

LATITUDE 39°17'30"

4,407'

7,293' TO BOTTOM HOLE

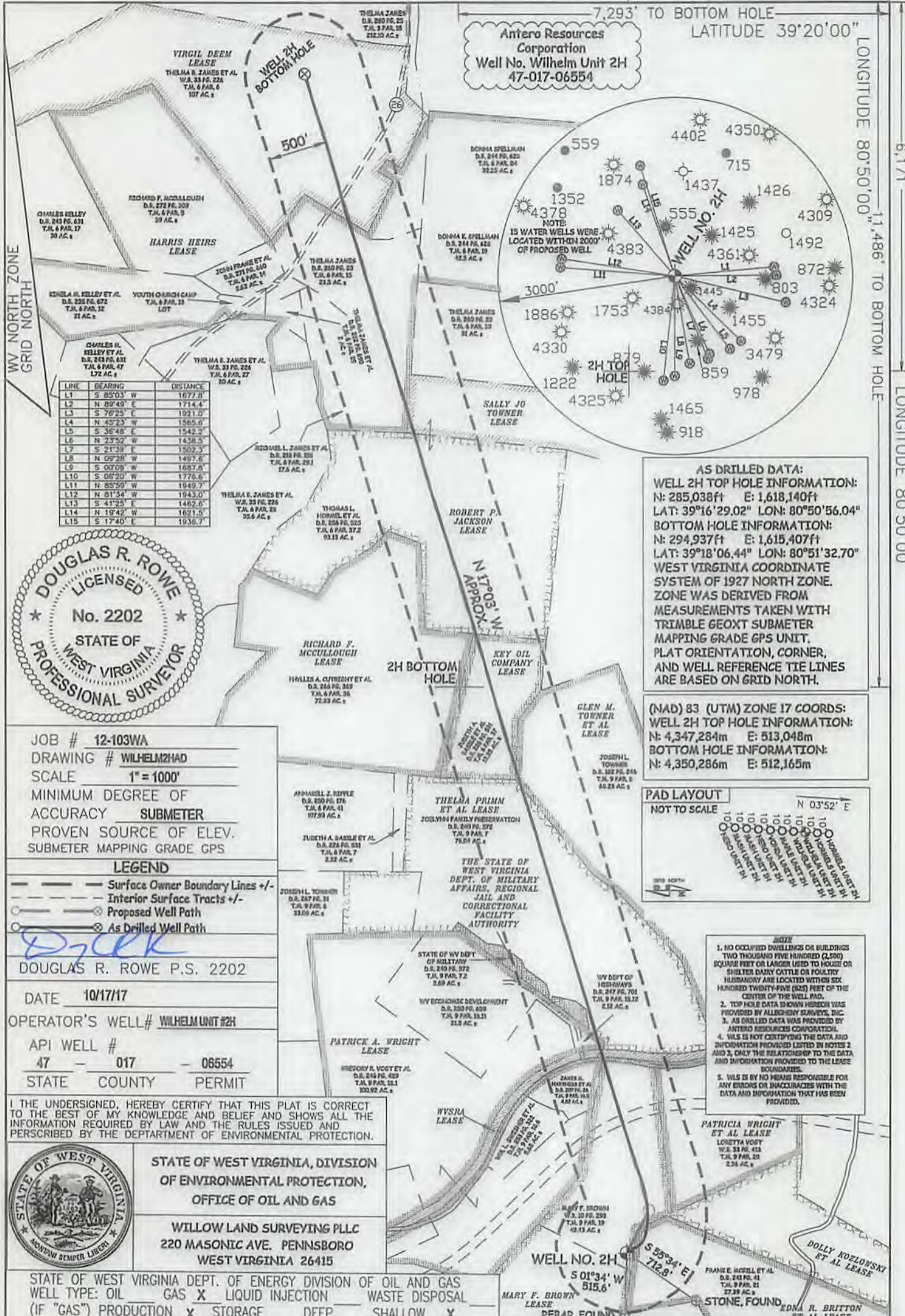
LATITUDE 39°20'00"

LONGITUDE 80°50'00"

6,171'

LONGITUDE 80°50'00"

Antero Resources Corporation
Well No. Wilhelm Unit 2H
47-017-06554

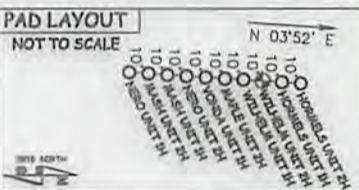


LINE	BEARING	DISTANCE
L1	S 85°03' W	1677.8'
L2	N 89°49' E	1714.4'
L3	S 78°25' E	1921.0'
L4	N 45°23' W	1585.6'
L5	S 36°48' E	1542.2'
L6	N 23°52' W	1438.5'
L7	S 21°39' E	1502.3'
L8	N 09°28' E	1497.6'
L9	S 00°08' W	1687.8'
L10	S 06°20' W	1776.6'
L11	N 85°59' W	1949.7'
L12	N 81°34' W	1943.0'
L13	S 41°25' E	1482.6'
L14	N 18°42' W	1621.5'
L15	S 17°40' E	1936.7'



AS DRILLED DATA:
WELL 2H TOP HOLE INFORMATION:
 N: 285,038ft E: 1,618,140ft
 LAT: 39°16'29.02" LON: 80°50'56.04"
BOTTOM HOLE INFORMATION:
 N: 294,937ft E: 1,615,407ft
 LAT: 39°18'06.44" LON: 80°51'32.70"
 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 2H TOP HOLE INFORMATION:
 N: 4,347,284m E: 513,048m
BOTTOM HOLE INFORMATION:
 N: 4,350,286m E: 512,165m



JOB # 12-103WA
 DRAWING # WILHELM2HAD
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY SUBMETER
 PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS

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

DOUGLAS R. ROWE P.S. 2202
 DATE 10/17/17
 OPERATOR'S WELL# WILHELM UNIT #2H
 API WELL # 47 - 017 - 06554
 STATE COUNTY PERMIT

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 DEPARTMENT OF ENVIRONMENTAL PROTECTION.



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

STATE OF WEST VIRGINIA DEPT. OF ENERGY DIVISION OF OIL AND GAS
 WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS") PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 1,165' WATERSHED HEADWATERS MIDDLE ISLAND CREEK
 QUADRANGLE WEST UNION 7.5' DISTRICT CENTRAL COUNTY DODDRIEGE
 SURFACE OWNER MARY F. BROWN ACREAGE 49.43 ACRES +/-
 OIL & GAS ROYALTY OWNER MARY F. BROWN; EDNA R. BRITTON ET AL; PATRICK A. WRIGHT; WYSRA; THELMA PRIMM ET AL; LEASE ACREAGE 55.65 AC; 95 AC; 222 AC; 301.19 ACRES; 76.04 AC;
 GLEN M. TOWNER ET AL; KEY OIL COMPANY; RICHARD F. MCCULLOUGH; ROBERT P. JACKSON; SALLY JO TOWNER; HARRIS HEIRS; VIRGIL DEEM 68.23 AC; 17 AC; 72.83 AC; 94 AC; 22.9 AC; 107 AC; 107 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
 TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,634' TVD 16,817' MD
 WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT DIANNA STAMPER
 ADDRESS 1615 WYNKOOP STREET ADDRESS CT CORPORATION SYSTEM
 DENVER, CO 80202 CHARLESTON, WV 25313

NOTE
 1. NO OCCUPIED DWELLINGS OR BUILDINGS TWO THOUSAND FIVE HUNDRED (2,500) SQUARE FEET OR LARGER LEAD TO HOUSE OR SHELTER DAIRY CATTLE OR PASTURE HUSBANDRY ARE LOCATED WITHIN SIX HUNDRED TWENTY-FIVE (625) FEET OF THE CENTER OF THE WELL PAD.
 2. TOP HOLE DATA SHOWS HEREDI 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.

01/05/2018

COUNTY NAME PERMIT