

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: 9/3/2013  
API #: 47-017-06137

Farm name: Sue Ann Spiker Operator Well No.: 513529

LOCATION: Elevation: 1,254' Quadrangle: Smithburg

District: New Milton County: Doddridge, WV  
Latitude: 10,568 Feet South of 39 Deg. 17 Min. 30 Sec.  
Longitude 8,424 Feet West of 80 Deg. 42 Min. 30 Sec.

Company: EQT Production Company

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
EQT Plaza, Suite 1700 625 Liberty Avenue, Pittsburgh, PA 15222	20	72	72	81
Agent: Cecil Ray	13 3/8	667	667	649
Inspector: <b>Sam Ward</b>	9 5/8	5,310	5,310	2,177
Date Permit Issued: 11/27/2012	5 1/2	12,253	12,253	2,066
Date Well Work Commenced: 12/15/2012				
Date Well Work Completed: 3/14/2013				
Verbal Plugging: N/A				
Date Permission granted on: N/A				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input checked="" type="checkbox"/>				
Total Vertical Depth (ft): 6,880'				
Total Measured Depth (ft): 12,257'				
Fresh Water Depth (ft.): 106', 576'				
Salt Water Depth (ft.): 2,000'				
Is coal being mined in area (N/Y)? No				
Coal Depths (ft.): 48', 281', 557', 628', 1,207', 1,376'				
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) 6,765  
Gas: Initial open flow 5,056 MCF/d Oil: Initial open flow 0 Bbl/d  
Final open flow 11,882 MCF/d Final open flow 12 Bbl/d  
Time of open flow between initial and final tests 92.5 Hours  
Static rock Pressure 1,840 psig (surface pressure) after 93 Hours

Second producing formation NA Pay zone depth (ft) NA  
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

7/17/2014  
Date

Were core samples taken? Yes \_\_\_\_\_ No X

Were cuttings caught during drilling? Yes X No \_\_\_\_\_

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list Yes, MWD Gamma, Gyro, & CBL logs

**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 Attachment

Amended Report With Flow Back Data

Screenout stg 7 - ran injection test. Re-perforated stg 15. Made two attempts to frac stg 21 - combined stages 21 and 22 (no plug set in between)

Plug Back Details Including Plug Type and Depth(s): N/A

Formations Encountered: \_\_\_\_\_ Top Depth \_\_\_\_\_ / \_\_\_\_\_ Bottom Depth  
Surface:

SAND / SHALE / 0 / 48 / 48 --

COAL / 48 / 53 / 5 -- SAND / SHALE / 53 / 281 / 228 --

COAL / 281 / 285 / 4 -- SAND / SHALE / 285 / 557 / 272 --

COAL / 557 / 560 / 3 -- SAND / SHALE / 560 / 628 / 68 --

COAL / 628 / 633 / 5 -- SAND / SHALE / 633 / 1,207 / 574 --

COAL / 1,207 / 1,210 / 3 -- SAND / SHALE / 1,210 / 1,376 / 166 --

COAL / 1,376 / 1,381 / 5 -- SAND / SHALE / 1,381 / 2,657 / 1,276 --

GORDON / 2,657 / 3,257 / 600 -- WARREN / 3,257 / 3,336 / 79 --

SPEECHLEY / 3,336 / 3,998 / 662 -- BALLTOWN B / 3,998 / 4,209 / 211 --

BRADFORD / 4,209 / 4,508 / 299 -- RILEY / 4,508 / 4,922 / 414 --

BENSON / 4,922 / 5,181 / 259 -- ALEXANDER / 5,181 / 6,250 / 1,069 --

RHINESTREET / 6,250 / 6,260 / 10 -- SONYEA / 6,260 / 6,530 / 270 --

MIDDLESEX / 6,530 / 6,585 / 55 -- GENESSEE / 6,585 / 6,661 / 76 --

GENESE / 6,661 / 6,698 / 37 -- TULLY / 6,698 / 6,727 / 29 --

HAMILTON / 6,727 / 6,765 / 38 -- Marcellus blk shale / 6,765 / 6,880 / 115

513529 - Perforations

Zone/Stage	Date	Top Plug Depth (ft:KB)	Bottom Plug Depth (ft:KB)	Top Perf Depth (ft:KB)	Bottom Perf Depth (ft:KB)	Shots/ft
Toe Pop	2/24/14 21:43	12,091.00	NA	12,226.00	12,228.00	NA
1	2/24/14 12:30	12,091.00	NA	12,105.00	12,197.00	4
2	2/25/14 0:12	11,941.00	12,091.00	11,955.00	12,077.00	4
3	2/25/14 10:48	11,791.00	11,941.00	11,805.00	11,927.00	4
4	2/25/14 14:54	11,641.00	11,791.00	11,655.00	11,777.00	4
5	2/25/14 19:17	11,491.00	11,641.00	11,505.00	11,627.00	4
6	2/26/14 0:09	11,341.00	11,491.00	11,355.00	11,477.00	4
7	2/26/14 4:56	11,191.00	11,341.00	11,205.00	11,327.00	4
8	2/26/14 22:40	11,041.00	11,191.00	11,055.00	11,175.00	4
9	2/27/14 4:17	10,891.00	11,041.00	10,905.00	11,027.00	4
10	2/27/14 9:15	10,741.00	10,891.00	10,755.00	10,877.00	4
11	2/27/14 16:00	10,591.00	10,741.00	10,605.00	10,727.00	4
12	2/27/14 21:05	10,441.00	10,591.00	10,455.00	10,575.00	4
13	2/28/14 1:46	10,291.00	10,441.00	10,305.00	10,427.00	4
14	2/28/14 17:40	10,141.00	10,291.00	10,155.00	10,277.00	4
15	2/28/14 22:40	9,991.00	10,141.00	10,005.00	10,127.00	4
15 (Re-Perf)	3/1/14 3:40	9,991.00	10,141.00	9,945.00	9,977.00	4
16	3/1/14 8:39	9,781.00	9,931.00	9,795.00	9,917.00	4
17	3/1/14 15:00	9,631.00	9,781.00	9,645.00	9,767.00	4
18	3/1/14 21:55	9,481.00	9,631.00	9,495.00	9,617.00	4
19	3/2/14 1:48	9,331.00	9,481.00	9,345.00	9,467.00	4
20	3/2/14 6:25	9,181.00	9,331.00	9,195.00	9,317.00	4
21	3/2/14 12:30	8,866.00	9,181.00	9,045.00	9,165.00	4
21 (Re-Perf)	3/2/14 17:45	8,866.00	9,181.00	9,030.00	9,072.00	4
22	3/2/14 23:35	8,866.00	9,181.00	8,880.00	9,002.00	4
23	3/3/14 9:29	8,716.00	8,866.00	8,730.00	8,852.00	4
24	3/3/14 14:25	8,566.00	8,716.00	8,580.00	8,700.00	4
25	3/3/14 18:31	8,416.00	8,566.00	8,430.00	8,552.00	4
26	3/4/14 0:41	8,266.00	8,416.00	8,280.00	8,402.00	4
27	3/4/14 7:45	8,116.00	8,266.00	8,130.00	8,252.00	4
28	3/4/14 22:30	7,966.00	8,116.00	7,980.00	8,102.00	4
29	3/5/14 4:10	7,816.00	7,966.00	7,830.00	7,952.00	4
30	3/5/14 18:45	7,666.00	7,816.00	7,680.00	7,802.00	4
31	3/5/14 22:40	NA	7,666.00	7,530.00	7,652.00	4

513529 - Stimulated Stages

Zone/Stage	P Break (psi)	Avg Treat Pressure (psi)	Avg rate (bbl/min)	ISIP (psi)	Frac Gradient (psi/ft)	15 Min. SIP (psi)	Fluid Volume (bbl)	Start Date	End Date	Proppant (lb)
Toe Pop	NA	7,507.00	10.4	NA	NA	NA	759	2/24/2014 22:02	2/24/2014 23:15	NA
1	5,433.00	8,687.00	86.9	5,293.00	1.2	3,165.00	5,018	2/25/2014 1:50	2/25/2014 3:01	196,100
2	5,707.00	8,842.00	96.0	5,385.00	1.22	3,514.00	5,183	2/25/2014 7:50	2/25/2014 9:52	199,300
3	5,559.00	8,728.00	90.6	4,926.00	1.15	3,415.00	5,060	2/25/2014 12:07	2/25/2014 13:25	201,600
4	6,362.00	8,719.00	86.3	5,111.00	1.18	3,648.00	5,095	2/25/2014 16:09	2/25/2014 17:28	203,200
5	5,488.00	8,678.00	99.0	5,096.00	1.17	3,443.00	4,971	2/25/2014 20:47	2/25/2014 22:00	205,100
6	5,976.00	8,568.00	99.5	5,418.00	1.22	3,758.00	5,178	2/26/2014 1:50	2/26/2014 3:04	204,100
7	5,479.00	8,646.00	98.7	8,715.00	1.7	NA	5,406	2/26/2014 8:12	2/26/2014 9:35	205,700
Inj Test	NA	4,175.00	9.2	4,964.00	1.16	3,624.00	1,442	2/26/2014 17:42	2/26/2014 20:02	0
8	5,623.00	8,576.00	92.9	4,704.00	1.12	3,784.00	5,481	2/27/2014 0:54	2/27/2014 2:22	191,700
9	5,582.00	8,517.00	97.8	4,827.00	1.14	3,561.00	5,055	2/27/2014 6:18	2/27/2014 7:31	196,700
10	6,322.00	8,660.00	98.6	5,188.00	1.19	3,695.00	5,039	2/27/2014 13:03	2/27/2014 14:16	202,900
11	5,223.00	8,271.00	100.1	3,996.00	1.02	3,115.00	5,217	2/27/2014 18:08	2/27/2014 19:15	203,600
12	5,061.00	8,703.00	99.2	4,282.00	1.06	3,287.00	5,284	2/27/2014 22:55	2/27/2014 0:14	199,900
13	5,122.00	8,270.00	100.2	5,148.00	1.19	3,579.00	5,068	2/28/2014 14:48	2/28/2014 16:02	202,600
14	5,264.00	8,151.00	100.6	5,030.00	1.17	3,329.00	5,125	2/28/2014 20:01	2/28/2014 21:14	204,400
15	5,337.00	8,796.00	73.0	5,621.00	1.26	NA	2,115	2/28/2014 1:29	2/28/2014 2:13	5,900
15 (Re-Perf)	5,399.00	8,350.00	99.4	5,046.00	1.17	3,753.00	5,148	3/1/2014 4:54	3/1/2014 0:00	206,200
16	5,325.00	8,101.00	100.4	5,186.00	1.19	3,926.00	4,893	3/1/2014 12:25	3/1/2014 13:35	200,900
17	7,043.00	8,575.00	97.4	5,223.00	1.2	3,802.00	5,003	3/1/2014 19:21	3/1/2014 20:34	201,400
18	6,218.00	8,414.00	97.0	4,903.00	1.15	3,801.00	5,024	3/1/2014 23:14	3/2/2014 0:27	203,000
19	5,859.00	8,630.00	78.3	5,201.00	1.19	3,600.00	5,281	3/2/2014 3:47	3/2/2014 5:13	199,300
20	5,669.00	7,887.00	100.6	5,017.00	1.17	3,873.00	4,805	3/2/2014 10:03	3/2/2014 11:11	199,900
21	7,419.00	8,145.00	46.5	4,804.00	1.14	NA	4,449	3/2/2014 14:22	3/2/2014 16:00	5,600
21 (Re-Perf)	NA	8,688.00	61.6	6,115.00	1.33	4,246.00	5,696	3/2/2014 18:56	3/2/2014 21:46	14,200
22	5,334.00	8,629.00	76.4	4,773.00	1.13	3,078.00	13,833	3/3/2014 0:35	3/2/2014 6:17	379,500
23	5,295.00	7,925.00	99.6	5,006.00	1.17	3,234.00	4,950	3/3/2014 11:27	3/3/2014 12:37	201,600
24	6,280.00	7,891.00	97.5	5,142.00	1.19	3,708.00	4,940	3/3/2014 15:30	3/3/2014 17:00	201,700
25	5,436.00	7,958.00	100.0	4,563.00	1.1	3,991.00	4,973	3/3/2014 22:03	3/3/2014 23:16	197,500
26	5,255.00	7,670.00	94.2	4,911.00	1.15	3,726.00	6,189	3/4/2014 2:14	3/4/2014 6:08	201,300
27	5,226.00	8,120.00	98.9	5,016.00	1.17	4,038.00	4,953	3/4/2014 19:59	3/4/2014 21:10	200,400
28	5,178.00	7,384.00	93.3	4,845.00	1.14	3,955.00	4,881	3/5/2014 1:31	3/5/2014 2:41	194,400
29	5,889.00	8,074.00	98.0	4,701.00	1.12	3,841.00	4,920	3/5/2014 15:41	3/5/2014 16:50	198,400
30	5,463.00	8,067.00	99.1	4,885.00	1.15	3,541.00	4,829	3/5/2014 20:12	3/5/2014 21:21	198,900
31	6,342.00	7,956.00	100.4	4,571.00	1.11	3,811.00	4,853	3/6/2014 23:58	3/6/2014 1:04	202,200