

LATITUDE 39°20'00" | -1,228'

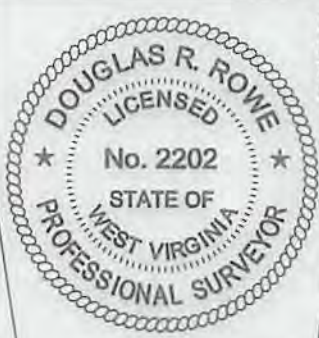
LATITUDE 39°22'30"

LONGITUDE 80°57'30"

6,930'

13,113' TO BOTTOM HOLE

LONGITUDE 80°57'30"



Antero Resources Corporation  
Well No. Duchene Unit 4H  
A.P.I. 47-085-10168

AS DRILLED NOTES:  
WELL 4H TOP HOLE INFORMATION:  
N: 299,956ft E: 1,586,170ft  
LAT: 39°18'51.51" LON: 80°57'45.62"  
BOTTOM HOLE INFORMATION:  
N: 308,969ft E: 1,585,024ft  
LAT: 39°20'20.39" LON: 80°58'02.07"  
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 4H TOP HOLE INFORMATION:  
N: 4,351,666m E: 503,232m  
BOTTOM HOLE INFORMATION:  
N: 4,354,406m E: 502,838m

- 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.
- TOP HOLE DATA SHOWN HEREON WAS PROVIDED BY ALLEGHENY SURVEYS, INC.
- AS DRILLED DATA WAS PROVIDED BY ANTERO RESOURCES CORPORATION.
- 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.
- WLS IS BY NO MEANS RESPONSIBLE FOR ANY ERRORS OR INACCURACIES WITH THE DATA AND INFORMATION THAT HAS BEEN PROVIDED.



JOB #	14-006WA
DRAWING #	DUCHENEUNIT4HAD
SCALE	1" = 1000'
MINIMUM DEGREE OF ACCURACY	SUBMETER
PROVEN SOURCE OF ELEV.	SUBMETER MAPPING GRADE GPS

LINE	BEARING	DISTANCE
L1	N 03°22' E	1289.74'
L2	N 18°02' E	1231.80'
L3	N 52°14' E	1853.98'
L4	N 58°08' E	1771.83'
L5	N 61°09' E	1970.65'
L6	S 55°50' E	1258.49'
L7	S 01°45' E	1178.89'
L8	S 06°14' W	1292.95'
L9	S 36°19' W	1725.37'

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

DOUGLAS R. ROWE P.S. 2202  
 DATE 12/29/17  
 OPERATOR'S WELL # DUCHENE UNIT 4H

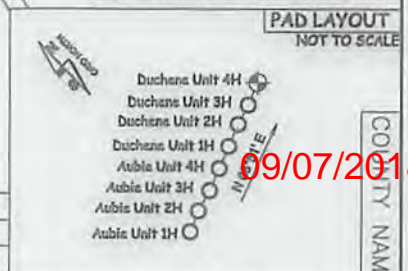
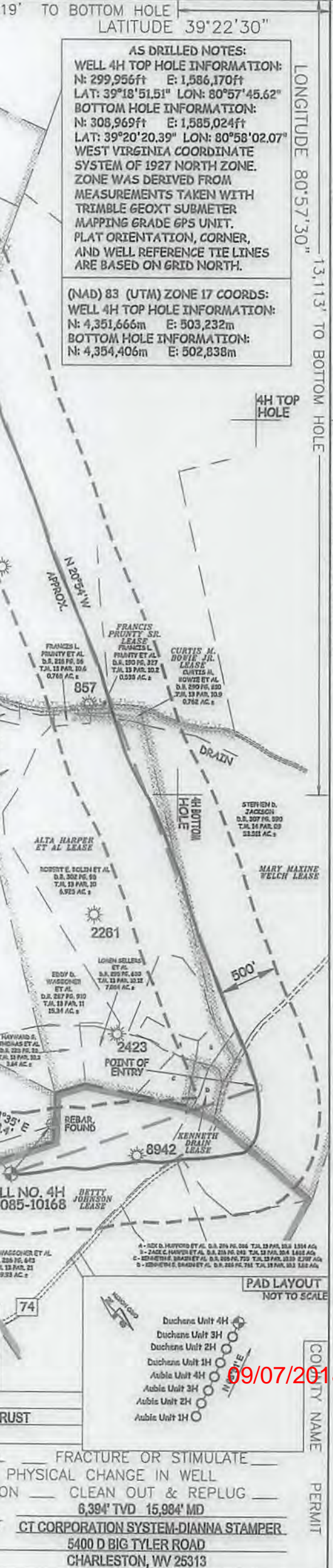
I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE RULES ISSUED AND PERSCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.



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 DEPARTMENT OF ENERGY  
 DIVISION OF OIL AND GAS  
 WELL TYPE: OIL \_\_\_ GAS  LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS") PRODUCTION  STORAGE \_\_\_ DEEP \_\_\_ SHALLOW   
 LOCATION: ELEVATION 1,127' AS DRILLED WATERSHED NORTH FORK HUGHES RIVER  
 QUADRANGLE PENNSBORO 7.5' DISTRICT CLAY COUNTY RITCHIE  
 SURFACE OWNER EDDY D. WAGGONER ET AL ACREAGE 59.93 ACRES +/-  
 OIL & GAS ROYALTY OWNER BETTY JOHNSON; ALTA HARPER ET AL; MARY MAXINE WELCH;  
 CURTIS M. BOWIE JR.; CLIFF WILSON ET UX; JAMES W. UTT; THE JOELLYNN FAMILY TRUST

LEASE ACREAGE 130 AC±; 112 AC±; 163 AC±; 0.762 AC±; 413 AC±; 82 AC±; 22 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 6,394' TVD 15,984' MD  
 WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT CT CORPORATION SYSTEM-DIANNA STAMPER  
 ADDRESS 1615 WYNKOOP STREET ADDRESS 5400 D BIG TYLER ROAD  
 FORM WW-6 DENVER, CO 80202 CHARLESTON, WV 25313



09/07/2018

COUNTY NAME

PERMIT