

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

WV Department of  
Environmental Protection

API 47 - 033 - 05714 County Harrison District Union  
Quad Big Isaac Pad Name Corder East Field/Pool Name                       
Farm name Corder, Gerald & Louella Well Number Truman 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 4341561.89 Easting 538528.55  
Landing Point of Curve Northing 4341328.80 Easting 537998.55  
Bottom Hole Northing 4342362.29 Easting 536725.43

Elevation (ft) 1405' 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 Not yet completed  
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 1/29/2013 Date drilling commenced 4/13/2014 Date drilling ceased 8/1/2014  
Date completion activities began WOC Date completion activities ceased N/A  
Verbal plugging (Y/N) N 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 100' Open mine(s) (Y/N) depths N  
Salt water depth(s) ft None Identified Void(s) encountered (Y/N) depths N  
Coal depth(s) ft 340', 420', 900', 1240', 1320', 1680', 1860' Cavern(s) encountered (Y/N) depths N  
Is coal being mined in area (Y/N) N

Reviewed by:

**12/05/2014**

API 47-033 - 05714 Farm name Corder, Gerald & Louella Well number Truman 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	106.5#	N/A	Y
Surface	17- 1/2"	13- 3/8"	367'	New	48#	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2509'	New	36#	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4" & 8-1/2"	5-1/2"	13,759'	New	20#	N/A	Y
Tubing							
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	196 sx	15.6	1.18	38	0	8 Hrs.
Surface	Class A	436 sx	15.6	1.18	255	0	8 Hrs.
Coal							
Intermediate 1	Class A	930 sx	15.6	1.18	786	0	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	2095 sx	14.5 Lead 15.2 Tail	1.3 Lead 1.87 Tail	2692	~500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 13,759' MD, 7513' TVD Loggers TD (ft) 13,701'  
 Deepest formation penetrated Marcellus Plug back to (ft) N/A  
 Plug back procedure N/A

Kick off depth (ft) 7361'

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

\*\* This is a subsequent well. Antero only runs wireline logs on one well on a multi-well pad (Cleta Unit 1H API# 47-033-05659). Please reference the wireline logs submitted with Form WR-35 for the Cleta Unit 2H. A Cement Bond Log has been included with this submittal.

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 Waiting on Completion

WAS WELL COMPLETED OPEN HOLE?  Yes  No DETAILS Waiting on Completion

WERE TRACERS USED  Yes  No TYPE OF TRACER(S) USED Waiting on Completion

API 47- 033 - 05714 Farm name Corder, Gerald & Louella Well number Truman Unit 1H

### PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
<b>* WAITING ON COMPLETION</b>					

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)
<b>* WAITING ON COMPLETION</b>								

Please insert additional pages as applicable.

12/05/2014

API 47- 033 - 05714 Farm name Corder, Gerald & Louella Well number Truman Unit 1H

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
<u>Marcellus - WOC</u>	<u>7381'</u> TVD	<u>7858'</u> MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump

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

OPEN FLOW Gas \_\_\_\_\_ mcfpd Oil \_\_\_\_\_ bpd NGL \_\_\_\_\_ bpd Water \_\_\_\_\_ bpd  
 GAS MEASURED BY  Estimated  Orifice  Pilot

<u>LITHOLOGY/ FORMATION</u>	<u>TOP</u>	<u>BOTTOM</u>	<u>TOP</u>	<u>BOTTOM</u>	<u>DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H<sub>2</sub>S, ETC)</u>
	<u>DEPTH IN FT NAME TVD</u>	<u>DEPTH IN FT TVD</u>	<u>DEPTH IN FT MD</u>	<u>DEPTH IN FT MD</u>	
	<u>0</u>		<u>0</u>		

**\* PLEASE SEE EXHIBIT 1**

Please insert additional pages as applicable.

Drilling Contractor Patterson - UTI Drilling Company LLC  
 Address 207 Carlton Drive City Eight Four State PA Zip 15330

Logging Company Rush Wellsite Services  
 Address 600 Alpha Drive City Canonsburg State PA Zip 15317

Cementing Company Allied Oil & Gas Services, LLC  
 Address 1036 East Main Street City Bridgeport State WV Zip 26330

Stimulating Company N/A - WOC  
 Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Please insert additional pages as applicable.

Completed by Ashlie Steele Telephone 303-357-7323  
 Signature *Ashlie Steele* Title Permitting Supervisor Date 11/24/2014

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

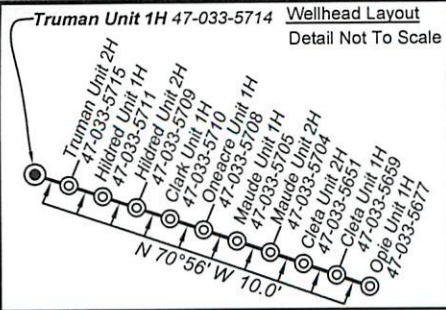
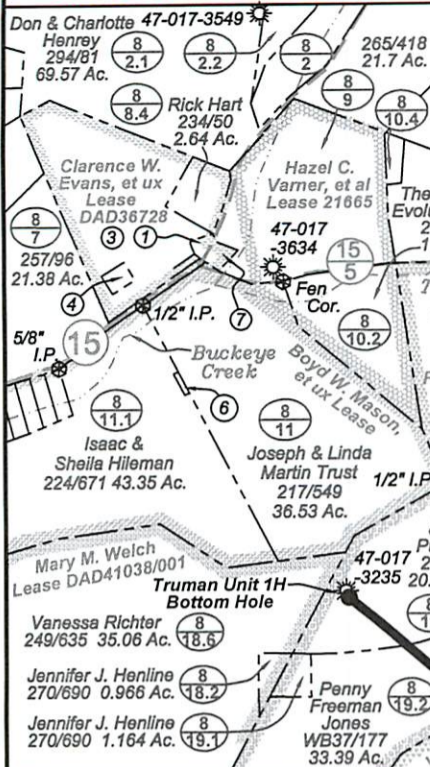
12/05/2014

## EXHIBIT 1

LITHOLOGY/ FORMATION	TOP DEPTH (TVD)	BOTTOM DEPTH (TVD)	TOP DEPTH (MD)	BOTTOM DEPTH (MD)	ROCK TYPE	FLUID PRODUCED
Undifferentiated Pennsylvanian Sedimentary Sequence	0'	2279'	0'	2279'	Sandstone/Shale/Siltstone	
Big Lime	est. 2280'	2379'	est. 2280'	2379'	Limestone	
Big Injun	est. 2380'	2682'	est. 2380'	2682'	Sandstone/Shale/Siltstone	
Gantz Sand	est. 2683'	2824'	est. 2683'	2824'	Sandstone/Shale/Siltstone	
Fifty Foot Sandstone	est. 2825'	2895'	est. 2825'	2895'	Sandstone/Shale/Siltstone	
Gordon	est. 2896'	3069'	est. 2896'	3069'	Sandstone/Shale/Siltstone	
Fifth Sandstone	est. 3070'	3111'	est. 3070'	3111'	Sandstone/Shale/Siltstone	
Bayard	est. 3112'	3887'	est. 3112'	3887'	Sandstone/Shale/Siltstone	
Speechley	est. 3888'	4142'	est. 3888'	4142'	Sandstone/Shale/Siltstone	
Baltown	est. 4143'	4677'	est. 4143'	4677'	Sandstone/Shale/Siltstone	
Bradford	est. 4678'	5193'	est. 4678'	5193'	Sandstone/Shale/Siltstone	
Benson	est. 5194'	5370'	est. 5194'	5370'	Sandstone/Shale/Siltstone	
Alexander	est. 5371'	5521'	est. 5371'	5521'	Sandstone/Shale/Siltstone	
Elk	est. 5522'	7041'	est. 5522'	7325'	Sandstone/Shale/Siltstone	
Middlesex	7042'	7183'	7326'	7499'	Shale	
Burkett	7184'	7215'	7500'	7544'	Shale	Gas
Tully	7216'	7380'	7545'	7857'	Limestone	N/A
Marcellus	7381'	7513'	7858'		Shale	Gas

\*Please note Antero determines formation tops based on wireline logs that are only run on one well on a multi-well pad (Please reference Cleota Unit 1H #47-033-05659). The measured depth (MD) data on subsequent wells may be slightly different due to the well's unique departure.

# Antero Resources Well No. Truman Unit 1H As-Drilled Plat



3,564' to Top Hole

LATITUDE 39 - 15 - 00

LONGITUDE 80 - 32 - 30

Notes:  
West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.  
Well No. Truman Unit 1H Top Hole coordinates are  
N: 264,864.29 Latitude: 39°13'20.64"  
E: 1,701,441.95 Longitude: 80°33'13.81"  
Bottom Hole coordinates are  
N: 267,589.53 Latitude: 39°13'46.89"  
E: 1,695,568.82 Longitude: 80°34'28.85"  
UTM Zone 17, NAD 1983  
Top Hole Coordinates: Bottom Hole Coordinates:  
N: 4,341,561.889m N: 4,342,362.288m  
E: 538,528.552m E: 536,725.430m  
Plat orientation and corner and well references are based upon the grid north meridian.  
Well location references are based upon the magnetic meridian.

Legend

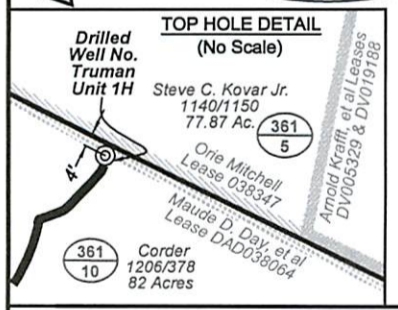
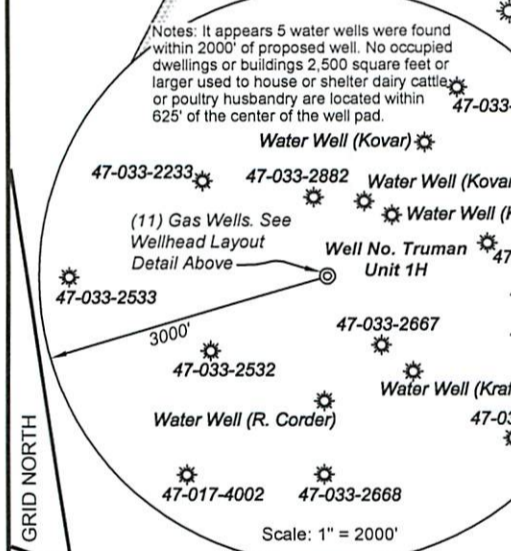
- Proposed gas well
- Found corner, as noted
- Creek or Drain
- Existing Road
- Surface boundary (approx.)
- Interior surface tracts (approx.)

Tax Map 8 Parcels

Par	Owner	DB/Pg	Acres
1	8.2 Zak S. Henry	287/209	0.34
2	20 Penny Freeman Jones	245/500	2.21
3	8 Barbara E. Hart	WB42/503	18.03
4	8.1 Barbara E. Hart	WB42/503	0.5
5	10.3 Butterfly Evolution Trust	250/468	27.8
6	11.11 Joseph & Linda Martin Trust	217/549	0.11
7	8.3 Stephanie D. Moore	277/244	0.49

Tax Map 361 Parcels

Par	Owner	DB/Pg	Acres
11	4 Lucille Devericks	WB167/23	9.84
12	3 Lucille Devericks	WB167/23	9.70
13	5 Steve C. Kovar Jr.	1140/1150	77.87



Top Hole coordinates verified by survey grade GPS. As-drilled data and information was provided by Antero Resources Corporation. Allegheny Surveys, Inc. (ASI) is not certifying the data and information provided. ASI is not responsible for any errors or inaccuracies with the data and information that has been provided.

(+) Denotes Location of Well on United States Topographic Maps

Line	Bearing	Distance
L1	S 06°03' E	810.2'
L2	N 39°18' W	960.7'
L3	N 21°03' E	1296.7'
L4	N 36°46' E	1875.0'

FILE NO: 233-30-G-12  
DRAWING NO: 233-12 Truman Drilled 1H  
SCALE: 1" = 1200'  
MINIMUM DEGREE OF ACCURACY: Submeter  
PROVEN SOURCE OF ELEVATION: WVDOT, Bridgeport, WV

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

DATE: November 4 20 14  
OPERATOR'S WELL NO. Truman Unit 1H  
API WELL NO: 47 - 033 - 05714  
STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
(IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
LOCATION: ELEVATION: 1405' WATERSHED: Turtletree Fork of Tenmile Creek QUADRANGLE: Big Isaac  
DISTRICT: Union COUNTY: Harrison  
SURFACE OWNER: Gerald & Louella Corder James Ross, et ux DAD40725/001  
ROYALTY OWNER: Maude D. Day, et al; Denzil O. Freeman, et ux, et al Wendell Calhoun, et ux, et al CWM #268  
PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) As-Drilled ACREAGE: 82  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale LEASE NO: DAD038064 ACREAGE: 147; 76; 50; 125  
DEPTH: MD 13,759'

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