

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

DATE: 5/15/2012  
API #: 47-049-02153

Farm name: Consol Energy Operator Well No.: Crim 4H

LOCATION: Elevation: 1,221' Quadrangle: Shinnston 7.5'

District: Lincoln County: Marion  
Latitude: 10,460' Feet South of 39 Deg. 30 Min. 00 Sec.  
Longitude 2,970' Feet West of 80 Deg. 17 Min. 30 Sec.

Company: XTO Energy, Inc.

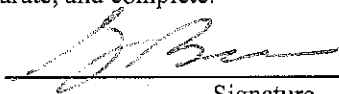
Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
PO Box 1008, Jane Lew, WV 26378	20"	40'	40'	280 sks
Agent: Gary Beall	13 3/8"	615'	615'	525 sks
Inspector: Tristan Jenkins	9 5/8"	2,881'	2,881'	981 sks
Date Permit Issued: 2/18/2011	5 1/2"	10,540'	10,540'	1,788 sks
Date Well Work Commenced: 9/23/2011				
Date Well Work Completed: 11/17/2011				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): 7,521				
Total Measured Depth (ft): 10,544				
Fresh Water Depth (ft.): 1440' <sup>1600</sup>				
Salt Water Depth (ft.): None Noted				
Is coal being mined in area (N/Y)? No				
Coal Depths (ft.): None Noted				
Void(s) encountered (N/Y) Depth(s) No				

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

Producing formation Marcellus Pay zone depth (ft) 7,520'  
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

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

6-4-12  
Date

Were core samples taken? Yes \_\_\_\_\_ No

Were cuttings caught during drilling? Yes  No \_\_\_\_\_

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list \_\_\_\_\_  
Gradient, Rate of Penetration, 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; 10,337'-10,467'; 72 shots; Slick water frac; Avg treating 7185 psi@71 bpm; 57,967#s 100 mesh; 170,351#s 30/50 mesh; 5,711 bbl water, 407 bbl treated water

Stg 2 Marcellus; 10,172'-10,302'; 72 shots; Slick water frac; Avg treating 7185 psi@69 bpm; 58#s 100 mesh; 168,284#s 30/50 mesh; 5,620 bbl water, 216 bbl treated water

Stg 3 Marcellus; 10,007'-10,137'; 72 shots; Slick water frac; Avg treating 7128 psi@76 bpm; 61,746#s 100 mesh; 169,750#s 30/50 mesh; 5,166 bbl water, 561 bbl treated water

Stg 4 Marcellus; 9,342'-9,972'; 72 shots; Slick water frac; Avg treating 7271 psi@80 bpm; 58,752#s 100 mesh; 171,640#s 30/50 mesh; 5,188 bbl water, 570 bbl treated water

Stg 5 Marcellus; 9,677'-9,807'; 72 shots; Slick water frac; Avg treating 7306 psi@82 bpm; 60,480#s 100 mesh; 138,092#s 30/50 mesh; 5,076 bbl water, 432 bbl treated water

Stg 6 Marcellus; 9,512'-9,642'; 72 shots; Slick water frac; Avg treating 7371 psi@80 bpm; 66,962#s 100 mesh; 172,058#s 30/50 mesh; 5,623 bbl water, 486 bbl treated water

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

See additional page

Formations Encountered: \_\_\_\_\_ Top Depth \_\_\_\_\_ / \_\_\_\_\_ Bottom Depth \_\_\_\_\_  
Surface:

SH 0 / 150

SS 150/160

SS & SH 160/235

SS 235/285

SS & SH 285/355

SH 355/415

SS 415/420

SH & SS 420/640

SH 640/928

SS & SH 928/1014

SS 1014/1020

SH 1020/1045

LS 1045/1060

SS & SH 1060/1170

See additional page

## Additional Stages

Stg 7 Marcellus; 9,347'-9,477'; 72 shots; Slick water frac; Avg treating 7170 psi@80 bpm; 60,136#s 100 mesh; 171,604#s 30/50 mesh; 5,324 bbl water, 523 bbl treated water
Stg 8 Marcellus; 9,182'-9,312'; 72 shots; Slick water frac; Avg treating 6933 psi@83 bpm; 60,332#s 100 mesh; 171,816#s 30/50 mesh; 5,345 bbl water, 497 bbl treated water
Stg 9 Marcellus; 9,017'-9,147'; 72 shots; Slick water frac; Avg treating 7239 psi@82 bpm; 52,139#s 100 mesh; 96,377#s 30/50 mesh; 5,644 bbl water, 423 bbl treated water.
Stg 10 Marcellus; 8,852'-9,982'; 72 shots; Slick water frac; Avg treating 6826 psi@82 bpm; 56,690#s 100 mesh; 171,073#s 30/50 mesh; 5,184 bbl water, 489 bbl treated water
Stg 11 Marcellus; 8,687'-8,917'; 72 shots; Slick water frac; Avg treating 6891 psi@82 bpm; 61,954#s 100 mesh; 172,215#s 30/50 mesh; 5,181 bbl water, 571 bbl treated water
Stg 12 Marcellus; 8,522'-8,622'; 72 shots; Slick water frac; Avg treating 6871 psi@82 bpm; 78,290#s 100 mesh; 173,408#s 30/50 mesh; 6,101 bbl water, 247 bbl treated water

## Additional Formation Log

SS & SH	1170	1225
SS	1225	1250
SS & SH	1250	1380
SS	1380	1440
SH & SS	1440	1565
SH	1565	2000
SH & SS	2000	2200
SH	2200	2400
SH & SS	2400	2725
SH	2725	3120
SH & SLTST	3120	3130
SH	3130	3160
SH & SLTST	3160	3250
SH & SLTST & SS	3250	3310
SH & SLTST	3310	3340
SH & SLTST & SS	3340	3370
SH & SLTST	3370	3430
SLTST & SH	3430	3460
SH & SLTST	3460	3640
SH	3640	3700
SH & SLTST	3700	3880
SH	3880	3910
SH & SLTST	3910	3940
SH	3940	4000
SH & SLTST	4000	4330
SH	4330	4510
SH & SLTST	4510	4570
SH	4570	4660
SH & SLTST & SS	4660	4690
SH & SLTST	4690	4900

2" Stream H2O @ 1440"

Crim 4H 47-049-02153

Additional Formation Log

SH	4900	4930
SH & SLTST	4930	5110
SH	5110	5350
SH & SLTST	5350	5440
SH	5440	5470
SH & SLTST	5470	5620
SLTST & SH	5620	5680
SH & SLTST	5680	5980
SH	5980	6550
SH & SLTST	6550	6580
SH	6580	7300
LS & SH	7300	7400
SH & LS	7400	7470
SH	7470	7500
SH,LS	7500	7550
SH	7550	7750
SH & LS	7750	7800
SH	7800	10544

Burkett	7281 MD	7355 MD
	7235 TVD	7295 TVD
Tully	7355 MD	7427 MD
	7295 TVD	7349 TVD
Hamilton	7427 MD	7516 MD
	7349 TVD	7406 TVD
Marcellus	7516 MD	10544 MD
	7406 TVD	7521 TVD