

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 - *Final*

DATE: 9/23/2013  
API #: 47-017-06062

*PM* *SH H*

Farm name: Joseph L. Carr et al. Operator Well No.: 514210

LOCATION: Elevation: 1179 Quadrangle: Smithburg 7.5

District: Grant County: Doddridge  
Latitude: 2840 Feet South of 39 Deg. 22 Min. 30 Sec.  
Longitude 8659 Feet West of 80 Deg. 40 Min. 00 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 AVE, PITTSBURGH, PA 15222	20	53	53	44.84
Agent: CECIL RAY	13-3/8"	1120	1120	1035.3
Inspector: DAVID SCRANAGE	9-5/8"	5339	5339	2133.4
Date Permit Issued: 6/15/2012	5-1/2"	15620	15620	2610.9
Date Well Work Commenced: 5/4/2013				
Date Well Work Completed: 9/20/2013				
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): 7117				
Total Measured Depth (ft): 15620				
Fresh Water Depth (ft.): 344				
Salt Water Depth (ft.): 1187				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): N/A				
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) 7,034  
Gas: Initial open flow 5,213 MCF/d Oil: Initial open flow 0 Bbl/d  
Final open flow 5,404 MCF/d Final open flow 48 Bbl/d  
Time of open flow between initial and final tests 48.8 Hours  
Static rock Pressure 3,218 psig (surface pressure) after 48.8 Hours

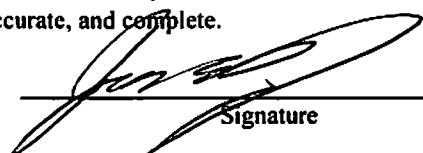
Second producing formation \_\_\_\_\_ Pay zone depth (ft) \_\_\_\_\_  
Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow \_\_\_\_\_ MCF/d Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests \_\_\_\_\_ Hours  
Static rock Pressure \_\_\_\_\_ psig (surface pressure) after \_\_\_\_\_ Hours

RECEIVED  
Office of Oil and Gas

JUL 10 2014

WV Department of  
Environmental Protection

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

7/9/2014  
Date

09/19/2014

17.06062

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 MWD, GAMMA, CBL

**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:

Amended Report with Flow Back Data

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

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

<u>Sand/Shale 0/2021 -- Maxton 2021/2092 -- Sand/Shale 2092/ 2181 -- Big Lime 2181/227</u>
<u>Big Injun 2276/2444 -- Sand/Shale 2444/ 2548 -- Weir 2548/2613 -- Sand/Shale 2613 / 2679 -- Gantz 2679/2735</u>
<u>Sand/Shale 2735/ 2747 -- Fifty Foot 2747 / 2794 -- Sand/Shale 2794/ 2885 --</u>
<u>Thirty Foot 2885/2911 -- Sand/Shale 2911/ 2972 -- Gordon 2972/3036 -- Fourth Sand 3036/3134</u>
<u>-- Fifth Sand 3134/3211 -- Sand/Shale 3211/3611 -- Warren 3611/3666 -- Sand/Shale 3666/3818 --</u>
<u>Speechley 3818/3916 -- Sand/Shale 3916/ 4047 -- Balltown 4047/4471 -- Sand/Shale 4471/5186 --</u>
<u>Benson 5186/5253 -- Sand/Shale 5253/5606 -- Alexander 5606/5729 -- Sand/Shale 5729/6049</u>
<u>Elk 6049/6625 -- Rhinestreet 6625/6792 -- Middlesex 6792/6848 -- Genesee 6848/6932 --</u>
<u>Geneseo 6932/6962 -- Tully 6962/6988 -- Hamilton 6988/7034 -- Marcellus 7034/7117</u>

17.06062

## 514210 - Perforations

Zone/Stage	Date	Top Plug Depth (ftKB)	Bottom Plug Depth (ftKB)	Top Perf Depth (ftKB)	Bottom Perf Depth (ftKB)	Shots/ft
Toe Pop	1/21/14 23:20	15,459.00	NA	15,594.00	15,597.00	NA
1	1/22/14 6:00	15,459.00	NA	15,473.00	15,565.00	4
2	1/22/14 18:03	15,309.00	15,459.00	15,323.00	15,445.00	4
3	1/23/14 0:07	15,159.00	15,309.00	15,173.00	15,295.00	4
4	1/23/14 5:23	15,009.00	15,159.00	15,023.00	15,142.00	4
5	1/23/14 10:54	14,859.00	15,009.00	14,873.00	14,995.00	4
6	1/23/14 15:24	14,709.00	14,859.00	14,723.00	14,845.00	4
7	1/23/14 21:23	14,559.00	14,709.00	14,579.00	14,695.00	4
8	1/24/14 3:00	14,409.00	14,559.00	14,423.00	14,545.00	4
9	1/24/14 10:00	14,259.00	14,409.00	14,273.00	14,395.00	4
10	1/24/14 15:44	14,109.00	14,259.00	14,123.00	14,245.00	4
11	1/24/14 20:23	13,959.00	14,109.00	13,973.00	14,091.00	4
12	1/25/14 1:05	13,809.00	13,959.00	13,823.00	13,945.00	4
13	1/25/14 6:12	13,659.00	13,809.00	13,673.00	13,795.00	4
14	1/25/14 12:07	13,509.00	13,659.00	13,526.00	13,645.00	4
15	1/25/14 17:21	13,359.00	13,509.00	13,373.00	13,495.00	4
16	1/25/14 22:10	13,209.00	13,359.00	13,223.00	13,345.00	4
17	1/26/14 4:04	13,059.00	13,209.00	13,073.00	13,195.00	4
18	1/26/14 8:50	12,909.00	13,059.00	12,923.00	13,045.00	4
19	1/26/14 18:51	12,759.00	12,909.00	12,773.00	12,895.00	4
20	1/27/14 3:48	12,609.00	12,759.00	12,623.00	12,745.00	4
21	1/27/14 11:15	12,459.00	12,609.00	12,473.00	12,595.00	4
22	1/27/14 17:04	12,309.00	12,459.00	12,323.00	12,445.00	4
23	1/28/14 0:49	12,159.00	12,309.00	12,173.00	12,292.00	4
24	1/28/14 6:36	12,009.00	12,159.00	12,023.00	12,145.00	4
25	1/28/14 21:55	11,859.00	12,009.00	11,873.00	11,995.00	4
26	1/29/14 10:51	11,709.00	11,859.00	11,723.00	11,845.00	4
27	1/29/14 20:35	11,559.00	11,709.00	11,573.00	11,695.00	4
28	1/30/14 1:50	11,409.00	11,559.00	11,423.00	11,545.00	4
29	1/30/14 8:51	11,259.00	11,409.00	11,273.00	11,395.00	4
30	1/30/14 14:59	11,109.00	11,259.00	11,123.00	11,240.00	4
31	1/30/14 19:08	10,959.00	11,109.00	10,973.00	11,095.00	4
32	1/30/14 23:37	10,809.00	10,959.00	10,823.00	10,945.00	4
33	1/31/14 3:50	10,659.00	10,809.00	10,676.00	10,795.00	4
34	1/31/14 8:44	10,509.00	10,659.00	10,523.00	10,645.00	4
35	1/31/14 12:59	10,359.00	10,509.00	10,373.00	10,495.00	4
36	1/31/14 17:11	10,209.00	10,359.00	10,223.00	10,345.00	4
37	1/31/14 21:34	10,059.00	10,209.00	10,073.00	10,195.00	4
38	2/1/14 2:22	9,909.00	10,063.00	9,923.00	10,045.00	4
39	2/1/14 15:22	9,759.00	9,909.00	9,773.00	9,895.00	4
40	2/1/14 19:28	9,609.00	9,759.00	9,626.00	9,745.00	4
41	2/2/14 0:18	9,459.00	9,609.00	9,473.00	9,595.00	4
42	2/2/14 3:40	9,309.00	9,459.00	9,323.00	9,445.00	4
43	2/2/14 7:21	9,159.00	9,309.00	9,173.00	9,295.00	4
44	2/2/14 12:18	9,009.00	9,159.00	9,023.00	9,145.00	4
45	2/2/14 16:54	8,859.00	9,009.00	8,873.00	8,995.00	4
46	2/2/14 21:00	8,709.00	8,859.00	8,723.00	8,845.00	4
47	2/3/14 1:00	8,559.00	8,709.00	8,573.00	8,695.00	4
48	2/3/14 4:32	NA	8,559.00	8,423.00	8,545.00	4

09/19/2014

17-06062

514210 - 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	8,202.00	15.9	NA	NA	NA	2,919	1/21/2014 23:58	1/22/2014 3:01	NA
1	NA	8,899.00	86.6	3,673.00	0.95	2,714.00	5,150	1/22/2014 15:22	1/22/2014 16:53	200,839
2	5,734.00	8,641.00	94.7	5,045.00	1.14	3,656.00	5,380	1/22/2014 20:46	1/22/2014 22:15	201,005
3	6,744.00	8,732.00	94.9	4,349.00	1.04	3,257.00	5,312	1/23/2014 2:19	1/23/2014 3:47	197,598
4	5,870.00	8,675.00	96.2	4,322.00	1.04	3,256.00	5,265	1/23/2014 7:01	1/23/2014 8:27	200,636
5	6,079.00	8,681.00	98.2	4,424.00	1.07	3,286.00	5,156	1/23/2014 12:56	1/23/2014 14:22	198,357
6	5,837.00	8,809.00	90.4	4,972.00	1.13	3,599.00	5,117	1/23/2014 17:55	1/23/2014 19:54	201,393
7	5,972.00	8,796.00	95.5	5,387.00	1.11	3,569.00	5,209	1/23/2014 23:51	1/24/2014 1:15	199,501
8	5,657.00	8,563.00	97.5	4,253.00	1.03	3,336.00	5,250	1/24/2014 6:25	1/24/2014 7:49	199,402
9	5,808.00	8,539.00	96.9	4,741.00	1.1	4,209.00	5,122	1/24/2014 12:01	1/24/2014 13:30	198,500
10	5,662.00	8,710.00	92.7	4,361.00	1.05	3,323.00	5,105	1/24/2014 17:20	1/24/2014 18:45	200,065
11	5,571.00	8,617.00	97.3	4,092.00	1.01	2,993.00	5,251	1/24/2014 22:03	1/24/2014 23:32	200,554
12	5,811.00	8,615.00	99.7	4,900.00	1.12	3,818.00	5,189	1/25/2014 21:59	1/25/2014 4:01	199,221
13	6,041.00	8,508.00	98.4	4,522.00	1.07	3,676.00	5,201	1/25/2014 8:05	1/25/2014 9:26	200,641
14	5,678.00	8,775.00	97.2	4,240.00	1.03	3,238.00	5,640	1/25/2014 14:57	1/25/2014 16:39	199,866
15	5,642.00	8,716.00	94.5	4,175.00	1.02	3,114.00	5,158	1/25/2014 19:59	1/25/2014 21:24	202,363
16	5,497.00	8,446.00	100.4	4,749.00	1.1	3,840.00	5,243	1/26/2014 1:03	1/26/2014 2:25	200,139
17	5,960.00	8,285.00	96.2	4,502.00	1.07	3,601.00	5,149	1/26/2014 5:15	1/26/2014 6:44	202,234
18	5,583.00	8,716.00	96.9	4,147.00	1.02	3,248.00	4,911	1/26/2014 16:50	1/26/2014 18:06	200,239
19	5,762.00	8,613.00	94.3	4,263.00	1.03	3,311.00	5,118	1/26/2014 21:50	1/26/2014 23:14	201,139
20	5,495.00	8,697.00	93.6	4,450.00	1.06	3,473.00	6,301	1/27/2014 4:45	1/27/2014 9:27	201,524
21	5,386.00	8,740.00	97.0	4,163.00	1.02	3,314.00	5,015	1/27/2014 14:51	1/27/2014 16:13	202,005
22	5,570.00	8,492.00	99.8	4,007.00	1	3,130.00	5,132	1/27/2014 20:39	1/27/2014 21:50	200,247
23	5,638.00	8,316.00	98.4	4,382.00	1.05	3,416.00	5,830	1/28/2014 2:41	1/28/2014 4:07	200,077
24	5,567.00	8,448.00	98.6	4,795.00	1.13	3,589.00	6,015	1/28/2014 15:57	1/28/2014 19:59	201,475
25	5,679.00	8,324.00	97.5	4,072.00	1.01	3,082.00	5,609	1/29/2014 4:15	1/29/2014 8:17	201,058
26	5,545.00	8,217.00	98.7	4,470.00	1.06	3,517.00	5,342	1/29/2014 16:41	1/29/2014 17:59	199,902
27	5,941.00	8,368.00	98.9	4,237.00	1.03	3,315.00	5,293	1/29/2014 22:31	1/30/2014 0:31	200,516
28	5,971.00	8,425.00	95.8	4,319.00	1.04	3,266.00	5,463	1/30/2014 4:10	1/30/2014 7:00	197,495
29	6,003.00	8,118.00	100.4	4,784.00	1.11	3,782.00	5,097	1/30/2014 12:00	1/30/2014 13:40	202,471
30	6,332.00	8,419.00	98.4	3,989.00	0.96	3,237.00	4,925	1/30/2014 16:10	1/30/2014 7:48	201,282
31	5,798.00	8,117.00	100.2	4,362.00	1.05	3,430.00	5,236	1/30/2014 20:53	1/30/2014 22:09	202,680
32	5,989.00	7,938.00	100.0	4,605.00	1.08	3,565.00	5,283	1/31/2014 1:00	1/31/2014 2:18	200,086
33	5,896.00	7,957.00	100.1	4,790.00	1.11	3,749.00	5,069	1/31/2014 5:49	1/31/2014 7:01	200,401
34	6,156.00	7,940.00	100.4	5,303.00	1.18	3,604.00	4,993	1/31/2014 9:58	1/31/2014 11:07	201,727
35	5,738.00	8,034.00	100.0	5,136.00	1.16	3,693.00	5,375	1/31/2014 14:20	1/31/2014 15:33	203,636
36	5,772.00	7,940.00	99.3	5,543.00	1.22	3,869.00	5,052	1/31/2014 18:49	1/31/2014 20:28	201,177
37	5,885.00	7,927.00	100.7	4,826.00	1.12	3,643.00	5,219	1/31/2014 23:35	2/1/2014 1:17	198,935
38	6,071.00	7,972.00	100.5	5,128.00	1.16	3,523.00	4,959	2/1/2014 12:18	2/1/2014 13:27	196,804
39	6,478.00	7,940.00	100.6	5,042.00	1.15	3,709.00	4,895	2/1/2014 16:58	2/1/2014 18:04	200,026
40	6,118.00	8,020.00	100.6	4,770.00	1.1	3,512.00	5,075	2/1/2014 21:08	2/1/2014 22:17	201,033
41	6,185.00	7,735.00	101.1	5,302.00	1.18	3,747.00	5,038	2/1/2014 0:49	2/2/2014 2:25	201,299
42	5,607.00	8,023.00	100.2	4,983.00	1.14	3,495.00	5,034	2/2/2014 4:11	2/2/2014 5:37	200,124
43	6,540.00	7,909.00	100.7	4,909.00	1.13	4,684.00	4,940	2/2/2014 9:40	2/2/2014 10:45	199,627
44	6,494.00	7,921.00	99.5	5,146.00	1.16	3,699.00	5,032	2/2/2014 14:15	2/2/2014 15:23	202,761
45	6,659.00	7,946.00	100.5	5,129.00	1.16	3,479.00	5,046	2/2/2014 18:29	2/2/2014 19:36	198,213
46	7,349.00	7,844.00	100.2	5,391.00	1.2	3,935.00	5,169	2/2/2014 22:30	2/2/2014 23:39	200,530
47	6,707.00	7,856.00	100.0	4,223.00	1.03	3,331.00	5,108	2/3/2014 1:58	2/3/2014 3:28	199,075
48	6,756.00	7,990.00	98.4	4,110.00	1.02	3,268.00	5,196	2/3/2014 17:43	2/3/2014 19:03	224,983

09/19/2014