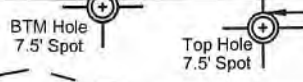
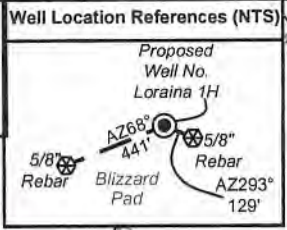


**Antero Resources**  
Well No. Loraina 1H  
Antero Resources Corporation

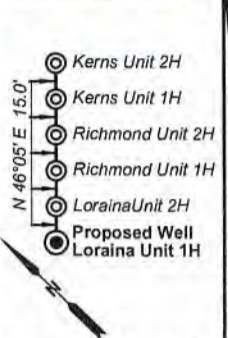


6,556' to Bottom Hole  
4,888' to Top Hole  
LATITUDE 39 - 30 - 00  
LONGITUDE 80 - 50 - 00  
333' to Top Hole  
67' to Bottom Hole

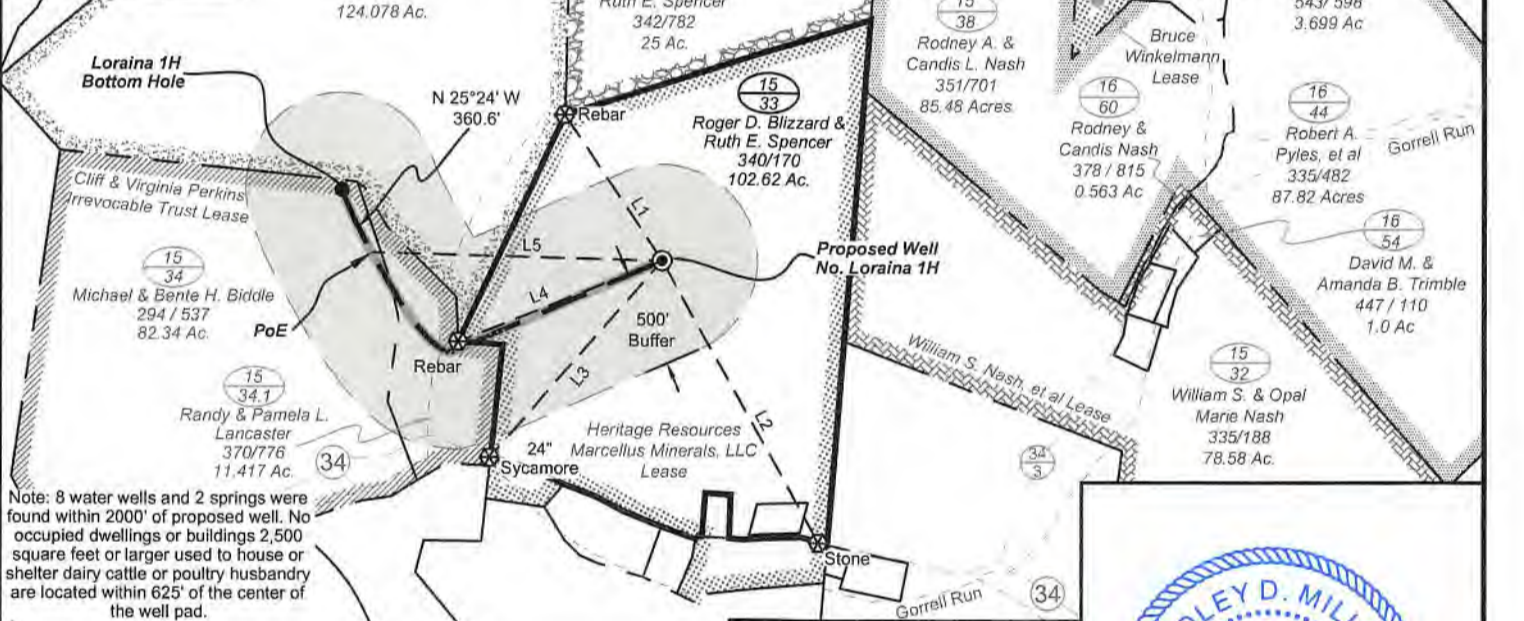
**Notes**  
West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.  
Well No. Loraina Unit 1H Top Hole coordinates are  
N: 366,679.98' Longitude: 80°51'02.29"  
E: 1,618,876.38' Longitude: 80°51'02.29"  
Bottom Hole coordinates are  
N: 367,044.59' Longitude: 80°51'23.63"  
E: 1,617,208.74' Longitude: 80°51'23.63"  
UTM Zone 17, NAD 1983  
Top Hole Coordinates N: 4,372,160.273m E: 512,857.159m  
Bottom Hole Coordinates N: 4,372,262.858m E: 512,347.253m  
Plat orientation and corner and well references are based upon the grid north meridian.  
Well location references are based upon the magnetic meridian.

**Notes:**  
Well No. Loraina Unit 1H UTM Zone 17, NAD 1927  
Top Hole Coordinates  
N: 14,343,614.69' E: 1,682,551.46'  
Point of Entry Coordinates  
N: 14,343,628.32' E: 1,681,038.532'  
Bottom Hole Coordinates  
N: 14,343,951.30' E: 1,680,878.54'

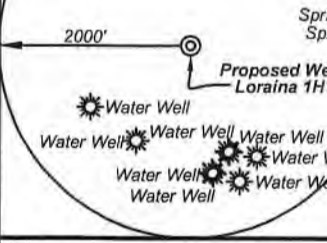
**Wellhead Layout (NTS)**



	Bearing	Dist.
L1	S 33°46' E	910.2'
L2	N 29°10' W	1,674.4'
L3	N 41°13' E	1,361.7'
L4	N 68°16' E	1,142.6'
L5	N 88°32' W	1,513.5'



Note: 8 water wells and 2 springs were found within 2000' of proposed well. No occupied dwellings or buildings 2,500 square feet or larger used to house or shelter dairy cattle or poultry husbandry are located within 625' of the center of the well pad.



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 prescribed by the Department of Environmental Protection.

*Bradley D. Miller*

Bradley D. Miller, P.S. 2167



FILE NO: 43-54-E-19  
DRAWING NO: Loraina 1H Well Plat  
SCALE: 1" = 1000'  
MINIMUM DEGREE OF ACCURACY: Submeter  
PROVEN SOURCE OF ELEVATION: WVDOT, Harrisville, WV

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OIL AND GAS DIVISION

DATE: January 27 2020  
OPERATOR'S WELL NO. Loraina 1H  
API WELL NO  
47 - 095 -  
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Built 1,004' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Shirley  
DISTRICT: Ellsworth COUNTY: Tyler

SURFACE OWNER: Roger D. Blizzard & Ruth E. Spencer ACREAGE: 102.62  
Cliff and Virginia Perkins Irrevocable Trust;

ROYALTY OWNER: Heritage Resources Marcellus Minerals, LLC; LEASE NO: ACREAGE: 93.757; 90.168

PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY)

PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 9,400' MD 7,000' TVD

WELL OPERATOR: Antero Resources Corporation DESIGNATED AGENT: Dianna Stamper - CT Corporation System  
ADDRESS: 1615 Wynkoop Street ADDRESS: 5400 D Big Tyler Road  
Denver, CO 80202 Charleston, WV 25313