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WR-35 Rev (9-11)

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	3/27/2013	
API #:	47-4902166	

Farm name: Bower, Richard and Jocelyn	Operator Wel	l No.: Brenna	n A 3H		
LOCATION: Elevation: 1256	Quadrangle: _	Mannington 7	.5		
District: Lincoln Latitude: 1070 Feet South of 39 Deg.	County: Mari		~		
Longitude 15000 Feet West of 80 Deg.					
Company: XTO Energy Inc					
Address: PO Box 1008, Jane Lew, WV 26378	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.	
	20"	81'	81'	CTS	<u>:</u>
Agent: Gary Beall	13-3/8"	619'	619'	260 sx	
Inspector: Bill Hendershot	9-5/8"	3135'	3135'	527 sx	
Date Permit Issued: 9/22/2011	5-1/2"	10802'	10802'	1788 sx	
Date Well Work Commenced: 11/19/2011					
Date Well Work Completed: 1/8/2013					
Verbal Plugging:					
Date Permission granted on:					
Rotary Cable Rig					
Total Vertical Depth (ft): 7667					
Total Measured Depth (ft): 10788			~~	MEDAGOS	
Fresh Water Depth (ft.): 65'			REC	Oilor.	
Salt Water Depth (ft.): None Noted			office or	WED d GOS	
Is coal being mined in area (N/Y)? N			7.	0,	of more
Coal Depths (ft.): 140', 440'			<u>۳</u>	altimer	KON'
Void(s) encountered (N/Y) Depth(s) N			200	Debuto,	
Fresh Water Depth (ft.): 65' Salt Water Depth (ft.): None Noted Is coal being mined in area (N/Y)? N Coal Depths (ft.): 140', 440' Void(s) encountered (N/Y) Depth(s) N OPEN FLOW DATA (If more than two producing formatic Producing formation Marcellus Pay a Gas: Initial open flow N/A MCF/d Oil: Initial open flow Time of open flow between initial and final tests N/A Static rock Pressure psig (surface pressure) af	ons please inclu	de additional d	ata on separati	onnic theet)	•
Producing formation Marcellus Pay 2	zone depth (ft)_	7535-7670	_		
Final open flow 3651 MCF/d Final open flow	vBt	ol/d			
Time of open flow between initial and final tests N/	A Hours	3			
Static rock Pressurepsig (surface pressure) af	iterHou	rs			
Second producing formationPay zon	ne depth (ft)				
Gas: Initial open flowMCF/d Oil: Initial open fl	lowB	bl/d		•	
Final open flow MCF/d Final open flow		ol/d			
Time of open flow between initial and final tests					
pare took i ressurepare (auritice pressure) at	1100				

all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

gnature

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and

-28-13 Date 63

49-2166

Were core samples taken? YesNo_X	Were	cuttings caught during	drilling? Yes	NoX
Were Electrical, Mechanical or Geophysical logs	recorded on this well?	If yes, please list		
NOTE: IN THE AREA BELOW PUT T FRACTURING OR STIMULATING, PHYSI DETAILED GEOLOGICAL RECORD OF COAL ENCOUNTERED BY THE WELLBO	CAL CHANGE, ETC. THE TOPS AND B	. 2). THE WELL LOG OTTOMS OF ALL	WHICH IS A S FORMATIONS,	YSTEMATIC
Perforated Intervals, Fracturing, or Stimulating:			·	
Stg 1 Marcellus; 10494'-10716'; 60 shots; Slick water frac; Avg trea	ting 7394 psi@ 86 bpm; 105,64	13 #100 mesh; 316,520 #s 30/5	mesh; 9838 bbl water,	0 bbl treated water
Stg 2 Marcellus; 10182'-10404'; 60 shots; Slick water frac; Avg trea	ting 7380 psi@ 81 bpm; 107,29	95 #100 mesh; 308,184 #s 30/5	mesh; 9941 bbl water,	0 bbl treated water
Stg 3 Marcellus; 9870'-10092'; 60 shots; Slick water frac; Avg treat	ting 7502 psi@ 83 bpm; 88,303	3 #100 mesh; 241,316 #s 30/50	mesh; 8371 bbl water,	0 bbl treated water
Stg 4 Marcellus; 9558'-9780'; 60 shots; Slick water frac; Avg treati	ing 7533 psi@ 82 bpm; 86,130	#100 mesh; 250,925 #s 30/50	mesh; 8822 bbl water,	0 bbl treated water
Stg 5 Marcellus; 9246'-9468'; 60 shots; Slick water frac; Avg treati	ing 7426 psi@ 84 bpm; 89,018	#100 mesh; 263,303 #s 30/50	mesh; 8971 bbl water,	0 bbl treated water
Stg 6 Marcellus; 8934'-9156'; 60 shots; Slick water frac; Avg treati	ing 7377 psi@ 84 bpm; 87,700	#100 mesh; 262,600 #s 30/50	mesh; 8818 bbl water,	0 bbl treated water
Plug Back Details Including Plug Type and Depth	ı(s):			
Formations Encountered: Surface:	Top Depth	<i>I</i>	Bottom	<u>Depth</u>
				·
				•

Brennan A 3H	47-049-021	L66
Formation Name or Type	Тор	Bottom
SS,SLT,SH	0	80
SS	80	128
SH	128	140
COAL	140	150
SS,SH	150	170
SH	170	178
SS	178	202
SS,SH	202	440
Coal	440	460
SS,SH	460	700
SH	700	770
SS,SH	770	2850
SH	2850	2890
SH,SS	2890	3152
SH,SLTST	3152	3200
SH	3200	3230
SH,SLTST	3230	3350
SLTST,SS,SH	3350	3380
SH,SLTST	3380	3440
SLTST, SH,SS	3440	3480
SH,SLTST	3480	3530
SH	3530	3560
SH,SLTST	3560	3590
SH,SS,SLTST,LS	3590	3650
SH, SLTST	3650	3740
SH	3740	3800
SH,SLTST	3800	3860
SH, tr SLST and SS	3860	3890
SH	3890	3950
SH, SLTST, SS	3950	3980
SH w/ tr SLST	3980	4040
SH and SLST	4040	4220
		4670
SH and SLST	4220	
SH, SLTST, SS	4670 5080	5080 5110
	5110	5240
SH and SLST	5240	
SH and SLST	5300	5300 5240
SH SH	5240	
		5300
SH and SLST	5300	5390
SH SI ST	5390	5450
SH w/ tr SLST	5450	5480
SH and SIST	5480	6590 6650
SH and SLST	6590	6650
SH IS and SU	6650	7450
LS and SH	7450	7550
SH, LS	7550	7650
SH	7650	7680
SH,LS	7680	7710

7710

7870

SH

BRENNAN A 3H

49-2146

FORMATION TVD BIG INJUN* 1950 BIG INJUN BASE* 2016 GREENBRIER* 2046 GREENBRIER BASE* 2080 SQUAW* 2089 SQUAW BASE* 2100 GANTZ* 2488 GANTZ BASE* 2505 50FT* 2536 50FT BASE* 2634 30FT* 2648 30FT BASE* 2697 GORDON* 2716 GORDON BASE* 2742 LWR GORDON BASE* 2891 4TH SAND* 2923 4TH SAND BASE* 2930 5TH SAND BASE* 3017 LWR SPEECHLEY* 3602 LWR SPEECH BASE* 3622 UP BALLTOWN* 3822 UP BALLTOWN BASE* 3835 BALLTOWN BASE* 3917 GENESEO SHALE 7379 GENESEO BASE 7423 TULLY LIMESTONE 7423 TULLY BASE 7466 HAMILTON BASE 7536	4-1-0	1140
BIG INJUN BASE* 2016 GREENBRIER* 2046 GREENBRIER BASE* 2080 SQUAW* 2089 SQUAW BASE* 2100 GANTZ* 2488 GANTZ BASE* 2505 50FT* 2536 50FT BASE* 2634 30FT* 2648 30FT BASE* 2697 GORDON* 2716 GORDON BASE* 2742 LWR GORDON BASE* 2891 ATH SAND* 2923 ATH SAND BASE* 2930 5TH SAND BASE* 3017 LWR SPEECHLEY* 3602 LWR SPEECHLEY* 3602 LWR SPEECH BASE* 3835 BALLTOWN* 3822 UP BALLTOWN BASE* 3917 GENESEO SHALE 7379 GENESEO SHALE 7379 GENESEO BASE 7423 TULLY LIMESTONE 7423 TULLY BASE 7536 UPPER MARCELLUS BASE 7626 PURCELL BASE 7626 PURCELL LIMESTONE 7623 PURCELL LIMESTONE 7626	FORMATION	TVD
GREENBRIER* GREENBRIER BASE* 2080 SQUAW* 2089 SQUAW BASE* 2100 GANTZ* 2488 GANTZ BASE* 2505 50FT* 2536 50FT BASE* 2697 GORDON* 2716 GORDON BASE* LWR GORDON BASE* LWR GORDON BASE* LWR GORDON BASE* 2930 4TH SAND BASE* 2931 4TH SAND BASE* 3017 LWR SPEECHLEY* LWR SPEECH BASE* 3622 UP BALLTOWN BASE* BALLTOWN BASE* BALLTOWN BASE* 3835 BALLTOWN BASE* 3917 GENESEO SHALE 7379 GENESEO BASE 7423 TULLY LIMESTONE 7466 HAMILTON BASE 7536 UP MARCELLUS BASE 7626 PURCELL BASE 7626	BIG INJUN*	1950
GREENBRIER BASE* 2080 SQUAW* 2089 SQUAW BASE* 2100 GANTZ* 2488 GANTZ BASE* 2505 50FT* 2536 50FT BASE* 2634 30FT* 2648 30FT BASE* 2697 GORDON* 2716 GORDON BASE* 2742 LWR GORDON BASE* 2891 4TH SAND* 2923 4TH SAND BASE* 2930 5TH SAND BASE* 3017 LWR SPEECHLEY* 3602 LWR SPEECHLEY* 3602 LWR SPEECH BASE* 3622 UP BALLTOWN* 3822 UP BALLTOWN BASE* 3835 BALLTOWN BASE* 3917 GENESEO SHALE 7379 GENESEO BASE 7423 TULLY LIMESTONE 7423 TULLY BASE 7536 UP MARCELLUS BASE 7626 PURCELL BASE 7626 PURCELL LIMESTONE 7626 PURCELL BASE 7626 PURCELL BASE 7626 PURCELL BASE 7626 PURCELL BASE 7626		2016
SQUAW* 2089 SQUAW BASE* 2100 GANTZ* 2488 GANTZ BASE* 2505 50FT* 2536 50FT BASE* 2634 30FT* 2648 30FT BASE* 2697 GORDON* 2716 GORDON BASE* 2742 LWR GORDON* 2848 LWR GORDON BASE* 2891 4TH SAND* 2923 4TH SAND BASE* 2930 5TH SAND* 2982 5TH SAND BASE* 3017 LWR SPEECHLEY* 3602 LWR SPEECHLEY* 3602 LWR SPEECH BASE* 3622 UP BALLTOWN BASE* 3835 BALLTOWN BASE* 3917 GENESEO SHALE 7379 GENESEO BASE 7423 TULLY LIMESTONE 7423 TULLY BASE 7536 UP MARCELLUS BASE 7626 UP MARCELLUS BASE 7626 PURCELL LIMESTONE 7626 PURCELL LIMESTONE 7626 PURCELL LIMESTONE 7626 PURCELL LIMESTONE 7626 PURCELL BASE 7626 LOWER MARCELLUS 7626	GREENBRIER*	2046
SQUAW BASE* 2100 GANTZ* 2488 GANTZ BASE* 2505 50FT* 2536 50FT BASE* 2634 30FT* 2648 30FT BASE* 2697 GORDON* 2716 GORDON BASE* 2742 LWR GORDON* 2848 LWR GORDON BASE* 2891 4TH SAND* 2923 4TH SAND BASE* 2930 5TH SAND BASE* 3017 LWR SPEECHLEY* 3602 LWR SPEECH BASE* 3622 UP BALLTOWN* 3822 UP BALLTOWN BASE* 3835 BALLTOWN BASE* 3917 GENESEO SHALE 7379 GENESEO BASE 7423 TULLY LIMESTONE 7423 TULLY BASE 7466 HAMILTON BASE 7536 UP MARCELLUS BASE 7623 PURCELL LIMESTONE 7626	GREENBRIER BASE*	2080
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50FT BASE*	GANTZ BASE*	2505
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LWR SPEECH. BASE* 3622 UP BALLTOWN* 3822 UP BALLTOWN BASE* 3835 BALLTOWN* 3886 BALLTOWN BASE* 3917 GENESEO SHALE 7379 GENESEO BASE 7423 TULLY LIMESTONE 7423 TULLY BASE 7466 HAMILTON SHALE 7466 HAMILTON BASE 7536 UPPER MARCELLUS 7536 UP MARCELLUS BASE 7623 PURCELL LIMESTONE 7623 PURCELL BASE 7626 LOWER MARCELLUS 7626	5TH SAND BASE*	3017
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BALLTOWN* 3886 BALLTOWN BASE* 3917 GENESEO SHALE 7379 GENESEO BASE 7423 TULLY LIMESTONE 7423 TULLY BASE 7466 HAMILTON SHALE 7466 HAMILTON BASE 7536 UPPER MARCELLUS 7536 UP MARCELLUS BASE 7623 PURCELL LIMESTONE 7626 LOWER MARCELLUS 7626	UP BALLTOWN*	3822
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GENESEO SHALE 7379 GENESEO BASE 7423 TULLY LIMESTONE 7466 HAMILTON SHALE 7466 HAMILTON BASE 7536 UPPER MARCELLUS 7536 UP MARCELLUS BASE 7623 PURCELL LIMESTONE 7623 PURCELL BASE 7626 LOWER MARCELLUS 7626	BALLTOWN*	3886
GENESEO BASE 7423 TULLY LIMESTONE 7423 TULLY BASE 7466 HAMILTON SHALE 7466 HAMILTON BASE 7536 UPPER MARCELLUS 7536 UP MARCELLUS BASE 7623 PURCELL LIMESTONE 7626 LOWER MARCELLUS 7626	BALLTOWN BASE*	3917
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TULLY BASE 7466 HAMILTON SHALE 7466 HAMILTON BASE 7536 UPPER MARCELLUS 7536 UP MARCELLUS BASE 7623 PURCELL LIMESTONE 7623 PURCELL BASE 7626 LOWER MARCELLUS 7626	GENESEO BASE	7423
HAMILTON SHALE 7466 HAMILTON BASE 7536 UPPER MARCELLUS 7536 UP MARCELLUS BASE 7623 PURCELL LIMESTONE 7623 PURCELL BASE 7626 LOWER MARCELLUS 7626	TULLY LIMESTONE	7423
HAMILTON BASE 7536 UPPER MARCELLUS 7536 UP MARCELLUS BASE 7623 PURCELL LIMESTONE 7623 PURCELL BASE 7626 LOWER MARCELLUS 7626	TULLY BASE	7466
UPPER MARCELLUS 7536 UP MARCELLUS BASE 7623 PURCELL LIMESTONE 7623 PURCELL BASE 7626 LOWER MARCELLUS 7626	HAMILTON SHALE	7466
UP MARCELLUS BASE 7623 PURCELL LIMESTONE 7623 PURCELL BASE 7626 LOWER MARCELLUS 7626	HAMILTON BASE	7536
PURCELL LIMESTONE 7623 PURCELL BASE 7626 LOWER MARCELLUS 7626	UPPER MARCELLUS	7536
PURCELL BASE 7626 LOWER MARCELLUS 7626	UP MARCELLUS BASE	7623
LOWER MARCELLUS 7626	PURCELL LIMESTONE	7623
	PURCELL BASE	7626
LO MARCELLUS BASE** 7686	LOWER MARCELLUS	7626
	LO MARCELLUS BASE**	7686

^{*} Tops projected from offset log due to air drilling and therefore not logging this section

^{**} Base projected from offset logs due to not actually drilling through this base

SH,LS	7870	7900
SH ,	7900	10780

49-2166

Well Name: Brennan A 3H

API# 47-049-02166

Preforated Intervals, Fracturing or Stimulating

49.2166

Stg 7 Marcellus; 8622'-8844'; 60 shots; Slick water frac; Avg treating 7498 psi@ 85 bpm; 88,200 #100 mesh; 262,400 #s 30/50 mesh; 8794 bbl water, 0 bbl treated water

Stg 8 Marcellus; 7656'-7661'; 60 shots; Slick water frac; Avg treating 7499 psi@ 82 bpm; 106,254 #100 mesh; 3024,064 #s 30/50 mesh; 10370 bbl water, 0 bbl treated water