

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: 3/27/13
API #: 47-49-02161-RB

Farm name: Bower, Richard and Jocelyn Operator Well No.: Brennan A 1H -RB

LOCATION: Elevation: 1256 Quadrangle: Mannington 7.5'

District: Lincoln County: Marion
Latitude: 15020 Feet South of 39 Deg. 32 Min. 30 Sec.
Longitude 1100 Feet West of 80 Deg. 17 Min. 30 Sec.

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WV GEOLOGICAL SURVEY
MORGANTOWN, WV

Company: XTO Energy Inc

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
<u>PO Box 1008, Jane Lew, WV 26378</u>	<u>20"</u>	<u>40'</u>	<u>40'</u>	<u>CTS</u>
Agent: <u>Gary Beall</u>	<u>13-3/8"</u>	<u>636'</u>	<u>636'</u>	<u>531 sx.</u>
Inspector: <u>Bill Hendershot</u>	<u>9-5/8"</u>	<u>3101'</u>	<u>3101'</u>	<u>1042 sx.</u>
Date Permit Issued: <u>2/24/2012</u>	<u>5-1/2"</u>	<u>11309'</u>	<u>11309'</u>	<u>1650 sx.</u>
Date Well Work Commenced: <u>5/1/2012</u>				
Date Well Work Completed: <u>1/6/2013</u>				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): <u>7655'</u>				
Total Measured Depth (ft): <u>11305'</u>				
Fresh Water Depth (ft.): <u>65'</u>				
Salt Water Depth (ft.): <u>None Noted</u>				
Is coal being mined in area (N/Y)? <u>N</u>				
Coal Depths (ft.): <u>140'</u>				
Void(s) encountered (N/Y) Depth(s) <u>N</u>				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Marcellus Pay zone depth (ft) 7530-7670

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

Final open flow 3678 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) _____

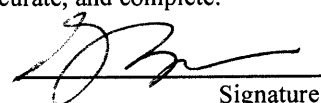
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d

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 CA

Brennan A 1H - RB	47-049-02161 - RB	
Formations Encountered	Top Depth	Bottom Depth
Surface:		
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	460
SH	460	506
SS	506	525
SS,SH	525	700
SH,SS	700	1025
SH	1025	1165
SH,SS	1165	1265
SH	1265	1830
SS	1830	2070
SH	2070	2100
SH,SS	2100	2540
SS	2540	2700
SH	2700	3160
SH,SS	3160	3420
SS,SH	3420	3540
SS	3540	3600
SS,SLTST	3600	3660
SH,SLTST,SS	3660	3800
SH,SLTST	3800	3820
SH,SLTST,SS	3820	3850
SH,SLTST	3850	3940
SLTST,SH	3940	3990
SH,SLTST	3990	4230
SH	4230	4250
SH,SLTST	4250	4650
SLTST,SH	4650	4920
SH,SLTST	4920	5130
SH	5130	5200
SH,LS	5200	5270
SH	5270	5300
SH,SLTST	5300	5360
SH	5360	5450
SH,SLTST	5450	5520
SH	5520	6030
SH,SLTST	6030	6060
SH,LS	6060	6090
SH	6090	7367
Geneseo	7367	7420
Tully	7420	7467
Hamilton	7467	7527
Marcellus	7527	11325

BRENNAN A 1H-RB

FORMATION	TVD
BIG INJUN*	1951
BIG INJUN BASE*	2017
GREENBRIER*	2047
GREENBRIER BASE*	2081
SQUAW*	2090
SQUAW BASE*	2101
GANTZ*	2489
GANTZ BASE*	2506
50FT*	2537
50FT BASE*	2635
30FT*	2649
30FT BASE*	2698
GORDON*	2717
GORDON BASE*	2743
LWR GORDON*	2849
LWR GORDON BASE*	2892
4TH SAND*	2924
4TH SAND BASE*	2931
5TH SAND*	2983
5TH SAND BASE*	3018
LWR SPEECHLEY*	3603
LWR SPEECH. BASE*	3623
UP BALLTOWN*	3823
UP BALLTOWN BASE*	3836
BALLTOWN*	3887
BALLTOWN BASE*	3918
GENESEO SHALE	7367
GENESEO BASE	7420
TULLY LIMESTONE	7420
TULLY BASE	7467
HAMILTON SHALE	7467
HAMILTON BASE	7527
UPPER MARCELLUS	7527
UP MARCELLUS BASE	7616
PURCELL LIMESTONE	7616
PURCELL BASE	7621
LOWER MARCELLUS	7621
LO MARCELLUS BASE**	7677

* 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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Well Name: Brennan A 1H

API # 47-049-02161

Preforated Intervals, Fracturing or Stimulating

Stg 7 Marcellus; 9258'-9472'; 60 shots; Slick water frac; Avg treating 7236 psi@ 82 bpm; 102,344 #100 mesh; 300,256 #s 30/50 mesh; 9915 bbl water, 0 bbl treated water

Stg 8 Marcellus; 8964'-9178'; 60 shots; Slick water frac; Avg treating 7300 psi@ 80 bpm; 101,343 #100 mesh; 303,364 #s 30/50 mesh; 9726 bbl water, 0 bbl treated water

Stg 9 Marcellus; 8670'-8884'; 60 shots; Slick water frac; Avg treating 7243 psi@ 80 bpm; 100,461 #100 mesh; 303,746 #s 30/50 mesh; 9634 bbl water, 0 bbl treated water

Stg 10 Marcellus; 8376'-8590'; 60 shots; Slick water frac; Avg treating 7455 psi@ 85 bpm; 101,720 #100 mesh; 299,830 #s 30/50 mesh; 9653 bbl water, 0 bbl treated water

Stg 11 Marcellus; 8082'-8296'; 60 shots; Slick water frac; Avg treating 7353 psi@ 82 bpm; 106,020 #100 mesh; 304,414 #s 30/50 mesh; 9549 bbl water, 0 bbl treated water

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Hydraulic Fracturing Fluid Product Component Information Disclosure

10/23/2012
West Virginia
Marion
47-049-02161
XTO Energy
Brennan-1HRB
-80.2955942
39.500388
NAD27
Gas
7,653
4,511,178

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Hydraulic Fracturing Fluid Composition:

Component	Category	Sub-Category	Chemical Name	Product Code	Concentration	Volume
Water			water	7732-18-5	100.00000%	0.8887
Sand		Proppant	sand	14808-60-7	100.00000%	0.1048
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%	0.0004
			Other -(non hazardous)		92.50000%	0.0052

* 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.