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: 5/16/2012
API #: 47-033-05578

Farm name: Salerno, Albert, ET AL Operator Well No.: Harbert East A 4H

LOCATION: Elevation: 1243' Quadrangle: Shinnston 7.5'

District: Eagle County: Harrison
Latitude: 11,610 Feet South of 39 Deg. 25 Min. 00 Sec.
Longitude 3,570 Feet West of 80 Deg. 20 Min. 00 Sec.

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"	90'	90'	29 BBLS
Agent: Gary Beall	13 3/8"	529'	529'	454 sks
Inspector: Tristan Jenkins	9 5/8"	2782'	2782'	932 sks
Date Permit Issued: 9/29/2011	5 1/2"	10797'	10797'	1867 sks
Date Well Work Commenced: 10/28/2011				
Date Well Work Completed: 4/27/2012				
Verbal Plugging:				
Date Permission granted on:				
Rotary ☑ Cable ☐ Rig ☐				
Total Vertical Depth (ft): 7186'				
Total Measured Depth (ft): 10805'				
Fresh Water Depth (ft.): None Noted				
Salt Water Depth (ft.): None Noted				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): None Noted				
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) 7173-7185
Gas: Initial open flow Show MCF/d Oil: Initial open flow ---------- Bbl/d
Final open flow Show 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

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

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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

6-14-12
Date

Were core samples taken? Yes_____ No X Were cuttings caught during drilling? Yes X No_____

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list GR, ROP, VS, TVD, MWD, Mudlogs

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

Stg 1 Marcellus; 10,556'-10,726'; 72 shots; Slick water frac; Avg treating 7019 psi@85 bpm; 73,106#s 100 mesh; 210,848#s 30/50 mesh; 6,562 bbl water, 658 bbl treated water

Stg 2 Marcellus; 10,305'-10,475'; 72 shots; Slick water frac; Avg treating 6812 psi@82 bpm; 75,722#s 100 mesh; 248,816#s 30/50 mesh; 7,279 bbl water, 825 bbl treated water

Stg 3 Marcellus; 10,054'-10,224'; 72 shots; Slick water frac; Avg treating 6779 psi@84 bpm; 75,032#s 100 mesh; 271,892#s 30/50 mesh; 8,578 bbl water, 781 bbl treated water

Stg 4 Marcellus; 9,803'-9,973'; 72 shots; Slick water frac; Avg treating 6866 psi@84 bpm; 74,830#s 100 mesh; 267,218#s 30/50 mesh; 7,679 bbl water, 801 bbl treated water

Stg 5 Marcellus; 9,552'-9,722'; 72 shots; Slick water frac; Avg treating 6814 psi@85 bpm; 75,616#s 100 mesh; 265,227#s 30/50 mesh; 7,638 bbl water, 850 bbl treated water

Stg 6 Marcellus; 9,301'-9,471'; 72 shots; Slick water frac; Avg treating 6888 psi@86 bpm; 74,719#s 100 mesh; 265,281#s 30/50 mesh; 7,519 bbl water, 1000 bbl treated water

Plug Back Details Including Plug Type and Depth(s):

See additional pages

Formations Encountered: Surface:	Top Depth /	Bottom Depth
Fill	0	15
SD&SH	15	88
SD&SH	88	110
SD&SH	110	235
SD&SH	235	310
SD	310	410
SD, SH	410	515
Red Rock	515	545
SH	545	645
SD	645	750
SH	750	956
SD	956	1135
SH	1135	1300
SH & SD	1300	2200

See additional pages

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Additional Stages

Stg 7 Marcellus; 9,050'-9,220'; 72 shots; Slick water frac; Avg treating 6650 psi@85 bpm; 76,053#s 100 mesh; 264,909#s 30/50 mesh; 7,486 bbl water, 1001 bbl treated water
Stg 8 Marcellus; 8,799'-8,969'; 72 shots; Slick water frac; Avg treating 6377 psi@86 bpm; 74,982#s 100 mesh; 264,985#s 30/50 mesh; 8,530 bbl water
Stg 9 Marcellus; 8,548'-8,718'; 72 shots; Slick water frac; Avg treating 6338 psi@84 bpm; 75,761#s 100 mesh; 264,705#s 30/50 mesh; 8,482 bbl water
Stg 10 Marcellus; 8,297'-8,467'; 72 shots; Slick water frac; Avg treating 6437 psi@86 bpm; 91,924#s 100 mesh; 301,326#s 30/50 mesh; 9,376 bbl water
Stg 11 Marcellus; 8,046'-8,216'; 72 shots; Slick water frac; Avg treating 6544 psi@85 bpm; 90,421#s 100 mesh; 303,344#s 30/50 mesh; 9,358 bbl water
Stg 12 Marcellus; 7,795'-7,965'; 72 shots; Slick water frac; Avg treating 6491 psi@85 bpm; 91,585#s 100 mesh; 311,696#s 30/50 mesh; 9,500 bbl water
Stg 13 Marcellus; 7,544'-7,714'; 72 shots; Slick water frac; Avg treating 6415 psi@85 bpm; 91,473#s 100 mesh; 309,201#s 30/50 mesh; 9,413 bbl water

Additional Formation Log

SH	0	2500
SH	2500	2785
SH	2785	2820
SH & SLTST	2820	2860
SH & SLTST	2860	2920
SH & SLTST	2920	2560
SLTST & SH & SS	2560	2980
SLTST & SH & SS	2980	3010
SH & SLTST	3010	3040
SH & SLTST	3040	3100
SH & SLTST	3100	3130
SH	3130	3165
SH & SLTST	3165	3220
SH & SLTST & SS	3220	3250
SH & SLTST	3250	3370
SH	3370	3460
SH & SLTST	3460	3540
SLTST & SH	3540	3570
SH & SLTST	3570	3710
SH	3710	3880
SH & SLTST	3880	4120
SH & SLTST & SS	4120	4150
SH & SLTST	4150	4250
SLTST & SH	4250	4390
SH & SLTST	4390	4450
SH	4450	4470
SH & SLTST	4470	4360
SH	4360	4690
SH & SLTST	4690	4750
SH	4750	4780
SH & SLTST	4780	4840

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Additional Formation Log

SH	**4840**	**4900**
SH & SLTST	**4900**	**4930**
SH	**4930**	**6950**
LS & SH	**6950**	**7090**
SH & LS	**7090**	**7110**
SH	**7110**	**7200**
SH & LS	**7200**	**7240**
SH	**7240**	**7450**
SH & LS	**7450**	**7470**
SH	**7470**	**7560**
SH & LS	**7560**	**7600**
SH	**7600**	**8030**
SH & LS	**8030**	**8060**
SH	**8060**	**10805**

FORMATION	TVD
BIG INJUN*	1533
SQUAW SAND*	1623
GANTZ SAND*	2003
50FT SAND*	2054
30FT SAND*	2146
GORDON SAND*	2219
LWR GORDON *	2330
4TH SAND*	2422
5TH SAND*	2490
UPPER BALLTOWN*	3323
BALLTOWN*	3409
LOWER BALLTOWN*	3500
GENESEO SHALE	6903
TULLY LIMESTONE	6946
HAMILTON SHALE	6999
MARCELLUS SHALE	7059
PURCELL LIMESTONE	7163

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

Tully	**6990 MD**
	6946 TVD
Hamilton	**7065 MD**
	6999 TVD
Marcellus	**7168 MD**
	7059 TVD

Hydraulic Fracturing Fluid Product Component Information Disclosure

033-05578

Fracture Date:	3/27/2012
State:	West Virginia
County:	Harrison
API Number:	47-033-05578
Operator Name:	XTO Energy
Well Name and Number:	Harbert 4H
Longitude:	-80.346129
Latitude:	39.384769
Long/Lat Projection:	NAD27
Production Type:	Gas
True Vertical Depth (TVD):	7,165
Total Water Volume (gal)*:	4,759,272

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%	0.8918	
Sand		Proppant	sand	14808-60-7	100.00000%	0.1031	
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 - M	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-	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 d	7647-01-0	7.50000%	0.0003	
			Other -(non hazardous)		92.50000%	0.0039	

* 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.

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Harbert East Unit A 4H	Units	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	Stage 7	Stage 8	Stage 9	Stage 10
Iron Control	gal										
Acid	gal	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00
Biocide	gal	74.00	84.00	88.00	89.00	88.00	88.00	72.00	71.00	72.00	78.00
Fresh Water	gal	6,562.00	7,279.00	8,578.00	7,679.00	7,638.00	7,519.00	7,486.00	8,530.00	8,482.00	9,376.00
Friction Reducer	gal	178.00	192.00	200.00	196.00	200.00	202.00	200.00	200.00	201.00	217.00
Sand	bbl	73,106.00	75,722.00	271,892.00	267,218.00	75,616.00	265,281.00	76,053.00	264,985.00	264,705.00	91,924.00
Sand	gal	210,848.00	248,816.00	75,032.00	74,830.00	265,227.00	74,719.00	264,909.00	74,982.00	75,761.00	301,326.00
Scale Inhibitor	lb	30.00	33.00	35.00	35.00	36.00	36.00	35.00	35.00	35.00	39.00
Water - Recycled	lb	658.00	825.00	781.00	801.00	850.00	1,000.00	1,001.00	0.00		0.00

Harbert East A 4H	Units	Stage 11	Stage 12	Stage 13	Total
Iron Control	gal				0.00
Acid	gal	1,500.00	1,500.00	1,500.00	19,500.00
Biocide	gal	79.00	79.00	79.00	1,041.00
Fresh Water	gal	9,358.00	9,500.00	9,413.00	107,400.00
Friction Reducer	gal	216.00	219.00	199.00	2,620.00
Sand	bbl	303,344.00	311,696.00	91,473.00	2,433,015.00
Sand	gal	90,421.00	91,585.00	309,201.00	2,157,657.00
Scale Inhibitor	lb	39.00	39.00	39.00	466.00
Water - Recycled	lb	0.00	0.00	0.00	5,916.00