

LATITUDE 39°17'30"

11,223'

1,398' TO BOTTOM HOLE
LATITUDE 39°20'00"

LONGITUDE 80°52'30"

6,699'

13,103' TO BOTTOM HOLE

LONGITUDE 80°50'00"

Antero Resources Corporation
Well No. Alder Unit 1H
47-017-06640 (AS DRILLED)

AS DRILLED DATA:
WELL 1H TOP HOLE INFORMATION:
N: 284,613ft E: 1,611,317ft
LAT: 39°16'23.79" LON: 80°52'22.72"
BOTTOM HOLE INFORMATION:
N: 293,413ft E: 1,609,480ft
LAT: 39°17'50.49" LON: 80°52'47.79"
WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE. ZONE WAS DERIVED FROM MEASUREMENTS TAKEN WITH TRIMBLE GEMXT 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: 4,347,120m E: 510,971m
BOTTOM HOLE INFORMATION:
N: 4,349,791m E: 510,367m

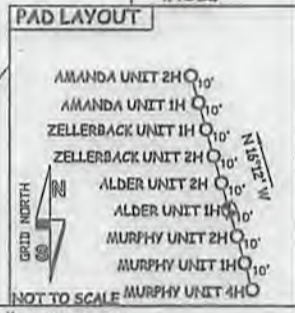
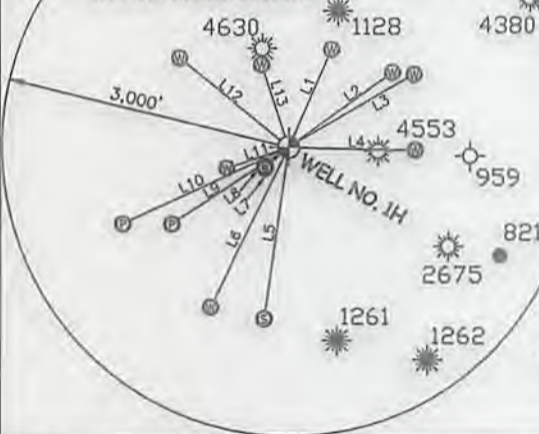
- NOTE
1. NO OCCUPIED DWELLINGS OR BUILDINGS TWO THOUSAND FIVE HUNDRED (2,500) SQUARE FEET OR LARGER USED TO HOUSE OR SHELTER DAIRY CATTLE OR POULTRY HUSBANDRY ARE LOCATED WITHIN SIX HUNDRED TWENTY-FIVE (625) FEET OF THE CENTER OF THE WELL PAD.
 2. TOP HOLE DATA SHOWN HEREON WAS PROVIDED BY ALLEGHENY 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.

- A - EZRA B. WALTON ET AL. D.S. 227 PG. 162 TAL. 9 PAR. 102 2 AC.
- B - FOUR LEAF LAND CO. D.S. 228 PG. 317 TAL. 9 PAR. 11 0.29 AC.
- C - JOHN C. HADDALOUGH D.S. 277 PG. 194 TAL. 9 PAR. 121 0.69 AC.
- D - FOUR LEAF LAND CO. D.S. 228 PG. 317 TAL. 9 PAR. 11 1.46 AC.
- E - FOUR LEAF LAND CO. D.S. 228 PG. 317 TAL. 9 PAR. 12 1.22 AC.



LINE	DESCRIPTION	ELEVATION
L1	N 22°41' E	1152.9
L2	N 89°12' E	1248.2
L3	N 89°12' E	1622.2
L4	N 89°42' E	1317.1
L5	S 60°20' W	1771.1
L6	S 29°20' W	1631.2
L7	S 89°42' E	316.4
L8	S 89°20' W	264.1
L9	S 29°20' W	1455.2
L10	S 89°20' W	1908.4
L11	S 29°20' W	358.2
L12	N 89°20' W	1455.2
L13	N 89°20' W	550.2

NOTE:
8 WATER WELLS,
3 SPRINGS AND 2 PONDS
WERE LOCATED WITHIN
2000' OF THE CENTER OF PAD



JOB # 13-020WA
DRAWING # ALDER1HADR
SCALE 1" = 1000'
MINIMUM DEGREE OF ACCURACY SUBMETER
PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS

- LEGEND
- Surface Owner Boundary Lines +/-
 - - - Interior Surface Tracts +/-
 - X Existing Fence
 - Found monument, as noted
 - Proposed Well Path
 - As Drilled Well Path

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAN IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE RULES ISSUED AND PRESCRIBED 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

THOMAS SUMMERS P.S. 2109

DATE 08/24/17

OPERATOR'S WELL# ALDER UNIT 1H

API WELL # 47 - 017 - 06640

STATE COUNTY PERMIT

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 989' AS DRILLED WATERSHED NORTH FORK HUGHES RIVER

QUADRANGLE WEST UNION 7.5 DISTRICT CENTRAL COUNTY DODDRIDGE

SURFACE OWNER ROBERT L. HOLLAND JR. ACREAGE 6.80 ACRES +/-

OIL & GAS ROYALTY OWNER ANNA BARKER ET AL; WVSRA; KATE MASON ET AL; LEASE ACREAGE 127 ACRES +/-; 301.19 ACRES +/-; 96 ACRES +/-; JAMES C. RIDDLE ET AL; FREDDIE JAMES ET UX; HARRY WILLIAMSON 75 ACRES +/-; 34 ACRES +/-; 166 ACRES +/-

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 6,425' TVD 15,470' MD

WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT DIANNA STAMPER
ADDRESS 1615 WYNKOOP STREET ADDRESS CT CORPORATION SYSTEM
DENVER, CO 80202 CHARLESTON, WV 25313

11/10/2017