

AUG 10 2015

WR-35
Rev. 8/23/13

WV GEOLOGICAL SURVEY
MORGANTOWN, WV

Page ___ of ___

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

API 47 - 033 - 05695 County Harrison District Union
Quad West Milford Pad Name Bowyer Pad Field/Pool Name _____
Farm name Bowyer, Matt E. & Lisa Devought Well Number Tenmile 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 4,339,276.090m Easting 544,078.067m
Landing Point of Curve Northing 4,339,270.45m Easting 543,655.10m
Bottom Hole Northing 4,341,666.595m Easting 542,832.992m

Elevation (ft) 1,278' 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 12/26/2012 Date drilling commenced 03/28/2013 Date drilling ceased 07/20/2013
Date completion activities began 09/25/2013 Date completion activities ceased 03/24/2014
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 102', 204' Open mine(s) (Y/N) depths No
Salt water depth(s) ft 1,466'; 1,762' Void(s) encountered (Y/N) depths None
Coal depth(s) ft 391' Cavern(s) encountered (Y/N) depths None
Is coal being mined in area (Y/N) No

Reviewed by:

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API 47-033 - 05695 Farm name Bowyer, Matt E. & Lisa Devought Well number Tenmile 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	30"	20"	40'	New	94#; H-40	N/A	Yes
Surface	17 1/2"	13 3/8"	417'	New	48#; J-55	N/A	Yes
Coal							
Intermediate 1	12 1/4"	9 5/8"	2,566'	New	36#; J-55	N/A	Yes
Intermediate 2							
Intermediate 3							
Production	8 3/4" & 8 1/2"	5 1/2"	16,034'	New	20#; P-110	N/A	Yes
Tubing		2 3/8"	7,525'		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	75 sx	15.6	1.2	38	0'	8 Hrs.
Surface	Class A	514 sx	15.6	1.18	290	0'	8 Hrs.
Coal							
Intermediate 1	Class A	948 sx	15.6	1.18	804	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	1,156 sx (Lead); 1,331 sx (Tail)	14.5 (Lead); 15.2 (Tail)	1.3 (Lead); 1.86 (Tail)	3,200	~500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 16,034' MD; 7,270' TVD (BHL); 7,278' TVD (Deepest Point Drilled) Loggers TD (ft) 15,988'
Deepest formation penetrated Marcellus Plug back to (ft) N/A
Plug back procedure N/A

Kick off depth (ft) 7,034'

**This is a subsequent well. Antero only runs wireline logs on one well on a multi-well pad (Winnie Unit 2H, API #47-033-05615). Please reference the wireline logs submitted with Form WR-35 for the Winnie Unit 2H. 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 47-033-05695 Farm Name Bowyer, Matt E. & Lisa Devought Well Number Ten Mile Unit 1H					
EXHIBIT 1					
Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	25-Sep-13	15,704	15,979	60	Marcellus
2	5-Feb-14	15,477	15,669	60	Marcellus
3	5-Feb-14	15,250	15,442	60	Marcellus
4	5-Feb-14	15,023	15,214	60	Marcellus
5	6-Feb-14	14,796	14,987	60	Marcellus
6	6-Feb-14	14,569	14,760	60	Marcellus
7	6-Feb-14	14,341	14,533	60	Marcellus
8	7-Feb-14	14,114	14,305	60	Marcellus
9	7-Feb-14	13,887	14,078	60	Marcellus
10	7-Feb-14	13,660	13,851	60	Marcellus
11	8-Feb-14	13,432	13,624	60	Marcellus
12	8-Feb-14	13,205	13,397	60	Marcellus
13	8-Feb-14	12,978	13,169	60	Marcellus
14	9-Feb-14	12,751	12,942	60	Marcellus
15	9-Feb-14	12,524	12,715	60	Marcellus
16	9-Feb-14	12,296	12,488	60	Marcellus
17	9-Feb-14	12,069	12,260	60	Marcellus
18	10-Feb-14	11,842	12,033	60	Marcellus
19	10-Feb-14	11,615	11,806	60	Marcellus
20	10-Feb-14	11,387	11,579	60	Marcellus
21	10-Feb-14	11,160	11,352	60	Marcellus
22	11-Feb-14	10,933	11,124	60	Marcellus
23	11-Feb-14	10,706	10,897	60	Marcellus
24	11-Feb-14	10,479	10,670	60	Marcellus
25	11-Feb-14	10,251	10,443	60	Marcellus
26	12-Feb-14	10,024	10,215	60	Marcellus
27	12-Feb-14	9,797	9,988	60	Marcellus
28	12-Feb-14	9,570	9,761	60	Marcellus
29	13-Feb-14	9,342	9,534	60	Marcellus
30	13-Feb-14	9,115	9,307	60	Marcellus
31	14-Feb-14	8,888	9,079	60	Marcellus
32	14-Feb-14	8,661	8,852	60	Marcellus
33	14-Feb-14	8,434	8,625	60	Marcellus
34	14-Feb-14	8,206	8,398	60	Marcellus
35	15-Feb-14	7,979	8,171	60	Marcellus
36	15-Feb-14	7,752	7,943	60	Marcellus
37	15-Feb-14	7,525	7,716	60	Marcellus

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API 47-033-05695 Farm Name Bowyer, Matt E. & Lisa Devought Well Number Tenmile 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	4-Feb-14	44.0	8,465	N/A	5,471	26,460	7,087	N/A
2	5-Feb-14	64.0	7,832	6,118	6,033	115,881	7,391	N/A
3	5-Feb-14	71.0	7,848	6,768	6,137	162,870	7,551	N/A
4	5-Feb-14	74.0	8,171	6,922	4,999	219,409	7,509	N/A
5	6-Feb-14	71.0	8,444	7,244	4,775	183,218	7,089	N/A
6	6-Feb-14	78.0	8,282	6,735	5,258	258,695	7,056	N/A
7	6-Feb-14	77.0	8,271	6,919	5,022	282,900	7,203	N/A
8	7-Feb-14	75.0	8,246	6,694	5,565	274,372	7,395	N/A
9	7-Feb-14	74.0	8,000	6,262	5,488	262,699	7,370	N/A
10	7-Feb-14	76.0	8,321	6,381	4,965	275,565	7,107	N/A
11	8-Feb-14	76.0	8,294	6,219	4,793	220,652	7,368	N/A
12	8-Feb-14	76.0	8,071	6,341	4,578	254,106	7,487	N/A
13	8-Feb-14	75.0	7,856	6,163	4,729	277,514	6,979	N/A
14	9-Feb-14	75.0	7,358	6,364	5,657	278,120	6,932	N/A
15	9-Feb-14	79.0	7,142	6,137	4,464	267,139	6,844	N/A
16	9-Feb-14	79.0	7,969	6,225	4,514	274,831	6,820	N/A
17	9-Feb-14	79.0	7,705	6,209	4,914	279,702	6,839	N/A
18	10-Feb-14	74.0	7,359	5,705	4,874	274,445	7,033	N/A
19	10-Feb-14	80.0	7,727	6,054	4,343	274,693	6,759	N/A
20	10-Feb-14	81.0	7,834	6,268	4,456	277,079	6,757	N/A
21	10-Feb-14	78.0	7,751	6,497	4,122	272,397	6,875	N/A
22	11-Feb-14	79.0	7,726	5,802	3,998	278,072	6,844	N/A
23	11-Feb-14	74.0	7,367	5,596	5,255	212,748	7,231	N/A
24	11-Feb-14	75.0	7,911	5,901	4,211	224,920	7,101	N/A
25	11-Feb-14	78.0	7,728	5,707	3,687	274,495	6,799	N/A
26	12-Feb-14	77.0	7,409	5,925	4,464	278,336	6,778	N/A
27	12-Feb-14	78.0	7,313	5,867	4,647	276,999	6,685	N/A
28	12-Feb-14	77.0	7,778	5,920	4,461	219,913	6,897	N/A
29	13-Feb-14	75.0	7,071	5,872	4,387	280,099	7,164	N/A
30	13-Feb-14	70.0	7,971	6,087	5,648	194,293	7,195	N/A
31	14-Feb-14	76.0	7,293	6,159	4,650	255,506	6,946	N/A
32	14-Feb-14	78.0	7,203	5,988	4,517	247,902	6,359	N/A
33	14-Feb-14	79.0	6,691	5,772	4,425	275,383	6,651	N/A
34	14-Feb-14	78.0	6,863	6,359	4,487	275,821	6,896	N/A
35	15-Feb-14	77.0	6,894	6,633	4,588	275,406	6,964	N/A
36	15-Feb-14	74.0	6,735	6,059	4,669	277,366	7,044	N/A
37	15-Feb-14	79.0	6,830	6,521	4,583	274,695	6,468	N/A
AVG=		75.1	7,668	6,233	4,806	9,134,701	259,473	TOTAL

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API 47-033-05695 Farm Name Bowyer, Matt E. & Lisa Devought Well Number Ten Mile 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
Fresh Water	102'	N/A	102'	N/A
Fresh Water	204'	N/A	204'	N/A
Sandy Siltstone	0	281	0	281
Siltstone	est. 281	326	est. 281	326
Sandstone	est. 326	391	est. 326	391
Coal	est. 391	421	est. 391	421
Sandstone	est. 421	571	est. 421	571
Sandy Shale	est. 571	876	est. 571	876
Sandstone	est. 876	1,026	est. 876	1,026
Shale	est. 1026	1,071	est. 1026	1,071
Sandstone	est. 1071	1,176	est. 1071	1,176
Sandy Shale	est. 1176	1,266	est. 1176	1,266
Sandy Siltstone	est. 1266	1,326	est. 1266	1,326
Shale	est. 1326	1,416	est. 1326	1,416
Sandstone	est. 1416	1,476	est. 1416	1,476
Shale	est. 1476	1,526	est. 1476	1,526
Limey Shale	est. 1526	1,746	est. 1526	1,746
Big Lime	1,746	1,860	1,746	1,860
Big Injun	1,860	2,106	1,860	2,106
Gantz Sand	2,106	2,225	2,106	2,225
Fifty Foot Sandstone	2,225	2,330	2,225	2,330
Gordon	2,330	2,569	2,330	2,569
Fifth Sandstone	2,569	2,630	2,569	2,630
Bayard	2,630	3,045	2,630	3,045
Warren	3,045	3,330	3,045	3,330
Speechley	3,330	3,557	3,330	3,557
Baltown	3,557	4,084	3,557	4,085
Bradford	4,084	4,724	4,085	4,733
Benson	4,724	5,049	4,733	5,080
Alexander	5,049	5,331	5,080	5,398
Elk	5,331	5,653	5,398	5,764
Rhinstreet	5,653	6,453	5,764	6,670
Sycamore	6,453	6,705	6,670	6,954
Middlesex	6,705	6,872	6,954	7,146
Burkett	6,872	6,900	7,146	7,180
Tully	6,900	7,090	7,180	7,481
Marcellus	7,090	NA	7,481	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:	2/4/2014
Job End Date:	2/15/2014
State:	West Virginia
County:	Harrison
API Number:	47-033-05695-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Tenmile Unit 1H
Longitude:	-80.48970000
Latitude:	39.20153900
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	7,278
Total Base Water Volume (gal):	11,125,422
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
Water	Operator	Carrier					
Sand, White, 40/70	Baker Hughes	Proppant	Water	7732-18-5	100.00000	90.55095	
Sand, White, 20/40	Baker Hughes	Proppant	Crystalline Silica (Quartz)	14808-60-7	100.00000	5.14510	
Sand, White, 100 mesh	Baker Hughes	Proppant	Crystalline Silica (Quartz)	14808-60-7	100.00000	3.08965	
HCl, 10.1 - 15%	Baker Hughes	Acidizing	Crystalline Silica (Quartz)	14808-60-7	100.00000	0.68292	
GW-3LDF	Baker Hughes	Gelling Agent	Water	7732-18-5	85.00000	0.18249	SmartCare Product
			Hydrochloric Acid	7647-01-0	15.00000	0.03220	SmartCare Product
			Guar Gum	9000-30-0	60.00000	0.07310	SmartCare Product
			Paraffinic Petroleum Distillate	64742-55-8	30.00000	0.03655	SmartCare Product
			Petroleum Distillates	64742-47-8	30.00000	0.03655	SmartCare Product
			Isotridecanol, ethoxylated	9043-30-5	5.00000	0.00609	SmartCare Product
			1-butoxy-2-propanol	5131-66-8	5.00000	0.00609	SmartCare Product
Enzyme G-NE	Baker Hughes	Breaker	Crystalline Silica: Quartz	14808-60-7	5.00000	0.00609	SmartCare Product

Product Name	Manufacturer	Ingredient	NA	No hazardous ingredients	MSDS	MSDS	MSDS	MSDS	MSDS
FRW-18	Baker Hughes	Friction Reducer	NA	No hazardous ingredients					0.02042 SmartCare Product
Alpha 1427	Baker Hughes	Biocide	64742-47-8	Petroleum Distillates					0.01955 SmartCare Product
			111-30-8	Glutaraldehyde					0.00363 SmartCare Product
			7173-51-5	Didecyl Dimethyl Ammonium Chloride					0.00121 SmartCare Product
			68424-85-1	Quaternary Ammonium Compound					0.00061 SmartCare Product
Scaletrol 720	Baker Hughes	Scale Inhibitor	64-17-5	Ethanol					0.00061 SmartCare Product
			107-21-1	Ethylene Glycol					0.00469 SmartCare Product
Ferrotrol 300L	Baker Hughes	Iron Control	10043-52-4	Calcium Chloride					0.00078 SmartCare Product
CI-14	Baker Hughes	Corrosion Inhibitor	77-92-9	Citric Acid					0.00082 SmartCare Product
			67-56-1	Methanol					0.00032 SmartCare Product
			Trade Secret	Polyoxyalkylenes					0.00010 SmartCare Product
			Trade Secret	Fatty Acids					0.00003 SmartCare Product
			107-19-7	Propargyl Alcohol					0.00002 SmartCare Product
			Trade Secret	Olefin					0.00002 SmartCare Product
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.									
		Other Chemicals							
			7732-18-5	Water					0.06775
			Trade Secret	Poly (acrylamide-co-acrylic acid)					0.01955
			Trade Secret	Sorbitan Monooleate					0.00326
			Trade Secret	Salt					0.00326
			Trade Secret	Polyacrylate					0.00312
			Trade Secret	Ethoxylated Alcohol					0.00130
			9025-56-3	Hemicellulase Enzyme Concentrate					0.00102
			15821-83-7	2-butoxy-1-propanol					0.00012
			68527-49-1	Modified Thiorea Polymer					0.00002
			7447-40-7	Potassium Chloride					0.00001
			7647-14-5	Sodium Chloride					0.00000
			7647-01-0	Hydrochloric Acid					0.00000
			50-00-0	Formaldehyde					0.00000

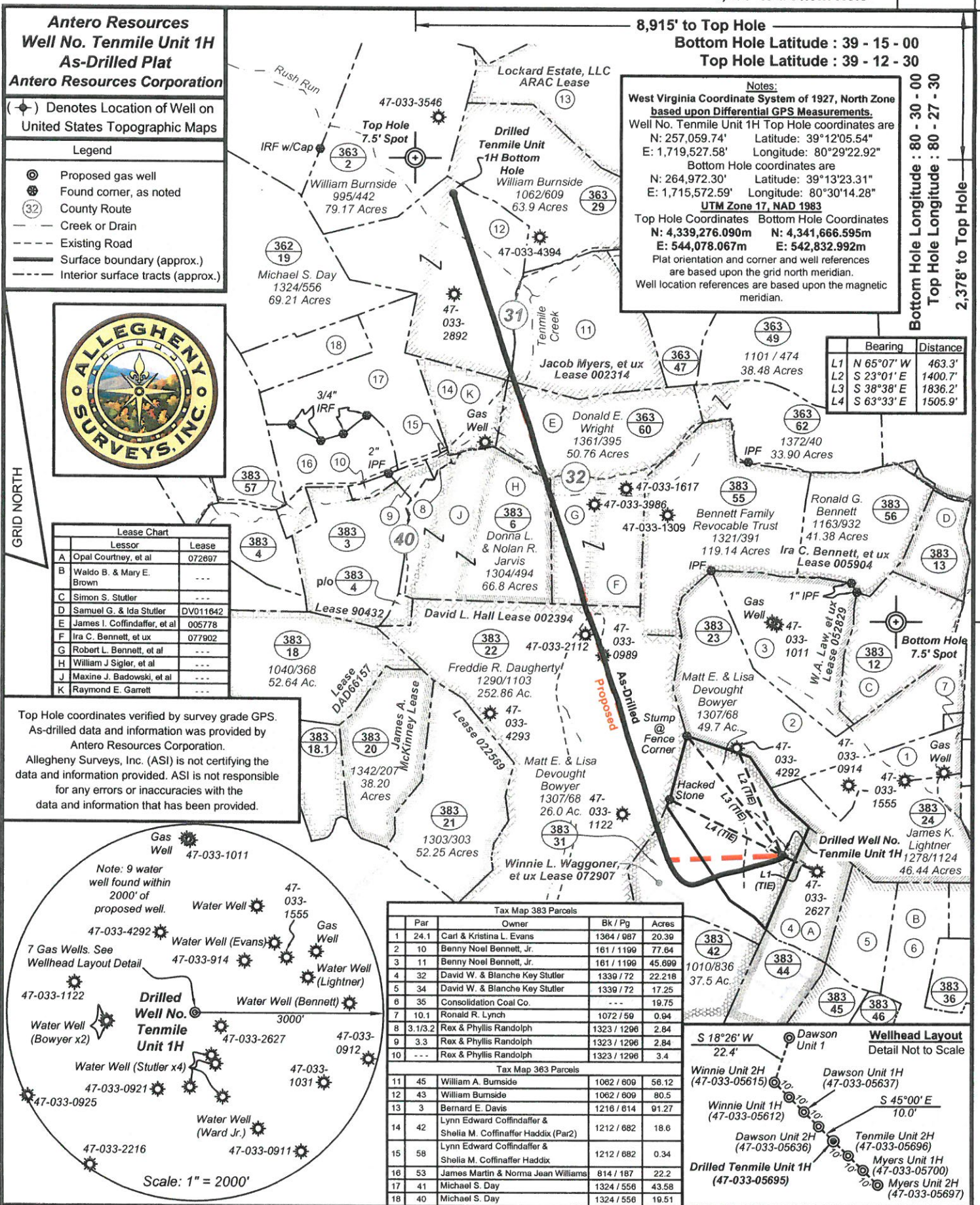
* Total Water Volume sources may include fresh water, produced water, and/or recycled water
** Information is based on the maximum potential for concentration and thus the total may be over 100%

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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MORGANTOWN, WV



1,233' to Bottom Hole

8,915' to Top Hole

Bottom Hole Latitude : 39 - 15 - 00

Top Hole Latitude : 39 - 12 - 30

Notes:
West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.

Well No. Tenmile Unit 1H Top Hole coordinates are

N: 257,059.74' Latitude: 39°12'05.54"

E: 1,719,527.58' Longitude: 80°29'22.92"

Bottom Hole coordinates are

N: 264,972.30' Latitude: 39°13'23.31"

E: 1,715,572.59' Longitude: 80°30'14.28"

UTM Zone 17, NAD 1983

Top Hole Coordinates Bottom Hole Coordinates

N: 4,339,276.090m N: 4,341,666.595m

E: 544,078.067m E: 542,832.992m

Plat orientation and corner and well references are based upon the grid north meridian.

Well location references are based upon the magnetic meridian.

Bottom Hole Longitude : 80 - 30 - 00
Top Hole Longitude : 80 - 27 - 30

	Bearing	Distance
L1	N 65°07' W	463.3'
L2	S 23°01' E	1400.7'
L3	S 38°38' E	1836.2'
L4	S 63°33' E	1505.9'

GRID NORTH

9,769' to Bottom Hole

2,378' to Top Hole

FILE NO: 164-36-U-12
DRAWING NO: 164-12 Tenmile 1H As-Drilled
SCALE: 1" = 1500'
MINIMUM DEGREE OF ACCURACY: Submeter
PROVEN SOURCE OF ELEVATION: WVDOT, BRIDGEPORT, WV

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

DATE: July 27 2015
OPERATOR'S WELL NO. Tenmile Unit 1H
API WELL NO
47 - 033 - 05695
STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
Original Grade 1288'
LOCATION: ELEVATION: Existing Grade 1278' WATERSHED: Middle West Fork River QUADRANGLE: West Milford
DISTRICT: Union COUNTY: Harrison
SURFACE OWNER: Matt E. & Lisa Devought Bowyer Winnie L. Waggoner, et ux; James I. Coffindaffer, et al; 002314; ACREAGE: 49.7
ROYALTY OWNER: Robert L. Bennett, et al; William J. Sigler, et al; Ira C. Bennett, et ux David L. Hall; Jacob Myers, et ux; 072907; 002394; 177; 111.3; LEASE NO: 077902; 005778 ACREAGE: 255; 20.5; 18.75; 36.5; 54.12
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) As-Drilled 7,270' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale DEPTH: 16,034' 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