

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

DATE: DEC 20 2011  
API No: 47-001-03149H  
Lease No: 77232

Farm Name: WARDER, MARY MORRIS Operator Well No. PHL1CHS (405837)

LOCATION: Elevation: 1324' Quadrangle: Philippi

District: Pleasant County: Barbour

Latitude: 6,145 Feet South of: 39 Deg. 12 Min. 30 Sec.  
Longitude: 5,230 Feet West of: 80 Deg. 00 Min. 00 Sec.

Company: CNX Gas Company LLC formerly Consol Gas Company

	Casing and Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: P.O. Box 1248 Jane Lew, WV 26378				
Agent: Kent Wright				
Inspector: Bryan Harris				
Date Permit Issued: 06/23/2010				
Date Well Work Commenced: 03/17/2011	20"	301'	301'	666 sks
Date Well Work Completed: 08/13/2011				
Verbal Plugging:	13 3/8"	667'	667'	600 sks
Date Permission granted on:				
Rotary Cable Rig X	9 5/8"	2070'	2070'	660 sks
Total Vertical Depth (feet): 7,462'				
Total Measured Depth (feet): 12,415'	5.5"	12351'	12351'	503 bbls
Fresh Water Depth (ft.): 78', 130', 154', 164', 180', 273', 310', 340', 850', 893', 898'				
Salt Water Depth (ft.): N/A				
Is coal being mined in area (N/Y)?: No				
Coal Depths (ft.): 30'-35', 150'-154', 164'-168', 180'-184'				
Void(s) encountered (N/Y) Depth(s)				

**OPEN FLOW DATA**

Producing formation MARCELLUS Pay zone depth (ft) 7282'-12351'  
 Gas: Initial production - MCF/d Oil: Initial open flow 0 Bbl/d  
 Final open flow 2784 MCF/d Final open flow 0 Bbl/d  
 Time of open flow between initial and final tests 12 Hours  
 Initial Flowing Pressure 800 psig (surface pressure) after 12 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

**\* COMMINGLED WITH PREVIOUS FORMATIONS**

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

12-17-11  
Date

*BC*  
*12/17/11*  
*53*  
*12/17/11*

WELL: PHL1CHS (405837)

Were core samples taken? Yes \_\_\_ No X      Were cuttings caught during drilling? Yes X No \_\_\_  
 Were \_\_\_ Electrical, \_\_\_ Mechanical, X or Geophysical logs recorded on this well?

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:**

8/1/2011 FRACED STAGE 1/14. PERFED MARCELLUS @ 12058'-12262' W/ 72 SHOTS. SAND 312,340#, 82 BPM AVG, 90 BPM MAX, ATP 8230 PSI, FR 0.5 GPT.  
 8/3/2011 FRACED STAGE 2/14. PERFED MARCELLUS @ 11758'-12000' W/ 40 SHOTS. SAND 326,220#, 58 BPM AVG, 77.5 BPM MAX, ATP 8389 PSI.  
 8/3/2011 FRACED STAGE 3/14. PERFED MARCELLUS @ 11458'-11700' W/ 60 SHOTS. SAND 329,460#, 72 BPM AVG, 95.5 BPM MAX, ATP 8224 PSI.  
 8/4/2011 FRACED STAGE 4/14. PERFED MARCELLUS @ 11158'-11400' W/ 60 SHOTS. SAND 348,740#, 85 BPM AVG, 95 BPM MAX, 9028 PSI MAX, ATP 8207 PSI.  
 8/6/2011 FRACED STAGE 5/14. PERFED MARCELLUS @ 10858'-11100' W/ 60 SHOTS. SAND 380,320#, 59 BPM AVG, 71 BPM MAX, ATP 8530 PSI.  
 8/7/2011 FRACED STAGE 6/14. PERFED MARCELLUS @ 10558'-10800' W/ 60 SHOTS. SAND 355,640#, 76 BPM AVG, 90 BPM MAX, ATP 8690 PSI, FR 1.0 GPT.  
 8/10/2011 FRACED STAGE 7/14. PERFED MARCELLUS @ 10258'-10500' W/ 60 SHOTS.  
 8/10/2011 FRACED STAGE 8/14. PERFED MARCELLUS @ 9958'-10200' W/ 60 SHOTS.  
 8/11/2011 FRACED STAGE 9/14. PERFED MARCELLUS @ 9658'-9900' W/ 60 SHOTS.  
 8/12/2011 FRACED STAGE 10/14. PERFED MARCELLUS @ 9358'-9600' W/ 60 SHOTS.  
 8/12/2011 FRACED STAGE 11/14. PERFED MARCELLUS @ 9058'-9300' W/ 60 SHOTS.  
 8/12/2011 FRACED STAGE 12/14. PERFED MARCELLUS @ 8758'-9000' W/ 60 SHOTS.  
 8/13/2011 FRACED STAGE 13/14. PERFED MARCELLUS @ 8458'-8700' W/ 60 SHOTS. SAND 358,040#, 98 BPM AVG, 102 BPM MAX, 8510 PSI MAX, ATP 7660 PSI.  
 8/13/2011 FRACED STAGE 14/14. PERFED MARCELLUS @ 8158'-8400' W/ 60 SHOTS. SAND 358,540#, 94 BPM AVG, 101 BPM MAX, 8510 PSI MAX, ATP 8284 PSI.

**FORMATIONS ENCOUNTERED:**

Fill	0	10	Clay	10	30	Coal	30	35
Sand/Shale	35	50	Sand	50	150	Coal	150	154
Sand/Shale	154	164	Coal	164	168	Sand	168	180
Coal	180	184	Sand	184	190	Sand/Shale	190	200
Sand	200	553	RedRock	553	570	Sand	570	580
RedRock/Shale	580	595	Sand/Shale	595	745	Sand	745	770
Sand/Shale	770	974	Big Lime	974	1039	Big Injun	1039	1175
Sand/Shale	1175	1345	Sand	1345	1437	Sand/Shale	1437	1512
Sand	1512	1530	Sand/Shale	1530	1545	Sand	1545	1570
RedRock/Shale	1575	1590	Sand/Shale	1590	1612	RedRock/Shale	1612	1669
Shale	1669	1704	RedRock/Shale	1704	1980	Sand/Shale	1980	2300
Warren	2300	2338	Shale/Sand	2338	2622	Speechley	2622	2656
Shale/Sand	2656	2860	Balltown	2860	2871	Shale/Sand	2871	3091
Bradford	3091	3154	Shale/Sand	3154	3470	Riley	3470	3624
Shale/Sand	3624	3771	Benson	3771	3831	Shale/Sand	3831	3995
1st Elk	3995	4053	Shale/Sand	4053	4152	2nd Elk	4152	4208
Shale/Sand	4208	4375	3rd Elk	4375	4433	Shale/Sand	4433	4677
4th Elk	4677	4706	Shale/Sand	4706				

GAMMA RAY / FORMATION		
#PHL1CHS (405837)	TOPS	47-001-03149
FORMATION TVD AT SURFACE LOCATION	TOP	BASE
HOLE NOT LOGGED UNTIL KICKOFF POINT		
BURKETT	7026	7060
TULLY	7060	7126
HAMILTON	7126	7277
MARCELLUS	7282	
LTD	12330	