

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

RECEIVED

JAN 27 2015

WV GEOLOGICAL SURVEY
MORGANTOWN, WV

API 47 - 033 - 05723 County Harrison District Tenmile
Quad Salem Pad Name Varner West Pad Field/Pool Name _____
Farm name Varner, James A. Well Number Varner Unit 1H
Operator (as registered with the OOG) Antero Resources Corporation
Address 1615 Wynkoop Street City Denver State CO Zip 80202

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,345,143.001m Easting 539,087.432m
Landing Point of Curve Northing 4,345,091.67m Easting 539,282.52m
Bottom Hole Northing 4,343,148.013m Easting 541,338.820m

Elevation (ft) 1453' GL Type of Well New Existing Type of Report Interim Final
Permit Type Deviated Horizontal Horizontal 6A Vertical Depth Type Deep Shallow
Type of Operation Convert Deepen Drill Plug Back Redrilling Rework Stimulate
Well Type Brine Disposal CBM Gas Oil Secondary Recovery Solution Mining Storage Other _____
Type of Completion Single Multiple Fluids Produced Brine Gas NGL Oil Other _____
Drilled with Cable Rotary

Drilling Media Surface hole Air Mud Fresh Water Intermediate hole Air Mud Fresh Water Brine
Production hole Air Mud Fresh Water Brine

Mud Type(s) and Additive(s)
Air - Foam & 4% KCL
Mud - Polymer

Date permit issued 4/3/2013 Date drilling commenced 7/26/2013 Date drilling ceased 11/26/2013
Date completion activities began 2/15/2014 Date completion activities ceased 4/9/2014
Verbal plugging (Y/N) N/A Date permission granted N/A Granted by N/A

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 196' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 740', 1222', 2300' Void(s) encountered (Y/N) depths N
Coal depth(s) ft 720', 1420', 2020' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by: _____

meathouse Fork - Bristol (146) 6-6

API 47-033 - 05723 Farm name Varner, James A. Well number Varner Unit 1H

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	24"	20"	40'	New	94#/H-40	N/A	Y
Surface	17-1/2"	13-3/8"	434'	New	48#/H-40	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2603'	New	36#/J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4" & 8-1/2"	5-1/2"	17,245'	New	20#/P-110	N/A	Y
Tubing		2-3/8"	7715'		4.7#/N-80	N/A	
Packer type and depth set		N/A					

Comment Details _____

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	Class A	193 sx	15.6	1.18	38 Cu. Ft.	0'	8 hrs
Surface	Class A	518 sx	15.6	1.18	301 Cu. Ft.	0'	8 hrs
Coal							
Intermediate 1	Class A		15.6	1.18	815 C. Ft.	0'	8 hrs
Intermediate 2							
Intermediate 3							
Production	Class H	1058 sx (Lead), 1548 sx (Tail)	13.5 (Lead), 15.2 (Tail)	1.44 (Lead), 1.8 (Tail)	3469 Cu. Ft.	~500' into Intermediate Casing	8 hrs
Tubing							

Drillers TD (ft) 17,245' MD, 7389' TVD (BHL), 7567' TVD (Deepest Point Drilled) Loggers TD (ft) 17,199' MD
 Deepest formation penetrated Marcellus Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 6115'

** This is a subsequent well. Antero only runs wireline logs on one well on a multi-well pad (Gideon Unit 1H API# 47-033-05722). Please reference the wireline logs submitted with Form WR-35 for the Gideon Unit 1H. A Cement Bond Log has been included with this submittal.

Check all wireline logs run caliper density deviated/directional induction neutron resistivity gamma ray temperature

Well cored Yes No Conventional Sidewall Were cuttings collected Yes No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING _____

Conductor - 0
 Surface - 1 above guide shoe, 1 above insert float, 1 every 4th joint to surface
 Intermediate - 1 above float joint, 1 above float collar, 1 every 4th joint to surface
 Production - 1 above float joint, 1 below float collar, 1 every 3rd joint to top of cement

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED Radioactive & Chemical

RECEIVED

JAN 27 2015

API 47-033-05723 Farm Name Varner, James A. Well Number Varner Unit 1H

EXHIBIT 1

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	23-Feb-14	16975'	17157'	60	Marcellus
2	25-Feb-14	16777'	16944'	60	Marcellus
3	26-Feb-14	16582'	16747'	60	Marcellus
4	28-Feb-14	16385'	16550'	60	Marcellus
5	28-Feb-14	16188'	16353'	60	Marcellus
6	1-Mar-14	15991'	16156'	60	Marcellus
7	1-Mar-14	15794'	15958'	60	Marcellus
8	2-Mar-14	15597'	15761'	60	Marcellus
9	21-Mar-14	15400'	15564'	60	Marcellus
10	22-Mar-14	15203'	15367'	60	Marcellus
11	23-Mar-14	15006'	15170'	60	Marcellus
12	23-Mar-14	14809'	14973'	60	Marcellus
13	23-Mar-14	14553'	14720'	60	Marcellus
14	24-Mar-14	14353'	14520'	60	Marcellus
15	24-Mar-14	14153'	14320'	60	Marcellus
16	24-Mar-14	13953'	14120'	60	Marcellus
17	25-Mar-14	13753'	13920'	60	Marcellus
18	25-Mar-14	13553'	13720'	60	Marcellus
19	25-Mar-14	13353'	13520'	60	Marcellus
20	25-Mar-14	13153'	13319'	60	Marcellus
21	26-Mar-14	12953'	13119'	60	Marcellus
22	26-Mar-14	12753'	12919'	60	Marcellus
23	26-Mar-14	12553'	12719'	60	Marcellus
24	27-Mar-14	12352'	12519'	60	Marcellus
25	27-Mar-14	12152'	12319'	60	Marcellus
26	27-Mar-14	11952'	12119'	60	Marcellus
27	28-Mar-14	11752'	11919'	60	Marcellus
28	28-Mar-14	11552'	11719'	60	Marcellus
29	28-Mar-14	11352'	11519'	60	Marcellus
30	29-Mar-14	11152'	11319'	60	Marcellus
31	29-Mar-14	10952'	11119'	60	Marcellus
32	29-Mar-14	10752'	10919'	60	Marcellus
33	29-Mar-14	10552'	10718'	60	Marcellus
34	29-Mar-14	10352'	10518'	60	Marcellus
35	29-Mar-14	10152'	10318'	60	Marcellus
36	30-Mar-14	9952'	10118'	60	Marcellus
37	30-Mar-14	9751'	9918'	60	Marcellus
38	30-Mar-14	9551'	9718'	60	Marcellus
39	30-Mar-14	9351'	9518'	60	Marcellus
40	30-Mar-14	9151'	9318'	60	Marcellus
41	31-Mar-14	8951'	9118'	60	Marcellus
42	31-Mar-14	8751'	8918'	60	Marcellus
43	31-Mar-14	8551'	8718'	60	Marcellus
44	31-Mar-14	8351'	8518'	60	Marcellus
45	31-Mar-14	8151'	8318'	60	Marcellus
46	1-Apr-14	7951'	8117'	60	Marcellus
47	1-Apr-14	7751'	7917'	60	Marcellus

RECEIVED

JAN 27 2015

WV GEOLOGICAL SURVEY
MORGANTOWN, WV

EXHIBIT 2

Stage No.	Stimulations Date	Avg Pump Rate	Avg Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/ other (units)
1	23-Feb-14	78.0	7,705	4,767	4,183	252,420	6,898	N/A
2	25-Feb-14	73.0	8,243	5,956	4,046	239,080	7,301	N/A
3	26-Feb-14	72.0	8,354	5,902	5,552	211,160	7,307	N/A
4	28-Feb-14	70.0	7,959	6,273	3,816	256,150	6,856	N/A
5	28-Feb-14	76.0	8,169	6,237	5,520	254,800	6,779	N/A
6	1-Mar-14	72.0	8,369	5,664	4,598	178,700	7,238	N/A
7	1-Mar-14	74.0	8,164	5,549	4,446	190,300	7,223	N/A
8	2-Mar-14	76.0	8,094	5,747	4,544	249,620	6,691	N/A
9	21-Mar-14	77.0	8,145	6,402	4,485	253,000	6,660	N/A
10	22-Mar-14	77.0	8,212	6,781	4,345	226,800	6,184	N/A
11	23-Mar-14	78.0	7,950	6,061	4,238	251,300	6,634	N/A
12	23-Mar-14	77.0	7,992	6,166	4,628	251,550	6,639	N/A
13	23-Mar-14	78.0	8,040	6,409	4,882	194,700	6,808	N/A
14	24-Mar-14	78.0	7,884	6,058	4,882	237,100	7,232	N/A
15	24-Mar-14	77.0	8,006	6,012	4,655	251,800	6,591	N/A
16	24-Mar-14	78.2	7,876	5,790	4,377	261,860	6,444	N/A
17	25-Mar-14	77.5	8,159	5,823	4,781	253,960	6,662	N/A
18	25-Mar-14	77.0	7,916	6,319	5,007	254,300	6,618	N/A
19	25-Mar-14	78.0	7,905	6,158	5,769	256,400	6,493	N/A
20	25-Mar-14	76.0	8,070	5,912	5,568	253,600	6,613	N/A
21	26-Mar-14	79.0	7,731	5,858	4,742	254,400	6,403	N/A
22	26-Mar-14	77.0	7,789	5,625	4,663	254,950	6,407	N/A
23	26-Mar-14	77.0	7,986	5,579	4,538	234,900	6,166	N/A
24	27-Mar-14	78.0	7,869	5,529	4,134	253,950	6,355	N/A
25	27-Mar-14	80.0	7,831	5,947	4,245	230,100	6,968	N/A
26	27-Mar-14	79.2	7,805	5,829	4,309	253,300	6,329	N/A
27	28-Mar-00	79.8	7,405	5,547	4,481	259,830	6,325	N/A
28	28-Mar-14	80.0	7,517	5,068	4,367	242,800	6,854	N/A
29	28-Mar-14	78.0	7,373	5,965	4,299	253,700	6,281	N/A
30	28-Mar-14	79.1	7,364	5,428	4,613	249,520	7,886	N/A
31	29-Mar-14	77.9	7,378	6,054	4,381	248,880	6,321	N/A
32	29-Mar-14	78.0	7,361	6,205	4,824	255,000	6,251	N/A
33	29-Mar-14	78.0	7,290	6,019	4,803	253,000	6,231	N/A
34	29-Mar-14	79.0	6,945	5,347	4,739	251,750	6,238	N/A
35	29-Mar-14	79.0	6,919	4,978	5,332	250,575	6,317	N/A
36	30-Mar-14	78.0	7,367	5,676	4,742	251,100	6,193	N/A
37	30-Mar-14	79.0	7,092	5,829	3,905	276,700	6,770	N/A
38	30-Mar-14	78.0	7,688	5,636	4,617	248,400	6,086	N/A
39	30-Mar-14	64.0	8,254	5,987	4,077	125,700	6,587	N/A
40	30-Mar-14	69.0	7,640	5,833	4,957	139,700	6,765	N/A
41	31-Mar-14	79.0	7,103	5,983	4,284	253,500	6,134	N/A
42	31-Mar-14	78.0	7,483	5,929	5,010	251,000	6,045	N/A
43	31-Mar-14	78.0	7,046	5,565	5,003	245,400	6,074	N/A
44	31-Mar-14	72.0	7,971	6,198	4,621	105,700	6,126	N/A
45	31-Mar-14	80.0	7,488	5,872	4,592	250,100	6,059	N/A
46	1-Apr-14	81.0	7,232	6,852	4,195	253,800	6,069	N/A
47	1-Apr-14	81.0	6,791	6,487	4,420	253,900	6,333	N/A
		76.9	7,722	5,890	4,622			

RECEIVED

JAN 27 2015

WV GEOLOGICAL SURVEY
MORGANTOWN, WV

API 47-033-05723 Farm Name Varner, James A. Well Number Varner Unit 1H

EXHIBIT 3

LITHOLOGY/ FORMATION	TOP DEPTH (TVD)	BOTTOM DEPTH (TVD)	TOP DEPTH (MD)	BOTTOM DEPTH (MD)	ROCK TYPE	FLUID PRODUCED
Undifferentiated	0'	2334'	0'	2334'	Sandstone	
Big Lime	est. 2335'	2385'	est. 2335'	2385'	Limestone	
Big Injun	est. 2386'	2814'	est. 2386'	2814'	Sandstone	
Gantz Sand	est. 2815'	2903'	est. 2815'	2903'	Sandstone	
Fifty Foot Sandstone	est. 2904'	3020'	est. 2904'	3020'	Sandstone	
Gordon	est. 3021'	3340'	est. 3021'	3340'	Sandstone	
Fifth Sandstone	est. 3341'	3374'	est. 3341'	3374'	Sandstone	
Bayard	est. 3375'	4147'	est. 3375'	4147'	Sandstone	
Speechley	est. 4148'	4456'	est. 4148'	4456'	Sandstone	
Baltown	est. 4457'	4791'	est. 4457'	4791'	Sandstone	
Bradford	est. 4792'	5315'	est. 4792'	5316'	Sandstone	
Benson	est. 5316'	5605'	est. 5317'	5612'	Sandstone	
Alexander	est. 5606'	5833'	est. 5613'	5852'	Sandstone	
Elk	est. 5834'	6295'	est. 5853'	6356'	Sandstone	
Rhinestreet	est. 6296'	6971'	est. 6357'	6972'	Sandstone	
Sycamore	6972'	7200'	6973'	7225'	Sandstone	
Middlesex	7201'	7348'	7226'	7411'	Shale	
Burkett	7349'	7376'	7412'	7450'	Shale	Gas
Tully	7377'	7477'	7451'	7610'	Limestone	N/A
Hamilton	7478'	7530'	7611'	7728'	Shale	N/A
Marcellus	7531'	7567.10'	7729'	8424'	Shale	Gas

*Please note Antero determines formation tops based on wireline logs that are only run on the initial well (Please reference Gideon Unit 1H API# 47-033-05722). The measured depth (MD) data on subsequent wells may be slightly different due to the well's unique departure.

RECEIVED

JAN 27 2015

WV GEOLOGICAL SURVEY
MORGANTOWN, WV