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WR-35
Rev (9-11)

WV GEOLOGICAL SURVEY
MORGANTOWN, WV

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 Well No.: Brennan A 3H

LOCATION: Elevation: 1256 Quadrangle: Mannington 7.5

District: Lincoln County: Marion
Latitude: 1070 Feet South of 39 Deg. 32 Min. 30 Sec.
Longitude 15000 Feet West of 80 Deg. 17 Min. 30 Sec.

Company: XTO Energy Inc

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
PO Box 1008, Jane Lew, WV 26378	20"	81'	81'	CTS
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 <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): 7667				
Total Measured Depth (ft): 10788				
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 formations please include additional data on separate sheet)

Producing formation Marcellus Pay zone depth (ft) 7535-7670

Gas: Initial open flow N/A MCF/d Oil: Initial open flow _____ Bbl/d

Final open flow 3651 MCF/d Final open flow _____ Bbl/d

Time of open flow between initial and final tests N/A Hours

Static rock Pressure _____ psig (surface pressure) after _____ Hours

Second producing formation _____ Pay zone depth (ft) _____

Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d

Final open flow _____ MCF/d Final open flow _____ Bbl/d

Time of open flow between initial and final tests _____ Hours

Static rock Pressure _____ psig (surface pressure) after _____ Hours

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


Signature

3-28-13
Date

Brennan A 3H		47-049-02166	
Formation Name or Type	Top	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	
SH	4220	4670	
SH and SLST	4670	5080	
SH, SLTST, SS	5080	5110	
SH and SLST	5110	5240	
SH	5240	5300	
SH and SLST	5300	5240	
SH	5240	5300	
SH and SLST	5300	5390	
SH	5390	5450	
SH w/ tr SLST	5450	5480	
SH	5480	6590	
SH and SLST	6590	6650	
SH	6650	7450	
LS and SH	7450	7550	
SH, LS	7550	7650	
SH	7650	7680	
SH,LS	7680	7710	
SH	7710	7870	

BRENNAN A 3H

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*	2848
LWR GORDON BASE*	2891
4TH SAND*	2923
4TH SAND BASE*	2930
5TH SAND*	2982
5TH SAND BASE*	3017
LWR SPEECHLEY*	3602
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
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

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SH,LS	7870	7900
SH	7900	10780

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Well Name: Brennan A 3H

API # 47-049-02166

Preforated Intervals, Fracturing or Stimulating

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

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Fracture Date:	10/25/2012
State:	West Virginia
County:	Marion
API Number:	47-049-02166
Operator Name:	XTO Energy
Well Name and Number:	Brennan 3H
Longitude:	-80.2954936
Latitude:	39.5004139
Long/Lat Projection:	NAD27
Production Type:	Gas
True Vertical Depth (TVD):	7,668
Total Water Volume (gal):	3,181,836

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Hydraulic Fracturing Fluid Composition:

Trade-Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)	Maximum Ingredient Concentration in HF-Fluid (% by mass)	Comments
Water			water	7732-18-5	100.00000%	0.8922	
Sand		Proppant	sand	14808-60-7	100.00000%	0.1005	
Biocide - MC 8520	Multi-Chem	Biocide	Whole Product				
			4,4 -Dimethyloxazolidine	51200-87-4	95.00000%	0.0001	
			3,4,4-Trimethyloxazolidine	75673-43-7	4.50000%	0.0000	
			2-Amino-2-Methyl-1-Propanol	124-68-5	0.50000%	0.0000	
Biocide - MC 8650	Multi-Chem	Biocide	Whole Product				
			Glutaraldehyde	111-30-8	60.00000%	0.0000	
			Other -(non hazardous)		40.00000%	0.0000	
Friction Reducer - MC MX-14-5	Multi-Chem	Friction Reducer	Whole Product				
			Hydrotreated light distillates (10-30%)	64742-47-8	30.00000%	0.0002	
			Other -(non hazardous)		70.00000%	0.0004	
Scale Inhibitor - MC-MX-588-2	Multi-Chem	Scale Inhibitor	Whole Product				
			Other -(non hazardous)		100.00000%	0.0001	
Acid - 7.5% HCl Acid	Universal	Acid	Whole Product				
			Hydrochloric Acid (15-40%) blended down to 7.5%	7647-01-0	7.50000%	0.0005	
			Other -(non hazardous)		92.50000%	0.0060	

* Total Water Volume sources may include fresh water, produced water, and/or recycled water

** Information is based on the maximum potential for concentration and thus the total may be over 100%

All component information listed was obtained from the supplier's Material Safety Data Sheets (MSDS). As such, the Operator is not responsible for inaccurate and/or incomplete information. Any questions regarding the content of the MSDS should be directed to the supplier who provided it. The Occupational Safety and Health Administration's (OSHA) regulations govern the criteria for the disclosure of this information. Please note that Federal Law protects "proprietary", "trade secret", and "confidential business information" and the criteria for how this information is reported on an MSDS is subject to 29 CFR 1910.1200(i) and Appendix D.