qty	Make
Auto Fill Tube	0	IR
Insert Float Valve	0	IR
Centralizers	0	IR
Top Plug	0	IR
HEAD	0	IR
Limit clamp	0	IR
Weld-A	0	IR
Texas Pattern Guide Shoe	0	IR
Cement Basket	0	IR

Well Data

	New/Used	Weight	Size	Grade	From	To	Max. Allow
Casing	New	24	8.625	J-55	0	730	2000
Liner							
Liner							
Tubing							
Drill Pipe							
Open Hole							Shots/Ft.
Perforations							
Perforations							
Perforations							

Materials

Mud Type WBM Density 9 Lb/Gal
Disp. Fluid H20 Density 8.33 Lb/Gal
Spacer type H20 BBL. 10
Spacer type ______ BBL. ______
Acid Type ______ Gal. ______ %
Acid Type ______ Gal. ______ %
Surfactant ______ Gal. ______ In
NE Agent ______ Gal. ______ In
Fluid Loss ______ Gal/Lb ______ In
Gelling Agent ______ Gal/Lb ______ In
Fric. Red. ______ Gal/Lb ______ In
MISC. ______ Gal/Lb ______ In

Perfpac Balls ______ Qty. ______
Other ______
Other ______
Other ______
Other ______
Other ______

Hours On Location

Date	Hours
02/05/15	4.0
Total	4.0

Operating Hours

Date	Hours
02/05/15	2.0
Total	2.0

Description of Job

Surface

Pressures

MAX 940 AVG 90

Average Rates in BPM

MAX 3 AVG 3

Cement Left in Pipe

Feet 43 Reason Shoe Joint

Cement Data

Stage	Sacks	Cement	Additives	W/Rq.	Yield	Lbs/Gal
1	450	Premium Class C	2% Calcium Chloride and .25 #/sk Cellofiake	6.34	1.35	14.8
2						
3			TAKE 5 1/2 FLOAT EQUIPMENT			
4						

Summary

Preflush ______ Type: ______
Breakdown ______ MAXIMUM ______
______ Lost Returns ______ 30
______ Actual TOC ______
Average ______ Frac. Gradient ______
ISIP ______ 5 Min ______ 10 Min ______ 15 Min ______

Preflush:	BBl	10.00	Type: H20
Load & Bkdn:	Gal - BBl		Pad:Bbl -Gal
Excess /Return BBl		15	Calc Disp Bbl
Calc. TOC		SURFACE	Actual Disp 44.00
Treatment:	Gal - BBl		Disp Bbl
Cement Slurry	BBl	108.0	
Total Volume	BBl	162.00	

CUSTOMER REPRESENTATIVE ______ [signature] SIGNATURE

Thank You For Using
O - TEX Pumping

JOB SUMMARY

COUNTY: Grant	COMPANY: Linn Energy	PROJECT NUMBER: TN # 1493	TICKET DATE: 2/7/2015
LEASE NAME: Tillie Clow	Well No.: 5 ATU 259	JOB TYPE: Production	CUSTOMER REP: Weldon Higgins
EMP NAME: Chris Lewis			

Chris Lewis			
Steve Crocker			
Joseph Martinez			

Form. Name: 0 Type:

Packer Type: Set At:

Bottom Hole Temp.: Pressure:

Retainer Depth: Total Depth:

	Called Out	On Location	Job Started	Job Completed
Date		02/07/15	02/07/15	02/07/15
Time		1300	1630	1742

Tools and Accessories

Type and Size	Qty	Make
Auto Fill Tube	0	IR
Insert Float Valve	0	IR
Centralizers	0	IR
Top Plug	0	IR
HEAD	0	IR
Limit clamp	0	IR
Weld-A	0	IR
Texas Pattern Guide Shoe	0	IR
Cement Basket	0	IR

Well Data

	New/Used	Weight	Size	Grade	From	To	Max. Allow
Casing	New	15.5	5.5	J-55	KB	2857	2000
Liner							
Liner							
Tubing							
Drill Pipe							
Open Hole							Shots/Ft.
Perforations							
Perforations							
Perforations							

Materials

Mud Type	0	Density	0	Lb/Gal	
Disp. Fluid	H20	Density	8.33	Lb/Gal	
Spacer type	H20	BBL.	10		
Spacer type		BBL.			
Acid Type		Gal.		%	
Acid Type		Gal.		%	
Surfactant		Gal.		In	
NE Agent		Gal.		In	
Fluid Loss		Gal/Lb		In	
Gelling Agent		Gal/Lb		In	
Fric. Red.		Gal/Lb		In	
MISC.		Gal/Lb		In	

Perfpac Balls: Qty.:

Other:

Other:

Other:

Other:

Other:

Hours On Location

Date	Hours
02/07/15	5.0
Total	5.0

Operating Hours

Date	Hours
02/07/15	1.5
Total	1.5

Description of Job

Production

2857FT

5.5 Production

Pressures

MAX 2000 AVG 300

Average Rates in BPM

MAX 3 AVG 3

Cement Left in Pipe

Feet 44 Reason: Shoe Joint

Cement Data

Stage	Sacks	Cement	Additives	W/Rq.	Yield	Lbs/Gal
1	395	O-Tex LowDense	2% Gyp, 2% Calcium Chloride, 2% C-45, 0.4% C-13, 0.4% C-41P, 0.2% C-51, 0.25 lb/sk Celloflake	13.29	2.25	11.5
2	0	0	0	0	0	0
3			TAKE 8 5/8 FLOAT EQUIPMENT			
4						

Summary

Preflush: Type:

Breakdown: MAXIMUM:

Lost Returns: 0 Actual TOC:

Average: Frac. Gradient:

5 Min: 10 Min: 15 Min:

Preflush:	BBl	10.00	Type:	H20	
Load & Bkdn:	Gal - BBl		Pad:Bbl -Gal		
Excess /Return	BBl	60	Calc Disp Bbl		
Calc. TOC		0	Actual Disp	67.00	
Treatment	Gal - BBl		Disp Bbl		
Cement Slurry	BBl	159.0			
Total Volume	BBl	236.00			

CUSTOMER REPRESENTATIVE: SIGNATURE:

Thank You For Using

O - TEX Pumping

JOB SUMMARY

PROJECT NUMBER	TICKET DATE
TN # 1491	2/6/2015

COUNTY	COMPANY	CUSTOMER REP
Grant	Linn Energy	Orlando
LEASE NAME / **Well No.**	**JOB TYPE**	**EMPLOYEE NAME**
Tillie Clow / 5 ATU-259	TOP OUT	MARIO ABREGO

EMP NAME
MARIO ABREGO
SHAWN COTTON
MIGUEL MURGADO

Form. Name Chase-Council Grove Type: _____

Packer Type _____ Set At _____

Bottom Hole Temp. _____ Pressure _____

Retainer Depth _____ Total Depth _____

	Called Out	On Location	Job Started	Job Completed
Date	2/6/2015	02/06/15	02/06/15	02/06/15
Time	3:00PM	6:30PM	6:50PM	7:03PM

Tools and Accessories

Type and Size	Qty	Make
Auto Fill Tube	0	IR
Insert Float Valve	0	IR
Centralizers	0	IR
Top Plug	0	IR
HEAD	0	IR
Limit clamp	0	IR
Weld-A	0	IR
Texas Pattern Guide Shoe	0	IR
Cement Basket	0	IR

Well Data

	New/Used	Weight	Size	Grade	From	To	Max. Allow
Casing	New	24	8.625	J-55	500'	730'	200
Liner							
Liner							
Tubing							
Drill Pipe							
Open Hole							Shots/Ft.
Perforations							
Perforations							
Perforations							

Materials

Mud Type	Wate	Density 0		Lb/Gal
Disp. Fluid	0	Density		Lb/Gal
Spacer type		BBL. 0		
Spacer type		BBL.		
Acid Type		Gal.	%	
Acid Type		Gal.	%	
Surfactant		Gal.	In	
NE Agent		Gal.	In	
Fluid Loss		Gal/Lb	In	
Gelling Agent		Gal/Lb	In	
Fric. Red.		Gal/Lb	In	
MISC.		Gal/Lb	In	

Perfpac Balls _____ Qty. _____

Other _____

Other _____

Other _____

Other _____

Other _____

Hours On Location

Date	Hours
02/06/15	1.0
Total	1.0

Operating Hours

Date	Hours
02/06/15	1.0
Total	1.0

Description of Job

TOP OUT

Pressures

MAX 80 AVG. 80

Average Rates in BPM

MAX 1 AVG 1

Cement Left in Pipe

Feet 0 Reason

Cement Data

Stage	Sacks	Cement	Additives	W/Rq.	Yield	Lbs/Gal
1	450	Premium Class C	2% Calcium Chloride and .25 lb/sk Cellofalke	6.34	1.35	14.8
2						
3			TAKE 5 1/2 FLOAT EQUIPMENT			
4						

Summary

Preflush		Type:	Preflush: BBl	0.00	Type:
Breakdown		MAXIMUM	Load & Bkdn: Gal - BBl		Pad:Bbl -Gal
		Lost Returns	Excess /Return BBl	22	Calc Disp Bbl
		Actual TOC	Calc TOC	SURFACE	Actual Disp 0.00
Average		Frac. Gradient	Treatment: Gal - BBl		Disp Bbl
	5 Min	10 Min	15 Min	Cement Slurry BBl	22.0
				Total Volume BBl	22.00

CUSTOMER REPRESENTATIVE _____ SIGNATURE

Thank You For Using

O - TEX Pumping