

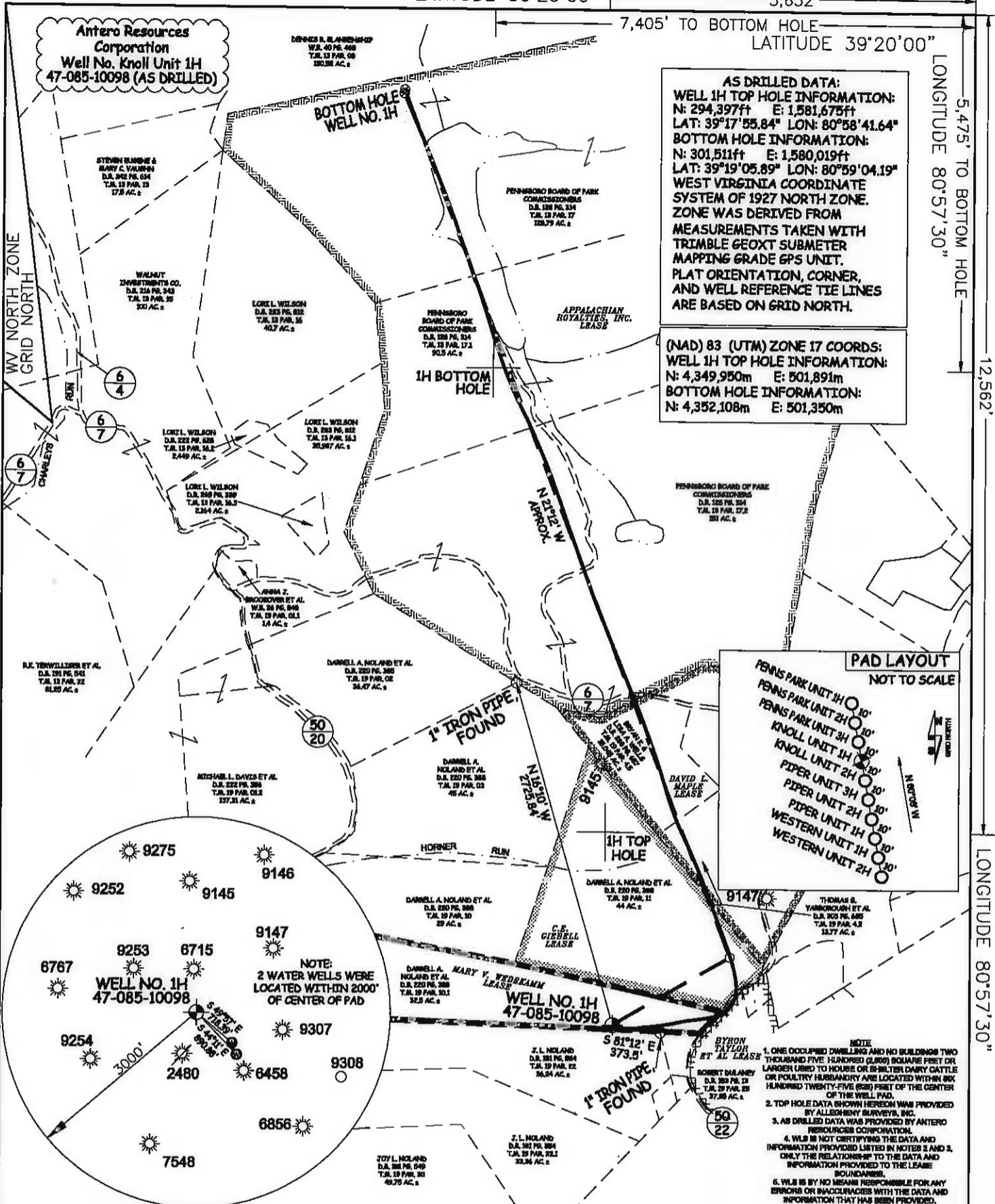
LATITUDE 39°20'00"

LATITUDE 39°20'00"

LONGITUDE 80°57'30"

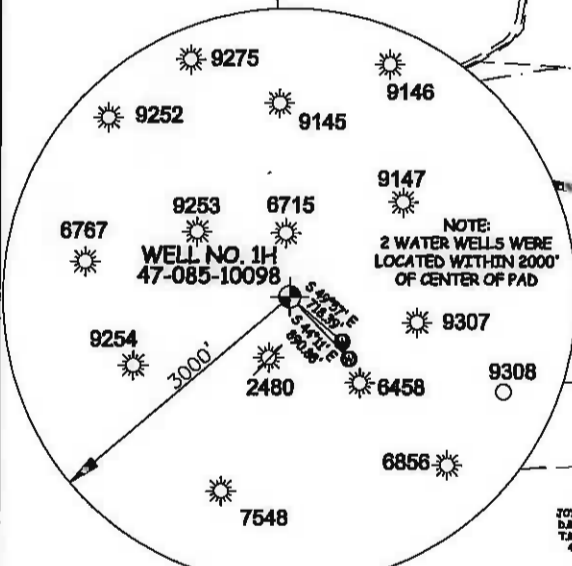
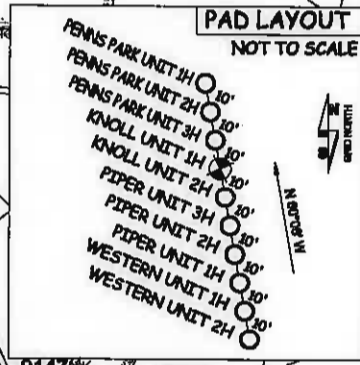
12,562'

LONGITUDE 80°57'30"



AS DRILLED DATA:
WELL 1H TOP HOLE INFORMATION:
 N: 294,397ft E: 1,581,675ft
 LAT: 39°17'55.84" LON: 80°58'41.64"
BOTTOM HOLE INFORMATION:
 N: 301,511ft E: 1,580,019ft
 LAT: 39°19'05.89" LON: 80°59'04.19"
 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.

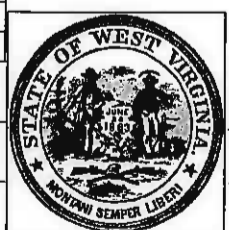
(NAD) 83 (UTM) ZONE 17 COORDS:
WELL 1H TOP HOLE INFORMATION:
 N: 4,349,950m E: 501,891m
BOTTOM HOLE INFORMATION:
 N: 4,352,108m E: 501,350m



NOTE:
 2 WATER WELLS WERE LOCATED WITHIN 2000' OF CENTER OF PAD

- NOTE
1. ONE OCCUPIED DWELLING AND NO BUILDINGS TWO THOUSAND FIVE HUNDRED (2,000) SQUARE FEET OR LARGER USED TO HOUSE OR SHELTER DAIRY CATTLE OR POULTRY HUSBANDRY ARE LOCATED WITHIN 800 HUNDRED TWENTY-FIVE (800) 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.

JOB # 14-003WA
 DRAWING # KNOLL1HAD
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY SUBMETER
 PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS



STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
 WILLOW LAND SURVEYING PLLC
 266 HUSHERS RUN RD PENNSBORO WEST VIRGINIA 26415

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

DATE 09/22/15
 OPERATOR'S WELL# KNOLL UNIT 1H
 API WELL # 47 - 085 - 10098
 STATE COUNTY PERMIT

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

WELL TYPE: OIL GAS X LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS") PRODUCTION X STORAGE DEEP SHALLOW X

LOCATION: ELEVATION 1,159' ORIGINAL - 1,143' AS DRILLED WATERSHED NORTH FORK HUGHES RIVER
 QUADRANGLE PENNSBORO 7.5 DISTRICT CLAY COUNTY RITCHIE

SURFACE OWNER DARRELL A. NOLAND ET AL ACREAGE 32.5 ACRES +/-
 OIL & GAS ROYALTY OWNER MARY V. WEDEKAMM; BYRON TAYLOR ET AL; C.E. GIBBELL; LEASE ACREAGE 32.5 ACRES; 37.85 ACRES; 44 ACRES; DAVID L. MAPLE; APPALACHIAN ROYALTIES, INC. 54.25 ACRES; 372.5 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
 TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,385' TVD 13,878 MD

WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT DIANNA STAMPER
 ADDRESS 1615 WYNKOOP STREET ADDRESS 5400 D BIG TYLER ROAD
 FORM WW-6 DENVER, CO 80202 CHARLESTON, WV 25313

COUNTY NAME

PERMIT