

RAILROAD COMMISSION OF TEXAS

Form G-1

1701 N. Congress P.O. Box 12967 Austin, Texas 78701-2967 Status: Date: Submitted 08/20/2018

Tracking No.: 195530

OPERATOR INFORMATION

GAS WELL BACK PRESSURE TEST, COMPLETION OR RECOMPLETION REPORT, AND LOG

Operator Name: BP AMERICA PRODUCTION COMPANY Operator No.: 040798

Operator Address: ATTN JEANINE HALLER-PISKURICH 737 NORTH ELDRIDGE PARKWAY HOUSTON, TX 77079-0000

WELL INFORMATION

 API No.: 42-005-30416
 County: ANGELINA

 Well No.: 1H
 RRC District No.: 06

Lease Name: ROCKIES GAS UNIT Field Name: CARTHAGE (HAYNESVILLE SHALE)

RRC Gas ID No.: Field No.: 16032300

Location: Section: ,Block: , Survey: ODELL, S, Abstract: 494

Latitude: Longitude:

This well is located 12.6 miles in a E

direction from LUFKIN,

which is the nearest town in the county.

FILING INFORMATION

Purpose of filing: Initial Potential

Type of completion: New Well

Well Type: Producing Completion or Recompletion Date: 05/24/2018

 Type of Permit
 Date
 Permit No.

 Permit to Drill, Plug Back, or Deepen
 11/15/2017
 830880

Rule 37 Exception Fluid Injection Permit

O&G Waste Disposal Permit

Other:

COMPLETION INFORMATION

Spud date: 12/19/2017 Date of first production after rig released: 05/24/2018

Date plug back, deepening, recompletion, or drilling operation commenced: 12/19/2017

Number of producing wells on this lease in

Date plug back, deepening, recompletion, or drilling operation ended: 03/23/2018

Distance to nearest well in lease &

this field (reservoir) including this well: 1 reservoir (ft.): 0.0

Total number of acres in lease: 1055.78 Elevation (ft.): 201 RKB

Total depth TVD (ft.): 16478 Total depth MD (ft.): 23765

Plug back depth TVD (ft.): Plug back depth MD (ft.):

Was directional survey made other than
Rotation time within surface casing (hours): 334.0
inclination (Form W-12)?
Yes
Is Cementing Affidavit (Form W-15) attached?
Yes

Recompletion or reclass? No Multiple completion? No

Type(s) of electric or other log(s) run: Gamma Ray (MWD)

Electric Log Other Description:

Location of well, relative to nearest lease boundaries

Off Lease: No

of lease on which this well is located:

339.0 Feet from the

NW Line and

402.0 Feet from the

NE Line of the

ROCKIES GAS UNIT **Lease.**

FORMER FIELD (WITH RESERVOIR) & GAS ID OR OIL LEASE NO.

Field & Reservoir Gas ID or Oil Lease No. Well No. Prior Service Type

G1: N/A

PACKET: N/A

FOR NEW DRILL OR RE-ENTRY, SURFACE CASING DEPTH DETERMINED BY:

SWR 13 Exception Depth (ft.): 5000.0

GAS MEASUREMENT DATA

Date of test: 05/28/2018 Gas measurement method(s):

Orifice Meter, Flange Taps

Date: 11/20/2017

Depth (ft.): 1650.0

Was the well preflowed for 48 hours? Yes

Gas production during test (MCF):

GAU Groundwater Protection Determination

Orif. or 24 hr. Coeff. **Flow** Line Volume Run Choke Orif. Or Choke Static Pm or Diff Temp. Gravity **Compress** Temp (MCF/day) No. size Choke (in.) (Ftf) Size (in.) (in.) (hw) (Fg) (Fpv) (°F) 4.026 26235.75 917.0 149.0 91.0 0.9715 0.9970 1.060 9959.0 2.0

FIELD DATA AND PRESSURE CALCULATIONS

Gravity (dry gas): 0.604 Gravity (liquid hydrocarbons) (Deg. API):

Gas-Liquid Hydro Ratio (CF/Bbl): Gravity (mixture): Gmix= 0.604

Avg. shut in temp. (°F): 271.0 Bottom hole temp. and depth: 453.0 °F@ 19926.0 FT

Run No. Time of Run (Min.) Choke Size (in.) Wellhead Pressure (PSIA) Wellhead Flow Temp (°F) SHUT-IN 1440 0 13262 89.0

1 4320 13/64 12622 91.0

					CASI	NG RECORD)				
	Type of	_		Setting Depth		Multi - Stage Shoe		Cement Amount		Top of Cement	TOC Determined
Row	Casing	<u>(in.)</u>	(in.)	(ft.)	Depth (ft.)	Depth (ft.)	Class	(sacks)	(cu. ft.)	(ft.)	By
1	Surface	13 3/8	17 1/2	5011			A	2140	4225.0	SURF Ci ACE	rculated to Surface
2	Intermediate	9 5/8	10 5/8	15480			Н	1553	2561.0	10000	Calculation
3	Conventional Producti	on 5 1/2	8 1/2	23735			Н	2140	3059.0	13000	Calculation

LINER RECORD

Cement Slurry TOC Top of Amount Volume Cement Determined Liner Hole Liner Liner Cement Row Size (in.) Size (in.) Top (ft.) Bottom (ft.) Class (sacks) (cu. ft.) (ft.) By

N/A

TUBING RECORD Depth Size (ft.) Packer Depth (ft.)/Type Row Size (in.) 15570 / 5 1/2 23, BTPP 10K 2 3/8 15595 1 **PKR**

PRODUCING/INJECTION/DISPOSAL INTERVAL Open hole? From (ft.) To (ft.) Row No L1 16256 23572 1

ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC.

Was hydraulic fracturing treatment performed? Yes

Is well equipped with a downhole actuation

sleeve? No If yes, actuation pressure (PSIG):

Production casing test pressure (PSIG) prior to Actual maximum pressure (PSIG) during hydraulic

hydraulic fracturing treatment: 14000 fracturing: 13651

Has the hydraulic fracturing fluid disclosure been

reported to FracFocus disclosure registry (SWR29)? Yes

Row	Type of Operation	Amount and Kind of Material Used	Depth Interval (ft.)	
1	Fracture	20,284,614.0 GAL TOTAL FLUID PUMPED & 28,498,885 LBM	16256.0	23572.0
2	Cast Iron Bridge Plug	TOTAL PROPPANT USED 242 SKS CLASS H	15480.0	15510.0
3	Cast Iron Bridge Plug	315.5 SKS CLASS H	15615.0	16311.0

	F	ORMATION RECO	ORD		
Formations	Encountered	Depth TVD (ft.)	Depth MD (ft.)	ls formation	
NACATOCH	No			No	DID NOT ENCOUNTER
GLEN ROSE	Yes	7795.0	7864.0	Yes	
PETTET	Yes	10147.0	10216.0	Yes	
TRAVIS PEAK	Yes	11002.0	11071.0	Yes	

Do the producing interval of this well produce H2S with a concentration in excess of 100 ppm (SWR 36)?

Is the completion being downhole commingled (SWR 10)?

No

REMARKS

RRC REMARKS
PUBLIC COMMENTS:
CASING RECORD:
TUBING RECORD:
PRODUCING/INJECTION/DISPOSAL INTERVAL:
ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC. :
ACID, I RACTURE, CEMIENT SQUEEZE, CAST INON BRIDGE FEOG, RETAINER, ETC
GAS MEASUREMENT DATE REMARK:

OPERATOR'S CERTIFICATION

Printed Name:Monika CraigTitle:Regulatory AnalystTelephone No.:(281) 810-6186Date Certified:08/07/2018