

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.: 35151245450000

Completion Report

Spud Date: October 09, 2018

OTC Prod. Unit No.: 151-224682

Drilling Finished Date: October 27, 2018

1st Prod Date: November 30, 2018

Completion Date: November 18, 2018

Drill Type: HORIZONTAL HOLE

Min Gas Allowable: Yes

Well Name: APOLLO 7-25-16 1H

Purchaser/Measurer: CHESAPEAKE OPERATING LLC

Location: WOODS 18 25N 16W
NE NW NW NW
258 FNL 377 FWL of 1/4 SEC
Derrick Elevation: 1655 Ground Elevation: 1630

First Sales Date: 11/30/2018

Operator: CHESAPEAKE OPERATING LLC 17441
PO BOX 18496
6100 N WESTERN AVE
OKLAHOMA CITY, OK 73154-0496

Completion Type		Location Exception		Increased Density	
X	Single Zone	Order No		Order No	
	Multiple Zone	689290		682518	
	Commingled				

Casing and Cement								
Type		Size	Weight	Grade	Feet	PSI	SAX	Top of CMT
SURFACE		9 5/8	36	J-55	1484		725	SURFACE
PRODUCTION		7	29	P-110EC	6581		240	4126

Liner								
Type	Size	Weight	Grade	Length	PSI	SAX	Top Depth	Bottom Depth
LINER	4 1/2	13.50	P-110	4527	0	455	6231	10758

Total Depth: 10761

Packer		Plug	
Depth	Brand & Type	Depth	Plug Type
There are no Packer records to display.		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
Jan 05, 2019	CHESTER	38	40.5	2704	71158	243	FLOWING	1243	64/64	91

Completion and Test Data by Producing Formation

Formation Name: CHESTER

Code: 354CSTR

Class: GAS

Spacing Orders

Order No	Unit Size
63869	640

Perforated Intervals

From	To
6433	10684

Acid Volumes

42,500 GALLONS ACID

Fracture Treatments70,540 BARRELS FLUIDS, 3,343,994 POUNDS
PROPPANT

Formation	Top
CHESTER	6335

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: 7 TWP: 25N RGE: 16W County: WOODS

NE SW NW NW

789 FNL 385 FWL of 1/4 SEC

Depth of Deviation: 5516 Radius of Turn: 557 Direction: 360 Total Length: 4426

Measured Total Depth: 10761 True Vertical Depth: 6073 End Pt. Location From Release, Unit or Property Line: 385

FOR COMMISSION USE ONLY

1141958

Status: Accepted

PLEASE TYPE OR USE BLACK INK ONLY
NOTE:
Attach copy of original 1002A if recompletion or reentry.

OKLAHOMA CORPORATION COMMISSION

Oil & Gas Conservation Division

Post Office Box 52000

Oklahoma City, Oklahoma 73152-2000

Rule 165:10-3-25

RECEIVED

Form 1002A

Rev. 2009

JAN 29 2019

**Oklahoma Corporation
Commission**

☒ ORIGINAL
☐ AMENDED
Reason Amended _____

TYPE OF DRILLING OPERATION

☐ STRAIGHT HOLE ☐ DIRECTIONAL HOLE ☒ HORIZONTAL HOLE

☐ SERVICE WELL

COMPLETION REPORT

If directional or horizontal, see reverse for bottom hole location.						DATE FINISHED DATE		10/27/2018						
COUNTY		Woods		SEC	18	TWP	25N	RGE	16W	DATE OF WELL COMPLETION	11/18/2018			
LEASE NAME						Apollo 7-25-16		WELL NO		1H		1ST PROD DATE	11/30/2018	
SHL						FNL		FWL OF						
NE 1/4		NW 1/4		NW 1/4		258		1/4 SEC		377		RECOMP DATE		
ELEVATION Derrick Ft						1,655		Ground		1,630		Latitude (if Known)		
Longitude (if Known)														
OPERATOR NAME								CHESAPEAKE OPERATING, L.L.C.				OTC/OCC OPERATOR NO.		17441
ADDRESS						P.O. BOX 18496								
CITY		OKLAHOMA CITY						STATE		OK		ZIP	73154	

COMPLETION TYPE

X	SINGLE ZONE	
	MULTIPLE ZONE Application Date	
	COMMINGLED Application Date	
LOCATION		
EXCEPTION ORDER NO.		689290
INCREASED DENSITY ORDER NO.		682518

CASING & CEMENT (Form 1002C must be attached)

TYPE	SIZE	WEIGHT	GRADE	FEET	PSI	SAX	TOP
CONDUCTOR							
SURFACE	9-5/8"	36#	J-55	1,484		725	Surface
INTERMEDIATE							
PRODUCTION	7"	29#	P-110EC	6,581		240	4,126
LINER	4-1/2"	13.50#	P-110	6,231-10,758		455	6,231
G @ TYPE	PLUG @	TYPE	TOTAL DEPTH	10,761			

PACKER @ _____ BRAND & TYPE _____
PACKER @ _____ BRAND & TYPE _____

PLUG @ _____ TYPE _____ PLUG @ _____ TYPE _____
 PLUG @ _____ TYPE _____ PLUG @ _____ TYPE _____

TOTAL DEPTH	10,761
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COMPLETION & TEST DATA BY PRODUCING FORMATION

FORMATION	Chester					Reported to Frac Focus
SPACING & SPACING	640					
ORDER NUMBER	63869					
CLASS: Oil, Gas, Dry, Inj. Disp, Comm Disp, Svc	Gas					
PERFORATED INTERVALS	6,433 - 10,684					
ACID/VOLUME	42,500 gals acid 70,540 bbls fluids					
FRACTURE TREATMENT (Fluids/Prop Amounts)	3,343,994# proppant					

Minimum Gas Allowable (165:10-17-7)

Gas Purchaser/Measurement

Chesapeake Operating, L.L.C.

OR

1st Sales Date

11/30/2018

INITIAL TEST DATA

Oil Allowable (165:10-13-3)

INITIAL TEST DATE	1/5/2019						
OIL-BBL/DAY	38						
OIL-GRAVITY (API)	40.5						
GAS-MCF/DAY	2,704						
GAS-OIL RATIO CU FT/BBL	71,158						
WATER-BBL/DAY	243						
PUMPING OR FLOWING	Flowing						
INITIAL SHUT-IN PRESSURE	1243.4						
CHOKE SIZE	64/64						
FLOW TUBING PRESSURE	91						

AS SUBMITTED

A record of the formations drilled through, and pertinent remarks are presented on the reverse. 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.

I, <u>Juanita Cooper</u> , declare that I am the owner of the above described property, 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.				
<u>JUANITA COOPER - REGULATORY SPECIALIST</u>		<u>1/28/2019</u>	<u>405-848-8000</u>	
SIGNATURE		NAME (PRINT OR TYPE)		DATE
P.O. BOX 18496		OKLAHOMA CITY	OK	73154
ADDRESS		CITY	STATE	ZIP
<u>juanita.cooper@chk.com</u>				
EMAIL ADDRESS				

PLEASE TYPE OR USE BLACK INK ONLY
FORMATION RECORD

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

LEASE NAME Apollo 7-25-16

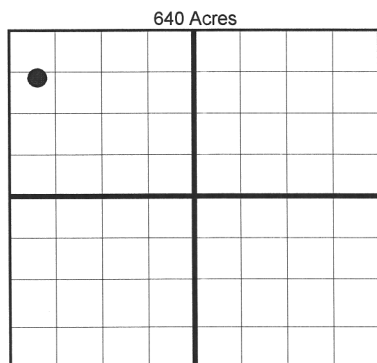
WELL NO. 1H

NAMES OF FORMATIONS	TOP
Chester	6,335

FOR COMMISSION USE ONLY	
ITD on file <input type="checkbox"/> YES <input type="checkbox"/> NO	
APPROVED _____	DISAPPROVED _____
2) Reject Codes	

Were open hole logs run?	yes <input checked="" type="checkbox"/> no <input checked="" type="checkbox"/>
Date Last log was run	N/A
Was CO ₂ encountered?	yes <input checked="" type="checkbox"/> no <input checked="" type="checkbox"/> at what depths?
Was H ₂ S encountered?	yes <input checked="" type="checkbox"/> no <input checked="" type="checkbox"/> at what depths?
Were unusual drilling circumstances encountered?	yes <input type="checkbox"/> no <input checked="" type="checkbox"/>
If yes, briefly explain.	

Other remarks:



BOTTOM HOLE LOCATION FOR DIRECTIONAL HOLE

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

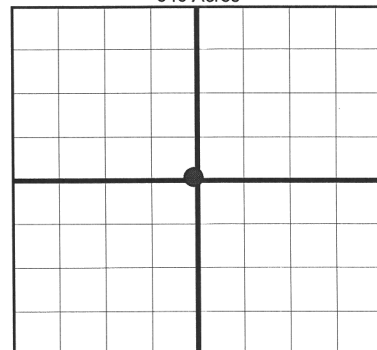
BOTTOM HOLE LOCATION FOR HORIZONTAL HOLE: (LATERALS)

SEC	TWP	RGE	COUNTY
7	25N	16W	Woods
Spot Location	NE 1/4	SW 1/4	NW 1/4
Depth of Deviation	5,516	Radius of Turn	557
Measured Total Depth	10,761	True Vertical Depth	6,073
Feet From 1/4 Sec Lines	FSL 789	FWL 385	
Direction	360°		
Total Length	4,426		
BHL From Lease, Unit, or Property Line: 385			

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.



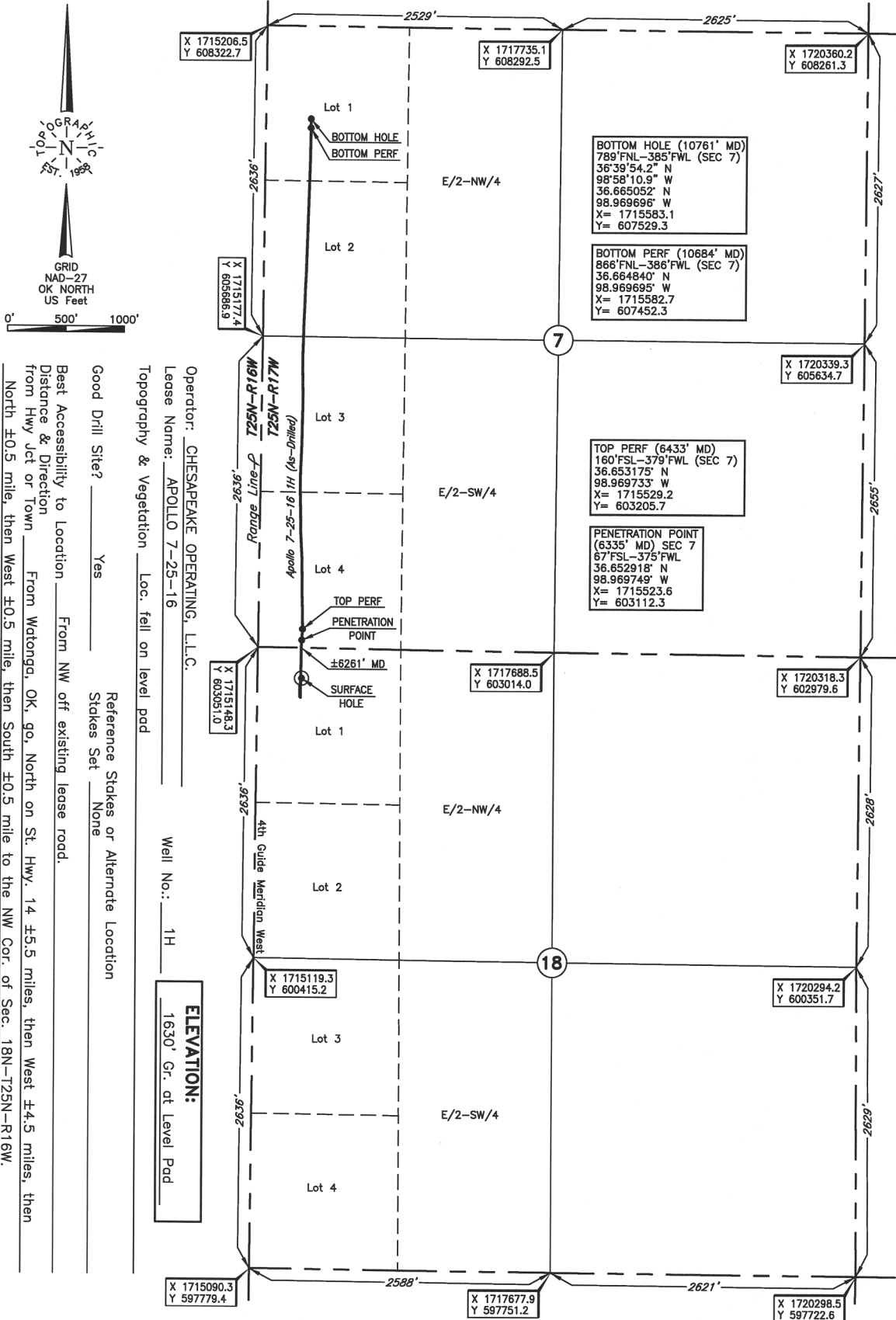
LATERAL #2

SEC	TWP	RGE	COUNTY
Spot Location	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	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:	

County, Oklahoma
 258'FNL-377'FWL Section 18 Township 25N Range 16W I.M.



DATUM: NAD-27
 LAT: 36°39'07.3"N
 LONG: 98°58'11.1"W
 LAT: 36.652027°N
 LONG: 98.969741°W
 STATE PLANE
 COORDINATES: (US Feet)
 ZONE: OK NORTH
 X: 1715522.8
 Y: 602787.8

308076 Date of Drawing: Dec. 07, 2018
 Invoice # 293989 Date Staked: June 11, 2018 JP

FINAL AS-DRILLED PLAT

AS-DRILLED INFORMATION
 FURNISHED BY CHESAPEAKE OPERATING, L.L.C.



TEST: ☒ INITIAL
☐ ANNUAL
☐ RETEST

OKLAHOMA CORPORATION COMMISSION

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

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Form 1016
 Rev. 2017

JAN 11 2019

Oklahoma Corporation
Commission

BACK PRESSURE TEST FOR NATURAL GAS WELLS

OAC 165:10-17-6

DATE OF TEST:

12/12/18

DATE OF 1ST SALES:

11/30/18

Operator CHESAPEAKE OPERATING, LLC				Operator # 17441	
Address P.O. BOX 18496			City OKLAHOMA CITY		ST OK ZIP 73154-0496
E-mail bpmcbride@aol.com		Ph (405) 670-1355	Fax (405) 670-3161		Well Name/# APOLLO 7-25-16 1H
Gas Volume Reporter TARGA PIPELINE			Gas Volume Reporter #		API # 151-24545
Producing Zone CHESTER 354 CSTR					OTC Lease # 151-224682-0
Surface Location NE 1/4 NW 1/4 NW 1/4 NW 1/4			Sec 18	Twp 25N	Rge 16W (OCC use) Allowable # 120288 S
Zone Location (if different) NE 1/4 SW 1/4 NW 1/4 NW 1/4			Sec 7	Twp 25N	Rge 16W County WOODS
Field					Spacing Size 640 AC

COMPLETION: ☒ Single ☐ Multiple Zone ☐ Commingled ☐ Recompletion Date of Completion 11/18/18

Total Depth 10761		Plug Back Depth 10707		Packer Set Depth		Elevation 1630 G.L.	
Csg Size 7.000	WT 29.0	d 6.184	Depth Set 6581		Perfs. 6433 - 10684 MD		
Tbg Size 2.875	WT 6.5	d 2.441	Depth Set 6408		Perfs.		
Prod. Thru TUBING		Res. Temp. F 142 @ 6110		Mean Grd. Temp. F 60		Atm. Press. PSIA 14.4	
L 8559	H 6110	G _g 0.6237	%CO ₂ 0.262	%N ₂ 1.882	H ₂ S(ppm)	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)	(INCHES) (ROOTS)	TEMP (F)	PRESS (PSIG)	TEMP (F)	PRESS (PSIG)	TEMP (F)	PRESS (PSIG)	TEMP (F)	
1229	24	3.068		2.000	55	205.4	89	133	99	778	99			24.00

COEFFICIENT (24 HOUR)	$\sqrt{h_w P_m}$	PRESSURE P _m	FLOW TEMP. FACTOR F _t	GRAVITY FACTOR F _g	SUPER COMPRESS FACTOR F _{pv}	RATE OF FLOW (Q) MCFD
21.860	119.39	69.4	0.9732	1.266	1.000	3216

P _r	TEMP. R	T _r	Z
0.10	549	1.50	1.000

Gas/Liquid Hydrocarbon Ratio 44.055 MCF/BBL	
API Gravity of Liquid Hydrocarbons 40.1 Deg.	
Specific Gravity Separator Gas 0.624	Specific Gravity Flowing Fluid 0.700
Critical Pressure 671 PSIA	Critical Pressure 668 PSIA
Critical Temperature 365 R	Critical Temperature 392 R

P_c 1243.4 (PSIA) P_c² 1546.0

P _w	P _w ²	P _c ² - P _w ²
792.4	627.9	918.1

$$[1] \frac{P_c^2}{P_c^2 - P_w^2} = 1.6839 \quad (\text{Not to exceed 5.263})$$

$$[2] \frac{P_c^2}{P_c^2 - P_w^2} = 1.5573 \quad \text{WHAOF=Q}$$

$$\frac{P_c^2}{P_c^2 - P_w^2} = 5009$$

Calculated wellhead open flow 5009 MCFD @ 14.65	Angle of Slope 49.6	Slope, n 0.8500
Remarks Oil Production = 73 BPD ; Water Production = 574 BPD 4 1/2" (13.5 lb/ft) Liner from 6231' to 10758 ft.		

Approved by Commission: Brandon Murry	Conducted by: LRMI	Calculated by: BPM	Checked by:
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WITNESSED - OCC FIELD STAFF: Y ☒ N ☐ NAME: Brandon Murry DATE: 12/18/18

(over)