

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.: 35039225330000

**Completion Report**

Spud Date: July 11, 2018

OTC Prod. Unit No.: 03922500600000

Drilling Finished Date: September 06, 2018

1st Prod Date: February 15, 2019

Completion Date: January 09, 2019

**Drill Type:** HORIZONTAL HOLE

Well Name: MANNERING 1H-4-9

Purchaser/Measurer: CITIZEN MIDSTREAM

Location: CUSTER 4 15N 16W  
SW SW SW NE  
2390 FNL 2430 FEL of 1/4 SEC  
Latitude: 35.8059211 Longitude: -98.90617268  
Derrick Elevation: 1866 Ground Elevation: 1833

First Sales Date: 02/15/2019

Operator: CITIZEN ENERGY III LLC 24120

320 S BOSTON AVE STE 900  
TULSA, OK 74103-3729

Completion Type	
X	Single Zone
	Multiple Zone
	Commingled

Location Exception	
Order No	
697605	

Increased Density	
Order No	
695465	

Casing and Cement							
Type	Size	Weight	Grade	Feet	PSI	SAX	Top of CMT
SURFACE	9.625	36	J-55	1035		398	SURFACE
INTERMEDIATE	7	23	HCP-110	10522		495	7500
PRODUCTION	5	18	HCP-110	21955		863	9000
CONDUCTOR	20	55		60			

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

**Total Depth: 21955**

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
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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
Jun 19, 2019	MISSISSIPPIAN	10	54	6114	611400	260	FLOWING	5323	16	4917

Completion and Test Data by Producing Formation

Formation Name: MISSISSIPPIAN

Code: 359 MSSP

Class: GAS

Spacing Orders

Order No	Unit Size
677011	640
697604	MULTIUNIT

Perforated Intervals

From	To
13490	21835

Acid Volumes

39, 000 GALLONS

Fracture Treatments

20,489,675 POUNDS OF PROPPANT; 464,251 BBLS

Formation	Top
MERAMEC UPPER A	13390

Were open hole logs run? No

Date last log run:

Were unusual drilling circumstances encountered? No

Explanation:

Other Remarks

There are no Other Remarks.

Lateral Holes

Sec: 9 TWP: 15N RGE: 16W County: CUSTER

SE SW SW SE

50 FSL 2008 FEL of 1/4 SEC

Depth of Deviation: 13256 Radius of Turn: 303 Direction: 172 Total Length: 8102

Measured Total Depth: 21955 True Vertical Depth: 13711 End Pt. Location From Release, Unit or Property Line: 50

FOR COMMISSION USE ONLY

Status: Accepted

1141914

# 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

Form 1016  
Rev. 2017

JUL 17 2019

Oklahoma Corporation  
Commission

## BACK PRESSURE TEST FOR NATURAL GAS WELLS

OAC 165:10-17-6

DATE OF TEST: 07/08/19 DATE OF 1<sup>ST</sup> SALES: 02/15/19

Operator CITIZEN ENERGY III, L.L.C.				Operator # 24120			
Address 320 S. BOSTON AVENUE, SUITE 900				City TULSA		ST OK ZIP 74103-4702	
E-mail bpmcbride@aol.com		Ph (405) 670-1355		Fax (405) 670-3161		Well Name/# MANNERING 1H-4-9	
Gas Volume Reporter CITIZEN MIDSTREAM ENERGY		Gas Volume Reporter # 24120-0		API # 35-039-225006		OTC Lease # 039-225077-0	
Producing Zone MERAMEC 353 MRMC				(OCC use) Allowable # (see below)			
Surface Location SW 1/4 SW 1/4 SW 1/4 NE 1/4 Sec 4 Twp 15N Rge 16W				Zone Location (if different) SE 1/4 SW 1/4 SW 1/4 SE 1/4 Sec 9 Twp 15N Rge 16W			
Field				Spacing Size 640 ac.			

COMPLETION: ☒ Single ☐ Multiple Zone ☐ Commingled ☐ Recompletion Date of Completion 01/09/19

Total Depth 21955	Plug Back Depth 21951	Packer Set Dept	Elevation 1833 G.L.
Csg Size 5.000	WT 18 d 4.276	Depth Set 21955	Perfs. 13490 - 21835 (MD)
Tbg Size 2.875	WT 6.5 d 2.441	Depth Set 13738	Perfs.
Prod. Thru TUBING	Res. Temp. F 246 @ 13583	Mean Grd. Temp. F 60	Atm. Press. PSIA 14.4
L 17663 H 13583 G <sub>g</sub> 0.6118 %CO <sub>2</sub> 3.915 %N <sub>2</sub> 0.413 H <sub>2</sub> S(ppm) 2.0	Prover	Meter Run 3.068	Taps FLANGE

SHUT-IN DATA		FLOW DATA						TUBING DATA		CASING DATA		BHP DATA		FLOW (HRS)
PRESS	(HRS)	LINE SIZE	X	ORIFICE SIZE	PRESS (PSIG)	DIFF (INCHES) (ROOTS)	TEMP (F)	PRESS (PSIG)	TEMP (F)	PRESS (PSIG)	TEMP (F)	PRESS (PSIG)	TEMP (F)	
5323	24	3		1.250	1014	327.7	98	4197	131	5081	131			24.00

COEFFICIENT (24 HOUR)	$\sqrt{h_w P_m}$	PRESSURE P <sub>m</sub>	FLOW TEMP. FACTOR F <sub>t</sub>	GRAVITY FACTOR F <sub>g</sub>	SUPER COMPRESS FACTOR F <sub>pv</sub>	RATE OF FLOW (Q) MCFD
7.771	580.52	1028.4	0.9653	1.278	1.073	5973

P <sub>r</sub>	TEMP. R	T <sub>r</sub>	Z
1.53	558	1.54	0.869

P<sub>c</sub> 5337.4 (PSIA) P<sub>c</sub><sup>2</sup> 28487.8

P <sub>w</sub>	P <sub>w</sub> <sup>2</sup>	P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup>
5095.4	25963.1	2524.7

[1]  $\frac{P_c^2}{P_c^2 - P_w^2} = 5.2630$  \* (Not to exceed 5.263)

[2]  $\frac{P_c^2}{P_c^2 - P_w^2} = 4.1025$  \* WHAOF=Q

$\frac{P_c^2}{P_c^2 - P_w^2} = 24503$  \*

Calculated wellhead open flow 24503	MCFD @ 14.65	Angle of Slope 49.6	Slope, n 0.8500
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Remarks Oil Production = 10 BPD ; Water Production = 522 BPD

\* Calculations based on 90% of P<sub>c</sub>. (Per OCC Rules)

Approved by Commission: Mark Huber	Conducted by: LRMI	Calculated by: BPM	Checked by:
WITNESSED - OCC FIELD STAFF: Y <input type="checkbox"/> N <input checked="" type="checkbox"/>		NAME: Mark Huber	DATE: 07-12-2019

Multifault:  
Sec. 4: 38.7837% 225077 I  
Sec. 9: 61.2163% 225077A I  
24500

BR

# 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 679976 LOCATION EXCEPTION \* 690366

COMMINGLING \_\_\_\_\_ MULTIPLE ZONE \_\_\_\_\_

SEPARATE OR SPECIAL ALLOWABLE \* \_\_\_\_\_

OTHER PENALTY ORDER(S) \* Multifund FO: 697604

\* 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.

Benny Patrick McBride

SIGNATURE

Petroleum Consultant

TITLE

L.R. McBride, Inc.

07/12/19

(405) 670-1355

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.
- Tr REDUCED TEMPERATURE, DIMENSIONLESS.
- Z COMPRESSIBILITY FACTOR, DIMENSIONLESS.

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Form 1002A

**1002A  
Addendum**

*Rec'd 1016  
7-17-2019*

API No.: ~~039225330000~~

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OTC Prod. Unit No.: ~~03922500000000~~

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1st Prod Date: February 15, 2019

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*039-225077-0-0000 ✓*

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*02/15/2019*

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July 25, 2019

*6-19-19*

*359 MSSP*

*5323 psi*

1 of 2

*E2 E2*

*QR*

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