

PK H

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: 10/2/2013
API #: 47-017-06059

Farm name: Patty J & R Keith Cnihfield & David Wentz Operator Well No.: 514137

LOCATION: Elevation: 1179 Quadrangle: Smithburg 7.5

District: Grant County: Doddridge
Latitude: 2826 Feet South of 39 Deg. 22 Min. 30 Sec.
Longitude 8654 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	63	63	45
Agent: CECIL RAY	13-3/8"	1028	1028	1035
Inspector: DAVID SCRANAGE	9-5/8"	5366	5366	1056
Date Permit Issued: 6/15/2012	5-1/2"	14687	14687	2394
Date Well Work Commenced: 5/4/2013				
Date Well Work Completed: 9/28/2013				
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): 7112				
Total Measured Depth (ft): 14688				
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)

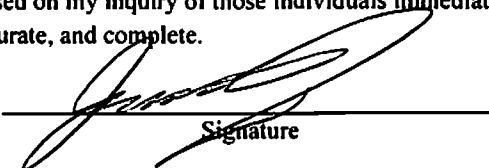
Producing formation Marcellus Pay zone depth (ft) 7,056
Gas: Initial open flow 398 MCF/d Oil: Initial open flow 0 Bbl/d
Final open flow 5,289 MCF/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests 57.5 Hours
Static rock Pressure 3,149 psig (surface pressure) after 59 Hours

Second producing formation NA 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

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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

17-06059

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

SD during stg 35 - ran inj test and finished stage - no re-perf

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

<u>Formations Encountered:</u>	<u>Top Depth</u>	<u>Bottom Depth</u>
Sand/Shale 0/2021 -- Maxton 2021/2092 -- Sand/Shale 2092/ 2181 -- Big Lime 2181/2276		
Big Injun 2276/2444 -- Sand/Shale 2444/ 2548 -- Weir 2548/2613 -- Sand/Shale 2613 / 2679 -- Gantz 2679/2735		
Sand/Shale 2735/ 2747 -- Fifty Foot 2747 / 2794 -- Sand/Shale 2794/ 2885 --		
Thirty Foot 2885/2911 -- Sand/Shale 2911/ 2972 -- Gordon 2972/3036 -- Fourth Sand 3036/3134		
-- Fifth Sand 3134/3211 -- Sand/Shale 3211/3611 -- Warren 3611/3666 -- Sand/Shale 3666/3818 --		
Speechley 3818/3916 -- Sand/Shale 3916/ 4047 -- Balltown 4047/4471 -- Sand/Shale 4471/5186 --		
Benson 5186/5253 -- Sand/Shale 5253/5606 -- Alexander 5606/5729 -- Sand/Shale 5729/6049		
Elk 6049/6662-- Sonyea 6662/6806 -- Middlesex 6806/6839 -- Genesee 6839/6951--		
Geneseo 6951/6982 -- Tully 6982/7007 -- Hamilton 7007/7056 -- Marcellus 7056/7112		

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514137 - Perforations

Zone/Stage	Date	Top Plug Depth (ftKB)	Bottom Plug Depth (ftKB)	Top Perf Depth (ftKB)	Bottom Perf Depth (ftKB)	Shots/ft
Toe Pop	12/18/13 2:03	14,525.00	NA	14,660.00	14,662.00	NA
1	12/18/13 16:20	14,525.00	NA	14,539.00	14,631.00	4
2	12/18/13 22:21	14,375.00	14,525.00	14,389.00	14,511.00	4
3	12/19/13 2:42	14,225.00	14,375.00	14,239.00	14,361.00	4
4	12/19/13 7:57	14,075.00	14,225.00	14,089.00	14,211.00	4
5	12/19/13 13:03	13,925.00	14,075.00	13,939.00	14,061.00	4
6	12/19/13 18:36	13,775.00	13,925.00	13,789.00	13,911.00	4
7	12/20/13 0:30	13,625.00	13,775.00	13,639.00	13,761.00	4
8	12/20/13 4:23	13,475.00	13,625.00	13,489.00	13,611.00	4
9	12/20/13 9:37	13,326.00	13,475.00	13,339.00	13,461.00	4
10	12/20/13 14:38	13,175.00	13,326.00	13,188.00	13,311.00	4
11	12/20/13 19:08	13,025.00	13,175.00	13,039.00	13,161.00	4
12	12/21/13 0:11	12,875.00	13,025.00	12,889.00	13,011.00	4
13	12/21/13 4:06	12,725.00	12,875.00	12,739.00	12,861.00	4
14	12/21/13 9:47	12,575.00	12,725.00	12,589.00	12,711.00	4
15	12/21/13 15:29	12,425.00	12,575.00	12,439.00	12,561.00	4
16	12/21/13 20:35	12,275.00	12,425.00	12,289.00	12,411.00	4
17	12/22/13 0:27	12,125.00	12,275.00	12,144.00	12,261.00	4
18	12/22/13 5:19	11,975.00	12,125.00	11,989.00	12,111.00	4
19	12/22/13 9:36	11,825.00	11,975.00	11,839.00	11,961.00	4
20	12/22/13 14:12	11,675.00	11,825.00	11,689.00	11,811.00	4
21	12/22/13 20:41	11,525.00	11,675.00	11,539.00	11,661.00	4
22	1/15/14 16:05	11,375.00	11,525.00	11,389.00	11,511.00	4
23	1/15/14 20:55	11,225.00	11,375.00	11,239.00	11,361.00	4
24	1/16/14 0:15	11,075.00	11,225.00	11,089.00	11,211.00	4
25	1/16/14 4:20	10,925.00	11,075.00	10,939.00	11,061.00	4
26	1/16/14 9:52	10,775.00	10,925.00	10,789.00	10,911.00	4
27	1/16/14 15:33	10,625.00	10,775.00	10,639.00	10,761.00	4
28	1/16/14 20:07	10,475.00	10,625.00	10,489.00	10,611.00	4
29	1/17/14 0:31	10,325.00	10,475.00	10,339.00	10,461.00	4
30	1/17/14 4:00	10,175.00	10,325.00	10,189.00	10,311.00	4
31	1/17/14 10:00	10,025.00	10,175.00	10,039.00	10,161.00	4
32	1/17/14 13:40	9,875.00	10,025.00	9,889.00	10,011.00	4
33	1/17/14 18:30	9,725.00	9,875.00	9,739.00	9,858.00	4
34	1/17/14 21:53	9,575.00	9,725.00	9,589.00	9,711.00	4
35	1/18/14 1:30	9,425.00	9,575.00	9,439.00	9,561.00	4
36	1/18/14 20:36	9,275.00	9,425.00	9,293.00	9,409.00	4
37	1/19/14 1:30	9,125.00	9,275.00	9,139.00	9,261.00	4
38	1/19/14 3:53	8,975.00	9,125.00	8,989.00	9,111.00	4
39	1/19/14 7:52	8,825.00	8,975.00	8,839.00	8,961.00	4
40	1/19/14 12:34	8,677.00	8,825.00	8,689.00	8,811.00	4
41	1/19/14 16:18	8,525.00	8,677.00	8,539.00	8,661.00	4
42	1/19/14 20:12	8,375.00	8,525.00	8,389.00	8,511.00	4
43	1/20/14 3:17	8,225.00	8,375.00	8,239.00	8,361.00	4
44	1/20/14 4:15	8,075.00	8,225.00	8,089.00	8,211.00	4
45	1/20/14 7:00	7,925.00	8,075.00	7,939.00	8,057.00	4
46	1/20/14 11:18	7,775.00	7,925.00	7,789.00	7,911.00	4
47	1/20/14 17:34	7,625.00	7,775.00	7,639.00	7,761.00	4
48	1/20/14 23:30	7,475.00	7,625.00	7,489.00	7,611.00	4
49	1/21/14 1:31	NA	7,475.00	7,339.00	7,461.00	4

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514137 - Stimulated Stages

Zone/Stage	P Break (psi)	Avg Treat Pressure (psi)	Avg rate (bbi/min)	ISIP (psi)	Frac Gradient (psi/ft)	15 Min. SIP (psi)	Fluid Volume (bbi)	Start Date	End Date	Proppant (lb)
Toe Pop	NA	7,729.00	14.6	NA	NA	NA	1,415	12/18/2013 2:03	12/18/2013 8:11	NA
1	NA	8,838.00	84.0	4,373.00	1.05	2,679.00	5,550	12/18/2013 19:02	12/18/2013 20:32	201,600
2	6,428.00	8,841.00	89.2	4,946.00	1.13	3,077.00	5,400	12/18/2013 23:40	12/19/2013 1:06	201,800
3	6,024.00	8,819.00	89.2	5,282.00	1.18	3,450.00	5,132	12/19/2013 4:27	12/19/2013 5:51	197,800
4	6,341.00	8,944.00	90.2	5,327.00	1.18	3,384.00	5,279	12/19/2013 9:38	12/19/2013 11:02	201,600
5	5,965.00	8,943.00	91.4	4,671.00	1.09	3,041.00	5,285	12/19/2013 15:24	12/19/2013 16:48	204,200
6	5,956.00	8,787.00	93.5	4,684.00	1.09	3,027.00	5,018	12/19/2013 21:40	12/19/2013 22:58	201,500
7	6,104.00	8,850.00	92.1	5,241.00	1.17	3,414.00	4,899	12/20/2013 1:41	12/20/2013 2:57	200,700
8	6,072.00	8,940.00	89.6	4,933.00	1.13	3,122.00	5,247	12/20/2013 5:48	12/20/2013 7:12	203,300
9	6,661.00	8,875.00	91.1	4,407.00	1.05	3,241.00	5,037	12/20/2013 11:32	12/20/2013 12:51	200,500
10	6,650.00	8,897.00	94.4	4,875.00	1.12	3,255.00	5,168	12/20/2013 17:00	12/20/2013 18:21	198,700
11	6,063.00	8,837.00	95.7	4,970.00	1.13	3,374.00	5,080	12/20/2013 22:29	12/21/2013 0:07	201,200
12	5,869.00	8,803.00	93.9	5,201.00	1.17	3,503.00	4,906	12/21/2013 2:22	12/21/2013 3:39	202,400
13	5,728.00	8,921.00	95.9	5,195.00	1.17	3,440.00	5,161	12/21/2013 6:34	12/21/2013 7:52	200,900
14	6,402.00	8,934.00	94.1	4,677.00	1.09	3,212.00	5,230	12/21/2013 12:26	12/21/2013 13:46	202,900
15	5,890.00	8,798.00	94.5	4,920.00	1.13	3,218.00	5,053	12/21/2013 17:56	12/21/2013 19:12	202,000
16	5,695.00	8,849.00	95.0	5,318.00	1.18	3,579.00	5,027	12/21/2013 21:37	12/21/2013 22:50	201,300
17	5,662.00	8,470.00	97.5	5,129.00	1.16	3,551.00	5,857	12/22/2013 1:42	12/22/2013 3:54	200,300
18	5,924.00	8,211.00	99.4	5,134.00	1.16	3,260.00	5,124	12/22/2013 6:43	12/22/2013 7:59	201,400
19	5,749.00	8,678.00	97.2	4,981.00	1.13	3,306.00	5,016	12/22/2013 10:56	12/22/2013 12:16	200,900
20	6,083.00	8,729.00	98.0	5,479.00	1.2	3,740.00	5,109	12/22/2013 16:21	12/22/2013 17:36	200,300
21	6,155.00	8,148.00	94.4	5,314.00	1.18	3,366.00	4,966	1/15/2014 13:04	1/15/2014 14:20	198,000
22	6,107.00	8,075.00	100.0	4,380.00	1.05	3,231.00	5,178	1/15/2014 17:55	1/15/2014 19:11	201,000
23	5,985.00	8,426.00	96.3	3,973.00	0.99	2,920.00	5,078	1/15/2014 2:00	1/15/2014 5:00	198,300
24	5,792.00	8,310.00	97.4	4,024.00	1	2,900.00	5,084	1/15/2014 2:00	1/15/2014 5:00	201,300
25	5,747.00	8,023.00	100.4	5,183.00	1.16	3,297.00	4,949	1/16/2014 6:44	1/16/2014 7:54	199,600
26	5,653.00	8,051.00	100.8	4,208.00	1.03	3,149.00	5,120	1/16/2014 12:31	1/16/2014 13:45	203,500
27	5,893.00	7,958.00	99.7	4,414.00	1.05	3,195.00	5,020	1/16/2014 17:14	1/16/2014 18:24	199,800
28	5,640.00	7,873.00	100.5	4,272.00	1.04	3,196.00	4,942	1/16/2014 21:40	1/16/2014 22:52	198,700
29	5,740.00	8,117.00	100.5	4,361.00	1.05	3,299.00	4,991	1/17/2014 1:48	1/17/2014 3:01	201,700
30	6,013.00	7,910.00	100.3	4,320.00	1.04	3,257.00	5,192	1/17/2014 6:23	1/17/2014 7:39	200,700
31	5,752.00	8,203.00	100.3	4,271.00	1.04	3,251.00	5,010	1/17/2014 6:23	1/17/2014 7:39	202,700
32	5,822.00	7,886.00	100.6	4,193.00	1.02	3,110.00	5,105	1/17/2014 14:50	1/17/2014 16:06	201,100
33	5,782.00	7,795.00	100.7	4,457.00	1.06	3,355.00	4,908	1/17/2014 19:08	1/17/2014 20:17	202,600
34	5,717.00	7,911.00	100.5	4,372.00	1.05	3,368.00	5,103	1/17/2014 22:51	1/18/2014 0:01	200,900
35	5,741.00	7,843.00	100.6	4,942.00	1.13	NA	3,639	1/18/2014 2:39	1/18/2014 3:33	119,200
35 - Inj Test	NA	4,481.00	9.5	4,744.00	1.1	NA	3,066	1/18/2014 8:39	1/18/2014 13:48	0
35 - Finish	NA	7,513.00	101.3	4,931.00	1.13	3,926.00	3,070	1/18/2014 18:15	1/18/2014 19:28	87,000
36	6,153.00	7,929.00	100.7	3,989.00	1	3,196.00	4,890	1/18/2014 21:32	1/18/2014 23:27	200,300
37	5,493.00	7,880.00	100.2	4,557.00	1.08	3,342.00	5,112	1/19/2014 1:42	1/19/2014 3:10	202,800
38	5,463.00	7,823.00	100.5	4,335.00	1.04	3,223.00	4,956	1/19/2014 6:02	1/19/2014 7:15	202,900
39	5,476.00	7,703.00	100.6	4,223.00	1.03	3,232.00	4,881	1/19/2014 9:50	1/19/2014 11:04	202,400
40	5,955.00	7,679.00	100.5	5,050.00	1.15	3,548.00	4,798	1/19/2014 13:51	1/19/2014 14:56	200,600
41	6,912.00	7,898.00	100.5	4,168.00	1.02	3,244.00	4,878	1/19/2014 17:39	1/19/2014 18:45	195,500
42	6,220.00	7,718.00	100.7	4,117.00	1.01	3,117.00	4,970	1/19/2014 21:06	1/19/2014 22:15	200,700
43	5,369.00	8,205.00	99.9	4,381.00	1.05	3,267.00	5,074	1/20/2014 1:06	1/20/2014 2:18	198,600
44	5,388.00	7,692.00	100.0	4,987.00	1.14	3,387.00	5,081	1/20/2014 5:07	1/20/2014 6:18	203,200
45	5,619.00	7,812.00	100.5	4,791.00	1.11	3,473.00	4,784	1/20/2014 8:22	1/20/2014 9:28	201,100
46	5,767.00	7,889.00	100.5	5,186.00	1.16	3,541.00	4,951	1/20/2014 13:49	1/20/2014 14:54	204,500
47	6,370.00	7,916.00	100.1	5,088.00	1.15	3,315.00	5,014	1/20/2014 18:27	1/20/2014 19:36	201,800
48	6,240.00	7,429.00	101.0	3,685.00	0.96	2,804.00	4,844	1/20/2014 23:03	1/21/2014 0:08	202,800
49	7,866.00	7,432.00	100.6	3,667.00	0.96	2,835.00	4,989	1/21/2014 2:48	1/21/2014 4:00	202,200

09/19/2014