

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

API 47 - 017 - 06822 County Doddridge District West Union
 Quad West Union 7.5' Pad Name Middle Pad Field/Pool Name ----
 Farm name Antero Resources Corporation Well Number Jay 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 4352586.486m Easting 516696.266m
 Landing Point of Curve Northing 4352781.63m Easting 516963.88m
 Bottom Hole Northing 4355545.844m Easting 515755.307m

Elevation (ft) 843' 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 6/19/2017 Date drilling commenced 9/29/2017 Date drilling ceased 3/10/2018
 Date completion activities began 6/12/2018 Date completion activities ceased 9/11/2018
 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 None Identified Open mine(s) (Y/N) depths No
 Salt water depth(s) ft None Identified Void(s) encountered (Y/N) depths No
 Coal depth(s) ft None Identified Cavern(s) encountered (Y/N) depths No
 Is coal being mined in area (Y/N) No

Reviewed by: _____

WR-35
Rev. 8/23/13

API 47-017 - 06822 Farm name Antero Resources Corporation Well number Jay 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"	112'	New	94#, H-40	N/A	Y
Surface	17-1/2"	13-3/8"	548'	New	54#, J-55	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2628'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	16943'	New	23#, HCP-110	N/A	Y
Tubing		2-3/8"	6654'		4.7#, P-110		
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	204 sx	15.6	1.18	241	0'	8 Hrs.
Surface	Class A	445 sx	15.6	1.21	538	0'	8 Hrs.
Coal							
Intermediate 1	Class A	870 sx	15.6	1.22	1061	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	855 sx (Lead) 1628 sx (Tail)	13.5(Lead), 15.2 (Tail)	1.53 (Lead), 1.83 (Tail)	3978	-500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 16943' MD, 6420' TVD (BHL), 6440' (Deepest Point Drilled) Loggers TD (ft) 16943' MD

Deepest formation penetrated Marcellus Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) 5798'

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

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 N/A

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PRODUCING FORMATION(S)	DEPTHS		
Marcellus	6368' (TOP)	TVD	6708' (TOP) MD

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 3600 psi Bottom Hole --- psi DURATION OF TEST --- hrs

OPEN FLOW Gas 13199.74 mcfpd Oil 113.87 bpd NGL --- bpd Water 639 bpd GAS MEASURED BY Estimated Orifice Pilot

LITHOLOGY/ FORMATION	TOP	BOTTOM	TOP	BOTTOM	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
	DEPTH IN FT NAME TVD	DEPTH IN FT TVD	DEPTH IN FT MD	DEPTH IN FT MD	

***PLEASE SEE ATTACHED EXHIBIT 3**

Please insert additional pages as applicable.

Drilling Contractor Frontier Drilling LLC
Address 562 Spring Run Road City Pennsboro State WV Zip 26415

Logging Company Nine Energy Service
Address 125 Museum Rd City Washington State PA Zip 15301

Cementing Company C&J Energy Services
Address 1650 Hackers Creek City Lane Jew State WV Zip 26378

Stimulating Company Haliburton
Address 121 Champion Way City Canonsburg State PA Zip 15317

Please insert additional pages as applicable.

Completed by Karin Cox Telephone 303-357-6820
Signature  Title Permitting Agent Date 1/23/2019

API 47-017-06822 Farm Name Antero Resources Corp Well Number Jay Unit 1H					
EXHIBIT 1					
Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	6/12/2018	16668	16840	60	Marcellus
2	6/12/2018	16469.838	16636.973	60	Marcellus
3	6/12/2018	16271.676	16438.811	60	Marcellus
4	6/13/2018	16073.514	16240.649	60	Marcellus
5	6/14/2018	15875.352	16042.487	60	Marcellus
6	6/14/2018	15677.19	15844.325	60	Marcellus
7	6/14/2018	15479.028	15646.163	60	Marcellus
8	6/15/2018	15280.866	15448.001	60	Marcellus
9	6/15/2018	15082.704	15249.839	60	Marcellus
10	6/15/2018	14884.542	15051.677	60	Marcellus
11	6/16/2018	14686.38	14853.515	60	Marcellus
12	6/16/2018	14488.218	14655.353	60	Marcellus
13	6/16/2018	14290.056	14457.191	60	Marcellus
14	6/17/2018	14091.894	14259.029	60	Marcellus
15	6/17/2018	13893.732	14060.867	60	Marcellus
16	6/17/2018	13695.57	13862.705	60	Marcellus
17	6/17/2018	13497.408	13664.543	60	Marcellus
18	6/18/2018	13299.246	13466.381	60	Marcellus
19	6/19/2018	13101.084	13268.219	60	Marcellus
20	6/20/2018	12902.922	13070.057	60	Marcellus
21	6/21/2018	12704.76	12871.895	60	Marcellus
22	6/21/2018	12506.598	12673.733	60	Marcellus
23	6/22/2018	12308.436	12475.571	60	Marcellus
24	6/22/2018	12110.274	12277.409	60	Marcellus
25	6/23/2018	11912.112	12079.247	60	Marcellus
26	6/23/2018	11713.95	11881.085	60	Marcellus
27	6/24/2018	11515.788	11682.923	60	Marcellus
28	6/24/2018	11317.626	11484.761	60	Marcellus
29	6/25/2018	11119.464	11286.599	60	Marcellus
30	6/28/2018	10921.302	11088.437	60	Marcellus
31	7/5/2018	10723.14	10890.275	60	Marcellus
32	7/6/2018	10524.978	10692.113	60	Marcellus
33	7/6/2018	10326.816	10493.951	60	Marcellus
34	7/6/2018	10128.654	10295.789	60	Marcellus
35	7/7/2018	9930.492	10097.627	60	Marcellus
36	7/7/2018	9732.33	9899.465	60	Marcellus
37	7/7/2018	9534.168	9701.303	60	Marcellus
38	7/7/2018	9336.006	9503.141	60	Marcellus
39	7/9/2018	9137.844	9304.979	60	Marcellus
40	7/9/2018	8939.682	9106.817	60	Marcellus
41	7/9/2018	8741.52	8908.655	60	Marcellus
42	7/10/2018	8543.358	8710.493	60	Marcellus
43	7/10/2018	8345.196	8512.331	60	Marcellus
44	7/10/2018	8147.034	8314.169	60	Marcellus
45	7/11/2018	7948.872	8116.007	60	Marcellus
46	7/11/2018	7750.71	7917.845	60	Marcellus
47	7/11/2018	7552.548	7719.683	60	Marcellus
48	7/11/2018	7354.386	7521.521	60	Marcellus
49	7/12/2018	7156.224	7323.359	60	Marcellus
50	7/12/2018	6958.062	7125.197	60	Marcellus
51	7/12/2018	6759.9	6927.035	60	Marcellus

API 47-017-06822 Farm Name Antero Resources Corp Well Number Jay Unit 1H

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	6/12/2018	52.91	7940	5617	5069	401560	14273.62	N/A
2	6/12/2018	73.6	8075	4931	4034	403420	9828.976	N/A
3	6/12/2018	71.92	8202	5384	4434	400740	8854.833	N/A
4	6/13/2018	73.4	7792	5211	4746	397840	8265.095	N/A
5	6/14/2018	56.835	8129.5	5653.5	5050.5	399680	15965.6	N/A
6	6/14/2018	64.6	8118	5043	4523	402840	11153.38	N/A
7	6/14/2018	72.38	8220	5802	4592	390540	8231.524	N/A
8	6/15/2018	73.56	8164	5573	4313	400800	8433.119	N/A
9	6/15/2018	72.6	8070	5505	4697	399880	9633.952	N/A
10	6/15/2018	70.44	8074	5877	4485	398820	8440.952	N/A
11	6/16/2018	69.48	7021	5009	3912	396960	8233.452	N/A
12	6/16/2018	67.24	8020	5741	4821	402100	8829.5	N/A
13	6/16/2018	68.08	8072	5451	3966	392500	8652.905	N/A
14	6/17/2018	76.87	7995	5548	3933	392520	8171.643	N/A
15	6/17/2018	72.66	7902	5518	4791	402740	8457.31	N/A
16	6/17/2018	69.31	7931	5445	4481	401640	9029.119	N/A
17	6/17/2018	70.52	7431	4953	4901	398600	8172.31	N/A
18	6/18/2018	72.57	7408	5242	4551	393180	7954.357	N/A
19	6/19/2018	72.7	7789	4983	4552	401720	8462.381	N/A
20	6/20/2018	50.7	8251	5677	4360	404700	10357.95	N/A
21	6/21/2018	74.25	7317	5661	4883	401960	8246.595	N/A
22	6/21/2018	70.65	7281	5334	5237	392760	8283.429	N/A
23	6/22/2018	65.14	7519	5633	5111	396820	10742.81	N/A
24	6/22/2018	77.57	7684	6081	5049	402540	8339.833	N/A
25	6/23/2018	70.8	7836	5908	5127	400460	8325.048	N/A
26	6/23/2018	67.82	7935	5734	4926	412920	8369.762	N/A
27	6/24/2018	76.82	7864	5540	5047	399160	8105.143	N/A
28	6/24/2018	69.56	7321	5685	3304	407240	8334.024	N/A
29	6/25/2018	67.26	7444	6077	4918	409040	8512.048	N/A
30	6/28/2018	63.33	8214	5532	8965	380070	9041.452	N/A
31	7/5/2018	76.31	7416	5445	5591	402540	8138.857	N/A
32	7/6/2018	75.63	7172	5770	4371	396280	8159.976	N/A
33	7/6/2018	76.95	6946	6114	5242	394900	7948.119	N/A
34	7/6/2018	77.6	6891	5899	4694	400540	8298.571	N/A
35	7/7/2018	77.8	6828	5810	3938	395760	7988.31	N/A
36	7/7/2018	76.89	6919	5771	4233	402700	8083.833	N/A
37	7/7/2018	79	6920	5476	5232	405860	8054.238	N/A
38	7/7/2018	80.1	6932	5453	5087	396620	7956.833	N/A
39	7/9/2018	74.89	6674	6084	5114	398760	8144.262	N/A
40	7/9/2018	71.19	6677	5517	5080	395540	8150.31	N/A
41	7/9/2018	74	7391	5678	5020	410030	8114.81	N/A
42	7/10/2018	78.3	6869	6357	4989	394420	7949.452	N/A
43	7/10/2018	75.72	7004	5279	3895	398540	8010.857	N/A
44	7/10/2018	77.49	6965	6053	4173	396980	8588.262	N/A
45	7/11/2018	79.21	6957	5695	3731	411080	7912.167	N/A
46	7/11/2018	74.55	7477	5899	4027	401680	10200.98	N/A
47	7/11/2018	74.16	6586	6085	5136	400420	7911.452	N/A
48	7/11/2018	78.34	6856	5694	5139	410520	7868.167	N/A
49	7/12/2018	77.99	6811	5960	4142	410840	7994.786	N/A
50	7/12/2018	74.08	6362	5838	3520	414290	7975.071	N/A
51	7/12/2018	79.09	6630	5753	3855	399060	7850.881	N/A
AVG=		72	7,457	5,627	4,686	20,423,110	447,002	TOTAL

API 47-017-06822 Farm Name Antero Resources Corp Well Number Jay Unit 1H				
EXHIBIT 3				
LITHOLOGY/ FORMATION	TOP DEPTH (TVD)	BOTTOM DEPTH (TVD)	TOP DEPTH (MD)	BOTTOM DEPTH (MD)
	From Surface	From Surface	From Surface	From Surface
Sandstone	0	177	0	177
Sandstone tr coal	est. 177	217	est. 177	217
Sandy shale	est. 217	232	est. 217	232
Calcareous Shale	est. 232	319	est. 232	319
Sandstone	est. 319	373	est. 319	373
Calcareous Shale	est. 373	1,065	est. 373	1,065
Silty Sandstone	est. 1065	1,137	est. 1065	1,137
Silty shale	est. 1137	1,287	est. 1137	1,287
Sandy Shale	est. 1287	1,357	est. 1287	1,357
Shale	est. 1357	1,560	est. 1357	1,566
Big Lime	1,560	2,216	1,566	2,243
Fifty Foot Sandstone	2,216	2,458	2,243	2,492
Gordon	2,458	2,664	2,492	2,703
Fifth Sandstone	2,664	2,729	2,703	2,771
Bayard	2,729	3,510	2,771	3,574
Speechley	3,510	3,824	3,574	3,898
Balltown	3,824	4,314	3,898	4,401
Bradford	4,314	4,745	4,401	4,843
Benson	4,745	4,996	4,843	5,100
Alexander	4,996	5,979	5,100	6,118
Sycamore	5,979	6,172	6,118	6,348
Middlesex	6,172	6,296	6,348	6,538
Burkett	6,296	6,327	6,538	6,600
Tully	6,327	6,368	6,600	6,708
Marcellus	6,368	NA	6,708	NA

*Please note Antero determines formation tops based on mud logs that are only run on one well on a multi-well pad. The measured depth (MD) data on subsequent wells may be slightly different due to the well's unique departure.

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	6/12/2018
Job End Date:	7/15/2018
State:	West Virginia
County:	Doddridge
API Number:	47-017-06822-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Jay 1H
Latitude:	39.32224440
Longitude:	-80.80647500
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,440
Total Base Water Volume (gal):	19,349,986
Total Base Non Water Volume:	0



Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Fresh Water	Operator	Base Fluid					
			Water	7732-18-5	100.00000	88.36803	Density = 8.330
Ingredients	Listed Above	Listed Above					
			Water	7732-18-5	100.00000	0.35619	

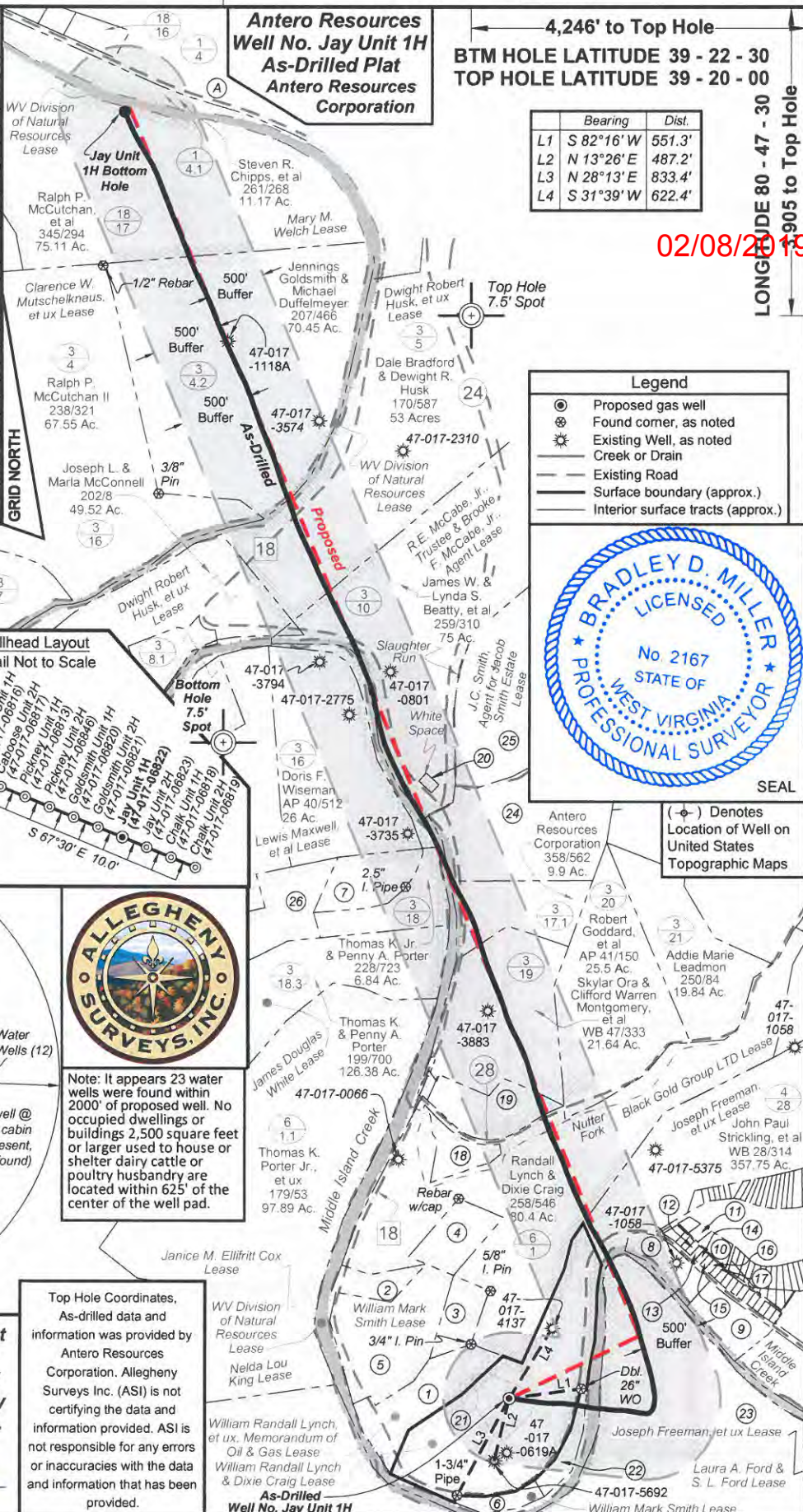
SAND-COMMON WHITE - 100 MESH	Halliburton	Proppant			Listed Below				
Items above are Trade Names with the exception of Base Water. Items below are the individual ingredients.									
			Crystalline silica, quartz	14808-60-7	100.00000	11.19679			
			Hydrochloric acid	7647-01-0	15.00000	0.04699			
			Guar gum	9000-30-0	100.00000	0.03629			
			Inorganic salt	Proprietary	30.00000	0.01857			
			Hydrotreated light petroleum distillate	64742-47-8	30.00000	0.01857			
			Acrylamide acrylate copolymer	Proprietary	30.00000	0.01857			Denise Tuck, Halliburton, 3000 N. Sam Houston Pkwy E., Houston, TX 77032, 281-871-6226
			Ethylene Glycol	107-21-1	60.00000	0.00824			
			Glutaraldehyde	111-30-8	30.00000	0.00272			
			Neutralized Polyacrylic Emulsion	Proprietary	10.00000	0.00137			
			Sodium persulfate	7775-27-1	100.00000	0.00066			
			Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl chlorides	68424-85-1	5.00000	0.00045			
			Methanol	67-56-1	60.00000	0.00015			
			Ethanol	64-17-5	1.00000	0.00009			
			Ethoxylated alcohols	Proprietary	30.00000	0.00007			
			Reaction product of acetophenone, formaldehyde, thiourea and oleic acid in dimethyl formamide	68527-49-1	30.00000	0.00007			
			Fatty acids, tall oil	Proprietary	30.00000	0.00007			
			Olefins	Proprietary	5.00000	0.00003			

7,390' to Bottom Hole

4,246' to Top Hole

BTM HOLE LATITUDE 39 - 22 - 30
TOP HOLE LATITUDE 39 - 20 - 00

TM/Par	Bk / Pg	Acres	Owner(s)
1	6/2.5	253 / 222	8.66 William Randall Lynch & Dixie Janet Craig
2	6/2.8	305 / 419	2.68 Dominion Field Services, Inc.
3	6/2.6	266 / 36	3.52 Equitrans, L.P.
4	6/1.3	305 / 416	4.68 Carol & Alfreda Painter
5	6/2.4	163 / 44	14.98 David J. & Debra S. Smith
6	6/2.3	197 / 659	6.00 Debra L. Stout
7	3/18.2	232 / 135	357.75 Joseph D. & Brittany C. McConnell
8	6/7	AP 35 / 212	3.46 Crystal Lake Club
9	7/4.2	293 / 340	4.19 Ronald O. & Barbara C. Moran
10	29/46	- / -	Lot 231
11	29/46.2	302 / 278	p/o Lot 231
12	29/90	249 / 639	Lot 204
13	29/91	256 / 408	Lot 205
14	29/92	260 / 127	Lot 206
15	29/93	162 / 328	Lot 207
16	29/94	219 / 583	Lot 208
17	29/95	219 / 583	Lot 209
18	3/23	WB 47 / 723	3.00 Shaun L. & Mary K. Cass
19	3/19.1	265 / 582	7.00 Janet M. Esposito & Scarlett C. Dennison
20	3/10.1	259 / 312	0.25 James L. & Joyce M. Hall
21	6/2	214 / 279	32.19 Douglas L. & Patricia M. Reed
22	6/2.7	294 / 473	2.16 William R. Lynch & Dixie J. Craig
23	7/5	167 / 782	176.5 Randy K. Smith
24	3/17	349 / 553	25.9 Joel W. & Bonnie Ostroff
25	3/11	283 / 682	43.0 Antero Resources Corporation
26	3/18.4	286 / 473	16.58 Ronald Perry Gains, Perry Blackburn, Ryan Webb
A	Ralph Mount, et ux Lease		



	Bearing	Dist.
L1	S 82°16' W	551.3'
L2	N 13°26' E	487.2'
L3	N 28°13' E	833.4'
L4	S 31°39' W	622.4'

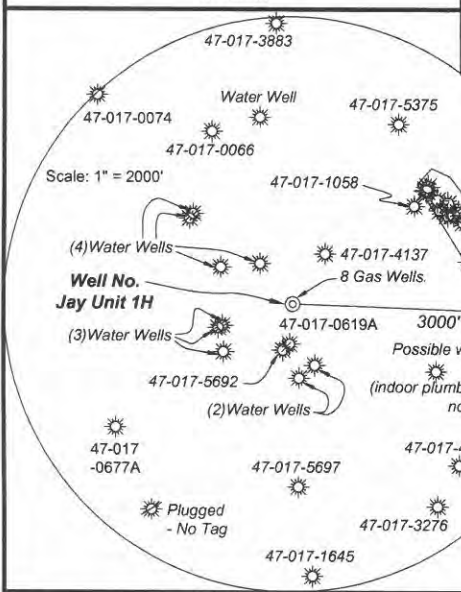
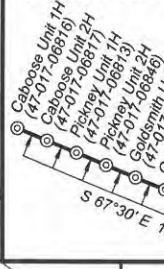
02/08/2019

Legend	
⊙	Proposed gas well
⊗	Found corner, as noted
⊛	Existing Well, as noted
—	Creek or Drain
—	Existing Road
—	Surface boundary (approx.)
—	Interior surface tracts (approx.)



Notes:
West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
Well No. Jay Unit 1H Top Hole coordinates are N: 302,237.96' Latitude: 39°19'20.80" E: 1,630,402.51' Longitude: 80°48'23.31"
Bottom Hole coordinates are N: 312,000.75' Latitude: 39°20'56.86" E: 1,627,476.75' Longitude: 80°49'02.36"
UTM Zone 17, NAD 1983
Top Hole Coordinates Bottom Hole Coordinates
N: 4,352,586.486m N: 4,355,545.844m
E: 516,696.266m E: 515,755.307m
Plat orientation and corner and well references are based upon the grid north meridian.
Well location references are based upon the magnetic meridian.

Wellhead Layout
Detail Not to Scale



Note: It appears 23 water wells were found within 2000' of proposed well. No occupied dwellings or buildings 2,500 square feet or larger used to house or shelter dairy cattle or poultry husbandry are located within 625' of the center of the well pad.

I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

Bradley D. Miller
Bradley D. Miller, P.S. 2167

FILE NO: 36-30-WU-15
DRAWING NO: Jay 1H As-Drilled Well Plat
SCALE: 1" = 1200'
MINIMUM DEGREE OF ACCURACY: Submeter
PROVEN SOURCE OF ELEVATION: CORS, Marietta, OH

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL AND GAS DIVISION

DATE: January 16 2019
Operator's Well No. Jay Unit 1H
API WELL NO
47 - 017 - 06822
STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW

LOCATION: ELEVATION: As-Built Grade - 843' WATERSHED: Headwaters Middle Island Creek QUADRANGLE: West Union 20.49; 80; 56.07; 105;
DISTRICT: West Union James Douglas White; Lewis Maxwell, et al; WV Div. of Natural Resource COUNTY: Doddridge 32.15; 53;
SURFACE OWNER: William Randall Lynch & Dixie Craig Joseph Freeman, et ux; William Randall Lynch & Dixie Craig Dwight Robert Husk, et ux; Clarence W. Mutschelknaus, et ux ACREAGE: 32.19 82.21; 290;
ROYALTY OWNER: R.E. McCabe Jr., Trustee & Brooke F. McCabe Jr. Agent; Black Gold Group, LTD; LEASE NO: ACREAGE: 75; 150;
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) As-Drilled 6,420' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 16,943' MD

WELL OPERATOR: Antero Resources Corporation DESIGNATED AGENT: Dianna Stamper - CT Corporation System
ADDRESS: 1615 Wynkoop Street ADDRESS: 5400 D Big Tyler Road
Denver, CO 80202 Charleston, WV 25313