

LATITUDE 39°12'30"

6,899'

LATITUDE 39°10'00"

4,604' TO BOTTOM HOLE

LONGITUDE 80°52'30"

10,208' TO BOTTOM HOLE

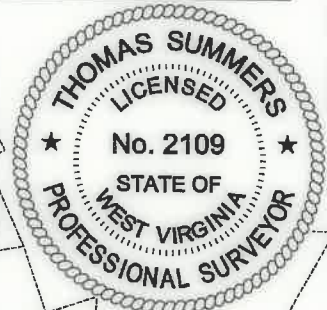
12,967'

LONGITUDE 80°52'30"

Antero Resources Corporation Well No. Karen Unit 2H

AS DRILLED DATA: WELL 2H TOP HOLE INFORMATION: N: 248,113ft E: 1,603,286ft LAT: 39°10'21.84" LON: 80°53'57.60" BOTTOM HOLE INFORMATION: N: 235,662ft E: 1,605,390ft LAT: 39°08'19.11" LON: 80°53'28.43" 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.

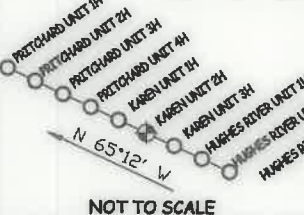
(NAD) 83 (UTM) ZONE 17 COORDS: WELL 2H TOP HOLE INFORMATION: N: 4,335,959m E: 508,710m BOTTOM HOLE INFORMATION: N: 4,332,177m E: 509,415m



WV NORTH ZONE GRID NORTH

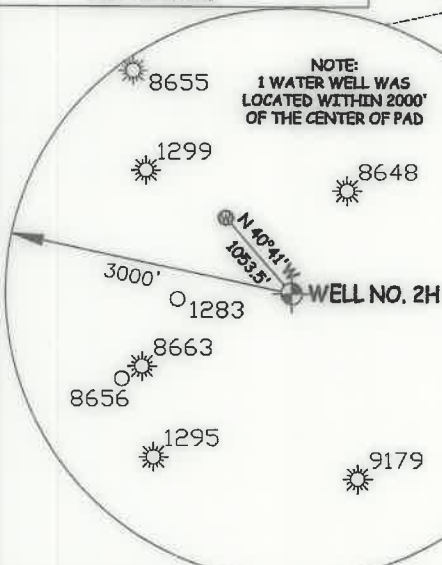
- NOTE: 1. NO OCCUPIED DWELLINGS OR BUILDINGS TWO THOUSAND FIVE HUNDRED (2,500) SQUARE FEET OR LARGER USED TO HOUSE OR SHELTER DAIRY CATTLE OR POULTRY HUSBANDRY ARE LOCATED WITHIN SIX HUNDRED TWENTY-FIVE (625) FEET OF THE CENTER OF THE WELL PAD. 2. TOP HOLE DATA SHOWN HEREON WAS PROVIDED BY... 3. AS 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.

PAD LAYOUT



NOT TO SCALE

NOTE: 1 WATER WELL WAS LOCATED WITHIN 2000' OF THE CENTER OF PAD



JOB # 14-127WA DRAWING # KAREN2HAD SCALE 1" = 2000' MINIMUM DEGREE OF ACCURACY SUBMETER PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY DIVISION OF OIL AND GAS

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

LEGEND: Surface Owner Boundary Lines +/- Interior Surface Tracts +/- Proposed Well Path As Drilled Well Path THOMAS SUMMERS P.S. 2109 DATE 11/20/19 OPERATOR'S WELL# KAREN UNIT #2H

WELL TYPE: OIL GAS X LIQUID INJECTION WASTE DISPOSAL (IF "GAS") PRODUCTION X STORAGE DEEP SHALLOW X LOCATION: ELEVATION 945.5' AS BUILT WATERSHED SOUTH FORK HUGHES RIVER QUADRANGLE PULLMAN 7.5' DISTRICT UNION SURFACE OWNER LYNWOOD IRELAND ET AL OIL & GAS ROYALTY OWNER BELLE PRITCHARD; W. P. IRELAND ET UX; JOYCE E. WEBER; EARL E. FLESHER ET AL; EARL E. FLESHER; CAROLYN ERCANBRACK; ELBERT SHEETS HEIRS; LEWIS A. ADAMS ET UX 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 PLUG & ABANDON CLEAN OUT & REPLUG TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,330' TVD 19,388' MD WELL OPERATOR ANTERO RESOURCES CORP. ADDRESS 1615 WYNKOOP STREET DENVER, CO 80202 DESIGNATED AGENT DIANNA STAMPER CT CORPORATION SYSTEM ADDRESS 5400 D BIG TYLER ROAD CHARLESTON, WV 25313

API WELL # 47 - 085 - 10370 STATE COUNTY PERMIT ACREAGE 144.276 ACRES +/- LEASE ACREAGE 415 AC +/- 222 AC +/- 445.67 AC +/- 57 AC +/- 82 AC +/- 64.5 AC +/- 70.25 AC +/- 26 AC +/- COUNTY RITCHIE

COUNTY NAME PERMIT

LATITUDE 39°12'30"

6,899'

LATITUDE 39°10'00"

4,604' TO BOTTOM HOLE

LONGITUDE 80°52'30"

10,208' TO BOTTOM HOLE

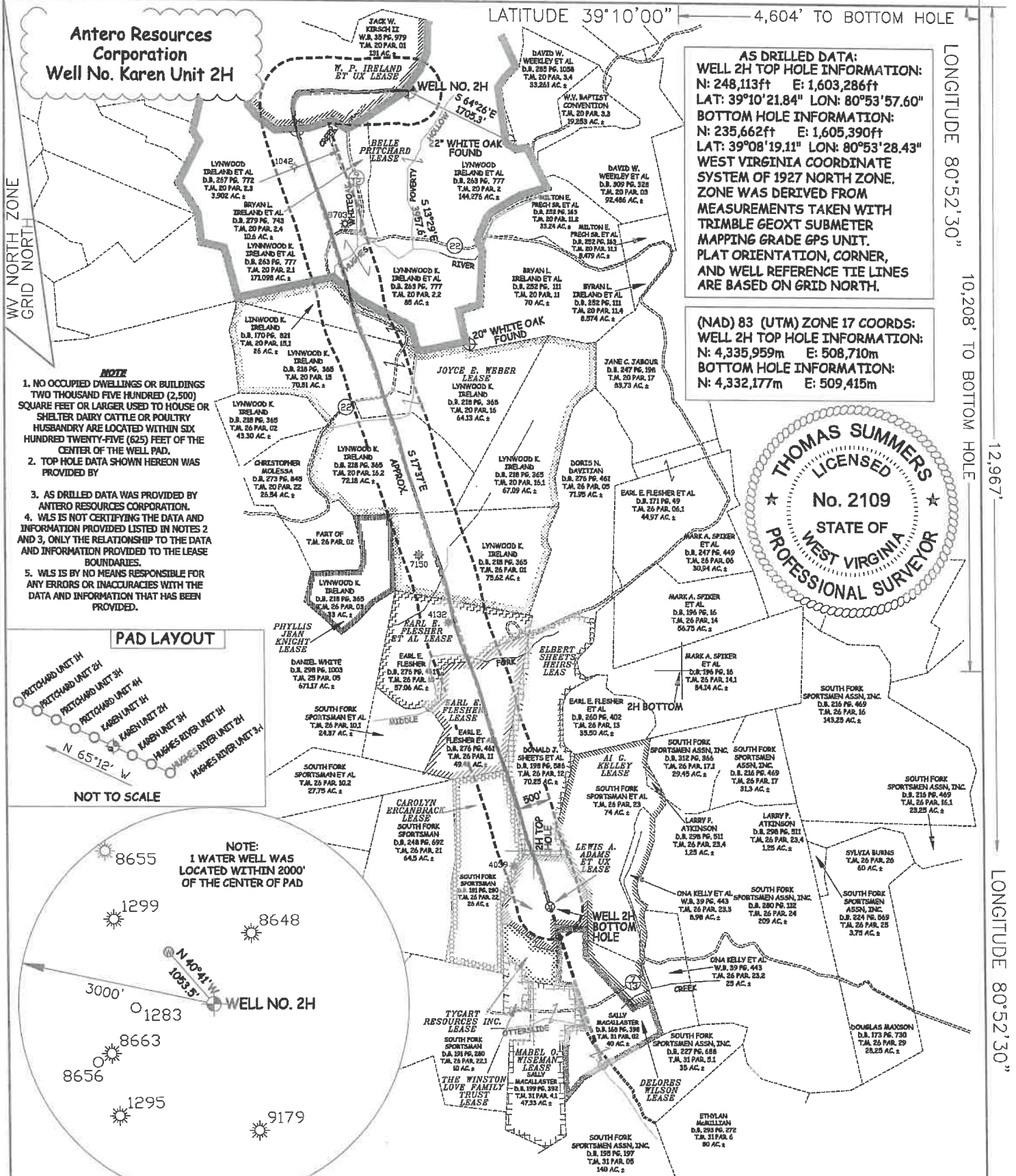
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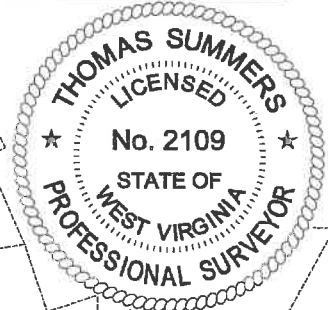
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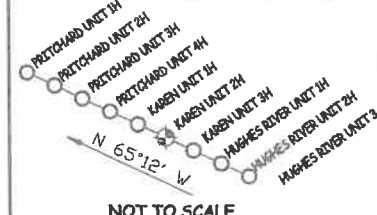
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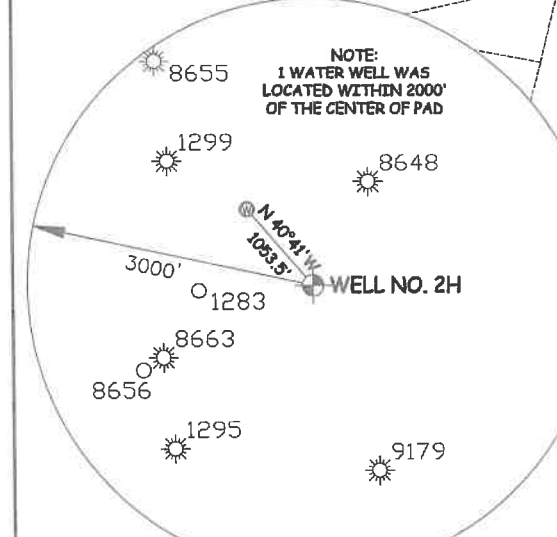


PAD LAYOUT



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JOB # **14-127WA**
 DRAWING # **KAREN2HAD**
 SCALE **1" = 2000'**
 MINIMUM DEGREE OF ACCURACY **SUBMETER**
 PROVEN SOURCE OF ELEV. **SUBMETER MAPPING GRADE GPS**
 STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY DIVISION OF OIL AND GAS

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WILLOW LAND SURVEYING PLLC
 220 MASONIC AVE. PENNSBORO WEST VIRGINIA 26415

LEGEND
 - - - - - Surface Owner Boundary Lines +/-
 Interior Surface Tracts +/-
 O - - - - - Proposed Well Path
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THOMAS SUMMERS P.S. 2109
 DATE **11/20/19**
 OPERATOR'S WELL# **KAREN UNIT #2H**

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 (IF "GAS") PRODUCTION STORAGE DEEP SHALLOW
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 QUADRANGLE **PULLMAN 7.5'** DISTRICT **UNION** COUNTY **RITCHIE**
 SURFACE OWNER **LYNWOOD IRELAND ET AL** ACREAGE **144.276 ACRES +/-**
 OIL & GAS ROYALTY OWNER **BELLE PRITCHARD; W. P. IRELAND ET UX; JOYCE E. WEBER; EARL E. FLESHER ET AL; EARL E. FLESHER; CAROLYN ERCANBRACK; ELBERT SHEETS HEIRS; LEWIS A. ADAMS ET UX**
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DENVER, CO 80202 **CHARLESTON, WV 25313**

COUNTY NAME PERMIT