

Oklahoma Corporation Commission
Oil & Gas Conservation Division
Post Office Box 52000
Oklahoma City, Oklahoma 73152-2000
Rule 165: 10-3-25

Form 1002A

API No.: 35019262860000

Completion Report

Spud Date: March 11, 2018

OTC Prod. Unit No.: 019-225293-0-0000

Drilling Finished Date: May 03, 2018

1st Prod Date: June 06, 2019

Completion Date: June 06, 2019

Drill Type: HORIZONTAL HOLE

Well Name: LAWSON 2-13H14X

Purchaser/Measurer: TARGA ETC

Location: CARTER 13 3S 2E
NE SE SE SE
630 FSL 289 FEL of 1/4 SEC
Latitude: 34.290417 Longitude: -97.038855
Derrick Elevation: 0 Ground Elevation: 716

First Sales Date: 06/06/2019

Operator: XTO ENERGY INC 21003

22777 SPRINGWOODS VILLAGE PKWY
SPRING, TX 77389-1425

Completion Type		Location Exception		Increased Density	
X	Single Zone	Order No		Order No	
	Multiple Zone	674574		674281	
	Commingled			674954	

Casing and Cement							
Type	Size	Weight	Grade	Feet	PSI	SAX	Top of CMT
CONDUCTOR	20	94	J-55	110			
SURFACE	9 5/8	36, 50	J-55	2008		510	SURFACE
PRODUCTION	5 1/2	23	P-110	22846		2875	6310

Liner								
Type	Size	Weight	Grade	Length	PSI	SAX	Top Depth	Bottom Depth
There are no Liner records to display.								

Total Depth: 22846

Packer	
Depth	Brand & Type
There are no Packer records to display.	

Plug	
Depth	Plug Type
There are no Plug records to display.	

Initial Test Data

Test Date	Formation	Oil BBL/Day	Oil-Gravity (API)	Gas MCF/Day	Gas-Oil Ratio Cu FT/BBL	Water BBL/Day	Pumpin or Flowing	Initial Shut-In Pressure	Choke Size	Flow Tubing Pressure
Jul 16, 2019	WOODFORD	249	57	4335	17410	1200	FLOWING	1303	31/64	1049

Completion and Test Data by Producing Formation	
Formation Name: WOODFORD	Code: 319WDFD
Class: GAS	

Spacing Orders	
Order No	Unit Size
197431	640
702004	MULTIUNIT

Perforated Intervals	
From	To
12609	22697

Acid Volumes
10,000 GALLONS

Fracture Treatments
36 STAGES - 512,845 BBLS TREATED WATER, 1,619,880 POUNDS 100 MESH SAND, 13,863,264 POUNDS 40/70 SAND

Formation	Top
WOODFORD	12333

Were open hole logs run? No

Date last log run:


Were unusual drilling circumstances encountered? No

Explanation:

Other Remarks
IRREGULAR SECTION

Lateral Holes
Sec: 14 TWP: 3S RGE: 2E County: CARTER SW SW NW SW 1490 FSL 50 FWL of 1/4 SEC Depth of Deviation: 12000 Radius of Turn: 515 Direction: 274 Total Length: 10036 Measured Total Depth: 22846 True Vertical Depth: 12091 End Pt. Location From Release, Unit or Property Line: 1490

FOR COMMISSION USE ONLY	
Status: Accepted	1143561

		Debbie Waggoner		7/17/2019	405-319-3243
SIGNATURE		NAME (PRINT OR TYPE)		DATE	PHONE NUMBER
210 Park Avenue, Suite 2350		Oklahoma City	Ok 73102	debbie_waggoner@xtoenergy.com	
ADDRESS		CITY	STATE	ZIP	EMAIL ADDRESS

Give formation names and tops, if available, or descriptions and thickness of formations drilled through. Show intervals cored or drillstem tested.

WELL NO. 2-13H14X

NAMES OF FORMATIONS	TOP
Woodford	12333'

FOR COMMISSION USE ONLY	
ITD on file	<input type="checkbox"/> YES <input type="checkbox"/> NO
APPROVED	DISAPPROVED
<div style="border-bottom: 1px solid black; margin-bottom: 5px;"></div>	2) Reject Codes <div style="border-bottom: 1px solid black; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; margin-bottom: 5px;"></div>

Were open hole logs run? yes X no

Date Last log was run _____

Was CO₂ encountered? yes X no at what depths? _____

Was H₂S encountered? yes X no at what depths? _____

Were unusual drilling circumstances encountered? yes X no

If yes, briefly explain below

Other remarks: Irregular Section

If more than three drainholes are proposed, attach a separate sheet indicating the necessary information.

Direction must be stated in degrees azimuth.
Please note, the horizontal drainhole and its end point must be located within the boundaries of the lease or spacing unit.

Directional surveys are required for all drainholes and directional wells.

640 Acres

SEC	TWP	RGE	COUNTY			
Spot Location				Feet From 1/4 Sec Lines	FSL	FWL
1/4	1/4	1/4	1/4			
Measured Total Depth		True Vertical Depth		BHL From Lease, Unit, or Property Line:		

LATERAL #1										
SEC	14	TWP	03S	RGE	02E	COUNTY				Carter
Spot Location		SW 1/4		NW 1/4		SW 1/4		Feet From 1/4 Sec Lines	FSL 1490	FWL 50
Depth of Deviation		12000'		Radius of Turn		515.7'		Direction	274.8°	Total Length 10036.0'
Measured Total Depth				True Vertical Depth			BHL From Lease, Unit, or Property Line:			
22,846				12,091			1490 FSL & 50' FWL			

SEC	TWP	RGE	COUNTY			
Spot Location			Feet From 1/4 Sec Lines		FSL	FWL
1/4	1/4	1/4	1/4			
Depth of Deviation		Radius of Turn	Direction		Total Length	
Measured Total Depth		True Vertical Depth	BHL From Lease, Unit, or Property Line:			

LATERAL #3							
SEC	TWP	RGE	COUNTY				
Spot Location					Feet From 1/4 Sec Lines	FSL	FWL
1/4	1/4	1/4	1/4				
Depth of Deviation		Radius of Turn		Direction		Total Length	
Measured Total Depth		True Vertical Depth		BHL From Lease, Unit, or Property Line:			

L.R. McBRIDE, INC. RECEIVED

TEST: ☒ INITIAL
☐ ANNUAL
☐ RETEST

OKLAHOMA CORPORATION COMMISSION
 Oil & Gas Conservation Division
 Post Office Box 52000-2000
 Oklahoma City, Oklahoma 73152-2000

OCT 30 2019

Form 1016
Rev. 2018

Oklahoma Corporation
Commission

BACK PRESSURE TEST FOR NATURAL GAS WELLS

OAC 165:10-17-6

11/1/19

Operator XTO ENERGY, INC.				DATE OF TEST: 07/31/19		DATE OF 1 ST SALES: 06/06/19	
Address 210 PARK AVENUE, SUITE 2350				City OKLAHOMA CITY		ST OK	ZIP 73102
E-mail debbie_waggoner@xtoenergy.com		Ph 405-319-3243		Fax 405-236-0995		Well Name/# LAWSON 2-13H14X	
Gas Volumes to be Reported to OCC by: ETC FIELD SERVICES, LLC				Gas Volume Reporter # 22865		API # 019-26286	
Producing Zone WOODFORD 319 WDFD				OTC Lease # 019-225293			
Surface Location 630'FSL & 289'FEL NE 1/4 SE 1/4 SE 1/4 SE 1/4				Sec 13	Twp 3S	Rge 2E	(OCC use) Allowable # (see below)
Zone Location (if different) 1490'FSL & 50'FWL SW 1/4 SW 1/4 NW 1/4 SW 1/4				Sec 14	Twp 3S	Rge 2E	County CARTER
Field ARDMORE				Spacing Size 640 AC.			

COMPLETION: ☒ Single ☐ Multiple Zone ☐ Commingled ☐ Recompletion Date of Completion **06/06/19**

Total Depth 22846	Plug Back Depth 22760	Packer Set Depth	Elevation 716 G.L.
Csg Size 5.500	WT 23 d 4.670	Depth Set 22846	Perfs. 12609 - 22697 (MD)
Tbg Size 2.875	WT 6.5 d 2.441	Depth Set 12441	Perfs.
Prod. Thru TUBING	Res. Temp. F 220 @ 12196	Mean Grd. Temp. F 60	Atm. Press. PSIA 14.4
L 17653 H 12196 G _s 0.7793 %CO ₂ 1.153 %N ₂ 2.919 H ₂ S(ppm)	Prover	Meter Run 3.068	Taps FLANGE

SHUT-IN DATA		FLOW DATA											FLOW (HRS)
		PROVER			DIFF			TUBING DATA		CASING DATA		BHP DATA	
PRESS	(HRS)	LINE SIZE	X	ORIFICE SIZE	PRESS (PSIG)	(INCHES) (ROOTS)	TEMP (F)	PRESS (PSIG)	TEMP (F)	PRESS (PSIG)	TEMP (F)	PRESS (PSIG)	TEMP (F)
1519	24	3		2.000	324	140.4	100	705	118	1062	118		

COEFFICIENT (24 HOUR)	$\sqrt{h_p P_m}$	PRESSURE P _m	FLOW TEMP. FACTOR F _t	GRAVITY FACTOR F _g	SUPER COMPRESS FACTOR F _{sp}	RATE OF FLOW (Q) MCFD
21.86	217.93	338.4	0.9636	1.133	1.039	5404

P _i	TEMP. R	T _i	Z
0.51	560	1.35	0.926

Gas/Liquid Hydrocarbon Ratio 22.517		MCF/BBL
API Gravity of Liquid Hydrocarbons 49.7		Deg.
Specific Gravity Separator Gas 0.779	Specific Gravity Flowing Fluid 0.905	
Critical Pressure 666 PSIA	Critical Pressure 662 PSIA	
Critical Temperature 415 R	Critical Temperature 457 R	

P₀ **1533.4** (PSIA) P₀² **2351.3**

P _w	P _w ²	P ₀ ² - P _w ²
1076.4	1158.6	1192.7

[1] $\frac{P_0^2}{P_0^2 - P_w^2} = \frac{1.9715}{(Not\ to\ exceed\ 5.263)}$

[2] $\frac{P_0^2}{P_0^2 - P_w^2} = 1.7806$

WHAOF=Q $\frac{P_0^2}{P_0^2 - P_w^2} = 9623$ **10,126**

Calculated wellhead open flow 9623		MCFD @ 14.65		Angle of Slope 49.6		Slope, n 0.8500	
Remarks Oil Production = 240 BPD ; Water Production = 1013 BPD							
Approved by Commission: Richard Welch		Conducted by: LRMI		Calculated by: BPM		Checked by:	
WITNESSED - OCC FIELD STAFF: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NAME: [Signature]				DATE: 8-6-19			

E2
E2

RR

L.R. McBRIDE, INC.

IF THE ALLOWABLE FOR THIS WELL HAS BEEN ADJUSTED BY COMMISSION ORDER, PLEASE GIVE THE ORDER NUMBER(S) IN ONE OR MORE OF THE CATEGORIES BELOW:

INCREASED DENSITY	674954, 674281	LOCATION EXCEPTION *	674574
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COMMINGLING _____ MULTIPLE ZONE _____

SEPARATE OR SPECIAL ALLOWABLE ^{*}

OTHER PENALTY ORDER(S) * Multifund Fo: 702504

* FOR THESE ORDER TYPES, PLEASE DESCRIBE ALLOWABLES AND/OR PENALTIES:

I declare that I have knowledge of the contents of this report and am authorized by my organization to make this report, which was prepared by me or under my supervision and direction, with the data and facts stated herein to be true, correct and complete to the best of my knowledge and belief.

Heikki Hagzone
SIGNATURE

Regulatory Coordinator

XTO Energy, Inc.

8-8-2019
DATE

(405) 319-3243

COMPANY

DATE _____

PHONE NO.

Pc SHUT-IN PRESSURE, PSIA (LENGTH OF SHUT-IN MINIMUM OF 24 HOURS).

Pw STATIC COLUMN WELLHEAD PRESSURE CORRESPONDING TO THE FLOWING WELLHEAD PRESSURE, PSIA (TO BE RECORDED AT END OF EACH FLOW RATE.) THE VALUE OF Pw SHOULD NOT EXCEED 90% OF Pc.

Gg SPECIFIC GRAVITY OF SEPARATOR GAS (AIR = 1.000).

L LENGTH OF THE FLOW STRING FROM THE MIDDLE OF THE PRODUCING FORMATION TO THE PRESSURE POINT AT WELLHEAD, FEET.

H VERTICAL DEPTH CORRESPONDING TO L, FEET.

Q 24 HOUR RATE OF FLOW, MCF/D.

d INSIDE DIAMETER, INCHES.

R DEGREES, RANKINE (DEGREES FAHRENHEIT ABSOLUTE).

Pr REDUCED PRESSURE, DIMENSIONLESS.

 T_r REDUCED TEMPERATURE, DIMENSIONLESS.

Z COMPRESSIBILITY FACTOR, DIMENSIONLESS.