

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

API 47 - 095 - 02157 County Tyler District McElroy  
Quad Center Point 7.5' Pad Name Forest Pad Field/Pool Name \_\_\_\_\_  
Farm name Moore, Forest & Brenda Well Number Silas 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 4,360,750m Easting 522,384m  
Landing Point of Curve Northing 4,360,847.76m Easting 522,120.02m  
Bottom Hole Northing 4,363,109m Easting 521,385m

Elevation (ft) 745' 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 03/11/2014 Date drilling commenced 04/19/2014 Date drilling ceased 09/20/2014  
Date completion activities began 10/17/2014 Date completion activities ceased 03/09/2015  
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 89', 329' Open mine(s) (Y/N) depths No  
Salt water depth(s) ft 535'; 2,052' Void(s) encountered depths None  
Coal depth(s) ft None Identified Cavern(s) encountered (Y/N) depths None  
Is coal being mined in area (Y/N) No

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Reviewed by:  
JL 7/24/15  
07/24/2015

API 47-095 - 02157 Farm name Moore, Forest & Brenda Well number Silas 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	26"	20"	40'	New	133#; J-55	N/A	Yes
Surface	17 1/2"	13 3/8"	407'	New	48#; H-40	N/A	Yes
Coal							
Intermediate 1	12 1/4"	9 5/8"	2,525'	New	36#; J-55	N/A	Yes
Intermediate 2							
Intermediate 3							
Production	8 3/4" & 8 1/2"	5 1/2"	14,846'	New	23#; P-110	N/A	Yes
Tubing		2 3/8"	10,678'		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 <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor	Class A	50 sx	15.6	1.18	38	0'	8 Hrs.
Surface	Class A	491 sx	15.6	1.18	283	0'	8 Hrs.
Coal							
Intermediate 1	Class A	930 sx	15.6	1.18	791	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	1,015 sx (Lead); 1,252 sx (Tail)	14.5 (Lead); 15.2 (Tail)	1.3 (Lead); 1.86 (Tail)	2,937	-500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 14,846' MD; 6,594' TVD (BHL); 6,602' TVD (Deepest Point Drilled) Loggers TD (ft) 14,800'  
 Deepest formation penetrated Marcellus Plug back to (ft) N/A  
 Plug back procedure N/A

Kick off depth (ft) 6,196'

\*\*This is a subsequent well. Antero only runs wireline logs on one well on a multi-well pad (Ed Arnold Unit 1H, API #47-095-02038). Please reference the wireline logs submitted with Form WR-35 for the Ed Arnold 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     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 \_\_\_\_\_

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API 47-095-02157 Farm Name Moore, Forest & Brenda Well Number Silas Unit 1H

**EXHIBIT 1**

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	17-Oct-14	14,583	14,751	60	Marcellus
2	3-Jan-15	14,384	14,552	60	Marcellus
3	4-Jan-15	14,185	14,353	60	Marcellus
4	4-Jan-15	13,987	14,154	60	Marcellus
5	4-Jan-15	13,788	13,955	60	Marcellus
6	12-Jan-15	13,589	13,756	60	Marcellus
7	12-Jan-15	13,390	13,557	60	Marcellus
8	13-Jan-15	13,191	13,358	60	Marcellus
9	13-Jan-15	12,992	13,160	60	Marcellus
10	13-Jan-15	12,793	12,961	60	Marcellus
11	13-Jan-15	12,594	12,762	60	Marcellus
12	14-Jan-15	12,395	12,563	60	Marcellus
13	14-Jan-15	12,196	12,364	60	Marcellus
14	14-Jan-15	11,997	12,165	60	Marcellus
15	15-Jan-15	11,798	11,966	60	Marcellus
16	15-Jan-15	11,599	11,767	60	Marcellus
17	15-Jan-15	11,400	11,568	60	Marcellus
18	16-Jan-15	11,201	11,369	60	Marcellus
19	16-Jan-15	11,002	11,170	60	Marcellus
20	17-Jan-15	10,803	10,971	60	Marcellus
21	17-Jan-15	10,604	10,772	60	Marcellus
22	17-Jan-15	10,405	10,573	60	Marcellus
23	19-Jan-15	10,206	10,374	60	Marcellus
24	19-Jan-15	10,007	10,175	60	Marcellus
25	20-Jan-15	9,808	9,976	60	Marcellus
26	20-Jan-15	9,609	9,777	60	Marcellus
27	20-Jan-15	9,410	9,578	60	Marcellus
28	21-Jan-15	9,211	9,379	60	Marcellus
29	21-Jan-15	9,013	9,180	60	Marcellus
30	21-Jan-15	8,814	8,981	60	Marcellus
31	22-Jan-15	8,615	8,782	60	Marcellus
32	22-Jan-15	8,416	8,583	60	Marcellus
33	22-Jan-15	8,217	8,384	60	Marcellus
34	22-Jan-15	8,018	8,186	60	Marcellus
35	22-Jan-15	7,819	7,987	60	Marcellus
36	23-Jan-15	7,620	7,788	60	Marcellus
37	23-Jan-15	7,421	7,589	60	Marcellus
38	23-Jan-15	7,222	7,390	60	Marcellus
39	23-Jan-15	7,023	7,191	60	Marcellus
40	24-Jan-15	6,824	6,992	60	Marcellus

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**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 (bbbls)	Amount of Nitrogen/ other (units)
1	3-Jan-15	70.9	7,250	N/A	5,353	246,080	6,633	N/A
2	3-Jan-15	72.1	7,310	5,788	5,606	247,000	6,642	N/A
3	4-Jan-15	69.3	7,436	6,032	5,516	245,480	6,834	N/A
4	4-Jan-15	72.2	7,449	5,482	5,565	245,440	7,124	N/A
5	4-Jan-15	70.1	7,177	5,547	5,396	246,010	6,581	N/A
6	12-Jan-15	64.0	7,221	5,642	5,549	114,400	6,480	N/A
7	12-Jan-15	69.1	7,206	5,882	5,817	248,000	6,644	N/A
8	13-Jan-15	69.8	7,377	5,712	5,560	247,800	6,584	N/A
9	13-Jan-15	69.9	7,399	5,657	5,530	245,900	6,482	N/A
10	13-Jan-15	70.4	7,232	5,603	5,607	247,400	6,442	N/A
11	13-Jan-15	70.4	7,166	5,807	5,516	247,700	6,470	N/A
12	14-Jan-15	70.0	7,206	5,274	5,437	248,720	6,412	N/A
13	14-Jan-15	70.1	7,254	5,745	5,355	247,300	6,399	N/A
14	14-Jan-15	69.0	7,246	6,013	5,467	247,700	6,880	N/A
15	15-Jan-15	70.1	7,395	5,638	5,208	249,900	6,392	N/A
16	15-Jan-15	70.3	7,292	5,398	5,609	250,790	6,386	N/A
17	15-Jan-15	70.6	7,240	5,734	5,454	248,400	6,344	N/A
18	16-Jan-15	70.4	7,298	5,369	5,113	247,670	6,293	N/A
19	16-Jan-15	70.3	7,379	5,538	5,527	248,600	6,272	N/A
20	17-Jan-15	70.8	7,267	5,984	5,308	247,600	6,234	N/A
21	17-Jan-15	69.9	7,411	5,903	5,204	248,500	7,000	N/A
22	17-Jan-15	69.5	7,135	5,775	5,613	247,400	6,237	N/A
23	19-Jan-15	69.3	7,259	5,524	5,233	173,200	9,195	N/A
24	19-Jan-15	64.7	7,049	5,457	5,549	170,270	6,680	N/A
25	20-Jan-15	70.0	7,101	5,914	5,449	250,260	6,250	N/A
26	20-Jan-15	69.4	6,987	5,478	5,519	220,900	6,745	N/A
27	20-Jan-15	70.7	6,941	5,706	5,434	249,100	6,153	N/A
28	21-Jan-15	70.5	6,854	5,623	5,376	246,820	6,105	N/A
29	21-Jan-15	68.6	7,081	5,615	5,434	226,650	6,812	N/A
30	21-Jan-15	70.1	6,910	5,667	5,459	249,100	6,154	N/A
31	22-Jan-15	69.0	7,027	5,443	5,590	247,880	6,111	N/A
32	22-Jan-15	71.5	7,136	5,631	5,534	247,480	6,057	N/A
33	22-Jan-15	70.8	7,073	5,529	5,369	246,990	6,046	N/A
34	22-Jan-15	70.0	7,073	5,660	5,520	247,420	6,394	N/A
35	22-Jan-15	70.6	6,920	5,324	5,439	247,260	6,023	N/A
36	23-Jan-15	70.5	7,047	5,785	5,304	247,150	5,992	N/A
37	23-Jan-15	70.4	6,879	5,337	5,199	246,880	5,969	N/A
38	23-Jan-15	71.1	6,958	5,606	5,423	246,640	5,940	N/A
39	23-Jan-15	70.8	6,708	5,683	5,411	243,580	5,943	N/A
40	24-Jan-15	70.4	6,702	5,669	4,176	250,485	6,102	N/A
	AVG=	69.9	7,151	5,645	5,418	9,571,855	258,436	TOTAL

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**EXHIBIT 3**

LITHOLOGY/ FORMATION	TOP DEPTH (TVD)	BOTTOM DEPTH (TVD)	TOP DEPTH (MD)	BOTTOM DEPTH (MD)
	From Surface	From Surface	From Surface	From Surface
Fresh Water	89'	N/A	89'	N/A
Fresh Water	329'	N/A	329'	N/A
Shale/ Sandstone	0	149	0	149
Sandstone/ Trace Coal	est. 149	209	est. 149	209
Sandstone/ Shale	est. 209	429	est. 209	429
Limestone	est. 429	449	est. 429	449
Sandstone	est. 449	569	est. 449	569
Sandstone/ Limestone	est. 569	689	est. 569	689
Sandstone	est. 689	789	est. 689	789
Sandstone/ Trace Coal	est. 789	829	est. 789	829
Shale/ Sandstone	est. 829	929	est. 829	929
Sandstone/ Trace Coal	est. 929	1,029	est. 929	1,029
Sandstone	est. 1029	1,069	est. 1029	1,069
Coal/ Sandstone	est. 1069	1,429	est. 1069	1,429
Sandstone	est. 1429	1,741	est. 1429	1,741
Big Lime	1,741	1,865	1,741	1,865
Big Injun	1,865	2,308	1,865	2,308
Gantz Sand	2,308	2,461	2,308	2,461
Fifty Foot Sandstone	2,461	2,536	2,461	2,536
Gordon	2,536	2,827	2,536	2,827
Fifth Sandstone	2,827	2,877	2,827	2,877
Bayard	2,877	3,265	2,877	3,265
Warren	3,265	3,634	3,265	3,634
Speechley	3,634	3,943	3,634	3,944
Baltown	3,943	4,398	3,944	4,401
Bradford	4,398	4,896	4,401	4,902
Benson	4,896	5,154	4,902	5,161
Alexander	5,154	5,364	5,161	5,375
Elk	5,364	5,867	5,375	5,908
Rhinestreet	5,867	6,142	5,908	6,211
Sycamore	6,142	6,315	6,211	6,412
Middlesex	6,315	6,449	6,412	6,604
Burkett	6,449	6,477	6,604	6,655
Tully	6,477	6,532	6,655	6,779
Marcellus	6,532	NA	6,779	NA

\*Please note Antero determines shallow 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.

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# Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	1/3/2015
Job End Date:	1/24/2015
State:	West Virginia
County:	Tyler
API Number:	47-095-02157-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Silas Unit 1H
Longitude:	-80.74004400
Latitude:	39.39595600
Datum:	NAD83
Federal/Tribal Well:	NO
True Vertical Depth:	6,602
Total Base Water Volume (gal):	10,854,312
Total Base Non Water Volume:	479,862

## 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
Water	Antero Resources	Base Fluid	Water	7732-18-5	100.00000	90.15055	
Sand	U.S. Well Services, LLC	Proppant	Crystalline Silica, quartz	14808-60-7	100.00000	9.53227	
HCL Acid (12.6%-18.0%)	U.S. Well Services, LLC	Bulk Acid	Water	7732-18-5	87.50000	0.08531	
			Hydrogen Chloride	7641-01-1	18.00000	0.02038	
LGC-15	U.S. Well Services, LLC	Gelling Agents	Guar Gum	9000-30-0	50.00000	0.04591	
			Petroleum Distillates	64742-47-8	60.00000	0.04348	
			Suspending agent (solid)	14808-60-7	3.00000	0.00702	
			Surfactant	68439-51-0	3.00000	0.00275	
MFRA-405	U.S. Well Services, LLC	Friction Reducer	Anionic Polyacrylamide	Proprietary		0.02622	
			Water	7732-18-5	40.00000	0.02622	
			Petroleum Distillates	64742-47-8	22.00000	0.02111	
			Crystalline Salt	12125-02-9	5.00000	0.00328	



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SI-1100	U.S. Well Services	Scale Inhibitor	Ethoxylated alcohol blend	Proprietary	5.00000	0.00328
			DI Water	7732-18-5	80.00000	0.00968
			Ethylene Glycol	107-21-1	40.00000	0.00547
			Potassium salt of diethylene triamine penta (methylene phosphonic acid)	15827-60-8	10.00000	0.00163
			2-Phosphonobutane 1,2,4 tricarboxylic salt	37971-36-1	10.00000	0.00156
			hexamethylenediamine tetra (methylene phosphonic acid)	38820-59-6	10.00000	0.00151
			Copolymer of Maleic and Acrylic acid	26677-99-6	10.00000	0.00143
			bis (hexamethylene) triamine penta (methylene phosphonic acid) - phosphate acid	40623-75-4	10.00000	0.00139
			Acrylic polymer	52255-49-9	5.00000	0.00061
K-BAC 1020	U.S. Well Services, LLC	Anti-Bacterial Agent				
			2,2-dibromo-3-nitropropionamide	10222-01-2	20.00000	0.00445
			Deionized Water	7732-18-5	28.00000	0.00254
AP One	U.S. Well Services, LLC	Gel Breakers				
			Ammonium Persulfate	7727-54-0	100.00000	0.00164
A1-301	U.S. Well Services, LLC	Acid Corrosion Inhibitors				
			Diethylene Glycol	111-46-6	30.00000	0.00013
			Methenamine	100-97-0	20.00000	0.00010
			Hydrogen Chloride	7647-01-0	10.00000	0.00005
			Polyethylene polyamine	68603-67-8	10.00000	0.00004
			Coco amine	61791-14-8	5.00000	0.00002

Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.

\* Total Water Volume sources may include fresh water, produced water, and/or recycled water

\*\* Information is based on the maximum potential for concentration and thus the total may be over 100%

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)

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LATITUDE 39°25'00"

9,011'

494' TO BOTTOM HOLE  
LATITUDE 39°27'30"

Antero Resources Corporation  
Well No. Silas Unit 1H  
47-095-02157 (AS DRILLED)

AS DRILLED DATA:  
WELL 1H TOP HOLE INFORMATION:  
N: 328,714ft E: 1,649,514ft  
LAT: 39°23'45.13" LON: 80°44'24.79"  
BOTTOM HOLE INFORMATION:  
N: 336,509ft E: 1,646,364ft  
LAT: 39°25'01.75" LON: 80°45'06.29"  
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 1H TOP HOLE INFORMATION:  
N: 4,360,750m E: 522,384m  
BOTTOM HOLE INFORMATION:  
N: 4,363,109m E: 521,385m

WV NORTH ZONE GRID NORTH

LONGITUDE 80°45'00"

14,999' TO BOTTOM HOLE

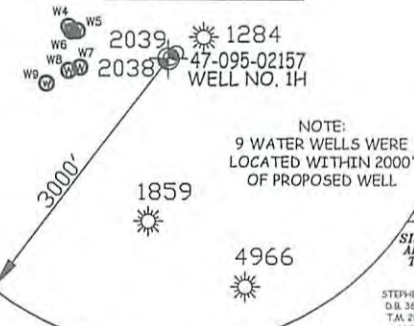
7,575'

LONGITUDE 80°42'30"

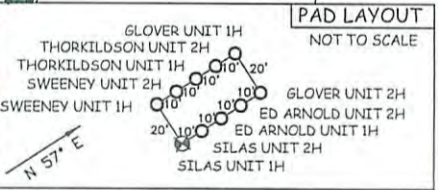
NOTE  
1. NO OCCUPIED DWELLINGS OR BUILDINGS TWO THOUSAND FIVE HUNDRED (2,500) SQUARE FEET OR LARGER USED TO HOLDS OR SHELTER DAIRY CATTLE OR POULTRY HUSBANDRY ARE LOCATED WITHIN SIX HUNDRED TWENTY-FIVE (625) FEET OF THE CENTER OF THE WELL PAD.  
2. TOP HOLE DATA SHOWN HEREON WAS PROVIDED BY ALLEGHENY 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.  
6. THIS WELL BORE IS SUBJECT TO THAT 60 FOOT STRIP OF LAND KNOWN AS THE OLD SISTERVILLE AND SALEM TURNPIKE WHICH MAY OR MAY NOT COINCIDE WITH THE CURRENT LOCATION OF WV STATE ROUTE 23 IN THIS AREA.

WELL NO. 1H TO WATER WELLS

LINE	BEARING	DIST.
W1	N 38°55' W	1579.6'
W2	N 48°06' W	1599.3'
W3	N 56°59' W	1618.6'
W4	N 71°42' W	1080.7'
W5	N 72°29' W	978.6'
W6	N 73°42' W	1036.9'
W7	S 87°01' W	958.6'
W8	S 83°38' W	1032.9'
W9	S 78°52' W	1283.6'



NOTE: 9 WATER WELLS WERE LOCATED WITHIN 2000' OF PROPOSED WELL.



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JOB # 13-096WA  
DRAWING # SILAS1HAD  
SCALE 1" = 1000'  
MINIMUM DEGREE OF ACCURACY SUBMETER  
PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS



STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
WILLOW LAND SURVEYING PLLC  
220 MASONIC AVE. PENNSBORO  
WEST VIRGINIA 26415

LEGEND  
- - - Surface Owner Boundary Lines +/-  
- - - Interior Surface Tracts +/-  
- - - Existing Fence  
⊕ Found monument, as noted  
○ Proposed Well Path  
⊗ As Drilled Well Path

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

DATE 06/25/15  
OPERATOR'S WELL# SILAS UNIT #1H  
API WELL # 47 - 095 - 02157  
STATE COUNTY PERMIT

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
(IF "GAS") PRODUCTION X STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X  
LOCATION: ELEVATION 748' ORIGINAL - 745' AS DRILLED WATERSHED MCELROY CREEK  
QUADRANGLE CENTER POINT 7.5' (TH) SHIRLEY 7.5' (BH) DISTRICT MCELROY COUNTY TYLER

SURFACE OWNER FOREST & BRENDA MOORE ACREAGE 26.478 ACRES +/-  
OIL & GAS ROYALTY OWNER RALPH SWEENEY ET UX; RALPH SWEENEY ET UX; M.V.B. GEORGE; ELIZA UNDERWOOD ET AL LEASE ACREAGE 25.668 ACRES+; 55.43 ACRES+; 300 ACRES±; 216 ACRES±

PROPOSED WORK: DRILL \_\_\_ CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR STIMULATE \_\_\_  
PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW FORMATION \_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) (X) AS DRILLED PLUG & ABANDON CLEAN OUT & REPLUG  
TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,594' TVD 14,846' MD

WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT DIANNA STAMPER  
ADDRESS 1615 WYNKOOP STREET ADDRESS 5400 D BIG TYLER ROAD CT CORPORATION SYSTEM  
FORM WW-6 DENVER, CO 80202 CHARLESTON, WV 25313

07/24/2015

COUNTY NAME PERMIT