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

API 47 - 095 - 02392 County Tyler District Meade
Quad Pennsboro 7.5' Pad Name Ritchie Petroleum Pad Field/Pool Name -----
Farm name David M. Hartley Well Number Packers Unit 3H
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 4356644m Easting 502127m
Landing Point of Curve Northing 4356790.39m Easting 502068.32m
Bottom Hole Northing 4359752m Easting 500925m

Elevation (ft) 1176' 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 12/27/2016 Date drilling commenced 3/4/2017 Date drilling ceased 8/29/2017
Date completion activities began 5/8/2018 Date completion activities ceased 8/5/2018
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 N/A Open mine(s) (Y/N) depths No
Salt water depth(s) ft N/A 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:

API 47- 095 - 02392 Farm name David M. Hartley Well number Packers Unit 3H

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"	411'	New	48#, H-40	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2461'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	17671'	New	23#, P-110	N/A	Y
Tubing		2-3/8"	6592'		4.7#, N-80		
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	202 sx	15.6	1.18	120	0'	8 Hrs.
Surface	Class A	338 sx	15.6	1.18	826	0'	8 Hrs.
Coal							
Intermediate 1	Class A	895 sx	15.6	1.18	1181	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	805 sx (Lead) 1635 sx (Tail)	13.5 (Lead), 15.2 (Tail)	1.44 (Lead), 1.87 (Tail)	3774	~500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 17671' MD, 6431' TVD (BHL), 6468' (Deepest Point Drilled) Loggers TD (ft) 17671' MD

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

Plug back procedure N/A

Kick off depth (ft) 5777'

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

API 47- 095 - 02392 Farm name David M. Hartley Well number Packers Unit 3H

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)

***PLEASE SEE ATTACHED EXHIBIT 1**

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)

***PLEASE SEE ATTACHED EXHIBIT 2**

Please insert additional pages as applicable.

WR-35
Rev. 8/23/13

API 47- 095 - 02392 Farm name David M. Hartley Well number Packers Unit 3H

PRODUCING FORMATION(S)	DEPTHS			
Marcellus	6371' (TOP)	TVD	6621' (TOP)	MD

Please insert additional pages as applicable.

GAS TEST □ Build up □ Drawdown ■ Open Flow OIL TEST ■ Flow □ Pump

SHUT-IN PRESSURE Surface 2800 psi Bottom Hole --- psi DURATION OF TEST --- hrs

OPEN FLOW	Gas	Oil	NGL	Water	GAS MEASURED BY
	5569 mcfpd	94 bpd	--- bpd	958 bpd	□ Estimated ■ Orifice □ Pilot

LITHOLOGY/ FORMATION NAME	TOP DEPTH IN FT TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H_2S, ETC)

***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 Allied Horizontal Wireline Services
Address 381 Colonial Manor Road City North Huntington State PA Zip 15642

Cementing Company BJ Services
Address 1036 East Main Street City Bridgeport State WV Zip 26330

Stimulating Company Halliburton
Address 121 Champion Way, Suite 200 City Canonsburg State PA Zip 15317
Please insert additional pages as applicable.

Completed by Megan Griffith Telephone 303-357-7223
Signature _____ Title Permitting Agent Date _____

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

API 47-095-02392 Farm Name David M. Hartley Well Number Packers Unit 3H					
EXHIBIT 1					
Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	5/8/2018	17472	17570	60	Marcellus
2	5/9/2018	17272	17441	60	Marcellus
3	5/9/2018	17072	17241	60	Marcellus
4	5/10/2018	16872	17041	60	Marcellus
5	5/10/2018	16672	16841	60	Marcellus
6	5/11/2018	16472	16641	60	Marcellus
7	5/11/2018	16272	16441	60	Marcellus
8	5/17/2018	16072	16241	60	Marcellus
9	5/17/2018	15872	16041	60	Marcellus
10	5/18/2018	15672	15841	60	Marcellus
11	5/18/2018	15472	15641	60	Marcellus
12	5/19/2018	15272	15441	60	Marcellus
13	5/20/2018	15072	15241	60	Marcellus
14	5/20/2018	14872	15041	60	Marcellus
15	5/20/2018	14672	14841	60	Marcellus
16	5/21/2018	14472	14641	60	Marcellus
17	5/21/2018	14272	14441	60	Marcellus
18	5/21/2018	14072	14241	60	Marcellus
19	5/21/2018	13872	14041	60	Marcellus
20	5/22/2018	13672	13841	60	Marcellus
21	5/22/2018	13472	13641	60	Marcellus
22	5/23/2018	13272	13441	60	Marcellus
23	5/23/2018	13072	13241	60	Marcellus
24	5/23/2018	12872	13041	60	Marcellus
25	5/24/2018	12672	12841	60	Marcellus
26	5/24/2018	12473	12641	60	Marcellus
27	5/25/2018	12273	12441	60	Marcellus
28	5/25/2018	12073	12241	60	Marcellus
29	5/25/2018	11873	12041	60	Marcellus
30	5/25/2018	11673	11841	60	Marcellus
31	5/26/2018	11473	11641	60	Marcellus
32	5/26/2018	11273	11441	60	Marcellus
33	5/26/2018	11073	11241	60	Marcellus
34	5/27/2018	10873	11041	60	Marcellus
35	5/27/2018	10673	10841	60	Marcellus
36	5/28/2018	10473	10641	60	Marcellus
37	5/28/2018	10273	10441	60	Marcellus
38	5/29/2018	10073	10241	60	Marcellus
39	5/29/2018	9873	10041	60	Marcellus
40	5/30/2018	9673	9841	60	Marcellus
41	5/30/2018	9473	9641	60	Marcellus
42	5/30/2018	9273	9441	60	Marcellus
43	5/30/2018	9073	9241	60	Marcellus
44	5/31/2018	8873	9042	60	Marcellus
45	5/31/2018	8673	8842	60	Marcellus
46	5/31/2018	8473	8642	60	Marcellus
47	6/1/2018	8273	8442	60	Marcellus
48	6/2/2018	8073	8242	60	Marcellus
49	6/2/2018	7873	8042	60	Marcellus
50	6/3/2018	7673	7842	60	Marcellus
51	6/3/2018	7473	7642	60	Marcellus
52	6/4/2018	7273	7442	60	Marcellus
53	6/4/2018	7073	7242	60	Marcellus
54	6/5/2018	6873	7042	60	Marcellus
55	6/5/2018	6673	6842	60	Marcellus

API 47-095-02392 **Farm Name** David M. Hartley **Well Number** Packers Unit 3H

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	5/8/2018	74.1	74.1	4153	3109	198770	6172	N/A
2	5/9/2018	76.9	76.9	4546	3617	394760	9154	N/A
3	5/9/2018	74.3	74.3	5891	3662	401620	9331	N/A
4	5/10/2018	75.3	75.3	4612	3900	393750	9181	N/A
5	5/10/2018	78	78	6204	3626	409370	9418	N/A
6	5/11/2018	77.2	77.2	5729	3710	390720	9020	N/A
7	5/11/2018	76.2	76.2	4715	7428	401120	9323	N/A
8	5/17/2018	76.2	76.2	4811	3866	405750	11515	N/A
9	5/17/2018	75	75	5269	4056	400440	9190	N/A
10	5/18/2018	77	77	5809	4237	401360	9255	N/A
11	5/18/2018	76.1	76.1	4321	4455	400440	9567	N/A
12	5/19/2018	75.5	75.5	5901	4051	401020	9541	N/A
13	5/20/2018	76.5	76.5	5588	4049	397700	9057	N/A
14	5/20/2018	75.2	75.2	4935	4345	404720	9203	N/A
15	5/20/2018	74.6	74.6	4156	4247	396680	8956	N/A
16	5/21/2018	78	78	5323	3933	395240	8937	N/A
17	5/21/2018	76.6	76.6	4747	4061	403160	9118	N/A
18	5/21/2018	76.6	76.6	5217	4173	409940	9172	N/A
19	5/21/2018	77.4	77.4	4826	4251	405320	9063	N/A
20	5/22/2018	75.7	75.7	5094	3951	403780	9167	N/A
21	5/22/2018	75.2	75.2	4834	4061	405060	9075	N/A
22	5/23/2018	76.6	76.6	5057	4142	405440	9367	N/A
23	5/23/2018	78.2	78.2	5230	4789	376600	10124	N/A
24	5/23/2018	74.2	74.2	5214	3995	401540	8948	N/A
25	5/24/2018	73.1	73.1	5297	4856	358780	14050	N/A
26	5/24/2018	73	73	5482	3985	399460	9183	N/A
27	5/25/2018	77.5	77.5	5140	3973	396540	8915	N/A
28	5/25/2018	77.6	77.6	5021	3931	400120	9659	N/A
29	5/25/2018	78.9	78.9	5243	3962	399280	8977	N/A
30	5/25/2018	74.1	74.1	5614	4148	399340	8705	N/A
31	5/26/2018	76.1	76.1	4679	4008	406880	9001	N/A
32	5/26/2018	78.7	78.7	5520	4006	421410	9282	N/A
33	5/26/2018	79.6	79.6	5433	3758	403140	8996	N/A
34	5/27/2018	79.4	79.4	5497	4635	415230	9830	N/A
35	5/27/2018	75.7	75.7	5651	7170	417810	14276	N/A
36	5/28/2018	78.4	78.4	5537	3924	402860	9491	N/A
37	5/28/2018	7638	7638	5636	4007	395980	8925	N/A
38	5/29/2018	78.5	78.5	5733	3969	400640	8822	N/A
39	5/29/2018	78	78	6514	3676	401040	8812	N/A
40	5/30/2018	78.6	78.6	6647	3820	382640	8678	N/A
41	5/30/2018	78.8	78.8	6326	4012	401980	8712	N/A
42	5/30/2018	76.3	76.3	5946	4129	403580	8876	N/A
43	5/30/2018	76.5	76.5	6123	4127	399880	8956	N/A
44	5/31/2018	78.5	78.5	6050	3744	400120	8823	N/A
45	5/31/2018	79.2	79.2	5760	3745	404880	9009	N/A
46	5/31/2018	76.9	76.9	6032	3900	398980	8619	N/A
47	6/1/2018	77.7	77.7	5708	4430	403600	8611	N/A
48	6/2/2018	76.8	76.8	6265	3759	417480	9178	N/A
49	6/2/2018	79	79	5576	4216	385800	11939	N/A
50	6/3/2018	76	76	5187	3499	403140	10652	N/A
51	6/3/2018	78	78	5209	3645	399700	9116	N/A
52	6/4/2018	76	76	5010	3196	397480	9106	N/A
53	6/4/2018	76.5	76.5	5071	3966	404340	8590	N/A
54	6/5/2018	75.7	75.7	4950	5283	401340	10058	N/A
55	6/5/2018	77.1	77.1	5683	3322	394840	8500	N/A
	AVG=	**241.0**	**241**	**5,371**	**4,157**	**18,214,870**	**429,451**	TOTAL

API 47-095-02392 Farm Name David M. Hartley Well Number Packers Unit 3H				
EXHIBIT 3				
LITHOLOGY/ FORMATION	**TOP DEPTH (TVD) From Surface**	**BOTTOM DEPTH (TVD) From Surface**	**TOP DEPTH (MD) From Surface**	**BOTTOM DEPTH (MD) From Surface**
Shale w/intbd Sandstone and	-32	228	-32	N/A
Sandy shale and coal	228	528	228	N/A
Sandy shale	528	708	528	N/A
Calcareous shale	708	848	708	N/A
Limy shale with coal	848	1,048	848	N/A
Sandy shale	1,048	1,208	1,048	N/A
Sandy shale with coal	1,208	1,348	1,208	N/A
sandstone	1,348	1,488	1,348	N/A
Sandy shale	1,488	1,568	1,488	N/A
Shaly sandstone	1,568	1,648	1,568	N/A
Silty shale	1,648	1,708	1,648	N/A
Sandy shale	1,708	1,808	1,708	N/A
Sandy shale/coal	1,808	2,042	1,808	N/A
Big Lime	2,074	2,166	2,084	N/A
Big Injun	2,166	2,586	2,178	N/A
Gantz Sand	2,586	2,936	2,601	N/A
Fifty Foot Sandstone	2,936	3,057	2,955	N/A
Gordon	3,057	3,322	3,076	N/A
Fifth Sandstone	3,322	3,461	3,343	N/A
Bayard	3,461	3,677	3,483	N/A
Warren	3,677	4,015	3,701	N/A
Speechley	4,015	4,485	4,041	N/A
Balltown	4,312	4,864	4,340	N/A
Bradford	4,485	4,864	4,514	N/A
Benson	4,864	5,307	4,899	N/A
Alexander	5,307	5,837	5,345	N/A
Rhinestreet	5,805	6,159	5,852	N/A
Sycamore	6,159	6,254	6,258	N/A
Middlesex	6,254	6,345	6,388	N/A
Burkett	6,345	6,364	6,554	N/A
Tully	6,364	6,371	6,601	N/A
Marcellus	6,371	N/A	6,621	N/A

*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:	5/8/2018
Job End Date:	6/5/2018
State:	West Virginia
County:	Tyler
API Number:	47-095-02392-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Packers 3H
Latitude:	39.35916400
Longitude:	-80.97547500
Datum:	NAD27
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,468
Total Base Water Volume (gal):	22,526,799
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	89.36058	Density = 8.330
Ingredients	Listed Above	Listed Above					
			Water	7732-18-5	100.00000	0.20199	

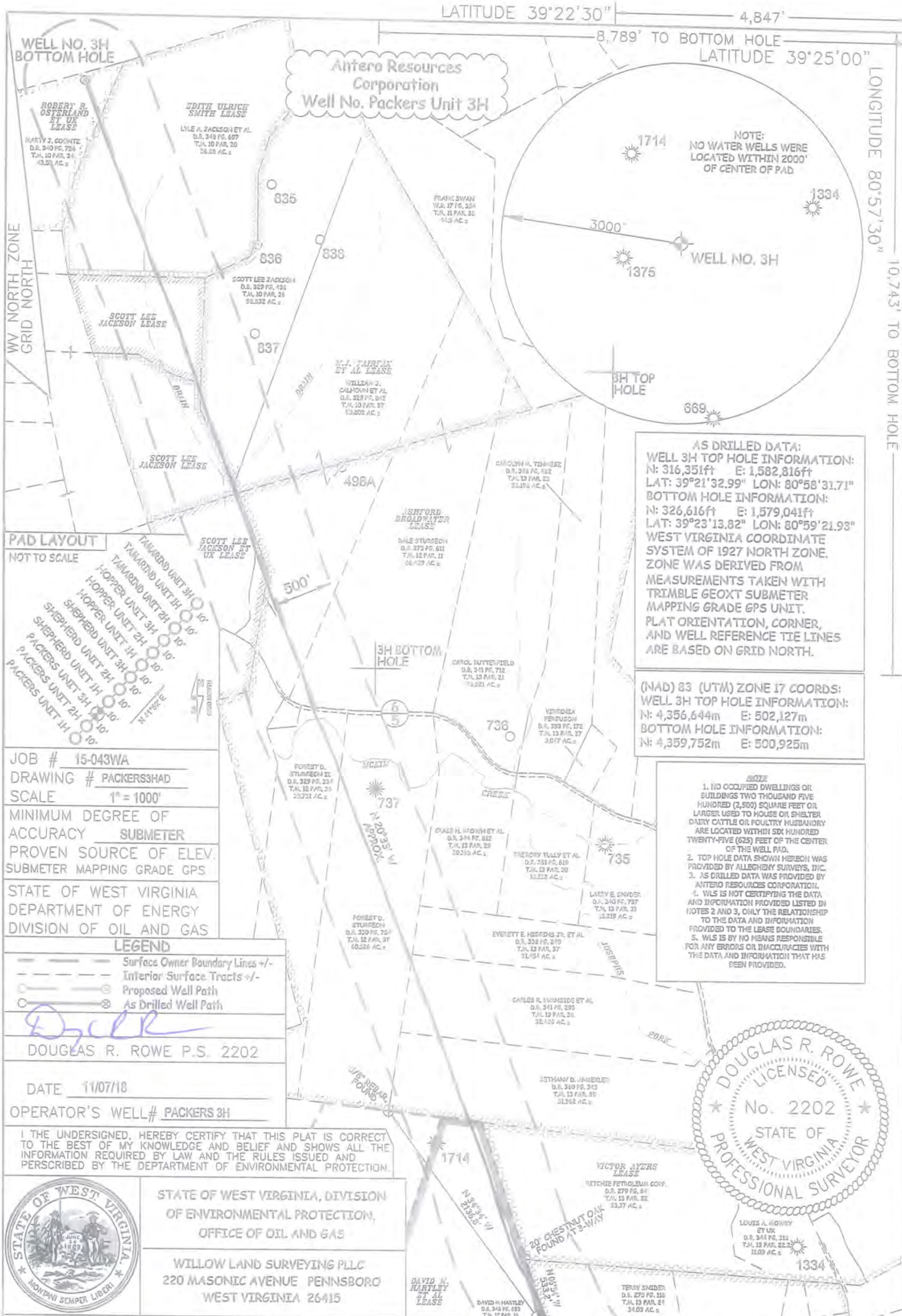
LP-70	Halliburton	Scale Inhibitor					
				Listed Below			
SP BREAKER	Halliburton	Breaker					
				Listed Below			
SAND-COMMON WHITE - 100 MESH	Halliburton	Proppant					
				Listed Below			
HAI-OS ACID INHIBITOR	Halliburton	Corrosion Inhibitor					
				Listed Below			
WG-36 GELLING AGENT	Halliburton	Gelling Agent					
				Listed Below			
SAND-PREMIUM WHITE-40/70	Halliburton	Proppant					
				Listed Below			
MC B-8614	Halliburton	Biocide					
				Listed Below			
HYDROCHLORIC ACID	Halliburton	Solvent					
				Listed Below			

SAND-PREMIUM WHITE-30/50	Halliburton	Proppant					
				Listed Below			
FR-76	Halliburton	Friction Reducer					
				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	10.38987	
			Hydrochloric acid	7647-01-0	15.00000	0.02280	
			Acrylamide acrylate copolymer	Proprietary	30.00000	0.01716	Denise Tuck, Halliburton, 3000 N. Sam Houston Pkwy E., Houston, TX 77032, 281-871-6226
			Hydrotreated light petroleum distillate	64742-47-8	30.00000	0.01716	
			Inorganic salt	Proprietary	30.00000	0.01716	
			Guar gum	9000-30-0	100.00000	0.01710	
			Ethylene Glycol	107-21-1	60.00000	0.00831	
			Glutaraldehyde	111-30-8	30.00000	0.00267	
			Neutralized Polyacrylic Emulsion	Proprietary	10.00000	0.00139	
			Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl chlorides	68424-85-1	5.00000	0.00044	
			Sodium persulfate	7775-27-1	100.00000	0.00042	
			Ethanol	64-17-5	1.00000	0.00009	
			Methanol	67-56-1	60.00000	0.00008	
			Reaction product of acetophenone, formaldehyde, thiourea and oleic acid in dimethyl formamide	68527-49-1	30.00000	0.00003	
			Ethoxylated alcohols	Proprietary	30.00000	0.00003	

			Fatty acids, tall oil	Proprietary	30.00000	0.00003	
			Olefins	Proprietary	5.00000	0.00001	
			Propargyl alcohol	107-19-7	10.00000	0.00001	
			Phosphoric acid	7664-38-2	0.10000	0.00001	
			Sodium sulfate	7757-82-6	0.10000	0.00000	

* Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water
** Information is based on the maximum potential for concentration and thus the total may be over 100%
*** If you are calculating a percentage of total ingredients do not add the water volume below the green line to the water volume above the green line

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.
Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)



LATITUDE 39°22'30"
4,847'
8,789' TO BOTTOM HOLE
LATITUDE 39°25'00"
LONGITUDE 80°57'30"
5,769'
10,743' TO BOTTOM HOLE
LONGITUDE 80°57'30"
WELL NO. 3H BOTTOM HOLE
Antero Resources Corporation Well No. Packers Unit 3H
ROBERT R. OSTERLAND ET UX LEASE
EDITH ULRICH SMITH LEASE
835
836
838
837
NOTE: NO WATER WELLS WERE LOCATED WITHIN 2000' OF CENTER OF PAD
1714
1334
3000'
WELL NO. 3H
1375
3H TOP HOLE
669
WV NORTH ZONE GRID NORTH
SCOTT LEE JACKSON LEASE
M.J. FAIRFAX ET AL LEASE
DRAIN
SCOTT LEE JACKSON LEASE
498A
ASHFORD BROADWATER LEASE
SCOTT LEE JACKSON ET UX LEASE
500'
PAD LAYOUT
NOT TO SCALE
TAMARIND UNIT 3H
TAMARIND UNIT 1H
TAMARIND UNIT 2H
HOPPER UNIT 3H
HOPPER UNIT 2H
HOPPER UNIT 1H
SHEPHERD UNIT 3H
SHEPHERD UNIT 2H
SHEPHERD UNIT 1H
PACKERS UNIT 3H
PACKERS UNIT 2H
PACKERS UNIT 1H
3H BOTTOM HOLE
6 5
736
737
735
MCKIM CREEK
N 20°35' W APPROX.
1714
VICTOR AYERS LEASE
20" CHESTNUT OAK FOUND AT 3-WAY
5/8" REBAR FOUND
1334
DAVID M. HARTLEY ET AL LEASE
WELL NO. 3H
TERRY L. SNIDER LEASE

AS DRILLED DATA:
WELL 3H TOP HOLE INFORMATION:
N: 316,351ft E: 1,582,816ft
LAT: 39°21'32.99" LON: 80°58'31.71"
BOTTOM HOLE INFORMATION:
N: 326,616ft E: 1,579,041ft
LAT: 39°23'13.82" LON: 80°59'21.93"
WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE. ZONE WAS DERIVED FROM MEASUREMENTS TAKEN WITH TRIMBLE GEOXT SUBMETER MAPPING GRADE GPS UNIT. PLAT ORIENTATION, CORNER, AND WELL REFERENCE TIE LINES ARE BASED ON GRID NORTH.

(NAD) 83 (UTM) ZONE 17 COORDS:
WELL 3H TOP HOLE INFORMATION:
N: 4,356,644m E: 502,127m
BOTTOM HOLE INFORMATION:
N: 4,359,752m E: 500,925m

NOTE
1. NO OCCUPIED DWELLINGS OR BUILDINGS TWO THOUSAND FIVE HUNDRED (2,500) SQUARE FEET OR LARGER USED TO HOUSE OR SHELTER DAIRY CATTLE OR POULTRY HUSBANDRY ARE LOCATED WITHIN SIX HUNDRED TWENTY-FIVE (625) FEET OF THE CENTER OF THE WELL PAD.
2. TOP HOLE DATA SHOWN HEREON WAS PROVIDED BY ALLEGHENY SURVEYS, INC.
3. AS DRILLED DATA WAS PROVIDED BY ANTERO RESOURCES CORPORATION.
4. WLS IS NOT CERTIFYING THE DATA AND INFORMATION PROVIDED LISTED IN NOTES 2 AND 3, ONLY THE RELATIONSHIP TO THE DATA AND INFORMATION PROVIDED TO THE LEASE BOUNDARIES.
5. WLS IS BY NO MEANS RESPONSIBLE FOR ANY ERRORS OR INACCURACIES WITH THE DATA AND INFORMATION THAT HAS BEEN PROVIDED.

JOB # 15-043WA
DRAWING # PACKERS3HAD
SCALE 1" = 1000'
MINIMUM DEGREE OF ACCURACY SUBMETER
PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
DIVISION OF OIL AND GAS

LEGEND
Surface Owner Boundary Lines +/-
Interior Surface Tracts +/-
Proposed Well Path
As Drilled Well Path

DOUGLAS R. ROWE P.S. 2202

DATE 11/07/18

OPERATOR'S WELL# PACKERS 3H

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 PERSCRIBED BY THE DEPTARTMENT OF ENVIRONMENTAL PROTECTION.

DOUGLAS R. ROWE LICENSED No. 2202 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

STATE OF WEST VIRGINIA MONTANI SEMPER LIBERI

STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

WILLOW LAND SURVEYING PLLC
220 MASONIC AVENUE PENNSBORO
WEST VIRGINIA 26415

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
LOCATION: ELEVATION 1,176' AS BUILT WATERSHED OUTLET MIDDLE ISLAND CREEK
QUADRANGLE PENNSBORO 7.5' SHL MIDDLEBOURNE 7.5 BHL
DISTRICT MEADE COUNTY TYLER
SURFACE OWNER DAVID M. HARTLEY ACREAGE 42.56 ACRES +/-

API WELL # 47 – 095 – 02392
STATE COUNTY PERMIT

OIL & GAS ROYALTY OWNER DAVID M. HARTLEY ET AL; TERRY L. SNIDER; ASHFORD BROADWATER; SCOTT LEE JACKSON ET UX; SCOTT LEE JACKSON; M.J. FAIRFAX ET AL; SCOTT LEE JACKSON; EDITH ULRICH SMITH; ROBERT R. OSTERLAND ET UX
LEASE ACREAGE 42.56 AC±; 221.24 AC±; 583.712 AC±; 23.60 AC±; 29.04 AC±; 120 AC±; 22.90 AC±; 56.88 AC±; 49.15 AC±
PROPOSED WORK: DRILL ___ CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___
PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) AS DRILLED
PLUG & ABANDON CLEAN OUT & REPLUG
TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,431' TVD 17,671' MD
WELL OPERATOR ANTERO RESOURCES CORPORATION DESIGNATED AGENT DIANNA STAMPER - CT CORPORATION SYSTEM
ADDRESS 1615 WYNKOOP STREET DENVER, CO 80202 ADDRESS 5400 D BIG TYLER ROAD CHARLESTON, WV 25313

COUNTY NAME PERMIT

FORM WW-6