

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: April 11, 2013  
API #: 47-051-01553 - Revised ✓

Farm name: Lily - South Operator Well No.: 3H

LOCATION: Elevation: 1272' Quadrangle: New Martinsville 7.5'

District: Franklin County: Marshall  
Latitude: 4590 Feet South of 39 Deg. 45 Min. 00 Sec.  
Longitude 4195 Feet West of 80 Deg. 47 Min. 30 Sec.

Company: Gastar Exploration USA, Inc.

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
229 West Main Street, Suite 301 Clarksburg, WV 26301	20"		110'	CTS
Agent: Michael McCown	13-3/8"		1177'	1071
Inspector: Bill Hendershot	9-5/8"		2528'	1079
Date Permit Issued: 6/1/2012	5-1/2"		12436'	3486
Date Well Work Commenced: 8/22/2012	2-3/8"		6616'	
Date Well Work Completed: 12/17/2012				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): 6,503'				
Total Measured Depth (ft): 12,461'				
Fresh Water Depth (ft.): 60'				
Salt Water Depth (ft.): 1600'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 898-918; 1077-1087				
Void(s) encountered (N/Y) Depth(s) N				

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

Producing formation Marcellus Pay zone depth (ft) 6503'  
Gas: Initial open flow 1560 MCF/d Oil: Initial open flow 103 Bbl/d  
Final open flow 2376 MCF/d Final open flow 128 Bbl/d  
Time of open flow between initial and final tests 264 Hours  
Static rock Pressure 1728 psig (surface pressure) after 264 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

4-11-13  
Date

11/22/2013

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 Gamma Ray Log

**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 sheet:

Plug Back Details Including Plug Type and Depth(s): n/a

<u>Formations Encountered:</u>	<u>Top Depth</u>	<u>Bottom Depth</u>
<u>Surface:</u>		
Sewickley Coal	898 - 918	Geneseo 6385 - 6407
Pittsburgh Coal	1077 - 1087	Tully 6407 - 6439
Maxton	1971 - 2039	Hamilton 6439 - 6470
Big Lime	2040 - 2070	Marcellus 6470 - 6503
Big Injun	2079	
Base of Big Injun	2180	
Weir	2418 - 2588'	
Berea	2597 - 2837	
Gordon	2903 - 2933	
Benson	3600 - 3610	
Java	5200 - 5520	
Rhinestreet	5887 - 6200	
Cashaqua	6200 - 6300	
Middlesex	6300 - 6325	
West River	6325 - 6385	

51-01553

Fluid & Sand Volume Summary - Lily #3H

<u>Date</u>	<u>Stage</u>	<u>Perforated interval</u>		<u>Fluid Type</u>	<u>Frac Fluid</u>	<u>Pump Down</u>	<u>100 mesh</u>	<u>40/70 M</u>	<u>Total Sand</u>	<u>Avg Inj</u>
		<u>From</u> ft	<u>To</u> ft							
11/10/2012	1	12276	12300	slk wtr	bbls 3264	bbls 393	lbs 27510	lbs 93492	lbs 121002	BPM 81
11/11/2012	2	12147	12237	slk wtr	6428	380	78280	217995	296275	80
11/13/2012	3	11862	12112	slk wtr	7752	341	77535	163792	241327	80
11/14/2012	4	11562	11812	slk wtr	7069	305	77510	282187	359697	80
11/15/2012	5	11262	11512	slk wtr	7230	308	77701	282851	360552	81
11/16/2012	6	10962	11212	slk wtr	7178	296	77695	283661	361356	81
11/17/2012	7	10662	10912	slk wtr	6961	267	77619	285156	362775	82
11/18/2012	8	10362	10612	slk wtr	6620	243	78509	281902	360411	80
11/19/2012	9	10062	10312	slk wtr	7033	221	78124	285749	363873	81
11/20/2012	10	9762	10012	slk wtr	6945	196	77490	283975	361465	82
11/21/2012	11	9462	9712	slk wtr	7036	200	77664	282696	360360	81
11/24/2012	12	9162	9412	slk wtr	6946	160	79264	281606	360870	82
11/25/2012	13	8862	9112	slk wtr	6810	172	78142	281969	360111	81
11/26/2012	14	8562	8812	slk wtr	6766	207	78372	279473	357845	82
11/27/2012	15	8262	8512	slk wtr	6871	151	77626	278093	355719	80
11/28/2012	16	7962	8212	slk wtr	6760	142	77534	279768	357302	80
11/29/2012	17	7662	7912	slk wtr	6809	108	68529	257617	326146	80
11/20/2012	18	7362	7612	slk wtr	6802	90	75097	263713	338810	80
12/1/2012	19	7252	7322	slk wtr	6921	62	77535	269611	347146	80
<b>Totals</b>					<b>128201</b>	<b>4242</b>	<b>1417736</b>	<b>4935306</b>	<b>6353042</b>	

Water to Recover

132443 bbls