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: 10-2-2012
API #: 47-051-01501

Farm name: Ruth Keller MSH 3H Operator Well No.: 833794

LOCATION: Elevation: 1330' Quadrangle: 486-Moundsville

District: Union County: Marshall
Latitude: 8200' Feet South of 40 Deg. 00 Min. 00 Sec.
Longitude 5250' Feet West of 80 Deg. 40 Min. 00 Sec.

Company: Chesapeake Appalachia, L.L.C.

Address: P.O. Box 18496	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Oklahoma City, OK 73154-0496	20"	125'	125'	Driven
Agent: Eric Gillespie	13 3/8"	908'	908'	926 Cu. Ft.
Inspector: Bill Hendershot	9 5/8"	2260	2260'	948 Cu. Ft.
Date Permit Issued: 11-30-2011	5 1/2"	13528'	13528'	3256 Cu. Ft.
Date Well Work Commenced: 5-5-2012				
Date Well Work Completed: 7-3-2012				
Verbal Plugging:				
Date Permission granted on:				
Rotary ☑ Cable ☐ Rig ☐				
Total Vertical Depth (ft): 6422'(cement plug @ 5614'-6413')				
Total Measured Depth (ft): 13534'				
Fresh Water Depth (ft.): 175'				
Salt Water Depth (ft.): 1070'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 823				
Void(s) encountered (N/Y) Depth(s) Y 823'				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)
Producing formation Marcellus Pay zone depth (ft) 6,638'-13,403'
Gas: Initial open flow ____ MCF/d Oil: Initial open flow ____ Bbl/d
Final open flow 1,109* MCF/d Final open flow 215 Bbl/d
Time of open flow between initial and final tests 74 Hours *Calculated
Static rock Pressure 4,083* 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.

Marlene Williams
Signature

10-2-2012
Date

Were core samples taken? Yes_____ No X_____ Were cuttings caught during drilling? Yes_____ No X_____

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list GR, neutron, density, and resistivity open hole logs run from 0'-6,422'MD; LWD GR run from 5,509' MD - 13,534' 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): Cement plug @ 5614'-6413'

Formations Encountered: Top Depth / Bottom Depth

Surface:

(See attached)

PERFORATION RECORD ATTACHMENT

Well Number and Name: 833794 Ruth Keller MSH 3H

PERFORATION RECORD			STIMULATION RECORD							
	Interval Perforated					*Fluid*		*Propping Agent*		Average
Date	From	To	Date	Interval Treated		Type	Amount	Type	Amount	Injection
6/7/2012	12,860	13,403	6/28/2012	12,860	13,403	Slk wtr	12,335	Sand	622,170	86
6/28/2012	12,238	12,781	6/28/2012	12,238	12,781	Slk wtr	12,289	Sand	623,380	85
6/28/2012	11,615	12,159	6/29/2012	11,615	12,159	Slk wtr	12,463	Sand	622,760	85
6/29/2012	10,993	11,536	6/29/2012	10,993	11,536	Slk wtr	12,533	Sand	622,780	82
6/29/2012	10,371	10,914	6/30/2012	10,371	10,914	Slk wtr	12,159	Sand	567,340	86
6/30/2012	9,749	10,292	6/30/2012	9,749	10,292	Slk wtr	12,167	Sand	622,380	86
7/1/2012	9,127	9,670	7/1/2012	9,127	9,670	Slk wtr	12,584	Sand	622,520	87
7/1/2012	8,505	9,048	7/2/2012	8,505	9,048	Slk wtr	12,111	Sand	622,060	85
7/2/2012	7,882	8,426	7/2/2012	7,882	8,426	Slk wtr	12,388	Sand	622,740	86
7/2/2012	7,260	7,803	7/2/2012	7,260	7,803	Slk wtr	12,665	Sand	623,060	85
7/3/2012	6,638	7,181	7/3/2012	6,638	7,181	Slk wtr	12,613	Sand	633,000	87

VERTICAL PILOT HOLE

Formation/Lithology	Top Depth, TVD/MD (ft)	Bottom Depth, TVD/MD (ft)
LS	0	180
LS/SS	180	270
SS	270	823
COAL (VOID)	823	830
SS	830	960
SS/SH	960	1290
SS/LS	1290	1350
LS/SH	1350	1410
SS	1410	1900
BIG INJUN (SS)	1900	2108
SH	2108	6202
GENESEO	6202	6224
TULLY	6224	6270
HAMILTON	6270	6341
MARCELLUS	6341	6393
ONONDAGA (LS)	6393	
TD OF PILOT HOLE		6422

LATERAL SIDETRACK WELLBORE

Formation/Lithology	Top Depth, MD (ft)	Top Depth, TVD (ft)	Bottom Depth, MD (ft)	Bottom Depth, TVD (ft)
LS	0	0	180	180
LS/SS	180	180	270	270
SS	270	270	823	823
COAL (VOID)	823	823	830	830
SS	830	830	960	960
SS/SH	960	960	1290	1290
SS/LS	1290	1290	1350	1350
LS/SH	1350	1350	1410	1410
SS	1410	1410	1900	1900
BIG INJUN (SS)	1900	1900	2108	2108
SH	2108	2108	6236	6208
GENESEO	6236	6208	6254	6222
TULLY	6254	6222	6316	6267
HAMILTON	6316	6267	6455	6337
MARCELLUS	6455	6337		
TD OF LATERAL			13534	6307