

LATITUDE 39°20'00"

8,704'

911' TO BOTTOM HOLE  
LATITUDE 39°22'30"

LONGITUDE 80°57'30"

6,358'

LONGITUDE 80°55'00"

**Antero Resources Corporation**  
**Well No. Jackknife Unit 1H**  
**A.P.I. 47-085-10178**

**AS DRILLED DATA:**

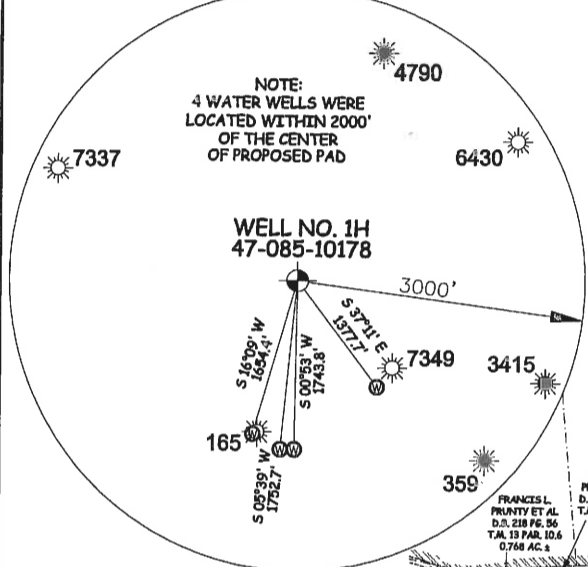
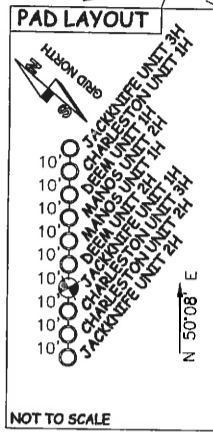
**WELL 1H TOP HOLE INFORMATION:**  
N: 300,458ft E: 1,590,492ft  
LAT: 39°18'57.16" LON: 80°56'50.75"

**BOTTOM HOLE INFORMATION:**  
N: 309,381ft E: 1,586,640ft  
LAT: 39°20'24.72" LON: 80°57'41.60"

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: 4,351,841m E: 504,546m  
**BOTTOM HOLE INFORMATION:**  
N: 4,354,540m E: 503,328m

- 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 SURVY, 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.



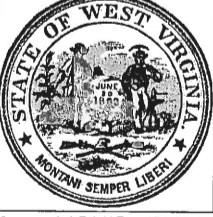
- LEGEND**
- Surface Owner Boundary Lines +/-
  - - - Interior Surface Tracts +/-
  - ⊕ Found monument, as noted
  - Proposed Well Path
  - ⊗ As Drilled Well Path

DATE 02/09/17

OPERATOR'S WELL# JACKKNIFE UNIT #1H

JOB # 14-008WA  
DRAWING # JACKKNIFE1HAD  
SCALE 1" = 1000'  
MINIMUM DEGREE OF ACCURACY SUBMETER  
PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS

API WELL # 47 - 085 - 10178  
STATE COUNTY PERMIT



STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
WILLOW LAND SURVEYING PLLC  
P.O. BOX 17 PENNSBORO WEST VIRGINIA 26415

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

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL   
(IF "GAS") PRODUCTION  STORAGE  DEEP  SHALLOW   
LOCATION: ELEVATION 1,163' ORIGINAL - 1,127' AS BUILT WATERSHED NORTH FORK HUGHES RIVER

QUADRANGLE PENNSBORO 7.5' DISTRICT CLAY COUNTY RITCHIE

SURFACE OWNER STEPHEN C. JACKSON ET AL ACREAGE 40.835 ACRES +/-

OIL & GAS ROYALTY OWNER HARVEY WEIGLE HEIRS; STEVE JACKSON; MARY MAXINE WELCH; CLIFF WILSON ET UX; W.J. COLLINS ET UX; MARY MAXINE WELCH; WILLIAM DAVIS HEWITT LEASE ACREAGE 51 ACRES±; 117 ACRES±; 163 ACRES±; 413 ACRES±; 575 ACRES±; 76.43 ACRES±; 20 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  ESTIMATED DEPTH 6,417' TVD 16,080' MD

TARGET FORMATION MARCELLUS  
WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT DIANNA STAMPER  
ADDRESS 1615 WYNKOOP STREET ADDRESS 5400 D BIG TYLER ROAD  
DENVER, CO 80202 CHARLESTON, WV 25313

05/26/2017