Confidentiality Requested:
☑ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1212375

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) 840-4208
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 #:

4/15/2014	4/17/2014	4/24/2014
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-067-21774-00-00
Spot Description:
SW SW SW SW Sec. 36 Twp. 27 S. R. 38 ☐ East ☑ West
185 Feet from ☐ North / ☑ South Line of Section
200 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: E.H. GALL Well #: 4 ATU-170
Field Name: Hugoton - Panoma
Producing Formation: Chase & Council Grove
Elevation: Ground: 3091 Kelly Bushing: 3098
Total Vertical Depth: 3110 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 725 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: 06/30/2014
☑ **Confidential Release Date:** 06/29/2016
☑ **Wireline Log Received**
☐ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** NAOMI JAMES **Date:** 07/01/2014

[redacted] 1212375

Operator Name: Linn Operating, Inc. Lease Name: E.H. GALL Well #: 4 ATU-170

Sec. 36 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 Evaluation Log

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

Name: Attached Top: Attached Datum: Attached

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	725	Premium Class C	455	
PRODUCTION	7.875	5.50	15.50	3110	O-Tex LowDense	435	

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
4	Chase Perfs - 2384-2609	Frac Chase & Council Grove w/N2	
		775,000 SCF & 300,270 lb 16/30	
2	Council Grove - 2763 - 2822	brown sand	

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

Date of First, Resumed Production, SWD or ENHR. 4/28/2014

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

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
		461			

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	E.H. GALL 4 ATU-170
Doc ID	1212375

Tops

Name	Top	Datum
KRIDER	2390	KB
WINFIELD	2442	KB
TOWANDA	2504	KB
FT_RILEY	2556	KB
FUNSTON	2682	KB
CROUSE	2734	KB
MORRILL	2814	KB
GRENOLA	2853	KB

Form	ACO1 - Well Completion
Operator	Linn Operating, Inc.
Well Name	E.H. GALL 4 ATU-170
Doc ID	1212375

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	725	Premium Class C	455	
PRODUCTION	7.875	5.50	15.50	3110	O-Tex LowDense	435	

JOB SUMMARY

COUNTY: Grant	COMPANY: Linn Energy	PROJECT NUMBER: TN # 666	TICKET DATE: 4/15/2014
LEASE NAME: EH Gall	Well No.: 4 ATU 170	JOB TYPE: Surface	CUSTOMER REP: Orlando
EMP NAME: LAMONT PATTERSON			EMPLOYEE NAME: LAMONT PATTERSON

LAMONT PATTERSON			
CODY GLASSGOW			
SANTIAGO CALIXTO			

Form. Name: Choco-Council Grove Type:

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

Date	Called Out	On Location	Job Started	Job Completed
Time		04/15/14 1830	04/15/14 2040	04/15/14 2145

Tools and Accessories

Type and Size	Qty	Make
Auto Fill Tube	1	IR
Insert Float Valve	1	IR
Centralizers	26	IR
Top Plug	1	IR
HEAD	1	IR
Limit clamp	0	IR
Weld-A	2	IR
Texas Pattern Guide Shoe	1	IR
Cement Basket	0	IR

Well Data

	New/Used	Weight	Size	Grade	From	To	Max. Allow
Casing	New	24	8.625	J-55	KB	725	800
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
04/15/14	3.0
Total	3.0

Operating Hours

Date	Hours
04/15/14	10.0
Total	10.0

Description of Job

Surface
RETURNS THRU ENTIRE JOB
1/2 BBL BACK CHECKING
FLOATS
APPROX 2 BBLS TO PIT
JOB COMPLETED SAFELY

Pressures

MAX AVG

Average Rates in BPM

MAX 3 AVG 3

Cement Left in Pipe

Feet 3 BBLS Reason: Shoe Joint

Cement Data

Stage	Sacks	Cement	Additives	W/Rq.	Yield	Lbs/Gal
1	455	Premium Class C	2% Calcium Chloride and .25 #/sk Celloflake	6.34	1.35	14.8
2						
3						
4						

Summary

Preflush		Type:		Preflush: BBl	10.00
Breakdown		MAXIMUM		Load & Bkdn: Gal - BBl	
		Lost Returns-N	NO	Excess /Return BBl	2
		Actual TOC		Calc. TOC:	725
Average		Frac. Gradient		Treatment: Gal - BBl	
ISIP ____ 5 Min ____		10 Min ____	15 Min ____	Cement Slurry BBl	#VALUE!
				Total Volume BBl	#VALUE!

Type: H20
Pad Bbl -Gal
Calc.Disp Bbl
Actual Disp Bbl: 43.00
Disp Bbl

CUSTOMER REPRESENTATIVE ____ SIGNATURE

Thank You For Using
O - TEX Pumping

JOB SUMMARY

COUNTY	COMPANY	PROJECT NUMBER	TICKET DATE
Grant County	Linn Energy	TN # 669	4/17/2014
LEASE NAME / Well No.	JOB TYPE	CUSTOMER REP	
EH Gall 4 ATU 170	Production	0	
EMP NAME		EMPLOYEE NAME	
Jesus Jimenez		Jesus Jimenez	
Beau Clem			
Reggie Samaniego			

Form. Name ____ Type: ____

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

	Called Out	On Location	Job Started	Job Completed
Date	4-16-14	04/17/14	04/17/14	04/17/14
Time	22:00	04:00	07:30	09:30

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	0	3110	1500
Liner							
Liner							
Tubing							
Drill Pipe							
Open Hole							Shots/Ft.
Perforations							
Perforations							
Perforations							

Materials

Mud Type	0	Density 0	Lb/Gal	
Disp. Fluid	H2O	Density 8.33	Lb/Gal	
Spacer type	IUM SILIC BBL	20		
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	Operating Hours Date	Hours
04/17/14	5.5	04/17/14	2.0
Total	5.5	Total	2.0

Description of Job: Production

Pressures

MAX 980 AVG. 50

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	435	O-Tex LowDense Cement	2%Gypsum, 2%Calcium Chloride, 2%C-45, 0.4%C-15, 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						
4						

Summary

Preflush ____ Type: ____
Breakdown MAXIMUM ____
Lost Returns-N NO
Actual TOC ____
Average ____ Frac. Gradient ____
ISIP ____ 5 Min ____ 10 Min ____ 15 Min ____

Preflush:	BBl	20.00	Type: SODIUM SILICATE
Load & Bkdn:	Gal - BBl		Pad Bbl -Gal
Excess /Return	BBl	70	Calc Disp Bbl
Calc. TOC		SURFACE	Actual Disp. 73.00
Treatment:	Gal - BBl		Disp Bbl
Cement Slurry	BBl	174.0	
Total Volume	BBl	267.00	

CUSTOMER REPRESENTATIVE ____ SIGNATURE

Thank You For Using
O - TEX Pumping