

RAILROAD COMMISSION OF TEXAS

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from data submitted to the RRC.

Tracking No.: 3159

Status: Work in Progress

Oil and Gas Division

API No. 42- 103-33479

7. RRC District No.

08

8. RRC Gas ID No.

Gas Well Back Pressure Test,
Completion or Recompletion Report, and Log

1. FIELD NAME (as per RRC Records or Wildcat) BLOCK 31 (ATOKA 7900)		2. LEASE NAME BLOCK 31 UNIT		9. Well No. O 11	
3. OPERATOR'S NAME (Exactly as shown on Form P-5, Organization Report) BP AMERICA PRODUCTION COMPANY			RRC Operator No. 040798		10. County of well site CRANE
4. ADDRESS ATTN T. COLVIN RM 6.115 P O BOX 3092 HOUSTON, TX 77253-0000					
5. Location (Section, Block, and Survey) 27, 31, UL, 000000			5b. Distance and direction to nearest town in this county. 7 MILES NW OF CRANE COUNTY, TEXAS		
6. If operator has changed within last 60 days, name former operator					
12. If workover or reclass, give former field (with reservoir) & Gas ID or oil lease no. FIELD & RESERVOIR ATOKA 7900				GAS ID or OIL LEASE # 36151	
BLOCK 31 (DEVONIAN)				Oil-0 Gas-G Oil Well	
				Well #	

13. Pipe Line Connection

14. Completion or recompletion date 04/20/2010	15. Any condensate on hand at time of workover or recompletion? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	16. Type of Electric or other Log Run. None
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Section I GAS MEASUREMENT DATA										
Date of Test 05/22/2010		Gas Measurement Method (Check One) Orifice Meter <input checked="" type="checkbox"/> Flange Taps <input checked="" type="checkbox"/> Pipe Taps <input type="checkbox"/> Positive Choke <input type="checkbox"/> Orifice Vent Meter <input type="checkbox"/> Pitot Tube <input type="checkbox"/> Critical-flow Prover <input type="checkbox"/>				Gas produced during test 437.0 MCF				
Run Size	Line Size	Orif. or Choke Size	24 hr Coeff. Orif. or Choke	Static Pm or Choke Press	Diff h _w	Flow Temp. °F	Temp. Factor F _{tf}	Gravity Factor F _g	Compress Factor F _{pv}	Volume MCF/DAY
1	4.0	.625	2443.0	65.0	78.0	60.0	1.0	0.8361	1.0042	146.0
2										
3										
4										

Section II FIELD DATA AND PRESSURE CALCULATIONS											
Gravity (Dry Gas) 0.858		Gravity Liquid Hydrocarbon 41.0 Deg. API		Gas-Liquid Hydro Ratio 48666 CF/Bbl		Gravity of Mixture G_{mix} = 0.915		Avg. Shut-in Temp. 115.0 °F		Bottom Hole Temp. 165.0 °F @ 8340.0 (Depth)	
$D_{eff}^{8/3} =$		$\sqrt{T_r} = \sqrt{\quad} =$		$\sqrt{GL} = \sqrt{\quad} =$							
$C = \frac{1118x(P_{eff}^{8/3})}{\sqrt{T}} =$		$\frac{\sqrt{GL}}{C} =$									
Run No.	Time of Run Min	Choke Size	Wellhead Press. PSIA P _w	Wellhead Flow Temp °F	P _w ² (Thousands)	R	R ² (Thousands)	P ₁	P _w /P ₁		
Shut-in	1440		1015	65.0							
1	4320	.750	80	75.0							
2											
3											
4											
Run No.	F	K	S = $\frac{1}{Z}$	E ^{ks}	P _f and P _s	P _f ² and P _s ² (Thousands)	P _f ² - P _s ² (Thousands)	Angle of Slope θ n Absolute Open Flow MCF/DAY			
Shut-in											
1											
2											
3											
4											

WELL TESTERS CERTIFICATION: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I conducted or supervised this test and that data and facts shown in Sections I and II above are true, correct, and complete, to the best of my knowledge. Bottomhole temperature and the diameter and length of flow string were furnished by the operator of the well.

GARY MORGAN

RED DOG WELL TESTING

Signature: Well Tester

Name of Company

RRC Representative

OPERATORS CERTIFICATION: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this report, that I or prepared supervised and directed this report, and that data and facts stated therein are true, correct, and complete, to the best of my knowledge.

Toya Colvin

Signature: Operator's representative

Regulatory Analyst

Title

07/08/2010

Date

Tel: (281) 366-7148

A/C Number

SECTION III										DATA ON WELL COMPLETION AND LOG (Not Required on Retest)			
17. Type of Completion New Well <input type="checkbox"/> Deepening <input type="checkbox"/> Plug Back <input type="checkbox"/> Other <input checked="" type="checkbox"/>						18. Permit to Drill, Plug Back or Deepen DATE 12/14/1999 PERMIT NO. 490270 Rule 37 Exception CASE NO.							
19. Notice of Intention to Drill this well was filed in Name of BP AMERICA PRODUCTION COMPANY						Water Injection Permit PERMIT NO.							
20. Number of producing wells on this lease in this field (reservoir) including this well 138			21. Total number of acres in this lease 7840.0			Salt Water Disposal Permit PERMIT NO.							
22. Date Plug Back, Deepening, Workover or Drilling Operations: 03/23/2010		Commenced 04/20/2010		Completed 714.0		Other PERMIT NO.							
24. Location of well, relative to nearest lease boundaries 9390.0 Feet From North Line and 8080.0 Feet from East Line of the BLOCK 31 UNIT Lease													
25. Elevation (DF. RKB, RT. GR ETC.)						26. Was directional survey made other than inclination (Form W-12)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No							
27. Top of Pay 7586 MD:		28. Total Depth 9125 MD:		29. P. B. Depth 8082 MD:		30. Surface Casing Determined by Field Rules <input type="checkbox"/> Recommendation of T.D.W.R. <input checked="" type="checkbox"/> Railroad Commission (Special) <input type="checkbox"/>		Dt. of Letter 06/19/2010 Dt. of Letter					
31. Is well multiple completion? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No													
32. If multiple completion, list all reservoir names (completions in this well) and Oil Lease of Gas ID No. FIELD & RESERVOIR N/A						GAS ID or OIL LEASE #		Oil-Gas-G					
33. Intervals Drilled by: Rotary Tools <input checked="" type="checkbox"/> Cable Tools		34. Name of Drilling Contractor KEY ENERGY SERVICES						35. Is Cementing Affidavit Attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
36. CASING RECORD (Report All Strings Set in Well)													
CASING SIZE	WT #/FT.	DEPTH SET	MULTISTAGE TOOL DEPTH	TYPE & AMOUNT CEMENT (sacks)	HOLE SIZE	TOP OF CEMENT	SLURRY VOL. cu. ft.						
8 5/8	28.0	3630		"C" LIGHTWEIGHT 1500	11	CIRC	2508.0						
5 1/2	17.0	9125		PSL 50/50 POZ 1600	7 7/8	CIRC-SURFACE	3012.0						
37. LINER RECORD													
Size	Top	Bottom	Sacks Cement	Screen									
38. TUBING RECORD													
Size	Depth Set	Packer Set	From	To									
2 7/8	9109		7586	7600									
			8168	8250									
			8166	8699									
			8716	8832									
			8833	9095									
39. Producing Interval (this completion) Indicate depth of perforation or open hole													
40. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.													
Depth Interval				Amount and Kind of Material Used									
8166.0		8699.0		3400 GALS 20% HCL XYLENE 50% MIXTURE ACID									
8716.0		8832.0		5300 GALS 20% HCL W/ 50% XYLENE BY VOLUME ACID									
8833.0		9095.0		1000 GALS 20% HCL W/ 50% XYLENE									
41. FORMATION RECORD (LIST DEPTHS OF PRINCIPAL GEOLOGICAL MARKERS AND FORMATION TOPS)													
Formations	Depth	Formations	Depth										
DEVONIAN	8097.0	BARNETT	7599.0										
ATOKA	7753.0	WOODFORD	7906.0										
GRAYBURG	3066.0												
REMARKS: ATOKA 7900 PERFS 7586'-7600', AND DEVONIAN PERFS 8168'-8250' ARE STILL IN WELL. REMOVED													
DEVONIAN PACKER @ 8096'. ON 01/25/2010 THE RRC APPROVED SWR 10 EXCEPTION FOR THE BLOCK 31 UNIT #													
O11. WE ARE COMMINGLING THE GAS FOR THE BLOCK 31 (DEVONIAN) FIELD # 09358450 AND ATOKA 7900 FIELD #													
09358090.													

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division

GAS WELL
CLASSIFICATION REPORT

Form G-5

Tracking No.: 3159

This facsimile G-5 was generated electronically from data submitted to the RRC.

1. OPERATOR NAME (Exactly as shown on Form P5 Organization Report) BP AMERICA PRODUCTION COMPANY		3. RRC DISTRICT NO. 08	4. OIL LEASE NO OR GAS WELL ID NO.																												
2. MAILING ADDRESS ATTN T. COLVIN RM 6.115 P O BOX 3092 HOUSTON, TX 77253		5. WELL NO. 0 11	6. API NO. 42- 103-33479																												
		7. COUNTY OF WELL SITE CRANE																													
8. FIELD NAME (as per RRC Records) BLOCK 31 (ATOKA 7900)		9. LEASE NAME BLOCK 31 UNIT																													
10. LOCATION (Section, Block and Survey) 27 , 31 , UL , 000000		11. PIPELINE CONNECTION OR USE OF GAS																													
PRODUCTION TEST AT RATE ELECTED BY OPERATOR (data on 24-hour basis)		A.S.T.M. DISTILLATION OF LIQUID SAMPLE. Distillation test is required for gas wells ONLY if the producing gas-liquid hydrocarbon ratio is less than 100,000 CF/barrel.																													
A. Date of Test <u>05/22/2010</u> B. Gas Volume <u>146.0</u> (Mcf) C. Oil or Condensate Volume <u>3.0</u> (Bbl) D. Water Volume <u>1.0</u> (Bbl) E. Gas/Liquid Hydrocarbon Ratio <u>48666</u> (Cf/Bbl) F. Flowing Tubing Pressure <u>80</u> (psia) G. Choke Size <u>.750</u> (in.) H. Casing Pressure _____ (psia) I. Shut-in Wellhead Pressure-- Tubing <u>1015</u> (psia) J. Separator Operating Pressure <u>65.0</u> (psia) K. Color of Stock Tank Liquid <u>Brown</u> L. Gravity of Separator Liquid <u>40.5</u> °API M. Gravity of Stock Tank Liquid _____ °API N. Specific Gravity of the Gas (Air = 1) <u>0.858</u>		Date Liquid Sample Obtained <u>06/21/2010</u> Where Obtained: <input checked="" type="checkbox"/> Separator <input type="checkbox"/> Stock Tank <table style="width:100%;"> <tr> <td style="width:30%;">% Over Temp. (deg. F)</td> <td style="width:30%;"></td> <td style="width:30%;">% Over Temp. (deg. F)</td> <td style="width:10%;"></td> </tr> <tr> <td>Initial Boiling Temp. <u>123.0</u></td> <td>60</td> <td><u>532.0</u></td> <td></td> </tr> <tr> <td>10 <u>200.0</u></td> <td>70</td> <td><u>587.0</u></td> <td></td> </tr> <tr> <td>20 <u>260.0</u></td> <td>80</td> <td><u>619.0</u></td> <td></td> </tr> <tr> <td>30 <u>327.0</u></td> <td>90</td> <td><u>625.0</u></td> <td></td> </tr> <tr> <td>40 <u>426.0</u></td> <td>95</td> <td><u>0.0</u></td> <td></td> </tr> <tr> <td>50 <u>467.0</u></td> <td>End Point</td> <td><u>626.0</u></td> <td></td> </tr> </table> Total Recovery <u>95.0</u> percent Residue <u>2.8</u> percent Loss <u>2.2</u> percent		% Over Temp. (deg. F)		% Over Temp. (deg. F)		Initial Boiling Temp. <u>123.0</u>	60	<u>532.0</u>		10 <u>200.0</u>	70	<u>587.0</u>		20 <u>260.0</u>	80	<u>619.0</u>		30 <u>327.0</u>	90	<u>625.0</u>		40 <u>426.0</u>	95	<u>0.0</u>		50 <u>467.0</u>	End Point	<u>626.0</u>	
% Over Temp. (deg. F)		% Over Temp. (deg. F)																													
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50 <u>467.0</u>	End Point	<u>626.0</u>																													
I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this report, that this report was prepared by me or under my supervision and direction, and that data and facts stated therein are true, correct, and complete to the best of my knowledge. <u>07/07/2010</u> DATE		RRC USE ONLY																													
				NAME (Type or Print) <u>Toya Colvin</u>																											
				SIGNATURE <u>Regulatory Analyst</u>																											
				TITLE																											
		(281) 366-7148																													
CONTACT PERSON		PHONE NUMBER																													

1. Field name exactly as shown on proration schedule BLOCK 31 (ATOKA 7900)			2. Lease name as shown on proration schedule BLOCK 31 UNIT		
3. Current operator name exactly as shown on P-5 Organization Report BP AMERICA PRODUCTION COMPANY			4. Operator P-5 no. 040798	5. Oil Lse/Gas ID no. 	6. County CRANE
8. Operator address including city, state, and zip code ATTN T. COLVIN RM 6.115 P O BOX 3092 HOUSTON, TX 77253			9. Well no(s) (<i>see instruction I</i>) O 11		
			10. Classification <input type="checkbox"/> Oil <input checked="" type="checkbox"/> Gas <input type="checkbox"/> Other (<i>see instruction A</i>)		11. Effective Date 04/20/2010
12. Purpose of Filing. (Complete section a or b below.) (<i>See instructions B and G</i>) a. Change of: <input type="checkbox"/> operator <input type="checkbox"/> oil or condensate gatherer <input type="checkbox"/> gas gatherer <input type="checkbox"/> gas purchaser <input type="checkbox"/> gas purchaser system code <input type="checkbox"/> field name from _____ <input type="checkbox"/> lease name from _____ <hr style="border-top: 1px dashed black;"/> -- OR -- b. New RRC Number for: <input type="checkbox"/> oil lease <input checked="" type="checkbox"/> gas well Due to: <input type="checkbox"/> new completion or recompletion <input checked="" type="checkbox"/> reclass oil to gas <input type="checkbox"/> reclass gas to oil <input type="checkbox"/> other well (specify) _____ <input type="checkbox"/> consolidation, unitization, or subdivision (oil lease only)					
13. Authorized GAS WELL GAS or CASINGHEAD GAS Gatherer(s) and/or Purchaser(s). (<i>See instruction G</i>).					
Gatherer	Purchaser	Name of GAS WELL GAS or CASINGHEAD GAS Gatherer(s) or Purchaser(s) As Indicated in Columns to the Left <i>(Attach an additional sheet in same format if more space is needed)</i>	Purchaser's RRC Assigned System Code	Percent of Take	Full-well stream
X	X	BP AMERICA PRODUCTION COMPANY(040798)	BPAPC	100.0	
14. Authorized OIL or CONDENSATE Gatherer(s). (<i>See instruction G</i>).					
Name of OIL or CONDENSATE Gatherer(s) - List Highest Volume Gatherer First <i>(Attach an additional sheet in same format if more space is needed)</i>					Percent of Take
ENTERPRISE CRUDE OIL LLC(253117)					100.0
RRC USE ONLY: Reviewer's initials: _____ Approval date: _____					
15. PREVIOUS OPERATOR CERTIFICATION FOR CHANGE OF OPERATOR P-4 FILING. Being the PREVIOUS OPERATOR, I certify that operating responsibility for the well(s) designated in this filing, located on the subject lease has been transferred in its entirety to the above named Current Operator. I understand, as Previous Operator, that designation of the above named operator as Current Operator is not effective until this certificate is approved by the Commission.					
Name of Previous Operator _____			Signature _____		
Name (print) _____			<input type="checkbox"/> Authorized Employee of previous operator <input type="checkbox"/> Authorized agent of previous operator (<i>see instruction G</i>)		
Title _____			Date _____ Phone with area code _____		
16. CURRENT OPERATOR CERTIFICATION. By signing this certificate as the Current Operator, I certify that all statements on this form are true and correct and I acknowledge responsibility for the regulatory compliance of the subject lease including plugging of well(s) pursuant to Rule 14. I further acknowledge that I assume responsibility for the physical operation, control, and proper plugging of each well designated in this filing. I also acknowledge that I will remain designated as the Current Operator until a new certificate designating a new Current Operator is approved by the Commission.					
Name (print) Regulatory Analyst			Toya Colvin		
Title colvt2@bp.com			Signature <input type="checkbox"/> Authorized Employee of current operator <input type="checkbox"/> Authorized agent of current operator (<i>see instruction G</i>)		
E-mail Address (optional)			Date 07/09/2010		
			Phone with area code (281) 366-7148		



Texas Commission
on Environmental Quality

Surface Casing Program

DEPTH OF USABLE-QUALITY GROUND WATER TO BE PROTECTED

Date June 18, 2010

TCEQ File No.: SC- 7183

***** EXPEDITED APPLICATION *****

API Number 10333479

Attention: TOYA COLVIN

RRC Lease No. 000442

SC_948998_16388009_000000_4988.pdf

BP AMERICA PRODUCTION CO
501 WESTLAKE PARK BLVD
HOUSTON TX 77079

--Measured--

2480 ft FWL

1170 ft FSL

MRL: SURVEY

Digital Map Location:

X-coord/Long 102.45310

Y-coord/Lat 31.46194

Datum 83 Zone

P-5# 040798

County CRANE

Lease & Well No. BLOCK 31 UNIT #011

Purpose SWR 10

Location SUR-UL, BLK-31, SEC-27, -- [TD=9125], [RRC 8],

To protect usable-quality ground water at this location, the Texas Commission on Environmental Quality recommends:

The interval from the land surface to the base of the SANTA ROSA ,
which is estimated to occur at a depth of 650 feet, must be protected.

Note: Unless stated otherwise, this recommendation is intended to apply only to the subject well and not for area-wide use. Approval of the well completion methods for protection of this groundwater falls under the jurisdiction of the Railroad Commission of Texas. **This recommendation is intended for normal drilling, production, and plugging operations only. It does not apply to saltwater disposal operation into a nonproductive zone (RRC Form W-14).**

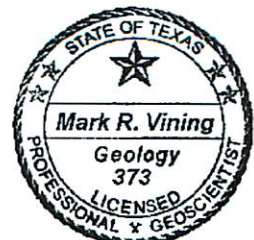
If you have any questions, please contact us at 512-239-0515, sc@tceq.state.tx.us, or by mail MC-151.

Sincerely,

Mark R. Vining
Digitally signed by Mark R Vining
DN: c=US, st=Texas, l=Austin,
cn=Mark R Vining,
email=mvining@tceq.state.tx.us
Date: 2010.06.18 13:10:36 -05'00'

Mark R. Vining, P.G.

GEOLOGIST SEAL



Geologist, Surface Casing Team
Waste Permits Division

The seal appearing on this document was authorized by Mark R. Vining on 6/18/2010
Note: Alteration of this electronic document will invalidate the digital signature.