

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: 4-23-2014
API #: 47-069-00105

FINAL

Farm name: Shawn Couch OHI 8H Operator Well No.: 834262

LOCATION: Elevation: 1265' Quadrangle: Bethany

District: Liberty County: Ohio
Latitude: 1450' Feet South of 40 Deg. 10 Min. 00 Sec.
Longitude 6860' Feet West of 80 Deg. 35 Min. 00 Sec.

Company: Chesapeake Appalachia, L.L.C.

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
P.O. Box 18496 Oklahoma City, OK 73154-0496	20"	120'	120'	353 Cu. Ft.
Agent: <u>Eric Gillespie</u>	13 3/8"	391'	391'	449 Cu. Ft.
Inspector: <u>Bill Hendershot</u>	9 5/8"	2006'	2006'	1002 Cu. Ft.
Date Permit Issued: <u>1-23-2012</u>	5 1/2"	13027'	13027'	3183 Cu. Ft.
Date Well Work Commenced: <u>3-17-2012</u>				
Date Well Work Completed: <u>6-8-2012</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>6265'</u>				
Total Measured Depth (ft): <u>13028'</u>				
Fresh Water Depth (ft.): <u>300'</u>				
Salt Water Depth (ft.): <u>1300'</u>				
Is coal being mined in area (N/Y)? <u>N</u>				
Coal Depths (ft.): <u>700'</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) 6,460'-12,895'
Gas: Initial open flow 1,370* MCF/d Oil: Initial open flow 140 Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests 24 Hours
Static rock Pressure 4,072* psig (surface pressure) after 24 Hours *Calculated

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.

Martine Williams
Signature

4-23-2014
Date

05/23/2014

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 LWD GR from 5,550' - 12,942' MD

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:

(See Attached)

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

<u>Formations Encountered:</u>	<u>Top Depth</u>	<u>Bottom Depth</u>
<u>Surface:</u>		

(See Attached)

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PERFORATION RECORD ATTACHMENT

Well Number and Name: 834262 Shawn Couch OHI 8H

PERFORATION RECORD			STIMULATION RECORD							
Date	Interval Perforated		Date	Interval	Treated	Fluid		Propping Agent		Average Injection
	From	To				Type	Amount	Type	Amount	
5/20/2012	12,331	12,895	6/2/2012	12,331	12,895	Slk wtr	11,089	Sand	640,300	80
6/2/2012	11,670	12,243	6/2/2012	11,670	12,243	Slk wtr	11,733	Sand	640,500	79
6/2/2012	11,019	11,591	6/3/2012	11,019	11,591	Slk wtr	11,394	Sand	643,600	79
6/3/2012	10,368	10,940	6/3/2012	10,368	10,940	Slk wtr	13,219	Sand	640,360	80
6/3/2012	9,716	10,289	6/4/2012	9,716	10,289	Slk wtr	11,204	Sand	641,980	80
6/4/2012	9,065	9,637	6/4/2012	9,065	9,637	Slk wtr	12,673	Sand	642,900	80
6/4/2012	8,419	8,986	6/5/2012	8,419	8,986	Slk wtr	11,573	Sand	640,720	80
6/5/2012	7,763	8,341	6/5/2012	7,763	8,341	Slk wtr	11,172	Sand	637,480	78
6/7/2012	7,111	7,684	6/8/2012	7,111	7,684	Slk wtr	11,427	Sand	638,140	80
6/8/2012	6,460	7,027	6/8/2012	6,460	7,027	Slk wtr	11,181	Sand	634,280	80

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LATERAL SIDETRACK WELLBORE (no vertical pilot hole associated with this well)**Maximum TVD of wellbore: 6265 ft TVD @ 12942 ft MD**

Formation/Lithology	Top Depth, MD (ft)	Top Depth, TVD (ft)	Bottom Depth, MD (ft)	Bottom Depth, TVD (ft)
LS/SHALE	0	0	700	700
PITTSBURGH COAL	700	700	710	710
SH/SS	710	710	780	780
SHALE	780	780	990	990
SH/SS/LS	990	990	1050	1050
SS	1050	1050	1140	1140
SH/SS	1140	1140	1170	1170
SH	1170	1170	1470	1470
SH/LS	1470	1470	1500	1500
BIG LIME (LS)	1500	1500	1570	1570
BIG INJUN (SS)	1570	1570	1832	1832
SHALE	1832	1832	6013	5987
GENESEO (SH)	6013	5987	6038	6007
TULLY (LS)	6038	6007	6106	6055
HAMILTON (SH)	6106	6055	6328	6163
MARCELLUS (SH)	6328	6163		
TD OF LATERAL			6264	13028

05/23/2014

Hydraulic Fracturing Fluid Product Component Information Disclosure

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Fracture Date:	6/2/2012
State:	WEST VIRGINIA
County:	OHIO
API Number:	4706900105
Operator Name:	CHESAPEAKE APPALACHIA LLC
Well Name and Number:	SHAWN COUCH OHI 8H
Longitude:	-80.588732
Latitude:	40.147778
Long/Lat Projection:	NAD27
Production Type:	GAS
True Vertical Depth (TVD):	6,266
Total Water Volume (gal)*:	4,514,118

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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
Fresh Water		Carrier/Base Fluid				72.73423%	
Recycled Produced Water		Carrier/Base Fluid				12.24694%	
Ottawa Sand		Proppant	Crystalline Silica (Quartz Sand, Silicon Dioxide)	014808-60-7	100.00%	8.56337%	
100 Mesh Sand		Proppant	Crystalline Silica (Quartz Sand, Silicon Dioxide)	014808-60-7	100.00%	5.68152%	
Acid, Hydrochloric 15pct	SCHLUMBERGER	Acid	Water	007732-18-5	85.00%	0.56700%	
			Hydrogen Chloride	007647-01-0	15.00%	0.10006%	
A264	SCHLUMBERGER	Corrosion Inhibitor	Methanol (Methyl Alcohol)	000067-56-1	40.00%	0.00055%	
			Aliphatic acid	N/A	30.00%	0.00041%	
			Aliphatic alcohols, ethoxylated # 1	N/A	30.00%	0.00041%	
			Propargyl Alcohol (2-Propynol)	000107-19-7	10.00%	0.00014%	
L058	SCHLUMBERGER	Iron Control Agent	Sodium Erythorbate	006381-77-7	100.00%	0.00042%	
EC6110A	NALCO	Anti-Bacterial Agent	Glutaraldehyde	000111-30-8	60.00%	0.01781%	
			Quaternary Ammonium Compounds	N/A	10.00%	0.00297%	
			Ethanol	000064-17-5	5.00%	0.00148%	

EC6629A	NALCO	Scale Inhibitor	No Hazardous Components	NONE		0.00000%	
J609	SCHLUMBE RGER	Friction Reducer	Aliphatic amine polymer	N/A	30.00%	0.02079%	
			Ammonium Sulfate	007783-20-2	30.00%	0.02079%	
J580	SCHLUMBE RGER	Gelling Agent	Carbohydrate polymer	N/A	100.00%	0.00036%	
J218	SCHLUMBE RGER	Breaker	Ammonium Persulfate	007727-54-0	100.00%	0.00002%	

* 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%

"Additional Ingredients Not Listed on MSDS" component information were obtained directly from the supplier. As such, the Operator is not responsible for inaccurate and/or incomplete information. Any questions regarding the content of this information should be directed to the supplier who provided it.

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