

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

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

RECEIVED

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

JUN 3 2012

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.

WV GEOLOGICAL SURVEY
MORGANTOWN, WV

Company: XTO Energy, Inc.

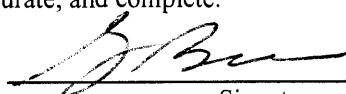
Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
PO Box 1008, Jane Lew, WV 26378	20"	40'	40'	280 sks
Agent: Gary Beall	13 3/8"	615'	615'	525 sks
Inspector: Tristan Jenkins	9 5/8"	2,881'	2,881'	981 sks
Date Permit Issued: 2/18/2011	5 1/2"	10,540'	10,540'	1,788 sks
Date Well 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'				
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

WV GEOLOGICAL SURVEY
MORGANTOWN, WV

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; 9,842'-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

RECEIVED

JUN 6 2012

Crim 4H

47-049-02153

WV GEOLOGICAL SURVEY
MORGANTOWN, WV

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

RECEIVED

JUN 6 2012

WV GEOLOGICAL SURVEY
MORGANTOWN, WV

Hydraulic Fracturing Fluid Product Component Information Disclosure

Fracture Date:	11/11/2011
State:	WV
County:	Marion
API Number:	47-049-02153
Operator Name:	XTO Energy
Well Name and Number:	Crim 4H
Longitude:	-80.30207
Latitude:	39.47161
Long/Lat Projection:	NAD27
Production Type:	Gas
True Vertical Depth (TVD):	7,521
Total Water Volume (gal)*:	2,964,570

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				7732-18-5	100.00%	89.705	
Sand		Proppant	Crystalline Silica	14808-60-7	100.00%	9.514	
Biocide EC 6116A	Universal	Biocide					
			Dibromoacetonitrile	3252-43-5	5.00%	0.002	
			2,2-Dibromo-3-nitrilopropionamide	10222-01-2	30.00%	0.010	
			Polyethylene Glycol	25322-68-3	60.00%	0.020	
			Other - unspecified		5.00%	0.002	
Unislik ST 50	Universal	Friction Reducer					
			Hydrotreated light distillates	64742-47-8	30.00%	0.024	
			Polyacrylamide powder and other		70.00%	0.055	
EC 6486A	Universal	Scale Inhibitor					
			Ethylene glycol	107-21-1	30.00%	0.010	
			Other - unspecified		70.00%	0.024	
7.5% HCl Acid	Universal	Cleaning					
			Hydrogen Chloride	7647-01-0	7.50%	0.048	
			Water	7732-18-5	92.50%	0.587	

* 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.

WV GEOLOGICAL SURVEY
MORGANTOWN, WV

JUN 6 2012

RECEIVED

	Units	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	Stage 7	Stage 8	Stage 9	Stage 10	Stage 11
Crim 4H												
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	1,500.00
Biocide	gal	80	77	70	65	71	81	86	89	75	72	68
Fresh Water	gal	5,711.00	5,620.00	5,166.00	5,188.00	5,076.00	5,623.00	5,324.00	5,345.00	5,644.00	5,184.00	5,181.00
Friction Reducer	gal	204	217	200	200	240	211	184	204	200	198	205
Sand	bbl	57,967.00	168,284.00	169,750.00	58,752.00	138,092.00	172,058.00	171,604.00	60,332.00	96,377.00	56,690.00	61,954.00
Sand	gal	170,351.00	58	61,746.00	171,640.00	60,480.00	66,962.00	60,136.00	171,816.00	52,139.00	171,073.00	172,215.00
Scale Inhibitor	lb	83	70	72	72	61	84	86	73	78	68	69
Water - Recycled	lb	407	216	561	570	432	486	523	497	423	489	571

	Units	Stage 10	Stage 11	Stage 12	Total
Crim 4H					
Iron Control	gal				0
Acid	gal	1500	1500	1500	18000
Biocide	gal	72	68	69	903
Fresh Water	gal	5184	5181	6101	65163
Friction Reducer	gal	198	205	193	2456
Sand	bbl	56690	61954	173408	1385268
Sand	gal	171073	172215	78290	1236906
Scale Inhibitor	lb	68	69	66	882
Water - Recycled	lb	489	571	247	5422

RECEIVED

5/2012

WV GEOLOGICAL SURVEY
MORGANTOWN, WV